ISSN 0020-8671

# ACKNOWLEDGEMENTS

The Centre gratefully acknowledges the financial support of the following agencies:

## MEMBERS

The National Science Foundation of the United States. (Grant No. EAR-0949072).
The Royal Society of London.
The Geological Survey of Canada, Dept. of Natural Resources.
The University of Bergen, Norway.
National Defence Research Establishment, Sweden.
The Royal Netherlands Meteorological Institute.
The Seismological Institute, National Observatory of Athens, Greece.
Russian Academy of Sciences.
Institute of Geological and Nuclear Sciences Ltd., New Zealand.
Geological Survey of Denmark and Greenland (GEUS)
India Meteorological Department.
Geophysical Institute of Israel.
The Institute for Meteorology, Portugal.
The Swiss Academy of Sciences.
GeoForschungsZentrum Potsdam, Germany.
The Japan Meteorological Agency.
Institut National des Sciences de l'Univers, France.
Geoscience Australia.
Bundesanstalt fur Geowissenschaften und Rohstoffe, Germany.
The University of Helsinki, Finland.
Academy of Sciences of the Czech Republic.
Bundesministerium fur Bildung, Wissenschaft und Kultur, Austria.
The Hungarian Academy of Sciences.
Council for Geoscience, South Africa.
Instituto Geografico Nacional, Spain.
The Icelandic Meteorological Office.
China Earthquake Administration.
NTNF/NORSAR, Norway.
Dublin Institute for Advanced Studies, Ireland.
Environmental Agency of Slovenia.
Observatoire Royal de Belgique.
Natural Resources Authority, Jordan.
Incorporated Research Institutions for Seismology, U.S.A.
Institute of Geophysics, National University of Mexico.
National Earthquake Information Center, U.S. Geological Survey, U.S.A.
Geological Survey Department, Cyprus.
National Institute for Earth Physics, Romania.
Istituto Nazionale di Geofisica e Vulcanologia, Italy.
Seismology Research Centre, Australia.
British Geological Survey, U.K.
University of Texas at Austin, U.S.A.
LDG, Bruyeres-le-Chatel, France.
Korea Meteorological Administration.
Institute of Earth Sciences, Academia Sinica, Chinese Taipei.
Kandilli Observatory and Earthquake Research Institute, Turkey.
OGS, Trieste, Italy.
NRIAG, Cairo, Egypt.
University of the West Indies, Jamaica.
Institute of Geophysics, Polish Academy of Sciences.
Uppsala Universitet, Sweden.
AWE Blacknest
University of West Indies, Trinidad and Tobago
Iraqi Meteorological Organization and Seismology
Japan Agency for Marine-Earth Science and Technology, Japan.
Earthquake Research Institute, University of Tokyo, Japan.
Puerto Rico Seismic Network, University of Puerto Rico, U.S.A.
Soreq Nuclear Research Center, Israel.
Disaster and Emergency Management Presidency, Turkey.
CRAAG, Algeria.
University of Melbourne, Australia.
INPRES, Argentina.
Centre of Geophysical Monitoring, Belarus.

## SPONSORS

REF TEK, Texas, U.S.A.

**All data, including phase data, are available on CD-ROM/DVD-ROM and from the internet - http://www.isc.ac.uk**

**©2013 INTERNATIONAL SEISMOLOGICAL CENTRE**
**Pipers Lane, Thatcham, Berkshire, RG19 4NS, United Kingdom**

## Addendum I

From data-month September 2002 onwards, the printed ISC Bulletins have been generated directly from the ISC Relational Database.

From data-month October 2002, a new location program ISCloc has been used in operations. Also, the IASPEI standard seismic phase list has now been adopted by the ISC, please see the last pages of this Bulletin for details.

From data-month January 2003 onwards, an updated regionalisation scheme has been adopted (Young,J.B., B.W.Presgrave, H.Aichele, D.A.Wiens, E.A.Flinn The Flinn-Engdahl Regionalisation Scheme: the 1995 Revision, Physics of the Earth and Planetary Interiors 96 (1996), 223-297)

These developments have prompted the need to review and revise the format of the Bulletin.

The following example illustrates the changes :-

**September 2002**

*NEIC **01** 18:45:41.7±1.7,21°.70S×179°.55W,h600km,mb4.6/6,*
*Error ellipse: s-maj=75.5km s-min=25.7km az=151.0*
*IDC **01** 18:45:46.3±2.6,21°.76S×179°.70W,h627km±37km,mb3.5/4,*
*mb1 3.7/4,mb1mx3.2/14,Error ellipse: s-maj=83.2km*
*s-min=20.6km az=159.0*
**ISC 01 18:45:43.1±2.7,22°.3S±0°.2×179°.6W±0°.3,h613km±42km,**
**n22,σ1s15/21,mb4.4/9,1C,South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **HBZ** | **Hicks Bay** | **15.41** | **186** | *e*P | | **P** | **18 48 53.1** | **-1.7** |
| **URZ** | **Urewera** | **16.21** | **189** | P | | **P** | **18 49 01.5** | **-0.9** |
| **MRZ** | **Mangatainoka R** | **18.81** | **192** | *e*P | | **P** | **18 49 26.7** | **0.0** |
| **DIW** | **D'Urville Isla** | **19.30** | **195** | *e*P | | **P** | **18 49 27.3** | **-3.9** |
| **CAW** | **Cannon Point** | **19.34** | **192** | *e*P | | **P** | **18 49 31.7** | **+0.1** |
| **OTW** | **Orongorongo Tu** | **19.52** | **192** | *e*P | | **P** | **18 49 33.0** | **-0.2** |
| **MOW** | **Moikau** | **19.61** | **192** | *e*P | | **P** | **18 49 35.5** | **+1.5** |
| **THZ** | **Tophouse** | **20.46** | **196** | *e*P | | **P** | **18 49 42.0** | **+0.2** |
| **KHZ** | **Kahutara** | **20.93** | **194** | P | | **P** | **18 49 46.2** | **+0.2** |
| **ARMA** | **Armidale** | **27.03** | **246** | *e*P | | **P** | **18 50 42.4** | **+2.3** |
| | 4.9nm,0.5s,mb4.4 | | | | | | | |
| **CTA** | **Charters Tower** | **31.93** | **267** | ĵ *i*P | | **P** | **18 51 22.3** | **+0.4** |
| | 13nm,0.5s,mb4.8 | | | | | | | |
| **STKA** | **Stephens Creek** | **35.75** | **246** | *e*P | | **P** | **18 51 55.3** | **+1.8** |
| | 3.1nm,0.4s,mb4.2 | | | | | | | |
| **ASAR** | **Alice Springs** | **42.74** | **259** | P | | **P** | **18 52 50.1** | **+0.3** |
| | 9.8nm,0.5s,mb4.6,baz=92,slow=8.2,SNR=47 | | | | | | | |
| ASAR | | | | S | | **S** | **18 58 31.3** | **-0.1** |
| | 1.0nm,0.8s,baz=95,slow=15,SNR=5.7 | | | | | | | |
| **ASPA** | **Alice Springs** | **42.74** | **259** | *e*P | | **P** | **18 52 50.1** | **+0.2** |
| **WRA** | **Warramunga Arr** | **42.96** | **264** | P | | **P** | **18 52 51.0** | **-0.7** |
| | 1.8nm,0.3s,mb4.0,baz=96,slow=7.8,SNR=93 | | | | | | | |
| WRA | | | | S | | **S** | **18 58 33.0** | **-1.5** |
| | 0.3nm,0.9s,baz=99,slow=14,SNR=3.0 | | | | | | | |
| **KAKA** | **Kakadu** | **46.64** | **273** | *e*P | | **P** | **18 53 18.2** | **-1.8** |
| | 14nm,0.4s,mb4.8 | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **51.39** | **264** | *e*P | | **P** | **18 53 54.3** | **-0.7** |
| | 12nm,0.3s,mb4.8 | | | | | | | |
| **MBWA** | **Marble Bar** | **56.08** | **259** | *e*P | | **P** | **18 54 27.1** | **-0.7** |
| | 11nm,0.6s,mb4.2 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **89.35** | **290** | P | | **P** | **18 57 38.1** | **+1.0** |
| | 1.3nm,0.8s,mb3.8,baz=135,slow=3.1,SNR=8.1 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **130.36** | **349** | PKP | | PKP | 19 03 43.7 | -0.5 |
| | 0.7nm,0.6s,baz=282,slow=4.2,SNR=3.5 | | | | | | | |
| **FINES** | **FINESS Array B** | **137.02** | **342** | PKP | | PKP | 19 03 57.3 | +0.5 |
| | 3.7nm,1.1s,baz=158,slow=3.2,SNR=3.4 | | | | | | | |
| **MLR** | **Muntele Rosu** | **148.85** | **324** | PKPbc | | PKP | 19 04 22.7 | +5.2 |
| | 0.2nm,0.7s,baz=1.2,slow=23,SNR=2.3 | | | | | | | |

*Epicentral Estimates*

Origin times - The superscripts have been removed and a simpler format adopted.
Magnitudes - All magnitudes that were reported to the ISC are now shown. Only two per agency were allowed in the past.
Error Ellipses - The keywords have been shortened.

*Observational Data*

The station code, station name, epicentral distance and azimuth are all shown in **bold** for Initial phases. For Secondary phases, only the station code (in normal font) is repeated.

*Phase ID's* - The Operator's identification is shown in normal font. The Operator's residual is no longer printed. When the arrival time of an initial or secondary phase has contributed to the location - the ISC's identification, the arrival time and the ISC's travel-time residual are all shown in **bold** .

*Phase Parameters* - The following parameters are included on supplementary lines where appropriate :-

Component, amplitude and period (or logA/T) - reported by the Operator.
Station magnitude estimate - computed by the ISC.
Slowness, Back-Azimuth, Signal-to-Noise ratio - measured by the Operator.

## Addendum II

From data-month January 2006 the ISC hypocentres are computed using the AK135 earth velocity model ( *Kennett, B.L.N. Engdahl, E.R. & Buland R., 1995. Constraints on seismic velocities in the Earth from travel times, Geophys J Int, 122, 108-124; B.L.N. Kennett, 2005. Seismological tables: ak135. Research School of Earth Sciences, the Australian National University, Canberra* ) and then reviewed by the ISC seismologists. The ISC still produces the hypocentre solutions based on Jeffreys-Bullen travel time tables (agency code ISCJB), yet these solutions are no longer reviewed.

The ISC is planning to re-compute the entire ISC dataset using AK135 once new location procedures are designed, tested, discussed and approved by the ISC Governing Council. Until that time the automatic ISCJB locations will continue to be produced alongside the AK135 solutions to observe the long-time continuity of the ISC Bulletin.

## Addendum III

From data month January 2009 the ISC hypocentres are computed using the new ISC location algorithm and all reported IASPEI seismic phases, for which ak135 predictions are available. This algorithm is described in: *Bondár, I. and D.A. Storchak (2011), Improved location procedures at the International Seismological Centre, Geophys. J. Int., 186, 1220-1244, doi:10.1111/j.1365-246X.2011.05107.x*

The alternative locations based on JB-tables are still produced with the original location algorithm for consistency with the past data. It is still the plan that by the middle of calendar year 2014 all ISC locations (1960-2008) are going to be re-computed with the new locatin algorithm and ak135 as part of the ISC Bulletin Re-Build project, sponsored by the US NSF and several agencies from Japan, China and India.

*ISCJB **01** 00:17:08.7±0.8, 55°.30N±0°.06×157°.03W±0°.07, h20km, mb4.1/2, Error ellipse: s-maj=9.0km s-min=5.8km az=168.4*
*NEIC **01** 00:17:10.8±0.0, 55°.37N×157°.12W, h37km, ML3.6(AEIC), After AEIC.*
*IDC **01** 00:17:14.0±2.3, 55°.33N×156°.14W, h0km, mb4.1/2, mb1 3.9/5, mb1mx3.5/59, mbtmp3.7/5, ML3.5/3, Error ellipse: s-maj=42.6km s-min=25.4km az=100.0*
**ISC 01 00:17:10.9**±1.1**, 55°.46N**±0°.07×**157°.09W**±0°.04**, h20km, n21, σ1s.68**/31**, Alaska Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CHGN** | **Chignik** | **1.13** | **319** | P | **Pb** | **00 17 31.5** | **-0.2** |
| CHGN | | | | S | **Sn** | **00 17 47.0** | **+0.6** |
| **VNSG** | **Veniaminof 6** | **1.31** | **302** | P | **Pn** | **00 17 34.4** | **+0.3** |
| **VNHG** | **Veniaminof 1** | **1.40** | **304** | P | **Pn** | **00 17 34.8** | **-0.6** |
| VNHG | | | | S | **Sb** | **00 17 55.0** | **+1.2** |
| **ANPB** | **Aniakchak Plen** | **1.51** | **334** | P | **Pb** | **00 17 37.7** | **-0.4** |
| **ANPK** | **Aniakchak Peak** | **1.51** | **338** | P | **Pb** | **00 17 37.7** | **-0.5** |
| ANPK | | | | S | **Sb** | **00 17 59.9** | **+3.0** |
| **VNNF** | **Veniaminof 3** | **1.51** | **304** | P | **Pn** | **00 17 34.6** | **-2.2** |
| **ANNE** | **Aniakchak Nort** | **1.56** | **340** | P | **Pn** | **00 17 38.3** | **+0.8** |
| **SDPT** | **Sand Point** | **1.94** | **268** | P | **Pn** | **00 17 41.9** | **-0.7** |
| SDPT | | | | S | **Sn** | **00 18 05.6** | **-0.7** |
| **PS4A** | **Pavlof South-4** | **2.72** | **270** | P | **Pn** | **00 17 52.9** | **-0.5** |
| **DOL** | **Dolgoi Island** | **2.75** | **266** | P | **Pn** | **00 17 53.0** | **-0.8** |
| **OHAK** | **Old Harbor** | **2.76** | **48** | *e*Pn | **Pn** | **00 17 53.9** | **0.0** |
| **KABR** | **Katmai Barrier** | **2.92** | **23** | P | **Pn** | **00 17 56.7** | **+0.5** |
| **DT1** | **Dutton Round H** | **2.99** | **265** | P | **Pn** | **00 17 55.8** | **-1.3** |
| **KDAK** | **Kodiak Island** | **3.41** | **45** | Pn | **Pn** | **00 18 02.8** | **0.0** |
| | 2.1nm,0.3s,baz=212,slow=6.7,SNR=24 | | | | | | |
| KDAK | | | | Pg | **Pb** | **00 18 11.4** | **+0.9** |
| | 5.4nm,0.3s,baz=214,slow=11,SNR=16 | | | | | | |
| KDAK | | | | Sn | **Sn** | **00 18 40.5** | **-2.1** |
| | 7.2nm,0.3s,baz=61,slow=22,SNR=13 | | | | | | |
| KDAK | | | | Lg | Lg | 00 19 01.0 | |
| | 1.2nm,0.3s,baz=164,slow=21,SNR=3.7 | | | | | | |
| **KDAK** | **Kodiak Island** | **3.41** | **45** | *e*Pn | **Pn** | **00 18 03.1** | **+0.3** |
| KDAK | | | | Pg | **Pb** | **00 18 11.4** | **+0.9** |
| KDAK | | | | Sn | **Sn** | **00 18 40.5** | **-2.1** |
| KDAK | | | | Lg | Lg | 00 19 01.0 | |
| **RC01** | **Rabbit Creek A** | **6.85** | **31** | *e*Pn | **Pn** | **00 18 50.7** | **+0.7** |
| RC01 | | | | *e*S | **Sn** | **00 20 04.5** | **-2.7** |
| **PPLA** | **Purkeypile** | **7.87** | **17** | *e*Pn | **Pn** | **00 19 06.0** | **+1.7** |
| **ILAR** | **Eielson Array** | **10.62** | **24** | Pn | **Pn** | **00 19 41.0** | **-0.7** |
| | 0.2nm,0.3s,baz=212,slow=14,SNR=9.6 | | | | | | |
| ILAR | | | | Sn | **Sn** | **00 21 35.1** | **-4.8** |
| | 0.1nm,0.3s,baz=216,slow=24,SNR=3.8 | | | | | | |
| **INK** | **Inuvik** | **16.84** | **31** | Pn | **Pn** | **00 21 07.1** | **+2.0** |
| | 0.4nm,0.3s,baz=247,slow=14,SNR=9.2 | | | | | | |
| INK | | | | Sn | **S** | **00 24 19.0** | **-2.7** |
| | 0.1nm,0.3s,baz=210,slow=20,SNR=3.9 | | | | | | |
| **TXAR** | **Lajitas Array** | **45.81** | **102** | P | **P** | **00 25 32.7** | **+1.4** |
| | 0.4nm,0.6s,baz=311,slow=5.8,SNR=6.1 | | | | | | |
| **FINES** | **FINESS Array B** | **63.42** | **358** | P | P | 00 27 46.2 | +7.9 |
| | 10nm,1.2s,baz=15,slow=8.1,SNR=5.9 | | | | | | |

---

*BJI **01** 00:19:45.9, 26°.27N×125°.92E, h202km, mb4.5/31, mB4.9/24*
*ISCJB **01** 00:19:52.5±0.2, 26°.81N±0°.04×125°.41E±0°.03, h210km±3km, mb4.0/34, Error ellipse: s-maj=7.2km s-min=3.3km az=147.1*
*NEIC **01** 00:19:54.0±0.6, 26°.75N×125°.33E, h211km±8km, mb4.5/10, Error ellipse: s-maj=14.6km s-min=8.2km az=150.0*
*JMA **01** 00:19:54.5±0.2, 26°.86N×125°.38E, h193km, M4.5*
*IDC **01** 00:19:56.0±0.7, 26°.89N×125°.36E, h228km±6km, mb3.6/21, mb1 3.7/25, mb1mx3.6/57, mbtmp4.1/25, Error ellipse: s-maj=13.3km s-min=8.5km az=77.0*
**ISC 01 00:19:54.2**±0.5**, 26°.84N**±0°.05×**125°.41E**±0°.04**, h213km**±4km**, h213km:pP-P, n87, σ2s.08**/134**, mb4.0**/34**, 1C, Northeast of Taiwan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JKE** | **Kume jima 2** | **1.34** | **112** | P | **Pn** | **00 20 27.1** | **-0.6** |
| JKE | | | | S | **S** | **00 20 50.9** | **-2.6** |
| **JAGN** | **Aguni-jima** | **1.66** | **98** | P | **Pn** | **00 20 29.7** | **-0.7** |
| JAGN | | | | S | **S** | **00 20 55.6** | **-2.7** |
| **JIKM** | **Ikemajima** | **1.91** | **184** | P | **Pn** | **00 20 32.3** | **-0.5** |
| JIKM | | | | S | **S** | **00 21 01.0** | **-1.6** |
| **JIRB** | **Irabujima** | **2.01** | **186** | P | **Pn** | **00 20 33.2** | **-0.6** |
| JIRB | | | | S | **S** | **00 21 01.5** | **-2.9** |
| **JMJ** | **Miyako jima 2** | **2.02** | **183** | P | **Pn** | **00 20 33.6** | **-0.2** |
| JMJ | | | | *e*S | **S** | **00 21 02.1** | **-2.4** |
| **JOGS** | **Gusukube** | **2.07** | **180** | P | **Pn** | **00 20 34.3** | **-0.1** |
| JOGS | | | | S | **S** | **00 21 03.6** | **-1.8** |
| **JJT2** | **Tamagusuku 2** | **2.21** | **108** | P | **Pn** | **00 20 35.8** | **0.0** |
| JJT2 | | | | S | **S** | **00 21 06.4** | **-1.5** |
| **JTJ** | **Tarama** | **2.28** | **196** | P | **Pn** | **00 20 36.0** | **-0.5** |
| JTJ | | | | S | **S** | **00 21 06.4** | **-2.8** |
| **JIH** | **Iheya** | **2.29** | **85** | P | **Pn** | **00 20 36.1** | **-0.5** |
| JIH | | | | S | **S** | **00 21 06.2** | **-3.2** |
| **JNTH** | **Nagotoyohara** | **2.36** | **97** | P | **Pn** | **00 20 36.9** | **-0.5** |
| JNTH | | | | S | **S** | **00 21 07.0** | **-3.7** |
| **JISG** | **Ishigakijimahi** | **2.45** | **204** | P | **Pn** | **00 20 37.7** | **-0.6** |
| JISG | | | | S | **S** | **00 21 09.5** | **-3.0** |
| **JOW** | **Kunigami** | **2.56** | **89** | P | **Pn** | **00 20 38.9** | **-0.6** |
| JOW | | | | S | **S** | **00 21 10.7** | **-3.9** |
| **JOW** | **Kunigami** | **2.56** | **89** | *e*Pn | **Pn** | **00 20 38.9** | **-0.6** |
| JOW | | | | *e*Sn | S | 00 21 05.3 | -9.4 |
| **JIJ** | **Ishigaki jima** | **2.71** | **205** | P | **Pn** | **00 20 40.1** | **-1.2** |
| JIJ | | | | S | **S** | **00 21 13.5** | **-4.2** |
| **JOKE** | **Okinoerabujima** | **2.87** | **79** | P | **Pn** | **00 20 42.2** | **-0.8** |
| **JKRS** | **Kuro-shima** | **2.88** | **206** | P | **Pn** | **00 20 42.2** | **-0.9** |
| **IRIF** | **Iriomote-Funau** | **2.92** | **212** | P | **Pn** | **00 20 42.4** | **-1.1** |
| IRIF | | | | S | **S** | **00 21 19.5** | **-2.3** |
| **HATJ** | **Hateruma jima** | **3.12** | **208** | P | **Pn** | **00 20 44.9** | **-1.1** |
| HATJ | | | | S | **S** | **00 21 23.6** | **-2.5** |
| **YOJ** | **Yonaguni jima** | **3.20** | **223** | P | **Pn** | **00 20 46.7** | **-0.2** |
| YOJ | | | | *e*S | **S** | **00 21 27.9** | **+0.1** |
| **JTK** | **Tokunoshima** | **3.29** | **73** | P | **Pn** | **00 20 46.3** | **-1.6** |
| **JAMN** | **Amaminishikomi** | **3.63** | **66** | P | **Pn** | **00 20 50.1** | **-1.7** |
| **JAM** | **Amami Oshima** | **4.04** | **66** | P | **Pn** | **00 20 55.1** | **-1.8** |
| JAM | | | | S | **S** | **00 21 41.5** | **-4.4** |
| **JTAJ** | **Takarajima** | **4.07** | **55** | P | **Pn** | **00 20 56.7** | **-0.6** |
| **YHNB** | **Yeheng** | **4.23** | **240** | *e*Pn | **Pn** | **00 20 58.9** | **-0.4** |
| YHNB | | | | *e*S | S | 00 21 37.4 | -13 |
| **JZK** | **Kikaishima** | **4.31** | **69** | S | **S** | **00 21 48.6** | **-3.4** |
| **NACB** | **Ninganchiao** | **4.35** | **233** | *e*Pn | **Pn** | **00 20 59.5** | **-1.3** |
| NACB | | | | *e*Sn | **S** | **00 21 49.1** | **-3.7** |
| **SSLB** | **Suanglung** | **5.04** | **234** | *e*Pn | **Pn** | **00 21 08.5** | **-1.0** |
| SSLB | | | | *e*Sn | **S** | **00 22 06.8** | **-2.0** |
| **YULB** | **Yu-li** | **5.06** | **228** | *e*Pn | **Pn** | **00 21 07.3** | **-2.4** |
| YULB | | | | *e*S | S | 00 21 58.2 | -11 |
| **JMZ** | **Minamidaito 2** | **5.32** | **100** | P | **Pn** | **00 21 11.6** | **-1.3** |
| JMZ | | | | S | **S** | **00 22 09.2** | **-5.7** |
| **TPUB** | **Ta-pu** | **5.58** | **232** | *e*Pn | **Pn** | **00 21 15.1** | **-1.2** |
| TPUB | | | | *e*Sn | **S** | **00 22 19.3** | **-1.9** |
| **TWG** | **Pinlang** | **5.61** | **225** | *e*Pn | **Pn** | **00 21 14.1** | **-2.6** |
| TWG | | | | *e*Sn | **S** | **00 22 14.5** | **-7.4** |
| **NJ2** | **Nanjing** | **7.72** | **314** | *e*P | **Pn** | **00 21 46.3** | **+2.6** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,13nm,0.6s | | | | | | |
| **JNU** | **Nakatsue** | **7.86** | **36** | P | **Pn** | **00 21 48.0** | **+2.5** |
| | 12nm,0.3s,baz=266,slow=2.0,SNR=34 | | | | | | |
| **KSRS** | **Korea Array** | **10.80** | **11** | P | **P** | **00 22 25.4** | **-4.1** |
| | 0.9nm,0.3s,baz=190,slow=14,SNR=9.8 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **14.56** | **45** | P | **P** | **00 23 13.0** | **+1.6** |
| | 0.3nm,0.3s,baz=229,slow=9.9,SNR=3.4 | | | | | | |
| **CN2** | **Changchun** | **16.93** | **0** | *e*P | **Pn** | **00 23 39.7** | **+0.9** |
| CN2 | | | | *e*sP | sP | 00 24 39.0 | +0.3 |
| CN2 | | | | *e*S | **S** | **00 26 40.7** | **-2.1** |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,20nm,1.0s | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **18.06** | **324** | *e*P | **Pn** | **00 23 51.2** | **-1.1** |
| HHC | | | | S | **S** | **00 27 00.8** | **-5.0** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,13nm,1.3s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,110nm,4.2s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **18.12** | **15** | P | **Pn** | **00 23 51.5** | **-1.3** |
| | 0.6nm,0.3s,baz=188,slow=9.3,SNR=10 | | | | | | |
| **CD2** | **Chengdu** | **19.38** | **287** | *e*P | **P** | **00 24 04.2** | **+0.1** |
| CD2 | | | | S | **S** | **00 27 26.6** | **-5.3** |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,300nm,6.0s | | | | | | |
| **KMI** | **Kunming** | **20.45** | **270** | P | **P** | **00 24 14.9** | **-0.9** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.5s | | | | | | |
| KMI | | | | pmax | pmax | | |
| | comp=Z,220nm,4.9s | | | | | | |
| **LZH** | **Lanzhou** | **20.54** | **302** | ⇑P | **P** | **00 24 17.6** | **+1.0** |
| LZH | | | | PP | **pP** | **00 24 50.1** | **-1.6** |
| LZH | | | | sP | sP | 00 25 21.5 | +2.7 |
| LZH | | | | S | **S** | **00 27 50.5** | **-3.8** |
| LZH | | | | SS | | 00 29 00.2 | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,29nm,1.0s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,190nm,5.5s | | | | | | |
| **GTA** | **Gaotai** | **24.74** | **307** | *e*P | **P** | **00 24 56.2** | **-0.1** |
| GTA | | | | pP | pP | 00 25 35.0 | -2.3 |
| GTA | | | | sP | sP | 00 26 01.0 | -2.2 |
| GTA | | | | S | **S** | **00 28 58.9** | **-3.6** |
| GTA | | | | pmax | pmax | | |
| | comp=Z,14nm,0.9s | | | | | | |
| GTA | | | | pmax | pmax | | |
| | comp=Z,130nm,5.5s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=N,130nm,11.4s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=E,84nm,9.7s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,130nm,13.3s | | | | | | |
| **ULN** | **Ulaanbaatar** | **25.44** | **330** | *e*P | **P** | **00 25 05.7** | **+3.2** |
| | 29nm,1.2s | | | | | | |
| **SONM** | **Songino Array** | **25.71** | **330** | P | **P** | **00 25 05.4** | **+0.4** |
| | 25nm,0.4s,baz=147,slow=11,SNR=195 | | | | | | |
| SONM | | | | pP | **pP** | **00 25 51.0** | **+3.9** |
| | 1.9nm,0.8s,baz=136,slow=12,SNR=1.8 | | | | | | |
| SONM | | | | PcP | **PcP** | **00 28 29.8** | **+0.6** |
| | 1.1nm,0.6s,baz=155,slow=4.0,SNR=6.0 | | | | | | |
| SONM | | | | ScP | **ScP** | **00 31 48.3** | **-0.1** |
| | 0.7nm,0.8s,baz=158,slow=4.8,SNR=4.0 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **25.77** | **257** | P | **P** | **00 25 06.7** | **+1.0** |
| | 0.6nm,0.4s,baz=70,slow=9.1,SNR=4.0 | | | | | | |
| **WMQ** | **Urumqi** | **34.77** | **309** | P | **P** | **00 26 24.9** | **+0.5** |
| WMQ | | | | pP | pP | 00 27 09.4 | +1.3 |
| WMQ | | | | sP | sP | 00 27 33.6 | +1.0 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,29nm,0.7s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,760nm,5.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,140nm,16.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,110nm,18.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,120nm,16.1s | | | | | | |
| **MK01** | **Makanchi Array** | **39.23** | **312** | *e*P | **P** | **00 27 01.7** | **-0.2** |
| **MK31** | **Makanchi Array** | **39.25** | **312** | *e*P | **P** | **00 27 02.0** | **-0.1** |
| **MKAR** | **Makanchi Array** | **39.25** | **312** | P | **P** | **00 27 01.9** | **-0.1** |
| | 9.1nm,0.6s,baz=97,slow=10,SNR=152 | | | | | | |
| MKAR | | | | PcP | **PcP** | **00 29 06.7** | **+0.2** |
| | 0.3nm,0.4s,baz=126,slow=1.4,SNR=4.1 | | | | | | |
| **MAKZ** | **Makanchi** | **39.46** | **312** | *e*P | **P** | **00 27 02.9** | **-0.8** |
| | 7.2nm,0.8s | | | | | | |
| **ZAA0** | **Zalesovo Array** | **40.24** | **323** | *e*P | **P** | **00 27 09.4** | **-0.6** |
| **ZALV** | **Zalesovo Beam** | **40.24** | **323** | P | **P** | **00 27 09.4** | **-0.7** |
| | 5.7nm,0.6s,baz=110,slow=8.1,SNR=30 | | | | | | |
| ZALV | | | | pP | **pP** | **00 27 57.6** | **+2.8** |
| | 0.8nm,0.7s,baz=125,slow=9.7,SNR=1.5 | | | | | | |
| ZALV | | | | PcP | **PcP** | **00 29 09.6** | **+0.1** |
| | 0.4nm,0.4s,baz=108,slow=4.7,SNR=3.0 | | | | | | |
| ZALV | | | | ScP | **ScP** | **00 32 37.0** | **-1.4** |
| | 0.4nm,0.4s,baz=158,slow=1.6,SNR=3.7 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **40.24** | **323** | *e*P | **P** | **00 27 09.0** | **-1.1** |
| **KURK** | **Kurchatov** | **42.64** | **317** | *e*P | **P** | **00 27 28.9** | **-0.7** |
| | 11nm,0.4s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **42.67** | **317** | P | **P** | **00 27 29.6** | **-0.2** |
| | 2.3nm,0.5s,baz=107,slow=8.1,SNR=18 | | | | | | |
| **KSH** | **Kashi** | **42.77** | **300** | *e*P | **P** | **00 27 35.0** | **+4.0** |
| KSH | | | | pP | pP | 00 28 18.7 | +2.5 |
| KSH | | | | PP | **PcP** | **00 29 20.0** | **+1.7** |
| KSH | | | | ScP | **ScP** | **00 32 52.1** | **+3.2** |
| KSH | | | | S | **S** | **00 33 44.5** | **+5.8** |
| KSH | | | | ScS | **ScS** | **00 37 10.1** | **+1.2** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.3s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,180nm,5.6s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,200nm,5.7s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,330nm,5.9s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,420nm,6.7s | | | | | | |
| **AAK** | **Ala-Archa** | **44.05** | **305** | P | **P** | **00 27 40.7** | **-0.4** |
| | 0.5nm,0.3s,baz=105,slow=5.8,SNR=4.1 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **44.67** | **180** | P | **P** | **00 27 46.3** | **+0.3** |
| | 0.6nm,0.4s,baz=330,slow=8.1,SNR=31 | | | | | | |
| **TIXI** | **Tiksi** | **44.89** | **2** | P | **P** | **00 27 45.5** | **-1.6** |
| | 1.2nm,0.3s,baz=177,slow=4.5,SNR=3.0 | | | | | | |
| **WRAB** | **Tennant Creek** | **47.30** | **169** | *e*P | **P** | **00 28 07.0** | **+0.6** |
| | 2.4nm,0.8s | | | | | | |
| **WRA** | **Warramunga Arr** | **47.30** | **169** | P | **P** | **00 28 06.9** | **+0.3** |
| | 2.4nm,0.7s,baz=350,slow=8.3,SNR=12 | | | | | | |
| WRA | | | | pP | **pP** | **00 28 53.5** | **+0.8** |
| | 1.6nm,0.8s,baz=350,slow=8.3,SNR=5.0 | | | | | | |
| WRA | | | | PcP | **PcP** | **00 29 34.2** | **+0.2** |
| | 0.8nm,1.0s,baz=343,slow=5.9,SNR=2.5 | | | | | | |
| **BVAR** | **Borovoye Array** | **48.14** | **318** | P | **P** | **00 28 12.5** | **-0.2** |
| | 0.5nm,0.4s,baz=112,slow=9.9,SNR=4.4 | | | | | | |
| BVAR | | | | PcP | **PcP** | **00 29 35.8** | **-0.8** |
| | 0.5nm,0.4s,baz=106,slow=3.9,SNR=4.5 | | | | | | |
| **ASAR** | **Alice Springs** | **50.88** | **170** | P | **P** | **00 28 34.9** | **+1.3** |
| | 0.8nm,0.5s,baz=355,slow=13,SNR=16 | | | | | | |
| ASAR | | | | pP | **pP** | **00 29 23.3** | **+2.9** |
| | 0.3nm,0.4s,baz=357,slow=15,SNR=2.4 | | | | | | |
| ASAR | | | | PcP | **PcP** | **00 29 47.7** | **+0.7** |
| | 0.2nm,0.3s,baz=335,slow=22,SNR=2.9 | | | | | | |
| **CAST** | **Castle Rocks** | **63.04** | **30** | *e*P | **P** | **00 30 00.1** | **+1.7** |
| | 19nm,1.4s | | | | | | |
| **MLY** | **Manley** | **63.44** | **28** | *e*P | **P** | **00 30 01.9** | **+0.9** |
| | 8.8nm,1.0s | | | | | | |
| **MCK** | **McKinley** | **64.39** | **29** | *e*P | **P** | **00 30 07.5** | **+0.3** |
| **RND** | **Reindeer** | **64.48** | **30** | *e*P | **P** | **00 30 08.0** | **+0.2** |
| | 11nm,0.7s | | | | | | |
| **ILAR** | **Eielson Array** | **65.10** | **28** | P | **P** | **00 30 10.9** | **-0.8** |
| | 1.0nm,0.7s,baz=262,slow=4.8,SNR=27 | | | | | | |
| ILAR | | | | PcP | **PcP** | **00 30 41.9** | **-0.7** |
| | 0.5nm,0.7s,baz=281,slow=3.7,SNR=4.2 | | | | | | |
| **EGAK** | **Eagle** | **67.49** | **28** | *e*P | **P** | **00 30 27.1** | **+0.2** |
| | 46nm,2.0s | | | | | | |
| **DAWY** | **Dawson** | **68.43** | **28** | *e*P | **P** | **00 30 33.2** | **+0.4** |
| | 1.8nm,0.6s | | | | | | |
| **ARCES** | **ARCESS Array B** | **68.51** | **338** | P | **P** | **00 30 32.9** | **-0.2** |
| | 3.7nm,0.9s,baz=57,slow=8.8,SNR=6.0 | | | | | | |
| ARCES | | | | PcP | **PcP** | **00 30 56.4** | **-0.4** |
| | 1.5nm,0.8s,baz=66,slow=4.4,SNR=5.2 | | | | | | |
| **INK** | **Inuvik** | **69.33** | **23** | P | **P** | **00 30 38.6** | **+0.4** |
| | 2.8nm,0.8s,baz=297,slow=6.9,SNR=9.7 | | | | | | |
| **INK** | **Inuvik** | **69.33** | **23** | *e*P | **P** | **00 30 38.2** | **0.0** |
| | 2.0nm,0.7s | | | | | | |
| **FINES** | **FINESS Array B** | **71.08** | **330** | P | **P** | **00 30 48.5** | **-0.4** |
| | 2.6nm,0.5s,baz=70,slow=5.8,SNR=33 | | | | | | |
| **AKASG** | **Malin Array Be** | **73.42** | **319** | P | **P** | **00 31 02.9** | **0.0** |
| | 0.1nm,0.3s,baz=320,slow=10,SNR=2.4 | | | | | | |
| **BRTR** | **Keskin Array B** | **74.66** | **307** | P | **P** | **00 31 10.0** | **-0.6** |
| | 0.6nm,0.8s,baz=129,slow=3.7,SNR=6.3 | | | | | | |
| BRTR | | | | pP | **pP** | **00 32 03.6** | **+2.6** |
| | 2.0nm,1.0s,baz=93,slow=6.3,SNR=5.5 | | | | | | |
| **HFS** | **Hagfors** | **77.09** | **332** | P | **P** | **00 31 23.1** | **-0.6** |
| | 1.3nm,0.3s,baz=77,slow=5.3,SNR=23 | | | | | | |
| **NB2** | **NORSAR Subarra** | **77.64** | **333** | P | **P** | **00 31 26.0** | **-0.8** |
| | comp=Z,1.2nm,0.5s,baz=52,slow=5.6 | | | | | | |
| **NOA** | **NORSAR Array B** | **77.64** | **333** | P | **P** | **00 31 26.0** | **-0.8** |
| | comp=Z,1.3nm,0.5s,baz=56,slow=5.5,SNR=5.3 | | | | | | |
| **YKA** | **Yellowknife Ar** | **79.03** | **24** | P | **P** | **00 31 34.3** | **+0.1** |
| | comp=Z,3.2nm,0.7s,baz=301,slow=5.5,SNR=26 | | | | | | |
| **GERES** | **GERESS Array B** | **83.17** | **322** | P | **P** | **00 31 56.9** | **+0.4** |
| | comp=Z,0.2nm,0.4s,baz=64,slow=6.7,SNR=3.3 | | | | | | |
| GERES | | | | pP | pP | 00 32 55.3 | +7.3 |
| | comp=Z,0.1nm,0.2s,baz=46,slow=5.6,SNR=1.5 | | | | | | |
| **SLMT** | **Seeley Lake** | **89.19** | **36** | *e*P | **P** | **00 32 27.2** | **+1.2** |
| **PDAR** | **Pinedale Array** | **94.24** | **37** | P | **P** | **00 32 50.4** | **+0.8** |
| | comp=Z,0.2nm,0.4s,baz=22,slow=2.9,SNR=2.5 | | | | | | |
| **DBIC** | **Dimbokro** | **121.45** | **297** | PKP | **PKPdf** | **00 38 22.7** | **-0.3** |
| | comp=Z,2.2nm,0.5s,baz=42,slow=1.3,SNR=6.3 | | | | | | |
| **KIC** | **Kosan Boka** | **121.55** | **297** | *e*PKIKP | **PKPdf** | **00 38 22.6** | **-0.6** |
| | comp=Z,19nm,0.9s | | | | | | |
| **TIC** | **Toumodi** | **121.60** | **297** | *e*PKIKP | **PKPdf** | **00 38 22.6** | **-0.7** |
| **LIC** | **Lamto** | **121.85** | **297** | *e*PKIKP | **PKPdf** | **00 38 22.3** | **-1.5** |
| | comp=Z,95nm,1.8s | | | | | | |

---

*ISCJB **01** 00:25:42.4±0.6, 67°.82N±0°.03×20°.39E±0°.09, h0km, Error ellipse: s-maj=5.2km s-min=3.9km az=152.5*
*UPP **01** 00:25:42.8±0.0, 67°.83N×20°.19E, h0km, ML2.5*
*HEL **01** 00:25:44.6±0.3, 67°.85N×20°.30E, h0km, ML1.5, Explosion*
**ISC 01 00:25:42.5**±0.9**, 67°.78N**±0°.03×**20°.25E**±0°.04**, h0km, n14, σ0s.84**/21**, Sweden**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KUA** | **Kurravaara** | **0.17** | **11** | P | **Pg** | **00 25 45.5** | **-0.3** |
| KUA | | | | S | **Sg** | **00 25 47.3** | **-0.8** |
| **RATU** | **Laukkuluspa** | **0.25** | **279** | P | **Pg** | **00 25 47.4** | **+0.1** |
| **NIKU** | **Nikkaluokta** | **0.47** | **281** | P | **Pg** | **00 25 51.3** | **-0.1** |
| **DUNU** | **Dundret** | **0.68** | **169** | P | **Pb** | **00 25 56.5** | **-0.7** |
| **LANU** | **Lannavaara** | **0.71** | **67** | P | **Pg** | **00 25 56.4** | **+0.4** |
| **KIF** | **Kilpisjarvi** | **1.24** | **9** | PG | **Pb** | **00 26 06.5** | **-0.3** |
| | baz=189 | | | | | | |
| KIF | | | | SG | **Sg** | **00 26 21.6** | **-0.7** |
| **PAJU** | **Pajala** | **1.34** | **123** | P | **Pn** | **00 26 08.3** | **-0.2** |
| **HEF** | **Hetta** | **1.43** | **62** | PG | **Pn** | **00 26 09.0** | **-0.6** |
| | baz=246 | | | | | | |
| HEF | | | | MSG | | 00 26 26.1 | |
| | comp=Z,4.6nm,0.2s | | | | | | |
| HEF | | | | SB | **Sg** | **00 26 27.6** | **-0.6** |
| **ERTU** | **Ertsjaerv** | **1.45** | **148** | P | **Pb** | **00 26 10.7** | **+0.4** |
| **TOF** | **Tornio** | **2.35** | **135** | PN | **Pb** | **00 26 24.6** | **-0.9** |
| TOF | | | | SB | **Sb** | **00 26 56.1** | **+1.2** |
| **SGF** | **Sodankyl** | **2.43** | **95** | PB | **Pb** | **00 26 25.9** | **-1.0** |
| SGF | | | | SG | **Sg** | **00 26 59.1** | **-1.2** |
| **RNF** | **Rovaniemi** | **2.54** | **115** | PG | **Pg** | **00 26 31.2** | **+0.1** |
| | baz=304 | | | | | | |
| RNF | | | | SG | **Sg** | **00 27 04.0** | **+0.2** |
| **ARE0** | **ARCESS Array S** | **2.61** | **45** | PN | **Pn** | **00 26 27.2** | **+1.4** |
| | baz=225 | | | | | | |
| ARE0 | | | | SB | **Sn** | **00 26 59.5** | **+1.4** |
| **KU6** | **Riekki** | **4.19** | **110** | SG | **Sg** | **00 27 55.8** | **-1.0** |

---

**UPP 01 00:30:43.7**±0.0**, 67°.85N**×**20°.21E, h0km, ML2.5, Sweden**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KUA** | **Kurravaara** | **0.11** | **26** | P | Pg | 00 30 46.1 | +0.2 |
| **RATU** | **Laukkuluspa** | **0.23** | **263** | P | Pg | 00 30 48.3 | +0.2 |
| **NIKU** | **Nikkaluokta** | **0.45** | **273** | P | Pg | 00 30 52.3 | +0.1 |
| NIKU | | | | S | Sg | 00 30 58.5 | +0.6 |
| **LANU** | **Lannavaara** | **0.70** | **73** | P | Pg | 00 30 57.0 | -0.1 |
| **DUNU** | **Dundret** | **0.75** | **169** | P | Pg | 00 30 57.5 | -0.4 |
| **MASU** | **Masugnsbyn** | **0.79** | **119** | P | Pg | 00 30 58.8 | 0.0 |
| **KIF** | **Kilpisjarvi** | **1.18** | **10** | *e*P | Pg | 00 31 05.8 | -0.5 |
| **PAJU** | **Pajala** | **1.40** | **125** | P | Pg | 00 31 09.1 | -1.3 |
| **ERTU** | **Ertsjaerv** | **1.52** | **148** | P | Pn | 00 31 11.3 | -0.8 |
| **KTK1** | **Kautokeino** | **1.62** | **42** | *e*P | Pn | 00 31 13.1 | -0.3 |

---

*ISK **01** 00:33:06.8, 38°.80N×43°.53E, h5km, ML2.7*
*CSEM **01** 00:33:07.8±0.2, 38°.78N×43°.53E, h5km, ML2.7, Error ellipse: s-maj=5.5km s-min=3.9km az=109.0*
*DDA **01** 00:33:07.8, 38°.77N×43°.50E, h7km, Ml2.9*
*ISCJB **01** 00:33:08.6±0.5, 38°.80N±0°.02×43°.49E±0°.04, h7km±4km, Error ellipse: s-maj=4.9km s-min=3.5km az=0.8*
*ATA **01** 00:33:08.3±1.0, 38°.76N×43°.27E, h10km±81km, MD3.2, ML3.3, MW3.1*
**ISC 01 00:33:07.9**±0.9**, 38°.80N**±0°.02×**43°.51E**±0°.02**, h15km**±6km**, n42, σ1s.03**/67**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.19** | **14** | *i* P | **Pg** | **00 33 12.0** | **-0.5** |
| VMUR | | | | *i* S | **Sb** | **00 33 17.4** | **+0.6** |
| **VMUR** | **Van-Muradiye** | **0.19** | **14** | P | **Pg** | **00 33 12.0** | **-0.5** |
| VMUR | | | | S | **Sb** | **00 33 17.5** | **+0.6** |
| **VANB** | **Van** | **0.23** | **205** | *e*PG | **Pb** | **00 33 13.8** | **0.0** |
| **VANB** | **Van** | **0.23** | **205** | *e*Pg | **Pb** | **00 33 13.8** | **0.0** |
| **ERCV** | **ERCIS-VAN** | **0.26** | **328** | *e*PG | **Pg** | **00 33 13.0** | **-0.5** |
| ERCV | | | | *e*SG | **Sg** | **00 33 18.5** | **+1.2** |
| **ERCV** | **ERCIS-VAN** | **0.26** | **328** | *e*Pg | **Pg** | **00 33 13.0** | **-0.5** |
| ERCV | | | | *e*Sg | **Sg** | **00 33 18.5** | **+1.2** |
| **TVAN** | **Van** | **0.29** | **197** | *i* P | **Pg** | **00 33 13.2** | **-0.8** |
| TVAN | | | | *i* S | **Sn** | **00 33 27.2** | **+3.3** |
| **TVAN** | **Van** | **0.29** | **197** | P | **Pg** | **00 33 13.2** | **-0.8** |
| **CLDR** | **Caldiran** | **0.47** | **43** | *e*PG | **Pg** | **00 33 16.9** | **-0.3** |
| CLDR | | | | *e*SG | **Sb** | **00 33 24.5** | **-0.3** |
| **CLDR** | **Caldiran** | **0.47** | **43** | *i* P | **Pg** | **00 33 16.5** | **-0.7** |
| CLDR | | | | *i* S | **Sn** | **00 33 25.9** | **-2.4** |
| **CLDR** | **Caldiran** | **0.47** | **43** | P | **Pg** | **00 33 16.5** | **-0.7** |
| **CLDR** | **Caldiran** | **0.47** | **43** | *e*Pg | **Pg** | **00 33 16.9** | **-0.3** |
| CLDR | | | | *e*Sg | **Sb** | **00 33 24.5** | **-0.3** |
| CLDR | | | | S | **Sn** | **00 33 26.0** | **-2.4** |
| **GEVA** | **Gevas** | **0.60** | **216** | *e*P | **Pg** | **00 33 18.7** | **-1.1** |
| GEVA | | | | *e*S | **Sg** | **00 33 25.7** | **-2.1** |
| GEVA | | | | IAML | | 00 33 38.8 | |
| | comp=Z,175nm,0.3s | | | | | | |
| **GEVA** | **Gevas** | **0.60** | **216** | *i* P | **Pg** | **00 33 18.7** | **-1.1** |
| GEVA | | | | *i* S | **Sn** | **00 33 30.4** | **-1.4** |
| **GEVA** | **Gevas** | **0.60** | **216** | P | **Pg** | **00 33 18.7** | **-1.1** |
| GEVA | | | | S | **Sn** | **00 33 30.4** | **-1.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.61** | **271** | *i* P | **Pg** | **00 33 19.6** | **-0.4** |
| ADCV | | | | *i* S | **Sb** | **00 33 29.8** | **+0.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.61** | **271** | P | **Pg** | **00 33 19.6** | **-0.4** |
| ADCV | | | | S | **Sb** | **00 33 29.8** | **+0.8** |
| **DYDN** | **Diyadin** | **0.75** | **11** | *i* P | **Pb** | **00 33 22.8** | **-0.1** |
| DYDN | | | | *i* S | **Sn** | **00 33 35.1** | **-0.4** |
| **DYDN** | **Diyadin** | **0.75** | **11** | P | **Pb** | **00 33 22.8** | **-0.1** |
| DYDN | | | | S | **Sn** | **00 33 35.1** | **-0.4** |
| **TUTA** | **Tutak** | **0.81** | **318** | *e*P | **Pg** | **00 33 23.1** | **-0.4** |
| TUTA | | | | *e*S | **Sg** | **00 33 34.0** | **-0.3** |
| TUTA | | | | IAML | | 00 33 39.1 | |
| | comp=Z,107nm,0.4s | | | | | | |
| **TUTA** | **Tutak** | **0.81** | **318** | *i* P | **Pg** | **00 33 23.2** | **-0.4** |
| TUTA | | | | *i* S | **Sb** | **00 33 35.8** | **+1.2** |
| **TUTA** | **Tutak** | **0.81** | **318** | P | **Pg** | **00 33 23.2** | **-0.4** |
| TUTA | | | | S | **Sb** | **00 33 35.8** | **+1.2** |
| **BASK** | **Baskale_VAN** | **0.84** | **153** | *e*P | **Pn** | **00 33 26.8** | **+1.4** |
| BASK | | | | *e*S | **Sn** | **00 33 39.8** | **+2.1** |
| BASK | | | | IAML | | 00 33 46.2 | |
| | comp=Z,56nm,0.5s | | | | | | |
| **AGRB** | **Hanur-Agry** | **0.87** | **333** | *e*PG | **Pb** | **00 33 24.9** | **+0.1** |
| AGRB | | | | *e*SG | **Sn** | **00 33 37.9** | **-0.5** |
| **AGRB** | **Hanur-Agry** | **0.87** | **333** | *e*Pg | **Pb** | **00 33 24.9** | **+0.1** |
| AGRB | | | | *e*Sg | **Sn** | **00 33 37.9** | **-0.5** |
| **TASB** | **TASBURUN-IGDIR** | **1.31** | **25** | *e*PN | **Pg** | **00 33 32.8** | **-0.3** |
| **TASB** | **TASBURUN-IGDIR** | **1.31** | **25** | *e*Pn | **Pg** | **00 33 32.8** | **-0.3** |
| **EATA** | **Eleskirt** | **1.32** | **324** | *e*P | **Pb** | **00 33 33.1** | **+0.5** |
| EATA | | | | *e*S | **Sg** | **00 33 51.2** | **+0.7** |
| EATA | | | | IAML | | 00 33 55.8 | |
| | comp=Z,12nm,0.4s | | | | | | |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.36** | **153** | *i* P | **Pb** | **00 33 32.1** | **-1.0** |
| YOVA | | | | *i* S | **Sg** | **00 33 53.3** | **+1.5** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.36** | **153** | P | **Pb** | **00 33 32.2** | **-1.0** |
| YOVA | | | | S | **Sg** | **00 33 53.3** | **+1.5** |
| **CUKT** | **Cukurca** | **1.56** | **177** | *e*PN | **Pg** | **00 33 36.9** | **-0.8** |
| **CUKT** | **Cukurca** | **1.56** | **177** | *e*Pn | **Pg** | **00 33 36.9** | **-0.8** |
| **VRTB** | **Varto-Mus** | **1.64** | **283** | *e*PN | **Pg** | **00 33 39.0** | **-0.4** |
| **VRTB** | **Varto-Mus** | **1.64** | **283** | *e*Pn | **Pg** | **00 33 39.0** | **-0.4** |
| **KARS** | **Kars** | **1.85** | **350** | *e*PN | **Pb** | **00 33 41.0** | **-0.5** |
| **KARS** | **Kars** | **1.85** | **350** | *e*Pn | **Pb** | **00 33 41.1** | **-0.5** |
| **SVAN** | **Silvan-Diyarba** | **1.93** | **251** | *e*PN | **Pb** | **00 33 42.4** | **-0.3** |
| **SVAN** | **Silvan-Diyarba** | **1.93** | **251** | *e*Pn | **Pb** | **00 33 42.4** | **-0.3** |
| **SENK** | **Senkaya-Erzuru** | **1.97** | **333** | *e*PN | **Pb** | **00 33 42.8** | **-0.8** |
| **SENK** | **Senkaya-Erzuru** | **1.97** | **333** | *e*Pn | **Pb** | **00 33 42.8** | **-0.8** |
| **BNGB** | **Bingˆ¶l** | **2.22** | **276** | *e*PN | **Pb** | **00 33 46.2** | **-1.5** |
| **BINT** | **Bingol** | **2.36** | **273** | *e*Pn | **Pn** | **00 33 46.2** | **0.0** |

---

*WAR **01** 00:34:23.0, 51°.44N×16°.16E, h1km*
*CSEM **01** 00:34:23.6±0.9, 51°.37N×16°.12E, h1km, Error ellipse: s-maj=12.6km s-min=6.1km az=12.0*
**PRU 01 00:34:24.0, 51°.37N×16°.13E, h0km, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KSP** | **Ksiaz** | **0.54** | **169** | *e*Pg | Pg | 00 34 34.3 | +0.1 |
| KSP | | | | *e*Sg | Sg | 00 34 42.5 | +1.3 |
| **KSP** | **Ksiaz** | **0.54** | **169** | *e*Pg | Pg | 00 34 34.3 | 0.0 |
| KSP | | | | *e*Sg | Sg | 00 34 42.5 | +1.3 |
| **KSP** | **Ksiaz** | **0.54** | **169** | *e*Pg | Pg | 00 34 34.3 | 0.0 |
| KSP | | | | *e*Sg | Sg | 00 34 42.5 | +1.3 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| UPC | Upice | 0.87 | 185 | ePG | Pg | 00 34 40.5 | -0.1 |
| UPC | | | | eSG | Sg | 00 34 51.4 | -0.4 |
| | comp=Z,3.9nm,0.2s | | | | | | |
| UPC | Upice | 0.87 | 185 | Pg | Pg | 00 34 40.5 | -0.1 |
| UPC | | | | Sg | Sg | 00 34 51.4 | -0.4 |
| | 3.9nm,0.2s | | | | | | |
| DPC | Dobruska-Polom | 1.03 | 173 | ePG | Pg | 00 34 43.2 | -0.5 |
| DPC | | | | eSG | Sg | 00 34 57.5 | +0.5 |
| DPC | Dobruska-Polom | 1.03 | 173 | Pg | Pg | 00 34 43.2 | -0.5 |
| DPC | | | | Sg | Sg | 00 34 57.5 | +0.5 |
| PVCC | Panska Ves | 1.30 | 230 | ePG | Pg | 00 34 48.8 | -0.1 |
| PVCC | | | | eSG | Sb | 00 35 06.8 | +0.3 |
| | comp=Z,11nm,0.2s | | | | | | |
| PVCC | Panska Ves | 1.30 | 230 | Pg | Pg | 00 34 48.8 | -0.1 |
| PVCC | | | | Sg | Sb | 00 35 06.8 | +0.3 |
| | 11nm,0.2s | | | | | | |
| KRLC | Kraliky | 1.36 | 162 | ePG | Pg | 00 34 49.2 | -0.9 |
| KRLC | | | | eSG | Sg | 00 35 07.6 | -0.1 |
| KRLC | Kraliky | 1.36 | 162 | Pg | Pg | 00 34 49.2 | -0.9 |
| KRLC | | | | Sg | Sg | 00 35 07.6 | -0.1 |
| BRG | Berggiesshubel | 1.47 | 251 | PG | Pn | 00 34 50.6 | -1.1 |
| BRG | | | | SG | Sg | 00 35 11.0 | 0.0 |
| | 3.8nm,0.3s | | | | | | |
| PRU | Pruhonice | 1.71 | 217 | eSG | Sn | 00 35 17.2 | -0.5 |
| PRU | Pruhonice | 1.71 | 217 | Sg | Sn | 00 35 17.2 | -0.5 |
| CLL | Collm | 1.96 | 269 | ePg | Pn | 00 34 59.0 | +0.5 |
| CLL | | | | eSg | Sg | 00 35 28.0 | +1.0 |
| NKC | Novy Kostel | 2.60 | 245 | eSG | Sg | 00 35 47.0 | -0.4 |
| NKC | Novy Kostel | 2.60 | 245 | Sg | Sg | 00 35 47.0 | -0.4 |
| KHC | Kasperske Hory | 2.78 | 217 | eSG | Sg | 00 35 51.1 | -2.0 |
| KHC | Kasperske Hory | 2.78 | 217 | Sg | Sg | 00 35 51.1 | -2.0 |

*IDC **01** 00:57:46.3±4.6, 17°.15N×92°.70W, h154$^{km}$±57$^{km}$, mb3.3/4, mb1 3.4/5, mb1mx3.1/33, mbtmp3.6/5, Error ellipse: s-maj=98.6km s-min=19.4km az=64.0*
*ISCJB **01** 00:57:52.1±0.6, 17°.3N±0°.1×93°.78W±0°.07, h194$^{km}$±9$^{km}$, mb3.3/4, Error ellipse: s-maj=25.4km s-min=8.2km az=16.4*
*NEIC **01** 00:57:55.8±0.0, 17°.18N×93°.86W, h186$^{km}$, MD4.2(MEX), After MEX.*
*MEX **01** 00:57:55.8±0.4, 17°.18N×93°.86W, h186$^{km}$±7$^{km}$, MD5.0*
**ISC 01 00:57:53.3**±0.8, **17°.3N**±0°.1×**93°.80W**±0°.06, **h191**$^{km}$±9$^{km}$, **n16,** σ**1s03**/23, **mb3.3**/4, **Chiapas**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TGIG | | 0.81 | 126 | eP | Pn | 00 58 21.7 | +0.8 |
| TGIG | | | | eS | Sn | 00 58 41.5 | -0.8 |
| TGIG | | 0.81 | 126 | eP | Pn | 00 58 21.7 | +0.8 |
| TGIG | | | | eS | Sn | 00 58 41.5 | -0.8 |
| CMIG | Matias Romero | 1.05 | 261 | P | Pn | 00 58 22.7 | +0.2 |
| | 168nm,0.3s,baz=81,slow=7.2,SNR=1682 | | | | | | |
| CMIG | | | | S | Sn | 00 58 44.5 | -0.5 |
| | 75nm,0.3s,baz=228,slow=19,SNR=26 | | | | | | |
| PCIG | | 1.64 | 160 | i P | Pn | 00 58 28.1 | +0.6 |
| PCIG | | | | i S | Sn | 00 58 53.3 | -0.9 |
| PCIG | | 1.64 | 160 | i P | Pn | 00 58 28.1 | +0.6 |
| PCIG | | | | i S | Sn | 00 58 53.3 | -0.9 |
| CCIG | Comitan | 1.87 | 121 | eP | Pn | 00 58 30.9 | +0.9 |
| CCIG | Comitan | 1.87 | 121 | eP | Pn | 00 58 30.9 | +0.9 |
| OXBJ | Oaxaca | 2.80 | 267 | i P | Pn | 00 58 41.2 | +0.9 |
| OXBJ | | | | i S | Sn | 00 59 16.4 | -0.6 |
| VHO | Vista Hermosa | 2.81 | 267 | eP | Pn | 00 58 40.6 | +0.2 |
| VHO | | | | eS | Sn | 00 59 16.9 | -0.2 |
| VHO | Vista Hermosa | 2.81 | 267 | eP | Pn | 00 58 40.6 | +0.2 |
| VHO | | | | eS | Sn | 00 59 16.9 | -0.2 |
| JTS | JuntasAbangare | 11.04 | 128 | ePn | Pn | 01 00 26.4 | +0.3 |
| TXAR | Lajitas Array | 15.04 | 325 | P | P | 01 01 20.0 | +2.7 |
| | 0.1nm,0.3s,baz=150,slow=13,SNR=5.1 | | | | | | |
| ULM | Lac du Bonnet | 32.95 | 358 | P | P | 01 04 07.7 | -2.0 |
| | 2.5nm,0.7s,baz=100,slow=6.1,SNR=3.0 | | | | | | |
| LPAZ | La Paz | 41.85 | 141 | P | P | 01 05 16.0 | -9.5 |
| | 0.4nm,0.4s,baz=309,slow=6.5,SNR=2.5 | | | | | | |
| YKA | Yellowknife Ar | 47.48 | 347 | P | P | 01 06 08.0 | -0.6 |
| | 0.6nm,0.6s,baz=150,slow=7.4,SNR=5.9 | | | | | | |
| ILAR | Eielson Array | 59.18 | 336 | P | P | 01 07 34.1 | +0.3 |
| | 0.4nm,1.1s,baz=125,slow=5.0,SNR=4.1 | | | | | | |

*NIED **01** 00:58:00, 36°.10N×140°.20E, h50$^{km}$, Mw3.7 Best double couple: Mo3.88000×10$^{14}$ NP1:φs214.00000°, δ43.00000°, λ151.00000°. NP2:φs326.00000°, δ71.00000°, λ51.00000°.*
*ISCJB **01** 00:58:45.2±0.5, 35°.93N±0°.03×140°.20E±0°.06, h64$^{km}$±5$^{km}$, mb3.6/5, Error ellipse: s-maj=8.1km s-min=5.3km az=1.4*
*IDC **01** 00:58:45.5±2.7, 35°.93N×140°.28E, h53$^{km}$±26$^{km}$, mb3.3/5, mb1 3.6/6, mb1mx3.3/45, mbtmp3.6/6, ML3.6/1, Error ellipse: s-maj=27.6km s-min=8.3km az=60.0*
*JMA **01** 00:58:46.2, 35°.99N×140°.14E, h59$^{km}$±1$^{km}$, M3.5 Broadband fault plane solution: P waves. NP1: φs356.00000°, δ89.00000°, λ87.00000°. NP2: φs248.00000°, δ3.00000°, λ162.00000°. Principal axes: T Plg46.0000°, Azm263.0000°; N Plg3.0000°, Azm356.0000°; P Plg44.0000°, Azm89.0000°;*
*JMA Felt I J1.*
**ISC 01 00:58:46.2**±0.9, **35°.95N**±0°.04×**140°.18E**±0°.05, **h58**$^{km}$±8$^{km}$, **n24,** σ**0s78**/28, **mb3.7**/5, **5D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JYT | Yasato | 0.28 | 3 | P | Pn | 00 58 56.0 | +0.1 |
| JYT | | | | S | Sn | 00 59 03.2 | +0.2 |
| JAG | Ashikaga | 0.75 | 309 | ⇓P | Pn | 00 59 00.8 | -0.2 |
| JAG | | | | S | Sn | 00 59 11.4 | -0.4 |
| JRY | Ryogami san | 1.03 | 274 | ⇓P | Pn | 00 59 04.7 | +0.1 |
| JKT | Katashina | 1.11 | 318 | P | Pn | 00 59 05.4 | -0.3 |
| JKT | | | | S | Sn | 00 59 20.3 | +0.2 |
| JOD2 | Odawara 2 | 1.12 | 233 | ⇓P | Pn | 00 59 05.6 | -0.1 |
| JOD2 | | | | S | Sn | 00 59 19.6 | -0.6 |
| BSO3 | Boso 3 | 1.18 | 166 | P | Pn | 00 59 07.4 | +1.2 |
| JIM2 | Oshima 3 | 1.37 | 207 | P | Pn | 00 59 08.6 | -0.5 |
| JIM2 | | | | S | Sn | 00 59 25.2 | -1.0 |
| JYN | Shimob | 1.40 | 252 | ⇓P | Pn | 00 59 09.8 | +0.3 |
| JYN | | | | S | Sn | 00 59 27.1 | 0.0 |
| JFY | Yanaizu | 1.51 | 346 | ⇓P | Pn | 00 59 10.9 | 0.0 |
| JFY | | | | S | Sn | 00 59 29.4 | -0.1 |
| JFK | Kawauchi | 1.52 | 21 | P | Pn | 00 59 11.0 | -0.2 |
| MJAR | Matsushiro Arr | 1.70 | 291 | P | Pn | 00 59 13.1 | -0.4 |
| | 33nm,0.3s,baz=92,slow=9.6,SNR=168 | | | | | | |
| MJAR | | | | S | Sn | 00 59 34.8 | +0.6 |
| | 11nm,0.3s,baz=214,slow=18,SNR=7.0 | | | | | | |
| MAT | Matsushiro | 1.70 | 291 | P | Pn | 00 59 13.8 | +0.3 |
| MAT | | | | S | Sn | 00 59 34.9 | +0.7 |
| JHJ | Hachijo jima 2 | 2.84 | 187 | P | Pn | 00 59 29.9 | +0.8 |
| | 22nm,0.3s,baz=66,slow=12,SNR=13 | | | | | | |
| JHJ | | | | S | Sn | 01 00 01.9 | -0.2 |
| | 46nm,0.3s,baz=277,slow=22,SNR=8.3 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 28.49 | 117 | T | T | 01 34 22.5 | |
| | baz=320 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 28.50 | 117 | T | T | 01 34 48.2 | |
| | baz=320 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 28.51 | 117 | T | T | 01 34 49.7 | |
| | baz=320 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 29.15 | 120 | T | T | 01 35 32.8 | |
| | baz=312 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 29.15 | 120 | T | T | 01 35 19.8 | |
| | baz=312 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 29.17 | 120 | T | T | 01 35 37.1 | |
| | baz=312 | | | | | | |
| MKAR | Makanchi Array | 43.86 | 303 | P | P | 01 06 47.1 | +0.5 |
| | 0.7nm,1.0s,baz=83,slow=8.5,SNR=2.3 | | | | | | |
| BVAR | Borovoye Array | 50.57 | 313 | P | P | 01 07 41.1 | +2.3 |
| | 0.4nm,0.5s,baz=93,slow=10,SNR=3.6 | | | | | | |
| ILAR | Eielson Array | 50.94 | 32 | P | P | 01 07 40.6 | -0.8 |
| | 0.6nm,0.6s,baz=274,slow=5.9,SNR=9.1 | | | | | | |
| WRA | Warramunga Arr | 55.86 | 187 | P | P | 01 08 16.2 | -1.6 |
| | 0.6nm,0.6s,baz=0.6,slow=7.5,SNR=9.0 | | | | | | |
| TXAR | Lajitas Array | 91.58 | 52 | P | P | 01 11 46.5 | -0.6 |
| | 0.1nm,0.6s,baz=308,slow=4.4,SNR=2.6 | | | | | | |

*DJA **01** 01:03:22.6±1.0, 3°S±6°×12°9E±°, h10$^{km}$, M3.1/5, MLv3.1/5*
*IDC **01** 01:03:30.7±2.5, 3°.88S×128°.76E, h0$^{km}$, mb3.5/3, mb1 3.7/4, mb1mx3.4/42, mbtmp3.5/4, Error ellipse: s-maj=135.0km s-min=26.6km az=63.0*
**ISC 01 01:03:31.3**±0.9, **3°.82S**±0°.07×**128°.87E**±0°.08, **h10**$^{km}$, **n8,** σ**1s53**/9, **Seram**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MSAI | Masohi | 0.47 | 7 | P | Pg | 01 03 38.8 | -1.8 |
| MSAI | | | | S | Sb | 01 03 50.9 | +2.0 |
| AAI | Ambon | 0.69 | 281 | P | Pn | 01 03 50.7 | +3.5 |
| AAI | | | | S | Sn | 01 04 12.2 | +14 |
| BNDI | Bandanaira | 1.24 | 124 | P | Pb | 01 03 55.6 | +0.7 |
| NLAI | Namlea | 1.86 | 288 | P | Pn | 01 04 01.6 | -1.7 |
| NLAI | | | | S | Sg | 01 04 32.7 | +1.5 |
| WRA | Warramunga Arr | 16.89 | 162 | Pn | P | 01 07 29.5 | -0.5 |
| | baz=343,slow=12,SNR=2.0 | | | | | | |
| ASAR | Alice Springs | 20.32 | 167 | P | P | 01 08 07.8 | +0.1 |
| | 1.0nm,0.7s,baz=346,slow=9.8,SNR=14 | | | | | | |
| CMAR | Chiang Mai Arr | 36.87 | 308 | P | P | 01 10 41.0 | +0.6 |
| | 0.6nm,0.4s,baz=128,slow=7.3,SNR=2.4 | | | | | | |
| MKAR | Makanchi Array | 64.97 | 327 | P | P | 01 14 12.1 | +0.6 |
| | 0.4nm,0.8s,baz=110,slow=7.8,SNR=2.8 | | | | | | |

*IDC **01** 01:07:38.6±2.0, 2°.02S×119°.00E, h0$^{km}$, mb3.8/5, mb1 3.9/5, mb1mx3.6/41, mbtmp3.8/5, MS2.6/1, Ms1 2.8/1, ms1mx2.4/28, Error ellipse: s-maj=190.8km s-min=28.4km az=57.0*
*DJA **01** 01:07:41.7±0.3, 1°S±2°×12°0E±°, h10$^{km}$, M4.2/6, MLv4.2/6*
*ISCJB **01** 01:07:42.8±0.5, 1°.20S±0°.04×119°.94E±0°.04, h28$^{km}$, mb3.9/5, MS2.5/1, Error ellipse: s-maj=7.0km s-min=5.7km az=45.0*
**ISC 01 01:07:44.8**±0.9, **1°.18S**±0°.05×**119°.97E**±0°.05, **h28**$^{km}$, **n14,** σ**2s08**/18, **mb3.8**/5, **Sulawesi**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MPSI | Mapaga | 1.50 | 357 | P | Pn | 01 08 08.8 | -1.2 |
| MPSI | | | | S | Sn | 01 08 28.7 | 0.0 |
| APSI | Ampana | 1.70 | 81 | P | Pn | 01 08 09.3 | -3.3 |
| APSI | | | | S | Sn | 01 08 30.6 | -2.8 |
| MRSI | Marisa | 2.56 | 50 | P | Pn | 01 08 23.3 | -1.2 |
| MRSI | | | | S | Sn | 01 08 55.7 | +0.9 |
| SPSI | Sidrap Palu | 2.78 | 184 | P | Pn | 01 08 25.4 | -2.1 |
| SPSI | | | | S | Sn | 01 09 01.9 | +1.8 |
| LUWI | Luwuk | 2.80 | 87 | P | Pn | 01 08 30.0 | +2.2 |
| LUWI | | | | S | Sn | 01 09 02.9 | +2.2 |
| BKB | Balikpapan | 3.08 | 268 | P | Pn | 01 08 29.3 | -2.3 |
| BNSI | Bone | 3.21 | 178 | P | Pn | 01 08 33.0 | -0.4 |
| KBKI | Kotabaru | 4.35 | 241 | P | Pn | 01 08 49.0 | -0.1 |
| WRA | Warramunga Arr | 23.36 | 144 | P | P | 01 12 48.3 | -2.9 |
| | 1.8nm,0.7s,baz=322,slow=11,SNR=3.4 | | | | | | |
| CMAR | Chiang Mai Arr | 28.43 | 314 | LR | LR | 01 26 32.5 | |
| | comp=Z,13nm,21.0s,baz=280,slow=40 | | | | | | |
| SONM | Songino Array | 50.23 | 348 | P | P | 01 16 41.8 | +3.3 |
| | 0.4nm,0.6s,baz=168,slow=8.3,SNR=3.2 | | | | | | |
| MKAR | Makanchi Array | 58.07 | 330 | P | P | 01 17 35.7 | +0.1 |
| | 0.5nm,0.5s,baz=120,slow=7.2,SNR=5.8 | | | | | | |
| ZALV | Zalesovo Beam | 62.18 | 337 | P | P | 01 18 03.3 | -0.2 |
| | 0.5nm,0.4s,baz=123,slow=5.3,SNR=4.1 | | | | | | |
| KURBB | Kurchatov Arra | 62.50 | 332 | P | P | 01 18 05.9 | +0.1 |
| | 0.8nm,0.2s,baz=136,slow=6.2,SNR=4.4 | | | | | | |

*IDC **01** 01:08:44.9±6.8, 6°.28S×129°.99E, h123$^{km}$±64$^{km}$, mb3.7/8, mb1 3.9/11, mb1mx3.6/39, mbtmp4.2/11, MS3.2/2, Ms1 3.1/2, ms1mx2.6/27, Error ellipse: s-maj=58.4km s-min=21.8km az=59.0*
*ISCJB **01** 01:08:45.3±0.7, 6°.29S±0°.06×130°.0E±0°.2, h146$^{km}$, mb3.8/8, Error ellipse: s-maj=22.0km s-min=7.4km az=171.9*
**ISC 01 01:08:46.7**±0.9, **6°.40S**±0°.08×**130°.1E**±0°.2, **h146**$^{km}$, **n12,** σ**1s22**/14, **mb3.9**/8, **Banda Sea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| FITZ | Fitzroy Crossi | 12.40 | 200 | P | Pn | 01 11 40.0 | +1.5 |
| | 1.5nm,0.3s,baz=36,slow=5.2,SNR=52 | | | | | | |
| FITZ | | | | S | Sn | 01 13 54.5 | -1.0 |
| | 2.8nm,0.3s,baz=104,slow=13,SNR=13 | | | | | | |
| WRA | Warramunga Arr | 14.09 | 163 | P | Pn | 01 11 59.1 | -0.9 |
| | 1.0nm,0.3s,baz=342,slow=13,SNR=19 | | | | | | |
| WRA | | | | S | Sn | 01 14 27.9 | -8.3 |
| | 2.3nm,0.3s,baz=338,slow=23,SNR=9.8 | | | | | | |
| ASAR | Alice Springs | 17.56 | 168 | P | Pn | 01 12 44.4 | +1.7 |
| | 1.5nm,0.3s,baz=348,slow=9.8,SNR=98 | | | | | | |
| ASAR | | | | S | S | 01 15 54.6 | -2.3 |
| | 0.5nm,0.3s,baz=356,slow=25,SNR=6.2 | | | | | | |
| STKA | Stephens Creek | 27.54 | 158 | P | P | 01 14 21.1 | +1.2 |
| | 2.1nm,0.5s,baz=338,slow=8.3,SNR=6.1 | | | | | | |
| STKA | | | | LR | LR | 01 27 41.6 | |
| | comp=Z,27nm,18.6s,baz=24,slow=41 | | | | | | |
| CMAR | Chiang Mai Arr | 39.40 | 309 | P | P | 01 16 01.4 | -1.1 |
| | 1.1nm,0.3s,baz=137,slow=8.0,SNR=6.9 | | | | | | |
| SONM | Songino Array | 57.90 | 341 | P | P | 01 18 23.3 | -0.3 |
| | 0.3nm,0.3s,baz=160,slow=5.2,SNR=6.6 | | | | | | |
| MKAR | Makanchi Array | 67.76 | 327 | P | P | 01 19 29.0 | +0.3 |
| | 2.9nm,0.4s,baz=113,slow=8.3,SNR=62 | | | | | | |
| ZALV | Zalesovo Beam | 71.08 | 334 | P | P | 01 19 48.1 | -0.8 |
| | 1.0nm,0.5s,baz=118,slow=5.1,SNR=4.4 | | | | | | |
| KURBB | Kurchatov Arra | 72.03 | 328 | P | P | 01 19 54.4 | -0.2 |
| | 1.4nm,0.6s,baz=124,slow=4.8,SNR=7.6 | | | | | | |
| BVAR | Borovoye Array | 77.59 | 328 | P | P | 01 20 26.7 | +0.1 |
| | 0.4nm,0.4s,baz=257,slow=33,SNR=4.2 | | | | | | |
| GEYT | Alibeck | 79.88 | 310 | P | P | 01 20 39.3 | -0.1 |
| | 0.6nm,0.5s,baz=106,slow=3.1,SNR=3.2 | | | | | | |
| GEYT | | | | LR | LR | 02 00 40.5 | |
| | comp=Z,20nm,18.4s,baz=335,slow=39 | | | | | | |
| TORD | Torodi Ar. Bea | 128.75 | 282 | PKP | PKPdf | 01 27 38.4 | +0.6 |
| | 0.4nm,1.0s,baz=69,slow=1.2,SNR=2.4 | | | | | | |

*ISCJB **01** 02:01:18.5±0.6, 24°.51S±0°.07×67°.10W±0°.05, h169$^{km}$, mb3.5/4, Error ellipse: s-maj=10.0km s-min=5.7km az=23.5*
*IDC **01** 02:01:20.2±1.4, 24°.41S×66°.99W, h168$^{km}$±12$^{km}$, mb3.3/4, mb1 3.4/9, mb1mx3.2/26, mbtmp3.7/9, MS2.5/1, Ms1 2.5/1, ms1mx2.4/6, Error ellipse: s-maj=23.3km s-min=15.3km az=26.0*
*GUC **01** 02:01:22.1±0.4, 24°.24S×67°.62W, h216$^{km}$±8$^{km}$, ML4.4*
**ISC 01 02:01:19.5**±0.7, **24°.49S**±0°.08×**67°.12W**±0°.07, **h169**$^{km}$, **n20,** σ**1s13**/27, **mb3.6**/4, **2C, Chile-Argentina border region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LVC | Limon Verde | 2.49 | 318 | P | Pn | 02 02 03.4 | +1.5 |
| | 665nm,0.3s,baz=168,slow=7.4,SNR=260 | | | | | | |
| LVC | | | | S | Sn | 02 02 35.7 | +1.0 |
| | 3μm,0.3s,baz=266,slow=22,SNR=68 | | | | | | |
| LVC | Limon Verde | 2.49 | 318 | ⇑iP | Pn | 02 02 03.4 | +1.5 |
| LVC | | | | i S | Sn | 02 02 35.4 | +0.8 |
| PB06 | IPOC Station P | 2.87 | 308 | eP | Pn | 02 02 07.3 | +1.1 |
| PB06 | | | | eS | Sn | 02 02 41.5 | -0.9 |
| PB06 | | | | IAML | | 02 02 43.9 | |
| | comp=E,1μm,0.3s | | | | | | |
| PB14 | IPOC Station P | 2.99 | 267 | eP | Pn | 02 02 08.4 | +0.5 |
| PB14 | | | | i S | Sn | 02 02 44.6 | -0.8 |
| PB14 | | | | IAML | | 02 02 51.3 | |
| | comp=E,316nm,0.4s | | | | | | |
| PB10 | IPOC Station P | 3.29 | 287 | eP | Pn | 02 02 11.9 | +0.6 |
| PB10 | | | | i S | Sn | 02 02 49.7 | -1.8 |
| PB10 | | | | IAML | | 02 02 54.3 | |
| | comp=N,957nm,0.2s | | | | | | |
| PB09 | IPOC Station P | 3.32 | 324 | ⇑iP | Pn | 02 02 13.0 | +1.2 |
| PB09 | | | | i S | Sn | 02 02 51.6 | -0.9 |
| PB09 | | | | IAML | | 02 02 57.7 | |
| | comp=E,760nm,0.7s | | | | | | |
| PB04 | IPOC Station P | 3.51 | 307 | eP | Pn | 02 02 14.7 | +0.4 |
| PB04 | | | | i S | Sn | 02 02 54.8 | -2.1 |
| PB04 | | | | IAML | | 02 02 57.4 | |
| | comp=N,582nm,0.2s | | | | | | |
| LPAZ | La Paz | 8.22 | 353 | P | Pn | 02 03 17.1 | +0.7 |
| | comp=N,0.5nm,0.3s,baz=156,slow=9.9,SNR=9.4 | | | | | | |
| CPUP | Villa Florida | 9.04 | 104 | P | Pn | 02 03 26.9 | +0.3 |
| | comp=N,0.1nm,0.3s,baz=286,slow=12,SNR=3.9 | | | | | | |
| SIV | San Ignacio | 10.18 | 35 | P | Pn | 02 03 39.8 | -2.0 |
| | comp=N,0.3nm,0.3s,baz=301,slow=1.4,SNR=9.3 | | | | | | |
| SIV | | | | LR | LR | 02 07 27.2 | |
| | comp=N,28nm,19.4s,baz=222,slow=36 | | | | | | |
| BDFB | Brasilia | 19.97 | 67 | P | P | 02 05 38.7 | -0.3 |
| | comp=N,0.4nm,0.3s,baz=75,slow=12,SNR=3.6 | | | | | | |
| VNA2 | Neumayer--Watz | 57.30 | 160 | P | P | 02 10 49.5 | +0.3 |
| | baz=294,slow=7.4 | | | | | | |
| SNAA | Sanae | 58.93 | 161 | P | P | 02 11 01.4 | +0.8 |
| SNAA | Sanae | 58.93 | 161 | P | P | 02 11 01.4 | +0.8 |
| | comp=N,0.7nm,0.9s,baz=293,slow=16,SNR=4.8 | | | | | | |
| TXAR | Lajitas Array | 64.01 | 325 | P | P | 02 11 36.3 | +1.1 |
| | comp=N,0.3nm,0.7s,baz=138,slow=8.4,SNR=3.4 | | | | | | |
| TORD | Torodi Ar. Bea | 76.85 | 69 | P | P | 02 12 52.6 | -0.7 |
| | comp=N,0.5nm,0.3s,baz=268,slow=6.1,SNR=17 | | | | | | |
| YKA | Yellowknife Ar | 94.55 | 340 | P | P | 02 14 20.7 | +0.5 |
| | comp=N,0.4nm,0.8s,baz=132,slow=4.3,SNR=3.3 | | | | | | |
| WRA | Warramunga Arr | 131.14 | 207 | PKP | PKPdf | 02 20 12.5 | +0.5 |
| | comp=N,0.3nm,0.7s,baz=158,slow=1.9,SNR=6.0 | | | | | | |
| ZALV | Zalesovo Beam | 143.88 | 28 | PKP | PKPdf | 02 20 33.2 | -1.1 |
| | comp=N,0.3nm,0.3s,baz=308,slow=7.4,SNR=4.0 | | | | | | |
| MKAR | Makanchi Array | 146.97 | 40 | PKPbc | PKPab | 02 20 42.9 | -1.1 |
| | comp=N,1.1nm,0.6s,baz=294,slow=3.9,SNR=8.0 | | | | | | |

*IDC **01** 02:05:51.0±0.9, 19°.11N×120°.50E, h0$^{km}$, mb3.8/8, mb1 4.1/8, mb1mx3.8/40, mbtmp3.8/8, MS3.2/2, Ms1 3.4/2, ms1mx2.7/27, Error ellipse: s-maj=41.3km s-min=17.5km az=63.0*
*ISCJB **01** 02:05:53.3±0.8, 19°.1N±0°.1×120°.4E±0°.2, h28$^{km}$, mb3.8/7, MS3.1/2, Error ellipse: s-maj=29.5km s-min=14.7km az=149.9*
**ISC 01 02:05:55.2**±0.9, **19°.1N**±0°.2×**120°.5E**±0°.2, **h28**$^{km}$, **n9,** σ**0s82**/8, **mb3.9**/7, **Philippine Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CMAR | Chiang Mai Arr | 20.39 | 272 | P | P | 02 10 29.8 | -0.2 |
| | 1.0nm,0.3s,baz=69,slow=10.0,SNR=6.6 | | | | | | |
| CMAR | | | | LR | LR | 02 17 52.1 | |
| | comp=Z,17nm,20.8s,baz=135,slow=35 | | | | | | |
| SONM | Songino Array | 30.87 | 341 | P | P | 02 12 08.9 | -0.3 |
| | 0.2nm,0.3s,baz=154,slow=8.0,SNR=3.1 | | | | | | |
| WRA | Warramunga Arr | 41.12 | 160 | P | P | 02 13 35.6 | -1.4 |
| | 0.6nm,0.6s,baz=352,slow=8.5,SNR=7.4 | | | | | | |
| ZALV | Zalesovo Beam | 44.23 | 330 | P | P | 02 14 01.4 | -0.5 |
| | 0.6nm,0.5s,baz=120,slow=8.5,SNR=3.0 | | | | | | |
| ASAR | Alice Springs | 44.48 | 162 | P | P | 02 14 04.5 | +0.3 |
| | 1.3nm,0.7s,baz=336,slow=7.2,SNR=16 | | | | | | |
| STKA | Stephens Creek | 54.59 | 158 | P | P | 02 15 21.8 | +0.6 |
| | 2.4nm,0.7s,baz=9.8,slow=7.4,SNR=4.8 | | | | | | |
| GEYT | Alibeck | 56.90 | 303 | P | P | 02 15 38.6 | +0.7 |
| | 0.8nm,0.7s,baz=167,slow=7.1,SNR=3.8 | | | | | | |
| NOA | NORSAR Array B | 82.39 | 332 | LR | LR | 03 01 10.9 | |
| | comp=Z,52nm,18.7s,baz=300,slow=40 | | | | | | |
| YKA | Yellowknife Ar | 87.90 | 22 | P | P | 02 18 42.4 | +0.3 |
| | 0.8nm,0.7s,baz=308,slow=4.7,SNR=5.7 | | | | | | |

*ATA **01** 02:12:22.0±0.3, 38°.38N×39°.02E, h15$^{km}$, MD3.3, ML3.9, MW3.1*
*DDA **01** 02:12:22.9, 38°.47N×39°.15E, h18$^{km}$, Ml3.5*
*ISCJB **01** 02:12:23.5±0.4, 38°.46N±0°.02×39°.15E±0°.02, h5$^{km}$±3$^{km}$, Error ellipse: s-maj=3.1km s-min=2.5km az=17.3*
*ISK **01** 02:12:23.0, 38°.47N×39°.13E, h4$^{km}$, MD3.1*
*CSEM **01** 02:12:23.4±0.1, 38°.47N×39°.15E, h2$^{km}$, ML3.5, Error ellipse: s-maj=3.5km s-min=3.0km az=6.0*
**ISC 01 02:12:23.3**±0.8, **38°.47N**±0°.02×**39°.14E**±0°.01, **h13**$^{km}$±5$^{km}$, **n98,** σ**0s92**/131, **Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ELZG | Elazig | 0.13 | 281 | i P | Pg | 02 12 27.0 | +0.2 |
| ELZG | | | | i S | Sg | 02 12 29.5 | +0.3 |
| ELZG | Elazig | 0.13 | 281 | P | Pg | 02 12 27.0 | +0.2 |
| ELZG | | | | S | Sg | 02 12 29.5 | +0.3 |
| SVRC | Sivrice-ELAZID | 0.16 | 127 | ePG | Pg | 02 12 26.8 | -0.4 |
| SVRC | | | | eSG | Sg | 02 12 30.1 | +0.2 |
| SVRC | Sivrice-ELAZID | 0.16 | 127 | ePg | Pg | 02 12 26.8 | -0.4 |
| SVRC | | | | eSg | Sg | 02 12 30.1 | +0.2 |
| PTK | Pertek | 0.46 | 25 | ePG | Pg | 02 12 32.7 | +0.2 |
| PTK | | | | eSG | Sb | 02 12 40.5 | +0.2 |
| PTK | Pertek | 0.46 | 25 | ePg | Pg | 02 12 32.7 | +0.2 |
| PTK | | | | eSg | Sb | 02 12 40.5 | +0.2 |
| MALT | Malatya | 0.59 | 254 | ePG | Pg | 02 12 34.6 | -0.2 |
| MALT | | | | eSG | Sb | 02 12 43.1 | -0.7 |
| MALT | Malatya | 0.59 | 254 | ePg | Pg | 02 12 34.6 | -0.2 |
| MALT | | | | eSg | Sb | 02 12 43.1 | -0.7 |
| TNCL | Tunceli-Merkez | 0.71 | 26 | eP | Pn | 02 12 38.4 | -0.9 |
| TNCL | | | | IAML | | 02 12 56.5 | |
| | comp=Z,126nm,0.6s | | | | | | |
| TNCL | Tunceli-Merkez | 0.71 | 26 | i P | Pg | 02 12 36.7 | -0.5 |
| TNCL | | | | i S | Sg | 02 12 46.7 | +0.2 |
| TNCL | Tunceli-Merkez | 0.71 | 26 | P | Pg | 02 12 36.7 | -0.5 |
| TNCL | | | | S | Sg | 02 12 46.7 | +0.2 |
| DYBB | Diyarbakir | 0.94 | 123 | ePG | Pn | 02 12 42.1 | -0.3 |
| DYBB | | | | eSG | Sn | 02 12 55.3 | -0.4 |
| KEMA | Kemaliye | 0.94 | 328 | eP | Pg | 02 12 40.9 | -0.6 |
| KEMA | | | | eS | Sn | 02 12 55.6 | -0.2 |
| KEMA | | | | IAML | | 02 12 59.9 | |
| | comp=Z,27nm,0.5s | | | | | | |
| KEMA | Kemaliye | 0.94 | 328 | i P | Pg | 02 12 40.9 | -0.6 |
| KEMA | | | | i S | Sb | 02 12 53.9 | -0.2 |
| KEMA | Kemaliye | 0.94 | 328 | P | Pg | 02 12 40.9 | -0.6 |
| KEMA | | | | S | Sb | 02 12 53.9 | -0.2 |
| DIYA | Diyarbakir | 0.95 | 125 | i P | Pn | 02 12 42.2 | -0.2 |
| DIYA | | | | i S | Sn | 02 12 54.7 | -1.1 |
| DIYA | Diyarbakir | 0.95 | 125 | P | Pn | 02 12 42.2 | -0.2 |
| DIYA | | | | S | Sn | 02 12 54.7 | -1.1 |
| REFA | Refahiye_ERZ˜ | 0.97 | 342 | i P | Pn | 02 12 51.6 | +8.8 |
| AKCD | Akcadag | 0.98 | 260 | i P | Pb | 02 12 41.4 | -0.8 |
| AKCD | | | | i S | Sb | 02 12 55.0 | -0.1 |
| AKCD | Akcadag | 0.98 | 260 | P | Pb | 02 12 41.4 | -0.8 |
| AKCD | | | | S | Sb | 02 12 55.0 | -0.1 |
| HANI | Diyarbakir_Han | 0.99 | 93 | i P | Pb | 02 12 41.9 | -0.4 |
| HANI | Diyarbakir_Han | 0.99 | 93 | P | Pb | 02 12 41.9 | -0.4 |
| HEKM | Malatya_Hekimh | 1.01 | 294 | i P | Pb | 02 12 42.5 | -0.4 |
| HEKM | | | | i S | Sn | 02 12 57.7 | 0.0 |
| HEKM | Malatya_Hekimh | 1.01 | 294 | P | Pb | 02 12 42.5 | -0.4 |
| HEKM | | | | S | Sn | 02 12 57.7 | 0.0 |
| DIY | Diyarbakir | 1.03 | 124 | ePg | Pb | 02 12 42.1 | -1.0 |
| DIY | | | | eSg | Sb | 02 12 55.3 | -1.2 |
| URFA | Urfa | 1.06 | 194 | ePG | Pn | 02 12 44.2 | +0.2 |
| URFA | | | | eSG | Sn | 02 12 59.2 | +0.4 |
| URFA | Urfa | 1.06 | 194 | ePg | Pn | 02 12 44.2 | +0.2 |
| URFA | | | | eSg | Sn | 02 12 59.2 | +0.4 |
| ILIC | ilic-Erzincan | 1.07 | 335 | ePG | Pn | 02 12 44.2 | -0.1 |
| ILIC | ilic-Erzincan | 1.07 | 335 | ePg | Pn | 02 12 44.2 | -0.1 |
| BINT | Bingol | 1.13 | 69 | ePn | Pg | 02 12 48.8 | +3.8 |
| ERZN | Erzincan | 1.20 | 22 | ePN | Pg | 02 12 46.5 | +0.1 |
| ATAB | Bozova | 1.21 | 214 | i P | Pg | 02 12 46.5 | 0.0 |
| ATAB | | | | i S | Sg | 02 13 02.7 | +0.5 |
| ATAB | Bozova | 1.21 | 214 | P | Pg | 02 12 46.5 | 0.0 |
| ATAB | | | | S | Sg | 02 13 02.7 | +0.5 |
| EZC | Erzincan | 1.29 | 7 | ePn | Pn | 02 12 46.5 | -0.7 |
| EUZM | Uzumlu | 1.30 | 19 | i P | Pb | 02 12 47.8 | 0.0 |
| EUZM | | | | i S | Sg | 02 13 06.3 | +0.9 |
| EUZM | Uzumlu | 1.30 | 19 | P | Pb | 02 12 47.8 | 0.0 |
| EUZM | | | | S | Sg | 02 13 06.3 | +0.9 |
| DARE | Darende-Malaty | 1.31 | 275 | ePN | Pn | 02 12 46.8 | -0.6 |
| DARE | Darende-Malaty | 1.31 | 275 | ePn | Pn | 02 12 46.8 | -0.6 |
| BNGB | Bingˆ¶l | 1.31 | 66 | ePN | Pg | 02 12 48.8 | +0.3 |
| MAZI | Mazidag | 1.44 | 134 | ePN | Pb | 02 12 49.9 | -0.3 |
| MAZI | Mazidag | 1.44 | 134 | ePn | Pb | 02 12 49.9 | -0.3 |
| YEDI | Yedisu-Bingol | 1.46 | 48 | ePN | Pg | 02 12 51.0 | -0.3 |
| YEDI | Yedisu-Bingol | 1.46 | 48 | ePn | Pg | 02 12 51.0 | -0.3 |
| CUGUR | Gurin_S˜VAS | 1.49 | 280 | i P | Pn | 02 12 49.0 | -1.0 |
| CUGUR | Gurin_S˜VAS | 1.49 | 280 | P | Pn | 02 12 49.0 | -1.0 |
| CUKAN | kangal_SIVAS | 1.56 | 303 | i P | Pg | 02 12 52.5 | -0.7 |
| CUKAN | | | | i S | Sg | 02 13 14.9 | +1.5 |
| CUKAN | kangal_SIVAS | 1.56 | 303 | P | Pg | 02 12 52.5 | -0.7 |
| CUKAN | | | | S | Sg | 02 13 14.9 | +1.5 |
| ELBS | KAHRAMANMARAS | 1.59 | 265 | i P | Pb | 02 12 52.5 | -0.1 |
| ELBS | KAHRAMANMARAS | 1.59 | 265 | P | Pb | 02 12 52.5 | -0.1 |
| SURC | SANLIURFA_SURC | 1.65 | 195 | i P | Pb | 02 12 53.4 | -0.2 |
| SURC | SANLIURFA_SURC | 1.65 | 195 | P | Pb | 02 12 53.4 | -0.2 |
| SVAN | Silvan-Diyarba | 1.65 | 101 | ePN | Pn | 02 12 52.5 | +0.5 |
| SVAN | Silvan-Diyarba | 1.65 | 101 | i P | Pn | 02 12 52.6 | +0.5 |
| SVAN | | | | i S | Sb | 02 13 14.9 | +0.6 |
| SVAN | Silvan-Diyarba | 1.65 | 101 | P | Pb | 02 12 52.6 | -1.0 |
| SVAN | | | | S | Sb | 02 13 14.9 | +0.6 |
| KELT | Kelkit | 1.67 | 3 | i P | Pb | 02 12 53.4 | -0.8 |
| KELT | Kelkit | 1.67 | 3 | P | Pb | 02 12 53.4 | -0.8 |
| MARD | Mardin | 1.74 | 131 | i P | Pb | 02 12 54.3 | -0.8 |
| MARD | | | | i S | Sb | 02 13 16.1 | -0.8 |
| CUZAR | Zara_SIVAS | 1.77 | 323 | i P | Pg | 02 12 57.4 | +0.1 |
| CUZAR | Zara_SIVAS | 1.77 | 323 | P | Pg | 02 12 57.4 | +0.1 |
| BTMN | Batman | 1.77 | 109 | i P | Pn | 02 12 54.2 | +0.4 |
| BTMN | | | | i S | Sg | 02 13 19.4 | -1.0 |
| BTMN | Batman | 1.77 | 109 | P | Pn | 02 12 54.2 | +0.4 |
| BTMN | | | | S | Sg | 02 13 19.4 | -1.0 |
| SUSE | Susehri | 1.88 | 337 | i P | Pg | 02 12 58.9 | -0.5 |
| SUSE | Susehri | 1.88 | 337 | P | Pg | 02 12 58.9 | -0.5 |
| VRTB | Varto-Mus | 1.93 | 69 | ePN | Pb | 02 12 58.5 | 0.0 |
| VRTB | Varto-Mus | 1.93 | 69 | i P | Pb | 02 12 58.3 | -0.2 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| VRTB | Varto-Mus | 1.93 | 69 | iP | Pb | 02 12 58.9 | +0.4 |
| VRTB | Varto-Mus | 1.93 | 69 | P | Pb | 02 12 58.9 | +0.4 |
| VRTB | Varto-Mus | 1.93 | 69 | P | Pb | 02 12 58.3 | -0.2 |
| GAZ | Gaziantep | 2.01 | 230 | ePN | Pb | 02 12 59.2 | -0.5 |
| GAZ | Gaziantep | 2.01 | 230 | ePn | Pb | 02 12 59.2 | -0.5 |
| KMRS | Kahramanmaras | 2.02 | 242 | ePN | Pb | 02 12 58.6 | -1.3 |
| KMRS | Kahramanmaras | 2.02 | 242 | ePn | Pb | 02 12 58.6 | -1.3 |
| CUALT | Altinyayla-SIV | 2.03 | 294 | iP | Pb | 02 12 59.5 | -0.6 |
| CUALT | Altinyayla-SIV | 2.03 | 294 | P | Pb | 02 12 59.5 | -0.6 |
| SCER | sogukcermik | 2.09 | 312 | iP | Pb | 02 13 01.4 | +0.2 |
| SCER | sogukcermik | 2.09 | 312 | P | Pb | 02 13 01.4 | +0.2 |
| HCB | Kahramanmara¯ | 2.10 | 238 | iP | Pn | 02 12 58.8 | +0.5 |
| SARI | SarD1z-Kayseri | 2.14 | 269 | ePN | Pb | 02 13 01.2 | -0.9 |
| SVSK | Karacayir | 2.20 | 311 | ePN | Pb | 02 13 01.5 | -1.5 |
| SVSK | Karacayir | 2.20 | 311 | ePn | Pb | 02 13 01.5 | -1.5 |
| SRTM | Siirt_Merkez | 2.24 | 102 | iP | Pn | 02 13 00.9 | +0.6 |
| SRTM | Siirt_Merkez | 2.24 | 102 | P | Pn | 02 13 00.9 | +0.6 |
| KUZU | Kuzuini | 2.36 | 225 | iP | Pn | 02 13 02.4 | +0.5 |
| KUZU | Kuzuini | 2.36 | 225 | P | Pn | 02 13 02.4 | +0.5 |
| ANDN | Andirin | 2.38 | 249 | iP | Pn | 02 13 03.5 | +1.2 |
| ANDN | Andirin | 2.38 | 249 | P | Pn | 02 13 03.5 | +1.2 |
| CUSAR | Sarkisla-SIVAS | 2.45 | 294 | iP | Pb | 02 13 05.2 | -2.1 |
| CUSAR | Sarkisla-SIVAS | 2.45 | 294 | P | Pb | 02 13 05.2 | -2.1 |
| SAIM | ADANA | 2.46 | 259 | iP | Pn | 02 13 04.8 | +1.5 |
| SAIM | ADANA | 2.46 | 259 | P | Pn | 02 13 04.8 | +1.5 |
| BNN | Bunyan | 2.61 | 279 | ePN | Pn | 02 13 07.4 | +2.0 |
| BNN | Bunyan | 2.61 | 279 | ePn | Pn | 02 13 07.4 | +2.0 |
| KOZT | Kozan | 2.80 | 250 | ePN | Pn | 02 13 10.4 | +2.5 |
| KOZT | Kozan | 2.80 | 250 | ePn | Pn | 02 13 10.4 | +2.5 |
| YAHY | KAYSERI_Yahyal | 3.00 | 264 | iP | Pn | 02 13 12.6 | +1.9 |
| YAHY | KAYSERI_Yahyal | 3.00 | 264 | P | Pn | 02 13 12.6 | +1.9 |
| TAHT | Tahtakopru-Hat | 3.15 | 229 | ePN | Pn | 02 13 14.2 | +1.5 |
| TAHT | Tahtakopru-Hat | 3.15 | 229 | ePn | Pn | 02 13 14.2 | +1.5 |

*CSEM **01** 02:12:45.3,38°.71N×43°.04E,h7km,ML2.7*

**DDA 01 02:12:45.4,38°.71N×43°.04E,h7km,Ml2.7,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ADCV | BITLIS_Adilcev | 0.26 | 291 | iP | Pg | 02 12 50.7 | +0.1 |
| ADCV | | | | iS | Sg | 02 12 55.5 | +1.4 |
| ADCV | BITLIS_Adilcev | 0.26 | 291 | P | Pg | 02 12 50.7 | +0.1 |
| ADCV | | | | S | Sg | 02 12 55.5 | +1.4 |
| TVAN | Van | 0.34 | 122 | iP | Pg | 02 12 52.0 | -0.1 |
| TVAN | | | | iS | Sg | 02 12 58.0 | +1.3 |
| TVAN | Van | 0.34 | 122 | P | Pg | 02 12 52.0 | -0.1 |
| TVAN | | | | S | Sg | 02 12 58.0 | +1.3 |
| VMUR | Van-Muradiye | 0.50 | 56 | iP | Pg | 02 12 55.5 | +0.4 |
| VMUR | Van-Muradiye | 0.50 | 56 | P | Pg | 02 12 55.5 | +0.4 |
| TUTA | Tutak | 0.71 | 346 | eP | Pg | 02 12 58.7 | -0.4 |
| TUTA | | | | IAML | | 02 12 59.0 | |
| | comp=Z,94nm,0.2s | | | | | | |
| TUTA | Tutak | 0.71 | 346 | iP | Pg | 02 12 58.8 | -0.3 |
| TUTA | Tutak | 0.71 | 346 | P | Pg | 02 12 58.8 | -0.2 |
| CLDR | Caldiran | 0.81 | 58 | iP | Pg | 02 13 00.8 | -0.2 |
| CLDR | | | | iS | Sb | 02 13 13.1 | -0.1 |
| CLDR | Caldiran | 0.81 | 58 | P | Pg | 02 13 00.8 | -0.1 |
| CLDR | | | | S | Sb | 02 13 13.1 | 0.0 |

*ROM **01** 02:20:11.8±0.2,41°.24N×15°.45E,h10km±2km,Md2.4/2, Ml2.2/20,Error ellipse: s-maj=2.1km s-min=1.5km az=21.0*

*CSEM **01** 02:20:12.1±0.1,41°.22N×15°.46E,h10km,ML3.0/8,Error ellipse: s-maj=2.9km s-min=2.3km az=21.0*

**ISC 01 02:20:12.0**±0.8,**41°.22N**±0°.02×**15°.46E**±0°.02,**h17**km±6km, **n55**,σ**0s57**/82,**Southern Italy**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SGTA | Sant Agata di | 0.11 | 221 | Pg | Pg | 02 20 15.4 | -0.4 |
| | 690nm,0.4s | | | | | | |
| SGTA | Sant Agata di | 0.11 | 221 | Pg | Pg | 02 20 15.4 | -0.4 |
| | 690nm,0.4s | | | | | | |
| CAFE | Carife | 0.26 | 222 | Pg | Pg | 02 20 18.1 | +0.2 |
| CAFE | | | | Sg | Sb | 02 20 22.5 | +0.1 |
| | 253nm,0.2s | | | | | | |
| CAFE | Carife | 0.26 | 222 | Pg | Pg | 02 20 18.1 | +0.2 |
| CAFE | | | | Sg | Sb | 02 20 22.5 | +0.1 |
| | 253nm,0.2s | | | | | | |
| VULT | Monte Vulture | 0.29 | 156 | Pg | Pg | 02 20 18.2 | -0.2 |
| | 312nm,0.2s | | | | | | |
| VULT | Monte Vulture | 0.29 | 156 | Pg | Pg | 02 20 18.2 | -0.2 |
| | 312nm,0.2s | | | | | | |
| MRB1 | Monte Rocchett | 0.38 | 256 | Pg | Pg | 02 20 20.2 | +0.3 |
| | 134nm,0.4s | | | | | | |
| MRB1 | Monte Rocchett | 0.38 | 256 | Pg | Pg | 02 20 20.2 | +0.3 |
| | 134nm,0.4s | | | | | | |
| MRLC | Muro Lucano | 0.46 | 177 | Pg | Pg | 02 20 21.0 | -0.4 |
| MRLC | | | | Sg | Sb | 02 20 29.0 | +0.7 |
| | 191nm,0.4s | | | | | | |
| MRLC | Muro Lucano | 0.46 | 177 | Pg | Pg | 02 20 21.0 | -0.4 |
| MRLC | | | | Sg | Sb | 02 20 29.0 | +0.7 |
| | 191nm,0.4s | | | | | | |
| PALZ | Palazzo San Ge | 0.47 | 126 | Pg | Pg | 02 20 21.2 | -0.3 |
| PALZ | | | | Sg | Sb | 02 20 29.4 | +1.0 |
| | 473nm,0.3s | | | | | | |
| PALZ | Palazzo San Ge | 0.47 | 126 | Pg | Pg | 02 20 21.2 | -0.3 |
| PALZ | | | | Sg | Sb | 02 20 29.4 | +1.0 |
| | 473nm,0.3s | | | | | | |
| MCRV | Calabrutti - M | 0.49 | 207 | Pg | Pg | 02 20 21.1 | -0.8 |
| MCRV | | | | Sg | Sb | 02 20 28.9 | -0.3 |
| | 282nm,0.3s | | | | | | |
| MCRV | Calabrutti - M | 0.49 | 207 | Pg | Pg | 02 20 21.1 | -0.8 |
| MCRV | | | | Sg | Sb | 02 20 28.9 | -0.3 |
| | 282nm,0.3s | | | | | | |
| PSB1 | Pescosannita | 0.49 | 271 | Pg | Pg | 02 20 21.7 | -0.2 |
| | 41nm,0.4s | | | | | | |
| PSB1 | Pescosannita | 0.49 | 271 | Pg | Pg | 02 20 21.7 | -0.2 |
| | 41nm,0.4s | | | | | | |
| GATE | Gambatesa | 0.51 | 305 | Pg | Pg | 02 20 22.6 | +0.4 |
| GATE | | | | Sg | Sg | 02 20 29.5 | +0.4 |
| | 42nm,0.5s | | | | | | |
| GATE | Gambatesa | 0.51 | 305 | Pg | Pg | 02 20 22.6 | +0.4 |
| GATE | | | | Sg | Sg | 02 20 29.5 | +0.4 |
| | 42nm,0.5s | | | | | | |
| MELA | Melanico ??? S | 0.55 | 333 | Pg | Pg | 02 20 22.1 | -0.8 |
| | 108nm,0.2s | | | | | | |
| MELA | Melanico ??? S | 0.55 | 333 | Pg | Pg | 02 20 22.1 | -0.8 |
| | 108nm,0.2s | | | | | | |
| MRVN | Minervino Murg | 0.58 | 106 | Pg | Pg | 02 20 23.0 | -0.5 |
| MRVN | | | | Sg | Sg | 02 20 31.1 | -0.1 |
| | 124nm,0.3s | | | | | | |
| MRVN | Minervino Murg | 0.58 | 106 | Pg | Pg | 02 20 23.0 | -0.5 |
| MRVN | | | | Sg | Sg | 02 20 31.1 | -0.1 |
| | 124nm,0.3s | | | | | | |
| MS1 | Monte Sant'Ang | 0.60 | 37 | ePg | Pg | 02 20 24.3 | +0.3 |
| MS1 | | | | Sg | Sg | 02 20 32.1 | 0.0 |
| CDT | Castel del Mon | 0.63 | 102 | iPg | Pn | 02 20 25.5 | -0.7 |
| CDT | | | | Sg | Sb | 02 20 33.2 | +0.1 |
| PZUN | Potenza | 0.63 | 155 | Pg | Pb | 02 20 24.9 | +0.3 |
| | 159nm,0.4s | | | | | | |
| PZUN | Potenza | 0.63 | 155 | Pg | Pb | 02 20 24.9 | +0.3 |
| | 159nm,0.4s | | | | | | |
| PTRJ | Pietraroja | 0.72 | 282 | Pg | Pg | 02 20 25.5 | -0.6 |
| PTRJ | Pietraroja | 0.72 | 282 | Pg | Pg | 02 20 25.5 | -0.6 |
| SLCN | Sala Consilina | 0.84 | 171 | Pg | Pg | 02 20 28.4 | 0.0 |
| | 73nm,0.4s | | | | | | |
| SLCN | Sala Consilina | 0.84 | 171 | Pg | Pg | 02 20 28.4 | 0.0 |
| | 73nm,0.4s | | | | | | |
| CMPR | Campora | 0.91 | 188 | Pg | Pb | 02 20 28.8 | -0.6 |
| | 90nm,0.5s | | | | | | |
| CMPR | Campora | 0.91 | 188 | Pg | Pb | 02 20 28.8 | -0.6 |
| | 90nm,0.5s | | | | | | |
| AMUR | Altamura | 0.92 | 110 | Pg | Pb | 02 20 29.4 | -0.1 |
| AMUR | | | | Sg | Sn | 02 20 42.5 | -0.5 |
| | 160nm,0.5s | | | | | | |
| AMUR | Altamura | 0.92 | 110 | Pg | Pb | 02 20 29.4 | -0.1 |
| AMUR | | | | Sg | Sn | 02 20 42.5 | -0.5 |
| | 160nm,0.5s | | | | | | |
| MIGL | Miglionico | 0.96 | 129 | Pg | Pn | 02 20 30.8 | 0.0 |
| | 211nm,0.4s | | | | | | |
| MIGL | Miglionico | 0.96 | 129 | Pg | Pn | 02 20 30.8 | 0.0 |
| | 211nm,0.4s | | | | | | |
| SG1 | Sgolgore (BA) | 1.00 | 112 | ePg | Pb | 02 20 31.0 | +0.2 |
| SG1 | | | | Sg | Sn | 02 20 45.4 | +0.5 |
| BAI | Bari | 1.08 | 96 | iPg | Pg | 02 20 32.8 | -0.1 |
| BAI | | | | Sg | Sg | 02 20 47.3 | +0.3 |
| MGR | Morigerati | 1.08 | 176 | Pg | Pn | 02 20 32.4 | 0.0 |
| | 37nm,0.5s | | | | | | |
| MGR | Morigerati | 1.08 | 176 | Pg | Pn | 02 20 32.4 | 0.0 |
| | 37nm,0.5s | | | | | | |
| MATE | Matera | 1.10 | 121 | Pg | Pg | 02 20 32.9 | -0.4 |
| MATE | | | | Sg | Sg | 02 20 48.4 | +0.7 |
| | 101nm,0.4s | | | | | | |
| MATE | Matera | 1.10 | 121 | Pg | Pg | 02 20 32.9 | -0.4 |
| MATE | | | | Sg | Sg | 02 20 48.4 | +0.7 |
| | 101nm,0.4s | | | | | | |
| SCHR | S. Chirico Rap | 1.12 | 155 | Pg | Pb | 02 20 32.9 | -0.1 |
| | 205nm,3.0s | | | | | | |
| SCHR | S. Chirico Rap | 1.12 | 155 | Pg | Pb | 02 20 32.9 | -0.1 |
| | 205nm,3.0s | | | | | | |
| CUC | Castrocucco | 1.25 | 168 | Pg | Pb | 02 20 35.2 | -0.1 |
| | 20nm,0.7s | | | | | | |
| CUC | Castrocucco | 1.25 | 168 | Pg | Pb | 02 20 35.2 | -0.1 |
| | 20nm,0.7s | | | | | | |
| MASS | Massafra | 1.40 | 114 | ePg | Pg | 02 20 38.9 | -0.2 |
| MASS | | | | Sg | Sg | 02 20 57.9 | +0.5 |
| FASA | Fasano | 1.49 | 105 | ePg | Pb | 02 20 39.5 | +0.3 |
| FASA | | | | Sg | Sg | 02 20 59.5 | -0.5 |
| TAR1 | Taranto | 1.55 | 116 | ePg | Pg | 02 20 41.7 | -0.1 |
| TAR1 | | | | Sg | Sg | 02 21 01.9 | 0.0 |
| STON | Ston | 2.34 | 45 | ePn | Pb | 02 20 52.9 | -1.0 |
| STON | | | | Sn | Sn | 02 21 17.0 | -1.1 |
| STON | Ston | 2.34 | 45 | ePn | Pb | 02 20 52.8 | -1.0 |
| STON | | | | Sn | Sn | 02 21 17.0 | -1.1 |
| UDBI | Udbina | 3.31 | 4 | ePn | Pn | 02 21 05.2 | +2.0 |
| UDBI | Udbina | 3.31 | 4 | ePn | Pn | 02 21 05.1 | +2.0 |
| NVLJ | Novalja | 3.37 | 353 | ePn | Pn | 02 21 03.7 | -0.2 |
| NVLJ | | | | Sn | Sn | 02 21 43.3 | 0.0 |
| NVLJ | Novalja | 3.37 | 353 | ePn | Pn | 02 21 03.6 | -0.2 |
| NVLJ | | | | Sn | Sn | 02 21 43.3 | 0.0 |

*CSEM **01** 02:33:27.9±0.2,38°.46N×43°.37E,h2km,ML3.2,Error ellipse: s-maj=4.0km s-min=3.4km az=96.0*

*IASPEI **01** 02:33:27.9±1.1,38°.47N±0°.02×43°.34E±0°.03,h4km±9km, Error ellipse: s-maj=3.9km s-min=3.0km az=96.2,GT5 selection from ISC bulletin GT5 identified by Bondˆ¡r and McLaughlin (2009) selection criteria Bondˆ¡r and McLaughlin, A new ground truth data set for seismic studies, <i>Seism. Res. Let.</i>, <b>80</b>, 465-472, 2009*

*DDA **01** 02:33:27.9,38°.46N×43°.32E,h7km,Ml3.2*

*ATA **01** 02:33:27.1±1.7,38°.49N×43°.26E,h18km±66km,MD3.3, ML3.5,MW3.2*

*ISCJB **01** 02:33:28.2±0.5,38°.47N±0°.02×43°.35E±0°.04,h3km±5km, Error ellipse: s-maj=4.9km s-min=3.9km az=179.2*

*ISK **01** 02:33:28.0,38°.46N×43°.40E,h6km,MD3.0*

**ISC 01 02:33:28.1**±1.0,**38°.47N**±0°.02×**43°.35E**±0°.02,**h5**km±8km, **n58**,σ**0s90**/79,**Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TVAN | Van | 0.07 | 37 | iP | Pg | 02 33 29.8 | -0.1 |
| TVAN | Van | 0.07 | 37 | P | Pg | 02 33 29.8 | -0.1 |
| VANB | Van | 0.13 | 14 | PG | Pg | 02 33 29.6 | -1.1 |
| VANB | Van | 0.13 | 14 | iPg | Pg | 02 33 29.6 | -1.1 |
| GEVA | Gevas | 0.28 | 235 | eP | Pg | 02 33 32.5 | -1.0 |
| GEVA | | | | eS | Sg | 02 33 37.3 | 0.0 |
| GEVA | | | | IAML | | 02 33 46.1 | |
| | comp=Z,431nm,0.4s | | | | | | |
| GEVA | Gevas | 0.28 | 235 | iP | Pg | 02 33 33.2 | -0.3 |
| GEVA | | | | iS | Sg | 02 33 38.9 | +1.6 |
| GEVA | Gevas | 0.28 | 235 | P | Pg | 02 33 33.2 | -0.3 |
| GEVA | | | | S | Sg | 02 33 38.9 | +1.6 |
| VMUR | Van-Muradiye | 0.54 | 18 | iP | Pg | 02 33 38.9 | +0.3 |
| VMUR | Van-Muradiye | 0.54 | 18 | P | Pg | 02 33 38.9 | +0.3 |
| ERCV | ERCIS-VAN | 0.55 | 359 | ePG | Pb | 02 33 39.5 | -0.8 |
| ERCV | | | | eSG | Sg | 02 33 46.9 | +1.1 |
| ERCV | ERCIS-VAN | 0.55 | 359 | ePg | Pb | 02 33 39.5 | -0.8 |
| ERCV | | | | eSg | Sg | 02 33 46.9 | +1.1 |
| ADCV | BITLIS_Adilcev | 0.59 | 305 | iP | Pg | 02 33 39.2 | -0.3 |
| ADCV | | | | iS | Sg | 02 33 48.6 | +1.3 |
| ADCV | BITLIS_Adilcev | 0.59 | 305 | P | Pg | 02 33 39.2 | -0.3 |
| ADCV | | | | S | Sg | 02 33 48.6 | +1.3 |
| BASK | Baskale_VAN | 0.66 | 129 | eP | Pb | 02 33 42.0 | -0.2 |
| BASK | | | | eS | Sb | 02 33 52.4 | +0.5 |
| BASK | | | | IAML | | 02 33 55.6 | |
| | comp=Z,183nm,0.4s | | | | | | |
| BASK | Baskale_VAN | 0.66 | 129 | iP | Pb | 02 33 41.4 | -0.9 |
| BASK | | | | iS | Sb | 02 33 51.4 | -0.4 |
| BASK | Baskale_VAN | 0.66 | 129 | P | Pb | 02 33 41.4 | -0.9 |
| CLDR | Caldiran | 0.80 | 33 | ePG | Pb | 02 33 43.9 | -0.8 |
| CLDR | | | | eSG | Sb | 02 33 55.0 | -0.9 |
| CLDR | Caldiran | 0.80 | 33 | iP | Pg | 02 33 43.5 | 0.0 |
| CLDR | | | | iS | Sb | 02 33 56.4 | +0.5 |
| CLDR | Caldiran | 0.80 | 33 | P | Pg | 02 33 43.5 | 0.0 |
| CLDR | Caldiran | 0.80 | 33 | ePg | Pb | 02 33 43.9 | -0.8 |
| CLDR | | | | eSg | Sb | 02 33 55.1 | -0.9 |
| CLDR | | | | S | Sb | 02 33 56.4 | +0.5 |
| TUTA | Tutak | 1.02 | 336 | eP | Pg | 02 33 47.0 | -0.6 |
| TUTA | | | | eS | Sg | 02 33 59.8 | -1.1 |
| TUTA | | | | IAML | | 02 34 07.0 | |
| | comp=Z,77nm,0.3s | | | | | | |
| TUTA | Tutak | 1.02 | 336 | iP | Pg | 02 33 46.4 | -1.3 |
| TUTA | Tutak | 1.02 | 336 | P | Pg | 02 33 46.4 | -1.3 |
| AGRB | Hanur-Agry | 1.14 | 346 | ePN | Pn | 02 33 50.7 | -0.2 |
| AGRB | | | | eSN | Sn | 02 34 07.1 | +0.1 |
| AGRB | Hanur-Agry | 1.14 | 346 | ePn | Pn | 02 33 50.7 | -0.2 |
| AGRB | | | | eSn | Sn | 02 34 07.1 | +0.1 |
| YOVA | Hakkari_Yˆ…kse | 1.15 | 140 | iP | Pg | 02 33 49.4 | -0.8 |
| YOVA | Hakkari_Yˆ…kse | 1.15 | 140 | P | Pg | 02 33 49.4 | -0.8 |
| SRTM | Siirt_Merkez | 1.22 | 247 | iP | Pg | 02 33 51.4 | -0.2 |
| SRTM | | | | iS | Sn | 02 34 12.3 | +3.3 |
| SRTM | Siirt_Merkez | 1.22 | 247 | P | Pg | 02 33 51.4 | -0.2 |
| CUKT | Cukurca | 1.24 | 171 | ePN | Pn | 02 33 51.8 | -0.4 |
| CUKT | Cukurca | 1.24 | 171 | iP | Pg | 02 33 51.2 | -0.6 |
| CUKT | Cukurca | 1.24 | 171 | P | Pg | 02 33 51.2 | -0.6 |
| CUKT | Cukurca | 1.24 | 171 | ePn | Pn | 02 33 51.8 | -0.4 |
| EKAR | Karacoban | 1.27 | 308 | iP | Pn | 02 33 52.4 | -0.4 |
| EKAR | Karacoban | 1.27 | 308 | P | Pn | 02 33 52.4 | -0.4 |
| EATA | Eleskirt | 1.54 | 335 | iP | Pb | 02 33 57.0 | -0.3 |
| EATA | | | | iS | Sg | 02 34 18.4 | +0.8 |
| EATA | Eleskirt | 1.54 | 335 | P | Pb | 02 33 57.0 | -0.3 |
| EATA | | | | S | Sg | 02 34 18.4 | +0.8 |
| VRTB | Varto-Mus | 1.63 | 295 | ePN | Pb | 02 33 58.1 | -0.7 |
| VRTB | Varto-Mus | 1.63 | 295 | iP | Pn | 02 33 57.4 | -0.2 |
| VRTB | Varto-Mus | 1.63 | 295 | P | Pn | 02 33 57.4 | -0.2 |
| VRTB | Varto-Mus | 1.63 | 295 | ePn | Pb | 02 33 58.1 | -0.7 |
| SVAN | Silvan-Diyarba | 1.72 | 260 | ePN | Pb | 02 33 59.5 | -0.8 |
| SVAN | Silvan-Diyarba | 1.72 | 260 | iP | Pn | 02 33 59.3 | +0.5 |
| SVAN | | | | iS | Sb | 02 34 21.7 | -0.6 |
| SVAN | Silvan-Diyarba | 1.72 | 260 | P | Pn | 02 33 59.3 | +0.5 |
| SVAN | Silvan-Diyarba | 1.72 | 260 | ePn | Pb | 02 33 59.5 | -0.8 |
| SVAN | | | | S | Sb | 02 34 21.7 | -0.6 |
| BTMN | Batman | 1.74 | 251 | iP | Pb | 02 34 00.2 | -0.3 |
| BTMN | Batman | 1.74 | 251 | P | Pb | 02 34 00.2 | -0.3 |
| HOMI | Horasan | 1.93 | 325 | iP | Pb | 02 34 04.3 | +0.4 |
| ERZM | Erzurum | 2.10 | 313 | iP | Pb | 02 34 06.0 | -0.9 |
| ERZM | Erzurum | 2.10 | 313 | P | Pb | 02 34 06.0 | -0.9 |
| BNGB | Bingˆ¶l | 2.15 | 285 | ePN | Pb | 02 34 06.0 | -1.6 |
| ECAT | Cat-ERZURUM | 2.17 | 302 | iP | Pb | 02 34 06.8 | -1.2 |
| ECAT | Cat-ERZURUM | 2.17 | 302 | P | Pb | 02 34 06.8 | -1.2 |
| SENK | Senkaya-Erzuru | 2.23 | 340 | ePN | Pn | 02 34 07.1 | +1.3 |
| SENK | Senkaya-Erzuru | 2.23 | 340 | ePn | Pn | 02 34 07.1 | +1.3 |
| BINT | Bingol | 2.28 | 281 | ePn | Pn | 02 34 06.0 | -0.5 |
| YEDI | Yedisu-Bingol | 2.39 | 295 | ePN | Pb | 02 34 10.2 | -1.6 |
| YEDI | Yedisu-Bingol | 2.39 | 295 | ePn | Pb | 02 34 10.2 | -1.6 |

*JMA **01** 02:34:58.7±0.3,31°.54N×137°.94E,h363km,M3.4*

*ISCJB **01** 02:34:60.0±0.9,31°.95N±0°.09×137°.9E±0°.2,h380km, mb2.9/2,Error ellipse: s-maj=18.1km s-min=11.3km az=21.7*

*IDC **01** 02:35:01.7±2.2,32°.27N×137°.41E,h398km±45km,mb2.7/2, mb1 3.0/3,mb1mx2.6/27,mbtmp3.4/3,Error ellipse: s-maj=245.3km s-min=22.9km az=107.0*

**ISC 01 02:35:00.9**±1.2,**32°.0N**±0°.1×**137°.9E**±0°.1,**h380**km,**n14**, σ**1s68**/18,**Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JHJ2 | Mitsune | 1.95 | 55 | P | Pn | 02 35 52.8 | -1.8 |
| JWZ | Kozaga | 2.41 | 310 | P | Pn | 02 35 57.4 | -0.4 |
| JIE | Ise | 2.60 | 337 | P | Pn | 02 35 59.6 | +0.4 |
| JKN2 | Miekihoku | 2.63 | 329 | P | Pn | 02 35 59.2 | -0.3 |
| JOD2 | Odawara 2 | 3.40 | 16 | P | Pn | 02 36 08.0 | +2.0 |
| JOD2 | | | | S | S | 02 37 01.4 | +2.7 |
| BSO3 | Boso 3 | 3.54 | 37 | P | Pn | 02 36 03.7 | -3.2 |
| BSO1 | Boso 1 | 3.68 | 43 | P | Pn | 02 36 09.7 | +1.7 |
| BSO1 | | | | eS | S | 02 37 04.1 | +1.7 |
| JHU | Hanno | 4.01 | 16 | P | Pn | 02 36 13.0 | +1.3 |
| JHU | | | | eS | S | 02 37 07.2 | -1.9 |
| JRY | Ryogami san | 4.09 | 11 | P | Pn | 02 36 13.9 | +1.3 |
| MJAR | Matsushiro Arr | 4.54 | 3 | P | Pn | 02 36 16.5 | -0.6 |
| | 1.1nm,0.3s,baz=189,slow=10,SNR=12 | | | | | | |
| MAT | Matsushiro | 4.54 | 3 | P | Pn | 02 36 16.3 | -0.8 |
| MAT | | | | eS | S | 02 37 17.9 | -1.0 |
| JAG | Ashikaga | 4.60 | 16 | P | Pn | 02 36 16.9 | -0.7 |
| WRA | Warramunga Arr | 51.76 | 184 | P | P | 02 43 32.2 | +0.9 |
| | 0.7nm,0.8s,baz=360,slow=7.7,SNR=5.9 | | | | | | |
| ILAR | Eielson Array | 55.28 | 30 | P | P | 02 43 55.0 | -1.0 |
| | 0.3nm,0.8s,baz=280,slow=6.0,SNR=4.0 | | | | | | |

*NIED **01** 02:44:00,37°.70N×141°.90E,h8km,Mw3.8 Best double couple: M0 6.27000×10$^{14}$ NP1:φs271.00000°,δ39.00000°, λ-143.00000°. NP2:φs151.00000°,δ68.00000°, λ-57.00000°.*

*IDC **01** 02:44:09.5±0.9,37°.72N×141°.88E,h0km,mb3.6/7, mb1 3.8/9,mb1mx3.7/33,mbtmp3.7/9,ML4.1/2,MS2.6/1, Ms1 2.6/1,ms1mx2.3/35,Error ellipse: s-maj=24.3km s-min=20.3km az=91.0*

*JMA **01** 02:44:10.9±0.1,37°.73N×141°.90E,h22km±2km,M4.1*

*JMA Felt I J1.*

**ISC 01 02:44:10.0**±2.0,**37°.73N**±0°.04×**141°.90E**±0°.07,**h8**km±12km, **n29**,σ**0s96**/33,**mb3.6**/7,**Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JIO | Ouri | 0.84 | 329 | P | Pg | 02 44 26.7 | +0.5 |
| JIO | | | | S | Sg | 02 44 37.8 | +0.6 |
| JMM | Marumori | 0.89 | 279 | P | Pg | 02 44 27.2 | +0.1 |
| JMM | | | | S | Sg | 02 44 38.8 | +0.2 |
| JFK | Kawauchi | 0.89 | 246 | P | Pb | 02 44 27.5 | -0.3 |
| JFK | | | | S | Sb | 02 44 39.1 | -0.8 |
| ONAJ | Iwakimizuishiy | 1.08 | 235 | P | Pb | 02 44 30.1 | -0.9 |
| ONAJ | | | | eS | Sg | 02 44 44.1 | -0.7 |
| JOU | Okura | 1.16 | 303 | P | Pb | 02 44 32.3 | -0.1 |
| JOU | | | | S | Sb | 02 44 47.5 | -0.2 |
| JFT | Otama | 1.26 | 261 | P | Pb | 02 44 33.9 | -0.2 |
| JFT | | | | S | Sg | 02 44 50.7 | +0.1 |
| JMK | Ichinoseki | 1.33 | 336 | P | Pn | 02 44 34.5 | -0.4 |
| JMK | | | | S | Sb | 02 44 51.1 | -1.4 |
| OFUJ | Ofunato | 1.36 | 352 | P | Pn | 02 44 34.0 | -1.3 |
| OFUJ | | | | S | Sb | 02 44 51.2 | -2.1 |
| JYK | Kaneyama | 1.69 | 315 | P | Pn | 02 44 40.0 | 0.0 |
| JFY | Yanaizu | 1.77 | 260 | P | Pb | 02 44 41.8 | -1.0 |
| JFY | | | | S | Sb | 02 45 04.2 | -1.1 |
| JOM | Ohasama | 1.80 | 345 | P | Pn | 02 44 41.4 | 0.0 |
| MJAR | Matsushiro Arr | 3.18 | 249 | Pn | Pn | 02 45 01.8 | +1.4 |
| | 13nm,0.3s,baz=82,slow=16,SNR=52 | | | | | | |
| MAT | Matsushiro | 3.18 | 249 | P | Pn | 02 45 01.9 | +1.5 |
| MAT | | | | S | Sb | 02 45 44.2 | -1.6 |
| JHJ | Hachijo jima 2 | 4.92 | 201 | Pn | Pn | 02 45 24.4 | +0.1 |
| | 34nm,0.3s,baz=246,slow=22,SNR=5.6 | | | | | | |
| JHJ | | | | Sn | Sn | 02 46 19.1 | -2.2 |
| | 11nm,0.3s,baz=63,slow=23,SNR=2.8 | | | | | | |
| KSRS | Korea Array | 11.10 | 273 | LR | LR | 02 50 37.6 | |
| | comp=Z,30nm,20.3s,baz=190,slow=35 | | | | | | |
| SONM | Songino Array | 27.73 | 303 | P | P | 02 49 59.3 | +0.3 |
| | 0.5nm,0.8s,baz=95,slow=9.6,SNR=3.2 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 28.18 | 123 | T | T | 03 19 38.7 | |
| | baz=315,slow=75,SNR=279 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 28.19 | 123 | T | T | 03 19 36.4 | |
| | baz=315,slow=75,SNR=251 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 28.20 | 123 | T | T | 03 19 37.4 | |
| | baz=315,slow=75,SNR=255 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 28.92 | 125 | T | T | 03 20 29.2 | |
| | baz=317,slow=76,SNR=262 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 28.93 | 125 | T | T | 03 20 29.3 | |
| | baz=317,slow=76,SNR=226 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 28.94 | 125 | T | T | 03 20 32.4 | |
| | baz=317,slow=76,SNR=223 | | | | | | |
| ZALV | Zalesovo Beam | 41.74 | 312 | P | P | 02 51 59.6 | +0.3 |
| | 0.4nm,0.3s,baz=87,slow=7.4,SNR=3.3 | | | | | | |
| MKAR | Makanchi Array | 44.08 | 302 | P | P | 02 52 19.1 | +0.6 |
| | 0.8nm,0.9s,baz=60,slow=8.5,SNR=3.1 | | | | | | |
| ILAR | Eielson Array | 48.70 | 33 | P | P | 02 52 55.0 | +0.5 |
| | 0.5nm,0.8s,baz=264,slow=7.7,SNR=5.0 | | | | | | |
| WRA | Warramunga Arr | 57.81 | 188 | P | P | 02 54 02.0 | +0.1 |
| | 1.1nm,0.8s,baz=6.4,slow=7.3,SNR=14 | | | | | | |
| ASAR | Alice Springs | 61.53 | 188 | P | P | 02 54 28.1 | +0.4 |
| | 0.3nm,0.6s,baz=11,slow=6.0,SNR=4.4 | | | | | | |
| TXAR | Lajitas Array | 89.39 | 53 | P | P | 02 57 08.4 | +0.8 |
| | 0.2nm,0.6s,baz=302,slow=1.3,SNR=4.2 | | | | | | |
| LPAZ | La Paz | 146.00 | 59 | PKPbc | PKPab | 03 03 52.8 | +0.7 |
| | 1.0nm,0.3s,baz=299,slow=5.3,SNR=10 | | | | | | |

*DDA **01** 02:45:04.7,38°.63N×43°.27E,h7km,Ml2.7*

*ISK **01** 02:45:04.8,38°.62N×43°.24E,h5km,MD2.8*

*ISCJB **01** 02:45:05.2±0.6,38°.62N±0°.04×43°.23E±0°.05,h3km±10km, Error ellipse: s-maj=6.4km s-min=6.2km az=23.0*

*CSEM **01** 02:45:05.1±0.2,38°.63N×43°.22E,h2km,MD2.8,Error ellipse: s-maj=4.0km s-min=3.4km az=142.0*

**ISC 01 02:45:05.1**±1.1,**38°.63N**±0°.03×**43°.24E**±0°.03,**h13**km±9km, **n30**,σ**0s55**/36,**Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.12 | 105 | ePG | Pg | 02 45 08.7 | +0.2 |
| VANB | Van | 0.12 | 105 | ePg | Pg | 02 45 08.7 | +0.2 |
| TVAN | Van | 0.17 | 127 | iP | Pg | 02 45 08.5 | -0.7 |
| TVAN | Van | 0.17 | 127 | P | Pg | 02 45 08.5 | -0.7 |
| GEVA | Gevas | 0.34 | 204 | iP | Pg | 02 45 11.5 | -0.7 |
| GEVA | Gevas | 0.34 | 204 | P | Pg | 02 45 11.5 | -0.7 |
| ERCV | ERCIS-VAN | 0.40 | 11 | ePG | Pg | 02 45 13.5 | +0.3 |
| ERCV | | | | eSG | Sb | 02 45 19.7 | -0.6 |
| ERCV | ERCIS-VAN | 0.40 | 11 | ePg | Pg | 02 45 13.5 | +0.3 |
| ERCV | | | | eSg | Sb | 02 45 19.7 | -0.6 |
| ADCV | BITLIS_Adilcev | 0.44 | 294 | iP | Pg | 02 45 13.7 | -0.2 |
| ADCV | | | | iS | Sb | 02 45 21.0 | -0.4 |
| ADCV | BITLIS_Adilcev | 0.44 | 294 | P | Pg | 02 45 13.7 | -0.2 |
| ADCV | | | | S | Sb | 02 45 21.0 | -0.4 |
| VMUR | Van-Muradiye | 0.45 | 36 | iP | Pb | 02 45 14.4 | -0.5 |
| VMUR | Van-Muradiye | 0.45 | 36 | P | Pb | 02 45 14.4 | -0.5 |
| CLDR | Caldiran | 0.74 | 46 | ePG | Pb | 02 45 19.8 | -0.2 |
| CLDR | | | | eSG | Sb | 02 45 30.6 | +0.6 |
| CLDR | Caldiran | 0.74 | 46 | iP | Pg | 02 45 18.8 | -0.7 |
| CLDR | Caldiran | 0.74 | 46 | P | Pg | 02 45 18.8 | -0.7 |
| CLDR | Caldiran | 0.74 | 46 | ePg | Pb | 02 45 19.8 | -0.2 |
| CLDR | | | | eSg | Sb | 02 45 30.7 | +0.6 |
| TUTA | Tutak | 0.84 | 337 | iP | Pg | 02 45 20.7 | -0.7 |
| TUTA | Tutak | 0.84 | 337 | P | Pg | 02 45 20.7 | -0.7 |
| AGRB | Hanur-Agry | 0.96 | 349 | ePG | Pg | 02 45 23.1 | -0.7 |
| AGRB | Hanur-Agry | 0.96 | 349 | ePg | Pg | 02 45 23.1 | -0.7 |
| EKAR | Karacoban | 1.11 | 305 | iP | Pg | 02 45 26.2 | -0.3 |
| EKAR | Karacoban | 1.11 | 305 | P | Pg | 02 45 26.2 | -0.3 |
| SRTM | Siirt_Merkez | 1.21 | 239 | iP | Pn | 02 45 28.8 | +0.9 |
| SRTM | Siirt_Merkez | 1.21 | 239 | P | Pn | 02 45 28.8 | +0.9 |
| CUKT | Cukurca | 1.41 | 168 | ePN | Pg | 02 45 31.9 | -0.3 |
| CUKT | Cukurca | 1.41 | 168 | ePn | Pg | 02 45 31.9 | -0.3 |
| VRTB | Varto-Mus | 1.49 | 291 | ePN | Pb | 02 45 32.8 | +0.1 |
| VRTB | Varto-Mus | 1.49 | 291 | ePn | Pb | 02 45 32.8 | +0.1 |
| SVAN | Silvan-Diyarba | 1.67 | 254 | ePN | Pb | 02 45 35.5 | -0.2 |
| SVAN | Silvan-Diyarba | 1.67 | 254 | ePn | Pb | 02 45 35.5 | -0.2 |

*ISCJB **01** 02:57:32.8±0.7,37°.83S±0°.04×73°.5W±0°.1,h22km,mb4.0/4, MS2.9/2,Error ellipse: s-maj=12.6km s-min=5.2km az=174.7*

*GUC **01** 02:57:32.6±0.6,37°.97S×73°.81W,h32km±4km,ML4.3*

*NEIC **01** 02:57:32.0±0.0,37°.97S×73°.81W,h32km,mb4.5/3, ML4.3(GUC),After GUC.*

*NEIC Felt [II] at Tirua.*

*IDC **01** 02:57:32.2±1.4,37°.79S×73°.26W,h0km,mb3.8/4, mb1 3.9/6,mb1mx3.7/23,mbtmp3.7/6,ML3.6/2,MS2.9/4, Ms1 2.9/4,ms1mx2.8/23,Error ellipse: s-maj=45.1km s-min=19.1km az=63.0*

**ISC 01 02:57:34.5**±0.9,**37°.84S**±0°.05×**73°.5W**±0°.1,**h22**km,**n24**, σ**1s53**/29,**mb4.1**/4,**Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CCSP | San Pedro de C | 1.05 | 19 | eP | Pn | 02 57 53.8 | -0.1 |
| CCSP | | | | iS | Sn | 02 58 09.8 | +2.0 |
| CCSP | | | | IAML | | 02 58 15.0 | |
| | comp=N,8μm,0.3s | | | | | | |
| TMU | Temuco | 1.16 | 141 | eP | Pn | 02 57 53.7 | -1.7 |
| TMU | | | | iS | Sb | 02 58 09.4 | -0.9 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CCHI | Chillan | 1.69 | 44 | eP | Pb | 02 58 04.4 | -0.6 |
| CCHI | | | | i S | Sb | 02 58 28.1 | +2.3 |
| CCHI | | | | IAML | | 02 58 37.2 | |
| | comp=N,4µm,0.8s | | | | | | |
| GO05 | HualaæØ | 3.10 | 25 | ePn | Pn | 02 58 22.6 | +0.4 |
| GO05 | | | | eSn | Sn | 02 58 54.3 | -4.4 |
| GO05 | HualaæØ | 3.10 | 25 | eP | Pn | 02 58 22.6 | +0.4 |
| PLCA | Paso Flores | 3.70 | 142 | Pn | Pn | 02 58 30.6 | +0.1 |
| | comp=N,0.8nm,0.3s,baz=338,slow=12,SNR=22 | | | | | | |
| PLCA | | | | Lg | Lg | 02 59 24.3 | |
| | comp=N,6.9nm,0.3s,baz=250,slow=23,SNR=5.5 | | | | | | |
| PLCA | | | | LR | LR | 02 59 45.8 | |
| | comp=N,53nm,18.2s,baz=326,slow=37 | | | | | | |
| PLCA | Paso Flores | 3.70 | 142 | ePn | Pn | 02 58 31.1 | +0.7 |
| PLCA | | | | Lg | Lg | 02 59 24.3 | |
| PEL | Peldehue | 5.23 | 27 | ePn | Pn | 02 58 49.9 | -1.5 |
| PEL | | | | eSn | Sn | 02 59 53.8 | +2.7 |
| ROC1 | El Roble | 5.27 | 24 | ePn | Pn | 02 58 51.8 | -0.4 |
| ROC1 | | | | eSn | Sn | 02 59 51.0 | -1.4 |
| LCO | Las Campanas | 9.12 | 16 | ePn | Pn | 02 59 43.8 | -1.2 |
| LCO | | | | eSn | Sn | 03 01 24.2 | -2.9 |
| TRQA | Tornquist | 9.13 | 95 | ePn | Pn | 02 59 45.8 | +0.8 |
| CHRN | Cochrane | 9.43 | 176 | ePn | Pn | 02 59 48.7 | -0.3 |
| CPUP | Villa Florida | 17.86 | 55 | P | Pn | 03 01 40.6 | -1.0 |
| | comp=N,0.1nm,0.3s,baz=239,slow=15,SNR=3.7 | | | | | | |
| CPUP | | | | LR | LR | 03 09 10.9 | |
| | comp=N,116nm,19.8s,baz=218,slow=40 | | | | | | |
| MNMC | Minye Minye | 18.95 | 12 | eP | Pn | 03 01 55.2 | -0.1 |
| | comp=N,4.9nm,0.7s | | | | | | |
| SIV | San Ignacio | 24.39 | 30 | LR | LR | 03 14 14.2 | |
| | comp=N,53nm,18.7s,baz=174,slow=41 | | | | | | |
| NNA | Nana | 25.91 | 353 | LR | LR | 03 10 18.2 | |
| | comp=N,20nm,20.0s,baz=55,slow=30 | | | | | | |
| SNAA | Sanae | 48.52 | 157 | P | P | 03 06 16.8 | +1.4 |
| | comp=N,1.4nm,0.8s,baz=246,slow=11,SNR=3.4 | | | | | | |
| SNAA | Sanae | 48.52 | 157 | eP | P | 03 06 16.0 | +0.6 |
| | comp=N,9.4nm,1.6s | | | | | | |
| LTX | Lajitas | 72.53 | 333 | eP | P | 03 09 00.9 | +1.1 |
| TXAR | Lajitas Array | 72.53 | 333 | P | P | 03 09 00.9 | +1.1 |
| | comp=N,0.1nm,0.5s,baz=154,slow=9.0,SNR=2.7 | | | | | | |
| DBIC | Dimbokro | 77.55 | 71 | P | P | 03 09 29.2 | +0.2 |
| | comp=N,2.3nm,0.6s,baz=178,slow=9.1,SNR=3.9 | | | | | | |
| DBIC | Dimbokro | 77.55 | 71 | eP | P | 03 09 29.2 | +0.2 |
| | comp=N,25nm,1.4s | | | | | | |
| TORD | Torodi Ar. Bea | 86.64 | 71 | P | P | 03 10 16.4 | -0.2 |
| | comp=N,0.8nm,1.1s,baz=246,slow=6.1,SNR=3.0 | | | | | | |
| TOA1 | Torodi Ar. Sit | 86.64 | 71 | eP | P | 03 10 16.4 | -0.3 |

*ISCJB **01** 03:03:19.0±1.1, 36°.27N±0°.05×142°.3E±0°.1, h23km, mb3.4/3, Error ellipse: s-maj=11.8km s-min=6.5km az=179.7*

*JMA **01** 03:03:19.3±0.3, 36°.31N×142°.24E, h67km, M3.2*

*IDC **01** 03:03:19.3±2.8, 36°.21N×142°.07E, h0km, mb3.5/3, mb1 3.6/5, mb1mx3.4/36, mbtmp3.6/5, ML3.5/2, Error ellipse: s-maj=62.9km s-min=27.7km az=66.0*

**ISC 01 03:03:22.1**±1.4, **36°.24N**±0°.05×**142°.01E**±0°.10, **h23**km, **n17**, σ**1s54**/19, **mb3.4**/3, **Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CHOJ | Chosi | 1.08 | 241 | S | Sn | 03 03 58.7 | +2.8 |
| JHO | Hitachi | 1.22 | 288 | P | Pn | 03 03 42.7 | -1.1 |
| ONAJ | Iwakimizuishiy | 1.30 | 312 | P | Pn | 03 03 43.7 | -1.2 |
| ONAJ | | | | eS | Sn | 03 04 00.8 | -0.8 |
| BSO1 | Boso 1 | 1.79 | 208 | P | Pn | 03 03 50.4 | -0.7 |
| BSO1 | | | | eS | Sb | 03 04 14.3 | -1.4 |
| JFT | Otama | 1.85 | 314 | P | Pn | 03 03 53.0 | +0.5 |
| BSO3 | Boso 3 | 1.89 | 221 | P | Pn | 03 03 52.4 | -0.2 |
| BSO3 | | | | eS | Sb | 03 04 17.2 | -1.4 |
| JMM | Marumori | 1.90 | 329 | P | Pn | 03 03 51.0 | -2.0 |
| JAG | Ashikaga | 2.08 | 276 | P | Pn | 03 03 55.5 | 0.0 |
| MJAR | Matsushiro Arr | 3.08 | 277 | Pn | Pn | 03 04 09.6 | +0.2 |
| | 4.2nm,0.3s,baz=105,slow=9.0,SNR=33 | | | | | | |
| MAT | Matsushiro | 3.09 | 277 | P | Pn | 03 04 10.0 | +0.6 |
| MAT | | | | S | Sb | 03 04 51.5 | -2.0 |
| JHJ | Hachijo jima 2 | 3.61 | 211 | Pn | Pn | 03 04 16.3 | -0.3 |
| | 13nm,0.3s,baz=89,slow=22,SNR=2.8 | | | | | | |
| JHJ | | | | Sn | Sn | 03 04 55.5 | -3.0 |
| | 24nm,0.3s,baz=92,slow=24,SNR=3.8 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 27.33 | 120 | T | T | 03 37 39.8 | |
| | baz=313,slow=75,SNR=5.1 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 27.34 | 120 | T | T | 03 37 42.9 | |
| | baz=313,slow=75,SNR=5.4 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 27.35 | 120 | T | T | 03 37 42.4 | |
| | baz=313,slow=75,SNR=3.9 | | | | | | |
| SONM | Songino Array | 28.63 | 305 | P | P | 03 09 16.9 | 0.0 |
| | 0.3nm,0.4s,baz=107,slow=8.7,SNR=3.7 | | | | | | |
| MKAR | Makanchi Array | 44.95 | 303 | P | P | 03 11 37.3 | +2.1 |
| | 0.4nm,0.5s,baz=82,slow=8.9,SNR=4.5 | | | | | | |
| WRA | Warramunga Arr | 56.34 | 189 | P | P | 03 13 02.0 | +0.7 |
| | 0.4nm,1.0s,baz=10.0,slow=7.6,SNR=3.3 | | | | | | |

**IDC 01 03:22:36.7**±1.7, **3°.31N**×**126°.43E**, **h0**km, **mb3.8**/5, **mb1 4.0**/5, **mb1mx3.6**/43, **mbtmp3.8**/5, **MS4.3**/2, **Ms1 4.3**/2, **ms1mx2.9**/29, **Error ellipse: s-maj=105.2km s-min=22.9km az=68.0, Talaud Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| FITZ | Fitzroy Crossi | 21.30 | 182 | P | P | 03 27 26.8 | +1.7 |
| | 1.2nm,0.6s,baz=360,slow=9.9,SNR=5.2 | | | | | | |
| WRA | Warramunga Arr | 24.38 | 162 | P | P | 03 27 56.2 | -0.6 |
| | 4.4nm,0.4s,baz=339,slow=10,SNR=41 | | | | | | |
| PSI | Prapat | 27.47 | 270 | LR | LR | 03 40 18.3 | |
| | comp=Z,22nm,21.2s,baz=319,slow=39 | | | | | | |
| ASAR | Alice Springs | 27.79 | 165 | P | P | 03 28 26.8 | -0.8 |
| | 0.5nm,0.5s,baz=344,slow=7.3,SNR=7.6 | | | | | | |
| STKA | Stephens Creek | 37.85 | 159 | P | P | 03 29 55.9 | +0.5 |
| | 2.2nm,0.8s,baz=331,slow=10,SNR=3.7 | | | | | | |
| MKAR | Makanchi Array | 57.73 | 326 | P | P | 03 32 29.2 | -0.2 |
| | 0.2nm,0.4s,baz=115,slow=8.7,SNR=3.5 | | | | | | |
| AAK | Ala-Archa | 60.47 | 318 | LR | LR | 04 02 33.4 | |
| | comp=Z,190nm,18.7s,baz=122,slow=40 | | | | | | |
| BRTR | Keskin Array B | 90.06 | 310 | LR | LR | 04 21 50.2 | |
| | comp=Z,182nm,20.4s,baz=66,slow=40 | | | | | | |

*CSEM **01** 03:24:44.7±0.2, 36°.76N×27°.73E, h1km, ML2.9, Error ellipse: s-maj=5.2km s-min=4.2km az=51.0, Suspected Mining explosion.*

*ATH **01** 03:24:44.2, 36°.77N×27°.71E, h26km±2km, ML1.8/1, Error ellipse: s-maj=4.0km s-min=1.5km az=212.0*

*DDA **01** 03:24:44.8, 36°.78N×27°.72E, h6km, Ml2.9, Suspected Mining explosion.*

**ISC 01 03:24:44.1**±1.3, **36°.75N**±0°.03×**27°.65E**±0°.03, **h12**km±11km, **n22**, σ**0s68**/32, **Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BDRM | Kayabasi | 0.35 | 332 | i P | Pb | 03 24 52.0 | -0.4 |
| BDRM | | | | i S | Sb | 03 24 57.8 | -0.1 |
| BDRM | Kayabasi | 0.35 | 332 | P | Pb | 03 24 52.0 | -0.4 |
| BDRM | | | | S | Sb | 03 24 57.8 | -0.1 |
| NIS1 | Nisyros Isl. | 0.41 | 249 | P | Pn | 03 24 54.5 | -1.3 |
| NIS1 | | | | S | Sb | 03 25 00.3 | +0.9 |
| NIS1 | Nisyros Isl. | 0.41 | 249 | P | Pn | 03 24 54.5 | -1.3 |
| NIS1 | | | | S | Sb | 03 25 00.3 | +0.9 |
| ARG | Arkhangelos | 0.66 | 144 | P | Pg | 03 24 56.5 | -0.4 |
| ARG | | | | S | Sb | 03 25 07.0 | +0.4 |
| ARG | | | | AML | AML | 03 25 08.5 | |
| | comp=E,194µm,0.2s | | | | | | |
| ARG | | | | AML | AML | 03 25 08.6 | |
| | comp=N,221µm,0.3s | | | | | | |
| ARG | Arkhangelos | 0.66 | 144 | P | Pg | 03 24 56.5 | -0.4 |
| ARG | | | | S | Sb | 03 25 07.0 | +0.4 |
| TURN | Turunc | 0.78 | 81 | i P | Pg | 03 24 52.1 | -7.0 |
| TURN | | | | i S | Sg | 03 24 59.6 | -10 |
| AYDN | Tasoluk | 0.93 | 11 | i P | Pn | 03 25 01.9 | -1.1 |
| AYDN | Tasoluk | 0.93 | 11 | P | Pn | 03 25 01.9 | -1.1 |
| GCAM | G?zelcaml? | 1.00 | 341 | i P | Pn | 03 25 04.4 | +0.4 |
| GCAM | | | | i S | Sn | 03 25 18.3 | +0.3 |
| GCAM | G?zelcaml? | 1.00 | 341 | P | Pn | 03 25 04.4 | +0.4 |
| GCAM | | | | S | Sn | 03 25 18.3 | +0.3 |
| SMG | Samos | 1.16 | 326 | P | Pn | 03 25 06.4 | +0.3 |
| SMG | Samos | 1.16 | 326 | P | Pn | 03 25 06.4 | +0.3 |
| FETY | Fethiye | 1.16 | 95 | P | Pg | 03 25 06.2 | -0.2 |
| TAVA | DENIZLI_Tavas | 1.24 | 54 | i P | Pg | 03 25 07.2 | -0.7 |
| TAVA | | | | i S | Sn | 03 25 23.9 | -0.1 |
| TAVA | DENIZLI_Tavas | 1.24 | 54 | P | Pg | 03 25 07.2 | -0.7 |
| TAVA | | | | S | Sn | 03 25 23.9 | -0.1 |
| KARP | Karpathos | 1.27 | 198 | P | Pg | 03 25 08.6 | +0.2 |
| KARP | Karpathos | 1.27 | 198 | P | Pg | 03 25 08.6 | +0.2 |
| GOLH | Golhisar | 1.61 | 72 | i P | Pg | 03 25 16.0 | +1.1 |
| GOLH | | | | i S | Sg | 03 25 36.9 | +1.1 |
| AKAS | Kas | 1.66 | 108 | i P | Pg | 03 25 15.5 | -0.5 |
| AKAS | Kas | 1.66 | 108 | P | Pg | 03 25 15.5 | -0.5 |
| KSL | Kastellorizon | 1.67 | 110 | P | Pn | 03 25 13.2 | +0.1 |

**GUC 01 03:39:37.3**±0.5, **34°.91S**×**71°.81W**, **h50**km±4km, **ML3.6**, **1D**, **Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GO05 | HualaæØ | 0.14 | 222 | eP | Pn | 03 39 45.0 | -0.4 |
| GO05 | | | | i S | Sn | 03 39 51.2 | +0.1 |
| ANTU | Antumapu | 1.65 | 37 | i P | Pn | 03 40 04.2 | +0.2 |
| ANTU | | | | i S | Sn | 03 40 24.1 | 0.0 |
| ANTU | | | | IAML | | 03 40 26.1 | |
| | comp=E,1µm,0.3s | | | | | | |
| LMEL | Las Melosas | 1.70 | 52 | eP | Pn | 03 40 05.0 | +0.3 |
| LMEL | | | | i S | Sn | 03 40 25.9 | +0.5 |
| LMEL | | | | IAML | | 03 40 29.8 | |
| | comp=N,1µm,0.2s | | | | | | |
| CCHI | Chillan | 1.71 | 187 | IAML | | 03 40 39.8 | |
| | comp=E,915nm,0.3s | | | | | | |
| FSR | Penalolen | 1.78 | 37 | i P | Pn | 03 40 06.2 | +0.5 |
| FSR | | | | i S | Sn | 03 40 27.9 | +0.8 |
| CLCH | Cerro Calan | 1.84 | 35 | eP | Pn | 03 40 06.5 | 0.0 |
| CLCH | | | | i S | Sn | 03 40 29.0 | +0.3 |
| CLCH | | | | IAML | | 03 40 38.2 | |
| | comp=E,850nm,0.5s | | | | | | |
| PEL | Peldehue | 1.99 | 28 | eP | Pn | 03 40 08.9 | +0.3 |
| PEL | | | | i S | Sn | 03 40 32.6 | +0.3 |
| PEL | | | | IAML | | 03 40 38.4 | |
| | comp=N,521nm,0.3s | | | | | | |
| FCH | Farellones | 2.02 | 39 | ⇓i P | Pn | 03 40 09.4 | +0.2 |
| FCH | | | | i S | Sn | 03 40 33.9 | +0.5 |
| FCH | | | | IAML | | 03 40 38.6 | |
| | comp=N,472nm,0.2s | | | | | | |
| ROCH | El Roble | 2.04 | 19 | IAML | | 03 40 39.4 | |
| | comp=N,830nm,0.4s | | | | | | |

**IDC 01 03:41:01.1**±3.0, **15°.43S**×**70°.53W**, **h187**km±25km, **mb2.9**/4, **mb1 3.3**/5, **mb1mx3.1**/20, **mbtmp3.4**/5, **Error ellipse: s-maj=152.8km s-min=26.3km az=23.0, Southern Peru**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LPAZ | La Paz | 2.46 | 111 | P | Pn | 03 41 44.3 | -0.1 |
| | 4.7nm,0.3s,baz=290,slow=10,SNR=124 | | | | | | |
| LPAZ | | | | S | Sn | 03 42 18.5 | +0.5 |
| | 2.6nm,0.3s,baz=194,slow=23,SNR=22 | | | | | | |
| TXAR | Lajitas Array | 54.81 | 324 | P | P | 03 50 11.7 | -0.3 |
| | 0.2nm,0.7s,baz=144,slow=7.8,SNR=3.0 | | | | | | |
| PDAR | Pinedale Array | 68.11 | 330 | P | P | 03 51 41.4 | +0.4 |
| | 0.1nm,0.4s,baz=117,slow=5.5,SNR=2.7 | | | | | | |
| TORD | Torodi Ar. Bea | 76.87 | 72 | P | P | 03 52 33.2 | 0.0 |
| | 0.4nm,0.8s,baz=240,slow=8.0,SNR=4.5 | | | | | | |
| YKA | Yellowknife Ar | 84.98 | 341 | P | P | 03 53 14.8 | -0.1 |
| | 0.3nm,0.5s,baz=135,slow=5.1,SNR=5.4 | | | | | | |

*ROM **01** 03:42:59.8±0.2, 41°.23N×15°.47E, h9km±2km, Md2.4/15, Ml1.9/9, Error ellipse: s-maj=2.4km s-min=2.3km az=150.0*

*ISCJB **01** 03:43:00.2±0.5, 41°.24N±0°.03×15°.41E±0°.03, h15km±9km, Error ellipse: s-maj=5.1km s-min=4.1km az=163.9*

*CSEM **01** 03:43:00.0±0.2, 41°.21N×15°.45E, h19km±2km, ML2.5/5, Error ellipse: s-maj=3.1km s-min=2.4km az=3.0*

**ISC 01 03:42:59.8**±0.9, **41°.22N**±0°.02×**15°.45E**±0°.02, **h15**km±7km, **n42**, σ**0s51**/66, **Southern Italy**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SGTA | Sant Agata di | 0.10 | 215 | Pg | Pb | 03 43 03.6 | -0.1 |
| | 386nm,0.2s | | | | | | |
| SGTA | Sant Agata di | 0.10 | 215 | Pg | Pb | 03 43 03.6 | -0.1 |
| | 386nm,0.2s | | | | | | |
| CAFE | Carife | 0.25 | 219 | Pg | Pb | 03 43 06.2 | +0.1 |
| CAFE | | | | Sg | Sb | 03 43 10.6 | +0.3 |
| | 140nm,0.2s | | | | | | |
| CAFE | Carife | 0.25 | 219 | Pg | Pb | 03 43 06.2 | +0.1 |
| CAFE | | | | Sg | Sb | 03 43 10.6 | +0.3 |
| | 140nm,0.2s | | | | | | |
| VULT | Monte Vulture | 0.30 | 154 | Pg | Pg | 03 43 06.3 | +0.2 |
| VULT | | | | Sg | Sg | 03 43 10.8 | +0.4 |
| | 157nm,0.2s | | | | | | |
| VULT | Monte Vulture | 0.30 | 154 | Pg | Pg | 03 43 06.3 | +0.2 |
| VULT | | | | Sg | Sg | 03 43 10.8 | +0.4 |
| | 157nm,0.2s | | | | | | |
| MRB1 | Monte Rocchett | 0.37 | 255 | Pg | Pb | 03 43 08.4 | +0.3 |
| | 67nm,0.5s | | | | | | |
| MRB1 | Monte Rocchett | 0.37 | 255 | Pg | Pb | 03 43 08.4 | +0.3 |
| | 67nm,0.5s | | | | | | |
| MRLC | Muro Lucano | 0.47 | 176 | Pg | Pg | 03 43 09.1 | 0.0 |
| MRLC | | | | Sg | Sb | 03 43 17.1 | +0.6 |
| | 81nm,0.5s | | | | | | |
| MRLC | Muro Lucano | 0.47 | 176 | Pg | Pg | 03 43 09.1 | 0.0 |
| MRLC | | | | Sg | Sb | 03 43 17.1 | +0.6 |
| | 81nm,0.5s | | | | | | |
| PALZ | Palazzo San Ge | 0.48 | 125 | Pg | Pb | 03 43 09.7 | -0.3 |
| PALZ | | | | Sg | Sb | 03 43 16.4 | -0.5 |
| PALZ | Palazzo San Ge | 0.48 | 125 | Pg | Pb | 03 43 09.7 | -0.3 |
| PALZ | | | | Sg | Sb | 03 43 16.4 | -0.5 |
| MCRV | Calabrutti - M | 0.49 | 206 | Pg | Pg | 03 43 09.3 | -0.2 |
| MCRV | | | | Sg | Sb | 03 43 17.0 | -0.2 |
| | 147nm,0.3s | | | | | | |
| MCRV | Calabrutti - M | 0.49 | 206 | Pg | Pg | 03 43 09.3 | -0.2 |
| MCRV | | | | Sg | Sb | 03 43 17.0 | -0.2 |
| | 147nm,0.3s | | | | | | |
| MELA | Melanico ??? S | 0.54 | 334 | Pg | Pg | 03 43 10.2 | -0.3 |
| MELA | Melanico ??? S | 0.54 | 334 | Pg | Pg | 03 43 10.2 | -0.3 |
| MRVN | Minervino Murg | 0.59 | 106 | Pg | Pg | 03 43 11.1 | -0.4 |
| MRVN | | | | Sg | Sg | 03 43 18.8 | -0.5 |
| | 56nm,0.2s | | | | | | |
| MRVN | Minervino Murg | 0.59 | 106 | Pg | Pg | 03 43 11.1 | -0.4 |
| MRVN | | | | Sg | Sg | 03 43 18.8 | -0.5 |
| | 56nm,0.2s | | | | | | |
| MS1 | Monte Sant'Ang | 0.61 | 38 | ePg | Pb | 03 43 13.1 | +0.8 |
| MS1 | | | | Sg | Sb | 03 43 21.3 | +0.6 |
| CDT | Castel del Mon | 0.64 | 102 | i Pg | Pg | 03 43 11.9 | -0.5 |
| CDT | | | | Sg | Sb | 03 43 21.3 | -0.3 |
| SLCN | Sala Consilina | 0.84 | 170 | Pg | Pn | 03 43 16.9 | -0.4 |
| | 30nm,0.4s | | | | | | |
| SLCN | Sala Consilina | 0.84 | 170 | Pg | Pn | 03 43 16.9 | -0.4 |
| | 30nm,0.4s | | | | | | |
| CMPR | Campora | 0.91 | 187 | Pg | Pb | 03 43 16.6 | -0.8 |
| CMPR | Campora | 0.91 | 187 | Pg | Pb | 03 43 16.6 | -0.8 |
| AMUR | Altamura | 0.93 | 109 | Pg | Pg | 03 43 17.9 | 0.0 |
| AMUR | | | | Sg | Sg | 03 43 30.5 | +0.4 |
| AMUR | Altamura | 0.93 | 109 | Pg | Pg | 03 43 17.9 | 0.0 |
| AMUR | | | | Sg | Sg | 03 43 30.5 | +0.4 |
| MIGL | Miglionico | 0.97 | 129 | Pg | Pg | 03 43 18.7 | 0.0 |
| MIGL | Miglionico | 0.97 | 129 | Pg | Pg | 03 43 18.7 | 0.0 |
| SG1 | Sgolgore (BA) | 1.01 | 112 | ePg | Pb | 03 43 19.1 | +0.1 |
| SG1 | | | | Sg | Sn | 03 43 33.7 | +0.2 |
| MGR | Morigerati | 1.09 | 176 | Pg | Pn | 03 43 20.6 | +0.1 |
| | 17nm,0.5s | | | | | | |
| MGR | Morigerati | 1.09 | 176 | Pg | Pn | 03 43 20.6 | +0.1 |
| | 17nm,0.5s | | | | | | |
| BAI | Bari | 1.09 | 96 | ePg | Pg | 03 43 21.2 | +0.3 |
| BAI | | | | Sg | Sn | 03 43 36.3 | +1.0 |
| MATE | Matera | 1.11 | 121 | Pg | Pb | 03 43 20.8 | 0.0 |
| MATE | Matera | 1.11 | 121 | Pg | Pb | 03 43 20.8 | 0.0 |
| NOCI | Noci | 1.30 | 109 | Pg | Pb | 03 43 24.3 | +0.3 |
| NOCI | Noci | 1.30 | 109 | Pg | Pb | 03 43 24.3 | +0.3 |
| MASS | Massafra | 1.42 | 114 | ePg | Pg | 03 43 28.1 | +1.0 |
| MASS | | | | Sg | Sg | 03 43 45.9 | +0.4 |
| FASA | Fasano | 1.50 | 105 | ePg | Pg | 03 43 29.7 | +1.0 |
| FASA | | | | Sg | Sg | 03 43 47.8 | -0.4 |
| STON | Ston | 2.35 | 45 | ePn | Pb | 03 43 40.9 | -1.0 |
| STON | | | | Sn | Sn | 03 44 05.3 | -1.3 |
| STON | Ston | 2.35 | 45 | ePn | Pb | 03 43 40.9 | -1.0 |
| STON | | | | Sn | Sn | 03 44 05.2 | -1.3 |
| NVLJ | Novalja | 3.37 | 353 | ePn | Pn | 03 43 52.6 | +0.7 |
| NVLJ | | | | Sn | Sn | 03 44 31.6 | +0.1 |
| NVLJ | Novalja | 3.37 | 353 | ePn | Pn | 03 43 52.5 | +0.7 |
| NVLJ | | | | Sn | Sn | 03 44 31.6 | +0.1 |

*ISCJB **01** 03:50:54.6±0.7, 31°.84N±0°.02×83°.75E±0°.02, h1km±4km, mb5.0/132, MS4.5/48, Error ellipse: s-maj=3.0km s-min=2.2km az=44.6*

*DMN **01** 03:50:55.7±0.3, 32°.27N×83°.63E, h10km, Ml5.1/10, Error ellipse: s-maj=6.3km s-min=5.5km az=55.0*

*BJI **01** 03:50:56.3, 31°.73N×83°.85E, h6km, mb4.8/60, mB5.1/47, ML5.2/1, Ms4.9/65, Ms7 4.7/57*

*NEIC **01** 03:50:57.0±0.5, 31°.80N×83°.82E, h7km±3km, mb5.1/60, Error ellipse: s-maj=5.2km s-min=3.8km az=220.0*

*IDC **01** 03:50:56.8±0.5, 31°.73N×83°.77E, h9km±3km, mb4.6/25, mb1 4.7/28, mb1mx4.6/33, mbtmp4.6/28, ML4.0/3, MS4.3/28, Ms1 4.3/28, ms1mx4.2/34, Error ellipse: s-maj=12.9km s-min=10.1km az=31.0*

*GCMT **01** 03:50:57.0±0.2, 31°.57N×83°.80E, h22km, MW5.1/101, Moment Tensor Solution. s56,c73; s101,c170; Duration: 0 Moment tensor: Scale $10^{16}$Nm; $M_{rr}$-2.15±.17; $M_{\theta\theta}$-4.27±.14; $M_{\phi\phi}$6.42±.14; $M_{r\theta}$0.39±.24; $M_{\theta\phi}$2.82±.11; $M_{\phi r}$0.18±.20; Best double couple: $M_0$6.06700×$10^{16}$ NP1:$\phi_s$239.00000°, δ86.00000°, λ-6.00000°. NP2: $\phi_s$329.00000°, δ84.00000°, λ-176.00000°. Principal axes: T 7.1260, Plg2.0000°, Azm284.0000°; N -2.1190, Plg83.0000°, Azm28.0000°; P -5.0080, Plg7.0000°, Azm194.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*MOS **01** 03:50:58.4±1.1, 31°.84N×83°.75E, h27km, mb5.1/56, MS4.4/26 Error ellipse: s-maj=7.2km s-min=3.7km az=122.1*

*NDI **01** 03:50:59.1±2.6, 31°.56N×83°.89E, h10km, mb5.0, mb5.1(NEIC)*

**ISC 01 03:50:57.0**±0.4, **31°.73N**±0°.03×**83°.72E**±0°.02, **h9**km±2km, **h9**km**:pP-P**, **n399**, σ**2s11**/470, **mb4.9**/138, **MS4.5**/50, **44C-16D**, **Xizang**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DANN | Dangsing | 3.37 | 179 | ePn | Pb | 03 51 54.6 | -2.5 |
| PYUN | Piuthan | 3.67 | 190 | ePn | Pn | 03 51 57.5 | +3.3 |
| PYUN | | | | eSn | Sb | 03 52 43.5 | -3.5 |
| | 4µm,1.2s | | | | | | |
| PTH | Pithoragarh | 3.72 | 235 | ex | Pb | 03 52 04.1 | +1.1 |
| PTH | | | | ex | Sg | 03 52 55.9 | -0.5 |
| JOSI | Joshimath | 3.75 | 253 | eP | Pb | 03 52 00.6 | -3.0 |
| JOSI | | | | eS | Sn | 03 52 43.7 | +3.9 |
| GKN | Gorkha | 3.80 | 168 | ePn | Pb | 03 52 00.0 | -4.4 |
| GKN | | | | eSn | Sb | 03 52 47.4 | -3.2 |
| KOLN | Koldanda | 3.95 | 182 | ePn | Pn | 03 52 01.9 | +3.9 |
| KOLN | | | | eSn | Sb | 03 52 50.6 | -4.3 |
| | 3µm,1.3s | | | | | | |
| KKN | Kakani | 4.15 | 161 | ePn | Pn | 03 52 04.7 | +3.8 |
| KKN | | | | eSn | Sb | 03 52 55.5 | -5.4 |
| | 2µm,1.4s | | | | | | |
| GUN | Gumba | 4.24 | 153 | ePn | Pn | 03 52 05.7 | +3.5 |
| DMN | Daman | 4.28 | 163 | ePn | Pn | 03 52 06.0 | +3.4 |
| DMN | | | | eSn | Sb | 03 52 58.9 | -5.6 |
| | 3µm,1.1s | | | | | | |
| PKIN | Phulchoki | 4.39 | 160 | ePn | Pn | 03 52 07.9 | +3.8 |
| PKIN | | | | eSn | Sn | 03 53 01.2 | +5.6 |
| | 886nm,1.1s | | | | | | |
| PKI | Pulchoki | 4.40 | 160 | ePn | Pn | 03 52 08.0 | +3.7 |
| PKI | | | | eSn | Sn | 03 53 00.9 | +5.0 |
| | 815nm,0.9s | | | | | | |
| JIRN | Jiri | 4.59 | 151 | ePn | Pn | 03 52 10.6 | +3.6 |
| JIRN | | | | eSn | Sn | 03 53 05.2 | +4.5 |
| | 1µm,1.0s | | | | | | |
| DDI | Dehra Dun | 5.06 | 255 | eP | Pn | 03 52 16.1 | +2.9 |
| DDI | | | | eS | Sn | 03 53 12.2 | +0.4 |
| RAMN | Ramite | 5.39 | 151 | ePn | Pn | 03 52 20.1 | +2.3 |
| RAMN | | | | eSn | Sn | 03 53 24.8 | +4.7 |
| | 2µm,1.3s | | | | | | |
| TAPN | Taplejung | 5.58 | 140 | ePn | Pn | 03 52 23.1 | +2.5 |
| TAPN | | | | eSn | Sn | 03 53 28.5 | +3.5 |
| | 991nm,1.0s | | | | | | |
| SMLA | Simla | 5.63 | 266 | eP | Pn | 03 52 24.1 | +3.2 |
| SMLA | | | | eS | Sn | 03 53 27.5 | +1.8 |
| SDNR | Sundarnagar | 5.76 | 269 | eP | Pn | 03 52 25.5 | +2.7 |
| ODAN | Odare | 5.81 | 146 | ePn | Pn | 03 52 26.3 | +2.6 |
| ODAN | | | | eSn | Sn | 03 53 34.0 | +3.3 |
| | 2µm,1.2s | | | | | | |
| BHK | Bhakra | 6.24 | 269 | eP | Pn | 03 52 32.2 | +2.9 |
| BHK | | | | ex | Sb | 03 53 58.0 | -2.6 |
| JWA | Jwalamukhi | 6.29 | 273 | eP | Pn | 03 52 32.0 | +2.0 |
| JWA | | | | ex | x | 03 53 52.0 | |
| DHRM | DHARAMSHALA | 6.32 | 277 | eP | Pn | 03 52 35.1 | +4.5 |
| DHRM | | | | eS | Sn | 03 53 46.1 | +3.0 |
| LSA | Lhasa | 6.71 | 106 | Pn | Pn | 03 52 39.0 | +2.7 |
| LSA | | | | Sn | Sn | 03 53 55.4 | +2.3 |
| LSA | | | | LR | LR | | |
| | comp=N,3µm,7.6s | | | | | | |
| LSA | | | | LR | LR | | |
| | comp=E,4µm,8.1s | | | | | | |
| LSA | | | | LR | LR | | |
| | comp=Z,6µm,6.3s | | | | | | |
| LSA | Lhasa | 6.71 | 106 | eP | Pn | 03 52 37.4 | +1.1 |
| LSA | | | | pmax | pmax | | |
| | comp=Z,131nm,0.6s | | | | | | |
| LSA | Lhasa | 6.71 | 106 | ePn | Pn | 03 52 37.4 | +1.1 |
| | comp=Z,131nm,0.6s | | | | | | |
| KHET | Khetri | 7.77 | 244 | eP | Pn | 03 52 51.9 | +1.5 |
| KHET | | | | ex | Sn | 03 54 20.2 | +1.7 |
| BOK | Bokaro | 8.13 | 166 | eP | Pn | 03 52 53.8 | -1.5 |
| BOK | | | | ex | x | 03 54 16.1 | |
| CHCP | Chirah Chowk | 9.02 | 285 | P | Pn | 03 53 08.3 | +0.8 |
| JBP | Jabalpur | 9.15 | 202 | eP | Pn | 03 53 10.6 | +1.4 |
| JBP | | | | AMB | AMB | 03 53 17.9 | |
| | comp=Z,639nm,0.1s | | | | | | |
| JBP | | | | ex | x | 03 54 43.7 | |
| SARP | Sargodha | 9.40 | 274 | P | Pn | 03 53 14.7 | +2.0 |
| SHL | Shillong | 9.44 | 129 | eP | Pn | 03 53 12.5 | -0.9 |
| SHL | | | | eS | Sn | 03 54 48.5 | -11 |
| KSH | Kashi | 10.00 | 323 | P | Pn | 03 53 22.4 | +1.4 |
| KSH | | | | pP | | 03 53 26.0 | |
| KSH | | | | PP | PnPn | 03 53 31.3 | +2.5 |
| KSH | | | | S | Sn | 03 55 11.6 | -1.9 |
| KSH | | | | sS | | 03 55 20.9 | |
| KSH | | | | SS | SnSn | 03 55 26.8 | +1.4 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,29nm,0.7s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,6µm,8.9s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,5µm,6.8s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,7µm,7.9s | | | | | | |
| BHPL | Bhopal | 10.13 | 215 | eP | Pn | 03 53 22.4 | -0.3 |
| BHPL | | | | eS | Sn | 03 55 09.1 | -7.5 |
| CEP | Cherat | 10.16 | 285 | ⇓P | Pn | 03 53 23.6 | +0.4 |
| THW | Thamme Wali | 10.20 | 279 | P | Pn | 03 53 24.7 | +1.1 |
| NGP | Nagpur | 11.33 | 203 | ⇓eP | Pn | 03 53 38.8 | -0.5 |
| NGP | | | | ex | Sn | 03 55 43.0 | -3.1 |
| SFK | Sufi-Kurgan | 11.70 | 318 | P | Pn | 03 53 45.1 | +0.8 |
| SHLS | Shalkode | 11.90 | 345 | i P | Pn | 03 53 43.8 | -3.1 |
| | comp=Z,201nm,1.4s | | | | | | |
| SHLS | | | | eS | Sn | 03 55 56.0 | -3.9 |
| SHLS | | | | eS | Sn | 03 55 56.0 | -3.9 |
| SHLS | | | | LR | LR | 03 58 30.4 | |
| | comp=Z,829nm,9.8s | | | | | | |
| UZB | Uzynbulak | 11.99 | 343 | i P | Pn | 03 53 46.4 | -1.8 |
| | comp=Z,806nm,1.3s | | | | | | |
| UZB | | | | i S | Sn | 03 56 00.8 | -1.5 |
| UZB | | | | LR | LR | 03 58 33.1 | |
| | comp=Z,791nm,11.5s | | | | | | |
| PDGK | Podgornoye | 12.05 | 345 | P | Pn | 03 53 49.0 | -0.1 |
| PDGK | | | | pmax | pmax | | |
| | comp=Z,103nm,1.3s | | | | | | |
| ULHL | Ulahol | 12.07 | 332 | P | Pn | 03 53 51.4 | +2.0 |
| | SNR=13 | | | | | | |
| WMQ | Urumqi | 12.47 | 13 | P | Pn | 03 53 56.0 | +1.2 |
| WMQ | | | | pP | | 03 53 58.4 | |
| WMQ | | | | sP | | 03 54 04.1 | |
| WMQ | | | | S | Sn | 03 56 13.6 | -0.3 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,290nm,1.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,10µm,14.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,4µm,12.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,5µm,17.1s | | | | | | |
| MDOK | Medeo | 12.58 | 337 | i P | Pn | 03 53 54.7 | -1.6 |
| | comp=Z,139nm,1.2s | | | | | | |
| MDOK | | | | eS | Sn | 03 56 15.8 | -0.8 |
| MDOK | | | | LR | LR | 03 58 36.8 | |
| | comp=Z,1µm,12.6s | | | | | | |

KBL Kabul 12.62 287 eP Pn 03 53 56.6 -0.3
KBL e 03 56 15.6
KBL Kabul 12.62 287 ePn Pn 03 53 56.6 -0.3
KBL eSn Sn 03 56 15.6 -2.1
UCH Uchtor 12.79 328 P Pn 03 53 59.2 -0.3
SNR=38
TKM2 Tokmak 2 12.90 332 P Pn 03 54 01.3 +0.6
TKM2 pmax pmax
comp=Z,52nm,1.2s
TKM2 Tokmak 2 12.90 332 P Pn 03 54 02.4 +1.7
SNR=32
KBK Karagaybulak 12.95 330 P Pn 03 54 02.5 +1.2
SNR=12
AML Almayashu 13.11 325 P Pn 03 54 03.0 -0.8
SNR=25
AAK Ala-Archa 13.13 329 Pn Pn 03 54 04.3 +0.4
comp=Z,0.2nm,0.3s,baz=168,slow=15,SNR=11
AAK Ala-Archa 13.13 329⇑ eP Pn 03 54 03.7 -0.1
AAK Ala-Archa 13.13 329 ePn Pn 03 54 03.7 -0.1
AAK Ala-Archa 13.13 329 pPn Pn 03 54 04.6 +0.7
SNR=15
AAK Ala-Archa 13.13 329 P Pn 03 54 04.6 +0.7
SNR=15
CHLP Challavanipeta 13.17 179 ePn Pn 03 54 04.1 -0.2
CHLP IAmb IAmb 03 54 05.9
comp=Z,19nm,0.9s
CHLP Sn Sn 03 56 24.0 -7.1
CHLP IVMs_BB IVMs_BB 03 59 07.2
comp=Z,2µm,12.5s
FRU Bishkek 13.23 329 eP Pn 03 54 06.0 +0.9
FRU pmax pmax
comp=Z,80nm,1.6s
CHMS Chumysh 13.31 330 P Pn 03 54 08.7 +2.5
SNR=9.1
RPR Rampur 13.42 198 eP Pn 03 54 07.3 -0.5
RPR IAmb IAmb 03 54 09.1
comp=Z,55nm,0.8s
RPR eS Sn 03 56 27.9 -9.3
RPR IVMs_BB IVMs_BB 03 59 14.4
comp=Z,3µm,15.1s
EKS2 Erkin-Say 13.47 327 P Pn 03 54 08.5 0.0
SNR=8.6
SRSP Sriramsagar 13.64 202 eP Pn 03 54 07.2 -3.6
SRSP IAmb IAmb 03 54 13.8
comp=Z,14nm,0.8s
SRSP eS Sn 03 56 31.2 -11
SRSP IVMs_BB IVMs_BB 03 59 26.0
comp=Z,2µm,9.6s
VIS Vishakhapatnam 13.95 182 i P Pn 03 54 13.6 -1.4
VIS i x x 03 57 01.0
VIS ex x 03 57 08.5
comp=N,28nm,0.9s
MNAS Manas 13.96 323 P Pn 03 54 17.9 +2.7
PVM Polavaram 14.54 188 eP Pn 03 54 20.5 -2.6
PVM IAmb IAmb 03 54 24.7
comp=Z,11nm,0.7s
PVM eS Sn 03 56 53.9 -11
PVM IVMs_BB IVMs_BB 04 00 38.5
comp=Z,2µm,7.2s
HYBB Hyderabad (bro 15.00 199 eP Pn 03 54 26.0 -3.3
HYBB IAmb IAmb 03 54 33.6
comp=Z,260nm,3.7s
HYBB eS Sn 03 57 05.1 -11
HYBB IVMs_BB IVMs_BB 04 00 10.9
comp=Z,2µm,12.1s
HYB Hyderabad 15.00 199 i P Pn 03 54 26.0 -3.4
HYB eS Sn 03 57 02.0 -14
HYB Hyderabad 15.00 199 ex Pn 03 54 26.0 -3.4
KLRI Killari 15.05 207 eP Pn 03 54 27.1 -2.9
KLRI IAmb IAmb 03 54 29.6
comp=Z,48nm,0.8s
KLRI eS Sn 03 57 02.6 -14
KLRI IVMs_BB IVMs_BB 04 00 20.9
comp=Z,5µm,10.1s
MK01 Makanchi Array 15.06 356 ePn Pn 03 54 28.2 -1.9
MK31 Makanchi Array 15.09 356 P Pn 03 54 28.4 -2.0
MK31 pmax pmax
comp=Z,110nm,1.5s
MK31 Makanchi Array 15.09 356 ePn Pn 03 54 29.5 -0.9
MKAR Makanchi Array 15.09 356 Pn Pn 03 54 28.5 -1.9
comp=Z,0.8nm,0.3s,baz=180,slow=14,SNR=74
MKAR LR LR 04 01 26.1
comp=Z,2µm,19.1s,baz=170,slow=42
MAKZ Makanchi 15.12 355 P Pn 03 54 29.3 -1.5
MAKZ pmax pmax
comp=Z,63nm,1.2s
MAKZ Makanchi 15.12 355 ePn Pn 03 54 30.6 -0.2
comp=Z,45nm,1.0s
GTA Gaotai 15.16 55 eP Pn 03 54 29.9 -1.6
GTA pP P 03 54 34.1 -2.6
GTA sP pP 03 54 37.2 -1.9
GTA S Sn 03 57 19.0 -0.7
GTA sS S 03 57 23.8 -13
GTA SS SnSn 03 57 33.3 +0.9
GTA pmax pmax
comp=Z,9.0nm,1.1s
GTA pmax pmax
comp=Z,210nm,6.4s
GTA LR LR
comp=Z,6µm,14.5s
GTA LR LR
comp=Z,2µm,13.8s
GTA LR LR
comp=Z,2µm,13.5s
CHM Chimkent 15.43 317 eP Pn 03 54 34.6 -0.3
comp=Z,636nm,0.9s
CHM LR LR 04 00 23.7
comp=Z,482nm,10.5s
KK31 Karatay Array 15.44 321 P Pn 03 54 32.6 -2.4
KK31 pmax pmax
comp=Z,37nm,1.1s
NJS Nagarjunasagar 15.63 196 eP Pn 03 54 35.7 -2.0
NJS IAmb IAmb 03 54 37.9
comp=Z,18nm,0.7s
NJS eS Sn 03 57 17.2 -14
NJS IVMs_BB IVMs_BB 04 00 38.2
comp=Z,2µm,12.2s
ZSN Zaisan 15.73 3 i P Pn 03 54 36.0 -2.8
comp=Z,162nm,1.4s
ZSN LR LR 04 00 29.1
comp=Z,435nm,11.0s
POO Poona 15.88 216 eP Pn 03 54 40.5 -0.4
SRLM Srisailam 16.17 197 eP Pn 03 54 42.3 -2.3
SRLM IAmb IAmb 03 54 50.4
comp=Z,21nm,0.7s
SRLM eS Sn 03 57 29.6 -15
SRLM IVMs_BB IVMs_BB 04 00 54.0
comp=Z,2µm,15.9s
CD2 Chengdu 17.15 87 eP Pn 03 54 53.1 -3.9
CD2 sP pP 03 55 00.1 -1.0
CD2 S Sn 03 58 04.7 -3.2
CD2 SS SnSn 03 58 28.5 +7.4
CD2 pmax pmax
comp=Z,10.0nm,1.0s
CD2 pmax pmax
comp=Z,310nm,7.1s
CD2 LR LR
comp=Z,4µm,13.1s
CD2 LR LR
comp=Z,2µm,10.7s
CD2 LR LR
comp=Z,3µm,9.5s
LZH Lanzhou 17.26 70 ⇑P P 03 54 59.3 -0.7
LZH pP pP 03 55 02.0 -0.4
LZH sP sP 03 55 04.1 +0.6
LZH PP PnPn 03 55 14.3 +5.9
LZH S Sn 03 58 09.1 -1.6
LZH sS S 03 58 15.0 -4.9
LZH SS SnSn 03 58 30.0 +6.0
LZH pmax pmax
comp=Z,120nm,1.0s
LZH pmax pmax
comp=Z,420nm,4.1s
LZH LR LR
comp=Z,8µm,12.0s
LZH LR LR
comp=Z,2µm,12.3s
LZH LR LR
comp=Z,5µm,14.2s
KMI Kunming 17.97 107 P Pn 03 55 05.8 -1.6
KMI pP pP 03 55 10.0 -0.4
KMI sP sP 03 55 12.2 +0.7
KMI PP PnPn 03 55 23.5 +5.2
KMI S Sn 03 58 22.7 -5.4
KMI sS S 03 58 29.5 -5.0
KMI SS SnSn 03 58 47.3 +5.7
KMI pmax pmax
comp=Z,59nm,1.0s
KMI pmax pmax
comp=Z,250nm,3.4s
KMI LR LR
comp=Z,1µm,12.5s
KMI LR LR
comp=Z,1µm,11.7s
KMI LR LR
comp=Z,2µm,17.5s
CMAI Chiengmai2 18.10 127 P Pn 03 55 07.1 -1.9
comp=Z,258nm,1.4s,comp=Z,37µm
DGZ Jazzator, Alta 18.17 8 i P Pn 03 55 09.6 0.0
SKHT Srikalahasti 18.28 193 eP P 03 55 12.4 +1.2
SKHT IAmb IAmb 03 55 16.5
comp=Z,99nm,1.5s
SKHT eS Sn 03 58 33.0 -2.3
SKHT IVMs_BB IVMs_BB 04 02 10.9
comp=Z,2µm,13.1s
CHTO Chiang Mai 18.81 130 P P 03 55 15.6 -1.5
comp=Z,242nm,1.8s,comp=Z,3µm
CHTO Chiang Mai 18.81 130 eP P 03 55 15.6 -1.5
CHTO pmax pmax
comp=Z,72nm,1.2s
CHTO Chiang Mai 18.81 130 eP P 03 55 15.6 -1.5
comp=Z,72nm,1.2s
CHTO Chiang Mai 18.81 130 P P 03 55 15.9 -1.2
SNR=29
SEM Semipalatinsk 18.84 353 i P P 03 55 15.1 -2.3
comp=Z,347nm,1.2s
SEM eS Sn 03 58 46.6 -2.2
SEM LR LR 04 02 16.7
comp=Z,2µm,11.9s
MDRS Chennai 18.84 191 eP Pn 03 55 18.4 +0.4
CMAR Chiang Mai Arr 19.07 130 P P 03 55 18.4 -1.4
comp=Z,0.3nm,0.3s,baz=313,slow=10,SNR=20
CMAR ScP ScP 04 03 20.4 -0.3
comp=Z,0.6nm,0.3s,baz=298,slow=2.9,SNR=5.9
CMAR LR LR 04 03 41.6
comp=Z,1µm,21.3s,baz=322,slow=40
CM01 Chiang Mai Arr 19.11 130 eP P 03 55 20.5 +0.3
KURK Kurchatov 19.34 350d iP P 03 55 21.9 -0.8
KURK pmax pmax
comp=Z,351nm,1.7s
KURK Kurchatov 19.34 350 eP P 03 55 22.2 -0.5
comp=Z,80nm,1.2s
KURK Kurchatov 19.34 350 P P 03 55 21.9 -0.8
SNR=25
KURK Kurchatov 19.34 350 P P 03 55 21.9 -0.8
SNR=25
LAMP Lampang 19.48 129 P P 03 55 24.3 0.0
comp=Z,14nm,1.2s,comp=Z,132nm
UTTA Uttaradit 20.64 128 P P 03 55 37.6 +0.6
comp=Z,16nm,1.1s,comp=Z,122nm
UMPA Umpang Tak 20.70 135 P Pn 03 55 40.7 +0.6
comp=Z,15nm,0.8s,comp=Z,6µm
GYA Guiyang 20.71 99⇑iP P 03 55 36.9 -1.0
GYA PP PnPn 03 56 01.2 +5.4
GYA S S 03 59 26.7 -2.8
GYA PcP PcP 03 59 50.0 +2.3
GYA SS SnSn 03 59 57.4 +8.5
GYA ScP ScP 04 03 25.1 +0.5
GYA pmax pmax
comp=Z,40nm,0.8s
GYA pmax pmax
comp=Z,370nm,4.3s
GYA LR LR
comp=Z,1µm,11.8s
GYA LR LR
comp=Z,960nm,10.3s
GYA LR LR
comp=Z,2µm,10.6s
XAN Xi'an 21.28 77 P P 03 55 43.0 -0.9
XAN pP sP 03 55 49.4 +2.0
XAN S S 03 59 37.6 -2.9
XAN pmax pmax
comp=Z,26nm,1.3s
XAN pmax pmax
comp=Z,290nm,9.3s
XAN LR LR
comp=Z,3µm,20.2s
XAN LR LR
comp=Z,540nm,21.0s
XAN LR LR
comp=Z,2µm,11.8s
UTHA Uthaitani 21.56 135 P P 03 55 47.2 +0.3
comp=Z,22nm,1.3s,comp=Z,207nm
PBKT Sadao Pong 21.76 130 P P 03 55 49.2 +0.1
comp=Z,117nm,1.0s,comp=Z,1µm
GEYT Alibeck 21.87 293 P P 03 55 51.1 +0.9
comp=Z,23nm,0.9s,baz=117,slow=9.0,SNR=31
ENH Enshi 22.12 87 ePn P 03 55 51.6 -1.4
comp=Z,68nm,0.9s
NONG Nongkai 22.21 123 P P 03 55 49.4 -4.6
ZAA0 Zalesovo Array 22.22 2 eP P 03 55 52.6 -1.2
ZALV Zalesovo Beam 22.22 2 P P 03 55 52.9 -0.9
comp=Z,92nm,0.7s,baz=180,slow=12,SNR=246
ZALV LR LR 04 05 37.8
comp=Z,780nm,18.7s,baz=197,slow=40
ZALV Zalesovo Beam 22.22 2 eP P 03 55 51.8 -2.0
ZALV Zalesovo Beam 22.22 2 eP P 03 55 51.8 -2.0
SRDT SRDT 22.32 137 P P 03 55 58.2 +3.1
comp=Z,174nm,1.1s
CHAI Chaiyaphum 22.91 129 P P 03 56 02.7 +1.3
comp=Z,26nm,1.1s,comp=Z,213nm
BTO Baotou 22.94 60 eP P 03 56 01.1 -0.6
NVS Novosibirsk 23.11 359 eP P 03 56 02.6 -0.5
NVS eS S 04 00 11.0 -3.3
NVS pmax pmax
comp=N,10.0nm,1.0s
NVS pmax pmax
comp=Z,28nm,1.0s
NVS smax smax
comp=E,50nm,2.0s
KHON Khomkaen 23.16 127 P P 03 56 07.6 +3.6
comp=E,23nm,1.0s,comp=E,4µm
BVA0 Borovoye Array 23.37 339 i P P 03 56 04.1 -1.8
BVA0 pmax pmax
comp=Z,60nm,1.5s
BVAR Borovoye Array 23.37 339 P P 03 56 05.7 -0.2
comp=Z,6.6nm,0.5s,baz=146,slow=11,SNR=25
BRVK Borovoye 23.43 339⇓eP P 03 56 06.1 -0.3
BRVK pmax pmax
comp=Z,217nm,2.5s
BRVK Borovoye 23.43 339 eP P 03 56 06.9 +0.4
comp=Z,25nm,0.9s
BRVK Borovoye 23.43 339 P P 03 56 06.6 +0.1
SNR=19
BRVK Borovoye 23.43 339 P P 03 56 06.6 +0.1
SNR=19
SKNT Sakolnakorn 23.53 124 P P 03 56 08.1 +0.4
comp=Z,42nm,1.2s
SONM Songino Array 23.59 40 P P 03 56 08.2 +0.1
comp=Z,12nm,0.8s,baz=229,slow=9.9,SNR=47
SONM PcP PcP 03 59 52.3 -0.8
comp=Z,1.4nm,0.8s,baz=221,slow=3.3,SNR=3.6
SONM ScP ScP 04 03 29.7 -1.9
comp=Z,0.7nm,0.9s,baz=242,slow=3.1,SNR=3.4
SONM LR LR 04 06 13.1
comp=Z,1µm,18.6s,baz=226,slow=39
SONM Songino Array 23.59 40 P P 03 56 08.2 +0.1
SONM 03 59 52.3
SONM pmax pmax
comp=Z,13nm,0.8s
SONM pmax pmax
comp=Z,1.0nm,0.9s
SONM pmax pmax
comp=N,1.0nm,0.9s
SONM MLR MLR
comp=Z,1µm,18.6s
SONA1 Songino Array 23.60 40 eP P 03 56 08.9 +0.6
ZAK Zakamensk 23.64 32 eP P 03 56 08.2 -0.4
ZAK pmax pmax
comp=Z,12nm,1.4s
PHET Kaeng Krachan 23.77 138 P P 03 56 12.4 +2.4
comp=Z,13nm,1.1s,comp=Z,141nm
WSAR Wadi Sarin 23.77 255 pP pP 03 56 13.1 +0.6
comp=Z,26nm,1.0s,baz=117,slow=8.2,SNR=3.9
ULN Ulaanbaatar 23.97 41d iP P 03 56 11.8 -0.1
ULN pmax pmax
comp=Z,52nm,2.5s
ULN Ulaanbaatar 23.97 41 eP P 03 56 11.9 0.0
comp=Z,14nm,0.8s
ULN Ulaanbaatar 23.97 41 P P 03 56 11.4 -0.5
SNR=9.5
ULN Ulaanbaatar 23.97 41 P P 03 56 11.4 -0.5
SNR=9.5
HHC Hu-ho-hao-te 24.14 60 eP P 03 56 14.1 +0.6
HHC pP sP 03 56 17.9 +0.7
HHC sP pP 03 56 23.0 +6.9
HHC PP PnPn 03 56 50.2 +7.7
HHC S S 04 00 27.8 -3.8
HHC sS pS 04 00 34.0 -0.1
HHC PcS PcS 04 03 34.9 +0.7
HHC pmax pmax
comp=Z,25nm,0.9s
HHC pmax pmax
comp=Z,430nm,3.3s
HHC LR LR
comp=Z,3µm,10.4s
HHC LR LR
comp=Z,2µm,12.9s
HHC LR LR
comp=Z,1µm,15.1s
SRAK Srakaew 24.35 132 P P 03 56 21.0 +5.6
comp=Z,95nm,0.9s,comp=Z,1µm
PALK Pallekele 24.49 187 P P 03 56 17.5 +0.7
comp=Z,10.0nm,0.7s,baz=294,slow=4.0,SNR=6.5
TLY Talaya 24.73 30 eP P 03 56 18.5 -0.1
TLY e 03 57 01.6
TLY eS S 04 00 39.8 -0.9
TLY pmax pmax
comp=Z,4.0nm,0.5s
TLY MLR MLR
comp=Z,526nm,15.0s
AB31 Akbulak array 25.00 321 i P P 03 56 21.4 +0.3
AB31 pmax pmax
comp=Z,11nm,0.7s
ASHO Ashiyiah 25.32 261 P P 03 56 30.7 +6.4
SNR=6.7
UBPT Khong Chiam 25.73 125 P P 03 56 28.5 +0.6
comp=Z,111nm,1.1s
WHN Wuhan 26.21 84 P P 03 56 35.2 +3.0
WHN LR LR
comp=Z,7µm,13.9s
WHN LR LR
comp=Z,4µm,13.2s
SURT Suratani 26.64 145 P P 03 56 41.1 +4.9
comp=Z,16nm,1.4s,comp=Z,250nm
QIZ Qiongzhong 26.70 112 P P 03 56 38.2 +1.4
QIZ S S 04 01 12.3 -0.1
QIZ pmax pmax
comp=Z,140nm,5.8s
QIZ LR LR
comp=Z,660nm,21.6s
QIZ LR LR
comp=Z,510nm,19.0s
QIZ LR LR
comp=Z,560nm,14.6s
AKTO Aktyubinsk 26.70 322 P P 03 56 37.0 +0.5
comp=Z,15nm,1.0s,baz=120,slow=10,SNR=13
AKTO Aktyubinsk 26.70 322 P P 03 56 36.3 -0.2
AKTO pmax pmax
comp=Z,22nm,0.9s
BJI Beijing 27.46 63 P P 03 56 43.1 -0.3
BJI S S 04 01 22.9 -1.2
BJI pmax pmax
comp=Z,11nm,1.6s
BJI pmax pmax
comp=Z,160nm,3.5s
BJI LR LR
comp=Z,4µm,17.4s
BJI LR LR
comp=Z,1µm,15.6s
BJI LR LR
comp=Z,720nm,17.4s
TIA Tai'an 27.98 72 ⇑P P 03 56 51.3 +3.1
TRTT Trang 28.05 145 P P 03 56 56.3 +7.5
comp=Z,18nm,1.1s
LKRN Lenkeran, Azer 29.25 294 P P 03 56 58.6 -0.8
NJ2 Nanjing 29.76 80 eP P 03 57 05.1 +1.1
NJ2 S S 04 02 00.2 -0.2
NJ2 pmax pmax
comp=Z,16nm,1.4s
NJ2 LR LR
comp=Z,2µm,19.5s
NJ2 LR LR
comp=Z,2µm,13.6s
NJ2 LR LR
comp=Z,2µm,16.5s
SVE Sverdlovsk 29.76 334⇓iP P 03 57 04.7 +1.0
SVE pmax pmax
comp=Z,34nm,1.5s
ARU Arti 30.27 332c iP P 03 57 08.8 +0.6
ARU 03 58 01.7
ARU S S 04 02 10.4 +2.4
ARU SS SnSn 04 03 42.6 +0.8
ARU pmax pmax
comp=Z,54nm,2.5s
ARU MLR MLR
comp=Z,895nm,21.0s
ARU Arti 30.27 332 eP P 03 57 08.8 +0.6
comp=Z,17nm,1.0s
SEKA Sheki 30.66 298 P P 03 57 10.3 -1.7
MAK Makhachkala 30.67 302 eP P 03 57 12.6 +0.7
MAK e 03 58 11.1
MAK ePPP PPP 03 58 22.8
MAK eS S 04 02 16.5 +1.9
MAK pmax pmax
comp=Z,15nm,0.4s
MAK MLR MLR
comp=Z,2µm,20.0s
MNGR Mingechevir, A 30.71 297 P P 03 57 11.4 -0.8
ZKTA Zakatala 31.14 299 P P 03 57 15.0 -1.1
GANJ Ganja 31.27 297 P P 03 57 16.3 -1.0
DL2 Dalian 31.58 66 P P 03 57 23.5 +3.5
DL2 eS S 04 02 35.4 +6.5
DL2 pmax pmax
comp=Z,43nm,0.8s
DL2 LR LR
comp=Z,2µm,21.2s
DL2 LR LR
comp=Z,2µm,14.1s
NAX Nakhchivan 31.83 294 P P 03 57 21.3 -1.0
GROC Groznyy 31.95 302 eP P 03 57 22.5 -0.7
GROC eS S 04 02 34.8 +0.3
GROC pmax pmax
comp=Z,59nm,1.0s
PSI Prapat 32.14 150 LR LR 04 12 42.5
comp=Z,629nm,19.5s,slow=40
GNI Garni 32.45 296deP P 03 57 31.5 +3.7
GNI pmax pmax
comp=Z,158nm,1.2s
GNI Garni 32.45 296 eP P 03 57 27.7 -0.1
comp=Z,39nm,1.0s
SOKR Solikamsk 33.17 335⇑iP P 03 57 33.1 -0.5
SOKR pmax pmax
comp=Z,46nm,1.3s
SOKR MLR MLR
comp=Z,326nm,16.0s
ZEI Tsey 33.28 301 eP P 03 57 35.6 +0.5
ZEI pmax pmax
comp=Z,15nm,1.1s
NCK Nalchik 33.58 302⇑eP P 03 57 40.0 +2.5
NCK pmax pmax
comp=Z,24nm,0.8s
KBZ Khabaz 34.11 302 P P 03 57 42.8 +0.8
comp=Z,12nm,0.9s,baz=132,slow=6.2,SNR=17
KBZ Khabaz 34.11 302 P P 03 57 42.8 +0.8
KBZ pmax pmax
comp=Z,11nm,0.9s
GOF Gofitskoye 34.18 305⇑eP P 03 57 42.5 -0.2
GOF pmax pmax
comp=Z,27nm,1.0s
NEY Neytrino 34.18 301⇓eP P 03 57 45.6 +2.7
NEY pmax pmax
comp=Z,3.0nm,1.1s
KIV Kislovodsk 34.29 303 eP P 03 57 45.5 +1.8
KIV eS S 04 03 14.0 +3.0
KIV pmax pmax
comp=Z,19nm,1.0s
KIV MLR MLR
comp=Z,890nm,16.0s
KIV Kislovodsk 34.29 303 eP P 03 57 46.0 +2.2
comp=Z,20nm,0.9s
CN2 Changchun 34.77 58 eP P 03 57 47.3 -0.5
CN2 esP sP 03 57 54.2 +2.7
CN2 eS S 04 03 15.2 -3.1
CN2 pmax pmax
comp=Z,20nm,0.8s
CN2 LR LR
comp=Z,2µm,16.0s

CN2 LR LR
comp=Z,2µm,16.0s
CN2 LR LR
comp=Z,2µm,14.0s
**VRH Novokhopyorsk 36.37 315** *eP* **P 03 58 01.0 -0.4**
VRH pmax pmax
comp=Z,10.0nm,0.8s
**KSAR Wonju Array Be 36.55 69** P **P 03 58 02.3 -0.8**
KSAR *PP **pP** 03 58 05.9 +0.1
**KSAR Wonju Array Be 36.55 69** P **P** 03 58 02.3 -0.8
KSAR pP **pP** 03 58 05.8 +0.1
**KSRS Korea Array 36.58 69** P **P** 03 58 02.3 -1.1
comp=Z,6.1nm,0.7s,baz=274,slow=9.3,SNR=6.5
KSRS pP **pP** 03 58 05.8 -0.2
comp=Z,6.1nm,0.8s,baz=278,slow=8.9,SNR=9.3
KSRS LR LR 04 13 44.1
comp=Z,374nm,18.0s,baz=291,slow=38
**KSRS Korea Array 36.58 69** P **P 03 58 02.3 -1.1**
KSRS *PP **pP** 03 58 05.8 -0.2
KSRS pmax pmax
comp=Z,6.0nm,0.7s
KSRS pmax pmax
comp=Z,6.0nm,0.8s
KSRS MLR MLR
comp=Z,374nm,18.0s
**VSR Storozhevoye 37.93 314** *eP* **P 03 58 14.3 -0.3**
VSR pmax pmax
comp=Z,20nm,1.1s
**ANN Anapa 38.12 304** *eP* **P 03 58 16.9 +0.6**
ANN pmax pmax
comp=Z,65nm,0.9s
ANN MLR MLR
comp=Z,2µm,19.0s
**TGY Tagaytay City 38.27 109** LR LR 04 15 16.4
comp=Z,186nm,19.0s,baz=293,slow=38
**LPSR Galich'ya Gora 38.41 316** *eP* **P 03 58 18.8 +0.1**
LPSR pmax pmax
comp=Z,20nm,1.0s
**USRK Ussuriysk Ar. 39.51 58** P **P 03 58 27.5 -0.5**
comp=Z,5.1nm,0.7s,baz=295,slow=4.1,SNR=4.4
USRK pP **sP 03 58 31.5 -0.2**
comp=Z,5.8nm,0.7s,baz=263,slow=8.4,SNR=7.0
USRK LR LR 04 14 43.5
comp=Z,452nm,20.7s,baz=256,slow=36
**SBUM Sibu 39.61 132** *eP* **P 03 58 30.5 +1.3**
comp=Z,8.2nm,0.7s
**KKM Kota Kinabalu 39.69 123** *eP* **P 03 58 31.0 +1.1**
comp=Z,46nm,1.2s
**MOS Moscow 40.02 321** *eP* **P 03 58 31.5 -0.6**
MOS *eS* **S 04 04 36.4 -1.3**
MOS pmax pmax
comp=Z,39nm,0.8s
MOS MLR MLR
comp=Z,1µm,18.0s
**OBN Obninsk 40.42 319**⇑ *eP* **P 03 58 36.1 +0.7**
OBN *e*PP **sP 03 58 40.5 +1.4**
OBN *e* 03 58 47.0
OBN *e*PPP PPP 04 00 33.4
OBN S **S 04 04 44.0 +0.3**
OBN SSS SSS 04 08 12.0
OBN pmax pmax
comp=Z,54nm,1.2s
OBN MLR MLR
comp=Z,596nm,18.0s
**OBN Obninsk 40.42 319** *eP* **P 03 58 35.5 +0.1**
comp=Z,91nm,1.4s
**KLMR Klimovskoe 40.94 329** *eP* **P 03 58 35.9 -3.7**
KLMR pmax pmax
comp=Z,73nm,1.4s
**BR131 Keskin Array S 40.98 296** *eP* **P 03 58 41.5 +1.0**
BR131 *e*pP **P 03 58 41.6 +1.0**
**BRTR Keskin Array B 40.98 296** P **P 03 58 41.0 +0.5**
comp=Z,4.3nm,0.8s,baz=106,slow=9.1,SNR=15
**BRTR Keskin Array B 40.98 296** *ceP* **P 03 58 41.5 +1.0**
BRTR pmax pmax
comp=Z,5.0nm,0.8s
**ANTO Ankara 41.62 296** *eP* **P 03 58 47.1 +1.4**
ANTO pmax pmax
comp=Z,11nm,0.7s
**ANTO Ankara 41.62 296** *eP* **P 03 58 47.1 +1.4**
comp=Z,11nm,0.7s
**BR231 Keskin MP Arra 41.64 296** *eP* **P 03 58 42.1 -3.7**
**MYLDM Lahad Datu 41.93 122** *eP* **P 03 58 50.7 +2.4**
comp=Z,82nm,1.6s
**YAK Yakutsk 42.20 30** *i* P **P 03 58 49.4 -0.6**
YAK pmax pmax
comp=Z,17nm,0.8s
**TMCR Tamitsa 43.01 333** *eP* **P 03 58 56.5 +0.1**
TMCR pmax pmax
comp=Z,38nm,0.9s
**BOLV Bolvadin 43.17 294** *eP* **P 03 58 59.2 +0.9**
comp=Z,24nm,1.2s
**ISP Isparta 43.63 293**⇑ *eP* **P 03 59 02.4 +0.4**
ISP pmax pmax
comp=Z,5.0nm,0.9s
**ISP Isparta 43.63 293** *eP* **P 03 59 03.2 +1.2**
comp=Z,7.2nm,0.8s
**AKASG Malin Array Be 44.06 312** P **P 03 59 04.7 -0.4**
comp=Z,12nm,0.7s,baz=80,slow=7.2,SNR=15
AKASG PP **PP 04 00 47.3 -0.3**
comp=Z,2.2nm,0.8s,baz=87,slow=11,SNR=5.7
AKASG LR LR 04 20 48.1
comp=Z,787nm,18.6s,baz=80,slow=41
**AKASG Malin Array Be 44.06 312** P **P 03 59 04.7 -0.4**
AKASG 04 00 47.3
AKASG pmax pmax
comp=Z,7.0nm,0.7s
AKASG pmax pmax
comp=Z,2.0nm,0.8s
AKASG MLR MLR
comp=Z,787nm,18.6s
**AKBB Malin Array Si 44.06 312** *eP* **P 03 59 05.1 0.0**
AKBB pmax pmax
comp=Z,12nm,0.8s
**AKBB Malin Array Si 44.06 312** *eP* **P 03 59 05.1 0.0**
comp=Z,12nm,0.8s
**KIEV Kiev 44.07 312**⇑ *eP* **P 03 59 05.0 -0.2**
KIEV pmax pmax
comp=Z,5.0nm,0.7s
**KIEV Kiev 44.07 312** *eP* **P 03 59 04.8 -0.4**
comp=Z,12nm,0.7s
**AK11 Malin Array Si 44.09 312** *eP* **P 03 59 05.1 -0.3**
**TLCR 44.23 304**⇑ *iP* **P 03 59 08.9 +2.3**
**TLCR 44.23 304**⇑ *iP* **P 03 59 08.9 +2.3**
**AKAS Kas 44.62 291** *eP* **P 03 59 10.9 +0.9**
comp=Z,8.7nm,0.9s
**CFR Carcaliu 44.71 304**⇑ *iP* **P 03 59 10.9 +0.4**
**CFR Carcaliu 44.71 304**⇑ *iP* **P 03 59 10.9 +0.4**
**MAJO Matsushiro 44.86 68**⇑ *eP* **P 03 59 10.3 -1.5**
MAJO pmax pmax
comp=Z,28nm,1.7s
**MAT Matsushiro 44.86 68** P **P 03 59 10.5 -1.3**
MAT S **S 04 05 51.4 +1.8**
**MJAR Matsushiro Arr 44.86 68** P **P 03 59 10.7 -1.1**
comp=Z,6.2nm,0.9s,baz=290,slow=8.5,SNR=7.9
MJAR LR LR 04 18 46.2
comp=Z,315nm,18.7s,baz=260,slow=37
**PUL Pulkovo 44.89 325**⇑ *eP* **P 03 59 12.2 +0.6**
PUL pmax pmax
comp=Z,71nm,1.1s
**ICOR Ion Corvin 45.01 302**⇑ *iP* **P 03 59 14.0 +1.2**
**VRI Vrincioaia 45.67 305**⇑ *iP* **P 03 59 19.5 +1.4**
**VRI Vrincioaia 45.67 305** ⇑P **P 03 59 19.5 +1.4**
**TESR Tescani 45.70 306**⇑ *iP* **P 03 59 20.3 +2.0**
**PLOR Plostina 45.73 305**⇑ *iP* **P 03 59 20.1 +1.5**
**PLOR Plostina 45.73 305** ⇑P **P 03 59 20.1 +1.5**
**NACGM Naroch 45.91 318** *e* **P 03 59 20.0 +0.2**
**IDID Didziasalis 45.98 318** *eP* **P 03 59 20.4 0.0**
IDID IAmb IAmb 03 59 21.7
comp=Z,7.1nm,0.8s
**APA Apatity 46.20 336** *i* P **P 03 59 17.6 -4.4**
APA pmax pmax
comp=Z,11nm,1.0s
APA MLR MLR
comp=Z,3µm,17.0s
**MLR Muntele Rosu 46.24 305**⇑ *iP* **P 03 59 24.6 +1.8**
**MLR Muntele Rosu 46.24 305** ⇑P **P 03 59 24.6 +1.8**
**MLR Muntele Rosu 46.24 305** *eP* **P 03 59 24.4 +1.7**
comp=Z,44nm,0.9s
**IIGN Ignalina 46.28 318** *eP* **P 03 59 22.7 0.0**
IIGN IAmb IAmb 03 59 24.3
comp=Z,14nm,0.9s
**IZAR Zarasai 46.31 319** *eP* **P 03 59 23.0 0.0**
IZAR IAmb IAmb 03 59 24.4
comp=Z,13nm,0.8s

**ISAL Salakas 46.36 319** *eP* **P 03 59 23.2 -0.2**
ISAL IAmb IAmb 03 59 26.2
comp=Z,25nm,1.2s
**VSU Vasula 46.43 323**⇑ *eP* **P 03 59 24.3 +0.5**
VSU pmax pmax
comp=Z,149nm,1.2s
**DOPR Dopca 46.60 305**⇑ *iP* **P 03 59 26.6 +1.2**
**TIXI Tiksi 46.63 18***c iP* **P 03 59 24.7 -0.5**
TIXI pmax pmax
comp=Z,38nm,1.7s
**TIXI Tiksi 46.63 18** *eP* **P 03 59 23.8 -1.4**
comp=Z,86nm,1.9s
**BURAR Bucovina Array 46.64 307**⇓ *iP* **P 03 59 27.0 +1.2**
**BURAR Bucovina Array 46.64 307** ⇓P **P 03 59 27.0 +1.2**
**BUR04 Bucovina Ar. S 46.64 307** *eP* **P 03 59 25.8 -0.1**
**BUR08 Bucovina Ar. S 46.65 308** *eP* **P 03 59 26.7 +0.8**
**KARP Karpathos 46.70 291** *eP* **P 03 59 30.2 +3.8**
comp=Z,20nm,0.8s
**VOIR 46.87 305**⇑ *iP* **P 03 59 28.2 +0.5**
**VOIR 46.87 305** ⇑P **P 03 59 28.2 +0.5**
**JHJ2 Mitsune 46.89 73** *eP* **P 03 59 27.5 -0.3**
comp=Z,988nm,1.5s
**YSS Yuzh-Sakhalins 47.03 53** *eP* P 03 59 18.5 -10
YSS pmax pmax
comp=Z,30nm,0.6s
YSS MLR MLR
comp=Z,800nm,16.0s
**ARR Arges 47.17 304**⇑ *iP* **P 03 59 30.7 +0.7**
**FIA1 FINESS Array S 47.30 326** *eP* **P 03 59 30.9 +0.2**
**FINES FINESS Array B 47.30 326** P **P 03 59 30.7 +0.1**
comp=Z,7.2nm,0.6s,baz=103,slow=7.6,SNR=20
FINES LR LR 04 19 58.3
comp=Z,1µm,20.7s,baz=100,slow=37
**FINES FINESS Array B 47.30 326** *i* P **P 03 59 32.9 +2.3**
FINES pmax pmax
comp=Z,18nm,0.8s
**LVV L'vov 47.37 311** *eP* **P 03 59 34.4 +3.1**
LVV MLR MLR
comp=Z,600nm,16.0s
**LOT Lotru 47.77 305**⇓ *iP* **P 03 59 35.5 +0.8**
**CJR Cluj-Napoca 47.79 306**⇑ *iP* **P 03 59 33.9 -0.8**
**CJR Cluj-Napoca 47.79 306** ⇑P **P 03 59 33.9 -0.8**
**SUW Suwalki 47.95 316** *eP* **P 03 59 35.2 -0.5**
**SUW Suwalki 47.95 316** *eP* **P 03 59 35.2 -0.5**
**DRGR 48.39 307**⇑ *iP* **P 03 59 40.5 +1.1**
**DRGR 48.39 307** ⇑P **P 03 59 40.5 +1.1**
**UZH Uzhgorod 48.55 309**⇑ *iP* **P 03 59 40.3 -0.2**
UZH *i* 03 59 47.3
UZH *e* 03 59 50.5
UZH *e* 04 01 09.3
UZH *i* 04 02 23.3
UZH *eS* **S 04 06 36.5 -5.5**
UZH *eP*S 04 06 48.1
UZH MLR MLR
comp=N,500nm,15.0s
UZH MLR MLR
comp=E,400nm,15.0s
UZH MLR MLR
comp=Z,120nm,15.0s
**CRVS Cervenica-Dubn 49.08 309** *eP* **P 03 59 48.0 +3.4**
**CRVS Cervenica-Dubn 49.08 309** *e* **P 03 59 48.0 +3.4**
**SIRR Siria 49.16 306**⇑ *iP* **P 03 59 46.6 +1.3**
**STHS Stebnicka Huta 49.19 310** *eP* **P 03 59 43.7 -1.8**
STHS *e* 03 59 53.2
**STHS Stebnicka Huta 49.19 310** *eP* **P 03 59 43.7 -1.8**
STHS *e* 03 59 53.2
**BZS Buzias 49.26 305**⇑ *iP* **P 03 59 46.1 +0.1**
**BZS Buzias 49.26 305** ⇑P **P 03 59 46.1 +0.1**
**MDVR Moldovita 49.29 304**⇑ *iP* **P 03 59 47.1 +0.8**
**ARCES ARCESS Array B 49.62 337** P **P 03 59 48.8 +0.3**
comp=Z,13nm,0.8s,baz=96,slow=7.4,SNR=15
ARCES LR LR 04 22 06.2
comp=Z,879nm,19.1s,baz=104,slow=38
**AGG Agios Georgios 49.76 296** *eP* **P 03 59 50.7 +0.8**
AGG pmax pmax
comp=Z,31nm,0.9s
**AGG Agios Georgios 49.76 296** *eP* **P 03 59 50.7 +0.8**
comp=Z,31nm,0.9s
**NIE Niedzica 49.81 310** *eP* **P 03 59 50.0 -0.2**
**NIE Niedzica 49.81 310** *eP* **P 03 59 50.0 -0.2**
**OJC Ojcow 50.08 311** *eP* **P 03 59 52.3 +0.1**
**OJC Ojcow 50.08 311** *eP* **P 03 59 52.3 +0.1**
**KAPI Kappang 50.13 130** *eP* **P 03 59 53.5 +0.6**
comp=Z,16nm,1.0s
**VYHS Vyhne 50.85 309** *eP* **P 03 59 57.1 -1.0**
**VYHS Vyhne 50.85 309** *eP* **P 03 59 57.1 -1.0**
**OKC Ostrava-Krasne 51.17 311** *eP* **P 04 00 01.2 +0.8**
**OKC Ostrava-Krasne 51.17 311** *eP* **P 03 59 59.5 -0.9**
**PDG Podgorica 51.41 301**⇑ *iP* **P 04 00 01.9 -0.4**
**MORC Moravsky Berou 51.56 311**⇓ *iP* **P 04 00 03.7 +0.2**
**MORC Moravsky Berou 51.56 311** ⇓P **P 04 00 03.7 +0.2**
**MORC Moravsky Berou 51.56 311** *eP* **P 04 00 03.4 -0.1**
comp=Z,46nm,1.2s
**KRLC Kraliky 52.02 311** *eP* **P 04 00 07.1 +0.2**
**KRLC Kraliky 52.02 311** *eP* **P 04 00 07.1 +0.2**
**VRAC Vranov 52.23 310**⇓ *iP* **P 04 00 09.0 +0.6**
**VRAC Vranov 52.23 310** ⇓P **P 04 00 09.0 +0.6**
**DPC Dobruska-Polom 52.29 312** *eP* **P 04 00 09.1 +0.2**
DPC *epP* **sP 04 00 12.7 +0.1**
**DPC Dobruska-Polom 52.29 312** *eP* **P 04 00 09.1 +0.2**
DPC *e* 04 00 12.7
**UPC Upice 52.47 312** *eP* **P 04 00 10.7 +0.6**
UPC *ex* x 04 00 20.5
**UPC Upice 52.47 312** *eP* **P 04 00 10.7 +0.6**
UPC *e* 04 00 20.5
**BLY Banja Luka 52.48 305** *eP* **P 04 00 11.2 +0.9**
comp=Z,12nm,1.1s
**CONA Conrad Observa 52.89 309** *i* P **P 04 00 13.7 +0.3**
comp=Z,20nm,1.5s
**PRU Pruhonice 53.47 311** *eP* **P 04 00 21.2 +3.7**
PRU *ex* x 04 00 27.5
PRU AMS AMS 04 24 30.0
comp=Z,700nm,15.0s
**PRU Pruhonice 53.47 311** *eP* **P 04 00 21.2 +3.7**
PRU *e* 04 00 27.5
PRU MLR MLR
comp=Z,700nm,15.0s
**SOKA Soboth 53.64 307** *i* P **P 04 00 18.8 -0.2**
comp=Z,14nm,1.2s
**RGN Rugen 53.71 317** *eP* **P 04 00 20.3 +1.2**
comp=Z,250nm,1.4s
**BRG Berggiesshubel 53.73 312** *eP* P 04 00 24.3 +4.9
comp=Z,45nm,1.8s
comp=N,938nm,13.8s
comp=E,749nm,16.7s
comp=Z,1µm,18.2s
**BRG Berggiesshubel 53.73 312** *eP* P 04 00 24.3 +4.9
BRG pmax pmax
comp=Z,45nm,1.8s
BRG MLR MLR
comp=N,938nm,13.8s
**OBKA Obir 54.00 307** *i* P **P 04 00 21.6 +0.1**
comp=N,11nm,1.5s
**GEC2 GERESS Array S 54.18 310** *eP* **P 04 00 25.0 +2.2**
GEC2 pmax pmax
comp=Z,18nm,1.4s
**GEC2 GERESS Array S 54.18 310** *eP* **P 04 00 25.0 +2.2**
comp=Z,18nm,1.4s
**GERES GERESS Array B 54.18 310** P **P 04 00 22.5 -0.3**
comp=Z,1.7nm,0.8s,baz=69,slow=7.3,SNR=9.7
GERES LR LR 04 27 25.2
comp=Z,408nm,19.5s,baz=74,slow=40
**GEA0 GERESS Array S 54.18 310** *eP* **P 04 00 22.5 -0.3**
**KHC Kasperske Hory 54.21 310** *eP* **P 04 00 23.2 +0.2**
KHC *epP* **sP 04 00 26.4 -0.4**
**KHC Kasperske Hory 54.21 310** *eP* **P 04 00 23.2 +0.2**
**KHC Kasperske Hory 54.21 310** *eP* **P 04 00 23.3 +0.2**
comp=Z,13nm,1.9s
**CLL Collm 54.26 313** *eSS* SS 04 11 54.0 +12
CLL LmV 04 25 00.0
comp=Z,1µm,18.3s
**NB2 NORSAR Subarra 54.42 325** P **P 04 00 23.7 -0.6**
comp=Z,7.3nm,0.6s,baz=88,slow=7.4
**NOA NORSAR Array B 54.42 325** P **P 04 00 23.6 -0.7**
comp=Z,3.0nm,0.5s,baz=88,slow=7.0,SNR=14
NOA LR LR 04 24 19.0
comp=Z,715nm,19.3s,baz=95,slow=37
**NOA NORSAR Array B 54.42 325** P **P 04 00 23.6 -0.7**
NOA pmax pmax
comp=Z,1.0nm,0.4s
NOA MLR MLR
comp=Z,715nm,19.3s
**NC204 NORSAR Array S 54.63 325** *eP* **P 04 00 25.8 -0.1**
**NKC Novy Kostel 54.77 312** *eP* **P 04 00 27.3 +0.3**

**NKC Novy Kostel 54.77 312** *eP* **P 04 00 27.3 +0.3**
**KMBO Kilima Mbogo 54.79 243** P **P 04 00 29.5 +1.6**
comp=Z,13nm,1.0s,baz=44,slow=10,SNR=14
KMBO LR LR 04 23 04.9
comp=Z,233nm,20.4s,baz=38,slow=35
**KMBO Kilima Mbogo 54.79 243** *eP* **P 04 00 30.2 +2.3**
KMBO pmax pmax
comp=Z,13nm,0.9s
**KMBO Kilima Mbogo 54.79 243** *eP* **P 04 00 30.2 +2.3**
comp=Z,13nm,0.9s
**ABTA Abfaltersbach 55.34 308** *i* P **P 04 00 34.3 +3.0**
comp=Z,6.7nm,1.4s
**PETK Petropavlovsk- 55.99 44** LR LR 04 27 01.6
comp=Z,289nm,19.9s,baz=285,slow=39
**MOTA Moosalm 56.16 309** *i* P **P 04 00 36.2 -1.1**
comp=Z,4.3nm,0.7s
**FETA Feichten 56.48 308** *i* P **P 04 00 38.6 -1.0**
comp=Z,9.3nm,1.2s
**SOEI Soe 56.62 130** *eP* **P 04 00 39.8 -1.1**
comp=Z,45nm,0.7s
**DAVA Damuels 56.99 309** *i* P **P 04 00 42.4 -0.7**
comp=Z,12nm,1.4s
**BILL Bilibino 58.23 26** *i* P **P 04 00 46.8 -4.6**
BILL *i* 04 01 00.0
BILL *i* 04 01 43.5
BILL *i* 04 02 58.2
BILL pmax pmax
comp=Z,6.0nm,1.2s
BILL MLR MLR
comp=Z,423nm,17.0s
**SENIN Lac Senin/Sane 58.93 308** *eP* **P 04 00 57.8 +0.9**
comp=Z,13nm,1.1s
**KEST Kesra 60.59 296** LR LR 04 31 15.1
comp=Z,163nm,20.0s,baz=284,slow=40
**TAM Tamanrasset 68.75 284** *eP* **P 04 02 02.1 +0.2**
TAM pmax pmax
comp=Z,2.0nm,0.8s
**TAM Tamanrasset 68.75 284** *eP* **P 04 02 02.1 +0.2**
comp=Z,1.9nm,0.8s
**SUMG Summit 68.76 344** *eP* **P 04 02 01.6 +0.2**
SUMG pmax pmax
comp=Z,15nm,0.9s
**SUMG Summit 68.76 344** *eP* **P 04 02 01.6 +0.2**
comp=Z,15nm,0.9s
**ES19 SONSECA Array 68.88 304** *eP* **P 04 02 01.8 -0.6**
**ESDC Sonseca Array 68.94 304** P **P 04 02 01.8 -0.9**
comp=Z,2.3nm,0.8s,baz=56,slow=6.3,SNR=5.6
ESDC LR LR 04 38 46.4
comp=Z,68nm,18.8s,baz=45,slow=42
**TULEG Thule 70.63 353** *eP* **P 04 02 11.3 -1.0**
comp=Z,12nm,1.0s
**WRA Warramunga Arr 70.66 130** P **P 04 02 13.2 -0.2**
comp=Z,14nm,0.6s,baz=323,slow=6.2,SNR=16
WRA LR LR 04 36 07.6
comp=Z,118nm,21.7s,baz=290,slow=38
**WRAB Tennant Creek 70.66 130***ceP* **P 04 02 13.3 -0.1**
WRAB pmax pmax
comp=Z,52nm,0.6s
**WRAB Tennant Creek 70.66 130** *eP* **P 04 02 13.7 +0.4**
comp=Z,24nm,0.7s
**WB2 Warramunga Arr 70.67 130** *eP* **P 04 02 13.2 -0.2**
**LSZ Lusaka 70.83 237** *eP* **P 04 02 17.2 +2.6**
**LSZ Lusaka 70.83 237** *eP* **P 04 02 17.2 +2.6**
**TOLK Toolik Lake Re 72.52 18** *eP* **P 04 02 23.9 -0.1**
comp=Z,30nm,0.8s
**AS31 Alice Springs 73.06 133** *eP* **P 04 02 28.0 +0.2**
comp=Z,2.8nm,0.6s
**ASAR Alice Springs 73.06 133** P **P 04 02 27.3 -0.4**
comp=Z,7.5nm,0.6s,baz=317,slow=5.8,SNR=46
ASAR pP **pP 04 02 30.1 -0.4**
comp=Z,7.4nm,0.6s,baz=316,slow=5.7,SNR=33
ASAR LR LR 04 38 42.5
comp=Z,86nm,19.1s,baz=305,slow=39
**PMG Port Moresby 73.08 113**⇓ *eP* **P 04 02 28.2 +0.2**
PMG pmax pmax
comp=Z,38nm,0.8s
**AS01 Alice Springs 73.09 133** *eP* **P 04 02 27.1 -0.8**
**IMAR Indian Mountai 73.15 21** *eP* **P 04 02 25.9 -1.8**
**MLY Manley 74.72 21** *eP* **P 04 02 37.0 +0.1**
comp=Z,17nm,0.9s
**FYU Fort Yukon 75.18 18** *eP* **P 04 02 40.6 +1.1**
comp=Z,31nm,1.1s
**BPAW Bear Paw Mtn. 75.29 22** *eP* **P 04 02 40.4 +0.2**
comp=Z,27nm,1.1s
**CAST Castle Rocks 75.41 23** *eP* **P 04 02 41.3 +0.4**
comp=Z,26nm,0.8s
**KTH Kantishna Hill 75.69 22** *eP* **P 04 02 42.7 +0.1**
comp=Z,27nm,1.0s
**COLA College 75.69 20** *eP* **P 04 02 42.1 -0.3**
COLA pmax pmax
comp=Z,24nm,0.8s
**COLA College 75.69 20** *eP* **P 04 02 42.1 -0.3**
comp=Z,24nm,0.8s
**PPLA Purkeypile 75.73 23** *eP* **P 04 02 43.4 +0.5**
comp=Z,105nm,2.0s
**SVW2 Sparrevohn 75.75 26** *eP* **P 04 02 44.1 +1.2**
comp=Z,45nm,1.4s
**CCB Clear Creek Bu 75.87 20** *eP* **P 04 02 42.9 -0.6**
comp=Z,7.4nm,0.8s
**WRH Wood River Hil 75.92 21** *eP* **P 04 02 43.2 -0.6**
comp=Z,61nm,2.0s
**IL1 Eielson Array 76.05 20** *eP* **P 04 02 42.6 -1.9**
**ILAR Eielson Array 76.05 20** P **P 04 02 43.8 -0.7**
comp=Z,11nm,0.8s,baz=303,slow=4.8,SNR=103
ILAR PP **PP 04 05 31.3 -3.2**
comp=Z,1.5nm,0.8s,baz=313,slow=8.5,SNR=7.0
ILAR LR LR 04 39 46.4
comp=Z,163nm,19.2s,baz=336,slow=38
**ILB Eielson Array 76.05 20** *eP* **P 04 02 43.8 -0.7**
**MCK McKinley 76.19 21** *eP* **P 04 02 45.4 0.0**
MCK pmax pmax
comp=Z,63nm,2.0s
**MCK McKinley 76.19 21** *eP* **P 04 02 45.4 0.0**
comp=Z,63nm,2.0s
**RND Reindeer 76.45 22** *eP* **P 04 02 46.4 -0.6**
RND pmax pmax
comp=Z,13nm,1.0s
**RND Reindeer 76.45 22** *eP* **P 04 02 46.4 -0.6**
comp=Z,13nm,1.0s
**INK Inuvik 76.49 13** *eP* **P 04 02 47.0 +0.1**
INK pmax pmax
comp=Z,12nm,1.1s
**INK Inuvik 76.49 13** *eP* **P 04 02 47.0 +0.1**
comp=Z,12nm,1.1s
**TOA0 Torodi Ar. Sit 76.50 277** *eP* **P 04 02 47.3 -0.6**
**TORD Torodi Ar. Bea 76.50 277** P **P 04 02 47.1 -0.8**
comp=Z,3.0nm,0.6s,baz=53,slow=4.0,SNR=18
TORD pP **pP 04 02 49.9 -0.8**
comp=Z,3.0nm,0.6s,baz=51,slow=4.5,SNR=14
TORD LR LR 04 40 54.1
comp=Z,431nm,18.1s,baz=50,slow=39
**SUA Susitna One 77.22 24** *eP* **P 04 02 51.5 +0.1**
comp=Z,19nm,0.6s
**EGAK Eagle 77.64 18** *eP* **P 04 02 53.6 +0.2**
comp=Z,17nm,1.1s
**PMR Palmer 77.67 23** *eP* **P 04 02 53.7 0.0**
PMR pmax pmax
comp=Z,17nm,0.7s
**PMR Palmer 77.67 23** *eP* **P 04 02 53.7 0.0**
comp=Z,17nm,0.7s
**SML Sawmill 77.78 23** *eP* **P 04 02 54.2 -0.2**
SML pmax pmax
comp=Z,47nm,0.8s
**SML Sawmill 77.78 23** *eP* **P 04 02 54.2 -0.2**
comp=Z,47nm,0.8s
**RC01 Rabbit Creek A 77.83 24** *eP* **P 04 02 54.7 +0.1**
comp=Z,25nm,1.0s
**HARP HAARP 78.34 21** *eP* **P 04 02 58.5 +1.1**
comp=Z,173nm,1.6s
**DAWY Dawson 78.67 18** *eP* **P 04 02 59.2 0.0**
**KDAK Kodiak Island 79.13 27** *i* P **P 04 03 01.9 +0.1**
**LBTB Lobatse 79.15 232** *eP* **P 04 03 03.7 +1.2**
LBTB pmax pmax
comp=Z,52nm,1.7s
**LBTB Lobatse 79.15 232** *eP* **P 04 03 03.6 +1.2**
comp=Z,52nm,1.7s
**KOWA Kowa 80.63 281** *eP* **P 04 03 12.9 +2.2**
comp=Z,16nm,1.4s
**BOSA Boshof 81.80 229** P **P 04 03 15.5 -1.2**
comp=Z,4.0nm,0.8s,baz=40,slow=3.2,SNR=4.2
BOSA LR LR 04 38 08.0
comp=Z,100nm,19.9s,baz=46,slow=35
**BOSA Boshof 81.80 229** *eP* **P 04 03 19.9 +3.1**
comp=Z,11nm,0.9s
**HYT Haines Junctio 81.83 19** *eP* **P 04 03 17.4 +0.9**
**STKA Stephens Creek 83.66 134** P **P 04 03 25.3 -0.9**
comp=Z,3.6nm,0.9s,baz=315,slow=6.0,SNR=5.6

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| STKA | | | | LR | LR | 04 44 22.6 | |
| | comp=Z,117nm,19.6s,baz=299,slow=38 | | | | | | |
| YKA | Yellowknife Ar | 84.95 | 8 | P | P | 04 03 31.2 | -1.2 |
| | comp=Z,2.8nm,0.7s,baz=340,slow=5.0,SNR=14 | | | | | | |
| YKA | | | | pP | pP | 04 03 34.8 | -0.4 |
| | comp=Z,6.7nm,0.8s,baz=336,slow=5.3,SNR=18 | | | | | | |
| YKA | | | | LR | LR | 04 44 08.2 | |
| | comp=Z,18nm,20.7s,baz=0.0,slow=38 | | | | | | |
| DBIC | Dimbokro | 85.33 | 275 | pP | pP | 04 03 38.2 | +0.4 |
| | comp=Z,4.0nm,1.0s,baz=336,slow=3.6,SNR=2.0 | | | | | | |
| DBIC | | | | LR | LR | 04 46 07.6 | |
| | comp=Z,338nm,18.7s,baz=42,slow=39 | | | | | | |
| SCHQ | Schefferville | 90.14 | 343 | LR | LR | 04 49 03.1 | |
| | comp=Z,90nm,18.2s,baz=330,slow=39 | | | | | | |
| ULM | Lac du Bonnet | 98.38 | 360 | LR | LR | 04 52 32.3 | |
| | comp=Z,126nm,18.1s,baz=0.0,slow=38 | | | | | | |
| SYO | Syowa Base | 105.53 | 195⇑ | eP | Pdif | 04 05 11.0 | +4.6 |
| SNAA | Sanae | 118.70 | 201 | PKP | PKPdf | 04 09 42.1 | -2.6 |
| TXAR | Lajitas Array | 118.87 | 7 | PKP | PKPdf | 04 09 45.6 | -0.9 |
| | comp=Z,0.4nm,0.5s,baz=0.0,slow=1.8,SNR=7.4 | | | | | | |
| VNA2 | Neumayer--Watz | 119.98 | 202 | PKP | PKPdf | 04 09 46.5 | -0.5 |
| | baz=44,slow=2.9 | | | | | | |
| VNA1 | Neumayer--Stat | 120.21 | 203 | PKP | PKPdf | 04 09 50.0 | +2.5 |
| VNA3 | Neumayer Olymp | 120.76 | 202 | PKP | PKPdf | 04 09 45.4 | -3.2 |
| PPT2 | Papeete2 | 130.02 | 87 | eLR | LR | 04 51 25.5 | |
| | comp=Z,106nm,22.2s | | | | | | |
| OTAV | Otavalo | 144.00 | 329 | ePKPdf | PKPdf | 04 10 33.4 | -1.0 |
| CPUP | Villa Florida | 145.65 | 269 | PKPbc | PKPdf | 04 10 35.6 | -0.6 |
| | comp=Z,5.0nm,0.9s,baz=59,slow=6.2,SNR=5.8 | | | | | | |
| LPAZ | La Paz | 150.16 | 294 | PKPbc | PKPbc | 04 10 48.9 | -0.8 |
| | comp=Z,1.9nm,0.9s,baz=37,slow=8.0,SNR=4.5 | | | | | | |

*ISCJB **01** 04:28:36.9±1.4, 6.0S±0.2×152.3E±0.3, h38km, mb3.8/7, Error ellipse: s-maj=47.5km s-min=10.9km az=42.2*
*IDC **01** 04:28:38.8±6.1, 6.04S×152.42E, h43km±50km, mb3.6/7, mb1 3.9/8, mb1mx3.7/28, mbtmp4.0/8, ML2.3/1, Error ellipse: s-maj=57.3km s-min=28.0km az=117.0*
**ISC 01 04:28:38.2**±1.6, **6.0S**±0.3×**152.5E**±0.3, **h38**km, **n9**, σ**0.65**/12, **mb3.8**/7, **New Britain region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PMG | Port Moresby | 6.25 | 237 | P | Pn | 04 30 08.4 | +0.5 |
| | 5.0nm,0.3s,baz=96,slow=7.4,SNR=8.7 | | | | | | |
| PMG | | | | S | Sn | 04 31 17.9 | -0.2 |
| | 1.6nm,0.3s,baz=208,slow=18,SNR=4.4 | | | | | | |
| WRA | Warramunga Arr | 22.41 | 230 | P | P | 04 33 33.1 | -0.7 |
| | 1.0nm,0.7s,baz=57,slow=10,SNR=11 | | | | | | |
| ASAR | Alice Springs | 25.05 | 224 | P | P | 04 33 59.1 | -0.1 |
| | 1.4nm,0.7s,baz=56,slow=9.7,SNR=13 | | | | | | |
| ASAR | | | | pP | pP | 04 34 10.4 | +0.6 |
| | 1.7nm,0.9s,baz=61,slow=9.2,SNR=5.3 | | | | | | |
| FITZ | Fitzroy Crossi | 28.80 | 243 | P | P | 04 34 32.2 | -0.7 |
| | 2.6nm,0.5s,baz=52,slow=8.3,SNR=21 | | | | | | |
| SONM | Songino Array | 67.13 | 328 | P | P | 04 39 28.9 | +0.7 |
| | 0.5nm,0.6s,baz=149,slow=6.9,SNR=3.0 | | | | | | |
| MKAR | Makanchi Array | 80.98 | 319 | P | P | 04 40 49.7 | +0.6 |
| | 0.4nm,0.7s,baz=104,slow=8.6,SNR=2.8 | | | | | | |
| ZALV | Zalesovo Beam | 81.94 | 326 | P | P | 04 40 53.1 | -0.7 |
| | 1.1nm,0.5s,baz=110,slow=4.8,SNR=5.3 | | | | | | |
| ZALV | | | | pP | pP | 04 41 04.7 | -0.9 |
| | 0.7nm,0.5s,baz=103,slow=9.7,SNR=2.7 | | | | | | |
| ILAR | Eielson Array | 83.38 | 22 | P | P | 04 41 01.2 | +0.1 |
| | 1.4nm,1.0s,baz=249,slow=5.2,SNR=15 | | | | | | |
| TORD | Torodi Ar. Bea | 150.31 | 286 | PKPbc | PKPbc | 04 48 26.4 | -0.1 |
| | 2.2nm,0.8s,baz=80,slow=2.5,SNR=14 | | | | | | |

*TIF **01** 04:36:53.4, 42.33N×43.12E, h0km*
*CSEM **01** 04:36:54.9±0.1, 42.34N×43.04E, h2km, ML2.6, Error ellipse: s-maj=3.4km s-min=2.5km az=95.0*
*DDA **01** 04:36:54.5, 42.28N×43.09E, h7km, Ml3.0*
*ISCJB **01** 04:36:54.7±0.4, 42.35N±0.02×43.05E±0.02, h2km±4km, mb3.8/2, Error ellipse: s-maj=3.1km s-min=3.0km az=161.9*
*MOS **01** 04:36:55.2±1.1, 42.36N×43.13E, h12km, mb4.0/2, Error ellipse: s-maj=9.5km s-min=5.3km az=82.9*
*ISK **01** 04:36:57.3, 42.25N×43.19E, h16km, ML2.7*
*ATA **01** 04:37:07.0±0.6, 41.45N×42.75E, h10km±87km, ML3.1, MW3.5*
**ISC 01 04:36:54.8**±1.0, **42.31N**±0.01×**43.08E**±0.02, **h7**km±8km, **n80**, σ**1.11**/133, **6C-2D**, **Western Caucasus**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ONI | Oni | 0.40 | 45 | P | Pg | 04 37 01.7 | -0.8 |
| ONI | | | | S | Sg | 04 37 08.5 | +0.8 |
| ONI | Oni | 0.40 | 45 | PG | Pg | 04 37 02.0 | -0.5 |
| ONI | | | | S | Sb | 04 37 09.4 | -1.1 |
| ONI | Oni | 0.40 | 45 | P | Pg | 04 37 02.0 | -0.5 |
| ONI | | | | S | Sb | 04 37 09.4 | -1.1 |
| DIGR | Digorskoe uzhe | 0.70 | 32⇑ | iPG | Pg | 04 37 07.5 | -0.7 |
| DIGR | | | | eS | Sg | 04 37 18.1 | +0.8 |
| DIGR | Digorskoe uzhe | 0.70 | 32 | iPg | Pg | 04 37 07.5 | -0.7 |
| DIGR | | | | eSg | Sg | 04 37 18.1 | +0.8 |
| ZEI | Tsey | 0.78 | 52 | ePG | Pg | 04 37 09.0 | -0.7 |
| ZEI | | | | eS | Sb | 04 37 21.4 | -0.2 |
| ZEI | Tsey | 0.78 | 52 | ePg | Pg | 04 37 09.0 | -0.7 |
| ZEI | | | | eSg | Sb | 04 37 21.4 | -0.2 |
| CHVG | Ch'k'valeri | 0.84 | 300 | ePG | Pg | 04 37 11.3 | +0.4 |
| CHVG | Ch'k'valeri | 0.84 | 300 | P | Pg | 04 37 09.7 | -1.1 |
| CHVG | | | | S | Sb | 04 37 23.1 | -0.2 |
| CHVG | Ch'k'valeri | 0.84 | 300 | ePg | Pg | 04 37 11.3 | +0.4 |
| EPOS | Posof | 0.85 | 198 | iP | Pb | 04 37 11.5 | -0.4 |
| EPOS | Posof | 0.85 | 198 | P | Pb | 04 37 11.5 | -0.4 |
| AKH | Akhalkalaki | 0.95 | 161 | ePG | Pn | 04 37 14.4 | -0.3 |
| AKH | | | | eSG | Sn | 04 37 27.2 | -1.4 |
| AKH | Akhalkalaki | 0.95 | 161 | P | Pn | 04 37 13.8 | -0.9 |
| AKH | | | | S | Sn | 04 37 28.6 | -0.1 |
| AKH | Akhalkalaki | 0.95 | 161 | PG | Pn | 04 37 14.2 | -0.5 |
| AKH | | | | S | Sn | 04 37 28.9 | +0.2 |
| AKH | Akhalkalaki | 0.95 | 161 | Pg | Pn | 04 37 14.2 | -0.5 |
| AKH | | | | eSg | Sn | 04 37 27.2 | -1.4 |
| AKH | | | | S | Sn | 04 37 28.9 | +0.2 |
| NEY | Neytrino | 0.97 | 345d | iPG | Pg | 04 37 12.1 | -1.4 |
| NEY | | | | eS | Sg | 04 37 26.2 | 0.0 |
| NEY | | | | pmax | pmax | | |
| | comp=Z,73nm,0.4s | | | | | | |
| NEY | | | | smax | smax | | |
| | comp=E,98nm,0.4s | | | | | | |
| NEY | Neytrino | 0.97 | 345 | iPg | Pg | 04 37 12.1 | -1.4 |
| | comp=E,73nm,0.4s | | | | | | |
| NEY | | | | eSg | Sg | 04 37 26.2 | 0.0 |
| LACR | Lac | 1.04 | 60 | ePG | Pb | 04 37 14.5 | -0.7 |
| LACR | | | | eS | Sn | 04 37 30.7 | -0.1 |
| LACR | Lac | 1.04 | 60 | ePg | Pb | 04 37 14.5 | -0.7 |
| LACR | | | | eSg | Sn | 04 37 30.7 | -0.1 |
| GUDG | Gudauri | 1.05 | 81 | P | Pg | 04 37 14.1 | -0.8 |
| GUDG | Gudauri | 1.05 | 81 | P | Pn | 04 37 16.0 | -0.1 |
| KORR | Kora | 1.07 | 43 | ePG | Pb | 04 37 14.8 | -0.8 |
| KORR | | | | eS | Sn | 04 37 30.8 | -0.6 |
| KORR | Kora | 1.07 | 43 | ePg | Pb | 04 37 14.8 | -0.8 |
| KORR | | | | eSg | Sn | 04 37 30.8 | -0.6 |
| BGD | Bogdanovka | 1.11 | 159 | P | Pn | 04 37 16.5 | -0.5 |
| BGD | | | | S | Sn | 04 37 33.0 | +0.3 |
| BGD | Bogdanovka | 1.11 | 159 | P | Pn | 04 37 16.4 | -0.6 |
| BGD | | | | S | Sn | 04 37 32.9 | +0.2 |
| ARNR | Ardon | 1.25 | 45 | ePG | Pn | 04 37 18.1 | -0.5 |
| ARNR | | | | eS | Sg | 04 37 36.9 | +2.1 |
| ARNR | Ardon | 1.25 | 45 | ePg | Pn | 04 37 18.1 | -0.5 |
| ARNR | | | | eSg | Sg | 04 37 36.9 | +2.1 |
| NCK | Nalchik | 1.25 | 18 | ePG | Pb | 04 37 18.5 | -0.1 |
| NCK | | | | eS | Sg | 04 37 35.5 | +0.7 |
| NCK | Nalchik | 1.25 | 18 | ePg | Pb | 04 37 18.5 | -0.1 |
| NCK | | | | eSg | Sg | 04 37 35.5 | +0.7 |
| STDR | Stavd-Durt | 1.28 | 34 | ePG | Pb | 04 37 19.4 | +0.1 |
| STDR | | | | eS | Sg | 04 37 37.8 | +1.7 |
| STDR | Stavd-Durt | 1.28 | 34 | ePg | Pb | 04 37 19.4 | +0.1 |
| STDR | | | | eSg | Sg | 04 37 37.8 | +1.7 |
| TBLG | Delisi | 1.37 | 114 | ePN | Pb | 04 37 20.4 | -0.4 |
| TBLG | | | | eSN | Sg | 04 37 38.2 | -0.5 |
| TBLG | Delisi | 1.37 | 114 | P | Pb | 04 37 20.3 | -0.4 |
| TBLG | | | | S | Sg | 04 37 40.3 | +1.6 |
| TBLG | Delisi | 1.37 | 114 | PG | Pb | 04 37 20.3 | -0.4 |
| TBLG | | | | S | Sg | 04 37 39.8 | +1.1 |
| TBLG | Delisi | 1.37 | 114 | P | Pb | 04 37 20.3 | -0.4 |
| TBLG | | | | eSn | Sg | 04 37 38.2 | -0.5 |
| TBLG | | | | S | Sn | 04 37 39.2 | +0.5 |
| SEAG | Tbilisi Sea | 1.40 | 112 | P | Pg | 04 37 21.9 | +0.4 |
| SEAG | | | | S | Sg | 04 37 41.6 | +2.0 |
| SEAG | Tbilisi Sea | 1.40 | 112 | P | Pg | 04 37 22.3 | +0.7 |
| SEAG | | | | S | Sg | 04 37 41.3 | +1.6 |
| ARTV | Artvin | 1.41 | 218 | eP | Pn | 04 37 20.6 | -0.6 |
| ARTV | | | | IAML | | 04 37 49.7 | |
| | comp=Z,27nm,0.6s | | | | | | |
| ARTV | Artvin | 1.41 | 218 | iP | Pn | 04 37 20.8 | -0.3 |
| ARTV | | | | iS | Sg | 04 37 42.0 | +1.8 |
| ARTV | Artvin | 1.41 | 218 | P | Pn | 04 37 20.8 | -0.3 |
| ARTV | | | | S | Sg | 04 37 42.0 | +1.8 |
| DOMR | Dombai | 1.45 | 313 | ePG | Pn | 04 37 21.3 | -0.3 |
| DOMR | | | | eS | Sg | 04 37 42.5 | +1.1 |
| DOMR | Dombai | 1.45 | 313 | ePg | Pn | 04 37 21.3 | -0.3 |
| DOMR | | | | eSg | Sg | 04 37 42.5 | +1.1 |
| SHA1 | Shidzhatmaz | 1.46 | 348 | ePG | Pn | 04 37 21.6 | -0.2 |
| SHA1 | | | | eS | Sg | 04 37 42.1 | +0.4 |
| SHA1 | Shidzhatmaz | 1.46 | 348 | ePg | Pn | 04 37 21.6 | -0.2 |
| SHA1 | | | | eSg | Sg | 04 37 42.1 | +0.4 |
| DAGI | Agillar | 1.51 | 216 | iP | Pn | 04 37 22.4 | +0.1 |
| DAGI | | | | iS | Sg | 04 37 44.1 | +1.0 |
| EAK | Akyaka | 1.67 | 166⇓ | eP | Pb | 04 37 25.8 | -0.2 |
| EAK | | | | IAML | | 04 37 28.0 | |
| | comp=Z,82nm,0.8s | | | | | | |
| EAK | | | | eS | Sn | 04 37 40.3 | -6.1 |
| EAK | Akyaka | 1.67 | 166 | iP | Pb | 04 37 25.6 | -0.3 |
| EAK | | | | iS | Sg | 04 37 48.2 | -0.2 |
| EAK | Akyaka | 1.67 | 166 | P | Pb | 04 37 25.6 | -0.3 |
| EAK | | | | S | Sg | 04 37 48.2 | -0.2 |
| KIV | Kislovodsk | 1.67 | 350 | ePN | Pb | 04 37 25.1 | -0.8 |
| KIV | | | | eS | Sb | 04 37 47.8 | +0.6 |
| KIV | Kislovodsk | 1.67 | 350 | ePn | Pb | 04 37 25.1 | -0.8 |
| KIV | | | | eSg | Sb | 04 37 47.8 | +0.6 |
| KARS | Kars | 1.68 | 180 | ePN | Pb | 04 37 26.1 | 0.0 |
| KARS | Kars | 1.68 | 180 | PN | Pg | 04 37 27.4 | +0.4 |
| KARS | Kars | 1.68 | 180 | ePn | Pb | 04 37 26.1 | 0.0 |
| BEYR | Belyy Ugol+ | 1.71 | 354 | ePN | Pb | 04 37 26.1 | -0.5 |
| BEYR | | | | eS | Sg | 04 37 49.6 | -0.2 |
| BEYR | Belyy Ugol+ | 1.71 | 354 | ePn | Pb | 04 37 26.1 | -0.5 |
| BEYR | | | | eSg | Sg | 04 37 49.6 | -0.2 |
| DDEM | Demirkent | 1.73 | 215 | iP | Pb | 04 37 26.6 | -0.3 |
| DDEM | | | | iS | Sg | 04 37 50.5 | +0.2 |
| DDEM | Demirkent | 1.73 | 215 | P | Pb | 04 37 26.6 | -0.3 |
| DDEM | | | | S | Sg | 04 37 50.5 | +0.2 |
| SENK | Senkaya-Erzuru | 1.83 | 198 | ePN | Pb | 04 37 28.5 | -0.2 |
| SENK | Senkaya-Erzuru | 1.83 | 198 | ePn | Pb | 04 37 28.5 | -0.2 |
| DIGO | Kars | 1.91 | 173 | eP | Pb | 04 37 29.5 | -0.5 |
| DIGO | | | | IAML | | 04 37 32.0 | |
| | comp=Z,17nm,0.6s | | | | | | |
| DIGO | Kars | 1.91 | 173 | iP | Pb | 04 37 30.1 | 0.0 |
| DIGO | Kars | 1.91 | 173 | P | Pb | 04 37 30.0 | 0.0 |
| GROC | Groznyy | 2.19 | 65 | ePN | Pb | 04 37 34.2 | -0.6 |
| GROC | | | | eS | Sg | 04 38 07.6 | +2.4 |
| GROC | | | | pmax | pmax | | |
| | comp=Z,33nm,0.9s | | | | | | |
| GROC | | | | smax | smax | | |
| | comp=E,43nm,0.8s | | | | | | |
| GROC | | | | smax | smax | | |
| | comp=E,74nm,0.8s | | | | | | |
| GROC | Groznyy | 2.19 | 65 | ePn | Pb | 04 37 34.2 | -0.6 |
| | comp=E,33nm,0.9s | | | | | | |
| GROC | | | | eSg | Sg | 04 38 07.6 | +2.4 |
| HOMI | Horasan | 2.43 | 202 | iP | Pb | 04 37 39.1 | +0.2 |
| GNI | Garni | 2.50 | 149c | ePN | Pb | 04 37 37.8 | -2.2 |
| GNI | Garni | 2.50 | 149 | ePn | Pb | 04 37 37.8 | -2.2 |
| GOF | Gofitskoye | 2.75 | 360⇑ | ePN | Pg | 04 37 46.7 | -0.7 |
| GOF | | | | eS | Sg | 04 38 24.9 | +1.9 |
| GOF | | | | pmax | pmax | | |
| | comp=Z,50nm,0.9s | | | | | | |
| GOF | | | | smax | smax | | |
| | comp=E,49nm,0.9s | | | | | | |
| GOF | | | | smax | smax | | |
| | comp=N,65nm,0.9s | | | | | | |
| GOF | Gofitskoye | 2.75 | 360 | eSg | Sg | 04 38 24.9 | +1.9 |
| | comp=N,65nm,0.9s | | | | | | |
| KIEV | Kiev | 12.70 | 316⇑ | eP | Pn | 04 39 55.9 | +0.3 |
| KIEV | Kiev | 12.70 | 316 | eP | Pn | 04 39 55.9 | +0.3 |
| ARU | Arti | 17.30 | 30 | eP | Pn | 04 40 55.6 | -1.0 |
| ARU | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.7s | | | | | | |
| BRVK | Borovoye | 21.11 | 50 | eP | P | 04 41 39.3 | -0.5 |
| BRVK | Borovoye | 21.11 | 50 | eP | P | 04 41 39.3 | -0.5 |
| AAK | Ala-Archa | 23.11 | 78⇑ | eP | P | 04 41 59.5 | -1.9 |
| KURK | Kurchatov | 25.66 | 59⇑ | eP | P | 04 42 24.8 | -0.2 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,3.0nm,2.4s | | | | | | |
| KURK | Kurchatov | 25.66 | 59 | eP | P | 04 42 24.8 | -0.2 |
| | comp=Z,3.0nm,2.4s | | | | | | |
| BILL | Bilibino | 62.05 | 21 | iP | P | 04 47 18.7 | +3.2 |
| BILL | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.9s | | | | | | |
| BILL | Bilibino | 62.05 | 21 | iP | P | 04 47 18.7 | +3.2 |
| | comp=Z,2.0nm,0.9s | | | | | | |

*ISK **01** 04:39:05.8, 38.72N×43.55E, h5km, ML2.6*
*ISCJB **01** 04:39:07.6±0.5, 38.72N±0.03×43.55E±0.05, h9km±5km, Error ellipse: s-maj=7.0km s-min=4.2km az=7.7*
*DDA **01** 04:39:07.2, 38.70N×43.54E, h7km, Ml3.0*
*CSEM **01** 04:39:07.3±0.2, 38.73N×43.54E, h5km, ML2.6, Error ellipse: s-maj=5.5km s-min=3.7km az=89.0*
**ISC 01 04:39:07.6**±1.0, **38.73N**±0.02×**43.55E**±0.03, **h13**km±7km, **n42**, σ**0.74**/54, **Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.19 | 223 | ePG | Pg | 04 39 11.8 | -0.2 |
| VANB | Van | 0.19 | 223 | ePg | Pg | 04 39 11.8 | -0.2 |
| TVAN | Van | 0.23 | 209 | iP | Pg | 04 39 12.1 | -0.7 |
| TVAN | | | | iS | Sb | 04 39 17.7 | -0.2 |
| TVAN | Van | 0.23 | 209 | P | Pg | 04 39 12.1 | -0.7 |
| TVAN | | | | S | Sb | 04 39 17.7 | -0.2 |
| VMUR | Van-Muradiye | 0.26 | 3 | iP | Pg | 04 39 12.7 | -0.5 |
| VMUR | | | | iS | Sb | 04 39 18.9 | +0.2 |
| VMUR | Van-Muradiye | 0.26 | 3 | P | Pg | 04 39 12.7 | -0.5 |
| VMUR | | | | S | Sb | 04 39 18.9 | +0.2 |
| ERCV | ERCIS-VAN | 0.33 | 330 | ePG | Pg | 04 39 13.6 | -0.9 |
| ERCV | | | | eSG | Sg | 04 39 19.6 | +0.4 |
| ERCV | ERCIS-VAN | 0.33 | 330 | ePg | Pg | 04 39 13.6 | -0.9 |
| ERCV | | | | eSg | Sg | 04 39 19.6 | +0.4 |
| CLDR | Caldiran | 0.50 | 35 | ePG | Pg | 04 39 17.1 | -0.5 |
| CLDR | | | | eSG | Sb | 04 39 25.3 | -0.4 |
| CLDR | Caldiran | 0.50 | 35 | iP | Pg | 04 39 17.1 | -0.5 |
| CLDR | | | | iS | Sb | 04 39 26.6 | +0.9 |
| CLDR | Caldiran | 0.50 | 35 | P | Pg | 04 39 17.1 | -0.5 |
| CLDR | | | | eSg | Sb | 04 39 25.3 | -0.4 |
| CLDR | | | | S | Sb | 04 39 26.6 | +0.9 |
| GEVA | Gevas | 0.57 | 223 | iP | Pg | 04 39 17.5 | -1.4 |
| GEVA | Gevas | 0.57 | 223 | P | Pg | 04 39 17.5 | -1.4 |
| ADCV | BITLIS_Adilcev | 0.65 | 277 | iP | Pg | 04 39 19.5 | -0.9 |
| ADCV | BITLIS_Adilcev | 0.65 | 277 | P | Pg | 04 39 19.5 | -0.9 |
| BASK | Baskale_VAN | 0.77 | 152 | iP | Pg | 04 39 21.3 | -1.2 |
| BASK | Baskale_VAN | 0.77 | 152 | P | Pg | 04 39 21.3 | -1.2 |
| DYDN | Diyadin | 0.82 | 7 | iP | Pg | 04 39 22.9 | -0.7 |
| DYDN | Diyadin | 0.82 | 7 | P | Pg | 04 39 22.9 | -0.7 |
| TUTA | Tutak | 0.88 | 320 | iP | Pg | 04 39 23.4 | -1.4 |
| TUTA | Tutak | 0.88 | 320 | P | Pg | 04 39 23.4 | -1.4 |
| AGRB | Hanur-Agry | 0.95 | 333 | ePG | Pb | 04 39 24.9 | -1.1 |
| AGRB | | | | eSG | Sn | 04 39 39.8 | -0.5 |
| AGRB | Hanur-Agry | 0.95 | 333 | ePg | Pb | 04 39 24.9 | -1.1 |
| AGRB | | | | eSg | Sn | 04 39 39.8 | -0.5 |
| EKAR | Karacoban | 1.27 | 295 | iP | Pg | 04 39 32.3 | +0.2 |
| EKAR | Karacoban | 1.27 | 295 | P | Pg | 04 39 32.3 | +0.2 |
| YOVA | Hakkari_Yˆ…kse | 1.28 | 153 | iP | Pn | 04 39 31.4 | 0.0 |
| YOVA | Hakkari_Yˆ…kse | 1.28 | 153 | P | Pn | 04 39 31.4 | 0.0 |
| TASB | TASBURUN-IGDIR | 1.36 | 23 | ePN | Pb | 04 39 33.3 | +0.3 |
| TASB | TASBURUN-IGDIR | 1.36 | 23 | ePn | Pb | 04 39 33.3 | +0.3 |
| EATA | Eleskirt | 1.40 | 324 | iP | Pb | 04 39 33.8 | +0.1 |
| EATA | Eleskirt | 1.40 | 324 | P | Pb | 04 39 33.8 | +0.1 |
| SRTM | Siirt_Merkez | 1.48 | 241 | iP | Pb | 04 39 35.4 | +0.4 |
| SRTM | Siirt_Merkez | 1.48 | 241 | P | Pb | 04 39 35.4 | +0.4 |
| CUKT | Cukurca | 1.48 | 178 | ePN | Pn | 04 39 34.4 | +0.4 |
| CUKT | Cukurca | 1.48 | 178 | iP | Pg | 04 39 36.5 | +0.4 |
| CUKT | Cukurca | 1.48 | 178 | ePn | Pn | 04 39 34.4 | +0.4 |
| CUKT | Cukurca | 1.48 | 178 | P | Pg | 04 39 36.5 | +0.4 |
| VRTB | Varto-Mus | 1.69 | 285 | ePN | Pn | 04 39 38.0 | +1.0 |
| VRTB | Varto-Mus | 1.69 | 285 | ePn | Pn | 04 39 38.0 | +1.0 |
| HOMI | Horasan | 1.83 | 316 | iP | Pb | 04 39 41.1 | 0.0 |
| SENK | Senkaya-Erzuru | 2.05 | 333 | ePN | Pn | 04 39 42.8 | +0.8 |
| SENK | Senkaya-Erzuru | 2.05 | 333 | ePn | Pn | 04 39 42.8 | +0.8 |

*ISCJB **01** 05:07:53.6±0.6, 38.75N±0.03×43.58E±0.07, h13km, Error ellipse: s-maj=7.8km s-min=4.8km az=10.5*
*CSEM **01** 05:07:53.5±0.2, 38.75N×43.59E, h5km, MD2.7, Error ellipse: s-maj=6.3km s-min=3.8km az=96.0*
*DDA **01** 05:07:53.4, 38.74N×43.59E, h7km, Ml2.5*
*ISK **01** 05:07:53.1, 38.75N×43.57E, h10km, MD2.7*
**ISC 01 05:07:53.5**±1.0, **38.73N**±0.03×**43.58E**±0.04, **h13**km, **n24**, σ**0.42**/28, **Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.20 | 227 | ePG | Pb | 05 07 59.1 | 0.0 |
| VANB | Van | 0.20 | 227 | ePg | Pb | 05 07 59.1 | 0.0 |
| TVAN | Van | 0.24 | 213 | iP | Pg | 05 07 58.9 | +0.1 |
| TVAN | Van | 0.24 | 213 | P | Pg | 05 07 58.9 | +0.1 |
| VMUR | Van-Muradiye | 0.26 | 359 | iP | Pg | 05 07 59.1 | +0.1 |
| VMUR | Van-Muradiye | 0.26 | 359 | P | Pg | 05 07 59.1 | +0.1 |
| CLDR | Caldiran | 0.49 | 33 | ePG | Pg | 05 08 03.1 | -0.1 |
| CLDR | | | | eSG | Sg | 05 08 10.2 | +0.5 |
| CLDR | Caldiran | 0.49 | 33 | iP | Pg | 05 08 02.8 | -0.4 |
| CLDR | Caldiran | 0.49 | 33 | P | Pg | 05 08 02.8 | -0.4 |
| CLDR | Caldiran | 0.49 | 33 | ePg | Pg | 05 08 03.1 | -0.1 |
| CLDR | | | | eSg | Sg | 05 08 10.2 | +0.5 |
| GEVA | Gevas | 0.58 | 224 | iP | Pg | 05 08 04.8 | -0.2 |
| GEVA | Gevas | 0.58 | 224 | P | Pg | 05 08 04.8 | -0.2 |
| BASK | Baskale_VAN | 0.76 | 154 | iP | Pg | 05 08 07.9 | -0.3 |
| BASK | Baskale_VAN | 0.76 | 154 | P | Pg | 05 08 07.9 | -0.3 |
| TUTA | Tutak | 0.89 | 319 | iP | Pg | 05 08 10.4 | -0.4 |
| TUTA | Tutak | 0.89 | 319 | P | Pg | 05 08 10.4 | -0.4 |
| AGRB | Hanur-Agry | 0.95 | 332 | ePG | Pg | 05 08 11.0 | -1.0 |
| AGRB | | | | eSG | Sb | 05 08 25.2 | +0.6 |
| AGRB | Hanur-Agry | 0.95 | 332 | ePg | Pg | 05 08 11.0 | -1.0 |
| AGRB | | | | eSg | Sb | 05 08 25.2 | +0.6 |
| EATA | Eleskirt | 1.41 | 324 | iP | Pg | 05 08 20.3 | -0.3 |
| EATA | Eleskirt | 1.41 | 324 | P | Pg | 05 08 20.3 | -0.3 |
| CUKT | Cukurca | 1.48 | 179 | ePN | Pb | 05 08 20.6 | -0.4 |
| CUKT | Cukurca | 1.48 | 179 | iP | Pg | 05 08 21.8 | -0.2 |
| CUKT | Cukurca | 1.48 | 179 | ePn | Pb | 05 08 20.6 | -0.4 |
| CUKT | Cukurca | 1.48 | 179 | P | Pg | 05 08 21.8 | -0.2 |

**IDC 01 05:15:00.9**±3.0, **30.20S**×**138.55E**, **h0**km, **mb1 3.0**/3, **mb1mx3.0**/32, **mbtmp2.8**/3, **ML2.8**/3, **Error ellipse: s-maj=78.9km s-min=15.8km az=44.0**, **South Australia**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| STKA | Stephens Creek | 3.11 | 123 | Pn | Pn | 05 15 50.9 | -0.3 |
| | 0.4nm,0.3s,baz=300,slow=13,SNR=5.8 | | | | | | |
| STKA | | | | Pg | Pb | 05 15 58.1 | +1.1 |
| | 1.6nm,0.3s,baz=302,slow=14,SNR=17 | | | | | | |
| STKA | | | | Sn | Sn | 05 16 28.3 | -0.7 |
| | 2.3nm,0.3s,baz=278,slow=9.4,SNR=6.4 | | | | | | |
| STKA | | | | Lg | Lg | 05 16 39.9 | |
| | 4.2nm,0.3s,baz=15,slow=24,SNR=6.3 | | | | | | |
| ASAR | Alice Springs | 7.71 | 326 | Pn | Pn | 05 16 54.3 | -0.2 |
| | 0.1nm,0.3s,baz=150,slow=12,SNR=4.9 | | | | | | |
| ASAR | | | | Sn | Sn | 05 18 24.0 | +1.4 |
| | 0.1nm,0.3s,baz=150,slow=22,SNR=6.0 | | | | | | |
| WRA | Warramunga Arr | 10.90 | 339 | Pn | Pn | 05 17 38.3 | +0.1 |
| | 0.1nm,0.3s,baz=154,slow=12,SNR=5.4 | | | | | | |

*ISCJB **01** 05:15:18.4±1.3, 35.15N±0.06×32.58E±0.08, h52km±10km, Error ellipse: s-maj=11.9km s-min=9.9km az=30.6*
*NIC **01** 05:15:18.3±0.2, 35.12N×32.55E, h51km, ML2.9*
*CSEM **01** 05:15:18.4±0.4, 35.13N×32.56E, h49km±4km, ML2.9, Error ellipse: s-maj=8.4km s-min=6.7km az=107.0*
*DDA **01** 05:15:20.8, 35.45N×32.87E, h7km, Ml2.5*
**ISC 01 05:15:18.6**±1.7, **35.14N**±0.06×**32.56E**±0.06, **h51**km±11km, **n17**, σ**0.64**/28, **Cyprus region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ALFC | Alefka | 0.04 | 58 | P | Pn | 05 15 26.6 | +0.1 |
| ALFC | | | | S | Sn | 05 15 32.2 | +0.1 |
| ALFC | Alefka | 0.04 | 58 | P | Pn | 05 15 26.6 | +0.1 |
| | baz=226 | | | | | | |
| ALFC | | | | S | Sn | 05 15 32.2 | +0.1 |
| LEF | Lefka | 0.27 | 94 | P | Pn | 05 15 27.6 | 0.0 |
| LEF | | | | S | Sn | 05 15 33.2 | -0.8 |
| PPCY | Paphos | 0.31 | 215 | P | Pn | 05 15 27.3 | -0.6 |
| PPCY | | | | S | Sn | 05 15 34.8 | +0.3 |
| PPCY | Paphos | 0.31 | 215 | P | Pn | 05 15 27.3 | -0.6 |
| | baz=35 | | | | | | |
| PPCY | | | | S | Sn | 05 15 34.8 | +0.3 |
| SZAC | Souni | 0.46 | 145 | P | Pn | 05 15 29.5 | 0.0 |
| SZAC | Souni | 0.46 | 145 | P | Pn | 05 15 29.5 | 0.0 |
| | baz=322 | | | | | | |
| MAMC | Mammari | 0.54 | 86 | P | Pn | 05 15 30.3 | -0.1 |
| MAMC | Mammari | 0.54 | 86 | P | Pn | 05 15 30.3 | -0.1 |
| | baz=264 | | | | | | |
| CSS | Mathiatis | 0.66 | 105 | S | Sn | 05 15 41.9 | +0.5 |
| CSS | Mathiatis | 0.66 | 105 | S | Sn | 05 15 41.9 | +0.5 |
| | baz=283 | | | | | | |
| GULN | MERSIN_Gulnar | 1.32 | 37 | iP | Pn | 05 15 40.1 | -0.5 |
| GULN | | | | iS | Sn | 05 15 55.6 | -1.4 |
| GULN | MERSIN_Gulnar | 1.32 | 37 | P | Pn | 05 15 40.1 | -0.5 |
| GULN | | | | S | Sn | 05 15 55.6 | -1.4 |
| ERMK | Ermenek | 1.53 | 11 | iP | Pn | 05 15 43.3 | -0.4 |
| ERMK | | | | iS | Sn | 05 16 03.4 | +0.9 |
| ERMK | Ermenek | 1.53 | 11 | P | Pn | 05 15 43.3 | -0.4 |
| ERMK | | | | S | Sn | 05 16 03.4 | +0.9 |
| KERG | Konya-Eregli | 2.60 | 29 | iP | Pn | 05 15 59.1 | +0.8 |
| KERG | | | | iS | Sn | 05 16 29.0 | +0.3 |
| KERG | Konya-Eregli | 2.60 | 29 | P | Pn | 05 15 59.1 | +0.8 |
| KERG | | | | S | Sn | 05 16 29.0 | +0.3 |

*ISCJB **01** 05:20:45.1±1.4, 12.95N±0.04×125.18E±0.05, h7km±9km, mb4.2/12, MS3.3/7, Error ellipse: s-maj=8.9km s-min=6.4km az=173.4*
*IDC **01** 05:20:45.6±0.8, 12.82N×125.07E, h0km, mb4.0/9, mb1 4.1/9, mb1mx3.9/41, mbtmp4.0/9, MS3.3/7, Ms1 3.3/7, ms1mx2.9/46, Error ellipse: s-maj=38.1km s-min=15.4km az=72.0*
*MAN **01** 05:20:47, 12.94N×125.01E, h14km, mb4.7, ML3.6, MS3.5*
*NEIC **01** 05:20:54.7±2.6, 12.80N×125.13E, h76km±24km, mb4.2/1, Error ellipse: s-maj=32.2km s-min=9.3km az=68.0*
**ISC 01 05:20:46.0**±1.9, **12.83N**±0.04×**124.99E**±0.06, **h1**km±12km, **n38**, σ**1.38**/32, **mb4.2**/12, **MS3.4**/7, **2C**, **Samar**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CNP | Catarman | 0.45 | 225 | eP | Pn | 05 20 58.5 | -1.1 |
| CNP | | | | eS | Sb | 05 21 07.0 | +2.9 |
| PVCP | Virac | 1.11 | 313 | eP | Pb | 05 21 06.8 | -1.2 |
| PVCP | | | | eS | Sb | 05 21 22.0 | -1.1 |
| BESP | Borongan | 1.30 | 160 | eP | Pg | 05 21 11.4 | +0.4 |
| OCLP | Ormoc | 1.81 | 192 | eP | Pg | 05 21 21.0 | +0.3 |
| RCP | Roxas | 2.54 | 240⇑ | eP | Pb | 05 21 30.0 | -2.4 |
| RCP | | | | eS | Sg | 05 22 07.0 | -0.6 |
| MSLP | Maasin | 2.69 | 183 | eP | Pb | 05 21 35.1 | +0.1 |
| MSLP | | | | eS | Sg | 05 22 13.7 | +1.3 |
| LLP | Lapu-Lapu | 2.70 | 202 | eP | Pb | 05 21 32.0 | -3.1 |
| LLP | | | | eS | Sb | 05 22 07.1 | -1.6 |
| BOAC | Boac | 3.13 | 282 | eP | Pn | 05 21 38.8 | +2.3 |
| GUIM | Jordan | 3.22 | 227 | eP | Pn | 05 21 39.5 | +1.8 |
| JAP | San Jose, Anti | 3.63 | 235⇑ | iP | Pb | 05 21 51.2 | +0.2 |
| SJMP | San Jose | 3.80 | 265 | eP | Pb | 05 21 53.2 | -0.7 |
| TGY | Tagaytay City | 4.14 | 288 | Pg | Pb | 05 21 58.9 | -0.9 |
| | 56nm,0.3s,baz=134,slow=3.3,SNR=5.0 | | | | | | |
| LUWI | Luwuk | 13.96 | 189 | ePn | P | 05 24 07.7 | -5.7 |
| | 43nm,0.4s | | | | | | |
| KSAR | Wonju Array Be | 24.64 | 6 | P | P | 05 26 07.7 | -0.5 |
| KSRS | Korea Array | 24.66 | 6 | P | P | 05 26 07.7 | -0.6 |
| | 1.2nm,0.6s,baz=186,slow=12,SNR=2.8 | | | | | | |
| KSRS | | | | LR | LR | 05 38 00.3 | |
| | comp=Z,19nm,18.3s,baz=244,slow=42 | | | | | | |
| CMAR | Chiang Mai Arr | 25.68 | 286 | P | P | 05 26 18.1 | +0.3 |
| | 1.2nm,0.2s,baz=97,slow=7.4,SNR=3.3 | | | | | | |
| CMAR | | | | LR | LR | 05 36 32.8 | |
| | comp=Z,27nm,19.7s,baz=110,slow=37 | | | | | | |
| MJAR | Matsushiro Arr | 26.43 | 24 | LR | LR | 05 35 36.2 | |
| | comp=Z,28nm,20.8s,baz=320,slow=34 | | | | | | |
| USRK | Ussuriysk Ar. | 31.83 | 10 | P | P | 05 27 12.0 | -0.3 |
| | 2.9nm,0.8s,baz=182,slow=8.4,SNR=4.2 | | | | | | |
| WRAB | Tennant Creek | 33.84 | 164 | eP | P | 05 27 29.0 | -1.2 |
| | 2.0nm,0.6s | | | | | | |
| WRA | Warramunga Arr | 33.85 | 164 | P | P | 05 27 28.6 | -1.6 |
| | 1.9nm,0.6s,baz=343,slow=9.3,SNR=30 | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ASAR | Alice Springs | 37.31 | 166 | P | P | 05 27 59.4 | -0.6 |
| | 1.4nm,0.5s,baz=350,slow=7.2,SNR=23 | | | | | | |
| SONM | Songino Array | 38.19 | 340 | P | P | 05 28 07.5 | +0.1 |
| | 0.8nm,0.8s,baz=179,slow=10.0,SNR=4.2 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 40.47 | 77 | T | T | 06 11 29.7 | |
| | baz=271,slow=74,SNR=20 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 40.48 | 77 | T | T | 06 11 33.8 | |
| | baz=271,slow=74,SNR=8.1 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 40.49 | 77 | T | T | 06 11 49.6 | |
| | baz=271,slow=74,SNR=8.8 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 40.72 | 75 | T | T | 06 11 49.7 | |
| | baz=266,slow=74,SNR=42 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 40.72 | 75 | T | T | 06 11 48.6 | |
| | baz=266,slow=74,SNR=37 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 40.73 | 75 | T | T | 06 11 49.1 | |
| | baz=266,slow=74,SNR=35 | | | | | | |
| STKA | Stephens Creek | 47.22 | 161 | P | P | 05 29 21.1 | +0.4 |
| | 1.7nm,0.8s,baz=333,slow=9.0,SNR=2.8 | | | | | | |
| MKAR | Makanchi Array | 49.24 | 322 | P | P | 05 29 36.9 | +0.7 |
| | 0.6nm,0.6s,baz=111,slow=8.3,SNR=4.7 | | | | | | |
| ZALV | Zalesovo Beam | 51.79 | 331 | P | P | 05 29 55.0 | -0.4 |
| | 2.6nm,0.7s,baz=122,slow=8.5,SNR=8.9 | | | | | | |
| ZALV | | | | LR | LR | 05 51 19.0 | |
| | comp=Z,33nm,18.4s,baz=62,slow=35 | | | | | | |
| KURK | Kurchatov | 53.26 | 325 | *e*P | P | 05 30 05.9 | -0.4 |
| | 101nm,0.9s | | | | | | |
| TIXI | Tiksi | 58.83 | 1 | LR | LR | 05 55 28.6 | |
| | comp=Z,32nm,21.5s,baz=225,slow=35 | | | | | | |
| BRVK | Borovoye | 58.93 | 325 | *e*P | P | 05 30 47.0 | +0.1 |
| | 16nm,0.9s | | | | | | |
| GEYT | Alibeck | 64.02 | 306 | LR | LR | 06 00 47.6 | |
| | comp=Z,56nm,18.6s,baz=335,slow=38 | | | | | | |
| RAR | Rarotonga | 81.23 | 114 | LR | LR | 06 03 52.0 | |
| | comp=Z,102nm,20.4s,baz=106,slow=32 | | | | | | |
| KSCO | Kaye Shedlock' | 111.95 | 38 | *e*PKPdf | PKiKP | 05 39 25.8 | +2.1 |
| PLCA | Paso Flores | 149.04 | 157 | PKPbc | PKPbc | 05 40 36.3 | -0.2 |
| | 1.6nm,0.9s,baz=273,slow=2.6,SNR=5.3 | | | | | | |

*ISCJB **01** 05:29:33.3±0.5, 35°.49N±0°.01×97°.04W±0°.02, h2$^{km}$±3$^{km}$, Error ellipse: s-maj=3.2km s-min=2.4km az=5.6*
*NEIC **01** 05:29:34.0±0.0, 35°.48N×97°.03W, h5$^{km}$, ML2.7(TUL), After TUL.*
*NEIC Felt at McLoud.*
**ISC 01 05:29:34.2**±1.0**, 35°.49N**±0°.02×**97°.03W**±0°.02**, h9**$^{km}$±7$^{km}$**, n66,** σ0$^s$.**82**/100**, Oklahoma**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| OK020 | N3440 Road, Me | 0.14 | 68 | *e*Pg | Pg | 05 29 37.2 | 0.0 |
| OK020 | | | | *e*Sg | Sg | 05 29 39.3 | -0.1 |
| OK021 | N3530 Road, Sp | 0.28 | 65 | *e*Pg | Pg | 05 29 39.8 | 0.0 |
| OK021 | | | | *e* | | 05 29 39.9 | |
| OK021 | | | | *e*Sg | Sg | 05 29 43.8 | +0.2 |
| OK022 | N3560 Road, Pr | 0.30 | 80 | *e*Pg | Pg | 05 29 40.2 | 0.0 |
| OK022 | | | | *e*Sg | Sg | 05 29 44.1 | -0.2 |
| V35A | Meyer Ranch, C | 0.32 | 30 | P | Pg | 05 29 40.6 | +0.1 |
| | baz=210,SNR=33 | | | | | | |
| V35A | | | | S | Sg | 05 29 45.2 | +0.5 |
| | baz=210 | | | | | | |
| V35A | Meyer Ranch, C | 0.32 | 30 | *e*Pg | Pg | 05 29 40.7 | +0.2 |
| V35A | | | | *e*Sg | Sg | 05 29 44.9 | +0.1 |
| W35A | Tecumseh | 0.36 | 159 | P | Pg | 05 29 41.1 | -0.1 |
| | baz=338 | | | | | | |
| W35A | | | | S | Sg | 05 29 46.1 | +0.2 |
| | baz=338 | | | | | | |
| W35A | Tecumseh | 0.36 | 159 | *e*Pg | Pg | 05 29 41.0 | -0.1 |
| W35A | | | | *e* | | 05 29 41.3 | |
| W35A | | | | *e*Sg | Sg | 05 29 46.4 | +0.5 |
| W36A | Wetumka | 0.74 | 117 | P | Pg | 05 29 48.2 | -0.2 |
| | baz=298,SNR=8.7 | | | | | | |
| W36A | | | | S | Sg | 05 29 58.1 | -0.1 |
| | baz=298 | | | | | | |
| W36A | Wetumka | 0.74 | 117 | *e*Pg | Pg | 05 29 48.3 | -0.2 |
| W36A | | | | *e*Pn | Pn | 05 29 57.3 | +6.4 |
| W36A | | | | *e*Sg | Sb | 05 29 59.6 | +0.1 |
| U35A | Pawnee | 0.92 | 15 | P | Pg | 05 29 51.1 | -0.7 |
| | baz=196,SNR=37 | | | | | | |
| U35A | | | | S | Sg | 05 30 03.6 | -0.2 |
| | baz=196 | | | | | | |
| U35A | Pawnee | 0.92 | 15 | *e*Pg | Pg | 05 29 51.0 | -0.7 |
| U35A | | | | *e*Sg | Sg | 05 30 03.3 | -0.4 |
| V36A | Jenks | 0.94 | 71 | P | Pg | 05 29 51.2 | -1.0 |
| | baz=251,SNR=35 | | | | | | |
| V36A | | | | S | Sg | 05 30 04.0 | -0.3 |
| | baz=251 | | | | | | |
| V36A | Jenks | 0.94 | 71 | *e*Pg | Pg | 05 29 51.2 | -1.0 |
| V36A | | | | *e*Sg | Sg | 05 30 03.7 | -0.7 |
| X36A | Centrahoma | 1.07 | 148 | P | Pg | 05 29 54.0 | -0.7 |
| | baz=329 | | | | | | |
| X36A | | | | S | Sg | 05 30 08.5 | -0.1 |
| | baz=329 | | | | | | |
| X35A | Drake | 1.08 | 177 | P | Pg | 05 29 54.0 | -1.0 |
| | baz=357 | | | | | | |
| X35A | | | | S | Sg | 05 30 09.0 | 0.0 |
| | baz=357 | | | | | | |
| X35A | Drake | 1.08 | 177 | *e*Pg | Pg | 05 29 54.0 | -1.0 |
| X35A | | | | *e*Sg | Sg | 05 30 09.1 | 0.0 |
| TUL1 | Leonard | 1.09 | 67 | P | Pg | 05 29 53.9 | -1.3 |
| | baz=247,SNR=38 | | | | | | |
| TUL1 | | | | S | Sg | 05 30 09.0 | -0.4 |
| | baz=247 | | | | | | |
| TUL1 | Leonard | 1.09 | 67 | *e*Pg | Pg | 05 29 54.0 | -1.2 |
| TUL1 | | | | *e*Sg | Sg | 05 30 08.4 | -1.0 |
| W37B | Quinton | 1.35 | 104 | P | Pn | 05 29 58.9 | -0.3 |
| | baz=285,SNR=22 | | | | | | |
| W37B | | | | S | Sb | 05 30 17.3 | +0.2 |
| | baz=285 | | | | | | |
| W37B | Quinton | 1.35 | 104 | *e*Pn | Pn | 05 29 59.0 | -0.2 |
| W37B | | | | *e*Sn | Sb | 05 30 17.4 | +0.2 |
| U36A | Oologah | 1.39 | 49 | P | Pn | 05 29 59.2 | -0.6 |
| | baz=230,SNR=23 | | | | | | |
| U36A | | | | S | Sb | 05 30 17.6 | -0.5 |
| | baz=230 | | | | | | |
| T35A | Sooner Cattle | 1.49 | 16 | P | Pn | 05 30 00.9 | -0.2 |
| | baz=196,SNR=28 | | | | | | |
| T35A | | | | S | Sn | 05 30 21.1 | +0.4 |
| | baz=196 | | | | | | |
| T34A | McClaskey Farm | 1.54 | 355 | P | Pn | 05 30 01.8 | 0.0 |
| | baz=175,SNR=20 | | | | | | |
| T34A | | | | S | Sb | 05 30 22.8 | +0.3 |
| | baz=175 | | | | | | |
| Y35A | Marietta | 1.58 | 180 | P | Pn | 05 30 02.8 | +0.5 |
| | baz=0.1 | | | | | | |
| Y35A | | | | Sb | Sg | 05 30 25.5 | +0.6 |
| | baz=0.1 | | | | | | |
| V37A | Hulbert | 1.59 | 75 | P | Pn | 05 30 02.5 | 0.0 |
| | baz=256,SNR=86 | | | | | | |
| WMOK | Wichita Mounta | 1.62 | 243 | P | Pn | 05 30 03.3 | +0.4 |
| | baz=62 | | | | | | |
| WMOK | | | | S | Sb | 05 30 24.7 | 0.0 |
| | baz=62 | | | | | | |
| WMOK | Wichita Mounta | 1.62 | 243 | *e*Pn | Pn | 05 30 03.0 | +0.1 |
| WMOK | | | | *e*Sn | Sn | 05 30 24.4 | +0.6 |
| X37A | Clayton | 1.63 | 123 | P | Pn | 05 30 03.8 | +0.7 |
| | baz=304,SNR=41 | | | | | | |
| X37A | Clayton | 1.63 | 123 | *e*Pn | Pn | 05 30 03.9 | +0.9 |
| X37A | | | | *e*Sn | Sn | 05 30 23.5 | -0.7 |
| Y36A | Durant | 1.70 | 159 | P | Pn | 05 30 04.4 | +0.4 |
| | baz=339 | | | | | | |
| Y36A | | | | S | Sb | 05 30 27.6 | +0.6 |
| | baz=339 | | | | | | |
| U37A | Salina | 1.81 | 59 | P | Pn | 05 30 05.7 | +0.2 |
| | baz=240,SNR=104 | | | | | | |
| T36A | Boggs Farm, Ca | 1.83 | 30 | P | Pn | 05 30 06.4 | +0.6 |
| | baz=211,SNR=84 | | | | | | |
| U32A | Winter Ranch, | 1.83 | 300 | Sb | Sg | 05 30 32.2 | -0.8 |
| | baz=119 | | | | | | |
| Y37A | Hugo | 1.90 | 142 | P | Pb | 05 30 08.1 | -0.9 |
| | baz=323,SNR=9.0 | | | | | | |
| Y37A | | | | Sb | Sg | 05 30 34.5 | -0.7 |
| | baz=323 | | | | | | |
| X38A | Whitesboro | 1.98 | 114 | P | Pn | 05 30 08.9 | +1.0 |
| | baz=295,SNR=30 | | | | | | |
| X38A | | | | Sb | Sg | 05 30 36.7 | -1.2 |
| | baz=295 | | | | | | |
| W38A | Poteau | 2.10 | 101 | P | Pn | 05 30 10.3 | +0.8 |
| | baz=282,SNR=18 | | | | | | |
| V38A | Canehill | 2.17 | 79 | P | Pn | 05 30 11.1 | +0.6 |
| | baz=261,SNR=56 | | | | | | |
| S34A | Willow Spring | 2.21 | 358 | P | Pn | 05 30 11.9 | +0.8 |
| | baz=178,SNR=6.8 | | | | | | |
| Z36A | Blue Ridge | 2.27 | 167 | P | Pn | 05 30 13.1 | +1.4 |
| | baz=348 | | | | | | |
| S35A | Otter Creek Ra | 2.27 | 14 | P | Pn | 05 30 13.0 | +1.1 |
| | baz=195 | | | | | | |
| S35A | | | | Sb | Sb | 05 30 44.7 | +1.3 |
| | baz=195 | | | | | | |
| U38A | Gravette | 2.35 | 65 | P | Pn | 05 30 13.9 | +1.0 |
| | baz=247 | | | | | | |
| Y38A | Idabel | 2.45 | 129 | Sb | Sb | 05 30 50.6 | +1.9 |
| | baz=310 | | | | | | |
| S36A | Lake Cedric, C | 2.52 | 27 | P | Pn | 05 30 15.8 | +0.5 |
| | baz=208 | | | | | | |
| S36A | | | | Sb | Sb | 05 30 52.0 | +1.4 |
| | baz=208 | | | | | | |
| HHAR | Hobbs | 2.63 | 72 | *e*Pn | Pn | 05 30 17.2 | +0.3 |
| W39A | Magazine | 2.67 | 95 | P | Pn | 05 30 17.8 | +0.4 |
| | baz=277,SNR=39 | | | | | | |
| T38A | Diamond | 2.70 | 54 | P | Pn | 05 30 18.4 | +0.6 |
| | baz=236 | | | | | | |
| V39A | Pettigrew | 2.78 | 82 | P | Pn | 05 30 19.1 | +0.2 |
| | baz=264,SNR=21 | | | | | | |
| S37A | Fort Scott | 2.88 | 37 | Sb | Sb | 05 31 03.1 | +2.0 |
| | baz=218 | | | | | | |
| MIAR | Mount Ida | 2.99 | 107 | P | Pn | 05 30 22.9 | +1.2 |
| | baz=289,SNR=14 | | | | | | |
| MIAR | Mount Ida | 2.99 | 107 | *e*Pn | Pn | 05 30 23.3 | +1.6 |
| MIAR | | | | *e*Sn | Sn | 05 31 00.2 | +2.6 |
| R36A | Gordon, Harris | 3.09 | 23 | P | Pn | 05 30 23.3 | +0.2 |
| | baz=204,SNR=6.6 | | | | | | |
| W40A | Ferguson Farm, | 3.25 | 94 | P | Pn | 05 30 25.8 | +0.4 |
| | baz=276,SNR=9.2 | | | | | | |
| S38A | Stockton | 3.30 | 49 | P | Pn | 05 30 26.7 | +0.7 |
| | baz=230 | | | | | | |
| R37A | Teagarden Farm | 3.33 | 31 | P | Pn | 05 30 26.7 | +0.3 |
| | baz=213 | | | | | | |
| Q34A | Chapman | 3.43 | 1 | P | Pn | 05 30 27.5 | -0.3 |
| | baz=181,SNR=5.8 | | | | | | |
| V40A | Witts Springs | 3.44 | 83 | P | Pn | 05 30 28.5 | +0.5 |
| | baz=266,SNR=24 | | | | | | |
| U40A | Yellville | 3.50 | 74 | P | Pn | 05 30 29.2 | +0.4 |
| | baz=257,SNR=7.5 | | | | | | |
| ABTX | Abilene, Hawle | 3.58 | 218 | *e*Pn | Pn | 05 30 29.5 | -0.4 |
| X301 | Greenbrier Sit | 3.79 | 92 | *e*Pn | Pn | 05 30 33.2 | +0.5 |
| AMTX | Amarillo | 3.85 | 262 | *e*Pn | Pn | 05 30 33.7 | -0.1 |
| WHAR | Wooly Hollow | 3.88 | 92 | *e*Pn | Pn | 05 30 34.5 | +0.5 |
| WHAR | | | | *e*Sg | Sg | 05 31 37.1 | -1.7 |
| UALR | University of | 3.91 | 99 | *e*Sg | Sg | 05 31 36.9 | -2.8 |
| W41B | Gary Mavity, V | 3.92 | 93 | P | Pn | 05 30 35.4 | +0.9 |
| | baz=276,SNR=17 | | | | | | |
| V41A | Mountainview | 3.98 | 84 | P | Pn | 05 30 35.7 | +0.2 |
| | baz=267,SNR=12 | | | | | | |
| P34A | Walnut Farm, R | 4.06 | 2 | P | Pn | 05 30 37.3 | +0.8 |
| | baz=182,SNR=10.0 | | | | | | |
| S40A | Lebanon | 4.21 | 59 | P | Pn | 05 30 39.1 | +0.5 |
| | baz=241,SNR=9.9 | | | | | | |

*CSEM **01** 05:40:13.9±0.2, 37°.52N×26°.85E, h2$^{km}$, ML2.5, Error ellipse: s-maj=6.0km s-min=4.0km az=41.0*
*DDA **01** 05:40:13.3, 37°.52N×26°.82E, h7$^{km}$, Ml3.0*
*ISK **01** 05:40:13.1, 37°.53N×26°.83E, h5$^{km}$, MD2.9*
*ATH **01** 05:40:14.1, 37°.53N×26°.80E, h4$^{km}$±2$^{km}$, ML2.5/3, Error ellipse: s-maj=3.5km s-min=1.1km az=115.0*
**ISC 01 05:40:13.8**±1.0**, 37°.52N**±0°.02×**26°.82E**±0°.02**, h8**$^{km}$±9$^{km}$**, n45,** σ0$^s$.**69**/66**, Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SMG | Samos | 0.19 | 4 | P | Pg | 05 40 17.2 | -0.5 |
| SMG | | | | S | Sg | 05 40 20.3 | 0.0 |
| SMG | | | | AML | AML | 05 40 20.9 | |
| | comp=E,6867μm,0.4s | | | | | | |
| SMG | | | | AML | AML | 05 40 20.9 | |
| | comp=N,7334μm,0.3s | | | | | | |
| SMG | Samos | 0.19 | 4 | P | Pg | 05 40 17.2 | -0.5 |
| SMG | | | | S | Sg | 05 40 20.3 | 0.0 |
| GCAM | G?zelcaml? | 0.37 | 61 | *i* P | Pg | 05 40 20.9 | -0.2 |
| GCAM | | | | *i* S | Sg | 05 40 26.4 | +0.4 |
| GCAM | G?zelcaml? | 0.37 | 61 | P | Pg | 05 40 20.9 | -0.2 |
| GCAM | | | | S | Sg | 05 40 26.4 | +0.4 |
| DGB | ˜zmir | 0.53 | 5 | *i* P | Pg | 05 40 23.5 | -0.6 |
| DGB | | | | *i* S | Sg | 05 40 32.1 | +1.0 |
| BODT | Bodrum | 0.60 | 139 | *e*PG | Pg | 05 40 25.1 | -0.3 |
| BODT | | | | *e*SG | Sg | 05 40 34.2 | +1.0 |
| BODT | Bodrum | 0.60 | 139 | *e*Pg | Pg | 05 40 25.1 | -0.3 |
| BODT | | | | *e*Sg | Sg | 05 40 34.2 | +1.0 |
| BDRM | Kayabasi | 0.67 | 132 | *i* P | Pg | 05 40 26.5 | -0.2 |
| BDRM | | | | *i* S | Sg | 05 40 36.1 | +0.6 |
| BDRM | Kayabasi | 0.67 | 132 | P | Pg | 05 40 26.5 | -0.2 |
| BDRM | | | | S | Sg | 05 40 36.1 | +0.6 |
| ZEY | ˜zmir | 0.76 | 341 | *i* P | Pg | 05 40 27.8 | -0.6 |
| ZEY | | | | *i* S | Sg | 05 40 38.7 | +0.3 |
| AYDN | Tasoluk | 0.85 | 80 | *i* P | Pg | 05 40 29.3 | -0.8 |
| AYDN | Tasoluk | 0.85 | 80 | P | Pg | 05 40 29.3 | -0.8 |
| URLA | Izmir | 0.86 | 348 | *e*PG | Pg | 05 40 29.8 | -0.5 |
| URLA | | | | *e*SG | Sg | 05 40 42.1 | +0.7 |
| URLA | Izmir | 0.86 | 348 | *i* P | Pg | 05 40 30.1 | -0.2 |
| URLA | | | | *i* S | Sb | 05 40 42.5 | -0.1 |
| URLA | Izmir | 0.86 | 348 | *e*Pg | Pg | 05 40 29.8 | -0.5 |
| URLA | Izmir | 0.86 | 348 | P | Pg | 05 40 30.1 | -0.2 |
| URLA | | | | *e*Sg | Sg | 05 40 42.1 | +0.7 |
| CHOS | Chios island | 1.06 | 325 | *e*PG | Pg | 05 40 33.9 | -0.2 |
| CHOS | | | | *e*SG | Sb | 05 40 48.5 | +0.1 |
| CHOS | Chios island | 1.06 | 325 | P | Pg | 05 40 33.0 | -1.1 |
| CHOS | | | | S | Sg | 05 40 47.8 | 0.0 |
| CHOS | | | | AML | AML | 05 40 50.0 | |
| | comp=E,506μm,0.7s | | | | | | |
| CHOS | | | | AML | AML | 05 40 50.6 | |
| | comp=N,242μm,0.3s | | | | | | |
| CHOS | Chios island | 1.06 | 325 | P | Pg | 05 40 33.0 | -1.1 |
| CHOS | Chios island | 1.06 | 325 | *e*Pg | Pg | 05 40 33.9 | -0.2 |
| CHOS | | | | S | Sg | 05 40 47.8 | 0.0 |
| CHOS | | | | *e*Sg | Sb | 05 40 48.5 | +0.1 |
| APE | Apeiranthos | 1.12 | 247 | *e*PN | Pg | 05 40 35.2 | -0.1 |
| APE | Apeiranthos | 1.12 | 247 | P | Pg | 05 40 35.1 | -0.2 |
| APE | | | | S | Sg | 05 40 50.3 | +0.4 |
| APE | | | | AML | AML | 05 40 53.3 | |
| | comp=N,331μm,0.2s | | | | | | |
| APE | | | | AML | AML | 05 40 53.3 | |
| | comp=E,313μm,0.2s | | | | | | |
| APE | Apeiranthos | 1.12 | 247 | P | Pg | 05 40 35.1 | -0.2 |
| APE | | | | S | Sg | 05 40 50.3 | +0.4 |
| TURN | Turunc | 1.56 | 114 | *e*PN | Pn | 05 40 39.5 | -2.4 |
| TURN | Turunc | 1.56 | 114 | *i* P | Pn | 05 40 39.6 | -2.1 |
| TURN | Turunc | 1.56 | 114 | P | Pn | 05 40 39.7 | -2.1 |
| AKHS | Akhisar | 1.57 | 30 | *i* P | Pb | 05 40 43.2 | +0.2 |
| AKHS | Akhisar | 1.57 | 30 | P | Pb | 05 40 43.2 | +0.2 |
| DALY | Dalyan (Mu˜la | 1.62 | 115 | *e*PN | Pn | 05 40 43.0 | +0.3 |
| DALY | Dalyan (Mu˜la | 1.62 | 115 | *e*Pn | Pn | 05 40 43.0 | +0.3 |
| TAVA | DENIZLI_Tavas | 1.66 | 91 | *i* P | Pb | 05 40 44.5 | -0.2 |
| TAVA | DENIZLI_Tavas | 1.66 | 91 | P | Pb | 05 40 44.5 | -0.2 |
| MANT | Manisa | 1.68 | 54 | *i* P | Pb | 05 40 45.2 | +0.1 |
| MANT | Manisa | 1.68 | 54 | P | Pb | 05 40 45.2 | +0.1 |
| KULA | Kula-Manisa | 1.76 | 55 | *e*PN | Pn | 05 40 45.1 | +0.5 |
| KULA | Kula-Manisa | 1.76 | 55 | *e*Pn | Pn | 05 40 45.1 | +0.5 |
| PRK | Paraskevi | 1.78 | 346 | P | Pg | 05 40 48.5 | +0.6 |
| SIGR | SIGRI | 1.85 | 336 | P | Pg | 05 40 49.2 | -0.1 |
| SIGR | SIGRI | 1.85 | 336 | P | Pg | 05 40 49.2 | -0.1 |
| SERI | Serifos | 1.90 | 260 | P | Pb | 05 40 49.2 | +0.6 |
| SERI | | | | S | Sg | 05 41 14.2 | -0.5 |
| SERI | Serifos | 1.90 | 260 | P | Pb | 05 40 49.2 | +0.6 |
| SERI | | | | S | Sg | 05 41 14.2 | -0.5 |
| STEP | BALIKESIR_Sava | 1.98 | 21 | *i* P | Pg | 05 40 51.5 | -0.3 |
| STEP | BALIKESIR_Sava | 1.98 | 21 | P | Pg | 05 40 51.5 | -0.3 |
| FETY | Fethiye | 2.01 | 115 | *e*PN | Pn | 05 40 48.7 | +0.6 |
| FETY | Fethiye | 2.01 | 115 | *e*Pn | Pn | 05 40 48.7 | +0.6 |

**IDC 01 05:46:19.5**±1.0**, 0°.33S**×**133°.70E, h0**$^{km}$**, mb3.9**/5**, mb1 4.1**/7**, mb1mx3.8**/42**, mbtmp3.9**/7**, ML4.0**/2**, MS3.2**/4**, Ms1 3.1**/4**, ms1mx2.7**/37**, Error ellipse: s-maj=48.7km s-min=18.3km az=78.0, Irian Jaya region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PMG | Port Moresby | 16.15 | 124 | LR | LR | 05 57 05.5 | |
| | comp=Z,56nm,21.1s,baz=28,slow=40 | | | | | | |
| FITZ | Fitzroy Crossi | 19.36 | 204 | P | P | 05 50 47.3 | +0.4 |
| | 0.2nm,0.3s,baz=38,slow=14,SNR=5.6 | | | | | | |
| FITZ | | | | S | Sn | 05 54 10.4 | -15 |
| | 0.1nm,0.3s,baz=70,slow=22,SNR=2.8 | | | | | | |
| WRA | Warramunga Arr | 19.50 | 178 | P | P | 05 50 47.2 | -1.3 |
| | 0.6nm,0.3s,baz=354,slow=11,SNR=27 | | | | | | |
| WRA | | | | LR | LR | 05 59 28.9 | |
| | comp=Z,88nm,18.7s,baz=320,slow=40 | | | | | | |
| CTA | Charters Tower | 23.17 | 149 | P | P | 05 51 29.6 | +1.6 |
| | 5.6nm,0.7s,baz=330,slow=13,SNR=9.0 | | | | | | |
| ASAR | Alice Springs | 23.20 | 180 | P | P | 05 51 27.7 | -0.5 |
| | 2.5nm,0.4s,baz=360,slow=11,SNR=29 | | | | | | |
| ASAR | | | | LR | LR | 06 01 45.6 | |
| | comp=Z,66nm,18.3s,baz=20,slow=40 | | | | | | |
| STKA | Stephens Creek | 32.26 | 167 | LR | LR | 06 07 27.7 | |
| | comp=Z,31nm,19.4s,baz=29,slow=39 | | | | | | |
| MKAR | Makanchi Array | 64.89 | 324 | P | P | 05 57 00.1 | -0.6 |
| | 0.5nm,0.4s,baz=112,slow=7.5,SNR=2.4 | | | | | | |
| ZALV | Zalesovo Beam | 67.41 | 331 | P | P | 05 57 18.3 | +1.5 |
| | 0.3nm,0.4s,baz=92,slow=3.5,SNR=2.9 | | | | | | |
| ILAR | Eielson Array | 85.78 | 25 | P | P | 05 58 58.9 | -1.7 |
| | 0.6nm,1.0s,baz=248,slow=4.9,SNR=4.8 | | | | | | |

*ISCJB **01** 05:47:27.9±0.4, 39°.55N±0°.02×27°.54E±0°.03, h4$^{km}$±4$^{km}$, Error ellipse: s-maj=4.2km s-min=3.6km az=153.2*
*ISK **01** 05:47:27.7, 39°.56N×27°.55E, h5$^{km}$, MD2.8*
*DDA **01** 05:47:27.8, 39°.55N×27°.55E, h7$^{km}$, Ml3.0*
*CSEM **01** 05:47:28.2±0.1, 39°.55N×27°.56E, h8$^{km}$, ML3.0, Error ellipse: s-maj=3.4km s-min=3.2km az=32.0*
**ISC 01 05:47:28.1**±0.9**, 39°.55N**±0°.02×**27°.54E**±0°.02**, h11**$^{km}$±8$^{km}$**, n71,** σ0$^s$.**46**/81**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BALY | Balya | 0.20 | 17 | *i* P | Pg | 05 47 32.6 | 0.0 |
| BALY | | | | *i* S | Sg | 05 47 36.2 | +0.6 |
| BALY | Balya | 0.20 | 17 | P | Pg | 05 47 32.6 | 0.0 |
| BALY | | | | S | Sg | 05 47 36.2 | +0.6 |
| STEP | BALIKESIR_Sava | 0.22 | 141 | *i* P | Pg | 05 47 32.6 | -0.1 |
| STEP | BALIKESIR_Sava | 0.22 | 141 | P | Pg | 05 47 32.6 | -0.1 |
| BALB | Balikesir | 0.28 | 70 | *e*PG | Pg | 05 47 33.6 | -0.2 |
| BALB | | | | *e*SG | Sg | 05 47 37.1 | -0.5 |
| BALB | Balikesir | 0.28 | 70 | *e*Pg | Pg | 05 47 33.6 | -0.2 |
| BALB | | | | *e*Sg | Sg | 05 47 37.1 | -0.5 |
| GONE | Gonen-Balikesi | 0.51 | 12 | *e*PG | Pg | 05 47 37.6 | -0.6 |
| GONE | | | | *e*SG | Sg | 05 47 45.4 | +0.4 |
| GONE | Gonen-Balikesi | 0.51 | 12 | *e*Pg | Pg | 05 47 37.6 | -0.6 |
| GONE | | | | *e*Sg | Sg | 05 47 45.4 | +0.4 |
| DKL | Dikili | 0.69 | 226 | *e*PG | Pg | 05 47 41.7 | +0.3 |
| DKL | | | | *e*SG | Sb | 05 47 51.5 | 0.0 |
| DKL | Dikili | 0.69 | 226 | *e*Pg | Pg | 05 47 41.7 | +0.3 |
| DKL | | | | *e*Sg | Sb | 05 47 51.5 | 0.0 |
| AKHS | Akhisar | 0.70 | 162 | *i* P | Pg | 05 47 41.6 | -0.1 |
| AKHS | Akhisar | 0.70 | 162 | P | Pg | 05 47 41.6 | -0.1 |
| KNL | Bal˜–kesir | 0.72 | 359 | *i* P | Pg | 05 47 41.9 | -0.3 |
| BAYC | CANAKKALE_Bayr | 0.79 | 285 | *i* P | Pg | 05 47 43.1 | -0.4 |
| BAYC | | | | *i* S | Sg | 05 47 53.7 | -0.2 |
| BAYC | CANAKKALE_Bayr | 0.79 | 285 | P | Pg | 05 47 43.1 | -0.4 |
| BAYC | | | | S | Sg | 05 47 53.7 | -0.2 |
| DST | Dursunbey | 0.83 | 86 | *e*PG | Pb | 05 47 44.7 | +0.1 |
| DST | Dursunbey | 0.83 | 86 | *e*Pg | Pb | 05 47 44.7 | +0.1 |
| EDC | Edincik | 0.84 | 17 | *e*PG | Pg | 05 47 44.2 | -0.1 |
| KRBG | Karabiga-Canak | 0.87 | 348 | *e*PG | Pg | 05 47 44.4 | -0.5 |
| KRBG | Karabiga-Canak | 0.87 | 348 | *e*Pg | Pg | 05 47 44.4 | -0.5 |
| KCTX | Karacabey (Bur | 0.95 | 41 | *e*PG | Pb | 05 47 45.8 | -0.8 |
| EZN | Ezine | 0.98 | 287 | *e*PG | Pg | 05 47 47.4 | +0.4 |
| EZN | Ezine | 0.98 | 287 | *e*Pg | Pg | 05 47 47.4 | +0.4 |
| LPK | Lapseki | 1.02 | 324 | *e*PG | Pg | 05 47 48.0 | +0.1 |
| LPK | Lapseki | 1.02 | 324 | *e*Pg | Pg | 05 47 48.0 | +0.1 |
| DEMI | Demirci | 1.04 | 119 | *i* P | Pb | 05 47 47.6 | -0.5 |
| DEMI | Demirci | 1.04 | 119 | P | Pb | 05 47 47.6 | -0.5 |
| ORLT | Orhaneli | 1.16 | 64 | *e*PN | Pb | 05 47 49.0 | -1.1 |
| ORLT | Orhaneli | 1.16 | 64 | *e*Pn | Pb | 05 47 49.0 | -1.1 |
| RKY | Sarkoy-Tekirda | 1.18 | 346 | *e*PN | Pb | 05 47 50.1 | -0.3 |
| RKY | Sarkoy-Tekirda | 1.18 | 346 | *e*Pn | Pb | 05 47 50.1 | -0.3 |
| SART | Tekirdag | 1.18 | 346 | *i* P | Pb | 05 47 50.2 | -0.3 |
| SART | Tekirdag | 1.18 | 346 | P | Pb | 05 47 50.2 | -0.3 |
| GELI | Tayfur-Gelibol | 1.18 | 316 | *e*PN | Pn | 05 47 50.4 | -0.2 |
| GELI | Tayfur-Gelibol | 1.18 | 316 | *e*Pn | Pn | 05 47 50.4 | -0.2 |
| BOZC | Bozcaada | 1.19 | 285 | *e*PN | Pn | 05 47 50.1 | -0.5 |
| BOZC | Bozcaada | 1.19 | 285 | *i* P | Pn | 05 47 50.5 | -0.1 |
| BOZC | Bozcaada | 1.19 | 285 | *e*Pn | Pn | 05 47 50.1 | -0.5 |
| SIMA | Simav-Kutahya | 1.21 | 112 | *e*PN | Pn | 05 47 50.4 | -0.6 |
| MANT | Manisa | 1.32 | 143 | *i* P | Pb | 05 47 52.9 | -0.1 |
| MANT | Manisa | 1.32 | 143 | P | Pb | 05 47 52.9 | -0.1 |
| MDNY | Mudanya-Bursa | 1.32 | 51 | *e*PN | Pb | 05 47 53.0 | +0.1 |
| KULA | Kula-Manisa | 1.35 | 139 | *e*PN | Pb | 05 47 53.4 | 0.0 |
| KULA | Kula-Manisa | 1.35 | 139 | *e*Pn | Pb | 05 47 53.4 | 0.0 |
| SIGR | SIGRI | 1.35 | 256 | *e*PN | Pg | 05 47 54.0 | -0.1 |
| SIGR | SIGRI | 1.35 | 256 | *e*Pn | Pg | 05 47 54.0 | -0.1 |
| ERIK | Erikli-Kesan | 1.37 | 325 | *e*PN | Pb | 05 47 53.4 | -0.4 |
| ERIK | Erikli-Kesan | 1.37 | 325 | *e*Pn | Pb | 05 47 53.4 | -0.4 |
| SBT3 | Marmara-Eregli | 1.38 | 14 | *e*PN | Pg | 05 47 54.9 | +0.3 |
| SBT3 | Marmara-Eregli | 1.38 | 14 | *e*Pn | Pg | 05 47 54.9 | +0.3 |
| URLA | Izmir | 1.40 | 212 | *e*PN | Pg | 05 47 54.8 | -0.2 |
| URLA | Izmir | 1.40 | 212 | *e*Pn | Pg | 05 47 54.8 | -0.2 |
| GADA | Gvkgeada | 1.42 | 298 | *e*PN | Pn | 05 47 54.0 | +0.2 |
| GADA | Gvkgeada | 1.42 | 298 | *e*Pn | Pn | 05 47 54.0 | +0.2 |
| ARMT | Armutlu | 1.44 | 44 | *e*PN | Pb | 05 47 55.0 | +0.2 |
| TVSB | Tavsanli | 1.49 | 93 | *e*PN | Pb | 05 47 55.6 | -0.2 |
| SBT5 | Esenkoy-Cinarc | 1.49 | 43 | *e*PN | Pb | 05 47 55.7 | -0.1 |
| SBT2 | Guzelce-Avcila | 1.52 | 29 | *e*PN | Pb | 05 47 56.7 | +0.4 |
| SBT2 | Guzelce-Avcila | 1.52 | 29 | *e*Pn | Pb | 05 47 56.7 | +0.4 |
| ENEZ | Enez | 1.60 | 319 | *e*PN | Pn | 05 47 56.7 | +0.4 |
| ENEZ | Enez | 1.60 | 319 | *e*Pn | Pn | 05 47 56.7 | +0.4 |
| CHOS | Chios island | 1.64 | 226 | *e*PN | Pb | 05 47 58.3 | 0.0 |
| CHOS | Chios island | 1.64 | 226 | *e*Pn | Pb | 05 47 58.3 | 0.0 |
| YLV | Yalova | 1.73 | 53 | *e*PN | Pb | 05 47 59.4 | -0.6 |
| ALN | Alexandroupoli | 1.77 | 320 | *e*PN | Pb | 05 48 00.5 | -0.1 |
| ALN | Alexandroupoli | 1.77 | 320 | *e*Pn | Pb | 05 48 00.5 | -0.1 |
| BUY | Buyukada | 1.78 | 42 | *e*PN | Pb | 05 47 59.9 | -0.7 |
| CTKS | Kestanelik-??a | 1.84 | 23 | *e*PN | Pb | 05 48 01.0 | -0.8 |
| CTKS | Kestanelik-??a | 1.84 | 23 | *e*Pn | Pb | 05 48 01.0 | -0.8 |
| ISK | Istanbul-Kandi | 1.91 | 37 | *e*PN | Pn | 05 48 01.6 | +1.0 |
| GULT | Gulveren | 2.45 | 68 | *e*PN | Pn | 05 48 09.8 | +1.7 |

*SOME **01** 05:54:28.7, 44°.62N×82°.27E, h20$^{km}$*
*NNC **01** 05:54:31.1±1.5, 44°.63N×82°.20E, h0$^{km}$, mb3.3, mpv2.8, Error ellipse: s-maj=21.4km s-min=3.7km az=117.0*
**ISC 01 05:54:27.6**±2.4**, 44°.63N**±0°.08×**82°.2E**±0°.1**, h2**$^{km}$±16$^{km}$**, n9,** σ0$^s$.**84**/18**, 6C-1D, Northern Xinjiang**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DJR | Jarkent | 1.73 | 261 | *e*P | Pg | 05 55 01.0 | +0.3 |
| | 10nm,0.2s | | | | | | |
| DJR | | | | *e*S | Sg | 05 55 24.1 | +1.0 |
| | 6.3nm,0.3s | | | | | | |
| KAPS | Kapalarasan | 2.10 | 289 | *e*P | Pg | 05 55 07.3 | -0.6 |
| | 2.5nm,0.2s | | | | | | |
| KAPS | | | | *e*S | Sg | 05 55 35.0 | -0.2 |
| | 6.9nm,0.2s | | | | | | |
| MK31 | Makanchi Array | 2.17 | 2 | ⇑Pn | Pg | 05 55 08.9 | -0.3 |
| | 2.8nm,0.3s,baz=186,slow=14,SNR=126 | | | | | | |
| MK31 | | | | ⇑Sn | Sg | 05 55 37.1 | -0.1 |
| | 1.9nm,0.2s,baz=186,slow=28,SNR=16 | | | | | | |
| MAKZ | Makanchi | 2.18 | 357 | ⇑Pn | Pb | 05 55 08.3 | +0.4 |
| | 4.7nm,0.6s | | | | | | |
| MAKZ | | | | ⇑Sn | Sg | 05 55 37.5 | -0.3 |
| | 4.6nm,0.7s | | | | | | |
| PDGK | Podgornoye | 2.33 | 237 | ⇑Pn | Pb | 05 55 10.7 | +0.3 |
| | 1.3nm,0.3s | | | | | | |
| PDGK | | | | ⇓Sn | Sg | 05 55 42.2 | -0.3 |
| | 4.7nm,0.4s | | | | | | |
| SHLS | Shalkode | 2.45 | 234 | *e*P | Pn | 05 55 09.2 | +0.4 |
| | 7.9nm,0.2s | | | | | | |
| SHLS | | | | *e*S | Sn | 05 55 37.8 | -1.6 |
| | 32nm,0.3s | | | | | | |
| UZB | Uzynbulak | 2.71 | 238 | *e*P | Pb | 05 55 17.3 | +0.3 |
| | 6.0nm,0.2s | | | | | | |
| UZB | | | | *e*S | Sb | 05 55 52.0 | +1.2 |
| | 4.6nm,0.3s | | | | | | |
| KPKS | Kokpek | 2.77 | 246 | *e*P | Pb | 05 55 18.9 | +1.0 |
| | 16nm,0.2s | | | | | | |
| KPKS | | | | *e*S | Sg | 05 55 54.9 | -1.6 |
| | 14nm,0.3s | | | | | | |
| SATY | Saty | 3.14 | 241 | *e*P | Pb | 05 55 23.9 | -0.4 |
| | 6.4nm,0.2s | | | | | | |
| SATY | | | | ⇑*i*S | Sb | 05 56 03.2 | +0.1 |
| | 8.3nm,0.3s | | | | | | |

*IDC **01** 05:57:20.8±0.8, 35°.20N×141°.29E, h0$^{km}$, mb3.8/9, mb1 4.0/11, mb1mx3.8/56, mbtmp3.8/11, ML3.4/2, MS3.2/1, Ms1 3.2/1, ms1mx2.6/25, Error ellipse: s-maj=21.6km s-min=17.2km az=98.0*
*JMA **01** 05:57:22.8±0.2, 35°.25N×141°.31E, h34$^{km}$±3$^{km}$, M3.4*
*ISCJB **01** 05:57:23.9±0.7, 35°.21N±0°.05×141°.31E±0°.08, h35$^{km}$, mb3.8/9, Error ellipse: s-maj=9.3km s-min=7.3km*

*az=176.6*

**ISC 01 05:57:25.9**±0.8, **35°.22N**±0°.05×**141°.28E**±0°.09, **h35**km, **n25**, σ**1s.58**/20, **mb3.7**/9, **Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CHOJ | Chosi | 0.59 | 325 | P | Pn | 05 57 34.4 | -3.4 |
| BSO1 | Boso 1 | 0.62 | 204 | P | Pn | 05 57 35.4 | -2.3 |
| BSO3 | Boso 3 | 0.76 | 237 | P | Pn | 05 57 37.8 | -2.0 |
| KTR | Katsuura | 0.79 | 265 | P | Pn | 05 57 38.2 | -2.3 |
| BSO4 | Boso 4 | 0.80 | 254 | P | Pn | 05 57 38.6 | -2.0 |
| JCN | Nagara | 0.90 | 283 | P | Pn | 05 57 40.0 | -2.0 |
| JHJ | Hachijo jima 2 | 2.44 | 211 | Pn | Pn | 05 58 02.6 | -0.6 |
| | 17nm,0.3s,baz=238,slow=19,SNR=2.3 | | | | | | |
| JHJ | | | | Sn | Sn | 05 58 33.0 | +1.3 |
| | 44nm,0.3s,baz=112,slow=21,SNR=3.2 | | | | | | |
| MJAR | Matsushiro Arr | 2.82 | 299 | Pn | Pn | 05 58 08.4 | -0.1 |
| | 6.8nm,0.3s,baz=100,slow=14,SNR=38 | | | | | | |
| MAT | Matsushiro | 2.82 | 299 | P | Pn | 05 58 08.8 | +0.3 |
| MAT | | | | eS | Sn | 05 58 43.2 | +1.9 |
| KSRS | Korea Array | 11.00 | 286 | LR | LR | 06 04 23.1 | |
| | comp=Z,105nm,18.2s,baz=79,slow=38 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 27.36 | 118 | T | T | 06 32 06.6 | |
| | baz=310,slow=75,SNR=37 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 27.37 | 118 | T | T | 06 32 12.8 | |
| | baz=310,slow=75,SNR=41 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 27.38 | 118 | T | T | 06 32 16.5 | |
| | baz=310,slow=75,SNR=39 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 28.01 | 120 | T | T | 06 33 04.0 | |
| | baz=312,slow=75,SNR=183 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 28.01 | 120 | T | T | 06 32 50.6 | |
| | baz=312,slow=75,SNR=151 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 28.03 | 120 | T | T | 06 32 57.0 | |
| | baz=312,slow=75,SNR=120 | | | | | | |
| SONM | Songino Array | 28.74 | 307 | P | P | 06 03 20.2 | +0.1 |
| | 0.3nm,0.4s,baz=121,slow=10,SNR=3.6 | | | | | | |
| ZALV | Zalesovo Beam | 43.07 | 314 | P | P | 06 05 21.5 | -0.6 |
| | 0.9nm,0.5s,baz=99,slow=8.2,SNR=5.6 | | | | | | |
| MKAR | Makanchi Array | 45.01 | 304 | P | P | 06 05 37.3 | -0.6 |
| | 0.5nm,0.5s,baz=83,slow=9.2,SNR=7.2 | | | | | | |
| ILAR | Eielson Array | 51.09 | 32 | P | P | 06 06 24.6 | +0.1 |
| | 0.9nm,0.6s,baz=262,slow=5.6,SNR=14 | | | | | | |
| BVAR | Borovoye Array | 51.72 | 313 | P | P | 06 06 29.8 | +0.4 |
| | 0.4nm,0.4s,baz=100,slow=7.5,SNR=3.2 | | | | | | |
| WRA | Warramunga Arr | 55.25 | 188 | P | P | 06 06 55.0 | -0.6 |
| | 1.9nm,0.7s,baz=4.2,slow=7.4,SNR=12 | | | | | | |
| ASAR | Alice Springs | 58.98 | 188 | P | P | 06 07 22.1 | +0.1 |
| | 0.3nm,0.5s,baz=21,slow=11,SNR=5.4 | | | | | | |
| PDAR | Pinedale Array | 79.02 | 45 | P | P | 06 09 27.1 | +0.5 |
| | 1.2nm,0.5s,baz=267,slow=2.3,SNR=13 | | | | | | |
| TXAR | Lajitas Array | 91.31 | 52 | P | P | 06 10 29.3 | +1.0 |
| | 0.2nm,0.6s,baz=300,slow=2.5,SNR=5.3 | | | | | | |

---

**IDC 01 06:01:54.2**±10.0, **25°.23S**×**178°.57W**, **h460**km±60km, **mb3.6**/4, **mb1 3.8**/6, **mb1mx3.3**/24, **mbtmp4.6**/6, **Error ellipse: s-maj=164.7km s-min=39.8km az=69.0**, **South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| URZ | Urewera | 13.50 | 195 | P | P | 06 04 49.2 | +0.2 |
| | 9.4nm,0.3s,baz=277,slow=3.8,SNR=50 | | | | | | |
| URZ | | | | S | S | 06 07 12.1 | -1.2 |
| | 1.4nm,0.3s,baz=64,slow=23,SNR=14 | | | | | | |
| DZM | Mont Dzumac | 14.09 | 280 | P | P | 06 04 55.3 | -0.4 |
| | 1.0nm,0.3s,baz=96,slow=16,SNR=10 | | | | | | |
| CTA | Charters Tower | 32.80 | 272 | P | P | 06 07 48.7 | +0.3 |
| | 4.6nm,0.4s,baz=101,slow=12,SNR=11 | | | | | | |
| STKA | Stephens Creek | 35.47 | 250 | P | P | 06 08 10.7 | 0.0 |
| | 0.9nm,0.3s,baz=93,slow=9.5,SNR=5.4 | | | | | | |
| ASAR | Alice Springs | 43.12 | 262 | P | P | 06 09 12.8 | -0.1 |
| | 3.8nm,0.6s,baz=100,slow=7.9,SNR=47 | | | | | | |
| WRA | Warramunga Arr | 43.63 | 267 | P | P | 06 09 16.4 | -0.5 |
| | 7.0nm,0.6s,baz=103,slow=8.0,SNR=39 | | | | | | |

---

*UPP **01** 06:04:10.7, 60°.65N×27°.14E, h0km*
*ISCJB **01** 06:04:12.0±0.6, 60°.91N±0°.02×26°.67E±0°.05, h4km±5km, mb3.2/2, Error ellipse: s-maj=4.5km s-min=3.3km az=8.3*
*CSEM **01** 06:04:13.1±0.2, 60°.90N×26°.70E, h2km, ML2.8, Error ellipse: s-maj=4.4km s-min=3.1km az=103.0*
*HEL **01** 06:04:13.6±0.1, 60°.90N×26°.67E, h2km, ML2.8*
*NAO **01** 06:04:14.6±1.4, 60°.94N×26°.57E, ML3.0*
*IDC **01** 06:04:14.8±0.9, 60°.95N×26°.61E, h0km, mb2.9/1, mb1 3.5/6, mb1mx3.3/35, mbtmp3.4/6, ML3.3/5, Error ellipse: s-maj=7.8km s-min=6.5km az=100.0*
*BER **01** 06:04:15.2±2.8, 60°.96N×26°.60E, h0km±13km, ML3.0(NAO)*

**ISC 01 06:04:12.7**±1.1, **60°.92N**±0°.02×**26°.65E**±0°.03, **h4**km±9km, **n80**, σ**1s.43**/117, **Finland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PVF | Pernaja | 0.54 | 226 | P | Pg | 06 04 23.0 | 0.0 |
| PVF | | | | S | Sg | 06 04 30.1 | +0.1 |
| PVF | Pernaja | 0.54 | 226 | eP | Pg | 06 04 23.0 | 0.0 |
| PVF | | | | eS | Sg | 06 04 30.1 | +0.1 |
| PVF | | | | MSG | | 06 04 30.6 | |
| | comp=Z,140nm,0.3s | | | | | | |
| VJF | Virojoki | 0.58 | 130 | P | Pg | 06 04 23.5 | -0.4 |
| VJF | | | | S | Sg | 06 04 31.2 | -0.2 |
| VJF | Virojoki | 0.58 | 130 | eP | Pg | 06 04 23.6 | -0.4 |
| VJF | | | | eS | Sg | 06 04 31.3 | -0.2 |
| VJF | | | | MSG | | 06 04 31.7 | |
| | comp=Z,218nm,0.1s | | | | | | |
| FIA0 | FINESS Array S | 0.60 | 332 | Pg | Pg | 06 04 24.5 | +0.3 |
| | baz=152,slow=18 | | | | | | |
| FIA0 | | | | Lg | Lg | 06 04 32.4 | |
| | baz=156,slow=37 | | | | | | |
| FIA0 | | | | Rg | Rg | 06 04 35.2 | |
| | baz=152,slow=37 | | | | | | |
| FIA0 | FINESS Array S | 0.60 | 332 | Pg | Pg | 06 04 24.5 | +0.3 |
| | baz=152,slow=18 | | | | | | |
| FIA0 | | | | Lg | Lg | 06 04 32.4 | |
| | baz=156,slow=37 | | | | | | |
| FIA0 | | | | Rg | Rg | 06 04 35.2 | |
| | baz=152,slow=37 | | | | | | |
| FIA0 | FINESS Array S | 0.60 | 332 | Pg | Pg | 06 04 24.5 | +0.3 |
| | SNR=90 | | | | | | |
| FIA0 | | | | S | Sg | 06 04 32.1 | +0.3 |
| FIA0 | FINESS Array S | 0.60 | 332 | eP | Pg | 06 04 24.4 | +0.3 |
| FIA0 | | | | eS | Sg | 06 04 32.2 | +0.3 |
| FIA0 | | | | MSG | | 06 04 32.8 | |
| | comp=Z,175nm,0.1s | | | | | | |
| FINES | FINESS Array B | 0.60 | 332 | Pg | Pg | 06 04 24.3 | +0.2 |
| | comp=Z,36nm,0.3s,baz=150,slow=16,SNR=1026 | | | | | | |
| FINES | | | | Lg | Lg | 06 04 32.3 | |
| | comp=Z,76nm,0.3s,baz=154,slow=29,SNR=184 | | | | | | |
| FINES | | | | Rg | Rg | 06 04 35.1 | |
| | comp=Z,1μm,0.6s,baz=152,slow=36,SNR=205 | | | | | | |
| KAF | Kangasniemi | 1.21 | 352 | P | Pg | 06 04 35.2 | -0.7 |
| KAF | | | | S | Sg | 06 04 51.5 | -0.1 |
| KAF | Kangasniemi | 1.21 | 352 | eP | Pg | 06 04 35.2 | -0.7 |
| KAF | | | | eS | Sg | 06 04 51.5 | -0.1 |
| KAF | | | | MSG | | 06 04 52.3 | |
| | comp=Z,103nm,0.1s | | | | | | |
| MEF | Metsahovi | 1.32 | 239 | P | Pg | 06 04 37.1 | -0.8 |
| MEF | | | | S | Sg | 06 04 54.0 | -1.0 |
| MEF | Metsahovi | 1.32 | 239 | eP | Pg | 06 04 37.2 | -0.8 |
| MEF | | | | eS | Sg | 06 04 54.0 | -1.0 |
| KEF | Keuruu | 1.52 | 327 | P | Pn | 06 04 40.8 | +0.2 |
| KEF | | | | S | Sn | 06 05 00.7 | 0.0 |
| KEF | Keuruu | 1.52 | 327 | eP | Pn | 06 04 40.9 | +0.2 |
| KEF | | | | eS | Sn | 06 05 00.8 | 0.0 |
| KEF | | | | MSG | | 06 05 02.3 | |
| | comp=Z,155nm,0.1s | | | | | | |
| ARBE | Arbavere | 1.52 | 193 | P | Pn | 06 04 40.3 | -0.3 |
| ARBE | | | | S | Sg | 06 05 00.6 | -0.9 |
| ARBE | Arbavere | 1.52 | 193 | eP | Pn | 06 04 40.4 | -0.3 |
| ARBE | | | | eS | Sg | 06 05 00.7 | -0.9 |
| SUF | Sumiainen | 1.82 | 353 | P | Pn | 06 04 45.7 | +0.9 |
| SUF | | | | S | Sn | 06 05 09.9 | +1.6 |
| SUF | Sumiainen | 1.82 | 353 | eP | Pn | 06 04 45.8 | +0.9 |
| SUF | | | | eS | Sn | 06 05 09.9 | +1.6 |
| SUF | | | | MSG | | 06 05 10.9 | |
| | comp=Z,100nm,0.2s | | | | | | |
| RAF | Rauma | 2.38 | 275 | P | Pn | 06 04 54.9 | +2.4 |
| RAF | | | | S | Sn | 06 05 23.9 | +1.8 |
| RAF | Rauma | 2.38 | 275 | eP | Pn | 06 04 55.0 | +2.4 |
| RAF | | | | eS | Sn | 06 05 23.9 | +1.8 |
| RAF | | | | eSG | Sb | 06 05 26.5 | +0.6 |
| RAF | | | | MSG | | 06 05 28.8 | |
| | comp=Z,127nm,0.3s | | | | | | |
| VSU | Vasula | 2.46 | 179 | P | Pn | 06 04 54.4 | +0.9 |
| VSU | Vasula | 2.46 | 179 | eP | Pn | 06 04 54.5 | +0.9 |
| VSU | | | | eSG | Sb | 06 05 28.8 | +0.6 |
| MTSE | Matsula | 2.63 | 214 | P | Pn | 06 04 56.8 | +0.9 |
| MTSE | | | | S | Sn | 06 05 28.8 | +0.6 |
| MTSE | Matsula | 2.63 | 214 | eP | Pn | 06 04 56.8 | +0.9 |
| MTSE | | | | eS | Sn | 06 05 28.8 | +0.6 |
| VAF | Ylistaro | 2.84 | 320 | P | Pn | 06 05 01.4 | +2.7 |
| VAF | Ylistaro | 2.84 | 320 | eP | Pn | 06 05 01.5 | +2.7 |
| VAF | | | | eSB | Sb | 06 05 39.2 | +0.2 |
| VAF | | | | MSG | | 06 05 39.4 | |
| | comp=Z,84nm,0.3s | | | | | | |
| JOF | Joensuu | 2.98 | 46 | P | Pn | 06 05 01.6 | +0.9 |
| JOF | | | | S | Sn | 06 05 38.4 | +1.6 |
| JOF | Joensuu | 2.98 | 46 | eP | Pn | 06 05 01.6 | +0.9 |
| JOF | | | | eS | Sn | 06 05 38.4 | +1.6 |
| JOF | | | | MSG | | 06 05 43.6 | |
| | comp=Z,69nm,0.2s | | | | | | |
| OUF | Merijarvi | 3.57 | 346 | P | Pn | 06 05 10.9 | +2.1 |
| OUF | Merijarvi | 3.57 | 346 | eP | Pn | 06 05 10.9 | +2.1 |
| OUF | | | | MSG | | 06 05 59.2 | |
| | comp=Z,15nm,0.2s | | | | | | |
| NRTU | Norrtaelje | 4.18 | 256 | P | Pn | 06 05 17.5 | +0.4 |
| NRTU | | | | S | Sn | 06 06 06.9 | +0.6 |
| NRTU | Norrtaelje | 4.18 | 256 | P | Pn | 06 05 17.5 | +0.4 |
| NRTU | | | | S | Sn | 06 06 07.0 | +0.6 |
| OUL | Oulu | 4.20 | 356 | P | Pn | 06 05 17.4 | 0.0 |
| OUL | Oulu | 4.20 | 356 | eP | Pn | 06 05 17.5 | 0.0 |
| FLYU | Flymyra | 4.40 | 263 | P | Pn | 06 05 20.8 | +0.5 |
| FLYU | Flymyra | 4.40 | 263 | P | Pn | 06 05 20.8 | +0.5 |
| HEMU | Hemsoen | 4.45 | 297 | P | Pn | 06 05 23.0 | +2.2 |
| HEMU | Hemsoen | 4.45 | 297 | P | Pn | 06 05 23.4 | +2.5 |
| HEMU | Hemsoen | 4.45 | 297 | eP | Pn | 06 05 23.1 | +2.2 |
| ARNU | Arnoeviken | 4.54 | 284 | P | Pn | 06 05 24.0 | +1.9 |
| ARNU | Arnoeviken | 4.54 | 284 | P | Pn | 06 05 24.0 | +1.9 |
| HUDU | Hudiksvall | 4.67 | 284 | P | Pn | 06 05 25.9 | +2.1 |
| HUDU | Hudiksvall | 4.67 | 284 | P | Pn | 06 05 25.9 | +2.1 |
| SJUU | Sjulsmark | 5.14 | 336 | P | Pn | 06 05 31.6 | +1.3 |
| SJUU | Sjulsmark | 5.14 | 336 | P | Pn | 06 05 31.6 | +1.3 |
| KALU | Kalix | 5.18 | 345 | P | Pn | 06 05 32.8 | +2.0 |
| KALU | Kalix | 5.18 | 345 | P | Pn | 06 05 32.9 | +2.0 |
| TOF | Tornio | 5.29 | 350 | P | Pn | 06 05 34.2 | +1.9 |
| TOF | Tornio | 5.29 | 350 | eP | Pn | 06 05 34.2 | +1.9 |
| LILU | Lilltraesk | 5.36 | 328 | P | Pn | 06 05 34.7 | +1.4 |
| LILU | Lilltraesk | 5.36 | 328 | P | Pn | 06 05 34.7 | +1.4 |
| HARU | Harads | 5.84 | 337 | P | Pn | 06 05 42.2 | +2.3 |
| HARU | Harads | 5.84 | 337 | P | Pn | 06 05 42.2 | +2.3 |
| ERTU | Ertsjaerv | 5.99 | 343 | P | Pn | 06 05 43.1 | +1.0 |
| ERTU | Ertsjaerv | 5.99 | 343 | P | Pn | 06 05 43.1 | +1.0 |
| HFS | Hagfors | 6.45 | 269 | Pn | Pn | 06 05 49.8 | +1.5 |
| | baz=85,slow=11 | | | | | | |
| HFS | | | | Sn | Sn | 06 07 01.4 | -0.8 |
| | baz=78,slow=28 | | | | | | |
| HFS | | | | Lg | Lg | 06 07 30.4 | |
| | baz=77,slow=28 | | | | | | |
| HFS | Hagfors | 6.45 | 269 | Pn | Pn | 06 05 49.2 | +1.0 |
| | comp=Z,0.3nm,0.3s,baz=85,slow=13,SNR=13 | | | | | | |
| HFS | | | | Sn | Sn | 06 07 01.4 | -0.8 |
| | comp=Z,1.3nm,0.3s,baz=80,slow=29,SNR=7.0 | | | | | | |
| HFS | | | | Lg | Lg | 06 07 32.5 | |
| | comp=Z,4.0nm,0.3s,baz=83,slow=22,SNR=9.2 | | | | | | |
| HFS | Hagfors | 6.45 | 269 | Pn | Pn | 06 05 49.8 | +1.5 |
| | baz=85,slow=11 | | | | | | |
| HFS | | | | Sn | Sn | 06 07 01.4 | -0.8 |
| | baz=78,slow=28 | | | | | | |
| HFS | | | | Lg | Lg | 06 07 30.4 | |
| | baz=77,slow=28 | | | | | | |
| HFS | Hagfors | 6.45 | 269 | Pn | Pn | 06 05 49.8 | +1.5 |
| | SNR=50 | | | | | | |
| HFS | | | | Sn | Sn | 06 07 01.4 | -0.8 |
| | SNR=50 | | | | | | |
| HFS | | | | Lg | Lg | 06 07 30.4 | |
| | SNR=6.8 | | | | | | |
| APA0 | Apatity Array | 7.26 | 20 | Pn | Pn | 06 05 59.1 | -0.2 |
| | baz=207,slow=16 | | | | | | |
| APA0 | Apatity Array | 7.26 | 20 | Pn | Pn | 06 05 59.1 | -0.2 |
| | baz=207,slow=16 | | | | | | |
| APA0 | Apatity Array | 7.26 | 20 | Pn | Pn | 06 05 59.2 | -0.2 |
| | SNR=50 | | | | | | |
| LANU | Lannavaara | 7.44 | 346 | P | Pn | 06 06 02.2 | +0.4 |
| LANU | Lannavaara | 7.44 | 346 | eP | Pn | 06 06 02.2 | +0.4 |
| NB2 | NORSAR Subarra | 7.51 | 278 | Pn | Pn | 06 06 03.5 | +0.6 |
| | baz=83,slow=16 | | | | | | |
| NB2 | | | | Sn | Sn | 06 07 25.3 | -3.1 |
| | baz=87,slow=22 | | | | | | |
| NB2 | NORSAR Subarra | 7.51 | 278 | Pn | Pn | 06 06 03.5 | +0.6 |
| | baz=83,slow=16 | | | | | | |
| NB2 | | | | Sn | Sn | 06 07 25.3 | -3.1 |
| | baz=87,slow=22 | | | | | | |
| NB2 | NORSAR Subarra | 7.51 | 278 | Pn | Pn | 06 06 03.5 | +0.6 |
| | SNR=50 | | | | | | |
| NOA | NORSAR Array B | 7.51 | 278 | Pn | Pn | 06 06 03.5 | +0.6 |
| | comp=Z,0.6nm,0.3s,baz=81,slow=11,SNR=9.4 | | | | | | |
| NOA | | | | Sn | Sn | 06 07 26.3 | -2.1 |
| | comp=Z,1.0nm,0.3s,baz=89,slow=14,SNR=4.2 | | | | | | |
| KIF | Kilpisjarvi | 8.48 | 346 | Pn | Pn | 06 06 17.6 | +1.5 |
| KIF | Kilpisjarvi | 8.48 | 346 | Pn | Pn | 06 06 17.6 | +1.5 |
| KIF | Kilpisjarvi | 8.48 | 346 | Pn | Pn | 06 06 17.6 | +1.5 |
| | SNR=50 | | | | | | |
| ARA0 | ARCESS Array S | 8.67 | 357 | Pn | Pn | 06 06 19.1 | +0.4 |
| | baz=170,slow=16 | | | | | | |
| ARA0 | | | | Sn | Sn | 06 07 52.4 | -4.4 |
| | baz=175,slow=28 | | | | | | |
| ARA0 | ARCESS Array S | 8.67 | 357 | Pn | Pn | 06 06 19.1 | +0.4 |
| | baz=170,slow=16 | | | | | | |
| ARA0 | | | | Sn | Sn | 06 07 52.4 | -4.4 |
| | baz=175,slow=28 | | | | | | |
| ARA0 | ARCESS Array S | 8.67 | 357 | Pn | Pn | 06 06 19.1 | +0.4 |
| | SNR=50 | | | | | | |
| ARCES | ARCESS Array B | 8.67 | 357 | Pn | Pn | 06 06 19.1 | +0.4 |
| | comp=Z,0.4nm,0.3s,baz=173,slow=15,SNR=13 | | | | | | |
| ARCES | | | | Sn | Sn | 06 07 54.1 | -2.6 |
| | comp=Z,0.9nm,0.3s,baz=181,slow=22,SNR=5.4 | | | | | | |
| ARCES | | | | Lg | Lg | 06 08 40.0 | |
| | comp=Z,2.2nm,0.3s,baz=172,slow=31,SNR=5.6 | | | | | | |
| AKASG | Malin Array Be | 10.34 | 171 | Pn | Pn | 06 06 39.3 | -2.3 |
| | comp=Z,0.5nm,0.3s,baz=352,slow=13,SNR=4.1 | | | | | | |
| ARU | Arti | 17.08 | 91 | P | Pn | 06 08 13.3 | +1.3 |
| | comp=Z,0.0nm,0.3s,baz=285,slow=19,SNR=2.9 | | | | | | |
| BRTR | Keskin Array B | 21.66 | 165 | P | P | 06 09 05.7 | +1.6 |
| | comp=Z,0.4nm,0.7s,baz=359,slow=9.4,SNR=3.3 | | | | | | |
| TORD | Torodi Ar. Bea | 51.05 | 212 | P | P | 06 13 14.9 | -0.9 |
| | comp=Z,0.2nm,0.5s,baz=14,slow=6.1,SNR=4.2 | | | | | | |

---

*ISK **01** 06:26:31.5, 38°.69N×43°.58E, h5km, ML3.2*
*ATA **01** 06:26:31.7±0.8, 38°.72N×43°.53E, h3km±15km, MD3.5, ML3.9, MW3.8*
*CSEM **01** 06:26:32.3±0.2, 38°.68N×43°.60E, h2km, ML3.2, Error ellipse: s-maj=4.7km s-min=3.3km az=90.0*
*DDA **01** 06:26:32.3, 38°.71N×43°.58E, h15km, Ml3.3*
*ISN **01** 06:26:33.1±0.9, 38°.25N×43°.51E, h0km±4km, ML3.3*

**ISC 01 06:26:33.2**±0.9, **38°.69N**±0°.01×**43°.57E**±0°.02, **h11**km±7km, **n64**, σ**0s.98**/110, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.17 | 237 | ePG | Pg | 06 26 36.8 | -0.3 |
| VANB | Van | 0.17 | 237 | ePg | Pg | 06 26 36.8 | -0.3 |
| TVAN | Van | 0.20 | 219 | i P | Pg | 06 26 37.1 | -0.6 |
| TVAN | | | | i S | Sg | 06 26 41.3 | +0.5 |
| TVAN | Van | 0.20 | 219 | P | Pg | 06 26 37.1 | -0.6 |
| TVAN | | | | S | Sg | 06 26 41.3 | +0.5 |
| VMUR | Van-Muradiye | 0.30 | 0 | i P | Pg | 06 26 38.8 | -0.7 |
| VMUR | | | | i S | Sb | 06 26 45.8 | -0.1 |
| VMUR | Van-Muradiye | 0.30 | 0 | P | Pg | 06 26 38.8 | -0.7 |
| VMUR | | | | S | Sb | 06 26 45.8 | -0.1 |
| ERCV | ERCIS-VAN | 0.38 | 331 | ePG | Pg | 06 26 40.1 | -0.8 |
| ERCV | | | | eSG | Sg | 06 26 46.7 | +0.8 |
| ERCV | ERCIS-VAN | 0.38 | 331 | ePg | Pg | 06 26 40.1 | -0.8 |
| ERCV | | | | eSg | Sg | 06 26 46.7 | +0.8 |
| CLDR | Caldiran | 0.53 | 31 | ePG | Pg | 06 26 42.3 | -1.3 |
| CLDR | | | | eSG | Sg | 06 26 51.2 | +0.5 |
| CLDR | Caldiran | 0.53 | 31 | i P | Pg | 06 26 43.0 | -0.7 |
| CLDR | | | | i S | Sb | 06 26 53.3 | +0.8 |
| CLDR | Caldiran | 0.53 | 31 | ePg | Pg | 06 26 42.3 | -1.3 |
| CLDR | Caldiran | 0.53 | 31 | P | Pg | 06 26 43.0 | -0.7 |
| CLDR | | | | eSg | Sg | 06 26 51.2 | +0.5 |
| CLDR | | | | S | Sb | 06 26 53.3 | +0.8 |
| GEVA | Gevas | 0.55 | 227 | i P | Pg | 06 26 42.7 | -1.3 |
| GEVA | | | | i S | Sb | 06 26 52.5 | -0.5 |
| GEVA | Gevas | 0.55 | 227 | P | Pg | 06 26 42.7 | -1.3 |
| GEVA | | | | S | Sb | 06 26 52.5 | -0.5 |
| ADCV | BITLIS_Adilcev | 0.67 | 281 | i P | Pg | 06 26 45.1 | -1.2 |
| ADCV | | | | i S | Sb | 06 26 56.0 | -0.6 |
| ADCV | BITLIS_Adilcev | 0.67 | 281 | P | Pg | 06 26 45.1 | -1.2 |
| ADCV | | | | S | Sb | 06 26 56.0 | -0.6 |
| BASK | Baskale_VAN | 0.72 | 152 | eP | Pg | 06 26 46.9 | -0.3 |
| BASK | | | | eS | Sn | 06 26 59.7 | -1.0 |
| BASK | | | | IAML | | 06 27 05.2 | |
| | comp=Z,170nm,0.5s | | | | | | |
| BASK | Baskale_VAN | 0.72 | 152 | eP | Pg | 06 26 46.6 | -0.6 |
| BASK | | | | eS | Sn | 06 26 59.5 | -1.2 |
| BASK | | | | IAML | | 06 27 05.2 | |
| | comp=Z,170nm,0.5s | | | | | | |
| BASK | Baskale_VAN | 0.72 | 152 | i P | Pg | 06 26 45.8 | -1.4 |
| BASK | | | | i S | Sb | 06 26 57.6 | -0.3 |
| BASK | Baskale_VAN | 0.72 | 152 | P | Pg | 06 26 45.8 | -1.4 |
| BASK | | | | S | Sb | 06 26 57.6 | -0.3 |
| DYDN | Diyadin | 0.86 | 6 | eP | Pg | 06 26 48.7 | -1.2 |
| DYDN | | | | eS | Sn | 06 27 03.3 | -0.9 |
| DYDN | | | | IAML | | 06 27 03.5 | |
| | comp=Z,212nm,0.9s | | | | | | |
| DYDN | Diyadin | 0.86 | 6 | eP | Pg | 06 26 48.3 | -1.6 |
| DYDN | | | | IAML | | 06 27 03.1 | |
| | comp=Z,212nm,0.9s | | | | | | |
| DYDN | Diyadin | 0.86 | 6 | i P | Pg | 06 26 48.8 | -1.1 |
| DYDN | | | | i S | Sb | 06 27 01.8 | -0.2 |
| DYDN | Diyadin | 0.86 | 6 | P | Pg | 06 26 48.8 | -1.1 |
| DYDN | | | | S | Sb | 06 27 01.8 | -0.2 |
| TUTA | Tutak | 0.93 | 321 | eP | Pg | 06 26 49.5 | -1.7 |
| TUTA | | | | eS | Sg | 06 27 02.8 | -0.4 |
| TUTA | | | | IAML | | 06 27 05.8 | |
| | comp=Z,462nm,0.5s | | | | | | |
| TUTA | Tutak | 0.93 | 321 | i P | Pg | 06 26 49.4 | -1.7 |
| TUTA | | | | i S | Sg | 06 27 03.0 | -0.2 |
| TUTA | Tutak | 0.93 | 321 | P | Pg | 06 26 49.4 | -1.7 |
| TUTA | | | | S | Sg | 06 27 03.0 | -0.2 |
| AGRB | Hanur-Agry | 0.99 | 333 | ePG | Pg | 06 26 50.8 | -1.7 |
| AGRB | | | | eSG | Sb | 06 27 06.2 | +0.3 |
| AGRB | Hanur-Agry | 0.99 | 333 | ePg | Pg | 06 26 50.8 | -1.7 |
| AGRB | | | | eSg | Sb | 06 27 06.2 | +0.3 |
| YOVA | Hakkari_Yˆ…kse | 1.24 | 153 | i P | Pn | 06 26 55.2 | -1.5 |
| YOVA | | | | i S | Sn | 06 27 14.8 | +1.3 |
| YOVA | Hakkari_Yˆ…kse | 1.24 | 153 | P | Pn | 06 26 55.2 | -1.5 |
| YOVA | | | | S | Sn | 06 27 14.8 | +1.3 |
| EKAR | Karacoban | 1.30 | 296 | i P | Pn | 06 26 56.8 | -0.9 |
| EKAR | | | | i S | Sn | 06 27 17.3 | +2.1 |
| EKAR | Karacoban | 1.30 | 296 | P | Pn | 06 26 56.8 | -0.9 |
| EKAR | | | | S | Sn | 06 27 17.3 | +2.1 |
| TASB | TASBURUN-IGDIR | 1.39 | 22 | ePN | Pb | 06 26 59.4 | 0.0 |
| TASB | | | | eSN | Sg | 06 27 19.5 | +1.3 |
| TASB | TASBURUN-IGDIR | 1.39 | 22 | ePn | Pb | 06 26 59.4 | 0.0 |
| TASB | | | | eSn | Sg | 06 27 19.5 | +1.3 |
| CUKT | Cukurca | 1.44 | 179 | ePN | Pb | 06 26 59.9 | -0.2 |
| CUKT | | | | eSN | Sg | 06 27 20.6 | +1.0 |
| CUKT | Cukurca | 1.44 | 179 | i P | Pg | 06 27 00.8 | -0.1 |
| CUKT | | | | i S | Sg | 06 27 21.2 | +1.7 |
| CUKT | Cukurca | 1.44 | 179 | ePn | Pb | 06 26 59.9 | -0.2 |
| CUKT | Cukurca | 1.44 | 179 | P | Pg | 06 27 00.8 | -0.1 |
| CUKT | | | | eSn | Sg | 06 27 20.6 | +1.0 |
| CUKT | | | | S | Sg | 06 27 21.2 | +1.7 |
| EATA | Eleskirt | 1.44 | 325 | eP | Pn | 06 26 59.8 | +0.2 |
| EATA | Eleskirt | 1.44 | 325 | eP | Pn | 06 26 59.4 | -0.3 |
| EATA | | | | eS | Sg | 06 27 20.1 | +0.4 |
| EATA | | | | IAML | | 06 27 22.3 | |
| | comp=Z,63nm,0.5s | | | | | | |
| EATA | Eleskirt | 1.44 | 325 | i P | Pn | 06 26 59.3 | -0.3 |
| EATA | | | | i S | Sg | 06 27 20.1 | +0.4 |
| EATA | Eleskirt | 1.44 | 325 | P | Pn | 06 26 59.3 | -0.3 |
| EATA | | | | S | Sg | 06 27 20.1 | +0.4 |
| SRTM | Siirt_Merkez | 1.47 | 242 | i P | Pn | 06 27 00.1 | +0.2 |
| SRTM | | | | i S | Sg | 06 27 21.7 | +1.1 |
| SRTM | Siirt_Merkez | 1.47 | 242 | P | Pn | 06 27 00.1 | +0.2 |
| SRTM | | | | S | Sg | 06 27 21.7 | +1.1 |
| VRTB | Varto-Mus | 1.72 | 287 | ePN | Pn | 06 27 03.9 | +0.6 |
| VRTB | Varto-Mus | 1.72 | 287 | i P | Pb | 06 27 04.4 | -0.5 |
| VRTB | Varto-Mus | 1.72 | 287 | ePn | Pn | 06 27 03.9 | +0.6 |
| VRTB | Varto-Mus | 1.72 | 287 | P | Pb | 06 27 04.4 | -0.5 |
| HOMI | Horasan | 1.87 | 317 | i P | Pn | 06 27 06.2 | +0.7 |
| HOMI | | | | i S | Sg | 06 27 35.3 | +1.9 |
| BNGL | BINGOL | 1.91 | 279 | i P | Pn | 06 27 06.8 | +0.8 |
| BNGL | | | | i S | Sb | 06 27 32.9 | +0.7 |
| BTMN | Batman | 1.98 | 247 | i P | Pn | 06 27 06.4 | -0.4 |
| BTMN | | | | i S | Sb | 06 27 33.3 | -0.7 |
| BTMN | Batman | 1.98 | 247 | P | Pn | 06 27 06.4 | -0.4 |
| BTMN | | | | S | Sb | 06 27 33.3 | -0.7 |
| EAK | Akyaka | 2.00 | 1 | i P | Pg | 06 27 11.5 | -0.1 |
| EAK | Akyaka | 2.00 | 1 | P | Pg | 06 27 11.5 | -0.1 |
| SENK | Senkaya-Erzuru | 2.10 | 334 | ePN | Pn | 06 27 09.5 | +1.0 |
| SENK | Senkaya-Erzuru | 2.10 | 334 | ePn | Pn | 06 27 09.5 | +1.0 |
| ECAT | Cat-ERZURUM | 2.22 | 295 | eP | Pb | 06 27 12.1 | -1.4 |
| ECAT | | | | IAML | | 06 27 17.5 | |
| | comp=Z,17nm,0.5s | | | | | | |
| ECAT | | | | eS | Sg | 06 27 45.2 | +0.6 |
| BNGB | Bingˆ¶l | 2.28 | 279 | ePN | Pn | 06 27 11.9 | +1.0 |
| BINT | Bingol | 2.42 | 275 | ePn | Pn | 06 27 11.9 | -1.0 |
| MAZI | Mazidag | 2.75 | 245 | ePN | Pn | 06 27 18.7 | +1.2 |
| MAZI | Mazidag | 2.75 | 245 | ePn | Pn | 06 27 18.7 | +1.2 |
| PTK | Pertek | 3.27 | 275 | ePN | Pn | 06 27 26.0 | +1.3 |
| PTK | Pertek | 3.27 | 275 | ePn | Pn | 06 27 26.0 | +1.3 |

---

*MOS **01** 06:27:14.4±0.4, 50°.67N×157°.11E, h110km, mb4.3/2, Error ellipse: s-maj=41.6km s-min=6.3km az=77.6*
*ISCJB **01** 06:27:15.4±0.8, 50°.9N±0°.1×156°.9E±0°.2, h119km±5km, mb3.7/6, Error ellipse: s-maj=23.5km s-min=7.5km az=42.5*
*KRSC **01** 06:27:15.1±1.2, 50°.77N×157°.29E, h101km±13km, ML4.4*
*IDC **01** 06:27:21.6±3.0, 51°.48N×156°.58E, h151km±21km, mb3.3/6, mb1 3.6/6, mb1mx3.2/31, mbtmp3.8/6, Error ellipse: s-maj=48.5km s-min=17.5km az=171.0*

**ISC 01 06:27:15.4**±1.0, **50°.79N**±0°.10×**157°.07E**±0°.10, **h116**km±7km, **n46**, σ**1s.30**/56, **mb3.7**/6, **Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SKR | Severo-Kuril's | 0.61 | 260 | ePN | Pn | 06 27 33.8 | +0.2 |
| SKR | | | | eS | Sn | 06 27 47.2 | -0.1 |
| SKR | | | | pmax | pmax | | |
| | comp=Z,978nm,0.7s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=E,4μm,0.5s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=N,4μm,0.3s | | | | | | |
| SKR | Severo-Kuril's | 0.61 | 260 | eP | Pn | 06 27 33.7 | +0.2 |
| SKR | | | | eS | Sn | 06 27 47.2 | -0.1 |
| KDTR | Khodutka, Kamc | 1.20 | 31 | eP | Pn | 06 27 39.2 | +0.2 |
| KDTR | | | | eS | Sn | 06 27 56.1 | -0.9 |
| ASAK | Asacha | 1.68 | 18 | PN | Pn | 06 27 45.6 | +1.0 |
| ASAK | | | | S | Sn | 06 28 07.7 | +0.7 |
| ASAK | Asacha | 1.68 | 18 | eP | Pn | 06 27 45.6 | +1.0 |
| ASAK | | | | eS | Sn | 06 28 07.7 | +0.7 |
| MTVR | Mutnovka | 1.83 | 22 | PN | Pn | 06 27 47.5 | +0.9 |
| MTVR | | | | S | Sn | 06 28 10.8 | +0.4 |
| MTVR | Mutnovka | 1.83 | 22 | eP | Pn | 06 27 47.5 | +0.9 |
| MTVR | | | | eS | Sn | 06 28 10.8 | +0.4 |
| RUS | Russkaya | 1.87 | 28 | PN | Pn | 06 27 47.0 | +0.1 |
| RUS | | | | S | Sn | 06 28 09.8 | -1.3 |
| RUS | Russkaya | 1.87 | 28 | eP | Pn | 06 27 47.0 | +0.1 |
| RUS | | | | eS | Sn | 06 28 09.8 | -1.3 |
| APC | Apacha | 2.14 | 1 | PN | Pn | 06 27 51.3 | +1.0 |
| APC | Apacha | 2.14 | 1 | eP | Pn | 06 27 51.3 | +1.0 |
| KRMR | Karymshinskiy | 2.15 | 17 | PN | Pn | 06 27 51.3 | +0.9 |
| KRMR | | | | S | Sn | 06 28 17.1 | -0.1 |
| KRMR | Karymshinskiy | 2.15 | 17 | eP | Pn | 06 27 51.3 | +0.9 |
| KRMR | | | | eS | Sn | 06 28 17.1 | -0.1 |
| PETK | Petropavlovsk- | 2.35 | 9 | P | Pn | 06 27 54.0 | +1.0 |
| | comp=N,2.5nm,0.3s,baz=171,slow=10.0,SNR=21 | | | | | | |
| PET | Petropavlovsk | 2.44 | 23 | ePN | Pn | 06 27 56.6 | +2.5 |
| PET | | | | eS | Sn | 06 28 20.6 | -3.3 |
| PET | | | | smax | smax | | |
| | comp=N,96nm,0.6s | | | | | | |
| PET | Petropavlovsk | 2.44 | 23 | eS | Sn | 06 28 23.9 | 0.0 |
| DALK | Dalny | 2.47 | 24 | PN | Pn | 06 27 55.4 | +0.9 |
| DALK | | | | S | Sn | 06 28 24.5 | -0.2 |
| DALK | Dalny | 2.47 | 24 | eP | Pn | 06 27 55.4 | +0.9 |
| DALK | | | | eS | Sn | 06 28 24.5 | -0.2 |
| UGLR | Uglovaya | 2.65 | 23 | PN | Pn | 06 27 58.6 | +1.6 |
| UGLR | Uglovaya | 2.65 | 23 | eP | Pn | 06 27 58.6 | +1.6 |
| AVH | Avacha | 2.68 | 22 | PN | Pn | 06 27 59.1 | +1.7 |
| AVH | Avacha | 2.68 | 22 | eP | Pn | 06 27 59.1 | +1.7 |
| KOK | Koryaka | 2.69 | 21 | PN | Pn | 06 27 57.9 | +0.5 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| **KOK** | **Koryaka** | **2.69** | **21** | *e*P | **Pn** | **06 27 57.9** | **+0.5** |
| **KRER** | **Koryakskii** | **2.72** | **22** | PN | **Pn** | **06 27 58.8** | **+0.8** |
| **KRER** | **Koryakskii** | **2.72** | **22** | *e*P | **Pn** | **06 27 58.8** | **+0.8** |
| **SDLR** | **Sedlovina** | **2.73** | **24** | PN | **Pn** | **06 27 59.1** | **+1.1** |
| **SDLR** | **Sedlovina** | **2.73** | **24** | *e*P | **Pn** | **06 27 59.1** | **+1.1** |
| **KRX** | **Arik** | **2.75** | **20** | PN | **Pn** | **06 27 59.5** | **+1.2** |
| **KRX** | **Arik** | **2.75** | **20** | *e*P | **Pn** | **06 27 59.5** | **+1.2** |
| **SPN** | **Mys Shipunski** | **2.95** | **37** | PN | **Pn** | **06 28 00.4** | **-0.3** |
| SPN | | | | S | **Sn** | **06 28 33.2** | **-2.5** |
| **SPN** | **Mys Shipunski** | **2.95** | **37** | *e*P | **Pn** | **06 28 00.4** | **-0.3** |
| SPN | | | | *e*S | **Sn** | **06 28 33.2** | **-2.5** |
| **GNL** | **Ganaly** | **2.96** | **10** | PN | **Pn** | **06 28 01.8** | **+0.8** |
| **GNL** | **Ganaly** | **2.96** | **10** | *e*P | **Pn** | **06 28 01.8** | **+0.8** |
| **H11N2** | **WAKE ISLAND Hy** | **31.96** | **162** | T | T | 07 07 30.3 | |
| | baz=348,slow=76,SNR=23 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **31.97** | **162** | T | T | 07 07 25.9 | |
| | baz=348,slow=76,SNR=41 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **31.97** | **162** | T | T | 07 07 29.2 | |
| | baz=348,slow=76,SNR=18 | | | | | | |
| **SONM** | **Songino Array** | **32.64** | **285** | P | **P** | **06 33 34.9** | **-1.2** |
| | comp=N,0.3nm,0.6s,baz=50,slow=8.6,SNR=3.0 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **33.11** | **163** | T | T | 07 08 49.4 | |
| | baz=348,slow=76,SNR=36 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **33.12** | **163** | T | T | 07 08 51.8 | |
| | baz=348,slow=76,SNR=40 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **33.13** | **163** | T | T | 07 08 52.4 | |
| | baz=348,slow=76,SNR=31 | | | | | | |
| **MKAR** | **Makanchi Array** | **47.47** | **296** | P | **P** | **06 35 36.4** | **-1.8** |
| | comp=N,0.5nm,0.4s,baz=60,slow=6.8,SNR=10 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **55.85** | **257** | P | **P** | **06 36 42.4** | **+1.5** |
| | comp=N,1.0nm,0.4s,baz=25,slow=5.8,SNR=5.2 | | | | | | |
| **PDAR** | **Pinedale Array** | **60.31** | **58** | P | **P** | **06 37 14.1** | **+2.2** |
| | comp=N,0.5nm,0.6s,baz=290,slow=3.7,SNR=3.0 | | | | | | |
| **FINES** | **FINESS Array B** | **61.47** | **336** | P | **P** | **06 37 16.4** | **-2.7** |
| | comp=N,1.9nm,0.9s,baz=26,slow=6.7,SNR=3.3 | | | | | | |
| **TXAR** | **Lajitas Array** | **73.30** | **64** | P | **P** | **06 38 36.0** | **+1.8** |
| | comp=N,0.3nm,0.4s,baz=301,slow=5.2,SNR=6.3 | | | | | | |

*ISCJB **01** 06:32:31.9±0.6, 48°.6N±0°.1×150°.4E±0°.2, h300km, mb3.3/9, Error ellipse: s-maj=18.1km s-min=9.4km az=42.5*
*IDC **01** 06:32:36.3±1.7, 48°.66N×150°.41E, h335km±18km, mb3.0/9, mb1 3.2/14, mb1mx3.1/34, mbtmp3.8/14, Error ellipse: s-maj=18.4km s-min=11.4km az=138.0*
**ISC 01 06:32:33.4**±0.8**, 48°.6N**±0°.1×**150°.6E**±0°.1**, h300**km**, n19, σ2s.03**/18**, mb3.2**/9**, Northwest of Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **NEM2** | **Nemuro 2** | **6.18** | **215** | P | **Pn** | **06 34 02.7** | **-2.1** |
| NEM2 | | | | *e*S | S | 06 35 10.4 | -8.2 |
| **PETK** | **Petropavlovsk-** | **6.42** | **42** | P | **Pn** | **06 34 09.9** | **+2.4** |
| | 0.5nm,0.3s,baz=220,slow=11,SNR=6.4 | | | | | | |
| **JMP** | **Maruseppu** | **6.75** | **230** | P | **Pn** | **06 34 14.0** | **+2.3** |
| **ASAJ** | **Asahikawa** | **7.08** | **234** | P | **Pn** | **06 34 19.2** | **+3.5** |
| | 3.5nm,0.3s,baz=67,slow=15,SNR=10 | | | | | | |
| **ASAJ** | **Asahikawa** | **7.08** | **234** | P | **Pn** | **06 34 18.9** | **+3.3** |
| **JKB** | **Kayabe** | **9.46** | **229** | P | **Pn** | **06 34 43.0** | **-1.9** |
| JKB | | | | *e*S | S | 06 36 22.5 | -10 |
| **JTM** | **Tenmabayashi** | **10.29** | **225** | *e*S | S | 06 36 38.6 | -12 |
| **USRK** | **Ussuriysk Ar.** | **13.54** | **258** | P | **P** | **06 35 35.0** | **+0.8** |
| | 0.2nm,0.3s,baz=78,slow=15,SNR=4.2 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **15.04** | **222** | P | **P** | **06 35 53.1** | **+2.2** |
| | 1.2nm,0.3s,baz=15,slow=12,SNR=9.4 | | | | | | |
| **KSRS** | **Korea Array** | **19.85** | **244** | P | **P** | **06 36 44.2** | **+1.6** |
| | 0.2nm,0.3s,baz=37,slow=12,SNR=4.0 | | | | | | |
| **SONM** | **Songino Array** | **29.15** | **285** | P | **P** | **06 38 06.4** | **-0.8** |
| | 0.4nm,0.8s,baz=44,slow=8.5,SNR=2.6 | | | | | | |
| **ILAR** | **Eielson Array** | **36.24** | **40** | P | **P** | **06 39 08.2** | **+0.2** |
| | 0.4nm,0.9s,baz=269,slow=4.8,SNR=4.1 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **40.17** | **303** | P | **P** | **06 39 38.2** | **-2.4** |
| | 1.3nm,0.4s,baz=61,slow=6.3,SNR=5.8 | | | | | | |
| **INK** | **Inuvik** | **41.07** | **33** | P | **P** | **06 39 47.7** | **0.0** |
| | 0.4nm,0.3s,baz=298,slow=6.6,SNR=14 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.60** | **295** | P | **P** | **06 40 14.8** | **-1.4** |
| | 0.6nm,0.6s,baz=74,slow=10,SNR=3.7 | | | | | | |
| **FINES** | **FINESS Array B** | **61.66** | **333** | P | **P** | **06 42 18.0** | **-1.4** |
| | 4.5nm,1.1s,baz=19,slow=9.0,SNR=2.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **69.71** | **196** | P | **P** | **06 43 09.8** | **-1.2** |
| | 0.7nm,0.7s,baz=12,slow=6.5,SNR=4.2 | | | | | | |
| **ASAR** | **Alice Springs** | **73.42** | **196** | P | **P** | **06 43 33.2** | **+0.2** |
| | 0.9nm,1.0s,baz=11,slow=5.8,SNR=6.5 | | | | | | |
| **TXAR** | **Lajitas Array** | **78.08** | **59** | P | **P** | **06 43 59.1** | **-0.3** |
| | 0.2nm,0.5s,baz=299,slow=4.3,SNR=7.5 | | | | | | |

*ISK **01** 06:54:05.4, 38°.85N×43°.54E, h5km, MD2.4*
*DDA **01** 06:54:06.7, 38°.87N×43°.50E, h7km, Ml2.8*
*ISCJB **01** 06:54:07.3±0.8, 38°.85N±0°.04×43°.58E±0°.08, h15km±13km, Error ellipse: s-maj=11.1km s-min=5.5km az=18.4*
*CSEM **01** 06:54:07.1±0.3, 38°.88N×43°.52E, h5km, ML2.8, Error ellipse: s-maj=9.8km s-min=5.9km az=100.0*
**ISC 01 06:54:06.5**±1.2**, 38°.87N**±0°.03×**43°.53E**±0°.05**, h14**km±9km**, n13, σ0s.40**/24**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.12** | **14** | *i* P | **Pg** | **06 54 10.1** | **0.0** |
| VMUR | | | | *i* S | **Sb** | **06 54 13.8** | **+0.1** |
| **VMUR** | **Van-Muradiye** | **0.12** | **14** | P | **Pg** | **06 54 10.1** | **0.0** |
| VMUR | | | | S | **Sb** | **06 54 13.8** | **+0.1** |
| **VANB** | **Van** | **0.29** | **202** | *e*PG | **Pb** | **06 54 13.7** | **+0.1** |
| VANB | | | | *e*SG | **Sb** | **06 54 19.5** | **+1.1** |
| **VANB** | **Van** | **0.29** | **202** | *e*Pg | **Pb** | **06 54 13.7** | **+0.1** |
| VANB | | | | *e*Sg | **Sb** | **06 54 19.5** | **+1.1** |
| **TVAN** | **Van** | **0.35** | **196** | *i* P | **Pg** | **06 54 13.5** | **-0.2** |
| TVAN | | | | *i* S | **Sb** | **06 54 19.9** | **-0.3** |
| **TVAN** | **Van** | **0.35** | **196** | P | **Pg** | **06 54 13.5** | **-0.2** |
| TVAN | | | | S | **Sb** | **06 54 19.9** | **-0.3** |
| **CLDR** | **Caldiran** | **0.41** | **47** | *e*PG | **Pg** | **06 54 14.8** | **+0.2** |
| CLDR | | | | *e*SG | **Sb** | **06 54 21.8** | **0.0** |
| **CLDR** | **Caldiran** | **0.41** | **47** | *i* P | **Pg** | **06 54 14.7** | **0.0** |
| CLDR | | | | *i* S | **Sb** | **06 54 21.9** | **0.0** |
| **CLDR** | **Caldiran** | **0.41** | **47** | *e*Pg | **Pg** | **06 54 14.9** | **+0.2** |
| CLDR | | | | *e*Sg | **Sb** | **06 54 21.8** | **0.0** |
| **TUTA** | **Tutak** | **0.77** | **314** | *i* P | **Pg** | **06 54 21.4** | **-0.1** |
| **TUTA** | **Tutak** | **0.77** | **314** | P | **Pg** | **06 54 21.4** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **0.82** | **329** | *e*PG | **Pg** | **06 54 22.7** | **+0.2** |
| AGRB | | | | *e*SG | **Sn** | **06 54 35.6** | **-0.4** |
| **AGRB** | **Hanur-Agry** | **0.82** | **329** | *e*Pg | **Pg** | **06 54 22.7** | **+0.2** |
| AGRB | | | | *e*Sg | **Sn** | **06 54 35.6** | **-0.4** |

*CSEM **01** 07:01:00.6±0.2, 31°.22N×56°.91E, h2km, ML3.3, Error ellipse: s-maj=7.0km s-min=5.0km az=135.0*
**TEH 01 07:01:02.3, 31°.36N×56°.84E, h5**km**, ML3.5, Northern and central Iran**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **IBAF** | **Bafgh** | **1.11** | **282** | *e*AMB | AMB | 07 01 25.4 | |
| | comp=Z,11μm,0.1s | | | | | | |
| **KRBR** | **Kerman** | **1.37** | **183** | *e*P | Pn | 07 01 23.7 | -4.7 |
| KRBR | | | | *e*Sg | Sg | 07 01 41.2 | -5.3 |
| **IMEH** | **Mehriz** | **1.91** | **272** | *e*Pn | Pn | 07 01 35.1 | -0.6 |
| IMEH | | | | *e*AMB | AMB | 07 01 36.9 | |
| | comp=Z,6μm,0.1s | | | | | | |
| IMEH | | | | *e*Sg | Sb | 07 02 01.3 | -0.6 |
| **IMEH** | **Mehriz** | **1.91** | **272** | *e*Pn | Pn | 07 01 35.1 | -0.6 |
| IMEH | | | | *e*Sg | Sb | 07 02 01.3 | -0.6 |
| **IKOO** | **Kooshah** | **2.12** | **59** | *e*Pn | Pn | 07 01 38.0 | -0.7 |
| IKOO | | | | *e*Sg | Sb | 07 02 08.5 | +0.3 |
| IKOO | | | | *e*AMB | AMB | 07 02 14.5 | |
| | comp=N,9μm,0.1s | | | | | | |
| **IKOO** | **Kooshah** | **2.12** | **59** | *e*Pn | Pn | 07 01 38.0 | -0.7 |
| IKOO | | | | *e*Sg | Sb | 07 02 08.5 | +0.3 |
| **ITEG** | **Tejag** | **2.23** | **46** | *e*Pn | Pn | 07 01 40.0 | -0.1 |
| ITEG | | | | *e*AMB | AMB | 07 02 19.5 | |
| | comp=Z,2μm,0.1s | | | | | | |
| **ITEG** | **Tejag** | **2.23** | **46** | *e*Pn | Pn | 07 01 40.0 | -0.1 |
| **ICHK** | **Chekchek** | **2.25** | **294** | *e*Pn | Pn | 07 01 40.7 | +0.2 |
| ICHK | | | | *e*AMB | AMB | 07 01 43.8 | |
| | comp=Z,3μm,0.1s | | | | | | |
| ICHK | | | | *e*Sg | Sb | 07 02 13.0 | +1.1 |
| **ICHK** | **Chekchek** | **2.25** | **294** | *e*Pn | Pn | 07 01 40.7 | +0.2 |
| ICHK | | | | *e*Sg | Sb | 07 02 13.0 | +1.1 |
| **TABS** | **Tabas** | **2.29** | **6** | *e*Pn | Pn | 07 01 42.0 | +1.1 |
| TABS | | | | *e*Sg | Sg | 07 02 17.4 | +1.3 |
| **ISAD** | **Sadrabad** | **2.75** | **282** | *e*Pn | Pn | 07 01 47.2 | -0.1 |
| ISAD | | | | *e*AMB | AMB | 07 01 51.8 | |
| | comp=Z,1μm,0.1s | | | | | | |
| **ISAD** | **Sadrabad** | **2.75** | **282** | *e*Pn | Pn | 07 01 47.2 | -0.1 |
| **IMON** | **Monand** | **3.01** | **52** | *e*Pn | Pn | 07 01 50.7 | -0.2 |
| IMON | | | | *e*AMB | AMB | 07 02 46.9 | |
| | comp=Z,2μm,0.2s | | | | | | |
| **IMON** | **Monand** | **3.01** | **52** | *e*Pn | Pn | 07 01 50.7 | -0.2 |
| **IPAR** | **Pars** | **3.60** | **246** | *e*Pn | Pn | 07 01 59.3 | +0.2 |
| IPAR | | | | *e*AMB | AMB | 07 03 05.4 | |
| | comp=Z,652nm,0.5s | | | | | | |
| **IPAR** | **Pars** | **3.60** | **246** | *e*Pn | Pn | 07 01 59.3 | +0.2 |
| **NASN** | **Na'in** | **3.71** | **294** | *e*Pn | Pn | 07 02 01.1 | +0.5 |
| **IZEF** | **Zefreh** | **4.12** | **293** | *e*AMB | AMB | 07 02 22.1 | |
| | comp=Z,244nm,0.2s | | | | | | |
| IZEF | | | | *e*Pn | Pn | 07 02 05.7 | -0.5 |

*ATA **01** 07:08:33.6±1.9, 38°.65N×43°.14E, h10km±88km, MD3.3, ML3.7, MW3.5*
*DDA **01** 07:08:34.7, 38°.65N×43°.16E, h7km, Ml3.2*
*ISK **01** 07:08:34.2, 38°.68N×43°.26E, h5km, MD2.9, ML2.9*
*ISCJB **01** 07:08:35.2±0.4, 38°.66N±0°.02×43°.20E±0°.03, h1km±5km, Error ellipse: s-maj=3.9km s-min=3.2km az=167.8*
*CSEM **01** 07:08:35.1±0.2, 38°.66N×43°.23E, h5km, MD2.9, Error ellipse: s-maj=3.9km s-min=3.7km az=95.0*
**ISC 01 07:08:35.3**±0.8**, 38°.65N**±0°.02×**43°.21E**±0°.02**, h12**km±6km**, n48, σ0s.90**/78**, 1D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.15** | **111** | *e*PG | **Pg** | **07 08 39.2** | **+0.3** |
| VANB | | | | *e*SG | **Sg** | **07 08 42.9** | **+1.4** |
| **VANB** | **Van** | **0.15** | **111** | *e*Pg | **Pg** | **07 08 39.2** | **+0.3** |
| **TVAN** | **Van** | **0.20** | **128** | *i* P | **Pg** | **07 08 39.1** | **-0.6** |
| TVAN | | | | *i* S | **Sg** | **07 08 43.0** | **+0.2** |
| **TVAN** | **Van** | **0.20** | **128** | P | **Pg** | **07 08 39.1** | **-0.6** |
| TVAN | | | | S | **Sg** | **07 08 43.0** | **+0.2** |
| **GEVA** | **Gevas** | **0.36** | **199** ⇓ | *i*P | **Pg** | **07 08 41.6** | **-1.0** |
| GEVA | | | | *e*S | **Sg** | **07 08 45.9** | **-1.4** |
| GEVA | | | | IAML | | 07 08 49.7 | |
| | comp=Z,640nm,0.4s | | | | | | |
| **GEVA** | **Gevas** | **0.36** | **199** | *i* P | **Pg** | **07 08 41.5** | **-1.0** |
| GEVA | | | | *i* S | **Sg** | **07 08 47.8** | **+0.5** |
| **GEVA** | **Gevas** | **0.36** | **199** | P | **Pg** | **07 08 41.5** | **-1.0** |
| GEVA | | | | S | **Sg** | **07 08 47.8** | **+0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.41** | **293** | *i* P | **Pg** | **07 08 43.0** | **-0.5** |
| ADCV | | | | *i* S | **Sb** | **07 08 50.3** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.41** | **293** | P | **Pg** | **07 08 43.0** | **-0.5** |
| ADCV | | | | S | **Sb** | **07 08 50.3** | **-0.6** |
| **VMUR** | **Van-Muradiye** | **0.44** | **40** | *i* P | **Pb** | **07 08 44.2** | **-1.0** |
| VMUR | | | | *i* S | **Sb** | **07 08 51.7** | **-0.1** |
| **VMUR** | **Van-Muradiye** | **0.44** | **40** | P | **Pb** | **07 08 44.2** | **-1.0** |
| VMUR | | | | S | **Sb** | **07 08 51.7** | **-0.1** |
| **CLDR** | **Caldiran** | **0.74** | **48** | *e*PG | **Pg** | **07 08 48.8** | **-0.9** |
| CLDR | | | | *e*SG | **Sg** | **07 08 58.9** | **-0.5** |
| **CLDR** | **Caldiran** | **0.74** | **48** | *i* P | **Pg** | **07 08 49.1** | **-0.6** |
| CLDR | | | | *i* S | **Sb** | **07 09 01.1** | **+0.6** |
| **CLDR** | **Caldiran** | **0.74** | **48** | *e*Pg | **Pg** | **07 08 48.8** | **-0.9** |
| **CLDR** | **Caldiran** | **0.74** | **48** | P | **Pg** | **07 08 49.1** | **-0.6** |
| CLDR | | | | *e*Sg | **Sg** | **07 08 58.9** | **-0.5** |
| CLDR | | | | S | **Sb** | **07 09 01.1** | **+0.6** |
| **TUTA** | **Tutak** | **0.81** | **338** | *e*P | **Pg** | **07 08 50.1** | **-1.0** |
| TUTA | | | | IAML | | 07 08 51.1 | |
| | comp=Z,269nm,0.4s | | | | | | |
| TUTA | | | | *e*S | **Sg** | **07 09 01.7** | **0.0** |
| **TUTA** | **Tutak** | **0.81** | **338** | *i* P | **Pg** | **07 08 50.0** | **-1.0** |
| **TUTA** | **Tutak** | **0.81** | **338** | P | **Pg** | **07 08 50.0** | **-1.0** |
| **BASK** | **Baskale_VAN** | **0.86** | **133** | *i* P | **Pg** | **07 08 50.3** | **-1.7** |
| BASK | | | | *i* S | **Sb** | **07 09 03.8** | **-0.2** |
| **BASK** | **Baskale_VAN** | **0.86** | **133** | P | **Pg** | **07 08 50.3** | **-1.7** |
| BASK | | | | S | **Sb** | **07 09 03.8** | **-0.2** |
| **AGRB** | **Hanur-Agry** | **0.94** | **350** | *e*PG | **Pg** | **07 08 52.5** | **-1.0** |
| AGRB | | | | *e*SG | **Sb** | **07 09 06.5** | **+0.3** |
| **AGRB** | **Hanur-Agry** | **0.94** | **350** | *e*Pg | **Pg** | **07 08 52.5** | **-1.0** |
| AGRB | | | | *e*Sg | **Sb** | **07 09 06.5** | **+0.3** |
| **DYDN** | **Diyadin** | **0.97** | **23** | *e*P | **Pb** | **07 08 54.1** | **-0.1** |
| DYDN | | | | IAML | | 07 08 56.8 | |
| | comp=Z,40nm,0.8s | | | | | | |
| DYDN | | | | *e*S | **Sb** | **07 09 07.0** | **0.0** |
| **EKAR** | **Karacoban** | **1.08** | **305** | *i* P | **Pb** | **07 08 55.8** | **-0.2** |
| EKAR | | | | *i* S | **Sn** | **07 09 14.6** | **+3.1** |
| **EKAR** | **Karacoban** | **1.08** | **305** | P | **Pb** | **07 08 55.8** | **-0.2** |
| **HAKT** | **HAKKARI** | **1.16** | **160** | *i* P | **Pg** | **07 08 57.0** | **-0.6** |
| **HAKT** | **HAKKARI** | **1.16** | **160** | P | **Pg** | **07 08 57.0** | **-0.6** |
| **SRTM** | **Siirt_Merkez** | **1.21** | **237** | *i* P | **Pg** | **07 08 58.1** | **-0.4** |
| SRTM | | | | *i* S | **Sn** | **07 09 16.2** | **+1.8** |
| **SRTM** | **Siirt_Merkez** | **1.21** | **237** | P | **Pg** | **07 08 58.1** | **-0.4** |
| SRTM | | | | S | **Sn** | **07 09 16.2** | **+1.8** |
| **EATA** | **Eleskirt** | **1.33** | **336** | *i* P | **Pn** | **07 08 59.5** | **-0.5** |
| EATA | | | | *i* S | **Sn** | **07 09 18.8** | **+0.9** |
| **EATA** | **Eleskirt** | **1.33** | **336** | P | **Pn** | **07 08 59.5** | **-0.5** |
| EATA | | | | S | **Sn** | **07 09 18.8** | **+0.9** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.36** | **141** | *i* P | **Pg** | **07 09 01.7** | **+0.2** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.36** | **141** | P | **Pg** | **07 09 01.7** | **+0.2** |
| **CUKT** | **Cukurca** | **1.44** | **167** | *e*PN | **Pg** | **07 09 02.5** | **-0.3** |
| **CUKT** | **Cukurca** | **1.44** | **167** | *e*Pn | **Pg** | **07 09 02.5** | **-0.3** |
| **TASB** | **TASBURUN-IGDIR** | **1.55** | **31** | *e*PN | **Pb** | **07 09 03.3** | **-0.7** |
| **TASB** | **TASBURUN-IGDIR** | **1.55** | **31** | *e*Pn | **Pb** | **07 09 03.3** | **-0.7** |
| **BNGL** | **BINGOL** | **1.64** | **281** | *e*P | **Pn** | **07 09 04.5** | **+0.5** |
| BNGL | | | | *e*S | **Sb** | **07 09 26.7** | **+0.5** |
| BNGL | | | | IAML | | 07 09 31.2 | |
| | comp=Z,106nm,0.4s | | | | | | |
| **BNGL** | **BINGOL** | **1.64** | **281** | *i* P | **Pn** | **07 09 04.6** | **+0.5** |
| BNGL | | | | *i* S | **Sg** | **07 09 27.8** | **-0.1** |
| **SVAN** | **Silvan-Diyarba** | **1.66** | **253** | *e*PN | **Pb** | **07 09 05.8** | **+0.1** |
| **SVAN** | **Silvan-Diyarba** | **1.66** | **253** | *e*Pn | **Pb** | **07 09 05.8** | **+0.1** |
| **BTMN** | **Batman** | **1.70** | **244** | *i* P | **Pn** | **07 09 05.3** | **+0.4** |
| BTMN | | | | *i* S | **Sg** | **07 09 29.3** | **-0.7** |
| **BTMN** | **Batman** | **1.70** | **244** | P | **Pn** | **07 09 05.3** | **+0.4** |
| BTMN | | | | S | **Sg** | **07 09 29.3** | **-0.7** |
| **HOMI** | **Horasan** | **1.72** | **324** | *i* P | **Pb** | **07 09 06.4** | **-0.6** |
| HOMI | | | | *i* S | **Sg** | **07 09 32.4** | **+1.7** |
| **YEDI** | **Yedisu-Bingol** | **2.22** | **292** | *e*PN | **Pb** | **07 09 14.5** | **-0.9** |
| **YEDI** | **Yedisu-Bingol** | **2.22** | **292** | *e*Pn | **Pb** | **07 09 14.5** | **-0.9** |
| **MAZI** | **Mazidag** | **2.48** | **242** | *e*PN | **Pb** | **07 09 18.1** | **-1.8** |
| **MAZI** | **Mazidag** | **2.48** | **242** | *e*Pn | **Pb** | **07 09 18.1** | **-1.8** |

*WAR **01** 07:28:53.4, 51°.44N×16°.20E, h1km, Mw2.1*
*CSEM **01** 07:28:54.0±0.7, 51°.38N×16°.15E, h1km, ML2.1, Error ellipse: s-maj=10.1km s-min=5.4km az=11.0*
**PRU 01 07:28:54.2, 51°.38N×16°.18E, h0**km**, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KSP** | **Ksiaz** | **0.54** | **172** | *e*Pg | Pg | 07 29 04.6 | +0.1 |
| KSP | | | | *e*Sg | Sg | 07 29 12.5 | +0.9 |
| **KSP** | **Ksiaz** | **0.54** | **172** | *e*Pg | Pg | 07 29 04.6 | 0.0 |
| KSP | | | | *e*Sg | Sg | 07 29 12.5 | +0.9 |
| **KSP** | **Ksiaz** | **0.54** | **172** | *e*Pg | Pg | 07 29 04.6 | 0.0 |
| KSP | | | | *e*Sg | Sg | 07 29 12.5 | +0.9 |
| **UPC** | **Upice** | **0.88** | **187** | *e*PG | Pg | 07 29 10.9 | -0.1 |
| UPC | | | | *e*SG | Sg | 07 29 23.2 | +0.8 |
| | comp=Z,18nm,0.4s | | | | | | |
| **UPC** | **Upice** | **0.88** | **187** | Pg | Pg | 07 29 10.9 | -0.1 |
| UPC | | | | Sg | Sg | 07 29 23.2 | +0.8 |
| | 18nm,0.4s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.03** | **175** | *e*PG | Pg | 07 29 13.7 | -0.3 |
| DPC | | | | *e*SG | Sg | 07 29 27.6 | +0.2 |
| | comp=Z,7.1nm,0.4s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.03** | **175** | Pg | Pg | 07 29 13.7 | -0.3 |
| DPC | | | | Sg | Sg | 07 29 27.6 | +0.2 |
| | 7.1nm,0.4s | | | | | | |
| **PVCC** | **Panska Ves** | **1.33** | **231** | *e*PG | Pg | 07 29 19.3 | -0.3 |
| PVCC | | | | *e*SG | Sb | 07 29 37.5 | 0.0 |
| | comp=Z,35nm,0.4s | | | | | | |
| **PVCC** | **Panska Ves** | **1.33** | **231** | Pg | Pg | 07 29 19.3 | -0.3 |
| PVCC | | | | Sg | Sb | 07 29 37.5 | 0.0 |
| | 35nm,0.4s | | | | | | |
| **BRG** | **Berggiesshubel** | **1.50** | **251** | PG | Pn | 07 29 22.2 | -0.2 |
| BRG | | | | SG | Sg | 07 29 42.1 | -0.2 |
| | 8.3nm,0.4s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **1.71** | **212** | *e*SG | Sn | 07 29 48.2 | +0.3 |
| **GOPC** | **GO Pecny, Ondr** | **1.71** | **212** | Sg | Sn | 07 29 48.2 | +0.3 |
| **PRU** | **Pruhonice** | **1.74** | **217** | *e*SG | Sb | 07 29 49.3 | -0.1 |
| **PRU** | **Pruhonice** | **1.74** | **217** | Sg | Sb | 07 29 49.3 | -0.1 |
| **NKC** | **Novy Kostel** | **2.63** | **246** | *e*SG | Sg | 07 30 18.5 | -0.2 |
| **NKC** | **Novy Kostel** | **2.63** | **246** | Sg | Sg | 07 30 18.5 | -0.2 |
| **KHC** | **Kasperske Hory** | **2.80** | **218** | *e*SG | Sb | 07 30 22.1 | +2.1 |
| **KHC** | **Kasperske Hory** | **2.80** | **218** | Sg | Sb | 07 30 22.1 | +2.1 |

*ISCJB **01** 07:48:09.7±0.3, 35°.20N±0°.03×52°.01E±0°.04, h10km, mb3.8/5, Error ellipse: s-maj=5.1km s-min=3.6km az=136.1*
*IDC **01** 07:48:09.7±2.0, 35°.06N×52°.14E, h0km, mb3.9/4, mb1 4.0/5, mb1mx3.5/42, mbtmp3.9/5, ML3.5/1, Error ellipse: s-maj=32.9km s-min=23.1km az=24.0*
*CSEM **01** 07:48:09.9±0.2, 35°.23N×52°.03E, h2km, ML3.8, Error ellipse: s-maj=4.7km s-min=3.9km az=132.0*
*THR **01** 07:48:09.8±0.3, 35°.19N×52°.05E, h16km±3km, ML3.5*
*TEH **01** 07:48:10.7, 35°.19N×52°.03E, h9km, ML3.8*
**ISC 01 07:48:11.2**±0.7**, 35°.20N**±0°.03×**52°.05E**±0°.03**, h10**km**, n53, σ1s.32**/56**, mb3.6**/5**, Northern and central Iran**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **IVRN** | **Varamin** | **0.34** | **232** | *e*Pg | **Pg** | **07 48 17.3** | **-0.6** |
| IVRN | | | | *e*AMB | AMB | 07 48 29.9 | |
| | comp=Z,72μm,0.1s | | | | | | |
| **IVRN** | **Varamin** | **0.34** | **232** | *e*Pg | **Pg** | **07 48 17.3** | **-0.6** |
| **IDMV** | **Damavand** | **0.37** | **358** | *e*Pg | **Pg** | **07 48 17.7** | **-1.0** |
| IDMV | | | | *e*AMB | AMB | 07 48 30.8 | |
| | comp=Z,71μm,0.2s | | | | | | |
| **IDMV** | **Damavand** | **0.37** | **358** | *e*Pg | **Pg** | **07 48 17.7** | **-1.0** |
| **IFIR** | **Firoozkooh** | **0.72** | **53** | *e*Pg | **Pg** | **07 48 23.4** | **-1.8** |
| IFIR | | | | *e*AMB | AMB | 07 48 36.4 | |
| | comp=Z,71μm,0.2s | | | | | | |
| **IFIR** | **Firoozkooh** | **0.72** | **53** | *e*Pg | **Pg** | **07 48 23.4** | **-1.8** |
| **ILAS** | **Lasjerd** | **0.77** | **76** | *e*Pg | **Pg** | **07 48 24.8** | **-1.2** |
| ILAS | | | | *e*AMB | AMB | 07 48 37.8 | |
| | comp=E,35μm,0.1s | | | | | | |
| **ILAS** | **Lasjerd** | **0.77** | **76** | *e*Pg | **Pg** | **07 48 24.8** | **-1.2** |
| **GHVR** | **GHOM** | **0.95** | **221** | *e*Pg | **Pg** | **07 48 28.2** | **-1.3** |
| **GHVR** | **GHOM** | **0.95** | **221** | *e*Pg | **Pg** | **07 48 28.2** | **-1.3** |
| **CHTH** | **Charan** | **1.03** | **313** | *e*Pg | **Pg** | **07 48 29.3** | **-1.7** |
| **CHTH** | **Charan** | **1.03** | **313** | *e*Pg | **Pg** | **07 48 29.3** | **-1.7** |
| **IPRN** | **Peran** | **1.06** | **13** | *e*Pg | **Pg** | **07 48 30.0** | **-1.6** |
| IPRN | | | | *e*AMB | AMB | 07 48 34.7 | |
| | comp=Z,14μm,0.3s | | | | | | |
| **IALA** | **Alasht** | **1.07** | **35** | *e*Pg | **Pg** | **07 48 30.8** | **-1.1** |
| IALA | | | | *e*AMB | AMB | 07 48 51.2 | |
| | comp=Z,15μm,0.3s | | | | | | |
| **IALA** | **Alasht** | **1.07** | **35** | *e*Pg | **Pg** | **07 48 30.8** | **-1.1** |
| **ISHM** | **Shahmirzad** | **1.18** | **59** | *e*Pg | **Pb** | **07 48 32.7** | **-1.1** |
| ISHM | | | | *e*AMB | AMB | 07 48 52.4 | |
| | comp=Z,24μm,0.2s | | | | | | |
| **THKV** | **Tehran--Karaj** | **1.19** | **307** | *e*Pg | **Pb** | **07 48 32.3** | **-1.6** |
| **THKV** | **Tehran--Karaj** | **1.19** | **307** | *e*Pg | **Pb** | **07 48 32.3** | **-1.6** |
| **IMHD** | **Mahdasht** | **1.23** | **293** | *e*Pg | **Pb** | **07 48 32.2** | **-2.3** |
| IMHD | | | | *e*AMB | AMB | 07 48 51.9 | |
| | comp=Z,5μm,0.1s | | | | | | |
| **IMHD** | **Mahdasht** | **1.23** | **293** | *e*Pg | **Pb** | **07 48 32.2** | **-2.3** |
| **QAM** | **Ghamsar** | **1.52** | **199** | *e*Pn | **Pn** | **07 48 36.9** | **-1.8** |
| QAM | | | | *e*Sg | **Sn** | **07 48 58.0** | **-0.7** |
| QAM | | | | *e*AMB | AMB | 07 49 01.1 | |
| | comp=Z,73μm,0.2s | | | | | | |
| **IANJ** | **Anjilo** | **1.55** | **80** | *e*Pn | **Pn** | **07 48 38.3** | **-0.7** |
| IANJ | | | | *e*AMB | AMB | 07 49 03.5 | |
| | comp=Z,11μm,0.1s | | | | | | |
| **IANJ** | **Anjilo** | **1.55** | **80** | *e*Pn | **Pn** | **07 48 38.3** | **-0.7** |
| **IRAZ** | **Razeghan** | **1.75** | **277** | *e*Pn | **Pn** | **07 48 41.4** | **-0.3** |
| IRAZ | | | | *e*AMB | AMB | 07 49 19.6 | |
| | comp=Z,9μm,0.3s | | | | | | |
| **IRAZ** | **Razeghan** | **1.75** | **277** | *e*Pn | **Pn** | **07 48 41.4** | **-0.3** |
| **ASAO** | **Ashtian** | **1.79** | **249** | *e*Pg | **Pn** | **07 48 42.5** | **+0.2** |
| ASAO | | | | *e*Sg | **Sn** | **07 49 06.5** | **+1.3** |
| ASAO | | | | AML | AML | 07 49 10.7 | |
| | comp=N,376nm,0.5s | | | | | | |
| **ASAO** | **Ashtian** | **1.79** | **249** | *e*Pg | **Pn** | **07 48 42.5** | **+0.2** |
| ASAO | | | | *e*Sg | **Sn** | **07 49 06.5** | **+1.3** |
| **IGZV** | **Ghazvin** | **1.90** | **309** | *e*Pn | **Pn** | **07 48 43.6** | **-0.2** |
| IGZV | | | | *e*AMB | AMB | 07 49 18.3 | |
| | comp=Z,4μm,0.3s | | | | | | |
| **IGZV** | **Ghazvin** | **1.90** | **309** | *e*Pn | **Pn** | **07 48 43.6** | **-0.2** |
| **IKLH** | **Kolahrood** | **1.92** | **192** | *e*Pn | **Pn** | **07 48 43.5** | **-0.7** |
| IKLH | | | | *e*AMB | AMB | 07 49 11.2 | |
| | comp=Z,17μm,0.2s | | | | | | |
| **IKLH** | **Kolahrood** | **1.92** | **192** | *e*Pn | **Pn** | **07 48 43.5** | **-0.7** |
| **IGLO** | **Ghaloghah** | **1.94** | **48** | *e*Pn | **Pn** | **07 48 44.8** | **+0.4** |
| IGLO | | | | *e*AMB | AMB | 07 49 19.4 | |
| | comp=Z,12μm,0.4s | | | | | | |
| **KHMZ** | **Khomeyn** | **2.26** | **230** | *e*Pn | **Pn** | **07 48 48.7** | **-0.1** |
| **KHMZ** | **Khomeyn** | **2.26** | **230** | *e*Pn | **Pn** | **07 48 48.7** | **-0.1** |
| **IZEF** | **Zefreh** | **2.31** | **174** | *e*Pn | **Pn** | **07 48 48.9** | **-0.7** |
| IZEF | | | | *e*AMB | AMB | 07 49 21.6 | |
| | comp=Z,6μm,0.2s | | | | | | |
| **IZEF** | **Zefreh** | **2.31** | **174** | *e*Pn | **Pn** | **07 48 48.9** | **-0.7** |
| **NASN** | **Na'in** | **2.48** | **165** | *e*Pn | **Pn** | **07 48 51.8** | **-0.2** |
| NASN | | | | AML | AML | 07 49 27.7 | |
| | comp=E,263nm,0.4s | | | | | | |
| **NASN** | **Na'in** | **2.48** | **165** | *e*Pn | **Pn** | **07 48 51.8** | **-0.2** |
| **IPIR** | **Pirpir** | **2.69** | **201** | *e*Pn | **Pn** | **07 48 56.9** | **+2.1** |
| IPIR | | | | *e*AMB | AMB | 07 49 36.4 | |
| | comp=Z,4μm,0.3s | | | | | | |
| **IPIR** | **Pirpir** | **2.69** | **201** | *e*Pn | **Pn** | **07 48 56.9** | **+2.1** |
| **ZNJK** | **Zanjan** | **3.10** | **299** | *e*Pn | **Pn** | **07 49 00.5** | **+0.2** |
| **ZNJK** | **Zanjan** | **3.10** | **299** | *e*Pn | **Pn** | **07 49 00.5** | **+0.2** |
| **SHRO** | **Shahrood** | **3.32** | **75** | *e*Pn | **Pn** | **07 49 03.4** | **+0.1** |
| **SHRO** | **Shahrood** | **3.32** | **75** | *e*Pn | **Pn** | **07 49 03.4** | **+0.1** |
| **IRAM** | **Ramesheh** | **3.40** | **175** | *e*AMB | AMB | 07 49 22.9 | |
| | comp=Z,1μm,0.3s | | | | | | |
| IRAM | | | | *e*Pn | **Pn** | **07 49 04.4** | **-0.1** |
| **GEYT** | **Alibeck** | **5.59** | **59** | Pn | **Pn** | **07 49 36.2** | **+1.8** |
| | comp=Z,1.3nm,0.3s,baz=236,slow=10,SNR=6.9 | | | | | | |
| GEYT | | | | Lg | Lg | 07 51 06.6 | |
| | comp=Z,0.2nm,0.3s,baz=242,slow=31,SNR=2.4 | | | | | | |
| **BRTR** | **Keskin Array B** | **15.29** | **293** | Pn | **P** | **07 51 53.7** | **+1.6** |
| | comp=Z,0.1nm,0.3s,baz=119,slow=12,SNR=3.1 | | | | | | |
| **AKTO** | **Aktyubinsk** | **15.83** | **14** | Pn | **P** | **07 51 57.9** | **+0.1** |
| | comp=Z,0.2nm,0.3s,baz=227,slow=18,SNR=3.6 | | | | | | |
| **ARU** | **Arti** | **21.69** | **10** | P | **P** | **07 53 03.1** | **+1.2** |
| | comp=Z,4.8nm,0.2s,baz=264,slow=10,SNR=6.6 | | | | | | |
| **BVAR** | **Borovoye Array** | **22.04** | **30** | P | **P** | **07 53 10.3** | **+4.5** |
| | comp=Z,1.0nm,0.7s,baz=224,slow=6.2,SNR=5.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **25.43** | **54** | P | **P** | **07 53 39.0** | **0.0** |
| | comp=Z,0.6nm,0.7s,baz=236,slow=12,SNR=2.8 | | | | | | |
| **NOA** | **NORSAR Array B** | **36.59** | **328** | P | **P** | **07 55 18.6** | **+1.5** |
| | comp=Z,0.7nm,0.6s,baz=121,slow=8.8,SNR=2.9 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **44.62** | **99** | P | **P** | **07 56 22.9** | **-1.1** |
| | comp=Z,1.2nm,0.3s,baz=298,slow=8.3,SNR=4.6 | | | | | | |

*ISK **01** 08:24:22.8, 38°.89N×43°.56E, h5km, MD3.0, ML3.0*
*ATA **01** 08:24:23.0±0.7, 38°.88N×43°.40E, h1km±5km, MD3.6, ML3.3, MW3.4*
*DDA **01** 08:24:23.8, 38°.89N×43°.53E, h16km, Ml3.4*
*CSEM **01** 08:24:23.6±0.2, 38°.88N×43°.60E, h2km, ML3.4, Error ellipse: s-maj=5.1km s-min=3.6km az=96.0*
**ISC 01 08:24:24.1**±1.0**, 38°.87N**±0°.02×**43°.54E**±0°.02**, h3**km±9km**, n65, σ1s.46**/106**, 1D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.12** | **13** | *i* P | **Pg** | **08 24 26.3** | **-0.4** |
| VMUR | | | | *i* S | **Sg** | **08 24 29.4** | **+1.0** |
| **VMUR** | **Van-Muradiye** | **0.12** | **13** | P | **Pg** | **08 24 26.3** | **-0.4** |
| VMUR | | | | S | **Sg** | **08 24 29.4** | **+1.0** |
| **ERCV** | **ERCIS-VAN** | **0.22** | **315** | *e*PG | **Pg** | **08 24 28.3** | **-0.1** |
| ERCV | | | | *e*SG | **Sg** | **08 24 32.3** | **+1.1** |
| **ERCV** | **ERCIS-VAN** | **0.22** | **315** | *e*Pg | **Pg** | **08 24 28.3** | **-0.1** |
| ERCV | | | | *e*Sg | **Sg** | **08 24 32.3** | **+1.1** |
| **VANB** | **Van** | **0.29** | **203** | *e*PG | **Pb** | **08 24 31.3** | **-0.8** |
| VANB | | | | *e*SG | **Sb** | **08 24 38.1** | **+0.7** |
| **VANB** | **Van** | **0.29** | **203** | *e*Pg | **Pb** | **08 24 31.3** | **-0.8** |
| VANB | | | | *e*Sg | **Sb** | **08 24 38.2** | **+0.7** |
| **TVAN** | **Van** | **0.35** | **197** | *i* P | **Pg** | **08 24 31.1** | **+0.2** |
| TVAN | | | | *i* S | **Sb** | **08 24 38.7** | **-0.6** |
| **TVAN** | **Van** | **0.35** | **197** | P | **Pg** | **08 24 31.1** | **+0.2** |
| TVAN | | | | S | **Sb** | **08 24 38.7** | **-0.6** |
| **CLDR** | **Caldiran** | **0.41** | **47** | *e*PG | **Pg** | **08 24 31.2** | **-0.7** |
| CLDR | | | | *e*SG | **Sg** | **08 24 37.4** | **+0.1** |
| **CLDR** | **Caldiran** | **0.41** | **47** | *i* P | **Pg** | **08 24 31.4** | **-0.7** |
| CLDR | | | | *i* S | **Sg** | **08 24 38.6** | **+1.3** |
| **CLDR** | **Caldiran** | **0.41** | **47** | *e*Pg | **Pg** | **08 24 31.3** | **-0.7** |
| CLDR | | | | *e*Sg | **Sg** | **08 24 37.4** | **+0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.64** | **265** | *i* P | **Pg** | **08 24 36.1** | **-0.2** |
| ADCV | | | | *i* S | **Sb** | **08 24 46.5** | **-0.9** |
| **ADCV** | **BITLIS_Adilcev** | **0.64** | **265** | P | **Pg** | **08 24 36.1** | **-0.2** |
| ADCV | | | | S | **Sb** | **08 24 46.5** | **-0.9** |
| **GEVA** | **Gevas** | **0.67** | **214** | *e*P | **Pg** | **08 24 35.9** | **-1.1** |
| GEVA | | | | *e*S | **Sg** | **08 24 46.3** | **+0.7** |
| GEVA | | | | IAML | | 08 24 59.4 | |
| | comp=Z,111nm,0.6s | | | | | | |
| **GEVA** | **Gevas** | **0.67** | **214** | *i* P | **Pg** | **08 24 35.9** | **-1.1** |
| GEVA | | | | *i* S | **Sb** | **08 24 48.1** | **-0.2** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| **GEVA** | **Gevas** | **0.67** | **214** | P | **Pg** | **08 24 35.9** | **-1.1** |
| GEVA | | | | S | **Sb** | **08 24 48.1** | **-0.2** |
| **DYDN** | **Diyadin** | **0.69** | **10** | *e*P | **Pg** | **08 24 37.0** | **-0.3** |
| DYDN | | | | IAML | | 08 24 49.3 | |
| | comp=Z,111nm,0.4s | | | | | | |
| **DYDN** | **Diyadin** | **0.69** | **10** | *e*P | **Pg** | **08 24 37.2** | **-0.1** |
| DYDN | | | | IAML | | 08 24 49.5 | |
| | comp=Z,111nm,0.4s | | | | | | |
| **DYDN** | **Diyadin** | **0.69** | **10** | *i* P | **Pg** | **08 24 36.6** | **-0.7** |
| DYDN | | | | *i* S | **Sb** | **08 24 47.9** | **-1.0** |
| **DYDN** | **Diyadin** | **0.69** | **10** | P | **Pg** | **08 24 36.6** | **-0.7** |
| DYDN | | | | S | **Sb** | **08 24 47.9** | **-1.0** |
| **TUTA** | **Tutak** | **0.78** | **314** | *e*P | **Pg** | **08 24 37.8** | **-1.3** |
| TUTA | | | | IAML | | 08 24 52.7 | |
| | comp=Z,290nm,0.3s | | | | | | |
| **TUTA** | **Tutak** | **0.78** | **314** | *e*P | **Pg** | **08 24 37.8** | **-1.3** |
| TUTA | | | | *e*S | **Sg** | **08 24 44.8** | **-4.3** |
| TUTA | | | | IAML | | 08 24 53.1 | |
| | comp=Z,289nm,0.3s | | | | | | |
| **TUTA** | **Tutak** | **0.78** | **314** | *i* P | **Pg** | **08 24 37.7** | **-1.3** |
| TUTA | | | | *i* S | **Sg** | **08 24 50.5** | **+1.4** |
| **TUTA** | **Tutak** | **0.78** | **314** | P | **Pg** | **08 24 37.7** | **-1.3** |
| TUTA | | | | S | **Sg** | **08 24 50.5** | **+1.4** |
| **AGRB** | **Hanur-Agry** | **0.82** | **329** | *e*PG | **Pg** | **08 24 39.0** | **-0.9** |
| AGRB | | | | *e*SG | **Sg** | **08 24 51.8** | **+1.1** |
| **AGRB** | **Hanur-Agry** | **0.82** | **329** | *e*Pg | **Pg** | **08 24 39.0** | **-1.0** |
| AGRB | | | | *e*Sg | **Sg** | **08 24 51.8** | **+1.1** |
| **BASK** | **Baskale_VAN** | **0.89** | **156** | *e*P | **Pb** | **08 24 42.5** | **+0.1** |
| BASK | | | | IAML | | 08 24 47.5 | |
| | comp=Z,50nm,0.4s | | | | | | |
| BASK | | | | *e*S | **Sn** | **08 24 57.4** | **+0.1** |
| **BASK** | **Baskale_VAN** | **0.89** | **156** | *i* P | **Pg** | **08 24 40.8** | **-0.4** |
| BASK | | | | *i* S | **Sn** | **08 24 56.7** | **-0.7** |
| **BASK** | **Baskale_VAN** | **0.89** | **156** | P | **Pg** | **08 24 40.8** | **-0.4** |
| **EKAR** | **Karacoban** | **1.21** | **289** | *e*P | **Pg** | **08 24 47.4** | **+0.1** |
| EKAR | | | | *e*S | **Sg** | **08 25 00.5** | **-2.6** |
| EKAR | | | | IAML | | 08 25 15.6 | |
| | comp=Z,82nm,0.5s | | | | | | |
| **EKAR** | **Karacoban** | **1.21** | **289** | *i* P | **Pg** | **08 24 46.7** | **-0.7** |
| EKAR | | | | *i* S | **Sn** | **08 25 06.5** | **+1.3** |
| **EKAR** | **Karacoban** | **1.21** | **289** | P | **Pg** | **08 24 46.7** | **-0.7** |
| EKAR | | | | S | **Sn** | **08 25 06.5** | **+1.3** |
| **TASB** | **TASBURUN-IGDIR** | **1.24** | **26** | *e*PN | **Pg** | **08 24 47.2** | **-0.7** |
| **TASB** | **TASBURUN-IGDIR** | **1.24** | **26** | *e*Pn | **Pg** | **08 24 47.2** | **-0.7** |
| **EATA** | **Eleskirt** | **1.28** | **321** | *e*P | **Pg** | **08 24 47.0** | **-1.7** |
| EATA | | | | IAML | | 08 24 57.3 | |
| | comp=Z,18nm,0.4s | | | | | | |
| **EATA** | **Eleskirt** | **1.28** | **321** | *e*P | **Pg** | **08 24 47.1** | **-1.6** |
| EATA | | | | IAML | | 08 24 58.0 | |
| | comp=Z,18nm,0.4s | | | | | | |
| EATA | | | | *e*S | **Sg** | **08 25 00.1** | **-5.3** |
| **EATA** | **Eleskirt** | **1.28** | **321** | *i* P | **Pg** | **08 24 47.1** | **-1.5** |
| EATA | | | | *i* S | **Sn** | **08 25 08.2** | **+1.1** |
| **EATA** | **Eleskirt** | **1.28** | **321** | P | **Pg** | **08 24 47.2** | **-1.5** |
| EATA | | | | S | **Sn** | **08 25 08.2** | **+1.1** |
| **HAKT** | **HAKKARI** | **1.31** | **174** | *i* P | **Pg** | **08 24 47.5** | **-1.8** |
| HAKT | | | | *i* S | **Sn** | **08 25 09.3** | **+1.5** |
| **HAKT** | **HAKKARI** | **1.31** | **174** | P | **Pg** | **08 24 47.5** | **-1.8** |
| **SRTM** | **Siirt_Merkez** | **1.54** | **236** | *i* P | **Pn** | **08 24 52.7** | **+0.1** |
| SRTM | | | | *i* S | **Sg** | **08 25 15.8** | **+2.2** |
| **SRTM** | **Siirt_Merkez** | **1.54** | **236** | P | **Pn** | **08 24 52.7** | **+0.1** |
| SRTM | | | | S | **Sg** | **08 25 15.8** | **+2.2** |
| **DIGO** | **Kars** | **1.55** | **355** | ⇓*e*P | **Pn** | **08 24 53.0** | **0.0** |
| DIGO | | | | IAML | | 08 24 56.3 | |
| | comp=Z,12nm,0.4s | | | | | | |
| **DIGO** | **Kars** | **1.55** | **355** | *e*P | **Pn** | **08 24 53.0** | **0.0** |
| DIGO | | | | IAML | | 08 24 56.7 | |
| | comp=Z,12nm,0.4s | | | | | | |
| **DIGO** | **Kars** | **1.55** | **355** | *i* P | **Pn** | **08 24 52.9** | **0.0** |
| DIGO | | | | *i* S | **Sg** | **08 25 21.3** | **+7.3** |
| **DIGO** | **Kars** | **1.55** | **355** | P | **Pn** | **08 24 52.9** | **0.0** |
| **CUKT** | **Cukurca** | **1.62** | **178** | *e*PN | **Pn** | **08 24 53.5** | **-0.2** |
| **CUKT** | **Cukurca** | **1.62** | **178** | *e*Pn | **Pn** | **08 24 53.5** | **-0.2** |
| **HOMI** | **Horasan** | **1.73** | **314** | *i* P | **Pn** | **08 24 55.2** | **-0.2** |
| HOMI | | | | *i* S | **Sg** | **08 25 24.4** | **+4.8** |
| **KARS** | **Kars** | **1.79** | **349** | *e*PN | **Pn** | **08 24 55.7** | **-0.4** |
| **KARS** | **Kars** | **1.79** | **349** | *e*Pn | **Pn** | **08 24 55.7** | **-0.4** |
| **BNGL** | **BINGOL** | **1.86** | **273** | *e*P | **Pb** | **08 24 58.8** | **-0.2** |
| BNGL | | | | *e*S | **Sb** | **08 25 22.9** | **+0.1** |
| BNGL | | | | IAML | | 08 25 27.9 | |
| | comp=Z,101nm,0.4s | | | | | | |
| **BNGL** | **BINGOL** | **1.86** | **273** | *i* P | **Pn** | **08 24 58.1** | **+0.9** |
| BNGL | | | | *i* S | **Sg** | **08 25 25.8** | **+1.8** |
| **SVAN** | **Silvan-Diyarba** | **1.97** | **249** | *e*PN | **Pn** | **08 24 59.2** | **+0.7** |
| **SVAN** | **Silvan-Diyarba** | **1.97** | **249** | *e*Pn | **Pn** | **08 24 59.2** | **+0.7** |
| **ERZM** | **Erzurum** | **1.98** | **302** | *i* P | **Pb** | **08 24 59.9** | **-1.0** |
| ERZM | | | | *i* S | **Sg** | **08 25 29.2** | **+1.6** |
| **ERZM** | **Erzurum** | **1.98** | **302** | P | **Pb** | **08 24 59.9** | **-1.0** |
| **BTMN** | **Batman** | **2.03** | **242** | *i* P | **Pn** | **08 24 59.9** | **+0.6** |
| BTMN | | | | *i* S | **Sg** | **08 25 28.7** | **-0.6** |
| **BTMN** | **Batman** | **2.03** | **242** | P | **Pn** | **08 24 59.9** | **+0.6** |
| BTMN | | | | S | **Sg** | **08 25 28.7** | **-0.6** |
| **YEDI** | **Yedisu-Bingol** | **2.40** | **285** | *e*PN | **Pn** | **08 25 04.6** | **+0.1** |
| **YEDI** | **Yedisu-Bingol** | **2.40** | **285** | *e*Pn | **Pn** | **08 25 04.6** | **+0.1** |
| **MAZI** | **Mazidag** | **2.81** | **241** | *e*PN | **Pn** | **08 25 11.0** | **+0.9** |
| **MAZI** | **Mazidag** | **2.81** | **241** | *e*Pn | **Pn** | **08 25 11.0** | **+0.9** |
| **PTK** | **Pertek** | **3.23** | **272** | *e*PN | **Pn** | **08 25 16.9** | **+0.9** |
| **PTK** | **Pertek** | **3.23** | **272** | *e*Pn | **Pn** | **08 25 16.9** | **+0.9** |

*ATH* ***01*** *08:30:12.8, 40°.77N×19°.93E, h8$^{km}$±3$^{km}$, ML2.3/4, Error ellipse: s-maj=4.2km s-min=1.2km az=143.0*
*CSEM* ***01*** *08:30:13.1±0.3, 40°.76N×19°.97E, h2$^{km}$, ML2.3, Error ellipse: s-maj=7.2km s-min=5.2km az=72.0*
*TIR* ***01*** *08:30:13.3, 40°.68N×19°.99E, h7$^{km}$, ML2.9*
*SKO* ***01*** *08:30:15.7, 40°.69N×19°.94E, h12$^{km}$*
**ISC 01 08:30:12.8**±1.7**, 40°.68N**±0°.03×**19°.93E**±0°.05**, h3**$^{km}$±13$^{km}$**, n22,** $\sigma$**1$^s$24**/33**, Albania**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KBN** | **Korca** | **0.66** | **95** | *i* PN | Pn | 08 30 35.0 | +5.9 |
| KBN | | | | *i* SN | Sn | 08 30 54.3 | +14 |
| **OHR** | **Ohrid** | **0.79** | **57** | *i* Pg | **Pb** | **08 30 28.5** | **-0.7** |
| OHR | | | | *i* Sg | **Sn** | **08 30 41.6** | **-1.7** |
| **NEST** | **Nestorio** | **0.90** | **107** | P | **Pg** | **08 30 30.2** | **+0.2** |
| **NEST** | **Nestorio** | **0.90** | **107** | P | **Pg** | **08 30 30.2** | **+0.2** |
| **KEK** | **Kerkira** | **0.97** | **186** | P | **Pn** | **08 30 33.2** | **-0.2** |
| KEK | | | | S | **Sn** | **08 30 47.5** | **-0.2** |
| KEK | | | | AML | AML | 08 30 50.7 | |
| | comp=E,301μm,0.3s | | | | | | |
| KEK | | | | AML | AML | 08 30 51.0 | |
| | comp=N,355μm,0.2s | | | | | | |
| **KEK** | **Kerkira** | **0.97** | **186** | P | **Pn** | **08 30 33.2** | **-0.2** |
| KEK | | | | S | **Sn** | **08 30 47.5** | **-0.2** |
| **PENT** | **Pentalofos** | **1.05** | **117** | P | **Pg** | **08 30 32.9** | **0.0** |
| PENT | | | | S | **Sn** | **08 30 47.9** | **-1.8** |
| PENT | | | | AML | AML | 08 30 54.6 | |
| | comp=N,135μm,0.5s | | | | | | |
| PENT | | | | AML | AML | 08 30 57.5 | |
| | comp=E,140μm,0.4s | | | | | | |
| **PENT** | **Pentalofos** | **1.05** | **117** | P | **Pg** | **08 30 32.9** | **0.0** |
| PENT | | | | S | **Sn** | **08 30 47.9** | **-1.8** |
| **PHP** | **Peshkopia** | **1.07** | **21** | *i* PN | **Pn** | **08 30 35.4** | **+0.5** |
| PHP | | | | *i* SN | **Sn** | **08 30 55.1** | **+4.8** |
| **PHP** | **Peshkopia** | **1.07** | **21** | *i* Pn | **Pn** | **08 30 35.4** | **+0.5** |
| **FNA** | **Florina** | **1.11** | **84** | P | **Pg** | **08 30 33.1** | **-0.9** |
| FNA | | | | S | **Sn** | **08 30 50.0** | **-1.1** |
| FNA | | | | AML | AML | 08 30 53.0 | |
| | comp=N,449μm,0.4s | | | | | | |
| FNA | | | | AML | AML | 08 30 54.9 | |
| | comp=E,377μm,0.4s | | | | | | |
| **FNA** | **Florina** | **1.11** | **84** | P | **Pg** | **08 30 33.1** | **-0.9** |
| **IGT** | **Igoumenitsa** | **1.19** | **165** | P | **Pb** | **08 30 36.2** | **+0.2** |
| IGT | | | | S | **Sn** | **08 30 53.8** | **+0.7** |
| IGT | | | | AML | AML | 08 30 55.8 | |
| | comp=N,211μm,0.4s | | | | | | |
| IGT | | | | AML | AML | 08 30 56.2 | |
| | comp=E,331μm,0.7s | | | | | | |
| **IGT** | **Igoumenitsa** | **1.19** | **165** | P | **Pb** | **08 30 36.2** | **+0.2** |
| IGT | | | | S | **Sn** | **08 30 53.8** | **+0.7** |
| **KRUS** | **Krusevo** | **1.21** | **55** | *i* Pg | **Pg** | **08 30 37.0** | **+0.9** |
| KRUS | | | | *i* Sg | **Sn** | **08 30 54.2** | **+0.4** |
| **DSL** | **Palaion Diasel** | **1.79** | **149** | P | **Pb** | **08 30 46.8** | **+0.5** |
| **DSL** | **Palaion Diasel** | **1.79** | **149** | P | **Pb** | **08 30 46.8** | **+0.5** |
| **THL** | **Klokotos Trika** | **1.95** | **124** | P | **Pg** | **08 30 49.8** | **-0.5** |
| **PDO** | **Prodromos** | **2.30** | **155** | P | **Pn** | **08 30 52.8** | **+1.2** |
| **PDO** | **Prodromos** | **2.30** | **155** | P | **Pn** | **08 30 52.8** | **+1.2** |
| **STON** | **Ston** | **2.75** | **323** | *e*Pn | **Pn** | **08 30 57.1** | **-0.7** |
| STON | | | | Sn | **Sn** | **08 31 30.6** | **-0.9** |
| **STON** | **Ston** | **2.75** | **323** | *e*Pn | **Pn** | **08 30 57.0** | **-0.7** |
| STON | | | | Sn | **Sn** | **08 31 30.6** | **-0.9** |

**IDC 01 08:35:08.8**±2.5**, 7°.07S**×**128°.34E, h0**$^{km}$**, mb4.1**/1**, mb1 4.1**/3**, mb1mx3.6**/35**, mbtmp3.9**/3**, ML4.0**/2**, Error ellipse: s-maj=291.5km s-min=30.6km az=66.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **14.06** | **156** | Pn | Pn | 08 38 27.6 | -1.9 |
| | 0.7nm,0.3s,baz=331,slow=13,SNR=18 | | | | | | |
| WRA | | | | Sn | Sn | 08 40 52.4 | -14 |
| | 1.0nm,0.3s,baz=335,slow=22,SNR=12 | | | | | | |
| **ASAR** | **Alice Springs** | **17.35** | **163** | P | P | 08 39 14.1 | 0.0 |
| | 0.5nm,0.3s,baz=344,slow=9.9,SNR=39 | | | | | | |
| ASAR | | | | S | Sn | 08 42 15.2 | -11 |
| | 0.2nm,0.3s,baz=350,slow=27,SNR=6.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.39** | **328** | P | P | 08 46 06.1 | 0.0 |
| | 0.9nm,0.5s,baz=118,slow=8.3,SNR=11 | | | | | | |

*NIED* ***01*** *08:35:00, 42°.50N×143°.80E, h89$^{km}$, Mw3.7 Best double couple: $M_0$3.59000×$10^{14}$ NP1:$\phi_s$118.00000°, δ27.00000°, λ-63.00000°. NP2:$\phi_s$268.00000°, δ66.00000°, λ-103.00000°.*
*ISCJB* ***01*** *08:35:42.3±0.5, 42°.47N±0°.04×143°.92E±0°.04, h94$^{km}$±3$^{km}$, mb3.8/8, Error ellipse: s-maj=8.0km s-min=4.1km az=153.3*
*MOS* ***01*** *08:35:42.7±1.3, 42°.50N×143°.85E, h103$^{km}$, mb4.0/7, Error ellipse: s-maj=19.4km s-min=9.2km az=71.3*
*IDC* ***01*** *08:35:42.7±2.4, 42°.51N×144°.11E, h83$^{km}$±19$^{km}$, mb3.6/8, mb1 3.7/9, mb1mx3.4/35, mbtmp3.9/9, Error ellipse: s-maj=24.1km s-min=16.4km az=97.0*
*JMA* ***01*** *08:35:43.2±0.1, 42°.48N×143°.85E, h89$^{km}$±2$^{km}$, M3.6*
**ISC 01 08:35:43.3**±0.8**, 42°.49N**±0°.06×**143°.91E**±0°.04**, h88**$^{km}$±6$^{km}$**, n39,** $\sigma$**0$^s$95**/52**, mb3.8**/8**, 10D, Hokkaido region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JOB** | **Onbets** | **0.41** | **353** | ⇓P | **Pn** | **08 35 57.7** | **+0.5** |
| JOB | | | | *e*S | **Sn** | **08 36 08.6** | **+1.1** |
| **JCH** | **Churui** | **0.42** | **287** | ⇓P | **Pn** | **08 35 57.0** | **-0.2** |
| JCH | | | | *e*S | **Sn** | **08 36 06.9** | **-0.7** |
| **JEM** | **Erimo** | **0.73** | **230** | P | **Pn** | **08 36 00.4** | **+0.5** |
| **JAK** | **Akkeshi** | **0.77** | **49** | ⇓P | **Pn** | **08 36 00.5** | **+0.2** |
| JAK | | | | *e*S | **Sn** | **08 36 13.5** | **+0.5** |
| **JAR** | **Ashorobuto** | **0.81** | **353** | ⇓P | **Pn** | **08 36 01.0** | **+0.2** |
| JAR | | | | *e*S | **Sn** | **08 36 14.3** | **+0.5** |
| **JNBK** | **Urakawa-nobuka** | **0.88** | **256** | ⇓P | **Pn** | **08 36 01.4** | **-0.1** |
| JNBK | | | | *e*S | **Sn** | **08 36 14.7** | **-0.4** |
| **JBT2** | **Biratori 2** | **1.17** | **285** | ⇓P | **Pn** | **08 36 04.4** | **-0.5** |
| **JFR** | **Furan** | **1.18** | **305** | P | **Pn** | **08 36 04.2** | **-0.7** |
| JFR | | | | *e*S | **Sn** | **08 36 20.3** | **-0.9** |
| **JNK** | **Nakash** | **1.25** | **28** | ⇓P | **Pn** | **08 36 05.7** | **-0.1** |
| JNK | | | | *e*S | **Sn** | **08 36 22.2** | **-0.5** |
| **JTKR** | **Abashiri--Toko** | **1.48** | **0** | ⇓P | **Pn** | **08 36 09.2** | **+0.6** |
| JTKR | | | | *e*S | **Sn** | **08 36 28.1** | **+0.3** |
| **JMP** | **Maruseppu** | **1.57** | **345** | ⇓P | **Pn** | **08 36 09.9** | **+0.1** |
| JMP | | | | *e*S | **Sn** | **08 36 29.8** | **-0.1** |
| **JAB** | **Ashibetsu** | **1.60** | **310** | P | **Pn** | **08 36 10.6** | **+0.4** |
| **NEM2** | **Nemuro 2** | **1.61** | **56** | P | **Pn** | **08 36 09.8** | **-0.5** |
| NEM2 | | | | *e*S | **Sn** | **08 36 28.7** | **-2.1** |
| **JKK2** | **Kamakawa 2** | **1.62** | **329** | ⇓P | **Pn** | **08 36 10.7** | **+0.2** |
| JKK2 | | | | *e*S | **Sn** | **08 36 31.2** | **+0.1** |
| **JRA** | **Rausu** | **1.70** | **31** | P | **Pn** | **08 36 12.1** | **+0.7** |
| JRA | | | | *e*S | **Sn** | **08 36 33.1** | **+0.3** |
| **GLVR** | **Golovnino** | **1.72** | **43** | *e*PN | **Pn** | **08 36 13.2** | **+1.5** |
| GLVR | | | | *i* S | **Sn** | **08 36 33.8** | **+0.5** |
| **JEW** | **Eniwo** | **1.84** | **282** | P | **Pn** | **08 36 14.4** | **+1.0** |
| JEW | | | | *e*S | **Sn** | **08 36 37.3** | **+1.1** |
| **ASAJ** | **Asahikawa** | **1.88** | **330** | P | **Pn** | **08 36 14.8** | **+0.9** |
| | 7.3nm,0.3s,baz=172,slow=15,SNR=80 | | | | | | |
| ASAJ | | | | S | **Sn** | **08 36 38.4** | **+1.2** |
| | 23nm,0.3s,baz=203,slow=30,SNR=19 | | | | | | |
| **GRPR** | **Tuman** | **2.03** | **42** | *e*PN | **Pn** | **08 36 16.4** | **+0.6** |
| GRPR | | | | S | **Sn** | **08 36 39.3** | **-1.2** |
| **LAGR** | **Lagunnoye** | **2.08** | **41** | PN | **Pn** | **08 36 17.3** | **+0.8** |
| LAGR | | | | S | **Sn** | **08 36 41.3** | **-0.5** |
| **YUK** | **Yuzh-Kuril'sk** | **2.10** | **42** | *e*PN | **Pn** | **08 36 18.1** | **+1.4** |
| YUK | | | | *i* S | **Sn** | **08 36 42.1** | **-0.2** |
| YUK | | | | pmax | pmax | | |
| | comp=N,81nm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=E,59nm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=Z,169nm,0.2s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,1μm,0.4s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=E,995nm,0.4s | | | | | | |
| **KUR** | **Kuril'sk** | **3.96** | **45** | PN | **Pn** | **08 36 44.4** | **+2.7** |
| KUR | | | | *e*S | **Sn** | **08 37 28.6** | **+1.5** |
| KUR | | | | pmax | pmax | | |
| | comp=E,14nm,0.3s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=Z,22nm,0.3s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=N,16nm,0.1s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=N,73nm,0.5s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,64nm,0.3s | | | | | | |
| **MJAR** | **Matsushiro Arr** | **7.39** | **218** | P | **Pn** | **08 37 27.7** | **-0.8** |
| | comp=E,0.8nm,0.3s,baz=26,slow=15,SNR=8.6 | | | | | | |
| **TYV** | **Tymovskoe** | **8.42** | **355** | *e*PN | **Pn** | **08 37 40.8** | **-1.5** |
| TYV | | | | pmax | pmax | | |
| | comp=Z,43nm,2.8s | | | | | | |
| **SEY** | **Seymchan** | **21.07** | **11** | P | **P** | **08 40 18.2** | **-1.8** |
| | comp=Z,1.6nm,0.3s,baz=194,slow=19,SNR=3.8 | | | | | | |
| **SONM** | **Songino Array** | **26.80** | **294** | P | **P** | **08 41 16.5** | **+1.5** |
| | comp=Z,1.5nm,0.6s,baz=79,slow=8.9,SNR=11 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **29.86** | **132** | T | T | 09 13 20.2 | |
| | baz=326,slow=75,SNR=18 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **29.87** | **132** | T | T | 09 13 21.4 | |
| | baz=326,slow=75,SNR=18 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **29.88** | **132** | T | T | 09 13 21.2 | |
| | baz=326,slow=75,SNR=12 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **30.75** | **134** | T | T | 09 14 26.7 | |
| | baz=327,slow=76,SNR=20 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **30.76** | **134** | T | T | 09 14 28.4 | |
| | baz=327,slow=76,SNR=14 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **30.77** | **134** | T | T | 09 14 30.9 | |
| | baz=327,slow=76,SNR=14 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **39.87** | **308** | P | **P** | **08 43 08.2** | **+0.2** |
| | comp=Z,0.7nm,0.3s,baz=74,slow=11,SNR=4.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.06** | **298** | P | **P** | **08 43 35.5** | **+1.3** |
| | comp=Z,0.7nm,0.5s,baz=81,slow=11,SNR=8.3 | | | | | | |
| **ILAR** | **Eielson Array** | **43.90** | **35** | P | **P** | **08 43 40.2** | **-0.4** |
| | comp=Z,0.4nm,0.8s,baz=254,slow=5.4,SNR=6.3 | | | | | | |
| **RES** | **Resolute Bay** | **56.84** | **16** | P | **P** | **08 45 17.6** | **-0.4** |
| | comp=Z,1.8nm,0.7s,baz=288,slow=6.4,SNR=7.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **62.74** | **190** | P | **P** | **08 45 59.7** | **+0.6** |
| | comp=Z,0.6nm,0.8s,baz=8.9,slow=7.0,SNR=3.5 | | | | | | |
| **FINES** | **FINESS Array B** | **64.89** | **332** | P | **P** | **08 46 12.0** | **-0.7** |
| | comp=Z,3.2nm,0.9s,baz=59,slow=7.4,SNR=4.8 | | | | | | |
| **FINES** | **FINESS Array B** | **64.89** | **332** | P | **P** | **08 46 12.0** | **-0.7** |
| FINES | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.8s | | | | | | |

**IDC 01 08:58:03.2**±8.9**, 41°.97N**×**110°.28E, h0**$^{km}$**, mb1 3.1**/1**, mb1mx2.8**/26**, mbtmp3.1**/1**, ML3.0**/1**, Error ellipse: s-maj=106.0km s-min=64.8km az=66.0, Western Nei Mongol**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **I34MN** | **SONGINO INFRAS** | **6.44** | **336** | *i* | | 09 41 20.0 | |
| | baz=151,slow=336,SNR=0.7 | | | | | | |
| **SONM** | **Songino Array** | **6.47** | **336** | Pn | Pn | 08 59 39.8 | -0.1 |
| | 0.3nm,0.3s,baz=159,slow=12,SNR=9.7 | | | | | | |
| SONM | | | | Pg | Pg | 09 00 02.4 | -4.8 |
| | 0.2nm,0.3s,baz=160,slow=18,SNR=4.6 | | | | | | |
| SONM | | | | Lg | Lg | 09 01 27.9 | |
| | 0.3nm,0.3s,baz=157,slow=26,SNR=6.2 | | | | | | |
| **I45RU** | **USSURIYSK INFR** | **16.01** | **75** | *i* | | 10 33 50.0 | |
| | baz=268,slow=324,SNR=1.2 | | | | | | |

**MAN 01 09:10:12, 10°.34N**×**126°.27E, h42**$^{km}$**, mb4.3, ML3.2, MS3.0, 1D, Philippine Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MSLP** | **Maasin** | **1.40** | **262** | *e*P | Pn | 09 10 35.4 | +0.3 |
| MSLP | | | | *e*S | Sn | 09 10 54.3 | +2.0 |
| **BESP** | **Borongan** | **1.50** | **327** | *e*P | Pn | 09 10 38.6 | +2.2 |
| **PLP** | **Palo** | **1.51** | **303** | ⇓*e*P | Pn | 09 10 37.3 | +0.8 |
| PLP | | | | *e*S | Sn | 09 10 55.5 | +0.4 |

*IDC* ***01*** *09:11:04.2±4.7, 26°.05S×29°.42E, h0$^{km}$, mb3.4/1, mb1 3.2/2, mb1mx3.1/35, mbtmp3.2/2, ML2.7/1, MS2.1/1, Ms1 2.0/1, ms1mx1.9/16, Error ellipse: s-maj=85.1km s-min=23.9km az=125.0*
*ISCJB* ***01*** *09:11:05.6±3.5, 25°.9S±0°.2×29°.2E±0°.4, h10$^{km}$, mb3.4/1, Error ellipse: s-maj=53.2km s-min=8.2km az=24.3*
**ISC 01 09:11:05.5**±3.3**, 26°.0S**±0°.2×**29°.3E**±0°.3**, h10**$^{km}$**, n9,** $\sigma$**1$^s$42**/8**, South Africa**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BOSA** | **Boshof** | **4.42** | **233** | Pn | **Pn** | **09 12 13.5** | **+0.6** |
| | 0.3nm,0.3s,baz=54,slow=15,SNR=4.8 | | | | | | |
| BOSA | | | | Pg | **Pg** | **09 12 28.2** | **-2.2** |
| | 2.5nm,0.3s,baz=56,slow=17,SNR=19 | | | | | | |
| BOSA | | | | Sn | **Sn** | **09 13 06.3** | **+1.8** |
| | 1.9nm,0.3s,baz=136,slow=18,SNR=2.0 | | | | | | |
| BOSA | | | | Lg | Lg | 09 13 26.6 | |
| | 8.7nm,0.3s,baz=320,slow=21,SNR=9.1 | | | | | | |
| BOSA | | | | LR | LR | 09 13 26.9 | |
| | comp=Z,21nm,20.3s,baz=216,slow=32 | | | | | | |
| **BOSA** | **Boshof** | **4.42** | **233** | *i* P | **Pb** | **09 12 23.0** | **-0.4** |
| BOSA | | | | *i* | | 09 12 23.1 | |
| | baz=49,slow=11 | | | | | | |
| BOSA | | | | *i* S | **Sg** | **09 13 28.4** | **+0.7** |
| **I47ZA** | **BOSHOF INFRASO** | **4.44** | **233** | *i* | | 09 40 00.0 | |
| | baz=58,slow=310,SNR=2.0 | | | | | | |
| **BLWY** | **Bulawayo** | **5.87** | **354** | *i* P | **Pn** | **09 12 33.4** | **+0.6** |
| BLWY | | | | *i* S | **Sn** | **09 13 39.8** | **-0.5** |
| **SUR** | **Sutherland** | **9.75** | **227** | Lg | Lg | 09 16 12.6 | |
| | 0.1nm,0.3s,baz=329,slow=24,SNR=3.9 | | | | | | |
| **LSZ** | **Lusaka** | **10.72** | **354** | Lg | Lg | 09 16 38.4 | |
| | 0.7nm,0.3s,baz=242,slow=21,SNR=1.7 | | | | | | |
| **TSUM** | **Tsumeb** | **12.74** | **300** | Lg | Lg | 09 17 48.2 | |
| | 0.3nm,0.3s,baz=104,slow=18,SNR=1.9 | | | | | | |
| **I35NA** | **TSUMEB INFRASO** | **12.76** | **300** | *i* | | 10 30 00.0 | |
| | baz=126,slow=304,SNR=0.9 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **47.28** | **322** | P | **P** | **09 19 40.2** | **+0.8** |
| | 0.3nm,0.6s,baz=136,slow=6.2,SNR=4.7 | | | | | | |

*ISCJB* ***01*** *09:12:44.1±0.4, 39°.08N±0°.03×27°.54E±0°.03, h0$^{km}$, Error ellipse: s-maj=3.9km s-min=3.2km az=11.1*
*ISK* ***01*** *09:12:44.2, 39°.03N×27°.55E, h13$^{km}$, MD2.8*
*DDA* ***01*** *09:12:44.6, 39°.10N×27°.57E, h7$^{km}$, Ml2.3, Suspected Mining explosion.*
*CSEM* ***01*** *09:12:44.0±0.2, 39°.06N×27°.57E, h1$^{km}$, ML2.3, Error ellipse: s-maj=5.7km s-min=4.2km az=17.0, Suspected Mining explosion.*
**ISC 01 09:12:43.6**±0.8**, 39°.05N**±0°.03×**27°.57E**±0°.02**, h0**$^{km}$**, n31,** $\sigma$**0$^s$64**/48**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AKHS** | **Akhisar** | **0.26** | **132** | *i* P | **Pb** | **09 12 50.4** | **-0.7** |
| AKHS | | | | *i* S | **Sb** | **09 12 56.0** | **0.0** |
| **AKHS** | **Akhisar** | **0.26** | **132** | P | **Pb** | **09 12 50.4** | **-0.7** |
| AKHS | | | | S | **Sb** | **09 12 56.0** | **0.0** |
| **STEP** | **BALIKESIR_Sava** | **0.35** | **19** | *i* P | **Pg** | **09 12 50.5** | **+0.3** |
| STEP | | | | *i* S | **Sb** | **09 12 57.2** | **-1.6** |
| **STEP** | **BALIKESIR_Sava** | **0.35** | **19** | P | **Pg** | **09 12 50.5** | **+0.3** |
| STEP | | | | S | **Sb** | **09 12 57.2** | **-1.6** |
| **DEMI** | **Demirci** | **0.89** | **90** | *i* P | **Pg** | **09 13 01.1** | **+0.4** |
| DEMI | | | | *i* S | **Sb** | **09 13 14.9** | **+0.4** |
| **DEMI** | **Demirci** | **0.89** | **90** | P | **Pg** | **09 13 01.1** | **+0.4** |
| DEMI | | | | S | **Sb** | **09 13 14.9** | **+0.4** |
| **MANT** | **Manisa** | **0.95** | **125** | *i* P | **Pb** | **09 13 02.8** | **-0.3** |
| MANT | | | | *i* S | **Sn** | **09 13 19.0** | **+0.2** |
| **MANT** | **Manisa** | **0.95** | **125** | P | **Pb** | **09 13 02.8** | **-0.3** |
| **KULA** | **Kula-Manisa** | **1.01** | **122** | *e*PG | **Pb** | **09 13 04.1** | **+0.2** |
| KULA | | | | *e*SG | **Sb** | **09 13 18.6** | **+0.9** |
| **KULA** | **Kula-Manisa** | **1.01** | **122** | *e*Pg | **Pb** | **09 13 04.1** | **+0.2** |
| KULA | | | | *e*Sg | **Sb** | **09 13 18.6** | **+0.9** |
| **URLA** | **Izmir** | **1.03** | **228** | *e*PG | **Pb** | **09 13 04.1** | **-0.1** |
| URLA | | | | *e*SG | **Sb** | **09 13 18.3** | **0.0** |
| **URLA** | **Izmir** | **1.03** | **228** | *e*Pg | **Pb** | **09 13 04.1** | **-0.1** |
| URLA | | | | *e*Sg | **Sb** | **09 13 18.3** | **0.0** |
| **BAYC** | **CANAKKALE_Bayr** | **1.05** | **311** | *i* P | **Pb** | **09 13 04.9** | **+0.2** |
| BAYC | | | | *i* S | **Sb** | **09 13 19.7** | **+0.7** |
| **BAYC** | **CANAKKALE_Bayr** | **1.05** | **311** | P | **Pb** | **09 13 04.9** | **+0.2** |
| BAYC | | | | S | **Sb** | **09 13 19.7** | **+0.7** |
| **SIMA** | **Simav-Kutahya** | **1.10** | **88** | *e*PN | **Pn** | **09 13 06.0** | **-0.3** |
| SIMA | | | | *e*SN | **Sn** | **09 13 21.9** | **-0.4** |
| **SIMA** | **Simav-Kutahya** | **1.10** | **88** | *e*Pn | **Pn** | **09 13 06.0** | **-0.3** |
| SIMA | | | | *e*Sn | **Sn** | **09 13 21.9** | **-0.4** |
| **DGB** | **˜zmir** | **1.13** | **209** | *i* P | **Pn** | **09 13 07.4** | **+0.7** |
| DGB | | | | *i* S | **Sn** | **09 13 22.8** | **0.0** |
| **SIGR** | **SIGRI** | **1.34** | **277** | *e*PN | **Pg** | **09 13 09.1** | **-0.2** |
| **SIGR** | **SIGRI** | **1.34** | **277** | *e*Pn | **Pg** | **09 13 09.1** | **-0.2** |
| **CHOS** | **Chios island** | **1.36** | **241** | *e*PN | **Pg** | **09 13 09.0** | **-0.6** |
| **CHOS** | **Chios island** | **1.36** | **241** | *e*Pn | **Pg** | **09 13 09.0** | **-0.6** |
| **LPK** | **Lapseki** | **1.46** | **335** | *e*PN | **Pn** | **09 13 11.2** | **-0.1** |
| **LPK** | **Lapseki** | **1.46** | **335** | *e*Pn | **Pn** | **09 13 11.2** | **-0.1** |
| **GDZ** | **Gediz** | **1.49** | **88** | *i* P | **Pn** | **09 13 10.4** | **-1.3** |
| GDZ | | | | *i* S | **Sn** | **09 13 33.8** | **+1.9** |
| **GDZ** | **Gediz** | **1.49** | **88** | P | **Pn** | **09 13 10.4** | **-1.3** |
| **TVSB** | **Tavsanli** | **1.52** | **74** | *e*PN | **Pn** | **09 13 12.2** | **0.0** |
| **TVSB** | **Tavsanli** | **1.52** | **74** | *e*Pn | **Pn** | **09 13 12.2** | **0.0** |
| **ARMT** | **Armutlu** | **1.81** | **33** | *e*PN | **Pn** | **09 13 16.1** | **0.0** |
| **ARMT** | **Armutlu** | **1.81** | **33** | *e*Pn | **Pn** | **09 13 16.1** | **0.0** |
| **ENEZ** | **Enez** | **2.01** | **328** | *e*PN | **Pn** | **09 13 18.8** | **+0.1** |
| **ENEZ** | **Enez** | **2.01** | **328** | *e*Pn | **Pn** | **09 13 18.8** | **+0.1** |

*SOME* ***01*** *09:16:53.5, 40°.87N×69°.73E, h5$^{km}$*
*KRNET* ***01*** *09:16:54.4±0.1, 40°.88N×69°.59E, mb3.1*
*NNC* ***01*** *09:16:55.6±0.6, 40°.95N×69°.84E, h23$^{km}$±14$^{km}$, mb3.7, mpv3.3, Error ellipse: s-maj=7.3km s-min=3.9km az=116.0*
**ISC 01 09:16:54.0**±1.5**, 40°.99N**±0°.03×**69°.80E**±0°.04**, h5**$^{km}$±11$^{km}$**, n31,** $\sigma$**1$^s$81**/48**, 23C-14D, Tajikistan**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **IUG** | **Iuzhnay** | **1.17** | **8** | *e*P | **Pn** | **09 17 17.6** | **+0.5** |
| | 32nm,0.3s | | | | | | |
| IUG | | | | *e*S | **Sn** | **09 17 34.3** | **+0.8** |
| | 494nm,0.6s | | | | | | |
| **BTK** | **Batken** | **1.21** | **140** | ⇑*i*P | **Pn** | **09 17 18.5** | **+0.7** |
| | baz=131 | | | | | | |
| BTK | | | | ⇑*i*S | **Sn** | **09 17 36.2** | **+1.6** |
| | baz=131 | | | | | | |
| **ARK** | **Arkit** | **1.81** | **63** | ⇓*e*P | **Pg** | **09 17 31.4** | **+2.6** |
| | baz=63 | | | | | | |
| ARK | | | | ⇓*i*S | **Sg** | **09 17 58.1** | **+5.9** |
| | baz=63 | | | | | | |
| **BRLS** | **Borolday** | **2.04** | **1** | *e*P | **Pn** | **09 17 29.0** | **0.0** |
| | 34nm,0.3s | | | | | | |
| BRLS | | | | *e*S | **Sn** | **09 17 55.1** | **+0.3** |
| | 108nm,0.6s | | | | | | |
| **KK31** | **Karatay Array** | **2.17** | **14** | ⇑Pg | **Pg** | **09 17 36.2** | **+0.5** |
| | 4.1nm,0.2s,baz=202,slow=15,SNR=107 | | | | | | |
| KK31 | | | | ⇓Lg | Lg | 09 18 05.6 | |
| | 22nm,0.3s,baz=198,slow=25,SNR=23 | | | | | | |
| **DZET** | **Dzherino** | **2.31** | **199** | ⇓Pg | **Pg** | **09 17 37.8** | **-0.5** |
| | 9.1nm,0.4s | | | | | | |
| DZET | | | | ⇓Lg | Lg | 09 18 08.0 | |
| | 40nm,0.5s | | | | | | |
| **ARSB** | **Arslanbob** | **2.42** | **81** | ⇑*e*P | **Pg** | **09 17 40.4** | **0.0** |
| | baz=79 | | | | | | |
| ARSB | | | | ⇑*i*S | **Sg** | **09 18 13.0** | **+1.2** |
| | baz=79 | | | | | | |
| **TOKL** | **Toktogul** | **2.49** | **67** | ⇑*i*P | **Pg** | **09 17 40.8** | **-0.9** |
| | baz=66 | | | | | | |
| TOKL | | | | ⇑*i*S | **Sg** | **09 18 15.1** | **+1.1** |
| | baz=66 | | | | | | |
| **MNAS** | **Manas** | **2.51** | **53** | ⇑*i*P | **Pb** | **09 17 40.5** | **+0.8** |
| | baz=53 | | | | | | |
| MNAS | | | | ⇑*i*S | **Sg** | **09 18 15.1** | **+0.4** |
| | baz=53 | | | | | | |
| **MNAS** | **Manas** | **2.51** | **53** | ⇑Pg | **Pg** | **09 17 41.5** | **-0.6** |
| | 5.1nm,0.4s | | | | | | |
| MNAS | | | | ⇓Lg | Lg | 09 18 17.1 | |
| | 12nm,0.5s | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| SFK | Sufi-Kurgan | 2.98 | 108 | ⇑iP | Pb | 09 17 46.4 | -1.4 |
| | baz=105 | | | | | | |
| SFK | | | | ⇑eS | Sb | 09 18 24.0 | -0.7 |
| | baz=105 | | | | | | |
| SFK | Sufi-Kurgan | 2.98 | 108 | ⇑Pg | Pb | 09 17 48.3 | +0.5 |
| | 3.7nm,0.3s | | | | | | |
| SFK | | | | ⇓Lg | Lg | 09 18 30.5 | |
| | 26nm,0.7s | | | | | | |
| MRKS | Merke | 3.10 | 54 | ⇑iP | Pg | 09 17 52.2 | -1.2 |
| | 15nm,0.6s | | | | | | |
| MRKS | | | | ⇓iS | Sg | 09 18 34.7 | +1.2 |
| | 26nm,0.5s | | | | | | |
| AML | Almayashu | 3.13 | 67 | ⇑iP | Pb | 09 17 48.8 | -1.6 |
| | baz=67 | | | | | | |
| AML | | | | ⇑iS | Sb | 09 18 30.0 | +0.9 |
| | baz=67 | | | | | | |
| AML | Almayashu | 3.13 | 67 | P | Pg | 09 17 53.8 | -0.3 |
| | SNR=19 | | | | | | |
| EKS2 | Erkin-Say | 3.41 | 59 | P | Pg | 09 17 59.2 | 0.0 |
| | SNR=8.9 | | | | | | |
| ARLS | Aral | 3.51 | 74 | ⇓iP | Pb | 09 17 55.3 | -1.4 |
| | baz=73 | | | | | | |
| ARLS | | | | ⇓eS | Sb | 09 18 39.8 | +0.2 |
| | baz=73 | | | | | | |
| UCH | Uchtor | 3.74 | 69 | ⇓eP | Pb | 09 17 57.6 | -3.2 |
| | baz=68 | | | | | | |
| UCH | | | | ⇓iS | Sb | 09 18 44.6 | -2.0 |
| | baz=68 | | | | | | |
| UCH | Uchtor | 3.74 | 69 | P | Pg | 09 18 05.3 | -0.4 |
| | SNR=11 | | | | | | |
| AAK | Ala-Archa | 3.87 | 63 | ⇑Pg | Pg | 09 18 07.5 | -0.6 |
| | 6.2nm,0.6s | | | | | | |
| AAK | | | | ⇑Lg | Lg | 09 18 58.6 | |
| | 12nm,0.7s | | | | | | |
| AAK | Ala-Archa | 3.87 | 63 | P | Pg | 09 18 07.0 | -1.2 |
| | SNR=11 | | | | | | |
| USP | Ospenovka | 4.17 | 55 | P | Pg | 09 18 12.0 | -1.8 |
| | SNR=5.2 | | | | | | |
| TKM2 | Tokmak 2 | 4.73 | 64 | ⇑Pg | Pg | 09 18 22.0 | -2.6 |
| | 3.1nm,0.5s | | | | | | |
| TKM2 | | | | ⇓Lg | Lg | 09 19 25.8 | |
| | 15nm,0.6s | | | | | | |
| TKM2 | Tokmak 2 | 4.73 | 64 | P | Pg | 09 18 22.3 | -2.3 |
| | SNR=8.6 | | | | | | |
| DGS | Degeres | 4.97 | 61 | eP | Pg | 09 18 27.1 | -2.2 |
| | 6.7nm,0.6s | | | | | | |
| DGS | | | | eS | Sg | 09 19 35.0 | +1.2 |
| | 12nm,1.0s | | | | | | |
| KST | Kastek | 5.02 | 64 | eP | Pg | 09 18 28.1 | -2.1 |
| | 5.3nm,0.2s | | | | | | |
| KST | | | | ⇑iS | Sg | 09 19 37.0 | +1.7 |
| | 15nm,0.7s | | | | | | |
| IZV | Izvestkoviy | 5.47 | 66 | eP | Pg | 09 18 37.0 | -1.8 |
| | 6.2nm,0.7s | | | | | | |
| IZV | | | | eS | Sg | 09 19 52.0 | +2.5 |
| | 12nm,0.6s | | | | | | |
| TNSS | Tian-Shan | 5.70 | 67 | eP | Pg | 09 18 40.8 | -2.4 |
| | 2.2nm,0.5s | | | | | | |
| TNSS | | | | eS | Sg | 09 19 58.8 | +1.8 |
| | 7.6nm,0.9s | | | | | | |
| ARXS | Arharly | 6.74 | 59 | eP | Pg | 09 18 59.9 | -3.1 |
| | 4.0nm,0.7s | | | | | | |
| ARXS | | | | eS | Sg | 09 20 31.5 | +1.3 |
| | 6.5nm,0.7s | | | | | | |
| PDGK | Podgornoye | 7.56 | 69 | ⇑Pg | Pg | 09 19 13.4 | -5.5 |
| | 2.5nm,0.9s | | | | | | |
| PDGK | | | | ⇑Lg | Lg | 09 20 55.9 | |
| | 5.9nm,1.0s | | | | | | |
| AB31 | Akbulak array | 10.80 | 323 | ⇓Pn | Pn | 09 19 27.7 | -1.5 |
| | 0.1nm,0.2s,baz=130,slow=14,SNR=12 | | | | | | |
| AB31 | | | | ⇑Sn | Sn | 09 21 32.7 | +2.3 |
| | 0.8nm,0.5s,baz=159,slow=21,SNR=3.5 | | | | | | |

*ISCJB **01** 09:18:29.4±0.6, 37°.35N±0°.04×28°.03E±0°.04, h0km, Error ellipse: s-maj=5.5km s-min=4.1km az=163.6*
*ISK **01** 09:18:29.9, 37°.33N×27°.96E, h6km, MD2.6*
*DDA **01** 09:18:29.7, 37°.35N×28°.06E, h7km, Ml2.7, Suspected Mining explosion.*
*CSEM **01** 09:18:29.2±0.2, 37°.34N×28°.04E, h2km, ML2.7, Error ellipse: s-maj=4.4km s-min=3.4km az=154.0, Suspected Mining explosion.*
**ISC 01 09:18:29.3**±1.0, **37°.35N**±0°.03×**28°.05E**±0°.03, **h0km**, **n16**, σ**0s53**/28, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AYDN | Tasoluk | 0.34 | 336 | i P | Pg | 09 18 36.1 | +0.2 |
| AYDN | | | | i S | Sg | 09 18 38.9 | -1.4 |
| AYDN | Tasoluk | 0.34 | 336 | P | Pg | 09 18 36.1 | +0.2 |
| AYDN | | | | S | Sg | 09 18 38.9 | -1.4 |
| BDRM | Kayabasi | 0.56 | 240 | i P | Pg | 09 18 39.3 | -0.7 |
| BDRM | | | | i S | Sb | 09 18 50.7 | +0.2 |
| BDRM | Kayabasi | 0.56 | 240 | P | Pg | 09 18 39.3 | -0.7 |
| BODT | Bodrum | 0.66 | 245 | ePG | Pg | 09 18 41.7 | -0.1 |
| BODT | | | | eSG | Sg | 09 18 50.3 | -0.1 |
| BODT | Bodrum | 0.66 | 245 | ePg | Pg | 09 18 41.7 | -0.1 |
| BODT | | | | eSg | Sg | 09 18 50.3 | -0.1 |
| TAVA | DENIZLI_Tavas | 0.70 | 80 | i P | Pg | 09 18 42.9 | +0.3 |
| TAVA | | | | i S | Sb | 09 18 55.0 | +0.5 |
| TAVA | DENIZLI_Tavas | 0.70 | 80 | P | Pg | 09 18 42.9 | +0.3 |
| GCAM | G?zelcaml? | 0.74 | 299 | ePG | Pg | 09 18 43.9 | +0.4 |
| GCAM | | | | eSG | Sg | 09 18 53.5 | +0.5 |
| GCAM | G?zelcaml? | 0.74 | 299 | i P | Pg | 09 18 43.8 | +0.4 |
| GCAM | | | | i S | Sb | 09 18 56.3 | +0.6 |
| GCAM | G?zelcaml? | 0.74 | 299 | P | Pg | 09 18 43.8 | +0.4 |
| GCAM | | | | eSg | Sg | 09 18 53.6 | +0.5 |
| FETY | Fethiye | 1.09 | 130 | ePN | Pn | 09 18 51.8 | 0.0 |
| FETY | Fethiye | 1.09 | 130 | ePn | Pn | 09 18 51.8 | 0.0 |
| DGB | ˜zmir | 1.17 | 308 | i P | Pg | 09 18 51.7 | +0.1 |
| DGB | | | | i S | Sn | 09 19 09.7 | +0.2 |
| MANT | Manisa | 1.21 | 19 | i P | Pg | 09 18 52.3 | -0.2 |
| MANT | | | | i S | Sb | 09 19 09.3 | -0.2 |
| MANT | Manisa | 1.21 | 19 | P | Pg | 09 18 52.3 | -0.2 |
| MANT | | | | S | Sb | 09 19 09.3 | -0.2 |

*ISCJB **01** 09:18:50.5±0.9, 36°.55N±0°.07×70°.4E±0°.1, h204km, mb3.0/3, Error ellipse: s-maj=14.0km s-min=8.6km az=158.8*
*IDC **01** 09:18:51.9±3.4, 36°.36N×70°.83E, h229km±31km, mb3.0/4, mb1 3.1/9, mb1mx2.9/44, mbtmp3.7/9, Error ellipse: s-maj=34.4km s-min=20.8km az=156.0*
**ISC 01 09:18:51.9**±0.8, **36°.57N**±0°.08×**70°.62E**±0°.09, **h204km**, **n10**, σ**2s16**/12, **mb3.0**/3, **Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| THN | Thein Dam | 5.89 | 133 | eP | Pn | 09 20 20.8 | +3.0 |
| THN | | | | eS | S | 09 21 26.0 | +0.5 |
| AAK | Ala-Archa | 6.76 | 25 | P | Pn | 09 20 31.0 | +1.9 |
| | 2.1nm,0.3s,baz=157,slow=5.9,SNR=5.7 | | | | | | |
| AAK | | | | S | S | 09 21 46.1 | 0.0 |
| | 0.8nm,0.3s,baz=315,slow=21,SNR=6.0 | | | | | | |
| GEYT | Alibeck | 10.06 | 282 | P | Pn | 09 21 14.1 | +2.2 |
| | 0.5nm,0.3s,baz=97,slow=10,SNR=3.5 | | | | | | |
| MKAR | Makanchi Array | 13.42 | 37 | P | P | 09 21 56.1 | -0.8 |
| | 0.2nm,0.3s,baz=224,slow=11,SNR=7.9 | | | | | | |
| BVAR | Borovoye Array | 16.46 | 360 | P | P | 09 22 30.8 | +0.4 |
| | 0.7nm,0.3s,baz=161,slow=12,SNR=8.9 | | | | | | |
| AKTO | Aktyubinsk | 16.57 | 331 | P | Pn | 09 22 33.5 | +0.8 |
| | 0.4nm,0.3s,baz=145,slow=12,SNR=7.3 | | | | | | |
| ZALV | Zalesovo Beam | 19.98 | 25 | P | P | 09 23 07.1 | -1.4 |
| | 2.3nm,0.4s,baz=219,slow=14,SNR=3.7 | | | | | | |
| TORD | Torodi Ar. Bea | 65.41 | 268 | P | P | 09 29 11.3 | -1.7 |
| | 0.1nm,0.4s,baz=59,slow=5.7,SNR=5.2 | | | | | | |
| YKA | Yellowknife Ar | 81.19 | 2 | P | P | 09 30 43.2 | -1.2 |
| | 0.2nm,0.5s,baz=348,slow=5.4,SNR=4.9 | | | | | | |
| ASAR | Alice Springs | 84.54 | 125 | P | P | 09 30 58.2 | -4.1 |
| | 0.2nm,0.6s,baz=329,slow=3.4,SNR=3.8 | | | | | | |

**IDC 01 09:20:55.8**±999.0, **45°.18N**×**45°.70E**, **h0km**, **Error ellipse: s-maj=4228.0km s-min=215.6km az=55.0, Ukraine-Moldova-Southwestern Russia region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| I31KZ | AKTYUBINSK INF | 9.80 | 53 | i | | 10 20 05.0 | |
| | baz=244,slow=297,SNR=7.5 | | | | | | |
| I46RU | ZALESOVO INFRA | 26.54 | 57 | i | | 12 05 10.0 | |
| | baz=263,slow=312,SNR=1.5 | | | | | | |
| I34MN | SONGINO INFRAS | 40.94 | 64 | i | | 13 30 00.0 | |
| | baz=291,slow=330,SNR=0.6 | | | | | | |

**OBM 01 09:25:26.2**±0.1, **44°.69N**×**100°.38E**, **h2km**, **Ml3.5**/5, **Error ellipse: s-maj=1.4km s-min=0.6km az=7.0, Mongolia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TTS | Tsetserleg | 2.89 | 14 | ePg | Pb | 09 26 19.4 | +0.9 |
| TTS | | | | eSg | Sg | 09 26 57.5 | -1.4 |
| | 499nm,0.3s | | | | | | |
| DZBM | | 3.09 | 105 | ePn | Pn | 09 26 18.0 | +1.9 |
| DZBM | | 3.09 | 105 | ePg | Pb | 09 26 22.8 | +0.9 |
| DZBM | | | | eSg | Sg | 09 27 04.6 | -0.8 |
| TSC | Tosontsengel | 4.34 | 341 | ePg | Pb | 09 26 44.8 | +1.6 |
| TSC | | | | eSg | Sb | 09 27 39.5 | +3.5 |
| | 125nm,0.4s | | | | | | |
| BLGM | Bulgan | 4.64 | 27 | ePn | Pn | 09 26 39.2 | +1.9 |
| BLGM | Bulgan | 4.64 | 27 | ePg | Pb | 09 26 50.9 | +2.6 |
| BLGM | | | | eSg | Sg | 09 27 50.5 | -4.6 |
| | 178nm,0.3s | | | | | | |
| SONB4 | Songino Array | 5.20 | 51 | ePn | Pn | 09 26 46.8 | +1.6 |
| SONB4 | Songino Array | 5.20 | 51 | ePg | Pg | 09 27 02.2 | -3.7 |
| SONB4 | | | | eSg | Sg | 09 28 09.3 | -4.0 |
| | 198nm,0.5s | | | | | | |
| SONB5 | Songino Array | 5.22 | 51 | ePn | Pn | 09 26 46.9 | +1.5 |
| SONB5 | Songino Array | 5.22 | 51 | ePg | Pg | 09 27 02.5 | -3.7 |
| SONB5 | | | | eSg | Sg | 09 28 09.6 | -4.2 |
| | 187nm,0.4s | | | | | | |
| SONA0 | Songino Array | 5.22 | 51 | ePn | Pn | 09 26 47.0 | +1.6 |
| SONA0 | Songino Array | 5.22 | 51 | ePg | Pb | 09 27 02.2 | +3.9 |
| SONA0 | | | | eSg | Sg | 09 28 09.8 | -4.1 |
| SONA4 | Songino Array | 5.23 | 51 | ePn | Pn | 09 26 47.1 | +1.6 |
| SONA4 | Songino Array | 5.23 | 51 | ePg | Pg | 09 27 02.6 | -3.8 |
| SONA4 | | | | eSg | Sg | 09 28 09.8 | -4.4 |
| | 178nm,0.6s | | | | | | |
| SONA2 | Songino Array | 5.23 | 51 | ePn | Pn | 09 26 47.2 | +1.6 |
| SONA2 | Songino Array | 5.23 | 51 | ePg | Pb | 09 27 02.4 | +3.9 |
| SONA2 | | | | eSg | Sg | 09 28 09.6 | -4.7 |
| | 253nm,0.7s | | | | | | |
| SONB3 | Songino Array | 5.23 | 51 | ePn | Pn | 09 26 47.1 | +1.5 |
| SONB3 | Songino Array | 5.23 | 51 | ePg | Pb | 09 27 02.3 | +3.8 |
| SONB3 | | | | eSg | Sg | 09 28 09.6 | -4.6 |
| | 158nm,0.6s | | | | | | |
| SONA1 | Songino Array | 5.24 | 51 | ePn | Pn | 09 26 47.2 | +1.6 |
| SONA1 | Songino Array | 5.24 | 51 | ePg | Pg | 09 27 02.7 | -3.8 |
| SONA1 | | | | eSg | Sg | 09 28 09.6 | -4.7 |
| | 145nm,0.5s | | | | | | |
| SONA3 | Songino Array | 5.24 | 51 | ePn | Pn | 09 26 47.3 | +1.6 |
| SONA3 | Songino Array | 5.24 | 51 | ePg | Pg | 09 27 02.6 | -4.0 |
| SONA3 | | | | eSg | Sg | 09 28 09.6 | -4.8 |
| | 159nm,0.5s | | | | | | |
| SONB1 | Songino Array | 5.24 | 51 | ePn | Pn | 09 26 47.4 | +1.7 |
| SONB1 | Songino Array | 5.24 | 51 | ePg | Pb | 09 27 02.5 | +3.8 |
| SONB1 | | | | eSg | Sg | 09 28 09.8 | -4.8 |
| | 138nm,0.5s | | | | | | |
| SONB2 | Songino Ar. Si | 5.25 | 51 | ePn | Pn | 09 26 47.4 | +1.6 |
| SONB2 | Songino Ar. Si | 5.25 | 51 | ePg | Pb | 09 27 02.5 | +3.8 |
| SONB2 | | | | eSg | Sg | 09 28 09.7 | -5.0 |
| | 188nm,0.5s | | | | | | |
| SEMM | | 5.41 | 56 | ePn | Pn | 09 26 49.5 | +1.5 |
| SEMM | | 5.41 | 56 | ePg | Pb | 09 27 04.7 | +3.2 |
| SEMM | | | | eSg | Sg | 09 28 16.8 | -3.1 |
| UB5M | | 5.43 | 53 | ePn | Pn | 09 26 50.1 | +1.8 |
| UB5M | | | | eSg | Sg | 09 28 14.8 | -5.8 |
| | 90nm,0.6s | | | | | | |
| ALFM | | 5.53 | 51 | ePn | Pn | 09 26 51.9 | +2.3 |
| ALFM | | 5.53 | 51 | ePg | Pb | 09 27 07.6 | +4.2 |
| ALFM | | | | eSg | Sg | 09 28 18.1 | -5.5 |
| | 345nm,0.7s | | | | | | |
| UGDM | | 5.70 | 56 | ePg | Pb | 09 27 10.3 | +3.9 |
| UGDM | | | | eSg | Sb | 09 28 22.1 | +6.9 |
| | 86nm,0.7s | | | | | | |
| ARTM | | 5.77 | 53 | ePg | Pb | 09 27 11.2 | +3.6 |
| ARTM | | | | eSg | Sg | 09 28 26.1 | -5.3 |
| | 112nm,0.5s | | | | | | |
| HTG | Hatgal | 5.78 | 359 | ePg | Pg | 09 27 13.2 | -3.6 |
| HTG | | | | eSg | Sg | 09 28 28.5 | -3.1 |
| | 112nm,0.5s | | | | | | |
| HBD | Hovd | 6.89 | 302 | eSg | Sg | 09 28 59.5 | -8.0 |
| ULG | Ulaangom | 7.73 | 316 | eSg | Sg | 09 29 27.2 | -7.0 |
| BYO | Bayan-Olgiy | 8.32 | 305 | eSg | Sg | 09 29 50.1 | -3.2 |
| | 72nm,0.8s | | | | | | |

*ISCJB **01** 09:31:51.3±0.8, 38°.8S±0°.1×91°.5W±0°.2, h10km, mb4.0/7, MS3.7/4, Error ellipse: s-maj=25.9km s-min=15.0km az=10.9*
*IDC **01** 09:31:51.7±1.2, 38°.74S×91°.49W, h0km, mb4.1/7, mb1 4.3/7, mb1mx4.1/20, mbtmp4.1/7, MS3.7/6, Ms1 3.7/6, ms1mx3.5/23, Error ellipse: s-maj=35.1km s-min=26.4km az=126.0*
**ISC 01 09:31:53.1**±1.0, **38°.8S**±0°.1×**91°.4W**±0°.2, **h10km**, **n18**, σ**1s32**/10, **mb4.0**/7, **MS3.7**/4, **West Chile Rise**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PLCA | Paso Flores | 16.18 | 104 | LR | LR | 09 40 08.6 | |
| | comp=Z,124nm,19.1s,baz=293,slow=31 | | | | | | |
| RPN | Rapa Nui | 18.96 | 303 | LR | LR | 09 41 19.1 | |
| | comp=Z,441nm,19.5s,baz=122,slow=30 | | | | | | |
| LVC | Limon Verde | 25.10 | 57 | P | P | 09 37 18.9 | +0.5 |
| | 14nm,0.6s,baz=243,slow=7.0,SNR=5.1 | | | | | | |
| NNA | Nana | 29.68 | 30 | LR | LR | 09 46 45.9 | |
| | comp=Z,221nm,20.6s,baz=281,slow=30 | | | | | | |
| LPAZ | La Paz | 30.32 | 49 | P | P | 09 38 06.4 | +0.9 |
| | 2.3nm,0.9s,baz=212,slow=6.8,SNR=6.1 | | | | | | |
| LPAZ | | | | LR | LR | 09 47 45.5 | |
| | comp=Z,136nm,19.0s,baz=222,slow=32 | | | | | | |
| CPUP | Villa Florida | 31.13 | 77 | P | P | 09 38 11.7 | -0.3 |
| | 2.2nm,0.8s,baz=258,slow=14,SNR=3.0 | | | | | | |
| CPUP | | | | LR | LR | 09 48 53.9 | |
| | comp=Z,74nm,19.0s,baz=244,slow=33 | | | | | | |
| ATAH | Atahualpa | 33.64 | 24 | P | P | 09 38 34.0 | -0.4 |
| | 4.2nm,0.8s,baz=201,slow=8.9,SNR=3.9 | | | | | | |
| VNA3 | Neumayer Olymp | 51.21 | 156 | P | P | 09 40 57.7 | +1.5 |
| VNA1 | Neumayer--Stat | 51.75 | 155 | P | P | 09 41 00.3 | +0.1 |
| VNA2 | Neumayer--Watz | 51.99 | 155 | P | P | 09 40 59.2 | -2.9 |
| | baz=279,slow=6.7 | | | | | | |
| SNAA | Sanae | 53.28 | 157 | P | P | 09 41 06.0 | -5.7 |
| VNDA | Vanda | 55.94 | 195 | P | P | 09 41 31.4 | +0.5 |
| | 0.9nm,0.8s,baz=98,slow=4.2,SNR=5.2 | | | | | | |
| TXAR | Lajitas Array | 68.72 | 349 | P | P | 09 42 57.1 | +0.1 |
| | 0.4nm,0.7s,baz=180,slow=3.8,SNR=6.0 | | | | | | |
| RPZ | Rata Peaks | 69.17 | 230 | LR | LR | 10 04 57.8 | |
| | comp=Z,103nm,19.0s,baz=132,slow=29 | | | | | | |
| PDAR | Pinedale Array | 82.83 | 347 | P | P | 09 44 17.2 | -0.4 |
| | 0.2nm,0.3s,baz=166,slow=12,SNR=2.2 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 110.43 | 278 | T | T | 11 49 23.3 | |
| | baz=126,slow=75,SNR=9.1 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 110.45 | 278 | T | T | 11 49 23.6 | |
| | baz=126,slow=75,SNR=9.6 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 110.45 | 278 | T | T | 11 49 22.1 | |
| | baz=126,slow=75,SNR=9.4 | | | | | | |

*IDC **01** 09:57:12.8±0.6, 38°.88S×91°.87W, h0km, mb4.4/11, mb1 4.5/11, mb1mx4.4/25, mbtmp4.4/11, MS4.8/20, Ms1 4.8/20, ms1mx4.7/25, Error ellipse: s-maj=22.3km s-min=16.4km az=101.0*
*ISCJB **01** 09:57:16.7±0.3, 39°.41S±0°.05×91°.25W±0°.07, h10km, mb4.9/70, MS4.8/20, Error ellipse: s-maj=8.4km s-min=7.1km az=145.7*
*MOS **01** 09:57:16.2±1.6, 39°.42S×91°.28W, h10km, mb5.2/15, Error ellipse: s-maj=17.1km s-min=11.9km az=87.3*
*NEIC **01** 09:57:18.4±0.4, 39°.42S×91°.17W, h10km, mb5.0/66, Error ellipse: s-maj=9.7km s-min=8.3km az=201.0*
*GCMT **01** 09:57:18.4±0.1, 39°.01S×92°.16W, h12km, MW5.4/123, Moment Tensor Solution. s101,c170; s123,c215; Duration: 1s2 Moment tensor: Scale 10^17Nm; $M_{rr}$0.01±.02; $M_{\theta\theta}$0.18±.02; $M_{\phi\phi}$-0.19±.02; $M_{r\theta}$0.19±.04; $M_{\theta\phi}$-1.42±.01; $M_{\phi r}$-0.29±.04; Best double couple: $M_0$1.47400×10^17 NP1:$\phi_s$177.00000°, δ84.00000°, λ12.00000°. NP2:$\phi_s$86.00000°, δ78.00000°, λ174.00000°. Principal axes: T 1.5050, Plg13.0000°, Azm42.0000°; N -0.0630, Plg77.0000°, Azm204.0000°; P -1.4420, Plg4.0000°, Azm311.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
**ISC 01 09:57:17.7**±0.3, **39°.25S**±0°.08×**91°.42W**±0°.06, **h10km**, **n174**, σ**1s98**/154, **mb5.0**/70, **MS4.8**/20, **4C-2D**, **West Chile Rise**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PLCA | Paso Flores | 16.07 | 102 | LR | LR | 10 05 57.6 | |
| | comp=Z,2µm,21.2s,baz=295,slow=32 | | | | | | |
| PLCA | Paso Flores | 16.07 | 102 | eP | Pn | 10 01 03.5 | -0.3 |
| PLCA | | | | pmax | pmax | | |
| | comp=Z,65nm,1.5s | | | | | | |
| PLCA | Paso Flores | 16.07 | 102 | ePn | Pn | 10 01 03.5 | -0.3 |
| | comp=Z,65nm,1.5s | | | | | | |
| PLCA | | | | ePn | P | 10 01 10.8 | +3.6 |
| GO05 | HualaæØ | 16.11 | 81 | ePn | Pn | 10 01 04.7 | +0.4 |
| | comp=Z,68nm,1.1s | | | | | | |
| PEL | Peldehue | 17.80 | 76 | eP | P | 10 01 26.5 | +0.1 |
| PEL | | | | pmax | pmax | | |
| | comp=Z,161nm,1.9s | | | | | | |
| PEL | Peldehue | 17.80 | 76 | ePn | P | 10 01 26.4 | +0.1 |
| | comp=Z,160nm,1.9s | | | | | | |
| PEL | | | | ePn | P | 10 01 34.2 | +7.9 |
| RPN | Rapa Nui | 19.21 | 304 | LR | LR | 10 06 41.9 | |
| | comp=Z,9µm,18.9s,baz=132,slow=30 | | | | | | |
| LCO | Las Campanas | 19.92 | 65 | eP | Pn | 10 01 50.8 | -0.7 |
| | comp=Z,44nm,1.3s | | | | | | |
| USHA | Ushuaia | 21.95 | 143 | P | P | 10 02 14.6 | +3.3 |
| | comp=Z,167nm,1.1s,baz=277,slow=6.7,SNR=4.6 | | | | | | |
| TRQA | Tornquist | 22.98 | 96 | eP | P | 10 02 19.8 | -2.7 |
| | comp=Z,58nm,1.9s | | | | | | |
| PB04 | IPOC Station P | 24.77 | 53 | eP | P | 10 02 41.2 | +1.3 |
| | comp=Z,45nm,1.1s | | | | | | |
| LVC | Limon Verde | 25.35 | 56 | P | P | 10 02 42.8 | -2.6 |
| | comp=Z,13nm,0.6s,baz=235,slow=8.8,SNR=7.0 | | | | | | |
| LVC | | | | LR | LR | 10 10 16.1 | |
| | comp=Z,12µm,18.9s,baz=224,slow=31 | | | | | | |
| LVC | Limon Verde | 25.35 | 56 | eP | P | 10 02 44.5 | -0.8 |
| | comp=Z,68nm,1.5s | | | | | | |
| PB01 | IPOC Station P | 26.14 | 52 | eP | P | 10 02 54.8 | +2.6 |
| | comp=Z,52nm,1.4s | | | | | | |
| EFI | East Falkland | 26.25 | 129 | ⇑eP | P | 10 02 51.2 | -1.6 |
| EFI | | | | pmax | pmax | | |
| | comp=Z,37nm,1.1s | | | | | | |
| MNMC | Minye Minye | 27.53 | 50 | eP | P | 10 03 04.7 | -0.3 |
| | comp=Z,36nm,1.0s | | | | | | |
| NNA | Nana | 30.08 | 29 | LR | LR | 10 12 11.4 | |
| | comp=Z,4µm,20.6s,baz=196,slow=30 | | | | | | |
| PMSA | Palmer Station | 30.14 | 157 | LR | LR | 10 12 22.1 | |
| | comp=Z,2µm,20.7s,baz=307,slow=30 | | | | | | |
| LPAZ | La Paz | 30.62 | 48 | P | P | 10 03 30.1 | -2.7 |
| | comp=Z,3.2nm,0.7s,baz=223,slow=8.4,SNR=10 | | | | | | |
| LPAZ | | | | LR | LR | 10 13 11.7 | |
| | comp=Z,2µm,19.4s,baz=240,slow=31 | | | | | | |
| LPAZ | La Paz | 30.62 | 48 | eP | P | 10 03 32.9 | +0.1 |
| LPAZ | La Paz | 30.62 | 48 | eP | P | 10 03 32.9 | +0.1 |
| | comp=Z,19nm,1.1s | | | | | | |
| CPUP | Villa Florida | 31.23 | 76 | P | P | 10 03 34.7 | -2.8 |
| | comp=Z,2.2nm,0.8s,baz=255,slow=9.1,SNR=3.0 | | | | | | |
| CPUP | | | | LR | LR | 10 14 20.1 | |
| | comp=Z,1µm,20.6s,baz=244,slow=33 | | | | | | |
| ATAH | Atahualpa | 34.06 | 24 | P | P | 10 03 57.2 | -5.5 |
| | comp=Z,3.4nm,0.8s,baz=225,slow=8.6,SNR=3.3 | | | | | | |
| SIV | San Ignacio | 35.22 | 57 | P | P | 10 04 10.8 | -1.5 |
| | comp=Z,2.1nm,0.6s,baz=250,slow=5.6,SNR=5.1 | | | | | | |
| SAML | Samuel | 39.36 | 47 | eP | P | 10 04 43.4 | -4.0 |
| | comp=Z,14nm,1.0s | | | | | | |
| RKT | Rikitea | 40.17 | 280 | eS | S | 10 11 01.2 | +0.3 |
| | comp=Z,354nm,28.5s | | | | | | |
| RKT | | | | eLQ | LQ | 10 14 01.9 | |
| | comp=Z,2µm,34.0s | | | | | | |
| RKT | | | | eLR | LR | 10 15 27.3 | |
| | comp=Z,1µm,28.5s,baz=135 | | | | | | |
| RKT | Rikitea | 40.17 | 280 | eT | T | 10 46 22.8 | |
| | comp=Z,1.1nm,0.2s | | | | | | |
| OTAV | Otavalo | 41.06 | 20 | eP | P | 10 04 54.5 | -7.5 |
| OTAV | Otavalo | 41.06 | 20 | eP | P | 10 05 01.4 | -0.6 |
| | comp=Z,31nm,1.3s | | | | | | |
| BDFB | Brasilia | 44.58 | 71 | LR | LR | 10 23 32.1 | |
| | comp=Z,2µm,18.6s,baz=27,slow=35 | | | | | | |
| CHIC | Chingaza | 46.62 | 25 | eP | P | 10 05 40.0 | -6.7 |
| ROSC | El Rosal | 46.63 | 24 | LR | LR | 10 23 22.6 | |
| | comp=Z,2µm,18.2s,baz=198,slow=34 | | | | | | |
| PTGA | Pitinga | 47.91 | 45 | eP | P | 10 05 54.3 | -2.0 |
| | comp=Z,14nm,1.2s | | | | | | |
| RUSC | La Rusia | 48.02 | 25 | eP | P | 10 05 50.3 | -7.4 |
| JTS | JuntasAbangare | 49.65 | 8 | ⇑eP | P | 10 06 09.1 | -0.5 |
| VNA3 | Neumayer Olymp | 50.78 | 156 | P | P | 10 06 18.4 | +0.8 |
| QSPA | South Pole Qui | 50.98 | 180 | eP | P | 10 06 19.9 | +0.5 |
| | comp=Z,20nm,1.3s | | | | | | |
| TBI | Tubuai | 51.24 | 270 | eS | S | 10 13 39.5 | -0.8 |
| | comp=Z,332nm,24.8s | | | | | | |
| TBI | | | | eLQ | LQ | 10 18 45.0 | |
| | comp=Z,1µm,31.2s | | | | | | |
| TBI | | | | eLR | LR | 10 21 06.0 | |
| | comp=Z,776nm,24.5s,baz=126 | | | | | | |
| VNA1 | Neumayer--Stat | 51.32 | 155 | P | P | 10 06 22.8 | +1.1 |
| VNA2 | Neumayer--Watz | 51.56 | 155 | P | P | 10 06 23.3 | -0.2 |
| | baz=269,slow=7.9 | | | | | | |
| SDV | Santo Domingo | 51.64 | 27 | eP | P | 10 06 24.3 | -0.5 |
| | comp=Z,24nm,1.1s | | | | | | |
| SNAA | Sanae | 52.86 | 157 | P | P | 10 06 32.8 | -0.4 |
| SNAA | Sanae | 52.86 | 157 | P | P | 10 06 32.8 | -0.4 |
| | comp=Z,3.8nm,1.1s,baz=248,slow=4.8,SNR=7.2 | | | | | | |
| SNAA | Sanae | 52.86 | 157 | eP | P | 10 06 32.2 | -1.0 |
| SNAA | | | | pmax | pmax | | |
| | comp=Z,138nm,1.0s | | | | | | |
| SNAA | Sanae | 52.86 | 157 | eP | P | 10 06 32.5 | -0.7 |
| | comp=Z,62nm,2.0s | | | | | | |
| TAOE | Nuku Hiva Isla | 52.95 | 291 | eS | S | 10 14 00.7 | -3.4 |
| | comp=Z,518nm,24.6s | | | | | | |
| TAOE | | | | eLR | LR | 10 21 49.5 | |
| | comp=Z,981nm,23.6s | | | | | | |
| TIAR | Tiarei | 54.38 | 276 | eT | T | 11 04 20.6 | |
| | comp=Z,4.0nm,0.3s | | | | | | |
| SBA | Scott Base | 54.40 | 195 | eP | P | 10 06 43.2 | -1.1 |
| SBA | | | | pmax | pmax | | |
| | comp=Z,14nm,1.1s | | | | | | |
| SBA | Scott Base | 54.40 | 195 | eP | P | 10 06 43.2 | -1.1 |
| | comp=Z,14nm,1.1s | | | | | | |
| PPT2 | Papeete2 | 54.54 | 276 | eS | S | 10 14 22.0 | -3.7 |
| | comp=Z,479nm,24.2s | | | | | | |
| PPT2 | | | | eLQ | LQ | 10 20 11.7 | |
| | comp=Z,1µm,25.0s | | | | | | |
| PPT2 | | | | eLR | LR | 10 22 23.4 | |
| | comp=Z,1µm,24.8s,baz=125 | | | | | | |
| PPT | Papeete | 54.56 | 276 | LR | LR | 10 24 07.4 | |
| | comp=Z,464nm,18.6s,baz=126,slow=30 | | | | | | |
| VNDA | Vanda | 55.50 | 195 | P | P | 10 06 50.8 | -1.4 |
| | comp=Z,2.2nm,0.9s,baz=109,slow=6.1,SNR=9.6 | | | | | | |
| VNDA | | | | LR | LR | 10 27 05.0 | |
| | comp=Z,856nm,18.6s,baz=100,slow=32 | | | | | | |
| VNDA | Vanda | 55.50 | 195 | eP | P | 10 06 51.4 | -0.9 |
| VNDA | | | | pmax | pmax | | |
| | comp=Z,17nm,1.6s | | | | | | |
| VNDA | Vanda | 55.50 | 195 | eP | P | 10 06 51.4 | -0.9 |
| | comp=Z,17nm,1.6s | | | | | | |
| SDDR | Presa de Saban | 60.91 | 22 | eP | P | 10 07 32.3 | +1.5 |
| | comp=Z,30nm,1.4s | | | | | | |
| MPR | Mayaguez | 61.51 | 26 | eP | P | 10 07 36.8 | +2.0 |
| | comp=Z,48nm,1.4s | | | | | | |
| SJG | San Juan | 61.76 | 27 | eP | P | 10 07 35.5 | -1.0 |
| SJG | | | | pmax | pmax | | |
| | comp=Z,70nm,1.3s | | | | | | |
| SJG | San Juan | 61.76 | 27 | eP | P | 10 07 35.5 | -1.0 |
| | comp=Z,70nm,1.3s | | | | | | |
| CBYP | Canovanas | 62.02 | 28 | eP | P | 10 07 38.6 | +0.3 |
| | comp=Z,43nm,1.2s | | | | | | |
| SYO | Syowa Base | 66.16 | 163 | ⇑eP | P | 10 08 02.2 | -2.6 |
| SYO | Syowa Base | 66.16 | 163 | ⇓ipP | P | 10 08 03.4 | -1.4 |
| URZ | Urewera | 68.10 | 238 | LR | LR | 10 31 56.0 | |
| | comp=Z,1µm,18.0s,baz=182,slow=31 | | | | | | |
| TXAR | Lajitas Array | 69.18 | 349 | P | P | 10 08 17.4 | -7.0 |
| | comp=Z,0.9nm,0.8s,baz=171,slow=7.9,SNR=9.5 | | | | | | |
| TXAR | | | | LR | LR | 10 32 47.8 | |
| | comp=Z,878nm,19.9s,baz=0.0,slow=31 | | | | | | |
| WHTX | Lake Whitney, | 71.10 | 355 | eP | P | 10 08 38.0 | +2.0 |
| | comp=Z,46nm,1.5s | | | | | | |
| MAW | Mawson | 71.70 | 170 | P | P | 10 08 38.3 | -1.0 |
| | comp=Z,14nm,1.0s,baz=186,slow=7.7,SNR=7.3 | | | | | | |
| MAW | | | | LR | LR | 10 38 51.5 | |
| | comp=Z,343nm,18.2s,baz=233,slow=35 | | | | | | |
| MAW | Mawson | 71.70 | 170 | eP | P | 10 08 38.4 | -1.0 |
| MAW | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.0s | | | | | | |
| MAW | Mawson | 71.70 | 170 | eP | P | 10 08 38.4 | -1.0 |
| | comp=Z,4.2nm,1.0s | | | | | | |
| MNTX | Cornudas Mount | 71.77 | 347 | eP | P | 10 08 39.8 | -0.3 |
| | comp=Z,13nm,1.6s | | | | | | |
| LRAL | Lakeview Retre | 72.04 | 4 | eP | P | 10 08 42.8 | +1.2 |
| | comp=Z,45nm,1.8s | | | | | | |
| GOGA | Godfrey | 72.67 | 7 | eP | P | 10 08 47.8 | +2.4 |
| GOGA | | | | pmax | pmax | | |
| | comp=Z,37nm,1.5s | | | | | | |
| GOGA | Godfrey | 72.67 | 7 | eP | P | 10 08 47.8 | +2.4 |

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| | comp=Z,37nm,1.5s | | | | | | |
| CPRX | Cap Rock | 72.84 | 349 | eP | P | 10 08 43.4 | -3.2 |
| MIAR | Mount Ida | 73.45 | 358 | eP | P | 10 08 51.9 | +1.9 |
| MIAR | | | | pmax | pmax | | |
| | comp=Z,40nm,1.8s | | | | | | |
| MIAR | Mount Ida | 73.45 | 358 | eP | P | 10 08 51.9 | +1.9 |
| | comp=Z,40nm,1.8s | | | | | | |
| W36A | Wetumka | 74.15 | 356 | eP | P | 10 08 55.9 | +1.7 |
| | comp=Z,6.9nm,1.4s | | | | | | |
| WHAR | Wooly Hollow | 74.17 | 359 | eP | P | 10 08 56.4 | +2.2 |
| | comp=Z,41nm,1.5s | | | | | | |
| SWET | Sewanee | 74.27 | 5 | eP | P | 10 08 55.8 | +0.9 |
| | comp=Z,47nm,1.7s | | | | | | |
| AMTX | Amarillo | 74.37 | 351 | eP | P | 10 08 51.7 | -3.8 |
| | comp=Z,33nm,1.4s | | | | | | |
| OK022 | N3560 Road, Pr | 74.57 | 356 | eP | P | 10 08 58.0 | +1.4 |
| | comp=Z,20nm,1.1s | | | | | | |
| KMSC | Kings Mountain | 74.61 | 9 | eP | P | 10 08 59.7 | +2.9 |
| | comp=Z,32nm,1.4s | | | | | | |
| OK021 | N3530 Road, Sp | 74.64 | 356 | eP | P | 10 08 58.7 | +1.8 |
| | comp=Z,42nm,1.5s | | | | | | |
| V35A | Meyer Ranch, C | 74.81 | 355 | eP | P | 10 08 59.9 | +1.9 |
| | comp=Z,36nm,1.6s | | | | | | |
| TUL1 | Leonard | 74.90 | 356 | eP | P | 10 09 00.2 | +1.8 |
| TUL1 | | | | ePcP | PcP | 10 09 08.9 | -3.3 |
| WVT | Waverly | 75.08 | 3 | eP | P | 10 09 01.2 | +1.7 |
| WVT | | | | pmax | pmax | | |
| | comp=Z,23nm,1.7s | | | | | | |
| WVT | Waverly | 75.08 | 3 | eP | P | 10 09 01.2 | +1.7 |
| | comp=Z,23nm,1.7s | | | | | | |
| ANMO | Albuquerque | 75.12 | 347⇓ | eP | P | 10 08 59.7 | -0.3 |
| ANMO | | | | pmax | pmax | | |
| | comp=Z,14nm,2.7s | | | | | | |
| ANMO | Albuquerque | 75.12 | 347 | eP | P | 10 09 00.2 | +0.2 |
| | comp=Z,20nm,1.9s | | | | | | |
| HHAR | Hobbs | 75.19 | 358 | eP | P | 10 09 02.4 | +2.2 |
| HHAR | | | | ePcP | PcP | 10 09 11.4 | -2.2 |
| U35A | Pawnee | 75.41 | 356 | eP | P | 10 09 03.4 | +2.0 |
| | comp=Z,42nm,1.6s | | | | | | |
| PBMO | Poplar Bluff | 75.66 | 1 | eP | P | 10 09 04.2 | +1.4 |
| | comp=Z,26nm,1.6s | | | | | | |
| MHTCO | State Highway | 76.98 | 349 | eP | P | 10 09 13.6 | +3.0 |
| | comp=Z,25nm,1.6s | | | | | | |
| MWC | Mount Wilson | 77.15 | 338 | eP | P | 10 09 13.7 | +2.1 |
| MWC | | | | pmax | pmax | | |
| | comp=Z,70nm,0.8s | | | | | | |
| MWC | Mount Wilson | 77.15 | 338 | eP | P | 10 09 13.7 | +2.1 |
| | comp=Z,70nm,0.8s | | | | | | |
| S22A | 4UR Ranch, Cre | 77.92 | 348 | eP | P | 10 09 17.9 | +2.0 |
| | comp=Z,13nm,1.3s | | | | | | |
| CVRD | Centerville Ro | 77.95 | 11 | eP | P | 10 09 18.0 | +2.3 |
| | comp=Z,58nm,1.6s | | | | | | |
| CBKS | Cedar Bluff | 78.06 | 353 | eP | P | 10 09 18.0 | +1.6 |
| CBKS | | | | pmax | pmax | | |
| | comp=Z,28nm,1.4s | | | | | | |
| CBKS | Cedar Bluff | 78.06 | 353 | eP | P | 10 09 18.0 | +1.6 |
| | comp=Z,28nm,1.4s | | | | | | |
| SHPR | Sheep Range | 78.49 | 341 | eP | P | 10 09 21.0 | +2.1 |
| | comp=Z,21nm,1.4s | | | | | | |
| PV01 | Paradox Valley | 78.60 | 346 | eP | P | 10 09 22.5 | +2.8 |
| | comp=Z,2μm,1.6s | | | | | | |
| Q24A | Divide | 78.85 | 349 | eP | P | 10 09 24.1 | +3.0 |
| | comp=Z,9.9nm,1.1s | | | | | | |
| CCUT | Cedar City | 79.05 | 342 | eP | P | 10 09 23.4 | +1.3 |
| | comp=Z,15nm,1.3s | | | | | | |
| SMCO | Snowmass | 79.34 | 348 | P | P | 10 09 22.4 | -1.5 |
| | comp=Z,12nm,1.2s | | | | | | |
| TMUT | Trail Mountain | 80.24 | 345 | eP | P | 10 09 30.1 | +1.4 |
| | comp=Z,33nm,1.7s | | | | | | |
| N23A | Red Feather La | 80.86 | 349 | eP | P | 10 09 35.1 | +3.2 |
| | comp=Z,15nm,1.4s | | | | | | |
| NLU | North Lily Min | 81.06 | 344 | eP | P | 10 09 35.0 | +2.2 |
| | comp=Z,20nm,1.5s | | | | | | |
| HWUT | Hardware Ranch | 82.54 | 345 | eP | P | 10 09 42.5 | +1.9 |
| | comp=Z,8.3nm,1.1s | | | | | | |
| K22A | Casper | 82.66 | 349 | eP | P | 10 09 44.0 | +2.8 |
| | comp=Z,35nm,1.4s | | | | | | |
| ECSD | EROS Data Cent | 82.73 | 356 | eP | P | 10 09 43.9 | +2.5 |
| | comp=Z,20nm,1.4s | | | | | | |
| ORV | Oroville | 83.12 | 337 | eP | P | 10 09 46.3 | +2.9 |
| ORV | | | | pmax | pmax | | |
| | comp=Z,32nm,1.8s | | | | | | |
| ORV | Oroville | 83.12 | 337 | eP | P | 10 09 46.3 | +2.9 |
| | comp=Z,32nm,1.8s | | | | | | |
| PDAR | Pinedale Array | 83.28 | 347 | P | P | 10 09 39.6 | -4.9 |
| | comp=Z,1.5nm,0.8s,baz=159,slow=5.4,SNR=8.4 | | | | | | |
| PDAR | | | | LR | LR | 10 41 07.3 | |
| | comp=Z,217nm,21.6s,baz=156,slow=32 | | | | | | |
| RSSD | Black Hills | 83.77 | 351 | eP | P | 10 09 47.6 | +0.7 |
| RSSD | | | | pmax | pmax | | |
| | comp=Z,11nm,1.1s | | | | | | |
| RSSD | Black Hills | 83.77 | 351 | eP | P | 10 09 47.6 | +0.7 |
| | comp=Z,11nm,1.1s | | | | | | |
| REDW | Red Top Meadow | 84.09 | 346 | eP | P | 10 09 51.0 | +2.4 |
| | comp=Z,31nm,1.6s | | | | | | |
| TPAW | Teton Pass | 84.23 | 346 | P | P | 10 09 44.3 | -5.1 |
| | comp=Z,5.0nm,0.8s | | | | | | |
| LOHW | Long Hollow | 84.29 | 346 | eP | P | 10 09 52.4 | +2.8 |
| | comp=Z,14nm,1.4s | | | | | | |
| WVOR | Wild Horse Val | 84.97 | 340 | eP | P | 10 09 55.0 | +2.0 |
| WVOR | | | | pmax | pmax | | |
| | comp=Z,14nm,1.4s | | | | | | |
| WVOR | Wild Horse Val | 84.97 | 340 | eP | P | 10 09 55.0 | +2.0 |
| | comp=Z,14nm,1.4s | | | | | | |
| HLID | Hailey | 85.01 | 343 | eP | P | 10 09 48.2 | -5.0 |
| | comp=Z,5.3nm,0.7s | | | | | | |
| DZM | Mont Dzumac | 85.18 | 246 | eS | S | 10 20 24.8 | -0.1 |
| | comp=Z,80nm,24.2s | | | | | | |
| DZM | Mont Dzumac | 85.18 | 246 | eLR | LR | 10 36 52.9 | |
| | comp=Z,2μm,27.9s | | | | | | |
| YMR | Madison River | 85.37 | 346 | eP | P | 10 09 58.0 | +2.9 |
| | comp=Z,31nm,1.6s | | | | | | |
| J08A | Circle Bar Ran | 85.80 | 341 | eP | P | 10 09 58.2 | +1.2 |
| | comp=Z,32nm,1.6s | | | | | | |
| MCMT | McKenzie Canyo | 85.89 | 345 | eP | P | 10 09 59.8 | +2.1 |
| BOZ | Bozeman (W) | 86.39 | 346 | eP | P | 10 10 01.1 | +1.1 |
| BOZ | | | | pmax | pmax | | |
| | comp=Z,26nm,2.0s | | | | | | |
| BOZ | Bozeman (W) | 86.39 | 346 | eP | P | 10 10 01.1 | +1.1 |
| | comp=Z,26nm,2.0s | | | | | | |
| LRM | Limekiln Ridge | 86.77 | 345 | eP | P | 10 10 03.5 | +1.5 |
| G08A | Pilot Rock | 87.72 | 341 | eP | P | 10 10 08.0 | +1.6 |
| | comp=Z,28nm,1.8s | | | | | | |
| ULM | Lac du Bonnet | 89.21 | 357 | LR | LR | 10 46 25.6 | |
| | comp=Z,290nm,19.6s,baz=180,slow=33 | | | | | | |
| BOSA | Boshof | 90.36 | 128 | LR | LR | 10 44 56.9 | |
| | comp=Z,524nm,20.8s,baz=209,slow=32 | | | | | | |
| DBIC | Dimbokro | 91.52 | 83 | LR | LR | 10 48 11.7 | |
| | comp=Z,214nm,20.3s,baz=214,slow=33 | | | | | | |
| STKA | Stephens Creek | 93.80 | 223 | LR | LR | 10 46 33.4 | |
| | comp=Z,505nm,18.1s,baz=175,slow=32 | | | | | | |
| SCHQ | Schefferville | 96.05 | 14 | LR | LR | 10 51 45.9 | |
| | comp=Z,324nm,20.9s,baz=209,slow=34 | | | | | | |
| ASAR | Alice Springs | 104.42 | 222 | Pdiff | Pdif | 10 11 20.8 | -2.3 |
| | comp=Z,0.9nm,1.1s,baz=148,slow=2.7,SNR=4.5 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 110.50 | 277 | T | T | 12 14 38.4 | |
| | baz=126,slow=75,SNR=27 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 110.52 | 277 | T | T | 12 14 37.6 | |
| | baz=126,slow=75,SNR=27 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 110.52 | 277 | T | T | 12 14 42.0 | |
| | baz=126,slow=75,SNR=31 | | | | | | |
| TIXI | Tiksi | 141.75 | 341 | ePKIKP | PKPdf | 10 16 48.5 | +0.3 |
| TIXI | Tiksi | 141.75 | 341 | ePKPdf | PKPdf | 10 16 48.5 | +0.3 |
| OBN | Obninsk | 142.22 | 48 | i PKIKP | PKPdf | 10 16 52.6 | +3.1 |
| OBN | | | | e | | 10 16 59.2 | |
| OBN | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.0s | | | | | | |
| OBN | | | | MLR | MLR | | |
| | comp=Z,251nm,18.0s | | | | | | |
| KLMR | Klimovskoe | 142.99 | 38 | ePKIKP | PKPpre | 10 16 46.4 | |
| KLMR | | | | pmax | pmax | | |
| | comp=Z,22nm,1.5s | | | | | | |
| LPSR | Galich'ya Gora | 143.71 | 52 | ePKIKP | PKPab | 10 16 48.2 | -0.8 |
| LPSR | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.1s | | | | | | |
| VSR | Storozhevoye | 143.87 | 54 | ePKIKP | PKPdf | 10 16 54.0 | +1.4 |
| VSR | | | | pmax | pmax | | |
| | comp=Z,20nm,1.2s | | | | | | |
| VRH | Novokhopyorsk | 145.47 | 54 | ePKIKP | PKPbc | 10 16 55.4 | 0.0 |
| VRH | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.7s | | | | | | |
| NEY | Neytrino | 145.63 | 68 | i PKIKP | PKPdf | 10 16 54.7 | -1.5 |
| KIV | Kislovodsk | 145.71 | 67 | i PKIKP | PKPdf | 10 16 54.3 | -1.9 |
| KIV | | | | pmax | pmax | | |
| | comp=Z,19nm,1.1s | | | | | | |
| KBZ | Khabaz | 145.83 | 67 | PKPbc | PKPdf | 10 16 54.4 | -1.8 |
| | comp=Z,3.9nm,0.9s,baz=314,slow=0.6,SNR=3.9 | | | | | | |
| GOF | Gofitskoye | 146.10 | 65⇑ | ePKP2 | PKPab | 10 17 03.5 | +5.2 |
| GOF | | | | pmax | pmax | | |
| | comp=Z,36nm,0.9s | | | | | | |
| YAK | Yakutsk | 146.26 | 326 | PKPbc | PKPpre | 10 16 51.2 | |
| | baz=154,slow=4.0 | | | | | | |
| YAK | Yakutsk | 146.26 | 326 | ePKHKP | PKPpre | 10 16 51.1 | |
| YAK | | | | e | | 10 20 18.9 | |
| YAK | | | | e | | 10 23 38.4 | |
| YAK | | | | pmax | pmax | | |
| | comp=Z,54nm,1.3s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,12nm,1.1s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=Z,454nm,4.4s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,195nm,3.2s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,198nm,4.8s | | | | | | |
| YAK | Yakutsk | 146.26 | 326 | PKPbc | PKPpre | 10 16 51.2 | |
| YAK | | | | ePKPdf | PKPbc | 10 16 57.5 | 0.0 |
| ZEI | Tsey | 146.41 | 69 | i PKIKP | PKPdf | 10 16 54.6 | -2.9 |
| ZEI | | | | pmax | pmax | | |
| | comp=Z,13nm,1.4s | | | | | | |
| PALK | Pallekele | 147.38 | 165 | PKPbc | PKPdf | 10 16 58.3 | -1.6 |
| | comp=Z,4.5nm,0.7s,baz=112,slow=1.7,SNR=2.2 | | | | | | |
| USRK | Ussuriysk Ar. | 147.51 | 293 | PKPbc | PKPdf | 10 16 56.7 | -2.3 |
| | comp=Z,3.3nm,0.8s,baz=91,slow=10,SNR=4.6 | | | | | | |
| KSRS | Korea Array | 149.25 | 279 | PKPbc | PKPdf | 10 17 03.2 | +1.1 |
| | comp=Z,2.9nm,0.9s,baz=116,slow=3.2,SNR=5.5 | | | | | | |
| MDJ | Mudanjiang | 149.26 | 294 | ePKPdf | PKPdf | 10 17 03.5 | +1.6 |
| KSAR | Wonju Array Be | 149.28 | 279 | PKPbc | PKPdf | 10 17 03.2 | +1.0 |
| KS01 | Wonju Array Si | 149.28 | 279 | ePKPdf | PKPdf | 10 17 03.0 | +0.8 |
| CN2 | Changchun | 152.18 | 291 | ePKPbc | PKPdf | 10 17 04.7 | -1.7 |
| QIZ | Qiongzhong | 152.72 | 228 | PKPbc | PKPdf | 10 17 05.8 | -2.2 |
| QIZ | | | | SS | SS | 10 40 34.5 | +5.2 |
| QIZ | | | | LR | LR | | |
| | comp=Z,160nm,39.6s | | | | | | |
| ARU | Arti | 153.83 | 39 | PKIKP | PKPpre | 10 17 00.4 | |
| NJ2 | Nanjing | 154.45 | 263 | ePKPbc | PKPdf | 10 17 11.9 | +1.8 |
| GYA | Guiyang | 160.21 | 235 | ePKP | PKPdf | 10 17 18.0 | +0.3 |
| GYA | | | | PKPab | pPKPab | 10 18 01.4 | +0.1 |
| GYA | | | | PKS | PKSdf | 10 20 50.0 | -1.3 |
| GYA | | | | PP | PP | 10 21 44.8 | +4.8 |
| GYA | | | | AMB | AMB | | |
| | comp=Z,120nm,8.2s | | | | | | |
| KMI | Kunming | 161.54 | 224 | PKP | PKPdf | 10 17 19.9 | +0.6 |
| HHC | Hu-ho-hao-te | 162.33 | 283 | ePKP | PKPdf | 10 17 10.8 | -8.7 |
| HHC | | | | PP | PP | 10 21 36.9 | -15 |
| SONM | Songino Array | 164.51 | 309 | PKPab | PKPab | 10 18 11.2 | -5.1 |
| | comp=Z,1.3nm,1.0s,baz=17,slow=1.5,SNR=2.8 | | | | | | |
| ZAA0 | Zalesovo Array | 165.07 | 9 | ePKPdf | PKPdf | 10 17 21.9 | +0.5 |
| ZALV | Zalesovo Beam | 165.07 | 9 | PKP | PKPdf | 10 17 17.4 | -4.0 |
| | comp=Z,1.0nm,0.6s,baz=204,slow=3.3,SNR=4.9 | | | | | | |
| ZALV | Zalesovo Beam | 165.07 | 9 | ePKIKP | PKPdf | 10 17 20.7 | -0.7 |
| ZALV | Zalesovo Beam | 165.07 | 9 | ePKPdf | PKPdf | 10 17 20.6 | -0.7 |
| LZH | Lanzhou | 167.50 | 260 | ePKP | PKPdf | 10 17 23.7 | -0.5 |
| LZH | | | | pPKP | pPKPdf | 10 17 27.0 | -0.6 |
| LZH | | | | sPKP | | 10 17 28.3 | |
| LZH | | | | PKPab | pPKPab | 10 18 32.3 | -1.0 |
| LZH | | | | ePP | PP | 10 22 21.0 | +2.1 |
| LZH | | | | SKKS | | 10 29 06.2 | |
| LZH | | | | eSS | SS | 10 43 07.0 | +0.5 |
| LZH | | | | AMB | AMB | | |
| | comp=Z,230nm,8.5s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,290nm,18.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,270nm,17.8s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,380nm,20.2s | | | | | | |
| DGZ | Jazzator, Alta | 169.52 | 4 | i PKIKP | PKPdf | 10 17 24.9 | -0.1 |
| KSH | Kashi | 170.24 | 84 | PKP | PKPdf | 10 17 27.8 | +2.1 |
| KSH | | | | PP | PP | 10 22 36.2 | +3.4 |
| KSH | | | | SKS | SKSdf | 10 24 30.3 | +1.0 |
| KSH | | | | SKKS | SKKSac | 10 29 20.5 | +1.2 |
| KSH | | | | SS | SS | 10 43 31.7 | -2.2 |
| KSH | | | | AMB | AMB | | |
| | comp=Z,210nm,4.6s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,400nm,6.4s | | | | | | |
| WMQ | Urumqi | 175.38 | 8 | PKP | PKPdf | 10 17 28.0 | +0.3 |
| WMQ | | | | LR | LR | | |
| | comp=Z,280nm,19.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,260nm,20.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,330nm,17.5s | | | | | | |

**WEL 01 10:02:59.1±0.5, 36°.47S×177°.43E, h158$^{km}$±7$^{km}$, ML3.5/10, Error ellipse: s-maj=8.5km s-min=6.8km az=0.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MXZ | Matakaoa Point | 1.29 | 147 | PN | Pn | 10 03 28.0 | +0.8 |
| MXZ | | | | SN | Sn | 10 03 48.7 | -0.1 |
| HAZ | Te Kaha | 1.31 | 168 | PN | Pn | 10 03 27.4 | +0.1 |
| HAZ | | | | SN | Sn | 10 03 49.6 | +0.5 |
| HAZ | | | | AML | AML | 10 03 55.8 | |
| HAZ | | | | AML | AML | 10 03 55.8 | |
| RUGZ | Raukumara Rang | 1.50 | 172 | PN | Pn | 10 03 29.2 | -0.2 |
| PKGZ | Pakihiroa | 1.50 | 160 | ePN | Pn | 10 03 29.2 | -0.1 |
| PKGZ | | | | AML | AML | 10 04 02.9 | |
| WMGZ | Waiomatatini S | 1.56 | 150 | PN | Pn | 10 03 29.8 | +0.1 |
| WMGZ | | | | AML | AML | 10 03 55.6 | |
| WMGZ | | | | AML | AML | 10 03 57.1 | |
| PUZ | Puketiti | 1.73 | 158 | PN | Pn | 10 03 31.2 | -0.5 |
| PUZ | | | | SN | Sn | 10 03 56.8 | 0.0 |
| TWGZ | Tauwhareparae | 1.76 | 166 | PN | Pn | 10 03 32.2 | +0.2 |
| TWGZ | | | | AML | AML | 10 04 10.7 | |
| TWGZ | | | | AML | AML | 10 04 11.2 | |
| URZ | Urewera | 1.80 | 188 | PN | Pn | 10 03 32.6 | +0.2 |
| URZ | | | | eSN | Sn | 10 03 59.0 | +0.9 |
| MWZ | Matawai | 1.86 | 178 | PN | Pn | 10 03 33.6 | +0.4 |
| MWZ | | | | AML | AML | 10 04 10.7 | |
| MWZ | | | | AML | AML | 10 04 12.7 | |
| TKGZ | Te Karaka | 1.99 | 170 | PN | Pn | 10 03 34.4 | -0.2 |
| TKGZ | | | | AML | AML | 10 04 03.9 | |
| TKGZ | | | | AML | AML | 10 04 03.9 | |
| RAGZ | Rawiri | 2.02 | 180 | PN | Pn | 10 03 35.4 | +0.5 |
| RAGZ | | | | AML | AML | 10 04 14.7 | |
| RAGZ | | | | AML | AML | 10 04 16.8 | |
| MUGZ | Murupara | 2.07 | 194 | PN | Pn | 10 03 36.2 | +0.8 |
| CNGZ | Carnagh Statio | 2.10 | 163 | PN | Pn | 10 03 35.5 | -0.3 |
| RIGZ | Rimuhau | 2.25 | 173 | PN | Pn | 10 03 37.0 | -0.6 |
| RIGZ | | | | AML | AML | 10 04 09.5 | |
| RIGZ | | | | AML | AML | 10 04 10.1 | |
| SNGZ | Shannon Statio | 2.31 | 182 | PN | Pn | 10 03 38.8 | +0.5 |
| SNGZ | | | | AML | AML | 10 04 25.3 | |
| SNGZ | | | | AML | AML | 10 04 26.4 | |
| MRHZ | Matea Rd | 2.49 | 199 | PN | Pn | 10 03 40.3 | -0.2 |
| KNZ | Kokohu | 2.55 | 176 | PN | Pn | 10 03 40.0 | -1.1 |
| NMHZ | Naumai | 2.67 | 190 | PN | Pn | 10 03 42.9 | +0.3 |
| MHGZ | Mahia Peninsul | 2.70 | 172 | PN | Pn | 10 03 42.0 | -1.0 |
| BKZ | Black Stump Fm | 2.79 | 195 | PN | Pn | 10 03 42.9 | -1.3 |
| ARHZ | Aropaoanui | 2.81 | 187 | PN | Pn | 10 03 43.5 | -0.8 |
| MCHZ | McNeill Hill | 3.02 | 191 | PN | Pn | 10 03 46.1 | -0.9 |
| OTVZ | Oturere | 3.03 | 207 | PN | Pn | 10 03 47.8 | +0.5 |
| WNVZ | Wahianoa | 3.20 | 206 | PN | Pn | 10 03 48.8 | -0.6 |
| BHHZ | Black Hill Sta | 3.20 | 199 | PN | Pn | 10 03 47.7 | -1.6 |
| KRHZ | Kereru | 3.27 | 194 | PN | Pn | 10 03 48.7 | -1.5 |
| KAHZ | Kahuranaki | 3.34 | 187 | PN | Pn | 10 03 49.2 | -1.9 |
| PNHZ | Pukenui | 3.57 | 195 | PN | Pn | 10 03 51.8 | -2.2 |
| PXZ | Pawanui | 3.58 | 187 | PN | Pn | 10 03 51.4 | -2.6 |
| WPHZ | Waipukurau | 3.67 | 192 | PN | Pn | 10 03 52.9 | -2.3 |
| TSZ | Takapari Road | 3.76 | 197 | PN | Pn | 10 03 53.6 | -2.8 |
| WAZ | Wanganui | 3.80 | 210 | PN | Pn | 10 03 56.9 | 0.0 |
| PRHZ | Porangahau | 3.84 | 189 | PN | Pn | 10 03 54.6 | -2.8 |
| DVHZ | Dannevirke | 3.95 | 194 | PN | Pn | 10 03 55.7 | -3.1 |
| ANWZ | Angora Road | 4.05 | 190 | PN | Pn | 10 03 57.2 | -2.9 |
| ANWZ | | | | AML | AML | 10 04 51.9 | |
| PRWZ | Pori Road | 4.23 | 195 | PN | Pn | 10 03 59.4 | -3.2 |
| BFZ | Birch Farm | 4.30 | 192 | PN | Pn | 10 03 59.9 | -3.6 |
| MRZ | Mangatainoka R | 4.43 | 199 | PN | Pn | 10 04 01.2 | -3.8 |
| TIWZ | Tintock | 4.46 | 195 | PN | Pn | 10 04 02.2 | -3.3 |
| OGWZ | Otaki Gorge | 4.68 | 201 | PN | Pn | 10 04 04.7 | -3.7 |
| KIW | Kapiti Island | 4.80 | 203 | PN | Pn | 10 04 06.5 | -3.6 |
| MTW | Mount Morrison | 4.92 | 197 | PN | Pn | 10 04 06.8 | -4.6 |
| CAW | Cannon Point | 4.98 | 201 | PN | Pn | 10 04 07.8 | -4.6 |
| DUWZ | D'Urville Isla | 5.12 | 211 | PN | Pn | 10 04 10.5 | -3.7 |

**IDC 01 10:51:07.1±10.0, 30°.12N×92°.42E, h39$^{km}$±67$^{km}$, mb3.3/4, mb1 3.7/5, mb1mx3.3/47, mbtmp3.6/5, MS3.1/1, Ms1 3.1/1, ms1mx2.7/26, Error ellipse: s-maj=179.0km s-min=24.4km az=84.0, Xizang**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CMAR | Chiang Mai Arr | 13.04 | 151 | Pn | Pn | 10 54 09.8 | -0.1 |
| | baz=326,slow=12,SNR=4.4 | | | | | | |
| SONM | Songino Array | 20.70 | 27 | P | P | 10 55 44.0 | 0.0 |
| | 1.4nm,0.8s,baz=212,slow=11,SNR=9.1 | | | | | | |
| ZALV | Zalesovo Beam | 24.44 | 349 | LR | LR | 11 06 44.5 | |
| | comp=Z,48nm,19.5s,baz=22,slow=38 | | | | | | |
| WRA | Warramunga Arr | 64.07 | 136 | P | P | 11 01 37.2 | -0.1 |
| | 0.3nm,0.6s,baz=327,slow=6.6,SNR=5.8 | | | | | | |
| ASAR | Alice Springs | 66.68 | 139 | P | P | 11 01 54.2 | 0.0 |
| | 0.8nm,0.6s,baz=324,slow=7.2,SNR=11 | | | | | | |
| ILAR | Eielson Array | 74.84 | 22 | P | P | 11 02 43.2 | 0.0 |
| | 0.3nm,0.9s,baz=298,slow=6.0,SNR=3.0 | | | | | | |

**IDC 01 11:03:32.7±4.8, 7°.61S×104°.56E, h0$^{km}$, mb3.8/3, mb1 4.0/3, mb1mx3.4/47, mbtmp3.8/3, Error ellipse: s-maj=197.6km s-min=29.0km az=51.0, Southwest of Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CMAR | Chiang Mai Arr | 26.49 | 348 | P | P | 11 09 12.2 | +0.3 |
| | 1.4nm,0.7s,baz=182,slow=8.6,SNR=9.8 | | | | | | |
| WRA | Warramunga Arr | 31.34 | 116 | P | P | 11 09 54.7 | -0.6 |
| | 0.4nm,0.8s,baz=288,slow=10,SNR=5.4 | | | | | | |
| H08S2 | Diego Garcia H | 31.78 | 268 | T | T | 11 43 47.1 | |
| | baz=85 | | | | | | |
| H08S3 | Diego Garcia H | 31.79 | 268 | T | T | 11 43 53.7 | |
| | baz=85 | | | | | | |
| H08S1 | Diego Carcia H | 31.80 | 268 | T | T | 11 43 54.0 | |
| | baz=85 | | | | | | |
| ZALV | Zalesovo Beam | 63.55 | 347 | P | P | 11 14 04.1 | -0.7 |
| | 0.7nm,0.4s,baz=145,slow=3.5,SNR=3.6 | | | | | | |
| TXAR | Lajitas Array | 145.77 | 47 | PKPbc | PKPab | 11 23 15.0 | +0.1 |
| | 0.4nm,0.7s,baz=352,slow=1.2,SNR=5.9 | | | | | | |

**MEX 01 11:13:43.4±0.3, 19°.13N×104°.20W, h9$^{km}$±3$^{km}$, MD3.5, Near coast of Jalisco**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| R15V | | 0.21 | 79 | i P | Pg | 11 13 47.3 | -0.4 |
| R15V | | | | eS | Sg | 11 13 50.4 | -0.3 |
| EZ5V | | 0.66 | 58 | eP | Pg | 11 13 55.1 | -1.2 |
| EZ5V | | | | eS | Sg | 11 14 03.9 | -1.1 |
| MMIG | Aquila | 1.16 | 136 | eP | Pb | 11 14 02.0 | -3.7 |
| MMIG | | | | eS | Sb | 11 14 16.5 | -4.3 |
| ARIG | Puente Sto Nin | 3.75 | 102 | eP | Pb | 11 14 50.0 | +0.3 |

*NIED **01** 11:20:00, 44°.50N×146°.30E, h130$^{km}$, Mw4.9 Best double couple: $M_0$2.36000×10$^{16}$ NP1:$\phi_s$276.00000°, δ14.00000°, λ-28.00000°. NP2:$\phi_s$34.00000°, δ83.00000°, λ-103.00000°.*
*BJI **01** 11:20:29.6, 44°.73N×146°.15E, h158$^{km}$, mb5.4/70, mB5.2/45*
*MOS **01** 11:20:29.6±1.0, 44°.73N×145°.94E, h147$^{km}$, mb5.0/72, Error ellipse: s-maj=6.4km s-min=4.4km az=104.8*
*MOS Felt (II) at Malokuril'skoye, Yuzhno-Kuril'sk.*
*ISCJB **01** 11:20:30.1±0.2, 44°.62N±0°.02×146°.11E±0°.02, h155$^{km}$±1$^{km}$, mb4.9/206, Error ellipse: s-maj=3.7km s-min=2.2km az=161.2*
*JMA **01** 11:20:31.3±0.2, 44°.47N×146°.26E, h147$^{km}$±2$^{km}$, M4.7 Broadband fault plane solution: P waves. NP1: $\phi_s$39.00000°, δ86.00000°, λ-109.00000°. NP2: $\phi_s$297.00000°, δ19.00000°, λ-13.00000°. Principal axes: T Plg38.0000°, Azm146.0000°; N Plg19.0000°, Azm41.0000°; P Plg46.0000°, Azm290.0000°;*
*JMA Felt II J1.*
*SKHL **01** 11:20:31.0±0.8, 44°.57N×146°.32E, h146$^{km}$±4$^{km}$, mb6.0/3, mbh5.6/1, msh5.8/2*
*SKHL Felt (III) at Malokurilskoe,(II) at Yushno-Kurilsk.*
*GCMT **01** 11:20:31.5±0.4, 44°.56N×146°.08E, h165$^{km}$±4$^{km}$, MW5.0/79, Moment Tensor Solution. s19,c19; s79,c104; Duration: 0 Moment tensor: Scale 10$^{16}$Nm; $M_{rr}$-0.51±.17; $M_{\theta\theta}$1.61±.22; $M_{\phi\phi}$-1.11±.23; $M_{r\theta}$-1.75±.13; $M_{\theta\phi}$0.57±.26; $M_{\phi r}$-3.19±.13; Best double couple: $M_0$3.93800×10$^{16}$ NP1:$\phi_s$33.00000°, δ87.00000°, λ-112.00000°. NP2: $\phi_s$295.00000°, δ22.00000°, λ-8.00000°. Principal axes: T 3.7540, Plg38.0000°, Azm143.0000°; N 0.3590, Plg22.0000°, Azm34.0000°; P -4.1210, Plg44.0000°, Azm281.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*NEIC **01** 11:20:31.4±0.4, 44°.75N×145°.92E, h149$^{km}$±4$^{km}$, mb4.9/114 Error ellipse: s-maj=4.2km s-min=2.4km az=154.0*
*NEIC Recorded [2 JMA] in eastern Hokkaido.*
*IDC **01** 11:20:31.5±0.6, 44°.71N×146°.16E, h153$^{km}$±4$^{km}$, mb4.6/26, mb1 4.7/32, mb1mx4.6/40, mbtmp5.0/32, MS3.6/7, Ms1 3.6/7, ms1mx3.2/38, Error ellipse: s-maj=10.8km s-min=6.9km az=154.0*

**ISC 01 11:20:31.4±0.3, 44°.63N±0°.03×146°.09E±0°.03, h154$^{km}$±2$^{km}$, h154$^{km}$:pP-P, n884, σ1$^s$.34/1098, mb5.0/211, 35C-54D, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LAGR | Lagunnoye | 0.62 | 201 | d i PN | Pn | 11 20 52.7 | -1.1 |
| LAGR | | | | i S | Sn | 11 21 09.2 | -1.7 |
| YUK | Yuzh-Kuril'sk | 0.62 | 195 | d i PN | Pn | 11 20 52.7 | -1.1 |
| YUK | | | | i S | Sn | 11 21 09.4 | -1.5 |
| YUK | | | | pmax | pmax | | |
| | comp=Z,20μm,0.3s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=N,5μm,0.4s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=E,3μm,0.4s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=E,47μm,0.7s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,36μm,0.8s | | | | | | |
| YUK | Yuzh-Kuril'sk | 0.62 | 195 | eP | Pn | 11 20 52.7 | -1.1 |
| YUK | | | | AMB | AMB | 11 20 53.1 | |
| | comp=N,5μm,0.4s | | | | | | |
| YUK | | | | AMB | AMB | 11 20 53.1 | |
| | comp=N,3μm,0.4s | | | | | | |
| YUK | | | | AMB | AMB | 11 20 53.1 | |
| | comp=N,20μm,0.4s | | | | | | |
| YUK | | | | i S | Sn | 11 21 09.3 | -1.6 |
| YUK | | | | A | A | 11 21 13.1 | |
| | comp=N,14μm,0.5s | | | | | | |
| YUK | | | | A | A | 11 21 13.1 | |
| | comp=N,9μm,0.5s | | | | | | |
| GRPR | Tuman | 0.68 | 200 | d i PN | Pn | 11 20 53.4 | -0.8 |
| GRPR | | | | i S | Sn | 11 21 10.4 | -1.2 |
| GRPR | Tuman | 0.68 | 200 | eP | Pn | 11 20 53.4 | -0.8 |
| GRPR | | | | eS | Sn | 11 21 10.4 | -1.2 |
| SHO | Shikotan | 0.93 | 145 | d i PN | Pn | 11 20 53.3 | -2.7 |
| SHO | | | | i S | Sn | 11 21 09.8 | -4.9 |
| SHO | | | | pmax | pmax | | |
| | comp=Z,7μm,0.3s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=E,49μm,0.5s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=N,44μm,0.4s | | | | | | |
| SHO | Shikotan | 0.93 | 145 | eP | Pn | 11 20 53.3 | -2.7 |
| SHO | | | | AMB | AMB | 11 20 53.5 | |
| | comp=N,6μm,0.2s | | | | | | |
| SHO | | | | i S | Sn | 11 21 10.1 | -4.6 |
| SHO | | | | A | A | 11 21 11.7 | |
| | comp=N,20μm,0.4s | | | | | | |
| SHO | | | | A | A | 11 21 11.7 | |
| | comp=N,17μm,0.4s | | | | | | |
| JRA | Rausu | 0.98 | 225 | ⇑P | Pn | 11 20 55.6 | -0.8 |
| JRA | | | | eS | Sn | 11 21 13.8 | -1.6 |
| GLVR | Golovnino | 0.98 | 205 | d i PN | Pn | 11 20 55.8 | -0.6 |
| GLVR | | | | i S | Sn | 11 21 15.1 | -0.4 |
| GLVR | Golovnino | 0.98 | 205 | eP | Pn | 11 20 55.8 | -0.6 |
| GLVR | | | | eS | Sn | 11 21 15.1 | -0.4 |
| NEM2 | Nemuro 2 | 1.29 | 191 | ⇓P | Pn | 11 20 57.1 | -2.1 |
| NEM2 | | | | eS | Sn | 11 21 16.5 | -3.9 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| KUR | Kuril'sk | 1.40 | 64 | d iPN | Pn | 11 20 59.2 | -0.9 |
| KUR | | | | i S | Sn | 11 21 21.3 | -0.9 |
| KUR | | | | pmax | pmax | | |
| | comp=N,614nm,0.3s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=Z,2µm,0.3s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=E,799nm,0.4s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,3µm,0.5s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=N,4µm,1.0s | | | | | | |
| KUR | Kuril'sk | 1.40 | 64 | i P | Pn | 11 20 59.2 | -0.9 |
| KUR | | | | AMB | AMB | 11 20 59.8 | |
| | comp=N,1µm,0.4s | | | | | | |
| KUR | | | | AMB | AMB | 11 20 59.8 | |
| | comp=N,2µm,0.4s | | | | | | |
| KUR | | | | AMB | AMB | 11 20 59.8 | |
| | comp=N,10µm,0.4s | | | | | | |
| KUR | | | | AMB | AMB | 11 20 59.9 | |
| | comp=N,24µm,1.0s | | | | | | |
| KUR | | | | eS | Sn | 11 21 19.3 | -2.9 |
| KUR | | | | A | A | 11 21 22.3 | |
| | comp=N,4µm,0.5s | | | | | | |
| KUR | | | | A | A | 11 21 22.3 | |
| | comp=N,3µm,0.5s | | | | | | |
| KUR | | | | A | A | 11 21 22.4 | |
| | comp=N,40µm,1.5s | | | | | | |
| KUR | | | | A | A | 11 21 22.4 | |
| | comp=N,10µm,1.5s | | | | | | |
| JNK | Nakash | 1.44 | 224 | ⇑P | Pn | 11 21 00.2 | -0.4 |
| JTKR | Abashiri--Toko | 1.70 | 248 | eS | Sn | 11 21 28.4 | +0.5 |
| JAK | Akkeshi | 1.92 | 212 | ⇓P | Pn | 11 21 04.6 | -1.2 |
| JAK | | | | eS | Sn | 11 21 29.7 | -2.6 |
| JMP | Maruseppu | 2.06 | 253 | ⇑P | Pn | 11 21 07.7 | +0.3 |
| JAR | Ashorobuto | 2.14 | 232 | ⇑P | Pn | 11 21 08.7 | +0.3 |
| JOB | Onbets | 2.38 | 224 | ⇑P | Pn | 11 21 10.9 | -0.3 |
| JOB | | | | eS | Sn | 11 21 41.2 | -0.7 |
| JSE | Soyaes | 2.52 | 279 | ⇑P | Pn | 11 21 13.9 | +1.1 |
| JSE | | | | eS | Sn | 11 21 46.3 | +1.5 |
| JKK2 | Kamakawa 2 | 2.52 | 254 | ⇑P | Pn | 11 21 13.8 | +0.9 |
| JKK2 | | | | eS | Sn | 11 21 47.0 | +2.1 |
| ASAJ | Asahikawa | 2.56 | 260 | P | Pn | 11 21 14.8 | +1.4 |
| | comp=N,370nm,0.3s,baz=84,slow=15,SNR=2823 | | | | | | |
| ASAJ | | | | S | Sn | 11 21 48.7 | +2.9 |
| | comp=N,84nm,0.3s,baz=280,slow=18,SNR=14 | | | | | | |
| ASAJ | Asahikawa | 2.56 | 260 | ⇑P | Pn | 11 21 14.7 | +1.4 |
| ASAJ | | | | eS | Sn | 11 21 47.9 | +2.2 |
| ASAJ | Asahikawa | 2.56 | 260 | ePn | Pn | 11 21 14.4 | +1.1 |
| ASAJ | | | | eSn | Sn | 11 21 48.7 | +2.9 |
| JCH | Churui | 2.83 | 225 | ⇓P | Pn | 11 21 16.0 | -0.7 |
| JCH | | | | eS | Sn | 11 21 49.5 | -2.2 |
| JFR | Furan | 2.92 | 241 | ⇑P | Pn | 11 21 18.9 | +1.0 |
| JFR | | | | eS | Sn | 11 21 53.9 | 0.0 |
| JWK2 | Keihoku | 3.05 | 284 | P | Pn | 11 21 22.0 | +2.5 |
| JWK2 | | | | eS | Sn | 11 22 00.3 | +3.6 |
| JHR | Hokuryu | 3.26 | 256 | ⇑P | Pn | 11 21 24.3 | +2.1 |
| YSS | Yuzh-Sakhalins | 3.29 | 316 | α iPN | Pn | 11 21 23.6 | +1.1 |
| YSS | | | | i S | Sn | 11 22 02.8 | +0.6 |
| YSS | | | | pmax | pmax | | |
| | comp=Z,2µm,1.7s | | | | | | |
| YSS | | | | pmax | pmax | | |
| | comp=N,2µm,2.2s | | | | | | |
| YSS | | | | pmax | pmax | | |
| | comp=E,2µm,2.2s | | | | | | |
| YSS | | | | pmax | pmax | | |
| | comp=N,510nm,0.8s | | | | | | |
| YSS | | | | pmax | pmax | | |
| | comp=E,530nm,0.8s | | | | | | |
| YSS | | | | pmax | pmax | | |
| | comp=Z,960nm,0.8s | | | | | | |
| YSS | | | | smax | smax | | |
| | comp=N,4µm,3.6s | | | | | | |
| YSS | | | | smax | smax | | |
| | comp=E,6µm,2.6s | | | | | | |
| YSS | Yuzh-Sakhalins | 3.29 | 316 | eP | Pn | 11 21 23.6 | +1.1 |
| YSS | | | | AMB | AMB | 11 21 24.3 | |
| | comp=E,2µm,2.0s | | | | | | |
| YSS | | | | AMB | AMB | 11 21 24.3 | |
| | comp=E,2µm,2.0s | | | | | | |
| YSS | | | | AMB | AMB | 11 21 24.3 | |
| | comp=E,2µm,2.0s | | | | | | |
| YSS | | | | AMB | AMB | 11 21 24.4 | |
| | comp=E,510nm,0.8s | | | | | | |
| YSS | | | | AMB | AMB | 11 21 24.4 | |
| | comp=E,530nm,0.8s | | | | | | |
| YSS | | | | AMB | AMB | 11 21 24.4 | |
| | comp=E,960nm,0.8s | | | | | | |
| YSS | | | | i S | Sn | 11 22 02.8 | +0.6 |
| YSS | | | | A | A | 11 22 07.0 | |
| | comp=E,4µm,3.0s | | | | | | |
| YSS | | | | A | A | 11 22 07.0 | |
| | comp=E,6µm,3.0s | | | | | | |
| JYG | Yagishiri | 3.34 | 268 | ⇑P | Pn | 11 21 24.7 | +1.6 |
| JYG | | | | eS | Sn | 11 22 06.3 | +3.0 |
| ERM | Erimo | 3.38 | 220 | ePN | Pn | 11 21 23.9 | +0.2 |
| ERM | Erimo | 3.38 | 220 | eP | Pn | 11 21 23.9 | +0.2 |
| ERM | Erimo | 3.38 | 220 | ePn | Pn | 11 21 23.9 | +0.2 |
| JNBK | Urakawa-nobuka | 3.38 | 227 | ⇓P | Pn | 11 21 22.6 | -1.1 |
| JNBK | | | | eS | Sn | 11 22 00.1 | -4.2 |
| UGL | Uglegorsk | 5.23 | 330 | ePN | Pn | 11 21 45.1 | -2.7 |
| UGL | | | | eS | Sn | 11 22 43.9 | -3.6 |
| UGL | Uglegorsk | 5.23 | 330 | eP | Pn | 11 21 48.1 | +0.3 |
| UGL | | | | AMB | AMB | 11 21 51.0 | |
| | comp=E,130nm,0.8s | | | | | | |
| UGL | | | | eS | Sn | 11 22 49.6 | +2.1 |
| UGL | | | | A | A | 11 22 54.5 | |
| | comp=E,5µm,6.0s | | | | | | |
| UGL | | | | A | A | 11 22 55.0 | |
| | comp=E,200nm,1.0s | | | | | | |
| UGL | | | | A | A | 11 22 55.0 | |
| | comp=E,310nm,1.0s | | | | | | |
| TYV | Tymovskoe | 6.65 | 341 | ePN | Pn | 11 22 00.4 | -6.2 |
| TYV | | | | eS | Sn | 11 23 11.1 | -10 |
| TYV | | | | pmax | pmax | | |
| | comp=Z,21nm,1.2s | | | | | | |
| TYV | | | | smax | smax | | |
| | comp=E,46nm,1.3s | | | | | | |
| TYV | Tymovskoe | 6.65 | 341 | eP | Pn | 11 22 07.7 | +1.1 |
| TYV | | | | AMB | AMB | 11 22 08.4 | |
| | comp=E,21nm,1.0s | | | | | | |
| TYV | | | | eS | Sn | 11 23 21.1 | -0.2 |
| TYV | | | | A | A | 11 23 22.2 | |
| | comp=E,46nm,1.0s | | | | | | |
| TEY | Ternei | 6.76 | 277 | eP | Pn | 11 22 11.2 | +3.1 |
| TEY | | | | AMB | AMB | 11 22 11.8 | |
| | comp=E,18nm,0.5s | | | | | | |
| TEY | | | | AMB | AMB | 11 22 11.8 | |
| | comp=E,127nm,0.5s | | | | | | |
| TEY | | | | AMB | AMB | 11 22 11.8 | |
| | comp=E,87nm,0.5s | | | | | | |
| TEY | | | | AMB | AMB | 11 22 11.8 | |
| | comp=E,1µm,2.0s | | | | | | |
| HABR | Khabarovsk | 8.52 | 301 | ePN | Pn | 11 22 28.7 | -2.8 |
| HABR | | | | eS | Sn | 11 24 02.4 | -3.8 |
| HABR | | | | pmax | pmax | | |
| | comp=N,33nm,1.3s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=E,143nm,1.3s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=Z,159nm,1.3s | | | | | | |
| HABR | | | | MLR | MLR | | |
| | comp=Z,155nm,10.0s | | | | | | |
| GRNR | Gornyy | 8.95 | 317 | eP | Pn | 11 22 39.2 | +2.0 |
| GRNR | | | | AMB | AMB | 11 22 40.2 | |
| | comp=Z,250nm,1.0s | | | | | | |
| GRNR | | | | AMB | AMB | 11 22 40.2 | |
| | comp=Z,180nm,1.0s | | | | | | |
| GRNR | | | | AMB | AMB | 11 22 40.2 | |
| | comp=Z,360nm,1.0s | | | | | | |
| SKR | Severo-Kuril's | 9.07 | 45 | ePN | Pn | 11 22 54.2 | +15 |
| SKR | | | | pmax | pmax | | |
| | comp=Z,1µm,4.6s | | | | | | |
| SKR | Severo-Kuril's | 9.07 | 45 | eP | Pn | 11 22 39.7 | +0.8 |
| SKR | | | | AMB | AMB | 11 22 44.0 | |
| | comp=Z,188nm,1.0s | | | | | | |
| NKL | Nikolayevsk | 9.23 | 339 | ePN | Pn | 11 22 43.4 | +2.4 |
| NKL | | | | pmax | pmax | | |
| | comp=N,370nm,1.5s | | | | | | |
| NKL | | | | pmax | pmax | | |
| | comp=Z,650nm,1.5s | | | | | | |
| NKL | Nikolayevsk | 9.23 | 339 | eP | Pn | 11 22 43.4 | +2.4 |
| NKL | | | | AMB | AMB | 11 22 44.5 | |
| | comp=Z,370nm,1.5s | | | | | | |
| NKL | | | | AMB | AMB | 11 22 44.5 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | comp=Z,650nm,1.5s | | | | | | |
| MAJO | Matsushiro | 10.06 | 219 | ePN | Pn | 11 22 50.5 | -1.5 |
| MAJO | Matsushiro | 10.06 | 219 | ePn | Pn | 11 22 50.5 | -1.5 |
| MAT | Matsushiro | 10.06 | 219 | P | Pn | 11 22 49.6 | -2.5 |
| MAT | | | | S | Sn | 11 24 42.6 | -0.9 |
| MJAR | Matsushiro Arr | 10.06 | 219 | P | Pn | 11 22 49.9 | -2.1 |
| | comp=Z,2.4nm,0.3s,baz=26,slow=14,SNR=31 | | | | | | |
| USRK | Ussuriysk Ar. | 10.10 | 272 | P | Pn | 11 22 53.6 | +1.0 |
| | comp=Z,14nm,0.3s,baz=87,slow=13,SNR=187 | | | | | | |
| USRK | | | | LR | LR | 11 26 34.4 | |
| | comp=Z,200nm,21.8s,baz=55,slow=36 | | | | | | |
| MSHR | Mys Shultsa | 11.02 | 264 | d iPN | Pn | 11 23 04.1 | -0.6 |
| PETK | Petropavlovsk- | 11.40 | 38 | P | Pn | 11 23 08.7 | -0.9 |
| | comp=Z,3.0nm,0.3s,baz=214,slow=11,SNR=55 | | | | | | |
| PETK | | | | ScP | ScP | 11 32 06.8 | +0.4 |
| | comp=Z,0.2nm,0.3s,baz=248,slow=2.6,SNR=6.0 | | | | | | |
| PEA1 | Petropavlovsk- | 11.41 | 38 | ePn | Pn | 11 23 08.7 | -0.9 |
| INU | Inuyama | 11.59 | 220 | ePn | Pn | 11 23 10.9 | -1.2 |
| MDJ | Mudanjiang | 11.76 | 276 | ePn | Pn | 11 23 14.6 | +0.4 |
| EKMR | Ekimchan | 12.07 | 319 | eP | Pn | 11 23 20.5 | +2.2 |
| EKMR | | | | AMB | AMB | 11 23 21.0 | |
| | comp=Z,130nm,0.5s | | | | | | |
| EKMR | | | | AMB | AMB | 11 23 21.0 | |
| | comp=Z,87nm,0.5s | | | | | | |
| EKMR | | | | AMB | AMB | 11 23 21.0 | |
| | comp=Z,230nm,0.5s | | | | | | |
| CN2 | Changchun | 14.82 | 274 | eP | Pn | 11 23 51.8 | -1.5 |
| CN2 | | | | esP | P | 11 24 34.6 | +39 |
| CN2 | | | | eS | Sn | 11 26 29.7 | -8.2 |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,40nm,0.8s | | | | | | |
| BMKR | Bomnak | 15.00 | 318 | eP | Pn | 11 23 56.0 | +0.6 |
| BMKR | | | | AMB | AMB | 11 23 57.9 | |
| | comp=Z,88nm,0.7s | | | | | | |
| BMKR | | | | AMB | AMB | 11 23 57.9 | |
| | comp=Z,90nm,0.7s | | | | | | |
| BMKR | | | | AMB | AMB | 11 23 57.9 | |
| | comp=Z,188nm,0.7s | | | | | | |
| MA2 | Magadan | 15.23 | 9 | P | Pn | 11 23 58.7 | +0.5 |
| | comp=Z,2.4nm,0.3s,baz=189,slow=9.5,SNR=17 | | | | | | |
| ZEA | Zeya | 15.28 | 313 | eP | Pn | 11 23 59.4 | +0.6 |
| ZEA | | | | AMB | AMB | 11 24 01.8 | |
| | comp=Z,83nm,1.0s | | | | | | |
| ZEA | | | | AMB | AMB | 11 24 01.8 | |
| | comp=Z,71nm,1.0s | | | | | | |
| ZEA | | | | AMB | AMB | 11 24 01.8 | |
| | comp=Z,140nm,1.0s | | | | | | |
| KSRS | Korea Array | 15.45 | 249 | P | Pn | 11 23 59.9 | -1.2 |
| | comp=Z,1.9nm,0.3s,baz=60,slow=12,SNR=56 | | | | | | |
| KSRS | | | | PcP | PcP | 11 28 55.2 | +1.5 |
| | comp=Z,0.2nm,0.3s,baz=21,slow=1.4,SNR=8.6 | | | | | | |
| KSRS | | | | LR | LR | 11 29 06.8 | |
| | comp=Z,176nm,20.1s,baz=51,slow=33 | | | | | | |
| KSRS | | | | ScP | ScP | 11 32 15.1 | +1.8 |
| | comp=Z,0.1nm,0.3s,baz=4.1,slow=1.8,SNR=6.0 | | | | | | |
| KS01 | Wonju Array Si | 15.46 | 249 | ePn | Pn | 11 23 59.8 | -1.4 |
| KS01 | | | | ePcP | PcP | 11 28 54.9 | +1.2 |
| KS15 | Wonju Array Si | 15.48 | 249 | ePn | Pn | 11 24 00.2 | -1.2 |
| KSAR | Wonju Array Be | 15.48 | 249 | P | Pn | 11 23 59.9 | -1.6 |
| KSAR | Wonju Array Be | 15.48 | 249 | eP | Pn | 11 23 59.9 | -1.6 |
| KSAR | Wonju Array Be | 15.48 | 249 | P | Pn | 11 23 59.9 | -1.6 |
| KSAR | | | | PcP | PcP | 11 28 55.2 | +1.4 |
| INCN | Inchon | 16.30 | 251 | ePn | P | 11 24 12.4 | +0.9 |
| | comp=Z,71nm,1.0s | | | | | | |
| TJN | Taejon | 16.43 | 246 | i P | P | 11 24 12.1 | -0.9 |
| JNU | Nakatsue | 16.47 | 231 | P | P | 11 24 13.4 | -0.1 |
| | comp=Z,2.1nm,0.3s,baz=358,slow=2.3,SNR=17 | | | | | | |
| JNU | Nakatsue | 16.47 | 231 | eP | Pn | 11 24 15.7 | +2.0 |
| | comp=Z,68nm,1.1s | | | | | | |
| SNY | Shenyang | 16.64 | 268 | ⇑P | P | 11 24 14.9 | -0.3 |
| SNY | | | | pmax | pmax | | |
| | comp=Z,82nm,1.1s | | | | | | |
| CLNS | Chul'man | 18.05 | 320 | eP | P | 11 24 29.6 | -1.0 |
| CLNS | | | | pmax | pmax | | |
| | comp=Z,50nm,0.8s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=E,34nm,0.9s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=N,44nm,0.9s | | | | | | |
| HIA | Hailar | 18.53 | 294 | eP | P | 11 24 34.0 | -1.9 |
| HIA | | | | pmax | pmax | | |
| | comp=Z,52nm,0.8s | | | | | | |
| HIA | Hailar | 18.53 | 294 | eP | P | 11 24 34.0 | -1.9 |
| | comp=Z,52nm,0.8s | | | | | | |
| SEY | Seymchan | 18.69 | 9 | P | P | 11 24 36.3 | -1.1 |
| | comp=Z,2.9nm,0.3s,baz=188,slow=7.6,SNR=48 | | | | | | |
| SEY | Seymchan | 18.69 | 9 | i P | P | 11 24 37.8 | +0.3 |
| SEY | Seymchan | 18.69 | 9 | eP | P | 11 24 37.8 | +0.3 |
| DL2 | Dalian | 19.09 | 261 | P | P | 11 24 42.3 | +0.3 |
| DL2 | | | | pmax | pmax | | |
| | comp=Z,200nm,0.8s | | | | | | |
| YAK | Yakutsk | 19.89 | 337 | P | P | 11 24 47.6 | -2.8 |
| | comp=Z,0.1nm,0.3s,baz=16,slow=1.4,SNR=24 | | | | | | |
| YAK | | | | ScP | ScP | 11 32 22.2 | 0.0 |
| | baz=266,slow=1.1,SNR=5.8 | | | | | | |
| YAK | Yakutsk | 19.89 | 337 | eP | P | 11 24 47.9 | -2.5 |
| YAK | | | | eS | S | 11 28 22.9 | -2.6 |
| YAK | | | | pmax | pmax | | |
| | comp=Z,63nm,0.9s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,17nm,1.0s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,10.0nm,1.0s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=N,104nm,1.5s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=E,112nm,1.5s | | | | | | |
| YAK | Yakutsk | 19.89 | 337 | eP | P | 11 24 47.6 | -2.8 |
| | comp=E,119nm,0.9s | | | | | | |
| BJI | Beijing | 22.52 | 269 | P | P | 11 25 17.1 | -1.0 |
| BJI | | | | pmax | pmax | | |
| | comp=E,110nm,0.9s | | | | | | |
| BJI | | | | pmax | pmax | | |
| | comp=E,410nm,3.6s | | | | | | |
| BJT | Baijiatuau | 22.53 | 269 | eP | P | 11 25 17.5 | -0.7 |
| BJT | | | | pmax | pmax | | |
| | comp=Z,88nm,0.8s | | | | | | |
| BJT | Baijiatuau | 22.53 | 269 | eP | P | 11 25 17.5 | -0.7 |
| | comp=Z,88nm,0.8s | | | | | | |
| JOW | Kunigami | 22.82 | 225 | eP | P | 11 25 22.3 | +1.3 |
| | comp=Z,97nm,0.5s | | | | | | |
| TIA | Tai'an | 23.51 | 259 | ⇓P | P | 11 25 27.7 | +0.4 |
| TIA | | | | pmax | pmax | | |
| | comp=Z,260nm,0.6s | | | | | | |
| BOD | Bodaibo | 23.77 | 315 | eP | P | 11 25 25.4 | -4.0 |
| BOD | | | | pmax | pmax | | |
| | comp=Z,43nm,1.4s | | | | | | |
| NJ2 | Nanjing | 24.65 | 249 | eP | P | 11 25 38.8 | +1.1 |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,74nm,0.7s | | | | | | |
| HHC | Hu-ho-hao-te | 25.52 | 274 | eP | P | 11 25 46.6 | +1.0 |
| HHC | | | | pP | pP | 11 26 17.7 | +0.1 |
| HHC | | | | PP | PnPn | 11 26 31.7 | +0.4 |
| HHC | | | | sP | sP | 11 26 35.8 | +0.4 |
| HHC | | | | S | S | 11 29 57.0 | -4.6 |
| HHC | | | | ScS | ScS | 11 36 25.7 | -1.1 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,130nm,0.9s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,310nm,4.4s | | | | | | |
| BILL | Bilibino | 25.73 | 17 | i P | P | 11 25 44.2 | -2.9 |
| BILL | | | | i | | 11 26 34.2 | |
| BILL | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.9s | | | | | | |
| BTO | Baotou | 26.70 | 274 | eP | P | 11 25 55.7 | -0.5 |
| ULN | Ulaanbaatar | 26.99 | 291 | d iP | P | 11 25 58.3 | -0.5 |
| ULN | | | | pmax | pmax | | |
| | comp=Z,65nm,1.6s | | | | | | |
| ULN | Ulaanbaatar | 26.99 | 291 | eP | P | 11 25 58.3 | -0.5 |
| ULN | Ulaanbaatar | 26.99 | 291 | eP | P | 11 25 58.4 | -0.3 |
| | comp=Z,25nm,0.6s | | | | | | |
| ULN | Ulaanbaatar | 26.99 | 291 | P | P | 11 25 58.8 | 0.0 |
| | SNR=10.0 | | | | | | |
| ULN | Ulaanbaatar | 26.99 | 291 | P | P | 11 25 58.8 | 0.0 |
| | SNR=10.0 | | | | | | |
| SONA1 | Songino Array | 27.43 | 291 | eP | P | 11 26 02.2 | -0.4 |
| SONA0 | Songino Array | 27.43 | 291 | eP | P | 11 26 02.2 | -0.5 |
| SONA0 | | | | epP | pP | 11 26 36.7 | +1.8 |
| SONA0 | | | | ePcP | PcP | 11 29 17.6 | +0.4 |
| SONA0 | | | | e | | 11 38 08.7 | |
| SONM | Songino Array | 27.43 | 291 | P | P | 11 26 02.2 | -0.5 |
| | comp=Z,22nm,0.5s,baz=77,slow=8.5,SNR=80 | | | | | | |
| SONM | | | | pP | pP | 11 26 36.7 | +1.8 |
| | comp=Z,9.2nm,0.7s,baz=85,slow=9.3,SNR=2.6 | | | | | | |
| SONM | | | | PcP | PcP | 11 29 17.6 | +0.4 |
| | comp=Z,4.4nm,0.6s,baz=141,slow=2.3,SNR=5.3 | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| SONM | | | | ScP | ScP | 11 32 42.9 | -0.1 |
| | comp=Z,1.9nm,0.9s,baz=115,slow=2.1,SNR=5.7 | | | | | | |
| SONM | | | | LR | LR | 11 38 08.7 | |
| | comp=Z,86nm,20.6s,baz=24,slow=38 | | | | | | |
| SONM | Songino Array | 27.43 | 291 | P | P | 11 26 02.2 | -0.5 |
| SONM | | | | *PP | pP | 11 26 36.7 | +1.8 |
| SONM | | | | | | 11 29 17.6 | |
| SONM | | | | pmax | pmax | | |
| | comp=Z,21nm,0.5s | | | | | | |
| SONM | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.7s | | | | | | |
| SONM | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.6s | | | | | | |
| SONM | | | | pmax | pmax | | |
| | comp=N,2.0nm,0.9s | | | | | | |
| SONM | | | | MLR | MLR | | |
| | comp=Z,86nm,20.6s | | | | | | |
| TIXI | Tiksi | 28.34 | 349 | P | P | 11 26 06.5 | -3.7 |
| | comp=Z,8.1nm,0.9s,baz=139,slow=7.9,SNR=16 | | | | | | |
| TIXI | | | | ScP | ScP | 11 32 45.3 | +0.1 |
| | comp=Z,1.3nm,0.6s,baz=66,slow=1.6,SNR=5.7 | | | | | | |
| TIXI | Tiksi | 28.34 | 349 | eP | P | 11 26 06.5 | -3.7 |
| TIXI | | | | eP | P | 11 26 06.7 | -3.6 |
| TLY | Talaya | 28.84 | 299 | PcP | PcP | 11 29 21.2 | +0.8 |
| | comp=Z,4.0nm,0.6s,baz=214,slow=2.7,SNR=3.2 | | | | | | |
| TLY | Talaya | 28.84 | 299 | eP | P | 11 26 14.2 | -0.8 |
| TLY | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.6s | | | | | | |
| TLY | Talaya | 28.84 | 299 | eP | P | 11 26 14.2 | -0.8 |
| ZAK | Zakamensk | 29.17 | 297 | eP | P | 11 26 15.9 | -2.1 |
| ZAK | | | | e | | 11 29 17.6 | |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.0s | | | | | | |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.0s | | | | | | |
| TPUB | Ta-pu | 29.77 | 233 | eP | P | 11 26 24.4 | +1.0 |
| | comp=Z,60nm,0.8s | | | | | | |
| TWG | Pinlang | 29.89 | 232 | eP | P | 11 26 24.4 | -0.2 |
| | comp=Z,148nm,0.9s | | | | | | |
| XAN | Xi'an | 30.39 | 263 | P | P | 11 26 28.9 | 0.0 |
| XAN | | | | pmax | pmax | | |
| | comp=Z,48nm,1.3s | | | | | | |
| ENH | Enshi | 32.11 | 256 | eP | P | 11 26 43.8 | -0.2 |
| | comp=Z,45nm,0.7s | | | | | | |
| LZH | Lanzhou | 32.99 | 270 | ⇓P | P | 11 26 52.9 | +1.1 |
| LZH | | | | pP | pP | 11 27 27.0 | +2.5 |
| LZH | | | | sP | sP | 11 27 43.6 | +1.4 |
| LZH | | | | PP | PnPn | 11 28 07.0 | -0.1 |
| LZH | | | | PcP | PcP | 11 29 36.0 | +4.0 |
| LZH | | | | S | S | 11 31 57.4 | -1.4 |
| LZH | | | | sS | sS | 11 32 57.2 | +0.9 |
| LZH | | | | SS | SnSn | 11 34 08.0 | -7.3 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,120nm,1.0s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,380nm,5.1s | | | | | | |
| GTA | Gaotai | 34.41 | 278 | P | P | 11 27 04.8 | +0.9 |
| GTA | | | | pP | pP | 11 27 39.3 | +2.5 |
| GTA | | | | sP | sP | 11 27 57.2 | +2.8 |
| GTA | | | | PcP | PcP | 11 29 37.6 | +1.7 |
| GTA | | | | S | S | 11 32 19.9 | -0.5 |
| GTA | | | | ScP | ScP | 11 33 07.9 | +1.5 |
| GTA | | | | sS | sS | 11 33 15.2 | -2.9 |
| GTA | | | | PcS | PcS | 11 33 23.7 | +1.1 |
| GTA | | | | SS | SnSn | 11 34 36.2 | -13 |
| GTA | | | | ScS | ScS | 11 37 11.2 | +1.7 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,43nm,1.0s | | | | | | |
| GTA | | | | pmax | pmax | | |
| | comp=Z,170nm,6.2s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,250nm,12.4s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,270nm,9.0s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,280nm,14.7s | | | | | | |
| CD2 | Chengdu | 35.75 | 262 | ⇓iP | P | 11 27 15.9 | +0.5 |
| CD2 | | | | pP | pP | 11 27 52.2 | +3.7 |
| CD2 | | | | S | S | 11 32 36.3 | -4.7 |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,440nm,1.1s | | | | | | |
| GYA | Guiyang | 36.42 | 254 | ⇓iP | P | 11 27 20.9 | -0.3 |
| GYA | | | | pP | pP | 11 27 57.0 | +2.6 |
| GYA | | | | sP | sP | 11 28 15.6 | +3.7 |
| GYA | | | | PP | PnPn | 11 28 51.4 | +2.5 |
| GYA | | | | PcP | PcP | 11 29 44.2 | +2.2 |
| GYA | | | | S | S | 11 32 50.1 | -1.3 |
| GYA | | | | ScP | ScP | 11 33 13.4 | -0.5 |
| GYA | | | | ScS | ScS | 11 37 19.0 | -1.9 |
| GYA | | | | pmax | pmax | | |
| | comp=Z,40nm,0.6s | | | | | | |
| GYA | | | | pmax | pmax | | |
| | comp=Z,120nm,5.3s | | | | | | |
| IMAR | Indian Mountai | 38.35 | 35 | eP | P | 11 27 36.2 | -0.7 |
| RSO | Redoubt South | 38.84 | 44 | eP | P | 11 27 43.0 | +1.7 |
| CAST | Castle Rocks | 39.02 | 39 | eP | P | 11 27 43.4 | +0.9 |
| | comp=Z,12nm,0.8s | | | | | | |
| SPU | Mount Spurr | 39.13 | 43 | eP | P | 11 27 44.3 | +0.8 |
| KDAK | Kodiak Island | 39.22 | 48 | i P | P | 11 27 43.8 | -0.3 |
| KDAK | Kodiak Island | 39.22 | 48 | eP | P | 11 27 43.8 | -0.3 |
| DGZ | Jazzator, Alta | 39.32 | 299 | i P | P | 11 27 45.2 | -0.1 |
| DGZ | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.9s | | | | | | |
| BPAW | Bear Paw Mtn. | 39.49 | 38 | eP | P | 11 27 46.6 | +0.2 |
| | comp=Z,16nm,1.3s | | | | | | |
| QIZ | Qiongzhong | 39.50 | 242 | P | P | 11 27 46.7 | -0.2 |
| QIZ | | | | sP | sP | 11 28 39.0 | +1.1 |
| QIZ | | | | S | S | 11 33 37.8 | +0.2 |
| QIZ | | | | sS | sS | 11 34 39.1 | +2.9 |
| QIZ | | | | LR | LR | | |
| | comp=Z,320nm,4.6s | | | | | | |
| KTH | Kantishna Hill | 39.53 | 39 | eP | P | 11 27 47.6 | +0.8 |
| | comp=Z,16nm,0.8s | | | | | | |
| MLY | Manley | 39.58 | 36 | eP | P | 11 27 47.7 | +0.5 |
| | comp=Z,32nm,2.0s | | | | | | |
| TRF | Thorofare Moun | 39.82 | 39 | eP | P | 11 27 49.6 | +0.3 |
| | comp=Z,65nm,1.8s | | | | | | |
| ZAA1 | Zalesovo Array | 39.86 | 306 | eP | P | 11 27 48.0 | -1.5 |
| ZAA1 | | | | ePcP | PcP | 11 29 52.6 | +0.5 |
| ZAA0 | Zalesovo Array | 39.86 | 306 | eP | P | 11 27 48.0 | -1.5 |
| | comp=Z,11nm,0.8s | | | | | | |
| ZAA0 | | | | ePcP | PcP | 11 29 52.6 | +0.5 |
| ZALV | Zalesovo Beam | 39.86 | 306 | P | P | 11 27 48.0 | -1.6 |
| | comp=Z,12nm,0.5s,baz=62,slow=6.5,SNR=36 | | | | | | |
| ZALV | | | | PcP | PcP | 11 29 52.6 | +0.5 |
| | comp=Z,24nm,0.5s,baz=80,slow=2.6,SNR=30 | | | | | | |
| ZALV | | | | ScP | ScP | 11 33 26.2 | -0.1 |
| | comp=Z,3.4nm,0.5s,baz=70,slow=4.0,SNR=8.3 | | | | | | |
| KMI | Kunming | 39.98 | 256 | P | P | 11 27 51.9 | +0.8 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,130nm,1.0s | | | | | | |
| KMI | | | | pmax | pmax | | |
| | comp=Z,140nm,4.6s | | | | | | |
| TOLK | Toolik Lake Re | 40.11 | 31 | P | P | 11 27 50.1 | -1.4 |
| | baz=268 | | | | | | |
| TOLK | Toolik Lake Re | 40.11 | 31 | eP | P | 11 27 51.0 | -0.5 |
| | comp=Z,6.3nm,0.8s | | | | | | |
| MCK | McKinley | 40.41 | 38 | eP | P | 11 27 54.1 | +0.1 |
| MCK | | | | pmax | pmax | | |
| | comp=Z,78nm,2.0s | | | | | | |
| MCK | McKinley | 40.41 | 38 | eP | P | 11 27 54.1 | +0.1 |
| MCK | McKinley | 40.41 | 38 | eP | P | 11 27 54.1 | +0.1 |
| | comp=Z,78nm,2.0s | | | | | | |
| RND | Reindeer | 40.47 | 39 | eP | P | 11 27 55.0 | +0.5 |
| RND | | | | e*PP | pP | 11 28 31.5 | +3.3 |
| RND | | | | pmax | pmax | | |
| | comp=Z,14nm,0.8s | | | | | | |
| RND | Reindeer | 40.47 | 39 | eP | P | 11 27 55.0 | +0.5 |
| | comp=Z,14nm,0.8s | | | | | | |
| RND | | | | epP | pP | 11 28 31.5 | +3.3 |
| NVS | Novosibirsk | 40.57 | 308 | ⇓iP | P | 11 27 54.3 | -1.0 |
| NVS | | | | e | | 11 28 30.2 | |
| NVS | | | | i | | 11 29 54.7 | |
| NVS | | | | pmax | pmax | | |
| | comp=Z,31nm,1.4s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=N,10.0nm,1.2s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=E,28nm,1.5s | | | | | | |
| NVS | Novosibirsk | 40.57 | 308 | eP | P | 11 27 54.3 | -1.0 |
| WRH | Wood River Hil | 40.73 | 37 | eP | P | 11 27 57.1 | +0.5 |
| | comp=E,9.8nm,0.8s | | | | | | |
| COLA | College | 40.81 | 37 | eP | P | 11 27 57.0 | -0.2 |
| COLA | | | | pmax | pmax | | |
| | comp=Z,18nm,0.9s | | | | | | |

COLA College 40.81 37 eP P 11 27 57.0 -0.2
COLA College 40.81 37 eP P 11 27 57.0 -0.2
comp=Z,18nm,0.9s
CCB Clear Creek Bu 40.85 37 eP P 11 27 57.5 0.0
comp=Z,18nm,1.6s
SML Sawmill 40.85 41 eP P 11 27 58.5 +0.9
SML pmax pmax
comp=Z,22nm,0.8s
SML Sawmill 40.85 41 eP P 11 27 58.8 +1.1
SML Sawmill 40.85 41 eP P 11 27 58.5 +0.9
comp=Z,22nm,0.8s
WMQ Urumqi 41.07 290 P P 11 28 00.0 +0.3
WMQ pP pP 11 28 33.7 +0.3
WMQ sP sP 11 28 53.5 +2.7
WMQ pmax pmax
comp=Z,120nm,1.1s
WMQ pmax pmax
comp=Z,520nm,3.9s
WMQ LR LR
comp=Z,290nm,18.3s
WMQ LR LR
comp=Z,260nm,19.7s
WMQ LR LR
comp=Z,370nm,18.3s
ILAR Eielson Array 41.23 37 P P 11 27 59.8 -0.8
comp=Z,4.6nm,0.6s,baz=259,slow=6.7,SNR=64
ILAR ScP ScP 11 33 30.8 -0.8
comp=Z,0.9nm,0.7s,baz=270,slow=3.7,SNR=7.8
ILB Eielson Array 41.23 37 eP P 11 28 00.2 -0.4
IL1 Eielson Array 41.23 37 eP P 11 27 59.9 -0.8
HDA Harding Lake 41.23 37 eP P 11 28 00.5 -0.1
comp=Z,8.1nm,0.7s
FYU Fort Yukon 41.79 34 eP P 11 28 05.4 +0.2
comp=Z,15nm,0.8s
PAX Paxson 42.04 39 eP P 11 28 10.2 +2.8
PAX pmax pmax
comp=Z,51nm,2.0s
PAX Paxson 42.04 39 eP P 11 28 10.2 +2.8
comp=Z,51nm,2.0s
HARP HAARP 42.26 40 eP P 11 28 10.6 +1.5
comp=Z,178nm,1.9s
DOT Dot Lake 42.58 38 eP P 11 28 10.9 -0.7
comp=Z,118nm,1.9s
MENT Mentasta 42.84 39 eP P 11 28 14.5 +0.8
comp=Z,54nm,1.8s
MK31 Makanchi Array 43.50 296 eP P 11 28 19.0 -0.3
MK31 Makanchi Array 43.50 296 eP P 11 28 19.0 -0.3
MK32 Makanchi Array 43.50 296 eP P 11 28 18.9 -0.4
MK32 ePP PcP 11 30 04.8 +0.5
MKAR Makanchi Array 43.50 296 P P 11 28 18.9 -0.3
comp=Z,25nm,0.5s,baz=76,slow=8.2,SNR=135
MKAR PcP PcP 11 30 04.8 +0.5
comp=Z,7.9nm,0.6s,baz=62,slow=4.0,SNR=6.0
MKAR ScP ScP 11 33 40.9 -0.2
comp=Z,1.9nm,0.7s,baz=62,slow=5.0,SNR=4.9
MK01 Makanchi Array 43.51 296 eP P 11 28 18.9 -0.4
EGAK Eagle 43.67 36 eP P 11 28 19.8 -0.5
comp=Z,8.2nm,0.8s
MAKZ Makanchi 43.70 297 eP P 11 28 20.5 -0.3
MAKZ pmax pmax
comp=Z,95nm,1.3s
MAKZ Makanchi 43.70 297 eP P 11 28 20.5 -0.3
comp=Z,95nm,1.3s
KURK Kurchatov 44.41 303 d iP P 11 28 24.9 -1.4
KURK pmax pmax
comp=Z,43nm,0.7s
KURK Kurchatov 44.41 303 eP P 11 28 25.2 -1.1
KURK Kurchatov 44.41 303 eP P 11 28 25.2 -1.1
comp=Z,47nm,0.6s
KURK Kurchatov 44.41 303 P P 11 28 25.2 -1.1
SKNT Sakolnakorn 44.76 246 P P 11 28 30.4 +0.9
comp=Z,79nm,0.9s
UBPT Khong Chiam 45.06 243 P P 11 28 33.5 +1.6
comp=Z,77nm,1.0s
LSA Lhasa 45.41 270 P P 11 28 36.8 +1.7
LSA pmax pmax
comp=Z,57nm,0.8s
LSA Lhasa 45.41 270 eP P 11 28 36.8 +1.7
LSA pmax pmax
comp=Z,94nm,1.3s
LSA Lhasa 45.41 270 eP P 11 28 36.8 +1.7
comp=Z,94nm,1.3s
KHON Khomkaen 45.98 246 P P 11 28 40.1 +1.0
comp=Z,74nm,0.8s,comp=Z,869nm
INK Inuvik 46.03 31 P P 11 28 37.8 -1.1
comp=Z,6.3nm,0.4s,baz=292,slow=7.5,SNR=43
INK Inuvik 46.03 31 eP P 11 28 38.1 -0.7
INK pmax pmax
comp=Z,6.0nm,0.6s
INK Inuvik 46.03 31 eP P 11 28 38.1 -0.7
comp=Z,6.4nm,0.6s
HYT Haines Junctio 46.16 41 eP P 11 28 42.2 +2.0
comp=Z,34nm,1.0s
UTTA Uttaradit 46.47 250 P P 11 28 43.8 +0.9
comp=Z,39nm,0.7s,comp=Z,310nm
PDGK Podgornoye 46.71 293 P P 11 28 44.4 -0.3
PDGK pmax pmax
comp=Z,35nm,0.7s
CMMT Chiang Mai 46.81 252 P P 11 28 46.3 +0.7
comp=Z,187nm,0.9s,comp=Z,1µm
CHTO Chiang Mai 46.81 252 P P 11 28 46.3 +0.7
comp=Z,822nm,0.9s,comp=Z,6µm
CHTO Chiang Mai 46.81 252 eP P 11 28 46.7 +1.1
CHTO pmax pmax
comp=Z,126nm,0.7s
CHTO Chiang Mai 46.81 252 eP P 11 28 46.7 +1.1
comp=Z,126nm,0.7s
CHTO Chiang Mai 46.81 252 P P 11 28 46.9 +1.3
SNR=23
CHTO Chiang Mai 46.81 252 P P 11 28 46.9 +1.3
SNR=25
CHAI Chaiyaphum 46.84 247 P P 11 28 46.4 +0.5
comp=Z,55nm,0.7s,comp=Z,416nm
PBKT Sadao Pong 47.03 248 P P 11 28 48.0 +0.7
comp=Z,57nm,0.6s,comp=Z,1µm
CM31 Chiang Mai Arr 47.06 252 eP P 11 28 49.0 +1.5
CM31 ePcP PcP 11 30 18.2 +1.1
CMAR Chiang Mai Arr 47.06 252 P P 11 28 48.9 +1.4
comp=Z,50nm,0.8s,baz=41,slow=7.2,SNR=222
CMAR PcP PcP 11 30 18.2 +1.1
comp=Z,6.3nm,0.6s,baz=15,slow=1.5,SNR=9.0
CMAR ScP ScP 11 33 57.3 +1.1
comp=Z,2.5nm,0.6s,baz=15,slow=3.2,SNR=12
CM01 Chiang Mai Arr 47.07 252 eP P 11 28 48.3 +0.7
BVAR Borovoye Array 48.35 308 P P 11 28 56.0 -1.1
comp=Z,7.0nm,0.3s,baz=73,slow=9.6,SNR=41
BVAR PcP PcP 11 30 21.8 +0.6
comp=Z,11nm,0.4s,baz=82,slow=4.2,SNR=11
BVAR ScP ScP 11 34 01.2 0.0
comp=Z,2.5nm,0.6s,baz=51,slow=4.7,SNR=5.5
BRVK Borovoye 48.40 309 d iP P 11 28 56.2 -1.2
BRVK pmax pmax
comp=Z,15nm,0.9s
BRVK Borovoye 48.40 309 eP P 11 28 56.8 -0.7
comp=Z,18nm,0.9s
BRVK Borovoye 48.40 309 P P 11 28 56.8 -0.7
UTHA Uthaitani 48.77 249 P P 11 29 02.0 +1.3
comp=Z,31nm,0.7s,comp=Z,258nm
MRSI Marisa 48.91 213 P P 11 29 04.3 +2.6
comp=Z,21nm,0.9s,comp=Z,441nm
TAPN Taplejung 49.24 270 eP P 11 29 05.6 +1.1
comp=Z,187nm,0.4s
ULHL Ulahol 49.33 293 P P 11 29 06.0 +1.0
SNR=17
TKM2 Tokmak 2 49.44 294 P P 11 29 06.3 +0.5
TKM2 pmax pmax
comp=Z,57nm,0.7s
TKM2 Tokmak 2 49.44 294 P P 11 29 06.4 +0.7
SNR=113
ODAN Odare 49.76 270 eP P 11 29 08.7 +0.3
comp=Z,76nm,0.4s
SRDT SRDT 49.86 248 P P 11 29 10.2 +1.2
comp=Z,164nm,0.8s
CHMS Chumysh 49.95 295 P P 11 29 09.8 +0.3
SNR=13
KBK Karagaybulak 49.99 294 P P 11 29 10.4 +0.5
SNR=88
USP Ospenovka 49.99 295 P P 11 29 10.3 +0.5
SNR=48
FRU Bishkek 50.12 295 eP P 11 29 11.0 +0.3
FRU e 11 30 01.0
FRU pmax pmax
comp=Z,100nm,2.0s
JIRN Jiri 50.14 271 eP P 11 29 12.3 +0.9
comp=Z,820nm,0.4s
GUN Gumba 50.21 272 eP P 11 29 12.5 +0.5
comp=Z,414nm,0.7s
RAMN Ramite 50.27 270 eP P 11 29 13.0 +0.7
comp=Z,527nm,0.4s
AAK Ala-Archa 50.29 294 P P 11 29 12.4 +0.3
comp=Z,28nm,0.5s,baz=103,slow=5.5,SNR=84
AAK Ala-Archa 50.29 294 eP P 11 29 12.3 +0.2
AAK pmax pmax
comp=Z,30nm,0.6s
AAK Ala-Archa 50.29 294 P P 11 29 12.7 +0.6
SNR=14
AAK Ala-Archa 50.29 294 eP P 11 29 12.3 +0.2
AAK Ala-Archa 50.29 294 eP P 11 29 12.3 +0.2
comp=Z,30nm,0.6s
AAK eP P 11 29 12.4 +0.3
AAK Ala-Archa 50.29 294 P P 11 29 12.5 +0.3
SNR=16
AAK Ala-Archa 50.29 294 P P 11 29 12.5 +0.3
SNR=16
APSI Ampana 50.29 213 P P 11 29 12.3 +0.1
comp=Z,42nm,0.6s,comp=Z,516nm
UCH Uchtor 50.47 294 P P 11 29 14.4 +0.6
SNR=16
DLBC Dease Lake 50.54 43 eP P 11 29 15.2 +1.6
comp=Z,47nm,1.7s
DLBC epP pP 11 29 50.5 +1.8
PHET Kaeng Krachan 50.58 246 P P 11 29 16.2 +1.8
comp=Z,40nm,0.8s,comp=Z,272nm
KKN Kakani 50.71 272 eP P 11 29 16.3 +0.8
comp=Z,149nm,0.7s
EKS2 Erkin-Say 50.74 295 P P 11 29 16.0 +0.5
SNR=52
PKI Pulchoki 50.75 272 eP P 11 29 16.5 +0.5
comp=Z,149nm,0.6s
PKIN Phulchoki 50.75 272 eP P 11 29 16.3 +0.4
comp=Z,96nm,0.6s
KSH Kashi 50.83 290 P P 11 29 20.4 +4.2
KSH pP pP 11 29 54.5 +3.3
KSH PcP PcP 11 30 34.5 +3.8
KSH PP PP 11 31 18.1 +4.4
KSH ScP ScP 11 34 15.0 +2.8
KSH S S 11 36 23.2 +2.9
KSH ScS ScS 11 38 52.1 +1.0
KSH SS SS 11 39 56.5 0.0
KSH pmax pmax
comp=Z,35nm,0.5s
KSH LR LR
comp=Z,370nm,6.7s
KSH LR LR
comp=Z,400nm,6.4s
KSH LR LR
comp=Z,280nm,6.3s
DMN Daman 50.94 272 eP P 11 29 18.2 +0.9
comp=Z,200nm,0.6s
GKN Gorkha 51.04 273 eP P 11 29 18.7 +0.7
comp=Z,13nm,0.3s
AML Almayashu 51.05 294 P P 11 29 18.9 +0.7
SNR=57
KIP Kipapa 51.15 98 eP P 11 29 17.4 -1.2
DANN Dangsing 51.47 274 eP P 11 29 22.4 +1.1
comp=Z,25nm,0.8s
SBUM Sibu 51.54 225 eP P 11 29 22.0 +0.5
comp=Z,6.3nm,1.0s
MNAS Manas 51.65 295 P P 11 29 22.8 +0.5
MNAS pmax pmax
comp=Z,93nm,0.7s
KOLN Koldanda 51.92 273 eP P 11 29 25.5 +1.0
comp=Z,191nm,0.5s
SVE Sverdlovsk 51.98 316 ||| eP P 11 29 23.7 -0.5
SVE pmax pmax
comp=Z,68nm,0.9s
SVE Sverdlovsk 51.98 316 eP P 11 29 23.7 -0.5
PYUN Piuthan 52.16 274 eP P 11 29 27.2 +0.9
comp=Z,221nm,0.4s
SFK Sufi-Kurgan 52.23 292 P P 11 29 26.8 +0.1
SFK pmax pmax
comp=Z,106nm,1.0s
SOKR Solikamsk 52.61 320 c iP P 11 29 25.4 -3.4
SOKR pmax pmax
comp=Z,19nm,0.7s
KK31 Karatay Array 52.63 297 i P P 11 29 29.2 -0.1
KK31 pmax pmax
comp=Z,76nm,1.0s
ARU Arti 53.18 316 d iP P 11 29 31.6 -1.5
ARU *PP pP 11 30 05.4 -3.0
ARU 11 30 37.9
ARU 11 31 30.7
ARU S S 11 36 49.9 -1.7
ARU SS SKiKP 11 40 34.5 +1.1
ARU pmax pmax
comp=Z,58nm,1.0s
ARU Arti 53.18 316 eP P 11 29 31.7 -1.4
comp=Z,44nm,0.6s
MTKI Muara Teweh, K 53.19 220 P P 11 29 34.7 +1.1
KBS Kingsbay 53.78 350 eP P 11 29 37.7 +0.5
KBS Kingsbay 53.78 350 eP P 11 29 37.6 +0.4
STKI Sintang 53.96 225 P P 11 29 41.7 +2.4
SURT Suratani 54.08 244 P P 11 29 42.3 +2.2
comp=Z,16nm,1.2s
TRTT Trang 54.36 242 P P 11 29 43.9 +1.7
comp=Z,38nm,0.8s,comp=Z,649nm
PKDT Phuket 55.18 243 P P 11 29 49.8 +1.7
comp=Z,140nm,0.7s
HNR Honiara 55.25 163 LR LR 11 49 57.4
comp=Z,20nm,20.5s,baz=291,slow=32
YKA Yellowknife Ar 55.49 34 P P 11 29 49.3 -0.4
comp=Z,2.4nm,0.5s,baz=298,slow=6.6,SNR=34
YKA pP pP 11 30 26.4 +1.1
comp=Z,8.0nm,0.8s,baz=301,slow=6.9,SNR=8.8
YKB5 Yellowknife Ar 55.49 34 eP P 11 29 49.3 -0.4
YKB5 epP pP 11 30 26.4 +1.1
KULM Kulim 55.74 239 eP P 11 29 53.5 +1.5
comp=Z,65nm,0.8s
AB31 Akbulak array 55.92 308 P P 11 29 52.1 -0.8
AB31 pmax pmax
comp=Z,10.0nm,0.4s
DZET Dzherino 55.94 293 P P 11 29 53.3 -0.2
DZET pmax pmax
comp=Z,85nm,0.5s
IPM Ipoh 56.15 238 eP P 11 29 54.8 -0.2
comp=Z,27nm,0.9s
AKTO Aktyubinsk 56.38 310 P P 11 29 55.1 -1.1
AKTO pmax pmax
comp=Z,22nm,1.0s
TULEG Thule 57.08 9 eP P 11 29 58.0 -2.7
comp=Z,9.4nm,0.7s
ARA0 ARCESS Array S 58.15 339 eP P 11 30 06.5 -1.9
ARA0 ePcP PcP 11 30 58.5 +0.4
ARCES ARCESS Array B 58.15 339 P P 11 30 06.5 -1.9
comp=Z,4.6nm,0.4s,baz=46,slow=7.7,SNR=31
ARCES PcP PcP 11 30 58.5 +0.4
comp=Z,5.6nm,0.6s,baz=53,slow=4.9,SNR=4.9
KBL Kabul 58.18 289 eP P 11 30 08.5 -0.8
KBL pmax pmax
comp=Z,77nm,0.8s
KBL Kabul 58.18 289 eP P 11 30 08.5 -0.8
comp=Z,77nm,0.8s
LLLB Lilloet 58.43 48 eP P 11 30 11.3 +0.7
comp=Z,26nm,1.5s
DAG Danmarks Havn 58.48 356 i P P 11 30 07.8 -2.7
DAG pmax pmax
comp=Z,26nm,1.2s
DAG Danmarks Havn 58.48 356 i P P 11 30 07.8 -2.7
comp=Z,26nm,1.2s
PSI Prapat 58.75 239 eP P 11 30 13.8 +0.4
PSI pmax pmax
comp=Z,19nm,0.8s
PSI Prapat 58.75 239 eP P 11 30 13.8 +0.4
comp=Z,19nm,0.8s
MTN Manton Dam 58.80 197 eP P 11 30 15.4 +2.0
comp=Z,14nm,1.1s
KLMR Klimovskoe 59.28 327 eP P 11 30 12.7 -3.5
KLMR pmax pmax
comp=Z,21nm,1.2s
SRBI Singaraja 59.41 216 P P 11 30 18.0 +0.4
B05A Bryant 59.61 51 P P 11 30 18.5 -0.3
baz=304
C06D Leavenworth 60.47 51 P P 11 30 25.1 +0.5
baz=305
F04A Amboy 60.76 53 eP P 11 30 27.4 +0.9
comp=Z,23nm,1.0s
F04A epP pP 11 31 03.6 +0.8
LTY Liberty 60.98 51 eP P 11 30 28.6 +0.5
comp=Z,12nm,1.2s
B08A Colville Reser 61.07 49 eP P 11 30 29.3 +0.6
B08A epP pP 11 31 04.2 -0.7
I03D Drain, OR 61.52 56 P P 11 30 32.2 +0.5
baz=306
H04A Detroit Lake 61.62 54 eP P 11 30 33.6 +1.2
H04A epP pP 11 31 10.2 +1.5
G05D Wamic, OR 61.79 53 P P 11 30 34.2 +0.7
baz=306
E07A Sunnyside 61.84 51 eP P 11 30 35.1 +1.2
E07A epP pP 11 31 09.9 -0.3
C09A Chrisman Ranch 61.98 49 eP P 11 30 35.6 +0.9
comp=Z,17nm,1.3s
I04A Tendick Farm, 62.01 55 P P 11 30 35.0 -0.1
baz=306
HYB Hyderabad 62.05 267 i P P 11 30 36.0 +0.4
HAWA Hanford 62.12 51 eP P 11 30 36.6 +0.9
HAWA epP pP 11 31 13.0 +0.9
F07A Phinny Hill Vi 62.19 52 eP P 11 30 37.8 +1.6
F07A epP pP 11 31 12.9 +0.3
L02D Cave Junction, 62.27 57 P P 11 30 36.7 -0.1
baz=306
I05D Terrebonne, OR 62.31 54 P P 11 30 37.1 0.0
baz=307
NEW Newport 62.32 49 P P 11 30 36.2 -0.9
baz=307,SNR=5.7
NEW Newport 62.32 49 eP P 11 30 37.6 +0.5
NEW e*PP pP 11 31 13.3 -0.2
NEW Newport 62.32 49 eP P 11 30 37.6 +0.5
NEW Newport 62.32 49 eP P 11 30 37.6 +0.5
NEW epP pP 11 31 13.3 -0.2
E08A Dider Farm, El 62.32 51 eP P 11 30 38.2 +1.2
E08A epP pP 11 31 13.8 +0.3
E09A Wood Farm, Sta 62.82 51 eP P 11 30 41.5 +1.2
E09A epP pP 11 31 16.4 -0.4
J05D Fort Rock, OR 63.00 55 P P 11 30 41.9 +0.1
baz=307
SUMG Summit 63.05 2 i P P 11 30 40.8 -1.1
SUMG pmax pmax
comp=Z,14nm,0.9s
SUMG Summit 63.05 2 i P P 11 30 40.8 -1.1
comp=Z,14nm,0.9s
SUMG Summit 63.05 2 eP P 11 30 40.7 -1.1
comp=Z,16nm,0.9s
YBH Yreka Blue Hor 63.05 57 eP P 11 30 43.8 +1.7
YBH e*PP pP 11 31 20.2 +1.6
YBH Yreka Blue Hor 63.05 57 eP P 11 30 43.8 +1.7
YBH epP pP 11 31 20.2 +1.6
G08A Pilot Rock 63.10 52 eP P 11 30 43.5 +1.1
G08A epP pP 11 31 19.7 +0.9
M02C Callahan 63.17 57 P P 11 30 43.6 +0.8
baz=307
GEYT Alibeck 63.35 298 P P 11 30 44.5 +0.4
comp=Z,79nm,0.6s,baz=29,slow=3.4,SNR=108
GEYT PcP pP 11 31 20.5 0.0
comp=Z,13nm,0.8s,baz=28,slow=6.7,SNR=3.8
N02D Trinity Center 63.51 58 P P 11 30 45.3 +0.1
baz=307
M04C Macdoel 63.55 57 P P 11 30 45.5 +0.1
baz=307
F10A Beach Ranch, E 63.65 51 eP P 11 30 47.0 +1.1
comp=Z,9.9nm,1.0s
FIA1 FINESS Array S 63.74 332 eP P 11 30 44.2 -1.8
FIA1 eP P 11 30 44.7 -1.4
FIA0 FINESS Array S 63.74 332 eP P 11 30 44.4 -1.7
FIA0 e 11 31 20.4
FIA0 FINESS Array S 63.74 332 eP P 11 30 44.4 -1.7
FIA0 ePcP PcP 11 31 20.4 -0.4
FINES FINESS Array B 63.74 332 P P 11 30 44.4 -1.7
comp=Z,23nm,0.5s,baz=44,slow=7.2,SNR=68
FINES PcP PcP 11 31 20.4 -0.4
comp=Z,11nm,0.8s,baz=67,slow=6.4,SNR=3.9
BSMT Bassoo Peak 63.81 48 eP P 11 30 48.4 +1.3
BLMT Blacktail Moun 63.94 47 eP P 11 30 49.4 +1.4
BLMT epP pP 11 31 25.7 +1.2
JTMT Jette 64.15 48 eP P 11 30 49.8 +0.6
JTMT epP pP 11 31 26.9 +1.1
OBN Obninsk 64.15 323 ||| iP P 11 30 47.7 -1.2
OBN 11 31 22.0
OBN eS S 11 39 14.3 +1.1
OBN SSS SSS 11 46 15.0
OBN pmax pmax
comp=Z,12nm,0.8s
OBN Obninsk 64.15 323 eP P 11 30 47.7 -1.2
BMO Blue Mountains 64.30 52 eP P 11 30 51.3 +1.1
BMO e 11 31 25.3
BMO Blue Mountains 64.30 52 eP P 11 30 51.3 +1.1
BMO ePcP pP 11 31 25.3 -1.5
VRH Novokhopyorsk 64.36 317 eP P 11 30 49.1 -1.2
VRH pmax pmax
comp=Z,60nm,0.7s
SWMT Swartz Lake 64.44 48 eP P 11 30 52.2 +1.1
SWMT epP pP 11 31 29.3 +1.6
O03D Paynes Creek 64.47 58 P P 11 30 51.5 +0.1
baz=308
J08A Circle Bar Ran 64.55 54 eP P 11 30 53.3 +1.4
comp=Z,16nm,1.2s
LPSR Galich'ya Gora 64.76 320 eP P 11 30 51.9 -1.0
LPSR pmax pmax
comp=Z,40nm,0.7s
SLMT Seeley Lake 64.88 48 eP P 11 30 54.9 +0.9
SLMT epP pP 11 31 31.7 +1.0
MSO Missoula 64.90 48 P P 11 30 53.5 -0.6
baz=309,SNR=8.6
MSO Missoula 64.90 48 eP P 11 30 54.6 +0.5
MSO epP pP 11 31 30.3 -0.4
WVOR Wild Horse Val 65.03 54 eP P 11 30 56.2 +1.2
WVOR pmax pmax
comp=Z,8.0nm,1.0s
WVOR Wild Horse Val 65.03 54 eP P 11 30 56.2 +1.2
comp=Z,8.3nm,1.0s
ORV Oroville 65.11 58 eP P 11 30 55.8 +0.4
ORV e*PP pP 11 31 32.4 +0.3
ORV Oroville 65.11 58 eP P 11 30 55.8 +0.4
ORV epP pP 11 31 32.4 +0.3
WRAB Tennant Creek 65.14 192 c iP P 11 30 55.4 -0.3
WRAB pmax pmax
comp=Z,11nm,0.9s
WRAB Tennant Creek 65.14 192 eP P 11 30 55.5 -0.2
comp=Z,10nm,0.8s
WRAB ePcP pP 11 31 30.1 -2.3
WB2 Warramunga Arr 65.15 192 eP P 11 30 54.4 -1.4
WB2 eP P 11 30 55.8 +0.1
WB2 ePcP PcP 11 31 29.7 +2.7
WR1 Warramunga Arr 65.15 192 eP P 11 30 55.5 -0.3
comp=Z,10nm,0.8s
WR1 ePcP PcP 11 31 29.4 +2.3
WRA Warramunga Arr 65.15 192 P P 11 30 55.5 -0.3
comp=Z,8.8nm,0.6s,baz=10,slow=6.7,SNR=75
WRA pP PcP 11 31 29.4 +2.3
comp=Z,7.6nm,1.0s,baz=10.0,slow=6.9,SNR=4.0
WRA PKP2bc 11 59 41.2
comp=Z,1.2nm,0.8s,baz=200,slow=2.3,SNR=8.5
CHMT Chamberlain Mo 65.21 48 eP P 11 30 56.8 +0.5
CHMT epP pP 11 31 33.8 +0.9
FFC Flin Flon 65.44 36 eP P 11 30 57.9 +0.6
FFC e*PP pP 11 31 34.1 +0.1
FFC Flin Flon 65.44 36 eP P 11 30 57.9 +0.6
FFC Flin Flon 65.44 36 eP P 11 30 57.9 +0.6
FFC epP pP 11 31 34.1 +0.1
VSR Storozhevoye 65.56 319 eP P 11 30 56.7 -1.4
VSR pmax pmax
comp=Z,70nm,0.5s
VSU Vasula 65.69 330 eP P 11 30 57.4 -1.4
VSU pmax pmax
comp=Z,40nm,0.8s
MFID Camas Ranch 66.02 52 eP P 11 31 02.5 +1.1
MFID epP pP 11 31 39.5 +1.3
HRY Holter Researc 66.09 47 eP P 11 31 02.9 +1.2
HRY epP pP 11 31 39.0 +0.5
PAHR Pah Rah Range 66.29 57 eP P 11 31 04.2 +1.0
PAHR epP pP 11 31 39.3 -0.7
EGMT Eagleton 66.31 45 P P 11 31 02.5 -0.6
baz=311
EGMT Eagleton 66.31 45 eP P 11 31 04.7 +1.6
EGMT epP pP 11 31 39.4 -0.5
LRM Limekiln Ridge 66.34 48 eP P 11 31 04.5 +1.0
LRM epP pP 11 31 40.6 +0.3
DLMT Dillon 66.56 49 eP P 11 31 06.1 +1.3
DLMT epP pP 11 31 43.2 +1.6
HLID Hailey 66.72 51 P P 11 31 05.8 -0.1
baz=310
CMB Columbia Colle 66.74 59 eP P 11 31 06.7 +0.8
CMB pmax pmax
comp=Z,9.0nm,0.8s
CMB Columbia Colle 66.74 59 eP P 11 31 06.7 +0.8
comp=Z,8.7nm,0.8s
YERR Yerington 66.83 58 eP P 11 31 07.9 +1.3

YERR epP pP 11 31 43.0 -0.5
**BOZ Bozeman (W) 66.92 48 P P 11 31 07.7 +0.6**
baz=311,SNR=16
**BOZ Bozeman (W) 66.92 48** *e*P P 11 31 07.9 +0.8
BOZ pmax pmax
comp=Z,17nm,0.8s
**BOZ Bozeman (W) 66.92 48** *e*P P 11 31 07.9 +0.8
**BOZ Bozeman (W) 66.92 48** *e*P P 11 31 07.9 +0.8
comp=Z,16nm,0.8s
**BMN Battle Mountai 67.12 55** *e*P P 11 31 09.8 +1.4
BMN *e**PP pP 11 31 46.7 +1.4
**BMN Battle Mountai 67.12 55** *e*P P 11 31 09.8 +1.4
BMN epP pP 11 31 46.7 +1.4
**PALK Pallekele 67.48 258** *i* P P 11 31 11.1 +0.3
SNR=6.9
**PALK Pallekele 67.48 258** *i* P P 11 31 11.8 +1.0
**PALK Pallekele 67.48 258** *e*P P 11 31 11.5 +0.7
comp=Z,48nm,1.0s
**YHB Horse Butte 67.71 49** *e*P P 11 31 13.4 +1.3
YHB epP pP 11 31 51.0 +1.9
**GCMT Greycliff 67.83 47** *e*P P 11 31 13.5 +0.8
GCMT epP pP 11 31 51.6 +1.9
**YHH Holmes Hill 67.87 48** *e*P P 11 31 14.3 +1.1
YHH epP pP 11 31 51.7 +1.5
**IZAR Zarasai 67.87 328** *e*P P 11 31 12.1 -0.5
IZAR IAmb IAmb 11 31 14.0
comp=Z,10nm,0.7s
**YMR Madison River 67.89 49** *e*P P 11 31 14.4 +1.2
YMR epP pP 11 31 51.9 +1.7
**IDID Didziasalis 68.01 327** *e*P P 11 31 13.1 -0.4
IDID IAmb IAmb 11 31 15.9
comp=Z,22nm,0.9s
**ISAL Salakas 68.05 328** *e*P P 11 31 13.3 -0.5
ISAL IAmb IAmb 11 31 15.3
comp=Z,29nm,0.9s
**NACGM Naroch 68.30 327** *e* P 11 31 13.0 -2.3
**NC405 NORSAR Array S 68.31 338** *e*P P 11 31 14.3 -1.0
**DDFL Dedoflistskaro 68.36 307** P P 11 31 18.6 +2.5
**NCK Nalchik 68.42 310** *e*P P 11 31 16.3 0.0
NCK pmax pmax
comp=Z,38nm,1.0s
**NC204 NORSAR Array S 68.42 339** *e*P P 11 31 15.0 -1.0
**NB201 NORSAR Array S 68.47 338** *e*P P 11 31 15.1 -1.2
**RLMT Red Lodge 68.49 47** *e*P P 11 31 18.1 +1.2
RLMT *e*PcP PcP 11 31 46.6 +5.5
**NB2 NORSAR Subarra 68.50 338** P P 11 31 15.1 -1.4
comp=Z,11nm,0.5s,baz=31,slow=6.5
**NB2 NORSAR Subarra 68.50 338** P pP 11 31 54.6 +1.1
comp=Z,13nm,0.8s,baz=35,slow=6.2
**NB2 NORSAR Subarra 68.50 338** P P 11 31 15.1 -1.4
baz=31,slow=6.5
**NB200 NORSAR Array S 68.50 338** *e*P P 11 31 15.3 -1.2
NB200 epP pP 11 31 54.6 +1.1
**NOA NORSAR Array B 68.50 338** P P 11 31 15.3 -1.2
comp=Z,20nm,0.7s,baz=33,slow=6.3,SNR=36
NOA pP pP 11 31 54.6 +1.1
comp=Z,9.0nm,0.7s,baz=33,slow=6.2,SNR=3.6
**NBO02 NORSAR Array S 68.59 338** *e*P P 11 31 16.1 -1.0
**KIV Kislovodsk 68.61 311** *i* P P 11 31 18.1 +0.6
SNR=10
**KIV Kislovodsk 68.61 311** *e*P P 11 31 18.3 +0.7
KIV pmax pmax
comp=Z,203nm,1.4s
**KIV Kislovodsk 68.61 311** *e*P P 11 31 18.2 +0.7
comp=Z,203nm,1.4s
**KIV Kislovodsk 68.61 311** P P 11 31 18.5 +0.9
SNR=15
**KIV Kislovodsk 68.61 311** P P 11 31 18.5 +0.9
SNR=15
**GUDG Gudauri 68.61 309** P P 11 31 19.3 +1.5
**KBZ Khabaz 68.64 311** P P 11 31 18.3 +0.7
comp=Z,36nm,1.0s,baz=44,slow=3.3,SNR=35
KBZ LR LR 12 04 12.9
comp=Z,110nm,19.0s,baz=60,slow=38
**TPAW Teton Pass 68.68 50** *e*P P 11 31 20.0 +1.8
TPAW epP pP 11 31 57.8 +2.5
**ZEI Tsey 68.72 309** *e*P P 11 31 15.9 -2.5
ZEI pmax pmax
comp=Z,29nm,1.3s
**DGMT Dagmar 68.76 42** P P 11 31 18.1 -0.3
baz=314
**DGMT Dagmar 68.76 42** *e*P P 11 31 19.2 +0.9
DGMT epP pP 11 31 55.1 -0.3
**LOHW Long Hollow 68.78 49** *e*P P 11 31 20.1 +1.3
LOHW epP pP 11 31 58.1 +2.2
**REDW Red Top Meadow 68.81 50** *e*P P 11 31 20.0 +0.9
REDW epP pP 11 31 58.3 +2.2
**AS01 Alice Springs 68.87 192** *e*P P 11 31 19.6 +0.4
**AS31 Alice Springs 68.87 192** *e*P P 11 31 19.7 +0.5
comp=Z,1.7nm,0.5s
AS31 epP pP 11 31 54.1 -2.2
**ASAR Alice Springs 68.88 192** P P 11 31 19.8 +0.6
comp=Z,3.2nm,0.6s,baz=10,slow=6.0,SNR=75
ASAR pP pP 11 31 54.1 -2.2
comp=Z,5.6nm,0.9s,baz=7.0,slow=5.8,SNR=4.9
ASAR PKP2bc 11 59 29.9
comp=Z,2.0nm,1.0s,baz=193,slow=2.5,SNR=12
**VES Vestal, Richgr 68.94 60** P P 11 31 19.3 -0.3
baz=311
**TBLG Delisi 68.95 308** P P 11 31 20.9 +1.2
**TBLG Delisi 68.95 308** P P 11 31 20.9 +1.2
**NEY Neytrino 69.06 310** *e*P P 11 31 18.9 -1.6
NEY pmax pmax
comp=Z,5.0nm,1.0s
**ONI Oni 69.10 310** P P 11 31 22.0 +1.4
**ONI Oni 69.10 310** P P 11 31 21.9 +1.4
**R11A Troy Canyon, C 69.43 56** P P 11 31 22.5 -0.3
baz=311
**R11A Troy Canyon, C 69.43 56** *e*P P 11 31 23.6 +0.7
R11A epP pP 11 32 00.5 +0.5
**MPMC Manual Prospec 69.78 59** P P 11 31 24.7 -0.4
baz=311
**DUG Dugway, Tooele 69.83 53** P P 11 31 25.1 -0.1
baz=312,SNR=5.1
**DUG Dugway, Tooele 69.83 53** *e*P P 11 31 26.3 +1.1
DUG pmax pmax
comp=Z,14nm,0.9s
**DUG Dugway, Tooele 69.83 53** *e*P P 11 31 26.3 +1.1
**DUG Dugway, Tooele 69.83 53** *e*P P 11 31 26.2 +1.1
comp=Z,14nm,0.9s
**AKH Akhalkalaki 69.86 309**⇑ *i*P P 11 31 23.2 -2.2
**FURC Furnace Creek, 69.90 58** P P 11 31 26.1 +0.6
baz=311
**BW06 Boulder Array 69.92 49** P P 11 31 25.3 -0.6
baz=313
**BW06 Boulder Array 69.92 49** *e*P P 11 31 26.0 +0.2
comp=Z,6.9nm,0.8s
**PD31 Pinedale Array 69.92 49** *e*P P 11 31 26.1 +0.2
PD31 epP pP 11 32 04.0 +1.0
**PDAR Pinedale Array 69.92 49** P P 11 31 26.1 +0.2
comp=Z,2.5nm,0.4s,baz=229,slow=1.6,SNR=14
PDAR pP pP 11 32 04.0 +1.0
comp=Z,6.9nm,0.7s,baz=271,slow=2.2,SNR=7.2
**TPNV Topopah Spring 69.95 58** P P 11 31 26.0 -0.1
baz=311
**GNI Garni 70.00 307** *e*P P 11 31 26.4 +0.1
GNI pmax pmax
comp=Z,72nm,1.1s
**BLG Laguna Peak, P 70.08 62** P P 11 31 26.6 -0.1
baz=311
**EDW2 Edwards Air Fo 70.24 60** P P 11 31 28.1 +0.4
baz=311
**SUW Suwalki 70.35 328** *e*P P 11 31 27.3 -0.6
**SUW Suwalki 70.35 328** *e*P P 11 31 27.3 -0.6
**NLU North Lily Min 70.41 53** *e*P P 11 31 30.1 +1.2
comp=Z,7.8nm,0.8s
**AKASG Malin Array Be 70.41 323** P P 11 31 27.7 -0.7
comp=Z,78nm,0.7s,baz=39,slow=6.1,SNR=226
**AKBB Malin Array Si 70.41 323** *e*P P 11 31 27.7 -0.7
AKBB pmax pmax
comp=Z,81nm,0.7s
**AKBB Malin Array Si 70.41 323** *e*P P 11 31 27.7 -0.7
comp=Z,81nm,0.7s
**KIEV Kiev 70.43 323** *d i*P P 11 31 27.5 -0.9
KIEV pmax pmax
comp=Z,91nm,0.8s
**KIEV Kiev 70.43 323** *e*P P 11 31 27.5 -0.9
**KIEV Kiev 70.43 323** *e*P P 11 31 27.6 -0.9
comp=Z,85nm,0.8s
**AK11 Malin Array Si 70.46 323** *e*P P 11 31 27.7 -0.9
**MPU Maple Canyon 70.62 53** *e*P P 11 31 31.3 +1.2
MPU epP pP 11 32 08.8 +1.5
**GSC Goldstone, Bar 70.70 59** P P 11 31 30.4 -0.1
baz=312
**GSC Goldstone, Bar 70.70 59** *e*P P 11 31 31.4 +0.9

GSC pmax pmax
comp=Z,12nm,1.1s
**GSC Goldstone, Bar 70.70 59** *e*P P 11 31 31.4 +0.9
comp=Z,12nm,1.1s
**ANN Anapa 70.78 314** *e*P P 11 31 30.4 -0.3
ANN *e**PP pP 11 32 06.4 -1.6
ANN pmax pmax
comp=Z,106nm,1.3s
**ARTV Artvin 70.88 309** *e*P P 11 31 32.0 +0.3
comp=Z,269nm,0.8s
**SHPR Sheep Range 70.90 57** *e*P P 11 31 33.1 +1.3
SHPR epP pP 11 32 09.4 +0.3
**ULM Lac du Bonnet 71.25 37** P P 11 31 33.3 -0.2
comp=Z,3.5nm,0.5s,baz=307,slow=7.0,SNR=12
**HEC Hector,Ludlow 71.30 59** P P 11 31 34.2 0.0
baz=312
**TMUT Trail Mountain 71.35 53** *e*P P 11 31 36.1 +1.5
comp=Z,11nm,1.1s
TMUT epP pP 11 32 13.3 +1.4
**MDND Maddock 71.36 40** *e*P P 11 31 35.2 +0.9
MDND epP pP 11 32 13.1 +1.6
**P17A Butcher Ranch, 71.49 53** *e*P P 11 31 36.6 +1.3
P17A epP pP 11 32 14.2 +1.5
**MURC Murrieta 71.58 61** P P 11 31 35.7 -0.1
baz=312
**MTPU Mount Pierson 71.63 55** *e*P P 11 31 38.1 +1.7
comp=Z,5.6nm,0.7s
**P18A Preston Nutter 71.67 52** *e*P P 11 31 37.8 +1.2
comp=Z,9.0nm,0.8s
**GMRC Granite Mounta 71.74 59** P P 11 31 37.0 +0.1
baz=312
**B31A Greenbush Farm 71.83 39** P P 11 31 36.3 -0.7
baz=318
**SRU San Rafael Swe 71.86 53** *e*P P 11 31 38.6 +1.0
SRU *e**PP pP 11 32 16.3 +1.4
**SRU San Rafael Swe 71.86 53** *e*P P 11 31 38.6 +1.0
SRU epP pP 11 32 16.3 +1.4
**KNB Kanab 71.95 56** *e*P P 11 31 39.7 +1.6
KNB pmax pmax
comp=Z,41nm,1.7s
**KNB Kanab 71.95 56** *e*P P 11 31 39.7 +1.6
comp=Z,40nm,1.7s
**PFO Pinyon Flats O 72.03 60** P P 11 31 38.5 -0.1
baz=312
**BANOM Banoh 72.13 289** *i* P P 11 31 39.8 +0.6
SNR=14
**C31A Landman Farms, 72.26 39** P P 11 31 39.1 -0.4
baz=318
**B32A Ashes, Strandq 72.35 38** P P 11 31 39.3 -0.8
baz=319
**O20A White River Ci 72.44 51** P P 11 31 40.0 -1.0
baz=314
**A33A Warroad 72.45 37** P P 11 31 39.5 -1.1
baz=319
**KOPT Kop Dagi 72.48 309** *e*P P 11 31 43.2 +1.9
comp=Z,16nm,0.8s
**UOSS Minazif 72.84 288** *e*P P 11 31 43.6 +0.3
comp=Z,105nm,0.6s
**B33A Robert and Kas 72.86 38** P P 11 31 41.9 -1.2
baz=319
**BEL Belsk 72.96 328** *e*P P 11 31 44.0 +0.5
**BEL Belsk 72.96 328** *e*P P 11 31 44.0 +0.5
**HATD Hatta, Dubai 72.97 288** *i* P P 11 31 44.6 +0.5
SNR=25
**HATD Hatta, Dubai 72.97 288** P P 11 31 45.0 +0.9
SNR=5.1
**HATD Hatta, Dubai 72.97 288** P P 11 31 45.0 +0.9
SNR=5.1
**PDMCI Parker Dam,Lak 72.99 59** P P 11 31 44.1 0.0
baz=313
**PV09 Paradox Valley 73.07 52** *e*P P 11 31 46.1 +1.2
**GKP Gorka Klasztor 73.09 331** *e*P P 11 31 45.5 +1.2
**GKP Gorka Klasztor 73.09 331** *e*P P 11 31 45.5 +1.2
**E31A Nome 73.11 40** P P 11 31 43.8 -0.7
baz=318
**B34A Aery, Baudette 73.11 37** P P 11 31 43.8 -0.7
baz=320
**ASHO Ashiyiah 73.11 288** *i* P P 11 31 45.4 +0.4
SNR=16
**ASHO Ashiyiah 73.11 288** P P 11 31 45.5 +0.4
**Y12C Blythe 73.13 59** P P 11 31 45.1 +0.2
baz=313
**C33A Trail 73.17 38** P P 11 31 44.2 -0.7
baz=319
**NAZ Nazwa, Dubai 73.18 289** *i* P P 11 31 46.0 +0.6
SNR=8.0
**PV10 Paradox Valley 73.21 53** *e*P P 11 31 47.0 +1.4
PV10 epP pP 11 32 24.1 +1.0
**LVV L'vov 73.26 325** *e*P P 11 31 48.7 +3.3
**PV05 Paradox Valley 73.38 53** *e*P P 11 31 47.8 +1.2
PV05 epP pP 11 32 25.2 +1.1
**FAQ Al Faqa, Dubai 73.39 288** *i* P P 11 31 46.7 +0.1
SNR=16
**GLA Glinis 73.42 60** P P 11 31 47.1 +0.5
baz=313
**F31A Hecla 73.45 41** P P 11 31 46.1 -0.5
baz=318
**D33A AnnSam, Waubun 73.60 39** P P 11 31 47.0 -0.4
baz=319
**B35A Bob, Littlefor 73.60 37** P P 11 31 46.7 -0.8
baz=320
**PV01 Paradox Valley 73.64 52** *e*P P 11 31 48.9 +0.8
PV01 epP pP 11 32 26.2 +0.6
**IAS Iasi 73.77 321**⇑ *i*P P 11 31 48.5 +0.1
**SMCO Snowmass 73.81 51** *e*P P 11 31 50.1 +0.8
comp=Z,8.1nm,0.8s
**WUAZ Wupatki 73.83 56** P P 11 31 49.5 +0.3
baz=314
**WUAZ Wupatki 73.83 56** *e*P P 11 31 50.6 +1.4
comp=Z,10nm,1.0s
**KWP Kalwaria Pacla 73.95 326** *e*P P 11 31 49.9 +0.5
**KWP Kalwaria Pacla 73.95 326** *e*P P 11 31 49.9 +0.5
**F32A Veblen 73.97 40** P P 11 31 48.9 -0.7
baz=319
**E33A Westby DABS, E 74.01 39** P P 11 31 49.4 -0.4
baz=319
**SUSD Miller 74.17 42** P P 11 31 50.2 -0.6
baz=318
**MARD Mardin 74.20 307** *e*P P 11 31 52.6 +1.4
comp=Z,228nm,1.5s
**MVCO Mesa Verde 74.33 53** P P 11 31 52.5 +0.4
baz=315
**MVCO Mesa Verde 74.33 53** *e*P P 11 31 53.2 +1.1
MVCO epP pP 11 32 30.8 +1.0
**H31A Wolsey 74.37 42** P P 11 31 51.4 -0.6
baz=318
**C36A Pine Crest Far 74.45 37** P P 11 31 51.9 -0.5
baz=321
**BUR08 Bucovina Ar. S 74.45 323** *e*P P 11 31 52.6 +0.1
**BUR04 Bucovina Ar. S 74.47 323** *e*P P 11 31 52.6 0.0
**BURAR Bucovina Array 74.47 323** *i*P P 11 31 52.7 +0.1
**OJC Ojcow 74.62 328** *e*P P 11 31 53.5 +0.2
**OJC Ojcow 74.62 328** *e*P P 11 31 53.5 +0.2
**OJC Ojcow 74.62 328** *e*P P 11 31 53.5 +0.2
**OJC Ojcow 74.62 328** *e*P P 11 31 53.0 -0.3
comp=Z,86nm,1.1s
**TESR Tescani 74.69 321** *i*P P 11 31 54.1 +0.3
**STHS Stebnicka Huta 74.70 326** *e*P P 11 31 54.4 +0.6
STHS pmax pmax
comp=Z,36nm,0.8s
**STHS Stebnicka Huta 74.70 326** *e*P P 11 31 54.4 +0.6
**TLCR 74.71 319**⇑ *i*P P 11 31 54.1 +0.2
**C37A Embarrass 74.75 37** P P 11 31 53.6 -0.5
baz=321
**G33A Ortonville 74.80 41** P P 11 31 53.7 -0.7
baz=319
**S22A 4UR Ranch, Cre 74.90 52** P P 11 31 55.8 +0.3
baz=315,SNR=5.7
**S22A 4UR Ranch, Cre 74.90 52** *e*P P 11 31 56.6 +1.2
S22A epP pP 11 32 35.0 +1.9
**UZH Uzhgorod 74.90 325**⇑ *i*P P 11 31 54.4 -0.5
UZH *e**PP pP 11 32 28.4 -4.1
UZH *e*S S 11 41 14.4 -4.8
UZH *e*PS SKSac 11 41 45.8 -3.2
**CRVS Cervenica-Dubn 75.02 326** *e*P P 11 31 55.9 +0.3
**CRVS Cervenica-Dubn 75.02 326** *e*P P 11 31 55.9 +0.3
**CFR Carcaliu 75.03 320**⇑ *i*P P 11 31 56.0 +0.3
**NIE Niedzica 75.07 327** *e*P P 11 31 56.7 +0.7
**NIE Niedzica 75.07 327** *e*P P 11 31 56.7 +0.7
**G34A Benson 75.13 40** P P 11 31 55.9 -0.4
baz=320
**C38A Sawbill Land. 75.14 36** P P 11 31 55.5 -0.8
baz=322
**F35A Swanville 75.15 39** P P 11 31 55.5 -0.9
baz=320

**TRPA Tarpa 75.20 325**⇓ *e*P P 11 31 57.3 +0.7
**E36A McGregor 75.22 38** P P 11 31 56.3 -0.5
baz=321
**ARCR ARCALIA 75.25 323**⇑ *i*P P 11 31 57.5 +0.5
**ILGA Ilgaz 75.37 314** *e*P P 11 31 59.5 +1.5
comp=Z,172nm,1.9s
**KSP Ksiaz 75.42 330** *e*P P 11 31 58.0 +0.1
**KSP Ksiaz 75.42 330** *e*P P 11 31 58.0 +0.1
**J32A Parkston 75.50 43** P P 11 31 57.6 -0.8
baz=319
**OKC Ostrava-Krasne 75.56 328**⇓ *i*P P 11 31 58.9 +0.2
OKC *e*pP pP 11 32 38.2 +1.9
**OKC Ostrava-Krasne 75.56 328**⇓ *i*P P 11 31 58.9 +0.2
OKC *e* 11 32 38.2
**F36A Milaca 75.61 38** P P 11 31 57.7 -1.3
baz=321
**LANS Liptovska Anna 75.61 327** *e*P P 11 32 00.2 +1.2
**LANS Liptovska Anna 75.61 327** *e*P P 11 32 00.2 +1.2
**DOPR Dopca 75.67 322**⇑ *i*P P 11 31 59.8 +0.4
**G35A Watkins 75.67 39** P P 11 31 58.5 -1.0
baz=320
**KECS Kecovo 75.75 326** *e*P P 11 31 59.5 -0.3
KECS pmax pmax
comp=Z,14nm,0.9s
**KECS Kecovo 75.75 326** *e*P P 11 31 59.5 -0.3
**MLR Muntele Rosu 75.79 321**⇓ *i*P P 11 32 00.7 +0.5
**MLR Muntele Rosu 75.79 321** *e*P P 11 32 00.5 +0.3
MLR pmax pmax
comp=Z,21nm,0.8s
**MLR Muntele Rosu 75.79 321** *e*P P 11 32 00.5 +0.3
comp=Z,21nm,0.8s
**UPC Upice 75.80 330**⇓ *e*P P 11 32 00.1 +0.1
UPC epP pP 11 32 40.2 +2.5
**UPC Upice 75.80 330** *e*P P 11 32 00.1 +0.1
UPC *e* 11 32 40.2
**ISR Istrita 75.81 321**⇑ *i*P P 11 32 00.8 +0.6
**DPC Dobruska-Polom 75.81 329**⇓ *i*P P 11 32 00.6 +0.4
DPC epP pP 11 32 39.8 +1.9
**DPC Dobruska-Polom 75.81 329**⇓ *i*P P 11 32 00.6 +0.4
DPC *e* 11 32 39.8
**ECSD EROS Data Cent 75.82 42** P P 11 32 00.2 -0.1
baz=319
**ECSD EROS Data Cent 75.82 42** *e*P P 11 32 00.1 -0.2
ECSD epP pP 11 32 37.2 -0.8
**MORC Moravsky Berou 75.84 328**⇑ *i*P P 11 32 00.4 +0.1
**MORC Moravsky Berou 75.84 328** *e*P P 11 32 00.2 -0.1
MORC pmax pmax
comp=Z,171nm,1.0s
**MORC Moravsky Berou 75.84 328** *e*P P 11 32 00.2 -0.1
comp=Z,171nm,1.0s
**CJR Cluj-Napoca 75.87 323**⇓ *i*P P 11 32 01.4 +0.9
**KRLC Kraliky 75.87 329**⇓ *e*P P 11 32 00.8 +0.3
**KRLC Kraliky 75.87 329** *e*P P 11 32 00.8 +0.3
**H35A Sunnyside Ranc 75.92 40** P P 11 32 00.8 0.0
baz=320,SNR=5.5
**ICOR Ion Corvin 75.99 319**⇑ *i*P P 11 32 00.6 -0.6
**CLL Collm 76.18 332** *i* P P 11 32 01.4 -0.7
CLL *e**PP pP 11 32 41.0 +1.1
CLL pmax pmax
comp=Z,43nm,0.6s
**CLL Collm 76.18 332** *i* P P 11 32 01.4 -0.7
comp=Z,43nm,0.6s
CLL *i* P(2) 11 32 03.0
comp=Z,42nm,0.7s
CLL *e*PcP PcP 11 32 13.0 -0.5
comp=Z,24nm,1.1s
CLL *e*pP pP 11 32 41.0 +1.1
CLL *e*SS SS 11 46 30.0 +1.4
**CLL Collm 76.18 332** *e*P P 11 32 01.4 -0.7
**CLL Collm 76.18 332** *e*P P 11 32 00.8 -1.3
comp=Z,42nm,0.7s
**DRGR 76.18 324**⇓ *i*P P 11 32 02.6 +0.3
**BRG Berggiesshubel 76.22 331** *i* P P 11 32 02.2 -0.2
comp=Z,28nm,1.3s
**BRG Berggiesshubel 76.22 331** *i* P P 11 32 02.2 -0.2
BRG pmax pmax
comp=Z,8.0nm,1.3s
**BRG Berggiesshubel 76.22 331** *e*P P 11 32 02.2 -0.2
**VOIR 76.23 322**⇑ *i*P P 11 32 03.6 +0.9
**STKA Stephens Creek 76.26 184** P P 11 32 03.4 +0.8
comp=Z,4.2nm,0.7s,baz=356,slow=7.8,SNR=9.6
**STKA Stephens Creek 76.26 184** *e*P P 11 32 03.4 +0.8
comp=Z,8.9nm,2.0s
**F38A Pierce - Schro 76.26 38** P P 11 32 02.3 -0.4
baz=322
**PVCC Panska Ves 76.29 331**⇓ *e*P P 11 32 03.1 +0.3
**PVCC Panska Ves 76.29 331** *e*P P 11 32 03.1 +0.3
**BR101 Keskin Array S 76.38 313** *e*P P 11 32 04.0 +0.2
**BR131 Keskin Array S 76.38 313** *e*P P 11 32 03.4 -0.3
**BRTR Keskin Array B 76.38 313** P P 11 32 04.0 +0.3
comp=Z,7.3nm,0.7s,baz=77,slow=3.6,SNR=38
**BRTR Keskin Array B 76.38 313** P P 11 32 04.0 +0.3
BRTR pmax pmax
comp=Z,7.0nm,0.7s
**VYHS Vyhne 76.39 327** *e*P P 11 32 03.9 +0.5
VYHS pmax pmax
comp=Z,21nm,1.2s
**VYHS Vyhne 76.39 327** *e*P P 11 32 03.9 +0.5
**TUC Tucson 76.40 58** P P 11 32 04.0 +0.2
baz=315
**H36A Jessenland, He 76.42 40** P P 11 32 03.3 -0.4
baz=321
**PSZ Piszkesteto 76.44 326**⇓ *i*P P 11 32 04.3 +0.5
**PSZ Piszkesteto 76.44 326** *e*P P 11 32 04.2 +0.5
PSZ pmax pmax
comp=Z,39nm,0.9s
**PSZ Piszkesteto 76.44 326**⇓ *e*P P 11 32 04.3 +0.5
**PSZ Piszkesteto 76.44 326** *e*P P 11 32 04.2 +0.4
comp=Z,39nm,0.9s
**ARR Arges 76.47 322**⇓ *i*P P 11 32 04.9 +0.9
**MHTCO State Highway 76.53 51** *e*P P 11 32 06.6 +1.9
MHTCO epP pP 11 32 42.3 -0.1
**VRAC Vranov 76.58 329**⇓ *i*P P 11 32 05.1 +0.7
**T25A Trinidad 76.67 51** P P 11 32 05.8 +0.3
baz=316
**T25A Trinidad 76.67 51** *e*P P 11 32 06.1 +0.6
T25A epP pP 11 32 42.6 -0.6
**F39A Loretta 76.71 37** P P 11 32 04.8 -0.5
baz=322
**ANTO Ankara 76.72 313** *e*P P 11 32 06.6 +1.1
ANTO pmax pmax
comp=Z,29nm,0.7s
**ANTO Ankara 76.72 313** *e*P P 11 32 06.6 +1.1
comp=Z,29nm,0.7s
**E40A Wakefield 76.72 36** P P 11 32 05.1 -0.2
baz=323
**GOPC GO Pecny, Ondr 76.73 330**⇓ *e*P P 11 32 05.3 0.0
GOPC epP pP 11 32 45.3 +2.2
**GOPC GO Pecny, Ondr 76.73 330** *e*P P 11 32 05.3 0.0
GOPC *e* 11 32 45.3
**BR231 Keskin MP Arra 76.75 313** *e*P P 11 32 04.5 -1.2
**PRU Pruhonice 76.75 330**⇓ *e*P P 11 32 06.0 +0.6
PRU epP pP 11 32 45.8 +2.6
**PRU Pruhonice 76.75 330** *e*P P 11 32 06.0 +0.6
PRU *e* 11 32 45.8
**J35A Milford 76.76 41** P P 11 32 05.0 -0.6
baz=320
**K34A Le Mars 76.86 42** P P 11 32 05.5 -0.7
baz=320
**H37A Dierke Farm, C 76.88 39** P P 11 32 05.1 -1.1
baz=321
**TREC Trest 76.99 329**⇓ *e*P P 11 32 07.1 +0.3
**TREC Trest 76.99 329** *e*P P 11 32 07.1 +0.3
**SCHQ Schefferville 77.03 19** P P 11 32 06.9 0.0
comp=Z,21nm,0.6s,baz=342,slow=5.1,SNR=40
**SCHQ Schefferville 77.03 19** *e*P P 11 32 07.2 +0.2
comp=Z,21nm,0.6s
**SIRR Siria 77.04 324**⇑ *i*P P 11 32 07.7 +0.6
**F40A Park Falls 77.05 37** P P 11 32 06.1 -1.0
baz=323
**MODS Modra-Piesok 77.09 328** *e*P P 11 32 08.3 +1.0
**MODS Modra-Piesok 77.09 328** *e*P P 11 32 08.3 +1.0
**LAZ Ladron 77.09 54** *e*P P 11 32 09.5 +1.6
LAZ epP pP 11 32 45.5 -0.1
**ANMO Albuquerque 77.09 54** P P 11 32 08.3 +0.5
baz=316
**ANMO Albuquerque 77.09 54** *e*P P 11 32 09.1 +1.3
ANMO pmax pmax
comp=Z,4.0nm,0.9s
**ANMO Albuquerque 77.09 54** *e*P P 11 32 09.1 +1.3
comp=Z,4.4nm,0.9s
**I37A Lemond, Waseca 77.10 40** P P 11 32 06.9 -0.6
baz=321,SNR=6.3
**E41A Kenton 77.10 36** P P 11 32 06.1 -1.3

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | baz=323 | | | | | | |
| BUD | Budapest | 77.14 | 326⇑ | eP | P | 11 32 08.6 | +1.0 |
| NKC | Novy Kostel | 77.27 | 332 | eP | P | 11 32 05.2 | -3.1 |
| Y22D | IRIS PASSCAL I | 77.45 | 54 | P | P | 11 32 09.4 | -0.4 |
| | baz=316 | | | | | | |
| J37A | Redenius Farm, | 77.57 | 40 | P | P | 11 32 09.4 | -0.7 |
| | baz=321 | | | | | | |
| BZS | Buzias | 77.58 | 324⇑ | iP | P | 11 32 10.1 | 0.0 |
| F41A | Three Lakes | 77.62 | 36 | P | P | 11 32 09.6 | -0.8 |
| | baz=323 | | | | | | |
| KHC | Kasperske Hory | 77.81 | 330⇓ | iP | P | 11 32 11.7 | +0.3 |
| KHC | | | | epP | pP | 11 32 51.4 | +2.1 |
| KHC | Kasperske Hory | 77.81 | 330⇓ | iP | P | 11 32 11.7 | +0.3 |
| KHC | | | | e | | 11 32 51.4 | |
| KHC | Kasperske Hory | 77.81 | 330 | eP | P | 11 32 11.7 | +0.3 |
| KHC | Kasperske Hory | 77.81 | 330 | eP | P | 11 32 11.6 | +0.2 |
| | comp=Z,13nm,0.8s | | | | | | |
| HERR | Herculane | 77.82 | 323⇑ | iP | P | 11 32 11.3 | -0.1 |
| SOP | Sopron | 77.93 | 328⇓ | eP | P | 11 32 12.4 | +0.4 |
| H40A | Chili | 77.96 | 37 | P | P | 11 32 11.2 | -1.0 |
| | baz=323 | | | | | | |
| M35A | Neola | 77.98 | 43 | P | P | 11 32 12.4 | 0.0 |
| | baz=320 | | | | | | |
| CONA | Conrad Observa | 77.99 | 328 | iP | P | 11 32 13.2 | +0.7 |
| | comp=Z,19nm,0.7s | | | | | | |
| CONA | | | | i pP | pP | 11 32 52.6 | +2.3 |
| | comp=Z,12nm,1.0s | | | | | | |
| GEC2 | GERESS Array S | 78.01 | 330 | eP | P | 11 32 12.5 | -0.1 |
| GEC2 | | | | pmax | pmax | | |
| | comp=Z,17nm,1.1s | | | | | | |
| GEC2 | GERESS Array S | 78.01 | 330 | eP | P | 11 32 12.4 | -0.1 |
| | comp=Z,17nm,1.1s | | | | | | |
| GERES | GERESS Array B | 78.01 | 330 | P | P | 11 32 12.3 | -0.2 |
| | comp=Z,7.7nm,0.7s,baz=32,slow=5.3,SNR=50 | | | | | | |
| GERES | | | | pP | pP | 11 32 52.2 | +1.7 |
| | comp=Z,2.0nm,0.6s,baz=38,slow=5.2,SNR=2.8 | | | | | | |
| GERES | | | | LR | LR | 12 11 44.0 | |
| | comp=Z,54nm,18.3s,baz=42,slow=39 | | | | | | |
| GEA0 | GERESS Array S | 78.02 | 330 | eP | P | 11 32 11.7 | -0.9 |
| 121A | Cookes Peak, D | 78.04 | 56 | P | P | 11 32 12.5 | -0.6 |
| | baz=316 | | | | | | |
| I39A | Houston | 78.07 | 39 | P | P | 11 32 11.6 | -1.3 |
| | baz=322 | | | | | | |
| GRFO | Grafenberg | 78.15 | 332 | eP | P | 11 32 13.4 | +0.2 |
| GRFO | | | | pmax | pmax | | |
| | comp=Z,52nm,0.9s | | | | | | |
| GRFO | Grafenberg | 78.15 | 332 | eP | P | 11 32 13.3 | +0.2 |
| | comp=Z,52nm,0.9s | | | | | | |
| MDVR | Moldovita | 78.20 | 323⇑ | iP | P | 11 32 13.6 | 0.0 |
| G42A | Mountain | 78.30 | 36 | P | P | 11 32 12.4 | -1.6 |
| | baz=324 | | | | | | |
| J39A | Decorah | 78.39 | 39 | P | P | 11 32 13.2 | -1.5 |
| | baz=322 | | | | | | |
| M36A | Felix, Anita | 78.42 | 42 | P | P | 11 32 14.4 | -0.4 |
| | baz=321 | | | | | | |
| I40A | Norwalk | 78.44 | 38 | P | P | 11 32 13.9 | -1.0 |
| | baz=323 | | | | | | |
| N35A | Tabor | 78.47 | 43 | P | P | 11 32 14.3 | -0.8 |
| | baz=320 | | | | | | |
| BOLV | Bolvadin | 78.53 | 314 | eP | P | 11 32 16.5 | +0.9 |
| | comp=Z,34nm,0.8s | | | | | | |
| F44A | Big Bay de Noc | 78.53 | 34 | P | P | 11 32 14.9 | -0.4 |
| | baz=325 | | | | | | |
| MOA | Molln | 78.65 | 329 | iP | P | 11 32 16.2 | +0.3 |
| | comp=Z,10nm,0.8s | | | | | | |
| ARSA | Arzberg | 78.68 | 328 | iP | P | 11 32 16.6 | +0.4 |
| | comp=Z,17nm,1.4s | | | | | | |
| L38A | Oak Wood Farm, | 78.76 | 41 | P | P | 11 32 16.2 | -0.4 |
| | baz=322 | | | | | | |
| HGN | Heimansgroeve | 78.89 | 336 | eP | P | 11 32 16.8 | -0.4 |
| | comp=Z,28nm,0.7s | | | | | | |
| P34A | Walnut Farm, R | 78.89 | 45 | P | P | 11 32 17.2 | -0.2 |
| | baz=320 | | | | | | |
| L39A | Vinton | 79.21 | 40 | P | P | 11 32 19.0 | -0.1 |
| | baz=322 | | | | | | |
| N37A | Lee Faris, Mou | 79.24 | 42 | P | P | 11 32 19.5 | +0.2 |
| | baz=321 | | | | | | |
| VTS | Vitosha | 79.29 | 321⇑ | iP | P | 11 32 19.7 | 0.0 |
| VTS | Vitosha | 79.29 | 321 | eP | P | 11 32 19.5 | -0.2 |
| VTS | | | | e | | 11 32 20.0 | |
| VTS | | | | e*PP | pP | 11 33 00.7 | +3.0 |
| VTS | | | | pmax | pmax | | |
| | comp=Z,33nm,1.0s | | | | | | |
| VTS | Vitosha | 79.29 | 321 | eP | P | 11 32 19.5 | -0.2 |
| | comp=Z,33nm,1.0s | | | | | | |
| VTS | | | | eP | P | 11 32 20.0 | +0.3 |
| VTS | | | | epP | pP | 11 33 00.7 | +3.0 |
| VTS | Vitosha | 79.29 | 321 | P | P | 11 32 20.0 | +0.3 |
| SOKA | Soboth | 79.34 | 328 | iP | P | 11 32 20.1 | +0.2 |
| | comp=Z,32nm,1.1s | | | | | | |
| SOKA | | | | i pP | pP | 11 33 00.1 | +2.2 |
| | comp=Z,20nm,1.1s | | | | | | |
| GROS | Grobnik | 79.35 | 328 | iP | P | 11 32 19.8 | -0.1 |
| PERS | Pernice | 79.35 | 328 | iP | P | 11 32 19.8 | -0.1 |
| PERS | | | | i pP | pP | 11 32 59.7 | +1.9 |
| O36A | Bolckow | 79.36 | 43 | P | P | 11 32 19.1 | -0.8 |
| | baz=321 | | | | | | |
| BCLA | Clavier | 79.38 | 336 | P | P | 11 32 19.5 | -0.3 |
| | comp=Z,11nm,1.1s | | | | | | |
| J42A | Columbus | 79.55 | 38 | P | P | 11 32 19.6 | -1.3 |
| | baz=324 | | | | | | |
| STU | Stuttgart | 79.62 | 333 | eP | P | 11 32 21.6 | +0.4 |
| STU | | | | pmax | pmax | | |
| | comp=Z,30nm,0.7s | | | | | | |
| STU | Stuttgart | 79.62 | 333 | eP | P | 11 32 21.6 | +0.4 |
| | comp=Z,30nm,0.7s | | | | | | |
| KBA | Koelnbreinsper | 79.63 | 329 | iP | P | 11 32 22.1 | +0.5 |
| | comp=Z,25nm,0.7s,SNR=19 | | | | | | |
| KBA | | | | i pP | pP | 11 33 02.1 | +2.5 |
| | comp=Z,24nm,0.9s | | | | | | |
| M39A | Webster | 79.64 | 41 | P | P | 11 32 20.8 | -0.6 |
| | baz=322 | | | | | | |
| OBKA | Obir | 79.67 | 328 | iP | P | 11 32 21.6 | 0.0 |
| | comp=Z,9.1nm,0.7s | | | | | | |
| GOLS | Golise | 79.68 | 327 | iP | P | 11 32 21.4 | -0.2 |
| GOLS | | | | i pP | pP | 11 33 01.2 | +1.5 |
| N38A | Joes South For | 79.68 | 42 | P | P | 11 32 20.8 | -0.9 |
| | baz=322 | | | | | | |
| O37A | Wolven Farm, M | 79.73 | 43 | P | P | 11 32 21.5 | -0.5 |
| | baz=321 | | | | | | |
| Q35A | Mercer Eighty, | 79.81 | 45 | P | P | 11 32 21.9 | -0.5 |
| | baz=320 | | | | | | |
| AMTX | Amarillo | 79.83 | 51 | P | P | 11 32 23.0 | +0.2 |
| | baz=318 | | | | | | |
| AMTX | Amarillo | 79.83 | 51 | eP | P | 11 32 24.9 | +2.2 |
| AMTX | | | | epP | pP | 11 32 59.6 | -1.2 |
| DOU | Dourbes | 79.87 | 336 | P | P | 11 32 17.8 | -4.7 |
| | comp=Z,12nm,0.8s | | | | | | |
| LANF | Langenberg | 79.88 | 334 | eP | P | 11 32 22.9 | +0.3 |
| MSTX | Muleshoe | 79.90 | 52 | eP | P | 11 32 23.7 | +0.6 |
| MSTX | | | | epP | pP | 11 33 00.1 | -1.0 |
| MYKA | Terra Mystica | 79.90 | 329 | iP | P | 11 32 22.5 | -0.4 |
| | comp=Z,16nm,0.7s | | | | | | |
| MANT | Manisa | 79.92 | 315 | eP | P | 11 32 23.8 | +0.5 |
| | comp=Z,65nm,0.7s | | | | | | |
| N39A | Derby Farms, D | 79.96 | 41 | P | P | 11 32 22.9 | -0.3 |
| | baz=322 | | | | | | |
| M40A | Post Highland | 80.00 | 40 | P | P | 11 32 22.5 | -0.9 |
| | baz=322 | | | | | | |
| VLDQ | Val d'Or | 80.05 | 28 | eP | P | 11 32 22.6 | -0.8 |
| | comp=Z,15nm,0.6s | | | | | | |
| WATA | Walderalm | 80.05 | 330 | iP | P | 11 32 24.0 | +0.3 |
| | comp=Z,50nm,1.0s | | | | | | |
| MNTX | Cornudas Mount | 80.05 | 55 | P | P | 11 32 23.8 | -0.1 |
| | baz=317 | | | | | | |
| MNTX | Cornudas Mount | 80.05 | 55 | eP | P | 11 32 24.8 | +0.9 |
| MNTX | | | | epP | pP | 11 33 00.2 | -1.7 |
| CSS | Mathiatis | 80.06 | 310 | eP | P | 11 32 23.8 | -0.1 |
| | comp=Z,8.8nm,0.7s | | | | | | |
| CSS | Mathiatis | 80.06 | 310 | P | P | 11 32 23.8 | -0.1 |
| P37A | Lathrop | 80.08 | 43 | P | P | 11 32 23.2 | -0.7 |
| | baz=321 | | | | | | |
| WTTA | Wattenberg | 80.09 | 330 | iP | P | 11 32 24.4 | +0.4 |
| | comp=Z,25nm,0.9s | | | | | | |
| RETA | Reutte | 80.20 | 331 | iP | P | 11 32 24.9 | +0.5 |
| | comp=Z,34nm,1.2s,SNR=7.1 | | | | | | |
| MOTA | Moosalm | 80.20 | 331 | iP | P | 11 32 24.6 | +0.1 |
| | SNR=16 | | | | | | |
| MOTA | | | | iP | PcP | 11 32 24.8 | -6.6 |
| | comp=Z,41nm,1.0s | | | | | | |
| MOTA | | | | i pP | pP | 11 33 04.8 | +2.2 |
| | comp=Z,22nm,0.9s | | | | | | |
| ABTA | Abfaltersbach | 80.22 | 330 | iP | P | 11 32 24.2 | -0.3 |
| | comp=Z,13nm,1.5s | | | | | | |
| BFO | Black Forest | 80.28 | 333 | iP | P | 11 32 24.9 | +0.1 |
| BFO | Black Forest | 80.28 | 333 | eP | P | 11 32 24.5 | -0.3 |
| | comp=Z,19nm,1.0s | | | | | | |
| PLE | Pljevlja | 80.36 | 324⇓ | iP | P | 11 32 24.8 | -0.6 |
| N40A | Mertquake, Sal | 80.38 | 41 | P | P | 11 32 24.5 | -1.0 |
| | baz=323 | | | | | | |
| P38A | Dawn | 80.45 | 43 | P | P | 11 32 25.3 | -0.6 |
| | baz=322 | | | | | | |
| M41A | Milan | 80.47 | 40 | P | P | 11 32 25.0 | -0.9 |
| | baz=323 | | | | | | |
| R36A | Gordon, Harris | 80.49 | 45 | P | P | 11 32 25.6 | -0.5 |
| | baz=321,SNR=5.5 | | | | | | |
| IVA | Berane | 80.52 | 323 | eP | P | 11 32 25.8 | -0.5 |
| S35A | Otter Creek Ra | 80.57 | 45 | P | P | 11 32 25.9 | -0.6 |
| | baz=320 | | | | | | |
| SKO | Skopje | 80.57 | 322 | iP | P | 11 32 27.1 | +0.7 |
| VAY | Valandovo | 80.58 | 320 | iP | P | 11 32 26.9 | +0.4 |
| FETA | Feichten | 80.61 | 331 | iP | P | 11 32 26.9 | +0.1 |
| | comp=Z,20nm,1.1s | | | | | | |
| FETA | | | | iP | P | 11 32 26.9 | +0.1 |
| | SNR=6.6 | | | | | | |
| T34A | McClaskey Farm | 80.63 | 46 | P | P | 11 32 26.1 | -0.7 |
| | baz=320,SNR=5.6 | | | | | | |
| UPM | Unac-Piva | 80.67 | 324⇓ | iP | P | 11 32 26.1 | -1.1 |
| DAVA | Damuels | 80.68 | 331 | iP | P | 11 32 27.1 | 0.0 |
| | SNR=7.1 | | | | | | |
| DAVA | | | | iP | P | 11 32 27.2 | +0.1 |
| | comp=Z,28nm,0.9s | | | | | | |
| DAVA | | | | i PcP | PcP | 11 32 31.4 | -2.0 |
| DAVA | | | | i pP | pP | 11 33 06.8 | +1.6 |
| | comp=Z,19nm,1.1s | | | | | | |
| ECH | Echery | 80.76 | 334 | eP | P | 11 32 26.9 | -0.4 |
| ECH | Echery | 80.76 | 334 | eP | P | 11 32 27.0 | -0.4 |
| ECH | | | | pmax | pmax | | |
| | comp=Z,26nm,1.2s | | | | | | |
| ECH | Echery | 80.76 | 334 | eP | P | 11 32 27.0 | -0.4 |
| | comp=Z,26nm,1.2s | | | | | | |
| R37A | Teagarden Farm | 80.83 | 44 | P | P | 11 32 27.4 | -0.5 |
| | baz=321 | | | | | | |
| O40A | La Belle | 80.85 | 41 | P | P | 11 32 27.3 | -0.7 |
| | baz=322 | | | | | | |
| S36A | Lake Cedric, C | 80.91 | 45 | P | P | 11 32 28.1 | -0.2 |
| | baz=321,SNR=7.6 | | | | | | |
| Q38A | Cooks Store, C | 80.93 | 43 | P | P | 11 32 28.2 | -0.1 |
| | baz=322,SNR=6.6 | | | | | | |
| P39B | Salisbury | 80.93 | 42 | P | P | 11 32 27.8 | -0.6 |
| | baz=322 | | | | | | |
| RAYN | Ar Rayn | 80.94 | 294 | eP | P | 11 32 29.3 | +0.6 |
| | comp=Z,36nm,1.0s | | | | | | |
| NKY | Niksic | 80.95 | 324⇓ | iP | P | 11 32 27.9 | -0.7 |
| T35A | Sooner Cattle | 81.06 | 46 | P | P | 11 32 29.5 | +0.3 |
| | baz=320,SNR=9.5 | | | | | | |
| BRY | Bratogost | 81.07 | 324 | eP | P | 11 32 28.2 | -1.0 |
| MOF | Molkenrain | 81.09 | 333 | eP | P | 11 32 28.1 | -1.1 |
| AKAS | Kas | 81.11 | 313 | eP | P | 11 32 29.2 | -0.3 |
| | comp=Z,12nm,0.7s | | | | | | |
| THEF | They Montfort | 81.12 | 334 | eP | P | 11 32 28.6 | -0.6 |
| FUORN | Ofenpass-Fuorn | 81.12 | 331 | eP | P | 11 32 29.9 | +0.3 |
| | comp=Z,53nm,1.4s | | | | | | |
| N42A | Yates City | 81.14 | 40 | P | P | 11 32 29.1 | -0.4 |
| | baz=323 | | | | | | |
| KRUS | Krusevo | 81.14 | 321 | iP | P | 11 32 29.9 | +0.4 |
| PDG | Podgorica | 81.15 | 323⇑ | iP | P | 11 32 29.5 | 0.0 |
| TTG | Podgorica | 81.15 | 323⇓ | iP | P | 11 32 29.3 | -0.2 |
| Q39A | Willow Grove F | 81.17 | 43 | P | P | 11 32 29.5 | -0.1 |
| | baz=322,SNR=5.1 | | | | | | |
| CEME | Cevo | 81.20 | 323⇓ | iP | P | 11 32 29.0 | -0.8 |
| P40A | Paris | 81.23 | 42 | P | P | 11 32 29.7 | -0.3 |
| | baz=322 | | | | | | |
| S37A | Fort Scott | 81.26 | 44 | P | P | 11 32 29.7 | -0.4 |
| | baz=321,SNR=6.0 | | | | | | |
| T36A | Boggs Farm, Ca | 81.27 | 46 | P | P | 11 32 30.2 | 0.0 |
| | baz=321,SNR=6.6 | | | | | | |
| U35A | Pawnee | 81.36 | 47 | P | P | 11 32 30.2 | -0.5 |
| | baz=320,SNR=7.1 | | | | | | |
| DRME | Dracevica, Mon | 81.38 | 323⇓ | iP | P | 11 32 30.6 | -0.1 |
| BIA | Bitola | 81.39 | 321 | iP | P | 11 32 31.2 | +0.3 |
| R38A | Fenwick Farm, | 81.39 | 44 | P | P | 11 32 30.1 | -0.8 |
| | baz=322 | | | | | | |
| N43A | Stutzman Famil | 81.44 | 39 | P | P | 11 32 30.3 | -0.7 |
| | baz=324 | | | | | | |
| HCY | Herceg Novi | 81.46 | 324⇓ | iP | P | 11 32 30.7 | -0.4 |
| WMOK | Wichita Mounta | 81.52 | 49 | P | P | 11 32 31.8 | +0.2 |
| | baz=320 | | | | | | |
| WMOK | Wichita Mounta | 81.52 | 49 | eP | P | 11 32 33.2 | +1.6 |
| WMOK | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.8s | | | | | | |
| WMOK | Wichita Mounta | 81.52 | 49 | eP | P | 11 32 33.2 | +1.6 |
| | comp=Z,7.5nm,0.8s | | | | | | |
| ULC | Ulcinj | 81.54 | 323⇓ | iP | P | 11 32 30.9 | -0.7 |
| OHR | Ohrid | 81.55 | 321 | iP | P | 11 32 31.3 | -0.4 |
| TUE | Stuetta | 81.56 | 331 | eP | P | 11 32 31.3 | -0.6 |
| | comp=Z,19nm,0.8s | | | | | | |
| P41A | Barry, Barry | 81.58 | 41 | P | P | 11 32 31.2 | -0.6 |
| | baz=323 | | | | | | |
| Q40A | Laux Farm, Aux | 81.64 | 42 | P | P | 11 32 31.9 | -0.3 |
| | baz=322 | | | | | | |
| HDIL | Hopedale | 81.69 | 39 | P | P | 11 32 32.2 | -0.2 |
| | baz=324 | | | | | | |
| R39A | Chumby, Stover | 81.72 | 43 | P | P | 11 32 32.2 | -0.4 |
| | baz=322,SNR=7.5 | | | | | | |
| TIR | Tirane | 81.77 | 322⇑ | iP | P | 11 32 33.1 | +0.3 |
| TIR | Tirane | 81.77 | 322 | eP | P | 11 32 32.9 | +0.1 |
| TIR | | | | pmax | pmax | | |
| | comp=Z,50nm,0.6s | | | | | | |
| TIR | Tirane | 81.77 | 322 | eP | P | 11 32 32.9 | +0.1 |
| | comp=Z,50nm,0.6s | | | | | | |
| S38A | Stockton | 81.82 | 44 | P | P | 11 32 32.5 | -0.6 |
| | baz=322 | | | | | | |
| XOR | Xorichti | 81.85 | 319 | P | P | 11 32 32.5 | -0.8 |
| XOR | Xorichti | 81.85 | 319 | P | P | 11 32 32.5 | -0.8 |
| NEST | Nestorio | 82.00 | 321 | P | P | 11 32 34.0 | -0.1 |
| N44A | Piper City | 82.02 | 38 | P | P | 11 32 33.1 | -1.0 |
| | baz=324 | | | | | | |
| S39A | Bolivar | 82.06 | 44 | P | P | 11 32 33.9 | -0.5 |
| | baz=322,SNR=6.8 | | | | | | |
| Q41A | Truxton | 82.08 | 41 | P | P | 11 32 34.4 | 0.0 |
| | baz=323,SNR=5.9 | | | | | | |
| T38A | Diamond | 82.09 | 45 | P | P | 11 32 34.3 | -0.2 |
| | baz=322,SNR=5.7 | | | | | | |
| R40A | Maddies Statio | 82.11 | 43 | P | P | 11 32 34.6 | 0.0 |
| | baz=322 | | | | | | |
| PENT | Pentalofos | 82.14 | 321 | P | P | 11 32 34.7 | -0.1 |
| TUL1 | Leonard | 82.20 | 46 | P | P | 11 32 35.1 | -0.1 |
| | baz=321 | | | | | | |
| W35A | Tecumseh | 82.22 | 47 | eP | P | 11 32 37.0 | +1.8 |
| W35A | | | | epP | pP | 11 33 13.3 | -0.2 |
| N45A | Kentland | 82.25 | 38 | P | P | 11 32 34.3 | -1.0 |
| | baz=325 | | | | | | |
| SENIN | Lac Senin/Sane | 82.35 | 333 | eP | P | 11 32 35.8 | -0.1 |
| | comp=Z,14nm,0.8s | | | | | | |
| Q42A | Golden Eagle | 82.44 | 41 | P | P | 11 32 36.3 | 0.0 |
| | baz=323 | | | | | | |
| U38A | Gravette | 82.51 | 45 | P | P | 11 32 35.8 | -0.9 |
| | baz=322 | | | | | | |
| R41A | Rosebud | 82.53 | 42 | P | P | 11 32 36.5 | -0.3 |
| | baz=323 | | | | | | |
| S40A | Lebanon | 82.54 | 43 | P | P | 11 32 36.7 | -0.1 |
| | baz=322,SNR=5.9 | | | | | | |
| V37A | Hulbert | 82.56 | 46 | P | P | 11 32 37.1 | +0.1 |
| | baz=321,SNR=5.7 | | | | | | |
| T39A | Clever | 82.56 | 44 | P | P | 11 32 36.7 | -0.2 |
| | baz=322 | | | | | | |
| W36A | Wetumka | 82.57 | 47 | eP | P | 11 32 38.0 | +1.0 |
| W36A | | | | epP | pP | 11 33 17.1 | +1.8 |
| O45A | Potomac | 82.65 | 39 | P | P | 11 32 37.2 | -0.1 |
| | baz=325 | | | | | | |
| X35A | Drake | 82.74 | 48 | P | P | 11 32 37.3 | -0.7 |
| | baz=320 | | | | | | |
| X35A | Drake | 82.74 | 48 | eP | P | 11 32 39.8 | +1.8 |
| X35A | | | | epP | pP | 11 33 14.2 | -2.0 |
| CCM | Cathedral Cave | 82.78 | 42 | eP | P | 11 32 38.5 | +0.4 |
| CCM | | | | e*PP | pP | 11 33 15.6 | -0.8 |
| CCM | Cathedral Cave | 82.78 | 42 | eP | P | 11 32 38.5 | +0.4 |
| CCM | | | | epP | pP | 11 33 15.6 | -0.8 |
| TX31 | Lajitas Ar. Si | 82.79 | 56 | eP | P | 11 32 38.9 | +0.5 |
| TX31 | | | | eP | PcP | 11 32 39.0 | -3.9 |
| LTX | Lajitas | 82.79 | 56 | eP | P | 11 32 39.0 | +0.6 |
| LTX | | | | e*PP | pP | 11 33 17.2 | +0.5 |
| LTX | Lajitas | 82.79 | 56 | eP | P | 11 32 39.0 | +0.6 |
| LTX | | | | epP | pP | 11 33 17.2 | +0.5 |
| TXAR | Lajitas Array | 82.79 | 56 | P | P | 11 32 39.0 | +0.6 |
| | comp=Z,3.2nm,0.5s,baz=290,slow=3.5,SNR=99 | | | | | | |
| TXAR | | | | pP | pP | 11 33 17.2 | +0.5 |
| | comp=Z,7.2nm,0.6s,baz=296,slow=3.7,SNR=8.6 | | | | | | |
| Q43A | New Douglas | 82.81 | 41 | P | P | 11 32 37.8 | -0.4 |
| | baz=324 | | | | | | |
| R42A | Luebbering | 82.82 | 42 | P | P | 11 32 38.0 | -0.3 |
| | baz=323 | | | | | | |
| HHAR | Hobbs | 82.86 | 45 | eP | P | 11 32 38.6 | 0.0 |
| HHAR | | | | epP | pP | 11 33 18.2 | +1.4 |
| P44A | Sand Creek, Wi | 82.88 | 40 | P | P | 11 32 37.9 | -0.6 |
| | baz=324 | | | | | | |
| KARP | Karpathos | 82.90 | 314 | eP | P | 11 32 38.8 | +0.1 |
| | comp=Z,20nm,0.5s | | | | | | |
| S41A | Jillco Farms, | 82.92 | 43 | P | P | 11 32 37.9 | -0.9 |
| | baz=323 | | | | | | |
| X36A | Centrahoma | 82.94 | 47 | P | P | 11 32 38.9 | -0.1 |
| | baz=321 | | | | | | |
| V38A | Canehill | 82.95 | 45 | P | P | 11 32 38.6 | -0.4 |
| | baz=322,SNR=5.4 | | | | | | |
| W37B | Quinton | 82.98 | 47 | P | P | 11 32 38.9 | -0.3 |
| | baz=321 | | | | | | |
| W37B | Quinton | 82.98 | 47 | eP | P | 11 32 39.9 | +0.7 |
| W37B | | | | epP | pP | 11 33 17.0 | -0.5 |
| U39A | Green Forest | 83.01 | 45 | P | P | 11 32 39.0 | -0.3 |
| | baz=322,SNR=8.9 | | | | | | |
| ANX | Ano Chora | 83.06 | 319 | P | P | 11 32 38.8 | -0.9 |
| KALE | Kalithea | 83.12 | 319 | eP | P | 11 32 38.8 | -1.1 |
| KALE | Kalithea | 83.12 | 319 | P | P | 11 32 38.8 | -1.1 |
| SERG | Sergoula | 83.14 | 319 | P | P | 11 32 39.0 | -1.0 |
| P45A | Graceland, Par | 83.22 | 39 | P | P | 11 32 40.0 | -0.4 |
| | baz=325 | | | | | | |
| S42A | Caledonia | 83.23 | 42 | P | P | 11 32 40.1 | -0.3 |
| | baz=323 | | | | | | |
| R43A | Red Bud | 83.23 | 41 | P | P | 11 32 39.8 | -0.6 |
| | baz=324 | | | | | | |
| T41A | Mountain View | 83.34 | 43 | P | P | 11 32 40.3 | -0.6 |
| | baz=323,SNR=5.5 | | | | | | |
| U40A | Yellville | 83.34 | 44 | P | P | 11 32 40.9 | -0.1 |
| | baz=322,SNR=9.1 | | | | | | |
| HPIG | | 83.34 | 59 | eP | P | 11 32 42.2 | +0.8 |
| | comp=Z,7.1nm,0.9s | | | | | | |
| HPIG | | | | epP | pP | 11 33 18.7 | -1.1 |
| V39A | Pettigrew | 83.35 | 45 | P | P | 11 32 41.4 | +0.3 |
| | baz=322 | | | | | | |
| P46A | Rosedale | 83.39 | 39 | P | P | 11 32 40.5 | -0.7 |
| | baz=325,SNR=5.7 | | | | | | |
| GUR | Goura | 83.39 | 319 | eP | P | 11 32 40.3 | -1.1 |
| GUR | Goura | 83.39 | 319 | P | P | 11 32 40.3 | -1.1 |
| PDO | Prodromos | 83.40 | 320 | P | P | 11 32 40.9 | -0.4 |
| Q45A | Warren Harvey, | 83.55 | 40 | P | P | 11 32 41.7 | -0.3 |
| | baz=325 | | | | | | |
| R44A | Waltonville | 83.65 | 41 | P | P | 11 32 41.6 | -0.9 |
| | baz=324 | | | | | | |
| X38A | Whitesboro | 83.66 | 46 | P | P | 11 32 42.2 | -0.4 |
| | baz=321 | | | | | | |
| T42A | Van Buren | 83.67 | 43 | P | P | 11 32 41.7 | -1.0 |
| | baz=323 | | | | | | |
| DRO | Drossia | 83.68 | 319 | P | P | 11 32 42.6 | -0.1 |
| BNI | Bardonecchia | 83.71 | 332 | eP | P | 11 32 43.1 | +0.2 |
| BNI | | | | pmax | pmax | | |
| | comp=Z,30nm,1.3s | | | | | | |
| BNI | Bardonecchia | 83.71 | 332 | eP | P | 11 32 43.1 | +0.2 |
| | comp=Z,30nm,1.3s | | | | | | |
| ZKR | Zakros | 83.72 | 314 | eP | P | 11 32 43.1 | +0.2 |
| ZKR | Zakros | 83.72 | 314 | P | P | 11 32 43.1 | +0.2 |
| S43A | Fulton Ridge, | 83.73 | 42 | P | P | 11 32 41.8 | -1.1 |
| | baz=324,SNR=5.1 | | | | | | |
| V40A | Witts Springs | 83.79 | 44 | P | P | 11 32 43.7 | +0.3 |
| | baz=322 | | | | | | |
| PLDF | La Plantade | 83.86 | 335 | eP | P | 11 32 42.9 | -0.7 |
| S44A | Carbondale | 84.02 | 41 | P | P | 11 32 44.3 | 0.0 |
| | baz=324,SNR=6.0 | | | | | | |
| SIUC | Southern Illin | 84.02 | 41 | eP | P | 11 32 44.8 | +0.4 |
| SIUC | | | | epP | pP | 11 33 21.9 | -0.9 |
| T43A | Greenville | 84.02 | 42 | P | P | 11 32 44.0 | -0.4 |
| | baz=324 | | | | | | |
| LAST | Lasithi | 84.06 | 315 | P | P | 11 32 44.7 | -0.1 |
| LAST | Lasithi | 84.06 | 315 | P | P | 11 32 44.7 | -0.1 |
| V41A | Mountainview | 84.14 | 44 | P | P | 11 32 44.7 | -0.3 |
| | baz=323 | | | | | | |
| X39A | Fountain Ranch | 84.15 | 46 | P | P | 11 32 45.5 | +0.4 |
| | baz=322 | | | | | | |
| PBMO | Poplar Bluff | 84.19 | 42 | eP | P | 11 32 45.6 | +0.3 |
| PBMO | | | | epP | pP | 11 33 23.1 | -0.6 |
| ITM | Ithomi | 84.20 | 318 | P | P | 11 32 44.5 | -0.8 |
| ITM | Ithomi | 84.20 | 318 | P | P | 11 32 44.5 | -0.8 |
| SSB | Saint Sauveur | 84.20 | 334 | eP | P | 11 32 44.8 | -0.4 |
| SSB | | | | pmax | pmax | | |
| | comp=Z,41nm,1.5s | | | | | | |
| SSB | Saint Sauveur | 84.20 | 334 | eP | P | 11 32 44.8 | -0.4 |
| | comp=Z,41nm,1.5s | | | | | | |
| PMOR | Pomariorio Ree | 84.24 | 117 | eT | T | 13 04 58.2 | |
| | comp=Z,18nm,0.2s | | | | | | |
| PYM | Petit Puy Mans | 84.25 | 335 | eP | P | 11 32 45.1 | -0.4 |
| IDI | Anoyia | 84.25 | 315 | eP | P | 11 32 44.4 | -1.3 |
| IDI | Anoyia | 84.25 | 315 | P | P | 11 32 44.4 | -1.3 |
| Q47A | Bedord North L | 84.30 | 38 | P | P | 11 32 46.0 | +0.2 |
| | baz=326,SNR=7.2 | | | | | | |
| WHTX | Lake Whitney, | 84.33 | 50 | P | P | 11 32 45.5 | -0.6 |
| | baz=320 | | | | | | |
| WHTX | Lake Whitney, | 84.33 | 50 | eP | P | 11 32 46.6 | +0.6 |
| WHTX | | | | epP | pP | 11 33 23.8 | -0.7 |
| S45A | Carrier Mills | 84.34 | 41 | P | P | 11 32 46.1 | +0.1 |
| | baz=324 | | | | | | |
| T44A | Benton | 84.35 | 42 | P | P | 11 32 45.5 | -0.6 |
| | baz=324 | | | | | | |
| MIAR | Mount Ida | 84.40 | 46 | P | P | 11 32 46.3 | -0.1 |
| | baz=322 | | | | | | |
| WHAR | Wooly Hollow | 84.47 | 44 | eP | P | 11 32 47.3 | +0.6 |
| WHAR | | | | epP | pP | 11 33 24.5 | -0.6 |
| SIVA | Sivas | 84.51 | 315 | P | P | 11 32 46.9 | 0.0 |
| SIVA | Sivas | 84.51 | 315 | P | P | 11 32 46.9 | 0.0 |
| PYL | PYLOS | 84.51 | 318 | eP | P | 11 32 45.5 | -1.4 |
| PYL | PYLOS | 84.51 | 318 | P | P | 11 32 45.5 | -1.4 |
| U43A | Rector | 84.53 | 43 | P | P | 11 32 46.8 | -0.2 |
| | baz=324 | | | | | | |
| IMMV | Iera Moni Meta | 84.57 | 316 | P | P | 11 32 46.9 | -0.3 |
| ANKY | Antikythira Is | 84.58 | 317 | eP | P | 11 32 46.6 | -0.7 |
| ANKY | Antikythira Is | 84.58 | 317 | P | P | 11 32 46.6 | -0.7 |
| CUC | Castrocucco | 84.63 | 324 | eP | P | 11 32 46.2 | -1.3 |
| | comp=Z,5.7nm,0.8s | | | | | | |
| M54A | Oil Creek Stat | 84.94 | 33 | P | P | 11 32 48.1 | -1.0 |
| | baz=329 | | | | | | |
| PPT | Papeete | 85.13 | 120 | LR | LR | 12 06 54.0 | |
| | comp=Z,82nm,19.5s,baz=336,slow=33 | | | | | | |
| PPT2 | Papeete2 | 85.14 | 120 | eLR | LR | 11 59 58.0 | |
| | comp=Z,69nm,21.5s | | | | | | |
| LMN | Caledonia Moun | 85.84 | 21 | eP | P | 11 32 53.9 | +0.5 |
| | comp=Z,23nm,0.8s | | | | | | |
| WVT | Waverly | 85.95 | 41 | eP | P | 11 32 54.4 | +0.4 |
| WVT | | | | pmax | pmax | | |
| | comp=Z,33nm,1.8s | | | | | | |
| WVT | Waverly | 85.95 | 41 | eP | P | 11 32 54.4 | +0.4 |
| | comp=Z,33nm,1.8s | | | | | | |
| O56A | Blue Knob Stat | 86.43 | 33 | P | P | 11 32 55.2 | -1.2 |
| | baz=330 | | | | | | |
| Y45A | Yeager Farm, C | 86.96 | 43 | P | P | 11 32 58.8 | -0.2 |
| | baz=324 | | | | | | |
| SWET | Sewanee | 87.58 | 40 | eP | P | 11 33 02.0 | 0.0 |
| | comp=Z,9.8nm,0.6s | | | | | | |
| 244A | Avery, Jackson | 87.85 | 45 | P | P | 11 33 02.9 | -0.4 |
| | baz=324 | | | | | | |
| TBI | Tubuai | 89.59 | 124 | eLR | LR | 12 01 29.4 | |
| | comp=Z,90nm,26.5s | | | | | | |
| TBI | Tubuai | 89.59 | 124 | eT | T | 13 11 39.7 | |
| | comp=Z,3.0nm,0.3s | | | | | | |
| KEST | Kesra | 90.92 | 326 | P | P | 11 33 17.0 | -0.7 |
| | comp=Z,5.2nm,0.7s,baz=242,slow=4.9,SNR=5.5 | | | | | | |
| KEST | Kesra | 90.92 | 326 | eP | P | 11 33 17.0 | -0.7 |
| | comp=Z,5.5nm,0.7s | | | | | | |
| ES19 | SONSECA Array | 91.80 | 337 | eP | P | 11 33 21.6 | -0.1 |
| ES19 | | | | epP | pP | 11 34 02.6 | +2.1 |
| ESDC | Sonseca Array | 91.85 | 337 | P | P | 11 33 21.4 | -0.5 |
| | comp=Z,3.3nm,0.6s,baz=21,slow=4.0,SNR=17 | | | | | | |
| TOA1 | Torodi Ar. Sit | 114.03 | 322 | ePKiKP | PKiKP | 11 38 51.7 | -0.7 |
| TORD | Torodi Ar. Bea | 114.03 | 322 | PKP | PKPdf | 11 38 51.7 | -0.7 |
| | comp=Z,1.8nm,0.4s,baz=15,slow=2.1,SNR=27 | | | | | | |
| TORD | | | | PKKPbc | PKKPbc | 11 49 33.9 | +1.7 |
| | comp=Z,0.5nm,0.4s,baz=209,slow=1.7,SNR=5.6 | | | | | | |
| DBIC | Dimbokro | 122.63 | 325 | PKP | PKPdf | 11 39 08.4 | -0.6 |
| | comp=Z,8.3nm,0.7s,baz=24,slow=2.5,SNR=12 | | | | | | |
| BOSA | Boshof | 130.94 | 268 | SKPbc | SKPab | 11 42 35.5 | +0.7 |
| | comp=Z,17nm,0.9s,baz=48,slow=4.2,SNR=16 | | | | | | |
| LPAZ | La Paz | 139.65 | 57 | SKPbc | SKPbc | 11 43 03.1 | +0.3 |
| | comp=Z,2.3nm,0.8s,baz=356,slow=7.1,SNR=5.3 | | | | | | |
| NVL | N'lazarevskaya | 145.66 | 205 | ePKP2 | PKPab | 11 39 50.9 | -0.3 |
| LCO | Las Campanas | 147.00 | 74 | ePKPdf | PKPbc | 11 39 56.7 | +0.6 |
| BDFB | Brasilia | 148.73 | 27 | PKPbc | PKPbc | 11 40 01.4 | +0.6 |
| | comp=Z,8.0nm,0.6s,baz=28,slow=3.0,SNR=12 | | | | | | |
| SNAA | Sanae | 149.06 | 199 | P | PKPbc | 11 40 00.1 | +0.2 |
| SNAA | Sanae | 149.06 | 199 | ePKP2 | PKPbc | 11 40 00.3 | +0.3 |
| SNAA | Sanae | 149.06 | 199 | ePKPbc | PKPbc | 11 40 00.3 | +0.3 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| ROC1 | El Roble | 149.09 | 81 | ePKPbc | PKPbc | 11 40 01.9 | +0.4 |
| PEL | Peldehue | 149.41 | 81 | ePKP2 | PKPbc | 11 40 02.7 | +0.7 |
| PEL | Peldehue | 149.41 | 81 | ePKPbc | PKPbc | 11 40 02.7 | +0.7 |
| VNA2 | Neumayer--Watz | 150.61 | 197 | P | PKPbc | 11 40 04.3 | +0.7 |
| | baz=101,slow=1.8 | | | | | | |
| VNA3 | Neumayer Olymp | 150.82 | 196 | P | PKPbc | 11 40 04.4 | +0.3 |
| VNA1 | Neumayer--Stat | 151.01 | 197 | P | PKPbc | 11 40 05.2 | +0.6 |
| PLCA | Paso Flores | 152.93 | 95 | PKPbc | PKPbc | 11 40 09.6 | -0.3 |
| | comp=Z,1.6nm,0.6s,baz=7.3,slow=1.1,SNR=10 | | | | | | |

**IDC 01 11:36:54.5±2.1, 18°.72S×177°.45W, h601km±65km, mb3.2/4, mb1 3.3/6, mb1mx3.0/26, mbtmp4.2/6, Error ellipse: s-maj=63.4km s-min=25.7km az=16.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AFI | Afiamalu | 7.25 | 50 | P | P | 11 38 47.5 | +0.5 |
| | 1.6nm,0.3s,baz=322,slow=11,SNR=3.6 | | | | | | |
| AFI | | | | S | S | 11 40 18.7 | -0.3 |
| | 3.6nm,0.3s,baz=80,slow=22,SNR=6.2 | | | | | | |
| DZM | Mont Dzumac | 15.46 | 255 | P | P | 11 40 07.2 | +0.3 |
| | 0.4nm,0.3s,baz=123,slow=19,SNR=4.6 | | | | | | |
| URZ | Urewera | 20.04 | 193 | P | P | 11 40 43.5 | -4.8 |
| | 4.3nm,0.3s,baz=278,slow=2.3,SNR=14 | | | | | | |
| STKA | Stephens Creek | 39.05 | 242 | P | P | 11 43 31.1 | -0.2 |
| | 2.6nm,0.5s,baz=81,slow=9.9,SNR=14 | | | | | | |
| WRA | Warramunga Arr | 45.39 | 260 | P | P | 11 44 20.8 | -0.2 |
| | 2.8nm,0.4s,baz=98,slow=7.7,SNR=107 | | | | | | |
| ASAR | Alice Springs | 45.45 | 255 | P | P | 11 44 21.4 | -0.1 |
| | 3.5nm,0.4s,baz=86,slow=8.4,SNR=120 | | | | | | |
| VNDA | Vanda | 59.72 | 185 | P | P | 11 46 01.8 | 0.0 |
| | 0.4nm,0.9s,baz=2.7,slow=8.1,SNR=3.2 | | | | | | |

*CSEM 01 11:50:17.5±0.7, 34°.21N×25°.08E, h2km, ML2.5, Error ellipse: s-maj=11.4km s-min=6.1km az=2.0*
*THE 01 11:50:19.3, 34°.31N×25°.08E, h1km±2km, ML2.5/6, Error ellipse: s-maj=3.2km s-min=1.1km az=172.0*
*ATH 01 11:50:19.1, 34°.30N×25°.08E, h24km±3km, ML2.6/2, Error ellipse: s-maj=6.5km s-min=2.5km az=352.0*
**ISC 01 11:50:21.6±1.7, 34°.36N±0°.09×25°.06E±0°.03, h25km, n32, σ1s.13/49, Crete**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SIVA | Sivas | 0.68 | 342 | P | Pb | 11 50 34.7 | -0.2 |
| SIVA | | | | S | Sb | 11 50 44.4 | +0.4 |
| SIVA | | | | AML | AML | 11 50 47.3 | |
| | comp=N,2316µm,0.6s | | | | | | |
| SIVA | | | | AML | AML | 11 50 48.6 | |
| | comp=E,2861µm,0.5s | | | | | | |
| SIVA | Sivas | 0.68 | 342 | P | Pb | 11 50 34.8 | -0.1 |
| SIVA | | | | S | Sb | 11 50 44.9 | +0.9 |
| SIVA | | | | AML | AML | 11 50 47.3 | |
| | comp=N,2316µm,0.6s | | | | | | |
| SIVA | | | | AML | AML | 11 50 48.6 | |
| | comp=E,2861µm,0.5s | | | | | | |
| SIVA | Sivas | 0.68 | 342 | P | Pb | 11 50 34.1 | -0.8 |
| SIVA | | | | S | Sb | 11 50 44.6 | +0.6 |
| SIVA | Sivas | 0.68 | 342 | P | Pb | 11 50 34.1 | -0.8 |
| SIVA | | | | S | Sb | 11 50 44.6 | +0.6 |
| LAST | Lasithi | 0.87 | 23 | P | Pb | 11 50 36.3 | -1.7 |
| LAST | | | | S | Sn | 11 50 50.5 | +0.4 |
| LAST | Lasithi | 0.87 | 23 | P | Pb | 11 50 36.3 | -1.7 |
| LAST | Lasithi | 0.87 | 23 | P | Pb | 11 50 36.3 | -1.7 |
| LAST | | | | S | Sn | 11 50 51.5 | +1.3 |
| LAST | Lasithi | 0.87 | 23 | P | Pb | 11 50 36.6 | -1.4 |
| LAST | | | | S | Sn | 11 50 51.5 | +1.3 |
| IDI | Anoyia | 0.93 | 351 | P | Pn | 11 50 37.6 | -1.6 |
| IDI | | | | S | Sn | 11 50 53.0 | +1.3 |
| IDI | Anoyia | 0.93 | 351 | P | Pn | 11 50 37.1 | -2.0 |
| IDI | | | | S | Sn | 11 50 53.3 | +1.5 |
| IDI | | | | AML | AML | 11 50 54.0 | |
| | comp=E,235µm,0.5s | | | | | | |
| IDI | | | | AML | AML | 11 50 59.3 | |
| | comp=N,203µm,0.5s | | | | | | |
| IDI | Anoyia | 0.93 | 351 | P | Pn | 11 50 37.6 | -1.6 |
| IDI | | | | S | Sn | 11 50 52.7 | +0.9 |
| IDI | Anoyia | 0.93 | 351 | P | Pn | 11 50 37.9 | -1.3 |
| IDI | | | | S | Sn | 11 50 52.7 | +0.9 |
| GVD | Gavdhos | 0.93 | 301 | P | Pn | 11 50 38.0 | -1.1 |
| GVD | Gavdhos | 0.93 | 301 | P | Pn | 11 50 37.9 | -1.2 |
| GVD | Gavdhos | 0.93 | 301 | P | Pn | 11 50 37.9 | -1.2 |
| GVD | | | | S | Sn | 11 50 52.7 | +1.0 |
| GVD | Gavdhos | 0.93 | 301 | P | Pn | 11 50 37.9 | -1.2 |
| GVD | | | | S | Sn | 11 50 52.7 | +1.0 |
| NPS | Neapolis | 1.00 | 27 | P | Pn | 11 50 38.8 | -1.3 |
| NPS | Neapolis | 1.00 | 27 | P | Pn | 11 50 38.9 | -1.3 |
| NPS | Neapolis | 1.00 | 27 | P | Pn | 11 50 39.2 | -0.9 |
| NPS | Neapolis | 1.00 | 27 | P | Pn | 11 50 39.2 | -0.9 |
| ZKR | Zakros | 1.21 | 51 | P | Pb | 11 50 43.5 | -0.4 |
| ZKR | Zakros | 1.21 | 51 | P | Pb | 11 50 43.7 | -0.1 |
| ZKR | Zakros | 1.21 | 51 | P | Pn | 11 50 42.2 | -0.7 |
| ZKR | | | | S | Sb | 11 50 59.3 | +0.3 |
| ZKR | Zakros | 1.21 | 51 | P | Pn | 11 50 42.2 | -0.7 |
| ZKR | | | | S | Sb | 11 50 59.3 | +0.3 |
| VAM | Vamos | 1.26 | 326 | P | Pn | 11 50 43.5 | -0.1 |
| VAM | Vamos | 1.26 | 326 | P | Pb | 11 50 44.0 | -0.6 |
| VAM | Vamos | 1.26 | 326 | P | Pb | 11 50 43.8 | -0.9 |
| VAM | | | | S | Sb | 11 51 02.2 | +1.8 |
| VAM | Vamos | 1.26 | 326 | P | Pb | 11 50 43.8 | -0.9 |
| VAM | | | | S | Sb | 11 51 02.2 | +1.8 |
| IMMV | Iera Moni Meta | 1.41 | 321 | P | Pn | 11 50 44.8 | -0.9 |
| IMMV | Iera Moni Meta | 1.41 | 321 | P | Pn | 11 50 44.8 | -0.9 |
| KARP | Karpathos | 2.09 | 55 | P | Pn | 11 50 55.7 | +0.7 |
| KARP | Karpathos | 2.09 | 55 | P | Pn | 11 50 55.7 | +0.7 |

**KRSC 01 11:57:38.8±0.8, 55°.25N×161°.08E, h123km±10km, ML3.5, Near east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KZV | Kizimen | 0.47 | 253 | eP | Pn | 11 57 58.2 | +1.1 |
| KZV | | | | eS | Sn | 11 58 12.0 | +1.1 |
| TUMR | Tumrok | 0.53 | 274 | eP | Pn | 11 57 58.6 | +1.2 |
| TUMR | | | | eS | Sn | 11 58 12.7 | +1.3 |
| KMNR | Kamenistaya | 0.69 | 317 | eP | Pn | 11 57 59.3 | +0.8 |
| KMNR | | | | eS | Sn | 11 58 14.8 | +1.4 |
| BZGR | Bezymyannyi-Gr | 0.72 | 343 | eP | Pn | 11 57 58.3 | -0.4 |
| BZMR | Bezymyannaya | 0.76 | 334 | eP | Pn | 11 58 00.2 | +1.1 |
| BZMR | | | | eS | Sn | 11 58 15.9 | +1.5 |
| ZLN | Zelenaya | 0.78 | 349 | eP | Pn | 11 58 00.9 | +1.7 |
| ZLN | | | | eS | Sn | 11 58 16.8 | +2.1 |
| BZWR | Bezymyannyi-We | 0.79 | 335 | eP | Pn | 11 58 00.3 | +1.0 |
| BZWR | | | | eS | Sn | 11 58 16.0 | +1.2 |
| MKZ | Mys Kozlova | 0.79 | 151 | eP | Pn | 11 58 01.7 | +2.5 |
| KIRR | Kirishev | 0.82 | 330 | eP | Pn | 11 58 00.5 | +1.0 |
| KIRR | | | | eS | Sn | 11 58 16.0 | +0.7 |
| KPT | Kopyto | 0.86 | 326 | eP | Pn | 11 58 00.4 | +0.5 |
| KPT | | | | eS | Sn | 11 58 16.5 | +0.6 |
| CIRR | Tsirk | 0.88 | 348 | eP | Pn | 11 58 01.5 | +1.4 |
| CIRR | | | | eS | Sn | 11 58 18.2 | +1.9 |
| KRSR | Krestovskiy | 1.01 | 344 | eP | Pn | 11 58 02.2 | +1.0 |
| KRSR | | | | eS | Sn | 11 58 19.2 | +0.9 |
| KOZ | Kozyrevsk | 1.06 | 320 | eP | Pn | 11 58 02.4 | +0.8 |
| KOZ | | | | eS | Sn | 11 58 19.7 | +0.8 |
| KLY | Klyuchi | 1.09 | 347 | eP | Pn | 11 58 02.8 | +0.9 |
| KLY | | | | eS | Sn | 11 58 19.9 | +0.4 |
| BDR | Baidarnaya | 1.32 | 3 | eP | Pn | 11 58 06.7 | +2.3 |
| BDR | | | | eS | Sn | 11 58 26.2 | +2.2 |
| SMKR | Semkarok | 1.35 | 9 | eP | Pn | 11 58 07.1 | +2.3 |
| SMKR | | | | eS | Sn | 11 58 27.4 | +2.9 |
| KBG | Krutoberegovo | 1.36 | 42 | eP | Pn | 11 58 05.8 | +1.0 |
| KBG | | | | eS | Sn | 11 58 26.0 | +1.4 |
| KBTR | Krutoberegovo | 1.38 | 45 | eP | Pn | 11 58 06.9 | +2.0 |
| KBTR | | | | eS | Sn | 11 58 27.6 | +2.8 |
| SRKR | Sorokina | 1.41 | 2 | eP | Pn | 11 58 06.9 | +1.5 |
| SRKR | | | | eS | Sn | 11 58 26.9 | +1.3 |
| ESO | Esso | 1.51 | 298 | eP | Pn | 11 58 06.9 | +0.4 |
| KII | Karymskiy | 1.54 | 218 | eS | Sn | 11 58 30.0 | +1.6 |
| SPN | Mys Shipunski | 2.25 | 196 | eP | Pn | 11 58 16.4 | +1.0 |
| SPN | | | | eS | Sn | 11 58 43.7 | +0.2 |
| NLC | Nalytchevo | 2.32 | 207 | eP | Pn | 11 58 18.1 | +1.8 |
| NLC | | | | eS | Sn | 11 58 46.8 | +1.7 |
| SDLR | Sedlovina | 2.36 | 214 | eP | Pn | 11 58 19.4 | +2.4 |
| KRX | Arik | 2.37 | 218 | eP | Pn | 11 58 19.9 | +2.7 |
| GNL | Ganaly | 2.40 | 231 | eP | Pn | 11 58 19.2 | +1.6 |
| AVH | Avacha | 2.42 | 215 | eP | Pn | 11 58 20.5 | +2.8 |
| UGLR | Uglovaya | 2.44 | 214 | eP | Pn | 11 58 20.4 | +2.4 |
| DALK | Dalny | 2.61 | 212 | eP | Pn | 11 58 21.9 | +1.8 |
| BKI | Bering | 2.81 | 89 | eS | Sn | 11 58 55.8 | -0.4 |
| KRMR | Karymshinskiy | 2.98 | 217 | eP | Pn | 11 58 26.8 | +1.9 |
| KRMR | | | | eS | Sn | 11 59 01.6 | +1.1 |
| RUS | Russkaya | 3.21 | 209 | eP | Pn | 11 58 29.0 | +1.2 |
| KDTR | Khodutka, Kamc | 3.89 | 209 | eP | Pn | 11 58 37.7 | +0.9 |

**IDC 01 12:08:28.9±4.5, 7°.60N×93°.75E, h0km, mb3.4/4, mb1 3.6/4, mb1mx3.4/47, mbtmp3.4/4, Error ellipse: s-maj=169.4km s-min=24.9km az=66.0, Nicobar Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| H08S3 | Diego Garcia H | 26.05 | 235 | T | T | 12 40 54.9 | |
| | baz=54,slow=76,SNR=13 | | | | | | |
| H08S2 | Diego Garcia H | 26.05 | 235 | T | T | 12 40 52.0 | |
| | baz=54,slow=76,SNR=14 | | | | | | |
| H08S1 | Diego Carcia H | 26.06 | 235 | T | T | 12 40 53.0 | |
| | baz=54,slow=76,SNR=12 | | | | | | |
| SONM | Songino Array | 41.51 | 13 | P | P | 12 16 18.0 | -0.1 |
| | 0.4nm,0.6s,baz=186,slow=12,SNR=3.3 | | | | | | |
| ZALV | Zalesovo Beam | 46.77 | 353 | P | P | 12 16 59.8 | -0.1 |
| | 0.6nm,0.4s,baz=183,slow=5.9,SNR=4.5 | | | | | | |
| WRA | Warramunga Arr | 48.42 | 125 | P | P | 12 17 13.2 | -0.1 |
| | 0.3nm,0.7s,baz=306,slow=8.1,SNR=10 | | | | | | |
| ASAR | Alice Springs | 50.05 | 130 | P | P | 12 17 25.6 | -0.1 |
| | 0.2nm,0.5s,baz=302,slow=8.0,SNR=7.9 | | | | | | |

*CSEM 01 12:10:24.0, 37°.26N×21°.97E, h7km, ML1.7/7*
**ATH 01 12:10:23.9, 37°.25N×21°.98E, h7km±3km, ML1.9/4, Error ellipse: s-maj=3.1km s-min=0.8km az=148.0, Southern Greece**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ITM | Ithomi | 0.08 | 209 | P | Pg | 12 10 25.9 | 0.0 |
| ITM | | | | S | Sg | 12 10 27.7 | +0.3 |
| ITM | | | | AML | AML | 12 10 27.7 | |
| | comp=E,5973µm,0.2s | | | | | | |
| ITM | | | | AML | AML | 12 10 27.8 | |
| | comp=N,3197µm,0.1s | | | | | | |
| ITM | Ithomi | 0.08 | 209 | P | Pg | 12 10 25.8 | -0.2 |
| ITM | | | | S | Sg | 12 10 27.3 | -0.1 |
| ITM | | | | AML | AML | 12 10 27.7 | |
| | comp=E,5973µm,0.2s | | | | | | |
| ITM | | | | AML | AML | 12 10 27.8 | |
| | comp=N,3197µm,0.1s | | | | | | |
| ITM | Ithomi | 0.08 | 209 | P | Pg | 12 10 25.8 | -0.2 |
| ITM | | | | S | Sg | 12 10 27.3 | -0.1 |
| MES3 | Kyparissia | 0.24 | 269 | P | Pg | 12 10 28.8 | 0.0 |
| MES3 | | | | S | Sg | 12 10 33.2 | +1.1 |
| MES3 | Kyparissia | 0.24 | 269 | P | Pg | 12 10 28.9 | +0.1 |
| MES3 | | | | S | Sg | 12 10 33.2 | +1.1 |
| MES3 | Kyparissia | 0.24 | 269 | P | Pg | 12 10 28.9 | +0.1 |
| MES3 | | | | S | Sg | 12 10 33.2 | +1.2 |
| VLX | Vlachokerasia | 0.34 | 70 | P | Pg | 12 10 30.8 | +0.1 |
| VLX | | | | S | Sg | 12 10 35.2 | +0.1 |
| VLX | Vlachokerasia | 0.34 | 70 | P | Pg | 12 10 31.1 | +0.4 |
| VLX | | | | S | Sg | 12 10 36.1 | +0.9 |
| VLX | | | | AML | AML | 12 10 36.9 | |
| | comp=N,171µm,0.2s | | | | | | |
| VLX | | | | AML | AML | 12 10 37.0 | |
| | comp=E,325µm,0.3s | | | | | | |
| VLX | Vlachokerasia | 0.34 | 70 | P | Pg | 12 10 31.1 | +0.4 |
| VLX | | | | S | Sg | 12 10 36.1 | +0.9 |
| TRIP | Tripoli | 0.36 | 40 | P | Pg | 12 10 31.5 | +0.5 |
| TRIP | | | | S | Sg | 12 10 35.9 | +0.2 |
| TRIP | Tripoli | 0.36 | 40 | P | Pg | 12 10 31.5 | +0.4 |
| TRIP | | | | S | Sg | 12 10 34.9 | -0.8 |
| TRIP | | | | AML | AML | 12 10 38.3 | |
| | comp=N,88µm,0.4s | | | | | | |
| TRIP | | | | AML | AML | 12 10 39.3 | |
| | comp=E,120µm,0.4s | | | | | | |
| TRIP | Tripoli | 0.36 | 40 | P | Pg | 12 10 31.5 | +0.5 |
| TRIP | | | | S | Sg | 12 10 34.9 | -0.9 |
| PYL | PYLOS | 0.40 | 208 | P | Pg | 12 10 31.1 | -0.7 |
| PYL | | | | S | Sb | 12 10 38.4 | -1.3 |
| PYL | | | | AML | AML | 12 10 39.9 | |
| | comp=N,376µm,0.1s | | | | | | |
| PYL | | | | AML | AML | 12 10 40.7 | |
| | comp=E,449µm,0.2s | | | | | | |
| PYL | PYLOS | 0.40 | 208 | P | Pg | 12 10 31.1 | -0.7 |
| PYL | | | | S | Sb | 12 10 38.5 | -1.3 |
| PYL | | | | AML | AML | 12 10 39.8 | |
| | comp=N,376µm,0.1s | | | | | | |
| PYL | | | | AML | AML | 12 10 40.7 | |
| | comp=E,449µm,0.2s | | | | | | |
| PYL | PYLOS | 0.40 | 208 | P | Pg | 12 10 31.1 | -0.7 |
| PYL | | | | S | Sb | 12 10 38.5 | -1.3 |
| MES2 | Methoni | 0.48 | 207 | P | Pg | 12 10 33.1 | -0.1 |
| MES2 | | | | S | Sg | 12 10 40.5 | +1.0 |
| MES2 | | | | AML | AML | 12 10 42.5 | |
| | comp=E,275µm,0.2s | | | | | | |
| MES2 | | | | AML | AML | 12 10 42.5 | |
| | comp=N,500µm,0.2s | | | | | | |
| MES2 | Methoni | 0.48 | 207 | P | Pg | 12 10 32.0 | -1.2 |
| MES2 | | | | S | Sb | 12 10 40.9 | -1.0 |
| MES2 | | | | AML | AML | 12 10 42.5 | |
| | comp=E,275µm,0.2s | | | | | | |
| MES2 | | | | AML | AML | 12 10 42.5 | |
| | comp=N,500µm,0.2s | | | | | | |
| MES2 | Methoni | 0.48 | 207 | P | Pg | 12 10 32.0 | -1.2 |
| MES2 | | | | S | Sb | 12 10 40.9 | -1.0 |
| DRO | Drossia | 0.73 | 343 | P | Pg | 12 10 38.4 | +0.4 |
| DRO | Drossia | 0.73 | 343 | P | Pb | 12 10 38.8 | -0.2 |
| DRO | | | | S | Sb | 12 10 48.4 | -0.8 |
| DRO | | | | AML | AML | 12 10 54.0 | |
| | comp=N,125µm,0.3s | | | | | | |
| DRO | | | | AML | AML | 12 10 54.7 | |
| | comp=E,222µm,0.4s | | | | | | |
| DRO | Drossia | 0.73 | 343 | P | Pb | 12 10 38.8 | -0.2 |
| DRO | | | | S | Sb | 12 10 48.4 | -0.8 |
| GUR | Goura | 0.74 | 23 | P | Pg | 12 10 37.0 | -1.2 |
| GUR | | | | AML | AML | 12 10 51.1 | |
| | comp=E,150µm,0.2s | | | | | | |
| GUR | | | | AML | AML | 12 10 51.2 | |
| | comp=N,154µm,0.3s | | | | | | |
| GUR | Goura | 0.74 | 23 | P | Pg | 12 10 37.6 | -0.7 |
| GUR | | | | S | Sb | 12 10 49.5 | -0.1 |
| GUR | | | | AML | AML | 12 10 51.1 | |
| | comp=E,150µm,0.2s | | | | | | |
| GUR | | | | AML | AML | 12 10 51.2 | |
| | comp=N,154µm,0.3s | | | | | | |
| GUR | Goura | 0.74 | 23 | P | Pg | 12 10 37.6 | -0.6 |
| GUR | | | | S | Sb | 12 10 49.5 | -0.1 |
| KLV | Kalavryta, Ach | 0.80 | 10 | P | Pg | 12 10 38.5 | -0.8 |
| KLV | | | | S | Sb | 12 10 51.9 | +0.6 |
| KLV | Kalavryta, Ach | 0.80 | 10 | P | Pg | 12 10 38.4 | -0.9 |
| KLV | | | | S | Sb | 12 10 51.2 | -0.1 |
| KLV | Kalavryta, Ach | 0.80 | 10 | P | Pg | 12 10 38.4 | -1.0 |
| KLV | | | | S | Sb | 12 10 51.2 | -0.1 |
| DID | Didima | 1.03 | 75 | P | Pg | 12 10 44.0 | +0.2 |
| DID | Didima | 1.03 | 75 | P | Pg | 12 10 43.8 | 0.0 |
| DID | | | | S | Sg | 12 10 56.7 | -0.5 |
| DID | Didima | 1.03 | 75 | P | Pg | 12 10 43.8 | 0.0 |
| DID | | | | S | Sg | 12 10 56.7 | -0.5 |
| LTK | Loutraki | 1.10 | 45 | P | Pg | 12 10 44.5 | -0.5 |

*IDC 01 12:18:31.7±12.0, 49°.99N×154°.77E, h52km±78km, mb3.3/5, mb1 3.7/6, mb1mx3.3/64, mbtmp3.6/6, ML2.5/1, Error ellipse: s-maj=124.9km s-min=44.1km az=13.0*
*KRSC 01 12:18:37.1±2.0, 50°.19N×157°.22E, h16km±35km, ML4.4*
*MOS 01 12:18:37.1±1.9, 50°.19N×157°.22E, h17km, mb4.5/1, Error ellipse: s-maj=28.0km s-min=5.3km az=81.2*
**ISC 01 12:18:33.3±1.4, 50°.1N±0°.1×156°.83E±0°.06, h10km, n49, σ2s.31/71, mb3.6/5, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SKR | Severo-Kuril's | 0.78 | 324 | PN | Pn | 12 18 51.9 | +1.6 |
| SKR | | | | S | Sn | 12 19 01.7 | -0.3 |
| SKR | Severo-Kuril's | 0.78 | 324 | eP | Pn | 12 18 51.9 | +1.6 |
| SKR | | | | eS | Sn | 12 19 01.7 | -0.3 |
| KDTR | Khodutka, Kamc | 1.92 | 24 | eP | Pb | 12 19 07.6 | -0.8 |
| KDTR | | | | eS | Sn | 12 19 29.5 | -0.7 |
| ASAK | Asacha | 2.42 | 16 | PN | Pb | 12 19 15.9 | -1.1 |
| ASAK | | | | S | Sn | 12 19 43.6 | +0.8 |
| ASAK | Asacha | 2.42 | 16 | eP | Pb | 12 19 15.9 | -1.1 |
| ASAK | | | | eS | Sn | 12 19 43.6 | +0.8 |
| MTVR | Mutnovka | 2.57 | 19 | PN | Pb | 12 19 18.0 | -1.6 |
| MTVR | | | | S | Sn | 12 19 46.5 | 0.0 |
| MTVR | Mutnovka | 2.57 | 19 | eP | Pb | 12 19 18.0 | -1.6 |
| MTVR | | | | eS | Sn | 12 19 46.5 | 0.0 |
| RUS | Russkaya | 2.60 | 23 | PN | Pb | 12 19 16.9 | -3.1 |
| RUS | | | | S | Sn | 12 19 45.3 | -1.7 |
| RUS | Russkaya | 2.60 | 23 | eP | Pb | 12 19 16.9 | -3.1 |
| RUS | | | | eS | Sn | 12 19 45.3 | -1.7 |
| GRL | Gorelyy | 2.62 | 17 | PN | Pb | 12 19 18.3 | -2.0 |
| GRL | Gorelyy | 2.62 | 17 | eP | Pb | 12 19 18.3 | -2.0 |
| APC | Apacha | 2.88 | 4 | PN | Pb | 12 19 23.9 | -0.8 |
| APC | Apacha | 2.88 | 4 | eP | Pb | 12 19 23.9 | -0.8 |
| KRMR | Karymshinskiy | 2.89 | 16 | PN | Pb | 12 19 22.6 | -2.4 |
| KRMR | | | | S | Sn | 12 19 55.3 | +1.1 |
| KRMR | Karymshinskiy | 2.89 | 16 | eP | Pb | 12 19 22.6 | -2.4 |
| KRMR | | | | eS | Sn | 12 19 55.3 | +1.1 |
| PETK | Petropavlovsk- | 3.10 | 10 | P | Pb | 12 19 25.2 | -3.3 |
| | 1.8nm,0.3s,baz=168,slow=12,SNR=32 | | | | | | |
| PET | Petropavlovsk | 3.18 | 20 | ePN | Pb | 12 19 26.6 | -3.2 |
| PET | | | | eS | Sn | 12 20 01.7 | +0.4 |
| PET | | | | smax | smax | | |
| | comp=N,244nm,0.5s | | | | | | |
| PET | | | | smax | smax | | |
| | comp=E,314nm,0.5s | | | | | | |
| PET | Petropavlovsk | 3.18 | 20 | eP | Pb | 12 19 26.1 | -3.8 |
| PET | | | | eS | Sn | 12 20 01.6 | +0.3 |
| DALK | Dalny | 3.21 | 21 | PN | Pb | 12 19 26.5 | -3.9 |
| DALK | | | | S | Sn | 12 20 01.9 | -0.1 |
| DALK | Dalny | 3.21 | 21 | eP | Pb | 12 19 26.5 | -3.9 |
| DALK | | | | eS | Sn | 12 20 01.9 | -0.1 |
| UGLR | Uglovaya | 3.39 | 21 | PN | Pb | 12 19 30.0 | -3.5 |
| UGLR | | | | S | Sn | 12 20 07.8 | +1.2 |
| UGLR | Uglovaya | 3.39 | 21 | eP | Pb | 12 19 30.0 | -3.5 |
| UGLR | | | | eS | Sn | 12 20 07.8 | +1.2 |
| AVH | Avacha | 3.42 | 20 | PN | Pb | 12 19 30.9 | -3.2 |
| AVH | | | | S | Sn | 12 20 09.9 | +2.5 |
| AVH | Avacha | 3.42 | 20 | eP | Pb | 12 19 30.9 | -3.2 |
| AVH | | | | eS | Sn | 12 20 09.9 | +2.5 |
| KOK | Koryaka | 3.43 | 18 | PN | Pb | 12 19 31.8 | -2.3 |
| KOK | | | | S | Sn | 12 20 11.0 | +3.5 |
| KOK | Koryaka | 3.43 | 18 | eP | Pb | 12 19 31.8 | -2.3 |
| KOK | | | | eS | Sn | 12 20 11.0 | +3.5 |
| KRER | Koryakskii | 3.46 | 19 | PN | Pb | 12 19 31.3 | -3.5 |
| KRER | | | | S | Sn | 12 20 10.3 | +1.7 |
| KRER | Koryakskii | 3.46 | 19 | eP | Pb | 12 19 31.3 | -3.5 |
| KRER | | | | eS | Sn | 12 20 10.3 | +1.7 |
| SDLR | Sedlovina | 3.47 | 21 | PN | Pn | 12 19 30.2 | +2.8 |
| SDLR | | | | S | Sn | 12 20 08.4 | -0.2 |
| SDLR | Sedlovina | 3.47 | 21 | eP | Pn | 12 19 30.2 | +2.8 |
| SDLR | | | | eS | Sn | 12 20 08.4 | -0.2 |
| NLC | Nalytchevo | 3.49 | 26 | PN | Pn | 12 19 29.0 | +1.4 |
| NLC | Nalytchevo | 3.49 | 26 | eP | Pn | 12 19 29.0 | +1.4 |
| KRX | Arik | 3.49 | 18 | PN | Pb | 12 19 31.6 | -3.7 |
| KRX | | | | S | Sn | 12 20 10.7 | +1.5 |
| KRX | Arik | 3.49 | 18 | eP | Pb | 12 19 31.6 | -3.7 |
| KRX | | | | eS | Sn | 12 20 10.7 | +1.5 |
| SPN | Mys Shipunski | 3.63 | 32 | PN | Pn | 12 19 32.3 | +2.7 |
| SPN | | | | S | Sn | 12 20 12.4 | -0.1 |
| SPN | Mys Shipunski | 3.63 | 32 | eP | Pn | 12 19 32.3 | +2.7 |
| SPN | | | | eS | Sn | 12 20 12.4 | -0.1 |
| GNL | Ganaly | 3.71 | 10 | PN | Pb | 12 19 34.4 | -4.5 |
| GNL | Ganaly | 3.71 | 10 | eP | Pb | 12 19 34.4 | -4.5 |
| H11N2 | WAKE ISLAND Hy | 31.31 | 162 | T | T | 12 58 38.4 | |
| | baz=348,slow=76,SNR=17 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 31.32 | 162 | T | T | 12 58 35.0 | |
| | baz=348,slow=76,SNR=34 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 31.32 | 162 | T | T | 12 58 35.1 | |
| | baz=348,slow=76,SNR=15 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 32.46 | 162 | T | T | 12 59 54.9 | |
| | baz=348,slow=76,SNR=42 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 32.47 | 162 | T | T | 12 59 58.7 | |
| | baz=348,slow=76,SNR=44 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 32.47 | 162 | T | T | 12 59 53.1 | |
| | baz=348,slow=76,SNR=36 | | | | | | |
| INK | Inuvik | 37.52 | 35 | P | P | 12 25 46.5 | -0.4 |
| | comp=E,0.6nm,0.7s,baz=286,slow=7.4,SNR=3.6 | | | | | | |
| YKA | Yellowknife Ar | 46.79 | 40 | P | P | 12 27 02.3 | -0.2 |
| | comp=E,0.3nm,0.6s,baz=302,slow=7.6,SNR=3.0 | | | | | | |
| PDAR | Pinedale Array | 60.83 | 57 | P | P | 12 28 46.6 | +0.8 |
| | comp=E,0.5nm,0.8s,baz=356,slow=3.9,SNR=4.2 | | | | | | |
| TXAR | Lajitas Array | 73.75 | 64 | P | P | 12 30 07.8 | 0.0 |
| | comp=E,0.3nm,0.5s,baz=295,slow=5.5,SNR=7.2 | | | | | | |
| GERES | GERESS Array B | 76.50 | 336 | P | P | 12 30 12.9 | -10 |
| | comp=E,0.5nm,0.4s,baz=353,slow=6.9,SNR=5.2 | | | | | | |

**MEX 01 12:20:06.8±0.4, 18°.50N×101°.70W, h66km±43km, MD3.6, Guerrero**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ZIIG | Zihuatanejo | 0.92 | 166 | eP | Pn | 12 20 22.4 | -1.6 |
| ZIIG | | | | eS | Sn | 12 20 35.6 | -1.2 |
| ARIG | Puente Sto Nin | 1.30 | 100 | eP | Pn | 12 20 27.7 | -1.4 |
| MMIG | Aquila | 1.58 | 262 | eP | Pn | 12 20 31.3 | -1.4 |
| MMIG | | | | eS | Sn | 12 20 50.3 | -1.9 |
| CAIG | El Cayaco | 1.99 | 136 | eP | Pn | 12 20 37.2 | -1.0 |
| PUVA | Puert Vallarta | 3.93 | 303 | eP | Pn | 12 21 00.2 | -4.5 |

*NEIC 01 12:23:57.3±0.0, 17°.08N×98°.88W, h16km, MD4.0(MEX), After MEX.*
**MEX 01 12:23:57.3±0.4, 17°.08N×98°.88W, h16km±562km, MD4.0, Guerrero**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TLIG | Tlapa | 0.57 | 31 | eP | Pg | 12 24 07.0 | -1.6 |
| TLIG | | | | i S | Sg | 12 24 13.9 | -2.4 |
| TLIG | Tlapa | 0.57 | 31 | eP | Pg | 12 24 07.0 | -1.6 |
| TLIG | | | | i S | Sg | 12 24 13.9 | -2.4 |
| HMTT | Tlapaneco | 0.78 | 23 | eP | Pb | 12 24 09.6 | -3.0 |
| HMTT | | | | eS | Sb | 12 24 20.0 | -2.9 |
| ACX | Acapulco | 0.96 | 258 | eP | Pb | 12 24 12.8 | -2.8 |
| ACX | | | | eS | Sb | 12 24 24.6 | -3.5 |
| ACX | Acapulco | 0.96 | 258 | eP | Pb | 12 24 12.8 | -2.8 |
| ACX | | | | eS | Sb | 12 24 24.6 | -3.5 |
| ACP2 | Acapulco | 0.99 | 258 | eP | Pb | 12 24 12.7 | -3.3 |
| ACP2 | | | | i S | Sb | 12 24 24.5 | -4.3 |
| PNIG | Pinotepa | 0.99 | 133 | eP | Pb | 12 24 12.9 | -3.1 |
| PNIG | | | | eS | Sb | 12 24 24.3 | -4.6 |
| PNIG | Pinotepa | 0.99 | 133 | eP | Pb | 12 24 12.9 | -3.1 |
| PNIG | | | | eS | Sb | 12 24 24.3 | -4.6 |
| MEIG | Mezcala | 1.10 | 320 | eP | Pb | 12 24 14.9 | -3.2 |
| MEIG | | | | eS | Sb | 12 24 28.4 | -3.8 |
| MEIG | Mezcala | 1.10 | 320 | eP | Pb | 12 24 14.9 | -3.2 |
| MEIG | | | | eS | Sb | 12 24 28.4 | -3.8 |
| CAIG | El Cayaco | 1.33 | 269 | eP | Pn | 12 24 17.5 | -3.7 |
| CAIG | | | | eS | Sn | 12 24 33.3 | -5.2 |
| CAIG | El Cayaco | 1.33 | 269 | eP | Pn | 12 24 17.5 | -3.7 |
| CAIG | | | | eS | Sn | 12 24 33.3 | -5.2 |
| PLIG | Platanillo | 1.44 | 336 | eP | Pn | 12 24 19.6 | -3.2 |
| PLIG | | | | eS | Sn | 12 24 36.2 | -5.2 |
| PLIG | Platanillo | 1.44 | 336 | eP | Pn | 12 24 19.6 | -3.2 |
| PLIG | | | | eS | Sn | 12 24 36.2 | -5.2 |
| YAIG | Yautepec | 1.79 | 354 | eP | Pn | 12 24 23.9 | -3.7 |
| YAIG | | | | i S | Sn | 12 24 45.0 | -5.0 |
| YAIG | Yautepec | 1.79 | 354 | eP | Pn | 12 24 23.9 | -3.7 |
| YAIG | | | | i S | Sn | 12 24 45.0 | -5.0 |
| TPIG | Tehuac#an | 1.97 | 47 | eP | Pn | 12 24 26.8 | -3.3 |
| TPIG | | | | i S | Sn | 12 24 50.0 | -4.5 |
| TPIG | Tehuac#an | 1.97 | 47 | eP | Pn | 12 24 26.8 | -3.3 |
| TPIG | | | | i S | Sn | 12 24 50.0 | -4.5 |
| PPM | Popocatepetl | 1.99 | 7 | eP | Pn | 12 24 27.4 | -3.4 |
| PPM | Popocatepetl | 1.99 | 7 | eP | Pn | 12 24 27.4 | -3.4 |
| ZIIG | Zihuatanejo | 2.53 | 282 | i P | Pn | 12 24 34.8 | -2.9 |
| ZIIG | Zihuatanejo | 2.53 | 282 | i P | Pn | 12 24 34.8 | -2.9 |
| HUIG | Huatulco | 2.96 | 116 | eP | Pn | 12 24 42.3 | -1.3 |
| HUIG | Huatulco | 2.96 | 116 | eP | Pn | 12 24 42.3 | -1.3 |
| DEIG | Demacu | 3.21 | 357 | eP | Pn | 12 24 50.4 | +3.1 |
| DEIG | Demacu | 3.21 | 357 | eP | Pn | 12 24 50.4 | +3.1 |
| LVIG | Laguna Verde | 3.52 | 41 | eP | Pb | 12 24 57.4 | -1.8 |
| LVIG | Laguna Verde | 3.52 | 41 | eP | Pb | 12 24 57.4 | -1.8 |

*IDC 01 12:24:06.7±0.9, 1°.19S×120°.41E, h0km, mb3.9/7, mb1 4.1/7, mb1mx3.8/48, mbtmp3.9/7, MS3.2/5, Ms1 3.2/5, ms1mx2.9/38, Error ellipse: s-maj=102.3km s-min=16.3km az=60.0*
*ISCJB 01 12:24:08.3±0.5, 1°.13S±0°.05×119°.99E±0°.04, h28km, mb3.9/7, MS3.1/5, Error ellipse: s-maj=7.6km s-min=5.3km*

*az=155.9*

*DJA* ***01*** *12:24:08.5±0.3, 1˚S±2˚×12˚0E±˚, h17km, M4.6/12, mB4.6/2, mb4.7/4, MLv4.5/12, Mw(mB)3.8/2*

**ISC 01 12:24:10.7**±0.7**, 1˚07S**±0˚05×**120˚07E**±0˚05**, h28km, n23,** σ**2s31**/27**, mb3.9**/7**, MS3.0**/5**, Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MPSI | Mapaga | 1.41 | 353 | P | Pn | 12 24 33.0 | -1.5 |
| APSI | Ampana | 1.59 | 84 | P | Pn | 12 24 35.9 | -1.0 |
| APSI | | | | S | Sb | 12 24 59.6 | +0.6 |
| TTSI | Tana Toraja | 1.98 | 187 | P | Pn | 12 24 39.6 | -2.7 |
| MRSI | Marisa | 2.42 | 51 | P | Pn | 12 24 45.9 | -2.5 |
| MRSI | | | | S | Sb | 12 25 22.0 | -1.1 |
| LUWI | Luwuk | 2.70 | 89 | P | Pn | 12 24 50.6 | -1.7 |
| LUWI | | | | S | Sn | 12 25 26.0 | +1.9 |
| SPSI | Sidrap Palu | 2.89 | 186 | P | Pn | 12 24 53.5 | -1.4 |
| BNSI | Bone | 3.31 | 179 | P | Pn | 12 25 01.0 | +0.4 |
| BNSI | | | | S | Sn | 12 25 41.8 | +2.8 |
| KMSI | Cibinong | 4.24 | 67 | P | Pn | 12 25 11.5 | -1.9 |
| KBKI | Kotabaru | 4.48 | 240 | P | Pn | 12 25 14.9 | -1.9 |
| KBKI | | | | S | Sn | 12 26 05.3 | -2.8 |
| BBSI | Bau Bau | 5.05 | 150 | P | Pn | 12 25 25.4 | +0.8 |
| | 20nm,0.9s,318nm | | | | | | |
| BSSI | Bau Bau, Buton | 5.05 | 175 | P | Pn | 12 25 23.5 | -1.2 |
| MTKI | Muara Teweh, K | 5.17 | 271 | P | Pn | 12 25 23.4 | -2.9 |
| | 80nm,0.4s | | | | | | |
| SANI | Sanana | 6.00 | 99 | P | Pn | 12 25 33.8 | -3.8 |
| LBMI | Labuha | 7.44 | 87 | P | Pn | 12 25 54.4 | -3.1 |
| WRA | Warramunga Arr | 23.38 | 144 | P | P | 12 29 14.1 | -3.3 |
| | 5.8nm,0.7s,baz=328,slow=10,SNR=59 | | | | | | |
| ASAR | Alice Springs | 26.16 | 150 | P | P | 12 29 39.9 | -3.0 |
| | 1.6nm,0.7s,baz=329,slow=8.5,SNR=29 | | | | | | |
| ASAR | | | | PcP | PcP | 12 33 08.7 | -1.2 |
| | 0.7nm,0.5s,baz=343,slow=2.1,SNR=13 | | | | | | |
| ASAR | | | | LR | LR | 12 41 11.6 | |
| | comp=Z,43nm,18.7s,baz=232,slow=40 | | | | | | |
| CMAR | Chiang Mai Arr | 28.43 | 314 | P | P | 12 30 06.5 | +3.1 |
| | 0.5nm,0.5s,baz=152,slow=7.2,SNR=4.3 | | | | | | |
| CMAR | | | | LR | LR | 12 44 41.3 | |
| | comp=Z,23nm,18.0s,baz=130,slow=43 | | | | | | |
| NWAO | Narrogin (SRO) | 31.80 | 185 | LR | LR | 12 43 36.8 | |
| | comp=Z,66nm,20.1s,baz=218,slow=37 | | | | | | |
| STKA | Stephens Creek | 36.77 | 149 | P | P | 12 31 15.5 | -0.5 |
| | 2.7nm,0.9s,baz=300,slow=9.9,SNR=3.2 | | | | | | |
| STKA | | | | LR | LR | 12 48 06.0 | |
| | comp=Z,39nm,18.1s,baz=26,slow=39 | | | | | | |
| KSRS | Korea Array | 39.02 | 10 | LR | LR | 12 46 28.3 | |
| | comp=Z,25nm,21.7s,baz=213,slow=34 | | | | | | |
| SONM | Songino Array | 50.15 | 348 | P | P | 12 33 05.0 | +1.2 |
| | 0.5nm,0.6s,baz=158,slow=8.7,SNR=3.7 | | | | | | |
| MKAR | Makanchi Array | 58.03 | 330 | P | P | 12 34 02.8 | +1.6 |
| | 1.0nm,0.8s,baz=128,slow=9.0,SNR=4.5 | | | | | | |
| ZALV | Zalesovo Beam | 62.12 | 337 | P | P | 12 34 31.8 | +2.8 |
| | 1.9nm,0.9s,baz=128,slow=6.4,SNR=8.4 | | | | | | |

---

*IDC* ***01*** *12:48:16.7±0.5, 38˚27N×76˚89E, h25km±3km, mb4.7/33, mb1 4.8/37, mb1mx4.8/44, mbtmp4.9/37, ML4.8/4, MS4.4/34, Ms1 4.4/34, ms1mx4.3/49, Error ellipse: s-maj=9.9km s-min=8.2km az=17.0*

*NNC* ***01*** *12:48:16.2±1.5, 38˚36N×76˚82E, h2km±5km, mb5.5, mpv5.2, Error ellipse: s-maj=11.6km s-min=5.7km az=172.0*

*MOS* ***01*** *12:48:16.3±1.0, 38˚30N×76˚96E, h33km, mb5.2/72, MS4.4/18, Error ellipse: s-maj=5.4km s-min=3.5km az=120.8*

*ISCJB* ***01*** *12:48:16.6±0.4, 38˚27N±0˚02×76˚93E±0˚02, h37km±3km, mb5.1/190, MS4.5/53, Error ellipse: s-maj=3.1km s-min=2.3km az=29.9*

*NEIC* ***01*** *12:48:17.7±1.3, 38˚31N×76˚89E, h32km±9km, mb5.3/93, ML5.6(BJI), Error ellipse: s-maj=4.2km s-min=3.1km az=181.0*

*NEIC Moderate damage to approximately 300 homes in Kashi.*

*GCMT* ***01*** *12:48:17.8±0.3, 38˚54N×76˚89E, h44km±1km, MW4.9/81, Moment Tensor Solution. s30,c33; s81,c108; Duration: 0 Moment tensor: Scale 10^16Nm; $M_{rr}$1.44±.18; $M_{\theta\theta}$-2.79±.11; $M_{\phi\phi}$1.36±.13; $M_{r\theta}$-1.65±.10; $M_{\theta\phi}$-0.18±.09; $M_{\phi r}$0.69±.10; Best double couple: $M_0$2.91100×10^16 NP1:$\phi_s$294.00000°, δ71.00000°, λ123.00000°. NP2: $\phi_s$52.00000°, δ37.00000°, λ33.00000°. Principal axes: T 2.4630, Plg53.0000°, Azm244.0000°; N 0.9050, Plg31.0000°, Azm102.0000°; P -3.3580, Plg19.0000°, Azm1.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*BJI* ***01*** *12:48:19.8, 38˚40N×77˚00E, h30km, mb4.8/49, mB4.9/38, ML5.6/6, Ms5.0/45, Ms7 4.7/49*

**ISC 01 12:48:18.0**±0.4**, 38˚25N**±0˚03×**76˚83E**±0˚03**, h33km**±2km**, h34km:pP-P, n662,** σ**1s83**/718**, mb5.2**/195**, MS4.5**/54**, 71C-44D, Southern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KSH | Kashi | 1.43 | 332 | Pn | Pn | 12 48 41.0 | -0.8 |
| KSH | | | | Sn | Sn | 12 48 56.9 | -2.6 |
| KSH | Kashi | 1.43 | 332 | Pn | Pn | 12 48 41.0 | -0.8 |
| KSH | | | | Sn | Sn | 12 48 56.9 | -2.6 |
| SFK | Sufi-Kurgan | 3.13 | 305 | ⇑Pn | Pn | 12 49 06.8 | +1.6 |
| | 37nm,0.2s | | | | | | |
| SFK | | | | ⇑Pg | Pb | 12 49 11.7 | -1.4 |
| | 282nm,0.3s | | | | | | |
| SFK | | | | ⇓Sn | Sn | 12 49 44.4 | +2.8 |
| | 2µm,0.5s | | | | | | |
| SFK | | | | ⇓Lg | Lg | 12 49 53.7 | |
| | 8µm,0.5s | | | | | | |
| SFK | Sufi-Kurgan | 3.13 | 305 | *i* P | Pn | 12 49 06.8 | +1.6 |
| ULHL | Ulahol | 4.02 | 354 | P | Pn | 12 49 19.7 | +2.3 |
| | SNR=404 | | | | | | |
| UCH | Uchtor | 4.35 | 337 | P | Pn | 12 49 24.1 | +1.9 |
| | SNR=614 | | | | | | |
| SRNI | Srinagar | 4.44 | 202 | *e*x | Pb | 12 49 33.5 | -1.7 |
| SRNI | | | | *e*x | x | 12 50 40.5 | |
| AML | Almayashu | 4.56 | 329 | P | Pn | 12 49 26.4 | +1.4 |
| | SNR=326 | | | | | | |
| KBK | Karagaybulak | 4.63 | 343 | P | Pn | 12 49 28.1 | +2.3 |
| | SNR=164 | | | | | | |
| AAK | Ala-Archa | 4.73 | 339 | Pn | Pn | 12 49 29.5 | +2.4 |
| | 90nm,0.3s,baz=152,slow=11,SNR=1719 | | | | | | |
| AAK | | | | Lg | Lg | 12 50 43.0 | |
| | 283nm,0.3s,baz=301,slow=12,SNR=10 | | | | | | |
| AAK | Ala-Archa | 4.73 | 339 | ⇓Pn | Pn | 12 49 28.6 | +1.4 |
| | 636nm,0.8s | | | | | | |
| AAK | | | | ⇑Pg | Pb | 12 49 41.6 | +1.3 |
| | 2µm,0.6s | | | | | | |
| AAK | | | | ⇑Lg | Lg | 12 50 43.4 | |
| | 7µm,0.8s | | | | | | |
| AAK | Ala-Archa | 4.73 | 339 | *e*P | Pn | 12 49 29.4 | +2.2 |
| AAK | Ala-Archa | 4.73 | 339 | P | Pn | 12 49 29.5 | +2.4 |
| | SNR=771 | | | | | | |
| AAK | Ala-Archa | 4.73 | 339 | Pn | Pn | 12 49 29.7 | +2.6 |
| | SNR=372 | | | | | | |
| AAK | Ala-Archa | 4.73 | 339 | P | Pn | 12 49 29.7 | +2.6 |
| | SNR=372 | | | | | | |
| TKM2 | Tokmak 2 | 4.76 | 349 | ⇓Pn | Pn | 12 49 28.1 | +0.5 |
| | 536nm,0.6s | | | | | | |
| TKM2 | | | | ⇓Pg | Pb | 12 49 41.2 | +0.4 |
| | 2µm,0.9s | | | | | | |
| TKM2 | | | | ⇑Lg | Lg | 12 50 44.3 | |
| | 3µm,0.9s | | | | | | |
| TKM2 | Tokmak 2 | 4.76 | 349 | P | Pn | 12 49 28.7 | +1.1 |
| TKM2 | Tokmak 2 | 4.76 | 349 | P | Pn | 12 49 30.0 | +2.4 |
| | SNR=1239 | | | | | | |
| FRU | Bishkek | 4.88 | 340 | *i* P | Pn | 12 49 32.0 | +2.9 |
| FRU | | | | *e* | | 12 50 21.0 | |
| FRU | | | | pmax | pmax | | |
| | comp=Z,680nm,1.6s | | | | | | |
| FRU | | | | smax | smax | | |
| | comp=E,16µm,1.8s | | | | | | |
| AAA | Alma-Ata | 4.96 | 1 | *i* P | Pn | 12 49 32.8 | +2.7 |
| AAA | | | | pmax | pmax | | |
| | comp=Z,3µm,0.3s | | | | | | |
| KNDC | Almaty | 4.97 | 1 | ⇑Pn | Pn | 12 49 31.1 | +0.9 |
| KNDC | | | | ⇓Pg | Pb | 12 49 44.7 | +0.5 |
| KNDC | | | | ⇓Lg | Lg | 12 50 50.0 | |
| EKS2 | Erkin-Say | 4.99 | 333 | P | Pn | 12 49 32.7 | +2.1 |
| | SNR=268 | | | | | | |
| CHMS | Chumysh | 5.00 | 342 | P | Pn | 12 49 33.1 | +2.3 |
| | SNR=495 | | | | | | |
| USP | Ospenovka | 5.32 | 341 | P | Pn | 12 49 37.3 | +2.3 |
| | SNR=154 | | | | | | |
| MNAS | Manas | 5.37 | 323 | ⇑Pn | Pn | 12 49 36.5 | +0.6 |
| | comp=Z,17nm,0.7s | | | | | | |
| MNAS | | | | ⇓Pg | Pb | 12 49 51.6 | +0.5 |
| | comp=Z,196nm,0.6s | | | | | | |
| MNAS | | | | ⇓Lg | Lg | 12 51 02.6 | |
| | comp=Z,966nm,0.8s | | | | | | |
| MNAS | Manas | 5.37 | 323 | P | Pn | 12 49 36.5 | +0.6 |
| CHCP | Chirah Chowk | 5.42 | 213 | P | Pn | 12 49 41.3 | +4.8 |
| PDGK | Podgornoye | 5.46 | 21 | ⇓Pn | Pn | 12 49 37.6 | +0.5 |
| | comp=Z,248nm,0.7s | | | | | | |
| PDGK | | | | ⇓Pg | Pb | 12 49 53.5 | +0.8 |
| | comp=Z,634nm,0.6s | | | | | | |
| PDGK | | | | ⇓Lg | Lg | 12 51 06.4 | |
| | comp=Z,6µm,0.8s | | | | | | |
| PDGK | Podgornoye | 5.46 | 21 | ⇑Lg | Lg | 13 20 17.6 | |
| | comp=Z,5.7nm,0.6s | | | | | | |
| PDGK | Podgornoye | 5.46 | 21 | P | Pn | 12 49 37.6 | +0.5 |
| THN | Thein Dam | 5.87 | 189 | *e*P | Pn | 12 49 43.8 | +1.2 |
| THN | | | | *e*x | x | 12 51 22.0 | |
| CEP | Cherat | 5.95 | 224 | P | Pn | 12 49 47.9 | +4.0 |
| DHRM | DHARAMSHALA | 6.00 | 184 | *e*P | Pn | 12 49 44.9 | +0.3 |
| SDNR | Sundarnagar | 6.73 | 179 | *e*P | Pn | 12 49 55.0 | +0.5 |
| SDNR | | | | *e*x | x | 12 51 10.0 | |
| BHK | Bhakra | 6.82 | 183 | *e*P | Pn | 12 49 57.0 | +1.2 |
| BHK | | | | *e*x | x | 12 51 02.6 | |
| KK31 | Karatay Array | 6.83 | 317 | Pn | Pn | 12 49 55.5 | -0.2 |
| | comp=Z,53nm,0.6s,baz=127,slow=9.0,SNR=397 | | | | | | |
| KK31 | | | | ⇑Sn | Sn | 12 51 12.5 | +0.3 |
| | comp=Z,290nm,0.8s,baz=141,slow=22,SNR=5.0 | | | | | | |
| KK31 | | | | ⇓Lg | Lg | 12 51 49.3 | |
| | comp=Z,365nm,0.6s | | | | | | |
| THW | Thamme Wali | 6.84 | 219 | P | Pn | 12 49 58.8 | +2.8 |
| SMLA | Simla | 7.11 | 178 | *e*P | Pn | 12 50 00.6 | +1.0 |
| SARP | Sargodha | 7.17 | 210 | P | Pn | 12 50 03.0 | +2.5 |
| KBL | Kabul | 7.29 | 242 | *e*P | Pn | 12 50 05.7 | +3.4 |
| KBL | Kabul | 7.29 | 242 | *e*Pn | Pn | 12 50 05.7 | +3.4 |
| DDI | Dehra Dun | 7.97 | 172 | *e*P | Pn | 12 50 12.0 | +0.5 |
| DDI | | | | AMB | AMB | 12 50 16.4 | |
| | comp=Z,478nm,1.7s | | | | | | |
| DDI | | | | *e*x | x | 12 51 32.0 | |
| PTH | Pithoragarh | 9.12 | 161 | *e*x | Pn | 12 50 32.4 | +5.0 |
| PTH | | | | *e*S | Sn | 12 52 00.6 | -8.4 |
| MAKZ | Makanchi | 9.36 | 22 | ⇑Pn | Pn | 12 50 28.8 | -1.6 |
| | comp=Z,151nm,0.9s | | | | | | |
| MAKZ | | | | ⇑Lg | Lg | 12 53 12.5 | |
| | comp=Z,396nm,1.1s | | | | | | |
| MAKZ | Makanchi | 9.36 | 22 | *e*P | Pn | 12 50 29.8 | -0.6 |
| MAKZ | Makanchi | 9.36 | 22 | *e*Pn | Pn | 12 50 29.8 | -0.6 |
| MK01 | Makanchi Array | 9.42 | 24 | *e*Pn | Pn | 12 50 30.2 | -1.1 |
| MK31 | Makanchi Array | 9.44 | 23 | ⇑Pn | Pn | 12 50 30.4 | -1.2 |
| | comp=Z,32nm,0.5s,baz=202,slow=11,SNR=924 | | | | | | |
| MK31 | | | | ⇑Sn | Sn | 12 52 19.9 | +3.3 |
| | comp=Z,218nm,1.1s,baz=187,slow=22,SNR=3.5 | | | | | | |
| MK31 | | | | ⇓Lg | Lg | 12 53 13.6 | |
| | comp=Z,274nm,0.8s,baz=187,slow=22,SNR=3.5 | | | | | | |
| MK31 | Makanchi Array | 9.44 | 23 | Pg | | 13 19 43.5 | |
| | comp=Z,2.0nm,0.8s,baz=151,slow=16,SNR=8.8 | | | | | | |
| MK31 | | | | Lg | Lg | 13 20 45.6 | |
| | comp=Z,0.9nm,0.3s,baz=155,slow=28,SNR=6.7 | | | | | | |
| MK31 | Makanchi Array | 9.44 | 23 | *e*P | Pn | 12 50 30.5 | -1.1 |
| MK31 | Makanchi Array | 9.44 | 23 | *e*Pn | Pn | 12 50 30.5 | -1.1 |
| MK32 | Makanchi Array | 9.44 | 23 | *e*Pn | Pn | 12 50 30.6 | -1.0 |
| MK32 | | | | *e*Lg | Lg | 12 53 15.0 | |
| MK32 | | | | *e* | | 12 54 29.1 | |
| MKAR | Makanchi Array | 9.44 | 23 | Pn | Pn | 12 50 30.6 | -1.0 |
| | comp=Z,17nm,0.3s,baz=189,slow=12,SNR=631 | | | | | | |
| MKAR | | | | Lg | Lg | 12 53 15.0 | |
| | comp=Z,14nm,0.3s,baz=210,slow=31,SNR=4.0 | | | | | | |
| MKAR | | | | LR | LR | 12 54 29.1 | |
| | comp=Z,5µm,18.3s,baz=198,slow=40 | | | | | | |
| NDI | New Delhi | 9.54 | 178 | *e*x | x | 12 51 04.0 | |
| NDI | | | | *e*x | Sn | 12 52 22.0 | +2.8 |
| WMQ | Urumqi | 9.91 | 52 | P | Pn | 12 50 37.0 | -1.1 |
| WMQ | | | | S | Sn | 12 52 32.9 | +4.7 |
| WMQ | | | | smax | smax | | |
| | comp=Z,2µm,0.5s | | | | | | |
| WMQ | | | | smax | smax | | |
| | comp=Z,2µm,0.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,12µm,4.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,8µm,4.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,8µm,19.3s | | | | | | |
| KURBB | Kurchatov Arra | 12.43 | 5 | ⇓Pn | Pn | 12 51 11.4 | -1.0 |
| | comp=Z,90nm,0.7s | | | | | | |
| KURBB | | | | ⇑Lg | Lg | 12 54 47.8 | |
| | comp=Z,1µm,1.0s | | | | | | |
| KURK | Kurchatov | 12.53 | 5 | *d i*P | Pn | 12 51 11.7 | -2.1 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,691nm,0.8s | | | | | | |
| KURK | Kurchatov | 12.53 | 5 | *e*Pn | Pn | 12 51 12.0 | -1.8 |
| KURK | Kurchatov | 12.53 | 5 | Pn | Pn | 12 51 12.4 | -1.4 |
| | SNR=49 | | | | | | |
| KURK | Kurchatov | 12.53 | 5 | P | Pn | 12 51 12.4 | -1.4 |
| | SNR=49 | | | | | | |
| DGZ | Jazzator, Alta | 13.74 | 30 | *i* P | Pn | 12 51 29.1 | -1.4 |
| LSA | Lhasa | 14.61 | 121 | P | Pn | 12 51 44.6 | +1.9 |
| LSA | | | | pmax | pmax | | |
| | comp=Z,24nm,0.9s | | | | | | |
| LSA | Lhasa | 14.61 | 121 | *e*P | Pn | 12 51 44.2 | +1.5 |
| LSA | Lhasa | 14.61 | 121 | *e*Pn | Pn | 12 51 44.2 | +1.5 |
| GEYT | Alibeck | 14.75 | 275 | Pn | Pn | 12 51 40.1 | -4.0 |
| | comp=Z,4.0nm,0.3s,baz=99,slow=9.2,SNR=38 | | | | | | |
| GEYT | | | | Sn | Sn | 12 54 22.0 | -4.4 |
| | comp=Z,4.2nm,0.3s,baz=111,slow=16,SNR=5.0 | | | | | | |
| GEYT | | | | LR | LR | 12 58 34.1 | |
| | comp=Z,2µm,19.2s,baz=105,slow=42 | | | | | | |
| GEYT | | | | ScP | ScP | 13 00 26.8 | +1.0 |
| | comp=Z,0.3nm,0.3s,baz=247,slow=7.6,SNR=3.5 | | | | | | |
| BHPL | Bhopal | 14.97 | 178 | *e*x | Pn | 12 51 44.5 | -2.7 |
| JBP | Jabalpur | 15.27 | 169 | *e*P | Pn | 12 51 48.5 | -2.6 |
| JBP | | | | AMB | AMB | 12 51 50.1 | |
| | comp=Z,85nm,0.6s | | | | | | |
| JBP | | | | *e*x | x | 12 54 28.5 | |
| BVA0 | Borovoye Array | 15.44 | 345 | Pn | Pn | 12 51 50.7 | -2.4 |
| | comp=Z,135nm,0.9s,baz=148,slow=13,SNR=268 | | | | | | |
| BVA0 | | | | ⇑Lg | Lg | 12 56 25.3 | |
| | comp=Z,8.1nm,0.9s,baz=156,slow=26,SNR=4.3 | | | | | | |
| BVAR | Borovoye Array | 15.44 | 345 | Pn | Pn | 12 51 50.5 | -2.7 |
| | comp=Z,1.6nm,0.3s,baz=154,slow=12,SNR=222 | | | | | | |
| BVAR | | | | Lg | Lg | 12 56 22.4 | |
| | comp=Z,2.1nm,0.3s,baz=148,slow=28,SNR=6.3 | | | | | | |
| BRVK | Borovoye | 15.49 | 345 | *d i*P | Pn | 12 51 52.2 | -1.6 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,158nm,1.1s | | | | | | |
| BRVK | Borovoye | 15.49 | 345 | *e*Pn | Pn | 12 51 51.4 | -2.4 |
| | comp=Z,186nm,0.9s | | | | | | |
| BHJ | Bhuj | 16.16 | 204 | *e*x | Pn | 12 52 00.6 | -2.0 |
| BHJ | | | | AMB | AMB | 12 52 08.4 | |
| | comp=Z,178nm,1.5s | | | | | | |
| BOK | Bokaro | 16.35 | 149 | *e*P | Pn | 12 52 02.3 | -2.7 |
| BOK | | | | AMB | AMB | 12 52 06.9 | |
| | comp=Z,53nm,1.4s | | | | | | |
| AB31 | Akbulak array | 16.39 | 318 | Pn | Pn | 12 52 03.2 | -2.1 |
| | comp=Z,16nm,0.6s,baz=130,slow=11,SNR=150 | | | | | | |
| AB31 | | | | ⇓Lg | Lg | 12 56 53.8 | |
| | comp=Z,47nm,0.9s | | | | | | |
| ZAA0 | Zalesovo Array | 16.63 | 17 | ⇓Pn | Pn | 12 52 05.1 | -3.3 |
| | comp=Z,19nm,0.8s | | | | | | |
| ZAA0 | | | | ⇑Sn | Sn | 12 55 15.4 | +3.5 |
| ZAA0 | | | | ⇑Lg | Lg | 12 57 01.8 | |
| | comp=Z,26nm,1.2s | | | | | | |
| ZAA0 | Zalesovo Array | 16.63 | 17 | *e*Pn | Pn | 12 52 04.6 | -3.8 |
| | comp=Z,133nm,0.8s | | | | | | |
| ZALV | Zalesovo Beam | 16.63 | 17 | Pn | Pn | 12 52 05.0 | -3.3 |
| | comp=Z,2.1nm,0.3s,baz=210,slow=10,SNR=117 | | | | | | |
| ZALV | | | | Lg | Lg | 12 56 59.3 | |
| | comp=Z,0.4nm,0.3s,baz=194,slow=24,SNR=3.6 | | | | | | |
| ZALV | | | | LR | LR | 12 59 07.3 | |
| | comp=Z,3µm,20.4s,baz=210,slow=39 | | | | | | |
| ZAA1 | Zalesovo Array | 16.64 | 17 | *e*Pn | Pn | 12 52 05.0 | -3.4 |
| ZAA1 | | | | *e*PcP | PcP | 12 56 59.3 | +2.4 |
| NGP | Nagpur | 17.15 | 173 | *e*P | Pn | 12 52 13.1 | -2.0 |
| NGP | | | | *e*x | x | 12 52 17.8 | |
| | comp=Z,83nm,0.6s | | | | | | |
| NGP | | | | *e*x | x | 12 55 13.9 | |
| NVS | Novosibirsk | 17.16 | 13 | ⇓*i*P | Pn | 12 52 13.7 | -1.3 |
| NVS | | | | *e* | | 12 55 17.4 | |
| GTA | Gaotai | 17.94 | 79 | *e*P | Pn | 12 52 21.6 | -3.3 |
| GTA | | | | pP | pP | 12 52 32.7 | -1.3 |
| GTA | | | | sP | sP | 12 52 40.4 | +2.2 |
| GTA | | | | S | Sn | 12 55 32.1 | -12 |
| GTA | | | | sS | S | 12 55 50.4 | +0.9 |
| GTA | | | | SS | SnSn | 12 55 56.1 | -1.4 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.9s | | | | | | |
| GTA | | | | pmax | pmax | | |
| | comp=Z,130nm,4.5s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=N,1µm,8.8s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=E,2µm,14.3s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,3µm,14.7s | | | | | | |
| SHL | Shillong | 17.94 | 130 | *e*P | Pn | 12 52 21.2 | -3.9 |
| SHL | | | | *e*S | Sn | 12 55 41.5 | -2.8 |
| AKTO | Aktyubinsk | 18.09 | 318 | P | Pn | 12 52 25.6 | -0.9 |
| | comp=Z,1.7nm,0.3s,baz=114,slow=16,SNR=41 | | | | | | |
| AKTO | | | | LR | LR | 12 59 15.3 | |
| | comp=Z,267nm,19.1s,baz=131,slow=36 | | | | | | |
| AKTO | Aktyubinsk | 18.09 | 318 | ⇑Pn | Pn | 12 52 25.7 | -0.8 |
| | comp=Z,49nm,0.8s | | | | | | |
| AKTO | | | | ⇑Lg | Lg | 12 57 44.8 | |
| | comp=Z,126nm,1.6s | | | | | | |
| BWNR | Bhubaneshwar | 19.51 | 154 | *e*x | P | 12 52 36.7 | -5.6 |
| BOM | Bombay | 19.60 | 191 | *e*x | P | 12 52 48.8 | +5.4 |
| POO | Poona | 19.82 | 188 | *e*P | P | 12 52 46.3 | +0.5 |
| HYB | Hyderabad | 20.81 | 175 | *e*P | P | 12 52 56.8 | +0.2 |
| HYB | | | | AMB | AMB | 12 52 58.3 | |
| | comp=Z,64nm,0.5s | | | | | | |
| VIS | Vishakhapatnam | 21.23 | 163 | *e*P | P | 12 53 00.9 | -0.2 |
| VIS | | | | AMB | AMB | 12 53 03.6 | |
| | comp=Z,149nm,0.6s | | | | | | |
| BANOM | Banah | 21.24 | 241 | *i* P | P | 12 53 02.6 | +1.3 |
| | SNR=9.3 | | | | | | |
| SVE | Sverdlovsk | 21.46 | 335 | ⇓*i*P | P | 12 53 04.0 | +0.7 |
| SVE | | | | pmax | pmax | | |
| | comp=Z,64nm,0.9s | | | | | | |
| WSAR | Wadi Sarin | 21.59 | 231 | P | P | 12 53 06.8 | +1.9 |
| | comp=Z,425nm,0.7s,baz=84,slow=5.4,SNR=48 | | | | | | |
| WSAR | | | | LR | LR | 13 03 37.4 | |
| | comp=Z,1µm,20.9s,baz=87,slow=42 | | | | | | |
| MOY | Mondy | 21.61 | 44 | *e*P | P | 12 53 05.6 | +0.6 |
| MOY | | | | pmax | pmax | | |
| | comp=Z,226nm,1.8s | | | | | | |
| LZH | Lanzhou | 21.61 | 87 | ⇑P | P | 12 53 08.6 | +3.4 |
| LZH | | | | pP | sP | 12 53 21.6 | +3.3 |
| LZH | | | | PP | PnPn | 12 53 33.2 | +6.9 |
| LZH | | | | *e*S | S | 12 57 01.0 | -1.9 |
| LZH | | | | SS | SnSn | 12 57 38.0 | +10 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,230nm,1.0s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,700nm,4.1s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,2µm,13.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,2µm,12.3s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,2µm,16.2s | | | | | | |
| ARU | Arti | 21.88 | 332 | P | P | 12 53 08.0 | +0.3 |
| | comp=Z,32nm,0.7s,baz=134,slow=4.2,SNR=46 | | | | | | |
| ARU | | | | LR | LR | 13 01 32.4 | |
| | comp=Z,283nm,19.1s,baz=132,slow=36 | | | | | | |
| ARU | Arti | 21.88 | 332 | *c i*P | P | 12 53 07.9 | +0.1 |
| ARU | | | | | | 12 53 27.9 | |
| ARU | | | | S | S | 12 57 07.7 | +0.2 |
| ARU | | | | SS | SnSn | 12 57 35.4 | +1.6 |
| ARU | | | | pmax | pmax | | |
| | comp=Z,41nm,0.8s | | | | | | |
| ARU | Arti | 21.88 | 332 | *e*P | P | 12 53 08.0 | +0.3 |
| | comp=Z,58nm,0.7s | | | | | | |
| LKRN | Lenkeran, Azer | 21.94 | 280 | P | P | 12 53 08.2 | -0.3 |
| UOSS | Minazif | 21.95 | 239 | *e*P | P | 12 53 09.2 | +0.4 |
| | comp=Z,46nm,0.8s | | | | | | |
| HATD | Hatta, Dubai | 22.08 | 239 | P | P | 12 53 11.1 | +0.9 |
| ASHO | Ashiyiah | 22.22 | 239 | *i* P | P | 12 53 13.6 | +1.8 |
| | SNR=9.8 | | | | | | |
| NAZ | Nazwa, Dubai | 22.29 | 240 | P | P | 12 53 14.5 | +2.0 |
| NAZ | Nazwa, Dubai | 22.29 | 240 | P | P | 12 53 16.7 | +4.3 |
| | SNR=6.6 | | | | | | |
| NAZ | Nazwa, Dubai | 22.29 | 240 | P | P | 12 53 16.7 | +4.3 |
| | SNR=6.6 | | | | | | |
| ZAK | Zakamensk | 22.34 | 49 | *e*P | P | 12 53 12.0 | -1.0 |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,121nm,1.1s | | | | | | |
| MAK | Makhachkala | 22.70 | 291 | *e*P | P | 12 53 19.1 | +2.4 |
| MAK | | | | S | S | 12 57 24.3 | +1.5 |
| MAK | | | | pmax | pmax | | |
| | comp=Z,103nm,1.0s | | | | | | |
| MAK | | | | MLR | MLR | | |
| | comp=Z,644nm,12.0s | | | | | | |
| GOA | Goa | 22.82 | 187 | *e*P | P | 12 53 18.9 | +0.8 |
| GOA | | | | AMB | AMB | 12 53 20.4 | |
| | comp=Z,95nm,1.0s | | | | | | |
| BSY | Bisya | 22.84 | 233 | P | P | 12 53 22.9 | +4.6 |
| | SNR=5.7 | | | | | | |
| BSY | Bisya | 22.84 | 233 | P | P | 12 53 22.9 | +4.6 |
| | SNR=5.7 | | | | | | |
| ARQ | Araqi | 22.85 | 235 | P | P | 12 53 22.4 | +4.0 |
| | SNR=7.0 | | | | | | |
| ARQ | Araqi | 22.85 | 235 | P | P | 12 53 22.4 | +4.0 |
| | SNR=7.0 | | | | | | |
| SEKA | Sheki | 22.93 | 287 | P | P | 12 53 18.5 | -0.7 |
| MNGR | Mingechevir, A | 23.04 | 286 | P | P | 12 53 20.1 | -0.1 |
| TLY | Talaya | 23.08 | 46 | P | P | 12 53 21.6 | +1.0 |
| | comp=Z,4.8nm,0.7s,baz=249,slow=11,SNR=5.8 | | | | | | |
| TLY | | | | LR | LR | 13 03 48.7 | |
| | comp=Z,3µm,18.0s,baz=240,slow=40 | | | | | | |
| TLY | Talaya | 23.08 | 46 | *i* P | P | 12 53 22.3 | +1.7 |
| TLY | | | | *e*S | S | 12 57 30.9 | +1.6 |
| TLY | | | | pmax | pmax | | |
| | comp=Z,49nm,1.8s | | | | | | |
| TLY | | | | MLR | MLR | | |
| | comp=Z,2µm,18.0s | | | | | | |
| CD2 | Chengdu | 23.29 | 100 | P | P | 12 53 30.1 | +7.2 |
| CD2 | | | | pP | sP | 12 53 36.1 | 0.0 |
| CD2 | | | | PP | PnPn | 12 53 58.8 | +10 |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,80nm,1.3s | | | | | | |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,290nm,11.8s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,1µm,14.3s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,1µm,13.1s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,1µm,15.5s | | | | | | |
| ZKTA | Zakatala | 23.35 | 288 | P | P | 12 53 22.9 | -0.5 |
| SONA0 | Songino Array | 23.51 | 56 | *e*P | P | 12 53 25.2 | +0.2 |
| SONM | Songino Array | 23.51 | 56 | P | P | 12 53 25.2 | +0.2 |
| | comp=Z,101nm,0.8s,baz=252,slow=10,SNR=488 | | | | | | |
| SONM | | | | LR | LR | 13 03 48.5 | |
| | comp=Z,3µm,19.0s,baz=250,slow=40 | | | | | | |
| SONA1 | Songino Array | 23.52 | 56 | *e*P | P | 12 53 25.0 | -0.1 |
| IRK | Irkutsk | 23.67 | 45 | *e*P | P | 12 53 22.2 | -4.2 |
| IRK | | | | pmax | pmax | | |
| | comp=Z,174nm,2.4s | | | | | | |
| ULN | Ulaanbaatar | 23.95 | 57 | *d i*P | P | 12 53 29.2 | 0.0 |
| ULN | | | | pmax | pmax | | |
| | comp=Z,50nm,0.7s | | | | | | |
| ULN | Ulaanbaatar | 23.95 | 57 | *e*P | P | 12 53 29.1 | 0.0 |
| | comp=Z,51nm,0.7s | | | | | | |
| GROC | Groznyy | 23.96 | 292 | *e*P | P | 12 53 29.9 | +0.8 |
| GROC | | | | *e* | | 12 54 00.3 | |
| GROC | | | | *e*S | S | 12 57 43.2 | -0.3 |
| GROC | | | | pmax | pmax | | |
| | comp=Z,253nm,0.9s | | | | | | |
| NAX | Nakhchivan | 24.41 | 282 | P | P | 12 53 33.0 | -0.4 |
| TBLG | Delisi | 24.76 | 288 | P | P | 12 53 48.5 | +12 |
| TBLG | Delisi | 24.76 | 288 | P | P | 12 53 48.5 | +12 |
| GNI | Garni | 24.87 | 285 | P | P | 12 53 40.1 | +2.3 |
| | comp=Z,96nm,0.8s,baz=6.1,slow=5.4,SNR=14 | | | | | | |
| GNI | | | | LR | LR | 13 05 02.0 | |
| | comp=Z,363nm,18.2s,baz=98,slow=40 | | | | | | |
| GNI | Garni | 24.87 | 285 | *i* P | P | 12 53 39.3 | +1.6 |
| | SNR=18 | | | | | | |
| GNI | Garni | 24.87 | 285 | *c i*P | P | 12 53 40.2 | +2.5 |
| GNI | | | | pmax | pmax | | |
| | comp=Z,331nm,1.0s | | | | | | |
| GNI | Garni | 24.87 | 285 | *e*P | P | 12 53 40.0 | +2.3 |
| | comp=Z,105nm,0.8s | | | | | | |
| SOKR | Solikamsk | 24.90 | 336 | ⇑*i*P | P | 12 53 36.0 | -1.5 |
| SOKR | | | | S | S | 12 58 01.9 | +3.6 |
| SOKR | | | | pmax | pmax | | |
| | comp=Z,69nm,1.4s | | | | | | |
| SOKR | | | | MLR | MLR | | |
| | comp=Z,2µm,21.0s | | | | | | |
| GUDG | Gudauri | 24.93 | 290 | P | P | 12 53 41.3 | +3.0 |
| MDRS | Chennai | 25.26 | 172 | *e*P | P | 12 53 39.3 | -1.8 |
| MNGI | Mangalore | 25.27 | 185 | *e*x | P | 12 53 47.8 | +6.6 |

MNGI AMB AMB 12 53 50.7
comp=Z,156nm,1.1s
**ZEI Tsey 25.35 291** *eP* **P 12 53 41.3 -0.7**
ZEI pmax pmax
comp=Z,32nm,0.9s
**KMI Kunming 25.54 113** P **P 12 53 44.0 +0.1**
KMI pP sP 12 53 57.0 -0.4
KMI sP pP 12 54 05.6 +12
KMI PP **PnPn 12 54 23.9 +3.7**
KMI S **S 12 58 05.3 -4.2**
KMI sS sS 12 58 30.3 +5.0
KMI SS **SnSn 12 59 10.7 +6.6**
KMI pmax pmax
comp=Z,34nm,0.8s
KMI pmax pmax
comp=Z,280nm,4.3s
KMI LR LR
comp=Z,780nm,10.6s
KMI LR LR
comp=Z,550nm,11.3s
KMI LR LR
comp=Z,550nm,13.4s
**NCK Nalchik 25.57 292**⇑ *iP* **P 12 53 45.9 +2.1**
NCK pmax pmax
comp=Z,239nm,0.8s
**BGD Bogdanovka 25.64 287** P **P 12 53 47.5 +2.8**
**BTO Baotou 25.66 74** *eP* **P 12 53 44.8 0.0**
**ONI Oni 25.68 290** P **P 12 53 47.4 +2.5**
**ONI Oni 25.68 290** P **P 12 53 47.4 +2.5**
**AKH Akhalkalaki 25.71 288** P **P 12 53 48.4 +3.0**
**AKH Akhalkalaki 25.71 288**⇓ *iP* **P 12 53 48.1 +2.8**
**AKH Akhalkalaki 25.71 288** P **P 12 53 48.3 +3.0**
**GOF Gofitskoye 26.01 296**‖ *eP* **P 12 53 49.1 +1.3**
GOF pmax pmax
comp=Z,207nm,0.8s
**KBZ Khabaz 26.08 293** P **P 12 53 48.4 +0.1**
comp=Z,14nm,0.8s,baz=130,slow=6.2,SNR=17
**XAN Xi'an 26.18 89** P **P 12 53 49.2 -0.2**
XAN pmax pmax
comp=Z,16nm,1.2s
XAN LR LR
comp=Z,1μm,13.3s
XAN LR LR
comp=Z,1μm,16.5s
XAN LR LR
comp=Z,2μm,15.9s
**NEY Neytrino 26.20 292***c iP* **P 12 53 51.5 +1.7**
NEY pmax pmax
comp=Z,28nm,0.8s
**KVAR Kislovodsk Arr 26.22 293** P **P 12 53 50.3 +0.4**
comp=Z,52nm,0.8s,baz=229,slow=0.9,SNR=31
**KIV Kislovodsk 26.23 293** *i P* **P 12 53 51.9 +2.1**
SNR=12
**KIV Kislovodsk 26.23 293** *eP* **P 12 53 50.6 +0.7**
KIV *eS* **S 12 58 19.7 -0.3**
KIV pmax pmax
comp=Z,92nm,1.1s
KIV MLR MLR
comp=Z,267nm,14.0s
**KIV Kislovodsk 26.23 293** *eP* **P 12 53 51.1 +1.2**
comp=Z,71nm,0.7s
**HHC Hu-ho-hao-te 26.80 73** *eP* **P 12 53 55.8 +0.7**
HHC S **S 12 58 36.1 +7.0**
HHC LR LR
comp=N,950nm,10.7s
HHC LR LR
comp=E,1μm,16.0s
**HHC Hu-ho-hao-te 26.80 73** *eP* **P 12 53 55.9 +0.8**
HHC pP pP 12 54 03.7 -0.9
HHC PP **PnPn 12 54 41.9 +4.7**
HHC S **S 12 58 20.3 -8.8**
HHC sS sS 12 58 50.1 +5.2
HHC pmax pmax
comp=E,16nm,1.1s
HHC pmax pmax
comp=E,120nm,3.8s
HHC LR LR
comp=E,940nm,10.8s
HHC LR LR
comp=E,1μm,15.0s
HHC LR LR
comp=E,2μm,17.6s
**ARTV Artvin 26.90 287** *eP* **P 12 53 58.2 +2.1**
comp=E,17nm,0.8s
**CHTO Chiang Mai 27.30 129** P **P 12 53 59.3 -0.3**
comp=E,66nm,0.9s
**CHTO Chiang Mai 27.30 129** *eP* **P 12 53 59.0 -0.6**
CHTO pmax pmax
comp=Z,18nm,0.8s
**CHTO Chiang Mai 27.30 129** *eP* **P 12 53 59.0 -0.6**
comp=Z,18nm,0.8s
**CMMT Chiang Mai 27.31 129** P **P 12 53 59.2 -0.5**
comp=Z,14nm,1.0s
**CM31 Chiang Mai Arr 27.57 129** *eP* **P 12 54 01.3 -0.8**
**CMAR Chiang Mai Arr 27.57 129** P **P 12 54 01.3 -0.8**
comp=Z,10nm,0.8s,baz=314,slow=9.2,SNR=48
CMAR LR LR 13 06 18.7
comp=Z,320nm,19.7s,baz=319,slow=39
**CMAR Chiang Mai Arr 27.57 129** *i P* **P 12 54 01.2 -0.8**
CMAR pmax pmax
comp=Z,11nm,0.8s
**CM01 Chiang Mai Arr 27.61 130** *eP* **P 12 54 01.3 -1.1**
**GYA Guiyang 27.69 106** P **P 12 54 05.8 +2.6**
GYA pP sP 12 54 19.2 +2.5
GYA PP **PnPn 12 54 55.8 +6.4**
GYA S **S 12 58 41.0 -2.3**
GYA SS **SnSn 13 00 02.1 +5.6**
GYA pmax pmax
comp=Z,20nm,0.8s
GYA pmax pmax
comp=Z,130nm,5.0s
GYA LR LR
comp=Z,710nm,13.8s
GYA LR LR
comp=Z,660nm,14.3s
GYA LR LR
comp=Z,690nm,13.6s
**VRH Novokhopyorsk 27.82 309** *eP* **P 12 54 03.7 -0.2**
VRH pmax pmax
comp=Z,20nm,0.6s
**TIY Taiyuan 27.96 80** *eP* **P 12 54 06.9 +1.4**
TIY pmax pmax
comp=Z,200nm,3.9s
TIY LR LR
comp=Z,610nm,6.0s
TIY LR LR
comp=Z,910nm,12.6s
TIY LR LR
comp=Z,1μm,17.2s
**SOC Sochi 28.39 293** *eP* **P 12 54 09.0 -0.1**
SOC *e* 12 55 01.1
SOC *eS* **S 12 58 50.0 -3.7**
SOC *eSS* **SnSn 13 00 22.6 +10**
SOC pmax pmax
comp=Z,17nm,0.7s
SOC MLR MLR
comp=Z,323nm,16.0s
**NANT Nan 28.41 126** P **P 12 54 08.2 -1.3**
comp=Z,13nm,0.8s
**DGPR DIGLIPUR 28.78 146** *eP* **P 12 54 10.0 -2.8**
DGPR AMB AMB 12 54 15.5
comp=Z,43nm,2.1s
**UTTA Uttaradit 29.11 128** P **P 12 54 15.6 -0.1**
comp=Z,8.0nm,0.7s,comp=Z,76nm
**SFNV Sufian 29.14 278** *eP* **P 12 54 16.9 +1.0**
**VSR Storozhevoye 29.39 308** *eP* **P 12 54 17.3 -0.6**
VSR pmax pmax
comp=Z,30nm,1.0s
**TRD Trivandrum 29.61 180** *eP* **P 12 54 20.8 +0.7**
**LPSR Galich'ya Gora 29.84 311** *eP* **P 12 54 21.6 -0.2**
LPSR pmax pmax
comp=Z,40nm,0.8s
**ANN Anapa 29.99 295** *eP* **P 12 54 23.4 +0.1**
ANN *eS* **S 12 59 18.2 -0.7**
ANN pmax pmax
comp=Z,80nm,1.0s
**UTHA Uthaitani 30.13 132** P **P 12 54 25.1 +0.3**
comp=Z,17nm,0.7s,comp=Z,147nm
**BJI Beijing 30.40 74** P **P 12 54 27.0 +0.1**
BJI S **S 12 59 23.9 -1.5**
BJI pmax pmax
comp=Z,12nm,0.8s
BJI pmax pmax
comp=Z,320nm,4.7s
BJI LR LR
comp=Z,1μm,17.2s
BJI LR LR
comp=Z,2μm,18.2s
BJI LR LR
comp=Z,2μm,20.6s
**RAYN Ar Rayn 30.46 250** *eP* **P 12 54 26.7 -1.0**
comp=Z,14nm,0.8s
**PALK Pallekele 31.03 173** P **P 12 54 33.9 +1.1**
comp=Z,28nm,0.8s,baz=296,slow=6.8,SNR=21
PALK LR LR 13 08 05.2
comp=Z,1μm,18.2s,baz=295,slow=38
**PALK Pallekele 31.03 173** *i P* **P 12 54 34.1 +1.4**
SNR=8.9
**PALK Pallekele 31.03 173** *i P* **P 12 54 34.4 +1.6**
**PALK Pallekele 31.03 173** *eP* **P 12 54 33.8 +1.0**
comp=Z,37nm,0.8s
**BOD Bodaibo 31.07 39** *eP* **P 12 54 30.7 -2.0**
BOD pmax pmax
comp=Z,28nm,1.6s
**CHAI Chaiyaphum 31.39 128** P **P 12 54 36.1 +0.2**
comp=Z,20nm,0.7s,comp=Z,157nm
**KHON Khomkaen 31.59 127** P **P 12 54 38.0 +0.4**
comp=Z,45nm,0.8s
**WHN Wuhan 31.73 93**⇓‖ P P 12 54 47.0 +8.2
WHN pmax pmax
comp=Z,62nm,0.8s
WHN LR LR
comp=Z,2μm,13.2s
WHN LR LR
comp=Z,3μm,19.2s
WHN LR LR
comp=Z,3μm,16.8s
**OBN Obninsk 31.81 315**⇑‖ *eP* **P 12 54 38.9 -0.3**
OBN *e* 12 54 47.4
OBN *e**PP **sP 12 54 57.5 +4.6**
OBN *e* 12 55 39.1
OBN 12 57 30.0
OBN *i* S **S 12 59 47.0 -0.1**
OBN *e* 12 59 59.7
OBN *eSS* **SnSn 13 01 37.6 +1.6**
OBN pmax pmax
comp=Z,21nm,0.9s
OBN MLR MLR
comp=Z,605nm,15.0s
**SKNT Sakolnakorn 31.86 124** P **P 12 54 40.4 +0.4**
comp=Z,72nm,0.9s
**TIA Tai'an 31.97 81**⇑‖ P **P 12 54 43.0 +2.1**
**ROOS tl_alroos 32.00 275** *eP* **P 12 54 42.3 +1.1**
**BTCH Batrach 32.08 279** *eP* **P 12 54 43.8 +1.9**
**SIM Simferopol' 32.34 296***d iP* **P 12 54 45.1 +1.1**
SIM *eS* **S 12 59 58.0 +2.3**
SIM pmax pmax
comp=Z,103nm,0.8s
**PHET Kaeng Krachan 32.37 135** P **P 12 54 45.1 +0.6**
comp=Z,10nm,0.8s,comp=Z,136nm
**KLMR Klimovskoe 32.42 326** *eP* **P 12 54 42.9 -1.6**
KLMR pmax pmax
comp=Z,55nm,1.4s
**BIDA Albida 32.49 277** *eP* **P 12 54 47.2 +1.7**
**HAWK Haweek 32.58 276** *eP* **P 12 54 48.1 +1.8**
**MARH Ras Al Marh 32.68 275** *eP* **P 12 54 48.7 +1.3**
**ILGA Ilgaz 33.07 289** *eP* **P 12 54 52.3 +1.6**
comp=Z,93nm,1.1s
**BRBR Barbar 33.30 274** *eP* **P 12 54 54.4 +1.7**
**BR101 Keskin Array S 33.37 286** *eP* **P 12 54 54.1 +0.8**
**BR131 Keskin Array S 33.37 286** *eP* **P 12 54 53.5 +0.2**
**BRTR Keskin Array B 33.37 286** P **P 12 54 54.1 +0.8**
comp=Z,20nm,0.8s,baz=95,slow=6.8,SNR=85
BRTR ScP **ScP 13 01 15.8 -0.5**
comp=Z,0.5nm,0.5s,baz=72,slow=4.0,SNR=3.6
**ANTO Ankara 33.98 287** *eP* **P 12 54 59.9 +1.4**
ANTO pmax pmax
comp=Z,73nm,1.2s
**ANTO Ankara 33.98 287** *eP* **P 12 54 59.9 +1.4**
comp=Z,73nm,1.2s
**ANTO Ankara 33.98 287** P **P 12 54 59.9 +1.4**
SNR=7.8
**ANTO Ankara 33.98 287** P **P 12 54 59.9 +1.4**
SNR=7.8
**BR231 Keskin MP Arra 34.00 287** *eP* **P 12 54 55.0 -3.6**
**QIZ Qiongzhong 34.47 114** P **P 12 55 02.8 0.0**
QIZ sP sP 12 55 24.7 +8.2
QIZ S **S 13 00 28.4 -0.7**
QIZ LR LR
QIZ comp=Z,510nm,7.3s LR LR
QIZ comp=Z,560nm,13.1s LR LR
QIZ comp=Z,660nm,18.6s LR LR
**TMCR Tamitsa 34.61 331** *eP* **P 12 55 05.0 +1.5**
TMCR pmax pmax
comp=Z,42nm,0.8s
**NJ2 Nanjing 34.69 87** *eP* **P 12 55 04.4 -0.1**
NJ2 S **S 13 00 30.7 -1.5**
NJ2 pmax pmax
comp=Z,13nm,0.7s
NJ2 LR LR
comp=Z,1μm,13.8s
NJ2 LR LR
comp=Z,680nm,14.4s
NJ2 LR LR
comp=Z,1μm,16.6s
**SURT Suratani 35.23 140** P **P 12 55 13.7 +4.3**
comp=Z,14nm,1.2s
**AKASG Malin Array Be 35.58 306** P **P 12 55 11.9 -0.1**
comp=Z,2.3nm,0.4s,baz=77,slow=7.8,SNR=30
AKASG S **S 13 00 45.1 -0.4**
comp=Z,0.3nm,0.3s,baz=79,slow=15,SNR=4.6
AKASG LR LR 13 10 51.9
comp=Z,625nm,20.7s,baz=100,slow=38
**AKASG Malin Array Be 35.58 306** P **P 12 55 11.9 -0.1**
AKASG S **S 13 00 45.1 -0.4**
AKASG pmax pmax
comp=Z,8.0nm,0.6s
AKASG MLR MLR
comp=Z,625nm,20.7s
**AKBB Malin Array Si 35.58 306** *eP* **P 12 55 12.0 0.0**
AKBB pmax pmax
comp=Z,28nm,0.9s
**AKBB Malin Array Si 35.58 306** *eP* **P 12 55 11.9 0.0**
comp=Z,28nm,0.9s
**KIEV Kiev 35.59 306***d iP* **P 12 55 12.1 0.0**
KIEV pmax pmax
comp=Z,25nm,0.9s
**KIEV Kiev 35.59 306** *eP* **P 12 55 11.6 -0.4**
comp=Z,27nm,0.9s
**AK11 Malin Array Si 35.61 306** *eP* **P 12 55 11.9 -0.4**
**SNY Shenyang 35.63 69**⇓‖ P P 12 55 06.6 -5.9
**BOLV Bolvadin 35.63 285** *eP* **P 12 55 13.7 +0.9**
comp=Z,20nm,0.6s
**TIRR Tirgusor 36.44 296**⇓ *iP* **P 12 55 20.2 +0.8**
**CLNS Chul'man 36.46 43** *eP* **P 12 55 17.1 -2.5**
CLNS pmax pmax
comp=Z,16nm,0.7s
CLNS pmax pmax
comp=N,10.0nm,0.8s
CLNS pmax pmax
comp=E,16nm,0.9s
**CFR Carcaliu 36.55 297**⇑ *iP* **P 12 55 21.1 +0.8**
**CN2 Changchun 36.67 65** *eP* P 12 55 27.0 +5.6
CN2 *eS* **S 13 01 08.2 +5.8**
CN2 pmax pmax
comp=E,20nm,1.0s
CN2 LR LR
comp=E,700nm,18.0s
CN2 LR LR
comp=E,1μm,18.0s
CN2 LR LR
comp=E,2μm,18.0s
**HARR Harsova 36.75 296**⇓ *iP* **P 12 55 23.3 +1.2**
**ICOR Ion Corvin 36.92 295**⇑ *iP* **P 12 55 25.2 +1.6**
**ODBI Odobesti 37.23 298**⇑ *iP* **P 12 55 27.7 +1.5**
**NACGM Naroch 37.32 313** *e* **P 12 55 26.0 -0.8**
**AKAS Kas 37.34 282** *eP* **P 12 55 26.7 -0.6**
comp=E,19nm,0.8s
**IDID Didziasalis 37.38 314** *eP* **P 12 55 28.2 +0.9**
IDID IAmb IAmb 12 55 29.1
comp=Z,16nm,0.5s
**TESR Tescani 37.44 299**⇑ *iP* **P 12 55 28.8 +0.9**
**VRI Vrincioaia 37.45 298**⇑ *iP* **P 12 55 29.6 +1.5**
**MANT Manisa 37.50 286** *eP* **P 12 55 29.6 +0.8**
comp=Z,66nm,0.9s
**PLOR Plostina 37.51 298**⇑ *iP* **P 12 55 30.5 +1.9**
**PRAR RASCA 37.64 301**⇓ *iP* **P 12 55 30.7 +1.0**
**IIGN Ignalina 37.68 314** *eP* **P 12 55 30.7 +0.8**
IIGN IAmb IAmb 12 55 32.9
comp=Z,9.6nm,0.6s
**IZAR Zarasai 37.71 314** *eP* **P 12 55 30.9 +0.8**
IZAR IAmb IAmb 12 55 32.0
comp=Z,18nm,0.8s
**ISAL Salakas 37.76 314** *eP* **P 12 55 31.3 +0.8**
ISAL IAmb IAmb 12 55 32.6
comp=Z,18nm,1.1s
**VSU Vasula 37.82 319** *eP* **P 12 55 31.1 +0.1**
VSU pmax pmax
comp=Z,61nm,0.9s
**MLR Muntele Rosu 38.04 298**⇑ *iP* **P 12 55 35.3 +2.0**
**MLR Muntele Rosu 38.04 298** *eP* **P 12 55 35.2 +2.0**
MLR pmax pmax
comp=Z,90nm,0.8s
**MLR Muntele Rosu 38.04 298** *eP* **P 12 55 35.2 +2.0**
comp=Z,90nm,0.8s
**BURAR Bucovina Array 38.30 301**⇑ *iP* **P 12 55 35.9 +0.5**
**BUR04 Bucovina Ar. S 38.31 301** *eP* **P 12 55 35.8 +0.4**
**BUR08 Bucovina Ar. S 38.31 301** *eP* **P 12 55 36.0 +0.6**
**DOPR Dopca 38.37 299**⇑ *iP* **P 12 55 37.5 +1.7**
**VOIR 38.67 298**⇓ *iP* **P 12 55 39.6 +1.1**
**MTUR Matau 38.69 297**⇑ *iP* **P 12 55 38.4 -0.3**
**ZIMR 38.73 295**⇑ *iP* **P 12 55 40.7 +1.9**
**FIA1 FINESS Array S 38.74 324** *eP* **P 12 55 38.9 +0.2**
**FIA0 FINESS Array S 38.74 324** *eP* **P 12 55 38.7 0.0**
**FIA0 FINESS Array S 38.74 324** *eP* **P 12 55 38.6 0.0**
**FINES FINESS Array B 38.74 324** P **P 12 55 38.6 0.0**
comp=Z,13nm,0.6s,baz=107,slow=9.7,SNR=35
FINES LR LR 13 12 33.1
comp=Z,1μm,18.5s,baz=99,slow=38
**FINES FINESS Array B 38.74 324** *i P* **P 12 55 39.2 +0.5**
FINES pmax pmax
comp=Z,13nm,0.6s
**ALN Alexandroupoli 38.79 290** P **P 12 55 39.8 +0.4**
**ALN Alexandroupoli 38.79 290** P **P 12 55 39.8 +0.4**
**ALN Alexandroupoli 38.79 290** P **P 12 55 39.8 +0.4**
**LVV L'vov 38.92 305** *eP* **P 12 55 44.1 +3.7**
LVV *e* 12 57 16.0
LVV MLR MLR
comp=Z,800nm,15.0s
**ARCR ARCALIA 38.94 300**⇑ *iP* **P 12 55 42.5 +1.9**
**ARR Arges 38.97 298**⇑ *iP* **P 12 55 42.5 +1.5**
**SUW Suwalki 39.37 311** *eP* **P 12 55 44.3 +0.3**
**SUW Suwalki 39.37 311** *eP* **P 12 55 44.3 +0.3**
**KARP Karpathos 39.44 282** *eP* **P 12 55 45.3 +0.4**
comp=Z,44nm,0.8s
**MDJ Mudanjiang 39.48 63** *eP* **P 12 55 45.9 +0.7**
comp=Z,53nm,1.3s
**CJR Cluj-Napoca 39.50 300**⇑ *iP* **P 12 55 47.1 +1.8**
**LOT Lotru 39.56 298**⇓ *iP* **P 12 55 47.9 +2.0**
**KWP Kalwaria Pacla 39.79 305** *eP* **P 12 55 48.2 +0.5**
**KWP Kalwaria Pacla 39.79 305** *eP* **P 12 55 48.2 +0.5**
**YAK Yakutsk 39.84 36** P **P 12 55 47.1 -0.8**
comp=Z,27nm,0.7s,baz=270,slow=2.7,SNR=15
**YAK Yakutsk 39.84 36** *eP* **P 12 55 46.2 -1.6**
YAK *e**PP **sP 12 56 02.5 +0.9**
YAK *e* 12 57 52.5
YAK *eS* **S 13 01 45.8 -4.0**
YAK *eSS* **SS 13 04 35.8 -11**
YAK *eSSS* SSS 13 05 07.8
YAK *e* 13 05 55.2
YAK pmax pmax
comp=Z,20nm,0.8s
YAK pmax pmax
comp=Z,227nm,3.7s
YAK pmax pmax
comp=N,140nm,3.6s
YAK pmax pmax
comp=E,109nm,3.0s
YAK smax smax
comp=N,163nm,2.8s
YAK smax smax
comp=E,123nm,3.1s
**YAK Yakutsk 39.84 36** *eP* **P 12 55 46.9 -0.9**
comp=E,51nm,1.0s
**KS01 Wonju Array Si 39.90 75** *eP* **P 12 55 47.5 -1.2**
**KS15 Wonju Array Si 39.90 75** *eP* **P 12 55 47.9 -0.8**
KS15 *ep*P **pP 12 55 56.4 -2.1**
**KSAR Wonju Array Be 39.90 75** P **P 12 55 47.9 -0.8**
KSAR ***PP **pP 12 55 56.4 -2.1**
**KSAR Wonju Array Be 39.90 75** P **P 12 55 47.9 -0.8**
KSAR pP **pP 12 55 56.4 -2.1**
**KSRS Korea Array 39.93 75** P **P 12 55 47.9 -1.0**
comp=E,9.6nm,1.0s,baz=290,slow=10.0,SNR=11
KSRS pP **pP 12 55 56.4 -2.3**
comp=E,12nm,0.8s,baz=288,slow=9.9,SNR=12
KSRS LR LR 13 14 30.1
comp=E,1μm,20.0s,baz=284,slow=40
**DRGR 40.09 300**⇑ *iP* **P 12 55 51.6 +1.3**
**UZH Uzhgorod 40.15 303**⇑ *iP* **P 12 55 51.2 +0.6**
UZH *e* 12 56 01.6
UZH *eS* **S 13 01 53.6 -1.3**
UZH MLR MLR
comp=N,350nm,13.0s
UZH MLR MLR
comp=E,260nm,13.0s
UZH MLR MLR
comp=Z,180nm,13.0s
**APE Apeiranthos 40.20 285**⇑ *iP* **P 12 55 51.8 +0.5**
**ATD Arta Tunnel 40.33 238** P **P 12 55 53.8 +1.2**
comp=Z,31nm,1.0s,baz=5.5,slow=5.7,SNR=7.1
ATD LR LR 13 16 01.3
comp=Z,187nm,18.2s,baz=56,slow=41
**ATD Arta Tunnel 40.33 238** *eP* **P 12 55 54.2 +1.7**
comp=Z,31nm,1.0s
**VTS Vitosha 40.49 294**⇑ *iP* **P 12 55 54.8 +1.0**
**VTS Vitosha 40.49 294** *eP* **P 12 55 54.7 +1.0**
**VTS Vitosha 40.49 294** *eP* **P 12 55 54.7 +1.0**
**VTS Vitosha 40.49 294** P **P 12 55 54.7 +1.0**
**SRS Serrai 40.55 291** *eP* **P 12 55 54.6 +0.6**
**SRS Serrai 40.55 291** *eP* **P 12 55 54.6 +0.6**
**SRS Serrai 40.55 291** P **P 12 55 54.6 +0.6**
**HERR Herculane 40.60 297**⇑ *iP* **P 12 55 54.5 +0.1**
**PSI Prapat 40.66 145** P **P 12 55 54.2 -1.1**
comp=Z,5.2nm,0.4s,baz=273,slow=7.7,SNR=4.3
PSI LR LR 13 15 52.1
comp=Z,132nm,19.2s,baz=307,slow=41
**PSI Prapat 40.66 145** *eP* **P 12 55 54.2 -1.1**
comp=Z,21nm,1.0s
**CRVS Cervenica-Dubn 40.67 304** *eP* **P 12 55 55.1 +0.1**
**CRVS Cervenica-Dubn 40.67 304** *eP* **P 12 55 55.1 +0.1**
**STHS Stebnicka Huta 40.76 304** *eP* **P 12 55 56.0 +0.3**
STHS pmax pmax
comp=Z,9.0nm,0.8s
**STHS Stebnicka Huta 40.76 304** *eP* **P 12 55 56.0 +0.3**
**PAIG Paliouri 40.78 290** *eP* **P 12 55 56.4 +0.4**
**PAIG Paliouri 40.78 290** *eP* **P 12 55 56.4 +0.4**
**PAIG Paliouri 40.78 290** P **P 12 55 56.4 +0.4**
**SIRR Siria 40.89 300**⇓ *iP* **P 12 55 58.5 +1.7**
**BZS Buzias 41.03 299**⇑ *iP* **P 12 55 59.2 +1.3**
**KNT Kendrikon 41.04 292** P **P 12 55 58.6 +0.5**
**KNT Kendrikon 41.04 292** P **P 12 55 58.6 +0.5**
**KNT Kendrikon 41.04 292** P **P 12 55 58.6 +0.5**
**MDVR Moldovita 41.11 297**⇑ *iP* **P 12 55 59.9 +1.2**
**VAY Valandovo 41.24 292** *i P* **P 12 56 00.3 +0.5**
**USRK Ussuriysk Ar. 41.25 64** P **P 12 55 59.3 -0.4**
comp=Z,4.3nm,0.8s,baz=280,slow=8.6,SNR=7.7
USRK LR LR 13 14 33.6
comp=Z,405nm,18.0s,baz=271,slow=38
**ATHU Athens Univers 41.26 287** *eP* **P 12 55 59.5 -0.4**
**ATHU Athens Univers 41.26 287** P **P 12 55 59.5 -0.4**
**IDI Anoyia 41.27 282** P **P 12 56 00.4 +0.2**
comp=Z,11nm,0.6s,baz=36,slow=8.7,SNR=6.6
**XOR Xorichti 41.30 289** P **P 12 56 00.1 -0.2**
**XOR Xorichti 41.30 289** P **P 12 56 00.1 -0.2**
**KECS Kecovo 41.36 303** *eP* **P 12 56 00.7 +0.1**
KECS pmax pmax
comp=Z,12nm,0.9s
**KECS Kecovo 41.36 303** *eP* **P 12 56 00.7 +0.1**
**NIE Niedzica 41.37 304** *eP* **P 12 56 02.1 +1.4**
**NIE Niedzica 41.37 304** *eP* **P 12 56 02.1 +1.4**
**ARA0 ARCESS Array S 41.40 335** *eP* **P 12 56 01.1 +0.5**
**ARCES ARCESS Array B 41.40 335** P **P 12 56 01.1 +0.5**
comp=Z,8.0nm,0.5s,baz=108,slow=9.1,SNR=29
ARCES LR LR 13 13 18.6
comp=Z,402nm,18.9s,baz=94,slow=36
**SMIA Simia 41.42 288** P **P 12 56 01.9 +0.6**
**FYTO Fytoko, Volos 41.47 289** *eP* **P 12 56 02.0 +0.3**
**FYTO Fytoko, Volos 41.47 289** P **P 12 56 02.0 +0.3**
**VILL Villia 41.55 287** P **P 12 56 02.3 -0.1**
**OJC Ojcow 41.61 306** *eP* **P 12 56 03.1 +0.4**
**OJC Ojcow 41.61 306** *eP* **P 12 56 03.1 +0.4**

OJC Ojcow 41.61 306 eP P 12 56 03.0 +0.4
comp=Z,44nm,0.9s
LIT Litokhoron 41.62 290 eP P 12 56 02.3 -0.6
LIT Litokhoron 41.62 290 eP P 12 56 02.3 -0.6
LIT Litokhoron 41.62 290 P P 12 56 02.3 -0.6
DID Didima 41.81 286 eP P 12 56 02.7 -1.8
DID Didima 41.81 286 P P 12 56 02.7 -1.8
KTI Kastanea 41.81 291 P P 12 56 03.7 -0.9
PSZ Piszkesteto 41.83 302 ⇑iP P 12 56 05.4 +0.8
PSZ Piszkesteto 41.83 302 eP P 12 56 05.3 +0.7
PSZ pmax pmax
comp=Z,22nm,0.8s
PSZ Piszkesteto 41.83 302 eP P 12 56 05.3 +0.7
comp=Z,22nm,0.8s
LTK Loutraki 41.85 287 eP P 12 56 04.0 -0.8
LTK Loutraki 41.85 287 P P 12 56 04.0 -0.8
SKO Skopje 41.91 293 iP P 12 56 06.2 +1.0
LANS Liptovska Anna 41.95 304 eP P 12 56 05.8 +0.3
LANS Liptovska Anna 41.95 304 eP P 12 56 05.8 +0.3
BEO Beograd 41.97 298 eP P 12 56 06.7 +1.1
BEO Beograd 41.97 298 eP P 12 56 06.7 +1.1
AGG Agios Georgios 42.04 289 eP P 12 56 05.2 -1.1
AGG Agios Georgios 42.04 289 eP P 12 56 05.2 -1.1
AGG Agios Georgios 42.04 289 P P 12 56 05.2 -1.1
DSF Desfina 42.07 288 eP P 12 56 05.6 -1.0
DSF Desfina 42.07 288 P P 12 56 05.6 -1.0
KRUS Krusevo 42.20 292 iP P 12 56 08.2 +0.5
BIA Bitola 42.23 292 iP P 12 56 08.5 +0.6
FNA Florina 42.26 292 P P 12 56 08.0 -0.1
FNA Florina 42.26 292 P P 12 56 08.0 -0.1
FNA Florina 42.26 292 P P 12 56 08.0 -0.1
GUR Goura 42.35 287 eP P 12 56 07.8 -1.2
GUR Goura 42.35 287 P P 12 56 07.8 -1.2
KALE Kalithea 42.37 288 eP P 12 56 08.0 -1.0
KALE Kalithea 42.37 288 P P 12 56 08.0 -1.0
SERG Sergoula 42.42 288 P P 12 56 08.6 -0.9
TIXI Tiksi 42.42 22 LR LR 13 14 56.3
comp=Z,2μm,19.6s,baz=248,slow=38
TIXI Tiksi 42.42 22 ⇓iP P 12 56 07.8 -1.2
TIXI pmax pmax
comp=Z,21nm,1.1s
TIXI Tiksi 42.42 22 eP P 12 56 08.1 -0.9
comp=Z,26nm,0.8s
VYHS Vyhne 42.45 303 eP P 12 56 10.5 +1.0
VYHS pmax pmax
comp=Z,23nm,1.2s
VYHS Vyhne 42.45 303 eP P 12 56 10.5 +1.0
DIVS Divibare 42.45 297 P P 12 56 10.4 +0.7
ANX Ano Chora 42.47 288 P P 12 56 09.2 -0.7
BUD Budapest 42.48 302 ⇓iP P 12 56 11.1 +1.3
KPRO Kipourio 42.49 290 P P 12 56 09.9 -0.1
VLX Vlachokerasia 42.50 286 eP P 12 56 08.8 -1.4
VLX Vlachokerasia 42.50 286 P P 12 56 08.8 -1.4
EFP Efpalio 42.52 288 P P 12 56 09.5 -0.8
LAKA Lakka 42.53 288 eP P 12 56 09.1 -1.3
LAKA Lakka 42.53 288 P P 12 56 09.1 -1.3
OHR Ohrid 42.59 292 iP P 12 56 10.1 -0.7
NEST Nestorio 42.59 291 P P 12 56 10.7 -0.2
HABR Khabarovsk 42.60 57 eP P 12 56 08.6 -2.1
HABR e*PP sP 12 56 23.4 -1.1
HABR e 12 58 00.4
HABR ePPP PPP 12 58 20.4
HABR eS S 13 02 26.7 -4.4
HABR eSS SS 13 05 38.3 -3.2
HABR e 13 06 03.5
HABR eSSS SSS 13 06 13.8
HABR pmax pmax
comp=E,13nm,1.5s
HABR pmax pmax
comp=N,28nm,1.9s
HABR pmax pmax
comp=Z,66nm,1.9s
HABR MLR MLR
comp=Z,2μm,20.0s
OKC Ostrava-Krasne 42.71 305 eP P 12 56 12.3 +0.7
OKC Ostrava-Krasne 42.71 305 eP P 12 56 12.3 +0.7
PVO Paravola 42.76 288 P P 12 56 12.2 +0.1
IVA Berane 42.80 295 eP P 12 56 13.6 +1.0
DRO Drossia 42.82 287 P P 12 56 11.7 -1.0
PVY Plav 42.82 295 ⇑iP P 12 56 13.0 +0.2
DSL Palaion Diasel 42.92 289 eP P 12 56 12.9 -0.6
DSL Palaion Diasel 42.92 289 P P 12 56 12.9 -0.6
AXS Araxos 43.00 288 P P 12 56 12.7 -1.4
CSKK Cs˘ˇkako 43.01 302 ⇓iP P 12 56 15.3 +1.2
PDO Prodromos 43.02 289 P P 12 56 13.6 -0.7
PLE Pljevlja 43.05 296 ⇑iP P 12 56 15.3 +0.7
MORC Moravsky Berou 43.11 305 ⇑iP P 12 56 15.8 +0.8
MORC Moravsky Berou 43.11 305 eP P 12 56 15.7 +0.8
MORC pmax pmax
comp=Z,125nm,0.9s
MORC Moravsky Berou 43.11 305 eP P 12 56 15.7 +0.8
comp=Z,125nm,0.9s
PYL PYLOS 43.13 286 eP P 12 56 12.9 -2.3
PYL PYLOS 43.13 286 P P 12 56 12.9 -2.3
LKD2 Lefkada island 43.35 289 P P 12 56 15.9 -1.1
LKD2 Lefkada island 43.35 289 P P 12 56 15.9 -1.1
PDG Podgorica 43.37 294 ⇑iP P 12 56 17.7 +0.7
PDG Podgorica 43.37 294 P P 12 56 17.3 +0.3
TTG Podgorica 43.37 294 ⇑iP P 12 56 17.3 +0.3
TTG Podgorica 43.37 294 P P 12 56 17.3 +0.3
TTG Podgorica 43.37 294 P P 12 56 17.3 +0.3
IGT Igoumenitsa 43.37 290 eP P 12 56 15.6 -1.5
IGT Igoumenitsa 43.37 290 eP P 12 56 15.6 -1.5
IGT Igoumenitsa 43.37 290 P P 12 56 15.6 -1.5
SGD Sagiada 43.42 290 P P 12 56 16.7 -0.8
UPM Unac-Piva 43.43 296 ⇑iP P 12 56 18.3 +0.6
NKY Niksic 43.46 295 ⇑iP P 12 56 18.1 +0.2
KGM Kluang 43.46 140 ⇓iP P 12 56 26.5 +8.5
DRME Dracevica, Mon 43.48 294 ⇑iP P 12 56 18.2 +0.2
MODS Modra-Piesok 43.49 303 eP P 12 56 19.1 +1.1
MODS Modra-Piesok 43.49 303 eP P 12 56 19.1 +1.1
ULC Ulcinj 43.49 294 ⇑iP P 12 56 17.8 -0.3
NKME Niksic 43.50 295 eP P 12 56 18.6 +0.4
KRLC Kraliky 43.55 306 eP P 12 56 19.2 +0.7
KRLC Kraliky 43.55 306 eP P 12 56 19.2 +0.7
CEME Cevo 43.58 295 ⇑iP P 12 56 19.1 +0.3
BUM Brajici-Budva 43.66 294 ⇑iP P 12 56 19.5 0.0
JNU Nakatsue 43.68 80 P P 12 56 20.2 +0.5
comp=Z,14nm,0.8s,baz=60,slow=3.5,SNR=6.7
JNU Nakatsue 43.68 80 eP P 12 56 19.8 +0.1
comp=Z,28nm,1.0s
KSP Ksiaz 43.76 307 eP P 12 56 21.2 +1.2
KSP Ksiaz 43.76 307 eP P 12 56 21.3 +1.2
BRY Bratogost 43.76 295 ⇑iP P 12 56 20.8 +0.4
VRAC Vranov 43.79 305 ⇑iP P 12 56 21.8 +1.4
DPC Dobruska-Polom 43.81 306 eP P 12 56 21.6 +1.1
DPC Dobruska-Polom 43.81 306 eP P 12 56 21.6 +1.1
HCY Herceg Novi 43.91 295 ⇑iP P 12 56 21.3 -0.1
UPC Upice 43.98 307 eP P 12 56 23.0 +1.1
UPC epP pP 12 56 32.6 +0.9
UPC Upice 43.98 307 eP P 12 56 23.0 +1.1
UPC e 12 56 32.6
SOP Sopron 44.09 303 ⇓iP P 12 56 24.0 +1.2
BEHE Becsehely 44.18 301 ⇓iP P 12 56 24.8 +1.3
STON Ston 44.37 296 P P 12 56 25.0 0.0
CONA Conrad Observa 44.50 303 iP P 12 56 27.2 +1.0
comp=Z,62nm,0.9s,SNR=22
TREC Trest 44.51 305 eP P 12 56 27.4 +1.3
TREC Trest 44.51 305 eP P 12 56 27.4 +1.3
GOPC GO Pecny, Ondr 44.85 306 eP P 12 56 29.8 +1.0
GOPC GO Pecny, Ondr 44.85 306 eP P 12 56 29.8 +1.0
ARSA Arzberg 44.86 302 iP P 12 56 29.6 +0.6
comp=Z,22nm,0.8s,SNR=11
PVCC Panska Ves 44.89 307 eP P 12 56 30.0 +0.9
PVCC Panska Ves 44.89 307 eP P 12 56 30.0 +0.9
PRU Pruhonice 44.99 306 eP P 12 56 30.8 +0.8
PRU epP pP 12 56 40.7 +0.9
PRU Pruhonice 44.99 306 eP P 12 56 30.8 +0.8
PRU e 12 56 40.7
GOLS Golise 45.06 300 eP P 12 56 31.3 +0.7
BRG Berggiesshubel 45.23 307 ⇑iP P 12 56 32.5 +0.7
comp=Z,49nm,1.0s
BRG Berggiesshubel 45.23 307 ⇑iP P 12 56 32.5 +0.7
BRG pmax pmax
comp=Z,28nm,1.0s
OZLJ Ozalj 45.25 300 P P 12 56 32.7 +0.7
PERS Pernice 45.26 301 iP P 12 56 32.8 +0.6
UDBI Udbina 45.31 298 P P 12 56 32.9 +0.3
SOKA Soboth 45.31 301 iP P 12 56 33.4 +0.8
comp=Z,86nm,0.9s,SNR=40
BOJS Bojanci 45.43 300 iP P 12 56 34.1 +0.6

MOA Molln 45.57 303 iP P 12 56 35.2 +0.6
comp=Z,39nm,0.9s,SNR=8.8
NC405 NORSAR Array S 45.59 322 eP P 12 56 35.0 +0.5
OBKA Obir 45.67 301 iP P 12 56 36.4 +0.9
comp=Z,49nm,0.8s,SNR=16
NC602 NORSAR Array S 45.68 321 eP P 12 56 35.5 +0.3
GERES GERESS Array B 45.74 305 LR LR 13 18 22.6
comp=Z,406nm,18.5s,baz=72,slow=40
CLL Collm 45.74 308 ⇑iP P 12 56 36.1 +0.2
CLL pmax pmax
comp=Z,37nm,1.1s
CLL MLR MLR
comp=Z,600nm,18.1s
CLL Collm 45.74 308 ⇑iP P 12 56 36.1 +0.2
comp=Z,37nm,1.1s
CLL eSS SS 13 06 43.0 +1.9
CLL LmV 13 20 00.0
comp=Z,600nm,18.1s
GEA0 GERESS Array S 45.74 305 eP P 12 56 34.5 -1.5
TGY Tagaytay City 45.75 109 LR LR 13 17 08.3
comp=Z,224nm,18.7s,baz=328,slow=38
NC303 NORSAR Array S 45.76 322 eP P 12 56 36.7 +0.9
KHC Kasperske Hory 45.77 305 eP P 12 56 37.0 +0.9
KHC epP pP 12 56 46.8 +0.8
KHC ex x 12 57 04.0
KHC Kasperske Hory 45.77 305 eP P 12 56 37.0 +0.9
KHC e 12 56 46.8
LJU Ljubljana 45.79 301 iP P 12 56 37.4 +1.0
NB2 NORSAR Subarra 45.83 322 P P 12 56 36.3 -0.2
comp=Z,22nm,0.7s,baz=90,slow=7.9
NB2 NORSAR Subarra 45.83 322 P P 12 56 36.3 -0.2
baz=90,slow=7.9
NB200 NORSAR Array S 45.83 322 eP P 12 56 36.5 0.0
NB200 epP pP 12 56 44.1 -2.3
NOA NORSAR Array B 45.83 322 P P 12 56 36.5 0.0
comp=Z,15nm,0.6s,baz=90,slow=7.9,SNR=26
NOA pP pP 12 56 44.1 -2.3
comp=Z,14nm,0.6s,baz=90,slow=7.8,SNR=12
NOA LR LR 13 17 04.8
comp=Z,582nm,19.4s,baz=85,slow=38
NVLJ Novalja 45.92 299 P P 12 56 37.2 -0.1
NAO01 NORSAR Array S 46.00 322 eP P 12 56 37.2 -0.6
NC204 NORSAR Array S 46.05 322 eP P 12 56 38.1 -0.1
MYKA Terra Mystica 46.26 302 iP P 12 56 40.5 +0.4
comp=Z,13nm,0.8s,SNR=7.0
NKC Novy Kostel 46.28 307 eP P 12 56 41.3 +1.2
NKC AMS AMS 13 17 30.0
comp=Z,700nm,19.9s
NKC Novy Kostel 46.28 307 eP P 12 56 41.3 +1.2
NKC MLR MLR
comp=Z,700nm,19.9s
KBA Koelnbreinsper 46.35 302 iP P 12 56 41.2 +0.3
comp=Z,2.4nm,0.4s,SNR=7.7
TRI Trieste 46.39 300 eP P 12 56 41.3 +0.3
TRI pmax pmax
comp=Z,151nm,0.7s
TRI Trieste 46.39 300 eP P 12 56 41.3 +0.3
comp=Z,151nm,0.7s
CUC Castrocucco 46.55 292 eP P 12 56 42.6 +0.2
comp=Z,45nm,0.8s
ABTA Abfaltersbach 46.98 302 iP P 12 56 45.3 -0.5
comp=Z,11nm,0.9s,SNR=6.4
CEL Celeste 47.06 290 eP P 12 56 46.8 +0.3
comp=Z,54nm,1.0s
WTTA Wattenberg 47.44 303 iP P 12 56 49.3 -0.2
comp=Z,30nm,1.1s,SNR=7.0
WATA Walderalm 47.46 303 iP P 12 56 49.3 -0.3
comp=Z,15nm,0.8s
AQU L'Aquila 47.56 296 eP P 12 56 51.5 +1.2
AQU pmax pmax
comp=Z,36nm,0.8s
AQU L'Aquila 47.56 296 eP P 12 56 51.5 +1.2
comp=Z,36nm,0.8s
KDM Kudat 47.73 120 ⇓iP P 12 56 53.3 +1.4
MOTA Moosalm 47.77 303 iP P 12 56 51.6 -0.4
comp=Z,21nm,0.7s,SNR=13
KKM Kota Kinabalu 47.95 122 ⇓iP P 12 56 54.1 +0.5
KKM Kota Kinabalu 47.95 122 eP P 12 56 54.8 +1.1
comp=Z,37nm,0.8s
RETA Reutte 47.96 303 iP P 12 56 53.6 +0.2
comp=Z,22nm,0.8s,SNR=6.0
MAT Matsushiro 47.99 72 P P 12 56 52.5 -1.2
MJAR Matsushiro Arr 47.99 72 P P 12 56 52.8 -0.9
comp=Z,7.0nm,0.7s,baz=289,slow=8.1,SNR=9.7
MJAR pP pP 12 57 01.1 -2.5
comp=Z,18nm,0.9s,baz=294,slow=8.5,SNR=10
YSS Yuzh-Sakhalins 48.00 57 eP pP 12 57 09.0 +5.6
YSS MLR MLR
comp=Z,2μm,17.0s
FETA Feichten 48.10 303 iP P 12 56 54.3 -0.3
comp=Z,31nm,1.0s,SNR=8.8
SBUM Sibu 48.13 129 ⇑iP P 12 56 54.9 0.0
FUORN Ofenpass-Fuorn 48.51 302 eP P 12 56 58.0 +0.1
comp=Z,34nm,0.8s
DAVA Dameels 48.59 303 iP P 12 56 58.3 0.0
SNR=17
SDKM Sandakan 48.91 121 ⇓iP P 12 57 01.7 +0.8
WDD Wied Dalam 48.95 287 eP P 12 57 01.0 -0.1
comp=Z,85nm,1.0s
VLC Villacollemand 49.12 299 eP P 12 57 03.1 +0.9
comp=Z,58nm,0.8s
TUE Stuetta 49.16 302 eP P 12 57 02.2 -0.6
comp=Z,22nm,0.7s
BFO Black Forest 49.33 305 iP P 12 57 04.2 +0.4
BFO Black Forest 49.33 305 eP P 12 57 03.3 -0.5
comp=Z,20nm,0.9s
STKI Sintang 49.57 132 P P 12 57 07.6 +1.6
LWLI Liwa 49.91 143 P P 12 57 12.8 +4.1
ECH Echery 50.12 305 eP P 12 57 09.2 -0.6
ECH pmax pmax
comp=Z,21nm,1.0s
ECH Echery 50.12 305 eP P 12 57 09.2 -0.6
comp=Z,21nm,1.0s
MYLDM Lahad Datu 50.13 120 ⇓iP P 12 57 12.8 +2.6
MYLDM Lahad Datu 50.13 120 eP P 12 57 12.4 +2.2
comp=Z,33nm,1.1s
MEM Membach 50.21 308 P P 12 57 11.1 +0.6
comp=Z,17nm,1.1s
TSM Tawau 50.35 122 ⇓iP P 12 57 13.0 +1.1
WLF Walferdange 50.37 307 P P 12 57 12.9 +1.3
comp=Z,26nm,1.0s
WLF Walferdange 50.37 307 eP P 12 57 12.7 +1.1
WLF pmax pmax
comp=Z,40nm,0.9s
WLF Walferdange 50.37 307 eP P 12 57 12.7 +1.1
comp=Z,40nm,0.9s
SENIN Lac Senin/Sane 50.55 303 eP P 12 57 13.0 -0.3
comp=Z,35nm,0.9s
DOU Dourbes 51.22 308 P P 12 57 18.4 +0.3
BNI Bardonecchia 51.37 301 eP P 12 57 19.5 +0.1
BNI pmax pmax
comp=Z,54nm,1.1s
BNI Bardonecchia 51.37 301 eP P 12 57 19.4 +0.1
comp=Z,54nm,1.1s
VSL Villesalto 51.38 294 eP P 12 57 19.0 -0.4
comp=Z,19nm,1.1s
SSB Saint Sauveur 52.72 302 eP P 12 57 28.3 -1.1
SSB pmax pmax
comp=Z,27nm,0.8s
SSB Saint Sauveur 52.72 302 eP P 12 57 28.3 -1.1
comp=Z,27nm,0.8s
KEST Kesra 52.86 289 P P 12 57 30.7 +0.1
comp=Z,11nm,0.8s,baz=304,slow=1.2,SNR=14
KEST LR LR 13 24 01.0
comp=Z,126nm,19.9s,baz=307,slow=40
KEST Kesra 52.86 289 eP P 12 57 30.9 +0.3
comp=Z,16nm,0.9s
KMBO Kilima Mbogo 53.51 232 P P 12 57 36.5 +0.8
comp=Z,11nm,0.7s,baz=33,slow=12,SNR=29
KMBO LR LR 13 22 30.3
comp=Z,399nm,19.8s,baz=78,slow=38
KMBO Kilima Mbogo 53.51 232 eP P 12 57 36.3 +0.6
comp=Z,14nm,0.8s
DAG Danmarks Havn 54.37 344 eP P 12 57 40.8 -0.1
DAG pmax pmax
comp=Z,9.0nm,0.9s
DAG Danmarks Havn 54.37 344 iP P 12 57 40.8 -0.1
comp=Z,8.9nm,0.9s
MPSI Mapaga 54.63 123 P P 12 57 44.1 +0.5
BILL Bilibino 54.96 27 ⇑iP P 12 57 44.9 -0.4
BILL e 12 57 52.9
BILL i 12 58 46.9
BILL i 12 59 48.3
BILL pmax pmax
comp=Z,6.0nm,0.8s
BILL MLR MLR
comp=Z,676nm,16.0s
KBKI Kotabaru 55.06 129 P P 12 57 47.5 +0.8
PEA1 Petropavlovsk- 55.44 46 eP P 12 57 48.6 -0.4
PETK Petropavlovsk- 55.44 46 P P 12 57 48.6 -0.4
comp=Z,2.0nm,0.6s,baz=293,slow=3.8,SNR=4.2
PETK LR LR 13 23 58.5
comp=Z,594nm,18.2s,baz=283,slow=39
MRSI Marisa 55.89 121 P P 12 57 53.5 +0.8
APSI Ampana 56.72 123 P P 12 57 58.9 +0.3
TTSI Tana Toraja 57.14 126 P P 12 58 01.9 +0.4
BLJI Banyuglugur 57.14 135 P P 12 58 00.9 -0.6
LUWI Luwuk 57.57 122 P P 12 58 04.9 +0.3
LUWI Luwuk 57.57 122 eP P 12 58 04.8 +0.2
comp=Z,37nm,1.0s
SRBI Singaraja 58.33 134 P P 12 58 08.8 -1.1
KAPI Kappang 58.61 127 LR LR 13 26 51.4
comp=Z,1μm,20.1s,baz=357,slow=40
CART Cartagena 59.58 296 eP P 12 58 18.3 -0.1
comp=Z,36nm,0.9s
SANI Sanana 60.48 120 P P 12 58 24.1 -0.7
LBMI Labuha 60.52 117 P P 12 58 25.0 0.0
ES19 SONSECA Array 60.66 299 eP P 12 58 25.7 -0.1
ESDC Sonseca Array 60.71 299 P P 12 58 25.7 -0.5
comp=Z,6.4nm,0.7s,baz=57,slow=7.3,SNR=36
ESDC LR LR 13 28 49.1
comp=Z,109nm,19.2s,baz=120,slow=40
ESLA Sonseca Array 60.71 299 eP P 12 58 25.9 -0.3
comp=Z,9.3nm,0.8s
SUMG Summit 60.89 342 eP P 12 58 37.0 +10
SUMG pmax pmax
comp=Z,8.0nm,1.0s
SUMG Summit 60.89 342 iP P 12 58 37.0 +10
comp=Z,7.8nm,1.0s
PAB San Pablo 61.03 299 eP P 12 58 28.6 +0.2
PAB pmax pmax
comp=Z,36nm,1.6s
PAB San Pablo 61.03 299 eP P 12 58 28.6 +0.2
comp=Z,36nm,1.6s
PBRG Braganca 61.62 302 eP P 12 58 32.3 0.0
TAM Tamanrasset 61.95 278 eP P 12 58 34.6 -0.3
TAM pmax pmax
comp=Z,6.0nm,0.8s
TAM Tamanrasset 61.95 278 eP P 12 58 34.6 -0.3
comp=Z,5.9nm,0.8s
MVO Moncorvo 62.11 302 eP P 12 58 35.8 +0.2
POLO Lamas de Olo 62.52 302 eP P 12 58 38.5 +0.1
MTE Manteigas 62.81 301 eP P 12 58 41.2 +0.9
PMRV Marv??o 63.17 300 eP P 12 58 43.6 +0.9
ABPO Ambohimpanom 63.39 212 eP P 12 58 44.9 +0.6
ABPO pmax pmax
comp=Z,19nm,1.0s
ABPO Ambohimpanom 63.39 212 eP P 12 58 44.9 +0.6
comp=Z,19nm,1.0s
TULEG Thule 63.45 352 eP P 12 58 46.4 +2.6
comp=Z,36nm,1.4s
COI Coimbra 63.49 301 eP P 12 58 45.9 +1.2
comp=Z,74nm,1.0s
PBAR Barrancos 63.53 299 eP P 12 58 45.3 +0.3
comp=Z,52nm,1.6s
PESTR Estremoz 63.58 300 eP P 12 58 45.6 +0.2
PMTG Montargil 63.91 300 eP P 12 58 47.6 +0.1
PVAQ Vaqueiros 64.38 298 eP P 12 58 51.0 +0.4
comp=Z,46nm,1.3s
PCVE Castro Verde 64.49 299 eP P 12 58 52.3 +1.0
PNCL Nicolau / Gran 64.59 299 eP P 12 58 52.5 +0.5
PBDV Barranco-do-Ve 64.61 298 eP P 12 58 52.7 +0.5
PMAFR Mafra 64.68 301 eP P 12 58 53.5 +0.9
SOEI Soe 65.09 127 P P 12 58 53.7 -1.9
SOEI Soe 65.09 127 eP P 12 58 54.4 -1.2
comp=Z,49nm,0.8s
TOLK Toolik Lake Re 67.99 17 eP P 12 59 13.2 -0.2
comp=Z,23nm,0.8s
IMAR Indian Mountai 69.03 20 eP P 12 59 19.0 -0.8
LSZ Lusaka 70.08 230 eP P 12 59 27.3 +0.2
LSZ pmax pmax
comp=Z,45nm,1.3s
LSZ Lusaka 70.08 230 eP P 12 59 27.3 +0.2
comp=Z,45nm,1.3s
TOA1 Torodi Ar. Sit 70.36 271 eP P 12 59 27.8 -1.0
TOA0 Torodi Ar. Sit 70.36 271 eP P 12 59 27.6 -1.1
TORD Torodi Ar. Bea 70.36 271 P P 12 59 27.8 -1.0
comp=Z,26nm,0.6s,baz=47,slow=5.4,SNR=140
TORD LR LR 13 33 55.8
comp=Z,61nm,18.3s,baz=70,slow=39
MLY Manley 70.57 19 eP P 12 59 29.5 +0.2
comp=Z,28nm,1.3s
FYU Fort Yukon 70.66 16 eP P 12 59 30.2 +0.5
comp=Z,43nm,1.2s
BPAW Bear Paw Mtn. 71.24 20 eP P 12 59 33.2 -0.1
comp=Z,29nm,1.1s
INK Inuvik 71.36 11 eP P 12 59 34.2 +0.3
INK pmax pmax
comp=Z,36nm,0.9s
INK Inuvik 71.36 11 eP P 12 59 34.2 +0.3
comp=Z,36nm,0.9s
COLA College 71.43 18 eP P 12 59 34.6 +0.2
COLA pmax pmax
comp=Z,27nm,0.9s
COLA College 71.43 18 eP P 12 59 34.6 +0.2
comp=Z,27nm,0.9s
CAST Castle Rocks 71.47 21 eP P 12 59 35.2 +0.4
comp=Z,32nm,1.0s
MBWA Marble Bar 71.51 138 eP P 12 59 35.4 0.0
comp=Z,20nm,0.9s
MBWA Marble Bar 71.51 138 P P 12 59 35.6 +0.1
SNR=5.6
MBWA Marble Bar 71.51 138 P P 12 59 35.6 +0.1
SNR=5.6
CCB Clear Creek Bu 71.63 19 eP P 12 59 35.6 -0.1
comp=Z,20nm,1.3s
KTH Kantishna Hill 71.69 20 eP P 12 59 36.2 0.0
comp=Z,49nm,1.0s
WRH Wood River Hil 71.70 19 eP P 12 59 35.8 -0.3
comp=Z,24nm,1.4s
IL1 Eielson Array 71.75 18 eP P 12 59 35.2 -1.2
ILAR Eielson Array 71.75 18 P P 12 59 35.6 -0.8
comp=Z,5.4nm,0.9s,baz=317,slow=5.2,SNR=53
ILAR pP pP 12 59 43.5 -3.3
comp=Z,10nm,0.9s,baz=315,slow=2.2,SNR=20
ILAR LR LR 13 35 34.5
comp=Z,856nm,18.4s,baz=324,slow=40
ILB Eielson Array 71.75 18 eP P 12 59 35.7 -0.8
ILB ePcP pP 12 59 43.5 -3.3
PPLA Purkeypile 71.85 21 eP P 12 59 37.4 +0.2
comp=Z,148nm,2.0s
TRF Thorofare Moun 71.94 20 eP P 12 59 38.0 +0.2
comp=Z,12nm,0.9s
RND Reindeer 72.36 20 eP P 12 59 39.4 -0.8
RND pmax pmax
comp=Z,44nm,1.6s
RND Reindeer 72.36 20 eP P 12 59 39.4 -0.8
comp=Z,44nm,1.6s
EGAK Eagle 73.07 16 eP P 12 59 44.6 +0.3
comp=Z,33nm,1.4s
DOT Dot Lake 73.38 18 eP P 12 59 45.6 -0.6
comp=Z,26nm,1.0s
SUA Susitna One 73.40 22 eP P 12 59 46.1 -0.4
comp=Z,24nm,1.0s
RSO Redoubt South 73.59 23 eP P 12 59 48.0 +0.4
PAX Paxson 73.60 19 eP P 12 59 47.2 -0.4
PAX pmax pmax
comp=Z,33nm,1.1s
PAX Paxson 73.60 19 eP P 12 59 47.2 -0.4
comp=Z,33nm,1.1s
PMR Palmer 73.76 21 eP P 12 59 47.9 -0.5
PMR pmax pmax
comp=Z,26nm,1.0s
PMR Palmer 73.76 21 eP P 12 59 47.9 -0.5
comp=Z,26nm,1.0s
SML Sawmill 73.81 21 eP P 12 59 48.6 -0.1
SML pmax pmax
comp=Z,57nm,0.9s
SML Sawmill 73.81 21 eP P 12 59 48.6 -0.1
comp=Z,57nm,0.9s
RC01 Rabbit Creek A 73.99 22 eP P 12 59 49.4 -0.4
comp=Z,25nm,0.8s
SCM Sheep Creek Mo 74.06 20 eP P 12 59 50.1 -0.2
SCM pmax pmax
comp=Z,31nm,0.7s
SCM Sheep Creek Mo 74.06 20 eP P 12 59 50.1 -0.2
comp=Z,31nm,0.7s
KOWA Kowa 74.06 276 eP P 12 59 50.5 -0.4
comp=Z,34nm,0.6s
DAWY Dawson 74.07 16 eP P 12 59 50.2 -0.1
comp=Z,20nm,1.1s
HARP HAARP 74.15 19 eP P 12 59 51.7 +1.0

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| | comp=Z,178nm,1.0s | | | | | | |
| **OHAK** | **Old Harbor** | **75.95** | **25** | *e*P | **P** | **12 59 58.4** | **-2.7** |
| | comp=Z,38nm,0.8s | | | | | | |
| **HYT** | **Haines Junctio** | **77.36** | **16** | *e*P | **P** | **13 00 10.1** | **+0.9** |
| | comp=Z,45nm,1.0s | | | | | | |
| **WR1** | **Warramunga Arr** | **79.11** | **126** | *e*P | **P** | **13 00 18.8** | **-0.5** |
| | comp=Z,30nm,1.5s | | | | | | |
| **WRA** | **Warramunga Arr** | **79.11** | **126** | P | **P** | **13 00 18.8** | **-0.5** |
| | comp=Z,9.3nm,1.0s,baz=327,slow=5.3,SNR=48 | | | | | | |
| **WRA** | **Warramunga Arr** | **79.11** | **126** | *i* P | **P** | **13 00 18.7** | **-0.5** |
| WRA | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.0s | | | | | | |
| **WRAB** | **Tennant Creek** | **79.11** | **126** | ⇑*i*P | **P** | **13 00 18.9** | **-0.4** |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,21nm,1.5s | | | | | | |
| **WRAB** | **Tennant Creek** | **79.11** | **126** | *e*P | **P** | **13 00 18.7** | **-0.5** |
| | comp=Z,37nm,1.6s | | | | | | |
| **WB2** | **Warramunga Arr** | **79.12** | **126** | *e*P | **P** | **13 00 18.4** | **-0.9** |
| **LBTB** | **Lobatse** | **79.16** | **226** | *e*P | **P** | **13 00 20.0** | **+0.5** |
| LBTB | | | | pmax | pmax | | |
| | comp=Z,57nm,0.8s | | | | | | |
| **LBTB** | **Lobatse** | **79.16** | **226** | *e*P | **P** | **13 00 20.0** | **+0.5** |
| | comp=Z,57nm,0.8s | | | | | | |
| **YKA** | **Yellowknife Ar** | **79.18** | **5** | P | **P** | **13 00 18.4** | **-0.6** |
| | comp=Z,4.9nm,0.6s,baz=344,slow=5.7,SNR=35 | | | | | | |
| YKA | | | | pP | **PcP** | **13 00 26.5** | **-0.8** |
| | comp=Z,8.6nm,0.7s,baz=344,slow=5.7,SNR=20 | | | | | | |
| YKA | | | | LR | LR | 13 39 51.0 | |
| | comp=Z,22nm,18.5s,baz=0.0,slow=39 | | | | | | |
| **YKB5** | **Yellowknife Ar** | **79.18** | **5** | *e*P | **P** | **13 00 18.4** | **-0.6** |
| YKB5 | | | | *e*pP | **PcP** | **13 00 26.6** | **-0.8** |
| **DBIC** | **Dimbokro** | **79.39** | **270** | P | **P** | **13 00 20.4** | **-0.6** |
| | comp=Z,14nm,0.6s,baz=26,slow=5.8,SNR=25 | | | | | | |
| **DBIC** | **Dimbokro** | **79.39** | **270** | *e*P | **P** | **13 00 20.4** | **-0.6** |
| | comp=Z,39nm,1.2s | | | | | | |
| **KIC** | **Kosan Boka** | **79.48** | **270** | *e*P | **P** | **13 00 21.0** | **-0.5** |
| | comp=Z,79nm,1.0s | | | | | | |
| **TIC** | **Toumodi** | **79.53** | **270** | *e*P | **P** | **13 00 21.1** | **-0.7** |
| **TSUM** | **Tsumeb** | **79.69** | **236** | *e*P | **P** | **13 00 23.1** | **+0.5** |
| | comp=Z,22nm,0.8s | | | | | | |
| **LIC** | **Lamto** | **79.79** | **270** | *e*P | **P** | **13 00 22.5** | **-0.7** |
| | comp=Z,58nm,0.7s | | | | | | |
| **PMG** | **Port Moresby** | **80.71** | **110** | P | **P** | **13 00 28.0** | **0.0** |
| | comp=Z,13nm,0.9s,baz=294,slow=3.9,SNR=4.3 | | | | | | |
| **PMG** | **Port Moresby** | **80.71** | **110** | P | **P** | **13 00 28.0** | **0.0** |
| PMG | | | | pmax | pmax | | |
| | comp=Z,13nm,0.9s | | | | | | |
| **AS31** | **Alice Springs** | **81.58** | **129** | *e*P | **P** | **13 00 32.1** | **-0.4** |
| | comp=Z,3.3nm,0.8s | | | | | | |
| AS31 | | | | *e*pP | **PcP** | **13 00 40.5** | **+2.2** |
| **ASAR** | **Alice Springs** | **81.58** | **129** | P | **P** | **13 00 31.9** | **-0.7** |
| | comp=Z,12nm,0.8s,baz=322,slow=5.4,SNR=108 | | | | | | |
| ASAR | | | | pP | **PcP** | **13 00 40.5** | **+2.2** |
| | comp=Z,8.3nm,0.7s,baz=321,slow=4.6,SNR=11 | | | | | | |
| ASAR | | | | S | **S** | **13 10 40.1** | **-2.3** |
| | comp=Z,0.7nm,1.0s,baz=318,slow=10,SNR=4.8 | | | | | | |
| **AS01** | **Alice Springs** | **81.61** | **129** | *e*P | **P** | **13 00 31.8** | **-0.8** |
| **BOSA** | **Boshof** | **82.16** | **224** | P | **P** | **13 00 35.0** | **-0.5** |
| | comp=Z,20nm,0.9s,baz=40,slow=4.7,SNR=26 | | | | | | |
| BOSA | | | | LR | LR | 13 37 15.3 | |
| | comp=Z,133nm,19.9s,baz=26,slow=36 | | | | | | |
| **SCHQ** | **Schefferville** | **82.19** | **340** | LR | LR | 13 37 21.6 | |
| | comp=Z,224nm,20.7s,baz=358,slow=36 | | | | | | |
| **FORT** | **Forrest** | **83.66** | **138** | *e*P | **P** | **13 00 43.0** | **-0.1** |
| | comp=Z,376nm,0.7s | | | | | | |
| **CTA** | **Charters Tower** | **87.16** | **118** | P | **P** | **13 01 00.8** | **0.0** |
| | comp=Z,8.2nm,0.9s,baz=330,slow=9.3,SNR=8.7 | | | | | | |
| **CTAO** | **Charters Tower** | **87.16** | **118** | *e*P | **P** | **13 01 00.6** | **-0.2** |
| CTAO | | | | pmax | pmax | | |
| | comp=Z,11nm,0.9s | | | | | | |
| **CTAO** | **Charters Tower** | **87.16** | **118** | *e*P | **P** | **13 01 00.6** | **-0.2** |
| | comp=Z,11nm,0.9s | | | | | | |
| **FFC** | **Flin Flon** | **87.39** | **359** | *i* P | P | 13 01 10.1 | +8.6 |
| **SUR** | **Sutherland** | **87.49** | **225** | *e*P | **P** | **13 01 03.5** | **+1.1** |
| | comp=Z,43nm,0.9s | | | | | | |
| **ULM** | **Lac du Bonnet** | **91.64** | **355** | pP | **pP** | **13 01 29.1** | **-3.0** |
| | comp=Z,7.5nm,0.9s,baz=334,slow=6.2,SNR=5.1 | | | | | | |
| ULM | | | | LR | LR | 13 45 37.7 | |
| | comp=Z,117nm,20.8s,baz=21,slow=38 | | | | | | |
| **BSMT** | **Bassoo Peak** | **93.66** | **8** | *e*P | **P** | **13 01 31.0** | **-0.1** |
| **SHEL** | **Horse Pasture** | **94.05** | **253** | *i* P | **P** | **13 01 31.2** | **-1.9** |
| **YHB** | **Horse Butte** | **97.06** | **6** | *e*P | **P** | **13 01 45.0** | **-1.7** |
| | comp=Z,15nm,0.6s | | | | | | |
| **PDAR** | **Pinedale Array** | **99.16** | **5** | PKKPbc | PKKPbc | 13 18 19.7 | -0.9 |
| | comp=Z,0.1nm,0.3s,baz=159,slow=4.5,SNR=4.4 | | | | | | |
| PDAR | | | | LR | LR | 13 52 48.1 | |
| | comp=Z,272nm,18.0s,baz=12,slow=39 | | | | | | |
| **TXAR** | **Lajitas Array** | **112.77** | **0** | PKKPbc | PKKPbc | 13 17 39.0 | +0.3 |
| | comp=Z,0.2nm,0.6s,baz=160,slow=5.8,SNR=3.3 | | | | | | |
| **SNAA** | **Sanae** | **122.69** | **202** | PKP | **PKPdf** | **13 07 09.2** | **+0.1** |
| **VNA2** | **Neumayer--Watz** | **123.79** | **203** | PKP | **PKPdf** | **13 07 11.4** | **+0.2** |
| | baz=27,slow=3.2 | | | | | | |
| **VNA1** | **Neumayer--Stat** | **123.97** | **204** | PKP | **PKPdf** | **13 07 12.2** | **+0.7** |
| **SDV** | **Santo Domingo** | **124.15** | **320** | PKP | **PKPdf** | **13 07 13.5** | **-0.4** |
| | comp=Z,3.1nm,0.5s,baz=5.4,slow=8.0,SNR=4.5 | | | | | | |
| **VNA3** | **Neumayer Olymp** | **124.60** | **203** | PKP | **PKPdf** | **13 07 13.1** | **+0.4** |
| **VNDA** | **Vanda** | **125.94** | **164** | PKP | **PKPdf** | **13 07 14.4** | **-0.7** |
| | comp=Z,1.5nm,0.9s,baz=292,slow=3.5,SNR=6.9 | | | | | | |
| **QSPA** | **South Pole Qui** | **128.03** | **180** | *e*PKPdf | **PKPdf** | **13 07 18.9** | **-0.5** |
| **NNA** | **Nana** | **144.86** | **311** | *e*PKIKP | **PKPdf** | **13 07 51.6** | **-0.5** |
| **NNA** | **Nana** | **144.86** | **311** | *e*PKPdf | **PKPdf** | **13 07 51.6** | **-0.5** |
| **PB11** | **IPOC Station P** | **145.64** | **293** | *e*PKPdf | **PKPdf** | **13 07 52.8** | **-0.6** |
| **PB01** | **IPOC Station P** | **146.32** | **291** | *e*PKPdf | **PKPdf** | **13 07 54.2** | **-0.2** |
| **LVC** | **Limon Verde** | **146.82** | **288** | *e*PKPdf | **PKPbc** | **13 07 57.2** | **-0.2** |
| **TRQA** | **Tornquist** | **147.80** | **257** | *e*PKPdf | **PKPbc** | **13 07 58.9** | **-0.3** |
| **LCO** | **Las Campanas** | **151.56** | **279** | *e*PKPdf | **PKPdf** | **13 08 05.3** | **+2.4** |
| **PLCA** | **Paso Flores** | **154.78** | **254** | PKPab | **PKPab** | **13 08 30.9** | **+0.1** |
| | comp=Z,6.1nm,0.9s,baz=147,slow=6.2,SNR=10 | | | | | | |
| **PLCA** | **Paso Flores** | **154.78** | **254** | *e*PKPab | **PKPab** | **13 08 31.2** | **+0.4** |
| **GO05** | **HualaæØ** | **154.78** | **268** | *e*PKPab | **PKPab** | **13 08 30.1** | **-0.8** |

---

*CSEM **01** 12:52:06.2±0.2, 47°.72N×15°.10E, h2$^{km}$, ML3.0/19, Error ellipse: s-maj=3.2km s-min=2.4km az=138.0*
*PRU **01** 12:52:07.6, 47°.74N×15°.16E, h0$^{km}$*
*IPEC **01** 12:52:07.3±0.1, 47°.69N×15°.14E, h3$^{km}$±1$^{km}$, ML2.5/7, Error ellipse: s-maj=0.8km s-min=0.7km az=50.0*
*VIE **01** 12:52:07.1±0.6, 47°.68N×15°.11E, h6$^{km}$, mb2.1/11, ML2.5/17, Error ellipse: s-maj=5.2km s-min=4.0km az=168.0*
**ISC 01 12:52:05.8**±1.2**, 47°.70N**±0°.02×**15°.14E**±0°.02**, h1**$^{km}$±12$^{km}$**, n31, σ0$^{s}$.69**/48**, Austria**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ARSA** | **Arzberg** | **0.52** | **150** | Pg | **Pb** | **12 52 17.0** | **-0.8** |
| | SNR=12 | | | | | | |
| ARSA | | | | Sg | **Sb** | **12 52 23.8** | **-2.0** |
| | 16nm,0.1s | | | | | | |
| **CONA** | **Conrad Observa** | **0.54** | **65** | Pg | **Pb** | **12 52 18.2** | **+0.2** |
| | 4.0nm,0.1s,SNR=19 | | | | | | |
| **MOA** | **Molln** | **0.61** | **284** | Pg | **Pb** | **12 52 19.0** | **-0.3** |
| | SNR=22 | | | | | | |
| **SOKA** | **Soboth** | **1.03** | **184** | Pg | **Pg** | **12 52 24.6** | **-0.9** |
| | 6.4nm,0.3s | | | | | | |
| SOKA | | | | Sg | **Sg** | **12 52 38.2** | **-0.6** |
| | 8.4nm,0.3s | | | | | | |
| **OBKA** | **Obir** | **1.26** | **199** | Pg | **Pg** | **12 52 30.8** | **+0.9** |
| | SNR=14 | | | | | | |
| OBKA | | | | Sg | **Sn** | **12 52 48.9** | **+0.6** |
| | 5.7nm,0.3s | | | | | | |
| **KBA** | **Koelnbreinsper** | **1.37** | **244** | Pg | **Pg** | **12 52 32.2** | **+0.2** |
| | 1.5nm,0.1s,SNR=7.5 | | | | | | |
| KBA | | | | Sg | **Sg** | **12 52 52.0** | **+2.2** |
| | 22nm,0.3s | | | | | | |
| **MYKA** | **Terra Mystica** | **1.48** | **224** | Pg | **Pg** | **12 52 34.8** | **+0.6** |
| | 1.3nm,0.2s | | | | | | |
| MYKA | | | | Sg | **Sg** | **12 52 54.5** | **+1.1** |
| | 3.7nm,0.3s | | | | | | |
| **MODS** | **Modra-Piesok** | **1.58** | **64** | *e*Pg | **Pg** | **12 52 36.5** | **+0.4** |
| MODS | | | | *e*Sg | **Sg** | **12 52 57.0** | **+0.4** |
| **MODS** | **Modra-Piesok** | **1.58** | **64** | *e*PG | **Pg** | **12 52 36.5** | **+0.4** |
| MODS | | | | *e*SG | **Sg** | **12 52 57.0** | **+0.4** |
| **KRUC** | **Moravsky** | **1.60** | **31** | *e*Pn | **Pg** | **12 52 36.4** | **+0.1** |
| | baz=212 | | | | | | |
| KRUC | | | | *e*Sg | **Sg** | **12 52 57.6** | **+0.6** |
| | 32nm,0.3s,baz=212 | | | | | | |
| **TREC** | **Trest** | **1.61** | **8** | *e*SG | **Sg** | **12 52 57.9** | **+0.5** |
| | comp=Z,38nm,0.2s | | | | | | |
| **TREC** | **Trest** | **1.61** | **8** | Sg | **Sg** | **12 52 57.9** | **+0.5** |
| | 38nm,0.2s | | | | | | |
| **KHC** | **Kasperske Hory** | **1.77** | **324** | *e*PG | **Pg** | **12 52 39.6** | **0.0** |
| KHC | | | | *e*SG | **Sg** | **12 53 02.3** | **-0.2** |
| | comp=Z,27nm,0.3s | | | | | | |
| **KHC** | **Kasperske Hory** | **1.77** | **324** | Pg | **Pg** | **12 52 39.6** | **0.0** |
| KHC | | | | Sg | **Sg** | **12 53 02.3** | **-0.2** |
| | 27nm,0.3s | | | | | | |
| **VRAC** | **Vranov** | **1.87** | **30** | *e*Pn | **Pb** | **12 52 40.3** | **-0.5** |
| | baz=211 | | | | | | |
| VRAC | | | | *e*Sg | **Sg** | **12 53 06.4** | **+0.5** |
| | 31nm,0.4s,baz=211 | | | | | | |
| **ABTA** | **Abfaltersbach** | **2.03** | **243** | Sg | **Sg** | **12 53 11.3** | **+0.3** |
| | 9.2nm,0.5s | | | | | | |
| **PRU** | **Pruhonice** | **2.32** | **350** | *e*SG | **Sb** | **12 53 18.0** | **+0.4** |
| | comp=Z,15nm,0.3s | | | | | | |
| **PRU** | **Pruhonice** | **2.32** | **350** | Sg | **Sb** | **12 53 18.0** | **+0.4** |
| | 15nm,0.3s | | | | | | |
| **WTTA** | **Wattenberg** | **2.42** | **261** | Pg | **Pg** | **12 52 52.3** | **+0.2** |
| | 2.2nm,0.2s | | | | | | |
| WTTA | | | | Sg | **Sg** | **12 53 23.6** | **+0.2** |
| | 4.1nm,0.2s | | | | | | |
| **WATA** | **Walderalm** | **2.44** | **263** | Pg | **Pg** | **12 52 52.2** | **-0.4** |
| | 2.0nm,0.2s | | | | | | |
| WATA | | | | Sg | **Sg** | **12 53 23.8** | **-0.5** |
| | 6.1nm,0.3s | | | | | | |
| **VYHS** | **Vyhne** | **2.60** | **71** | *e*PG | **Pn** | **12 52 49.7** | **+0.7** |
| VYHS | | | | *e*SG | **Sn** | **12 53 21.0** | **-0.2** |
| **MOTA** | **Moosalm** | **2.76** | **264** | Pg | **Pg** | **12 52 57.6** | **-1.0** |
| | 1.4nm,0.2s | | | | | | |
| MOTA | | | | Sg | **Sg** | **12 53 34.0** | **-0.4** |
| | 8.3nm,0.4s | | | | | | |
| **DPC** | **Dobruska-Polom** | **2.76** | **16** | *e*PG | **Pg** | **12 52 58.3** | **-0.4** |
| DPC | | | | *e*SG | **Sg** | **12 53 34.7** | **+0.3** |
| **DPC** | **Dobruska-Polom** | **2.76** | **16** | Pg | **Pg** | **12 52 58.3** | **-0.4** |
| **UPC** | **Upice** | **2.86** | **11** | *e*SG | **Sg** | **12 53 36.9** | **-0.8** |
| | comp=Z,12nm,0.3s | | | | | | |
| **UPC** | **Upice** | **2.86** | **11** | Sg | **Sg** | **12 53 36.9** | **-0.8** |
| | 12nm,0.3s | | | | | | |
| **RETA** | **Reutte** | **2.97** | **267** | Sg | **Sg** | **12 53 41.5** | **+0.3** |
| | 4.2nm,0.3s | | | | | | |
| **FETA** | **Feichten** | **3.08** | **259** | Pg | **Pg** | **12 53 04.9** | **+0.2** |
| | 1.8nm,0.4s | | | | | | |
| FETA | | | | Sg | **Sg** | **12 53 44.3** | **-0.2** |
| | 2.9nm,0.5s | | | | | | |
| **NKC** | **Novy Kostel** | **3.09** | **326** | *e*SG | **Sg** | **12 53 44.5** | **-0.5** |
| | comp=Z,16nm,0.3s | | | | | | |
| **NKC** | **Novy Kostel** | **3.09** | **326** | Sg | **Sg** | **12 53 44.5** | **-0.5** |
| | 16nm,0.3s | | | | | | |
| **DAVA** | **Damuels** | **3.59** | **265** | Sg | **Sg** | **12 54 01.2** | **+0.1** |
| | 3.0nm,0.3s | | | | | | |

---

*ISCJB **01** 12:57:48.4±2.1, 15°.4S±0°.2×76°.1W±0°.3, h33$^{km}$, mb4.0/1, MS3.1/1, Error ellipse: s-maj=44.1km s-min=8.9km az=150.6*
*IDC **01** 12:57:53.1±2.9, 15°.12S×75°.73W, h45$^{km}$±23$^{km}$, mb3.9/1, mb1 4.3/4, mb1mx3.7/25, mbtmp4.3/4, ML3.9/2, MS3.3/5, Ms1 3.3/5, ms1mx3.1/19, Error ellipse: s-maj=58.5km s-min=15.5km az=56.0*
**ISC 01 12:57:51.4**±1.3**, 15°.3S**±0°.1×**76°.0W**±0°.2**, h35**$^{km}$**, n14, σ1$^{s}$.06**/7**, Near coast of Peru**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **NNA** | **Nana** | **3.36** | **345** | P | **Pn** | **12 58 41.0** | **-0.5** |
| | 11nm,0.3s,baz=139,slow=14,SNR=9.9 | | | | | | |
| NNA | | | | S | **Sn** | **12 59 21.0** | **+0.9** |
| | 25nm,0.3s,baz=225,slow=16,SNR=6.9 | | | | | | |
| NNA | | | | LR | LR | 13 00 07.4 | |
| | comp=Z,456nm,19.2s,baz=156,slow=41 | | | | | | |
| **LPAZ** | **La Paz** | **7.60** | **99** | P | **Pn** | **12 59 40.9** | **+0.7** |
| | 1.3nm,0.3s,baz=269,slow=9.2,SNR=20 | | | | | | |
| LPAZ | | | | LR | LR | 13 02 21.2 | |
| | comp=Z,62nm,18.5s,baz=290,slow=36 | | | | | | |
| **ATAH** | **Atahualpa** | **8.41** | **343** | LR | LR | 13 03 00.1 | |
| | comp=Z,128nm,19.2s,baz=194,slow=37 | | | | | | |
| **LVC** | **Limon Verde** | **9.89** | **139** | P | **Pn** | **13 00 11.9** | **+0.4** |
| | 116nm,0.3s,baz=314,slow=10,SNR=22 | | | | | | |
| LVC | | | | LR | LR | 13 03 40.1 | |
| | comp=Z,539nm,18.2s,baz=332,slow=35 | | | | | | |
| **PLCA** | **Paso Flores** | **25.82** | **171** | LR | LR | 13 10 55.3 | |
| | comp=Z,52nm,19.6s,baz=123,slow=30 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **81.83** | **74** | P | **P** | **13 10 06.1** | **-1.4** |
| | 1.7nm,0.8s,baz=261,slow=5.5,SNR=7.5 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **120.16** | **284** | T | T | 15 28 18.4 | |
| | baz=97,slow=74,SNR=9.4 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **120.18** | **284** | T | T | 15 28 22.1 | |
| | baz=97,slow=74,SNR=18 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **120.18** | **284** | T | T | 15 28 25.2 | |
| | baz=97,slow=74,SNR=6.0 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **120.21** | **283** | T | T | 15 28 23.8 | |
| | baz=97,slow=75,SNR=8.3 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **120.22** | **283** | T | T | 15 28 23.5 | |
| | baz=97,slow=75,SNR=16 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **120.23** | **283** | T | T | 15 28 26.3 | |
| | baz=97,slow=75,SNR=7.5 | | | | | | |
| **ASAR** | **Alice Springs** | **131.55** | **218** | PKP | **PKPdf** | **13 17 02.1** | **+0.9** |
| | 0.2nm,0.7s,baz=112,slow=1.7,SNR=5.0 | | | | | | |
| **SONM** | **Songino Array** | **147.45** | **357** | PKPbc | **PKPbc** | **13 17 32.1** | **+0.2** |
| | 0.9nm,0.7s,baz=10,slow=1.3,SNR=6.2 | | | | | | |

---

*ISCJB **01** 13:01:23.8±0.6, 35°.05N±0°.04×139°.97E±0°.05, h71$^{km}$±4$^{km}$, mb3.4/2, Error ellipse: s-maj=8.5km s-min=5.7km az=43.8*
*JMA **01** 13:01:23.9±0.2, 35°.07N×139°.97E, h70$^{km}$±2$^{km}$, M2.9*
*IDC **01** 13:01:27.2±2.6, 34°.91N×139°.47E, h74$^{km}$±12$^{km}$, mb3.0/2, mb1 3.2/2, mb1mx2.9/43, mbtmp3.3/2, Error ellipse: s-maj=88.1km s-min=5.6km az=70.0*
**ISC 01 13:01:24.8**±1.1**, 35°.06N**±0°.05×**139°.96E**±0°.05**, h66**$^{km}$±7$^{km}$**, n22, σ0$^{s}$.61**/26**, Near south coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TATJ** | **Tateyama 2** | **0.06** | **242** | P | **Pn** | **13 01 34.6** | **+0.1** |
| TATJ | | | | S | **Sn** | **13 01 42.3** | **+0.8** |
| **JYO** | **Yokosk** | **0.29** | **304** | P | **Pn** | **13 01 35.7** | **+0.3** |
| JYO | | | | S | **Sn** | **13 01 44.4** | **+1.2** |
| **KTR** | **Katsuura** | **0.31** | **74** | P | **Pn** | **13 01 35.1** | **-0.4** |
| KTR | | | | S | **Sn** | **13 01 42.9** | **-0.5** |
| **BSO4** | **Boso 4** | **0.32** | **103** | P | **Pn** | **13 01 35.7** | **+0.2** |
| **BSO3** | **Boso 3** | **0.52** | **120** | P | **Pn** | **13 01 37.0** | **-0.2** |
| **JIM2** | **Oshima 3** | **0.55** | **232** | P | **Pn** | **13 01 37.4** | **-0.4** |
| JIM2 | | | | S | **Sn** | **13 01 46.2** | **-1.1** |
| **JOD2** | **Odawara 2** | **0.74** | **286** | P | **Pn** | **13 01 39.2** | **-0.7** |
| JOD2 | | | | S | **Sn** | **13 01 50.1** | **-0.9** |
| **BSO1** | **Boso 1** | **0.93** | **116** | P | **Pn** | **13 01 41.0** | **-0.7** |
| **JIZS** | **Izushimoda** | **0.95** | **249** | P | **Pn** | **13 01 42.4** | **-0.1** |
| JIZS | | | | S | **Sn** | **13 01 55.4** | **-0.1** |
| **JYN** | **Shimob** | **1.23** | **291** | P | **Pn** | **13 01 46.0** | **-0.2** |
| JYN | | | | S | **Sn** | **13 02 02.3** | **+0.1** |
| **JRY** | **Ryogami san** | **1.28** | **318** | P | **Pn** | **13 01 46.5** | **-0.3** |
| **JHJ** | **Hachijo jima 2** | **1.94** | **184** | P | **Pn** | **13 01 56.4** | **+0.9** |
| | 29nm,0.3s,baz=99,slow=22,SNR=3.1 | | | | | | |
| JHJ | | | | S | **Sn** | **13 02 18.8** | **-0.2** |
| | 139nm,0.3s,baz=263,slow=19,SNR=12 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **2.05** | **317** | P | **Pn** | **13 01 57.0** | **0.0** |
| | 13nm,0.3s,baz=143,slow=12,SNR=86 | | | | | | |
| MJAR | | | | S | **Sn** | **13 02 21.2** | **-0.4** |
| | 12nm,0.3s,baz=145,slow=25,SNR=13 | | | | | | |
| **MAT** | **Matsushiro** | **2.05** | **317** | P | **Pn** | **13 01 57.4** | **+0.3** |
| MAT | | | | S | **Sn** | **13 02 22.2** | **+0.5** |
| **H11N2** | **WAKE ISLAND Hy** | **28.26** | **116** | T | T | 13 36 50.0 | |
| | baz=309,slow=75,SNR=8.3 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.26** | **116** | T | T | 13 36 58.2 | |
| | baz=309,slow=75,SNR=7.7 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.27** | **116** | T | T | 13 36 28.2 | |
| | baz=309,slow=75,SNR=8.5 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.88** | **118** | T | T | 13 37 40.4 | |
| | baz=310,slow=74,SNR=6.6 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.88** | **118** | T | T | 13 37 39.6 | |
| | baz=310 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.90** | **118** | T | T | 13 37 26.2 | |
| | baz=310,slow=74 | | | | | | |
| **WRA** | **Warramunga Arr** | **54.96** | **186** | P | **P** | **13 10 48.8** | **-0.4** |
| | 0.2nm,0.4s,baz=1.1,slow=7.5,SNR=10 | | | | | | |
| **ASAR** | **Alice Springs** | **58.69** | **186** | P | **P** | **13 11 16.2** | **+0.7** |
| | 0.2nm,0.6s,baz=9.0,slow=12,SNR=5.0 | | | | | | |

---

**IDC 01 13:07:56.9**±2.8**, 7°.54N**×**93°.66E, h0**$^{km}$**, mb3.4**/4**, mb1 3.6**/5**, mb1mx3.4**/46**, mbtmp3.4**/5**, ML3.9**/1**, Error ellipse: s-maj=92.6km s-min=23.1km az=69.0, Nicobar Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CMAR** | **Chiang Mai Arr** | **12.01** | **25** | Pn | Pn | 13 10 51.1 | +1.6 |
| | 0.2nm,0.3s,baz=212,slow=12,SNR=4.9 | | | | | | |
| **H08S3** | **Diego Garcia H** | **25.94** | **235** | T | T | 13 40 16.9 | |
| | baz=54,slow=76,SNR=8.0 | | | | | | |
| **H08S2** | **Diego Garcia H** | **25.94** | **235** | T | T | 13 40 16.7 | |
| | baz=54,slow=76,SNR=9.6 | | | | | | |
| **H08S1** | **Diego Carcia H** | **25.96** | **235** | T | T | 13 40 19.0 | |
| | baz=54,slow=76,SNR=9.8 | | | | | | |
| **SONM** | **Songino Array** | **41.60** | **13** | P | P | 13 15 45.8 | -1.0 |
| | 0.5nm,0.9s,baz=187,slow=5.7,SNR=2.7 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **46.83** | **353** | P | P | 13 16 28.6 | +0.2 |
| | 0.3nm,0.4s,baz=178,slow=10,SNR=2.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **48.45** | **125** | P | P | 13 16 41.3 | -0.3 |
| | 0.5nm,0.9s,baz=305,slow=7.7,SNR=12 | | | | | | |
| **ASAR** | **Alice Springs** | **50.06** | **129** | P | P | 13 16 54.1 | +0.2 |
| | 0.3nm,0.6s,baz=303,slow=7.9,SNR=7.6 | | | | | | |

---

*CSEM **01** 13:18:47.1±0.9, 36°.94N×34°.71E, h2$^{km}$, MD2.6, Error ellipse: s-maj=18.5km s-min=6.0km az=92.0*
*ISCJB **01** 13:18:48.4±0.7, 36°.92N±0°.04×34°.59E±0°.05, h4$^{km}$±14$^{km}$, Error ellipse: s-maj=8.4km s-min=5.8km az=140.8*
*DDA **01** 13:18:48.1, 36°.95N×34°.59E, h7$^{km}$, Ml2.2*
*ISK **01** 13:18:49.0, 36°.87N×34°.55E, h5$^{km}$, MD2.6*
**ISC 01 13:18:48.3**±1.2**, 36°.94N**±0°.04×**34°.59E**±0°.04**, h7**$^{km}$±11$^{km}$**, n14, σ0$^{s}$.29**/22**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MERS** | **Mersin** | **0.09** | **216** | *e*PG | **Pg** | **13 18 50.3** | **-0.2** |
| **MERS** | **Mersin** | **0.09** | **216** | *e*Pg | **Pg** | **13 18 50.3** | **-0.2** |
| **DED** | **Mersin** | **0.17** | **84** | *i* P | **Pg** | **13 18 51.3** | **-0.4** |
| DED | | | | *i* S | **Sg** | **13 18 54.8** | **+0.7** |
| **KIZK** | **Mersin** | **0.59** | **218** | *e*PG | **Pg** | **13 18 59.4** | **-0.1** |
| KIZK | | | | *e*SG | **Sg** | **13 19 07.0** | **-0.2** |
| **KIZK** | **Mersin** | **0.59** | **218** | *i* P | **Pg** | **13 18 59.8** | **+0.2** |
| KIZK | | | | *i* S | **Sb** | **13 19 09.3** | **0.0** |
| **KIZK** | **Mersin** | **0.59** | **218** | P | **Pg** | **13 18 59.8** | **+0.2** |
| KIZK | | | | S | **Sb** | **13 19 09.3** | **0.0** |
| **KERG** | **Konya-Eregli** | **0.60** | **322** | *i* P | **Pg** | **13 18 59.8** | **-0.1** |
| KERG | | | | *i* S | **Sb** | **13 19 09.8** | **0.0** |
| **KERG** | **Konya-Eregli** | **0.60** | **322** | P | **Pg** | **13 18 59.8** | **-0.1** |
| KERG | | | | S | **Sb** | **13 19 09.9** | **0.0** |
| **KEBE** | **Keben-Mersin** | **0.86** | **235** | *e*PG | **Pg** | **13 19 04.7** | **-0.2** |
| KEBE | | | | *e*SG | **Sg** | **13 19 16.4** | **+0.3** |
| **KEBE** | **Keben-Mersin** | **0.86** | **235** | *e*Pg | **Pg** | **13 19 04.7** | **-0.2** |
| KEBE | | | | *e*Sg | **Sg** | **13 19 16.4** | **+0.3** |
| **IKL** | **Isikli** | **1.01** | **226** | *e*PG | **Pg** | **13 19 07.6** | **-0.1** |
| **IKL** | **Isikli** | **1.01** | **226** | *e*Pg | **Pg** | **13 19 07.6** | **-0.1** |
| **TEKE** | **Tekeli-Mersin** | **1.43** | **237** | *e*PN | **Pg** | **13 19 15.4** | **-0.3** |
| **TEKE** | **Tekeli-Mersin** | **1.43** | **237** | *e*Pn | **Pg** | **13 19 15.4** | **-0.3** |

---

*NIED **01** 13:23:00, 36°.60N×137°.70E, h5$^{km}$, Mw4.4   Best double couple: $M_0$4.64000×$10^{15}$   NP1:$\phi_s$188.00000°, δ44.00000°, λ40.00000°.   NP2:$\phi_s$67.00000°, δ64.00000°, λ127.00000°.*
*ISCJB **01** 13:23:54.2±0.4, 36°.44N±0°.08×137°.73E±0°.04, h11$^{km}$, mb4.1/17, MS4.0/15, Error ellipse: s-maj=11.2km s-min=4.2km az=174.2*
*JMA **01** 13:23:54.7±0.1, 36°.56N×137°.74E, h1$^{km}$±2$^{km}$, M4.6 Broadband fault plane solution: P waves.   NP1: $\phi_s$15.00000°, δ71.00000°, λ62.00000°.   NP2:$\phi_s$254.00000°, δ33.00000°, λ144.00000°.   Principal axes: T Plg55.0000°, Azm250.0000°; N Plg26.0000°, Azm25.0000°; P Plg21.0000°, Azm126.0000°;*
*JMA   Felt III J1.*
*NEIC **01** 13:23:55.0±1.4, 36°.43N×137°.74E, h7$^{km}$±9$^{km}$, mb4.3/2 Error ellipse: s-maj=11.4km s-min=9.4km az=197.0*
*NEIC Recorded [3 JMA] in Nagano.*
*IDC **01** 13:23:54.2±0.7, 36°.43N×137°.71E, h0$^{km}$, mb4.0/13, mb1 4.2/14, mb1mx4.1/41, mbtmp3.9/14, ML3.2/1, MS3.9/16, Ms1 3.9/16, ms1mx3.5/37, Error ellipse: s-maj=18.7km s-min=7.0km az=174.0*
**ISC 01 13:23:55.9**±0.6**, 36°.49N**±0°.08×**137°.76E**±0°.03**, h11**$^{km}$**, n37, σ0$^{s}$.84**/32**, mb4.2**/17**, MS4.0**/15**, 2C-1D, Eastern Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JNG** | **Nsakai** | **0.29** | **106** | ⇓P | **Pg** | **13 24 01.5** | **-0.3** |
| **JTT** | **Ttatey** | **0.36** | **289** | ⇑P | **Pg** | **13 24 01.9** | **-1.2** |
| **MAJO** | **Matsushiro** | **0.37** | **81** | *e*Pg | **Pg** | **13 24 02.2** | **-1.0** |
| MAJO | | | | *e*Sg | **Sg** | **13 24 07.7** | **-0.4** |
| **MAT** | **Matsushiro** | **0.37** | **81** | P | **Pg** | **13 24 02.2** | **-1.0** |
| MAT | | | | S | **Sg** | **13 24 07.6** | **-0.5** |
| **MAT** | **Matsushiro** | **0.37** | **81** | P | **Pg** | **13 24 02.2** | **-1.0** |
| MAT | | | | S | **Sg** | **13 24 07.6** | **-0.5** |
| **MJAR** | **Matsushiro Arr** | **0.37** | **82** | Pg | **Pg** | **13 24 03.0** | **-0.3** |
| | 1μm,0.3s,baz=275,slow=18,SNR=5717 | | | | | | |
| MJAR | | | | Lg | Lg | 13 24 08.6 | |
| | 2μm,0.3s,baz=276,slow=30,SNR=61 | | | | | | |
| **JGN** | **Niukaw** | **0.44** | **233** | ⇑P | **Pg** | **13 24 04.0** | **-0.7** |
| **KSRS** | **Korea Array** | **7.93** | **280** | Pn | **Pn** | **13 25 52.2** | **+1.1** |
| | 0.3nm,0.3s,baz=91,slow=14,SNR=6.6 | | | | | | |
| KSRS | | | | LR | LR | 13 28 39.0 | |
| | comp=Z,675nm,20.5s,baz=100,slow=36 | | | | | | |
| **KSAR** | **Wonju Array Be** | **7.96** | **280** | Pn | **Pn** | **13 25 52.2** | **+0.7** |
| **USRK** | **Ussuriysk Ar.** | **8.87** | **332** | LR | LR | 13 29 02.9 | |
| | comp=Z,445nm,21.5s,baz=139,slow=35 | | | | | | |
| **GUMO** | **Guam** | **23.68** | **163** | LR | LR | 13 36 59.4 | |
| | comp=Z,283nm,21.8s,baz=353,slow=33 | | | | | | |
| **ULN** | **Ulaanbaatar** | **25.27** | **306** | *e*P | **P** | **13 29 22.1** | **-0.2** |
| | 6.5nm,1.1s | | | | | | |
| **SONM** | **Songino Array** | **25.69** | **306** | P | **P** | **13 29 26.0** | **0.0** |
| | 1.9nm,0.9s,baz=108,slow=8.1,SNR=7.9 | | | | | | |
| SONM | | | | LR | LR | 13 39 28.8 | |
| | comp=Z,318nm,19.3s,baz=134,slow=36 | | | | | | |
| **YAK** | **Yakutsk** | **26.06** | **351** | *e*P | **P** | **13 29 28.3** | **-0.8** |
| | 16nm,0.4s | | | | | | |
| **TLY** | **Talaya** | **28.51** | **313** | LR | LR | 13 41 16.3 | |
| | comp=Z,134nm,19.1s,baz=102,slow=36 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **40.12** | **313** | P | **P** | **13 31 31.9** | **+0.4** |
| | 0.3nm,0.3s,baz=88,slow=7.4,SNR=3.4 | | | | | | |
| ZALV | | | | PcP | **PcP** | **13 33 35.6** | **-0.2** |
| | 1.5nm,0.6s,baz=80,slow=3.2,SNR=5.8 | | | | | | |
| ZALV | | | | LR | LR | 13 47 52.7 | |
| | comp=Z,57nm,18.6s,baz=68,slow=36 | | | | | | |
| **MKAR** | **Makanchi Array** | **41.92** | **302** | P | **P** | **13 31 45.6** | **-0.8** |
| | 0.7nm,0.9s,baz=92,slow=10,SNR=3.6 | | | | | | |
| MKAR | | | | LR | LR | 13 49 42.0 | |
| | comp=Z,197nm,19.1s,baz=32,slow=37 | | | | | | |
| **KURK** | **Kurchatov** | **43.96** | **308** | *e*P | **P** | **13 32 01.1** | **-1.8** |
| | 34nm,0.9s | | | | | | |
| **KAPI** | **Kappang** | **44.59** | **206** | LR | LR | 13 50 01.2 | |
| | comp=Z,2μm,21.0s,baz=162,slow=35 | | | | | | |
| **ILAR** | **Eielson Array** | **51.52** | **32** | P | **P** | **13 33 01.0** | **-0.3** |
| | 0.9nm,0.9s,baz=265,slow=6.2,SNR=3.1 | | | | | | |
| **WRAB** | **Tennant Creek** | **56.21** | **184** | *e*P | **P** | **13 33 34.3** | **-1.7** |
| | 4.2nm,0.9s | | | | | | |
| **WRA** | **Warramunga Arr** | **56.22** | **184** | P | **P** | **13 33 35.5** | **-0.6** |
| | 2.8nm,0.8s,baz=359,slow=7.6,SNR=24 | | | | | | |
| **ASAR** | **Alice Springs** | **59.94** | **184** | P | **P** | **13 34 01.7** | **-0.4** |
| | 1.5nm,0.8s,baz=15,slow=11,SNR=13 | | | | | | |
| **GEYT** | **Alibeck** | **61.51** | **298** | LR | LR | 14 02 22.1 | |
| | comp=Z,84nm,18.1s,baz=75,slow=38 | | | | | | |
| **ARCES** | **ARCESS Array B** | **63.45** | **339** | LR | LR | 14 05 44.4 | |
| | comp=Z,119nm,18.6s,baz=150,slow=40 | | | | | | |
| **YKA** | **Yellowknife Ar** | **65.73** | **29** | P | **P** | **13 34 41.2** | **+0.9** |
| | 1.2nm,0.9s,baz=292,slow=6.7,SNR=3.8 | | | | | | |
| **FINES** | **FINESS Array B** | **67.90** | **331** | LR | LR | 14 06 31.5 | |
| | comp=Z,88nm,20.0s,baz=342,slow=38 | | | | | | |
| **KBZ** | **Khabaz** | **69.00** | **309** | LR | LR | 14 05 38.2 | |
| | comp=Z,32nm,19.0s,baz=26,slow=36 | | | | | | |
| **AKASG** | **Malin Array Be** | **72.90** | **321** | P | **P** | **13 35 24.2** | **-0.6** |
| | 0.3nm,0.3s,baz=48,slow=6.1,SNR=4.6 | | | | | | |
| AKASG | | | | LR | LR | 14 09 55.5 | |
| | comp=Z,100nm,19.9s,baz=335,slow=38 | | | | | | |
| **NB2** | **NORSAR Subarra** | **73.52** | **336** | P | **P** | **13 35 29.2** | **+0.8** |
| | comp=Z,22nm,1.2s,baz=43,slow=6.2 | | | | | | |
| **NB2** | **NORSAR Subarra** | **73.52** | **336** | P | **P** | **13 35 29.2** | **+0.8** |
| | baz=43,slow=6.2 | | | | | | |
| **NOA** | **NORSAR Array B** | **73.52** | **336** | P | **P** | **13 35 28.7** | **+0.2** |
| | comp=Z,3.6nm,0.8s,baz=42,slow=5.9,SNR=5.1 | | | | | | |
| NOA | | | | LR | LR | 14 09 51.6 | |
| | comp=Z,77nm,18.3s,baz=35,slow=38 | | | | | | |
| **BRTR** | **Keskin Array B** | **76.98** | **310** | P | **P** | **13 35 49.5** | **+0.6** |
| | comp=Z,2.3nm,1.0s,baz=90,slow=4.1,SNR=8.8 | | | | | | |
| BRTR | | | | LR | LR | 14 11 39.2 | |
| | comp=Z,30nm,18.1s,baz=17,slow=37 | | | | | | |
| **PDAR** | **Pinedale Array** | **80.11** | **44** | P | **P** | **13 36 06.8** | **+0.6** |
| | comp=Z,1.4nm,0.9s,baz=263,slow=1.2,SNR=8.8 | | | | | | |
| **GERES** | **GERESS Array B** | **81.58** | **326** | P | **P** | **13 36 14.5** | **+0.7** |
| | comp=Z,0.4nm,0.3s,baz=34,slow=7.1,SNR=5.7 | | | | | | |
| GERES | | | | LR | LR | 14 15 27.4 | |
| | comp=Z,97nm,18.5s,baz=4.0,slow=38 | | | | | | |
| **RAR** | **Rarotonga** | **82.27** | **123** | LR | LR | 14 07 55.0 | |
| | comp=Z,130nm,19.6s,baz=76,slow=32 | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TXAR | Lajitas Array | 92.75 | 50 | P | P | 13 37 09.5 | +0.9 |
| | comp=Z,1.0nm,0.8s,baz=300,slow=2.8,SNR=11 | | | | | | |

*CSEM **01** 13:35:16.6, 40°.81N×15°.20E, h13km, MD1.9/6*

**ROM 01 13:35:16.6**±0.2**, 40°.81N×15°.20E, h13**km±2km**, Md1.9**/6**, Ml1.5**/4**, Error ellipse: s-maj=2.2km s-min=1.3km az=91.0, Southern Italy**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MCRV | Calabrutti - M | 0.04 | 225 | Pg | Pg | 13 35 19.4 | +0.2 |
| MCRV | | | | Sg | Sg | 13 35 21.3 | +0.3 |
| | 955nm,0.2s | | | | | | |
| MCRV | Calabrutti - M | 0.04 | 225 | Pg | Pg | 13 35 19.4 | +0.2 |
| MCRV | | | | Sg | Sg | 13 35 21.3 | +0.3 |
| | 955nm,0.2s | | | | | | |
| CAFE | Carife | 0.22 | 7 | Pg | Pb | 13 35 22.1 | -0.4 |
| CAFE | | | | Sg | Sg | 13 35 25.4 | +0.6 |
| | 203nm,0.5s | | | | | | |
| CAFE | Carife | 0.22 | 7 | Pg | Pb | 13 35 22.1 | -0.4 |
| CAFE | | | | Sg | Sg | 13 35 25.4 | +0.6 |
| | 203nm,0.5s | | | | | | |
| MRLC | Muro Lucano | 0.22 | 104 | Pg | Pg | 13 35 21.7 | +0.2 |
| MRLC | | | | Sg | Sb | 13 35 25.8 | -0.7 |
| | 88nm,0.4s | | | | | | |
| MRLC | Muro Lucano | 0.22 | 104 | Pg | Pg | 13 35 21.7 | +0.2 |
| MRLC | | | | Sg | Sb | 13 35 25.8 | -0.7 |
| | 88nm,0.4s | | | | | | |
| CDRU | Civita di Ruta | 0.33 | 166 | Pg | Pg | 13 35 23.4 | +0.1 |
| CDRU | | | | Sg | Sg | 13 35 28.7 | +0.8 |
| | 34nm,0.2s | | | | | | |
| CDRU | Civita di Ruta | 0.33 | 166 | Pg | Pg | 13 35 23.4 | +0.1 |
| CDRU | | | | Sg | Sg | 13 35 28.7 | +0.8 |
| | 34nm,0.2s | | | | | | |
| VULT | Monte Vulture | 0.35 | 65 | Pg | Pg | 13 35 23.8 | +0.1 |
| VULT | | | | Sg | Sb | 13 35 29.8 | -0.3 |
| VULT | Monte Vulture | 0.35 | 65 | Pg | Pg | 13 35 23.8 | +0.1 |
| VULT | | | | Sg | Sb | 13 35 29.8 | -0.3 |
| CMPR | Campora | 0.50 | 171 | Pg | Pg | 13 35 26.3 | -0.1 |
| CMPR | | | | Sg | Sb | 13 35 34.4 | 0.0 |
| | 18nm,0.5s | | | | | | |
| CMPR | Campora | 0.50 | 171 | Pg | Pg | 13 35 26.3 | -0.1 |
| CMPR | | | | Sg | Sb | 13 35 34.4 | 0.0 |
| | 18nm,0.5s | | | | | | |

**IDC 01 13:35:51.5**±18.0**, 22°.61S×68°.33E, h0**km**, mb3.8**/4**, mb1 3.9**/4**, mb1mx3.5**/44**, mbtmp3.8**/4**, MS3.1**/3**, Ms1 3.2**/3**, ms1mx2.9**/32**, Error ellipse: s-maj=597.6km s-min=33.7km az=53.0, Mid-Indian Ridge**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| H08S1 | Diego Carcia H | 15.41 | 16 | T | T | 13 53 48.5 | |
| | baz=193,slow=76,SNR=26 | | | | | | |
| H08S2 | Diego Garcia H | 15.41 | 16 | T | T | 13 53 48.7 | |
| | baz=193,slow=76,SNR=25 | | | | | | |
| H08S3 | Diego Garcia H | 15.43 | 16 | T | T | 13 53 50.0 | |
| | baz=193,slow=76,SNR=29 | | | | | | |
| KMBO | Kilima Mbogo | 36.99 | 301 | LR | LR | 13 55 23.5 | |
| | comp=Z,27nm,19.9s,baz=86,slow=32 | | | | | | |
| BOSA | Boshof | 39.14 | 252 | LR | LR | 13 55 38.5 | |
| | comp=Z,59nm,21.3s,baz=29,slow=30 | | | | | | |
| CMAR | Chiang Mai Arr | 50.62 | 39 | LR | LR | 14 03 05.2 | |
| | comp=Z,13nm,20.2s,baz=144,slow=32 | | | | | | |
| ASAR | Alice Springs | 59.81 | 105 | P | P | 13 45 59.4 | +0.4 |
| | 0.7nm,0.9s,baz=264,slow=6.1,SNR=6.7 | | | | | | |
| WRA | Warramunga Arr | 61.12 | 101 | P | P | 13 46 07.5 | -0.4 |
| | 0.9nm,0.9s,baz=258,slow=6.4,SNR=4.1 | | | | | | |
| MKAR | Makanchi Array | 70.23 | 10 | P | P | 13 47 06.5 | +0.4 |
| | 0.6nm,0.8s,baz=174,slow=4.2,SNR=2.3 | | | | | | |
| ZALV | Zalesovo Beam | 77.56 | 10 | P | P | 13 47 48.6 | -0.3 |
| | 0.9nm,0.7s,baz=190,slow=7.5,SNR=4.1 | | | | | | |

*CSEM **01** 13:36:00.7, 40°.81N×15°.21E, h13km, MD2.1/14*

**ROM 01 13:36:00.7**±0.1**, 40°.81N×15°.21E, h13**km±2km**, Md2.1**/14**, Ml2.0**/8**, Error ellipse: s-maj=2.5km s-min=1.3km az=100.0, Southern Italy**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MCRV | Calabrutti - M | 0.04 | 226 | Pg | Pg | 13 36 03.5 | +0.2 |
| MCRV | | | | Sg | Sg | 13 36 05.4 | +0.3 |
| | 3µm,0.2s | | | | | | |
| MCRV | Calabrutti - M | 0.04 | 226 | Pg | Pg | 13 36 03.5 | +0.2 |
| MCRV | | | | Sg | Sg | 13 36 05.4 | +0.3 |
| | 3µm,0.2s | | | | | | |
| CAFE | Carife | 0.22 | 6 | Pg | Pb | 13 36 06.1 | -0.5 |
| CAFE | | | | Sg | Sg | 13 36 09.5 | +0.6 |
| | 552nm,0.5s | | | | | | |
| CAFE | Carife | 0.22 | 6 | Pg | Pb | 13 36 06.1 | -0.5 |
| CAFE | | | | Sg | Sg | 13 36 09.5 | +0.6 |
| | 552nm,0.5s | | | | | | |
| MRLC | Muro Lucano | 0.22 | 104 | Pg | Pg | 13 36 05.8 | +0.2 |
| MRLC | | | | Sg | Sb | 13 36 09.9 | -0.6 |
| | 249nm,0.4s | | | | | | |
| MRLC | Muro Lucano | 0.22 | 104 | Pg | Pg | 13 36 05.8 | +0.2 |
| MRLC | | | | Sg | Sb | 13 36 09.9 | -0.6 |
| | 249nm,0.4s | | | | | | |
| CDRU | Civita di Ruta | 0.33 | 167 | Pg | Pg | 13 36 07.5 | 0.0 |
| CDRU | | | | Sg | Sg | 13 36 12.8 | +0.8 |
| | 87nm,0.2s | | | | | | |
| CDRU | Civita di Ruta | 0.33 | 167 | Pg | Pg | 13 36 07.5 | 0.0 |
| CDRU | | | | Sg | Sg | 13 36 12.8 | +0.8 |
| | 87nm,0.2s | | | | | | |
| VULT | Monte Vulture | 0.34 | 65 | Pg | Pg | 13 36 08.0 | +0.3 |
| VULT | | | | Sg | Sg | 13 36 13.2 | +0.8 |
| | 173nm,0.2s | | | | | | |
| VULT | Monte Vulture | 0.34 | 65 | Pg | Pg | 13 36 08.0 | +0.3 |
| VULT | | | | Sg | Sg | 13 36 13.2 | +0.8 |
| | 173nm,0.2s | | | | | | |
| SGTA | Sant Agata di | 0.34 | 20 | Pg | Pb | 13 36 09.3 | +0.5 |
| SGTA | Sant Agata di | 0.34 | 20 | Pg | Pb | 13 36 09.3 | +0.5 |
| CMPR | Campora | 0.50 | 172 | Pg | Pg | 13 36 10.3 | -0.2 |
| CMPR | | | | Sg | Sb | 13 36 18.6 | +0.1 |
| | 50nm,0.5s | | | | | | |
| CMPR | Campora | 0.50 | 172 | Pg | Pg | 13 36 10.3 | -0.2 |
| CMPR | | | | Sg | Sb | 13 36 18.6 | +0.1 |
| | 50nm,0.5s | | | | | | |
| SLCN | Sala Consilina | 0.53 | 142 | Pg | Pb | 13 36 11.9 | 0.0 |
| | 86nm,0.3s | | | | | | |
| SLCN | Sala Consilina | 0.53 | 142 | Pg | Pb | 13 36 11.9 | 0.0 |
| | 86nm,0.3s | | | | | | |
| ACER | Acerenza | 0.56 | 92 | Pg | Pg | 13 36 11.3 | -0.4 |
| ACER | Acerenza | 0.56 | 92 | Pg | Pg | 13 36 11.3 | -0.4 |
| MTSN | Montesano sull | 0.68 | 142 | Pg | Pb | 13 36 14.4 | -0.1 |
| MTSN | Montesano sull | 0.68 | 142 | Pg | Pb | 13 36 14.4 | -0.1 |
| MGR | Morigerati | 0.72 | 158 | Pg | Pg | 13 36 14.1 | -0.6 |
| | 45nm,0.4s | | | | | | |
| MGR | Morigerati | 0.72 | 158 | Pg | Pg | 13 36 14.1 | -0.6 |
| | 45nm,0.4s | | | | | | |
| BULG | Bulgheria - Ca | 0.74 | 170 | Pg | Pg | 13 36 14.7 | -0.4 |
| | 49nm,0.3s | | | | | | |
| BULG | Bulgheria - Ca | 0.74 | 170 | Pg | Pg | 13 36 14.7 | -0.4 |
| | 49nm,0.3s | | | | | | |
| SIRI | Monte Sirino - | 0.81 | 141 | Pg | Pg | 13 36 16.1 | -0.2 |
| SIRI | Monte Sirino - | 0.81 | 141 | Pg | Pg | 13 36 16.1 | -0.2 |
| MSAG | Monte S. Angel | 1.04 | 30 | Pg | Pb | 13 36 20.4 | -0.3 |
| MSAG | Monte S. Angel | 1.04 | 30 | Pg | Pb | 13 36 20.4 | -0.3 |

*CSEM **01** 13:42:45.7±0.2, 39°.87N×15°.94E, h10km, ML3.3/8, Error ellipse: s-maj=4.0km s-min=2.6km az=54.0*

**ROM 01 13:42:45.8**±0.1**, 39°.93N×16°.00E, h8**km±1km**, Md2.7**/22**, Ml2.6**/19**, 5C-2D, Error ellipse: s-maj=1.9km s-min=1.3km az=33.0, Southern Italy**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MMN | Mormanno | 0.04 | 188 | ⇓*i*Pg | Pg | 13 42 47.8 | +0.4 |
| MMN | | | | Sg | Sg | 13 42 49.0 | +0.5 |
| | 11µm,0.4s | | | | | | |
| MMN | Mormanno | 0.04 | 188 | ⇓*i*Pg | Pg | 13 42 47.8 | +0.4 |
| MMN | | | | Sg | Sg | 13 42 49.0 | +0.5 |
| | 11µm,0.4s | | | | | | |
| T0711 | Rotonda (PZ) | 0.05 | 86 | ⇑*i*Pg | Pg | 13 42 47.9 | +0.3 |
| T0711 | | | | Sg | Sg | 13 42 49.3 | +0.5 |
| CUC | Castrocucco | 0.15 | 294 | ⇑*i*Pg | Pg | 13 42 49.7 | +0.6 |
| CUC | | | | Sg | Sg | 13 42 52.5 | +1.2 |
| CUC | Castrocucco | 0.15 | 294 | ⇑*i*Pg | Pg | 13 42 49.7 | +0.6 |
| CUC | | | | Sg | Sg | 13 42 52.5 | +1.2 |
| SIRI | Monte Sirino - | 0.27 | 338 | Pg | Pg | 13 42 52.0 | +0.8 |
| SIRI | | | | Sg | Sb | 13 42 57.3 | -0.5 |
| | 2µm,0.3s | | | | | | |
| SIRI | Monte Sirino - | 0.27 | 338 | Pg | Pg | 13 42 52.0 | +0.8 |
| SIRI | | | | Sg | Sb | 13 42 57.3 | -0.5 |
| | 2µm,0.3s | | | | | | |
| SALB | San Lorenzo Be | 0.27 | 101 | ⇑*i*Pg | Pg | 13 42 51.5 | +0.2 |
| SALB | | | | Sg | Sg | 13 42 56.2 | +1.3 |
| | 1µm,0.4s | | | | | | |
| SALB | San Lorenzo Be | 0.27 | 101 | ⇑*i*Pg | Pg | 13 42 51.5 | +0.2 |
| SALB | | | | Sg | Sg | 13 42 56.2 | +1.3 |
| | 1µm,0.4s | | | | | | |
| SCHR | S. Chirico Rap | 0.27 | 13 | Pg | Pg | 13 42 51.7 | +0.4 |
| SCHR | | | | Sg | Sg | 13 42 56.3 | +1.3 |
| | 465nm,0.6s | | | | | | |
| ORI | Oriolo Calabro | 0.37 | 69 | Pg | Pg | 13 42 53.7 | +0.6 |
| ORI | | | | Sg | Sb | 13 43 00.3 | -0.3 |
| | 1µm,0.5s | | | | | | |
| ORI | Oriolo Calabro | 0.37 | 69 | Pg | Pg | 13 42 53.7 | +0.6 |
| ORI | | | | Sg | Sb | 13 43 00.3 | -0.3 |
| | 1µm,0.5s | | | | | | |
| MTSN | Montesano sull | 0.38 | 331 | Pg | Pg | 13 42 53.9 | +0.5 |
| MTSN | | | | Sg | Sg | 13 42 59.7 | +1.3 |
| | 697nm,0.6s | | | | | | |
| MTSN | Montesano sull | 0.38 | 331 | Pg | Pg | 13 42 53.9 | +0.5 |
| MTSN | | | | Sg | Sg | 13 42 59.7 | +1.3 |
| | 697nm,0.6s | | | | | | |
| MGR | Morigerati | 0.40 | 301 | Pg | Pg | 13 42 53.8 | +0.2 |
| MGR | | | | Sg | Sb | 13 43 01.2 | -0.2 |
| | 571nm,0.4s | | | | | | |
| MGR | Morigerati | 0.40 | 301 | Pg | Pg | 13 42 53.8 | +0.2 |
| MGR | | | | Sg | Sb | 13 43 01.2 | -0.2 |
| | 571nm,0.4s | | | | | | |
| MCEL | Monticello | 0.42 | 339 | Pg | Pg | 13 42 54.4 | +0.4 |
| MCEL | | | | Sg | Sb | 13 43 01.4 | -0.7 |
| | 397nm,0.3s | | | | | | |
| MCEL | Monticello | 0.42 | 339 | Pg | Pg | 13 42 54.4 | +0.4 |
| MCEL | | | | Sg | Sb | 13 43 01.4 | -0.7 |
| | 397nm,0.3s | | | | | | |
| BULG | Bulgheria - Ca | 0.50 | 287 | Pg | Pg | 13 42 55.7 | +0.2 |
| | 484nm,0.3s | | | | | | |
| BULG | Bulgheria - Ca | 0.50 | 287 | Pg | Pg | 13 42 55.7 | +0.2 |
| | 484nm,0.3s | | | | | | |
| SLCN | Sala Consilina | 0.54 | 329 | Pg | Pg | 13 42 56.5 | +0.3 |
| SLCN | | | | Sg | Sb | 13 43 05.7 | +0.2 |
| | 879nm,0.8s | | | | | | |
| SLCN | Sala Consilina | 0.54 | 329 | Pg | Pg | 13 42 56.5 | +0.3 |
| SLCN | | | | Sg | Sb | 13 43 05.7 | +0.2 |
| | 879nm,0.8s | | | | | | |
| CMPR | Campora | 0.66 | 306 | Pg | Pg | 13 42 58.4 | -0.1 |
| | 298nm,0.4s | | | | | | |
| CMPR | Campora | 0.66 | 306 | Pg | Pg | 13 42 58.4 | -0.1 |
| | 298nm,0.4s | | | | | | |
| CAR1 | CAROLEI | 0.70 | 166 | Pg | Pg | 13 42 59.3 | +0.1 |
| | 488nm,0.6s | | | | | | |
| CAR1 | CAROLEI | 0.70 | 166 | Pg | Pg | 13 42 59.3 | +0.1 |
| | 488nm,0.6s | | | | | | |
| CDRU | Civita di Ruta | 0.77 | 317 | Pg | Pg | 13 43 00.3 | -0.3 |
| | 106nm,0.3s | | | | | | |
| CDRU | Civita di Ruta | 0.77 | 317 | Pg | Pg | 13 43 00.3 | -0.3 |
| | 106nm,0.3s | | | | | | |
| PIPA | Pietrapaola | 0.77 | 125 | Pg | Pb | 13 43 02.2 | +0.7 |
| | 70nm,0.5s | | | | | | |
| PIPA | Pietrapaola | 0.77 | 125 | Pg | Pb | 13 43 02.2 | +0.7 |
| | 70nm,0.5s | | | | | | |
| MATE | Matera | 0.90 | 37 | Pg | Pg | 13 43 03.2 | +0.1 |
| | 188nm,0.7s | | | | | | |
| MATE | Matera | 0.90 | 37 | Pg | Pg | 13 43 03.2 | +0.1 |
| | 188nm,0.7s | | | | | | |
| SERS | Sersale | 1.04 | 149 | Pg | Pb | 13 43 06.2 | 0.0 |
| | 97nm,0.9s | | | | | | |
| SERS | Sersale | 1.04 | 149 | Pg | Pb | 13 43 06.2 | 0.0 |
| | 97nm,0.9s | | | | | | |
| SG1 | Sgolgore (BA) | 1.05 | 30 | *e*Pn | Pn | 13 43 07.3 | +0.5 |
| MCRV | Calabrutti - M | 1.06 | 324 | Pg | Pb | 13 43 06.8 | +0.3 |
| | 100nm,0.6s | | | | | | |
| MCRV | Calabrutti - M | 1.06 | 324 | Pg | Pb | 13 43 06.8 | +0.3 |
| | 100nm,0.6s | | | | | | |
| AMUR | Altamura | 1.08 | 25 | Pg | Pn | 13 43 07.6 | +0.3 |
| | 98nm,0.6s | | | | | | |
| AMUR | Altamura | 1.08 | 25 | Pg | Pn | 13 43 07.6 | +0.3 |
| | 98nm,0.6s | | | | | | |
| MASS | Massafra | 1.12 | 51 | *e*Pn | Pn | 13 43 08.8 | +0.9 |
| MRVN | Minervino Murg | 1.14 | 8 | Pg | Pn | 13 43 08.4 | +0.3 |
| | 64nm,0.8s | | | | | | |
| MRVN | Minervino Murg | 1.14 | 8 | Pg | Pn | 13 43 08.4 | +0.3 |
| | 64nm,0.8s | | | | | | |
| TAR1 | Taranto | 1.15 | 59 | *e*Pn | Pn | 13 43 09.6 | +1.4 |
| CDT | Castel del Mon | 1.17 | 10 | *e*Pn | Pn | 13 43 09.1 | +0.6 |
| CDT | | | | Sn | Sn | 13 43 28.1 | +3.4 |
| PLAC | Placanica | 1.52 | 167 | Pg | Pn | 13 43 13.7 | +0.4 |
| PLAC | Placanica | 1.52 | 167 | Pg | Pn | 13 43 13.7 | +0.4 |
| MSRU | Castanea | 1.71 | 193 | Pg | Pn | 13 43 15.5 | -0.4 |
| | 85nm,0.8s | | | | | | |
| MSRU | Castanea | 1.71 | 193 | Pg | Pn | 13 43 15.5 | -0.4 |
| | 85nm,0.8s | | | | | | |

*CSEM **01** 13:44:25.7, 44°.43N×21°.88E, h0km, ML1.5, Mining explosion.*

**BEO 01 13:44:25.7**±0.3**, 44°.43N×21°.88E, h0**km**, M1.5**/8**, 6C-4D, Mining explosion., Northwestern Balkan Peninsula**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KUBS | Kucevo | 0.15 | 263 | ⇓*i*Pg | Pg | 13 44 27.0 | -1.5 |
| KUBS | | | | *e*Sg | Sg | 13 44 30.1 | -0.3 |
| KUBS | Kucevo | 0.15 | 263 | ⇓*i*Pg | Pg | 13 44 27.0 | -1.5 |
| KUBS | | | | *e*Sg | Sg | 13 44 30.1 | -0.3 |
| MDVR | Moldovita | 0.37 | 341 | ⇑*i*P | Pg | 13 44 32.3 | -0.5 |
| MDVR | Moldovita | 0.37 | 341 | S | Sg | 13 44 38.8 | +1.2 |
| HERR | Herculane | 0.59 | 40 | ⇑*i*P | Pg | 13 44 36.0 | -1.0 |
| ZAGS | Zajecar | 0.67 | 158 | *e*Pg | Pg | 13 44 36.4 | -2.1 |
| ZAGS | | | | *e*Sg | Sg | 13 44 47.0 | -0.1 |
| ZAGS | Zajecar | 0.67 | 158 | *e*Pg | Pg | 13 44 36.4 | -2.1 |
| ZAGS | | | | *e*Sg | Sg | 13 44 47.0 | -0.1 |
| BOVS | Bovan | 0.81 | 189 | *e*Pg | Pg | 13 44 40.2 | -0.9 |
| BOVS | | | | *e*Sg | Sg | 13 44 51.1 | -0.4 |
| BOVS | Bovan | 0.81 | 189 | *e*Pg | Pg | 13 44 40.2 | -0.9 |
| BOVS | | | | *e*Sg | Sg | 13 44 51.1 | -0.4 |
| GRUS | Gruza | 1.00 | 238 | *e*Pg | Pg | 13 44 44.6 | -0.2 |
| GRUS | | | | *e*Sg | Sg | 13 44 58.1 | +0.4 |
| GRUS | Gruza | 1.00 | 238 | *e*Pg | Pg | 13 44 44.6 | -0.2 |
| GRUS | | | | *e*Sg | Sg | 13 44 58.1 | +0.4 |
| TRUS | Trudelj | 1.08 | 259 | *e*Pg | Pg | 13 44 45.8 | -0.5 |
| TRUS | Trudelj | 1.08 | 259 | *e*Pg | Pg | 13 44 45.8 | -0.5 |
| BZS | Buzias | 1.20 | 351 | *e*Pg | Pg | 13 44 47.7 | -1.0 |
| BZS | | | | *e*Sg | Sg | 13 45 04.4 | +0.1 |
| BZS | Buzias | 1.20 | 351 | ⇓*i*P | Pg | 13 44 47.7 | -1.0 |
| BZS | Buzias | 1.20 | 351 | S | Sb | 13 45 06.0 | +0.6 |
| BZS | Buzias | 1.20 | 351 | *e*Pg | Pg | 13 44 47.7 | -1.0 |
| BZS | | | | *e*Sg | Sg | 13 45 04.4 | +0.1 |
| ZAPS | Zavoj | 1.28 | 154 | ⇓*i*Pg | Pg | 13 44 49.2 | -1.0 |
| ZAPS | | | | *e*Sg | Sg | 13 45 05.8 | -0.9 |
| SELS | Selova | 1.33 | 205 | *e*Pg | Pg | 13 44 49.5 | -1.7 |
| DIVS | Divibare | 1.40 | 257 | *e*Pg | Pg | 13 44 51.6 | -0.9 |
| DIVS | | | | *e*Sg | Sg | 13 45 09.4 | -1.2 |
| DIVS | Divibare | 1.40 | 257 | *e*Pg | Pg | 13 44 51.6 | -0.9 |
| DIVS | | | | *e*Sg | Sg | 13 45 09.4 | -1.2 |
| IVAS | Ivanjica | 1.51 | 236 | *e*Pg | Pn | 13 44 53.0 | -1.1 |
| IVAS | Ivanjica | 1.51 | 236 | *e*Pg | Pn | 13 44 53.0 | -1.1 |
| LOT | Lotru | 1.68 | 52 | ⇑*i*P | Pn | 13 44 55.5 | -1.0 |
| LOT | Lotru | 1.68 | 52 | S | Sn | 13 45 18.3 | -0.6 |
| TEKS | Tekeris | 1.69 | 275 | *e*Pg | Pn | 13 44 54.5 | -2.0 |
| TEKS | Tekeris | 1.69 | 275 | *e*Pg | Pn | 13 44 54.5 | -2.0 |
| SIRR | Siria | 1.84 | 355 | ⇑*i*P | Pn | 13 44 56.8 | -1.8 |
| DRGR | | 2.43 | 14 | ⇑*i*P | Pn | 13 45 05.3 | -1.5 |
| DRGR | | 2.43 | 14 | S | Sn | 13 45 37.0 | -0.3 |
| VOIR | | 2.47 | 65 | ⇑*i*P | Pn | 13 45 05.7 | -1.5 |

**TRN 01 13:47:24.8, 10°.86N×62°.19W, h95**km**, MD3.8, 1C-1D, Near coast of Venezuela**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TCE | Chacachacare | 0.45 | 110 | *e*P | Pn | 13 47 40.1 | +0.4 |
| TRN | Trinidad (W) | 0.80 | 105 | ⇓*i*P | Pn | 13 47 43.0 | +0.4 |
| TRN | | | | *e*S | Sn | 13 47 55.5 | -0.5 |
| TPP | Pointe-a-Pierr | 0.90 | 127 | *e*P | Pn | 13 47 44.3 | +0.6 |
| TPP | | | | *e*S | Sn | 13 47 57.4 | -0.5 |
| TBH | Brigand Hill | 1.16 | 109 | ⇑*i*P | Pn | 13 47 47.7 | +1.0 |
| TBH | | | | *e*S | Sn | 13 48 02.6 | -0.6 |
| GRGR | Grenville | 1.37 | 22 | *e*P | Pn | 13 47 49.1 | -0.1 |
| GRGR | | | | *e*S | Sn | 13 48 07.5 | -0.2 |
| TOSP | Speyside | 1.68 | 75 | *e*P | Pn | 13 47 52.6 | -0.4 |
| TOSP | | | | *e*S | Sn | 13 48 14.5 | +0.1 |
| SVB | Belmont | 2.57 | 21 | *e*P | Pn | 13 48 04.0 | -0.7 |
| SVB | | | | *e*S | Sn | 13 48 35.0 | -0.2 |
| MCLT | Moule a Chique | 3.08 | 23 | *e*P | Pn | 13 48 11.7 | +0.2 |
| MCLT | | | | *e*S | Sn | 13 48 45.9 | -1.8 |

*ATA **01** 13:52:04.4±0.8, 38°.84N×43°.51E, h1km±3km, MD3.7, ML3.9, MW3.9*
*ISK **01** 13:52:05.0, 38°.83N×43°.54E, h5km, ML3.4*
*DDA **01** 13:52:05.7, 38°.80N×43°.54E, h17km, Ml3.4*
*AZER **01** 13:52:06.7±1.8, 38°.57N×43°.42E, h17km, Error ellipse: s-maj=20.1km s-min=9.0km az=2.0*
*CSEM **01** 13:52:06.8±0.2, 38°.82N×43°.52E, h10km, ML3.4, Error ellipse: s-maj=5.0km s-min=4.7km az=155.0*

**ISC 01 13:52:06.2**±0.8**, 38°.84N**±0°.02**×43°.47E**±0°.02**, h17**km±5km**, n101, σ1**s**.41**/135**, 7C-6D, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.17 | 27 | *i* P | Pb | 13 52 10.3 | -0.7 |
| VMUR | | | | *i* S | Sg | 13 52 14.7 | +0.9 |
| VMUR | Van-Muradiye | 0.17 | 27 | P | Pb | 13 52 10.3 | -0.7 |
| VMUR | | | | S | Sg | 13 52 14.7 | +0.9 |
| ERCV | ERCIS-VAN | 0.21 | 330 | *e*PG | Pg | 13 52 11.1 | -0.2 |
| ERCV | | | | *e*SG | Sg | 13 52 15.5 | +0.8 |
| ERCV | ERCIS-VAN | 0.21 | 330 | *e*Pg | Pg | 13 52 11.1 | -0.2 |
| ERCV | | | | *e*Sg | Sg | 13 52 15.5 | +0.8 |
| VANB | Van | 0.25 | 195 | *e*PG | Pb | 13 52 12.4 | 0.0 |
| VANB | Van | 0.25 | 195 | *e*Pg | Pb | 13 52 12.4 | 0.0 |
| TVAN | Van | 0.31 | 190 | *i* P | Pg | 13 52 12.5 | -0.5 |
| TVAN | | | | *i* S | Sb | 13 52 18.9 | +0.5 |
| TVAN | Van | 0.31 | 190 | P | Pg | 13 52 12.5 | -0.5 |
| CLDR | Caldiran | 0.46 | 49 | *e*PG | Pg | 13 52 14.9 | -0.7 |
| CLDR | | | | *e*SG | Sg | 13 52 21.9 | 0.0 |
| CLDR | Caldiran | 0.46 | 49 | *i* P | Pg | 13 52 14.9 | -0.7 |
| CLDR | | | | *i* S | Sb | 13 52 22.5 | -0.2 |
| CLDR | Caldiran | 0.46 | 49 | P | Pg | 13 52 14.9 | -0.7 |
| CLDR | | | | *e*Sg | Sg | 13 52 21.9 | 0.0 |
| CLDR | | | | S | Sb | 13 52 22.5 | -0.2 |
| ADCV | BITLIS_Adilcev | 0.59 | 267 | *i* P | Pb | 13 52 18.0 | -0.1 |
| ADCV | | | | *i* S | Sn | 13 52 27.7 | -1.5 |
| ADCV | BITLIS_Adilcev | 0.59 | 267 | P | Pb | 13 52 18.0 | -0.1 |
| ADCV | | | | S | Sn | 13 52 27.7 | -1.5 |
| DYDN | Diyadin | 0.72 | 13 | *e*P | Pb | 13 52 19.5 | -1.0 |
| DYDN | | | | *e*S | Sg | 13 52 30.6 | +0.6 |
| DYDN | | | | IAML | | 13 52 40.8 | |
| | comp=Z,267nm,0.4s | | | | | | |
| DYDN | Diyadin | 0.72 | 13 | *e*P | Pb | 13 52 19.6 | -0.9 |
| DYDN | Diyadin | 0.72 | 13 | *i* P | Pb | 13 52 19.8 | -0.7 |
| DYDN | | | | *i* S | Sg | 13 52 31.2 | +1.2 |
| DYDN | Diyadin | 0.72 | 13 | P | Pb | 13 52 19.8 | -0.7 |
| DYDN | | | | S | Sg | 13 52 31.2 | +1.2 |
| TUTA | Tutak | 0.76 | 318 | *e*P | Pb | 13 52 20.5 | -0.7 |
| TUTA | | | | IAML | | 13 52 24.4 | |
| | comp=Z,831nm,0.2s | | | | | | |
| TUTA | | | | *e*S | Sn | 13 52 32.7 | -0.9 |
| TUTA | Tutak | 0.76 | 318 | *e*P | Pb | 13 52 20.5 | -0.6 |
| TUTA | | | | IAML | | 13 52 24.1 | |
| | comp=Z,831nm,0.2s | | | | | | |
| TUTA | | | | *e*S | Sn | 13 52 32.0 | -1.7 |
| TUTA | Tutak | 0.76 | 318 | *i* P | Pb | 13 52 20.5 | -0.7 |
| TUTA | Tutak | 0.76 | 318 | P | Pb | 13 52 20.5 | -0.7 |
| AGRB | Hanur-Agry | 0.82 | 333 | *e*PG | Pg | 13 52 21.9 | -0.4 |
| AGRB | Hanur-Agry | 0.82 | 333 | *e*Pg | Pg | 13 52 21.9 | -0.4 |
| BASK | Baskale_VAN | 0.89 | 152 | *e*P | Pb | 13 52 21.8 | -1.5 |
| BASK | | | | IAML | | 13 52 29.6 | |
| | comp=Z,299nm,0.4s | | | | | | |
| BASK | | | | *e*S | Sn | 13 52 36.5 | -0.2 |
| BASK | Baskale_VAN | 0.89 | 152 | *e*P | Pn | 13 52 25.9 | +1.8 |
| BASK | | | | *e*S | Sn | 13 52 41.6 | +4.9 |
| BASK | | | | IAML | | 13 52 44.1 | |
| | comp=Z,552nm,0.6s | | | | | | |
| BASK | Baskale_VAN | 0.89 | 152 | *i* P | Pb | 13 52 21.5 | -1.8 |
| BASK | | | | *i* S | Sn | 13 52 36.6 | -0.1 |
| BASK | Baskale_VAN | 0.89 | 152 | P | Pb | 13 52 21.5 | -1.8 |
| EKAR | Karacoban | 1.17 | 291 | *e*P | Pg | 13 52 28.8 | -0.1 |
| EKAR | | | | IAML | | 13 53 01.3 | |
| | comp=Z,220nm,0.6s | | | | | | |
| EKAR | Karacoban | 1.17 | 291 | *i* P | Pg | 13 52 28.7 | -0.2 |
| EKAR | | | | *i* S | Sg | 13 52 49.0 | +4.7 |
| EKAR | Karacoban | 1.17 | 291 | P | Pg | 13 52 28.7 | -0.2 |
| EATA | Eleskirt | 1.27 | 324 | *e*P | Pg | 13 52 30.0 | -0.8 |
| EATA | | | | *e*S | Sg | 13 52 50.5 | +3.0 |
| EATA | | | | IAML | | 13 52 54.3 | |
| | comp=Z,81nm,0.5s | | | | | | |
| EATA | Eleskirt | 1.27 | 324 | *e*P | Pg | 13 52 30.1 | -0.7 |
| EATA | | | | *e*S | Sg | 13 52 48.6 | +1.1 |
| EATA | | | | IAML | | 13 52 54.2 | |
| | comp=Z,81nm,0.5s | | | | | | |
| EATA | Eleskirt | 1.27 | 324 | *i* P | Pb | 13 52 29.9 | 0.0 |
| EATA | | | | *i* S | Sg | 13 52 50.6 | +3.1 |
| EATA | Eleskirt | 1.27 | 324 | P | Pb | 13 52 29.9 | 0.0 |
| EATA | | | | S | Sg | 13 52 50.6 | +3.1 |
| TASB | TASBURUN-IGDIR | 1.29 | 27 | *e*PN | Pb | 13 52 30.3 | +0.2 |
| TASB | TASBURUN-IGDIR | 1.29 | 27 | *e*Pn | Pb | 13 52 30.3 | +0.3 |
| HAKT | HAKKARI | 1.29 | 172 | *i* P | Pn | 13 52 28.9 | -0.8 |
| HAKT | HAKKARI | 1.29 | 172 | P | Pn | 13 52 28.9 | -0.8 |
| HYR | Heyderabad | 1.39 | 50 | ⇑P | Pg | 13 52 32.6 | -0.3 |
| HYR | | | | ⇑S | Sg | 13 52 53.7 | +2.8 |
| HYR | Heyderabad | 1.39 | 50 | P | Pg | 13 52 32.6 | -0.3 |
| HYR | | | | S | Sg | 13 52 53.7 | +2.8 |
| YOVA | Hakkari_Y˘…kse | 1.41 | 153 | *i* P | Pb | 13 52 31.3 | -0.8 |
| YOVA | | | | *i* S | Sg | 13 52 53.5 | +1.8 |
| YOVA | Hakkari_Y˘…kse | 1.41 | 153 | P | Pb | 13 52 31.3 | -0.8 |
| SRTM | Siirt_Merkez | 1.48 | 236 | *i* P | Pg | 13 52 34.4 | -0.3 |
| SRTM | Siirt_Merkez | 1.48 | 236 | P | Pg | 13 52 34.4 | -0.3 |
| DIGO | Kars | 1.58 | 357 | *e*P | Pg | 13 52 35.8 | -0.8 |
| DIGO | | | | IAML | | 13 52 53.9 | |
| | comp=Z,45nm,0.6s | | | | | | |
| DIGO | Kars | 1.58 | 357 | *e*P | Pg | 13 52 35.6 | -0.9 |
| DIGO | | | | IAML | | 13 52 53.6 | |
| | comp=Z,45nm,0.6s | | | | | | |
| DIGO | | | | *e*S | Sg | 13 52 58.7 | +1.6 |
| DIGO | Kars | 1.58 | 357 | *i* P | Pg | 13 52 36.1 | -0.4 |
| DIGO | Kars | 1.58 | 357 | P | Pg | 13 52 36.1 | -0.4 |
| CUKT | Cukurca | 1.59 | 176 | *e*PN | Pb | 13 52 35.5 | +0.3 |
| CUKT | Cukurca | 1.59 | 176 | *i* P | Pb | 13 52 34.5 | -0.7 |
| CUKT | Cukurca | 1.59 | 176 | P | Pb | 13 52 34.5 | -0.7 |
| CUKT | Cukurca | 1.59 | 176 | *e*Pn | Pb | 13 52 35.5 | +0.3 |
| VRTB | Varto-Mus | 1.60 | 282 | *e*PN | Pg | 13 52 36.4 | -0.6 |
| VRTB | Varto-Mus | 1.60 | 282 | *e*Pn | Pg | 13 52 36.4 | -0.6 |
| NAX | Nakhchivan | 1.61 | 77 | ⇑P | Pb | 13 52 35.7 | +0.2 |
| NAX | | | | ⇓S | Sg | 13 52 58.5 | +0.4 |
| NAX | Nakhchivan | 1.61 | 77 | P | Pb | 13 52 35.7 | +0.2 |
| NAX | | | | S | Sg | 13 52 58.5 | +0.4 |
| HOMI | Horasan | 1.71 | 315 | *e*P | Pg | 13 52 38.2 | -0.9 |
| HOMI | | | | IAML | | 13 52 45.0 | |
| | comp=Z,96nm,0.5s | | | | | | |
| HOMI | | | | *e*S | Sg | 13 53 03.2 | +1.9 |
| HOMI | Horasan | 1.71 | 315 | *i* P | Pg | 13 52 38.1 | -0.9 |
| SBZ | Shahbuz | 1.71 | 70 | ⇓P | Pb | 13 52 36.9 | -0.3 |
| SBZ | | | | ⇓S | Sg | 13 53 02.5 | +1.1 |
| SBZ | Shahbuz | 1.71 | 70 | P | Pb | 13 52 36.9 | -0.3 |
| SBZ | | | | S | Sg | 13 53 02.5 | +1.1 |
| KARS | Kars | 1.81 | 350 | *e*PN | Pb | 13 52 38.5 | -0.5 |
| KARS | Kars | 1.81 | 350 | *e*Pn | Pb | 13 52 38.5 | -0.5 |
| BNGL | BINGOL | 1.82 | 274 | *e*P | Pg | 13 52 40.4 | -0.7 |
| BNGL | BINGOL | 1.82 | 274 | *i* P | Pg | 13 52 40.0 | -1.1 |
| SVAN | Silvan-Diyarba | 1.91 | 250 | *e*PN | Pb | 13 52 41.0 | +0.4 |
| SVAN | Silvan-Diyarba | 1.91 | 250 | *i* P | Pb | 13 52 41.0 | +0.4 |
| SVAN | Silvan-Diyarba | 1.91 | 250 | P | Pb | 13 52 41.0 | +0.4 |
| SENK | Senkaya-Erzuru | 1.93 | 334 | *e*PN | Pb | 13 52 40.8 | -0.2 |
| SENK | Senkaya-Erzuru | 1.93 | 334 | *e*Pn | Pb | 13 52 40.8 | -0.2 |
| ERZM | Erzurum | 1.95 | 304 | *i* P | Pg | 13 52 42.4 | -1.3 |
| ERZM | Erzurum | 1.95 | 304 | P | Pg | 13 52 42.4 | -1.3 |
| ORD | Ordubad | 1.97 | 87 | P | Pn | 13 52 39.4 | +0.5 |
| ORD | | | | S | Sb | 13 53 06.1 | +0.2 |
| BTMN | Batman | 1.97 | 242 | *i* P | Pg | 13 52 42.2 | -1.9 |
| BTMN | Batman | 1.97 | 242 | P | Pg | 13 52 42.2 | -1.9 |
| BNGB | Bing˘¶l | 2.19 | 275 | *e*PN | Pb | 13 52 45.0 | -0.3 |
| BINT | Bingol | 2.33 | 272 | *e*Pn | Pn | 13 52 45.0 | +1.1 |
| YEDI | Yedisu-Bingol | 2.35 | 286 | *e*PN | Pb | 13 52 47.3 | -0.9 |
| YEDI | Yedisu-Bingol | 2.35 | 286 | *e*Pn | Pb | 13 52 47.3 | -0.9 |
| BGD | Bogdanovka | 2.42 | 2 | P | Pg | 13 52 52.5 | -0.2 |
| DAGI | Agillar | 2.54 | 332 | *i* P | Pb | 13 52 50.1 | -1.2 |
| AKH | Akhalkalaki | 2.57 | 0 | P | Pg | 13 52 56.6 | +1.2 |
| GDB | GEDABAY | 2.57 | 42 | ⇓P | Pb | 13 52 51.2 | -0.8 |
| | SNR=4.2 | | | | | | |
| GDB | GEDABAY | 2.57 | 42 | P | Pb | 13 52 51.2 | -0.8 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| | SNR=4.2 | | | | | | |
| QZX | Qazax, Azerbai | 2.65 | 33 | ⇑P | Pb | 13 52 52.9 | -0.4 |
| | SNR=3.1 | | | | | | |
| QZX | Qazax, Azerbai | 2.65 | 33 | P | Pb | 13 52 52.9 | -0.4 |
| | SNR=3.1 | | | | | | |
| MAZI | Mazidag | 2.75 | 241 | ePN | Pb | 13 52 53.0 | -2.1 |
| MAZI | Mazidag | 2.75 | 241 | ePn | Pb | 13 52 53.0 | -2.1 |
| GANJ | Ganja | 2.84 | 50 | ⇑P | Pb | 13 52 54.4 | -2.1 |
| | SNR=4.7 | | | | | | |
| GANJ | Ganja | 2.84 | 50 | P | Pb | 13 52 54.4 | -2.1 |
| | SNR=4.7 | | | | | | |
| PTK | Pertek | 3.19 | 272 | ePN | Pb | 13 52 59.5 | -3.0 |
| PTK | Pertek | 3.19 | 272 | ePn | Pb | 13 52 59.5 | -3.0 |
| SVRC | Sivrice-ELAZID | 3.30 | 263 | ePN | Pb | 13 53 00.7 | -3.6 |
| SVRC | Sivrice-ELAZID | 3.30 | 263 | ePn | Pb | 13 53 00.7 | -3.6 |
| SEKA | Sheki | 3.71 | 49 | ⇓P | Pb | 13 53 07.7 | -3.6 |
| SEKA | Sheki | 3.71 | 49 | P | Pb | 13 53 07.7 | -3.6 |
| LRK | Lerik | 3.81 | 91 | ⇓P | Pn | 13 53 04.8 | +0.6 |
| LRK | Lerik | 3.81 | 91 | P | Pn | 13 53 04.8 | +0.6 |
| LKRN | Lenkeran, Azer | 4.15 | 90 | ⇑P | Pn | 13 53 10.3 | +1.6 |
| LKRN | Lenkeran, Azer | 4.15 | 90 | P | Pn | 13 53 10.3 | +1.6 |
| ASTR | Astara | 4.17 | 92 | ⇑P | Pn | 13 53 09.2 | +0.2 |
| ASTR | Astara | 4.17 | 92 | P | Pn | 13 53 09.2 | +0.2 |

*NIED **01** 13:53:00, 39.°10N×142.°90E, h23km, Mw3.9 Best double couple: M0 9.00000×10^14 NP1:φs176.00000°, δ16.00000°, λ63.00000°. NP2:φs24.00000°, δ76.00000°, λ97.00000°.*
*JMA **01** 13:53:37.9±0.1, 39.°14N×142.°94E, h26km±2km, M4.2*
*IDC **01** 13:53:41.6±3.0, 39.°10N×142.°85E, h44km±28km, mb3.7/9, mb1 3.8/11, mb1mx3.5/38, mbtmp3.9/11, ML3.6/2, MS3.1/3, Ms1 3.1/3, ms1mx2.7/36, Error ellipse: s-maj=27.1km s-min=19.6km az=123.0*
**ISC 01 13:53:37.0**±3.4**, 39.°12N**±0.°05×**142.°87E**±0.°07**, h10**km±21km**, n33, σ1.s41**/34**, mb4.0**/9**, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MIYJ | Miyakonagasawa | 0.94 | 299 | P | Pb | 13 53 55.5 | +0.2 |
| OFUJ | Ofunato | 0.94 | 268 | P | Pn | 13 53 56.0 | -0.2 |
| OFUJ | | | | eS | Sb | 13 54 08.8 | +1.0 |
| JTH | Tanohata | 1.13 | 317 | P | Pb | 13 53 58.2 | -0.4 |
| JOM | Ohasama | 1.28 | 287 | P | Pb | 13 54 01.2 | +0.1 |
| JOM | | | | S | Sb | 13 54 17.9 | +0.3 |
| JMK | Ichinoseki | 1.30 | 263 | P | Pb | 13 54 01.6 | +0.1 |
| JMK | | | | eS | Sn | 13 54 18.9 | +0.3 |
| JIO | Ouri | 1.36 | 241 | P | Pn | 13 54 02.3 | +0.2 |
| JIO | | | | eS | Sn | 13 54 19.6 | -0.6 |
| JANG | Nango | 1.63 | 321 | P | Pn | 13 54 05.6 | -0.2 |
| JANG | | | | eS | Sn | 13 54 26.1 | -0.8 |
| JRG | Rokugo | 1.76 | 280 | P | Pb | 13 54 09.0 | -0.4 |
| JOU | Okura | 1.89 | 247 | P | Pb | 13 54 10.7 | -0.8 |
| JOU | | | | eS | Sb | 13 54 34.4 | -0.7 |
| JYK | Kaneyama | 1.97 | 265 | P | Pn | 13 54 11.8 | +1.4 |
| JAH | Hinai | 2.03 | 302 | P | Pn | 13 54 12.4 | +1.1 |
| JAH | | | | eS | Sn | 13 54 37.2 | +0.5 |
| JMM | Marumori | 2.06 | 233 | P | Pn | 13 54 12.4 | +0.8 |
| JMM | | | | eS | Sn | 13 54 37.8 | +0.5 |
| JTM | Tenmabayashi | 2.17 | 321 | P | Pn | 13 54 13.2 | +0.1 |
| MJAR | Matsushiro Arr | 4.50 | 237 | P | Pn | 13 54 48.5 | +3.2 |
| | 5.7nm,0.3s,baz=39,slow=14,SNR=65 | | | | | | |
| MJAR | | | | LR | LR | 13 56 40.2 | |
| | comp=Z,121nm,21.9s,baz=55,slow=40 | | | | | | |
| MAT | Matsushiro | 4.50 | 237 | P | Pn | 13 54 48.5 | +3.2 |
| MAT | | | | eS | Sb | 13 55 45.2 | -5.2 |
| ASAJ | Asahikawa | 5.00 | 358 | P | Pn | 13 54 52.4 | +0.4 |
| | 1.7nm,0.3s,baz=224,slow=14,SNR=23 | | | | | | |
| USRK | Ussuriysk Ar. | 9.60 | 305 | P | Pn | 13 56 00.3 | +5.2 |
| | 0.3nm,0.3s,baz=353,slow=34,SNR=4.4 | | | | | | |
| KSRS | Korea Array | 11.87 | 267 | LR | LR | 14 00 46.6 | |
| | comp=Z,92nm,18.0s,baz=83,slow=36 | | | | | | |
| SEY | Seymchan | 24.53 | 10 | P | P | 13 58 57.0 | +0.6 |
| | 1.9nm,0.6s,baz=207,slow=11,SNR=7.3 | | | | | | |
| SONM | Songino Array | 27.65 | 300 | P | P | 13 59 24.6 | -0.3 |
| | 0.8nm,0.6s,baz=101,slow=8.0,SNR=5.6 | | | | | | |
| SONM | | | | LR | LR | 14 10 42.1 | |
| | comp=Z,72nm,19.3s,baz=347,slow=37 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 28.33 | 126 | T | T | 14 30 08.6 | |
| | baz=318,slow=75,SNR=134 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 28.34 | 126 | T | T | 14 30 09.8 | |
| | baz=318,slow=75,SNR=128 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 28.35 | 126 | T | T | 14 30 11.8 | |
| | baz=318,slow=75,SNR=122 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 29.13 | 128 | T | T | 14 31 08.1 | |
| | baz=319,slow=76,SNR=19 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 29.13 | 128 | T | T | 14 31 13.6 | |
| | baz=319,slow=76,SNR=15 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 29.14 | 128 | T | T | 14 31 20.2 | |
| | baz=319,slow=76,SNR=15 | | | | | | |
| ZALV | Zalesovo Beam | 41.40 | 311 | P | P | 14 01 22.9 | -0.3 |
| | 1.7nm,0.4s,baz=88,slow=8.6,SNR=9.4 | | | | | | |
| MKAR | Makanchi Array | 44.02 | 301 | P | P | 14 01 44.5 | -0.1 |
| | 2.4nm,0.8s,baz=84,slow=8.9,SNR=9.1 | | | | | | |
| ILAR | Eielson Array | 47.12 | 33 | P | P | 14 02 09.2 | +0.4 |
| | 0.5nm,0.7s,baz=265,slow=7.1,SNR=6.6 | | | | | | |
| BVAR | Borovoye Array | 50.04 | 311 | P | P | 14 02 31.2 | -0.3 |
| | 1.5nm,0.6s,baz=70,slow=8.7,SNR=6.4 | | | | | | |
| INK | Inuvik | 52.01 | 28 | P | P | 14 02 46.5 | +0.5 |
| | 0.4nm,0.4s,baz=274,slow=2.4,SNR=5.0 | | | | | | |
| WRA | Warramunga Arr | 59.29 | 189 | P | P | 14 03 37.8 | -1.1 |
| | 0.5nm,0.7s,baz=6.9,slow=7.0,SNR=5.5 | | | | | | |
| FINES | FINESS Array B | 67.51 | 332 | P | P | 14 04 33.6 | +0.7 |
| | 1.9nm,0.7s,baz=64,slow=36,SNR=3.6 | | | | | | |

*CSEM **01** 14:01:19.7±0.2, 39.°86N×15.°93E, h2km, ML3.8/4, Error ellipse: s-maj=5.3km s-min=3.8km az=71.0*
*ISCJB **01** 14:01:20.5±0.4, 39.°96N±0.°03×15.°99E±0.°03, h6km±2km, Error ellipse: s-maj=5.3km s-min=3.1km az=40.8*
*ROM **01** 14:01:20.0±0.1, 39.°93N×16.°00E, h10km±1km, Md3.1/12, Ml3.3/25, Error ellipse: s-maj=1.8km s-min=1.2km az=34.0*
**ISC 01 14:01:20.7**±0.9**, 39.°91N**±0.°03×**15.°97E**±0.°02**, h8**km±6km**, n107, σ1.s42**/121**, 17C-2D, Southern Italy**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| T0711 | Rotonda (PZ) | 0.07 | 69 | ⇑iPg | Pg | 14 01 22.2 | -0.5 |
| T0711 | | | | Sg | Sg | 14 01 23.5 | -0.7 |
| | 190μm,0.3s | | | | | | |
| CUC | Castrocucco | 0.15 | 305 | ⇑iPg | Pg | 14 01 24.1 | +0.3 |
| CUC | | | | Sg | Sg | 14 01 26.9 | +0.9 |
| | 9μm,0.6s | | | | | | |
| CUC | Castrocucco | 0.15 | 305 | ⇑iPg | Pg | 14 01 24.1 | +0.3 |
| CUC | | | | Sg | Sg | 14 01 26.9 | +0.9 |
| | 9μm,0.6s | | | | | | |
| SIRI | Monte Sirino - | 0.28 | 344 | Pg | Pg | 14 01 26.3 | -0.1 |
| SIRI | | | | Sg | Sg | 14 01 30.9 | +0.7 |
| | 8μm,0.5s | | | | | | |
| SIRI | Monte Sirino - | 0.28 | 344 | Pg | Pg | 14 01 26.3 | -0.1 |
| SIRI | | | | Sg | Sg | 14 01 30.9 | +0.7 |
| | 8μm,0.5s | | | | | | |
| SALB | San Lorenzo Be | 0.29 | 96 | ⇑iPg | Pg | 14 01 25.8 | -0.7 |
| SALB | | | | Sg | Sg | 14 01 30.1 | -0.2 |
| | 9μm,0.3s | | | | | | |
| SALB | San Lorenzo Be | 0.29 | 96 | ⇑iPg | Pg | 14 01 25.8 | -0.7 |
| SALB | | | | Sg | Sg | 14 01 30.1 | -0.2 |
| | 9μm,0.3s | | | | | | |
| SCHR | S. Chirico Rap | 0.30 | 15 | ⇑iPg | Pg | 14 01 26.0 | -0.7 |
| SCHR | | | | Sg | Sg | 14 01 30.2 | -0.5 |
| | 3μm,1.1s | | | | | | |
| MGR | Morigerati | 0.39 | 306 | Pg | Pg | 14 01 28.2 | -0.2 |
| MGR | | | | Sg | Sg | 14 01 33.8 | +0.2 |
| | 2μm,0.5s | | | | | | |
| MGR | Morigerati | 0.39 | 306 | Pg | Pg | 14 01 28.2 | -0.2 |
| MGR | | | | Sg | Sg | 14 01 33.8 | +0.2 |
| | 2μm,0.5s | | | | | | |
| MTSN | Montesano sull | 0.40 | 335 | Pg | Pg | 14 01 28.1 | -0.3 |
| | 3μm,0.6s | | | | | | |
| MTSN | Montesano sull | 0.40 | 335 | Pg | Pg | 14 01 28.1 | -0.3 |
| | 3μm,0.6s | | | | | | |
| ORI | Oriolo Calabro | 0.40 | 67 | Pg | Pg | 14 01 27.9 | -0.6 |
| | 11μm,0.3s | | | | | | |
| ORI | Oriolo Calabro | 0.40 | 67 | Pg | Pg | 14 01 27.9 | -0.6 |
| | 11μm,0.3s | | | | | | |
| MCEL | Monticello | 0.44 | 343 | Pg | Pg | 14 01 28.7 | -0.5 |
| | 2μm,0.6s | | | | | | |
| MCEL | Monticello | 0.44 | 343 | Pg | Pg | 14 01 28.7 | -0.5 |
| | 2μm,0.6s | | | | | | |
| BULG | Bulgheria - Ca | 0.49 | 291 | Pg | Pb | 14 01 30.1 | -1.5 |
| | 2μm,0.6s | | | | | | |
| BULG | Bulgheria - Ca | 0.49 | 291 | Pg | Pb | 14 01 30.1 | -1.5 |
| | 2μm,0.6s | | | | | | |
| SLCN | Sala Consilina | 0.55 | 332 | Pg | Pg | 14 01 31.0 | -0.3 |
| | 3μm,0.7s | | | | | | |
| SLCN | Sala Consilina | 0.55 | 332 | Pg | Pg | 14 01 31.0 | -0.3 |
| | 3μm,0.7s | | | | | | |
| CMPR | Campora | 0.66 | 309 | Pg | Pg | 14 01 32.7 | -0.6 |
| | 3μm,0.9s | | | | | | |
| CMPR | Campora | 0.66 | 309 | Pg | Pg | 14 01 32.7 | -0.6 |
| | 3μm,0.9s | | | | | | |
| CDRU | Civita di Ruta | 0.77 | 319 | Pg | Pg | 14 01 34.4 | -1.2 |
| | 606nm,0.7s | | | | | | |
| CDRU | Civita di Ruta | 0.77 | 319 | Pg | Pg | 14 01 34.4 | -1.2 |
| | 606nm,0.7s | | | | | | |
| PIPA | Pietrapaola | 0.78 | 123 | Pg | Pb | 14 01 35.8 | -0.7 |
| PIPA | Pietrapaola | 0.78 | 123 | Pg | Pb | 14 01 35.8 | -0.7 |
| MIGL | Miglionico | 0.78 | 27 | Pg | Pg | 14 01 34.5 | -1.3 |
| | 4μm,0.9s | | | | | | |
| MIGL | Miglionico | 0.78 | 27 | Pg | Pg | 14 01 34.5 | -1.3 |
| | 4μm,0.9s | | | | | | |
| ACER | Acerenza | 0.88 | 359 | Pg | Pg | 14 01 36.4 | -1.2 |
| | 2μm,1.0s | | | | | | |
| ACER | Acerenza | 0.88 | 359 | Pg | Pg | 14 01 36.4 | -1.2 |
| | 2μm,1.0s | | | | | | |
| MRLC | Muro Lucano | 0.92 | 337 | Pg | Pg | 14 01 37.8 | -0.6 |
| | 1μm,1.1s | | | | | | |
| MRLC | Muro Lucano | 0.92 | 337 | Pg | Pg | 14 01 37.8 | -0.6 |
| | 1μm,1.1s | | | | | | |
| MATE | Matera | 0.93 | 37 | Pg | Pg | 14 01 37.5 | -1.0 |
| | 1μm,0.9s | | | | | | |
| MATE | Matera | 0.93 | 37 | Pg | Pg | 14 01 37.5 | -1.0 |
| | 1μm,0.9s | | | | | | |
| SERS | Sersale | 1.03 | 147 | Pg | Pn | 14 01 40.7 | -0.9 |
| | 509nm,0.7s | | | | | | |
| SERS | Sersale | 1.03 | 147 | Pg | Pn | 14 01 40.7 | -0.9 |
| | 509nm,0.7s | | | | | | |
| SG1 | Sgolgore (BA) | 1.08 | 30 | ePn | Pg | 14 01 40.5 | -0.9 |
| AMUR | Altamura | 1.11 | 26 | Pg | Pg | 14 01 41.0 | -1.0 |
| | 1μm,1.0s | | | | | | |
| AMUR | Altamura | 1.11 | 26 | Pg | Pg | 14 01 41.0 | -1.0 |
| | 1μm,1.0s | | | | | | |
| MASS | Massafra | 1.15 | 51 | ePn | Pb | 14 01 42.5 | -0.4 |
| TAR1 | Taranto | 1.18 | 58 | ePn | Pn | 14 01 43.7 | +0.2 |
| CDT | Castel del Mon | 1.20 | 11 | ePn | Pb | 14 01 43.2 | -0.5 |
| NOCI | Noci | 1.21 | 43 | Pg | Pg | 14 01 42.9 | -1.1 |
| | 692nm,0.7s | | | | | | |
| NOCI | Noci | 1.21 | 43 | Pg | Pg | 14 01 42.9 | -1.1 |
| | 692nm,0.7s | | | | | | |
| JOPP | Joppolo | 1.30 | 183 | Pg | Pn | 14 01 44.4 | -0.8 |
| | 396nm,0.7s | | | | | | |
| JOPP | Joppolo | 1.30 | 183 | Pg | Pn | 14 01 44.4 | -0.8 |
| | 396nm,0.7s | | | | | | |
| CGL1 | Ceglie Messapi | 1.37 | 57 | ePn | Pg | 14 01 46.6 | -0.4 |
| BAI | Bari | 1.38 | 30 | ePn | Pg | 14 01 46.9 | -0.3 |
| FASA | Fasano | 1.39 | 49 | ePn | Pn | 14 01 45.6 | -0.9 |
| PLAC | Placanica | 1.50 | 166 | Pg | Pb | 14 01 47.8 | -1.1 |
| | 548nm,0.9s | | | | | | |
| PLAC | Placanica | 1.50 | 166 | Pg | Pb | 14 01 47.8 | -1.1 |
| | 548nm,0.9s | | | | | | |
| MSCL | Scilla | 1.68 | 185 | Pg | Pn | 14 01 50.0 | -0.5 |
| | 700nm,0.7s | | | | | | |
| MSCL | Scilla | 1.68 | 185 | Pg | Pn | 14 01 50.0 | -0.5 |
| | 700nm,0.7s | | | | | | |
| MSRU | Castanea | 1.68 | 192 | Pg | Pn | 14 01 50.0 | -0.5 |
| | 382nm,0.5s | | | | | | |
| MSRU | Castanea | 1.68 | 192 | Pg | Pn | 14 01 50.0 | -0.5 |
| | 382nm,0.5s | | | | | | |
| MS1 | Monte Sant'Ang | 1.79 | 359 | ePn | Pg | 14 01 54.8 | -0.3 |
| SOI | Samo | 1.83 | 178 | Pg | Pn | 14 01 52.6 | 0.0 |
| | 186nm,0.8s | | | | | | |
| SOI | Samo | 1.83 | 178 | Pg | Pn | 14 01 52.6 | 0.0 |
| | 186nm,0.8s | | | | | | |
| MPAZ | Palizzi | 1.95 | 179 | Pg | Pn | 14 01 54.2 | 0.0 |
| | 157nm,0.6s | | | | | | |
| MPAZ | Palizzi | 1.95 | 179 | Pg | Pn | 14 01 54.2 | 0.0 |
| | 157nm,0.6s | | | | | | |
| STON | Ston | 3.23 | 23 | ePn | Pn | 14 02 12.6 | +0.8 |
| STON | | | | Sn | Sn | 14 02 49.9 | -0.6 |
| STON | Ston | 3.23 | 23 | ePn | Pn | 14 02 12.5 | +0.8 |
| STON | | | | Sn | Sn | 14 02 49.8 | -0.6 |
| PDG | Podgorica | 3.54 | 43 | ⇓iP | Pn | 14 02 16.4 | +0.5 |
| DSL | Palaion Diasel | 4.04 | 99 | P | Pn | 14 02 26.7 | +3.8 |
| KPRO | Kipourio | 4.15 | 88 | P | Pn | 14 02 27.6 | +3.2 |
| FNA | Florina | 4.22 | 76 | P | Pn | 14 02 27.3 | +1.9 |
| FNA | Florina | 4.22 | 76 | P | Pn | 14 02 27.3 | +1.9 |
| BIA | Bitola | 4.23 | 73 | i Pn | Pn | 14 02 27.2 | +1.6 |
| PDO | Prodromos | 4.25 | 106 | P | Pn | 14 02 28.6 | +2.8 |
| PDO | Prodromos | 4.25 | 106 | P | Pn | 14 02 28.6 | +2.8 |
| KRUS | Krusevo | 4.27 | 68 | i Pn | Pn | 14 02 26.8 | +0.6 |
| THL | Klokotos Trika | 4.67 | 92 | P | Pn | 14 02 34.5 | +3.0 |
| THL | Klokotos Trika | 4.67 | 92 | P | Pn | 14 02 34.5 | +3.0 |
| NVLJ | Novalja | 4.72 | 350 | i Pn | Pn | 14 02 32.4 | +0.1 |
| NVLJ | | | | Sn | Sn | 14 03 28.3 | +1.1 |
| NVLJ | Novalja | 4.72 | 350 | i Pn | Pn | 14 02 32.3 | +0.1 |
| NVLJ | | | | Sn | Sn | 14 03 28.2 | +1.1 |
| ANX | Ano Chora | 4.80 | 104 | P | Pn | 14 02 35.7 | +2.3 |
| ANX | Ano Chora | 4.80 | 104 | P | Pn | 14 02 35.7 | +2.3 |
| IVAS | Ivanjica | 4.82 | 39 | ⇑iPn | Pn | 14 02 36.1 | +2.5 |
| SERG | Sergoula | 4.96 | 106 | P | Pn | 14 02 39.1 | +3.5 |
| LAKA | Lakka | 4.96 | 108 | P | Pn | 14 02 38.8 | +3.2 |
| AGG | Agios Georgios | 5.00 | 98 | P | Pn | 14 02 39.4 | +3.3 |
| LIT | Litokhoron | 5.01 | 86 | P | Pn | 14 02 38.2 | +2.0 |
| LIT | Litokhoron | 5.01 | 86 | P | Pn | 14 02 38.2 | +2.0 |
| KALE | Kalithea | 5.03 | 106 | P | Pn | 14 02 40.0 | +3.5 |
| SELS | Selova | 5.08 | 48 | ⇑iPn | Pn | 14 02 37.1 | -0.2 |
| DIVS | Divibare | 5.15 | 34 | ⇓iPn | Pn | 14 02 38.8 | +0.6 |
| KLV | Kalavryta, Ach | 5.16 | 109 | P | Pn | 14 02 41.7 | +3.3 |
| BARS | Barje | 5.27 | 55 | ePn | Pn | 14 02 39.9 | +0.1 |
| GRUS | Gruza | 5.32 | 40 | ePn | Pn | 14 02 41.4 | +0.9 |
| TEKS | Tekeris | 5.34 | 28 | ⇑iPn | Pn | 14 02 42.9 | +2.2 |
| KNT | Kendrikon | 5.42 | 74 | P | Pn | 14 02 42.0 | +0.1 |
| XOR | Xorichti | 5.60 | 93 | P | Pn | 14 02 46.6 | +2.2 |
| PLG | Polygyros | 5.75 | 83 | P | Pn | 14 02 48.6 | +2.2 |
| LTK | Loutraki | 5.77 | 107 | P | Pn | 14 02 48.4 | +1.8 |
| PAIG | Paliouri | 5.93 | 87 | P | Pn | 14 02 50.3 | +1.5 |
| VILL | Villia | 5.97 | 105 | P | Pn | 14 02 51.5 | +2.0 |
| VTS | Vitosha | 6.08 | 61 | ⇑iP | Pn | 14 02 52.5 | +1.5 |
| VTS | Vitosha | 6.08 | 61 | P | Pn | 14 02 52.7 | +1.7 |
| VLI | Veliai | 6.33 | 118 | P | Pn | 14 02 57.1 | +2.7 |
| VLY | Voula,Athens | 6.44 | 106 | P | Pn | 14 02 57.6 | +1.8 |
| MDVR | Moldovita | 6.46 | 39 | ⇑iP | Pn | 14 02 56.8 | +0.6 |
| BZS | Buzias | 7.06 | 34 | ⇑iP | Pn | 14 03 05.5 | +1.2 |
| SIRR | Siria | 7.60 | 31 | ⇑iP | Pn | 14 03 12.7 | +1.0 |
| LOT | Lotru | 7.98 | 44 | ⇑iP | Pn | 14 03 17.8 | +0.8 |
| ARR | Arges | 8.40 | 47 | ⇑iP | Pn | 14 03 23.6 | +0.9 |
| VOIR | | 8.67 | 47 | ⇑iP | Pn | 14 03 26.9 | +0.4 |
| BURAR | Bucovina Array | 10.20 | 38 | ⇑iP | Pn | 14 03 48.4 | +1.0 |

*MOS **01** 14:09:31.4±2.3, 48.°28N×156.°22E, h9km, mb4.2/1, Error ellipse: s-maj=99.0km s-min=7.1km az=79.7*
**KRSC 01 14:09:31.5**±1.5**, 48.°28N×156.°22E, h9**km±28km**, ML4.0, East of Kuril Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SKR | Severo-Kuril's | 2.41 | 358 | PN | Pn | 14 10 10.9 | -0.1 |
| SKR | | | | S | Sn | 14 10 40.8 | +0.3 |
| SKR | Severo-Kuril's | 2.41 | 358 | eP | Pn | 14 10 10.9 | -0.1 |
| SKR | | | | eS | Sn | 14 10 40.8 | +0.3 |
| KDTR | Khodutka, Kamc | 3.73 | 18 | eP | Pn | 14 10 32.7 | +3.6 |
| KDTR | | | | eS | Sn | 14 11 17.6 | +4.5 |
| ASAK | Asacha | 4.25 | 14 | PN | Pn | 14 10 40.6 | +4.3 |
| ASAK | Asacha | 4.25 | 14 | eP | Pn | 14 10 40.6 | +4.3 |
| MTVR | Mutnovka | 4.39 | 16 | PN | Pn | 14 10 42.2 | +3.8 |
| MTVR | | | | S | Sn | 14 11 35.0 | +5.3 |
| MTVR | Mutnovka | 4.39 | 16 | eP | Pn | 14 10 42.2 | +3.8 |
| MTVR | | | | eS | Sn | 14 11 35.0 | +5.3 |
| RUS | Russkaya | 4.41 | 19 | PN | Pn | 14 10 41.6 | +3.1 |
| RUS | | | | S | Sn | 14 11 34.2 | +4.3 |
| RUS | Russkaya | 4.41 | 19 | eP | Pn | 14 10 41.6 | +3.1 |
| RUS | | | | eS | Sn | 14 11 34.2 | +4.3 |
| KRMR | Karymshinskiy | 4.71 | 14 | PN | Pn | 14 10 46.8 | +4.1 |
| KRMR | | | | S | Sn | 14 11 43.1 | +5.7 |
| KRMR | Karymshinskiy | 4.71 | 14 | eP | Pn | 14 10 46.8 | +4.1 |
| KRMR | | | | eS | Sn | 14 11 43.1 | +5.7 |
| PET | Petropavlovsk | 5.00 | 17 | PN | Pn | 14 10 50.6 | +4.1 |
| PET | Petropavlovsk | 5.00 | 17 | eP | Pn | 14 10 50.6 | +4.1 |
| DALK | Dalny | 5.02 | 18 | PN | Pn | 14 10 50.6 | +3.7 |
| DALK | | | | S | Sn | 14 11 50.1 | +5.1 |
| DALK | Dalny | 5.02 | 18 | eP | Pn | 14 10 50.6 | +3.7 |
| DALK | | | | eS | Sn | 14 11 50.1 | +5.1 |
| UGLR | Uglovaya | 5.20 | 18 | PN | Pn | 14 10 54.0 | +4.5 |
| UGLR | Uglovaya | 5.20 | 18 | eP | Pn | 14 10 54.0 | +4.5 |
| AVH | Avacha | 5.24 | 17 | PN | Pn | 14 10 55.4 | +5.4 |
| AVH | Avacha | 5.24 | 17 | eP | Pn | 14 10 55.4 | +5.4 |
| SDLR | Sedlovina | 5.28 | 18 | PN | Pn | 14 10 54.9 | +4.3 |
| SDLR | Sedlovina | 5.28 | 18 | eP | Pn | 14 10 54.9 | +4.3 |
| KRX | Arik | 5.31 | 16 | PN | Pn | 14 10 55.8 | +4.8 |
| KRX | Arik | 5.31 | 16 | eP | Pn | 14 10 55.8 | +4.8 |
| SPN | Mys Shipunski | 5.39 | 25 | PN | Pn | 14 10 55.9 | +3.9 |
| SPN | | | | S | Sn | 14 12 00.1 | +5.9 |
| SPN | Mys Shipunski | 5.39 | 25 | eP | Pn | 14 10 55.9 | +3.9 |
| SPN | | | | eS | Sn | 14 12 00.1 | +5.9 |
| GNL | Ganaly | 5.53 | 11 | PN | Pn | 14 10 58.1 | +4.1 |
| GNL | Ganaly | 5.53 | 11 | eP | Pn | 14 10 58.1 | +4.1 |

**MAN 01 14:14:10, 17.°75N×119.°91E, h12km, mb4.0, ML2.8, MS3.2, Philippine Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ABRA | Dolores | 0.77 | 97 | eP | Pg | 14 14 24.9 | 0.0 |
| ABRA | | | | eS | Sg | 14 14 34.7 | -0.4 |
| APYP | Conner | 1.27 | 85 | eP | Pn | 14 14 33.0 | -0.6 |
| APYP | | | | eS | Sg | 14 14 51.0 | -0.2 |
| BOLP | Bolinao | 1.36 | 180 | eP | Pn | 14 14 33.8 | -1.0 |
| CAUP | Cauayan | 2.00 | 113 | eP | Pb | 14 14 46.5 | +0.2 |
| BALP | Baler | 2.56 | 141 | eP | Pn | 14 14 52.5 | +1.3 |

*KRNET **01** 14:21:21.8±0.1, 39.°01N×70.°51E, mb2.8*
*NNC **01** 14:21:24.5±2.7, 38.°54N×71.°18E, h22km±15km, mb3.5, mpv3.1, Error ellipse: s-maj=26.4km s-min=17.8km az=147.0*
**ISC 01 14:21:23.0**±3.1**, 39.°1N**±0.°1×**70.°5E**±0.°1**, h10**km**, n12, σ2.s55**/22**, 19C-6D, Tajikistan**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BTK | Batken | 1.03 | 15 | ⇑iP | Pg | 14 21 41.6 | -1.3 |
| | baz=13 | | | | | | |
| BTK | | | | ⇑iS | Sn | 14 21 57.5 | -0.8 |
| | baz=13 | | | | | | |
| SFK | Sufi-Kurgan | 2.52 | 67 | ⇑iP | Pb | 14 22 06.4 | -2.2 |
| | baz=66 | | | | | | |
| SFK | | | | ⇑iS | Sb | 14 22 38.4 | -1.4 |
| | baz=66 | | | | | | |
| SFK | Sufi-Kurgan | 2.52 | 67 | ⇓Pg | Pb | 14 22 07.0 | -1.6 |
| | 6.0nm,0.5s | | | | | | |
| SFK | | | | ⇓Lg | Lg | 14 22 40.1 | |
| | 12nm,0.4s | | | | | | |
| ARK | Arkit | 2.96 | 22 | ⇑eP | Pb | 14 22 14.2 | -1.8 |
| | baz=22 | | | | | | |
| ARK | | | | ⇑iS | Sb | 14 22 51.9 | -0.4 |
| | baz=22 | | | | | | |
| ARSB | Arslanbob | 2.97 | 39 | ⇑eP | Pb | 14 22 14.2 | -1.8 |
| | baz=38 | | | | | | |
| ARSB | | | | ⇑eS | Sb | 14 22 51.2 | -1.2 |
| | baz=38 | | | | | | |
| MNAS | Manas | 3.75 | 24 | ⇑iP | Pn | 14 22 23.8 | +2.7 |
| | baz=23 | | | | | | |
| MNAS | | | | ⇑iS | Sn | 14 23 09.0 | +3.5 |
| | baz=23 | | | | | | |
| MNAS | Manas | 3.75 | 24 | ⇑Pn | Pb | 14 22 24.8 | -4.7 |
| | 1.8nm,0.5s | | | | | | |
| MNAS | | | | ⇓Sn | Sb | 14 23 13.1 | -2.0 |
| | 4.3nm,0.5s | | | | | | |
| AML | Almayashu | 3.93 | 38 | ⇑iP | Pn | 14 22 25.5 | +1.8 |
| | baz=37 | | | | | | |
| AML | | | | ⇑iS | Sn | 14 23 13.3 | +3.3 |
| | baz=37 | | | | | | |
| KK31 | Karatay Array | 4.04 | 0 | ⇓Pn | Pb | 14 22 31.2 | -3.1 |
| | 0.4nm,0.3s,baz=0.0,slow=0.1,SNR=7.7 | | | | | | |
| KK31 | | | | ⇑Sn | Sb | 14 23 26.8 | +3.6 |
| | 2.9nm,0.6s,baz=168,slow=28,SNR=6.8 | | | | | | |
| UCH | Uchtor | 4.41 | 43 | ⇑iP | Pn | 14 22 31.7 | +1.3 |
| | baz=42 | | | | | | |
| UCH | | | | ⇑iS | Sn | 14 23 24.7 | +2.7 |
| | baz=42 | | | | | | |
| AAK | Ala-Archa | 4.70 | 39 | ⇑Pn | Pn | 14 22 36.5 | +2.4 |
| | 1.9nm,0.5s | | | | | | |
| AAK | | | | ⇑Sn | Sn | 14 23 30.6 | +1.9 |
| | 4.9nm,1.2s | | | | | | |
| AAK | | | | ⇓Lg | Lg | 14 23 56.7 | |
| | 2.1nm,0.6s | | | | | | |
| TKM2 | Tokmak 2 | 5.47 | 43 | ⇓Pn | Pn | 14 22 46.8 | +2.1 |
| | 3.2nm,0.8s | | | | | | |
| TKM2 | | | | ⇑Lg | Lg | 14 24 18.2 | |
| | 0.9nm,0.6s | | | | | | |

**IDC 01 14:31:58.1**±3.0**, 14.°83N×119.°21E, h64**km±32km**, mb3.5**/3**, mb1 3.7**/4**, mb1mx3.3**/47**, mbtmp3.7**/4**, ML3.9**/1**, Error ellipse: s-maj=45.8km s-min=20.1km az=51.0, Luzon**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TGY | Tagaytay City | 1.82 | 113 | P | Pn | 14 32 27.1 | -0.1 |
| | 71nm,0.3s,baz=295,slow=3.5,SNR=5.5 | | | | | | |
| CMAR | Chiang Mai Arr | 19.75 | 283 | P | P | 14 36 22.7 | -0.3 |
| | 0.1nm,0.3s,baz=98,slow=7.5,SNR=13 | | | | | | |
| SONM | Songino Array | 34.58 | 345 | P | P | 14 38 40.9 | +0.1 |
| | 0.4nm,0.6s,baz=163,slow=9.7,SNR=3.6 | | | | | | |
| WRA | Warramunga Arr | 37.62 | 156 | P | P | 14 39 06.6 | -0.4 |
| | 1.9nm,0.6s,baz=338,slow=9.4,SNR=24 | | | | | | |
| ASAR | Alice Springs | 40.87 | 159 | P | P | 14 39 34.5 | +0.5 |
| | 0.9nm,0.4s,baz=336,slow=7.2,SNR=44 | | | | | | |
| ASAR | | | | PcP | PcP | 14 41 33.2 | -0.6 |
| | 0.3nm,0.8s,baz=344,slow=3.0,SNR=2.8 | | | | | | |

*NEIC **01** 14:34:03.9±1.7, 19.°40S×175.°04W, h110km±15km, mb4.1/1, Error ellipse: s-maj=26.7km s-min=12.6km az=129.0*
*IDC **01** 14:34:03.6±3.1, 19.°37S×175.°08W, h102km±27km, mb4.0/11, mb1 4.1/12, mb1mx3.9/36, mbtmp4.3/12, Error ellipse: s-maj=34.5km s-min=16.7km az=131.0*
*ISCJB **01** 14:34:04.7±1.0, 19.°5S±0.°1×174.°9W±0.°2, h137km, mb4.0/11, Error ellipse: s-maj=28.2km s-min=12.2km az=39.7*
**ISC 01 14:34:06.3**±1.0**, 19.°3S**±0.°2×**174.°8W**±0.°2**, h137**km**, n22, σ1.s84**/25**, mb4.0**/11**, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AFI | Afiamalu | 6.05 | 29 | P | Pn | 14 35 34.3 | +0.5 |
| | 1.8nm,0.3s,baz=208,slow=4.0,SNR=9.1 | | | | | | |
| AFI | | | | S | Sn | 14 36 37.7 | -4.3 |
| | 7.1nm,0.3s,baz=271,slow=19,SNR=6.1 | | | | | | |
| DZM | Mont Dzumac | 17.77 | 258 | P | Pn | 14 38 06.4 | +1.1 |
| | 1.1nm,0.3s,baz=79,slow=19,SNR=15 | | | | | | |
| URZ | Urewera | 20.20 | 199 | P | P | 14 38 28.0 | -2.3 |
| | 7.6nm,0.7s,baz=346,slow=3.3,SNR=11 | | | | | | |
| PMG | Port Moresby | 38.05 | 279 | P | P | 14 41 10.5 | -1.3 |
| | 9.8nm,0.9s,baz=164,slow=10,SNR=3.6 | | | | | | |
| STKA | Stephens Creek | 41.03 | 243 | P | P | 14 41 35.6 | -0.7 |
| | 1.8nm,0.9s,baz=90,slow=9.1,SNR=3.1 | | | | | | |
| ASAR | Alice Springs | 47.73 | 255 | P | P | 14 42 27.9 | -1.8 |
| | 15nm,0.6s,baz=90,slow=8.4,SNR=156 | | | | | | |
| ASAR | | | | PcP | PcP | 14 43 57.3 | +0.4 |
| | 1.2nm,0.5s,baz=105,slow=4.0,SNR=8.8 | | | | | | |
| WRAB | Tennant Creek | 47.75 | 260 | eP | P | 14 42 27.0 | -2.9 |
| | 1.7nm,0.5s | | | | | | |
| WRA | Warramunga Arr | 47.76 | 260 | P | P | 14 42 27.6 | -2.4 |
| | 4.9nm,0.4s,baz=97,slow=8.4,SNR=176 | | | | | | |
| WRA | | | | PcP | PcP | 14 43 57.2 | +0.2 |
| | 0.8nm,0.6s,baz=95,slow=3.2,SNR=4.6 | | | | | | |
| FITZ | Fitzroy Crossi | 56.18 | 261 | P | P | 14 43 31.4 | -0.9 |
| | 1.7nm,0.5s,baz=90,slow=6.1,SNR=8.8 | | | | | | |
| MJAR | Matsushiro Arr | 71.05 | 321 | P | P | 14 45 09.2 | -0.3 |
| | 1.2nm,0.7s,baz=141,slow=6.0,SNR=3.7 | | | | | | |
| KSRS | Korea Array | 77.99 | 317 | P | P | 14 45 51.8 | +2.2 |
| | 2.4nm,1.0s,baz=120,slow=5.2,SNR=5.5 | | | | | | |
| KSAR | Wonju Array Be | 78.01 | 317 | P | P | 14 45 51.8 | +2.1 |
| ILAR | Eielson Array | 86.47 | 12 | P | P | 14 46 34.0 | +0.9 |
| | 0.9nm,1.0s,baz=223,slow=6.3,SNR=5.0 | | | | | | |
| INK | Inuvik | 92.31 | 14 | P | P | 14 47 02.9 | +2.5 |
| | 0.5nm,0.6s,baz=243,slow=2.3,SNR=2.8 | | | | | | |
| CMAR | Chiang Mai Arr | 92.55 | 289 | P | P | 14 47 04.2 | +1.5 |
| | 0.7nm,0.3s,baz=113,slow=2.3,SNR=5.0 | | | | | | |
| MKAR | Makanchi Array | 112.52 | 314 | PKiKP | PKiKP | 14 52 26.5 | +0.2 |
| | 0.3nm,0.5s,baz=260,slow=1.1,SNR=5.1 | | | | | | |
| BVAR | Borovoye Array | 120.04 | 321 | PKP | PKPdf | 14 52 41.2 | +0.6 |
| | 0.5nm,0.3s,baz=114,slow=1.7,SNR=6.6 | | | | | | |
| AKASG | Malin Array Be | 143.29 | 334 | PKP | PKPdf | 14 53 23.0 | -1.2 |
| | 0.4nm,0.5s,baz=45,slow=3.1,SNR=3.3 | | | | | | |
| CLL | Collm | 147.42 | 351 | ePKPbc | PKPab | 14 53 36.0 | -0.2 |
| BRTR | Keskin Array B | 148.13 | 316 | PKPbc | PKPbc | 14 53 37.4 | +0.9 |
| | 1.2nm,0.7s,baz=127,slow=2.8,SNR=6.9 | | | | | | |
| GERES | GERESS Array B | 149.69 | 349 | PKPbc | PKPbc | 14 53 41.9 | +1.9 |

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| | 0.2nm,0.2s,baz=33,slow=2.3,SNR=6.5 | | | | | | |
| MMAI | Mount Meron Ar | 149.74 | 303 | PKPbc | PKPbc | 14 53 42.3 | +1.8 |
| | 0.7nm,0.3s,baz=88,slow=4.8,SNR=3.7 | | | | | | |

*NIED **01** 14:35:00, 38°.10N×143°.80E, h17km, Mw3.8 Best double couple: M₀4.82000×10¹⁴ NP1:φs341.00000°, δ74.00000°, λ167.00000°. NP2:φs75.00000°, δ78.00000°, λ16.00000°.*
*IDC **01** 14:35:39.1±1.0, 37°.94N×144°.00E, h0km, mb3.6/6, mb1 3.8/9, mb1mx3.6/54, mbtmp3.6/9, ML3.7/2, Error ellipse: s-maj=22.9km s-min=19.5km az=100.0*
*ISCJB **01** 14:35:42.2±0.6, 38°.06N±0°.04×143°.83E±0°.05, h33km, mb3.8/7, Error ellipse: s-maj=6.2km s-min=5.3km az=33.7*
*JMA **01** 14:35:42.7±0.2, 38°.09N×143°.78E, h40km, M4.0*
**ISC 01 14:35:44.2**±0.9, **38°.09N**±0°.05×**143°.86E**±0°.07, **h35km, n26,** σ1§**86**/42, **mb3.6**/7, **Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| OFUJ | Ofunato | 1.98 | 301 | P | Pn | 14 36 14.2 | -1.0 |
| OFUJ | | | | eS | Sn | 14 36 38.1 | -0.7 |
| JIO | Ouri | 2.01 | 281 | P | Pn | 14 36 14.4 | -1.2 |
| JIO | | | | S | Sn | 14 36 37.2 | -2.2 |
| MIYJ | Miyakonagasawa | 2.18 | 314 | P | Pn | 14 36 16.6 | -1.3 |
| MIYJ | | | | eS | Sn | 14 36 42.3 | -1.4 |
| JMK | Ichinoseki | 2.24 | 293 | P | Pn | 14 36 17.9 | -0.9 |
| JMK | | | | S | Sn | 14 36 45.0 | -0.2 |
| JOM | Ohasama | 2.43 | 305 | P | Pn | 14 36 21.0 | -0.5 |
| JOM | | | | eS | Sn | 14 36 49.5 | -0.5 |
| JFT | Otama | 2.84 | 260 | P | Pn | 14 36 26.9 | -0.2 |
| JFT | | | | S | Sn | 14 36 58.8 | -1.4 |
| JYK | Kaneyama | 2.87 | 288 | P | Pn | 14 36 27.2 | -0.2 |
| JANG | Nango | 2.92 | 322 | P | Pn | 14 36 27.6 | -0.5 |
| JANG | | | | eS | Sn | 14 37 00.0 | -2.0 |
| JAG | Ashikaga | 3.88 | 246 | P | Pn | 14 36 41.4 | 0.0 |
| JAG | | | | S | Sn | 14 37 23.0 | -2.8 |
| JOT | Ohata | 3.94 | 328 | P | Pn | 14 36 42.7 | +0.6 |
| JOT | | | | eS | Sn | 14 37 24.0 | -3.1 |
| JKB | Kayabe | 4.37 | 331 | P | Pn | 14 36 48.7 | +0.6 |
| JKB | | | | eS | Sn | 14 37 34.5 | -3.2 |
| JRY | Ryogami san | 4.47 | 244 | P | Pn | 14 36 48.4 | -1.1 |
| JRY | | | | S | Sn | 14 37 35.8 | -4.5 |
| JCH | Churui | 4.54 | 355 | P | Pn | 14 36 49.1 | -1.3 |
| JCH | | | | S | Sn | 14 37 37.8 | -4.1 |
| JOD2 | Odawara 2 | 4.76 | 235 | P | Pn | 14 36 51.8 | -1.6 |
| JOD2 | | | | eS | Sn | 14 37 42.8 | -4.5 |
| MJAR | Matsushiro Arr | 4.76 | 253 | Pn | Pn | 14 36 54.1 | +0.6 |
| | 2.2nm,0.3s,baz=87,slow=15,SNR=16 | | | | | | |
| MJAR | | | | Sn | Sn | 14 37 47.8 | +0.5 |
| | 1.7nm,0.3s,baz=75,slow=14,SNR=4.1 | | | | | | |
| MAT | Matsushiro | 4.76 | 253 | P | Pn | 14 36 54.3 | +0.8 |
| MAT | | | | S | Sn | 14 37 47.4 | 0.0 |
| JOSM | Okushiri--Mats | 5.21 | 321 | P | Pn | 14 36 59.9 | +0.2 |
| ASAJ | Asahikawa | 6.10 | 351 | Pn | Pn | 14 37 11.5 | -0.3 |
| | 1.9nm,0.3s,baz=187,slow=11,SNR=26 | | | | | | |
| ASAJ | | | | Sn | Sn | 14 38 17.4 | -2.9 |
| | 2.5nm,0.3s,baz=192,slow=20,SNR=4.3 | | | | | | |
| USRK | Ussuriysk Ar. | 10.83 | 308 | Pn | Pn | 14 38 19.2 | +2.5 |
| | 0.2nm,0.3s,baz=108,slow=14,SNR=3.3 | | | | | | |
| SONM | Songino Array | 28.84 | 302 | P | P | 14 41 41.2 | +1.9 |
| | 0.4nm,0.7s,baz=131,slow=4.4,SNR=3.5 | | | | | | |
| MKAR | Makanchi Array | 45.21 | 302 | P | P | 14 43 59.1 | +1.4 |
| | 0.6nm,0.7s,baz=87,slow=9.8,SNR=3.4 | | | | | | |
| KURBB | Kurchatov Arra | 46.89 | 308 | P | P | 14 44 11.5 | +0.6 |
| | 3.0nm,0.2s,baz=77,slow=7.7,SNR=3.4 | | | | | | |
| ILAR | Eielson Array | 47.56 | 33 | P | P | 14 44 16.5 | +0.6 |
| | 0.3nm,0.7s,baz=262,slow=6.2,SNR=4.3 | | | | | | |
| WRA | Warramunga Arr | 58.41 | 191 | P | P | 14 45 35.5 | -0.8 |
| | 1.8nm,0.7s,baz=11,slow=7.2,SNR=13 | | | | | | |
| YKA | Yellowknife Ar | 61.91 | 31 | P | P | 14 46 00.9 | +1.0 |
| | 0.6nm,0.9s,baz=282,slow=12,SNR=3.2 | | | | | | |
| ASAR | Alice Springs | 62.13 | 190 | P | P | 14 46 01.1 | -0.7 |
| | 0.4nm,0.7s,baz=6.4,slow=6.6,SNR=4.5 | | | | | | |

**IDC 01 14:35:47.3**±2.2, **38°.59N**×**144°.14E, h0km, mb4.1**/5, **mb1 4.2**/6, **mb1mx3.7**/53, **mbtmp4.1**/6, **ML3.8**/1, **MS2.8**/1, **Ms1 2.8**/1, **ms1mx2.2**/39, **Error ellipse: s-maj=65.2km s-min=23.1km az=66.0, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MJAR | Matsushiro Arr | 5.13 | 248 | Pn | Pn | 14 37 05.7 | +0.3 |
| | 3.4nm,0.3s,baz=86,slow=16,SNR=14 | | | | | | |
| MA2 | Magadan | 21.43 | 9 | LR | LR | 14 49 36.3 | |
| | comp=Z,25nm,18.2s,baz=110,slow=39 | | | | | | |
| ZALV | Zalesovo Beam | 42.49 | 311 | P | P | 14 43 44.6 | +0.6 |
| | 1.3nm,0.5s,baz=83,slow=7.2,SNR=4.9 | | | | | | |
| MKAR | Makanchi Array | 45.14 | 301 | P | P | 14 44 04.7 | -0.8 |
| | 1.2nm,0.6s,baz=88,slow=9.7,SNR=8.2 | | | | | | |
| KURBB | Kurchatov Arra | 46.77 | 307 | P | P | 14 44 17.9 | -0.2 |
| | 2.1nm,0.5s,baz=82,slow=8.5,SNR=7.9 | | | | | | |
| WRA | Warramunga Arr | 58.94 | 191 | P | P | 14 45 48.0 | -0.4 |
| | 2.9nm,0.7s,baz=12,slow=7.3,SNR=14 | | | | | | |
| ASAR | Alice Springs | 62.66 | 191 | P | P | 14 46 14.1 | +0.3 |
| | 0.6nm,0.7s,baz=11,slow=6.8,SNR=6.3 | | | | | | |

*IDC **01** 14:47:20.4±1.9, 36°.14N×57°.75E, h0km, mb3.6/2, mb1 3.5/6, mb1mx3.3/44, mbtmp3.4/6, ML3.3/4, Error ellipse: s-maj=22.8km s-min=15.9km az=167.0*
*TEH **01** 14:47:20.1, 36°.18N×57°.77E, h12km, ML3.4*
*ISCJB **01** 14:47:21.0±0.6, 36°.25N±0°.06×57°.94E±0°.05, h10km, mb3.8/1, Error ellipse: s-maj=8.1km s-min=5.6km az=0.3*
*CSEM **01** 14:47:22.0±0.3, 36°.28N×58°.01E, h10km, ML3.4, Error ellipse: s-maj=9.2km s-min=8.2km az=15.0*
**ISC 01 14:47:21.0**±0.8, **36°.20N**±0°.04×**57°.84E**±0°.04, **h10km, n23,** σ1§**03**/22, **Northern and central Iran**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| IKRD | Kardeh | 0.79 | 43 | ePg | Pn | 14 47 48.0 | +10 |
| IKRD | | | | eSg | Sn | 14 48 08.2 | +18 |
| IKRD | | | | eAMB | AMB | 14 48 12.5 | |
| | comp=Z,7μm,0.2s | | | | | | |
| IAKL | Akhelmad | 0.84 | 61 | eAMB | AMB | 14 47 49.5 | |
| | comp=Z,26μm,0.2s | | | | | | |
| ISFR | Sfrayin | 0.86 | 8 | ePg | Pg | 14 47 36.7 | -0.9 |
| ISFR | | | | eAMB | AMB | 14 47 52.5 | |
| | comp=Z,30μm,0.2s | | | | | | |
| IPAY | Payeh | 0.96 | 75 | ePg | Pg | 14 47 38.6 | -1.0 |
| IPAY | | | | eSg | Sg | 14 47 52.2 | 0.0 |
| IPAY | | | | eAMB | AMB | 14 47 53.4 | |
| | comp=Z,21μm,0.1s | | | | | | |
| IPAY | Payeh | 0.96 | 75 | ePg | Pg | 14 47 38.6 | -1.0 |
| ISRO | Mashad | 1.32 | 85 | ePg | Pn | 14 47 45.1 | -0.5 |
| ISRO | Mashad | 1.32 | 85 | ePg | Pn | 14 47 45.1 | -0.5 |
| IEMG | Emamgholi | 1.38 | 28 | ePg | Pn | 14 47 45.4 | -1.1 |
| IEMG | | | | eAMB | AMB | 14 48 09.3 | |
| | comp=Z,4μm,0.2s | | | | | | |
| IEMG | Emamgholi | 1.38 | 28 | ePg | Pn | 14 47 45.4 | -1.1 |
| SHRO | Shahrood | 1.50 | 262 | ePn | Pg | 14 47 49.6 | -0.2 |
| BJRD | Bojnurd | 1.54 | 347 | ePn | Pg | 14 47 50.4 | -0.1 |
| GEYT | Alibeck | 1.74 | 7 | Pn | Pb | 14 47 53.3 | +0.2 |
| | comp=Z,28nm,0.3s,baz=189,slow=16,SNR=261 | | | | | | |
| GEYT | | | | Lg | Lg | 14 48 18.1 | |
| | comp=Z,26nm,0.3s,baz=201,slow=33,SNR=7.8 | | | | | | |
| IMYA | Miami | 1.83 | 85 | ePg | Pb | 14 47 54.4 | -0.3 |
| IMYA | | | | eAMB | AMB | 14 48 25.2 | |
| | comp=Z,6μm,0.1s | | | | | | |
| IMYA | Miami | 1.83 | 85 | ePg | Pb | 14 47 54.4 | -0.3 |
| MRVT | Maraveh tapeh | 2.02 | 317 | ePn | Pg | 14 47 57.8 | -2.0 |
| TABS | Tabas | 2.61 | 193 | ePn | Pb | 14 48 06.4 | -1.6 |
| SHRT | Shahrakht | 3.25 | 141 | ePn | Pn | 14 48 13.0 | +0.9 |
| KBZ | Khabaz | 13.70 | 308 | Pn | Pn | 14 50 36.0 | +0.9 |
| | comp=Z,0.1nm,0.3s,baz=101,slow=16,SNR=2.8 | | | | | | |
| AAK | Ala-Archa | 14.38 | 58 | Pn | Pn | 14 50 44.4 | -0.3 |
| | comp=Z,0.3nm,0.3s,baz=154,slow=6.8,SNR=4.3 | | | | | | |
| BVAR | Borovoye Array | 19.00 | 24 | P | Pn | 14 51 43.9 | +0.6 |
| | comp=Z,0.2nm,0.3s,baz=206,slow=9.6,SNR=6.5 | | | | | | |
| BRTR | Keskin Array B | 19.39 | 288 | P | Pn | 14 51 47.8 | -0.5 |
| | comp=Z,0.1nm,0.3s,baz=95,slow=12,SNR=2.5 | | | | | | |
| MKAR | Makanchi Array | 21.07 | 52 | P | P | 14 52 06.8 | +1.6 |
| | comp=Z,1.2nm,1.0s,baz=248,slow=12,SNR=3.3 | | | | | | |
| AKASG | Malin Array Be | 25.13 | 314 | P | P | 14 52 47.5 | +1.5 |
| | comp=Z,2.3nm,0.7s,baz=115,slow=8.4,SNR=4.8 | | | | | | |

*ISCJB **01** 14:50:52.7±1.3, 37°.39S±0°.06×179°.66E±0°.07, h25km±7km, mb3.7/3, Error ellipse: s-maj=10.6km s-min=9.3km az=12.6*
*NEIC **01** 14:50:52.3±0.0, 37°.33S×179°.59E, h1km, ML4.0(WEL), After WEL.*
*IDC **01** 14:50:53.4±1.6, 37°.07S×179°.19E, h0km, mb3.8/3, mb1 4.0/4, mb1mx3.8/27, mbtmp3.8/4, ML3.5/1, Error ellipse: s-maj=42.6km s-min=30.0km az=148.0*
*WEL **01** 14:50:55.1±0.3, 37°.43S×179°.51E, h12km, ML4.0/25, Error ellipse: s-maj=2.7km s-min=2.5km az=0.0*
**ISC 01 14:50:53.6**±2.2, **37°.50S**±0°.07×**179°.57E**±0°.08, **h13km**±11km, **n83,** σ1§**17**/93, **mb3.7**/3, **4D, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WMGZ | Waiomatatini S | 0.97 | 250 | P* | Pn | 14 51 13.1 | +0.2 |
| WMGZ | | | | S* | Sb | 14 51 27.2 | +2.3 |
| WMGZ | Waiomatatini S | 0.97 | 250 | P* | Pn | 14 51 13.1 | +0.2 |
| WMGZ | | | | AML | AML | 14 51 28.2 | |
| WMGZ | | | | AML | AML | 14 51 29.7 | |
| MXZ | Matakaoa Point | 1.00 | 266 | P* | Pb | 14 51 12.4 | -0.5 |
| MXZ | | | | S* | Sg | 14 51 26.6 | +0.5 |
| MXZ | Matakaoa Point | 1.00 | 266 | P* | Pb | 14 51 12.4 | -0.5 |
| MXZ | | | | S* | Sg | 14 51 26.4 | +0.2 |
| MXZ | | | | AML | AML | 14 51 27.7 | |
| PUZ | Puketiti | 1.19 | 241 | P* | Pb | 14 51 16.5 | +0.6 |
| PUZ | | | | S* | Sg | 14 51 31.9 | 0.0 |
| PUZ | Puketiti | 1.19 | 241 | ⇓P* | Pb | 14 51 16.5 | +0.6 |
| PUZ | | | | S* | Sg | 14 51 31.9 | 0.0 |
| PUZ | | | | AML | AML | 14 51 35.6 | |
| PKGZ | Pakihiroa | 1.25 | 251 | ⇓P* | Pb | 14 51 16.9 | -0.1 |
| PKGZ | | | | S* | Sg | 14 51 33.1 | -0.6 |
| PKGZ | | | | AML | AML | 14 51 35.3 | |
| TWGZ | Tauwhareparae | 1.43 | 241 | Pn | Pb | 14 51 20.2 | +0.1 |
| TWGZ | Tauwhareparae | 1.43 | 241 | PN | Pb | 14 51 20.2 | +0.1 |
| TWGZ | | | | AML | AML | 14 51 41.2 | |
| TWGZ | | | | AML | AML | 14 51 46.3 | |
| HAZ | Te Kaha | 1.44 | 259 | PN | Pb | 14 51 20.0 | -0.3 |
| HAZ | | | | SN | Sn | 14 51 38.5 | +0.3 |
| HAZ | | | | AML | AML | 14 51 40.8 | |
| HAZ | | | | AML | AML | 14 51 43.9 | |
| CNGZ | Carnagh Statio | 1.46 | 227 | Pn | Pg | 14 51 21.5 | -0.1 |
| CNGZ | Carnagh Statio | 1.46 | 227 | PN | Pg | 14 51 21.5 | -0.1 |
| CNGZ | | | | AML | AML | 14 51 49.7 | |
| CNGZ | | | | AML | AML | 14 52 05.2 | |
| RUGZ | Raukumara Rang | 1.57 | 252 | PN | Pn | 14 51 21.7 | +0.4 |
| TKGZ | Te Karaka | 1.65 | 235 | Pn | Pn | 14 51 23.1 | +0.9 |
| TKGZ | Te Karaka | 1.65 | 235 | PN | Pn | 14 51 23.1 | +0.9 |
| TKGZ | | | | SN | Sn | 14 51 44.0 | +0.7 |
| TKGZ | | | | AML | AML | 14 51 46.3 | |
| MWZ | Matawai | 1.82 | 242 | Pn | Pn | 14 51 25.0 | +0.4 |
| MWZ | Matawai | 1.82 | 242 | ⇓PN | Pn | 14 51 25.0 | +0.4 |
| MWZ | | | | AML | AML | 14 51 56.0 | |
| MWZ | | | | AML | AML | 14 52 05.5 | |
| RIGZ | Rimuhau | 1.86 | 229 | PN | Pn | 14 51 26.4 | +1.2 |
| RIGZ | | | | AML | AML | 14 51 53.5 | |
| RIGZ | | | | AML | AML | 14 51 54.3 | |
| RAGZ | Rawiri | 1.97 | 239 | Pn | Pn | 14 51 27.4 | +0.7 |
| RAGZ | Rawiri | 1.97 | 239 | PN | Pn | 14 51 27.3 | +0.5 |
| RAGZ | | | | AML | AML | 14 51 58.5 | |
| RAGZ | | | | AML | AML | 14 51 59.6 | |
| URZ | Urewera | 2.09 | 248 | Pn | Pn | 14 51 29.3 | +1.0 |
| | 17nm,0.3s,baz=71,slow=7.5,SNR=120 | | | | | | |
| URZ | | | | Sn | Sn | 14 51 55.4 | +1.3 |
| | 21nm,0.3s,baz=37,slow=20,SNR=13 | | | | | | |
| URZ | Urewera | 2.09 | 248 | PN | Pn | 14 51 29.2 | +0.9 |
| URZ | | | | AML | AML | 14 51 57.9 | |
| URZ | | | | AML | AML | 14 52 02.3 | |
| MHGZ | Mahia Peninsul | 2.10 | 218 | Pn | Pn | 14 51 29.9 | +1.4 |
| MHGZ | Mahia Peninsul | 2.10 | 218 | PN | Pn | 14 51 29.9 | +1.4 |
| SNGZ | Shannon Statio | 2.17 | 233 | Pn | Pn | 14 51 30.7 | +1.2 |
| SNGZ | Shannon Statio | 2.17 | 233 | PN | Pn | 14 51 30.7 | +1.2 |
| SNGZ | | | | AML | AML | 14 52 05.2 | |
| SNGZ | | | | AML | AML | 14 52 17.8 | |
| MUGZ | Murupara | 2.42 | 245 | PN | Pn | 14 51 33.7 | +0.8 |
| WHHZ | Waihua | 2.42 | 229 | PN | Pn | 14 51 34.4 | +1.5 |
| WHHZ | | | | AML | AML | 14 52 07.9 | |
| WHHZ | | | | AML | AML | 14 52 08.8 | |
| TARZ | Mount Tarawera | 2.53 | 252 | Pn | Pn | 14 51 35.5 | +0.9 |
| TARZ | Mount Tarawera | 2.53 | 252 | PN | Pn | 14 51 35.4 | +0.9 |
| TARZ | | | | AML | AML | 14 52 01.0 | |
| TARZ | | | | AML | AML | 14 52 30.7 | |
| MTHZ | Maungataniwha | 2.54 | 237 | PN | Pn | 14 51 35.7 | +1.1 |
| ARHZ | Aropaoanui | 2.68 | 228 | Pn | Pn | 14 51 37.7 | +1.2 |
| ARHZ | Aropaoanui | 2.68 | 228 | PN | Pn | 14 51 37.7 | +1.2 |
| ARHZ | | | | AML | AML | 14 52 16.2 | |
| ARHZ | | | | AML | AML | 14 52 16.4 | |
| NMHZ | Naumai | 2.69 | 233 | Pn | Pn | 14 51 38.0 | +1.3 |
| NMHZ | Naumai | 2.69 | 233 | PN | Pn | 14 51 38.0 | +1.3 |
| NMHZ | | | | AML | AML | 14 52 12.4 | |
| NMHZ | | | | AML | AML | 14 52 17.1 | |
| PRRZ | Plateau Road | 2.70 | 247 | Pn | Pn | 14 51 37.5 | +0.7 |
| PRRZ | Plateau Road | 2.70 | 247 | PN | Pn | 14 51 37.4 | +0.7 |
| PRRZ | | | | AML | AML | 14 52 28.2 | |
| PRRZ | | | | AML | AML | 14 52 28.4 | |
| BKZ | Black Stump Fm | 2.94 | 235 | Pn | Pn | 14 51 40.5 | +0.5 |
| BKZ | Black Stump Fm | 2.94 | 235 | PN | Pn | 14 51 40.5 | +0.5 |
| BKZ | | | | AML | AML | 14 52 18.7 | |
| BKZ | | | | AML | AML | 14 52 19.1 | |
| MCHZ | McNeill Hill | 2.97 | 228 | Pn | Pn | 14 51 41.2 | +0.7 |
| MCHZ | McNeill Hill | 2.97 | 228 | PN | Pn | 14 51 41.2 | +0.7 |
| MCHZ | | | | AML | AML | 14 52 20.0 | |
| MCHZ | | | | AML | AML | 14 52 30.4 | |
| KAHZ | Kahuranaki | 3.11 | 222 | Pn | Pn | 14 51 42.7 | +0.3 |
| KAHZ | Kahuranaki | 3.11 | 222 | PN | Pn | 14 51 42.7 | +0.3 |
| KAHZ | | | | AML | AML | 14 52 23.3 | |
| KWHZ | Kaweka Forest | 3.13 | 231 | PN | Pn | 14 51 42.9 | +0.2 |
| KWHZ | | | | AML | AML | 14 52 22.8 | |
| KWHZ | | | | AML | AML | 14 52 23.0 | |
| KUZ | Kuaotunu | 3.17 | 283 | Pn | Pn | 14 51 41.9 | -1.2 |
| KUZ | Kuaotunu | 3.17 | 283 | PN | Pn | 14 51 41.9 | -1.2 |
| KUZ | | | | AML | AML | 14 52 27.4 | |
| PXZ | Pawanui | 3.29 | 219 | Pn | Pn | 14 51 42.5 | -2.4 |
| PXZ | Pawanui | 3.29 | 219 | PN | Pn | 14 51 44.5 | -0.4 |
| PXZ | | | | AML | AML | 14 52 25.8 | |
| PXZ | | | | AML | AML | 14 52 27.2 | |
| BHHZ | Black Hill Sta | 3.39 | 233 | Pn | Pn | 14 51 46.4 | +0.1 |
| BHHZ | Black Hill Sta | 3.39 | 233 | PN | Pn | 14 51 46.4 | +0.1 |
| OTVZ | Oturere | 3.49 | 240 | Pn | Pn | 14 51 48.4 | +0.7 |
| OTVZ | Oturere | 3.49 | 240 | PN | Pn | 14 51 48.4 | +0.7 |
| MKAZ | Moumakai | 3.54 | 275 | Pn | Pn | 14 51 48.0 | -0.2 |
| MKAZ | Moumakai | 3.54 | 275 | PN | Pn | 14 51 48.0 | -0.2 |
| PNHZ | Pukenui | 3.57 | 227 | Pn | Pn | 14 51 48.6 | 0.0 |
| PNHZ | Pukenui | 3.57 | 227 | PN | Pn | 14 51 48.7 | 0.0 |
| WNVZ | Wahianoa | 3.61 | 238 | Pn | Pn | 14 51 49.6 | +0.2 |
| WNVZ | Wahianoa | 3.61 | 238 | PN | Pn | 14 51 49.6 | +0.2 |
| TSZ | Takapari Road | 3.80 | 227 | Pn | Pn | 14 51 51.0 | -0.9 |
| TSZ | Takapari Road | 3.80 | 227 | PN | Pn | 14 51 51.0 | -0.9 |
| DVHZ | Dannevirke | 3.85 | 222 | Pn | Pn | 14 51 52.1 | -0.5 |
| DVHZ | Dannevirke | 3.85 | 222 | PN | Pn | 14 51 52.1 | -0.5 |
| HIZ | Hauiti | 3.86 | 253 | Pn | Pn | 14 51 53.9 | +1.3 |
| HIZ | Hauiti | 3.86 | 253 | PN | Pn | 14 51 53.9 | +1.3 |
| AWAZ | Awhitu Peninsu | 3.95 | 275 | PN | Pn | 14 51 54.8 | +0.9 |
| MRZ | Mangatainoka R | 4.43 | 223 | Pn | Pn | 14 51 59.4 | -1.0 |
| MRZ | Mangatainoka R | 4.43 | 223 | PN | Pn | 14 51 59.4 | -1.0 |
| MRZ | | | | AML | AML | 14 52 52.0 | |
| MRZ | | | | AML | AML | 14 52 53.2 | |
| HOWZ | Holdsworth Sta | 4.63 | 222 | Pn | Pn | 14 52 01.8 | -1.5 |
| HOWZ | Holdsworth Sta | 4.63 | 222 | PN | Pn | 14 52 01.7 | -1.5 |
| MTW | Mount Morrison | 4.83 | 220 | Pn | Pn | 14 52 04.4 | -1.5 |
| MTW | Mount Morrison | 4.83 | 220 | PN | Pn | 14 52 04.4 | -1.5 |
| OUZ | Omahuta | 5.33 | 293 | PN | Pn | 14 52 13.3 | +0.4 |
| QRZ | Quartz Range | 6.40 | 237 | Pn | Pn | 14 52 26.5 | -1.1 |
| QRZ | Quartz Range | 6.40 | 237 | PN | Pn | 14 52 26.5 | -1.1 |
| QRZ | | | | SN | Sn | 14 53 36.3 | -4.2 |
| THZ | Tophouse | 6.67 | 228 | Pn | Pn | 14 52 28.6 | -2.8 |
| THZ | Tophouse | 6.67 | 228 | PN | Pn | 14 52 28.6 | -2.8 |
| CTZ | Chatham Island | 6.87 | 156 | ⇓PN | Pn | 14 52 36.9 | +2.9 |
| ASAR | Alice Springs | 41.27 | 276 | P | P | 14 58 37.9 | -0.9 |
| | 0.5nm,0.6s,baz=123,slow=8.1,SNR=13 | | | | | | |
| WRA | Warramunga Arr | 42.91 | 281 | P | P | 14 58 51.2 | -0.9 |
| | 1.0nm,0.6s,baz=121,slow=7.8,SNR=17 | | | | | | |
| FITZ | Fitzroy Crossi | 50.76 | 277 | P | P | 14 59 51.5 | -2.0 |
| | 2.4nm,1.0s,baz=138,slow=12,SNR=2.5 | | | | | | |
| ARCES | ARCESS Array B | 144.99 | 344 | PKP | PKPdf | 15 10 30.0 | +0.6 |
| | 3.0nm,0.8s,baz=46,slow=2.6,SNR=3.5 | | | | | | |
| FINES | FINESS Array B | 150.88 | 334 | PKPbc | PKPbc | 15 10 46.0 | +1.1 |
| | 3.2nm,0.8s,baz=42,slow=3.1,SNR=6.9 | | | | | | |
| TORD | Torodi Ar. Bea | 155.67 | 185 | PKPab | PKPab | 15 11 16.4 | +2.7 |
| | 0.5nm,0.9s,baz=177,slow=5.1,SNR=2.5 | | | | | | |

**IDC 01 14:54:18.1**±7.7, **18°.57S**×**176°.55W, h0km, mb3.8**/2, **mb1 4.1**/2, **mb1mx3.6**/29, **mbtmp3.8**/2, **MS3.2**/4, **Ms1 3.2**/4, **ms1mx2.9**/25, **Error ellipse: s-maj=341.9km s-min=66.5km az=144.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AFI | Afiamalu | 6.51 | 45 | LR | LR | 14 57 40.8 | |
| | comp=Z,179nm,21.0s,baz=226,slow=31 | | | | | | |
| DZM | Mont Dzumac | 16.33 | 255 | LR | LR | 15 03 05.9 | |
| | comp=Z,104nm,21.5s,baz=44,slow=32 | | | | | | |
| DZM | Mont Dzumac | 16.33 | 255 | eLR | LR | 15 02 24.3 | |
| | 132nm,26.3s | | | | | | |
| TBI | Tubuai | 25.72 | 105 | eLR | LR | 15 06 12.7 | |
| | 106nm,29.0s | | | | | | |
| RPZ | Rata Peaks | 27.16 | 200 | LR | LR | 15 09 08.7 | |
| | comp=Z,111nm,21.4s,baz=177,slow=33 | | | | | | |
| WRA | Warramunga Arr | 46.25 | 260 | P | P | 15 02 44.9 | -0.7 |
| | 0.9nm,0.8s,baz=95,slow=6.2,SNR=8.3 | | | | | | |
| ASAR | Alice Springs | 46.32 | 255 | P | P | 15 02 46.2 | +0.2 |
| | 1.3nm,0.6s,baz=89,slow=8.1,SNR=20 | | | | | | |
| YKA | Yellowknife Ar | 94.20 | 24 | LR | LR | 15 46 19.3 | |
| | comp=Z,6.3nm,18.5s,baz=180,slow=33 | | | | | | |
| BRTR | Keskin Array B | 146.50 | 315 | PKPbc | PKPbc | 15 14 01.2 | -0.5 |
| | 0.4nm,0.4s,baz=66,slow=1.7,SNR=3.9 | | | | | | |

**SOME 01 14:56:19.7, 42°.62N×80°.43E, h5km, Kyrgyzstan-Xinjiang border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| UZB | Uzynbulak | 1.17 | 298 | eP | Pb | 14 56 42.3 | -0.1 |
| | 2.1nm,0.5s | | | | | | |
| UZB | | | | eS | Sn | 14 56 58.6 | -0.6 |
| | 2.7nm,0.2s | | | | | | |
| SATY | Saty | 1.56 | 287 | eP | Pn | 14 56 48.0 | -0.2 |
| | 2.3nm,0.2s | | | | | | |
| SATY | | | | eS | Sn | 14 57 08.6 | -0.2 |
| | 6.9nm,0.2s | | | | | | |

*DDA **01** 14:56:40.5, 38°.55N×43°.04E, h5km, Md2.8*
*ISK **01** 14:56:40.4, 38°.52N×43°.05E, h5km, MD3.2*
*ATA **01** 14:56:40.1±0.9, 38°.54N×43°.03E, h6km±13km, ML3.8, MW3.5*
*ISCJB **01** 14:56:41.9±0.5, 38°.53N±0°.02×43°.05E±0°.03, h5km±6km, Error ellipse: s-maj=4.2km s-min=3.5km az=172.7*
*CSEM **01** 14:56:41.5±0.2, 38°.53N×43°.06E, h2km, MD2.8, Error ellipse: s-maj=4.0km s-min=3.6km az=156.0*
**ISC 01 14:56:42.1**±0.8, **38°.54N**±0°.02×**43°.09E**±0°.02, **h13km**±6km, **n61,** σ1§**25**/92, **2D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GEVA | Gevas | 0.23 | 187 | ⇓iP | Pg | 14 56 45.5 | -1.6 |
| GEVA | | | | eS | Sg | 14 56 49.3 | -1.2 |
| GEVA | | | | IAML | | 14 56 51.8 | |
| | comp=Z,2μm,0.4s | | | | | | |
| GEVA | Gevas | 0.23 | 187 | i P | Pg | 14 56 45.9 | -1.2 |
| GEVA | | | | i S | Sg | 14 56 50.4 | -0.2 |
| GEVA | Gevas | 0.23 | 187 | P | Pg | 14 56 45.9 | -1.2 |
| GEVA | | | | S | Sg | 14 56 50.4 | -0.2 |
| VANB | Van | 0.24 | 76 | ePG | Pg | 14 56 47.1 | -0.2 |
| VANB | | | | eSG | Sb | 14 56 52.2 | -0.4 |
| VANB | Van | 0.24 | 76 | ePg | Pg | 14 56 47.1 | -0.2 |
| VANB | | | | eSg | Sb | 14 56 52.2 | -0.4 |
| TVAN | Van | 0.25 | 92 | i P | Pg | 14 56 47.2 | -0.3 |
| TVAN | | | | i S | Sb | 14 56 52.8 | -0.1 |
| TVAN | Van | 0.25 | 92 | P | Pg | 14 56 47.2 | -0.3 |
| TVAN | | | | S | Sb | 14 56 52.8 | -0.1 |
| ADCV | BITLIS_Adilcev | 0.40 | 313 | i P | Pg | 14 56 48.7 | -1.4 |
| ADCV | | | | i S | Sg | 14 56 55.6 | +0.1 |
| ADCV | BITLIS_Adilcev | 0.40 | 313 | P | Pg | 14 56 48.7 | -1.4 |
| ADCV | | | | S | Sg | 14 56 55.6 | +0.1 |
| ERCV | ERCIS-VAN | 0.52 | 22 | ePG | Pg | 14 56 52.3 | -0.1 |
| ERCV | | | | eSG | Sb | 14 57 01.0 | +0.3 |
| ERCV | ERCIS-VAN | 0.52 | 22 | ePg | Pg | 14 56 52.3 | -0.1 |
| ERCV | | | | eSg | Sb | 14 57 01.0 | +0.3 |
| VMUR | Van-Muradiye | 0.59 | 40 | i P | Pg | 14 56 53.4 | -0.3 |
| VMUR | | | | i S | Sn | 14 57 04.2 | -1.6 |
| VMUR | Van-Muradiye | 0.59 | 40 | P | Pg | 14 56 53.4 | -0.3 |
| BASK | Baskale_VAN | 0.87 | 124 | eP | Pg | 14 56 58.4 | -0.5 |
| BASK | | | | eS | Sn | 14 57 12.1 | -0.7 |
| BASK | | | | IAML | | 14 57 19.1 | |
| | comp=Z,96nm,0.6s | | | | | | |
| BASK | Baskale_VAN | 0.87 | 124 | i P | Pg | 14 56 57.5 | -1.4 |
| BASK | | | | i S | Sn | 14 57 12.8 | +0.1 |
| BASK | Baskale_VAN | 0.87 | 124 | P | Pg | 14 56 57.5 | -1.4 |
| BASK | | | | S | Sn | 14 57 12.8 | +0.1 |
| CLDR | Caldiran | 0.88 | 47 | ePG | Pb | 14 56 58.4 | -1.0 |
| CLDR | | | | eSG | Sn | 14 57 13.2 | 0.0 |
| CLDR | Caldiran | 0.88 | 47 | i P | Pb | 14 56 58.4 | -1.0 |
| CLDR | | | | i S | Sn | 14 57 13.8 | +0.6 |
| CLDR | Caldiran | 0.88 | 47 | P | Pb | 14 56 58.4 | -1.0 |
| CLDR | | | | eSg | Sn | 14 57 13.2 | 0.0 |
| TUTA | Tutak | 0.89 | 346 | ⇓iP | Pb | 14 56 57.8 | -1.8 |
| TUTA | | | | eS | Sg | 14 57 10.5 | -0.6 |
| TUTA | | | | IAML | | 14 57 11.7 | |
| | comp=Z,283nm,0.2s | | | | | | |
| TUTA | Tutak | 0.89 | 346 | i P | Pb | 14 56 57.9 | -1.8 |
| TUTA | | | | i S | Sg | 14 57 10.6 | -0.6 |
| TUTA | Tutak | 0.89 | 346 | P | Pb | 14 56 57.8 | -1.8 |
| TUTA | | | | S | Sg | 14 57 10.6 | -0.5 |
| AGRB | Hanur-Agry | 1.04 | 356 | ePG | Pb | 14 57 00.8 | -1.3 |
| AGRB | Hanur-Agry | 1.04 | 356 | ePg | Pb | 14 57 00.8 | -1.3 |
| SRTM | Siirt_Merkez | 1.07 | 240 | i P | Pb | 14 57 01.3 | -1.2 |
| SRTM | | | | i S | Sn | 14 57 18.5 | +0.9 |
| SRTM | Siirt_Merkez | 1.07 | 240 | P | Pb | 14 57 01.3 | -1.2 |
| EKAR | Karacoban | 1.08 | 312 | i P | Pb | 14 57 01.3 | -1.4 |
| EKAR | | | | i S | Sn | 14 57 24.6 | +6.6 |
| EKAR | Karacoban | 1.08 | 312 | P | Pb | 14 57 01.3 | -1.4 |
| HAKT | HAKKARI | 1.09 | 153 | i P | Pb | 14 57 01.5 | -1.5 |
| HAKT | | | | i S | Sn | 14 57 22.3 | +3.9 |
| HAKT | HAKKARI | 1.09 | 153 | P | Pb | 14 57 01.5 | -1.5 |
| CUKT | Cukurca | 1.35 | 162 | ePN | Pb | 14 57 06.9 | -0.4 |
| CUKT | Cukurca | 1.35 | 162 | ePn | Pb | 14 57 06.9 | -0.4 |
| EATA | Eleskirt | 1.40 | 341 | eP | Pn | 14 57 07.1 | -0.5 |
| EATA | | | | IAML | | 14 57 30.8 | |
| | comp=Z,17nm,0.5s | | | | | | |
| EATA | Eleskirt | 1.40 | 341 | i P | Pn | 14 57 07.2 | -0.5 |
| EATA | | | | i S | Sg | 14 57 27.6 | +0.2 |
| EATA | Eleskirt | 1.40 | 341 | P | Pn | 14 57 07.2 | -0.5 |
| EATA | | | | S | Sg | 14 57 27.6 | +0.2 |
| VRTB | Varto-Mus | 1.42 | 296 | ePN | Pb | 14 57 08.0 | -0.5 |
| VRTB | Varto-Mus | 1.42 | 296 | ePn | Pb | 14 57 08.0 | -0.5 |
| SVAN | Silvan-Diyarba | 1.54 | 256 | ePN | Pb | 14 57 09.6 | -0.9 |
| SVAN | Silvan-Diyarba | 1.54 | 256 | ePn | Pb | 14 57 09.6 | -0.9 |
| BTMN | Batman | 1.57 | 246 | i P | Pb | 14 57 10.2 | -0.9 |
| BTMN | | | | i S | Sg | 14 57 32.5 | -0.3 |
| BTMN | Batman | 1.57 | 246 | P | Pb | 14 57 10.2 | -0.9 |
| BTMN | | | | S | Sg | 14 57 32.5 | -0.3 |
| BNGL | BINGOL | 1.57 | 286 | eP | Pn | 14 57 10.0 | +0.1 |
| BNGL | | | | eS | Sg | 14 57 31.9 | -0.9 |
| BNGL | | | | IAML | | 14 57 39.0 | |
| | comp=Z,146nm,0.4s | | | | | | |
| BNGL | BINGOL | 1.57 | 286 | i P | Pb | 14 57 10.5 | -0.7 |
| BNGL | | | | i S | Sg | 14 57 32.5 | -0.4 |
| TASB | TASBURUN-IGDIR | 1.70 | 31 | ePN | Pb | 14 57 12.7 | -0.5 |
| TASB | TASBURUN-IGDIR | 1.70 | 31 | ePn | Pb | 14 57 12.7 | -0.5 |
| BNGB | Bingˆ¶l | 1.94 | 284 | ePN | Pn | 14 57 15.7 | +0.8 |
| BINT | Bingol | 2.06 | 280 | ePn | Pn | 14 57 15.7 | -0.9 |
| KARS | Kars | 2.09 | 360 | ePN | Pb | 14 57 18.4 | -1.5 |
| KARS | Kars | 2.09 | 360 | ePn | Pb | 14 57 18.4 | -1.5 |
| SENK | Senkaya-Erzuru | 2.10 | 344 | ePN | Pb | 14 57 18.9 | -1.3 |
| SENK | Senkaya-Erzuru | 2.10 | 344 | ePn | Pb | 14 57 18.9 | -1.3 |
| HANI | Diyarbakir_Han | 2.12 | 268 | i P | Pb | 14 57 19.3 | -1.0 |
| HANI | | | | i S | Sg | 14 57 49.0 | -1.2 |
| HANI | Diyarbakir_Han | 2.12 | 268 | P | Pb | 14 57 19.3 | -1.0 |
| DIY | Diyarbakir | 2.35 | 255 | ePn | Pn | 14 57 21.7 | +1.3 |
| MAZI | Mazidag | 2.35 | 244 | ePN | Pn | 14 57 20.8 | +0.3 |
| MAZI | Mazidag | 2.35 | 244 | ePn | Pn | 14 57 20.8 | +0.3 |
| DYBB | Diyarbakir | 2.40 | 257 | ePN | Pn | 14 57 21.7 | +0.6 |
| PTK | Pertek | 2.92 | 278 | ePN | Pn | 14 57 29.4 | +1.0 |
| PTK | Pertek | 2.92 | 278 | ePn | Pn | 14 57 29.4 | +1.0 |
| SVRC | Sivrice-ELAZID | 2.98 | 268 | ePN | Pn | 14 57 30.7 | +1.6 |
| SVRC | Sivrice-ELAZID | 2.98 | 268 | ePn | Pn | 14 57 30.7 | +1.6 |

*IDC **01** 14:59:28.2±1.7, 0°.64N×97°.42E, h0km, mb4.0/7, mb1 4.0/9, mb1mx3.8/43, mbtmp3.9/9, ML3.7/2, MS2.7/1, Ms1 2.9/1, ms1mx2.5/36, Error ellipse: s-maj=47.3km s-min=20.1km*

*az=65.0*

*ISCJB **01** 14:59:30.9±1.3, 0°.7N±0°.1×97°.5E±0°.2, h29km, mb4.0/7, Error ellipse: s-maj=31.8km s-min=15.7km az=161.0*

**ISC 01 14:59:32.9**±1.6**, 0°.7N**±0°.2×**97°.5E**±0°.3**, h29km, n13, σ0s75**/10**, mb4.2**/7**, Northern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PSI | Prapat | 2.48 | 34 | Pn | Pn | 15 00 11.3 | -0.2 |
| | 3.6nm,0.3s,baz=302,slow=8.7,SNR=10 | | | | | | |
| CMAR | Chiang Mai Arr | 17.67 | 4 | P | Pn | 15 03 36.1 | -0.9 |
| | 0.2nm,0.3s,baz=194,slow=12,SNR=13 | | | | | | |
| CMAR | | | | LR | LR | 15 11 02.7 | |
| | comp=Z,25nm,19.2s,baz=190,slow=39 | | | | | | |
| H08S2 | Diego Garcia H | 26.33 | 251 | T | T | 15 32 27.3 | |
| | baz=72,slow=75,SNR=200 | | | | | | |
| H08S3 | Diego Garcia H | 26.34 | 251 | T | T | 15 32 27.6 | |
| | baz=72,slow=75,SNR=221 | | | | | | |
| H08S1 | Diego Carcia H | 26.35 | 251 | T | T | 15 32 28.7 | |
| | baz=72,slow=75,SNR=283 | | | | | | |
| WRA | Warramunga Arr | 41.50 | 122 | P | P | 15 07 17.6 | -0.2 |
| | 0.9nm,0.9s,baz=302,slow=8.8,SNR=7.4 | | | | | | |
| ASAR | Alice Springs | 42.84 | 127 | P | P | 15 07 29.1 | +0.3 |
| | 0.4nm,0.5s,baz=296,slow=7.9,SNR=9.5 | | | | | | |
| KSRS | Korea Array | 46.04 | 34 | P | P | 15 07 54.5 | +0.4 |
| | 3.1nm,0.7s,baz=226,slow=8.6,SNR=8.4 | | | | | | |
| SONM | Songino Array | 47.54 | 8 | P | P | 15 08 06.4 | +0.6 |
| | 0.7nm,0.7s,baz=181,slow=10,SNR=5.8 | | | | | | |
| MKAR | Makanchi Array | 47.78 | 346 | P | P | 15 08 08.0 | +0.4 |
| | 3.0nm,0.7s,baz=157,slow=7.5,SNR=12 | | | | | | |
| USRK | Ussuriysk Ar. | 52.99 | 31 | P | P | 15 08 47.5 | +0.5 |
| | 1.8nm,0.6s,baz=256,slow=8.2,SNR=4.4 | | | | | | |
| ZALV | Zalesovo Beam | 54.07 | 351 | P | P | 15 08 54.9 | +0.2 |
| | 2.6nm,0.5s,baz=167,slow=6.9,SNR=11 | | | | | | |
| TXAR | Lajitas Array | 143.88 | 32 | PKP | PKPdf | 15 19 05.0 | -1.4 |
| | 0.2nm,0.5s,baz=222,slow=1.2,SNR=2.9 | | | | | | |

---

*IGIL **01** 15:07:17.4, 36°.84N×15°.07W, h0km, ML2.9*

*INMG **01** 15:07:18.1±1.2, 36°.61N×15°.46W, h6km±19km, ML2.9, Error ellipse: s-maj=8.4km s-min=6.9km az=112.0*

**MDD 01 15:07:17.2**±3.0**, 36°.82N**×**15°.05W, h0km, mb4.4**/8**, Error ellipse: s-maj=29.5km s-min=26.8km az=175.0, PRXIMO, Azores-Cape St. Vincent Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PMPS | Porto Santo | 3.90 | 196 | eS | Sn | 15 08 46.1 | -19 |
| PMPS | | | | A | A | 15 08 49.8 | |
| | 29nm,0.8s | | | | | | |
| PFVI | Vila Bisbo | 4.99 | 85 | P | Pn | 15 08 31.7 | -1.6 |
| | 4.0nm,0.1s,SNR=11 | | | | | | |
| PFVI | | | | S | Sn | 15 09 26.7 | -5.0 |
| | 2.9nm,0.1s,SNR=7.9 | | | | | | |
| PFVI | Vila Bisbo | 4.99 | 85 | ePn | Pn | 15 08 31.7 | -1.6 |
| PFVI | | | | eSn | Sn | 15 09 26.7 | -5.0 |
| PFVI | | | | A | A | 15 09 47.3 | |
| | 12nm,0.6s | | | | | | |
| PMAFR | Mafra | 5.03 | 63 | P | Pn | 15 08 33.3 | -0.7 |
| | 4.2nm,0.1s,SNR=7.9 | | | | | | |
| PMAFR | | | | S | Sn | 15 09 29.8 | -3.0 |
| | 9.9nm,0.2s,SNR=7.9 | | | | | | |
| PMAFR | Mafra | 5.03 | 63 | ePn | Pn | 15 08 33.2 | -0.7 |
| PMAFR | | | | eSn | Sn | 15 09 30.0 | -2.8 |
| PMAFR | | | | A | A | 15 09 35.0 | |
| | 22nm,0.2s | | | | | | |
| LIS | Lisbon | 5.04 | 66 | eSn | Sn | 15 09 31.5 | -1.4 |
| PTEO | Sao Teotonio | 5.10 | 80 | ePn | Pn | 15 08 33.5 | -1.3 |
| PTEO | | | | eSn | Sn | 15 09 30.3 | -4.1 |
| PTEO | | | | A | A | 15 09 37.1 | |
| | 7.2nm,0.7s | | | | | | |
| MORF | Marmelete | 5.14 | 83 | eP | Pn | 15 08 33.6 | -1.8 |
| MORF | | | | eS | Sn | 15 09 29.4 | -6.0 |
| MORF | | | | AML | AML | 15 09 33.7 | |
| | comp=N,17nm,0.3s | | | | | | |
| MORF | Marmelete | 5.14 | 83 | P | Pn | 15 08 33.6 | -1.8 |
| MORF | | | | S | Sn | 15 09 29.4 | -6.0 |
| | comp=N,17nm,0.3s | | | | | | |
| MORF | Marmelete | 5.14 | 83 | ePn | Pn | 15 08 33.6 | -1.8 |
| MORF | | | | eSn | Sn | 15 09 31.4 | -4.0 |
| MORF | | | | A | A | 15 09 35.6 | |
| | comp=N,6.5nm,0.3s | | | | | | |
| PNCL | Nicolau / Gran | 5.34 | 74 | ePn | Pn | 15 08 36.5 | -1.6 |
| PNCL | | | | eSn | Sn | 15 09 35.8 | -4.6 |
| PNCL | | | | A | A | 15 09 40.3 | |
| | comp=N,5.8nm,0.4s | | | | | | |
| PCVE | Castro Verde | 5.65 | 80 | ePn | Pn | 15 08 41.2 | -1.2 |
| PCVE | | | | eSn | Sn | 15 09 43.2 | -4.8 |
| PCVE | | | | A | A | 15 09 48.3 | |
| | comp=N,3.7nm,0.3s | | | | | | |
| PBDV | Barranco-do-Ve | 5.71 | 84 | ePn | Pn | 15 08 42.4 | -0.8 |
| PBDV | | | | eSn | Sn | 15 09 45.3 | -4.2 |
| PBDV | | | | A | A | 15 09 52.3 | |
| | comp=N,5.0nm,0.9s | | | | | | |
| PMTG | Montargil | 5.84 | 65 | ePn | Pn | 15 08 43.6 | -1.4 |
| PMTG | | | | eSn | Sn | 15 09 47.5 | -5.1 |
| PMTG | | | | A | A | 15 09 55.0 | |
| | comp=N,3.9nm,0.7s | | | | | | |
| PVAQ | Vaqueiros | 5.89 | 82 | ePn | Pn | 15 08 44.1 | -1.5 |
| PVAQ | | | | eSn | Sn | 15 09 48.8 | -5.0 |
| PVAQ | | | | A | A | 15 09 51.9 | |
| | comp=N,5.0nm,0.5s | | | | | | |
| PCAS | Casmilo, Conde | 6.07 | 56 | ePn | Pn | 15 08 47.5 | -0.7 |
| PCAS | | | | eSn | Sn | 15 09 54.8 | -3.5 |
| PCAS | | | | A | A | 15 10 17.0 | |
| | comp=N,9.4nm,0.5s | | | | | | |
| EGRO | El Granado | 6.08 | 81 | P | Pn | 15 08 47.4 | -0.9 |
| | comp=N,1.0nm,0.2s,SNR=4.9 | | | | | | |
| EGRO | | | | S | Sn | 15 09 53.0 | -5.6 |
| | comp=N,3.2nm,0.2s,SNR=5.6 | | | | | | |
| PESTR | Estremoz | 6.25 | 69 | ePn | Pn | 15 08 49.9 | -0.7 |
| PESTR | | | | eSn | Sn | 15 09 58.3 | -4.4 |
| PESTR | | | | A | A | 15 10 10.0 | |
| | comp=N,3.0nm,0.4s | | | | | | |
| PBAR | Barrancos | 6.51 | 76 | ePn | Pn | 15 08 53.6 | -0.6 |
| PBAR | | | | eSn | Sn | 15 10 04.4 | -4.7 |
| PBAR | | | | A | A | 15 10 05.8 | |
| | comp=N,4.7nm,0.3s | | | | | | |
| PMRV | Marv??o | 6.57 | 64 | ePn | Pn | 15 08 54.5 | -0.6 |
| PMRV | | | | eSn | Sn | 15 10 05.8 | -4.9 |
| PMRV | | | | A | A | 15 10 09.0 | |
| | comp=N,4.4nm,0.3s | | | | | | |
| EBAD | Badajoz | 6.65 | 71 | P | Pn | 15 08 55.5 | -0.6 |
| | comp=N,0.8nm,0.1s,SNR=7.9 | | | | | | |
| EBAD | | | | S | Sn | 15 10 06.2 | -6.4 |
| | comp=N,3.5nm,0.2s,SNR=7.9 | | | | | | |
| EMIN | Mina Concepcio | 6.74 | 79 | P | Pn | 15 08 56.1 | -1.3 |
| | comp=N,1.1nm,0.2s,SNR=6.3 | | | | | | |
| EMIN | | | | S | Sn | 15 10 08.2 | -6.6 |
| | comp=N,2.2nm,0.2s,SNR=6.2 | | | | | | |
| PVIS | Viseu | 6.81 | 53 | ePn | Pn | 15 08 57.5 | -0.8 |
| MTE | Manteigas | 6.88 | 56 | eSn | Sn | 15 10 15.2 | -3.1 |
| POLO | Lamas de Olo | 7.24 | 49 | ePn | Pn | 15 09 03.0 | -1.4 |
| POLO | | | | eSn | Sn | 15 10 22.2 | -5.1 |
| PGAV | Gavieira, Arco | 7.34 | 44 | ePn | Pn | 15 09 04.4 | -1.3 |
| PGAV | | | | eSn | Sn | 15 10 25.2 | -4.6 |
| PGAV | | | | A | A | 15 10 28.4 | |
| | comp=N,7.3nm,0.5s | | | | | | |
| ESPR | Espera | 7.37 | 87 | P | Pn | 15 09 04.8 | -1.2 |
| | comp=N,4.9nm,0.3s,SNR=7.9 | | | | | | |
| ELOB | Lobios | 7.39 | 45 | P | Pn | 15 09 04.9 | -1.6 |
| | comp=N,2.3nm,0.3s,SNR=5.6 | | | | | | |
| ELOB | | | | S | Sn | 15 10 22.6 | -8.4 |
| | comp=N,0.4nm,0.1s,SNR=7.9 | | | | | | |
| MVO | Moncorvo | 7.60 | 53 | P | Pn | 15 09 07.7 | -1.5 |
| | comp=N,2.4nm,0.2s,SNR=7.9 | | | | | | |
| MVO | | | | S | Sn | 15 10 29.2 | -6.9 |
| | comp=N,1.4nm,0.1s,SNR=7.9 | | | | | | |
| MVO | Moncorvo | 7.60 | 53 | ePn | Pn | 15 09 07.8 | -1.4 |
| MVO | | | | eSn | Sn | 15 10 29.8 | -6.3 |
| ECAB | El Cabril | 7.76 | 78 | P | Pn | 15 09 10.6 | -0.8 |
| | comp=N,1.9nm,0.3s,SNR=7.2 | | | | | | |
| ECAB | | | | S | Sn | 15 10 34.2 | -5.8 |
| | comp=N,0.8nm,0.2s,SNR=7.9 | | | | | | |
| ECAL | Calabor | 8.22 | 49 | P | Pn | 15 09 16.2 | -1.5 |
| | comp=N,4.9nm,0.2s,SNR=7.1 | | | | | | |
| ECAL | | | | S | Sn | 15 10 44.5 | -6.8 |
| | comp=N,3.2nm,0.3s,SNR=7.9 | | | | | | |
| EADA | Adamuz | 8.43 | 78 | P | Pn | 15 09 19.3 | -1.3 |
| | comp=N,0.8nm,0.2s,SNR=7.9 | | | | | | |
| EADA | | | | S | Sn | 15 10 50.4 | -6.1 |
| | comp=N,0.3nm,0.1s,SNR=7.9 | | | | | | |

---

*IDC **01** 15:35:03.1±2.8, 28°.85S×176°.16W, h0km, mb3.9/5, mb1 4.1/6, mb1mx3.9/26, mbtmp4.0/6, ML3.3/1, MS3.0/1, Ms1 3.0/1, ms1mx2.3/26, Error ellipse: s-maj=63.6km s-min=45.0km az=130.0*

*NEIC **01** 15:35:06.0±1.5, 29°.03S×175°.81W, h35km, mb4.8/5, Error ellipse: s-maj=28.3km s-min=14.5km az=90.0*

**ISC 01 15:35:05.0**±1.4**, 29°.0S**±0°.1×**175°.7W**±0°.1**, h35km, n18, σ1s06**/20**, mb4.2**/6**, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RAO | Raoul Island | 2.00 | 262 | Pn | Pn | 15 35 36.5 | +0.3 |
| | 56nm,0.3s,baz=77,slow=19,SNR=2.5 | | | | | | |
| RAO | | | | Sn | Sn | 15 36 00.3 | +0.3 |
| | 188nm,0.3s,baz=90,slow=20,SNR=4.3 | | | | | | |
| RAO | Raoul Island | 2.00 | 262 | ePn | Pn | 15 35 36.0 | -0.3 |
| RAO | | | | eSn | Sn | 15 36 00.3 | +0.3 |
| URZ | Urewera | 11.03 | 211 | Pn | Pn | 15 37 39.3 | -1.0 |
| | 0.2nm,0.3s,baz=11,slow=17,SNR=3.9 | | | | | | |
| URZ | | | | Sn | Sn | 15 39 43.5 | +1.1 |
| | 0.8nm,0.3s,baz=340,slow=19,SNR=5.0 | | | | | | |
| THZ | Tophouse | 15.78 | 213 | ePn | Pn | 15 38 43.9 | -0.7 |
| | 42nm,1.6s | | | | | | |
| THZ | | | | eSn | Sn | 15 41 19.4 | -19 |
| KHZ | Kahutara | 16.00 | 210 | ePn | Pn | 15 38 46.0 | -1.2 |
| | 147nm,1.8s | | | | | | |
| RAR | Rarotonga | 16.33 | 65 | LR | LR | 15 44 39.3 | |
| | comp=Z,54nm,19.7s,baz=237,slow=35 | | | | | | |
| MQZ | McQueen's Vall | 17.42 | 209 | ePn | P | 15 39 06.7 | +0.5 |
| | 214nm,1.7s | | | | | | |
| CTA | Charters Tower | 35.64 | 276 | P | P | 15 41 58.6 | -1.1 |
| | 1.9nm,0.7s,baz=59,slow=5.9 | | | | | | |
| CTAO | Charters Tower | 35.64 | 276 | eP | P | 15 42 00.1 | +0.3 |
| | 26nm,1.8s | | | | | | |
| STKA | Stephens Creek | 36.80 | 255 | P | P | 15 42 10.2 | +0.6 |
| | 2.3nm,0.9s,baz=56,slow=2.8,SNR=3.0 | | | | | | |
| AS01 | Alice Springs | 45.21 | 265 | eP | P | 15 43 17.9 | -1.1 |
| ASAR | Alice Springs | 45.25 | 264 | P | P | 15 43 19.1 | -0.1 |
| | 0.5nm,0.6s,baz=98,slow=6.5,SNR=14 | | | | | | |
| WB2 | Warramunga Arr | 46.10 | 270 | eP | P | 15 43 25.8 | -0.3 |
| WR1 | Warramunga Arr | 46.11 | 270 | eP | P | 15 43 25.7 | -0.4 |
| | 22nm,1.6s | | | | | | |
| WRA | Warramunga Arr | 46.11 | 270 | P | P | 15 43 25.7 | -0.4 |
| | 0.6nm,0.4s,baz=109,slow=7.8,SNR=16 | | | | | | |
| MTN | Manton Dam | 51.81 | 276 | ePcP | PcP | 15 45 20.8 | -1.8 |
| FITZ | Fitzroy Crossi | 54.43 | 268 | P | P | 15 44 29.0 | -0.1 |
| | 3.9nm,1.1s,baz=60,slow=2.1,SNR=3.4 | | | | | | |
| AKASG | Malin Array Be | 151.34 | 326 | PKPbc | PKPbc | 15 54 57.4 | +2.8 |
| | 0.3nm,0.3s,baz=36,slow=2.3,SNR=4.7 | | | | | | |

---

**MEX 01 15:38:01.1**±0.7**, 19°.10N**×**104°.13W, h9km**±6km**, MD3.7, Near coast of Jalisco**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| R15V | | 0.15 | 63 | iP | Pg | 15 38 03.9 | -0.6 |
| R15V | | | | eS | Sg | 15 38 06.8 | +0.1 |
| EZ5V | | 0.62 | 53 | eP | Pg | 15 38 11.8 | -1.4 |
| EZ5V | | | | eS | Sg | 15 38 21.0 | -0.4 |
| CJM | Chamela | 0.95 | 295 | iP | Pg | 15 38 16.5 | -2.9 |
| CJM | | | | iS | Sg | 15 38 29.4 | -2.5 |
| MMIG | Aquila | 1.10 | 137 | iP | Pg | 15 38 18.9 | -3.3 |
| MMIG | | | | eS | Sg | 15 38 33.5 | -2.9 |
| ARIG | Puente Sto Nin | 3.67 | 102 | eP | Pn | 15 38 58.9 | +0.7 |

---

*ISCJB **01** 16:10:42.4±0.5, 2°.65S±0°.05×68°.64E±0°.08, h13km, mb4.2/22, MS3.6/16, Error ellipse: s-maj=12.3km s-min=6.0km az=152.0*

*IDC **01** 16:10:44.2±1.3, 2°.37S×68°.59E, h0km, mb3.9/14, mb1 4.0/15, mb1mx3.8/60, mbtmp3.9/15, ML4.3/1, MS3.6/17, Ms1 3.6/17, ms1mx3.5/41, Error ellipse: s-maj=36.2km s-min=19.8km az=45.0*

*NEIC **01** 16:10:45.8±0.5, 2°.34S×68°.67E, h10km, mb4.5/10, Error ellipse: s-maj=10.8km s-min=8.8km az=217.0*

**ISC 01 16:10:45.7**±0.6**, 2°.47S**±0°.08×**68°.70E**±0°.09**, h13km, n60, σ1s25**/49**, mb4.2**/22**, MS3.6**/16**, Carlsberg Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| H08N2 | Diego Garcia H | 4.47 | 149 | T | T | 16 17 19.4 | |
| | baz=329,slow=75,SNR=303 | | | | | | |
| H08N3 | Diego Garcia H | 4.48 | 149 | T | T | 16 17 19.2 | |
| | baz=329,slow=75,SNR=337 | | | | | | |
| H08N1 | Diego Carcia H | 4.49 | 149 | T | T | 16 17 15.7 | |
| | baz=329,slow=75,SNR=311 | | | | | | |
| DGAR | Diego Garcia | 6.17 | 143 | ePn | Pn | 16 12 18.4 | +1.8 |
| DGAR | | | | eSn | Sn | 16 13 23.5 | -3.7 |
| H08S3 | Diego Garcia H | 6.36 | 144 | Pn | Pn | 16 12 15.6 | -3.4 |
| | baz=332,slow=19,SNR=78 | | | | | | |
| H08S3 | | | | Sn | Sn | 16 13 12.4 | -19 |
| H08S1 | Diego Carcia H | 6.37 | 144 | Pn | Pn | 16 12 15.9 | -3.2 |
| | baz=332,slow=19,SNR=74 | | | | | | |
| H08S1 | | | | Sn | Sn | 16 13 12.6 | -19 |
| H08S2 | Diego Garcia H | 6.38 | 144 | Pn | Pn | 16 12 16.2 | -3.1 |
| | baz=332,slow=19,SNR=81 | | | | | | |
| H08S2 | | | | Sn | Sn | 16 13 12.7 | -19 |
| MSEY | Mahe Island | 13.37 | 260 | ePn | Pn | 16 13 55.9 | +0.5 |
| MSEY | | | | eSn | Sn | 16 16 08.5 | -16 |
| PALK | Pallekele | 15.40 | 51 | Pn | Pn | 16 14 22.7 | -0.2 |
| | 1.3nm,0.3s,baz=296,slow=11,SNR=9.7 | | | | | | |
| PALK | | | | Sn | Sn | 16 16 59.7 | -14 |
| | 0.6nm,0.3s,baz=116,slow=18,SNR=4.2 | | | | | | |
| PALK | | | | LR | LR | 16 18 45.7 | |
| | comp=Z,274nm,19.5s,baz=295,slow=31 | | | | | | |
| PALK | Pallekele | 15.40 | 51 | ePn | Pn | 16 14 21.1 | -1.8 |
| | 21nm,1.2s | | | | | | |
| PALK | | | | eSn | Sn | 16 17 00.2 | -13 |
| HYB | Hyderabad | 22.02 | 26 | iP | P | 16 15 40.0 | -0.1 |
| WSAR | Wadi Sarin | 27.37 | 340 | LR | LR | 16 24 57.8 | |
| | comp=Z,184nm,20.5s,baz=169,slow=31 | | | | | | |
| ATD | Arta Tunnel | 29.23 | 299 | LR | LR | 16 26 53.3 | |
| | comp=Z,31nm,19.8s,baz=26,slow=33 | | | | | | |
| KOLN | Koldanda | 33.31 | 25 | eP | P | 16 17 23.7 | +0.1 |
| | 11nm,0.9s | | | | | | |
| DMN | Daman | 33.82 | 27 | eP | P | 16 17 28.8 | +0.6 |
| | 26nm,0.9s | | | | | | |
| PKIN | Phulchoki | 33.93 | 27 | eP | P | 16 17 29.1 | 0.0 |
| | 9.5nm,0.9s | | | | | | |
| RAMN | Ramite | 33.97 | 29 | eP | P | 16 17 30.2 | +0.8 |
| | 24nm,1.0s | | | | | | |
| KKN | Kakani | 34.06 | 27 | eP | P | 16 17 30.4 | +0.3 |
| | 17nm,0.8s | | | | | | |
| GUN | Gumba | 34.43 | 28 | eP | P | 16 17 35.1 | +1.5 |
| | 43nm,1.0s | | | | | | |
| TAPN | Taplejung | 34.85 | 30 | eP | P | 16 17 39.3 | +2.2 |
| | 16nm,0.9s | | | | | | |
| CMAR | Chiang Mai Arr | 36.31 | 54 | P | P | 16 17 50.9 | +1.4 |
| | 1.1nm,0.8s,baz=245,slow=11,SNR=8.0 | | | | | | |
| CMAR | | | | LR | LR | 16 31 37.9 | |
| | comp=Z,56nm,18.5s,baz=246,slow=34 | | | | | | |
| CHTO | Chiang Mai | 36.50 | 53 | eP | P | 16 17 51.5 | +0.4 |
| | 5.4nm,1.1s | | | | | | |
| KBL | Kabul | 36.81 | 0 | eP | P | 16 17 54.1 | +0.3 |
| | 12nm,1.4s | | | | | | |
| LSA | Lhasa | 38.53 | 32 | eP | P | 16 18 08.8 | +0.2 |
| | 16nm,1.9s | | | | | | |
| GEYT | Alibeck | 41.37 | 347 | P | P | 16 18 30.4 | -1.3 |
| | 0.8nm,0.6s,baz=101,slow=7.5,SNR=2.5 | | | | | | |
| GEYT | | | | LR | LR | 16 34 30.9 | |
| | comp=Z,98nm,21.5s,baz=330,slow=35 | | | | | | |
| AAK | Ala-Archa | 45.20 | 6 | P | P | 16 19 03.8 | +1.1 |
| | 2.1nm,0.8s,baz=211,slow=10,SNR=7.8 | | | | | | |
| AAK | | | | LR | LR | 16 37 45.1 | |
| | comp=Z,69nm,20.4s,baz=182,slow=36 | | | | | | |
| AAK | Ala-Archa | 45.20 | 6 | eP | P | 16 19 03.5 | +0.8 |
| | 9.7nm,1.5s | | | | | | |
| GNI | Garni | 47.75 | 335 | LR | LR | 16 39 11.7 | |
| | comp=Z,92nm,19.4s,baz=143,slow=36 | | | | | | |
| BOSA | Boshof | 48.84 | 233 | LR | LR | 16 37 58.3 | |
| | comp=Z,57nm,18.5s,baz=54,slow=34 | | | | | | |
| MK01 | Makanchi Array | 50.48 | 12 | eP | P | 16 19 45.4 | +2.0 |
| MK32 | Makanchi Array | 50.50 | 12 | eP | P | 16 19 41.8 | -1.7 |
| MKAR | Makanchi Array | 50.50 | 12 | P | P | 16 19 41.8 | -1.7 |
| | 1.1nm,0.9s,baz=194,slow=8.4,SNR=5.1 | | | | | | |
| MKAR | | | | LR | LR | 16 40 13.2 | |
| | comp=Z,51nm,18.4s,baz=196,slow=35 | | | | | | |
| KBZ | Khabaz | 51.49 | 336 | P | P | 16 19 51.8 | +0.8 |
| | 1.4nm,0.8s,baz=142,slow=12,SNR=3.1 | | | | | | |
| KBZ | | | | LR | LR | 16 41 44.4 | |
| | comp=Z,57nm,19.7s,baz=169,slow=36 | | | | | | |
| BR101 | Keskin Array S | 52.88 | 326 | eP | P | 16 20 00.7 | -0.9 |
| BR131 | Keskin Array S | 52.88 | 326 | eP | P | 16 20 01.5 | -0.1 |
| BRTR | Keskin Array B | 52.88 | 326 | P | P | 16 20 00.7 | -0.9 |
| | 0.5nm,0.7s,baz=132,slow=12,SNR=3.5 | | | | | | |
| BRTR | | | | LR | LR | 16 42 27.1 | |
| | comp=Z,52nm,19.3s,baz=141,slow=36 | | | | | | |
| AKTO | Aktyubinsk | 53.49 | 352 | P | P | 16 20 05.2 | -0.5 |
| | 1.5nm,0.7s,baz=162,slow=3.2 | | | | | | |
| KURBB | Kurchatov Arra | 53.55 | 8 | P | P | 16 20 05.7 | -0.4 |
| | 0.8nm,0.3s,baz=202,slow=7.8,SNR=10.0 | | | | | | |
| KURK | Kurchatov | 53.66 | 8 | eP | P | 16 20 05.7 | -1.2 |
| ZAA0 | Zalesovo Array | 57.80 | 11 | eP | P | 16 20 34.8 | -1.9 |
| | 18nm,1.9s | | | | | | |
| ZALV | Zalesovo Beam | 57.80 | 11 | P | P | 16 20 35.6 | -1.0 |
| | 1.4nm,0.6s,baz=220,slow=9.1,SNR=7.1 | | | | | | |
| ZALV | | | | LR | LR | 16 44 58.0 | |
| | comp=Z,72nm,19.1s,baz=248,slow=36 | | | | | | |
| ZALV | Zalesovo Beam | 57.80 | 11 | eP | P | 16 20 35.1 | -1.5 |
| ZAA1 | Zalesovo Array | 57.81 | 11 | eP | P | 16 20 35.6 | -1.1 |
| SONA0 | Songino Array | 59.93 | 28 | eP | P | 16 20 52.7 | +0.9 |
| SONM | Songino Array | 59.93 | 28 | P | P | 16 20 52.7 | +0.9 |
| | 2.2nm,0.8s,baz=221,slow=6.6,SNR=8.2 | | | | | | |
| SONA1 | Songino Array | 59.95 | 28 | eP | P | 16 20 51.6 | -0.2 |
| ULN | Ulaanbaatar | 60.27 | 29 | eP | P | 16 20 54.2 | +0.1 |
| | 10nm,1.7s | | | | | | |
| VTS | Vitosha | 60.77 | 323 | eP | P | 16 20 55.9 | -1.7 |
| | 9.8nm,1.6s | | | | | | |
| AKASG | Malin Array Be | 62.78 | 333 | P | P | 16 21 10.7 | -0.1 |
| | 0.5nm,0.5s,baz=133,slow=6.5,SNR=4.6 | | | | | | |
| AKASG | | | | LR | LR | 16 51 40.6 | |
| | comp=Z,27nm,18.2s,baz=285,slow=39 | | | | | | |
| MAW | Mawson | 65.14 | 182 | LR | LR | 16 41 59.3 | |
| | comp=Z,199nm,21.5s,baz=308,slow=29 | | | | | | |
| WR1 | Warramunga Arr | 66.29 | 111 | eP | P | 16 21 35.9 | +1.5 |
| | 26nm,1.9s | | | | | | |
| WRA | Warramunga Arr | 66.29 | 111 | P | P | 16 21 35.9 | +1.5 |
| | 0.8nm,0.8s,baz=288,slow=6.0,SNR=5.8 | | | | | | |
| ASAR | Alice Springs | 66.35 | 115 | P | P | 16 21 36.0 | +1.3 |
| | 0.5nm,0.7s,baz=284,slow=5.8,SNR=7.7 | | | | | | |
| AS31 | Alice Springs | 66.35 | 115 | eP | P | 16 21 34.5 | -0.2 |
| | 4.4nm,1.8s | | | | | | |
| FINES | FINESS Array B | 71.59 | 340 | LR | LR | 16 55 16.6 | |
| | comp=Z,50nm,19.4s,baz=225,slow=37 | | | | | | |
| HFS | Hagfors | 75.54 | 335 | P | P | 16 22 29.8 | +0.1 |
| | 5.9nm,1.0s,baz=164,slow=16,SNR=2.3 | | | | | | |
| NOA | NORSAR Array B | 77.06 | 335 | LR | LR | 16 57 32.2 | |
| | comp=Z,45nm,18.2s,baz=235,slow=36 | | | | | | |
| ARCES | ARCESS Array B | 77.52 | 346 | LR | LR | 16 58 11.8 | |
| | comp=Z,58nm,19.6s,baz=238,slow=37 | | | | | | |
| LTX | Lajitas | 152.31 | 346 | ePKPbc | PKPbc | 16 30 43.3 | +1.0 |
| LTX | | | | ePKPab | PKPab | 16 30 50.8 | -1.3 |
| TXAR | Lajitas Array | 152.31 | 346 | PKPbc | PKPbc | 16 30 43.3 | +1.0 |
| | 0.2nm,0.5s,baz=58,slow=3.0,SNR=3.5 | | | | | | |
| TXAR | | | | PKPab | PKPab | 16 30 50.8 | -1.3 |
| | 0.4nm,0.6s,baz=79,slow=2.5,SNR=4.6 | | | | | | |

---

*IDC **01** 16:11:48.0±1.9, 10°.48N×126°.57E, h0km, mb3.7/6, mb1 3.8/6, mb1mx3.5/56, mbtmp3.7/6, MS4.0/1, Ms1 3.9/1, ms1mx2.6/39, Error ellipse: s-maj=81.5km s-min=20.1km az=62.0*

*ISCJB **01** 16:11:52.2±1.2, 10°.48N±0°.04×126°.41E±0°.08, h42km±12km, mb3.4/6, MS4.0/1, Error ellipse: s-maj=13.0km s-min=7.0km az=169.3*

**ISC 01 16:11:54.2**±1.4**, 10°.45N**±0°.04×**126°.4E**±0°.1**, h36km**±3km**, n18, σ2s20**/26**, mb3.6**/6**, 1C-2D, Philippine Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BESP | Borongan | 1.47 | 322 | eP | Pn | 16 12 17.2 | -1.0 |
| BESP | | | | eS | Sn | 16 12 40.8 | +4.6 |
| MSLP | Maasin | 1.52 | 258 | eP | Pn | 16 12 16.5 | -2.3 |
| MSLP | | | | eS | Sn | 16 12 33.1 | -4.2 |
| PLP | Palo | 1.54 | 298⇓ | eP | Pn | 16 12 18.1 | -1.0 |
| PLP | | | | eS | Sn | 16 12 36.8 | -1.1 |
| BUTP | Butuan | 1.64 | 207 | eP | Pn | 16 12 17.6 | -3.0 |
| BUTP | | | | eS | Sn | 16 12 38.0 | -2.4 |
| OCLP | Ormoc | 1.83 | 289 | eP | Pn | 16 12 23.3 | +0.2 |
| LLP | Lapu-Lapu | 2.37 | 267⇑ | eP | Pn | 16 12 29.5 | -1.0 |
| LLP | | | | eS | Sn | 16 12 57.6 | -0.8 |
| TBP | Tagbilaran | 2.58 | 253 | eP | Pn | 16 12 33.5 | 0.0 |
| TBP | | | | eS | Sn | 16 13 04.2 | +0.6 |
| CNP | Catarman | 2.65 | 321 | eP | Pn | 16 12 34.3 | -0.1 |
| CNP | | | | eS | Sn | 16 13 01.9 | -3.3 |
| BUKP | Musuan | 2.86 | 207 | eP | Pn | 16 12 38.2 | +0.8 |
| BUKP | | | | eS | Sn | 16 13 12.9 | +2.4 |
| SNPH | Sibulan | 3.27 | 251 | iP | Pn | 16 12 43.6 | +0.6 |
| SNPH | | | | iS | Sn | 16 13 24.7 | +3.9 |
| CTBH | Cotabato--PC H | 3.83 | 213⇓ | iP | Pn | 16 12 52.2 | +1.5 |
| CMAR | Chiang Mai Arr | 27.70 | 290 | P | P | 16 17 39.4 | +0.1 |
| | 0.7nm,0.7s,baz=97,slow=7.4,SNR=6.1 | | | | | | |
| FITZ | Fitzroy Crossi | 28.37 | 181 | P | P | 16 17 45.2 | 0.0 |
| | 2.0nm,1.1s,baz=353,slow=16,SNR=1.7 | | | | | | |
| WRA | Warramunga Arr | 31.20 | 165 | P | P | 16 18 07.9 | -2.4 |
| | 0.1nm,0.6s,baz=346,slow=10,SNR=2.7 | | | | | | |
| ASAR | Alice Springs | 34.69 | 168 | P | P | 16 18 40.5 | -0.3 |
| | 0.1nm,0.4s,baz=353,slow=7.2,SNR=9.2 | | | | | | |
| STKA | Stephens Creek | 44.54 | 161 | LR | LR | 16 43 29.8 | |
| | comp=Z,167nm,18.8s,baz=132,slow=43 | | | | | | |
| MKAR | Makanchi Array | 51.95 | 323 | P | P | 16 21 00.0 | +0.3 |
| | 0.6nm,0.7s,baz=118,slow=7.9,SNR=1.8 | | | | | | |
| KURBB | Kurchatov Arra | 55.98 | 325 | P | P | 16 21 28.6 | -0.4 |
| | 0.4nm,0.5s,baz=124,slow=6.7,SNR=2.1 | | | | | | |

---

*ISCJB **01** 16:20:35.8±0.6, 23°.72S±0°.08×180°.0W±0°.1, h532km, mb4.0/15, Error ellipse: s-maj=15.3km s-min=10.5km az=11.6*

*IDC **01** 16:20:36.0±3.5, 23°.66S×179°.93W, h521km±38km, mb3.6/15, mb1 3.7/17, mb1mx3.6/32, mbtmp4.4/17, Error ellipse: s-maj=23.0km s-min=20.9km az=152.0*

**ISC 01 16:20:36.3**±0.7**, 23°.83S**±0°.10×**179°.9W**±0°.1**, h532km, n24, σ1s05**/23**, mb4.0**/15**, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DZM | Mont Dzumac | 12.70 | 275 | P | P | 16 23 21.4 | -0.9 |
| | 0.2nm,0.3s,baz=115,slow=19,SNR=2.5 | | | | | | |
| URZ | Urewera | 14.61 | 189 | P | P | 16 23 42.8 | +0.9 |
| | 3.2nm,0.3s,baz=299,slow=2.6,SNR=19 | | | | | | |
| URZ | | | | S | S | 16 26 12.3 | -2.6 |
| | 0.6nm,0.3s,baz=180,slow=20,SNR=8.7 | | | | | | |
| CTA | Charters Tower | 31.56 | 270 | P | P | 16 26 16.2 | +0.8 |
| | 11nm,0.3s,baz=94,slow=11,SNR=44 | | | | | | |
| PMG | Port Moresby | 34.55 | 289 | P | P | 16 26 40.6 | -0.1 |
| | 19nm,0.8s,baz=114,slow=8.2,SNR=8.7 | | | | | | |
| STKA | Stephens Creek | 34.83 | 248 | P | P | 16 26 43.9 | +1.0 |
| | 1.3nm,0.5s,baz=318,slow=9.5,SNR=3.2 | | | | | | |
| ASAR | Alice Springs | 42.13 | 261 | P | P | 16 27 42.4 | +0.1 |
| | 3.6nm,0.6s,baz=95,slow=7.2,SNR=97 | | | | | | |
| WRA | Warramunga Arr | 42.50 | 266 | P | P | 16 27 44.6 | -0.5 |
| | 4.9nm,0.4s,baz=93,slow=8.5,SNR=84 | | | | | | |
| FITZ | Fitzroy Crossi | 50.92 | 266 | P | P | 16 28 48.7 | -0.1 |
| | 3.1nm,0.6s,baz=109,slow=7.1,SNR=17 | | | | | | |
| MJAR | Matsushiro Arr | 71.89 | 326 | P | P | 16 31 04.9 | -0.7 |
| | 2.6nm,0.8s,baz=155,slow=6.0,SNR=5.7 | | | | | | |
| KSRS | Korea Array | 78.25 | 320 | P | P | 16 31 41.7 | +0.7 |
| | 0.8nm,0.6s,baz=138,slow=7.4,SNR=3.2 | | | | | | |
| PETK | Petropavlovsk- | 79.05 | 346 | P | P | 16 31 44.5 | -0.5 |
| | 2.8nm,0.7s,baz=131,slow=6.5,SNR=5.2 | | | | | | |
| SEY | Seymchan | 89.22 | 348 | P | P | 16 32 34.5 | -0.4 |
| | 3.6nm,1.1s,baz=214,slow=7.8,SNR=4.6 | | | | | | |
| CMAR | Chiang Mai Arr | 89.58 | 290 | P | P | 16 32 39.5 | +1.9 |
| | 1.0nm,0.8s,baz=140,slow=3.1,SNR=9.1 | | | | | | |
| TXAR | Lajitas Array | 90.32 | 58 | P | P | 16 32 42.2 | +1.3 |
| | 1.5nm,0.7s,baz=210,slow=7.1,SNR=13 | | | | | | |
| ILAR | Eielson Array | 91.94 | 14 | P | P | 16 32 46.0 | -1.4 |
| | 0.4nm,0.9s,baz=213,slow=5.1,SNR=5.6 | | | | | | |
| PDAR | Pinedale Array | 92.58 | 44 | P | P | 16 32 51.1 | -0.1 |
| | 0.5nm,0.6s,baz=222,slow=2.0,SNR=4.3 | | | | | | |
| SONM | Songino Array | 97.10 | 319 | P | P | 16 33 10.2 | -1.3 |
| | 0.5nm,0.4s,baz=75,slow=7.6,SNR=5.9 | | | | | | |
| ARCES | ARCESS Array B | 131.83 | 348 | PKP | PKPdf | 16 38 48.5 | +0.2 |
| | 5.6nm,1.0s,baz=3.7,slow=2.8,SNR=2.8 | | | | | | |
| FINES | FINESS Array B | 138.40 | 342 | PKP | PKPdf | 16 39 01.5 | +0.8 |
| | 3.3nm,0.9s,baz=80,slow=4.6,SNR=3.9 | | | | | | |
| NOA | NORSAR Array B | 142.02 | 351 | PKhKP | PKPpre | 16 39 04.1 | |
| | 1.6nm,1.0s,baz=8.5,slow=3.9,SNR=2.8 | | | | | | |
| HFS | Hagfors | 142.49 | 349 | PKhKP | PKPpre | 16 39 03.9 | |
| | 2.7nm,0.4s,baz=15,slow=6.0,SNR=23 | | | | | | |
| AKASG | Malin Array Be | 144.96 | 327 | PKP | PKPdf | 16 39 12.2 | -0.4 |
| | 2.5nm,0.5s,baz=42,slow=4.1,SNR=13 | | | | | | |
| BRTR | Keskin Array B | 147.60 | 307 | PKPbc | PKPbc | 16 39 20.8 | -0.5 |
| | 1.9nm,0.6s,baz=134,slow=5.4,SNR=4.1 | | | | | | |
| TORD | Torodi Ar. Bea | 169.27 | 188 | PKPab | PKPab | 16 41 00.0 | +0.9 |
| | 0.5nm,0.8s,baz=240,slow=2.8,SNR=3.0 | | | | | | |

*ATH **01** 16:24:30.5, 39.°15N×26.°56E, h11km±3km, ML2.3/8, Error ellipse: s-maj=3.8km s-min=0.9km az=247.0*
*DDA **01** 16:24:31.1, 39.°14N×26.°45E, h26km, Ml3.0*
*ISK **01** 16:24:31.8, 39.°12N×26.°46E, h7km, ML2.8*
*ISCJB **01** 16:24:32.0±0.4, 39.°12N±0.°02×26.°45E±0.°03, h7km±3km, Error ellipse: s-maj=3.8km s-min=2.5km az=157.4*
*CSEM **01** 16:24:32.0±0.1, 39.°12N×26.°46E, h8km, ML2.4, Error ellipse: s-maj=3.0km s-min=2.2km az=65.0*
*THE **01** 16:24:32.5, 39.°13N×26.°43E, h2km±2km, ML2.4/7, Error ellipse: s-maj=2.4km s-min=0.8km az=260.0*
**ISC 01 16:24:32.2**±0.8**, 39.°13N**±0.°01×**26.°46E**±0.°02**, h13**km±6km**, n73, σ0s67**/121**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PRK** | **Paraskevi** | **0.19** | **310** | P | **Pg** | **16 24 36.2** | **-0.2** |
| PRK | | | | S | **Sg** | **16 24 39.7** | **+0.3** |
| PRK | | | | AML | AML | 16 24 40.7 | |
| | comp=E,4854μm,0.7s | | | | | | |
| PRK | | | | AML | AML | 16 24 41.2 | |
| | comp=N,4823μm,0.5s | | | | | | |
| **PRK** | **Paraskevi** | **0.19** | **310** | P | **Pg** | **16 24 36.2** | **-0.2** |
| PRK | | | | S | **Sg** | **16 24 39.6** | **+0.2** |
| **PRK** | **Paraskevi** | **0.19** | **310** | P | **Pg** | **16 24 35.9** | **-0.5** |
| PRK | | | | S | **Sg** | **16 24 39.6** | **+0.2** |
| **DKL** | **Dikili** | **0.35** | **99** | *e*PG | **Pg** | **16 24 39.0** | **-0.3** |
| DKL | | | | *e*SG | **Sg** | **16 24 44.5** | **+0.5** |
| **DKL** | **Dikili** | **0.35** | **99** | *e*Pg | **Pg** | **16 24 39.0** | **-0.3** |
| DKL | | | | *e*Sg | **Sg** | **16 24 44.5** | **+0.5** |
| **SIGR** | **SIGRI** | **0.48** | **281** | *e*PG | **Pg** | **16 24 41.0** | **-0.6** |
| **SIGR** | **SIGRI** | **0.48** | **281** | P | **Pg** | **16 24 40.5** | **-1.1** |
| SIGR | | | | S | **Sg** | **16 24 48.4** | **+0.5** |
| SIGR | | | | AML | AML | 16 24 51.2 | |
| | comp=N,388μm,0.3s | | | | | | |
| SIGR | | | | AML | AML | 16 24 54.8 | |
| | comp=E,394μm,0.4s | | | | | | |
| **SIGR** | **SIGRI** | **0.48** | **281** | *e*Pg | **Pg** | **16 24 41.0** | **-0.6** |
| SIGR | | | | S | **Sg** | **16 24 48.0** | **+0.1** |
| **SIGR** | **SIGRI** | **0.48** | **281** | P | **Pg** | **16 24 40.8** | **-0.8** |
| SIGR | | | | S | **Sg** | **16 24 48.0** | **+0.1** |
| **BAYC** | **CANAKKALE_Bayr** | **0.62** | **6** | *i* P | **Pg** | **16 24 43.4** | **-0.9** |
| **BAYC** | **CANAKKALE_Bayr** | **0.62** | **6** | P | **Pg** | **16 24 43.4** | **-0.9** |
| **EZN** | **Ezine** | **0.71** | **352** | *e*PG | **Pb** | **16 24 46.5** | **+0.1** |
| EZN | | | | *e*SG | **Sb** | **16 24 57.3** | **+1.2** |
| **EZN** | **Ezine** | **0.71** | **352** | P | **Pb** | **16 24 46.1** | **-0.3** |
| **EZN** | **Ezine** | **0.71** | **352** | *e*Pg | **Pb** | **16 24 46.5** | **+0.1** |
| EZN | | | | *e*Sg | **Sb** | **16 24 57.3** | **+1.2** |
| **EZN** | **Ezine** | **0.71** | **352** | P | **Pb** | **16 24 46.1** | **-0.3** |
| **URLA** | **Izmir** | **0.77** | **172** | *e*PG | **Pg** | **16 24 46.1** | **-1.0** |
| URLA | | | | *e*SG | **Sb** | **16 24 58.9** | **+1.0** |
| **URLA** | **Izmir** | **0.77** | **172** | *i* P | **Pg** | **16 24 46.0** | **-1.0** |
| URLA | | | | *i* S | **Sb** | **16 24 58.8** | **+1.0** |
| **URLA** | **Izmir** | **0.77** | **172** | *e*Pg | **Pg** | **16 24 46.1** | **-1.0** |
| URLA | | | | S | **Sb** | **16 24 58.8** | **+1.0** |
| **BOZC** | **Bozcaada** | **0.78** | **336** | *e*PG | **Pg** | **16 24 47.1** | **-0.2** |
| **BOZC** | **Bozcaada** | **0.78** | **336** | *i* P | **Pg** | **16 24 46.4** | **-1.0** |
| **BOZC** | **Bozcaada** | **0.78** | **336** | *e*Pg | **Pg** | **16 24 47.1** | **-0.2** |
| **CHOS** | **Chios island** | **0.80** | **203** | *e*PG | **Pb** | **16 24 48.1** | **+0.1** |
| **CHOS** | **Chios island** | **0.80** | **203** | P | **Pg** | **16 24 47.0** | **-0.7** |
| CHOS | | | | S | **Sb** | **16 24 59.2** | **+0.4** |
| CHOS | | | | AML | AML | 16 25 01.3 | |
| | comp=E,1028μm,0.2s | | | | | | |
| CHOS | | | | AML | AML | 16 25 02.1 | |
| | comp=N,705μm,0.3s | | | | | | |
| **CHOS** | **Chios island** | **0.80** | **203** | P | **Pg** | **16 24 47.0** | **-0.7** |
| **CHOS** | **Chios island** | **0.80** | **203** | *e*Pg | **Pb** | **16 24 48.1** | **+0.1** |
| CHOS | | | | S | **Sb** | **16 24 59.2** | **+0.4** |
| **CHOS** | **Chios island** | **0.80** | **203** | P | **Pg** | **16 24 47.1** | **-0.6** |
| CHOS | | | | S | **Sn** | **16 25 00.5** | **-0.6** |
| **ZEY** | **˜zmir** | **0.89** | **178** | *i* P | **Pg** | **16 24 48.2** | **-1.0** |
| ZEY | | | | *i* S | **Sb** | **16 25 01.1** | **0.0** |
| **STEP** | **BALIKESIR_Sava** | **1.01** | **75** | *i* P | **Pg** | **16 24 50.8** | **-0.8** |
| STEP | | | | *i* S | **Sb** | **16 25 05.4** | **+0.6** |
| **STEP** | **BALIKESIR_Sava** | **1.01** | **75** | P | **Pg** | **16 24 50.8** | **-0.8** |
| STEP | | | | S | **Sb** | **16 25 05.4** | **+0.6** |
| **AKHS** | **Akhisar** | **1.08** | **103** | *i* P | **Pg** | **16 24 52.6** | **-0.5** |
| AKHS | | | | *i* S | **Sn** | **16 25 08.8** | **+0.8** |
| **AKHS** | **Akhisar** | **1.08** | **103** | P | **Pg** | **16 24 52.6** | **-0.5** |
| AKHS | | | | S | **Sn** | **16 25 08.8** | **+0.8** |
| **BALY** | **Balya** | **1.09** | **55** | *i* P | **Pb** | **16 24 52.9** | **0.0** |
| BALY | | | | *i* S | **Sb** | **16 25 07.8** | **+0.7** |
| **BALY** | **Balya** | **1.09** | **55** | P | **Pb** | **16 24 52.9** | **0.0** |
| BALY | | | | S | **Sb** | **16 25 07.8** | **+0.7** |
| **DGB** | **˜zmir** | **1.12** | **163** | *i* P | **Pg** | **16 24 52.3** | **-1.5** |
| DGB | | | | *i* S | **Sg** | **16 25 06.8** | **-1.5** |
| **GADA** | **Gvkgeada** | **1.15** | **338** | *e*PN | **Pn** | **16 24 54.0** | **0.0** |
| **GADA** | **Gvkgeada** | **1.15** | **338** | P | **Pg** | **16 24 53.6** | **-0.7** |
| **GADA** | **Gvkgeada** | **1.15** | **338** | *e*Pn | **Pn** | **16 24 54.0** | **0.0** |
| GADA | | | | S | **Sn** | **16 25 10.4** | **+0.8** |
| **GADA** | **Gvkgeada** | **1.15** | **338** | P | **Pg** | **16 24 53.6** | **-0.7** |
| GADA | | | | S | **Sn** | **16 25 10.4** | **+0.8** |
| **BALB** | **Balikesir** | **1.22** | **65** | *e*PN | **Pg** | **16 24 55.2** | **-0.4** |
| **BALB** | **Balikesir** | **1.22** | **65** | *e*Pn | **Pg** | **16 24 55.2** | **-0.4** |
| **LIA** | **Limnos Island** | **1.25** | **308** | P | **Pg** | **16 24 56.1** | **-0.2** |
| LIA | | | | S | **Sn** | **16 25 12.5** | **+0.4** |
| LIA | | | | AML | AML | 16 25 13.4 | |
| | comp=E,227μm,0.4s | | | | | | |
| LIA | | | | AML | AML | 16 25 14.3 | |
| | comp=N,216μm,0.4s | | | | | | |
| **LIA** | **Limnos Island** | **1.25** | **308** | P | **Pg** | **16 24 56.1** | **-0.2** |
| LIA | | | | S | **Sn** | **16 25 12.5** | **+0.4** |
| **LIA** | **Limnos Island** | **1.25** | **308** | P | **Pn** | **16 24 55.5** | **+0.1** |
| LIA | | | | S | **Sn** | **16 25 13.2** | **+1.1** |
| **GONE** | **Gonen-Balikesi** | **1.32** | **45** | *e*PN | **Pg** | **16 24 57.2** | **-0.4** |
| **GONE** | **Gonen-Balikesi** | **1.32** | **45** | *e*Pn | **Pg** | **16 24 57.2** | **-0.4** |
| **SMG** | **Samos** | **1.45** | **168** | P | **Pn** | **16 24 57.7** | **-0.4** |
| SMG | | | | S | **Sn** | **16 25 17.2** | **+0.3** |
| SMG | | | | AML | AML | 16 25 21.0 | |
| | comp=E,396μm,0.6s | | | | | | |
| SMG | | | | AML | AML | 16 25 22.1 | |
| | comp=N,473μm,0.6s | | | | | | |
| **SMG** | **Samos** | **1.45** | **168** | P | **Pn** | **16 24 57.7** | **-0.4** |
| SMG | | | | S | **Sn** | **16 25 17.2** | **+0.3** |
| **SMG** | **Samos** | **1.45** | **168** | P | **Pn** | **16 24 57.7** | **-0.4** |
| SMG | | | | S | **Sg** | **16 25 19.8** | **+1.1** |
| **SMTH** | **Samothraki Isl** | **1.52** | **332** | P | **Pn** | **16 24 59.0** | **-0.2** |
| SMTH | | | | S | **Sg** | **16 25 20.4** | **-0.8** |
| SMTH | | | | AML | AML | 16 25 21.4 | |
| | comp=E,77μm,0.3s | | | | | | |
| SMTH | | | | AML | AML | 16 25 21.9 | |
| | comp=N,112μm,0.3s | | | | | | |
| **SMTH** | **Samothraki Isl** | **1.52** | **332** | P | **Pn** | **16 24 59.1** | **-0.1** |
| SMTH | | | | S | **Sg** | **16 25 20.4** | **-0.8** |
| **SMTH** | **Samothraki Isl** | **1.52** | **332** | P | **Pn** | **16 24 59.1** | **-0.1** |
| SMTH | | | | S | **Sn** | **16 25 19.2** | **+0.3** |
| **GCAM** | **G?zelcaml?** | **1.55** | **157** | *e*PN | **Pb** | **16 25 00.7** | **0.0** |
| **GCAM** | **G?zelcaml?** | **1.55** | **157** | *i* P | **Pn** | **16 25 00.2** | **+0.8** |
| GCAM | | | | *i* S | **Sg** | **16 25 22.4** | **+0.4** |
| **GCAM** | **G?zelcaml?** | **1.55** | **157** | P | **Pn** | **16 25 00.2** | **+0.8** |
| **GCAM** | **G?zelcaml?** | **1.55** | **157** | *e*Pn | **Pb** | **16 25 00.7** | **0.0** |
| GCAM | | | | S | **Sg** | **16 25 22.4** | **+0.4** |
| **ENEZ** | **Enez** | **1.63** | **352** | P | **Pn** | **16 25 01.3** | **+0.8** |
| ENEZ | | | | S | **Sb** | **16 25 23.0** | **+0.5** |
| **ENEZ** | **Enez** | **1.63** | **352** | P | **Pn** | **16 25 01.3** | **+0.8** |
| ENEZ | | | | S | **Sb** | **16 25 23.0** | **+0.5** |
| **SART** | **Tekirdag** | **1.66** | **19** | *i* P | **Pb** | **16 25 01.9** | **-0.7** |
| SART | | | | *i* S | **Sb** | **16 25 23.8** | **+0.3** |
| **SART** | **Tekirdag** | **1.66** | **19** | P | **Pb** | **16 25 01.9** | **-0.7** |
| SART | | | | S | **Sb** | **16 25 23.8** | **+0.3** |
| **KESN** | **Edirne-Kesan** | **1.71** | **6** | *i* P | **Pn** | **16 25 01.3** | **-0.7** |
| **KESN** | **Edirne-Kesan** | **1.71** | **6** | P | **Pn** | **16 25 01.3** | **-0.7** |
| **MANT** | **Manisa** | **1.76** | **110** | *i* P | **Pn** | **16 25 02.8** | **+0.2** |
| MANT | | | | *i* S | **Sb** | **16 25 26.2** | **-0.3** |
| **MANT** | **Manisa** | **1.76** | **110** | P | **Pn** | **16 25 02.8** | **+0.2** |
| MANT | | | | S | **Sb** | **16 25 26.2** | **-0.3** |
| **DEMI** | **Demirci** | **1.76** | **92** | *i* P | **Pn** | **16 25 01.4** | **-1.0** |
| **DEMI** | **Demirci** | **1.76** | **92** | P | **Pn** | **16 25 01.4** | **-1.0** |
| **ALN** | **Alexandroupoli** | **1.80** | **350** | P | **Pn** | **16 25 03.8** | **+0.9** |
| ALN | | | | S | **Sb** | **16 25 27.8** | **+0.4** |
| ALN | | | | AML | AML | 16 25 32.4 | |
| | comp=N,110μm,0.6s | | | | | | |
| ALN | | | | AML | AML | 16 25 32.7 | |
| | comp=E,58μm,0.4s | | | | | | |
| **ALN** | **Alexandroupoli** | **1.80** | **350** | P | **Pn** | **16 25 03.8** | **+0.9** |
| ALN | | | | S | **Sb** | **16 25 27.6** | **+0.2** |
| **ALN** | **Alexandroupoli** | **1.80** | **350** | P | **Pn** | **16 25 03.6** | **+0.7** |
| ALN | | | | S | **Sb** | **16 25 27.6** | **+0.2** |
| **AYDN** | **Tasoluk** | **1.84** | **142** | *i* P | **Pg** | **16 25 07.5** | **0.0** |
| **AYDN** | **Tasoluk** | **1.84** | **142** | P | **Pg** | **16 25 07.5** | **0.0** |
| **RDO** | **Rodhopi** | **2.14** | **341** | P | **Pn** | **16 25 08.3** | **+0.7** |
| RDO | | | | S | **Sn** | **16 25 32.4** | **-1.6** |
| RDO | | | | AML | AML | 16 25 43.4 | |
| | comp=E,25μm,0.3s | | | | | | |
| RDO | | | | AML | AML | 16 25 44.3 | |
| | comp=N,27μm,0.3s | | | | | | |
| **RDO** | **Rodhopi** | **2.14** | **341** | P | **Pn** | **16 25 08.3** | **+0.7** |
| RDO | | | | S | **Sn** | **16 25 32.4** | **-1.6** |
| **RDO** | **Rodhopi** | **2.14** | **341** | P | **Pn** | **16 25 08.3** | **+0.7** |

*GCMT **01** 16:25:57.7±0.2, 14.°75S×167.°14E, h146km±1km, MW5.2/109, Moment Tensor Solution. s75,c92; s109,c177; Duration: 1s0 Moment tensor: Scale $10^{17}$ Nm; Mrr0.53±.01; Mθθ0.05±.02; Mφφ-0.57±.02; Mrθ-0.17±.01; Mθφ0.52±.02; Mφr-0.46±.01; Best double couple: M0 0.89700×$10^{17}$ NP1:φs181.00000°, δ66.00000°, λ128.00000°. NP2:φs299.00000°, δ44.00000°, λ36.00000°. Principal axes: T 0.8560, Plg53.0000°, Azm137.0000°; N 0.0810, Plg34.0000°, Azm343.0000°; P -0.9370, Plg13.0000°, Azm244.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*NEIC **01** 16:25:57.7±0.1, 14.°78S×167.°33E, mb5.2/126 Error ellipse: s-maj=3.6km s-min=3.0km az=106.0*
*IDC **01** 16:25:57.8±0.5, 14.°77S×167.°28E, h134km±3km, mb4.7/30, mb1 4.7/31, mb1mx4.7/35, mbtmp5.1/31, MS3.7/12, Ms1 3.7/12, ms1mx3.5/29, Error ellipse: s-maj=11.1km s-min=9.0km az=98.0*
*ISCJB **01** 16:25:59.7±0.8, 14.°85S±0.°02×167.°25E±0.°02, h166km±7km, mb5.0/168, Error ellipse: s-maj=4.0km s-min=3.8km az=169.1*
*MOS **01** 16:25:59.1±1.1, 14.°73S×167.°22E, h155km, mb5.0/41, Error ellipse: s-maj=7.7km s-min=7.6km az=173.1*
*BJI **01** 16:26:00.4, 14.°21S×166.°93E, h140km, mb4.8/51, mB5.3/34*
**ISC 01 16:25:58.2**±0.3**, 14.°79S**±0.°04×**167.°26E**±0.°04**, h139**km±2km**, h139**km**:pP-P, n526, σ1s30**/666**, mb5.1**/168**, 6C-8D, Vanuatu Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **7.29** | **186** | P | **Pn** | **16 27 42.9** | **+0.8** |
| | 22nm,0.3s,baz=73,slow=10,SNR=108 | | | | | | |
| DZM | | | | S | **Sn** | **16 29 02.2** | **-1.5** |
| | 18nm,0.3s,baz=306,slow=22,SNR=7.5 | | | | | | |
| DZM | | | | LR | LR | 16 29 48.3 | |
| | comp=Z,726nm,19.8s,baz=36,slow=32 | | | | | | |
| **DZM** | **Mont Dzumac** | **7.29** | **186** | *e*Pn | **Pn** | **16 27 43.0** | **+0.8** |
| DZM | | | | *e*Sn | **Sn** | **16 29 02.0** | **-1.6** |
| | 438nm,1.4s | | | | | | |
| **DZM** | **Mont Dzumac** | **7.29** | **186** | *e*Pn | **Pn** | **16 27 42.4** | **+0.2** |
| DZM | | | | *e*Sn | **Sn** | **16 29 01.1** | **-2.5** |
| **HNR** | **Honiara** | **8.91** | **306** | *e*P | **Pn** | **16 28 07.0** | **+3.1** |
| HNR | | | | *e*S | **Sn** | **16 29 45.0** | **+2.2** |
| **HNR** | **Honiara** | **8.91** | **306** | P | **Pn** | **16 28 06.6** | **+2.7** |
| | 165nm,0.3s,baz=174,slow=6.2,SNR=97 | | | | | | |
| HNR | | | | S | **Sn** | **16 29 44.2** | **+1.4** |
| | 92nm,0.3s,baz=12,slow=21,SNR=8.2 | | | | | | |
| HNR | | | | LR | LR | 16 31 22.6 | |
| | comp=Z,983nm,19.3s,baz=136,slow=36 | | | | | | |
| **HNR** | **Honiara** | **8.91** | **306** | *e*P | **Pn** | **16 28 05.6** | **+1.7** |
| HNR | | | | *e* | | 16 29 44.2 | |
| **HNR** | **Honiara** | **8.91** | **306** | *e*Pn | **Pn** | **16 28 05.6** | **+1.7** |
| HNR | | | | *e*Sn | **Sn** | **16 29 41.1** | **-1.7** |
| HNR | | | | *e*Sn | Sn | 16 29 44.2 | +1.4 |
| HNR | | | | *e* | | 16 31 22.6 | |
| **MSVF** | **Nonsavu** | **10.77** | **107** | *e*P | **Pn** | **16 28 32.1** | **+3.3** |
| **MSVF** | **Nonsavu** | **10.77** | **107** | *e*Pn | **Pn** | **16 28 32.1** | **+3.3** |
| **FUNA** | **Funafuti** | **13.24** | **63** | *e*Pn | **P** | **16 29 04.8** | **-1.0** |
| **TARA** | **Tarawa** | **16.99** | **20** | *e*P | **Pn** | **16 29 49.2** | **+1.5** |
| | 188nm,1.3s | | | | | | |
| **RABL** | **Rabaul** | **18.22** | **304** | *e*P | **Pn** | **16 30 03.0** | **+0.6** |
| | 83nm,0.4s | | | | | | |
| **EIDS** | **Eidsvold** | **18.46** | **233** | P | **Pn** | **16 30 06.1** | **+0.9** |
| | baz=18,SNR=98 | | | | | | |
| **EIDS** | **Eidsvold** | **18.46** | **233** | *e*P | **Pn** | **16 30 06.3** | **+1.1** |
| | 292nm,0.6s | | | | | | |
| **AFI** | **Afiamalu** | **20.33** | **90** | P | **P** | **16 30 25.2** | **+1.3** |
| | 86nm,1.0s,baz=96,slow=21,SNR=9.1 | | | | | | |
| **AFI** | **Afiamalu** | **20.33** | **90** | *e*P | **P** | **16 30 25.1** | **+1.3** |
| AFI | | | | pmax | pmax | | |
| | comp=Z,186nm,1.2s | | | | | | |
| **AFI** | **Afiamalu** | **20.33** | **90** | *e*P | **P** | **16 30 25.1** | **+1.3** |
| | comp=Z,186nm,1.2s | | | | | | |
| **PMG** | **Port Moresby** | **20.36** | **283** | P | **P** | **16 30 25.6** | **+1.6** |
| | comp=Z,108nm,0.9s,baz=90,slow=6.9,SNR=41 | | | | | | |
| **PMG** | **Port Moresby** | **20.36** | **283** | *d i*P | **P** | **16 30 25.7** | **+1.6** |
| PMG | | | | pmax | pmax | | |
| | comp=Z,594nm,1.0s | | | | | | |
| **PMG** | **Port Moresby** | **20.36** | **283** | *e*P | **P** | **16 30 25.3** | **+1.3** |
| | comp=Z,144nm,1.0s | | | | | | |
| **CTA** | **Charters Tower** | **20.71** | **252** | P | **P** | **16 30 29.4** | **+1.6** |
| | comp=Z,128nm,0.8s,baz=77,slow=12,SNR=135 | | | | | | |
| CTA | | | | S | **S** | **16 34 14.3** | **+2.6** |
| | comp=Z,2.8nm,0.8s,baz=246,slow=19,SNR=4.8 | | | | | | |
| **CTAO** | **Charters Tower** | **20.71** | **252** | *e*P | **P** | **16 30 28.8** | **+1.0** |
| CTAO | | | | pmax | pmax | | |
| | comp=Z,168nm,0.8s | | | | | | |
| **CTAO** | **Charters Tower** | **20.71** | **252** | *e*P | **P** | **16 30 28.8** | **+1.0** |
| | comp=Z,168nm,0.8s | | | | | | |
| **RMQ** | **Roma** | **20.83** | **233** | P | Pn | 16 30 31.1 | -1.9 |
| | baz=21,SNR=106 | | | | | | |
| **OUZ** | **Omahuta** | **21.13** | **165** | *e*P | **P** | **16 30 33.4** | **+1.3** |
| | comp=Z,233nm,1.2s | | | | | | |
| **ARMA** | **Armidale** | **21.18** | **220** | P | **P** | **16 30 35.2** | **+2.4** |
| | baz=21,SNR=11 | | | | | | |
| **ARMA** | **Armidale** | **21.18** | **220** | *e*P | **P** | **16 30 35.0** | **+2.2** |
| | comp=Z,73nm,1.1s | | | | | | |
| **NIUE** | **Niue** | **22.23** | **104** | P | **P** | **16 30 43.7** | **-0.1** |
| | baz=22,SNR=11 | | | | | | |
| **MTSU** | **Mount Surprise** | **22.25** | **258** | P | **P** | **16 30 44.9** | **+1.0** |
| | baz=22,SNR=88 | | | | | | |
| **COEN** | **Coen** | **23.34** | **269** | P | **P** | **16 30 55.3** | **+0.9** |
| | baz=23,SNR=54 | | | | | | |
| **COEN** | **Coen** | **23.34** | **269** | *e*P | **P** | **16 30 55.1** | **+0.8** |
| | comp=Z,55nm,1.0s | | | | | | |
| **MGCD** | **Mangrove Creek** | **23.48** | **216** | P | **P** | **16 30 57.6** | **+2.2** |
| | baz=24,SNR=17 | | | | | | |
| **RIV** | **Riverview** | **23.91** | **215** | P | **P** | **16 31 01.8** | **+2.5** |
| | baz=24,SNR=6.8 | | | | | | |
| **KNTN** | **Kanton** | **23.93** | **62** | *e*P | **P** | **16 31 00.2** | **+0.6** |
| | comp=Z,394nm,1.6s | | | | | | |
| **QLP** | **Quilpie** | **24.48** | **238** | P | **P** | **16 31 05.8** | **+1.2** |
| | baz=24,SNR=120 | | | | | | |
| **HIZ** | **Hauiti** | **24.57** | **166** | *e*P | **P** | **16 31 06.4** | **+1.2** |
| | comp=Z,125nm,1.1s | | | | | | |
| **HAZ** | **Te Kaha** | **24.71** | **160** | PN | **P** | **16 31 06.9** | **+0.4** |
| **MXZ** | **Matakaoa Point** | **24.72** | **159** | *e*P | **P** | **16 31 06.5** | **-0.1** |
| | comp=Z,79nm,0.9s | | | | | | |
| **RUGZ** | **Raukumara Rang** | **24.86** | **160** | PN | **P** | **16 31 08.0** | **0.0** |
| **URZ** | **Urewera** | **24.95** | **161** | P | **P** | **16 31 08.7** | **0.0** |
| | comp=Z,23nm,0.4s,baz=268,slow=1.7,SNR=32 | | | | | | |
| **URZ** | **Urewera** | **24.95** | **161** | *e*P | **P** | **16 31 08.3** | **-0.4** |
| | comp=Z,71nm,1.2s | | | | | | |
| **URZ** | **Urewera** | **24.95** | **161** | PN | **P** | **16 31 08.3** | **-0.4** |
| **MWZ** | **Matawai** | **25.15** | **161** | PN | **P** | **16 31 10.1** | **-0.5** |
| **PUZ** | **Puketiti** | **25.16** | **159** | PN | **P** | **16 31 09.9** | **-0.7** |
| **OTVZ** | **Oturere** | **25.39** | **165** | *e*PN | **P** | **16 31 13.4** | **+0.6** |
| **MTHZ** | **Maungataniwha** | **25.42** | **162** | PN | **P** | **16 31 12.8** | **-0.2** |
| **RIGZ** | **Rimuhau** | **25.57** | **161** | PN | **P** | **16 31 13.7** | **-0.6** |
| **BKZ** | **Black Stump Fm** | **25.61** | **163** | *e*P | **P** | **16 31 14.7** | **0.0** |
| | comp=Z,94nm,0.4s | | | | | | |
| **BKZ** | **Black Stump Fm** | **25.61** | **163** | PN | **P** | **16 31 14.6** | **-0.2** |
| **CMSA** | **Cobar Meteorol** | **25.82** | **226** | P | **P** | **16 31 17.7** | **+1.1** |
| | baz=26,SNR=66 | | | | | | |
| **KNZ** | **Kokohu** | **25.83** | **161** | PN | **P** | **16 31 15.8** | **-0.8** |
| **CNB** | **Canberra Magne** | **26.00** | **215** | P | **P** | **16 31 20.5** | **+2.1** |
| | baz=26,SNR=12 | | | | | | |
| **CAN** | **Canberra** | **26.21** | **215** | *e*P | **P** | **16 31 21.8** | **+1.6** |
| CAN | | | | pmax | pmax | | |
| | comp=Z,44nm,1.3s | | | | | | |
| **CAN** | **Canberra** | **26.21** | **215** | *e*P | **P** | **16 31 21.8** | **+1.6** |
| | comp=Z,44nm,1.3s | | | | | | |
| **PXZ** | **Pawanui** | **26.52** | **163** | *e*PN | **P** | **16 31 21.5** | **-1.3** |
| **QIS** | **Mount Isa** | **26.94** | **254** | P | **P** | **16 31 27.2** | **+0.3** |
| | baz=27,SNR=14 | | | | | | |
| **BFZ** | **Birch Farm** | **26.96** | **165** | *e*P | **P** | **16 31 25.5** | **-1.3** |
| | comp=Z,118nm,1.2s | | | | | | |
| **SNZO** | **South Karori** | **27.21** | **168** | *e*P | **P** | **16 31 28.7** | **-0.2** |
| | comp=Z,202nm,1.5s | | | | | | |
| **THZ** | **Tophouse** | **27.32** | **171** | *e*P | **P** | **16 31 30.2** | **+0.1** |
| | comp=Z,61nm,1.2s | | | | | | |
| **KHZ** | **Kahutara** | **28.06** | **170** | *e*P | **P** | **16 31 35.5** | **-1.0** |
| | comp=Z,32nm,0.8s | | | | | | |
| **LTZ** | **Lake Taylor** | **28.23** | **172** | *e*P | **P** | **16 31 38.2** | **+0.1** |
| | comp=Z,83nm,0.8s | | | | | | |
| **FOZ** | **Fox Glacier** | **28.73** | **176** | *e*P | **P** | **16 31 43.2** | **+0.7** |
| | comp=Z,165nm,1.0s | | | | | | |
| **OXZ** | **Oxford** | **28.74** | **173** | *e*P | **P** | **16 31 42.3** | **-0.3** |
| | comp=Z,83nm,1.1s | | | | | | |
| **STKA** | **Stephens Creek** | **28.95** | **230** | P | **P** | **16 31 46.2** | **+1.6** |
| | comp=Z,40nm,0.4s,baz=54,slow=9.2,SNR=60 | | | | | | |
| STKA | | | | PcP | **PcP** | **16 34 50.1** | **0.0** |
| | comp=Z,27nm,0.9s,baz=17,slow=3.0,SNR=9.2 | | | | | | |
| STKA | | | | S | **S** | **16 36 27.9** | **+2.6** |
| | comp=Z,1.1nm,0.3s,baz=342,slow=20,SNR=2.6 | | | | | | |
| STKA | | | | ScP | **ScP** | **16 38 19.0** | **+0.1** |
| | comp=Z,5.1nm,0.9s,baz=56,slow=1.8,SNR=4.7 | | | | | | |
| **STKA** | **Stephens Creek** | **28.95** | **230** | P | **P** | **16 31 46.0** | **+1.5** |
| | baz=29,SNR=48 | | | | | | |
| **STKA** | **Stephens Creek** | **28.95** | **230** | *e*P | **P** | **16 31 46.2** | **+1.6** |
| | comp=Z,17nm,1.0s | | | | | | |
| STKA | | | | *e*PcP | **PcP** | **16 34 51.0** | **+0.9** |
| STKA | | | | S | **S** | **16 36 27.9** | **+2.6** |
| STKA | | | | *e*ScP | **ScP** | **16 38 21.0** | **+2.1** |
| **RPZ** | **Rata Peaks** | **29.01** | **174** | P | **P** | **16 31 44.6** | **-0.4** |
| | comp=Z,77nm,0.6s,baz=255,slow=2.2,SNR=35 | | | | | | |
| **CRLZ** | **Canterbury Las** | **29.06** | **172** | *e*P | **P** | **16 31 45.1** | **-0.2** |
| | comp=Z,352nm,1.6s | | | | | | |
| **MQZ** | **McQueen's Vall** | **29.19** | **172** | *e*P | **P** | **16 31 46.3** | **-0.2** |
| | comp=Z,106nm,1.2s | | | | | | |
| **LBZ** | **Lake Benmore** | **29.61** | **176** | *e*P | **P** | **16 31 49.5** | **-0.7** |
| | comp=Z,163nm,1.4s | | | | | | |
| **TOO** | **Toolangi** | **29.80** | **216** | P | **P** | **16 31 53.1** | **+1.0** |
| | baz=30,SNR=4.2 | | | | | | |
| **WKZ** | **Wanaka** | **29.98** | **177** | *e*P | **P** | **16 31 53.9** | **+0.3** |
| | comp=Z,62nm,0.8s | | | | | | |
| **ODZ** | **Otahua Downs** | **30.30** | **175** | *e*P | **P** | **16 31 56.0** | **-0.3** |
| | comp=Z,72nm,1.2s | | | | | | |
| **MLZ** | **Mavora Lakes** | **30.49** | **179** | *e*P | **P** | **16 31 58.1** | **+0.1** |
| | comp=Z,62nm,0.9s | | | | | | |
| **DCZ** | **Deep Cove** | **30.58** | **180** | *e*P | **P** | **16 31 58.6** | **-0.1** |
| | comp=Z,134nm,1.0s | | | | | | |
| **WHZ** | **Wether Hill Ro** | **31.01** | **179** | *e*P | **P** | **16 32 02.0** | **-0.6** |
| | comp=Z,52nm,0.9s | | | | | | |
| **PYZ** | **Puysegur Point** | **31.29** | **181** | *e*P | **P** | **16 32 04.3** | **-0.7** |
| | comp=Z,114nm,1.2s | | | | | | |
| **ARPS** | **Mount Arapiles** | **31.50** | **221** | P | **P** | **16 32 09.1** | **+2.2** |
| | baz=32,SNR=5.4 | | | | | | |
| **WB2** | **Warramunga Arr** | **31.79** | **256** | *e*P | **P** | **16 32 08.6** | **-1.2** |
| WB2 | | | | *e*pP | **pP** | **16 32 37.5** | **-2.0** |
| **WRAB** | **Tennant Creek** | **31.79** | **256** | *d i*P | **P** | **16 32 08.3** | **-1.5** |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,35nm,1.3s | | | | | | |
| **WRAB** | **Tennant Creek** | **31.79** | **256** | *e*P | P | 16 32 04.1 | -5.7 |
| | comp=Z,46nm,1.3s | | | | | | |
| **WR1** | **Warramunga Arr** | **31.80** | **256** | *e*P | **P** | **16 32 08.8** | **-1.0** |
| | comp=Z,25nm,0.8s | | | | | | |
| WR1 | | | | *e*pP | **pP** | **16 32 37.7** | **-2.0** |
| WR1 | | | | *e*PcP | **PcP** | **16 34 56.9** | **-1.0** |
| WR1 | | | | *e*S | **S** | **16 37 06.8** | **-3.3** |
| WR1 | | | | *e*ScP | **ScP** | **16 38 30.2** | **+1.7** |
| WR1 | | | | *e*ScS | **ScS** | **16 42 25.1** | **-2.2** |
| **WRA** | **Warramunga Arr** | **31.80** | **256** | P | **P** | **16 32 08.8** | **-1.0** |
| | comp=Z,14nm,0.5s,baz=86,slow=9.2,SNR=126 | | | | | | |
| WRA | | | | pP | **pP** | **16 32 37.7** | **-2.0** |
| | comp=Z,4.2nm,0.7s,baz=85,slow=8.9,SNR=2.2 | | | | | | |
| WRA | | | | PcP | **PcP** | **16 34 56.9** | **-1.0** |
| | comp=Z,8.8nm,1.0s,baz=86,slow=3.2,SNR=8.3 | | | | | | |
| WRA | | | | S | **S** | **16 37 06.8** | **-3.4** |
| | comp=Z,2.5nm,1.0s,baz=82,slow=15,SNR=5.7 | | | | | | |
| WRA | | | | ScP | **ScP** | **16 38 30.2** | **+1.7** |
| | comp=Z,4.2nm,0.9s,baz=80,slow=3.6,SNR=9.5 | | | | | | |
| WRA | | | | PKiKP | **PKiKP** | **16 42 25.1** | **-1.5** |
| | comp=Z,0.6nm,0.5s,baz=8.7,slow=0.6,SNR=14 | | | | | | |
| **WRA** | **Warramunga Arr** | **31.80** | **256** | P | **P** | **16 32 08.9** | **-1.0** |
| WRA | | | | *PP | **pP** | **16 32 37.7** | **-2.0** |
| WRA | | | | | | 16 34 56.9 | |
| WRA | | | | S | **S** | **16 37 06.8** | **-3.4** |
| WRA | | | | pmax | pmax | | |
| | comp=Z,14nm,0.5s | | | | | | |
| WRA | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.7s | | | | | | |
| WRA | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.0s | | | | | | |
| WRA | | | | smax | smax | | |
| | comp=N,3.0nm,1.0s | | | | | | |
| WRA | | | | pmax | pmax | | |
| | comp=N,4.0nm,0.9s | | | | | | |
| **RAR** | **Rarotonga** | **31.96** | **106** | P | **P** | **16 32 12.0** | **+0.8** |
| | comp=N,46nm,1.0s,baz=254,slow=6.0,SNR=4.6 | | | | | | |
| **RAR** | **Rarotonga** | **31.96** | **106** | *e*P | **P** | **16 32 10.7** | **-0.5** |
| | comp=N,210nm,1.4s | | | | | | |
| **MOO** | **Moorlands** | **32.53** | **208** | P | **P** | **16 32 17.9** | **+1.9** |
| | baz=33,SNR=5.4 | | | | | | |
| **AS01** | **Alice Springs** | **32.60** | **249** | *e*P | **P** | **16 32 16.3** | **-0.5** |
| AS01 | | | | *e*pP | **pP** | **16 32 47.2** | **+0.5** |
| **AS31** | **Alice Springs** | **32.64** | **249** | *e*P | **P** | **16 32 16.8** | **-0.4** |
| | comp=N,31nm,1.3s | | | | | | |
| AS31 | | | | *e*pP | **pP** | **16 32 47.4** | **+0.3** |
| **ASAR** | **Alice Springs** | **32.64** | **249** | P | **P** | **16 32 16.8** | **-0.5** |
| | comp=N,55nm,0.9s,baz=81,slow=9.4,SNR=475 | | | | | | |
| ASAR | | | | pP | **pP** | **16 32 46.7** | **-0.4** |
| | comp=N,6.8nm,0.6s,baz=77,slow=9.1,SNR=2.0 | | | | | | |
| ASAR | | | | PcP | **PcP** | **16 34 59.2** | **-0.9** |
| | comp=N,7.7nm,0.9s,baz=77,slow=2.7,SNR=9.4 | | | | | | |
| ASAR | | | | S | **S** | **16 37 19.7** | **-3.5** |
| | comp=N,3.1nm,1.0s,baz=76,slow=17,SNR=7.0 | | | | | | |
| ASAR | | | | ScP | **ScP** | **16 38 31.6** | **+0.2** |
| | comp=N,7.0nm,1.0s,baz=80,slow=3.4,SNR=13 | | | | | | |
| ASAR | | | | PKiKP | **PKiKP** | **16 42 25.5** | **-1.6** |
| | comp=N,0.3nm,0.4s,baz=104,slow=1.4,SNR=8.2 | | | | | | |
| **TAU** | **Tasmania Unive** | **32.84** | **208** | *e*P | **P** | **16 32 18.8** | **+0.1** |
| TAU | | | | pmax | pmax | | |
| | comp=Z,112nm,1.6s | | | | | | |
| **TAU** | **Tasmania Unive** | **32.84** | **208** | *e*P | **P** | **16 32 18.8** | **+0.1** |
| | comp=Z,112nm,1.6s | | | | | | |
| **BBOO** | **Buckleboo** | **33.53** | **232** | P | **P** | **16 32 26.0** | **+1.2** |
| | baz=34,SNR=50 | | | | | | |
| **BBOO** | **Buckleboo** | **33.53** | **232** | *e*P | **P** | **16 32 25.8** | **+0.9** |
| | comp=Z,77nm,1.3s | | | | | | |
| **MTN** | **Manton Dam** | **35.11** | **269** | P | **P** | **16 32 39.2** | **+0.7** |
| | baz=35,SNR=4.3 | | | | | | |
| **MTN** | **Manton Dam** | **35.11** | **269** | *e*P | **P** | **16 32 39.3** | **+0.7** |
| | comp=Z,90nm,1.6s | | | | | | |
| **SAUI** | **Saumlaki** | **35.86** | **277** | *e*P | **P** | **16 32 46.4** | **+1.4** |
| | comp=Z,226nm,1.6s | | | | | | |
| **FAKI** | **Fak Fak** | **36.48** | **285** | *e*P | **P** | **16 32 51.3** | **+1.1** |
| | comp=Z,25nm,0.9s | | | | | | |
| FAKI | | | | *e*pP | **pP** | **16 33 22.0** | **+1.4** |
| **KNRA** | **Kununurra** | **37.12** | **263** | P | **P** | **16 32 55.7** | **0.0** |
| | baz=37,SNR=18 | | | | | | |
| **WRKA** | **Warakurna** | **37.90** | **248** | P | **P** | **16 33 01.9** | **-0.3** |
| | baz=38,SNR=72 | | | | | | |
| **PALU** | **Palau** | **39.24** | **302** | P | **P** | **16 33 15.1** | **+1.6** |
| | baz=39,SNR=3.5 | | | | | | |
| **FORT** | **Forrest** | **39.26** | **239** | P | **P** | **16 33 14.1** | **+0.7** |
| | baz=39,SNR=18 | | | | | | |
| **FORT** | **Forrest** | **39.26** | **239** | *e*P | **P** | **16 33 13.9** | **+0.5** |
| | comp=Z,583nm,0.6s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **39.99** | **259** | P | **P** | **16 33 19.6** | **-0.1** |
| | comp=Z,37nm,0.6s,baz=101,slow=8.6 | | | | | | |
| FITZ | | | | pP | **pP** | **16 33 49.1** | **-1.3** |
| | comp=Z,13nm,0.8s,baz=87,slow=9.5,SNR=3.0 | | | | | | |
| FITZ | | | | S | **S** | **16 39 12.7** | **-2.4** |
| | comp=Z,3.6nm,1.0s,baz=174,slow=8.4,SNR=3.2 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **39.99** | **259** | P | **P** | **16 33 20.0** | **+0.4** |
| | baz=40,SNR=72 | | | | | | |
| **PAE** | **Paea** | **41.48** | **100** | *e*P | **P** | **16 33 33.0** | **+1.2** |
| | comp=Z,16nm,1.1s | | | | | | |
| **PPT2** | **Papeete2** | **41.49** | **100** | *e*P | **P** | **16 33 33.5** | **+1.5** |
| | comp=Z,118nm,1.4s | | | | | | |
| PPT2 | | | | *e*LQ | LQ | 16 43 30.7 | |
| | comp=Z,771nm,28.8s | | | | | | |
| PPT2 | | | | *e*LR | LR | 16 45 16.3 | |
| | comp=Z,486nm,31.0s | | | | | | |
| **PPT** | **Papeete** | **41.49** | **100** | LR | LR | 16 46 38.4 | |
| | comp=Z,197nm,20.4s,baz=254,slow=30 | | | | | | |
| **PPT** | **Papeete** | **41.49** | **100** | *e*P | **P** | **16 33 31.9** | **-0.1** |
| **PPT** | **Papeete** | **41.49** | **100** | *e*P | **P** | **16 33 31.9** | **-0.1** |
| PPT | | | | *e* | | 16 46 38.4 | |
| **PPTF** | **Pamatai, Papee** | **41.50** | **100** | *e*P | **P** | **16 33 31.8** | **-0.3** |
| | comp=Z,152nm,1.3s | | | | | | |
| **TBI** | **Tubuai** | **41.66** | **109** | *e*LQ | LQ | 16 43 35.3 | |
| | comp=Z,500nm,27.2s | | | | | | |
| TBI | | | | *e*LR | LR | 16 45 21.3 | |
| | comp=Z,366nm,34.8s | | | | | | |
| **TIAR** | **Tiarei** | **41.71** | **100** | *e*P | **P** | **16 33 35.2** | **+1.5** |
| | comp=Z,50nm,1.3s | | | | | | |
| **TVO** | **Taravao** | **41.79** | **100** | *e*P | **P** | **16 33 35.9** | **+1.5** |

comp=Z,51nm,1.3s
**SOEI Soe 42.26 272** *e*P **P** **16 33 40.0 +1.6**
comp=Z,46nm,1.0s
**PMOR Pomariorio Ree 43.28 96** *e*P **P** **16 33 48.4 +1.9**
comp=Z,286nm,1.2s
**VAH Vaihoa 43.52 97** *e*P **P** **16 33 49.9 +1.5**
comp=Z,82nm,1.0s
**MMRI Maumere 44.44 273** *e*P **P** **16 33 55.8 0.0**
comp=Z,52nm,0.7s
**KMBL Kambalda 44.55 240** P **P** **16 33 56.9 +0.4**
baz=45,SNR=7.5
**MBWA Marble Bar 45.52 255** *e*P **P** **16 34 04.3 +0.1**
comp=Z,42nm,0.8s
**LUWI Luwuk 46.01 283** *e*P **P** **16 34 09.0 +0.9**
comp=Z,35nm,0.9s
LUWI *e*pP **pP** **16 34 39.4 -0.2**
**KLBR Kellerberrin 48.06 241** P **P** **16 34 23.9 0.0**
baz=48,SNR=5.4
**NWAO Narrogin (SRO) 48.71 239** *e*P **P** **16 34 28.4 -0.4**
NWAO pmax pmax
comp=Z,29nm,1.0s
**NWAO Narrogin (SRO) 48.71 239** *e*P **P** **16 34 28.4 -0.4**
comp=Z,30nm,1.0s
**KEKH Kekaha 48.83 42** *e*P **P** **16 34 29.9 +0.2**
comp=Z,326nm,1.4s
**MORW Morawa 49.23 244** P **P** **16 34 33.1 +0.3**
baz=49,SNR=9.6
**MUN Mundaring 49.42 240** P **P** **16 34 35.0 +0.7**
baz=49,SNR=3.8
**HON Honolulu 49.50 44** *e*P **P** **16 34 34.5 -0.4**
HON pmax pmax
comp=Z,167nm,1.2s
**HON Honolulu 49.50 44** *e*P **P** **16 34 34.5 -0.4**
comp=Z,167nm,1.2s
**KIP Kipapa 49.56 44** *i* P **P** **16 34 35.1 -0.2**
KIP pmax pmax
comp=Z,344nm,1.1s
**OPA Opana 49.75 44** *e*P **P** **16 34 37.9 +1.2**
OPA pmax pmax
comp=Z,240nm,1.0s
**OPA Opana 49.75 44** *e*P **P** **16 34 37.9 +1.2**
comp=Z,240nm,1.0s
**MYLDM Lahad Datu 52.24 289** *e*P **P** **16 34 58.7 +3.1**
comp=Z,31nm,1.1s
**TSM Tawau 52.48 287** ⇑P **P** **16 34 58.0 +0.7**
**SDKM Sandakan 53.61 289** ⇓P **P** **16 35 05.5 -0.2**
**KKM Kota Kinabalu 54.67 289** *e*P **P** **16 35 14.5 +1.1**
KKM epP **pP** **16 35 44.5 -1.3**
**RKT Rikitea 54.97 108** *e*LQ LQ 16 49 11.7
comp=Z,504nm,32.0s
RKT *e*LR LR 16 51 30.2
comp=Z,288nm,30.0s
**UGM Wanagama 55.92 270** *e*P **P** **16 35 23.1 +0.7**
comp=Z,435nm,1.9s
**JOW Kunigami 56.08 317** *e*P **P** **16 35 24.5 +1.4**
comp=Z,265nm,1.8s
**BTM Bintulu 56.55 284** ⇑P **P** **16 35 27.6 +0.9**
**INU Inuyama 57.52 331** *e*P **P** **16 35 33.5 +0.4**
comp=Z,78nm,1.5s
**MJAR Matsushiro Arr 57.95 333** P **P** **16 35 34.7 -1.4**
comp=Z,4.6nm,0.9s,baz=172,slow=7.8,SNR=8.6
MJAR LR LR 17 04 08.8
comp=Z,19nm,18.0s,baz=130,slow=40
**MJAR Matsushiro Arr 57.95 333** P **P** **16 35 34.7 -1.4**
MJAR pmax pmax
comp=Z,4.0nm,0.6s
MJAR MLR MLR
comp=Z,19nm,18.0s
**MAJO Matsushiro 57.95 333** *e*P **P** **16 35 36.3 +0.2**
MAJO pmax pmax
comp=Z,18nm,0.9s
**MAJO Matsushiro 57.95 333** *e*P **P** **16 35 36.3 +0.2**
comp=Z,18nm,0.9s
**MJB9 Matsu-Tunnel 57.95 333** *e*P **P** **16 35 36.3 +0.2**
comp=Z,19nm,0.9s
**KSM Kuching 58.61 281** *e*P **P** **16 35 42.4 +1.2**
comp=Z,36nm,1.2s
**CISI Cisompet, Garu 58.62 270** *e*P **P** **16 35 41.4 +0.1**
comp=Z,126nm,1.5s
**YULB Yu-li 58.82 309** *e*P **P** **16 35 43.5 +1.1**
comp=Z,67nm,1.5s
**JNU Nakatsue 58.96 324** *e*P **P** **16 35 44.0 +0.7**
comp=Z,14nm,0.8s
**NACB Ninganchiao 59.06 310** *e*P **P** **16 35 44.3 +0.3**
comp=Z,187nm,1.8s
**TPUB Ta-pu 59.27 309** *e*P **P** **16 35 45.5 -0.1**
comp=Z,145nm,1.5s
**SSLB Suanglung 59.31 310** *e*P **P** **16 35 45.7 -0.1**
comp=Z,143nm,1.9s
**YHNB Yeheng 59.51 311** *e*P **P** **16 35 48.5 +1.3**
comp=Z,370nm,1.9s
**ASAJ Asahikawa 62.79 340** P **P** **16 36 09.4 +0.6**
comp=Z,9.7nm,0.9s,baz=210,slow=14,SNR=6.3
**ASAJ Asahikawa 62.79 340** *e*P **P** **16 36 10.1 +1.2**
comp=Z,20nm,1.1s
**VNDA Vanda 62.80 181** P **P** **16 36 08.7 +0.2**
comp=Z,21nm,0.5s,baz=358,slow=8.3,SNR=104
VNDA LR LR 17 01 27.5
comp=Z,62nm,18.0s,baz=328,slow=34
**VNDA Vanda 62.80 181** *e*P **P** **16 36 08.7 +0.2**
comp=Z,29nm,0.7s
**SBA Scott Base 63.08 180** *e*P **P** **16 36 11.6 +1.3**
SBA pmax pmax
comp=Z,102nm,0.8s
**SBA Scott Base 63.08 180** *e*P **P** **16 36 11.6 +1.3**
comp=Z,102nm,0.8s
**KSRS Korea Array 63.78 326** P **P** **16 36 15.9 +0.4**
comp=Z,3.7nm,0.9s,baz=137,slow=7.6,SNR=7.5
KSRS pP **pP** **16 36 47.1 -1.7**
comp=Z,4.2nm,0.9s,baz=148,slow=7.4,SNR=5.1
KSRS LR LR 16 58 53.2
comp=Z,12nm,20.7s,baz=150,slow=31
**KSAR Wonju Array Be 63.79 326** P **P** **16 36 15.9 +0.3**
KSAR *PP **pP** **16 36 47.1 -1.8**
**KSAR Wonju Array Be 63.79 326** P **P** **16 36 15.9 +0.3**
KSAR pP **pP** **16 36 47.1 -1.8**
**KS01 Wonju Array Si 63.81 326** *e*P **P** **16 36 15.5 -0.2**
KS01 epP **pP** **16 36 46.9 -2.1**
**NJ2 Nanjing 65.71 316** *e*P **P** **16 36 27.5 -0.6**
NJ2 pmax pmax
comp=Z,8.0nm,0.8s
**QIZ Qiongzhong 65.75 299** P **P** **16 36 27.5 -1.2**
QIZ sP **sP** **16 37 16.5 -0.7**
QIZ S **S** **16 45 02.8 -1.6**
QIZ sS **sS** **16 46 03.1 +0.9**
QIZ SS **SS** **16 49 20.9 -0.9**
QIZ LR LR
comp=Z,480nm,4.0s
QIZ LR LR
comp=Z,390nm,3.9s
QIZ LR LR
comp=Z,450nm,4.5s
**USRK Ussuriysk Ar. 66.93 333** P **P** **16 36 35.9 +0.3**
comp=Z,8.3nm,1.0s,baz=142,slow=7.1,SNR=13
USRK pP **pP** **16 37 09.8 +0.5**
comp=Z,20nm,0.9s,baz=134,slow=5.5,SNR=10
**PET Petropavlovsk 67.94 354** *i* P **P** **16 36 42.2 +0.5**
PET pmax pmax
comp=Z,49nm,1.1s
**WHN Wuhan 67.97 312** P **P** **16 36 40.2 -2.3**
**PEA0B Petropavlovsk- 68.12 354** *e*P **P** **16 36 43.8 +0.9**
comp=Z,345nm,1.9s
**PETK Petropavlovsk- 68.12 354** P **P** **16 36 43.5 +0.6**
comp=Z,27nm,0.8s,baz=132,slow=8.6,SNR=19
PETK LR LR 16 59 00.9
comp=Z,83nm,21.4s,baz=151,slow=29
**PETK Petropavlovsk- 68.12 354** *e*P **P** **16 36 43.2 +0.3**
**PEA1 Petropavlovsk- 68.12 354** *e*P **P** **16 36 43.5 +0.5**
PEA1 *e* 16 59 00.9
**MDJ Mudanjiang 68.33 332** *e*P **P** **16 36 45.3 +0.9**
MDJ epP **pP** **16 37 17.9 -0.2**
**IPM Ipoh 68.34 281** *e*P **P** **16 36 46.1 +0.9**
comp=Z,34nm,1.3s
**HABR Khabarovsk 69.18 338** *ce*P **P** **16 36 47.9 -1.7**
HABR *e* 16 37 10.8
HABR *e**PP **pP** **16 37 26.7 +3.3**
HABR *e**SP **sP** **16 37 44.0 +5.7**
HABR *e*PPP PPP 16 41 05.5
HABR *e*S **S** **16 45 41.0 -3.2**
HABR *e* 16 46 27.0
HABR *e* 16 46 31.7
HABR *e*SS **SS** **16 50 12.1 -1.7**
HABR pmax pmax
comp=E,9.0nm,0.7s
HABR pmax pmax
comp=N,19nm,1.4s
HABR pmax pmax
comp=Z,43nm,1.4s
HABR MLR MLR
comp=Z,59nm,19.0s
**TIA Tai'an 69.37 318** ⇓P pP 16 37 24.4 -0.5
**TIA Tai'an 69.37 318** ⇓P **P** **16 36 51.5 +0.4**
**CN2 Changchun 69.69 329** *e*P **P** **16 36 53.4 +0.6**
CN2 epP pP 16 37 26.4 -0.3
CN2 *e*S **S** **16 45 50.5 +0.2**
CN2 pmax pmax
comp=Z,10.0nm,0.8s
**PSI Prapat 69.85 279** *e*P **P** **16 36 54.5 -0.2**
PSI pmax pmax
comp=Z,21nm,0.9s
**PSI Prapat 69.85 279** *e*P **P** **16 36 54.5 -0.2**
comp=Z,20nm,0.9s
**ENH Enshi 71.39 309** *e*P **P** **16 37 03.3 -0.3**
ENH epP **pP** **16 37 36.3 -1.3**
**GYA Guiyang 71.74 305** ⇑*i*P **P** **16 37 06.2 +0.4**
GYA PcP **PcP** **16 37 25.3 +1.3**
GYA pP pP 16 37 42.8 +3.0
GYA sP sP 16 37 58.0 +3.3
GYA PP **PP** **16 39 50.4 +3.3**
GYA S **S** **16 46 14.5 -0.5**
GYA SKS **SKSac** **16 46 53.0 -3.9**
GYA pmax pmax
comp=Z,20nm,0.8s
GYA pmax pmax
comp=Z,130nm,5.2s
**BJT Baijiatuan 72.29 321** *e*P **P** **16 37 08.8 +0.2**
**BJT Baijiatuan 72.29 321** *e*P **P** **16 37 08.8 +0.2**
BJT epP **pP** **16 37 41.7 -1.0**
**BJI Beijing 72.30 321** P **P** **16 37 09.0 +0.3**
BJI pmax pmax
comp=Z,14nm,1.3s
**LHMI Lhok Sumawe 72.44 280** *e*P **P** **16 37 10.7 +0.6**
comp=Z,119nm,1.1s
**PBKT Sadao Pong 72.47 293** P **P** **16 37 12.2 +2.1**
comp=Z,10nm,1.0s
**UTHA Uthaitani 73.47 291** P **P** **16 37 18.1 +2.0**
comp=Z,4.6nm,1.1s
**NANT Nan 73.54 295** P **P** **16 37 17.8 +1.3**
comp=Z,7.8nm,0.9s
**XAN Xi'an 73.72 313** P **P** **16 37 17.7 +0.5**
XAN pmax pmax
comp=Z,20nm,0.9s
**KMI Kunming 74.33 302** P **P** **16 37 22.4 +1.2**
KMI pmax pmax
comp=Z,24nm,0.9s
KMI pmax pmax
comp=Z,110nm,4.0s
**CM01 Chiang Mai Arr 74.93 294** *e*P **P** **16 37 25.7 +1.2**
CM01 epP **pP** **16 37 58.6 -0.3**
**CM31 Chiang Mai Arr 74.96 294** *e*P **P** **16 37 26.1 +1.4**
CM31 epP **pP** **16 37 59.0 0.0**
**CMAR Chiang Mai Arr 74.96 294** P **P** **16 37 26.2 +1.6**
comp=Z,7.6nm,0.9s,baz=123,slow=4.4,SNR=48
CMAR pP **pP** **16 37 59.1 +0.1**
comp=Z,7.0nm,0.9s,baz=124,slow=4.4,SNR=7.2
**CMAR Chiang Mai Arr 74.96 294** P **P** **16 37 26.3 +1.6**
CMAR pmax pmax
comp=Z,7.0nm,0.9s
CMAR pmax pmax
comp=Z,7.0nm,0.9s
**CMMT Chiang Mai 75.09 294** P **P** **16 37 26.7 +1.3**
comp=Z,16nm,1.3s
**CHTO Chiang Mai 75.09 294** P **P** **16 37 26.8 +1.3**
comp=Z,71nm,1.3s
**CHTO Chiang Mai 75.09 294** *e*P **P** **16 37 26.7 +1.3**
CHTO pmax pmax
comp=Z,23nm,1.3s
**CHTO Chiang Mai 75.09 294** *e*P **P** **16 37 26.7 +1.2**
comp=Z,24nm,1.3s
CHTO epP **pP** **16 37 59.2 -0.5**
**QSPA South Pole Qui 75.24 180** *e*P **P** **16 37 25.3 -0.4**
comp=Z,90nm,0.8s
**HHC Hu-ho-hao-te 75.62 320** *e*P **P** **16 37 28.1 0.0**
HHC PcP **PcP** **16 37 39.3 -1.1**
HHC pP pP 16 38 02.2 -0.3
HHC *e*S **S** **16 46 58.6 +0.5**
HHC pmax pmax
comp=Z,13nm,0.9s
**CD2 Chengdu 76.03 308** *e*P **P** **16 37 31.6 +1.0**
CD2 pP pP 16 38 04.9 -0.1
CD2 sP sP 16 38 19.6 -0.2
CD2 S **S** **16 47 02.0 -0.9**
CD2 SS **SS** **16 51 53.6 -5.6**
CD2 pmax pmax
comp=Z,30nm,0.8s
CD2 pmax pmax
comp=Z,150nm,8.3s
**SEY Seymchan 78.34 353** P **P** **16 37 42.0 -0.6**
comp=Z,27nm,0.9s,baz=150,slow=5.3,SNR=20
SEY pP **pP** **16 38 17.1 -0.1**
comp=Z,5.9nm,0.8s,baz=141,slow=8.3,SNR=2.2
**LZH Lanzhou 78.35 312** *e*P **P** **16 37 45.5 +1.9**
LZH pP pP 16 38 19.5 +1.3
LZH sP sP 16 38 36.3 +3.4
LZH *e*S **S** **16 47 29.0 +1.0**
LZH SKS **SKSac** **16 47 42.0 -3.6**
LZH sS sS 16 48 27.0 -0.7
LZH pmax pmax
comp=Z,48nm,1.2s
LZH pmax pmax
comp=Z,270nm,6.6s
LZH LR LR
comp=Z,1μm,13.8s
LZH LR LR
comp=Z,2μm,14.0s
LZH LR LR
comp=Z,2μm,14.9s
**OHAK Old Harbor 78.85 21** *e*P **P** **16 37 45.5 0.0**
comp=Z,135nm,1.7s
**GAMB Gambell 79.99 9** *e*P **P** **16 37 52.3 +0.7**
comp=Z,36nm,1.2s
**CNPM China Poot 81.31 20** *e*P **P** **16 37 60.0 +1.1**
comp=Z,214nm,1.7s
**RSO Redoubt South 81.55 19** *e*P **P** **16 38 00.5 +0.2**
**BRLK Bradley Lake 81.61 20** *e*P **P** **16 37 59.9 -0.5**
comp=Z,50nm,1.2s
**MAW Mawson 81.83 202** P **P** **16 38 01.9 +0.5**
comp=Z,18nm,0.8s,baz=153,slow=4.0,SNR=17
**MAW Mawson 81.83 202** P **P** **16 38 01.4 -0.1**
baz=82,SNR=16
**MAW Mawson 81.83 202** *e*P **P** **16 38 02.1 +0.6**
MAW pmax pmax
comp=Z,6.0nm,0.9s
**MAW Mawson 81.83 202** *e*P **P** **16 38 02.0 +0.6**
comp=Z,6.1nm,0.9s
**YAK Yakutsk 82.08 343** P **P** **16 38 03.1 +0.3**
comp=Z,49nm,0.8s,baz=82,slow=0.5,SNR=42
**YAK Yakutsk 82.08 343** *e*P **P** **16 38 00.3 -2.4**
YAK *e**PP **pP** **16 38 36.5 -1.1**
YAK *e*PPP PPP 16 43 01.5
YAK *e*S **S** **16 48 02.8 -2.7**
YAK pmax pmax
comp=Z,98nm,1.1s
YAK pmax pmax
comp=N,12nm,0.9s
YAK pmax pmax
comp=E,16nm,1.4s
YAK pmax pmax
comp=Z,352nm,4.2s
YAK pmax pmax
comp=N,150nm,3.2s
YAK pmax pmax
comp=E,112nm,3.2s
YAK smax smax
comp=N,199nm,3.5s
YAK smax smax
comp=E,269nm,4.4s
**YAK Yakutsk 82.08 343** *e*P **P** **16 38 03.0 +0.3**
comp=E,127nm,1.1s
YAK epP **pP** **16 38 37.4 -0.1**
**ULN Ulaanbaatar 82.17 324** *ci*P **P** **16 38 04.4 +0.6**
ULN pmax pmax
comp=Z,33nm,1.5s
**ULN Ulaanbaatar 82.17 324** *e*P **P** **16 38 04.5 +0.7**
comp=Z,38nm,1.4s
ULN epP **pP** **16 38 37.3 -1.4**
**SONA0 Songino Array 82.53 324** *e*P **P** **16 38 06.0 +0.4**
SONA0 epP **pP** **16 38 39.6 -1.0**
SONA0 *e* 17 17 51.9
**SONM Songino Array 82.53 324** P **P** **16 38 06.0 +0.4**
comp=Z,5.4nm,0.7s,baz=144,slow=5.5,SNR=35
SONM pP **pP** **16 38 39.6 -1.0**
comp=Z,4.7nm,1.0s,baz=132,slow=4.0,SNR=4.2
SONM LR LR 17 17 51.8
comp=Z,22nm,18.1s,baz=181,slow=38
**SONA1 Songino Array 82.54 324** *e*P **P** **16 38 06.1 +0.4**
SONA1 epP **pP** **16 38 39.0 -1.5**
**TTA Tatalina 82.58 16** *e*P **P** **16 38 06.0 +0.6**
**TTA Tatalina 82.58 16** *e*P **P** **16 38 06.0 +0.6**
**BILL Bilibino 82.60 360** *i* P **P** **16 38 04.4 -0.9**
BILL *i* 16 38 39.4
BILL pmax pmax
comp=Z,42nm,1.1s
**GTA Gaotai 82.70 314** *e*P **P** **16 38 07.9 +1.2**
GTA pP pP 16 38 41.5 -0.1
GTA sP sP 16 38 58.6 +2.3
GTA S **S** **16 48 11.6 -1.5**
GTA pmax pmax
comp=Z,17nm,1.2s
GTA pmax pmax
comp=Z,140nm,5.9s
GTA LR LR
comp=Z,210nm,5.9s
GTA LR LR
comp=Z,140nm,6.9s
GTA LR LR
comp=Z,190nm,6.4s
**MID Middleton Isla 82.94 22** *e*P **P** **16 38 06.6 -0.6**
**MID Middleton Isla 82.94 22** *e*P **P** **16 38 06.6 -0.6**
comp=Z,708nm,1.4s
**SUA Susitna One 82.95 19** *e*P **P** **16 38 07.5 +0.1**
comp=Z,32nm,1.1s
**RC01 Rabbit Creek A 82.99 20** *e*P **P** **16 38 07.2 -0.3**
comp=Z,24nm,1.0s
**PMR Palmer 83.56 19** *e*P **P** **16 38 10.1 -0.3**
PMR pmax pmax
comp=Z,39nm,1.3s
**PMR Palmer 83.56 19** *e*P **P** **16 38 10.1 -0.3**
comp=Z,39nm,1.3s
**SHL Shillong 83.58 298** *e*P P 16 38 17.0 +5.4
**PPLA Purkeypile 83.62 17** *e*P **P** **16 38 10.7 -0.2**
comp=Z,84nm,2.0s
**GLI Glacier Island 83.71 21** *e*P **P** **16 38 11.3 +0.1**
comp=Z,99nm,1.8s
**FID Port Fidalgo 83.83 21** *e*P **P** **16 38 11.0 -0.8**
comp=Z,48nm,1.2s
**SML Sawmill 83.98 20** *e*P **P** **16 38 13.6 +1.0**
**SML Sawmill 83.98 20** *e*P **P** **16 38 13.6 +1.0**
**CAST Castle Rocks 84.05 17** *e*P **P** **16 38 11.9 -1.0**
comp=Z,34nm,0.9s
CAST epP **pP** **16 38 49.3 +1.4**
**HOPS Hopland Field 84.09 47** *e*P **P** **16 38 13.9 +0.3**
comp=Z,125nm,1.6s
**RAGM Ragged Mountai 84.21 22** *e*P **P** **16 38 14.2 +0.4**
comp=Z,129nm,1.6s
**GDXM Geysers 84.21 48** *e*P **P** **16 38 13.7 -0.6**
comp=Z,56nm,1.7s
**SCM Sheep Creek Mo 84.32 20** *e*P **P** **16 38 14.7 +0.3**
SCM pmax pmax
comp=Z,89nm,1.6s
**SCM Sheep Creek Mo 84.32 20** *e*P **P** **16 38 14.7 +0.3**
comp=Z,89nm,1.6s
**KTH Kantishna Hill 84.49 17** *e*P **P** **16 38 13.9 -1.3**
comp=Z,21nm,1.0s
KTH epP **pP** **16 38 52.9 +2.7**
**BOD Bodaibo 84.52 334** *e*P **P** **16 38 13.9 -1.4**
BOD pmax pmax
comp=Z,22nm,1.7s
**KLU Klutina 84.55 21** *e*P **P** **16 38 15.6 +0.1**
comp=Z,35nm,1.5s
KLU epP **pP** **16 38 51.7 +1.2**
**TRF Thorofare Moun 84.60 18** *e*P **P** **16 38 14.7 -1.2**
comp=Z,17nm,0.9s
TRF epP **pP** **16 38 52.4 +1.5**
**BMRM Bremner River 84.64 21** *e*P **P** **16 38 16.5 +0.5**
comp=Z,113nm,1.9s
**FIGC Figueroa Mtn. 84.70 52** *e*P **P** **16 38 16.7 -0.2**
**BPAW Bear Paw Mtn. 84.89 17** *e*P **P** **16 38 16.5 -0.6**
comp=Z,13nm,0.9s
**RND Reindeer 84.99 18** *e*P **P** **16 38 17.2 -0.5**
RND *e**PP **pP** **16 38 53.2 +0.4**
**RND Reindeer 84.99 18** *e*P **P** **16 38 17.2 -0.5**
RND epP **pP** **16 38 53.2 +0.4**
**MCK McKinley 85.21 18** *e*P **P** **16 38 19.1 +0.4**
MCK *e**PP **pP** **16 38 55.5 +1.7**
MCK pmax pmax
comp=Z,23nm,1.0s
**MCK McKinley 85.21 18** *e*P **P** **16 38 19.1 +0.4**
comp=Z,23nm,1.0s
MCK epP **pP** **16 38 55.5 +1.7**
**M02C Callahan 85.23 45** P **P** **16 38 20.2 +0.8**
baz=246
**ORV Oroville 85.43 47** *e*P **P** **16 38 19.7 -0.7**
ORV *e**PP **pP** **16 38 56.0 +0.5**
ORV pmax pmax
comp=Z,6.0nm,0.9s
**ORV Oroville 85.43 47** *e*P **P** **16 38 19.7 -0.7**
comp=Z,5.7nm,0.9s
ORV epP **pP** **16 38 56.0 +0.5**
**HARP HAARP 85.45 20** *e*P **P** **16 38 21.4 +1.5**
comp=Z,73nm,1.3s
**YBH Yreka Blue Hor 85.47 45** LR LR 17 07 43.6
comp=Z,32nm,21.4s,baz=237,slow=29
**YBH Yreka Blue Hor 85.47 45** *e*P **P** **16 38 20.7 +0.1**
YBH pmax pmax
comp=Z,14nm,1.3s
**YBH Yreka Blue Hor 85.47 45** *e*P **P** **16 38 20.7 +0.1**
comp=Z,14nm,1.3s
**O03D Paynes Creek 85.51 46** P **P** **16 38 21.4 +0.5**
baz=246
**AFDM Forest Hills D 85.57 48** *e*P **P** **16 38 20.6 -0.6**
comp=Z,14nm,1.0s
**LSA Lhasa 85.58 302** *e*P **P** **16 38 22.7 +0.8**
LSA *e**PP **pP** **16 38 57.1 +0.1**
LSA pmax pmax
comp=Z,9.0nm,0.7s
**LSA Lhasa 85.58 302** *e*P **P** **16 38 22.7 +0.8**
comp=Z,8.8nm,0.7s
LSA epP **pP** **16 38 57.0 +0.1**
**ZAK Zakamensk 85.59 325** *e*P **P** **16 38 21.2 +0.2**
ZAK pmax pmax
comp=Z,15nm,1.1s
ZAK pmax pmax
comp=Z,13nm,1.4s
**IMAR Indian Mountai 85.62 15** *e*P **P** **16 38 20.3 -0.4**
IMAR epP **pP** **16 38 58.2 +2.4**
**MLY Manley 85.67 17** *e*P **P** **16 38 20.9 -0.1**
MLY epP **pP** **16 38 58.5 +2.4**
**WRH Wood River Hil 86.01 18** *e*P **P** **16 38 21.5 -1.1**
WRH epP **pP** **16 38 57.8 0.0**
**TLY Talaya 86.03 326** P **P** **16 38 23.6 +0.6**
comp=Z,7.0nm,0.7s,baz=167,slow=6.8,SNR=3.5
**TLY Talaya 86.03 326** *e*P **P** **16 38 23.3 +0.2**
TLY pmax pmax
comp=Z,34nm,1.9s
**M04C Macdoel 86.08 45** P **P** **16 38 24.0 +0.3**
baz=246
**CCB Clear Creek Bu 86.22 18** *e*P **P** **16 38 22.4 -1.2**
CCB epP **pP** **16 39 00.3 +1.5**
**EDW2 Edwards Air Fo 86.28 53** P **P** **16 38 25.6 +0.9**
baz=249
**HDA Harding Lake 86.30 18** *e*P **P** **16 38 22.8 -1.2**
comp=Z,20nm,0.9s
HDA epP **pP** **16 38 59.9 +0.6**
**COLA College 86.37 18** *e*P **P** **16 38 23.3 -1.0**
COLA pmax pmax
comp=Z,28nm,1.3s
**COLA College 86.37 18** *e*P **P** **16 38 23.3 -1.0**
comp=Z,28nm,1.3s
**MURC Murrieta 86.46 54** P **P** **16 38 25.9 +0.3**
baz=250
**I04A Tendick Farm, 86.51 43** P **P** **16 38 25.6 -0.1**
baz=246
**WAKR Walker 86.52 49** *e*P **P** **16 38 25.8 -0.1**
comp=Z,10nm,1.1s
**ILAR Eielson Array 86.58 18** P **P** **16 38 23.8 -1.6**
comp=Z,9.9nm,0.8s,baz=234,slow=5.6,SNR=66
ILAR pP **pP** **16 39 00.1 -0.6**
comp=Z,4.5nm,0.8s,baz=238,slow=5.3,SNR=4.3
ILAR LR LR 17 10 23.6
comp=Z,81nm,19.6s,baz=242,slow=31
**ILB Eielson Array 86.58 18** *e*P **P** **16 38 23.9 -1.5**
ILB epP **pP** **16 39 01.0 +0.4**
**IL1 Eielson Array 86.58 18** *e*P **P** **16 38 23.8 -1.6**
IL1 epP **pP** **16 39 00.7 +0.1**
**DOT Dot Lake 86.67 20** *e*P **P** **16 38 25.3 -0.6**

DOT *e*pP **pP** 16 39 01.7 +0.5
**CWC Cottonwood Cre** 86.77 51 P **P** 16 38 27.2 0.0
baz=249
**MPMC Manual Prospec** 87.08 52 P **P** 16 38 28.3 -0.5
baz=249
**J05D Fort Rock, OR** 87.09 44 P **P** 16 38 28.2 -0.4
baz=247
**SWSC Sam W. Stewart** 87.34 55 P **P** 16 38 27.8 -2.0
baz=250
**I05D Terrebonne, OR** 87.44 43 P **P** 16 38 30.0 -0.1
baz=246
**HEC Hector,Ludlow** 87.55 53 P **P** 16 38 31.2 +0.3
baz=250
**TAPN Taplejung** 87.70 299 *e*P **P** 16 38 32.2 +0.2
comp=Z,32nm,0.8s
**ODAN Odare** 87.82 298 *e*P **P** 16 38 32.8 +0.3
comp=Z,56nm,0.7s
**GMRC Granite Mounta** 88.06 53 P **P** 16 38 33.4 +0.1
baz=250
**GLA Glamis** 88.14 55 P **P** 16 38 34.1 +0.4
baz=251
**A04D Lummi Island** 88.36 39 P **P** 16 38 35.2 +1.0
baz=245
**EGAK Eagle** 88.37 20 *e*P **P** 16 38 33.3 -0.7
EGAK *e*pP **pP** 16 39 13.3 +4.0
**RAMN Ramite** 88.52 298 *e*P **P** 16 38 35.9 0.0
comp=Z,24nm,0.7s
**WVOR Wild Horse Val** 88.53 45 *e*P **P** 16 38 35.5 +0.1
WVOR *e**PP **pP** 16 39 12.9 +2.1
WVOR pmax pmax
comp=Z,19nm,1.6s
**WVOR Wild Horse Val** 88.53 45 *e*P **P** 16 38 35.5 +0.1
comp=Z,19nm,1.6s
WVOR *e*pP **pP** 16 39 12.9 +2.1
**B05A Bryant** 88.54 39 P **P** 16 38 35.9 +0.8
baz=246
**I07A Izee** 88.56 44 *e*P **P** 16 38 35.2 -0.3
comp=Z,11nm,1.1s
**Y12C Blythe** 88.61 55 P **P** 16 38 36.0 +0.2
baz=251
**SYO Syowa Base** 88.65 197 ‖ *i*P **P** 16 38 33.4 -1.9
**SYO Syowa Base** 88.65 197 ‖ *i*PcP **PcP** 16 38 36.6 -0.2
**BMN Battle Mountai** 88.81 48 *e*P **P** 16 38 36.9 +0.1
BMN *e**PP **pP** 16 39 12.0 -0.2
BMN pmax pmax
comp=Z,17nm,1.4s
**BMN Battle Mountai** 88.81 48 *e*P **P** 16 38 36.9 +0.1
comp=Z,17nm,1.4s
BMN *e*pP **pP** 16 39 12.0 -0.2
**J08A Circle Bar Ran** 88.98 45 *e*P **P** 16 38 37.2 -0.3
comp=Z,11nm,0.9s
J08A *e*pP **pP** 16 39 12.0 -0.9
**JIRN Jiri** 89.08 299 *e*P **P** 16 38 38.7 +0.1
comp=Z,36nm,0.8s
**PDMCI Parker Dam,Lak** 89.08 54 P **P** 16 38 38.6 +0.6
baz=251
**E07A Sunnyside** 89.27 41 *e*P **P** 16 38 38.1 -0.5
comp=Z,11nm,0.9s
E07A *e*pP **pP** 16 39 13.2 -0.8
**R11A Troy Canyon, C** 89.29 50 P **P** 16 38 38.9 -0.3
baz=250
**R11A Troy Canyon, C** 89.29 50 *e*P **P** 16 38 38.9 -0.3
comp=Z,7.7nm,1.2s
**G08A Pilot Rock** 89.37 43 *e*P **P** 16 38 39.2 -0.1
comp=Z,11nm,0.9s
G08A *e*pP **pP** 16 39 16.0 +1.4
**HAWA Hanford** 89.41 42 *e*P **P** 16 38 39.0 -0.2
comp=Z,12nm,0.9s
**GUN Gumba** 89.41 299 *e*P **P** 16 38 40.1 -0.1
comp=Z,42nm,1.0s
**PKI Pulchoki** 89.71 299 *e*P **P** 16 38 41.5 -0.1
comp=Z,52nm,1.0s
**PKIN Phulchoki** 89.73 299 *e*P **P** 16 38 41.3 -0.2
comp=Z,30nm,0.9s
**E08A Dider Farm, El** 89.75 42 *e*P **P** 16 38 40.4 -0.5
comp=Z,17nm,1.0s
E08A *e*pP **pP** 16 39 18.1 +1.9
**KKN Kakani** 89.89 299 *e*P **P** 16 38 42.3 +0.1
comp=Z,28nm,0.9s
**DMN Daman** 89.98 298 *e*P **P** 16 38 42.8 +0.1
comp=Z,81nm,1.1s
**TIXI Tiksi** 90.02 349 P **P** 16 38 40.6 -1.0
comp=Z,14nm,1.0s,baz=140,slow=4.4,SNR=23
**TIXI Tiksi** 90.02 349 *e*P **P** 16 38 40.8 -0.7
TIXI pmax pmax
comp=Z,18nm,1.1s
**TIXI Tiksi** 90.02 349 *e*P **P** 16 38 40.5 -1.0
comp=Z,23nm,1.2s
**D08A Wollman Farm,** 90.05 41 *e*P **P** 16 38 42.0 -0.2
comp=Z,9.5nm,1.0s
**B08A Colville Reser** 90.27 40 *e*P **P** 16 38 42.7 -0.6
comp=Z,6.9nm,1.0s
**BMO Blue Mountains** 90.30 44 *e*P **P** 16 38 43.3 -0.3
BMO *e**PP **pP** 16 39 18.8 -0.2
BMO pmax pmax
comp=Z,8.0nm,1.1s
**BMO Blue Mountains** 90.30 44 *e*P **P** 16 38 43.3 -0.3
comp=Z,8.4nm,1.1s
BMO *e*pP **pP** 16 39 18.8 -0.2
**E09A Wood Farm, Sta** 90.34 42 *e*P **P** 16 38 42.6 -1.0
comp=Z,10nm,1.1s
**GKN Gorkha** 90.49 299 *e*P **P** 16 38 44.5 -0.5
comp=Z,0.6nm,0.2s
**LCMT Little Creek M** 90.62 52 *e*P **P** 16 38 45.6 +0.2
comp=Z,9.2nm,1.1s
**F10A Beach Ranch, E** 90.75 42 *e*P **P** 16 38 44.9 -0.8
comp=Z,12nm,0.9s
**MFID Camas Ranch** 90.81 45 *e*P **P** 16 38 45.5 -0.5
comp=Z,5.8nm,1.0s
MFID *e*pP **pP** 16 39 23.3 +1.9
**TUC Tucson** 91.17 57 P **P** 16 38 47.3 -0.6
baz=253
**KOLN Koldanda** 91.31 298 *e*P **P** 16 38 48.2 -0.6
comp=Z,27nm,1.3s
**DANN Dangsing** 91.33 299 *e*P **P** 16 38 48.2 -0.8
comp=Z,1.2nm,0.7s
**NEW Newport** 91.61 40 P **P** 16 38 49.7 +0.2
baz=250
**WUAZ Wupatki** 91.62 54 P **P** 16 38 49.7 -0.3
baz=253
**PYUN Piuthan** 91.92 298 *e*P **P** 16 38 50.6 -1.0
**WMQ Urumqi** 92.76 315 P **P** 16 38 55.6 +0.6
WMQ pP pP 16 39 29.2 -1.2
WMQ sP sP 16 39 45.4 +0.4
WMQ pmax pmax
comp=Z,39nm,1.7s
WMQ pmax pmax
comp=Z,660nm,5.3s
WMQ LR LR
comp=Z,100nm,13.3s
WMQ LR LR
comp=Z,93nm,12.1s
WMQ LR LR
comp=Z,120nm,17.5s
**INK Inuvik** 92.95 19 P **P** 16 38 56.1 +1.0
comp=Z,0.7nm,0.7s,baz=170,slow=6.1,SNR=2.3
**INK Inuvik** 92.95 19 *e*P **P** 16 38 55.8 +0.7
INK pmax pmax
comp=Z,23nm,1.9s
**INK Inuvik** 92.95 19 *e*P **P** 16 38 55.8 +0.7
comp=Z,22nm,1.9s
**NVL N'lazarevskaya** 92.99 188 *e*P **P** 16 38 55.1 -0.4
**SNAA Sanae** 93.49 183 P **P** 16 38 56.8 -1.1
**SNAA Sanae** 93.49 183 *c i*P **P** 16 38 56.8 -1.1
**SNAA Sanae** 93.49 183 *e*P **P** 16 38 56.4 -1.4
comp=Z,27nm,0.9s
**VNA3 Neumayer Olymp** 94.16 181 P **P** 16 38 59.6 -1.3
**VNA2 Neumayer--Watz** 94.42 182 P **P** 16 39 01.0 -1.0
baz=180,slow=5.0
**DGZ Jazzator, Alta** 94.70 320 *i* P **P** 16 39 03.9 0.0
DGZ pmax pmax
comp=Z,5.0nm,1.0s
**VNA1 Neumayer--Stat** 94.72 181 P **P** 16 39 02.2 -1.2
**PD31 Pinedale Array** 95.00 47 *e*P **P** 16 39 05.0 -0.5
**PDAR Pinedale Array** 95.00 47 P **P** 16 39 05.6 +0.1
comp=Z,0.4nm,0.6s,baz=248,slow=3.7,SNR=2.8
PDAR PKKPbc **PKKPdf** 16 55 59.0 -2.7
comp=Z,0.8nm,0.8s,baz=40,slow=3.5,SNR=5.2
PDAR LR LR 17 16 58.8
comp=Z,26nm,18.4s,baz=312,slow=32
**ANMO Albuquerque** 95.34 55 P **P** 16 39 06.7 -0.5
baz=256
**ANMO Albuquerque** 95.34 55 *i* P **P** 16 39 07.0 -0.2
ANMO pmax pmax
comp=Z,3.0nm,0.9s
**MNTX Cornudas Mount** 95.43 59 P **P** 16 39 05.4 -2.0
baz=256

**LTX Lajitas** 96.31 61 *e*P **P** 16 39 11.5 -0.1
**LTX Lajitas** 96.31 61 *e*P **P** 16 39 11.5 -0.1
**TXAR Lajitas Array** 96.31 61 P **P** 16 39 11.5 -0.1
comp=Z,0.5nm,0.8s,baz=227,slow=6.8,SNR=6.0
**SDCO Great Sand Dun** 96.76 53 *e*P **P** 16 39 13.4 -0.3
comp=Z,12nm,0.9s
**MK01 Makanchi Array** 97.22 316 *e*P **P** 16 39 14.9 -0.4
MK01 *e*pP **pP** 16 39 49.5 -1.2
**MK31 Makanchi Array** 97.24 316 *e*P **P** 16 39 15.1 -0.2
**MK31 Makanchi Array** 97.24 316 *e*P **P** 16 39 15.1 -0.2
MK31 *e*pP **pP** 16 39 48.6 -2.2
**MK32 Makanchi Array** 97.24 316 *e*P **P** 16 39 15.0 -0.3
MK32 *e*pP **pP** 16 39 48.9 -1.9
MK32 *e*PKiKP **PKiKP** 16 43 50.5 +0.5
**MKAR Makanchi Array** 97.24 316 P **P** 16 39 15.0 -0.3
comp=Z,6.7nm,0.8s,baz=91,slow=6.3,SNR=27
MKAR pP **pP** 16 39 48.9 -1.9
comp=Z,3.4nm,0.9s,baz=76,slow=8.3,SNR=2.9
MKAR PKiKP **PKiKP** 16 43 50.5 +0.5
comp=Z,1.1nm,0.9s,baz=109,slow=0.7,SNR=4.0
**MKAR Makanchi Array** 97.24 316 P **P** 16 39 15.0 -0.3
MKAR pmax pmax
comp=Z,7.0nm,0.8s
MKAR pmax pmax
comp=Z,3.0nm,0.9s
**ZAA0 Zalesovo Array** 97.43 324 *e*P **P** 16 39 14.6 -1.3
comp=Z,10nm,0.9s
ZAA0 *e*pP **pP** 16 39 48.9 -2.6
**ZALV Zalesovo Beam** 97.43 324 P **P** 16 39 15.2 -0.8
comp=Z,7.7nm,0.8s,baz=114,slow=4.8,SNR=32
ZALV pP **pP** 16 39 49.4 -2.0
comp=Z,2.7nm,0.9s,baz=122,slow=6.0,SNR=2.5
ZALV LR LR 17 22 13.4
comp=Z,21nm,21.8s,baz=66,slow=35
**ZALV Zalesovo Beam** 97.43 324 *e*P **P** 16 39 14.6 -1.3
ZALV *e*pP **pP** 16 39 48.8 -2.6
**ZAA1 Zalesovo Array** 97.43 324 *e*P **P** 16 39 15.2 -0.8
ZAA1 *e*pP **pP** 16 39 49.4 -2.0
ZAA1 *e* 17 22 13.4
**YKA Yellowknife Ar** 97.60 27 P **P** 16 39 15.3 -1.2
comp=Z,1.8nm,0.7s,baz=250,slow=4.6,SNR=7.7
YKA PKKPbc **PKKPbc** 16 55 52.5 -2.6
comp=Z,0.9nm,0.9s,baz=67,slow=2.1,SNR=5.3
**YKB5 Yellowknife Ar** 97.60 27 *e*P **P** 16 39 15.3 -1.2
YKB5 *e*PKKPbc **PKKPbc** 16 55 52.5 -2.6
**KSH Kashi** 100.22 308 P **Pdif** 16 39 31.1 +2.2
KSH PP **PP** 16 43 43.1 +6.3
KSH S **Sdif** 16 50 50.6 -2.1
KSH pmax pmax
comp=Z,2.0nm,0.5s
KSH pmax pmax
comp=Z,170nm,6.1s
KSH LR LR
comp=Z,250nm,5.7s
KSH LR LR
comp=Z,310nm,5.7s
KSH LR LR
comp=Z,400nm,5.8s
**ARU Arti** 112.53 325 *i* PKiKP **PKiKP** 16 44 17.1 -0.7
ARU 16 45 07.6
ARU 16 51 13.9
ARU SS SS 17 00 35.5 -0.8
**SUMG Summit** 120.29 9 *e*PKiKP **PKPdf** 16 44 32.3 -0.5
**SUMG Summit** 120.29 9 *e*PKPdf **PKPdf** 16 44 32.3 -0.5
**ARA0 ARCESS Array S** 120.30 345 *e*PKPdf **PKPdf** 16 44 32.0 -0.3
ARA0 *e*PKKPbc **PKKPab** 16 54 38.9 -1.8
**ARCES ARCESS Array B** 120.30 345 PKP **PKPdf** 16 44 32.0 -0.3
comp=Z,7.9nm,0.3s,baz=79,slow=2.1,SNR=92
ARCES PKKPbc **PKKPab** 16 54 38.9 -1.8
comp=Z,6.2nm,1.0s,baz=238,slow=1.7,SNR=5.1
**KLMR Klimovskoe** 120.73 333 *e*PKiKP **PKPdf** 16 44 30.1 -3.3
KLMR *e* 16 45 08.4
KLMR pmax pmax
comp=Z,29nm,1.5s
**VRH Novokhopyorsk** 123.42 322 *e*PKiKP **PKPdf** 16 44 38.1 -0.7
VRH pmax pmax
comp=Z,20nm,0.6s
**ZEI Tsey** 124.28 312 *i* PKiKP **PKPdf** 16 44 40.6 -0.5
ZEI pmax pmax
comp=Z,5.0nm,0.9s
**NCK Nalchik** 124.34 313 *i* PKiKP **PKPdf** 16 44 40.5 -0.4
**LPSR Galich'ya Gora** 124.53 324 *e*PKiKP **PKPdf** 16 44 40.9 0.0
LPSR pmax pmax
comp=Z,10.0nm,0.8s
**RAYN Ar Rayn** 124.60 289 *e*PKPdf **PKPdf** 16 44 41.9 -0.1
**OBN Obninsk** 124.74 328 ‖ *i*PKiKP **PKPdf** 16 44 41.0 -0.2
OBN *e* 16 45 16.6
OBN *e* 16 45 40.5
OBN pmax pmax
comp=Z,23nm,1.0s
**KBZ Khabaz** 124.78 313 PKP **PKPdf** 16 44 41.8 +0.1
comp=Z,4.0nm,0.8s,baz=23,slow=1.9,SNR=8.9
**KIV Kislovodsk** 124.88 314 *e*PKiKP **PKPdf** 16 44 41.2 -0.8
KIV pmax pmax
comp=Z,12nm,1.1s
**KIV Kislovodsk** 124.88 314 *e*PKPdf **PKPdf** 16 44 41.9 -0.1
KIV *e*pPKPdf **pPKPdf** 16 45 14.3 -4.8
**VSR Storozhevoye** 124.92 323 *e*PKiKP **PKPdf** 16 44 41.0 -0.7
VSR pmax pmax
comp=Z,20nm,0.9s
**NEY Neytrino** 125.02 313 *i* PKiKP **PKPdf** 16 44 42.2 -0.2
**FIA0 FINESS Array S** 125.77 338 *e*PKiKP **PKPdf** 16 44 43.1 0.0
**FIA0 FINESS Array S** 125.77 338 *e*PKPdf **PKPdf** 16 44 43.0 0.0
**FINES FINESS Array B** 125.77 338 PKP **PKPdf** 16 44 43.0 0.0
comp=Z,2.9nm,0.4s,baz=106,slow=3.6,SNR=23
**FINES FINESS Array B** 125.77 338 PKiKP **PKPdf** 16 44 43.1 0.0
FINES pmax pmax
comp=Z,2.0nm,0.3s
**ARTV Artvin** 126.06 310 *e*PKPdf **PKPdf** 16 44 44.6 0.0
ARTV *e*pPKPdf **pPKPdf** 16 45 18.5 -3.0
**LSZ Lusaka** 129.71 235 *e*PKiKP **PKPdf** 16 44 52.5 +0.4
**LSZ Lusaka** 129.71 235 *e*PKPdf **PKPdf** 16 44 52.5 +0.4
**NB2 NORSAR Subarra** 130.68 345 PKPdf **PKPdf** 16 44 52.5 0.0
comp=Z,1.9nm,0.4s,baz=31,slow=1.9
**NB200 NORSAR Array S** 130.68 345 *e*PKPdf **PKPdf** 16 44 52.6 +0.2
NB200 *e*SKPbc **SKPbc** 16 48 03.3 -0.4
**NOA NORSAR Array B** 130.68 345 PKP **PKPdf** 16 44 52.6 +0.2
comp=Z,4.5nm,0.7s,baz=33,slow=2.0,SNR=7.1
NOA SKPbc **SKPbc** 16 48 03.3 -0.4
comp=Z,17nm,1.1s,baz=33,slow=3.0,SNR=8.4
**AKASG Malin Array Be** 130.78 326 PKP **PKPdf** 16 44 52.1 -0.8
comp=Z,1.4nm,0.4s,baz=47,slow=2.5,SNR=7.9
AKASG pPKP **pPKPdf** 16 45 28.3 -1.6
comp=Z,0.3nm,0.4s,baz=41,slow=3.0,SNR=1.2
AKASG SKPbc **SKPab** 16 48 05.3 +0.9
comp=Z,6.7nm,0.9s,baz=44,slow=4.6,SNR=14
**AKBB Malin Array Si** 130.78 326 *e*PKiKP **PKPdf** 16 44 51.3 -1.6
**AKBB Malin Array Si** 130.78 326 *e*PKPdf **PKPdf** 16 44 51.3 -1.6
AKBB *e*SKPbc **SKPab** 16 48 05.4 +1.0
**KIEV Kiev** 130.79 326 *i* PKiKP **PKPdf** 16 44 51.8 -1.1
**AK11 Malin Array Si** 130.82 326 *e*PKPdf **PKPdf** 16 44 52.4 -0.5
AK11 *e*pPKPdf **pPKPdf** 16 45 27.3 -2.7
**ILGA Ilgaz** 132.06 312 *e*PKPdf **PKPdf** 16 44 55.5 -0.5
ILGA *e*pPKPdf **pPKPdf** 16 45 30.1 -2.9
**BR101 Keskin Array S** 132.54 311 *e*PKPdf **PKPdf** 16 44 56.9 +0.1
BR101 *e*pPKPdf **pPKPdf** 16 45 32.7 -1.1
BR101 *e*SKPbc **SKPab** 16 48 12.4 -0.1
**BR131 Keskin Array S** 132.54 311 *e*PKPdf **PKPdf** 16 44 56.4 -0.4
BR131 *e*pPKPdf **pPKPdf** 16 45 31.1 -2.7
**BRTR Keskin Array B** 132.54 311 PKP **PKPdf** 16 44 56.9 +0.1
comp=Z,3.0nm,0.9s,baz=107,slow=1.9,SNR=13
BRTR pPKP **pPKPdf** 16 45 32.7 -1.1
comp=Z,1.1nm,0.9s,baz=64,slow=2.9,SNR=2.4
BRTR SKPbc **SKPab** 16 48 12.4 -0.2
comp=Z,2.6nm,0.9s,baz=99,slow=6.7,SNR=8.6
**BR231 Keskin MP Arra** 133.13 311 *e*PKPdf **PKPdf** 16 44 57.1 -0.8
BR231 *e*pPKPdf **pPKPdf** 16 45 33.2 -1.7
**BUR08 Bucovina Ar. S** 134.64 324 *e*PKPdf **PKPdf** 16 45 02.3 +1.9
**BUR04 Bucovina Ar. S** 134.65 324 *e*PKPdf **PKPdf** 16 45 01.8 +1.3
**TSUM Tsumeb** 134.92 222 *e*PKPdf **PKPdf** 16 45 01.2 -0.7
**STHS Stebnicka Huta** 135.71 328 *e*PKiKP **PKPdf** 16 45 04.6 +2.3
**STHS Stebnicka Huta** 135.71 328 *e*PKP **PKPdf** 16 45 04.6 +2.3
**CRVS Cervenica-Dubn** 135.93 328 *e*PKiKP **PKPdf** 16 45 02.6 -0.1
**CRVS Cervenica-Dubn** 135.93 328 *e*PKP **PKPdf** 16 45 02.6 -0.1
**LANS Liptovska Anna** 136.77 329 *e*PKiKP **PKPdf** 16 45 07.2 +2.9
**LANS Liptovska Anna** 136.77 329 *e*PKP **PKPdf** 16 45 07.2 +2.9
**OKC Ostrava-Krasne** 136.95 331 *e*PKPdf **PKPdf** 16 45 04.5 0.0
**OKC Ostrava-Krasne** 136.95 331 *e*PKiKP **PKPdf** 16 45 04.5 0.0
**KRLC Kraliky** 137.41 332 *e*PKPdf **PKPdf** 16 45 05.5 0.0
**KRLC Kraliky** 137.41 332 *e*PKiKP **PKPdf** 16 45 05.5 0.0
**DPC Dobruska-Polom** 137.42 333 *e*PKPdf **PKPdf** 16 45 07.4 +1.9
**DPC Dobruska-Polom** 137.42 333 *e*PKiKP **PKPdf** 16 45 07.4 +1.9
**UPC Upice** 137.45 333 *e*PKPdf **PKPdf** 16 45 06.0 +0.5

**UPC Upice** 137.45 333 *e*PKiKP **PKPdf** 16 45 06.0 +0.5
**VYHS Vyhne** 137.52 329 *e*PKiKP **PKPdf** 16 45 06.3 +0.6
**VYHS Vyhne** 137.52 329 *e*PKP **PKPdf** 16 45 06.3 +0.6
**PVCC Panska Ves** 138.06 334 *e*PKPdf **PKPdf** 16 45 09.4 +2.8
**PVCC Panska Ves** 138.06 334 *e*PKiKP **PKPdf** 16 45 09.4 +2.8
**BRG Berggiesshubel** 138.06 335 *e*PKP **PKPdf** 16 45 07.3 +0.8
comp=Z,34nm,1.7s
**BRG Berggiesshubel** 138.06 335 *e*PKiKP **PKPdf** 16 45 07.3 +0.8
BRG pmax pmax
comp=Z,49nm,1.7s
**CLL Collm** 138.10 336 *e*PKHKP PKPpre 16 44 59.0
CLL *e* 16 45 07.0
CLL pmax pmax
comp=Z,10.0nm,1.0s
**CLL Collm** 138.10 336 *e*PKPpre PKPpre 16 44 59.0
CLL *e*PKPdf **PKPdf** 16 45 07.0 +0.4
comp=Z,10.0nm,1.0s
**GOPC GO Pecny, Ondr** 138.42 333 *e*PKPdf **PKPdf** 16 45 09.6 +2.3
**GOPC GO Pecny, Ondr** 138.42 333 *e*PKiKP **PKPdf** 16 45 09.6 +2.3
**PRU Pruhonice** 138.47 333 *e*PKPdf **PKPdf** 16 45 07.9 +0.6
**PRU Pruhonice** 138.47 333 *e*PKiKP **PKPdf** 16 45 07.9 +0.6
**VTS Vitosha** 138.53 319 *e*PKPpre PKPpre 16 45 01.7
VTS *e*PKPdf **PKPdf** 16 45 07.6 -0.3
VTS *e*pPKPdf pPKPdf 16 45 41.1 -3.8
**NKC Novy Kostel** 139.16 335 *e*PKPdf **PKPdf** 16 45 10.4 +1.8
**NKC Novy Kostel** 139.16 335 *e*PKiKP **PKPdf** 16 45 10.4 +1.8
**CONA Conrad Observa** 139.36 330 *i* PKPdf PKPpre 16 45 04.6
comp=Z,12nm,1.0s
CONA *i* pPKiKP pPKPdf 16 45 46.1 -0.1
comp=Z,10nm,1.5s
**KHC Kasperske Hory** 139.53 333 *e*PKPpre PKPpre 16 45 02.8
KHC *e*PKPdf **PKPdf** 16 45 09.3 -0.1
**KHC Kasperske Hory** 139.53 333 *e*PKHKP PKPpre 16 45 02.8
KHC *e* 16 45 09.3
**KHC Kasperske Hory** 139.53 333 *e*PKPdf **PKPdf** 16 45 08.9 -0.4
**GERES GERESS Array B** 139.69 333 PKhKP PKPpre 16 45 03.5
comp=Z,1.4nm,0.7s,baz=54,slow=2.3,SNR=11
GERES PKP **PKiKP** 16 45 11.5 -0.6
comp=Z,3.1nm,0.7s,baz=64,slow=2.3,SNR=14
GERES SKPbc **SKPbc** 16 48 33.1 +0.5
comp=Z,2.0nm,1.0s,baz=29,slow=4.5,SNR=6.4
**GEA0 GERESS Array S** 139.69 333 *e*PKPpre PKPpre 16 45 05.2
GEA0 *e*PKPdf **PKPdf** 16 45 09.3 -0.4
**MOA Molln** 140.17 331 *i* PKiKP **PKiKP** 16 45 13.1 +0.1
comp=Z,10nm,1.0s
**AGG Agios Georgios** 140.87 315 *e*PKiKP **PKPdf** 16 45 09.9 -2.2
AGG *e* 16 45 46.8
**AGG Agios Georgios** 140.87 315 *e*PKPdf **PKPdf** 16 45 09.9 -2.2
AGG *e*pPKPdf **pPKPdf** 16 45 46.8 -2.4
**MEM Membach** 141.18 341 PKP **PKPdf** 16 45 15.6 +3.4
**ABTA Abfaltersbach** 141.79 332 *i* PKPdf PKPpre 16 45 08.7
comp=Z,14nm,1.3s
**WTTA Wattenberg** 141.79 333 PKPdf PKPpre 16 45 10.0
comp=Z,18nm,1.4s
**WLF Walferdange** 141.95 340 PKP **PKPdf** 16 45 12.2 -1.4
**MOTA Moosalm** 141.96 334 *i* PKPdf PKPpre 16 45 10.3
comp=Z,4.9nm,0.6s
**RETA Reutte** 142.00 334 *i* PKPdf PKPpre 16 45 09.8
comp=Z,9.0nm,1.0s
**FETA Feichten** 142.37 333 *i* PKPdf PKPpre 16 45 11.5
comp=Z,28nm,1.0s
**DAVA Damuels** 142.53 335 *i* PKPdf PKPpre 16 45 11.8
comp=Z,24nm,1.2s
**FUORN Ofenpass-Fuorn** 142.89 333 *e*PKPdf **PKPdf** 16 45 13.2 -2.5
**TUE Stuetta** 143.39 334 *e*PKPdf PKPbc 16 45 14.6 +0.5
**SENIN Lac Senin/Sane** 144.32 336 *e*PKPdf PKPbc 16 45 17.2 +0.3
**AQU L'Aquila** 144.48 326 *e*PKiKP PKPbc 16 45 17.5 +0.2
**AQU L'Aquila** 144.48 326 *e*PKPdf PKPbc 16 45 17.5 +0.2
**CUC Castrocucco** 144.59 321 *e*PKPdf **PKPab** 16 45 16.3 -1.2
**VLC Villacollemand** 144.72 331 *e*PKPdf **PKPab** 16 45 17.7 -0.1
**CEL Celeste** 145.56 318 *e*PKPdf **PKPdf** 16 45 20.5 +0.1
CEL *e*pPKPdf pPKPab 16 45 56.5 -0.8
**BNI Bardonecchia** 145.64 335 *e*PKiKP **PKPab** 16 45 21.2 -0.2
**BNI Bardonecchia** 145.64 335 *e*PKPdf **PKPab** 16 45 21.2 -0.2
BNI *e*pPKPdf pPKPbc 16 45 57.5 0.0
**GDM Grand'Maison** 145.74 336 PKP **PKPab** 16 45 22.2 +0.4
**GRN Grenoble** 145.85 336 PKP **PKPab** 16 45 22.8 +0.6
**PLDF La Plantade** 146.00 339 PKP **PKPab** 16 45 23.1 +0.4
**AGO Saint Agoulin** 146.09 340 PKP **PKPab** 16 45 23.1 +0.1
**SSB Saint Sauveur** 146.28 338 PKP **PKPab** 16 45 23.6 -0.1
**SSB Saint Sauveur** 146.28 338 *e*PKP2 **PKPab** 16 45 23.2 -0.5
**SSB Saint Sauveur** 146.28 338 *e*PKPdf **PKPab** 16 45 23.2 -0.5
SSB *e*pPKPdf **pPKPdf** 16 45 58.5 +0.1
**PYM Petit Puy Mans** 146.40 340 PKP **PKPab** 16 45 24.3 +0.1
**LBL Lubilhac** 146.78 339 PKP **PKPab** 16 45 25.7 0.0
**FRNF Fournols** 146.87 340 PKP **PKPab** 16 45 25.6 -0.4
**CLTB Caltabellotta** 147.67 319 *e*PKPbc **PKPbc** 16 45 26.2 -0.7
**VSL Villasalto** 148.65 326 *e*PKPdf **PKPdf** 16 45 25.1 -0.3
VSL *e*PKPbc **PKPbc** 16 45 29.5 +0.1
VSL *e*pPKPdf **pPKPdf** 16 45 57.3 -4.8
VSL *e*pPKPab **pPKPbc** 16 46 04.8 -1.3
**SHEL Horse Pasture** 148.68 193 *e*PKP2 **PKPbc** 16 45 30.3 +0.2
**SHEL Horse Pasture** 148.68 193 *e*PKPbc **PKPbc** 16 45 30.3 +0.2
**VALF Valcebollere** 149.68 338 PKP **PKPbc** 16 45 32.7 +0.7
**RESF Ens** 149.89 341 PKP **PKPbc** 16 45 33.8 +1.3
**VIEF Viey** 149.93 341 PKP **PKPbc** 16 45 33.6 +1.1
**ATE Arette** 149.96 342 PKP **PKPbc** 16 45 32.9 +0.4
**KEST Kesra** 151.25 321 PKPbc **PKPbc** 16 45 36.4 +0.6
comp=Z,38nm,0.8s,baz=355,slow=0.9,SNR=39
**KEST Kesra** 151.25 321 *e*PKPbc **PKPbc** 16 45 36.0 +0.1
KEST *e*pPKPdf **pPKPdf** 16 46 05.5 -1.4
KEST *e* 16 46 11.9
**PBRG Braganca** 152.58 350 *e*PKPbc **PKPbc** 16 45 38.5 -0.1
**PBRG Braganca** 152.58 350 *e*PKPab **PKPab** 16 45 49.8 +0.3
**POLO Lamas de Olo** 153.16 352 *e*PKPbc **PKPbc** 16 45 40.3 +0.3
**POLO Lamas de Olo** 153.16 352 *e*PKPab **PKPab** 16 45 52.9 +0.9
**PVRL Vila Real** 153.25 352 *e*PKPab **PKPab** 16 45 53.4 +1.1
**MVO Moncorvo** 153.25 350 *e*PKPbc **PKPbc** 16 45 39.9 -0.2
**MVO Moncorvo** 153.25 350 *e*PKPab **PKPab** 16 45 53.2 +0.9
**PVIS Viseu** 153.82 352 *e*PKPab **PKPab** 16 45 55.7 +1.0
**ES19 SONSECA Array** 154.00 344 *e*PKPdf **PKPdf** 16 45 33.1 -0.5
ES19 *e*PKPbc **PKPbc** 16 45 41.6 -0.2
ES19 *e*PKPab **PKPab** 16 45 56.3 +0.8
**ESDC Sonseca Array** 154.04 344 PKPbc **PKPbc** 16 45 42.5 +0.7
comp=Z,0.3nm,0.3s,baz=1.7,slow=1.7,SNR=7.1
**MTE Manteigas** 154.08 351 *e*PKPbc **PKPbc** 16 45 42.3 +0.4
**MTE Manteigas** 154.08 351 *e*PKPab **PKPab** 16 45 56.5 +0.6
**PCAS Casmilo, Conde** 154.56 352 *e*PKPab **PKPab** 16 45 59.0 +1.2
**PCBR Castelo Branco** 154.62 351 *e*PKPab **PKPab** 16 45 58.6 +0.5
**PMRV Marv??o** 155.00 350 *e*PKPbc PKPbc 16 45 44.4
**PMRV Marv??o** 155.00 350 *e*PKPab **PKPab** 16 45 59.8 0.0
**PMTG Montargil** 155.49 352 *e*PKPab **PKPab** 16 46 02.3 +0.5
**PESTR Estremoz** 155.59 350 *e*PKPab **PKPab** 16 46 03.1 +0.8
**PMAFR Mafra** 155.73 353 *e*PKPab **PKPab** 16 46 03.2 +0.3
**PBAR Barrancos** 156.16 349 *e*PKPab **PKPab** 16 46 05.6 +0.9
**PBEJ Beja** 156.45 350 *e*PKPab **PKPab** 16 46 07.4 +1.4
**PNCL Nicolau / Gran** 156.47 352 *e*PKPab **PKPab** 16 46 06.8 +0.8
**PCVE Castro Verde** 156.87 350 *e*PKPab **PKPab** 16 46 09.3 +1.5
**PVAQ Vaqueiros** 157.03 350 *e*PKPab **PKPab** 16 46 09.6 +1.1
**PTEO Sao Teotonio** 157.05 352 *e*PKPab **PKPab** 16 46 10.0 +1.4
**PBDV Barranco-do-Ve** 157.23 350 *e*PKPab **PKPab** 16 46 10.7 +1.3
**MORF Marmelete** 157.28 352 *e*PKPab **PKPab** 16 46 11.2 +1.6
**TOA0 Torodi Ar. Sit** 165.89 265 *e*PKPdf **PKPdf** 16 45 46.4 -1.2
TOA0 *e*PKPdf **PKPdf** 16 45 46.8 -0.8
TOA0 *e*pPKPdf **pPKPdf** 16 46 23.4 -1.4
TOA0 *e*pPKPdf **pPKPdf** 16 46 24.4 -0.4
TOA0 *e*PKPab **PKPab** 16 46 47.7 -0.5
TOA0 *e*PKPab **PKPab** 16 46 47.9 -0.2
TOA0 *e*pPKPab **pPKPab** 16 47 20.9 -2.8
TOA0 *e*pPKPab **pPKPab** 16 47 21.1 -2.6
**TORD Torodi Ar. Bea** 165.89 265 PKP **PKPdf** 16 45 47.2 -0.3
comp=Z,3.1nm,0.9s,baz=52,slow=0.0,SNR=14
TORD PKPab **PKPab** 16 46 48.0 -0.1
comp=Z,47nm,1.1s
**DBIC Dimbokro** 168.82 225 PKP **PKPdf** 16 45 48.0 -1.7
comp=Z,6.0nm,0.8s,baz=263,slow=0.4,SNR=6.1
**DBIC Dimbokro** 168.82 225 PKiKP **PKPdf** 16 45 48.0 -1.7
DBIC pmax pmax
comp=Z,6.0nm,0.8s
**DBIC Dimbokro** 168.82 225 *e*PKPdf **PKPdf** 16 45 47.7 -2.0
**TIC Toumodi** 168.91 224 *e*PKiKP **PKPdf** 16 45 48.6 -1.2
**KOWA Kowa** 171.55 269 *e*PKPdf **PKPdf** 16 45 50.7 -0.5
KOWA *e*PKPab **PKPab** 16 47 13.4 +0.2

*NIED **01** 16:27:00, 35.°80N×140.°90E, h11km, Mw3.5 Best double couple: M₀1.70000×10^14 NP1:φs21.00000°, δ43.00000°, λ-86.00000°. NP2:φs196.00000°, δ47.00000°, λ-94.00000°.*

**JMA 01 16:27:17.6**±0.1**, 35.°74N×140.°87E, h11**km±1km**, M3.8, 1C-1D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CHOJ** | **Chosi** | **0.04** | **194** | ⇓P | Pg | 16 27 19.6 | 0.0 |
| CHOJ | | | | S | Sg | 16 27 21.1 | 0.0 |
| **JYT** | **Yasato** | **0.73** | **312** | ⇑P | Pg | 16 27 31.5 | -0.3 |
| JYT | | | | S | Sg | 16 27 40.9 | -0.5 |
| **JHO** | **Hitachi** | **0.90** | **344** | P | Pg | 16 27 34.1 | -0.9 |
| JHO | | | | S | Sg | 16 27 46.0 | -0.8 |
| **BSO3** | **Boso 3** | **0.98** | **198** | P | Pb | 16 27 36.4 | 0.0 |
| **BSO1** | **Boso 1** | **1.09** | **175** | P | Pb | 16 27 37.0 | -1.1 |
| **MAT** | **Matsushiro** | **2.30** | **291** | P | Pn | 16 27 54.8 | -0.7 |
| MAT | | | | S | Sn | 16 28 23.3 | -0.5 |

*ATH **01** 17:07:16.9, 39.°17N×26.°49E, h13km±5km, ML2.0/5, Error ellipse: s-maj=5.7km s-min=1.2km az=260.0*
*CSEM **01** 17:07:17.7±0.1, 39.°12N×26.°46E, h8km, ML2.0, Error ellipse: s-maj=2.7km s-min=1.9km az=71.0*
*ISK **01** 17:07:17.5, 39.°13N×26.°45E, h7km, MD2.8*
*DDA **01** 17:07:17.2, 39.°10N×26.°50E, h7km, Ml3.0*
*ISCJB **01** 17:07:17.6±0.4, 39.°12N±0.°02×26.°45E±0.°03, h7km±4km, Error ellipse: s-maj=4.1km s-min=2.6km az=157.5*
*THE **01** 17:07:18.8, 39.°12N×26.°33E, h5km±1km, ML2.0/7, Error ellipse: s-maj=1.3km s-min=0.5km az=271.0*

**ISC 01 17:07:17.5**±0.9**, 39.°12N**±0.°01×**26.°46E**±0.°02**, h9**km±7km**, n67, σ0.§48**/112**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PRK** | **Paraskevi** | **0.20** | **311** | P | **Pg** | **17 07 21.7** | **+0.2** |
| PRK | | | | S | **Sg** | **17 07 24.0** | **-0.3** |
| PRK | | | | AML | AML | 17 07 26.3 | |
| | comp=E,2819μm,0.6s | | | | | | |
| PRK | | | | AML | AML | 17 07 26.7 | |
| | comp=N,2612μm,0.5s | | | | | | |
| **PRK** | **Paraskevi** | **0.20** | **311** | P | **Pg** | **17 07 21.7** | **+0.2** |
| PRK | | | | S | **Sg** | **17 07 24.0** | **-0.3** |
| **PRK** | **Paraskevi** | **0.20** | **311** | P | **Pg** | **17 07 21.5** | **0.0** |
| PRK | | | | S | **Sg** | **17 07 24.0** | **-0.3** |
| **DKL** | **Dikili** | **0.35** | **98** | *e*PG | **Pg** | **17 07 24.8** | **+0.4** |
| DKL | | | | *e*SG | **Sb** | **17 07 30.7** | **-0.8** |
| **DKL** | **Dikili** | **0.35** | **98** | *e*Pg | **Pg** | **17 07 24.8** | **+0.4** |
| DKL | | | | *e*Sg | **Sb** | **17 07 30.7** | **-0.8** |
| **SIGR** | **SIGRI** | **0.48** | **281** | *e*PG | **Pg** | **17 07 27.2** | **+0.4** |
| **SIGR** | **SIGRI** | **0.48** | **281** | P | **Pg** | **17 07 25.9** | **-0.9** |
| SIGR | | | | S | **Sg** | **17 07 33.8** | **+0.7** |
| SIGR | | | | AML | AML | 17 07 39.0 | |
| | comp=E,182μm,0.3s | | | | | | |
| SIGR | | | | AML | AML | 17 07 39.8 | |
| | comp=N,201μm,0.2s | | | | | | |
| **SIGR** | **SIGRI** | **0.48** | **281** | P | **Pg** | **17 07 26.5** | **-0.3** |
| **SIGR** | **SIGRI** | **0.48** | **281** | *e*Pg | **Pg** | **17 07 27.2** | **+0.4** |
| SIGR | | | | S | **Sg** | **17 07 33.8** | **+0.7** |
| **SIGR** | **SIGRI** | **0.48** | **281** | P | **Pg** | **17 07 26.5** | **-0.3** |
| SIGR | | | | S | **Sg** | **17 07 31.7** | **-1.5** |
| **BAYC** | **CANAKKALE_Bayr** | **0.63** | **6** | *i* P | **Pg** | **17 07 29.1** | **-0.5** |
| **BAYC** | **CANAKKALE_Bayr** | **0.63** | **6** | P | **Pg** | **17 07 29.1** | **-0.5** |
| **EZN** | **Ezine** | **0.71** | **352** | *e*PG | **Pg** | **17 07 31.7** | **+0.4** |
| EZN | | | | *e*SG | **Sb** | **17 07 41.9** | **-0.2** |
| **EZN** | **Ezine** | **0.71** | **352** | *e*Pg | **Pg** | **17 07 31.7** | **+0.4** |
| **EZN** | **Ezine** | **0.71** | **352** | P | **Pb** | **17 07 32.6** | **+0.4** |
| EZN | | | | *e*Sg | **Sb** | **17 07 41.9** | **-0.2** |
| EZN | | | | S | **Sb** | **17 07 42.5** | **+0.4** |
| **EZN** | **Ezine** | **0.71** | **352** | P | **Pb** | **17 07 32.6** | **+0.4** |
| EZN | | | | S | **Sb** | **17 07 42.5** | **+0.4** |
| **URLA** | **Izmir** | **0.76** | **172** | *e*PG | **Pg** | **17 07 31.9** | **-0.3** |
| URLA | | | | *e*SG | **Sb** | **17 07 44.6** | **+1.0** |
| **URLA** | **Izmir** | **0.76** | **172** | *i* P | **Pg** | **17 07 31.3** | **-0.9** |
| URLA | | | | *i* S | **Sb** | **17 07 43.8** | **+0.2** |
| **URLA** | **Izmir** | **0.76** | **172** | P | **Pg** | **17 07 31.3** | **-0.9** |
| **URLA** | **Izmir** | **0.76** | **172** | *e*Pg | **Pg** | **17 07 31.9** | **-0.3** |
| URLA | | | | S | **Sb** | **17 07 43.8** | **+0.2** |
| URLA | | | | *e*Sg | **Sb** | **17 07 44.6** | **+1.0** |
| **BOZC** | **Bozcaada** | **0.79** | **336** | *e*PG | **Pg** | **17 07 32.8** | **+0.1** |
| BOZC | | | | *e*SG | **Sb** | **17 07 44.3** | **0.0** |
| **BOZC** | **Bozcaada** | **0.79** | **336** | *i* P | **Pg** | **17 07 33.0** | **+0.3** |
| BOZC | | | | *i* S | **Sb** | **17 07 45.4** | **+1.2** |
| **BOZC** | **Bozcaada** | **0.79** | **336** | *e*Pg | **Pg** | **17 07 32.8** | **+0.1** |
| BOZC | | | | *e*Sg | **Sb** | **17 07 44.3** | **0.0** |
| **CHOS** | **Chios island** | **0.80** | **204** | *e*PG | **Pg** | **17 07 33.2** | **+0.3** |
| CHOS | | | | *e*SG | **Sb** | **17 07 44.9** | **+0.4** |
| **CHOS** | **Chios island** | **0.80** | **204** | P | **Pg** | **17 07 32.3** | **-0.5** |
| CHOS | | | | S | **Sn** | **17 07 46.3** | **-0.8** |
| CHOS | | | | AML | AML | 17 07 47.3 | |
| | comp=E,876μm,0.2s | | | | | | |
| CHOS | | | | AML | AML | 17 07 47.7 | |
| | comp=N,588μm,0.2s | | | | | | |
| **CHOS** | **Chios island** | **0.80** | **204** | P | **Pg** | **17 07 32.9** | **+0.1** |
| **CHOS** | **Chios island** | **0.80** | **204** | *e*Pg | **Pg** | **17 07 33.2** | **+0.3** |
| CHOS | | | | S | **Sb** | **17 07 44.9** | **+0.4** |
| **CHOS** | **Chios island** | **0.80** | **204** | P | **Pg** | **17 07 32.9** | **+0.1** |
| CHOS | | | | S | **Sb** | **17 07 44.9** | **+0.4** |
| **ZEY** | **˜zmir** | **0.88** | **178** | *i* P | **Pg** | **17 07 33.5** | **-0.9** |
| **STEP** | **BALIKESIR_Sava** | **1.01** | **75** | *i* P | **Pg** | **17 07 36.6** | **-0.3** |
| **STEP** | **BALIKESIR_Sava** | **1.01** | **75** | P | **Pg** | **17 07 36.6** | **-0.3** |
| **AKHS** | **Akhisar** | **1.08** | **102** | *i* P | **Pg** | **17 07 38.1** | **-0.1** |
| AKHS | | | | *i* S | **Sg** | **17 07 52.0** | **-0.3** |
| **AKHS** | **Akhisar** | **1.08** | **102** | P | **Pg** | **17 07 38.1** | **-0.1** |
| AKHS | | | | S | **Sg** | **17 07 52.0** | **-0.3** |
| **BALY** | **Balya** | **1.09** | **55** | *i* P | **Pg** | **17 07 38.3** | **-0.2** |
| BALY | | | | *i* S | **Sn** | **17 07 54.7** | **+0.3** |
| **BALY** | **Balya** | **1.09** | **55** | P | **Pg** | **17 07 38.3** | **-0.2** |
| BALY | | | | S | **Sn** | **17 07 54.7** | **+0.3** |
| **DGB** | **˜zmir** | **1.11** | **163** | *i* P | **Pg** | **17 07 38.0** | **-0.9** |
| DGB | | | | *i* S | **Sg** | **17 07 53.5** | **+0.2** |
| **GADA** | **Gvkgeada** | **1.16** | **338** | *e*PN | **Pb** | **17 07 39.5** | **-0.3** |
| **GADA** | **Gvkgeada** | **1.16** | **338** | P | **Pb** | **17 07 39.4** | **-0.3** |
| GADA | | | | S | **Sn** | **17 07 55.6** | **-0.3** |
| **GADA** | **Gvkgeada** | **1.16** | **338** | P | **Pb** | **17 07 39.4** | **-0.3** |
| GADA | | | | S | **Sn** | **17 07 55.6** | **-0.3** |
| **BALB** | **Balikesir** | **1.22** | **64** | *e*PN | **Pg** | **17 07 41.1** | **+0.2** |
| **BALB** | **Balikesir** | **1.22** | **64** | *e*Pn | **Pg** | **17 07 41.1** | **+0.2** |
| **LIA** | **Limnos Island** | **1.26** | **309** | P | **Pn** | **17 07 41.1** | **-0.1** |
| LIA | | | | S | **Sg** | **17 07 58.2** | **+0.2** |
| LIA | | | | AML | AML | 17 07 59.9 | |
| | comp=N,106μm,0.4s | | | | | | |
| LIA | | | | AML | AML | 17 08 01.5 | |
| | comp=E,120μm,0.5s | | | | | | |
| **LIA** | **Limnos Island** | **1.26** | **309** | P | **Pn** | **17 07 41.2** | **-0.1** |
| LIA | | | | S | **Sg** | **17 07 58.0** | **0.0** |
| **LIA** | **Limnos Island** | **1.26** | **309** | P | **Pn** | **17 07 41.0** | **-0.3** |
| LIA | | | | S | **Sg** | **17 07 58.0** | **0.0** |
| **GONE** | **Gonen-Balikesi** | **1.32** | **45** | *e*PN | **Pg** | **17 07 42.8** | **-0.1** |
| **GONE** | **Gonen-Balikesi** | **1.32** | **45** | *e*Pn | **Pg** | **17 07 42.8** | **-0.1** |
| **KNL** | **Bal˜–kesir** | **1.41** | **35** | *i* P | **Pg** | **17 07 44.5** | **-0.2** |
| KNL | | | | *i* S | **Sb** | **17 08 02.5** | **+0.2** |
| **SMG** | **Samos** | **1.44** | **168** | P | **Pg** | **17 07 45.0** | **0.0** |
| **SMG** | **Samos** | **1.44** | **168** | P | **Pb** | **17 07 44.6** | **+0.1** |
| SMG | | | | S | **Sg** | **17 08 04.9** | **+1.2** |
| **SMG** | **Samos** | **1.44** | **168** | P | **Pb** | **17 07 44.6** | **+0.1** |
| SMG | | | | S | **Sg** | **17 08 04.9** | **+1.2** |
| **SMTH** | **Samothraki Isl** | **1.53** | **332** | P | **Pn** | **17 07 44.8** | **-0.3** |
| SMTH | | | | S | **Sn** | **17 08 04.2** | **-0.9** |
| SMTH | | | | AML | AML | 17 08 07.4 | |
| | comp=E,44μm,0.6s | | | | | | |
| SMTH | | | | AML | AML | 17 08 08.5 | |
| | comp=N,66μm,0.6s | | | | | | |
| **SMTH** | **Samothraki Isl** | **1.53** | **332** | P | **Pn** | **17 07 44.8** | **-0.3** |
| SMTH | | | | S | **Sn** | **17 08 05.0** | **-0.1** |
| **SMTH** | **Samothraki Isl** | **1.53** | **332** | P | **Pn** | **17 07 44.8** | **-0.3** |
| SMTH | | | | S | **Sn** | **17 08 05.0** | **-0.1** |
| **GCAM** | **G?zelcaml?** | **1.54** | **157** | *e*PN | **Pb** | **17 07 46.4** | **+0.2** |
| **GCAM** | **G?zelcaml?** | **1.54** | **157** | *i* P | **Pb** | **17 07 45.8** | **-0.4** |
| **GCAM** | **G?zelcaml?** | **1.54** | **157** | P | **Pb** | **17 07 45.8** | **-0.4** |
| **GCAM** | **G?zelcaml?** | **1.54** | **157** | *e*Pn | **Pb** | **17 07 46.4** | **+0.2** |
| **SART** | **Tekirdag** | **1.66** | **19** | *i* P | **Pn** | **17 07 47.1** | **+0.1** |
| SART | | | | *i* S | **Sn** | **17 08 08.5** | **0.0** |
| **SART** | **Tekirdag** | **1.66** | **19** | P | **Pn** | **17 07 47.1** | **+0.1** |
| SART | | | | S | **Sn** | **17 08 08.5** | **0.0** |
| **KESN** | **Edirne-Kesan** | **1.71** | **6** | *i* P | **Pn** | **17 07 47.6** | **-0.3** |
| KESN | | | | *i* S | **Sn** | **17 08 10.7** | **+0.5** |
| **KESN** | **Edirne-Kesan** | **1.71** | **6** | P | **Pn** | **17 07 47.6** | **-0.3** |
| KESN | | | | S | **Sn** | **17 08 10.7** | **+0.5** |
| **MANT** | **Manisa** | **1.75** | **110** | *i* P | **Pn** | **17 07 48.2** | **-0.2** |
| **MANT** | **Manisa** | **1.75** | **110** | P | **Pn** | **17 07 48.2** | **-0.2** |
| **ALN** | **Alexandroupoli** | **1.81** | **350** | P | **Pn** | **17 07 49.5** | **+0.7** |
| ALN | | | | S | **Sb** | **17 08 13.1** | **-0.4** |
| **ALN** | **Alexandroupoli** | **1.81** | **350** | P | **Pn** | **17 07 49.5** | **+0.7** |
| ALN | | | | S | **Sb** | **17 08 13.1** | **-0.4** |
| **AYDN** | **Tasoluk** | **1.83** | **142** | *i* P | **Pn** | **17 07 49.4** | **+0.1** |
| **AYDN** | **Tasoluk** | **1.83** | **142** | P | **Pn** | **17 07 49.4** | **+0.1** |

**IDC 01 17:14:52.4**±15.0**, 3.°20N×128.°50E, h176**km±165km**, mb3.0**/6**, mb1 3.1**/6**, mb1mx3.0**/36**, mbtmp3.5**/6**, Error ellipse: s-maj=55.7km s-min=24.2km az=86.0, North of Halmahera**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **21.36** | **187** | P | P | 17 19 26.6 | +0.5 |
| | 2.0nm,1.0s,baz=0.0,slow=8.1,SNR=1.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **23.71** | **166** | P | P | 17 19 48.7 | +0.3 |
| | 0.2nm,0.5s,baz=344,slow=10,SNR=6.8 | | | | | | |
| **ASAR** | **Alice Springs** | **27.22** | **169** | P | P | 17 20 19.6 | -0.5 |
| | 0.2nm,0.6s,baz=352,slow=7.7,SNR=8.8 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **34.36** | **14** | P | P | 17 21 22.2 | -0.4 |
| | 1.1nm,0.6s,baz=178,slow=8.9,SNR=1.9 | | | | | | |
| **SONM** | **Songino Array** | **48.37** | **340** | P | P | 17 23 16.1 | -0.4 |
| | 0.2nm,0.4s,baz=153,slow=8.5,SNR=2.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **59.00** | **325** | P | P | 17 24 33.9 | +0.2 |
| | 0.6nm,0.5s,baz=115,slow=8.7,SNR=10 | | | | | | |

*IDC **01** 17:19:23.9±0.7, 54.°54S×158.°15E, h0km, mb4.4/12, mb1 4.4/12, mb1mx4.3/24, mbtmp4.4/12, MS3.7/13, Ms1 3.7/13, ms1mx3.5/21, Error ellipse: s-maj=26.1km s-min=17.6km az=79.0*
*ISCJB **01** 17:19:24.1±0.5, 54.°48S±0.°09×158.°1E±0.°1, h10km, mb4.4/15, MS3.6/13, Error ellipse: s-maj=13.3km s-min=10.0km az=32.8*
*NEIC **01** 17:19:25.3±0.3, 54.°49S×158.°14E, h10km, mb4.5/6, Error ellipse: s-maj=9.9km s-min=6.9km az=47.0*

**ISC 01 17:19:25.3**±0.5**, 54.°54S**±0.°09×**158.°17E**±0.°10**, h10**km**, n48, σ0.§79**/44**, mb4.3**/15**, MS3.6**/13**, Macquarie Island region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MCQ** | **Macquarie Isla** | **0.46** | **85** | *e*Pg | **Pg** | **17 19 34.2** | **0.0** |
| **URZ** | **Urewera** | **20.77** | **46** | P | Pn | 17 24 07.5 | -1.0 |
| | 12nm,0.8s,baz=219,slow=4.6,SNR=4.7 | | | | | | |
| **VNDA** | **Vanda** | **23.11** | **178** | P | **P** | **17 24 30.6** | **-0.2** |
| | 2.9nm,1.2s,baz=342,slow=8.9,SNR=5.9 | | | | | | |
| VNDA | | | | LR | LR | 17 31 58.1 | |
| | comp=Z,282nm,19.4s,baz=6.0,slow=33 | | | | | | |
| **VNDA** | **Vanda** | **23.11** | **178** | *e*P | **P** | **17 24 32.4** | **+1.5** |
| VNDA | | | | *e*sP | **pP** | **17 24 33.6** | **-0.2** |
| **STKA** | **Stephens Creek** | **25.55** | **326** | P | **P** | **17 24 54.1** | **+0.1** |
| | 5.3nm,0.7s,baz=156,slow=13,SNR=10.0 | | | | | | |
| STKA | | | | LR | LR | 17 33 17.7 | |
| | comp=Z,116nm,21.0s,baz=200,slow=33 | | | | | | |
| **STKA** | **Stephens Creek** | **25.55** | **326** | *e*P | **P** | **17 24 53.2** | **-0.8** |
| | 1.8nm,0.9s | | | | | | |
| **DZM** | **Mont Dzumac** | **33.02** | **14** | P | **P** | **17 26 01.6** | **+1.0** |
| | 10nm,0.9s,baz=204,slow=23,SNR=4.0 | | | | | | |
| DZM | | | | LR | LR | 17 37 21.8 | |
| | comp=Z,86nm,19.2s,baz=226,slow=33 | | | | | | |
| **DZM** | **Mont Dzumac** | **33.02** | **14** | *e*P | **P** | **17 26 01.6** | **+1.0** |
| | 37nm,1.4s | | | | | | |
| **CTA** | **Charters Tower** | **35.58** | **341** | P | **P** | **17 26 23.1** | **+0.4** |
| | 4.6nm,0.9s,baz=139,slow=11,SNR=8.2 | | | | | | |
| **AS01** | **Alice Springs** | **35.75** | **320** | *e*P | **P** | **17 26 23.5** | **-0.6** |
| **AS31** | **Alice Springs** | **35.76** | **320** | *e*P | **P** | **17 26 24.2** | **-0.1** |
| | 1.8nm,0.9s | | | | | | |
| **ASAR** | **Alice Springs** | **35.76** | **320** | P | **P** | **17 26 23.9** | **-0.4** |
| | 3.4nm,0.8s,baz=157,slow=8.8,SNR=32 | | | | | | |
| ASAR | | | | PcP | **PcP** | **17 28 51.2** | **-0.8** |
| | 0.9nm,0.6s,baz=149,slow=3.7,SNR=8.7 | | | | | | |
| ASAR | | | | LR | LR | 17 39 09.1 | |
| | comp=Z,68nm,21.7s,baz=147,slow=33 | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **35.92** | **290** | P | **P** | **17 26 26.6** | **+1.0** |
| | 11nm,1.0s,baz=166,slow=4.9,SNR=3.1 | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **36.17** | **285** | T | T | 18 05 19.8 | |
| | baz=136,slow=76,SNR=35 | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **36.18** | **285** | T | T | 18 05 20.3 | |
| | baz=136,slow=76,SNR=31 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **36.19** | **285** | T | T | 18 05 21.1 | |
| | baz=136,slow=76,SNR=37 | | | | | | |
| **WB2** | **Warramunga Arr** | **39.01** | **323** | *e*P | **P** | **17 26 50.6** | **-1.2** |
| | 39nm,1.9s | | | | | | |
| **WR1** | **Warramunga Arr** | **39.01** | **323** | *e*P | **P** | **17 26 50.6** | **-1.3** |
| | 10nm,1.1s | | | | | | |
| WR1 | | | | *e*PcP | **PcP** | **17 29 01.1** | **-0.8** |
| **WRA** | **Warramunga Arr** | **39.01** | **323** | P | **P** | **17 26 50.6** | **-1.3** |
| | 5.3nm,0.8s,baz=156,slow=7.1,SNR=27 | | | | | | |
| WRA | | | | PcP | **PcP** | **17 29 01.1** | **-0.8** |
| | 0.9nm,0.6s,baz=160,slow=2.9,SNR=8.5 | | | | | | |
| WRA | | | | LR | LR | 17 42 20.3 | |
| | comp=Z,248nm,19.2s,baz=170,slow=35 | | | | | | |
| **MAW** | **Mawson** | **43.11** | **214** | LR | LR | 17 43 09.7 | |
| | comp=Z,148nm,18.4s,baz=256,slow=33 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **44.09** | **313** | P | **P** | **17 27 33.2** | **-0.3** |
| | 3.1nm,0.7s,baz=166,slow=12,SNR=6.4 | | | | | | |
| FITZ | | | | PcP | **PcP** | **17 29 18.3** | **-0.3** |
| | 2.5nm,1.1s,baz=112,slow=4.7,SNR=3.1 | | | | | | |
| FITZ | | | | LR | LR | 17 44 08.8 | |
| | comp=Z,75nm,20.0s,baz=145,slow=34 | | | | | | |
| **HNR** | **Honiara** | **45.01** | **2** | LR | LR | 17 42 24.1 | |
| | comp=Z,129nm,21.0s,baz=162,slow=31 | | | | | | |
| **PMG** | **Port Moresby** | **45.87** | **345** | P | **P** | **17 27 48.4** | **+0.8** |
| | 5.9nm,0.8s,baz=169,slow=10,SNR=3.0 | | | | | | |
| PMG | | | | LR | LR | 17 44 52.3 | |
| | comp=Z,110nm,18.3s,baz=174,slow=33 | | | | | | |
| **SNAA** | **Sanae** | **53.37** | **187** | *e*P | **P** | **17 28 44.4** | **+0.1** |
| | 23nm,1.6s | | | | | | |
| **PLCA** | **Paso Flores** | **76.34** | **144** | LR | LR | 17 59 30.5 | |
| | comp=Z,38nm,18.1s,baz=307,slow=32 | | | | | | |
| **H08S2** | **Diego Garcia H** | **81.32** | **269** | T | T | 19 01 38.3 | |
| | baz=144,slow=76,SNR=5.6 | | | | | | |
| **H08S1** | **Diego Carcia H** | **81.33** | **269** | T | T | 19 01 41.8 | |
| | baz=144,slow=76,SNR=6.3 | | | | | | |
| **H08S3** | **Diego Garcia H** | **81.34** | **269** | T | T | 19 01 41.1 | |
| | baz=144,slow=76,SNR=6.6 | | | | | | |
| **BOSA** | **Boshof** | **87.80** | **220** | P | **P** | **17 32 14.9** | **+0.2** |
| | 2.6nm,0.7s,baz=198,slow=3.8,SNR=6.8 | | | | | | |
| **CM01** | **Chiang Mai Arr** | **88.40** | **305** | *e*P | **P** | **17 32 17.8** | **+0.6** |
| **CMAR** | **Chiang Mai Arr** | **88.44** | **305** | P | **P** | **17 32 18.3** | **+0.8** |
| | 0.9nm,0.6s,baz=172,slow=2.7,SNR=9.1 | | | | | | |
| CMAR | | | | LR | LR | 18 09 04.0 | |
| | comp=Z,19nm,21.7s,baz=168,slow=34 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **92.33** | **344** | LR | LR | 18 11 31.7 | |
| | comp=Z,18nm,21.2s,baz=140,slow=34 | | | | | | |
| **KSRS** | **Korea Array** | **95.25** | **336** | LR | LR | 18 14 36.4 | |
| | comp=Z,19nm,20.7s,baz=22,slow=35 | | | | | | |
| **MK32** | **Makanchi Array** | **119.53** | **310** | *e*PKPdf | **PKPdf** | **17 38 13.3** | **-0.9** |
| **MKAR** | **Makanchi Array** | **119.53** | **310** | PKP | **PKPdf** | **17 38 13.3** | **-0.9** |
| | 0.2nm,0.5s,baz=155,slow=3.0,SNR=3.4 | | | | | | |
| **PDAR** | **Pinedale Array** | **124.53** | **63** | PKP | **PKPdf** | **17 38 23.0** | **-1.2** |
| | 0.2nm,0.6s,baz=210,slow=5.2,SNR=3.1 | | | | | | |
| **GEYT** | **Alibeck** | **125.30** | **287** | PKP | **PKPdf** | **17 38 25.9** | **+0.3** |
| | 1.0nm,0.6s,baz=126,slow=2.5,SNR=3.4 | | | | | | |
| **ILAR** | **Eielson Array** | **126.22** | **26** | PKP | **PKPdf** | **17 38 26.0** | **-0.4** |
| | 0.5nm,1.0s,baz=258,slow=4.5,SNR=3.3 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **134.76** | **213** | PKP | **PKPdf** | **17 38 44.9** | **+0.7** |
| | 0.3nm,0.5s,baz=154,slow=1.3,SNR=3.0 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **134.76** | **213** | *e*PKPdf | **PKPdf** | **17 38 44.9** | **+0.7** |
| **BR101** | **Keskin Array S** | **140.54** | **271** | *e*PKPdf | **PKPdf** | **17 38 54.4** | **+0.1** |
| **BRTR** | **Keskin Array B** | **140.54** | **271** | PKP | **PKPdf** | **17 38 54.3** | **+0.1** |
| | 0.5nm,0.7s,baz=132,slow=2.1,SNR=3.2 | | | | | | |
| **RES** | **Resolute Bay** | **145.95** | **27** | PKPbc | **PKPbc** | **17 39 02.8** | **-0.5** |
| | 4.2nm,0.8s,baz=224,slow=2.2,SNR=4.4 | | | | | | |
| **AKASG** | **Malin Array Be** | **149.33** | **284** | PKPbc | **PKPbc** | **17 39 12.8** | **-0.3** |
| | 3.7nm,0.6s,baz=94,slow=2.4,SNR=34 | | | | | | |
| **AKBB** | **Malin Array Si** | **149.33** | **284** | *e*PKPbc | **PKPbc** | **17 39 12.9** | **-0.2** |
| **KEST** | **Kesra** | **151.42** | **242** | PKPbc | **PKPbc** | **17 39 19.9** | **+1.1** |
| | 2.7nm,0.9s,baz=113,slow=6.0,SNR=3.4 | | | | | | |
| KEST | | | | PKPab | **pPKPab** | **17 39 28.6** | **-1.8** |
| | 2.8nm,0.8s,baz=186,slow=16,SNR=4.6 | | | | | | |
| **FIA0** | **FINESS Array S** | **154.21** | **305** | *e*PKPbc | **PKPbc** | **17 39 23.2** | **-0.8** |
| FIA0 | | | | *e*PKPab | **PKPab** | **17 39 38.0** | **0.0** |
| **FINES** | **FINESS Array B** | **154.21** | **305** | PKPbc | **PKPbc** | **17 39 23.2** | **-0.8** |
| | 2.6nm,0.7s,baz=98,slow=3.9,SNR=4.4 | | | | | | |
| FINES | | | | PKPab | **PKPab** | **17 39 38.0** | **0.0** |
| | 6.1nm,1.0s,baz=104,slow=8.0,SNR=4.2 | | | | | | |

*ISCJB **01** 17:37:37.9±0.5, 38.°75N±0.°02×43.°56E±0.°04, h10km±4km, Error ellipse: s-maj=5.9km s-min=3.9km az=8.9*
*CSEM **01** 17:37:37.5±0.2, 38.°77N×43.°56E, h8km, ML2.7, Error ellipse: s-maj=5.7km s-min=4.0km az=85.0*
*DDA **01** 17:37:37.6, 38.°73N×43.°54E, h7km, Ml3.0*
*ISK **01** 17:37:37.3, 38.°76N×43.°53E, h6km, ML2.7*

**ISC 01 17:37:38.5**±0.9**, 38.°77N**±0.°02×**43.°55E**±0.°03**, h12**km±7km**, n45, σ1.§33**/66**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.22** | **4** | *i* P | **Pg** | **17 37 41.9** | **-1.4** |
| VMUR | | | | *i* S | **Sg** | **17 37 48.2** | **+1.6** |
| **VMUR** | **Van-Muradiye** | **0.22** | **4** | P | **Pg** | **17 37 41.9** | **-1.4** |
| **VANB** | **Van** | **0.22** | **216** | *e*PG | **Pg** | **17 37 43.3** | **0.0** |
| **VANB** | **Van** | **0.22** | **216** | *e*Pg | **Pg** | **17 37 43.3** | **0.0** |
| **TVAN** | **Van** | **0.27** | **205** | *i* P | **Pg** | **17 37 43.1** | **-1.1** |
| TVAN | | | | *i* S | **Sb** | **17 37 49.3** | **-0.8** |
| **TVAN** | **Van** | **0.27** | **205** | P | **Pg** | **17 37 43.1** | **-1.1** |
| TVAN | | | | S | **Sb** | **17 37 49.3** | **-0.8** |
| **ERCV** | **ERCIS-VAN** | **0.30** | **326** | *e*PG | **Pg** | **17 37 43.2** | **-1.5** |
| ERCV | | | | *e*SG | **Sg** | **17 37 48.9** | **0.0** |
| **ERCV** | **ERCIS-VAN** | **0.30** | **326** | *e*Pg | **Pg** | **17 37 43.2** | **-1.5** |
| ERCV | | | | *e*Sg | **Sg** | **17 37 48.9** | **0.0** |
| **CLDR** | **Caldiran** | **0.47** | **37** | *e*PG | **Pg** | **17 37 47.2** | **-0.7** |
| CLDR | | | | *e*SG | **Sb** | **17 37 55.0** | **-0.8** |
| **CLDR** | **Caldiran** | **0.47** | **37** | *i* P | **Pg** | **17 37 47.1** | **-0.7** |
| CLDR | | | | *i* S | **Sb** | **17 37 56.2** | **+0.4** |
| **CLDR** | **Caldiran** | **0.47** | **37** | P | **Pg** | **17 37 47.1** | **-0.7** |
| CLDR | | | | *e*Sg | **Sb** | **17 37 55.0** | **-0.8** |
| **GEVA** | **Gevas** | **0.60** | **220** | *i* P | **Pg** | **17 37 48.5** | **-1.8** |
| GEVA | | | | *i* S | **Sn** | **17 38 01.4** | **-1.4** |
| **GEVA** | **Gevas** | **0.60** | **220** | P | **Pg** | **17 37 48.5** | **-1.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.65** | **273** | *i* P | **Pg** | **17 37 49.7** | **-1.5** |
| ADCV | | | | *i* S | **Sb** | **17 38 00.4** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.65** | **273** | P | **Pg** | **17 37 49.7** | **-1.5** |
| ADCV | | | | S | **Sb** | **17 38 00.4** | **-0.6** |
| **DYDN** | **Diyadin** | **0.78** | **8** | *i* P | **Pg** | **17 37 52.5** | **-1.2** |
| DYDN | | | | *i* S | **Sb** | **17 38 05.8** | **+1.0** |
| **DYDN** | **Diyadin** | **0.78** | **8** | P | **Pg** | **17 37 52.5** | **-1.2** |
| DYDN | | | | S | **Sb** | **17 38 05.8** | **+1.0** |
| **BASK** | **Baskale_VAN** | **0.80** | **154** | *i* P | **Pg** | **17 37 52.6** | **-1.5** |
| **BASK** | **Baskale_VAN** | **0.80** | **154** | P | **Pg** | **17 37 52.6** | **-1.5** |
| **TUTA** | **Tutak** | **0.85** | **318** | *i* P | **Pg** | **17 37 52.8** | **-2.3** |
| TUTA | | | | *i* S | **Sb** | **17 38 07.5** | **+0.6** |
| **TUTA** | **Tutak** | **0.85** | **318** | P | **Pg** | **17 37 52.8** | **-2.3** |
| TUTA | | | | S | **Sb** | **17 38 07.5** | **+0.6** |
| **AGRB** | **Hanur-Agry** | **0.91** | **332** | *e*PG | **Pg** | **17 37 54.3** | **-1.9** |
| **AGRB** | **Hanur-Agry** | **0.91** | **332** | *e*Pg | **Pg** | **17 37 54.3** | **-1.9** |
| **HAKT** | **HAKKARI** | **1.22** | **174** | *i* P | **Pn** | **17 37 59.5** | **-2.1** |
| HAKT | | | | *i* S | **Sn** | **17 38 20.8** | **+2.6** |
| **HAKT** | **HAKKARI** | **1.22** | **174** | P | **Pn** | **17 37 59.5** | **-2.1** |
| HAKT | | | | S | **Sn** | **17 38 20.8** | **+2.6** |
| **EKAR** | **Karacoban** | **1.25** | **293** | *i* P | **Pn** | **17 38 02.0** | **-0.1** |
| EKAR | | | | *i* S | Sn | 17 38 30.0 | +11 |
| **EKAR** | **Karacoban** | **1.25** | **293** | P | **Pn** | **17 38 02.0** | **-0.1** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.32** | **154** | *i* P | **Pn** | **17 38 02.3** | **-0.7** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.32** | **154** | P | **Pn** | **17 38 02.3** | **-0.7** |
| **TASB** | **TASBURUN-IGDIR** | **1.32** | **24** | *e*PN | **Pn** | **17 38 02.6** | **-0.3** |
| **TASB** | **TASBURUN-IGDIR** | **1.32** | **24** | *e*Pn | **Pn** | **17 38 02.6** | **-0.3** |
| **EATA** | **Eleskirt** | **1.36** | **323** | *i* P | **Pn** | **17 38 02.9** | **-0.8** |
| EATA | | | | *i* S | **Sg** | **17 38 24.8** | **+2.2** |
| **EATA** | **Eleskirt** | **1.36** | **323** | P | **Pn** | **17 38 02.9** | **-0.8** |
| EATA | | | | S | **Sg** | **17 38 24.8** | **+2.2** |
| **SRTM** | **Siirt_Merkez** | **1.50** | **239** | *i* P | **Pn** | **17 38 05.6** | **+0.3** |
| SRTM | | | | *i* S | **Sg** | **17 38 29.2** | **+2.4** |
| **SRTM** | **Siirt_Merkez** | **1.50** | **239** | P | **Pn** | **17 38 05.6** | **+0.3** |
| SRTM | | | | S | **Sg** | **17 38 29.2** | **+2.4** |
| **CUKT** | **Cukurca** | **1.52** | **178** | *e*PN | **Pn** | **17 38 05.2** | **-0.5** |
| **CUKT** | **Cukurca** | **1.52** | **178** | *i* P | **Pb** | **17 38 06.7** | **-0.1** |
| **CUKT** | **Cukurca** | **1.52** | **178** | *e*Pn | **Pn** | **17 38 05.2** | **-0.5** |
| **CUKT** | **Cukurca** | **1.52** | **178** | P | **Pb** | **17 38 06.7** | **-0.1** |
| **VRTB** | **Varto-Mus** | **1.68** | **284** | *e*PN | **Pn** | **17 38 08.2** | **+0.3** |
| **VRTB** | **Varto-Mus** | **1.68** | **284** | *e*Pn | **Pn** | **17 38 08.2** | **+0.3** |
| **SVAN** | **Silvan-Diyarba** | **1.95** | **252** | *e*PN | **Pn** | **17 38 11.8** | **+0.3** |
| **SVAN** | **Silvan-Diyarba** | **1.95** | **252** | *e*Pn | **Pn** | **17 38 11.8** | **+0.3** |
| **BNGB** | **Bingˆ¶l** | **2.25** | **276** | *e*PN | **Pn** | **17 38 16.5** | **+0.8** |
| **BINT** | **Bingol** | **2.39** | **273** | *e*Pn | **Pn** | **17 38 16.5** | **-1.2** |

**CASC 01 18:03:18.2**±1.6**, 12.°17N×87.°24W, h57**km±18km**, MD3.4, ML3.8, 1C, Near coast of Nicaragua**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRIN** | **San Cristobal** | **0.56** | **19** | *e*P | Pn | 18 03 30.6 | -0.2 |
| CRIN | | | | *e*S | Sn | 18 03 40.7 | +0.9 |
| CRIN | | | | AML | AML | 18 03 41.1 | |
| | comp=N,4μm,0.3s | | | | | | |
| **COPN** | **Copaltepe** | **0.63** | **89** | *e*P | Pn | 18 03 31.2 | -0.3 |
| **MOMN** | **Momotombo** | **0.72** | **71** | *e*S | Sn | 18 03 45.2 | +2.0 |
| **XAVN** | **Gruta Xavier** | **0.89** | **91** | *e*P | Pn | 18 03 34.8 | 0.0 |
| XAVN | | | | *e*S | Sn | 18 03 46.4 | -0.5 |
| **TISN** | **Laguna Tiscapa** | **0.95** | **91** | *e*P | Pn | 18 03 35.4 | -0.1 |
| **MGAN** | **Managua** | **0.97** | **91** | *e*P | Pn | 18 03 35.5 | -0.3 |
| MGAN | | | | *e*S | Sn | 18 03 49.0 | +0.2 |
| **MASN** | **Masaya** | **1.08** | **99** | *e*P | Pn | 18 03 38.1 | +0.9 |
| **CNCH** | **Conchagua** | **1.25** | **332** | ⇑*e*P | Pn | 18 03 39.3 | -0.3 |
| CNCH | | | | *e*S | Sn | 18 03 55.2 | -0.2 |
| **ESTN** | **Estel** | **1.26** | **42** | *e*P | Pn | 18 03 39.9 | +0.2 |
| ESTN | | | | *e*S | Sn | 18 03 56.4 | +0.6 |
| **LCY** | **Lacayo** | **1.62** | **321** | *e*P | Pn | 18 03 44.5 | -0.1 |
| **PACA** | **Pacayal** | **1.67** | **321** | *e*P | Pn | 18 03 46.5 | +1.2 |
| **TGUH** | **Tegucigalpa,Un** | **1.88** | **359** | *e*P | Pn | 18 03 48.5 | +0.5 |

*IDC **01** 18:25:16.7±1.6, 12.°32N×122.°62E, h0km, mb3.3/4, mb1 3.6/5, mb1mx3.4/35, mbtmp3.5/5, ML4.0/1, MS3.0/1, Ms1 3.0/1, ms1mx2.4/16, Error ellipse: s-maj=67.6km s-min=18.9km az=57.0*
*MAN **01** 18:25:17, 11.°91N×121.°55E, h10km, mb4.3, ML3.1, MS2.9*
*ISCJB **01** 18:25:18.7±0.8, 11.°89N±0.°03×121.°53E±0.°04, h23km±7km, mb3.3/4, MS3.0/1, Error ellipse: s-maj=6.9km s-min=5.3km az=146.6*

**ISC 01 18:25:19.4**±0.8**, 11.°94N**±0.°03×**121.°55E**±0.°04**, h23**km±5km**, n20, σ1.§37**/27**, mb3.4**/4**, 2C-3D, Panay**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OTRP** | **Odiongan** | **0.62** | **48** | *e*P | **Pb** | **18 25 30.6** | **-1.0** |
| OTRP | | | | *e*S | **Sb** | **18 25 40.2** | **+0.3** |
| **SJMP** | **San Jose** | **0.67** | **321** | *e*P | **Pb** | **18 25 32.1** | **-0.3** |
| SJMP | | | | *e*S | **Sn** | **18 25 42.7** | **-0.5** |
| **KALP** | **Kalibo** | **0.81** | **109** | ⇓*e*P | **Pb** | **18 25 33.7** | **-1.2** |
| **RCP** | **Roxas** | **1.23** | **108** | ⇓*e*P | **Pn** | **18 25 40.3** | **-0.9** |
| RCP | | | | *e*S | **Sn** | **18 25 57.7** | **+0.5** |
| **JAP** | **San Jose, Anti** | **1.25** | **162** | ⇑*i*P | **Pn** | **18 25 40.2** | **-1.4** |
| JAP | | | | *i* S | **Sb** | **18 26 00.7** | **+2.6** |
| **BUSP** | **Coron** | **1.32** | **273** | *e*P | **Pn** | **18 25 41.7** | **-0.9** |
| **BOAC** | **Boac** | **1.53** | **11** | *e*P | **Pn** | **18 25 44.3** | **-1.1** |
| BOAC | | | | *e*S | **Sn** | **18 26 04.6** | **0.0** |
| **GUIM** | **Jordan** | **1.66** | **142** | *e*P | **Pn** | **18 25 46.4** | **-0.7** |
| **AUQP** | **San Andres** | **1.76** | **39** | *e*P | **Pb** | **18 25 50.0** | **-1.0** |
| **GQP** | **Guinayangan** | **2.13** | **24** | ⇓*e*P | **Pn** | **18 25 55.1** | **+1.4** |
| GQP | | | | *e*S | **Sb** | **18 26 22.2** | **-1.3** |
| **LUBP** | **Lubang** | **2.19** | **325** | *e*P | **Pn** | **18 25 54.8** | **+0.3** |
| **ENPP** | **El Nido** | **2.21** | **251** | *e*P | **Pn** | **18 25 53.2** | **-1.5** |
| ENPP | | | | *e*S | Sn | 18 26 00.1 | -21 |
| **TGY** | **Tagaytay City** | **2.23** | **344** | Pn | **Pb** | **18 25 58.5** | **-0.5** |
| | 31nm,0.3s,baz=182,slow=3.5,SNR=16 | | | | | | |
| TGY | | | | Sn | **Sb** | **18 26 29.6** | **+3.4** |
| | 32nm,0.3s,baz=218,slow=20,SNR=2.6 | | | | | | |
| **SNPH** | **Sibulan** | **3.07** | **147** | ⇑*i*P | **Pn** | **18 26 07.3** | **+0.7** |
| SNPH | | | | *i* S | **Sn** | **18 26 42.8** | **+0.1** |
| **CNP** | **Catarman** | **3.09** | **79** | *e*P | **Pn** | **18 26 06.8** | **-0.1** |
| **OCLP** | **Ormoc** | **3.13** | **106** | *e*P | **Pn** | **18 26 08.5** | **+1.2** |
| **CMAR** | **Chiang Mai Arr** | **22.74** | **289** | P | P | 18 30 28.8 | +8.6 |
| | 0.3nm,0.6s,baz=112,slow=9.1,SNR=1.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **34.10** | **158** | P | **P** | **18 32 01.6** | **-0.9** |
| | 0.6nm,0.8s,baz=341,slow=9.1,SNR=4.9 | | | | | | |
| WRA | | | | LR | LR | 18 48 22.4 | |
| | comp=Z,25nm,18.9s,baz=255,slow=41 | | | | | | |
| **ASAR** | **Alice Springs** | **37.40** | **161** | P | **P** | **18 32 33.4** | **+2.5** |
| | 0.3nm,0.5s,baz=343,slow=6.7,SNR=4.5 | | | | | | |
| **SONM** | **Songino Array** | **37.97** | **343** | P | **P** | **18 32 35.5** | **0.0** |
| | 0.2nm,0.3s,baz=159,slow=9.3,SNR=1.5 | | | | | | |

**MEX 01 18:50:42.3**±0.8**, 16.°99N×94.°53W, h137**km±7km**, MD3.9, Oaxaca**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|

| Code | Station Name | Δ° | AZ° | Phase Op | Phase ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CMIG | Matias Romero | 0.35 | 286 | *i* P | Pn | 18 50 59.9 | -1.5 |
| CMIG | | | | *e*S | Sn | 18 51 14.2 | -1.9 |
| TGIG | | 1.37 | 99 | *i* P | Pn | 18 51 07.7 | -1.9 |
| TGIG | | | | *e*S | Sn | 18 51 29.0 | -1.3 |
| PCIG | | 1.80 | 135 | *e*P | Pn | 18 51 13.8 | -0.5 |
| PCIG | | | | *i* S | Sn | 18 51 37.1 | -1.6 |
| HUIG | Huatulco | 1.94 | 231 | *i* P | Pn | 18 51 13.8 | -2.2 |
| HUIG | | | | *i* S | Sn | 18 51 40.2 | -1.6 |
| VHO | Vista Hermosa | 2.11 | 272 | *e*P | Pn | 18 51 17.6 | -0.6 |
| VHO | | | | *i* S | Sn | 18 51 43.9 | -1.7 |
| TLIG | Tlapa | 3.90 | 279 | *i* P | Pn | 18 51 40.0 | -1.0 |

**MEX 01 18:57:57.2**±0.4**, 14°.24N×92°.29W, h20**$^{km}$**, MD3.6, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase Op | Phase ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PCIG | | 1.71 | 328 | *e*P | Pn | 18 58 23.4 | -2.6 |
| PCIG | | | | *e*S | Sn | 18 58 42.9 | -4.4 |

*ISN **01** 19:01:50.3±1.2, 38°.73N×43°.57E, h0$^{km}$±93$^{km}$, ML3.4*
*ISCJB **01** 19:01:56.6±0.5, 38°.45N±0°.02×43°.38E±0°.03, h0$^{km}$±4$^{km}$, Error ellipse: s-maj=4.4km s-min=3.0km az=3.6*
*CSEM **01** 19:01:56.4±0.1, 38°.44N×43°.38E, h2$^{km}$, ML3.5, Error ellipse: s-maj=3.7km s-min=2.7km az=96.0*
*IASPEI **01** 19:01:56.7±1.0, 38°.46N±0°.02×43°.34E±0°.02, h5$^{km}$±7$^{km}$, Error ellipse: s-maj=3.1km s-min=2.5km az=79.1, GT5 selection from ISC bulletin GT5 identified by Bondˆ¡r and McLaughlin (2009) selection criteria Bondˆ¡r and McLaughlin, A new ground truth data set for seismic studies, <i>Seism. Res. Let.</i>, <b>80</b>, 465-472, 2009*
*ISK **01** 19:01:56.2, 38°.45N×43°.34E, h3$^{km}$, ML3.2*
*ATA **01** 19:01:56.2±0.9, 38°.50N×43°.31E, h5$^{km}$±12$^{km}$, MD3.7, ML4.0, MW3.8*
*DDA **01** 19:01:56.7, 38°.48N×43°.34E, h13$^{km}$, Ml3.5*
**ISC 01 19:01:56.8**±0.9**, 38°.47N**±0°.01×**43°.34E**±0°.02**, h4**$^{km}$±7$^{km}$**, n81,** $\sigma$**0**$^s$**93**/127**, 1D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase Op | Phase ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TVAN | Van | 0.08 | 38 | *i* P | Pg | 19 01 58.5 | -0.2 |
| TVAN | | | | *i* S | Sg | 19 02 00.3 | +0.4 |
| TVAN | Van | 0.08 | 38 | P | Pg | 19 01 58.5 | -0.2 |
| TVAN | | | | S | Sg | 19 02 00.3 | +0.4 |
| VANB | Van | 0.14 | 16 | *e*PG | Pg | 19 01 58.3 | -1.3 |
| VANB | Van | 0.14 | 16 | *e*Pg | Pg | 19 01 58.3 | -1.3 |
| GEVA | Gevas | 0.27 | 236 | *e*P | Pg | 19 02 01.9 | -0.1 |
| GEVA | | | | *e*S | Sg | 19 02 07.1 | +1.5 |
| GEVA | | | | IAML | | 19 02 10.6 | |
| | comp=Z,3μm,0.4s | | | | | | |
| GEVA | Gevas | 0.27 | 236⇓ | *e*P | Pg | 19 02 02.0 | -0.1 |
| GEVA | | | | *e*S | Sg | 19 02 07.2 | +1.6 |
| GEVA | | | | IAML | | 19 02 10.4 | |
| | comp=Z,3μm,0.4s | | | | | | |
| GEVA | Gevas | 0.27 | 236 | *i* P | Pg | 19 02 02.0 | -0.1 |
| GEVA | | | | *i* S | Sb | 19 02 08.5 | -0.9 |
| GEVA | Gevas | 0.27 | 236 | P | Pg | 19 02 02.0 | -0.1 |
| GEVA | | | | S | Sb | 19 02 08.5 | -0.9 |
| ERCV | ERCIS-VAN | 0.55 | 360 | *e*PG | Pb | 19 02 08.2 | -1.0 |
| ERCV | | | | *e*SG | Sb | 19 02 16.4 | -1.2 |
| ERCV | ERCIS-VAN | 0.55 | 360 | *e*Pg | Pb | 19 02 08.2 | -1.0 |
| ERCV | | | | *e*Sg | Sb | 19 02 16.4 | -1.2 |
| VMUR | Van-Muradiye | 0.55 | 19 | *i* P | Pg | 19 02 07.8 | +0.3 |
| VMUR | | | | *i* S | Sb | 19 02 17.1 | -0.5 |
| VMUR | Van-Muradiye | 0.55 | 19 | P | Pg | 19 02 07.8 | +0.3 |
| VMUR | | | | S | Sb | 19 02 17.1 | -0.5 |
| ADCV | BITLIS_Adilcev | 0.59 | 306 | *i* P | Pg | 19 02 08.0 | -0.2 |
| ADCV | | | | *i* S | Sb | 19 02 17.8 | -0.9 |
| ADCV | BITLIS_Adilcev | 0.59 | 306 | P | Pg | 19 02 08.0 | -0.2 |
| ADCV | | | | S | Sb | 19 02 17.8 | -0.9 |
| BASK | Baskale_VAN | 0.66 | 128 | *e*P | Pb | 19 02 11.6 | +0.5 |
| BASK | | | | IAML | | 19 02 17.9 | |
| | comp=Z,344nm,0.4s | | | | | | |
| BASK | | | | *e*S | Sn | 19 02 23.6 | -0.6 |
| BASK | Baskale_VAN | 0.66 | 128 | *e*P | Pb | 19 02 10.9 | -0.2 |
| BASK | | | | *e*S | Sb | 19 02 21.3 | +0.5 |
| BASK | | | | IAML | | 19 02 27.9 | |
| | comp=Z,845nm,0.6s | | | | | | |
| BASK | Baskale_VAN | 0.66 | 128 | *i* P | Pg | 19 02 08.8 | -0.8 |
| BASK | | | | *i* S | Sb | 19 02 20.4 | -0.4 |
| BASK | Baskale_VAN | 0.66 | 128 | P | Pg | 19 02 08.8 | -0.8 |
| CLDR | Caldiran | 0.81 | 33 | *e*PG | Pg | 19 02 12.7 | +0.3 |
| CLDR | | | | *e*SG | Sb | 19 02 25.3 | +0.2 |
| CLDR | Caldiran | 0.81 | 33 | *i* P | Pg | 19 02 12.1 | -0.3 |
| CLDR | | | | *i* S | Sb | 19 02 25.6 | +0.5 |
| CLDR | Caldiran | 0.81 | 33 | P | Pg | 19 02 12.1 | -0.3 |
| CLDR | Caldiran | 0.81 | 33 | *e*Pg | Pg | 19 02 12.7 | +0.3 |
| CLDR | | | | *e*Sg | Sb | 19 02 25.3 | +0.2 |
| HAKT | HAKKARI | 0.95 | 162 | *i* P | Pg | 19 02 14.1 | -0.9 |
| HAKT | | | | *i* S | Sg | 19 02 27.5 | +0.1 |
| HAKT | HAKKARI | 0.95 | 162 | P | Pg | 19 02 14.1 | -0.9 |
| HAKT | | | | S | Sg | 19 02 27.5 | +0.1 |
| TUTA | Tutak | 1.02 | 336 | *e*P | Pg | 19 02 15.3 | -1.1 |
| TUTA | | | | *e*S | Sb | 19 02 31.2 | +0.1 |
| TUTA | | | | IAML | | 19 02 34.8 | |
| | comp=Z,415nm,0.2s | | | | | | |
| TUTA | Tutak | 1.02 | 336 | *e*P | Pg | 19 02 15.3 | -1.1 |
| TUTA | | | | *e*S | Sb | 19 02 30.3 | -0.8 |
| TUTA | | | | IAML | | 19 02 34.8 | |
| | comp=Z,415nm,0.2s | | | | | | |
| TUTA | Tutak | 1.02 | 336 | *i* P | Pg | 19 02 15.3 | -1.1 |
| TUTA | | | | *i* S | Sg | 19 02 27.6 | -2.1 |
| TUTA | Tutak | 1.02 | 336 | P | Pg | 19 02 15.3 | -1.1 |
| DYDN | Diyadin | 1.11 | 14 | *i* P | Pg | 19 02 17.6 | -0.5 |
| DYDN | | | | *i* S | Sn | 19 02 38.2 | +2.9 |
| DYDN | Diyadin | 1.11 | 14 | P | Pg | 19 02 17.6 | -0.5 |
| AGRB | Hanur-Agry | 1.14 | 346 | *e*PN | Pb | 19 02 19.1 | -0.1 |
| AGRB | | | | *e*SN | Sn | 19 02 36.1 | +0.1 |
| AGRB | Hanur-Agry | 1.14 | 346 | *e*Pn | Pb | 19 02 19.1 | -0.2 |
| AGRB | | | | *e*Sn | Sn | 19 02 36.1 | +0.1 |
| YOVA | Hakkari_Yˆ…kse | 1.15 | 139 | *i* P | Pg | 19 02 18.1 | -0.8 |
| YOVA | | | | *i* S | Sn | 19 02 37.1 | +0.8 |
| YOVA | Hakkari_Yˆ…kse | 1.15 | 139 | P | Pg | 19 02 18.1 | -0.8 |
| SRTM | Siirt_Merkez | 1.21 | 248 | *i* P | Pg | 19 02 19.9 | -0.2 |
| SRTM | | | | *i* S | Sn | 19 02 38.1 | +0.4 |
| SRTM | Siirt_Merkez | 1.21 | 248 | P | Pg | 19 02 19.9 | -0.2 |
| SRTM | | | | S | Sn | 19 02 38.1 | +0.4 |
| CUKT | Cukurca | 1.23 | 170 | *e*PN | Pg | 19 02 19.9 | -0.5 |
| CUKT | Cukurca | 1.23 | 170 | *i* P | Pg | 19 02 19.6 | -0.8 |
| CUKT | | | | *i* S | Sn | 19 02 39.2 | +1.0 |
| CUKT | Cukurca | 1.23 | 170 | P | Pg | 19 02 19.6 | -0.8 |
| CUKT | Cukurca | 1.23 | 170 | *e*Pn | Pg | 19 02 19.9 | -0.5 |
| EKAR | Karacoban | 1.27 | 309 | *e*P | Pg | 19 02 20.7 | -0.5 |
| EKAR | | | | *e*S | Sn | 19 02 39.2 | -0.1 |
| EKAR | | | | IAML | | 19 02 53.3 | |
| | comp=Z,112nm,0.6s | | | | | | |
| EKAR | Karacoban | 1.27 | 309 | *i* P | Pg | 19 02 20.5 | -0.7 |
| EKAR | | | | *i* S | Sn | 19 02 43.0 | +3.7 |
| EKAR | Karacoban | 1.27 | 309 | P | Pg | 19 02 20.5 | -0.7 |
| EATA | Eleskirt | 1.54 | 335 | *e*P | Pn | 19 02 25.4 | 0.0 |
| EATA | | | | *e*S | Sg | 19 02 47.5 | +1.0 |
| EATA | | | | IAML | | 19 02 51.1 | |
| | comp=Z,39nm,0.5s | | | | | | |
| EATA | Eleskirt | 1.54 | 335 | *e*P | Pn | 19 02 25.5 | +0.1 |
| EATA | | | | *e*S | Sg | 19 02 48.4 | +1.9 |
| EATA | | | | IAML | | 19 02 51.1 | |
| | comp=Z,39nm,0.5s | | | | | | |
| EATA | Eleskirt | 1.54 | 335 | *i* P | Pn | 19 02 25.2 | -0.2 |
| EATA | | | | *i* S | Sn | 19 02 45.5 | -0.6 |
| EATA | Eleskirt | 1.54 | 335 | P | Pn | 19 02 25.2 | -0.2 |
| EATA | | | | S | Sn | 19 02 45.5 | -0.6 |
| VRTB | Varto-Mus | 1.63 | 296 | *e*PN | Pn | 19 02 25.9 | -0.6 |
| VRTB | Varto-Mus | 1.63 | 296 | *i* P | Pn | 19 02 26.3 | -0.2 |
| VRTB | | | | *i* S | Sg | 19 02 49.6 | +0.5 |
| VRTB | Varto-Mus | 1.63 | 296 | *e*Pn | Pn | 19 02 25.9 | -0.6 |
| VRTB | Varto-Mus | 1.63 | 296 | P | Pn | 19 02 26.3 | -0.2 |
| VRTB | | | | S | Sg | 19 02 49.6 | +0.5 |
| TASB | TASBURUN-IGDIR | 1.67 | 24 | *e*PN | Pb | 19 02 27.9 | -0.3 |
| TASB | TASBURUN-IGDIR | 1.67 | 24 | *e*Pn | Pb | 19 02 27.9 | -0.3 |
| SVAN | Silvan-Diyarba | 1.71 | 260 | *e*PN | Pn | 19 02 28.0 | +0.5 |
| SVAN | Silvan-Diyarba | 1.71 | 260 | *i* P | Pb | 19 02 28.2 | -0.7 |
| SVAN | | | | *i* S | Sg | 19 02 52.5 | +0.6 |
| SVAN | Silvan-Diyarba | 1.71 | 260 | *e*Pn | Pn | 19 02 28.0 | +0.5 |
| SVAN | Silvan-Diyarba | 1.71 | 260 | P | Pb | 19 02 28.2 | -0.7 |
| SVAN | | | | S | Sg | 19 02 52.5 | +0.6 |
| BTMN | Batman | 1.73 | 251 | *i* P | Pb | 19 02 28.7 | -0.5 |
| BTMN | | | | *i* S | Sg | 19 02 53.9 | +1.5 |
| BTMN | Batman | 1.73 | 251 | P | Pb | 19 02 28.7 | -0.5 |
| BNGL | BINGOL | 1.78 | 287 | *i* P | Pb | 19 02 29.4 | -0.8 |
| BNGL | | | | *i* S | Sg | 19 02 56.5 | +2.4 |
| HOMI | Horasan | 1.93 | 325 | *e*P | Pb | 19 02 32.6 | -0.1 |
| HOMI | | | | IAML | | 19 02 54.1 | |
| | comp=Z,48nm,0.6s | | | | | | |
| HOMI | | | | *e*S | Sg | 19 03 00.6 | +1.7 |
| HOMI | Horasan | 1.93 | 325 | *i* P | Pn | 19 02 31.4 | +0.7 |
| HOMI | | | | *i* S | Sg | 19 02 59.4 | +0.5 |
| ERZM | Erzurum | 2.10 | 314 | *i* P | Pb | 19 02 34.4 | -1.3 |
| ERZM | | | | *i* S | Sg | 19 03 05.8 | +1.4 |
| ERZM | Erzurum | 2.10 | 314 | P | Pb | 19 02 34.4 | -1.3 |
| BNGB | Bingˆ¶l | 2.15 | 285 | *e*PN | Pn | 19 02 34.5 | +1.0 |
| KARS | Kars | 2.17 | 355 | *e*PN | Pn | 19 02 35.0 | +1.1 |
| KARS | Kars | 2.17 | 355 | *e*Pn | Pn | 19 02 35.0 | +1.1 |
| SENK | Senkaya-Erzuru | 2.23 | 340 | *e*PN | Pn | 19 02 35.4 | +0.6 |
| SENK | Senkaya-Erzuru | 2.23 | 340 | *e*Pn | Pn | 19 02 35.4 | +0.6 |
| BINT | Bingol | 2.27 | 281 | *e*Pn | Pn | 19 02 34.5 | -0.7 |
| YEDI | Yedisu-Bingol | 2.39 | 295 | *e*PN | Pn | 19 02 37.8 | +0.9 |
| YEDI | Yedisu-Bingol | 2.39 | 295 | *e*Pn | Pn | 19 02 37.8 | +0.9 |
| MAZI | Mazidag | 2.50 | 247 | *e*PN | Pn | 19 02 39.0 | +0.6 |
| MAZI | Mazidag | 2.50 | 247 | *e*Pn | Pn | 19 02 39.0 | +0.6 |
| DIY | Diyarbakir | 2.52 | 258 | *e*Pn | Pn | 19 02 40.3 | +1.7 |
| DYBB | Diyarbakir | 2.57 | 260 | *e*PN | Pn | 19 02 40.3 | +0.9 |
| PTK | Pertek | 3.12 | 279 | *e*PN | Pn | 19 02 47.6 | +0.6 |
| PTK | Pertek | 3.12 | 279 | *e*Pn | Pn | 19 02 47.6 | +0.6 |
| SVRC | Sivrice-ELAZID | 3.17 | 270 | *e*PN | Pn | 19 02 48.5 | +0.9 |
| SVRC | Sivrice-ELAZID | 3.17 | 270 | *e*Pn | Pn | 19 02 48.5 | +0.9 |
| RTB | Rutbah | 5.96 | 205 | *e*Pn | Pn | 19 03 25.0 | -0.9 |
| | SNR=3.0 | | | | | | |
| RTB | | | | *i* Sn | Sn | 19 04 33.0 | -1.6 |
| | SNR=3.0 | | | | | | |

*IDC **01** 19:06:52.2±0.8, 5°.85S×153°.42E, h0$^{km}$, mb3.9/12, mb1 4.0/14, mb1mx3.9/38, mbtmp3.9/14, ML2.8/2, MS3.3/3, Ms1 3.3/3, ms1mx2.7/31, Error ellipse: s-maj=24.4km s-min=16.4km az=97.0*
*NEIC **01** 19:06:53.7±0.5, 5°.86S×153°.47E, h10$^{km}$, mb4.2/2, Error ellipse: s-maj=12.6km s-min=9.0km az=105.0*
*ISCJB **01** 19:06:55.2±0.6, 5°.95S±0°.08×153°.43E±0°.09, h32$^{km}$, mb3.8/13, MS3.3/3, Error ellipse: s-maj=14.2km s-min=9.2km az=38.1*
**ISC 01 19:06:57.1**±0.8**, 5°.9S**±0°.1×**153°.4E**±0°.1**, h32**$^{km}$**, n22,** $\sigma$**0**$^s$**76**/22**, mb3.8**/13**, MS3.3**/3**, New Ireland region**

| Code | Station Name | Δ° | AZ° | Phase Op | Phase ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PMG | Port Moresby | 7.14 | 240 | Pn | Pn | 19 08 40.3 | +1.0 |
| | 2.4nm,0.3s,baz=37,slow=5.6,SNR=11 | | | | | | |
| PMG | | | | Sn | Sn | 19 09 59.2 | -0.2 |
| | 2.8nm,0.3s,baz=155,slow=19,SNR=4.0 | | | | | | |
| CTA | Charters Tower | 15.74 | 206 | Pn | Pn | 19 10 35.8 | -0.9 |
| | 0.1nm,0.3s,baz=0.0,slow=15,SNR=1.9 | | | | | | |
| DZM | Mont Dzumac | 20.41 | 143 | P | P | 19 11 31.1 | -0.6 |
| | 3.6nm,0.8s,baz=270,slow=15,SNR=3.8 | | | | | | |
| WRAB | Tennant Creek | 23.22 | 231 | *e*P | P | 19 12 02.3 | +0.7 |
| | 3.2nm,1.0s | | | | | | |
| WRA | Warramunga Arr | 23.23 | 231 | P | P | 19 12 00.3 | -1.5 |
| | 1.1nm,0.6s,baz=53,slow=9.8,SNR=9.5 | | | | | | |
| ASAR | Alice Springs | 25.80 | 225 | P | P | 19 12 25.6 | 0.0 |
| | 2.0nm,0.8s,baz=55,slow=8.7,SNR=19 | | | | | | |
| STKA | Stephens Creek | 28.12 | 202 | P | P | 19 12 46.0 | -0.3 |
| | 0.8nm,0.5s,baz=23,slow=13,SNR=2.8 | | | | | | |
| STKA | | | | LR | LR | 19 25 00.3 | |
| | comp=Z,40nm,18.0s,baz=25,slow=39 | | | | | | |
| FITZ | Fitzroy Crossi | 29.72 | 243 | P | P | 19 12 59.8 | -0.9 |
| | 2.6nm,0.5s,baz=49,slow=7.9,SNR=16 | | | | | | |
| URZ | Urewera | 38.72 | 150 | LR | LR | 19 29 26.7 | |
| | comp=Z,42nm,18.5s,baz=3.0,slow=35 | | | | | | |
| RPZ | Rata Peaks | 40.73 | 160 | LR | LR | 19 28 16.3 | |
| | comp=Z,71nm,20.2s,baz=142,slow=32 | | | | | | |
| CMAR | Chiang Mai Arr | 58.92 | 296 | P | P | 19 16 53.8 | +0.1 |
| | 0.9nm,0.8s,baz=101,slow=4.6,SNR=6.4 | | | | | | |
| SONM | Songino Array | 67.59 | 328 | P | P | 19 17 51.3 | +0.5 |
| | 0.8nm,0.5s,baz=144,slow=5.6,SNR=9.1 | | | | | | |
| LSA | Lhasa | 69.39 | 305 | *e*P | P | 19 18 02.5 | -0.3 |
| | 1.7nm,0.5s | | | | | | |
| VNDA | Vanda | 71.72 | 178 | P | P | 19 18 16.7 | +1.1 |
| | 0.6nm,0.5s,baz=342,slow=4.1,SNR=6.5 | | | | | | |
| MKAR | Makanchi Array | 81.57 | 319 | P | P | 19 19 11.6 | -0.2 |
| | 0.2nm,0.5s,baz=102,slow=6.2,SNR=3.3 | | | | | | |
| ZALV | Zalesovo Beam | 82.42 | 326 | P | P | 19 19 15.4 | -0.7 |
| | 1.0nm,0.6s,baz=123,slow=5.3,SNR=5.0 | | | | | | |
| ILAR | Eielson Array | 82.93 | 22 | P | P | 19 19 17.9 | -0.6 |
| | 0.3nm,0.7s,baz=270,slow=5.4,SNR=3.4 | | | | | | |
| KURK | Kurchatov | 85.02 | 322 | P | P | 19 19 29.7 | +0.2 |
| KURBB | Kurchatov Arra | 85.05 | 322 | P | P | 19 19 29.7 | +0.1 |
| | baz=109,slow=3.6 | | | | | | |
| BVAR | Borovoye Array | 90.50 | 323 | P | P | 19 19 55.0 | -0.8 |
| | 1.9nm,0.8s,baz=97,slow=6.1,SNR=12 | | | | | | |
| BDFB | Brasilia | 149.84 | 135 | PKPbc | PKPbc | 19 26 46.7 | +1.5 |
| | 2.8nm,0.5s,baz=313,slow=8.1,SNR=3.2 | | | | | | |
| TORD | Torodi Ar. Bea | 151.25 | 287 | PKPbc | PKPbc | 19 26 48.5 | 0.0 |
| | 1.5nm,0.8s,baz=34,slow=2.2,SNR=8.6 | | | | | | |
| TORD | | | | PKPab | sPKPdf | 19 26 57.0 | +0.3 |
| | 1.1nm,0.8s,baz=65,slow=2.9,SNR=6.5 | | | | | | |

*ISCJB **01** 19:20:36.8±0.8, 7°.5N±0°.1×93°.8E±0°.1, h20$^{km}$, mb3.8/10, Error ellipse: s-maj=23.3km s-min=15.7km az=146.9*
*IDC **01** 19:20:38.9±0.9, 7°.63N×93°.90E, h20$^{km}$±4$^{km}$, mb3.7/10, mb1 3.8/10, mb1mx3.6/37, mbtmp3.8/10, Error ellipse: s-maj=36.6km s-min=14.5km az=50.0*
**ISC 01 19:20:38.5**±0.9**, 7°.5N**±0°.1×**93°.8E**±0°.2**, h20**$^{km}$**, n14,** $\sigma$**0**$^s$**89**/17**, mb3.7**/10**, Nicobar Islands region**

| Code | Station Name | Δ° | AZ° | Phase Op | Phase ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CMAR | Chiang Mai Arr | 12.02 | 24 | Pn | Pn | 19 23 30.4 | +1.5 |
| | 0.1nm,0.3s,baz=215,slow=14,SNR=12 | | | | | | |
| H08S3 | Diego Garcia H | 25.98 | 235 | T | T | 19 53 00.4 | |
| | baz=54,slow=75,SNR=16 | | | | | | |
| H08S2 | Diego Garcia H | 25.99 | 235 | T | T | 19 53 04.9 | |
| | baz=54,slow=75,SNR=34 | | | | | | |
| H08S1 | Diego Carcia H | 26.00 | 235 | T | T | 19 53 06.0 | |
| | baz=54,slow=75,SNR=24 | | | | | | |
| MKAR | Makanchi Array | 40.38 | 348 | P | P | 19 28 14.3 | -0.8 |
| | 0.8nm,0.8s,baz=167,slow=8.2,SNR=4.5 | | | | | | |
| MKAR | | | | pP | pP | 19 28 20.1 | -1.3 |
| | 0.4nm,0.7s,baz=152,slow=8.2,SNR=1.8 | | | | | | |
| SONM | Songino Array | 41.63 | 13 | P | P | 19 28 24.3 | -1.1 |
| | 0.9nm,0.9s,baz=194,slow=9.0,SNR=6.4 | | | | | | |
| GEYT | Alibeck | 44.24 | 319 | P | P | 19 28 48.1 | +1.4 |
| | 1.1nm,0.5s,baz=139,slow=7.3,SNR=5.4 | | | | | | |
| GEYT | | | | pP | pP | 19 28 53.8 | +0.8 |
| | 1.7nm,0.6s,baz=134,slow=7.9,SNR=4.9 | | | | | | |
| ZALV | Zalesovo Beam | 46.89 | 353 | P | P | 19 29 06.7 | -0.7 |
| | 1.2nm,0.4s,baz=184,slow=8.2,SNR=8.8 | | | | | | |
| ZALV | | | | pP | pP | 19 29 13.4 | -0.3 |
| | 1.6nm,0.4s,baz=179,slow=7.8,SNR=7.9 | | | | | | |
| WRA | Warramunga Arr | 48.35 | 125 | P | P | 19 29 19.4 | +0.2 |
| | 0.4nm,0.7s,baz=304,slow=8.5,SNR=3.7 | | | | | | |
| WRA | | | | pP | pP | 19 29 25.3 | -0.2 |
| | 0.2nm,0.3s,baz=300,slow=9.8,SNR=3.4 | | | | | | |
| ASAR | Alice Springs | 49.96 | 129 | P | P | 19 29 32.1 | +0.6 |
| | 0.4nm,0.6s,baz=303,slow=7.9,SNR=7.5 | | | | | | |
| ASAR | | | | pP | pP | 19 29 37.9 | 0.0 |
| | 0.3nm,0.5s,baz=302,slow=7.9,SNR=3.0 | | | | | | |
| BRTR | Keskin Array B | 62.39 | 311 | P | P | 19 30 59.9 | -0.4 |
| | 0.4nm,0.6s,baz=125,slow=9.3,SNR=3.0 | | | | | | |
| PETK | Petropavlovsk- | 68.54 | 36 | P | P | 19 31 39.0 | -0.7 |
| | 7.2nm,1.0s,baz=263,slow=13,SNR=2.7 | | | | | | |
| FINES | FINESS Array B | 72.88 | 332 | P | P | 19 32 06.0 | +0.2 |
| | 1.1nm,0.6s,baz=99,slow=12,SNR=5.7 | | | | | | |
| FINES | | | | pP | pP | 19 32 11.7 | -0.8 |
| | 2.5nm,0.7s,baz=102,slow=8.0,SNR=1.7 | | | | | | |
| GERES | GERESS Array B | 77.86 | 318 | P | P | 19 32 35.5 | +0.5 |
| | 0.4nm,0.5s,baz=64,slow=6.1,SNR=4.1 | | | | | | |

*MAN **01** 19:30:56, 14°.23N×124°.44E, h7$^{km}$, mb4.6, ML3.4, MS3.4*
*IDC **01** 19:31:14.9±2.7, 13°.09N×123°.51E, h146$^{km}$±27$^{km}$, mb3.5/6, mb1 3.7/7, mb1mx3.3/37, mbtmp4.0/7, MS2.7/3, Ms1 2.8/3, ms1mx2.4/28, Error ellipse: s-maj=39.0km s-min=16.1km az=71.0*
**ISC 01 19:30:54.9**±1.8**, 14°.23N**±0°.05×**124°.55E**±0°.05**, h11**$^{km}$±11$^{km}$**, n34,** $\sigma$**1**$^s$**70**/35**, mb3.8**/6**, 1C-3D, Luzon**

| Code | Station Name | Δ° | AZ° | Phase Op | Phase ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PVCP | Virac | 0.74 | 212 | *e*P | Pg | 19 31 09.7 | +0.6 |
| PVCP | | | | *e*S | Sg | 19 31 16.9 | -1.9 |
| CNP | Catarman | 1.71 | 176 | *e*P | Pb | 19 31 26.5 | +0.2 |
| CNP | | | | *e*S | Sb | 19 31 49.0 | +1.3 |
| AUQP | San Andres | 2.03 | 244 | *e*P | Pb | 19 31 31.1 | -0.7 |
| AUQP | | | | *e*S | Sn | 19 31 55.7 | +1.3 |
| MMPH | Masbate | 2.06 | 206⇑ | *e*P | Pb | 19 31 33.2 | +0.8 |
| MMPH | | | | *i* S | Sb | 19 31 58.0 | 0.0 |
| GQP | Guinayangan | 2.07 | 261⇓ | *e*P | Pn | 19 31 30.8 | +1.3 |
| GQP | | | | *e*S | Sn | 19 31 52.8 | -2.5 |
| BOAC | Boac | 2.74 | 254 | *e*P | Pn | 19 31 39.8 | +1.1 |
| BOAC | | | | *e*S | Sn | 19 32 12.6 | +0.7 |
| BESP | Borongan | 2.75 | 162 | *e*P | Pb | 19 31 43.2 | -0.8 |
| PLP | Palo | 3.07 | 172⇓ | *e*P | Pn | 19 31 45.4 | +2.0 |
| PLP | | | | *e*S | Sn | 19 32 16.1 | -4.0 |
| OCLP | Ormoc | 3.16 | 179 | *e*P | Pn | 19 31 46.8 | +2.2 |
| RCP | Roxas | 3.18 | 214⇓ | *e*P | Pn | 19 31 45.8 | +0.9 |
| BALP | Baler | 3.25 | 298 | *e*P | Pn | 19 31 44.6 | -1.2 |
| TGY | Tagaytay City | 3.51 | 268 | P | Pb | 19 31 57.4 | +0.3 |
| | 86nm,0.3s,baz=79,slow=2.2,SNR=16 | | | | | | |
| TGY | | | | S | Sn | 19 32 32.8 | +1.8 |
| | 35nm,0.3s,baz=108,slow=16,SNR=1.3 | | | | | | |
| TGY | | | | LR | LR | 19 32 39.5 | |
| | comp=Z,103nm,20.8s,baz=200,slow=31 | | | | | | |
| CAUP | Cauayan | 3.77 | 316 | *e*P | Pn | 19 31 54.5 | +1.5 |
| SJMP | San Jose | 3.77 | 243 | *e*P | Pn | 19 31 54.7 | +1.7 |
| LLP | Lapu-Lapu | 3.93 | 188 | *e*P | Pn | 19 31 56.0 | +0.9 |
| LLP | | | | *e*S | Sn | 19 32 41.1 | -0.1 |
| GUIM | Jordan | 4.06 | 208 | *e*P | Pn | 19 31 58.3 | +1.4 |
| MSLP | Maasin | 4.08 | 176 | *e*P | Pn | 19 32 00.4 | +3.2 |
| BUSP | Coron | 4.78 | 243 | *e*P | Pn | 19 32 08.0 | +1.1 |
| APYP | Conner | 4.82 | 319 | *e*P | Pn | 19 32 10.5 | +3.2 |
| APYP | | | | *e*S | Sn | 19 33 04.2 | +1.0 |
| ABRA | Dolores | 5.02 | 313 | *e*P | Pn | 19 32 08.9 | -1.3 |
| KSRS | Korea Array | 23.33 | 7 | LR | LR | 19 44 49.4 | |
| | comp=Z,29nm,20.9s,baz=164,slow=33 | | | | | | |
| CMAR | Chiang Mai Arr | 24.92 | 283 | P | P | 19 36 17.1 | -1.2 |
| | 0.3nm,0.3s,baz=104,slow=7.5,SNR=1.5 | | | | | | |
| CMAR | | | | LR | LR | 19 45 54.5 | |
| | comp=Z,21nm,19.7s,baz=108,slow=36 | | | | | | |
| WRA | Warramunga Arr | 35.29 | 164 | P | P | 19 37 47.5 | -2.5 |
| | 0.2nm,0.3s,baz=344,slow=8.2,SNR=8.9 | | | | | | |
| SONM | Songino Array | 36.75 | 339 | P | P | 19 38 15.2 | +13 |
| | 0.8nm,0.7s,baz=139,slow=5.6,SNR=6.4 | | | | | | |
| ASAR | Alice Springs | 38.75 | 166 | P | P | 19 38 19.5 | 0.0 |
| | 1.1nm,0.4s,baz=344,slow=7.7,SNR=36 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 40.59 | 78 | T | T | 20 22 08.7 | |
| | baz=270,slow=75,SNR=88 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 40.60 | 78 | T | T | 20 22 06.9 | |
| | baz=270,slow=75,SNR=65 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 40.60 | 78 | T | T | 20 22 12.5 | |
| | baz=270,slow=75,SNR=81 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 40.78 | 76 | T | T | 20 22 22.2 | |
| | baz=268,slow=75,SNR=96 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 40.79 | 76 | T | T | 20 22 28.1 | |
| | baz=268,slow=75,SNR=54 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 40.80 | 76 | T | T | 20 22 26.7 | |
| | baz=268,slow=75,SNR=72 | | | | | | |
| PETK | Petropavlovsk- | 46.82 | 27 | P | P | 19 39 40.3 | +16 |
| | 9.2nm,1.0s,baz=209,slow=8.3,SNR=3.0 | | | | | | |
| STKA | Stephens Creek | 48.66 | 161 | P | P | 19 39 39.3 | +0.2 |
| | 2.7nm,0.8s,baz=346,slow=9.3,SNR=4.1 | | | | | | |
| PLCA | Paso Flores | 150.48 | 156 | PKPbc | PKPbc | 19 50 47.5 | +0.4 |
| | 1.3nm,0.8s,baz=231,slow=7.9,SNR=2.8 | | | | | | |

*DDA **01** 20:01:08.2, 38°.48N×26°.30E, h7$^{km}$, Ml2.7*
*ATH **01** 20:01:08.9, 38°.45N×26°.27E, h26$^{km}$±1$^{km}$, ML2.2/4, Error ellipse: s-maj=2.8km s-min=1.2km az=253.0*
*ISCJB **01** 20:01:09.3±0.5, 38°.48N±0°.03×26°.35E±0°.04, h9$^{km}$±6$^{km}$, Error ellipse: s-maj=6.8km s-min=4.3km az=137.2*
*CSEM **01** 20:01:09.2±0.3, 38°.45N×26°.29E, h10$^{km}$, ML2.2, Error ellipse: s-maj=10.1km s-min=5.6km az=68.0*
**ISC 01 20:01:08.7**±0.9**, 38°.48N**±0°.02×**26°.33E**±0°.03**, h17**$^{km}$±7$^{km}$**, n30,** $\sigma$**0**$^s$**47**/46**, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Phase Op | Phase ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CHOS | Chios island | 0.23 | 247 | P | Pb | 20 01 15.2 | +0.7 |
| CHOS | | | | S | Sb | 20 01 18.4 | 0.0 |
| CHOS | | | | AML | AML | 20 01 18.9 | |
| | comp=N,877μm,0.1s | | | | | | |
| CHOS | | | | AML | AML | 20 01 18.9 | |
| | comp=E,1895μm,0.1s | | | | | | |
| CHOS | Chios island | 0.23 | 247 | P | Pb | 20 01 15.2 | +0.7 |
| CHOS | | | | S | Sb | 20 01 18.4 | 0.0 |
| URLA | Izmir | 0.24 | 119 | *i* P | Pg | 20 01 14.2 | -0.1 |
| URLA | | | | *i* S | Sg | 20 01 17.8 | -0.2 |
| URLA | Izmir | 0.24 | 119 | P | Pg | 20 01 14.2 | -0.1 |
| URLA | | | | S | Sg | 20 01 17.8 | -0.2 |
| ZEY | ˜zmir | 0.28 | 150 | *i* P | Pg | 20 01 14.7 | -0.1 |
| ZEY | | | | *i* S | Sg | 20 01 18.7 | -0.2 |
| DGB | ˜zmir | 0.61 | 134 | *i* P | Pg | 20 01 20.3 | -0.5 |
| DGB | | | | *i* S | Sb | 20 01 29.0 | -0.1 |
| PRK | Paraskevi | 0.77 | 357 | P | Pn | 20 01 25.1 | +0.4 |
| PRK | | | | S | Sn | 20 01 35.3 | -0.6 |
| PRK | | | | AML | AML | 20 01 36.5 | |
| | comp=N,437μm,0.5s | | | | | | |
| PRK | | | | AML | AML | 20 01 36.9 | |
| | comp=E,681μm,0.6s | | | | | | |
| PRK | Paraskevi | 0.77 | 357 | P | Pn | 20 01 25.1 | +0.4 |
| PRK | | | | S | Sn | 20 01 35.3 | -0.6 |
| SIGR | SIGRI | 0.82 | 333 | P | Pn | 20 01 25.8 | +0.3 |
| SIGR | | | | S | Sg | 20 01 35.9 | +0.3 |
| SIGR | | | | AML | AML | 20 01 38.7 | |
| | comp=E,94μm,0.2s | | | | | | |
| SIGR | | | | AML | AML | 20 01 39.6 | |
| | comp=N,152μm,0.5s | | | | | | |
| SIGR | SIGRI | 0.82 | 333 | P | Pn | 20 01 25.8 | +0.3 |
| SIGR | | | | S | Sg | 20 01 35.9 | +0.3 |
| SMG | Samos | 0.87 | 152 | P | Pn | 20 01 26.5 | +0.4 |
| SMG | | | | S | Sn | 20 01 37.8 | -0.5 |
| SMG | | | | AML | AML | 20 01 38.8 | |
| | comp=N,344μm,0.3s | | | | | | |
| SMG | | | | AML | AML | 20 01 39.2 | |
| | comp=E,558μm,0.4s | | | | | | |
| SMG | Samos | 0.87 | 152 | P | Pn | 20 01 26.5 | +0.4 |
| SMG | | | | S | Sn | 20 01 37.8 | -0.5 |
| GCAM | G?zelcaml? | 1.05 | 137 | *i* P | Pg | 20 01 29.0 | -0.1 |
| GCAM | G?zelcaml? | 1.05 | 137 | P | Pg | 20 01 29.0 | -0.1 |
| BAYC | CANAKKALE_Bayr | 1.27 | 8 | *i* P | Pn | 20 01 31.8 | +0.1 |
| BAYC | | | | *i* S | Sb | 20 01 48.5 | +0.2 |
| BAYC | CANAKKALE_Bayr | 1.27 | 8 | P | Pn | 20 01 31.8 | +0.1 |
| BAYC | | | | S | Sb | 20 01 48.5 | +0.2 |
| STEP | BALIKESIR_Sava | 1.41 | 50 | *i* P | Pg | 20 01 35.6 | -0.3 |
| STEP | BALIKESIR_Sava | 1.41 | 50 | P | Pg | 20 01 35.6 | -0.3 |
| APE | Apeiranthos | 1.54 | 204 | P | Pn | 20 01 34.9 | -0.5 |
| APE | Apeiranthos | 1.54 | 204 | P | Pn | 20 01 34.9 | -0.5 |
| BALY | Balya | 1.61 | 38 | *i* P | Pb | 20 01 38.3 | +0.2 |
| BALY | Balya | 1.61 | 38 | P | Pb | 20 01 38.3 | +0.2 |
| LIA | Limnos Island | 1.68 | 328 | P | Pn | 20 01 37.1 | -0.1 |
| LIA | | | | S | Sg | 20 02 03.1 | +0.4 |
| LIA | Limnos Island | 1.68 | 328 | P | Pn | 20 01 37.1 | -0.1 |
| LIA | | | | S | Sg | 20 02 03.1 | +0.4 |
| MANT | Manisa | 1.75 | 89 | *i* P | Pb | 20 01 41.5 | +1.0 |
| MANT | Manisa | 1.75 | 89 | P | Pb | 20 01 41.5 | +1.0 |
| SMTH | Samothraki Isl | 2.08 | 343 | P | Pn | 20 01 43.7 | +0.8 |
| SMTH | Samothraki Isl | 2.08 | 343 | P | Pn | 20 01 43.7 | +0.8 |
| ALN | Alexandroupoli | 2.43 | 355 | P | Pb | 20 01 51.2 | -0.7 |
| ALN | Alexandroupoli | 2.43 | 355 | P | Pb | 20 01 51.2 | -0.7 |

*CSEM **01** 20:04:48.9±0.3, 38°.76N×43°.66E, h2$^{km}$, MD2.6, Error ellipse: s-maj=8.1km s-min=5.0km az=99.0*
*ISK **01** 20:04:48.1, 38°.79N×43°.58E, h5$^{km}$, MD2.6*
*DDA **01** 20:04:48.3, 38°.72N×43°.73E, h7$^{km}$, Ml2.9*
*ISCJB **01** 20:04:49.6±0.6, 38°.77N±0°.03×43°.63E±0°.06, h13$^{km}$, Error ellipse: s-maj=7.4km s-min=4.3km az=11.3*
**ISC 01 20:04:48.6**±1.0**, 38°.76N**±0°.03×**43°.65E**±0°.04**, h13**$^{km}$**, n32,** $\sigma$**0**$^s$**53**/38**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase Op | Phase ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.24 | 345 | *i* P | Pg | 20 04 54.0 | +0.2 |
| VMUR | | | | *i* S | Sb | 20 04 59.3 | +0.2 |
| VMUR | Van-Muradiye | 0.24 | 345 | P | Pg | 20 04 54.0 | +0.2 |
| VMUR | | | | S | Sb | 20 04 59.3 | +0.2 |
| VANB | Van | 0.26 | 231 | *e*PG | Pb | 20 04 55.4 | +0.1 |
| VANB | Van | 0.26 | 231 | *e*Pg | Pb | 20 04 55.4 | +0.1 |
| TVAN | Van | 0.30 | 220 | *i* P | Pg | 20 04 54.9 | 0.0 |
| TVAN | Van | 0.30 | 220 | P | Pg | 20 04 54.9 | 0.0 |
| ERCV | ERCIS-VAN | 0.36 | 317 | *e*PG | Pg | 20 04 55.4 | -0.5 |
| ERCV | ERCIS-VAN | 0.36 | 317 | *e*Pg | Pg | 20 04 55.4 | -0.5 |
| CLDR | Caldiran | 0.44 | 28 | *e*PG | Pg | 20 04 57.6 | +0.2 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| CLDR | | | | *e*SG | **Sb** | **20 05 05.2** | **+0.3** |
| **CLDR** | **Caldiran** | **0.44** | **28** | *i* P | **Pg** | **20 04 57.6** | **+0.2** |
| **CLDR** | **Caldiran** | **0.44** | **28** | P | **Pg** | **20 04 57.6** | **+0.2** |
| CLDR | | | | *e*Sg | **Sb** | **20 05 05.2** | **+0.3** |
| **GEVA** | **Gevas** | **0.64** | **226** | *i* P | **Pg** | **20 05 01.9** | **+0.7** |
| **GEVA** | **Gevas** | **0.64** | **226** | P | **Pg** | **20 05 01.9** | **+0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.72** | **274** | *i* P | **Pg** | **20 05 03.2** | **+0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.72** | **274** | P | **Pg** | **20 05 03.2** | **+0.5** |
| **TUTA** | **Tutak** | **0.91** | **315** | *i* P | **Pg** | **20 05 05.7** | **-0.6** |
| **TUTA** | **Tutak** | **0.91** | **315** | P | **Pg** | **20 05 05.7** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **0.96** | **328** | *e*PG | **Pg** | **20 05 06.7** | **-0.5** |
| AGRB | | | | *e*SG | **Sb** | **20 05 20.3** | **+0.3** |
| **AGRB** | **Hanur-Agry** | **0.96** | **328** | *e*Pg | **Pg** | **20 05 06.7** | **-0.5** |
| AGRB | | | | *e*Sg | **Sb** | **20 05 20.3** | **+0.3** |
| **HAKT** | **HAKKARI** | **1.20** | **178** | *i* P | **Pn** | **20 05 10.4** | **-0.9** |
| **HAKT** | **HAKKARI** | **1.20** | **178** | P | **Pn** | **20 05 10.4** | **-0.9** |
| **TASB** | **TASBURUN-IGDIR** | **1.31** | **20** | *e*PN | **Pg** | **20 05 14.2** | **+0.5** |
| **TASB** | **TASBURUN-IGDIR** | **1.31** | **20** | *e*Pn | **Pg** | **20 05 14.2** | **+0.5** |
| **EKAR** | **Karacoban** | **1.33** | **292** | *i* P | **Pg** | **20 05 15.5** | **+1.3** |
| **EKAR** | **Karacoban** | **1.33** | **292** | P | **Pg** | **20 05 15.5** | **+1.3** |
| **EATA** | **Eleskirt** | **1.42** | **321** | *i* P | **Pb** | **20 05 15.6** | **+0.4** |
| **EATA** | **Eleskirt** | **1.42** | **321** | P | **Pb** | **20 05 15.6** | **+0.4** |
| **CUKT** | **Cukurca** | **1.51** | **181** | *e*PN | **Pg** | **20 05 17.8** | **+0.2** |
| **CUKT** | **Cukurca** | **1.51** | **181** | *e*Pn | **Pg** | **20 05 17.8** | **+0.2** |
| **SRTM** | **Siirt_Merkez** | **1.56** | **241** | *i* P | **Pg** | **20 05 18.4** | **-0.2** |
| **SRTM** | **Siirt_Merkez** | **1.56** | **241** | P | **Pg** | **20 05 18.4** | **-0.2** |
| **HOMI** | **Horasan** | **1.86** | **314** | *i* P | **Pb** | **20 05 23.1** | **+0.5** |

**IDC 01 20:10:43.3**±2.0**, 1°.53N×126°.88E, h0km, mb3.4**/3**, mb1 3.6**/4**, mb1mx3.4**/41**, mbtmp3.4**/4**, ML3.2**/1**, Error ellipse: s-maj=114.0km s-min=25.3km az=69.0, Northern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **19.55** | **184** | P | P | 20 15 12.7 | 0.0 |
| | 0.1nm,0.3s,baz=22,slow=5.4,SNR=2.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **22.56** | **161** | P | P | 20 15 44.0 | -1.3 |
| | 2.0nm,0.7s,baz=340,slow=11,SNR=18 | | | | | | |
| **ASAR** | **Alice Springs** | **25.96** | **165** | P | P | 20 16 19.3 | +1.5 |
| | 0.1nm,0.3s,baz=343,slow=11,SNR=4.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **59.44** | **326** | P | P | 20 20 47.8 | -0.2 |
| | 0.2nm,0.4s,baz=117,slow=7.7,SNR=4.6 | | | | | | |

*IDC **01** 20:17:26.4±1.5, 35°.55N×141°.05E, h0km, mb3.6/5, mb1 3.7/8, mb1mx3.5/47, mbtmp3.6/8, ML3.3/3, MS3.0/3, Ms1 3.0/3, ms1mx2.6/37, Error ellipse: s-maj=40.9km s-min=19.1km az=61.0*
*ISCJB **01** 20:17:32.1±0.8, 35°.70N±0°.07×140°.94E±0°.10, h60km±6km, mb3.6/5, Error ellipse: s-maj=14.4km s-min=9.0km az=144.8*
*JMA **01** 20:17:34.5±0.1, 35°.64N×140°.64E, h46km±1km, M3.0*
*JMA Felt I J1.*
**ISC 01 20:17:32.7**±1.1**, 35°.63N**±0°.06×**140°.96E**±0°.08**, h54km**±10km**, n23,** σ2s**00**/20**, mb3.5**/5**, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CHOJ** | **Chosi** | **0.10** | **311** | P | **Pn** | **20 17 42.3** | **+1.3** |
| **BSO4** | **Boso 4** | **0.82** | **218** | P | **Pn** | **20 17 48.5** | **+0.5** |
| **JYT** | **Yasato** | **0.86** | **314** | P | **Pn** | **20 17 47.9** | **-0.7** |
| JYT | | | | *e*S | **Sn** | **20 17 57.7** | **-2.6** |
| **BSO3** | **Boso 3** | **0.91** | **204** | P | **Pn** | **20 17 50.3** | **+1.3** |
| **JAG** | **Ashikaga** | **1.45** | **303** | P | **Pn** | **20 17 55.6** | **-1.0** |
| **JOD2** | **Odawara 2** | **1.57** | **257** | P | **Pn** | **20 17 56.8** | **-1.4** |
| **MJAR** | **Matsushiro Arr** | **2.40** | **293** | Pn | **Pn** | **20 18 09.7** | **+0.2** |
| | 12nm,0.3s,baz=94,slow=6.7,SNR=63 | | | | | | |
| MJAR | | | | Sn | **Sn** | **20 18 38.1** | **+0.3** |
| | 5.7nm,0.3s,baz=143,slow=13,SNR=8.3 | | | | | | |
| MJAR | | | | LR | LR | 20 19 10.1 | |
| | comp=Z,163nm,20.1s,baz=120,slow=42 | | | | | | |
| **MAT** | **Matsushiro** | **2.40** | **293** | P | **Pn** | **20 18 10.2** | **+0.6** |
| MAT | | | | S | **Sn** | **20 18 36.8** | **-1.0** |
| **JHJ** | **Hachijo jima 2** | **2.69** | **201** | Sn | **Sn** | **20 18 39.4** | **-5.5** |
| | 43nm,0.3s,baz=256,slow=19,SNR=2.3 | | | | | | |
| **ASAJ** | **Asahikawa** | **8.56** | **8** | Pn | **Pn** | **20 19 34.2** | **+0.3** |
| | 0.3nm,0.3s,baz=208,slow=17,SNR=3.2 | | | | | | |
| ASAJ | | | | Sn | **Sn** | **20 21 05.5** | **-3.6** |
| | 0.1nm,0.3s,baz=113,slow=13,SNR=2.4 | | | | | | |
| **KSRS** | **Korea Array** | **10.64** | **284** | Pn | **Pn** | **20 20 03.5** | **+1.2** |
| | 0.2nm,0.3s,baz=108,slow=15,SNR=3.0 | | | | | | |
| KSRS | | | | LR | LR | 20 23 56.8 | |
| | comp=Z,66nm,20.4s,baz=91,slow=36 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **27.79** | **118** | T | T | 20 52 33.1 | |
| | baz=311,slow=75,SNR=11 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **27.79** | **118** | T | T | 20 52 24.7 | |
| | baz=311,slow=75,SNR=9.5 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **27.80** | **118** | T | T | 20 52 23.9 | |
| | baz=311,slow=75,SNR=13 | | | | | | |
| **SONM** | **Songino Array** | **28.29** | **306** | P | **P** | **20 23 21.6** | **+0.6** |
| | 0.6nm,0.8s,baz=119,slow=10,SNR=3.7 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.45** | **120** | T | T | 20 53 22.8 | |
| | baz=312,slow=75,SNR=23 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.45** | **120** | T | T | 20 53 15.4 | |
| | baz=312,slow=75,SNR=16 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.46** | **120** | T | T | 20 53 22.5 | |
| | baz=312,slow=75,SNR=15 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.60** | **314** | P | **P** | **20 25 24.4** | **+1.2** |
| | 0.4nm,0.4s,baz=105,slow=9.1,SNR=3.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.56** | **303** | P | **P** | **20 25 40.4** | **+1.3** |
| | 0.5nm,0.6s,baz=84,slow=9.4,SNR=5.8 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **55.38** | **198** | LR | LR | 20 50 41.4 | |
| | comp=Z,32nm,18.4s,baz=102,slow=36 | | | | | | |
| **WRA** | **Warramunga Arr** | **55.63** | **188** | P | **P** | **20 27 04.1** | **+1.0** |
| | 0.7nm,0.6s,baz=2.2,slow=7.5,SNR=15 | | | | | | |
| **ASAR** | **Alice Springs** | **59.35** | **188** | P | **P** | **20 27 29.1** | **-0.2** |
| | 0.3nm,0.5s,baz=15,slow=11,SNR=4.7 | | | | | | |

**IDC 01 20:20:31.3**±1.7**, 32°.11N×40°.18W, h0km, mb3.8**/7**, mb1 4.0**/7**, mb1mx3.7**/40**, mbtmp3.8**/7**, MS3.4**/15**, Ms1 3.4**/15**, ms1mx3.2**/40**, Error ellipse: s-maj=46.6km s-min=31.0km az=3.0, Northern Mid-Atlantic Ridge**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SJG** | **San Juan** | **27.25** | **245** | LR | LR | 20 34 29.5 | |
| | comp=Z,30nm,21.1s,baz=82,slow=31 | | | | | | |
| **BBTS** | **Babate** | **27.70** | **123** | LR | LR | 20 35 16.7 | |
| | comp=Z,162nm,19.2s,baz=326,slow=32 | | | | | | |
| **SCHQ** | **Schefferville** | **29.51** | **328** | LR | LR | 20 37 33.9 | |
| | comp=Z,164nm,21.5s,baz=238,slow=35 | | | | | | |
| **MDT** | **Midelt** | **29.93** | **79** | LR | LR | 20 35 41.0 | |
| | comp=Z,110nm,19.7s,baz=293,slow=30 | | | | | | |
| **DBIC** | **Dimbokro** | **41.52** | **120** | LR | LR | 20 43 32.0 | |
| | comp=Z,75nm,18.5s,baz=279,slow=33 | | | | | | |
| **ROSC** | **El Rosal** | **41.91** | **237** | LR | LR | 20 43 44.1 | |
| | comp=Z,41nm,18.6s,baz=262,slow=33 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **42.69** | **106** | P | P | 20 28 29.9 | -0.2 |
| | 1.6nm,0.9s,baz=299,slow=5.6,SNR=6.5 | | | | | | |
| TORD | | | | LR | LR | 20 44 01.3 | |
| | comp=Z,53nm,20.7s,baz=325,slow=33 | | | | | | |
| **GERES** | **GERESS Array B** | **43.31** | **51** | P | P | 20 28 35.4 | +0.4 |
| | 0.3nm,0.6s,baz=265,slow=6.6,SNR=4.0 | | | | | | |
| GERES | | | | LR | LR | 20 42 49.7 | |
| | comp=Z,24nm,21.1s,baz=324,slow=31 | | | | | | |
| **ULM** | **Lac du Bonnet** | **44.55** | **311** | LR | LR | 20 47 32.2 | |
| | comp=Z,52nm,19.6s,baz=52,slow=36 | | | | | | |
| **VAE** | **Valguarnera** | **44.63** | **67** | LR | LR | 20 45 58.0 | |
| | comp=Z,94nm,18.6s,baz=302,slow=34 | | | | | | |
| **VRAC** | **Vranov** | **45.23** | **50** | LR | LR | 20 44 14.8 | |
| | comp=Z,46nm,18.1s,baz=356,slow=32 | | | | | | |
| **H10N2** | **ASCENSION HYDR** | **46.68** | **144** | T | T | 21 18 42.0 | |
| | baz=330,slow=75,SNR=38 | | | | | | |
| **H10N3** | **ASCENSION HYDR** | **46.68** | **144** | T | T | 21 18 42.3 | |
| | baz=330,slow=75,SNR=32 | | | | | | |
| **H10N1** | **ASCENSION HYDR** | **46.70** | **144** | T | T | 21 18 43.6 | |
| | baz=330,slow=75,SNR=18 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **47.56** | **145** | T | T | 21 19 49.4 | |
| | baz=330,slow=75,SNR=81 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **47.56** | **145** | T | T | 21 19 49.6 | |
| | baz=330,slow=75,SNR=91 | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **47.57** | **145** | T | T | 21 19 50.7 | |
| | baz=330,slow=75,SNR=83 | | | | | | |
| **FINES** | **FINESS Array B** | **51.09** | **34** | P | P | 20 29 35.3 | +0.1 |
| | 3.7nm,0.8s,baz=243,slow=8.4,SNR=4.0 | | | | | | |
| **ARCES** | **ARCESS Array B** | **51.82** | **24** | P | P | 20 29 40.2 | -0.5 |
| | 6.4nm,1.0s,baz=264,slow=7.2,SNR=3.3 | | | | | | |
| **AKASG** | **Malin Array Be** | **53.27** | **48** | P | P | 20 29 50.9 | -0.7 |
| | 1.0nm,0.7s,baz=280,slow=5.7,SNR=5.3 | | | | | | |
| **TXAR** | **Lajitas Array** | **53.94** | **285** | P | P | 20 29 57.0 | -0.1 |
| | 0.4nm,0.8s,baz=52,slow=4.9,SNR=3.5 | | | | | | |
| TXAR | | | | LR | LR | 20 51 36.2 | |
| | comp=Z,32nm,19.4s,baz=0.0,slow=35 | | | | | | |
| **PDAR** | **Pinedale Array** | **54.69** | **302** | LR | LR | 20 51 55.1 | |
| | comp=Z,90nm,19.7s,baz=94,slow=34 | | | | | | |
| **YKA** | **Yellowknife Ar** | **54.95** | **327** | LR | LR | 20 51 23.7 | |
| | comp=Z,18nm,18.2s,baz=0.0,slow=34 | | | | | | |
| **EIL** | **Elat** | **63.25** | **70** | LR | LR | 20 59 45.2 | |
| | comp=Z,18nm,18.3s,baz=251,slow=37 | | | | | | |
| **H09N1** | **TRISTAN DA CUN** | **73.59** | **157** | T | T | 21 52 27.0 | |
| | SNR=16 | | | | | | |
| **H09W1** | **TRISTAN DA CUN** | **73.61** | **157** | T | T | 21 52 26.4 | |
| | SNR=10 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **82.01** | **29** | P | P | 20 32 53.5 | +0.4 |
| | 0.4nm,0.4s,baz=317,slow=9.8,SNR=2.6 | | | | | | |

*ISCJB **01** 20:21:42.9±0.5, 17°.89S±0°.04×178°.68W±0°.03, h551km±6km, mb4.7/139, Error ellipse: s-maj=6.6km s-min=3.8km az=143.0*
*IDC **01** 20:21:43.6±0.9, 17°.90S×178°.57W, h552km±9km, mb4.2/19, mb1 4.4/21, mb1mx4.3/33, mbtmp5.1/21, Error ellipse: s-maj=13.0km s-min=9.6km az=117.0*
*MOS **01** 20:21:44.1±1.2, 17°.75S×178°.74W, h557km, mb4.7/23, Error ellipse: s-maj=10.7km s-min=8.6km az=58.1*
*NEIC **01** 20:21:45.0±0.1, 17°.91S×178°.65W, mb4.8/104, Error ellipse: s-maj=6.8km s-min=4.0km az=136.0*
*BJI **01** 20:21:45.5, 17°.72S×178°.22W, h593km, mb4.7/25, mB5.1/16*
*GCMT **01** 20:21:45.0±0.7, 17°.76S×178°.57W, h577km±3km, MW5.2/42, Moment Tensor Solution. s42,c58; Duration: 1s0 Moment tensor: Scale $10^{17}$Nm; $M_{rr}$-0.55±.05; $M_{\theta\theta}$0.72±.07; $M_{\phi\phi}$-0.17±.07; $M_{r\theta}$0.43±.08; $M_{\theta\phi}$0.46±.08; $M_{\phi r}$-0.09±.08; Best double couple: $M_0$0.89300×$10^{17}$ NP1:$\phi_s$273.00000°, δ65.00000°, λ-57.00000°. NP2: $\phi_s$36.00000°, δ41.00000°, λ-139.00000°. Principal axes: T 1.0060, Plg14.0000°, Azm340.0000°; N -0.2250, Plg29.0000°, Azm77.0000°; P -0.7810, Plg57.0000°, Azm228.0000°; nsta1 refers to body waves, cutoff=40s.*
**ISC 01 20:21:44.6**±0.4**, 17°.88S**±0°.05×**178°.55W**±0°.05**, h567km**±4km**, h567km:pP-P, n605,** σ1s**24**/649**, mb4.7**/139**, 25C-32D, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MSVF** | **Nonsavu** | **3.25** | **272** | *e*P | **P** | **20 23 05.1** | **+2.4** |
| **MSVF** | **Nonsavu** | **3.25** | **272** | *e*P | **P** | **20 23 05.1** | **+2.4** |
| **AFI** | **Afiamalu** | **7.61** | **60** | P | **P** | **20 23 37.6** | **-1.7** |
| | 40nm,0.3s,baz=36,slow=2.3,SNR=50 | | | | | | |
| AFI | | | | S | **S** | **20 25 10.1** | **-3.1** |
| | baz=198,slow=20,SNR=1.6 | | | | | | |
| **AFI** | **Afiamalu** | **7.61** | **60** | *e*P | **P** | **20 23 38.2** | **-1.1** |
| AFI | | | | S | **S** | **20 25 10.1** | **-3.1** |
| **AFI** | **Afiamalu** | **7.61** | **60** | *e*P | **P** | **20 23 38.2** | **-1.1** |
| AFI | | | | S | **S** | **20 25 10.1** | **-3.1** |
| **NIUE** | **Niue** | **8.27** | **100** | P | **P** | **20 23 45.5** | **+0.1** |
| | baz=8.2,SNR=6.0 | | | | | | |
| **FUNA** | **Funafuti** | **9.55** | **346** | *e*P | **P** | **20 23 57.9** | **-0.6** |
| **DZM** | **Mont Dzumac** | **14.71** | **251** | P | **P** | **20 24 49.8** | **-1.2** |
| | 11nm,0.3s,baz=122,slow=14,SNR=46 | | | | | | |
| **DZM** | **Mont Dzumac** | **14.71** | **251** | *e*P | **P** | **20 24 50.0** | **-1.0** |
| **KNTN** | **Kanton** | **16.44** | **25** | *e*P | **P** | **20 25 06.5** | **-1.1** |
| | 180nm,0.8s | | | | | | |
| **NFK** | **Norfolk Island** | **16.63** | **226** | P | **P** | **20 25 10.9** | **+1.7** |
| | baz=17,SNR=9.2 | | | | | | |
| **OUZ** | **Omahuta** | **18.63** | **201** | *e*P | **P** | **20 25 26.5** | **-0.8** |
| | 33nm,0.7s | | | | | | |
| **URZ** | **Urewera** | **20.66** | **190** | P | **P** | **20 25 43.4** | **-2.2** |
| | 24nm,0.7s,baz=10,slow=0.4,SNR=11 | | | | | | |
| URZ | | | | S | **S** | **20 28 55.8** | **-4.7** |
| | 14nm,0.6s,baz=85,slow=20,SNR=5.0 | | | | | | |
| **TARA** | **Tarawa** | **20.88** | **335** | *e*P | **P** | **20 25 47.7** | **-0.3** |
| | 1μm,1.4s | | | | | | |
| **THZ** | **Tophouse** | **24.90** | **195** | *e*P | **P** | **20 26 23.5** | **-0.1** |
| | 26nm,1.0s | | | | | | |
| **KHZ** | **Kahutara** | **25.37** | **194** | *e*P | **P** | **20 26 26.2** | **-1.3** |
| | 30nm,0.6s | | | | | | |
| **LTZ** | **Lake Taylor** | **26.02** | **196** | *e*P | **P** | **20 26 31.8** | **-1.5** |
| | 49nm,0.7s | | | | | | |
| **OXZ** | **Oxford** | **26.59** | **195** | *e*P | **P** | **20 26 36.9** | **-1.4** |
| | 76nm,0.7s | | | | | | |
| **RPZ** | **Rata Peaks** | **27.21** | **197** | P | **P** | **20 26 41.9** | **-1.9** |
| | 20nm,0.6s,baz=355,slow=0.8,SNR=12 | | | | | | |
| **FOZ** | **Fox Glacier** | **27.40** | **199** | *e*P | **P** | **20 26 44.4** | **-1.0** |
| | 86nm,0.7s | | | | | | |
| **LBZ** | **Lake Benmore** | **28.07** | **197** | *e*P | **P** | **20 26 49.4** | **-1.8** |
| | 66nm,1.3s | | | | | | |
| **WKZ** | **Wanaka** | **28.82** | **199** | *e*P | **P** | **20 26 56.4** | **-1.3** |
| | 295nm,1.7s | | | | | | |
| **EIDS** | **Eidsvold** | **29.15** | **250** | P | **P** | **20 27 00.6** | **-0.3** |
| | baz=29,SNR=38 | | | | | | |
| **EIDS** | **Eidsvold** | **29.15** | **250** | *e*P | **P** | **20 27 00.7** | **-0.3** |
| | 80nm,0.7s | | | | | | |
| **MLZ** | **Mavora Lakes** | **29.58** | **199** | *e*P | **P** | **20 27 04.9** | **+0.6** |
| | 108nm,0.7s | | | | | | |
| **KWAJ** | **Kwajalein Atol** | **29.83** | **332** | *i* P | **P** | **20 27 07.4** | **+0.6** |
| **ARMA** | **Armidale** | **29.84** | **240** | P | **P** | **20 27 07.9** | **+1.0** |
| | baz=30,SNR=71 | | | | | | |
| **ARMA** | **Armidale** | **29.84** | **240** | *e*P | **P** | **20 27 07.8** | **+0.8** |
| | 110nm,0.6s | | | | | | |
| **WHZ** | **Wether Hill Ro** | **30.11** | **199** | *e*P | **P** | **20 27 09.2** | **+0.3** |
| | 68nm,0.7s | | | | | | |
| **MGCD** | **Mangrove Creek** | **31.20** | **235** | P | **P** | **20 27 20.0** | **+1.6** |
| | baz=31,SNR=18 | | | | | | |
| **RMQ** | **Roma** | **31.39** | **248** | P | **P** | **20 27 20.6** | **+0.5** |
| | baz=32,SNR=60 | | | | | | |
| **CTA** | **Charters Tower** | **33.32** | **260** | P | **P** | **20 27 36.3** | **-0.2** |
| | 49nm,0.7s,baz=87,slow=10,SNR=76 | | | | | | |
| CTA | | | | PcP | **PcP** | **20 30 01.8** | **+0.1** |
| | 4.8nm,0.6s,baz=104,slow=8.1,SNR=3.9 | | | | | | |
| **CTAO** | **Charters Tower** | **33.32** | **260** | *e*P | **P** | **20 27 36.4** | **-0.2** |
| CTAO | | | | pmax | pmax | | |
| | comp=Z,61nm,0.8s | | | | | | |
| **CTAO** | **Charters Tower** | **33.32** | **260** | *e*P | **P** | **20 27 36.4** | **-0.2** |
| | comp=Z,61nm,0.8s | | | | | | |
| **CNB** | **Canberra Magne** | **33.34** | **232** | P | **P** | **20 27 37.7** | **+1.1** |
| | baz=34,SNR=131 | | | | | | |
| **CAN** | **Canberra** | **33.62** | **232** | *e*P | **P** | **20 27 39.7** | **+0.8** |
| CAN | | | | pmax | pmax | | |
| | comp=Z,111nm,0.8s | | | | | | |
| **CAN** | **Canberra** | **33.62** | **232** | *e*P | **P** | **20 27 39.6** | **+0.8** |
| | comp=Z,111nm,0.8s | | | | | | |
| **YNG** | **Young** | **33.70** | **234** | P | **P** | **20 27 40.5** | **+0.9** |
| | baz=34,SNR=14 | | | | | | |
| **MILA** | **Mila** | **34.20** | **230** | P | **P** | **20 27 44.6** | **+0.9** |
| | baz=34,SNR=28 | | | | | | |
| **PMG** | **Port Moresby** | **34.33** | **280** | *d i*P | **P** | **20 27 45.6** | **+0.6** |
| **PMG** | **Port Moresby** | **34.33** | **280** | *e*P | **P** | **20 27 45.8** | **+0.8** |
| | comp=Z,104nm,0.8s | | | | | | |
| **CMSA** | **Cobar Meteorol** | **35.05** | **240** | P | **P** | **20 27 51.3** | **+0.4** |
| | baz=35,SNR=218 | | | | | | |
| **MTSU** | **Mount Surprise** | **35.28** | **264** | P | **P** | **20 27 52.6** | **-0.3** |
| | baz=35,SNR=56 | | | | | | |
| **QLP** | **Quilpie** | **35.42** | **249** | P | **P** | **20 27 53.9** | **-0.1** |
| | baz=36,SNR=126 | | | | | | |
| **COEN** | **Coen** | **36.97** | **270** | P | **P** | **20 28 07.3** | **+0.4** |
| | baz=37,SNR=130 | | | | | | |
| **COEN** | **Coen** | **36.97** | **270** | *e*P | **P** | **20 28 07.4** | **+0.4** |
| | comp=Z,81nm,0.7s | | | | | | |
| **TOO** | **Toolangi** | **37.09** | **231** | P | **P** | **20 28 08.4** | **+0.8** |
| | baz=37,SNR=116 | | | | | | |
| **MOO** | **Moorlands** | **38.02** | **223** | P | **P** | **20 28 15.8** | **+0.7** |
| | baz=38,SNR=13 | | | | | | |
| **TAU** | **Tasmania Unive** | **38.17** | **222** | *e*P | **P** | **20 28 16.9** | **+0.6** |
| TAU | | | | pmax | pmax | | |
| | comp=Z,65nm,0.8s | | | | | | |
| **TAU** | **Tasmania Unive** | **38.17** | **222** | *e*P | **P** | **20 28 16.9** | **+0.6** |
| | comp=Z,65nm,0.8s | | | | | | |
| **STKA** | **Stephens Creek** | **38.53** | **241** | P | **P** | **20 28 20.2** | **+0.8** |
| | comp=Z,195nm,0.7s,baz=89,slow=10.0,SNR=561 | | | | | | |
| **STKA** | **Stephens Creek** | **38.53** | **241** | P | **P** | **20 28 20.2** | **+0.8** |
| | baz=39,SNR=445 | | | | | | |
| **STKA** | **Stephens Creek** | **38.53** | **241** | *e*P | **P** | **20 28 20.2** | **+0.8** |
| STKA | | | | pmax | pmax | | |
| | comp=Z,52nm,1.0s | | | | | | |
| **STKA** | **Stephens Creek** | **38.53** | **241** | *e*P | **P** | **20 28 20.2** | **+0.8** |
| | comp=Z,52nm,1.0s | | | | | | |
| **ARPS** | **Mount Arapiles** | **39.56** | **234** | P | **P** | **20 28 28.2** | **+0.6** |
| | baz=40,SNR=22 | | | | | | |
| **WAKE** | **Wake Island** | **39.69** | **338** | *e*P | **P** | **20 28 28.9** | **+0.1** |
| **H11N3** | **WAKE ISLAND Hy** | **40.00** | **338** | P | **P** | **20 28 28.8** | **-2.2** |
| | baz=173,slow=11,SNR=4.6 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **40.00** | **338** | P | P | 20 28 25.4 | -5.6 |
| | baz=173,slow=11,SNR=3.0 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **40.02** | **338** | P | **P** | **20 28 27.2** | **-3.9** |
| | baz=173,slow=11,SNR=2.9 | | | | | | |
| **JAY** | **Jayapura** | **42.77** | **286** | P | **P** | **20 28 53.6** | **+0.2** |
| **GENI** | **Genyem** | **43.23** | **286** | P | **P** | **20 28 57.9** | **+1.0** |
| **BBOO** | **Buckleboo** | **43.31** | **241** | P | **P** | **20 28 57.3** | **+0.1** |
| | baz=43,SNR=176 | | | | | | |
| **BBOO** | **Buckleboo** | **43.31** | **241** | *e*P | **P** | **20 28 57.2** | **0.0** |
| | comp=Z,315nm,0.8s | | | | | | |
| **KIP** | **Kipapa** | **43.94** | **28** | *ce*P | **P** | **20 29 02.0** | **-0.1** |
| **HLK** | **Haleakala** | **44.19** | **31** | *e*P | **P** | **20 29 05.7** | **+1.3** |
| | comp=Z,188nm,1.1s | | | | | | |
| **WB2** | **Warramunga Arr** | **44.50** | **260** | *e*P | **P** | **20 29 05.7** | **-1.0** |
| | comp=Z,71nm,0.6s | | | | | | |
| WB2 | | | | *e*PcP | **PcP** | **20 30 38.2** | **+0.7** |
| **WRAB** | **Tennant Creek** | **44.50** | **260** | *d i*P | **P** | **20 29 05.6** | **-1.0** |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,58nm,0.7s | | | | | | |
| **WRAB** | **Tennant Creek** | **44.50** | **260** | *e*P | **P** | **20 29 05.8** | **-0.9** |
| | comp=Z,60nm,0.7s | | | | | | |
| **WR1** | **Warramunga Arr** | **44.51** | **260** | *e*P | **P** | **20 29 05.6** | **-1.1** |
| | comp=Z,87nm,0.6s | | | | | | |
| WR1 | | | | *e*PcP | **PcP** | **20 30 38.0** | **+0.4** |
| WR1 | | | | *e*ScP | **ScP** | **20 33 36.7** | **+0.6** |
| WR1 | | | | *e*S | **S** | **20 34 57.2** | **-4.4** |
| WR1 | | | | *e* | | 20 37 33.9 | |
| **WRA** | **Warramunga Arr** | **44.51** | **260** | P | **P** | **20 29 05.6** | **-1.1** |
| | comp=Z,56nm,0.7s,baz=92,slow=7.5,SNR=287 | | | | | | |
| WRA | | | | PcP | **PcP** | **20 30 38.0** | **+0.4** |
| | comp=Z,15nm,0.8s,baz=93,slow=3.5,SNR=8.1 | | | | | | |
| WRA | | | | ScP | **ScP** | **20 33 36.7** | **+0.6** |
| | comp=Z,1.2nm,0.7s,baz=91,slow=4.4,SNR=3.3 | | | | | | |
| WRA | | | | S | **S** | **20 34 57.2** | **-4.4** |
| | comp=Z,0.9nm,0.5s,baz=90,slow=10,SNR=4.6 | | | | | | |
| WRA | | | | PKiKP | **PKiKP** | **20 37 33.9** | **-1.4** |
| | comp=Z,0.6nm,0.6s,baz=50,slow=0.6,SNR=5.7 | | | | | | |
| **AS01** | **Alice Springs** | **44.63** | **254** | *e*P | **P** | **20 29 07.2** | **-0.5** |
| **AS31** | **Alice Springs** | **44.67** | **254** | *e*P | **P** | **20 29 07.8** | **-0.1** |
| | comp=Z,151nm,0.6s | | | | | | |
| AS31 | | | | *e*ScP | **ScP** | **20 33 39.5** | **+2.7** |
| AS31 | | | | *e*S | **S** | **20 35 01.6** | **-2.2** |
| AS31 | | | | *e* | | 20 37 34.2 | |
| **ASAR** | **Alice Springs** | **44.67** | **254** | P | **P** | **20 29 07.8** | **-0.1** |
| | comp=Z,535nm,0.6s,baz=88,slow=8.3,SNR=5346 | | | | | | |
| ASAR | | | | PcP | **PcP** | **20 30 38.5** | **+0.3** |
| | comp=Z,16nm,0.6s,baz=109,slow=4.1,SNR=6.1 | | | | | | |
| ASAR | | | | ScP | **ScP** | **20 33 39.5** | **+2.7** |
| | comp=Z,2.6nm,0.9s,baz=98,slow=4.5,SNR=5.0 | | | | | | |
| ASAR | | | | S | **S** | **20 35 01.0** | **-2.8** |
| | comp=Z,9.7nm,0.9s,baz=91,slow=16,SNR=22 | | | | | | |
| ASAR | | | | PKiKP | **PKiKP** | **20 37 34.2** | **-1.2** |
| | comp=Z,0.4nm,0.5s,baz=79,slow=2.0,SNR=3.8 | | | | | | |
| **KDU** | **Kakadu** | **47.43** | **269** | P | **P** | **20 29 28.6** | **-0.3** |
| | baz=48,SNR=12 | | | | | | |
| KDU | | | | S | **S** | **20 35 42.6** | **+0.3** |
| | baz=48,SNR=5.7 | | | | | | |
| **MTN** | **Manton Dam** | **48.67** | **268** | P | **P** | **20 29 37.3** | **-0.9** |
| | baz=49,SNR=52 | | | | | | |
| MTN | | | | S | **S** | **20 35 55.9** | **-3.4** |
| | baz=49,SNR=8.2 | | | | | | |
| **MTN** | **Manton Dam** | **48.67** | **268** | *e*P | **P** | **20 29 37.4** | **-0.7** |
| | comp=Z,69nm,0.8s | | | | | | |
| **SAUI** | **Saumlaki** | **49.73** | **275** | P | **P** | **20 29 45.9** | **0.0** |
| **SAUI** | **Saumlaki** | **49.73** | **275** | *e*P | **P** | **20 29 46.6** | **+0.6** |
| | comp=Z,224nm,1.3s | | | | | | |
| **WRKA** | **Warakurna** | **49.73** | **252** | P | **P** | **20 29 45.8** | **-0.1** |
| | baz=50,SNR=232 | | | | | | |
| WRKA | | | | S | **S** | **20 36 11.8** | **-1.9** |
| | baz=50,SNR=5.1 | | | | | | |
| **FORT** | **Forrest** | **49.90** | **245** | P | **P** | **20 29 46.5** | **-0.5** |
| | baz=50,SNR=99 | | | | | | |
| **FORT** | **Forrest** | **49.90** | **245** | *e*P | **P** | **20 29 46.5** | **-0.5** |
| | comp=Z,2μm,0.6s | | | | | | |
| FORT | | | | *e*pP | **pP** | **20 31 26.1** | **-5.9** |
| **KNRA** | **Kununurra** | **50.36** | **264** | P | **P** | **20 29 50.0** | **-0.5** |
| | baz=50,SNR=38 | | | | | | |
| **FAKI** | **Fak Fak** | **50.44** | **281** | *e*P | **P** | **20 29 50.8** | **-0.4** |
| | comp=Z,34nm,1.1s | | | | | | |
| **BNDI** | **Bandanaira** | **52.10** | **278** | P | **P** | **20 30 02.6** | **-0.5** |
| **FITZ** | **Fitzroy Crossi** | **52.90** | **261** | P | **P** | **20 30 08.7** | **-0.1** |
| | baz=53,SNR=93 | | | | | | |
| **MSAI** | **Masohi** | **53.41** | **279** | P | **P** | **20 30 11.7** | **-0.8** |
| **AAI** | **Ambon** | **53.99** | **279** | P | **P** | **20 30 16.0** | **-0.5** |
| **NLAI** | **Namlea** | **55.16** | **279** | P | **P** | **20 30 24.9** | **+0.1** |
| **KMBL** | **Kambalda** | **55.21** | **244** | P | **P** | **20 30 23.9** | **-0.9** |
| | baz=55,SNR=25 | | | | | | |
| **LBMI** | **Labuha** | **55.69** | **282** | P | **P** | **20 30 29.0** | **+0.6** |
| **SOEI** | **Soe** | **55.94** | **270** | P | **P** | **20 30 31.1** | **+0.8** |
| **SOEI** | **Soe** | **55.94** | **270** | *e*P | **P** | **20 30 31.6** | **+1.3** |
| | comp=Z,162nm,0.7s | | | | | | |
| **SANI** | **Sanana** | **56.61** | **280** | P | **P** | **20 30 34.0** | **-0.8** |
| **MBWA** | **Marble Bar** | **57.95** | **256** | *e*P | **P** | **20 30 43.2** | **-0.6** |
| | comp=Z,247nm,1.8s | | | | | | |
| **MMRI** | **Maumere** | **58.17** | **271** | P | **P** | **20 30 44.5** | **-0.9** |
| **MMRI** | **Maumere** | **58.17** | **271** | *e*P | **P** | **20 30 44.9** | **-0.5** |
| | comp=Z,61nm,0.7s | | | | | | |
| **EDFI** | **Ende, Flores** | **58.66** | **271** | P | **P** | **20 30 48.0** | **-0.8** |
| **KLBR** | **Kellerberrin** | **58.73** | **244** | P | **P** | **20 30 48.2** | **-0.7** |
| | baz=59,SNR=55 | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **59.11** | **242** | P | **P** | **20 30 51.4** | **-0.1** |
| | baz=59,SNR=21 | | | | | | |
| NWAO | | | | P | **P** | **20 30 51.4** | **-0.1** |
| | baz=59,SNR=21 | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **59.11** | **242** | *e*P | **P** | **20 30 50.4** | **-1.0** |
| NWAO | | | | pmax | pmax | | |
| | comp=Z,159nm,1.5s | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **59.11** | **242** | *e*P | **P** | **20 30 50.4** | **-1.0** |
| | comp=Z,159nm,1.5s | | | | | | |
| **RKGY** | **Rocky Gully** | **59.27** | **240** | P | **P** | **20 30 52.7** | **+0.3** |
| | baz=59,SNR=12 | | | | | | |
| **KMSI** | **Cibinong** | **59.40** | **282** | P | **P** | **20 30 53.2** | **-0.4** |
| **BLDU** | **Ballidu** | **59.67** | **245** | P | **P** | **20 30 54.7** | **-0.5** |
| | baz=60,SNR=48 | | | | | | |
| **LUWI** | **Luwuk** | **59.97** | **279** | P | **P** | **20 30 57.5** | **+0.1** |
| **LUWI** | **Luwuk** | **59.97** | **279** | *e*P | **P** | **20 30 57.9** | **+0.5** |
| | comp=Z,139nm,1.2s | | | | | | |
| **MUN** | **Mundaring** | **60.02** | **243** | P | **P** | **20 30 57.4** | **-0.1** |
| | baz=60,SNR=14 | | | | | | |
| **MORW** | **Morawa** | **60.37** | **246** | P | **P** | **20 30 59.3** | **-0.5** |
| | baz=60,SNR=31 | | | | | | |
| **SBA** | **Scott Base** | **60.44** | **184** | *e*P | **P** | **20 31 01.7** | **+2.3** |
| SBA | | | | pmax | pmax | | |
| | comp=Z,47nm,1.1s | | | | | | |
| **SBA** | **Scott Base** | **60.44** | **184** | *e*P | **P** | **20 31 01.7** | **+2.3** |
| | comp=Z,47nm,1.1s | | | | | | |
| **VNDA** | **Vanda** | **60.46** | **185** | P | **P** | **20 31 01.0** | **+1.4** |
| | comp=Z,10nm,0.9s,baz=357,slow=7.2,SNR=24 | | | | | | |
| **VNDA** | **Vanda** | **60.46** | **185** | *e*P | **P** | **20 31 01.2** | **+1.6** |
| VNDA | | | | pmax | pmax | | |
| | comp=Z,39nm,1.5s | | | | | | |
| **VNDA** | **Vanda** | **60.46** | **185** | *e*P | **P** | **20 31 01.2** | **+1.6** |
| | comp=Z,39nm,1.5s | | | | | | |
| **BSSI** | **Bau Bau, Buton** | **60.53** | **273** | P | **P** | **20 31 00.3** | **-0.8** |
| **APSI** | **Ampana** | **61.07** | **279** | P | **P** | **20 31 05.4** | **+0.7** |
| **MRSI** | **Marisa** | **61.28** | **281** | P | **P** | **20 31 05.5** | **-0.5** |
| **BNSI** | **Bone** | **61.41** | **275** | P | **P** | **20 31 06.8** | **-0.1** |
| **SPSI** | **Sidrap Palu** | **61.86** | **275** | P | **P** | **20 31 08.5** | **-1.3** |
| **TTSI** | **Tana Toraja** | **62.10** | **276** | P | **P** | **20 31 11.1** | **-0.3** |
| **PLAI** | **Plampang** | **62.36** | **269** | P | **P** | **20 31 12.1** | **-1.0** |
| **GIRL** | **Giralia** | **62.78** | **253** | P | **P** | **20 31 16.5** | **+0.9** |
| | baz=63,SNR=25 | | | | | | |
| **MPSI** | **Mapaga** | **63.14** | **280** | P | **P** | **20 31 17.4** | **-0.7** |
| **SRBI** | **Singaraja** | **65.00** | **269** | P | **P** | **20 31 29.2** | **-0.7** |
| **KBKI** | **Kotabaru** | **65.48** | **275** | P | **P** | **20 31 32.8** | **-0.1** |
| **JAGI** | **Jajag, Banyuwa** | **65.91** | **269** | P | **P** | **20 31 34.0** | **-1.6** |
| **JAGI** | **Jajag, Banyuwa** | **65.91** | **269** | *e*P | **P** | **20 31 34.2** | **-1.4** |
| | comp=Z,106nm,0.7s | | | | | | |
| **MYLDM** | **Lahad Datu** | **66.18** | **284** | *e*P | **P** | **20 31 38.0** | **+0.8** |
| | comp=Z,35nm,1.2s | | | | | | |
| **KMMI** | **Kalianget** | **66.48** | **270** | P | **P** | **20 31 39.3** | **+0.2** |
| **GMJI** | **Gumukmas** | **66.64** | **269** | P | **P** | **20 31 38.9** | **-1.2** |
| **BLJI** | **Banyuglugur** | **66.64** | **269** | P | **P** | **20 31 39.5** | **-0.6** |
| **MJAR** | **Matsushiro Arr** | **67.81** | **323** | P | **P** | **20 31 46.4** | **-0.4** |
| | comp=Z,10nm,0.7s,baz=161,slow=6.3,SNR=21 | | | | | | |
| **MAJO** | **Matsushiro** | **67.81** | **323** | *e*P | **P** | **20 31 46.2** | **-0.6** |
| MAJO | | | | pmax | pmax | | |
| | comp=Z,15nm,0.8s | | | | | | |
| **MAJO** | **Matsushiro** | **67.81** | **323** | *e*P | **P** | **20 31 46.2** | **-0.6** |
| | comp=Z,15nm,0.8s | | | | | | |
| **MJB9** | **Matsu-Tunnel** | **67.81** | **323** | *e*P | **P** | **20 31 46.1** | **-0.7** |
| | comp=Z,16nm,0.9s | | | | | | |
| **KKM** | **Kota Kinabalu** | **68.61** | **284** | *e*P | **P** | **20 31 52.3** | **+0.1** |
| | comp=Z,30nm,0.5s | | | | | | |
| **UGM** | **Wanagama** | **69.52** | **268** | *e*P | **P** | **20 31 57.3** | **-0.3** |
| | comp=Z,150nm,0.5s | | | | | | |
| **SMRI** | **Semarang** | **69.83** | **269** | *e*P | **P** | **20 32 00.2** | **+0.8** |
| | comp=Z,84nm,0.7s | | | | | | |

QSPA **South Pole Qui** 72.17 180 *e*P P 20 32 13.6 +1.3
comp=Z,95nm,0.9s
CISI **Cisompet, Garu** 72.19 268 *e*P P 20 32 12.3 -1.0
comp=Z,87nm,0.7s
KSM **Kuching** 72.55 277 *e*P P 20 32 16.0 +0.6
comp=Z,85nm,0.8s
MIR **Mirnyy** 73.14 205 *i* P P 20 32 17.5 -0.2
MIR pmax pmax
comp=Z,9.0nm,1.1s
PETK **Petropavlovsk-** 73.62 345 P P 20 32 20.5 0.0
comp=Z,23nm,0.7s,baz=112,slow=8.1,SNR=20
PEA1 **Petropavlovsk-** 73.62 345 *e*P P 20 32 20.5 0.0
KSRS **Korea Array** 74.59 318 P P 20 32 26.9 +0.6
comp=Z,1.1nm,0.7s,baz=134,slow=5.2,SNR=3.5
KSAR **Wonju Array Be** 74.61 318 P P 20 32 26.9 +0.5
KSAR **Wonju Array Be** 74.61 318 P P 20 32 26.9 +0.5
SBI **Santa Barbara** 76.34 48 *e*P P 20 32 37.0 +0.9
USRK **Ussuriysk Ar.** 76.52 326 P P 20 32 38.5 +1.6
comp=Z,2.2nm,0.6s,baz=106,slow=7.1,SNR=5.2
CNIC **Niles Canyon** 76.64 43 *e*P P 20 32 37.9 +0.2
NJ2 **Nanjing** 77.82 310 *e*P P 20 32 43.2 -1.0
NJ2 pmax pmax
comp=Z,7.0nm,0.9s
ISA **Isabella, Lake** 77.89 46 *e*P P 20 32 44.5 -0.1
ISA pmax pmax
comp=Z,12nm,1.0s
ISA **Isabella, Lake** 77.89 46 *e*P P 20 32 44.5 -0.1
comp=Z,12nm,1.0s
AFDM **Forest Hills D** 78.05 42 *e*P P 20 32 46.8 +1.4
comp=Z,19nm,1.5s
ORV **Oroville** 78.06 42 *e*P P 20 32 47.1 +1.7
ORV pmax pmax
comp=Z,9.0nm,1.3s
ORV **Oroville** 78.06 42 *e*P P 20 32 47.1 +1.7
comp=Z,9.4nm,1.3s
MDJ **Mudanjiang** 78.09 325 *e*P P 20 32 46.3 +1.0
comp=Z,13nm,1.0s
KDAK **Kodiak Island** 78.41 14 *i* P P 20 32 47.3 +0.6
CCCA **Chr Cany lake** 78.58 47 *e*P P 20 32 49.5 +1.2
YBH **Yreka Blue Hor** 78.58 39 *e*P P 20 32 49.9 +1.6
YBH pmax pmax
comp=Z,8.0nm,0.9s
YBH **Yreka Blue Hor** 78.58 39 *e*P P 20 32 49.9 +1.6
comp=Z,8.0nm,0.9s
HUMO **Hull Mountain** 78.96 38 *e*P P 20 32 51.6 +1.5
comp=Z,16nm,1.1s
YERR **Yerington** 79.18 43 *e*P P 20 32 53.4 +1.8
comp=Z,13nm,0.7s
MOD **Modoc Plateau** 80.15 40 *e*P P 20 32 57.8 +1.3
comp=Z,9.0nm,0.7s
H04A **Detroit Lake** 80.65 37 *e*P P 20 33 00.2 +1.3
comp=Z,38nm,1.6s
RSO **Redoubt South** 80.80 13 *e*P P 20 32 59.8 +0.2
BMN **Battle Mountai** 81.28 43 *e*P P 20 33 03.7 +1.3
BMN pmax pmax
comp=Z,10.0nm,1.1s
BMN **Battle Mountai** 81.28 43 *e*P P 20 33 03.7 +1.3
comp=Z,10nm,1.1s
WVOR **Wild Horse Val** 81.47 40 *e*P P 20 33 05.2 +1.8
WVOR pmax pmax
comp=Z,16nm,1.1s
WVOR **Wild Horse Val** 81.47 40 *e*P P 20 33 05.2 +1.8
comp=Z,16nm,1.1s
SPU **Mount Spurr** 81.60 13 *e*P P 20 33 02.6 -0.8
I07A **Izee** 81.87 39 *e*P P 20 33 07.1 +1.8
comp=Z,8.5nm,0.8s
J08A **Circle Bar Ran** 82.08 40 *e*P P 20 33 08.2 +1.8
comp=Z,18nm,1.2s
SUA **Susitna One** 82.14 13 *e*P P 20 33 06.4 +0.2
comp=Z,19nm,0.7s
LCMT **Little Creek M** 82.21 47 *e*P P 20 33 06.3 -0.9
comp=Z,8.2nm,0.6s
IPM **Ipoh** 82.29 277 *e*P P 20 33 08.7 +0.7
comp=Z,45nm,0.8s
GLI **Glacier Island** 82.46 15 *e*P P 20 33 07.7 -0.1
comp=Z,30nm,0.7s
PMR **Palmer** 82.61 14 *e*P P 20 33 07.9 -0.5
PMR pmax pmax
comp=Z,38nm,1.4s
PMR **Palmer** 82.61 14 *e*P P 20 33 07.9 -0.5
comp=Z,38nm,1.4s
G08A **Pilot Rock** 82.87 38 *e*P P 20 33 12.2 +1.9
comp=Z,18nm,1.4s
G08A *e*pP pP 20 35 14.3 +2.6
DIV **Divide** 83.00 15 *e*P P 20 33 11.1 +0.5
comp=Z,21nm,0.7s
E07A **Sunnyside** 83.07 36 *e*P P 20 33 12.4 +1.2
comp=Z,18nm,1.2s
HAWA **Hanford** 83.16 37 *e*P P 20 33 13.5 +1.9
comp=Z,7.7nm,0.7s
SCM **Sheep Creek Mo** 83.23 14 *e*P P 20 33 12.2 +0.5
SCM pmax pmax
comp=Z,34nm,0.8s
SCM **Sheep Creek Mo** 83.23 14 *e*P P 20 33 12.2 +0.5
comp=Z,34nm,0.8s
E08A **Dider Farm, El** 83.48 37 *e*P P 20 33 14.6 +1.4
comp=Z,7.1nm,0.8s
BMO **Blue Mountains** 83.60 39 *e*P P 20 33 15.4 +1.4
BMO pmax pmax
comp=Z,4.0nm,0.9s
BMO **Blue Mountains** 83.60 39 *e*P P 20 33 15.4 +1.4
comp=Z,3.7nm,0.9s
CAST **Castle Rocks** 83.63 12 *e*P P 20 33 12.8 -0.7
comp=Z,22nm,0.9s
SEY **Seymchan** 83.72 347 P P 20 33 13.6 -0.4
comp=Z,21nm,0.7s,baz=152,slow=5.8,SNR=39
SEY **Seymchan** 83.72 347 *e*P P 20 33 14.0 +0.1
SKNT **Sakolnakorn** 83.73 290 P P 20 33 16.6 +1.5
comp=Z,49nm,0.9s
MFID **Camas Ranch** 83.74 41 *e*P P 20 33 16.6 +1.9
comp=Z,8.8nm,1.1s
PSI **Prapat** 83.75 275 P P 20 33 14.4 -1.0
comp=Z,30nm,0.7s,baz=136,slow=7.8,SNR=14
PSI **Prapat** 83.75 275 *e*P P 20 33 14.7 -0.7
PSI pmax pmax
comp=Z,32nm,0.8s
PSI **Prapat** 83.75 275 *e*P P 20 33 14.7 -0.7
comp=Z,32nm,0.8s
D08A **Wollman Farm,** 83.88 36 *e*P P 20 33 16.5 +1.3
comp=Z,7.8nm,0.8s
KTH **Kantishna Hill** 83.97 12 *e*P P 20 33 14.8 -0.5
comp=Z,16nm,0.9s
TRF **Thorofare Moun** 84.01 12 *e*P P 20 33 15.4 -0.2
comp=Z,27nm,0.8s
ENH **Enshi** 84.15 304 *e*P P 20 33 18.0 +1.1
comp=Z,27nm,0.8s
HARP **HAARP** 84.25 15 *e*P P 20 33 17.2 +0.6
comp=Z,127nm,1.8s
F10A **Beach Ranch, E** 84.26 38 *e*P P 20 33 18.1 +0.9
comp=Z,14nm,1.0s
RND **Reindeer** 84.27 13 *e*P P 20 33 16.8 0.0
RND pmax pmax
comp=Z,34nm,0.9s
RND **Reindeer** 84.27 13 *e*P P 20 33 16.8 0.0
comp=Z,34nm,0.9s
B08A **Colville Reser** 84.39 35 *e*P P 20 33 18.5 +0.8
comp=Z,7.7nm,0.8s
MCK **McKinley** 84.54 13 *e*P P 20 33 17.7 -0.3
MCK pmax pmax
comp=Z,20nm,1.0s
MCK **McKinley** 84.54 13 *e*P P 20 33 17.7 -0.3
comp=Z,20nm,1.0s
TRTT **Trang** 84.61 280 P P 20 33 21.4 +1.9
comp=Z,57nm,0.8s
PAX **Paxson** 84.66 15 *e*P P 20 33 18.0 -0.7
PAX pmax pmax
comp=Z,8.0nm,0.9s
PAX **Paxson** 84.66 15 *e*P P 20 33 18.0 -0.7
comp=Z,8.0nm,0.9s
HLID **Hailey** 84.69 41 *e*P P 20 33 21.7 +2.2
comp=Z,4.6nm,0.8s
GYA **Guiyang** 84.91 300 *e*P P 20 33 21.0 +0.2
GYA pP pP 20 35 25.8 +2.8
GYA sP sP 20 36 24.4 +4.2
GYA PP **PP** **20 36 50.8 +2.5**
GYA SKS **SKSac** **20 42 48.7 -3.1**
GYA S **SKKSac** **20 43 01.0 +1.0**
GYA pmax pmax
comp=Z,10.0nm,1.0s
MENT **Mentasta** 85.06 15 *e*P P 20 33 21.3 +0.8
comp=Z,7.2nm,0.8s
KRAB **Krabi** 85.20 280 P P 20 33 24.2 +1.9
comp=Z,35nm,0.8s,comp=Z,315nm
HONU **Honeyville** 85.33 44 *e*P P 20 33 25.7 +3.1
MLY **Manley** 85.34 11 *e*P P 20 33 21.1 -0.8
comp=Z,15nm,1.4s
WRH **Wood River Hil** 85.37 13 *e*P P 20 33 21.8 -0.2
comp=Z,12nm,0.9s
DOT **Dot Lake** 85.57 15 *e*P P 20 33 23.6 +0.6
comp=Z,28nm,0.8s
CCB **Clear Creek Bu** 85.58 13 *e*P P 20 33 22.4 -0.6
comp=Z,9.3nm,0.9s
MVCO **Mesa Verde** 85.66 49 *e*P P 20 33 22.9 -1.5
comp=Z,12nm,0.8s
IMAR **Indian Mountai** 85.67 10 *e*P P 20 33 23.4 0.0
COLA **College** 85.77 13 *e*P P 20 33 23.3 -0.6
COLA pmax pmax
comp=Z,10.0nm,1.0s
IL1 **Eielson Array** 85.89 13 *e*P P 20 33 23.7 -0.7
ILAR **Eielson Array** 85.89 13 P P 20 33 24.2 -0.2
comp=Z,3.4nm,0.4s,baz=221,slow=5.2,SNR=91
ILB **Eielson Array** 85.89 13 *e*P P 20 33 24.3 -0.2
LTX **Lajitas** 86.09 58 *e*P P 20 33 28.3 +1.9
LTX **Lajitas** 86.09 58 *e*P P 20 33 28.3 +1.9
TX31 **Lajitas Ar. Si** 86.09 58 *e*P P 20 33 28.7 +2.3
TXAR **Lajitas Array** 86.09 58 P P 20 33 28.3 +1.9
comp=Z,4.9nm,0.6s,baz=216,slow=5.9,SNR=35
XAN **Xi'an** 86.14 307 P P 20 33 27.9 +1.4
XAN pmax pmax
comp=Z,23nm,1.0s
MCMT **McKenzie Canyo** 86.30 41 *e*P P 20 33 29.3 +2.1
PBKT **Sadao Pong** 86.30 289 P P 20 33 29.6 +2.1
comp=Z,11nm,1.0s,comp=Z,1μm
PHET **Kaeng Krachan** 86.31 285 P P 20 33 29.6 +2.0
comp=Z,21nm,0.8s,comp=Z,712nm
BILL **Bilibino** 86.39 354 *i* P P 20 33 24.7 -2.1
BILL *i* *PP **pP** 20 35 26.0 -3.5
BILL pmax pmax
comp=Z,10.0nm,0.9s
TPAW **Teton Pass** 86.85 42 *e*P P 20 33 31.6 +1.8
comp=Z,5.4nm,1.0s
REDW **Red Top Meadow** 86.86 43 *e*P P 20 33 31.9 +2.0
comp=Z,9.6nm,1.0s
REDW *e*pP **pP** 20 35 35.4 +2.7
FXWY **Fox Creek** 86.87 42 *e*P P 20 33 31.7 +1.8
comp=Z,3.4nm,0.9s
FXWY *e*pP **pP** 20 35 34.9 +2.0
IMW **Indian Meadow** 87.05 42 *e*P P 20 33 32.9 +2.0
comp=Z,6.8nm,0.8s
LOHW **Long Hollow** 87.13 42 *e*P P 20 33 32.8 +1.7
comp=Z,3.7nm,0.6s
EGAK **Eagle** 87.22 15 *e*P P 20 33 31.3 +0.6
comp=Z,47nm,1.9s
YHB **Horse Butte** 87.30 41 *e*P P 20 33 33.5 +1.6
comp=Z,8.1nm,1.1s
UTHA **Uthaitani** 87.35 287 P P 20 33 34.3 +1.9
comp=Z,4.9nm,0.8s
BW06 **Boulder Array** 87.42 43 *e*P P 20 33 33.5 +1.0
comp=Z,7.3nm,1.1s
PD31 **Pinedale Array** 87.42 43 *e*P P 20 33 34.0 +1.4
PDAR **Pinedale Array** 87.42 43 P P 20 33 33.8 +1.2
comp=Z,4.3nm,0.6s,baz=211,slow=3.2,SNR=40
PDAR PKKPbc **PKKPbc** 20 51 18.6 -1.4
comp=Z,0.5nm,0.8s,baz=35,slow=5.4,SNR=3.7
PDAR **Pinedale Array** 87.42 43 *e*P P 20 33 33.3 +0.8
PDAR PKKPbc **PKKPbc** 20 51 18.6 -1.4
H17A **Grant Village** 87.52 42 *e*P P 20 33 36.2 +3.3
comp=Z,7.1nm,1.0s
KMI **Kunming** 87.70 297 P P 20 33 34.5 +0.3
KMI pmax pmax
comp=Z,11nm,0.5s
KMI pmax pmax
comp=Z,240nm,4.1s
LNIG **Linares** 87.93 63 *e*P P 20 33 36.3 +1.3
comp=Z,11nm,1.1s
UMPA **Umpang Tak** 88.09 288 P P 20 33 38.3 +2.4
comp=Z,4.4nm,1.2s,comp=Z,50nm
LAMP **Lampang** 88.16 290 P P 20 33 38.0 +1.8
comp=Z,6.2nm,0.9s
CM01 **Chiang Mai Arr** 88.73 290 *e*P P 20 33 40.0 +1.2
CM31 **Chiang Mai Arr** 88.75 290 *e*P P 20 33 40.8 +1.8
CMAR **Chiang Mai Arr** 88.75 290 P P 20 33 40.3 +1.3
comp=Z,9.1nm,0.9s,baz=109,slow=2.8,SNR=60
CMMT **Chiang Mai** 88.86 290 P P 20 33 40.4 +0.9
comp=Z,15nm,1.1s
CHTO **Chiang Mai** 88.87 290 P P 20 33 40.4 +0.9
comp=Z,68nm,0.9s
CHTO **Chiang Mai** 88.87 290 *e*P P 20 33 39.7 +0.2
CHTO pmax pmax
comp=Z,11nm,0.8s
CHTO **Chiang Mai** 88.87 290 *e*P P 20 33 39.7 +0.2
comp=Z,11nm,0.8s
N23A **Red Feather La** 89.03 46 *e*P P 20 33 41.5 +1.4
N23A *e*pP **pP** 20 35 40.1 -3.6
CMAI **Chiengmai2** 89.14 291 P P 20 33 42.1 +1.1
comp=Z,1μm,0.8s,comp=Z,72μm
SYO **Syowa Base** 89.15 193 ⇑*i*P P 20 33 38.2 -1.6
SYO **Syowa Base** 89.15 193 ⇓*i*PcP P 20 33 40.1 +0.3
YAK **Yakutsk** 89.50 338 *e*P P 20 33 40.0 -1.4
YAK pmax pmax
comp=Z,4.0nm,0.8s
SNAA **Sanae** 90.63 179 P P 20 33 46.9 +0.2
SNAA **Sanae** 90.63 179 *d*iP P 20 33 46.2 -0.5
SNAA **Sanae** 90.63 179 *e*P P 20 33 46.3 -0.5
comp=Z,58nm,1.4s
LZH **Lanzhou** 90.77 308 ⇓P P 20 33 51.7 +3.6
LZH pP pP 20 35 58.5 +6.5
LZH sP sP 20 36 55.6 +6.8
LZH PP **PP** **20 37 40.0 +5.6**
LZH pmax pmax
comp=Z,28nm,1.4s
LZH pmax pmax
comp=Z,79nm,6.2s
VNA3 **Neumayer Olymp** 90.78 176 P P 20 33 47.8 +0.5
VNA2 **Neumayer--Watz** 91.21 177 P P 20 33 50.0 +0.7
baz=173,slow=4.5
NVL **N'lazarevskaya** 91.29 183 *e*P P 20 33 49.3 -0.4
VNA1 **Neumayer--Stat** 91.44 177 P P 20 33 51.0 +0.6
PLCA **Paso Flores** 91.44 134 P P 20 33 52.4 +1.2
comp=Z,3.8nm,1.0s,baz=265,slow=5.0,SNR=4.7
PLCA **Paso Flores** 91.44 134 *e*P P 20 33 53.1 +1.9
PLCA pmax pmax
comp=Z,14nm,1.4s
PLCA **Paso Flores** 91.44 134 *e*P P 20 33 53.1 +1.9
comp=Z,14nm,1.4s
INK **Inuvik** 91.89 15 P P 20 33 51.9 -0.4
comp=Z,4.5nm,0.8s,baz=210,slow=4.2,SNR=14
INK **Inuvik** 91.89 15 *e*P P 20 33 52.4 +0.1
INK pmax pmax
comp=Z,6.0nm,0.8s
INK **Inuvik** 91.89 15 *e*P P 20 33 52.4 +0.1
comp=Z,5.7nm,0.8s
ULN **Ulaanbaatar** 93.05 319 *e*P P 20 33 57.3 -1.0
ULN pmax pmax
comp=Z,1.0nm,0.9s
SONA0 **Songino Array** 93.44 319 *e*P P 20 34 00.5 +0.4
SONA0 *e*PKiKP **PKiKP** 20 38 41.6 -0.6
SONM **Songino Array** 93.44 319 P P 20 34 00.5 +0.4
comp=Z,0.6nm,0.6s,baz=118,slow=3.8,SNR=4.5
SONM PKiKP **PKiKP** 20 38 41.6 -0.6
comp=Z,0.3nm,0.6s,baz=93,slow=3.6,SNR=3.0
YKA **Yellowknife Ar** 94.36 25 P P 20 34 03.7 0.0
comp=Z,1.6nm,0.8s,baz=238,slow=4.9,SNR=6.0
YKA PKKPbc **PKKPdf** 20 50 59.2 -2.8
comp=Z,0.6nm,0.6s,baz=37,slow=2.4,SNR=4.8
GTA **Gaotai** 94.92 310 *e*P P 20 34 07.5 +0.5
GTA pP pP 20 36 19.1 +7.8
GTA sP sP 20 37 15.6 +7.7
GTA pmax pmax
comp=Z,2.0nm,1.1s
TIXI **Tiksi** 96.09 345 *e*P P 20 34 10.8 -0.5
TIXI pmax pmax
comp=Z,1.0nm,1.0s
ZAA1 **Zalesovo Array** 108.13 322 *e*PKiKP **PKiKP** 20 39 07.5 -0.8
ZALV **Zalesovo Beam** 108.13 322 PKiKP **PKiKP** 20 39 07.5 -0.8
comp=Z,2.7nm,0.6s,baz=114,slow=0.6,SNR=14
MK32 **Makanchi Array** 109.02 314 *e*PKiKP **PKiKP** 20 39 09.6 -0.7
MK32 *e*PKKPbc **PKKPbc** 20 50 19.2 -0.9
MKAR **Makanchi Array** 109.02 314 PKiKP **PKiKP** 20 39 09.6 -0.7
comp=Z,2.5nm,0.5s,baz=177,slow=0.5,SNR=57
MKAR PKKPbc **PKKPbc** 20 50 19.2 -0.9
comp=Z,0.7nm,0.9s,baz=5.7,slow=1.2,SNR=3.7
KURK **Kurchatov** 111.72 318 *e*PKiKP **PKiKP** 20 39 14.3 -0.9
KURK **Kurchatov** 111.72 318 *e*PKiKP **PKiKP** 20 39 14.3 -0.9
KURK *e*SKPdf **SKPdf** 20 41 57.2 0.0
KURBB **Kurchatov Arra** 111.77 318 PKiKP **PKiKP** 20 39 14.3 -1.0
comp=Z,3.2nm,0.6s,baz=94,slow=1.7,SNR=51
KURBB SKP 20 41 57.2
comp=Z,0.4nm,0.7s,baz=89,slow=1.7,SNR=4.7
KSH **Kashi** 112.95 306 PKP **PKiKP** 20 39 15.5 -2.6
KSH PP **PP** **20 40 22.8 +4.7**
KSH sPKP 20 42 30.6
KSH PKS **PKSdf** **20 42 51.2 -3.7**
KSH SKS **SKSdf** **20 45 31.4 -5.5**
KSH SKKS **SKKSac** **20 46 13.1 -7.7**
KSH SS **SS** **20 55 23.3 +3.6**
KSH AMB AMB
comp=Z,140nm,5.8s
AAK **Ala-Archa** 114.26 309 PKiKP PKPdf 20 39 19.4 -1.1
comp=Z,0.6nm,0.4s,baz=162,slow=8.0,SNR=4.2
BVAR **Borovoye Array** 116.74 321 PKKPab PKKPab 20 50 00.0 +1.4
comp=Z,0.5nm,0.6s,baz=218,slow=1.7,SNR=4.0
BRVK **Borovoye** 116.80 321 *e*PKIKP **PKPdf** **20 39 24.4 -0.5**
BRVK **Borovoye** 116.80 321 *e*PKPdf **PKPdf** **20 39 24.4 -0.5**
KBL **Kabul** 118.16 300 *e*PKIKP **PKPdf** **20 39 28.5 +0.1**
KBL **Kabul** 118.16 300 *e*PKPdf **PKPdf** **20 39 28.5 +0.1**
SVE **Sverdlovsk** 121.54 326 *e*PKIKP **PKPdf** **20 39 34.0 +0.1**
ARU **Arti** 122.75 326 PKP **PKPdf** **20 39 35.9 -0.3**
baz=64,slow=1.2
ARU **Arti** 122.75 326 *i* PKIKP **PKPdf** **20 39 35.6 -0.6**
ARU 20 41 24.1
ARU 20 45 48.6
ARU SS SS 20 57 23.0 -0.3
ARA0 **ARCESS Array S** 126.26 350 *e*PKPdf **PKPdf** **20 39 42.6 0.0**
ARCES **ARCESS Array B** 126.26 350 PKP **PKPdf** **20 39 42.6 0.0**
comp=Z,6.5nm,0.8s,baz=97,slow=1.0,SNR=16
GEYT **Alibeck** 126.92 304 PKP **PKPdf** **20 39 45.1 +0.3**
comp=Z,7.3nm,0.8s,baz=256,slow=1.2,SNR=14
BOSA **Boshof** 128.37 207 PKP **PKPdf** **20 39 48.4 +0.3**
comp=Z,6.7nm,0.8s,baz=119,slow=3.4,SNR=6.8
BOSA PP **PP** **20 42 04.8 +4.6**
comp=Z,7.2nm,1.0s,baz=126,slow=5.2,SNR=4.9
KLMR **Klimovskoe** 129.28 337 *e*PKIKP **PKPdf** **20 39 47.1 -1.4**
KLMR *e* 20 42 16.7
KLMR pmax pmax
comp=Z,19nm,1.6s
FIA0 **FINESS Array S** 133.12 344 *e*PKPpre PKPpre 20 39 49.1
FIA0 *e*PKPdf **PKPdf** **20 39 55.4 -0.4**
FIA0 *e*PP **SKPbc** **20 42 32.2 +1.0**
FINES **FINESS Array B** 133.12 344 PKhKP PKPpre 20 39 49.1
comp=Z,7.0nm,1.1s,baz=34,slow=5.9,SNR=3.5
FINES PKP **PKPdf** **20 39 55.4 -0.4**
comp=Z,3.9nm,0.7s,baz=349,slow=1.9,SNR=10
FINES SKPbc **SKPbc** **20 42 32.2 +1.0**
comp=Z,7.0nm,0.8s,baz=55,slow=4.5,SNR=13
OBN **Obninsk** 134.21 333 PKP **PKPdf** **20 39 58.2 +0.2**
comp=Z,10nm,0.5s,baz=118,slow=20,SNR=3.9
OBN SKPbc **SKPbc** **20 42 34.4 -0.4**
comp=Z,5.2nm,0.4s,baz=313,slow=17,SNR=3.6
OBN **Obninsk** 134.21 333 ⇑*i*PKIKP **PKPdf** **20 39 59.2 +1.2**
OBN *i* 20 42 36.5
OBN *e* 20 45 48.3
OBN pmax pmax
comp=Z,10.0nm,0.6s
SEKA **Sheki** 134.56 311 PKIKP **PKPdf** **20 39 58.1 -1.1**
GANJ **Ganja** 135.36 310 PKIKP **PKPdf** **20 39 59.7 -1.0**
NB2 **NORSAR Subarra** 136.33 353 PKP **SKPbc** **20 42 42.8 +1.5**
comp=Z,21nm,1.4s,baz=12,slow=4.4
NB200 **NORSAR Array S** 136.33 353 *e*PKPdf **PKPdf** **20 40 01.9 0.0**
NB200 *e*SKPbc **SKPbc** **20 42 42.7 +1.4**
NOA **NORSAR Array B** 136.33 353 PKP **PKPdf** **20 40 01.9 0.0**
comp=Z,1.2nm,0.7s,baz=14,slow=4.1,SNR=3.5
NOA SKPbc **SKPbc** **20 42 42.7 +1.4**
comp=Z,3.4nm,1.0s,baz=7.6,slow=4.0,SNR=4.0
ZEI **Tsey** 136.37 314 *e*PKIKP **PKPdf** **20 39 59.0 -3.7**
ZEI pmax pmax
comp=Z,3.0nm,1.2s
KBZ **Khabaz** 136.69 316 PKP **PKPdf** **20 40 03.5 +0.6**
comp=Z,21nm,0.8s,baz=115,slow=4.0,SNR=5.0
NEY **Neytrino** 137.00 315 *i* PKIKP **PKPdf** **20 40 02.0 -1.8**
AKH **Akhalkalaki** 137.15 312 ⇑*i*P **PKPdf** **20 40 05.1 +0.9**
LSZ **Lusaka** 137.81 220 *e*PKHKP PKPpre 20 39 57.0
LSZ **Lusaka** 137.81 220 *e*PKPpre PKPpre 20 39 57.0
RAYN **Ar Rayn** 138.53 285 *e*PKPpre PKPpre 20 39 58.7
RAYN *e*PKPdf **PKPdf** **20 40 07.4 +0.3**
KMBO **Kilima Mbogo** 140.02 246 PKhKP PKPpre 20 40 04.3
comp=Z,2.0nm,0.3s,baz=80,slow=5.9,SNR=5.4
KMBO PKP **PKPdf** **20 40 11.2 +0.9**
comp=Z,4.9nm,0.8s,baz=66,slow=5.9,SNR=9.6
KMBO SKPbc **SKPbc** **20 42 53.8 +0.4**
comp=Z,0.6nm,0.3s,baz=342,slow=4.4,SNR=4.3
KMBO **Kilima Mbogo** 140.02 246 *e*PKHKP PKPpre 20 40 04.3
KMBO *e* 20 40 10.8
KMBO **Kilima Mbogo** 140.02 246 *e*PKPpre PKPpre 20 40 04.3
KMBO *e*PKPdf **PKPdf** **20 40 10.8 +0.4**
KMBO SKPbc **SKPbc** **20 42 53.8 +0.4**
AKASG **Malin Array Be** 140.47 332 PKhKP PKPpre 20 40 03.4
comp=Z,1.7nm,0.4s,baz=44,slow=4.0,SNR=12
AKASG PKP **PKPdf** **20 40 10.8 +1.1**
comp=Z,2.2nm,0.4s,baz=43,slow=3.3,SNR=5.6
AKASG SKPbc **SKPbc** **20 42 53.6 +0.6**
comp=Z,1.3nm,0.6s,baz=43,slow=3.2,SNR=4.9
AK11 **Malin Array Si** 140.51 332 *e*PKPpre PKPpre 20 40 05.2
AK11 *e*PKPdf **PKPdf** **20 40 08.6 -1.2**
LVV **L'vov** 143.33 335 *e*PKIKP **PKPdf** **20 40 16.2 +1.4**
DRWC **Darouich** 143.82 308 *e*P PKPab 20 40 15.8 +0.3
LEOM **Leova** 143.91 328 ⇓*i*P PKPbc 20 40 15.2 0.0
LEOM **Leova** 143.91 328 ⇓PKIKP PKPbc 20 40 15.2 0.0
HPK **Haverah Park** 143.91 3 *e*P PKPab 20 40 15.1 0.0
ILGA **Ilgaz** 143.97 317 *e*PKPbc PKPbc 20 40 15.8 -0.1
KWP **Kalwaria Pacla** 143.99 336 *e*PKP **PKPdf** **20 40 16.1 +0.1**
KWP **Kalwaria Pacla** 143.99 336 *e*PKIKP **PKPdf** **20 40 16.0 +0.1**
RABH **Abou Rabah** 144.15 304 *e*P **PKPab** **20 40 17.2 +0.4**
ROOS **tl_alroos** 144.17 304 *e*P **PKPab** **20 40 17.1 +0.2**
BTCH **Batrach** 144.19 307 *e*P PKPbc 20 40 16.6 0.0
PRAR **RASCA** 144.25 331 ⇓*i*P PKPbc 20 40 15.4 -0.9
WLF1 **Llynfaes** 144.37 6 *e*P **PKPdf** **20 40 16.6 +0.1**
LMK **Market Rasen** 144.47 2 *e*P PKPbc 20 40 16.8 +0.1
TLCR 144.47 326 ⇑*i*P **PKPab** **20 40 17.3 -0.2**
TLCR 144.47 326 ⇑PKIKP **PKPab** **20 40 17.3 -0.2**
BUR08 **Bucovina Ar. S** 144.51 332 *e*PKPdf **PKPab** **20 40 18.1 +0.3**
BUR04 **Bucovina Ar. S** 144.53 332 *e*PKPdf **PKPab** **20 40 17.8 -0.1**
BURAR **Bucovina Array** 144.53 332 ⇑*i*P **PKPab** **20 40 18.2 +0.4**
BURAR **Bucovina Array** 144.53 332 ⇑PKIKP **PKPab** **20 40 18.2 +0.4**
OJC **Ojcow** 144.54 340 *e*PKP **PKPab** **20 40 17.6 -0.1**
OJC **Ojcow** 144.54 340 *e*PKIKP **PKPab** **20 40 17.6 -0.1**
OJC **Ojcow** 144.54 340 *e*PKPdf **PKPdf** **20 40 16.3 -0.6**
TESR **Tescani** 144.67 329 ⇓*i*P **PKPdf** **20 40 16.8 -0.4**
BR101 **Keskin Array S** 144.67 315 *e*PKPdf PKPbc 20 40 17.9 -0.1
BR131 **Keskin Array S** 144.67 315 *e*PKPdf **PKPdf** **20 40 17.7 +0.1**
BRTR **Keskin Array B** 144.67 315 PKP PKPbc 20 40 17.9 -0.1
comp=Z,16nm,0.8s,baz=139,slow=4.1,SNR=86
BRTR **Keskin Array B** 144.67 315 PKIKP PKPbc 20 40 18.0 0.0
STHS **Stebnicka Huta** 144.71 337 *e*PKIKP **PKPab** **20 40 18.8 +0.4**
STHS **Stebnicka Huta** 144.71 337 *e*PKP **PKPab** **20 40 18.8 +0.4**
CFR **Carcaliu** 144.84 327 ⇓*i*P PKPbc 20 40 18.0 -0.1
CFR **Carcaliu** 144.84 327 ⇓PKIKP PKPbc 20 40 18.0 -0.1
MARH **Ras Al Marh** 144.85 304 *e*P PKPbc 20 40 19.1 +0.2
FOEL **Foel Wylfa** 144.87 5 *e*P PKPbc 20 40 18.4 +0.4
PETR **Petresti** 144.94 328 ⇑*i*P **PKPab** **20 40 20.5 +1.2**
UZH **Uzhgorod** 144.96 336 ⇑*i*PKIKP PKPbc 20 40 18.2 -0.2
UZH *e* 20 42 27.2
SALA **Sala** 145.04 302 *e*P **PKPbc** **20 40 19.6 +0.2**
KSP **Ksiaz** 145.04 344 *e*PKP **PKPab** **20 40 19.6 0.0**
KSP **Ksiaz** 145.04 344 *e*PKIKP **PKPab** **20 40 19.6 0.0**
NIE **Niedzica** 145.05 338 *e*PKP **PKPab** **20 40 19.8 +0.1**
NIE **Niedzica** 145.05 338 *e*PKIKP **PKPab** **20 40 19.8 +0.1**
CRVS **Cervenica-Dubn** 145.06 337 *e*PKIKP **PKPab** **20 40 19.6 -0.1**
CRVS **Cervenica-Dubn** 145.06 337 *e*PKP **PKPab** **20 40 19.6 -0.1**
VRI **Vrincioaia** 145.09 329 ⇓*i*P **PKPdf** **20 40 18.1 +0.1**
VRI **Vrincioaia** 145.09 329 ⇓PKIKP **PKPdf** **20 40 18.1 +0.1**
PLOR **Plostina** 145.14 329 ⇑*i*P **PKPdf** **20 40 17.3 -0.8**
PLOR **Plostina** 145.14 329 ⇑PKIKP **PKPdf** **20 40 17.3 -0.8**
CWF **Charnwood Fore** 145.15 3 *e*P **PKPbc** **20 40 18.8 +0.1**
ANTO **Ankara** 145.17 316 *e*PKIKP **PKPbc** **20 40 18.9 -0.5**
ANTO **Ankara** 145.17 316 *e*PKPdf **PKPbc** **20 40 18.9 -0.5**
TIRR **Tirgusor** 145.17 325 ⇑*i*P **PKPbc** **20 40 19.0 -0.1**
TIRR **Tirgusor** 145.17 325 ⇑PKIKP **PKPbc** **20 40 19.0 -0.1**
BR231 **Keskin MP Arra** 145.19 315 *e*PKPdf **PKPdf** **20 40 18.1 -0.4**
BMR **Baia Mare** 145.23 334 ⇑*i*P **PKPbc** **20 40 19.8 +0.6**
BMR **Baia Mare** 145.23 334 ⇑PKP2 **PKPbc** **20 40 19.8 +0.6**
HLM1 **Long Mynd** 145.27 5 *e*P **PKPbc** **20 40 19.4 +0.2**
HARR **Harsova** 145.27 326 ⇓*i*P **PKPab** **20 40 20.2 -0.5**
HARR **Harsova** 145.27 326 ⇓PKP2 **PKPab** **20 40 20.2 -0.5**
ARCR **ARCALIA** 145.31 332 ⇓*i*P **PKPbc** **20 40 19.2 -0.3**
OKC **Ostrava-Krasne** 145.40 341 *e*PKP **PKPbc** **20 40 19.9 +0.3**
OKC **Ostrava-Krasne** 145.40 341 *e*PKIKP **PKPbc** **20 40 19.9 +0.3**
CLL **Collm** 145.41 347 ⇓*i*PKIKP **PKPbc** **20 40 20.0 +0.4**
CLL pmax pmax
comp=Z,30nm,1.1s
CLL **Collm** 145.41 347 ⇓*i*PKPbc **PKPbc** **20 40 20.0 +0.4**
comp=Z,30nm,1.1s
CLL *i* 20 40 28.9
CLL *i* SKPbc **SKiKP** **20 43 06.7 +1.4**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| CLL | Collm | 145.41 | 347 | ePKPdf | PKPbc | 20 40 19.3 | -0.3 |
| UPC | Upice | 145.43 | 344 | ePKP | PKPab | 20 40 20.5 | -0.6 |
| UPC | Upice | 145.43 | 344 | ePKP2 | PKPab | 20 40 20.5 | -0.6 |
| BRBR | Barbar | 145.46 | 303 | eP | PKPbc | 20 40 21.1 | +0.4 |
| DPC | Dobruska-Polom | 145.48 | 343 | ePKP | PKPbc | 20 40 19.3 | -0.6 |
| DPC | | | | ex | x | 20 40 20.9 | |
| DPC | | | | epPKP | pPKPdf | 20 42 37.0 | +6.0 |
| DPC | Dobruska-Polom | 145.48 | 343 | ePKIKP | PKPbc | 20 40 19.3 | -0.6 |
| DPC | | | | e | | 20 40 20.9 | |
| LPW | Lampeter | 145.56 | 6 | eP | PKPbc | 20 40 20.1 | +0.1 |
| LANS | Liptovska Anna | 145.57 | 339 | ePKP2 | PKPab | 20 40 21.8 | +0.1 |
| LANS | Liptovska Anna | 145.57 | 339 | ePKP | PKPab | 20 40 21.8 | +0.1 |
| KRLC | Kraliky | 145.60 | 342 | ePKP | PKPbc | 20 40 20.9 | +0.6 |
| KRLC | Kraliky | 145.60 | 342 | ePKP2 | PKPbc | 20 40 20.9 | +0.6 |
| BRG | Berggiesshubel | 145.61 | 346 | i PKP | PKPbc | 20 40 20.8 | +0.6 |
| | comp=Z,12nm,0.8s | | | | | | |
| BRG | Berggiesshubel | 145.61 | 346 | i PKP2 | PKPbc | 20 40 20.8 | +0.6 |
| BRG | | | | pmax | pmax | | |
| | comp=Z,34nm,0.8s | | | | | | |
| DOPR | Dopca | 145.67 | 330 | ⇑iP | PKPab | 20 40 21.6 | -0.6 |
| TCHB | Talchebab | 145.67 | 302 | eP | PKPab | 20 40 22.2 | -0.5 |
| ISR | Istrita | 145.70 | 328 | ⇓iP | PKPbc | 20 40 21.0 | +0.3 |
| ISR | Istrita | 145.70 | 328 | ⇓PKP2 | PKPbc | 20 40 21.0 | +0.3 |
| MLR | Muntele Rosu | 145.74 | 329 | PKPbc | PKPbc | 20 40 20.4 | -0.5 |
| | comp=Z,2.5nm,0.8s,baz=13,slow=4.2,SNR=17 | | | | | | |
| MLR | Muntele Rosu | 145.74 | 329 | ePKIKP | PKPbc | 20 40 20.8 | -0.1 |
| MLR | Muntele Rosu | 145.74 | 329 | ePKPdf | PKPbc | 20 40 20.8 | -0.1 |
| KECS | Kecovo | 145.77 | 337 | ePKP2 | PKPbc | 20 40 21.4 | +0.7 |
| KECS | Kecovo | 145.77 | 337 | ePKP | PKPbc | 20 40 21.4 | +0.7 |
| MCH1 | Michaelchurch | 145.78 | 5 | eP | PKPbc | 20 40 20.7 | +0.1 |
| PVCC | Panska Ves | 145.78 | 345 | ePKP | PKPbc | 20 40 21.5 | +0.8 |
| PVCC | Panska Ves | 145.78 | 345 | ePKP2 | PKPbc | 20 40 21.5 | +0.8 |
| SSW | Stow on the Wo | 145.89 | 4 | eP | PKPbc | 20 40 21.6 | +0.6 |
| CJR | Cluj-Napoca | 145.93 | 332 | ⇑iP | PKPbc | 20 40 21.9 | +0.6 |
| CJR | Cluj-Napoca | 145.93 | 332 | ⇑PKP2 | PKPbc | 20 40 21.9 | +0.6 |
| MONM | Monmouth | 145.95 | 5 | eP | PKPbc | 20 40 21.3 | +0.2 |
| SECR | | 146.00 | 328 | ⇑iP | PKPbc | 20 40 21.6 | +0.1 |
| STRD | Stroud | 146.06 | 4 | eP | PKPbc | 20 40 21.4 | 0.0 |
| HGH | Gray Hill | 146.15 | 5 | eP | PKPbc | 20 40 21.8 | +0.1 |
| VOIR | | 146.22 | 330 | ⇓iP | PKPbc | 20 40 22.8 | +0.6 |
| VOIR | | 146.22 | 330 | ⇓PKP2 | PKPbc | 20 40 22.8 | +0.6 |
| PRU | Pruhonice | 146.28 | 345 | ePKP | PKPbc | 20 40 22.7 | +0.6 |
| PRU | | | | ex | x | 20 40 25.3 | |
| PRU | Pruhonice | 146.28 | 345 | ePKP2 | PKPbc | 20 40 22.7 | +0.6 |
| GOPC | GO Pecny, Ondr | 146.29 | 344 | ePKP | PKPbc | 20 40 22.9 | +0.7 |
| GOPC | GO Pecny, Ondr | 146.29 | 344 | ePKP2 | PKPbc | 20 40 22.9 | +0.7 |
| VRAC | Vranov | 146.34 | 342 | PKPbc | PKPbc | 20 40 21.9 | -0.5 |
| | comp=Z,5.8nm,0.8s,baz=19,slow=0.6,SNR=5.3 | | | | | | |
| VRAC | Vranov | 146.34 | 342 | ⇑iP | PKPbc | 20 40 21.8 | -0.5 |
| VYHS | Vyhne | 146.34 | 339 | ePKP2 | PKPbc | 20 40 23.4 | +1.0 |
| VYHS | Vyhne | 146.34 | 339 | ePKP | PKPbc | 20 40 23.4 | +1.0 |
| BATH | Bath | 146.38 | 4 | eP | PKPbc | 20 40 22.2 | -0.1 |
| PSZ | Piszkesteto | 146.46 | 337 | ⇓iP | PKPbc | 20 40 22.5 | -0.3 |
| PSZ | Piszkesteto | 146.46 | 337 | ⇓PKIKP | PKPbc | 20 40 22.5 | -0.3 |
| PSZ | Piszkesteto | 146.46 | 337 | ePKPbc | PKPbc | 20 40 23.2 | +0.4 |
| ARR | Arges | 146.47 | 330 | ⇓iP | PKPdf | 20 40 21.5 | +1.1 |
| NKC | Novy Kostel | 146.54 | 347 | ePKP | PKPbc | 20 40 23.4 | +0.5 |
| NKC | Novy Kostel | 146.54 | 347 | ePKP2 | PKPbc | 20 40 23.4 | +0.5 |
| WOL | Wolverton | 146.57 | 3 | eP | PKPbc | 20 40 23.0 | +0.2 |
| SGRR | Singureni | 146.62 | 327 | ⇑iP | PKPab | 20 40 43.5 | +17 |
| TREC | Trest | 146.67 | 343 | ePKP | PKPbc | 20 40 23.8 | +0.6 |
| TREC | Trest | 146.67 | 343 | ePKP2 | PKPbc | 20 40 23.8 | +0.6 |
| HUMR | Humele | 146.91 | 328 | ⇑iP | PKPbc | 20 40 24.0 | 0.0 |
| CSS | Mathiatis | 146.96 | 307 | ePKPbc | PKPbc | 20 40 24.1 | -0.4 |
| MODS | Modra-Piesok | 146.96 | 341 | ePKP2 | PKPbc | 20 40 25.2 | +1.2 |
| MODS | Modra-Piesok | 146.96 | 341 | ePKP | PKPbc | 20 40 25.2 | +1.2 |
| BOLV | Bolvadin | 146.98 | 315 | ePKPbc | PKPbc | 20 40 24.6 | 0.0 |
| SIRR | Siria | 147.11 | 334 | ⇑iP | PKPdf | 20 40 22.4 | +1.0 |
| MEM | Membach | 147.14 | 355 | PKPbc | PKPbc | 20 40 25.1 | +0.7 |
| KHC | Kasperske Hory | 147.31 | 345 | ePKP | PKPdf | 20 40 22.0 | +0.4 |
| KHC | | | | ex | x | 20 40 25.4 | |
| KHC | | | | epPKP | pPKPab | 20 42 37.4 | +1.8 |
| KHC | Kasperske Hory | 147.31 | 345 | ePKIKP | PKPdf | 20 40 22.0 | +0.4 |
| KHC | Kasperske Hory | 147.31 | 345 | ePKPdf | PKPdf | 20 40 22.2 | +0.6 |
| GEC2 | GERESS Array S | 147.55 | 345 | ePKP2 | PKPbc | 20 40 26.1 | +0.4 |
| GEC2 | GERESS Array S | 147.55 | 345 | ePKPbc | PKPbc | 20 40 26.1 | +0.4 |
| GERES | GERESS Array B | 147.55 | 345 | PKP | PKPdf | 20 40 22.1 | 0.0 |
| | comp=Z,11nm,0.5s,baz=79,slow=2.1,SNR=15 | | | | | | |
| GERES | | | | PKPbc | PKPbc | 20 40 26.1 | +0.4 |
| | comp=Z,11nm,0.5s,baz=25,slow=3.1,SNR=96 | | | | | | |
| GEA0 | GERESS Array S | 147.56 | 345 | ePKPdf | PKPdf | 20 40 22.2 | +0.1 |
| BZS | Buzias | 147.65 | 333 | ⇓iP | PKPbc | 20 40 26.0 | +0.1 |
| BZS | Buzias | 147.65 | 333 | ⇓PKP2 | PKPbc | 20 40 26.0 | +0.1 |
| DOU | Dourbes | 147.76 | 356 | PKPbc | PKPbc | 20 40 26.8 | +0.8 |
| CONA | Conrad Observa | 147.79 | 342 | i PKiKP | PKiKP | 20 40 27.3 | -0.4 |
| | comp=Z,15nm,0.6s,SNR=7.2 | | | | | | |
| SOP | Sopron | 147.80 | 341 | ⇓ex | PKPbc | 20 40 26.9 | +0.7 |
| HERR | Herculane | 147.87 | 331 | ⇓iP | PKPbc | 20 40 26.7 | +0.2 |
| BANR | Banloc | 148.04 | 333 | ⇓iP | PKPbc | 20 40 27.3 | +0.5 |
| WLF | Walferdange | 148.07 | 354 | PKPbc | PKPbc | 20 40 28.0 | +1.2 |
| WLF | Walferdange | 148.07 | 354 | ePKP2 | PKPbc | 20 40 28.0 | +1.2 |
| WLF | Walferdange | 148.07 | 354 | ePKPbc | PKPbc | 20 40 28.0 | +1.2 |
| MDVR | Moldovita | 148.26 | 332 | ⇑iP | PKPbc | 20 40 28.0 | +0.5 |
| MOA | Molln | 148.32 | 343 | i PKPbc | PKPbc | 20 40 28.0 | +0.4 |
| | comp=Z,7.8nm,0.8s | | | | | | |
| DIM | Dimitrovgrad | 148.34 | 325 | P | PKPbc | 20 40 28.0 | +0.3 |
| MANT | Manisa | 148.69 | 317 | ePKPbc | PKPbc | 20 40 29.5 | +0.4 |
| ALN | Alexandroupoli | 148.81 | 322 | P | PKPbc | 20 40 28.6 | -0.3 |
| ENEZ | Enez | 148.85 | 322 | P | PKPbc | 20 40 29.0 | 0.0 |
| RDO | Rodhopi | 148.94 | 323 | ePKPbc | PKPbc | 20 40 28.8 | -0.4 |
| RDO | Rodhopi | 148.94 | 323 | P | PKPbc | 20 40 28.8 | -0.4 |
| KOGS | Kog | 148.99 | 340 | i PKPbc | PKPbc | 20 40 29.1 | -0.1 |
| BFO | Black Forest | 149.11 | 351 | ePKPbc | PKPbc | 20 40 29.9 | +0.5 |
| AKAS | Kas | 149.14 | 312 | ePKPbc | PKPbc | 20 40 29.8 | -0.3 |
| SOKA | Soboth | 149.17 | 342 | i PKPbc | PKPbc | 20 40 29.7 | 0.0 |
| | comp=Z,14nm,0.9s,SNR=6.9 | | | | | | |
| VTS | Vitosha | 149.19 | 328 | ⇓iP | PKPbc | 20 40 30.2 | +0.2 |
| VTS | Vitosha | 149.19 | 328 | P | PKPbc | 20 40 30.0 | 0.0 |
| VTS | Vitosha | 149.19 | 328 | ePKPbc | PKPbc | 20 40 29.6 | -0.4 |
| VTS | Vitosha | 149.19 | 328 | P | PKPbc | 20 40 30.1 | 0.0 |
| KSL | Kastellorizon | 149.20 | 312 | ePKPbc | PKPbc | 20 40 29.8 | -0.2 |
| KSL | Kastellorizon | 149.20 | 312 | P | PKPbc | 20 40 29.8 | -0.2 |
| KBA | Koelnbreinsper | 149.28 | 344 | i PKPbc | PKPbc | 20 40 29.8 | -0.3 |
| | comp=Z,8.5nm,0.5s,SNR=8.0 | | | | | | |
| GADA | Gvkgeada | 149.34 | 322 | ePKPbc | PKPbc | 20 40 30.0 | -0.2 |
| GADA | Gvkgeada | 149.34 | 322 | P | PKPbc | 20 40 30.0 | -0.2 |
| SMTH | Samothraki Isl | 149.38 | 322 | ePKPbc | PKPbc | 20 40 29.8 | -0.5 |
| SMTH | Samothraki Isl | 149.38 | 322 | P | PKPbc | 20 40 29.8 | -0.5 |
| OBKA | Obir | 149.46 | 342 | i PKPbc | PKPbc | 20 40 29.9 | -0.6 |
| | comp=Z,7.7nm,1.1s | | | | | | |
| WATA | Walderalm | 149.47 | 346 | i PKiKP | PKPbc | 20 40 30.7 | +0.2 |
| | comp=Z,8.2nm,0.5s,SNR=7.4 | | | | | | |
| RETA | Reutte | 149.50 | 348 | i PKiKP | PKPbc | 20 40 30.8 | +0.3 |
| | comp=Z,6.5nm,0.5s | | | | | | |
| WTTA | Wattenberg | 149.52 | 346 | i PKiKP | PKiKP | 20 40 31.1 | -0.3 |
| | comp=Z,21nm,0.6s,SNR=5.3 | | | | | | |
| DIVS | Divibare | 149.56 | 333 | ePKPbc | PKPbc | 20 40 30.9 | +0.1 |
| DIVS | Divibare | 149.56 | 333 | P | PKPbc | 20 40 30.8 | +0.1 |
| MOTA | Moosalm | 149.56 | 347 | i PKPbc | PKPbc | 20 40 30.8 | 0.0 |
| | comp=Z,8.3nm,0.6s,SNR=8.2 | | | | | | |
| MYKA | Terra Mystica | 149.61 | 343 | i PKPbc | PKPbc | 20 40 30.4 | -0.3 |
| | comp=Z,13nm,0.6s,SNR=8.1 | | | | | | |
| KAVA | Kavala | 149.62 | 324 | ePKPbc | PKPbc | 20 40 30.6 | -0.2 |
| KAVA | Kavala | 149.62 | 324 | P | PKPbc | 20 40 30.6 | -0.2 |
| PRK | Paraskevi | 149.71 | 320 | P | PKPbc | 20 40 30.6 | -0.5 |
| NVR | Nevrokopi | 149.73 | 325 | P | PKPbc | 20 40 30.6 | -0.6 |
| KKB | Krupnik | 149.78 | 327 | P | PKPbc | 20 40 31.0 | -0.3 |
| ABTA | Abfaltersbach | 149.80 | 345 | i PKPbc | PKPbc | 20 40 31.0 | -0.2 |
| | comp=Z,22nm,0.6s,SNR=7.7 | | | | | | |
| LJU | Ljubljana | 149.89 | 342 | i PKPbc | PKPbc | 20 40 31.6 | +0.3 |
| FETA | Feichten | 149.95 | 347 | i PKiKP | PKiKP | 20 40 32.1 | -0.2 |
| | comp=Z,24nm,1.0s | | | | | | |
| LIA | Limnos Island | 149.96 | 322 | P | PKPbc | 20 40 31.2 | -0.5 |
| OZLJ | Ozalj | 149.98 | 340 | P | PKPbc | 20 40 32.0 | +0.5 |
| SRS | Serrai | 150.04 | 325 | ePKPbc | PKPbc | 20 40 31.0 | -0.9 |
| SRS | Serrai | 150.04 | 325 | P | PKPbc | 20 40 31.0 | -0.9 |
| BLY | Banja Luka | 150.14 | 337 | ePKPbc | PKPbc | 20 40 32.5 | +0.5 |
| BOJS | Bojanci | 150.15 | 340 | i PKPbc | PKPbc | 20 40 32.6 | +0.6 |
| ARG | Arkhangelos | 150.19 | 313 | P | PKPbc | 20 40 32.5 | +0.1 |
| DAVOX | Davos/Dischmat | 150.35 | 348 | PKP | PKPdf | 20 40 26.9 | +0.2 |
| | comp=Z,5.3nm,0.7s,baz=340,slow=3.9,SNR=5.7 | | | | | | |
| DAVOX | | | | PKPbc | PKiKP | 20 40 33.4 | +0.2 |
| | comp=Z,32nm,0.7s,baz=250,slow=3.0,SNR=44 | | | | | | |
| CHOS | Chios island | 150.36 | 319 | P | PKPbc | 20 40 32.7 | -0.1 |
| OUR | Ouranopolis | 150.36 | 324 | ePKIKP | PKPbc | 20 40 32.2 | -0.4 |
| OUR | Ouranopolis | 150.36 | 324 | ePKPbc | PKPbc | 20 40 32.2 | -0.4 |
| OUR | Ouranopolis | 150.36 | 324 | P | PKPbc | 20 40 32.2 | -0.4 |
| SOH | Sokhos | 150.38 | 325 | ePKIKP | PKPbc | 20 40 31.7 | -1.0 |
| SOH | Sokhos | 150.38 | 325 | ePKPbc | PKPbc | 20 40 31.7 | -1.0 |
| SOH | Sokhos | 150.38 | 325 | P | PKPbc | 20 40 31.7 | -1.0 |
| KNT | Kendrikon | 150.38 | 326 | P | PKPbc | 20 40 31.9 | -0.8 |
| TRI | Trieste | 150.42 | 342 | ePKIKP | PKPbc | 20 40 32.7 | +0.2 |
| TRI | Trieste | 150.42 | 342 | ePKPbc | PKPbc | 20 40 32.7 | +0.2 |
| FUORN | Ofenpass-Fuorn | 150.43 | 348 | ePKPbc | PKPbc | 20 40 33.5 | +0.6 |
| VAY | Valandovo | 150.44 | 327 | ePKIKP | PKPbc | 20 40 32.2 | -0.6 |
| VAY | Valandovo | 150.44 | 327 | ePKPbc | PKPbc | 20 40 32.2 | -0.6 |
| VAY | Valandovo | 150.44 | 327 | P | PKPbc | 20 40 32.2 | -0.6 |
| VAY | Valandovo | 150.44 | 327 | i PKP | PKPbc | 20 40 32.5 | -0.3 |
| SKO | Skopje | 150.54 | 329 | i PKP | PKPbc | 20 40 33.4 | +0.4 |
| PLG | Polygyros | 150.63 | 324 | P | PKPbc | 20 40 32.5 | -0.8 |
| HORT | Hortiatis | 150.67 | 325 | P | PKPbc | 20 40 32.5 | -0.9 |
| TUE | Stuetta | 150.75 | 349 | ePKPbc | PKPbc | 20 40 34.3 | +0.7 |
| GRG | Griva | 150.79 | 326 | ePKIKP | PKPbc | 20 40 33.1 | -0.5 |
| GRG | Griva | 150.79 | 326 | ePKPbc | PKPbc | 20 40 33.1 | -0.5 |
| GRG | Griva | 150.79 | 326 | P | PKPbc | 20 40 33.1 | -0.5 |
| UDBI | Udbina | 150.84 | 339 | P | PKPbc | 20 40 33.9 | +0.3 |
| KRUS | Krusevo | 151.08 | 328 | i PKP | PKPbc | 20 40 34.3 | -0.1 |
| NVLJ | Novalja | 151.11 | 340 | P | PKPbc | 20 40 34.1 | -0.1 |
| KARP | Karpathos | 151.20 | 313 | P | PKPbc | 20 40 35.0 | +0.2 |
| PDG | Podgorica | 151.21 | 332 | ⇓iP | PKPbc | 20 40 34.3 | -0.2 |
| PDG | Podgorica | 151.21 | 332 | P | PKPbc | 20 40 34.6 | +0.1 |
| TTG | Podgorica | 151.21 | 332 | ePKIKP | PKPbc | 20 40 34.6 | +0.1 |
| TTG | Podgorica | 151.21 | 332 | ePKPbc | PKPbc | 20 40 34.6 | +0.1 |
| BIA | Bitola | 151.31 | 328 | i PKP | PKPbc | 20 40 35.0 | +0.2 |
| LIT | Litokhoron | 151.35 | 325 | ePKIKP | PKPbc | 20 40 34.3 | -0.6 |
| LIT | Litokhoron | 151.35 | 325 | ePKPbc | PKPbc | 20 40 34.3 | -0.6 |
| LIT | Litokhoron | 151.35 | 325 | P | PKPbc | 20 40 34.3 | -0.6 |
| FNA | Florina | 151.45 | 327 | P | PKPbc | 20 40 34.8 | -0.4 |
| XOR | Xorichti | 151.46 | 323 | P | PKPbc | 20 40 34.2 | -1.0 |
| NEO | Neokhori | 151.48 | 323 | P | PKPbc | 20 40 34.4 | -0.9 |
| OHR | Ohrid | 151.50 | 328 | i PKP | PKPbc | 20 40 35.4 | +0.1 |
| STON | Ston | 151.52 | 334 | P | PKPbc | 20 40 34.6 | -0.5 |
| NEST | Nestorio | 151.89 | 327 | P | PKPbc | 20 40 36.2 | 0.0 |
| PTL | Penteli | 151.93 | 320 | ePKPbc | PKPbc | 20 40 35.3 | -1.0 |
| PTL | Penteli | 151.93 | 320 | P | PKPbc | 20 40 35.3 | -1.0 |
| THT1 | Athinios (Pele | 151.93 | 316 | P | PKPbc | 20 40 35.0 | -1.3 |
| THL | Klokotos Trika | 151.99 | 325 | P | PKPbc | 20 40 35.2 | -1.1 |
| PENT | Pentalofos | 152.00 | 327 | P | PKPbc | 20 40 36.4 | -0.1 |
| ATHU | Athens Univers | 152.03 | 320 | ePKPbc | PKPbc | 20 40 35.3 | -1.2 |
| ATHU | Athens Univers | 152.03 | 320 | P | PKPbc | 20 40 35.3 | -1.2 |
| LKR | Lokris | 152.05 | 322 | P | PKPbc | 20 40 35.8 | -0.7 |
| LKR | Lokris | 152.05 | 322 | P | PKPbc | 20 40 35.8 | -0.7 |
| KPRO | Kipourio | 152.06 | 326 | P | PKPbc | 20 40 36.8 | +0.2 |
| VLY | Voula,Athens | 152.09 | 320 | ePKPbc | PKPbc | 20 40 35.8 | -0.8 |
| VLY | Voula,Athens | 152.09 | 320 | P | PKPbc | 20 40 35.8 | -0.8 |
| AGG | Agios Georgios | 152.19 | 323 | ePKIKP | PKPbc | 20 40 36.3 | -0.5 |
| AGG | Agios Georgios | 152.19 | 323 | ePKPbc | PKPbc | 20 40 36.2 | -0.5 |
| AGG | Agios Georgios | 152.19 | 323 | P | PKPbc | 20 40 36.3 | -0.5 |
| VILL | Villia | 152.19 | 321 | P | PKPbc | 20 40 35.8 | -1.1 |
| LTK | Loutraki | 152.48 | 321 | P | PKPbc | 20 40 36.4 | -1.1 |
| DSF | Desfina | 152.49 | 322 | P | PKPbc | 20 40 36.5 | -1.0 |
| LOUT | Loutraki | 152.50 | 321 | P | PKPbc | 20 40 36.2 | -1.3 |
| EVR | Evrytania | 152.55 | 324 | P | PKPbc | 20 40 37.7 | 0.0 |
| BNI | Bardonecchia | 152.56 | 352 | ePKIKP | PKPbc | 20 40 38.9 | +1.3 |
| BNI | Bardonecchia | 152.56 | 352 | ePKPbc | PKPbc | 20 40 38.9 | +1.3 |
| DID | Didima | 152.66 | 320 | ePKPbc | PKPbc | 20 40 36.6 | -1.3 |
| DID | Didima | 152.66 | 320 | P | PKPbc | 20 40 36.6 | -1.3 |
| THAL | Thalero | 152.66 | 322 | P | PKPbc | 20 40 36.9 | -0.9 |
| ANX | Ano Chora | 152.71 | 323 | P | PKPbc | 20 40 38.7 | +0.6 |
| KALE | Kalithea | 152.72 | 323 | ePKPbc | PKPbc | 20 40 37.8 | -0.3 |
| KALE | Kalithea | 152.72 | 323 | P | PKPbc | 20 40 37.8 | -0.3 |
| SERG | Sergoula | 152.76 | 323 | P | PKPbc | 20 40 37.9 | -0.2 |
| DSL | Palaion Diasel | 152.79 | 325 | ePKPbc | PKPbc | 20 40 38.3 | +0.2 |
| DSL | Palaion Diasel | 152.79 | 325 | P | PKPbc | 20 40 38.3 | +0.2 |
| EFP | Efpalio | 152.84 | 323 | P | PKPbc | 20 40 38.6 | +0.4 |
| IDI | Anoyia | 152.91 | 314 | PKPbc | PKPbc | 20 40 39.5 | +1.0 |
| | comp=Z,6.3nm,0.5s,baz=12,slow=10,SNR=5.0 | | | | | | |
| GUR | Goura | 152.91 | 322 | ePKPbc | PKPbc | 20 40 38.1 | -0.4 |
| GUR | Goura | 152.91 | 322 | P | PKPbc | 20 40 38.1 | -0.4 |
| LAKA | Lakka | 152.92 | 323 | P | PKPbc | 20 40 38.5 | +0.1 |
| PVO | Paravola | 152.92 | 324 | P | PKPbc | 20 40 39.0 | +0.6 |
| KLV | Kalavryta, Ach | 152.95 | 322 | P | PKPbc | 20 40 38.5 | -0.1 |
| SIVA | Sivas | 153.11 | 314 | P | PKPbc | 20 40 39.6 | +0.7 |
| PDO | Prodromos | 153.12 | 324 | P | PKPbc | 20 40 39.0 | +0.2 |
| VLX | Vlachokerasia | 153.26 | 321 | P | PKPbc | 20 40 39.2 | -0.1 |
| DRO | Drossia | 153.27 | 323 | P | PKPbc | 20 40 39.5 | +0.3 |
| VAM | Vamos | 153.31 | 315 | P | PKPbc | 20 40 39.2 | -0.1 |
| ITM | Ithomi | 153.66 | 321 | P | PKPbc | 20 40 39.8 | -0.2 |
| ESDC | Sonseca Array | 157.78 | 11 | PKP | PKPdf | 20 40 37.2 | +0.2 |
| | comp=Z,0.8nm,0.7s,baz=344,slow=4.9,SNR=4.1 | | | | | | |
| ESDC | | | | PKPab | PKPab | 20 41 13.0 | -0.4 |
| | comp=Z,1.2nm,0.7s,baz=338,slow=4.5,SNR=5.3 | | | | | | |
| MDT | Midelt | 164.15 | 19 | PKP | PKPdf | 20 40 44.7 | +0.7 |
| | comp=Z,4.6nm,0.8s,baz=318,slow=1.4,SNR=14 | | | | | | |
| DBIC | Dimbokro | 167.27 | 150 | PKP | PKPdf | 20 40 46.1 | -0.8 |
| | comp=Z,3.1nm,0.8s,baz=200,slow=2.7,SNR=4.3 | | | | | | |
| KOWA | Kowa | 173.76 | 122 | ePKPdf | PKPdf | 20 40 50.1 | -0.2 |
| TAM | Tamanrasset | 173.80 | 323 | ePKIKP | PKPdf | 20 40 51.2 | +0.9 |
| TAM | Tamanrasset | 173.80 | 323 | ePKPdf | PKPdf | 20 40 51.2 | +0.9 |
| TOA0 | Torodi Ar. Sit | 175.29 | 183 | ePKPdf | PKPdf | 20 40 49.8 | -1.0 |
| TOA0 | | | | ePKPab | PKPab | 20 42 31.0 | 0.0 |
| TOA0 | | | | ePKPab | PKPab | 20 42 31.5 | +0.5 |
| TORD | Torodi Ar. Bea | 175.29 | 183 | PKP | PKPdf | 20 40 49.5 | -1.3 |
| | comp=Z,3.6nm,0.8s,baz=337,slow=0.9,SNR=22 | | | | | | |
| TORD | | | | PKPab | PKPab | 20 42 30.6 | -0.4 |
| | comp=Z,4.1nm,0.6s,baz=178,slow=4.0,SNR=17 | | | | | | |
| TORD | | | | PP | PP | 20 46 22.8 | +0.2 |
| | comp=Z,1.6nm,0.7s,baz=170,slow=4.0,SNR=6.8 | | | | | | |
| TOA1 | Torodi Ar. Sit | 175.29 | 183 | ePKPdf | PKPdf | 20 40 49.5 | -1.3 |
| TOA1 | | | | ePKPab | PKPab | 20 42 30.6 | -0.4 |
| TOA1 | | | | ePP | PP | 20 46 22.8 | +0.2 |

---

*ISCJB **01** 20:37:00.4±0.6, 23°.95N±0°.04×122°.55E±0°.02, h22km±5km, Error ellipse: s-maj=6.5km s-min=3.0km az=165.0*
*JMA **01** 20:37:00.6±0.2, 23°.98N×122°.53E, h26km, M2.0*
*TAP **01** 20:37:01.1, 23°.98N×122°.54E, h51km±2km, ML3.0, C*
**ISC 01 20:36:59.3**±1.2**, 23°.93N**±0°.03×**122°.54E**±0°.02**, h17**km±9km**, n34,** σ**0s.60**/59**, Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| YOJ | Yonaguni jima | 0.68 | 39 | P | Pb | 20 37 13.2 | +0.5 |
| YOJ | | | | eS | Sb | 20 37 21.9 | 0.0 |
| TWD | Chiawan | 0.87 | 280 | eP | Pn | 20 37 16.7 | -0.1 |
| | baz=277 | | | | | | |
| TWD | | | | S | Sg | 20 37 28.3 | +0.4 |
| | baz=277 | | | | | | |
| ENA | Nanau | 0.88 | 304 | eP | Pn | 20 37 17.1 | +0.3 |
| | baz=308 | | | | | | |
| ENA | | | | eS | Sn | 20 37 28.8 | -0.4 |
| | baz=308 | | | | | | |
| TWC | Suao | 0.92 | 317 | P | Pg | 20 37 17.1 | -0.1 |
| | baz=315 | | | | | | |
| TWC | | | | S | Sg | 20 37 29.6 | +0.2 |
| | baz=315 | | | | | | |
| TWE | Neicheng | 1.12 | 315 | eP | Pg | 20 37 20.6 | -0.4 |
| | baz=313 | | | | | | |
| TWE | | | | eS | Sb | 20 37 34.6 | +0.3 |
| | baz=313 | | | | | | |
| ENTT | Nioudou | 1.13 | 309 | eP | Pn | 20 37 20.6 | +0.2 |
| | baz=297 | | | | | | |
| ENTT | | | | eS | Sb | 20 37 35.2 | +0.3 |
| | baz=297 | | | | | | |
| IRIF | Iriomote-Funau | 1.16 | 70 | P | Pg | 20 37 21.8 | 0.0 |
| IRIF | | | | eS | Sn | 20 37 36.5 | +0.3 |
| NNS | Nan Shan | 1.18 | 296 | eP | Pg | 20 37 21.7 | -0.4 |
| | baz=294 | | | | | | |
| NNS | | | | eS | Sb | 20 37 36.4 | +0.1 |
| | baz=294 | | | | | | |
| WHF | Hehuan Shan | 1.18 | 281 | eP | Pb | 20 37 21.4 | -0.2 |
| | baz=279 | | | | | | |
| WHF | | | | eS | Sb | 20 37 37.1 | +0.4 |
| | baz=279 | | | | | | |
| EHY | Hungye | 1.19 | 249 | P | Pb | 20 37 21.7 | +0.3 |
| | baz=260 | | | | | | |
| EHY | | | | eS | Sb | 20 37 36.9 | +0.4 |
| | baz=260 | | | | | | |
| TWF1 | Yuli | 1.27 | 243 | P | Pb | 20 37 23.3 | +0.4 |
| | baz=241 | | | | | | |
| TWF1 | | | | eS | Sb | 20 37 39.2 | +0.2 |
| | baz=241 | | | | | | |
| TWT | Tachien | 1.28 | 285 | eP | Pg | 20 37 23.8 | -0.4 |
| | baz=275 | | | | | | |
| TWT | | | | eS | Sb | 20 37 38.4 | -1.0 |
| | baz=275 | | | | | | |
| CHKT | Chengkung | 1.36 | 233 | eP | Pg | 20 37 25.2 | -0.3 |
| | baz=223 | | | | | | |
| JKRS | Kuro-shima | 1.38 | 77 | P | Pg | 20 37 26.0 | +0.1 |
| SMLT | Sun Moon Lake | 1.50 | 268 | eP | Pb | 20 37 26.4 | -0.4 |
| | baz=266 | | | | | | |
| SMLT | | | | eS | Sn | 20 37 45.0 | +0.3 |
| | baz=266 | | | | | | |
| YUS | Yu-Shan | 1.52 | 253 | eP | Pb | 20 37 27.0 | -0.3 |
| | baz=251 | | | | | | |
| YUS | | | | eS | Sn | 20 37 45.1 | -0.6 |
| | baz=251 | | | | | | |
| JIJ | Ishigaki jima | 1.53 | 73 | P | Pn | 20 37 25.9 | +0.1 |
| JIJ | | | | eS | Sn | 20 37 45.1 | -0.2 |
| TYC | Yuchr | 1.54 | 269 | eP | Pb | 20 37 27.3 | 0.0 |
| | baz=259 | | | | | | |
| NSTT | Nanjuang | 1.56 | 297 | eP | Pb | 20 37 27.3 | -0.5 |
| | baz=295 | | | | | | |
| NSTT | | | | eS | Sn | 20 37 46.3 | +0.2 |
| | baz=295 | | | | | | |
| ELDTW | Lidau | 1.58 | 242 | eP | Pn | 20 37 26.8 | +0.2 |
| | baz=240 | | | | | | |
| ELDTW | | | | eS | Sn | 20 37 46.0 | -0.7 |
| | baz=240 | | | | | | |
| ALS | Alishan | 1.64 | 256 | eP | Pb | 20 37 29.0 | -0.3 |
| | baz=253 | | | | | | |
| ALS | | | | eS | Sn | 20 37 49.1 | +0.6 |
| | baz=253 | | | | | | |
| TWQ1 | Liyutan | 1.66 | 285 | eP | Pb | 20 37 29.1 | -0.4 |
| | baz=283 | | | | | | |
| WNT | Mingjian | 1.70 | 269 | eP | Pg | 20 37 31.3 | -0.7 |
| | baz=266 | | | | | | |
| CHN5 | Tsauling | 1.73 | 259 | eP | Pb | 20 37 30.7 | -0.1 |
| | baz=250 | | | | | | |
| CHN5 | | | | eS | Sb | 20 37 52.8 | +0.5 |
| | baz=250 | | | | | | |
| TWG | Pinlang | 1.74 | 231 | eP | Pn | 20 37 28.8 | 0.0 |
| | baz=237 | | | | | | |
| JISG | Ishigakijimahi | 1.75 | 68 | P | Pn | 20 37 28.8 | 0.0 |
| JISG | | | | eS | Sn | 20 37 48.7 | -1.9 |
| STYT | Tauyuan | 1.80 | 245 | eP | Pb | 20 37 31.1 | -0.8 |
| | baz=238 | | | | | | |
| STYT | | | | eS | Sn | 20 37 52.5 | +0.3 |
| | baz=238 | | | | | | |
| CHN4 | Tsaushan | 1.87 | 252 | eP | Pb | 20 37 32.7 | -0.4 |
| | baz=250 | | | | | | |
| CHN4 | | | | eS | Sb | 20 37 56.7 | +0.5 |
| | baz=250 | | | | | | |
| WTP | Ta-pu | 1.89 | 249 | eP | Pb | 20 37 33.9 | +0.5 |
| | baz=247 | | | | | | |
| WTP | | | | eS | Sb | 20 37 56.7 | -0.1 |
| | baz=247 | | | | | | |
| SGST | Jiashian | 1.98 | 245 | eP | Pb | 20 37 34.8 | -0.1 |
| | baz=236 | | | | | | |
| CHN1 | Nanshi | 1.99 | 248 | eP | Pb | 20 37 35.1 | +0.1 |
| | baz=247 | | | | | | |
| CHN1 | | | | eS | Sb | 20 37 59.0 | -0.6 |
| | baz=247 | | | | | | |
| TWK | Hsinying | 1.99 | 251 | eP | Pn | 20 37 33.8 | +1.6 |
| | baz=249 | | | | | | |
| SSD | Sandimen | 2.11 | 236 | eP | Pn | 20 37 35.7 | +1.9 |
| | baz=229 | | | | | | |
| EAST | Anshuo | 2.19 | 226 | eP | Pb | 20 37 37.4 | -1.1 |
| | baz=230 | | | | | | |
| EAST | | | | eS | Sn | 20 38 00.7 | -0.9 |
| | baz=230 | | | | | | |

---

*IDC **01** 20:40:11.9±0.8, 10°.42N×126°.46E, h0km, mb3.9/13, mb1 4.0/13, mb1mx3.8/46, mbtmp3.9/13, ML4.8/1, MS2.9/4, Ms1 3.0/4, ms1mx2.6/31, Error ellipse: s-maj=30.3km s-min=14.9km az=77.0*
*NEIC **01** 20:40:13.5±0.5, 10°.42N×126°.43E, h10km, mb4.7/1, Error ellipse: s-maj=18.5km s-min=9.6km az=74.0*
*ISCJB **01** 20:40:17.1±0.9, 10°.48N±0°.04×126°.47E±0°.06, h54km±9km, mb3.8/13, MS2.7/2, Error ellipse: s-maj=10.2km s-min=5.6km az=165.2*
**ISC 01 20:40:18.1**±1.7**, 10°.48N**±0°.05×**126°.46E**±0°.08**, h43**km±16km**, n40,** σ**1s.14**/41**, mb3.8**/13**, 1C-5D, Philippine Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PLP | Palo | 1.61 | 295 | ⇓eP | Pn | 20 40 43.6 | -0.5 |
| PLP | | | | eS | Sn | 20 41 02.8 | -0.9 |
| MSLP | Maasin | 1.61 | 258 | eP | Pn | 20 40 42.4 | -1.7 |
| MSLP | | | | eS | Sn | 20 41 01.6 | -2.1 |
| BUTP | Butuan | 1.71 | 209 | eP | Pn | 20 40 44.5 | -0.9 |
| OCLP | Ormoc | 1.91 | 288 | eP | Pn | 20 40 49.6 | +1.5 |
| BIPH | Bislig | 2.28 | 182 | ⇓iP | Pn | 20 41 00.5 | +7.3 |
| BIPH | | | | i S | Sn | 20 41 20.2 | +0.1 |
| LLP | Lapu-Lapu | 2.46 | 267 | ⇑eP | Pn | 20 40 55.9 | +0.2 |
| LLP | | | | eS | Sn | 20 41 24.4 | -0.2 |
| TBP | Tagbilaran | 2.67 | 253 | eP | Pn | 20 40 59.5 | +0.8 |
| TBP | | | | eS | Sn | 20 41 31.2 | +1.3 |
| CNP | Catarman | 2.68 | 319 | eP | Pn | 20 40 59.9 | +1.1 |
| CNP | | | | eS | Sn | 20 41 29.9 | -0.2 |
| BUKP | Musuan | 2.92 | 208 | eP | Pn | 20 41 02.9 | +0.7 |
| BUKP | | | | eS | Sn | 20 41 37.2 | +1.1 |
| SNPH | Sibulan | 3.37 | 251 | ⇓iP | Pn | 20 41 09.0 | +0.7 |
| SNPH | | | | i S | Sn | 20 41 48.8 | +1.7 |
| MATI | Mati | 3.51 | 183 | eP | Pn | 20 41 10.8 | +0.6 |
| RCP | Roxas | 3.80 | 287 | ⇓eP | Pn | 20 41 15.6 | +1.4 |
| GUIM | Jordan | 3.81 | 273 | eP | Pn | 20 41 15.0 | +0.7 |
| PVCP | Virac | 3.83 | 324 | eP | Pn | 20 41 15.2 | +0.6 |
| PVCP | | | | eS | Sn | 20 42 12.5 | +14 |
| CTBH | Cotabato--PC H | 3.90 | 214 | ⇓iP | Pn | 20 41 16.0 | +0.4 |
| TGY | Tagaytay City | 6.49 | 304 | Pn | Pn | 20 41 48.8 | -2.4 |
| | 22nm,0.3s,baz=119,slow=13,SNR=2.6 | | | | | | |
| TGY | | | | LR | LR | 20 44 38.6 | |
| | comp=Z,180nm,19.4s,baz=188,slow=41 | | | | | | |
| ENPP | El Nido | 6.95 | 277 | eP | Pn | 20 41 58.6 | +1.2 |
| GUMO | Guam | 18.27 | 78 | LR | LR | 20 51 27.6 | |
| | comp=Z,28nm,18.9s,baz=277,slow=37 | | | | | | |
| KSAR | Wonju Array Be | 26.88 | 3 | P | P | 20 45 53.6 | -1.3 |
| KSRS | Korea Array | 26.89 | 3 | P | P | 20 45 53.6 | -1.4 |
| | 1.0nm,0.8s,baz=185,slow=12,SNR=2.4 | | | | | | |
| CMAR | Chiang Mai Arr | 27.77 | 290 | P | P | 20 46 03.0 | -0.2 |
| | 2.0nm,0.8s,baz=99,slow=7.4,SNR=18 | | | | | | |
| CMAR | | | | LR | LR | 20 56 34.9 | |
| | comp=Z,20nm,19.1s,baz=154,slow=35 | | | | | | |
| MJAR | Matsushiro Arr | 28.05 | 20 | P | P | 20 46 06.5 | +1.1 |
| | 0.8nm,0.7s,baz=202,slow=7.2,SNR=2.8 | | | | | | |
| MJAR | | | | LR | LR | 20 57 28.2 | |
| | comp=Z,19nm,18.1s,baz=220,slow=37 | | | | | | |
| FITZ | Fitzroy Crossi | 28.41 | 182 | P | P | 20 46 08.8 | +0.1 |
| | 6.3nm,1.2s,baz=21,slow=11,SNR=3.5 | | | | | | |
| WRA | Warramunga Arr | 31.21 | 166 | P | P | 20 46 31.3 | -2.2 |
| | 0.4nm,0.6s,baz=355,slow=8.4,SNR=3.1 | | | | | | |
| ASAR | Alice Springs | 34.70 | 168 | P | P | 20 47 02.9 | -1.2 |
| | 0.3nm,0.5s,baz=356,slow=6.9,SNR=5.9 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 39.68 | 74 | T | T | 21 30 48.3 | |
| | baz=265,slow=75,SNR=4.8 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 39.70 | 74 | T | T | 21 30 42.8 | |
| | baz=265,slow=75,SNR=4.3 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 39.70 | 74 | T | T | 21 30 48.2 | |
| | baz=265,slow=75,SNR=7.9 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 40.01 | 72 | T | T | 21 31 08.8 | |
| | baz=264,slow=74,SNR=9.8 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 40.02 | 72 | T | T | 21 31 10.9 | |
| | baz=264,slow=74,SNR=8.8 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 40.03 | 72 | T | T | 21 31 06.6 | |
| | baz=264,slow=74,SNR=9.9 | | | | | | |
| SONM | Songino Array | 40.89 | 339 | P | P | 20 47 57.7 | +1.4 |
| | 0.9nm,0.8s,baz=158,slow=8.7,SNR=6.8 | | | | | | |
| SONM | | | | PcP | PcP | 20 49 55.3 | -0.9 |
| | 0.6nm,0.7s,baz=149,slow=3.1,SNR=4.6 | | | | | | |
| NWAO | Narrogin (SRO) | 44.05 | 191 | P | P | 20 48 22.0 | +0.2 |
| | 9.9nm,0.7s,baz=45,slow=2.9,SNR=4.9 | | | | | | |
| NWAO | Narrogin (SRO) | 44.05 | 191 | eP | P | 20 48 22.3 | +0.5 |
| | 9.0nm,0.7s | | | | | | |
| MKAR | Makanchi Array | 51.98 | 323 | P | P | 20 49 23.5 | +0.4 |
| | 1.2nm,0.7s,baz=122,slow=7.5,SNR=8.4 | | | | | | |
| ZALV | Zalesovo Beam | 54.54 | 331 | P | P | 20 49 41.0 | -0.7 |
| | 0.5nm,0.5s,baz=111,slow=5.9,SNR=3.1 | | | | | | |
| BVAR | Borovoye Array | 61.60 | 325 | P | P | 20 50 31.9 | +0.7 |
| | 0.6nm,0.6s,baz=117,slow=9.0,SNR=4.1 | | | | | | |
| ARU | Arti | 69.16 | 327 | P | P | 20 51 19.7 | -0.3 |
| | 1.6nm,0.5s,baz=113,slow=7.7,SNR=3.3 | | | | | | |
| ILAR | Eielson Array | 79.17 | 26 | P | P | 20 52 19.4 | +1.1 |
| | 0.2nm,0.6s,baz=268,slow=6.0,SNR=4.5 | | | | | | |
| TORD | Torodi Ar. Bea | 120.36 | 292 | PKP | PKPdf | 20 59 05.5 | -0.3 |
| | 0.4nm,0.7s,baz=79,slow=2.4,SNR=2.7 | | | | | | |

---

*JMA **01** 20:53:51.9±0.5, 47°.24N×141°.83E, h25km, M3.3*
*SKHL **01** 20:53:54.3±0.6, 46°.92N×141°.74E, h10km, mb4.3/4*
*SKHL Felt (II-III) at Kholmsk.*
**ISC 01 20:53:57.9**±1.4**, 46°.86N**±0°.03×**141°.94E**±0°.05**, h18**km±6km**, n14,** σ**1s.01**/20**, Sakhalin Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| NEVR | Nevel'sk | 0.19 | 196 | ePg | Pb | 20 54 02.2 | -0.4 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| NEVR | | | | AMB | AMB | 20 54 02.7 | |
| | 194nm,0.4s | | | | | | |
| NEVR | | | | eSg | Sg | 20 54 07.1 | +1.2 |
| NEVR | | | | A | A | 20 54 10.7 | |
| | 1μm,0.3s | | | | | | |
| YSS | Yuzh-Sakhalins | 0.57 | 80 | ePg | Pb | 20 54 08.2 | -1.1 |
| YSS | | | | AMB | AMB | 20 54 09.0 | |
| | 300nm,0.4s | | | | | | |
| YSS | | | | eSg | Sg | 20 54 17.2 | +0.4 |
| YSS | | | | A | A | 20 54 19.0 | |
| | 2μm,0.4s | | | | | | |
| JWK2 | Keihoku | 1.55 | 181 | P | Pn | 20 54 24.0 | -0.5 |
| JWK2 | | | | eS | Sg | 20 54 47.3 | -0.4 |
| JRR | Rishiri | 1.78 | 194 | P | Pn | 20 54 27.3 | -0.4 |
| JRR | | | | eS | Sb | 20 54 53.9 | +2.1 |
| JSE | Soyaes | 1.96 | 166 | P | Pn | 20 54 30.1 | 0.0 |
| UGL | Uglegorsk | 2.22 | 2 | ePb | Pn | 20 54 33.9 | +0.2 |
| UGL | | | | ePg | Pb | 20 54 37.5 | +0.1 |
| UGL | | | | eSb | Sn | 20 54 59.3 | -1.4 |
| UGL | | | | eSg | Sb | 20 55 06.6 | +2.1 |
| UGL | | | | A | A | 20 55 09.2 | |
| | 220nm,0.6s | | | | | | |
| ASAJ | Asahikawa | 2.78 | 170 | P | Pn | 20 54 41.8 | +0.3 |
| JMP | Maruseppu | 3.03 | 160 | P | Pn | 20 54 44.6 | -0.3 |
| JKK2 | Kamakawa 2 | 3.04 | 169 | P | Pn | 20 54 45.3 | +0.2 |
| JTKR | Abashiri--Toko | 3.21 | 154 | P | Pn | 20 54 46.9 | -0.4 |
| JAR | Ashorobuto | 3.79 | 159 | P | Pn | 20 54 55.3 | -0.1 |
| TEY | Ternei | 4.14 | 246 | eSg | Sg | 20 56 09.4 | -1.4 |
| TEY | | | | A | A | 20 56 10.2 | |
| | 51nm,0.8s | | | | | | |
| TEY | | | | A | A | 20 56 10.2 | |
| | 33nm,0.8s | | | | | | |
| NKL | Nikolayevsk | 6.35 | 353 | eSg | Sg | 20 57 21.0 | -0.4 |
| NKL | | | | A | A | 20 57 21.8 | |
| | 35nm,0.5s | | | | | | |
| EKMR | Ekimchan | 8.49 | 320 | eSg | Sn | 20 58 31.5 | +56 |
| EKMR | | | | A | A | 20 58 34.0 | |
| | 2.0nm,0.6s | | | | | | |

*AZER **01** 21:03:13.5±0.0, 40°.81N×50°.71E, h42km, Error ellipse: s-maj=2.8km s-min=1.8km az=359.0*
*CSEM **01** 21:03:16.5±0.3, 40°.82N×50°.48E, h20km, mb3.8, Error ellipse: s-maj=7.8km s-min=4.6km az=143.0*
**ISC 01 21:03:16.9**±1.4**, 40°.84N**±0°.05×**50°.52E**±0°.06**, h27**km±12km**, n30, σ0.97**/56**, 20C-9D, Caspian Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| NDR | Nardaran | 0.48 | 237 | ⇑P | Pb | 21 03 26.9 | +0.1 |
| | SNR=192 | | | | | | |
| NDR | | | | ⇑S | Sn | 21 03 36.5 | +1.0 |
| NDR | Nardaran | 0.48 | 237 | P | Pb | 21 03 26.9 | +0.1 |
| | SNR=192 | | | | | | |
| NDR | | | | S | Sn | 21 03 36.5 | +1.0 |
| GALA | Gala | 0.51 | 213 | ⇑P | Pb | 21 03 26.2 | -1.2 |
| | SNR=32 | | | | | | |
| GALA | | | | ⇑S | Sn | 21 03 36.8 | +0.5 |
| GALA | Gala | 0.51 | 213 | P | Pb | 21 03 26.2 | -1.2 |
| | SNR=32 | | | | | | |
| GALA | | | | S | Sn | 21 03 36.8 | +0.5 |
| GOBA | Gobu | 0.74 | 234 | ⇑P | Pb | 21 03 30.6 | -0.6 |
| | SNR=29 | | | | | | |
| GOBA | | | | ⇓S | Sn | 21 03 43.4 | +1.4 |
| GOBA | Gobu | 0.74 | 234 | P | Pb | 21 03 30.6 | -0.6 |
| | SNR=29 | | | | | | |
| GOBA | | | | S | Sn | 21 03 43.4 | +1.4 |
| ATGJ | Altiaghaj | 1.20 | 271 | ⇑P | Pn | 21 03 37.8 | -0.2 |
| | SNR=5.3 | | | | | | |
| ATGJ | | | | ⇓S | Sb | 21 03 54.7 | +0.6 |
| ATGJ | Altiaghaj | 1.20 | 271 | P | Pn | 21 03 37.8 | -0.2 |
| | SNR=5.3 | | | | | | |
| ATGJ | | | | S | Sb | 21 03 54.7 | +0.6 |
| GBS | Qobustan | 1.24 | 256 | ⇑P | Pn | 21 03 38.2 | -0.3 |
| | SNR=56 | | | | | | |
| GBS | | | | ⇑S | Sb | 21 03 54.9 | -0.3 |
| GBS | Qobustan | 1.24 | 256 | P | Pn | 21 03 38.2 | -0.3 |
| | SNR=56 | | | | | | |
| GBS | | | | S | Sb | 21 03 54.9 | -0.3 |
| SIZA | Siyzn | 1.25 | 281 | ⇑P | Pn | 21 03 38.2 | -0.5 |
| | SNR=3.2 | | | | | | |
| SIZA | | | | ⇓S | Sb | 21 03 58.0 | +2.5 |
| SIZA | Siyzn | 1.25 | 281 | P | Pn | 21 03 38.2 | -0.5 |
| | SNR=3.2 | | | | | | |
| ALIB | Äli-Bayra | 1.45 | 233 | ⇑P | Pn | 21 03 40.2 | -1.2 |
| | SNR=7.2 | | | | | | |
| ALIB | | | | ⇑S | Sb | 21 04 01.2 | -0.1 |
| ALIB | Äli-Bayra | 1.45 | 233 | P | Pn | 21 03 40.2 | -1.2 |
| | SNR=7.2 | | | | | | |
| PQL | Pirkuli | 1.46 | 269 | ⇓P | Pn | 21 03 41.5 | -0.2 |
| | SNR=3.6 | | | | | | |
| PQL | | | | ⇓S | Sb | 21 04 03.1 | +1.4 |
| PQL | Pirkuli | 1.46 | 269 | P | Pn | 21 03 41.5 | -0.2 |
| | SNR=3.6 | | | | | | |
| IML | Ismayilli | 1.77 | 269 | ⇑P | Pn | 21 03 45.9 | +0.1 |
| | SNR=3.9 | | | | | | |
| IML | | | | ⇑S | Sn | 21 04 07.5 | -0.1 |
| IML | Ismayilli | 1.77 | 269 | P | Pn | 21 03 45.9 | +0.1 |
| | SNR=3.9 | | | | | | |
| IML | | | | S | Sn | 21 04 07.5 | -0.1 |
| QSAR | Qusar | 1.83 | 292 | ⇑P | Pn | 21 03 46.7 | +0.1 |
| | SNR=18 | | | | | | |
| QSAR | | | | ⇓S | Sb | 21 04 11.1 | -1.1 |
| QSAR | Qusar | 1.83 | 292 | P | Pn | 21 03 46.7 | +0.1 |
| | SNR=18 | | | | | | |
| QSAR | | | | S | Sb | 21 04 11.1 | -1.1 |
| XNQ | Khinaliq | 1.83 | 281 | ⇑P | Pn | 21 03 46.8 | 0.0 |
| | SNR=20 | | | | | | |
| XNQ | | | | ⇑S | Sn | 21 04 09.8 | +0.6 |
| XNQ | Khinaliq | 1.83 | 281 | P | Pn | 21 03 46.8 | 0.0 |
| | SNR=20 | | | | | | |
| XNQ | | | | S | Sn | 21 04 09.8 | +0.6 |
| QBL | Gabala | 2.03 | 274 | ⇓P | Pn | 21 03 49.0 | -0.4 |
| | SNR=8.0 | | | | | | |
| QBL | | | | ⇓S | Sn | 21 04 13.1 | -0.9 |
| QBL | Gabala | 2.03 | 274 | P | Pn | 21 03 49.0 | -0.4 |
| | SNR=8.0 | | | | | | |
| QBL | | | | S | Sn | 21 04 13.1 | -0.9 |
| SEKA | Sheki | 2.54 | 279 | ⇓P | Pn | 21 03 55.7 | -0.7 |
| | SNR=9.4 | | | | | | |
| SEKA | | | | ⇑S | Sn | 21 04 25.3 | -1.1 |
| SEKA | Sheki | 2.54 | 279 | P | Pn | 21 03 55.7 | -0.7 |
| | SNR=9.4 | | | | | | |
| SEKA | | | | S | Sn | 21 04 25.3 | -1.1 |
| AB31 | Akbulak array | 10.73 | 35 | Pn | Pn | 21 05 50.8 | +2.2 |
| | 1.1nm,0.8s,baz=206,slow=13,SNR=4.5 | | | | | | |
| AB31 | | | | ⇑Sn | Sn | 21 07 47.3 | -0.5 |
| | 0.3nm,0.3s,baz=223,slow=26,SNR=4.4 | | | | | | |
| AB31 | Akbulak array | 10.73 | 35 | Pn | Pn | 21 05 50.8 | +2.2 |
| | 1.1nm,0.8s,SNR=4.5 | | | | | | |
| AB31 | | | | Sn | Sn | 21 07 47.3 | -0.5 |
| | 0.3nm,0.3s,baz=223,SNR=4.4 | | | | | | |
| AKTO | Aktyubinsk | 10.93 | 26 | ⇑Pn | Pn | 21 05 52.2 | +0.8 |
| | 2.9nm,0.9s | | | | | | |
| AKTO | | | | ⇑Sn | Sn | 21 07 50.1 | -2.6 |
| | 3.6nm,0.8s | | | | | | |
| AKTO | Aktyubinsk | 10.93 | 26 | Pn | Pn | 21 05 52.2 | +0.8 |
| | 2.9nm,0.9s | | | | | | |

**IDC 01 21:26:42.2**±1.9**, 0°.89N×126°.07E, h0**km**, mb3.5**/3**, mb1 3.8**/3**, mb1mx3.4**/30**, mbtmp3.6**/3**, Error ellipse: s-maj=175.7km s-min=24.7km az=65.0, Northern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 22.24 | 159 | P | P | 21 31 39.4 | -1.3 |
| | 0.8nm,0.5s,baz=337,slow=12,SNR=11 | | | | | | |
| ASAR | Alice Springs | 25.57 | 163 | P | P | 21 32 14.2 | +1.0 |
| | 0.5nm,0.3s,baz=346,slow=11,SNR=9.8 | | | | | | |
| MKAR | Makanchi Array | 59.52 | 327 | P | P | 21 36 47.3 | -0.1 |
| | 1.2nm,1.1s,baz=121,slow=8.1,SNR=3.7 | | | | | | |

**IDC 01 21:29:37.5**±2.3**, 0°.84S×127°.76E, h0**km**, mb3.2**/3**, mb1 3.5**/3**, mb1mx3.3**/26**, mbtmp3.3**/3**, Error ellipse: s-maj=199.9km s-min=25.8km az=67.0, Halmahera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 20.04 | 162 | P | P | 21 34 12.8 | +0.4 |
| | 0.5nm,0.6s,baz=341,slow=11,SNR=3.7 | | | | | | |
| ASAR | Alice Springs | 23.46 | 166 | P | P | 21 34 48.6 | -0.3 |
| | 0.5nm,0.7s,baz=340,slow=8.9,SNR=5.8 | | | | | | |
| MKAR | Makanchi Array | 61.89 | 326 | P | P | 21 39 58.9 | 0.0 |
| | 0.3nm,0.6s,baz=118,slow=7.5,SNR=3.9 | | | | | | |

*ISCJB **01** 21:32:18.7±0.6, 20°.0S±0°.1×178°.4W±0°.1, h602km, mb3.8/13, Error ellipse: s-maj=16.8km s-min=9.9km az=136.0*
*IDC **01** 21:32:24.0±2.2, 19°.92S×178°.51W, h649km±27km, mb3.3/13, mb1 3.4/14, mb1mx3.3/27, mbtmp4.3/14, Error ellipse: s-maj=18.8km s-min=14.0km az=158.0*
**ISC 01 21:32:19.8**±0.7**, 19°.9S**±0°.1×**178°.3W**±0°.1**, h602**km**, n19, σ1.69**/21**, mb3.9**/13**, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AFI | Afiamalu | 8.62 | 48 | S | S | 21 36 05.8 | -2.4 |
| | 0.9nm,0.3s,baz=38,slow=21,SNR=3.2 | | | | | | |
| DZM | Mont Dzumac | 14.40 | 259 | P | P | 21 35 24.7 | +2.2 |
| | 0.5nm,0.3s,baz=83,slow=19,SNR=5.0 | | | | | | |
| URZ | Urewera | 18.75 | 191 | P | P | 21 35 59.3 | -2.6 |
| | 1.0nm,0.3s,baz=241,slow=6.0,SNR=3.6 | | | | | | |
| RPZ | Rata Peaks | 25.39 | 198 | P | P | 21 37 01.2 | +0.1 |
| | 4.5nm,0.4s,baz=318,slow=2.3,SNR=2.8 | | | | | | |
| PMG | Port Moresby | 34.91 | 282 | P | P | 21 38 23.6 | +0.6 |
| | 3.4nm,0.3s,baz=147,slow=3.4,SNR=4.6 | | | | | | |
| STKA | Stephens Creek | 37.79 | 243 | P | P | 21 38 46.7 | +0.3 |
| | 1.8nm,0.6s,baz=86,slow=11,SNR=3.9 | | | | | | |
| ASAR | Alice Springs | 44.37 | 256 | P | P | 21 39 38.6 | +0.1 |
| | 9.1nm,0.7s,baz=88,slow=8.3,SNR=109 | | | | | | |
| ASAR | | | | PcP | PcP | 21 41 08.1 | -0.9 |
| | 0.6nm,0.7s,baz=101,slow=4.8,SNR=2.8 | | | | | | |
| ASAR | | | | S | S | 21 45 27.5 | -3.0 |
| | 2.6nm,0.8s,baz=94,slow=15,SNR=18 | | | | | | |
| WRA | Warramunga Arr | 44.39 | 261 | P | P | 21 39 38.2 | -0.4 |
| | 4.8nm,0.5s,baz=97,slow=8.2,SNR=80 | | | | | | |
| WRA | | | | S | S | 21 45 27.1 | -3.8 |
| | 0.5nm,0.8s,baz=96,slow=14,SNR=4.3 | | | | | | |
| FITZ | Fitzroy Crossi | 52.81 | 262 | P | P | 21 40 40.5 | -0.3 |
| | 4.8nm,0.8s,baz=46,slow=4.0,SNR=20 | | | | | | |
| VNDA | Vanda | 58.51 | 185 | P | P | 21 41 19.7 | +0.6 |
| | 0.8nm,0.8s,baz=348,slow=6.8,SNR=5.2 | | | | | | |
| MJAR | Matsushiro Arr | 69.52 | 324 | P | P | 21 42 29.1 | -0.3 |
| | 1.2nm,0.6s,baz=162,slow=5.1,SNR=4.5 | | | | | | |
| USRK | Ussuriysk Ar. | 78.27 | 326 | P | P | 21 43 20.1 | +1.6 |
| | 2.6nm,0.8s,baz=157,slow=6.2,SNR=4.1 | | | | | | |
| MAW | Mawson | 82.05 | 200 | P | P | 21 43 38.4 | +0.6 |
| | 1.2nm,0.3s,baz=45,slow=4.3,SNR=6.6 | | | | | | |
| TXAR | Lajitas Array | 86.97 | 57 | P | P | 21 44 04.2 | +1.6 |
| | 0.6nm,0.9s,baz=228,slow=4.9,SNR=5.0 | | | | | | |
| ILAR | Eielson Array | 87.77 | 13 | P | P | 21 44 04.4 | -0.9 |
| | 0.4nm,0.6s,baz=211,slow=5.8,SNR=6.7 | | | | | | |
| CMAR | Chiang Mai Arr | 89.62 | 290 | P | P | 21 44 15.7 | +0.7 |
| | 0.6nm,0.3s,baz=116,slow=2.5,SNR=7.2 | | | | | | |
| AKASG | Malin Array Be | 142.32 | 331 | PKhKP | PKPpre | 21 50 40.6 | |
| | 1.9nm,0.6s,baz=42,slow=4.7,SNR=12 | | | | | | |
| BRTR | Keskin Array B | 146.19 | 313 | PKPbc | PKPdf | 21 50 52.2 | +0.3 |
| | 0.7nm,0.5s,baz=114,slow=4.2,SNR=4.3 | | | | | | |
| GERES | GERESS Array B | 149.51 | 344 | PKPbc | PKPbc | 21 51 01.2 | -1.0 |
| | 0.9nm,0.8s,baz=48,slow=2.0,SNR=4.5 | | | | | | |

*ISCJB **01** 21:35:06.7±1.7, 32°.21N±0°.03×40°.34W±0°.02, h1km±10km, mb5.1/286, MS4.7/47, Error ellipse: s-maj=5.7km s-min=2.1km az=176.5*
*IDC **01** 21:35:07.6±0.4, 32°.18N×40°.39W, h0km, mb4.7/31, mb1 4.8/31, mb1mx4.8/37, mbtmp4.7/31, MS4.6/32, Ms1 4.6/32, ms1mx4.6/34, Error ellipse: s-maj=12.6km s-min=10.7km az=136.0*
*BJI **01** 21:35:07.8, 31°.97N×39°.59W, h6km, mb4.8/11, mB5.6/6, Ms5.4/12, Ms7 5.2/13*
*MOS **01** 21:35:08.2±1.0, 32°.22N×40°.35W, h11km, mb5.3/89, MS4.7/22, Error ellipse: s-maj=6.7km s-min=4.4km az=135.0*
*NEIC **01** 21:35:09.7±0.2, 32°.18N×40°.30W, h10km, mb5.2/210, Error ellipse: s-maj=4.9km s-min=2.8km az=173.0*
*GCMT **01** 21:35:09.7±0.2, 32°.20N×40°.35W, h12km, MW5.4/133, Moment Tensor Solution. s50,c59; s133,c227; Duration: 1.2 Moment tensor: Scale $10^{17}$Nm; $M_{rr}$-1.40±.02; $M_{\theta\theta}$0.40±.03; $M_{\phi\phi}$1.00±.02; $M_{r\theta}$0.01±.10; $M_{\theta\phi}$0.58±.02; $M_{\phi r}$-0.22±.08; Best double couple: $M_0$1.39500×$10^{17}$ NP1:$\phi_s$27.00000°, δ49.00000°, λ-96.00000°. NP2:$\phi_s$216.00000°, δ41.00000°, λ-83.00000°. Principal axes: T 1.3680, Plg4.0000°, Azm121.0000°; N 0.0570, Plg5.0000°, Azm31.0000°; P -1.4230, Plg84.0000°, Azm250.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
**ISC 01 21:35:10.0**±0.5**, 32°.18N**±0°.06×**40°.35W**±0°.04**, h12**km±2km**, h12**km**:pP-P, n874, σ1.20**/888**, mb5.2**/290**, MS4.8**/47**, 30C-21D, Northern Mid-Atlantic Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PMOZ | Porto Moniz, M | 19.54 | 82 | eLR | LR | 21 44 00.5 | |
| | 2μm,20.0s | | | | | | |
| PMAR | Madeira | 19.78 | 82 | eP | Pn | 21 39 41.2 | -0.6 |
| | 187nm,1.9s | | | | | | |
| PMPS | Porto Santo | 20.24 | 81 | eP | Pn | 21 39 46.4 | -0.7 |
| | 264nm,1.8s | | | | | | |
| LMN | Caledonia Moun | 23.29 | 313 | eP | P | 21 40 17.3 | -0.2 |
| | 148nm,1.7s | | | | | | |
| ANWB | Willy Bob | 24.15 | 238 | eP | P | 21 40 27.8 | +1.7 |
| | 241nm,1.8s | | | | | | |
| GGN | Saint George | 24.27 | 310 | eP | P | 21 40 27.2 | +0.3 |
| | 131nm,1.7s | | | | | | |
| EMMW | East Machias | 24.52 | 308 | eP | P | 21 40 31.6 | +2.4 |
| | 177nm,1.8s | | | | | | |
| SMRT | St. Maarten | 24.85 | 241 | eP | P | 21 40 33.3 | +0.8 |
| | 100nm,1.3s | | | | | | |
| GDHS | Morne Mazeau, | 25.07 | 236 | eP | P | 21 40 36.6 | +2.1 |
| | 117nm,1.2s | | | | | | |
| SEUS | St. Eustatius | 25.14 | 240 | eP | P | 21 40 36.3 | +1.3 |
| | 103nm,0.8s | | | | | | |
| SABA | Saba | 25.25 | 240 | eP | P | 21 40 36.9 | +0.8 |
| | 213nm,1.5s | | | | | | |
| ABVI | Anegada Island | 25.39 | 244 | eP | P | 21 40 40.1 | +2.8 |
| | 144nm,1.1s | | | | | | |
| PQI | Presque Isle | 25.65 | 312 | eP | P | 21 40 40.8 | +1.4 |
| | 197nm,1.7s | | | | | | |
| FDF | Fort de France | 25.72 | 232 | eP | P | 21 40 41.2 | +0.8 |
| FDF | | | | pmax | pmax | | |
| | comp=Z,121nm,1.1s | | | | | | |
| FDF | Fort de France | 25.72 | 232 | eP | P | 21 40 41.2 | +0.8 |
| | comp=Z,121nm,1.1s | | | | | | |
| STVI | Saint Thomas | 26.08 | 244 | eP | P | 21 40 42.8 | -0.8 |
| PFVI | Vila Bisbo | 26.33 | 70 | eP | P | 21 40 47.0 | +1.3 |
| | comp=Z,91nm,1.3s | | | | | | |
| PTEO | Sao Teotonio | 26.42 | 69 | eP | P | 21 40 47.9 | +1.3 |
| | comp=Z,112nm,1.7s | | | | | | |
| MORF | Marmelete | 26.47 | 70 | eP | P | 21 40 47.2 | +0.1 |
| MORF | | | | AMb | AMB | 21 40 56.1 | |
| | comp=Z,60nm,1.6s | | | | | | |
| MORF | | | | eS | S | 21 45 22.0 | +1.1 |
| MORF | Marmelete | 26.47 | 70 | eP | P | 21 40 47.2 | +0.1 |
| MORF | | | | eS | S | 21 45 21.9 | +1.1 |
| MORF | | | | pmax | pmax | | |
| | comp=Z,60nm,1.6s | | | | | | |
| MORF | Marmelete | 26.47 | 70 | eP | P | 21 40 47.3 | +0.1 |
| | comp=Z,60nm,1.5s | | | | | | |
| PNCL | Nicolau / Gran | 26.60 | 68 | eP | P | 21 40 48.8 | +0.6 |
| | comp=Z,52nm,1.8s | | | | | | |
| MTP | Monte Pirata | 26.69 | 244 | eP | P | 21 40 48.1 | -1.1 |
| | comp=Z,112nm,1.4s | | | | | | |
| MESJ | Messejana | 26.84 | 69 | eP | P | 21 40 50.3 | 0.0 |
| MESJ | | | | AMb | AMB | 21 40 56.6 | |
| | comp=Z,70nm,0.9s | | | | | | |
| MESJ | | | | eS | S | 21 45 27.5 | +1.0 |
| MESJ | Messejana | 26.84 | 69 | eP | P | 21 40 50.3 | 0.0 |
| MESJ | | | | eS | S | 21 45 27.4 | +1.0 |
| MESJ | | | | pmax | pmax | | |
| | comp=Z,70nm,0.9s | | | | | | |
| HUMP | Col San Antoni | 26.89 | 245 | eP | P | 21 40 52.7 | +1.8 |
| | comp=Z,30nm,1.1s | | | | | | |
| PCVE | Castro Verde | 26.97 | 69 | eP | P | 21 40 52.8 | +1.3 |
| | comp=Z,51nm,1.6s | | | | | | |
| PBDV | Barranco-do-Ve | 27.05 | 70 | eP | P | 21 40 53.4 | +1.1 |
| | comp=Z,62nm,1.9s | | | | | | |
| PBEJ | Beja | 27.12 | 68 | eP | P | 21 40 53.4 | +0.5 |
| | comp=Z,32nm,1.6s | | | | | | |
| SJG | San Juan | 27.14 | 245 | P | P | 21 40 53.9 | +0.7 |
| | comp=Z,8.6nm,0.7s,baz=33,slow=9.8,SNR=5.2 | | | | | | |
| SJG | | | | LR | LR | 21 49 17.3 | |
| | comp=Z,947nm,21.9s,baz=64,slow=31 | | | | | | |
| SJG | San Juan | 27.14 | 245 | eP | P | 21 40 52.3 | -0.9 |
| SJG | | | | pmax | pmax | | |
| | comp=Z,48nm,1.2s | | | | | | |
| SJG | San Juan | 27.14 | 245 | eP | P | 21 40 52.3 | -0.9 |
| | comp=Z,48nm,1.2s | | | | | | |
| PVAQ | Vaqueiros | 27.22 | 70 | eP | P | 21 40 54.8 | +1.0 |
| | comp=Z,31nm,1.7s | | | | | | |
| PVAQ | | | | eLR | LR | 21 47 33.9 | |
| | comp=Z,3μm,20.0s | | | | | | |
| PGAV | Gavieira, Arco | 27.26 | 60 | eLR | LR | 21 47 44.6 | |
| | comp=Z,2μm,18.0s | | | | | | |
| QUA2 | Belchertown | 27.27 | 301 | eP | P | 21 40 53.6 | -0.5 |
| | comp=Z,153nm,1.9s | | | | | | |
| PESTR | Estremoz | 27.39 | 67 | eP | P | 21 40 55.9 | +0.6 |
| | comp=Z,42nm,1.9s | | | | | | |
| MTE | Manteigas | 27.57 | 63 | eLR | LR | 21 47 14.7 | |
| | comp=Z,1μm,20.0s | | | | | | |
| PMRV | Marv??o | 27.58 | 65 | eP | P | 21 40 55.6 | -1.5 |
| | comp=Z,47nm,1.5s | | | | | | |
| PMRV | | | | eLR | LR | 21 47 53.8 | |
| | comp=Z,818nm,22.0s | | | | | | |
| PBAR | Barrancos | 27.78 | 68 | eP | P | 21 40 59.7 | +0.9 |
| | comp=Z,80nm,1.9s | | | | | | |
| BBTS | Babate | 27.85 | 123 | LR | LR | 21 50 03.0 | |
| | comp=Z,4μm,18.4s,baz=324,slow=32 | | | | | | |
| MVO | Moncorvo | 28.05 | 62 | eLR | LR | 21 48 05.8 | |
| | comp=Z,1μm,18.0s | | | | | | |
| SCHQ | Schefferville | 29.38 | 328 | LR | LR | 21 52 00.2 | |
| | comp=Z,5μm,20.5s,baz=138,slow=34 | | | | | | |
| N59A | State Game Lan | 29.60 | 297 | P | P | 21 41 14.5 | -0.5 |
| | baz=96 | | | | | | |
| PAB | San Pablo | 29.94 | 66 | eP | P | 21 41 16.7 | -1.4 |
| PAB | | | | pmax | pmax | | |
| | comp=Z,13nm,0.9s | | | | | | |
| PAB | San Pablo | 29.94 | 66 | eP | P | 21 41 16.7 | -1.4 |
| | comp=Z,13nm,0.9s | | | | | | |
| MDT | Midelt | 30.06 | 79 | LR | LR | 21 50 38.6 | |
| | comp=Z,3μm,20.7s,baz=290,slow=31 | | | | | | |
| ESDC | Sonseca Array | 30.25 | 65 | P | P | 21 41 20.3 | -0.5 |
| | comp=Z,3.6nm,0.9s,baz=267,slow=8.3,SNR=12 | | | | | | |
| ESDC | | | | LR | LR | 21 51 39.8 | |
| | comp=Z,511nm,18.3s,baz=245,slow=33 | | | | | | |
| ESLA | Sonseca Array | 30.25 | 65 | eP | P | 21 41 18.1 | -2.7 |
| | comp=Z,51nm,1.8s | | | | | | |
| ES19 | SONSECA Array | 30.30 | 65 | eP | P | 21 41 20.4 | -0.8 |
| SDDR | Presa de Saban | 30.72 | 252 | eP | P | 21 41 27.5 | +2.4 |
| | comp=Z,36nm,1.2s | | | | | | |
| SPFD | Spotsylvania F | 30.82 | 292 | eP | P | 21 41 24.7 | -1.1 |
| | comp=Z,62nm,1.4s | | | | | | |
| URVA | University of | 30.84 | 290 | eP | P | 21 41 24.0 | -2.0 |
| PTRD | Partlow Road | 30.90 | 292 | eP | P | 21 41 25.0 | -1.5 |
| | comp=Z,29nm,1.0s | | | | | | |
| IP05 | Hopewell Churc | 31.01 | 291 | eP | P | 21 41 27.3 | -0.2 |
| | comp=Z,43nm,1.4s | | | | | | |
| CVRD | Centerville Ro | 31.05 | 291 | eP | P | 21 41 28.5 | +0.8 |
| | comp=Z,87nm,1.8s | | | | | | |
| SPRD | Spring Road, M | 31.11 | 291 | eP | P | 21 41 24.1 | -4.2 |
| | comp=Z,14nm,0.6s | | | | | | |
| IP01 | Cuckoo | 31.13 | 291 | eP | P | 21 41 29.7 | +1.2 |
| | comp=Z,14nm,0.7s | | | | | | |
| SSPA | Standing Stone | 31.18 | 296 | eP | P | 21 41 27.4 | -1.5 |
| | comp=Z,47nm,1.6s | | | | | | |
| IP06 | Yanceyville | 31.19 | 291 | eP | P | 21 41 30.9 | +1.9 |
| | comp=Z,20nm,1.1s | | | | | | |
| IP03 | Louisa | 31.21 | 291 | eP | P | 21 41 30.0 | +0.7 |
| | comp=Z,39nm,1.5s | | | | | | |
| O56A | Blue Knob Stat | 31.68 | 296 | P | P | 21 41 33.0 | -0.4 |
| | baz=92 | | | | | | |
| CART | Cartagena | 32.56 | 69 | eP | P | 21 41 39.5 | -1.6 |
| | comp=Z,39nm,1.1s | | | | | | |
| M54A | Oil Creek Stat | 32.58 | 298 | P | P | 21 41 41.3 | +0.1 |
| | baz=94 | | | | | | |
| N54A | Moraine State | 32.79 | 297 | P | P | 21 41 43.5 | +0.4 |
| | baz=93 | | | | | | |
| VWCC | Virginia Weste | 32.80 | 290 | eP | P | 21 41 42.9 | -0.3 |
| KMSC | Kings Mountain | 34.07 | 286 | P | P | 21 41 55.6 | +1.2 |
| | baz=83 | | | | | | |
| JSC | Jenkinsville | 34.13 | 285 | eP | P | 21 41 54.9 | +0.1 |
| JSC | | | | pmax | pmax | | |
| | comp=Z,31nm,1.4s | | | | | | |
| JSC | Jenkinsville | 34.13 | 285 | eP | P | 21 41 54.9 | +0.1 |
| | comp=Z,31nm,1.4s | | | | | | |
| ACSO | Alum Creek Sta | 35.06 | 295 | eP | P | 21 42 02.5 | -0.3 |
| | comp=Z,30nm,0.8s | | | | | | |
| SFJD | Kangerlussuaq | 35.39 | 353 | P | P | 21 42 04.6 | -0.6 |
| | comp=Z,8.6nm,0.8s,baz=63,slow=4.5,SNR=3.1 | | | | | | |
| SFJD | | | | LR | LR | 21 53 36.8 | |
| | comp=Z,586nm,18.4s,baz=172,slow=31 | | | | | | |
| TKL | Tuckaleechee C | 35.99 | 288 | eP | P | 21 42 11.5 | +0.6 |
| TKL | | | | pmax | pmax | | |
| | comp=Z,28nm,1.3s | | | | | | |
| TKL | Tuckaleechee C | 35.99 | 288 | eP | P | 21 42 11.5 | +0.6 |
| | comp=Z,28nm,1.3s | | | | | | |
| GOGA | Godfrey | 36.08 | 284 | eP | P | 21 42 11.8 | +0.2 |
| GOGA | | | | pmax | pmax | | |
| | comp=Z,49nm,1.6s | | | | | | |
| GOGA | Godfrey | 36.08 | 284 | eP | P | 21 42 11.8 | +0.2 |
| | comp=Z,49nm,1.6s | | | | | | |
| FRB | Frobisher Bay | 36.19 | 339 | P | P | 21 42 10.6 | -1.6 |
| | comp=Z,24nm,0.9s,baz=294,slow=6.6,SNR=5.8 | | | | | | |
| SDV | Santo Domingo | 36.39 | 237 | eP | P | 21 42 15.6 | +0.9 |
| | comp=Z,57nm,1.0s | | | | | | |
| F46A | Macinaw City C | 36.63 | 305 | P | P | 21 42 16.8 | +0.6 |
| | baz=96 | | | | | | |
| KOWA | Kowa | 37.48 | 109 | eP | P | 21 42 22.9 | -0.9 |
| | comp=Z,24nm,0.9s | | | | | | |
| O47A | Sheridan | 37.50 | 296 | P | P | 21 42 23.8 | +0.2 |
| | baz=88 | | | | | | |
| E44A | Grand Marais A | 37.52 | 306 | P | P | 21 42 23.7 | -0.1 |
| | baz=96 | | | | | | |
| M46A | Old House Fiel | 37.60 | 298 | P | P | 21 42 25.2 | +0.7 |
| | baz=89 | | | | | | |
| P47A | Martinsville | 37.61 | 294 | P | P | 21 42 24.9 | +0.3 |
| | baz=86 | | | | | | |
| PTGA | Pitinga | 37.62 | 213 | P | P | 21 42 24.3 | -0.6 |
| | comp=Z,15nm,0.9s,baz=24,slow=11,SNR=21 | | | | | | |
| PTGA | Pitinga | 37.62 | 213 | eP | P | 21 42 24.7 | -0.2 |
| | comp=Z,57nm,1.3s | | | | | | |
| Q47A | Bedord North L | 37.77 | 293 | P | P | 21 42 26.2 | +0.3 |
| | baz=86 | | | | | | |
| F44A | Big Bay de Noc | 37.81 | 305 | P | P | 21 42 26.2 | 0.0 |
| | baz=95 | | | | | | |
| N46A | Monticello | 37.90 | 297 | P | P | 21 42 27.6 | +0.5 |
| | baz=88 | | | | | | |
| SFIN | Lafayette | 38.20 | 296 | P | P | 21 42 30.0 | +0.5 |
| | baz=87 | | | | | | |
| SFIN | Lafayette | 38.20 | 296 | eP | P | 21 42 29.8 | +0.3 |
| | comp=Z,70nm,1.3s | | | | | | |
| E43A | Lone Tree Farm | 38.24 | 306 | P | P | 21 42 30.4 | +0.6 |
| | baz=95 | | | | | | |
| M45A | Boilermakers S | 38.28 | 298 | P | P | 21 42 30.2 | 0.0 |
| | baz=88 | | | | | | |
| F43A | Flat Rock, Esc | 38.31 | 305 | P | P | 21 42 31.2 | +0.8 |
| | baz=94 | | | | | | |
| P46A | Rosedale | 38.33 | 295 | P | P | 21 42 30.2 | -0.5 |
| | baz=86 | | | | | | |
| BNI | Bardonecchia | 38.41 | 57 | eP | P | 21 42 33.4 | +1.9 |
| BNI | | | | pmax | pmax | | |
| | comp=Z,92nm,1.8s | | | | | | |
| BNI | Bardonecchia | 38.41 | 57 | eP | P | 21 42 33.4 | +1.9 |
| | comp=Z,92nm,1.8s | | | | | | |
| N45A | Kentland | 38.49 | 297 | P | P | 21 42 30.6 | -1.4 |
| | baz=88 | | | | | | |
| G43A | Wallace | 38.64 | 304 | P | P | 21 42 33.3 | +0.1 |
| | baz=93 | | | | | | |
| H43A | Windswept, Lux | 38.67 | 302 | P | P | 21 42 32.9 | -0.5 |
| | baz=92 | | | | | | |
| R46A | Gibon Southern | 38.68 | 292 | P | P | 21 42 33.1 | -0.5 |
| | baz=84 | | | | | | |
| O45A | Potomac | 38.68 | 296 | P | P | 21 42 33.3 | -0.4 |
| | baz=87 | | | | | | |
| P45A | Graceland, Par | 38.75 | 295 | P | P | 21 42 34.3 | +0.2 |
| | baz=86 | | | | | | |
| L44A | Lake County Fo | 38.75 | 299 | P | P | 21 42 33.7 | -0.5 |
| | baz=89 | | | | | | |
| USIN | University of | 38.83 | 292 | eP | P | 21 42 34.5 | -0.3 |
| | comp=Z,50nm,1.4s | | | | | | |
| USIN | | | | eS | S | 21 48 32.5 | +0.1 |
| M44A | Midewin, Midew | 38.87 | 298 | P | P | 21 42 34.2 | -1.0 |
| | baz=88 | | | | | | |
| E42A | Champion | 38.88 | 306 | P | P | 21 42 32.7 | -2.5 |
| | baz=94 | | | | | | |
| S46A | Don Dixon Farm | 38.90 | 292 | P | P | 21 42 35.5 | +0.1 |
| | baz=84 | | | | | | |
| SENIN | Lac Senin/Sane | 38.93 | 55 | eP | P | 21 42 35.8 | -0.1 |
| | comp=Z,9.2nm,1.1s | | | | | | |
| PAMC | Pamplona, Colo | 38.93 | 238 | eP | P | 21 42 33.3 | -3.2 |

| Sta | Name / comment | Dist | Az | Phase | Phase | Time | Res |
|---|---|---|---|---|---|---|---|
| N44A | Piper City | 38.97 | 297 | P | P | 21 42 35.8 | -0.1 |
| | baz=87 | | | | | | |
| OLIL | Olney | 39.09 | 293 | eP | P | 21 42 37.2 | +0.2 |
| | comp=Z,200nm,2.0s | | | | | | |
| Q45A | Warren Harvey, | 39.12 | 294 | P | P | 21 42 37.5 | +0.3 |
| | baz=85 | | | | | | |
| G42A | Mountain | 39.16 | 304 | P | P | 21 42 38.3 | +0.7 |
| | baz=92 | | | | | | |
| O44A | Mansfield | 39.26 | 296 | P | P | 21 42 38.9 | +0.5 |
| | baz=86 | | | | | | |
| R45A | Skylar, Fairfi | 39.27 | 293 | P | P | 21 42 38.7 | +0.1 |
| | baz=84 | | | | | | |
| L43A | Garden Prairie | 39.37 | 299 | P | P | 21 42 39.6 | +0.3 |
| | baz=88 | | | | | | |
| P44A | Sand Creek, Wi | 39.43 | 295 | P | P | 21 42 39.2 | -0.7 |
| | baz=85 | | | | | | |
| M43A | Waltham Townsh | 39.56 | 298 | P | P | 21 42 40.8 | -0.2 |
| | baz=87 | | | | | | |
| S45A | Carrier Mills | 39.58 | 292 | P | P | 21 42 41.1 | -0.1 |
| | baz=83 | | | | | | |
| E41A | Kenton | 39.60 | 306 | P | P | 21 42 40.5 | -0.8 |
| | baz=94 | | | | | | |
| J42A | Columbus | 39.63 | 301 | P | P | 21 42 41.3 | -0.3 |
| | baz=90 | | | | | | |
| F41A | Three Lakes | 39.66 | 304 | P | P | 21 42 41.4 | -0.4 |
| | baz=92 | | | | | | |
| N43A | Stutzman Famil | 39.75 | 297 | P | P | 21 42 42.4 | -0.1 |
| | baz=87 | | | | | | |
| Q44A | Meyer Farm, Va | 39.78 | 294 | P | P | 21 42 42.7 | -0.2 |
| | baz=84 | | | | | | |
| BFO | Black Forest | 39.80 | 52 | eP | P | 21 42 42.6 | -0.3 |
| BFO | | | | pmax | pmax | | |
| | comp=Z,54nm,1.5s | | | | | | |
| BFO | Black Forest | 39.80 | 52 | eP | P | 21 42 42.6 | -0.3 |
| | comp=Z,54nm,1.5s | | | | | | |
| K42A | Prairie Point, | 39.80 | 300 | P | P | 21 42 43.0 | 0.0 |
| | baz=89 | | | | | | |
| HDIL | Hopedale | 39.86 | 296 | P | P | 21 42 43.9 | +0.4 |
| | baz=86 | | | | | | |
| HDIL | Hopedale | 39.86 | 296 | eP | P | 21 42 43.6 | +0.2 |
| | comp=Z,48nm,1.4s | | | | | | |
| O43A | Sugar Creek Fa | 39.90 | 296 | P | P | 21 42 43.2 | -0.6 |
| | baz=86 | | | | | | |
| Z47A | Carrollton | 39.90 | 285 | P | P | 21 42 43.9 | 0.0 |
| | baz=78 | | | | | | |
| R44A | Waltonville | 39.90 | 293 | P | P | 21 42 43.9 | 0.0 |
| | baz=84 | | | | | | |
| H41A | Junction City | 40.02 | 303 | P | P | 21 42 45.4 | +0.6 |
| | baz=91 | | | | | | |
| L42A | Oliver, Polo | 40.06 | 299 | P | P | 21 42 45.3 | +0.1 |
| | baz=88 | | | | | | |
| SIUC | Southern Illin | 40.08 | 292 | eP | P | 21 42 46.0 | +0.7 |
| | comp=Z,37nm,0.9s | | | | | | |
| P43A | Skaggs, Pawnee | 40.11 | 295 | P | P | 21 42 45.4 | -0.1 |
| | baz=85 | | | | | | |
| S44A | Carbondale | 40.11 | 292 | P | P | 21 42 45.9 | +0.3 |
| | baz=83 | | | | | | |
| V45A | Humboldt | 40.15 | 289 | P | P | 21 42 45.1 | -0.9 |
| | baz=81 | | | | | | |
| M42A | Sheffield | 40.16 | 298 | P | P | 21 42 46.3 | +0.4 |
| | baz=87 | | | | | | |
| 147A | Livingston | 40.18 | 284 | P | P | 21 42 45.5 | -0.7 |
| | baz=77 | | | | | | |
| RUSC | La Rusia | 40.21 | 236 | eP | P | 21 42 39.4 | -7.7 |
| RUSC | La Rusia | 40.21 | 236 | eP | P | 21 42 47.1 | -0.1 |
| | comp=Z,7.2nm,1.0s | | | | | | |
| E40A | Wakefield | 40.25 | 305 | P | P | 21 42 46.0 | -0.6 |
| | baz=93 | | | | | | |
| J41A | Loganville | 40.28 | 301 | P | P | 21 42 46.5 | -0.4 |
| | baz=89 | | | | | | |
| Q43A | New Douglas | 40.31 | 294 | P | P | 21 42 47.0 | -0.2 |
| | baz=84 | | | | | | |
| TUE | Stuetta | 40.35 | 54 | eP | P | 21 42 48.0 | +0.3 |
| | comp=Z,126nm,2.0s | | | | | | |
| U44B | Burton Farm, H | 40.37 | 290 | P | P | 21 42 47.7 | -0.1 |
| | baz=81 | | | | | | |
| F40A | Park Falls | 40.38 | 305 | P | P | 21 42 48.0 | +0.3 |
| | baz=92 | | | | | | |
| N42A | Yates City | 40.40 | 297 | P | P | 21 42 47.9 | -0.1 |
| | baz=86 | | | | | | |
| Y46A | Houston | 40.41 | 286 | P | P | 21 42 48.1 | 0.0 |
| | baz=78 | | | | | | |
| G40A | Rib Lake | 40.42 | 304 | P | P | 21 42 47.5 | -0.6 |
| | baz=91 | | | | | | |
| W45A | Hickory Valley | 40.43 | 288 | P | P | 21 42 48.4 | +0.1 |
| | baz=80 | | | | | | |
| O42A | Bath | 40.49 | 296 | P | P | 21 42 49.1 | +0.4 |
| | baz=85 | | | | | | |
| K41A | Shullsburg | 40.51 | 300 | P | P | 21 42 48.7 | -0.2 |
| | baz=88 | | | | | | |
| H40A | Chili | 40.54 | 303 | P | P | 21 42 48.9 | -0.2 |
| | baz=90 | | | | | | |
| VSL | Villasalto | 40.55 | 65 | eP | P | 21 42 49.2 | +0.1 |
| | comp=Z,20nm,1.1s | | | | | | |
| R43A | Red Bud | 40.57 | 293 | P | P | 21 42 49.2 | -0.1 |
| | baz=83 | | | | | | |
| 247A | Quitman | 40.60 | 283 | P | P | 21 42 50.1 | +0.4 |
| | baz=76 | | | | | | |
| L41A | Preston | 40.68 | 299 | P | P | 21 42 50.5 | +0.2 |
| | baz=87 | | | | | | |
| 347A | Saraland | 40.70 | 282 | P | P | 21 42 51.4 | +0.9 |
| | baz=76 | | | | | | |
| E39A | Mellen | 40.70 | 305 | P | P | 21 42 50.5 | +0.2 |
| | baz=92 | | | | | | |
| OXF | Oxford | 40.73 | 287 | eP | P | 21 42 52.3 | +1.5 |
| OXF | | | | pmax | pmax | | |
| | comp=Z,51nm,0.9s | | | | | | |
| OXF | Oxford | 40.73 | 287 | eP | P | 21 42 52.3 | +1.5 |
| | comp=Z,51nm,0.9s | | | | | | |
| P42A | Winchester | 40.74 | 295 | P | P | 21 42 50.7 | -0.1 |
| | baz=84 | | | | | | |
| M41A | Milan | 40.75 | 298 | P | P | 21 42 52.2 | +1.4 |
| | baz=86 | | | | | | |
| DAVA | Damuels | 40.76 | 53 | i pP | P | 21 42 51.4 | +0.4 |
| | comp=Z,28nm,1.6s | | | | | | |
| SLM | Saint Louis | 40.76 | 293 | eP | P | 21 42 50.2 | -0.8 |
| SLM | | | | pmax | pmax | | |
| | comp=Z,33nm,0.9s | | | | | | |
| SLM | Saint Louis | 40.76 | 293 | eP | P | 21 42 50.2 | -0.8 |
| | comp=Z,33nm,0.9s | | | | | | |
| S43A | Fulton Ridge, | 40.77 | 292 | P | P | 21 42 51.1 | +0.1 |
| | baz=82 | | | | | | |
| J40A | Soldiers Grove | 40.81 | 301 | P | P | 21 42 51.7 | +0.4 |
| | baz=88 | | | | | | |
| F39A | Loretta | 40.94 | 305 | P | P | 21 42 52.7 | +0.4 |
| | baz=91 | | | | | | |
| Q42A | Golden Eagle | 40.96 | 294 | P | P | 21 42 52.5 | -0.1 |
| | baz=84 | | | | | | |
| GNAR | Gosnell | 40.97 | 289 | eP | P | 21 42 53.7 | +1.1 |
| | comp=Z,195nm,1.3s | | | | | | |
| Y45A | Yeager Farm, C | 40.97 | 286 | P | P | 21 42 53.6 | +0.9 |
| | baz=78 | | | | | | |
| FUORN | Ofenpass-Fuorn | 40.99 | 54 | eP | P | 21 42 52.4 | -0.6 |
| | comp=Z,18nm,1.2s | | | | | | |
| FVM | French Village | 40.99 | 292 | eP | P | 21 42 53.0 | +0.1 |
| FVM | | | | pmax | pmax | | |
| | comp=Z,29nm,0.9s | | | | | | |
| FVM | French Village | 40.99 | 292 | eP | P | 21 42 53.0 | +0.1 |
| | comp=Z,29nm,0.9s | | | | | | |
| T43A | Greenville | 41.01 | 291 | P | P | 21 42 53.0 | 0.0 |
| | baz=82 | | | | | | |
| KEST | Kesra | 41.02 | 71 | P | P | 21 42 53.5 | +0.2 |
| | comp=Z,19nm,0.9s,baz=257,slow=4.1,SNR=20 | | | | | | |
| KEST | | | | LR | LR | 21 57 07.5 | |
| | comp=Z,670nm,21.7s,baz=230,slow=32 | | | | | | |
| KEST | Kesra | 41.02 | 71 | eP | P | 21 42 54.1 | +0.9 |
| | comp=Z,36nm,1.1s | | | | | | |
| N41A | Harden Midland | 41.03 | 297 | P | P | 21 42 54.1 | +0.9 |
| | baz=85 | | | | | | |
| G39A | Holcombe | 41.10 | 304 | P | P | 21 42 54.0 | +0.3 |
| | baz=90 | | | | | | |
| K40A | Colesburg | 41.12 | 300 | P | P | 21 42 53.9 | 0.0 |
| | baz=88 | | | | | | |
| PBMO | Poplar Bluff | 41.16 | 291 | eP | P | 21 42 54.2 | -0.1 |
| | comp=Z,44nm,1.3s | | | | | | |
| L40A | Anamosa | 41.22 | 299 | P | P | 21 42 55.4 | +0.7 |
| | baz=87 | | | | | | |
| R42A | Luebbering | 41.24 | 293 | P | P | 21 42 55.1 | +0.2 |
| | baz=83 | | | | | | |
| C38A | Sawbill Land. | 41.25 | 307 | P | P | 21 42 54.6 | -0.3 |
| | baz=93 | | | | | | |
| P41A | Barry, Barry | 41.29 | 295 | P | P | 21 42 54.2 | -1.1 |
| | baz=84 | | | | | | |
| S42A | Caledonia | 41.31 | 292 | P | P | 21 42 55.0 | -0.4 |
| | baz=82,SNR=9.3 | | | | | | |
| FETA | Feichten | 41.32 | 54 | i pP | P | 21 42 56.1 | +0.5 |
| | comp=Z,12nm,1.0s | | | | | | |
| X44A | Crenshaw | 41.33 | 287 | P | P | 21 42 55.7 | 0.0 |
| | baz=79 | | | | | | |
| RETA | Reutte | 41.37 | 53 | i P | P | 21 42 56.2 | +0.3 |
| | comp=Z,41nm,1.7s | | | | | | |
| I39A | Houston | 41.37 | 301 | P | P | 21 42 55.7 | -0.2 |
| | baz=88 | | | | | | |
| E38A | The Farm, Brul | 41.39 | 306 | P | P | 21 42 56.0 | -0.1 |
| | baz=92 | | | | | | |
| EYMN | Ely | 41.41 | 308 | P | P | 21 42 55.7 | -0.6 |
| | baz=93 | | | | | | |
| EYMN | Ely | 41.41 | 308 | eP | P | 21 42 56.6 | +0.4 |
| | comp=Z,20nm,1.0s | | | | | | |
| 346A | Big Creek Wild | 41.47 | 282 | P | P | 21 42 56.8 | 0.0 |
| | baz=75 | | | | | | |
| M40A | Post Highland | 41.48 | 298 | P | P | 21 42 56.7 | -0.1 |
| | baz=86 | | | | | | |
| TAM | Tamanrasset | 41.49 | 91 | eP | P | 21 42 57.0 | -0.3 |
| TAM | | | | pmax | pmax | | |
| | comp=Z,38nm,1.4s | | | | | | |
| TAM | Tamanrasset | 41.49 | 91 | eP | P | 21 42 57.0 | -0.3 |
| | comp=Z,38nm,1.4s | | | | | | |
| Q41A | Truxton | 41.50 | 294 | P | P | 21 42 57.1 | +0.1 |
| | baz=83 | | | | | | |
| J39A | Decorah | 41.52 | 301 | P | P | 21 42 57.2 | +0.1 |
| | baz=88 | | | | | | |
| 446A | Poplarville | 41.53 | 282 | P | P | 21 42 57.8 | +0.4 |
| | baz=75 | | | | | | |
| HBAR | Harrisburg | 41.55 | 289 | eP | P | 21 42 58.0 | +0.6 |
| | comp=Z,63nm,0.5s | | | | | | |
| 145A | Houston Renfro | 41.56 | 284 | P | P | 21 42 58.4 | +0.9 |
| | baz=77 | | | | | | |
| TIC | Toumodi | 41.57 | 120 | eP | P | 21 42 57.9 | +0.1 |
| N40A | Mertquake, Sal | 41.57 | 297 | P | P | 21 42 58.4 | +0.9 |
| | baz=85 | | | | | | |
| G38A | Ridgeland | 41.59 | 303 | P | P | 21 42 57.4 | -0.3 |
| | baz=90 | | | | | | |
| MOTA | Moosalm | 41.59 | 53 | i P | P | 21 42 57.5 | -0.4 |
| | comp=Z,3.3nm,0.7s | | | | | | |
| F38A | Pierce - Schro | 41.60 | 305 | P | P | 21 42 57.4 | -0.4 |
| | baz=91 | | | | | | |
| CCM | Cathedral Cave | 41.62 | 293 | eP | P | 21 42 57.8 | -0.3 |
| CCM | | | | pmax | pmax | | |
| | comp=Z,15nm,1.0s | | | | | | |
| CCM | Cathedral Cave | 41.62 | 293 | eP | P | 21 42 57.8 | -0.3 |
| | comp=Z,15nm,1.0s | | | | | | |
| T42A | Van Buren | 41.65 | 291 | P | P | 21 42 57.8 | -0.4 |
| | baz=81,SNR=7.3 | | | | | | |
| 245A | Little AP, Sta | 41.66 | 284 | P | P | 21 42 57.4 | -1.1 |
| | baz=76 | | | | | | |
| DBIC | Dimbokro | 41.67 | 120 | P | P | 21 42 58.0 | -0.7 |
| | comp=Z,15nm,0.8s,baz=293,slow=9.8,SNR=15 | | | | | | |
| DBIC | | | | LR | LR | 21 58 56.4 | |
| | comp=Z,2µm,18.4s,baz=298,slow=34 | | | | | | |
| DBIC | Dimbokro | 41.67 | 120 | eP | P | 21 42 55.8 | -2.8 |
| DBIC | | | | pmax | pmax | | |
| | comp=Z,20nm,0.8s | | | | | | |
| DBIC | Dimbokro | 41.67 | 120 | eP | P | 21 42 55.8 | -2.8 |
| | comp=Z,20nm,0.8s | | | | | | |
| K39A | Oelwein | 41.68 | 300 | P | P | 21 42 57.5 | -0.9 |
| | baz=87 | | | | | | |
| R41A | Rosebud | 41.69 | 293 | P | P | 21 42 58.1 | -0.5 |
| | baz=82 | | | | | | |
| HELC | Santa Helena | 41.76 | 239 | eP | P | 21 42 57.2 | -2.6 |
| HELC | Santa Helena | 41.76 | 239 | eP | P | 21 42 59.2 | -0.6 |
| | comp=Z,134nm,1.3s | | | | | | |
| L39A | Vinton | 41.79 | 299 | P | P | 21 42 59.6 | +0.2 |
| | baz=86 | | | | | | |
| GRFO | Grafenberg | 41.81 | 50 | eP | P | 21 42 59.1 | -0.4 |
| GRFO | | | | pmax | pmax | | |
| | comp=Z,118nm,2.0s | | | | | | |
| GRFO | Grafenberg | 41.81 | 50 | eP | P | 21 42 59.1 | -0.4 |
| | comp=Z,118nm,2.0s | | | | | | |
| Z44A | Pea Ridge, Bel | 41.82 | 286 | P | P | 21 42 58.6 | -1.1 |
| | baz=77 | | | | | | |
| ROSC | El Rosal | 41.82 | 237 | LR | LR | 21 58 57.0 | |
| | comp=Z,871nm,21.5s,baz=32,slow=34 | | | | | | |
| LIC | Lamto | 41.84 | 120 | eP | P | 21 42 59.5 | -0.6 |
| | comp=Z,102nm,0.8s | | | | | | |
| O40A | La Belle | 41.86 | 296 | P | P | 21 43 00.1 | +0.1 |
| | baz=84 | | | | | | |
| C37A | Embarrass | 41.87 | 307 | P | P | 21 43 00.1 | +0.1 |
| | baz=92 | | | | | | |
| U42A | Revenden | 41.87 | 290 | P | P | 21 43 00.2 | 0.0 |
| | baz=80 | | | | | | |
| X43A | Marvell | 41.92 | 287 | P | P | 21 42 59.4 | -1.1 |
| | baz=78 | | | | | | |
| WTTA | Wattenberg | 41.95 | 53 | i pP | P | 21 43 02.1 | +1.2 |
| | comp=Z,25nm,1.3s | | | | | | |
| KIC | Kosan Boka | 41.96 | 120 | eP | P | 21 43 00.3 | -0.7 |
| | comp=Z,59nm,0.8s | | | | | | |
| M39A | Webster | 41.97 | 298 | P | P | 21 43 00.5 | -0.3 |
| | baz=86 | | | | | | |
| D37A | Cotton | 42.01 | 306 | P | P | 21 43 01.0 | -0.1 |
| | baz=92 | | | | | | |
| P40A | Paris | 42.06 | 295 | P | P | 21 43 00.9 | -0.8 |
| | baz=83 | | | | | | |
| J38A | Wedel Dairy, R | 42.08 | 301 | P | P | 21 43 01.2 | -0.5 |
| | baz=87 | | | | | | |
| V42A | Cord | 42.09 | 289 | P | P | 21 43 01.5 | -0.3 |
| | baz=80,SNR=6.7 | | | | | | |
| F37A | Hinrichs Farm, | 42.13 | 304 | P | P | 21 43 01.5 | -0.6 |
| | baz=90 | | | | | | |
| VBMS | Vicksburg | 42.13 | 284 | P | P | 21 43 02.6 | +0.4 |
| | baz=76 | | | | | | |
| Q40A | Laux Farm, Aux | 42.14 | 294 | P | P | 21 43 01.8 | -0.5 |
| | baz=83 | | | | | | |
| T41A | Mountain View | 42.18 | 291 | P | P | 21 43 01.9 | -0.7 |
| | baz=81,SNR=8.3 | | | | | | |
| SPMN | Marine on St. | 42.26 | 304 | P | P | 21 43 02.9 | -0.2 |
| | baz=89 | | | | | | |
| SPMN | Marine on St. | 42.26 | 304 | eP | P | 21 43 03.4 | +0.3 |
| | comp=Z,25nm,1.0s | | | | | | |
| N39A | Derby Farms, D | 42.27 | 297 | P | P | 21 43 02.9 | -0.3 |
| | baz=85 | | | | | | |
| C36A | Pine Crest Far | 42.31 | 307 | P | P | 21 43 03.4 | -0.2 |
| | baz=92 | | | | | | |
| H37A | Dierke Farm, C | 42.35 | 303 | P | P | 21 43 03.6 | -0.3 |
| | baz=88 | | | | | | |
| O39A | Kirksville | 42.36 | 296 | P | P | 21 43 04.2 | +0.2 |
| | baz=84 | | | | | | |
| R40A | Maddies Statio | 42.39 | 293 | P | P | 21 43 03.8 | -0.5 |
| | baz=82 | | | | | | |
| U41A | Viola | 42.42 | 290 | P | P | 21 43 04.3 | -0.3 |
| | baz=80 | | | | | | |
| Z43A | Armstrong Fami | 42.50 | 286 | P | P | 21 43 06.6 | +1.3 |
| | baz=77 | | | | | | |
| L38A | Oak Wood Farm, | 42.50 | 299 | P | P | 21 43 05.0 | -0.2 |
| | baz=86 | | | | | | |
| D36A | Goodland | 42.51 | 306 | P | P | 21 43 05.2 | 0.0 |
| | baz=91 | | | | | | |
| ABTA | Abfaltersbach | 42.54 | 54 | i P | P | 21 43 05.0 | -0.5 |
| | comp=Z,22nm,1.0s,SNR=12 | | | | | | |
| E36A | McGregor | 42.57 | 305 | P | P | 21 43 05.7 | +0.1 |
| | baz=90 | | | | | | |
| P39B | Salisbury | 42.61 | 295 | P | P | 21 43 06.2 | +0.1 |
| | baz=83 | | | | | | |
| NKC | Novy Kostel | 42.65 | 49 | eP | P | 21 43 06.4 | +0.1 |
| NKC | | | | epP | sP | 21 43 11.2 | -0.4 |
| NKC | | | | ex | x | 21 43 17.2 | |
| NKC | | | | ex | x | 21 49 39.8 | |
| NKC | | | | AMS | AMS | 21 58 30.0 | |
| | comp=Z,2µm,16.8s | | | | | | |
| NKC | Novy Kostel | 42.65 | 49 | eP | P | 21 43 06.4 | +0.1 |
| NKC | | | | e | | 21 43 11.2 | |
| NKC | | | | MLR | MLR | | |
| | comp=Z,2µm,16.8s | | | | | | |
| S40A | Lebanon | 42.67 | 292 | P | P | 21 43 05.7 | -0.9 |
| | baz=81 | | | | | | |
| V41A | Mountainview | 42.70 | 290 | P | P | 21 43 06.3 | -0.6 |
| | baz=79 | | | | | | |
| SCIA | State Center | 42.71 | 299 | eP | P | 21 43 07.4 | +0.5 |
| | comp=Z,60nm,1.1s | | | | | | |
| I37A | Lemond, Waseca | 42.72 | 302 | P | P | 21 43 07.2 | +0.3 |
| | baz=88 | | | | | | |
| M38A | Pleasantville | 42.74 | 298 | P | P | 21 43 06.7 | -0.4 |
| | baz=85,SNR=6.7 | | | | | | |
| 143A | Socs Landing, | 42.74 | 285 | P | P | 21 43 07.1 | -0.1 |
| | baz=76 | | | | | | |
| F36A | Milaca | 42.76 | 305 | P | P | 21 43 06.1 | -1.1 |
| | baz=89 | | | | | | |
| T40A | Mansfield | 42.76 | 292 | P | P | 21 43 06.6 | -0.8 |
| | baz=80,SNR=6.1 | | | | | | |
| CCAR | Cane Creek | 42.77 | 287 | eP | P | 21 43 07.9 | +0.5 |
| | comp=Z,148nm,1.3s | | | | | | |
| Y42A | Garnett, Star | 42.80 | 287 | P | P | 21 43 07.1 | -0.6 |
| | baz=77 | | | | | | |
| N38A | Joes South For | 42.83 | 297 | P | P | 21 43 06.7 | -1.1 |
| | baz=84 | | | | | | |
| Q39A | Willow Grove F | 42.83 | 294 | P | P | 21 43 07.4 | -0.5 |
| | baz=82,SNR=8.6 | | | | | | |
| TOA0 | Torodi Ar. Sit | 42.84 | 106 | eP | P | 21 43 07.7 | -0.5 |
| TORD | Torodi Ar. Bea | 42.84 | 106 | P | P | 21 43 06.8 | -1.4 |
| | comp=Z,26nm,0.9s,baz=299,slow=5.9,SNR=74 | | | | | | |
| TORD | | | | LR | LR | 21 58 38.7 | |
| | comp=Z,2µm,21.9s,baz=290,slow=33 | | | | | | |
| J37A | Redenius Farm, | 42.86 | 301 | P | P | 21 43 08.9 | +0.8 |
| | baz=87 | | | | | | |
| W41B | Gary Mavity, V | 42.90 | 289 | P | P | 21 43 08.1 | -0.4 |
| | baz=79 | | | | | | |
| WHAR | Wooly Hollow | 42.91 | 289 | eP | P | 21 43 08.4 | -0.2 |
| | comp=Z,30nm,1.0s | | | | | | |
| B35A | Bob, Littlefor | 42.92 | 308 | P | P | 21 43 08.1 | -0.4 |
| | baz=92 | | | | | | |
| G36A | St. Michael | 42.92 | 304 | P | P | 21 43 08.6 | 0.0 |
| | baz=88 | | | | | | |
| K37A | Belmond | 42.96 | 300 | P | P | 21 43 08.6 | -0.3 |
| | baz=86 | | | | | | |
| R39A | Chumby, Stover | 42.98 | 293 | P | P | 21 43 08.7 | -0.5 |
| | baz=82,SNR=16 | | | | | | |
| X301 | Greenbrier Sit | 43.01 | 289 | eP | P | 21 43 09.2 | -0.1 |
| | comp=Z,25nm,1.0s | | | | | | |
| PRAC | Prado | 43.01 | 236 | eP | P | 21 43 08.7 | -1.0 |
| | comp=Z,23nm,0.9s | | | | | | |
| UALR | University of | 43.05 | 288 | eP | P | 21 43 10.1 | +0.3 |
| | comp=Z,58nm,1.0s | | | | | | |
| C35A | Jirik Farms, M | 43.07 | 307 | P | P | 21 43 09.6 | -0.2 |
| | baz=91 | | | | | | |
| O38A | Galt | 43.08 | 296 | P | P | 21 43 10.0 | +0.1 |
| | baz=83 | | | | | | |
| CLL | Collm | 43.09 | 47 | eP | P | 21 43 10.0 | +0.2 |
| CLL | | | | i | | 21 43 14.3 | |
| CLL | | | | eS | S | 21 49 41.0 | +5.5 |
| CLL | | | | pmax | pmax | | |
| | comp=Z,29nm,1.3s | | | | | | |
| CLL | | | | MLR | MLR | | |
| | comp=Z,1µm,21.6s | | | | | | |
| CLL | Collm | 43.09 | 47 | eP | P | 21 43 10.0 | +0.2 |
| | comp=Z,29nm,1.3s | | | | | | |
| CLL | | | | i (sP) | pP | 21 43 14.3 | +0.7 |
| CLL | | | | i | | 21 43 19.9 | |
| | comp=Z,67nm,1.5s | | | | | | |
| CLL | | | | eS | S | 21 49 41.0 | +5.5 |
| CLL | | | | eSS | SS | 21 52 54.0 | +6.3 |
| CLL | | | | LmV | | 21 57 00.0 | |
| | comp=Z,1µm,21.6s | | | | | | |
| CLL | Collm | 43.09 | 47 | eP | P | 21 43 09.7 | -0.1 |
| | comp=Z,50nm,1.4s | | | | | | |
| L37A | Phoenix Point, | 43.09 | 299 | P | P | 21 43 10.2 | +0.2 |
| | baz=85 | | | | | | |
| KBA | Koelnbreinsper | 43.11 | 54 | i P | P | 21 43 09.8 | -0.4 |
| | comp=Z,15nm,0.9s | | | | | | |
| D35A | Remer | 43.12 | 306 | P | P | 21 43 09.7 | -0.4 |
| | baz=90 | | | | | | |
| U40A | Yellville | 43.16 | 291 | P | P | 21 43 09.9 | -0.7 |
| | baz=80 | | | | | | |
| I36A | Fitzsimmons Fa | 43.16 | 302 | P | P | 21 43 08.9 | -1.6 |
| | baz=87 | | | | | | |
| PLMC | San Jos˜' del | 43.18 | 239 | eP | P | 21 43 09.5 | -1.5 |
| P38A | Dawn | 43.19 | 295 | P | P | 21 43 10.5 | -0.3 |
| | baz=83 | | | | | | |
| V40A | Witts Springs | 43.23 | 290 | P | P | 21 43 10.9 | -0.3 |
| | baz=79 | | | | | | |
| S39A | Bolivar | 43.30 | 293 | P | P | 21 43 11.1 | -0.7 |
| | baz=81,SNR=9.8 | | | | | | |
| MYKA | Terra Mystica | 43.31 | 54 | i P | P | 21 43 11.1 | -0.7 |
| | comp=Z,15nm,1.0s | | | | | | |
| KHC | Kasperske Hory | 43.32 | 51 | eP | P | 21 43 11.4 | -0.4 |
| KHC | | | | epP | sP | 21 43 17.5 | +0.5 |
| KHC | | | | eS | S | 21 49 47.3 | +8.3 |
| KHC | Kasperske Hory | 43.32 | 51 | eP | P | 21 43 11.4 | -0.4 |
| KHC | | | | e | | 21 43 17.5 | |
| KHC | | | | eS | S | 21 49 47.3 | +8.3 |
| KHC | Kasperske Hory | 43.32 | 51 | eP | P | 21 43 11.3 | -0.4 |
| | comp=Z,10nm,1.2s | | | | | | |
| AQU | L'Aquila | 43.33 | 61 | eP | P | 21 43 11.5 | -0.5 |
| AQU | | | | pmax | pmax | | |
| | comp=Z,34nm,0.8s | | | | | | |
| AQU | L'Aquila | 43.33 | 61 | eP | P | 21 43 11.5 | -0.5 |
| | comp=Z,34nm,0.8s | | | | | | |
| Q38A | Cooks Store, C | 43.34 | 294 | P | P | 21 43 12.1 | +0.1 |
| | baz=82 | | | | | | |
| M37A | Trindle Farm, | 43.38 | 298 | P | P | 21 43 12.3 | -0.1 |
| | baz=84 | | | | | | |
| GEA0 | GERESS Array S | 43.39 | 51 | eP | P | 21 43 11.5 | -0.9 |
| GEC2 | GERESS Array S | 43.39 | 51 | eP | P | 21 43 12.7 | +0.3 |
| GEC2 | | | | pmax | pmax | | |
| | comp=Z,57nm,1.8s | | | | | | |
| GEC2 | GERESS Array S | 43.39 | 51 | eP | P | 21 43 12.7 | +0.3 |
| | comp=Z,57nm,1.8s | | | | | | |
| GERES | GERESS Array B | 43.39 | 51 | P | P | 21 43 12.0 | -0.4 |
| | comp=Z,3.3nm,0.7s,baz=264,slow=6.9,SNR=24 | | | | | | |
| GERES | | | | LR | LR | 21 58 13.1 | |
| | comp=Z,322nm,21.1s,baz=254,slow=32 | | | | | | |
| GERES | GERESS Array B | 43.39 | 51 | P | P | 21 43 12.0 | -0.4 |
| GERES | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.7s | | | | | | |
| GERES | | | | MLR | MLR | | |
| | comp=Z,323nm,21.1s | | | | | | |
| TRI | Trieste | 43.41 | 56 | eP | P | 21 43 11.7 | -0.8 |
| TRI | | | | pmax | pmax | | |
| | comp=Z,27nm,1.2s | | | | | | |
| TRI | Trieste | 43.41 | 56 | eP | P | 21 43 11.7 | -0.8 |
| | comp=Z,27nm,1.2s | | | | | | |
| J36A | Seneca 1, Swea | 43.43 | 301 | P | P | 21 43 12.2 | -0.6 |
| | baz=86 | | | | | | |
| T39A | Clever | 43.45 | 292 | P | P | 21 43 12.5 | -0.5 |
| | baz=80,SNR=10.0 | | | | | | |
| Y41A | Eaglette Beard | 43.46 | 287 | P | P | 21 43 12.8 | -0.3 |
| | baz=77 | | | | | | |
| F35A | Swanville | 43.49 | 305 | P | P | 21 43 12.9 | -0.3 |
| | baz=89 | | | | | | |
| X40A | Basin Creek Fa | 43.51 | 288 | P | P | 21 43 13.4 | 0.0 |
| | baz=78 | | | | | | |
| 242A | Grayson | 43.51 | 284 | P | P | 21 43 13.3 | -0.1 |
| | baz=75 | | | | | | |
| B34A | Aery, Baudette | 43.54 | 308 | P | P | 21 43 13.1 | -0.4 |
| | baz=91 | | | | | | |
| W40A | Ferguson Farm, | 43.55 | 289 | P | P | 21 43 13.2 | -0.6 |
| | baz=78 | | | | | | |
| K36A | Gilmore City | 43.57 | 300 | P | P | 21 43 13.7 | -0.1 |
| | baz=85 | | | | | | |
| O37A | Wolven Farm, M | 43.59 | 296 | P | P | 21 43 12.9 | -1.2 |
| | baz=83 | | | | | | |
| BRG | Berggiesshubel | 43.65 | 48 | eP | P | 21 43 14.1 | -0.2 |
| | comp=Z,56nm,1.6s | | | | | | |
| BRG | Berggiesshubel | 43.65 | 48 | eP | P | 21 43 14.1 | -0.2 |
| BRG | | | | pmax | pmax | | |
| | comp=Z,12nm,1.6s | | | | | | |
| U39A | Green Forest | 43.65 | 291 | P | P | 21 43 14.3 | -0.2 |
| | baz=79,SNR=6.5 | | | | | | |
| R38A | Fenwick Farm, | 43.68 | 293 | P | P | 21 43 14.3 | -0.4 |
| | baz=81,SNR=9.1 | | | | | | |
| C34A | RKJ Ranch, Bem | 43.70 | 307 | P | P | 21 43 13.7 | -1.1 |
| | baz=90 | | | | | | |
| H35A | Sunnyside Ranc | 43.71 | 303 | P | P | 21 43 14.9 | 0.0 |
| | baz=87 | | | | | | |
| MOA | Molln | 43.74 | 53 | i P | P | 21 43 14.6 | -0.5 |
| | comp=Z,23nm,1.5s | | | | | | |
| Z41A | Richland Creek | 43.76 | 286 | P | P | 21 43 16.2 | +0.8 |
| | baz=76 | | | | | | |
| S38A | Stockton | 43.77 | 293 | P | P | 21 43 15.4 | -0.1 |
| | baz=80 | | | | | | |
| L36A | Harm Buss Farm | 43.77 | 299 | P | P | 21 43 15.3 | -0.2 |
| | baz=85 | | | | | | |
| P37A | Lathrop | 43.82 | 295 | P | P | 21 43 15.5 | -0.4 |
| | baz=82 | | | | | | |
| 342A | Flagon Creek P | 43.83 | 283 | P | P | 21 43 17.9 | +1.8 |
| | baz=75 | | | | | | |
| I35A | Creekview Farm | 43.87 | 302 | P | P | 21 43 17.5 | +1.3 |
| | baz=86 | | | | | | |
| V39A | Pettigrew | 43.88 | 290 | P | P | 21 43 15.9 | -0.6 |
| | baz=79,SNR=8.9 | | | | | | |
| D34A | Park Rapids | 43.90 | 306 | P | P | 21 43 16.3 | -0.1 |
| | baz=90 | | | | | | |
| WLAR | White Oak Lake | 43.91 | 287 | eP | P | 21 43 17.2 | +0.5 |
| | comp=Z,89nm,1.1s | | | | | | |
| OBKA | Obir | 43.94 | 55 | i P | P | 21 43 16.3 | -0.6 |
| | SNR=14 | | | | | | |
| F34A | Alexandria | 43.97 | 304 | P | P | 21 43 16.5 | -0.5 |
| | baz=88 | | | | | | |
| Y40A | Okolona | 43.97 | 287 | P | P | 21 43 15.5 | -1.6 |
| | baz=77 | | | | | | |
| PRU | Pruhonice | 43.98 | 50 | eP | P | 21 43 17.1 | +0.1 |
| PRU | | | | epP | sP | 21 43 23.2 | +0.9 |
| PRU | | | | eS | S | 21 49 59.1 | +11 |
| PRU | | | | AMS | AMS | 21 58 50.0 | |

comp=Z,1µm,18.9s
PRU **Pruhonice** 43.98 50 *e*P P 21 43 17.1 +0.1
PRU *e* 21 43 23.2
PRU MLR MLR
comp=Z,1µm,18.9s
NB2 **NORSAR Subarra** 43.99 33 P P 21 43 16.3 -0.7
comp=Z,5.0nm,0.7s,baz=252,slow=7.9
NOA **NORSAR Array B** 43.99 33 P P 21 43 16.6 -0.3
comp=Z,7.4nm,0.8s,baz=254,slow=7.9,SNR=13
NOA LR LR 21 58 16.0
comp=Z,545nm,21.6s,baz=260,slow=32
Q37A **Longview Farm,** 44.00 294 P P 21 43 17.1 -0.2
baz=81
PVCC **Panska Ves** 44.02 49 *e*P P 21 43 17.3 -0.1
PVCC AMS AMS 21 59 20.0
comp=Z,2µm,17.9s
PVCC **Panska Ves** 44.02 49 *e*P P 21 43 17.3 -0.1
PVCC MLR MLR
comp=Z,2µm,17.9s
HHAR **Hobbs** 44.03 291 *e*P P 21 43 17.8 +0.1
comp=Z,80nm,1.7s
A33A **Warroad** 44.04 309 P P 21 43 17.2 -0.3
baz=91
MIAR **Mount Ida** 44.09 288 P P 21 43 18.4 +0.3
baz=77
MIAR **Mount Ida** 44.09 288 *e*P P 21 43 18.7 +0.6
MIAR pmax pmax
comp=Z,53nm,1.5s
MIAR **Mount Ida** 44.09 288 *e*P P 21 43 18.7 +0.6
comp=Z,53nm,1.5s
W39A **Magazine** 44.12 289 P P 21 43 18.1 -0.3
baz=78
K35A **Storm Lake** 44.13 300 P P 21 43 17.7 -0.7
baz=85
GOPC **GO Pecny, Ondr** 44.13 50 *e*P P 21 43 18.4 +0.1
GOPC *e*pP sP 21 43 24.3 +0.7
GOPC AMS AMS 21 59 50.0
comp=Z,1µm,20.6s
GOPC **GO Pecny, Ondr** 44.13 50 *e*P P 21 43 18.4 +0.1
GOPC *e* 21 43 24.3
GOPC MLR MLR
comp=Z,1µm,20.6s
B33A **Robert and Kas** 44.16 308 P P 21 43 17.9 -0.6
baz=90
T38A **Diamond** 44.17 292 P P 21 43 18.2 -0.5
baz=80
Z40A **Long Farm, Mag** 44.24 286 P P 21 43 19.6 +0.3
baz=76
NVLJ **Novalja** 44.24 57 P P 21 43 18.9 -0.2
G34A **Benson** 44.26 304 P P 21 43 19.2 -0.2
baz=87
SOKA **Soboth** 44.27 54 *i* P P 21 43 18.1 -1.4
comp=Z,16nm,1.4s
C33A **Trail** 44.29 307 P P 21 43 19.1 -0.4
baz=90
D33A **AnnSam, Waubun** 44.34 306 P P 21 43 19.6 -0.4
baz=89
AGMN **Agassiz Nation** 44.35 308 P P 21 43 18.5 -1.5
baz=90
AGMN **Agassiz Nation** 44.35 308 *e*P P 21 43 20.0 0.0
comp=Z,29nm,1.3s
U38A **Gravette** 44.36 291 P P 21 43 19.6 -0.6
baz=79
R37A **Teagarden Farm** 44.38 294 P P 21 43 19.8 -0.5
baz=81
ULM **Lac du Bonnet** 44.40 311 P P 21 43 18.2 -2.2
comp=Z,16nm,1.1s,baz=84,slow=5.9,SNR=6.9
ULM LR LR 22 02 29.6
comp=Z,1µm,18.4s,baz=70,slow=37
ULM **Lac du Bonnet** 44.40 311 *e*P P 21 43 19.2 -1.2
ULM pmax pmax
comp=Z,38nm,1.2s
ULM **Lac du Bonnet** 44.40 311 *e*P P 21 43 19.2 -1.2
comp=Z,38nm,1.2s
E33A **Westby DABS, E** 44.47 305 P P 21 43 19.8 -1.1
baz=88
S37A **Fort Scott** 44.47 293 P P 21 43 20.8 -0.3
baz=80,SNR=7.4
P36A **Good Intent, A** 44.47 296 P P 21 43 19.9 -1.2
baz=82
I34A **Hadley** 44.49 302 P P 21 43 21.4 +0.2
baz=86
V38A **Canehill** 44.49 290 P P 21 43 21.0 -0.3
baz=78
X39A **Fountain Ranch** 44.53 288 P P 21 43 21.6 -0.1
baz=77,SNR=8.9
341A **Kurthwood** 44.54 284 P P 21 43 23.0 +1.3
baz=74
ARSA **Arzberg** 44.60 53 *i* P P 21 43 20.8 -1.3
comp=Z,24nm,1.5s,SNR=11
Y39A **Lockesburg** 44.65 287 P P 21 43 22.4 -0.2
baz=77
F33A **5 Mile Ranch,** 44.69 305 P P 21 43 22.5 -0.3
baz=87
W38A **Poteau** 44.74 289 P P 21 43 23.0 -0.3
baz=78
A32A **Rocking H Ranc** 44.77 309 P P 21 43 22.5 -0.9
baz=90
B32A **Ashes, Strandq** 44.80 308 P P 21 43 23.1 -0.4
baz=90
CONA **Conrad Observa** 44.82 52 *i* pP P 21 43 25.1 +1.2
comp=Z,11nm,1.4s
G33A **Ortonville** 44.82 304 P P 21 43 22.2 -1.6
baz=87
Z39A **Irene McRaven,** 44.88 287 P P 21 43 24.8 +0.3
baz=76
UDBI **Udbina** 44.88 57 P P 21 43 24.4 0.0
R36A **Gordon, Harris** 44.90 294 P P 21 43 24.1 -0.4
baz=80
U37A **Salina** 44.94 291 P P 21 43 24.3 -0.6
baz=79,SNR=13
UPC **Upice** 44.94 49 *e*P P 21 43 24.6 -0.1
UPC *e*pP sP 21 43 30.4 +0.4
UPC AMS AMS 21 59 50.0
comp=Z,2µm,16.7s
UPC **Upice** 44.94 49 *e*P P 21 43 24.6 -0.1
UPC *e* 21 43 30.4
UPC MLR MLR
comp=Z,2µm,16.7s
ECSD **EROS Data Cent** 45.05 302 P P 21 43 25.3 -0.4
baz=85
ECSD **EROS Data Cent** 45.05 302 *e*P P 21 43 25.6 -0.2
comp=Z,22nm,1.1s
L34A **Svendsen Farm,** 45.05 299 P P 21 43 25.5 -0.2
baz=84
V37A **Hulbert** 45.06 290 P P 21 43 25.7 -0.2
baz=78
S36A **Lake Cedric, C** 45.07 293 P P 21 43 25.2 -0.7
baz=80
H33A **Prehn Over Nor** 45.07 303 P P 21 43 25.8 -0.1
baz=86
X38A **Whitesboro** 45.08 289 P P 21 43 25.6 -0.4
baz=77
P35A **Duane Minner,** 45.10 296 P P 21 43 25.6 -0.5
baz=81
KSP **Ksiaz** 45.13 48 *e*P P 21 43 26.4 +0.2
KSP **Ksiaz** 45.13 48 *e*P P 21 43 26.4 +0.2
DPC **Dobruska-Polom** 45.14 49 *e*P P 21 43 25.6 -0.7
DPC *e*pP sP 21 43 31.2 -0.4
DPC AMS AMS 22 00 00.0
comp=Z,1µm,16.9s
DPC **Dobruska-Polom** 45.14 49 *e*P P 21 43 25.6 -0.7
DPC *e* 21 43 31.2
DPC MLR MLR
comp=Z,1µm,16.9s
139A **Bunkhouse Ranc** 45.19 286 P P 21 43 27.7 +0.8
baz=75
M34A **Aspy Farms, Fr** 45.26 298 P P 21 43 28.1 +0.7
baz=83
N34A **Lincoln** 45.28 298 P P 21 43 27.4 -0.2
baz=82
SOP **Sopron** 45.29 53⇑ *e*P P 21 43 27.0 -0.5
CUC **Castrocucco** 45.41 64 *e*P P 21 43 28.0 -0.7
comp=Z,52nm,1.5s
T36A **Boggs Farm, Ca** 45.42 292 P P 21 43 27.8 -0.9
baz=79,SNR=6.0
KRLC **Kraliky** 45.43 49 *e*P P 21 43 28.8 +0.2
KRLC *e*pP sP 21 43 34.6 +0.7
KRLC **Kraliky** 45.43 49 *e*P P 21 43 28.8 +0.2
KRLC *e* 21 43 34.6
R35A **Emporia Munici** 45.44 294 P P 21 43 28.0 -0.8
baz=80
X37A **Clayton** 45.53 289 P P 21 43 29.3 -0.3
baz=77
Z38A **Mt. Pleasant** 45.53 287 P P 21 43 30.4 +0.8
baz=76
G32A **Webster** 45.57 304 P P 21 43 27.6 -2.2
baz=86
TUL1 **Leonard** 45.58 291 P P 21 43 29.7 -0.3
baz=78
TUL1 **Leonard** 45.58 291 *e*P P 21 43 29.5 -0.5
comp=Z,52nm,1.1s
C31A **Landman Farms,** 45.61 307 P P 21 43 29.2 -0.8
baz=88,SNR=11
D31A **Mcclaflin, Tow** 45.63 306 P P 21 43 30.0 -0.2
baz=88
S35A **Otter Creek Ra** 45.64 293 P P 21 43 29.7 -0.8
baz=79
NATX **Nacogdoches** 45.65 285 *e*P P 21 43 31.9 +1.3
comp=Z,64nm,1.3s
P34A **Walnut Farm, R** 45.72 296 P P 21 43 30.5 -0.6
baz=81,SNR=6.1
V36A **Jenks** 45.72 290 P P 21 43 30.8 -0.3
baz=78
MODS **Modra-Piesok** 45.76 52 *e*P P 21 43 30.7 -0.5
MODS **Modra-Piesok** 45.76 52 *e*P P 21 43 30.7 -0.5
E31A **Nome** 45.76 306 P P 21 43 31.1 -0.2
baz=87
138A **Matatall Enter** 45.77 286 P P 21 43 32.7 +1.3
baz=75
DAG **Danmarks Havn** 45.80 7 *i* P P 21 43 30.3 -0.8
DAG pmax pmax
comp=Z,17nm,1.4s
DAG **Danmarks Havn** 45.80 7 *i* P P 21 43 30.3 -0.8
comp=Z,17nm,1.4s
GKP **Gorka Klasztor** 45.83 45 *e*P P 21 43 33.9 +2.2
GKP **Gorka Klasztor** 45.83 45 *e*P P 21 43 33.9 +2.2
Y37A **Hugo** 45.87 288 P P 21 43 30.6 -1.7
baz=76
BLY **Banja Luka** 45.88 57 *e*P P 21 43 32.0 -0.2
comp=Z,34nm,1.4s
Q34A **Chapman** 45.91 295 P P 21 43 32.0 -0.5
baz=80
T35A **Sooner Cattle** 45.94 292 P P 21 43 32.6 -0.2
baz=78
238A **Jacksonville** 45.96 285 P P 21 43 33.8 +0.8
baz=74
J32A **Parkston** 45.98 301 P P 21 43 33.3 +0.3
baz=84
439A **Center Grove,** 46.01 283 P P 21 43 33.2 -0.2
baz=73
Z37A **Pogue Cattle C** 46.06 287 P P 21 43 33.1 -0.7
baz=75
W36A **Wetumka** 46.09 290 P P 21 43 33.3 -0.8
baz=77
U35A **Pawnee** 46.23 291 P P 21 43 34.4 -0.7
baz=78
R34A **Isabella, Hill** 46.25 294 P P 21 43 34.5 -0.8
baz=80
S34A **Willow Spring** 46.26 293 P P 21 43 34.5 -0.8
baz=79
OKC **Ostrava-Krasne** 46.31 50 *e*P P 21 43 35.3 -0.2
OKC *e*pP sP 21 43 40.3 -0.5
OKC **Ostrava-Krasne** 46.31 50 *e*P P 21 43 35.3 -0.2
OKC *e* 21 43 40.3
SAML **Samuel** 46.35 212 *e*P P 21 43 35.4 -0.8
comp=Z,45nm,1.0s
OK021 **N3530 Road, Sp** 46.38 290 *e*P P 21 43 37.7 +1.4
comp=Z,26nm,1.1s
TULEG **Thule** 46.38 351 *e*P P 21 43 35.7 0.0
comp=Z,46nm,1.2s
STON **Ston** 46.44 59 P P 21 43 36.5 -0.1
V35A **Meyer Ranch, C** 46.44 291 P P 21 43 36.4 -0.3
baz=77
BGNE **Belgrade** 46.44 299 P P 21 43 36.3 -0.5
baz=82
BGNE **Belgrade** 46.44 299 *e*P P 21 43 37.9 +1.1
comp=Z,44nm,0.1s
T34A **McClaskey Farm** 46.45 292 P P 21 43 36.6 -0.2
baz=78
JTS **JuntasAbangare** 46.51 252 *e*P P 21 43 39.5 +2.0
W35A **Tecumseh** 46.60 290 P P 21 43 38.0 0.0
baz=77
Z36A **Blue Ridge** 46.70 287 P P 21 43 37.7 -1.2
baz=75
VYHS **Vyhne** 46.79 52 *e*P P 21 43 39.7 +0.3
VYHS pmax pmax
comp=Z,74nm,2.7s
VYHS **Vyhne** 46.79 52 *e*P P 21 43 39.7 +0.3
H10N2 **ASCENSION HYDR** 46.81 144 T T 22 33 39.1
baz=329,slow=75,SNR=259
H10N3 **ASCENSION HYDR** 46.82 144 T T 22 33 39.4
baz=329,slow=75,SNR=242
H10N1 **ASCENSION HYDR** 46.83 144 T T 22 33 38.7
baz=329,slow=75,SNR=271
X35A **Drake** 46.86 289 P P 21 43 39.9 -0.1
baz=76
MDND **Maddock** 46.87 308 P P 21 43 39.7 -0.2
baz=87
MDND **Maddock** 46.87 308 *e*P P 21 43 40.6 +0.7
comp=Z,150nm,1.4s
HKT **Hockley** 47.13 283 *e*P P 21 43 45.0 +2.8
HKT pmax pmax
comp=Z,16nm,1.1s
HKT **Hockley** 47.13 283 *e*P P 21 43 45.0 +2.8
comp=Z,16nm,1.1s
OJC **Ojcow** 47.37 49 *e*P P 21 43 45.8 +2.0
OJC **Ojcow** 47.37 49 *e*P P 21 43 45.8 +2.0
OJC **Ojcow** 47.37 49 *e*P P 21 43 45.9 +2.0
comp=Z,60nm,1.7s
PSZ **Piszkesteto** 47.53 52⇑ *i*P P 21 43 50.8 +5.6
PSZ **Piszkesteto** 47.53 52 ⇑P P 21 43 50.8 +5.6
PSZ **Piszkesteto** 47.53 52 *e*P P 21 43 45.0 -0.2
comp=Z,43nm,1.4s
336A **Riesel** 47.55 285 P P 21 43 44.3 -1.2
baz=73
PDG **Podgorica** 47.63 60⇑ *i*P P 21 43 45.9 0.0
PDG **Podgorica** 47.63 60 P P 21 43 45.9 0.0
H10S1 **ASCENSION HYDR** 47.69 145 T T 22 34 52.9
baz=330,slow=75,SNR=910
H10S3 **ASCENSION HYDR** 47.69 145 T T 22 34 53.1
baz=330,slow=75,SNR=951
H10S2 **ASCENSION HYDR** 47.71 145 T T 22 34 54.2
baz=330,slow=75,SNR=896
NIE **Niedzica** 47.72 50 *e*P P 21 43 47.4 +0.8
NIE **Niedzica** 47.72 50 *e*P P 21 43 47.4 +0.8
WHTX **Lake Whitney,** 47.88 286 P P 21 43 47.9 -0.1
baz=74
WHTX **Lake Whitney,** 47.88 286 *e*P P 21 43 48.5 +0.5
comp=Z,72nm,1.4s
DIVS **Divibare** 47.95 57 P P 21 43 46.7 -1.8
BEL **Belsk** 47.97 47 *e*P P 21 43 49.4 +1.0
BEL **Belsk** 47.97 47 *e*P P 21 43 49.4 +1.0
OTAV **Otavalo** 47.97 236 *e*P P 21 43 49.7 +0.2
comp=Z,67nm,1.3s
CBKS **Cedar Bluff** 48.07 295 P P 21 43 49.1 -0.4
baz=79
CBKS **Cedar Bluff** 48.07 295 *e*P P 21 43 49.5 0.0
CBKS pmax pmax
comp=Z,64nm,1.0s
CBKS **Cedar Bluff** 48.07 295 *e*P P 21 43 49.5 0.0
comp=Z,64nm,1.0s
BDFB **Brasilia** 48.11 190 P P 21 43 49.3 -0.7
comp=Z,17nm,0.9s,baz=152,slow=7.6,SNR=12
BDFB LR LR 22 01 11.1
comp=Z,657nm,20.5s,baz=154,slow=32
BDFB **Brasilia** 48.11 190 *e*P P 21 43 50.7 +0.8
comp=Z,30nm,0.9s
WMOK **Wichita Mounta** 48.22 290 P P 21 43 50.2 -0.5
baz=76,SNR=8.0
WMOK **Wichita Mounta** 48.22 290 *e*P P 21 43 50.2 -0.5
WMOK pmax pmax
comp=Z,21nm,1.1s
WMOK **Wichita Mounta** 48.22 290 *e*P P 21 43 50.2 -0.5
comp=Z,21nm,1.1s
TIR **Tirane** 48.24 61 *e*P P 21 43 52.5 +1.8
TIR pmax pmax
comp=Z,42nm,1.0s
TIR **Tirane** 48.24 61 *e*P P 21 43 52.5 +1.8
comp=Z,42nm,1.0s
FFC **Flin Flon** 48.28 317 *e*P P 21 43 51.1 +0.2
FFC pmax pmax
comp=Z,57nm,1.6s
FFC **Flin Flon** 48.28 317 *e*P P 21 43 51.0 +0.2
comp=Z,57nm,1.6s
435B **Jarrell** 48.33 284 P P 21 43 51.4 -0.1
baz=73
STHS **Stebnicka Huta** 48.33 50 *e*P P 21 43 52.9 +1.6
STHS pmax pmax
comp=Z,13nm,1.0s
STHS **Stebnicka Huta** 48.33 50 *e*P P 21 43 52.8 +1.5
CRVS **Cervenica-Dubn** 48.51 51 *e*P P 21 43 53.1 +0.4
CRVS **Cervenica-Dubn** 48.51 51 *e*P P 21 43 53.1 +0.4
BANR **Banloc** 48.60 56⇓ *i*P P 21 43 54.7 +1.3
SGD **Sagiada** 48.83 63 P P 21 43 55.2 -0.1
SIRR **Siria** 48.87 54⇑ *i*P P 21 43 55.3 -0.2
BZS **Buzias** 48.91 55⇑ *i*P P 21 43 55.1 -0.7
BZS **Buzias** 48.91 55 ⇑P P 21 43 55.1 -0.7
IGT **Igoumenitsa** 48.92 63 P P 21 43 57.1 +1.1
OHR **Ohrid** 48.98 61 *i* P P 21 43 57.1 +0.7
UZH **Uzhgorod** 49.08 51 *e*P P 21 43 54.4 -2.6
UZH *i* 21 44 02.4
UZH *e* 21 45 49.2
UZH *e*S S 21 50 55.4 -6.1
UZH *e*PS 21 51 05.0
UZH *i* SP 21 51 09.0
UZH *e*SS SS 21 54 31.6 -0.7
MDVR **Moldovita** 49.08 56⇑ *i*P P 21 43 56.7 -0.5
KRUS **Krusevo** 49.27 61 *i* P P 21 43 57.7 -1.0
KWP **Kalwaria Pacla** 49.27 50 *e*P P 21 43 58.4 -0.1
KWP **Kalwaria Pacla** 49.27 50 *e*P P 21 43 58.4 -0.1
NEST **Nestorio** 49.29 62 P P 21 44 00.2 +1.3
SKO **Skopje** 49.30 60 *i* P P 21 43 59.1 +0.2
BIA **Bitola** 49.39 61 *i* P P 21 44 01.0 +1.4
PENT **Pentalofos** 49.40 62 P P 21 44 00.0 +0.2
OGNE **Ogallala** 49.41 299 P P 21 43 59.6 -0.2
baz=79
OGNE **Ogallala** 49.41 299 *e*P P 21 44 01.4 +1.6
comp=Z,62nm,1.4s
FNA **Florina** 49.47 62 P P 21 44 00.0 -0.2
ABTX **Abilene, Hawle** 49.48 287 P P 21 44 00.1 -0.3
baz=74
ABTX **Abilene, Hawle** 49.48 287 *e*P P 21 44 00.4 +0.1
comp=Z,70nm,1.4s
DRGR 49.53 54⇓ *i*P P 21 43 59.9 -0.7
DRGR 49.53 54 ⇓P P 21 43 59.9 -0.7
HERR **Herculane** 49.56 56⇓ *i*P P 21 44 01.1 +0.3
DSL **Palaion Diesel** 49.58 64 P P 21 44 01.2 +0.1
KPRO **Kipourio** 49.62 63 P P 21 44 02.3 +0.9
PDO **Prodromos** 49.76 64 P P 21 44 01.1 -1.3
DGMT **Dagmar** 49.89 309 P P 21 44 03.9 +0.6
baz=84
DGMT **Dagmar** 49.89 309 *e*P P 21 44 05.5 +2.2
comp=Z,93nm,1.7s
BMR **Baia Mare** 49.97 52⇑ *i*P P 21 43 54.0 -10
BMR **Baia Mare** 49.97 52 ⇑P P 21 43 54.0 -10
RES **Resolute Bay** 50.09 344 P P 21 44 04.1 -0.3
comp=Z,10nm,1.1s,baz=150,slow=3.0,SNR=6.1
LVV **L'vov** 50.11 50 *e*P P 21 44 03.7 -1.2
CJR **Cluj-Napoca** 50.15 54⇓ *i*P P 21 44 05.9 +0.6
CJR **Cluj-Napoca** 50.15 54 ⇓P P 21 44 05.9 +0.6
THL **Klokotos Trika** 50.19 63 P P 21 44 05.4 -0.2
GRG **Griva** 50.20 61 P P 21 44 05.4 -0.3
KSCO **Kaye Shedlock'** 50.24 296 P P 21 44 05.7 -0.5
baz=78
KSCO **Kaye Shedlock'** 50.24 296 *e*P P 21 44 06.1 -0.2
comp=Z,14nm,0.6s
JCT **Junction City** 50.24 285 P P 21 44 05.8 -0.4
baz=72
JCT **Junction City** 50.24 285 *e*P P 21 44 05.8 -0.4
JCT pmax pmax
comp=Z,35nm,0.9s
JCT **Junction City** 50.24 285 *e*P P 21 44 05.8 -0.4
comp=Z,35nm,0.9s
VAY **Valandovo** 50.26 61 *i* P P 21 44 00.0 -6.1
LIT **Litokhoron** 50.44 62 P P 21 44 06.4 -1.1
VTS **Vitosha** 50.49 59⇑ *i*P P 21 44 09.3 +1.2
VTS **Vitosha** 50.49 59 ⇑P P 21 44 09.3 +1.2
VTS **Vitosha** 50.49 59 *e*P P 21 44 08.2 +0.1
comp=Z,20nm,0.8s
AGG **Agios Georgios** 50.54 64 *e*P P 21 44 09.4 +1.0
AGG pmax pmax
comp=Z,31nm,0.9s
AGG **Agios Georgios** 50.54 64 *e*P P 21 44 09.4 +1.0
comp=Z,31nm,0.9s
ARCR **ARCALIA** 50.62 53⇓ *i*P P 21 44 08.7 -0.1
ARR **Arges** 51.05 55⇓ *i*P P 21 44 12.4 +0.3
BUR08 **Bucovina Ar. S** 51.11 52 *e*P P 21 44 13.0 +0.3
FINES **FINESS Array B** 51.12 34 P P 21 44 12.0 -0.3
comp=Z,18nm,0.8s,baz=247,slow=3.4,SNR=20
FINES LR LR 22 02 17.4
comp=Z,660nm,21.9s,baz=237,slow=32
FINES **FINESS Array B** 51.12 34 P P 21 44 12.0 -0.3
FINES pmax pmax
comp=Z,18nm,0.8s
FINES MLR MLR
comp=Z,660nm,21.9s
FIA1 **FINESS Array S** 51.12 34 *e*P P 21 44 12.1 -0.2
BUR04 **Bucovina Ar. S** 51.13 52 *e*P P 21 44 12.4 -0.3
BURAR **Bucovina Array** 51.13 52⇓ *i*P P 21 44 09.9 -2.8
BURAR **Bucovina Array** 51.13 52 ⇓P P 21 44 09.9 -2.8
VOIR 51.33 55⇓ *i*P P 21 44 15.4 +1.2
VOIR 51.33 55 ⇓P P 21 44 15.4 +1.2
VSU **Vasula** 51.36 38 *i* P P 21 44 13.2 -0.9
VSU pmax pmax
comp=Z,96nm,0.9s
HUMR **Humele** 51.42 56⇑ *i*P P 21 44 15.0 +0.1
DOPR **Dopca** 51.48 54⇑ *i*P P 21 44 14.8 -0.5
MSTX **Muleshoe** 51.61 290 P P 21 44 15.2 -1.4
baz=74
MSTX **Muleshoe** 51.61 290 *e*P P 21 44 15.9 -0.7
comp=Z,53nm,1.2s
ARCES **ARCESS Array B** 51.82 24 P P 21 44 16.2 -1.2
comp=Z,9.7nm,0.8s,baz=262,slow=5.5,SNR=11
ARCES LR LR 22 03 01.0
comp=Z,171nm,19.3s,baz=252,slow=32
PRAR **RASCA** 51.84 52⇑ *i*P P 21 44 17.6 -0.4
PHWY **Pilot Hill** 51.88 300 *e*P P 21 44 18.1 -0.6
comp=Z,7.7nm,0.8s
LNIG **Linares** 51.89 278 *e*P P 21 44 19.2 +0.6
comp=Z,33nm,1.3s
MLR **Muntele Rosu** 51.94 55⇓ *i*P P 21 44 18.7 -0.2
MLR **Muntele Rosu** 51.94 55 ⇓P P 21 44 18.7 -0.2
MLR **Muntele Rosu** 51.94 55 *e*P P 21 44 19.5 +0.6
comp=Z,104nm,1.4s
T25A **Trinidad** 52.05 294 P P 21 44 20.0 0.0
baz=75,SNR=13
MICGM **Minsk** 52.13 43 *e* P P 21 44 19.0 -1.0
MNK **Minsk** 52.13 43 *e*P P 21 44 19.0 -1.0
Q24A **Divide** 52.16 297 P P 21 44 20.4 -0.5
baz=76
TESR **Tescani** 52.26 54⇓ *i*P P 21 44 26.1 +5.0
MHTCO **State Highway** 52.27 294 *e*P P 21 44 22.2 +0.7
comp=Z,16nm,1.2s
ISCO **Idaho Springs** 52.32 298 P P 21 44 21.9 -0.1
baz=77,SNR=9.2
ISCO **Idaho Springs** 52.32 298 *e*P P 21 44 22.3 +0.2
ISCO pmax pmax
comp=Z,20nm,1.1s
ISCO **Idaho Springs** 52.32 298 *e*P P 21 44 22.2 +0.2
comp=Z,20nm,1.1s
N23A **Red Feather La** 52.32 299 P P 21 44 21.7 -0.2
baz=77
PLOR **Plostina** 52.37 54⇓ *i*P P 21 44 21.6 -0.3
PLOR **Plostina** 52.37 54 ⇓P P 21 44 21.6 -0.3
VRI **Vrincioaia** 52.42 54⇑ *i*P P 21 44 21.5 -0.8
VRI **Vrincioaia** 52.42 54 ⇑P P 21 44 21.5 -0.8
ISR **Istrita** 52.42 55⇓ *i*P P 21 44 22.9 +0.5
ISR **Istrita** 52.42 55 ⇓P P 21 44 22.9 +0.5
PETR **Petresti** 52.79 54⇑ *i*P P 21 44 25.9 +0.9
RWWY **Rawlins** 53.08 301 *e*P P 21 44 27.5 0.0
comp=Z,33nm,1.3s
AK11 **Malin Array Si** 53.30 48 *e*P P 21 44 27.2 -1.5
KIEV **Kiev** 53.32 48⇑ *i*P P 21 44 27.5 -1.3
KIEV pmax pmax
comp=Z,13nm,0.8s
KIEV **Kiev** 53.32 48 *e*P P 21 44 27.9 -0.9
comp=Z,54nm,1.3s
AKASG **Malin Array Be** 53.33 48 P P 21 44 27.8 -1.1
comp=Z,18nm,0.8s,baz=277,slow=6.5,SNR=48
AKASG LR LR 22 05 44.3
comp=Z,735nm,18.0s,baz=270,slow=34
AKBB **Malin Array Si** 53.33 48 *e*P P 21 44 27.9 -1.0
AKBB pmax pmax
comp=Z,60nm,1.4s
AKBB **Malin Array Si** 53.33 48 *e*P P 21 44 27.9 -1.0
comp=Z,60nm,1.4s
LEOM **Leova** 53.35 53⇑ *i*P P 21 44 29.1 0.0
LEOM **Leova** 53.35 53 ⇑P P 21 44 29.1 0.0
SMCO **Snowmass** 53.49 297 *e*P P 21 44 31.0 +0.2
comp=Z,20nm,1.1s
CFR **Carcaliu** 53.52 55⇑ *i*P P 21 44 26.4 -3.9
CFR **Carcaliu** 53.52 55 ⇑P P 21 44 26.4 -3.9
EGMT **Eagleton** 53.63 309 P P 21 44 31.2 0.0
baz=80
EGMT **Eagleton** 53.63 309 *e*P P 21 44 31.1 -0.2
comp=Z,56nm,1.4s
S22A **4UR Ranch, Cre** 53.75 296 P P 21 44 33.1 +0.6

baz=74,SNR=8.2
**TXAR Lajitas Array 53.79 285** P **P 21 44 32.1 -0.6**
comp=Z,5.0nm,0.9s,baz=92,slow=7.9,SNR=22
TXAR LR LR 22 05 53.4
comp=Z,1µm,20.3s,baz=0.0,slow=34
**TX31 Lajitas Ar. Si 53.79 285** *e*P **P 21 44 32.3 -0.4**
**RLMT Red Lodge 53.83 305** P **P 21 44 32.8 -0.1**
baz=78
**TLIG Tlapa 54.20 269** *e*P **P 21 44 38.8 +2.9**
comp=Z,35nm,1.1s
**O20A White River Ci 54.20 299** P **P 21 44 35.7 -0.1**
baz=76
**O20A White River Ci 54.20 299** *e*P **P 21 44 35.8 +0.1**
comp=Z,11nm,0.7s
**ANMO Albuquerque 54.24 292** P **P 21 44 36.5 +0.4**
baz=73
**ANMO Albuquerque 54.24 292** *i* P **P 21 44 36.2 +0.1**
ANMO pmax pmax
comp=Z,21nm,2.5s
**ANMO Albuquerque 54.24 292** *e*P **P 21 44 39.1 +3.0**
comp=Z,41nm,1.9s
**MNTX Cornudas Mount 54.39 288** P **P 21 44 36.7 -0.3**
baz=71
**MNTX Cornudas Mount 54.39 288** *e*P **P 21 44 38.2 +1.2**
comp=Z,16nm,1.3s
**APA Apatity 54.52 27**⇑ *i* P **P 21 44 38.4 +1.1**
APA MLR MLR
comp=Z,4µm,25.0s
**BW06 Boulder Array 54.53 302** P **P 21 44 37.5 -0.7**
baz=77
**PDAR Pinedale Array 54.53 302** P **P 21 44 36.6 -1.5**
comp=Z,9.1nm,0.8s,baz=69,slow=8.1,SNR=27
PDAR LR LR 22 06 42.1
comp=Z,2µm,19.7s,baz=107,slow=35
**LPM Los Pinos Moun 54.57 292** *e*P **P 21 44 41.6 +3.1**
**LKWY Lake 54.73 305** *e*P **P 21 44 36.5 -3.1**
LKWY pmax pmax
comp=Z,25nm,1.1s
**LKWY Lake 54.73 305** *e*P **P 21 44 36.5 -3.1**
comp=Z,25nm,1.1s
**YKA Yellowknife Ar 54.82 327** P **P 21 44 38.7 -0.8**
comp=Z,5.2nm,0.9s,baz=87,slow=7.3,SNR=17
YKA PcP **PcP 21 45 42.1 +0.3**
comp=Z,2.5nm,0.9s,baz=88,slow=5.1,SNR=4.7
YKA LR LR 22 07 31.5
comp=Z,218nm,19.1s,baz=0.0,slow=36
**H17A Grant Village 54.89 304** P **P 21 44 40.5 -0.2**
baz=77
**YNR Norris Junctio 54.89 305** *e*P **P 21 44 43.2 +2.4**
comp=Z,16nm,1.2s
**PV01 Paradox Valley 54.97 297** *e*P **P 21 44 41.7 +0.3**
comp=Z,2µm,1.3s
**LPAZ La Paz 55.05 213** P **P 21 44 42.2 -0.3**
comp=Z,10nm,0.8s,baz=5.3,slow=5.5,SNR=34
LPAZ LR LR 22 06 43.2
comp=Z,825nm,19.8s,baz=16,slow=34
**LPAZ La Paz 55.05 213** *e*P **P 21 44 42.1 -0.3**
comp=Z,20nm,0.9s
**YMR Madison River 55.10 305** *e*P **P 21 44 42.8 +0.6**
comp=Z,61nm,1.2s
**MOOW Moose Ponds 55.16 304** *e*P **P 21 44 39.0 -3.6**
comp=Z,10nm,1.0s
**MVCO Mesa Verde 55.17 295** P **P 21 44 42.8 -0.1**
baz=73
**MVCO Mesa Verde 55.17 295** *e*P **P 21 44 43.8 +0.9**
comp=Z,26nm,1.1s
**YHB Horse Butte 55.24 305** *e*P **P 21 44 43.9 +0.7**
comp=Z,30nm,1.1s
**HRY Holter Researc 55.26 307** *e*P **P 21 44 45.2 +2.0**
**PV09 Paradox Valley 55.30 297** *e*P **P 21 44 45.3 +1.5**
**REDW Red Top Meadow 55.32 303** *e*P **P 21 44 43.0 -0.8**
comp=Z,36nm,1.3s
**BOZ Bozeman (W) 55.36 306** P **P 21 44 43.4 -0.6**
baz=78
**BOZ Bozeman (W) 55.36 306** *e*P **P 21 44 43.7 -0.3**
BOZ pmax pmax
comp=Z,11nm,1.2s
**BOZ Bozeman (W) 55.36 306** *e*P **P 21 44 43.7 -0.3**
comp=Z,11nm,1.2s
**TPAW Teton Pass 55.36 303** P P 21 44 36.4 -7.8
comp=Z,37nm,1.3s
**QLMT Earthquake Lak 55.39 305** *e*P **P 21 44 46.5 +2.2**
**MANT Manisa 55.39 63** *e*P **P 21 44 45.1 +0.7**
comp=Z,291nm,2.0s
**AHID Auburn Hatcher 55.64 303** *e*P **P 21 44 45.4 -0.8**
comp=Z,53nm,1.3s
**P18A Preston Nutter 55.82 299** *e*P **P 21 44 47.6 0.0**
comp=Z,52nm,1.2s
**LRM Limekiln Ridge 55.87 306** *e*P **P 21 44 47.7 0.0**
**121A Cookes Peak, D 56.05 290** P **P 21 44 48.8 -0.3**
baz=71
**DLMT Dillon 56.07 306** *e*P **P 21 44 49.0 -0.1**
comp=Z,28nm,1.2s
**NNA Nana 56.10 225** *i* P **P 21 44 54.0 +4.6**
**WALA Waterton Lakes 56.15 311** *e*P **P 21 44 49.0 -0.6**
comp=Z,18nm,0.9s
**SRU San Rafael Swe 56.17 298** *e*P **P 21 44 49.9 -0.1**
SRU pmax pmax
comp=Z,24nm,1.0s
**SRU San Rafael Swe 56.17 298** *e*P **P 21 44 49.9 -0.1**
comp=Z,24nm,1.0s
**P17A Butcher Ranch, 56.23 299** *e*P **P 21 44 52.3 +1.9**
comp=Z,11nm,1.1s
**HWUT Hardware Ranch 56.27 301** *e*P **P 21 44 50.2 -0.4**
comp=Z,37nm,1.4s
**TCUT Toone Canyon 56.28 301** *e*P **P 21 44 52.6 +1.8**
comp=Z,98nm,1.0s
**HPIG 56.29 283** *e*P **P 21 44 51.3 +0.3**
comp=Z,39nm,1.1s
**MCMT McKenzie Canyo 56.37 305** *e*P **P 21 44 52.3 +1.0**
**TMCR Tamitsa 56.55 31** *e*P **P 21 44 55.1 +3.1**
TMCR pmax pmax
comp=Z,59nm,1.3s
**TMUT Trail Mountain 56.63 299** *e*P **P 21 44 53.9 +0.5**
comp=Z,24nm,1.3s
**CTU Camp Tracy 56.64 300** *e*P **P 21 44 55.1 +1.9**
comp=Z,27nm,1.3s
**MSO Missoula 56.65 308** P **P 21 44 52.3 -0.8**
baz=77
**MSO Missoula 56.65 308** *e*P **P 21 44 52.7 -0.5**
comp=Z,36nm,1.6s
**Q16A Castle Valley 56.71 298** *e*P **P 21 44 54.3 +0.5**
comp=Z,24nm,1.2s
**MPU Maple Canyon 56.74 300** *e*P **P 21 44 54.4 +0.4**
comp=Z,25nm,1.3s
**W18A Petrified Fore 56.75 293** P **P 21 44 53.8 -0.4**
baz=72
**OBN Obninsk 57.04 42**⇓ *e*P **P 21 44 54.7 -0.9**
OBN *e**PP **pP 21 44 59.3 -0.1**
OBN *e**SP **sP 21 45 00.9 0.0**
OBN 21 45 50.0
OBN *i* S **S 21 52 56.3 +6.5**
OBN pmax pmax
comp=Z,106nm,1.7s
OBN MLR MLR
comp=Z,531nm,16.0s
**OBN Obninsk 57.04 42** *e*P **P 21 44 54.9 -0.6**
comp=Z,182nm,1.6s
**NLU North Lily Min 57.09 300** *e*P **P 21 44 56.8 +0.3**
comp=Z,35nm,1.3s
**MOS Moscow 57.52 41** *e*P **P 21 44 57.5 -1.5**
MOS pmax pmax
comp=Z,47nm,1.1s
**DUG Dugway, Tooele 57.56 300** P **P 21 44 59.4 -0.3**
baz=73,SNR=12
**DUG Dugway, Tooele 57.56 300** *e*P **P 21 45 00.0 +0.2**
DUG pmax pmax
comp=Z,50nm,1.4s
**DUG Dugway, Tooele 57.56 300** *e*P **P 21 45 00.0 +0.2**
comp=Z,50nm,1.4s
**KLMR Klimovskoe 57.65 35** *e*P **P 21 44 56.9 -2.9**
KLMR pmax pmax
comp=Z,57nm,1.3s
**MTPU Mount Pierson 57.73 297** *e*P **P 21 45 01.9 +0.7**
comp=Z,7.4nm,0.8s
**HLID Hailey 57.78 304** P **P 21 45 00.7 -0.6**
baz=74
**HLID Hailey 57.78 304** *e*P **P 21 45 01.3 0.0**
comp=Z,36nm,1.9s
**WUAZ Wupatki 57.90 294** P **P 21 45 02.2 0.0**
baz=71,SNR=8.3
**WUAZ Wupatki 57.90 294** *e*P **P 21 45 03.0 +0.8**
comp=Z,42nm,1.4s
**BR231 Keskin MP Arra 58.15 60** *e*P **P 21 45 07.3 +3.4**
**NEW Newport 58.40 310** P **P 21 45 04.5 -0.9**
baz=76,SNR=8.6
**NEW Newport 58.40 310** *e*P **P 21 45 04.7 -0.7**
NEW pmax pmax
comp=Z,22nm,1.0s
**NEW Newport 58.40 310** *e*P **P 21 45 04.7 -0.7**
comp=Z,22nm,1.0s
**SZCU Shurtz Canyon 58.55 297** *e*P **P 21 45 07.1 +0.3**
comp=Z,24nm,1.3s
**CCUT Cedar City 58.77 297** *e*P **P 21 45 08.5 +0.2**
comp=Z,54nm,1.3s
**PB11 IPOC Station P 58.78 213** *e*P **P 21 45 06.3 -2.1**
comp=Z,74nm,0.8s
**MFID Camas Ranch 58.81 304** *e*P **P 21 45 08.6 +0.1**
comp=Z,38nm,1.3s
**BR131 Keskin Array S 58.82 60** *e*P **P 21 45 08.7 +0.1**
**BRTR Keskin Array B 58.82 60** P **P 21 45 08.1 -0.5**
comp=Z,5.0nm,0.8s,baz=269,slow=5.0,SNR=28
BRTR LR LR 22 09 37.6
comp=Z,145nm,20.0s,baz=280,slow=35
**LCMT Little Creek M 58.85 297** *e*P **P 21 45 10.6 +1.8**
comp=Z,8.8nm,1.0s
**LPSR Galich'ya Gora 58.92 44** *e*P **P 21 45 08.6 -0.2**
LPSR pmax pmax
comp=Z,80nm,0.8s
LPSR pmax pmax
comp=Z,30nm,0.9s
**F10A Beach Ranch, E 59.06 308** *e*P **P 21 45 11.6 +1.4**
comp=Z,7.8nm,0.9s
**VSR Storozhevoye 59.40 46** *e*P **P 21 45 11.4 -0.8**
VSR pmax pmax
comp=Z,20nm,0.8s
VSR pmax pmax
comp=Z,10.0nm,0.8s
**BMO Blue Mountains 59.43 306** *e*P **P 21 45 15.2 +2.5**
BMO pmax pmax
comp=Z,9.0nm,1.0s
**BMO Blue Mountains 59.43 306** *e*P **P 21 45 15.2 +2.5**
comp=Z,9.4nm,1.0s
**E09A Wood Farm, Sta 59.53 308** *e*P **P 21 45 14.8 +1.7**
comp=Z,30nm,1.4s
**PB01 IPOC Station P 59.82 212** *e*P **P 21 45 15.3 -0.1**
comp=Z,26nm,0.9s
**D08A Wollman Farm, 59.89 309** *e*P **P 21 45 15.5 -0.2**
comp=Z,15nm,1.3s
**R11A Troy Canyon, C 60.17 299** P **P 21 45 17.9 -0.1**
baz=71,SNR=9.1
**R11A Troy Canyon, C 60.17 299** *e*P **P 21 45 17.8 -0.2**
comp=Z,23nm,1.4s
**214A Organ Pipe Nat 60.24 291** P **P 21 45 18.0 -0.4**
baz=68
**CPUP Villa Florida 60.39 198** P **P 21 45 18.1 -1.0**
comp=Z,4.1nm,0.8s,baz=9.7,slow=3.8,SNR=4.7
CPUP LR LR 22 12 14.2
comp=Z,209nm,18.1s,baz=18,slow=37
**CPUP Villa Florida 60.39 198** *e*P **P 21 45 18.9 -0.2**
**CPUP Villa Florida 60.39 198** *e*P **P 21 45 18.9 -0.2**
**G08A Pilot Rock 60.42 307** *e*P **P 21 45 18.7 -0.8**
comp=Z,13nm,1.1s
**PDMCI Parker Dam,Lak 60.45 294** P **P 21 45 19.5 -0.1**
baz=69
**SHPR Sheep Range 60.47 297** *e*P **P 21 45 22.4 +2.4**
comp=Z,11nm,1.1s
**HAWA Hanford 60.49 309** *e*P **P 21 45 19.8 0.0**
comp=Z,31nm,1.1s
**E07A Sunnyside 60.65 309** *e*P **P 21 45 22.9 +2.0**
comp=Z,13nm,1.0s
**NEE2 Needles Airpor 60.65 295** P **P 21 45 20.7 -0.4**
baz=69
**J08A Circle Bar Ran 60.67 305** *e*P **P 21 45 21.6 +0.4**
comp=Z,48nm,1.1s
**BMN Battle Mountai 60.70 302** *e*P **P 21 45 21.8 +0.2**
BMN pmax pmax
comp=Z,31nm,1.4s
**BMN Battle Mountai 60.70 302** *e*P **P 21 45 21.8 +0.2**
comp=Z,31nm,1.4s
**LLLB Lillooet 60.79 314** *e*P **P 21 45 20.4 -1.5**
comp=Z,32nm,1.3s
**C06D Leavenworth 60.93 311** P **P 21 45 20.9 -1.9**
baz=73
**LVC Limon Verde 60.94 210** *e*P **P 21 45 22.9 -0.5**
comp=Z,17nm,0.9s
**VRH Novokhopyorsk 60.95 45** *e*P **P 21 45 22.8 0.0**
VRH pmax pmax
comp=Z,40nm,0.6s
VRH pmax pmax
comp=Z,10.0nm,0.9s
**LTY Liberty 60.98 310** *e*P **P 21 45 22.2 -1.0**
comp=Z,24nm,1.1s
**WVOR Wild Horse Val 61.07 304** *e*P **P 21 45 26.4 +2.4**
WVOR pmax pmax
comp=Z,47nm,1.4s
**WVOR Wild Horse Val 61.07 304** *e*P **P 21 45 26.4 +2.4**
comp=Z,47nm,1.4s
**SLBS Sierra La Lagu 61.13 281** *e*P **P 21 45 25.3 +0.7**
comp=Z,60nm,1.1s
**TPNV Topopah Spring 61.14 297** P **P 21 45 25.1 +0.5**
baz=70
**I07A Izee 61.16 306** *e*P **P 21 45 24.5 0.0**
comp=Z,31nm,1.6s
**IRM Iron Mountain 61.27 294** P **P 21 45 25.6 +0.2**
baz=69
**TUQ Turquoise Moun 61.42 296** P **P 21 45 26.9 +0.4**
baz=69
**GLA Glamis 61.43 293** P **P 21 45 24.5 -1.9**
baz=68
**G06A Carlson Farm, 61.57 308** *e*P **P 21 45 27.5 +0.3**
comp=Z,38nm,1.3s
**INK Inuvik 61.67 335** *e*P **P 21 45 27.3 -0.1**
INK pmax pmax
comp=Z,38nm,1.3s
**INK Inuvik 61.67 335** *e*P **P 21 45 27.3 -0.1**
comp=Z,38nm,1.3s
**FURC Furnace Creek, 61.77 297** P **P 21 45 28.8 +0.2**
baz=69
**LON Longmire 61.88 310** *e*P **P 21 45 28.0 -1.3**
LON pmax pmax
comp=Z,6.0nm,1.0s
**LON Longmire 61.88 310** *e*P **P 21 45 27.9 -1.3**
comp=Z,6.3nm,1.0s
**HEC Hector,Ludlow 61.95 295** P **P 21 45 30.3 +0.3**
baz=69
**G05D Wamic, OR 62.02 308** P **P 21 45 30.4 +0.2**
baz=71
**GSC Goldstone, Bar 62.14 296** P **P 21 45 31.7 +0.4**
baz=69
**I05D Terrebonne, OR 62.33 307** P **P 21 45 33.0 +0.6**
baz=71,SNR=7.8
**DAC Darwin (Calif) 62.39 297** *e*P **P 21 45 34.1 +1.1**
DAC pmax pmax
comp=Z,60nm,1.3s
**DAC Darwin (Calif) 62.39 297** *e*P **P 21 45 34.1 +1.1**
comp=Z,60nm,1.3s
**MPMC Manual Prospec 62.39 297** P **P 21 45 33.6 +0.6**
baz=69,SNR=11
**MOD Modoc Plateau 62.42 304** *e*P **P 21 45 33.3 +0.2**
comp=Z,27nm,1.2s
**PFO Pinyon Flats O 62.49 294** P **P 21 45 33.7 0.0**
baz=68
**PAHR Pah Rah Range 62.51 301** *e*P **P 21 45 33.5 -0.2**
comp=Z,36nm,1.3s
**J05D Fort Rock, OR 62.60 306** P **P 21 45 34.1 -0.2**
baz=70
**CWC Cottonwood Cre 62.70 298** P **P 21 45 35.6 +0.6**
baz=69
**H04A Detroit Lake 62.79 307** *e*P **P 21 45 35.4 0.0**
comp=Z,47nm,1.7s
**MURC Murrieta 63.07 294** P **P 21 45 37.0 -0.4**
baz=68
**EDW2 Edwards Air Fo 63.20 296** P **P 21 45 38.0 -0.3**
baz=68,SNR=5.2
**I04A Tendick Farm, 63.24 307** P **P 21 45 37.2 -1.2**
baz=70
**ISA Isabella, Lake 63.28 297** P **P 21 45 38.7 -0.1**
baz=68
**ISA Isabella, Lake 63.28 297** *e*P **P 21 45 40.0 +1.2**
ISA pmax pmax
comp=Z,29nm,1.1s
**ISA Isabella, Lake 63.28 297** *e*P **P 21 45 40.0 +1.2**
comp=Z,29nm,1.1s
**F03A Seaside 63.29 309** *e*P **P 21 45 41.0 +2.4**
comp=Z,75nm,1.1s
**G03D McMinnville, O 63.33 308** P **P 21 45 38.6 -0.3**
baz=70
**M04C Macdoel 63.54 304** P **P 21 45 39.7 -0.8**
baz=69
**COR Corvallis 63.57 308** *e*P **P 21 45 41.2 +0.7**
COR pmax pmax
comp=Z,15nm,0.6s
**COR Corvallis 63.57 308** *e*P **P 21 45 41.2 +0.7**
comp=Z,15nm,0.6s
**RCTC Rector, Farmer 63.62 298** P **P 21 45 41.1 +0.1**
baz=68
**KOPT Kop Dagi 63.70 58** *e*P **P 21 45 43.2 +1.4**
comp=Z,43nm,1.6s
**GOF Gofitskoye 63.70 52**⇑ *e*P **P 21 45 42.9 +1.5**
GOF pmax pmax
comp=Z,36nm,1.1s
**ARVC Arvin 63.74 296** P **P 21 45 41.9 +0.1**
baz=68
**CMB Columbia Colle 63.83 300** *e*P **P 21 45 44.6 +2.2**
CMB pmax pmax
comp=Z,26nm,1.4s
**CMB Columbia Colle 63.83 300** *e*P **P 21 45 44.6 +2.2**
comp=Z,26nm,1.4s
**KIV Kislovodsk 63.84 53** P **P 21 45 43.7 +1.2**
**KIV Kislovodsk 63.84 53** *e*P **P 21 45 41.7 -0.7**
KIV *e*S **S 21 54 16.2 -1.4**
KIV pmax pmax
comp=Z,20nm,1.1s
KIV MLR MLR
comp=Z,174nm,17.0s
**KIV Kislovodsk 63.84 53** *e*P **P 21 45 43.7 +1.2**
comp=Z,25nm,1.2s
**OSI Osito Audit: C 63.86 296** P **P 21 45 43.6 +1.0**
baz=68
**OSI Osito Audit: C 63.86 296** *e*P **P 21 45 45.8 +3.2**
comp=Z,106nm,1.4s
**FMP Fort Macarthur 63.87 295** P **P 21 45 42.7 +0.1**
baz=67
**O03D Paynes Creek 64.04 303** P **P 21 45 44.0 +0.2**
baz=69
**KBZ Khabaz 64.07 53** P **P 21 45 44.1 +0.4**
comp=Z,11nm,0.9s,baz=313,slow=5.5,SNR=19
KBZ LR LR 22 14 01.9
comp=Z,114nm,18.1s,baz=298,slow=36
**ORV Oroville 64.09 302** *e*P **P 21 45 43.6 -0.4**
ORV pmax pmax
comp=Z,35nm,1.4s
**ORV Oroville 64.09 302** *e*P **P 21 45 43.6 -0.4**
comp=Z,35nm,1.4s
**NEY Neytrino 64.12 54** *i* P **P 21 45 43.0 -1.4**
NEY pmax pmax
comp=Z,2.0nm,1.0s
**YBH Yreka Blue Hor 64.16 304** *e*P **P 21 45 42.7 -1.9**
YBH pmax pmax
comp=Z,25nm,1.6s
**YBH Yreka Blue Hor 64.16 304** *e*P **P 21 45 42.7 -1.9**
comp=Z,25nm,1.6s
**ARTV Artvin 64.30 56** *e*P **P 21 45 45.7 +0.1**
comp=Z,10nm,1.0s
**M02C Callahan 64.39 304** P **P 21 45 44.8 -1.3**
baz=69
**NCK Nalchik 64.62 53** *e*P **P 21 45 46.6 -0.9**
NCK pmax pmax
comp=Z,17nm,1.1s
**L02D Cave Junction, 64.63 305** P **P 21 45 47.2 -0.3**
baz=69
**ZEI Tsey 65.09 54** *e*P **P 21 45 49.8 -1.0**
ZEI pmax pmax
comp=Z,14nm,1.3s
**AKH Akhalkalaki 65.31 55**⇑ *i* P **P 21 45 52.8 +0.6**
**DAWY Dawson 65.33 331** *e*P **P 21 45 52.3 +0.5**
comp=Z,38nm,1.3s
**EGAK Eagle 65.75 333** *e*P **P 21 45 54.6 +0.3**
comp=Z,31nm,1.1s
**GROC Groznyy 66.22 53** *e*P **P 21 45 57.4 -0.4**
GROC *e* 21 46 27.5
GROC *e* 21 48 20.4
GROC pmax pmax
comp=Z,27nm,1.6s
**GNI Garni 66.67 56** P **P 21 46 01.0 +0.1**
**GNI Garni 66.67 56** *i* P **P 21 46 01.3 +0.3**
GNI pmax pmax
comp=Z,249nm,1.7s
**GNI Garni 66.67 56** *e*P **P 21 46 01.6 +0.6**
comp=Z,80nm,1.3s
**GNI Garni 66.67 56** P **P 21 46 01.8 +0.8**
SNR=7.1
**LCO Las Campanas 67.34 209** *e*P **P 21 46 05.8 +0.5**
comp=Z,26nm,1.2s
**DOT Dot Lake 67.39 332** *e*P **P 21 46 05.2 +0.2**
comp=Z,83nm,1.5s
**IL1 Eielson Array 67.95 334** *e*P **P 21 46 08.1 -0.3**
**ILAR Eielson Array 67.95 334** P **P 21 46 08.6 +0.1**
comp=Z,5.8nm,1.1s,baz=56,slow=4.6,SNR=22
ILAR LR LR 22 16 20.2
comp=Z,1µm,18.1s,baz=84,slow=36
**ILB Eielson Array 67.95 334** *e*P **P 21 46 09.2 +0.7**
**COLA College 68.27 334** *e*P **P 21 46 10.3 0.0**
COLA pmax pmax
comp=Z,7.0nm,1.1s
**CCB Clear Creek Bu 68.36 334** *e*P **P 21 46 11.2 +0.2**
comp=Z,45nm,1.6s
**ARU Arti 68.43 36***c* *i*P **P 21 46 10.8 -0.7**
ARU S **S 21 55 13.3 +0.6**
ARU SS **SS 21 59 35.0 -0.6**
ARU pmax pmax
comp=Z,62nm,2.5s
**ARU Arti 68.43 36** *e*P **P 21 46 11.2 -0.3**
comp=Z,85nm,1.8s
**WRH Wood River Hil 68.55 334** *e*P **P 21 46 12.5 +0.3**
comp=Z,31nm,1.2s
**KLU Klutina 69.16 330** *e*P **P 21 46 16.0 -0.1**
comp=Z,22nm,0.9s
**MCK McKinley 69.25 333** *e*P **P 21 46 16.8 +0.3**
MCK pmax pmax
comp=Z,61nm,1.2s
**MCK McKinley 69.25 333** *e*P **P 21 46 16.8 +0.3**
comp=Z,62nm,1.2s
**SVE Sverdlovsk 69.28 35**⇓ *i*P **P 21 46 16.6 -0.2**
SVE pmax pmax
comp=Z,47nm,1.7s
**RND Reindeer 69.38 333** *e*P **P 21 46 17.6 +0.1**
RND pmax pmax
comp=Z,35nm,1.2s
**RND Reindeer 69.38 333** *e*P **P 21 46 17.6 +0.1**
comp=Z,35nm,1.2s
**IMAR Indian Mountai 69.78 336** *e*P **P 21 46 19.6 -0.1**
**BPAW Bear Paw Mtn. 69.83 334** *e*P **P 21 46 21.3 +1.2**
comp=Z,35nm,1.5s
**TRF Thorofare Moun 69.91 333** *e*P **P 21 46 22.3 +1.5**
comp=Z,86nm,1.9s
**KTH Kantishna Hill 70.10 334** *e*P **P 21 46 22.2 +0.4**
comp=Z,29nm,1.2s
**PMR Palmer 70.44 331** *e*P **P 21 46 24.3 +0.5**
PMR pmax pmax
comp=Z,25nm,1.0s
**PMR Palmer 70.44 331** *e*P **P 21 46 24.3 +0.5**
comp=Z,25nm,1.0s
**RC01 Rabbit Creek A 70.95 331** *e*P **P 21 46 24.2 -2.8**
comp=Z,27nm,1.0s
**RSO Redoubt South 72.53 331** *e*P **P 21 46 39.4 +2.6**
**H09N1 TRISTAN DA CUN 73.70 157** T T 23 07 16.8
SNR=84
**H09W1 TRISTAN DA CUN 73.72 157** T T 23 07 12.2
SNR=88
**RAYN Ar Rayn 74.54 72** *e*P **P 21 46 48.7 -0.4**
comp=Z,30nm,1.9s
**BRVK Borovoye 75.99 36** *i* P **P 21 46 55.9 -0.9**
BRVK pmax pmax
comp=Z,65nm,1.7s
**BRVK Borovoye 75.99 36** *e*P **P 21 46 56.6 -0.2**
comp=Z,22nm,1.4s
**BRVK Borovoye 75.99 36** P **P 21 46 56.8 0.0**
SNR=7.8
**TIXI Tiksi 76.19 3** *i* P **P 21 46 57.8 +0.2**
TIXI pmax pmax
comp=Z,48nm,2.5s
**TIXI Tiksi 76.19 3** *e*P **P 21 46 57.8 +0.2**
comp=Z,17nm,1.0s
**GEYT Ailbeck 76.96 53** P **P 21 47 02.5 -0.2**
comp=Z,2.9nm,0.8s,baz=298,slow=6.4,SNR=8.7
GEYT LR LR 22 22 42.7
comp=Z,100nm,18.7s,baz=295,slow=37
**PLCA Paso Flores 77.73 203** P **P 21 47 05.3 -1.4**
comp=Z,6.4nm,0.9s,baz=49,slow=7.0,SNR=10
PLCA LR LR 22 20 27.1
comp=Z,207nm,21.5s,baz=22,slow=35
**PLCA Paso Flores 77.73 203** *e*P **P 21 47 06.5 -0.2**
**BILL Bilibino 78.12 350** *i* P **P 21 47 07.2 -1.3**
BILL *i* 21 47 19.0
BILL pmax pmax
comp=Z,9.0nm,1.2s
BILL MLR MLR
comp=Z,345nm,19.0s
**KMBO Kilima Mbogo 80.11 98** P **P 21 47 20.9 +0.3**
comp=Z,0.8nm,0.3s,baz=286,slow=4.1,SNR=8.3

KMBO LR LR 22 23 22.4
comp=Z,795nm,18.8s,baz=276,slow=36
**KMBO Kilima Mbogo 80.11 98** P **P 21 47 21.0 +0.3**
KMBO pmax pmax
comp=Z,1.0nm,0.3s
KMBO MLR MLR
comp=Z,795nm,18.8s
**KMBO Kilima Mbogo 80.11 98** *e*P **P 21 47 22.2 +1.6**
comp=Z,12nm,1.4s
**NVS Novosibirsk 80.74 29**⇑*i*P **P 21 47 23.0 0.0**
NVS pmax pmax
comp=N,12nm,1.7s
NVS pmax pmax
comp=Z,39nm,1.7s
NVS pmax pmax
comp=E,9.0nm,1.4s
**LSZ Lusaka 80.75 114** *e*P **P 21 47 24.3 +0.5**
**LSZ Lusaka 80.75 114** *e*P **P 21 47 24.3 +0.5**
**KURK Kurchatov 81.49 34** *i* P **P 21 47 26.2 -0.9**
KURK pmax pmax
comp=Z,90nm,1.7s
**KURK Kurchatov 81.49 34** *e*P **P 21 47 26.6 -0.5**
**KURK Kurchatov 81.49 34** P **P 21 47 26.8 -0.3**
SNR=11
**NAZ Nazwa, Dubai 81.83 66** *i* P **P 21 47 29.6 +0.2**
SNR=5.8
**BANOM Banah 81.84 65** P **P 21 47 30.4 +0.9**
**ZALV Zalesovo Beam 82.03 29** P **P 21 47 29.4 -0.4**
comp=Z,9.2nm,0.8s,baz=283,slow=8.8,SNR=29
**UOSS Minazif 82.28 66** *e*P **P 21 47 30.9 -0.9**
**HATD Hatta, Dubai 82.28 66** P **P 21 47 30.7 -1.0**
**FRU Bishkek 84.51 42** *e*P **P 21 47 41.5 -1.5**
**AAK Ala-Archa 84.56 42** *e*P **P 21 47 43.5 +0.1**
AAK pmax pmax
comp=Z,4.0nm,0.9s
**AAK Ala-Archa 84.56 42** *e*P **P 21 47 44.0 +0.6**
**MAKZ Makanchi 85.78 36** *e*P **P 21 47 49.8 +0.6**
**MAKZ Makanchi 85.78 36** *e*P **P 21 47 49.8 +0.6**
**YAK Yakutsk 85.78 5** *e*P **P 21 47 47.9 -1.0**
YAK pmax pmax
comp=Z,28nm,1.1s
YAK pmax pmax
comp=N,11nm,1.1s
**MKAR Makanchi Array 85.94 35** P **P 21 47 49.8 -0.3**
comp=N,3.7nm,0.8s,baz=319,slow=5.0,SNR=17
MKAR LR LR 22 25 44.3
comp=N,566nm,19.0s,baz=303,slow=35
**KBL Kabul 86.18 51** *e*P **P 21 47 52.6 +0.9**
**KBL Kabul 86.18 51** *e*P **P 21 47 52.6 +0.9**
**DGZ Jazzator, Alta 86.23 31** *e*P **P 21 47 51.7 +0.1**
DGZ pmax pmax
comp=Z,3.0nm,1.0s
**BOSA Boshof 86.82 127** P **P 21 47 55.5 +0.9**
comp=Z,5.6nm,1.0s,baz=254,slow=3.0,SNR=3.5
BOSA LR LR 22 20 50.4
comp=Z,610nm,21.2s,baz=316,slow=32
**KSH Kashi 87.42 44** P **P 21 47 56.4 -1.2**
KSH pP pP 21 48 02.0 +0.4
KSH PP **PP 21 51 23.1 +1.6**
KSH S **S 21 58 34.2 -4.2**
KSH sS pS 21 58 42.1 -1.4
KSH SS **SS 22 04 21.3 -0.9**
KSH pmax pmax
comp=Z,6.0nm,0.9s
KSH pmax pmax
comp=Z,200nm,5.3s
KSH LR LR
comp=Z,380nm,6.6s
KSH LR LR
comp=Z,240nm,6.7s
KSH LR LR
comp=Z,700nm,7.2s
**BOD Bodaibo 87.79 13** *e*P **P 21 47 57.4 -1.4**
BOD pmax pmax
comp=Z,42nm,1.8s
**WMQ Urumqi 90.72 35** P **P 21 48 13.3 +0.3**
WMQ pP sP 21 48 18.1 -0.3
WMQ sP pP 21 48 20.3 +3.3
WMQ pmax pmax
comp=Z,22nm,0.7s
WMQ LR LR
comp=Z,600nm,18.7s
WMQ LR LR
comp=Z,550nm,20.3s
WMQ LR LR
comp=Z,940nm,23.3s
**ZAK Zakamensk 91.72 22** *e*P **P 21 48 17.0 -0.5**
ZAK pmax pmax
comp=Z,6.0nm,1.2s
**PETK Petropavlovsk- 93.63 349** LR LR 22 28 24.7
comp=Z,366nm,20.8s,baz=30,slow=34
**SONA1 Songino Array 94.94 22** *e*P **P 21 48 31.9 -0.5**
**SONM Songino Array 94.94 22** P **P 21 48 32.1 -0.3**
comp=Z,1.4nm,0.8s,baz=300,slow=4.1,SNR=9.1
SONM LR LR 22 29 48.3
comp=Z,143nm,21.1s,baz=355,slow=34
**ULN Ulaanbaatar 95.12 21**⇑*i*P **P 21 48 32.8 -0.5**
ULN pmax pmax
comp=Z,6.0nm,1.2s
**ULN Ulaanbaatar 95.12 21** *e*P **P 21 48 33.5 +0.2**
**GTA Gaotai 99.75 30** *e*P **Pdif 21 48 54.7 +0.4**
GTA pP pP 21 48 58.9 +0.6
GTA sP sP 21 49 02.7 +2.9
GTA PP **PP 21 52 59.0 +1.3**
GTA S **S 22 00 23.2 -4.9**
GTA pmax pmax
comp=Z,2.0nm,1.1s
GTA LR LR
comp=Z,240nm,17.1s
GTA LR LR
comp=Z,410nm,17.6s
GTA LR LR
comp=Z,240nm,18.8s
**HHC Hu-ho-hao-te 102.84 21** *e*P **Pdif 21 49 06.3 -1.7**
HHC pP pPdif 21 49 10.5 -1.5
HHC PP **PP 21 53 20.6 -0.2**
HHC S **Sdif 22 00 47.1 -6.6**
HHC SS **SS 22 07 58.5 -1.9**
HHC pmax pmax
comp=Z,5.0nm,1.1s
HHC LR LR
comp=Z,250nm,13.6s
HHC LR LR
comp=Z,130nm,13.6s
HHC LR LR
comp=Z,230nm,14.8s
**TAOE Nuku Hiva Isla 102.92 268** *e*LR LR 22 22 56.0
comp=Z,544nm,34.8s
**RKT Rikitea 105.66 252** *e*LR LR 22 24 18.0
comp=Z,329nm,35.2s
**KMI Kunming 113.01 36** PKP **PKiKP 21 53 46.9 -1.0**
**GYA Guiyang 113.75 32** *e*Pdif **Pdif 21 49 55.8 -1.0**
GYA PKP **PKiKP 21 53 48.7 -0.4**
GYA PP **PP 21 54 44.0 +3.3**
GYA AMB AMB
comp=Z,130nm,8.4s
**PPT2 Papeete2 115.19 264** *e*SP SP 22 04 29.7 -1.0
comp=Z,72nm,26.8s
PPT2 *e*SS **SS 22 10 54.4 +4.6**
comp=Z,139nm,28.8s
**PPT2 Papeete2 115.19 264** *e*LR LR 22 28 40.7
comp=Z,736nm,30.5s
**SYO Syowa Base 116.17 157**⇑*e*PKPdf **PKPdf 21 53 51.0 -1.1**
**CMAR Chiang Mai Arr 116.32 44** PKP **PKPdf 21 53 54.4 +0.3**
comp=Z,0.7nm,0.4s,baz=284,slow=2.0,SNR=5.4
**TBI Tubuai 117.65 259** *e*LR LR 22 29 46.3
comp=Z,386nm,24.0s
**QIZ Qiongzhong 121.63 34** PKP **PKPdf 21 54 02.4 -1.9**
QIZ PP **PP 21 55 33.8 -1.6**
QIZ SS SS 22 12 09.7 -0.9
QIZ LR LR
comp=Z,140nm,20.9s
**MAW Mawson 124.32 153** PKP **PKPdf 21 54 06.8 -1.1**
comp=Z,3.3nm,0.7s,baz=296,slow=10,SNR=4.3
**KAPI Kappang 147.18 39** P **PKPbc 21 54 52.8 -1.0**
SNR=8.6
KAPI P **PKPbc 21 54 52.8 -1.0**
SNR=8.6
**WRA Warramunga Arr 166.92 23** PKP **PKPdf 21 55 15.6 -0.6**
comp=Z,1.8nm,0.8s,baz=345,slow=1.6,SNR=8.8
WRA PKPab **PKPab 21 56 18.9 -0.5**
comp=Z,2.7nm,1.1s,baz=334,slow=4.8,SNR=5.0
WRA PP **PP 22 00 04.6 -1.8**
comp=Z,1.9nm,0.8s,baz=345,slow=5.8,SNR=9.0
**ASAR Alice Springs 170.12 32** PKP **PKPdf 21 55 17.2 -1.0**
comp=Z,5.2nm,0.8s,baz=359,slow=0.6,SNR=36
ASAR PKPab **PKPab 21 56 34.2 +0.7**
comp=Z,2.4nm,0.8s,baz=334,slow=4.6,SNR=9.5
ASAR PP **PP 22 00 21.3 -1.6**
comp=Z,0.2nm,0.3s,baz=358,slow=5.6,SNR=3.4

---

*ISCJB **01** 21:41:42.8±0.4, 32°.17N±0°.08×40°.32W±0°.08, h14km, mb4.1/27, Error ellipse: s-maj=12.6km s-min=9.6km az=157.7*
*IDC **01** 21:41:42.3±0.6, 32°.15N×40°.30W, h0km, mb4.1/22, mb1 4.3/22, mb1mx4.2/40, mbtmp4.1/22, Error ellipse: s-maj=17.3km s-min=14.3km az=146.0*
*NEIC **01** 21:41:43.8±0.3, 32°.16N×40°.28W, h10km, mb4.2/4, Error ellipse: s-maj=9.2km s-min=7.3km az=157.0*
**ISC 01 21:41:44.5**±0.5, **32°.2N**±0°.1×**40°.29W**±0°.09, **h14**km, **n39**, σ**0s.70**/32, **mb4.2**/28, **Northern Mid-Atlantic Ridge**

Code Station Name Δ° AZ° Phase ID (Op, ISC) Time (h m s) Res (ISC)
**SDV Santo Domingo 36.42 237** *e*P **P 21 48 50.0 +0.9**
4.0nm,0.8s
**PTGA Pitinga 37.63 213** P **P 21 48 59.3 +0.1**
3.5nm,0.9s,baz=46,slow=12,SNR=6.1
**KEST Kesra 40.98 71** P **P 21 49 27.4 +0.3**
4.3nm,0.9s,baz=237,slow=6.1,SNR=6.0
**TAM Tamanrasset 41.44 91** *e*P **P 21 49 30.6 -0.5**
5.2nm,1.1s
**DBIC Dimbokro 41.61 120** P **P 21 49 32.1 -0.3**
5.1nm,0.9s,baz=320,slow=12,SNR=3.0
**ABTA Abfaltersbach 42.51 54** *i* pP **P 21 49 40.4 +1.0**
8.3nm,1.1s
**TORD Torodi Ar. Bea 42.78 106** P **P 21 49 41.4 -0.5**
6.2nm,1.0s,baz=302,slow=5.8,SNR=17
**GERES GERESS Array B 43.36 51** P **P 21 49 45.8 -0.6**
0.9nm,0.7s,baz=260,slow=6.6,SNR=8.8
**OBKA Obir 43.91 54** *i* P **P 21 49 51.0 +0.2**
6.9nm,0.9s
**NOA NORSAR Array B 43.98 33** P **P 21 49 51.2 +0.1**
2.3nm,0.7s,baz=254,slow=7.9,SNR=4.5
**H10N2 ASCENSION HYDR46.76 144** T T 22 40 13.4
baz=329,slow=75,SNR=6.1
**H10N3 ASCENSION HYDR46.76 144** T T 22 40 16.8
baz=329,slow=75,SNR=6.2
**VYHS Vyhne 46.77 52** *e*P **P 21 50 13.6 +0.3**
**H10N1 ASCENSION HYDR46.78 144** T T 22 40 14.8
baz=329,slow=75,SNR=6.0
**H10S1 ASCENSION HYDR47.64 145** T T 22 41 00.6
baz=330,slow=75,SNR=6.2
**H10S3 ASCENSION HYDR47.64 145** T T 22 41 03.8
baz=330,slow=75,SNR=5.6
**H10S2 ASCENSION HYDR47.65 145** T T 22 41 01.7
baz=330,slow=75,SNR=6.3
**BDFB Brasilia 48.09 190** P **P 21 50 24.5 +0.5**
5.2nm,0.9s,baz=182,slow=5.8,SNR=5.1
**FINES FINESS Array B 51.11 34** P **P 21 50 47.0 +0.5**
6.0nm,0.7s,baz=235,slow=6.7,SNR=7.3
**ARCES ARCESS Array B 51.83 24** P **P 21 50 51.0 -0.7**
4.0nm,0.7s,baz=267,slow=9.6,SNR=5.4
**AKASG Malin Array Be 53.31 48** P **P 21 51 02.2 -0.7**
5.0nm,0.8s,baz=277,slow=6.5,SNR=22
**TXAR Lajitas Array 53.84 285** P **P 21 51 06.3 -1.0**
0.5nm,0.7s,baz=119,slow=10,SNR=4.9
**PDAR Pinedale Array 54.59 302** P **P 21 51 12.8 0.0**
3.6nm,0.9s,baz=77,slow=5.8,SNR=12
**YKA Yellowknife Ar 54.87 327** P **P 21 51 13.7 -0.4**
0.9nm,0.8s,baz=99,slow=8.6,SNR=3.9
**LPAZ La Paz 55.06 213** P **P 21 51 16.2 -0.5**
2.7nm,0.7s,baz=345,slow=5.7,SNR=8.5
**IMW Indian Meadow 55.32 304** *e*P **P 21 51 18.4 +0.4**
2.4nm,0.8s
**BOZ Bozeman (W) 55.42 306** P **P 21 51 18.0 -0.5**
1.2nm,0.8s
**BRTR Keskin Array B 58.79 60** P **P 21 51 41.5 -1.1**
0.7nm,0.7s,baz=305,slow=4.4,SNR=4.6
**INK Inuvik 61.72 335** P **P 21 52 02.4 +0.5**
1.9nm,1.0s,baz=252,slow=16,SNR=3.4
**KBZ Khabaz 64.04 53** P **P 21 52 18.8 +1.0**
3.1nm,0.8s,baz=345,slow=2.7,SNR=6.5
**ILAR Eielson Array 68.00 334** P **P 21 52 42.0 -0.9**
0.4nm,0.8s,baz=59,slow=5.4,SNR=3.7
**H09N1 TRISTAN DA CUN 73.66 157** T T 23 13 46.4
SNR=6.9
**H09W1 TRISTAN DA CUN 73.67 157** T T 23 13 45.8
SNR=8.4
**GEYT Alibeck 76.93 53** P **P 21 53 36.5 -0.2**
1.1nm,0.9s,baz=194,slow=0.6,SNR=3.7
**ZALV Zalesovo Beam 82.02 29** P **P 21 54 05.5 +1.5**
1.9nm,0.7s,baz=290,slow=7.5,SNR=7.8
**MKAR Makanchi Array 85.93 35** P **P 21 54 24.1 -0.1**
0.8nm,0.8s,baz=329,slow=4.2,SNR=4.1
**SONM Songino Array 94.95 22** P **P 21 55 07.3 +0.7**
0.3nm,0.7s,baz=316,slow=4.0,SNR=3.1
**WRA Warramunga Arr 166.93 23** PKP **PKPdf 22 01 49.1 -1.2**
0.4nm,0.8s,baz=219,slow=1.0,SNR=2.5
**ASAR Alice Springs 170.11 33** PKP **PKPdf 22 01 53.0 +0.6**
1.3nm,0.8s,baz=88,slow=0.5,SNR=8.3
ASAR PKPab **PKPab 22 03 08.3 +0.6**
0.5nm,0.6s,baz=347,slow=3.8,SNR=3.7

---

*IDC **01** 21:59:29.9±0.6, 12°.20N×125°.77E, h0km, mb4.3/17, mb1 4.5/18, mb1mx4.3/36, mbtmp4.3/18, ML4.9/1, MS3.7/7, Ms1 3.7/7, ms1mx3.3/32, Error ellipse: s-maj=28.9km s-min=12.7km az=68.0*
*MAN **01** 21:59:32, 12°.37N×125°.93E, h20km, mb5.3, ML4.2, MS4.5*
*ISCJB **01** 21:59:34.0±0.9, 12°.34N±0°.03×125°.84E±0°.06, h35km±7km, mb4.5/37, MS3.9/7, Error ellipse: s-maj=10.2km s-min=4.8km az=170.1*
*NEIC **01** 21:59:35.6±1.7, 12°.25N×125°.81E, h39km±15km, mb4.5/9, Error ellipse: s-maj=12.9km s-min=6.4km az=71.0*
*BJI **01** 21:59:42.5, 12°.41N×125°.80E, h110km, mb4.6/26, mB4.9/17*
*DJA **01** 22:00:03.1±2.2, 12°N±14°×12°5E±1°2, h235km±14km, M4.2/13, mb4.2/13, mB5.0/3, Mw(mB)4.3/3*
**ISC 01 21:59:37.4**±1.1, **12°.28N**±0°.04×**125°.81E**±0°.07, **h54**km±9km, **n93**, σ**2s.13**/100, **mb4.4**/37, **MS4.0**/7, **3C-5D, Samar**

Code Station Name Δ° AZ° Phase ID (Op, ISC) Time (h m s) Res (ISC)
**BESP Borongan 0.76 209** *e*P **Pn 21 59 49.2 -3.0**
BESP *e*S **Sn 22 00 02.1 -0.8**
**CNP Catarman 1.15 282** *e*P **Pn 21 59 52.7 -4.5**
CNP *e*S **Sn 22 00 11.8 -0.1**
**PLP Palo 1.37 217**⇓*e*P **Pn 21 59 57.3 -3.0**
PLP *e*S **Sn 22 00 14.8 -2.6**
**OCLP Ormoc 1.69 224** *e*P **Pn 22 00 02.7 -2.0**
**PVCP Virac 2.08 309** *e*P **Pn 22 00 05.8 -4.1**
PVCP *e*S **Sn 22 00 39.5 +4.8**
**MMPH Masbate 2.14 272**⇑*e*P **Pn 22 00 12.1 +1.4**
MMPH *i* S **Sn 22 00 40.9 +4.7**
**MSLP Maasin 2.33 204** *e*P **Pn 22 00 12.6 -0.7**
MSLP *e*S **Sn 22 00 38.9 -1.8**
**LLP Lapu-Lapu 2.66 223**⇑*e*P **Pn 22 00 15.7 -2.1**
LLP *e*S **Sn 22 00 47.8 -1.1**
**RCP Roxas 3.08 257**⇓*e*P **Pn 22 00 22.0 -1.6**
**AUQP San Andres 3.23 289** *e*P **Pn 22 00 28.5 +2.8**
**BUTP Butuan 3.29 183** *e*P **Pn 22 00 27.4 +0.9**
**BUTP Butuan 3.29 183** *e*P Pn 22 00 35.1 +8.6
**GUIM Jordan 3.56 243** *e*P **Pn 22 00 29.3 -0.9**
**GQP Guinayangan 3.66 297**⇓*e*P **Pn 22 00 30.8 -0.7**
GQP *e*S **Sn 22 01 10.1 -3.3**
**SNPH Sibulan 3.86 221**⇓*i*P **Pn 22 00 33.7 -0.7**
**BOAC Boac 4.04 287** *e*P **Pn 22 00 35.9 -1.0**
**BUKP Musuan 4.43 190** *e*P Pn 22 00 47.8 +5.6
**SJMP San Jose 4.59 273** *e*P **Pn 22 00 43.8 -0.5**
**PAGZ Pagadian 5.01 209** *e*P **Pn 22 00 49.4 -0.7**
**TGY Tagaytay City 5.08 291** Pn **Pn 22 00 48.6 -2.5**
47nm,0.3s,baz=173,slow=19,SNR=3.2
TGY LR LR 22 02 54.3
comp=Z,1μm,21.8s,baz=84,slow=40
**BALP Baler 5.36 310** *e*P **Pn 22 00 50.4 -4.5**
**BUSP Coron 5.50 268** *e*P **Pn 22 00 55.6 -1.1**
**LUBP Lubang 5.62 286** *e*P Pn 22 00 49.1 -9.2
**CAUP Cauayan 6.04 321** *e*P **Pn 22 01 01.8 -2.4**
**APYP Conner 7.09 322** *e*P **Pn 22 01 15.4 -3.2**
**MPSI Mapaga 13.23 207** P **P 22 02 51.4 +0.5**
11nm,0.9s
**LUWI Luwuk 13.57 193** P P 22 03 01.5 +6.8
28nm,1.8s,1μm
**APSI Ampana 13.74 198** P **P 22 03 00.0 +3.5**
**TTSI Tana Toraja 16.34 202** P **P 22 03 26.0 +0.5**
**QIZ Qiongzhong 16.77 296** S **S 22 06 39.8 -2.8**
QIZ LR LR
comp=E,550nm,13.8s
QIZ LR LR
comp=Z,530nm,16.7s
**MTKI Muara Teweh, K 17.03 220** P **P 22 03 35.2 +2.1**
**SPSI Sidrap Palu 17.22 201** P **P 22 03 36.1 +1.0**
**BNSI Bone 17.51 199** P **P 22 03 40.8 +2.4**
**KAPI Kappang 18.20 200** *e*P **P 22 03 45.6 -0.4**
comp=Z,31nm,1.1s
**GUMO Guam 18.62 84** LR LR 22 11 36.6
comp=Z,87nm,18.7s,baz=278,slow=39
**STKI Sintang 18.70 231** P **Pn 22 03 52.8 +0.5**
comp=Z,22nm,1.1s
**KSM Kuching 18.75 236** *e*P **P 22 03 52.3 +0.3**
comp=Z,13nm,1.0s
**PBKI Pangkalan Bun 20.47 224** P **P 22 04 10.7 -0.1**
**WHN Wuhan 21.05 331** P **P 22 04 18.7 +1.8**
WHN S **S 22 08 07.8 -0.5**
WHN LR LR
comp=Z,1μm,14.3s
**SOEI Soe 21.94 184** P **P 22 04 28.4 +1.7**
**SOEI Soe 21.94 184** P **P 22 04 26.7 0.0**
comp=Z,26nm,0.7s
**KMMI Kalianget 22.52 212** P **P 22 04 33.6 +0.8**
**KHON Khomkaen 22.63 283** P **P 22 04 34.1 +0.1**
comp=Z,14nm,1.0s
**GYA Guiyang 22.87 311**⇑*i*P **P 22 04 37.1 +0.5**
GYA pmax pmax
comp=Z,20nm,0.8s
**GRJI Gresik 23.22 215** P **P 22 04 41.5 +1.5**
**CHAI Chaiyaphum 23.38 282** P **P 22 04 40.3 -1.3**
comp=Z,11nm,0.9s,comp=Z,106nm
**ENH Enshi 23.44 322** *e*P **P 22 04 41.3 -0.8**
comp=Z,13nm,0.9s
**JAGI Jajag, Banyuwa 23.65 210** P **P 22 04 45.0 +1.0**
**PBKT Sadao Pong 24.43 283** P **P 22 04 51.6 +0.5**
comp=Z,31nm,1.1s,comp=Z,2μm
**SMRI Semarang 24.54 219** P **P 22 04 53.0 +0.8**
**UTTA Uttaradit 24.98 286** P **P 22 04 56.5 +0.3**
comp=Z,2.7nm,0.9s
**NANT Nan 25.03 288** P **P 22 04 55.4 -1.3**
comp=Z,5.8nm,1.0s
**TIA Tai'an 25.09 343** ⇓P **P 22 04 57.3 +0.3**
TIA pmax pmax
comp=Z,20nm,1.0s
**KSAR Wonju Array Be 25.13 4** P **P 22 04 57.9 +0.6**
**KSRS Korea Array 25.14 4** P **P 22 04 57.9 +0.5**
comp=Z,1.5nm,0.8s,baz=183,slow=10.0,SNR=4.2
KSRS LR LR 22 14 44.0
comp=Z,58nm,21.6s,baz=182,slow=36
**XAN Xi'an 26.57 327** P **P 22 05 09.9 -0.6**
XAN pmax pmax
comp=Z,19nm,1.1s
**CMAR Chiang Mai Arr 26.61 287** P **P 22 05 09.6 -1.3**
comp=Z,6.2nm,0.8s,baz=95,slow=7.7,SNR=43
CMAR PcP **PcP 22 08 34.1 0.0**
comp=Z,0.4nm,0.3s,baz=88,slow=1.1,SNR=4.5
CMAR LR LR 22 16 17.7
comp=Z,131nm,18.5s,baz=87,slow=38
**MJAR Matsushiro Arr 26.61 23** LR LR 22 14 11.7
comp=Z,105nm,21.1s,baz=225,slow=33
**CMMT Chiang Mai 26.66 287** P **P 22 05 10.4 -1.1**
**CHTO Chiang Mai 26.67 287** P **P 22 05 10.5 -1.0**
comp=Z,48nm,1.1s
**CHTO Chiang Mai 26.67 287** *e*P **P 22 05 10.2 -1.3**
comp=Z,3.6nm,0.8s
**FITZ Fitzroy Crossi 30.19 180** P **P 22 05 42.4 -0.3**
comp=Z,6.9nm,0.9s,baz=346,slow=8.8,SNR=8.6
**LZH Lanzhou 30.89 324** *e*P **P 22 05 48.5 -0.6**
LZH pmax pmax
comp=Z,25nm,1.2s
LZH pmax pmax
comp=Z,140nm,6.0s
LZH LR LR
comp=Z,460nm,13.2s
LZH LR LR
comp=Z,520nm,12.5s
LZH LR LR
comp=Z,640nm,14.6s
**WRA Warramunga Arr 33.10 165** P **P 22 06 07.0 -1.3**
comp=Z,0.9nm,0.8s,baz=346,slow=9.6,SNR=3.7
WRA PcP **PcP 22 08 51.2 +0.4**
comp=Z,1.6nm,0.6s,baz=347,slow=3.2,SNR=8.7
**GTA Gaotai 35.49 324** *e*P **P 22 06 29.8 +0.7**
GTA pmax pmax
comp=Z,6.0nm,1.1s
**LSA Lhasa 36.52 304** *e*P **P 22 06 38.9 +0.5**
comp=Z,10nm,1.0s
**ASAR Alice Springs 36.59 167** P **P 22 06 37.8 -0.7**
comp=Z,2.1nm,0.7s,baz=346,slow=6.7,SNR=16
ASAR PcP **PcP 22 09 01.0 +0.1**
comp=Z,1.3nm,0.7s,baz=356,slow=4.0,SNR=5.3
ASAR ScP **ScP 22 12 46.3 +3.2**
comp=Z,1.3nm,1.0s,baz=3.6,slow=4.0,SNR=4.7
**ULN Ulaanbaatar 38.80 340** *e*P **P 22 06 57.0 0.0**
comp=Z,8.5nm,1.4s
**SONM Songino Array 38.99 339** P **P 22 06 58.7 +0.1**
comp=Z,4.5nm,1.0s,baz=160,slow=9.3,SNR=18
**H11S3 WAKE ISLAND Hy 39.83 76** T T 22 50 01.1
baz=269,slow=72,SNR=23
**H11S1 WAKE ISLAND Hy 39.84 76** T T 22 50 01.1
baz=269,slow=72,SNR=14
**H11S2 WAKE ISLAND Hy 39.84 76** T T 22 49 59.5
baz=269,slow=72,SNR=17
**H11N1 WAKE ISLAND Hy 40.10 74** T T 22 50 24.5
baz=266,slow=75,SNR=55
**H11N2 WAKE ISLAND Hy 40.10 74** T T 22 50 21.2
baz=266,slow=75,SNR=39
**H11N3 WAKE ISLAND Hy 40.11 74** T T 22 50 25.9
baz=266,slow=75,SNR=58
**STKA Stephens Creek 46.43 161** P **P 22 07 58.0 -0.9**
comp=Z,3.8nm,0.8s,baz=328,slow=6.9,SNR=5.8
**MKAR Makanchi Array 50.17 322** P **P 22 08 28.8 +1.1**
comp=Z,6.2nm,0.8s,baz=118,slow=8.5,SNR=36
MKAR PcP **PcP 22 09 47.0 +0.7**
comp=Z,1.4nm,0.8s,baz=101,slow=4.6,SNR=2.8
**KSH Kashi 51.57 311** P **P 22 08 41.4 +3.0**
KSH pP sP 22 09 06.4 +7.2
KSH PcP **PcP 22 09 54.5 +2.7**
KSH PP **PP 22 10 42.0 +5.8**
KSH S **S 22 15 51.5 -3.9**
KSH ScS **ScS 22 18 18.4 -5.8**
KSH SS **SS 22 19 24.5 -7.6**
KSH pmax pmax
comp=Z,12nm,1.3s
KSH pmax pmax
comp=Z,240nm,5.6s
KSH LR LR
comp=Z,170nm,6.2s
KSH LR LR
comp=Z,170nm,6.0s
KSH LR LR
comp=Z,440nm,5.7s
**ZALV Zalesovo Beam 52.66 331** P **P 22 08 46.7 +0.6**
comp=Z,2.7nm,0.9s,baz=125,slow=6.6,SNR=9.5
**KURK Kurchatov 54.17 325** *e*P **P 22 08 57.8 +0.6**
comp=Z,141nm,0.8s
**MIDW Midway 55.15 64** P **P 22 09 03.4 -1.3**
comp=Z,105nm,0.8s
**BRVK Borovoye 59.84 325** *e*P **P 22 09 37.7 +0.5**
comp=Z,30nm,0.9s
**GEYT Alibeck 65.00 306** P **P 22 10 13.1 +1.1**
comp=Z,7.3nm,1.0s,baz=114,slow=3.6,SNR=17
GEYT LR LR 22 41 27.7
comp=Z,218nm,18.2s,baz=0.0,slow=39
**RAYN Ar Rayn 76.42 291** *e*P **P 22 11 21.0 -0.8**
comp=Z,16nm,1.2s
**KBZ Khabaz 76.53 312** P **P 22 11 21.1 -0.8**
comp=Z,2.7nm,0.9s,baz=212,slow=7.4,SNR=4.8
**ILAR Eielson Array 77.84 26** P **P 22 11 29.8 +0.8**
comp=Z,0.4nm,0.9s,baz=261,slow=8.9,SNR=2.6
**ARCES ARCESS Array B 82.17 340** P **P 22 11 53.5 +1.3**
comp=Z,3.0nm,0.7s,baz=58,slow=3.0,SNR=4.5
**BRTR Keskin Array B 83.92 309** P **P 22 12 00.8 -1.2**
comp=Z,0.6nm,0.7s,baz=68,slow=5.0,SNR=3.3
**FINES FINESS Array B 83.92 332** P **P 22 12 01.2 -0.2**
comp=Z,14nm,1.1s,baz=108,slow=6.2,SNR=5.3
**AKASG Malin Array Be 84.74 321** P **P 22 12 05.2 -0.5**
comp=Z,4.7nm,0.9s,baz=62,slow=4.9,SNR=14
**CRVS Cervenica-Dubn 90.06 320** *e*P **P 22 12 33.5 +2.0**
**NOA NORSAR Array B 90.77 334** P **P 22 12 34.4 -0.2**
comp=Z,1.8nm,0.7s,baz=38,slow=4.9,SNR=3.0
NOA LR LR 22 57 46.5
comp=Z,46nm,18.4s,baz=300,slow=38
**TORD Torodi Ar. Bea 119.10 293** PKP **PKPdf 22 18 21.2 0.0**
comp=Z,0.6nm,0.9s,baz=328,slow=0.4,SNR=2.9

---

*ISCJB 01 22:02:31.8±0.4, 37°.51N±0°.01×26°.74E±0°.02, h3km±3km, Error ellipse: s-maj=2.6km s-min=2.4km az=158.2*
*ISK 01 22:02:31.9, 37°.53N×26°.70E, h8km, ML3.9*
*ATH 01 22:02:31.5, 37°.53N×26°.87E, h24km, ML3.4/6, Error ellipse: s-maj=1.4km s-min=0.7km az=77.0*
*CSEM 01 22:02:32.6±0.1, 37°.51N×26°.75E, h5km, ML3.4, Error ellipse: s-maj=2.2km s-min=2.1km az=62.0*
*THE 01 22:02:33.1, 37°.52N×26°.83E, h5km±1km, ML3.5/4, Error ellipse: s-maj=1.9km s-min=0.5km az=58.0*
*DDA 01 22:02:33.4, 37°.61N×27°.01E, h7km, Ml3.8*
**ISC 01 22:02:32.5±0.9, 37°.50N±0°.02×26°.83E±0°.02, h11km±7km, n247, σ1s19/288, Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SMG | Samos | 0.21 | 1 | P | Pg | 22 02 37.2 | +0.3 |
| SMG | | | | S | Sg | 22 02 40.1 | +0.2 |
| SMG | | | | AML | AML | 22 02 40.5 | |
| SMG | | | | AML | AML | 22 02 41.1 | |
| SMG | Samos | 0.21 | 1 | P | Pg | 22 02 37.2 | +0.3 |
| SMG | | | | S | Sg | 22 02 40.4 | +0.5 |
| SMG | Samos | 0.21 | 1 | P | Pg | 22 02 37.0 | +0.1 |
| SMG | | | | S | Sg | 22 02 40.4 | +0.5 |
| GCAM | G?zelcaml? | 0.38 | 58 | iP | Pb | 22 02 40.4 | -0.8 |
| GCAM | | | | iS | Sb | 22 02 45.9 | -1.2 |
| GCAM | G?zelcaml? | 0.38 | 58 | P | Pb | 22 02 40.4 | -0.8 |
| GCAM | | | | S | Sb | 22 02 45.9 | -1.2 |
| KUSD | Kusadasi-Aydin | 0.51 | 45 | ePG | Pb | 22 02 42.7 | -0.8 |
| KUSD | Kusadasi-Aydin | 0.51 | 45 | ePg | Pb | 22 02 42.7 | -0.8 |
| DGB | ˜zmir | 0.55 | 4 | iP | Pg | 22 02 42.9 | -0.4 |
| DGB | | | | iS | Sb | 22 02 51.0 | -1.2 |
| BODT | Bodrum | 0.58 | 139 | ePG | Pb | 22 02 45.0 | +0.3 |
| BODT | Bodrum | 0.58 | 139 | P | Pb | 22 02 44.6 | -0.1 |
| BODT | Bodrum | 0.58 | 139 | ePg | Pb | 22 02 45.0 | +0.3 |
| BODT | | | | S | Sb | 22 02 53.0 | 0.0 |
| BODT | Bodrum | 0.58 | 139 | P | Pb | 22 02 44.6 | -0.1 |
| BODT | | | | S | Sb | 22 02 53.0 | 0.0 |
| BDRM | Kayabasi | 0.65 | 132 | iP | Pb | 22 02 45.9 | 0.0 |
| BDRM | | | | iS | Sb | 22 02 55.7 | +0.6 |
| BDRM | Kayabasi | 0.65 | 132 | P | Pb | 22 02 45.9 | 0.0 |
| BDRM | | | | S | Sb | 22 02 55.7 | +0.6 |
| ZEY | ˜zmir | 0.78 | 341 | iP | Pb | 22 02 47.6 | -0.6 |
| ZEY | | | | iS | Sb | 22 02 58.7 | -0.1 |
| AYDN | Tasoluk | 0.85 | 79 | iP | Pb | 22 02 49.0 | -0.3 |
| AYDN | | | | iS | Sb | 22 03 00.5 | -0.2 |
| AYDN | Tasoluk | 0.85 | 79 | P | Pb | 22 02 49.0 | -0.3 |
| AYDN | | | | S | Sb | 22 03 00.5 | -0.2 |
| URLA | Izmir | 0.88 | 348 | ePG | Pb | 22 02 49.3 | -0.5 |
| URLA | | | | eSG | Sg | 22 03 00.4 | -0.5 |
| URLA | Izmir | 0.88 | 348 | iP | Pb | 22 02 49.4 | -0.5 |
| URLA | | | | iS | Sb | 22 03 02.8 | +1.2 |
| URLA | Izmir | 0.88 | 348 | ePg | Pb | 22 02 49.3 | -0.5 |
| URLA | | | | eSg | Sg | 22 03 00.4 | -0.5 |
| URLA | | | | S | Sb | 22 03 02.8 | +1.2 |
| NISR | Nisiros | 0.92 | 165 | P | Pb | 22 02 50.7 | +0.3 |
| NISR | Nisiros | 0.92 | 165 | P | Pb | 22 02 50.7 | +0.3 |
| NIS1 | Nisyros Isl. | 0.94 | 163 | ePG | Pn | 22 02 52.0 | +0.4 |
| NIS1 | Nisyros Isl. | 0.94 | 163 | P | Pg | 22 02 49.8 | -0.8 |
| NIS1 | | | | S | Sb | 22 03 02.9 | -0.4 |
| NIS1 | | | | AML | AML | 22 03 12.1 | |
| | comp=E,4662µm,0.4s | | | | | | |
| NIS1 | | | | AML | AML | 22 03 13.0 | |
| | comp=N,6811µm,0.8s | | | | | | |
| NIS1 | Nisyros Isl. | 0.94 | 163 | ePg | Pn | 22 02 52.0 | +0.4 |
| NIS1 | | | | S | Sb | 22 03 02.8 | -0.4 |
| NIS1 | Nisyros Isl. | 0.94 | 163 | P | Pn | 22 02 52.1 | +0.4 |
| NIS1 | | | | S | Sn | 22 03 07.3 | +2.2 |
| CHOS | Chios island | 1.08 | 325 | ePG | Pg | 22 02 51.5 | -1.8 |
| CHOS | Chios island | 1.08 | 325 | P | Pb | 22 02 53.0 | -0.3 |
| CHOS | | | | S | Sn | 22 03 08.8 | +0.2 |
| CHOS | | | | AML | AML | 22 03 09.6 | |
| | comp=E,6106µm,0.5s | | | | | | |
| CHOS | | | | AML | AML | 22 03 10.5 | |
| | comp=N,3985µm,0.3s | | | | | | |
| CHOS | Chios island | 1.08 | 325 | ePg | Pg | 22 02 51.5 | -1.8 |
| CHOS | Chios island | 1.08 | 325 | P | Pb | 22 02 53.0 | -0.3 |
| CHOS | | | | S | Sb | 22 03 08.4 | +1.0 |
| CHOS | Chios island | 1.08 | 325 | P | Pg | 22 02 52.5 | -0.7 |
| CHOS | | | | S | Sb | 22 03 08.4 | +1.0 |
| APE | Apeiranthos | 1.12 | 248 | ePG | Pg | 22 02 52.2 | -1.9 |
| APE | Apeiranthos | 1.12 | 248 | P | Pg | 22 02 53.1 | -1.0 |
| APE | | | | AML | AML | 22 03 11.2 | |
| | comp=N,1905µm,0.4s | | | | | | |
| APE | | | | S | Sn | 22 03 11.3 | +1.6 |
| APE | | | | AML | AML | 22 03 13.1 | |
| | comp=E,1863µm,0.3s | | | | | | |
| APE | Apeiranthos | 1.12 | 248 | ePg | Pg | 22 02 52.2 | -1.9 |
| APE | Apeiranthos | 1.12 | 248 | P | Pg | 22 02 53.1 | -1.0 |
| APE | | | | S | Sn | 22 03 10.6 | +0.8 |
| APE | Apeiranthos | 1.12 | 248 | P | Pg | 22 02 53.4 | -0.7 |
| APE | | | | S | Sn | 22 03 10.6 | +0.8 |
| MRSB | Marmaris-Mugla | 1.34 | 125 | ePN | Pb | 22 02 58.7 | +1.0 |
| MRSB | | | | eSN | Sn | 22 03 18.4 | +3.3 |
| MRSB | Marmaris-Mugla | 1.34 | 125 | ePn | Pb | 22 02 58.7 | +1.0 |
| MRSB | | | | eSn | Sn | 22 03 18.4 | +3.3 |
| THR2 | Thira island, | 1.54 | 227 | P | Pn | 22 02 59.5 | -0.4 |
| THR2 | Thira island, | 1.54 | 227 | P | Pn | 22 03 00.1 | +0.2 |
| THR2 | Thira island, | 1.54 | 227 | P | Pn | 22 03 00.1 | +0.2 |
| THR8 | Santorini-Mono | 1.54 | 225 | P | Pb | 22 03 01.2 | +0.2 |
| THR8 | Santorini-Mono | 1.54 | 225 | P | Pb | 22 03 01.2 | +0.2 |
| TURN | Turunc | 1.55 | 113 | iP | Pn | 22 02 57.2 | -2.8 |
| TURN | | | | iS | Sn | 22 03 18.1 | -2.0 |
| TURN | Turunc | 1.55 | 113 | P | Pn | 22 02 57.2 | -2.8 |
| TURN | | | | S | Sn | 22 03 18.1 | -2.0 |
| DKL | Dikili | 1.57 | 2 | ePN | Pn | 22 03 00.4 | 0.0 |
| DKL | Dikili | 1.57 | 2 | ePn | Pn | 22 03 00.4 | 0.0 |
| SANT | Santorini | 1.57 | 225 | P | Pn | 22 03 00.4 | 0.0 |
| SANT | Santorini | 1.57 | 225 | P | Pn | 22 03 00.4 | 0.0 |
| AKHS | Akhisar | 1.58 | 29 | iP | Pn | 22 02 59.5 | -1.0 |
| AKHS | | | | iS | Sg | 22 03 24.3 | +1.0 |
| AKHS | Akhisar | 1.58 | 29 | P | Pn | 22 02 59.5 | -1.0 |
| AKHS | | | | S | Sg | 22 03 24.3 | +1.0 |
| AKS | Akhisar | 1.58 | 29 | ePN | Pb | 22 03 01.4 | -0.3 |
| AKS | Akhisar | 1.58 | 29 | ePn | Pb | 22 03 01.4 | -0.3 |
| THR3 | Thira Island, | 1.58 | 227 | P | Pn | 22 03 00.8 | +0.3 |
| THR3 | Thira Island, | 1.58 | 227 | P | Pn | 22 03 00.8 | +0.3 |
| THR3 | Thira Island, | 1.58 | 227 | P | Pn | 22 03 00.8 | +0.3 |
| THT1 | Athinios (Pele | 1.58 | 226 | P | Pn | 22 02 59.7 | -0.8 |
| THT1 | Athinios (Pele | 1.58 | 226 | P | Pn | 22 03 00.2 | -0.3 |
| THT1 | Athinios (Pele | 1.58 | 226 | P | Pn | 22 03 00.2 | -0.3 |
| DALY | Dalyan (Mu˜la | 1.61 | 115 | ePN | Pg | 22 03 03.0 | -0.3 |
| DALY | Dalyan (Mu˜la | 1.61 | 115 | ePn | Pg | 22 03 03.0 | -0.3 |
| THR5 | Thira Island, | 1.61 | 228 | P | Pn | 22 03 01.1 | +0.2 |
| THR5 | Thira Island, | 1.61 | 228 | P | Pn | 22 03 01.1 | +0.2 |
| THR6 | Thira Island, | 1.62 | 226 | P | Pn | 22 03 01.1 | +0.1 |
| THR6 | Thira Island, | 1.62 | 226 | P | Pn | 22 03 01.1 | +0.1 |
| ARG | Arkhangelos | 1.65 | 141 | P | Pb | 22 03 02.5 | -0.4 |
| ARG | | | | AML | AML | 22 03 31.6 | |
| | comp=E,1858µm,0.4s | | | | | | |
| ARG | | | | AML | AML | 22 03 32.2 | |
| | comp=N,1413µm,0.4s | | | | | | |
| ARG | Arkhangelos | 1.65 | 141 | P | Pb | 22 03 02.5 | -0.4 |
| ARG | Arkhangelos | 1.65 | 141 | P | Pn | 22 03 01.7 | +0.3 |
| TAVA | DENIZLI_Tavas | 1.66 | 91 | iP | Pn | 22 03 02.0 | +0.4 |
| TAVA | DENIZLI_Tavas | 1.66 | 91 | P | Pn | 22 03 02.0 | +0.4 |
| MANT | Manisa | 1.68 | 54 | iP | Pn | 22 03 01.2 | -0.9 |
| MANT | | | | iS | Sg | 22 03 26.5 | -0.2 |
| MANT | Manisa | 1.68 | 54 | P | Pn | 22 03 01.2 | -0.9 |
| MANT | | | | S | Sg | 22 03 26.5 | -0.2 |
| KULA | Kula-Manisa | 1.76 | 54 | ePN | Pb | 22 03 04.8 | -0.1 |
| KULA | Kula-Manisa | 1.76 | 54 | ePn | Pb | 22 03 04.8 | -0.1 |
| DENT | Denizli | 1.77 | 81 | ePN | Pg | 22 03 05.2 | -1.2 |
| DENT | Denizli | 1.77 | 81 | ePn | Pg | 22 03 05.2 | -1.2 |
| PRK | Paraskevi | 1.80 | 346 | P | Pn | 22 03 02.6 | -0.9 |
| PRK | Paraskevi | 1.80 | 346 | P | Pn | 22 03 02.7 | -0.8 |
| PRK | Paraskevi | 1.80 | 346 | P | Pn | 22 03 02.7 | -0.8 |
| SIGR | SIGRI | 1.87 | 336 | ePN | Pn | 22 03 03.5 | -1.0 |
| SIGR | SIGRI | 1.87 | 336 | P | Pn | 22 03 03.2 | -1.3 |
| SIGR | | | | AML | AML | 22 03 37.3 | |
| | comp=N,781µm,0.3s | | | | | | |
| SIGR | | | | AML | AML | 22 03 39.2 | |
| | comp=E,981µm,0.5s | | | | | | |
| SIGR | SIGRI | 1.87 | 336 | P | Pn | 22 03 03.7 | -0.8 |
| SIGR | SIGRI | 1.87 | 336 | P | Pn | 22 03 03.7 | -0.8 |
| KARP | Karpathos | 1.97 | 172 | ePN | Pn | 22 03 07.0 | +1.2 |
| KARP | Karpathos | 1.97 | 172 | P | Pn | 22 03 05.4 | -0.4 |
| KARP | Karpathos | 1.97 | 172 | P | Pn | 22 03 05.6 | -0.3 |
| KARP | Karpathos | 1.97 | 172 | ePn | Pn | 22 03 07.1 | +1.2 |
| KARP | Karpathos | 1.97 | 172 | P | Pn | 22 03 05.6 | -0.3 |
| KARY | Karystos | 1.97 | 286 | P | Pn | 22 03 05.8 | -0.1 |
| KARY | Karystos | 1.97 | 286 | P | Pn | 22 03 05.8 | -0.1 |
| FETY | Fethiye | 2.00 | 115 | ePN | Pb | 22 03 08.7 | -0.2 |
| FETY | Fethiye | 2.00 | 115 | P | Pb | 22 03 07.7 | -1.2 |
| FETY | Fethiye | 2.00 | 115 | ePn | Pb | 22 03 08.7 | -0.2 |
| FETY | | | | S | Sg | 22 03 36.2 | -0.5 |
| FETY | Fethiye | 2.00 | 115 | P | Pb | 22 03 07.6 | -1.3 |
| STEP | BALIKESIR_Sava | 2.00 | 20 | iP | Pn | 22 03 05.5 | -0.8 |
| STEP | | | | iS | Sg | 22 03 37.4 | +0.7 |
| STEP | BALIKESIR_Sava | 2.00 | 20 | P | Pn | 22 03 05.5 | -0.8 |
| STEP | | | | S | Sg | 22 03 37.4 | +0.7 |
| MHLA | Plaka, Milos I | 2.07 | 249 | P | Pn | 22 03 08.5 | +1.3 |
| MHLA | Plaka, Milos I | 2.07 | 249 | P | Pn | 22 03 08.5 | +1.3 |
| MHLO | Agia Marina, M | 2.10 | 248 | P | Pn | 22 03 08.8 | +1.1 |
| MHLO | | | | S | Sb | 22 03 36.7 | -0.2 |
| MHLO | Agia Marina, M | 2.10 | 248 | P | Pn | 22 03 08.8 | +1.1 |
| DEMI | Demirci | 2.14 | 43 | iP | Pg | 22 03 12.9 | -0.6 |
| DEMI | | | | iS | Sg | 22 03 40.0 | -1.2 |
| DEMI | Demirci | 2.14 | 43 | P | Pg | 22 03 12.9 | -0.6 |
| DEMI | | | | S | Sg | 22 03 40.0 | -1.2 |
| GLHS | Glhisar (BURDU | 2.15 | 98 | ePN | Pb | 22 03 11.2 | -0.4 |
| GLHS | Glhisar (BURDU | 2.15 | 98 | ePn | Pb | 22 03 11.2 | -0.4 |
| SKY | Skiros Island | 2.26 | 308 | P | Pn | 22 03 10.7 | +0.8 |
| SKY | Skiros Island | 2.26 | 308 | P | Pn | 22 03 10.7 | +0.8 |
| KHAL | Karahalli | 2.27 | 67 | iP | Pn | 22 03 10.4 | +0.2 |
| KHAL | | | | iS | Sg | 22 03 47.3 | +1.7 |
| KHAL | Karahalli | 2.27 | 67 | P | Pn | 22 03 10.4 | +0.2 |
| BALB | Balikesir | 2.29 | 21 | ePN | Pn | 22 03 11.5 | +1.3 |
| BALB | Balikesir | 2.29 | 21 | ePn | Pn | 22 03 11.5 | +1.3 |
| SIMA | Simav-Kutahya | 2.31 | 46 | ePN | Pn | 22 03 12.1 | +1.4 |
| SIMA | Simav-Kutahya | 2.31 | 46 | ePn | Pn | 22 03 12.1 | +1.4 |
| EZN | Ezine | 2.36 | 350 | ePN | Pn | 22 03 12.1 | +1.0 |
| EZN | Ezine | 2.36 | 350 | ePn | Pn | 22 03 12.1 | +1.0 |
| PTL | Penteli | 2.42 | 284 | P | Pn | 22 03 12.3 | +0.3 |
| PTL | Penteli | 2.42 | 284 | P | Pn | 22 03 12.0 | 0.0 |
| PTL | Penteli | 2.42 | 284 | P | Pn | 22 03 12.0 | 0.0 |
| BOZC | Bozcaada | 2.42 | 346 | ePN | Pn | 22 03 12.4 | +0.4 |
| BOZC | Bozcaada | 2.42 | 346 | ePn | Pn | 22 03 12.4 | +0.4 |
| ZKR | Zakros | 2.43 | 192 | P | Pn | 22 03 09.1 | -3.1 |
| VLY | Voula,Athens | 2.44 | 279 | P | Pn | 22 03 12.1 | -0.2 |
| VLY | Voula,Athens | 2.44 | 279 | P | Pn | 22 03 12.1 | -0.2 |
| NPS | Neapolis | 2.44 | 204 | P | Pn | 22 03 11.7 | -0.7 |
| NPS | Neapolis | 2.44 | 204 | P | Pn | 22 03 11.7 | -0.7 |
| ATHU | Athens Univers | 2.46 | 282 | P | Pn | 22 03 12.5 | -0.1 |
| ATHU | Athens Univers | 2.46 | 282 | P | Pn | 22 03 12.5 | -0.1 |
| EREA | Eretria | 2.47 | 293 | P | Pn | 22 03 13.4 | +0.6 |
| EREA | Eretria | 2.47 | 293 | P | Pn | 22 03 13.4 | +0.6 |
| AKAS | Kas | 2.56 | 119 | ePN | Pn | 22 03 16.0 | +1.9 |
| AKAS | Kas | 2.56 | 119 | ePn | Pn | 22 03 16.0 | +1.9 |
| ELL | Elmali | 2.57 | 106 | ePN | Pn | 22 03 16.2 | +2.0 |
| ELL | Elmali | 2.57 | 106 | ePn | Pn | 22 03 16.2 | +2.0 |
| LAST | Lasithi | 2.58 | 206 | P | Pn | 22 03 14.0 | -0.3 |
| LAST | Lasithi | 2.58 | 206 | P | Pn | 22 03 14.0 | -0.3 |
| KSL | Kastellorizon | 2.59 | 121 | P | Pb | 22 03 17.1 | -1.8 |
| KSL | Kastellorizon | 2.59 | 121 | P | Pn | 22 03 16.0 | +1.7 |
| GONE | Gonen-Balikesi | 2.63 | 14 | ePN | Pn | 22 03 16.1 | +1.2 |
| GONE | Gonen-Balikesi | 2.63 | 14 | ePn | Pn | 22 03 16.1 | +1.2 |
| IDI | Anoyia | 2.71 | 216 | P | Pn | 22 03 15.3 | -0.8 |
| IDI | Anoyia | 2.71 | 216 | P | Pn | 22 03 15.9 | -0.2 |
| IDI | Anoyia | 2.71 | 216 | P | Pn | 22 03 15.9 | -0.2 |
| LIA | Limnos Island | 2.72 | 332 | P | Pn | 22 03 16.1 | -0.1 |
| LIA | Limnos Island | 2.72 | 332 | P | Pn | 22 03 16.0 | -0.1 |
| LIA | Limnos Island | 2.72 | 332 | P | Pn | 22 03 15.9 | -0.2 |
| GADA | Gvkgeada | 2.78 | 345 | ePN | Pn | 22 03 16.5 | -0.5 |
| GADA | Gvkgeada | 2.78 | 345 | P | Pn | 22 03 16.6 | -0.5 |
| GADA | Gvkgeada | 2.78 | 345 | P | Pn | 22 03 16.6 | -0.5 |
| TVSB | Tavsanli | 2.84 | 46 | ePN | Pn | 22 03 20.0 | +2.1 |
| TVSB | Tavsanli | 2.84 | 46 | ePn | Pn | 22 03 20.0 | +2.1 |
| KORT | Korkueli | 2.85 | 99 | ePN | Pb | 22 03 21.1 | -2.4 |
| KORT | Korkueli | 2.85 | 99 | ePn | Pb | 22 03 21.1 | -2.4 |
| DID | Didima | 2.86 | 271 | P | Pn | 22 03 18.0 | -0.1 |
| DID | Didima | 2.86 | 271 | P | Pn | 22 03 18.0 | -0.1 |
| VILL | Villia | 2.87 | 284 | P | Pn | 22 03 18.4 | +0.2 |
| VILL | Villia | 2.87 | 284 | P | Pn | 22 03 18.5 | +0.2 |
| LPK | Lapseki | 2.87 | 359 | ePN | Pn | 22 03 18.2 | 0.0 |
| LPK | Lapseki | 2.87 | 359 | ePn | Pn | 22 03 18.2 | 0.0 |
| GELI | Tayfur-Gelibol | 2.91 | 355 | ePN | Pn | 22 03 18.6 | -0.1 |
| GELI | Tayfur-Gelibol | 2.91 | 355 | ePn | Pn | 22 03 18.6 | -0.1 |
| VIL2 | Platees | 2.91 | 285 | P | Pn | 22 03 18.4 | -0.4 |
| KRBG | Karabiga-Canak | 2.91 | 7 | ePN | Pn | 22 03 19.6 | +0.8 |
| KRBG | Karabiga-Canak | 2.91 | 7 | ePn | Pn | 22 03 19.6 | +0.8 |
| EDC | Edincik | 2.95 | 15 | ePN | Pn | 22 03 20.2 | +0.8 |
| EDC | Edincik | 2.95 | 15 | ePn | Pn | 22 03 20.2 | +0.8 |
| VAM | Vamos | 2.98 | 226 | P | Pn | 22 03 18.6 | -1.1 |
| VAM | Vamos | 2.98 | 226 | P | Pn | 22 03 18.6 | -1.1 |
| KCTX | Karacabey (Bur | 3.01 | 23 | ePN | Pn | 22 03 21.7 | +1.6 |
| KCTX | Karacabey (Bur | 3.01 | 23 | ePn | Pn | 22 03 21.7 | +1.6 |
| IMMV | Iera Moni Meta | 3.07 | 229 | P | Pn | 22 03 22.0 | +1.0 |
| IMMV | Iera Moni Meta | 3.07 | 229 | P | Pn | 22 03 22.0 | +1.0 |
| LTK | Loutraki | 3.11 | 281 | P | Pn | 22 03 21.8 | +0.3 |
| LTK | Loutraki | 3.11 | 281 | P | Pn | 22 03 21.8 | +0.3 |
| ANTB | Antalya | 3.11 | 100 | ePN | Pn | 22 03 24.2 | +2.7 |
| ANTB | Antalya | 3.11 | 100 | ePn | Pn | 22 03 24.2 | +2.7 |
| SHUT | Suhut-Afyon | 3.12 | 69 | ePN | Pb | 22 03 24.8 | -3.3 |
| SHUT | Suhut-Afyon | 3.12 | 69 | ePn | Pb | 22 03 24.8 | -3.3 |
| SMTH | Samothraki Isl | 3.13 | 342 | P | Pn | 22 03 21.0 | -0.9 |
| SMTH | Samothraki Isl | 3.13 | 342 | P | Pn | 22 03 21.4 | -0.5 |
| SMTH | Samothraki Isl | 3.13 | 342 | P | Pn | 22 03 21.4 | -0.5 |
| ERIK | Erikli-Kesan | 3.18 | 356 | ePN | Pn | 22 03 22.3 | -0.1 |
| ERIK | Erikli-Kesan | 3.18 | 356 | ePn | Pn | 22 03 22.3 | -0.1 |
| RKY | Sarkoy-Tekirda | 3.19 | 5 | ePN | Pn | 22 03 22.4 | -0.3 |
| RKY | Sarkoy-Tekirda | 3.19 | 5 | ePn | Pn | 22 03 22.4 | -0.3 |
| ENEZ | Enez | 3.27 | 351 | ePN | Pn | 22 03 23.8 | 0.0 |
| ENEZ | Enez | 3.27 | 351 | ePn | Pn | 22 03 23.8 | 0.0 |
| ENEZ | Enez | 3.27 | 351 | P | Pn | 22 03 23.7 | 0.0 |
| MDNY | Mudanya-Bursa | 3.28 | 29 | ePN | Pn | 22 03 25.5 | +1.6 |
| MDNY | Mudanya-Bursa | 3.28 | 29 | ePn | Pn | 22 03 25.5 | +1.6 |
| SUTC | Sutluce-Ispart | 3.31 | 89 | ePN | Pn | 22 03 27.2 | +2.7 |
| SUTC | Sutluce-Ispart | 3.31 | 89 | ePn | Pn | 22 03 27.2 | +2.7 |
| NEO | Neokhori | 3.36 | 304 | P | Pn | 22 03 25.2 | +0.2 |
| NEO | Neokhori | 3.36 | 304 | P | Pn | 22 03 25.2 | +0.2 |
| NEO | Neokhori | 3.36 | 304 | P | Pn | 22 03 25.2 | +0.2 |
| XOR | Xorichti | 3.41 | 304 | P | Pn | 22 03 25.8 | +0.1 |
| XOR | Xorichti | 3.41 | 304 | P | Pn | 22 03 25.8 | +0.1 |
| ARMT | Armutlu | 3.44 | 27 | ePN | Pn | 22 03 28.2 | +2.0 |
| ARMT | Armutlu | 3.44 | 27 | ePn | Pn | 22 03 28.2 | +2.0 |
| ALN | Alexandroupoli | 3.45 | 350 | ePN | Pn | 22 03 26.8 | +0.6 |
| ALN | Alexandroupoli | 3.45 | 350 | P | Pn | 22 03 25.1 | -1.0 |
| ALN | Alexandroupoli | 3.45 | 350 | P | Pn | 22 03 25.6 | -0.5 |
| ALN | Alexandroupoli | 3.45 | 350 | ePn | Pn | 22 03 26.8 | +0.6 |
| ALN | Alexandroupoli | 3.45 | 350 | P | Pn | 22 03 25.6 | -0.5 |
| SBT3 | Marmara-Eregli | 3.49 | 14 | ePN | Pn | 22 03 28.6 | +2.0 |
| SBT3 | Marmara-Eregli | 3.49 | 14 | ePn | Pn | 22 03 28.6 | +2.0 |
| SBT5 | Esenkoy-Cinarc | 3.51 | 26 | ePN | Pn | 22 03 29.0 | +2.1 |
| SBT5 | Esenkoy-Cinarc | 3.51 | 26 | ePn | Pn | 22 03 29.0 | +2.1 |
| CAVI | Cavuskoy | 3.58 | 40 | ePN | Pn | 22 03 29.5 | +1.5 |
| CAVI | Cavuskoy | 3.58 | 40 | ePn | Pn | 22 03 29.5 | +1.5 |
| GUR | Goura | 3.59 | 278 | P | Pn | 22 03 28.7 | +0.5 |
| GUR | Goura | 3.59 | 278 | P | Pn | 22 03 28.7 | +0.5 |
| OUR | Ouranopolis | 3.60 | 323 | ePN | Pn | 22 03 28.7 | +0.5 |
| OUR | Ouranopolis | 3.60 | 323 | ePn | Pn | 22 03 28.7 | +0.5 |
| SBT2 | Guzelce-Avcila | 3.62 | 21 | ePN | Pn | 22 03 30.2 | +1.8 |
| SBT2 | Guzelce-Avcila | 3.62 | 21 | ePn | Pn | 22 03 30.2 | +1.8 |
| YLV | Yalova | 3.65 | 32 | ePN | Pn | 22 03 31.1 | +2.1 |
| YLV | Yalova | 3.65 | 32 | ePn | Pn | 22 03 31.1 | +2.1 |
| CRLT | Corlu | 3.69 | 11 | ePN | Pn | 22 03 30.3 | +0.8 |
| CRLT | Corlu | 3.69 | 11 | ePn | Pn | 22 03 30.3 | +0.8 |
| KLV | Kalavryta, Ach | 3.75 | 280 | P | Pn | 22 03 31.4 | +1.0 |
| KLV | Kalavryta, Ach | 3.75 | 280 | P | Pn | 22 03 31.1 | +0.7 |
| KLV | Kalavryta, Ach | 3.75 | 280 | P | Pn | 22 03 31.1 | +0.7 |
| RDO | Rodhopi | 3.78 | 345 | P | Pn | 22 03 30.9 | +0.3 |
| RDO | Rodhopi | 3.78 | 345 | P | Pn | 22 03 31.0 | +0.3 |
| AGG | Agios Georgios | 3.86 | 295 | P | Pn | 22 03 30.3 | -1.5 |
| AGG | Agios Georgios | 3.86 | 295 | P | Pn | 22 03 31.3 | -0.5 |
| AGG | Agios Georgios | 3.86 | 295 | P | Pn | 22 03 31.3 | -0.5 |
| SLVT | Silivri | 3.88 | 16 | ePN | Pn | 22 03 34.0 | +2.0 |
| SLVT | Silivri | 3.88 | 16 | ePn | Pn | 22 03 34.0 | +2.0 |
| CTKS | Kestanelik-??a | 3.95 | 19 | ePN | Pn | 22 03 33.8 | +0.8 |
| CTKS | Kestanelik-??a | 3.95 | 19 | ePn | Pn | 22 03 33.8 | +0.8 |
| KAVV | Kandilli-Istan | 3.96 | 25 | ePN | Pn | 22 03 35.5 | +2.3 |
| KAVV | Kandilli-Istan | 3.96 | 25 | ePn | Pn | 22 03 35.5 | +2.3 |
| ISK | Istanbul-Kandi | 3.96 | 25 | ePN | Pn | 22 03 35.4 | +2.2 |
| ISK | Istanbul-Kandi | 3.96 | 25 | ePn | Pn | 22 03 35.4 | +2.2 |
| HRT | Hereke | 3.98 | 33 | ePN | Pn | 22 03 35.7 | +2.2 |
| HRT | Hereke | 3.98 | 33 | ePn | Pn | 22 03 35.7 | +2.2 |
| EFP | Efpalio | 4.00 | 285 | P | Pn | 22 03 35.0 | +1.2 |
| EFP | Efpalio | 4.00 | 285 | P | Pn | 22 03 35.0 | +1.2 |
| ANX | Ano Chora | 4.03 | 287 | P | Pn | 22 03 35.4 | +1.2 |
| ANX | Ano Chora | 4.03 | 287 | P | Pn | 22 03 35.4 | +1.2 |
| GULT | Gulveren | 4.10 | 43 | ePN | Pn | 22 03 37.6 | +2.4 |
| GULT | Gulveren | 4.10 | 43 | ePn | Pn | 22 03 37.6 | +2.4 |
| NVR | Nevrokopi | 4.48 | 330 | P | Pn | 22 03 40.4 | 0.0 |
| NVR | Nevrokopi | 4.48 | 330 | P | Pn | 22 03 40.4 | 0.0 |
| ZAGS | Zajecar | 7.21 | 332 | ePn | Pn | 22 04 16.6 | -1.2 |
| BOVS | Bovan | 7.26 | 329 | ePn | Pn | 22 04 19.0 | +0.4 |
| KIS | Kishinev | 9.60 | 8 | e | Pn | 22 04 55.0 | +4.4 |

---

*IDC 01 22:04:19.6±1.5, 1°.49N×127°.08E, h0km, mb3.7/4, mb1 3.8/4, mb1mx3.6/32, mbtmp3.7/4, MS3.6/1, Ms1 3.5/1, ms1mx2.7/26, Error ellipse: s-maj=142.4km s-min=21.6km az=69.0*
*DJA 01 22:04:26.7±1.8, 1°N±4°×12°8E±2°2, h103km±9km, M3.7/4, MLv3.7/4*
**ISC 01 22:04:33.3±1.2, 1°.08N±0°.09×127°.3E±0°.3, h128km, n9, σ2s80/8, mb3.5/4, Halmahera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LBMI | Labuha | 1.71 | 173 | P | Pn | 22 05 02.7 | -1.1 |
| LBMI | | | | S | Sn | 22 05 27.8 | +0.7 |
| SGSI | Sangihe | 3.13 | 326 | P | Pn | 22 05 23.3 | +1.7 |
| SANI | Sanana | 3.36 | 203 | P | Pn | 22 05 24.2 | -0.5 |
| SANI | | | | S | Sn | 22 05 57.5 | -6.9 |
| NLAI | Namlea | 4.29 | 182 | P | Pn | 22 05 48.0 | +11 |
| WRA | Warramunga Arr | 22.00 | 162 | P | P | 22 09 19.9 | +2.5 |
| | 0.7nm,0.4s,baz=340,slow=11,SNR=5.5 | | | | | | |
| ASAR | Alice Springs | 25.42 | 166 | P | P | 22 09 53.6 | +4.4 |
| | 1.1nm,0.8s,baz=344,slow=10,SNR=5.2 | | | | | | |
| STKA | Stephens Creek | 35.47 | 159 | LR | LR | 22 26 42.0 | |
| | comp=Z,87nm,19.5s,baz=40,slow=37 | | | | | | |
| SONM | Songino Array | 49.98 | 342 | P | P | 22 13 11.8 | -2.7 |
| | 0.5nm,0.7s,baz=152,slow=8.4,SNR=4.5 | | | | | | |
| MKAR | Makanchi Array | 60.05 | 326 | P | P | 22 14 25.4 | -1.4 |
| | 0.9nm,0.5s,baz=119,slow=8.0,SNR=20 | | | | | | |

---

*IDC 01 22:52:17.9±5.5, 5°.15S×151°.43E, h75km±46km, mb4.2/3, mb1 4.3/5, mb1mx3.7/46, mbtmp4.4/5, ML3.0/2, Error ellipse: s-maj=58.4km s-min=32.8km az=130.0*
*ISCJB 01 22:52:18.9±1.0, 5°.2S±0°.1×151°.4E±0°.2, h100km, mb4.7/6, Error ellipse: s-maj=29.3km s-min=10.8km az=32.1*
*NEIC 01 22:52:18.7±1.8, 5°.18S×151°.44E, h85km±15km, mb4.3/3, Error ellipse: s-maj=18.4km s-min=11.8km az=100.0*
**ISC 01 22:52:22.5±1.0, 5°.2S±0°.1×151°.2E±0°.2, h100km, n16, σ1s80/17, mb4.7/6, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PMG | Port Moresby | 5.75 | 224 | P | Pn | 22 53 45.3 | -0.2 |
| | 5.7nm,0.3s,baz=337,slow=0.2,SNR=6.7 | | | | | | |
| PMG | | | | S | Sn | 22 54 51.3 | +1.1 |
| | 34nm,0.3s,baz=141,slow=18,SNR=31 | | | | | | |
| PMG | Port Moresby | 5.75 | 224 | ePn | Pn | 22 53 44.6 | -0.9 |
| | 58nm,0.6s | | | | | | |
| PMG | | | | S | Sn | 22 54 51.3 | +1.1 |
| CTA | Charters Tower | 15.53 | 198 | P | Pn | 22 55 54.5 | -1.5 |
| | 0.2nm,0.3s,baz=4.8,slow=12,SNR=2.3 | | | | | | |
| CTAO | Charters Tower | 15.53 | 198 | ePn | Pn | 22 55 54.5 | -1.5 |
| | 8.9nm,0.9s | | | | | | |
| MTN | Manton Dam | 21.18 | 248 | P | P | 22 57 01.9 | +1.9 |
| | baz=15,SNR=53 | | | | | | |
| WRAB | Tennant Creek | 21.95 | 227 | eP | P | 22 57 07.8 | -0.5 |
| | 27nm,0.6s | | | | | | |
| WRA | Warramunga Arr | 21.96 | 227 | P | P | 22 57 07.9 | -0.5 |
| | 26nm,0.6s,baz=51,slow=9.8,SNR=62 | | | | | | |
| ASAR | Alice Springs | 24.76 | 221 | P | P | 22 57 34.7 | -0.4 |
| | 19nm,0.7s,baz=54,slow=9.1,SNR=109 | | | | | | |
| MAJO | Matsushiro | 43.29 | 345 | P | P | 23 00 12.5 | -1.9 |
| | 2.4nm,0.4s | | | | | | |
| COCO | West Island | 54.08 | 259 | P | P | 23 01 37.0 | -0.4 |
| | 123nm,0.7s | | | | | | |
| CASY | Casey | 67.14 | 197 | P | P | 23 03 03.9 | -1.4 |
| ILAR | Eielson Array | 83.17 | 22 | P | P | 23 04 33.8 | -3.4 |
| | 0.5nm,0.7s,baz=252,slow=5.8,SNR=5.6 | | | | | | |
| GERES | GERESS Array B | 123.56 | 328 | PKP | PKPdf | 23 11 07.0 | -1.5 |
| | 0.6nm,0.6s,baz=68,slow=3.6,SNR=5.4 | | | | | | |
| PTGA | Pitinga | 148.34 | 100 | PKPbc | PKPdf | 23 11 56.3 | +1.4 |
| | 0.9nm,0.4s,baz=190,slow=11,SNR=4.1 | | | | | | |
| TORD | Torodi Ar. Bea | 148.89 | 287 | PKPbc | PKPdf | 23 11 58.8 | +3.1 |
| | 4.2nm,0.6s,baz=88,slow=2.9,SNR=32 | | | | | | |
| BDFB | Brasilia | 151.88 | 138 | PKPbc | PKPdf | 23 12 04.3 | +3.8 |
| | 1.6nm,0.5s,baz=36,slow=6.0,SNR=3.2 | | | | | | |

---

*IDC 01 22:53:34.5±0.3, 0°.62S×121°.90E, h0km, mb5.1/42, mb1 5.0/43, mb1mx5.0/49, mbtmp5.0/43, ML4.2/1, MS4.6/27, Ms1 4.6/27, ms1mx4.5/36, Error ellipse: s-maj=14.2km s-min=7.3km az=66.0*
*BJI 01 22:53:35.8, 0°.70S×121°.90E, h8km, mb5.5/83, mB5.7/55, Ms5.1/77, Ms7 4.9/73*
*NEIC 01 22:53:36.5±0.2, 0°.63S×121°.97E, h10km, mb5.7/61, MS5.0/102, Error ellipse: s-maj=4.9km s-min=3.7km az=65.0*
*NEIC Felt at Poso.*
*GCMT 01 22:53:36.5±0.1, 0°.63S×121°.89E, h17km, MW5.5/130, Moment Tensor Solution. s111,c163; s130,c285; Duration: 1s3 Moment tensor: Scale $10^{17}$Nm; $M_{rr}$-0.95±.02; $M_{\theta\theta}$-0.43±.02; $M_{\phi\phi}$1.38±.02; $M_{r\theta}$-1.07±.06; $M_{\theta\phi}$-1.16±.02; $M_{\phi r}$0.04±.05; Best double couple: $M_0$1.99500×$10^{17}$ NP1:$\phi_s$119.00000°, δ68.00000°, λ-137.00000°. NP2:$\phi_s$10.00000°, δ51.00000°, λ-28.00000°. Principal axes: T 2.0390, Plg11.0000°, Azm241.0000°; N -0.0870, Plg43.0000°, Azm141.0000°; P -1.9500, Plg45.0000°, Azm341.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*
*DJA 01 22:53:37.8±0.3, 1°S±1°×12°2E±°, h11km±2km, M5.6/73, mb5.6/73, mB6.0/55, MLv5.9/21, Mw(mB)5.6/55, Mwp5.6/2*
*MOS 01 22:53:38.1±1.1, 0°.57S×121°.98E, h34km, mb5.8/49, MS4.8/20, Error ellipse: s-maj=9.7km s-min=5.1km az=112.8*
*ISCJB 01 22:53:39.2±0.3, 0°.72S±0°.02×121°.93E±0°.02, h44km±2km, mb5.4/169, MS4.9/152, Error ellipse: s-maj=2.7km s-min=2.6km az=172.0*
*KLM 01 22:53:39.4, 0°.67S×121°.99E, h17km, mb5.6*
**ISC 01 22:53:38.6±0.4, 0°.67S±0°.03×121°.92E±0°.03, h25km±2km, h25km:pP-P, n727, σ1s78/725, mb5.5/178, MS4.9/153, 15C-28D, Minahassa Peninsula, Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| APSI | Ampana | 0.36 | 229 | P | Pb | 22 53 42.8 | -3.7 |
| APSI | | | | S | Sb | 22 53 48.8 | -3.2 |
| LUWI | Luwuk | 0.93 | 113 | P | Pn | 22 53 56.2 | +0.1 |
| LUWI | | | | S | Sn | 22 54 09.9 | +1.3 |
| LUWI | Luwuk | 0.93 | 113 | ePn | Pn | 22 53 56.5 | +0.5 |
| MRSI | Marisa | 1.14 | 1 | P | Pn | 22 53 57.3 | -1.7 |
| MRSI | | | | S | Sb | 22 54 13.5 | -0.6 |
| MPSI | Mapaga | 2.26 | 296 | P | Pn | 22 54 12.8 | -1.6 |
| MPSI | | | | S | Sb | 22 54 44.5 | -1.8 |
| KMSI | Cibinong | 2.40 | 59 | P | Pb | 22 54 19.6 | -1.6 |
| KMSI | | | | S | Sb | 22 54 51.6 | +1.2 |
| TTSI | Tana Toraja | 3.16 | 222 | P | Pn | 22 54 27.5 | +0.7 |
| TTSI | | | | S | Sn | 22 55 04.6 | +0.9 |
| SPSI | Sidrap Palu | 3.92 | 213 | P | Pn | 22 54 37.2 | 0.0 |
| SPSI | | | | S | Sn | 22 55 23.6 | +1.2 |
| BNSI | Bone | 4.12 | 206 | P | Pn | 22 54 40.7 | +0.6 |
| SANI | Sanana | 4.29 | 109 | P | Pn | 22 54 42.2 | -0.2 |
| SANI | | | | S | Sn | 22 55 31.4 | -0.2 |
| BBSI | Bau Bau | 4.83 | 172 | P | Pn | 22 54 50.8 | +1.0 |
| KAPI | Kappang | 4.83 | 207 | ePn | Pn | 22 54 51.0 | +1.2 |
| KAPI | Kappang | 4.83 | 207 | Pn | Pn | 22 54 49.6 | -0.2 |
| | SNR=177 | | | | | | |
| KAPI | Kappang | 4.83 | 207 | P | Pn | 22 54 49.6 | -0.2 |
| | SNR=177 | | | | | | |
| BKB | Balikpapan | 5.06 | 263 | P | Pn | 22 54 54.1 | +1.1 |
| BKB | | | | S | Sn | 22 55 54.5 | +3.8 |
| LBMI | Labuha | 5.58 | 90 | P | Pn | 22 55 00.9 | +0.8 |
| LBMI | | | | S | Sn | 22 56 06.2 | +2.7 |
| BSSI | Bau Bau, Buton | 5.62 | 195 | P | Pn | 22 55 00.5 | -0.2 |
| SGSI | Sangihe | 5.63 | 40 | P | Pn | 22 55 04.2 | +3.3 |
| SGSI | | | | S | Sn | 22 56 07.0 | +2.2 |
| NLAI | Namlea | 5.77 | 116 | P | Pn | 22 55 04.7 | +2.0 |
| | 2µm,0.9s,16µm15nm | | | | | | |
| NLAI | | | | S | Sn | 22 56 11.4 | +3.2 |
| | 2µm,0.9s,16µm15nm | | | | | | |
| KBKI | Kotabaru | 6.32 | 246 | P | Pn | 22 55 09.5 | -0.7 |
| KBKI | | | | S | Sn | 22 56 20.0 | -1.7 |

TSM Tawau 6.38 321 ⇓P Pn 22 55 12.1 +1.0
MYLDM Lahad Datu 6.74 330 eP Pn 22 55 18.2 +2.0
AAI Ambon 6.95 116 P Pn 22 55 22.0 +3.1
MTKI Muara Teweh, K 7.03 268 P Pn 22 55 21.4 +1.3
MTKI S Sn 22 56 44.6 +5.3
MSAI Masohi 7.49 111 P Pn 22 55 29.7 +3.3
SDKM Sandakan 7.85 323 ⇓P Pn 22 55 34.0 +2.7
MMRI Maumere 7.92 178 P Pn 22 55 31.9 -0.4
MMRI Maumere 7.92 178 eP Pn 22 55 32.5 +0.2
EDFI Ende, Flores 8.03 182 P Pn 22 55 33.4 -0.5
CTBH Cotabato--PC H 8.18 16⇓ eP Pn 22 55 38.4 +2.6
DAV Davao City (W) 8.51 25 eP Pn 22 55 44.1 +3.7
DAV Davao City (W) 8.51 25 pPn Pn 22 55 44.1 +3.7
SNR=84
DAV Davao City (W) 8.51 25 P Pn 22 55 44.1 +3.7
SNR=84
PAGZ Pagadian 8.59 10 eP Pn 22 55 44.3 +2.9
KKM Kota Kinabalu 8.77 320 ePn Pn 22 55 46.2 +2.1
BNDI Bandanaira 8.84 116 P Pn 22 55 47.1 +2.2
BUKP Musuan 9.05 20 eP Pn 22 55 50.5 +2.6
PLAI Plampang 9.09 207 P Pn 22 55 47.4 -1.0
SOEI Soe 9.32 166 P Pn 22 55 54.2 +2.6
SOEI Soe 9.32 166 ePn Pn 22 55 54.9 +3.3
BTM Bintulu 9.64 294 ⇑P Pn 22 55 58.9 +3.1
SRBI Singaraja 9.95 222 P Pn 22 56 00.1 0.0
150nm,0.5s,2µm
SNPH Sibulan 10.04 7⇓ eP Pn 22 56 07.5 +6.1
KMMI Kalianget 10.15 231 P Pn 22 56 04.6 +1.7
BUTP Butuan 10.26 21 eP Pn 22 56 12.4 +8.0
BATP Bataraza 10.26 337 eP Pn 22 56 07.8 +3.3
DNP Denpasar 10.39 220 P Pn 22 56 08.6 +2.5
PBKI Pangkalan Bun 10.45 259 P Pn 22 56 07.2 +0.3
STKI Sintang 10.47 274 P Pn 22 56 08.8 +1.5
FAKI Fak Fak 10.56 102 P Pn 22 56 07.2 -1.3
FAKI Fak Fak 10.56 102 ePn Pn 22 56 08.5 0.0
BWJI Bawean 10.58 241 P Pn 22 56 12.3 +3.5
BLJI Banyuglugur 10.88 230 P Pn 22 56 24.4 +12
JAGI Jajag, Banyuwa 10.95 225 P Pn 22 56 14.1 +0.2
JAGI Jajag, Banyuwa 10.95 225 ePn Pn 22 56 14.1 +0.2
LLP Lapu-Lapu 11.10 10⇓ eP Pn 22 56 21.5 +5.5
MSLP Maasin 11.13 15 eP Pn 22 56 25.5 +9.3
GRJI Gresik 11.28 236 P Pn 22 56 20.5 +2.2
GMJI Gumukmas 11.33 228 P Pn 22 56 20.1 +1.1
TBJI Tambak Boyo 11.76 288 P Pn 22 56 27.0 +2.1
KSM Kuching 11.81 280 ⇓P Pn 22 56 28.2 +2.6
KSM Kuching 11.81 280 ePn Pn 22 56 27.4 +1.8
SAUI Saumlaki 11.84 128 P Pn 22 56 30.0 +4.0
SAUI Saumlaki 11.84 128 ePn Pn 22 56 27.8 +1.8
OCLP Ormoc 11.95 13 eP Pn 22 56 34.7 +7.2
ENPP El Nido 12.06 348 eP Pn 22 56 32.0 +3.0
KMPI Kaimana, Papua 12.14 104 P P 22 56 47.7 +5.1
PLP Palo 12.15 14⇓ eP Pn 22 56 35.0 +4.8
RCP Roxas 12.18 4⇑ eP Pn 22 56 36.5 +5.8
RKPI Ransiki, Papua 12.28 94 P P 22 56 52.3 +8.1
UWJI Ujung Watu 12.35 242 P P 22 56 39.3 -5.6
PWJI Pagerwojo 12.45 234 P Pn 22 56 35.3 +0.9
OTRP Odiongan 12.95 0 eP P 22 56 47.4 -4.2
PCJI Pacitan 13.06 235 P Pn 22 56 43.3 +0.6
SJMP San Jose 13.07 357 eP Pn 22 56 47.9 +5.1
SMRI Semarang 13.09 241 P Pn 22 56 44.9 +1.8
SMRI Semarang 13.09 241 ePn Pn 22 56 44.3 +1.2
CNP Catarman 13.38 12 eP P 22 56 52.6 -3.7
UGM Wanagama 13.45 237 P Pn 22 56 48.1 +0.1
UGM Wanagama 13.45 237 ePn Pn 22 56 50.1 +2.0
BOAC Boac 14.04 360 eP P 22 57 02.6 -1.0
PVCP Virac 14.35 9 eP Pn 22 57 04.1 +3.8
LUBP Lubang 14.41 353 eP P 22 57 05.2 -2.6
KPJI Karang Pucung 14.54 243 P Pn 22 57 05.1 +2.1
TGY Tagaytay City 14.71 356 Pn Pn 22 57 05.9 +0.6
74nm,0.3s,baz=162,slow=16,SNR=2.7
TGY LR LR 23 04 05.3
comp=Z,4µm,18.0s,baz=159,slow=43
JCJI Jatiwangi 14.80 247 P P 22 57 15.2 +3.1
MTN Manton Dam 15.15 143 ePn Pn 22 57 11.0 -0.2
256nm,1.1s
CISI Cisompet, Garu 15.64 244 P Pn 22 57 17.9 +0.3
CISI Cisompet, Garu 15.64 244 ePn Pn 22 57 18.6 +1.0
860nm,1.5s
PPBI Pangkal Pinang 15.85 264 P P 22 57 25.4 +1.5
CNJI Cibinong 16.16 246 P Pn 22 57 24.8 +0.6
BALP Baler 16.31 359 eP P 22 57 29.1 +0.2
SKJI Sukabumi 16.57 247 P Pn 22 57 30.1 +0.7
SBJI Serang 16.66 251 P P 22 57 37.1 +4.2
PMBI Palembang 17.29 262 P P 22 57 44.1 +4.3
BLSI Bandar Lampung 17.29 254 P P 22 57 41.3 +1.4
TPRI Tanjung Pinang 17.47 275 P P 22 57 48.8 +7.0
CAUP Cauayan 17.50 360 eP P 22 57 44.3 +2.2
KLJ Kotabumi 17.54 256 P P 22 57 43.3 +0.7
FITZ Fitzroy Crossi 17.70 168 P Pn 22 57 41.8 -1.8
0.6nm,0.3s,baz=11,slow=8.6,SNR=14
FITZ LR LR 23 05 53.4
comp=Z,3µm,19.1s,baz=334,slow=42
FITZ Fitzroy Crossi 17.70 168 P P 22 57 44.6 +0.3
baz=18,SNR=20
KASI Kota Agung 18.05 254 P P 22 57 50.0 +1.8
MYKOM Kota Tinggi 18.23 278 ⇑P P 22 57 50.5 +0.2
MYKOM Kota Tinggi 18.23 278 ePn Pn 22 57 50.2 0.0
275nm,1.6s
ABRA Dolores 18.24 356 eP P 22 57 53.5 +3.2
GENI Genyem 18.34 96 P Pn 22 57 56.3 +4.8
LWLI Liwa 18.35 256 P Pn 22 57 53.5 +1.7
APYP Conner 18.43 358 eP Pn 22 57 54.0 +1.4
KGM Kluang 18.79 278 ⇓P P 22 57 56.9 +0.5
JAY Jayapura 18.86 96 P Pn 22 57 59.0 +1.1
XMIS Christmas Isla 18.88 238 eP P 22 57 56.8 -0.6
130nm,1.0s
KTGM Kuala Trenggan 19.69 288 ⇑P Pn 22 58 07.9 +0.1
MASI Maura Aman, Be 19.82 263 P Pn 22 58 09.4 0.0
MBWA Marble Bar 20.47 186 PFAKE 22 58 30.0 +13
MBWA LR LR
comp=Z,3µm,19.0s
FRIM Kepong 20.66 281 ⇓P Pn 22 58 19.2 0.0
BKNI Bangkinang 20.91 273 P P 22 58 20.4 +0.9
BKNI Bangkinang 20.91 273 eP P 22 58 20.4 +0.9
comp=Z,825nm,1.1s
BKNI LR LR
comp=Z,4µm,20.0s
PDSI Padang 21.46 269 P P 22 58 26.5 +1.0
IPM Ipoh 21.50 284 ⇑P P 22 58 28.3 +2.4
IPM Ipoh 21.50 284 eP P 22 58 26.3 +0.4
comp=Z,372nm,1.0s
IPM LR LR
comp=Z,3µm,21.0s
KULM Kulim 22.06 286 ⇓P P 22 58 33.6 +1.8
KULM Kulim 22.06 286 eP P 22 58 32.5 +0.6
comp=Z,313nm,1.4s
KULM LR LR
comp=Z,902nm,22.0s
MNSI Mandailing Nat 22.39 274 P P 22 58 35.8 +0.4
WRAB Tennant Creek 22.68 148c iP P 22 58 38.1 -0.4
WRAB pmax pmax
comp=Z,31nm,0.9s
WRAB Tennant Creek 22.68 148 eP P 22 58 39.1 +0.6
comp=Z,210nm,1.1s
WRAB LR LR
comp=Z,2µm,18.0s
WRA Warramunga Arr 22.68 148 P P 22 58 37.3 -1.2
comp=Z,29nm,0.9s,baz=329,slow=10,SNR=30
WRA PcP PcP 23 02 29.8 -0.9
comp=Z,3.9nm,1.0s,baz=323,slow=2.1,SNR=2.2
WRA S S 23 02 51.5 +6.0
comp=Z,11nm,1.2s,baz=318,slow=18,SNR=5.4
WRA ScP ScP 23 06 08.8 +1.7
comp=Z,12nm,1.3s,baz=326,slow=3.0,SNR=8.6
WRA LR LR 23 08 31.4
comp=Z,2µm,18.8s,baz=335,slow=39
WB2 Warramunga Arr 22.69 148 eP P 22 58 39.1 +0.5
UBPT Khong Chiam 22.71 315 P P 22 58 40.7 +1.9
comp=Z,149nm,1.0s
SISI Saibi 22.84 268 P P 22 58 39.2 -1.0
QIZ Qiongzhong 22.89 329 P P 22 58 40.7 0.0
QIZ sP sP 22 58 53.5 +2.8
QIZ S S 23 02 52.2 +3.0
QIZ pmax pmax
comp=Z,120nm,1.4s
QIZ pmax pmax
comp=Z,1µm,5.4s
QIZ LR LR
comp=Z,2µm,15.0s
QIZ LR LR
comp=Z,2µm,17.1s
QIZ LR LR
comp=Z,3µm,19.1s

QIZ Qiongzhong 22.89 329 eP P 22 58 41.5 +0.8
comp=Z,388nm,1.3s
QIZ LR LR
comp=Z,2µm,21.0s
GIRL Giralia 23.09 198 P P 22 58 43.9 +1.3
baz=23,SNR=6.8
PSI Prapat 23.25 279 eP P 22 58 44.7 +0.2
PSI pmax pmax
comp=Z,233nm,1.3s
PSI Prapat 23.25 279 eP P 22 58 44.7 +0.2
comp=Z,233nm,1.3s
TWG Pinlang 23.36 358 eP P 22 58 45.7 +0.3
comp=Z,808nm,1.0s
CHBT CHBT 23.57 305 P P 22 58 48.8 +1.2
comp=Z,479nm,0.7s,comp=Z,140µm
TSI Tuntungan 23.71 280 P P 22 58 57.3 +8.4
TRTT Trang 23.72 291 P P 22 58 50.0 +1.0
comp=Z,112nm,2.1s,comp=Z,3µm
TPUB Ta-pu 23.86 357 eP P 22 58 50.3 0.0
comp=Z,1µm,1.7s
YULB Yu-li 23.93 359 eP P 22 58 50.6 -0.2
comp=Z,246nm,1.1s
KRAB Krabi 24.32 292 P P 22 58 55.9 +1.3
comp=Z,218nm,0.8s,comp=Z,2µm
SSLB Suanglung 24.33 358 eP P 22 58 54.5 -0.1
comp=Z,361nm,1.0s
KCSI Kotacane, Aceh 24.50 280 P P 22 58 55.8 -0.4
NACB Ninganchiao 24.70 359 eP P 22 58 57.0 -0.9
comp=Z,87nm,0.9s
COEN Coen 24.83 123 P P 22 58 58.8 -0.4
baz=25,SNR=22
COEN Coen 24.83 123 eP P 22 59 01.2 +2.0
comp=Z,164nm,1.2s
SKNT Sakolnakorn 24.91 316 P P 22 59 02.1 +2.2
comp=Z,207nm,1.0s,comp=Z,6µm
SURT Suratani 24.95 293 P P 22 59 05.5 +5.2
comp=Z,34nm,1.1s,comp=Z,785nm
WRKA Warakurna 24.99 166 P P 22 59 00.9 +0.2
baz=25,SNR=27
PKDT Phuket 25.01 290 P P 22 59 07.6 +6.7
comp=Z,96nm,1.2s,comp=Z,2µm
GZH Guangzhou 25.05 341 P P 22 59 06.8 +5.7
YHNB Yeheng 25.20 359 eP P 22 59 02.7 +0.2
comp=Z,309nm,1.3s
YHNB LR LR
comp=Z,3µm,19.0s
KHON Khomkaen 25.32 313 P P 22 59 06.0 +2.4
comp=Z,48nm,1.2s,comp=Z,711nm
LHMI Lhok Sumawe 25.62 284 P P 22 59 07.7 +1.3
LHMI Lhok Sumawe 25.62 284 eP P 22 59 07.7 +1.3
comp=Z,369nm,1.0s
AS31 Alice Springs 25.64 154 eP P 22 59 07.4 +0.9
comp=Z,12nm,0.7s
ASAR Alice Springs 25.64 154 P P 22 59 06.7 +0.1
comp=Z,13nm,0.9s,baz=334,slow=7.8,SNR=29
ASAR PcP PcP 23 02 36.8 -0.3
comp=Z,4.5nm,0.7s,baz=353,slow=2.3,SNR=6.8
ASAR ScP ScP 23 06 17.4 +2.3
comp=Z,8.2nm,1.2s,baz=340,slow=2.6,SNR=5.9
ASAR LR LR 23 09 55.8
comp=Z,4µm,20.4s,baz=332,slow=38
AS01 Alice Springs 25.66 154 eP P 22 59 06.6 -0.1
QZH Quanzhou 25.67 353 iP P 22 59 07.2 +0.5
QZH S S 23 03 34.0 +0.2
QZH pmax pmax
comp=Z,230nm,1.1s
QZH LR LR
comp=Z,6µm,18.8s
QZH LR LR
comp=Z,4µm,16.7s
QZH LR LR
comp=Z,5µm,17.1s
CHAI Chaiyaphum 25.67 311 P P 22 59 07.9 +1.1
comp=Z,42nm,1.0s,comp=Z,421nm
PHET Kaeng Krachan 25.90 302 P P 22 59 10.4 +1.4
comp=Z,50nm,1.0s,comp=Z,445nm
MLSI Meulaboh, Aceh 25.97 281 P P 22 59 09.1 -0.5
QIS Mount Isa 26.26 140 P P 22 59 13.5 +1.4
baz=26,SNR=10
PMG Port Moresby 26.57 110 P P 22 59 14.8 -0.2
comp=Z,47nm,0.9s,baz=314,slow=8.8,SNR=9.7
PMG Port Moresby 26.57 110 di P P 22 59 16.0 +1.0
PMG pmax pmax
comp=Z,454nm,1.7s
PMG Port Moresby 26.57 110 eP P 22 59 16.0 +1.0
comp=Z,189nm,1.1s
PMG LR LR
comp=Z,2µm,19.0s
GUMO Guam 26.79 57 PFAKE 22 59 30.0 +13
GUMO LR LR
comp=Z,1µm,19.0s
PBKT Sadao Pong 26.85 311 P P 22 59 19.8 +2.4
comp=Z,140nm,0.9s
SRDT SRDT 27.06 304 P P 22 59 22.3 +2.9
comp=Z,123nm,1.5s,comp=Z,5µm
COCO West Island 27.39 244 PFAKE 22 59 30.0 +7.6
COCO LR LR
comp=Z,2µm,19.0s
UTHA Uthaitani 27.45 307 P P 22 59 24.6 +1.7
comp=Z,16nm,0.9s,comp=Z,147nm
UTTA Uttaradit 27.88 312 P P 22 59 28.4 +1.7
comp=Z,15nm,1.0s,comp=Z,162nm
MTSU Mount Surprise 28.02 130 P P 22 59 29.8 +1.8
baz=28,SNR=10
MORW Morawa 28.79 191 P P 22 59 33.9 -0.8
baz=29,SNR=9.8
CM01 Chiang Mai Arr 29.49 311 eP P 22 59 41.8 +0.8
CM31 Chiang Mai Arr 29.52 311 eP P 22 59 43.3 +1.9
CMAR Chiang Mai Arr 29.52 311 P P 22 59 41.9 +0.5
comp=Z,14nm,0.9s,baz=137,slow=6.7,SNR=55
CMAR ScP ScP 23 06 27.1 +0.1
comp=Z,0.7nm,0.3s,baz=160,slow=2.7,SNR=4.7
CMAR LR LR 23 13 42.7
comp=Z,1µm,19.4s,baz=142,slow=41
CMAR Chiang Mai Arr 29.52 311 ceP P 22 59 42.7 +1.3
CMAR pmax pmax
comp=Z,15nm,0.9s
CMMT Chiang Mai 29.74 312 P P 22 59 44.5 +1.2
comp=Z,80nm,1.3s,comp=Z,1µm
CHTO Chiang Mai 29.74 312 P P 22 59 44.5 +1.2
comp=Z,169nm,1.1s,comp=Z,7µm
CHTO Chiang Mai 29.74 312 eP P 22 59 44.5 +1.2
CHTO pmax pmax
comp=Z,101nm,1.1s
CHTO MLR MLR
comp=Z,2µm,21.0s
CHTO Chiang Mai 29.74 312 eP P 22 59 44.5 +1.2
comp=Z,101nm,1.1s
CHTO LR LR
comp=Z,2µm,21.0s
FORT Forrest 30.50 170 eP P 22 59 49.6 -0.3
comp=Z,461nm,0.9s
CTA Charters Tower 30.64 131 P P 22 59 53.3 +2.0
comp=Z,6.6nm,0.8s,baz=297,slow=11,SNR=5.1
CTA PcP PcP 23 02 48.0 -1.4
comp=Z,6.2nm,0.7s,baz=0.0,slow=6.1,SNR=3.4
CTAO Charters Tower 30.64 131 eP P 22 59 51.4 +0.1
CTAO pmax pmax
comp=Z,41nm,1.2s
CTAO MLR MLR
comp=Z,4µm,20.0s
CTAO Charters Tower 30.64 131 eP P 22 59 51.4 +0.1
comp=Z,41nm,1.2s
CTAO LR LR
comp=Z,4µm,20.0s
GYA Guiyang 30.73 332 ⇓iP P 22 59 52.7 +0.7
GYA PP PP 23 00 59.6 -2.1
GYA PcP PcP 23 02 51.8 +2.2
GYA S S 23 04 46.0 -7.8
GYA ScP ScP 23 06 33.4 +2.5
GYA SS SnSn 23 06 41.0 +8.0
GYA ScS ScS 23 10 28.9 +1.2
GYA pmax pmax
comp=Z,90nm,1.2s
GYA pmax pmax
comp=Z,420nm,5.5s
GYA LR LR
comp=Z,980nm,17.4s
GYA LR LR
comp=Z,1µm,17.1s
GYA LR LR
comp=Z,2µm,14.9s
PBA Port Blair 31.47 294 eP P 23 00 00.3 +1.7
SSE Sheshan 31.60 359 P P 23 00 01.0 +1.5
SSE S S 23 05 09.6 +2.5
SSE sS pS 23 05 14.9 -0.7
SSE pmax pmax
comp=Z,98nm,1.0s
SSE pmax pmax
comp=Z,520nm,9.1s
SSE LR LR
comp=Z,1µm,25.6s
SSE LR LR
comp=Z,800nm,25.6s
SSE LR LR
comp=Z,2µm,22.4s
KMI Kunming 31.66 325 P P 23 00 02.9 +2.5
KMI pP pP 23 00 05.5 -2.3
KMI sP sP 23 00 07.3 -3.5
KMI PP PnPn 23 01 04.6 0.0
KMI S S 23 05 11.1 +2.4
KMI sS pS 23 05 17.0 -0.1
KMI SS SnSn 23 07 02.3 +6.4
KMI pmax pmax
comp=Z,110nm,1.3s
KMI pmax pmax
comp=Z,930nm,4.2s
KMI LR LR
comp=Z,990nm,17.7s
KMI LR LR
comp=Z,1µm,19.7s
KMI LR LR
comp=Z,1µm,17.4s
DGPR DIGLIPUR 31.87 297 eP P 23 00 03.7 +1.6
WHN Wuhan 31.87 348 ⇓P P 23 00 04.4 +2.5
WHN S S 23 05 06.2 -5.1
WHN pmax pmax
comp=Z,120nm,1.0s
WHN LR LR
comp=Z,2µm,12.5s
WHN LR LR
comp=Z,4µm,16.6s
WHN LR LR
comp=Z,6µm,18.4s
NWAO Narrogin (SRO) 32.39 187 P P 23 00 04.9 -1.5
comp=Z,9.0nm,0.4s,baz=233,slow=12,SNR=5.3
NWAO Narrogin (SRO) 32.39 187 eP P 23 00 05.6 -0.8
NWAO pmax pmax
comp=Z,161nm,1.0s
NWAO MLR MLR
comp=Z,2µm,19.0s
NWAO Narrogin (SRO) 32.39 187 eP P 23 00 05.6 -0.8
comp=Z,160nm,1.0s
NWAO LR LR
comp=Z,2µm,19.0s
NJ2 Nanjing 32.68 355 eP P 23 00 10.2 +1.3
NJ2 pmax pmax
comp=Z,82nm,1.1s
ENH Enshi 32.97 340 eP P 23 00 13.0 +1.3
comp=Z,385nm,1.2s
ENH LR LR
comp=Z,2µm,19.0s
CBIJ Chichi jima 33.80 34 eP P 23 00 17.8 -1.0
comp=Z,490nm,1.3s
BBOO Buckleboo 34.63 159 eP P 23 00 25.9 -0.1
comp=Z,33nm,0.9s
JNU Nakatsue 34.66 13 P P 23 00 25.3 -1.0
comp=Z,8.8nm,1.0s,baz=100,slow=6.2,SNR=2.5
CD2 Chengdu 35.84 333 ⇓iP P 23 00 37.6 +1.1
CD2 pP sP 23 00 46.0 -0.9
CD2 PP PP 23 02 00.7 +2.5
CD2 S S 23 06 11.1 -1.9
CD2 pmax pmax
comp=Z,230nm,1.3s
CD2 pmax pmax
comp=Z,900nm,5.6s
CD2 LR LR
comp=Z,2µm,19.0s
CD2 LR LR
comp=Z,1µm,17.8s
CD2 LR LR
comp=Z,2µm,21.4s
STKA Stephens Creek 36.18 151 P P 23 00 39.1 -0.3
comp=Z,14nm,0.8s,baz=327,slow=10.0,SNR=11
STKA LR LR 23 16 37.6
comp=Z,1µm,18.9s,baz=338,slow=38
STKA Stephens Creek 36.18 151 eP P 23 00 39.7 +0.4
STKA pmax pmax
comp=Z,11nm,1.0s
STKA Stephens Creek 36.18 151 eP P 23 00 39.7 +0.4
comp=Z,11nm,1.0s
XAN Xi'an 36.62 342 P P 23 00 43.8 +0.6
XAN pP pP 23 00 48.1 -2.5
XAN PP PnPn 23 02 04.7 -2.0
XAN S S 23 06 24.6 -0.3
XAN pmax pmax
comp=Z,98nm,1.5s
XAN pmax pmax
comp=Z,630nm,8.3s
XAN LR LR
comp=Z,720nm,17.2s
XAN LR LR
comp=Z,2µm,21.3s
XAN LR LR
comp=Z,2µm,18.3s
TIA Tai'an 36.97 354 ⇓P P 23 00 46.4 +0.4
TIA sP pP 23 00 53.6 +0.2
TIA S S 23 06 33.5 +3.6
TIA pmax pmax
comp=Z,80nm,1.2s
TIA pmax pmax
comp=Z,780nm,6.3s
TIA LR LR
comp=Z,4µm,21.0s
TIA LR LR
comp=Z,1µm,18.3s
TIA LR LR
comp=Z,2µm,20.4s
JHJ Hachijo jima 2 37.59 25 LR LR 23 13 58.1
comp=Z,6.3nm,20.9s,baz=76,slow=33
INCN Inchon 38.21 6 PFAKE 23 01 10.0 +13
INCN LR LR
comp=Z,1µm,20.0s
KSAR Wonju Array Be 38.32 8 P P 23 00 56.6 -0.8
KSAR Wonju Array Be 38.32 8 P P 23 00 56.5 -0.8
KSRS Korea Array 38.34 8 P P 23 00 56.5 -1.0
comp=Z,4.3nm,0.8s,baz=187,slow=10,SNR=12
KSRS LR LR 23 17 52.0
comp=Z,1µm,19.4s,baz=194,slow=38
KS01 Wonju Array Si 38.36 8 eP P 23 00 57.5 -0.2
INU Inuyama 38.51 20 eP P 23 00 58.9 -0.2
comp=Z,158nm,1.2s
HNR Honiara 38.82 104 P P 23 01 01.3 -0.7
comp=Z,84nm,0.6s,baz=171,slow=4.0,SNR=5.0
HNR Honiara 38.82 104 P P 23 01 01.3 -0.7
HNR MLR MLR
comp=Z,1µm,21.0s
HNR Honiara 38.82 104 P P 23 01 01.3 -0.7
HNR LR LR
comp=Z,1µm,21.0s
SHL Shillong 39.03 314 eP P 23 01 04.8 +1.0
SHL AMB AMB 23 01 11.9
comp=Z,66nm,0.6s
SHL ex x 23 07 14.5
DL2 Dalian 39.39 360 P P 23 01 06.3 0.0
DL2 S S 23 07 07.6 +1.2
DL2 pmax pmax
comp=Z,77nm,1.0s
DL2 pmax pmax
comp=Z,480nm,8.3s
DL2 LR LR
comp=Z,970nm,22.7s
DL2 LR LR
comp=Z,760nm,15.5s
DL2 LR LR
comp=Z,1µm,16.3s
MAJO Matsushiro 40.00 21 di P P 23 01 10.2 -1.3
MAJO pmax pmax
comp=Z,132nm,1.0s
MAJO Matsushiro 40.00 21 eP P 23 01 10.3 -1.3
comp=Z,178nm,1.1s
MAJO LR LR
comp=Z,1µm,19.0s
MAT Matsushiro 40.00 21 P P 23 01 10.0 -1.5
MAT S S 23 07 04.4 -11
MJAR Matsushiro Arr 40.00 21 P P 23 01 10.2 -1.3
comp=Z,92nm,0.9s,baz=192,slow=8.8,SNR=126
MJAR LR LR 23 19 12.4
comp=Z,764nm,18.1s,baz=215,slow=38
MJB9 Matsu-Tunnel 40.00 21 eP P 23 01 10.4 -1.2
comp=Z,173nm,1.1s
LZH Lanzhou 40.26 337 ⇓P P 23 01 15.5 +1.7
LZH pP pP 23 01 18.7 -2.6

LZH sP sP 23 01 20.3 -4.0
LZH PP PnPn 23 02 51.1 +0.6
LZH PcP PcP 23 03 18.5 +1.0
LZH ScP ScP 23 07 07.0 +1.6
LZH PcS PcS 23 07 09.0 +0.9
LZH S S 23 07 24.2 +4.2
LZH sS pS 23 07 29.5 +0.8
LZH SS SS 23 10 17.0 -1.9
LZH ScS ScS 23 11 18.6 -0.6
LZH pmax pmax
comp=Z,170nm,1.3s
LZH pmax pmax
comp=Z,770nm,6.0s
LZH LR LR
comp=Z,1μm,14.0s
LZH LR LR
comp=Z,2μm,14.3s
LZH LR LR
comp=Z,3μm,16.5s
BJT Baijiatuau 40.84 353 PFAKE 23 01 30.0 +12
BJT LR LR
comp=Z,1μm,21.0s
BJI Beijing 40.86 353 P P 23 01 18.8 +0.3
BJI S S 23 07 33.2 +4.8
BJI pmax pmax
comp=Z,120nm,1.0s
BJI pmax pmax
comp=Z,720nm,6.5s
BJI LR LR
comp=Z,1μm,19.0s
BJI LR LR
comp=Z,610nm,21.8s
BJI LR LR
comp=Z,980nm,24.1s
CHLP Challavanipeta 41.80 299 eP P 23 01 26.7 0.0
CHLP IAmb IAmb 23 01 36.6
comp=Z,81nm,1.3s
CHLP eS S 23 07 44.4 +1.4
CHLP IVMs_BB IVMs_BB 23 19 56.9
comp=Z,453nm,18.1s
PALK Pallekele 41.87 282 P P 23 01 27.0 -0.3
comp=Z,9.8nm,0.8s,baz=117,slow=8.2,SNR=5.5
PALK Pallekele 41.87 282 P P 23 01 27.6 +0.3
PALK Pallekele 41.87 282 eP P 23 01 27.9 +0.6
PALK pmax pmax
comp=Z,91nm,1.6s
PALK Pallekele 41.87 282 eP P 23 01 27.9 +0.6
comp=Z,91nm,1.6s
LSA Lhasa 42.12 318 P P 23 01 31.3 +1.7
LSA pmax pmax
comp=Z,24nm,1.0s
LSA Lhasa 42.12 318 eP P 23 01 30.9 +1.3
LSA pmax pmax
comp=Z,179nm,1.1s
LSA MLR MLR
comp=Z,1μm,20.0s
LSA Lhasa 42.12 318 eP P 23 01 30.9 +1.3
comp=Z,179nm,1.1s
LSA LR LR
comp=Z,1μm,20.0s
VIS Vishakhapatnam 42.15 298 eP P 23 01 29.9 +0.4
SNY Shenyang 42.33 2 ⇓P P 23 01 29.8 -0.7
SNY S S 23 07 44.6 -5.6
SNY pmax pmax
comp=Z,27nm,1.5s
SNY pmax pmax
comp=Z,420nm,5.1s
SNY LR LR
comp=Z,2μm,18.0s
SNY LR LR
comp=Z,1μm,14.9s
SNY LR LR
comp=Z,3μm,18.4s
HHC Hu-ho-hao-te 42.39 348 i P P 23 01 32.3 +1.1
HHC pP pP 23 01 36.6 -2.1
HHC PP PcP 23 03 18.6 -5.7
HHC S S 23 07 56.0 +4.7
HHC sS sS 23 08 02.9 -0.8
HHC SS SS 23 10 59.8 -1.1
HHC pmax pmax
comp=Z,55nm,1.0s
HHC pmax pmax
comp=Z,480nm,4.9s
HHC LR LR
comp=Z,1μm,14.6s
HHC LR LR
comp=Z,730nm,14.9s
HHC LR LR
comp=Z,2μm,17.9s
BTO Baotou 42.49 347 eP P 23 01 31.1 -0.9
BTO pmax pmax
comp=Z,18nm,1.4s
BOK Bokaro 42.61 307 eP P 23 01 34.3 +1.1
CAN Canberra 42.71 147 eP P 23 01 33.8 -0.1
CAN pmax pmax
comp=Z,36nm,0.9s
CAN MLR MLR
comp=Z,1μm,20.0s
CAN Canberra 42.71 147 eP P 23 01 33.8 -0.1
comp=Z,36nm,0.9s
CAN LR LR
comp=Z,1μm,20.0s
PVM Polavaram 43.50 296 eP P 23 01 40.4 0.0
PVM IAmb IAmb 23 01 53.6
comp=Z,211nm,2.1s
PVM eS S 23 08 09.2 +1.1
PVM IVMs_BB IVMs_BB 23 20 12.7
comp=Z,336nm,20.8s
MDRS Chennai 43.52 290 eP P 23 01 40.2 -0.4
MSHR Mys Shultsa 43.85 10 i P P 23 01 41.8 -1.0
SKHT Srikalahasti 44.20 291 eP P 23 01 46.3 +0.2
SKHT IAmb IAmb 23 02 05.9
comp=Z,59nm,1.4s
SKHT eS S 23 08 19.3 +0.9
SKHT IVMs_BB IVMs_BB 23 19 59.7
comp=Z,444nm,20.7s
CN2 Changchun 44.39 4 eP P 23 01 49.7 +2.6
CN2 esP pP 23 01 52.8 -1.9
CN2 eS S 23 08 24.1 +3.8
CN2 eSS SS 23 11 33.5 -6.4
CN2 pmax pmax
comp=Z,10.0nm,0.8s
CN2 LR LR
comp=Z,500nm,20.0s
CN2 LR LR
comp=Z,2μm,20.0s
CN2 LR LR
comp=Z,700nm,20.0s
GTA Gaotai 44.74 336 ⇓P P 23 01 51.4 +1.2
GTA pP pP 23 01 55.5 -2.2
GTA sP sP 23 01 58.7 -2.0
GTA PcP PP 23 03 39.0 +4.0
GTA S S 23 08 28.9 +3.1
GTA sS pS 23 08 36.0 +1.3
GTA SS ScS 23 11 39.4 -7.2
GTA ScS SS 23 11 46.4 -0.7
GTA pmax pmax
comp=Z,90nm,1.2s
GTA pmax pmax
comp=Z,760nm,6.4s
GTA LR LR
comp=Z,900nm,17.3s
GTA LR LR
comp=Z,1μm,15.7s
GTA LR LR
comp=Z,1μm,18.1s
NJS Nagarjunasagar 45.38 294 eP P 23 01 54.9 -0.5
NJS IAmb IAmb 23 02 03.0
comp=Z,26nm,1.0s
NJS eS S 23 08 35.9 +0.5
NJS IVMs_BB IVMs_BB 23 17 42.3
comp=Z,205nm,16.9s
USRK Ussuriysk Ar. 45.57 10 P P 23 01 56.2 -0.3
comp=Z,26nm,0.9s,baz=186,slow=5.7,SNR=42
USRK LR LR 23 23 38.0
comp=Z,341nm,18.2s,baz=178,slow=40
MDJ Mudanjiang 45.61 8 eP P 23 01 56.6 -0.2
comp=Z,81nm,1.1s
MDJ LR LR
comp=Z,761nm,21.0s
SRLM Srisailam 45.62 293 eP P 23 01 56.6 -0.8
SRLM IAmb IAmb 23 02 06.5
comp=Z,75nm,1.3s
SRLM eS S 23 08 36.4 -2.6
SRLM IVMs_BB IVMs_BB 23 25 22.9
comp=Z,298nm,14.8s
TRD Trivandrum 45.73 283 eP P 23 01 57.3 -0.9
RPR Rampur 46.13 297 eP P 23 02 01.3 -0.1
RPR IAmb IAmb 23 02 11.4
comp=Z,133nm,1.6s
RPR eS S 23 08 46.5 +0.2
RPR IVMs_BB IVMs_BB 23 22 27.9
comp=Z,397nm,16.0s
HYB Hyderabad 46.33 295 i P P 23 02 02.5 -0.5
comp=Z,50nm,1.0s
HYB eS S 23 08 50.0 +0.8
HYB Hyderabad 46.33 295 eP P 23 02 02.8 -0.2
HYBB Hyderabad (bro 46.33 295 eP P 23 02 02.5 -0.5
HYBB IAmb IAmb 23 02 15.4
comp=Z,107nm,1.4s
HYBB eS S 23 08 48.4 -0.9
HYBB IVMs_BB IVMs_BB 23 20 47.3
comp=Z,337nm,21.9s
ERM Erimo 46.62 22 PFAKE 23 02 20.0 +15
ERM LR LR
comp=Z,1μm,21.0s
SRSP Sriramsagar 47.01 297 eP P 23 02 07.3 -0.9
SRSP IAmb IAmb 23 02 20.5
comp=Z,40nm,1.0s
SRSP eS S 23 08 58.1 -0.7
SRSP IVMs_BB IVMs_BB 23 24 20.2
comp=Z,205nm,11.3s
JBP Jabalpur 47.16 303⇑eP P 23 02 11.4 +2.0
JBP eS S 23 09 02.9 +2.1
TAU Tasmania Unive 47.81 155 PFAKE 23 02 30.0 +16
TAU LR LR
comp=Z,2μm,20.0s
ASAJ Asahikawa 48.26 20 P P 23 02 17.1 -0.5
comp=Z,29nm,0.8s,baz=234,slow=12,SNR=12
ASAJ Asahikawa 48.26 20 eP P 23 02 17.9 +0.4
comp=Z,82nm,1.2s
DZM Mont Dzumac 48.27 119 P P 23 02 19.3 +1.2
comp=Z,8.8nm,0.9s,baz=307,slow=20,SNR=2.9
DZM Mont Dzumac 48.27 119 eP P 23 02 21.3 +3.2
comp=Z,135nm,1.4s
DZM Mont Dzumac 48.27 119 eLR LR 23 16 03.4
comp=Z,1μm,24.4s
DZM Mont Dzumac 48.27 119 eP P 23 02 19.7 +1.5
comp=Z,35nm,1.0s
KLRI Killari 48.30 295 eP P 23 02 17.1 -1.3
KLRI IAmb IAmb 23 02 32.2
comp=Z,122nm,1.3s
KLRI eS S 23 09 15.9 -1.4
KLRI IVMs_BB IVMs_BB 23 22 49.2
comp=Z,301nm,5.9s
BHPL Bhopal 49.35 302 eP P 23 02 26.6 +0.2
BHPL AMB AMB 23 02 36.3
comp=Z,79nm,1.6s
YUK Yuzh-Kuril'sk 49.38 23 eP P 23 02 24.9 -1.2
DGAR Diego Garcia 49.76 261 PFAKE 23 02 40.0 +10
DGAR LR LR
comp=Z,2μm,19.0s
HIA Hailar 49.78 358 eP P 23 02 29.6 +0.4
HIA pmax pmax
comp=Z,113nm,1.3s
HIA MLR MLR
comp=Z,1μm,22.0s
HIA Hailar 49.78 358 eP P 23 02 29.6 +0.4
comp=Z,112nm,1.3s
HIA LR LR
comp=Z,1μm,22.0s
ULN Ulaanbaatar 50.05 347d iP P 23 02 32.1 +0.7
ULN pmax pmax
comp=Z,177nm,1.0s
ULN Ulaanbaatar 50.05 347 eP P 23 02 31.8 +0.4
comp=Z,137nm,0.9s
ULN LR LR
comp=Z,1μm,19.0s
ULN Ulaanbaatar 50.05 347 P P 23 02 32.3 +0.9
SNR=66
ULN Ulaanbaatar 50.05 347 P P 23 02 32.3 +0.9
SNR=66
ULN P P 23 02 32.3 +0.9
SNR=66
GOA Goa 50.15 291 eP P 23 02 32.3 -0.2
SONM Songino Array 50.17 346 P P 23 02 33.0 +0.7
comp=Z,81nm,0.8s,baz=165,slow=8.8,SNR=392
SONM LR LR 23 24 53.9
comp=Z,1μm,19.7s,baz=160,slow=38
SONA1 Songino Array 50.18 346 eP P 23 02 32.8 +0.4
HABR Khabarovsk 50.26 11 eP P 23 02 29.8 -3.0
HABR e*PP pP 23 02 39.9 -0.5
HABR e*SP sP 23 02 44.0 +0.7
HABR e 23 03 48.9
HABR e 23 04 25.4
HABR ePPP PPP 23 05 21.0
HABR eS S 23 09 39.7 -4.0
HABR e*SS sS 23 09 57.1 +0.9
HABR e 23 12 18.1
HABR eSSS SSS 23 14 41.3
HABR pmax pmax
comp=E,67nm,2.0s
HABR pmax pmax
comp=N,78nm,2.0s
HABR pmax pmax
comp=Z,200nm,2.0s
HABR MLR MLR
comp=Z,621nm,18.0s
YSS Yuzh-Sakhalins 50.82 18⇑eP P 23 02 35.5 -1.6
YSS pmax pmax
comp=Z,50nm,1.4s
YSS MLR MLR
comp=Z,1μm,17.0s
POO Poona 50.93 295 eP P 23 02 39.2 +0.8
TARA Tarawa 51.04 88 PFAKE 23 02 50.0 +11
TARA LR LR
comp=Z,103nm,19.0s
DDI Dehra Dun 51.87 310 eP P 23 02 44.9 -0.4
SMLA Simla 52.92 311 eP P 23 02 53.3 +0.3
SMLA AMB AMB 23 02 56.2
comp=Z,257nm,1.3s
CIT Chita 52.98 354 eP P 23 02 54.4 +1.3
CIT e 23 03 07.5
CIT pmax pmax
comp=Z,157nm,1.7s
SDNR Sundarnagar 53.24 311 eP P 23 02 55.0 -0.5
SDNR eP P 23 02 55.0 -0.5
ZAK Zakamensk 53.30 345 eP P 23 02 54.7 -0.9
ZAK pmax pmax
comp=Z,33nm,1.3s
WMQ Urumqi 53.81 330 P P 23 03 01.0 +1.5
WMQ pP pP 23 03 05.6 -1.5
WMQ sP sP 23 03 09.2 -0.9
WMQ PP PP 23 05 03.6 +2.8
WMQ S S 23 10 34.1 +1.2
WMQ pmax pmax
comp=Z,230nm,1.3s
WMQ LR LR
comp=Z,1μm,23.9s
WMQ LR LR
comp=Z,930nm,25.7s
WMQ LR LR
comp=Z,1μm,23.9s
DHRM DHARAMSHALA 54.10 312 eP P 23 03 02.2 +0.2
DHRM AMB AMB 23 03 05.7
comp=Z,203nm,1.9s
TLY Talaya 54.41 346 P P 23 03 04.4 +0.8
comp=Z,32nm,0.8s,baz=181,slow=5.5,SNR=16
TLY Talaya 54.41 346 eP P 23 03 04.7 +1.1
TLY e 23 05 13.1
TLY eS S 23 10 43.9 +3.4
TLY pmax pmax
comp=Z,67nm,1.0s
TLY MLR MLR
comp=Z,391nm,15.0s
TLY Talaya 54.41 346 eP P 23 03 05.2 +1.6
comp=Z,61nm,1.0s
TLY LR LR
comp=Z,909nm,21.0s
TLY Talaya 54.41 346 P P 23 03 04.4 +0.8
SNR=13
TLY Talaya 54.41 346 P P 23 03 04.4 +0.8
SNR=13
TLY P P 23 03 04.4 +0.8
SNR=13
THN Thein Dam 54.62 312 eP P 23 03 05.6 +0.2
MOY Mondy 55.07 344 eP P 23 03 09.3 +0.8
MOY pmax pmax
comp=Z,144nm,1.3s
NKL Nikolayevsk 55.88 14 eP P 23 03 12.3 -1.8
NKL e 23 03 19.7
NKL pmax pmax
comp=Z,140nm,1.0s
NKL MLR MLR
comp=Z,2μm,18.0s
BHJ Bhuj 56.07 299 eP P 23 03 13.7 -2.4
HVS Khovu-Aksy 56.90 339c iP P 23 03 22.2 +0.6
HVS pmax pmax
comp=Z,71nm,0.7s
CLNS Chul'man 57.38 2 eP P 23 03 23.8 -1.0
CLNS pmax pmax
comp=Z,22nm,1.2s
CLNS pmax pmax
comp=E,9.0nm,1.0s
CLNS pmax pmax
comp=N,39nm,1.5s
FUNA Funafuti 57.56 100 PFAKE 23 03 40.0 +13
FUNA LR LR
comp=Z,3μm,20.0s
MSVF Nonsavu 57.68 111 eP P 23 03 29.3 +1.6
MSVF pmax pmax
comp=Z,47nm,1.1s
MSVF MLR MLR
comp=Z,954nm,19.0s
MSVF Nonsavu 57.68 111 eP P 23 03 29.3 +1.6
comp=Z,47nm,1.1s
MSVF LR LR
comp=Z,954nm,19.0s
ZSN Zaisan 57.79 331 i P P 23 03 26.6 -1.2
comp=Z,178nm,1.3s
SHLS Shalkode 57.87 324 i P P 23 03 24.4 -4.2
comp=Z,821nm,1.1s
PDGK Podgornoye 57.95 324 i P P 23 03 29.5 +0.3
PDGK pmax pmax
comp=Z,184nm,1.4s
KSH Kashi 57.97 319 P P 23 03 30.9 +1.5
KSH pP pP 23 03 35.8 -1.3
KSH PcP PcP 23 04 22.3 +0.9
KSH PP PP 23 05 41.0 +3.0
KSH S S 23 11 30.0 +1.5
KSH ScS ScS 23 13 16.2 -1.6
KSH SS SS 23 15 22.6 +2.7
KSH pmax pmax
comp=Z,63nm,1.1s
KSH LR LR
comp=Z,340nm,6.5s
KSH LR LR
comp=Z,290nm,6.6s
KSH LR LR
comp=Z,860nm,7.0s
UZB Uzynbulak 58.12 324 i P P 23 03 28.6 -1.8
comp=Z,380nm,1.3s
UZB eS S 23 11 27.4 -3.0
DGZ Jazzator, Alta 58.25 334 i P P 23 03 31.9 +0.7
DGZ pmax pmax
comp=Z,62nm,1.1s
KPKS Kokpek 58.51 324 eP P 23 03 30.7 -2.3
comp=Z,1μm,1.1s
MK01 Makanchi Array 58.60 329 eP P 23 03 33.1 -0.5
MK31 Makanchi Array 58.62 329 i P P 23 03 33.9 +0.2
MK31 pmax pmax
comp=Z,94nm,0.9s
MK31 Makanchi Array 58.62 329 eP P 23 03 34.5 +0.8
MKAR Makanchi Array 58.62 329 P P 23 03 34.4 +0.6
comp=Z,54nm,0.8s,baz=130,slow=7.6,SNR=328
MKAR LR LR 23 31 08.6
comp=Z,773nm,20.5s,baz=130,slow=38
BOD Bodaibo 58.66 355 eP P 23 03 32.5 -1.1
BOD pmax pmax
comp=Z,97nm,1.6s
MAKZ Makanchi 58.80 329 i P P 23 03 35.2 +0.3
MAKZ pmax pmax
comp=Z,185nm,1.5s
MAKZ Makanchi 58.80 329 eP P 23 03 35.5 +0.6
comp=Z,112nm,1.0s
ULHL Ulahol 59.27 322 P P 23 03 40.1 +1.5
SNR=9.8
SFK Sufi-Kurgan 59.85 318 i P P 23 03 43.0 +0.4
SFK pmax pmax
comp=Z,68nm,1.1s
TKM2 Tokmak 2 60.05 322 i P P 23 03 44.3 +0.4
TKM2 pmax pmax
comp=Z,120nm,1.2s
TKM2 Tokmak 2 60.05 322 P P 23 03 44.6 +0.7
SNR=95
KUU Kurty 60.14 323 i P P 23 03 41.7 -2.5
comp=Z,779nm,0.7s
KBK Karagaybulak 60.30 322 P P 23 03 46.5 +0.9
SNR=30
UCH Uchtor 60.34 321 P P 23 03 47.1 +0.9
SNR=45
KBL Kabul 60.56 311 eP P 23 03 47.3 -0.2
KBL pmax pmax
comp=Z,158nm,1.1s
KBL Kabul 60.56 311 eP P 23 03 47.3 -0.2
comp=Z,158nm,1.1s
AAK Ala-Archa 60.57 321 P P 23 03 48.5 +1.1
comp=Z,25nm,0.8s,baz=125,slow=5.5,SNR=66
AAK Ala-Archa 60.57 321 i P P 23 03 48.0 +0.6
AAK pmax pmax
comp=Z,107nm,1.4s
AAK Ala-Archa 60.57 321 P P 23 03 48.6 +1.1
SNR=44
AAK Ala-Archa 60.57 321 eP P 23 03 48.6 +1.1
comp=Z,233nm,1.5s
AAK LR LR
comp=Z,1μm,21.0s
FRU Bishkek 60.60 322 eP P 23 03 48.0 +0.6
FRU pmax pmax
comp=Z,220nm,2.2s
CHMS Chumysh 60.61 322 P P 23 03 47.9 +0.5
SNR=21
AML Almayashu 60.81 321 P P 23 03 50.3 +1.0
SNR=71
USP Ospenovka 60.91 322 P P 23 03 49.8 +0.3
SNR=69
EKS2 Erkin-Say 61.03 321 P P 23 03 51.4 +0.9
SNR=51
RPZ Rata Peaks 61.16 141 P P 23 03 52.0 +0.9
comp=Z,23nm,0.9s,baz=331,slow=8.4,SNR=5.8
RPZ Rata Peaks 61.16 141 eP P 23 03 51.9 +0.7
comp=Z,187nm,1.4s
PEA0B Petropavlovsk- 61.33 24 eP P 23 03 52.2 +0.1
comp=Z,76nm,0.8s
PETK Petropavlovsk- 61.33 24 P P 23 03 52.2 +0.1
comp=Z,40nm,0.6s,baz=200,slow=3.0,SNR=43
PETK LR LR 23 30 34.5
comp=Z,302nm,20.2s,baz=225,slow=36
THZ Tophouse 61.40 139 eP P 23 03 53.0 +0.1
comp=Z,36nm,1.1s
PET Petropavlovsk 61.65 24 eP P 23 03 54.3 0.0
PET eS S 23 12 13.2 -1.9
PET pmax pmax
comp=Z,89nm,1.2s
PET pmax pmax
comp=Z,300nm,12.7s
MNAS Manas 61.75 320 i P P 23 03 55.8 +0.4
MNAS pmax pmax
comp=Z,162nm,1.5s
SEM Semipalatinsk 62.03 331 i P P 23 03 54.9 -2.3
comp=Z,218nm,0.9s
SEM eS S 23 12 17.2 -3.4
KHZ Kahutara 62.12 139 eP P 23 03 57.5 -0.1
comp=Z,194nm,1.6s
SNZO South Karori 62.40 137 PFAKE 23 04 10.0 +10
SNZO LR LR
comp=Z,2μm,21.0s
ZAA0 Zalesovo Array 62.48 336 eP P 23 03 59.0 -0.9
ZALV Zalesovo Beam 62.48 336 P P 23 03 58.9 -1.0
comp=Z,53nm,0.9s,baz=128,slow=5.5,SNR=107
ZALV LR LR 23 33 19.4
comp=Z,426nm,19.9s,baz=122,slow=38
ZALV Zalesovo Beam 62.48 336 eP P 23 03 58.1 -1.8
ZALV Zalesovo Beam 62.48 336 eP P 23 03 58.1 -1.8
BKZ Black Stump Fm 62.74 135 eP P 23 04 02.0 0.0
comp=Z,102nm,1.5s
YAK Yakutsk 62.82 4 P P 23 04 00.5 -1.4
comp=Z,33nm,0.6s,baz=296,slow=1.6,SNR=19
YAK Yakutsk 62.82 4 eP P 23 03 58.9 -3.0
YAK e*PP pP 23 04 09.3 -0.4
YAK e 23 06 22.2
YAK eS S 23 12 23.8 -5.7
YAK e*SS sS 23 12 41.3 -1.0
YAK e 23 13 52.0
YAK eSSS SSS 23 19 18.3
YAK pmax pmax

comp=Z,134nm,1.6s
YAK pmax pmax
comp=N,52nm,1.4s
YAK pmax pmax
comp=E,26nm,1.5s
YAK pmax pmax
comp=Z,408nm,4.3s
YAK pmax pmax
comp=N,284nm,3.7s
YAK pmax pmax
comp=E,89nm,3.8s
YAK smax smax
comp=N,137nm,3.0s
YAK smax smax
comp=E,210nm,3.3s
YAK MLR MLR
comp=Z,807nm,19.0s
YAK MLR MLR
comp=E,284nm,20.0s
YAK MLR MLR
comp=N,2µm,23.0s
**YAK Yakutsk 62.82 4** *e*P **P 23 04 01.6 -0.3**
comp=N,82nm,0.8s
YAK LR LR
comp=Z,884nm,19.0s
**URZ Urewera 62.83 133** P **P 23 04 02.2 -0.3**
comp=Z,10nm,0.7s,baz=353,slow=9.0,SNR=4.5
URZ LR LR 23 31 18.9
comp=Z,701nm,21.6s,baz=312,slow=36
**KURBB Kurchatov Arra 63.01 331** P **P 23 04 03.5 +0.1**
comp=Z,62nm,0.9s,baz=129,slow=6.5,SNR=114
**KURK Kurchatov 63.02 331** *i*P **P 23 04 03.5 0.0**
KURK pmax pmax
comp=Z,200nm,1.1s
**KURK Kurchatov 63.02 331** *e*P **P 23 04 03.5 0.0**
comp=Z,165nm,0.9s
KURK LR LR
comp=Z,1µm,22.0s
**KURK Kurchatov 63.02 331** P **P 23 04 03.7 +0.2**
SNR=78
**KURK Kurchatov 63.02 331** P **P 23 04 03.7 +0.2**
SNR=78
KURK P **P 23 04 03.7 +0.2**
SNR=78
**IUG Iuzhnay 63.18 319** *e*P **P 23 04 02.6 -2.3**
comp=Z,459nm,1.6s
**KK31 Karatay Array 63.33 320** *i*P **P 23 04 05.2 -0.6**
KK31 pmax pmax
comp=Z,61nm,1.4s
**BRLS Boroldaу 63.73 320** *i*P **P 23 04 07.0 -1.4**
comp=Z,35nm,1.4s
**NVS Novosibirsk 63.77 336**↓ *i*P **P 23 04 07.9 -0.5**
NVS *e*PPP PPP 23 08 03.0
NVS *i*S **S 23 12 41.2 -0.5**
NVS pmax pmax
comp=Z,142nm,1.7s
NVS pmax pmax
comp=N,38nm,1.2s
NVS pmax pmax
comp=E,58nm,1.4s
NVS pmax pmax
comp=Z,39nm,1.9s
NVS pmax pmax
comp=N,14nm,1.8s
NVS pmax pmax
comp=E,31nm,2.0s
NVS smax smax
comp=N,19nm,1.8s
NVS smax smax
comp=E,73nm,1.8s
**RAO Raoul Island 63.87 122** LR LR 23 34 13.9
comp=E,462nm,18.4s,baz=106,slow=38
**MA2 Magadan 64.17 16** P **P 23 04 11.0 +0.1**
comp=E,85nm,1.0s,baz=202,slow=6.1,SNR=20
**MA2 Magadan 64.17 16***d* *i*P **P 23 04 11.2 +0.3**
**BRZS Berezniki 65.64 328** *e*P **P 23 04 18.4 -2.3**
comp=E,57nm,1.3s
**MSEY Mahe Island 66.47 265** *i*P **P 23 04 27.4 +0.6**
**MSEY Mahe Island 66.47 265** PFAKE 23 04 40.0 +13
MSEY LR LR
comp=Z,1µm,21.0s
**AFI Afiamalu 66.86 105** LR LR 23 35 36.3
comp=Z,202nm,20.4s,baz=287,slow=38
**SEY Seymchan 67.42 15** P **P 23 04 32.1 +0.3**
comp=Z,36nm,1.0s,baz=220,slow=6.4,SNR=20
**SEY Seymchan 67.42 15** *i*P **P 23 04 32.2 +0.4**
**HATD Hatta, Dubai 68.42 297** *i*P **P 23 04 39.9 +1.0**
SNR=6.8
**ASHO Ashiyiah 68.46 297** P **P 23 04 39.7 +0.5**
**BANOM Banah 68.49 298** P **P 23 04 39.7 +0.3**
**BVAR Borovoye Array 68.50 329** P **P 23 04 38.5 -0.4**
comp=Z,43nm,0.9s,baz=129,slow=8.0,SNR=65
**BRVK Borovoye 68.58 329***d* *i*P **P 23 04 38.5 -0.8**
BRVK pmax pmax
comp=Z,77nm,1.0s
**BRVK Borovoye 68.58 329** *e*P **P 23 04 38.7 -0.5**
comp=Z,111nm,1.1s
BRVK LR LR
comp=Z,390nm,20.0s
**BRVK Borovoye 68.58 329** P **P 23 04 38.8 -0.5**
SNR=31
**BRVK Borovoye 68.58 329** P **P 23 04 38.8 -0.5**
SNR=31
BRVK P **P 23 04 38.8 -0.5**
SNR=31
**GEYT Alibeck 70.01 311** P **P 23 04 48.5 0.0**
comp=Z,18nm,1.0s,baz=131,slow=6.1,SNR=22
GEYT LR LR 23 40 34.5
comp=Z,321nm,19.2s,baz=105,slow=40
**TIXI Tiksi 72.34 2** P **P 23 05 00.3 -1.6**
comp=Z,59nm,0.9s,baz=154,slow=3.0,SNR=80
**TIXI Tiksi 72.34 2***d* *i*P **P 23 05 00.0 -1.9**
TIXI pmax pmax
comp=Z,78nm,1.0s
**TIXI Tiksi 72.34 2** *e*P **P 23 04 59.8 -2.1**
comp=Z,104nm,1.1s
TIXI LR LR
comp=Z,727nm,21.0s
**AB31 Akbulak array 72.60 323** *i*P **P 23 05 02.6 -1.3**
AB31 pmax pmax
comp=Z,35nm,1.1s
**AKTO Aktyubinsk 74.20 323** P **P 23 05 12.8 -0.5**
comp=Z,27nm,1.1s,baz=111,slow=4.7,SNR=13
**AKTO Aktyubinsk 74.20 323** *i*P **P 23 05 12.0 -1.3**
AKTO pmax pmax
comp=Z,87nm,1.5s
**BILL Bilibino 75.04 16** *i*P **P 23 05 15.1 -2.7**
BILL *i* 23 05 30.0
BILL *i* 23 08 07.8
BILL *i*S **SKSac 23 15 30.0 +5.0**
BILL pmax pmax
comp=Z,20nm,1.2s
BILL MLR MLR
comp=Z,431nm,18.0s
**SVE Sverdlovsk 75.26 330**↓ *e*P **P 23 05 18.6 -0.7**
SVE pmax pmax
comp=Z,116nm,1.7s
**ABPO Ambohimpanom 75.32 251** PFAKE 23 05 30.0 +9.4
ABPO LR LR
comp=Z,233nm,20.0s
**ARU Arti 76.15 329** P P 23 05 19.0 -5.4
comp=Z,24nm,1.0s,baz=105,slow=4.2,SNR=20
**ARU Arti 76.15 329***c* *i*P **P 23 05 22.8 -1.6**
ARU 23 05 34.2
ARU 23 08 10.0
ARU S **S 23 15 05.3 -1.5**
ARU SS **SS 23 19 58.3 -2.2**
ARU pmax pmax
comp=Z,120nm,2.5s
**ARU Arti 76.15 329** *e*P **P 23 05 21.9 -2.5**
comp=Z,86nm,1.3s
**RAYN Ar Rayn 77.83 294** *e*P **P 23 05 34.6 -0.1**
comp=Z,18nm,1.1s
RAYN LR LR
comp=Z,1µm,20.0s
**MAW Mawson 78.01 200** P **P 23 05 35.2 +0.6**
comp=Z,12nm,0.5s,baz=53,slow=6.9,SNR=13
**MAW Mawson 78.01 200** *e*P **P 23 05 35.8 +1.2**
MAW pmax pmax
comp=Z,17nm,1.3s
**MAW Mawson 78.01 200** *e*P **P 23 05 35.8 +1.2**
comp=Z,17nm,1.3s
**SOKR Solikamsk 78.24 332**↑ *i*P **P 23 05 33.2 -2.8**
SOKR pmax pmax
comp=Z,25nm,1.2s
SOKR MLR MLR
comp=Z,488nm,24.0s

**RAR Rarotonga 78.85 111** LR LR 23 38 32.4
comp=Z,125nm,19.6s,baz=270,slow=34
**VNDA Vanda 79.74 172** P **P 23 05 43.9 -0.1**
comp=Z,2.9nm,0.7s,baz=308,slow=6.0,SNR=16
VNDA LR LR 23 40 29.2
comp=Z,808nm,19.3s,baz=333,slow=35
**VNDA Vanda 79.74 172** *e*P **P 23 05 44.5 +0.5**
VNDA pmax pmax
comp=Z,24nm,1.4s
**VNDA Vanda 79.74 172** *e*P **P 23 05 44.5 +0.5**
comp=Z,24nm,1.4s
**GROC Groznyy 80.36 314** *e*P **P 23 05 44.3 -3.7**
GROC *e* 23 08 45.3
GROC pmax pmax
comp=Z,37nm,1.3s
**GNI Garni 80.64 311** *i*P **P 23 05 51.1 +1.3**
SNR=5.5
GNI PFAKE 23 06 00.0 +10
GNI LR LR
comp=Z,429nm,20.0s
**XMAS Kiritimati 80.66 88** PFAKE 23 06 00.0 +10
XMAS LR LR
comp=Z,7.0nm,20.0s
**TBLG Delisi 80.89 312** *e*P P 23 05 59.2 +8.3
**BASK Baskale_VAN 80.91 309** *e*P P 23 06 00.5 +9.1
BASK IAML 23 06 52.4
comp=Z,18nm,0.1s
**DYDN Diyadin 81.36 310** *e*P **P 23 05 53.1 -0.6**
DYDN IAML 23 06 04.2
comp=Z,15nm,0.8s
**ZEI Tsey 81.67 313** *e*P **P 23 05 53.5 -1.8**
ZEI pmax pmax
comp=Z,24nm,1.8s
**NCK Nalchik 82.00 314** *i*P **P 23 05 57.5 +0.7**
NCK pmax pmax
comp=Z,7.0nm,0.9s
**KBZ Khabaz 82.53 314** P **P 23 05 59.5 +0.1**
comp=Z,4.2nm,0.8s,baz=261,slow=1.3,SNR=5.8
KBZ LR LR 23 50 32.8
comp=Z,302nm,18.5s,baz=101,slow=41
**EKAR Karacoban 82.57 310** *e*P **P 23 06 00.9 +0.8**
EKAR IAML 23 06 25.3
comp=Z,2.2nm,0.8s
**NEY Neytrino 82.59 314** *e*P **P 23 06 00.8 +0.7**
NEY pmax pmax
comp=Z,3.0nm,1.0s
**GOF Gofitskoye 82.62 315**↑ *e*P **P 23 06 04.1 +4.2**
GOF pmax pmax
comp=Z,17nm,1.2s
**KIV Kislovodsk 82.71 314** *i*P **P 23 06 01.7 +1.1**
SNR=5.5
**KIV Kislovodsk 82.71 314** *e*P **P 23 05 58.7 -1.9**
KIV *e*S **S 23 16 14.4 -2.8**
KIV *e*SS **SS 23 21 37.3 -2.4**
KIV pmax pmax
comp=Z,9.0nm,1.0s
**KIV Kislovodsk 82.71 314** *e*P **P 23 05 59.5 -1.0**
comp=Z,66nm,1.9s
KIV LR LR
comp=Z,537nm,19.0s
**HOMI Horasan 82.78 310**↓ *e*P **P 23 06 00.8 -0.5**
HOMI IAML 23 06 13.6
comp=Z,6.8nm,0.8s
**ARTV Artvin 82.91 311** *e*P **P 23 06 01.3 -0.5**
comp=Z,34nm,1.6s
**MARD Mardin 83.36 308** *e*P **P 23 06 04.7 +0.6**
comp=Z,21nm,1.0s
**VRH Novokhopyorsk 84.38 321** *e*P **P 23 06 06.9 -1.9**
VRH pmax pmax
comp=Z,30nm,1.8s
**KMBO Kilima Mbogo 84.66 269** P **P 23 06 10.3 -1.1**
comp=Z,0.7nm,0.3s,baz=177,slow=4.5,SNR=4.3
KMBO LR LR 23 42 26.0
comp=Z,567nm,20.0s,baz=88,slow=35
**KMBO Kilima Mbogo 84.66 269** *e*P **P 23 06 12.2 +0.8**
KMBO *e* 23 06 24.7
KMBO pmax pmax
comp=Z,6.0nm,1.1s
**KMBO Kilima Mbogo 84.66 269** *e*P **P 23 06 12.2 +0.8**
comp=Z,6.2nm,1.1s
KMBO *e* 23 06 24.7
**VSR Storozhevoye 85.97 321** *e*P **P 23 06 13.9 -2.9**
VSR pmax pmax
comp=Z,10.0nm,0.8s
**LPSR Galich'ya Gora 86.26 323** *e*P **P 23 06 16.4 -1.8**
LPSR pmax pmax
comp=Z,20nm,1.0s
**SYO Syowa Base 86.62 201**↓ *e*X **P 23 06 17.2 -2.4**
**SYO Syowa Base 86.62 201**↓ *e*PcP **P 23 06 22.0 +2.4**
**KLMR Klimovskoe 86.87 331** *e*P P 23 06 15.8 -5.2
KLMR *e*S **SKSac 23 16 38.5 -7.8**
KLMR pmax pmax
comp=Z,76nm,1.3s
**TOKA Tokat 86.95 310** *e*P **P 23 06 21.7 -0.3**
comp=Z,120nm,1.8s
**MOS Moscow 87.33 326** *e*P P 23 06 18.3 -5.0
MOS *e* 23 06 25.8
MOS *e* 23 09 44.1
**OBN Obninsk 87.88 325**↓ *e*P **P 23 06 24.7 -1.3**
OBN *e**PP **sP 23 06 36.1 -0.8**
OBN *SP pP 23 06 43.0 +9.0
OBN pmax pmax
comp=Z,33nm,1.2s
OBN MLR MLR
comp=Z,711nm,24.0s
**OBN Obninsk 87.88 325** *e*P **P 23 06 25.1 -0.9**
comp=Z,132nm,1.7s
**TMCR Tamitsa 87.93 334** *e*P P 23 06 32.2 +6.2
TMCR pmax pmax
comp=Z,35nm,1.0s
**KDAK Kodiak Island 88.15 32** P **P 23 06 26.8 -0.4**
comp=Z,18nm,1.0s,baz=245,slow=4.1,SNR=5.1
**KDAK Kodiak Island 88.15 32** P **P 23 06 26.8 -0.4**
KDAK MLR MLR
comp=Z,557nm,20.0s
**KDAK Kodiak Island 88.15 32** P **P 23 06 26.8 -0.4**
KDAK LR LR
comp=Z,557nm,20.0s
**IMAR Indian Mountai 88.29 24** *e*P **P 23 06 26.8 -1.0**
**PPT Papeete 88.37 107** LR LR 23 48 14.3
comp=Z,80nm,18.2s,baz=252,slow=37
**PPT2 Papeete2 88.37 107** *e*S **S 23 17 08.2 -5.6**
comp=Z,683nm,25.5s
PPT2 *e*SS **SS 23 23 00.2 -3.8**
comp=Z,214nm,27.2s
**PPT2 Papeete2 88.37 107** *e*LR LR 23 34 24.7
comp=Z,391nm,25.5s
**TBI Tubuai 88.47 113** *e*S **S 23 17 09.2 -5.1**
comp=Z,678nm,28.0s
**SPU Mount Spurr 88.66 29** *e*P **P 23 06 29.5 -0.1**
**CAST Castle Rocks 88.80 27** *e*P **P 23 06 31.6 +1.3**
**BR131 Keskin Array S 89.10 310** *e*P **P 23 06 35.1 +2.8**
**BRTR Keskin Array B 89.10 310** P **P 23 06 30.6 -1.8**
comp=Z,2.3nm,1.0s,baz=99,slow=3.9,SNR=6.3
BRTR LR LR 23 51 22.9
comp=Z,206nm,21.7s,baz=102,slow=39
**CSS Mathiatis 89.22 305** PFAKE 23 06 40.0 +7.1
CSS LR LR
comp=Z,97nm,19.0s
**QSPA South Pole Qui 89.27 180** *e*P **P 23 06 33.0 +0.5**
QSPA LR LR
comp=Z,1µm,19.0s
**BPAW Bear Paw Mtn. 89.32 26** *e*P **P 23 06 31.9 -0.8**
**KTH Kantishna Hill 89.32 27** *e*P **P 23 06 32.2 -0.6**
**MLY Manley 89.47 25** *e*P **P 23 06 32.9 -0.5**
**TRF Thorofare Moun 89.60 27** *e*P **P 23 06 34.2 0.0**
**ANTO Ankara 89.76 310** PFAKE 23 06 50.0 +15
ANTO LR LR
comp=Z,390nm,22.0s
**MCK McKinley 90.22 26** *e*P **P 23 06 35.4 -1.5**
**MCK McKinley 90.22 26** *e*P **P 23 06 35.4 -1.5**
**RND Reindeer 90.25 27** *e*P **P 23 06 36.1 -1.0**
**RND Reindeer 90.25 27** *e*P **P 23 06 36.1 -1.0**
**SML Sawmill 90.47 28** *e*P **P 23 06 37.6 -0.5**
**SML Sawmill 90.47 28** *e*P **P 23 06 37.6 -0.5**
**WRH Wood River Hil 90.60 26** *e*P **P 23 06 37.1 -1.5**
**COLA College 90.70 25** *e*P **P 23 06 39.3 +0.3**
COLA pmax pmax
comp=Z,7.0nm,1.0s
**COLA College 90.70 25** PFAKE 23 06 50.0 +11
COLA LR LR
comp=Z,439nm,20.0s
**CCB Clear Creek Bu 90.72 26** *e*P **P 23 06 38.1 -1.1**
**HDA Harding Lake 91.09 26** *e*P **P 23 06 40.2 -0.7**
**ILAR Eielson Array 91.11 25** P **P 23 06 39.0 -1.9**
comp=Z,1.5nm,0.7s,baz=246,slow=5.0,SNR=10
ILAR LR LR 23 46 03.0
comp=Z,260nm,21.7s,baz=262,slow=35
**ILB Eielson Array 91.11 25** *e*P **P 23 06 39.8 -1.2**
**IL1 Eielson Array 91.11 25** *e*P **P 23 06 38.0 -3.0**
**ISP Isparta 91.52 308** PFAKE 23 07 00.0 +16
ISP LR LR
comp=Z,375nm,20.0s
**DIV Divide 91.70 29** *e*P **P 23 06 43.7 -0.2**
**FYU Fort Yukon 91.75 24** *e*P **P 23 06 44.3 +0.4**
**PAX Paxson 91.78 27** *e*P **P 23 06 44.3 0.0**
**PAX Paxson 91.78 27** *e*P **P 23 06 44.3 0.0**
**AKASG Malin Array Be 92.23 321** P **P 23 06 44.2 -2.2**
comp=Z,1.1nm,0.6s,baz=73,slow=4.1,SNR=9.3
AKASG LR LR 23 55 12.6
comp=Z,215nm,18.3s,baz=90,slow=40
**KIEV Kiev 92.24 321** *e*P **P 23 06 45.3 -1.2**
KIEV pmax pmax
comp=Z,4.0nm,1.0s
**BMRM Bremner River 92.28 29** *e*P **P 23 06 50.9 +4.3**
**DOT Dot Lake 92.39 26** *e*P **P 23 06 46.8 -0.2**
**MENT Mentasta 92.59 27** *e*P **P 23 06 47.6 -0.3**
**VSU Vasula 93.29 328** *e*P **P 23 06 50.7 -0.4**
VSU pmax pmax
comp=Z,102nm,1.2s
**FINES FINESS Array B 93.39 331** P **P 23 06 51.0 -0.6**
comp=Z,3.5nm,0.8s,baz=45,slow=8.3,SNR=3.0
FINES LR LR 23 52 00.3
comp=Z,154nm,21.1s,baz=76,slow=38
**FINES FINESS Array B 93.39 331** P **P 23 06 51.0 -0.6**
**LSZ Lusaka 93.43 255** PFAKE 23 07 00.0 +7.1
LSZ LR LR
comp=Z,988nm,20.0s
**EGAK Eagle 93.56 25** *e*P **P 23 06 52.5 +0.2**
EGAK LR LR
comp=Z,413nm,19.0s
**SPITS Spitsbergen Ar 93.82 349** P **P 23 06 51.8 -1.6**
comp=Z,21nm,1.0s,baz=117,slow=12,SNR=4.3
**DAWY Dawson 94.41 26** *e*P **P 23 06 56.1 -0.2**
**BUR04 Bucovina Ar. S 95.03 318** *e*P **P 23 07 02.8 +3.2**
**BUR08 Bucovina Ar. S 95.03 318** *e*P **P 23 06 59.2 -0.4**
**BOSA Boshof 95.54 241** LR LR 23 46 18.4
comp=Z,582nm,20.0s,baz=98,slow=33
**SANT Santorini 95.61 306** PFAKE 23 07 10.0 +7.6
SANT LR LR
comp=Z,292nm,22.0s
**HYT Haines Junctio 95.74 29** *e*P **P 23 07 03.4 +0.8**
**INK Inuvik 95.98 21** P **P 23 07 01.1 -2.1**
comp=Z,3.3nm,1.0s,baz=280,slow=3.7,SNR=5.8
**INK Inuvik 95.98 21** *e*P **P 23 07 02.2 -1.1**
**INK Inuvik 95.98 21** *e*P **P 23 07 02.1 -1.1**
**UZH Uzhgorod 96.87 319** *e*P **P 23 07 05.2 -2.6**
UZH *e* 23 07 16.8
**WHY Whitehorse 97.04 29** *e*P Pdif 23 07 09.3 +0.7
**TAOE Nuku Hiva Isla 97.73 99** *e*LR LR 23 38 57.2
comp=Z,524nm,22.7s
**SUR Sutherland 99.02 237** PFAKE 23 07 30.0 +12
SUR LR LR
comp=Z,849nm,19.0s
**TIR Tirane 99.49 312** PFAKE 23 07 30.0 +10
TIR LR LR
comp=Z,440nm,20.0s
**DPC Dobruska-Polom 100.44 321** *e*PP PP 23 11 36.8 +6.5
**UPC Upice 100.60 321** *e*PP PP 23 11 41.0 +10
**CONA Conrad Observa 101.22 319** *e*PP PP 23 11 38.2 +1.9
comp=Z,9.8nm,1.3s
**GOPC GO Pecny, Ondr 101.50 321** *e*PP PP 23 11 47.5 +9.2
**PRU Pruhonice 101.64 321** *e*PKP **PKiKP 23 11 51.1 -1.5**
**BRG Berggiesshubel 101.81 322** *e*PKP **PP 23 11 36.9 -3.7**
comp=Z,8.0nm,1.3s
BRG *e* 23 11 43.3
comp=Z,40nm,1.8s
**SOKA Soboth 102.03 318** *i* PKiKP **PKiKP 23 11 47.7 -5.9**
comp=Z,12nm,1.8s
**CLL Collm 102.27 323** *e*PP PP 23 11 45.0 +1.0
CLL *e*PPS PPS 23 21 42.0
CLL *e*SS SS 23 26 18.0 -1.5
CLL LmV 23 58 00.0
comp=Z,500nm,21.7s
**KHC Kasperske Hory 102.44 320** *e*PKP **PKiKP 23 11 56.0 +1.8**
**CUC Castrocucco 102.74 311** PFAKE 23 07 50.0 +16
CUC LR LR
comp=Z,275nm,20.0s
**CEL Celeste 102.98 309** PFAKE 23 07 50.0 +15
CEL LR LR
comp=Z,358nm,20.0s
**TSUM Tsumeb 103.31 250** PFAKE 23 07 50.0 +13
TSUM LR LR
comp=Z,498nm,20.0s
**AQU L'Aquila 104.08 314** PFAKE 23 07 50.0 +10
AQU LR LR
comp=Z,427nm,20.0s
**WTTA Wattenberg 104.16 319** *i* pPKiKP **PKiKP 23 12 01.6 +4.0**
comp=Z,10.0nm,1.0s
**WDD Wied Dalam 104.46 307** PFAKE 23 07 50.0 +8.1
WDD LR LR
comp=Z,358nm,21.0s
**RETA Reutte 104.68 319** *i* PP PP 23 12 05.4 +3.2
comp=Z,26nm,1.9s
**CLTB Caltabellotta 105.18 309** PFAKE 23 12 10.0
CLTB LR LR
comp=Z,126nm,21.0s
**YKA Yellowknife Ar 105.45 24** PKiKP **PKiKP 23 11 57.8 -1.4**
comp=Z,0.5nm,0.6s,baz=315,slow=1.7,SNR=4.1
**VLC Villacollemand 105.80 316** PFAKE 23 12 10.0
VLC LR LR
comp=Z,349nm,20.0s
**TUE Stuetta 105.89 318** PFAKE 23 12 10.0
TUE LR LR
comp=Z,588nm,20.0s
**BFO Black Forest 106.01 320** PFAKE 23 12 10.0
BFO LR LR
comp=Z,365nm,19.0s
**ECH Echery 106.79 321** PFAKE 23 12 10.0
ECH LR LR
comp=Z,792nm,21.0s
**VSL Villasalto 107.70 311** PFAKE 23 12 20.0
VSL LR LR
comp=Z,291nm,22.0s
**NEW Newport 110.63 38** PFAKE 23 12 20.0
NEW LR LR
comp=Z,521nm,20.0s
**WVOR Wild Horse Val 111.82 44** PFAKE 23 12 20.0
WVOR LR LR
comp=Z,596nm,22.0s
**BMO Blue Mountains 111.84 41** PFAKE 23 12 20.0
BMO LR LR
comp=Z,407nm,21.0s
**MSO Missoula 113.19 38** P **PKiKP 23 12 13.7 -0.7**
baz=296
**HLID Hailey 114.26 42** P PKPdf 23 12 16.3 -0.4
baz=294
**HLID Hailey 114.26 42** PFAKE 23 12 30.0 +13
HLID LR LR
comp=Z,369nm,20.0s
**PMSA Palmer Station 114.56 177** PFAKE 23 12 30.0 +14
PMSA LR LR
comp=Z,582nm,20.0s
**EGMT Eagleton 115.14 36** P **PKPdf 23 12 16.9 -1.2**
baz=300
**BOZ Bozeman (W) 115.17 39** P **PKPdf 23 12 18.4 +0.1**
baz=297
**BFSC Mount Baldy Ra 115.21 52** P **PKPdf 23 12 18.7 0.0**
baz=288
**R11A Troy Canyon, C 115.44 47** P **PKPdf 23 12 19.1 0.0**
baz=291
**GSC Goldstone, Bar 115.55 51** P **PKPdf 23 12 19.9 +0.7**
baz=289
**PFO Pinyon Flats O 116.35 52** PFAKE 23 12 30.0 +9.1
PFO LR LR
comp=Z,343nm,22.0s
**DUG Dugway, Tooele 116.72 44** P **PKPdf 23 12 22.0 +0.6**
baz=294
**DUG Dugway, Tooele 116.72 44** PFAKE 23 12 30.0 +8.5
DUG LR LR
comp=Z,303nm,19.0s
**AHID Auburn Hatcher 116.80 41** PFAKE 23 12 30.0 +8.4
AHID LR LR
comp=Z,288nm,19.0s
**HWUT Hardware Ranch 116.99 43** PFAKE 23 12 30.0 +8.0
HWUT LR LR
comp=Z,553nm,19.0s
**PAB San Pablo 117.70 315** PFAKE 23 12 40.0 +17
PAB LR LR
comp=Z,265nm,19.0s

| Code | Station Name | Δ° | AZ° | Phase Op | Phase ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| BW06 | Boulder Array | 117.81 | 41 | PFAKE | | 23 12 40.0 | +16 |
| BW06 | | | | LR | LR | | |
| | comp=Z,461nm,20.0s | | | | | | |
| PDAR | Pinedale Array | 117.81 | 41 | PKP | PKPdf | 23 12 21.9 | -1.7 |
| | comp=Z,0.8nm,0.8s,baz=126,slow=2.0,SNR=5.9 | | | | | | |
| LAO | LASA Array | 117.89 | 35 | P | PKPdf | 23 12 24.0 | +0.7 |
| | baz=303 | | | | | | |
| TORD | Torodi Ar. Bea | 119.54 | 285 | PKP | PKPdf | 23 12 25.7 | -1.6 |
| | comp=Z,2.4nm,0.6s,baz=67,slow=1.6,SNR=9.4 | | | | | | |
| WUAZ | Wupatki | 119.62 | 49 | P | PKPdf | 23 12 27.7 | +0.5 |
| | baz=293 | | | | | | |
| WUAZ | Wupatki | 119.62 | 49 | PFAKE | | 23 12 40.0 | +13 |
| WUAZ | | | | LR | LR | | |
| | comp=Z,445nm,22.0s | | | | | | |
| O20A | White River Ci | 119.91 | 43 | P | PKPdf | 23 12 27.5 | -0.2 |
| | baz=298 | | | | | | |
| RSSD | Black Hills | 120.58 | 37 | P | PKPdf | 23 12 27.8 | -1.0 |
| | baz=304 | | | | | | |
| W18A | Petrified Fore | 121.01 | 49 | P | PKPdf | 23 12 30.4 | +0.5 |
| | baz=294 | | | | | | |
| MVCO | Mesa Verde | 121.04 | 46 | P | PKPdf | 23 12 30.1 | +0.1 |
| | baz=296 | | | | | | |
| MVCO | Mesa Verde | 121.04 | 46 | PFAKE | | 23 12 40.0 | +10 |
| MVCO | | | | LR | LR | | |
| | comp=Z,538nm,19.0s | | | | | | |
| ULM | Lac du Bonnet | 121.08 | 27 | PKP | PKPdf | 23 12 27.2 | -2.1 |
| | comp=Z,4.3nm,0.7s,baz=8.3,slow=2.7,SNR=5.0 | | | | | | |
| TUC | Tucson | 121.28 | 52 | PFAKE | | 23 12 40.0 | +10 |
| TUC | | | | LR | LR | | |
| | comp=Z,665nm,20.0s | | | | | | |
| RTC | Rabat Centre | 121.79 | 310 | PFAKE | | 23 12 40.0 | +8.8 |
| RTC | | | | LR | LR | | |
| | comp=Z,1μm,22.0s | | | | | | |
| ISCO | Idaho Springs | 121.84 | 42 | P | PKPdf | 23 12 31.2 | -0.4 |
| | baz=300 | | | | | | |
| ISCO | Idaho Springs | 121.84 | 42 | PFAKE | | 23 12 40.0 | +8.5 |
| ISCO | | | | LR | LR | | |
| | comp=Z,359nm,20.0s | | | | | | |
| C31A | Landman Farms, | 121.85 | 30 | P | PKPdf | 23 12 30.1 | -0.8 |
| | baz=311 | | | | | | |
| S22A | 4UR Ranch, Cre | 121.99 | 45 | P | PKPdf | 23 12 32.2 | +0.3 |
| | baz=298 | | | | | | |
| B32A | Ashes, Strandq | 122.04 | 29 | P | PKPdf | 23 12 29.9 | -1.4 |
| | baz=313 | | | | | | |
| B34A | Aery, Baudette | 122.89 | 28 | P | PKPdf | 23 12 31.8 | -1.1 |
| | baz=315 | | | | | | |
| SDCO | Great Sand Dun | 122.92 | 44 | PFAKE | | 23 12 50.0 | +16 |
| SDCO | | | | LR | LR | | |
| | comp=Z,499nm,19.0s | | | | | | |
| ANMO | Albuquerque | 123.52 | 47 | P | PKPdf | 23 12 34.1 | -0.6 |
| | baz=296 | | | | | | |
| 121A | Cookes Peak, D | 123.54 | 51 | P | PKPdf | 23 12 35.2 | +0.4 |
| | baz=294 | | | | | | |
| OGNE | Ogallala | 123.56 | 39 | PFAKE | | 23 12 50.0 | +15 |
| OGNE | | | | LR | LR | | |
| | comp=Z,558nm,19.0s | | | | | | |
| E33A | Westby DABS, E | 123.59 | 31 | P | PKPdf | 23 12 33.1 | -1.2 |
| | baz=312 | | | | | | |
| F33A | 5 Mile Ranch, | 123.89 | 31 | P | PKPdf | 23 12 34.1 | -0.7 |
| | baz=312 | | | | | | |
| T25A | Trinidad | 123.97 | 44 | P | PKPdf | 23 12 36.0 | +0.4 |
| | baz=299 | | | | | | |
| K31A | O'Neill | 124.58 | 36 | P | PKPdf | 23 12 35.9 | -0.4 |
| | baz=308 | | | | | | |
| EYMN | Ely | 124.73 | 27 | PFAKE | | 23 12 50.0 | +14 |
| EYMN | | | | LR | LR | | |
| | comp=Z,451nm,22.0s | | | | | | |
| ECSD | EROS Data Cent | 125.10 | 34 | P | PKPdf | 23 12 36.3 | -1.0 |
| | baz=310 | | | | | | |
| F36A | Milaca | 125.28 | 30 | P | PKPdf | 23 12 36.6 | -0.9 |
| | baz=315 | | | | | | |
| H35A | Sunnyside Ranc | 125.42 | 32 | P | PKPdf | 23 12 37.3 | -0.5 |
| | baz=313 | | | | | | |
| G36A | St. Michael | 125.61 | 30 | P | PKPdf | 23 12 37.8 | -0.3 |
| | baz=314 | | | | | | |
| MNTX | Cornudas Mount | 125.74 | 51 | P | PKPdf | 23 12 38.6 | -0.2 |
| | baz=295 | | | | | | |
| SHEL | Horse Pasture | 125.78 | 250 | PFAKE | | 23 12 50.0 | +11 |
| SHEL | | | | LR | LR | | |
| | comp=Z,259nm,19.0s | | | | | | |
| C40A | Isle Royale Na | 125.78 | 25 | P | PKPdf | 23 12 37.7 | -0.7 |
| | baz=320 | | | | | | |
| H36A | Jessenland, He | 125.97 | 31 | P | PKPdf | 23 12 39.4 | +0.5 |
| | baz=314 | | | | | | |
| F38A | Pierce - Schro | 126.01 | 29 | P | PKPdf | 23 12 38.2 | -0.8 |
| | baz=317 | | | | | | |
| SPMN | Marine on St. | 126.09 | 30 | P | PKPdf | 23 12 38.4 | -0.6 |
| | baz=315 | | | | | | |
| CBKS | Cedar Bluff | 126.22 | 40 | PFAKE | | 23 12 50.0 | +10 |
| CBKS | | | | LR | LR | | |
| | comp=Z,500nm,22.0s | | | | | | |
| E39A | Mellen | 126.33 | 27 | P | PKPdf | 23 12 38.2 | -1.4 |
| | baz=318 | | | | | | |
| G38A | Ridgeland | 126.60 | 29 | P | PKPdf | 23 12 38.8 | -1.3 |
| | baz=316 | | | | | | |
| I37A | Lemond, Waseca | 126.63 | 31 | P | PKPdf | 23 12 40.2 | 0.0 |
| | baz=314 | | | | | | |
| H38A | Maiden Rock | 126.74 | 30 | P | PKPdf | 23 12 39.8 | -0.5 |
| | baz=316 | | | | | | |
| L35A | Bielow Farm, R | 126.75 | 34 | P | PKPdf | 23 12 39.7 | -0.7 |
| | baz=311 | | | | | | |
| O33A | Hebron | 126.83 | 38 | P | PKPdf | 23 12 39.8 | -0.9 |
| | baz=308 | | | | | | |
| G39A | Holcombe | 126.84 | 29 | P | PKPdf | 23 12 39.4 | -1.1 |
| | baz=317 | | | | | | |
| F40A | Park Falls | 126.87 | 28 | P | PKPdf | 23 12 39.8 | -0.8 |
| | baz=318 | | | | | | |
| I38A | Scanlan Farm, | 127.17 | 31 | P | PKPdf | 23 12 40.0 | -1.2 |
| | baz=315 | | | | | | |
| H39A | Augusta | 127.23 | 29 | P | PKPdf | 23 12 40.3 | -1.0 |
| | baz=317 | | | | | | |
| G40A | Rib Lake | 127.32 | 28 | P | PKPdf | 23 12 40.9 | -0.5 |
| | baz=318 | | | | | | |
| F41A | Three Lakes | 127.47 | 27 | P | PKPdf | 23 12 41.1 | -0.7 |
| | baz=320 | | | | | | |
| J38A | Wedel Dairy, R | 127.60 | 31 | P | PKPdf | 23 12 40.4 | -1.6 |
| | baz=315 | | | | | | |
| P34A | Walnut Farm, R | 127.61 | 38 | P | PKPdf | 23 12 41.5 | -0.7 |
| | baz=308 | | | | | | |
| H40A | Chili | 127.71 | 29 | P | PKPdf | 23 12 42.1 | -0.1 |
| | baz=318 | | | | | | |
| I39A | Houston | 127.71 | 30 | P | PKPdf | 23 12 41.2 | -1.0 |
| | baz=316 | | | | | | |
| J39A | Decorah | 127.98 | 31 | P | PKPdf | 23 12 41.6 | -1.2 |
| | baz=315 | | | | | | |
| TXAR | Lajitas Array | 128.07 | 52 | PKP | PKPdf | 23 12 43.2 | -0.3 |
| | comp=Z,2.0nm,0.8s,baz=204,slow=0.9,SNR=18 | | | | | | |
| R34A | Isabella, Hill | 128.11 | 39 | P | PKPdf | 23 12 42.5 | -0.7 |
| | baz=307 | | | | | | |
| P35A | Duane Minner, | 128.12 | 37 | P | PKPdf | 23 12 42.9 | -0.2 |
| | baz=309 | | | | | | |
| SCIA | State Center | 128.18 | 33 | PFAKE | | 23 12 50.0 | +6.8 |
| SCIA | | | | LR | LR | | |
| | comp=Z,511nm,20.0s | | | | | | |
| M38A | Pleasantville | 128.52 | 34 | P | PKPdf | 23 12 43.5 | -0.3 |
| | baz=313 | | | | | | |
| K40A | Colesburg | 128.73 | 31 | P | PKPdf | 23 12 43.9 | -0.3 |
| | baz=316 | | | | | | |
| R35A | Emporia Munici | 128.75 | 39 | P | PKPdf | 23 12 43.4 | -1.0 |
| | baz=308 | | | | | | |
| JFWS | Jewell Farm | 129.03 | 30 | PFAKE | | 23 13 00.0 | +15 |
| JFWS | | | | LR | LR | | |
| | comp=Z,471nm,20.0s | | | | | | |
| M39A | Webster | 129.04 | 33 | P | PKPdf | 23 12 43.9 | -0.9 |
| | baz=314 | | | | | | |
| S35A | Otter Creek Ra | 129.06 | 39 | P | PKPdf | 23 12 44.6 | -0.4 |
| | baz=307 | | | | | | |
| WMOK | Wichita Mounta | 129.12 | 44 | PFAKE | | 23 13 00.0 | +15 |
| WMOK | | | | LR | LR | | |
| | comp=Z,607nm,22.0s | | | | | | |
| L40A | Anamosa | 129.14 | 32 | P | PKPdf | 23 12 44.2 | -0.8 |
| | baz=315 | | | | | | |
| R36A | Gordon, Harris | 129.18 | 38 | P | PKPdf | 23 12 44.5 | -0.7 |
| | baz=308 | | | | | | |
| K41A | Shullsburg | 129.22 | 31 | P | PKPdf | 23 12 43.9 | -1.2 |
| | baz=317 | | | | | | |
| N39A | Derby Farms, D | 129.27 | 34 | P | PKPdf | 23 12 44.8 | -0.5 |
| | baz=313 | | | | | | |
| M40A | Post Highland | 129.45 | 32 | P | PKPdf | 23 12 45.1 | -0.5 |
| | baz=315 | | | | | | |
| S36A | Lake Cedric, C | 129.50 | 39 | P | PKPdf | 23 12 46.3 | +0.4 |
| | baz=308 | | | | | | |
| P38A | Dawn | 129.53 | 36 | P | PKPdf | 23 12 44.8 | -1.0 |
| | baz=311 | | | | | | |
| R37A | Teagarden Farm | 129.60 | 38 | P | PKPdf | 23 12 45.1 | -0.9 |
| | baz=309 | | | | | | |
| Q38A | Cooks Store, C | 129.91 | 36 | P | PKPdf | 23 12 45.6 | -1.0 |
| | baz=311 | | | | | | |
| S37A | Fort Scott | 129.95 | 38 | P | PKPdf | 23 12 46.4 | -0.3 |
| | baz=309 | | | | | | |
| P39B | Salisbury | 130.07 | 35 | P | PKPdf | 23 12 46.4 | -0.4 |
| | baz=312 | | | | | | |
| Q39A | Willow Grove F | 130.24 | 36 | P | PKPdf | 23 12 46.8 | -0.4 |
| | baz=312 | | | | | | |
| R38A | Fenwick Farm, | 130.24 | 37 | P | PKPdf | 23 12 46.3 | -0.9 |
| | baz=310 | | | | | | |
| V36A | Jenks | 130.44 | 41 | P | PKPdf | 23 12 48.3 | +0.7 |
| | baz=306 | | | | | | |
| P40A | Paris | 130.45 | 35 | P | PKPdf | 23 12 47.1 | -0.4 |
| | baz=313 | | | | | | |
| JCT | Junction City | 130.55 | 49 | P | PKPdf | 23 12 47.9 | -0.2 |
| | baz=299 | | | | | | |
| S38A | Stockton | 130.60 | 38 | P | PKPdf | 23 12 47.7 | -0.2 |
| | baz=310 | | | | | | |
| U37A | Salina | 130.60 | 40 | P | PKPdf | 23 12 47.6 | -0.3 |
| | baz=308 | | | | | | |
| R39A | Chumby, Stover | 130.68 | 36 | P | PKPdf | 23 12 47.3 | -0.8 |
| | baz=311 | | | | | | |
| O41A | Passleys Farm, | 130.69 | 33 | P | PKPdf | 23 12 46.9 | -1.1 |
| | baz=314 | | | | | | |
| T38A | Diamond | 130.73 | 39 | P | PKPdf | 23 12 47.4 | -0.8 |
| | baz=309 | | | | | | |
| Q40A | Laux Farm, Aux | 130.79 | 35 | P | PKPdf | 23 12 47.9 | -0.3 |
| | baz=312 | | | | | | |
| X36A | Centrahoma | 130.87 | 43 | P | PKPdf | 23 12 48.4 | -0.1 |
| | baz=305 | | | | | | |
| V37A | Hulbert | 130.90 | 40 | P | PKPdf | 23 12 47.7 | -0.8 |
| | baz=307 | | | | | | |
| S39A | Bolivar | 130.91 | 37 | P | PKPdf | 23 12 48.0 | -0.5 |
| | baz=310 | | | | | | |
| U38A | Gravette | 131.05 | 39 | P | PKPdf | 23 12 48.3 | -0.5 |
| | baz=308 | | | | | | |
| R40A | Maddies Statio | 131.15 | 36 | P | PKPdf | 23 12 48.0 | -0.9 |
| | baz=312 | | | | | | |
| W37B | Quinton | 131.16 | 41 | P | PKPdf | 23 12 48.8 | -0.2 |
| | baz=306 | | | | | | |
| Y36A | Durant | 131.30 | 43 | P | PKPdf | 23 12 49.1 | -0.3 |
| | baz=305 | | | | | | |
| Q41A | Truxton | 131.30 | 35 | P | PKPdf | 23 12 48.5 | -0.7 |
| | baz=313 | | | | | | |
| T39A | Clever | 131.31 | 38 | P | PKPdf | 23 12 48.3 | -1.0 |
| | baz=310 | | | | | | |
| P42A | Winchester | 131.36 | 33 | P | PKPdf | 23 12 49.4 | +0.2 |
| | baz=315 | | | | | | |
| V38A | Canehill | 131.39 | 40 | P | PKPdf | 23 12 48.8 | -0.7 |
| | baz=308 | | | | | | |
| S40A | Lebanon | 131.47 | 37 | P | PKPdf | 23 12 49.4 | -0.2 |
| | baz=311 | | | | | | |
| U39A | Green Forest | 131.65 | 39 | P | PKPdf | 23 12 48.8 | -1.1 |
| | baz=309 | | | | | | |
| R41A | Rosebud | 131.66 | 35 | P | PKPdf | 23 12 49.9 | 0.0 |
| | baz=313 | | | | | | |
| Q42A | Golden Eagle | 131.72 | 34 | P | PKPdf | 23 12 49.8 | -0.2 |
| | baz=314 | | | | | | |
| T40A | Mansfield | 131.75 | 37 | P | PKPdf | 23 12 49.5 | -0.7 |
| | baz=311 | | | | | | |
| P43A | Skaggs, Pawnee | 131.77 | 33 | P | PKPdf | 23 12 49.3 | -0.7 |
| | baz=316 | | | | | | |
| 833A | Chaparral WMA, | 131.88 | 51 | P | PKPdf | 23 12 51.0 | +0.4 |
| | baz=298 | | | | | | |
| V39A | Pettigrew | 131.89 | 39 | P | PKPdf | 23 12 49.6 | -0.9 |
| | baz=309 | | | | | | |
| S41A | Jillco Farms, | 131.93 | 36 | P | PKPdf | 23 12 49.9 | -0.5 |
| | baz=312 | | | | | | |
| R42A | Luebbering | 132.01 | 35 | P | PKPdf | 23 12 50.2 | -0.3 |
| | baz=313 | | | | | | |
| U40A | Yellville | 132.06 | 38 | P | PKPdf | 23 12 49.9 | -0.8 |
| | baz=310 | | | | | | |
| Q43A | New Douglas | 132.17 | 33 | P | PKPdf | 23 12 51.1 | +0.3 |
| | baz=315 | | | | | | |
| W39A | Magazine | 132.20 | 40 | P | PKPdf | 23 12 50.8 | -0.2 |
| | baz=308 | | | | | | |
| T41A | Mountain View | 132.28 | 37 | P | PKPdf | 23 12 50.1 | -1.0 |
| | baz=312 | | | | | | |
| S42A | Caledonia | 132.36 | 35 | P | PKPdf | 23 12 50.4 | -0.8 |
| | baz=313 | | | | | | |
| X39A | Fountain Ranch | 132.40 | 41 | P | PKPdf | 23 12 51.1 | -0.3 |
| | baz=307 | | | | | | |
| V40A | Witts Springs | 132.43 | 39 | P | PKPdf | 23 12 50.3 | -1.2 |
| | baz=310 | | | | | | |
| AAM | Ann Arbor | 132.60 | 26 | PFAKE | | 23 13 00.0 | +8.5 |
| AAM | | | | LR | LR | | |
| | comp=Z,417nm,22.0s | | | | | | |
| U41A | Viola | 132.64 | 38 | P | PKPdf | 23 12 50.5 | -1.3 |
| | baz=311 | | | | | | |
| T42A | Van Buren | 132.69 | 36 | P | PKPdf | 23 12 51.7 | -0.2 |
| | baz=312 | | | | | | |
| MIAR | Mount Ida | 132.73 | 41 | P | PKPdf | 23 12 51.5 | -0.6 |
| | baz=308 | | | | | | |
| MIAR | Mount Ida | 132.73 | 41 | ePKIKP | PKPdf | 23 12 51.9 | -0.2 |
| MIAR | | | | MLR | MLR | | |
| | comp=Z,653nm,20.0s | | | | | | |
| MIAR | Mount Ida | 132.73 | 41 | ePKPdf | PKPdf | 23 12 51.9 | -0.2 |
| MIAR | | | | LR | LR | | |
| | comp=Z,653nm,20.0s | | | | | | |
| P45A | Graceland, Par | 132.79 | 31 | P | PKPdf | 23 12 51.4 | -0.6 |
| | baz=318 | | | | | | |
| V41A | Mountainview | 132.86 | 38 | P | PKPdf | 23 12 50.9 | -1.3 |
| | baz=310 | | | | | | |
| S43A | Fulton Ridge, | 132.91 | 35 | P | PKPdf | 23 12 51.8 | -0.5 |
| | baz=314 | | | | | | |
| R44A | Waltonville | 133.00 | 34 | P | PKPdf | 23 12 52.7 | +0.2 |
| | baz=315 | | | | | | |
| P46A | Rosedale | 133.01 | 31 | P | PKPdf | 23 12 52.1 | -0.3 |
| | baz=318 | | | | | | |
| Q45A | Warren Harvey, | 133.04 | 32 | P | PKPdf | 23 12 52.6 | +0.1 |
| | baz=317 | | | | | | |
| U42A | Revenden | 133.05 | 37 | P | PKPdf | 23 12 51.3 | -1.3 |
| | baz=312 | | | | | | |
| T43A | Greenville | 133.12 | 36 | P | PKPdf | 23 12 51.9 | -0.8 |
| | baz=313 | | | | | | |
| V42A | Cord | 133.32 | 38 | P | PKPdf | 23 12 52.7 | -0.4 |
| | baz=311 | | | | | | |
| R45A | Skylar, Fairfi | 133.41 | 33 | P | PKPdf | 23 12 53.3 | +0.1 |
| | baz=316 | | | | | | |
| P47A | Martinsville | 133.58 | 30 | P | PKPdf | 23 12 52.7 | -0.8 |
| | baz=319 | | | | | | |
| NATX | Nacogdoches | 133.64 | 45 | PFAKE | | 23 13 10.0 | +16 |
| NATX | | | | LR | LR | | |
| | comp=Z,341nm,21.0s | | | | | | |
| R47A | Wooly Knot Far | 134.34 | 32 | P | PKPdf | 23 12 54.7 | -0.2 |
| | baz=318 | | | | | | |
| T46A | Princeton | 134.52 | 34 | P | PKPdf | 23 12 55.2 | -0.1 |
| | baz=316 | | | | | | |
| ACSO | Alum Creek Sta | 134.57 | 27 | ePKPdf | PKPdf | 23 12 55.4 | +0.1 |
| M54A | Oil Creek Stat | 134.91 | 23 | P | PKPdf | 23 12 54.8 | -1.1 |
| | baz=329 | | | | | | |
| ASCN | Ascension | 135.59 | 258 | PFAKE | | 23 13 10.0 | +12 |
| ASCN | | | | LR | LR | | |
| | comp=Z,801nm,19.0s | | | | | | |
| Y45A | Yeager Farm, C | 135.74 | 38 | P | PKPdf | 23 12 58.1 | +0.4 |
| | baz=312 | | | | | | |
| Y46A | Houston | 136.15 | 38 | P | PKPdf | 23 12 58.5 | +0.1 |
| | baz=312 | | | | | | |
| PLCA | Paso Flores | 137.25 | 166 | PKP | PKPdf | 23 12 59.9 | -0.6 |
| | comp=Z,4.2nm,1.0s,baz=204,slow=6.5,SNR=2.9 | | | | | | |
| BLA | Blacksburg | 138.19 | 27 | PFAKE | | 23 13 10.0 | +7.8 |
| BLA | | | | LR | LR | | |
| | comp=Z,567nm,20.0s | | | | | | |
| GOGA | Godfrey | 139.64 | 34 | PFAKE | | 23 13 20.0 | +15 |
| GOGA | | | | LR | LR | | |
| | comp=Z,226nm,21.0s | | | | | | |
| CNNC | Cliffs of the | 140.96 | 26 | PFAKE | | 23 13 20.0 | +13 |
| CNNC | | | | LR | LR | | |
| | comp=Z,433nm,19.0s | | | | | | |
| TRQA | Tornquist | 141.29 | 175 | PFAKE | | 23 13 20.0 | +12 |
| TRQA | | | | LR | LR | | |
| | comp=Z,439nm,19.0s | | | | | | |
| NHSC | New Hope | 141.62 | 31 | PFAKE | | 23 13 20.0 | +12 |
| NHSC | | | | LR | LR | | |
| | comp=Z,457nm,21.0s | | | | | | |
| SACV | Santiago Islan | 143.10 | 294 | PFAKE | | 23 13 20.0 | +8.4 |
| SACV | | | | LR | LR | | |
| | comp=Z,130nm,19.0s | | | | | | |
| ROC1 | El Roble | 144.38 | 161 | eP | PKPbc | 23 13 13.1 | +1.1 |
| TEIG | Tepich | 144.65 | 55 | PFAKE | | 23 13 30.0 | +16 |
| TEIG | | | | LR | LR | | |
| | comp=Z,8.0nm,22.0s | | | | | | |
| AUSP | Uspallata | 145.58 | 163 | eP | PKPab | 23 13 17.1 | +0.9 |
| RTLS | Leoncito | 146.00 | 163 | eP | PKPbc | 23 13 17.7 | +0.4 |
| ACAN | Cantantal | 146.12 | 166 | eP | PKPdf | 23 13 15.8 | -0.7 |
| RTCV | Cerro Valdivia | 146.16 | 164 | eP | PKPab | 23 13 18.1 | 0.0 |
| MRA | San Martin | 146.30 | 168 | eP | PKPbc | 23 13 17.7 | -0.2 |
| AMOG | MOGNA | 147.04 | 163 | eP | PKPbc | 23 13 20.8 | +0.7 |
| ACCO | Cerro Coronel | 147.20 | 162 | eP | PKPbc | 23 13 21.4 | +0.6 |
| AROD | Rodeo | 147.47 | 161 | eP | PKPbc | 23 13 20.8 | -0.8 |
| TCA | Tanti | 147.57 | 170 | eP | PKPbc | 23 13 22.7 | +1.1 |
| APLL | PUNTA DE LOS L | 148.07 | 166 | eP | PKPbc | 23 13 23.3 | +0.4 |
| LCO | Las Campanas | 148.11 | 159 | ePKPdf | PKPdf | 23 13 21.3 | +1.1 |
| LCO | | | | ePKPbc | PKPbc | 23 13 24.2 | +0.9 |
| AGUA | GUANDACOL | 148.40 | 162 | eP | PKPdf | 23 13 21.8 | +1.3 |
| ACLC | CERRO LA CRUZ | 148.89 | 165 | eP | PKPdf | 23 13 22.4 | +1.1 |
| VCA | Vinchina | 149.19 | 162 | eP | PKPbc | 23 13 27.3 | +1.3 |
| JTS | JuntasAbangare | 151.62 | 69 | PFAKE | | 23 13 40.0 | -0.6 |
| JTS | | | | LR | LR | | |
| | comp=Z,467nm,20.0s | | | | | | |
| CPUP | Villa Florida | 153.15 | 181 | PKP | PKPdf | 23 13 27.9 | +0.3 |
| | comp=Z,2.5nm,0.7s,baz=141,slow=1.0,SNR=4.2 | | | | | | |
| CPUP | | | | PKPbc | pPKPdf | 23 13 35.0 | -0.9 |
| | comp=Z,4.3nm,0.6s,baz=152,slow=2.9,SNR=8.6 | | | | | | |
| LVC | Limon Verde | 154.56 | 156 | PKP | PKPdf | 23 13 31.0 | +0.8 |
| | comp=Z,8.9nm,0.8s,baz=342,slow=3.2,SNR=3.3 | | | | | | |
| LVC | | | | PKPbc | sPKPdf | 23 13 39.7 | -1.7 |
| | comp=Z,21nm,0.8s,baz=280,slow=9.4,SNR=5.2 | | | | | | |
| LVC | Limon Verde | 154.56 | 156 | PKP | PKPdf | 23 13 31.0 | +0.8 |
| LVC | | | | ePKPdf | PKPdf | 23 13 31.1 | +0.8 |
| LVC | | | | ePKPbc | PKiKP | 23 13 39.4 | +0.6 |
| LVC | | | | PKPbc | sPKPdf | 23 13 39.7 | -1.7 |
| GTBY | Guantanamo Bay | 154.62 | 40 | PFAKE | | 23 13 40.0 | +1.6 |
| GTBY | | | | LR | LR | | |
| | comp=Z,382nm,20.0s | | | | | | |
| RCBR | Riachuelo | 156.94 | 253 | PFAKE | | 23 13 40.0 | +6.7 |
| RCBR | | | | LR | LR | | |
| | comp=Z,349nm,19.0s | | | | | | |
| NNA | Nana | 157.52 | 125 | PFAKE | | 23 13 50.0 | -16 |
| NNA | | | | LR | LR | | |
| | comp=Z,195nm,20.0s | | | | | | |
| SDDR | Presa de Saban | 157.66 | 35 | PFAKE | | 23 13 50.0 | +16 |
| SDDR | | | | LR | LR | | |
| | comp=Z,352nm,20.0s | | | | | | |
| ATAH | Atahualpa | 158.30 | 111 | PKP | PKPdf | 23 13 35.9 | +0.5 |
| | comp=Z,7.6nm,1.0s,baz=255,slow=1.4,SNR=9.6 | | | | | | |
| ATAH | | | | PKPab | PKPab | 23 14 09.7 | +0.1 |
| | comp=Z,12nm,1.1s,baz=292,slow=6.7,SNR=4.3 | | | | | | |
| OTAV | Otavalo | 159.62 | 91 | ePKPdf | PKPdf | 23 13 37.7 | +0.6 |
| OTAV | | | | LR | LR | | |
| | comp=Z,240nm,19.0s | | | | | | |
| LPAZ | La Paz | 160.44 | 150 | PKP | PKPdf | 23 13 38.5 | +0.4 |
| | comp=Z,8.6nm,1.2s,baz=74,slow=3.3,SNR=10 | | | | | | |
| LPAZ | | | | PKPab | PKPab | 23 14 19.0 | +0.2 |
| | comp=Z,3.6nm,0.9s,baz=145,slow=5.5,SNR=3.7 | | | | | | |
| SJG | San Juan | 160.94 | 24 | PFAKE | | 23 13 50.0 | +12 |
| SJG | | | | LR | LR | | |
| | comp=Z,273nm,20.0s | | | | | | |
| BDFB | Brasilia | 160.98 | 211 | PKP | PKPdf | 23 13 37.7 | -0.3 |
| | comp=Z,1.1nm,0.4s,baz=134,slow=4.7,SNR=3.3 | | | | | | |
| BDFB | | | | PKPab | PKPab | 23 14 21.6 | +1.0 |
| | comp=Z,4.8nm,1.0s,baz=268,slow=5.9,SNR=3.5 | | | | | | |
| ANWB | Willy Bob | 162.72 | 12 | PFAKE | | 23 13 50.0 | +10 |
| ANWB | | | | LR | LR | | |
| | comp=Z,269nm,20.0s | | | | | | |
| SIV | San Ignacio | 163.18 | 170 | PKP | PKPdf | 23 13 40.0 | -0.1 |
| | comp=Z,2.5nm,0.7s,baz=102,slow=1.3,SNR=5.1 | | | | | | |
| SIV | | | | PKPab | PKPab | 23 14 30.9 | +0.9 |
| | comp=Z,4.9nm,0.9s,baz=191,slow=1.3,SNR=4.1 | | | | | | |
| ROSC | El Rosal | 163.26 | 75 | PKP | PKPdf | 23 13 40.2 | -0.5 |
| | comp=Z,3.7nm,0.4s,baz=22,slow=4.7,SNR=5.2 | | | | | | |
| ROSC | | | | PKPab | PKPab | 23 14 32.5 | +1.2 |
| | comp=Z,13nm,0.9s,baz=195,slow=20,SNR=4.3 | | | | | | |
| SDV | Santo Domingo | 165.07 | 56 | PKP | PKPdf | 23 13 40.0 | -2.1 |
| | comp=Z,3.0nm,0.4s,baz=298,slow=2.2,SNR=7.8 | | | | | | |
| SDV | Santo Domingo | 165.07 | 56 | PKP | PKPdf | 23 13 40.0 | -2.1 |
| SDV | | | | ePKPdf | PKPdf | 23 13 41.3 | -0.9 |
| SDV | | | | LR | LR | | |
| | comp=Z,320nm,19.0s | | | | | | |
| FDF | Fort de France | 165.70 | 12 | PFAKE | | 23 13 50.0 | +7.6 |
| FDF | | | | LR | LR | | |
| | comp=Z,302nm,20.0s | | | | | | |
| SAML | Samuel | 169.17 | 152 | PFAKE | | 23 14 00.0 | +15 |
| SAML | | | | LR | LR | | |
| | comp=Z,441nm,20.0s | | | | | | |
| PTGA | Pitinga | 177.65 | 126 | PFAKE | | 23 14 00.0 | +12 |
| PTGA | | | | LR | LR | | |
| | comp=Z,35μm,21.0s | | | | | | |

---

*SKO 01 23:20:44.3, 41°.07N×21°.89E, h19km, M1.7, ML2.5*
*CSEM 01 23:20:44.5±0.1, 41°.11N×21°.87E, h2km, ML2.2, Error ellipse: s-maj=2.2km s-min=2.0km az=160.0*
*ISCJB 01 23:20:44.4±0.4, 41°.11N±0°.02×21°.88E±0°.02, h2km±4km, Error ellipse: s-maj=3.7km s-min=2.9km az=174.7*
*ATH 01 23:20:44.4, 41°.14N×21°.87E, h15km±3km, ML2.2/6, Error ellipse: s-maj=4.2km s-min=0.9km az=157.0*
*THE 01 23:20:45.2, 41°.10N×21°.89E, h2km±2km, ML2.2/5, Error ellipse: s-maj=2.5km s-min=0.5km az=328.0*
*BEO 01 23:20:45.4±0.5, 41°.12N×21°.89E, h7km±3km, M1.9/4*
**ISC 01 23:20:44.6±1.0, 41°.11N±0°.02×21°.88E±0°.02, h10km±9km, n69, σ0s.50/100, 1C, Northwestern Balkan Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GRG | Griva | 0.42 | 111 | P | Pg | 23 20 52.8 | -0.1 |
| GRG | | | | S | Sg | 23 20 58.9 | +0.4 |
| GRG | | | | AML | AML | 23 21 00.3 | |
| | comp=N,2308μm,0.3s | | | | | | |
| GRG | | | | AML | AML | 23 21 00.4 | |
| | comp=E,2962μm,0.1s | | | | | | |
| GRG | Griva | 0.42 | 111 | P | Pg | 23 20 53.0 | +0.1 |
| GRG | | | | S | Sg | 23 20 58.9 | +0.4 |
| GRG | Griva | 0.42 | 111 | P | Pg | 23 20 53.0 | +0.1 |
| GRG | | | | S | Sg | 23 20 59.4 | +0.9 |
| BIA | Bitola | 0.43 | 258 | i Pg | Pb | 23 20 54.1 | -0.2 |
| BIA | | | | i Sg | Sb | 23 20 60.0 | -0.9 |
| BIA | | | | eLg | Lg | 23 21 00.4 | |
| | comp=N,403nm,0.2s | | | | | | |
| BIA | | | | eLg | Lg | 23 21 00.9 | |
| | comp=E,281nm,0.2s | | | | | | |
| FNA | Florina | 0.50 | 230 | P | Pg | 23 20 54.1 | -0.2 |
| FNA | | | | S | Sg | 23 21 01.0 | -0.1 |
| FNA | | | | AML | AML | 23 21 01.7 | |
| | comp=E,1200μm,0.2s | | | | | | |
| FNA | | | | AML | AML | 23 21 02.2 | |
| | comp=N,1584μm,0.3s | | | | | | |
| FNA | Florina | 0.50 | 230 | P | Pg | 23 20 54.2 | -0.2 |
| FNA | | | | S | Sg | 23 21 01.0 | -0.1 |
| FNA | Florina | 0.50 | 230 | P | Pg | 23 20 54.2 | -0.2 |
| FNA | | | | S | Sg | 23 21 01.7 | +0.6 |
| KRUS | Krusevo | 0.54 | 299 | ⇑ i Pg | Pg | 23 20 55.6 | +0.4 |
| KRUS | | | | i Sg | Sb | 23 21 03.4 | -0.8 |
| KRUS | | | | eLg | Lg | 23 21 03.5 | |
| | comp=E,32nm,0.2s | | | | | | |
| KRUS | | | | eLg | Lg | 23 21 04.0 | |
| | comp=N,50nm,0.3s | | | | | | |
| VAY | Valandovo | 0.56 | 68 | ePg | Pg | 23 20 55.7 | +0.2 |
| VAY | Valandovo | 0.56 | 68 | ePg | Pg | 23 20 55.7 | +0.2 |
| VAY | | | | S | Sb | 23 21 03.8 | -0.8 |
| VAY | Valandovo | 0.56 | 68 | P | Pg | 23 20 55.8 | +0.2 |
| VAY | | | | S | Sb | 23 21 03.8 | -0.8 |
| VAY | Valandovo | 0.56 | 68 | i Pg | Pg | 23 20 55.7 | +0.2 |
| VAY | | | | i Sg | Sb | 23 21 03.7 | -0.8 |
| VAY | | | | eLg | Lg | 23 21 03.9 | |
| | comp=E,156nm,0.4s | | | | | | |
| VAY | | | | eLg | Lg | 23 21 04.4 | |
| | comp=N,128nm,0.5s | | | | | | |
| KTI | Kastanea | 0.74 | 166 | P | Pg | 23 20 58.5 | -0.4 |
| KTI | Kastanea | 0.74 | 166 | P | Pg | 23 20 58.5 | -0.4 |
| KNT | Kendrikon | 0.77 | 86 | P | Pb | 23 20 59.8 | -0.3 |
| KNT | | | | S | Sb | 23 21 10.2 | -0.4 |
| KNT | | | | AML | AML | 23 21 14.9 | |
| | comp=N,417μm,0.5s | | | | | | |
| KNT | | | | AML | AML | 23 21 15.7 | |
| | comp=E,236μm,0.3s | | | | | | |
| KNT | Kendrikon | 0.77 | 86 | P | Pg | 23 20 59.5 | 0.0 |
| KNT | | | | S | Sb | 23 21 10.2 | -0.4 |
| KNT | Kendrikon | 0.77 | 86 | P | Pg | 23 20 59.5 | 0.0 |
| KNT | | | | S | Sb | 23 21 10.2 | -0.4 |
| KZN | Kozani | 0.81 | 186 | P | Pg | 23 21 00.0 | -0.2 |
| KZN | | | | S | Sg | 23 21 10.7 | 0.0 |
| KZN | Kozani | 0.81 | 186 | P | Pg | 23 21 00.0 | -0.2 |
| KZN | | | | S | Sg | 23 21 10.7 | 0.0 |
| OHR | Ohrid | 0.82 | 271 | ePg | Pg | 23 20 59.9 | -0.5 |
| OHR | | | | eSg | Sb | 23 21 11.8 | -0.3 |
| OHR | Ohrid | 0.82 | 271 | ePg | Pg | 23 20 59.9 | -0.5 |
| OHR | | | | eSg | Sb | 23 21 11.8 | -0.3 |
| OHR | Ohrid | 0.82 | 271 | i Pg | Pg | 23 21 00.2 | -0.2 |
| OHR | | | | eLg | Lg | 23 21 12.3 | |
| | comp=N,120nm,0.4s | | | | | | |
| OHR | | | | i Sg | Sb | 23 21 12.4 | +0.4 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| OHR | | | | eLg | Lg | 23 21 12.5 | |
| | comp=E,110nm,0.4s | | | | | | |
| **SKO** | **Skopje** | **0.92** | **339** | ePg | **Pb** | **23 21 02.7** | **0.0** |
| SKO | | | | eSg | **Sg** | **23 21 14.4** | **-0.1** |
| **SKO** | **Skopje** | **0.92** | **339** | ePg | **Pb** | **23 21 02.7** | **0.0** |
| SKO | | | | eSg | **Sg** | **23 21 14.4** | **-0.1** |
| **SKO** | **Skopje** | **0.92** | **339** | i Pg | **Pn** | **23 21 03.5** | **-0.2** |
| SKO | | | | i Sg | **Sb** | **23 21 15.2** | **+0.1** |
| SKO | | | | eLg | Lg | 23 21 15.8 | |
| | comp=N,5.4nm,0.2s | | | | | | |
| SKO | | | | eLg | Lg | 23 21 15.8 | |
| | comp=E,6.5nm,0.2s | | | | | | |
| **NEST** | **Nestorio** | **0.94** | **223** | P | **Pg** | **23 21 02.4** | **-0.3** |
| NEST | | | | S | **Sn** | **23 21 16.8** | **-0.6** |
| NEST | | | | AML | AML | 23 21 17.3 | |
| | comp=E,413µm,0.4s | | | | | | |
| NEST | | | | AML | AML | 23 21 18.4 | |
| | comp=N,349µm,0.3s | | | | | | |
| **NEST** | **Nestorio** | **0.94** | **223** | P | **Pg** | **23 21 02.4** | **-0.3** |
| NEST | | | | S | **Sb** | **23 21 16.3** | **+0.7** |
| **NEST** | **Nestorio** | **0.94** | **223** | P | **Pg** | **23 21 02.2** | **-0.5** |
| NEST | | | | S | **Sb** | **23 21 16.3** | **+0.7** |
| **THE** | **Thessaloniki** | **0.95** | **120** | P | **Pg** | **23 21 01.9** | **-1.0** |
| **THE** | **Thessaloniki** | **0.95** | **120** | P | **Pg** | **23 21 01.9** | **-1.0** |
| **HORT** | **Hortiatis** | **1.05** | **119** | P | **Pn** | **23 21 06.0** | **+0.5** |
| HORT | | | | S | **Sn** | **23 21 20.9** | **+0.6** |
| **HORT** | **Hortiatis** | **1.05** | **119** | P | **Pn** | **23 21 05.4** | **-0.1** |
| HORT | | | | S | **Sn** | **23 21 20.9** | **+0.6** |
| **HORT** | **Hortiatis** | **1.05** | **119** | P | **Pn** | **23 21 05.4** | **-0.1** |
| **PENT** | **Pentalofos** | **1.07** | **212** | P | **Pg** | **23 21 04.8** | **-0.5** |
| **PENT** | **Pentalofos** | **1.07** | **212** | P | **Pg** | **23 21 04.8** | **-0.5** |
| **LIT** | **Litokhoron** | **1.11** | **155** | P | **Pb** | **23 21 05.1** | **-0.8** |
| LIT | | | | AML | AML | 23 21 23.5 | |
| | comp=E,81µm,0.2s | | | | | | |
| LIT | | | | AML | AML | 23 21 25.0 | |
| | comp=N,71µm,0.2s | | | | | | |
| **LIT** | **Litokhoron** | **1.11** | **155** | P | **Pb** | **23 21 05.5** | **-0.4** |
| LIT | | | | S | **Sn** | **23 21 22.0** | **+0.5** |
| **LIT** | **Litokhoron** | **1.11** | **155** | P | **Pb** | **23 21 05.5** | **-0.4** |
| LIT | | | | S | **Sn** | **23 21 22.0** | **+0.5** |
| **SOH** | **Sokhos** | **1.15** | **104** | P | **Pb** | **23 21 05.8** | **-0.8** |
| **SOH** | **Sokhos** | **1.15** | **104** | P | **Pb** | **23 21 06.1** | **-0.5** |
| **SOH** | **Sokhos** | **1.15** | **104** | P | **Pb** | **23 21 06.1** | **-0.5** |
| **KPRO** | **Kipourio** | **1.22** | **199** | P | **Pg** | **23 21 09.2** | **+1.1** |
| **KPRO** | **Kipourio** | **1.22** | **199** | P | **Pg** | **23 21 08.5** | **+0.5** |
| **KPRO** | **Kipourio** | **1.22** | **199** | P | **Pg** | **23 21 08.5** | **+0.5** |
| **SRS** | **Serrai** | **1.29** | **89** | P | **Pn** | **23 21 08.8** | **+0.1** |
| SRS | | | | S | **Sg** | **23 21 26.7** | **+0.5** |
| SRS | | | | AML | AML | 23 21 28.5 | |
| | comp=E,58µm,0.4s | | | | | | |
| SRS | | | | AML | AML | 23 21 28.8 | |
| | comp=N,100µm,0.4s | | | | | | |
| **SRS** | **Serrai** | **1.29** | **89** | P | **Pn** | **23 21 08.8** | **+0.1** |
| SRS | | | | S | **Sg** | **23 21 26.7** | **+0.5** |
| **SRS** | **Serrai** | **1.29** | **89** | P | **Pn** | **23 21 08.8** | **+0.1** |
| **NVR** | **Nevrokopi** | **1.51** | **80** | P | **Pb** | **23 21 12.6** | **-0.2** |
| **NVR** | **Nevrokopi** | **1.51** | **80** | P | **Pb** | **23 21 12.6** | **-0.2** |
| **TIR** | **Tirane** | **1.54** | **280** | ePg | **Pb** | **23 21 13.3** | **+0.1** |
| **TIR** | **Tirane** | **1.54** | **280** | ePg | **Pb** | **23 21 13.3** | **+0.1** |
| **THL** | **Klokotos Trika** | **1.55** | **176** | P | **Pb** | **23 21 13.3** | **0.0** |
| **THL** | **Klokotos Trika** | **1.55** | **176** | P | **Pb** | **23 21 13.3** | **0.0** |
| **VTS** | **Vitosha** | **1.78** | **33** | ePn | **Pn** | **23 21 16.4** | **+0.8** |
| **VTS** | **Vitosha** | **1.78** | **33** | P | **Pb** | **23 21 17.1** | **-0.4** |
| **VTS** | **Vitosha** | **1.78** | **33** | P | **Pb** | **23 21 17.1** | **-0.4** |
| **PAIG** | **Paliouri** | **1.81** | **130** | P | **Pn** | **23 21 16.3** | **+0.5** |
| **PAIG** | **Paliouri** | **1.81** | **130** | P | **Pn** | **23 21 16.3** | **+0.5** |
| **IGT** | **Igoumenitsa** | **1.97** | **217** | P | **Pb** | **23 21 20.0** | **-0.6** |
| **IGT** | **Igoumenitsa** | **1.97** | **217** | P | **Pb** | **23 21 20.0** | **-0.6** |
| **AGG** | **Agios Georgios** | **2.11** | **170** | P | **Pn** | **23 21 19.9** | **-0.1** |
| **AGG** | **Agios Georgios** | **2.11** | **170** | P | **Pn** | **23 21 20.4** | **+0.4** |
| **AGG** | **Agios Georgios** | **2.11** | **170** | P | **Pn** | **23 21 20.4** | **+0.4** |
| **SELS** | **Selova** | **2.18** | **345** | ePn | **Pn** | **23 21 21.5** | **+0.5** |
| **ZAPS** | **Zavoj** | **2.23** | **14** | ePn | **Pb** | **23 21 23.6** | **-1.5** |
| **BOVS** | **Bovan** | **2.53** | **357** | ePn | **Pn** | **23 21 26.4** | **+0.7** |
| **BOVS** | **Bovan** | **2.53** | **357** | ePn | **Pn** | **23 21 26.4** | **+0.7** |
| **ZAGS** | **Zajecar** | **2.71** | **5** | ePn | **Pn** | **23 21 28.6** | **+0.3** |
| **ZAGS** | **Zajecar** | **2.71** | **5** | ePn | **Pn** | **23 21 28.6** | **+0.3** |

*ISCJB **01** 23:26:48.1±0.8, 11°.76S±0°.07×166°.4E±0°.2, h100km, mb4.2/14, Error ellipse: s-maj=21.3km s-min=9.4km az=169.5*
*IDC **01** 23:26:50.6±3.3, 11°.65S×166°.38E, h105km±28km, mb3.8/9, mb1 4.0/10, mb1mx3.7/40, mbtmp4.2/10, Error ellipse: s-maj=30.0km s-min=22.6km az=102.0*
*NEIC **01** 23:26:53.3±2.2, 11°.73S×166°.41E, h130km±19km, mb4.4/6, Error ellipse: s-maj=17.0km s-min=11.2km az=52.0*
**ISC 01 23:26:49.8**±0.8**, 11°.68S**±0°.08×**166°.5E**±0°.2**, h100km, n19, σ1s.00**/22**, mb4.2**/14**, Santa Cruz Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **10.34** | **180** | P | **Pn** | **23 29 18.0** | **+2.8** |
| | 2.3nm,0.3s,baz=334,slow=14,SNR=18 | | | | | | |
| DZM | | | | S | **Sn** | **23 31 07.2** | **-2.0** |
| | 0.5nm,0.3s,baz=359,slow=17,SNR=4.4 | | | | | | |
| **PMG** | **Port Moresby** | **19.13** | **275** | P | **P** | **23 31 05.5** | **+0.3** |
| | 3.1nm,0.4s | | | | | | |
| **STKA** | **Stephens Creek** | **30.50** | **225** | P | **P** | **23 32 53.6** | **+0.1** |
| | 2.0nm,0.7s,baz=187,slow=21,SNR=3.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **31.96** | **251** | P | **P** | **23 33 06.3** | **-0.2** |
| | 0.7nm,0.8s,baz=86,slow=12,SNR=14 | | | | | | |
| **RPZ** | **Rata Peaks** | **32.17** | **174** | P | **P** | **23 33 07.4** | **-0.6** |
| | 7.0nm,0.7s,baz=5.2,slow=6.3,SNR=3.6 | | | | | | |
| **GUMO** | **Guam** | **33.01** | **319** | P | **P** | **23 33 16.3** | **+0.6** |
| | 37nm,0.7s | | | | | | |
| **ASAR** | **Alice Springs** | **33.17** | **244** | P | **P** | **23 33 15.7** | **-1.4** |
| | 0.4nm,0.7s,baz=81,slow=8.0,SNR=5.2 | | | | | | |
| ASAR | | | | PcP | **PcP** | **23 35 57.8** | **-0.2** |
| | 1.0nm,0.6s,baz=84,slow=3.8,SNR=8.0 | | | | | | |
| ASAR | | | | ScP | **ScP** | **23 39 32.5** | **-0.8** |
| | 0.8nm,0.8s,baz=89,slow=2.8,SNR=4.9 | | | | | | |
| **KKM** | **Kota Kinabalu** | **53.01** | **287** | P | **P** | **23 35 56.8** | **-0.2** |
| | 2.4nm,0.4s | | | | | | |
| **KULM** | **Kulim** | **67.61** | **281** | P | **P** | **23 37 37.0** | **+0.5** |
| | 7.9nm,0.8s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **73.03** | **293** | P | **P** | **23 38 08.3** | **-1.1** |
| | 2.5nm,0.6s,baz=124,slow=3.9,SNR=10 | | | | | | |
| **CHTO** | **Chiang Mai** | **73.14** | **294** | P | **P** | **23 38 10.3** | **+0.3** |
| | 1.4nm,0.5s | | | | | | |
| **QSPA** | **South Pole Qui** | **78.33** | **180** | eP | **P** | **23 38 38.7** | **-0.3** |
| | 4.5nm,0.5s | | | | | | |
| **SONM** | **Songino Array** | **79.60** | **324** | P | **P** | **23 38 46.7** | **+0.5** |
| | 0.9nm,0.7s,baz=152,slow=6.6,SNR=6.0 | | | | | | |
| **ILAR** | **Eielson Array** | **83.88** | **18** | P | **P** | **23 39 07.1** | **-1.0** |
| | 0.7nm,1.0s,baz=254,slow=4.7,SNR=5.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **94.47** | **317** | P | **P** | **23 39 58.8** | **-0.1** |
| | 2.0nm,0.5s,baz=88,slow=5.8,SNR=33 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **94.49** | **324** | P | **P** | **23 39 58.3** | **-0.4** |
| | 0.7nm,0.6s,baz=74,slow=11,SNR=3.5 | | | | | | |
| **GERES** | **GERESS Array B** | **136.59** | **334** | PKP | **PKPdf** | **23 46 00.5** | **0.0** |
| | 0.3nm,0.6s,baz=343,slow=6.4,SNR=2.5 | | | | | | |
| **KEST** | **Kesra** | **148.35** | **323** | PKPbc | **PKPbc** | **23 46 25.7** | **+0.5** |
| | 1.5nm,0.7s,baz=110,slow=10,SNR=3.4 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **165.07** | **277** | PKP | **PKPdf** | **23 46 43.7** | **+0.4** |
| | 0.5nm,0.8s,baz=2.9,slow=5.8,SNR=2.6 | | | | | | |

**IDC 01 23:46:27.1**±2.2**, 6°.38S**×**129°.71E, h0km, mb3.3**/1**, mb1 3.6**/4**, mb1mx3.4**/27**, mbtmp3.4**/4**, ML3.2**/3**, Error ellipse: s-maj=96.8km s-min=27.9km az=77.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **12.31** | **198** | Pn | Pn | 23 49 24.7 | +1.0 |
| | 0.1nm,0.3s,baz=11,slow=11,SNR=12 | | | | | | |
| FITZ | | | | Sn | Sn | 23 51 27.7 | -14 |
| | 0.1nm,0.3s,baz=302,slow=19,SNR=2.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **14.21** | **162** | Pn | Pn | 23 49 49.6 | -0.1 |
| | 0.1nm,0.3s,baz=342,slow=13,SNR=3.5 | | | | | | |
| WRA | | | | Sn | Sn | 23 52 16.8 | -12 |
| | 0.1nm,0.3s,baz=344,slow=24,SNR=2.5 | | | | | | |
| **ASAR** | **Alice Springs** | **17.66** | **167** | P | Pn | 23 50 33.8 | -0.9 |
| | 0.1nm,0.3s,baz=346,slow=10,SNR=4.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.55** | **327** | P | P | 23 57 25.4 | 0.0 |
| | 0.5nm,1.1s,baz=120,slow=4.8,SNR=2.4 | | | | | | |

*ISCJB **01** 23:49:01.5±0.6, 19°.75S±0°.05×66°.97W±0°.05, h266km, mb3.8/4, Error ellipse: s-maj=7.5km s-min=6.3km az=39.8*
*GUC **01** 23:49:01.8±0.5, 19°.93S×66°.96W, h250km, ML3.8*
*IDC **01** 23:49:01.9±0.9, 19°.60S×66°.83W, h266km±13km, mb3.4/4, mb1 3.4/10, mb1mx3.2/28, mbtmp4.0/10, Error ellipse: s-maj=20.2km s-min=13.4km az=100.0*
**ISC 01 23:49:01.4**±0.7**, 19°.70S**±0°.06×**66°.99W**±0°.07**, h266km, n19, σ1s.46**/28**, mb3.9**/4**, 8C, Southern Bolivia**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PB08** | **IPOC Station P** | **2.08** | **257** | ⇑iP | **Pn** | **23 49 47.6** | **+1.2** |
| PB08 | | | | eS | **S** | **23 50 22.5** | **+0.6** |
| PB08 | | | | IAML | | 23 50 26.8 | |
| | comp=E,94nm,0.6s | | | | | | |
| **PB11** | **IPOC Station P** | **2.51** | **268** | ⇑iP | **Pn** | **23 49 51.0** | **+0.9** |
| PB11 | | | | i S | **S** | **23 50 28.6** | **0.0** |
| **MNMC** | **Minye Minye** | **2.52** | **282** | ⇑iP | **Pn** | **23 49 52.1** | **+1.7** |
| MNMC | | | | IAML | | 23 50 43.7 | |
| | comp=E,152nm,0.4s | | | | | | |
| **PB01** | **IPOC Station P** | **2.70** | **240** | ⇑iP | **Pn** | **23 49 52.0** | **+0.2** |
| PB01 | | | | i S | **S** | **23 50 30.6** | **-1.3** |
| PB01 | | | | IAML | | 23 50 32.0 | |
| | comp=N,397nm,0.3s | | | | | | |
| **PSGC** | **Pisagua** | **2.95** | **271** | ⇑iP | **Pn** | **23 49 55.2** | **+0.7** |
| PSGC | | | | i S | **S** | **23 50 36.0** | **-0.6** |
| **PB09** | **IPOC Station P** | **2.96** | **225** | ⇑iP | **Pn** | **23 49 56.0** | **+1.3** |
| PB09 | | | | i S | **S** | **23 50 36.6** | **-0.4** |
| **PB07** | **IPOC Station P** | **3.38** | **233** | eP | **Pn** | **23 49 59.6** | **+0.5** |
| PB07 | | | | i S | **S** | **23 50 43.1** | **-1.9** |
| **LVC** | **Limon Verde** | **3.41** | **211** | P | **Pn** | **23 50 00.1** | **+0.5** |
| | comp=N,73nm,0.3s,baz=2.7,slow=8.4,SNR=25 | | | | | | |
| LVC | | | | S | **S** | **23 50 44.2** | **-1.7** |
| | comp=N,632nm,0.3s,baz=270,slow=18,SNR=24 | | | | | | |
| **LPAZ** | **La Paz** | **3.56** | **342** | P | **Pn** | **23 50 03.1** | **+1.4** |
| | comp=N,1.9nm,0.3s,baz=131,slow=7.8,SNR=24 | | | | | | |
| LPAZ | | | | S | **S** | **23 50 49.7** | **+0.2** |
| | comp=N,1.3nm,0.3s,baz=249,slow=23,SNR=16 | | | | | | |
| **PB06** | **IPOC Station P** | **3.84** | **218** | ⇑iP | **Pn** | **23 50 04.9** | **+0.6** |
| **PB04** | **IPOC Station P** | **3.95** | **228** | ⇑iP | **Pn** | **23 50 06.1** | **+0.6** |
| PB04 | | | | i S | **S** | **23 50 53.4** | **-3.1** |
| **SIV** | **San Ignacio** | **6.74** | **58** | P | **Pn** | **23 50 36.0** | **-3.1** |
| | comp=N,5.6nm,0.3s,baz=255,slow=12,SNR=39 | | | | | | |
| **CPUP** | **Villa Florida** | **11.08** | **128** | P | **Pn** | **23 51 34.5** | **+1.2** |
| | comp=N,0.1nm,0.3s,baz=346,slow=4.2,SNR=2.3 | | | | | | |
| **ATAH** | **Atahualpa** | **16.68** | **317** | P | **Pn** | **23 52 40.4** | **-1.1** |
| | comp=N,0.2nm,0.3s,baz=113,slow=10.0,SNR=3.1 | | | | | | |
| **BDFB** | **Brasilia** | **18.53** | **80** | P | **P** | **23 52 59.1** | **+0.2** |
| | comp=N,0.7nm,0.3s,baz=26,slow=14,SNR=4.7 | | | | | | |
| **PLCA** | **Paso Flores** | **21.19** | **187** | P | **P** | **23 53 28.2** | **+1.6** |
| | comp=N,2.8nm,0.7s,baz=24,slow=11,SNR=8.9 | | | | | | |
| **SNAA** | **Sanae** | **63.40** | **161** | P | **P** | **23 59 04.2** | **+1.7** |
| | comp=N,0.5nm,0.8s,baz=0.0,slow=5.1,SNR=3.6 | | | | | | |
| **DBIC** | **Dimbokro** | **66.50** | **73** | P | **P** | **23 59 20.8** | **-2.4** |
| | comp=N,2.1nm,0.7s,baz=221,slow=6.1,SNR=4.2 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **75.06** | **70** | P | **P** | **00 00 14.2** | **-0.4** |
| | comp=N,2.4nm,0.4s,baz=254,slow=5.4,SNR=75 | | | | | | |

**IDC 01 23:53:38.9**±6.6**, 7°.32S**×**125°.62E, h549km**±102km**, mb3.0**/2**, mb1 2.8**/5**, mb1mx2.6**/30**, mbtmp3.7**/5**, Error ellipse: s-maj=134.2km s-min=39.3km az=50.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **10.72** | **180** | P | P | 23 56 03.2 | -1.0 |
| | 0.5nm,0.3s,baz=2.1,slow=10,SNR=17 | | | | | | |
| **WRA** | **Warramunga Arr** | **15.13** | **147** | P | P | 23 56 49.9 | +0.1 |
| | 0.1nm,0.3s,baz=336,slow=9.9,SNR=2.7 | | | | | | |
| **ASAR** | **Alice Springs** | **18.09** | **155** | P | P | 23 57 18.0 | +0.3 |
| | 0.2nm,0.3s,baz=321,slow=7.7,SNR=4.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **66.19** | **329** | P | P | 00 03 32.7 | +0.3 |
| | 0.2nm,0.4s,baz=126,slow=6.8,SNR=9.1 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **70.02** | **336** | P | P | 00 03 55.1 | -0.3 |
| | 0.9nm,0.4s,baz=149,slow=5.4,SNR=6.0 | | | | | | |

*ISCJB **01** 23:55:28.5±1.7, 26°.45S±0°.09×27°.8E±0°.2, h5km, Error ellipse: s-maj=22.9km s-min=6.0km az=146.8*
*PRE **01** 23:55:30.2±0.8, 26°.52S×27°.63E, h2km, ML2.9*
**ISC 01 23:55:26.8**±1.2**, 26°.30S**±0°.05×**27°.79E**±0°.07**, h5km, n7, σ2s.24**/14**, South Africa**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KSR** | **Koster** | **0.92** | **299** | eP | **Pn** | **23 55 47.6** | **+1.1** |
| KSR | | | | eS | **Sn** | **23 56 01.4** | **+1.2** |
| KSR | | | | AML | AML | 23 56 10.1 | |
| | comp=Z,92nm,0.5s | | | | | | |
| **SEK** | **Senekal** | **2.02** | **184** | eP | **Pn** | **23 56 02.5** | **+0.7** |
| SEK | | | | eS | **Sn** | **23 56 27.1** | **-0.4** |
| SEK | | | | AML | AML | 23 56 32.6 | |
| | comp=Z,58nm,0.2s | | | | | | |
| **BOSA** | **Boshof** | **3.22** | **224** | i P | **Pn** | **23 56 19.4** | **+1.2** |
| BOSA | | | | i | | 23 56 19.6 | |
| | baz=67,slow=11 | | | | | | |
| BOSA | | | | i S | **Sg** | **23 57 12.4** | **+2.1** |
| **KSD** | **Kokstad** | **4.46** | **162** | eP | **Pn** | **23 56 37.1** | **+1.8** |
| KSD | | | | eS | **Sn** | **23 57 26.1** | **-1.6** |
| KSD | | | | AML | AML | 23 57 43.0 | |
| | comp=Z,6.0nm,0.3s | | | | | | |
| **PKA** | **Prieska** | **5.57** | **232** | eP | **Pn** | **23 56 51.4** | **+0.8** |
| PKA | | | | eS | **Sn** | **23 57 50.6** | **-4.4** |
| PKA | | | | AML | AML | 23 58 14.1 | |
| | comp=Z,37nm,0.2s | | | | | | |
| **UPI** | **Upington** | **6.16** | **249** | eP | **Pn** | **23 57 00.8** | **+2.1** |
| UPI | | | | eS | **Sn** | **23 58 05.8** | **-3.7** |
| UPI | | | | AML | AML | 23 58 49.2 | |
| | comp=Z,6.4nm,0.7s | | | | | | |
| **BLWY** | **Bulawayo** | **6.18** | **7** | i P | **Pn** | **23 56 58.0** | **-0.9** |
| BLWY | | | | i | | 23 56 58.2 | |
| | baz=229,slow=14 | | | | | | |
| BLWY | | | | i S | **Sb** | **23 58 28.5** | **-0.9** |

*SOME **02** 00:07:26.1, 44°.20N×82°.93E, h10km*
*NNC **02** 00:07:29.7±3.8, 44°.47N×82°.58E, h0km, mb2.7, mpv2.3, Error ellipse: s-maj=40.8km s-min=21.1km az=126.0*
**ISC 02 00:07:28.6**±1.6**, 44°.25N**±0°.08×**82°.94E**±0°.08**, h24km, n9, σ1s.18**/15**, 1C-3D, Northern Xinjiang**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KTMS** | **Ketmen** | **2.04** | **248** | eP | **Pb** | **00 08 03.5** | **-1.5** |
| | 15nm,0.1s | | | | | | |
| KTMS | | | | eS | **Sb** | **00 08 30.4** | **+0.4** |
| | 31nm,0.3s | | | | | | |
| **DJR** | **Jarkent** | **2.27** | **273** | eP | **Pb** | **00 08 07.8** | **-1.0** |
| | 13nm,0.2s | | | | | | |
| DJR | | | | eS | **Sb** | **00 08 37.6** | **+1.2** |
| | 12nm,0.4s | | | | | | |
| **MK31** | **Makanchi Array** | **2.59** | **350** | Pn | **Pn** | **00 08 09.6** | **+0.6** |
| | 0.3nm,0.2s,baz=166,slow=16,SNR=71 | | | | | | |
| MK31 | | | | Lg | Lg | 00 08 43.1 | |
| | 1.5nm,0.2s,baz=178,slow=26,SNR=12 | | | | | | |
| **MAKZ** | **Makanchi** | **2.65** | **346** | ⇓Pn | **Pn** | **00 08 10.2** | **+0.4** |
| | 0.6nm,0.3s | | | | | | |
| MAKZ | | | | ⇑Lg | Lg | 00 08 44.7 | |
| | 2.1nm,0.4s | | | | | | |
| **PDGK** | **Podgornoye** | **2.66** | **251** | ⇓Pn | **Pn** | **00 08 12.0** | **+1.9** |
| | 0.7nm,0.2s | | | | | | |
| PDGK | | | | ⇓Lg | Lg | 00 08 48.3 | |
| | 2.9nm,0.4s | | | | | | |
| **SHLS** | **Shalkode** | **2.75** | **248** | eP | **Pn** | **00 08 11.5** | **+0.2** |
| | 12nm,0.1s | | | | | | |
| SHLS | | | | eS | **Sn** | **00 08 43.9** | **+0.1** |
| | 45nm,0.3s | | | | | | |
| **KAPS** | **Kapalarasan** | **2.76** | **293** | eP | **Pb** | **00 08 15.7** | **-1.5** |
| | 0.6nm,0.1s | | | | | | |
| KAPS | | | | eS | **Sb** | **00 08 50.8** | **+0.2** |
| | 3.1nm,0.4s | | | | | | |
| **UZB** | **Uzynbulak** | **3.05** | **250** | eP | **Pb** | **00 08 20.7** | **-1.5** |
| | 1.7nm,0.1s | | | | | | |
| UZB | | | | eS | **Sb** | **00 08 59.5** | **+0.5** |
| | 5.5nm,0.3s | | | | | | |
| **ZSN** | **Zaisan** | **3.47** | **22** | eP | **Pb** | **00 08 28.2** | **-1.2** |
| | 0.7nm,0.1s | | | | | | |
| ZSN | | | | eS | **Sb** | **00 09 12.3** | **+1.1** |
| | 2.2nm,0.2s | | | | | | |

*ATA **02** 00:12:42.9±0.9, 38°.73N×43°.22E, h14km±11km, ML3.6, MW3.6*
*CSEM **02** 00:12:43.9±0.2, 38°.72N×43°.23E, h2km, MD2.8, Error ellipse: s-maj=3.6km s-min=3.2km az=82.0*
*DDA **02** 00:12:43.6, 38°.72N×43°.22E, h7km, Ml3.1*
*ISK **02** 00:12:43.2, 38°.74N×43°.24E, h3km, MD2.8, ML2.8*
*ISCJB **02** 00:12:44.4±0.4, 38°.74N±0°.02×43°.23E±0°.03, h4km±4km, Error ellipse: s-maj=3.6km s-min=2.8km az=162.8*
**ISC 02 00:12:44.7**±0.8**, 38°.73N**±0°.02×**43°.23E**±0°.02**, h15km**±6km**, n80, σ1s.26**/117**, 1C-2D, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.18** | **137** | ePG | **Pg** | **00 12 49.3** | **+0.1** |
| VANB | | | | eSG | **Sg** | **00 12 53.6** | **+1.4** |
| **VANB** | **Van** | **0.18** | **137** | ePg | **Pg** | **00 12 49.3** | **+0.1** |
| **TVAN** | **Van** | **0.24** | **146** | i P | **Pg** | **00 12 49.3** | **-0.9** |
| TVAN | | | | i S | **Sg** | **00 12 54.1** | **+0.2** |
| **TVAN** | **Van** | **0.24** | **146** | P | **Pg** | **00 12 49.3** | **-0.9** |
| TVAN | | | | S | **Sg** | **00 12 54.1** | **+0.2** |
| **ERCV** | **ERCIS-VAN** | **0.30** | **16** | ePG | **Pg** | **00 12 50.1** | **-1.0** |
| ERCV | | | | eSG | **Sg** | **00 12 55.0** | **-0.5** |
| **ERCV** | **ERCIS-VAN** | **0.30** | **16** | ePg | **Pg** | **00 12 50.1** | **-1.0** |
| ERCV | | | | eSg | **Sg** | **00 12 55.0** | **-0.5** |
| **VMUR** | **Van-Muradiye** | **0.37** | **46** | i P | **Pb** | **00 12 51.9** | **-1.2** |
| VMUR | | | | i S | **Sb** | **00 12 58.3** | **-0.4** |
| **VMUR** | **Van-Muradiye** | **0.37** | **46** | P | **Pb** | **00 12 51.9** | **-1.2** |
| VMUR | | | | S | **Sb** | **00 12 58.3** | **-0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.40** | **281** | i P | **Pg** | **00 12 52.1** | **-0.8** |
| ADCV | | | | i S | **Sb** | **00 12 59.2** | **-0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.40** | **281** | P | **Pg** | **00 12 52.1** | **-0.8** |
| ADCV | | | | S | **Sb** | **00 12 59.2** | **-0.5** |
| **GEVA** | **Gevas** | **0.44** | **198** | ⇓iP | **Pg** | **00 12 52.0** | **-1.5** |
| GEVA | | | | IAML | | 00 12 52.5 | |
| | comp=Z,676nm,0.2s | | | | | | |
| **GEVA** | **Gevas** | **0.44** | **198** | eP | **Pg** | **00 12 51.8** | **-1.7** |
| | baz=1.0 | | | | | | |
| GEVA | | | | IAML | | 00 12 52.5 | |
| | comp=Z,676nm,0.2s | | | | | | |
| GEVA | | | | eS | **Sg** | **00 12 59.3** | **-0.2** |
| **GEVA** | **Gevas** | **0.44** | **198** | i P | **Pg** | **00 12 52.1** | **-1.5** |
| **GEVA** | **Gevas** | **0.44** | **198** | P | **Pg** | **00 12 52.1** | **-1.5** |
| **CLDR** | **Caldiran** | **0.68** | **52** | ePG | **Pg** | **00 12 56.8** | **-1.2** |
| CLDR | | | | eSG | **Sb** | **00 13 07.0** | **-0.5** |
| **CLDR** | **Caldiran** | **0.68** | **52** | i P | **Pg** | **00 12 56.8** | **-1.2** |
| CLDR | | | | i S | **Sb** | **00 13 07.6** | **+0.1** |
| **CLDR** | **Caldiran** | **0.68** | **52** | P | **Pg** | **00 12 56.8** | **-1.2** |
| CLDR | | | | eSg | **Sb** | **00 13 07.0** | **-0.5** |
| **TUTA** | **Tutak** | **0.74** | **334** | ⇓iP | **Pg** | **00 12 57.8** | **-1.4** |
| TUTA | | | | IAML | | 00 12 58.0 | |
| | comp=Z,364nm,0.2s | | | | | | |
| **TUTA** | **Tutak** | **0.74** | **334** | eP | **Pg** | **00 12 57.6** | **-1.7** |
| | baz=1.0 | | | | | | |
| **TUTA** | **Tutak** | **0.74** | **334** | i P | **Pg** | **00 12 57.9** | **-1.4** |
| TUTA | | | | i S | **Sb** | **00 13 09.1** | **-0.5** |
| **TUTA** | **Tutak** | **0.74** | **334** | P | **Pg** | **00 12 57.9** | **-1.4** |
| TUTA | | | | S | **Sb** | **00 13 09.1** | **-0.5** |
| **AGRB** | **Hanur-Agry** | **0.86** | **348** | ePG | **Pg** | **00 12 59.8** | **-1.7** |
| AGRB | | | | eSG | **Sb** | **00 13 12.8** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **0.86** | **348** | ePg | **Pg** | **00 12 59.8** | **-1.7** |
| AGRB | | | | eSg | **Sb** | **00 13 12.8** | **-0.1** |
| **DYDN** | **Diyadin** | **0.89** | **24** | eP | **Pg** | **00 13 00.4** | **-1.5** |
| DYDN | | | | IAML | | 00 13 01.9 | |
| | comp=Z,60nm,0.3s | | | | | | |
| DYDN | | | | eS | **Sb** | **00 13 14.2** | **+0.6** |
| **DYDN** | **Diyadin** | **0.89** | **24** | eP | **Pg** | **00 13 00.8** | **-1.1** |
| | baz=1.0 | | | | | | |
| **DYDN** | **Diyadin** | **0.89** | **24** | i P | **Pg** | **00 13 01.1** | **-0.8** |
| DYDN | | | | i S | **Sn** | **00 13 16.4** | **+0.9** |
| **DYDN** | **Diyadin** | **0.89** | **24** | P | **Pg** | **00 13 01.1** | **-0.8** |
| DYDN | | | | S | **Sn** | **00 13 16.4** | **+0.9** |
| **BASK** | **Baskale_VAN** | **0.91** | **138** | eP | **Pg** | **00 13 01.2** | **-1.1** |
| | baz=1.0 | | | | | | |
| BASK | | | | eS | **Sb** | **00 13 14.4** | **+0.2** |
| BASK | | | | IAML | | 00 13 20.3 | |
| | comp=Z,100nm,0.6s | | | | | | |
| **BASK** | **Baskale_VAN** | **0.91** | **138** | i P | **Pg** | **00 13 00.3** | **-2.0** |
| BASK | | | | i S | **Sb** | **00 13 14.6** | **+0.4** |
| **BASK** | **Baskale_VAN** | **0.91** | **138** | P | **Pg** | **00 13 00.3** | **-2.0** |
| BASK | | | | S | **Sb** | **00 13 14.6** | **+0.4** |
| **EKAR** | **Karacoban** | **1.05** | **300** | eP | **Pg** | **00 13 03.8** | **-1.2** |
| EKAR | | | | eS | **Sn** | **00 13 19.6** | **+0.1** |
| EKAR | | | | IAML | | 00 13 30.3 | |
| | comp=Z,79nm,0.5s | | | | | | |
| **EKAR** | **Karacoban** | **1.05** | **300** | eP | **Pg** | **00 13 03.9** | **-1.1** |
| EKAR | | | | eS | **Sn** | **00 13 22.0** | **+2.5** |
| EKAR | | | | IAML | | 00 13 30.3 | |
| | comp=Z,79nm,0.5s | | | | | | |
| **EKAR** | **Karacoban** | **1.05** | **300** | i P | **Pb** | **00 13 04.2** | **-0.5** |
| EKAR | | | | i S | **Sn** | **00 13 23.9** | **+4.4** |
| **EKAR** | **Karacoban** | **1.05** | **300** | P | **Pb** | **00 13 04.2** | **-0.5** |
| **HAKT** | **HAKKARI** | **1.23** | **162** | i P | **Pg** | **00 13 05.8** | **-2.6** |
| HAKT | | | | i S | **Sn** | **00 13 26.9** | **+3.1** |
| **HAKT** | **HAKKARI** | **1.23** | **162** | P | **Pg** | **00 13 05.8** | **-2.6** |
| HAKT | | | | S | **Sn** | **00 13 27.0** | **+3.1** |
| **SRTM** | **Siirt_Merkez** | **1.27** | **235** | i P | **Pn** | **00 13 07.1** | **-0.8** |
| SRTM | | | | i S | **Sn** | **00 13 25.7** | **+1.0** |
| **SRTM** | **Siirt_Merkez** | **1.27** | **235** | P | **Pn** | **00 13 07.1** | **-0.8** |
| SRTM | | | | S | **Sn** | **00 13 25.7** | **+1.0** |
| **EATA** | **Eleskirt** | **1.27** | **333** | eP | **Pg** | **00 13 07.4** | **-1.8** |
| EATA | | | | eS | **Sn** | **00 13 25.8** | **+0.8** |
| EATA | | | | IAML | | 00 13 27.1 | |
| | comp=Z,32nm,0.4s | | | | | | |
| **EATA** | **Eleskirt** | **1.27** | **333** | eP | **Pg** | **00 13 07.4** | **-1.8** |
| | baz=1.0 | | | | | | |
| **EATA** | **Eleskirt** | **1.27** | **333** | i P | **Pg** | **00 13 07.3** | **-1.8** |
| EATA | | | | i S | **Sn** | **00 13 25.7** | **+0.7** |
| **EATA** | **Eleskirt** | **1.27** | **333** | P | **Pg** | **00 13 07.3** | **-1.8** |
| EATA | | | | S | **Sn** | **00 13 25.7** | **+0.7** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.41** | **144** | i P | **Pn** | **00 13 09.7** | **-0.3** |
| YOVA | | | | i S | **Sg** | **00 13 30.7** | **+0.4** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.41** | **144** | P | **Pn** | **00 13 09.7** | **-0.3** |
| YOVA | | | | S | **Sg** | **00 13 30.7** | **+0.4** |
| **VRTB** | **Varto-Mus** | **1.45** | **288** | ePN | **Pb** | **00 13 11.0** | **-0.5** |
| **VRTB** | **Varto-Mus** | **1.45** | **288** | i P | **Pb** | **00 13 10.9** | **-0.5** |
| **VRTB** | **Varto-Mus** | **1.45** | **288** | P | **Pb** | **00 13 10.9** | **-0.5** |
| **TASB** | **TASBURUN-IGDIR** | **1.48** | **32** | ePN | **Pb** | **00 13 11.4** | **-0.4** |
| **TASB** | **TASBURUN-IGDIR** | **1.48** | **32** | ePn | **Pb** | **00 13 11.4** | **-0.4** |
| **CUKT** | **Cukurca** | **1.51** | **169** | ePN | **Pn** | **00 13 11.5** | **+0.3** |
| **CUKT** | **Cukurca** | **1.51** | **169** | ePn | **Pn** | **00 13 11.5** | **+0.3** |
| **BNGL** | **BINGOL** | **1.64** | **278** | eP | **Pn** | **00 13 13.7** | **+0.6** |
| BNGL | | | | eS | **Sg** | **00 13 37.4** | **-0.2** |
| BNGL | | | | IAML | | 00 13 39.2 | |
| | comp=Z,93nm,0.6s | | | | | | |
| **BNGL** | **BINGOL** | **1.64** | **278** | eP | **Pb** | **00 13 14.0** | **-0.7** |
| **HOMI** | **Horasan** | **1.67** | **322** | eP | **Pb** | **00 13 14.8** | **-0.3** |
| HOMI | | | | eS | **Sg** | **00 13 39.7** | **+1.2** |
| HOMI | | | | IAML | | 00 13 45.9 | |
| | comp=Z,18nm,0.6s | | | | | | |
| **HOMI** | **Horasan** | **1.67** | **322** | eP | **Pb** | **00 13 14.6** | **-0.6** |
| | baz=1.0 | | | | | | |
| **DIGO** | **Kars** | **1.69** | **4** | ⇑iP | **Pb** | **00 13 14.9** | **-0.6** |
| DIGO | | | | IAML | | 00 13 17.7 | |
| | comp=Z,20nm,0.3s | | | | | | |
| **DIGO** | **Kars** | **1.69** | **4** | eP | **Pb** | **00 13 15.2** | **-0.3** |
| | baz=1.0 | | | | | | |
| **DIGO** | **Kars** | **1.69** | **4** | i P | **Pb** | **00 13 15.2** | **-0.3** |
| **DIGO** | **Kars** | **1.69** | **4** | P | **Pb** | **00 13 15.2** | **-0.3** |
| **SVAN** | **Silvan-Diyarba** | **1.70** | **251** | ePN | **Pb** | **00 13 15.1** | **-0.5** |
| **SVAN** | **Silvan-Diyarba** | **1.70** | **251** | ePn | **Pb** | **00 13 15.1** | **-0.5** |
| **ERZM** | **Erzurum** | **1.86** | **310** | eP | **Pb** | **00 13 17.9** | **-0.7** |
| **KARS** | **Kars** | **1.90** | **356** | ePN | **Pn** | **00 13 17.4** | **+0.8** |
| **KARS** | **Kars** | **1.90** | **356** | ePn | **Pn** | **00 13 17.4** | **+0.8** |
| **SENK** | **Senkaya-Erzuru** | **1.95** | **340** | ePN | **Pn** | **00 13 18.4** | **+1.0** |
| **SENK** | **Senkaya-Erzuru** | **1.95** | **340** | ePn | **Pn** | **00 13 18.4** | **+1.0** |
| **ECAT** | **Cat-ERZURUM** | **1.96** | **297** | eP | **Pb** | **00 13 19.4** | **-0.7** |
| ECAT | | | | IAML | | 00 13 25.7 | |
| | comp=Z,10nm,0.3s | | | | | | |
| **ECAT** | **Cat-ERZURUM** | **1.96** | **297** | eP | **Pb** | **00 13 20.4** | **+0.2** |
| | baz=1.0 | | | | | | |
| **BNGB** | **Bingˆ¶l** | **2.01** | **278** | ePN | **Pn** | **00 13 19.3** | **+1.2** |
| **BINT** | **Bingol** | **2.15** | **275** | ePn | **Pn** | **00 13 19.3** | **-0.7** |
| **YEDI** | **Yedisu-Bingol** | **2.21** | **290** | ePN | **Pb** | **00 13 22.5** | **-1.8** |
| **YEDI** | **Yedisu-Bingol** | **2.21** | **290** | ePn | **Pb** | **00 13 22.5** | **-1.8** |
| **DIY** | **Diyarbakir** | **2.51** | **252** | ePn | **Pb** | **00 13 27.3** | **-2.1** |
| **MAZI** | **Mazidag** | **2.54** | **241** | ePN | **Pn** | **00 13 26.9** | **+1.5** |
| **MAZI** | **Mazidag** | **2.54** | **241** | ePn | **Pn** | **00 13 26.9** | **+1.5** |
| **DYBB** | **Diyarbakir** | **2.55** | **253** | ePN | **Pn** | **00 13 27.2** | **+1.7** |
| **PTK** | **Pertek** | **3.00** | **274** | ePN | **Pn** | **00 13 33.5** | **+1.7** |
| **PTK** | **Pertek** | **3.00** | **274** | ePn | **Pn** | **00 13 33.5** | **+1.7** |
| **SVRC** | **Sivrice-ELAZID** | **3.10** | **265** | ePN | **Pn** | **00 13 35.0** | **+1.9** |
| **SVRC** | **Sivrice-ELAZID** | **3.10** | **265** | ePn | **Pn** | **00 13 35.0** | **+1.9** |

**GUC 02 00:17:03.1**±0.4**, 20°.05S**×**69°.22W, h94km**±2km**, ML3.8, Northern Chile**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PB08** | **IPOC Station P** | **0.11** | **147** | i P | Pn | 00 17 17.2 | +0.4 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PB08 | | | | *i* S | Sn | 00 17 28.0 | +1.0 |
| PB08 | | | | IAML | | 00 17 29.3 | |
| | comp=E,5µm,0.2s | | | | | | |
| **PB11** | **IPOC Station P** | **0.50** | **305** | *i* P | Pn | 00 17 18.6 | +0.2 |
| PB11 | | | | *i* S | Sn | 00 17 30.7 | +0.8 |
| PB11 | | | | IAML | | 00 17 31.7 | |
| | comp=N,14µm,0.2s | | | | | | |
| **PSGC** | **Pisagua** | **0.96** | **298** | *i* P | Pn | 00 17 22.9 | +0.1 |
| PSGC | | | | *i* S | Sn | 00 17 38.4 | +0.8 |
| PSGC | | | | IAML | | 00 17 39.1 | |
| | comp=N,2µm,0.2s | | | | | | |
| **MNMC** | **Minye Minye** | **0.98** | **339** | *i* P | Pn | 00 17 23.6 | +0.4 |
| MNMC | | | | *i* S | Sn | 00 17 38.9 | +0.7 |
| **PB01** | **IPOC Station P** | **1.02** | **194** | *i* P | Pn | 00 17 23.9 | +0.4 |
| PB01 | | | | IAML | | 00 17 41.2 | |
| | comp=N,4µm,0.3s | | | | | | |
| **PB09** | **IPOC Station P** | **1.74** | **181** | *i* P | Pn | 00 17 33.0 | +0.8 |
| PB09 | | | | *e* | | 00 17 33.0 | |
| PB09 | | | | *i* S | Sn | 00 17 55.8 | +1.4 |
| PB09 | | | | IAML | | 00 18 00.3 | |
| | comp=N,1µm,0.2s | | | | | | |
| **PB12** | **IPOC Station P** | **1.77** | **323** | *i* P | Pn | 00 17 32.1 | -0.5 |
| PB12 | | | | *i* S | Sn | 00 17 55.2 | +0.2 |

---

*BJI **02** 00:22:46.2, 34°.37S×57°.72E, h6km, mb5.8/60, mB5.6/39, Ms5.6/49, Ms7 5.4/48*

*MOS **02** 00:22:50.5±0.8, 33°.93S×58°.17E, h10km, mb6.0/52, MS5.0/26, Error ellipse: s-maj=11.1km s-min=5.0km az=104.3*

*IDC **02** 00:22:50.6±0.3, 33°.95S×58°.15E, h0km, mb5.5/40, mb1 5.5/41, mb1mx5.4/50, mbtmp5.4/41, ML4.4/1, MS4.7/30, Ms1 4.7/30, ms1mx4.5/39, Error ellipse: s-maj=12.8km s-min=10.2km az=41.0*

*ISCJB **02** 00:22:52.5±0.1, 33°.93S±0°.03×58°.20E±0°.03, h22km, mb5.7/202, MS5.0/140, Error ellipse: s-maj=4.6km s-min=3.5km az=16.2*

*GCMT **02** 00:22:52.0±0.1, 33°.97S×58°.21E, h31km, MW5.4/114, Moment Tensor Solution. s87,c136; s114,c214; Duration: 1s3 Moment tensor: Scale 10^17Nm; $M_{rr}$-0.62±.03; $M_{\theta\theta}$-0.08±.02; $M_{\phi\phi}$0.70±.02; $M_{r\theta}$-1.33±.05; $M_{\theta\phi}$-0.84±.02; $M_{\phi r}$0.36±.03; Best double couple: $M_0$1.74600×10^17 NP1:$\phi_s$113.00000°, δ78.00000°, λ-120.00000°. NP2:$\phi_s$3.00000°, δ33.00000°, λ-23.00000°. Principal axes: T 1.7550, Plg26.0000°, Azm226.0000°; N -0.0170, Plg30.0000°, Azm120.0000°; P -1.7380, Plg48.0000°, Azm350.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

*NEIC **02** 00:22:52.8±0.1, 34°.00S×58°.08E, h15km, mb5.7/79, ME5.5, MS5.1/96, MW5.6 Error ellipse: s-maj=4.3km s-min=3.2km az=37.0, Moment Tensor Solution. s18 Moment tensor: Scale 10^17Nm; $M_{rr}$-0.78; $M_{\theta\theta}$2.76; $M_{\phi\phi}$-1.98; $M_{r\theta}$-0.66; $M_{\theta\phi}$-1.25; $M_{\phi r}$0.37; Best double couple: $M_0$2.90000×10^17 NP1:$\phi_s$329.00000°, δ88.00000°, λ13.00000°. NP2: $\phi_s$238.00000°, δ77.00000°, λ178.00000°. Principal axes: T 3.2100, Plg10.0000°, Azm194.0000°; N -0.8900, Plg77.0000°, Azm336.0000°; P -2.3200, Plg8.0000°, Azm103.0000°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.*

*PDG **02** 00:22:56.8, 33°.40S×58°.10E, h33km, mb5.6/8*

**ISC 02 00:22:53.9**±0.2, **34°.03S**±0°.04×**58°.04E**±0°.05, **h22**km, **n1225**, σ**1s01**/1196, **mb5.8**/211, **MS5.1**/140, **33C-83D, South Indian Ocean**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RER** | **Riviere de l'E** | **12.98** | **350** | *e*Pn | **Pn** | **00 25 55.9** | **-1.1** |
| **CRZF** | **Crozet Islands** | **13.25** | **199** | *e*Pn | **Pn** | **00 25 57.7** | **-2.9** |
| **MRIV** | **Mauritius Mete** | **13.68** | **358** | *e*Pn | **Pn** | **00 26 06.1** | **-0.6** |
| **ABPO** | **Ambohimpanom** | **17.79** | **324** | *e*P | **P** | **00 27 00.2** | **-0.7** |
| ABPO | | | | pmax | pmax | | |
| | comp=Z,165nm,1.1s | | | | | | |
| **ABPO** | **Ambohimpanom** | **17.79** | **324** | *e*Pn | **P** | **00 27 00.2** | **-0.7** |
| | comp=Z,165nm,1.1s | | | | | | |
| **OPO** | **Ambohidratompo** | **18.19** | **325** | P | **P** | **00 27 05.6** | **+0.2** |
| | comp=Z,1.3nm,0.3s,baz=308,slow=23,SNR=46 | | | | | | |
| OPO | | | | LR | LR | 00 32 29.5 | |
| | comp=Z,4µm,19.6s,baz=169,slow=32 | | | | | | |
| **BOSA** | **Boshof** | **28.45** | **272** | P | **P** | **00 28 47.9** | **+0.5** |
| | comp=Z,7.4nm,0.8s,baz=98,slow=9.0,SNR=10 | | | | | | |
| BOSA | | | | LR | LR | 00 38 27.7 | |
| | comp=Z,1µm,19.2s,baz=108,slow=33 | | | | | | |
| **BOSA** | **Boshof** | **28.45** | **272** | *e*P | **P** | **00 28 47.7** | **+0.3** |
| BOSA | | | | pmax | pmax | | |
| | comp=Z,46nm,1.3s | | | | | | |
| **BOSA** | **Boshof** | **28.45** | **272** | *e*P | **P** | **00 28 47.7** | **+0.3** |
| | comp=Z,46nm,1.3s | | | | | | |
| **MSEY** | **Mahe Island** | **29.30** | **355** | *e*P | **P** | **00 28 54.8** | **-0.1** |
| MSEY | | | | pmax | pmax | | |
| | comp=Z,38nm,1.0s | | | | | | |
| MSEY | | | | MLR | MLR | | |
| | comp=Z,3µm,21.0s | | | | | | |
| **MSEY** | **Mahe Island** | **29.30** | **355** | *e*P | **P** | **00 28 54.8** | **-0.1** |
| | comp=Z,38nm,1.0s | | | | | | |
| MSEY | | | | LR | LR | | |
| | comp=Z,3µm,21.0s | | | | | | |
| **MATP** | **Matopo** | **29.44** | **290** | P | **P** | **00 28 55.2** | **-1.0** |
| | baz=270,slow=5.3 | | | | | | |
| **H08S1** | **Diego Carcia H** | **29.44** | **30** | T | T | 00 59 26.9 | |
| | baz=204,slow=76,SNR=52 | | | | | | |
| **H08S2** | **Diego Garcia H** | **29.45** | **30** | T | T | 00 59 27.5 | |
| | baz=204,slow=76,SNR=25 | | | | | | |
| **H08S3** | **Diego Garcia H** | **29.46** | **30** | T | T | 00 59 45.3 | |
| | baz=204,slow=76,SNR=22 | | | | | | |
| **LBTB** | **Lobatse** | **29.53** | **279** | P | **P** | **00 28 56.9** | **-0.1** |
| | comp=Z,13nm,0.9s,baz=116,slow=7.3,SNR=13 | | | | | | |
| LBTB | | | | LR | LR | 00 39 00.4 | |
| | comp=Z,443nm,19.3s,baz=114,slow=33 | | | | | | |
| **LBTB** | **Lobatse** | **29.53** | **279** | *e*P | **P** | **00 28 57.3** | **+0.3** |
| LBTB | | | | pmax | pmax | | |
| | comp=Z,42nm,1.0s | | | | | | |
| **LBTB** | **Lobatse** | **29.53** | **279** | *e*P | **P** | **00 28 57.3** | **+0.3** |
| | comp=Z,42nm,1.0s | | | | | | |
| **DGAR** | **Diego Garcia** | **29.64** | **30** | PFAKE | | 00 29 10.0 | +12 |
| DGAR | | | | LR | LR | | |
| | comp=Z,7µm,22.0s | | | | | | |
| **H08N3** | **Diego Garcia H** | **30.04** | **26** | T | T | 01 00 57.7 | |
| | baz=204,slow=76,SNR=3.7 | | | | | | |
| **H08N1** | **Diego Carcia H** | **30.05** | **26** | T | T | 01 00 49.7 | |
| | baz=204,slow=76,SNR=5.9 | | | | | | |
| **H08N2** | **Diego Garcia H** | **30.06** | **26** | T | T | 01 01 14.2 | |
| | baz=204,slow=76,SNR=12 | | | | | | |
| **SUR** | **Sutherland** | **31.09** | **262** | P | **P** | **00 29 11.9** | **+1.1** |
| | comp=Z,2.4nm,0.9s,baz=102,slow=8.8,SNR=10 | | | | | | |
| **SUR** | **Sutherland** | **31.09** | **262** | *e*P | **P** | **00 29 10.9** | **+0.1** |
| | comp=Z,59nm,1.0s | | | | | | |
| SUR | | | | LR | LR | | |
| | comp=Z,3µm,19.0s | | | | | | |
| **LSZ** | **Lusaka** | **32.75** | **297** | LR | LR | 00 40 45.8 | |
| | comp=Z,542nm,21.3s,baz=129,slow=33 | | | | | | |
| **LSZ** | **Lusaka** | **32.75** | **297** | *e*P | **P** | **00 29 26.3** | **+0.9** |
| LSZ | | | | pmax | pmax | | |
| | comp=Z,46nm,1.1s | | | | | | |
| LSZ | | | | MLR | MLR | | |
| | comp=Z,799nm,22.0s | | | | | | |
| **LSZ** | **Lusaka** | **32.75** | **297** | *e*P | **P** | **00 29 26.3** | **+0.9** |
| | comp=Z,46nm,1.1s | | | | | | |
| LSZ | | | | LR | LR | | |
| | comp=Z,799nm,22.0s | | | | | | |
| **LSZ** | **Lusaka** | **32.75** | **297** | P | **P** | **00 29 26.5** | **+1.0** |
| | SNR=14 | | | | | | |
| **LSZ** | **Lusaka** | **32.75** | **297** | P | **P** | **00 29 26.5** | **+1.0** |
| | SNR=14 | | | | | | |
| **MAW** | **Mawson** | **33.74** | **177** | P | **P** | **00 29 34.5** | **+1.2** |
| | comp=Z,17nm,0.9s,baz=349,slow=9.3,SNR=14 | | | | | | |
| MAW | | | | LR | LR | 00 40 03.7 | |
| | comp=Z,3µm,19.0s,baz=350,slow=31 | | | | | | |
| **MAW** | **Mawson** | **33.74** | **177** | *e*P | **P** | **00 29 34.4** | **+1.0** |
| | comp=Z,21nm,1.6s | | | | | | |
| **SYO** | **Syowa Base** | **36.54** | **191** | ⇓*i*P | **P** | **00 29 57.2** | **-0.2** |
| **KMBO** | **Kilima Mbogo** | **38.08** | **325** | P | **P** | **00 30 12.5** | **+1.1** |
| | comp=Z,28nm,0.9s,baz=143,slow=8.0,SNR=61 | | | | | | |
| KMBO | | | | PcP | **PcP** | **00 32 28.3** | **+1.9** |
| | comp=Z,7.9nm,0.9s,baz=171,slow=1.5,SNR=6.5 | | | | | | |
| KMBO | | | | LR | LR | 00 43 55.2 | |
| | comp=Z,893nm,20.1s,baz=135,slow=33 | | | | | | |
| **KMBO** | **Kilima Mbogo** | **38.08** | **325** | *ce*P | **P** | **00 30 13.1** | **+1.7** |
| KMBO | | | | pmax | pmax | | |
| | comp=Z,29nm,0.9s | | | | | | |
| **KMBO** | **Kilima Mbogo** | **38.08** | **325** | *e*P | **P** | **00 30 12.0** | **+0.6** |
| | comp=Z,58nm,1.1s | | | | | | |
| KMBO | | | | PcP | **PcP** | **00 32 28.3** | **+1.9** |
| KMBO | | | | LR | LR | | |
| | comp=Z,829nm,20.0s | | | | | | |
| **MIR** | **Mirnyy** | **38.48** | **158** | *i* P | **P** | **00 30 15.0** | **+1.1** |
| **TSUM** | **Tsumeb** | **38.80** | **282** | LR | LR | 00 44 52.9 | |
| | comp=Z,579nm,18.2s,baz=116,slow=34 | | | | | | |
| **TSUM** | **Tsumeb** | **38.80** | **282** | *e*P | **P** | **00 30 18.0** | **+0.6** |
| | comp=Z,43nm,1.0s | | | | | | |
| TSUM | | | | LR | LR | | |
| | comp=Z,635nm,20.0s | | | | | | |
| **COCO** | **West Island** | **41.43** | **68** | PFAKE | | 00 30 50.0 | +11 |
| COCO | | | | LR | LR | | |
| | comp=Z,3µm,21.0s | | | | | | |
| **NVL** | **N'lazarevskaya** | **44.28** | **200** | *e*P | **P** | **00 31 01.5** | **+0.1** |
| NVL | | | | *e* | | 00 32 45.1 | |
| NVL | | | | *e*S | **S** | **00 37 33.6** | **-0.1** |
| **H01W2** | **Cape Leeuwin H** | **45.73** | **108** | T | T | 01 20 44.1 | |
| | baz=255,slow=75,SNR=4.3 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **45.73** | **108** | T | T | 01 20 31.7 | |
| | baz=255,slow=75,SNR=7.2 | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **45.74** | **108** | T | T | 01 21 02.4 | |
| | baz=255,slow=75,SNR=4.0 | | | | | | |
| **PALK** | **Pallekele** | **46.35** | **32** | *i* P | **P** | **00 31 18.0** | **-0.5** |
| | SNR=10.0 | | | | | | |
| **PALK** | **Pallekele** | **46.35** | **32** | *i* P | **P** | **00 31 19.2** | **+0.7** |
| **ATD** | **Arta Tunnel** | **47.55** | **340** | P | **P** | **00 31 29.3** | **+1.4** |
| | comp=Z,87nm,1.0s,baz=161,slow=3.3,SNR=45 | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **48.77** | **106** | *e*P | **P** | **00 31 36.2** | **-1.0** |
| NWAO | | | | pmax | pmax | | |
| | comp=Z,60nm,0.8s | | | | | | |
| NWAO | | | | MLR | MLR | | |
| | comp=Z,1µm,19.0s | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **48.77** | **106** | *e*P | **P** | **00 31 36.2** | **-1.0** |
| | comp=Z,60nm,0.8s | | | | | | |
| NWAO | | | | LR | LR | | |
| | comp=Z,1µm,19.0s | | | | | | |
| **SNAA** | **Sanae** | **48.99** | **201** | P | **P** | **00 31 39.4** | **+1.0** |
| **SNAA** | **Sanae** | **48.99** | **201** | P | **P** | **00 31 39.3** | **+1.0** |
| | comp=Z,110nm,0.9s,baz=93,slow=6.2,SNR=334 | | | | | | |
| **SNAA** | **Sanae** | **48.99** | **201** | *e*P | **P** | **00 31 39.4** | **+1.0** |
| | comp=Z,164nm,1.0s | | | | | | |
| **MNGI** | **Mangalore** | **49.36** | **22** | *e*P | **P** | **00 31 41.1** | **-0.6** |
| MNGI | | | | *i* x | x | 00 39 31.4 | |
| **VNA2** | **Neumayer--Watz** | **50.24** | **203** | P | **P** | **00 31 49.1** | **+1.2** |
| | baz=77,slow=6.6 | | | | | | |
| **VNA1** | **Neumayer--Stat** | **50.48** | **203** | P | **P** | **00 31 51.0** | **+1.4** |
| **VNA3** | **Neumayer Olymp** | **51.03** | **203** | P | **P** | **00 31 54.8** | **+0.9** |
| **MDRS** | **Chennai** | **51.38** | **28** | *e*P | **P** | **00 31 56.4** | **-0.6** |
| MDRS | | | | AMB | AMB | 00 31 57.5 | |
| | comp=Z,105nm,1.2s | | | | | | |
| **GOA** | **Goa** | **51.48** | **20** | *e*P | **P** | **00 31 57.4** | **-0.4** |
| GOA | | | | AMB | AMB | 00 31 58.9 | |
| | comp=Z,95nm,1.2s | | | | | | |
| **SKHT** | **Srikalahasti** | **51.79** | **27** | *e*P | **P** | **00 31 59.5** | **-0.6** |
| SKHT | | | | IAmb | IAmb | 00 32 00.9 | |
| | comp=Z,56nm,0.9s | | | | | | |
| SKHT | | | | *e*S | **S** | **00 39 19.9** | **-1.2** |
| SKHT | | | | IVMs_BB | IVMs_BB | 00 49 20.3 | |
| | comp=Z,604nm,18.4s | | | | | | |
| **MNSI** | **Mandailing Nat** | **52.12** | **57** | P | **P** | **00 32 05.4** | **+2.7** |
| **CNJI** | **Cibinong** | **52.41** | **71** | P | **P** | **00 32 05.1** | **+0.2** |
| **CISI** | **Cisompet, Garu** | **52.80** | **72** | P | **P** | **00 32 08.1** | **+0.2** |
| **CISI** | **Cisompet, Garu** | **52.80** | **72** | *e*P | **P** | **00 32 08.4** | **+0.5** |
| | comp=Z,69nm,0.8s | | | | | | |
| **BKNI** | **Bangkinang** | **52.82** | **59** | P | **P** | **00 32 11.4** | **+3.5** |
| **BKNI** | **Bangkinang** | **52.82** | **59** | *e*P | **P** | **00 32 08.2** | **+0.3** |
| | comp=Z,342nm,1.3s | | | | | | |
| **KCSI** | **Kotacane, Aceh** | **52.87** | **53** | P | **P** | **00 32 09.3** | **+1.0** |
| **PSI** | **Prapat** | **53.12** | **55** | *e*P | **P** | **00 32 10.1** | **-0.1** |
| PSI | | | | pmax | pmax | | |
| | comp=Z,85nm,1.2s | | | | | | |
| **PSI** | **Prapat** | **53.12** | **55** | *e*P | **P** | **00 32 10.1** | **-0.1** |
| | comp=Z,85nm,1.2s | | | | | | |
| **LHMI** | **Lhok Sumawe** | **53.61** | **51** | P | **P** | **00 32 15.2** | **+1.5** |
| **LHMI** | **Lhok Sumawe** | **53.61** | **51** | *e*P | **P** | **00 32 14.0** | **+0.3** |
| | comp=Z,240nm,1.1s | | | | | | |
| **SRLM** | **Srisailam** | **53.66** | **25** | *e*P | **P** | **00 32 13.2** | **-0.7** |
| SRLM | | | | IAmb | IAmb | 00 32 14.5 | |
| | comp=Z,185nm,1.1s | | | | | | |
| SRLM | | | | *e*S | **S** | **00 39 48.9** | **+2.2** |
| SRLM | | | | IVMs_BB | IVMs_BB | 00 49 17.8 | |
| | comp=Z,1µm,24.6s | | | | | | |
| **NJS** | **Nagarjunasagar** | **54.23** | **25** | *e*P | **P** | **00 32 16.7** | **-1.3** |
| NJS | | | | IAmb | IAmb | 00 32 18.8 | |
| | comp=Z,166nm,0.9s | | | | | | |
| NJS | | | | *e*S | **S** | **00 39 58.4** | **+4.2** |
| NJS | | | | IVMs_BB | IVMs_BB | 00 49 57.4 | |
| | comp=Z,1µm,21.8s | | | | | | |
| **POO** | **Poona** | **54.39** | **19** | ⇓*i*P | **P** | **00 32 18.0** | **-1.3** |
| | comp=Z,100nm,1.0s | | | | | | |
| **BOM** | **Bombay** | **54.48** | **17** | *e*P | **P** | **00 32 20.6** | **+0.9** |
| **KLRI** | **Killari** | **54.74** | **22** | *e*P | **P** | **00 32 20.6** | **-1.2** |
| KLRI | | | | IAmb | IAmb | 00 32 22.2 | |
| | comp=Z,152nm,1.3s | | | | | | |
| KLRI | | | | *e*S | **S** | **00 40 01.2** | **0.0** |
| KLRI | | | | IVMs_BB | IVMs_BB | 00 50 26.7 | |
| | comp=Z,1µm,21.8s | | | | | | |
| **HYB** | **Hyderabad** | **54.76** | **24** | *i* P | **P** | **00 32 22.0** | **0.0** |
| **HYB** | **Hyderabad** | **54.76** | **24** | *e*P | **P** | **00 32 21.7** | **-0.3** |
| **HYBB** | **Hyderabad (bro** | **54.76** | **24** | *e*P | **P** | **00 32 20.9** | **-1.1** |
| HYBB | | | | IAmb | IAmb | 00 32 22.6 | |
| | comp=Z,256nm,1.0s | | | | | | |
| HYBB | | | | *e*S | **S** | **00 39 59.3** | **-2.2** |
| HYBB | | | | IVMs_BB | IVMs_BB | 00 49 22.3 | |
| | comp=Z,927nm,29.8s | | | | | | |
| **PCJI** | **Pacitan** | **55.10** | **75** | P | **P** | **00 32 23.2** | **-1.4** |
| **FRIM** | **Kepong** | **55.29** | **57** | ⇑P | **P** | **00 32 25.7** | **-0.2** |
| **MBWA** | **Marble Bar** | **55.42** | **94** | PFAKE | | 00 32 40.0 | +13 |
| MBWA | | | | LR | LR | | |
| | comp=Z,902nm,19.0s | | | | | | |
| **KGM** | **Kluang** | **55.62** | **59** | ⇓P | **P** | **00 32 28.8** | **+0.5** |
| **PWJI** | **Pagerwojo** | **55.70** | **75** | P | **P** | **00 32 29.1** | **+0.2** |
| **PVM** | **Polavaram** | **55.72** | **28** | *e*P | **P** | **00 32 27.7** | **-1.2** |
| PVM | | | | IAmb | IAmb | 00 32 29.9 | |
| | comp=Z,101nm,1.0s | | | | | | |
| PVM | | | | *e*S | **S** | **00 40 14.9** | **+0.6** |
| PVM | | | | IVMs_BB | IVMs_BB | 00 51 24.2 | |
| | comp=Z,844nm,18.2s | | | | | | |
| **IPM** | **Ipoh** | **55.77** | **55** | *e*P | **P** | **00 32 29.9** | **+0.5** |
| | comp=Z,243nm,1.4s | | | | | | |
| **MYKOM** | **Kota Tinggi** | **55.85** | **60** | ⇑P | **P** | **00 32 28.8** | **-1.2** |
| **SRSP** | **Sriramsagar** | **56.10** | **23** | *e*P | **P** | **00 32 29.8** | **-1.7** |
| SRSP | | | | IAmb | IAmb | 00 32 32.1 | |
| | comp=Z,120nm,1.0s | | | | | | |
| SRSP | | | | *e*S | **S** | **00 40 16.7** | **-2.6** |
| SRSP | | | | IVMs_BB | IVMs_BB | 00 51 51.6 | |
| | comp=Z,885nm,16.8s | | | | | | |
| **KULM** | **Kulim** | **56.10** | **54** | ⇓P | **P** | **00 32 32.7** | **+1.0** |
| **KULM** | **Kulim** | **56.10** | **54** | *e*P | **P** | **00 32 31.6** | **-0.1** |
| | comp=Z,94nm,1.4s | | | | | | |
| KULM | | | | LR | LR | | |
| | comp=Z,536nm,20.0s | | | | | | |
| **TRIS** | **Tristan da Cun** | **56.11** | **245** | *e*P | **P** | **00 32 32.7** | **+1.2** |
| | comp=Z,150nm,1.2s | | | | | | |
| **QSPA** | **South Pole Qui** | **56.15** | **180** | *e*P | **P** | **00 32 32.0** | **+0.4** |
| | comp=Z,349nm,1.2s | | | | | | |
| QSPA | | | | LR | LR | | |
| | comp=Z,2µm,22.0s | | | | | | |
| **RPR** | **Rampur** | **56.35** | **24** | *e*P | **P** | **00 32 32.2** | **-1.1** |
| RPR | | | | IAmb | IAmb | 00 32 33.8 | |
| | comp=Z,157nm,1.3s | | | | | | |
| RPR | | | | *e*S | **S** | **00 40 20.4** | **-2.3** |
| RPR | | | | IVMs_BB | IVMs_BB | 00 50 35.0 | |
| | comp=Z,908nm,21.8s | | | | | | |
| **BSY** | **Bisya** | **56.46** | **359** | P | **P** | **00 32 34.2** | **+0.2** |
| | SNR=8.8 | | | | | | |
| **BSY** | **Bisya** | **56.46** | **359** | P | **P** | **00 32 34.2** | **+0.2** |
| | SNR=8.8 | | | | | | |
| **PKDT** | **Phuket** | **56.52** | **50** | P | **P** | **00 32 35.9** | **+1.2** |
| | comp=Z,72nm,1.1s | | | | | | |
| **SMDO** | **Samad** | **56.77** | **0** | P | **P** | **00 32 36.2** | **-0.1** |
| | SNR=6.9 | | | | | | |
| **SMDO** | **Samad** | **56.77** | **0** | P | **P** | **00 32 36.2** | **-0.1** |
| | SNR=6.9 | | | | | | |
| **VIS** | **Vishakhapatnam** | **56.82** | **29** | *e*P | **P** | **00 32 36.6** | **0.0** |
| **GMJI** | **Gumukmas** | **56.88** | **77** | P | **P** | **00 32 36.9** | **-0.4** |
| **WSAR** | **Wadi Sarin** | **56.95** | **1** | P | **P** | **00 32 37.0** | **-0.5** |
| | comp=Z,49nm,0.8s,baz=179,slow=6.2,SNR=17 | | | | | | |
| **JAGI** | **Jajag, Banyuwa** | **57.34** | **77** | P | **P** | **00 32 40.6** | **0.0** |
| **JAGI** | **Jajag, Banyuwa** | **57.34** | **77** | *e*P | **P** | **00 32 40.6** | **0.0** |
| | comp=Z,129nm,1.2s | | | | | | |
| **TRTT** | **Trang** | **57.35** | **51** | P | **P** | **00 32 40.0** | **-0.6** |
| | comp=Z,96nm,1.3s,comp=Z,1µm | | | | | | |
| **DGPR** | **DIGLIPUR** | **57.49** | **41** | *e*P | **P** | **00 32 41.5** | **0.0** |
| DGPR | | | | AMB | AMB | 00 32 42.7 | |
| | comp=Z,129nm,0.7s | | | | | | |
| **SURT** | **Suratani** | **57.63** | **50** | P | **P** | **00 32 42.6** | **+0.1** |
| | comp=Z,27nm,1.2s | | | | | | |
| **CHLP** | **Challavanipeta** | **57.82** | **29** | *e*P | **P** | **00 32 43.3** | **-0.4** |
| CHLP | | | | IAmb | IAmb | 00 32 44.6 | |
| | comp=Z,74nm,1.0s | | | | | | |
| CHLP | | | | IVMs_BB | IVMs_BB | 00 53 53.5 | |
| | comp=Z,290nm,7.0s | | | | | | |
| **KTGM** | **Kuala Trenggan** | **57.83** | **56** | ⇓P | **P** | **00 32 44.4** | **+0.4** |
| **KMMI** | **Kalianget** | **58.01** | **76** | P | **P** | **00 32 46.5** | **+1.2** |
| **BHJ** | **Bhuj** | **58.02** | **13** | *e*P | **P** | **00 32 44.9** | **-0.2** |
| BHJ | | | | AMB | AMB | 00 32 46.3 | |
| | comp=Z,136nm,0.8s | | | | | | |
| **FORT** | **Forrest** | **58.14** | **108** | *e*P | **P** | **00 32 47.2** | **+1.2** |
| | comp=Z,930nm,0.8s | | | | | | |
| **NGP** | **Nagpur** | **58.40** | **23** | *e*P | **P** | **00 32 47.0** | **-0.8** |
| NGP | | | | AMB | AMB | 00 32 48.6 | |
| | comp=Z,97nm,1.1s | | | | | | |
| **ASHO** | **Ashiyiah** | **58.41** | **358** | *i* P | **P** | **00 32 47.3** | **-0.6** |
| | SNR=23 | | | | | | |
| **ASHO** | **Ashiyiah** | **58.41** | **358** | P | **P** | **00 32 47.7** | **-0.1** |
| | SNR=10 | | | | | | |
| **ASHO** | **Ashiyiah** | **58.41** | **358** | P | **P** | **00 32 47.7** | **-0.1** |
| | SNR=10 | | | | | | |
| ASHO | | | | P | **P** | **00 32 47.7** | **-0.1** |
| | SNR=10 | | | | | | |
| **SRBI** | **Singaraja** | **58.42** | **78** | P | **P** | **00 32 48.9** | **+0.8** |
| **RAYN** | **Ar Rayn** | **58.46** | **346** | *e*P | **P** | **00 32 48.3** | **+0.1** |
| | comp=Z,62nm,0.8s | | | | | | |
| RAYN | | | | LR | LR | | |
| | comp=Z,1µm,20.0s | | | | | | |
| **FAQ** | **Al Faqa, Dubai** | **58.49** | **357** | *i* P | **P** | **00 32 48.0** | **-0.3** |
| | SNR=16 | | | | | | |
| **HATD** | **Hatta, Dubai** | **58.55** | **358** | *i* P | **P** | **00 32 48.3** | **-0.5** |
| | SNR=12 | | | | | | |
| **UOSS** | **Minazif** | **58.67** | **358** | *e*P | **P** | **00 32 48.9** | **-0.7** |
| | comp=Z,52nm,1.1s | | | | | | |
| **NAZ** | **Nazwa, Dubai** | **58.73** | **357** | *i* P | **P** | **00 32 49.6** | **-0.4** |
| | SNR=24 | | | | | | |
| **SHEL** | **Horse Pasture** | **59.66** | **271** | PFAKE | | 00 33 10.0 | +13 |
| SHEL | | | | LR | LR | | |
| | comp=Z,682nm,20.0s | | | | | | |
| **BHPL** | **Bhopal** | **59.86** | **21** | *e*P | **P** | **00 32 57.6** | **-0.3** |
| BHPL | | | | AMB | AMB | 00 32 58.4 | |
| | comp=Z,180nm,1.6s | | | | | | |
| **VNDA** | **Vanda** | **59.97** | **166** | P | **P** | **00 32 59.0** | **+1.0** |
| | comp=Z,10nm,1.0s,baz=251,slow=8.5,SNR=20 | | | | | | |
| VNDA | | | | LR | LR | 00 57 04.0 | |
| | comp=Z,2µm,19.3s,baz=240,slow=34 | | | | | | |
| VNDA | | | | PKPPKP | **P'P'df** | **01 02 25.7** | **-4.8** |
| | comp=Z,2.0nm,1.0s,baz=167,slow=1.6,SNR=5.1 | | | | | | |
| **VNDA** | **Vanda** | **59.97** | **166** | *e*P | **P** | **00 32 59.0** | **+1.0** |
| VNDA | | | | pmax | pmax | | |
| | comp=Z,22nm,0.9s | | | | | | |
| **VNDA** | **Vanda** | **59.97** | **166** | *e*P | **P** | **00 32 59.0** | **+1.0** |
| | comp=Z,22nm,0.9s | | | | | | |
| VNDA | | | | P'P' | | 01 02 25.7 | |
| **PLAI** | **Plampang** | **60.09** | **80** | P | **P** | **00 33 00.0** | **+0.3** |
| **BWNR** | **Bhubaneshwar** | **60.15** | **30** | *e*x | P | 00 32 53.9 | -6.0 |
| **STKI** | **Sintang** | **60.38** | **67** | P | **P** | **00 33 02.7** | **+1.0** |
| **KSM** | **Kuching** | **60.40** | **65** | ⇑P | **P** | **00 33 02.2** | **+0.4** |
| **KSM** | **Kuching** | **60.40** | **65** | *e*P | **P** | **00 33 02.1** | **+0.3** |
| | comp=Z,32nm,0.9s | | | | | | |
| KSM | | | | LR | LR | | |
| | comp=Z,1µm,19.0s | | | | | | |
| **JBP** | **Jabalpur** | **60.59** | **23** | ⇓*e*P | **P** | **00 33 01.7** | **-1.1** |
| JBP | | | | *e*x | x | 00 41 09.8 | |
| **SBA** | **Scott Base** | **60.80** | **167** | *e*P | **P** | **00 33 05.9** | **+2.2** |
| SBA | | | | pmax | pmax | | |
| | comp=Z,173nm,2.0s | | | | | | |
| SBA | | | | MLR | MLR | | |
| | comp=Z,2µm,19.0s | | | | | | |
| **SBA** | **Scott Base** | **60.80** | **167** | *e*P | **P** | **00 33 05.8** | **+2.2** |
| | comp=Z,173nm,2.0s | | | | | | |
| SBA | | | | LR | LR | | |
| | comp=Z,2µm,19.0s | | | | | | |
| **PHET** | **Kaeng Krachan** | **61.18** | **48** | P | **P** | **00 33 07.3** | **+0.3** |
| | comp=Z,38nm,1.0s,comp=Z,356nm | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **61.77** | **94** | P | **P** | **00 33 10.5** | **-0.5** |
| | comp=Z,42nm,0.9s,baz=224,slow=6.9,SNR=7.3 | | | | | | |
| **KBKI** | **Kotabaru** | **61.98** | **74** | P | **P** | **00 33 12.1** | **-0.5** |
| **SRDT** | **SRDT** | **61.99** | **46** | P | **P** | **00 33 12.4** | **-0.1** |
| | comp=Z,285nm,1.0s,comp=Z,5µm | | | | | | |
| **MTKI** | **Muara Teweh, K** | **62.41** | **71** | P | **P** | **00 33 16.2** | **+0.8** |
| **SBUM** | **Sibu** | **62.48** | **66** | ⇑P | **P** | **00 33 15.5** | **-0.4** |
| **BOK** | **Bokaro** | **63.30** | **29** | *e*P | **P** | **00 33 21.0** | **-0.1** |
| **EDFI** | **Ende, Flores** | **63.34** | **82** | P | **P** | **00 33 21.9** | **+0.1** |
| **BBOO** | **Buckleboo** | **63.54** | **113** | *e*P | **P** | **00 33 23.2** | **+0.5** |
| | comp=Z,34nm,1.3s | | | | | | |
| **MMRI** | **Maumere** | **63.86** | **83** | P | **P** | **00 33 25.1** | **0.0** |
| **MMRI** | **Maumere** | **63.86** | **83** | *e*P | **P** | **00 33 25.5** | **+0.4** |
| | comp=Z,203nm,1.0s | | | | | | |
| **KAPI** | **Kappang** | **63.86** | **78** | *e*P | **P** | **00 33 24.5** | **-0.6** |
| | comp=Z,58nm,1.2s | | | | | | |
| KAPI | | | | LR | LR | | |
| | comp=Z,418nm,21.0s | | | | | | |
| **KAPI** | **Kappang** | **63.86** | **78** | P | **P** | **00 33 24.4** | **-0.7** |
| | SNR=9.6 | | | | | | |
| **KAPI** | **Kappang** | **63.86** | **78** | P | **P** | **00 33 24.4** | **-0.7** |
| | SNR=9.6 | | | | | | |
| KAPI | | | | P | **P** | **00 33 24.4** | **-0.7** |
| | SNR=9.6 | | | | | | |
| **SPSI** | **Sidrap Palu** | **64.48** | **77** | P | **P** | **00 33 28.2** | **-1.0** |
| **BNSI** | **Bone** | **64.50** | **77** | P | **P** | **00 33 29.8** | **+0.5** |
| **SOEI** | **Soe** | **64.92** | **85** | P | **P** | **00 33 32.5** | **+0.3** |
| **SOEI** | **Soe** | **64.92** | **85** | *e*P | **P** | **00 33 32.0** | **-0.1** |
| | comp=Z,66nm,1.0s | | | | | | |
| **TTSI** | **Tana Toraja** | **65.06** | **76** | P | **P** | **00 33 32.9** | **0.0** |
| **CM01** | **Chiang Mai Arr** | **65.11** | **43** | *e*P | **P** | **00 33 31.6** | **-1.4** |
| **CM31** | **Chiang Mai Arr** | **65.13** | **43** | *e*P | **P** | **00 33 33.4** | **+0.2** |
| **CMAR** | **Chiang Mai Arr** | **65.13** | **43** | P | **P** | **00 33 32.9** | **-0.3** |
| | comp=Z,105nm,0.8s,baz=231,slow=7.1,SNR=322 | | | | | | |
| CMAR | | | | LR | LR | 00 57 02.8 | |
| | comp=Z,985nm,21.1s,baz=189,slow=32 | | | | | | |
| **CHTO** | **Chiang Mai** | **65.41** | **43** | *e*P | **P** | **00 33 34.4** | **-0.6** |
| CHTO | | | | pmax | pmax | | |
| | comp=Z,77nm,1.0s | | | | | | |
| CHTO | | | | MLR | MLR | | |
| | comp=Z,1µm,20.0s | | | | | | |
| **CHTO** | **Chiang Mai** | **65.41** | **43** | *e*P | **P** | **00 33 34.4** | **-0.6** |
| | comp=Z,77nm,1.0s | | | | | | |
| CHTO | | | | LR | LR | | |
| | comp=Z,1µm,20.0s | | | | | | |
| **CHTO** | **Chiang Mai** | **65.41** | **43** | P | **P** | **00 33 34.4** | **-0.6** |
| | SNR=18 | | | | | | |
| **CHTO** | **Chiang Mai** | **65.41** | **43** | P | **P** | **00 33 34.4** | **-0.6** |
| | SNR=18 | | | | | | |
| CHTO | | | | P | **P** | **00 33 34.4** | **-0.6** |
| | SNR=18 | | | | | | |
| **BBSI** | **Bau Bau** | **65.89** | **80** | P | **P** | **00 33 40.1** | **+1.8** |
| **ASAR** | **Alice Springs** | **65.90** | **103** | P | **P** | **00 33 38.2** | **-0.1** |
| | comp=Z,79nm,0.7s,baz=236,slow=5.9,SNR=769 | | | | | | |
| ASAR | | | | LR | LR | 00 58 14.9 | |
| | comp=Z,411nm,19.5s,baz=250,slow=32 | | | | | | |
| ASAR | | | | PKPPKP | **P'P'df** | **01 02 12.3** | **-6.0** |
| | comp=Z,3.0nm,1.1s,baz=61,slow=3.1,SNR=4.2 | | | | | | |
| **AS31** | **Alice Springs** | **65.90** | **103** | *e*P | **P** | **00 33 38.0** | **-0.4** |
| | comp=Z,32nm,0.6s | | | | | | |
| **AS01** | **Alice Springs** | **65.94** | **103** | *e*P | **P** | **00 33 37.6** | **-1.0** |
| **KOLN** | **Koldanda** | **66.06** | **25** | ⇓*i*P | **P** | **00 33 38.4** | **-0.9** |
| | comp=Z,970nm,1.1s | | | | | | |
| **PYUN** | **Piuthan** | **66.15** | **24** | ⇓*i*P | **P** | **00 33 38.9** | **-1.0** |
| | comp=Z,1µm,0.9s | | | | | | |
| **RAMN** | **Ramite** | **66.42** | **28** | ⇓*i*P | **P** | **00 33 41.2** | **-0.4** |
| | comp=Z,950nm,0.9s | | | | | | |
| **DMN** | **Daman** | **66.45** | **26** | ⇓*i*P | **P** | **00 33 40.9** | **-0.9** |
| | comp=Z,552nm,0.9s | | | | | | |
| **PKI** | **Pulchoki** | **66.53** | **26** | ⇓*i*P | **P** | **00 33 41.2** | **-1.2** |
| | comp=Z,382nm,1.3s | | | | | | |
| **PKIN** | **Phulchoki** | **66.53** | **26** | ⇓*i*P | **P** | **00 33 41.1** | **-1.2** |
| | comp=Z,136nm,0.9s | | | | | | |
| **GKN** | **Gorkha** | **66.64** | **26** | *e*P | **P** | **00 33 41.9** | **-1.0** |
| | comp=Z,15nm,0.7s | | | | | | |
| **ODAN** | **Odare** | **66.64** | **28** | ⇓*i*P | **P** | **00 33 42.5** | **-0.6** |
| | comp=Z,685nm,0.9s | | | | | | |
| **DANN** | **Dangsing** | **66.65** | **25** | *e*P | **P** | **00 33 42.2** | **-0.9** |
| | comp=Z,32nm,0.8s | | | | | | |
| **KKN** | **Kakani** | **66.68** | **26** | ⇓*i*P | **P** | **00 33 42.3** | **-0.9** |
| | comp=Z,589nm,1.1s | | | | | | |
| **DDI** | **Dehra Dun** | **66.73** | **19** | *e*P | **P** | **00 33 42.4** | **-0.9** |
| DDI | | | | AMB | AMB | 00 33 43.4 | |
| | comp=Z,209nm,1.2s | | | | | | |
| **JIRN** | **Jiri** | **66.90** | **27** | ⇓*i*P | **P** | **00 33 44.0** | **-0.8** |
| | comp=Z,3µm,1.1s | | | | | | |

GUN Gumba 67.01 27⇓ *i* P P 00 33 44.9 -0.6
comp=Z,834nm,0.9s
MPSI Mapaga 67.14 73 P P 00 33 45.7 -0.6
TAPN Taplejung 67.21 29⇓ *i* P P 00 33 46.1 -0.6
comp=Z,582nm,1.2s
SMLA Simla 67.27 18 *e* P P 00 33 45.6 -1.0
NONG Nongkai 67.29 47 P P 00 33 49.4 +2.4
comp=Z,478nm,0.9s,comp=Z,14μm
SHL Shillong 67.42 33⇓ *i* P P 00 33 50.0 +2.1
APSI Ampana 67.79 75 P P 00 33 50.2 -0.2
WRA Warramunga Arr 68.04 100 P P 00 33 51.9 -0.1
comp=Z,130nm,0.9s,baz=239,slow=5.4,SNR=396
WRA LR LR 00 59 38.3
comp=Z,276nm,20.4s,baz=250,slow=32
WRA PKP2bc 01 02 13.4
comp=Z,2.2nm,0.9s,baz=65,slow=3.3,SNR=7.2
WB2 Warramunga Arr 68.05 100 *e* P P 00 33 52.0 -0.1
comp=Z,138nm,0.9s
WRAB Tennant Creek 68.05 100 *d* *i* P P 00 33 50.6 -1.5
WRAB pmax pmax
comp=Z,129nm,0.9s
WRAB Tennant Creek 68.05 100 *e* P P 00 33 52.0 -0.1
comp=Z,130nm,0.8s
WRAB LR LR
comp=Z,317nm,19.0s
DHRM DHARAMSHALA 68.13 17 *e* P P 00 33 51.5 -0.8
STKA Stephens Creek 68.16 114 P P 00 33 52.9 +0.3
comp=Z,35nm,0.8s,baz=254,slow=5.1,SNR=59
STKA LR LR 00 57 48.7
comp=Z,342nm,20.0s,baz=227,slow=31
STKA Stephens Creek 68.16 114 *e* P P 00 33 52.9 +0.3
STKA pmax pmax
comp=Z,9.0nm,0.9s
STKA Stephens Creek 68.16 114 *e* P P 00 33 52.9 +0.3
comp=Z,9.1nm,0.9s
THN Thein Dam 68.17 16 *e* P P 00 33 50.4 -1.8
SDKM Sandakan 68.32 67 ⇓P P 00 33 53.1 -0.6
LUWI Luwuk 68.62 76 P P 00 33 55.7 +0.1
LUWI Luwuk 68.62 76 *e* P P 00 33 56.0 +0.4
comp=Z,124nm,1.1s
MRSI Marisa 68.85 74 P P 00 33 54.9 -2.1
KDM Kudat 68.86 66 ⇑P P 00 33 56.8 -0.2
KBL Kabul 68.98 10 *e* P P 00 33 57.7 +0.1
KBL pmax pmax
comp=Z,84nm,1.0s
KBL Kabul 68.98 10 *e* P P 00 33 57.7 +0.1
comp=Z,84nm,1.0s
MTN Manton Dam 68.98 92 *e* P P 00 33 57.6 -0.2
comp=Z,63nm,0.9s
MYLDM Lahad Datu 69.03 68 ⇑P P 00 33 58.1 0.0
MYLDM Lahad Datu 69.03 68 *e* P P 00 33 58.9 +0.8
comp=Z,129nm,1.9s
SHBL Chebaa 70.22 340 *e* P P 00 34 06.1 +0.9
KMSI Cibinong 70.54 76 P P 00 34 11.7 +4.2
DQRL Deir Qamar 70.60 340 *e* P P 00 34 08.7 +1.2
SANI Sanana 70.64 79 P P 00 34 07.4 -0.7
LSA Lhasa 70.69 30 *e* P P 00 34 08.6 +0.1
LSA pmax pmax
comp=Z,175nm,0.9s
LSA MLR MLR
comp=Z,2μm,21.0s
LSA Lhasa 70.69 30 *e* P P 00 34 08.6 +0.1
comp=Z,175nm,0.9s
LSA LR LR
comp=Z,2μm,21.0s
BHL Bhannes 70.77 340 *e* P P 00 34 09.3 +0.8
BEYL Beirut 70.78 340 *e* P P 00 34 08.6 +0.2
NLAI Namlea 70.87 81 P P 00 34 08.3 -1.2
ASCN Ascension 71.03 273 PFAKE 00 34 20.0 +10
ASCN LR LR
comp=Z,410nm,19.0s
TOA0 Torodi Ar. Sit 71.19 301 *e* P P 00 34 11.6 +0.3
TORD Torodi Ar. Bea 71.19 301 P P 00 34 11.6 +0.3
comp=Z,62nm,0.8s,baz=125,slow=5.5,SNR=314
TORD LR LR 01 05 55.8
comp=Z,340nm,18.1s,baz=130,slow=36
KIC Kosan Boka 71.56 291 *e* PKP1 P 00 34 16.1 +2.4
comp=Z,27nm,0.8s
GEYT Alibeck 71.59 0 P P 00 34 12.9 -0.3
comp=Z,28nm,0.8s,baz=221,slow=3.4,SNR=39
GEYT LR LR 01 03 05.3
comp=Z,720nm,19.6s,baz=230,slow=34
PMSA Palmer Station 71.69 202 PFAKE 00 34 20.0 +6.4
PMSA LR LR
comp=Z,1μm,19.0s
LIC Lamto 71.70 291 *e* PKP1 P 00 34 16.9 +2.4
comp=Z,52nm,1.0s
DBIC Dimbokro 71.85 291 P P 00 34 16.4 +1.1
comp=Z,17nm,1.0s,baz=113,slow=7.1,SNR=11
DBIC LR LR 01 04 24.8
comp=Z,358nm,19.1s,baz=120,slow=35
DBIC Dimbokro 71.85 291 *e* P P 00 34 17.0 +1.6
DBIC pmax pmax
comp=Z,90nm,1.7s
DBIC Dimbokro 71.85 291 *e* P P 00 34 16.9 +1.6
comp=Z,90nm,1.7s
TIC Toumodi 71.96 291 *e* PKP1 P 00 34 17.0 +1.0
CAN Canberra 71.99 121 *e* P P 00 34 17.3 +1.3
CAN pmax pmax
comp=Z,42nm,0.9s
CAN MLR MLR
comp=Z,443nm,19.0s
CAN Canberra 71.99 121 *e* P P 00 34 17.3 +1.3
comp=Z,42nm,0.9s
CAN LR LR
comp=Z,443nm,19.0s
QIZ Qiongzhong 72.22 51 P P 00 34 17.6 +0.2
QIZ sP pP 00 34 22.8 -1.7
QIZ PP PP 00 36 58.2 -0.1
QIZ S S 00 43 41.2 +2.1
QIZ SS SS 00 48 20.3 +2.8
QIZ pmax pmax
comp=Z,130nm,4.5s
QIZ LR LR
comp=Z,1μm,13.1s
QIZ LR LR
comp=Z,2μm,15.9s
QIZ Qiongzhong 72.22 51 PFAKE 00 34 30.0 +13
QIZ LR LR
comp=Z,2μm,19.0s
CSS Mathiatis 72.43 339 *e* P P 00 34 18.6 +0.3
comp=Z,27nm,1.1s
CSS LR LR
comp=Z,242nm,21.0s
CSS Mathiatis 72.43 339 P P 00 34 18.6 +0.3
BNDI Bandanaira 72.46 84 P P 00 34 29.3 +10
KMI Kunming 72.54 42 P P 00 34 19.3 -0.2
KMI pP pP 00 34 25.1 -1.5
KMI sP sP 00 34 26.6 -2.7
KMI PP PP 00 37 01.3 0.0
KMI S S 00 43 41.8 -1.2
KMI SS SS 00 48 26.6 +3.9
KMI pmax pmax
comp=Z,76nm,1.2s
KMI LR LR
comp=Z,2μm,16.5s
KMI LR LR
comp=Z,1μm,13.1s
KMI LR LR
comp=Z,1μm,17.6s
LBMI Labuha 72.69 79 P P 00 34 20.3 -0.1
MARD Mardin 72.77 346 *e* P P 00 34 21.3 +0.8
comp=Z,104nm,1.2s
GULN MERSIN_Gulnar 73.50 340 *i* P P 00 34 19.8 -4.8
ERMK Ermenek 74.11 339 *i* P P 00 34 28.4 -0.1
KSL Kastellorizon 74.70 336 P P 00 34 31.7 +0.1
KSL Kastellorizon 74.70 336 P P 00 34 31.7 +0.1
AKAS Kas 74.77 336 *i* P P 00 34 31.4 -0.8
AKAS Kas 74.77 336 *e* P P 00 34 32.4 +0.2
comp=Z,82nm,1.0s
GNI Garni 74.82 349 P P 00 34 33.4 +0.9
comp=Z,89nm,1.1s,baz=174,slow=2.7,SNR=30
GNI Garni 74.82 349 *i* P P 00 34 33.6 +1.2
SNR=16
GNI Garni 74.82 349 *d* *i* P P 00 34 33.4 +0.9
GNI pmax pmax
comp=Z,922nm,1.7s
GNI Garni 74.82 349 *e* P P 00 34 33.6 +1.2
comp=Z,273nm,1.3s
GNI LR LR
comp=Z,2μm,22.0s
GNI Garni 74.82 349 P P 00 34 33.7 +1.2
SNR=19
GNI Garni 74.82 349 P P 00 34 33.7 +1.2
SNR=19
GNI P P 00 34 33.7 +1.2
SNR=19
KARP Karpathos 75.00 334 *e* P P 00 34 34.2 +0.8
comp=Z,103nm,1.0s
KARP Karpathos 75.00 334 P P 00 34 34.0 +0.6
KSH Kashi 75.03 14 P P 00 34 31.1 -2.6
KSH pP pP 00 34 36.9 -3.9
KSH PcP PcP 00 34 46.2 -1.1
KSH PP PP 00 37 22.3 +0.1
KSH S S 00 44 03.9 -6.4
KSH ScS SKSac 00 44 36.7 -4.5
KSH SS SS 00 48 53.4 -6.7
KSH pmax pmax
comp=Z,200nm,0.7s
KSH LR LR
comp=Z,270nm,6.8s
KSH LR LR
comp=Z,460nm,6.9s
KSH LR LR
comp=Z,1μm,15.3s
KORT Korkueli 75.23 337 *i* P P 00 34 34.6 -0.3
ARG Arkhangelos 75.26 335 P P 00 34 35.4 +0.6
ARG Arkhangelos 75.26 335 P P 00 34 35.4 +0.6
ARG Arkhangelos 75.26 335 P P 00 34 35.4 +0.6
LAST Lasithi 75.27 333 P P 00 34 35.9 +0.8
LAST Lasithi 75.27 333 P P 00 34 35.9 +0.8
FAKI Fak Fak 75.29 84 P P 00 34 36.1 +0.4
FAKI Fak Fak 75.29 84 *e* P P 00 34 36.0 +0.4
comp=Z,73nm,0.9s
FETY Fethiye 75.31 336 P P 00 34 35.4 +0.2
FETY Fethiye 75.31 336 P P 00 34 35.4 +0.2
NPS Neapolis 75.31 333 P P 00 34 35.9 +0.7
NPS Neapolis 75.31 333 P P 00 34 35.9 +0.7
NPS Neapolis 75.31 333 P P 00 34 35.9 +0.7
KMER Konya-Meram 75.32 339 *i* P P 00 34 35.0 -0.3
SIVA Sivas 75.40 332 P P 00 34 36.2 +0.5
SIVA Sivas 75.40 332 P P 00 34 36.2 +0.5
TAM Tamanrasset 75.41 311 *e* P P 00 34 37.3 +1.0
TAM pmax pmax
comp=Z,72nm,1.8s
TAM MLR MLR
comp=Z,1μm,20.0s
TAM Tamanrasset 75.41 311 *e* P P 00 34 37.3 +1.0
comp=Z,72nm,1.8s
TAM LR LR
comp=Z,1μm,20.0s
KOPT Kop Dagi 75.44 346 *e* P P 00 34 37.5 +1.3
comp=Z,123nm,1.2s
KONT Konya--Tatoy 75.48 339 *i* P P 00 34 35.9 -0.2
GVD Gavdhos 75.53 332 P P 00 34 36.7 +0.3
GVD Gavdhos 75.53 332 P P 00 34 36.7 +0.3
IDI Anoyia 75.61 332 P P 00 34 37.6 +0.6
IDI Anoyia 75.61 332 P P 00 34 37.6 +0.6
DALY Dalyan (Mu¨la 75.62 336 *i* P P 00 34 36.3 -0.6
TURN Turunc 75.69 336 *i* P P 00 34 35.8 -1.5
GOLH Golhisar 75.70 337 *i* P P 00 34 38.1 +0.5
DAV Davao City (W) 75.71 71 PFAKE 00 34 50.0 +12
DAV LR LR
comp=Z,427nm,19.0s
GYA Guiyang 75.80 44⇓ *i* P P 00 34 37.6 -0.8
GYA PcP pP 00 34 45.0 -0.5
GYA PP PP 00 34 32.8 +4.0
GYA S S 00 44 22.2 +2.9
GYA SKS SKSac 00 44 45.6 -2.0
GYA SS SS 00 49 17.5 +5.4
GYA pmax pmax
comp=Z,70nm,1.0s
GYA pmax pmax
comp=Z,160nm,5.9s
GYA LR LR
comp=Z,6μm,19.4s
GYA LR LR
comp=Z,4μm,20.1s
GYA LR LR
comp=Z,6μm,20.9s
DOGA KONYA_Doganhis 75.84 339 *i* P P 00 34 37.8 -0.5
DDFL Dedoflistskaro 75.90 351 P P 00 34 40.4 +1.9
ISP Isparta 75.93 338 PFAKE 00 34 50.0 +11
ISP LR LR
comp=Z,417nm,19.0s
BRDR BURDUR-Merkez 75.96 337 *i* P P 00 34 38.1 -0.8
VAM Vamos 75.98 332 P P 00 34 39.6 +0.6
VAM Vamos 75.98 332 P P 00 34 39.6 +0.6
VAM Vamos 75.98 332 P P 00 34 39.6 +0.6
BAGO Egridir - ISPA 76.00 338 *i* P P 00 34 35.8 -3.4
BGD Bogdanovka 76.09 349 P P 00 34 40.7 +0.9
IMMV Iera Moni Meta 76.11 332 P P 00 34 40.2 +0.4
TAVA DENIZLI_Tavas 76.12 336 *i* P P 00 34 40.0 +0.1
KOWA Kowa 76.21 298 *e* P P 00 34 41.5 +0.7
comp=Z,73nm,1.1s
AKH Akhalkalaki 76.25 349 P P 00 34 41.5 +0.8
AKH Akhalkalaki 76.25 349⇑ *i* P P 00 34 41.8 +1.1
AKH Akhalkalaki 76.25 349 P P 00 34 41.4 +0.8
BDRM Kayabasi 76.26 335 *i* P P 00 34 39.6 -1.0
ARTV Artvin 76.30 348 *e* P P 00 34 41.8 +0.8
comp=Z,73nm,1.2s
BODT Bodrum 76.30 335 P P 00 34 40.4 -0.4
BODT Bodrum 76.30 335 P P 00 34 40.4 -0.4
SANT Santorini 76.35 333 *e* P P 00 34 40.8 -0.4
comp=Z,321nm,1.3s
SANT LR LR
comp=Z,286nm,19.0s
THR6 Thira Island, 76.36 333 P P 00 34 40.9 -0.3
THR6 Thira Island, 76.36 333 P P 00 34 40.9 -0.3
TBLG Delisi 76.37 350 P P 00 34 41.4 +0.3
TBLG Delisi 76.37 350 P P 00 34 41.4 +0.3
TGY Tagaytay City 76.57 63 LR LR 01 05 56.2
comp=Z,374nm,19.7s,baz=182,slow=34
IUG Iuzhnay 76.60 9 *i* P P 00 34 41.0 -1.5
comp=Z,1μm,0.9s
TOKA Tokat 76.61 343 *e* P P 00 34 43.6 +1.1
comp=Z,103nm,1.1s
BOLV Bolvadin 76.62 339 *e* P P 00 34 42.5 -0.2
comp=Z,96nm,1.1s
AYDN Tasoluk 76.64 336 *i* P P 00 34 43.1 +0.2
CHM Chimkent 76.71 9 *i* P P 00 34 41.8 -1.3
comp=Z,3μm,0.9s
ANKY Antikythira Is 76.74 332 P P 00 34 44.0 +0.7
ANKY Antikythira Is 76.74 332 P P 00 34 44.0 +0.7
KHAL Karahalli 76.75 337 *i* P P 00 34 42.3 -1.2
BR131 Keskin Array S 76.78 341 *e* P P 00 34 43.3 -0.4
BRTR Keskin Array B 76.78 341 P P 00 34 43.2 -0.4
comp=Z,46nm,0.9s,baz=168,slow=7.6,SNR=192
BRTR PP PP 00 37 38.2 +1.3
comp=Z,2.4nm,0.8s,baz=159,slow=12,SNR=6.4
BRTR LR LR 01 07 16.3
comp=Z,129nm,18.2s,baz=142,slow=35
GCAM G?zelcaml? 76.90 335 *i* P P 00 34 44.1 0.0
APE Apeiranthos 76.94 334⇓ *i* P P 00 34 44.6 0.0
APE Apeiranthos 76.94 334⇓ *i* P P 00 34 44.5 0.0
APE pmax pmax
comp=Z,105nm,0.8s
MHLO Agia Marina, M 77.03 333 P P 00 34 44.4 -0.5
BR231 Keskin MP Arra 77.12 340 *e* P P 00 34 45.6 +0.1
GUDG Gudauri 77.13 350 P P 00 34 46.2 +0.5
AML Almayashu 77.14 12 P P 00 34 46.4 +0.4
SNR=46
ANTO Ankara 77.14 340 *e* P P 00 34 45.7 +0.1
ANTO pmax pmax
comp=Z,90nm,1.0s
ANTO MLR MLR
comp=Z,551nm,20.0s
ANTO Ankara 77.14 340 *e* P P 00 34 45.7 +0.1
comp=Z,90nm,1.0s
ANTO LR LR
comp=Z,551nm,20.0s
MANT Manisa 77.17 337 *i* P P 00 34 46.5 +0.6
MANT Manisa 77.17 337 *e* P P 00 34 46.6 +0.6
comp=Z,350nm,1.1s
KYTH Kithira 77.18 332 P P 00 34 46.1 +0.2
KYTH Kithira 77.18 332 P P 00 34 46.1 +0.2
MAK Makhachkala 77.22 352 *e* P P 00 34 46.1 +0.3
MAK *e* 00 37 37.6
MAK *e* PPP PPP 00 39 29.0
MAK *e* S S 00 44 32.4 -1.5
MAK *e* SS SS 00 49 34.9 +2.1
MAK pmax pmax
comp=Z,427nm,1.8s
MAK MLR MLR
comp=Z,418nm,17.0s
DGB ¨zmir 77.34 335 *i* P P 00 34 47.1 +0.5
UCH Uchtor 77.37 12 P P 00 34 47.7 +0.4
SNR=46
ESKT Eskisehir 77.39 339 *i* P P 00 34 46.2 -0.8
ONI Oni 77.41 349 P P 00 34 47.4 +0.4
ONI Oni 77.41 349 P P 00 34 47.4 +0.4
GDZ Gediz 77.41 338 *i* P P 00 34 46.5 -0.7
BRLS Borolday 77.44 9 *i* P P 00 34 43.9 -3.2
comp=Z,83nm,1.1s
ZEI Tsey 77.53 349 *e* P P 00 34 44.7 -3.2
ZEI pmax pmax
comp=Z,74nm,0.9s
CTA Charters Tower 77.61 106 P P 00 34 48.9 +0.1
comp=Z,30nm,0.9s,baz=241,slow=6.4,SNR=26
CTAO Charters Tower 77.61 106 *e* P P 00 34 49.5 +0.7
CTAO pmax pmax
comp=Z,47nm,1.0s
CTAO MLR MLR
comp=Z,798nm,20.0s
CTAO Charters Tower 77.61 106 *e* P P 00 34 49.5 +0.7
comp=Z,47nm,1.0s
CTAO LR LR
comp=Z,798nm,20.0s
CD2 Chengdu 77.66 39⇓ *i* P P 00 34 47.6 -1.1
CD2 pP pP 00 34 55.9 0.0
CD2 PP PP 00 37 42.3 -2.1
CD2 S S 00 44 37.9 -1.5
CD2 SS SS 00 49 46.8 +6.8
CD2 pmax pmax
comp=Z,180nm,1.1s
CD2 pmax pmax
comp=Z,470nm,10.6s
CD2 LR LR
comp=Z,2μm,15.5s
CD2 LR LR
comp=Z,2μm,13.1s
CD2 LR LR
comp=Z,3μm,14.3s
EKS2 Erkin-Say 77.67 12 P P 00 34 49.5 +0.9
SNR=101
GROC Groznyy 77.67 351 *e* P P 00 34 47.4 -0.9
GROC *e* 00 34 57.2
GROC pmax pmax
comp=Z,288nm,1.1s
ULHL Ulahol 77.72 14 P P 00 34 49.5 +0.6
SNR=49
CHVG Ch'k'valeri 77.76 348 P P 00 34 49.5 +0.6
AAK Ala-Archa 77.77 12 P P 00 34 50.0 +0.9
comp=Z,128nm,1.1s,baz=173,slow=4.6,SNR=102
AAK Ala-Archa 77.77 12 *d* *i* P P 00 34 50.0 +0.9
AAK pmax pmax
comp=Z,207nm,1.3s
AAK Ala-Archa 77.77 12 P P 00 34 50.0 +0.9
SNR=80
AAK Ala-Archa 77.77 12 PFAKE 00 35 00.0 +11
AAK LR LR
comp=Z,1μm,19.0s
AAK Ala-Archa 77.77 12 P P 00 34 50.0 +0.9
SNR=63
AAK Ala-Archa 77.77 12 P P 00 34 50.0 +0.9
SNR=63
KBK Karagaybulak 77.87 13 P P 00 34 50.4 +0.7
SNR=54
FRU Bishkek 77.98 12 *e* P P 00 34 51.5 +1.3
FRU pmax pmax
comp=Z,500nm,2.0s
EFI East Falkland 77.98 215 PFAKE 00 35 00.0 +10
EFI LR LR
comp=Z,1μm,20.0s
ILGA Ilgaz 78.00 341 *e* P P 00 34 51.1 +0.5
comp=Z,76nm,1.1s
CHMS Chumysh 78.16 12 P P 00 34 50.9 -0.3
SNR=60
NEY Neytrino 78.17 349 *d* *i* P P 00 34 52.2 +0.8
NEY pmax pmax
comp=Z,21nm,0.9s
TKM2 Tokmak 2 78.24 13 P P 00 34 52.0 +0.2
SNR=65
PYL PYLOS 78.25 331 P P 00 34 51.4 -0.3
PYL PYLOS 78.25 331 P P 00 34 51.4 -0.3
NCK Nalchik 78.27 349⇓ *i* P P 00 34 52.1 +0.4
NCK pmax pmax
comp=Z,113nm,1.0s
VLY Voula,Athens 78.28 333 P P 00 34 51.6 -0.3
VLY Voula,Athens 78.28 333 P P 00 34 51.6 -0.3
USP Ospenovka 78.38 12 P P 00 34 52.7 +0.4
SNR=65
ATHU Athens Univers 78.39 333 P P 00 34 52.1 -0.4
ATHU Athens Univers 78.39 333 P P 00 34 52.1 -0.4
VLX Vlachokerasia 78.41 332 P P 00 34 53.2 +0.5
VLX Vlachokerasia 78.41 332 P P 00 34 53.2 +0.5
ITM Ithomi 78.42 331 P P 00 34 51.9 -0.8
ITM Ithomi 78.42 331 P P 00 34 51.9 -0.8
PTL Penteli 78.43 333 P P 00 34 52.5 -0.2
PTL Penteli 78.43 333 P P 00 34 52.5 -0.2
KBZ Khabaz 78.61 349 P P 00 34 54.0 +0.5
comp=Z,57nm,1.0s,baz=232,slow=2.6,SNR=52
KBZ LR LR 01 08 14.9
comp=Z,966nm,19.5s,baz=173,slow=35
KBZ Khabaz 78.61 349 P P 00 34 54.0 +0.5
PRK Paraskevi 78.62 335 P P 00 34 54.1 +0.4
PRK Paraskevi 78.62 335 P P 00 34 54.1 +0.4
PRK Paraskevi 78.62 335 P P 00 34 54.1 +0.4
EREA Eretria 78.73 333 P P 00 34 54.1 -0.3
VILL Villia 78.74 333 P P 00 34 54.2 -0.3
LTK Loutraki 78.75 332 P P 00 34 53.6 -0.9
LTK Loutraki 78.75 332 P P 00 34 53.6 -0.9
MDOK Medeo 78.76 14 *i* P P 00 34 52.1 -2.6
comp=Z,814nm,0.7s
MDOK LRM MLR 01 09 10.8
comp=Z,384nm,16.7s
KVAR Kislovodsk Arr 78.86 349 P P 00 34 55.3 +0.2
comp=Z,88nm,0.8s,baz=179,slow=1.1,SNR=76
KIV Kislovodsk 78.86 349 *i* P P 00 34 55.3 +0.2
SNR=47
KIV Kislovodsk 78.86 349 *d* *i* P P 00 34 55.1 0.0
KIV *i* 00 35 03.5
KIV *e* 00 37 52.8
KIV *e* S S 00 44 57.2 +5.4
KIV *e* SS SS 00 49 58.1 +0.3
KIV pmax pmax
comp=Z,191nm,1.0s
KIV Kislovodsk 78.86 349 *e* P P 00 34 55.2 +0.2
comp=Z,156nm,0.9s
KIV LR LR
comp=Z,894nm,20.0s
THAL Thalero 78.88 332 P P 00 34 54.9 -0.3
GUR Goura 78.91 332 P P 00 34 55.2 -0.3
GUR Goura 78.91 332 P P 00 34 55.2 -0.3
SOC Sochi 79.03 347 *e* P P 00 34 54.9 -1.0
SOC *e* 00 37 55.2
SOC *e* S S 00 44 50.8 -2.6
SOC pmax pmax
comp=Z,74nm,1.0s
SOC MLR MLR
comp=Z,1μm,16.0s
KLV Kalavryta, Ach 79.08 332 P P 00 34 56.3 -0.1
KLV Kalavryta, Ach 79.08 332 P P 00 34 56.3 -0.1
EZN Ezine 79.12 336 P P 00 34 56.4 0.0
EZN Ezine 79.12 336 P P 00 34 56.4 0.0
EZN Ezine 79.12 336 P P 00 34 56.4 0.0
UZB Uzynbulak 79.16 15 *i* P P 00 34 54.1 -2.7
comp=Z,2μm,1.0s
DRO Drossia 79.18 332 P P 00 34 57.7 +0.9
DSF Desfina 79.25 332 P P 00 34 56.7 -0.6
DSF Desfina 79.25 332 P P 00 34 56.7 -0.6
SHLS Shalkode 79.27 16 *i* P P 00 34 56.5 -0.9
comp=Z,2μm,1.0s
KUU Kurty 79.32 13 *i* P P 00 34 55.2 -2.3
comp=Z,472nm,1.1s
RLS Riolos of Patr 79.36 331 P P 00 34 58.7 +0.9
RLS Riolos of Patr 79.36 331 P P 00 34 58.7 +0.9
KALE Kalithea 79.39 332 P P 00 34 58.1 +0.1
KALE Kalithea 79.39 332 P P 00 34 58.1 +0.1
KPKS Kokpek 79.39 15 *e* P P 00 34 55.8 -2.2
comp=Z,2μm,0.9s
SERG Sergoula 79.44 332 P P 00 34 58.6 +0.3
EFP Efpalio 79.51 332 P P 00 34 59.0 +0.4
LIA Limnos Island 79.58 335 P P 00 34 58.7 -0.2
LIA Limnos Island 79.58 335 P P 00 34 58.7 -0.2
ANX Ano Chora 79.65 332 P P 00 34 59.5 0.0
NEO Neokhori 79.77 333 P P 00 34 58.6 -1.5
NEO Neokhori 79.77 333 P P 00 34 58.6 -1.5
VLS Valsamata 79.82 331 P P 00 35 00.5 +0.2
VLS Valsamata 79.82 331 P P 00 35 00.5 +0.2
VLS Valsamata 79.82 331 P P 00 35 00.5 +0.2
XOR Xorichti 79.83 333 P P 00 34 59.6 -0.8
XOR Xorichti 79.83 333 P P 00 34 59.6 -0.8
AGG Agios Georgios 79.86 332 *e* P P 00 35 00.4 -0.2

AGG pmax pmax
comp=Z,229nm,1.0s
**AGG Agios Georgios 79.86 332** *e*P **P 00 35 00.4 -0.2**
comp=Z,228nm,1.0s
**AGG Agios Georgios 79.86 332** P **P 00 35 00.1 -0.5**
**GOF Gofitskoye 79.88 349**⇓*i*P **P 00 35 00.3 -0.2**
GOF pmax pmax
comp=Z,248nm,0.9s
**PDO Prodromos 79.94 331** P **P 00 35 01.6 +0.6**
**EVR Evrytania 79.97 332** P **P 00 35 01.8 +0.5**
**EVR Evrytania 79.97 332** P **P 00 35 01.8 +0.5**
**PAIG Paliouri 80.15 334** P **P 00 35 01.6 -0.4**
**PAIG Paliouri 80.15 334** P **P 00 35 01.6 -0.4**
**PAIG Paliouri 80.15 334** P **P 00 35 01.6 -0.4**
**ALN Alexandroupoli 80.17 336** P **P 00 35 01.8 -0.3**
**ALN Alexandroupoli 80.17 336** P **P 00 35 01.8 -0.3**
**ALN Alexandroupoli 80.17 336** P **P 00 35 01.8 -0.3**
**ENH Enshi 80.30 43** *e*P **P 00 35 03.1 -0.1**
comp=Z,266nm,1.4s
ENH LR LR
comp=Z,1μm,21.0s
**DSL Palaion Diasel 80.44 332** P **P 00 35 04.3 +0.6**
**DSL Palaion Diasel 80.44 332** P **P 00 35 04.3 +0.6**
**THL Klokotos Trika 80.45 333** P **P 00 35 03.6 -0.1**
**WDD Wied Dalam 80.52 325** *e*P **P 00 35 04.3 +0.2**
comp=Z,178nm,0.9s
WDD LR LR
comp=Z,671nm,19.0s
**RDO Rodhopi 80.57 336** P **P 00 35 03.9 -0.3**
**RDO Rodhopi 80.57 336** P **P 00 35 03.9 -0.3**
**PLG Polygyros 80.62 334** P **P 00 35 03.9 -0.8**
**PLG Polygyros 80.62 334** P **P 00 35 03.9 -0.8**
**PLG Polygyros 80.62 334** P **P 00 35 03.9 -0.8**
**ANN Anapa 80.66 345** *e*P P 00 34 57.2 -7.4
ANN *e*PPP PPP 00 39 56.3
ANN pmax pmax
comp=Z,245nm,1.5s
**LIT Litokhoron 80.74 333** P **P 00 35 04.2 -1.1**
**LIT Litokhoron 80.74 333** P **P 00 35 04.2 -1.1**
**LIT Litokhoron 80.74 333** P **P 00 35 04.2 -1.1**
**KAVA Kavala 80.79 335** P **P 00 35 05.3 -0.2**
**KAVA Kavala 80.79 335** P **P 00 35 05.3 -0.2**
**HORT Hortiatis 80.95 334** P **P 00 35 06.1 -0.3**
**HORT Hortiatis 80.95 334** P **P 00 35 06.1 -0.3**
**KPRO Kipourio 81.04 332** P **P 00 35 07.2 +0.3**
**KDZ Kurdzhali 81.06 336** P **P 00 35 06.8 -0.1**
**IGT Igoumenitsa 81.08 331** P **P 00 35 07.6 +0.5**
**IGT Igoumenitsa 81.08 331** P **P 00 35 07.6 +0.5**
**IGT Igoumenitsa 81.08 331** P **P 00 35 07.6 +0.5**
**KZN Kozani 81.19 333** P **P 00 35 07.2 -0.5**
**KZN Kozani 81.19 333** P **P 00 35 07.2 -0.5**
**KZN Kozani 81.19 333** P **P 00 35 07.2 -0.5**
**SRS Serrai 81.22 334** P **P 00 35 06.6 -1.2**
**SRS Serrai 81.22 334** P **P 00 35 06.6 -1.2**
**SRS Serrai 81.22 334** P **P 00 35 06.6 -1.2**
**NVR Nevrokopi 81.33 335** P **P 00 35 07.9 -0.5**
**NVR Nevrokopi 81.33 335** P **P 00 35 07.9 -0.5**
**PENT Pentalofos 81.34 332** P **P 00 35 08.8 +0.3**
**RPZ Rata Peaks 81.48 138** P **P 00 35 10.0 +0.6**
comp=Z,21nm,1.0s,baz=144,slow=7.5,SNR=3.9
**KNT Kendrikon 81.51 334** P **P 00 35 08.9 -0.4**
**KNT Kendrikon 81.51 334** P **P 00 35 08.9 -0.4**
**KNT Kendrikon 81.51 334** P **P 00 35 08.9 -0.4**
**GRG Griva 81.52 333** P **P 00 35 09.3 -0.1**
**GRG Griva 81.52 333** P **P 00 35 09.3 -0.1**
**GRG Griva 81.52 333** P **P 00 35 09.3 -0.1**
**SIM Simferopol' 81.55 343***de*P **P 00 35 09.7 +0.3**
SIM pmax pmax
comp=Z,140nm,1.0s
SIM MLR MLR
comp=Z,300nm,16.5s
**NEST Nestorio 81.56 332** P **P 00 35 10.0 +0.3**
**MMB Musomiste 81.59 335** P **P 00 35 08.8 -1.0**
**FNA Florina 81.75 333** P **P 00 35 10.6 -0.1**
**FNA Florina 81.75 333** P **P 00 35 10.6 -0.1**
**FNA Florina 81.75 333** P **P 00 35 10.6 -0.1**
**VAY Valandovo 81.77 334** *i*P **P 00 35 10.4 -0.3**
**PRD Provadia 81.80 338** P **P 00 35 10.5 -0.2**
**LZH Lanzhou 81.81 36**⇑P **P 00 35 11.1 -0.2**
LZH pP PcP 00 35 15.3 -1.6
LZH sP pP 00 35 18.5 0.0
LZH S **S 00 45 22.6 -0.7**
LZH SKS **SKSac 00 45 27.1 -2.9**
LZH sS SKKSac 00 45 32.5 -0.6
LZH SS **SS 00 50 45.2 +2.8**
LZH pmax pmax
comp=Z,110nm,1.1s
LZH pmax pmax
comp=Z,490nm,8.2s
LZH LR LR
comp=Z,490nm,12.1s
LZH LR LR
comp=Z,2μm,14.3s
LZH LR LR
comp=Z,1μm,14.2s
**CEL Celeste 81.88 328** *e*P **P 00 35 11.5 +0.1**
comp=Z,18nm,0.6s
CEL LR LR
comp=Z,542nm,20.0s
**BIA Bitola 81.98 333** *i*P **P 00 35 12.5 +0.6**
**PSN Preselentsi 82.00 339** P **P 00 35 10.9 -0.9**
**WMQ Urumqi 82.06 21** P **P 00 35 12.4 +0.2**
WMQ pP pP 00 35 18.1 -1.4
WMQ sP sP 00 35 20.4 -1.7
WMQ S **S 00 45 26.5 +1.2**
WMQ SS SS 00 50 56.1 +10
WMQ pmax pmax
comp=Z,300nm,0.9s
WMQ pmax pmax
comp=Z,1μm,3.6s
WMQ LR LR
comp=Z,2μm,18.9s
WMQ LR LR
comp=Z,1μm,20.5s
WMQ LR LR
comp=Z,2μm,25.3s
**OHR Ohrid 82.26 333** *i*P **P 00 35 14.5 +1.2**
**KRUS Krusevo 82.31 333** *i*P **P 00 35 13.6 0.0**
**SZH Strazhica 82.33 337** P **P 00 35 12.5 -1.1**
**CLTB Caltabellotta 82.55 326** PFAKE 00 35 20.0 +5.1
CLTB LR LR
comp=Z,268nm,19.0s
**TIRR Tirgusor 82.63 339**⇓*i*P **P 00 35 14.8 -0.3**
**TIRR Tirgusor 82.63 339** *e*P **P 00 35 14.8 -0.3**
TIRR pmax pmax
comp=Z,94nm,0.9s
**TIRR Tirgusor 82.63 339** *e*P **P 00 35 14.8 -0.3**
comp=Z,94nm,0.9s
**VTS Vitosha 82.66 335**⇓*i*P **P 00 35 15.1 -0.4**
**VTS Vitosha 82.66 335** *e*P **P 00 35 15.1 -0.4**
VTS pmax pmax
comp=Z,30nm,1.0s
**VTS Vitosha 82.66 335** P **P 00 35 15.0 -0.4**
**VTS Vitosha 82.66 335** *e*P **P 00 35 15.1 -0.4**
comp=Z,30nm,1.0s
**VTS Vitosha 82.66 335** P **P 00 35 14.9 -0.6**
**GTA Gaotai 82.66 31** P **P 00 35 15.6 0.0**
GTA pP PcP 00 35 20.2 -0.3
GTA sP pP 00 35 23.6 +0.8
GTA S **S 00 45 32.3 +0.5**
GTA sS pS 00 45 41.6 +0.6
GTA SS **SS 00 50 56.8 +1.9**
GTA pmax pmax
comp=Z,190nm,1.2s
GTA pmax pmax
comp=Z,610nm,6.4s
GTA LR LR
comp=Z,820nm,22.3s
GTA LR LR
comp=Z,1μm,21.9s
GTA LR LR
comp=Z,1μm,19.5s
**SKO Skopje 82.76 333** *i*P **P 00 35 16.0 +0.1**
**TIR Tirane 82.82 332**⇑*i*P **P 00 35 17.3 +1.1**
**TIR Tirane 82.82 332** *e*P **P 00 35 16.1 0.0**
TIR pmax pmax
comp=Z,183nm,1.0s
TIR MLR MLR
comp=Z,461nm,22.0s
**TIR Tirane 82.82 332** *e*P **P 00 35 16.1 0.0**
comp=Z,183nm,1.0s
TIR LR LR
comp=Z,461nm,22.0s

**XAN Xi'an 82.83 40** P **P 00 35 15.9 -0.6**
XAN S **S 00 45 35.4 +1.8**
XAN pmax pmax
comp=Z,130nm,1.4s
XAN pmax pmax
comp=Z,340nm,7.0s
XAN LR LR
comp=Z,1μm,11.8s
XAN LR LR
comp=Z,2μm,14.0s
XAN LR LR
comp=Z,3μm,12.9s
**YULB Yu-li 82.90 56** *e*P **P 00 35 17.1 +0.1**
comp=Z,39nm,0.9s
**SSLB Suanglung 82.93 55** *e*P **P 00 35 16.9 -0.3**
comp=Z,66nm,1.1s
**KEST Kesra 82.98 322** P **P 00 35 19.4 +2.2**
comp=Z,44nm,0.9s,baz=123,slow=3.7,SNR=49
KEST LR LR 01 15 13.7
comp=Z,733nm,18.1s,baz=81,slow=38
**KEST Kesra 82.98 322** *e*P **P 00 35 19.3 +2.1**
comp=Z,204nm,1.5s
**HARR Harsova 82.99 339**⇑*i*P **P 00 35 16.9 0.0**
**SGRR Singureni 83.17 337**⇑*i*P **P 00 35 18.1 +0.2**
**MAKZ Makanchi 83.30 16** *e*P **P 00 35 18.4 -0.1**
MAKZ pmax pmax
comp=Z,91nm,1.0s
**MAKZ Makanchi 83.30 16** *e*P **P 00 35 18.4 -0.1**
comp=Z,91nm,1.0s
**MK01 Makanchi Array 83.34 17** *e*P **P 00 35 17.7 -1.1**
**CUC Castrocucco 83.34 329** *e*P **P 00 35 18.4 -0.6**
comp=Z,17nm,1.0s
CUC LR LR
comp=Z,413nm,20.0s
**WHN Wuhan 83.35 46**⇓P **P 00 35 18.6 -0.5**
**MK31 Makanchi Array 83.36 17** *e*P **P 00 35 18.8 -0.1**
**MK31 Makanchi Array 83.36 17** *e*P **P 00 35 18.8 -0.1**
**MKAR Makanchi Array 83.36 17** P **P 00 35 18.6 -0.2**
comp=Z,36nm,0.7s,baz=216,slow=5.4,SNR=84
MKAR LR LR 01 09 23.8
comp=Z,883nm,21.8s,baz=201,slow=34
**CFR Carcaliu 83.37 339**⇓*i*P **P 00 35 18.7 -0.2**
**SULR 83.49 338**⇑*i*P **P 00 35 20.1 +0.6**
**ULC Ulcinj 83.59 332**⇓*i*P **P 00 35 20.6 +0.5**
**HUMR Humele 83.77 337**⇓*i*P **P 00 35 20.8 -0.1**
**ISR Istrita 83.80 338**⇑*i*P **P 00 35 22.1 +0.9**
**DRME Dracevica, Mon 83.80 332**⇓*i*P **P 00 35 22.1 +0.9**
**PVY Plav 83.85 333**⇓*i*P **P 00 35 22.0 +0.4**
**PDG Podgorica 83.98 332**⇓*i*P **P 00 35 22.6 +0.5**
**TTG Podgorica 83.98 332**⇓*i*P **P 00 35 22.5 +0.5**
**BUM Brajici-Budva 84.01 332**⇓*i*P **P 00 35 22.8 +0.4**
**PMG Port Moresby 84.08 97** P **P 00 35 23.0 -0.3**
comp=Z,7.0nm,0.6s,baz=344,slow=6.0,SNR=6.3
PMG LR LR 01 10 47.5
comp=Z,584nm,18.2s,baz=232,slow=34
**PMG Port Moresby 84.08 97***d*⇓*i*P **P 00 35 23.1 -0.3**
PMG pmax pmax
comp=Z,105nm,1.7s
**PMG Port Moresby 84.08 97** P **P 00 35 23.0 -0.3**
PMG LR LR
comp=Z,644nm,19.0s
**AKTO Aktyubinsk 84.09 360** P **P 00 35 22.5 0.0**
comp=Z,89nm,0.7s,baz=174,slow=4.3,SNR=87
**IVA Berane 84.11 333**⇓*i*P **P 00 35 23.3 +0.4**
**CEME Cevo 84.21 332**⇓*i*P **P 00 35 23.7 +0.3**
**KOME Kolasin 84.24 333**⇓*i*P **P 00 35 23.7 +0.2**
**HCY Herceg Novi 84.29 332**⇓*i*P **P 00 35 24.2 +0.5**
**MLR Muntele Rosu 84.32 338**⇓*i*P **P 00 35 23.6 -0.4**
**MLR Muntele Rosu 84.32 338** *e*P **P 00 35 23.5 -0.4**
MLR pmax pmax
comp=Z,139nm,1.1s
**MLR Muntele Rosu 84.32 338** *e*P **P 00 35 23.5 -0.4**
comp=Z,139nm,1.1s
**MTUR Matau 84.36 337**⇓*i*P **P 00 35 23.8 -0.3**
**NKME Niksic 84.38 332**⇓*i*P **P 00 35 24.7 +0.5**
**NKY Niksic 84.41 332**⇓*i*P **P 00 35 25.0 +0.6**
**VRI Vrincioaia 84.41 339**⇑*i*P **P 00 35 24.4 +0.1**
**PLOR Plostina 84.42 339**⇑*i*P **P 00 35 24.5 +0.2**
**SRE Strehaia 84.47 336**⇑*i*P **P 00 35 25.5 +0.9**
**LEOM Leova 84.52 340**⇑*i*P **P 00 35 24.4 -0.3**
**VOIR 84.55 337**⇑*i*P **P 00 35 24.5 -0.5**
**ZSN Zaisan 84.61 18** *i*P **P 00 35 23.2 -2.0**
comp=Z,541nm,0.9s
**BRZS Berezniki 84.64 9** *i*P **P 00 35 24.9 -0.4**
comp=Z,89nm,1.0s
**BRY Bratogost 84.66 332**⇓*i*P **P 00 35 26.2 +0.5**
**PLE Pljevlja 84.70 333**⇓*i*P **P 00 35 26.1 +0.2**
**UPM Unac-Piva 84.77 332**⇓*i*P **P 00 35 26.7 +0.3**
**DOPR Dopca 84.92 338**⇑*i*P **P 00 35 26.0 -0.8**
**LOT Lotru 84.98 337**⇓*i*P **P 00 35 26.5 -0.7**
**TESR Tescani 85.02 339**⇑*i*P **P 00 35 26.4 -0.9**
**SNZO South Karori 85.09 137** PFAKE 00 35 40.0 +12
SNZO LR LR
comp=Z,1μm,19.0s
**MDVR Moldovita 85.10 335**⇑*i*P **P 00 35 27.7 -0.1**
**DIVS Divibare 85.13 334** P **P 00 35 28.5 +0.5**
**BEO Beograd 85.56 334** *e*P **P 00 35 30.5 +0.5**
**BEO Beograd 85.56 334** *e*P **P 00 35 30.5 +0.5**
**BANR Banloc 85.82 335**⇑*i*P **P 00 35 32.2 +0.9**
**BZS Buzias 85.86 335**⇓*i*P **P 00 35 31.5 +0.1**
**VSL Villasalto 85.89 324** *e*P **P 00 35 32.2 +0.4**
comp=Z,38nm,1.0s
VSL LR LR
comp=Z,400nm,22.0s
**VRH Novokhopyorsk 86.07 350** *e*P **P 00 35 32.1 -0.2**
VRH pmax pmax
comp=Z,360nm,1.1s
**CJR Cluj-Napoca 86.15 337**⇑*i*P **P 00 35 33.4 +0.4**
**KURBB Kurchatov Arra 86.20 13** P **P 00 35 32.4 -0.6**
comp=Z,91nm,0.9s,baz=207,slow=5.2,SNR=135
**ARCR ARCALIA 86.24 338**⇑*i*P **P 00 35 33.8 +0.5**
**KURK Kurchatov 86.31 13***d*⇓*i*P **P 00 35 32.7 -0.8**
KURK pmax pmax
comp=Z,683nm,1.7s
**KURK Kurchatov 86.31 13** *e*P **P 00 35 33.0 -0.5**
comp=Z,122nm,1.0s
KURK LR LR
comp=Z,2μm,21.0s
**AQU L'Aquila 86.32 329** *e*P **P 00 35 34.2 +0.3**
AQU pmax pmax
comp=Z,32nm,1.0s
AQU MLR MLR
comp=Z,470nm,19.0s
**AQU L'Aquila 86.32 329** *e*P **P 00 35 34.2 +0.3**
comp=Z,32nm,1.0s
AQU LR LR
comp=Z,470nm,19.0s
**SEM Semipalatinsk 86.33 14** *i*P **P 00 35 33.0 -1.0**
comp=Z,410nm,0.8s
SEM *i*S **SKSac 00 45 55.7 -3.0**
SEM LRM MLR 01 15 57.7
comp=Z,200nm,21.2s
**SIRR Siria 86.41 336**⇑*i*P **P 00 35 34.6 +0.4**
**BURAR Bucovina Array 86.44 338**⇑*i*P **P 00 35 34.7 +0.3**
**BUR04 Bucovina Ar. S 86.45 338** *e*P **P 00 35 34.7 +0.2**
**BUR08 Bucovina Ar. S 86.47 338** *e*P **P 00 35 35.3 +0.7**
**VSR Storozhevoye 86.49 348** *e*P **P 00 35 33.8 -0.6**
VSR pmax pmax
comp=Z,350nm,1.1s
**DRGR 86.51 337**⇑*i*P **P 00 35 34.5 -0.3**
**BLY Banja Luka 86.74 332** *e*P **P 00 35 35.8 0.0**
comp=Z,69nm,1.2s
**NJ2 Nanjing 87.14 48** *e*P **P 00 35 37.9 -0.2**
NJ2 pmax pmax
comp=Z,34nm,0.8s
**DGZ Jazzator, Alta 87.35 19** *i*P **P 00 35 38.9 0.0**
DGZ pmax pmax
comp=Z,61nm,1.0s
**BVAR Borovoye Array 87.35 7** P **P 00 35 38.2 -0.4**
comp=Z,80nm,0.7s,baz=178,slow=5.3,SNR=271
**BRVK Borovoye 87.37 7***d*⇓*i*P **P 00 35 38.1 -0.6**
BRVK pmax pmax
comp=Z,165nm,0.6s
**BRVK Borovoye 87.37 7** *e*P **P 00 35 38.5 -0.2**
comp=Z,73nm,0.8s
BRVK LR LR
comp=Z,647nm,20.0s
**LPSR Galich'ya Gora 87.86 348** *e*P **P 00 35 40.9 -0.1**
LPSR pmax pmax
comp=Z,220nm,1.0s
**AK11 Malin Array Si 88.11 342** *e*P **P 00 35 41.5 -0.8**
**KIEV Kiev 88.11 342***d*⇓*i*P **P 00 35 41.7 -0.6**
KIEV pmax pmax
comp=Z,119nm,1.0s
**KIEV Kiev 88.11 342** *e*P **P 00 35 41.9 -0.4**

**AKASG Malin Array Be 88.12 342** P **P 00 35 41.9 -0.4**
comp=Z,70nm,0.8s,baz=169,slow=4.3,SNR=214
AKASG PP **PP 00 39 12.2 +2.4**
comp=Z,2.4nm,0.8s,baz=158,slow=6.9,SNR=5.7
AKASG LR LR 01 13 00.3
comp=Z,202nm,21.5s,baz=180,slow=34
**AKBB Malin Array Si 88.12 342** *e*P **P 00 35 41.9 -0.4**
**AKBB Malin Array Si 88.12 342** *e*P **P 00 35 41.9 -0.4**
**UZH Uzhgorod 88.26 337**⇓*i*P **P 00 35 41.3 -1.7**
**BEHE Becsehely 88.34 333**⇓*e*P **P 00 35 43.9 +0.4**
**BTO Baotou 88.37 37** *e*P **P 00 35 42.8 -1.1**
BTO pmax pmax
comp=Z,28nm,1.1s
**BUD Budapest 88.37 335**⇓*i*P **P 00 35 43.6 0.0**
**PSZ Piszkesteto 88.44 335**⇓*i*P **P 00 35 43.5 -0.5**
**PSZ Piszkesteto 88.44 335** *e*P **P 00 35 42.8 -1.2**
PSZ pmax pmax
comp=Z,88nm,1.0s
**PSZ Piszkesteto 88.44 335**⇓*e*P **P 00 35 43.5 -0.5**
**PSZ Piszkesteto 88.44 335** *e*P **P 00 35 42.8 -1.2**
comp=Z,88nm,1.0s
**CSKK Cs‡kako 88.54 334**⇑*e*P **P 00 35 44.8 +0.4**
**KECS Kecovo 88.72 336** *e*P **P 00 35 45.1 -0.2**
KECS pmax pmax
comp=Z,48nm,0.8s
**KECS Kecovo 88.72 336** *e*P **P 00 35 45.1 -0.2**
**LVV L'vov 88.76 339** *e*P **P 00 35 44.1 -1.3**
**CRVS Cervenica-Dubn 88.77 337** *e*P **P 00 35 45.7 +0.2**
**CRVS Cervenica-Dubn 88.77 337** *e*P **P 00 35 45.7 +0.2**
**MDT Midelt 88.81 312** P **P 00 35 46.3 +0.1**
comp=Z,7.6nm,1.0s,baz=137,slow=6.8,SNR=5.6
**TRI Trieste 88.90 331** *e*P **P 00 35 46.2 +0.1**
**TRI Trieste 88.90 331** *e*P **P 00 35 46.2 +0.1**
**SRO Srobarova 88.91 334** *e*P **P 00 35 46.9 +0.8**
**SRO Srobarova 88.91 334** *e*P **P 00 35 46.9 +0.8**
**SPB Sao Paulo 88.95 242** PFAKE 00 36 00.0 +13
SPB LR LR
comp=Z,1μm,21.0s
**TIA Tai'an 89.00 44**⇓P **P 00 35 45.7 -1.2**
TIA pmax pmax
comp=Z,50nm,1.3s
**KWP Kalwaria Pacla 89.00 338** *e*P **P 00 35 46.4 -0.2**
**KWP Kalwaria Pacla 89.00 338** *e*P **P 00 35 46.4 -0.2**
**VLC Villacollemand 89.09 328** PFAKE 00 36 00.0 +13
VLC LR LR
comp=Z,279nm,20.0s
**SOKA Soboth 89.19 332** *i*P **P 00 35 47.9 +0.4**
comp=Z,104nm,1.3s,SNR=44
**TRQA Tornquist 89.21 223** *e*P **P 00 35 49.0 +0.9**
comp=Z,16nm,1.1s
TRQA LR LR
comp=Z,1μm,20.0s
**OBKA Obir 89.24 332** *i*P **P 00 35 48.5 +0.7**
comp=Z,94nm,0.9s,SNR=44
**STHS Stebnicka Huta 89.28 337** *e*P **P 00 35 48.1 +0.2**
STHS pmax pmax
comp=Z,27nm,0.9s
**STHS Stebnicka Huta 89.28 337** *e*P **P 00 35 48.1 +0.2**
**VYHS Vyhne 89.30 335** *e*P **P 00 35 48.0 0.0**
VYHS pmax pmax
comp=Z,45nm,1.0s
**VYHS Vyhne 89.30 335** *e*P **P 00 35 48.0 0.0**
**HHC Hu-ho-hao-te 89.33 38** *e*P **P 00 35 48.3 -0.1**
HHC sP pP 00 35 54.5 -1.2
HHC S **S 00 46 36.8 -0.2**
HHC SS **SS 00 52 36.8 +4.1**
HHC pmax pmax
comp=Z,87nm,1.2s
HHC pmax pmax
comp=Z,430nm,5.3s
HHC LR LR
comp=Z,1μm,14.8s
HHC LR LR
comp=Z,1μm,14.8s
HHC LR LR
comp=Z,860nm,14.8s
**SOP Sopron 89.44 333**⇓*e*P **P 00 35 48.8 +0.2**
**ARSA Arzberg 89.47 333** *i*P **P 00 35 49.3 +0.5**
comp=Z,32nm,0.9s,SNR=32
**NIE Niedzica 89.59 336** *e*P **P 00 35 49.6 +0.2**
**NIE Niedzica 89.59 336** *e*P **P 00 35 49.6 +0.2**
**LANS Liptovska Anna 89.64 336** *e*P **P 00 35 50.5 +0.9**
**LANS Liptovska Anna 89.64 336** *e*P **P 00 35 50.5 +0.9**
**MYKA Terra Mystica 89.69 331** *i*P **P 00 35 50.4 +0.4**
comp=Z,26nm,1.1s,SNR=8.7
**MODS Modra-Piesok 89.75 334** *e*P **P 00 35 50.3 +0.2**
**MODS Modra-Piesok 89.75 334** *e*P **P 00 35 50.3 +0.2**
**CONA Conrad Observa 89.90 333** *i*P **P 00 35 51.0 +0.1**
comp=Z,24nm,1.0s,SNR=33
**RCBR Riachuelo 90.04 263** PFAKE 00 36 00.0 +7.6
RCBR LR LR
comp=Z,522nm,19.0s
**ARU Arti 90.10 0** P **P 00 35 51.4 -0.1**
comp=Z,52nm,0.9s,baz=169,slow=2.1,SNR=27
**ARU Arti 90.10 0***d*⇓*i*P **P 00 35 51.6 +0.1**
ARU 00 39 26.2
ARU S **SKSac 00 46 19.9 -0.7**
ARU SS **SS 00 52 44.1 +1.1**
ARU pmax pmax
comp=Z,221nm,1.7s
ARU MLR MLR
comp=Z,725nm,16.0s
**ARU Arti 90.10 0** *e*P **P 00 35 51.5 -0.1**
ARU LR LR
comp=Z,663nm,20.0s
**KBA Koelnbreinsper 90.18 331** *i*P **P 00 35 52.5 +0.2**
comp=Z,77nm,1.4s,SNR=20
**ABTA Abfaltersbach 90.25 331** *i*P **P 00 35 53.4 +0.8**
comp=Z,106nm,1.3s,SNR=34
**HVS Khovu-Aksy 90.42 22** *e*P **P 00 35 51.5 -1.8**
HVS pmax pmax
comp=Z,23nm,0.9s
**MOA Molln 90.44 332** *i*P **P 00 35 53.7 +0.3**
comp=Z,71nm,1.2s,SNR=22
**OJC Ojcow 90.45 337** *e*P **P 00 35 53.1 -0.2**
**OJC Ojcow 90.45 337** *e*P **P 00 35 53.1 -0.2**
**OJC Ojcow 90.45 337** *e*P **P 00 35 52.8 -0.5**
**SVE Sverdlovsk 90.52 1**⇑*e*P **P 00 35 53.6 +0.2**
SVE pmax pmax
comp=Z,125nm,1.3s
**ZALV Zalesovo Beam 90.63 15** P **P 00 35 52.2 -1.7**
comp=Z,29nm,0.7s,baz=216,slow=4.6,SNR=69
ZALV LR LR 01 15 11.1
comp=Z,300nm,18.0s,baz=232,slow=35
**OBN Obninsk 90.68 348** P **P 00 35 53.8 -0.4**
comp=Z,32nm,0.8s,baz=128,slow=1.7,SNR=13
**OBN Obninsk 90.68 348**⇓*e*P **P 00 35 54.1 -0.1**
OBN *e* 00 39 31.2
OBN pmax pmax
comp=Z,184nm,2.5s
OBN MLR MLR
comp=Z,454nm,18.0s
**OBN Obninsk 90.68 348** *e*P **P 00 35 53.5 -0.7**
**OKC Ostrava-Krasne 90.68 335**⇓*e*P **P 00 35 53.8 -0.6**
**OKC Ostrava-Krasne 90.68 335** *e*P **P 00 35 53.8 -0.6**
**VRAC Vranov 90.78 334**⇓*i*P **P 00 35 55.4 +0.5**
**RTC Rabat Centre 90.98 311** PFAKE 00 36 10.0 +14
RTC LR LR
comp=Z,4μm,20.0s
**WTTA Wattenberg 91.02 330** *i*P **P 00 35 56.7 +0.5**
comp=Z,51nm,1.2s,SNR=9.7
**FUORN Ofenpass-Fuorn 91.08 329** *e*P **P 00 35 57.5 +0.9**
**MOS Moscow 91.10 349** *e*P P 00 35 48.4 -7.7
MOS *e* 00 39 30.8
**WATA Walderalm 91.10 330** *i*P **P 00 35 57.0 +0.4**
comp=Z,74nm,1.3s,SNR=21
**NVS Novosibirsk 91.12 14**⇑*i*P **P 00 35 55.4 -0.9**
NVS pmax pmax
comp=Z,36nm,1.0s
NVS pmax pmax
comp=N,17nm,0.9s
NVS pmax pmax
comp=E,19nm,1.4s
**BJT Baijiatuan 91.14 41** PFAKE 00 36 10.0 +13
BJT LR LR
comp=Z,757nm,21.0s
**TREC Trest 91.17 334**⇓*e*P **P 00 35 56.3 -0.4**
**TREC Trest 91.17 334** *e*P **P 00 35 56.3 -0.4**
**FETA Feichten 91.20 330** *i*P **P 00 35 57.6 +0.5**
comp=Z,57nm,1.1s,SNR=18
**MOTA Moosalm 91.30 330** *i*P **P 00 35 57.6 +0.1**
comp=Z,68nm,1.4s,SNR=23
**TUE Stuetta 91.36 329** *e*P **P 00 35 57.8 -0.1**
TUE pmax pmax
comp=Z,412nm,19.0s

SJAF Saint Jean de 91.37 323 PKP P 00 35 59.6 +1.8
BNI Bardonecchia 91.45 326 eP P 00 35 59.0 +0.7
BNI MLR MLR
comp=Z,431nm,19.0s
BNI Bardonecchia 91.45 326 eP P 00 35 59.0 +0.7
BNI LR LR
comp=Z,431nm,19.0s
GEA0 GERESS Array S 91.47 332 eP P 00 35 57.3 -0.9
GEC2 GERESS Array S 91.48 332 eP P 00 35 58.0 -0.2
GEC2 GERESS Array S 91.48 332 eP P 00 35 58.0 -0.2
GERES GERESS Array B 91.48 332 P P 00 35 57.8 -0.5
comp=Z,3.9nm,0.9s,baz=145,slow=4.9,SNR=27
GERES PP PP 00 39 37.5 +0.7
comp=Z,1.0nm,0.8s,baz=120,slow=5.3,SNR=4.5
GERES LR LR 01 16 29.9
comp=Z,175nm,22.0s,baz=129,slow=35
SACV Santiago Islan 91.52 287 PFAKE 00 36 10.0 +11
SACV LR LR
comp=Z,120nm,19.0s
BEL Belsk 91.53 338 eP P 00 35 59.0 +0.8
BEL Belsk 91.53 338 eP P 00 35 59.0 +0.8
RETA Reutte 91.56 330 i P P 00 35 59.0 +0.4
comp=Z,45nm,1.1s,SNR=13
DPC Dobruska-Polom 91.75 335 ||i P P 00 35 59.2 -0.2
DPC epP pP 00 36 03.8 -2.9
DPC Dobruska-Polom 91.75 335 ||i P P 00 35 59.2 -0.2
DPC e 00 36 03.8
KHC Kasperske Hory 91.76 333 ||i P P 00 35 58.6 -0.8
KHC epP pP 00 36 05.0 -1.7
KHC Kasperske Hory 91.76 333 ||i P P 00 35 58.6 -0.8
KHC e 00 36 05.0
KHC Kasperske Hory 91.76 333 eP P 00 35 58.7 -0.7
DAVA Damuels 91.77 330 i P P 00 35 60.0 +0.3
comp=Z,58nm,0.9s,SNR=14
PLCA Paso Flores 91.81 216 P P 00 36 01.1 +0.8
comp=Z,1.2nm,0.7s,baz=339,slow=8.6,SNR=1.9
PLCA LR LR 01 10 24.0
comp=Z,763nm,21.3s,baz=160,slow=31
GOPC GO Pecny, Ondr 91.94 334 ||eP P 00 36 00.2 -0.1
GOPC GO Pecny, Ondr 91.94 334 eP P 00 36 00.2 -0.1
UPC Upice 91.99 335 ||eP P 00 36 00.8 +0.4
UPC Upice 91.99 335 eP P 00 36 00.8 +0.4
PRU Pruhonice 92.09 334 ||eP P 00 36 00.9 0.0
PRU Pruhonice 92.09 334 eP P 00 36 00.9 0.0
SENIN Lac Senin/Sane 92.17 328 eP P 00 36 02.2 +0.6
KSP Ksiaz 92.17 335 eP P 00 36 01.9 +0.6
KSP Ksiaz 92.17 335 eP P 00 36 01.9 +0.6
SONM Songino Array 92.28 30 P P 00 36 00.8 -1.2
comp=Z,15nm,0.9s,baz=214,slow=4.4,SNR=50
SONM PP PP 00 39 50.7 +7.6
comp=Z,1.7nm,0.9s,baz=202,slow=7.4,SNR=3.8
SONA1 Songino Array 92.29 30 eP P 00 36 00.6 -1.5
PVCC Panska Ves 92.53 334 ||eP P 00 36 03.2 +0.3
PVCC Panska Ves 92.53 334 eP P 00 36 03.2 +0.3
NACGM Naroch 92.56 343 e P 00 36 03.0 +0.1
ULN Ulaanbaatar 92.58 31 d iP P 00 36 02.3 -1.1
ULN pmax pmax
comp=Z,20nm,1.0s
ULN Ulaanbaatar 92.58 31 eP P 00 36 02.4 -1.0
ULN LR LR
comp=Z,1µm,20.0s
SSB Saint Sauveur 92.62 325 eP P 00 36 04.7 +1.2
SSB Saint Sauveur 92.62 325 eP P 00 36 04.7 +1.2
SUW Suwalki 92.72 340 eP P 00 36 03.6 -0.1
SUW Suwalki 92.72 340 eP P 00 36 03.6 -0.1
ES19 SONSECA Array 93.04 317 eP P 00 36 06.3 +0.7
BRG Berggiesshubel 93.04 334 eP P 00 36 05.5 +0.2
comp=Z,29nm,1.1s
BRG Berggiesshubel 93.04 334 eP P 00 36 05.5 +0.2
BRG pmax pmax
comp=Z,29nm,1.1s
ESDC Sonseca Array 93.06 317 P P 00 36 06.5 +0.8
comp=Z,12nm,0.9s,baz=131,slow=3.6,SNR=45
ESDC LR LR 01 18 08.4
comp=Z,334nm,20.3s,baz=160,slow=36
ESLA Sonseca Array 93.06 317 eP P 00 36 06.4 +0.7
ZAK Zakamensk 93.06 27 eP P 00 36 03.5 -2.0
ZAK pmax pmax
comp=Z,21nm,1.3s
NKC Novy Kostel 93.08 333 ||i P P 00 36 06.0 +0.5
NKC Novy Kostel 93.08 333 ||i P P 00 36 06.0 +0.5
GRFO Grafenberg 93.12 332 eP P 00 36 06.0 +0.3
GRFO Grafenberg 93.12 332 eP P 00 36 06.0 +0.3
PAB San Pablo 93.19 317 eP P 00 36 07.6 +1.2
PAB MLR MLR
comp=Z,916nm,22.0s
PAB San Pablo 93.19 317 eP P 00 36 07.6 +1.2
PAB LR LR
comp=Z,916nm,22.0s
LBL Lubilhac 93.20 325 PKP P 00 36 07.0 +0.7
STU Stuttgart 93.22 330 eP P 00 36 06.2 0.0
STU Stuttgart 93.22 330 eP P 00 36 06.2 0.0
BFO Black Forest 93.24 329 eP P 00 36 06.4 +0.1
BFO Black Forest 93.24 329 eP P 00 36 06.4 +0.1
SOKR Solikamsk 93.28 359 ||i P P 00 36 03.2 -2.9
SOKR pmax pmax
comp=Z,136nm,1.5s
SOKR MLR MLR
comp=Z,781nm,21.0s
MOF Molkenrain 93.38 328 PKP P 00 36 06.8 -0.3
DL2 Dalian 93.44 44 P P 00 36 05.7 -1.7
DL2 eS S 00 47 12.6 -1.5
DL2 pmax pmax
comp=Z,36nm,1.0s
DL2 pmax pmax
comp=Z,210nm,4.7s
DL2 LR LR
comp=Z,590nm,15.9s
DL2 LR LR
comp=Z,880nm,14.3s
DL2 LR LR
comp=Z,860nm,13.1s
PLDF La Plantade 93.56 325 PKP P 00 36 05.5 -2.4
ECH Echery 93.65 329 PKP P 00 36 08.3 +0.2
ECH Echery 93.65 329 eP P 00 36 08.4 +0.2
ECH Echery 93.65 329 eP P 00 36 08.4 +0.2
PYM Petit Puy Mans 93.69 325 PKP P 00 36 09.2 +0.7
CLL Collm 93.74 334 i P P 00 36 07.8 -0.7
CLL pmax pmax
comp=Z,21nm,1.1s
CLL Collm 93.74 334 i P P 00 36 07.8 -0.7
comp=Z,21nm,1.1s
CLL Collm 93.74 334 eP P 00 36 08.0 -0.5
PVAQ Vaqueiros 93.75 313 eP P 00 36 09.5 +0.6
PBDV Barranco-do-Ve 93.77 313 eP P 00 36 10.8 +1.8
comp=Z,40nm,1.6s
GKP Gorka Klasztor 93.88 337 eP P 00 36 09.0 -0.1
GKP Gorka Klasztor 93.88 337 eP P 00 36 09.0 -0.1
LANF Langenberg 93.96 329 PKP P 00 36 10.2 +0.6
PCVE Castro Verde 94.09 313 eP P 00 36 12.4 +1.9
comp=Z,49nm,1.5s
BDFB Brasilia 94.14 248 LR LR 01 09 55.3
comp=Z,476nm,21.9s,baz=274,slow=30
THEF They Montfort 94.17 328 PKP P 00 36 10.9 +0.3
CPUP Villa Florida 94.22 234 LR LR 01 10 10.1
comp=Z,545nm,21.6s,baz=136,slow=30
PBEJ Beja 94.24 314 eP P 00 36 12.8 +1.7
comp=Z,37nm,1.3s
TLY Talaya 94.25 26 P P 00 36 10.3 -0.6
comp=Z,6.2nm,0.7s,baz=213,slow=5.4,SNR=4.5
TLY Talaya 94.25 26 eP P 00 36 10.4 -0.5
TLY pmax pmax
comp=Z,32nm,1.3s
TLY MLR MLR
comp=Z,283nm,16.0s
TLY Talaya 94.25 26 P P 00 36 10.3 -0.6
TLY LR LR
comp=Z,586nm,20.0s
HNR Honiara 94.49 104 PFAKE 00 36 20.0 +7.1
HNR LR LR
comp=Z,409nm,19.0s
PESTR Estremoz 94.62 314 eP P 00 36 14.6 +1.7
comp=Z,33nm,1.8s
PNCL Nicolau / Gran 94.69 313 eP P 00 36 14.9 +1.7
PMRV Marv??o 94.87 315 eLR LR 01 15 21.2
comp=Z,544nm,18.0s
PMTG Montargil 95.13 314 eP P 00 36 16.8 +1.6
comp=Z,29nm,1.2s
WLF Walferdange 95.18 329 P P 00 36 15.7 +0.6
comp=Z,36nm,1.3s
WLF Walferdange 95.18 329 eP P 00 36 14.8 -0.3
WLF Walferdange 95.18 329 eP P 00 36 14.8 -0.3
PCBR Castelo Branco 95.19 315 eP P 00 36 16.8 +1.4
INCN Inchon 95.53 48 PFAKE 00 36 30.0 +13
INCN LR LR
comp=Z,789nm,20.0s
MTE Manteigas 95.59 316 PFAKE 00 36 30.0 +13
MTE LR LR
comp=Z,1µm,22.0s
MTE Manteigas 95.59 316 eLR LR 01 17 47.3
comp=Z,755nm,20.0s
KLMR Klimovskoe 95.75 351 eP P 00 36 14.6 -2.8
KLMR pmax pmax
comp=Z,74nm,1.3s
VSU Vasula 95.79 344 i P P 00 36 17.4 -0.2
VSU pmax pmax
comp=Z,138nm,0.9s
MVO Moncorvo 95.79 317 eLR LR 01 16 38.5
comp=Z,425nm,20.0s
MEM Membach 95.96 330 P P 00 36 19.4 +0.7
comp=Z,13nm,1.0s
BCLA Clavier 96.11 329 P P 00 36 20.5 +1.1
DOU Dourbes 96.17 329 P P 00 36 20.6 +0.9
comp=Z,26nm,1.6s
BEBN Eben Emael 96.23 330 P P 00 36 20.5 +0.6
KSAR Wonju Array Be 96.28 49 P P 00 36 19.7 -0.8
KSAR Wonju Array Be 96.28 49 P P 00 36 19.6 -0.8
KS01 Wonju Array Si 96.31 49 eP P 00 36 19.4 -1.2
KSRS Korea Array 96.31 49 P P 00 36 19.6 -0.9
comp=Z,4.7nm,1.0s,baz=228,slow=4.2,SNR=8.6
KSRS LR LR 01 17 35.5
comp=Z,403nm,19.2s,baz=220,slow=34
SNF Seneffe 96.61 329 P P 00 36 22.5 +0.9
FINES FINESS Array B 98.62 345 P P 00 36 28.6 -1.8
comp=Z,13nm,0.9s,baz=130,slow=8.2,SNR=10
FINES PP PP 00 40 36.5 +4.6
comp=Z,7.5nm,1.0s,baz=150,slow=16,SNR=3.6
FINES LR LR 01 21 23.9
comp=Z,369nm,19.1s,baz=184,slow=36
CN2 Changchun 98.81 43 eP Pdif 00 36 33.2 +1.5
CN2 esP sP 00 36 40.0 -1.6
CN2 eS S 00 47 59.8 -0.4
CN2 pmax pmax
comp=Z,10.0nm,0.8s
CN2 pmax pmax
comp=Z,100nm,5.0s
CN2 LR LR
comp=Z,500nm,18.0s
CN2 LR LR
comp=Z,700nm,18.0s
CN2 LR LR
comp=Z,1µm,19.0s
TMCR Tamitsa 99.13 351 eP Pdif 00 36 31.4 -1.2
TMCR pmax pmax
comp=Z,44nm,1.1s
HIA Hailar 99.38 36 eP Pdif 00 36 33.0 -1.2
HIA pmax pmax
comp=Z,7.0nm,0.9s
HIA Hailar 99.38 36 PFAKE 00 36 40.0 +5.8
HIA LR LR
comp=Z,824nm,19.0s
LCO Las Campanas 100.75 224 PFAKE 00 36 50.0 +8.7
LCO LR LR
comp=Z,966nm,19.0s
MDJ Mudanjiang 101.66 44 PFAKE 00 36 50.0 +5.6
MDJ LR LR
comp=Z,490nm,19.0s
NOA NORSAR Array B 102.12 339 P Pdif 00 36 46.0 0.0
comp=Z,3.1nm,1.0s,baz=120,slow=4.4,SNR=3.4
MAJO Matsushiro 102.47 54 PFAKE 00 37 00.0 +12
MAJO LR LR
comp=Z,452nm,20.0s
MJAR Matsushiro Arr 102.47 54 P Pdif 00 36 46.5 -1.8
comp=Z,4.4nm,1.0s,baz=227,slow=7.6,SNR=6.7
MJAR PP PP 00 41 04.7 +3.0
comp=Z,1.1nm,0.6s,baz=224,slow=10,SNR=4.3
BOD Bodaibo 102.81 27 eP Pdif 00 36 46.5 -2.6
BOD pmax pmax
comp=Z,15nm,1.4s
APA Apatity 102.98 351 ||i P Pdif 00 36 31.8 -18
APA MLR MLR
comp=Z,3µm,24.0s
LVC Limon Verde 104.39 230 PFAKE 00 37 10.0 +12
LVC LR LR
comp=Z,899nm,20.0s
ARCES ARCESS Array B 105.97 349 Pdiff Pdif 00 37 03.0 +0.1
comp=Z,9.7nm,1.0s,baz=134,slow=3.5,SNR=6.6
ERM Erimo 108.58 52 PFAKE 00 41 30.0
ERM LR LR
comp=Z,447nm,20.0s
SAML Samuel 109.84 244 PFAKE 00 41 30.0
SAML LR LR
comp=Z,1µm,20.0s
FUNA Funafuti 110.06 116 PFAKE 00 41 30.0
FUNA LR LR
comp=Z,3µm,22.0s
YAK Yakutsk 111.58 29 PFAKE 00 41 40.0
YAK LR LR
comp=Z,688nm,20.0s
TIXI Tiksi 116.22 19 PFAKE 00 41 40.0 +5.7
TIXI LR LR
comp=Z,748nm,21.0s
TBI Tubuai 117.23 151 eLR LR 01 17 17.9
comp=Z,366nm,32.0s
NNA Nana 117.29 231 PFAKE 00 41 50.0 +12
NNA LR LR
comp=Z,353nm,20.0s
SCO Scoresbysund 118.43 338 i PKIKP PKPdf 00 41 35.0 -3.6
SCO Scoresbysund 118.43 338 i P PKPdf 00 41 35.0 -3.6
PTCN Pitcairn Islan 120.72 171 PFAKE 00 41 50.0 +5.4
PTCN LR LR
comp=Z,2µm,21.0s
GRGR Grenville 121.25 264 PFAKE 00 42 00.0 +14
GRGR LR LR
comp=Z,287nm,21.0s
SEY Seymchan 121.60 32 i PKIKP PKPdf 00 41 44.4 -0.5
RKT Rikitea 121.84 166 eLR LR 01 19 28.0
comp=Z,714nm,25.0s
PPT2 Papeete2 122.32 148 ePS PS 00 53 18.7 +1.4
comp=Z,91nm,23.5s
PPT2 Papeete2 122.32 148 eLR LR 01 19 27.6
comp=Z,342nm,21.2s
SDV Santo Domingo 126.75 254 PFAKE 00 42 10.0 +13
SDV LR LR
comp=Z,800nm,21.0s
OTAV Otavalo 127.21 240 PFAKE 00 42 10.0 +12
OTAV LR LR
comp=Z,484nm,20.0s
BILL Bilibino 127.86 27 ||i PKIKP PKPdf 00 41 57.2 +0.4
BILL e 00 43 58.5
BILL S SKSac 00 49 06.0 +4.0
BILL pmax pmax
comp=Z,10.0nm,1.3s
BILL MLR MLR
comp=Z,416nm,18.0s
SJG San Juan 128.03 267 PFAKE 00 42 10.0 +11
SJG LR LR
comp=Z,310nm,20.0s
SDDR Presa de Saban 132.70 265 PFAKE 00 42 20.0 +12
SDDR LR LR
comp=Z,309nm,21.0s
TAOE Nuku Hiva Isla 133.99 155 eLR LR 01 25 03.0
comp=Z,355nm,21.8s
GTBY Guantanamo Bay 136.32 264 PFAKE 00 42 20.0 +5.8
GTBY LR LR
comp=Z,512nm,22.0s
PKME Peaks-Kenny Pk 138.59 302 PFAKE 00 42 30.0 +12
PKME LR LR
comp=Z,623nm,22.0s
JTS JuntasAbangare 138.73 244 PFAKE 00 42 30.0 +11
JTS LR LR
comp=Z,298nm,20.0s
N59A State Game Lan 143.05 295 P PKPbc 00 42 22.0 -0.8
baz=94
BINY Binghamton 143.29 297 ePKPdf PKPbc 00 42 23.0 -0.3
CNNC Cliffs of the 143.94 285 ePKPdf PKPbc 00 42 25.9 +0.5
CNNC LR LR
comp=Z,317nm,19.0s
CBN Corbin Frederi 144.00 290 ePKPdf PKPbc 00 42 25.5 0.0
SSPA Standing Stone 144.63 294 ePKPdf PKPab 00 42 26.9 -0.3
INK Inuvik 145.04 7 ePKIKP PKPab 00 42 27.6 -0.2
INK Inuvik 145.04 7 ePKPbc PKPab 00 42 27.6 -0.2
O56A Blue Knob Stat 145.13 293 P PKPab 00 42 29.0 -0.1
baz=94
NHSC New Hope 145.35 280 ePKPbc PKPab 00 42 30.6 +0.5
NHSC LR LR
comp=Z,476nm,19.0s
COLA College 145.35 19 i PKIKP PKPbc 00 42 28.2 -0.7
COLA College 145.35 19 PFAKE 00 42 40.0 +11
COLA LR LR
comp=Z,304nm,19.0s
SADO Sadowa 145.58 301 ePKPdf PKPdf 00 42 29.8 -0.3
ILAR Eielson Array 145.69 19 PKPbc PKPdf 00 42 28.8 -0.9
comp=Z,102nm,0.8s,baz=314,slow=3.5,SNR=529
SDPT Sand Point 145.93 39 ePKPbc PKPab 00 42 30.9 -0.6
M54A Oil Creek Stat 146.01 295 P PKPab 00 42 31.8 -0.6
baz=91
N54A Moraine State 146.24 294 P PKPbc 00 42 32.2 -0.3
baz=92
BLA Blacksburg 146.28 288 ePKP2 PKPdf 00 42 31.8 +0.2
BLA MLR MLR
comp=Z,327nm,19.0s
BLA Blacksburg 146.28 288 ePKPdf PKPdf 00 42 31.8 +0.2
BLA ePKPbc PKPab 00 42 33.0 -0.6
BLA LR LR
comp=Z,327nm,19.0s
KMSC Kings Mountain 146.70 284 P PKPbc 00 42 33.7 -0.3
baz=100
EGAK Eagle 147.07 15 ePKPbc PKPbc 00 42 33.8 -0.3
EGAK LR LR
comp=Z,304nm,20.0s
TEIG Tepich 147.19 254 PFAKE 00 42 40.0 +2.5
TEIG LR LR
comp=Z,11nm,20.0s
TIGA Tifton 147.75 276 P PKPbc 00 42 36.7 -0.3
baz=105
DAWY Dawson 148.07 14 ePKPdf PKPdf 00 42 33.7 0.0
DAWY ePKPbc PKPbc 00 42 37.1 +0.1
GOGA Godfrey 148.10 280 ePKIKP PKPdf 00 42 34.9 +0.2
GOGA e 00 42 41.4
GOGA MLR MLR
comp=Z,426nm,20.0s
GOGA Godfrey 148.10 280 ePKPdf PKPdf 00 42 34.9 +0.2
GOGA ePKPab pPKPdf 00 42 41.4 -0.7
GOGA LR LR
comp=Z,426nm,20.0s
ACSO Alum Creek Sta 148.50 293 ePKPbc PKPbc 00 42 38.8 0.0
ACSO LR LR
comp=Z,511nm,20.0s
KDAK Kodiak Island 148.56 32 PKPbc PKPbc 00 42 38.0 -0.3
comp=Z,44nm,0.8s,baz=29,slow=3.5,SNR=9.0
KDAK Kodiak Island 148.56 32 ePKP2 PKPbc 00 42 38.7 +0.4
KDAK Kodiak Island 148.56 32 ePKPbc PKPbc 00 42 38.7 +0.4
AAM Ann Arbor 148.98 297 ePKP2 PKPbc 00 42 40.0 +0.1
AAM MLR MLR
comp=Z,490nm,19.0s
AAM Ann Arbor 148.98 297 ePKPbc PKPbc 00 42 40.0 +0.1
AAM LR LR
comp=Z,490nm,19.0s
BMRM Bremner River 149.33 22 ePKPdf PKPdf 00 42 35.8 -0.1
BMRM epPKPdf PKiKP 00 42 40.6 -0.8
F46A Macinaw City C 149.41 304 P PKPbc 00 42 40.5 -0.4
baz=80
GLMI Grayling 149.45 302 ePKPbc PKPbc 00 42 41.4 +0.4
GLMI LR LR
comp=Z,504nm,21.0s
E45A Wooded Hills, 149.60 305 P PKPbc 00 42 41.2 -0.1
baz=79
F45A CMU Biological 149.95 304 P PKPbc 00 42 42.2 +0.1
baz=80
E44A Grand Marais A 150.05 306 P PKPbc 00 42 42.5 +0.2
baz=78
F44A Big Bay de Noc 150.52 305 P PKPbc 00 42 43.7 +0.1
baz=79
E43A Lone Tree Farm 150.83 306 P PKPbc 00 42 44.2 -0.1
baz=77
LRAL Lakeview Retre 150.92 278 ePKPbc PKPbc 00 42 44.8 -0.1
O47A Sheridan 150.94 293 P PKPbc 00 42 43.5 -1.3
baz=89
WCI Wyandotte Cave 151.00 289 ePKIKP PKPbc 00 42 44.2 -0.7
WCI Wyandotte Cave 151.00 289 ePKPbc PKPbc 00 42 44.2 -0.7
P47A Martinsville 151.02 291 P PKPbc 00 42 43.8 -1.1
baz=90
M46A Old House Fiel 151.04 295 P PKPbc 00 42 44.5 -0.4
baz=87
F43A Flat Rock, Esc 151.06 304 P PKPbc 00 42 45.0 +0.2
baz=78
Q47A Bedord North L 151.13 290 P PKPbc 00 42 44.0 -1.2
baz=91
YKA Yellowknife Ar 151.13 353 PKPbc PKPbc 00 42 43.5 -0.9
comp=Z,100nm,1.0s,baz=6.6,slow=2.0,SNR=35
448A Bay Minette 151.15 273 P PKPbc 00 42 44.8 -0.6
baz=105
348A Jackson 151.31 274 P PKPbc 00 42 46.0 +0.2
baz=104
248A Dixon Mills 151.33 276 P PKPbc 00 42 45.9 0.0
baz=103
N46A Monticello 151.35 294 P PKPbc 00 42 44.8 -0.9
baz=88
E42A Champion 151.43 306 P PKPbc 00 42 45.5 -0.2
baz=76
Z48A Northport 151.45 278 P PKPbc 00 42 45.8 -0.3
baz=101
G43A Wallace 151.53 303 P PKPbc 00 42 45.6 -0.3
baz=79
SFIN Lafayette 151.65 293 P PKPbc 00 42 45.6 -0.8
baz=88
D41A Chassel 151.71 307 P PKPbc 00 42 46.4 +0.1
baz=74
M45A Boilermakers S 151.72 295 P PKPbc 00 42 46.1 -0.3
baz=86
H43A Windswept, Lux 151.73 302 P PKPbc 00 42 46.3 -0.1
baz=80
F42A Maple Grove Fa 151.73 305 P PKPbc 00 42 46.5 +0.1
baz=77
Y47A UCPARC, Winfie 151.78 279 P PKPbc 00 42 46.3 -0.5
baz=100
347A Saraland 151.83 274 P PKPbc 00 42 46.9 -0.1
baz=104
Z47A Carrollton 151.84 278 P PKPbc 00 42 47.0 0.0
baz=101
147A Livingston 151.90 277 P PKPbc 00 42 47.3 +0.2
baz=102
N45A Kentland 151.94 294 P PKPbc 00 42 46.4 -0.6
baz=87
R46A Gibon Southern 151.96 289 P PKPbc 00 42 46.2 -0.9
baz=92
247A Quitman 152.04 275 P PKPbc 00 42 47.9 +0.4
baz=103
G42A Mountain 152.04 304 P PKPbc 00 42 47.0 -0.1
baz=78
I43A Langenfeld Bro 152.09 301 P PKPbc 00 42 47.0 -0.3
baz=81
S46A Don Dixon Farm 152.10 287 P PKPbc 00 42 46.5 -0.9
baz=93
E41A Kenton 152.13 306 P PKPbc 00 42 47.1 -0.2
baz=75
O45A Potomac 152.13 293 P PKPbc 00 42 46.6 -0.8
baz=88
L44A Lake County Fo 152.14 297 P PKPbc 00 42 47.4 0.0
baz=84
P45A Graceland, Par 152.16 291 P PKPbc 00 42 46.5 -1.0
baz=89
H42A Shiocton 152.26 302 P PKPbc 00 42 47.1 -0.5
baz=79
M44A Midewin, Midew 152.31 295 P PKPbc 00 42 47.7 -0.1
baz=86
446A Poplarville 152.36 272 P PKPbc 00 42 48.6 +0.4
baz=105
J43A Natural Harves 152.37 300 P PKPbc 00 42 47.4 -0.5
baz=82
K43A Burlington 152.39 298 P PKPbc 00 42 47.9 -0.1
baz=83
F41A Three Lakes 152.40 305 P PKPbc 00 42 47.5 -0.5
baz=76
N44A Piper City 152.42 294 P PKPbc 00 42 48.0 -0.1
baz=87
246A Jackson Lee, B 152.46 275 P PKPbc 00 42 48.3 -0.1
baz=103
Q45A Warren Harvey, 152.48 290 P PKPbc 00 42 47.6 -0.7
baz=90
C39A Grand Marais 152.51 310 P PKPbc 00 42 47.4 -0.6
baz=71
146A Union 152.54 276 P PKPbc 00 42 48.7 0.0
baz=102
Z46A Louisville 152.55 278 P PKPbc 00 42 48.7 +0.1
baz=101
R45A Skylar, Fairfi 152.57 289 P PKPbc 00 42 47.9 -0.6
baz=91
G41A Antigo 152.57 304 P PKPbc 00 42 47.9 -0.4
baz=77
346A Big Creek Wild 152.59 274 P PKPbc 00 42 48.6 -0.2
baz=104
Y46A Houston 152.61 279 P PKPbc 00 42 48.1 -0.6
baz=100
I42A Draeger Farm, 152.64 301 P PKPbc 00 42 48.1 -0.4

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | baz=80 | | | | | | |
| O44A | Mansfield | 152.70 | 293 | P | PKPbc | 00 42 48.7 | -0.1 |
| | baz=88 | | | | | | |
| L43A | Garden Prairie | 152.76 | 297 | P | PKPbc | 00 42 48.2 | -0.6 |
| | baz=84 | | | | | | |
| E40A | Wakefield | 152.76 | 307 | P | PKPbc | 00 42 48.4 | -0.3 |
| | baz=74 | | | | | | |
| S45A | Carrier Mills | 152.78 | 287 | P | PKPbc | 00 42 48.3 | -0.6 |
| | baz=92 | | | | | | |
| P44A | Sand Creek, Wi | 152.84 | 291 | P | PKPbc | 00 42 48.5 | -0.6 |
| | baz=89 | | | | | | |
| U45A | Rockin P Farm, | 152.84 | 284 | P | PKPbc | 00 42 48.4 | -0.8 |
| | baz=95 | | | | | | |
| J42A | Columbus | 152.88 | 300 | P | PKPbc | 00 42 48.8 | -0.3 |
| | baz=81 | | | | | | |
| V45A | Humboldt | 152.94 | 283 | P | PKPbc | 00 42 48.1 | -1.3 |
| | baz=96 | | | | | | |
| M43A | Waltham Townsh | 152.99 | 296 | P | PKPbc | 00 42 49.0 | -0.4 |
| | baz=85 | | | | | | |
| H41A | Junction City | 153.03 | 303 | P | PKPbc | 00 42 48.8 | -0.6 |
| | baz=78 | | | | | | |
| 345A | Thompson Farm, | 153.04 | 273 | P | PKPbc | 00 42 49.6 | -0.2 |
| | baz=104 | | | | | | |
| F40A | Park Falls | 153.05 | 306 | P | PKPbc | 00 42 49.2 | -0.2 |
| | baz=75 | | | | | | |
| SKAG | Skagway | 153.06 | 15 | ePKPbc | PKPbc | 00 42 49.4 | +0.6 |
| SKAG | | | | ePKPab | PKPab | 00 43 01.2 | +0.8 |
| W45A | Hickory Valley | 153.06 | 282 | P | PKPbc | 00 42 49.2 | -0.5 |
| | baz=97 | | | | | | |
| 245A | Little AP, Sta | 153.10 | 275 | P | PKPbc | 00 42 49.3 | -0.6 |
| | baz=103 | | | | | | |
| K42A | Prairie Point, | 153.12 | 299 | P | PKPbc | 00 42 49.3 | -0.3 |
| | baz=82 | | | | | | |
| X45A | UM Field Stati | 153.13 | 280 | P | PKPbc | 00 42 48.9 | -1.0 |
| | baz=98 | | | | | | |
| Q44A | Meyer Farm, Va | 153.15 | 290 | P | PKPbc | 00 42 49.3 | -0.5 |
| | baz=90 | | | | | | |
| OXF | Oxford | 153.16 | 280 | ePKIKP | PKPbc | 00 42 49.4 | -0.5 |
| OXF | | | | e | | 00 43 01.6 | |
| OXF | Oxford | 153.16 | 280 | ePKPbc | PKPbc | 00 42 49.4 | -0.5 |
| OXF | | | | ePKPab | PKPab | 00 43 01.6 | -0.1 |
| Y45A | Yeager Farm, C | 153.17 | 279 | P | PKPbc | 00 42 49.9 | -0.1 |
| | baz=100 | | | | | | |
| N43A | Stutzman Famil | 153.19 | 295 | P | PKPbc | 00 42 49.7 | -0.1 |
| | baz=86 | | | | | | |
| R44A | Waltonville | 153.20 | 289 | P | PKPbc | 00 42 49.1 | -0.8 |
| | baz=91 | | | | | | |
| Z45A | Winona | 153.20 | 278 | P | PKPbc | 00 42 49.8 | -0.3 |
| | baz=100 | | | | | | |
| E39A | Mellen | 153.21 | 307 | P | PKPbc | 00 42 49.4 | -0.3 |
| | baz=74 | | | | | | |
| G40A | Rib Lake | 153.26 | 304 | P | PKPbc | 00 42 49.4 | -0.4 |
| | baz=76 | | | | | | |
| I41A | Arkdale | 153.29 | 302 | P | PKPbc | 00 42 49.4 | -0.5 |
| | baz=79 | | | | | | |
| HDIL | Hopedale | 153.31 | 294 | P | PKPbc | 00 42 49.8 | -0.3 |
| | baz=86,SNR=5.8 | | | | | | |
| HDIL | Hopedale | 153.31 | 294 | ePKPbc | PKPbc | 00 42 50.4 | +0.3 |
| HDIL | | | | ePKPab | PKPab | 00 43 02.4 | +0.3 |
| U44B | Burton Farm, H | 153.32 | 284 | P | PKPbc | 00 42 49.4 | -0.8 |
| | baz=95 | | | | | | |
| S44A | Carbondale | 153.32 | 287 | P | PKPbc | 00 42 49.6 | -0.6 |
| | baz=92 | | | | | | |
| EYMN | Ely | 153.33 | 311 | P | PKPbc | 00 42 49.5 | -0.4 |
| | baz=70 | | | | | | |
| EYMN | Ely | 153.33 | 311 | ePKPdf | PKPdf | 00 42 42.9 | +0.6 |
| EYMN | | | | ePKPbc | PKiKP | 00 42 49.8 | -0.2 |
| EYMN | | | | LR | LR | | |
| | comp=Z,518nm,22.0s | | | | | | |
| O43A | Sugar Creek Fa | 153.34 | 293 | P | PKPbc | 00 42 50.0 | -0.2 |
| | baz=87 | | | | | | |
| L42A | Oliver, Polo | 153.46 | 297 | P | PKPbc | 00 42 50.2 | -0.2 |
| | baz=83 | | | | | | |
| 444A | Pine Grove | 153.49 | 272 | P | PKPbc | 00 42 50.2 | -0.5 |
| | baz=105 | | | | | | |
| J41A | Loganville | 153.52 | 300 | P | PKPbc | 00 42 49.7 | -0.7 |
| | baz=80 | | | | | | |
| P43A | Skaggs, Pawnee | 153.53 | 292 | P | PKPbc | 00 42 50.2 | -0.3 |
| | baz=88 | | | | | | |
| H40A | Chili | 153.54 | 303 | P | PKPbc | 00 42 50.0 | -0.4 |
| | baz=77 | | | | | | |
| T44A | Benton | 153.56 | 286 | P | PKPbc | 00 42 50.0 | -0.8 |
| | baz=93 | | | | | | |
| F39A | Loretta | 153.58 | 306 | P | PKPbc | 00 42 49.9 | -0.6 |
| | baz=74 | | | | | | |
| M42A | Sheffield | 153.59 | 296 | P | PKPbc | 00 42 50.3 | -0.4 |
| | baz=84 | | | | | | |
| U44A | Portageville | 153.60 | 285 | P | PKPbc | 00 42 50.0 | -0.8 |
| | baz=94 | | | | | | |
| Q43A | New Douglas | 153.69 | 290 | P | PKPab | 00 43 03.1 | -0.7 |
| | baz=89 | | | | | | |
| Y44A | Strider, Charl | 153.73 | 279 | P | PKPab | 00 43 04.0 | -0.1 |
| | baz=99 | | | | | | |
| 244A | Avery, Jackson | 153.76 | 274 | P | PKPab | 00 43 04.4 | +0.1 |
| | baz=103 | | | | | | |
| E38A | The Farm, Brul | 153.81 | 308 | P | PKPbc | 00 42 50.1 | -0.8 |
| | baz=72 | | | | | | |
| C37A | Embarrass | 153.84 | 310 | P | PKPbc | 00 42 50.7 | -0.3 |
| | baz=69 | | | | | | |
| K41A | Shullsburg | 153.85 | 298 | P | PKPab | 00 43 03.8 | -0.5 |
| | baz=81 | | | | | | |
| I40A | Norwalk | 153.85 | 301 | P | PKPab | 00 43 03.5 | -0.8 |
| | baz=78 | | | | | | |
| N42A | Yates City | 153.85 | 294 | P | PKPab | 00 43 04.1 | -0.3 |
| | baz=85 | | | | | | |
| R43A | Red Bud | 153.87 | 289 | P | PKPab | 00 43 03.8 | -0.8 |
| | baz=90 | | | | | | |
| G39A | Holcombe | 153.92 | 305 | P | PKPab | 00 43 04.0 | -0.6 |
| | baz=75 | | | | | | |
| O42A | Bath | 153.94 | 293 | P | PKPab | 00 43 04.2 | -0.6 |
| | baz=86 | | | | | | |
| S43A | Fulton Ridge, | 153.97 | 287 | P | PKPab | 00 43 04.3 | -0.7 |
| | baz=92 | | | | | | |
| L41A | Preston | 154.07 | 297 | P | PKPab | 00 43 04.8 | -0.5 |
| | baz=82 | | | | | | |
| T43A | Greenville | 154.12 | 286 | P | PKPab | 00 43 05.2 | -0.5 |
| | baz=93 | | | | | | |
| H39A | Augusta | 154.15 | 303 | P | PKPab | 00 43 05.1 | -0.4 |
| | baz=76 | | | | | | |
| U43A | Rector | 154.17 | 284 | P | PKPab | 00 43 05.0 | -0.9 |
| | baz=94 | | | | | | |
| P42A | Winchester | 154.17 | 292 | P | PKPab | 00 43 05.3 | -0.5 |
| | baz=88 | | | | | | |
| M41A | Milan | 154.18 | 296 | P | PKPab | 00 43 05.3 | -0.5 |
| | baz=84 | | | | | | |
| D37A | Cotton | 154.19 | 309 | P | PKPab | 00 43 05.2 | -0.5 |
| | baz=70 | | | | | | |
| F38A | Pierce - Schro | 154.21 | 307 | P | PKPab | 00 43 05.6 | -0.2 |
| | baz=73 | | | | | | |
| 543A | St. Martinvill | 154.23 | 270 | P | PKPab | 00 43 05.7 | -0.6 |
| | baz=107 | | | | | | |
| C36A | Pine Crest Far | 154.24 | 311 | P | PKPab | 00 43 05.5 | -0.3 |
| | baz=68 | | | | | | |
| Q42A | Golden Eagle | 154.34 | 290 | P | PKPab | 00 43 05.8 | -0.7 |
| | baz=89 | | | | | | |
| X43A | Marvell | 154.36 | 280 | P | PKPab | 00 43 06.1 | -0.7 |
| | baz=98 | | | | | | |
| E37A | Wrenshall | 154.37 | 308 | P | PKPab | 00 43 05.7 | -0.7 |
| | baz=71 | | | | | | |
| G38A | Ridgeland | 154.42 | 305 | P | PKPab | 00 43 05.9 | -0.8 |
| | baz=75 | | | | | | |
| K40A | Colesburg | 154.44 | 299 | P | PKPab | 00 43 06.2 | -0.7 |
| | baz=80 | | | | | | |
| Z43A | Armstrong Fami | 154.46 | 277 | P | PKPab | 00 43 06.9 | -0.3 |
| | baz=100 | | | | | | |
| N41A | Harden Midland | 154.49 | 294 | P | PKPab | 00 43 06.7 | -0.4 |
| | baz=85 | | | | | | |
| I39A | Houston | 154.50 | 302 | P | PKPab | 00 43 06.2 | -0.9 |
| | baz=78 | | | | | | |
| S42A | Caledonia | 154.54 | 287 | P | PKPab | 00 43 06.8 | -0.6 |
| | baz=91 | | | | | | |
| O41A | Passleys Farm, | 154.55 | 293 | P | PKPab | 00 43 06.8 | -0.6 |
| | baz=86 | | | | | | |
| B35A | Bob, Littlefor | 154.56 | 313 | P | PKPab | 00 43 06.7 | -0.5 |
| | baz=66 | | | | | | |
| L40A | Anamosa | 154.60 | 297 | P | PKPab | 00 43 06.9 | -0.6 |
| | baz=82 | | | | | | |
| D36A | Goodland | 154.66 | 310 | P | PKPab | 00 43 07.1 | -0.6 |
| | baz=69 | | | | | | |
| P41A | Barry, Barry | 154.72 | 292 | P | PKPab | 00 43 07.4 | -0.7 |
| | baz=87 | | | | | | |
| J39A | Decorah | 154.74 | 301 | P | PKPab | 00 43 07.2 | -0.9 |
| | baz=78 | | | | | | |
| T42A | Van Buren | 154.76 | 286 | P | PKPab | 00 43 07.7 | -0.7 |
| | baz=92 | | | | | | |
| F37A | Hinrichs Farm, | 154.78 | 306 | P | PKPab | 00 43 07.6 | -0.6 |
| | baz=73 | | | | | | |
| H38A | Maiden Rock | 154.84 | 304 | P | PKPab | 00 43 07.8 | -0.7 |
| | baz=75 | | | | | | |
| U42A | Revenden | 154.84 | 284 | P | PKPab | 00 43 08.1 | -0.7 |
| | baz=94 | | | | | | |
| Q41A | Truxton | 154.88 | 290 | P | PKPab | 00 43 08.2 | -0.7 |
| | baz=88 | | | | | | |
| CCM | Cathedral Cave | 154.90 | 288 | ePKIKP | PKPbc | 00 42 53.6 | +0.1 |
| CCM | | | | e | | 00 43 09.0 | |
| CCM | Cathedral Cave | 154.90 | 288 | ePKPbc | PKPbc | 00 42 53.6 | +0.1 |
| CCM | | | | ePKPab | PKPab | 00 43 09.0 | 0.0 |
| M40A | Post Highland | 154.91 | 296 | P | PKPab | 00 43 08.0 | -0.9 |
| | baz=83 | | | | | | |
| V42A | Cord | 154.92 | 283 | P | PKPab | 00 43 08.4 | -0.7 |
| | baz=95 | | | | | | |
| E36A | McGregor | 154.95 | 308 | P | PKPab | 00 43 08.1 | -0.8 |
| | baz=70 | | | | | | |
| ULM | Lac du Bonnet | 154.95 | 318 | PKPbc | PKPbc | 00 42 52.3 | -1.0 |
| | comp=Z,8.7nm,0.8s,baz=28,slow=4.1,SNR=7.4 | | | | | | |
| ULM | | | | PKPab | PKPab | 00 43 08.2 | -0.5 |
| | comp=Z,30nm,1.0s,baz=60,slow=3.5,SNR=12 | | | | | | |
| X42A | Stuttgart | 154.98 | 280 | P | PKPab | 00 43 08.3 | -1.1 |
| | baz=97 | | | | | | |
| K39A | Oelwein | 154.99 | 299 | P | PKPab | 00 43 08.3 | -0.9 |
| | baz=80 | | | | | | |
| Y42A | Garnett, Star | 155.01 | 278 | P | PKPab | 00 43 09.5 | 0.0 |
| | baz=99 | | | | | | |
| R41A | Rosebud | 155.01 | 289 | P | PKPab | 00 43 08.7 | -0.8 |
| | baz=90 | | | | | | |
| N40A | Mertquake, Sal | 155.02 | 295 | P | PKPab | 00 43 08.9 | -0.5 |
| | baz=84 | | | | | | |
| FFC | Flin Flon | 155.02 | 332 | PFAKE | | 00 42 50.0 | +5.5 |
| FFC | | | | LR | LR | | |
| | comp=Z,375nm,20.0s | | | | | | |
| I38A | Scanlan Farm, | 155.03 | 302 | P | PKPab | 00 43 08.3 | -1.0 |
| | baz=76 | | | | | | |
| Z42A | Norrel Spur, H | 155.05 | 277 | P | PKPab | 00 43 09.5 | -0.2 |
| | baz=100 | | | | | | |
| SPMN | Marine on St. | 155.05 | 305 | P | PKPab | 00 43 08.9 | -0.5 |
| | baz=73 | | | | | | |
| B34A | Aery, Baudette | 155.07 | 314 | P | PKPab | 00 43 09.7 | +0.4 |
| | baz=64 | | | | | | |
| L39A | Vinton | 155.16 | 298 | P | PKPab | 00 43 09.4 | -0.6 |
| | baz=81 | | | | | | |
| D35A | Remer | 155.26 | 310 | P | PKPab | 00 43 09.6 | -0.6 |
| | baz=68 | | | | | | |
| J38A | Wedel Dairy, R | 155.29 | 301 | P | PKPab | 00 43 10.1 | -0.4 |
| | baz=78 | | | | | | |
| S41A | Jillco Farms, | 155.29 | 287 | P | PKPab | 00 43 10.2 | -0.5 |
| | baz=91 | | | | | | |
| T41A | Mountain View | 155.29 | 286 | P | PKPab | 00 43 10.7 | -0.1 |
| | baz=92 | | | | | | |
| H37A | Dierke Farm, C | 155.30 | 304 | P | PKPab | 00 43 09.9 | -0.6 |
| | baz=75 | | | | | | |
| A33A | Warroad | 155.31 | 315 | P | PKPab | 00 43 09.9 | -0.4 |
| | baz=63 | | | | | | |
| O40A | La Belle | 155.31 | 293 | P | PKPab | 00 43 10.3 | -0.3 |
| | baz=85 | | | | | | |
| F36A | Milaca | 155.34 | 307 | P | PKPab | 00 43 09.7 | -0.9 |
| | baz=71 | | | | | | |
| M39A | Webster | 155.39 | 296 | P | PKPab | 00 43 10.4 | -0.6 |
| | baz=82 | | | | | | |
| U41A | Viola | 155.39 | 284 | P | PKPab | 00 43 10.7 | -0.4 |
| | baz=94 | | | | | | |
| P40A | Paris | 155.49 | 292 | P | PKPab | 00 43 10.8 | -0.6 |
| | baz=86 | | | | | | |
| Q40A | Laux Farm, Aux | 155.53 | 290 | P | PKPab | 00 43 11.5 | -0.2 |
| | baz=88 | | | | | | |
| V41A | Mountainview | 155.54 | 283 | P | PKPab | 00 43 11.0 | -0.8 |
| | baz=95 | | | | | | |
| W41B | Gary Mavity, V | 155.56 | 281 | P | PKPab | 00 43 11.9 | +0.1 |
| | baz=96 | | | | | | |
| C34A | RKJ Ranch, Bem | 155.57 | 312 | P | PKPab | 00 43 10.6 | -1.0 |
| | baz=66 | | | | | | |
| 241A | Mo Tay, Goldon | 155.60 | 273 | P | PKPab | 00 43 11.7 | -0.5 |
| | baz=103 | | | | | | |
| 341A | Kurthwood | 155.65 | 272 | P | PKPab | 00 43 12.7 | +0.3 |
| | baz=104 | | | | | | |
| G36A | St. Michael | 155.68 | 306 | P | PKPab | 00 43 11.7 | -0.4 |
| | baz=72 | | | | | | |
| Y41A | Eaglette Beard | 155.69 | 278 | P | PKPab | 00 43 12.8 | +0.4 |
| | baz=99 | | | | | | |
| R40A | Maddies Statio | 155.71 | 289 | P | PKPab | 00 43 12.0 | -0.5 |
| | baz=89 | | | | | | |
| N39A | Derby Farms, D | 155.71 | 295 | P | PKPab | 00 43 12.1 | -0.3 |
| | baz=83 | | | | | | |
| I37A | Lemond, Waseca | 155.78 | 303 | P | PKPab | 00 43 12.4 | -0.2 |
| | baz=75 | | | | | | |
| O39A | Kirksville | 155.81 | 293 | P | PKPab | 00 43 12.6 | -0.2 |
| | baz=84 | | | | | | |
| L38A | Oak Wood Farm, | 155.87 | 298 | P | PKPab | 00 43 12.8 | -0.2 |
| | baz=80 | | | | | | |
| AGMN | Agassiz Nation | 155.88 | 314 | P | PKPab | 00 43 12.2 | -0.6 |
| | baz=63 | | | | | | |
| S40A | Lebanon | 155.90 | 287 | P | PKPab | 00 43 13.0 | -0.3 |
| | baz=90 | | | | | | |
| T40A | Mansfield | 155.90 | 286 | P | PKPab | 00 43 13.2 | -0.2 |
| | baz=91 | | | | | | |
| X40A | Basin Creek Fa | 155.96 | 279 | P | PKPab | 00 43 13.5 | -0.2 |
| | baz=97 | | | | | | |
| A32A | Rocking H Ranc | 155.96 | 316 | P | PKPab | 00 43 12.9 | -0.2 |
| | baz=61 | | | | | | |
| D34A | Park Rapids | 155.98 | 311 | P | PKPab | 00 43 12.7 | -0.7 |
| | baz=67 | | | | | | |
| H36A | Jessenland, He | 156.00 | 304 | P | PKPab | 00 43 13.1 | -0.3 |
| | baz=74 | | | | | | |
| F35A | Swanville | 156.03 | 308 | P | PKPab | 00 43 12.7 | -0.9 |
| | baz=70 | | | | | | |
| P39B | Salisbury | 156.03 | 292 | P | PKPab | 00 43 13.2 | -0.6 |
| | baz=86 | | | | | | |
| J37A | Redenius Farm, | 156.06 | 301 | P | PKPab | 00 43 13.4 | -0.4 |
| | baz=77 | | | | | | |
| C33A | Trail | 156.06 | 313 | P | PKPab | 00 43 12.9 | -0.7 |
| | baz=64 | | | | | | |
| V40A | Witts Springs | 156.08 | 283 | P | PKPab | 00 43 13.3 | -0.8 |
| | baz=94 | | | | | | |
| U40A | Yellville | 156.14 | 284 | P | PKPab | 00 43 13.7 | -0.6 |
| | baz=93 | | | | | | |
| M38A | Pleasantville | 156.16 | 296 | P | PKPab | 00 43 14.0 | -0.3 |
| | baz=81 | | | | | | |
| E34A | Wadena | 156.18 | 310 | P | PKPab | 00 43 13.7 | -0.5 |
| | baz=68 | | | | | | |
| I36A | Fitzsimmons Fa | 156.21 | 303 | P | PKPab | 00 43 13.3 | -1.1 |
| | baz=75 | | | | | | |
| W40A | Ferguson Farm, | 156.23 | 281 | P | PKPab | 00 43 14.6 | -0.1 |
| | baz=96 | | | | | | |
| B32A | Ashes, Strandq | 156.23 | 315 | P | PKPab | 00 43 13.8 | -0.5 |
| | baz=62 | | | | | | |
| Q39A | Willow Grove F | 156.23 | 291 | P | PKPab | 00 43 14.4 | -0.3 |
| | baz=87 | | | | | | |
| K37A | Belmond | 156.24 | 300 | P | PKPab | 00 43 13.8 | -0.7 |
| | baz=78 | | | | | | |
| Z40A | Long Farm, Mag | 156.24 | 276 | P | PKPab | 00 43 14.8 | 0.0 |
| | baz=100 | | | | | | |
| Y40A | Okolona | 156.26 | 278 | P | PKPab | 00 43 14.5 | -0.5 |
| | baz=98 | | | | | | |
| N38A | Joes South For | 156.27 | 295 | P | PKPab | 00 43 14.3 | -0.5 |
| | baz=83 | | | | | | |
| R39A | Chumby, Stover | 156.31 | 289 | P | PKPab | 00 43 15.0 | 0.0 |
| | baz=88 | | | | | | |
| A31A | Linda, St. Vin | 156.35 | 316 | P | PKPab | 00 43 14.5 | -0.3 |
| | baz=60 | | | | | | |
| D33A | AnnSam, Waubun | 156.36 | 311 | P | PKPab | 00 43 14.4 | -0.5 |
| | baz=66 | | | | | | |
| L37A | Phoenix Point, | 156.45 | 298 | P | PKPab | 00 43 14.7 | -0.8 |
| | baz=79 | | | | | | |
| F34A | Alexandria | 156.50 | 308 | P | PKPab | 00 43 14.6 | -1.0 |
| | baz=69 | | | | | | |
| O38A | Galt | 156.53 | 293 | P | PKPab | 00 43 15.5 | -0.4 |
| | baz=84 | | | | | | |
| S39A | Bolivar | 156.55 | 287 | P | PKPab | 00 43 15.2 | -0.9 |
| | baz=90 | | | | | | |
| MIAR | Mount Ida | 156.57 | 279 | P | PKPab | 00 43 15.7 | -0.5 |
| | baz=97 | | | | | | |
| MIAR | Mount Ida | 156.57 | 279 | PFAKE | | 00 43 00.0 | +13 |
| MIAR | | | | LR | LR | | |
| | comp=Z,586nm,19.0s | | | | | | |
| H35A | Sunnyside Ranc | 156.58 | 305 | P | PKPab | 00 43 15.5 | -0.5 |
| | baz=72 | | | | | | |
| T39A | Clever | 156.59 | 286 | P | PKPab | 00 43 15.8 | -0.5 |
| | baz=91 | | | | | | |
| J36A | Seneca 1, Swea | 156.61 | 302 | P | PKPab | 00 43 15.5 | -0.7 |
| | baz=76 | | | | | | |
| P38A | Dawn | 156.62 | 292 | P | PKPab | 00 43 16.0 | -0.3 |
| | baz=85 | | | | | | |
| U39A | Green Forest | 156.65 | 284 | P | PKPab | 00 43 16.0 | -0.6 |
| | baz=93 | | | | | | |
| Q38A | Cooks Store, C | 156.74 | 290 | P | PKPab | 00 43 16.1 | -0.7 |
| | baz=86 | | | | | | |
| V39A | Pettigrew | 156.75 | 283 | P | PKPab | 00 43 16.8 | -0.2 |
| | baz=94 | | | | | | |
| W39A | Magazine | 156.81 | 281 | P | PKPab | 00 43 17.6 | +0.4 |
| | baz=95 | | | | | | |
| K36A | Gilmore City | 156.85 | 300 | P | PKPab | 00 43 16.6 | -0.7 |
| | baz=77 | | | | | | |
| B31A | Greenbush Farm | 156.87 | 316 | P | PKPab | 00 43 16.6 | -0.5 |
| | baz=60 | | | | | | |
| Y39A | Lockesburg | 156.92 | 278 | P | PKPab | 00 43 17.3 | -0.4 |
| | baz=98 | | | | | | |
| I35A | Creekview Farm | 156.93 | 303 | P | PKPab | 00 43 16.7 | -0.8 |
| | baz=74 | | | | | | |
| G34A | Benson | 156.94 | 307 | P | PKPab | 00 43 17.3 | -0.2 |
| | baz=70 | | | | | | |
| NATX | Nacogdoches | 156.99 | 272 | PFAKE | | 00 43 00.0 | +12 |
| NATX | | | | LR | LR | | |
| | comp=Z,431nm,20.0s | | | | | | |
| R38A | Fenwick Farm, | 157.00 | 288 | P | PKPab | 00 43 17.2 | -0.8 |
| | baz=88 | | | | | | |
| X39A | Fountain Ranch | 157.01 | 279 | P | PKPab | 00 43 18.2 | 0.0 |
| | baz=97 | | | | | | |
| N37A | Lee Faris, Mou | 157.01 | 295 | P | PKPab | 00 43 17.5 | -0.4 |
| | baz=82 | | | | | | |
| S38A | Stockton | 157.01 | 287 | P | PKPab | 00 43 17.1 | -1.0 |
| | baz=89 | | | | | | |
| O37A | Wolven Farm, M | 157.04 | 294 | P | PKPab | 00 43 17.2 | -0.9 |
| | baz=83 | | | | | | |
| F33A | 5 Mile Ranch, | 157.16 | 309 | P | PKPab | 00 43 17.9 | -0.5 |
| | baz=68 | | | | | | |
| C31A | Landman Farms, | 157.22 | 314 | P | PKPab | 00 43 18.8 | +0.2 |
| | baz=62 | | | | | | |
| P37A | Lathrop | 157.26 | 292 | P | PKPab | 00 43 18.7 | -0.4 |
| | baz=84 | | | | | | |
| T38A | Diamond | 157.32 | 286 | P | PKPab | 00 43 18.9 | -0.6 |
| | baz=91 | | | | | | |
| V38A | Canehill | 157.37 | 283 | P | PKPab | 00 43 19.2 | -0.5 |
| | baz=93 | | | | | | |
| U38A | Gravette | 157.38 | 284 | P | PKPab | 00 43 19.2 | -0.6 |
| | baz=92 | | | | | | |
| K35A | Storm Lake | 157.39 | 300 | P | PKPab | 00 43 18.8 | -0.7 |
| | baz=76 | | | | | | |
| Q37A | Longview Farm, | 157.39 | 290 | P | PKPab | 00 43 19.1 | -0.6 |
| | baz=86 | | | | | | |
| W38A | Poteau | 157.40 | 280 | P | PKPab | 00 43 20.0 | +0.1 |
| | baz=95 | | | | | | |
| 438A | Sam Houston St | 157.42 | 269 | P | PKPab | 00 43 19.7 | -0.3 |
| | baz=105 | | | | | | |
| I34A | Hadley | 157.48 | 304 | P | PKPab | 00 43 19.1 | -0.8 |
| | baz=72 | | | | | | |
| G33A | Ortonville | 157.49 | 307 | P | PKPab | 00 43 19.9 | 0.0 |
| | baz=69 | | | | | | |
| 138A | Matatall Enter | 157.53 | 274 | P | PKPab | 00 43 20.0 | -0.5 |
| | baz=101 | | | | | | |
| X38A | Whitesboro | 157.61 | 279 | P | PKPab | 00 43 20.7 | 0.0 |
| | baz=96 | | | | | | |
| O36A | Bolckow | 157.67 | 294 | P | PKPab | 00 43 20.3 | -0.5 |
| | baz=83 | | | | | | |
| R37A | Teagarden Farm | 157.72 | 289 | P | PKPab | 00 43 20.3 | -0.8 |
| | baz=87 | | | | | | |
| S37A | Fort Scott | 157.74 | 287 | P | PKPab | 00 43 21.2 | 0.0 |
| | baz=88 | | | | | | |
| J34A | George | 157.76 | 302 | P | PKPab | 00 43 20.3 | -0.8 |
| | baz=74 | | | | | | |
| H33A | Prehn Over Nor | 157.87 | 306 | P | PKPab | 00 43 20.9 | -0.7 |
| | baz=70 | | | | | | |
| E31A | Nome | 157.88 | 312 | P | PKPab | 00 43 20.9 | -0.6 |
| | baz=64 | | | | | | |
| P36A | Good Intent, A | 157.91 | 292 | P | PKPab | 00 43 21.1 | -0.8 |
| | baz=84 | | | | | | |
| V37A | Hulbert | 157.96 | 282 | P | PKPab | 00 43 22.0 | -0.2 |
| | baz=93 | | | | | | |
| U37A | Salina | 157.97 | 284 | P | PKPab | 00 43 21.6 | -0.6 |
| | baz=92 | | | | | | |
| K34A | Le Mars | 158.02 | 301 | P | PKPab | 00 43 21.2 | -1.0 |
| | baz=75 | | | | | | |
| X37A | Clayton | 158.05 | 279 | P | PKPab | 00 43 22.7 | 0.0 |
| | baz=96 | | | | | | |
| N35A | Tabor | 158.07 | 296 | P | PKPab | 00 43 21.9 | -0.6 |
| | baz=80 | | | | | | |
| ECSD | EROS Data Cent | 158.09 | 304 | P | PKPab | 00 43 21.8 | -0.7 |
| | baz=72 | | | | | | |
| ECSD | EROS Data Cent | 158.09 | 304 | PFAKE | | 00 43 00.0 | +11 |
| ECSD | | | | LR | LR | | |
| | comp=Z,436nm,22.0s | | | | | | |
| W37B | Quinton | 158.15 | 280 | P | PKPab | 00 43 22.6 | -0.4 |
| | baz=95 | | | | | | |
| G32A | Webster | 158.17 | 308 | P | PKPab | 00 43 22.3 | -0.5 |
| | baz=67 | | | | | | |
| Q36A | Arnold C. Orve | 158.17 | 291 | P | PKPab | 00 43 21.9 | -1.1 |
| | baz=85 | | | | | | |
| Y37A | Hugo | 158.18 | 277 | P | PKPab | 00 43 23.0 | -0.3 |
| | baz=98 | | | | | | |
| R36A | Gordon, Harris | 158.25 | 289 | P | PKPab | 00 43 22.6 | -0.8 |
| | baz=87 | | | | | | |
| MDND | Maddock | 158.29 | 316 | P | PKPab | 00 43 22.6 | -0.7 |
| | baz=58 | | | | | | |
| S36A | Lake Cedric, C | 158.35 | 287 | P | PKPab | 00 43 23.5 | -0.4 |
| | baz=88 | | | | | | |
| O35A | Humboldt | 158.37 | 294 | P | PKPab | 00 43 22.8 | -1.1 |
| | baz=81 | | | | | | |
| L34A | Svendsen Farm, | 158.39 | 299 | P | PKPab | 00 43 23.2 | -0.7 |
| | baz=77 | | | | | | |
| H32A | Carlson Farm, | 158.40 | 306 | P | PKPab | 00 43 23.1 | -0.8 |
| | baz=69 | | | | | | |
| F31A | Hecla | 158.41 | 310 | P | PKPab | 00 43 23.5 | -0.3 |
| | baz=65 | | | | | | |
| J33A | Davis | 158.46 | 303 | P | PKPab | 00 43 23.6 | -0.6 |
| | baz=73 | | | | | | |
| U36A | Oologah | 158.46 | 284 | P | PKPab | 00 43 23.8 | -0.5 |
| | baz=91 | | | | | | |
| TUL1 | Leonard | 158.49 | 282 | P | PKPab | 00 43 24.3 | -0.2 |
| | baz=93 | | | | | | |
| P35A | Duane Minner, | 158.54 | 292 | P | PKPab | 00 43 24.2 | -0.5 |
| | baz=83 | | | | | | |
| I32A | Karley and Nic | 158.58 | 305 | P | PKPab | 00 43 24.0 | -0.6 |
| | baz=70 | | | | | | |
| T36A | Boggs Farm, Ca | 158.59 | 286 | P | PKPab | 00 43 24.2 | -0.7 |
| | baz=90 | | | | | | |
| 236A | Katherine and | 158.60 | 272 | P | PKPab | 00 43 24.5 | -0.6 |
| | baz=102 | | | | | | |
| V36A | Jenks | 158.61 | 282 | P | PKPab | 00 43 24.5 | -0.5 |
| | baz=93 | | | | | | |
| Q35A | Mercer Eighty, | 158.63 | 291 | P | PKPab | 00 43 24.5 | -0.6 |
| | baz=85 | | | | | | |
| 136A | Ennis | 158.69 | 273 | P | PKPab | 00 43 25.7 | +0.2 |
| | baz=101 | | | | | | |
| N34A | Lincoln | 158.72 | 296 | P | PKPab | 00 43 25.8 | +0.4 |
| | baz=79 | | | | | | |
| 336A | Riesel | 158.72 | 270 | P | PKPab | 00 43 25.6 | -0.1 |
| | baz=104 | | | | | | |
| Y36A | Durant | 158.72 | 277 | P | PKPab | 00 43 25.5 | -0.1 |
| | baz=98 | | | | | | |
| Z36A | Blue Ridge | 158.75 | 275 | P | PKPab | 00 43 25.6 | -0.1 |
| | baz=99 | | | | | | |
| R35A | Emporia Munici | 158.79 | 289 | P | PKPab | 00 43 25.3 | -0.5 |
| | baz=86 | | | | | | |
| W36A | Wetumka | 158.80 | 280 | P | PKPab | 00 43 25.7 | -0.2 |
| | baz=94 | | | | | | |
| X36A | Centrahoma | 158.85 | 279 | P | PKPab | 00 43 26.0 | -0.1 |
| | baz=96 | | | | | | |
| S35A | Otter Creek Ra | 158.92 | 287 | P | PKPab | 00 43 26.2 | -0.1 |
| | baz=88 | | | | | | |
| O34A | Beatrice | 158.97 | 294 | P | PKPab | 00 43 26.1 | -0.4 |
| | baz=81 | | | | | | |
| J32A | Parkston | 159.06 | 304 | P | PKPab | 00 43 25.9 | -0.8 |
| | baz=72 | | | | | | |
| T35A | Sooner Cattle | 159.09 | 285 | P | PKPab | 00 43 27.0 | -0.1 |
| | baz=90 | | | | | | |
| H31A | Wolsey | 159.10 | 307 | P | PKPab | 00 43 26.2 | -0.7 |
| | baz=68 | | | | | | |
| P34A | Walnut Farm, R | 159.16 | 293 | P | PKPab | 00 43 27.0 | -0.4 |
| | baz=82 | | | | | | |
| U35A | Pawnee | 159.27 | 284 | P | PKPab | 00 43 28.1 | +0.2 |
| | baz=91 | | | | | | |
| I31A | Royce, Wessing | 159.31 | 306 | P | PKPab | 00 43 26.9 | -0.9 |
| | baz=69 | | | | | | |
| Q34A | Chapman | 159.32 | 291 | P | PKPab | 00 43 27.7 | -0.4 |
| | baz=84 | | | | | | |
| W35A | Tecumseh | 159.33 | 280 | P | PKPab | 00 43 27.9 | -0.3 |
| | baz=94 | | | | | | |
| V35A | Meyer Ranch, C | 159.34 | 282 | P | PKPab | 00 43 27.8 | -0.4 |
| | baz=92 | | | | | | |
| X35A | Drake | 159.34 | 278 | P | PKPab | 00 43 27.5 | -0.8 |
| | baz=96 | | | | | | |
| WHTX | Lake Whitney, | 159.36 | 271 | P | PKPab | 00 43 27.9 | -0.5 |
| | baz=102 | | | | | | |
| SUSD | Miller | 159.43 | 307 | P | PKPab | 00 43 27.8 | -0.5 |
| | baz=67 | | | | | | |
| N33A | J Bar K, Exete | 159.44 | 296 | P | PKPab | 00 43 27.9 | -0.6 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | baz=79 | | | | | | |
| S34A | Willow Spring | 159.55 | 287 | P | PKPab | 00 43 28.4 | -0.7 |
| | baz=87 | | | | | | |
| L32A | Elgin | 159.56 | 300 | P | PKPab | 00 43 28.4 | -0.6 |
| | baz=75 | | | | | | |
| R34A | Isabella, Hill | 159.62 | 289 | P | PKPab | 00 43 28.7 | -0.7 |
| | baz=85 | | | | | | |
| T34A | McClaskey Farm | 159.63 | 286 | P | PKPab | 00 43 29.1 | -0.3 |
| | baz=89 | | | | | | |
| O33A | Hebron | 159.66 | 294 | P | PKPab | 00 43 29.0 | -0.5 |
| | baz=80 | | | | | | |
| J31A | Geddes | 159.70 | 304 | P | PKPab | 00 43 28.9 | -0.7 |
| | baz=70 | | | | | | |
| BGNE | Belgrade | 159.81 | 298 | P | PKPab | 00 43 29.3 | -0.8 |
| | baz=76 | | | | | | |
| K31A | O'Neill | 159.92 | 302 | P | PKPab | 00 43 29.6 | -0.9 |
| | baz=72 | | | | | | |
| WMOK | Wichita Mounta | 160.86 | 279 | PFAKE | | 00 43 00.0 | +7.7 |
| WMOK | | | | LR | LR | | |
| | comp=Z,269nm,19.0s | | | | | | |
| JCT | Junction City | 160.94 | 265 | P | PKPab | 00 43 36.2 | +0.8 |
| | baz=106 | | | | | | |
| JCT | Junction City | 160.94 | 265 | PFAKE | | 00 43 00.0 | +7.4 |
| JCT | | | | LR | LR | | |
| | comp=Z,364nm,20.0s | | | | | | |
| ABTX | Abilene, Hawle | 161.30 | 272 | P | PKPab | 00 43 37.0 | +0.1 |
| | baz=100 | | | | | | |
| CBKS | Cedar Bluff | 161.50 | 291 | P | PKPab | 00 43 37.7 | +0.1 |
| | baz=82 | | | | | | |
| CBKS | Cedar Bluff | 161.50 | 291 | PFAKE | | 00 43 00.0 | +7.1 |
| CBKS | | | | LR | LR | | |
| | comp=Z,470nm,19.0s | | | | | | |
| LAO | LASA Array | 162.61 | 321 | P | PKPab | 00 43 42.3 | +0.1 |
| | baz=49 | | | | | | |
| LAO | LASA Array | 162.61 | 321 | PFAKE | | 00 43 00.0 | +6.2 |
| LAO | | | | LR | LR | | |
| | comp=Z,545nm,19.0s | | | | | | |
| OGNE | Ogallala | 162.76 | 299 | P | PKPab | 00 43 42.2 | -0.9 |
| | baz=73 | | | | | | |
| OGNE | Ogallala | 162.76 | 299 | PFAKE | | 00 43 00.0 | +5.8 |
| OGNE | | | | LR | LR | | |
| | comp=Z,760nm,21.0s | | | | | | |
| RSSD | Black Hills | 162.85 | 311 | P | PKPab | 00 43 43.1 | -0.4 |
| | baz=60 | | | | | | |
| EGMT | Eagleton | 163.29 | 330 | P | PKPab | 00 43 44.7 | -0.4 |
| | baz=37 | | | | | | |
| EGMT | Eagleton | 163.29 | 330 | PFAKE | | 00 43 00.0 | +5.6 |
| EGMT | | | | LR | LR | | |
| | comp=Z,572nm,20.0s | | | | | | |
| KSCO | Kaye Shedlock' | 163.69 | 293 | P | PKPab | 00 43 47.7 | +0.4 |
| | baz=78 | | | | | | |
| TXAR | Lajitas Array | 163.75 | 258 | PKP | PKPdf | 00 42 56.0 | +0.6 |
| | comp=Z,0.9nm,0.9s,baz=129,slow=1.8,SNR=5.4 | | | | | | |
| TXAR | | | | PKPab | PKPab | 00 43 48.0 | +0.2 |
| | comp=Z,1.4nm,1.0s,baz=134,slow=3.9,SNR=3.1 | | | | | | |
| MSTX | Muleshoe | 164.09 | 275 | P | PKPab | 00 43 49.8 | +0.5 |
| | baz=96 | | | | | | |
| K22A | Casper | 165.16 | 310 | P | PKPab | 00 43 52.4 | -1.3 |
| | baz=59 | | | | | | |
| RLMT | Red Lodge | 165.24 | 322 | P | PKPab | 00 43 53.8 | -0.1 |
| | baz=46 | | | | | | |
| RLMT | Red Lodge | 165.24 | 322 | PFAKE | | 00 43 10.0 | +14 |
| RLMT | | | | LR | LR | | |
| | comp=Z,798nm,19.0s | | | | | | |
| A04D | Lummi Island | 165.31 | 2 | P | PKPab | 00 43 54.0 | +0.3 |
| | baz=357 | | | | | | |
| NEW | Newport | 165.32 | 347 | P | PKPab | 00 43 53.8 | -0.1 |
| | baz=16 | | | | | | |
| NEW | Newport | 165.32 | 347 | PFAKE | | 00 43 10.0 | +14 |
| NEW | | | | LR | LR | | |
| | comp=Z,682nm,19.0s | | | | | | |
| T25A | Trinidad | 165.39 | 287 | P | PKPab | 00 43 55.2 | +0.2 |
| | baz=83 | | | | | | |
| N23A | Red Feather La | 165.56 | 303 | P | PKPab | 00 43 55.1 | -0.6 |
| | baz=66 | | | | | | |
| Q24A | Divide | 165.61 | 295 | P | PKPab | 00 43 56.0 | -0.1 |
| | baz=75 | | | | | | |
| ISCO | Idaho Springs | 165.72 | 299 | P | PKPab | 00 43 55.6 | -0.8 |
| | baz=71 | | | | | | |
| ISCO | Idaho Springs | 165.72 | 299 | PFAKE | | 00 43 10.0 | +13 |
| ISCO | | | | LR | LR | | |
| | comp=Z,790nm,22.0s | | | | | | |
| B05A | Bryant | 165.77 | 0 | P | PKPab | 00 43 55.0 | -0.7 |
| | baz=359,SNR=8.9 | | | | | | |
| MSO | Missoula | 165.84 | 337 | P | PKPab | 00 43 55.6 | -0.7 |
| | baz=28 | | | | | | |
| MNTX | Cornudas Mount | 165.88 | 265 | PFAKE | | 00 43 10.0 | +13 |
| MNTX | | | | LR | LR | | |
| | comp=Z,586nm,19.0s | | | | | | |
| BOZ | Bozeman (W) | 166.00 | 329 | P | PKPab | 00 43 57.1 | 0.0 |
| | baz=38 | | | | | | |
| C06D | Leavenworth | 166.09 | 357 | P | PKPab | 00 43 56.2 | -1.0 |
| | baz=3.5 | | | | | | |
| SDCO | Great Sand Dun | 166.15 | 290 | P | PKPab | 00 43 58.5 | 0.0 |
| | baz=79 | | | | | | |
| SDCO | Great Sand Dun | 166.15 | 290 | PFAKE | | 00 43 10.0 | +12 |
| SDCO | | | | LR | LR | | |
| | comp=Z,666nm,21.0s | | | | | | |
| LKWY | Lake | 166.20 | 323 | PFAKE | | 00 43 10.0 | +13 |
| LKWY | | | | LR | LR | | |
| | comp=Z,615nm,19.0s | | | | | | |
| H17A | Grant Village | 166.41 | 323 | P | PKPab | 00 43 60.0 | +0.8 |
| | baz=44 | | | | | | |
| BW06 | Boulder Array | 166.95 | 316 | P | PKPab | 00 44 00.4 | -1.2 |
| | baz=52 | | | | | | |
| BW06 | Boulder Array | 166.95 | 316 | PFAKE | | 00 43 10.0 | +12 |
| BW06 | | | | LR | LR | | |
| | comp=Z,674nm,20.0s | | | | | | |
| PDAR | Pinedale Array | 166.95 | 316 | PKP | PKPdf | 00 42 56.9 | -1.1 |
| | comp=Z,1.2nm,0.8s,baz=116,slow=3.4,SNR=5.9 | | | | | | |
| PDAR | | | | PKPab | PKPab | 00 44 00.7 | -1.0 |
| | comp=Z,3.9nm,0.9s,baz=66,slow=4.0,SNR=10 | | | | | | |
| PDAR | | | | PP | PP | 00 47 51.0 | +1.3 |
| | comp=Z,2.1nm,0.9s,baz=74,slow=5.3,SNR=6.0 | | | | | | |
| ANMO | Albuquerque | 167.18 | 278 | P | PKPab | 00 44 02.6 | -0.3 |
| | baz=90 | | | | | | |
| ANMO | Albuquerque | 167.18 | 278 | PFAKE | | 00 43 10.0 | +12 |
| ANMO | | | | LR | LR | | |
| | comp=Z,381nm,19.0s | | | | | | |
| S22A | 4UR Ranch, Cre | 167.18 | 291 | P | PKPab | 00 44 02.7 | -0.3 |
| | baz=78 | | | | | | |
| HAWA | Hanford | 167.51 | 352 | PFAKE | | 00 43 10.0 | +12 |
| HAWA | | | | LR | LR | | |
| | comp=Z,634nm,19.0s | | | | | | |
| AHID | Auburn Hatcher | 167.82 | 319 | PFAKE | | 00 43 10.0 | +11 |
| AHID | | | | LR | LR | | |
| | comp=Z,499nm,19.0s | | | | | | |
| MVCO | Mesa Verde | 168.59 | 290 | P | PKPab | 00 44 09.1 | -0.1 |
| | baz=78,SNR=5.5 | | | | | | |
| MVCO | Mesa Verde | 168.59 | 290 | PFAKE | | 00 43 10.0 | +11 |
| MVCO | | | | LR | LR | | |
| | comp=Z,688nm,20.0s | | | | | | |
| BMO | Blue Mountains | 168.61 | 343 | PFAKE | | 00 43 10.0 | +11 |
| BMO | | | | LR | LR | | |
| | comp=Z,446nm,19.0s | | | | | | |
| G03D | McMinnville, O | 168.78 | 5 | P | PKPab | 00 44 09.1 | 0.0 |
| | baz=354 | | | | | | |
| G05D | Wamic, OR | 168.79 | 358 | P | PKPab | 00 44 09.6 | +0.3 |
| | baz=2.6 | | | | | | |
| HLID | Hailey | 168.81 | 331 | P | PKPab | 00 44 09.8 | +0.2 |
| | baz=34 | | | | | | |
| HLID | Hailey | 168.81 | 331 | PFAKE | | 00 43 10.0 | +11 |
| HLID | | | | LR | LR | | |
| | comp=Z,587nm,20.0s | | | | | | |
| HWUT | Hardware Ranch | 168.83 | 316 | PFAKE | | 00 43 10.0 | +11 |
| HWUT | | | | LR | LR | | |
| | comp=Z,584nm,19.0s | | | | | | |
| I05D | Terrebonne, OR | 169.69 | 358 | P | PKPab | 00 44 13.3 | 0.0 |
| | baz=2.7,SNR=7.6 | | | | | | |
| I04A | Tendick Farm, | 170.24 | 2 | P | PKPab | 00 44 15.1 | -0.6 |
| | baz=358,SNR=7.5 | | | | | | |
| I03D | Drain, OR | 170.28 | 6 | P | PKPab | 00 44 15.6 | -0.2 |
| | baz=353,SNR=5.7 | | | | | | |
| DUG | Dugway, Tooele | 170.45 | 313 | P | PKPab | 00 44 16.6 | -0.5 |
| | baz=52 | | | | | | |
| DUG | Dugway, Tooele | 170.45 | 313 | PFAKE | | 00 43 10.0 | +10 |
| DUG | | | | LR | LR | | |
| | comp=Z,538nm,19.0s | | | | | | |
| TUC | Tucson | 170.48 | 263 | PFAKE | | 00 43 10.0 | +10 |
| TUC | | | | LR | LR | | |
| | comp=Z,637nm,19.0s | | | | | | |
| J05D | Fort Rock, OR | 170.74 | 357 | P | PKPab | 00 44 18.2 | +0.1 |
| | baz=3.5,SNR=24 | | | | | | |
| J04D | Umpqua Nationa | 170.80 | 1 | P | PKPab | 00 44 18.2 | -0.2 |
| | baz=359 | | | | | | |
| WUAZ | Wupatki | 171.17 | 283 | P | PKPab | 00 44 20.9 | +0.4 |
| | baz=83 | | | | | | |
| WUAZ | Wupatki | 171.17 | 283 | PFAKE | | 00 43 10.0 | +9.3 |
| WUAZ | | | | LR | LR | | |
| | comp=Z,465nm,20.0s | | | | | | |
| WVOR | Wild Horse Val | 171.21 | 344 | PFAKE | | 00 43 10.0 | +10 |
| WVOR | | | | LR | LR | | |
| | comp=Z,582nm,20.0s | | | | | | |
| K04D | Chiloquin, OR | 171.41 | 359 | P | PKPab | 00 44 20.7 | -0.3 |
| | baz=0.9 | | | | | | |
| L02D | Cave Junction, | 171.78 | 9 | P | PKPab | 00 44 22.5 | -0.1 |
| | baz=350 | | | | | | |
| M04C | Macdoel | 172.25 | 359 | P | PKPab | 00 44 24.1 | -0.7 |
| | baz=0.5,SNR=6.9 | | | | | | |
| M02C | Callahan | 172.61 | 5 | P | PKPab | 00 44 26.1 | -0.3 |
| | baz=354 | | | | | | |
| N02D | Trinity Center | 173.04 | 5 | P | PKPab | 00 44 27.8 | -0.4 |
| | baz=355 | | | | | | |
| R11A | Troy Canyon, C | 173.28 | 312 | P | PKPab | 00 44 28.9 | -0.9 |
| | baz=52 | | | | | | |
| PDMCI | Parker Dam,Lak | 173.52 | 275 | P | PKPab | 00 44 30.2 | -0.6 |
| | baz=90 | | | | | | |
| O03D | Paynes Creek | 173.74 | 359 | P | PKPab | 00 44 30.5 | -0.9 |
| | baz=0.9 | | | | | | |
| IRM | Iron Mountain | 174.35 | 273 | P | PKPab | 00 44 33.8 | -0.8 |
| | baz=90 | | | | | | |
| TPNV | Topopah Spring | 174.51 | 304 | P | PKPab | 00 44 31.5 | -3.7 |
| | baz=59 | | | | | | |
| TUQ | Turquoise Moun | 174.84 | 288 | P | PKPab | 00 44 36.7 | -0.1 |
| | baz=76 | | | | | | |
| FURC | Furnace Creek, | 175.17 | 302 | P | PKPab | 00 44 37.7 | -0.3 |
| | baz=61 | | | | | | |
| HEC | Hector,Ludlow | 175.28 | 281 | P | PKPab | 00 44 38.9 | +0.2 |
| | baz=81 | | | | | | |
| PFO | Pinyon Flats O | 175.41 | 266 | PFAKE | | 00 43 10.0 | +7.6 |
| PFO | | | | LR | LR | | |
| | comp=Z,600nm,21.0s | | | | | | |
| GSC | Goldstone, Bar | 175.57 | 288 | P | PKPab | 00 44 39.7 | -0.3 |
| | baz=74 | | | | | | |
| MPMC | Manual Prospec | 175.81 | 300 | P | PKPab | 00 44 40.5 | -0.7 |
| | baz=62 | | | | | | |
| CWC | Cottonwood Cre | 176.02 | 308 | P | PKPab | 00 44 41.2 | -0.7 |
| | baz=53 | | | | | | |
| EDW2 | Edwards Air Fo | 176.62 | 286 | P | PKPab | 00 44 44.3 | -0.3 |
| | baz=76 | | | | | | |
| ISA | Isabella, Lake | 176.70 | 301 | P | PKPab | 00 44 44.9 | 0.0 |
| | baz=61 | | | | | | |

*IDC **02** 00:23:58.9±1.6, 42°.44N×76°.43E, h0$^{km}$, mb3.6/4, mb1 4.0/11, mb1mx3.8/50, mbtmp3.9/11, ML3.3/6, MS3.1/2, Ms1 3.1/2, ms1mx2.6/46, Error ellipse: s-maj=25.4km s-min=9.1km az=161.0*

*NNC **02** 00:24:01.2±0.6, 42°.53N×76°.40E, h0$^{km}$, mb4.4, mpv4.2, Error ellipse: s-maj=5.0km s-min=2.8km az=172.0*

*ISCJB **02** 00:24:01.5±0.5, 42°.53N±0°.02×76°.38E±0°.02, h2$^{km}$±3$^{km}$, mb3.9/5, Error ellipse: s-maj=3.9km s-min=2.3km az=158.5*

*KRNET **02** 00:24:01.9±0.1, 42°.52N×76°.37E, h21$^{km}$, mb4.3*

*BJI **02** 00:24:01.6, 42°.64N×76°.46E, h5$^{km}$, ML4.1/6*

*KNET **02** 00:24:02.6±0.6, 42°.53N×76°.26E, h15$^{km}$±3$^{km}$, ml3.8, Error ellipse: s-maj=6.3km s-min=2.3km az=62.0*

*SOME **02** 00:24:02.0, 42°.52N×76°.38E, h10$^{km}$, MS3.0*

**ISC 02 00:24:02.2**±0.9**, 42°.57N**±0°.02**×76°.37E**±0°.02**, h14**$^{km}$±7$^{km}$**, n69,** σ1s**44**/112**, mb4.0**/5**, 40C-19D, Lake Issyk-Kul region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ULHL | Ulahol | 0.33 | 196 | ⇑iP | Pg | 00 24 08.3 | -0.9 |
| | baz=200 | | | | | | |
| ULHL | | | | ⇑iS | Sg | 00 24 12.7 | -1.2 |
| | baz=200 | | | | | | |
| ULHL | Ulahol | 0.33 | 196 | ⇑P | Pg | 00 24 08.3 | -0.9 |
| | 2µm,0.2s,SNR=8762 | | | | | | |
| IZV | Izvestkoviy | 0.50 | 21 | eP | Pb | 00 24 12.8 | -0.1 |
| | 906nm,0.2s | | | | | | |
| IZV | | | | eS | Sb | 00 24 20.6 | +0.4 |
| | 2µm,0.3s | | | | | | |
| KST | Kastek | 0.56 | 328 | eP | Pg | 00 24 13.4 | +0.1 |
| | 632nm,0.3s | | | | | | |
| KST | | | | eS | Sb | 00 24 22.1 | +0.2 |
| | 3µm,0.3s | | | | | | |
| TNSS | Tian-Shan | 0.63 | 42 | eP | Pg | 00 24 14.4 | -0.3 |
| | 1µm,0.2s | | | | | | |
| TNSS | | | | eS | Sg | 00 24 23.5 | +0.3 |
| | 10µm,0.3s | | | | | | |
| TKM2 | Tokmak 2 | 0.67 | 302 | ⇓iP | Pg | 00 24 15.4 | 0.0 |
| | baz=306 | | | | | | |
| TKM2 | | | | ⇓iS | Sb | 00 24 25.2 | +0.2 |
| | baz=306 | | | | | | |
| TKM2 | Tokmak 2 | 0.67 | 302 | ⇓P | Pg | 00 24 15.3 | 0.0 |
| | 488nm,0.3s | | | | | | |
| TKM2 | | | | ⇑S | Sg | 00 24 25.0 | +0.8 |
| | 7µm,0.5s | | | | | | |
| TKM2 | Tokmak 2 | 0.67 | 302 | ⇑P | Pg | 00 24 15.2 | -0.1 |
| | 1µm,0.3s,SNR=1656 | | | | | | |
| TKM2 | | | | ⇑S | Sg | 00 24 25.0 | +0.8 |
| | 3µm,0.1s | | | | | | |
| AAA | Alma-Ata | 0.76 | 32 | eP | Pb | 00 24 17.1 | -0.1 |
| | 3µm,0.2s | | | | | | |
| AAA | | | | eS | Sb | 00 24 28.0 | +0.6 |
| | 25µm,0.3s | | | | | | |
| MDOK | Medeo | 0.78 | 40 | ⇑P | Pg | 00 24 16.8 | -0.5 |
| MDOK | | | | ⇓S | Sg | 00 24 27.5 | -0.2 |
| MDOK | Medeo | 0.78 | 40 | eP | Pg | 00 24 16.8 | -0.5 |
| | 316nm,0.3s | | | | | | |
| MDOK | | | | eS | Sg | 00 24 27.4 | -0.2 |
| | 4µm,0.4s | | | | | | |
| KNDC | Almaty | 0.78 | 34 | ⇓P | Pb | 00 24 17.5 | -0.1 |
| KNDC | | | | ⇑S | Sb | 00 24 28.8 | +0.6 |
| DGS | Degeres | 0.81 | 327 | eP | Pb | 00 24 18.3 | +0.2 |
| | 699nm,0.4s | | | | | | |
| DGS | | | | eS | Sb | 00 24 29.7 | +0.9 |
| | 2µm,0.3s | | | | | | |
| KOTS | Kotyrbulak | 0.86 | 39 | eP | Pb | 00 24 19.0 | 0.0 |
| KOTS | | | | eS | Sb | 00 24 31.2 | +0.7 |
| KBK | Karagaybulak | 1.05 | 275 | ⇑iP | Pg | 00 24 21.9 | -0.6 |
| | baz=278 | | | | | | |
| KBK | | | | ⇑iS | Sb | 00 24 36.7 | +0.7 |
| | baz=278 | | | | | | |
| KBK | Karagaybulak | 1.05 | 275 | P | Pg | 00 24 21.9 | -0.6 |
| | 112nm,0.3s,SNR=145 | | | | | | |
| KBK | | | | ⇑S | Sb | 00 24 36.9 | +0.9 |
| | 2µm,0.3s | | | | | | |
| CHMS | Chumysh | 1.27 | 290 | P | Pn | 00 24 25.3 | -0.2 |
| | 58nm,0.2s,SNR=95 | | | | | | |
| CHMS | | | | ⇑S | Sb | 00 24 42.5 | +0.4 |
| | 826nm,0.3s | | | | | | |
| FRU1 | Bishkek | 1.30 | 281 | ⇓iP | Pn | 00 24 26.6 | +0.5 |
| | baz=284 | | | | | | |
| FRU1 | | | | ⇓iS | Sn | 00 24 44.6 | +1.3 |
| | baz=284 | | | | | | |
| KUU | Kurty | 1.33 | 359 | eP | Pn | 00 24 27.0 | +0.7 |
| | 2µm,0.5s | | | | | | |
| KUU | | | | eS | Sn | 00 24 44.9 | +1.1 |
| | 4µm,0.3s | | | | | | |
| CHKK | Chushkaly | 1.36 | 19 | eP | Pb | 00 24 27.5 | 0.0 |
| | 548nm,0.3s | | | | | | |
| CHKK | | | | eS | Sn | 00 24 45.9 | +1.2 |
| | 6µm,0.3s | | | | | | |
| AAK | Ala-Archa | 1.39 | 274 | Pg | Pn | 00 24 27.5 | +0.2 |
| | 67nm,0.3s,baz=102,slow=10.0,SNR=418 | | | | | | |
| AAK | | | | Lg | Lg | 00 24 45.7 | |
| | 124nm,0.3s,baz=229,slow=19,SNR=94 | | | | | | |
| AAK | Ala-Archa | 1.39 | 274 | ⇑iP | Pn | 00 24 27.4 | +0.2 |
| | baz=275 | | | | | | |
| AAK | | | | ⇑iS | Sb | 00 24 45.9 | +0.4 |
| | baz=275 | | | | | | |
| AAK | Ala-Archa | 1.39 | 274 | ⇑P | Pn | 00 24 27.5 | +0.2 |
| | 53nm,0.3s | | | | | | |
| AAK | | | | ⇑S | Sb | 00 24 46.2 | +0.6 |
| | 878nm,0.6s | | | | | | |
| AAK | Ala-Archa | 1.39 | 274 | P | Pn | 00 24 27.5 | +0.2 |
| | 64nm,0.2s,SNR=189 | | | | | | |
| AAK | | | | ⇑S | Sb | 00 24 46.0 | +0.4 |
| | 1µm,0.6s | | | | | | |
| UCH | Uchtor | 1.42 | 257 | ⇑iP | Pn | 00 24 27.8 | -0.1 |
| | baz=259 | | | | | | |
| UCH | | | | ⇑iS | Sb | 00 24 47.1 | +0.4 |
| | baz=259 | | | | | | |
| UCH | Uchtor | 1.42 | 257 | P | Pn | 00 24 27.8 | -0.1 |
| | 110nm,0.4s,SNR=144 | | | | | | |
| UCH | | | | ⇑S | Sb | 00 24 47.0 | +0.3 |
| | 215nm,0.3s | | | | | | |
| PRZ | Przheval'sk | 1.50 | 92 | ⇑iP | Pn | 00 24 29.2 | +0.3 |
| | baz=91 | | | | | | |
| PRZ | | | | ⇑iS | Sg | 00 24 49.9 | -0.8 |
| | baz=91 | | | | | | |
| USP | Ospenovka | 1.54 | 298 | ⇓iP | Pn | 00 24 30.3 | +1.0 |
| | baz=299 | | | | | | |
| USP | | | | ⇓iS | Sb | 00 24 51.2 | +1.3 |
| | baz=299 | | | | | | |
| USP | Ospenovka | 1.54 | 298 | P | Pn | 00 24 30.2 | +1.0 |
| | 202nm,0.2s,SNR=727 | | | | | | |
| KURS | Kuram | 1.61 | 54 | eP | Pb | 00 24 31.8 | 0.0 |
| KURS | | | | eS | Sg | 00 24 53.0 | -1.1 |
| ZHN | Zhinishke | 1.63 | 68 | eP | Pn | 00 24 31.3 | +0.7 |
| | 195nm,0.2s | | | | | | |
| ZHN | | | | eS | Sb | 00 24 52.7 | +0.1 |
| | 2µm,0.2s | | | | | | |
| EKS2 | Erkin-Say | 1.92 | 274 | ⇑eP | Pb | 00 24 36.6 | -0.4 |
| | baz=276 | | | | | | |
| EKS2 | | | | ⇑iS | Sb | 00 25 00.6 | -0.2 |
| | baz=276 | | | | | | |
| EKS2 | Erkin-Say | 1.92 | 274 | P | Pb | 00 24 37.2 | +0.2 |
| | 339nm,0.5s,SNR=393 | | | | | | |
| ARXS | Arharly | 1.96 | 32 | eP | Pb | 00 24 37.9 | +0.2 |
| | 271nm,0.2s | | | | | | |
| ARXS | | | | eS | Sb | 00 25 03.8 | +1.8 |
| | 2µm,0.3s | | | | | | |
| AML | Almayashu | 2.03 | 259 | ⇑eP | Pb | 00 24 38.9 | -0.2 |
| | baz=260 | | | | | | |
| AML | | | | ⇑iS | Sb | 00 25 05.0 | +0.7 |
| | baz=260 | | | | | | |
| AML | Almayashu | 2.03 | 259 | P | Pb | 00 24 38.9 | -0.2 |
| | 110nm,0.3s,SNR=192 | | | | | | |
| UZB | Uzynbulak | 2.04 | 73 | eP | Pb | 00 24 38.5 | -0.5 |
| | 574nm,0.4s | | | | | | |
| UZB | | | | eS | Sb | 00 25 04.6 | +0.3 |
| | 2µm,0.2s | | | | | | |
| MRKS | Merke | 2.33 | 275 | eP | Pb | 00 24 44.2 | +0.3 |
| | 117nm,0.5s | | | | | | |
| MRKS | | | | eS | Sb | 00 25 14.8 | +2.3 |
| | 2µm,0.6s | | | | | | |
| SHLS | Shalkode | 2.35 | 74 | eP | Pg | 00 24 48.2 | +0.9 |
| | 400nm,0.3s | | | | | | |
| SHLS | | | | eS | Sg | 00 25 21.7 | +4.0 |
| | 2µm,0.4s | | | | | | |
| PDGK | Podgornoye | 2.42 | 71 | ⇑iP | Pn | 00 24 43.0 | +1.6 |
| | baz=69 | | | | | | |
| PDGK | | | | ⇑iS | Sb | 00 25 13.7 | -1.4 |
| | baz=69 | | | | | | |
| PDGK | Podgornoye | 2.42 | 71 | ⇑Pg | Pn | 00 24 42.8 | +1.4 |
| | 86nm,0.3s | | | | | | |
| PDGK | | | | ⇑Lg | Lg | 00 25 15.4 | |
| | 566nm,0.6s | | | | | | |
| MNAS | Manas | 2.86 | 270 | ⇑iP | Pn | 00 24 50.0 | +2.5 |
| | baz=271 | | | | | | |
| MNAS | | | | ⇑iS | Sn | 00 25 24.2 | +2.5 |
| | baz=271 | | | | | | |
| MNAS | Manas | 2.86 | 270 | ⇓Pn | Pn | 00 24 50.1 | +2.7 |
| | 57nm,0.5s | | | | | | |
| MNAS | | | | ⇑Lg | Lg | 00 25 30.6 | |
| | 122nm,0.6s | | | | | | |
| BTLS | Baital | 2.99 | 327 | eP | Pb | 00 24 56.4 | +1.2 |
| | 112nm,0.3s | | | | | | |
| BTLS | | | | eS | Sb | 00 25 35.0 | +3.4 |
| | 394nm,0.7s | | | | | | |
| KTMS | Ketmen | 3.05 | 72 | eP | Pb | 00 24 55.9 | -0.5 |
| | 126nm,0.2s | | | | | | |
| KTMS | | | | eS | Sb | 00 25 34.3 | +0.9 |
| | 626nm,0.4s | | | | | | |
| KSH | Kashi | 3.06 | 186 | Pn | Pg | 00 24 59.1 | -1.8 |
| KSH | | | | Sn | Sg | 00 25 45.4 | +4.8 |
| KSH | | | | smax | smax | | |
| | comp=N,2µm,0.9s | | | | | | |
| KSH | | | | smax | smax | | |
| | comp=E,2µm,0.6s | | | | | | |
| SFK | Sufi-Kurgan | 3.34 | 221 | ⇓Pn | Pn | 00 24 56.2 | +2.0 |
| | 30nm,0.8s | | | | | | |
| SFK | | | | ⇓Pg | Pb | 00 25 02.1 | +0.7 |
| | 58nm,0.4s | | | | | | |
| SFK | | | | ⇑Lg | Lg | 00 25 47.1 | |
| | 254nm,0.7s | | | | | | |
| KK31 | Karatay Array | 4.34 | 279 | ⇑Pn | Pn | 00 25 08.8 | +1.0 |
| | 3.0nm,0.8s,baz=90,slow=12,SNR=210 | | | | | | |
| KK31 | | | | ⇑Pg | Pg | 00 25 23.2 | -2.1 |
| | 31nm,0.7s,baz=93,slow=16,SNR=62 | | | | | | |
| KK31 | | | | ⇓Lg | Lg | 00 26 22.6 | |
| | 208nm,0.7s,baz=98,slow=28,SNR=17 | | | | | | |
| MAKZ | Makanchi | 5.83 | 41 | ⇑Pn | Pn | 00 25 29.8 | +1.6 |
| | 61nm,0.6s | | | | | | |
| MAKZ | | | | ⇓Lg | Lg | 00 27 01.7 | |
| | 84nm,0.8s | | | | | | |
| MK31 | Makanchi Array | 5.97 | 43 | ⇓Pn | Pn | 00 25 32.1 | +1.9 |
| | 72nm,0.6s,baz=218,slow=14,SNR=882 | | | | | | |
| MK31 | | | | ⇑Lg | Lg | 00 27 09.2 | |
| | 28nm,0.5s,baz=233,slow=26,SNR=4.3 | | | | | | |
| MKAR | Makanchi Array | 5.97 | 43 | Pn | Pn | 00 25 32.2 | +2.1 |
| | 15nm,0.3s,baz=220,slow=15,SNR=880 | | | | | | |
| MKAR | | | | Sn | Sn | 00 26 39.4 | +1.1 |
| | 6.2nm,0.3s,baz=222,slow=25,SNR=5.3 | | | | | | |
| MKAR | | | | Lg | Lg | 00 27 07.9 | |
| | 12nm,0.3s,baz=226,slow=28,SNR=7.2 | | | | | | |
| MKAR | | | | LR | LR | 00 28 10.7 | |
| | comp=Z,146nm,19.6s,baz=205,slow=42 | | | | | | |
| KURBB | Kurchatov Arra | 8.19 | 10 | Pn | Pn | 00 26 00.2 | -0.4 |
| | 0.4nm,0.3s,baz=196,slow=12,SNR=14 | | | | | | |
| KURBB | | | | Lg | Lg | 00 28 14.2 | |
| | 1.7nm,0.3s,baz=219,slow=32,SNR=5.9 | | | | | | |
| KURBB | Kurchatov Arra | 8.19 | 10 | ⇓Lg | Lg | 00 28 17.7 | |
| | 280nm,0.7s | | | | | | |
| KURK | Kurchatov | 8.30 | 10 | ⇑Lg | Lg | 00 28 22.1 | |
| | 213nm,0.7s | | | | | | |
| CEP | Cherat | 9.41 | 203 | P | Pn | 00 26 19.6 | +2.2 |
| THW | Thamme Wali | 10.42 | 202 | P | Pn | 00 26 32.9 | +1.7 |
| BVA0 | Borovoye Array | 11.21 | 341 | ⇓Pn | Pn | 00 26 42.4 | +0.6 |
| | 1.8nm,0.4s,baz=144,slow=14,SNR=7.7 | | | | | | |
| BVA0 | | | | ⇓Sn | Sn | 00 28 42.0 | -4.8 |
| | 5.4nm,0.7s,baz=31,slow=42,SNR=5.3 | | | | | | |
| BVAR | Borovoye Array | 11.21 | 341 | Pn | Pn | 00 26 41.0 | -0.8 |
| | 1.0nm,0.3s,baz=150,slow=15,SNR=26 | | | | | | |
| BVAR | | | | Sn | Sn | 00 28 42.9 | -3.8 |
| | 2.1nm,0.3s,baz=148,slow=24,SNR=6.5 | | | | | | |
| BVAR | | | | Lg | Lg | 00 29 55.9 | |
| | 3.2nm,0.3s,baz=148,slow=31,SNR=8.7 | | | | | | |
| ZALV | Zalesovo Beam | 12.69 | 23 | Pn | Pn | 00 27 01.4 | -0.7 |
| | 2.0nm,0.3s,baz=212,slow=14,SNR=28 | | | | | | |
| ZALV | | | | Sn | Sn | 00 29 19.5 | -3.6 |
| | 1.5nm,0.3s,baz=219,slow=21,SNR=6.7 | | | | | | |
| ZALV | | | | Lg | Lg | 00 30 43.0 | |
| | 0.3nm,0.3s,baz=204,slow=26,SNR=3.8 | | | | | | |
| ZALV | | | | LR | LR | 00 32 13.0 | |
| | comp=Z,98nm,18.9s,baz=248,slow=39 | | | | | | |
| AB31 | Akbulak array | 13.24 | 306 | ⇑Pn | Pn | 00 27 08.4 | -1.1 |
| | 1.6nm,0.6s | | | | | | |
| GEYT | Alibeck | 14.68 | 258 | Pn | Pn | 00 27 26.4 | -3.0 |
| | 0.1nm,0.3s,baz=95,slow=18,SNR=2.8 | | | | | | |
| AKTO | Aktyubinsk | 14.86 | 308 | Pn | Pn | 00 27 30.2 | -1.5 |
| | 0.1nm,0.3s,baz=110,slow=14,SNR=5.5 | | | | | | |
| AKTO | Aktyubinsk | 14.86 | 308 | ⇓Pn | Pn | 00 27 32.2 | +0.4 |
| | 8.3nm,1.4s | | | | | | |
| ARU | Arti | 17.98 | 327 | P | Pn | 00 28 11.1 | -0.4 |
| | 0.0nm,0.3s,baz=115,slow=6.2,SNR=9.4 | | | | | | |
| ARU | | | | Lg | Lg | 00 33 32.3 | |
| | 0.0nm,0.3s,baz=162,slow=19,SNR=4.4 | | | | | | |
| SONM | Songino Array | 21.72 | 66 | P | P | 00 28 52.2 | -0.8 |
| | 3.9nm,0.8s,baz=278,slow=11,SNR=4.4 | | | | | | |
| BRTR | Keskin Array B | 32.05 | 280 | P | P | 00 30 31.7 | +3.2 |
| | 1.2nm,0.7s,baz=93,slow=7.6,SNR=7.9 | | | | | | |
| ARCES | ARCESS Array B | 37.35 | 333 | P | P | 00 31 12.8 | -1.0 |
| | 7.4nm,1.0s,baz=108,slow=8.6,SNR=3.4 | | | | | | |
| ESDC | Sonseca Array | 58.38 | 297 | P | P | 00 33 57.0 | -0.1 |
| | 0.1nm,0.3s,baz=60,slow=7.2,SNR=2.7 | | | | | | |
| ILAR | Eielson Array | 67.77 | 18 | P | P | 00 34 58.0 | -0.9 |
| | 0.9nm,0.8s,baz=323,slow=5.4,SNR=11 | | | | | | |

**MAN 02 00:25:34, 15°.64N×121°.03E, h13$^{km}$, mb4.3, ML3.1, MS2.9, 1D, Luzon**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BALP | Baler | 0.54 | 79 | eP | Pb | 00 25 45.4 | +0.1 |
| BALP | | | | eS | Sb | 00 25 53.1 | 0.0 |
| BOLP | Bolinao | 1.30 | 305 | eP | Pn | 00 25 57.4 | -0.5 |
| CAUP | Cauayan | 1.51 | 30 | eP | Pn | 00 26 00.1 | -0.6 |
| CAUP | | | | eS | Sn | 00 26 20.0 | -0.3 |
| LQP | Lukban | 1.60 | 162 | eP | Pg | 00 26 15.7 | +11 |
| GQP | Guinayangan | 2.20 | 141 | ⇓eP | Pn | 00 26 10.2 | -0.1 |
| GQP | | | | eS | Sb | 00 26 39.3 | -1.6 |

*CSEM **02** 00:33:27.2, 39°.92N×16°.02E, h8$^{km}$, MD2.1/13*

**ROM 02 00:33:27.2**±0.1**, 39°.92N×16°.02E, h8**$^{km}$**, Md2.1**/13**, Ml1.5**/7**,**

**Error ellipse: s-maj=1.2km s-min=0.9km az=56.0, Southern Italy**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MMN | Mormanno | 0.04 | 220 | Pg | Pg | 00 33 29.3 | +0.5 |
| MMN | | | | Sg | Sg | 00 33 30.4 | +0.5 |
| MMN | Mormanno | 0.04 | 220 | Pg | Pg | 00 33 29.3 | +0.5 |
| MMN | | | | Sg | Sg | 00 33 30.4 | +0.5 |
| T0711 | Rotonda (PZ) | 0.04 | 61 | Pg | Pg | 00 33 29.4 | +0.5 |
| T0711 | | | | Sg | Sg | 00 33 30.5 | +0.3 |
| CUC | Castrocucco | 0.17 | 295 | Pg | Pg | 00 33 31.4 | +0.5 |
| CUC | | | | Sg | Sg | 00 33 34.2 | +0.8 |
| | 93nm,0.3s | | | | | | |
| CUC | Castrocucco | 0.17 | 295 | Pg | Pg | 00 33 31.4 | +0.5 |
| CUC | | | | Sg | Sg | 00 33 34.2 | +0.8 |
| | 93nm,0.3s | | | | | | |
| SALB | San Lorenzo Be | 0.25 | 99 | Pg | Pg | 00 33 33.0 | +0.7 |
| SALB | | | | Sg | Sb | 00 33 37.5 | -1.2 |
| | 58nm,0.3s | | | | | | |
| SALB | San Lorenzo Be | 0.25 | 99 | Pg | Pg | 00 33 33.0 | +0.7 |
| SALB | | | | Sg | Sb | 00 33 37.5 | -1.2 |
| | 58nm,0.3s | | | | | | |
| SCHR | S. Chirico Rap | 0.28 | 9 | Pg | Pg | 00 33 33.2 | +0.3 |
| SCHR | | | | Sg | Sg | 00 33 37.8 | +1.1 |
| | 14nm,0.3s | | | | | | |
| SIRI | Monte Sirino - | 0.29 | 336 | Pg | Pg | 00 33 33.6 | +0.6 |
| SIRI | | | | Sg | Sb | 00 33 39.2 | -0.5 |
| | 120nm,0.3s | | | | | | |
| SIRI | Monte Sirino - | 0.29 | 336 | Pg | Pg | 00 33 33.6 | +0.6 |
| SIRI | | | | Sg | Sb | 00 33 39.2 | -0.5 |
| | 120nm,0.3s | | | | | | |
| ORI | Oriolo Calabro | 0.36 | 66 | Pg | Pb | 00 33 35.9 | +0.1 |
| | 55nm,0.4s | | | | | | |
| ORI | Oriolo Calabro | 0.36 | 66 | Pg | Pb | 00 33 35.9 | +0.1 |
| | 55nm,0.4s | | | | | | |
| CET2 | Cetraro | 0.39 | 188 | Pg | Pg | 00 33 35.6 | +0.7 |
| CET2 | | | | Sg | Sb | 00 33 41.5 | -1.1 |
| CET2 | Cetraro | 0.39 | 188 | Pg | Pg | 00 33 35.6 | +0.7 |
| CET2 | | | | Sg | Sb | 00 33 41.5 | -1.1 |
| MTSN | Montesano sull | 0.41 | 329 | Pg | Pg | 00 33 35.8 | +0.6 |
| MTSN | | | | Sg | Sb | 00 33 42.5 | -0.5 |
| | 29nm,0.4s | | | | | | |
| MTSN | Montesano sull | 0.41 | 329 | Pg | Pg | 00 33 35.8 | +0.6 |
| MTSN | | | | Sg | Sb | 00 33 42.5 | -0.5 |
| | 29nm,0.4s | | | | | | |
| MGR | Morigerati | 0.42 | 302 | Pg | Pg | 00 33 36.1 | +0.7 |
| MGR | | | | Sg | Sb | 00 33 42.7 | -0.7 |
| MGR | Morigerati | 0.42 | 302 | Pg | Pg | 00 33 36.1 | +0.7 |
| MGR | | | | Sg | Sb | 00 33 42.7 | -0.7 |
| BULG | Bulgheria - Ca | 0.52 | 288 | Pg | Pg | 00 33 37.7 | +0.4 |
| BULG | | | | Sg | Sb | 00 33 46.3 | 0.0 |
| BULG | Bulgheria - Ca | 0.52 | 288 | Pg | Pg | 00 33 37.7 | +0.4 |
| BULG | | | | Sg | Sb | 00 33 46.3 | 0.0 |
| SLCN | Sala Consilina | 0.56 | 328 | Pg | Pg | 00 33 38.5 | +0.5 |
| SLCN | | | | Sg | Sb | 00 33 46.9 | -0.5 |
| | 28nm,0.5s | | | | | | |
| SLCN | Sala Consilina | 0.56 | 328 | Pg | Pg | 00 33 38.5 | +0.5 |
| SLCN | | | | Sg | Sb | 00 33 46.9 | -0.5 |
| | 28nm,0.5s | | | | | | |
| CMPR | Campora | 0.68 | 306 | Pg | Pg | 00 33 40.8 | +0.5 |
| CMPR | Campora | 0.68 | 306 | Pg | Pg | 00 33 40.8 | +0.5 |
| CDRU | Civita di Ruta | 0.79 | 316 | Pg | Pg | 00 33 42.8 | +0.3 |
| CDRU | Civita di Ruta | 0.79 | 316 | Pg | Pg | 00 33 42.8 | +0.3 |

*ISCJB **02** 00:33:32.2±0.5, 67°.81N±0°.03×20°.32E±0°.09, h0km, Error ellipse: s-maj=4.9km s-min=3.6km az=163.6*
*HEL **02** 00:33:32.1±0.3, 67°.87N×19°.99E, h0km, ML1.5, Explosion*
*UPP **02** 00:33:32.8±0.0, 67°.82N×20°.20E, h0km, ML2.6*
**ISC 02 00:33:32.8**±0.9**, 67°.81N**±0°.03×**20°.21E**±0°.03**, h0km, n19, σ0s.90**/28**, Sweden**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KUA | Kurravaara | 0.15 | 18 | P | Pg | 00 33 35.8 | 0.0 |
| KUA | | | | S | Sg | 00 33 37.7 | -0.1 |
| RATU | Laukkuluspa | 0.24 | 274 | P | Pg | 00 33 37.5 | +0.2 |
| NIKU | Nikkaluokta | 0.45 | 278 | P | Pg | 00 33 41.5 | 0.0 |
| DUNU | Dundret | 0.70 | 169 | P | Pg | 00 33 46.1 | -0.2 |
| LANU | Lannavaara | 0.71 | 69 | P | Pg | 00 33 46.3 | -0.2 |
| LANU | Lannavaara | 0.71 | 69 | PG | Pg | 00 33 46.3 | -0.2 |
| | baz=256 | | | | | | |
| LANU | | | | SG | Sg | 00 33 56.0 | +0.3 |
| MASU | Masugnsbyn | 0.77 | 116 | P | Pg | 00 33 47.8 | +0.2 |
| KIF | Kilpisjarvi | 1.22 | 10 | PN | Pg | 00 33 56.1 | -0.1 |
| | baz=180 | | | | | | |
| KIF | | | | SN | Sg | 00 34 12.0 | 0.0 |
| PAJU | Pajala | 1.37 | 124 | P | Pg | 00 33 58.3 | -0.8 |
| HEF | Hetta | 1.43 | 63 | PN | Pn | 00 33 59.8 | -0.2 |
| HEF | | | | MSG | | 00 34 16.4 | |
| | comp=Z,4.1nm,0.2s | | | | | | |
| HEF | | | | SN | Sg | 00 34 17.9 | -0.6 |
| ERTU | Ertsjaerv | 1.48 | 148 | P | Pn | 00 34 00.3 | -0.4 |
| ERTU | Ertsjaerv | 1.48 | 148 | PG | Pn | 00 34 00.2 | -0.4 |
| ERTU | | | | SG | Sg | 00 34 20.7 | +0.5 |
| HARU | Harads | 1.68 | 169 | P | Pn | 00 34 03.8 | +0.4 |
| KALU | Kalix | 2.32 | 146 | PG | Pb | 00 34 14.3 | -1.1 |
| TOF | Tornio | 2.37 | 135 | PB | Pb | 00 34 15.1 | -1.3 |
| TOF | | | | SB | Sb | 00 34 46.2 | +0.1 |
| SGF | Sodankyl | 2.44 | 96 | PG | Pb | 00 34 16.2 | -1.4 |
| | baz=288 | | | | | | |
| SGF | | | | SG | Sb | 00 34 48.9 | +0.7 |
| RNF | Rovaniemi | 2.56 | 115 | PG | Pb | 00 34 20.9 | +1.4 |
| RNF | | | | SG | Sg | 00 34 54.4 | -0.6 |
| ARE0 | ARCESS Array S | 2.60 | 46 | PG | Pb | 00 34 18.2 | -2.0 |
| | baz=225 | | | | | | |
| ARE0 | | | | SB | Sn | 00 34 50.0 | +1.7 |
| VRF | Varrio | 3.57 | 87 | PN | Pn | 00 34 31.3 | +1.9 |

*NIED **02** 00:50:00, 38°.20N×141°.80E, h53km, Mw4.7 Best double couple: $M_0$1.40000×$10^{16}$ NP1:$\phi_s$15.00000°, δ20.00000°, λ101.00000°. NP2:$\phi_s$183.00000°, δ71.00000°, λ86.00000°.*
*IDC **02** 00:50:28.7±0.5, 38°.16N×141°.78E, h50km±3km, mb4.3/24, mb1 4.5/31, mb1mx4.4/44, mbtmp4.6/31, MS3.7/7, Ms1 3.7/7, ms1mx3.3/57, Error ellipse: s-maj=12.7km s-min=9.8km az=106.0*
*BJI **02** 00:50:28.1, 38°.07N×141°.77E, h69km, mb4.8/61, mB5.1/35, Ms4.8/41, Ms7 4.5/39*
*ISCJB **02** 00:50:29.6±0.3, 38°.20N±0°.02×141°.69E±0°.03, h66km±2km, mb4.6/166, Error ellipse: s-maj=4.2km s-min=2.9km az=150.9*
*MOS **02** 00:50:29.0±0.9, 38°.23N×141°.70E, h61km, mb4.9/67, Error ellipse: s-maj=7.0km s-min=5.5km az=99.4*
*JMA **02** 00:50:29.4±0.1, 38°.19N×141°.78E, h56km±1km, M4.6*
*JMA Felt III J1.*
*NEIC **02** 00:50:31.6±0.4, 38°.23N×141°.65E, h70km±4km, mb4.8/100, Error ellipse: s-maj=4.3km s-min=3.2km az=144.0*
*NEIC Recorded [3 JMA] in Fukushima and Miyagi.*
**ISC 02 00:50:29.5**±0.4**, 38°.24N**±0°.04×**141°.76E**±0°.04**, h54**km±2km**, h54km:pP-P, n644, σ1s.10**/690**, mb4.7**/167**, MS4.5**/8**, 13C-4D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JIO | Ouri | 0.39 | 304 | P | Pn | 00 50 40.4 | +0.6 |
| JIO | | | | S | Sn | 00 50 48.0 | +0.8 |
| JMK | Ichinoseki | 0.83 | 330 | P | Pn | 00 50 45.9 | +0.9 |
| JMK | | | | S | Sn | 00 50 57.9 | +1.4 |
| JMM | Marumori | 0.84 | 244 | P | Pn | 00 50 45.0 | -0.2 |
| JMM | | | | eS | Sn | 00 50 56.3 | -0.5 |
| OFUJ | Ofunato | 0.85 | 355 | P | Pn | 00 50 45.9 | +0.6 |
| OFUJ | | | | S | Sn | 00 50 58.1 | +1.2 |
| JOU | Okura | 0.87 | 279 | P | Pn | 00 50 46.1 | +0.5 |
| JOU | | | | S | Sn | 00 50 58.2 | +0.8 |
| JFK | Kawauchi | 1.11 | 219 | P | Pn | 00 50 48.4 | -0.5 |
| JFK | | | | S | Sn | 00 51 02.2 | -1.0 |
| JOM | Ohasama | 1.29 | 344 | P | Pn | 00 50 52.3 | +1.1 |
| JOM | | | | eS | Sn | 00 51 09.3 | +1.9 |
| JYK | Kaneyama | 1.29 | 302 | P | Pn | 00 50 52.0 | +0.8 |
| JYK | | | | eS | Sn | 00 51 08.7 | +1.3 |
| JYS | Shirataka | 1.33 | 270 | P | Pn | 00 50 52.4 | +0.7 |
| JYS | | | | eS | Sn | 00 51 09.5 | +1.1 |
| JFT | Otama | 1.33 | 238 | P | Pn | 00 50 52.1 | +0.3 |
| JFT | | | | eS | Sn | 00 51 08.7 | +0.3 |
| JRG | Rokugo | 1.45 | 323 | P | Pn | 00 50 54.7 | +1.3 |
| JRG | | | | S | Sn | 00 51 14.4 | +3.0 |
| JYA | Atsumi | 1.64 | 283 | P | Pn | 00 50 56.8 | +0.8 |
| JFY | Yanaizu | 1.82 | 244 | P | Pn | 00 50 59.2 | +0.8 |
| JFY | | | | S | Sn | 00 51 21.1 | +0.7 |
| MJAR | Matsushiro Arr | 3.29 | 240 | P | Pn | 00 51 19.2 | +0.6 |
| | 37nm,0.3s,baz=61,slow=10,SNR=184 | | | | | | |
| MJAR | | | | LR | LR | 00 52 54.8 | |
| | comp=Z,1μm,20.9s,baz=65,slow=45 | | | | | | |
| MAJO | Matsushiro | 3.29 | 240 | d iP | Pn | 00 51 20.2 | +1.6 |
| MAJO | Matsushiro | 3.29 | 240 | ePn | Pn | 00 51 20.3 | +1.7 |
| MAT | Matsushiro | 3.29 | 240 | P | Pn | 00 51 19.9 | +1.3 |
| MAT | | | | eS | Sn | 00 51 58.0 | +1.5 |
| MJB9 | Matsu-Tunnel | 3.29 | 240 | ePn | Pn | 00 51 20.3 | +1.7 |
| ERM | Erimo | 3.92 | 15 | eP | Pn | 00 51 27.4 | +0.3 |
| ERM | | | | e | | 00 52 08.1 | |
| ERM | Erimo | 3.92 | 15 | ePn | Pn | 00 51 27.4 | +0.3 |
| ERM | | | | eSn | Sn | 00 52 08.1 | -3.8 |
| INU | Inuyama | 4.77 | 234 | ePn | Pn | 00 51 40.4 | +1.6 |
| JHJ | Hachijo jima 2 | 5.35 | 198 | P | Pn | 00 51 46.4 | -0.4 |
| | 154nm,0.3s,baz=65,slow=19,SNR=6.5 | | | | | | |
| JHJ | | | | S | Sn | 00 52 42.4 | -4.7 |
| | 195nm,0.3s,baz=76,slow=22,SNR=7.5 | | | | | | |
| JHJ | | | | LR | LR | 00 53 35.8 | |
| | comp=Z,6.9nm,19.3s,baz=188,slow=35 | | | | | | |
| ASAJ | Asahikawa | 5.91 | 6 | P | Pn | 00 51 55.3 | +1.0 |
| | 7.1nm,0.3s,baz=193,slow=12,SNR=10 | | | | | | |
| ASAJ | Asahikawa | 5.91 | 6 | ePn | Pn | 00 51 54.8 | +0.5 |
| KUR | Kuril'sk | 8.35 | 31 | P | Pn | 00 52 22.0 | -5.7 |
| KUR | | | | eS | Sn | 00 53 56.3 | -4.2 |
| KUR | | | | smax | smax | | |
| | comp=N,127nm,0.6s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,168nm,0.6s | | | | | | |
| YSS | Yuzh-Sakhalins | 8.74 | 5 | eP | Pn | 00 52 31.1 | -2.0 |
| YSS | | | | eS | Sn | 00 54 06.2 | -4.0 |
| YSS | | | | pmax | pmax | | |
| | comp=Z,90nm,0.5s | | | | | | |
| MSHR | Mys Shultsa | 9.17 | 302 | i P | Pn | 00 52 42.2 | +3.1 |
| USRK | Ussuriysk Ar. | 9.46 | 312 | P | Pn | 00 52 44.6 | +1.6 |
| | comp=Z,3.3nm,0.3s,baz=125,slow=14,SNR=59 | | | | | | |
| USRK | | | | LR | LR | 00 56 07.6 | |
| | comp=Z,407nm,20.5s,baz=110,slow=36 | | | | | | |
| JNU | Nakatsue | 10.21 | 243 | P | Pn | 00 52 53.9 | +0.6 |
| | comp=Z,0.6nm,0.3s,baz=61,slow=13,SNR=3.7 | | | | | | |
| JNU | Nakatsue | 10.21 | 243 | ePn | Pn | 00 52 55.1 | +1.8 |
| KSRS | Korea Array | 10.97 | 270 | P | Pn | 00 53 05.5 | +1.9 |
| | comp=Z,1.6nm,0.3s,baz=84,slow=13,SNR=9.9 | | | | | | |
| KSRS | | | | LR | LR | 00 57 03.6 | |
| | comp=Z,232nm,21.0s,baz=117,slow=36 | | | | | | |
| KS01 | Wonju Array Si | 10.99 | 270 | ePn | Pn | 00 53 05.2 | +1.3 |
| KS15 | Wonju Array Si | 11.00 | 270 | ePn | Pn | 00 53 06.3 | +2.2 |
| KSAR | Wonju Array Be | 11.00 | 270 | P | Pn | 00 53 05.5 | +1.4 |
| KSAR | Wonju Array Be | 11.00 | 270 | P | Pn | 00 53 05.5 | +1.4 |
| CBIJ | Chichi jima | 11.12 | 178 | ePn | Pn | 00 53 08.8 | +3.2 |
| MDJ | Mudanjiang | 11.13 | 309 | ePn | Pn | 00 53 07.2 | +1.4 |
| | comp=Z,68nm,1.1s | | | | | | |
| TJN | Taejon | 11.61 | 265 | eP | Pn | 00 53 14.2 | +1.8 |
| CN2 | Changchun | 13.50 | 299 | eP | Pn | 00 53 40.3 | +2.1 |
| CN2 | | | | esP | sP | 00 54 01.5 | |
| CN2 | | | | eS | Sn | 00 56 08.0 | +1.4 |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.6s | | | | | | |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,100nm,3.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,800nm,14.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,700nm,14.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,900nm,15.0s | | | | | | |
| DL2 | Dalian | 15.76 | 279 | ⇓P | P | 00 54 10.0 | -0.8 |
| DL2 | | | | pmax | pmax | | |
| | comp=Z,65nm,0.9s | | | | | | |
| PETK | Petropavlovsk- | 18.52 | 31 | P | Pn | 00 54 42.5 | +0.6 |
| | comp=Z,0.3nm,0.3s,baz=215,slow=10.0,SNR=4.6 | | | | | | |
| PETK | | | | LR | LR | 01 01 19.7 | |
| | comp=Z,104nm,20.7s,baz=190,slow=35 | | | | | | |
| HIA | Hailar | 19.28 | 312 | eP | P | 00 54 49.0 | -0.6 |
| NJ2 | Nanjing | 19.70 | 259 | eP | P | 00 54 54.9 | +0.7 |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,40nm,1.2s | | | | | | |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,480nm,4.6s | | | | | | |
| TIA | Tai'an | 19.71 | 272 | eP | P | 00 54 53.5 | -0.9 |
| TIA | | | | pmax | pmax | | |
| | comp=Z,60nm,0.9s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,2μm,14.2s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,920nm,8.9s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,2μm,13.7s | | | | | | |
| BJI | Beijing | 19.91 | 283 | P | P | 00 54 54.5 | -2.0 |
| BJI | | | | pmax | pmax | | |
| | comp=Z,29nm,0.8s | | | | | | |
| BJT | Baijiatuau | 19.91 | 283 | eP | P | 00 54 54.7 | -1.9 |
| BJT | | | | pmax | pmax | | |
| | comp=Z,42nm,0.9s | | | | | | |
| BJT | Baijiatuau | 19.91 | 283 | eP | P | 00 54 54.7 | -1.9 |
| | comp=Z,42nm,0.9s | | | | | | |
| CLNS | Chul'man | 21.71 | 334 | eP | P | 00 55 17.4 | +1.6 |
| CLNS | | | | pmax | pmax | | |
| | comp=N,9.0nm,1.0s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=Z,14nm,1.2s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=E,9.0nm,1.2s | | | | | | |
| MA2 | Magadan | 22.12 | 12 | P | P | 00 55 20.7 | +0.6 |
| | comp=E,21nm,0.7s,baz=203,slow=11,SNR=8.1 | | | | | | |
| MA2 | | | | LR | LR | 01 04 57.6 | |
| | comp=E,81nm,18.7s,baz=154,slow=39 | | | | | | |
| MA2 | Magadan | 22.12 | 12 | i P | P | 00 55 22.1 | +1.9 |
| HHC | Hu-ho-hao-te | 23.38 | 286 | eP | P | 00 55 32.5 | -0.9 |
| HHC | | | | sP | sP | 00 55 56.2 | +3.4 |
| HHC | | | | S | S | 00 59 35.0 | -7.3 |
| HHC | | | | pmax | pmax | | |
| | comp=E,30nm,0.7s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=E,180nm,5.1s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=E,840nm,13.0s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=E,1μm,14.8s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=E,1μm,14.8s | | | | | | |
| TPUB | Ta-pu | 23.40 | 237 | eP | P | 00 55 38.3 | +4.7 |
| | comp=E,14μm,0.8s | | | | | | |
| WHN | Wuhan | 23.82 | 259 | P | P | 00 55 36.2 | -1.3 |
| YAK | Yakutsk | 24.96 | 346 | eP | P | 00 55 47.9 | +0.4 |
| YAK | | | | e*PP | pP | 00 56 01.9 | +0.9 |
| YAK | | | | e | | 00 56 33.1 | |
| YAK | | | | eS | S | 01 00 08.0 | +0.9 |
| YAK | | | | e*SS | sS | 01 00 31.2 | +1.2 |
| YAK | | | | e | | 01 06 41.8 | |
| YAK | | | | pmax | pmax | | |
| | comp=Z,12nm,1.0s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,3.0nm,1.3s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,10.0nm,1.5s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=Z,463nm,3.5s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,353nm,3.8s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,347nm,4.0s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=N,144nm,3.2s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=E,351nm,5.0s | | | | | | |
| SEY | Seymchan | 25.56 | 11 | P | P | 00 55 54.0 | +1.0 |
| | comp=E,7.6nm,0.7s,baz=193,slow=6.3,SNR=15 | | | | | | |
| SEY | Seymchan | 25.56 | 11 | i P | P | 00 55 54.4 | +1.4 |
| BOD | Bodaibo | 26.67 | 326 | eP | P | 00 56 01.9 | -1.1 |
| BOD | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.9s | | | | | | |
| XAN | Xi'an | 26.77 | 271 | P | P | 00 56 03.0 | -1.2 |
| XAN | | | | pmax | pmax | | |
| | comp=Z,48nm,0.8s | | | | | | |
| ULN | Ulaanbaatar | 26.93 | 302 | i P | P | 00 56 06.4 | +0.7 |
| ULN | | | | pmax | pmax | | |
| | comp=Z,14nm,1.2s | | | | | | |
| ULN | Ulaanbaatar | 26.93 | 302 | eP | P | 00 56 06.4 | +0.7 |
| | comp=Z,7.2nm,0.8s | | | | | | |
| SONA1 | Songino Array | 27.36 | 302 | eP | P | 00 56 10.2 | +0.7 |
| SONM | Songino Array | 27.36 | 302 | P | P | 00 56 10.1 | +0.5 |
| | comp=Z,4.1nm,0.6s,baz=106,slow=8.5,SNR=19 | | | | | | |
| ENH | Enshi | 27.73 | 263 | eP | P | 00 56 12.0 | -0.8 |
| | comp=Z,38nm,0.6s | | | | | | |
| H11N2 | WAKE ISLAND Hy | 28.55 | 123 | T | T | 01 26 36.3 | |
| | baz=316,slow=76,SNR=2032 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 28.56 | 123 | T | T | 01 26 37.0 | |
| | baz=316,slow=76,SNR=2001 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 28.57 | 123 | T | T | 01 26 37.7 | |
| | baz=316,slow=76,SNR=1879 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 29.30 | 125 | T | T | 01 27 33.7 | |
| | baz=317,slow=76,SNR=1006 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 29.31 | 125 | T | T | 01 27 31.1 | |
| | baz=317,slow=76,SNR=1054 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 29.32 | 125 | T | T | 01 27 32.1 | |
| | baz=317,slow=76,SNR=1018 | | | | | | |
| LZH | Lanzhou | 30.15 | 278 | eP | P | 00 56 36.4 | +1.9 |
| LZH | | | | pP | sP | 00 56 53.6 | -1.0 |
| LZH | | | | sP | pP | 00 57 02.6 | +14 |
| LZH | | | | S | S | 01 01 27.4 | -2.4 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,39nm,1.0s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,190nm,5.2s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,490nm,12.1s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,2μm,14.3s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,1μm,14.2s | | | | | | |
| GYA | Guiyang | 31.71 | 259 | ⇑iP | P | 00 56 47.1 | -1.1 |
| GYA | | | | pP | sP | 00 57 06.8 | -1.5 |
| GYA | | | | PP | PnPn | 00 57 56.0 | +2.2 |
| GYA | | | | S | S | 01 01 51.3 | -2.9 |
| GYA | | | | sS | sS | 01 02 22.5 | +5.1 |
| GYA | | | | pmax | pmax | | |
| | comp=Z,20nm,0.8s | | | | | | |
| GYA | | | | pmax | pmax | | |
| | comp=Z,120nm,5.0s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,520nm,17.4s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,470nm,17.8s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,490nm,18.9s | | | | | | |
| CD2 | Chengdu | 31.96 | 268 | eP | P | 00 56 49.7 | -0.6 |
| CD2 | | | | sP | sP | 00 57 12.3 | +1.9 |
| CD2 | | | | PP | PnPn | 00 57 56.1 | -0.8 |
| CD2 | | | | S | S | 01 01 55.2 | -2.8 |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,20nm,0.7s | | | | | | |
| GTA | Gaotai | 32.49 | 285 | eP | P | 00 56 54.9 | -0.1 |
| GTA | | | | pP | sP | 00 57 12.1 | -3.0 |
| GTA | | | | sP | pP | 00 57 21.2 | +13 |
| GTA | | | | S | S | 01 02 02.6 | -3.6 |
| GTA | | | | sS | sS | 01 02 34.9 | +5.5 |
| GTA | | | | SS | SnSn | 01 04 00.6 | -3.0 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| GTA | | | | pmax | pmax | | |
| | comp=Z,80nm,7.1s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,600nm,14.5s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,820nm,15.4s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,990nm,15.2s | | | | | | |
| BILL | Bilibino | 32.80 | 17 | ⇑eP | P | 00 56 56.8 | -0.4 |
| BILL | | | | e | | 00 57 10.7 | |
| BILL | | | | *PP | sP | 00 57 20.0 | +2.7 |
| BILL | | | | | | 00 58 07.0 | |
| BILL | | | | | | 00 59 41.0 | |
| BILL | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.8s | | | | | | |
| KMI | Kunming | 35.42 | 260 | P | P | 00 57 20.9 | +0.2 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,16nm,0.9s | | | | | | |
| NONG | Nongkai | 39.16 | 250 | P | P | 00 57 41.8 | -10 |
| | comp=Z,148nm,0.7s,comp=Z,6μm | | | | | | |
| DGZ | Jazzator, Alta | 39.92 | 305 | i P | P | 00 57 59.1 | +0.8 |
| NANT | Nan | 40.54 | 253 | P | P | 00 58 06.5 | +2.9 |
| | comp=Z,7.9nm,1.1s,comp=Z,255nm | | | | | | |
| WMQ | Urumqi | 40.55 | 296 | P | P | 00 58 04.3 | +0.8 |
| WMQ | | | | pP | sP | 00 58 23.1 | -0.7 |
| WMQ | | | | sP | pP | 00 58 31.8 | +14 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,55nm,0.9s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,480nm,5.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,630nm,18.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,620nm,17.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,680nm,16.7s | | | | | | |
| ZAA0 | Zalesovo Array | 41.32 | 311 | eP | P | 00 58 09.8 | +0.2 |
| | comp=Z,14nm,0.8s | | | | | | |
| ZALV | Zalesovo Beam | 41.32 | 311 | P | P | 00 58 09.8 | +0.2 |
| | comp=Z,6.4nm,0.5s,baz=84,slow=7.5,SNR=43 | | | | | | |
| ZALV | | | | PcP | PcP | 01 00 06.5 | -0.6 |
| | comp=Z,1.1nm,0.4s,baz=86,slow=2.0,SNR=3.6 | | | | | | |
| ZALV | Zalesovo Beam | 41.32 | 311 | eP | P | 00 58 09.2 | -0.3 |
| ZALV | | | | ePcP | PcP | 01 00 06.5 | -0.6 |
| CMMT | Chiang Mai | 41.86 | 255 | P | P | 00 58 22.6 | +8.2 |
| | comp=Z,14nm,1.3s | | | | | | |
| CHTO | Chiang Mai | 41.86 | 255 | P | P | 00 58 22.7 | +8.3 |
| | comp=Z,64nm,1.3s | | | | | | |
| CHTO | Chiang Mai | 41.86 | 255 | eP | P | 00 58 16.2 | +1.8 |
| CHTO | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.7s | | | | | | |
| CHTO | Chiang Mai | 41.86 | 255 | eP | P | 00 58 16.2 | +1.8 |
| | comp=Z,9.3nm,0.7s | | | | | | |
| FAKI | Fak Fak | 41.88 | 194 | eP | P | 00 58 14.0 | -0.5 |
| | comp=Z,14nm,0.8s | | | | | | |
| CMAR | Chiang Mai Arr | 42.07 | 254 | P | P | 00 58 15.8 | -0.4 |
| | comp=Z,1.9nm,0.4s,baz=60,slow=6.5,SNR=6.6 | | | | | | |
| NVS | Novosibirsk | 42.22 | 313 | ⇓iP | P | 00 58 17.0 | +0.1 |
| NVS | | | | pmax | pmax | | |
| | comp=Z,20nm,1.2s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=N,5.0nm,0.9s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=E,13nm,1.2s | | | | | | |
| LSA | Lhasa | 42.38 | 274 | P | P | 00 58 22.4 | +3.3 |
| LSA | Lhasa | 42.38 | 274 | eP | P | 00 58 21.0 | +1.9 |
| LSA | | | | pmax | pmax | | |
| | comp=Z,11nm,0.6s | | | | | | |
| LSA | Lhasa | 42.38 | 274 | eP | P | 00 58 21.0 | +1.9 |
| | comp=Z,10nm,0.6s | | | | | | |
| MK01 | Makanchi Array | 43.72 | 301 | eP | P | 00 58 29.1 | -0.1 |
| MK31 | Makanchi Array | 43.72 | 301 | ceP | P | 00 58 29.1 | -0.1 |
| MK31 | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.6s | | | | | | |
| MK31 | Makanchi Array | 43.72 | 301 | eP | P | 00 58 29.4 | +0.2 |
| MKAR | Makanchi Array | 43.72 | 301 | P | P | 00 58 29.4 | +0.1 |
| | comp=Z,6.8nm,0.6s,baz=85,slow=9.8,SNR=60 | | | | | | |
| MAKZ | Makanchi | 43.93 | 301 | eP | P | 00 58 31.2 | +0.3 |
| MAKZ | | | | pmax | pmax | | |
| | comp=Z,14nm,0.9s | | | | | | |
| MAKZ | Makanchi | 43.93 | 301 | eP | P | 00 58 31.2 | +0.3 |
| | comp=Z,14nm,0.9s | | | | | | |
| KURK | Kurchatov | 45.41 | 307 | P | P | 00 58 43.0 | +0.4 |
| KURK | | | | *PP | pP | 00 58 55.8 | -1.0 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,13nm,0.8s | | | | | | |
| KURK | | | | pmax | pmax | | |
| | comp=Z,39nm,1.0s | | | | | | |
| KURK | Kurchatov | 45.41 | 307 | eP | P | 00 58 42.8 | +0.2 |
| | comp=Z,40nm,0.9s | | | | | | |
| KURK | | | | pP | pP | 00 58 55.8 | -1.0 |
| IMAR | Indian Mountai | 45.48 | 31 | eP | P | 00 58 43.5 | +0.6 |
| KURBB | Kurchatov Arra | 45.49 | 307 | P | P | 00 58 43.0 | -0.2 |
| | comp=Z,13nm,0.8s,baz=82,slow=8.6,SNR=58 | | | | | | |
| KURBB | | | | pP | pP | 00 58 55.8 | -1.6 |
| | comp=Z,39nm,0.9s,baz=81,slow=8.3,SNR=17 | | | | | | |
| KDAK | Kodiak Island | 46.03 | 43 | i P | P | 00 58 47.6 | +0.3 |
| CAST | Castle Rocks | 46.08 | 35 | eP | P | 00 58 49.5 | +1.7 |
| | comp=Z,9.4nm,0.9s | | | | | | |
| PDGK | Podgornoye | 46.46 | 297 | i P | P | 00 58 50.7 | -0.4 |
| PDGK | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.6s | | | | | | |
| BPAW | Bear Paw Mtn. | 46.58 | 34 | eP | P | 00 58 53.0 | +1.4 |
| | comp=Z,7.3nm,0.9s | | | | | | |
| KTH | Kantishna Hill | 46.60 | 35 | eP | P | 00 58 53.0 | +1.1 |
| | comp=Z,12nm,0.8s | | | | | | |
| ODAN | Odare | 46.62 | 273 | eP | P | 00 58 53.1 | +0.4 |
| | comp=Z,12nm,0.5s | | | | | | |
| MLY | Manley | 46.69 | 33 | eP | P | 00 58 53.6 | +1.1 |
| | comp=Z,6.4nm,0.8s | | | | | | |
| TRF | Thorofare Moun | 46.89 | 35 | eP | P | 00 58 55.4 | +1.2 |

JIRN **Jiri** 47.19 274 *e*P P 00 58 57.4 +0.1
comp=Z,182nm,0.9s
RAMN **Ramite** 47.20 273 *e*P P 00 58 57.0 -0.2
comp=Z,52nm,1.0s
GUN **Gumba** 47.32 275 *e*P P 00 58 58.2 -0.1
comp=Z,48nm,0.5s
MCK **McKinley** 47.49 34 *e*P P 00 58 59.6 +0.9
MCK pmax pmax
comp=Z,10.0nm,0.8s
MCK **McKinley** 47.49 34 *e*P P 00 58 59.6 +0.9
comp=Z,10nm,0.8s
PMR **Palmer** 47.50 37 *e*P P 00 58 59.2 +0.5
PMR pmax pmax
comp=Z,11nm,0.8s
PMR **Palmer** 47.50 37 *e*P P 00 58 59.2 +0.5
comp=Z,11nm,0.8s
RND **Reindeer** 47.54 35 *e*P P 00 58 59.6 +0.5
RND pmax pmax
comp=Z,10.0nm,0.8s
RND **Reindeer** 47.54 35 *e*P P 00 58 59.6 +0.5
comp=Z,10nm,0.8s
WRH **Wood River Hil** 47.83 33 *e*P P 00 59 02.5 +1.2
comp=Z,30nm,1.8s
KKN **Kakani** 47.84 275 *e*P P 00 59 02.4 +0.2
comp=Z,37nm,0.5s
PKI **Pulchoki** 47.84 275 *e*P P 00 59 02.3 0.0
comp=Z,13nm,0.5s
PKIN **Phulchoki** 47.85 275 *e*P P 00 59 02.1 -0.2
comp=Z,8.7nm,0.5s
SML **Sawmill** 47.87 37 *e*P P 00 59 02.5 +0.8
SML pmax pmax
comp=Z,17nm,1.0s
SML **Sawmill** 47.87 37 *e*P P 00 59 02.5 +0.8
comp=Z,17nm,1.0s
CCB **Clear Creek Bu** 47.95 33 *e*P P 00 59 03.3 +1.1
comp=Z,20nm,1.6s
HDA **Harding Lake** 48.33 33 *e*P P 00 59 04.3 -0.8
comp=Z,9.4nm,0.8s
ILAR **Eielson Array** 48.34 33 P P 00 59 05.6 +0.4
comp=Z,7.0nm,0.7s,baz=267,slow=6.4,SNR=89
ILAR pP pP 00 59 19.7 +0.2
comp=Z,2.8nm,0.8s,baz=268,slow=6.4,SNR=5.8
ILB **Eielson Array** 48.34 33 *e*P P 00 59 05.4 +0.2
IL1 **Eielson Array** 48.34 33 *e*P P 00 59 05.1 -0.1
IL1 *e*pP pP 00 59 20.0 +0.4
DANN **Dangsing** 48.78 276 *e*P P 00 59 10.0 +0.5
comp=Z,27nm,0.6s
KOLN **Koldanda** 49.17 276 *e*P P 00 59 12.4 0.0
TKM2 **Tokmak 2** 49.31 298 *i*P P 00 59 13.6 +0.4
TKM2 pmax pmax
comp=Z,7.0nm,0.6s
PYUN **Piuthan** 49.49 277 *e*P P 00 59 14.9 +0.1
comp=Z,50nm,0.6s
DOT **Dot Lake** 49.66 34 *e*P P 00 59 15.8 +0.4
comp=Z,121nm,2.0s
BVA0 **Borovoye Array** 49.97 312 *i*P pP 00 59 30.9 -1.4
BVA0 pmax pmax
comp=Z,14nm,1.1s
BRVK **Borovoye** 50.03 312 *e*P P 00 59 18.6 +0.3
BRVK pmax pmax
comp=Z,13nm,0.9s
BRVK **Borovoye** 50.03 312 *e*P P 00 59 18.6 +0.3
comp=Z,13nm,0.9s
AAK **Ala-Archa** 50.17 298 *e*P P 00 59 20.0 +0.3
AAK pmax pmax
comp=Z,8.0nm,0.6s
AAK **Ala-Archa** 50.17 298 *e*P P 00 59 20.0 +0.3
comp=Z,8.3nm,0.6s
KSH **Kashi** 50.17 293 P P 00 59 24.2 +4.4
KSH pP sP 00 59 43.2 +2.8
KSH PcP **PcP** 01 00 40.9 +2.5
KSH PP **PP** 01 01 21.1 +5.9
KSH S **S** 01 06 28.7 +0.9
KSH ScS **ScS** 01 09 04.2 -2.0
KSH SS **SS** 01 10 02.6 +1.3
KSH pmax pmax
comp=Z,4.0nm,0.6s
KSH pmax pmax
comp=Z,280nm,6.0s
KSH LR LR
comp=Z,380nm,6.2s
KSH LR LR
comp=Z,420nm,6.0s
KSH LR LR
comp=Z,390nm,7.1s
MNAS **Manas** 51.60 298 *i*P P 00 59 30.8 +0.3
MNAS pmax pmax
comp=Z,7.0nm,1.2s
SFK **Sufi-Kurgan** 51.77 295 *i*P P 00 59 31.6 -0.3
SFK pmax pmax
comp=Z,7.0nm,0.6s
COEN **Coen** 51.93 178 *e*P P 00 59 33.3 +0.4
comp=Z,14nm,1.0s
INK **Inuvik** 53.20 28 *e*P P 00 59 42.4 +0.8
INK pmax pmax
comp=Z,9.0nm,0.8s
INK **Inuvik** 53.20 28 *e*P P 00 59 42.4 +0.8
comp=Z,8.8nm,0.8s
SVE **Sverdlovsk** 54.43 318 *e*P P 00 59 51.2 +0.3
SVE pmax pmax
comp=Z,33nm,0.9s
ARU **Arti** 55.65 318 *d*iP P 00 59 59.5 -0.1
ARU *PP pP 01 00 13.2 -1.0
ARU 01 00 57.0
ARU 01 02 02.5
ARU S **S** 01 07 39.6 -1.9
ARU SS **SS** 01 11 20.5 -6.2
ARU pmax pmax
comp=Z,18nm,1.7s
ARU **Arti** 55.65 318 *e*P P 00 59 59.5 -0.1
comp=Z,21nm,0.8s
KBL **Kabul** 57.25 290 *e*P P 01 00 11.5 -0.1
KBL pmax pmax
comp=Z,16nm,0.8s
KBL **Kabul** 57.25 290 *e*P P 01 00 11.5 -0.1
comp=Z,16nm,0.8s
FITZ **Fitzroy Crossi** 58.05 198 P P 01 00 16.3 -0.7
comp=Z,3.0nm,0.6s,baz=27,slow=7.1,SNR=11
WRAB **Tennant Creek** 58.28 188 *e*P P 01 00 17.4 -1.2
WRAB pmax pmax
comp=Z,18nm,1.2s
WRAB **Tennant Creek** 58.28 188 *e*P P 01 00 17.4 -1.2
comp=Z,18nm,1.2s
WB2 **Warramunga Arr** 58.28 188 *e*P P 01 00 17.6 -1.0
WRA **Warramunga Arr** 58.29 188 P P 01 00 17.5 -1.1
comp=Z,12nm,0.5s,baz=5.1,slow=7.1,SNR=27
WRA pP pP 01 00 31.3 -2.0
comp=Z,5.4nm,0.6s,baz=6.5,slow=7.4,SNR=5.0
AS01 **Alice Springs** 62.01 188 *e*P P 01 00 43.2 -0.9
AS31 **Alice Springs** 62.01 188 *e*P P 01 00 43.6 -0.5
comp=Z,2.6nm,0.8s
ASAR **Alice Springs** 62.01 188 P P 01 00 43.5 -0.7
comp=Z,7.9nm,0.7s,baz=12,slow=6.8,SNR=78
YKA **Yellowknife Ar** 62.63 31 P P 01 00 47.7 -0.1
comp=Z,3.0nm,0.7s,baz=299,slow=5.7,SNR=11
YKA PcP **PcP** 01 01 26.7 +0.4
comp=Z,1.8nm,0.7s,baz=301,slow=3.8,SNR=6.2
KLMR **Klimovskoe** 62.89 327 *e*P P 01 00 46.6 -3.0
KLMR pmax pmax
comp=Z,14nm,1.3s
ARCES **ARCESS Array B** 62.97 339 P P 01 00 50.1 +0.1
comp=Z,5.4nm,0.9s,baz=44,slow=7.2,SNR=11
ARCES pP pP 01 01 03.3 -1.6
comp=Z,12nm,1.1s,baz=33,slow=7.3,SNR=2.8
GEYT **Alibeck** 63.50 299 P P 01 00 54.8 +0.7
comp=Z,1.2nm,0.7s,baz=77,slow=7.6,SNR=4.2
GEYT pP pP 01 01 08.2 -0.8
comp=Z,2.8nm,0.6s,baz=53,slow=3.8,SNR=5.6
GEYT LR LR 01 31 34.5
comp=Z,170nm,19.3s,baz=180,slow=39
TULEG **Thule** 63.88 8 *e*P P 01 00 55.4 -0.4
comp=Z,14nm,0.9s
B05A **Bryant** 66.28 47 P P 01 01 12.8 +0.9
baz=301
C06D **Leavenworth** 67.15 46 P P 01 01 18.2 +0.7
baz=302
OBN **Obninsk** 67.30 323⇑ *e*P P 01 01 18.1 -0.1
OBN *e* 01 03 46.3
OBN *e*S S 01 10 12.7 +3.6
OBN pmax pmax
comp=Z,7.0nm,1.1s
LTY **Liberty** 67.63 47 *e*P P 01 01 21.5 +0.9
comp=Z,18nm,1.5s
B08A **Colville Reser** 67.80 45 *e*P P 01 01 22.3 +0.7
comp=Z,14nm,1.3s

FINES **FINESS Array B** 67.88 332 P P 01 01 20.8 -1.0
comp=Z,5.1nm,0.6s,baz=39,slow=7.3,SNR=14
I03D **Drain, OR** 67.94 51 P P 01 01 23.7 +1.2
baz=302
H04A **Detroit Lake** 68.12 50 *e*P P 01 01 24.6 +1.0
comp=Z,8.8nm,0.9s
I04A **Tendick Farm,** 68.46 51 P P 01 01 26.6 +0.8
baz=303,SNR=5.4
L02D **Cave Junction,** 68.61 53 P P 01 01 27.5 +0.8
baz=303
C09A **Chrisman Ranch** 68.70 45 *e*P P 01 01 28.3 +1.1
comp=Z,8.8nm,0.8s
G06A **Carlson Farm,** 68.75 49 *e*P P 01 01 29.0 +1.4
comp=Z,39nm,1.8s
I05D **Terrebonne, OR** 68.82 50 P P 01 01 29.1 +1.0
baz=303
J04D **Umpqua Nationa** 68.95 51 P P 01 01 30.4 +1.3
baz=303
NEW **Newport** 69.08 45 P P 01 01 30.5 +0.8
baz=304,SNR=5.4
NEW **Newport** 69.08 45 *e*P P 01 01 30.6 +1.0
NEW pmax pmax
comp=Z,9.0nm,0.9s
NEW **Newport** 69.08 45 *e*P P 01 01 30.6 +1.0
comp=Z,9.1nm,0.9s
YBH **Yreka Blue Hor** 69.40 53 *e*P P 01 01 33.3 +1.5
YBH pmax pmax
comp=Z,6.0nm,0.8s
YBH **Yreka Blue Hor** 69.40 53 *e*P P 01 01 33.3 +1.5
comp=Z,5.5nm,0.8s
J05D **Fort Rock, OR** 69.46 51 P P 01 01 33.6 +1.4
baz=304,SNR=6.4
SUMG **Summit** 69.48 0 *e*P P 01 01 33.1 +1.0
SUMG pmax pmax
comp=Z,14nm,0.9s
SUMG **Summit** 69.48 0 *e*P P 01 01 33.1 +1.0
comp=Z,14nm,0.9s
E09A **Wod Farm, Sta** 69.49 47 *e*P P 01 01 33.3 +1.2
comp=Z,9.8nm,1.1s
M02C **Callahan** 69.49 53 P P 01 01 33.6 +1.3
baz=303
K04D **Chiloquin, OR** 69.50 52 P P 01 01 33.4 +0.9
baz=304
STKA **Stephens Creek** 69.75 180 P P 01 01 31.8 -1.9
comp=Z,2.4nm,0.4s,baz=344,slow=7.9,SNR=8.7
N02D **Trinity Center** 69.82 53 P P 01 01 35.5 +1.2
baz=304
M04C **Macdoel** 69.91 52 P P 01 01 36.0 +1.0
baz=304,SNR=6.8
ZEI **Tsey** 70.25 309 *e*P pP 01 01 48.6 -3.6
ZEI pmax pmax
comp=Z,3.0nm,0.9s
KIV **Kislovodsk** 70.33 311 *i*P P 01 01 36.9 -0.5
KIV *e* 01 02 00.6
KIV pmax pmax
comp=Z,10.0nm,1.0s
KIV **Kislovodsk** 70.33 311 *e*P P 01 01 39.1 +1.7
KIV *e*pP pP 01 01 50.8 -1.6
KBZ **Khabaz** 70.33 310 P P 01 01 36.7 -0.6
comp=Z,1.7nm,0.6s,baz=103,slow=5.3,SNR=5.8
KBZ pP pP 01 01 51.7 -0.6
comp=Z,6.5nm,0.9s,baz=38,slow=5.4,SNR=7.5
O03D **Paynes Creek** 70.76 54 P P 01 01 40.4 +0.3
baz=304
BMO **Blue Mountains** 70.92 48 *e*P P 01 01 42.2 +1.2
BMO pmax pmax
comp=Z,6.0nm,0.9s
BMO **Blue Mountains** 70.92 48 *e*P P 01 01 42.2 +1.2
comp=Z,5.5nm,0.9s
JTMT **Jette** 70.94 44 *e*P P 01 01 42.5 +1.3
comp=Z,12nm,0.8s
J08A **Circle Bar Ran** 71.08 49 *e*P P 01 01 43.1 +1.0
comp=Z,9.4nm,1.0s
ORV **Oroville** 71.37 54 *e*P P 01 01 44.3 +0.6
ORV pmax pmax
comp=Z,5.0nm,0.8s
ORV **Oroville** 71.37 54 *e*P P 01 01 44.3 +0.6
comp=Z,4.6nm,0.8s
WVOR **Wild Horse Val** 71.52 50 *e*P P 01 01 46.0 +1.3
WVOR pmax pmax
comp=Z,9.0nm,1.1s
WVOR **Wild Horse Val** 71.52 50 *e*P P 01 01 46.0 +1.3
comp=Z,8.6nm,1.1s
MSO **Missoula** 71.67 44 P P 01 01 45.6 +0.1
baz=307
MFID **Camas Ranch** 72.62 48 *e*P P 01 01 52.3 +1.0
comp=Z,7.2nm,0.9s
PAHR **Pah Rah Range** 72.63 53 *e*P P 01 01 52.6 +1.1
comp=Z,8.9nm,0.9s
HRY **Holter Researc** 72.90 44 *e*P P 01 01 54.0 +1.1
LRM **Limekiln Ridge** 73.10 45 *e*P P 01 01 55.3 +1.1
YERR **Yerington** 73.14 54 *e*P P 01 01 55.9 +1.4
comp=Z,13nm,1.1s
NB2 **NORSAR Subarra** 73.19 337 P P 01 01 53.7 -0.5
comp=Z,2.8nm,0.6s,baz=40,slow=6.2
NOA **NORSAR Array B** 73.19 337 P P 01 01 54.1 -0.1
comp=Z,5.0nm,0.8s,baz=39,slow=5.8,SNR=7.9
NOA pP pP 01 02 07.5 -1.8
comp=Z,4.0nm,0.7s,baz=39,slow=5.9,SNR=5.5
EGMT **Eagleton** 73.19 42 P P 01 01 55.0 +0.4
baz=309,SNR=7.1
EGMT **Eagleton** 73.19 42 *e*P P 01 01 55.1 +0.6
comp=Z,17nm,0.8s
DLMT **Dillon** 73.30 45 *e*P P 01 01 56.4 +1.1
comp=Z,10.0nm,0.9s
HLID **Hailey** 73.36 47 P P 01 01 56.6 +0.8
baz=307,SNR=7.4
HLID **Hailey** 73.36 47 *e*P P 01 01 56.7 +0.9
comp=Z,5.0nm,0.9s
AKASG **Malin Array Be** 73.52 322 P P 01 01 55.9 -0.4
comp=Z,3.9nm,0.5s,baz=45,slow=6.0,SNR=22
AKASG pP pP 01 02 10.3 -1.1
comp=Z,5.0nm,0.6s,baz=46,slow=6.1,SNR=8.5
AKBB **Malin Array Si** 73.52 322 *e*P P 01 01 56.1 -0.1
AKBB *e* 01 02 10.5
AKBB **Malin Array Si** 73.52 322 *e*P P 01 01 56.1 -0.1
AKBB *e*PcP pP 01 02 10.5 -0.9
KIEV **Kiev** 73.53 322 *e*P P 01 01 55.7 -0.6
KIEV pmax pmax
comp=Z,5.0nm,1.0s
KIEV **Kiev** 73.53 322 *e*P P 01 01 55.7 -0.6
KIEV *e*PcP pP 01 02 10.4 -1.0
BMN **Battle Mountai** 73.55 51 *e*P P 01 01 58.4 +1.5
BMN pmax pmax
comp=Z,8.0nm,0.8s
BMN **Battle Mountai** 73.55 51 *e*P P 01 01 58.4 +1.5
comp=Z,7.8nm,0.8s
BOZ **Bozeman (W)** 73.69 45 P P 01 01 58.4 +0.7
baz=308,SNR=10
BOZ **Bozeman (W)** 73.69 45 *e*P P 01 01 58.3 +0.7
BOZ pmax pmax
comp=Z,8.0nm,0.8s
BOZ **Bozeman (W)** 73.69 45 *e*P P 01 01 58.3 +0.7
comp=Z,8.4nm,0.8s
YHB **Horse Butte** 74.46 45 *e*P P 01 01 59.3 -2.9
comp=Z,9.2nm,0.8s
YHH **Holmes Hill** 74.63 45 *e*P P 01 02 04.6 +1.3
comp=Z,6.0nm,1.1s
YMR **Madison River** 74.64 45 *e*P P 01 02 04.8 +1.6
comp=Z,7.2nm,0.8s
GCMT **Greycliff** 74.64 43 *e*P P 01 02 04.5 +1.3
YNR **Norris Junctio** 74.77 45 *e*P P 01 02 06.6 +2.6
comp=Z,25nm,1.7s
H17A **Grant Village** 75.03 45 P P 01 02 08.2 +2.6
baz=309
VES **Vestal, Richgr** 75.08 56 P P 01 02 06.3 +0.7
baz=307
IMW **Indian Meadow** 75.14 46 *e*P P 01 02 07.9 +1.7
comp=Z,12nm,0.8s
FXWY **Fox Creek** 75.25 46 *e*P P 01 02 08.3 +1.5
comp=Z,6.9nm,0.8s
RLMT **Red Lodge** 75.29 44 P P 01 02 07.8 +0.8
baz=310,SNR=5.8
RLMT **Red Lodge** 75.29 44 *e*P P 01 02 08.1 +1.1
comp=Z,5.8nm,0.8s
MOOW **Moose Ponds** 75.34 46 *e*P P 01 02 08.8 +1.5
comp=Z,6.3nm,0.9s
CWC **Cottonwood Cre** 75.38 55 P P 01 02 07.9 +0.3
baz=307
TPAW **Teton Pass** 75.39 46 *e*P P 01 02 09.2 +1.6
comp=Z,8.4nm,0.8s
LOHW **Long Hollow** 75.50 46 *e*P P 01 02 09.3 +1.1
comp=Z,25nm,2.0s
SNOW **Snow King Moun** 75.51 46 *e*P P 01 02 09.9 +1.5
comp=Z,9.3nm,0.8s
REDW **Red Top Meadow** 75.52 46 *e*P P 01 02 09.9 +1.5
comp=Z,8.2nm,0.9s

ISA **Isabella, Lake** 75.59 56 P P 01 02 08.6 0.0
baz=307
ARVC **Arvin** 75.67 57 P P 01 02 09.4 +0.3
baz=307
DGMT **Dagmar** 75.73 39 P P 01 02 09.4 +0.2
baz=312
DGMT **Dagmar** 75.73 39 *e*P P 01 02 09.9 +0.7
comp=Z,15nm,0.8s
AHID **Auburn Hatcher** 75.76 47 *e*P P 01 02 10.3 +0.6
comp=Z,5.2nm,0.6s
DAC **Darwin (Calif)** 75.79 55 *e*P P 01 02 10.7 +0.7
DAC pmax pmax
comp=Z,6.0nm,0.8s
DAC **Darwin (Calif)** 75.79 55 *e*P P 01 02 10.7 +0.7
comp=Z,5.5nm,0.8s
R11A **Troy Canyon, C** 75.81 52 P P 01 02 10.6 +0.6
baz=308
LAO **LASA Array** 75.89 41 P P 01 02 11.0 +0.8
baz=311,SNR=7.1
LAO **LASA Array** 75.89 41 *e*P P 01 02 11.4 +1.2
comp=Z,18nm,0.9s
MPMC **Manual Prospec** 75.99 55 P P 01 02 11.7 +0.6
baz=307,SNR=5.0
FURC **Furnace Creek,** 76.14 54 P P 01 02 12.5 +0.8
baz=308
DUG **Dugway, Tooele** 76.37 49 P P 01 02 14.2 +1.1
baz=309,SNR=6.5
DUG **Dugway, Tooele** 76.37 49 *e*P P 01 02 14.4 +1.3
DUG pmax pmax
comp=Z,11nm,1.0s
DUG **Dugway, Tooele** 76.37 49 *e*P P 01 02 14.4 +1.3
comp=Z,11nm,1.0s
EDW2 **Edwards Air Fo** 76.37 56 P P 01 02 13.7 +0.6
baz=307,SNR=5.9
DECC **Green Verdugo** 76.52 57 P P 01 02 14.0 0.0
baz=307
BW06 **Boulder Array** 76.63 46 P P 01 02 14.9 +0.3
baz=310,SNR=14
BW06 **Boulder Array** 76.63 46 *e*P P 01 02 15.1 +0.4
comp=Z,7.8nm,0.8s
PD31 **Pinedale Array** 76.63 46 *e*P P 01 02 14.3 -0.3
PDAR **Pinedale Array** 76.63 46 P P 01 02 15.0 +0.3
comp=Z,6.6nm,0.6s,baz=261,slow=2.0,SNR=77
PDAR **Pinedale Array** 76.63 46 *e*P P 01 02 14.9 +0.3
SHOC **Shoshone, Teco** 76.87 55 P P 01 02 16.3 +0.4
baz=308
GSC **Goldstone, Bar** 76.89 55 P P 01 02 16.4 +0.3
baz=308
JLU **Jordanelle** 76.92 48 *e*P P 01 02 17.7 +1.3
comp=Z,7.2nm,1.0s
NLU **North Lily Min** 76.96 49 *e*P P 01 02 17.9 +1.3
comp=Z,8.1nm,0.9s
BFSC **Mount Baldy Ra** 76.98 57 P P 01 02 17.8 +1.2
baz=308
MPU **Maple Canyon** 77.18 49 *e*P P 01 02 19.1 +1.4
comp=Z,9.9nm,0.9s
SHPR **Sheep Range** 77.21 54 *e*P P 01 02 19.1 +1.1
comp=Z,8.8nm,0.9s
TUQ **Turquoise Moun** 77.38 55 P P 01 02 19.4 +0.6
baz=308
HEC **Hector,Ludlow** 77.48 56 P P 01 02 20.1 +0.7
baz=308
BUR08 **Bucovina Ar. S** 77.53 322 *e*P P 01 02 19.9 +0.5
BUR04 **Bucovina Ar. S** 77.54 322 *e*P P 01 02 19.6 +0.1
BUR04 *e*PcP pP 01 02 34.0 -0.7
MURC **Murrieta** 77.67 57 P P 01 02 20.9 +0.5
baz=308
CCUT **Cedar City** 77.68 52 *e*P P 01 02 22.3 +1.6
comp=Z,25nm,1.0s
TMUT **Trail Mountain** 77.89 49 *e*P P 01 02 23.1 +1.2
comp=Z,4.1nm,0.8s
GMRC **Granite Mounta** 77.95 55 P P 01 02 22.6 +0.6
baz=308
VRI **Vrincioaia** 77.99 320⇑ *i*P P 01 02 23.2 +1.3
VRI **Vrincioaia** 77.99 320 ⇑P P 01 02 23.2 +1.3
P17A **Butcher Ranch,** 78.06 49 *e*P P 01 02 24.1 +1.4
comp=Z,14nm,0.7s
LCMT **Little Creek M** 78.09 52 *e*P P 01 02 24.4 +1.6
comp=Z,7.2nm,0.9s
MTPU **Mount Pierson** 78.10 51 *e*P P 01 02 24.8 +1.7
comp=Z,11nm,0.9s
STHS **Stebnicka Huta** 78.13 325 *e*P P 01 02 23.8 +1.1
STHS **Stebnicka Huta** 78.13 325 *e*P P 01 02 23.8 +1.1
PFO **Pinyon Flats O** 78.15 57 P P 01 02 23.7 +0.5
baz=308
Q16A **Castle Valley** 78.16 50 *e*P P 01 02 24.6 +1.4
comp=Z,16nm,1.5s
P18A **Preston Nutter** 78.25 49 *e*P P 01 02 25.2 +1.3
comp=Z,22nm,1.5s
BRTR **Keskin Array B** 78.26 312 P P 01 02 23.8 +0.1
comp=Z,1.0nm,0.5s,baz=91,slow=3.0,SNR=8.9
BRTR pP pP 01 02 38.9 -0.1
comp=Z,1.7nm,0.6s,baz=73,slow=4.1,SNR=5.6
ULM **Lac du Bonnet** 78.35 34 P P 01 02 23.4 -0.4
comp=Z,5.1nm,0.8s,baz=329,slow=9.5,SNR=6.1
KNB **Kanab** 78.36 52 *e*P P 01 02 26.1 +1.7
KNB pmax pmax
comp=Z,20nm,1.4s
KNB **Kanab** 78.36 52 *e*P P 01 02 26.1 +1.7
comp=Z,20nm,1.4s
K22A **Casper** 78.40 44 P P 01 02 24.7 +0.2
baz=312
SRU **San Rafael Swe** 78.42 49 *e*P P 01 02 25.8 +1.1
SRU pmax pmax
comp=Z,14nm,0.7s
SRU **San Rafael Swe** 78.42 49 *e*P P 01 02 25.8 +1.1
comp=Z,16nm,0.7s
MLR **Muntele Rosu** 78.64 320⇑ *i*P P 01 02 26.0 +0.3
MLR **Muntele Rosu** 78.64 320 ⇑P P 01 02 26.0 +0.3
RWWY **Rawlins** 78.66 45 *e*P P 01 02 26.3 +0.3
comp=Z,13nm,0.9s
IRM **Iron Mountain** 78.67 55 P P 01 02 26.6 +0.6
baz=309,SNR=5.3
BR231 **Keskin MP Arra** 78.69 312 *e*P P 01 02 24.4 -1.7
RSSD **Black Hills** 78.75 42 P P 01 02 26.6 +0.2
baz=313
RSSD **Black Hills** 78.75 42 *e*P P 01 02 26.3 -0.1
RSSD pmax pmax
comp=Z,4.0nm,0.6s
RSSD **Black Hills** 78.75 42 *e*P P 01 02 26.3 -0.1
comp=Z,3.8nm,0.6s
BC3 **Big Chuckawall** 78.78 56 P P 01 02 27.4 +0.7
baz=309
B31A **Greenbush Farm** 78.89 36 P P 01 02 27.4 +0.6
baz=316
IKP **In-Ko-Pah, Jac** 78.97 57 P P 01 02 28.3 +0.7
baz=308
SWSC **Sam W. Stewart** 78.99 57 P P 01 02 28.9 +1.3
baz=309
O20A **White River Ci** 79.09 47 P P 01 02 28.8 +0.5
baz=311
VOIR 79.14 320⇑ *i*P P 01 02 27.9 -0.4
VOIR 79.14 320 ⇑P P 01 02 27.9 -0.4
OKC **Ostrava-Krasne** 79.19 327 *e*P P 01 02 29.1 +0.6
OKC **Ostrava-Krasne** 79.19 327 *e*P P 01 02 29.1 +0.6
PDMCI **Parker Dam,Lak** 79.23 55 P P 01 02 29.5 +0.6
baz=309
C31A **Landman Farms,** 79.31 36 P P 01 02 29.0 -0.1
baz=316
Y12C **Blythe** 79.33 55 P P 01 02 30.2 +0.8
baz=309
B32A **Ashes, Strandq** 79.42 35 P P 01 02 29.3 -0.4
baz=317
A33A **Warroad** 79.53 34 P P 01 02 30.2 -0.1
baz=318
GLA **Glamis** 79.57 56 P P 01 02 31.5 +0.6
baz=309
DPC **Dobruska-Polom** 79.59 328 *e*P P 01 02 31.1 +0.5
DPC *ex* x 01 02 45.8
DPC **Dobruska-Polom** 79.59 328 *e*P P 01 02 31.1 +0.5
DPC *e* 01 02 45.8
PV09 **Paradox Valley** 79.64 49 *e*P P 01 02 32.7 +1.2
AGMN **Agassiz Nation** 79.80 35 P P 01 02 31.0 -0.8
baz=318
PSZ **Piszkesteto** 79.84 325 *e*P P 01 02 32.9 +0.8
PSZ pmax pmax
comp=Z,9.0nm,1.1s
PSZ **Piszkesteto** 79.84 325 *e*P P 01 02 32.9 +0.8
comp=Z,3.9nm,1.1s
D31A **Mcclaflin, Tow** 79.85 37 P P 01 02 31.5 -0.6
baz=317
VYHS **Vyhne** 79.89 325 *e*P P 01 02 32.7 +0.4
VYHS **Vyhne** 79.89 325 *e*P P 01 02 32.7 +0.4
N23A **Red Feather La** 79.90 45 P P 01 02 33.6 +0.8
baz=312
PV05 **Paradox Valley** 79.94 49 *e*P P 01 02 34.4 +1.4
E31A **Nome** 80.13 37 P P 01 02 33.4 -0.2

baz=317
BRG Berggiesshubel 80.16 329 eP P 01 02 34.0 +0.3
comp=Z,3.3nm,0.8s
BRG Berggiesshubel 80.16 329 eP P 01 02 34.0 +0.3
BRG pmax pmax
comp=Z,3.0nm,0.8s
PVCC Panska Ves 80.17 329 eP P 01 02 34.4 +0.7
PVCC Panska Ves 80.17 329 eP P 01 02 34.4 +0.7
CLL Collm 80.19 330 i P P 01 02 33.9 +0.1
CLL i 01 02 48.5
CLL pmax pmax
comp=Z,12nm,1.2s
CLL Collm 80.19 330 i P P 01 02 33.9 +0.1
comp=Z,12nm,1.2s
CLL i pP pP 01 02 48.5 -0.6
B34A Aery, Baudette 80.20 34 P P 01 02 33.2 -0.7
baz=318
WUAZ Wupatki 80.21 52 P P 01 02 35.5 +1.1
baz=310,SNR=7.2
WUAZ Wupatki 80.21 52 eP P 01 02 35.9 +1.5
comp=Z,10nm,0.8s
PV01 Paradox Valley 80.22 49 eP P 01 02 35.7 +1.2
C33A Trail 80.23 35 P P 01 02 33.9 -0.2
baz=318
RAYN Ar Rayn 80.45 292 eP P 01 02 35.5 -0.2
RAYN epP pP 01 02 50.0 -1.1
F31A Hecla 80.46 38 P P 01 02 35.3 -0.1
baz=316
SMCO Snowmass 80.46 47 eP P 01 02 36.8 +0.7
comp=Z,6.9nm,1.0s
GOPC GO Pecny, Ondr 80.56 328 eP P 01 02 36.4 +0.5
GOPC ex x 01 02 50.9
GOPC GO Pecny, Ondr 80.56 328 eP P 01 02 36.4 +0.5
GOPC e 01 02 50.9
PRU Pruhonice 80.60 329 eP P 01 02 36.5 +0.5
PRU ex x 01 02 50.4
PRU Pruhonice 80.60 329 eP P 01 02 36.5 +0.5
PRU e 01 02 50.4
D33A AnnSam, Waubun 80.66 36 P P 01 02 36.0 -0.5
baz=318
BZS Buzias 80.70 322⇑ iP P 01 02 36.6 -0.1
BZS Buzias 80.70 322 ⇑P P 01 02 36.6 -0.1
TREC Trest 80.74 328 eP P 01 02 37.4 +0.5
TREC Trest 80.74 328 eP P 01 02 37.4 +0.5
ISCO Idaho Springs 80.82 46 P P 01 02 38.6 +0.8
baz=313,SNR=6.0
ISCO Idaho Springs 80.82 46 eP P 01 02 38.7 +0.8
ISCO pmax pmax
comp=Z,4.0nm,0.8s
ISCO Idaho Springs 80.82 46 eP P 01 02 38.7 +0.9
comp=Z,4.0nm,0.8s
MVCO Mesa Verde 80.87 50 P P 01 02 38.9 +0.9
baz=312
MVCO Mesa Verde 80.87 50 eP P 01 02 39.3 +1.2
comp=Z,40nm,1.7s
G31A Conde 80.94 38 P P 01 02 37.9 -0.1
baz=316
D34A Park Rapids 81.00 35 P P 01 02 37.7 -0.6
baz=318
E33A Westby DABS, E 81.05 36 P P 01 02 38.4 -0.2
baz=318
C35A Jirik Farms, M 81.08 34 P P 01 02 38.2 -0.5
baz=319
SUSD Miller 81.13 39 P P 01 02 38.6 -0.4
baz=316
NKC Novy Kostel 81.25 330 eP P 01 02 39.8 +0.2
NKC Novy Kostel 81.25 330 eP P 01 02 39.8 +0.2
G32A Webster 81.26 38 P P 01 02 39.6 -0.1
baz=317
H31A Wolsey 81.34 39 P P 01 02 39.8 -0.3
baz=316
F33A 5 Mile Ranch, 81.41 37 P P 01 02 40.3 -0.1
baz=318
S22A 4UR Ranch, Cre 81.50 48 P P 01 02 42.5 +1.0
baz=312
C36A Pine Crest Far 81.54 34 P P 01 02 40.7 -0.4
baz=320
214A Organ Pipe Nat 81.58 56 P P 01 02 42.3 +0.7
baz=310
CONA Conrad Observa 81.63 327 i P P 01 02 42.3 +0.6
comp=Z,7.4nm,1.3s
I31A Royce, Wessing 81.64 39 P P 01 02 41.0 -0.7
baz=316
KHC Kasperske Hory 81.66 329 eP P 01 02 42.3 +0.5
KHC ex x 01 02 56.4
KHC Kasperske Hory 81.66 329 eP P 01 02 42.3 +0.5
KHC e 01 02 56.4
KHC Kasperske Hory 81.66 329 eP P 01 02 41.7 -0.1
comp=Z,14nm,2.0s
E35A Pequot Lakes 81.75 35 P P 01 02 41.7 -0.5
baz=319
G33A Ortonville 81.81 37 P P 01 02 42.6 0.0
baz=318
GERES GERESS Array B 81.83 328 P P 01 02 42.7 -0.1
comp=Z,1.3nm,0.6s,baz=35,slow=6.2,SNR=12
GERES pP pP 01 02 57.4 -0.7
comp=Z,1.0nm,0.6s,baz=35,slow=4.9,SNR=4.2
H32A Carlson Farm, 81.84 38 P P 01 02 43.4 +0.7
baz=317
GEA0 GERESS Array S 81.84 328 eP P 01 02 42.3 -0.5
C37A Embarrass 81.85 33 P P 01 02 42.0 -0.7
baz=320
F34A Alexandria 81.93 36 P P 01 02 43.3 +0.1
baz=318
EYMN Ely 81.98 33 P P 01 02 43.5 0.0
baz=321
H33A Prehn Over Nor 82.05 38 P P 01 02 43.9 +0.1
baz=318
J31A Geddes 82.07 40 P P 01 02 44.0 0.0
baz=316
G34A Benson 82.16 37 P P 01 02 44.3 -0.1
baz=318
I32A Karley and Nic 82.17 39 P P 01 02 44.2 -0.3
baz=317
F35A Swanville 82.20 36 P P 01 02 44.4 -0.3
baz=319
C38A Sawbill Land. 82.25 33 P P 01 02 44.6 -0.3
baz=321
ARSA Arzberg 82.29 326 i P P 01 02 45.0 -0.1
comp=Z,5.6nm,1.6s
E36A McGregor 82.30 35 P P 01 02 44.7 -0.5
baz=320
MOA Molln 82.37 327 i P P 01 02 46.2 +0.7
comp=Z,6.1nm,1.7s
I33A Coleman 82.48 38 P P 01 02 46.1 0.0
baz=318
H34A Spellman Lake, 82.52 37 P P 01 02 46.2 -0.2
baz=318
K31A O'Neill 82.55 40 P P 01 02 46.5 0.0
baz=316
E37A Wrenshall 82.65 34 P P 01 02 45.7 -1.2
baz=320
TUC Tucson 82.66 55 P P 01 02 48.0 +0.7
baz=311
F36A Milaca 82.68 35 P P 01 02 47.4 +0.3
baz=319
G35A Watkins 82.72 36 P P 01 02 47.2 -0.2
baz=319
ECSD EROS Data Cent 82.81 38 P P 01 02 47.6 -0.3
baz=318,SNR=6.5
ECSD EROS Data Cent 82.81 38 eP P 01 02 48.0 +0.2
comp=Z,9.3nm,0.8s
K32A Verdigre 82.92 40 P P 01 02 47.8 -0.6
baz=317
J33A Davis 82.94 39 P P 01 02 48.3 -0.2
baz=318
H35A Sunnyside Ranc 82.95 37 P P 01 02 48.8 +0.2
baz=319
I34A Hadley 82.95 38 P P 01 02 48.8 +0.3
baz=318
SOKA Soboth 82.95 326 i P P 01 02 48.1 -0.5
comp=Z,14nm,1.6s
E38A The Farm, Brul 82.99 34 P P 01 02 48.8 +0.1
baz=321
G36A St. Michael 83.05 36 P P 01 02 48.9 -0.1
baz=319
MHTCO State Highway 83.17 48 eP P 01 02 51.5 +1.4
comp=Z,25nm,1.6s
OBKA Obir 83.29 326 i P P 01 02 48.2 -2.1
comp=Z,2.4nm,0.7s
T25A Trinidad 83.33 47 P P 01 02 51.3 +0.4
baz=314
F38A Pierce - Schro 83.35 34 P P 01 02 50.5 -0.1
baz=320
KBA Koelnbreinsper 83.37 327 i PcP P 01 02 51.6 +0.7
comp=Z,4.5nm,0.7s
L32A Elgin 83.38 40 P P 01 02 51.0 +0.2
baz=317
K33A Hardington 83.45 39 P P 01 02 51.2 0.0
baz=318
J34A George 83.46 38 P P 01 02 50.4 -0.8
baz=318
H36A Jessenland, He 83.46 36 P P 01 02 51.6 +0.4
baz=319
SPMN Marine on St. 83.49 35 P P 01 02 51.4 +0.1
baz=320
I35A Creekview Farm 83.51 38 P P 01 02 51.4 0.0
baz=319
LAZ Ladron 83.56 51 eP P 01 02 53.5 +1.4
MYKA Terra Mystica 83.59 327 i P P 01 02 51.1 -0.8
comp=Z,2.4nm,0.5s
E39A Mellen 83.60 33 P P 01 02 51.8 -0.1
baz=321
ANMO Albuquerque 83.61 50 P P 01 02 53.4 +1.0
baz=313
ANMO Albuquerque 83.61 50 eP P 01 02 53.0 +0.6
ANMO pmax pmax
comp=Z,7.0nm,1.0s
ANMO Albuquerque 83.61 50 eP P 01 02 54.3 +2.0
comp=Z,7.9nm,1.0s
BGNE Belgrade 83.74 41 P P 01 02 52.5 -0.1
baz=317
J35A Milford 83.77 38 P P 01 02 52.4 -0.3
baz=319
F39A Loretta 83.80 34 P P 01 02 52.9 0.0
baz=321
E40A Wakefield 83.83 33 P P 01 02 53.1 0.0
baz=322
K34A Le Mars 83.84 39 P P 01 02 52.8 -0.3
baz=318
H37A Dierke Farm, C 83.93 36 P P 01 02 53.5 -0.1
baz=320
G38A Ridgeland 83.96 35 P P 01 02 53.3 -0.4
baz=321
ABTA Abfaltersbach 83.98 328 i P P 01 02 52.6 -1.3
comp=Z,7.3nm,1.4s
MOTA Moosalm 84.09 329 i P P 01 02 54.2 -0.3
comp=Z,2.8nm,0.8s
M33A Taylor Creek F 84.11 40 P P 01 02 54.4 -0.1
baz=318
SCHQ Schefferville 84.11 16 LR LR 01 44 23.2
comp=Z,199nm,18.1s,baz=102,slow=38
RETA Reute 84.11 329 i P P 01 02 54.7 +0.1
comp=Z,12nm,1.4s
I37A Lemond, Waseca 84.14 37 P P 01 02 54.9 +0.3
baz=320
F40A Park Falls 84.15 34 P P 01 02 54.2 -0.5
baz=322
H38A Maiden Rock 84.15 35 P P 01 02 54.4 -0.3
baz=320
G39A Holcombe 84.18 34 P P 01 02 54.5 -0.3
baz=321
J36A Seneca 1, Swea 84.21 37 P P 01 02 54.7 -0.4
baz=319
E41A Kenton 84.22 33 P P 01 02 54.9 -0.1
baz=322
L34A Svendsen Farm, 84.23 40 P P 01 02 54.4 -0.8
baz=318
BFO Black Forest 84.39 331 i P P 01 02 56.4 +0.5
BFO Black Forest 84.39 331 eP P 01 02 56.1 +0.2
comp=Z,9.3nm,0.9s
121A Cookes Peak, D 84.41 53 P P 01 02 57.0 +0.5
baz=312
FETA Feichten 84.50 329 i P P 01 02 56.3 -0.3
comp=Z,8.7nm,1.7s
L35A Bielow Farm, R 84.54 39 P P 01 02 57.1 +0.4
baz=318
J37A Redenius Farm, 84.60 37 P P 01 02 57.0 +0.1
baz=320
I38A Scanlan Farm, 84.61 36 P P 01 02 56.5 -0.5
baz=320
G40A Rib Lake 84.62 34 P P 01 02 56.8 -0.3
baz=322
DAVA Damuels 84.63 329 i P P 01 02 57.0 -0.3
comp=Z,5.7nm,0.8s
K36A Gilmore City 84.68 38 P P 01 02 57.3 -0.1
baz=319
F41A Three Lakes 84.73 33 P P 01 02 57.5 -0.1
baz=322
CBKS Cedar Bluff 84.77 44 P P 01 02 57.4 -0.6
baz=316
M35A Neola 84.94 39 P P 01 02 58.7 0.0
baz=318
K37A Belmond 84.97 37 P P 01 02 58.6 -0.3
baz=320
N34A Lincoln 85.00 40 P P 01 02 58.4 -0.6
baz=318
FUORN Ofenpass-Fuorn 85.01 329 eP P 01 02 59.7 +0.4
H40A Chili 85.05 34 P P 01 02 58.8 -0.4
baz=322
J38A Wedel Dairy, R 85.10 36 P P 01 02 59.6 0.0
baz=320
E43A Lone Tree Farm 85.11 31 P P 01 02 59.0 -0.4
baz=324
G41A Antigo 85.11 33 P P 01 02 59.5 0.0
baz=322
I39A Houston 85.13 36 P P 01 02 59.2 -0.4
baz=321
H41A Junction City 85.38 34 P P 01 03 00.6 -0.3
baz=322
O34A Beatrice 85.39 41 P P 01 03 00.4 -0.6
baz=318
M36A Felix, Anita 85.40 39 P P 01 03 01.0 -0.1
baz=319
L37A Phoenix Point, 85.40 38 P P 01 03 00.9 -0.2
baz=320
G42A Mountain 85.42 33 P P 01 03 01.1 +0.1
baz=323
N35A Tabor 85.42 40 P P 01 03 01.3 +0.1
baz=318
J39A Decorah 85.45 36 P P 01 03 00.5 -0.7
baz=321
I40A Norwalk 85.51 35 P P 01 03 01.7 +0.1
baz=321
F44A Big Bay de Noc 85.67 31 P P 01 03 02.3 0.0
baz=324
G43A Wacee 85.72 33 P P 01 03 02.5 -0.1
baz=323
I41A Arkdale 85.72 35 P P 01 03 02.7 +0.1
baz=322
L38A Oak Wood Farm, 85.77 38 P P 01 03 02.7 -0.2
baz=320
P34A Walnut Farm, R 85.79 41 P P 01 03 02.5 -0.5
baz=318
N36A Muff Farm, Cla 85.80 40 P P 01 03 03.0 0.0
baz=319
J40A Soldiers Grove 85.84 35 P P 01 03 02.8 -0.4
baz=321
K39A Oelwein 85.85 37 P P 01 03 02.6 -0.7
baz=321
H42A Shiocton 85.95 33 P P 01 03 02.9 -0.8
baz=323
Q34A Chapman 86.19 42 P P 01 03 04.7 -0.3
baz=318
J41A Logansville 86.20 35 P P 01 03 04.6 -0.3
baz=322
K40A Colesburg 86.20 36 P P 01 03 04.7 -0.3
baz=321
M38A Pleasantville 86.21 38 P P 01 03 05.1 +0.1
baz=320
N37A Lee Faris, Mou 86.22 39 P P 01 03 05.2 +0.1
baz=319
P35A Duane Minner, 86.22 41 P P 01 03 04.7 -0.5
baz=318
L39A Vinton 86.24 37 P P 01 03 05.0 -0.2
baz=321
I42A Draeger Farm, 86.28 34 P P 01 03 05.2 -0.1
baz=322
O36A Bolckow 86.31 40 P P 01 03 05.5 0.0
baz=319
H43A Windswept, Lux 86.31 33 P P 01 03 05.5 0.0
baz=323
MNTX Cornudas Mount 86.47 52 P P 01 03 06.8 +0.2
baz=314
P36A Good Intent, A 86.57 40 P P 01 03 06.6 -0.2
baz=319
J42A Columbus 86.64 35 P P 01 03 07.0 -0.1
baz=322
L40A Anamosa 86.66 37 P P 01 03 07.0 -0.2
baz=321
M39A Webster 86.66 37 P P 01 03 07.1 -0.2
baz=321
K41A Shullsburg 86.66 36 P P 01 03 07.0 -0.2
baz=322
N38A Joes South For 86.67 39 P P 01 03 07.4 0.0
baz=320
O37A Wolven Farm, M 86.69 39 P P 01 03 07.5 +0.1
baz=319
Q35A Mercer Eighty, 86.71 41 P P 01 03 07.3 -0.3
baz=318
J43A Natural Harves 86.90 34 P P 01 03 08.1 -0.3
baz=323
K42A Prairie Point, 86.96 35 P P 01 03 08.2 -0.5
baz=322
N39A Derby Farms, D 86.96 38 P P 01 03 08.7 0.0
baz=320
L41A Preston 86.99 36 P P 01 03 08.4 -0.4
baz=322
S34A Willow Spring 87.00 43 P P 01 03 08.6 -0.3
baz=318
R35A Emporia Munici 87.02 42 P P 01 03 09.3 +0.2
baz=318
P37A Lathrop 87.03 40 P P 01 03 09.0 -0.1
baz=319
M40A Post Highland 87.03 37 P P 01 03 09.0 -0.1
baz=321
O38A Galt 87.06 39 P P 01 03 09.3 +0.1
baz=320
R36A Gordon, Harris 87.39 41 P P 01 03 10.7 -0.2
baz=319
N40A Mertquake, Sal 87.40 38 P P 01 03 11.0 +0.2
baz=321
P38A Dawn 87.41 39 P P 01 03 10.9 0.0
baz=320
O39A Kirksville 87.42 38 P P 01 03 10.9 0.0
baz=320
L42A Oliver, Polo 87.43 36 P P 01 03 10.6 -0.3
baz=322
S35A Otter Creek Ra 87.43 42 P P 01 03 11.4 +0.3
baz=318
M41A Milan 87.51 37 P P 01 03 11.4 0.0
baz=322
R37A Teagarden Farm 87.74 41 P P 01 03 12.3 -0.3
baz=319
S36A Lake Cedric, C 87.79 42 P P 01 03 12.7 0.0
baz=319
O40A La Belle 87.85 38 P P 01 03 13.0 0.0
baz=321
Q38A Cooks Store, C 87.87 40 P P 01 03 13.0 -0.2
baz=320
N41A Harden Midland 87.89 37 P P 01 03 13.0 -0.2
baz=321
T35A Sooner Cattle 87.90 43 P P 01 03 13.5 +0.2
baz=318
P39B Salisbury 87.90 39 P P 01 03 13.2 -0.1
baz=320
T36A Boggs Farm, Ca 88.13 43 P P 01 03 14.4 0.0
baz=318
Q39A Willow Grove F 88.13 40 P P 01 03 14.4 0.0
baz=320
S37A Fort Scott 88.16 41 P P 01 03 14.2 -0.3
baz=319
N42A Yates City 88.18 37 P P 01 03 14.4 -0.2
baz=322
U35A Pawnee 88.18 44 P P 01 03 14.6 -0.1
baz=318
M43A Waltham Townsh 88.20 36 P P 01 03 14.6 0.0
baz=323
P40A Paris 88.22 39 P P 01 03 14.9 +0.1
baz=321
R38A Fenwick Farm, 88.31 41 P P 01 03 14.5 -0.7
baz=320
O41A Passleys Farm, 88.33 38 P P 01 03 15.4 +0.1
baz=321
N43A Stutzman Famil 88.49 36 P P 01 03 16.4 +0.3
baz=322
V35A Meyer Ranch, C 88.58 44 P P 01 03 16.9 +0.3
baz=318
P41A Barry, Barry 88.59 38 P P 01 03 16.7 +0.1
baz=321
Q40A Laux Farm, Aux 88.62 39 P P 01 03 16.7 0.0
baz=321
R39A Chumby, Stover 88.66 40 P P 01 03 16.6 -0.3
baz=320
U36A Oologah 88.71 43 P P 01 03 17.1 0.0
baz=319
S38A Stockton 88.73 41 P P 01 03 17.1 -0.2
baz=320
HDIL Hopedale 88.74 36 P P 01 03 17.2 0.0
baz=322
O43A Sugar Creek Fa 88.94 37 P P 01 03 18.3 +0.1
baz=322
T38A Diamond 88.99 42 P P 01 03 18.4 -0.1
baz=319
S39A Bolivar 88.99 41 P P 01 03 18.3 -0.2
baz=320
P42A Winchester 89.01 38 P P 01 03 18.5 0.0
baz=322
W35A Tecumseh 89.01 44 P P 01 03 18.1 -0.5
baz=318
M45A Boilermakers S 89.01 35 P P 01 03 18.0 -0.4
baz=324
U37A Salina 89.03 43 P P 01 03 18.6 0.0
baz=319
TUL1 Leonard 89.03 43 P P 01 03 18.7 0.0
baz=318
V36A Jenks 89.05 43 P P 01 03 19.0 +0.3
baz=318
R40A Maddies Statio 89.06 40 P P 01 03 18.5 -0.3
baz=321
Q41A Truxton 89.07 39 P P 01 03 18.9 +0.1
baz=321
N44A Piper City 89.09 36 P P 01 03 18.7 -0.1
baz=323
TX31 Lajitas Ar. Si 89.17 53 eP P 01 03 19.8 +0.2
TX31 epP pP 01 03 36.1 +1.0
TXAR Lajitas Array 89.17 53 P P 01 03 20.0 +0.4
comp=Z,4.5nm,0.6s,baz=300,slow=3.2,SNR=47
TXAR Lajitas Array 89.17 53 P P 01 03 20.0 +0.4
TXAR pmax pmax
comp=Z,5.0nm,0.6s
ABTX Abilene, Hawle 89.28 48 P P 01 03 20.3 +0.3
baz=316
N45A Kentland 89.33 35 P P 01 03 19.8 -0.1
baz=324
P43A Skaggs, Pawnee 89.36 37 P P 01 03 20.1 0.0
baz=322
W36A Wetumka 89.37 44 P P 01 03 20.4 +0.1
baz=318
U38A Gravette 89.39 42 P P 01 03 20.5 +0.1
baz=319
M46A Old House Fiel 89.39 34 P P 01 03 20.7 +0.4
baz=324
V37A Hulbert 89.40 43 P P 01 03 20.5 +0.1
baz=319
Q42A Golden Eagle 89.44 38 P P 01 03 20.9 +0.4
baz=322
O44A Mansfield 89.44 36 P P 01 03 20.6 +0.1
baz=323
T39A Clever 89.47 41 P P 01 03 20.6 -0.1
baz=320
S40A Lebanon 89.48 40 P P 01 03 20.7 -0.1
baz=320
R41A Rosebud 89.50 39 P P 01 03 21.3 +0.5
baz=321
O45A Potomac 89.71 36 P P 01 03 22.0 +0.2
baz=323
X36A Centrahoma 89.72 44 P P 01 03 22.4 +0.4
baz=318
CCM Cathedral Cave 89.76 39 eP P 01 03 21.9 -0.1
CCM pmax pmax
comp=Z,10.0nm,0.8s
CCM Cathedral Cave 89.76 39 eP P 01 03 21.9 -0.1
comp=Z,10nm,0.8s
W37B Quinton 89.81 44 P P 01 03 22.4 +0.1
baz=319
R42A Luebbering 89.81 39 P P 01 03 22.6 +0.3
baz=322
V38A Canehill 89.81 42 P P 01 03 22.1 -0.2
baz=319
T40A Mansfield 89.81 40 P P 01 03 22.2 -0.1
baz=320
Q43A New Douglas 89.82 38 P P 01 03 22.6 +0.3
baz=322
Y35A Marietta 89.83 45 P P 01 03 21.8 -0.7
baz=318
S41A Jillco Farms, 89.87 40 P P 01 03 22.9 +0.3
baz=321
SFIN Lafayette 89.89 35 P P 01 03 22.3 -0.3
baz=324
U39A Green Forest 89.91 42 P P 01 03 22.4 -0.4
baz=320
P44A Sand Creek, Wi 89.92 37 P P 01 03 22.7 0.0

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| | baz=323 | | | | | | |
| Q44A | Meyer Farm, Va | 90.18 | 37 | P | P | 01 03 23.8 | -0.1 |
| | baz=323 | | | | | | |
| S42A | Caledonia | 90.20 | 39 | P | P | 01 03 24.2 | +0.1 |
| | baz=322 | | | | | | |
| R43A | Red Bud | 90.23 | 38 | P | P | 01 03 23.9 | -0.3 |
| | baz=322 | | | | | | |
| V39A | Pettigrew | 90.23 | 42 | P | P | 01 03 23.9 | -0.5 |
| | baz=320 | | | | | | |
| X37A | Clayton | 90.25 | 44 | P | P | 01 03 23.7 | -0.7 |
| | baz=319 | | | | | | |
| U40A | Yellville | 90.25 | 41 | P | P | 01 03 23.9 | -0.4 |
| | baz=320 | | | | | | |
| Y36A | Durant | 90.26 | 45 | P | P | 01 03 24.4 | 0.0 |
| | baz=318 | | | | | | |
| P45A | Graceland, Par | 90.28 | 36 | P | P | 01 03 24.3 | -0.1 |
| | baz=323 | | | | | | |
| T41A | Mountain View | 90.28 | 40 | P | P | 01 03 24.3 | -0.2 |
| | baz=321 | | | | | | |
| O47A | Sheridan | 90.42 | 35 | P | P | 01 03 24.5 | -0.5 |
| | baz=324 | | | | | | |
| P46A | Rosedale | 90.45 | 36 | P | P | 01 03 25.1 | -0.1 |
| | baz=324 | | | | | | |
| X38A | Whitesboro | 90.48 | 43 | P | P | 01 03 25.3 | -0.2 |
| | baz=319 | | | | | | |
| Y37A | Hugo | 90.57 | 44 | P | P | 01 03 26.4 | +0.5 |
| | baz=319 | | | | | | |
| Q45A | Warren Harvey, | 90.59 | 37 | P | P | 01 03 25.6 | -0.2 |
| | baz=323 | | | | | | |
| T42A | Van Buren | 90.63 | 40 | P | P | 01 03 26.4 | +0.2 |
| | baz=321 | | | | | | |
| Z36A | Blue Ridge | 90.64 | 45 | P | P | 01 03 25.9 | -0.4 |
| | baz=318 | | | | | | |
| W39A | Magazine | 90.65 | 42 | P | P | 01 03 25.8 | -0.4 |
| | baz=320 | | | | | | |
| R44A | Waltonville | 90.67 | 38 | P | P | 01 03 26.3 | +0.1 |
| | baz=322 | | | | | | |
| V40A | Witts Springs | 90.69 | 41 | P | P | 01 03 26.0 | -0.5 |
| | baz=320 | | | | | | |
| S43A | Fulton Ridge, | 90.71 | 39 | P | P | 01 03 26.1 | -0.4 |
| | baz=322 | | | | | | |
| JCT | Junction City | 90.73 | 49 | P | P | 01 03 26.6 | -0.1 |
| | baz=316 | | | | | | |
| JCT | Junction City | 90.73 | 49 | eP | P | 01 03 27.2 | +0.4 |
| JCT | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.6s | | | | | | |
| JCT | Junction City | 90.73 | 49 | eP | P | 01 03 27.2 | +0.4 |
| | comp=Z,6.7nm,0.6s | | | | | | |
| U41A | Viola | 90.74 | 41 | P | P | 01 03 26.3 | -0.3 |
| | baz=321 | | | | | | |
| P47A | Martinsville | 90.99 | 35 | P | P | 01 03 27.4 | -0.3 |
| | baz=324 | | | | | | |
| X39A | Fountain Ranch | 90.99 | 43 | P | P | 01 03 27.7 | -0.2 |
| | baz=320 | | | | | | |
| T43A | Greenville | 90.99 | 39 | P | P | 01 03 27.6 | -0.2 |
| | baz=322 | | | | | | |
| WHTX | Lake Whitney, | 91.01 | 47 | P | P | 01 03 28.3 | +0.3 |
| | baz=318 | | | | | | |
| R45A | Skylar, Fairfi | 91.01 | 37 | P | P | 01 03 27.6 | -0.2 |
| | baz=323 | | | | | | |
| S44A | Carbondale | 91.02 | 38 | P | P | 01 03 27.9 | 0.0 |
| | baz=322 | | | | | | |
| W40A | Ferguson Farm, | 91.03 | 42 | P | P | 01 03 27.6 | -0.4 |
| | baz=320 | | | | | | |
| V41A | Mountainview | 91.05 | 41 | P | P | 01 03 28.1 | 0.0 |
| | baz=321 | | | | | | |
| U42A | Revenden | 91.08 | 40 | P | P | 01 03 27.2 | -1.0 |
| | baz=321 | | | | | | |
| Y38A | Idabel | 91.09 | 44 | P | P | 01 03 28.1 | -0.3 |
| | baz=319 | | | | | | |
| Z37A | Pogue Cattle C | 91.15 | 45 | P | P | 01 03 28.6 | 0.0 |
| | baz=319 | | | | | | |
| MIAR | Mount Ida | 91.25 | 43 | P | P | 01 03 29.4 | +0.3 |
| | baz=320,SNR=5.4 | | | | | | |
| MIAR | Mount Ida | 91.25 | 43 | eP | P | 01 03 29.5 | +0.4 |
| MIAR | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.8s | | | | | | |
| MIAR | Mount Ida | 91.25 | 43 | eP | P | 01 03 29.5 | +0.4 |
| | comp=Z,7.8nm,0.8s | | | | | | |
| Q47A | Bedord North L | 91.36 | 36 | P | P | 01 03 29.5 | +0.1 |
| | baz=324 | | | | | | |
| WHAR | Wooly Hollow | 91.36 | 41 | eP | P | 01 03 29.8 | +0.2 |
| | comp=Z,8.1nm,0.7s | | | | | | |
| V42A | Cord | 91.43 | 41 | P | P | 01 03 29.5 | -0.3 |
| | baz=321 | | | | | | |
| Y39A | Lockesburg | 91.43 | 43 | P | P | 01 03 29.7 | -0.2 |
| | baz=320 | | | | | | |
| Z38A | Mt. Pleasant | 91.46 | 44 | P | P | 01 03 29.2 | -0.8 |
| | baz=319 | | | | | | |
| W41B | Gary Mavity, V | 91.47 | 42 | P | P | 01 03 29.8 | -0.3 |
| | baz=321 | | | | | | |
| U43A | Rector | 91.49 | 40 | P | P | 01 03 30.3 | +0.2 |
| | baz=322 | | | | | | |
| 435B | Jarrell | 91.82 | 48 | P | P | 01 03 32.1 | +0.3 |
| | baz=318 | | | | | | |
| Z40A | Long Farm, Mag | 92.33 | 43 | P | P | 01 03 34.4 | +0.4 |
| | baz=320 | | | | | | |
| 833A | Chaparral WMA, | 92.53 | 51 | P | P | 01 03 36.3 | +1.3 |
| | baz=316 | | | | | | |
| 141A | Papa Simpson, | 93.09 | 44 | P | P | 01 03 38.0 | +0.4 |
| | baz=320 | | | | | | |
| Z42A | Norrel Spur, H | 93.09 | 43 | P | P | 01 03 38.2 | +0.7 |
| | baz=321 | | | | | | |
| TORD | Torodi Ar. Bea | 116.67 | 316 | PKP | PKPdf | 01 09 07.0 | -1.1 |
| | comp=Z,0.3nm,0.4s,baz=22,slow=1.8,SNR=6.4 | | | | | | |
| SNAA | Sanae | 141.97 | 197 | PKP | PKPpre | 01 09 47.7 | |
| SNAA | Sanae | 141.97 | 197 | PKhKP | PKPpre | 01 09 47.4 | |
| | comp=Z,1.2nm,0.7s,baz=201,slow=5.0,SNR=18 | | | | | | |
| VNA2 | Neumayer--Watz | 143.55 | 196 | PKP | PKPab | 01 09 53.8 | +0.3 |
| | baz=107,slow=2.4 | | | | | | |
| VNA3 | Neumayer Olymp | 143.79 | 195 | PKP | PKPab | 01 09 54.3 | -0.2 |
| VNA1 | Neumayer--Stat | 143.94 | 196 | PKP | PKPab | 01 09 54.8 | -0.2 |
| LPAZ | La Paz | 145.84 | 58 | PKPbc | PKPdf | 01 10 03.5 | +0.3 |
| | comp=Z,11nm,0.5s,baz=344,slow=2.1,SNR=48 | | | | | | |

*NIED **02** 00:55:00, 23.°00N×121.°40E, h35km, Mw4.9 Best double couple: $M_0$2.75000×$10^{16}$ NP1:φs305.00000°, δ50.00000°, λ19.00000°. NP2:φs202.00000°, δ75.00000°, λ138.00000°.*

*IDC **02** 00:55:20.4±0.5, 22.°84N×121.°34E, h0km, mb4.4/23, mb1 4.6/24, mb1mx4.4/40, mbtmp4.4/24, ML4.1/1, MS4.1/3, Ms1 4.2/3, ms1mx3.4/52, Error ellipse: s-maj=20.1km s-min=11.3km az=67.0*

*BJI **02** 00:55:23.1, 23.°03N×121.°36E, h5km, mb4.4/46, mB4.8/27, ML4.6/7, Ms4.6/43, Ms7 4.5/40*

*NEIC **02** 00:55:23.2±1.1, 22.°99N×121.°43E, h14km±6km, mb4.9/25, ML4.8(TAP), Error ellipse: s-maj=8.3km s-min=6.2km az=102.0*

*NEIC Recorded [4 TAP] in Taitung, [2 TAP] in Kaohsiung and [1 TAP] in Chiayi, Hualien, Nantou, Pingtung, Tainan, Taitung and Yunlin.*

*JMA **02** 00:55:23.1±0.1, 22.°99N×121.°41E, h21km±3km, M4.5*

*MOS **02** 00:55:23.4±1.0, 22.°88N×121.°44E, h34km, mb5.0/27, Error ellipse: s-maj=10.3km s-min=6.1km az=116.1*

*ISCJB **02** 00:55:23.5±0.3, 22.°95N±0.°01×121.°43E±0.°01, h27km±2km, mb4.6/67, MS4.3/9, Error ellipse: s-maj=2.5km s-min=2.2km az=145.7*

*TAP **02** 00:55:24.2, 23.°01N×121.°33E, h21km, ML4.8, B*

**ISC 02 00:55:23.5**±0.6**, 22.°99N**±0.°02×**121.°45E**±0.°02**, h16**km±3km**, n267, σ1.67**/330**, mb4.7**/67**, MS4.3**/9**, 39C-7D, Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CHKT | Chengkung | 0.13 | 324 | ⇓iP | Pb | 00 55 28.7 | +1.0 |
| | baz=22 | | | | | | |
| TTN | Taitung | 0.37 | 230 | ⇓iP | Pb | 00 55 31.6 | -0.1 |
| | baz=209 | | | | | | |
| TWF1 | Yuli | 0.39 | 339 | ⇑iP | Pb | 00 55 31.8 | -0.2 |
| | baz=344 | | | | | | |
| TWG | Pinlang | 0.39 | 244 | ⇑iP | Pg | 00 55 31.1 | -0.4 |
| | baz=243 | | | | | | |
| TWG | Pinlang | 0.39 | 244 | ePg | Pg | 00 55 31.1 | -0.4 |
| YULB | Yu-li | 0.42 | 341 | eP | Pg | 00 55 31.9 | -0.2 |
| | 15µm,0.8s | | | | | | |
| YULB | Yu-li | 0.42 | 341 | ePg | Pg | 00 55 31.9 | -0.2 |
| ELDTW | Lidau | 0.45 | 296 | ⇑iP | Pg | 00 55 31.4 | -1.1 |
| | baz=302 | | | | | | |
| EHY | Hungye | 0.53 | 347 | ⇑iP | Pg | 00 55 33.9 | -0.1 |
| | baz=347 | | | | | | |
| ECL | Taimali | 0.60 | 230 | P | Pg | 00 55 34.1 | -1.3 |
| | baz=231 | | | | | | |
| STYT | Tauyuan | 0.66 | 285 | ⇑iP | Pg | 00 55 35.2 | -1.4 |
| | baz=286 | | | | | | |
| YUS | Yu-Shan | 0.68 | 317 | ⇑iP | Pg | 00 55 36.2 | -0.7 |
| | baz=324 | | | | | | |
| YUS | | | | iS | Sg | 00 55 43.5 | -2.5 |
| | baz=324 | | | | | | |
| TEGC | Jichi Village | 0.72 | 7 | eP | Pn | 00 55 39.2 | +0.1 |
| | baz=22 | | | | | | |
| ALS | Alishan | 0.79 | 311 | ⇑iP | Pg | 00 55 38.3 | -0.7 |
| | baz=316 | | | | | | |
| ALS | | | | S | Sg | 00 55 46.9 | -2.6 |
| | baz=316 | | | | | | |
| SSD | Sandimen | 0.79 | 252 | ⇑iP | Pb | 00 55 37.1 | -1.9 |
| | baz=240 | | | | | | |
| SGST | Jiashian | 0.80 | 277 | ⇑iP | Pb | 00 55 38.4 | -0.8 |
| | baz=276 | | | | | | |
| SGST | | | | eS | Sb | 00 55 48.8 | -1.1 |
| | baz=276 | | | | | | |
| WTP | Ta-pu | 0.81 | 288 | ⇑iP | Pb | 00 55 38.3 | -1.0 |
| | baz=290 | | | | | | |
| TAW | Tawu | 0.81 | 219 | eP | Pb | 00 55 37.7 | -1.6 |
| | baz=220 | | | | | | |
| TAW | | | | eS | Sb | 00 55 47.5 | -2.5 |
| | baz=220 | | | | | | |
| WDT | Danda | 0.81 | 339 | ⇑iP | Pg | 00 55 38.9 | -0.6 |
| | baz=354 | | | | | | |
| TPUB | Ta-pu | 0.82 | 292 | ePg | Pb | 00 55 37.8 | -1.6 |
| ESL | Shilin | 0.82 | 359 | eP | Pb | 00 55 39.1 | -0.4 |
| | baz=356 | | | | | | |
| EAST | Anshuo | 0.82 | 223 | ⇓iP | Pb | 00 55 38.0 | -1.5 |
| | baz=216 | | | | | | |
| CHN4 | Tsaushan | 0.87 | 295 | ⇑iP | Pb | 00 55 39.6 | -0.7 |
| | baz=297 | | | | | | |
| CHN1 | Nanshi | 0.87 | 283 | ⇑iP | Pb | 00 55 39.8 | -0.5 |
| | baz=286 | | | | | | |
| CHN1 | | | | iS | Sb | 00 55 51.5 | -0.3 |
| | baz=286 | | | | | | |
| ESF | Shoufeng Towns | 0.88 | 3 | eP | Pg | 00 55 40.5 | -0.1 |
| | baz=358 | | | | | | |
| SSLB | Suanglung | 0.91 | 330 | eP | Pb | 00 55 40.1 | -1.0 |
| SSLB | | | | eSn | Sn | 00 55 55.2 | +0.5 |
| SGLT | Jiouru | 0.92 | 254 | eP | Pb | 00 55 40.4 | -0.8 |
| | baz=250 | | | | | | |
| TWK | Hsinying | 0.93 | 287 | ⇑iP | Pb | 00 55 40.5 | -0.8 |
| | baz=288 | | | | | | |
| TWK | | | | eS | Sb | 00 55 53.3 | -0.2 |
| | baz=288 | | | | | | |
| CHN5 | Tsauling | 0.93 | 310 | ⇑iP | Pb | 00 55 41.0 | -0.5 |
| | baz=314 | | | | | | |
| LAY | Lan-yu | 0.95 | 174 | ⇑P | Pb | 00 55 40.7 | -1.0 |
| | baz=160 | | | | | | |
| TWM1 | Shoushan | 0.96 | 260 | ⇑iP | Pb | 00 55 42.0 | +0.1 |
| | baz=258 | | | | | | |
| SCZT | Fangliau | 0.98 | 231 | eP | Pb | 00 55 40.9 | -1.3 |
| | baz=226 | | | | | | |
| HWA | Hwalien | 0.99 | 8 | eP | Pb | 00 55 41.8 | -0.6 |
| | baz=359 | | | | | | |
| CHN3 | Shinhua | 1.00 | 275 | eP | Pb | 00 55 42.8 | +0.2 |
| | baz=275 | | | | | | |
| SMLT | Sun Moon Lake | 1.02 | 330 | ⇑P | Pb | 00 55 42.5 | -0.4 |
| | baz=341 | | | | | | |
| CHN2 | Minshiung | 1.05 | 301 | eP | Pb | 00 55 42.7 | -0.6 |
| | baz=303 | | | | | | |
| CHN2 | | | | eS | Sb | 00 55 57.1 | +0.3 |
| | baz=303 | | | | | | |
| TYC | Yuchr | 1.06 | 329 | ⇑P | Pb | 00 55 43.1 | -0.4 |
| | baz=333 | | | | | | |
| TYC | | | | S | Sb | 00 55 57.2 | 0.0 |
| | baz=333 | | | | | | |
| CHY | Chiayi | 1.07 | 298 | ⇑iP | Pb | 00 55 43.3 | -0.4 |
| | baz=300 | | | | | | |
| CHY | | | | S | Sb | 00 55 57.5 | 0.0 |
| | baz=300 | | | | | | |
| WGK | Gukeng | 1.07 | 310 | ⇑P | Pb | 00 55 43.9 | +0.2 |
| | baz=313 | | | | | | |
| WGK | | | | eS | Sb | 00 55 58.0 | +0.5 |
| | baz=313 | | | | | | |
| TWD | Chiawan | 1.09 | 7 | eP | Pb | 00 55 43.1 | -1.0 |
| | baz=358 | | | | | | |
| TAI1 | Yung-k'ang | 1.13 | 273 | ⇑iP | Pb | 00 55 44.9 | +0.3 |
| | baz=272 | | | | | | |
| TAI1 | | | | eS | Sn | 00 56 00.1 | +0.3 |
| | baz=272 | | | | | | |
| WNT | Mingjian | 1.13 | 322 | ⇑P | Pb | 00 55 45.2 | +0.4 |
| | baz=325 | | | | | | |
| WNT | | | | eS | Sb | 00 55 59.6 | +0.4 |
| | baz=325 | | | | | | |
| KAU | Kaohsiung | 1.14 | 248 | eP | Pg | 00 55 45.7 | +0.2 |
| | baz=246 | | | | | | |
| SCLT | Jiali | 1.17 | 279 | P | Pn | 00 55 45.2 | -0.1 |
| | baz=289 | | | | | | |
| SCLT | | | | S | Sn | 00 56 01.7 | +0.7 |
| | baz=289 | | | | | | |
| HEN | Hengchun | 1.18 | 214 | eP | Pb | 00 55 45.9 | +0.3 |
| | baz=200 | | | | | | |
| NACB | Ninganchiao | 1.18 | 6 | ePg | Pn | 00 55 43.5 | -2.0 |
| TWP | Hsiaoliuchiu | 1.19 | 238 | eP | Pg | 00 55 47.5 | +1.0 |
| | baz=231 | | | | | | |
| TWP | | | | eS | Sg | 00 56 03.4 | +1.2 |
| | baz=231 | | | | | | |
| CHN8 | Yiju | 1.19 | 287 | ⇑P | Pn | 00 55 45.3 | -0.3 |
| | baz=298 | | | | | | |
| CHN8 | | | | S | Sb | 00 56 01.6 | +0.5 |
| | baz=298 | | | | | | |
| TSEB | Hengchuen, Pin | 1.20 | 205 | eP | Pn | 00 55 45.0 | -0.7 |
| | baz=193 | | | | | | |
| TSEB | | | | eS | Sb | 00 56 00.4 | -0.8 |
| | baz=193 | | | | | | |
| TWK1 | Hengchun | 1.20 | 210 | ⇑P | Pn | 00 55 44.5 | -1.3 |
| | baz=196 | | | | | | |
| TWT | Tachien | 1.28 | 349 | eP | Pn | 00 55 46.7 | -0.3 |
| | baz=351 | | | | | | |
| WSF | Szhu | 1.30 | 300 | eP | Pn | 00 55 46.8 | -0.3 |
| | baz=301 | | | | | | |
| WSF | | | | S | Sn | 00 56 03.9 | -0.2 |
| | baz=301 | | | | | | |
| TCU | Taichung | 1.35 | 328 | eP | Pb | 00 55 48.8 | +0.3 |
| | baz=332 | | | | | | |
| WTCT | Ta-ch'eng | 1.38 | 309 | eP | Pn | 00 55 47.9 | -0.3 |
| | baz=311 | | | | | | |
| WTCT | | | | eS | Sn | 00 56 05.5 | -0.7 |
| | baz=311 | | | | | | |
| NNS | Nan Shan | 1.44 | 357 | eP | Pn | 00 55 48.9 | -0.3 |
| | baz=11 | | | | | | |
| ENA | Nanau | 1.46 | 10 | eP | Pn | 00 55 49.4 | +0.2 |
| TWQ1 | Liyutan | 1.49 | 335 | P | Pb | 00 55 51.3 | +0.5 |
| | baz=338 | | | | | | |
| TWQ1 | | | | S | Sg | 00 56 10.8 | -0.7 |
| | baz=338 | | | | | | |
| NSY | Sanyi | 1.55 | 336 | eP | Pb | 00 55 52.3 | +0.3 |
| | baz=338 | | | | | | |
| NSY | | | | S | Sg | 00 56 13.0 | -0.7 |
| | baz=338 | | | | | | |
| ENTT | Nioudou | 1.65 | 4 | eP | Pn | 00 55 52.2 | +0.3 |
| | baz=16 | | | | | | |
| TWC | Suao | 1.65 | 13 | eP | Pn | 00 55 52.4 | +0.4 |
| | baz=2.0 | | | | | | |
| TWC | | | | eS | Sn | 00 56 13.1 | +0.2 |
| | baz=2.0 | | | | | | |
| WDGT | Dungji | 1.67 | 280 | eP | Pn | 00 55 51.1 | -1.0 |
| | baz=279 | | | | | | |
| WDGT | | | | S | Sn | 00 56 10.8 | -2.4 |
| | baz=279 | | | | | | |
| YHNB | Yeheng | 1.67 | 358 | ePn | Pn | 00 55 52.5 | +0.2 |
| NSTT | Nanjuang | 1.68 | 346 | eP | Pb | 00 55 53.3 | -0.9 |
| | baz=356 | | | | | | |
| NSTT | | | | eS | Sb | 00 56 15.1 | -0.1 |
| | baz=356 | | | | | | |
| TWE | Neicheng | 1.73 | 7 | eP | Pn | 00 55 53.2 | +0.1 |
| | baz=6.0 | | | | | | |
| PNG | Penghu | 1.83 | 289 | eP | Pn | 00 55 53.5 | -0.9 |
| | baz=289 | | | | | | |
| HSN | Hsinchu | 1.86 | 346 | eP | Pb | 00 55 56.5 | -0.6 |
| | baz=349 | | | | | | |
| TATO | Taipei | 1.98 | 1 | ePn | Pn | 00 55 57.2 | +0.9 |
| NCU | National Centr | 1.98 | 353 | eP | Pg | 00 56 00.8 | -0.9 |
| | baz=339 | | | | | | |
| TWA | Mucha | 1.98 | 3 | eP | Pn | 00 55 57.6 | +1.1 |
| | baz=13 | | | | | | |
| JYNG | Yonagunijimaku | 2.00 | 43 | P | Pb | 00 55 58.0 | -1.5 |
| JYNG | | | | eS | Sn | 00 56 21.3 | -0.1 |
| TAP1 | Taipei | 2.04 | 2 | eP | Pb | 00 55 59.1 | -1.1 |
| | baz=13 | | | | | | |
| YOJ | Yonaguni jima | 2.05 | 44 | eP | Pb | 00 55 58.6 | -1.8 |
| | baz=56 | | | | | | |
| YOJ | | | | eS | Sb | 00 56 23.6 | -2.0 |
| | baz=56 | | | | | | |
| YOJ | Yonaguni jima | 2.05 | 44 | eP | Pb | 00 55 58.5 | -1.8 |
| YOJ | Yonaguni jima | 2.05 | 44 | P | Pb | 00 55 58.9 | -1.5 |
| YOJ | | | | S | Sb | 00 56 24.0 | -1.6 |
| YOJ | Yonaguni jima | 2.05 | 44 | ePn | Pb | 00 55 58.5 | -1.8 |
| TWB1 | Santiao Chiao | 2.07 | 14 | eP | Pb | 00 55 58.9 | -1.8 |
| | baz=2.0 | | | | | | |
| NWF | Wu-fen Shan | 2.09 | 8 | eP | Pn | 00 55 58.5 | +0.5 |
| | baz=6.0 | | | | | | |
| TWS1 | Kuangyinshan | 2.10 | 359 | eP | Pn | 00 55 58.7 | +0.6 |
| | baz=11 | | | | | | |
| TWY | Chenhua | 2.28 | 3 | eP | Pn | 00 56 01.8 | +1.2 |
| | baz=13 | | | | | | |
| HATJ | Hateruma jima | 2.41 | 63 | P | Pn | 00 56 03.1 | +0.8 |
| HATJ | | | | eS | Sn | 00 56 31.7 | +0.2 |
| IRIF | Iriomote-Funau | 2.48 | 57 | P | Pn | 00 56 04.7 | +1.4 |
| IRIF | | | | eS | Sn | 00 56 34.4 | +1.1 |
| JKRS | Kuro-shima | 2.65 | 62 | P | Pn | 00 56 06.9 | +1.2 |
| JKRS | | | | eS | Sn | 00 56 39.3 | +1.7 |
| PCYT | Pengchaiyu | 2.69 | 12 | eP | Pn | 00 56 06.0 | -0.2 |
| | baz=8.0 | | | | | | |
| JIJ | Ishigaki jima | 2.82 | 61 | P | Pn | 00 56 08.8 | +0.8 |
| JIJ | | | | eS | Sn | 00 56 41.5 | -0.2 |
| JISG | Ishigakijimahi | 3.06 | 58 | P | Pn | 00 56 12.1 | +0.8 |
| KNM | Kinmen | 3.11 | 298 | eP | Pn | 00 56 12.4 | +0.5 |
| | baz=298 | | | | | | |
| QZH | Quanzhou | 3.26 | 307 | ⇑iPn | Pn | 00 56 12.0 | -2.0 |
| QZH | | | | Sn | Sn | 00 56 48.1 | -4.4 |
| QZH | | | | smax | smax | | |
| | comp=N,2µm,0.9s | | | | | | |
| QZH | | | | smax | smax | | |
| | comp=E,2µm,0.8s | | | | | | |
| QZH | | | | LR | LR | | |
| | comp=N,8µm,9.7s | | | | | | |
| QZH | | | | LR | LR | | |
| | comp=E,6µm,10.6s | | | | | | |
| QZH | | | | LR | LR | | |
| | comp=Z,11µm,13.7s | | | | | | |
| JTJ | Tarama | 3.40 | 60 | P | Pn | 00 56 17.4 | +1.4 |
| JTJ | | | | eS | Sn | 00 56 57.6 | +1.6 |
| JIRB | Irabujima | 3.87 | 61 | P | Pn | 00 56 23.9 | +1.5 |
| JIRB | | | | eS | Sn | 00 57 09.1 | +1.6 |
| JMJ | Miyako jima 2 | 3.96 | 62 | P | Pn | 00 56 25.1 | +1.5 |
| JMJ | | | | S | Sn | 00 57 11.7 | +1.9 |
| JIKM | Ikemajima | 3.97 | 60 | P | Pn | 00 56 25.0 | +1.2 |
| JIKM | | | | S | Sn | 00 57 11.8 | +1.7 |
| JOGS | Gusukube | 4.03 | 63 | P | Pn | 00 56 26.1 | +1.5 |
| SGCP | Mt. Cagua | 4.76 | 173 | eP | Sn | 00 57 30.9 | +1.3 |
| APYP | Conner | 5.11 | 182 | eP | Pn | 00 56 40.1 | +0.7 |
| APYP | | | | eS | Sn | 00 57 37.8 | -0.4 |
| BALP | Baler | 7.21 | 179 | eP | Pn | 00 57 09.0 | +0.5 |
| BALP | | | | eS | Sn | 00 58 33.5 | +3.4 |
| JOW | Kunigami | 7.28 | 57 | ePn | Pn | 00 57 11.5 | +2.2 |
| MCO | Taipa Grande | 7.35 | 265 | P | Pb | 00 57 27.0 | -3.7 |
| GZH | Guangzhou | 7.47 | 272 | P | Pn | 00 57 08.4 | -3.5 |
| GZH | | | | S | Sn | 00 58 21.4 | -15 |
| GZH | | | | pmax | pmax | | |
| | comp=Z,120nm,0.7s | | | | | | |
| NJ2 | Nanjing | 9.31 | 346 | eP | Pn | 00 57 37.1 | -0.1 |
| NJ2 | | | | S | Sn | 00 59 20.0 | -1.7 |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.5s | | | | | | |
| NJ2 | | | | smax | smax | | |
| | comp=Z,140nm,1.4s | | | | | | |
| NJ2 | | | | smax | smax | | |
| | comp=Z,150nm,1.1s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,3µm,10.3s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,1µm,10.8s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,2µm,14.1s | | | | | | |
| WHN | Wuhan | 9.84 | 321 | P | Pn | 00 57 44.1 | -0.3 |
| WHN | | | | S | Sn | 00 59 36.0 | +1.5 |
| WHN | | | | LR | LR | | |
| | comp=Z,7µm,13.5s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=Z,4µm,12.6s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=Z,7µm,12.0s | | | | | | |
| QIZ | Qiongzhong | 11.53 | 252 | P | Pn | 00 58 08.3 | +0.6 |
| QIZ | | | | S | Sn | 01 00 18.1 | +1.8 |
| QIZ | | | | pmax | pmax | | |
| | comp=Z,37nm,2.3s | | | | | | |
| JNU | Nakatsue | 13.07 | 37 | ePn | Pn | 00 58 29.7 | +1.0 |
| GYA | Guiyang | 13.87 | 287 | eP | Pn | 00 58 40.0 | +0.3 |
| GYA | | | | PP | P | 00 58 51.2 | +3.2 |
| GYA | | | | S | Sn | 01 01 13.5 | -0.1 |
| GYA | | | | SS | SnSn | 01 01 30.0 | +4.0 |
| GYA | | | | pmax | pmax | | |
| | comp=Z,20nm,0.8s | | | | | | |
| GYA | | | | pmax | pmax | | |
| | comp=Z,120nm,4.8s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,500nm,13.9s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,450nm,14.8s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,440nm,15.0s | | | | | | |
| INCN | Inchon | 15.12 | 16 | ePn | Pn | 00 58 56.2 | -0.3 |
| KSAR | Wonju Array Be | 15.43 | 20 | P | Pn | 00 59 02.2 | +1.6 |
| KSAR | Wonju Array Be | 15.43 | 20 | Pn | Pn | 00 59 02.1 | +1.6 |
| KSRS | Korea Array | 15.45 | 20 | Pn | Pn | 00 59 02.1 | +1.2 |
| | comp=Z,0.7nm,0.3s,baz=197,slow=12,SNR=8.7 | | | | | | |
| KMI | Kunming | 17.22 | 281 | P | P | 00 59 27.0 | +1.7 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.5s | | | | | | |
| BJT | Baijiatuau | 17.56 | 346 | eP | P | 00 59 28.4 | -0.2 |
| BJT | | | | pmax | pmax | | |
| | comp=Z,23nm,1.3s | | | | | | |
| BJT | Baijiatuau | 17.56 | 346 | ePn | P | 00 59 28.4 | -0.2 |
| | comp=Z,23nm,1.3s | | | | | | |
| BJI | Beijing | 17.57 | 346 | P | P | 00 59 28.4 | -0.4 |
| BJI | | | | S | Sn | 01 02 42.3 | -0.9 |
| BJI | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.7s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,930nm,15.3s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,860nm,19.3s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,690nm,16.5s | | | | | | |
| KKM | Kota Kinabalu | 17.59 | 197 | ePn | P | 00 59 32.3 | +3.0 |
| | comp=Z,29nm,0.8s | | | | | | |
| CD2 | Chengdu | 17.62 | 300 | eP | P | 00 59 30.1 | +0.6 |
| CD2 | | | | sP | pP | 00 59 33.1 | -0.8 |
| CD2 | | | | PP | PnPn | 00 59 40.6 | +1.5 |
| CD2 | | | | S | Sn | 01 02 40.4 | -4.2 |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,20nm,0.9s | | | | | | |
| MYLDM | Lahad Datu | 17.94 | 190 | ePn | P | 00 59 37.2 | +4.3 |
| | comp=Z,86nm,1.3s | | | | | | |
| HHC | Hu-ho-hao-te | 19.66 | 337 | eP | Pn | 00 59 57.4 | +4.1 |
| HHC | | | | sP | sP | 01 00 05.2 | +6.8 |
| HHC | | | | S | S | 01 03 32.3 | -0.9 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,12nm,0.6s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,140nm,4.8s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,690nm,14.8s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,340nm,14.8s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,420nm,14.8s | | | | | | |
| MAJO | Matsushiro | 19.81 | 43 | eP | P | 00 59 52.6 | -0.8 |
| MAJO | | | | pmax | pmax | | |
| | comp=Z,26nm,1.2s | | | | | | |
| MAT | Matsushiro | 19.81 | 43 | P | Pn | 00 59 55.0 | 0.0 |
| MAT | | | | S | Sn | 01 03 38.2 | +0.9 |
| MJAR | Matsushiro Arr | 19.81 | 43 | P | Pn | 00 59 55.2 | +0.2 |
| | comp=Z,6.3nm,0.9s,baz=217,slow=9.4,SNR=7.7 | | | | | | |
| LZH | Lanzhou | 20.08 | 314 | eP | Pn | 00 59 58.7 | +0.3 |
| LZH | | | | pP | pP | 01 00 02.0 | +0.9 |
| LZH | | | | sP | sP | 01 00 07.0 | +3.9 |
| LZH | | | | PP | PnPn | 01 00 18.0 | +5.1 |
| LZH | | | | S | S | 01 03 37.0 | -4.9 |
| LZH | | | | sS | Sn | 01 03 42.0 | -2.2 |
| LZH | | | | SS | SnSn | 01 04 03.0 | +4.3 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,29nm,1.0s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,300nm,7.9s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,490nm,12.1s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,2µm,14.3s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,1µm,14.2s | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| PBKT | Sadao Pong | 20.29 | 255 | P | Pn | 01 00 09.1 | +8.3 |
| | comp=Z,17nm,1.7s | | | | | | |
| CN2 | Changchun | 21.02 | 8 | eP | P | 01 00 05.1 | -1.4 |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.5s | | | | | | |
| CMMT | Chiang Mai | 21.42 | 263 | P | P | 01 00 14.9 | +3.8 |
| | comp=Z,16nm,1.0s | | | | | | |
| CHTO | Chiang Mai | 21.43 | 263 | P | P | 01 00 14.9 | +3.8 |
| | comp=Z,72nm,1.0s | | | | | | |
| CHTO | Chiang Mai | 21.43 | 263 | eP | P | 01 00 11.0 | -0.1 |
| CHTO | | | | pmax | pmax | | |
| | comp=Z,17nm,1.0s | | | | | | |
| CHTO | Chiang Mai | 21.43 | 263 | eP | P | 01 00 11.0 | -0.1 |
| | comp=Z,16nm,1.0s | | | | | | |
| CM01 | Chiang Mai Arr | 21.52 | 262 | eP | P | 01 00 13.1 | +1.0 |
| CM01 | | | | eS | S | 01 04 14.2 | +3.9 |
| CMAR | Chiang Mai Arr | 21.52 | 262 | P | P | 01 00 10.2 | -1.9 |
| | comp=Z,1.0nm,0.3s,baz=65,slow=8.0,SNR=17 | | | | | | |
| CMAR | | | | PcP | PcP | 01 04 14.8 | +0.1 |
| | comp=Z,1.3nm,0.4s,baz=129,slow=0.4,SNR=5.5 | | | | | | |
| CMAR | | | | LR | LR | 01 09 11.1 | |
| | comp=Z,860nm,18.1s,baz=122,slow=39 | | | | | | |
| UTHA | Uthaitani | 22.03 | 254 | P | P | 01 00 20.8 | +3.2 |
| | comp=Z,5.6nm,1.0s | | | | | | |
| MRSI | Marisa | 22.39 | 179 | P | P | 01 00 24.5 | +3.1 |
| MPSI | Mapaga | 22.57 | 184 | P | P | 01 00 23.2 | -0.1 |
| SRDT | SRDT | 22.81 | 252 | P | P | 01 00 32.9 | +7.0 |
| | comp=Z,38nm,1.4s | | | | | | |
| USRK | Ussuriysk Ar. | 22.86 | 20 | P | P | 01 00 29.0 | +2.8 |
| | comp=Z,1.2nm,0.5s,baz=193,slow=5.9,SNR=3.5 | | | | | | |
| PHET | Kaeng Krachan | 23.02 | 248 | P | P | 01 00 40.7 | +13 |
| APSI | Ampana | 23.76 | 180 | P | P | 01 00 36.0 | +0.6 |
| LUWI | Luwuk | 23.92 | 177 | P | P | 01 00 36.1 | -0.9 |
| LUWI | Luwuk | 23.92 | 177 | eP | P | 01 00 36.2 | -0.7 |
| | comp=Z,127nm,1.1s | | | | | | |
| LBMI | Labuha | 24.21 | 165 | P | P | 01 00 40.5 | +0.8 |
| GTA | Gaotai | 24.61 | 317 | eP | P | 01 00 43.1 | -0.2 |
| GTA | | | | pP | pP | 01 00 47.2 | -0.9 |
| GTA | | | | sP | sP | 01 00 50.2 | +0.1 |
| GTA | | | | S | S | 01 04 57.1 | -6.9 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,120nm,5.2s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,820nm,22.1s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,1μm,18.8s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,1μm,18.1s | | | | | | |
| MTKI | Muara Teweh, K | 24.63 | 196 | P | P | 01 00 45.9 | +2.4 |
| SANI | Sanana | 25.28 | 169 | P | P | 01 00 50.3 | +0.9 |
| HIA | Hailar | 26.26 | 357 | eP | P | 01 00 58.1 | +0.1 |
| HIA | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.1s | | | | | | |
| ULN | Ulaanbaatar | 27.36 | 339 | eP | P | 01 01 06.1 | -2.0 |
| ULN | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.2s | | | | | | |
| ULN | Ulaanbaatar | 27.36 | 339 | eP | P | 01 01 06.9 | -1.2 |
| | comp=Z,18nm,1.4s | | | | | | |
| SONM | Songino Array | 27.56 | 338 | P | P | 01 01 09.0 | -0.9 |
| | comp=Z,4.0nm,1.0s,baz=162,slow=10,SNR=12 | | | | | | |
| SONM | | | | PcP | PcP | 01 04 29.3 | +1.8 |
| | comp=Z,2.0nm,1.1s,baz=145,slow=3.6,SNR=3.5 | | | | | | |
| SONA1 | Songino Array | 27.57 | 338 | eP | P | 01 01 09.5 | -0.4 |
| LSA | Lhasa | 27.91 | 290 | eP | P | 01 01 15.0 | +1.4 |
| LSA | | | | pmax | pmax | | |
| | comp=Z,43nm,1.1s | | | | | | |
| LSA | Lhasa | 27.91 | 290 | eP | P | 01 01 15.0 | +1.4 |
| | comp=Z,43nm,1.1s | | | | | | |
| SOEI | Soe | 32.66 | 175 | eP | P | 01 01 52.6 | -2.6 |
| | comp=Z,18nm,0.8s | | | | | | |
| WMQ | Urumqi | 34.66 | 315 | P | P | 01 02 14.0 | +1.6 |
| WMQ | | | | pP | sP | 01 02 19.2 | 0.0 |
| WMQ | | | | sP | pP | 01 02 21.9 | +4.6 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,21nm,1.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,570nm,17.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,320nm,16.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,500nm,16.3s | | | | | | |
| DGZ | Jazzator, Alta | 37.69 | 324 | eP | P | 01 02 37.4 | -1.0 |
| DGZ | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.1s | | | | | | |
| MK01 | Makanchi Array | 39.35 | 317 | eP | P | 01 02 52.3 | +0.1 |
| MK31 | Makanchi Array | 39.37 | 317 | eP | P | 01 02 52.7 | +0.4 |
| MK31 | Makanchi Array | 39.37 | 317 | eP | P | 01 02 52.7 | +0.4 |
| MKAR | Makanchi Array | 39.37 | 317 | P | P | 01 02 52.4 | 0.0 |
| | comp=Z,11nm,0.9s,baz=108,slow=10,SNR=12 | | | | | | |
| MKAR | | | | PcP | PcP | 01 05 01.9 | +1.3 |
| | comp=Z,4.7nm,0.8s,baz=100,slow=5.0,SNR=7.8 | | | | | | |
| MAKZ | Makanchi | 39.57 | 317 | eP | P | 01 02 54.7 | +0.7 |
| MAKZ | | | | pmax | pmax | | |
| | comp=Z,22nm,1.0s | | | | | | |
| MAKZ | Makanchi | 39.57 | 317 | eP | P | 01 02 54.7 | +0.7 |
| | comp=Z,22nm,1.0s | | | | | | |
| FITZ | Fitzroy Crossi | 41.05 | 174 | P | P | 01 03 03.2 | -3.2 |
| | comp=Z,7.8nm,0.8s,baz=353,slow=10,SNR=7.7 | | | | | | |
| ZAA0 | Zalesovo Array | 41.38 | 328 | eP | P | 01 03 07.9 | -0.9 |
| | comp=Z,18nm,0.9s | | | | | | |
| ZALV | Zalesovo Beam | 41.38 | 328 | P | P | 01 03 08.2 | -0.6 |
| | comp=Z,6.7nm,0.4s,baz=122,slow=7.8,SNR=40 | | | | | | |
| ZALV | Zalesovo Beam | 41.38 | 328 | eP | P | 01 03 07.7 | -1.1 |
| ZALV | | | | e | | 01 05 08.4 | |
| ZALV | Zalesovo Beam | 41.38 | 328 | eP | P | 01 03 07.7 | -1.1 |
| ZALV | | | | ePcP | PcP | 01 05 08.4 | +1.5 |
| KSH | Kashi | 41.76 | 304 | P | P | 01 03 16.0 | +3.6 |
| KSH | | | | pP | sP | 01 03 20.5 | +1.3 |
| KSH | | | | PP | PnPn | 01 04 56.1 | +2.2 |
| KSH | | | | PcP | PcP | 01 05 11.3 | +2.7 |
| KSH | | | | S | S | 01 09 31.2 | +2.0 |
| KSH | | | | SS | SS | 01 12 33.1 | -1.9 |
| KSH | | | | ScS | ScS | 01 13 13.8 | -1.5 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.1s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,290nm,8.1s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,380nm,6.2s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,420nm,6.0s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,390nm,7.1s | | | | | | |
| H11N1 | WAKE ISLAND Hy | 42.32 | 86 | T | T | 01 48 33.5 | |
| | baz=283,slow=75,SNR=392 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 42.32 | 86 | T | T | 01 48 34.4 | |
| | baz=283,slow=75,SNR=599 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 42.34 | 86 | T | T | 01 48 37.7 | |
| | baz=283,slow=75,SNR=568 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 42.42 | 87 | T | T | 01 48 41.4 | |
| | baz=284,slow=75,SNR=652 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 42.42 | 87 | T | T | 01 48 42.0 | |
| | baz=284,slow=75,SNR=482 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 42.43 | 87 | T | T | 01 48 40.3 | |
| | baz=284,slow=75,SNR=565 | | | | | | |
| COEN | Coen | 42.44 | 148 | eP | P | 01 03 17.8 | -0.1 |
| | comp=Z,48nm,0.8s | | | | | | |
| NVS | Novosibirsk | 42.64 | 328⇑ | iP | P | 01 03 14.6 | -4.5 |
| NVS | | | | pmax | pmax | | |
| | comp=Z,32nm,1.7s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=N,11nm,1.6s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=E,22nm,1.9s | | | | | | |
| KURK | Kurchatov | 43.16 | 321 | eP | P | 01 03 22.8 | -0.6 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,15nm,1.1s | | | | | | |
| KURK | Kurchatov | 43.16 | 321 | eP | P | 01 03 23.6 | +0.2 |
| | comp=Z,24nm,1.2s | | | | | | |
| KURBB | Kurchatov Arra | 43.18 | 321 | P | P | 01 03 23.4 | -0.2 |
| | comp=Z,14nm,1.1s,baz=119,slow=7.1,SNR=18 | | | | | | |
| AAK | Ala-Archa | 43.43 | 308 | eP | P | 01 03 24.9 | -1.0 |
| AAK | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.1s | | | | | | |
| AAK | Ala-Archa | 43.43 | 308 | eP | P | 01 03 27.3 | +1.3 |
| | comp=Z,13nm,1.4s | | | | | | |
| WRAB | Tennant Creek | 44.48 | 163 | eP | P | 01 03 31.5 | -2.8 |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.0s | | | | | | |
| WRAB | Tennant Creek | 44.48 | 163 | eP | P | 01 03 32.6 | -1.7 |
| WRA | Warramunga Arr | 44.49 | 163 | P | P | 01 03 31.5 | -2.9 |
| | comp=Z,3.8nm,0.6s,baz=344,slow=8.6,SNR=9.3 | | | | | | |
| KBL | Kabul | 46.90 | 296 | eP | P | 01 03 54.8 | +1.1 |
| KBL | | | | pmax | pmax | | |
| | comp=Z,13nm,0.9s | | | | | | |
| KBL | Kabul | 46.90 | 296 | eP | P | 01 03 54.8 | +1.1 |
| | comp=Z,13nm,0.9s | | | | | | |
| ASAR | Alice Springs | 47.93 | 165 | P | P | 01 03 59.9 | -1.6 |
| | comp=Z,4.7nm,0.9s,baz=339,slow=7.4,SNR=14 | | | | | | |
| ASAR | | | | PcP | PcP | 01 05 27.9 | -1.9 |
| | comp=Z,1.9nm,0.8s,baz=335,slow=3.9,SNR=4.6 | | | | | | |
| BRVK | Borovoye | 48.82 | 321 | eP | P | 01 04 06.6 | -1.4 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,12nm,1.1s | | | | | | |
| BRVK | Borovoye | 48.82 | 321 | eP | P | 01 04 08.4 | +0.4 |
| | comp=Z,11nm,1.0s | | | | | | |
| TIXI | Tiksi | 48.87 | 3 | eP | P | 01 04 03.9 | -4.2 |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.1s | | | | | | |
| CTA | Charters Tower | 49.19 | 149 | P | P | 01 04 10.5 | -0.7 |
| | comp=Z,16nm,0.8s,baz=333,slow=11,SNR=18 | | | | | | |
| BILL | Bilibino | 52.72 | 19⇓ | eP | P | 01 04 37.6 | +0.4 |
| BILL | | | | e*SP | sP | 01 04 44.9 | +0.8 |
| BILL | | | | e | | 01 04 56.5 | |
| BILL | | | | | | 01 05 50.0 | |
| BILL | | | | | | 01 06 33.1 | |
| BILL | | | | SS | SS | 01 15 38.0 | -4.5 |
| BILL | | | | pmax | pmax | | |
| | comp=Z,11nm,1.4s | | | | | | |
| BILL | | | | MLR | MLR | | |
| | comp=Z,191nm,20.0s | | | | | | |
| SVE | Sverdlovsk | 55.15 | 324⇑ | eP | P | 01 04 55.3 | +0.2 |
| SVE | | | | pmax | pmax | | |
| | comp=Z,28nm,1.1s | | | | | | |
| GEYT | Alibeck | 55.61 | 301 | P | P | 01 04 59.5 | +0.7 |
| | comp=Z,6.1nm,0.8s,baz=90,slow=1.5,SNR=13 | | | | | | |
| ARU | Arti | 56.20 | 323c | iP | P | 01 05 02.2 | -0.5 |
| ARU | | | | | | 01 05 54.7 | |
| ARU | | | | | | 01 07 06.3 | |
| ARU | | | | S | S | 01 12 55.2 | +3.7 |
| ARU | | | | SS | SS | 01 16 38.2 | +0.4 |
| ARU | | | | pmax | pmax | | |
| | comp=Z,34nm,1.7s | | | | | | |
| ARU | Arti | 56.20 | 323 | eP | P | 01 05 02.0 | -0.7 |
| | comp=Z,20nm,1.1s | | | | | | |
| STKA | Stephens Creek | 57.87 | 160 | P | P | 01 05 13.7 | -1.0 |
| | comp=Z,8.8nm,0.8s,baz=336,slow=7.9,SNR=16 | | | | | | |
| DZM | Mont Dzumac | 62.65 | 132 | LR | LR | 01 28 12.0 | |
| | comp=Z,146nm,19.3s,baz=215,slow=32 | | | | | | |
| DDFL | Dedoflistskaro | 64.44 | 306 | P | P | 01 06 01.0 | +1.6 |
| GUDG | Gudauri | 65.48 | 308 | P | P | 01 06 07.2 | +0.8 |
| ZEI | Tsey | 65.85 | 308 | eP | P | 01 06 07.4 | -1.3 |
| ZEI | | | | pmax | pmax | | |
| | comp=Z,11nm,1.0s | | | | | | |
| NCK | Nalchik | 65.95 | 309 | eP | P | 01 06 08.7 | -0.5 |
| NCK | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.9s | | | | | | |
| VRH | Novokhopyorsk | 66.09 | 317 | eP | P | 01 06 07.7 | -2.1 |
| VRH | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.9s | | | | | | |
| ONI | Oni | 66.21 | 308 | P | P | 01 06 12.1 | +1.3 |
| ONI | Oni | 66.21 | 308 | P | P | 01 06 12.1 | +1.3 |
| KLMR | Klimovskoe | 66.30 | 328 | eP | P | 01 06 07.7 | -3.3 |
| KLMR | | | | pmax | pmax | | |
| | comp=Z,29nm,1.5s | | | | | | |
| KBZ | Khabaz | 66.42 | 309 | P | P | 01 06 12.0 | 0.0 |
| | comp=Z,19nm,0.9s,baz=121,slow=5.1,SNR=11 | | | | | | |
| KIV | Kislovodsk | 66.53 | 309c | iP | P | 01 06 11.9 | -1.0 |
| KIV | | | | e | | 01 08 41.3 | |
| KIV | | | | pmax | pmax | | |
| | comp=Z,11nm,0.6s | | | | | | |
| KIV | | | | MLR | MLR | | |
| | comp=Z,146nm,16.0s | | | | | | |
| KIV | Kislovodsk | 66.53 | 309 | eP | P | 01 06 13.2 | +0.3 |
| | comp=Z,42nm,1.1s | | | | | | |
| NEY | Neytrino | 66.62 | 309 | eP | P | 01 06 13.0 | -0.6 |
| NEY | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.9s | | | | | | |
| LPSR | Galich'ya Gora | 67.61 | 319 | eP | P | 01 06 18.4 | -1.1 |
| LPSR | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.7s | | | | | | |
| VSR | Storozhevoye | 67.68 | 318 | eP | P | 01 06 17.5 | -2.5 |
| VSR | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.4s | | | | | | |
| MLY | Manley | 68.49 | 27 | eP | P | 01 06 26.6 | +1.7 |
| | comp=Z,6.0nm,1.0s | | | | | | |
| OBN | Obninsk | 68.59 | 322⇑ | eP | P | 01 06 23.8 | -1.7 |
| OBN | | | | e | | 01 09 00.6 | |
| OBN | | | | eS | PnS | 01 15 54.7 | +3.1 |
| OBN | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.9s | | | | | | |
| OBN | | | | MLR | MLR | | |
| | comp=Z,175nm,17.0s | | | | | | |
| RAYN | Ar Rayn | 68.93 | 287 | eP | P | 01 06 28.2 | -0.1 |
| | comp=Z,11nm,1.2s | | | | | | |
| MARD | Mardin | 69.30 | 303 | eP | P | 01 06 31.2 | +0.7 |
| | comp=Z,24nm,1.0s | | | | | | |
| RND | Reindeer | 69.57 | 29 | eP | P | 01 06 32.3 | +0.6 |
| RND | | | | pmax | pmax | | |
| | comp=Z,49nm,2.0s | | | | | | |
| RND | Reindeer | 69.57 | 29 | eP | P | 01 06 32.3 | +0.6 |
| | comp=Z,49nm,2.0s | | | | | | |
| ANN | Anapa | 70.06 | 311 | eP | P | 01 06 31.1 | -3.7 |
| ANN | | | | e | | 01 09 05.8 | |
| ANN | | | | eS | S | 01 15 40.9 | -4.1 |
| ANN | | | | eSS | SS | 01 20 08.6 | -5.6 |
| ANN | | | | pmax | pmax | | |
| | comp=Z,78nm,1.5s | | | | | | |
| ILAR | Eielson Array | 70.16 | 27 | P | P | 01 06 36.0 | +0.8 |
| | comp=Z,0.4nm,0.7s,baz=293,slow=7.8,SNR=5.1 | | | | | | |
| ILAR | Eielson Array | 70.16 | 27 | P | P | 01 06 36.0 | +0.8 |
| ARCES | ARCESS Array B | 70.73 | 338 | P | P | 01 06 38.1 | -0.5 |
| | comp=Z,6.5nm,0.9s,baz=77,slow=7.7,SNR=5.3 | | | | | | |
| FINES | FINESS Array B | 72.59 | 330 | P | P | 01 06 48.9 | -1.0 |
| | comp=Z,4.5nm,0.8s,baz=66,slow=5.2,SNR=6.3 | | | | | | |
| AKASG | Malin Array Be | 73.92 | 319 | P | P | 01 06 56.7 | -1.2 |
| | comp=Z,1.0nm,0.5s,baz=59,slow=5.8,SNR=7.3 | | | | | | |
| KIEV | Kiev | 73.93 | 319 | eP | P | 01 06 56.7 | -1.3 |
| KIEV | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.1s | | | | | | |
| AK11 | Malin Array Si | 73.96 | 319 | eP | P | 01 06 58.7 | +0.5 |
| BR131 | Keskin Array S | 74.08 | 307 | eP | P | 01 06 59.4 | +0.2 |
| BRTR | Keskin Array B | 74.08 | 307 | P | P | 01 06 58.7 | -0.6 |
| | comp=Z,2.6nm,0.9s,baz=91,slow=5.4,SNR=9.5 | | | | | | |
| KIS | Kishinev | 75.28 | 315 | e | P | 01 07 16.0 | +10 |
| VRI | Vrincioaia | 77.01 | 314⇑ | iP | P | 01 07 16.4 | +0.6 |
| VRI | Vrincioaia | 77.01 | 314 | ⇑P | P | 01 07 16.4 | +0.6 |
| BUR08 | Bucovina Ar. S | 77.39 | 316 | eP | P | 01 07 17.5 | -0.5 |
| BURAR | Bucovina Array | 77.39 | 316⇓ | iP | P | 01 07 17.6 | -0.4 |
| BUR04 | Bucovina Ar. S | 77.39 | 316 | eP | P | 01 07 17.1 | -0.9 |
| MLR | Muntele Rosu | 77.65 | 314⇑ | iP | P | 01 07 19.6 | 0.0 |
| MLR | Muntele Rosu | 77.65 | 314 | ⇑P | P | 01 07 19.6 | 0.0 |
| MLR | Muntele Rosu | 77.65 | 314 | eP | P | 01 07 19.7 | +0.2 |
| | comp=Z,32nm,1.9s | | | | | | |
| DOPR | Dopca | 77.85 | 315⇑ | iP | P | 01 07 20.3 | -0.2 |
| STHS | Stebnicka Huta | 79.19 | 319 | eP | P | 01 07 26.7 | -1.2 |
| STHS | Stebnicka Huta | 79.19 | 319 | eP | P | 01 07 26.7 | -1.2 |
| DRGR | | 79.28 | 316⇓ | iP | P | 01 07 28.1 | -0.4 |
| DRGR | | 79.28 | 316 | ⇓P | P | 01 07 28.1 | -0.4 |
| NB2 | NORSAR Subarra | 79.39 | 332 | P | P | 01 07 26.8 | -1.9 |
| | comp=Z,9.4nm,1.0s,baz=59,slow=5.6 | | | | | | |
| NOA | NORSAR Array B | 79.39 | 332 | P | P | 01 07 27.7 | -1.0 |
| | comp=Z,1.4nm,0.7s,baz=78,slow=5.8,SNR=6.9 | | | | | | |
| OJC | Ojcow | 79.74 | 320 | eP | P | 01 07 30.5 | -0.3 |
| OJC | | | | pmax | pmax | | |
| | comp=Z,18nm,1.1s | | | | | | |
| OJC | Ojcow | 79.74 | 320 | eP | P | 01 07 30.5 | -0.3 |
| | comp=Z,18nm,1.1s | | | | | | |
| VTS | Vitosha | 80.54 | 312⇑ | iP | P | 01 07 34.9 | -0.5 |
| VTS | Vitosha | 80.54 | 312 | ⇑P | P | 01 07 34.9 | -0.5 |
| VTS | Vitosha | 80.54 | 312 | eP | P | 01 07 35.0 | -0.5 |
| | comp=Z,9.6nm,0.9s | | | | | | |
| MDVR | Moldovita | 80.70 | 315⇑ | iP | P | 01 07 35.3 | -0.8 |
| VYHS | Vyhne | 81.02 | 319 | eP | P | 01 07 37.4 | -0.3 |
| VYHS | | | | pmax | pmax | | |
| | comp=Z,183nm,4.2s | | | | | | |
| VYHS | Vyhne | 81.02 | 319 | eP | P | 01 07 37.4 | -0.3 |
| DPC | Dobruska-Polom | 81.71 | 321 | eP | P | 01 07 41.3 | -0.1 |
| DPC | | | | epP | pP | 01 07 44.6 | -2.0 |
| DPC | Dobruska-Polom | 81.71 | 321 | eP | P | 01 07 41.3 | -0.1 |
| BRG | Berggiesshubel | 82.83 | 322 | eP | P | 01 07 48.7 | +1.5 |
| | comp=Z,8.0nm,1.3s | | | | | | |
| BRG | Berggiesshubel | 82.83 | 322 | eP | P | 01 07 48.7 | +1.5 |
| BRG | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.3s | | | | | | |
| PRU | Pruhonice | 82.90 | 322 | eP | P | 01 07 47.4 | -0.2 |
| PRU | Pruhonice | 82.90 | 322 | eP | P | 01 07 47.4 | -0.2 |
| CLL | Collm | 83.15 | 323 | eP | P | 01 07 48.0 | -0.8 |
| CLL | | | | i | | 01 07 54.9 | |
| CLL | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.1s | | | | | | |
| CLL | Collm | 83.15 | 323 | eP | P | 01 07 48.0 | -0.8 |
| | comp=Z,9.0nm,1.1s | | | | | | |
| CLL | | | | i sP | sP | 01 07 54.9 | -1.0 |
| | comp=Z,19nm,1.3s | | | | | | |
| KHC | Kasperske Hory | 83.85 | 321 | eP | P | 01 07 52.1 | -0.5 |
| KHC | | | | epP | PcP | 01 07 55.7 | -0.9 |
| KHC | Kasperske Hory | 83.85 | 321 | eP | P | 01 07 52.1 | -0.5 |
| GERES | GERESS Array B | 83.92 | 321 | P | P | 01 07 51.3 | -1.7 |
| | comp=Z,2.4nm,0.8s,baz=67,slow=4.5,SNR=16 | | | | | | |
| GEA0 | GERESS Array S | 83.92 | 321 | eP | P | 01 07 51.9 | -1.1 |
| YKA | Yellowknife Ar | 83.97 | 23 | P | P | 01 07 51.6 | -1.1 |
| | comp=Z,1.5nm,0.8s,baz=315,slow=4.9,SNR=4.2 | | | | | | |
| KMBO | Kilima Mbogo | 85.09 | 267 | P | P | 01 07 58.9 | -0.8 |
| | comp=Z,0.7nm,0.4s,baz=60,slow=3.8,SNR=7.8 | | | | | | |
| KMBO | | | | LR | LR | 01 44 37.6 | |
| | comp=Z,49nm,20.7s,baz=30,slow=35 | | | | | | |
| KMBO | Kilima Mbogo | 85.09 | 267 | eP | P | 01 08 01.0 | +1.3 |
| KMBO | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.1s | | | | | | |
| KMBO | Kilima Mbogo | 85.09 | 267 | eP | P | 01 08 01.0 | +1.3 |
| | comp=Z,7.8nm,1.1s | | | | | | |
| MEM | Membach | 87.30 | 325 | P | P | 01 08 08.5 | -1.2 |
| BCLA | Clavier | 87.78 | 325 | P | P | 01 08 11.8 | -0.2 |
| BARC | Barichara | 147.30 | 28 | eP | PKPbc | 01 15 07.6 | +0.1 |
| RUSC | La Rusia | 147.97 | 28 | eP | PKPbc | 01 15 10.3 | +0.6 |
| CHIC | Chingaza | 148.80 | 30 | eP | PKPbc | 01 15 11.0 | -0.8 |

*TIR **02** 01:01:45.5±4.9, 41.°14N×20.°38E, h3km±999km, ML2.9*
*ATH **02** 01:01:47.7, 41.°15N×20.°38E, h11km±3km, ML2.4/5, Error ellipse: s-maj=3.4km s-min=1.1km az=315.0*
*SKO **02** 01:01:48.3, 41.°04N×20.°26E, h6km, M1.6, ML2.5*
*CSEM **02** 01:01:49.7±0.3, 41.°04N×20.°37E, h10km, ML2.9, Error ellipse: s-maj=9.1km s-min=4.7km az=57.0*
**ISC 02 01:01:47.8**±1.1, **41.°07N**±0.°02×**20.°34E**±0.°02, **h5**km±10km, **n52, σ1s21**/70, **3C-2D, Albania**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| OHR | Ohrid | 0.35 | 84⇑ | iPg | Pg | 01 01 54.5 | -0.1 |
| OHR | | | | i Sg | Sb | 01 02 02.6 | +0.2 |
| OHR | | | | eLg | Lg | 01 02 02.7 | |
| | comp=N,330nm,0.6s | | | | | | |
| OHR | | | | eLg | Lg | 01 02 02.8 | |
| | comp=E,313nm,0.5s | | | | | | |
| TIR | Tirane | 0.45 | 307 | i PG | Pg | 01 01 56.1 | -0.4 |
| TIR | | | | i SG | Sb | 01 02 04.9 | -0.4 |
| TIR | Tirane | 0.45 | 307⇑ | iP | Pg | 01 01 56.4 | -0.1 |
| TIR | | | | S | Sb | 01 02 04.9 | -0.4 |
| TIR | Tirane | 0.45 | 307 | P | Pg | 01 01 55.9 | -0.6 |
| TIR | | | | S | Sg | 01 02 02.5 | +0.1 |
| TIR | | | | AML | AML | 01 02 05.7 | |
| | comp=N,1860μm,0.8s | | | | | | |
| TIR | | | | AML | AML | 01 02 05.8 | |
| | comp=E,1819μm,0.5s | | | | | | |
| TIR | Tirane | 0.45 | 307 | P | Pg | 01 01 55.9 | -0.6 |
| TIR | | | | S | Sg | 01 02 02.5 | +0.1 |
| TIR | | | | i Sg | Sb | 01 02 04.9 | -0.4 |
| | SNR=90 | | | | | | |
| KBN | Korca | 0.56 | 143 | i PG | Pb | 01 01 59.5 | -0.8 |
| KBN | | | | i SG | Sn | 01 02 10.8 | -1.5 |
| KBN | Korca | 0.56 | 143 | i Pg | Pb | 01 01 59.5 | -0.8 |
| | SNR=91 | | | | | | |
| PHP | Peshkopia | 0.61 | 7 | i PG | Pg | 01 01 58.1 | -1.5 |
| PHP | | | | i SG | Sb | 01 02 10.0 | 0.0 |
| BIA | Bitola | 0.75 | 94 | i Pg | Pg | 01 02 02.4 | +0.2 |
| BIA | | | | i Sg | Sb | 01 02 14.9 | +1.0 |
| BIA | | | | eLg | Lg | 01 02 15.5 | |
| | comp=N,103nm,0.5s | | | | | | |
| BIA | | | | eLg | Lg | 01 02 16.0 | |
| | comp=E,49nm,0.4s | | | | | | |
| FNA | Florina | 0.84 | 110 | P | Pg | 01 02 03.4 | -0.6 |
| FNA | | | | S | Sg | 01 02 13.8 | -1.0 |
| FNA | | | | AML | AML | 01 02 20.0 | |
| | comp=N,921μm,0.7s | | | | | | |
| FNA | | | | AML | AML | 01 02 21.6 | |
| | comp=E,893μm,0.4s | | | | | | |
| FNA | Florina | 0.84 | 110 | P | Pg | 01 02 03.3 | -0.6 |
| FNA | | | | S | Sg | 01 02 13.8 | -1.0 |
| NEST | Nestorio | 0.85 | 141 | P | Pg | 01 02 03.7 | -0.4 |
| NEST | | | | S | Sg | 01 02 15.3 | +0.1 |
| NEST | | | | AML | AML | 01 02 21.4 | |
| | comp=N,273μm,0.5s | | | | | | |
| NEST | | | | AML | AML | 01 02 25.5 | |
| | comp=E,197μm,0.9s | | | | | | |
| NEST | Nestorio | 0.85 | 141 | P | Pg | 01 02 03.7 | -0.4 |
| NEST | | | | S | Sg | 01 02 15.3 | +0.1 |
| PUK | Puka | 1.02 | 341 | i PG | Pn | 01 02 12.7 | +3.8 |
| PUK | | | | i SG | Sn | 01 02 23.1 | -0.6 |
| PENT | Pentalofos | 1.07 | 145 | P | Pn | 01 02 09.7 | +0.2 |
| PENT | Pentalofos | 1.07 | 145 | P | Pn | 01 02 09.7 | +0.2 |
| SKO | Skopje | 1.22 | 42 | i Pg | Pn | 01 02 11.8 | +0.2 |
| SKO | | | | i Sg | Sn | 01 02 28.6 | +0.2 |
| SKO | | | | eLg | Lg | 01 02 28.8 | |
| | comp=E,11nm,0.7s | | | | | | |
| SKO | | | | eLg | Lg | 01 02 31.2 | |
| | comp=N,7.6nm,0.5s | | | | | | |
| BCI | Bajram Curri | 1.31 | 351 | i PN | Pn | 01 02 12.2 | -0.6 |
| KZN | Kozani | 1.33 | 125 | P | Pg | 01 02 13.4 | +0.1 |
| KZN | Kozani | 1.33 | 125 | P | Pg | 01 02 13.4 | +0.1 |
| KEK | Kerkira | 1.42 | 197 | P | Pg | 01 02 16.5 | +1.5 |
| KEK | | | | AML | AML | 01 02 44.4 | |
| | comp=N,133μm,0.5s | | | | | | |
| KEK | | | | AML | AML | 01 02 46.5 | |
| | comp=E,163μm,0.7s | | | | | | |
| KEK | Kerkira | 1.42 | 197 | P | Pg | 01 02 16.5 | +1.5 |
| IGT | Igoumenitsa | 1.54 | 180 | P | Pg | 01 02 17.9 | +0.5 |
| IGT | | | | AML | AML | 01 02 45.1 | |
| | comp=N,152μm,0.6s | | | | | | |
| IGT | | | | AML | AML | 01 02 46.2 | |
| | comp=E,153μm,0.7s | | | | | | |
| IGT | Igoumenitsa | 1.54 | 180 | P | Pg | 01 02 17.9 | +0.5 |
| GRG | Griva | 1.56 | 94 | P | Pg | 01 02 17.9 | +0.1 |
| GRG | Griva | 1.56 | 94 | P | Pg | 01 02 17.9 | +0.1 |
| PDG | Podgorica | 1.58 | 329⇓ | iP | Pb | 01 02 16.9 | -0.6 |
| PDG | Podgorica | 1.58 | 329 | S | Sg | 01 02 43.4 | +4.8 |
| VAY | Valandovo | 1.70 | 81 | i Pn | Pb | 01 02 19.8 | +0.2 |
| VAY | | | | i Sn | Sg | 01 02 42.3 | -0.1 |
| LIT | Litokhoron | 1.90 | 120 | P | Pg | 01 02 25.8 | +1.5 |
| LIT | Litokhoron | 1.90 | 120 | P | Pg | 01 02 25.8 | +1.5 |
| KNT | Kendrikon | 1.94 | 87 | P | Pn | 01 02 22.0 | +0.6 |
| KNT | Kendrikon | 1.94 | 87 | P | Pn | 01 02 22.0 | +0.6 |
| THL | Klokotos Trika | 1.98 | 139 | P | Pb | 01 02 24.0 | -0.3 |
| THL | Klokotos Trika | 1.98 | 139 | P | Pb | 01 02 24.0 | -0.3 |
| BARS | Barje | 2.06 | 32 | ePn | Pg | 01 02 27.0 | -0.3 |
| LKD2 | Lefkada island | 2.30 | 174 | P | Pb | 01 02 27.9 | -1.8 |
| LKD2 | Lefkada island | 2.30 | 174 | P | Pb | 01 02 27.9 | -1.8 |
| AGG | Agios Georgios | 2.56 | 143 | P | Pn | 01 02 31.2 | +1.3 |
| AGG | Agios Georgios | 2.56 | 143 | P | Pn | 01 02 31.2 | +1.3 |
| VTS | Vitosha | 2.62 | 54⇑ | iP | Pn | 01 02 31.4 | +0.4 |
| STON | Ston | 2.66 | 313 | i Pn | Pn | 01 02 31.5 | +0.1 |
| STON | | | | Sn | Sb | 01 03 07.2 | -1.7 |
| STON | Ston | 2.66 | 313 | i Pn | Pn | 01 02 31.5 | +0.1 |
| STON | | | | Sn | Sb | 01 03 07.2 | -1.7 |
| ZAPS | Zavoj | 2.78 | 37⇓ | iPn | Pb | 01 02 38.1 | +0.1 |
| BBLS | Lazići | 2.87 | 346 | ePn | Pb | 01 02 39.3 | -0.3 |
| DIVS | Divibare | 3.03 | 355 | ePn | Pb | 01 02 39.8 | -2.5 |
| ZAGS | Zajecar | 3.07 | 26 | ePn | Pn | 01 02 39.3 | +2.3 |
| TEKS | Tekeris | 3.52 | 351 | ePn | Pn | 01 02 45.3 | +2.1 |
| UDBI | Udbina | 4.82 | 317 | i Pn | Pn | 01 03 02.2 | +1.1 |
| UDBI | Udbina | 4.82 | 317 | i Pn | Pn | 01 03 02.2 | +1.1 |
| NVLJ | Novalja | 5.32 | 313 | ePn | Pn | 01 03 08.5 | +0.6 |
| NVLJ | Novalja | 5.32 | 313 | ePn | Pn | 01 03 08.5 | +0.6 |

*MOS **02** 01:02:23.9±3.1, 49.°25N×155.°78E, h26km, mb4.3/1, Error ellipse: s-maj=99.9km s-min=10.7km az=75.9*
**KRSC 02 01:02:23.9**±1.9, **49.°25N**×**155.°78E, h26**km±28km, **ML4.2, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SKR | Severo-Kuril's | 1.46 | 9 | ePN | Pb | 01 02 53.9 | +3.7 |
| SKR | | | | eS | Sb | 01 03 08.4 | +0.1 |
| SKR | | | | smax | smax | | |
| | comp=E,208nm,0.2s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=N,196nm,0.2s | | | | | | |
| SKR | Severo-Kuril's | 1.46 | 9 | eP | Pb | 01 02 50.1 | -0.1 |
| SKR | | | | eS | Sb | 01 03 09.2 | +0.9 |
| KDTR | Khodutka, Kamc | 2.96 | 29 | eP | Pn | 01 03 12.1 | +3.1 |
| KDTR | | | | eS | Sn | 01 03 46.7 | +3.1 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ASAK | Asacha | 3.42 | 22 | PN | Pb | 01 03 20.3 | -3.4 |
| ASAK | Asacha | 3.42 | 22 | eP | Pb | 01 03 20.3 | -3.4 |
| MTVR | Mutnovka | 3.58 | 24 | PN | Pn | 01 03 22.1 | +4.3 |
| MTVR | | | | S | Sn | 01 04 03.4 | +4.2 |
| MTVR | Mutnovka | 3.58 | 24 | eP | Pn | 01 03 22.1 | +4.3 |
| MTVR | | | | eS | Sn | 01 04 03.4 | +4.2 |
| RUS | Russkaya | 3.63 | 27 | PN | Pn | 01 03 21.7 | +3.4 |
| RUS | | | | S | Sn | 01 04 03.6 | +3.4 |
| RUS | Russkaya | 3.63 | 27 | eP | Pn | 01 03 21.7 | +3.4 |
| RUS | | | | eS | Sn | 01 04 03.6 | +3.4 |
| KRMR | Karymshinskiy | 3.88 | 22 | eS | Sn | 01 04 10.3 | +3.8 |
| UGLR | Uglovaya | 4.41 | 25 | PN | Pn | 01 03 33.7 | +4.7 |
| UGLR | Uglovaya | 4.41 | 25 | eP | Pn | 01 03 33.7 | +4.7 |
| AVH | Avacha | 4.43 | 24 | PN | Pn | 01 03 33.5 | +4.1 |
| AVH | Avacha | 4.43 | 24 | eP | Pn | 01 03 33.5 | +4.1 |
| SDLR | Sedlovina | 4.48 | 25 | PN | Pn | 01 03 33.8 | +3.7 |
| SDLR | Sedlovina | 4.48 | 25 | eP | Pn | 01 03 33.8 | +3.7 |
| GNL | Ganaly | 4.66 | 16 | PN | Pn | 01 03 37.1 | +4.6 |
| GNL | Ganaly | 4.66 | 16 | eP | Pn | 01 03 37.1 | +4.6 |
| SPN | Mys Shipunski | 4.69 | 33 | eS | Sn | 01 04 33.3 | +6.9 |

---

*NEIC **02** 01:10:10.5±0.0, 46.19S×166.02E, h25km, ML4.1(WEL), After WEL.*

**WEL 02 01:10:11.7**±0.9**, 46.19S×166.12E, h33km, ML4.1**/15**, 2C-3D, Error ellipse: s-maj=10.4km s-min=4.0km az=90.0, Off west coast of South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PYZ | Puysegur Point | 0.39 | 87 | P* | Pb | 01 10 20.0 | -0.6 |
| PYZ | | | | S* | Sb | 01 10 25.1 | -1.6 |
| PYZ | | | | S* | Sn | 01 10 26.6 | -0.6 |
| PYZ | Puysegur Point | 0.39 | 87 | ⇑PN | Pb | 01 10 20.0 | -0.6 |
| PYZ | | | | SN | Sb | 01 10 26.6 | -0.1 |
| PYZ | | | | SN | Sn | 01 10 26.6 | -0.5 |
| PYZ | | | | AML | AML | 01 10 26.8 | |
| PYZ | | | | AML | AML | 01 10 26.8 | |
| DCZ | Deep Cove | 1.02 | 45 | Pn | Pn | 01 10 28.9 | -0.8 |
| DCZ | | | | Sn | Sn | 01 10 42.6 | -0.3 |
| DCZ | Deep Cove | 1.02 | 45 | PN | Pn | 01 10 28.9 | -0.8 |
| DCZ | | | | SN | Sn | 01 10 42.6 | -0.3 |
| DCZ | | | | AML | AML | 01 10 44.2 | |
| DCZ | | | | AML | AML | 01 10 45.5 | |
| DCZ | | | | AML | AML | 01 10 46.6 | |
| WHZ | Wether Hill Ro | 1.30 | 77 | Pn | Pn | 01 10 34.1 | +0.5 |
| WHZ | | | | Sn | Sb | 01 10 51.3 | -0.7 |
| WHZ | Wether Hill Ro | 1.30 | 77 | PN | Pn | 01 10 34.2 | +0.6 |
| WHZ | | | | eSN | Sn | 01 10 48.1 | -1.7 |
| WHZ | | | | AML | AML | 01 10 53.6 | |
| APZ | The Paps | 1.44 | 117 | Pn | Pn | 01 10 34.8 | -0.6 |
| APZ | | | | Sn | Sn | 01 10 52.5 | -0.7 |
| APZ | The Paps | 1.44 | 117 | ⇓PN | Pn | 01 10 34.8 | -0.6 |
| APZ | | | | SN | Sn | 01 10 52.6 | -0.6 |
| APZ | | | | AML | AML | 01 10 54.8 | |
| MLZ | Mavora Lakes | 1.62 | 60 | Pn | Pn | 01 10 39.4 | +1.5 |
| MLZ | Mavora Lakes | 1.62 | 60 | PN | Pn | 01 10 39.4 | +1.5 |
| MLZ | | | | AML | AML | 01 11 08.4 | |
| MLZ | | | | AML | AML | 01 11 12.4 | |
| MSZ | Milford Sound | 1.98 | 41 | ePn | Pn | 01 10 43.8 | +1.0 |
| MSZ | Milford Sound | 1.98 | 41 | ePN | Pn | 01 10 43.8 | +1.0 |
| MSZ | | | | AML | AML | 01 11 25.6 | |
| MSZ | | | | AML | AML | 01 11 25.7 | |
| MSZ | | | | AML | AML | 01 11 28.1 | |
| MSZ | | | | AML | AML | 01 11 28.1 | |
| SYZ | Scrubby Hill | 2.12 | 101 | Pn | Pn | 01 10 44.9 | +0.2 |
| SYZ | Scrubby Hill | 2.12 | 101 | PN | Pn | 01 10 44.9 | +0.2 |
| SYZ | | | | AML | AML | 01 11 15.9 | |
| SYZ | | | | AML | AML | 01 11 18.8 | |
| EAZ | Earnscleugh | 2.43 | 68 | Pn | Pn | 01 10 50.9 | +1.9 |
| EAZ | Earnscleugh | 2.43 | 68 | ⇓PN | Pn | 01 10 50.9 | +1.9 |
| EAZ | | | | AML | AML | 01 11 24.2 | |
| EAZ | | | | AML | AML | 01 11 24.2 | |
| EAZ | | | | AML | AML | 01 11 25.9 | |
| EAZ | | | | AML | AML | 01 11 25.9 | |
| WKZ | Wanaka | 2.45 | 57 | Pn | Pb | 01 10 52.2 | -2.8 |
| WKZ | Wanaka | 2.45 | 57 | PN | Pb | 01 10 52.2 | -2.9 |
| WKZ | | | | AML | AML | 01 11 33.6 | |
| WKZ | | | | AML | AML | 01 11 33.6 | |
| WKZ | | | | AML | AML | 01 11 33.7 | |
| TUZ | Tuapeka | 2.45 | 86 | Pn | Pn | 01 10 50.4 | +1.0 |
| TUZ | Tuapeka | 2.45 | 86 | PN | Pn | 01 10 50.3 | +1.0 |
| TUZ | | | | AML | AML | 01 11 23.6 | |
| TUZ | | | | AML | AML | 01 11 23.6 | |
| TUZ | | | | AML | AML | 01 11 27.4 | |
| TUZ | | | | AML | AML | 01 11 29.5 | |
| JCZ | Jackson Bay | 2.83 | 43 | Pn | Pn | 01 10 56.5 | +1.9 |
| JCZ | Jackson Bay | 2.83 | 43 | PN | Pn | 01 10 56.5 | +1.9 |
| JCZ | | | | AML | AML | 01 11 47.8 | |
| JCZ | | | | AML | AML | 01 11 50.5 | |
| HHSZ | Highcliff Hill | 3.13 | 86 | Pn | Pn | 01 10 59.3 | +0.6 |
| HHSZ | Highcliff Hill | 3.13 | 86 | PN | Pn | 01 10 59.3 | +0.6 |
| HHSZ | | | | AML | AML | 01 12 02.7 | |
| HHSZ | | | | AML | AML | 01 13 30.5 | |
| ODZ | Otahua Downs | 3.37 | 72 | Pn | Pn | 01 11 02.0 | +0.1 |
| ODZ | Otahua Downs | 3.37 | 72 | ⇑PN | Pn | 01 11 02.0 | 0.0 |
| ODZ | | | | AML | AML | 01 11 57.4 | |
| ODZ | | | | AML | AML | 01 12 02.1 | |
| LBZ | Lake Benmore | 3.39 | 59 | Pn | Pn | 01 11 02.6 | +0.4 |
| LBZ | Lake Benmore | 3.39 | 59 | PN | Pn | 01 11 02.6 | +0.4 |
| LBZ | | | | AML | AML | 01 11 47.3 | |
| LBZ | | | | AML | AML | 01 11 48.3 | |
| FOZ | Fox Glacier | 3.74 | 46 | Pn | Pn | 01 11 09.6 | +2.6 |
| FOZ | Fox Glacier | 3.74 | 46 | PN | Pn | 01 11 09.5 | +2.6 |
| RPZ | Rata Peaks | 4.29 | 56 | Pn | Pn | 01 11 14.6 | 0.0 |
| RPZ | Rata Peaks | 4.29 | 56 | PN | Pn | 01 11 14.6 | 0.0 |
| RPZ | | | | AML | AML | 01 12 12.6 | |
| RPZ | | | | AML | AML | 01 12 34.1 | |
| WVZ | Waitaha Valley | 4.53 | 48 | Pn | Pn | 01 11 19.5 | +1.6 |
| WVZ | Waitaha Valley | 4.53 | 48 | PN | Pn | 01 11 19.5 | +1.6 |
| INZ | Inchbonnie | 5.15 | 50 | ⇓PN | Pn | 01 11 27.3 | +0.9 |
| LTZ | Lake Taylor | 5.56 | 54 | ePn | Pn | 01 11 33.5 | +1.4 |
| LTZ | Lake Taylor | 5.56 | 54 | ePN | Pn | 01 11 33.5 | +1.4 |
| THZ | Tophouse | 6.60 | 50 | ePn | Pn | 01 11 46.2 | -0.1 |
| THZ | Tophouse | 6.60 | 50 | ePN | Pn | 01 11 46.2 | -0.1 |
| QRZ | Quartz Range | 7.10 | 43 | ePn | Pn | 01 11 55.3 | +2.1 |
| QRZ | Quartz Range | 7.10 | 43 | ePN | Pn | 01 11 55.3 | +2.1 |

---

*ISCJB **02** 01:11:28.9±0.4, 43.82N±0.03×43.77E±0.03, h9km±3km, Error ellipse: s-maj=4.6km s-min=2.9km az=22.8*

*MOS **02** 01:11:29.2±1.1, 43.78N×43.78E, h13km, mb3.9/1, Error ellipse: s-maj=8.3km s-min=5.1km az=111.7*

*CSEM **02** 01:11:29.6±0.2, 43.78N×43.75E, h10km, mb3.9, Error ellipse: s-maj=4.0km s-min=2.7km az=24.0*

*TIF **02** 01:11:29.6, 43.80N×43.76E, h21km±1km*

**ISC 02 01:11:29.9**±1.0**, 43.77N**±0.02×**43.76E**±0.02**, h11km**±8km**, n54,** σ0.69/90**, 8C-7D, Western Caucasus**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| NCK | Nalchik | 0.30 | 203 | i PG | Pg | 01 11 36.2 | +0.2 |
| NCK | | | | pmax | pmax | | |
| | comp=Z,44μm,0.2s | | | | | | |
| NCK | Nalchik | 0.30 | 203 | i Pg | Pg | 01 11 36.2 | +0.2 |
| | comp=Z,44μm,0.2s | | | | | | |
| PRTR | Priterechnaya | 0.38 | 93 | ⇑iPG | Pg | 01 11 36.8 | -0.6 |
| PRTR | | | | eS | Sb | 01 11 44.2 | -0.3 |
| PRTR | Priterechnaya | 0.38 | 93 | i Pg | Pg | 01 11 36.8 | -0.6 |
| PRTR | | | | eSg | Sb | 01 11 44.2 | -0.3 |
| STDR | Stavd-Durt | 0.46 | 151 | ⇑iPG | Pg | 01 11 38.3 | -0.6 |
| STDR | | | | eS | Sb | 01 11 45.9 | -0.9 |
| STDR | Stavd-Durt | 0.46 | 151 | i Pg | Pg | 01 11 38.3 | -0.6 |
| STDR | | | | eSg | Sb | 01 11 45.9 | -0.9 |
| LSNR | Lesken | 0.50 | 174 | ⇑iPG | Pg | 01 11 39.6 | 0.0 |
| LSNR | | | | eS | Sb | 01 11 48.5 | +0.6 |
| LSNR | Lesken | 0.50 | 174 | i Pg | Pg | 01 11 39.6 | 0.0 |
| LSNR | | | | eSg | Sb | 01 11 48.5 | +0.6 |
| BTKR | Batakoyurt | 0.69 | 125 | ⇑iPG | Pb | 01 11 43.5 | -0.5 |
| BTKR | | | | eS | Sb | 01 11 54.6 | +1.0 |
| BTKR | Batakoyurt | 0.69 | 125 | i Pg | Pb | 01 11 43.5 | -0.5 |
| BTKR | | | | eSg | Sb | 01 11 54.6 | +1.0 |
| ARNR | Ardon | 0.70 | 147 | ePG | Pb | 01 11 43.8 | -0.3 |
| ARNR | | | | eS | Sb | 01 11 54.1 | +0.3 |
| TRKR | Terskaya | 0.71 | 94 | ePG | Pg | 01 11 43.3 | -0.3 |
| TRKR | | | | eS | Sb | 01 11 54.3 | +0.4 |
| TRKR | Terskaya | 0.71 | 94 | ePg | Pg | 01 11 43.3 | -0.3 |
| TRKR | | | | eSg | Sb | 01 11 54.3 | +0.4 |
| KORR | Kora | 0.72 | 162 | ⇑iPG | Pg | 01 11 43.7 | -0.1 |
| KORR | | | | eS | Sb | 01 11 54.7 | +0.4 |
| KORR | Kora | 0.72 | 162 | i Pg | Pg | 01 11 43.7 | -0.1 |
| KORR | | | | eSg | Sb | 01 11 54.7 | +0.4 |
| BEYR | Belyy Ugol+ | 0.72 | 290 | ⇓ePG | Pb | 01 11 44.0 | -0.5 |
| BEYR | | | | eS | Sb | 01 11 54.8 | +0.4 |
| BEYR | Belyy Ugol+ | 0.72 | 290 | ePg | Pb | 01 11 44.0 | -0.5 |
| BEYR | | | | eSg | Sb | 01 11 54.8 | +0.4 |
| KIV | Kislovodsk | 0.80 | 284 | cePG | Pg | 01 11 44.9 | -0.4 |
| KIV | | | | eS | Sb | 01 11 55.7 | -0.9 |
| KIV | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.6s | | | | | | |
| KIV | | | | smax | smax | | |
| | comp=N,15nm,0.6s | | | | | | |
| KIV | Kislovodsk | 0.80 | 284 | ePg | Pg | 01 11 44.9 | -0.4 |
| | comp=N,15nm,0.6s | | | | | | |
| KIV | | | | eSg | Sb | 01 11 55.7 | -0.9 |
| SHA1 | Shidzhatmaz | 0.80 | 268 | ⇓ePG | Pg | 01 11 45.1 | -0.3 |
| SHA1 | | | | eS | Sb | 01 11 56.8 | 0.0 |
| SHA1 | Shidzhatmaz | 0.80 | 268 | ePg | Pg | 01 11 45.1 | -0.3 |
| SHA1 | | | | eSg | Sb | 01 11 56.8 | 0.0 |
| DIGR | Digorskoe uzhe | 0.88 | 189 | ⇓iPG | Pg | 01 11 46.2 | -0.7 |
| DIGR | | | | eS | Sg | 01 11 57.8 | -0.6 |
| DIGR | Digorskoe uzhe | 0.88 | 189 | i Pg | Pg | 01 11 46.2 | -0.7 |
| DIGR | | | | eSg | Sg | 01 11 57.8 | -0.6 |
| NEY | Neytrino | 0.92 | 236 | i PG | Pg | 01 11 47.1 | -0.5 |
| NEY | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.1s | | | | | | |
| NEY | Neytrino | 0.92 | 236 | i Pg | Pg | 01 11 47.1 | -0.5 |
| | comp=Z,2.0nm,0.1s | | | | | | |
| VLKR | Vladikavkaz | 0.99 | 137 | ePG | Pg | 01 11 48.9 | 0.0 |
| VLKR | | | | eS | Sn | 01 12 03.6 | 0.0 |
| VLKR | Vladikavkaz | 0.99 | 137 | ePg | Pg | 01 11 48.9 | 0.0 |
| VLKR | | | | eSg | Sn | 01 12 03.6 | 0.0 |
| ZEI | Tsey | 0.99 | 174 | ⇑iPG | Pb | 01 11 47.7 | -1.4 |
| ZEI | | | | eS | Sb | 01 12 02.0 | -0.2 |
| LACR | Lac | 1.02 | 157 | ⇓iPG | Pb | 01 11 48.7 | -0.9 |
| LACR | | | | i S | Sg | 01 12 03.1 | +0.2 |
| LACR | Lac | 1.02 | 157 | i Pg | Pb | 01 11 48.7 | -0.9 |
| LACR | | | | i Sg | Sg | 01 12 03.1 | +0.2 |
| KMGR | Komgaron | 1.08 | 131 | ⇓iPG | Pg | 01 11 50.5 | -0.1 |
| KMGR | | | | eS | Sn | 01 12 05.7 | -0.2 |
| KMGR | Komgaron | 1.08 | 131 | i Pg | Pg | 01 11 50.5 | -0.1 |
| KMGR | | | | eSg | Sn | 01 12 05.7 | -0.2 |
| ONI | Oni | 1.20 | 191 | P | Pn | 01 11 52.2 | -0.4 |
| ONI | | | | S | Sg | 01 12 09.6 | +1.0 |
| ONI | Oni | 1.20 | 191 | PG | Pn | 01 11 51.9 | -0.7 |
| ONI | | | | S | Sg | 01 12 10.2 | +1.6 |
| GOF | Gofitskoye | 1.39 | 339 | ⇑ePG | Pg | 01 11 55.8 | -0.7 |
| GOF | | | | eS | Sg | 01 12 17.3 | +2.9 |
| GOF | | | | pmax | pmax | | |
| | comp=Z,42nm,0.7s | | | | | | |
| GOF | | | | smax | smax | | |
| | comp=N,215nm,0.6s | | | | | | |
| GOF | | | | smax | smax | | |
| | comp=E,381nm,0.6s | | | | | | |
| GOF | Gofitskoye | 1.39 | 339 | ePg | Pg | 01 11 55.8 | -0.7 |
| | comp=E,42nm,0.7s | | | | | | |
| GUDG | Gudauri | 1.41 | 158 | P | Pn | 01 11 55.0 | -0.7 |
| GUDG | | | | S | Sg | 01 12 15.0 | -0.3 |
| GROC | Groznyy | 1.59 | 110 | ⇓iPG | Pb | 01 11 58.7 | -0.5 |
| GROC | | | | i S | Sg | 01 12 20.6 | -0.3 |
| GROC | Groznyy | 1.59 | 110 | i Pg | Pb | 01 11 58.7 | -0.5 |
| GROC | | | | i Sg | Sg | 01 12 20.6 | -0.3 |
| CHVG | Ch'k'valeri | 1.61 | 230 | P | Pg | 01 12 00.3 | -0.6 |
| BTLR | Botlikh | 2.11 | 121 | ePN | Pn | 01 12 04.6 | -0.6 |
| BTLR | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.4s | | | | | | |
| BTLR | Botlikh | 2.11 | 121 | ePn | Pn | 01 12 04.6 | -0.6 |
| | comp=Z,10.0nm,0.4s | | | | | | |
| TBLG | Delisi | 2.16 | 160 | P | Pn | 01 12 06.8 | +1.0 |
| TBLG | Delisi | 2.16 | 160 | PN | Pb | 01 12 09.5 | +0.5 |
| TBLG | Delisi | 2.16 | 160 | P | Pb | 01 12 09.5 | +0.5 |
| XNZR | Khunzakh | 2.48 | 119 | ePN | Pn | 01 12 10.7 | +0.4 |
| XNZR | | | | e | | 01 12 41.0 | |
| XNZR | Khunzakh | 2.48 | 119 | ePn | Pn | 01 12 10.7 | +0.4 |
| XNZR | | | | eSn | Sn | 01 12 41.0 | +0.3 |
| BGD | Bogdanovka | 2.51 | 183 | P | Pb | 01 12 15.6 | +0.5 |
| GNBR | Gunib | 2.73 | 119 | ePN | Pn | 01 12 14.4 | +0.8 |
| GNBR | | | | e | | 01 12 47.9 | |
| GNBR | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.6s | | | | | | |
| GNBR | | | | smax | smax | | |
| | comp=E,31nm,0.9s | | | | | | |
| GNBR | | | | smax | smax | | |
| | comp=E,32nm,0.9s | | | | | | |
| GNBR | | | | smax | smax | | |
| | comp=N,29nm,0.6s | | | | | | |
| GNBR | Gunib | 2.73 | 119 | ePn | Pn | 01 12 14.4 | +0.8 |
| | comp=N,4.0nm,0.6s | | | | | | |
| GNBR | | | | eSn | Sn | 01 12 47.9 | +1.4 |
| | comp=N,29nm,0.6s | | | | | | |
| GNI | Garni | 3.69 | 168 | ⇓ePN | Pn | 01 12 28.3 | +1.3 |
| GNI | Garni | 3.69 | 168 | ePn | Pn | 01 12 28.3 | +1.3 |
| BRVK | Borovoye | 19.80 | 53 | i P | P | 01 15 59.6 | -0.5 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,1.0nm,1.1s | | | | | | |
| AAK | Ala-Archa | 22.37 | 82 | i P | P | 01 16 28.0 | -0.1 |

---

**IDC 02 01:12:19.1**±1.8**, 3.65S×150.07E, h0km, mb4.0**/4**, mb1 4.2**/4**, mb1mx3.7**/32**, mbtmp4.0**/4**, MS3.4**/1**, Ms1 3.4**/1**, ms1mx2.9**/33**, Error ellipse: s-maj=107.6km s-min=25.4km az=125.0, New Ireland region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 22.31 | 222 | P | P | 01 17 16.9 | -1.6 |
| | 3.0nm,0.9s,baz=45,slow=11,SNR=12 | | | | | | |
| ASAR | Alice Springs | 25.30 | 217 | P | P | 01 17 47.5 | 0.0 |
| | 1.9nm,0.8s,baz=48,slow=8.7,SNR=19 | | | | | | |
| FITZ | Fitzroy Crossi | 27.90 | 237 | P | P | 01 18 11.5 | +0.4 |
| | 3.2nm,0.6s,baz=63,slow=8.9,SNR=10 | | | | | | |
| FITZ | | | | LR | LR | 01 31 23.5 | |
| | comp=Z,71nm,18.6s,baz=266,slow=41 | | | | | | |
| ILAR | Eielson Array | 82.14 | 23 | P | P | 01 24 40.6 | -0.8 |
| | 0.7nm,0.8s,baz=252,slow=5.8,SNR=7.3 | | | | | | |
| TORD | Torodi Ar. Bea | 147.36 | 289 | PKPbc | PKPab | 01 32 07.0 | -0.7 |
| | 1.2nm,0.9s,baz=94,slow=1.5,SNR=5.3 | | | | | | |

---

**IDC 02 01:27:09.0**±7.4**, 17.51S×174.59W, h0km, mb3.8**/3**, mb1 4.0**/4**, mb1mx3.7**/33**, mbtmp3.8**/4**, ML3.7**/1**, Error ellipse: s-maj=318.0km s-min=23.1km az=140.0, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AFI | Afiamalu | 4.48 | 37 | Pn | Pn | 01 28 17.6 | -0.7 |
| | 4.0nm,0.3s,baz=214,slow=11,SNR=2.9 | | | | | | |
| AFI | | | | Sn | Sn | 01 29 15.0 | +3.7 |
| | 8.0nm,0.3s,baz=49,slow=22,SNR=6.4 | | | | | | |
| WRA | Warramunga Arr | 48.29 | 259 | P | P | 01 35 52.0 | -0.4 |
| | 0.5nm,0.3s,baz=96,slow=7.9,SNR=20 | | | | | | |
| ASAR | Alice Springs | 48.40 | 254 | P | P | 01 35 53.6 | +0.4 |
| | 2.3nm,0.7s,baz=84,slow=8.5,SNR=19 | | | | | | |
| ILAR | Eielson Array | 84.72 | 12 | P | P | 01 39 44.3 | -0.2 |
| | 0.3nm,0.5s,baz=225,slow=6.0,SNR=9.5 | | | | | | |

---

*SOME **02** 01:27:47.3, 42.12N×82.23E, h25km*

*NNC **02** 01:27:51.9±4.7, 42.41N×82.37E, h0km, mb3.5, mpv3.1, Error ellipse: s-maj=39.7km s-min=18.3km az=144.0*

**ISC 02 01:27:45.2**±2.4**, 41.9N**±0.1×**81.93E**±0.06**, h1km**±14km**, n17,** σ1.48/34**, 5C-7D, Southern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KTMS | Ketmen | 1.91 | 323 | eP | Pb | 01 28 22.2 | +1.4 |
| | 95nm,0.2s | | | | | | |
| KTMS | | | | eS | Sb | 01 28 47.6 | +2.3 |
| | 261nm,0.5s | | | | | | |
| SHLS | Shalkode | 2.20 | 305 | eP | Pn | 01 28 23.9 | +0.9 |
| | 27nm,0.2s | | | | | | |
| SHLS | | | | eS | Sn | 01 28 49.7 | -1.1 |
| | 592nm,0.5s | | | | | | |
| PDGK | Podgornoye | 2.28 | 309 | ⇓Pn | Pb | 01 28 27.7 | +0.5 |
| | 7.2nm,0.4s | | | | | | |
| PDGK | | | | ⇓Sn | Sg | 01 28 60.0 | +1.6 |
| | 103nm,0.7s | | | | | | |
| UZB | Uzynbulak | 2.47 | 300 | eP | Pb | 01 28 32.6 | +2.1 |
| | 10nm,0.3s | | | | | | |
| UZB | | | | eS | Sg | 01 29 05.5 | +0.9 |
| | 47nm,0.4s | | | | | | |
| SATY | Saty | 2.84 | 294 | eP | Pb | 01 28 38.3 | +1.5 |
| | 12nm,0.2s | | | | | | |
| SATY | | | | eS | Sg | 01 29 15.2 | -1.2 |
| | 22nm,0.2s | | | | | | |
| DJR | Jarkent | 2.86 | 328 | eP | Pb | 01 28 37.0 | -0.1 |
| | 12nm,0.2s | | | | | | |
| DJR | | | | eS | Sb | 01 29 12.1 | -0.6 |
| | 45nm,0.3s | | | | | | |
| KURS | Kuram | 3.18 | 300 | eP | Pb | 01 28 45.4 | +2.9 |
| KURS | | | | eS | Sg | 01 29 26.8 | -0.5 |
| KOTS | Kotyrbulak | 3.79 | 292 | eP | Pg | 01 28 56.7 | -1.1 |
| KOTS | | | | eS | Sg | 01 29 46.2 | -0.7 |
| MDOK | Medeo | 3.81 | 290 | ⇑Pn | Pg | 01 28 57.7 | -0.6 |
| MDOK | | | | ⇓Sn | Sg | 01 29 46.7 | -0.9 |
| TNSS | Tian-Shan | 3.85 | 288 | eP | Pg | 01 28 58.0 | -1.0 |
| | 6.1nm,0.5s | | | | | | |
| TNSS | | | | eS | Sg | 01 29 48.4 | -0.5 |
| | 19nm,0.6s | | | | | | |
| IZV | Izvestkoviy | 4.09 | 287 | eP | Pg | 01 29 01.8 | -1.7 |
| | 420nm,0.5s | | | | | | |
| IZV | | | | eS | Sg | 01 29 55.2 | -1.2 |
| | 23nm,0.6s | | | | | | |
| CHKK | Chushkaly | 4.11 | 299 | eP | Pg | 01 29 03.3 | -0.6 |
| | 1.0nm,0.2s | | | | | | |
| CHKK | | | | eS | Sg | 01 29 57.5 | +0.4 |
| | 12nm,0.3s | | | | | | |
| DGS | Degeres | 4.73 | 288 | eP | Pg | 01 29 14.6 | -1.3 |
| | 3.0nm,0.4s | | | | | | |
| DGS | | | | eS | Sg | 01 30 17.5 | +0.3 |
| | 15nm,0.5s | | | | | | |
| TKM2 | Tokmak 2 | 4.79 | 284 | ⇑Pn | Pb | 01 29 10.2 | +0.1 |
| | 2.4nm,0.6s | | | | | | |
| TKM2 | | | | ⇑Lg | Lg | 01 30 25.9 | |
| | 5.2nm,0.6s | | | | | | |
| MK31 | Makanchi Array | 4.87 | 3 | ⇑Pn | Pn | 01 28 59.3 | -0.2 |
| | 0.3nm,0.2s,baz=187,slow=11,SNR=78 | | | | | | |
| MK31 | | | | ⇓Pg | Pb | 01 29 11.3 | +0.1 |
| | 2.1nm,0.6s,baz=178,slow=13,SNR=5.8 | | | | | | |
| MK31 | | | | ⇓Sn | Sn | 01 29 53.9 | -2.5 |
| | 2.8nm,0.5s,baz=181,slow=24,SNR=4.0 | | | | | | |
| MK31 | | | | Lg | Lg | 01 30 16.5 | |
| | 9.1nm,0.7s,baz=177,slow=29,SNR=6.4 | | | | | | |
| MAKZ | Makanchi | 4.87 | 0 | ⇓Pn | Pn | 01 28 59.9 | +0.3 |
| | 1.3nm,0.2s | | | | | | |
| MAKZ | | | | ⇓Sn | Sn | 01 29 53.8 | -2.8 |
| | 4.1nm,0.6s | | | | | | |
| MAKZ | | | | ⇑Lg | Lg | 01 30 13.0 | |
| | 1.7nm,0.3s | | | | | | |
| ZSN | Zaisan | 5.90 | 20 | eP | Pb | 01 29 29.9 | +1.1 |
| | 1.3nm,0.2s | | | | | | |
| ZSN | | | | eS | Sb | 01 30 42.9 | +3.0 |
| | 3.9nm,0.5s | | | | | | |

---

*ISCJB **02** 01:41:00.3±0.6, 34.36N±0.03×140.12E±0.07, h51km±8km, mb3.5/3, Error ellipse: s-maj=9.4km s-min=5.4km az=169.7*

*JMA **02** 01:41:01.0±0.1, 34.39N×140.11E, h38km±2km, M3.4*

*IDC **02** 01:41:01.7±3.0, 34.34N×140.05E, h41km±22km, mb3.2/3, mb1 3.5/4, mb1mx3.1/47, mbtmp3.4/4, ML3.2/1, Error ellipse: s-maj=50.7km s-min=5.7km az=78.0*

**ISC 02 01:41:01.2**±1.7**, 34.36N**±0.04×**140.13E**±0.06**, h38km**±2km**, n19,** σ0.67/18**, mb3.7**/3**, 3C, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BSO3 | Boso 3 | 0.54 | 36 | ⇑P | Pn | 01 41 12.2 | 0.0 |
| BSO4 | Boso 4 | 0.65 | 16 | P | Pn | 01 41 14.1 | +0.2 |
| JIM2 | Oshima 3 | 0.67 | 302 | P | Pn | 01 41 13.4 | -0.9 |
| BSO1 | Boso 1 | 0.76 | 67 | ⇑P | Pn | 01 41 14.4 | -0.4 |
| JKO | Kozu shima | 0.84 | 258 | eS | Sn | 01 41 27.6 | +0.1 |
| JOD2 | Odawara 2 | 1.24 | 317 | ⇑P | Pn | 01 41 21.5 | -0.4 |
| JOD2 | | | | S | Sn | 01 41 36.1 | -1.3 |
| JHJ | Hachijo jima 2 | 1.27 | 193 | P | Pn | 01 41 22.6 | +0.2 |
| | 67nm,0.3s,baz=60,slow=20,SNR=5.8 | | | | | | |
| JHJ | | | | S | Sn | 01 41 38.0 | -0.2 |
| | 290nm,0.3s,baz=110,slow=23,SNR=18 | | | | | | |
| JHJ2 | Mitsune | 1.27 | 192 | P | Pn | 01 41 22.7 | +0.3 |
| JHJ2 | | | | S | Sn | 01 41 38.0 | -0.2 |
| MJAR | Matsushiro Arr | 2.68 | 325 | P | Pn | 01 41 42.4 | +0.7 |
| | 4.0nm,0.3s,baz=156,slow=12,SNR=14 | | | | | | |
| MJAR | | | | S | Sn | 01 42 12.7 | -0.3 |
| | 8.2nm,0.3s,baz=142,slow=26,SNR=14 | | | | | | |
| MAT | Matsushiro | 2.68 | 325 | P | Pn | 01 41 42.6 | +0.8 |
| MAT | | | | S | Sn | 01 42 14.1 | +1.1 |
| H11N2 | WAKE ISLAND Hy | 27.84 | 115 | T | T | 02 15 44.6 | |
| | baz=306,slow=75,SNR=33 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 27.84 | 115 | T | T | 02 15 45.0 | |
| | baz=306,slow=75,SNR=26 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 27.85 | 115 | T | T | 02 15 45.9 | |
| | baz=306,slow=75,SNR=30 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 28.44 | 117 | T | T | 02 17 17.0 | |
| | baz=310,slow=76,SNR=7.4 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 28.44 | 117 | T | T | 02 17 21.8 | |
| | baz=310,slow=76,SNR=3.6 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 28.45 | 117 | T | T | 02 17 19.4 | |
| | baz=310,slow=76,SNR=7.9 | | | | | | |
| KURBB | Kurchatov Arra | 46.86 | 310 | P | P | 01 49 27.7 | +0.4 |
| | 0.3nm,0.6s,baz=81,slow=7.5,SNR=3.0 | | | | | | |
| WRA | Warramunga Arr | 54.28 | 187 | P | P | 01 50 22.9 | -0.7 |
| | 0.3nm,0.4s,baz=3.0,slow=7.5,SNR=6.4 | | | | | | |
| ASAR | Alice Springs | 58.01 | 187 | P | P | 01 50 50.0 | -0.1 |
| | 0.3nm,0.4s,baz=15,slow=13,SNR=4.3 | | | | | | |

---

*IDC **02** 01:43:15.9±3.3, 36.21N×71.20E, h116km±29km, mb3.5/5, mb1 3.5/11, mb1mx3.2/49, mbtmp3.9/11, MS2.9/1, Ms1 2.9/1, ms1mx2.4/37, Error ellipse: s-maj=26.5km s-min=20.0km az=158.0*

*ISCJB **02** 01:43:18.4±0.5, 36.37N±0.04×71.02E±0.06, h150km, mb3.5/4, Error ellipse: s-maj=7.3km s-min=4.3km az=150.4*

*NNC **02** 01:43:25.4±3.3, 36.90N×70.86E, h152km±84km, mb3.3, mpv4.1, Error ellipse: s-maj=46.5km s-min=27.1km az=75.0*

**ISC 02 01:43:20.3**±1.0**, 36.45N**±0.07×**71.2E**±0.1**, h150km, n43,** σ1.47/48**, mb3.5**/4**, 5C-4D, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SFK | Sufi-Kurgan | 4.00 | 26 | ⇓P | Pn | 01 44 21.7 | +1.0 |
| | 16nm,0.3s | | | | | | |
| SFK | | | | ⇓S | Sn | 01 45 07.4 | -0.2 |
| | 73nm,0.3s | | | | | | |
| THN | Thein Dam | 5.48 | 136 | eP | Pn | 01 44 39.4 | -0.7 |
| THN | | | | eS | Sn | 01 45 41.8 | -0.6 |
| AML | Almayashu | 6.00 | 18 | P | Pn | 01 44 47.0 | -0.3 |
| | SNR=72 | | | | | | |
| MNAS | Manas | 6.11 | 9 | ⇑P | Pn | 01 44 47.9 | -0.7 |
| | 13nm,0.7s | | | | | | |
| MNAS | | | | ⇑S | Sn | 01 45 54.5 | -3.1 |
| | 25nm,0.5s | | | | | | |
| UCH | Uchtor | 6.32 | 23 | P | Pn | 01 44 53.2 | +1.6 |
| | SNR=23 | | | | | | |
| EKS2 | Erkin-Say | 6.52 | 17 | P | Pn | 01 44 54.3 | +0.4 |
| | SNR=20 | | | | | | |
| KK31 | Karatay Array | 6.67 | 356 | P | Pn | 01 44 55.3 | -0.5 |
| | 12nm,0.4s,baz=185,slow=13,SNR=204 | | | | | | |
| KK31 | | | | ⇑S | Sn | 01 46 06.7 | -4.0 |
| | 5.1nm,0.3s,baz=182,slow=24,SNR=8.7 | | | | | | |
| AAK | Ala-Archa | 6.69 | 21 | P | Pn | 01 44 56.3 | +0.1 |
| | 5.3nm,0.3s,baz=170,slow=6.5,SNR=54 | | | | | | |
| AAK | | | | S | Sn | 01 46 10.0 | -1.4 |
| | 2.9nm,0.3s,baz=131,slow=24,SNR=14 | | | | | | |
| AAK | Ala-Archa | 6.69 | 21 | ⇓P | Pn | 01 44 58.5 | +2.2 |
| | 6.0nm,0.4s | | | | | | |
| AAK | | | | ⇑S | Sn | 01 46 08.7 | -2.7 |
| | 11nm,0.5s | | | | | | |
| AAK | Ala-Archa | 6.69 | 21 | P | Pn | 01 44 58.8 | +2.6 |
| | SNR=9.3 | | | | | | |
| KBK | Karagaybulak | 6.84 | 24 | P | Pn | 01 45 01.3 | +3.0 |
| | SNR=15 | | | | | | |
| ULHL | Ulahol | 6.99 | 33 | P | Pn | 01 45 00.7 | +0.3 |
| | SNR=11 | | | | | | |
| USP | Ospenovka | 7.27 | 19 | P | Pn | 01 45 04.1 | +0.2 |
| | SNR=11 | | | | | | |
| TKM2 | Tokmak 2 | 7.30 | 26 | P | Pn | 01 45 06.8 | +2.3 |
| | SNR=27 | | | | | | |
| GEYT | Alibeck | 10.53 | 282 | P | Pn | 01 45 44.9 | -2.5 |
| | 0.9nm,0.3s,baz=102,slow=9.8,SNR=14 | | | | | | |
| GEYT | | | | S | Sn | 01 47 38.0 | -5.8 |
| | 2.1nm,0.3s,baz=96,slow=14,SNR=10 | | | | | | |
| GEYT | | | | LR | LR | 01 51 17.8 | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| | comp=Z,64nm,19.8s,baz=65,slow=46 | | | | | | |
| PYUN | Piuthan | 12.99 | 127 | eP | Pn | 01 46 17.7 | -1.9 |
| PYUN | Piuthan | 12.99 | 127 | eP | Pn | 01 46 17.9 | -1.7 |
| MKAR | Makanchi Array | 13.24 | 35 | P | Pn | 01 46 22.9 | +0.4 |
| | 0.2nm,0.3s,baz=199,slow=11,SNR=12 | | | | | | |
| KOLN | Koldanda | 13.61 | 126 | eP | Pn | 01 46 25.8 | -1.7 |
| | 7.1nm,0.4s | | | | | | |
| KOLN | Koldanda | 13.61 | 126 | eP | Pn | 01 46 26.0 | -1.5 |
| DMN | Daman | 14.72 | 123 | eP | Pn | 01 46 41.1 | -0.4 |
| DMN | Daman | 14.72 | 123 | eP | Pn | 01 46 41.3 | -0.2 |
| | 11nm,0.5s | | | | | | |
| KKN | Kakani | 14.72 | 122 | eP | Pn | 01 46 41.2 | -0.3 |
| PKIN | Phulchoki | 14.94 | 122 | eP | Pn | 01 46 44.8 | +0.6 |
| PKI | Pulchoki | 14.95 | 122 | eP | Pn | 01 46 44.8 | +0.3 |
| PKI | Pulchoki | 14.95 | 122 | eP | Pn | 01 46 44.9 | +0.4 |
| GUN | Gumba | 15.06 | 120 | eP | Pn | 01 46 46.0 | +0.2 |
| | 6.6nm,0.3s | | | | | | |
| GUN | Gumba | 15.06 | 120 | eP | Pn | 01 46 46.1 | +0.2 |
| KURBB | Kurchatov Arra | 15.12 | 18 | P | Pn | 01 46 47.2 | +1.2 |
| | 0.2nm,0.3s,baz=203,slow=11,SNR=6.7 | | | | | | |
| AB31 | Akbulak array | 15.20 | 331 | ⇑P | Pn | 01 46 47.0 | 0.0 |
| | 1.7nm,0.4s,baz=142,slow=13,SNR=119 | | | | | | |
| AB31 | | | | ⇓S | Sn | 01 49 24.1 | -12 |
| | 2.6nm,0.7s,baz=156,slow=23,SNR=10 | | | | | | |
| JIRN | Jiri | 15.43 | 120 | eP | Pn | 01 46 50.2 | -0.3 |
| | 133nm,0.3s | | | | | | |
| JIRN | Jiri | 15.43 | 120 | eP | Pn | 01 46 51.1 | +0.6 |
| RAMN | Ramite | 16.16 | 122 | eP | Pn | 01 46 59.7 | +0.5 |
| | 5.9nm,0.3s | | | | | | |
| RAMN | Ramite | 16.16 | 122 | eP | Pn | 01 46 59.8 | +0.5 |
| BVAR | Borovoye Array | 16.58 | 358 | P | P | 01 47 04.2 | +0.4 |
| | 0.5nm,0.3s,baz=157,slow=9.8,SNR=6.0 | | | | | | |
| ODAN | Odare | 16.77 | 120 | eP | P | 01 47 07.3 | +1.0 |
| | 4.4nm,0.3s | | | | | | |
| ODAN | Odare | 16.77 | 120 | eP | P | 01 47 07.5 | +1.2 |
| AKTO | Aktyubinsk | 16.90 | 330 | P | P | 01 47 08.5 | +1.2 |
| | 0.5nm,0.3s,baz=138,slow=9.1,SNR=8.7 | | | | | | |
| ZALV | Zalesovo Beam | 19.90 | 24 | P | P | 01 47 40.1 | +0.2 |
| | 4.8nm,0.6s,baz=226,slow=11,SNR=21 | | | | | | |
| ARCES | ARCESS Array B | 41.25 | 338 | P | P | 01 50 52.6 | +2.5 |
| | 2.0nm,0.7s,baz=105,slow=9.3,SNR=4.3 | | | | | | |
| INK | Inuvik | 73.93 | 9 | P | P | 01 54 38.5 | +0.1 |
| | 1.1nm,1.1s,baz=346,slow=1.2,SNR=3.3 | | | | | | |
| WRA | Warramunga Arr | 81.84 | 122 | P | P | 01 55 21.8 | -1.0 |
| | 0.2nm,0.4s,baz=324,slow=4.9,SNR=5.4 | | | | | | |
| ASAR | Alice Springs | 84.10 | 125 | P | P | 01 55 32.9 | -1.6 |
| | 0.2nm,0.3s,baz=286,slow=6.7,SNR=4.7 | | | | | | |

**WEL 02 01:47:33.1**±0.5**, 36°.52S**×**176°.83E, h220**km±7km**, ML3.6**/7**, Error ellipse: s-maj=9.8km s-min=8.8km az=0.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| HAZ | Te Kaha | 1.45 | 149 | PN | Pn | 01 48 08.4 | +0.4 |
| HAZ | | | | SN | S | 01 48 35.3 | 0.0 |
| RUGZ | Raukumara Rang | 1.59 | 155 | PN | Pn | 01 48 09.2 | -0.2 |
| PKGZ | Pakihiroa | 1.69 | 144 | PN | Pn | 01 48 10.4 | +0.3 |
| PKGZ | | | | AML | AML | 01 48 41.1 | |
| URZ | Urewera | 1.75 | 173 | PN | Pn | 01 48 11.1 | +0.5 |
| URZ | | | | SN | S | 01 48 40.1 | +0.2 |
| WMGZ | Waiomatatini S | 1.81 | 136 | PN | Pn | 01 48 11.2 | 0.0 |
| WMGZ | | | | SN | S | 01 48 40.2 | -0.7 |
| WMGZ | | | | AML | AML | 01 48 42.8 | |
| TWGZ | Tauwhareparae | 1.89 | 151 | PN | Pn | 01 48 12.6 | +0.6 |
| TWGZ | | | | AML | AML | 01 48 45.5 | |
| TWGZ | | | | AML | AML | 01 48 46.9 | |
| MWZ | Matawai | 1.89 | 163 | PN | Pn | 01 48 12.5 | +0.4 |
| PUZ | Puketiti | 1.92 | 144 | PN | Pn | 01 48 12.0 | -0.3 |
| SNGZ | Shannon Statio | 2.29 | 170 | PN | Pn | 01 48 15.9 | -0.1 |
| SNGZ | | | | AML | AML | 01 48 51.4 | |
| SNGZ | | | | AML | AML | 01 48 54.5 | |
| RIGZ | Rimuhau | 2.30 | 162 | PN | Pn | 01 48 16.0 | -0.1 |
| RIGZ | | | | AML | AML | 01 48 51.5 | |
| RIGZ | | | | AML | AML | 01 48 52.2 | |
| WHHZ | Waihua | 2.57 | 173 | PN | Pn | 01 48 18.8 | -0.1 |
| WHHZ | | | | AML | AML | 01 48 55.4 | |
| KNZ | Kokohu | 2.59 | 165 | PN | Pn | 01 48 18.1 | -0.9 |
| BKZ | Black Stump Fm | 2.66 | 186 | PN | Pn | 01 48 19.2 | -0.7 |
| ARHZ | Aropaoanui | 2.74 | 177 | PN | Pn | 01 48 19.5 | -1.3 |
| OTVZ | Oturere | 2.80 | 199 | PN | Pn | 01 48 22.0 | +0.4 |
| KWHZ | Kaweka Forest | 2.92 | 186 | PN | Pn | 01 48 22.6 | -0.2 |
| MCHZ | McNeill Hill | 2.92 | 182 | PN | Pn | 01 48 22.5 | -0.2 |
| WNVZ | Wahianoa | 2.97 | 199 | PN | Pn | 01 48 23.7 | +0.2 |
| KRHZ | Kereru | 3.14 | 187 | PN | Pn | 01 48 24.3 | -1.0 |
| KAHZ | Kahuranaki | 3.27 | 179 | PN | Pn | 01 48 25.6 | -1.2 |
| PNHZ | Pukenui | 3.42 | 188 | PN | Pn | 01 48 26.9 | -1.7 |
| TSZ | Takapari Road | 3.60 | 191 | PN | Pn | 01 48 29.0 | -1.7 |
| BFZ | Birch Farm | 4.18 | 186 | PN | Pn | 01 48 34.8 | -2.9 |
| MRZ | Mangatainoka R | 4.25 | 193 | PN | Pn | 01 48 35.7 | -2.8 |
| OGWZ | Otaki Gorge | 4.48 | 196 | PN | Pn | 01 48 38.7 | -2.8 |
| OGWZ | | | | AML | AML | 01 49 35.8 | |
| HOWZ | Holdsworth Sta | 4.49 | 193 | PN | Pn | 01 48 38.5 | -3.1 |
| KIW | Kapiti Island | 4.59 | 199 | PN | Pn | 01 48 39.9 | -2.8 |
| CAW | Cannon Point | 4.78 | 196 | PN | Pn | 01 48 42.0 | -3.2 |
| DUWZ | D'Urville Isla | 4.84 | 207 | PN | Pn | 01 48 43.6 | -2.4 |
| TCW | Tory Channel | 5.09 | 202 | PN | Pn | 01 48 46.2 | -2.8 |
| NNZ | Nelson | 5.41 | 209 | PN | Pn | 01 48 50.3 | -2.7 |
| QRZ | Quartz Range | 5.46 | 217 | PN | Pn | 01 48 51.1 | -2.6 |
| THZ | Tophouse | 6.06 | 209 | PN | Pn | 01 48 58.6 | -2.8 |
| KHZ | Kahutara | 6.42 | 202 | PN | Pn | 01 49 02.3 | -3.5 |
| DSZ | Denniston Nort | 6.52 | 215 | PN | Pn | 01 49 05.2 | -2.0 |

*ISCJB **02** 01:54:02.0±0.6, 67°.80N±0°.03×20°.35E±0°.09, h0km, Error ellipse: s-maj=5.3km s-min=3.6km az=152.2*
*HEL **02** 01:54:01.9±0.3, 67°.89N×20°.00E, h0km, ML1.4, Explosion*
*UPP **02** 01:54:02.8±0.0, 67°.82N×20°.20E, h0km, ML2.5*
**ISC 02 01:54:02.9**±0.9**, 67°.83N**±0°.03×**20°.22E**±0°.03**, h0**km**, n17, σ0s.92**/25**, Sweden**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KUA | Kurravaara | 0.14 | 20 | P | Pg | 01 54 05.7 | +0.2 |
| KUA | | | | S | Sg | 01 54 07.7 | +0.4 |
| RATU | Laukkuluspa | 0.24 | 270 | P | Pg | 01 54 07.4 | 0.0 |
| NIKU | Nikkaluokta | 0.45 | 276 | P | Pg | 01 54 11.4 | -0.1 |
| LANU | Lannavaara | 0.71 | 71 | P | Pg | 01 54 16.2 | -0.2 |
| LANU | Lannavaara | 0.71 | 71 | PG | Pg | 01 54 16.1 | -0.3 |
| | baz=257 | | | | | | |
| LANU | | | | SG | Sg | 01 54 25.4 | -0.1 |
| DUNU | Dundret | 0.72 | 169 | P | Pg | 01 54 16.1 | -0.5 |
| MASU | Masugnsbyn | 0.78 | 118 | P | Pg | 01 54 17.6 | -0.1 |
| KIF | Kilpisjarvi | 1.20 | 10 | PN | Pb | 01 54 26.0 | -0.5 |
| KIF | | | | SN | Sb | 01 54 42.2 | -0.4 |
| PAJU | Pajala | 1.38 | 124 | P | Pn | 01 54 28.1 | -1.3 |
| HEF | Hetta | 1.42 | 64 | PG | Pn | 01 54 28.9 | -1.0 |
| | baz=247 | | | | | | |
| HEF | | | | MSG | | 01 54 46.0 | |
| | comp=Z,2.7nm,0.2s | | | | | | |
| HEF | | | | SN | Sn | 01 54 51.8 | +2.6 |
| ERTU | Ertsjaerv | 1.49 | 148 | P | Pn | 01 54 30.3 | -0.6 |
| ERTU | Ertsjaerv | 1.49 | 148 | PG | Pn | 01 54 30.3 | -0.6 |
| ERTU | | | | SG | Sg | 01 54 50.9 | +0.2 |
| KALU | Kalix | 2.33 | 146 | SG | Sb | 01 55 15.5 | +0.5 |
| TOF | Tornio | 2.39 | 135 | PB | Pn | 01 54 44.5 | +1.3 |
| | baz=322 | | | | | | |
| TOF | | | | SB | Sb | 01 55 16.7 | +0.2 |
| SGF | Sodankyl | 2.44 | 96 | PB | Pb | 01 54 46.0 | -1.7 |
| | baz=288 | | | | | | |
| SGF | | | | SG | Sb | 01 55 19.2 | +0.9 |
| RNF | Rovaniemi | 2.57 | 116 | PG | Pb | 01 54 50.5 | +0.8 |
| RNF | | | | SG | Sg | 01 55 24.3 | -0.9 |
| VRF | Varrio | 3.57 | 87 | PG | Pb | 01 55 06.5 | -0.3 |

**IDC 02 01:55:44.9**±2.4**, 4°.19S**×**129°.36E, h0**km**, mb3.8**/1**, mb1 3.7**/3**, mb1mx3.4**/21**, mbtmp3.5**/3**, ML3.3**/2**, Error ellipse: s-maj=173.5km s-min=28.6km az=69.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 16.39 | 163 | Pn | Pn | 01 59 37.4 | +0.8 |
| | 0.1nm,0.3s,baz=343,slow=12,SNR=3.3 | | | | | | |
| WRA | | | | Sn | Sn | 02 02 28.2 | -11 |
| | 0.2nm,0.3s,baz=286,slow=31,SNR=12 | | | | | | |
| ASAR | Alice Springs | 19.85 | 168 | P | P | 02 00 17.4 | -0.3 |
| | 0.3nm,0.3s,baz=350,slow=11,SNR=17 | | | | | | |
| MKAR | Makanchi Array | 65.55 | 326 | P | P | 02 06 30.4 | 0.0 |
| | 0.6nm,0.6s,baz=118,slow=7.9,SNR=7.1 | | | | | | |

**IDC 02 02:25:39.9**±11.0**, 1°.55S**×**99°.52E, h0**km**, mb3.7**/3**, mb1 3.8**/3**, mb1mx3.4**/27**, mbtmp3.7**/3**, Error ellipse: s-maj=520.4km s-min=28.6km az=52.0, Southern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| H08S2 | Diego Garcia H | 27.59 | 256 | T | T | 02 59 38.4 | |
| | baz=78,slow=75,SNR=4.2 | | | | | | |
| H08S3 | Diego Garcia H | 27.60 | 257 | T | T | 02 59 31.2 | |
| | baz=78,slow=75,SNR=3.1 | | | | | | |
| H08S1 | Diego Carcia H | 27.61 | 256 | T | T | 02 59 37.7 | |
| | baz=78,slow=75,SNR=3.5 | | | | | | |
| WRA | Warramunga Arr | 38.64 | 121 | P | P | 02 33 05.3 | -0.1 |
| | 0.5nm,0.8s,baz=296,slow=9.8,SNR=3.4 | | | | | | |
| MKAR | Makanchi Array | 50.47 | 345 | P | P | 02 34 39.5 | -0.1 |
| | 0.4nm,0.5s,baz=162,slow=8.7,SNR=6.3 | | | | | | |
| ZALV | Zalesovo Beam | 56.64 | 350 | P | P | 02 35 24.6 | -0.1 |
| | 1.2nm,0.6s,baz=180,slow=7.4,SNR=5.8 | | | | | | |

**MEX 02 02:28:25.1**±0.6**, 14°.11N**×**93°.00W, h20**km±43km**, MD3.7, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PCIG | | 1.60 | 352 | eS | Sn | 02 29 08.4 | -4.0 |
| CCIG | Comitan | 2.32 | 21 | eP | Pn | 02 28 59.2 | -3.1 |
| CCIG | | | | i S | Sn | 02 29 27.0 | -3.3 |
| TGIG | | 2.66 | 357 | eP | Pn | 02 29 04.3 | -2.6 |
| TGIG | | | | eS | Sn | 02 29 36.1 | -2.5 |

*ISCJB **02** 02:35:36.3±0.5, 11°.28N±0°.04×71°.31W±0°.05, h33km, mb3.5/4, Error ellipse: s-maj=7.5km s-min=5.4km az=43.6*
*IDC **02** 02:35:39.4±1.9, 11°.21N×71°.25W, h49km±21km, mb3.2/4, mb1 3.7/9, mb1mx3.5/37, mbtmp3.8/9, ML3.3/5, MS3.2/1, Ms1 3.2/1, ms1mx2.4/18, Error ellipse: s-maj=19.4km s-min=13.9km az=126.0*
**ISC 02 02:35:37.7**±0.7**, 11°.31N**±0°.06×**71°.32W**±0°.06**, h33**km**, n28, σ1s.28**/33**, mb3.6**/4**, Near coast of Venezuela**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CODC | Agustˆ›n Codaz | 2.50 | 237 | eP | Pn | 02 36 16.6 | +0.5 |
| SDV | Santo Domingo | 2.50 | 164 | P | Pn | 02 36 17.0 | +0.7 |
| | 25nm,0.3s,baz=20,slow=3.9,SNR=52 | | | | | | |
| SDV | | | | S | Sn | 02 36 44.5 | -1.3 |
| | 36nm,0.3s,baz=331,slow=14,SNR=4.6 | | | | | | |
| SDV | Santo Domingo | 2.50 | 164 | eP | Pn | 02 36 17.0 | +0.7 |
| OCAC | Ocana | 3.64 | 213 | eP | Pn | 02 36 32.4 | +0.6 |
| PAMC | Pamplona, Colo | 4.18 | 199 | eP | Pn | 02 36 40.1 | +0.6 |
| GIRC | Giron, Santand | 4.60 | 204 | eS | Sn | 02 37 35.5 | -1.9 |
| BRRC | Barranca, Sant | 4.80 | 210 | eP | Pn | 02 36 47.5 | -0.2 |
| MOTC | Monteria, Cord | 4.97 | 240 | eP | Pn | 02 36 50.2 | +0.2 |
| BARC | Barichara | 5.04 | 202 | eP | Pn | 02 36 52.0 | +0.8 |
| RUSC | La Rusia | 5.66 | 198 | eP | Pn | 02 37 00.6 | +0.6 |
| YOPC | Yopal, Colombi | 6.02 | 191 | eP | Pn | 02 37 05.0 | +0.4 |
| HELC | Santa Helena | 6.57 | 220 | eP | Pn | 02 37 13.9 | +1.5 |
| PCRV | Puerto La Cruz | 6.66 | 99 | P | Pn | 02 37 15.0 | +1.6 |
| | 23nm,0.3s,baz=290,slow=2.3,SNR=68 | | | | | | |
| PCRV | | | | S | Sn | 02 38 29.6 | +1.4 |
| | 3.4nm,0.3s,baz=350,slow=19,SNR=4.2 | | | | | | |
| NORC | Norcasia | 6.71 | 212 | eP | Pn | 02 37 13.2 | -0.7 |
| CHIC | Chingaza | 7.06 | 200 | eP | Pn | 02 37 18.5 | -0.6 |
| ROSC | El Rosal | 7.08 | 205 | P | Pn | 02 37 21.3 | +1.9 |
| | 6.4nm,0.3s,baz=279,slow=4.1,SNR=16 | | | | | | |
| ROSC | | | | S | Sn | 02 38 38.6 | -0.5 |
| | 12nm,0.3s,baz=194,slow=23,SNR=11 | | | | | | |
| GUYC | Guyana, Colomb | 7.27 | 214 | eP | Pn | 02 37 23.9 | +1.8 |
| VILC | Villavicencio, | 7.53 | 198 | eP | Pn | 02 37 24.5 | -0.9 |
| PLMC | San Josˆ' del | 8.04 | 218 | eP | Pn | 02 37 32.5 | +0.2 |
| SJG | San Juan | 8.41 | 36 | P | Pn | 02 37 38.2 | +1.0 |
| | 1.8nm,0.3s,baz=210,slow=20,SNR=5.8 | | | | | | |
| SJG | | | | S | Sn | 02 39 06.6 | -4.5 |
| | 8.5nm,0.3s,baz=348,slow=18,SNR=8.2 | | | | | | |
| PTGA | Pitinga | 16.45 | 136 | P | Pn | 02 39 25.2 | -0.9 |
| | 0.2nm,0.3s,baz=330,slow=20,SNR=2.5 | | | | | | |
| ATAH | Atahualpa | 19.63 | 201 | P | Pn | 02 40 04.9 | -0.7 |
| | 0.1nm,0.3s,baz=65,slow=14,SNR=2.6 | | | | | | |
| ATAH | | | | LR | LR | 02 49 23.6 | |
| | comp=Z,64nm,18.0s,baz=25,slow=42 | | | | | | |
| PDAR | Pinedale Array | 45.64 | 320 | P | P | 02 43 55.9 | +0.4 |
| | 0.3nm,0.6s,baz=95,slow=9.4,SNR=4.1 | | | | | | |
| YKA | Yellowknife Ar | 59.73 | 338 | P | P | 02 45 40.0 | +1.1 |
| | 0.9nm,0.6s,baz=126,slow=7.5,SNR=5.8 | | | | | | |
| TORD | Torodi Ar. Bea | 71.14 | 80 | P | P | 02 46 53.1 | -0.5 |
| | 0.2nm,0.6s,baz=296,slow=5.8,SNR=3.3 | | | | | | |
| TORD | | | | pP | sP | 02 47 08.7 | +0.9 |
| | 0.6nm,0.6s,baz=282,slow=6.9,SNR=4.9 | | | | | | |
| ILAR | Eielson Array | 73.69 | 334 | P | P | 02 47 08.3 | +0.4 |
| | 0.2nm,0.5s,baz=110,slow=4.5,SNR=4.7 | | | | | | |
| ASAR | Alice Springs | 153.04 | 240 | PKPbc | PKPbc | 02 55 32.2 | -0.5 |
| | 0.2nm,0.3s,baz=116,slow=2.9,SNR=4.6 | | | | | | |
| WRA | Warramunga Arr | 153.87 | 248 | PKPbc | PKPbc | 02 55 34.4 | -0.2 |
| | 0.2nm,0.4s,baz=103,slow=2.7,SNR=4.4 | | | | | | |

**IDC 02 03:20:38.3**±8.2**, 5°.11S**×**151°.37E, h97**km±57km**, mb3.6**/3**, mb1 3.7**/4**, mb1mx3.4**/20**, mbtmp3.9**/4**, ML2.0**/1**, Error ellipse: s-maj=105.1km s-min=54.8km az=125.0, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PMG | Port Moresby | 5.97 | 224 | P | Pn | 03 22 04.4 | +0.2 |
| | 2.4nm,0.3s,baz=22,slow=11,SNR=6.1 | | | | | | |
| PMG | | | | S | Sn | 03 23 12.6 | +1.4 |
| | 4.8nm,0.3s,baz=46,slow=21,SNR=14 | | | | | | |
| WRA | Warramunga Arr | 22.18 | 227 | P | P | 03 25 26.4 | -0.4 |
| | 2.3nm,0.6s,baz=50,slow=10.0,SNR=9.6 | | | | | | |
| ASAR | Alice Springs | 24.97 | 221 | P | P | 03 25 52.5 | -0.6 |
| | 1.2nm,0.7s,baz=52,slow=9.1,SNR=13 | | | | | | |
| FITZ | Fitzroy Crossi | 28.26 | 241 | P | P | 03 26 23.0 | +0.4 |
| | 1.7nm,0.6s,baz=63,slow=9.8,SNR=5.0 | | | | | | |
| TORD | Torodi Ar. Bea | 149.04 | 287 | PKPbc | PKPbc | 03 40 16.1 | -0.1 |
| | 0.6nm,0.7s,baz=84,slow=2.9,SNR=4.6 | | | | | | |

*TIF **02** 03:27:08.8, 42°.81N×46°.91E, h0km*
*CSEM **02** 03:27:09.8±0.2, 42°.85N×46°.93E, h2km, mb4.0, Error ellipse: s-maj=4.6km s-min=3.1km az=24.0*
*MOS **02** 03:27:09.3±2.0, 42°.88N×46°.95E, h6km, mb4.0/1, Error ellipse: s-maj=5.9km s-min=4.6km az=37.2*
**ISC 02 03:27:09.7**±1.0**, 42°.88N**±0°.02×**46°.94E**±0°.02**, h6**km±7km**, n86, σ1s.51**/138**, 9C-8D, Eastern Caucasus**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BUJR | Buynaksk | 0.13 | 115 | ePG | Pg | 03 27 12.0 | -0.4 |
| BUJR | Buynaksk | 0.13 | 115 | ePg | Pg | 03 27 12.0 | -0.4 |
| DBC | Dubki | 0.16 | 329 | i PG | Pg | 03 27 12.4 | -0.6 |
| DBC | Dubki | 0.16 | 329 | i Pg | Pg | 03 27 12.4 | -0.6 |
| UNCR | Uncukul | 0.20 | 213 | ePG | Pg | 03 27 12.0 | -1.7 |
| UNCR | Uncukul | 0.20 | 213 | ePg | Pg | 03 27 12.0 | -1.7 |
| ARKR | Arakani | 0.28 | 172 | i PG | Pg | 03 27 14.0 | -1.2 |
| ARKR | | | | pmax | pmax | | |
| | comp=Z,931nm,0.1s | | | | | | |
| ARKR | Arakani | 0.28 | 172 | i Pg | Pg | 03 27 14.0 | -1.2 |
| | comp=Z,931nm,0.1s | | | | | | |
| DLMR | Dylym | 0.30 | 309 | ⇑iPG | Pg | 03 27 15.0 | -0.5 |
| DLMR | | | | eS | Sg | 03 27 20.5 | +1.1 |
| DLMR | | | | pmax | pmax | | |
| | comp=Z,862nm,0.1s | | | | | | |
| DLMR | Dylym | 0.30 | 309 | i Pg | Pg | 03 27 15.0 | -0.5 |
| | comp=Z,862nm,0.1s | | | | | | |
| DLMR | | | | eSg | Sg | 03 27 20.5 | +1.1 |
| XNZR | Khunzakh | 0.38 | 207 | ePG | Pg | 03 27 15.7 | -1.4 |
| XNZR | Khunzakh | 0.38 | 207 | ePg | Pg | 03 27 15.7 | -1.4 |
| MAK | Makhachkala | 0.42 | 79 | ePG | Pb | 03 27 18.8 | -0.7 |
| MAK | | | | e | | 03 27 27.1 | |
| MAK | | | | pmax | pmax | | |
| | comp=Z,629nm,0.3s | | | | | | |
| MAK | | | | smax | smax | | |
| | comp=N,2µm,0.4s | | | | | | |
| MAK | | | | smax | smax | | |
| | comp=N,2µm,0.6s | | | | | | |
| MAK | Makhachkala | 0.42 | 79 | ePg | Pb | 03 27 18.8 | -0.7 |
| | comp=N,629nm,0.3s | | | | | | |
| GNBR | Gunib | 0.49 | 178 | ePG | Pg | 03 27 18.6 | -0.6 |
| GNBR | | | | e | | 03 27 25.7 | |
| GNBR | | | | pmax | pmax | | |
| | comp=Z,255nm,0.8s | | | | | | |
| GNBR | | | | smax | smax | | |
| | comp=E,2µm,0.5s | | | | | | |
| GNBR | | | | smax | smax | | |
| | comp=N,2µm,0.4s | | | | | | |
| GNBR | | | | smax | smax | | |
| | comp=E,2µm,0.5s | | | | | | |
| GNBR | Gunib | 0.49 | 178 | ePg | Pg | 03 27 18.6 | -0.6 |
| | comp=E,255nm,0.8s | | | | | | |
| GNBR | | | | eSg | Sb | 03 27 25.7 | -2.5 |
| | comp=E,2µm,0.4s | | | | | | |
| BTLR | Botlikh | 0.57 | 248 | ePG | Pg | 03 27 19.3 | -1.4 |
| BTLR | | | | e | | 03 27 27.3 | |
| BTLR | | | | pmax | pmax | | |
| | comp=Z,152nm,0.3s | | | | | | |
| BTLR | | | | smax | smax | | |
| | comp=E,728nm,0.7s | | | | | | |
| BTLR | | | | smax | smax | | |
| | comp=N,800nm,0.4s | | | | | | |
| BTLR | | | | smax | smax | | |
| | comp=N,663nm,0.3s | | | | | | |
| BTLR | Botlikh | 0.57 | 248 | ePg | Pg | 03 27 19.3 | -1.4 |
| | comp=N,152nm,0.3s | | | | | | |
| BTLR | | | | eSg | Sg | 03 27 27.3 | -0.9 |
| | comp=N,663nm,0.3s | | | | | | |
| DVE | Vedeno | 0.60 | 277 | ⇓iPG | Pg | 03 27 20.1 | -1.2 |
| DVE | | | | eS | Sg | 03 27 29.1 | -0.1 |
| DVE | Vedeno | 0.60 | 277 | i Pg | Pg | 03 27 20.1 | -1.2 |
| DVE | | | | eSg | Sg | 03 27 29.1 | -0.1 |
| SGKR | Sergokala | 0.68 | 128 | ePG | Pn | 03 27 26.0 | +0.2 |
| SGKR | | | | i S | Sn | 03 27 38.5 | +1.9 |
| URKR | Urkarakh | 0.88 | 144 | ePG | Pn | 03 27 29.0 | +0.3 |
| URKR | | | | i S | Sn | 03 27 43.0 | +1.2 |
| URKR | | | | pmax | pmax | | |
| | comp=Z,136nm,0.2s | | | | | | |
| DRN | Derbent | 1.33 | 129 | ePG | Pb | 03 27 35.5 | +0.5 |
| DRN | | | | eS | Sn | 03 27 54.0 | +1.2 |
| DRN | Derbent | 1.33 | 129 | ePg | Pb | 03 27 35.5 | +0.5 |
| DRN | | | | eSg | Sn | 03 27 54.0 | +1.2 |
| AKT | Akhty | 1.52 | 157 | ⇓iPG | Pn | 03 27 37.0 | -0.4 |
| AKT | | | | eS | Sg | 03 27 56.9 | -1.5 |
| AKT | Akhty | 1.52 | 157 | i Pg | Pn | 03 27 37.0 | -0.4 |
| AKT | | | | eSg | Sg | 03 27 56.9 | -1.5 |
| KMGR | Komgaron | 1.54 | 277 | ePG | Pg | 03 27 38.7 | -0.4 |
| KMGR | | | | eS | Sg | 03 27 59.6 | +0.6 |
| KMGR | Komgaron | 1.54 | 277 | ePg | Pg | 03 27 38.7 | -0.4 |
| KMGR | | | | eSg | Sg | 03 27 59.6 | +0.6 |
| KSMR | Kasumkent | 1.55 | 145 | ePG | Pg | 03 27 39.5 | +0.1 |
| KSMR | | | | eS | Sg | 03 28 01.0 | +1.5 |
| KSMR | | | | pmax | pmax | | |
| | comp=Z,70nm,0.2s | | | | | | |
| KSMR | Kasumkent | 1.55 | 145 | ePg | Pg | 03 27 39.5 | +0.1 |
| | comp=Z,70nm,0.2s | | | | | | |
| KSMR | | | | eSg | Sg | 03 28 01.0 | +1.5 |
| DDFL | Dedoflistskaro | 1.56 | 203 | P | Pg | 03 27 40.3 | +0.7 |
| DDFL | | | | S | Sg | 03 28 07.1 | +7.3 |
| VLKR | Vladikavkaz | 1.67 | 276 | ePN | Pg | 03 27 41.6 | -0.1 |
| VLKR | | | | eS | Sg | 03 28 04.1 | +0.7 |
| VLKR | Vladikavkaz | 1.67 | 276 | ePn | Pg | 03 27 41.6 | -0.1 |
| VLKR | | | | eSg | Sg | 03 28 04.1 | +0.7 |
| TRKR | Terskaya | 1.82 | 298 | ⇓iPN | Pg | 03 27 44.3 | -0.2 |
| TRKR | | | | eS | Sg | 03 28 10.5 | +2.4 |
| TRKR | Terskaya | 1.82 | 298 | i Pn | Pg | 03 27 44.3 | -0.2 |
| TRKR | | | | eSg | Sg | 03 28 10.5 | +2.4 |
| BTKR | Batakoyurt | 1.82 | 286 | ⇑iPN | Pg | 03 27 43.9 | -0.7 |
| BTKR | | | | i S | Sg | 03 28 10.2 | +1.9 |
| BTKR | Batakoyurt | 1.82 | 286 | i Pn | Pg | 03 27 43.9 | -0.7 |
| BTKR | | | | i Sg | Sg | 03 28 10.2 | +1.9 |
| GUDG | Gudauri | 1.87 | 258 | P | Pb | 03 27 43.1 | -1.1 |
| GUDG | | | | S | Sg | 03 28 09.6 | 0.0 |
| LACR | Lac | 1.95 | 269 | ⇓iPN | Pn | 03 27 43.0 | -0.4 |
| LACR | | | | i S | Sb | 03 28 09.9 | -0.3 |
| LACR | Lac | 1.95 | 269 | i Pn | Pn | 03 27 43.0 | -0.4 |
| LACR | | | | i Sg | Sb | 03 28 09.9 | -0.3 |
| ARNR | Ardon | 1.97 | 280 | ePN | Pg | 03 27 46.8 | -0.7 |
| ARNR | | | | eS | Sg | 03 28 14.4 | +1.4 |
| ARNR | Ardon | 1.97 | 280 | eSg | Sg | 03 28 14.4 | +1.4 |
| TBLG | Delisi | 2.00 | 236 | P | Pb | 03 27 45.8 | -0.6 |
| TBLG | | | | S | Sg | 03 28 13.3 | -0.6 |
| TBLG | Delisi | 2.00 | 236 | PN | Pb | 03 27 45.8 | -0.6 |
| TBLG | | | | S | Sg | 03 28 13.5 | -0.4 |
| TBLG | Delisi | 2.00 | 236 | P | Pb | 03 27 45.8 | -0.6 |
| TBLG | | | | Sg | Sg | 03 28 13.5 | -0.4 |
| KORR | Kora | 2.12 | 276 | ePN | Pb | 03 27 47.2 | -1.3 |
| KORR | | | | eS | Sb | 03 28 15.3 | +0.2 |
| KORR | Kora | 2.12 | 276 | ePn | Pb | 03 27 47.2 | -1.3 |
| KORR | | | | eSb | Sb | 03 28 15.3 | +0.2 |
| PRTR | Priterechnaya | 2.13 | 295 | ⇓iPN | Pb | 03 27 48.9 | +0.3 |
| PRTR | | | | i S | Sg | 03 28 18.6 | +0.6 |
| PRTR | Priterechnaya | 2.13 | 295 | i Sb | Sg | 03 28 18.6 | +0.6 |
| STDR | Stavd-Durt | 2.16 | 284 | ⇓iPN | Pb | 03 27 49.4 | +0.2 |
| STDR | | | | i S | Sg | 03 28 20.1 | +0.9 |
| STDR | Stavd-Durt | 2.16 | 284 | i Sb | Sg | 03 28 20.1 | +0.9 |
| ZEI | Tsey | 2.24 | 269 | ⇓iPN | Pn | 03 27 48.4 | +0.9 |
| ZEI | | | | eS | Sb | 03 28 18.6 | -0.1 |
| ZEI | Tsey | 2.24 | 269 | i Pn | Pn | 03 27 48.4 | +0.9 |
| LSNR | Lesken | 2.32 | 281 | ePN | Pb | 03 27 51.3 | -0.6 |
| LSNR | | | | eS | Sg | 03 28 22.3 | -1.8 |
| LSNR | Lesken | 2.32 | 281 | eSb | Sg | 03 28 22.3 | -1.8 |
| DIGR | Digorskoe uzhe | 2.47 | 272 | ePN | Pn | 03 27 52.5 | +1.9 |
| DIGR | | | | eS | Sb | 03 28 24.7 | -0.6 |
| DIGR | Digorskoe uzhe | 2.47 | 272 | ePn | Pn | 03 27 52.5 | +1.9 |
| NCK | Nalchik | 2.52 | 285 | cePN | Pn | 03 27 51.6 | +0.4 |
| NCK | Nalchik | 2.52 | 285 | ePn | Pn | 03 27 51.6 | +0.4 |
| ONI | Oni | 2.59 | 265 | P | Pb | 03 27 54.5 | -2.0 |
| ONI | | | | S | Sb | 03 28 27.5 | -1.1 |
| ONI | Oni | 2.59 | 265 | PN | Pb | 03 27 55.1 | -1.4 |
| ONI | | | | S | Sb | 03 28 30.1 | +1.5 |
| ONI | Oni | 2.59 | 265 | Sb | Sb | 03 28 30.1 | +1.5 |
| NEY | Neytrino | 3.12 | 278 | ePN | Pn | 03 28 00.8 | +1.3 |
| NEY | | | | eS | Sn | 03 28 39.2 | +2.1 |
| NEY | Neytrino | 3.12 | 278 | ePn | Pn | 03 28 00.8 | +1.3 |
| NEY | | | | eSn | Sn | 03 28 39.2 | +2.1 |
| GNI | Garni | 3.19 | 212 | cePN | Pn | 03 28 02.6 | +2.1 |
| GNI | | | | pmax | pmax | | |
| | comp=Z,45nm,1.2s | | | | | | |
| GNI | Garni | 3.19 | 212 | ePn | Pn | 03 28 02.6 | +2.1 |
| | comp=Z,45nm,1.2s | | | | | | |
| BEYR | Belyy Ugol+ | 3.21 | 292 | ePN | Pb | 03 28 07.3 | +0.2 |
| BEYR | | | | eS | Sb | 03 28 47.8 | +1.4 |
| SHA1 | Shidzhatmaz | 3.24 | 287 | ePN | Pn | 03 28 00.1 | -1.2 |
| SHA1 | | | | eS | Sn | 03 28 39.3 | -1.0 |
| SHA1 | Shidzhatmaz | 3.24 | 287 | ePn | Pn | 03 28 00.1 | -1.2 |
| SHA1 | | | | eSn | Sn | 03 28 39.3 | -1.0 |
| KIV | Kislovodsk | 3.28 | 291 | cePN | Pn | 03 28 01.5 | -0.2 |
| KIV | | | | e | | 03 28 11.7 | |
| KIV | | | | eS | Sn | 03 28 43.2 | +2.1 |
| KIV | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.3s | | | | | | |
| KIV | | | | smax | smax | | |
| | comp=E,16nm,0.6s | | | | | | |
| KIV | Kislovodsk | 3.28 | 291 | ePn | Pn | 03 28 01.5 | -0.2 |
| | comp=E,7.0nm,1.3s | | | | | | |
| KIV | | | | eSn | Sn | 03 28 43.2 | +2.1 |
| GOF | Gofitskoye | 3.56 | 309 | ⇑ePN | Pn | 03 28 04.2 | -1.2 |
| GOF | | | | eS | Sn | 03 28 49.6 | +1.9 |
| GOF | | | | pmax | pmax | | |
| | comp=Z,15nm,0.7s | | | | | | |
| GOF | | | | smax | smax | | |
| | comp=N,48nm,0.8s | | | | | | |
| GOF | | | | smax | smax | | |
| | comp=E,43nm,0.8s | | | | | | |
| GOF | Gofitskoye | 3.56 | 309 | ePn | Pn | 03 28 04.2 | -1.2 |
| | comp=E,15nm,0.7s | | | | | | |
| GOF | | | | eSn | Sn | 03 28 49.6 | +1.9 |
| | comp=E,48nm,0.8s | | | | | | |
| ANN | Anapa | 7.14 | 289 | eP | Pn | 03 28 54.7 | +0.2 |
| ANN | | | | eS | Sn | 03 30 16.9 | +1.0 |
| ANN | | | | pmax | pmax | | |
| | comp=Z,38nm,0.9s | | | | | | |
| ANN | | | | MLR | MLR | | |
| | comp=Z,165nm,6.0s | | | | | | |
| ANN | | | | MLR | MLR | | |
| | comp=E,161nm,6.0s | | | | | | |
| ANN | | | | MLR | MLR | | |
| | comp=N,27nm,6.0s | | | | | | |
| ANN | Anapa | 7.14 | 289 | eP | Pn | 03 28 54.7 | +0.2 |
| | comp=N,165nm,6.0s | | | | | | |
| ANN | | | | eS | Sn | 03 30 16.9 | +1.0 |
| | comp=N,27nm,6.0s | | | | | | |
| AKTK | Aktyubinsk | 10.71 | 41 | P | Pn | 03 29 44.9 | +1.4 |
| AKTO | Aktyubinsk | 10.71 | 41 | ⇑Pn | Pn | 03 29 44.9 | +1.4 |
| | comp=N,0.6nm,0.7s | | | | | | |
| AKTO | | | | ⇑Sn | Sn | 03 31 40.0 | -3.7 |
| | comp=N,2.1nm,0.8s | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AKTO | Aktyubinsk | 10.71 | 41 | P | Pn | 03 29 44.9 | +1.4 |
| AKTO | Aktyubinsk | 10.71 | 41 | Pn | Pn | 03 29 44.9 | +1.4 |
| | comp=N,0.6nm,0.7s | | | | | | |
| AB31 | Akbulak array | 11.04 | 50 | ⇑Pn | Pn | 03 29 48.2 | +0.1 |
| | comp=N,0.3nm,0.4s,baz=238,slow=12,SNR=12 | | | | | | |
| AB31 | | | | ⇓Sn | Sn | 03 31 44.4 | -7.4 |
| | comp=N,0.4nm,0.3s,baz=246,slow=25,SNR=8.0 | | | | | | |
| AB31 | Akbulak array | 11.04 | 50 | P | Pn | 03 29 48.2 | +0.1 |
| AB31 | Akbulak array | 11.04 | 50 | Pn | Pn | 03 29 48.2 | +0.1 |
| | comp=N,0.3nm,0.4s,SNR=12 | | | | | | |
| BRVK | Borovoye | 18.57 | 49 | iP | Pn | 03 31 29.5 | +2.3 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | |
| BRVK | Borovoye | 18.57 | 49 | iP | Pn | 03 31 29.5 | +2.3 |
| | comp=Z,2.0nm,0.7s | | | | | | |
| KURK | Kurchatov | 22.92 | 59 | iP | P | 03 32 14.8 | +0.7 |
| KURK | Kurchatov | 22.92 | 59 | iP | P | 03 32 14.8 | +0.7 |

---

*ISCJB 02 03:31:35.0±0.6, 6°.20S±0°.06×148°.02E±0°.09, h60km, mb4.4/11, MS3.6/13, Error ellipse: s-maj=14.2km s-min=7.0km az=25.0*
*NEIC 02 03:31:37.2±1.1, 6°.21S×148°.05E, h70km±12km, mb4.3/7, Error ellipse: s-maj=17.9km s-min=7.3km az=127.0*
*IDC 02 03:31:38.0±2.0, 6°.27S×147°.95E, h74km±21km, mb3.9/6, mb1 4.2/9, mb1mx3.8/30, mbtmp4.2/9, MS3.5/13, Ms1 3.5/13, ms1mx3.3/31, Error ellipse: s-maj=40.2km s-min=10.6km az=115.0*
**ISC 02 03:31:36.9±0.7, 6°.22S±0°.08×148°.0E±0°.1, h60km, n31, σ1s.81/31, mb4.6/11, MS3.6/13, Eastern New Guinea region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PMG | Port Moresby | 3.27 | 194 | P | Pn | 03 32 25.5 | -0.2 |
| | 78nm,0.3s,baz=26,slow=5.5,SNR=37 | | | | | | |
| PMG | | | | S | Sn | 03 33 03.5 | +0.1 |
| | 72nm,0.3s,baz=20,slow=18,SNR=13 | | | | | | |
| PMG | | | | LR | LR | 03 34 05.5 | |
| | comp=Z,1µm,18.8s,baz=274,slow=46 | | | | | | |
| PMG | Port Moresby | 3.27 | 194 | ePn | Pn | 03 32 25.5 | -0.2 |
| PMG | | | | eSn | Sn | 03 33 05.3 | +2.0 |
| RABL | Rabaul | 4.64 | 64 | ePn | Pn | 03 32 44.2 | -0.3 |
| COEN | Coen | 9.02 | 211 | ePn | Pn | 03 33 45.4 | +0.8 |
| COEN | | | | eSn | Sn | 03 35 19.0 | -5.7 |
| CTA | Charters Tower | 13.89 | 187 | P | Pn | 03 34 50.7 | -0.2 |
| | 0.4nm,0.3s,baz=354,slow=12,SNR=3.8 | | | | | | |
| CTAO | Charters Tower | 13.89 | 187 | ePn | Pn | 03 34 51.9 | +1.0 |
| MTN | Manton Dam | 17.85 | 247 | eP | Pn | 03 35 42.2 | +0.9 |
| | 19nm,1.2s | | | | | | |
| WRAB | Tennant Creek | 19.00 | 223 | eP | Pn | 03 35 55.6 | +0.5 |
| | 18nm,1.0s | | | | | | |
| WB2 | Warramunga Arr | 19.00 | 223 | eP | P | 03 35 53.3 | -0.6 |
| | 15nm,0.8s | | | | | | |
| WB2 | | | | eS | Sn | 03 39 28.4 | +0.9 |
| WRA | Warramunga Arr | 19.01 | 223 | P | P | 03 35 53.3 | -0.7 |
| | 1.3nm,0.3s,baz=46,slow=11,SNR=58 | | | | | | |
| WRA | | | | S | S | 03 39 23.6 | -3.2 |
| | baz=42,slow=21,SNR=8.2 | | | | | | |
| AS01 | Alice Springs | 21.97 | 216 | eP | P | 03 36 25.5 | -0.4 |
| AS31 | Alice Springs | 22.00 | 216 | eP | P | 03 36 26.2 | 0.0 |
| | 9.3nm,0.4s | | | | | | |
| AS31 | | | | eS | S | 03 40 30.6 | +4.8 |
| ASAR | Alice Springs | 22.00 | 216 | P | P | 03 36 26.2 | -0.1 |
| | 11nm,0.5s,baz=51,slow=9.4,SNR=154 | | | | | | |
| ASAR | | | | S | S | 03 40 25.5 | -0.4 |
| | 8.8nm,1.1s,baz=31,slow=22,SNR=15 | | | | | | |
| ASAR | | | | LR | LR | 03 45 58.6 | |
| | comp=Z,246nm,18.7s,baz=48,slow=39 | | | | | | |
| DZM | Mont Dzumac | 23.81 | 133 | LR | LR | 03 44 31.1 | |
| | comp=Z,166nm,21.3s,baz=30,slow=32 | | | | | | |
| FITZ | Fitzroy Crossi | 24.78 | 240 | P | P | 03 36 53.6 | +0.3 |
| | 31nm,0.7s,baz=64,slow=8.3,SNR=62 | | | | | | |
| FITZ | | | | LR | LR | 03 47 44.3 | |
| | comp=Z,282nm,18.4s,baz=78,slow=39 | | | | | | |
| STKA | Stephens Creek | 26.21 | 192 | P | P | 03 37 07.0 | +0.8 |
| | 6.6nm,0.5s,baz=3.1,slow=8.2,SNR=24 | | | | | | |
| STKA | | | | LR | LR | 03 48 44.2 | |
| | comp=Z,232nm,18.1s,baz=13,slow=39 | | | | | | |
| STKA | Stephens Creek | 26.21 | 192 | eP | P | 03 37 06.5 | +0.3 |
| | 6.0nm,1.3s | | | | | | |
| BBOO | Buckleboo | 28.69 | 201 | eP | P | 03 37 28.5 | +0.2 |
| | 5.4nm,0.8s | | | | | | |
| MBWA | Marble Bar | 31.11 | 239 | eP | P | 03 37 49.6 | -0.4 |
| | 15nm,0.6s | | | | | | |
| MJAR | Matsushiro Arr | 43.51 | 349 | LR | LR | 03 57 23.1 | |
| | comp=Z,32nm,18.3s,baz=10.0,slow=36 | | | | | | |
| KSRS | Korea Array | 47.30 | 338 | LR | LR | 03 58 30.8 | |
| | comp=Z,47nm,19.2s,baz=136,slow=34 | | | | | | |
| CMAR | Chiang Mai Arr | 54.20 | 298 | LR | LR | 04 05 31.0 | |
| | comp=Z,7.0nm,20.1s,baz=200,slow=38 | | | | | | |
| HHC | Hu-ho-hao-te | 57.53 | 328 | eP | P | 03 41 23.5 | +3.1 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,13nm,0.8s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,130nm,5.1s | | | | | | |
| SONM | Songino Array | 65.06 | 330 | P | P | 03 42 11.4 | +0.2 |
| | comp=Z,0.5nm,0.7s,baz=142,slow=6.9,SNR=3.5 | | | | | | |
| SONM | | | | LR | LR | 04 11 12.7 | |
| | comp=Z,36nm,19.0s,baz=161,slow=36 | | | | | | |
| VNDA | Vanda | 71.64 | 177 | LR | LR | 04 12 14.6 | |
| | comp=Z,82nm,18.7s,baz=278,slow=34 | | | | | | |
| WMQ | Urumqi | 73.58 | 319 | P | P | 03 43 04.6 | +0.7 |
| WMQ | | | | pP | pP | 03 43 21.2 | +0.8 |
| WMQ | | | | sP | sP | 03 43 28.1 | +1.0 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,24nm,0.6s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,640nm,5.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,110nm,17.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,99nm,18.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,55nm,12.5s | | | | | | |
| MKAR | Makanchi Array | 78.28 | 320 | P | P | 03 43 30.1 | -0.4 |
| | comp=Z,0.2nm,0.5s,baz=101,slow=8.5,SNR=5.4 | | | | | | |
| ZALV | Zalesovo Beam | 79.71 | 328 | LR | LR | 04 21 04.0 | |
| | comp=Z,16nm,18.4s,baz=70,slow=37 | | | | | | |
| ILAR | Eielson Array | 85.31 | 23 | P | P | 03 44 04.8 | -2.3 |
| | comp=Z,0.3nm,0.7s,baz=241,slow=5.2,SNR=3.7 | | | | | | |
| ILAR | | | | LR | LR | 04 18 20.0 | |
| | comp=Z,37nm,19.6s,baz=108,slow=33 | | | | | | |
| YKA | Yellowknife Ar | 98.92 | 28 | LR | LR | 04 27 05.5 | |
| | comp=Z,5.6nm,18.8s,baz=180,slow=34 | | | | | | |
| TORD | Torodi Ar. Bea | 146.08 | 284 | PKPbc | PKPdf | 03 51 09.9 | -0.4 |
| | comp=Z,0.6nm,0.5s,baz=67,slow=3.2,SNR=9.6 | | | | | | |

---

*ATA 02 03:38:17.7±0.7, 38°.74N×43°.17E, h7km±14km, MD4.2, ML4.1, MW3.7*
*ISK 02 03:38:18.3, 38°.72N×43°.25E, h6km, ML3.4*
*CSEM 02 03:38:18.8±0.1, 38°.74N×43°.21E, h2km, ML3.4, Error ellipse: s-maj=3.8km s-min=3.2km az=155.0*
*DDA 02 03:38:18.4, 38°.73N×43°.18E, h7km, Ml3.5*
*ISCJB 02 03:38:19.1±0.3, 38°.75N±0°.02×43°.23E±0°.02, h6km±3km, Error ellipse: s-maj=2.9km s-min=2.5km az=159.1*
*AZER 02 03:38:21.2±0.8, 39°.04N×43°.20E, h7km, Error ellipse: s-maj=8.2km s-min=5.5km az=26.0*
**ISC 02 03:38:19.3±0.8, 38°.73N±0°.01×43°.23E±0°.01, h13km±6km, n105, σ1s.23/157, 5C-17D, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.19 | 138 | PG | Pg | 03 38 23.7 | +0.1 |
| VANB | | | | eSG | Sb | 03 38 28.0 | -0.2 |
| VANB | Van | 0.19 | 138 | iPg | Pg | 03 38 23.7 | +0.1 |
| VANB | | | | eSg | Sb | 03 38 28.0 | -0.2 |
| TVAN | Van | 0.25 | 146 | iP | Pg | 03 38 24.0 | -0.7 |
| TVAN | | | | iS | Sg | 03 38 28.6 | +0.2 |
| TVAN | Van | 0.25 | 146 | P | Pg | 03 38 24.0 | -0.7 |
| TVAN | | | | S | Sg | 03 38 28.6 | +0.2 |
| ERCV | ERCIS-VAN | 0.30 | 17 | ePG | Pg | 03 38 24.8 | -0.8 |
| ERCV | | | | eSG | Sg | 03 38 30.3 | +0.5 |
| ERCV | ERCIS-VAN | 0.30 | 17 | ePg | Pg | 03 38 24.8 | -0.8 |
| ERCV | | | | eSg | Sg | 03 38 30.3 | +0.5 |
| VMUR | Van-Muradiye | 0.37 | 46 | iP | Pg | 03 38 26.6 | -0.3 |
| VMUR | | | | iS | Sb | 03 38 33.2 | -0.4 |
| VMUR | Van-Muradiye | 0.37 | 46 | P | Pg | 03 38 26.6 | -0.3 |
| VMUR | | | | S | Sb | 03 38 33.2 | -0.4 |
| ADCV | BITLIS_Adilcev | 0.40 | 281 | iP | Pg | 03 38 26.4 | -0.9 |
| ADCV | | | | iS | Sb | 03 38 34.0 | -0.5 |
| ADCV | BITLIS_Adilcev | 0.40 | 281 | P | Pg | 03 38 26.5 | -0.9 |
| ADCV | | | | S | Sb | 03 38 34.0 | -0.5 |
| GEVA | Gevas | 0.44 | 198 | ⇓eP | Pg | 03 38 26.4 | -1.8 |
| GEVA | | | | IAML | | 03 38 27.0 | |
| | comp=Z,2µm,0.3s | | | | | | |
| GEVA | | | | eS | Sg | 03 38 33.8 | -0.3 |
| GEVA | Gevas | 0.44 | 198 | iP | Pg | 03 38 26.6 | -1.5 |
| GEVA | | | | iS | Sg | 03 38 34.1 | 0.0 |
| GEVA | Gevas | 0.44 | 198 | P | Pg | 03 38 26.6 | -1.5 |
| GEVA | | | | S | Sg | 03 38 34.1 | 0.0 |
| CLDR | Caldiran | 0.68 | 53 | ePG | Pg | 03 38 31.5 | -1.0 |
| CLDR | | | | eSG | Sg | 03 38 41.2 | -0.2 |
| CLDR | Caldiran | 0.68 | 53 | iP | Pg | 03 38 31.4 | -1.0 |
| CLDR | | | | iS | Sb | 03 38 42.3 | -0.1 |
| CLDR | Caldiran | 0.68 | 53 | ePg | Pg | 03 38 31.5 | -1.0 |
| CLDR | | | | eSg | Sg | 03 38 41.2 | -0.2 |
| CLDR | | | | S | Sb | 03 38 42.3 | -0.1 |
| TUTA | Tutak | 0.74 | 334 | ⇓iP | Pg | 03 38 32.5 | -1.2 |
| TUTA | | | | IAML | | 03 38 33.3 | |
| | comp=Z,1µm,0.2s | | | | | | |
| TUTA | | | | eS | Sg | 03 38 43.1 | -0.4 |
| TUTA | Tutak | 0.74 | 334 | iP | Pg | 03 38 32.5 | -1.2 |
| TUTA | | | | iS | Sb | 03 38 43.7 | -0.6 |
| TUTA | Tutak | 0.74 | 334 | P | Pg | 03 38 32.5 | -1.2 |
| TUTA | | | | S | Sb | 03 38 43.7 | -0.6 |
| AGRB | Hanur-Agry | 0.86 | 348 | ePG | Pb | 03 38 34.7 | -1.5 |
| AGRB | Hanur-Agry | 0.86 | 348 | ePg | Pb | 03 38 34.7 | -1.5 |
| DYDN | Diyadin | 0.88 | 24 | eP | Pb | 03 38 35.1 | -1.5 |
| DYDN | | | | IAML | | 03 38 55.4 | |
| | comp=Z,169nm,0.5s | | | | | | |
| DYDN | Diyadin | 0.88 | 24 | iP | Pb | 03 38 34.5 | -2.1 |
| DYDN | | | | iS | Sn | 03 38 53.8 | +3.4 |
| DYDN | Diyadin | 0.88 | 24 | P | Pb | 03 38 34.5 | -2.1 |
| BASK | Baskale_VAN | 0.91 | 138 | eP | Pb | 03 38 36.8 | -0.3 |
| BASK | | | | eS | Sn | 03 38 51.0 | -0.1 |
| BASK | | | | IAML | | 03 38 59.8 | |
| | comp=Z,232nm,0.6s | | | | | | |
| BASK | Baskale_VAN | 0.91 | 138 | iP | Pb | 03 38 34.5 | -2.6 |
| BASK | | | | iS | Sb | 03 38 49.3 | +0.1 |
| BASK | Baskale_VAN | 0.91 | 138 | P | Pb | 03 38 34.5 | -2.6 |
| BASK | | | | S | Sb | 03 38 49.3 | +0.1 |
| EKAR | Karacoban | 1.05 | 300 | iP | Pb | 03 38 38.7 | -0.7 |
| EKAR | | | | iS | Sn | 03 38 58.8 | +4.3 |
| EKAR | Karacoban | 1.05 | 300 | P | Pb | 03 38 38.7 | -0.7 |
| HAKT | HAKKARI | 1.23 | 162 | iP | Pn | 03 38 40.5 | -1.9 |
| HAKT | | | | iS | Sg | 03 38 59.9 | +0.8 |
| HAKT | HAKKARI | 1.23 | 162 | P | Pn | 03 38 40.5 | -1.9 |
| HAKT | | | | S | Sg | 03 38 59.9 | +0.8 |
| EATA | Eleskirt | 1.26 | 333 | ⇓iP | Pn | 03 38 41.9 | -1.0 |
| EATA | | | | eS | Sg | 03 39 00.5 | +0.3 |
| EATA | | | | IAML | | 03 39 01.8 | |
| | comp=Z,70nm,0.4s | | | | | | |
| EATA | Eleskirt | 1.26 | 333 | iP | Pn | 03 38 42.1 | -0.9 |
| EATA | | | | iS | Sg | 03 39 00.4 | +0.3 |
| EATA | Eleskirt | 1.26 | 333 | P | Pn | 03 38 42.1 | -0.9 |
| EATA | | | | S | Sg | 03 39 00.4 | +0.3 |
| SRTM | Siirt_Merkez | 1.27 | 235 | iP | Pn | 03 38 42.1 | -0.7 |
| SRTM | | | | iS | Sg | 03 39 00.3 | +0.2 |
| SRTM | Siirt_Merkez | 1.27 | 235 | P | Pn | 03 38 42.1 | -0.7 |
| SRTM | | | | S | Sg | 03 39 00.3 | +0.2 |
| VRTB | Varto-Mus | 1.45 | 288 | ePN | Pn | 03 38 45.2 | 0.0 |
| VRTB | Varto-Mus | 1.45 | 288 | iP | Pn | 03 38 45.3 | 0.0 |
| VRTB | | | | iS | Sg | 03 39 06.1 | +0.2 |
| VRTB | Varto-Mus | 1.45 | 288 | P | Pn | 03 38 45.3 | 0.0 |
| VRTB | | | | S | Sg | 03 39 06.1 | +0.2 |
| TASB | TASBURUN-IGDIR | 1.47 | 32 | ePN | Pb | 03 38 45.8 | -0.8 |
| TASB | TASBURUN-IGDIR | 1.47 | 32 | ePn | Pb | 03 38 45.8 | -0.8 |
| CUKT | Cukurca | 1.51 | 168 | ePN | Pn | 03 38 46.2 | 0.0 |
| CUKT | Cukurca | 1.51 | 168 | ePn | Pn | 03 38 46.2 | 0.0 |
| HYR | Heyderabad | 1.60 | 52 | ⇓P | Pb | 03 38 48.0 | -0.7 |
| HYR | | | | ⇓S | Sb | 03 39 08.8 | -0.1 |
| HYR | Heyderabad | 1.60 | 52 | P | Pb | 03 38 48.0 | -0.7 |
| HYR | | | | S | Sb | 03 39 08.8 | -0.1 |
| BNGL | BINGOL | 1.64 | 278 | eP | Pn | 03 38 48.4 | +0.4 |
| BNGL | | | | IAML | | 03 39 20.9 | |
| | comp=Z,352nm,0.4s | | | | | | |
| BNGL | BINGOL | 1.64 | 278 | iP | Pn | 03 38 48.3 | +0.3 |
| BNGL | | | | iS | Sb | 03 39 10.6 | +0.5 |
| HOMI | Horasan | 1.66 | 322 | eP | Pb | 03 38 49.3 | -0.6 |
| HOMI | | | | IAML | | 03 39 20.7 | |
| | comp=Z,59nm,0.5s | | | | | | |
| HOMI | Horasan | 1.66 | 322 | iP | Pb | 03 38 49.1 | -0.8 |
| DIGO | Kars | 1.68 | 4 | eP | Pb | 03 38 49.5 | -0.8 |
| DIGO | | | | IAML | | 03 38 52.5 | |
| | comp=Z,58nm,0.3s | | | | | | |
| SVAN | Silvan-Diyarba | 1.70 | 251 | ePN | Pn | 03 38 49.4 | +0.7 |
| SVAN | Silvan-Diyarba | 1.70 | 251 | iP | Pn | 03 38 48.8 | +0.2 |
| SVAN | | | | iS | Sb | 03 39 12.9 | +1.3 |
| SVAN | Silvan-Diyarba | 1.70 | 251 | P | Pn | 03 38 48.8 | +0.2 |
| SVAN | Silvan-Diyarba | 1.70 | 251 | ePn | Pn | 03 38 49.4 | +0.7 |
| SVAN | | | | S | Sb | 03 39 12.9 | +1.3 |
| BTMN | Batman | 1.75 | 242 | iP | Pn | 03 38 50.0 | +0.5 |
| BTMN | | | | iS | Sb | 03 39 14.2 | +0.8 |
| BTMN | Batman | 1.75 | 242 | P | Pn | 03 38 50.0 | +0.5 |
| BTMN | | | | S | Sb | 03 39 14.1 | +0.8 |
| NAX | Nakhchivan | 1.82 | 75 | ⇓P | Pb | 03 38 52.7 | +0.2 |
| | SNR=21 | | | | | | |
| NAX | | | | ⇑S | Sg | 03 39 17.1 | -0.8 |
| NAX | Nakhchivan | 1.82 | 75 | P | Pb | 03 38 52.7 | +0.2 |
| | SNR=21 | | | | | | |
| NAX | | | | S | Sg | 03 39 17.1 | -0.8 |
| ERZM | Erzurum | 1.86 | 310 | eP | Pb | 03 38 52.3 | -0.9 |
| KARS | Kars | 1.89 | 357 | ePN | Pb | 03 38 52.6 | -1.2 |
| KARS | Kars | 1.89 | 357 | ePn | Pb | 03 38 52.6 | -1.2 |
| SBZ | Shahbuz | 1.93 | 69 | ⇓P | Pb | 03 38 54.3 | 0.0 |
| SBZ | | | | ⇓S | Sb | 03 39 18.1 | -0.2 |
| SBZ | Shahbuz | 1.93 | 69 | P | Pb | 03 38 54.3 | 0.0 |
| SBZ | | | | S | Sb | 03 39 18.1 | -0.2 |
| SENK | Senkaya-Erzuru | 1.95 | 340 | ePN | Pb | 03 38 53.7 | -1.1 |
| SENK | Senkaya-Erzuru | 1.95 | 340 | ePn | Pb | 03 38 53.7 | -1.1 |
| ECAT | Cat-ERZURUM | 1.96 | 297 | eP | Pb | 03 38 53.8 | -1.1 |
| ECAT | | | | IAML | | 03 39 26.8 | |
| | comp=Z,30nm,0.5s | | | | | | |
| EAK | Akyaka | 1.97 | 8 | eP | Pb | 03 38 55.0 | -0.1 |
| EAK | | | | IAML | | 03 39 04.4 | |
| | comp=Z,65nm,0.5s | | | | | | |
| BNGB | Bing˘¶l | 2.01 | 278 | ePN | Pn | 03 38 53.2 | +0.2 |
| BINT | Bingol | 2.15 | 275 | ePn | Pn | 03 38 53.2 | -1.7 |
| ORD | Ordubad | 2.17 | 84 | P | Pb | 03 38 57.8 | -0.6 |
| ORD | | | | S | Sb | 03 39 26.0 | +0.7 |
| YEDI | Yedisu-Bingol | 2.20 | 289 | ePN | Pb | 03 38 57.3 | -1.8 |
| YEDI | Yedisu-Bingol | 2.20 | 289 | ePn | Pb | 03 38 57.3 | -1.8 |
| DIY | Diyarbakir | 2.50 | 251 | ePn | Pn | 03 39 01.8 | +2.0 |
| MAZI | Mazidag | 2.54 | 241 | ePN | Pn | 03 39 01.6 | +1.4 |
| MAZI | Mazidag | 2.54 | 241 | ePn | Pn | 03 39 01.7 | +1.4 |
| BGD | Bogdanovka | 2.54 | 6 | P | Pb | 03 39 06.0 | +1.1 |
| DYBB | Diyarbakir | 2.55 | 253 | ePN | Pn | 03 39 01.8 | +1.4 |
| AKH | Akhalkalaki | 2.68 | 4 | P | Pb | 03 39 08.4 | +1.2 |
| GDB | GEDABAY | 2.78 | 44 | ⇑P | Pn | 03 39 04.3 | +0.6 |
| | SNR=3.4 | | | | | | |
| GDB | | | | ⇑S | Sn | 03 39 36.1 | -1.1 |
| GDB | GEDABAY | 2.78 | 44 | P | Pn | 03 39 04.3 | +0.6 |
| | SNR=3.4 | | | | | | |
| GDB | | | | S | Sn | 03 39 36.1 | -1.1 |
| QZX | Qazax, Azerbai | 2.85 | 35 | ⇑P | Pn | 03 39 03.9 | -0.5 |
| | SNR=3.9 | | | | | | |
| QZX | | | | ⇓S | Sn | 03 39 36.6 | -2.0 |
| QZX | Qazax, Azerbai | 2.85 | 35 | P | Pn | 03 39 03.9 | -0.5 |
| | SNR=3.9 | | | | | | |
| QZX | | | | S | Sn | 03 39 36.6 | -2.0 |
| PTK | Pertek | 3.00 | 274 | ePN | Pn | 03 39 08.2 | +1.5 |
| PTK | Pertek | 3.00 | 274 | ePn | Pn | 03 39 08.2 | +1.5 |
| GANJ | Ganja | 3.06 | 50 | ⇓P | Pn | 03 39 07.7 | +0.4 |
| | SNR=4.0 | | | | | | |
| GANJ | | | | ⇑S | Sn | 03 39 43.8 | 0.0 |
| GANJ | Ganja | 3.06 | 50 | P | Pn | 03 39 07.7 | +0.4 |
| | SNR=4.0 | | | | | | |
| GANJ | | | | S | Sn | 03 39 43.8 | 0.0 |
| SVRC | Sivrice-ELAZID | 3.10 | 265 | ePN | Pn | 03 39 09.5 | +1.5 |
| SVRC | Sivrice-ELAZID | 3.10 | 265 | ePn | Pn | 03 39 09.5 | +1.5 |
| TBLG | Delisi | 3.21 | 21 | P | Pb | 03 39 16.7 | +0.5 |
| URFA | Urfa | 3.71 | 251 | ePN | Pn | 03 39 18.3 | +2.0 |
| URFA | Urfa | 3.71 | 251 | ePn | Pn | 03 39 18.3 | +2.0 |
| ONI | Oni | 3.86 | 2 | P | Pb | 03 39 29.9 | +2.7 |
| ZKTA | Zakatala | 3.90 | 41 | ⇓P | Pn | 03 39 19.5 | +0.6 |
| | SNR=4.2 | | | | | | |
| LRK | Lerik | 4.00 | 90 | ⇓P | Pn | 03 39 23.9 | +3.5 |
| LRK | Lerik | 4.00 | 90 | P | Pn | 03 39 23.9 | +3.5 |
| GLBA | Clilabad | 4.06 | 81 | ⇓P | Pn | 03 39 23.1 | +2.1 |
| GLBA | Clilabad | 4.06 | 81 | P | Pn | 03 39 23.1 | +2.1 |
| QBL | Gabala | 4.18 | 57 | ⇓P | Pn | 03 39 23.1 | +0.3 |
| QBL | Gabala | 4.18 | 57 | P | Pn | 03 39 23.1 | +0.3 |
| ASTR | Astara | 4.36 | 91 | ⇓P | Pn | 03 39 28.5 | +3.3 |
| ASTR | Astara | 4.36 | 91 | P | Pn | 03 39 28.5 | +3.3 |
| XNQ | Khinaliq | 4.49 | 56 | ⇓P | Pn | 03 39 27.3 | +0.1 |
| XNQ | Khinaliq | 4.49 | 56 | P | Pn | 03 39 27.3 | +0.1 |
| PQL | Pirkuli | 4.62 | 62 | ⇓P | Pn | 03 39 29.7 | +0.8 |
| PQL | Pirkuli | 4.62 | 62 | P | Pn | 03 39 29.7 | +0.8 |

---

*ISCJB 02 03:42:15.7±0.7, 49°.77N±0°.04×18°.39E±0°.04, h0km, Error ellipse: s-maj=6.6km s-min=2.9km az=27.1*
*IPEC 02 03:42:15.4±0.2, 49°.85N×18°.54E, h0km, ML1.7/3, Error ellipse: s-maj=2.1km s-min=1.1km az=161.0*
*CSEM 02 03:42:15.5±1.0, 49°.84N×18°.45E, h1km, ML2.5/4, Error ellipse: s-maj=14.0km s-min=10.6km az=68.0*
*PRU 02 03:42:17.3, 49°.79N×18°.39E, h0km*
**ISC 02 03:42:16.0±1.0, 49°.77N±0°.05×18°.45E±0°.03, h0km, n20, σ0s.66/31, 3C, Czech and Slovak Republics**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| OKC | Ostrava-Krasne | 0.20 | 288 | ⇑iPG | Pg | 03 42 20.7 | +0.8 |
| OKC | | | | eSG | Sg | 03 42 22.8 | +0.3 |
| | comp=Z,24nm,0.4s | | | | | | |
| OKC | Ostrava-Krasne | 0.20 | 288 | Pg | Pg | 03 42 20.7 | +0.8 |
| OKC | | | | Sg | Sg | 03 42 22.8 | +0.3 |
| | 24nm,0.4s | | | | | | |
| MORC | Moravsky Berou | 0.59 | 271 | ePg | Pg | 03 42 27.6 | +0.4 |
| MORC | | | | eSg | Sg | 03 42 35.5 | +0.7 |
| | 14nm,0.3s | | | | | | |
| LANS | Liptovska Anna | 0.91 | 133 | ePG | Pg | 03 42 33.9 | +0.4 |
| LANS | | | | eSG | Sb | 03 42 47.6 | +0.2 |
| KRLC | Kraliky | 1.12 | 286 | eSG | Sg | 03 42 51.9 | 0.0 |
| KRLC | Kraliky | 1.12 | 286 | Sg | Sg | 03 42 51.9 | 0.0 |
| VRAC | Vranov | 1.29 | 250 | ePg | Pg | 03 42 41.1 | +0.3 |
| VRAC | | | | eSg | Sb | 03 42 58.4 | +0.1 |
| | 10nm,0.3s | | | | | | |
| VYHS | Vyhne | 1.31 | 169 | ePG | Pg | 03 42 41.2 | +0.2 |
| VYHS | | | | eSG | Sg | 03 42 57.2 | -0.7 |
| DPC | Dobruska-Polom | 1.48 | 294 | ePG | Pn | 03 42 42.8 | -1.2 |
| DPC | | | | eSG | Sg | 03 43 02.7 | -1.0 |
| | comp=Z,5.5nm,0.2s | | | | | | |
| DPC | Dobruska-Polom | 1.48 | 294 | Pg | Pn | 03 42 42.8 | -1.2 |
| DPC | | | | Sg | Sg | 03 43 02.7 | -1.0 |
| | 5.5nm,0.2s | | | | | | |
| KRUC | Moravsky | 1.52 | 243 | ePg | Pn | 03 42 44.5 | +0.1 |
| KRUC | | | | eSg | Sn | 03 43 05.6 | +0.8 |
| | 6.1nm,0.4s | | | | | | |
| MODS | Modra-Piesok | 1.60 | 209 | eSN | Sg | 03 43 07.7 | +0.4 |
| UPC | Upice | 1.73 | 296 | ⇑eSG | Sn | 03 43 10.6 | +0.5 |
| UPC | Upice | 1.73 | 296 | Sg | Sn | 03 43 10.6 | +0.5 |
| STHS | Stebnicka Huta | 1.85 | 100 | eSN | Sg | 03 43 16.0 | +0.4 |
| STHS | | | | eLG | Lg | 03 43 25.0 | |
| KECS | Kecovo | 1.86 | 133 | eSN | Sn | 03 43 13.4 | +0.1 |
| KECS | | | | eLG | Lg | 03 43 17.7 | |
| PRU | Pruhonice | 2.53 | 276 | ⇑eSG | Sb | 03 43 34.6 | +0.6 |
| PRU | Pruhonice | 2.53 | 276 | Sg | Sb | 03 43 34.6 | +0.6 |
| KHC | Kasperske Hory | 3.24 | 260 | eSN | Sn | 03 43 47.0 | -0.4 |
| KHC | | | | eSG | Sg | 03 43 59.1 | -1.0 |
| KHC | Kasperske Hory | 3.24 | 260 | Sn | Sn | 03 43 47.0 | -0.4 |
| KHC | | | | Sg | Sg | 03 43 59.1 | -1.0 |

---

**IDC 02 03:43:06.0±4.9, 7°.24N×93°.81E, h0km, mb3.5/3, mb1 3.6/3, mb1mx3.3/30, mbtmp3.5/3, Error ellipse: s-maj=177.8km s-min=30.4km az=64.0, Nicobar Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| H08S3 | Diego Garcia H | 25.89 | 236 | T | T | 04 15 36.1 | |
| | baz=54,slow=76,SNR=7.3 | | | | | | |
| H08S2 | Diego Garcia H | 25.89 | 236 | T | T | 04 15 29.2 | |
| | baz=54,slow=76,SNR=9.0 | | | | | | |
| H08S1 | Diego Carcia H | 25.91 | 236 | T | T | 04 15 30.3 | |
| | baz=54,slow=76,SNR=9.3 | | | | | | |
| SONM | Songino Array | 41.85 | 13 | P | P | 03 50 57.6 | -0.3 |
| | 0.4nm,0.6s,baz=187,slow=10.0,SNR=3.1 | | | | | | |
| ZALV | Zalesovo Beam | 47.14 | 353 | P | P | 03 51 39.9 | 0.0 |
| | 1.1nm,0.3s,baz=187,slow=7.2,SNR=6.4 | | | | | | |
| WRA | Warramunga Arr | 48.17 | 125 | P | P | 03 51 48.4 | 0.0 |
| | 0.2nm,0.8s,baz=301,slow=9.8,SNR=3.1 | | | | | | |

---

*ATA 02 03:47:43.3±0.3, 39°.57N×43°.41E, h87km±3km, ML3.5, MW3.2*
*ISK 02 03:47:44.3, 38°.94N×43°.54E, h5km, MD2.8, ML2.8*
*CSEM 02 03:47:45.5±0.2, 38°.93N×43°.54E, h5km, ML2.8, Error ellipse: s-maj=4.7km s-min=3.5km az=98.0*
*DDA 02 03:47:45.2, 38°.90N×43°.54E, h12km, Ml2.8*
*ISCJB 02 03:47:46.1±0.4, 38°.95N±0°.02×43°.53E±0°.03, h6km±4km, Error ellipse: s-maj=4.6km s-min=3.3km az=12.0*
**ISC 02 03:47:45.6±0.8, 38°.94N±0°.02×43°.54E±0°.02, h8km±5km, n52, σ1s.13/78, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.06 | 23 | iP | Pg | 03 47 47.2 | -0.5 |
| VMUR | | | | iS | Sg | 03 47 50.5 | +1.4 |
| VMUR | Van-Muradiye | 0.06 | 23 | P | Pg | 03 47 47.2 | -0.5 |
| VMUR | | | | S | Sg | 03 47 50.5 | +1.4 |
| ERCV | ERCIS-VAN | 0.18 | 297 | ePG | Pg | 03 47 48.9 | -0.5 |
| ERCV | ERCIS-VAN | 0.18 | 297 | ePg | Pg | 03 47 48.9 | -0.5 |
| CLDR | Caldiran | 0.36 | 55 | ePG | Pg | 03 47 52.5 | -0.3 |
| CLDR | | | | eSG | Sb | 03 47 58.9 | -1.4 |
| CLDR | Caldiran | 0.36 | 55 | iP | Pg | 03 47 52.5 | -0.3 |
| CLDR | | | | iS | Sb | 03 47 59.3 | -0.9 |
| CLDR | Caldiran | 0.36 | 55 | P | Pg | 03 47 52.5 | -0.3 |
| CLDR | | | | eSg | Sb | 03 47 58.9 | -1.4 |
| CLDR | | | | S | Sb | 03 47 59.3 | -0.9 |
| VANB | Van | 0.36 | 199 | ePG | Pb | 03 47 53.8 | -0.6 |
| VANB | | | | eSG | Sb | 03 48 01.4 | +1.1 |
| VANB | Van | 0.36 | 199 | ePg | Pb | 03 47 53.8 | -0.6 |
| VANB | | | | eSg | Sb | 03 48 01.4 | +1.1 |
| TVAN | Van | 0.42 | 195 | iP | Pg | 03 47 53.4 | -0.5 |
| TVAN | | | | iS | Sb | 03 48 01.7 | -0.4 |
| TVAN | Van | 0.42 | 195 | P | Pg | 03 47 53.4 | -0.5 |
| DYDN | Diyadin | 0.62 | 11 | eP | Pg | 03 47 57.1 | -0.5 |
| DYDN | | | | eS | Sb | 03 48 07.8 | 0.0 |
| DYDN | | | | IAML | | 03 48 09.9 | |
| | comp=Z,50nm,0.3s | | | | | | |
| DYDN | Diyadin | 0.62 | 11 | iP | Pg | 03 47 57.6 | +0.1 |
| DYDN | | | | iS | Sb | 03 48 07.9 | +0.2 |
| DYDN | Diyadin | 0.62 | 11 | P | Pg | 03 47 57.7 | +0.1 |
| DYDN | | | | S | Sb | 03 48 07.9 | +0.2 |
| ADCV | BITLIS_Adilcev | 0.65 | 259 | iP | Pg | 03 47 57.8 | -0.5 |
| ADCV | | | | iS | Sb | 03 48 08.2 | -0.5 |
| ADCV | BITLIS_Adilcev | 0.65 | 259 | P | Pg | 03 47 57.8 | -0.5 |
| ADCV | | | | S | Sb | 03 48 08.2 | -0.5 |
| GEVA | Gevas | 0.73 | 211 | iP | Pg | 03 47 58.2 | -1.5 |
| GEVA | | | | iS | Sb | 03 48 11.0 | 0.0 |
| GEVA | Gevas | 0.73 | 211 | P | Pg | 03 47 58.2 | -1.5 |
| GEVA | | | | S | Sb | 03 48 11.0 | 0.0 |
| TUTA | Tutak | 0.73 | 310 | iP | Pg | 03 47 58.8 | -0.9 |
| TUTA | | | | eS | Sb | 03 48 11.0 | 0.0 |
| TUTA | | | | IAML | | 03 48 12.3 | |
| | comp=Z,127nm,0.2s | | | | | | |
| TUTA | Tutak | 0.73 | 310 | iP | Pg | 03 47 58.9 | -0.9 |
| TUTA | | | | iS | Sb | 03 48 11.1 | 0.0 |
| TUTA | Tutak | 0.73 | 310 | P | Pg | 03 47 58.9 | -0.9 |
| TUTA | | | | S | Sb | 03 48 11.1 | 0.0 |
| AGRB | Hanur-Agry | 0.77 | 326 | ePG | Pg | 03 47 59.8 | -0.7 |
| AGRB | | | | eSG | Sb | 03 48 12.0 | -0.1 |
| AGRB | Hanur-Agry | 0.77 | 326 | ePg | Pg | 03 47 59.8 | -0.7 |
| AGRB | | | | eSg | Sb | 03 48 12.0 | -0.1 |
| BASK | Baskale_VAN | 0.95 | 158 | eP | Pn | 03 48 11.7 | +6.1 |
| BASK | | | | IAML | | 03 48 25.9 | |
| | comp=Z,26nm,0.6s | | | | | | |
| BASK | Baskale_VAN | 0.95 | 158 | iP | Pg | 03 48 03.2 | -0.8 |
| BASK | | | | iS | Sn | 03 48 19.3 | -0.1 |
| BASK | Baskale_VAN | 0.95 | 158 | P | Pg | 03 48 03.2 | -0.8 |
| TASB | TASBURUN-IGDIR | 1.18 | 27 | ePN | Pg | 03 48 08.2 | 0.0 |
| TASB | TASBURUN-IGDIR | 1.18 | 27 | ePn | Pg | 03 48 08.2 | 0.0 |
| EKAR | Karacoban | 1.19 | 286 | iP | Pg | 03 48 08.3 | -0.3 |
| EKAR | | | | iS | Sn | 03 48 30.3 | +4.9 |
| EKAR | Karacoban | 1.19 | 286 | P | Pg | 03 48 08.3 | -0.3 |
| EATA | Eleskirt | 1.23 | 319 | iP | Pn | 03 48 08.2 | -1.3 |
| EATA | | | | iS | Sn | 03 48 28.3 | +1.9 |
| EATA | Eleskirt | 1.23 | 319 | P | Pn | 03 48 08.2 | -1.3 |
| HAKT | HAKKARI | 1.38 | 175 | iP | Pn | 03 48 10.5 | -1.0 |
| HAKT | | | | iS | Sg | 03 48 34.4 | +4.2 |
| HAKT | HAKKARI | 1.38 | 175 | P | Pn | 03 48 10.5 | -1.0 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| DIGO | Kars | 1.48 | 355 | *i* P | Pg | 03 48 14.3 | +0.2 |
| DIGO | Kars | 1.48 | 355 | P | Pg | 03 48 14.3 | +0.2 |
| SRTM | Siirt_Merkez | 1.58 | 234 | *i* P | Pb | 03 48 14.7 | -0.5 |
| SRTM | | | | *i* S | Sg | 03 48 36.9 | +0.3 |
| SRTM | Siirt_Merkez | 1.58 | 234 | P | Pb | 03 48 14.7 | -0.5 |
| SRTM | | | | S | Sg | 03 48 36.9 | +0.3 |
| VRTB | Varto-Mus | 1.64 | 278 | *e*PN | Pb | 03 48 15.3 | -0.9 |
| VRTB | Varto-Mus | 1.64 | 278 | *i* P | Pb | 03 48 15.7 | -0.5 |
| VRTB | Varto-Mus | 1.64 | 278 | *e*Pn | Pb | 03 48 15.3 | -0.9 |
| VRTB | Varto-Mus | 1.64 | 278 | P | Pb | 03 48 15.7 | -0.5 |
| HOMI | Horasan | 1.68 | 312 | *i* P | Pg | 03 48 17.4 | -0.5 |
| CUKT | Cukurca | 1.69 | 178 | *e*PN | Pb | 03 48 16.7 | -0.3 |
| CUKT | Cukurca | 1.69 | 178 | *e*Pn | Pb | 03 48 16.7 | -0.3 |
| KARS | Kars | 1.73 | 348 | *e*PN | Pb | 03 48 16.5 | -1.2 |
| KARS | Kars | 1.73 | 348 | *e*Pn | Pb | 03 48 16.5 | -1.2 |
| EAK | Akyaka | 1.75 | 2 | *i* P | Pg | 03 48 20.9 | +1.8 |
| SENK | Senkaya-Erzuru | 1.86 | 331 | *e*PN | Pb | 03 48 18.4 | -1.7 |
| SENK | Senkaya-Erzuru | 1.86 | 331 | *e*Pn | Pb | 03 48 18.4 | -1.7 |
| SVAN | Silvan-Diyarba | 2.00 | 248 | *e*PN | Pb | 03 48 21.1 | -1.2 |
| SVAN | Silvan-Diyarba | 2.00 | 248 | *e*Pn | Pb | 03 48 21.1 | -1.2 |

*NIED **02** 04:02:00, 39°.30N×142°.30E, h44km, Mw3.9 Best double couple: M0 7.58000×10^14 NP1:φs194.00000°, δ19.00000°, λ73.00000°. NP2:φs32.00000°, δ72.00000°, λ96.00000°.*
*ISCJB **02** 04:02:36.5±0.9, 39°.28N±0°.04×142°.2E±0°.1, h49km±7km, mb3.5/4, Error ellipse: s-maj=13.6km s-min=6.5km az=18.3*
*JMA **02** 04:02:36.6, 39°.28N×142°.24E, h43km±1km, M3.8*
*JMA Felt II J1.*
*IDC **02** 04:02:40.3±2.8, 39°.22N×142°.15E, h78km±25km, mb3.2/4, mb1 3.4/7, mb1mx3.2/41, mbtmp3.5/7, MS2.7/2, Ms1 2.7/2, ms1mx2.4/15, Error ellipse: s-maj=31.4km s-min=21.2km az=105.0*
**ISC 02 04:02:36.5**±1.4, **39°.29N**±0°.06×**142°.3E**±0°.1, **h38**km±4km, **n25**, σ**1§58**/25, **mb3.6**/4, **Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MIYJ | Miyakonagasawa | 0.47 | 308 | P | Pn | 04 02 46.6 | -0.1 |
| MIYJ | | | | S | Sn | 04 02 53.7 | -0.2 |
| OFUJ | Ofunato | 0.54 | 247 | P | Pn | 04 02 47.2 | -0.4 |
| OFUJ | | | | S | Sn | 04 02 54.6 | -0.9 |
| JTH | Tanohata | 0.73 | 333 | P | Pn | 04 02 50.2 | -0.1 |
| JTH | | | | *e*S | Sn | 04 03 00.0 | -0.2 |
| JOM | Ohasama | 0.80 | 283 | P | Pn | 04 02 51.1 | -0.2 |
| JOM | | | | S | Sn | 04 03 01.6 | -0.4 |
| JMK | Ichinoseki | 0.91 | 249 | P | Pn | 04 02 52.3 | -0.4 |
| JMK | | | | *e*S | Sn | 04 03 03.2 | -1.3 |
| JKZ | Kuzumaki | 1.02 | 313 | P | Pn | 04 02 54.5 | +0.2 |
| JIO | Ouri | 1.12 | 222 | P | Pn | 04 02 55.0 | -0.5 |
| JIO | | | | S | Sn | 04 03 08.1 | -1.6 |
| JANG | Nango | 1.24 | 331 | P | Pn | 04 02 57.3 | 0.0 |
| JRG | Rokugo | 1.30 | 275 | P | Pn | 04 02 58.2 | +0.2 |
| JRG | | | | *e*S | Sn | 04 03 12.6 | -1.5 |
| JYK | Kaneyama | 1.56 | 257 | P | Pn | 04 03 01.8 | +0.2 |
| MAT | Matsushiro | 4.24 | 231 | P | Pn | 04 03 41.7 | +3.2 |
| MAT | | | | *e*S | Sn | 04 04 31.0 | +4.2 |
| MJAR | Matsushiro Arr | 4.24 | 231 | P | Pn | 04 03 40.6 | +2.0 |
| | 1.8nm,0.3s,baz=38,slow=12,SNR=20 | | | | | | |
| ASAJ | Asahikawa | 4.83 | 3 | P | Pn | 04 03 51.3 | +4.8 |
| | 1.2nm,0.3s,baz=219,slow=14,SNR=2.5 | | | | | | |
| USRK | Ussuriysk Ar. | 9.13 | 306 | P | Pn | 04 04 48.8 | +3.2 |
| | 0.3nm,0.3s,baz=94,slow=16,SNR=2.9 | | | | | | |
| USRK | | | | LR | LR | 04 07 30.9 | |
| | comp=Z,50nm,20.5s,baz=142,slow=32 | | | | | | |
| KSRS | Korea Array | 11.44 | 265 | LR | LR | 04 09 07.7 | |
| | comp=Z,33nm,18.5s,baz=55,slow=34 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 28.79 | 126 | T | T | 04 39 02.2 | |
| | baz=318,slow=76,SNR=460 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 28.80 | 126 | T | T | 04 38 58.6 | |
| | baz=318,slow=76,SNR=404 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 28.81 | 126 | T | T | 04 38 56.1 | |
| | baz=318,slow=76,SNR=531 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 29.58 | 127 | T | T | 04 40 00.3 | |
| | baz=319,slow=76,SNR=66 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 29.59 | 127 | T | T | 04 40 00.4 | |
| | baz=319,slow=76,SNR=71 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 29.60 | 127 | T | T | 04 40 01.6 | |
| | baz=319,slow=76,SNR=57 | | | | | | |
| ZALV | Zalesovo Beam | 40.95 | 310 | P | P | 04 10 14.5 | -0.5 |
| | 0.7nm,0.5s,baz=98,slow=7.1,SNR=4.5 | | | | | | |
| MKAR | Makanchi Array | 43.55 | 300 | P | P | 04 10 35.5 | -0.8 |
| | 0.9nm,0.9s,baz=77,slow=6.5,SNR=3.2 | | | | | | |
| ILAR | Eielson Array | 47.22 | 33 | P | P | 04 11 06.0 | +0.9 |
| | 0.3nm,0.7s,baz=266,slow=5.5,SNR=6.0 | | | | | | |
| WRA | Warramunga Arr | 59.39 | 189 | P | P | 04 12 33.9 | -1.0 |
| | 0.2nm,0.4s,baz=7.0,slow=6.9,SNR=5.9 | | | | | | |

*ISK **02** 04:18:34.8, 38°.64N×43°.58E, h27km, ML2.2*
*CSEM **02** 04:18:35.7±0.2, 38°.71N×43°.52E, h15km, ML2.8, Error ellipse: s-maj=5.2km s-min=4.0km az=97.0*
*ISCJB **02** 04:18:36.7±0.5, 38°.74N±0°.02×43°.50E±0°.04, h10km±5km, Error ellipse: s-maj=5.5km s-min=3.7km az=179.3*
*DDA **02** 04:18:36.2, 38°.74N×43°.50E, h7km, Ml2.8*
**ISC 02 04:18:36.1**±1.0, **38°.73N**±0°.02×**43°.53E**±0°.03, **h14**km±8km, **n26**, σ**0§94**/45, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.17 | 218 | *e*PG | Pb | 04 18 40.9 | -0.3 |
| VANB | Van | 0.17 | 218 | *e*Pg | Pb | 04 18 40.9 | -0.3 |
| TVAN | Van | 0.22 | 205 | *i* P | Pg | 04 18 41.1 | -0.1 |
| TVAN | | | | *i* S | Sb | 04 18 46.2 | +0.1 |
| TVAN | Van | 0.22 | 205 | P | Pg | 04 18 41.1 | -0.1 |
| TVAN | | | | S | Sb | 04 18 46.2 | +0.1 |
| VMUR | Van-Muradiye | 0.26 | 8 | *i* P | Pg | 04 18 41.3 | -0.5 |
| VMUR | | | | *i* S | Sb | 04 18 46.9 | -0.2 |
| VMUR | Van-Muradiye | 0.26 | 8 | P | Pg | 04 18 41.3 | -0.5 |
| VMUR | | | | S | Sb | 04 18 46.9 | -0.2 |
| CLDR | Caldiran | 0.51 | 36 | *e*PG | Pb | 04 18 46.9 | -0.2 |
| CLDR | | | | *e*SG | Sb | 04 18 55.7 | +1.2 |
| CLDR | Caldiran | 0.51 | 36 | *i* P | Pg | 04 18 46.0 | -0.3 |
| CLDR | | | | *i* S | Sb | 04 18 55.5 | +1.1 |
| CLDR | Caldiran | 0.51 | 36 | P | Pg | 04 18 46.0 | -0.3 |
| CLDR | Caldiran | 0.51 | 36 | *e*Pg | Pb | 04 18 46.9 | -0.2 |
| CLDR | | | | S | Sb | 04 18 55.5 | +1.1 |
| GEVA | Gevas | 0.56 | 221 | *i* P | Pg | 04 18 46.2 | -0.9 |
| GEVA | | | | *i* S | Sb | 04 18 56.8 | +1.1 |
| GEVA | Gevas | 0.56 | 221 | P | Pg | 04 18 46.2 | -0.9 |
| ADCV | BITLIS_Adilcev | 0.63 | 277 | *i* P | Pg | 04 18 48.3 | -0.2 |
| ADCV | | | | *i* S | Sg | 04 18 56.8 | -0.2 |
| ADCV | BITLIS_Adilcev | 0.63 | 277 | P | Pg | 04 18 48.3 | -0.2 |
| ADCV | | | | S | Sg | 04 18 56.8 | -0.2 |
| BASK | Baskale_VAN | 0.78 | 151 | *i* P | Pg | 04 18 50.4 | -0.8 |
| BASK | | | | *i* S | Sn | 04 19 03.2 | -1.2 |
| BASK | Baskale_VAN | 0.78 | 151 | P | Pg | 04 18 50.4 | -0.8 |
| TUTA | Tutak | 0.87 | 321 | *i* P | Pg | 04 18 51.7 | -1.3 |
| TUTA | | | | *i* S | Sb | 04 19 05.0 | +0.3 |
| TUTA | Tutak | 0.87 | 321 | P | Pg | 04 18 51.7 | -1.3 |
| TUTA | | | | S | Sb | 04 19 05.0 | +0.3 |
| AGRB | Hanur-Agry | 0.94 | 334 | *e*PG | Pb | 04 18 54.0 | -0.3 |
| AGRB | | | | *e*SG | Sn | 04 19 08.0 | -0.4 |
| AGRB | Hanur-Agry | 0.94 | 334 | *e*Pg | Pb | 04 18 54.0 | -0.3 |
| AGRB | | | | *e*Sg | Sn | 04 19 08.0 | -0.4 |
| HAKT | HAKKARI | 1.18 | 173 | *i* P | Pb | 04 18 57.7 | -0.8 |
| HAKT | | | | *i* S | Sn | 04 19 17.4 | +3.0 |
| HAKT | HAKKARI | 1.18 | 173 | P | Pb | 04 18 57.7 | -0.8 |
| EKAR | Karacoban | 1.25 | 295 | *i* P | Pb | 04 18 59.6 | -0.1 |
| EKAR | | | | *i* S | Sg | 04 19 20.0 | +3.3 |
| EKAR | Karacoban | 1.25 | 295 | P | Pb | 04 18 59.6 | -0.1 |
| EATA | Eleskirt | 1.39 | 325 | *i* P | Pb | 04 19 02.2 | +0.2 |
| EATA | | | | *i* S | Sg | 04 19 20.5 | -0.4 |
| EATA | Eleskirt | 1.39 | 325 | P | Pb | 04 19 02.2 | +0.2 |
| EATA | | | | S | Sg | 04 19 20.5 | -0.4 |

**IDC 02 04:27:41.5**±48.0, **16°.84S**×**177°.96W**, **h0**km, **mb4.1**/3, **mb1 4.3**/3, **mb1mx3.8**/30, **mbtmp4.1**/3, **Error ellipse: s-maj=880.0km s-min=164.3km az=78.0**, **Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PAE | Paea | 27.10 | 96 | *e*T | T | 04 52 56.7 | |
| | 8.0nm,0.2s | | | | | | |
| PPT2 | Papeete2 | 27.11 | 96 | *e*LR | LR | 04 34 33.4 | |
| | 52nm,24.5s | | | | | | |
| PPT2 | Papeete2 | 27.11 | 96 | *e*T | T | 04 52 54.6 | |
| | 6.7nm,0.3s | | | | | | |
| TVO | Taravao | 27.41 | 96 | *e*T | T | 04 53 10.3 | |
| | 1.8nm,0.2s | | | | | | |
| TBI | Tubuai | 27.50 | 108 | *e*LR | LR | 04 35 05.9 | |
| | 95nm,28.5s | | | | | | |
| TBI | Tubuai | 27.50 | 108 | *e*T | T | 04 54 13.0 | |
| | 26nm,0.2s | | | | | | |
| TAOE | Nuku Hiva Isla | 37.65 | 83 | *e*LR | LR | 04 39 26.2 | |
| | 204nm,28.6s | | | | | | |
| STKA | Stephens Creek | 39.53 | 240 | P | P | 04 35 14.7 | +0.4 |
| | 1.8nm,0.7s,baz=50,slow=7.9,SNR=3.5 | | | | | | |
| RKT | Rikitea | 40.77 | 106 | *e*T | T | 05 10 31.4 | |
| | 4.5nm,0.2s | | | | | | |
| WRA | Warramunga Arr | 45.26 | 258 | P | P | 04 36 00.9 | -0.2 |
| | 2.2nm,1.0s,baz=95,slow=7.3,SNR=7.9 | | | | | | |
| ASAR | Alice Springs | 45.50 | 253 | P | P | 04 36 02.7 | -0.4 |
| | 3.8nm,0.7s,baz=87,slow=8.7,SNR=38 | | | | | | |

*ISCJB **02** 04:33:50.8±0.7, 21°.81S±0°.05×68°.5W±0°.1, h123km±10km, mb3.7/2, Error ellipse: s-maj=21.5km s-min=8.7km az=5.4*
*IDC **02** 04:33:51.5±0.8, 21°.90S×68°.07W, h98km±16km, mb3.6/2, mb1 3.5/5, mb1mx3.3/26, mbtmp3.8/5, Error ellipse: s-maj=47.1km s-min=15.7km az=123.0*
*GUC **02** 04:33:52.6±0.6, 21°.78S×68°.84W, h127km±4km, ML3.7*
**ISC 02 04:33:50.9**±0.9, **21°.81S**±0°.06×**68°.40W**±0°.10, **h113**km±11km, **n11**, σ**2§02**/18, **Chile-Bolivia border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PB09 | IPOC Station P | 0.79 | 271 | *i* P | Pn | 04 34 11.2 | +0.7 |
| PB09 | | | | *i* S | Sn | 04 34 25.6 | +0.4 |
| PB09 | | | | IAML | | 04 34 26.8 | |
| | comp=N,4µm,0.2s | | | | | | |
| LVC | Limon Verde | 0.93 | 211 | P | Pn | 04 34 13.1 | +1.1 |
| | comp=N,4µm,0.3s,baz=33,slow=9.6,SNR=1570 | | | | | | |
| LVC | | | | S | Sn | 04 34 28.9 | +1.0 |
| | comp=N,8µm,0.3s,baz=268,slow=21,SNR=68 | | | | | | |
| PB01 | IPOC Station P | 1.27 | 307 | *i* P | Pn | 04 34 15.4 | +0.1 |
| PB01 | | | | *i* S | Sn | 04 34 32.7 | -1.2 |
| PB01 | | | | IAML | | 04 34 34.3 | |
| | comp=E,2µm,0.2s | | | | | | |
| PB06 | IPOC Station P | 1.41 | 231 | *i* P | Pn | 04 34 17.4 | +0.4 |
| PB06 | | | | *i* S | Sn | 04 34 36.1 | -0.6 |
| PB06 | | | | IAML | | 04 34 36.7 | |
| | comp=E,2µm,0.5s | | | | | | |
| PB04 | IPOC Station P | 1.71 | 252 | *i* P | Pn | 04 34 19.9 | -0.6 |
| PB04 | | | | *i* S | Sn | 04 34 39.7 | -3.4 |
| PB04 | | | | IAML | | 04 34 42.7 | |
| | comp=N,1µm,0.2s | | | | | | |
| PB08 | IPOC Station P | 1.81 | 337 | *i* P | Pn | 04 34 23.6 | +1.7 |
| PB08 | | | | *i* S | Sn | 04 34 47.0 | +1.4 |
| PB08 | | | | IAML | | 04 34 47.8 | |
| | comp=E,686nm,0.3s | | | | | | |
| LPAZ | La Paz | 5.50 | 3 | P | Pn | 04 35 14.5 | +3.4 |
| | comp=E,1.2nm,0.3s,baz=200,slow=5.4,SNR=43 | | | | | | |
| SIV | San Ignacio | 9.03 | 51 | P | Pn | 04 35 57.7 | -0.7 |
| | comp=E,0.6nm,0.3s,baz=250,slow=11,SNR=7.0 | | | | | | |
| SIV | | | | S | Sn | 04 37 33.7 | -4.6 |
| | comp=E,0.2nm,0.3s,baz=342,slow=6.4,SNR=3.7 | | | | | | |
| PLCA | Paso Flores | 18.95 | 185 | P | Pn | 04 38 06.3 | +1.2 |
| | comp=E,0.1nm,0.3s,baz=23,slow=8.4,SNR=4.3 | | | | | | |
| DBIC | Dimbokro | 68.36 | 73 | P | P | 04 44 40.4 | -0.3 |
| | comp=E,1.6nm,0.6s,baz=216,slow=7.3,SNR=3.9 | | | | | | |
| TORD | Torodi Ar. Bea | 77.01 | 70 | P | P | 04 45 32.6 | +0.7 |
| | comp=E,0.4nm,0.5s,baz=254,slow=5.4,SNR=12 | | | | | | |

*ISK **02** 04:36:22.6, 38°.99N×43°.56E, h5km, ML2.8*
*ATA **02** 04:36:22.3±0.4, 38°.93N×43°.56E, h7km±17km, MD3.7, ML3.2, MW3.6*
*IASPEI **02** 04:36:23.9±0.9, 38°.99N±0°.02×43°.55E±0°.03, h2km±6km, Error ellipse: s-maj=3.8km s-min=2.9km az=102.9, GT5 selection from ISC bulletin GT5 identified by Bondˆ¡r and McLaughlin (2009) selection criteria Bondˆ¡r and McLaughlin, A new ground truth data set for seismic studies, <i>Seism. Res. Let.</i>, <b>80</b>, 465-472, 2009*
*CSEM **02** 04:36:23.8±0.2, 38°.98N×43°.57E, h2km, ML2.8, Error ellipse: s-maj=5.3km s-min=4.2km az=97.0*
*DDA **02** 04:36:48.8, 38°.97N×43°.60E, h2km, Ml3.2*
**ISC 02 04:36:23.5**±0.8, **38°.98N**±0°.02×**43°.57E**±0°.02, **h3**km±4km, **n51**, σ**1§57**/83, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.01 | 346 | *i* P | Pg | 04 36 24.2 | -0.1 |
| VMUR | | | | *i* S | Sg | 04 36 25.9 | +1.0 |
| VMUR | Van-Muradiye | 0.01 | 346 | P | Pg | 04 36 24.2 | -0.1 |
| VMUR | | | | S | Sg | 04 36 25.9 | +1.0 |
| ERCV | ERCIS-VAN | 0.19 | 282 | *e*PG | Pg | 04 36 26.7 | -0.5 |
| ERCV | ERCIS-VAN | 0.19 | 282 | *e*Pg | Pg | 04 36 26.7 | -0.5 |
| CLDR | Caldiran | 0.31 | 59 | *e*PG | Pg | 04 36 29.8 | +0.3 |
| CLDR | | | | *e*SG | Sb | 04 36 35.5 | -2.0 |
| CLDR | Caldiran | 0.31 | 59 | *i* P | Pg | 04 36 29.6 | +0.1 |
| CLDR | | | | *i* S | Sb | 04 36 36.0 | -1.4 |
| CLDR | Caldiran | 0.31 | 59 | *e*Pg | Pg | 04 36 29.8 | +0.3 |
| CLDR | | | | *e*Sg | Sb | 04 36 35.5 | -2.0 |
| CLDR | | | | S | Sb | 04 36 36.0 | -1.4 |
| VANB | Van | 0.41 | 201 | *e*PG | Pb | 04 36 33.0 | -0.4 |
| VANB | Van | 0.41 | 201 | *e*Pg | Pb | 04 36 33.1 | -0.4 |
| TVAN | Van | 0.47 | 196 | *i* P | Pb | 04 36 32.9 | -1.7 |
| TVAN | | | | *i* S | Sb | 04 36 42.9 | +0.9 |
| TVAN | Van | 0.47 | 196 | P | Pb | 04 36 32.8 | -1.7 |
| TVAN | | | | S | Sb | 04 36 42.9 | +0.9 |
| DYDN | Diyadin | 0.57 | 9 | *e*P | Pb | 04 36 35.1 | -1.2 |
| DYDN | | | | *e*S | Sb | 04 36 44.6 | -0.3 |
| DYDN | | | | IAML | | 04 36 47.6 | |
| | comp=Z,93nm,0.3s | | | | | | |
| DYDN | Diyadin | 0.57 | 9 | *i* P | Pb | 04 36 35.0 | -1.2 |
| DYDN | | | | *i* S | Sb | 04 36 44.2 | -0.6 |
| DYDN | Diyadin | 0.57 | 9 | P | Pb | 04 36 35.0 | -1.2 |
| DYDN | | | | S | Sb | 04 36 44.2 | -0.6 |
| ADCV | BITLIS_Adilcev | 0.69 | 256 | *i* P | Pb | 04 36 36.7 | -1.5 |
| ADCV | | | | *i* S | Sb | 04 36 48.2 | +0.1 |
| ADCV | BITLIS_Adilcev | 0.69 | 256 | P | Pb | 04 36 36.7 | -1.5 |
| ADCV | | | | S | Sb | 04 36 48.2 | +0.1 |
| TUTA | Tutak | 0.72 | 306 | *e*P | Pb | 04 36 37.2 | -1.7 |
| TUTA | | | | *e*S | Sb | 04 36 49.0 | -0.4 |
| TUTA | | | | IAML | | 04 36 53.0 | |
| | comp=Z,153nm,0.5s | | | | | | |
| TUTA | Tutak | 0.72 | 306 | *i* P | Pb | 04 36 37.2 | -1.7 |
| TUTA | | | | *i* S | Sb | 04 36 49.3 | -0.1 |
| TUTA | Tutak | 0.72 | 306 | P | Pb | 04 36 37.2 | -1.7 |
| TUTA | | | | S | Sb | 04 36 49.3 | -0.1 |
| AGRB | Hanur-Agry | 0.74 | 323 | *e*PG | Pb | 04 36 37.9 | -1.3 |
| AGRB | | | | *e*SG | Sb | 04 36 49.3 | -0.6 |
| AGRB | Hanur-Agry | 0.74 | 323 | *e*Pg | Pb | 04 36 37.9 | -1.3 |
| AGRB | | | | *e*Sg | Sb | 04 36 49.3 | -0.6 |
| GEVA | Gevas | 0.78 | 211 | *i* P | Pb | 04 36 38.3 | -1.5 |
| GEVA | | | | *i* S | Sn | 04 36 51.2 | -2.7 |
| GEVA | Gevas | 0.78 | 211 | P | Pb | 04 36 38.3 | -1.5 |
| GEVA | | | | S | Sn | 04 36 51.2 | -2.7 |
| BASK | Baskale_VAN | 0.99 | 160 | *e*P | Pg | 04 36 40.8 | -1.6 |
| BASK | | | | IAML | | 04 37 01.8 | |
| | comp=Z,30nm,0.4s | | | | | | |
| BASK | Baskale_VAN | 0.99 | 160 | *i* P | Pb | 04 36 42.7 | -0.6 |
| BASK | | | | *i* S | Sn | 04 36 60.0 | +0.9 |
| BASK | Baskale_VAN | 0.99 | 160 | P | Pb | 04 36 42.7 | -0.6 |
| BASK | | | | S | Sn | 04 37 00.0 | +0.9 |
| TASB | TASBURUN-IGDIR | 1.12 | 27 | *e*PN | Pn | 04 36 45.9 | -0.3 |
| TASB | TASBURUN-IGDIR | 1.12 | 27 | *e*Pn | Pn | 04 36 45.9 | -0.3 |
| EKAR | Karacoban | 1.21 | 284 | *i* P | Pn | 04 36 48.1 | +0.6 |
| EKAR | | | | *i* S | Sn | 04 37 08.4 | +4.0 |
| EKAR | Karacoban | 1.21 | 284 | P | Pn | 04 36 48.1 | +0.6 |
| EATA | Eleskirt | 1.22 | 317 | *e*P | Pn | 04 36 46.6 | -1.1 |
| EATA | | | | IAML | | 04 37 13.8 | |
| | comp=Z,8.9nm,0.6s | | | | | | |
| EATA | Eleskirt | 1.22 | 317 | *i* P | Pn | 04 36 46.3 | -1.4 |
| EATA | | | | *i* S | Sn | 04 37 07.2 | +2.4 |
| EATA | Eleskirt | 1.22 | 317 | P | Pn | 04 36 46.3 | -1.4 |
| EATA | | | | S | Sn | 04 37 07.2 | +2.4 |
| HAKT | HAKKARI | 1.43 | 176 | *i* P | Pg | 04 36 50.0 | -0.8 |
| HAKT | | | | *i* S | Sn | 04 37 14.9 | +5.0 |
| HAKT | HAKKARI | 1.43 | 176 | P | Pg | 04 36 50.0 | -0.8 |
| DIGO | Kars | 1.44 | 354 | *i* P | Pg | 04 36 52.1 | +1.1 |
| DIGO | | | | *i* S | Sn | 04 37 17.9 | +7.6 |
| DIGO | Kars | 1.44 | 354 | P | Pg | 04 36 52.1 | +1.1 |
| CUKT | Cukurca | 1.73 | 179 | *e*PN | Pg | 04 36 56.0 | -0.6 |
| CUKT | Cukurca | 1.73 | 179 | *i* P | Pg | 04 36 56.0 | -0.6 |
| CUKT | | | | *i* S | Sg | 04 37 22.4 | +3.3 |
| CUKT | Cukurca | 1.73 | 179 | P | Pg | 04 36 56.0 | -0.6 |
| CUKT | | | | S | Sg | 04 37 22.4 | +3.3 |
| SENK | Senkaya-Erzuru | 1.84 | 330 | *e*PN | Pb | 04 36 56.2 | -1.7 |
| SENK | Senkaya-Erzuru | 1.84 | 330 | *e*Pn | Pb | 04 36 56.2 | -1.7 |
| BNGL | BINGOL | 1.89 | 270 | *i* P | Pg | 04 36 59.4 | -0.3 |
| BNGL | | | | *i* S | Sg | 04 37 27.3 | +3.2 |
| ERZM | Erzurum | 1.94 | 299 | *i* P | Pg | 04 36 59.9 | -0.8 |
| ERZM | | | | *i* S | Sg | 04 37 28.1 | +2.3 |
| ERZM | Erzurum | 1.94 | 299 | P | Pg | 04 36 59.9 | -0.8 |
| SVAN | Silvan-Diyarba | 2.04 | 247 | *e*PN | Pb | 04 36 58.9 | -2.3 |
| SVAN | Silvan-Diyarba | 2.04 | 247 | *e*Pn | Pb | 04 36 58.9 | -2.3 |
| BTMN | Batman | 2.11 | 240 | *i* P | Pb | 04 37 01.9 | -0.6 |
| BTMN | | | | *i* S | Sg | 04 37 31.8 | +0.5 |
| BTMN | Batman | 2.11 | 240 | P | Pb | 04 37 01.9 | -0.6 |
| BTMN | | | | S | Sg | 04 37 31.8 | +0.5 |
| BNGB | Bingˆ¶l | 2.26 | 271 | *e*PN | Pb | 04 37 02.7 | -2.3 |
| BINT | Bingol | 2.41 | 268 | *e*Pn | Pn | 04 37 02.7 | -1.2 |

*NIED **02** 04:39:00, 27°.40N×143°.30E, h5km, Mw4.2 Best double couple: M0 2.64000×10^15 NP1:φs120.00000°, δ47.00000°, λ-140.00000°. NP2:φs0.00000°, δ62.00000°, λ-51.00000°.*
*IDC **02** 04:39:18.3±0.7, 27°.18N×143°.38E, h0km, mb4.3/23, mb1 4.4/26, mb1mx4.3/57, mbtmp4.3/26, ML3.7/3, MS3.3/6, Ms1 3.3/6, ms1mx2.9/37, Error ellipse: s-maj=20.7km s-min=14.5km az=78.0*
*NEIC **02** 04:39:19.5±3.3, 27°.17N×143°.39E, h9km±20km, mb4.7/15, Error ellipse: s-maj=9.0km s-min=5.3km az=102.0*
*MOS **02** 04:39:20.9±0.8, 27°.14N×143°.42E, h32km, mb4.7/26, Error ellipse: s-maj=14.0km s-min=7.3km az=124.3*
*ISCJB **02** 04:39:21.2±0.4, 27°.28N±0°.04×143°.42E±0°.05, h33km, mb4.6/43, MS3.3/5, Error ellipse: s-maj=7.4km s-min=5.1km az=41.8*
*JMA **02** 04:39:22.1±0.2, 27°.39N×143°.32E, h28km, M4.2*
**ISC 02 04:39:23.5**±0.6, **27°.27N**±0°.06×**143°.34E**±0°.08, **h35**km, **n90**, σ**1§15**/93, **mb4.7**/43, **MS3.2**/5, **12C-1D**, **Bonin Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CBIJ | Chichi jima | 1.05 | 261 | P | Pn | 04 39 41.1 | -0.5 |
| CBIJ | | | | S | Sn | 04 39 55.2 | +0.2 |
| CBIJ | Chichi jima | 1.05 | 261 | *e*Pn | Pn | 04 39 41.1 | -0.5 |
| CBIJ | | | | *e*Sn | Sn | 04 39 55.4 | +0.3 |
| JHHJ | Haha-jima-NKT | 1.22 | 239 | P | Pn | 04 39 44.5 | +0.4 |
| JHHJ | | | | *e*S | Sn | 04 39 59.7 | +0.4 |
| BSO1 | Boso 1 | 7.63 | 345 | P | Pn | 04 41 09.0 | -2.6 |
| BSO3 | Boso 3 | 7.89 | 343 | P | Pn | 04 41 13.6 | -1.8 |
| BSO4 | Boso 4 | 8.11 | 342 | P | Pn | 04 41 18.1 | -0.5 |
| JOD2 | Odawara 2 | 8.76 | 336 | P | Pn | 04 41 26.4 | -1.2 |
| JHU | Hanno | 9.23 | 339 | P | Pn | 04 41 31.3 | -2.7 |
| JRY | Ryogami san | 9.50 | 338 | P | Pn | 04 41 36.9 | -0.9 |
| MJAR | Matsushiro Arr | 10.22 | 336 | Pn | Pn | 04 41 47.4 | -0.2 |
| | 2.6nm,0.3s,baz=161,slow=11,SNR=11 | | | | | | |
| MAJO | Matsushiro | 10.22 | 336 | *i* P | Pn | 04 41 46.8 | -0.8 |
| MAJO | Matsushiro | 10.22 | 336 | *e*Pn | Pn | 04 41 46.5 | -1.1 |
| | 9.2nm,0.6s | | | | | | |
| MAT | Matsushiro | 10.22 | 336 | P | Pn | 04 41 46.5 | -1.1 |
| MAT | | | | *e*S | Sn | 04 43 36.6 | -4.4 |
| JMK | Ichinoseki | 11.78 | 352 | P | Pn | 04 42 04.9 | -4.1 |
| TJN | Taejon | 16.32 | 308 | *ce*P | Pn | 04 43 11.5 | +1.6 |
| KSRS | Korea Array | 16.49 | 312 | Pn | Pn | 04 43 13.8 | +1.7 |
| | 0.5nm,0.3s,baz=119,slow=11,SNR=16 | | | | | | |
| KSRS | | | | LR | LR | 04 49 13.2 | |
| | comp=Z,96nm,19.1s,baz=118,slow=36 | | | | | | |
| KSAR | Wonju Array Be | 16.51 | 312 | P | Pn | 04 43 13.8 | +1.4 |
| KSAR | Wonju Array Be | 16.51 | 312 | Pn | Pn | 04 43 13.8 | +1.4 |
| YOJ | Yonaguni jima | 18.51 | 266 | *e*P | P | 04 43 36.5 | -0.3 |
| YOJ | | | | pmax | pmax | | |
| | comp=Z,73nm,1.0s | | | | | | |
| YOJ | Yonaguni jima | 18.51 | 266 | *e*P | P | 04 43 36.5 | -0.3 |
| | comp=Z,73nm,1.0s | | | | | | |
| USRK | Ussuriysk Ar. | 19.21 | 335 | P | P | 04 43 43.6 | -0.7 |
| | comp=Z,0.4nm,0.3s,baz=164,slow=11,SNR=12 | | | | | | |
| USRK | | | | LR | LR | 04 52 06.1 | |
| | comp=Z,112nm,19.1s,baz=116,slow=40 | | | | | | |
| NACB | Ninganchiao | 19.83 | 266 | *e*P | P | 04 43 50.4 | -0.9 |
| | comp=Z,24nm,1.0s | | | | | | |
| YULB | Yu-li | 20.29 | 264 | *e*P | P | 04 43 57.5 | +1.2 |
| | comp=Z,8.5nm,0.5s | | | | | | |
| SSLB | Suanglung | 20.50 | 265 | *e*P | P | 04 43 58.4 | -0.1 |
| | comp=Z,34nm,0.8s | | | | | | |
| MDJ | Mudanjiang | 20.53 | 331 | *e*P | P | 04 43 59.1 | +0.4 |
| | comp=Z,16nm,0.9s | | | | | | |
| HIA | Hailar | 28.52 | 327 | *e*P | P | 04 45 16.5 | +0.9 |
| HIA | | | | pmax | pmax | | |
| | comp=Z,40nm,1.2s | | | | | | |
| HIA | Hailar | 28.52 | 327 | *e*P | P | 04 45 16.5 | +0.9 |
| | comp=Z,40nm,1.2s | | | | | | |
| ULN | Ulaanbaatar | 34.91 | 316 | *ce*P | P | 04 46 12.2 | +0.3 |
| ULN | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.7s | | | | | | |
| ULN | Ulaanbaatar | 34.91 | 316 | *e*P | P | 04 46 12.5 | +0.7 |
| | comp=Z,2.2nm,0.6s | | | | | | |
| SONM | Songino Array | 35.30 | 316 | P | P | 04 46 15.9 | +0.7 |
| | comp=Z,1.9nm,0.6s,baz=121,slow=8.2,SNR=11 | | | | | | |
| SONM | | | | PcP | PcP | 04 48 45.1 | -0.1 |
| | comp=Z,0.5nm,0.8s,baz=105,slow=1.6,SNR=2.9 | | | | | | |
| SONM | | | | LR | LR | 04 59 42.6 | |
| | comp=Z,34nm,20.5s,baz=173,slow=35 | | | | | | |
| ZAK | Zakamensk | 38.16 | 318 | *e*P | P | 04 46 36.3 | -3.2 |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,17nm,1.2s | | | | | | |
| TLY | Talaya | 38.46 | 320 | P | P | 04 46 43.9 | +2.0 |
| | comp=Z,6.4nm,0.7s,baz=151,slow=2.9,SNR=6.5 | | | | | | |
| TLY | Talaya | 38.46 | 320 | *e*P | P | 04 46 44.1 | +2.2 |
| TLY | | | | pmax | pmax | | |
| | comp=Z,15nm,0.8s | | | | | | |
| TLY | | | | MLR | MLR | | |
| | comp=Z,95nm,16.0s | | | | | | |
| HNR | Honiara | 39.88 | 154 | LR | LR | 05 02 15.1 | |
| | comp=Z,31nm,18.3s,baz=164,slow=35 | | | | | | |
| CHTO | Chiang Mai | 41.54 | 268 | *e*P | P | 04 47 07.2 | -0.6 |
| CHTO | | | | pmax | pmax | | |
| | comp=Z,20nm,1.4s | | | | | | |
| CHTO | Chiang Mai | 41.54 | 268 | *e*P | P | 04 47 07.2 | -0.6 |
| | comp=Z,20nm,1.4s | | | | | | |
| CMAR | Chiang Mai Arr | 41.66 | 267 | P | P | 04 47 08.2 | -0.6 |
| | comp=Z,1.5nm,0.4s,baz=58,slow=8.4,SNR=17 | | | | | | |
| CMAR | | | | LR | LR | 05 03 32.3 | |
| | comp=Z,20nm,20.2s,baz=134,slow=35 | | | | | | |
| BILL | Bilibino | 43.06 | 12⇓ | *e*P | P | 04 47 19.0 | -0.5 |
| BILL | | | | *e* | | 04 47 24.7 | |
| BILL | | | | pmax | pmax | | |
| | comp=Z,18nm,2.6s | | | | | | |
| HVS | Khovu-Aksy | 44.18 | 316 | *i* P | P | 04 47 30.6 | +1.6 |
| HVS | | | | pmax | pmax | | |
| | comp=Z,61nm,1.0s | | | | | | |
| TIXI | Tiksi | 45.15 | 354 | P | P | 04 47 36.7 | +0.5 |
| | comp=Z,1.7nm,0.4s,baz=135,slow=5.7,SNR=6.1 | | | | | | |
| TIXI | Tiksi | 45.15 | 354 | *ce*P | P | 04 47 36.9 | +0.7 |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.8s | | | | | | |
| JAGI | Jajag, Banyuwa | 45.41 | 223 | *e*P | P | 04 47 36.6 | -2.4 |
| | comp=Z,16nm,1.0s | | | | | | |
| KULM | Kulim | 46.12 | 250 | *e*P | P | 04 47 44.4 | -0.3 |
| | comp=Z,13nm,0.9s | | | | | | |
| CTAO | Charters Tower | 47.17 | 176 | *e*P | P | 04 47 51.4 | -1.2 |
| CTAO | | | | pmax | pmax | | |
| | comp=Z,41nm,1.0s | | | | | | |
| CTAO | Charters Tower | 47.17 | 176 | *e*P | P | 04 47 51.4 | -1.2 |
| | comp=Z,41nm,1.0s | | | | | | |
| WRAB | Tennant Creek | 47.73 | 191 | *e*P | P | 04 47 56.3 | -0.8 |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,48nm,1.3s | | | | | | |
| WRAB | Tennant Creek | 47.73 | 191 | *e*P | P | 04 47 56.2 | -0.8 |
| | comp=Z,48nm,1.3s | | | | | | |
| WRA | Warramunga Arr | 47.74 | 191 | P | P | 04 47 56.7 | -0.4 |
| | comp=Z,12nm,0.6s,baz=13,slow=8.6,SNR=94 | | | | | | |
| DGZ | Jazzator, Alta | 47.89 | 314 | *i* P | P | 04 47 59.4 | +1.2 |
| DGZ | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.0s | | | | | | |
| ZALV | Zalesovo Beam | 50.03 | 319 | P | P | 04 48 15.3 | +0.9 |
| | comp=Z,3.1nm,0.7s,baz=96,slow=7.1,SNR=15 | | | | | | |
| ZALV | | | | PcP | PcP | 04 49 34.2 | +0.4 |
| | comp=Z,1.8nm,0.6s,baz=110,slow=4.0,SNR=4.5 | | | | | | |
| GSI | Gunungsitoli | 50.87 | 247 | *e*P | P | 04 48 20.8 | -0.5 |
| | comp=Z,75nm,1.2s | | | | | | |
| MKAR | Makanchi Array | 51.16 | 309 | P | P | 04 48 23.8 | +0.7 |
| | comp=Z,3.0nm,0.8s,baz=92,slow=9.4,SNR=14 | | | | | | |
| MKAR | | | | PcP | PcP | 04 49 39.2 | +0.9 |
| | comp=Z,1.1nm,0.9s,baz=64,slow=3.4,SNR=3.1 | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MKAR | | | | LR | LR | 05 10 54.3 | |
| | comp=Z,53nm,18.1s,baz=66,slow=37 | | | | | | |
| MKAR | Makanchi Array | 51.16 | 309 | ceP | P | 04 48 24.1 | +1.0 |
| MKAR | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.9s | | | | | | |
| ASAR | Alice Springs | 51.46 | 191 | P | P | 04 48 24.8 | -0.6 |
| | comp=Z,1.4nm,0.5s,baz=3.0,slow=5.2,SNR=23 | | | | | | |
| KURK | Kurchatov | 53.60 | 314 | ⇑eP | P | 04 48 41.1 | +0.1 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,50nm,0.8s | | | | | | |
| KURK | Kurchatov | 53.60 | 314 | eP | P | 04 48 41.5 | +0.5 |
| | comp=Z,165nm,1.1s | | | | | | |
| KURBB | Kurchatov Arra | 53.65 | 314 | P | P | 04 48 42.2 | +0.8 |
| | comp=Z,9.8nm,0.5s,baz=89,slow=7.9,SNR=84 | | | | | | |
| AAK | Ala-Archa | 57.00 | 305 | P | P | 04 49 06.6 | +0.7 |
| | comp=Z,1.2nm,0.5s,baz=243,slow=2.3,SNR=3.9 | | | | | | |
| AAK | Ala-Archa | 57.00 | 305 | eP | P | 04 49 06.2 | +0.3 |
| AAK | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.4s | | | | | | |
| AAK | Ala-Archa | 57.00 | 305 | eP | P | 04 49 06.2 | +0.3 |
| | comp=Z,1.4nm,0.4s | | | | | | |
| ILAR | Eielson Array | 57.06 | 29 | P | P | 04 49 06.7 | +0.9 |
| | comp=Z,1.1nm,0.9s,baz=257,slow=4.8,SNR=7.8 | | | | | | |
| DOT | Dot Lake | 58.22 | 30 | eP | P | 04 49 15.0 | +1.0 |
| | comp=Z,7.6nm,0.9s | | | | | | |
| BVAR | Borovoye Array | 58.61 | 317 | P | P | 04 49 17.4 | +0.6 |
| | comp=Z,7.8nm,0.8s,baz=96,slow=7.8,SNR=21 | | | | | | |
| BRVK | Borovoye | 58.67 | 317 | ceP | P | 04 49 17.8 | +0.6 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,17nm,0.8s | | | | | | |
| BRVK | Borovoye | 58.67 | 317 | eP | P | 04 49 17.9 | +0.7 |
| | comp=Z,18nm,0.8s | | | | | | |
| STKA | Stephens Creek | 58.84 | 182 | P | P | 04 49 17.6 | -1.0 |
| | comp=Z,1.5nm,0.8s,baz=321,slow=18,SNR=3.0 | | | | | | |
| PALK | Pallekele | 62.41 | 264 | iP | P | 04 49 49.1 | +5.7 |
| INK | Inuvik | 62.44 | 25 | P | P | 04 49 42.8 | +0.2 |
| | comp=Z,1.7nm,0.9s,baz=260,slow=5.1,SNR=3.9 | | | | | | |
| ARU | Arti | 64.91 | 322 | P | P | 04 49 59.4 | +0.2 |
| | comp=Z,3.0nm,0.4s,baz=348,slow=1.1,SNR=6.6 | | | | | | |
| ARU | Arti | 64.91 | 322 | c iP | P | 04 49 59.6 | +0.4 |
| ARU | | | | pmax | pmax | | |
| | comp=Z,19nm,1.7s | | | | | | |
| ARU | Arti | 64.91 | 322 | eP | P | 04 49 59.4 | +0.2 |
| | comp=Z,11nm,0.9s | | | | | | |
| AKTO | Aktyubinsk | 66.62 | 316 | P | P | 04 50 10.8 | +0.4 |
| | comp=Z,1.6nm,0.5s,baz=83,slow=12,SNR=5.6 | | | | | | |
| GEYT | Alibeck | 70.27 | 303 | P | P | 04 50 34.8 | +1.4 |
| | comp=Z,2.9nm,0.8s,baz=66,slow=3.7,SNR=5.5 | | | | | | |
| YKA | Yellowknife Ar | 71.49 | 29 | P | P | 04 50 41.1 | +0.9 |
| | comp=Z,1.1nm,0.8s,baz=296,slow=6.2,SNR=2.5 | | | | | | |
| ARCES | ARCESS Array B | 73.71 | 341 | P | P | 04 50 58.9 | +5.5 |
| | comp=Z,4.1nm,0.9s,baz=78,slow=8.7,SNR=5.3 | | | | | | |
| OBN | Obninsk | 76.97 | 326 | ⇑eP | P | 04 51 12.0 | -0.3 |
| OBN | | | | eS | S | 05 00 56.5 | -1.4 |
| OBN | | | | pmax | pmax | | |
| | comp=Z,68nm,3.4s | | | | | | |
| FINES | FINESS Array B | 78.24 | 334 | P | P | 04 51 19.7 | +0.4 |
| | comp=Z,2.8nm,0.8s,baz=75,slow=5.0,SNR=11 | | | | | | |
| ZEI | Tsey | 78.40 | 312 | eP | P | 04 51 20.4 | -0.5 |
| ZEI | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.9s | | | | | | |
| KBZ | Khabaz | 78.64 | 313 | P | P | 04 51 23.9 | +2.0 |
| | comp=Z,7.4nm,0.8s,baz=93,slow=5.0,SNR=13 | | | | | | |
| KIV | Kislovodsk | 78.67 | 314 | ceP | P | 04 51 24.1 | +1.9 |
| KIV | | | | e | | 04 54 19.2 | |
| KIV | | | | pmax | pmax | | |
| | comp=Z,19nm,1.7s | | | | | | |
| AKASG | Malin Array Be | 83.08 | 324 | P | P | 04 51 45.6 | +0.2 |
| | comp=Z,2.4nm,0.6s,baz=50,slow=5.4,SNR=18 | | | | | | |
| AKASG | Malin Array Be | 83.08 | 324 | ceP | P | 04 51 45.5 | +0.1 |
| AKASG | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.6s | | | | | | |
| KIEV | Kiev | 83.09 | 324 | ⇑eP | P | 04 51 45.5 | 0.0 |
| KIEV | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.9s | | | | | | |
| KIEV | Kiev | 83.09 | 324 | eP | P | 04 51 45.3 | -0.2 |
| | comp=Z,4.5nm,0.7s | | | | | | |
| NOA | NORSAR Array B | 83.82 | 339 | P | P | 04 51 49.0 | -0.1 |
| | comp=Z,0.5nm,0.7s,baz=44,slow=4.6,SNR=3.3 | | | | | | |
| RAYN | Ar Rayn | 86.02 | 294 | eP | P | 04 52 02.0 | +1.1 |
| | comp=Z,5.5nm,0.5s | | | | | | |
| BRTR | Keskin Array B | 86.63 | 313 | P | P | 04 52 03.4 | -0.3 |
| | comp=Z,1.5nm,0.8s,baz=70,slow=5.3,SNR=6.1 | | | | | | |
| BRTR | Keskin Array B | 86.63 | 313 | ceP | P | 04 52 04.4 | +0.7 |
| BRTR | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.9s | | | | | | |
| TORD | Torodi Ar. Bea | 125.23 | 312 | PKhKP | PKPpre | 04 58 18.3 | |
| | comp=Z,0.2nm,0.4s,baz=90,slow=1.4,SNR=3.7 | | | | | | |
| LPAZ | La Paz | 148.88 | 76 | PKPbc | PKPbc | 04 59 09.7 | +0.7 |
| | comp=Z,0.5nm,0.4s,baz=294,slow=5.3,SNR=3.2 | | | | | | |

*IDC **02** 04:55:18.7±0.6, 4°18N×32°50W, h0km, mb4.1/16, mb1 4.2/17, mb1mx4.1/44, mbtmp4.1/17, ML4.2/1, MS3.6/9, Ms1 3.6/9, ms1mx3.3/34, Error ellipse: s-maj=23.4km s-min=13.5km az=136.0*
*ISCJB **02** 04:55:19.7±0.4, 4°17N±0°09×32°50W±0°08, h19km, mb4.2/40, MS3.5/7, Error ellipse: s-maj=15.1km s-min=7.4km az=141.7*
*NEIC **02** 04:55:20.2±0.3, 4°17N×32°56W, h10km, mb4.5/15, Error ellipse: s-maj=11.3km s-min=6.6km az=136.0*
**ISC 02 04:55:21.6**±0.5, **4°1N**±0°1×**32°5W**±0°1, **h19km, n52, σ0$^s$81**/42, **mb4.3**/40, **MS3.5**/7, **Central Mid-Atlantic Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RCBR | Riachuelo | 10.45 | 199 | Pn | Pn | 04 57 49.2 | -1.3 |
| | 2.0nm,0.3s,baz=7.6,slow=16,SNR=18 | | | | | | |
| RCBR | | | | LR | LR | 05 01 04.9 | |
| | comp=Z,256nm,19.4s,baz=66,slow=33 | | | | | | |
| BBTS | Babate | 18.92 | 55 | LR | LR | 05 04 56.3 | |
| | comp=Z,170nm,20.8s,baz=189,slow=31 | | | | | | |
| H10N3 | ASCENSION HYDR | 21.56 | 123 | T | T | 05 22 32.3 | |
| | baz=302,slow=75,SNR=67 | | | | | | |
| H10N2 | ASCENSION HYDR | 21.57 | 123 | T | T | 05 22 32.5 | |
| | baz=302,slow=75,SNR=72 | | | | | | |
| H10N1 | ASCENSION HYDR | 21.58 | 123 | T | T | 05 22 33.7 | |
| | baz=302,slow=75,SNR=66 | | | | | | |
| H10S3 | ASCENSION HYDR | 22.05 | 126 | T | T | 05 23 09.6 | |
| | baz=305,slow=75,SNR=97 | | | | | | |
| H10S1 | ASCENSION HYDR | 22.05 | 126 | T | T | 05 23 10.0 | |
| | baz=305,slow=75,SNR=76 | | | | | | |
| H10S2 | ASCENSION HYDR | 22.07 | 126 | T | T | 05 23 11.0 | |
| | baz=305,slow=75,SNR=70 | | | | | | |
| BDFB | Brasilia | 24.91 | 218 | P | P | 05 00 45.6 | +1.7 |
| | 2.5nm,0.7s,baz=25,slow=17,SNR=3.7 | | | | | | |
| DBIC | Dimbokro | 27.66 | 84 | LR | LR | 05 09 16.2 | |
| | comp=Z,83nm,21.9s,baz=255,slow=30 | | | | | | |
| PTGA | Pitinga | 27.84 | 261 | LR | LR | 05 11 02.8 | |
| | comp=Z,116nm,18.2s,baz=104,slow=34 | | | | | | |
| H05S1 | Guadeloupe/Mar | 29.71 | 292 | T | T | 05 32 22.0 | |
| | SNR=24 | | | | | | |
| H05N1 | Guadeloupe/Mar | 30.52 | 295 | T | T | 05 33 25.9 | |
| | SNR=4.9 | | | | | | |
| SAML | Samuel | 33.20 | 247 | eP | P | 05 01 58.1 | +0.5 |
| | 2.9nm,1.0s | | | | | | |
| TORD | Torodi Ar. Bea | 34.96 | 73 | P | P | 05 02 12.5 | -0.4 |
| | 2.7nm,0.7s,baz=260,slow=8.9,SNR=15 | | | | | | |
| TORD | | | | PcP | PcP | 05 04 45.4 | 0.0 |
| | 0.7nm,0.8s,baz=296,slow=3.5,SNR=3.9 | | | | | | |
| TORD | | | | LR | LR | 05 14 22.4 | |
| | comp=Z,72nm,19.5s,baz=190,slow=33 | | | | | | |
| SDV | Santo Domingo | 38.13 | 279 | P | P | 05 02 41.5 | +1.3 |
| | 2.4nm,0.7s,baz=141,slow=5.8,SNR=4.1 | | | | | | |
| SDV | | | | LR | LR | 05 16 50.3 | |
| | comp=Z,107nm,21.3s,baz=308,slow=34 | | | | | | |
| CPUP | Villa Florida | 38.64 | 217 | P | P | 05 02 44.6 | +0.6 |
| | 3.5nm,1.1s,baz=53,slow=9.4,SNR=5.1 | | | | | | |
| CPUP | | | | LR | LR | 05 17 53.4 | |
| | comp=Z,108nm,21.3s,baz=36,slow=35 | | | | | | |
| LPAZ | La Paz | 40.63 | 239 | P | P | 05 03 02.1 | +0.7 |
| | 0.8nm,0.7s,baz=56,slow=3.6,SNR=3.7 | | | | | | |
| LPAZ | | | | LR | LR | 05 19 14.3 | |
| | comp=Z,45nm,18.8s,baz=354,slow=35 | | | | | | |
| TAM | Tamanrasset | 41.21 | 60 | eP | P | 05 03 06.4 | +0.8 |
| | 0.8nm,0.5s | | | | | | |
| ESDC | Sonseca Array | 43.82 | 32 | P | P | 05 03 26.8 | +0.2 |
| | 0.5nm,0.4s,baz=238,slow=8.5,SNR=5.7 | | | | | | |
| LVC | Limon Verde | 44.38 | 232 | eP | P | 05 03 31.3 | -0.3 |
| | 6.7nm,1.3s | | | | | | |
| NNA | Nana | 46.87 | 249 | eP | P | 05 03 50.0 | -1.1 |
| | 13nm,0.6s | | | | | | |
| BNI | Bardonecchia | 53.26 | 34 | eP | P | 05 04 38.7 | -0.6 |
| | 18nm,1.2s | | | | | | |
| PLCA | Paso Flores | 56.59 | 214 | P | P | 05 05 03.4 | 0.0 |
| | 1.3nm,0.6s,baz=84,slow=10,SNR=3.5 | | | | | | |
| PLCA | | | | LR | LR | 05 29 19.7 | |
| | comp=Z,91nm,20.6s,baz=87,slow=36 | | | | | | |
| FETA | Feichten | 56.69 | 34 | iP | P | 05 05 04.4 | +0.2 |
| | 4.9nm,1.0s | | | | | | |
| MOTA | Moosalm | 57.09 | 34 | iP | P | 05 05 06.4 | -0.6 |
| | 3.0nm,0.9s | | | | | | |
| ABTA | Abfaltersbach | 57.55 | 35 | iP | P | 05 05 09.6 | -0.6 |
| | 6.4nm,1.2s | | | | | | |
| MYKA | Terra Mystica | 58.14 | 36 | iP | P | 05 05 13.8 | -0.5 |
| | 6.8nm,1.2s | | | | | | |
| KBA | Koelnbreinsper | 58.21 | 35 | iP | P | 05 05 14.7 | -0.1 |
| | 4.8nm,1.2s | | | | | | |
| OBKA | Obir | 58.61 | 36 | iP | P | 05 05 17.0 | -0.5 |
| | 3.0nm,0.7s | | | | | | |
| SOKA | Soboth | 58.99 | 36 | iP | P | 05 05 20.4 | +0.3 |
| | 12nm,1.2s | | | | | | |
| MOA | Molln | 59.15 | 35 | iP | P | 05 05 20.8 | -0.4 |
| | 7.0nm,1.6s | | | | | | |
| GERES | GERESS Array B | 59.37 | 34 | P | P | 05 05 22.8 | -0.1 |
| | 2.0nm,0.9s,baz=243,slow=5.8,SNR=10 | | | | | | |
| CONA | Conrad Observa | 60.11 | 35 | iP | P | 05 05 27.6 | -0.3 |
| | 2.6nm,0.9s | | | | | | |
| PSZ | Piszkesteto | 62.48 | 37 | eP | P | 05 05 43.9 | 0.0 |
| | 5.7nm,0.8s | | | | | | |
| BOSA | Boshof | 64.31 | 124 | P | P | 05 05 56.5 | 0.0 |
| | 3.1nm,0.8s,baz=306,slow=7.6,SNR=5.5 | | | | | | |
| NOA | NORSAR Array B | 65.60 | 22 | P | P | 05 06 04.1 | 0.0 |
| | 1.6nm,0.8s,baz=231,slow=6.4,SNR=2.9 | | | | | | |
| BRTR | Keskin Array B | 69.13 | 49 | P | P | 05 06 27.4 | +0.3 |
| | 1.1nm,0.8s,baz=243,slow=5.4,SNR=5.6 | | | | | | |
| AKASG | Malin Array Be | 69.19 | 37 | P | P | 05 06 26.9 | 0.0 |
| | 1.1nm,0.6s,baz=250,slow=7.0,SNR=7.3 | | | | | | |
| TXAR | Lajitas Array | 71.55 | 299 | P | P | 05 06 42.3 | +0.3 |
| | 0.8nm,0.7s,baz=64,slow=6.1,SNR=2.5 | | | | | | |
| FINES | FINESS Array B | 71.80 | 26 | P | P | 05 06 42.1 | -0.6 |
| | 3.2nm,0.7s,baz=196,slow=5.6,SNR=4.2 | | | | | | |
| MNTX | Cornudas Mount | 73.26 | 302 | eP | P | 05 06 51.1 | -1.0 |
| | 2.7nm,0.9s | | | | | | |
| ARCES | ARCESS Array B | 75.37 | 18 | P | P | 05 07 03.1 | -0.4 |
| | 3.1nm,0.9s,baz=289,slow=7.6,SNR=3.9 | | | | | | |
| RAYN | Ar Rayn | 77.40 | 67 | eP | P | 05 07 16.9 | +0.8 |
| | 2.6nm,0.9s | | | | | | |
| PDAR | Pinedale Array | 77.69 | 313 | P | P | 05 07 16.0 | -1.6 |
| | 0.8nm,0.8s,baz=114,slow=3.6,SNR=4.7 | | | | | | |
| TUC | Tucson | 77.88 | 302 | eP | P | 05 07 18.7 | 0.0 |
| | 5.3nm,1.0s | | | | | | |
| LOHW | Long Hollow | 78.53 | 314 | eP | P | 05 07 21.7 | -0.5 |
| | 19nm,1.6s | | | | | | |
| BOZ | Bozeman (W) | 79.44 | 315 | eP | P | 05 07 26.2 | -0.8 |
| | 3.2nm,1.1s | | | | | | |
| HLID | Hailey | 81.29 | 313 | eP | P | 05 07 38.8 | +1.7 |
| | 1.8nm,0.8s | | | | | | |
| NEW | Newport | 83.34 | 318 | eP | P | 05 07 45.8 | -1.7 |
| | 2.2nm,0.8s | | | | | | |
| BMO | Blue Mountains | 83.41 | 315 | eP | P | 05 07 47.6 | -0.5 |
| | 3.4nm,1.2s | | | | | | |
| WVOR | Wild Horse Val | 84.36 | 312 | eP | P | 05 07 51.4 | -1.6 |
| | 9.2nm,1.4s | | | | | | |

*ISCJB **02** 05:00:31.4±0.5, 14°11N±0°05×93°17W±0°06, h10km, mb4.4/18, Error ellipse: s-maj=8.9km s-min=7.0km az=171.6*
*NEIC **02** 05:00:32.8±0.0, 13°96N×93°24W, h13km, mb4.4/17, MD4.5(MEX), After MEX.*
*MEX **02** 05:00:32.8±0.8, 13°96N×93°24W, h13km±236km, MD4.5*
*IDC **02** 05:00:32.3±2.7, 14°38N×92°97W, h0km, mb4.0/7, mb1 4.2/9, mb1mx3.9/36, mbtmp4.0/9, ML3.8/2, Error ellipse: s-maj=107.8km s-min=14.6km az=44.0*
**ISC 02 05:00:33.3**±0.8, **14°18N**±0°08×**93°23W**±0°07, **h10km, n51, σ1$^s$47**/58, **mb4.4**/18, **Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PCIG | | 1.51 | 0 | eP | Pn | 05 00 58.5 | -1.9 |
| PCIG | | | | eS | Sn | 05 01 20.1 | -0.2 |
| PCIG | | 1.51 | 0 | eP | Pn | 05 00 58.5 | -1.9 |
| PCIG | | | | eS | Sn | 05 01 20.1 | -0.2 |
| CCIG | Comitan | 2.34 | 27 | eP | Pn | 05 01 12.6 | +0.6 |
| CCIG | | | | eS | Sn | 05 01 40.8 | -0.1 |
| CCIG | Comitan | 2.34 | 27 | ePn | Pn | 05 01 13.3 | +1.3 |
| CCIG | | | | eS | Sn | 05 01 40.8 | -0.1 |
| CCIG | Comitan | 2.34 | 27 | ePn | Sn | 05 01 40.4 | -0.5 |
| TGIG | | 2.58 | 2 | eP | Pn | 05 01 15.7 | +0.4 |
| TGIG | | | | eS | Sn | 05 01 48.1 | +1.3 |
| TGIG | | 2.58 | 2 | eP | Pn | 05 01 15.7 | +0.4 |
| TGIG | | | | eS | Sn | 05 01 48.1 | +1.3 |
| CMIG | Matias Romero | 3.30 | 331 | Pn | Pn | 05 01 24.6 | -0.5 |
| | 8.4nm,0.3s,baz=139,slow=12,SNR=72 | | | | | | |
| CMIG | | | | Sn | Sn | 05 02 00.7 | -3.8 |
| | 33nm,0.3s,baz=148,slow=6.3,SNR=9.7 | | | | | | |
| CMIG | | | | Lg | Lg | 05 02 16.8 | |
| | 31nm,0.3s,baz=90,slow=18,SNR=6.3 | | | | | | |
| TLIG | Tlapa | 6.14 | 304 | ePn | Pn | 05 02 05.9 | +1.6 |
| LTX | Lajitas | 17.91 | 329 | ePn | P | 05 04 45.5 | +2.2 |
| TXAR | Lajitas Array | 17.91 | 329 | Pn | P | 05 04 45.5 | +2.2 |
| | 0.1nm,0.3s,baz=134,slow=8.9,SNR=9.2 | | | | | | |
| MIAR | Mount Ida | 20.28 | 359 | eP | P | 05 05 08.8 | -0.3 |
| | 14nm,1.0s | | | | | | |
| CLNB | Carlsbad | 20.46 | 333 | eP | P | 05 05 11.7 | +0.4 |
| MNTX | Cornudas Mount | 20.69 | 329 | eP | P | 05 05 14.9 | +1.3 |
| | 3.3nm,0.8s | | | | | | |
| ROSC | El Rosal | 20.81 | 115 | P | Pn | 05 05 16.3 | -1.6 |
| | 1.9nm,0.5s,baz=169,slow=12,SNR=3.6 | | | | | | |
| ROSC | El Rosal | 20.81 | 115 | eP | P | 05 05 15.3 | -0.2 |
| | 3.9nm,0.8s | | | | | | |
| GOGA | Godfrey | 21.10 | 23 | eP | P | 05 05 18.5 | +0.5 |
| | 7.7nm,1.0s | | | | | | |
| OK020 | N3440 Road, Me | 21.52 | 352 | eP | P | 05 05 23.9 | +1.4 |
| | 11nm,0.9s | | | | | | |
| SDV | Santo Domingo | 22.75 | 101 | P | P | 05 05 33.6 | -2.5 |
| | 3.7nm,0.8s,baz=304,slow=4.8,SNR=5.9 | | | | | | |
| SDV | Santo Domingo | 22.75 | 101 | eP | P | 05 05 34.2 | -1.8 |
| | 5.2nm,0.9s | | | | | | |
| MCWV | Mont Chateau | 27.97 | 22 | eP | P | 05 06 24.7 | +0.6 |
| | 33nm,1.5s | | | | | | |
| SDMD | Soldier's Deli | 28.98 | 27 | eP | P | 05 06 32.8 | -0.3 |
| | 3.2nm,0.5s | | | | | | |
| IR2C | Iron Canyon | 30.37 | 316 | eP | P | 05 06 40.8 | -4.7 |
| IR2C | | | | epP | pP | 05 06 49.1 | +0.5 |
| BLCC | Black Canyon | 30.47 | 315 | eP | P | 05 06 49.2 | +2.7 |
| BALC | Balcom Canyon | 30.71 | 315 | eP | P | 05 06 49.1 | +0.7 |
| RCWM | Renegade Canyo | 30.81 | 319 | eP | P | 05 06 46.9 | -2.6 |
| RCWM | | | | ePcP | PcP | 05 09 45.9 | -0.8 |
| RCWM | | | | eS | S | 05 11 50.0 | -3.1 |
| WBSM | Bird Springs | 30.87 | 318 | eP | P | 05 06 53.6 | +3.4 |
| PD31 | Pinedale Array | 31.77 | 337 | eP | P | 05 06 58.6 | +0.5 |
| PDAR | Pinedale Array | 31.77 | 337 | P | P | 05 06 58.6 | +0.5 |
| | 0.2nm,0.5s,baz=123,slow=9.8,SNR=2.9 | | | | | | |
| REDW | Red Top Meadow | 32.78 | 336 | eP | P | 05 07 07.9 | +1.0 |
| | 16nm,1.5s | | | | | | |
| SNOW | Snow King Moun | 32.83 | 336 | eP | P | 05 07 07.6 | +0.3 |
| | 5.8nm,0.8s | | | | | | |
| LOHW | Long Hollow | 32.90 | 336 | eP | P | 05 07 08.2 | +0.3 |
| | 9.7nm,1.5s | | | | | | |
| MOOW | Moose Ponds | 33.06 | 336 | eP | P | 05 07 11.1 | +1.7 |
| | 2.6nm,1.3s | | | | | | |
| YMP | Mirror Lake Pl | 33.69 | 338 | eP | P | 05 07 15.8 | +0.9 |
| PAHR | Pah Rah Range | 34.26 | 323 | eP | P | 05 07 17.3 | -2.4 |
| | 5.5nm,0.8s | | | | | | |
| MCMT | McKenzie Canyo | 34.80 | 335 | eP | P | 05 07 26.4 | +2.0 |
| PTGA | Pitinga | 36.11 | 111 | P | P | 05 07 35.0 | -0.8 |
| | 3.9nm,0.8s,baz=302,slow=8.4,SNR=9.5 | | | | | | |
| PTGA | Pitinga | 36.11 | 111 | eP | P | 05 07 35.1 | -0.7 |
| | 4.1nm,0.8s | | | | | | |
| KCPM | Cahto Peak | 36.81 | 319 | eP | P | 05 07 42.6 | +1.0 |
| WALA | Waterton Lakes | 38.72 | 338 | eP | P | 05 07 57.0 | -0.6 |
| | 14nm,0.9s | | | | | | |
| YKA | Yellowknife Ar | 50.58 | 347 | P | P | 05 09 31.2 | -0.7 |
| | 3.4nm,0.8s,baz=151,slow=7.4,SNR=9.1 | | | | | | |
| INK | Inuvik | 59.93 | 344 | P | P | 05 10 38.8 | -0.5 |
| | 3.7nm,1.0s,baz=130,slow=4.7,SNR=8.4 | | | | | | |
| INK | Inuvik | 59.93 | 344 | eP | P | 05 10 38.8 | -0.5 |
| | 23nm,1.8s | | | | | | |
| HDA | Harding Lake | 62.06 | 337 | eP | P | 05 10 55.9 | +2.1 |
| | 39nm,0.8s | | | | | | |
| ILAR | Eielson Array | 62.21 | 337 | P | P | 05 10 54.8 | 0.0 |
| | 0.7nm,0.6s,baz=104,slow=6.0,SNR=4.4 | | | | | | |
| ILB | Eielson Array | 62.21 | 337 | eP | P | 05 10 54.8 | 0.0 |
| SUA | Susitna One | 62.38 | 333 | eP | P | 05 10 56.5 | +0.4 |
| | 8.9nm,0.8s | | | | | | |
| FIA1 | FINESS Array S | 90.84 | 25 | eP | P | 05 13 37.8 | +1.0 |
| ULN | Ulaanbaatar | 115.63 | 345 | ePKPdf | PKPdf | 05 19 17.3 | +1.1 |
| CM31 | Chiang Mai Arr | 145.42 | 339 | ePKPdf | PKPdf | 05 20 11.5 | -1.1 |
| CMAR | Chiang Mai Arr | 145.42 | 339 | PKPbc | PKPdf | 05 20 11.5 | -1.1 |
| | 0.9nm,0.3s,baz=351,slow=4.3,SNR=6.0 | | | | | | |

*IDC **02** 05:00:58.4±2.3, 14°61N×92°73W, h0km, mb4.2/10, mb1 4.4/12, mb1mx4.1/33, mbtmp4.2/12, ML4.0/2, MS2.9/1, Ms1 2.9/1, ms1mx2.7/26, Error ellipse: s-maj=85.4km s-min=11.7km az=43.0*
*ISCJB **02** 05:01:00.6±0.7, 14°13N±0°10×93°05W±0°08, h37km, mb4.5/43, Error ellipse: s-maj=17.3km s-min=5.7km az=39.4*
*NEIC **02** 05:01:01.4±0.5, 14°02N×93°07W, h35km, mb4.5/39, Error ellipse: s-maj=11.6km s-min=6.4km az=219.0*
**ISC 02 05:01:01.5**±0.7, **14°03N**±0°09×**93°24W**±0°09, **h37km, n77, σ1$^s$42**/79, **mb4.5**/43, **Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CCIG | Comitan | 2.48 | 25 | eSn | Sn | 05 02 10.8 | +2.1 |
| CMIG | Matias Romero | 3.44 | 333 | Pn | Pn | 05 01 50.3 | -2.2 |
| | 19nm,0.3s,baz=138,slow=14,SNR=8.0 | | | | | | |
| CMIG | | | | Sn | Sn | 05 02 29.8 | -2.2 |
| | 56nm,0.3s,baz=203,slow=15,SNR=5.5 | | | | | | |
| CMIG | | | | Lg | Lg | 05 02 42.2 | |
| | 82nm,0.3s,baz=215,slow=22,SNR=7.2 | | | | | | |
| TUIG | Tuzandepetl | 4.14 | 344 | ePn | Pn | 05 02 05.0 | +2.8 |
| TGUH | Tegucigalpa,Un | 5.79 | 89 | ePn | Pn | 05 02 25.9 | +1.0 |
| TLIG | Tlapa | 6.22 | 305 | ePn | Pn | 05 02 36.6 | +5.8 |
| LVIG | Laguna Verde | 6.43 | 332 | ePn | Pn | 05 02 34.8 | +1.2 |
| TXAR | Lajitas Array | 18.04 | 329 | P | Pn | 05 05 09.3 | -0.1 |
| | 0.1nm,0.3s,baz=143,slow=11,SNR=3.4 | | | | | | |
| TXAR | | | | S | Sn | 05 08 27.4 | -2.2 |
| | 0.2nm,0.3s,baz=157,slow=15,SNR=3.6 | | | | | | |
| LTX | Lajitas | 18.04 | 329 | ePn | Pn | 05 05 09.3 | -0.1 |
| LTX | | | | eSn | Sn | 05 08 27.4 | -2.2 |
| TX31 | Lajitas Ar. Si | 18.04 | 329 | ePn | P | 05 05 13.5 | +3.9 |
| LPIG | La Paz | 18.97 | 304 | LR | LR | 05 12 46.2 | |
| | comp=Z,39nm,19.4s,baz=122,slow=37 | | | | | | |
| WLAR | White Oak Lake | 19.57 | 0 | eP | Pn | 05 05 27.5 | -0.3 |
| | 20nm,0.9s | | | | | | |
| MIAR | Mount Ida | 20.43 | 359 | eP | P | 05 05 34.7 | -0.9 |
| | 28nm,1.0s | | | | | | |
| ROSC | El Rosal | 20.76 | 114 | P | P | 05 05 39.9 | +0.2 |
| | 2.6nm,0.5s,baz=332,slow=17,SNR=2.5 | | | | | | |
| MNTX | Cornudas Mount | 20.82 | 330 | eP | Pn | 05 05 41.1 | -1.3 |
| | 9.3nm,0.9s | | | | | | |
| WHAR | Wooly Hollow | 21.19 | 2 | eP | P | 05 05 43.6 | -0.2 |
| | 16nm,1.2s | | | | | | |
| GOGA | Godfrey | 21.25 | 23 | eP | P | 05 05 43.2 | -1.2 |
| | 22nm,1.0s | | | | | | |
| OK022 | N3560 Road, Pr | 21.64 | 352 | eP | P | 05 05 49.3 | +0.7 |
| | 16nm,0.8s | | | | | | |
| OK020 | N3440 Road, Me | 21.67 | 352 | eP | P | 05 05 49.6 | +0.6 |
| | 16nm,0.6s | | | | | | |
| OK021 | N3530 Road, Sp | 21.71 | 352 | eP | P | 05 05 50.3 | +1.0 |
| | 17nm,0.8s | | | | | | |
| SWET | Sewanee | 22.10 | 16 | eP | P | 05 05 54.0 | +0.3 |
| | 14nm,1.2s | | | | | | |
| AMTX | Amarillo | 22.12 | 341 | eP | P | 05 05 53.6 | -0.3 |
| | 18nm,0.6s | | | | | | |
| HHAR | Hobbs | 22.17 | 359 | eP | P | 05 05 54.0 | -0.3 |
| | 27nm,1.5s | | | | | | |
| SDV | Santo Domingo | 22.73 | 101 | P | P | 05 05 59.7 | -1.0 |
| | 5.6nm,0.8s,baz=290,slow=5.0,SNR=3.9 | | | | | | |
| SDV | Santo Domingo | 22.73 | 101 | eP | P | 05 05 59.3 | -1.4 |
| | 7.6nm,0.8s | | | | | | |
| PBMO | Poplar Bluff | 22.80 | 6 | eP | P | 05 06 00.4 | -0.6 |
| | 17nm,1.3s | | | | | | |
| SDD | Santo Domingo | 22.82 | 76 | eP | P | 05 06 00.6 | -0.8 |
| | 157nm,1.6s | | | | | | |
| TKL | Tuckaleechee C | 23.16 | 20 | P | P | 05 06 04.7 | -0.1 |
| | 3.4nm,0.7s,baz=198,slow=11,SNR=3.3 | | | | | | |
| TKL | Tuckaleechee C | 23.16 | 20 | eP | P | 05 06 04.7 | -0.1 |
| | 23nm,1.3s | | | | | | |
| LPM | Los Pinos Moun | 23.56 | 331 | eP | P | 05 06 10.3 | +1.5 |
| LAZ | Ladron | 23.87 | 331 | eP | P | 05 06 12.3 | +0.5 |
| CCM | Cathedral Cave | 24.00 | 4 | eP | P | 05 06 10.7 | -2.0 |
| | 23nm,1.5s | | | | | | |
| ANMO | Albuquerque | 24.00 | 333 | eP | P | 05 06 13.0 | 0.0 |
| | 5.0nm,1.0s | | | | | | |
| TUC | Tucson | 24.25 | 322 | eP | P | 05 06 16.9 | +1.7 |
| | 12nm,1.1s | | | | | | |
| MHTCO | State Highway | 25.18 | 338 | eP | P | 05 06 25.9 | +2.2 |
| | 13nm,1.0s | | | | | | |
| CBKS | Cedar Bluff | 25.35 | 348 | eP | P | 05 06 24.9 | -0.2 |
| | 18nm,1.0s | | | | | | |
| SDCO | Great Sand Dun | 26.02 | 337 | eP | P | 05 06 33.3 | +1.9 |
| | 9.2nm,1.1s | | | | | | |
| SMCO | Snowmass | 27.83 | 337 | eP | P | 05 06 49.5 | +1.6 |
| | 12nm,1.4s | | | | | | |
| ISCO | Idaho Springs | 27.88 | 339 | eP | P | 05 06 48.5 | +0.3 |
| | 5.0nm,0.9s | | | | | | |
| OGNE | Ogallala | 27.90 | 346 | eP | P | 05 06 48.2 | +0.2 |
| | 13nm,0.8s | | | | | | |
| ECSD | EROS Data Cent | 29.75 | 355 | eP | P | 05 07 03.0 | -1.4 |
| | 21nm,1.8s | | | | | | |
| HWUT | Hardware Ranch | 31.76 | 333 | eP | P | 05 07 25.3 | +2.9 |
| PDAR | Pinedale Array | 31.91 | 337 | P | P | 05 07 23.1 | -0.7 |
| | 1.2nm,0.9s,baz=136,slow=7.7,SNR=4.8 | | | | | | |
| REDW | Red Top Meadow | 32.92 | 336 | eP | P | 05 07 34.0 | +1.4 |
| | 38nm,1.7s | | | | | | |
| SNOW | Snow King Moun | 32.96 | 336 | eP | P | 05 07 34.0 | +0.9 |
| | 14nm,0.8s | | | | | | |
| LOHW | Long Hollow | 33.03 | 337 | eP | P | 05 07 35.0 | +1.5 |
| | 4.9nm,0.9s | | | | | | |
| TPAW | Teton Pass | 33.06 | 336 | eP | P | 05 07 35.6 | +1.7 |
| | 24nm,1.4s | | | | | | |
| MOOW | Moose Ponds | 33.20 | 337 | eP | P | 05 07 36.3 | +1.3 |
| | 6.3nm,1.2s | | | | | | |
| FXWY | Fox Creek | 33.22 | 336 | eP | P | 05 07 37.0 | +1.8 |
| | 4.5nm,1.3s | | | | | | |
| YHH | Holmes Hill | 34.12 | 337 | eP | P | 05 07 43.7 | +0.6 |
| | 7.5nm,1.3s | | | | | | |
| MCMT | McKenzie Canyo | 34.94 | 335 | eP | P | 05 07 52.7 | +2.6 |
| MFID | Camas Ranch | 35.12 | 331 | eP | P | 05 07 51.8 | +0.3 |
| | 15nm,2.0s | | | | | | |
| DLMT | Dillon | 35.28 | 336 | eP | P | 05 07 54.4 | +1.5 |
| | 11nm,1.2s | | | | | | |
| PTGA | Pitinga | 36.07 | 111 | P | P | 05 07 59.5 | -0.3 |
| | 4.7nm,0.8s,baz=304,slow=11,SNR=6.9 | | | | | | |
| PTGA | Pitinga | 36.07 | 111 | eP | P | 05 08 00.6 | +0.7 |
| | 38nm,2.0s | | | | | | |
| J08A | Circle Bar Ran | 36.38 | 328 | eP | P | 05 08 04.5 | +2.1 |
| | 9.3nm,1.1s | | | | | | |
| F10A | Beach Ranch, E | 37.72 | 332 | eP | P | 05 08 14.8 | +1.1 |
| | 4.7nm,0.8s | | | | | | |
| HSO | Harness Mounta | 38.96 | 325 | ePcP | PcP | 05 10 35.0 | +0.8 |
| YKA | Yellowknife Ar | 50.73 | 347 | P | P | 05 09 56.9 | -0.4 |
| | 6.1nm,0.7s,baz=152,slow=7.5,SNR=16 | | | | | | |
| YKW3 | Yellowknife Ar | 50.79 | 347 | eP | P | 05 09 58.2 | +0.3 |
| | 13nm,0.9s | | | | | | |
| INK | Inuvik | 60.08 | 344 | P | P | 05 11 04.4 | -0.1 |
| | 5.8nm,0.9s,baz=130,slow=6.6,SNR=10 | | | | | | |
| INK | Inuvik | 60.08 | 344 | eP | P | 05 11 05.2 | +0.8 |
| | 13nm,1.3s | | | | | | |
| IL1 | Eielson Array | 62.34 | 337 | eP | P | 05 11 20.1 | +0.2 |
| ILAR | Eielson Array | 62.34 | 337 | P | P | 05 11 19.8 | -0.1 |
| | 2.3nm,0.9s,baz=145,slow=4.5,SNR=7.0 | | | | | | |
| ILB | Eielson Array | 62.34 | 337 | eP | P | 05 11 20.5 | +0.6 |
| DSB | Dublin | 77.03 | 38 | eP | P | 05 12 49.1 | -1.5 |
| | 104nm,1.8s | | | | | | |
| RTC | Rabat Centre | 79.34 | 58 | eP | P | 05 13 02.2 | -1.6 |
| ESDC | Sonseca Array | 80.64 | 51 | P | P | 05 13 09.3 | -1.6 |
| | 0.5nm,0.6s,baz=285,slow=6.7,SNR=4.8 | | | | | | |
| FIA0 | FINESS Array S | 90.98 | 25 | eP | P | 05 14 00.6 | -0.9 |
| FINES | FINESS Array B | 90.98 | 25 | P | P | 05 14 00.6 | -0.9 |
| | 4.3nm,1.0s,baz=310,slow=4.7,SNR=3.3 | | | | | | |
| TOA1 | Torodi Ar. Sit | 91.54 | 76 | eP | P | 05 14 03.7 | -1.4 |
| TORD | Torodi Ar. Bea | 91.54 | 76 | P | P | 05 14 03.7 | -1.4 |
| | 0.7nm,1.0s,baz=255,slow=4.3,SNR=3.1 | | | | | | |
| KSH | Kashi | 125.79 | 10 | ePKP | PKPdf | 05 20 02.3 | +2.4 |
| KSH | | | | sPKP | | 05 20 17.3 | |
| KSH | | | | PP | PP | 05 21 59.7 | +8.7 |
| KSH | | | | PKS | PKSdf | 05 23 38.3 | +1.7 |
| KSH | | | | SKS | SKSdf | 05 27 10.2 | +1.0 |
| KSH | | | | SKKS | SKKSac | 05 28 47.1 | -0.8 |
| KSH | Kashi | 125.79 | 10 | SS | SS | 05 38 52.9 | +4.7 |
| KSH | | | | AMB | AMB | | |
| | comp=Z,220nm,6.5s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,51nm,3.7s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,98nm,3.9s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,270nm,6.5s | | | | | | |
| LZH | Lanzhou | 127.61 | 343 | ePKP | PKPdf | 05 20 05.7 | +2.2 |
| LZH | | | | sPKP | | 05 20 19.1 | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| QIZ | Qiongzhong | 140.05 | 325 | ePKPdf | PKPdf | 05 20 24.7 | -2.2 |
| CMAR | Chiang Mai Arr | 145.56 | 339 | PKPbc | PKPab | 05 20 37.7 | +0.7 |
| | comp=Z,3.2nm,0.7s,baz=335,slow=4.0,SNR=8.6 | | | | | | |
| NWAO | Narrogin (SRO) | 146.49 | 231 | ePKPdf | PKPdf | 05 20 38.8 | +0.9 |

*NEIC **02** 05:04:51.9±0.0, 15°.90N×95°.57W, h13km, mb4.4/21, MD4.3(MEX), After MEX.*
*NEIC Felt at Huatulco.*
*MEX **02** 05:04:51.9±0.9, 15°.90N×95°.57W, h13km±11km, MD4.3*
**ISC 02 05:04:50.0**±1.1**, 15°.94N**±0°.04×**95°.61W**±0°.03**, h27**km±9km**, n53,** σ1$^s$**76**/72**, mb4.5**/14**, Near coast of Oaxaca**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| HUIG | Huatulco | 0.51 | 250 | eP | Pb | 05 05 00.7 | +0.3 |
| HUIG | | | | eS | Sb | 05 05 08.2 | +0.6 |
| HUIG | Huatulco | 0.51 | 250 | ePn | Pb | 05 05 00.7 | +0.3 |
| HUIG | | | | eSn | Sb | 05 05 08.2 | +0.6 |
| PANG | Puerto Angel | 0.87 | 252 | eP | Pn | 05 05 05.2 | -1.3 |
| PANG | | | | eS | Sn | 05 05 19.8 | +1.4 |
| CMIG | Matias Romero | 1.34 | 31 | eP | Pn | 05 05 12.3 | -0.6 |
| CMIG | | | | eS | Sn | 05 05 29.2 | -0.7 |
| CMIG | Matias Romero | 1.34 | 31 | ePn | Pn | 05 05 12.3 | -0.6 |
| CMIG | | | | eSn | Sn | 05 05 29.2 | -0.7 |
| OXBJ | Oaxaca | 1.55 | 316 | eP | Pn | 05 05 17.0 | +1.0 |
| OXBJ | | | | eS | Sn | 05 05 35.7 | +0.4 |
| VHO | Vista Hermosa | 1.56 | 316 | eP | Pn | 05 05 16.9 | +0.8 |
| VHO | | | | eS | Sb | 05 05 36.9 | -0.8 |
| VHO | Vista Hermosa | 1.56 | 316 | ePn | Pn | 05 05 16.9 | +0.8 |
| VHO | | | | eSn | Sb | 05 05 36.9 | -0.8 |
| PCIG | | 2.31 | 96 | eP | Pn | 05 05 25.9 | -0.5 |
| PCIG | | | | eS | Sn | 05 05 53.0 | -1.1 |
| PCIG | | 2.31 | 96 | ePn | Pn | 05 05 25.9 | -0.5 |
| PCIG | | | | eSn | Sn | 05 05 53.0 | -1.1 |
| TUIG | Tuzandepetl | 2.37 | 29 | ePn | Pn | 05 05 27.7 | +0.5 |
| PNIG | Pinotepa | 2.46 | 281 | eP | Pn | 05 05 27.8 | -0.6 |
| PNIG | | | | eS | Sn | 05 05 53.7 | -3.9 |
| PNIG | Pinotepa | 2.46 | 281 | ePn | Pn | 05 05 27.8 | -0.6 |
| PNIG | | | | eSn | Sn | 05 05 53.7 | -3.9 |
| TGIG | | 2.53 | 70 | eP | Pn | 05 05 30.0 | +0.6 |
| TGIG | | | | eS | Sn | 05 05 59.7 | +0.3 |
| TGIG | | 2.53 | 70 | ePn | Pn | 05 05 30.0 | +0.6 |
| TGIG | | | | eSn | Sn | 05 05 59.7 | +0.3 |
| TGBT | Tuxtla Gutierr | 2.56 | 71 | eP | Pb | 05 05 33.5 | -1.8 |
| TGBT | | | | eS | Sn | 05 06 00.0 | 0.0 |
| TLIG | Tlapa | 3.26 | 300 | eP | Pn | 05 05 41.9 | +2.4 |
| TLIG | | | | eS | Sn | 05 06 19.9 | +2.4 |
| TLIG | Tlapa | 3.26 | 300 | ePn | Pb | 05 05 44.5 | -2.7 |
| TLIG | | | | eS | Sn | 05 06 19.9 | +2.4 |
| CCIG | Comitan | 3.36 | 84 | ePn | Pn | 05 05 41.7 | +0.8 |
| HMTT | Tlapaneco | 3.37 | 304 | eP | Pb | 05 05 51.2 | +2.0 |
| HMTT | | | | eS | Sb | 05 06 26.7 | -3.1 |
| LVIG | Laguna Verde | 3.84 | 349 | ePn | Pn | 05 05 49.7 | +2.4 |
| MEIG | Mezcala | 4.31 | 298 | eP | Pn | 05 05 56.2 | +2.2 |
| MEIG | Mezcala | 4.31 | 298 | ePn | Pn | 05 05 56.2 | +2.2 |
| PLIG | Platanillo | 4.45 | 304 | eP | Pb | 05 06 03.1 | -4.3 |
| PLIG | | | | eS | Sb | 05 07 02.2 | +1.5 |
| PLIG | Platanillo | 4.45 | 304 | ePn | Pb | 05 06 03.1 | -4.3 |
| PLIG | | | | eSn | Sb | 05 07 02.2 | +1.5 |
| MYIG | MØrida | 7.48 | 47 | ePn | Pn | 05 06 41.2 | +3.8 |
| BCIP | Isla Barro Col | 16.80 | 112 | ePn | P | 05 08 47.1 | +1.6 |
| | 330nm,1.7s | | | | | | |
| WLAR | White Oak Lake | 17.81 | 7 | ePn | P | 05 08 56.6 | 0.0 |
| | 21nm,0.9s | | | | | | |
| MIAR | Mount Ida | 18.61 | 5 | eP | Pn | 05 09 05.8 | 0.0 |
| | 15nm,1.0s | | | | | | |
| UALR | University of | 18.98 | 8 | eP | Pn | 05 09 10.7 | +0.4 |
| | 10nm,0.8s | | | | | | |
| OK022 | N3560 Road, Pr | 19.54 | 357 | eP | Pn | 05 09 17.1 | +0.2 |
| | 21nm,0.6s | | | | | | |
| HHAR | Hobbs | 20.31 | 4 | eP | P | 05 09 23.3 | -0.7 |
| | 11nm,1.1s | | | | | | |
| GOGA | Godfrey | 20.57 | 30 | eP | Pn | 05 09 29.6 | +0.5 |
| | 27nm,1.5s | | | | | | |
| PBMO | Poplar Bluff | 21.26 | 12 | eP | P | 05 09 32.4 | -1.8 |
| | 19nm,0.9s | | | | | | |
| WVT | Waverly | 21.27 | 18 | eP | P | 05 09 35.4 | +1.1 |
| | 22nm,1.7s | | | | | | |
| HODGE | Hodges | 21.82 | 31 | eP | P | 05 09 42.0 | +1.8 |
| | 6.9nm,0.8s | | | | | | |
| HELC | Santa Helena | 21.94 | 114 | eP | P | 05 09 44.0 | +1.9 |
| | 30nm,1.2s | | | | | | |
| CCM | Cathedral Cave | 22.36 | 9 | eP | P | 05 09 44.8 | -1.3 |
| | 7.1nm,0.9s | | | | | | |
| SIUC | Southern Illin | 22.41 | 13 | eP | P | 05 09 45.7 | -0.9 |
| | 13nm,0.8s | | | | | | |
| MHTCO | State Highway | 22.59 | 341 | eP | P | 05 09 51.7 | +3.0 |
| | 6.0nm,0.9s | | | | | | |
| SDCO | Great Sand Dun | 23.41 | 340 | eP | P | 05 09 55.3 | -1.9 |
| | 6.0nm,1.1s | | | | | | |
| CRY | Cary Ranch | 25.91 | 316 | ePcP | PcP | 05 13 47.5 | -1.1 |
| CCUT | Cedar City | 26.64 | 327 | eP | P | 05 10 28.9 | +2.2 |
| | 6.5nm,0.9s | | | | | | |
| RPV | Rancho Palos V | 27.14 | 315 | ePcP | PcP | 05 13 53.2 | +1.9 |
| SBI | Santa Barbara | 27.42 | 314 | eP | P | 05 10 31.0 | -2.5 |
| BTPC | Burnt Peak | 27.80 | 316 | eP | P | 05 10 36.5 | -0.7 |
| RCWM | Renegade Canyo | 27.98 | 320 | ePcP | PcP | 05 13 51.9 | -1.6 |
| CARC | Carrizo Plain | 29.01 | 316 | eP | P | 05 10 48.4 | +0.6 |
| AGMN | Agassiz Nation | 32.27 | 360 | eP | P | 05 11 15.8 | -0.5 |
| | 6.5nm,0.8s | | | | | | |
| INK | Inuvik | 57.62 | 344 | eP | P | 05 14 37.9 | +0.6 |
| | 26nm,1.9s | | | | | | |
| KLU | Klutina | 57.71 | 334 | eP | P | 05 14 37.2 | -1.0 |
| | 50nm,1.8s | | | | | | |
| DOT | Dot Lake | 58.06 | 337 | eP | P | 05 14 41.3 | +0.7 |
| | 36nm,1.2s | | | | | | |
| MLY | Manley | 61.27 | 337 | eP | P | 05 15 03.7 | +0.9 |
| | 18nm,1.8s | | | | | | |

**MEX 02 05:08:17.8**±0.3**, 18°.01N**×**101°.60W, h30**km±28km**, MD3.5, Guerrero**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ZIIG | Zihuatanejo | 0.42 | 162 | i P | Pb | 05 08 25.5 | -1.6 |
| ZIIG | | | | eS | Sb | 05 08 31.5 | -1.9 |
| ARIG | Puente Sto Nin | 1.22 | 77 | eP | Pn | 05 08 36.6 | -2.2 |
| ARIG | | | | eS | Sn | 05 08 50.7 | -3.7 |
| MEIG | Mezcala | 1.89 | 92 | eP | Pn | 05 08 46.1 | -2.0 |

*BJI **02** 05:19:19.5, 0°.71S×120°.72E, h75km, mb5.5/66, mB5.4/50, Ms4.9/65, Ms7 4.6/47*
*MOS **02** 05:19:20.7±1.1, 0°.12N×120°.45E, h33km, mb5.9/82, Error ellipse: s-maj=7.3km s-min=4.5km az=110.9*
*NEIC **02** 05:19:26.9±0.1, 0°.12N×120°.50E, h75km, mb5.9/173, MW5.5, Error ellipse: s-maj=3.3km s-min=2.8km az=65.0, Moment Tensor Solution. s21 Moment tensor: Scale $10^{17}$Nm; $M_{rr}$1.21; $M_{\theta\theta}$0.28; $M_{\phi\phi}$-1.49; $M_{r\theta}$-0.81; $M_{\theta\phi}$1.13; $M_{\phi r}$-1.57; Best double couple: $M_0$2.50000×$10^{17}$ NP1: $\phi_s$189.00000°, δ72.00000°, λ125.00000°. NP2: $\phi_s$302.00000°, δ39.00000°, λ29.00000°. Principal axes: T 2.5900, Plg50.0000°, Azm138.0000°; N -0.1800, Plg33.0000°, Azm356.0000°; P -2.4100, Plg19.0000°, Azm253.0000°;*
*NEIC Felt [III] at Palu and [II] at Bontang, Poso and Tolitoli.*
*GCMT **02** 05:19:26.9±0.1, 0°.15N×120°.46E, h92km±1km, MW5.5/126, Moment Tensor Solution. s123,c207; s126,c269; Duration: 1$^s$4 Moment tensor: Scale $10^{17}$Nm; $M_{rr}$1.07±.03; $M_{\theta\theta}$0.41±.03; $M_{\phi\phi}$-1.47±.03; $M_{r\theta}$-0.76±.02; $M_{\theta\phi}$1.20±.03; $M_{\phi r}$-1.45±.02; Best double couple: $M_0$2.41800×$10^{17}$ NP1:$\phi_s$189.00000°, δ73.00000°, λ129.00000°. NP2:$\phi_s$300.00000°, δ42.00000°, λ26.00000°. Principal axes: T 2.4590, Plg47.0000°, Azm140.0000°; N -0.0770, Plg37.0000°, Azm356.0000°; P -2.3770, Plg18.0000°, Azm251.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*
*IDC **02** 05:19:27.7±0.4, 0°.08N×120°.42E, h86km±2km, mb5.3/37, mb1 5.4/38, mb1mx5.3/40, mbtmp5.6/38, MS4.2/23, Ms1 4.2/23, ms1mx4.0/32 Error ellipse: s-maj=10.8km s-min=6.9km az=72.0*
*ISCJB **02** 05:19:27.7±0.2, 0°.07N±0°.01×120°.46E±0°.01, h95km±2km, mb5.7/265, Error ellipse: s-maj=2.4km s-min=2.1km az=39.5*
*DJA **02** 05:19:28.4±0.1, 0°N±1°×12°0E±°, h82km±2km, M6.0/49, mb6.0/49, mB6.2/37, MLv6.3/6, Mw(mB)5.9/37, Mwp5.4/1*
**ISC 02 05:19:27.7**±0.2**, 0°.05N**±0°.02×**120°.42E**±0°.03**, h86**km±1km**, h86**km**:pP-P, n1029,** σ1$^s$**56**/1202**, mb5.8**/275**, 26C-22D, Minahassa Peninsula, Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MPSI | Mapaga | 0.60 | 298 | P | Pn | 05 19 42.4 | -0.4 |
| MPSI | | | | S | Sn | 05 19 53.4 | -0.7 |
| APSI | Ampana | 1.55 | 128 | P | Pn | 05 19 54.9 | +1.0 |
| APSI | | | | S | Sn | 05 20 18.2 | +4.4 |
| MRSI | Marisa | 1.57 | 74 | P | Pn | 05 19 54.9 | +0.7 |
| MRSI | | | | S | Sn | 05 20 15.4 | +1.1 |
| LUWI | Luwuk | 2.59 | 115 | P | Pn | 05 20 09.7 | +2.1 |
| LUWI | | | | S | Sn | 05 20 40.9 | +2.7 |
| LUWI | Luwuk | 2.59 | 115 | ePn | Pn | 05 20 10.1 | +2.5 |
| TTSI | Tana Toraja | 3.13 | 191 | P | Pn | 05 20 17.2 | +2.2 |
| TTSI | | | | S | Sn | 05 20 54.6 | +3.1 |
| KMSI | Cibinong | 3.59 | 82 | P | Pn | 05 20 22.8 | +1.6 |
| KMSI | | | | S | Sn | 05 21 01.2 | -1.4 |
| BKB | Balikpapan | 3.76 | 250 | P | Pn | 05 20 24.0 | +0.5 |
| BKB | | | | S | Sn | 05 21 05.9 | -0.8 |
| BNSI | Bone | 4.43 | 184 | P | Pn | 05 20 34.9 | +2.3 |
| BNSI | | | | S | Sn | 05 21 26.8 | +3.7 |
| KAPI | Kappang | 5.08 | 188 | ePn | Pn | 05 20 43.6 | +2.2 |
| | 3µm,0.6s | | | | | | |
| KAPI | Kappang | 5.08 | 188 | Pn | Pn | 05 20 43.3 | +1.9 |
| | SNR=431 | | | | | | |
| KAPI | Kappang | 5.08 | 188 | P | Pn | 05 20 43.3 | +1.9 |
| | SNR=431 | | | | | | |
| KBKI | Kotabaru | 5.40 | 232 | P | Pn | 05 20 45.7 | -0.1 |
| KBKI | | | | S | Sn | 05 21 44.2 | -2.5 |
| MYLDM | Lahad Datu | 5.44 | 339 | ePn | Pn | 05 20 47.6 | +1.2 |
| MYLDM | | | | eSn | Sn | 05 21 48.4 | +0.6 |
| MTKI | Muara Teweh, K | 5.62 | 260 | P | Pn | 05 20 49.0 | +0.3 |
| MTKI | | | | S | Sn | 05 21 49.9 | -2.0 |
| BBSI | Bau Bau | 5.91 | 159 | P | Pn | 05 20 54.4 | +1.7 |
| SANI | Sanana | 5.94 | 111 | P | Pn | 05 20 52.9 | -0.3 |
| SANI | | | | S | Sn | 05 21 56.5 | -3.4 |
| BSSI | Bau Bau, Buton | 6.15 | 179 | P | Pn | 05 20 56.9 | +0.8 |
| SGSI | Sangihe | 6.25 | 55 | P | Pn | 05 20 55.0 | -2.4 |
| ZCP | Zamboanga City | 7.03 | 14⇑ | iP | Pn | 05 21 07.8 | -0.2 |
| LBMI | Labuha | 7.11 | 96 | P | Pn | 05 21 09.9 | +0.8 |
| LBMI | | | | S | Sn | 05 22 29.1 | +0.7 |
| KKM | Kota Kinabalu | 7.29 | 325 | ePn | Pn | 05 21 11.6 | 0.0 |
| KKM | | | | eSn | Sn | 05 22 32.8 | -0.1 |
| NLAI | Namlea | 7.43 | 116 | P | Pn | 05 21 15.6 | +2.1 |
| NLAI | | | | S | Sn | 05 22 37.7 | +1.4 |
| CTBH | Cotabato--PC H | 8.08 | 28⇑ | iP | Pn | 05 21 21.0 | -1.3 |
| PAGZ | Pagadian | 8.29 | 21 | eP | Pn | 05 21 24.0 | -1.2 |
| PAGZ | | | | eS | Sn | 05 22 53.9 | -3.3 |
| SBUM | Sibu | 8.54 | 286 | ePn | Pn | 05 21 29.7 | +1.0 |
| SBUM | | | | eSn | Sn | 05 23 02.3 | -1.1 |
| AAI | Ambon | 8.61 | 116 | P | Pn | 05 21 32.9 | +3.3 |
| AAI | | | | S | Sn | 05 23 07.6 | +2.6 |
| DAV | Davao City (W) | 8.66 | 36 | ePn | Pn | 05 21 29.5 | -0.8 |
| DAV | Davao City (W) | 8.66 | 36 | Pn | Pn | 05 21 31.8 | +1.5 |
| | SNR=23 | | | | | | |
| DAV | Davao City (W) | 8.66 | 36 | P | Pn | 05 21 31.8 | +1.5 |
| | SNR=23 | | | | | | |
| MMRI | Maumere | 8.82 | 168 | P | Pn | 05 21 33.3 | +0.9 |
| MMRI | Maumere | 8.82 | 168 | ePn | Pn | 05 21 33.8 | +1.3 |
| EDFI | Ende, Flores | 8.83 | 172 | P | Pn | 05 21 33.9 | +1.2 |
| STKI | Sintang | 8.95 | 270 | P | Pn | 05 21 34.5 | +0.3 |
| | 691nm,0.9s,2.6nm | | | | | | |
| DCPH | Dipolog City | 8.96 | 19⇑ | eP | Pn | 05 21 35.9 | +1.5 |
| DCPH | | | | eS | Sn | 05 23 11.1 | -2.6 |
| MATI | Mati | 8.99 | 40 | eP | Pn | 05 21 33.8 | -0.9 |
| MSAI | Masohi | 9.14 | 112 | P | Pn | 05 21 40.8 | +3.9 |
| MSAI | | | | S | Sn | 05 23 20.1 | +1.9 |
| PBKI | Pangkalan Bun | 9.17 | 253 | P | Pn | 05 21 37.1 | -0.1 |
| PBKI | | | | S | Sn | 05 23 21.1 | +2.3 |
| PLAI | Plampang | 9.21 | 197 | P | Pn | 05 21 40.8 | +3.1 |
| KMMI | Kalianget | 9.55 | 222 | P | Pn | 05 21 45.0 | +2.5 |
| SRBI | Singaraja | 9.61 | 213 | P | Pn | 05 21 45.0 | +1.8 |
| SNPH | Sibulan | 9.64 | 17⇑ | iP | Pn | 05 21 45.8 | +2.0 |
| BWJI | Bawean | 9.72 | 233 | P | Pn | 05 21 46.2 | +1.5 |
| PPR | Puerto Princes | 9.81 | 350⇑ | iP | Pn | 05 21 46.8 | +0.9 |
| PPR | | | | i S | Sn | 05 23 28.2 | -6.0 |
| BIPH | Bislig | 10.01 | 36⇓ | iP | Sn | 05 23 36.7 | -2.6 |
| DNP | Denpasar | 10.11 | 211 | P | Pn | 05 21 53.3 | +3.3 |
| | 7µm,1.2s,84µm | | | | | | |
| KSM | Kuching | 10.21 | 278 | ePn | Pn | 05 21 51.7 | +0.2 |
| BUTP | Butuan | 10.26 | 30 | eP | Pn | 05 21 55.9 | +3.8 |
| BLJI | Banyuglugur | 10.31 | 221 | P | Pn | 05 21 53.5 | +0.7 |
| BLJI | | | | S | Sn | 05 23 48.8 | +2.2 |
| SOEI | Soe | 10.47 | 159 | P | Pn | 05 21 59.1 | +4.0 |
| SOEI | Soe | 10.47 | 159 | ePn | Pn | 05 21 59.0 | +4.0 |
| BNDI | Bandanaira | 10.50 | 116 | P | Pn | 05 21 57.9 | +2.5 |
| GRJI | Gresik | 10.52 | 229 | P | Pn | 05 21 57.2 | +1.5 |
| JAGI | Jajag, Banyuwa | 10.52 | 216 | P | Pn | 05 21 57.7 | +2.0 |
| JAGI | Jajag, Banyuwa | 10.52 | 216 | ePn | Pn | 05 21 57.5 | +1.8 |
| GUIM | Jordan | 10.72 | 12 | eP | Pn | 05 21 59.8 | +1.4 |
| GMJI | Gumukmas | 10.81 | 220 | P | Pn | 05 22 01.1 | +1.6 |
| MSLP | Maasin | 10.94 | 24 | eP | Pn | 05 22 03.5 | +2.1 |
| TBJI | Tambak Boyo | 10.94 | 231 | P | Pn | 05 22 03.4 | +2.0 |
| ENPP | El Nido | 11.13 | 355 | eP | Pn | 05 22 05.3 | +1.5 |
| ENPP | | | | eS | Sn | 05 23 59.8 | -6.6 |
| UWJI | Ujung Watu | 11.44 | 236 | P | Pn | 05 22 09.2 | +1.1 |
| RCP | Roxas | 11.66 | 11⇑ | eP | Pn | 05 22 14.2 | +3.1 |
| OCLP | Ormoc | 11.69 | 21 | eP | Pn | 05 22 14.1 | +2.5 |
| FAKI | Fak Fak | 12.18 | 104 | P | Pn | 05 22 17.5 | -0.7 |
| FAKI | Fak Fak | 12.18 | 104 | ePn | Pn | 05 22 17.6 | -0.7 |
| SMRI | Semarang | 12.20 | 234 | P | Pn | 05 22 21.1 | +2.6 |
| SMRI | Semarang | 12.20 | 234 | ePn | Pn | 05 22 20.6 | +2.0 |
| PCJI | Pacitan | 12.33 | 228 | P | Pn | 05 22 22.7 | +2.5 |
| OTRP | Odiongan | 12.33 | 7 | eP | Pn | 05 22 21.4 | +1.2 |
| SJMP | San Jose | 12.35 | 3 | eP | Pn | 05 22 22.4 | +2.0 |
| SJMP | | | | eS | Sn | 05 24 29.2 | -7.0 |
| UGM | Wanagama | 12.65 | 231 | P | Pn | 05 22 27.0 | +2.5 |
| UGM | Wanagama | 12.65 | 231 | ePn | Pn | 05 22 26.9 | +2.3 |
| CNP | Catarman | 13.07 | 19 | eP | Pn | 05 22 31.2 | +1.1 |
| SAUI | Saumlaki | 13.46 | 127 | P | P | 05 22 38.7 | -2.8 |
| SAUI | Saumlaki | 13.46 | 127 | ePn | P | 05 22 39.0 | -2.5 |
| LUBP | Lubang | 13.60 | 359 | eP | Pn | 05 22 39.9 | +2.9 |
| KPJI | Karang Pucung | 13.61 | 237 | P | P | 05 22 40.2 | -2.9 |
| JCJI | Jatiwangi | 13.76 | 242 | P | P | 05 22 43.5 | -1.3 |
| | 2µm,1.6s,30µm | | | | | | |
| RKPI | Ransiki, Papua | 13.84 | 96 | P | P | 05 22 59.2 | +14 |
| TGY | Tagaytay City | 13.97 | 2 | P | P | 05 22 47.3 | +0.1 |
| | 79nm,0.3s,baz=194,slow=17,SNR=6.3 | | | | | | |
| PPBI | Pangkal Pinang | 14.45 | 261 | P | Pn | 05 22 49.4 | +1.2 |
| | 3.0nm,1.0s,558nm | | | | | | |
| CISI | Cisompet, Garu | 14.67 | 239 | P | P | 05 22 53.6 | -1.4 |
| CISI | Cisompet, Garu | 14.67 | 239 | eP | P | 05 22 54.3 | -0.7 |
| TNG | Tangerang | 15.08 | 246 | P | P | 05 22 58.0 | -1.5 |
| CNJI | Cibinong | 15.14 | 241 | P | P | 05 22 59.8 | -0.4 |
| | 4µm,1.0s,32µm | | | | | | |
| SKJI | Sukabumi | 15.51 | 243 | P | P | 05 23 05.1 | +0.8 |
| SBJI | Serang | 15.53 | 246 | P | P | 05 23 03.5 | -1.0 |
| SCZP | Santa Cruz | 15.63 | 358 | eP | P | 05 23 19.9 | +14 |
| PALU | Palau | 15.77 | 62 | P | P | 05 23 07.8 | +0.7 |
| | baz=16,SNR=18 | | | | | | |
| TPRI | Tanjung Pinang | 15.92 | 273 | P | P | 05 23 08.6 | -0.2 |
| | 370nm,1.3s,24µm | | | | | | |
| PMBI | Palembang | 15.92 | 259 | P | P | 05 23 09.3 | +0.5 |
| BLSI | Bandar Lampung | 16.09 | 250 | P | P | 05 23 11.4 | +0.7 |
| | 1µm,0.9s,13µm | | | | | | |
| MTN | Manton Dam | 16.64 | 141 | P | P | 05 23 17.0 | +0.2 |
| | baz=17,SNR=296 | | | | | | |
| MTN | Manton Dam | 16.64 | 141 | ePn | P | 05 23 17.1 | +0.2 |
| | 4µm,1.3s | | | | | | |
| MYKOM | Kota Tinggi | 16.66 | 276 | ePn | P | 05 23 16.6 | -0.4 |
| | 1µm,1.3s | | | | | | |
| CAUP | Cauayan | 16.84 | 5 | eP | P | 05 23 23.1 | +4.2 |
| KDU | Kakadu | 17.41 | 137 | P | P | 05 23 26.5 | +1.2 |
| | baz=17,SNR=177 | | | | | | |
| KNRA | Kununurra | 17.66 | 153 | P | Pn | 05 23 29.3 | +1.0 |
| | baz=18,SNR=38 | | | | | | |
| MNAI | Manna | 17.99 | 256 | P | Pn | 05 23 36.3 | +3.9 |
| MNAI | Manna | 17.99 | 256 | eP | Pn | 05 23 34.6 | +2.2 |
| | 2µm,0.9s | | | | | | |
| XMIS | Christmas Isla | 18.04 | 234 | eP | P | 05 23 31.5 | -0.7 |
| | 568nm,0.9s | | | | | | |
| RGRI | Rengat | 18.09 | 269 | P | Pn | 05 23 35.4 | +1.8 |
| FITZ | Fitzroy Crossi | 18.75 | 164 | P | Pn | 05 23 41.7 | +0.3 |
| | 9.6nm,0.3s,baz=5.4,slow=11,SNR=229 | | | | | | |
| FITZ | | | | LR | LR | 05 30 47.4 | |
| | comp=Z,1µm,21.9s,baz=336,slow=36 | | | | | | |
| FITZ | Fitzroy Crossi | 18.75 | 164 | P | Pn | 05 23 41.6 | +0.3 |
| | baz=19,SNR=167 | | | | | | |
| BKNI | Bangkinang | 19.39 | 271 | P | Pn | 05 23 49.0 | +0.1 |
| BKNI | Bangkinang | 19.39 | 271 | eP | Pn | 05 23 49.0 | +0.1 |
| | 1µm,1.0s | | | | | | |
| IPM | Ipoh | 19.87 | 283 | eP | Pn | 05 23 53.9 | -0.8 |
| | 993nm,0.9s | | | | | | |
| GENI | Genyem | 19.91 | 98 | P | Pn | 05 23 54.3 | -0.8 |
| | 564nm,1.4s,8µm | | | | | | |
| KULM | Kulim | 20.42 | 285 | eP | P | 05 23 59.5 | +1.3 |
| | 876nm,1.0s | | | | | | |
| JAY | Jayapura | 20.43 | 97 | P | P | 05 23 58.9 | +0.5 |
| PPSI | Pulau Pagai | 20.60 | 262 | P | Pn | 05 24 01.8 | -1.3 |
| | 2µm,1.3s,23µm | | | | | | |
| MBWA | Marble Bar | 21.09 | 182 | eP | P | 05 24 06.2 | +0.8 |
| | 346nm,0.8s | | | | | | |
| MBWA | Marble Bar | 21.09 | 182 | P | P | 05 24 06.1 | +0.8 |
| | SNR=16 | | | | | | |
| MBWA | Marble Bar | 21.09 | 182 | P | P | 05 24 06.1 | +0.8 |
| | SNR=16 | | | | | | |
| SISI | Saibi | 21.38 | 266 | P | P | 05 24 09.3 | +0.8 |
| QIZ | Qiongzhong | 21.53 | 332 | P | P | 05 24 10.4 | +0.4 |
| QIZ | | | | pP | pP | 05 24 26.3 | -0.9 |
| QIZ | | | | sP | sP | 05 24 37.4 | -0.5 |
| QIZ | | | | S | S | 05 28 05.2 | +1.1 |
| QIZ | | | | sS | sS | 05 28 32.6 | +0.2 |
| QIZ | | | | pmax | pmax | | |
| | comp=Z,97nm,1.2s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=E,950nm,18.5s | | | | | | |
| QIZ | Qiongzhong | 21.53 | 332 | ePKPdf | P | 05 24 10.8 | +0.8 |
| QIZ | Qiongzhong | 21.53 | 332 | eP | P | 05 24 10.7 | +0.7 |
| | 94nm,1.0s | | | | | | |
| PSI | Prapat | 21.66 | 277 | eP | P | 05 24 12.2 | +0.5 |
| PSI | | | | pmax | pmax | | |
| | comp=Z,260nm,1.0s | | | | | | |
| PSI | Prapat | 21.66 | 277 | eP | P | 05 24 12.2 | +0.5 |
| | comp=Z,258nm,1.0s | | | | | | |
| CHBT | CHBT | 21.94 | 306 | P | P | 05 24 15.6 | +1.2 |
| | comp=Z,504nm,0.9s | | | | | | |
| TRTT | Trang | 22.07 | 291 | P | P | 05 24 16.7 | +0.9 |
| | comp=Z,608nm,1.0s,comp=Z,7µm | | | | | | |
| TSI | Tuntungan | 22.11 | 279 | P | P | 05 24 17.7 | +1.4 |
| PBSI | Pulau Batu | 22.14 | 270 | P | P | 05 24 18.8 | +2.1 |
| TWG | Pinlang | 22.64 | 2 | eP | P | 05 24 22.8 | +1.0 |
| | comp=Z,235nm,0.6s | | | | | | |
| GSI | Gunungsitoli | 22.88 | 273 | P | P | 05 24 24.3 | -0.1 |
| GSI | Gunungsitoli | 22.88 | 273 | eP | P | 05 24 24.7 | +0.3 |
| | comp=Z,2µm,0.9s | | | | | | |
| KCSI | Kotacane, Aceh | 22.90 | 279 | P | P | 05 24 24.9 | +0.3 |
| TPUB | Ta-pu | 23.11 | 0 | eP | P | 05 24 28.3 | +1.7 |
| | comp=Z,196nm,1.0s | | | | | | |
| YULB | Yu-li | 23.22 | 2 | eP | P | 05 24 27.9 | +0.3 |
| | comp=Z,137nm,1.0s | | | | | | |
| SURT | Suratani | 23.29 | 293 | P | P | 05 24 28.8 | +0.5 |
| | comp=Z,314nm,1.0s,comp=Z,3µm | | | | | | |
| GIRL | Giralia | 23.35 | 195 | P | P | 05 24 29.7 | +1.0 |
| | baz=24,SNR=17 | | | | | | |
| SKNT | Sakolnakorn | 23.35 | 317 | P | P | 05 24 29.0 | +0.2 |
| | comp=Z,493nm,1.2s,comp=Z,6µm | | | | | | |
| PKDT | Phuket | 23.36 | 290 | P | P | 05 24 29.5 | +0.6 |
| | comp=Z,653nm,1.1s,comp=Z,7µm | | | | | | |
| SSLB | Suanglung | 23.60 | 1 | eP | P | 05 24 32.2 | +1.2 |
| | comp=Z,129nm,1.1s | | | | | | |
| KHON | Khomkaen | 23.73 | 314 | P | P | 05 24 33.4 | +1.1 |
| | comp=Z,75nm,1.0s,comp=Z,772nm | | | | | | |
| GZH | Guangzhou | 23.91 | 344 | P | P | 05 24 38.7 | +5.0 |
| GZH | | | | pP | pP | 05 24 56.6 | +4.0 |
| GZH | | | | S | S | 05 28 54.9 | +11 |
| GZH | | | | pmax | pmax | | |
| | comp=Z,650nm,3.7s | | | | | | |
| LHMI | Lhok Sumawe | 24.00 | 283 | P | P | 05 24 36.6 | +1.9 |
| LHMI | Lhok Sumawe | 24.00 | 283 | eP | P | 05 24 36.4 | +1.7 |
| | comp=Z,3µm,1.1s | | | | | | |
| NACB | Ninganchiao | 24.01 | 3 | eP | P | 05 24 35.7 | +1.1 |
| | comp=Z,522nm,2.0s | | | | | | |
| CHAI | Chaiyaphum | 24.07 | 312 | P | P | 05 24 36.2 | +0.9 |
| | comp=Z,170nm,0.8s,comp=Z,1µm | | | | | | |
| WRAB | Tennant Creek | 24.10 | 146 | c iP | P | 05 24 35.6 | +0.1 |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,1µm,1.7s | | | | | | |
| WRAB | Tennant Creek | 24.10 | 146 | eP | P | 05 24 35.7 | +0.1 |
| | comp=Z,405nm,0.9s | | | | | | |
| WRA | Warramunga Arr | 24.10 | 146 | P | P | 05 24 35.0 | -0.5 |
| | comp=Z,214nm,1.0s,baz=331,slow=9.9,SNR=302 | | | | | | |
| WRA | | | | PcP | PcP | 05 28 13.9 | -1.1 |
| | comp=Z,15nm,0.7s,baz=314,slow=2.0,SNR=3.9 | | | | | | |
| WRA | | | | ScP | ScP | 05 31 42.9 | -3.1 |
| | comp=Z,37nm,1.0s,baz=321,slow=2.8,SNR=13 | | | | | | |
| WRA | | | | PKiKP | PKiKP | 05 35 55.9 | -2.0 |
| | comp=Z,1.9nm,0.7s,baz=304,slow=1.2,SNR=11 | | | | | | |
| WB2 | Warramunga Arr | 24.10 | 146 | eP | P | 05 24 35.6 | 0.0 |
| | comp=Z,374nm,1.0s | | | | | | |
| SNSI | Sinabang, Aceh | 24.20 | 276 | P | P | 05 24 38.1 | +1.6 |
| | comp=Z,1µm,1.4s,comp=Z,15µm | | | | | | |
| PHET | Kaeng Krachan | 24.25 | 303 | P | P | 05 24 38.2 | +1.2 |
| | comp=Z,149nm,0.9s,comp=Z,1µm | | | | | | |
| MLSI | Meulaboh, Aceh | 24.36 | 280 | P | P | 05 24 38.9 | +0.9 |
| YOJ | Yonaguni jima | 24.39 | 6 | eP | P | 05 24 39.3 | +1.2 |
| YOJ | | | | pmax | pmax | | |
| | comp=Z,550nm,1.5s | | | | | | |
| YOJ | Yonaguni jima | 24.39 | 6 | eP | P | 05 24 39.2 | +1.2 |
| | comp=Z,552nm,1.5s | | | | | | |
| YHNB | Yeheng | 24.49 | 2 | eP | P | 05 24 39.9 | +0.9 |
| | comp=Z,354nm,1.4s | | | | | | |
| NONG | Nongkai | 24.68 | 317 | P | P | 05 24 41.5 | +0.7 |
| | comp=Z,198nm,1.2s | | | | | | |
| TATO | Taipei | 24.80 | 2 | eP | P | 05 24 42.5 | +0.8 |
| | comp=Z,1µm,1.8s | | | | | | |
| QZH | Quanzhou | 24.81 | 356 | eP | P | 05 24 43.5 | +1.6 |
| QZH | | | | pP | pP | 05 25 00.2 | -1.1 |
| QZH | | | | sP | sP | 05 25 10.1 | -1.3 |
| QZH | | | | S | S | 05 28 57.6 | -0.8 |
| QZH | | | | LR | LR | | |
| | comp=Z,2µm,19.6s | | | | | | |
| PBKT | Sadao Pong | 25.25 | 312 | P | P | 05 24 46.9 | +1.0 |
| | comp=Z,137nm,1.0s,comp=Z,2µm | | | | | | |
| SRDT | SRDT | 25.42 | 305 | P | P | 05 24 49.2 | +1.6 |
| | comp=Z,325nm,1.2s,comp=Z,8µm | | | | | | |
| UTHA | Uthaitani | 25.82 | 308 | P | P | 05 24 52.4 | +1.2 |
| | comp=Z,73nm,0.8s,comp=Z,521nm | | | | | | |
| WRKA | Warakurna | 26.08 | 164 | P | P | 05 24 54.0 | +0.6 |
| | baz=26,SNR=180 | | | | | | |
| COCO | West Island | 26.38 | 242 | eP | P | 05 24 57.0 | +0.7 |
| COCO | | | | pmax | pmax | | |
| | comp=Z,370nm,1.1s | | | | | | |
| COCO | West Island | 26.38 | 242 | eP | P | 05 24 57.0 | +0.7 |
| | comp=Z,375nm,1.1s | | | | | | |
| COEN | Coen | 26.48 | 123 | P | P | 05 24 56.7 | -0.5 |
| | baz=26,SNR=35 | | | | | | |
| COEN | Coen | 26.48 | 123 | eP | P | 05 24 57.6 | +0.4 |
| | comp=Z,129nm,1.0s | | | | | | |
| AS31 | Alice Springs | 26.97 | 152 | eP | P | 05 25 02.1 | +0.6 |
| | comp=Z,40nm,0.6s | | | | | | |
| ASAR | Alice Springs | 26.97 | 152 | P | P | 05 25 02.2 | +0.7 |
| | comp=Z,189nm,0.9s,baz=332,slow=8.4,SNR=620 | | | | | | |
| ASAR | | | | PcP | PcP | 05 28 19.8 | -1.7 |
| | comp=Z,18nm,0.8s,baz=329,slow=1.8,SNR=4.3 | | | | | | |
| ASAR | | | | ScP | ScP | 05 31 51.0 | -3.2 |
| | comp=Z,28nm,0.9s,baz=348,slow=2.9,SNR=16 | | | | | | |
| ASAR | | | | PKiKP | PKiKP | 05 35 57.0 | -2.5 |
| | comp=Z,1.7nm,0.8s,baz=338,slow=2.0,SNR=4.3 | | | | | | |
| ASAR | | | | LR | LR | 05 37 41.2 | |
| | comp=Z,871nm,18.2s,baz=358,slow=40 | | | | | | |
| AS01 | Alice Springs | 26.99 | 152 | eP | P | 05 25 02.3 | +0.6 |
| GUMO | Guam | 27.70 | 60 | P | P | 05 25 07.3 | -0.8 |
| | comp=Z,200nm,0.8s,baz=191,slow=8.5,SNR=7.5 | | | | | | |
| GUMO | | | | LR | LR | 05 34 58.3 | |
| | comp=Z,493nm,20.6s,baz=233,slow=34 | | | | | | |
| GUMO | Guam | 27.70 | 60 | eP | P | 05 25 07.9 | -0.2 |
| GUMO | | | | pmax | pmax | | |
| | comp=Z,190nm,0.9s | | | | | | |
| GUMO | Guam | 27.70 | 60 | eP | P | 05 25 07.9 | -0.2 |
| | comp=Z,186nm,0.8s | | | | | | |
| QIS | Mount Isa | 27.78 | 139 | P | P | 05 25 08.9 | +0.1 |
| | baz=28,SNR=71 | | | | | | |
| CM01 | Chiang Mai Arr | 27.89 | 312 | eP | P | 05 25 11.3 | +1.6 |
| CM31 | Chiang Mai Arr | 27.93 | 312 | eP | P | 05 25 11.8 | +1.7 |
| CMAR | Chiang Mai Arr | 27.93 | 312 | P | P | 05 25 11.8 | +1.6 |
| | comp=Z,52nm,0.8s,baz=140,slow=7.6,SNR=243 | | | | | | |
| CMAR | | | | sP | sP | 05 25 38.0 | -1.7 |
| | comp=Z,27nm,0.9s,baz=130,slow=9.9,SNR=3.8 | | | | | | |
| CMAR | | | | PcP | PcP | 05 28 23.8 | -0.1 |
| | comp=Z,11nm,0.7s,baz=175,slow=2.1,SNR=8.5 | | | | | | |
| CMAR | | | | ScP | ScP | 05 31 56.4 | -0.8 |
| | comp=Z,5.5nm,0.8s,baz=169,slow=2.5,SNR=7.3 | | | | | | |
| CMAR | | | | PKiKP | PKiKP | 05 35 58.4 | -1.7 |
| | comp=Z,2.2nm,0.5s,baz=271,slow=1.3,SNR=9.2 | | | | | | |
| CMAR | | | | LR | LR | 05 38 33.4 | |
| | comp=Z,785nm,18.3s,baz=140,slow=41 | | | | | | |

**CMMT Chiang Mai 28.14 313** P **P** **05 25 13.3 +1.2**
comp=Z,137nm,1.4s,comp=Z,2µm
**CHTO Chiang Mai 28.15 313** P **P** **05 25 13.4 +1.3**
comp=Z,616nm,1.4s,comp=Z,7µm
**CHTO Chiang Mai 28.15 313** *e*P **P** **05 25 13.7 +1.6**
CHTO pmax pmax
comp=Z,150nm,1.0s
**CHTO Chiang Mai 28.15 313** *e*P **P** **05 25 13.7 +1.6**
comp=Z,152nm,1.0s
**CHTO Chiang Mai 28.15 313** P **P** **05 25 13.7 +1.6**
SNR=30
**CHTO Chiang Mai 28.15 313** P **P** **05 25 13.7 +1.6**
SNR=30
**PMG Port Moresby 28.22 110** P **P** **05 25 12.5 -0.2**
comp=Z,110nm,0.7s,baz=318,slow=5.7,SNR=42
**PMG Port Moresby 28.22 110** *c i*P **P** **05 25 12.6 -0.2**
PMG pmax pmax
comp=Z,721nm,1.0s
**PMG Port Moresby 28.22 110** *e*P **P** **05 25 12.8 0.0**
comp=Z,163nm,0.9s
**MORW Morawa 29.26 188** P **P** **05 25 21.8 0.0**
baz=29,SNR=74
**GYA Guiyang 29.41 334** ⇓ *i*P **P** **05 25 24.4 +1.1**
GYA pP pP 05 25 44.0 +1.0
GYA sP sP 05 25 54.2 +1.2
GYA PP **PnPn** **05 26 24.6 +3.3**
GYA PcP **PcP** **05 28 27.6 +0.1**
GYA S **S** **05 30 13.2 +1.9**
GYA sS sS 05 30 46.0 +0.7
GYA ScP **ScP** **05 32 02.0 +0.2**
GYA ScS **ScS** **05 35 54.0 -2.7**
GYA pmax pmax
comp=Z,40nm,0.8s
GYA pmax pmax
comp=Z,480nm,6.5s
GYA LR LR
comp=Z,800nm,17.0s
GYA LR LR
comp=Z,750nm,17.2s
GYA LR LR
comp=Z,780nm,17.5s
**MTSU Mount Surprise 29.64 129** P **P** **05 25 26.2 +0.9**
baz=30,SNR=25
**PBA Port Blair 29.81 294** *e*P P 05 25 25.9 -0.9
**SARN Sarigan 29.97 55** *e*P **P** **05 25 28.0 -0.3**
**DGPR DIGLIPUR 30.21 297** *e*P **P** **05 25 30.7 +0.4**
**KMI Kunming 30.23 327** P **P** **05 25 32.9 +2.2**
KMI pP pP 05 25 51.9 +1.5
KMI sP sP 05 26 02.4 +2.0
KMI PP **PnPn** **05 26 35.9 +3.8**
KMI S **S** **05 30 26.9 +2.6**
KMI sS sS 05 30 59.0 +0.6
KMI pmax pmax
comp=Z,40nm,1.2s
KMI pmax pmax
comp=Z,190nm,4.8s
KMI LR LR
comp=Z,580nm,22.9s
KMI LR LR
comp=Z,630nm,25.7s
KMI LR LR
comp=Z,1µm,32.7s
**BLDU Ballidu 30.70 186** P **P** **05 25 34.5 0.0**
baz=31,SNR=92
**WHN Wuhan 30.87 350** ⇑P **P** **05 25 39.0 +3.0**
WHN pP **pP** **05 25 57.1 +1.4**
WHN sP **sP** **05 26 06.3 +0.6**
WHN S **S** **05 30 31.2 -2.6**
WHN LR LR
comp=Z,2µm,18.6s
**SSE Sheshan 30.88 1** P **P** **05 25 36.6 +0.5**
SSE pP **pP** **05 25 55.3 -0.5**
SSE S **S** **05 30 36.9 +2.9**
SSE sS **sS** **05 31 09.5 +1.4**
SSE pmax pmax
comp=Z,38nm,0.6s
SSE pmax pmax
comp=Z,440nm,3.9s
SSE LR LR
comp=Z,160nm,29.4s
SSE LR LR
comp=Z,630nm,29.4s
**KMBL Kambalda 31.28 178** P **P** **05 25 39.7 +0.1**
baz=31,SNR=39
**FORT Forrest 31.51 167** P **P** **05 25 42.2 +0.6**
baz=32,SNR=200
**FORT Forrest 31.51 167** *e*P **P** **05 25 42.4 +0.8**
comp=Z,4µm,0.6s
**KLBR Kellerberrin 31.57 184** P **P** **05 25 42.4 +0.2**
baz=32,SNR=50
**ENH Enshi 31.80 342** *e*P **P** **05 25 45.8 +1.6**
comp=Z,65nm,0.9s
**NJ2 Nanjing 31.86 357** *e*P **P** **05 25 48.4 +3.7**
NJ2 pmax pmax
comp=Z,24nm,0.5s
NJ2 LR LR
comp=Z,560nm,14.3s
NJ2 LR LR
comp=Z,2µm,15.7s
NJ2 LR LR
comp=Z,940nm,14.9s
**RABL Rabaul 31.99 98** *e*P **P** **05 25 46.6 +0.5**
comp=Z,2µm,1.3s
**MUN Mundaring 32.11 187** P **P** **05 25 47.0 +0.1**
baz=32,SNR=31
**CTA Charters Tower 32.25 130** P **P** **05 25 49.6 +1.3**
comp=Z,78nm,0.9s,baz=306,slow=11,SNR=44
CTA PP **PP** **05 27 00.8 -2.0**
comp=Z,70nm,1.2s,baz=306,slow=16,SNR=4.7
CTA PcP **PcP** **05 28 34.9 -0.1**
comp=Z,30nm,0.8s,baz=237,slow=6.9,SNR=5.0
**CTAO Charters Tower 32.25 130** *e*P **P** **05 25 49.7 +1.4**
CTAO pmax pmax
comp=Z,230nm,1.1s
**CTAO Charters Tower 32.25 130** *e*P **P** **05 25 49.4 +1.1**
comp=Z,232nm,1.1s
**NWAO Narrogin (SRO) 32.94 185** P **P** **05 25 54.5 +0.4**
comp=Z,454nm,0.7s,baz=242,slow=8.4,SNR=228
**NWAO Narrogin (SRO) 32.94 185** P **P** **05 25 54.8 +0.6**
baz=33,SNR=172
NWAO P **P** **05 25 54.8 +0.6**
baz=33,SNR=172
**NWAO Narrogin (SRO) 32.94 185** *e*P **P** **05 25 54.7 +0.6**
NWAO pmax pmax
comp=Z,500nm,0.8s
**NWAO Narrogin (SRO) 32.94 185** *e*P **P** **05 25 54.7 +0.6**
comp=Z,502nm,0.8s
**NWAO Narrogin (SRO) 32.94 185** P **P** **05 25 54.9 +0.6**
SNR=15
**NWAO Narrogin (SRO) 32.94 185** P **P** **05 25 54.9 +0.6**
SNR=15
**CBIJ Chichi jima 34.07 36** *e*P **P** **05 26 03.3 -0.7**
comp=Z,821nm,0.9s
**JNU Nakatsue 34.34 16** *e*P **P** **05 26 06.3 0.0**
comp=Z,49nm,0.9s
**CD2 Chengdu 34.53 334** ⇓ *i*P **P** **05 26 09.1 +1.1**
CD2 pP pP 05 26 27.3 -0.7
CD2 sP sP 05 26 39.8 +1.9
CD2 PcP **PcP** **05 28 39.6 -1.7**
CD2 pmax pmax
comp=Z,200nm,1.0s
CD2 LR LR
comp=Z,820nm,13.1s
CD2 LR LR
comp=Z,600nm,17.8s
CD2 LR LR
comp=Z,1µm,26.2s
**RKGY Rocky Gully 34.63 185** P **P** **05 26 10.4 +1.6**
baz=35,SNR=112
**QLP Quilpie 35.03 141** P **P** **05 26 13.6 +1.3**
baz=35,SNR=68
**H01W3 Cape Leeuwin H 35.25 189** P **P** **05 26 16.0 +2.2**
baz=34,slow=5.7,SNR=3.9
**H01W1 Cape Leeuwin H 35.26 189** P **P** **05 26 16.2 +2.4**
baz=34,slow=5.7,SNR=4.9
**H01W2 Cape Leeuwin H 35.26 189** P **P** **05 26 16.0 +2.1**
baz=34,slow=5.7,SNR=3.4
**XAN Xi'an 35.49 343** P **P** **05 26 17.6 +1.4**
XAN S **S** **05 31 43.2 -2.3**
XAN pmax pmax
comp=Z,480nm,12.1s
XAN LR LR
comp=Z,370nm,20.6s
XAN LR LR
comp=Z,1µm,24.3s
**BBOO Buckleboo 35.86 157** P **P** **05 26 19.9 +0.6**
baz=36,SNR=162
**BBOO Buckleboo 35.86 157** *e*P **P** **05 26 20.0 +0.6**
comp=Z,380nm,0.8s
**TIA Tai'an 36.11 355** ⇓ P **P** **05 26 23.0 +1.6**
TIA pmax pmax
comp=Z,60nm,0.7s
**SHL Shillong 37.45 315** *e*P **P** **05 26 34.1 +0.8**
SHL AMB AMB 05 26 35.5
comp=Z,264nm,0.7s
SHL *ex* x 05 32 15.5
**STKA Stephens Creek 37.55 150** P **P** **05 26 34.6 +0.9**
comp=Z,353nm,1.0s,baz=321,slow=9.8,SNR=425
STKA PP **PP** **05 28 00.1 -0.9**
comp=Z,96nm,0.9s,baz=315,slow=13,SNR=5.5
STKA LR LR 05 43 14.7
comp=Z,466nm,20.4s,baz=322,slow=38
**STKA Stephens Creek 37.55 150** P **P** **05 26 34.9 +1.2**
baz=38,SNR=269
**STKA Stephens Creek 37.55 150** *e*P **P** **05 26 34.9 +1.2**
STKA pmax pmax
comp=Z,130nm,1.2s
**STKA Stephens Creek 37.55 150** *e*P **P** **05 26 34.9 +1.2**
comp=Z,129nm,1.2s
STKA PP **PP** **05 28 00.1 -0.9**
**JHJ2 Mitsune 37.61 27** *e*P **P** **05 26 35.2 +0.9**
comp=Z,320nm,0.7s
**KS15 Wonju Array Si 37.84 10** *e*P **P** **05 26 38.1 +2.1**
**KSAR Wonju Array Be 37.84 10** P **P** **05 26 37.6 +1.5**
KSAR *PP **pP** **05 26 56.5 +0.3**
KSAR 05 28 50.3
KSAR 05 32 29.4
**KSAR Wonju Array Be 37.84 10** P **P** **05 26 37.6 +1.5**
KSAR pP **pP** **05 26 56.5 +0.3**
KSAR PcP **PcP** **05 28 50.3 -0.7**
KSAR ScP **ScP** **05 32 29.4 -1.6**
**KSRS Korea Array 37.86 10** P **P** **05 26 37.6 +1.4**
comp=Z,14nm,0.6s,baz=183,slow=10,SNR=34
KSRS pP **pP** **05 26 56.5 +0.1**
comp=Z,15nm,0.8s,baz=190,slow=8.7,SNR=5.3
KSRS PcP **PcP** **05 28 50.3 -0.7**
comp=Z,16nm,0.9s,baz=190,slow=3.1,SNR=10
KSRS ScP **ScP** **05 32 29.4 -1.7**
comp=Z,7.4nm,1.0s,baz=187,slow=3.2,SNR=12
**KS01 Wonju Array Si 37.87 10** *e*P **P** **05 26 37.8 +1.4**
KS01 *e*PcP **PcP** **05 28 50.6 -0.4**
**RMQ Roma 37.96 136** P **P** **05 26 38.2 +0.9**
baz=38,SNR=46
**TIY Taiyuan 38.20 350** *e*P **P** **05 26 42.8 +3.6**
TIY pP **pP** **05 26 59.8 +0.4**
TIY S **S** **05 32 30.4 +3.9**
TIY sS **sS** **05 33 02.4 +1.2**
TIY pmax pmax
comp=Z,30nm,0.5s
TIY pmax pmax
comp=Z,420nm,5.5s
TIY LR LR
comp=Z,400nm,6.5s
TIY LR LR
comp=Z,230nm,4.7s
TIY LR LR
comp=Z,540nm,15.5s
**INU Inuyama 38.38 22** *e*P **P** **05 26 40.1 -0.6**
comp=Z,58nm,1.0s
**PATS Pohnpei 38.39 79** *e*P **P** **05 26 41.4 +0.3**
comp=Z,451nm,1.6s
**DL2 Dalian 38.68 2** P **P** **05 26 44.0 +0.9**
DL2 pP **pP** **05 27 03.2 -0.1**
DL2 PcP **PcP** **05 28 53.1 -0.4**
DL2 S **S** **05 32 34.4 +0.7**
DL2 pmax pmax
comp=Z,66nm,1.3s
DL2 pmax pmax
comp=Z,140nm,4.8s
DL2 LR LR
comp=Z,640nm,19.6s
DL2 LR LR
comp=Z,580nm,18.4s
DL2 LR LR
comp=Z,730nm,18.0s
**EIDS Eidsvold 38.94 133** P **P** **05 26 45.4 -0.1**
baz=39,SNR=14
**EIDS Eidsvold 38.94 133** *e*P **P** **05 26 45.4 -0.1**
comp=Z,210nm,1.4s
**LZH Lanzhou 39.03 338** *e*P **P** **05 26 48.0 +1.7**
LZH pP pP 05 27 06.3 -0.2
LZH sP sP 05 27 15.0 -1.4
LZH pmax pmax
comp=Z,71nm,1.0s
LZH pmax pmax
comp=Z,520nm,7.8s
LZH LR LR
comp=Z,740nm,15.6s
LZH LR LR
comp=Z,660nm,15.1s
LZH LR LR
comp=Z,610nm,19.2s
**BWNR Bhubaneshwar 39.40 303** *ex* **P** **05 26 44.9 -4.5**
**CMSA Cobar Meteorol 39.49 145** P **P** **05 26 51.5 +1.5**
baz=40,SNR=89
**MAJO Matsushiro 39.88 23** *e*P **P** **05 26 52.4 -0.8**
MAJO *e* 05 28 57.7
MAJO pmax pmax
comp=Z,130nm,1.5s
**MAJO Matsushiro 39.88 23** *e*P **P** **05 26 52.4 -0.8**
comp=Z,134nm,1.5s
MAJO *e*PcP **PcP** **05 28 57.7 +0.2**
**MAT Matsushiro 39.88 23** P **P** **05 26 51.7 -1.5**
**MJAR Matsushiro Arr 39.88 23** P **P** **05 26 51.8 -1.4**
comp=Z,25nm,0.9s,baz=195,slow=8.3,SNR=37
MJAR pP **pP** **05 27 11.5 -2.0**
comp=Z,12nm,1.0s,baz=203,slow=8.3,SNR=3.0
MJAR PcP **PcP** **05 28 57.1 -0.4**
comp=Z,33nm,0.9s,baz=176,slow=2.9,SNR=16
MJAR ScP **ScP** **05 32 37.8 -1.1**
comp=Z,50nm,1.0s,baz=197,slow=4.3,SNR=41
MJAR LR LR 05 41 29.2
comp=Z,436nm,21.2s,baz=190,slow=33
**MJB9 Matsu-Tunnel 39.88 23** *e*P **P** **05 26 52.2 -1.0**
comp=Z,130nm,1.5s
**BJT Baijiatuau 39.97 355** *e*P **P** **05 26 55.5 +1.7**
BJT pmax pmax
comp=Z,83nm,0.6s
**BJT Baijiatuau 39.97 355** *e*P **P** **05 26 55.5 +1.7**
comp=Z,83nm,0.6s
**BJI Beijing 39.99 355** P **P** **05 26 55.5 +1.5**
BJI pP **pP** **05 27 14.1 -0.2**
BJI pmax pmax
comp=Z,110nm,0.7s
**CHLP Challavanipeta 40.15 299** *e*P **P** **05 26 56.3 +0.7**
CHLP IAmb IAmb 05 26 58.8
comp=Z,429nm,0.9s
CHLP *ep*P **pP** **05 27 14.3 -1.7**
CHLP *eS* **S** **05 32 58.6 +2.4**
CHLP *es*S **sS** **05 33 29.7 -1.3**
**PALK Pallekele 40.26 281** *i* P **P** **05 26 57.9 +1.2**
SNR=7.6
**PALK Pallekele 40.26 281** *e*P **P** **05 26 58.0 +1.3**
PALK pmax pmax
comp=Z,210nm,1.2s
**PALK Pallekele 40.26 281** *e*P **P** **05 26 58.0 +1.3**
comp=Z,209nm,1.2s
**PALK Pallekele 40.26 281** P **P** **05 26 58.1 +1.3**
SNR=14
**PALK Pallekele 40.26 281** P **P** **05 26 58.1 +1.3**
SNR=14
**HNR Honiara 40.45 105** P **P** **05 26 57.8 -0.4**
comp=Z,311nm,0.7s,baz=192,slow=3.9,SNR=38
**HNR Honiara 40.45 105** *e*P **P** **05 26 58.1 -0.1**
HNR pmax pmax
comp=Z,510nm,0.9s
**HNR Honiara 40.45 105** *e*P **P** **05 26 57.7 -0.6**
comp=Z,506nm,0.9s
**VIS Vishakhapatnam 40.49 298** *e*P **P** **05 26 59.3 +0.9**
VIS AMB AMB 05 27 01.7
comp=Z,267nm,1.2s
**LSA Lhasa 40.59 319** *e*P **P** **05 27 02.2 +2.5**
LSA pmax pmax
comp=Z,180nm,0.7s
**LSA Lhasa 40.59 319** *e*P **P** **05 27 02.2 +2.5**
comp=Z,180nm,0.6s
**BOK Bokaro 40.98 308** *e*P **P** **05 27 03.5 +1.0**
**HHC Hu-ho-hao-te 41.40 350** *e*P **P** **05 27 07.7 +2.0**
HHC pP pP 05 27 26.8 +0.7
HHC sP sP 05 27 33.7 -2.3
HHC S **S** **05 33 17.2 +2.8**
HHC pmax pmax
comp=Z,20nm,0.9s
HHC pmax pmax
comp=Z,190nm,4.4s
HHC LR LR
comp=Z,400nm,15.0s
HHC LR LR
comp=Z,380nm,15.8s
HHC LR LR
comp=Z,350nm,15.3s
**BTO Baotou 41.46 348** *e*P **P** **05 27 06.8 +0.6**
**ODAN Odare 41.47 313** *e*P **P** **05 27 08.4 +1.7**
comp=Z,695nm,1.2s
**TAPN Taplejung 41.51 314** *e*P **P** **05 27 08.9 +1.8**
comp=Z,542nm,1.0s
**ARPS Mount Arapiles 41.67 154** P **P** **05 27 09.1 +1.2**
baz=42,SNR=91
**SNY Shenyang 41.68 4** ⇑ P **P** **05 27 08.4 +0.5**
SNY S **S** **05 33 18.3 0.0**
SNY pmax pmax
comp=Z,54nm,0.9s
SNY LR LR
comp=Z,350nm,10.2s
SNY LR LR
comp=Z,480nm,15.9s
SNY LR LR
comp=Z,510nm,16.9s
**PVM Polavaram 41.84 296** *e*P **P** **05 27 10.0 +0.4**
PVM IAmb IAmb 05 27 12.4
comp=Z,128nm,0.9s
PVM *ep*P **pP** **05 27 30.2 +0.2**
PVM *eS* **S** **05 33 23.7 +2.3**
PVM *es*S **sS** **05 33 57.2 +0.8**
**MDRS Chennai 41.87 290** *e*P **P** **05 27 10.3 +0.5**
MDRS AMB AMB 05 27 12.9
comp=Z,174nm,0.9s
**RAMN Ramite 42.10 312** *e*P **P** **05 27 13.9 +2.0**
comp=Z,1µm,1.1s
**ARMA Armidale 42.41 138** P **P** **05 27 16.6 +2.4**
baz=42,SNR=20
**ARMA Armidale 42.41 138** *e*P **P** **05 27 16.4 +2.3**
comp=Z,409nm,1.1s
**SKHT Srikalahasti 42.54 290** *e*P **P** **05 27 15.5 +0.2**
SKHT IAmb IAmb 05 27 17.8
comp=Z,172nm,0.8s
SKHT *ep*P **pP** **05 27 35.7 -0.1**
SKHT *eS* **S** **05 33 33.6 +1.8**
SKHT *es*S **sS** **05 34 04.9 -2.0**
**JIRN Jiri 42.80 313** *e*P **P** **05 27 19.4 +1.7**
**YNG Young 43.06 145** P **P** **05 27 21.1 +1.9**
baz=43,SNR=18
**GUN Gumba 43.17 313** *e*P **P** **05 27 22.3 +1.7**
comp=Z,548nm,0.7s
**PKI Pulchoki 43.33 312** *e*P **P** **05 27 23.2 +1.3**
comp=Z,193nm,0.7s
**PKIN Phulchoki 43.34 312** *e*P **P** **05 27 23.4 +1.5**
comp=Z,178nm,0.7s
**MSHR Mys Shultsa 43.42 12** *ce*P **P** **05 27 22.4 +0.4**
**GTA Gaotai 43.47 337** P **P** **05 27 24.4 +1.8**
GTA pP pP 05 27 43.1 -0.1
GTA sP sP 05 27 52.1 -0.9
GTA PcP **PcP** **05 29 09.9 +0.5**
GTA ScP **ScP** **05 32 53.3 0.0**
GTA PcS **PcS** **05 33 01.2 -1.0**
GTA S **S** **05 33 48.3 +3.2**
GTA sS sS 05 34 19.0 -1.3
GTA ScS **ScS** **05 37 12.1 -2.1**
GTA pmax pmax
comp=Z,51nm,1.0s
GTA pmax pmax
comp=Z,220nm,6.2s
GTA LR LR
comp=Z,350nm,11.9s
GTA LR LR
comp=Z,380nm,15.9s
**KKN Kakani 43.54 312** *e*P **P** **05 27 24.9 +1.4**
comp=Z,513nm,1.2s
**DMN Daman 43.57 312** *e*P **P** **05 27 25.3 +1.5**
comp=Z,302nm,0.7s
**NJS Nagarjunasagar 43.72 294** *e*P **P** **05 27 24.7 -0.1**
NJS IAmb IAmb 05 27 26.9
comp=Z,164nm,0.8s
NJS *ep*P **pP** **05 27 44.3 -1.0**
NJS *eS* **S** **05 33 50.5 +1.5**
**CN2 Changchun 43.79 5** ⇑ P **P** **05 27 28.1 +3.2**
CN2 *ep*P pP 05 27 49.0 +3.5
CN2 *eS* **S** **05 33 54.2 +5.0**
CN2 pmax pmax
comp=Z,200nm,4.0s
CN2 LR LR
comp=Z,1µm,15.0s
CN2 LR LR
comp=Z,1µm,15.0s
CN2 LR LR
comp=Z,1µm,16.0s
**MGCD Mangrove Creek 43.91 142** P **P** **05 27 28.8 +2.8**
baz=44,SNR=14
**SRLM Srisailam 43.96 293** *e*P **P** **05 27 26.8 +0.1**
SRLM IAmb IAmb 05 27 28.8
comp=Z,244nm,1.0s
SRLM *ep*P **pP** **05 27 46.9 -0.4**
SRLM *eS* **S** **05 33 53.0 +0.4**
**TOO Toolangi 44.01 151** P **P** **05 27 28.9 +2.0**
baz=44,SNR=36
**TRD Trivandrum 44.11 282** *e*P **P** **05 27 28.4 +0.5**
TRD AMB AMB 05 27 30.6
comp=Z,487nm,1.0s
**GKN Gorkha 44.13 312** *e*P **P** **05 27 29.5 +1.3**
**CAN Canberra 44.14 146** *e*P **P** **05 27 29.8 +1.8**
CAN pmax pmax
comp=Z,480nm,0.9s
**CAN Canberra 44.14 146** *e*P **P** **05 27 29.8 +1.8**
comp=Z,478nm,0.9s
**CNB Canberra Magne 44.34 146** P **P** **05 27 31.4 +1.9**
baz=44,SNR=44
**RIV Riverview 44.36 143** P **P** **05 27 32.6 +3.0**
baz=44,SNR=6.0
**RPR Rampur 44.47 297** *e*P **P** **05 27 30.9 +0.1**
RPR IAmb IAmb 05 27 33.2
comp=Z,197nm,0.8s
RPR *ep*P **pP** **05 27 51.1 -0.3**
RPR *eS* **S** **05 33 59.9 0.0**
RPR *es*S **sS** **05 34 32.8 -2.4**
**HYB Hyderabad 44.67 295** *i* P **P** **05 27 33.5 +1.1**
comp=Z,140nm,1.0s
HYB *eS* **S** **05 34 02.0 -0.8**
**HYB Hyderabad 44.67 295** *e*P **P** **05 27 33.2 +0.8**
HYB AMB AMB 05 27 34.7
comp=Z,258nm,0.8s
**HYBB Hyderabad (bro 44.67 295** *e*P **P** **05 27 32.4 0.0**
HYBB IAmb IAmb 05 27 34.5
comp=Z,227nm,0.9s
HYBB *ep*P **pP** **05 27 52.5 -0.6**
HYBB *eS* **S** **05 34 03.8 +1.0**
HYBB *es*S **sS** **05 34 37.3 -0.9**
**KOLN Koldanda 44.79 311** *e*P **P** **05 27 34.9 +1.5**
comp=Z,416nm,0.8s
**DANN Dangsing 44.97 312** *e*P **P** **05 27 36.5 +1.5**
**MDJ Mudanjiang 45.12 9** *e*P **P** **05 27 36.3 +0.8**
comp=Z,185nm,1.0s
**USRK Ussurirysk Ar. 45.15 12** P **P** **05 27 36.4 +0.7**
comp=Z,63nm,0.8s,baz=188,slow=7.8,SNR=117
USRK pP **pP** **05 27 54.7 -1.7**
comp=Z,24nm,0.8s,baz=199,slow=7.6,SNR=3.2
USRK ScP **ScP** **05 32 58.5 -1.3**
comp=Z,7.4nm,1.0s,baz=222,slow=1.9,SNR=10
USRK LR LR 05 46 18.6
comp=Z,172nm,21.7s,baz=170,slow=36
**SRSP Sriramsagar 45.34 297** *e*P **P** **05 27 36.9 -0.8**
SRSP IAmb IAmb 05 27 39.7
comp=Z,171nm,0.9s
SRSP *ep*P **pP** **05 27 58.6 +0.2**
SRSP *eS* **S** **05 34 13.2 +0.6**
**PYUN Piuthan 45.42 311** *e*P **P** **05 27 40.0 +1.6**
comp=Z,824nm,0.9s
**MILA Mila 45.49 147** P **P** **05 27 39.4 +0.7**
baz=46,SNR=8.2
**JBP Jabalpur 45.51 303** *e*P **P** **05 27 39.8 +0.8**
JBP *eS* **S** **05 34 15.5 +0.8**
**NGP Nagpur 45.51 300** *e*P **P** **05 27 39.8 +0.8**
NGP AMB AMB 05 27 41.5
comp=Z,197nm,0.3s
**ERM Erimo 46.53 23** *e*P **P** **05 27 47.3 +0.6**
ERM pmax pmax
comp=Z,52nm,1.0s
**ERM Erimo 46.53 23** *e*P **P** **05 27 47.2 +0.6**

comp=Z,52nm,1.0s
**KLRI Killari 46.64 295** *e*P **P 05 27 47.6 -0.4**
KLRI IAmb IAmb 05 27 49.7
comp=Z,322nm,0.8s
KLRI *ep*P **pP 05 28 07.8 -1.0**
KLRI *e*S **S 05 34 31.0 -0.2**
KLRI *es*S **sS 05 35 06.8 +0.1**
**MNGl Mangalore 46.98 288** *ex* **P 05 27 46.5 -4.0**
**BHPL Bhopal 47.70 302** *e*P **P 05 27 57.2 +1.1**
BHPL AMB AMB 05 27 58.3
comp=Z,210nm,0.7s
**MNCY Minicoy 47.92 281** *e*P **P 05 27 57.5 -0.4**
**ASAJ Asahikawa 48.12 21** P **P 05 27 59.1 +0.1**
comp=Z,59nm,0.7s,baz=232,slow=8.6,SNR=36
ASAJ ScP **ScP 05 33 11.1 -1.2**
comp=Z,2.5nm,0.3s,baz=256,slow=4.2,SNR=4.0
**ASAJ Asahikawa 48.12 21** *e*P **P 05 27 59.0 +0.1**
comp=Z,93nm,1.1s
ASAJ ScP **ScP 05 33 11.1 -1.2**
**LHI Lord Howe Isla 48.20 134** P **P 05 28 01.7 +2.0**
baz=48,SNR=6.7
**LHI Lord Howe Isla 48.20 134** *e*P **P 05 28 01.9 +2.2**
comp=Z,737nm,1.2s
**GOA Goa 48.49 291** *e*P **P 05 28 02.3 0.0**
GOA AMB AMB 05 28 04.5
comp=Z,139nm,1.0s
**MOO Moorlands 48.68 154** P **P 05 28 05.5 +2.2**
baz=49,SNR=8.5
**H11S3 WAKE ISLAND Hy 48.98 65** P **P 05 28 06.3 +0.6**
baz=241,slow=6.5,SNR=5.4
**H11S1 WAKE ISLAND Hy 48.99 65** P **P 05 28 06.5 +0.6**
baz=241,slow=6.5,SNR=4.5
**H11S2 WAKE ISLAND Hy 48.99 65** P **P 05 28 06.5 +0.6**
baz=241,slow=6.5,SNR=3.4
**ULN Ulaanbaatar 49.02 348**‖ *e*P **P 05 28 07.5 +1.5**
ULN pmax pmax
comp=Z,104nm,1.7s
**ULN Ulaanbaatar 49.02 348** *e*P **P 05 28 07.8 +1.7**
comp=Z,287nm,1.7s
**ULN Ulaanbaatar 49.02 348** P **P 05 28 07.9 +1.9**
SNR=28
**ULN Ulaanbaatar 49.02 348** P **P 05 28 07.9 +1.9**
SNR=28
**HIA Hailar 49.03 359** *e*P **P 05 28 06.5 +0.6**
HIA *e* 05 29 28.6
**HIA Hailar 49.03 359** *e*P **P 05 28 06.5 +0.6**
HIA *e*PcP **PcP 05 29 28.6 +0.1**
**TAU Tasmania Unive 49.11 154** *e*P **P 05 28 08.7 +2.1**
TAU pmax pmax
comp=Z,220nm,1.0s
**TAU Tasmania Unive 49.11 154** *e*P **P 05 28 08.3 +1.8**
comp=Z,216nm,1.0s
**SONM Songino Array 49.13 348** P **P 05 28 08.2 +1.4**
comp=Z,26nm,0.9s,baz=166,slow=9.1,SNR=76
SONM pP **pP 05 28 27.7 0.0**
comp=Z,28nm,0.9s,baz=169,slow=9.1,SNR=5.6
SONM PcP **PcP 05 29 28.3 -0.7**
comp=Z,25nm,0.9s,baz=160,slow=4.6,SNR=4.8
SONM PP PP 05 29 51.8 -9.5
comp=Z,23nm,1.0s,baz=168,slow=7.4,SNR=3.6
SONM ScP **ScP 05 33 15.1 -1.6**
comp=Z,5.7nm,0.8s,baz=158,slow=4.2,SNR=4.9
SONM LR LR 05 49 39.5
comp=Z,318nm,20.3s,baz=157,slow=37
**SONA1 Songino Array 49.14 348** *e*P **P 05 28 08.4 +1.5**
**WAKE Wake Island 49.18 64** *e*P **P 05 28 08.3 +0.8**
comp=Z,276nm,1.2s
**POO Poona 49.27 295** *e*P **P 05 28 08.5 +0.3**
**HABR Khabarovsk 49.87 13** *e*P **P 05 28 09.9 -2.3**
HABR *e* 05 29 29.7
HABR *e* 05 30 05.4
HABR *e*PPP PPP 05 31 01.4
HABR *e*S **S 05 35 13.6 -2.0**
HABR *e* 05 37 54.4
HABR *e*SS **SS 05 38 48.8 -0.8**
HABR *e*SSS SSS 05 40 16.7
HABR pmax pmax
comp=N,63nm,1.9s
HABR pmax pmax
comp=Z,179nm,1.9s
HABR pmax pmax
comp=E,94nm,1.9s
HABR MLR MLR
comp=Z,155nm,19.0s
**DZM Mont Dzumac 49.92 119** P **P 05 28 14.7 +1.5**
comp=Z,220nm,1.0s,baz=307,slow=9.0,SNR=59
**DZM Mont Dzumac 49.92 119** *e*P **P 05 28 14.9 +1.6**
comp=Z,795nm,1.2s
**DZM Mont Dzumac 49.92 119** *e*LQ LQ 05 40 33.9
comp=Z,2μm,34.1s
DZM *e*LR LR 05 42 34.1
comp=Z,2μm,33.0s
**DZM Mont Dzumac 49.92 119** *e*P **P 05 28 14.8 +1.5**
comp=Z,338nm,1.1s
**NDI New Delhi 50.15 308** *ex* **P 05 28 19.0 +4.3**
**DDI Dehra Dun 50.26 311** *e*P **P 05 28 16.1 +0.5**
**YSS Yuzh-Sakhalins 50.63 20**‖ *i*P **P 05 28 18.0 0.0**
YSS pmax pmax
comp=Z,90nm,1.2s
**YSS Yuzh-Sakhalins 50.63 20** *e*P **P 05 28 18.1 0.0**
comp=Z,145nm,1.2s
**SMLA Simla 51.32 311** *e*P **P 05 28 24.1 +0.7**
SMLA AMB AMB 05 28 25.8
comp=Z,237nm,1.0s
**SDNR Sundarnagar 51.64 311** *e*P **P 05 28 27.0 +1.0**
**BHK Bhakra 52.02 311** *e*P **P 05 28 29.3 +0.6**
**CIT Chita 52.11 355** *e*P **P 05 28 30.4 +1.4**
CIT *e* 05 28 38.2
CIT pmax pmax
comp=Z,69nm,1.2s
**ZAK Zakamensk 52.23 346** *e*P **P 05 28 30.4 +0.3**
ZAK *e* 05 29 39.5
ZAK pmax pmax
comp=Z,28nm,1.4s
ZAK pmax pmax
comp=Z,36nm,1.2s
ZAK pmax pmax
comp=Z,13nm,1.5s
**WMQ Urumqi 52.45 330** P **P 05 28 33.4 +1.7**
WMQ pP pP 05 28 54.0 +1.1
WMQ PcP **PcP 05 29 41.5 +0.1**
WMQ PcS **PcS 05 33 36.9 -3.0**
WMQ S **S 05 35 53.5 +1.9**
WMQ ScS **ScS 05 38 09.6 -3.9**
WMQ pmax pmax
comp=Z,98nm,0.9s
WMQ pmax pmax
comp=Z,220nm,6.3s
WMQ LR LR
comp=Z,960nm,30.7s
WMQ LR LR
comp=Z,1μm,28.7s
WMQ LR LR
comp=Z,1μm,30.7s
**DHRM DHARAMSHALA 52.50 312** *e*P **P 05 28 33.4 +0.8**
DHRM AMB AMB 05 28 34.4
comp=Z,180nm,0.7s
**THN Thein Dam 53.02 312** *e*P **P 05 28 36.8 +0.7**
THN *ex* x 05 36 10.4
**TLY Talaya 53.36 347** *e*P **P 05 28 41.3 +3.1**
TLY *e*S **S 05 36 08.1 +4.5**
TLY *e*SSS SSS 05 41 28.5
TLY pmax pmax
comp=Z,26nm,1.1s
TLY MLR MLR
comp=Z,135nm,14.0s
**NFK Norfolk Island 53.77 127** P **P 05 28 43.5 +1.9**
baz=54,SNR=3.2
**MOY Mondy 53.98 345** *e*P **P 05 28 45.2 +2.3**
MOY pmax pmax
comp=Z,48nm,1.6s
**TYV Tymovskoe 54.03 17** *e*P **P 05 28 43.8 +0.7**
TYV pmax pmax
comp=Z,60nm,2.0s
**BHJ Bhuj 54.41 299** *e*P **P 05 28 45.0 -1.4**
BHJ AMB AMB 05 28 46.9
comp=Z,108nm,5.7s
**NKL Nikolayevsk 55.54 15** *e*P **P 05 28 54.0 0.0**
NKL pmax pmax
comp=N,65nm,1.0s
NKL pmax pmax
comp=Z,140nm,1.0s
**HVS Khovu-Aksy 55.71 340** *d i*P **P 05 28 57.0 +1.7**
HVS pmax pmax
comp=Z,109nm,0.6s
**KSH Kashi 56.44 319** P **P 05 29 02.9 +2.0**
KSH pP pP 05 29 21.8 -0.5
KSH PcP **PcP 05 29 58.4 +1.5**
KSH PP **PP 05 31 11.5 +4.1**
KSH S **S 05 36 45.5 -0.1**
KSH ScS **ScS 05 38 37.9 -4.5**
KSH pmax pmax
comp=Z,46nm,0.8s
KSH LR LR
comp=Z,400nm,5.6s
KSH LR LR
comp=Z,290nm,5.8s
KSH LR LR
comp=Z,430nm,6.6s
**PDGK Podgornoye 56.50 325** *i* P **P 05 29 02.3 +1.1**
PDGK pmax pmax
comp=Z,47nm,0.7s
**CLNS Chul'man 56.72 3** *e*P **P 05 29 03.4 +1.0**
CLNS *e* 05 29 57.4
CLNS *e* 05 31 13.4
CLNS *e*PPP PPP 05 32 36.4
CLNS pmax pmax
comp=Z,86nm,0.9s
CLNS pmax pmax
comp=N,58nm,0.9s
CLNS pmax pmax
comp=E,31nm,1.0s
CLNS pmax pmax
comp=Z,9.0nm,0.9s
CLNS pmax pmax
comp=E,16nm,0.9s
CLNS pmax pmax
comp=N,26nm,1.1s
**DGZ Jazzator, Alta 56.96 335** *i* P **P 05 29 06.1 +1.8**
DGZ pmax pmax
comp=Z,56nm,0.8s
**MK01 Makanchi Array 57.22 330** *e*P **P 05 29 07.4 +1.3**
**MK31 Makanchi Array 57.24 330** *e*P **P 05 29 07.7 +1.4**
**MK31 Makanchi Array 57.24 330** *e*P **P 05 29 07.7 +1.4**
**MKAR Makanchi Array 57.24 330** P **P 05 29 07.4 +1.2**
comp=Z,41nm,0.8s,baz=128,slow=8.5,SNR=81
MKAR pP **pP 05 29 28.3 +0.6**
comp=Z,98nm,0.9s,baz=131,slow=7.4,SNR=12
MKAR ScP **ScP 05 33 50.5 -1.5**
comp=Z,5.5nm,0.9s,baz=145,slow=4.1,SNR=4.0
MKAR LR LR 05 55 20.3
comp=Z,287nm,20.1s,baz=116,slow=38
MKAR PKPPKP **P'P'df 05 58 47.6 -6.9**
comp=Z,1.2nm,1.0s,baz=297,slow=3.4,SNR=3.6
**MAKZ Makanchi 57.41 330** *e*P **P 05 29 08.6 +1.2**
MAKZ pmax pmax
comp=Z,61nm,1.0s
**MAKZ Makanchi 57.41 330** *e*P **P 05 29 08.6 +1.2**
comp=Z,61nm,0.9s
**ULHL Ulahol 57.79 322** P **P 05 29 12.6 +2.1**
SNR=5.8
**SFK Sufi-Kurgan 58.32 319** *i* P **P 05 29 15.2 +1.0**
SFK pmax pmax
comp=Z,17nm,0.7s
**TKM2 Tokmak 2 58.56 323** P **P 05 29 17.4 +1.6**
SNR=48
**KBK Karagaybulak 58.81 322** P **P 05 29 19.6 +2.1**
SNR=28
**UCH Uchtor 58.84 321** P **P 05 29 19.9 +1.8**
SNR=27
**KBL Kabul 58.95 311** *e*P **P 05 29 19.6 +0.9**
KBL pmax pmax
comp=Z,400nm,0.9s
**KBL Kabul 58.95 311** *e*P **P 05 29 19.6 +0.9**
comp=Z,401nm,0.9s
**AAK Ala-Archa 59.08 322** *e*P **P 05 29 21.2 +1.9**
AAK pmax pmax
comp=Z,88nm,1.0s
**AAK Ala-Archa 59.08 322** P **P 05 29 21.8 +2.4**
SNR=15
**AAK Ala-Archa 59.08 322** *e*P **P 05 29 21.1 +1.9**
comp=Z,88nm,1.0s
**AAK Ala-Archa 59.08 322** P **P 05 29 21.4 +2.1**
SNR=17
**FRU Bishkek 59.11 322** *e*P **P 05 29 22.0 +2.6**
FRU pmax pmax
comp=Z,68nm,2.0s
**CHMS Chumysh 59.12 322** P **P 05 29 21.1 +1.6**
SNR=8.3
**AML Almayashu 59.30 321** P **P 05 29 22.9 +1.8**
SNR=44
**MSVF Nonsavu 59.33 111** *e*P **P 05 29 23.0 +1.6**
MSVF pmax pmax
comp=Z,99nm,0.8s
**MSVF Nonsavu 59.33 111** *e*P **P 05 29 23.0 +1.6**
comp=Z,99nm,0.8s
**USP Osenovka 59.42 322** P **P 05 29 23.2 +1.7**
SNR=9.6
**EKS2 Erkin-Say 59.54 322** P **P 05 29 24.4 +1.9**
SNR=12
**MNAS Manas 60.24 321** *i* P **P 05 29 29.0 +1.7**
MNAS pmax pmax
comp=Z,54nm,0.8s
**DCZ Deep Cove 61.20 144** *e*P **P 05 29 34.4 +0.9**
comp=Z,264nm,1.5s
**ZAA0 Zalesovo Array 61.23 337** *e*P **P 05 29 34.3 +0.8**
comp=Z,126nm,0.9s
ZAA0 *e*S **S 05 37 46.2 -0.5**
**ZALV Zalesovo Beam 61.23 337** P **P 05 29 33.9 +0.3**
comp=Z,52nm,0.8s,baz=132,slow=6.1,SNR=9.3
ZALV pP **pP 05 29 55.1 -0.1**
comp=Z,88nm,0.8s,baz=128,slow=6.4,SNR=9.8
ZALV LR LR 05 56 35.7
comp=Z,189nm,19.9s,baz=87,slow=36
ZALV PKPPKP **P'P'df 05 58 47.8 0.0**
comp=Z,3.0nm,0.9s,baz=324,slow=3.9,SNR=7.3
**ZALV Zalesovo Beam 61.23 337** *e*P **P 05 29 34.2 +0.7**
**PEA0B Petropavlovsk- 61.28 25** *e*P **P 05 29 34.4 +0.4**
comp=Z,131nm,0.8s
**PETK Petropavlovsk- 61.28 25** P **P 05 29 34.3 +0.3**
comp=Z,92nm,0.8s,baz=200,slow=4.1,SNR=60
**PETK Petropavlovsk- 61.28 25** *e*P **P 05 29 34.4 +0.4**
**JCZ Jackson Bay 61.43 142** PN **P 05 29 36.6 +1.3**
**PET Petropavlovsk 61.62 25** *e*P **P 05 29 36.2 0.0**
PET pmax pmax
comp=Z,198nm,1.4s
**PET Petropavlovsk 61.62 25** *e*P **P 05 29 36.7 +0.5**
comp=Z,244nm,1.2s
**KURK Kurchatov 61.67 331** *d i*P **P 05 29 37.7 +1.1**
KURK pmax pmax
comp=Z,859nm,1.0s
**KURK Kurchatov 61.67 331** *e*P **P 05 29 37.5 +1.0**
comp=Z,233nm,0.9s
**KURK Kurchatov 61.67 331** P **P 05 29 37.9 +1.4**
SNR=79
**KURK Kurchatov 61.67 331** P **P 05 29 37.9 +1.4**
SNR=79
**MLZ Mavora Lakes 61.72 144** *e*P **P 05 29 38.0 +0.9**
comp=Z,136nm,0.8s
**FOZ Fox Glacier 61.79 141** *e*P **P 05 29 38.6 +1.1**
comp=Z,73nm,1.1s
**KK31 Karatay Array 61.82 321** *i* P **P 05 29 38.0 +0.2**
KK31 pmax pmax
comp=Z,16nm,0.7s
**WHZ Wether Hill Ro 61.90 144** *e*P **P 05 29 39.0 +0.8**
comp=Z,177nm,0.9s
**WKZ Wanaka 61.96 143** *e*P **P 05 29 39.8 +1.0**
comp=Z,93nm,1.0s
**WVZ Waitaha Valley 62.14 140** PN **P 05 29 40.6 +0.7**
**DSZ Denniston Nort 62.19 139** PN **P 05 29 41.6 +1.2**
**YAK Yakutsk 62.22 5** P **P 05 29 40.2 +0.1**
comp=Z,331nm,0.8s,baz=188,slow=0.9,SNR=97
YAK PKPPKP **P'P'df 05 58 47.4 +1.8**
comp=Z,8.3nm,0.4s,baz=121,slow=2.8,SNR=1.8
**YAK Yakutsk 62.22 5** *e*P **P 05 29 38.5 -1.5**
YAK *e**PP pP 05 29 44.2 -18
YAK *e* 05 30 15.3
YAK *e* 05 31 58.2
YAK *e*PPP PPP 05 33 23.4
YAK *e*S **S 05 37 57.1 -1.8**
YAK *e**SS **sS 05 38 36.9 +0.9**
YAK *e* 05 39 20.9
YAK *e*SS **SS 05 42 12.5 +8.9**
YAK *e*SSS SSS 05 44 48.4
YAK pmax pmax
comp=Z,455nm,0.9s
YAK pmax pmax
comp=N,134nm,1.3s
YAK pmax pmax
comp=E,41nm,1.5s
YAK pmax pmax
comp=Z,50nm,1.4s
YAK pmax pmax
comp=N,51nm,1.6s
YAK pmax pmax
comp=E,90nm,2.1s
YAK smax smax
comp=N,331nm,2.8s
YAK smax smax
comp=E,337nm,3.6s
**YAK Yakutsk 62.22 5** *e*P **P 05 29 40.3 +0.2**
comp=E,430nm,0.8s
YAK P'P' 05 58 47.4
**INZ Inchbonnie 62.42 140** PN **P 05 29 42.1 +0.3**
**LBZ Lake Benmore 62.45 142** *e*P **P 05 29 42.7 +0.7**
comp=E,197nm,1.0s
**LBZ Lake Benmore 62.45 142** PN **P 05 29 42.3 +0.3**
**RPZ Rata Peaks 62.66 141** P **P 05 29 44.4 +1.1**
comp=E,544nm,0.8s,baz=281,slow=2.2,SNR=157
**RPZ Rata Peaks 62.66 141** *e*P **P 05 29 44.6 +1.2**
comp=E,634nm,0.9s
**RPZ Rata Peaks 62.66 141** PN **P 05 29 44.2 +0.9**
**HIZ Hauiti 62.89 134** *e*P **P 05 29 47.1 +2.1**
comp=E,148nm,1.0s
**MCQ Macquarie Isla 62.90 156** P **P 05 29 46.8 +2.2**
baz=63,SNR=12
**MCQ Macquarie Isla 62.90 156** *e*P **P 05 29 47.1 +2.4**
MCQ pmax pmax
comp=Z,620nm,0.9s
**MCQ Macquarie Isla 62.90 156** *e*P **P 05 29 47.1 +2.4**
comp=Z,616nm,0.8s
**THZ Tophouse 62.93 138** *e*P **P 05 29 46.7 +1.4**
comp=Z,176nm,0.9s
**THZ Tophouse 62.93 138** PN **P 05 29 45.4 +0.1**
**LTZ Lake Taylor 62.99 139** *e*P **P 05 29 47.5 +1.9**
comp=Z,55nm,0.9s
**ODZ Otahua Downs 63.07 142** *e*P **P 05 29 46.9 +0.8**
comp=Z,37nm,0.9s
**ODZ Otahua Downs 63.07 142** PN **P 05 29 46.4 +0.4**
**OXZ Oxford 63.09 140** *e*P **P 05 29 46.8 +0.6**
comp=Z,124nm,0.9s
**OXZ Oxford 63.09 140** PN **P 05 29 46.2 -0.1**
**DUWZ D'Urville Isla 63.19 137** PN **P 05 29 47.5 +0.5**
**CRLZ Canterbury Las 63.59 140** *e*P **P 05 29 51.2 +1.8**
comp=Z,65nm,0.7s
**KHZ Kahutara 63.65 139** *e*P **P 05 29 50.7 +0.8**
comp=Z,462nm,1.6s
**KHZ Kahutara 63.65 139** PN **P 05 29 50.4 +0.5**
**MQZ McQueen's Vall 63.67 140** *e*P **P 05 29 51.2 +1.2**
comp=Z,236nm,1.3s
**MQZ McQueen's Vall 63.67 140** *e*PN **P 05 29 50.9 +0.9**
**NGZ Ngauruhoe 63.69 135** *e*PN **P 05 29 51.7 +1.3**
**WNVZ Wahianoa 63.74 135** PN **P 05 29 51.7 +0.9**
**MA2 Magadan 63.90 17** P **P 05 29 52.0 +0.8**
comp=Z,93nm,0.8s,baz=200,slow=6.0,SNR=46
**SNZO South Karori 63.95 137** *e*P **P 05 29 52.1 +0.2**
comp=Z,268nm,0.6s
**BKZ Black Stump Fm 64.32 134** *e*P **P 05 29 55.0 +0.6**
comp=Z,286nm,1.3s
**MSWZ Moikau Station 64.36 137** PN **P 05 29 54.5 -0.2**
**URZ Urewera 64.42 133** P **P 05 29 55.0 -0.1**
comp=Z,59nm,0.6s,baz=234,slow=3.6,SNR=33
**URZ Urewera 64.42 133** *e*P **P 05 29 55.5 +0.4**
comp=Z,347nm,1.6s
**URZ Urewera 64.42 133** PN **P 05 29 54.9 -0.1**
**HAZ Te Kaha 64.72 132** PN **P 05 29 56.9 -0.2**
**BFZ Birch Farm 64.75 136** *e*P **P 05 29 58.0 +0.8**
comp=Z,160nm,0.8s
**MWZ Matawai 64.75 133** PN **P 05 29 57.1 -0.2**
**MSEY Mahe Island 65.04 265** *i* P **P 05 30 00.5 +0.9**
SNR=7.4
**MSEY Mahe Island 65.04 265** *i* P **P 05 30 01.1 +1.5**
**MSEY Mahe Island 65.04 265** *e*P **P 05 30 00.2 +0.6**
comp=Z,67nm,1.1s
**MXZ Matakaoa Point 65.04 132** *e*P **P 05 29 59.9 +0.8**
comp=Z,162nm,0.7s
**RIGZ Rimuhau 65.06 133** PN **P 05 29 59.6 +0.3**
**MIDW Midway 65.67 59** *e*P **P 05 30 03.7 +0.4**
comp=Z,298nm,1.0s
**HATD Hatta, Dubai 66.76 297** *i* P **P 05 30 10.4 -0.1**
SNR=6.7
**ASHO Ashiyiah 66.80 297** P **P 05 30 10.5 -0.2**
**SEY Seymchan 67.11 15**‖ P **P 05 30 12.7 +0.8**
comp=Z,28nm,0.9s,baz=229,slow=11,SNR=35
**SEY Seymchan 67.11 15**‖ *e*P **P 05 30 12.4 +0.5**
**BVA0 Borovoye Array 67.13 330** P **P 05 30 13.1 +0.9**
BVA0 pmax pmax
comp=Z,57nm,0.9s
**BRVK Borovoye 67.20 330**‖ *e*P **P 05 30 13.6 +1.0**
BRVK pmax pmax
comp=Z,231nm,1.2s
**BRVK Borovoye 67.20 330** *e*P **P 05 30 13.8 +1.2**
comp=Z,143nm,1.0s
BRVK *e*S **S 05 39 02.3 +1.8**
**BRVK Borovoye 67.20 330** P **P 05 30 13.9 +1.2**
SNR=25
**BRVK Borovoye 67.20 330** P **P 05 30 13.9 +1.2**
SNR=25
**FAQ Al Faqa, Dubai 67.23 297** *i* P **P 05 30 13.4 0.0**
SNR=7.2
**GEYT Alibeck 68.41 311** P **P 05 30 21.9 +1.3**
comp=Z,32nm,0.9s,baz=147,slow=6.2,SNR=23
GEYT pP **pP 05 30 43.5 +0.8**
comp=Z,95nm,0.9s,baz=142,slow=4.9,SNR=19
GEYT PKPPKP **P'P'df 05 58 36.0 -1.6**
comp=Z,1.0nm,0.3s,baz=262,slow=4.4,SNR=4.0
GEYT LR LR 06 04 33.4
**AFI Afiamalu 68.49 105** *e*P **P 05 30 22.2 +0.7**
AFI pmax pmax
comp=Z,100nm,0.9s
**AFI Afiamalu 68.49 105** *e*P **P 05 30 22.2 +0.7**
comp=Z,104nm,0.9s
**MIR Mirnyy 69.24 191** *i* P **P 05 30 24.0 -1.1**
MIR pmax pmax
comp=Z,18nm,1.4s
**AB31 Akbulak array 71.12 323** *i* P **P 05 30 37.4 +0.4**
AB31 pmax pmax
comp=Z,47nm,0.9s
**TIXI Tiksi 71.69 3** P **P 05 30 39.1 -0.8**
comp=Z,110nm,0.8s,baz=159,slow=5.0,SNR=157
**TIXI Tiksi 71.69 3** *e*P **P 05 30 39.0 -0.9**
TIXI pmax pmax
comp=Z,120nm,0.8s
**TIXI Tiksi 71.69 3** *e*P **P 05 30 39.0 -0.9**
comp=Z,122nm,0.8s
**ADK Adak 73.55 35** *e*P **P 05 30 50.9 -0.5**
ADK pmax pmax
comp=Z,360nm,1.8s
**ADK Adak 73.55 35** *e*P **P 05 30 50.9 -0.5**
comp=Z,364nm,1.8s
**SVE Sverdlovsk 73.90 330** *de*P **P 05 30 53.8 +0.5**
SVE pmax pmax
comp=Z,143nm,0.9s
**ABPO Ambohimpanom 74.14 250** *e*P **P 05 30 55.7 0.0**
ABPO pmax pmax
comp=Z,140nm,2.0s
**ABPO Ambohimpanom 74.14 250** *e*P **P 05 30 55.7 0.0**
comp=Z,136nm,2.0s
**BILL Bilibino 74.76 16** *c i*P **P 05 30 57.0 -1.1**
BILL *i* 05 31 10.2
BILL *e*S **S 05 40 34.5 +7.0**
BILL *e* 05 41 31.9
BILL SS **SS 05 45 25.0 +8.1**
BILL pmax pmax
comp=Z,47nm,1.3s
**ARU Arti 74.77 329** *c i*P **P 05 30 58.3 -0.1**
ARU *e**PP **pP 05 31 20.0 -0.7**
ARU 05 33 44.3
ARU S **S 05 40 29.6 +1.6**
ARU 05 40 58.9
ARU pmax pmax
comp=Z,97nm,1.0s
**ARU Arti 74.77 329** *e*P **P 05 30 58.2 -0.1**
comp=Z,190nm,1.0s
**ATKA Atka Island 75.10 35** *e*P **P 05 31 00.0 -0.3**
comp=Z,171nm,0.8s
**RAYN Ar Rayn 76.16 294** *e*P **P 05 31 07.2 +0.1**
comp=Z,76nm,1.1s
**SOKR Solikamsk 76.90 332** *d i*P **P 05 31 08.5 -1.9**
SOKR pmax pmax
comp=Z,36nm,1.0s
**ATD Arta Tunnel 77.82 282** *e*P **P 05 31 17.1 +0.5**
comp=Z,27nm,1.1s
**MAW Mawson 78.19 199** P **P 05 31 18.1 +0.6**
comp=Z,63nm,0.9s,baz=71,slow=5.5,SNR=52
MAW LR LR 06 03 48.8

comp=Z,112nm,19.6s,baz=58,slow=34
**MAW Mawson 78.19 199 P P 05 31 18.0 +0.6**
baz=78,SNR=45
**MAW Mawson 78.19 199** *e*P **P 05 31 18.0 +0.6**
comp=Z,35nm,1.3s
**NIKH Nikolski High 78.44 36** *e*P **P 05 31 19.4 +0.3**
comp=Z,320nm,1.4s
**GROC Groznyy 78.79 314** *e*P **P 05 31 20.0 -1.3**
GROC *e* 05 31 28.4
GROC pmax pmax
comp=Z,58nm,1.2s
**GNI Garni 79.04 311** *i* P **P 05 31 22.7 -0.2**
SNR=7.1
**GNI Garni 79.04 311** *e*P **P 05 31 25.5 +2.5**
GNI pmax pmax
comp=Z,300nm,1.6s
**GNI Garni 79.04 311** *e*P **P 05 31 25.5 +2.5**
comp=Z,301nm,1.6s
**TBLG Delisi 79.30 312** P P **05 31 25.7 +1.5**
**TBLG Delisi 79.30 312** P pP 05 31 46.8 +0.1
**TBLG Delisi 79.30 312** P **P 05 31 25.6 +1.5**
**GUDG Gudauri 79.61 313** P pP 05 31 49.8 +1.1
**BGD Bogdanovka 80.07 312** P **P 05 31 32.7 +4.1**
**BGD Bogdanovka 80.07 312** P pP 05 31 51.9 +0.7
**AKH Akhalkalaki 80.17 312** P **P 05 31 31.3 +2.2**
**AKH Akhalkalaki 80.17 312** P **P 05 31 31.3 +2.2**
**GAMB Gambell 80.32 25** *e*P **P 05 31 29.8 +0.7**
comp=Z,109nm,1.1s
**ONI Oni 80.38 313** P **P 05 31 31.5 +1.4**
**ONI Oni 80.38 313** P pP 05 31 53.2 +0.5
**ONI Oni 80.38 313** P **P 05 31 31.4 +1.4**
**NCK Nalchik 80.42 314** *i* P **P 05 31 31.1 +1.0**
NCK pmax pmax
comp=Z,20nm,0.8s
**AKUT Akutan 80.51 35** *e*P **P 05 31 30.1 -0.2**
comp=Z,243nm,0.8s
**VNDA Vanda 80.66 172** P **P 05 31 31.0 +0.3**
comp=Z,73nm,0.7s,baz=314,slow=5.9,SNR=335
VNDA PP **PP 05 34 32.6 -2.8**
comp=Z,16nm,1.2s,baz=301,slow=6.7,SNR=3.6
VNDA PKPPKP **P'P'df 05 58 14.2 +0.4**
comp=Z,1.8nm,0.9s,baz=224,slow=1.2,SNR=5.7
VNDA LR LR 06 07 50.7
comp=Z,220nm,19.1s,baz=326,slow=36
**VNDA Vanda 80.66 172** *e*P **P 05 31 31.0 +0.3**
VNDA pmax pmax
comp=Z,78nm,0.7s
**VNDA Vanda 80.66 172** *e*P **P 05 31 31.0 +0.3**
comp=Z,78nm,0.7s
VNDA PP **PP 05 34 32.6 -2.8**
VNDA P'P' 05 58 14.2
**KBZ Khabaz 80.96 314** P **P 05 31 33.3 +0.4**
comp=Z,18nm,0.8s,baz=86,slow=4.8,SNR=25
KBZ pP **pP 05 31 55.8 +0.2**
comp=Z,52nm,0.9s,baz=126,slow=3.5,SNR=15
KBZ LR LR 06 16 11.8
comp=Z,72nm,18.4s,baz=90,slow=42
**NEY Neytrino 81.01 314** *i* P **P 05 31 35.9 +2.4**
NEY pmax pmax
comp=Z,7.0nm,1.0s
**GOF Gofitskoye 81.06 316**⇑ *e*P **P 05 31 33.8 +0.3**
GOF pmax pmax
comp=Z,55nm,0.9s
**KIV Kislovodsk 81.14 314** *i* P **P 05 31 35.5 +1.4**
SNR=5.8
**KIV Kislovodsk 81.14 314**⇓ *e*P **P 05 31 34.6 +0.5**
KIV *e* 05 34 41.5
KIV *i* S **S 05 41 38.2 +0.9**
KIV pmax pmax
comp=Z,18nm,0.8s
KIV MLR MLR
comp=Z,147nm,20.0s
**KIV Kislovodsk 81.14 314** *e*P **P 05 31 34.8 +0.7**
comp=Z,45nm,0.9s
**ARTV Artvin 81.31 312** *e*P **P 05 31 35.7 +0.5**
comp=Z,156nm,1.2s
**SBA Scott Base 81.64 171** *e*P **P 05 31 37.3 +1.4**
SBA pmax pmax
comp=Z,54nm,0.8s
**SBA Scott Base 81.64 171** *e*P **P 05 31 37.2 +1.4**
comp=Z,54nm,0.8s
**MARD Mardin 81.73 308** *e*P **P 05 31 37.8 +0.5**
comp=Z,143nm,1.0s
**FALS False Pass 82.01 35** *e*P **P 05 31 37.8 -0.5**
comp=Z,276nm,0.8s
**HON Honolulu 82.13 69** *e*P **P 05 31 39.8 +0.2**
HON pmax pmax
comp=Z,410nm,1.2s
**HON Honolulu 82.13 69** *e*P **P 05 31 39.8 +0.2**
comp=Z,407nm,1.2s
**KOPT Kop Dagi 82.25 310** *e*P **P 05 31 41.8 +1.5**
comp=Z,216nm,1.2s
**VRH Novokhopyorsk 82.88 322** *e*P **P 05 31 42.3 -0.6**
VRH pmax pmax
comp=Z,70nm,0.9s
**KMBO Kilima Mbogo 83.17 269** P **P 05 31 46.4 +0.9**
comp=Z,28nm,0.8s,baz=66,slow=7.2,SNR=53
KMBO pP **pP 05 32 08.9 +0.6**
comp=Z,28nm,0.9s,baz=46,slow=5.8,SNR=7.5
KMBO LR LR 06 06 10.2
comp=Z,158nm,19.8s,baz=84,slow=34
**KMBO Kilima Mbogo 83.17 269** *e*P **P 05 31 46.4 +0.9**
KMBO pmax pmax
comp=Z,37nm,1.0s
**KMBO Kilima Mbogo 83.17 269** *e*P **P 05 31 46.4 +0.9**
comp=Z,37nm,0.9s
KMBO pP **pP 05 32 08.9 +0.6**
**KMBO Kilima Mbogo 83.17 269** PcP **P 05 31 46.4 +0.9**
SNR=17
**SDPT Sand Point 83.76 34** *e*P **P 05 31 46.8 -0.5**
comp=Z,326nm,0.7s
**HPAH Hawaii Prepara 84.23 70** *e*P **P 05 31 50.4 -0.2**
comp=Z,110nm,1.0s
**MLOA Mauna Loa Obse 84.33 70** *e*P **P 05 31 52.7 +1.2**
comp=Z,260nm,1.1s
**POHA Pohakuloa 84.37 70** *e*P **P 05 31 52.7 +1.2**
comp=Z,125nm,0.9s
**VSR Storozhevoye 84.47 321** *e*P **P 05 31 49.8 -1.2**
VSR pmax pmax
comp=Z,190nm,0.9s
**LPSR Galich'ya Gora 84.78 323** *e*P **P 05 31 51.8 -0.7**
LPSR pmax pmax
comp=Z,220nm,1.0s
**ANN Anapa 84.98 315** *e*P **P 05 31 52.3 -1.4**
ANN *e*S **S 05 42 08.6 -7.2**
ANN *e*SS **SS 05 47 54.6 +4.0**
ANN pmax pmax
comp=Z,208nm,1.0s
**CHGN Chignik 85.04 34** *e*P **P 05 31 53.1 -0.6**
comp=Z,92nm,1.0s
**KLMR Klimovskoe 85.52 331** *e*P **P 05 31 53.1 -2.9**
KLMR *e* 05 35 14.4
KLMR *e*S S 05 42 10.1 -10
KLMR pmax pmax
comp=Z,201nm,1.4s
**MOS Moscow 85.89 326** *e*P **P 05 31 57.0 -1.0**
MOS *e*S **S 05 42 18.0 -6.4**
MOS pmax pmax
comp=Z,159nm,1.2s
**OBN Obninsk 86.43 325**⇓ *e*P **P 05 31 59.6 -1.0**
OBN *e* 05 35 25.7
OBN pmax pmax
comp=Z,124nm,1.2s
**OBN Obninsk 86.43 325** *e*P **P 05 32 00.6 0.0**
comp=Z,234nm,1.1s
**TMCR Tamitsa 86.63 334** *e*P **P 05 32 01.6 +0.2**
TMCR pmax pmax
comp=Z,46nm,0.4s
**SYO Syowa Base 86.76 201**⇓ *i*X **P 05 32 00.0 -1.9**
**TTA Tatalina 87.01 27** *e*P **P 05 32 03.1 -0.4**
**TTA Tatalina 87.01 27** *e*P **P 05 32 03.1 -0.4**
**SVW2 Sparrevohn 87.04 29** *e*P **P 05 32 03.7 +0.2**
comp=Z,43nm,0.8s
**SIM Simferopol' 87.34 315** *e*P **P 05 32 06.6 +1.3**
SIM *e*S **S 05 42 30.0 -8.9**
SIM pmax pmax
comp=Z,35nm,0.7s
**ILGA Ilgaz 87.48 311** *e*P **P 05 32 07.1 +0.7**
comp=Z,130nm,1.2s
**BR131 Keskin Array S 87.49 310** *e*P **P 05 32 06.1 -0.3**
**BRTR Keskin Array B 87.49 310** P **P 05 32 05.8 -0.6**
comp=Z,15nm,0.8s,baz=123,slow=5.5,SNR=61
BRTR pP **pP 05 32 28.1 -1.3**
comp=Z,59nm,1.0s,baz=128,slow=5.1,SNR=19
BRTR LR LR 06 19 13.8
comp=Z,56nm,18.2s,baz=94,slow=41
**BRTR Keskin Array B 87.49 310** P **P 05 32 05.8 -0.6**
BRTR pmax pmax
comp=Z,14nm,0.8s
BRTR pmax pmax
comp=Z,59nm,1.0s
**CSS Mathiatis 87.58 305** *e*P **P 05 32 07.0 +0.3**
comp=Z,45nm,1.0s
**OHAK Old Harbor 87.94 33** *e*P **P 05 32 07.6 -0.2**
comp=Z,54nm,0.7s
**ANTO Ankara 88.14 310** *e*P **P 05 32 10.3 +0.9**
**ANTO Ankara 88.14 310** *e*P **P 05 32 09.0 -0.4**
comp=Z,102nm,1.3s
**BR231 Keskin MP Arra 88.16 310** *e*P **P 05 32 06.6 -2.9**
**IMAR Indian Mountai 88.25 24** *e*P **P 05 32 09.1 -0.1**
**KDAK Kodiak Island 88.35 32** P **P 05 32 09.1 -0.7**
comp=Z,46nm,0.8s,baz=254,slow=3.6,SNR=15
**KDAK Kodiak Island 88.35 32** *e*P **P 05 32 09.5 -0.3**
KDAK pmax pmax
comp=Z,55nm,0.9s
**KDAK Kodiak Island 88.35 32** *e*P **P 05 32 09.5 -0.3**
comp=Z,55nm,0.9s
**RSO Redoubt South 88.38 30** *e*P **P 05 32 08.9 -1.3**
**SPU Mount Spurr 88.75 29** *e*P **P 05 32 10.7 -1.1**
**PPLA Purkeypile 88.76 27** *e*P **P 05 32 11.4 -0.4**
comp=Z,37nm,1.0s
**APA Apatity 88.81 337**⇓ *i*P **P 05 32 10.1 -1.7**
APA MLR MLR
comp=Z,3μm,21.0s
**CAST Castle Rocks 88.83 27** *e*P **P 05 32 11.4 -0.6**
comp=Z,60nm,0.8s
**CNPM China Poot 89.11 31** *e*P **P 05 32 12.4 -1.0**
comp=Z,76nm,1.0s
**BRLK Bradley Lake 89.29 30** *e*P **P 05 32 13.2 -1.1**
comp=Z,105nm,0.9s
**BPAW Bear Paw Mtn. 89.33 26** *e*P **P 05 32 13.9 -0.5**
comp=Z,38nm,0.8s
**KTH Kantishna Hill 89.35 27** *e*P **P 05 32 14.4 -0.1**
comp=Z,38nm,0.9s
**SUA Susitna One 89.39 29** *e*P **P 05 32 13.6 -1.2**
comp=Z,61nm,0.8s
**MLY Manley 89.46 25** *e*P **P 05 32 14.7 -0.3**
comp=Z,49nm,0.9s
**BOLV Bolvadin 89.56 309** *e*P **P 05 32 16.2 +0.1**
comp=Z,178nm,1.4s
**TRF Thorofare Moun 89.63 27** *e*P **P 05 32 15.0 -0.9**
comp=Z,50nm,0.9s
**RC01 Rabbit Creek A 89.88 29** *e*P **P 05 32 15.8 -1.1**
comp=Z,55nm,0.7s
**QSPA South Pole Qui 89.99 180** *e*P **P 05 32 17.7 +0.2**
comp=Z,75nm,0.8s
**PAE Paea 90.01 108** *e*P **P 05 32 18.8 +0.3**
comp=Z,13nm,1.0s
**PPT Papeete 90.02 107** LR LR 06 14 28.3
comp=Z,28nm,19.0s,baz=288,slow=37
**PPT2 Papeete2 90.02 107** *e*P **P 05 32 19.2 +0.6**
comp=Z,77nm,1.3s
**PPT2 Papeete2 90.02 107** *e*S **S 05 43 04.0 -1.2**
comp=Z,250nm,27.8s
**PPT2 Papeete2 90.02 107** *e*PS PS 05 44 26.0 +3.6
comp=Z,470nm,30.5s
**PPT2 Papeete2 90.02 107** *e*LQ LQ 05 57 21.6
comp=Z,638nm,28.2s
PPT2 *e*LR LR 06 01 12.3
comp=Z,2μm,42.5s
**SEW Seward 90.02 30** *e*P **P 05 32 16.7 -0.9**
comp=Z,92nm,1.0s
**TBI Tubuai 90.13 113** *e*PS PS 05 44 27.0 +3.8
comp=Z,246nm,33.5s
**TBI Tubuai 90.13 113** *e*LQ LQ 05 57 26.3
comp=Z,368nm,33.8s
TBI *e*LR LR 06 01 14.8
comp=Z,485nm,38.5s
**PMR Palmer 90.17 29** *e*P **P 05 32 16.9 -1.3**
PMR pmax pmax
comp=Z,31nm,0.9s
**PMR Palmer 90.17 29** *e*P **P 05 32 16.9 -1.3**
comp=Z,31nm,0.9s
**TIAR Tiarei 90.23 107** *e*P **P 05 32 20.0 +0.5**
comp=Z,25nm,1.0s
**MCK McKinley 90.24 26** *e*P **P 05 32 17.7 -0.9**
MCK pmax pmax
comp=Z,58nm,0.9s
**MCK McKinley 90.24 26** *e*P **P 05 32 17.6 -0.9**
comp=Z,58nm,0.9s
**RND Reindeer 90.28 27** *e*P **P 05 32 17.4 -1.5**
RND pmax pmax
comp=Z,44nm,0.8s
**RND Reindeer 90.28 27** *e*P **P 05 32 17.4 -1.5**
comp=Z,44nm,0.8s
**TVO Taravao 90.32 108** *e*P **P 05 32 20.6 +0.6**
comp=Z,40nm,1.0s
**SML Sawmill 90.55 28** *e*P **P 05 32 19.3 -0.8**
SML pmax pmax
comp=Z,110nm,0.8s
**SML Sawmill 90.55 28** *e*P **P 05 32 19.3 -0.8**
comp=Z,113nm,0.8s
**WRH Wood River Hil 90.60 26** *e*P **P 05 32 19.3 -0.9**
comp=Z,40nm,0.9s
**COLA College 90.69 25** *e*P **P 05 32 19.4 -1.2**
COLA pmax pmax
comp=Z,28nm,0.8s
**COLA College 90.69 25** *e*P **P 05 32 19.4 -1.2**
comp=Z,28nm,0.8s
**CCB Clear Creek Bu 90.72 25** *e*P **P 05 32 19.4 -1.3**
comp=Z,32nm,1.0s
**AKASG Malin Array Be 90.72 321** P **P 05 32 19.6 -1.5**
AKASG pP **pP 05 32 42.4 -1.7**
comp=Z,8.9nm,0.8s,baz=74,slow=4.6,SNR=38
AKASG PP **PP 05 35 52.4 -5.1**
comp=Z,2.0nm,0.8s,baz=75,slow=4.6,SNR=11
AKASG PKKP **PKKPdf 05 49 45.8 +1.0**
comp=Z,3.4nm,0.8s,baz=81,slow=6.2,SNR=5.4
AKASG LR LR 06 18 32.4
comp=Z,3.3nm,0.7s,baz=271,slow=3.2,SNR=21
**AKASG Malin Array Be 90.72 321** P **P 05 32 19.6 -1.5**
AKASG 05 35 52.4
comp=Z,132nm,19.9s,baz=115,slow=39
AKASG pmax pmax
comp=Z,11nm,0.8s
AKASG pmax pmax
comp=Z,20nm,0.8s
AKASG pmax pmax
comp=Z,3.0nm,0.8s
AKASG pmax pmax
comp=Z,3.0nm,0.7s
**AKBB Malin Array Si 90.72 321** *e*P **P 05 32 20.1 -1.0**
**AKBB Malin Array Si 90.72 321** *e*P **P 05 32 19.2 -1.8**
comp=Z,33nm,1.0s
**KIEV Kiev 90.73 321** *e*P **P 05 32 20.0 -1.1**
KIEV pmax pmax
comp=Z,32nm,1.0s
**KIEV Kiev 90.73 321** *e*P **P 05 32 20.0 -1.1**
comp=Z,32nm,1.0s
**AK11 Malin Array Si 90.76 320** *e*P **P 05 32 20.1 -1.1**
**DHY Denali Highway 90.96 27** *e*P **P 05 32 21.4 -0.7**
comp=Z,45nm,0.8s
**SCM Sheep Creek Mo 91.02 28** *e*P **P 05 32 21.6 -0.7**
SCM pmax pmax
comp=Z,62nm,1.0s
**SCM Sheep Creek Mo 91.02 28** *e*P **P 05 32 21.6 -0.7**
comp=Z,62nm,1.0s
**ILAR Eielson Array 91.11 25** P **P 05 32 20.4 -2.2**
comp=Z,3.6nm,0.7s,baz=248,slow=4.8,SNR=4.3
ILAR PP **PP 05 35 54.2 -5.9**
comp=Z,2.3nm,0.9s,baz=268,slow=7.2,SNR=5.5
ILAR PKKPbc **PKKPdf 05 49 38.9 -5.6**
comp=Z,0.8nm,0.6s,baz=348,slow=0.6,SNR=11
ILAR LR LR 06 13 22.7
comp=Z,35nm,21.9s,baz=282,slow=36
**ILB Eielson Array 91.11 25** *e*P **P 05 32 21.0 -1.6**
**IL1 Eielson Array 91.11 25** *e*P **P 05 32 20.5 -2.1**
**GLI Glacier Island 91.17 29** *e*P **P 05 32 22.8 -0.2**
comp=Z,74nm,0.8s
**MANT Manisa 91.43 308** *e*P **P 05 32 24.9 -0.1**
comp=Z,174nm,1.2s
**FID Port Fidalgo 91.47 29** *e*P **P 05 32 24.0 -0.4**
comp=Z,69nm,0.8s
**CFR Carcaliu 91.58 315**⇓ *i*P **P 05 32 22.4 -2.8**
**CFR Carcaliu 91.58 315**⇓ P **P 05 32 22.4 -2.8**
**ARCES ARCESS Array B 91.68 339** P **P 05 32 23.9 -1.3**
comp=Z,6.7nm,0.6s,baz=96,slow=4.7,SNR=15
ARCES pP **pP 05 32 46.5 -1.7**
comp=Z,12nm,0.8s,baz=108,slow=2.9,SNR=4.5
ARCES LR LR 06 19 19.0
comp=Z,85nm,18.2s,baz=83,slow=39
**FYU Fort Yukon 91.69 24** *e*P **P 05 32 25.2 0.0**
comp=Z,94nm,1.5s
**KLU Klutina 91.71 29** *e*P **P 05 32 25.0 -0.5**
comp=Z,38nm,0.7s
**DIV Divide 91.80 29** *e*P **P 05 32 25.1 -0.8**
comp=Z,312nm,1.8s
**PAX Paxson 91.83 27** *e*P **P 05 32 25.4 -0.7**
PAX pmax pmax
comp=Z,180nm,1.9s
**PAX Paxson 91.83 27** *e*P **P 05 32 25.4 -0.7**
comp=Z,175nm,1.9s
**VSU Vasula 91.89 328**⇓ *e*P **P 05 32 25.8 -0.5**
VSU pmax pmax
comp=Z,157nm,1.0s
**HARP HAARP 92.01 28** *e*P **P 05 32 26.9 0.0**
comp=Z,47nm,0.8s
**FINES FINESS Array B 92.04 331** P **P 05 32 25.5 -1.4**
comp=Z,9.2nm,0.8s,baz=101,slow=6.2,SNR=10
FINES LR LR 06 18 49.1
comp=Z,183nm,18.5s,baz=86,slow=39
**FINES FINESS Array B 92.04 331** *i* P **P 05 32 26.8 -0.1**
FINES pmax pmax
comp=Z,9.0nm,0.8s
**IDID Didziasalis 92.06 325** *e*P **P 05 32 27.7 +0.6**
IDID IAmb IAmb 05 32 51.7
comp=Z,22nm,0.9s
**LSZ Lusaka 92.17 255** *e*P **P 05 32 28.1 -0.6**
**LSZ Lusaka 92.17 255** *e*P **P 05 32 27.9 -0.8**
comp=Z,21nm,1.1s
**LSZ Lusaka 92.17 255** PcP **P 05 32 27.9 -0.8**
SNR=5.7
**LSZ Lusaka 92.17 255** P **P 05 32 27.9 -0.8**
SNR=5.7
**IZAR Zarasai 92.32 326** *e*P **P 05 32 28.9 +0.5**
IZAR IAmb IAmb 05 32 52.7
comp=Z,36nm,1.2s
**IIGN Ignalina 92.36 325** *e*P **P 05 32 29.1 +0.5**
IIGN IAmb IAmb 05 32 53.0
comp=Z,47nm,1.2s
**BMRM Bremner River 92.38 29** *e*P **P 05 32 28.3 -0.3**
comp=Z,53nm,0.9s
**ISAL Salakas 92.40 325** *e*P **P 05 32 29.2 +0.5**
ISAL IAmb IAmb 05 32 53.1
comp=Z,40nm,1.3s
**DOT Dot Lake 92.41 26** *e*P **P 05 32 28.0 -0.7**
comp=Z,64nm,1.1s
**VRI Vrincioaia 92.55 316**⇑ *i*P **P 05 32 30.0 +0.3**
**VRI Vrincioaia 92.55 316** ⇑P **P 05 32 30.0 +0.3**
**PLOR Plostina 92.60 316**⇑ *i*P **P 05 32 29.9 -0.1**
**PLOR Plostina 92.60 316** ⇑P **P 05 32 29.9 -0.1**
**MENT Mentasta 92.63 27** *e*P **P 05 32 29.4 -0.3**
comp=Z,17nm,0.8s
**KARP Karpathos 92.63 305** *e*P **P 05 32 30.3 -0.1**
comp=Z,65nm,1.0s
**SPA0 Spitsbergen Ar 92.82 348** *e*P **P 05 32 29.9 -0.4**
**MLR Muntele Rosu 93.11 315**⇓ *i*P **P 05 32 32.2 -0.3**
**MLR Muntele Rosu 93.11 315** ⇓P **P 05 32 32.2 -0.3**
**MLR Muntele Rosu 93.11 315** *e*P **P 05 32 32.0 -0.5**
comp=Z,86nm,1.5s
**BURAR Bucovina Array 93.48 318**⇑ *i*P **P 05 32 33.6 -0.5**
**BUR04 Bucovina Ar. S 93.48 318** *e*P **P 05 32 33.4 -0.7**
**BUR08 Bucovina Ar. S 93.49 318** *e*P **P 05 32 34.4 +0.3**
**EGAK Eagle 93.55 25** *e*P **P 05 32 33.0 -0.8**
comp=Z,20nm,0.8s
**SUW Suwalki 94.23 324** *e*P **P 05 32 37.4 +0.2**
SUW *e*pP **pP 05 32 59.1 -1.1**
**SUW Suwalki 94.23 324** *e*P **P 05 32 37.4 +0.2**
**RZN Rozhen 94.24 312** *e*P pP 05 32 59.0 -1.9
**LBTB Lobatse 94.40 245** *e*P **P 05 32 38.1 -0.7**
LBTB pmax pmax
comp=Z,20nm,0.9s
**LBTB Lobatse 94.40 245** *e*P **P 05 32 38.1 -0.7**
comp=Z,20nm,0.9s
**DAWY Dawson 94.41 26** *e*P **P 05 32 37.5 -0.5**
comp=Z,28nm,0.9s
**BOSA Boshof 94.57 241** P **P 05 32 38.5 -1.0**
comp=Z,4.5nm,0.9s,baz=83,slow=5.9,SNR=6.1
BOSA LR LR 06 12 04.1
comp=Z,106nm,18.8s,baz=48,slow=33
**MPEP Malo Peshtene 94.83 313** *e*P pP 05 33 01.7 -1.6
**KWP Kalwaria Pacla 94.97 320** *e*P **P 05 32 41.3 +0.6**
KWP *e*pP **pP 05 33 02.4 -1.4**
**KWP Kalwaria Pacla 94.97 320** *e*P **P 05 32 41.3 +0.6**
**MMB Musomiste 94.98 312** *e*P pP 05 33 01.0 -3.1
**DRGR 95.25 317**⇓ *i*P **P 05 32 42.2 0.0**
**DRGR 95.25 317**⇓ P **P 05 32 42.2 0.0**
**VTS Vitosha 95.29 313**⇑ *i*P **P 05 32 41.2 -1.3**
**VTS Vitosha 95.29 313** *e*P **P 05 32 41.8 -0.7**
**VTS Vitosha 95.29 313** *e*P pP 05 33 02.0 -3.6
**VTS Vitosha 95.29 313** *e*P **P 05 32 41.8 -0.7**
VTS *e*pP **pP 05 33 04.1 -1.5**
**UZH Uzhgorod 95.34 319** *e*P **P 05 32 41.6 -0.8**
UZH *e* 05 32 50.6
**HYT Haines Junctio 95.84 29** *e*P **P 05 32 44.9 +0.3**
comp=Z,58nm,0.8s
**INK Inuvik 95.85 21** P **P 05 32 43.2 -1.0**
comp=Z,29nm,0.8s,baz=278,slow=4.1,SNR=82
INK PP **PP 05 36 39.3 +2.3**
comp=Z,3.2nm,0.9s,baz=274,slow=8.1,SNR=3.6
**INK Inuvik 95.85 21** *e*P **P 05 32 43.4 -0.9**
INK pmax pmax
comp=Z,35nm,1.0s
**INK Inuvik 95.85 21** *e*P **P 05 32 43.4 -0.9**
comp=Z,35nm,0.9s
INK PP **PP 05 36 39.3 +2.3**
**CRVS Cervenica-Dubn 95.86 319** *e*P **P 05 32 45.8 +1.0**
**CRVS Cervenica-Dubn 95.86 319** *e*PDIFF **P 05 32 45.8 +1.0**
CRVS *e* 05 33 07.1
**STHS Stebnicka Huta 95.94 320** *e*P **P 05 32 46.2 +1.0**
**STHS Stebnicka Huta 95.94 320** *e*PDIFF **P 05 32 46.2 +1.0**
STHS *e* 05 33 08.0
**NVL N'lazarevskaya 96.11 198** *e*P **P 05 32 46.2 +0.8**
**AGG Agios Georgios 96.26 309** *e*P **P 05 32 45.5 -1.4**
AGG pmax pmax
comp=Z,41nm,1.1s
**AGG Agios Georgios 96.26 309** *e*P **P 05 32 45.5 -1.4**
comp=Z,41nm,1.1s
**OJC Ojcow 96.76 321** *e*P **P 05 32 49.8 +0.9**
OJC *e*pP **pP 05 33 11.0 -0.9**
**OJC Ojcow 96.76 321** *e*P **P 05 32 49.8 +0.9**
**WHY Whitehorse 97.13 29** *e*P Pdif 05 32 50.8 +0.2
comp=Z,58nm,0.8s
**SKAG Skagway 97.17 30** *e*P Pdif 05 32 51.1 +0.5
comp=Z,57nm,0.9s
**BESE Bessie Mountai 97.61 31** *e*P Pdif 05 32 53.2 +0.6
comp=Z,77nm,1.2s
**SUR Sutherland 98.15 237** *e*P **P 05 32 55.5 -0.3**
comp=Z,82nm,1.6s
**PDG Podgorica 98.21 313**⇑ *i*P Pdif 05 32 56.0 +0.4
**KSP Ksiaz 98.86 322** *e*P Pdif 05 32 58.4 +0.1
KSP *e*pP pP 05 33 20.9 -0.6
**KSP Ksiaz 98.86 322** *e*P Pdif 05 32 58.4 +0.1
**NC405 NORSAR Array S 98.92 332** *e*P **P 05 32 57.6 -0.6**
**DPC Dobruska-Polom 98.94 321** *e*pP **pP 05 33 21.1 -0.7**
DPC *ex* x 05 37 12.6
DPC *e*PKP **PKiKP 05 37 32.1 +3.0**
**UPC Upice 99.10 321** *e*pP pP 05 33 21.7 -0.8
**NB2 NORSAR Subarra 99.17 332** P **Pdif 05 32 57.8 -1.7**
comp=Z,40nm,1.7s,baz=75,slow=4.6
**NB2 NORSAR Subarra 99.17 332** P **Pdif 05 32 57.8 -1.7**
baz=75,slow=4.6
**NOA NORSAR Array B 99.17 332** P **Pdif 05 32 57.7 -1.7**
comp=Z,5.8nm,0.9s,baz=73,slow=4.6,SNR=8.6
NOA pP **pP 05 33 20.4 -2.2**
comp=Z,10nm,1.1s,baz=74,slow=4.5,SNR=5.7
NOA sP **sP 05 33 30.6 -1.1**
comp=Z,2.7nm,0.8s,baz=73,slow=4.6,SNR=1.7
NOA LR LR 06 22 17.6
comp=Z,94nm,19.7s,baz=65,slow=38
**NC204 NORSAR Array S 99.31 333** *e*P **Pdif 05 32 58.9 -1.2**
**TAOE Nuku Hiva Isla 99.32 99** *e*LR LR 06 05 24.5
comp=Z,395nm,41.0s
**DAG Danmarks Havn 99.97 351** *i* P **Pdif 05 33 00.9 -1.8**
DAG pmax pmax
comp=Z,21nm,0.8s
**DAG Danmarks Havn 99.97 351** *i* P **Pdif 05 33 00.9 -1.8**
comp=Z,21nm,0.8s
**GOPC GO Pecny, Ondr 100.00 321** *e*pP pP 05 33 25.8 -0.7
**SNAA Sanae 100.04 196** P **Pdif 05 33 03.1 -0.1**
**SNAA Sanae 100.04 196** P **PKKPbc 05 49 19.9 -4.7**
**SNAA Sanae 100.04 196** P **Pdif 05 33 02.7 -0.5**
comp=Z,4.0nm,0.7s,baz=102,slow=5.8,SNR=29
**SNAA Sanae 100.04 196** *e*P **Pdif 05 33 02.8 -0.4**
SNAA pmax pmax
comp=Z,484nm,1.0s
**SNAA Sanae 100.04 196** *e*Pdif **Pdif 05 33 02.8 -0.4**
comp=Z,484nm,1.0s

| Code | Station Name | Δ° | AZ° | Phase Op | Phase ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| PRU | Pruhonice | 100.13 | 321 | *e*pP | pP | 05 33 26.1 | -1.0 |
| PRU | | | | *e*x | x | 05 37 39.6 | |
| BRG | Berggiesshubel | 100.31 | 322 | *e*PDIFF | Pdif | 05 33 05.0 | +0.2 |
| | comp=Z,22nm,1.7s | | | | | | |
| BRG | | | | *i* pPDIFF | | 05 33 26.9 | |
| | comp=Z,22nm,1.3s | | | | | | |
| BRG | | | | *e*PP | PP | 05 37 05.4 | -6.2 |
| | comp=Z,17nm,1.3s | | | | | | |
| BRG | Berggiesshubel | 100.31 | 322 | *e*P | Pdif | 05 33 04.9 | +0.2 |
| BRG | | | | pmax | pmax | | |
| | comp=Z,22nm,1.7s | | | | | | |
| BRG | | | | pmax | pmax | | |
| | comp=Z,22nm,1.3s | | | | | | |
| BRG | | | | pmax | pmax | | |
| | comp=Z,17nm,1.3s | | | | | | |
| CLL | Collm | 100.79 | 322 | *e*pP | pP | 05 33 28.0 | -2.1 |
| CLL | | | | *e*PP | PP | 05 37 12.0 | -3.2 |
| CLL | | | | LmV | | 07 49 00.0 | |
| | comp=Z,200nm,18.8s | | | | | | |
| GERES | GERESS Array B | 100.92 | 320 | P | Pdif | 05 33 07.1 | -0.5 |
| | comp=Z,0.9nm,0.7s,baz=65,slow=4.7,SNR=7.9 | | | | | | |
| GERES | | | | PKKPbc | PKKPbc | 05 49 19.2 | -2.3 |
| | comp=Z,1.0nm,0.8s,baz=315,slow=0.4,SNR=6.1 | | | | | | |
| KHC | Kasperske Hory | 100.93 | 320 | *e*pP | pP | 05 33 28.4 | -2.4 |
| KHC | | | | *e*x | x | 05 36 52.0 | |
| KHC | | | | *e*x | x | 05 37 04.5 | |
| KHC | | | | *e*x | x | 05 37 46.4 | |
| VNA2 | Neumayer--Watz | 101.68 | 195 | P | Pdif | 05 33 10.3 | -0.1 |
| | baz=106,slow=4.1 | | | | | | |
| VNA2 | Neumayer--Watz | 101.68 | 195 | P | PKKPbc | 05 49 13.5 | -6.4 |
| | baz=326,slow=4.2 | | | | | | |
| VNA1 | Neumayer--Stat | 102.08 | 195 | P | Pdif | 05 33 12.3 | +0.2 |
| VNA1 | Neumayer--Stat | 102.08 | 195 | P | PKKPbc | 05 49 14.9 | -3.7 |
| VNA3 | Neumayer Olymp | 102.08 | 195 | P | Pdif | 05 33 11.7 | -0.5 |
| VNA3 | Neumayer Olymp | 102.08 | 195 | P | PKKPbc | 05 49 12.9 | -5.8 |
| RKT | Rikitea | 103.44 | 114 | *e*LR | LR | 06 07 27.5 | |
| | comp=Z,439nm,39.2s | | | | | | |
| YKA | Yellowknife Ar | 105.39 | 23 | Pdiff | Pdif | 05 33 27.9 | +0.9 |
| | comp=Z,1.2nm,0.6s,baz=302,slow=4.7,SNR=6.9 | | | | | | |
| YKA | | | | PKiKP | PKiKP | 05 37 40.3 | -0.1 |
| | comp=Z,2.7nm,0.7s,baz=314,slow=1.7,SNR=12 | | | | | | |
| YKA | | | | PKKPbc | PKKPbc | 05 49 04.3 | -4.2 |
| | comp=Z,3.0nm,0.8s,baz=118,slow=2.5,SNR=9.1 | | | | | | |
| SUMG | Summit | 106.27 | 354 | *e*P | Pdif | 05 33 32.2 | +0.9 |
| SUMG | Summit | 106.27 | 354 | *i* P | Pdif | 05 33 32.2 | +0.9 |
| KEST | Kesra | 106.98 | 307 | PKiKP | PKiKP | 05 37 46.6 | +2.4 |
| | comp=Z,5.7nm,0.9s,baz=15,slow=4.1,SNR=5.0 | | | | | | |
| E03A | Lebam | 107.58 | 41 | *e*Pdif | Pdif | 05 33 37.1 | 0.0 |
| B08A | Colville Reser | 109.59 | 38 | *e*Pdif | Pdif | 05 33 46.2 | +0.1 |
| E07A | Sunnyside | 109.97 | 40 | *e*Pdif | Pdif | 05 33 48.9 | +1.1 |
| D08A | Wollman Farm, | 110.36 | 39 | *e*Pdif | Pdif | 05 33 50.3 | +0.8 |
| MOD | Modoc Plateau | 111.37 | 44 | *e*Pdif | Pdif | 05 33 55.2 | +0.9 |
| J08A | Circle Bar Ran | 112.09 | 42 | *e*Pdif | Pdif | 05 33 57.6 | +0.1 |
| MFID | Camas Ranch | 113.84 | 41 | *e*PKPdf | PKiKP | 05 37 57.5 | +0.4 |
| HLID | Hailey | 114.71 | 41 | *e*Pdif | Pdif | 05 34 09.8 | +0.6 |
| HLID | | | | *e*PKPdf | PKPdf | 05 37 58.9 | +0.1 |
| DLMT | Dillon | 115.05 | 38 | *e*PKPdf | PKPdf | 05 37 59.5 | +0.1 |
| DAC | Darwin (Calif) | 115.31 | 49 | *e*PKIKP | PKPdf | 05 38 00.0 | -0.1 |
| DAC | Darwin (Calif) | 115.31 | 49 | *e*PKPdf | PKPdf | 05 38 00.0 | -0.1 |
| FFC | Flin Flon | 115.32 | 26 | *e*PKIKP | PKPdf | 05 37 59.6 | +0.3 |
| FFC | Flin Flon | 115.32 | 26 | *e*PKPdf | PKPdf | 05 37 59.6 | +0.3 |
| EGMT | Eagleton | 115.42 | 35 | *e*PKPdf | PKPdf | 05 37 59.5 | -0.4 |
| MPMC | Manual Prospec | 115.46 | 49 | P | PKPdf | 05 38 01.1 | +0.7 |
| | baz=290 | | | | | | |
| BOZ | Bozeman (W) | 115.54 | 38 | *e*PKIKP | PKPdf | 05 38 00.5 | +0.2 |
| BOZ | Bozeman (W) | 115.54 | 38 | *e*PKPdf | PKPdf | 05 38 00.5 | +0.2 |
| PASC | Pasadena Art C | 115.55 | 52 | *e*PKPdf | PKPdf | 05 38 00.1 | -0.4 |
| ESDC | Sonseca Array | 115.81 | 315 | PP | PP | 05 39 07.5 | +2.6 |
| | comp=Z,1.8nm,0.8s,baz=48,slow=7.6,SNR=4.7 | | | | | | |
| ESDC | | | | PKKPbc | PKKPbc | 05 48 32.5 | -1.4 |
| | comp=Z,0.2nm,0.3s,baz=28,slow=3.0,SNR=4.3 | | | | | | |
| QLMT | Earthquake Lak | 116.03 | 39 | *e*PKPdf | PKPdf | 05 38 01.4 | +0.1 |
| YHB | Horse Butte | 116.22 | 39 | *e*PKPdf | PKPdf | 05 38 02.9 | +1.2 |
| YMR | Madison River | 116.40 | 38 | *e*PKPdf | PKPdf | 05 38 03.0 | +0.9 |
| YHH | Holmes Hill | 116.41 | 38 | *e*PKPdf | PKPdf | 05 38 02.9 | +0.7 |
| YNR | Norris Junctio | 116.56 | 38 | *e*PKPdf | PKPdf | 05 38 04.2 | +1.8 |
| HVU | Hansel Valley | 116.58 | 42 | *e*PKIKP | PKPdf | 05 38 02.7 | +0.3 |
| HVU | Hansel Valley | 116.58 | 42 | *e*PKPdf | PKPdf | 05 38 02.7 | +0.3 |
| YFT | Old Faithful | 116.59 | 39 | *e*PKPdf | PKPdf | 05 38 03.8 | +1.4 |
| IMW | Indian Meadow | 116.79 | 39 | *e*PKPdf | PKPdf | 05 38 03.5 | +0.6 |
| FXWY | Fox Creek | 116.86 | 40 | *e*PKPdf | PKPdf | 05 38 02.9 | -0.1 |
| TPAW | Teton Pass | 116.98 | 40 | *e*PKPdf | PKPdf | 05 38 04.0 | +0.7 |
| MOOW | Moose Ponds | 116.99 | 39 | *e*PKPdf | PKPdf | 05 38 03.4 | +0.2 |
| SHPR | Sheep Range | 117.06 | 48 | *e*PKPdf | PKPdf | 05 38 04.5 | +1.1 |
| REDW | Red Top Meadow | 117.11 | 40 | *e*PKPdf | PKPdf | 05 38 04.2 | +0.7 |
| SNOW | Snow King Moun | 117.12 | 40 | *e*PKPdf | PKPdf | 05 38 04.0 | +0.5 |
| LOHW | Long Hollow | 117.14 | 39 | *e*PKPdf | PKPdf | 05 38 03.9 | +0.4 |
| RLMT | Red Lodge | 117.22 | 37 | *e*PKPdf | PKPdf | 05 38 04.1 | +0.5 |
| AHID | Auburn Hatcher | 117.23 | 40 | *e*PKPdf | PKPdf | 05 38 02.6 | -1.1 |
| DUG | Dugway, Tooele | 117.25 | 44 | *e*PKIKP | PKPdf | 05 38 03.8 | +0.1 |
| DUG | Dugway, Tooele | 117.25 | 44 | *e*PKPdf | PKPdf | 05 38 03.8 | +0.1 |
| GMRC | Granite Mounta | 117.31 | 50 | P | PKPdf | 05 38 04.5 | +0.5 |
| | baz=291 | | | | | | |
| CTU | Camp Tracy | 117.76 | 43 | *e*PKPdf | PKPdf | 05 38 05.4 | +0.7 |
| TCUT | Toone Canyon | 117.80 | 42 | *e*PKPdf | PKPdf | 05 38 05.0 | +0.1 |
| NLU | North Lily Min | 117.86 | 44 | *e*PKPdf | PKPdf | 05 38 05.0 | 0.0 |
| BC3 | Big Chuckawall | 117.86 | 51 | P | PKPdf | 05 38 05.6 | +0.5 |
| | baz=291 | | | | | | |
| TOA0 | Torodi Ar. Sit | 117.91 | 285 | *e*PKPdf | PKPdf | 05 38 04.3 | -1.2 |
| TORD | Torodi Ar. Bea | 117.91 | 285 | PKP | PKPdf | 05 38 03.9 | -1.6 |
| | comp=Z,5.9nm,0.6s,baz=91,slow=1.3,SNR=34 | | | | | | |
| TORD | | | | SKP | | 05 41 31.3 | |
| | comp=Z,3.2nm,0.8s,baz=65,slow=1.5,SNR=5.0 | | | | | | |
| TORD | | | | PKKPbc | PKKPbc | 05 48 25.1 | -0.7 |
| | comp=Z,3.3nm,1.0s,baz=290,slow=2.6,SNR=7.5 | | | | | | |
| CCUT | Cedar City | 117.97 | 47 | *e*PKPdf | PKPdf | 05 38 04.9 | -0.4 |
| NRS | Narsarsuaq | 117.99 | 352 | *e*PKIKP | PKPdf | 05 38 03.8 | -0.4 |
| NRS | Narsarsuaq | 117.99 | 352 | *e*PKPdf | PKPdf | 05 38 03.8 | -0.4 |
| JLU | Jordanelle | 118.00 | 43 | *e*PKPdf | PKPdf | 05 38 05.7 | +0.4 |
| MPU | Maple Canyon | 118.14 | 43 | *e*PKPdf | PKPdf | 05 38 05.7 | +0.2 |
| SZCU | Shurtz Canyon | 118.15 | 46 | *e*PKPdf | PKPdf | 05 38 06.6 | +1.0 |
| LAO | LASA Array | 118.16 | 35 | *e*PKPdf | PKPdf | 05 38 05.5 | +0.3 |
| TCRU | Three Creeks R | 118.19 | 45 | *e*PKPdf | PKPdf | 05 38 07.0 | +1.2 |
| BW06 | Boulder Array | 118.22 | 40 | *e*PKPdf | PKPdf | 05 38 05.1 | -0.5 |
| PD31 | Pinedale Array | 118.22 | 40 | *e*PKPdf | PKPdf | 05 38 04.8 | -0.9 |
| PDAR | Pinedale Array | 118.22 | 40 | PKP | PKPdf | 05 38 04.5 | -1.2 |
| | comp=Z,4.9nm,0.8s,baz=310,slow=0.7,SNR=21 | | | | | | |
| PDAR | | | | PP | PP | 05 39 14.2 | -7.6 |
| | comp=Z,1.9nm,0.9s,baz=315,slow=3.2,SNR=2.2 | | | | | | |
| PDAR | | | | PKKPbc | PKKPbc | 05 48 22.9 | -2.8 |
| | comp=Z,5.5nm,0.7s,baz=122,slow=4.4,SNR=22 | | | | | | |
| LCMT | Little Creek M | 118.27 | 47 | *e*PKPdf | PKPdf | 05 38 04.8 | -1.0 |
| MTPU | Mount Pierson | 118.61 | 46 | *e*PKPdf | PKPdf | 05 38 08.4 | +1.7 |
| TMUT | Trail Mountain | 118.75 | 44 | *e*PKPdf | PKPdf | 05 38 06.9 | +0.1 |
| Q16A | Castle Valley | 118.95 | 44 | *e*PKPdf | PKPdf | 05 38 07.6 | +0.5 |
| P17A | Butcher Ranch, | 119.00 | 44 | *e*PKPdf | PKPdf | 05 38 07.5 | +0.3 |
| P18A | Preston Nutter | 119.27 | 43 | *e*PKPdf | PKPdf | 05 38 08.4 | +0.5 |
| SRU | San Rafael Swe | 119.31 | 44 | *e*PKIKP | PKPdf | 05 38 07.7 | -0.1 |
| SRU | San Rafael Swe | 119.31 | 44 | *e*PKPdf | PKPdf | 05 38 07.7 | -0.1 |
| WUAZ | Wupatki | 120.26 | 48 | *e*PKPdf | PKPdf | 05 38 10.0 | +0.3 |
| RWWY | Rawlins | 120.27 | 40 | *e*PKPdf | PKPdf | 05 38 08.9 | -0.7 |
| PV09 | Paradox Valley | 120.56 | 44 | *e*PKPdf | PKPdf | 05 38 10.7 | +0.3 |
| PV10 | Paradox Valley | 120.68 | 44 | *e*PKPdf | PKPdf | 05 38 10.9 | +0.4 |
| PV04 | Paradox Valley | 120.77 | 44 | *e*PKPdf | PKPdf | 05 38 11.3 | +0.7 |
| PV05 | Paradox Valley | 120.78 | 44 | *e*PKPdf | PKPdf | 05 38 10.9 | +0.2 |
| RSSD | Black Hills | 120.89 | 36 | *e*PKIKP | PKPdf | 05 38 09.7 | -1.0 |
| RSSD | Black Hills | 120.89 | 36 | *e*PKPdf | PKPdf | 05 38 09.7 | -1.0 |
| ULM | Lac du Bonnet | 121.11 | 26 | PKP | PKPdf | 05 38 09.3 | -1.3 |
| | comp=Z,21nm,0.9s,baz=313,slow=2.9,SNR=14 | | | | | | |
| ULM | | | | PKKPbc | PKKPab | 05 48 12.1 | -2.9 |
| | comp=Z,4.7nm,0.6s,baz=123,slow=4.2,SNR=9.1 | | | | | | |
| PV01 | Paradox Valley | 121.12 | 44 | *e*PKPdf | PKPdf | 05 38 11.4 | 0.0 |
| PHWY | Pilot Hill | 121.59 | 39 | *e*PKPdf | PKPdf | 05 38 12.1 | -0.2 |
| MVCO | Mesa Verde | 121.60 | 45 | *e*PKPdf | PKPdf | 05 38 13.0 | +0.7 |
| SMCO | Snowmass | 121.71 | 42 | *e*PKPdf | PKPdf | 05 38 12.6 | 0.0 |
| TUC | Tucson | 122.01 | 51 | *e*PKIKP | PKPdf | 05 38 13.2 | +0.2 |
| TUC | Tucson | 122.01 | 51 | *e*PKPdf | PKPdf | 05 38 13.2 | +0.2 |
| ISCO | Idaho Springs | 122.29 | 41 | *e*PKIKP | PKPdf | 05 38 13.3 | -0.4 |
| ISCO | Idaho Springs | 122.29 | 41 | *e*PKPdf | PKPdf | 05 38 13.3 | -0.4 |
| AGMN | Agassiz Nation | 122.52 | 28 | *e*PKPdf | PKPdf | 05 38 12.0 | -1.4 |
| KOWA | Kowa | 123.20 | 287 | *e*PKPdf | PKPdf | 05 38 14.8 | -0.8 |
| SDCO | Great Sand Dun | 123.43 | 43 | *e*PKPdf | PKPdf | 05 38 16.5 | +0.7 |
| LAZ | Ladron | 123.88 | 47 | *e*PKPdf | PKPdf | 05 38 18.0 | +1.3 |
| OGNE | Ogallala | 123.94 | 38 | *e*PKPdf | PKPdf | 05 38 16.4 | -0.1 |
| ANMO | Albuquerque | 124.12 | 46 | *e*PKIKP | PKPdf | 05 38 17.4 | +0.2 |
| ANMO | Albuquerque | 124.12 | 46 | *e*PKPdf | PKPdf | 05 38 17.4 | +0.2 |
| MHTCO | State Highway | 124.30 | 43 | *e*PKPdf | PKPdf | 05 38 17.8 | +0.4 |
| EYMN | Ely | 124.75 | 26 | *e*PKPdf | PKPdf | 05 38 17.4 | -0.3 |
| KIC | Kosan Boka | 124.91 | 278 | *e*PKIKP | PKPdf | 05 38 17.6 | -1.4 |
| | comp=Z,22nm,0.9s | | | | | | |
| SCHQ | Schefferville | 124.97 | 5 | PKP | PKPdf | 05 38 17.6 | -0.4 |
| | comp=Z,49nm,0.8s,baz=11,slow=2.5,SNR=30 | | | | | | |
| SCHQ | Schefferville | 124.97 | 5 | *e*PKPdf | PKPdf | 05 38 17.8 | -0.1 |
| DBIC | Dimbokro | 125.00 | 278 | PKP | PKPdf | 05 38 18.2 | -0.9 |
| | comp=Z,7.2nm,0.8s,baz=65,slow=2.3,SNR=7.2 | | | | | | |
| DBIC | | | | PKPbc | PKKPbc | 05 48 00.5 | +1.6 |
| | comp=Z,3.8nm,1.1s,baz=216,slow=5.7,SNR=3.6 | | | | | | |
| DBIC | Dimbokro | 125.00 | 278 | *e*PKIKP | PKPdf | 05 38 18.3 | -0.8 |
| TIC | Toumodi | 125.17 | 278 | *e*PKIKP | PKPdf | 05 38 18.0 | -1.5 |
| LIC | Lamto | 125.21 | 278 | *e*PKIKP | PKPdf | 05 38 17.8 | -1.7 |
| | comp=Z,44nm,0.9s | | | | | | |
| ECSD | EROS Data Cent | 125.31 | 32 | *e*PKPdf | PKPdf | 05 38 18.1 | -0.8 |
| MNTX | Cornudas Mount | 126.42 | 49 | *e*PKPdf | PKPdf | 05 38 22.0 | +0.6 |
| CBKS | Cedar Bluff | 126.62 | 39 | *e*PKIKP | PKPdf | 05 38 21.9 | +0.3 |
| CBKS | Cedar Bluff | 126.62 | 39 | *e*PKPdf | PKPdf | 05 38 21.9 | +0.3 |
| HPIG | | 128.22 | 55 | *e*PKPdf | PKPdf | 05 38 24.9 | -0.3 |
| SCIA | State Center | 128.38 | 32 | *e*PKPdf | PKPdf | 05 38 24.9 | +0.1 |
| EFI | East Falkland | 128.55 | 181 | *e*PKIKP | PKPdf | 05 38 25.1 | +0.3 |
| EFI | East Falkland | 128.55 | 181 | *e*PKPdf | PKPdf | 05 38 25.1 | +0.3 |
| TX31 | Lajitas Ar. Si | 128.81 | 51 | *e*PKPdf | PKPdf | 05 38 26.7 | +0.6 |
| TXAR | Lajitas Array | 128.81 | 51 | PKhKP | PKPpre | 05 38 23.3 | |
| | comp=Z,3.9nm,0.8s,baz=236,slow=1.0,SNR=12 | | | | | | |
| TXAR | | | | PKP | PKPdf | 05 38 26.2 | 0.0 |
| | comp=Z,3.9nm,0.8s,baz=269,slow=1.1,SNR=14 | | | | | | |
| JFWS | Jewell Farm | 129.14 | 29 | *e*PKIKP | PKPdf | 05 38 25.5 | -0.7 |
| JFWS | Jewell Farm | 129.14 | 29 | *e*PKPdf | PKPdf | 05 38 25.5 | -0.7 |
| VLDQ | Val d'Or | 129.58 | 15 | *e*PKPdf | PKPdf | 05 38 25.7 | -1.2 |
| OK020 | N3440 Road, Me | 130.41 | 40 | *e*PKPdf | PKPdf | 05 38 28.9 | 0.0 |
| OK021 | N3530 Road, Sp | 130.47 | 40 | *e*PKPdf | PKPdf | 05 38 29.0 | 0.0 |
| OK022 | N3560 Road, Pr | 130.55 | 40 | *e*PKPdf | PKPdf | 05 38 29.1 | -0.1 |
| JCT | Junction City | 131.20 | 48 | *e*PKIKP | PKPdf | 05 38 30.7 | +0.1 |
| JCT | Junction City | 131.20 | 48 | *e*PKPdf | PKPdf | 05 38 30.7 | +0.1 |
| HDIL | Hopedale | 131.39 | 30 | *e*PKPdf | PKPdf | 05 38 30.4 | -0.2 |
| CHRN | Cochrane | 131.64 | 168 | *e*PKPdf | PKPdf | 05 38 31.2 | +0.4 |
| LMQ | La Malbaie | 131.67 | 10 | *e*PKPdf | PKPdf | 05 38 30.1 | -0.8 |
| HHAR | Hobbs | 131.79 | 38 | *e*PKPdf | PKPdf | 05 38 31.3 | -0.2 |
| TRQ | Mont Tremblant | 132.07 | 14 | *e*PKPdf | PKPdf | 05 38 31.2 | -0.6 |
| SADO | Sadowa | 132.11 | 19 | *e*PKPdf | PKPdf | 05 38 31.4 | -0.4 |
| CCM | Cathedral Cave | 132.17 | 34 | *e*PKIKP | PKPdf | 05 38 32.5 | +0.4 |
| CCM | Cathedral Cave | 132.17 | 34 | *e*PKPdf | PKPdf | 05 38 32.5 | +0.4 |
| FVM | French Village | 132.67 | 33 | *e*PKIKP | PKPdf | 05 38 34.1 | +1.0 |
| FVM | French Village | 132.67 | 33 | *e*PKPdf | PKPdf | 05 38 34.1 | +1.0 |
| PQI | Presque Isle | 132.88 | 8 | *e*PKPdf | PKPdf | 05 38 32.4 | -0.8 |
| MIAR | Mount Ida | 133.14 | 39 | *e*PKIKP | PKPdf | 05 38 34.2 | +0.1 |
| MIAR | Mount Ida | 133.14 | 39 | *e*PKPdf | PKPdf | 05 38 34.2 | +0.1 |
| OLIL | Olney | 133.36 | 31 | *e*PKPdf | PKPdf | 05 38 34.7 | +0.3 |
| X301 | Greenbrier Sit | 133.42 | 38 | *e*PKPdf | PKPdf | 05 38 35.3 | +0.7 |
| WHAR | Wooly Hollow | 133.46 | 38 | *e*PKPdf | PKPdf | 05 38 35.1 | +0.5 |
| PBMO | Poplar Bluff | 133.53 | 35 | *e*PKPdf | PKPdf | 05 38 34.9 | +0.2 |
| LONY | Lake Ozonia | 133.56 | 15 | *e*PKPdf | PKPdf | 05 38 33.9 | -0.7 |
| FRNY | Flat Rock | 133.61 | 14 | *e*PKPdf | PKPdf | 05 38 34.1 | -0.6 |
| BLO | Bloomington | 133.82 | 29 | *e*PKIKP | PKPdf | 05 38 35.2 | 0.0 |
| BLO | Bloomington | 133.82 | 29 | *e*PKPdf | PKPdf | 05 38 35.2 | 0.0 |
| WLAR | White Oak Lake | 133.99 | 40 | *e*PKPdf | PKPdf | 05 38 36.4 | +0.7 |
| PARMO | Parma | 133.99 | 34 | *e*PKPdf | PKPdf | 05 38 36.7 | +1.1 |
| LMN | Caledonia Moun | 134.06 | 5 | *e*PKPdf | PKPdf | 05 38 35.3 | -0.2 |
| PKME | Peaks-Kenny Pk | 134.06 | 10 | *e*PKPdf | PKPdf | 05 38 35.4 | 0.0 |
| LNIG | Linares | 134.14 | 54 | *e*PKPdf | PKPdf | 05 38 37.6 | +1.4 |
| NATX | Nacogdoches | 134.15 | 43 | *e*PKPdf | PKPdf | 05 38 36.8 | +0.7 |
| USIN | University of | 134.16 | 31 | *e*PKPdf | PKPdf | 05 38 36.5 | +0.6 |
| NCB | Newcomb | 134.26 | 15 | *e*PKPdf | PKPdf | 05 38 36.0 | +0.1 |
| MMNY | Mt. Morris Dam | 134.33 | 19 | *e*PKPdf | PKPdf | 05 38 35.5 | -0.6 |
| HKT | Hockley | 134.38 | 46 | *e*PKIKP | PKPdf | 05 38 38.7 | +2.3 |
| HKT | Hockley | 134.38 | 46 | *e*PKPdf | PKPdf | 05 38 38.7 | +2.3 |
| MDV | Middlebury | 134.49 | 14 | *e*PKPdf | PKPdf | 05 38 35.8 | -0.5 |
| GLAT | Glass | 134.54 | 34 | *e*PKPdf | PKPdf | 05 38 38.1 | +1.5 |
| LBNH | Lisbon | 134.55 | 12 | *e*PKIKP | PKPdf | 05 38 36.7 | +0.3 |
| LBNH | Lisbon | 134.55 | 12 | *e*PKPdf | PKPdf | 05 38 36.7 | +0.3 |
| GGN | Saint George | 134.56 | 7 | *e*PKPdf | PKPdf | 05 38 36.9 | +0.5 |
| ACSO | Alum Creek Sta | 134.59 | 25 | *e*PKPdf | PKPdf | 05 38 36.5 | -0.2 |
| WCI | Wyandotte Cave | 134.66 | 30 | *e*PKHKP | PKPpre | 05 38 22.6 | |
| WCI | | | | *e* | | 05 38 36.3 | |
| WCI | Wyandotte Cave | 134.66 | 30 | *e*PKPpre | PKPpre | 05 38 22.6 | |
| WCI | | | | *e*PKPdf | PKPdf | 05 38 36.3 | -0.5 |
| WVL | Waterville | 134.68 | 10 | *e*PKPdf | PKPdf | 05 38 36.1 | -0.6 |
| ACCN | Adirondack Com | 134.95 | 15 | *e*PKPdf | PKPdf | 05 38 37.4 | +0.2 |
| HNH | Hanover | 134.98 | 13 | *e*PKPdf | PKPdf | 05 38 37.6 | +0.4 |
| WVT | Waverly | 135.44 | 33 | *e*PKIKP | PKPdf | 05 38 38.8 | +0.5 |
| WVT | Waverly | 135.44 | 33 | *e*PKPdf | PKPdf | 05 38 38.8 | +0.5 |
| TRY | Troy | 135.56 | 15 | *e*PKPdf | PKPdf | 05 38 38.9 | +0.5 |
| OXF | Oxford | 135.71 | 36 | *e*PKIKP | PKPdf | 05 38 40.2 | +1.3 |
| OXF | Oxford | 135.71 | 36 | *e*PKPpre | PKPpre | 05 38 22.9 | |
| OXF | | | | *e*PKPdf | PKPdf | 05 38 40.2 | +1.3 |
| PLAL | Pickwick Lake | 136.15 | 34 | *e*PKPdf | PKPdf | 05 38 39.1 | -0.6 |
| SSPA | Standing Stone | 136.21 | 20 | *e*PKPpre | PKPpre | 05 38 28.1 | |
| SSPA | | | | *e*PKPdf | PKPdf | 05 38 40.0 | +0.3 |
| HRV | Adam Dziewonsk | 136.28 | 13 | *e*PKIKP | PKPdf | 05 38 39.5 | -0.2 |
| HRV | Adam Dziewonsk | 136.28 | 13 | *e*PKPdf | PKPdf | 05 38 39.5 | -0.2 |
| MCWV | Mont Chateau | 136.35 | 23 | *e*PKPpre | PKPpre | 05 38 28.5 | |
| MCWV | | | | *e*PKPdf | PKPdf | 05 38 40.0 | 0.0 |
| WES | Weston | 136.45 | 13 | *e*PKIKP | PKPdf | 05 38 39.7 | -0.3 |
| WES | Weston | 136.45 | 13 | *e*PKPdf | PKPdf | 05 38 39.7 | -0.3 |
| ODNJ | Ogdensburg | 136.84 | 17 | *e*PKPpre | PKPpre | 05 38 33.4 | |
| ODNJ | | | | *e*PKPdf | PKPdf | 05 38 41.3 | +0.5 |
| BRYW | Bryant College | 136.85 | 13 | *e*PKPdf | PKPdf | 05 38 40.9 | +0.1 |
| PAL | Palisades | 137.11 | 16 | *e*PKIKP | PKPdf | 05 38 41.4 | +0.2 |
| PAL | Palisades | 137.11 | 16 | *e*PKPdf | PKPdf | 05 38 41.4 | +0.2 |
| CPNY | Central Park | 137.30 | 16 | *e*PKPdf | PKPdf | 05 38 41.0 | -0.6 |
| MVL | Millersville | 137.30 | 19 | *e*PKPpre | PKPpre | 05 38 31.2 | |
| MVL | | | | *e*PKPdf | PKiKP | 05 38 43.2 | -0.3 |
| PSUB | Penn St. - Bra | 137.65 | 18 | *e*PKPpre | PKPpre | 05 38 31.5 | |
| PSUB | | | | *e*PKPdf | PKPdf | 05 38 41.5 | -0.8 |
| SDMD | Soldier's Deli | 137.67 | 20 | *e*PKPdf | PKPdf | 05 38 42.4 | 0.0 |
| CPCT | Cooper Cave | 137.71 | 31 | *e*PKPpre | PKPpre | 05 38 30.1 | |
| TKL | Tuckaleechee C | 137.93 | 30 | *e*PKHKP | PKPpre | 05 38 31.1 | |
| TKL | | | | *e* | | 05 38 43.0 | |
| TKL | Tuckaleechee C | 137.93 | 30 | *e*PKPpre | PKPpre | 05 38 31.1 | |
| TKL | | | | *e*PKPdf | PKPdf | 05 38 43.0 | 0.0 |
| LRAL | Lakeview Retre | 138.17 | 35 | *e*PKPpre | PKPpre | 05 38 31.6 | |
| BLA | Blacksburg | 138.21 | 25 | *e*PKHKP | PKPpre | 05 38 32.4 | |
| BLA | Blacksburg | 138.21 | 25 | *e*PKPpre | PKPpre | 05 38 32.4 | |
| PLCA | Paso Flores | 138.30 | 167 | PKhKP | PKPpre | 05 38 34.9 | |
| | comp=Z,1.1nm,0.6s,baz=288,slow=3.2,SNR=4.3 | | | | | | |
| PLCA | | | | PKP | PKPdf | 05 38 43.3 | -0.3 |
| | comp=Z,9.2nm,0.8s,baz=176,slow=2.4,SNR=7.1 | | | | | | |
| PLCA | | | | SKP | | 05 42 09.1 | |
| | comp=Z,7.0nm,1.0s,baz=207,slow=3.6,SNR=5.2 | | | | | | |
| IP04 | Greensprings | 138.38 | 22 | *e*PKPpre | PKPpre | 05 38 32.3 | |
| IP04 | | | | *e*PKPdf | PKiKP | 05 38 45.5 | -0.3 |
| IP03 | Louisa | 138.48 | 22 | *e*PKPpre | PKPpre | 05 38 35.0 | |
| IP03 | | | | *e*PKPdf | PKPdf | 05 38 43.9 | 0.0 |
| CVRD | Centerville Ro | 138.51 | 22 | *e*PKPpre | PKPpre | 05 38 34.1 | |
| CVRD | | | | *e*PKPdf | PKPdf | 05 38 43.6 | -0.3 |
| SPRD | Spring Road, M | 138.53 | 22 | *e*PKPdf | PKPdf | 05 38 45.6 | +1.6 |
| PTRD | Partlow Road | 138.54 | 22 | *e*PKPdf | PKPdf | 05 38 45.5 | +1.5 |
| CBN | Corbin Frederi | 138.55 | 21 | *e*PKPdf | PKPdf | 05 38 44.0 | 0.0 |
| SPFD | Spotsylvania F | 138.56 | 22 | *e*PKPdf | PKPdf | 05 38 46.1 | +2.1 |
| IP07 | Quail | 138.56 | 22 | *e*PKPpre | PKPpre | 05 38 35.3 | |
| IP06 | Yanceyville | 138.57 | 22 | *e*PKPpre | PKPpre | 05 38 33.0 | |
| IP06 | | | | *e*PKPdf | PKiKP | 05 38 45.7 | -0.4 |
| IP01 | Cuckoo | 138.57 | 22 | *e*PKPpre | PKPpre | 05 38 34.3 | |
| IP01 | | | | *e*PKPdf | PKiKP | 05 38 45.9 | -0.3 |
| IP05 | Hopewell Churc | 138.74 | 22 | *e*PKPpre | PKPpre | 05 38 33.9 | |
| IP05 | | | | *e*PKPdf | PKiKP | 05 38 46.7 | +0.1 |
| JSRW | J. Sargeant Re | 138.81 | 22 | *e*PKPpre | PKPpre | 05 38 34.6 | |
| JSRW | | | | *e*PKPdf | PKiKP | 05 38 46.5 | -0.2 |
| BG3 | Lake Jocassee | 138.87 | 30 | *e*PKPpre | PKPpre | 05 38 35.0 | |
| URVA | University of | 139.05 | 22 | *e*PKPdf | PKPdf | 05 38 43.8 | -1.1 |
| BRAL | Brewton | 139.47 | 37 | *e*PKPpre | PKPpre | 05 38 36.5 | |
| HODGE | Hodges | 139.81 | 30 | *e*PKPpre | PKPpre | 05 38 37.4 | |
| GOGA | Godfrey | 139.84 | 32 | *e*PKHKP | PKPpre | 05 38 37.4 | |
| GOGA | Godfrey | 139.84 | 32 | *e*PKPpre | PKPpre | 05 38 37.4 | |
| JSC | Jenkinsville | 140.26 | 29 | *e*PKHKP | PKPpre | 05 38 39.0 | |
| JSC | Jenkinsville | 140.26 | 29 | *e*PKPpre | PKPpre | 05 38 39.0 | |
| RGRS | Roger Stewart | 141.89 | 29 | *e*PKPpre | PKPpre | 05 38 44.9 | |
| TRQA | Tornquist | 142.12 | 177 | *e*PKPpre | PKPpre | 05 38 45.5 | |
| GO05 | HualaæØ | 143.36 | 163 | *e*PKPpre | PKPpre | 05 38 49.3 | |
| MYIG | MØrida | 143.88 | 53 | *e*PKPdf | PKPbc | 05 38 52.4 | +0.4 |
| CCIG | Comitan | 144.02 | 62 | *e*PKPdf | PKPbc | 05 38 52.9 | +0.2 |
| RFA | San Rafael | 144.47 | 167 | *e*P | PKPab | 05 38 53.0 | -0.2 |
| LMEL | Las Melosas | 144.93 | 165 | ⇑*i*P | PKPab | 05 38 55.0 | -0.1 |
| DWPF | Disney Wildern | 145.03 | 35 | *e*PKPbc | PKPbc | 05 38 55.1 | -0.2 |
| ANTU | Antumapu | 145.08 | 164 | *i* P | PKPab | 05 38 55.6 | +0.1 |
| CLCH | Cerro Calan | 145.27 | 164 | ⇑*i*P | PKPbc | 05 38 55.7 | -0.4 |
| FCH | Farellones | 145.40 | 164 | *i* P | PKPab | 05 38 57.3 | +0.2 |
| PEL | Peldehue | 145.46 | 163 | *e*PKP2 | PKPdf | 05 38 56.5 | -0.1 |
| PEL | Peldehue | 145.46 | 163 | *e*PKPdf | PKPdf | 05 38 56.5 | -0.1 |
| PEL | Peldehue | 145.46 | 163 | *i* P | PKPdf | 05 38 56.3 | -0.2 |
| ROC1 | El Roble | 145.52 | 163 | *e*PKPdf | PKPbc | 05 38 57.1 | 0.0 |
| ROC1 | El Roble | 145.52 | 163 | *e*P | PKPdf | 05 38 56.1 | -0.8 |
| ROCH | El Roble | 145.53 | 163 | ⇓*i*P | PKPdf | 05 38 56.2 | -0.7 |
| AAGR | Agrelo | 146.01 | 166 | *e*P | PKPdf | 05 38 57.9 | +0.3 |
| ARCO | CERRO ARCO | 146.21 | 166 | *e*P | PKPdf | 05 38 57.4 | -0.6 |
| ASAL | Salagasta | 146.48 | 166 | *e*P | PKPdf | 05 38 58.2 | -0.1 |
| AUSP | Uspallata | 146.69 | 165 | *e*P | PKPdf | 05 38 59.2 | +0.2 |
| RTLS | Leoncito | 147.11 | 165 | *e*P | PKPdf | 05 38 59.9 | +0.2 |
| ACAN | Cantantal | 147.15 | 168 | *e*P | PKPbc | 05 39 01.3 | -0.4 |
| RTCV | Cerro Valdivia | 147.24 | 166 | *e*P | PKPdf | 05 38 59.6 | -0.1 |
| RTLL | Cerro Villicun | 147.77 | 166 | *e*P | PKPbc | 05 39 02.1 | -1.3 |
| AMOG | MOGNA | 148.14 | 165 | *e*P | PKPdf | 05 39 01.0 | -0.1 |
| ACCO | Cerro Coronel | 148.32 | 164 | *e*P | PKPdf | 05 39 01.4 | -0.3 |
| TCA | Tanti | 148.52 | 172 | *e*P | PKPdf | 05 39 01.5 | -0.3 |
| AROD | Rodeo | 148.60 | 163 | *e*P | PKPdf | 05 39 02.4 | +0.2 |
| APLL | PUNTA DE LOS L | 149.11 | 168 | *e*P | PKPdf | 05 39 00.8 | -1.9 |
| PAYG | Puerto Ayora | 149.28 | 91 | *e*PKPbc | PKPbc | 05 39 09.4 | +1.6 |
| LCO | Las Campanas | 149.30 | 161 | *e*PKPdf | PKPdf | 05 39 03.9 | +0.5 |
| LCO | | | | *e*PKPbc | PKPbc | 05 39 07.8 | 0.0 |
| LCO | Las Campanas | 149.30 | 161 | *e*P | PKPbc | 05 39 06.7 | -1.0 |
| AGUA | GUANDACOL | 149.52 | 165 | *e*P | PKPdf | 05 39 03.5 | 0.0 |
| ACLC | CERRO LA CRUZ | 149.95 | 167 | *e*P | PKPdf | 05 39 03.6 | -0.7 |
| VCA | Vinchina | 150.31 | 165 | *e*P | PKPbc | 05 39 08.5 | -1.5 |
| CYA | Choya | 151.15 | 169 | *e*P | PKPdf | 05 39 05.1 | -0.8 |
| AHML | Horco Molle | 152.85 | 169 | *e*P | PKPdf | 05 39 07.9 | -0.7 |
| FSA | Cafayete | 153.37 | 167 | *e*P | PKPbc | 05 39 15.8 | -1.3 |
| CPUP | Villa Florida | 153.78 | 185 | PKP | PKPdf | 05 39 09.2 | -0.6 |
| | comp=Z,9.3nm,0.8s,baz=174,slow=2.4,SNR=20 | | | | | | |
| CPUP | | | | PKPbc | PKPbc | 05 39 17.2 | -0.6 |
| | comp=Z,16nm,0.7s,baz=143,slow=2.0,SNR=21 | | | | | | |
| CPUP | | | | PKPab | PKPab | 05 39 31.0 | +0.3 |
| | comp=Z,38nm,0.8s,baz=178,slow=6.5,SNR=19 | | | | | | |
| CPUP | Villa Florida | 153.78 | 185 | *e*PKIKP | PKPdf | 05 39 09.7 | -0.1 |
| CPUP | | | | *e* | | 05 39 17.5 | |
| CPUP | | | | *e* | | 05 39 31.0 | |
| CPUP | Villa Florida | 153.78 | 185 | *e*PKPdf | PKPdf | 05 39 09.7 | -0.1 |
| CPUP | | | | *e*PKPbc | PKPbc | 05 39 17.5 | -0.2 |
| CPUP | | | | *e*PKPab | PKPab | 05 39 31.0 | +0.3 |
| PB10 | IPOC Station P | 154.36 | 156 | *e*PKPbc | PKPbc | 05 39 18.7 | -0.4 |
| MTDJ | Mount Denham | 154.67 | 43 | *e*PKPbc | PKPbc | 05 39 20.1 | +0.1 |
| MTDJ | | | | *e*PKPab | PKPab | 05 39 35.0 | +0.1 |
| GTBY | Guantanamo Bay | 154.98 | 37 | *e*PKPbc | PKPbc | 05 39 20.8 | +0.4 |
| PB04 | IPOC Station P | 155.57 | 156 | *e*PKPdf | PKPdf | 05 39 13.4 | +0.7 |
| GRTK | Grand Turk | 155.78 | 27 | *e*PKPab | PKPab | 05 39 39.8 | +0.5 |
| LVC | Limon Verde | 155.81 | 159 | PKP | PKPdf | 05 39 13.2 | +0.1 |
| | comp=Z,36nm,0.9s,baz=296,slow=1.4,SNR=7.9 | | | | | | |
| LVC | | | | PKPab | PKPab | 05 39 40.6 | +0.7 |
| | comp=Z,104nm,0.8s,baz=200,slow=5.4,SNR=13 | | | | | | |
| LVC | Limon Verde | 155.81 | 159 | *e*PKPdf | PKPdf | 05 39 13.9 | +0.7 |
| LVC | | | | *e*PKPab | PKPab | 05 39 41.4 | +1.5 |
| ALOL | LOMAS DE OLMED | 155.99 | 170 | *e*P | PKPdf | 05 39 12.4 | -0.6 |
| HJA | Humahuaca | 156.29 | 167 | *e*P | PKPdf | 05 39 14.2 | +0.4 |
| PB01 | IPOC Station P | 157.00 | 156 | *e*PKPdf | PKPdf | 05 39 14.5 | 0.0 |
| PB01 | | | | *e*PKPab | PKPab | 05 39 46.0 | +1.3 |
| YJA | Yavi | 157.26 | 166 | *e*P | PKPdf | 05 39 15.6 | +0.4 |
| LGNH | LØogne | 157.55 | 34 | *e*PKPab | PKPab | 05 39 48.1 | +1.1 |
| BCIP | Isla Barro Col | 157.84 | 65 | *e*PKPab | PKPab | 05 39 49.5 | +0.8 |
| SDDR | Presa de Saban | 157.86 | 31 | *e*PKPab | PKPab | 05 39 48.6 | +0.1 |
| MNMC | Minye Minye | 158.64 | 153 | *e*PKPdf | PKPdf | 05 39 17.4 | +0.7 |
| NNA | Nana | 159.16 | 125 | PKP | PKPdf | 05 39 16.8 | -0.3 |
| | comp=Z,24nm,0.9s,baz=180,slow=2.0,SNR=9.8 | | | | | | |
| NNA | | | | PKPab | PKPab | 05 39 54.2 | -0.2 |
| | comp=Z,12nm,0.7s,baz=221,slow=5.9,SNR=4.8 | | | | | | |
| NNA | Nana | 159.16 | 125 | *e*PKIKP | PKPdf | 05 39 17.2 | 0.0 |
| NNA | | | | *e* | | 05 39 55.2 | |
| NNA | Nana | 159.16 | 125 | *e*PKPdf | PKPdf | 05 39 17.2 | 0.0 |
| NNA | | | | *e*PKPab | PKPab | 05 39 55.2 | +0.8 |
| ATAH | Atahualpa | 159.96 | 111 | PKP | PKPdf | 05 39 19.2 | +0.6 |
| | comp=Z,16nm,1.0s,baz=218,slow=1.3,SNR=17 | | | | | | |
| ATAH | | | | PKPab | PKPab | 05 40 00.8 | +2.4 |
| | comp=Z,19nm,0.8s,baz=225,slow=5.7,SNR=7.7 | | | | | | |
| IDE | Isla Desecheo | 160.10 | 23 | *e*PKPab | PKPab | 05 39 58.0 | 0.0 |
| AGP | Aguadilla | 160.21 | 22 | *e*PKPab | PKPab | 05 39 58.9 | +0.4 |
| MPR | Mayaguez | 160.39 | 22 | *e*PKPab | PKPab | 05 39 59.6 | +0.3 |
| CELP | Cerrillos | 160.72 | 21 | *e*PKPab | PKPab | 05 40 01.0 | +0.3 |
| BDFB | Brasilia | 160.76 | 216 | PKP | PKPdf | 05 39 18.3 | -0.7 |
| | comp=Z,18nm,1.1s,baz=296,slow=2.7,SNR=14 | | | | | | |
| BDFB | | | | PKPab | PKPab | 05 40 01.4 | +0.2 |
| | comp=Z,30nm,0.8s,baz=284,slow=2.9,SNR=28 | | | | | | |
| BDFB | Brasilia | 160.76 | 216 | *e*PKIKP | PKPdf | 05 39 18.6 | -0.4 |
| BDFB | | | | *e* | | 05 40 01.6 | |
| BDFB | Brasilia | 160.76 | 216 | *e*PKPdf | PKPdf | 05 39 18.6 | -0.4 |
| BDFB | | | | *e*PKPab | PKPab | 05 40 01.6 | +0.4 |
| SJG | San Juan | 160.83 | 19 | PKPab | PKPab | 05 40 00.0 | -1.2 |
| | comp=Z,37nm,0.8s,baz=27,slow=6.8,SNR=11 | | | | | | |
| SJG | San Juan | 160.83 | 19 | *e*PKPdf | PKPdf | 05 39 17.8 | -1.1 |
| SJG | | | | *e*PKPab | PKPab | 05 40 01.1 | -0.1 |
| HUMP | Col San Antoni | 160.90 | 19 | *e*PKPdf | PKPdf | 05 39 18.1 | -0.8 |
| HUMP | | | | *e*PKPab | PKPab | 05 40 01.5 | 0.0 |
| STVI | Saint Thomas | 160.96 | 16 | *e*PKPdf | PKPdf | 05 39 19.1 | +0.1 |
| STVI | | | | *e*PKPab | PKPab | 05 40 01.9 | +0.2 |
| MTP | Monte Pirata | 161.03 | 18 | *e*PKPdf | PKPdf | 05 39 20.1 | +1.0 |
| MTP | | | | *e*PKPab | PKPab | 05 40 01.7 | -0.4 |
| OTAV | Otavalo | 161.12 | 89 | *e*P | PKPdf | 05 39 18.8 | -1.1 |
| OTAV | Otavalo | 161.12 | 89 | *e*PKPdf | PKPdf | 05 39 19.3 | -0.6 |
| OTAV | | | | *e*PKPab | PKPab | 05 40 05.0 | +1.3 |
| SMRT | St. Maarten | 161.69 | 11 | *e*PKPdf | PKPdf | 05 39 19.3 | -0.4 |
| SMRT | | | | *e*PKPab | PKPab | 05 40 05.8 | +0.8 |
| CMBC | Cumbal | 161.72 | 87 | *e*P | PKPdf | 05 39 20.2 | -0.3 |
| LPAZ | La Paz | 161.79 | 153 | PKP | PKPdf | 05 39 20.4 | -0.3 |
| | comp=Z,23nm,0.9s,baz=45,slow=1.4,SNR=73 | | | | | | |
| LPAZ | | | | PKPab | PKPab | 05 40 06.6 | +0.3 |
| | comp=Z,16nm,0.8s,baz=200,slow=5.6,SNR=13 | | | | | | |
| LPAZ | La Paz | 161.79 | 153 | *e*PKIKP | PKPdf | 05 39 21.2 | +0.5 |
| LPAZ | | | | *e* | | 05 40 07.5 | |
| LPAZ | La Paz | 161.79 | 153 | *e*PKPdf | PKPdf | 05 39 21.1 | +0.5 |
| LPAZ | | | | *e*PKPab | PKPab | 05 40 07.5 | +1.2 |
| HELC | Santa Helena | 162.91 | 68 | *e*P | PKPdf | 05 39 20.2 | -1.4 |
| HELC | Santa Helena | 162.91 | 68 | *e*PKPdf | PKPdf | 05 39 21.3 | -0.3 |
| HELC | | | | *e*PKPab | PKPab | 05 40 11.6 | +0.4 |
| SIV | San Ignacio | 164.09 | 175 | PKP | PKPdf | 05 39 21.5 | -0.6 |
| | comp=Z,11nm,0.8s,baz=216,slow=1.0,SNR=14 | | | | | | |
| SIV | | | | PKPab | PKPab | 05 40 15.6 | 0.0 |
| | comp=Z,26nm,0.8s,baz=200,slow=5.8,SNR=20 | | | | | | |
| SIV | | | | PP | PP | 05 43 56.4 | -3.4 |
| | comp=Z,5.8nm,1.0s,baz=193,slow=6.7,SNR=3.4 | | | | | | |
| PRAC | Prado | 164.25 | 76 | *e*PKPdf | PKPdf | 05 39 21.0 | -1.4 |
| PRAC | | | | *e*PKPab | PKPab | 05 40 17.3 | +0.5 |
| ROSC | El Rosal | 164.49 | 72 | PKP | PKPdf | 05 39 22.3 | -0.8 |
| | comp=Z,13nm,0.8s,baz=189,slow=0.5,SNR=13 | | | | | | |
| ROSC | | | | PKPab | PKPab | 05 40 18.7 | +0.4 |
| | comp=Z,22nm,0.8s,baz=256,slow=8.8,SNR=8.4 | | | | | | |
| ROSC | El Rosal | 164.49 | 72 | *e*P | PKPdf | 05 39 20.2 | -2.9 |
| ROSC | El Rosal | 164.49 | 72 | *e*PKPdf | PKPdf | 05 39 22.9 | -0.2 |
| ROSC | | | | *e*PKPab | PKPab | 05 40 19.9 | +1.6 |
| CTAB | Cerro Tablazo, | 164.55 | 71 | *e*P | PKPdf | 05 39 22.4 | -0.9 |
| CTAU | Tausa, Cundina | 164.64 | 70 | *e*P | PKPdf | 05 39 22.4 | -1.0 |
| CHIC | Chingaza | 165.11 | 72 | *e*P | PKPdf | 05 39 22.4 | -1.3 |
| PCM | Pelee Case Pet | 165.14 | 6 | *e*P | PKPdf | 05 39 22.1 | -1.0 |
| PCM | Pelee Case Pet | 165.14 | 6 | *e*P | PKPdf | 05 39 23.2 | +0.1 |
| BAMF | Morne Balai | 165.15 | 6 | *e*P | PKPdf | 05 39 23.2 | 0.0 |
| FDF | Fort de France | 165.23 | 6 | *e*PKIKP | PKPdf | 05 39 23.0 | -0.2 |
| FDF | | | | *e* | | 05 40 21.5 | |
| FDF | Fort de France | 165.23 | 6 | *e*PKPdf | PKPdf | 05 39 23.0 | -0.2 |
| FDF | | | | *e*PKPab | PKPab | 05 40 21.5 | +0.9 |
| FDF | Fort de France | 165.23 | 6 | *e*P | PKPdf | 05 39 23.2 | 0.0 |
| RUSC | La Rusia | 165.28 | 66 | *e*P | PKPdf | 05 39 22.4 | -1.5 |
| RUSC | La Rusia | 165.28 | 66 | *e*PKPdf | PKPdf | 05 39 22.2 | -1.7 |
| ZAM | Aeronautique | 165.40 | 6 | *e*P | PKPdf | 05 39 23.4 | +0.2 |
| TRMF | Trois Ilets | 165.43 | 6 | *e*P | PKPdf | 05 39 24.1 | +0.8 |
| SDV | Santo Domingo | 165.85 | 51 | PKP | PKPdf | 05 39 22.7 | -1.3 |
| | comp=Z,21nm,0.9s,baz=284,slow=3.2,SNR=25 | | | | | | |
| SDV | | | | PKPab | PKPab | 05 40 23.2 | -0.7 |
| | comp=Z,34nm,0.8s,baz=303,slow=3.5,SNR=18 | | | | | | |
| SDV | | | | PP | PP | 05 44 08.1 | -2.6 |
| | comp=Z,4.3nm,0.7s,baz=1.2,slow=3.7,SNR=3.7 | | | | | | |
| SDV | Santo Domingo | 165.85 | 51 | *e*PKPdf | PKPdf | 05 39 22.7 | -1.3 |
| SDV | | | | *e*PKPab | PKPab | 05 40 23.7 | -0.2 |
| SDV | | | | PP | PP | 05 44 08.1 | -2.6 |
| GRGR | Grenville | 167.72 | 10 | *e*PKPab | PKPab | 05 40 30.6 | -1.0 |
| SAML | Samuel | 170.46 | 158 | *e*PKPdf | PKPdf | 05 39 26.0 | -0.8 |
| SAML | | | | *e*PKPab | PKPab | 05 40 43.8 | +0.1 |
| PTGA | Pitinga | 179.22 | 150 | PKP | PKPdf | 05 39 27.7 | -1.8 |
| | comp=Z,4.4nm,0.8s,baz=343,slow=1.4,SNR=8.6 | | | | | | |
| PTGA | | | | PKPab | PKPab | 05 41 22.2 | |
| | comp=Z,16nm,1.0s,baz=187,slow=5.0,SNR=10 | | | | | | |

### GUC 02 05:22:24.5±0.5, 34°.02S×72°.18W, h4km±13km, ML2.2, Near coast of central Chile

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CHPI | Pichilemu | 0.40 | 158 | *e*P | Pg | 05 22 33.0 | +0.8 |
| CHPI | | | | *i* S | Sb | 05 22 39.9 | -0.8 |
| ROCH | El Roble | 1.43 | 44 | IAML | | 05 23 19.2 | |
| | comp=N,68nm,0.5s | | | | | | |

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CLCH | Cerro Calan | 1.50 | 66 | eP | Pn | 05 22 52.3 | 0.0 |
| CLCH | | | | iS | Sg | 05 23 13.4 | +0.5 |
| CLCH | | | | IAML | | 05 23 23.0 | |
| | comp=N,45nm,0.3s | | | | | | |
| PEL | Peldehue | 1.52 | 56 | eP | Pb | 05 22 53.1 | -0.2 |
| PEL | | | | iS | Sg | 05 23 14.1 | +0.6 |
| PEL | | | | IAML | | 05 23 21.9 | |
| | comp=N,82nm,0.5s | | | | | | |
| LMEL | Las Melosas | 1.66 | 85 | eP | Pn | 05 22 54.9 | +0.4 |
| LMEL | | | | eS | Sg | 05 23 18.5 | +0.8 |
| LMEL | | | | IAML | | 05 23 23.2 | |
| | comp=N,72nm,0.2s | | | | | | |

*IDC **02** 05:54:57.2±2.3, 14°.03N×93°.25W, h0km, mb3.8/4, mb1 4.0/6, mb1mx3.6/40, mbtmp3.8/6, ML3.9/2, MS3.3/3, Ms1 3.3/3, ms1mx2.9/36, Error ellipse: s-maj=81.0km s-min=17.2km az=48.0*

*ISCJB **02** 05:54:58.0±0.6, 14°.09N±0°.06×93°.22W±0°.06, h10km, mb4.6/19, MS3.2/2, Error ellipse: s-maj=10.1km s-min=6.7km az=42.5*

*NEIC **02** 05:55:01.6±0.0, 14°.09N×93°.25W, h16km, mb4.5/18, MD4.2(MEX), After MEX.*

*MEX **02** 05:55:01.6±0.6, 14°.09N×93°.25W, h16km±14km, MD4.2*

**ISC 02 05:54:59.8**±0.8**, 14°.13N**±0°.07×**93°.24W**±0°.05**, h10km, n47, σ1.89**/54**, mb4.7**/19**, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PCIG | | 1.56 | 1 | eP | Pn | 05 55 25.9 | -1.8 |
| PCIG | | | | eS | Sn | 05 55 44.5 | -3.5 |
| PCIG | | 1.56 | 1 | ePn | Pn | 05 55 25.9 | -1.8 |
| PCIG | | | | eSn | Sn | 05 55 44.5 | -3.5 |
| CCIG | Comitan | 2.38 | 26 | eP | Pn | 05 55 40.5 | +1.4 |
| CCIG | | | | eS | Sn | 05 56 05.6 | -3.0 |
| CCIG | Comitan | 2.38 | 26 | ePn | Pn | 05 55 40.5 | +1.4 |
| CCIG | | | | eSn | Sb | 05 56 13.0 | +0.4 |
| TGIG | | 2.63 | 2 | eP | Pn | 05 55 43.2 | +0.8 |
| TGIG | | | | eS | Sn | 05 56 12.2 | -2.3 |
| HUIG | Huatulco | 3.22 | 301 | eP | Pn | 05 55 49.1 | -1.3 |
| HUIG | | | | eS | Sn | 05 56 25.6 | -3.3 |
| HUIG | Huatulco | 3.22 | 301 | ePn | Pn | 05 55 49.1 | -1.3 |
| HUIG | | | | eSn | Sn | 05 56 25.6 | -3.3 |
| CMIG | Matias Romero | 3.34 | 332 | Pn | Pn | 05 55 52.1 | -0.1 |
| | 8.6nm,0.3s,baz=154,slow=15,SNR=83 | | | | | | |
| CMIG | | | | Sn | Sn | 05 56 34.0 | +2.0 |
| | 23nm,0.3s,baz=353,slow=17,SNR=9.2 | | | | | | |
| CMIG | | | | Lg | Lg | 05 56 45.4 | |
| | 22nm,0.3s,baz=89,slow=22,SNR=6.8 | | | | | | |
| CMIG | | | | LR | LR | 05 57 16.8 | |
| | comp=Z,301nm,20.6s,baz=172,slow=41 | | | | | | |
| TLIG | Tlapa | 6.16 | 304 | ePn | Pn | 05 56 33.7 | +2.6 |
| LVIG | Laguna Verde | 6.34 | 332 | ePn | Pn | 05 56 37.0 | +3.7 |
| LTX | Lajitas | 17.95 | 329 | ePn | Pn | 05 59 10.9 | +1.2 |
| TXAR | Lajitas Array | 17.95 | 329 | P | Pn | 05 59 10.9 | +1.2 |
| | 0.1nm,0.3s,baz=159,slow=14,SNR=3.4 | | | | | | |
| TX31 | Lajitas Ar. Si | 17.95 | 329 | ePn | P | 05 59 14.1 | +3.8 |
| MIAR | Mount Ida | 20.33 | 359 | eP | Pn | 05 59 39.1 | +0.9 |
| | 9.4nm,1.0s | | | | | | |
| MNTX | Cornudas Mount | 20.73 | 330 | eP | P | 05 59 41.3 | +0.7 |
| | 7.9nm,1.4s | | | | | | |
| ROSC | El Rosal | 20.80 | 115 | P | P | 05 59 40.1 | -1.8 |
| | 1.4nm,0.3s,baz=306,slow=19,SNR=2.3 | | | | | | |
| ROSC | El Rosal | 20.80 | 115 | eP | P | 05 59 41.1 | -0.8 |
| | 12nm,1.4s | | | | | | |
| WMOK | Wichita Mounta | 21.12 | 347 | eP | P | 05 59 45.7 | +0.9 |
| | 10nm,0.8s | | | | | | |
| EPT | El Paso | 21.35 | 328 | eP | P | 05 59 49.2 | +1.8 |
| | 5.2nm,0.6s | | | | | | |
| RUSC | La Rusia | 21.45 | 110 | eP | P | 05 59 49.1 | +0.1 |
| | 4.9nm,1.1s | | | | | | |
| OK020 | N3440 Road, Me | 21.56 | 352 | eP | P | 05 59 51.2 | +1.7 |
| | 70nm,2.0s | | | | | | |
| HHAR | Hobbs | 22.07 | 358 | eP | P | 05 59 55.6 | +0.6 |
| | 34nm,2.0s | | | | | | |
| GLAT | Glass | 22.33 | 8 | eP | P | 05 59 58.5 | +0.8 |
| | 66nm,0.4s | | | | | | |
| HODGE | Hodges | 22.34 | 25 | eP | P | 05 59 58.0 | +0.1 |
| | 5.2nm,1.0s | | | | | | |
| PVMO | Portageville | 22.41 | 7 | eP | P | 05 59 58.4 | -0.3 |
| | 230nm,0.4s | | | | | | |
| SDV | Santo Domingo | 22.75 | 101 | P | P | 06 00 01.7 | -0.9 |
| | 2.0nm,0.2s,baz=270,slow=7.1,SNR=4.1 | | | | | | |
| SDV | | | | LR | LR | 06 10 01.3 | |
| | comp=Z,71nm,20.3s,baz=245,slow=40 | | | | | | |
| TKL | Tuckaleechee C | 23.06 | 20 | LR | LR | 06 09 02.0 | |
| | comp=Z,127nm,18.4s,baz=204,slow=36 | | | | | | |
| SDCO | Great Sand Dun | 25.92 | 337 | eP | P | 06 00 34.4 | +1.8 |
| | 5.4nm,1.3s | | | | | | |
| BELC | Belle Mtn. Jos | 28.57 | 318 | eP | P | 06 00 54.5 | -1.8 |
| DNR | Dunn Ranch,Anz | 28.73 | 316 | eP | P | 06 00 57.1 | -0.5 |
| PLM | Palomar | 28.75 | 316 | ePcP | PcP | 06 04 11.4 | +3.2 |
| BALC | Balcom Canyon | 30.73 | 315 | eP | P | 06 01 12.6 | -2.7 |
| RCWM | Renegade Canyo | 30.84 | 319 | eP | P | 06 01 19.0 | +2.7 |
| RCWM | | | | ePcP | PcP | 06 04 14.8 | +1.5 |
| SVB | Belmont | 31.07 | 88 | eP | P | 06 01 19.5 | +1.0 |
| | 96nm,1.3s | | | | | | |
| REDW | Red Top Meadow | 32.82 | 336 | eP | P | 06 01 32.1 | -1.7 |
| | 16nm,1.3s | | | | | | |
| SNOW | Snow King Moun | 32.87 | 336 | eP | P | 06 01 32.5 | -1.8 |
| | 11nm,1.0s | | | | | | |
| TPAW | Teton Pass | 32.97 | 336 | eP | P | 06 01 34.8 | -0.3 |
| | 15nm,1.5s | | | | | | |
| YERR | Yerington | 33.74 | 322 | eP | P | 06 01 41.9 | +0.1 |
| | 20nm,1.4s | | | | | | |
| CNIC | Niles Canyon | 34.61 | 318 | eP | P | 06 01 50.2 | +1.0 |
| YKA | Yellowknife Ar | 50.63 | 347 | P | P | 06 03 58.5 | -0.3 |
| | 0.9nm,0.6s,baz=152,slow=7.4,SNR=8.0 | | | | | | |
| SKAG | Skagway | 54.81 | 335 | eP | P | 06 04 30.9 | +1.1 |
| | 57nm,1.5s | | | | | | |
| INK | Inuvik | 59.98 | 344 | eP | P | 06 05 06.2 | +0.1 |
| | 31nm,1.9s | | | | | | |
| ILAR | Eielson Array | 62.25 | 337 | P | P | 06 05 21.0 | -0.6 |
| | 0.9nm,1.0s,baz=146,slow=5.2,SNR=3.7 | | | | | | |
| ILB | Eielson Array | 62.25 | 337 | eP | P | 06 05 21.0 | -0.6 |
| LBTB | Lobatse | 121.77 | 111 | ePKPdf | PKPdf | 06 13 53.6 | -1.4 |
| WB2 | Warramunga Arr | 134.25 | 256 | ePKPdf | PKPdf | 06 14 17.3 | -1.5 |
| CMAR | Chiang Mai Arr | 145.46 | 339 | PKPbc | PKPbc | 06 14 37.2 | -1.9 |
| | 1.0nm,0.3s,baz=358,slow=2.7,SNR=4.4 | | | | | | |

*IDC **02** 06:00:04.9±4.1, 14°.50N×92°.80W, h0km, mb3.9/3, mb1 4.1/5, mb1mx3.7/35, mbtmp3.8/5, ML3.7/2, MS3.7/2, Ms1 3.7/2, ms1mx3.0/34, Error ellipse: s-maj=174.5km s-min=18.3km az=45.0*

*NEIC **02** 06:00:06.6±0.0, 14°.08N×93°.17W, h16km, mb4.3/9, MD3.9(MEX), After MEX.*

*MEX **02** 06:00:06.6±1.0, 14°.08N×93°.17W, h16km±127km, MD3.9*

*ISCJB **02** 06:00:08.3±0.7, 14°.25N±0°.05×93°.18W±0°.06, h37km, mb4.5/10, MS3.8/2, Error ellipse: s-maj=9.0km s-min=6.9km az=140.7*

**ISC 02 06:00:11.1**±1.0**, 14°.33N**±0°.09×**93°.14W**±0°.08**, h37km, n33, σ1.62**/36**, mb4.5**/9**, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PCIG | | 1.37 | 357 | eP | Pn | 06 00 30.4 | -3.3 |
| PCIG | | | | eS | Sn | 06 00 50.0 | -0.6 |
| PCIG | | 1.37 | 357 | ePg | Pn | 06 00 30.4 | -3.3 |
| PCIG | | | | eSn | Sn | 06 00 50.0 | -0.6 |
| CCIG | Comitan | 2.17 | 26 | eP | Pn | 06 00 44.7 | -0.1 |
| CCIG | | | | eS | Sn | 06 01 10.9 | +0.4 |
| TGIG | | 2.44 | 0 | eP | Pn | 06 00 47.6 | -0.7 |
| TGIG | | | | eS | Sn | 06 01 18.0 | +1.1 |
| TGIG | | 2.44 | 0 | ePn | Pn | 06 00 47.6 | -0.7 |
| TGIG | | | | eSn | Sn | 06 01 18.0 | +1.1 |
| CMIG | Matias Romero | 3.22 | 329 | Pn | Pn | 06 00 57.0 | -2.1 |
| | 5.7nm,0.3s,baz=140,slow=13,SNR=13 | | | | | | |
| CMIG | | | | Sn | Sn | 06 01 36.9 | +0.7 |
| | 15nm,0.3s,baz=233,slow=20,SNR=5.9 | | | | | | |
| CMIG | | | | Lg | Lg | 06 01 49.2 | |
| | 19nm,0.3s,baz=22,slow=20,SNR=7.5 | | | | | | |
| TGUH | Tegucigalpa,Un | 5.69 | 92 | ePn | Pn | 06 01 34.3 | +1.2 |
| TLIG | Tlapa | 6.13 | 302 | ePn | Pn | 06 01 38.7 | -0.6 |
| LVIG | Laguna Verde | 6.21 | 330 | ePn | Pn | 06 01 41.4 | +1.1 |
| MGAN | Managua | 7.05 | 107 | ePn | Pn | 06 01 52.5 | +0.7 |
| NATX | Nacogdoches | 17.41 | 356 | ePn | Pn | 06 04 10.3 | -0.7 |
| | 8.2nm,0.5s | | | | | | |
| LTX | Lajitas | 17.83 | 329 | ePn | P | 06 04 16.6 | -0.2 |
| TXAR | Lajitas Array | 17.83 | 329 | P | P | 06 04 16.6 | -0.2 |
| | 0.1nm,0.3s,baz=161,slow=13,SNR=6.1 | | | | | | |
| TX31 | Lajitas Ar. Si | 17.83 | 329 | ePn | P | 06 04 16.9 | 0.0 |
| MIAR | Mount Ida | 20.13 | 359 | eP | P | 06 04 41.7 | -0.2 |
| | 8.2nm,1.1s | | | | | | |
| MNTX | Cornudas Mount | 20.61 | 329 | eP | P | 06 04 47.5 | +0.3 |
| | 17nm,2.0s | | | | | | |
| WMOK | Wichita Mounta | 20.95 | 347 | eP | P | 06 04 50.2 | -0.6 |
| | 9.0nm,0.8s | | | | | | |
| OK020 | N3440 Road, Me | 21.39 | 352 | eP | P | 06 04 55.9 | +0.4 |
| | 44nm,1.8s | | | | | | |
| UTMT | University of | 22.25 | 9 | eP | P | 06 05 03.9 | -0.9 |
| | 38nm,0.3s | | | | | | |
| MHTCO | State Highway | 24.93 | 338 | eP | P | 06 05 30.7 | -0.3 |
| | 24nm,1.8s | | | | | | |
| SDCO | Great Sand Dun | 25.78 | 337 | eP | P | 06 05 37.8 | -1.1 |
| | 8.0nm,1.8s | | | | | | |
| SBI | Santa Barbara | 30.25 | 314 | eP | P | 06 06 22.1 | +3.6 |
| ALPC | Antelope | 30.43 | 316 | eP | P | 06 06 19.7 | -0.5 |
| RCWM | Renegade Canyo | 30.76 | 319 | eP | P | 06 06 28.1 | +5.0 |
| ULM | Lac du Bonnet | 35.89 | 357 | LR | LR | 06 24 34.9 | |
| | comp=Z,115nm,18.5s,baz=302,slow=41 | | | | | | |
| PTGA | Pitinga | 36.08 | 112 | P | P | 06 07 06.8 | -2.8 |
| | 1.1nm,0.5s,baz=316,slow=9.8,SNR=4.5 | | | | | | |
| YKA | Yellowknife Ar | 50.46 | 347 | P | P | 06 09 03.1 | -1.7 |
| | 2.1nm,0.7s,baz=150,slow=7.4,SNR=7.2 | | | | | | |
| DOT | Dot Lake | 60.48 | 337 | eP | P | 06 10 21.1 | +4.1 |
| | 52nm,1.7s | | | | | | |
| ILAR | Eielson Array | 62.11 | 337 | P | P | 06 10 27.1 | -0.8 |
| | 0.6nm,0.9s,baz=112,slow=6.9,SNR=4.5 | | | | | | |
| ILB | Eielson Array | 62.11 | 337 | eP | P | 06 10 28.8 | +0.9 |
| FALS | False Pass | 67.06 | 324 | eP | P | 06 11 02.1 | +1.7 |
| | 151nm,1.4s | | | | | | |
| VRAC | Vranov | 91.62 | 38 | LR | LR | 06 57 05.8 | |
| | comp=Z,35nm,19.4s,baz=340,slow=38 | | | | | | |
| STKA | Stephens Creek | 127.26 | 241 | ePKPdf | PKPdf | 06 19 14.2 | +2.0 |

*ISCJB **02** 06:09:36.6±0.3, 11°.05S±0°.03×111°.01E±0°.03, h10km, mb4.5/37, MS3.8/22, Error ellipse: s-maj=4.9km s-min=3.9km az=151.7*

*IDC **02** 06:09:36.8±0.7, 10°.96S×111°.11E, h0km, mb4.3/15, mb1 4.4/16, mb1mx4.3/34, mbtmp4.3/16, ML4.0/1, MS3.7/21, Ms1 3.7/21, ms1mx3.6/40, Error ellipse: s-maj=26.4km s-min=11.4km az=50.0*

*NEIC **02** 06:09:37.8±0.3, 11°.14S×110°.93E, h10km, mb4.7/16, Error ellipse: s-maj=8.9km s-min=5.4km az=223.0*

*DJA **02** 06:09:41.3±0.4, 11°S±3°×111°E±°, h40km±4km, M5.2/13, mb5.0/6, mB5.3/4, MLv5.3/13, Mw(mB)4.8/4*

*BJI **02** 06:09:42.9, 10°.57S×110°.07E, h6km, mb4.7/25, mB5.0/12, Ms4.6/9, Ms7 4.3/7*

**ISC 02 06:09:38.3**±0.4**, 11°.14S**±0°.05×**110°.98E**±0°.04**, h10km, n105, σ2.57**/117**, mb4.6**/37**, MS3.7**/23**, South of Jawa**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PCJI | Pacitan | 2.93 | 4 | P | Pn | 06 10 22.8 | -2.2 |
| PCJI | | | | S | Sn | 06 10 56.1 | -4.2 |
| PWJI | Pagerwojo | 3.20 | 15 | P | Pn | 06 10 26.8 | -1.9 |
| PWJI | | | | S | Sn | 06 10 59.0 | -8.0 |
| UGM | Wanagama | 3.24 | 352 | P | Pn | 06 10 27.5 | -1.8 |
| UGM | | | | S | Sn | 06 11 03.7 | -4.2 |
| UGM | Wanagama | 3.24 | 352 | ePn | Pn | 06 10 27.9 | -1.4 |
| UGM | | | | eSn | Sn | 06 11 08.1 | +0.2 |
| GMJI | Gumukmas | 3.74 | 41 | P | Pn | 06 10 35.5 | -0.7 |
| GMJI | | | | S | Sn | 06 11 15.7 | -4.7 |
| SMRI | Semarang | 4.10 | 353 | P | Pn | 06 10 41.0 | -0.1 |
| SMRI | | | | S | Sn | 06 11 29.3 | +0.1 |
| SMRI | Semarang | 4.10 | 353 | ePn | Pn | 06 10 41.2 | +0.2 |
| SMRI | | | | eSn | Sn | 06 11 30.6 | +1.4 |
| JAGI | Jajag, Banyuwa | 4.10 | 50 | P | Pn | 06 10 40.4 | -0.7 |
| JAGI | | | | S | Sn | 06 11 23.7 | -5.5 |
| JAGI | Jajag, Banyuwa | 4.10 | 50 | ePn | Pn | 06 10 40.9 | -0.2 |
| JAGI | | | | eSn | Sn | 06 11 27.8 | -1.4 |
| BLJI | Banyuglugur | 4.25 | 38 | P | Pn | 06 10 43.6 | +0.5 |
| BLJI | | | | S | Sn | 06 11 30.2 | -2.6 |
| KPJI | Karang Pucung | 4.29 | 332 | P | Pn | 06 10 43.2 | -0.5 |
| KPJI | | | | S | Sn | 06 11 28.7 | -5.1 |
| GRJI | Gresik | 4.45 | 20 | P | Pn | 06 10 46.0 | +0.1 |
| GRJI | | | | S | Sn | 06 11 33.9 | -3.9 |
| UWJI | Ujung Watu | 4.69 | 360 | P | Pn | 06 10 49.1 | -0.1 |
| UWJI | | | | S | Sn | 06 11 40.7 | -3.0 |
| CISI | Cisompet, Garu | 4.74 | 318 | P | Pn | 06 10 47.3 | -2.6 |
| CISI | | | | S | Sn | 06 11 39.2 | -5.7 |
| CISI | Cisompet, Garu | 4.74 | 318 | ePn | Pn | 06 10 47.2 | -2.6 |
| CISI | | | | eSn | Sn | 06 11 41.8 | -3.2 |
| DNP | Denpasar | 4.83 | 60 | P | Pn | 06 10 52.3 | +1.1 |
| DNP | | | | S | Sn | 06 11 42.7 | -4.6 |
| KMMI | Kalianget | 5.02 | 36 | P | Pn | 06 10 53.4 | -0.4 |
| SRBI | Singaraja | 5.16 | 54 | P | Pn | 06 10 55.3 | -0.4 |
| | 190nm,0.7s,4μm1.6nm | | | | | | |
| XMIS | Christmas Isla | 5.27 | 277 | ePn | Pn | 06 10 54.0 | -3.3 |
| CNJI | Cibinong | 5.38 | 315 | P | Pn | 06 10 56.4 | -2.3 |
| SKJI | Sukabumi | 6.00 | 313 | P | Pb | 06 11 15.0 | -8.0 |
| SKJI | | | | S | Sn | 06 12 10.3 | -5.6 |
| SBJI | Serang | 6.92 | 316 | P | Pb | 06 11 29.4 | -9.3 |
| PLAI | Plampang | 7.08 | 72 | P | Pn | 06 11 21.1 | -1.0 |
| EDFI | Ende, Flores | 10.82 | 78 | P | Pn | 06 12 12.9 | -0.5 |
| MMRI | Maumere | 11.37 | 78 | P | Pn | 06 12 20.5 | -0.4 |
| MMRI | Maumere | 11.37 | 78 | ePn | Pn | 06 12 20.5 | -0.4 |
| MBWA | Marble Bar | 13.03 | 141 | ePn | Pn | 06 12 40.0 | -3.6 |
| SOEI | Soe | 13.14 | 85 | ePn | Pn | 06 12 43.9 | -1.5 |
| SOEI | | | | eSn | Sn | 06 15 05.7 | -6.1 |
| MYKOM | Kota Tinggi | 14.67 | 331 | ePn | Pn | 06 13 07.5 | +1.4 |
| FITZ | Fitzroy Crossi | 15.78 | 118 | Pn | Pn | 06 13 18.2 | -2.6 |
| | 0.4nm,0.3s,baz=306,slow=9.2,SNR=24 | | | | | | |
| FITZ | | | | Sn | Sn | 06 15 59.5 | -16 |
| | 1.1nm,0.3s,baz=18,slow=19,SNR=4.4 | | | | | | |
| MRSI | Marisa | 15.87 | 44 | P | P | 06 13 24.4 | -1.3 |
| KKM | Kota Kinabalu | 17.85 | 17 | ePn | Pn | 06 13 47.0 | -0.1 |
| | 30nm,1.0s | | | | | | |
| MYLDM | Lahad Datu | 17.86 | 25 | ePn | P | 06 13 49.3 | +1.6 |
| | 118nm,1.4s | | | | | | |
| GSI | Gunungsitoli | 18.18 | 312 | pP | P | 06 13 55.9 | +4.6 |
| AAI | Ambon | 18.60 | 68 | pP | P | 06 14 00.1 | +4.2 |
| KCSI | Kotacane, Aceh | 19.62 | 317 | P | P | 06 14 05.6 | -1.5 |
| KCSI | | | | pP | Pn | 06 14 16.7 | +8.2 |
| MTN | Manton Dam | 19.79 | 97 | eP | P | 06 14 09.3 | +0.3 |
| | 50nm,1.1s | | | | | | |
| NWAO | Narrogin (SRO) | 22.43 | 166 | P | P | 06 14 39.1 | +1.7 |
| | 5.6nm,0.7s,baz=356,slow=15,SNR=4.1 | | | | | | |
| FAKI | Fak Fak | 22.62 | 70 | pP | P | 06 14 46.6 | +7.0 |
| FAKI | Fak Fak | 22.62 | 70 | eP | P | 06 14 39.7 | +0.1 |
| | 28nm,0.9s | | | | | | |
| WRA | Warramunga Arr | 24.12 | 114 | P | P | 06 14 53.7 | -0.9 |
| | 12nm,1.1s,baz=290,slow=11,SNR=40 | | | | | | |
| WRA | | | | S | S | 06 19 15.1 | +2.5 |
| | 0.6nm,0.3s,baz=304,slow=25,SNR=7.5 | | | | | | |
| WRA | | | | LR | LR | 06 25 04.2 | |
| | comp=Z,234nm,19.2s,baz=305,slow=38 | | | | | | |
| WRAB | Tennant Creek | 24.13 | 114 | eP | P | 06 14 54.2 | -0.5 |
| | 21nm,0.9s | | | | | | |
| WB2 | Warramunga Arr | 24.13 | 114 | eP | P | 06 14 54.2 | -0.6 |
| | 16nm,0.9s | | | | | | |
| WC3 | Warramunga Arr | 24.16 | 114 | eP | P | 06 14 55.4 | +0.5 |
| | 20nm,0.9s | | | | | | |
| ASAR | Alice Springs | 25.13 | 123 | P | P | 06 15 03.6 | -0.2 |
| | 6.5nm,0.6s,baz=300,slow=9.4,SNR=86 | | | | | | |
| ASAR | | | | S | S | 06 19 36.8 | +8.0 |
| | 0.9nm,1.0s,baz=291,slow=24,SNR=2.6 | | | | | | |
| ASAR | | | | LR | LR | 06 24 48.5 | |
| | comp=Z,232nm,21.0s,baz=296,slow=36 | | | | | | |
| AS31 | Alice Springs | 25.13 | 123 | eP | P | 06 15 04.0 | +0.2 |
| | 5.2nm,0.8s | | | | | | |
| FORT | Forrest | 25.16 | 144 | eP | P | 06 15 04.9 | +1.0 |
| | 324nm,0.8s | | | | | | |
| AS01 | Alice Springs | 25.16 | 123 | eP | P | 06 15 04.3 | +0.2 |
| QIZ | Qiongzhong | 30.00 | 358 | P | P | 06 15 49.3 | +2.0 |
| QIZ | | | | S | S | 06 20 51.2 | +5.8 |
| CMAR | Chiang Mai Arr | 31.72 | 338 | P | P | 06 16 02.5 | 0.0 |
| | 2.1nm,0.4s,baz=173,slow=8.0,SNR=9.5 | | | | | | |
| CMAR | | | | LR | LR | 06 29 49.5 | |
| | comp=Z,93nm,19.0s,baz=170,slow=38 | | | | | | |
| CHTO | Chiang Mai | 32.04 | 338 | eP | P | 06 16 04.6 | -0.8 |
| | 7.2nm,1.1s | | | | | | |
| STKA | Stephens Creek | 34.97 | 131 | P | P | 06 16 30.8 | -0.1 |
| | 4.3nm,0.8s,baz=306,slow=9.3,SNR=11 | | | | | | |
| STKA | | | | LR | LR | 06 31 17.5 | |
| | comp=Z,233nm,20.1s,baz=282,slow=37 | | | | | | |
| STKA | Stephens Creek | 34.97 | 131 | eP | P | 06 16 31.4 | +0.5 |
| | 2.6nm,1.1s | | | | | | |
| KMI | Kunming | 36.93 | 348 | P | P | 06 16 49.5 | +1.6 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,20nm,0.5s | | | | | | |
| H08S2 | Diego Garcia H | 38.11 | 272 | T | T | 06 58 06.1 | |
| | baz=95,slow=75,SNR=6.1 | | | | | | |
| H08S3 | Diego Garcia H | 38.12 | 272 | T | T | 06 58 13.4 | |
| | baz=95,slow=75,SNR=7.4 | | | | | | |
| H08S1 | Diego Carcia H | 38.13 | 272 | T | T | 06 58 09.2 | |
| | baz=95,slow=75,SNR=4.5 | | | | | | |
| SHL | Shillong | 40.95 | 333 | eP | P | 06 17 22.0 | +0.4 |
| CD2 | Chengdu | 42.38 | 351 | eP | P | 06 17 35.1 | +2.1 |
| CD2 | | | | sP | sP | 06 17 41.7 | +4.3 |
| CD2 | | | | S | S | 06 23 52.0 | -2.5 |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| NJ2 | Nanjing | 43.60 | 10 | eP | P | 06 17 43.3 | +0.5 |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,13nm,1.1s | | | | | | |
| POO | Poona | 47.02 | 308 | ex | P | 06 18 04.0 | -6.3 |
| LZH | Lanzhou | 47.45 | 352 | eP | P | 06 18 16.0 | +2.5 |
| LZH | | | | pP | sP | 06 18 20.8 | +2.9 |
| LZH | | | | sP | pP | 06 18 22.8 | +6.2 |
| LZH | | | | PP | PP | 06 20 07.1 | +2.1 |
| LZH | | | | S | S | 06 25 11.3 | +3.2 |
| LZH | | | | sS | sS | 06 25 18.0 | +4.7 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,26nm,1.0s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,160nm,4.8s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=N,300nm,15.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=E,220nm,15.7s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,290nm,16.1s | | | | | | |
| KSAR | Wonju Array Be | 50.86 | 17 | P | P | 06 18 38.5 | -0.8 |
| KSRS | Korea Array | 50.89 | 17 | P | P | 06 18 38.5 | -1.0 |
| | 3.3nm,0.8s,baz=214,slow=6.5,SNR=5.8 | | | | | | |
| KSRS | | | | LR | LR | 06 41 37.9 | |
| | comp=Z,29nm,20.1s,baz=192,slow=38 | | | | | | |
| GTA | Gaotai | 51.35 | 349 | eP | P | 06 18 44.5 | +1.3 |
| GTA | | | | pP | sP | 06 18 48.6 | +1.0 |
| GTA | | | | sP | pP | 06 18 51.5 | +5.1 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.8s | | | | | | |
| HHC | Hu-ho-hao-te | 51.73 | 1 | eP | P | 06 18 47.3 | +1.3 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,16nm,0.7s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,220nm,8.3s | | | | | | |
| MJAR | Matsushiro Arr | 53.92 | 27 | P | P | 06 18 59.6 | -2.6 |
| | 4.7nm,1.0s,baz=189,slow=7.0,SNR=6.3 | | | | | | |
| MJAR | | | | LR | LR | 06 44 53.5 | |
| | comp=Z,31nm,18.4s,baz=310,slow=39 | | | | | | |
| CN2 | Changchun | 56.24 | 13 | eP | P | 06 19 22.6 | +3.8 |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.7s | | | | | | |
| USRK | Ussuriysk Ar. | 58.29 | 18 | P | P | 06 19 31.7 | -1.6 |
| | 3.0nm,0.8s,baz=203,slow=5.2,SNR=5.7 | | | | | | |
| WMQ | Urumqi | 58.66 | 340 | P | P | 06 19 37.2 | +1.2 |
| WMQ | | | | pP | sP | 06 19 41.8 | +1.4 |
| WMQ | | | | sP | pP | 06 19 44.2 | +5.0 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,24nm,0.6s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,230nm,34.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,290nm,28.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,140nm,22.3s | | | | | | |
| SONM | Songino Array | 58.85 | 356 | P | P | 06 19 36.2 | -1.1 |
| | 0.3nm,0.6s,baz=169,slow=8.5,SNR=3.5 | | | | | | |
| SONM | | | | LR | LR | 06 46 59.2 | |
| | comp=Z,57nm,20.1s,baz=170,slow=38 | | | | | | |
| SONA1 | Songino Array | 58.86 | 356 | eP | P | 06 19 36.8 | -0.5 |
| KSH | Kashi | 59.99 | 329 | eP | P | 06 19 47.7 | +2.4 |
| KSH | | | | pP | sP | 06 19 52.1 | +2.4 |
| KSH | | | | PcP | PcP | 06 20 32.8 | +1.4 |
| KSH | | | | PP | PP | 06 22 01.4 | +3.6 |
| KSH | | | | S | S | 06 27 57.3 | -0.7 |
| KSH | | | | ScS | ScS | 06 29 32.0 | -4.2 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.6s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,140nm,4.4s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,220nm,5.9s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,220nm,5.5s | | | | | | |
| KBL | Kabul | 60.38 | 321 | eP | P | 06 19 47.0 | -1.2 |
| | 11nm,1.0s | | | | | | |
| WSAR | Wadi Sarin | 61.57 | 304 | LR | LR | 06 42 28.0 | |
| | comp=Z,86nm,21.6s,slow=32 | | | | | | |
| AAK | Ala-Archa | 63.08 | 331 | LR | LR | 06 50 49.2 | |
| | comp=Z,65nm,19.0s,baz=118,slow=39 | | | | | | |
| AAK | Ala-Archa | 63.08 | 331 | eP | P | 06 20 05.4 | -0.8 |
| | 4.6nm,1.0s | | | | | | |
| MK01 | Makanchi Array | 63.10 | 338 | eP | P | 06 20 05.5 | -0.6 |
| MK31 | Makanchi Array | 63.12 | 338 | eP | P | 06 20 05.9 | -0.3 |
| MKAR | Makanchi Array | 63.12 | 338 | P | P | 06 20 05.5 | -0.7 |
| | 2.4nm,0.7s,baz=136,slow=7.3,SNR=20 | | | | | | |
| MKAR | | | | LR | LR | 06 50 40.5 | |
| | comp=Z,39nm,21.5s,baz=210,slow=39 | | | | | | |
| URZ | Urewera | 64.47 | 127 | LR | LR | 06 50 31.1 | |
| | comp=Z,125nm,18.0s,baz=276,slow=38 | | | | | | |
| MAW | Mawson | 64.63 | 198 | LR | LR | 06 41 24.7 | |
| | comp=Z,101nm,21.8s,baz=56,slow=29 | | | | | | |
| KURK | Kurchatov | 67.74 | 338 | eP | P | 06 20 35.5 | -0.4 |
| | 5.5nm,0.8s | | | | | | |
| ZAA0 | Zalesovo Array | 68.54 | 344 | eP | P | 06 20 40.1 | -0.8 |
| | 4.6nm,0.8s | | | | | | |
| ZALV | Zalesovo Beam | 68.54 | 344 | P | P | 06 20 40.0 | -0.9 |
| | 3.4nm,0.5s,baz=171,slow=5.4,SNR=19 | | | | | | |
| ZALV | Zalesovo Beam | 68.54 | 344 | eP | P | 06 20 39.6 | -1.3 |
| GEYT | Alibeck | 69.45 | 318 | P | P | 06 20 47.0 | 0.0 |
| | 3.3nm,0.8s,baz=123,slow=11,SNR=5.9 | | | | | | |
| GEYT | | | | LR | LR | 06 54 21.1 | |
| | comp=Z,31nm,19.4s,baz=145,slow=39 | | | | | | |
| VNDA | Vanda | 71.21 | 170 | P | P | 06 20 58.2 | +1.1 |
| | 1.0nm,0.8s,baz=311,slow=5.5,SNR=4.5 | | | | | | |
| VNDA | | | | LR | LR | 06 49 37.9 | |
| | comp=Z,70nm,19.9s,baz=296,slow=34 | | | | | | |
| ATD | Arta Tunnel | 71.33 | 286 | LR | LR | 06 46 10.5 | |
| | comp=Z,42nm,19.8s,slow=31 | | | | | | |
| RAYN | Ar Rayn | 72.68 | 299 | eP | P | 06 21 05.7 | -1.2 |
| | 14nm,1.5s | | | | | | |
| KMBO | Kilima Mbogo | 73.82 | 272 | LR | LR | 06 49 59.3 | |
| | comp=Z,62nm,18.6s,baz=89,slow=33 | | | | | | |
| AFI | Afiamalu | 75.15 | 102 | LR | LR | 06 52 19.2 | |
| | comp=Z,34nm,18.5s,baz=277,slow=34 | | | | | | |
| PETK | Petropavlovsk- | 75.38 | 27 | LR | LR | 06 57 54.8 | |
| | comp=Z,30nm,18.4s,baz=246,slow=39 | | | | | | |
| LSZ | Lusaka | 80.26 | 256 | eP | P | 06 21 48.0 | -2.2 |
| | 7.4nm,1.3s | | | | | | |
| BOSA | Boshof | 81.04 | 243 | LR | LR | 06 53 42.1 | |
| | comp=Z,43nm,18.7s,baz=60,slow=33 | | | | | | |
| KBZ | Khabaz | 82.34 | 317 | P | P | 06 22 00.6 | +0.2 |
| | 4.7nm,1.0s,baz=115,slow=2.2,SNR=5.5 | | | | | | |
| BRTR | Keskin Array B | 87.50 | 311 | P | P | 06 22 26.6 | -0.1 |
| | 3.1nm,1.1s,baz=116,slow=2.9,SNR=6.9 | | | | | | |
| BRTR | | | | LR | LR | 07 05 11.5 | |
| | comp=Z,22nm,18.5s,baz=104,slow=38 | | | | | | |
| BR231 | Keskin MP Arra | 88.17 | 311 | eP | P | 06 22 27.7 | -2.2 |
| AKASG | Malin Array Be | 93.36 | 321 | LR | LR | 07 12 04.1 | |
| | comp=Z,25nm,18.5s,baz=5.0,slow=40 | | | | | | |
| OK021 | N3530 Road, Sp | 145.02 | 41 | ePKPbc | PKPdf | 06 29 17.0 | +0.5 |
| OK022 | N3560 Road, Pr | 145.10 | 41 | ePKPbc | PKPab | 06 29 15.8 | -0.2 |
| JCT | Junction City | 145.56 | 51 | ePKPdf | PKPab | 06 29 17.5 | -0.5 |
| KSPA | Keystone Colle | 149.13 | 10 | ePKPbc | PKPbc | 06 29 26.0 | -1.2 |
| ODNJ | Ogdensburg | 149.77 | 8 | ePKPbc | PKPbc | 06 29 29.6 | +0.8 |
| WVT | Waverly | 149.86 | 31 | ePKPbc | PKPbc | 06 29 29.6 | +0.4 |

**KRSC 02 06:20:07.6**±2.1**, 53°.12N×162°.70E, h41km**±25km**, ML3.6, Off east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MKZ | Mys Kozlova | 1.55 | 339 | eP | Pn | 06 20 34.9 | +2.2 |
| MKZ | | | | eS | Sn | 06 20 52.4 | +0.9 |
| SPN | Mys Shipunski | 1.61 | 270 | eP | Pn | 06 20 36.2 | +2.7 |
| SPN | | | | eS | Sn | 06 20 54.6 | +1.5 |
| NLC | Nalytchevo | 2.02 | 273 | eP | Pn | 06 20 42.4 | +3.3 |
| NLC | | | | eS | Sn | 06 21 05.3 | +2.2 |
| SDLR | Sedlovina | 2.30 | 276 | eP | Pn | 06 20 46.5 | +3.4 |
| SDLR | | | | eS | Sn | 06 21 12.7 | +2.5 |
| UGLR | Uglovaya | 2.33 | 274 | eP | Pn | 06 20 47.4 | +3.9 |
| DALK | Dalny | 2.38 | 269 | eP | Pn | 06 20 47.4 | +3.3 |
| DALK | | | | eS | Sn | 06 21 13.7 | +1.7 |
| KRER | Koryakskii | 2.38 | 276 | eP | Pn | 06 20 47.9 | +3.6 |
| KRER | | | | eS | Sn | 06 21 15.0 | +2.7 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AVH | Avacha | 2.39 | 275 | eP | Pn | 06 20 48.3 | +4.1 |
| AVH | | | | eS | Sn | 06 21 15.5 | +3.2 |
| PET | Petropavlovsk | 2.44 | 269 | eP | Pn | 06 20 49.3 | +4.4 |
| PET | | | | eS | Sn | 06 21 16.7 | +3.2 |
| KRX | Arik | 2.44 | 277 | eP | Pn | 06 20 48.3 | +3.2 |
| KOK | Koryaka | 2.45 | 276 | eP | Pn | 06 20 49.4 | +4.3 |
| RUS | Russkaya | 2.63 | 257 | eP | Pn | 06 20 51.2 | +3.7 |
| RUS | | | | eS | Sn | 06 21 20.5 | +2.3 |
| KRMR | Karymshinskiy | 2.78 | 266 | eP | Pn | 06 20 53.1 | +3.6 |
| KRMR | | | | eS | Sn | 06 21 24.3 | +2.6 |
| MTVR | Mutnovka | 2.81 | 259 | eP | Pn | 06 20 53.6 | +3.4 |
| MTVR | | | | eS | Sn | 06 21 25.5 | +2.6 |
| BKI | Bering | 2.84 | 41 | eS | Sn | 06 21 22.4 | -0.9 |
| GNL | Ganaly | 2.91 | 283 | eP | Pn | 06 20 55.2 | +3.8 |
| ASAK | Asacha | 3.01 | 258 | eP | Pn | 06 20 56.7 | +3.9 |
| KMNR | Kamenistaya | 3.01 | 332 | eP | Pn | 06 20 57.7 | +4.9 |
| KMNR | | | | eS | Sn | 06 21 32.9 | +5.3 |
| ZLN | Zelenaya | 3.11 | 340 | eP | Pn | 06 20 58.0 | +3.8 |
| KDTR | Khodutka, Kamc | 3.12 | 247 | eP | Pn | 06 20 57.1 | +3.0 |
| KDTR | | | | eS | Sn | 06 21 31.4 | +1.3 |
| ESO | Esso | 3.65 | 322 | eP | Pn | 06 21 05.7 | +4.1 |

*IDC* ***02*** *06:21:24.5±2.5, 31°.22S×68°.50W, h87km±20km, mb3.7/3, mb1 3.8/8, mb1mx3.6/24, mbtmp3.9/8, Error ellipse: s-maj=29.7km s-min=22.9km az=95.0*

*ISCJB* ***02*** *06:21:26.0±0.3, 31°.13S±0°.03×68°.49W±0°.05, h113km±4km, mb3.8/3, Error ellipse: s-maj=7.4km s-min=3.6km az=23.3*

*SJA* ***02*** *06:21:26.1±1.2, 31°.15S×68°.53W, h106km±5km, ML3.8, MW3.9*

**ISC 02 06:21:26.5**±0.7**, 31°.10S**±0°.04×**68°.53W**±0°.04**, h104**km±6km**, n60,** σ**1s.46**/81**, mb3.7**/3**, 14D, San Juan Province**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AMOG | MOGNA | 0.17 | 12⇓ | eP | Pn | 06 21 42.2 | +0.9 |
| AMOG | MOGNA | 0.17 | 12 | eP | Pn | 06 21 42.2 | +0.9 |
| RTLL | Cerro Villicun | 0.23 | 167⇓ | eP | Pn | 06 21 41.8 | +0.3 |
| RTLL | | | | eS | Sn | 06 21 53.0 | +0.4 |
| RTLL | Cerro Villicun | 0.23 | 167 | eP | Pn | 06 21 41.8 | +0.3 |
| RTLL | | | | IAML | | 06 21 42.2 | |
| | comp=Z,8μm,0.5s | | | | | | |
| RTLL | | | | eS | Sn | 06 21 53.2 | +0.6 |
| SJA | San Juan | 0.43 | 183 | eP | Pn | 06 21 43.0 | +0.6 |
| SJA | | | | IAML | | 06 21 43.2 | |
| | comp=Z,11μm,0.2s | | | | | | |
| SJA | | | | eS | Sn | 06 21 54.5 | +0.3 |
| RTCV | Cerro Valdivia | 0.76 | 180⇓ | eP | Pn | 06 21 45.1 | +0.2 |
| RTCV | Cerro Valdivia | 0.76 | 180 | eP | Pn | 06 21 45.1 | +0.2 |
| RTLS | Leoncito | 0.95 | 223⇓ | eP | Pn | 06 21 47.9 | +0.8 |
| RTLS | | | | eS | Sn | 06 22 03.1 | +0.5 |
| RTLS | | | | IAML | | 06 22 05.2 | |
| | comp=Z,2μm,0.2s | | | | | | |
| RTLS | Leoncito | 0.95 | 223 | eP | Pn | 06 21 47.6 | +0.5 |
| RTLS | | | | IAML | | 06 22 05.2 | |
| | comp=Z,2μm,0.2s | | | | | | |
| AUSP | Uspallata | 1.34 | 213 | eP | Pn | 06 21 52.0 | +0.7 |
| AUSP | | | | eS | Sn | 06 22 10.3 | +0.2 |
| AUSP | Uspallata | 1.34 | 213 | eP | Pn | 06 21 51.9 | +0.6 |
| ASAL | Salagasta | 1.51 | 190⇓ | eP | Pn | 06 21 53.9 | +0.7 |
| ASAL | | | | eS | Sn | 06 22 12.7 | -0.7 |
| ASAL | Salagasta | 1.51 | 190 | eP | Pn | 06 21 53.7 | +0.5 |
| AGUA | GUANDACOL | 1.61 | 1⇓ | eP | Pn | 06 21 56.6 | +2.2 |
| AGUA | | | | eS | Sn | 06 22 17.8 | +2.1 |
| AGUA | GUANDACOL | 1.61 | 1 | eP | Pn | 06 21 56.3 | +1.9 |
| ACAN | Cantantal | 1.64 | 136 | eP | Pn | 06 21 56.0 | +1.3 |
| ACAN | | | | eS | Sn | 06 22 16.0 | -0.2 |
| ACAN | Cantantal | 1.64 | 136 | eP | Pn | 06 21 55.9 | +1.2 |
| ARCO | CERRO ARCO | 1.77 | 191⇓ | eP | Pn | 06 21 57.1 | +0.7 |
| ARCO | | | | eS | Sn | 06 22 18.8 | -0.5 |
| ARCO | | | | IAML | | 06 22 21.5 | |
| | comp=Z,706nm,0.3s | | | | | | |
| ARCO | CERRO ARCO | 1.77 | 191 | eP | Pn | 06 21 57.0 | +0.5 |
| ARCO | | | | IAML | | 06 22 21.2 | |
| | comp=Z,844nm,0.6s | | | | | | |
| APLL | PUNTA DE LOS L | 1.86 | 68⇓ | eP | Pn | 06 21 59.0 | +1.4 |
| APLL | PUNTA DE LOS L | 1.86 | 68 | eP | Pn | 06 21 58.9 | +1.4 |
| AAGR | Agrelo | 2.00 | 187⇓ | eP | Pn | 06 22 00.3 | +1.0 |
| AAGR | | | | eS | Sn | 06 22 24.4 | +0.1 |
| AAGR | Agrelo | 2.00 | 187 | eP | Pn | 06 21 59.7 | +0.4 |
| ACLC | CERRO LA CRUZ | 2.16 | 40 | eP | Pn | 06 22 02.8 | +1.4 |
| ACLC | | | | eS | Sn | 06 22 27.1 | -1.1 |
| ACLC | CERRO LA CRUZ | 2.16 | 40 | eP | Pn | 06 22 02.8 | +1.4 |
| AVIZ | Vizcacheras | 2.37 | 180⇓ | eP | Pn | 06 22 04.5 | +0.4 |
| AVIZ | | | | eS | Sn | 06 22 35.9 | +3.0 |
| AVIZ | Vizcacheras | 2.37 | 180 | eP | Pn | 06 22 04.2 | +0.2 |
| VCA | Vinchina | 2.37 | 7⇓ | eP | Pn | 06 22 06.2 | +1.9 |
| VCA | | | | eS | Sn | 06 22 35.6 | +2.4 |
| VCA | Vinchina | 2.37 | 7 | eP | Pn | 06 22 06.1 | +1.9 |
| FCH | Farellones | 2.67 | 213 | iP | Pn | 06 22 09.8 | +1.5 |
| FCH | | | | iS | Sn | 06 22 41.8 | +1.4 |
| MRA | San Martin | 2.74 | 119⇓ | eP | Pn | 06 22 09.7 | +0.7 |
| MRA | | | | eS | Sn | 06 22 36.8 | -4.8 |
| MRA | San Martin | 2.74 | 119 | eP | Pn | 06 22 09.7 | +0.7 |
| PEL | Peldehue | 2.74 | 221 | iP | Pn | 06 22 08.7 | -0.1 |
| PEL | | | | iS | Sn | 06 22 37.4 | -4.0 |
| LCO | Las Campanas | 2.80 | 317 | eP | Pn | 06 22 10.7 | +0.7 |
| LCO | | | | eS | Sn | 06 22 40.1 | -3.4 |
| LCO | Las Campanas | 2.80 | 317 | eP | Pn | 06 22 10.7 | +0.7 |
| ROC1 | El Roble | 2.82 | 228 | eP | Pn | 06 22 09.4 | -0.8 |
| CLCH | Cerro Calan | 2.85 | 216 | iP | Pn | 06 22 11.3 | +0.9 |
| CLCH | | | | iS | Sn | 06 22 43.7 | -0.5 |
| TCA | Tanti | 3.38 | 95⇓ | eP | Pn | 06 22 18.0 | +0.5 |
| TCA | Tanti | 3.38 | 95 | eP | Pn | 06 22 18.1 | +0.6 |
| CYA | Choya | 3.56 | 43⇓ | eP | Pn | 06 22 20.1 | +0.3 |
| CYA | | | | eS | Sn | 06 23 01.0 | -0.1 |
| CYA | Choya | 3.56 | 43 | eP | Pn | 06 22 19.4 | -0.4 |
| CYA | | | | eP | Pn | 06 22 20.2 | +0.3 |
| CYA | | | | IAML | | 06 22 20.5 | |
| | comp=Z,241nm,0.4s | | | | | | |
| RFA | San Rafael | 3.66 | 179 | eP | Pn | 06 22 20.5 | -0.8 |
| AHML | Horco Molle | 5.13 | 34 | eP | Pn | 06 22 40.4 | -0.7 |
| FSA | Cafayete | 5.45 | 25 | eP | Pn | 06 22 46.5 | +1.0 |
| FSA | Cafayete | 5.45 | 25 | eP | Pn | 06 22 46.0 | +0.5 |
| AZAP | Zapla | 7.51 | 25 | eP | Pn | 06 23 12.4 | -1.2 |
| LVC | Limon Verde | 8.46 | 358 | P | Pn | 06 23 25.3 | -1.4 |
| | comp=Z,67nm,0.3s,baz=169,slow=9.7,SNR=17 | | | | | | |
| LVC | | | | S | Sn | 06 24 55.9 | -4.7 |
| | comp=Z,42nm,0.3s,baz=74,slow=18,SNR=2.7 | | | | | | |
| PLCA | Paso Flores | 9.75 | 189 | P | Pn | 06 23 41.9 | -1.8 |
| | comp=Z,0.1nm,0.3s,baz=11,slow=11,SNR=4.7 | | | | | | |
| CPUP | Villa Florida | 10.92 | 67 | P | Pn | 06 23 56.8 | -2.8 |
| | comp=Z,0.4nm,0.3s,baz=242,slow=14,SNR=7.7 | | | | | | |
| LPAZ | La Paz | 14.75 | 2 | P | Pn | 06 24 52.1 | +1.6 |
| | comp=Z,0.2nm,0.3s,baz=204,slow=6.5,SNR=6.8 | | | | | | |
| SIV | San Ignacio | 16.51 | 26 | P | P | 06 25 12.6 | -0.2 |
| | comp=Z,0.3nm,0.3s,baz=216,slow=10,SNR=5.1 | | | | | | |
| TXAR | Lajitas Array | 68.78 | 327 | P | P | 06 32 20.6 | +1.1 |
| | comp=Z,0.7nm,0.6s,baz=152,slow=7.8,SNR=5.3 | | | | | | |
| TORD | Torodi Ar. Bea | 80.42 | 68 | P | P | 06 33 27.2 | +0.3 |
| | comp=Z,2.8nm,0.7s,baz=279,slow=6.7,SNR=17 | | | | | | |
| PDAR | Pinedale Array | 82.60 | 331 | P | P | 06 33 38.5 | +0.4 |
| | comp=Z,0.5nm,0.7s,baz=153,slow=4.5,SNR=5.1 | | | | | | |
| ASAR | Alice Springs | 121.45 | 204 | PKP | PKPdf | 06 40 06.7 | -1.5 |
| | comp=Z,0.2nm,0.4s,baz=137,slow=2.0,SNR=4.0 | | | | | | |
| WRA | Warramunga Arr | 124.70 | 206 | PKP | PKPdf | 06 40 13.6 | -0.9 |
| | comp=Z,0.6nm,0.5s,baz=163,slow=1.6,SNR=15 | | | | | | |
| AAK | Ala-Archa | 148.50 | 58 | PKPbc | PKPbc | 06 41 01.9 | +0.8 |
| | comp=Z,2.0nm,0.6s,baz=214,slow=3.6,SNR=5.2 | | | | | | |
| KURBB | Kurchatov Arra | 148.74 | 42 | PKPbc | PKPbc | 06 41 01.6 | +0.4 |
| | comp=Z,1.1nm,0.7s,baz=293,slow=3.2,SNR=11 | | | | | | |
| ZALV | Zalesovo Beam | 150.20 | 32 | PKPbc | PKPbc | 06 41 04.9 | +0.2 |
| | comp=Z,3.5nm,0.6s,baz=295,slow=3.5,SNR=12 | | | | | | |
| MKAR | Makanchi Array | 152.63 | 47 | PKPbc | PKPbc | 06 41 10.6 | -0.1 |
| | comp=Z,1.4nm,0.8s,baz=287,slow=2.5,SNR=11 | | | | | | |

*ISK* ***02*** *06:42:00.7, 38°.77N×43°.26E, h23km, MD2.5*

*ISCJB* ***02*** *06:42:01.7±0.9, 38°.75N±0°.04×43°.27E±0°.06, h30km±8km, Error ellipse: s-maj=8.0km s-min=6.7km az=136.3*

*CSEM* ***02*** *06:42:01.7±0.3, 38°.75N×43°.29E, h20km, MD2.5, Error ellipse: s-maj=6.7km s-min=6.2km az=95.0*

*DDA* ***02*** *06:42:02.4, 38°.77N×43°.25E, h7km, Ml2.8*

**ISC 02 06:42:02.6**±1.1**, 38°.78N**±0°.02×**43°.25E**±0°.03**, h18**km±3km**, n19,** σ**0s.94**/30**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.21 | 150 | ePG | Pg | 06 42 07.7 | -0.1 |
| VANB | | | | eSG | Sg | 06 42 12.8 | +1.4 |
| VANB | Van | 0.21 | 150 | ePg | Pg | 06 42 07.7 | -0.1 |
| TVAN | Van | 0.28 | 155 | iP | Pg | 06 42 07.9 | -1.0 |
| TVAN | | | | iS | Sb | 06 42 13.1 | -0.3 |
| TVAN | Van | 0.28 | 155 | P | Pg | 06 42 07.9 | -1.0 |
| TVAN | | | | S | Sb | 06 42 13.1 | -0.3 |
| VMUR | Van-Muradiye | 0.32 | 50 | iP | Pg | 06 42 09.1 | -0.6 |
| VMUR | | | | iS | Sb | 06 42 15.3 | +0.5 |
| VMUR | Van-Muradiye | 0.32 | 50 | P | Pg | 06 42 09.1 | -0.6 |
| VMUR | | | | S | Sb | 06 42 15.3 | +0.5 |
| ADCV | BITLIS_Adilcev | 0.41 | 274 | iP | Pg | 06 42 10.6 | -0.6 |
| ADCV | | | | iS | Sg | 06 42 17.2 | +0.2 |
| ADCV | BITLIS_Adilcev | 0.41 | 274 | P | Pg | 06 42 10.6 | -0.6 |
| ADCV | | | | S | Sg | 06 42 17.2 | +0.2 |
| GEVA | Gevas | 0.49 | 198 | iP | Pg | 06 42 11.0 | -1.6 |
| GEVA | Gevas | 0.49 | 198 | P | Pg | 06 42 11.0 | -1.6 |
| CLDR | Caldiran | 0.63 | 55 | ePG | Pg | 06 42 13.8 | -1.3 |
| CLDR | | | | eSG | Sg | 06 42 23.4 | -0.2 |
| CLDR | Caldiran | 0.63 | 55 | iP | Pg | 06 42 14.0 | -1.2 |
| CLDR | Caldiran | 0.63 | 55 | P | Pg | 06 42 14.0 | -1.2 |
| CLDR | | | | eSg | Sg | 06 42 23.4 | -0.2 |
| TUTA | Tutak | 0.71 | 331 | iP | Pg | 06 42 15.7 | -0.9 |
| TUTA | Tutak | 0.71 | 331 | P | Pg | 06 42 15.7 | -0.9 |
| AGRB | Hanur-Agry | 0.82 | 346 | ePG | Pg | 06 42 17.4 | -1.3 |
| AGRB | | | | eSG | Sg | 06 42 29.5 | -0.1 |
| AGRB | Hanur-Agry | 0.82 | 346 | ePg | Pg | 06 42 17.4 | -1.3 |
| AGRB | | | | eSg | Sg | 06 42 29.5 | -0.1 |
| EKAR | Karacoban | 1.04 | 297 | iP | Pn | 06 42 23.6 | +1.1 |
| EKAR | Karacoban | 1.04 | 297 | P | Pn | 06 42 23.6 | +1.1 |

*ATA* ***02*** *06:55:52.8±0.4, 38°.67N×43°.08E, h6km±48km, MD4.1, ML3.4, MW3.3*

*ISK* ***02*** *06:55:52.9, 38°.68N×43°.19E, h10km, ML2.7*

*ISCJB* ***02*** *06:55:54.0±0.4, 38°.68N±0°.02×43°.21E±0°.03, h8km±4km, Error ellipse: s-maj=4.0km s-min=3.4km az=4.4*

*CSEM* ***02*** *06:55:53.4±0.1, 38°.67N×43°.21E, h10km, ML2.7, Error ellipse: s-maj=3.5km s-min=2.9km az=88.0*

*DDA* ***02*** *06:55:53.3, 38°.67N×43°.20E, h7km, Ml3.1*

**ISC 02 06:55:54.0**±0.8**, 38°.67N**±0°.02×**43°.20E**±0°.02**, h15**km±6km**, n45,** σ**0s.83**/70**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.17 | 118 | ePG | Pg | 06 55 58.2 | -0.1 |
| VANB | | | | eSG | Sg | 06 56 02.2 | +1.1 |
| VANB | Van | 0.17 | 118 | ePg | Pg | 06 55 58.2 | -0.1 |
| VANB | | | | eSg | Sg | 06 56 02.3 | +1.1 |
| TVAN | Van | 0.22 | 131 | iP | Pg | 06 55 58.0 | -1.1 |
| TVAN | Van | 0.22 | 131 | P | Pg | 06 55 58.0 | -1.1 |
| ERCV | ERCIS-VAN | 0.36 | 18 | ePG | Pg | 06 56 00.9 | -0.6 |
| ERCV | | | | eSG | Sb | 06 56 06.8 | -1.0 |
| ERCV | ERCIS-VAN | 0.36 | 18 | ePg | Pg | 06 56 00.9 | -0.6 |
| ERCV | | | | eSg | Sb | 06 56 06.8 | -1.0 |
| GEVA | Gevas | 0.38 | 197 | eP | Pg | 06 56 00.4 | -1.4 |
| | baz=1.0 | | | | | | |
| GEVA | | | | IAML | | 06 56 10.5 | |
| | comp=Z,273nm,0.4s | | | | | | |
| GEVA | Gevas | 0.38 | 197 | iP | Pg | 06 56 00.3 | -1.4 |
| GEVA | | | | iS | Sb | 06 56 07.9 | -0.2 |
| GEVA | Gevas | 0.38 | 197 | P | Pg | 06 56 00.3 | -1.4 |
| GEVA | | | | S | Sb | 06 56 07.9 | -0.2 |
| ADCV | BITLIS_Adilcev | 0.39 | 290 | iP | Pg | 06 56 01.1 | -0.9 |
| ADCV | | | | iS | Sb | 06 56 08.0 | -0.7 |
| ADCV | BITLIS_Adilcev | 0.39 | 290 | P | Pg | 06 56 01.1 | -0.9 |
| ADCV | | | | S | Sb | 06 56 08.0 | -0.7 |
| VMUR | Van-Muradiye | 0.43 | 43 | iP | Pb | 06 56 02.6 | -0.8 |
| VMUR | | | | iS | Sb | 06 56 10.8 | +1.1 |
| VMUR | Van-Muradiye | 0.43 | 43 | P | Pb | 06 56 02.6 | -0.8 |
| VMUR | | | | S | Sb | 06 56 10.8 | +1.1 |
| CLDR | Caldiran | 0.73 | 50 | ePG | Pg | 06 56 07.5 | -0.8 |
| CLDR | | | | eSG | Sb | 06 56 17.8 | -0.6 |
| CLDR | Caldiran | 0.73 | 50 | iP | Pb | 06 56 07.9 | -0.6 |
| CLDR | | | | iS | Sb | 06 56 18.8 | +0.3 |
| CLDR | Caldiran | 0.73 | 50 | ePg | Pg | 06 56 07.5 | -0.8 |
| CLDR | Caldiran | 0.73 | 50 | P | Pb | 06 56 07.9 | -0.6 |
| CLDR | | | | eSg | Sb | 06 56 17.8 | -0.6 |
| CLDR | | | | S | Sb | 06 56 18.8 | +0.3 |
| TUTA | Tutak | 0.79 | 338 | eP | Pg | 06 56 08.2 | -1.2 |
| TUTA | | | | eS | Sb | 06 56 19.8 | -0.2 |
| TUTA | | | | IAML | | 06 56 22.1 | |
| | comp=Z,164nm,0.2s | | | | | | |
| TUTA | Tutak | 0.79 | 338 | iP | Pg | 06 56 08.2 | -1.2 |
| TUTA | | | | iS | Sb | 06 56 19.5 | -0.5 |
| TUTA | Tutak | 0.79 | 338 | P | Pg | 06 56 08.2 | -1.2 |
| TUTA | | | | S | Sb | 06 56 19.5 | -0.5 |
| BASK | Baskale_VAN | 0.89 | 134 | iP | Pg | 06 56 10.1 | -1.2 |
| BASK | | | | iS | Sb | 06 56 23.3 | +0.4 |
| BASK | Baskale_VAN | 0.89 | 134 | P | Pg | 06 56 10.1 | -1.2 |
| BASK | | | | S | Sb | 06 56 23.3 | +0.4 |
| AGRB | Hanur-Agry | 0.92 | 350 | ePG | Pg | 06 56 10.6 | -1.2 |
| AGRB | | | | eSG | Sb | 06 56 23.6 | -0.1 |
| AGRB | Hanur-Agry | 0.92 | 350 | ePg | Pg | 06 56 10.6 | -1.2 |
| AGRB | | | | eSg | Sb | 06 56 23.6 | -0.1 |
| DYDN | Diyadin | 0.95 | 24 | eP | Pb | 06 56 12.3 | +0.1 |
| DYDN | | | | IAML | | 06 56 14.7 | |
| | comp=Z,31nm,0.5s | | | | | | |
| EKAR | Karacoban | 1.06 | 304 | iP | Pn | 06 56 14.3 | -0.2 |
| EKAR | Karacoban | 1.06 | 304 | P | Pn | 06 56 14.3 | -0.2 |
| HAKT | HAKKARI | 1.18 | 160 | iP | Pb | 06 56 15.3 | -1.0 |
| HAKT | HAKKARI | 1.18 | 160 | P | Pb | 06 56 15.3 | -1.0 |
| SRTM | Siirt_Merkez | 1.21 | 236 | iP | Pg | 06 56 16.8 | -0.6 |
| SRTM | | | | iS | Sn | 06 56 34.4 | +1.7 |
| SRTM | Siirt_Merkez | 1.21 | 236 | P | Pg | 06 56 16.8 | -0.6 |
| SRTM | | | | S | Sn | 06 56 34.3 | +1.7 |
| EATA | Eleskirt | 1.31 | 335 | iP | Pn | 06 56 17.7 | -0.3 |
| EATA | | | | iS | Sn | 06 56 36.5 | +1.2 |
| EATA | Eleskirt | 1.31 | 335 | P | Pn | 06 56 17.7 | -0.3 |
| EATA | | | | S | Sn | 06 56 36.5 | +1.2 |
| CUKT | Cukurca | 1.46 | 167 | ePN | Pn | 06 56 19.6 | -0.3 |
| CUKT | Cukurca | 1.46 | 167 | iP | Pn | 06 56 20.0 | +0.1 |
| CUKT | Cukurca | 1.46 | 167 | ePn | Pn | 06 56 19.6 | -0.3 |
| CUKT | Cukurca | 1.46 | 167 | P | Pn | 06 56 20.0 | +0.1 |
| TASB | TASBURUN-IGDIR | 1.54 | 31 | ePN | Pn | 06 56 20.8 | -0.1 |
| TASB | TASBURUN-IGDIR | 1.54 | 31 | ePn | Pn | 06 56 20.8 | -0.1 |
| SVAN | Silvan-Diyarba | 1.65 | 252 | ePN | Pn | 06 56 23.0 | +0.5 |
| SVAN | Silvan-Diyarba | 1.65 | 252 | ePn | Pn | 06 56 23.0 | +0.5 |
| HOMI | Horasan | 1.70 | 324 | iP | Pg | 06 56 26.4 | -0.2 |
| BTMN | Batman | 1.71 | 243 | iP | Pb | 06 56 25.0 | -0.1 |
| BTMN | Batman | 1.71 | 243 | P | Pb | 06 56 25.0 | -0.1 |
| ERZM | Erzurum | 1.88 | 311 | iP | Pb | 06 56 28.3 | +0.1 |

*CASC* ***02*** *06:57:43.9±2.1, 8°.32N×82°.85W, h16km±10km, MD4.5, ML4.6, mb5.0(NEIC)*

*ISCJB* ***02*** *06:57:45.7±0.2, 8°.60N±0°.03×82°.73W±0°.02, h41km, mb4.9/220, MS4.3/23, Error ellipse: s-maj=4.1km s-min=1.9km az=28.6*

*MOS* ***02*** *06:57:45.9±1.0, 8°.54N×82°.75W, h42km, mb5.3/48, Error ellipse: s-maj=12.2km s-min=4.8km az=116.2*

*IDC* ***02*** *06:57:46.9±0.6, 8°.46N×82°.80W, h42km±4km, mb4.2/18, mb1 4.5/23, mb1mx4.4/35, mbtmp4.6/23, ML4.2/5, MS4.2/21, Ms1 4.2/21, ms1mx4.1/30, Error ellipse: s-maj=20.4km s-min=10.1km az=54.0*

*BJI* ***02*** *06:57:46.7, 8°.50N×82°.80W, h45km, mB5.5/9, Ms5.5/8, Ms7 5.1/9*

*GCMT* ***02*** *06:57:47.7±0.2, 8°.35N×82°.82W, h31km, MW5.2/113, Moment Tensor Solution. s50,c71; s113,c168; Duration: 1s.0 Moment tensor: Scale $10^{16}$Nm; $M_{rr}$2.98±.24; $M_{\theta\theta}$4.11±.17; $M_{\phi\phi}$-7.09±.17; $M_{r\theta}$2.17±.23; $M_{\theta\phi}$3.85±.14; $M_{\phi r}$0.79±.24; Best double couple: $M_0$7.50600×$10^{16}$ NP1:$\phi_s$23.00000°, δ69.00000°, λ156.00000°. NP2:$\phi_s$122.00000°, δ68.00000°, λ23.00000°. Principal axes: T 6.7250, Plg32.0000°, Azm342.0000°; N 1.5620, Plg58.0000°, Azm164.0000°; P -8.2870, Plg1.0000°, Azm73.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC* ***02*** *06:57:47.7±0.3, 8°.48N×82°.78W, h45km±3km, mb5.0/215 Error ellipse: s-maj=4.0km s-min=2.4km az=213.0*

*NEIC Felt [IV] at David and [III] at Almirante, Boquete and Volcan, Panama. Also felt at Bocas del Toro, Bugaba, Cerro Punta, Guarumal, Palmira and Santa Marta. Felt [IV] at Golfito and [III] at San Jose, Costa Rica. Felt in the Atenas-San Isidro-San Vito area.*

**ISC 02 06:57:45.8**±0.5**, 8°.42N**±0°.04×**82°.88W**±0°.03**, h32**km±2km**, n760,** σ**1s.28**/773**, mb5.0**/221**, MS4.3**/23**, 12C-10D, Panama-Costa Rica border region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ACR | Cerro Adams | 0.37 | 309⇓ | iP | Pb | 06 57 52.7 | -1.8 |
| ACR | | | | eS | Sb | 06 57 59.6 | -0.7 |
| BRU2 | Volcan | 0.41 | 26⇓ | iP | Pb | 06 57 53.9 | -1.3 |
| BRU2 | | | | eS | Sb | 06 58 01.2 | -0.3 |
| TBS2 | | 0.43 | 31⇑ | iP | Pb | 06 57 54.9 | -0.6 |
| TBS2 | | | | eS | Sn | 06 58 03.2 | +0.3 |
| DRK0 | Durika | 0.91 | 337⇓ | iP | Pn | 06 58 02.0 | -0.7 |
| DRK0 | | | | eS | Sb | 06 58 15.5 | +0.3 |
| QCR1 | Quepos | 1.62 | 308⇑ | iP | Pn | 06 58 11.7 | -0.5 |
| URSC | Urasca | 1.66 | 328⇑ | iP | Pn | 06 58 13.2 | +0.2 |
| VTR0 | Volcan Turrial | 1.81 | 331⇑ | iP | Pn | 06 58 16.1 | +0.9 |
| HDC | Heredia | 1.99 | 322 | ePn | Pn | 06 58 18.9 | +1.5 |
| HDC | Heredia | 1.99 | 322⇑ | iP | Pn | 06 58 18.2 | +0.8 |
| HDC | | | | eS | Sb | 06 58 47.2 | +1.2 |
| CGA2 | Cerro Gallo 2 | 2.23 | 315⇑ | eP | Pn | 06 58 21.4 | +0.6 |
| TRT1 | Tortuguero | 2.31 | 340 | eP | Pn | 06 58 22.4 | +0.7 |
| PNME | Penonome | 2.52 | 88⇓ | iP | Pn | 06 58 23.7 | -1.0 |
| PNME | | | | eS | Sn | 06 58 56.6 | +2.2 |
| AZU | Azuero | 2.65 | 103⇓ | iP | Pn | 06 58 24.8 | -1.7 |
| AZU | | | | eS | Sn | 06 58 57.9 | +0.3 |
| JTS | JuntasAbangare | 2.77 | 312 | eP | Pn | 06 58 28.9 | +0.8 |
| JTS | JuntasAbangare | 2.77 | 312 | ePn | Pn | 06 58 28.9 | +0.8 |
| JTS | JuntasAbangare | 2.77 | 312 | eP | Pn | 06 58 28.8 | +0.8 |
| JTS | | | | eS | Sn | 06 59 02.5 | +2.1 |
| PINA | Piqa, Costa Ab | 2.90 | 73 | eP | Pn | 06 58 29.0 | -0.9 |
| ZANG | Zanguenga, Cho | 3.02 | 80 | eP | Pn | 06 58 30.5 | -1.1 |
| ZANG | | | | AML | AML | 06 59 25.5 | |
| | comp=E,10μm,0.4s | | | | | | |
| BCIP | Isla Barro Col | 3.10 | 76 | ePn | Pn | 06 58 30.9 | -1.7 |
| BCIP | Isla Barro Col | 3.10 | 76⇓ | iP | Pn | 06 58 31.1 | -1.5 |
| VCR | Vista de Mar | 3.20 | 302 | eP | Pn | 06 58 35.1 | +1.0 |
| FRIJ | El Hiral | 3.21 | 75 | eP | Pn | 06 58 33.2 | -1.0 |
| FLAM | Flamenco Islan | 3.34 | 81 | eP | Pn | 06 58 35.2 | -0.7 |
| UPA | Univ. de Panam | 3.35 | 80 | eP | Pn | 06 58 39.4 | +3.3 |
| UPA | | | | eS | Sb | 06 59 24.2 | -0.8 |
| CRZ1 | La Cruz | 3.79 | 314 | eP | Pn | 06 58 45.1 | +3.0 |
| ESPN | Las Esperanzas | 4.00 | 340 | eP | Pn | 06 58 45.9 | +0.9 |
| ESPN | | | | AML | AML | 07 00 07.2 | |
| | comp=E,888nm,0.6s | | | | | | |
| CONN | Concepcion | 4.13 | 319 | eP | Pn | 06 58 49.4 | +2.6 |
| ACON | Acoyapa | 4.19 | 328 | eP | Pn | 06 58 48.2 | +0.6 |
| ACON | | | | eS | Sn | 06 59 36.9 | +1.4 |
| MASN | Masaya | 4.79 | 318 | eP | Pn | 06 58 56.8 | +0.9 |
| UPD2 | Meteti | 4.81 | 88 | eP | Pn | 06 58 54.5 | -1.7 |
| MGAN | Managua | 4.97 | 318 | eP | Pn | 06 58 59.9 | +1.5 |
| COPN | Copaltepe | 5.23 | 316 | eP | Pn | 06 59 04.2 | +2.3 |
| CAPC | Capurgana | 5.47 | 87 | eP | Pn | 06 59 07.8 | +2.6 |
| ESTN | Estel | 5.78 | 324 | eP | Pn | 06 59 11.3 | +1.8 |
| CRIN | San Cristobal | 5.91 | 316 | eP | Pn | 06 59 14.0 | +2.7 |
| DBBC | Dabeiba | 6.75 | 101 | eP | Pn | 06 59 24.1 | +1.2 |
| CNCH | Conchagua | 6.85 | 315 | eP | Pn | 06 59 26.9 | +2.6 |
| MOTC | Monteria, Cord | 7.14 | 87 | eP | Pn | 06 59 27.7 | -0.5 |
| LCY | Lacayo | 7.28 | 314 | eP | Pn | 06 59 33.1 | +2.9 |
| HELC | Santa Helena | 7.62 | 106 | eP | Pn | 06 59 35.5 | +0.4 |
| HELC | Santa Helena | 7.62 | 106 | ePn | Pn | 06 59 34.3 | -0.7 |
| TUMC | Tumaco | 7.75 | 148 | ePn | Pn | 06 59 38.6 | +2.0 |
| LFRS | El Faro | 7.97 | 311 | eP | Pn | 06 59 42.6 | +2.9 |
| GUYC | Guyana, Colomb | 8.08 | 113 | eP | Pn | 06 59 42.6 | +1.0 |
| SNET | Serv Nac Est T | 8.14 | 311 | ePn | Pn | 06 59 44.7 | +2.7 |
| SNET | Serv Nac Est T | 8.14 | 311 | eP | Pn | 06 59 44.0 | +2.0 |
| UEES | San Salvador | 8.17 | 311 | eP | Pn | 06 59 43.8 | +1.3 |
| POPC | Popayan, Colom | 8.50 | 133 | eP | Pn | 06 59 46.8 | -0.2 |
| CMBC | Cumbal | 8.97 | 146 | eP | Pn | 06 59 51.8 | -2.0 |
| CRUC | La Cruz | 9.01 | 139 | eP | Pn | 06 59 54.6 | +0.4 |
| BRRC | Barranca, Sant | 9.18 | 98 | eP | Pn | 06 59 57.5 | +1.3 |
| ROSC | El Rosal | 9.21 | 112 | P | Pn | 07 00 00.4 | +3.4 |
| | comp=E,2.2nm,0.3s,baz=350,slow=3.5,SNR=42 | | | | | | |
| ROSC | | | | S | Sn | 07 01 47.2 | +7.3 |
| | comp=E,1.1nm,0.3s,baz=53,slow=20,SNR=1.9 | | | | | | |
| ROSC | | | | LR | LR | 07 03 07.8 | |
| | comp=E,2μm,19.2s,baz=315,slow=35 | | | | | | |
| ROSC | El Rosal | 9.21 | 112 | eP | Pn | 06 59 58.2 | +1.2 |
| ROSC | El Rosal | 9.21 | 112 | ePn | Pn | 06 59 59.2 | +2.2 |
| ROSC | | | | S | Sn | 07 01 47.2 | +7.3 |
| PRAC | Prado | 9.22 | 120 | eP | Pn | 06 59 56.8 | 0.0 |
| PRAC | Prado | 9.22 | 120 | ePn | Pn | 06 59 57.7 | +0.9 |
| OTAV | Otavalo | 9.25 | 151 | ePn | Pn | 06 59 57.4 | -0.1 |
| BETC | Betania | 9.34 | 127 | eP | Pn | 06 59 58.2 | -0.3 |
| CODC | Agust^›n Codaz | 9.43 | 80 | eP | Pn | 06 59 56.8 | -2.9 |
| OCAC | Ocana | 9.46 | 90 | eP | Pn | 07 00 00.3 | +0.1 |
| CVER | Cruz Verde, Cu | 9.57 | 113 | eP | Pn | 07 00 05.2 | +3.3 |
| GIRC | Giron, Santand | 9.69 | 97 | eP | Pn | 07 00 05.2 | +2.0 |
| BARC | Barichara | 9.78 | 100 | eP | Pn | 07 00 06.0 | +1.3 |
| CHIC | Chingaza | 9.84 | 112 | eP | Pn | 07 00 08.1 | +2.5 |
| RUSC | La Rusia | 10.04 | 104 | eP | Pn | 07 00 08.8 | +0.4 |
| RUSC | La Rusia | 10.04 | 104 | ePn | Pn | 07 00 09.0 | +0.6 |
| PAMC | Pamplona, Colo | 10.14 | 95 | eP | Pn | 07 00 09.5 | -0.3 |
| MTDJ | Mount Denham | 11.04 | 28 | ePn | Pn | 07 00 22.6 | +0.8 |
| CCIG | Comitan | 11.95 | 312 | ePn | Pn | 07 00 37.2 | +2.9 |
| SDV | Santo Domingo | 12.12 | 87 | P | Pn | 07 00 35.7 | -0.9 |
| | comp=E,1.7nm,0.3s,baz=292,slow=9.7,SNR=17 | | | | | | |
| SDV | | | | S | Sn | 07 02 59.6 | +8.8 |
| | comp=E,0.7nm,0.3s,baz=346,slow=12,SNR=2.8 | | | | | | |
| GTBY | Guantanamo Bay | 13.69 | 33 | ePn | Pn | 07 00 56.9 | -0.9 |
| MYIG | MØrida | 14.12 | 333 | ePn | Pn | 07 01 05.9 | +2.2 |
| LGNH | LØogne | 14.15 | 44 | ePn | Pn | 07 01 03.7 | -0.5 |
| CMIG | Matias Romero | 14.53 | 308 | P | Pn | 07 01 10.2 | +0.8 |
| | comp=E,3.3nm,0.3s,baz=127,slow=9.6,SNR=21 | | | | | | |
| SDDR | Presa de Saban | 15.38 | 46 | ePn | Pn | 07 01 19.8 | -1.0 |
| | comp=E,112nm,1.0s | | | | | | |
| SDD | Santo Domingo | 16.07 | 50 | ePn | Pn | 07 01 27.8 | -1.7 |
| | comp=E,369nm,1.7s | | | | | | |
| ATAH | Atahualpa | 16.09 | 164 | P | P | 07 01 31.4 | -2.0 |
| | comp=E,0.3nm,0.3s,baz=77,slow=12,SNR=7.6 | | | | | | |
| GRTK | Grand Turk | 17.25 | 40 | ePn | Pn | 07 01 44.1 | -0.4 |
| | comp=E,209nm,1.3s | | | | | | |
| LVIG | Laguna Verde | 17.27 | 312 | eP | P | 07 01 46.6 | +0.7 |
| | comp=E,38nm,0.9s | | | | | | |
| TLIG | Tlapa | 17.77 | 302 | ePn | P | 07 01 55.1 | +3.4 |
| | comp=E,101nm,1.2s | | | | | | |
| IDE | Isla Desecheo | 17.95 | 55 | ePn | Pn | 07 01 51.9 | -1.2 |
| PCRV | Puerto La Cruz | 18.09 | 83 | P | Pn | 07 01 54.5 | -0.5 |
| | comp=E,2.3nm,0.3s,baz=211,slow=4.8,SNR=18 | | | | | | |
| MPR | Mayaguez | 18.13 | 56 | ePn | Pn | 07 01 55.2 | -0.1 |
| | comp=E,158nm,1.8s | | | | | | |
| AGP | Aguadilla | 18.23 | 55 | ePn | P | 07 01 56.9 | +0.3 |
| | comp=E,366nm,1.3s | | | | | | |
| CELP | Cerrillos | 18.52 | 57 | eP | Pn | 07 02 01.3 | +1.1 |
| SJG | San Juan | 18.90 | 58 | P | Pn | 07 02 04.6 | -0.2 |
| | comp=E,1.8nm,0.3s,baz=251,slow=6.5,SNR=20 | | | | | | |
| SJG | San Juan | 18.90 | 58 | eP | Pn | 07 02 04.9 | +0.1 |
| SJG | | | | pmax | pmax | | |
| | comp=Z,64nm,0.8s | | | | | | |
| SJG | San Juan | 18.90 | 58 | eP | Pn | 07 02 04.9 | +0.1 |
| | comp=Z,64nm,0.8s | | | | | | |
| HUMP | Col San Antoni | 19.17 | 58 | eP | P | 07 02 07.4 | +0.5 |
| | comp=Z,66nm,0.8s | | | | | | |
| MTP | Monte Pirata | 19.40 | 59 | eP | P | 07 02 08.7 | -0.7 |
| | comp=Z,173nm,1.4s | | | | | | |
| STVI | Saint Thomas | 20.02 | 59 | eP | P | 07 02 15.8 | -0.4 |
| | comp=Z,322nm,1.8s | | | | | | |
| ABVI | Anegada Island | 20.71 | 58 | eP | P | 07 02 23.9 | +0.2 |
| | comp=Z,141nm,0.9s | | | | | | |
| MOIG | Morelia | 20.97 | 304 | eP | P | 07 02 29.8 | +3.1 |
| | comp=Z,118nm,1.3s | | | | | | |
| NNA | Nana | 21.14 | 163 | P | P | 07 02 28.0 | -0.5 |
| | comp=Z,22nm,1.0s,baz=352,slow=12,SNR=6.8 | | | | | | |
| NNA | Nana | 21.14 | 163 | iP | P | 07 02 29.9 | +1.4 |
| NNA | Nana | 21.14 | 163 | eP | P | 07 02 28.2 | -0.2 |
| | comp=Z,67nm,1.3s | | | | | | |
| GRGR | Grenville | 21.20 | 78 | eP | P | 07 02 30.7 | +1.6 |
| | comp=Z,860nm,1.1s | | | | | | |
| GRGR | Grenville | 21.20 | 78 | e | P | 07 02 30.5 | +1.4 |
| SMRT | St. Maarten | 21.50 | 62 | eP | P | 07 02 31.9 | -0.4 |
| | comp=Z,232nm,1.6s | | | | | | |
| SVB | Belmont | 21.77 | 75 | eP | P | 07 02 35.3 | 0.0 |
| | comp=Z,78nm,0.7s | | | | | | |
| SVB | Belmont | 21.77 | 75 | eP | P | 07 02 35.1 | -0.1 |
| MLYT | Lee's Yard | 21.79 | 66 | e | P | 07 02 35.4 | -0.1 |
| TBG | Guadaloupe-3 | 22.02 | 68 | e | P | 07 02 37.5 | -0.3 |
| GDHS | Morne Mazeau, | 22.04 | 67 | eP | P | 07 02 38.7 | +0.6 |
| | comp=Z,208nm,0.9s | | | | | | |
| BBL | Barber's Block | 22.09 | 69 | e | P | 07 02 38.5 | -0.1 |
| MCLT | Moule a Chique | 22.15 | 74 | e | P | 07 02 34.0 | -5.3 |
| FDF | Fort de France | 22.18 | 72 | eP | P | 07 02 38.4 | -1.2 |
| FDF | | | | pmax | pmax | | |
| | comp=Z,498nm,2.0s | | | | | | |
| FDF | Fort de France | 22.18 | 72 | eP | P | 07 02 38.4 | -1.2 |
| | comp=Z,498nm,2.0s | | | | | | |
| FDF | Fort de France | 22.18 | 72 | eP | P | 07 02 38.6 | -1.1 |
| MGG | Marie-Galante | 22.34 | 68 | e | P | 07 02 42.6 | +1.3 |

LNIG **Linares** 22.78 318 *e*P P 07 02 46.1 +0.1
comp=Z,30nm,1.2s
TIGA **Tifton** 22.91 358 P P 07 02 47.8 +0.7
baz=178
TIGA **Tifton** 22.91 358 *e*P P 07 02 47.3 +0.2
comp=Z,156nm,1.2s
446A **Poplarville** 23.07 346 P P 07 02 50.1 +1.4
baz=163
ZAIG **Zacatecas** 23.68 309 *e*P P 07 02 58.6 +3.3
comp=Z,81nm,1.4s
247A **Quitman** 24.11 348 P P 07 03 00.1 +1.3
baz=166
246A **Jackson Lee, B** 24.18 347 P P 07 03 00.3 +0.8
baz=165
441A **DeRidder** 24.21 338 P P 07 03 01.1 +1.3
baz=154
PTGA **Pitinga** 24.58 111 P P 07 03 02.6 -0.7
comp=Z,7.0nm,0.6s,baz=303,slow=11,SNR=16
PTGA **Pitinga** 24.58 111 *e*P P 07 03 02.4 -1.0
comp=Z,14nm,0.8s
HKT **Hockley** 24.62 332 *e*P P 07 03 04.2 +0.8
HKT pmax pmax
comp=Z,136nm,1.1s
HKT **Hockley** 24.62 332 *e*P P 07 03 04.2 +0.8
comp=Z,136nm,1.1s
NHSC **New Hope** 24.69 5 *e*P P 07 03 05.5 +1.4
comp=Z,67nm,0.9s
VBMS **Vicksburg** 24.72 344 P P 07 03 04.8 +0.4
baz=162
VBMS **Vicksburg** 24.72 344 *e*P P 07 03 05.6 +1.3
comp=Z,144nm,1.1s
LRAL **Lakeview Retre** 24.79 352 *e*P P 07 03 06.1 +1.1
comp=Z,116nm,1.3s
GOGA **Godfrey** 24.88 359 *e*P P 07 03 06.7 +0.9
GOGA pmax pmax
comp=Z,108nm,1.4s
GOGA **Godfrey** 24.88 359 *e*P P 07 03 06.7 +0.9
comp=Z,108nm,1.4s
Z45A **Winona** 25.61 347 P P 07 03 12.9 +0.4
baz=164
NATX **Nacogdoches** 25.68 336 P P 07 03 13.4 +0.3
baz=152,SNR=23
NATX **Nacogdoches** 25.68 336 *e*P P 07 03 13.4 +0.3
comp=Z,213nm,0.9s
HODGE **Hodges** 25.69 1 *e*P P 07 03 14.1 +0.9
comp=Z,55nm,1.0s
Z44A **Pea Ridge, Bel** 25.70 345 P P 07 03 13.6 +0.3
baz=162
JSC **Jenkinsville** 25.78 3 *e*P P 07 03 14.1 +0.2
JSC pmax pmax
comp=Z,58nm,1.2s
JSC **Jenkinsville** 25.78 3 *e*P P 07 03 14.1 +0.2
comp=Z,58nm,1.2s
Z42A **Norrel Spur, H** 26.11 343 P P 07 03 17.5 +0.5
baz=159
SAML **Samuel** 26.13 131 *e*P P 07 03 17.7 +0.4
comp=Z,69nm,1.5s
Y43A **Makayla and Ka** 26.43 345 P P 07 03 19.6 -0.3
baz=162
BG3 **Lake Jocassee** 26.45 360 *e*P P 07 03 20.8 +0.7
comp=Z,34nm,0.9s
KMSC **Kings Mountain** 26.63 3 P P 07 03 22.0 +0.3
baz=183
KMSC **Kings Mountain** 26.63 3 *e*P P 07 03 22.0 +0.3
comp=Z,14nm,1.1s
OXF **Oxford** 26.65 348 *e*P P 07 03 22.4 +0.5
OXF pmax pmax
comp=Z,69nm,1.1s
OXF **Oxford** 26.65 348 *e*P P 07 03 22.4 +0.5
comp=Z,69nm,1.1s
CCAR **Cane Creek** 26.67 343 *e*P P 07 03 22.2 +0.2
comp=Z,85nm,1.3s
SWET **Sewanee** 26.82 354 *e*P P 07 03 23.7 +0.3
comp=Z,60nm,1.5s
WLAR **White Oak Lake** 26.86 341 *e*P P 07 03 24.2 +0.5
comp=Z,95nm,1.0s
PLAL **Pickwick Lake** 26.86 351 *e*P P 07 03 23.6 -0.2
comp=Z,32nm,1.1s
CPCT **Cooper Cave** 26.95 357 *e*P P 07 03 25.5 +1.0
comp=Z,60nm,1.4s
JCT **Junction City** 27.06 326 P P 07 03 26.4 +0.8
baz=141,SNR=32
JCT **Junction City** 27.06 326 *e*P P 07 03 25.4 -0.2
JCT pmax pmax
comp=Z,79nm,1.0s
JCT **Junction City** 27.06 326 *e*P P 07 03 25.4 -0.2
comp=Z,79nm,1.0s
WHTX **Lake Whitney,** 27.09 332 P P 07 03 26.3 +0.5
baz=147
WHTX **Lake Whitney,** 27.09 332 *e*P P 07 03 25.6 -0.2
comp=Z,60nm,1.0s
TKL **Tuckaleechee C** 27.12 358 P P 07 03 26.9 +0.8
comp=Z,17nm,1.2s,baz=172,slow=8.8,SNR=6.0
TKL **Tuckaleechee C** 27.12 358 *e*P P 07 03 27.2 +1.1
TKL pmax pmax
comp=Z,44nm,1.3s
TKL **Tuckaleechee C** 27.12 358 *e*P P 07 03 27.2 +1.1
comp=Z,44nm,1.3s
W45A **Hickory Valley** 27.23 349 P P 07 03 26.7 -0.4
baz=166
W44A **Shelby Farms P** 27.34 348 P P 07 03 27.4 -0.6
baz=165
W43A **Forest City** 27.50 346 P P 07 03 29.2 -0.2
baz=163
UALR **University of** 27.63 343 *e*P P 07 03 30.2 -0.5
comp=Z,38nm,1.0s
Y38A **Idabel** 27.64 338 P P 07 03 30.3 -0.4
baz=154
V45A **Humboldt** 27.75 349 P P 07 03 30.7 -1.0
baz=167
MIAR **Mount Ida** 27.80 341 P P 07 03 31.4 -0.8
baz=157,SNR=22
MIAR **Mount Ida** 27.80 341 *e*P P 07 03 31.8 -0.3
MIAR pmax pmax
comp=Z,28nm,0.8s
MIAR **Mount Ida** 27.80 341 *e*P P 07 03 31.8 -0.3
comp=Z,28nm,0.8s
HBAR **Harrisburg** 27.93 346 *e*P P 07 03 33.9 +0.6
comp=Z,63nm,1.0s
WVT **Waverly** 27.95 351 *e*P P 07 03 32.9 -0.6
WVT pmax pmax
comp=Z,15nm,0.8s
WVT **Waverly** 27.95 351 *e*P P 07 03 32.9 -0.6
comp=Z,15nm,0.8s
W41B **Gary Mavity, V** 27.98 343 P P 07 03 33.3 -0.5
baz=160
Y37A **Hugo** 28.02 337 P P 07 03 33.9 -0.2
baz=152
V44A **Blytheville** 28.02 348 P P 07 03 33.5 -0.6
baz=165
X301 **Greenbrier Sit** 28.08 343 *e*P P 07 03 34.3 -0.4
comp=Z,26nm,1.0s
WHAR **Wooly Hollow** 28.10 344 *e*P P 07 03 34.4 -0.5
comp=Z,34nm,0.9s
V43A **Jonesboro** 28.12 347 P P 07 03 34.7 -0.3
baz=164
GNAR **Gosnell** 28.18 348 *e*P P 07 03 35.5 0.0
comp=Z,76nm,1.1s
Y36A **Durant** 28.21 336 P P 07 03 36.0 +0.2
baz=151
W40A **Ferguson Farm,** 28.24 342 P P 07 03 35.7 -0.3
baz=158
U45A **Rockin P Farm,** 28.31 350 P P 07 03 36.4 -0.3
baz=168
UTMT **University of** 28.32 350 *e*P P 07 03 36.7 -0.1
comp=Z,78nm,1.0s
V42A **Cord** 28.35 345 P P 07 03 36.4 -0.6
baz=162
HPIG 28.38 313 *e*P P 07 03 38.1 +0.5
comp=Z,8.1nm,0.9s
U44B **Burton Farm, H** 28.41 349 P P 07 03 36.2 -1.4
baz=166
W39A **Magazine** 28.46 341 P P 07 03 37.2 -0.8
baz=157
X37A **Clayton** 28.46 338 P P 07 03 38.5 +0.4
baz=153
V41A **Mountainview** 28.53 344 P P 07 03 38.0 -0.6
baz=160
TXAR **Lajitas Array** 28.53 320 P P 07 03 40.5 +1.7
comp=Z,3.8nm,1.0s,baz=139,slow=12,SNR=14
TXAR LR LR 07 17 20.9
comp=Z,328nm,20.2s,baz=0.0,slow=41
TX31 **Lajitas Ar. Si** 28.53 320 *e*P P 07 03 40.4 +1.4
LPAZ **La Paz** 28.56 149 P P 07 03 39.7 -0.1
comp=Z,2.0nm,0.8s,baz=350,slow=8.1,SNR=8.0
LPAZ LR LR 07 16 07.0
comp=Z,467nm,21.7s,baz=320,slow=38
LPAZ **La Paz** 28.56 149 *e*P P 07 03 39.7 -0.1
LPAZ pmax pmax
comp=Z,6.0nm,1.1s
LPAZ **La Paz** 28.56 149 *e*P P 07 03 39.7 -0.1
comp=Z,5.9nm,1.1s
U44A **Portageville** 28.64 349 P P 07 03 39.2 -0.4
baz=166
U43A **Rector** 28.65 347 P P 07 03 39.4 -0.3
baz=164
V40A **Witts Springs** 28.73 343 P P 07 03 39.9 -0.6
baz=159
BLA **Blacksburg** 28.75 4 *e*P P 07 03 41.5 +0.9
BLA pmax pmax
comp=Z,79nm,1.7s
BLA **Blacksburg** 28.75 4 *e*P P 07 03 41.5 +0.9
comp=Z,79nm,1.7s
PARMO **Parma** 28.80 348 *e*P P 07 03 41.5 +0.4
comp=Z,63nm,1.0s
U42A **Revenden** 28.83 346 P P 07 03 40.8 -0.5
baz=162
U41A **Viola** 28.99 345 P P 07 03 42.2 -0.6
baz=161
V39A **Pettigrew** 29.01 342 P P 07 03 42.7 -0.3
baz=158
PBMO **Poplar Bluff** 29.05 347 *e*P P 07 03 43.2 -0.1
comp=Z,91nm,2.0s
T44A **Benton** 29.18 349 P P 07 03 43.9 -0.5
baz=166
U40A **Yellville** 29.26 343 P P 07 03 44.8 -0.4
baz=159
W36A **Wetumka** 29.27 337 P P 07 03 45.1 -0.2
baz=152
V38A **Canehill** 29.27 341 P P 07 03 44.5 -0.9
baz=156
T43A **Greenville** 29.32 348 P P 07 03 45.1 -0.5
baz=165
T42A **Van Buren** 29.44 347 P P 07 03 45.8 -1.0
baz=163
S46A **Don Dixon Farm** 29.46 352 P P 07 03 46.3 -0.6
baz=170
U39A **Green Forest** 29.46 342 P P 07 03 46.2 -0.7
baz=158
HHAR **Hobbs** 29.51 342 *e*P P 07 03 46.8 -0.6
comp=Z,22nm,1.3s
W35A **Tecumseh** 29.54 336 P P 07 03 46.0 -1.6
baz=151
V37A **Hulbert** 29.54 340 P P 07 03 46.8 -0.8
baz=155
S45A **Carrier Mills** 29.58 351 P P 07 03 47.1 -0.9
baz=168
T41A **Mountain View** 29.61 346 P P 07 03 47.6 -0.7
baz=162
S44A **Carbondale** 29.71 350 P P 07 03 48.6 -0.5
baz=167
SIUC **Southern Illin** 29.72 350 *e*P P 07 03 48.7 -0.5
comp=Z,35nm,1.1s
USIN **University of** 29.73 352 *e*P P 07 03 48.9 -0.4
comp=Z,57nm,0.9s
V36A **Jenks** 29.74 338 P P 07 03 48.2 -1.2
baz=153
S43A **Fulton Ridge,** 29.74 348 P P 07 03 48.8 -0.6
baz=165
OK022 **N3560 Road, Pr** 29.79 337 *e*P P 07 03 50.3 +0.4
comp=Z,26nm,1.0s
U38A **Grette** 29.80 341 P P 07 03 48.8 -1.1
baz=156
TUL1 **Leonard** 29.80 339 P P 07 03 48.8 -1.1
baz=153
TUL1 **Leonard** 29.80 339 *e*P P 07 03 48.6 -1.3
comp=Z,20nm,0.8s
SPRD **Spring Road, M** 29.82 8 *e*P P 07 03 49.5 -0.5
comp=Z,24nm,1.4s
WCI **Wyandotte Cave** 29.84 355 *e*P P 07 03 49.8 -0.5
WCI pmax pmax
comp=Z,65nm,1.0s
WCI **Wyandotte Cave** 29.84 355 *e*P P 07 03 49.8 -0.5
comp=Z,65nm,1.0s
IP04 **Greensprings** 29.86 8 *e*P P 07 03 50.4 0.0
comp=Z,14nm,1.0s
OK021 **N3530 Road, Sp** 29.87 337 *e*P P 07 03 49.1 -1.5
comp=Z,16nm,0.8s
OK020 **N3440 Road, Me** 29.88 337 *e*P P 07 03 49.3 -1.3
comp=Z,42nm,0.8s
T40A **Mansfield** 29.91 344 P P 07 03 50.5 -0.4
baz=160
PTRD **Partlow Road** 29.95 8 *e*P P 07 03 51.4 +0.2
comp=Z,27nm,1.4s
R46A **Gibon Southern** 29.95 353 P P 07 03 50.7 -0.5
baz=171
SPFD **Spotsylvania F** 29.98 8 *e*P P 07 03 53.2 +1.8
comp=Z,41nm,1.5s
WMOK **Wichita Mounta** 29.99 333 P P 07 03 51.2 -0.4
baz=147
WMOK **Wichita Mounta** 29.99 333 *e*P P 07 03 52.0 +0.3
WMOK pmax pmax
comp=Z,27nm,1.1s
WMOK **Wichita Mounta** 29.99 333 *e*P P 07 03 52.0 +0.3
comp=Z,27nm,1.1s
T39A **Clever** 30.03 343 P P 07 03 51.2 -0.7
baz=159
V35A **Meyer Ranch, C** 30.06 337 P P 07 03 50.4 -1.8
baz=151
S42A **Caledonia** 30.08 347 P P 07 03 51.3 -1.1
baz=164
S41A **Jillco Farms,** 30.13 346 P P 07 03 51.7 -1.1
baz=162
R45A **Skylar, Fairfi** 30.14 352 P P 07 03 52.0 -0.9
baz=169
U36A **Oologah** 30.21 339 P P 07 03 52.3 -1.2
baz=154
FVM **French Village** 30.21 348 *e*P P 07 03 54.1 +0.5
FVM pmax pmax
comp=Z,24nm,1.0s
FVM **French Village** 30.21 348 *e*P P 07 03 54.1 +0.5
comp=Z,24nm,1.0s
R44A **Waltonville** 30.22 350 P P 07 03 53.2 -0.4
baz=168
T38A **Diamond** 30.31 342 P P 07 03 53.6 -0.8
baz=157
S40A **Lebanon** 30.33 345 P P 07 03 53.9 -0.7
baz=161
MNMC **Minye Minye** 30.35 155 *e*P P 07 03 55.4 +0.1
comp=Z,14nm,0.8s
R43A **Red Bud** 30.40 349 P P 07 03 55.1 -0.1
baz=166
CCM **Cathedral Cave** 30.46 347 *e*P P 07 03 55.3 -0.4
CCM pmax pmax
comp=Z,38nm,0.9s
CCM **Cathedral Cave** 30.46 347 *e*P P 07 03 55.3 -0.4
comp=Z,38nm,0.9s
OLIL **Olney** 30.55 352 *e*P P 07 03 56.2 -0.3
comp=Z,82nm,1.0s
Q47A **Bedord North L** 30.55 355 P P 07 03 55.9 -0.7
baz=173
U35A **Pawnee** 30.55 338 P P 07 03 56.4 -0.2
baz=152
R42A **Luebbering** 30.57 348 P P 07 03 55.9 -0.8
baz=164
S39A **Bolivar** 30.64 344 P P 07 03 56.3 -1.0
baz=159
Q45A **Warren Harvey,** 30.71 352 P P 07 03 57.4 -0.5
baz=170
R41A **Rosebud** 30.72 347 P P 07 03 57.1 -1.0
baz=163
Q46A **CEJHS Indians,** 30.73 353 P P 07 03 56.3 -1.9
baz=171
S38A **Stockton** 30.75 343 P P 07 03 57.5 -0.8
baz=158
BLO **Bloomington** 30.79 354 *e*P P 07 03 58.6 -0.1
BLO pmax pmax
comp=Z,50nm,0.9s
BLO **Bloomington** 30.79 354 *e*P P 07 03 58.6 -0.1
comp=Z,50nm,0.9s
SLM **Saint Louis** 30.80 349 *e*P P 07 03 58.6 -0.2
SLM pmax pmax
comp=Z,49nm,0.7s
SLM **Saint Louis** 30.80 349 *e*P P 07 03 58.5 -0.2
comp=Z,49nm,0.7s
Q44A **Meyer Farm, Va** 30.85 351 P P 07 03 58.5 -0.6
baz=168
T36A **Boggs Farm, Ca** 30.86 339 P P 07 03 58.4 -0.8
baz=154
R40A **Maddies Statio** 30.92 346 P P 07 03 59.0 -0.8
baz=162
T35A **Sooner Cattle** 30.95 338 P P 07 03 59.0 -1.1
baz=153
Q43A **New Douglas** 31.00 350 P P 07 03 59.5 -1.0
baz=167
P47A **Martinsville** 31.08 355 P P 07 04 00.6 -0.7
baz=173
Q42A **Golden Eagle** 31.13 348 P P 07 04 01.2 -0.5
baz=165
R39A **Chumby, Stover** 31.14 344 P P 07 04 00.8 -1.0
baz=160
S37A **Fort Scott** 31.14 342 P P 07 04 01.1 -0.7
baz=156
MNTX **Cornudas Mount** 31.22 321 P P 07 04 02.9 +0.3
baz=133,SNR=16
MNTX **Cornudas Mount** 31.22 321 *e*P P 07 04 03.1 +0.5
comp=Z,14nm,1.1s
R38A **Fenwick Farm,** 31.26 343 P P 07 04 01.6 -1.2
baz=158
P45A **Graceland, Par** 31.28 353 P P 07 04 02.1 -0.9
baz=170
P46A **Rosedale** 31.30 354 P P 07 04 02.2 -1.0
baz=172
Q41A **Truxton** 31.32 347 P P 07 04 02.6 -0.7
baz=164
P44A **Sand Creek, Wi** 31.34 351 P P 07 04 03.1 -0.4
baz=169
MSTX **Muleshoe** 31.34 327 P P 07 04 03.3 -0.4
baz=140
MSTX **Muleshoe** 31.34 327 *e*P P 07 04 03.1 -0.6
comp=Z,11nm,1.0s
S36A **Lake Cedric, C** 31.36 340 P P 07 04 02.6 -1.1
baz=155
U32A **Winter Ranch,** 31.47 335 P P 07 04 04.3 -0.4
baz=148
AMTX **Amarillo** 31.48 330 P P 07 04 04.3 -0.6
baz=142
Q40A **Laux Farm, Aux** 31.54 346 P P 07 04 04.1 -1.2
baz=162
S35A **Otter Creek Ra** 31.57 339 P P 07 04 04.5 -1.1
baz=154
P43A **Skaggs, Pawnee** 31.65 350 P P 07 04 05.7 -0.5
baz=167
R37A **Teagarden Farm** 31.65 342 P P 07 04 05.3 -1.0
baz=157
ACSO **Alum Creek Sta** 31.68 360 *e*P P 07 04 06.7 +0.2
comp=Z,49nm,1.1s
P42A **Winchester** 31.74 349 P P 07 04 06.2 -0.9
baz=166
Q39A **Willow Grove F** 31.81 345 P P 07 04 06.8 -0.8
baz=161
O47A **Sheridan** 31.82 355 P P 07 04 06.8 -0.9
baz=174
S34A **Willow Spring** 31.87 338 P P 07 04 06.7 -1.5
baz=152
R36A **Gordon, Harris** 31.88 341 P P 07 04 07.4 -0.9
baz=156
Q38A **Cooks Store, C** 31.90 344 P P 07 04 07.8 -0.7
baz=159
O56A **Blue Knob Stat** 31.95 6 P P 07 04 07.8 -1.0
baz=188
P41A **Barry, Barry** 31.97 348 P P 07 04 08.1 -1.0
baz=164
MVL **Millersville** 31.98 9 *e*P P 07 04 09.7 +0.6
comp=Z,28nm,1.4s
O44A **Mansfield** 31.99 352 P P 07 04 08.4 -0.8
baz=169
SFIN **Lafayette** 32.05 354 P P 07 04 08.5 -1.1
baz=172
SFIN **Lafayette** 32.05 354 *e*P P 07 04 08.2 -1.4
comp=Z,30nm,0.9s
P40A **Paris** 32.05 347 P P 07 04 08.7 -1.0
baz=163
Q37A **Longview Farm,** 32.06 343 P P 07 04 08.6 -1.2
baz=158
R35A **Emporia Munici** 32.10 340 P P 07 04 09.5 -0.7
baz=154
P39B **Salisbury** 32.18 346 P P 07 04 09.9 -1.0
baz=161
O43A **Sugar Creek Fa** 32.25 351 P P 07 04 10.3 -1.1
baz=168
O42A **Bath** 32.29 350 P P 07 04 10.9 -0.9
baz=166
O41A **Passleys Farm,** 32.36 348 P P 07 04 11.6 -0.9
baz=165
SSPA **Standing Stone** 32.39 7 *e*P P 07 04 12.9 +0.2
comp=Z,48nm,1.5s
Q36A **Arnold C. Orve** 32.44 342 P P 07 04 12.2 -1.0
baz=156
R34A **Isabella, Hill** 32.45 339 P P 07 04 12.4 -0.9
baz=153
P38A **Dawn** 32.50 345 P P 07 04 12.9 -0.8
baz=160
HDIL **Hopedale** 32.51 351 P P 07 04 12.6 -1.1
baz=168,SNR=10
HDIL **Hopedale** 32.51 351 *e*P P 07 04 13.2 -0.6
comp=Z,47nm,0.8s
N54A **Moraine State** 32.51 4 P P 07 04 13.2 -0.6
baz=185
N46A **Monticello** 32.52 355 P P 07 04 12.6 -1.3
baz=173
Q35A **Mercer Eighty,** 32.53 341 P P 07 04 13.0 -1.0
baz=155
N45A **Kentland** 32.55 353 P P 07 04 13.0 -1.2
baz=171
O40A **La Belle** 32.57 347 P P 07 04 14.2 -0.1
baz=163
N44A **Piper City** 32.58 353 P P 07 04 13.3 -1.0
baz=170
P37A **Lathrop** 32.69 343 P P 07 04 14.3 -1.1
baz=158
LUPA **Lehigh Univers** 32.73 11 *e*P P 07 04 16.6 +0.9
comp=Z,3.9nm,1.4s
O39A **Kirksville** 32.85 346 P P 07 04 15.5 -1.2
baz=162
N43A **Stutzman Famil** 32.86 351 P P 07 04 15.9 -1.0
baz=168
Q34A **Chapman** 32.90 340 P P 07 04 16.2 -1.0
baz=154
N42A **Yates City** 32.90 350 P P 07 04 16.1 -1.0
baz=167
N41A **Harden Midland** 32.93 349 P P 07 04 16.3 -1.1
baz=165
O38A **Galt** 32.95 345 P P 07 04 16.7 -1.0
baz=160
P36A **Good Intent, A** 32.97 342 P P 07 04 16.8 -1.0
baz=157
N59A **State Game Lan** 32.97 10 P P 07 04 17.6 -0.3
baz=193
M46A **Old House Fiel** 33.00 355 P P 07 04 17.9 -0.1
baz=174
M45A **Boilermakers S** 33.06 354 P P 07 04 17.3 -1.3
baz=172
M54A **Oil Creek Stat** 33.07 4 P P 07 04 18.4 -0.3
baz=186
P35A **Duane Minner,** 33.14 341 P P 07 04 18.3 -1.0
baz=156
M44A **Midewin, Midew** 33.15 353 P P 07 04 18.8 -0.6
baz=170
O37A **Wolven Farm, M** 33.17 344 P P 07 04 18.6 -1.0
baz=159
N40A **Mertquake, Sal** 33.24 348 P P 07 04 19.0 -1.2
baz=164
M43A **Waltham Townsh** 33.32 352 P P 07 04 19.5 -1.3
baz=169
O36A **Bolckow** 33.37 343 P P 07 04 19.8 -1.5
baz=158
P34A **Walnut Farm, R** 33.42 340 P P 07 04 20.9 -0.9
baz=154
N39A **Derby Farms, D** 33.44 347 P P 07 04 20.6 -1.3
baz=162
M42A **Sheffield** 33.46 351 P P 07 04 20.5 -1.6
baz=167
M41A **Milan** 33.52 350 P P 07 04 21.2 -1.4
baz=166
N38A **Joes South For** 33.53 346 P P 07 04 21.8 -0.9
baz=161
M40A **Post Highland** 33.73 348 P P 07 04 23.2 -1.2
baz=164
LVC **Limon Verde** 33.74 156 P P 07 04 26.0 +0.9
comp=Z,9.2nm,0.7s,baz=310,slow=9.3,SNR=3.2
LVC **Limon Verde** 33.74 156 *e*P P 07 04 26.6 +1.6
comp=Z,13nm,1.2s
N37A **Lee Faris, Mou** 33.74 344 P P 07 04 23.5 -1.1
baz=159
O35A **Humboldt** 33.78 342 P P 07 04 23.1 -1.8
baz=156
CBKS **Cedar Bluff** 33.85 336 P P 07 04 24.5 -1.1
baz=149
CBKS **Cedar Bluff** 33.85 336 *e*P P 07 04 25.8 +0.3
CBKS pmax pmax
comp=Z,29nm,1.0s
CBKS **Cedar Bluff** 33.85 336 *e*P P 07 04 25.8 +0.3
comp=Z,29nm,1.0s

L44A Lake County Fo 33.91 353 P P 07 04 25.2 -0.7
baz=171
M39A Webster 33.94 347 P P 07 04 25.0 -1.2
baz=163
O34A Beatrice 33.95 341 P P 07 04 25.3 -1.0
baz=155
L42A Oliver, Polo 33.98 351 P P 07 04 25.0 -1.6
baz=168
N36A Muff Farm, Cla 34.00 343 P P 07 04 25.6 -1.2
baz=158
L43A Garden Prairie 34.02 352 P P 07 04 25.5 -1.5
baz=169
M38A Pleasantville 34.11 346 P P 07 04 26.7 -1.0
baz=161
ANMO Albuquerque 34.12 324 P P 07 04 28.0 -0.2
baz=135
ANMO Albuquerque 34.12 324 ceP P 07 04 29.9 +1.7
ANMO pmax pmax
comp=Z,8.0nm,1.0s
ANMO Albuquerque 34.12 324 eP P 07 04 28.9 +0.7
comp=Z,6.3nm,0.9s
LAZ Ladron 34.14 323 eP P 07 04 27.6 -0.7
O33A Hebron 34.15 340 P P 07 04 27.3 -0.8
baz=153
L41A Preston 34.19 350 P P 07 04 26.8 -1.6
baz=166
N35A Tabor 34.24 343 P P 07 04 27.7 -1.2
baz=157
L40A Anamosa 34.31 349 P P 07 04 28.2 -1.2
baz=165
M37A Trindle Farm, 34.31 345 P P 07 04 28.3 -1.2
baz=160
N34A Lincoln 34.48 342 P P 07 04 29.6 -1.4
baz=156
K43A Burlington 34.48 353 P P 07 04 29.2 -1.7
baz=170
L39A Vinton 34.52 348 P P 07 04 29.9 -1.4
baz=164
M36A Felix, Anita 34.55 344 P P 07 04 30.3 -1.3
baz=159
SCIA State Center 34.58 346 eP P 07 04 31.2 -0.6
comp=Z,96nm,1.4s
T25A Trinidad 34.62 329 P P 07 04 31.0 -1.5
baz=140
K41A Shullsburg 34.67 350 P P 07 04 30.9 -1.7
baz=167
K42A Prairie Point, 34.69 352 P P 07 04 31.1 -1.7
baz=169
N33A J Bar K, Exete 34.70 340 P P 07 04 32.1 -0.7
baz=154
L38A Oak Wood Farm, 34.74 347 P P 07 04 31.8 -1.4
baz=162
MHTCO State Highway 34.76 329 eP P 07 04 34.4 +0.7
comp=Z,17nm,1.2s
M35A Neola 34.81 343 P P 07 04 32.6 -1.2
baz=157
K40A Colesburg 34.91 349 P P 07 04 33.1 -1.5
baz=166
L37A Phoenix Point, 34.91 346 P P 07 04 33.4 -1.3
baz=161
JFWS Jewell Farm 34.96 351 eP P 07 04 33.6 -1.5
JFWS pmax pmax
comp=Z,55nm,1.3s
JFWS Jewell Farm 34.96 351 eP P 07 04 33.6 -1.5
comp=Z,55nm,1.3s
K39A Oelwein 35.06 348 P P 07 04 34.3 -1.6
baz=164
M34A Aspy Farms, Fr 35.11 342 P P 07 04 35.3 -1.1
baz=156
L36A Harm Buss Farm 35.12 345 P P 07 04 35.4 -1.1
baz=159
TUC Tucson 35.14 316 P P 07 04 37.4 +0.5
baz=126
TUC Tucson 35.14 316 eP P 07 04 37.7 +0.8
TUC pmax pmax
comp=Z,17nm,1.1s
TUC Tucson 35.14 316 eP P 07 04 37.7 +0.8
comp=Z,17nm,1.1s
J43A Natural Harves 35.16 353 P P 07 04 36.1 -0.7
baz=170
K38A Parkersburg 35.18 347 P P 07 04 35.8 -1.2
baz=163
J42A Columbus 35.19 352 P P 07 04 36.9 -0.1
baz=169
KSCO Kaye Shedlock' 35.25 333 P P 07 04 37.2 -0.5
baz=144
KSCO Kaye Shedlock' 35.25 333 eP P 07 04 37.7 -0.1
comp=Z,24nm,1.0s
J41A Loganville 35.37 351 P P 07 04 37.1 -1.4
baz=168
M33A Taylor Creek F 35.37 341 P P 07 04 37.4 -1.2
baz=155
L35A Bielow Farm, R 35.37 344 P P 07 04 37.4 -1.3
baz=158
L34A Svendsen Farm, 35.48 343 P P 07 04 38.2 -1.3
baz=156
K37A Belmond 35.49 346 P P 07 04 38.3 -1.4
baz=161
J40A Soldiers Grove 35.51 350 P P 07 04 38.1 -1.7
baz=166
K36A Gilmore City 35.57 345 P P 07 04 39.3 -1.1
baz=160
I43A Langenfeld Bro 35.62 353 P P 07 04 39.0 -1.8
baz=171
J39A Decorah 35.63 349 P P 07 04 39.1 -1.7
baz=165
SDCO Great Sand Dun 35.65 328 P P 07 04 41.0 -0.4
baz=139,SNR=22
SDCO Great Sand Dun 35.65 328 eP P 07 04 41.6 +0.2
comp=Z,8.9nm,0.9s
I42A Draeger Farm, 35.72 353 P P 07 04 40.3 -1.3
baz=170
J38A Wedel Dairy, R 35.77 348 P P 07 04 40.0 -1.9
baz=164
K35A Storm Lake 35.85 344 P P 07 04 41.3 -1.5
baz=159
L33A Hoskins 35.93 342 P P 07 04 42.1 -1.3
baz=155
I40A Norwalk 35.98 350 P P 07 04 42.4 -1.4
baz=167
J37A Redenius Farm, 35.99 347 P P 07 04 42.7 -1.2
baz=162
L32A Elgin 36.02 341 P P 07 04 43.1 -1.1
baz=154
I41A Arkdale 36.02 351 P P 07 04 42.7 -1.5
baz=168
K34A Le Mars 36.06 343 P P 07 04 42.9 -1.6
baz=157
I39A Houston 36.09 349 P P 07 04 43.1 -1.7
baz=165
H43A Windswept, Lux 36.16 354 P P 07 04 43.9 -1.5
baz=172
J36A Seneca 1, Swea 36.19 346 P P 07 04 44.3 -1.3
baz=160
W18A Petrified Fore 36.21 321 P P 07 04 45.0 -1.2
baz=131
K33A Hardington 36.25 342 P P 07 04 45.0 -1.1
baz=156
H42A Shiocton 36.29 353 P P 07 04 44.9 -1.5
baz=170
214A Organ Pipe Nat 36.35 314 P P 07 04 46.4 -0.8
baz=124
S22A 4UR Ranch, Cre 36.35 327 P P 07 04 47.5 +0.1
baz=137
Q24A Divide 36.40 330 P P 07 04 47.1 -0.7
baz=141
I38A Scanlan Farm, 36.43 348 P P 07 04 46.2 -1.4
baz=164
J35A Milford 36.45 345 P P 07 04 46.4 -1.4
baz=159
H41A Junction City 36.54 352 P P 07 04 46.9 -1.6
baz=169
J34A George 36.57 344 P P 07 04 47.3 -1.5
baz=158
OGNE Ogallala 36.59 335 P P 07 04 48.9 -0.2
baz=147
OGNE Ogallala 36.59 335 eP P 07 04 49.5 +0.3
comp=Z,48nm,0.8s
K32A Verdigre 36.60 341 P P 07 04 47.8 -1.3
baz=154
I37A Lemond, Waseca 36.63 347 P P 07 04 48.1 -1.3
baz=162
H40A Chili 36.65 351 P P 07 04 47.7 -1.8
baz=167
I36A Fitzsimmons Fa 36.77 347 P P 07 04 48.8 -1.7
baz=161
K31A O'Neill 36.82 340 P P 07 04 49.9 -1.1
baz=153

I35A Creekview Farm 36.85 345 P P 07 04 50.0 -1.2
baz=160
H39A Augusta 36.85 350 P P 07 04 49.7 -1.5
baz=166
MVCO Mesa Verde 36.89 325 P P 07 04 51.3 -0.6
baz=134,SNR=7.7
MVCO Mesa Verde 36.89 325 eP P 07 04 52.7 +0.8
comp=Z,24nm,1.1s
J33A Davis 36.89 343 P P 07 04 49.8 -1.8
baz=156
H38A Maiden Rock 37.03 349 P P 07 04 51.3 -1.5
baz=164
H37A Dierke Farm, C 37.06 348 P P 07 04 51.2 -1.8
baz=163
ECSD EROS Data Cent 37.17 343 P P 07 04 52.3 -1.6
baz=157,SNR=9.3
ECSD EROS Data Cent 37.17 343 eP P 07 04 53.4 -0.6
comp=Z,18nm,1.1s
J32A Parkston 37.20 342 P P 07 04 52.4 -1.8
baz=155
I34A Hadley 37.24 344 P P 07 04 53.3 -1.3
baz=158
ISCO Idaho Springs 37.28 331 P P 07 04 54.9 -0.4
baz=141,SNR=10
ISCO Idaho Springs 37.28 331 eP P 07 04 55.8 +0.5
ISCO pmax pmax
comp=Z,10.0nm,1.1s
ISCO Idaho Springs 37.28 331 eP P 07 04 55.8 +0.5
comp=Z,10.0nm,1.1s
H36A Jessenland, He 37.28 347 P P 07 04 53.7 -1.1
baz=162
J31A Geddes 37.41 341 P P 07 04 54.1 -1.9
baz=154
SMCO Snowmass 37.48 329 eP P 07 04 57.9 +0.7
comp=Z,14nm,1.0s
WUAZ Wupatki 37.49 320 P P 07 04 57.1 +0.1
baz=129,SNR=9.1
WUAZ Wupatki 37.49 320 eP P 07 04 58.0 +1.0
comp=Z,12nm,1.0s
I33A Coleman 37.51 343 P P 07 04 55.2 -1.7
baz=157
PV01 Paradox Valley 37.58 326 eP P 07 04 58.7 +0.9
H35A Sunnyside Ranc 37.60 346 P P 07 04 55.7 -1.9
baz=160
SPMN Marine on St. 37.66 348 P P 07 04 56.1 -1.9
baz=164
SPMN Marine on St. 37.66 348 eP P 07 04 55.8 -2.3
comp=Z,68nm,1.2s
I32A Karley and Nic 37.68 343 P P 07 04 56.4 -1.9
baz=156
H34A Spellman Lake, 37.81 345 P P 07 04 57.7 -1.7
baz=159
PV05 Paradox Valley 37.84 325 eP P 07 05 00.6 +0.6
PV10 Paradox Valley 38.01 326 eP P 07 05 02.0 +0.5
H33A Prehn Over Nor 38.08 344 P P 07 05 00.2 -1.4
baz=157
H32A Carlson Farm, 38.11 343 P P 07 05 01.9 0.0
baz=156
PV09 Paradox Valley 38.15 326 eP P 07 05 03.2 +0.6
N23A Red Feather La 38.28 331 P P 07 05 03.9 +0.2
baz=141
GLA Glamis 38.37 314 P P 07 05 05.9 +1.5
baz=122,SNR=15
GLA Glamis 38.37 314 eP P 07 05 06.0 +1.7
GLA pmax pmax
comp=Z,75nm,1.3s
GLA Glamis 38.37 314 eP P 07 05 06.0 +1.7
comp=Z,75nm,1.3s
PHWY Pilot Hill 38.38 332 eP P 07 05 04.9 +0.3
comp=Z,36nm,1.9s
Y12C Blythe 38.54 315 P P 07 05 06.7 +1.1
baz=124
PDMCI Parker Dam,Lak 38.58 316 P P 07 05 07.1 +1.1
baz=124,SNR=13
O20A White River Ci 38.85 328 P P 07 05 09.0 +0.6
baz=137
O20A White River Ci 38.85 328 eP P 07 05 10.4 +1.9
comp=Z,27nm,1.1s
SWSC Sam W. Stewart 39.01 313 P P 07 05 10.7 +1.1
baz=121
IKP In-Ko-Pah, Jac 39.08 313 P P 07 05 11.5 +1.2
baz=121
BC3 Big Chuckawall 39.14 315 P P 07 05 12.7 +1.9
baz=122,SNR=7.3
NEE2 Needles Airpor 39.17 317 P P 07 05 12.2 +1.2
baz=124
IRM Iron Mountain 39.19 316 P P 07 05 12.9 +1.7
baz=123,SNR=11
SRU San Rafael Swe 39.35 325 eP P 07 05 13.3 +0.6
SRU pmax pmax
comp=Z,30nm,1.2s
SRU San Rafael Swe 39.35 325 eP P 07 05 13.3 +0.6
comp=Z,30nm,1.2s
MONP2 Monument Peak 39.43 313 P P 07 05 14.6 +1.2
baz=120
RWWY Rawlins 39.50 331 eP P 07 05 14.5 +0.6
comp=Z,27nm,0.9s
Q16A Castle Valley 39.59 325 eP P 07 05 16.3 +1.7
comp=Z,11nm,1.1s
LCMT Little Creek M 39.60 321 eP P 07 05 15.6 +0.9
comp=Z,5.2nm,1.1s
MTPU Mount Pierson 39.60 323 eP P 07 05 16.2 +1.2
comp=Z,22nm,1.6s
BELC Belle Mtn. Jos 39.70 315 P P 07 05 17.3 +1.7
baz=122,SNR=6.3
P17A Butcher Ranch, 39.73 326 eP P 07 05 16.6 +0.8
comp=Z,31nm,1.4s
XPFO Piæon Flat 39.82 314 eP P 07 05 19.0 +2.5
comp=Z,41nm,1.4s
PFO Pinyon Flats O 39.83 314 P P 07 05 18.0 +1.4
baz=121
PFO Pinyon Flats O 39.83 314 eP P 07 05 18.6 +2.0
PFO pmax pmax
comp=Z,38nm,1.4s
PFO Pinyon Flats O 39.83 314 eP P 07 05 18.6 +2.0
comp=Z,38nm,1.4s
TMUT Trail Mountain 39.87 325 eP P 07 05 18.1 +1.0
comp=Z,17nm,1.3s
SZCU Shurtz Canyon 39.87 321 eP P 07 05 18.7 +1.7
GMRC Granite Mounta 39.89 316 P P 07 05 18.3 +1.1
baz=123
109C Camp Elliot, M 39.92 312 P P 07 05 18.7 +1.4
baz=120
K22A Casper 39.93 333 P P 07 05 17.3 -0.1
baz=142
K22A Casper 39.93 333 eP P 07 05 17.1 -0.3
comp=Z,20nm,1.0s
CCUT Cedar City 40.01 321 eP P 07 05 20.2 +2.0
comp=Z,11nm,1.6s
RSSD Black Hills 40.05 336 P P 07 05 18.5 0.0
baz=146
RSSD Black Hills 40.05 336 eP P 07 05 19.0 +0.5
RSSD pmax pmax
comp=Z,16nm,1.0s
RSSD Black Hills 40.05 336 eP P 07 05 19.0 +0.5
comp=Z,16nm,1.0s
EYMN Ely 40.06 351 P P 07 05 18.8 +0.6
baz=167
EYMN Ely 40.06 351 eP P 07 05 16.0 -2.2
comp=Z,108nm,2.0s
TCRU Three Creeks R 40.13 323 eP P 07 05 20.2 +1.0
comp=Z,15nm,1.0s
MURC Murrieta 40.35 313 P P 07 05 22.8 +2.0
baz=120,SNR=5.2
HEC Hector,Ludlow 40.38 316 P P 07 05 23.2 +2.0
baz=123,SNR=8.6
LMN Caledonia Moun 40.41 20 eP P 07 05 21.5 +0.4
comp=Z,161nm,1.9s
LMQ La Malbaie 40.43 13 eP P 07 05 22.6 +1.4
comp=Z,55nm,1.4s
TUQ Turquoise Moun 40.43 317 P P 07 05 23.0 +1.4
baz=124
BBRC Big Bear Solar 40.49 314 P P 07 05 23.7 +1.5
baz=121
SHPR Sheep Range 40.53 319 eP P 07 05 24.7 +2.3
comp=Z,14nm,1.2s
MPU Maple Canyon 40.60 325 eP P 07 05 23.7 +0.7
comp=Z,30nm,1.3s
NLU North Lily Min 40.81 325 eP P 07 05 25.6 +0.9
comp=Z,11nm,1.2s
RRX Edison Barstow 40.87 315 P P 07 05 27.4 +2.3
baz=122
JLU Jordanelle 40.90 326 eP P 07 05 26.3 +0.8
comp=Z,13nm,1.2s
SHOC Shoshone, Teco 40.93 317 P P 07 05 27.3 +1.7
baz=124
GSC Goldstone, Bar 40.96 316 P P 07 05 28.0 +2.1
baz=123,SNR=12

GSC Goldstone, Bar 40.96 316 eP P 07 05 28.1 +2.1
GSC pmax pmax
comp=Z,53nm,1.4s
GSC Goldstone, Bar 40.96 316 eP P 07 05 28.1 +2.1
comp=Z,53nm,1.4s
BFSC Mount Baldy Ra 41.00 314 P P 07 05 27.4 +1.1
baz=121
CTU Camp Tracy 41.13 326 eP P 07 05 28.6 +1.3
comp=Z,30nm,1.1s
CIS Catalina Islan 41.13 312 P P 07 05 28.9 +1.6
baz=119
FMP Fort Macarthur 41.20 313 P P 07 05 29.1 +1.4
baz=119
AGMN Agassiz Nation 41.23 347 P P 07 05 26.0 -1.8
baz=160,SNR=7.0
AGMN Agassiz Nation 41.23 347 eP P 07 05 27.9 0.0
comp=Z,67nm,1.7s
TCUT Toone Canyon 41.23 327 eP P 07 05 29.4 +1.1
comp=Z,58nm,1.1s
DUG Dugway, Tooele 41.39 325 P P 07 05 29.9 +0.4
baz=132,SNR=7.6
DUG Dugway, Tooele 41.39 325 eP P 07 05 29.8 +0.4
DUG pmax pmax
comp=Z,14nm,1.1s
DUG Dugway, Tooele 41.39 325 eP P 07 05 29.8 +0.4
comp=Z,14nm,1.1s
PD31 Pinedale Array 41.46 330 eP P 07 05 29.5 -0.7
PDAR Pinedale Array 41.46 330 P P 07 05 29.4 -0.7
comp=Z,10nm,1.0s,baz=134,slow=8.6,SNR=29
PDAR LR LR 07 26 41.7
comp=Z,309nm,18.9s,baz=152,slow=42
PDAR Pinedale Array 41.46 330 eP P 07 05 29.6 -0.5
BW06 Boulder Array 41.46 330 P P 07 05 29.5 -0.6
baz=138,SNR=17
BW06 Boulder Array 41.46 330 eP P 07 05 29.4 -0.6
comp=Z,22nm,1.3s
DECC Green Verdugo 41.49 314 P P 07 05 30.3 +0.1
baz=120
TPNV Topopah Spring 41.50 318 P P 07 05 32.2 +1.8
baz=125
TPNV Topopah Spring 41.50 318 eP P 07 05 30.4 0.0
TPNV pmax pmax
comp=Z,22nm,1.1s
TPNV Topopah Spring 41.50 318 eP P 07 05 30.4 0.0
comp=Z,22nm,1.1s
EDW2 Edwards Air Fo 41.57 315 P P 07 05 32.2 +1.3
baz=121,SNR=8.1
FURC Furnace Creek, 41.64 317 P P 07 05 33.3 +2.0
baz=124,SNR=11
LRMC Laurel Mtn Rad 41.66 316 P P 07 05 32.8 +1.1
baz=122
MDND Maddock 41.78 343 P P 07 05 31.4 -1.0
baz=155
MDND Maddock 41.78 343 eP P 07 05 30.8 -1.5
comp=Z,112nm,1.1s
MPMC Manual Prospec 41.84 316 P P 07 05 34.5 +1.3
baz=122,SNR=9.1
SNCC San Nicolas Is 41.88 311 P P 07 05 34.5 +1.1
baz=118
R11A Troy Canyon, C 41.89 320 P P 07 05 34.3 +0.7
baz=127
R11A Troy Canyon, C 41.89 320 eP P 07 05 34.7 +1.1
comp=Z,4.1nm,0.8s
BLG Laguna Peak, P 41.95 313 P P 07 05 35.8 +1.8
baz=119
OSI Osito Audit: C 41.95 314 P P 07 05 35.2 +1.2
baz=120
BGU Big Grassy Mou 42.00 325 eP P 07 05 34.9 +0.5
comp=Z,20nm,1.0s
BDFB Brasilia 42.00 125 P P 07 05 33.6 -1.1
comp=Z,2.6nm,0.8s,baz=90,slow=9.7,SNR=3.1
BDFB LR LR 07 23 48.4
comp=Z,817nm,18.5s,baz=91,slow=37
DAC Darwin (Calif) 42.02 317 eP P 07 05 34.9 +0.1
DAC pmax pmax
comp=Z,11nm,1.0s
DAC Darwin (Calif) 42.02 317 eP P 07 05 34.9 +0.1
comp=Z,11nm,1.0s
AHID Auburn Hatcher 42.24 329 eP P 07 05 36.4 0.0
comp=Z,12nm,0.9s
GRAC Grapevine Rang 42.27 318 P P 07 05 38.2 +1.7
baz=124
ARVC Arvin 42.28 314 P P 07 05 36.9 +0.2
baz=120,SNR=7.9
ISA Isabella, Lake 42.31 315 P P 07 05 38.1 +1.2
baz=121
ISA Isabella, Lake 42.31 315 eP P 07 05 37.6 +0.7
ISA pmax pmax
comp=Z,30nm,1.3s
ISA Isabella, Lake 42.31 315 eP P 07 05 37.6 +0.7
comp=Z,30nm,1.3s
SCZ2 Santa Cruz Isl 42.31 312 P P 07 05 38.8 +1.9
baz=118
HVU Hansel Valley 42.43 326 eP P 07 05 38.2 +0.2
HVU pmax pmax
comp=Z,9.0nm,0.9s
HVU Hansel Valley 42.43 326 eP P 07 05 38.2 +0.2
comp=Z,9.4nm,0.9s
CWC Cottonwood Cre 42.44 316 P P 07 05 40.0 +1.9
baz=122
CPUP Villa Florida 42.53 145 LR LR 07 24 58.1
comp=Z,230nm,20.3s,baz=338,slow=38
REDW Red Top Meadow 42.54 330 eP P 07 05 39.2 +0.3
comp=Z,43nm,1.1s
SNOW Snow King Moun 42.57 330 eP P 07 05 39.6 +0.4
comp=Z,23nm,0.9s
LOHW Long Hollow 42.60 330 eP P 07 05 39.4 0.0
comp=Z,13nm,0.9s
TPAW Teton Pass 42.68 330 eP P 07 05 40.1 0.0
comp=Z,20nm,0.9s
MOOW Moose Ponds 42.77 330 eP P 07 05 40.7 -0.1
comp=Z,11nm,0.9s
VES Vestal, Rinhgr 42.83 315 P P 07 05 43.0 +1.9
baz=121,SNR=14
FXWY Fox Creek 42.83 330 eP P 07 05 41.3 0.0
comp=Z,14nm,1.1s
PKM Mcpherson Peak 42.87 313 P P 07 05 42.7 +1.0
baz=119,SNR=5.8
IMW Indian Meadow 42.97 330 eP P 07 05 42.3 -0.2
comp=Z,16nm,1.0s
LAO LASA Array 43.04 336 P P 07 05 42.0 -0.7
baz=145,SNR=8.9
LAO LASA Array 43.04 336 eP P 07 05 42.5 -0.2
comp=Z,27nm,0.9s
ULM Lac du Bonnet 43.08 348 P P 07 05 40.6 -2.3
comp=Z,25nm,0.9s,baz=158,slow=7.5,SNR=24
ULM LR LR 07 25 21.8
comp=Z,307nm,19.2s,baz=118,slow=38
ULM Lac du Bonnet 43.08 348 eP P 07 05 41.4 -1.4
ULM pmax pmax
comp=Z,37nm,0.9s
ULM Lac du Bonnet 43.08 348 eP P 07 05 41.4 -1.4
comp=Z,37nm,0.9s
RLMT Red Lodge 43.10 333 P P 07 05 42.6 -0.7
baz=140,SNR=14
RLMT Red Lodge 43.10 333 eP P 07 05 43.2 -0.1
comp=Z,19nm,0.8s
ELK Elko 43.15 324 LR LR 07 28 47.6
comp=Z,246nm,18.7s,baz=191,slow=43
RCTC Rector, Farmer 43.17 316 P P 07 05 44.9 +1.1
baz=121,SNR=6.5
SMMC Simmler 43.20 314 P P 07 05 46.0 +1.9
baz=119
YFT Old Faithful 43.33 331 eP P 07 05 45.9 +0.6
comp=Z,27nm,1.1s
YMR Madison River 43.55 331 eP P 07 05 47.9 +0.8
comp=Z,15nm,0.9s
YHH Holmes Hill 43.59 331 eP P 07 05 48.1 +0.7
comp=Z,19nm,1.0s
PAGB Antelope Grade 43.59 314 eP P 07 05 49.6 +2.3
comp=Z,41nm,1.1s
MLAC Mammoth, Mammo 43.59 317 P P 07 05 48.5 +1.0
baz=122
YHB Horse Butte 43.73 331 eP P 07 05 49.2 +0.8
comp=Z,13nm,1.0s
MDPB Devils Postpil 43.76 317 eP P 07 05 49.5 +0.6
comp=Z,28nm,1.0s
DGMT Dagmar 43.78 340 P P 07 05 48.2 -0.4
baz=149
DGMT Dagmar 43.78 340 eP P 07 05 48.6 0.0
comp=Z,40nm,1.0s
GCMT Greycliff 43.79 333 eP P 07 05 49.2 +0.3
QLMT Earthquake Lak 43.90 331 eP P 07 05 51.1 +1.2
BMN Battle Mountai 44.15 322 eP P 07 05 52.9 +1.0
BMN pmax pmax
comp=Z,41nm,0.9s
BMN Battle Mountai 44.15 322 eP P 07 05 52.9 +1.0
comp=Z,41nm,0.9s

WAKR Walker 44.46 318 *e*P **P** 07 05 55.2 +0.8
comp=Z,28nm,1.1s
HLID Hailey 44.53 327 P **P** 07 05 54.9 0.0
baz=132,SNR=21
HLID Hailey 44.53 327 *e*P **P** 07 05 55.4 +0.5
comp=Z,11nm,0.8s
BOZ Bozeman (W) 44.55 331 P **P** 07 05 55.1 +0.1
baz=137
BOZ Bozeman (W) 44.55 331 *e*P **P** 07 05 55.4 +0.4
BOZ pmax pmax
comp=Z,31nm,1.1s
BOZ Bozeman (W) 44.55 331 *e*P **P** 07 05 55.4 +0.4
comp=Z,31nm,1.1s
MCMT McKenzie Canyo 44.59 330 *e*P **P** 07 05 56.2 +0.8
YERR Yerington 44.59 319 *e*P **P** 07 05 56.8 +1.3
comp=Z,59nm,1.7s
CMB Columbia Colle 44.85 317 *e*P **P** 07 05 58.5 +1.2
CMB pmax pmax
comp=Z,18nm,1.3s
CMB Columbia Colle 44.85 317 *e*P **P** 07 05 58.5 +1.2
comp=Z,18nm,1.3s
DLMT Dillon 44.85 330 *e*P **P** 07 05 58.0 +0.6
comp=Z,33nm,1.2s
PAHR Pah Rah Range 45.09 320 *e*P **P** 07 06 00.7 +1.4
comp=Z,24nm,1.4s
LRM Limekiln Ridge 45.11 331 *e*P **P** 07 06 00.2 +0.6
MFID Camas Ranch 45.20 326 *e*P **P** 07 06 00.4 +0.3
comp=Z,17nm,0.9s
HRY Holter Researc 45.47 332 *e*P **P** 07 06 02.2 0.0
EGMT Eagleton 45.55 335 P **P** 07 06 02.4 -0.3
baz=141,SNR=6.4
EGMT Eagleton 45.55 335 *e*P **P** 07 06 02.5 -0.3
comp=Z,16nm,0.8s
WVOR Wild Horse Val 46.20 323 *e*P **P** 07 06 08.3 +0.2
WVOR pmax pmax
comp=Z,34nm,0.9s
WVOR Wild Horse Val 46.20 323 *e*P **P** 07 06 08.3 +0.2
comp=Z,34nm,0.9s
ORV Oroville 46.38 318 *e*P **P** 07 06 11.2 +1.8
ORV pmax pmax
comp=Z,41nm,1.2s
ORV Oroville 46.38 318 *e*P **P** 07 06 11.2 +1.8
comp=Z,41nm,1.2s
MSO Missoula 46.55 331 P **P** 07 06 10.2 -0.6
baz=135,SNR=10
MSO Missoula 46.55 331 *e*P **P** 07 06 10.3 -0.4
comp=Z,14nm,1.0s
J08A Circle Bar Ran 46.66 324 *e*P **P** 07 06 11.8 +0.2
comp=Z,17nm,1.1s
MOD Modoc Plateau 46.90 322 *e*P **P** 07 06 13.9 +0.4
comp=Z,7.7nm,1.0s
BMO Blue Mountains 46.94 327 *e*P **P** 07 06 13.5 -0.3
BMO pmax pmax
comp=Z,14nm,1.0s
BMO Blue Mountains 46.94 327 *e*P **P** 07 06 13.5 -0.3
comp=Z,14nm,1.0s
O03D Paynes Creek 46.97 319 P **P** 07 06 14.0 0.0
baz=122
JTMT Jette 47.37 331 *e*P **P** 07 06 17.2 0.0
comp=Z,15nm,1.3s
WDC Whiskeytown Da 47.60 319 *e*P **P** 07 06 17.9 -0.9
WDC pmax pmax
comp=Z,8.0nm,1.2s
WDC Whiskeytown Da 47.60 319 *e*P **P** 07 06 17.9 -0.9
comp=Z,8.4nm,1.2s
F10A Beach Ranch, E 47.63 328 *e*P **P** 07 06 18.7 -0.5
comp=Z,23nm,0.9s
I07A Izee 47.70 324 *e*P **P** 07 06 19.2 -0.5
comp=Z,10nm,0.9s
M04C Macdoel 47.78 321 P **P** 07 06 20.3 -0.2
baz=123,SNR=12
SCHQ Schefferville 48.03 12 LR LR 07 27 16.6
comp=Z,364nm,20.5s,baz=183,slow=37
G08A Pilot Rock 48.13 326 *e*P **P** 07 06 23.0 0.0
comp=Z,9.7nm,1.0s
WALA Waterton Lakes 48.15 333 *e*P **P** 07 06 23.4 +0.3
comp=Z,11nm,0.8s
KMRM Mail Ridge 48.18 318 *e*P **P** 07 06 24.5 +1.0
comp=Z,52nm,1.1s
J05D Fort Rock, OR 48.25 323 P **P** 07 06 23.6 -0.4
baz=125
YBH Yreka Blue Hor 48.31 320 LR LR 07 31 10.9
comp=Z,346nm,18.3s,baz=148,slow=42
YBH Yreka Blue Hor 48.31 320 *e*P **P** 07 06 24.2 -0.3
YBH pmax pmax
comp=Z,11nm,1.1s
YBH Yreka Blue Hor 48.31 320 *e*P **P** 07 06 24.2 -0.3
comp=Z,11nm,1.1s
E09A Wood Farm, Sta 48.47 328 *e*P **P** 07 06 25.7 +0.2
comp=Z,33nm,1.0s
FFC Flin Flon 48.64 345 *e*P **P** 07 06 26.3 -0.3
FFC pmax pmax
comp=Z,86nm,1.9s
FFC Flin Flon 48.64 345 *e*P **P** 07 06 26.3 -0.3
comp=Z,86nm,1.9s
J04D Umpqua Nationa 48.75 322 P **P** 07 06 27.6 -0.3
baz=124,SNR=8.6
I05D Terrebonne, OR 48.91 324 P **P** 07 06 28.4 -0.7
baz=125
E08A Dider Farm, El 48.94 327 *e*P **P** 07 06 29.1 0.0
comp=Z,16nm,0.9s
G06A Carlson Farm, 49.03 325 *e*P **P** 07 06 30.3 +0.4
comp=Z,52nm,1.9s
F07A Phinny Hill Vi 49.04 326 *e*P **P** 07 06 30.4 +0.5
comp=Z,30nm,1.3s
L02D Cave Junction, 49.10 320 P **P** 07 06 30.1 -0.4
baz=121
NEW Newport 49.10 330 LR LR 07 29 24.5
comp=Z,229nm,20.8s,baz=142,slow=39
NEW Newport 49.10 330 P **P** 07 06 29.6 -0.8
baz=132,SNR=8.5
NEW Newport 49.10 330 *e*P **P** 07 06 30.5 +0.1
NEW pmax pmax
comp=Z,14nm,1.1s
NEW Newport 49.10 330 *e*P **P** 07 06 30.5 +0.1
comp=Z,14nm,1.1s
HAWA Hanford 49.13 327 *e*P **P** 07 06 30.1 -0.5
comp=Z,15nm,1.0s
D08A Wollman Farm, 49.22 328 *e*P **P** 07 06 30.9 -0.3
comp=Z,9.6nm,1.0s
I04A Tendick Farm, 49.24 323 P **P** 07 06 30.7 -0.8
baz=124,SNR=11
C09A Chrisman Ranch 49.37 329 *e*P **P** 07 06 32.4 0.0
comp=Z,13nm,1.1s
E07A Sunnyside 49.41 327 *e*P **P** 07 06 31.9 -0.8
comp=Z,11nm,0.9s
G05D Wamic, OR 49.42 325 P **P** 07 06 32.5 -0.4
baz=126,SNR=12
KBO Bosley Butte 49.52 320 *e*P **P** 07 06 34.8 +1.0
comp=Z,181nm,1.4s
H04A Detroit Lake 49.61 324 *e*P **P** 07 06 34.5 +0.2
comp=Z,11nm,0.8s
I03D Drain, OR 49.76 322 P **P** 07 06 35.7 +0.3
baz=123
COR Corvallis 50.21 323 *e*P **P** 07 06 40.5 +1.7
COR pmax pmax
comp=Z,75nm,1.4s
COR Corvallis 50.21 323 *e*P **P** 07 06 40.5 +1.7
comp=Z,75nm,1.4s
PLCA Paso Flores 50.21 168 P **P** 07 06 38.4 -0.6
comp=Z,2.4nm,0.7s,baz=9.9,slow=7.1,SNR=4.0
PLCA Paso Flores 50.21 168 *e*P **P** 07 06 39.0 +0.1
PLCA pmax pmax
comp=Z,15nm,1.1s
PLCA Paso Flores 50.21 168 *e*P **P** 07 06 39.0 +0.1
comp=Z,15nm,1.1s
B08A Colville Reser 50.27 329 *e*P **P** 07 06 38.9 -0.4
comp=Z,15nm,1.1s
LTY Liberty 50.28 327 *e*P **P** 07 06 39.5 +0.1
comp=Z,18nm,1.3s
G03D McMinnville, O 50.54 324 P **P** 07 06 41.3 0.0
baz=124
LON Longmire 50.59 326 *e*P **P** 07 06 41.9 +0.1
LON pmax pmax
comp=Z,8.0nm,1.1s
LON Longmire 50.59 326 *e*P **P** 07 06 41.9 +0.1
comp=Z,8.3nm,1.1s
F03A Seaside 51.11 324 *e*P **P** 07 06 46.4 +0.8
comp=Z,92nm,1.4s
E03A Lebam 51.46 325 *e*P **P** 07 06 48.9 +0.7
comp=Z,33nm,1.3s
B06A Marblemount 51.49 328 *e*P **P** 07 06 48.6 +0.3
comp=Z,15nm,0.9s
B05A Bryant 51.65 327 P **P** 07 06 48.7 -0.9
baz=127
LLLB Lillooet 52.99 330 *e*P **P** 07 06 59.9 +0.4
comp=Z,22nm,1.2s
YKA Yellowknife Ar 58.70 343 P **P** 07 07 38.8 -1.4
comp=Z,3.2nm,0.8s,baz=139,slow=7.2,SNR=15
YKA pP **sP** 07 07 52.6 -1.0
comp=Z,5.1nm,0.7s,baz=136,slow=7.6,SNR=8.9
TAOE Nuku Hiva Isla 59.58 255 *e*LR LR 07 25 12.5
comp=Z,179nm,23.7s
RKT Rikitea 59.82 237 *e*LR LR 07 25 24.5
comp=Z,461nm,25.8s
DLBC Dease Lake 61.47 334 *e*P **P** 07 08 00.5 +1.1
comp=Z,66nm,1.8s
EFI East Falkland 63.55 163⇓*e*P **P** 07 08 15.5 +2.3
EFI pmax pmax
comp=Z,96nm,1.4s
RES Resolute Bay 66.58 357 P **P** 07 08 30.7 -1.9
comp=Z,8.8nm,0.9s,baz=181,slow=9.2,SNR=10
RES pP **sP** 07 08 45.9 -0.2
comp=Z,11nm,1.0s,baz=177,slow=13,SNR=5.1
DAWY Dawson 68.24 337 *e*P **P** 07 08 44.7 +1.4
comp=Z,22nm,1.4s
INK Inuvik 68.39 342 P **P** 07 08 43.1 -1.0
comp=Z,8.9nm,1.0s,baz=126,slow=8.2,SNR=17
INK pP **sP** 07 08 57.0 -0.6
comp=Z,20nm,1.1s,baz=117,slow=6.8,SNR=12
INK Inuvik 68.39 342 *e*P **P** 07 08 44.1 0.0
INK *PP **sP** 07 08 57.0 -0.6
INK pmax pmax
comp=Z,35nm,1.3s
INK Inuvik 68.39 342 *e*P **P** 07 08 44.1 0.0
comp=Z,35nm,1.3s
INK pP **sP** 07 08 57.0 -0.6
TULEG Thule 68.51 4 *e*P **P** 07 08 43.0 -1.7
comp=Z,36nm,1.3s
EGAK Eagle 69.25 337 *e*P **P** 07 08 49.8 +0.3
comp=Z,11nm,0.9s
SUMG Summit 69.42 13 *e*P **P** 07 08 48.8 -2.1
SUMG Summit 69.42 13 *i* P **P** 07 08 48.8 -2.1
DOT Dot Lake 69.94 335 *e*P **P** 07 08 54.7 +0.8
comp=Z,36nm,1.0s
PPT Papeete 70.75 248 LR LR 07 33 30.3
comp=Z,193nm,19.7s,baz=5.5,slow=30
PPT2 Papeete2 70.76 248 *e*S **S** 07 18 10.8 -2.0
comp=Z,170nm,27.2s
PPT2 *e*SS **SS** 07 22 42.2 -3.4
comp=Z,110nm,28.0s
PPT2 *e*LR LR 07 30 22.5
comp=Z,212nm,22.8s
IL1 Eielson Array 71.50 336 *e*P **P** 07 09 03.1 -0.2
ILAR Eielson Array 71.50 336 P **P** 07 09 02.9 -0.5
comp=Z,4.8nm,0.9s,baz=117,slow=3.7,SNR=29
ILAR pP **sP** 07 09 17.2 +0.3
comp=Z,4.2nm,0.8s,baz=112,slow=4.1,SNR=7.4
ILAR LR LR 07 44 50.0
comp=Z,211nm,18.9s,baz=114,slow=40
ILB Eielson Array 71.50 336 *e*P **P** 07 09 03.5 +0.2
CCB Clear Creek Bu 71.83 336 *e*P **P** 07 09 05.7 +0.4
comp=Z,33nm,1.9s
RND Reindeer 71.87 334 *e*P **P** 07 09 06.0 +0.4
RND pmax pmax
comp=Z,36nm,1.1s
RND Reindeer 71.87 334 *e*P **P** 07 09 06.0 +0.4
comp=Z,36nm,1.1s
WRH Wood River Hil 71.89 336 *e*P **P** 07 09 06.4 +0.8
comp=Z,10nm,1.0s
MCK McKinley 72.00 335 *e*P **P** 07 09 06.8 +0.4
MCK pmax pmax
comp=Z,33nm,1.2s
MCK McKinley 72.00 335 *e*P **P** 07 09 06.8 +0.4
comp=Z,33nm,1.2s
TBI Tubuai 72.30 242 *e*S **S** 07 18 29.3 -1.0
comp=Z,333nm,33.0s
TBI Tubuai 72.30 242 *e*LR LR 07 31 05.8
comp=Z,180nm,25.5s
TBI Tubuai 72.30 242 *e*T T 08 27 50.9
comp=Z,6.3nm,0.2s
SPU Mount Spurr 72.68 332 *e*P **P** 07 09 11.5 +1.0
KTH Kantishna Hill 72.80 334 *e*P **P** 07 09 10.8 -0.4
comp=Z,17nm,1.2s
BPAW Bear Paw Mtn. 72.98 335 *e*P **P** 07 09 12.2 0.0
comp=Z,24nm,1.4s
MLY Manley 73.14 336 *e*P **P** 07 09 13.0 -0.1
comp=Z,32nm,1.4s
PPLA Purkeypile 73.18 333 *e*P **P** 07 09 13.4 -0.2
comp=Z,39nm,1.4s
KIP Kipapa 73.18 290⇓*e*P **P** 07 09 16.1 +1.9
KIP pmax pmax
comp=Z,1μm,2.3s
CAST Castle Rocks 73.27 334 *e*P **P** 07 09 13.4 -0.5
comp=Z,21nm,1.4s
IMAR Indian Mountai 74.61 336 *e*P **P** 07 09 21.4 -0.2
ESDC Sonseca Array 76.15 51 P **P** 07 09 31.6 +0.4
comp=Z,1.0nm,0.7s,baz=289,slow=3.9,SNR=4.0
ESDC pP **pP** 07 09 41.1 +0.1
comp=Z,4.1nm,0.9s,baz=277,slow=4.8,SNR=6.6
ESDC LR LR 07 36 52.3
comp=Z,105nm,21.1s,baz=255,slow=31
TIC Toumodi 77.09 85 *e*P **P** 07 09 37.4 +0.6
LIC Lamto 77.13 86 *e*P **P** 07 09 36.8 -0.3
comp=Z,60nm,1.0s
KOWA Kowa 77.21 77 *e*P **P** 07 09 37.6 +0.1
comp=Z,8.6nm,0.8s
DBIC Dimbokro 77.25 85 P **P** 07 09 38.3 +0.6
comp=Z,13nm,1.0s,baz=249,slow=1.7,SNR=6.7
DBIC pP **PcP** 07 09 48.0 -0.3
comp=Z,11nm,1.1s,baz=290,slow=4.8,SNR=4.1
DBIC LR LR 07 41 36.8
comp=Z,170nm,20.9s,baz=254,slow=34
DBIC Dimbokro 77.25 85 *e*P **P** 07 09 38.0 +0.3
DBIC *PP **PcP** 07 09 48.0 -0.3
DBIC pmax pmax
comp=Z,18nm,1.1s
DBIC Dimbokro 77.25 85 *e*P **P** 07 09 38.0 +0.3
comp=Z,18nm,1.1s
DBIC pP **PcP** 07 09 48.0 -0.3
KIC Kosan Boka 77.40 85 *e*P **P** 07 09 39.4 +0.8
comp=Z,52nm,1.4s
TOA0 Torodi Ar. Sit 82.87 78 *e*P **P** 07 10 08.3 +0.2
TORD Torodi Ar. Bea 82.87 78 P **P** 07 10 07.5 -0.6
comp=Z,0.7nm,0.7s,baz=275,slow=5.3,SNR=5.2
TORD LR LR 07 46 39.7
comp=Z,160nm,20.9s,baz=265,slow=35
NOA NORSAR Array B 84.68 29 LR LR 07 47 12.5
comp=Z,93nm,18.9s,baz=295,slow=35
KEST Kesra 86.94 55 LR LR 07 49 47.9
comp=Z,54nm,18.3s,baz=305,slow=36
BRG Berggiesshubel 87.82 39 *e*P pP 07 10 44.6 +2.4
comp=Z,9.3nm,1.0s
GERES GERESS Array B 88.03 41 P **P** 07 10 34.2 +0.9
comp=Z,0.3nm,0.2s,baz=303,slow=5.4,SNR=3.0
GERES pP **sP** 07 10 44.2 -2.9
comp=Z,0.3nm,0.2s,baz=258,slow=3.8,SNR=2.4
GERES LR LR 07 44 24.2
comp=Z,197nm,20.8s,baz=268,slow=32
ARCES ARCESS Array B 88.48 20 pP **pP** 07 10 47.6 +2.7
comp=Z,4.0nm,0.9s,baz=282,slow=4.5,SNR=1.8
ARCES LR LR 07 48 35.4
comp=Z,91nm,21.2s,baz=264,slow=34
BILL Bilibino 89.87 339⇑*e*P **P** 07 10 41.4 0.0
BILL *e* 07 10 48.8
BILL *e* 07 10 57.1
BILL pmax pmax
comp=Z,21nm,1.5s
SNAA Sanae 94.81 162 *e*P **P** 07 11 05.8 +1.6
SNAA pmax pmax
comp=Z,16nm,1.9s
SNAA Sanae 94.81 162 *e*P **P** 07 11 05.8 +1.6
comp=Z,16nm,1.9s
KIEV Kiev 97.14 36*de*P Pdif 07 11 17.8 +2.6
KIEV pmax pmax
comp=Z,1.0nm,0.9s
AKASG Malin Array Be 97.15 36 LR LR 07 54 49.1
comp=Z,121nm,18.8s,baz=310,slow=35
TIXI Tiksi 97.38 350⇓*e*P **P** 07 11 14.6 -1.2
TIXI pmax pmax
comp=Z,5.0nm,1.2s
SYO Syowa Base 109.09 161⇑*e*Pdiff **Pdif** 07 12 05.4 -2.5
CN2 Changchun 122.02 336 *e*PKP **PKPdf** 07 16 33.6 -3.9
ULN Ulaanbaatar 123.27 352⇑*i*PKIKP **PKPdf** 07 16 41.8 +1.8
MKAR Makanchi Array 123.46 12 PKP **PKPdf** 07 16 38.8 -1.5
comp=Z,0.6nm,0.8s,baz=327,slow=2.4,SNR=3.4
AAK Ala-Archa 125.15 20⇑*e*PKIKP **PKPdf** 07 16 43.6 -0.2
KS01 Wonju Array Si 126.03 330 *e*PKPdf **PKPdf** 07 16 44.3 -1.0
KSRS Korea Array 126.03 330 PKP **PKPdf** 07 16 44.5 -0.8
comp=Z,1.1nm,0.5s,baz=33,slow=2.9,SNR=4.5
KSAR Wonju Array Be 126.06 330 PKIKP **PKPdf** 07 16 44.6 -0.8
KSAR Wonju Array Be 126.06 330 PKP **PKPdf** 07 16 44.5 -0.8
WMQ Urumqi 127.31 9 PKP **PKPdf** 07 16 46.6 -1.1
WMQ LR LR
comp=Z,580nm,26.9s
WMQ LR LR
comp=Z,210nm,26.9s
WMQ LR LR
comp=Z,510nm,26.9s
KSH Kashi 128.43 21 PKP **PKPdf** 07 16 51.8 +1.7
KSH PP **PP** 07 18 57.8 +4.0
KSH PKS **PKSdf** 07 20 26.7 -0.1
KSH SKKS 07 25 49.4
KSH SS SS 07 36 11.2 +4.1
KSH AMB AMB
comp=Z,170nm,5.5s
KSH LR LR
comp=Z,84nm,4.2s
KSH LR LR
comp=Z,40nm,3.4s
KSH LR LR
comp=Z,340nm,5.5s
HHC Hu-ho-hao-te 129.20 346 *e*PKP **PKPdf** 07 16 51.4 -0.1
NJ2 Nanjing 134.72 334 *e*PKP **PKPdf** 07 17 01.1 -0.9
LZH Lanzhou 135.28 352 *e*PKP **PKPdf** 07 16 59.0 -4.2
LZH PP **PP** 07 19 38.7 +1.0
LZH PKS PKSdf 07 20 32.0 -7.7
LZH SKS **SKSdf** 07 24 04.4 -8.0
LZH SS **SS** 07 37 26.0 -4.3
LZH AMB AMB
comp=Z,190nm,8.7s
LZH LR LR
comp=Z,200nm,12.2s
LZH LR LR
comp=Z,360nm,16.9s
LZH LR LR
comp=Z,280nm,15.3s
AS01 Alice Springs 141.64 242 *e*PKPpre PKPpre 07 17 08.1
AS01 *e*PKPdf **PKPdf** 07 17 14.7 -0.3
ASAR Alice Springs 141.69 242 PKhKP PKPpre 07 17 08.4
comp=Z,0.7nm,0.7s,baz=115,slow=3.8,SNR=9.2
ASAR PKP **PKPdf** 07 17 15.2 +0.1
comp=Z,2.1nm,0.8s,baz=116,slow=2.5,SNR=11
WB2 Warramunga Arr 142.22 248 *e*PKPpre PKPpre 07 17 11.6
WRAB Tennant Creek 142.23 248⇑*i*PKIKP **PKPdf** 07 17 20.5 +4.4
WRA Warramunga Arr 142.24 248 PKhKP PKPpre 07 17 11.5
comp=Z,1.4nm,0.8s,baz=96,slow=2.7,SNR=9.4
GYA Guiyang 144.11 345 *e*PKP PKPbc 07 17 18.2 +0.8
GYA AMB AMB
comp=Z,120nm,7.8s
KMI Kunming 146.21 351 PKPbc **PKPdf** 07 17 22.0 -1.2
MTN Manton Dam 146.30 260 *e*PKPdf **PKPdf** 07 17 23.2 -0.1
QIZ Qiongzhong 149.98 335 PKPbc **PKPdf** 07 17 25.9 -3.3
QIZ PP **PP** 07 21 05.4 -1.4
QIZ SS SS 07 40 19.2 -1.5
QIZ LR LR
comp=Z,110nm,26.4s
CMAR Chiang Mai Arr 153.23 356 PKP **PKPdf** 07 17 34.5 +0.4
comp=Z,0.8nm,0.4s,baz=328,slow=2.2,SNR=8.6
CMAR PKPbc **PKPbc** 07 17 40.6 -1.0
comp=Z,1.5nm,0.4s,baz=332,slow=3.0,SNR=7.2
CM01 Chiang Mai Arr 153.27 356 *e*PKPdf **PKPdf** 07 17 33.5 -0.7

---

**RSNC 02 06:58:11.8**±0.6**, 0.°11N×77.°28W, h0**km±7km**, ML1.9, Colombia-Ecuador border region**

Code Station Name Δ° AZ° Phase ID (Op ISC) Time (h m s) Res (ISC)
CMBC Cumbal 0.99 327 *e*P Pg 06 58 30.2 -0.6
CMBC *e*S Sb 06 58 44.7 -1.1
OTAV Otavalo 1.18 276 *e*P Pg 06 58 33.0 -1.3
CRUC La Cruz 1.48 13 *e*P Pn 06 58 38.3 -1.7
CRUC *i* 06 58 40.0
comp=Z,6.2nm,0.2s
CRUC *e*S Sg 06 58 58.7 -0.8

---

*IDC **02** 07:00:40.3±1.0, 55.°60N×166.°39E, h0km, mb3.7/7, mb1 4.0/9, mb1mx3.6/41, mbtmp3.8/9, ML3.5/2, Error ellipse: s-maj=33.3km s-min=19.3km az=155.0*
*KRSC **02** 07:00:41.7±1.3, 55.°54N×166.°11E, h39km±13km, ML4.0*
*ISCJB **02** 07:00:42.2±0.5, 55.°60N±0.°03×166.°12E±0.°05, h20km, mb3.8/11, Error ellipse: s-maj=4.4km s-min=4.3km az=164.1*
*MOS **02** 07:00:43.0±1.1, 55.°61N×166.°27E, h34km, mb4.1/6, Error ellipse: s-maj=8.0km s-min=6.2km az=152.7*
**ISC 02 07:00:43.4**±0.8**, 55.°59N**±0.°04×**166.°20E**±0.°07**, h20**km**, n89,** σ**1.s22**/122**, mb3.7**/11**, 2C-4D, Komandorsky Islands region**

Code Station Name Δ° AZ° Phase ID (Op ISC) Time (h m s) Res (ISC)
BKI Bering 0.40 198 PN **Pb** 07 00 50.5 -1.3
BKI S **Sb** 07 00 57.2 -0.2
BKI Bering 0.40 198 *i* P **Pb** 07 00 50.5 -1.3
BKI *e*S **Sb** 07 00 57.2 -0.2
KBTR Krutoberegovo 2.00 290 PN **Pn** 07 01 14.0 -2.0
KBTR S **Sn** 07 01 37.8 -2.6
KBTR Krutoberegovo 2.00 290 *e*P **Pn** 07 01 14.0 -2.0
KBTR *e*S **Sn** 07 01 37.8 -2.6
MKZ Mys Kozlova 2.77 250 PN **Pn** 07 01 26.1 -0.4
MKZ S **Sn** 07 01 57.4 -1.8
MKZ Mys Kozlova 2.77 250 *e*P **Pn** 07 01 26.1 -0.4
MKZ *e*S **Sn** 07 01 57.4 -1.8
SMKR Semkarok 2.83 293 PN **Pn** 07 01 26.7 -0.8
SMKR S **Sn** 07 02 00.5 -0.5
SMKR Semkarok 2.83 293 *e*P **Pn** 07 01 26.7 -0.8
SMKR *e*S **Sn** 07 02 00.5 -0.5
BDR Baidarnaya 2.96 291 PN **Pn** 07 01 28.7 -0.6
BDR S **Sn** 07 02 03.2 -1.1
BDR Baidarnaya 2.96 291 *e*P **Pn** 07 01 28.7 -0.6
BDR *e*S **Sn** 07 02 03.2 -1.1
SRKR Sorokina 3.01 293 PN **Pn** 07 01 28.4 -1.5
SRKR S **Sn** 07 02 04.4 -1.0
SRKR Sorokina 3.01 293 *e*P **Pn** 07 01 28.4 -1.5
SRKR *e*S **Sn** 07 02 04.4 -1.0
ZLN Zelenaya 3.07 280 PN **Pn** 07 01 32.3 +1.5
ZLN S **Sn** 07 02 06.0 -1.0
ZLN Zelenaya 3.07 280 *e*P **Pn** 07 01 32.3 +1.5
ZLN *e*S **Sn** 07 02 06.0 -1.0
CIRR Tsirk 3.12 282 PN **Pn** 07 01 31.5 +0.1
CIRR Tsirk 3.12 282 *e*P **Pn** 07 01 31.5 +0.1
KLY Klyuchi 3.20 285 PN **Pn** 07 01 31.1 -1.3
KLY S **Sn** 07 02 07.8 -2.2
KLY Klyuchi 3.20 285 *e*P **Pn** 07 01 31.1 -1.3
KLY *e*S **Sn** 07 02 07.8 -2.2
BZWR Bezymyannyi-We 3.24 279 PN **Pn** 07 01 33.9 +0.7
BZWR Bezymyannyi-We 3.24 279 *e*P **Pn** 07 01 33.9 +0.7
BZMR Bezymyannaya 3.24 279 PN **Pn** 07 01 33.1 -0.1
BZMR Bezymyannaya 3.24 279 *e*P **Pn** 07 01 33.1 -0.1
KIRR Kirishev 3.33 279 PN **Pn** 07 01 34.4 +0.1
KIRR Kirishev 3.33 279 *e*P **Pn** 07 01 34.4 +0.1
KMNR Kamenistaya 3.38 275 PN **Pn** 07 01 35.9 +0.9
KMNR S **Sn** 07 02 14.9 +0.4
KMNR Kamenistaya 3.38 275 *e*P **Pn** 07 01 35.9 +0.9
KMNR *e*S **Sn** 07 02 14.9 +0.4
KPT Kopyto 3.40 279 PN **Pn** 07 01 35.7 +0.5
KPT S **Sn** 07 02 15.6 +0.7
KPT Kopyto 3.40 279 *e*P **Pn** 07 01 35.7 +0.5
KPT *e*S **Sn** 07 02 15.6 +0.7
KZV Kizimen 3.40 264 PN **Pn** 07 01 35.7 +0.3
KZV S **Sn** 07 02 14.2 -1.0
KZV Kizimen 3.40 264 *e*P **Pn** 07 01 35.7 +0.3
KZV *e*S **Sn** 07 02 14.2 -1.0
TUMR Tumrok 3.46 267 PN **Pn** 07 01 37.5 +1.4
TUMR S **Sn** 07 02 15.9 -0.6
TUMR Tumrok 3.46 267 *e*P **Pn** 07 01 37.5 +1.4
TUMR *e*S **Sn** 07 02 15.9 -0.6
KOZ Kozyrevsk 3.60 280 PN **Pn** 07 01 38.7 +0.8
KOZ S **Sn** 07 02 20.5 +0.7
KOZ Kozyrevsk 3.60 280 *e*P **Pn** 07 01 38.7 +0.8
KOZ *e*S **Sn** 07 02 20.5 +0.7
OSSR Ossora 4.04 337 PN **Pn** 07 01 45.0 +1.0
OSSR Ossora 4.04 337 *e*P **Pn** 07 01 45.0 +1.0
KII Karymskiy 4.20 251 PN **Pn** 07 01 46.2 -0.1
KII Karymskiy 4.20 251 *e*P **Pn** 07 01 46.2 -0.1
ESO Esso 4.25 278 PN **Pn** 07 01 46.8 -0.1
ESO Esso 4.25 278 *e*P **Pn** 07 01 46.8 -0.1
SPN Mys Shipunski 4.39 238 PN **Pn** 07 01 48.7 -0.1
SPN Mys Shipunski 4.39 238 *e*P **Pn** 07 01 48.7 -0.1
SPN *e*S **Sn** 07 02 37.2 -2.0
SDLR Sedlovina 4.85 245 PN **Pn** 07 01 56.4 +1.1
SDLR Sedlovina 4.85 245 *e*P **Pn** 07 01 56.4 +1.1
SDLR *e*S **Sn** 07 02 49.5 -1.4
KRER Koryakskii 4.91 245 PN **Pn** 07 01 57.3 +1.2

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KRER | Koryakskii | 4.91 | 245 | eP | Pn | 07 01 57.3 | +1.2 |
| KRER | | | | eS | Sn | 07 02 51.8 | -0.6 |
| UGLR | Uglovaya | 4.92 | 244 | PN | Pn | 07 01 57.5 | +1.3 |
| UGLR | Uglovaya | 4.92 | 244 | eP | Pn | 07 01 57.5 | +1.3 |
| KRX | Arik | 4.93 | 246 | PN | Pn | 07 01 57.7 | +1.3 |
| KRX | Arik | 4.93 | 246 | eP | Pn | 07 01 57.7 | +1.3 |
| AVH | Avacha | 4.94 | 245 | PN | Pn | 07 01 57.7 | +1.3 |
| AVH | Avacha | 4.94 | 245 | eP | Pn | 07 01 57.7 | +1.3 |
| AVH | | | | eS | Sn | 07 02 53.4 | +0.5 |
| KOK | Koryaka | 4.97 | 246 | PN | Pn | 07 01 58.3 | +1.4 |
| KOK | Koryaka | 4.97 | 246 | eP | Pn | 07 01 58.3 | +1.4 |
| DALK | Dalny | 5.05 | 243 | PN | Pn | 07 01 58.7 | +0.8 |
| DALK | Dalny | 5.05 | 243 | eP | Pn | 07 01 58.7 | +0.8 |
| DALK | | | | eS | Sn | 07 02 53.9 | -1.7 |
| PET | Petropavlovsk | 5.11 | 243 | ePN | Pn | 07 02 00.1 | +1.5 |
| PET | Petropavlovsk | 5.11 | 243 | eP | Pn | 07 01 59.8 | +1.2 |
| GNL | Ganaly | 5.15 | 252 | PN | Pn | 07 02 01.0 | +1.6 |
| GNL | Ganaly | 5.15 | 252 | eP | Pn | 07 02 01.0 | +1.6 |
| KRMR | Karymshinskiy | 5.48 | 243 | PN | Pn | 07 02 04.8 | +1.1 |
| KRMR | Karymshinskiy | 5.48 | 243 | eP | Pn | 07 02 04.8 | +1.1 |
| KRMR | | | | eS | Sn | 07 03 06.1 | 0.0 |
| RUS | Russkaya | 5.52 | 238 | PN | Pn | 07 02 04.8 | +0.5 |
| RUS | Russkaya | 5.52 | 238 | eP | Pn | 07 02 04.8 | +0.5 |
| RUS | | | | eS | Sn | 07 03 05.2 | -1.9 |
| PETK | Petropavlovsk- | 5.55 | 247 | Pn | Pn | 07 02 05.8 | +1.0 |
| | 2.9nm,0.3s,baz=71,slow=18,SNR=23 | | | | | | |
| PETK | | | | Sn | Sn | 07 03 11.8 | +3.8 |
| | 0.8nm,0.3s,baz=150,slow=20,SNR=3.2 | | | | | | |
| MTVR | Mutnovka | 5.65 | 240 | PN | Pn | 07 02 06.9 | +0.6 |
| MTVR | Mutnovka | 5.65 | 240 | eP | Pn | 07 02 06.9 | +0.6 |
| MTVR | | | | eS | Sn | 07 03 08.0 | -2.6 |
| ASAK | Asacha | 5.85 | 240 | PN | Pn | 07 02 10.4 | +1.5 |
| ASAK | Asacha | 5.85 | 240 | eP | Pn | 07 02 10.4 | +1.5 |
| KDTR | Khodutka, Kamc | 6.13 | 235 | eP | Pn | 07 02 12.1 | -0.5 |
| KDTR | | | | eS | Sn | 07 03 19.4 | -2.6 |
| SEY | Seymchan | 10.19 | 322 | ⇑ePN | Pn | 07 03 08.1 | -0.2 |
| ASAJ | Asahikawa | 18.95 | 243 | P | Pn | 07 05 05.7 | +2.0 |
| | 0.4nm,0.3s,baz=47,slow=13,SNR=4.6 | | | | | | |
| YAK | Yakutsk | 19.76 | 304 | ⇓eP | P | 07 05 11.5 | -0.2 |
| YAK | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.5s | | | | | | |
| TIXI | Tiksi | 22.51 | 330 | ⇓eP | P | 07 05 41.7 | +0.5 |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.6s | | | | | | |
| COLA | College | 24.09 | 49 | ⇓eP | P | 07 05 54.6 | -2.4 |
| COLA | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.5s | | | | | | |
| ILAR | Eielson Array | 24.50 | 49 | P | P | 07 05 59.8 | -1.1 |
| | comp=Z,2.3nm,1.0s,baz=258,slow=8.3,SNR=14 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 35.80 | 179 | T | T | 07 45 24.4 | |
| | baz=359,slow=76,SNR=77 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 35.81 | 179 | T | T | 07 45 27.2 | |
| | baz=359,slow=76,SNR=57 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 35.82 | 179 | T | T | 07 45 27.5 | |
| | baz=359,slow=76,SNR=70 | | | | | | |
| SONM | Songino Array | 36.80 | 284 | P | P | 07 07 51.9 | +2.3 |
| | comp=Z,0.5nm,0.4s,baz=54,slow=7.3,SNR=4.4 | | | | | | |
| KURK | Kurchatov | 49.40 | 303 | ⇑eP | P | 07 09 31.0 | -0.2 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.8s | | | | | | |
| MKAR | Makanchi Array | 50.24 | 297 | P | P | 07 09 36.8 | -1.0 |
| | comp=Z,0.2nm,0.4s,baz=61,slow=8.9,SNR=3.1 | | | | | | |
| BVAR | Borovoye Array | 51.59 | 310 | P | P | 07 09 48.1 | +0.4 |
| | comp=Z,0.3nm,0.4s,baz=55,slow=5.5,SNR=3.4 | | | | | | |
| TXAR | Lajitas Array | 66.42 | 72 | P | P | 07 11 31.6 | +0.5 |
| | comp=Z,0.3nm,0.5s,baz=308,slow=4.5,SNR=2.8 | | | | | | |
| WRAB | Tennant Creek | 79.94 | 210 | ⇓eP | P | 07 12 50.6 | 0.0 |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,12nm,2.2s | | | | | | |
| WRA | Warramunga Arr | 79.95 | 210 | P | P | 07 12 50.5 | -0.2 |
| | comp=Z,1.0nm,0.8s,baz=23,slow=6.0,SNR=6.2 | | | | | | |
| WRA | Warramunga Arr | 79.95 | 210 | eP | P | 07 12 50.7 | 0.0 |
| WRA | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.4s | | | | | | |
| ASAR | Alice Springs | 83.60 | 210 | P | P | 07 13 10.3 | +0.4 |
| | comp=Z,1.0nm,0.8s,baz=19,slow=6.3,SNR=10 | | | | | | |
| ASAR | Alice Springs | 83.60 | 210 | eP | P | 07 13 10.6 | +0.7 |
| ASAR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.9s | | | | | | |

---

*IDC **02** 07:09:13.9±0.8, 48°.57N×157°.39E, h0km, mb4.0/14, mb1 4.1/16, mb1mx3.9/42, mbtmp4.0/16, ML3.3/2, MS2.5/2, Ms1 2.5/2, ms1mx2.3/38, Error ellipse: s-maj=20.3km s-min=18.5km az=115.0*
*ISCJB **02** 07:09:15.4±0.4, 48°.70N±0°.03×157°.28E±0°.07, h16km, mb4.2/25, MS4.1/1, Error ellipse: s-maj=7.1km s-min=3.6km az=25.4*
*KRSC **02** 07:09:17.0±1.1, 48°.80N×157°.88E, h40km±22km, ML4.4*
*SKHL **02** 07:09:17.5±0.0, 48°.66N×157°.41E, h45km±5km, mb4.7/1*
*MOS **02** 07:09:17.8±0.9, 48°.71N×157°.25E, h38km, mb4.2/13, Error ellipse: s-maj=14.1km s-min=4.6km az=85.7*
*NEIC **02** 07:09:18.2±2.6, 48°.65N×157°.30E, h22km±18km, mb4.5/12, Error ellipse: s-maj=9.9km s-min=6.5km az=155.0*
**ISC 02 07:09:17.4**±0.6**, 48°.68N**±0°.06×**157°.42E**±0°.07**, h16**km**, n114, σ1s.36**/132**, mb4.2**/25**, 2C-1D, East of Kuril Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SKR | Severo-Kuril's | 2.17 | 338 | ePN | Pn | 07 09 52.4 | -0.5 |
| SKR | | | | eS | Sn | 07 10 18.6 | -0.8 |
| SKR | | | | pmax | pmax | | |
| | comp=Z,218nm,0.6s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=E,681nm,0.6s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=N,1μm,0.9s | | | | | | |
| SKR | Severo-Kuril's | 2.17 | 338 | eP | Pn | 07 09 52.4 | -0.5 |
| SKR | | | | AMB | AMB | 07 09 52.5 | |
| | comp=N,180nm,0.6s | | | | | | |
| SKR | | | | eS | Sn | 07 10 18.6 | -0.8 |
| SKR | | | | A | A | 07 10 19.4 | |
| | comp=N,680nm,0.6s | | | | | | |
| SKR | | | | A | A | 07 10 19.4 | |
| | comp=N,1μm,0.6s | | | | | | |
| SKR | Severo-Kuril's | 2.17 | 338 | eP | Pn | 07 09 52.0 | -0.9 |
| SKR | | | | eS | Sn | 07 10 18.8 | -0.6 |
| KDTR | Khodutka, Kamc | 3.16 | 7 | eP | Pn | 07 10 05.5 | -0.9 |
| KDTR | | | | eS | Sn | 07 10 41.0 | -2.7 |
| ASAK | Asacha | 3.72 | 5 | PN | Pn | 07 10 14.0 | -0.2 |
| ASAK | | | | S | Sn | 07 10 56.7 | -0.9 |
| ASAK | Asacha | 3.72 | 5 | eP | Pn | 07 10 14.0 | -0.2 |
| ASAK | | | | eS | Sn | 07 10 56.7 | -0.9 |
| RUS | Russkaya | 3.82 | 10 | PN | Pn | 07 10 14.7 | -0.8 |
| RUS | Russkaya | 3.82 | 10 | eP | Pn | 07 10 14.6 | -0.9 |
| RUS | Russkaya | 3.82 | 10 | eP | Pn | 07 10 14.7 | -0.8 |
| RUS | | | | eS | Sn | 07 10 57.6 | -2.4 |
| MTVR | Mutnovka | 3.83 | 7 | PN | Pn | 07 10 15.8 | -0.1 |
| MTVR | | | | S | Sn | 07 10 58.6 | -2.1 |
| MTVR | Mutnovka | 3.83 | 7 | eP | Pn | 07 10 15.8 | -0.1 |
| MTVR | | | | eS | Sn | 07 10 58.6 | -2.1 |
| KRMR | Karymshinskiy | 4.18 | 6 | PN | Pn | 07 10 20.6 | +0.2 |
| KRMR | | | | S | Sn | 07 11 08.0 | -0.8 |
| KRMR | Karymshinskiy | 4.18 | 6 | eP | Pn | 07 10 20.6 | +0.2 |
| KRMR | | | | eS | Sn | 07 11 08.0 | -0.8 |
| APC | Apacha | 4.25 | 358 | PN | Pn | 07 10 21.1 | -0.3 |
| APC | Apacha | 4.25 | 358 | eP | Pn | 07 10 21.1 | -0.3 |
| PET | Petropavlovsk | 4.42 | 10 | ePN | Pn | 07 10 23.4 | -0.3 |
| PET | Petropavlovsk | 4.42 | 10 | eP | Pn | 07 10 23.3 | -0.4 |
| PET | | | | eS | Sn | 07 11 12.6 | -2.2 |
| PET | | | | A | A | 07 11 17.9 | |
| | comp=N,130nm,0.5s | | | | | | |
| PET | Petropavlovsk | 4.42 | 10 | ePn | Pn | 07 10 23.8 | +0.1 |
| PET | | | | eSn | Sn | 07 11 15.1 | +0.4 |
| PET | Petropavlovsk | 4.42 | 10 | eP | Pn | 07 10 23.3 | -0.4 |
| PET | | | | eS | Sn | 07 11 12.5 | -2.2 |
| DALK | Dalny | 4.43 | 10 | PN | Pn | 07 10 23.5 | -0.4 |
| DALK | Dalny | 4.43 | 10 | eP | Pn | 07 10 23.5 | -0.4 |
| DALK | | | | eS | Sn | 07 11 13.1 | -2.1 |
| PEA0B | Petropavlovsk- | 4.43 | 2 | ePn | Pn | 07 10 24.9 | +0.9 |
| PETK | Petropavlovsk- | 4.43 | 2 | Pn | Pn | 07 10 24.4 | +0.5 |
| | comp=N,3.7nm,0.3s,baz=154,slow=16,SNR=38 | | | | | | |
| PETK | | | | Sn | Sn | 07 11 20.3 | +5.1 |
| | comp=N,1.2nm,0.3s,baz=224,slow=14,SNR=3.6 | | | | | | |
| PETK | | | | LR | LR | 07 12 38.5 | |
| | comp=N,41nm,21.4s,baz=231,slow=45 | | | | | | |
| PETK | Petropavlovsk- | 4.43 | 2 | ePn | Pn | 07 10 24.8 | +0.8 |
| PETK | | | | Sn | Sn | 07 11 20.3 | +5.1 |
| PEA1 | Petropavlovsk- | 4.44 | 2 | ePn | Pn | 07 10 24.4 | +0.4 |
| PEA1 | | | | eSn | Sn | 07 11 20.3 | +5.0 |
| UGLR | Uglovaya | 4.62 | 11 | PN | Pn | 07 10 26.9 | +0.3 |
| UGLR | Uglovaya | 4.62 | 11 | eP | Pn | 07 10 26.9 | +0.3 |
| NLC | Nalytchevo | 4.66 | 14 | PN | Pn | 07 10 26.3 | -0.7 |
| NLC | Nalytchevo | 4.66 | 14 | eP | Pn | 07 10 26.3 | -0.7 |
| NLC | Nalytchevo | 4.66 | 14 | eP | Pn | 07 10 26.3 | -0.7 |
| NLC | | | | eS | Sn | 07 11 17.9 | -2.7 |
| AVH | Avacha | 4.66 | 10 | PN | Pn | 07 10 27.6 | +0.4 |
| AVH | Avacha | 4.66 | 10 | eP | Pn | 07 10 27.6 | +0.4 |
| AVH | Avacha | 4.66 | 10 | eP | Pn | 07 10 27.6 | +0.4 |
| KOK | Koryaka | 4.68 | 9 | PN | Pn | 07 10 28.1 | +0.7 |
| KOK | Koryaka | 4.68 | 9 | eP | Pn | 07 10 28.1 | +0.7 |
| KOK | Koryaka | 4.68 | 9 | eP | Pn | 07 10 28.1 | +0.7 |
| SDLR | Sedlovina | 4.69 | 11 | PN | Pn | 07 10 27.2 | -0.4 |
| SDLR | Sedlovina | 4.69 | 11 | eP | Pn | 07 10 27.2 | -0.4 |
| KRER | Koryakskii | 4.70 | 10 | PN | Pn | 07 10 27.5 | -0.3 |
| KRER | Koryakskii | 4.70 | 10 | eP | Pn | 07 10 27.5 | -0.3 |
| SPN | Mys Shipunski | 4.72 | 19 | PN | Pn | 07 10 26.8 | -1.0 |
| SPN | Mys Shipunski | 4.72 | 19 | eP | Pn | 07 10 26.8 | -1.0 |
| SPN | Mys Shipunski | 4.72 | 19 | eP | Pn | 07 10 26.8 | -1.0 |
| SPN | | | | eS | Sn | 07 11 18.1 | -4.1 |
| KRX | Arik | 4.75 | 9 | PN | Pn | 07 10 28.8 | +0.4 |
| KRX | Arik | 4.75 | 9 | eP | Pn | 07 10 28.8 | +0.4 |
| GNL | Ganaly | 5.03 | 4 | PN | Pn | 07 10 33.1 | +0.9 |
| GNL | Ganaly | 5.03 | 4 | eP | Pn | 07 10 33.1 | +0.9 |
| KMNR | Kamenistaya | 7.29 | 13 | PN | Pn | 07 11 04.2 | +0.9 |
| KMNR | Kamenistaya | 7.29 | 13 | eP | Pn | 07 11 04.2 | +0.9 |
| KUR | Kuril'sk | 7.39 | 246 | eP | Pn | 07 11 03.5 | -1.0 |
| SHO | Shikotan | 8.77 | 241 | eP | Pn | 07 11 22.9 | -0.6 |
| YUK | Yuzh-Kuril'sk | 9.24 | 244 | ⇑ePN | Pn | 07 11 28.7 | -1.2 |
| YUK | Yuzh-Kuril'sk | 9.24 | 244 | eP | Pn | 07 11 30.2 | +0.3 |
| TYV | Tymovskoe | 9.80 | 288 | eP | Pn | 07 11 37.1 | -0.4 |
| UGL | Uglegorsk | 10.12 | 278 | ePN | Pn | 07 11 38.1 | -3.9 |
| JKA | Kamikawa-asahi | 11.20 | 251 | eP | Pn | 07 11 55.9 | -0.9 |
| ASAJ | Asahikawa | 11.20 | 251 | Pn | Pn | 07 11 55.9 | -0.9 |
| | comp=N,0.4nm,0.3s,baz=91,slow=21,SNR=4.2 | | | | | | |
| MA2 | Magadan | 11.58 | 343 | LR | LR | 07 17 46.1 | |
| | comp=N,30nm,18.3s,baz=60,slow=44 | | | | | | |
| TIK | Tiksi | 26.52 | 340 | eP | P | 07 14 52.7 | -1.0 |
| TIXI | Tiksi | 26.53 | 340 | P | P | 07 14 53.4 | -0.5 |
| | comp=N,1.7nm,0.4s,baz=130,slow=11,SNR=4.2 | | | | | | |
| TIXI | Tiksi | 26.53 | 340 | ⇓iP | P | 07 14 52.7 | -1.1 |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,11nm,2.1s | | | | | | |
| H11S1 | WAKE ISLAND Hy | 31.03 | 163 | T | T | 07 48 03.1 | |
| | baz=348 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 31.04 | 163 | T | T | 07 48 02.2 | |
| | baz=348,SNR=4.6 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 31.05 | 163 | T | T | 07 48 03.1 | |
| | baz=348 | | | | | | |
| CNPM | China Poot | 31.21 | 50 | eP | P | 07 15 37.1 | +1.5 |
| | comp=Z,69nm,1.4s | | | | | | |
| INK | Inuvik | 38.44 | 34 | P | P | 07 16 37.5 | -0.3 |
| | comp=Z,1.8nm,1.0s,baz=258,slow=6.9,SNR=3.4 | | | | | | |
| INK | Inuvik | 38.44 | 34 | eP | P | 07 16 38.7 | +0.9 |
| | comp=Z,4.1nm,1.2s | | | | | | |
| ZAA1 | Zalesovo Array | 43.85 | 305 | eP | P | 07 17 20.7 | -1.7 |
| ZALV | Zalesovo Beam | 43.85 | 305 | P | P | 07 17 20.7 | -1.7 |
| | comp=Z,0.8nm,0.5s,baz=58,slow=8.9,SNR=3.5 | | | | | | |
| MK31 | Makanchi Array | 48.62 | 298 | eP | P | 07 17 59.9 | -0.3 |
| MK31 | Makanchi Array | 48.62 | 298 | eP | P | 07 17 59.9 | -0.3 |
| MK32 | Makanchi Array | 48.62 | 298 | eP | P | 07 17 59.8 | -0.4 |
| MKAR | Makanchi Array | 48.62 | 298 | P | P | 07 17 59.8 | -0.4 |
| | comp=Z,0.7nm,0.7s,baz=60,slow=6.4,SNR=4.0 | | | | | | |
| MKAR | Makanchi Array | 48.62 | 298 | eP | P | 07 17 59.2 | -1.0 |
| MKAR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.7s | | | | | | |
| MKAR | Makanchi Array | 48.62 | 298 | eP | P | 07 17 59.2 | -1.0 |
| MK01 | Makanchi Array | 48.63 | 298 | eP | P | 07 17 59.8 | -0.5 |
| KURK | Kurchatov | 48.71 | 304 | P | P | 07 18 01.0 | +0.3 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.5s | | | | | | |
| KURK | Kurchatov | 48.71 | 304 | eP | P | 07 18 01.0 | +0.3 |
| KURK | Kurchatov | 48.71 | 304 | eP | P | 07 18 00.9 | +0.3 |
| KURBB | Kurchatov Arra | 48.80 | 304 | P | P | 07 18 00.9 | -0.5 |
| | comp=Z,1.2nm,0.5s,baz=64,slow=8.0,SNR=5.1 | | | | | | |
| BVAR | Borovoye Array | 51.86 | 310 | P | P | 07 18 24.3 | -0.3 |
| | comp=Z,1.1nm,0.5s,baz=67,slow=7.2,SNR=6.6 | | | | | | |
| BRVK | Borovoye | 51.90 | 310 | eP | P | 07 18 25.8 | +1.0 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.3s | | | | | | |
| BRVK | Borovoye | 51.90 | 310 | eP | P | 07 18 25.8 | +1.0 |
| | comp=Z,2.7nm,1.3s | | | | | | |
| KHMM | Horse Mountain | 54.17 | 67 | eP | P | 07 18 43.3 | +1.3 |
| | comp=Z,19nm,0.9s | | | | | | |
| ARU | Arti | 55.53 | 318 | P | P | 07 18 51.0 | -0.3 |
| | comp=Z,2.8nm,0.3s,baz=74,slow=6.7,SNR=5.9 | | | | | | |
| ARU | Arti | 55.53 | 318c | iP | P | 07 18 51.2 | -0.1 |
| ARU | | | | *PP | sP | 07 19 02.2 | +3.8 |
| ARU | | | | | | 07 20 55.4 | |
| ARU | | | | S | S | 07 26 36.4 | +0.7 |
| ARU | | | | SS | SS | 07 30 21.5 | +1.6 |
| ARU | | | | pmax | pmax | | |
| | comp=Z,19nm,2.5s | | | | | | |
| ARU | Arti | 55.53 | 318 | eP | P | 07 18 51.4 | 0.0 |
| | comp=Z,4.8nm,0.8s | | | | | | |
| AAK | Ala-Archa | 55.55 | 297 | P | P | 07 18 51.7 | -0.3 |
| | comp=Z,1.5nm,0.7s,baz=45,slow=11,SNR=4.4 | | | | | | |
| PD31 | Pinedale Array | 61.26 | 57 | eP | P | 07 19 31.9 | 0.0 |
| PDAR | Pinedale Array | 61.26 | 57 | P | P | 07 19 31.9 | 0.0 |
| | comp=Z,1.4nm,1.0s,baz=298,slow=3.2,SNR=5.6 | | | | | | |
| PDAR | Pinedale Array | 61.26 | 57 | eP | P | 07 19 31.6 | -0.2 |
| JLU | Jordanelle | 61.61 | 60 | eP | P | 07 19 34.9 | +0.6 |
| | comp=Z,5.4nm,1.5s | | | | | | |
| P17A | Butcher Ranch, | 62.76 | 60 | eP | P | 07 19 42.6 | +0.6 |
| | comp=Z,3.7nm,1.1s | | | | | | |
| FIA0 | FINESS Array S | 63.49 | 336 | eP | P | 07 19 45.9 | -0.2 |
| FIA0 | FINESS Array S | 63.49 | 336 | eP | P | 07 19 45.9 | -0.2 |
| FINES | FINESS Array B | 63.49 | 336 | P | P | 07 19 45.9 | -0.2 |
| | comp=Z,8.2nm,1.1s,baz=49,slow=4.2,SNR=2.8 | | | | | | |
| GLA | Glamis | 64.64 | 68 | eP | P | 07 19 55.6 | +1.3 |
| GLA | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.0s | | | | | | |
| GLA | Glamis | 64.64 | 68 | eP | P | 07 19 55.6 | +1.3 |
| | comp=Z,3.3nm,1.0s | | | | | | |
| WR1 | Warramunga Arr | 71.36 | 203 | eP | P | 07 20 34.3 | -2.1 |
| | comp=Z,3.7nm,1.1s | | | | | | |
| WRA | Warramunga Arr | 71.36 | 203 | P | P | 07 20 34.3 | -2.1 |
| | comp=Z,1.0nm,0.8s,baz=21,slow=6.3,SNR=4.2 | | | | | | |
| AKASG | Malin Array Be | 71.50 | 328 | P | P | 07 20 35.6 | -1.3 |
| | comp=Z,0.4nm,0.4s,baz=31,slow=6.9,SNR=2.4 | | | | | | |
| AKBB | Malin Array Si | 71.50 | 328 | eP | P | 07 20 35.6 | -1.3 |
| AKBB | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.0s | | | | | | |
| AKBB | Malin Array Si | 71.50 | 328 | eP | P | 07 20 35.6 | -1.3 |
| | comp=Z,2.6nm,1.0s | | | | | | |
| TX31 | Lajitas Ar. Si | 74.02 | 64 | eP | P | 07 20 52.3 | -0.1 |
| LTX | Lajitas | 74.02 | 64 | eP | P | 07 20 52.0 | -0.4 |
| LTX | Lajitas | 74.02 | 64 | eP | P | 07 20 52.0 | -0.4 |
| TXAR | Lajitas Array | 74.02 | 64 | P | P | 07 20 52.0 | -0.5 |
| | comp=Z,1.4nm,0.7s,baz=297,slow=4.3,SNR=7.8 | | | | | | |
| TXAR | Lajitas Array | 74.02 | 64 | eP | P | 07 20 52.2 | -0.2 |
| TXAR | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | |
| TXAR | Lajitas Array | 74.02 | 64 | eP | P | 07 20 52.2 | -0.2 |
| AS01 | Alice Springs | 75.02 | 202 | eP | P | 07 20 57.9 | 0.0 |
| ASAR | Alice Springs | 75.03 | 202 | P | P | 07 20 57.0 | -1.1 |
| | comp=Z,1.0nm,0.8s,baz=13,slow=4.4,SNR=5.7 | | | | | | |
| BRYW | Bryant College | 80.00 | 35 | eP | P | 07 21 27.2 | +1.5 |
| | comp=Z,24nm,1.2s | | | | | | |
| LRAL | Lakeview Retre | 80.45 | 50 | eP | P | 07 21 28.6 | +0.3 |
| | comp=Z,6.3nm,1.4s | | | | | | |
| ATD | Arta Tunnel | 96.97 | 296 | LR | LR | 08 12 22.0 | |
| | comp=Z,63nm,18.8s,slow=39 | | | | | | |

---

*NIED **02** 07:39:00, 39°.10N×142°.40E, h29km, Mw4.0 Best double couple: M0 1.01000×10^15 NP1:φs315.00000°, δ23.00000°, λ-120.00000°. NP2:φs167.00000°, δ70.00000°, λ-78.00000°.*
*ISCJB **02** 07:39:24.5±1.5, 39°.08N±0°.04×142°.54E±0°.09, h17km±10km, mb3.9/7, MS4.4/1, Error ellipse: s-maj=12.6km s-min=6.2km az=16.2*
*JMA **02** 07:39:26.8±0.1, 39°.12N×142°.40E, h31km±1km, M4.0*
*JMA Felt I J1.*
*IDC **02** 07:39:32.4±2.7, 38°.95N×142°.38E, h72km±25km, mb3.6/7, mb1 3.8/10, mb1mx3.5/49, mbtmp3.9/10, MS3.4/3, Ms1 3.4/3, ms1mx2.9/46, Error ellipse: s-maj=24.7km s-min=16.6km az=100.0*
**ISC 02 07:39:26.9**±1.0**, 39°.10N**±0°.04×**142°.32E**±0°.09**, h20**km±5km**, n28, σ2s.14**/27**, mb4.0**/7**, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| OFUJ | Ofunato | 0.51 | 268 | P | Pn | 07 39 38.3 | -0.7 |
| OFUJ | | | | S | Sn | 07 39 46.1 | -1.0 |
| MIYJ | Miyakonagasawa | 0.61 | 321 | P | Pb | 07 39 39.3 | +0.3 |
| MIYJ | | | | S | Sb | 07 39 47.8 | +0.6 |
| JMK | Ichinoseki | 0.87 | 260 | P | Pn | 07 39 43.8 | -0.2 |
| JMK | | | | eS | Sn | 07 39 55.9 | -0.2 |
| JOM | Ohasama | 0.88 | 295 | P | Pn | 07 39 44.1 | 0.0 |
| JOM | | | | eS | Sn | 07 39 56.2 | -0.1 |
| JTH | Tanohata | 0.91 | 337 | P | Pb | 07 39 43.3 | -0.6 |
| JIO | Ouri | 1.00 | 230 | P | Pb | 07 39 44.7 | -0.8 |
| JIO | | | | eS | Sb | 07 39 57.3 | -0.9 |
| JKZ | Kuzumaki | 1.17 | 319 | P | Pn | 07 39 48.1 | 0.0 |
| JKZ | | | | eS | Sn | 07 40 03.7 | +0.2 |
| JRG | Rokugo | 1.34 | 283 | P | Pb | 07 39 51.2 | -0.2 |
| JANG | Nango | 1.41 | 334 | P | Pn | 07 39 50.9 | -0.5 |
| MAT | Matsushiro | 4.14 | 233 | P | Pn | 07 40 31.4 | +2.4 |
| MAT | | | | eS | Sb | 07 41 22.9 | -5.8 |
| MJAR | Matsushiro Arr | 4.14 | 233 | P | Pn | 07 40 31.3 | +2.3 |
| | 3.8nm,0.3s,baz=41,slow=11,SNR=45 | | | | | | |
| MJAR | | | | S | Sb | 07 41 35.6 | +6.9 |
| | 0.9nm,0.3s,baz=12,slow=28,SNR=5.0 | | | | | | |
| MJAR | | | | LR | LR | 07 42 11.5 | |
| | comp=Z,177nm,21.2s,baz=25,slow=39 | | | | | | |
| ASAJ | Asahikawa | 5.01 | 2 | P | Pb | 07 40 47.7 | -6.2 |
| | 1.4nm,0.3s,baz=217,slow=3.9,SNR=5.8 | | | | | | |
| ASAJ | | | | S | Sn | 07 41 38.9 | +0.7 |
| | 0.2nm,0.3s,baz=108,slow=19,SNR=2.2 | | | | | | |
| USRK | Ussuriysk Ar. | 9.26 | 307 | P | Pn | 07 41 45.4 | +6.3 |
| | 0.2nm,0.3s,baz=96,slow=14,SNR=5.4 | | | | | | |
| KSRS | Korea Array | 11.44 | 266 | LR | LR | 07 46 05.2 | |
| | comp=Z,96nm,20.7s,baz=90,slow=34 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 28.67 | 125 | T | T | 08 15 44.8 | |
| | baz=318,slow=76,SNR=648 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 28.68 | 125 | T | T | 08 15 45.4 | |
| | baz=318,slow=76,SNR=589 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 28.69 | 125 | T | T | 08 15 46.0 | |
| | baz=318,slow=76,SNR=516 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 29.46 | 127 | T | T | 08 16 44.2 | |
| | baz=319,slow=76,SNR=58 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 29.46 | 127 | T | T | 08 16 43.4 | |
| | baz=319,slow=76,SNR=69 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 29.48 | 127 | T | T | 08 16 54.7 | |
| | baz=319,slow=76,SNR=50 | | | | | | |
| ZALV | Zalesovo Beam | 41.08 | 311 | P | P | 07 47 10.7 | +1.8 |
| | 1.2nm,0.5s,baz=98,slow=7.4,SNR=6.1 | | | | | | |
| MKAR | Makanchi Array | 43.66 | 300 | P | P | 07 47 30.0 | 0.0 |
| | 2.8nm,0.9s,baz=90,slow=7.4,SNR=18 | | | | | | |
| KURBB | Kurchatov Arra | 45.32 | 307 | P | P | 07 47 43.4 | +0.2 |
| | 1.5nm,0.5s,baz=82,slow=8.2,SNR=3.1 | | | | | | |
| ILAR | Eielson Array | 47.37 | 33 | P | P | 07 47 59.0 | -0.1 |
| | 1.2nm,0.9s,baz=261,slow=6.1,SNR=10.0 | | | | | | |
| INK | Inuvik | 52.22 | 28 | P | P | 07 48 36.1 | +0.2 |
| | 0.6nm,0.4s,baz=270,slow=8.1,SNR=5.0 | | | | | | |
| WRA | Warramunga Arr | 59.21 | 189 | P | P | 07 49 24.7 | -1.9 |
| | 1.1nm,0.4s,baz=5.9,slow=7.0,SNR=14 | | | | | | |
| ASAR | Alice Springs | 62.94 | 189 | P | P | 07 49 51.0 | -0.9 |
| | 0.6nm,0.7s,baz=10,slow=5.4,SNR=7.1 | | | | | | |
| LPIG | La Paz | 87.55 | 61 | LR | LR | 08 23 10.3 | |
| | comp=Z,145nm,19.9s,baz=312,slow=30 | | | | | | |

---

*ATA **02** 07:40:46.7±0.4, 38°.71N×43°.15E, h18km±9km, ML3.5, MW2.9*
*ISK **02** 07:40:47.3, 38°.71N×42°.99E, h4km, MD2.5*
*ISCJB **02** 07:40:48.8±0.5, 38°.72N±0°.03×43°.02E±0°.04, h9km±6km, Error ellipse: s-maj=5.1km s-min=4.9km az=6.0*
*CSEM **02** 07:40:48.3±0.2, 38°.72N×43°.00E, h10km, ML3.0, Error ellipse: s-maj=5.0km s-min=4.7km az=25.0*
*DDA **02** 07:40:48.1, 38°.70N×43°.02E, h7km, Ml3.0*
**ISC 02 07:40:48.3**±1.0**, 38°.70N**±0°.03×**43°.01E**±0°.02**, h15**km±10km**, n29, σ0s.51**/40**, 2D, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ADCV | BITLIS_Adilcev | 0.25 | 295 | i P | Pg | 07 40 53.8 | -0.1 |
| ADCV | | | | i S | Sb | 07 40 58.8 | -0.1 |
| ADCV | BITLIS_Adilcev | 0.25 | 295 | P | Pg | 07 40 53.8 | -0.1 |
| ADCV | | | | S | Sb | 07 40 58.8 | -0.1 |
| VANB | Van | 0.32 | 110 | ePG | Pb | 07 40 55.6 | -0.2 |
| VANB | | | | eSG | Sb | 07 41 01.6 | +0.8 |
| VANB | Van | 0.32 | 110 | ePg | Pb | 07 40 55.6 | -0.2 |
| VANB | | | | eSg | Sb | 07 41 01.6 | +0.8 |
| TVAN | Van | 0.36 | 119 | i P | Pg | 07 40 55.5 | -0.2 |
| TVAN | Van | 0.36 | 119 | P | Pg | 07 40 55.5 | -0.2 |
| GEVA | Gevas | 0.39 | 174 | ⇓iP | Pg | 07 40 55.5 | -0.9 |
| GEVA | | | | eS | Sg | 07 41 02.3 | +0.5 |
| GEVA | | | | IAML | | 07 41 07.5 | |
| | comp=Z,149nm,0.5s | | | | | | |
| GEVA | Gevas | 0.39 | 174 | i P | Pg | 07 40 55.6 | -0.8 |
| GEVA | Gevas | 0.39 | 174 | P | Pg | 07 40 55.6 | -0.8 |
| VMUR | Van-Muradiye | 0.52 | 57 | i P | Pg | 07 40 58.5 | -0.2 |
| VMUR | | | | i S | Sb | 07 41 06.9 | +0.1 |
| VMUR | Van-Muradiye | 0.52 | 57 | P | Pg | 07 40 58.5 | -0.2 |
| VMUR | | | | S | Sb | 07 41 06.9 | +0.1 |
| TUTA | Tutak | 0.71 | 348 | ⇓iP | Pg | 07 41 01.8 | -0.6 |
| TUTA | | | | IAML | | 07 41 02.0 | |
| | comp=Z,321nm,0.2s | | | | | | |
| TUTA | Tutak | 0.71 | 348 | i P | Pg | 07 41 01.8 | -0.6 |
| TUTA | Tutak | 0.71 | 348 | P | Pg | 07 41 01.8 | -0.6 |
| CLDR | Caldiran | 0.83 | 58 | ePG | Pb | 07 41 04.3 | -0.3 |
| CLDR | | | | eSG | Sb | 07 41 16.6 | +0.8 |
| CLDR | Caldiran | 0.83 | 58 | ePg | Pb | 07 41 04.3 | -0.3 |
| CLDR | | | | eSg | Sb | 07 41 16.6 | +0.8 |
| AGRB | Hanur-Agry | 0.87 | 359 | ePG | Pg | 07 41 04.5 | -0.8 |
| AGRB | | | | eSG | Sb | 07 41 17.3 | +0.5 |
| AGRB | Hanur-Agry | 0.87 | 359 | ePg | Pg | 07 41 04.5 | -0.8 |
| AGRB | | | | eSg | Sb | 07 41 17.3 | +0.5 |
| EKAR | Karacoban | 0.92 | 307 | i P | Pb | 07 41 06.3 | +0.1 |
| EKAR | Karacoban | 0.92 | 307 | P | Pb | 07 41 06.3 | +0.1 |
| SRTM | Siirt_Merkez | 1.11 | 231 | i P | Pb | 07 41 09.4 | +0.1 |
| SRTM | Siirt_Merkez | 1.11 | 231 | P | Pb | 07 41 09.4 | +0.1 |
| EATA | Eleskirt | 1.22 | 341 | eP | Pb | 07 41 11.0 | -0.3 |
| EATA | | | | IAML | | 07 41 13.7 | |
| | comp=Z,8.3nm,0.6s | | | | | | |
| EATA | Eleskirt | 1.22 | 341 | i P | Pb | 07 41 11.1 | -0.3 |
| EATA | Eleskirt | 1.22 | 341 | P | Pb | 07 41 11.1 | -0.3 |
| HOMI | Horasan | 1.59 | 328 | i P | Pb | 07 41 18.0 | +0.5 |
| BTMN | Batman | 1.59 | 240 | i P | Pg | 07 41 18.4 | -0.5 |
| BTMN | Batman | 1.59 | 240 | P | Pg | 07 41 18.4 | -0.5 |
| ECAT | Cat-ERZURUM | 1.82 | 300 | eP | Pb | 07 41 21.9 | +0.4 |
| ECAT | | | | IAML | | 07 42 57.7 | |
| | comp=Z,42nm,0.2s | | | | | | |

---

*ISK **02** 07:43:22.2, 37°.27N×28°.21E, h6km, MD2.5*
*ISCJB **02** 07:43:23.1±0.5, 37°.25N±0°.04×28°.19E±0°.04, h0km, Error ellipse: s-maj=5.8km s-min=3.6km az=27.1*
*DDA **02** 07:43:23.4, 37°.23N×28°.17E, h7km, Ml2.7, Suspected Mining explosion.*
*CSEM **02** 07:43:23.5±0.1, 37°.25N×28°.19E, h1km, ML2.7, Error ellipse: s-maj=3.2km s-min=2.3km az=24.0, Suspected Mining explosion.*
**ISC 02 07:43:21.3**±0.8**, 37°.19N**±0°.03×**28°.06E**±0°.03**, h0**km**, n27, σ0s.54**/36**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AYDN | Tasoluk | 0.49 | 343 | i P | Pb | 07 43 33.1 | +0.2 |
| AYDN | Tasoluk | 0.49 | 343 | P | Pb | 07 43 33.1 | +0.2 |
| BDRM | Kayabasi | 0.51 | 256 | i P | Pn | 07 43 35.5 | -0.4 |
| BDRM | Kayabasi | 0.51 | 256 | P | Pn | 07 43 35.5 | -0.4 |
| TURN | Turunc | 0.54 | 126 | ePG | Pg | 07 43 32.2 | +0.6 |
| TURN | | | | eSG | Sg | 07 43 39.7 | +1.1 |
| TURN | Turunc | 0.54 | 126 | i P | Pg | 07 43 32.0 | +0.4 |
| TURN | | | | i S | Sg | 07 43 39.5 | +0.9 |
| TURN | Turunc | 0.54 | 126 | P | Pg | 07 43 32.0 | +0.4 |
| TURN | | | | eSg | Sg | 07 43 39.7 | +1.1 |
| DALY | Dalyan (Mu˜la | 0.60 | 128 | ePG | Pg | 07 43 33.6 | +0.7 |
| DALY | Dalyan (Mu˜la | 0.60 | 128 | i P | Pb | 07 43 34.5 | -0.3 |
| DALY | | | | i S | Sb | 07 43 43.1 | -0.7 |
| DALY | Dalyan (Mu˜la | 0.60 | 128 | P | Pb | 07 43 34.5 | -0.3 |
| DALY | | | | S | Sb | 07 43 43.1 | -0.7 |
| BODT | Bodrum | 0.61 | 258 | ePG | Pn | 07 43 37.5 | +0.1 |
| BODT | | | | eSG | Sn | 07 43 48.0 | 0.0 |
| BODT | Bodrum | 0.61 | 258 | ePg | Pn | 07 43 37.5 | +0.1 |
| BODT | | | | eSg | Sn | 07 43 48.0 | 0.0 |
| TAVA | DENIZLI_Tavas | 0.73 | 68 | i P | Pg | 07 43 35.6 | +0.2 |
| TAVA | DENIZLI_Tavas | 0.73 | 68 | P | Pg | 07 43 35.6 | +0.2 |
| GCAM | G?zelcaml? | 0.83 | 308 | ePG | Pn | 07 43 40.1 | -0.2 |
| GCAM | | | | eSG | Sn | 07 43 52.2 | -1.1 |
| GCAM | G?zelcaml? | 0.83 | 308 | ePg | Pn | 07 43 40.1 | -0.2 |
| GCAM | | | | eSg | Sn | 07 43 52.2 | -1.1 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **DNZL** | **Cakiroluk** | **0.93** | **57** | *i* P | **Pg** | **07 43 39.5** | **+0.4** |
| **DNZL** | **Cakiroluk** | **0.93** | **57** | P | **Pg** | **07 43 39.5** | **+0.4** |
| **FETY** | **Fethiye** | **0.99** | **124** | *e*PG | **Pb** | **07 43 41.1** | **-0.3** |
| **FETY** | **Fethiye** | **0.99** | **124** | *e*Pg | **Pb** | **07 43 41.1** | **-0.3** |
| **FETY** | **Fethiye** | **0.99** | **124** | P | **Pn** | **07 43 42.0** | **-0.5** |
| **GOLH** | **Golhisar** | **1.20** | **87** | *i* P | **Pb** | **07 43 44.8** | **-0.2** |
| **GOLH** | **Golhisar** | **1.20** | **87** | P | **Pb** | **07 43 44.8** | **-0.2** |
| **MANT** | **Manisa** | **1.35** | **17** | *i* P | **Pn** | **07 43 47.9** | **+0.2** |
| **MANT** | **Manisa** | **1.35** | **17** | P | **Pn** | **07 43 47.9** | **+0.2** |
| **KHAL** | **Karahalli** | **1.63** | **43** | *i* P | **Pn** | **07 43 51.2** | **-0.3** |
| **KHAL** | **Karahalli** | **1.63** | **43** | P | **Pn** | **07 43 51.2** | **-0.3** |

**WEL 02 08:02:50.6**±0.3**, 37°.56S×179°.88W, h33km, ML3.4**/10**, 1C-2D, Error ellipse: s-maj=3.4km s-min=3.0km az=0.0, East of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WMGZ** | **Waiomatatini S** | **1.38** | **259** | PN | Pn | 08 03 13.0 | -0.5 |
| WMGZ | | | | *e*SN | Sn | 08 03 30.0 | -0.7 |
| WMGZ | | | | AML | AML | 08 03 40.4 | |
| **MXZ** | **Matakaoa Point** | **1.45** | **269** | ⇓PN | Pn | 08 03 13.9 | -0.5 |
| MXZ | | | | *e*SN | Sn | 08 03 30.9 | -1.3 |
| MXZ | | | | AML | AML | 08 03 32.7 | |
| **PUZ** | **Puketiti** | **1.57** | **250** | ⇑PN | Pn | 08 03 15.4 | -0.7 |
| PUZ | | | | SN | Sn | 08 03 34.2 | -1.1 |
| PUZ | | | | AML | AML | 08 03 40.1 | |
| **PKGZ** | **Pakihiroa** | **1.66** | **258** | PN | Pn | 08 03 16.7 | -0.7 |
| PKGZ | | | | AML | AML | 08 03 37.3 | |
| PKGZ | | | | AML | AML | 08 03 38.8 | |
| **CNGZ** | **Carnagh Statio** | **1.77** | **238** | *e*PN | Pn | 08 03 19.4 | +0.4 |
| **TWGZ** | **Tauwhareparae** | **1.81** | **249** | PN | Pn | 08 03 19.0 | -0.4 |
| TWGZ | | | | SN | Sn | 08 03 40.9 | -0.4 |
| TWGZ | | | | AML | AML | 08 03 46.3 | |
| **HAZ** | **Te Kaha** | **1.87** | **263** | PN | Pn | 08 03 20.4 | +0.2 |
| HAZ | | | | SN | Sn | 08 03 41.9 | -0.8 |
| HAZ | | | | AML | AML | 08 03 48.4 | |
| **RUGZ** | **Raukumara Rang** | **1.98** | **257** | PN | Pn | 08 03 21.3 | -0.6 |
| **RIGZ** | **Rimuhau** | **2.19** | **238** | PN | Pn | 08 03 24.7 | 0.0 |
| RIGZ | | | | AML | AML | 08 03 54.4 | |
| RIGZ | | | | AML | AML | 08 03 55.9 | |
| **MWZ** | **Matawai** | **2.19** | **248** | PN | Pn | 08 03 24.0 | -0.7 |
| **RAGZ** | **Rawiri** | **2.34** | **246** | PN | Pn | 08 03 26.7 | 0.0 |
| RAGZ | | | | AML | AML | 08 03 58.7 | |
| RAGZ | | | | AML | AML | 08 04 04.0 | |
| **KNZ** | **Kokohu** | **2.42** | **232** | PN | Pn | 08 03 27.2 | -0.7 |
| **URZ** | **Urewera** | **2.48** | **253** | PN | Pn | 08 03 29.0 | +0.3 |
| URZ | | | | AML | AML | 08 03 57.8 | |
| **MTHZ** | **Maungataniwha** | **2.89** | **242** | ⇓PN | Pn | 08 03 34.1 | -0.3 |
| **ARHZ** | **Aropaoanui** | **2.99** | **234** | *e*PN | Pn | 08 03 35.8 | +0.2 |
| **NMHZ** | **Naumai** | **3.03** | **238** | *e*PN | Pn | 08 03 36.0 | -0.3 |
| **MCHZ** | **McNeill Hill** | **3.28** | **234** | PN | Pn | 08 03 39.5 | -0.2 |
| **KWHZ** | **Kaweka Forest** | **3.45** | **236** | PN | Pn | 08 03 41.2 | -0.8 |
| KWHZ | | | | AML | AML | 08 03 49.4 | |
| **BHHZ** | **Black Hill Sta** | **3.73** | **238** | PN | Pn | 08 03 45.1 | -0.7 |
| **MKAZ** | **Moumakai** | **3.98** | **275** | PN | Pn | 08 03 49.2 | 0.0 |
| **BFZ** | **Birch Farm** | **4.34** | **223** | PN | Pn | 08 03 51.7 | -2.5 |
| **MRZ** | **Mangatainoka R** | **4.70** | **227** | *e*PN | Pn | 08 03 57.0 | -2.2 |

*IDC **02** 08:04:49.1±1.9, 31°.90S×178°.29W, h0km, mb4.2/4, mb1 4.4/5, mb1mx4.0/31, mbtmp4.3/5, ML4.3/1, Error ellipse: s-maj=42.6km s-min=37.3km az=32.0*

**ISC 02 08:04:51.0**±1.9**, 32°.04S**±0°.09×**178°.4W**±0°.3**, h10km, n27, σ1s.90**/27**, mb4.2**/4**, South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WMGZ** | **Waiomatatini S** | **6.34** | **204** | *e*PN | **Pn** | **08 06 26.5** | **+1.9** |
| **WMGZ** | **Waiomatatini S** | **6.34** | **204** | *e*PN | **Pg** | **08 06 50.9** | **-1.5** |
| WMGZ | | | | *e*SN | **Sn** | **08 07 39.5** | **+2.5** |
| **HAZ** | **Te Kaha** | **6.52** | **208** | *e*PN | **Pn** | **08 06 27.9** | **+0.9** |
| **PUZ** | **Puketiti** | **6.62** | **204** | *e*PN | Pg | 08 06 53.7 | -4.1 |
| PUZ | | | | *e*SN | **Sn** | **08 07 46.0** | **+1.9** |
| **RUGZ** | **Raukumara Rang** | **6.74** | **208** | *e*PN | **Pn** | **08 06 31.2** | **+1.0** |
| **RUGZ** | **Raukumara Rang** | **6.74** | **208** | *e*SN | **Sn** | **08 07 47.6** | **+0.6** |
| **MWZ** | **Matawai** | **7.12** | **207** | PN | **Pb** | **08 06 57.3** | **+2.5** |
| MWZ | | | | *e*SN | **Sn** | **08 07 56.0** | **-0.3** |
| **URZ** | **Urewera** | **7.22** | **210** | Pn | **Pn** | **08 06 37.3** | **+0.7** |
| | 5.1nm,0.3s,baz=164,slow=18,SNR=15 | | | | | | |
| URZ | | | | Sn | **Sn** | **08 07 55.7** | **-3.1** |
| | baz=37,slow=20,SNR=2.1 | | | | | | |
| **URZ** | **Urewera** | **7.22** | **210** | *e*PN | **Pb** | **08 06 57.2** | **+0.7** |
| URZ | | | | *e*SN | **Sn** | **08 07 56.3** | **-2.4** |
| **RAGZ** | **Rawiri** | **7.30** | **207** | *e*PN | **Pn** | **08 06 38.8** | **+1.0** |
| **SNGZ** | **Shannon Statio** | **7.58** | **206** | *e*PN | **Pn** | **08 06 42.3** | **+0.7** |
| **KNZ** | **Kokohu** | **7.68** | **204** | PN | **Pn** | **08 06 44.7** | **+1.8** |
| **KNZ** | **Kokohu** | **7.68** | **204** | *e*SN | **Sn** | **08 08 06.5** | **-3.4** |
| **BKZ** | **Black Stump Fm** | **8.25** | **209** | *e*PN | **Pn** | **08 06 51.5** | **+0.7** |
| **KWHZ** | **Kaweka Forest** | **8.50** | **208** | PN | **Pn** | **08 06 54.7** | **+0.5** |
| **BFZ** | **Birch Farm** | **9.65** | **205** | PN | **Pn** | **08 07 07.4** | **-2.6** |
| **BFZ** | **Birch Farm** | **9.65** | **205** | *e*SN | Sn | 08 08 50.7 | -7.8 |
| **MRZ** | **Mangatainoka R** | **9.89** | **208** | PN | **Pn** | **08 07 09.8** | **-3.4** |
| **MRZ** | **Mangatainoka R** | **9.89** | **208** | *e*SN | Sn | 08 08 56.3 | -7.9 |
| **CTA** | **Charters Tower** | **33.78** | **282** | P | **P** | **08 11 34.5** | **+1.3** |
| | 1.7nm,0.5s,baz=108,slow=10.0,SNR=4.1 | | | | | | |
| **STKA** | **Stephens Creek** | **33.83** | **259** | P | **P** | **08 11 34.8** | **+1.3** |
| | 0.5nm,0.3s,baz=108,slow=9.6,SNR=2.6 | | | | | | |
| **ASAR** | **Alice Springs** | **42.73** | **269** | P | **P** | **08 12 48.0** | **-0.7** |
| | 2.4nm,0.6s,baz=103,slow=7.5,SNR=34 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.86** | **274** | P | **P** | **08 12 56.9** | **-0.9** |
| | 4.1nm,0.4s,baz=112,slow=8.0,SNR=106 | | | | | | |
| **VNA3** | **Neumayer Olymp** | **76.70** | **176** | P | P | 08 16 47.8 | +5.9 |
| **VNA2** | **Neumayer--Watz** | **77.13** | **177** | P | P | 08 16 50.4 | +6.1 |
| | baz=177,slow=4.8 | | | | | | |
| **FINES** | **FINESS Array B** | **146.56** | **339** | PKPbc | **PKPab** | **08 24 30.5** | **-2.4** |
| | 5.6nm,1.1s,baz=47,slow=3.5,SNR=8.3 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **161.20** | **180** | PKPab | **PKPab** | **08 25 35.8** | **+0.1** |
| | 0.5nm,0.7s,baz=173,slow=5.2,SNR=3.1 | | | | | | |

*IDC **02** 08:07:36.0±1.3, 2°.52N×95°.72E, h0km, mb4.1/9, mb1 4.2/11, mb1mx3.9/45, mbtmp4.1/11, ML4.2/2, MS2.7/1, Ms1 2.9/1, ms1mx2.5/39, Error ellipse: s-maj=37.9km s-min=18.3km az=53.0*

*ISCJB **02** 08:07:38.1±0.5, 2°.50N±0°.05×95°.78E±0°.05, h25km, mb4.4/19, Error ellipse: s-maj=9.2km s-min=5.2km az=44.2*

*NEIC **02** 08:07:42.6±1.1, 2°.53N×95°.87E, h48km±8km, mb4.3/7, Error ellipse: s-maj=12.6km s-min=4.9km az=66.0*

**ISC 02 08:07:39.7**±0.6**, 2°.55N**±0°.07×**95°.78E**±0°.08**, h25km, n55, σ1s.59**/56**, mb4.3**/19**, Off west coast of northern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GSI** | **Gunungsitoli** | **2.18** | **124** | *e*Pn | **Pn** | **08 08 14.8** | **+0.4** |
| GSI | | | | *e*Sn | **Sn** | **08 08 40.7** | **0.0** |
| **LHMI** | **Lhok Sumawe** | **2.91** | **24** | *e*Pn | **Pn** | **08 08 26.0** | **+1.5** |
| **PSI** | **Prapat** | **3.15** | **85** | Pn | **Pn** | **08 08 28.9** | **+1.0** |
| | 7.9nm,0.3s,baz=289,slow=10,SNR=12 | | | | | | |
| PSI | | | | Sn | **Sn** | **08 09 04.2** | **-0.7** |
| | baz=66,slow=20 | | | | | | |
| **KULM** | **Kulim** | **5.57** | **61** | *e*Pn | **Pn** | **08 09 02.0** | **+0.9** |
| **IPM** | **Ipoh** | **5.58** | **70** | *e*Pn | **Pn** | **08 09 02.4** | **+1.2** |
| **BKNI** | **Bangkinang** | **5.71** | **113** | *e*Pn | **Pn** | **08 09 03.2** | **+0.3** |
| **MYKOM** | **Kota Tinggi** | **8.10** | **95** | *e*Pn | **Pn** | **08 09 37.1** | **+1.2** |
| **MNAI** | **Manna** | **9.93** | **134** | *e*Pn | **Pn** | **08 10 01.1** | **+0.2** |
| **CM01** | **Chiang Mai Arr** | **16.08** | **11** | *e*Pn | **P** | **08 11 27.4** | **-0.1** |
| **CM31** | **Chiang Mai Arr** | **16.11** | **11** | *e*Pn | **Pn** | **08 11 25.8** | **+1.1** |
| **CMAR** | **Chiang Mai Arr** | **16.11** | **11** | Pn | **Pn** | **08 11 24.2** | **-0.5** |
| | 0.7nm,0.3s,baz=197,slow=11,SNR=11 | | | | | | |
| CMAR | | | | LR | LR | 08 16 41.2 | |
| | comp=Z,28nm,20.8s,baz=350,slow=34 | | | | | | |
| **H08S2** | **Diego Garcia H** | **25.34** | **246** | T | T | 08 39 13.8 | |
| | baz=67,slow=76,SNR=1021 | | | | | | |
| **H08S3** | **Diego Garcia H** | **25.34** | **246** | T | T | 08 39 14.7 | |
| | baz=67,slow=76,SNR=776 | | | | | | |
| **H08S1** | **Diego Carcia H** | **25.36** | **246** | T | T | 08 39 13.4 | |
| | baz=67,slow=76,SNR=766 | | | | | | |
| **LUWI** | **Luwuk** | **27.22** | **97** | *e*P | **P** | **08 13 21.6** | **-0.4** |
| | 24nm,0.9s | | | | | | |
| **SOEI** | **Soe** | **30.90** | **114** | *e*P | **P** | **08 13 54.1** | **-0.7** |
| | 29nm,1.4s | | | | | | |
| **YOJ** | **Yonaguni jima** | **34.14** | **48** | *e*P | **P** | **08 14 21.8** | **-1.1** |
| | 212nm,1.2s | | | | | | |
| **KSH** | **Kashi** | **40.97** | **336** | *e*P | **P** | **08 15 23.3** | **+2.6** |
| KSH | | | | pP | sP | 08 15 53.2 | +22 |
| KSH | | | | PP | **PnPn** | **08 17 03.7** | **+3.9** |
| KSH | | | | PcP | **PcP** | **08 17 21.9** | **+1.2** |
| KSH | | | | S | S | 08 21 22.4 | -9.0 |
| KSH | | | | SS | **SS** | **08 24 25.4** | **-8.5** |
| KSH | | | | ScS | ScS | 08 25 09.8 | -14 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.4s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,240nm,6.0s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,230nm,6.6s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,270nm,4.9s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,390nm,5.8s | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **41.03** | **157** | T | T | 08 58 57.9 | |
| | baz=332,slow=76,SNR=102 | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **41.04** | **157** | T | T | 08 58 58.8 | |
| | baz=332,slow=76,SNR=88 | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **41.05** | **157** | T | T | 08 59 00.9 | |
| | baz=332,slow=76,SNR=86 | | | | | | |
| **WR1** | **Warramunga Arr** | **43.95** | **122** | *e*P | **P** | **08 15 45.3** | **+0.2** |
| | comp=Z,6.3nm,1.3s | | | | | | |
| **WRA** | **Warramunga Arr** | **43.95** | **122** | P | **P** | **08 15 45.3** | **+0.2** |
| | comp=Z,0.8nm,0.6s,baz=299,slow=9.4,SNR=17 | | | | | | |
| **WB2** | **Warramunga Arr** | **43.96** | **122** | *e*P | **P** | **08 15 45.6** | **+0.4** |
| | comp=Z,4.1nm,1.3s | | | | | | |
| **ASAR** | **Alice Springs** | **45.34** | **127** | P | **P** | **08 15 56.6** | **+0.4** |
| | comp=Z,0.8nm,0.5s,baz=301,slow=8.2,SNR=18 | | | | | | |
| **AS31** | **Alice Springs** | **45.34** | **127** | *e*P | **P** | **08 15 54.5** | **-1.7** |
| | comp=Z,1.2nm,1.1s | | | | | | |
| **AS01** | **Alice Springs** | **45.38** | **127** | *e*P | **P** | **08 15 56.5** | **+0.1** |
| **KS15** | **Wonju Array Si** | **45.55** | **36** | *e*P | **P** | **08 15 58.0** | **+0.4** |
| **KSAR** | **Wonju Array Be** | **45.55** | **36** | P | **P** | **08 15 56.6** | **-1.0** |
| **KSRS** | **Korea Array** | **45.58** | **36** | P | **P** | **08 15 56.6** | **-1.2** |
| | comp=Z,1.7nm,0.6s,baz=220,slow=7.9,SNR=4.7 | | | | | | |
| **MK01** | **Makanchi Array** | **45.58** | **347** | *e*P | **P** | **08 15 58.7** | **+1.0** |
| **MK31** | **Makanchi Array** | **45.61** | **347** | *e*P | **P** | **08 15 58.9** | **+1.0** |
| **MK32** | **Makanchi Array** | **45.61** | **347** | *e*P | **P** | **08 15 58.9** | **+1.0** |
| **MKAR** | **Makanchi Array** | **45.61** | **347** | P | **P** | **08 15 58.9** | **+1.0** |
| | comp=Z,2.6nm,0.5s,baz=160,slow=8.9,SNR=36 | | | | | | |
| **MAKZ** | **Makanchi** | **45.69** | **347** | *e*P | **P** | **08 15 59.6** | **+1.0** |
| | comp=Z,3.2nm,0.6s | | | | | | |
| **SONA0** | **Songino Array** | **46.04** | **10** | *e*P | **P** | **08 16 01.7** | **+0.3** |
| SONA0 | | | | *e*PcP | **PcP** | **08 17 38.1** | **+0.4** |
| **SONM** | **Songino Array** | **46.04** | **10** | P | **P** | **08 16 01.7** | **+0.3** |
| | comp=Z,2.5nm,0.7s,baz=191,slow=9.3,SNR=16 | | | | | | |
| SONM | | | | PcP | **PcP** | **08 17 38.1** | **+0.4** |
| | comp=Z,0.4nm,0.5s,baz=180,slow=2.7,SNR=2.3 | | | | | | |
| **SONA1** | **Songino Array** | **46.05** | **10** | *e*P | **P** | **08 16 01.9** | **+0.4** |
| **ZALV** | **Zalesovo Beam** | **52.02** | **352** | P | **P** | **08 16 47.6** | **+0.7** |
| | comp=Z,2.7nm,0.5s,baz=160,slow=4.6,SNR=8.4 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **52.02** | **352** | *e*P | **P** | **08 16 47.8** | **+0.8** |
| **ZAA1** | **Zalesovo Array** | **52.02** | **352** | *e*P | **P** | **08 16 47.6** | **+0.6** |
| **USRK** | **Ussuriysk Ar.** | **52.38** | **32** | P | **P** | **08 16 50.4** | **+0.6** |
| | comp=Z,0.9nm,0.5s,baz=224,slow=6.1,SNR=3.3 | | | | | | |
| **BRVK** | **Borovoye** | **54.59** | **341** | *e*P | **P** | **08 17 06.2** | **+0.4** |
| | comp=Z,2.9nm,0.8s | | | | | | |
| **CRZF** | **Crozet Islands** | **62.23** | **213** | *e*P | **P** | **08 18 00.1** | **+0.8** |
| | comp=Z,80nm,1.2s | | | | | | |
| **ARA0** | **ARCESS Array S** | **80.80** | **340** | *e*P | **P** | **08 19 51.2** | **+0.3** |
| **ARCES** | **ARCESS Array B** | **80.80** | **340** | P | **P** | **08 19 51.2** | **+0.3** |
| | comp=Z,2.7nm,1.0s,baz=90,slow=4.7,SNR=5.2 | | | | | | |
| **GERES** | **GERESS Array B** | **82.87** | **319** | P | **P** | **08 20 02.0** | **-0.3** |
| | comp=Z,0.2nm,0.2s,baz=110,slow=8.5,SNR=3.5 | | | | | | |
| **IMAR** | **Indian Mountai** | **95.90** | **23** | *e*P | **P** | **08 21 04.9** | **+0.8** |
| **FXWY** | **Fox Creek** | **128.10** | **25** | *e*PKPdf | **PKPdf** | **08 26 42.3** | **-2.0** |
| **PSUB** | **Penn St. - Bra** | **136.97** | **350** | *e*PKPdf | **PKPdf** | **08 26 59.0** | **-1.9** |
| **W35A** | **Tecumseh** | **140.66** | **16** | *e*PKPdf | **PKPdf** | **08 27 07.8** | **0.0** |
| **LTX** | **Lajitas** | **143.23** | **29** | *e*PKPdf | **PKPdf** | **08 27 12.5** | **-0.2** |
| **TXAR** | **Lajitas Array** | **143.23** | **29** | PKP | **PKPdf** | **08 27 12.5** | **-0.2** |
| | comp=Z,0.3nm,0.6s,baz=287,slow=3.7,SNR=3.3 | | | | | | |
| **ROC1** | **El Roble** | **147.29** | **201** | *e*PKPdf | **PKPdf** | **08 27 20.4** | **+0.7** |
| **MOIG** | **Morelia** | **152.33** | **36** | *e*PKPdf | **PKPdf** | **08 27 25.9** | **-2.1** |

**MEX 02 08:11:06.2**±0.7**, 14°.38N×93°.10W, h16km**±114km**, MD3.8, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PCIG** | | **1.32** | **355** | *i* P | Pn | 08 11 26.4 | -3.6 |
| PCIG | | | | *e*S | Sn | 08 11 41.8 | -5.5 |
| **CCIG** | **Comitan** | **2.10** | **26** | *e*P | Pn | 08 11 40.1 | -0.9 |
| CCIG | | | | *e*S | Sb | 08 12 11.6 | +1.5 |
| **TGIG** | | **2.38** | **359** | *e*P | Pn | 08 11 42.7 | -2.0 |
| TGIG | | | | *e*S | Sn | 08 12 14.8 | +1.2 |

**KRSC 02 08:12:35.2**±1.2**, 49°.00N×156°.37E, h5km**±22km**, ML3.9, East of Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SKR** | **Severo-Kuril's** | **1.70** | **355** | *e*P | Pn | 08 13 05.1 | -0.3 |
| SKR | | | | *e*S | Sb | 08 13 28.6 | +0.2 |
| **KDTR** | **Khodutka, Kamc** | **3.02** | **21** | *e*P | Pn | 08 13 26.2 | +2.6 |
| KDTR | | | | *e*S | Sn | 08 14 03.0 | +2.9 |
| **ASAK** | **Asacha** | **3.53** | **15** | *e*P | Pn | 08 13 32.8 | +2.2 |
| **MTVR** | **Mutnovka** | **3.68** | **18** | *e*P | Pn | 08 13 36.3 | +3.6 |
| MTVR | | | | *e*S | Sn | 08 14 20.2 | +3.7 |
| **RUS** | **Russkaya** | **3.70** | **21** | *e*P | Pn | 08 13 35.4 | +2.5 |
| RUS | | | | *e*S | Sn | 08 14 20.6 | +3.8 |
| **DALK** | **Dalny** | **4.31** | **20** | *e*P | Pn | 08 13 44.7 | +3.4 |
| **UGLR** | **Uglovaya** | **4.49** | **19** | *e*P | Pn | 08 13 48.9 | +5.0 |
| **AVH** | **Avacha** | **4.53** | **18** | *e*P | Pn | 08 13 48.8 | +4.4 |
| **SDLR** | **Sedlovina** | **4.57** | **19** | *e*P | Pn | 08 13 48.9 | +3.9 |
| **KRX** | **Arik** | **4.60** | **17** | *e*P | Pn | 08 13 50.0 | +4.6 |
| **SPN** | **Mys Shipunski** | **4.71** | **28** | *e*S | Sn | 08 14 47.7 | +6.0 |
| **GNL** | **Ganaly** | **4.81** | **11** | *e*P | Pn | 08 13 52.4 | +4.2 |

*NIED **02** 08:16:00, 35°.90N×141°.20E, h11km, Mw4.0 Best double couple: M0 1.27000×10^15 NP1:φs237.00000°, δ18.00000°, λ-60.00000°. NP2:φs26.00000°, δ74.00000°, λ-99.00000°.*

*ISCJB **02** 08:16:21.0±1.0, 35°.95N±0°.03×141°.25E±0°.04, h7km±6km, mb4.5/42, MS4.0/2, Error ellipse: s-maj=6.0km s-min=5.1km az=44.0*

*BJI **02** 08:16:20.3, 36°.14N×141°.30E, h6km, mb4.7/32, mB5.1/20, Ms5.0/9, Ms7 4.8/8*

*IDC **02** 08:16:21.3±0.7, 35°.81N×141°.12E, h0km, mb4.1/15, mb1 4.2/18, mb1mx4.1/43, mbtmp4.1/18, ML3.9/3, MS3.1/2, Ms1 3.1/2, ms1mx2.8/29, Error ellipse: s-maj=17.8km s-min=15.0km az=107.0*

*JMA **02** 08:16:23.1±0.2, 35°.86N×141°.15E, h22km±2km, M4.2*

*JMA Felt II J1.*

*NEIC **02** 08:16:26.4±2.9, 36°.17N×140°.99E, h18km±17km, mb4.9/12, Error ellipse: s-maj=10.4km s-min=5.7km az=147.0*

*NEIC Recorded [2 JMA] in Chiba and Ibaraki.*

*MOS **02** 08:16:28.4±1.2, 36°.42N×140°.99E, h38km, mb4.7/19, Error ellipse: s-maj=10.1km s-min=7.3km az=113.3*

**ISC 02 08:16:23.9**±1.2**, 35°.98N**±0°.05×**141°.15E**±0°.05**, h11km**±7km**, n98, σ1s.88**/109**, mb4.7**/42**, 8C-11D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CHOJ** | **Chosi** | **0.36** | **221** | ⇓P | **Pg** | **08 16 29.5** | **-1.6** |
| CHOJ | | | | S | **Sg** | **08 16 33.8** | **-2.1** |
| **JHO** | **Hitachi** | **0.79** | **324** | ⇓P | **Pb** | **08 16 39.1** | **-0.5** |
| JHO | | | | S | **Sb** | **08 16 51.9** | **+1.7** |
| **JYT** | **Yasato** | **0.81** | **288** | ⇓P | **Pb** | **08 16 38.6** | **-1.4** |
| JYT | | | | S | **Sb** | **08 16 50.2** | **-0.7** |
| **BSO4** | **Boso 4** | **1.19** | **214** | P | **Pn** | **08 16 43.3** | **-3.0** |
| **BSO3** | **Boso 3** | **1.28** | **204** | P | **Pn** | **08 16 44.3** | **-3.2** |
| **MJAR** | **Matsushiro Arr** | **2.44** | **284** | Pn | **Pn** | **08 17 02.0** | **-1.6** |
| | 16nm,0.3s,baz=101,slow=9.3,SNR=128 | | | | | | |
| MJAR | | | | Sn | **Sn** | **08 17 34.4** | **+0.9** |
| | 15nm,0.3s,baz=107,slow=19,SNR=7.1 | | | | | | |
| MJAR | | | | LR | LR | 08 18 01.2 | |
| | comp=Z,316nm,19.6s,baz=125,slow=41 | | | | | | |
| **MAJO** | **Matsushiro** | **2.44** | **284** | *ce*P | **Pn** | **08 17 02.6** | **-1.1** |
| **MAJO** | **Matsushiro** | **2.44** | **284** | *e*Pn | **Pn** | **08 17 02.9** | **-0.8** |
| **MAT** | **Matsushiro** | **2.44** | **284** | P | **Pn** | **08 17 02.0** | **-1.7** |
| MAT | | | | *e*S | **Sn** | **08 17 33.3** | **-0.3** |
| **MJB9** | **Matsu-Tunnel** | **2.44** | **284** | *e*Pn | **Pn** | **08 17 02.9** | **-0.8** |
| **JHJ** | **Hachijo jima 2** | **3.06** | **202** | Pn | **Pn** | **08 17 09.2** | **-3.0** |
| | 33nm,0.3s,baz=53,slow=20,SNR=2.2 | | | | | | |
| JHJ | | | | Sn | **Sn** | **08 17 48.5** | **-0.4** |
| | 49nm,0.3s,baz=73,slow=19,SNR=3.3 | | | | | | |
| **INU** | **Inuyama** | **3.42** | **261** | *e*Pn | **Pn** | **08 17 18.6** | **+1.5** |
| **ERM** | **Erimo** | **6.23** | **14** | *e*P | **Pn** | **08 17 55.1** | **-0.6** |
| ERM | | | | *e* | | 08 19 05.8 | |
| **ERM** | **Erimo** | **6.23** | **14** | *e*Pn | **Pn** | **08 17 55.1** | **-0.6** |
| ERM | | | | *e*Sn | **Sn** | **08 19 05.8** | **-1.0** |
| **ASAJ** | **Asahikawa** | **8.21** | **7** | Pn | **Pn** | **08 18 22.1** | **-0.8** |
| | 2.5nm,0.3s,baz=195,slow=16,SNR=10 | | | | | | |
| ASAJ | | | | Sn | **Sn** | **08 19 53.2** | **-2.3** |
| | 0.4nm,0.3s,baz=291,slow=18,SNR=3.2 | | | | | | |
| **VLA** | **Vladivostok** | **10.10** | **318** | *ce*P | **Pn** | **08 18 49.1** | **+0.4** |
| VLA | | | | pmax | pmax | | |
| | comp=Z,13nm,0.3s | | | | | | |
| **KSRS** | **Korea Array** | **10.72** | **282** | Pn | **Pn** | **08 19 01.4** | **+4.2** |
| | comp=Z,0.3nm,0.3s,baz=89,slow=14,SNR=3.7 | | | | | | |
| KSRS | | | | LR | LR | 08 22 56.5 | |
| | comp=Z,103nm,19.8s,baz=50,slow=37 | | | | | | |
| **KSAR** | **Wonju Array Be** | **10.75** | **282** | P | **Pn** | **08 19 01.5** | **+3.8** |
| **KSAR** | **Wonju Array Be** | **10.75** | **282** | Pn | **Pn** | **08 19 01.4** | **+3.8** |
| **USRK** | **Ussuriysk Ar.** | **10.79** | **322** | Pn | **Pn** | **08 19 01.4** | **+3.1** |
| | comp=Z,0.1nm,0.3s,baz=125,slow=12,SNR=5.6 | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **11.03** | **6** | *e*P | Pn | 08 18 51.8 | -10 |
| YSS | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.5s | | | | | | |
| **CN2** | **Changchun** | **14.35** | **308** | *e*P | **Pn** | **08 19 47.2** | **+0.3** |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.6s | | | | | | |
| **NJ2** | **Nanjing** | **18.88** | **264** | *e*P | **Pn** | **08 20 46.5** | **+1.7** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.5s | | | | | | |
| **PET** | **Petropavlovsk** | **21.03** | **30** | ⇑*e*P | **P** | **08 21 05.5** | **-1.9** |
| PET | | | | pmax | pmax | | |
| | comp=Z,111nm,1.4s | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **23.62** | **291** | *e*P | **P** | **08 21 34.5** | **-0.6** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,22nm,0.6s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,150nm,5.6s | | | | | | |
| **MA2** | **Magadan** | **24.43** | **12** | P | **P** | **08 21 43.2** | **+0.9** |
| | comp=Z,4.9nm,0.7s,baz=197,slow=6.6,SNR=4.2 | | | | | | |
| **MA2** | **Magadan** | **24.43** | **12** | ⇑*e*P | **P** | **08 21 43.1** | **+0.8** |
| **YAK** | **Yakutsk** | **27.05** | **348** | ⇓*e*P | **P** | **08 22 05.6** | **-0.4** |
| YAK | | | | pmax | pmax | | |
| | comp=Z,16nm,0.8s | | | | | | |
| **ULN** | **Ulaanbaatar** | **27.78** | **306** | ⇓*e*P | **P** | **08 22 14.2** | **+1.3** |
| ULN | | | | pmax | pmax | | |
| | comp=Z,11nm,1.7s | | | | | | |
| **ULN** | **Ulaanbaatar** | **27.78** | **306** | *e*P | **P** | **08 22 13.4** | **+0.5** |
| | comp=Z,5.7nm,0.9s | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **27.81** | **119** | T | T | 08 51 08.2 | |
| | baz=311,slow=75,SNR=1840 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **27.82** | **119** | T | T | 08 51 04.3 | |
| | baz=311,slow=75,SNR=1663 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **27.83** | **119** | T | T | 08 51 05.9 | |
| | baz=311,slow=75,SNR=1713 | | | | | | |
| **SEY** | **Seymchan** | **27.87** | **11** | P | **P** | **08 22 14.3** | **+1.0** |
| | comp=Z,1.8nm,0.8s,baz=230,slow=16,SNR=3.2 | | | | | | |
| **SONA1** | **Songino Array** | **28.21** | **306** | *e*P | **P** | **08 22 15.7** | **-1.0** |
| **SONM** | **Songino Array** | **28.21** | **306** | P | **P** | **08 22 16.2** | **-0.5** |
| | comp=Z,1.0nm,0.5s,baz=99,slow=9.5,SNR=8.0 | | | | | | |
| **BOD** | **Bodaibo** | **28.32** | **329** | *e*P | **P** | **08 22 15.5** | **-1.8** |
| BOD | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.8s | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.48** | **121** | T | T | 08 51 53.0 | |
| | baz=313,slow=76,SNR=1004 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.48** | **121** | T | T | 08 51 53.0 | |
| | baz=313,slow=76,SNR=794 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.50** | **121** | T | T | 08 52 01.6 | |
| | baz=313,slow=76,SNR=711 | | | | | | |
| **LZH** | **Lanzhou** | **30.05** | **281** | *e*P | **P** | **08 22 32.3** | **-0.9** |
| LZH | | | | pP | pP | 08 22 37.8 | +1.1 |
| LZH | | | | sP | sP | 08 22 40.2 | +2.1 |
| LZH | | | | PP | **PnPn** | **08 23 30.2** | **+0.4** |
| LZH | | | | S | **S** | **08 27 27.0** | **-4.4** |
| LZH | | | | pmax | pmax | | |
| | comp=Z,15nm,1.0s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,76nm,4.5s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,210nm,12.5s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,250nm,12.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,230nm,13.0s | | | | | | |
| **GYA** | **Guiyang** | **30.84** | **262** | *e*P | **P** | **08 22 42.8** | **+2.6** |
| GYA | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| **GTA** | **Gaotai** | **32.68** | **289** | *e*P | **P** | **08 22 56.2** | **-0.1** |
| GTA | | | | pP | pP | 08 23 00.2 | +0.4 |
| GTA | | | | sP | sP | 08 23 03.8 | +2.6 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.8s | | | | | | |
| **KMI** | **Kunming** | **34.60** | **263** | P | **P** | **08 23 17.0** | **+3.8** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,15nm,0.6s | | | | | | |
| **TIXI** | **Tiksi** | **36.31** | **353** | ⇑*e*P | **P** | **08 23 24.8** | **-2.3** |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | |
| **LUWI** | **Luwuk** | **40.62** | **209** | *e*P | **P** | **08 24 06.4** | **+2.5** |
| | comp=Z,73nm,0.5s | | | | | | |
| **DGZ** | **Jazzator, Alta** | **40.84** | **307** | *e*P | **P** | **08 24 06.4** | **+0.7** |
| DGZ | | | | pmax | pmax | | |
| | comp=Z,11nm,1.4s | | | | | | |
| **WMQ** | **Urumqi** | **41.13** | **298** | P | **P** | **08 24 09.0** | **+1.0** |
| WMQ | | | | pP | sP | 08 24 14.1 | +1.1 |
| WMQ | | | | sP | pP | 08 24 16.8 | +5.2 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,30nm,0.7s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,230nm,3.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,100nm,15.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,120nm,18.7s | | | | | | |
| **ZAA0** | **Zalesovo Array** | **42.47** | **313** | *e*P | **P** | **08 24 18.6** | **-0.2** |
| | comp=Z,5.5nm,0.7s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.47** | **313** | P | **P** | **08 24 18.8** | **0.0** |
| | comp=Z,4.0nm,0.5s,baz=90,slow=6.7,SNR=17 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.47** | **313** | *e*P | **P** | **08 24 18.5** | **-0.2** |
| **ZALV** | **Zalesovo Beam** | **42.47** | **313** | *e*P | **P** | **08 24 18.5** | **-0.2** |
| **MK01** | **Makanchi Array** | **44.50** | **303** | *e*P | **P** | **08 24 35.0** | **-0.2** |
| **MK31** | **Makanchi Array** | **44.51** | **303** | *e*P | **P** | **08 24 35.1** | **-0.2** |
| **MK31** | **Makanchi Array** | **44.51** | **303** | *e*P | **P** | **08 24 35.1** | **-0.2** |
| **MKAR** | **Makanchi Array** | **44.51** | **303** | P | **P** | **08 24 35.3** | **0.0** |
| | comp=Z,8.0nm,0.7s,baz=90,slow=9.9,SNR=89 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.51** | **303** | *i* P | **P** | **08 24 35.0** | **-0.3** |
| MKAR | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.6s | | | | | | |
| **MAKZ** | **Makanchi** | **44.72** | **303** | *e*P | **P** | **08 24 36.8** | **-0.1** |
| MAKZ | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.8s | | | | | | |
| **MAKZ** | **Makanchi** | **44.72** | **303** | *e*P | **P** | **08 24 36.8** | **-0.1** |
| | comp=Z,9.0nm,0.8s | | | | | | |
| **KURK** | **Kurchatov** | **46.42** | **309** | *d i*P | **P** | **08 24 49.6** | **-0.7** |
| **KURK** | **Kurchatov** | **46.42** | **309** | *e*P | **P** | **08 24 50.0** | **-0.4** |
| | comp=Z,20nm,0.7s | | | | | | |
| **MTN** | **Manton Dam** | **49.47** | **193** | *e*P | **P** | **08 25 16.6** | **+2.3** |
| | comp=Z,29nm,1.8s | | | | | | |
| **MCK** | **McKinley** | **49.63** | **33** | *e*P | **P** | **08 25 14.6** | **-0.4** |
| MCK | | | | pmax | pmax | | |
| | comp=Z,47nm,1.8s | | | | | | |
| **MCK** | **McKinley** | **49.63** | **33** | *e*P | **P** | **08 25 14.6** | **-0.4** |
| | comp=Z,47nm,1.8s | | | | | | |
| **RND** | **Reindeer** | **49.67** | **34** | *e*P | **P** | **08 25 16.8** | **+1.4** |
| RND | | | | pmax | pmax | | |
| | comp=Z,31nm,1.7s | | | | | | |
| **RND** | **Reindeer** | **49.67** | **34** | *e*P | **P** | **08 25 16.8** | **+1.4** |
| | comp=Z,30nm,1.7s | | | | | | |
| **COLA** | **College** | **50.09** | **32** | ⇓*e*P | **P** | **08 25 17.5** | **-0.9** |
| COLA | | | | pmax | pmax | | |
| | comp=Z,14nm,1.9s | | | | | | |
| **ILAR** | **Eielson Array** | **50.50** | **32** | P | **P** | **08 25 22.1** | **+0.5** |
| | comp=Z,1.0nm,0.7s,baz=256,slow=5.6,SNR=16 | | | | | | |
| **ILB** | **Eielson Array** | **50.50** | **32** | *e*P | **P** | **08 25 22.4** | **+0.8** |
| **IL1** | **Eielson Array** | **50.50** | **32** | *e*P | **P** | **08 25 22.4** | **+0.8** |
| **KSH** | **Kashi** | **50.65** | **295** | *e*P | **P** | **08 25 25.4** | **+2.2** |
| KSH | | | | pP | sP | 08 25 29.6 | +1.3 |
| KSH | | | | PcP | **PcP** | **08 26 45.3** | **+4.7** |
| KSH | | | | PP | **PP** | **08 27 24.1** | **+5.1** |
| KSH | | | | S | **S** | **08 32 38.7** | **+0.7** |
| KSH | | | | ScS | **ScS** | **08 35 12.6** | **-1.7** |
| KSH | | | | SS | **SS** | **08 36 10.8** | **-1.2** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.3s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,120nm,5.2s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,300nm,5.4s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,230nm,6.0s | | | | | | |
| KSH | | | | LR | LR | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | comp=Z,460nm,6.1s | | | | | | |
| AAK | Ala-Archa | 50.81 | 299 | ⇓eP | P | 08 25 24.3 | -0.1 |
| AAK | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.3s | | | | | | |
| BRVK | Borovoye | 51.19 | 313 | ⇓eP | P | 08 25 26.8 | -0.1 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.8s | | | | | | |
| BRVK | Borovoye | 51.19 | 313 | eP | P | 08 25 26.9 | -0.1 |
| | comp=Z,8.7nm,0.9s | | | | | | |
| INK | Inuvik | 55.42 | 27 | P | P | 08 25 59.0 | +1.1 |
| | comp=Z,0.7nm,0.6s,baz=317,slow=6.5,SNR=10.0 | | | | | | |
| INK | Inuvik | 55.42 | 27 | eP | P | 08 25 58.8 | +1.0 |
| INK | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.5s | | | | | | |
| INK | Inuvik | 55.42 | 27 | eP | P | 08 25 58.8 | +1.0 |
| | comp=Z,7.0nm,1.5s | | | | | | |
| WRA | Warramunga Arr | 55.99 | 188 | P | P | 08 25 59.8 | -2.6 |
| | comp=Z,1.1nm,0.5s,baz=6.2,slow=7.4,SNR=12 | | | | | | |
| ARU | Arti | 57.01 | 319 | c iP | P | 08 26 08.9 | -0.5 |
| ARU | | | | | | 08 27 02.0 | |
| ARU | | | | | | 08 28 13.9 | |
| ARU | | | | S | S | 08 34 00.2 | -3.2 |
| ARU | | | | SS | SS | 08 37 43.6 | -7.8 |
| ARU | | | | pmax | pmax | | |
| | comp=Z,24nm,1.0s | | | | | | |
| ARU | Arti | 57.01 | 319 | eP | P | 08 26 09.5 | +0.2 |
| | comp=Z,17nm,0.7s | | | | | | |
| ASAR | Alice Springs | 59.71 | 188 | P | P | 08 26 26.7 | -1.9 |
| | comp=Z,0.7nm,0.7s,baz=0.9,slow=5.7,SNR=9.9 | | | | | | |
| YKA | Yellowknife Ar | 64.83 | 30 | P | P | 08 27 02.3 | -0.1 |
| | comp=Z,1.0nm,0.8s,baz=289,slow=7.8,SNR=2.7 | | | | | | |
| OBN | Obninsk | 68.81 | 323 | ⇑eP | P | 08 27 26.9 | -1.0 |
| OBN | | | | e | | 08 29 58.5 | |
| OBN | | | | pmax | pmax | | |
| | comp=Z,12nm,0.6s | | | | | | |
| FINES | FINESS Array B | 69.65 | 332 | P | P | 08 27 32.6 | -0.4 |
| | comp=Z,8.1nm,0.9s,baz=27,slow=6.5,SNR=6.2 | | | | | | |
| KIV | Kislovodsk | 71.44 | 311 | ⇓iP | P | 08 27 44.9 | +0.6 |
| KIV | | | | e | | 08 27 55.6 | |
| KIV | | | | i | | 08 28 03.4 | |
| KIV | | | | eS | S | 08 37 04.4 | +1.8 |
| KIV | | | | pmax | pmax | | |
| | comp=Z,11nm,1.2s | | | | | | |
| WALA | Waterton Lakes | 72.36 | 42 | eP | P | 08 27 52.2 | +2.4 |
| | comp=Z,18nm,1.0s | | | | | | |
| AKASG | Malin Array Be | 75.00 | 322 | P | P | 08 28 04.3 | -0.8 |
| | comp=Z,3.4nm,0.7s,baz=46,slow=6.1,SNR=11 | | | | | | |
| AKASG | Malin Array Be | 75.00 | 322 | iP | P | 08 28 03.9 | -1.2 |
| AKASG | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.7s | | | | | | |
| KIEV | Kiev | 75.01 | 322 | ⇓eP | P | 08 28 05.3 | +0.1 |
| NOA | NORSAR Array B | 75.08 | 337 | P | P | 08 28 04.8 | -0.6 |
| | comp=Z,2.6nm,0.9s,baz=39,slow=5.9,SNR=3.4 | | | | | | |
| PDAR | Pinedale Array | 78.56 | 45 | P | P | 08 28 24.9 | -0.8 |
| | comp=Z,0.3nm,0.6s,baz=333,slow=0.2,SNR=2.9 | | | | | | |
| BUR08 | Bucovina Ar. S | 78.99 | 322 | eP | P | 08 28 26.7 | -1.1 |
| BRTR | Keskin Array B | 79.39 | 312 | P | P | 08 28 30.9 | +0.7 |
| | comp=Z,1.5nm,0.9s,baz=52,slow=5.7,SNR=5.0 | | | | | | |
| BRTR | Keskin Array B | 79.39 | 312 | c eP | P | 08 28 33.7 | +3.5 |
| BRTR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.7s | | | | | | |
| SJG | San Juan | 120.32 | 30 | ePKIKP | PKPdf | 08 35 17.1 | +1.4 |
| SJG | San Juan | 120.32 | 30 | ePKPdf | PKPdf | 08 35 17.1 | +1.4 |
| LPAZ | La Paz | 147.40 | 61 | PKPbc | PKPbc | 08 36 08.6 | -0.4 |
| | comp=Z,1.7nm,0.7s,baz=309,slow=4.6,SNR=8.0 | | | | | | |
| LPAZ | La Paz | 147.40 | 61 | ePKPdf | PKPbc | 08 36 09.1 | +0.1 |

*CSEM **02** 08:18:13.2±0.2, 42°.87N×46°.89E, h2km, mb3.7, Error ellipse: s-maj=5.2km s-min=2.7km az=42.0*
*MOS **02** 08:18:13.0±1.8, 42°.83N×46°.89E, h7km, mb3.7/1, Error ellipse: s-maj=0.1km s-min=0.0km az=38.2*
*MOS Felt (III) at Verkhniy Karanay.*
**ISC 02 08:18:13.1**±1.1**, 42°.88N**±0°.03×**46°.91E**±0°.02**, h3km**±9km**, n48,** σ**1s.34**/72**, 4C-2D, Eastern Caucasus**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KRNR | Karanay | 0.05 | 180 | ⇑iPG | Pg | 08 18 13.8 | -0.5 |
| KRNR | Karanay | 0.05 | 180 | iPg | Pg | 08 18 13.8 | -0.5 |
| DBC | Dubki | 0.15 | 338 | ePG | Pg | 08 18 16.2 | +0.1 |
| DBC | Dubki | 0.15 | 338 | ePg | Pg | 08 18 16.2 | +0.1 |
| BUJR | Buynaksk | 0.16 | 110 | ePG | Pg | 08 18 16.0 | -0.2 |
| BUJR | Buynaksk | 0.16 | 110 | ePg | Pg | 08 18 16.0 | -0.2 |
| UNCR | Uncukul | 0.19 | 207 | ⇑iPG | Pg | 08 18 16.0 | -0.7 |
| UNCR | | | | pmax | pmax | | |
| | comp=Z,357nm,0.2s | | | | | | |
| UNCR | Uncukul | 0.19 | 207 | iPg | Pg | 08 18 16.0 | -0.7 |
| | comp=Z,357nm,0.2s | | | | | | |
| DLMR | Dylym | 0.28 | 313 | ePG | Pg | 08 18 19.0 | +0.6 |
| DLMR | | | | iS | Sb | 08 18 24.5 | -1.4 |
| DLMR | Dylym | 0.28 | 313 | ePg | Pg | 08 18 19.0 | +0.6 |
| ARKR | Arakani | 0.28 | 167 | iPG | Pg | 08 18 18.0 | -0.6 |
| ARKR | | | | iS | Sg | 08 18 22.0 | -0.3 |
| ARKR | | | | pmax | pmax | | |
| | comp=Z,140nm,0.1s | | | | | | |
| ARKR | Arakani | 0.28 | 167 | iPg | Pg | 08 18 18.0 | -0.6 |
| | comp=Z,140nm,0.1s | | | | | | |
| ARKR | | | | iSg | Sg | 08 18 22.0 | -0.3 |
| XNZR | Khunzakh | 0.37 | 204 | ePG | Pg | 08 18 19.8 | -0.4 |
| XNZR | | | | e | | 08 18 25.0 | |
| XNZR | Khunzakh | 0.37 | 204 | ePg | Pg | 08 18 19.8 | -0.4 |
| XNZR | | | | eSg | Sg | 08 18 25.0 | 0.0 |
| MAK | Makhachkala | 0.45 | 79 | ePG | Pn | 08 18 25.4 | -1.0 |
| MAK | | | | e | | 08 18 30.3 | |
| MAK | | | | pmax | pmax | | |
| | comp=Z,155nm,0.3s | | | | | | |
| MAK | | | | smax | smax | | |
| | comp=N,650nm,0.4s | | | | | | |
| MAK | | | | smax | smax | | |
| | comp=N,559nm,0.4s | | | | | | |
| GNBR | Gunib | 0.49 | 175 | ePG | Pg | 08 18 22.8 | +0.3 |
| GNBR | | | | e | | 08 18 29.5 | |
| GNBR | | | | pmax | pmax | | |
| | comp=Z,45nm,0.6s | | | | | | |
| GNBR | | | | smax | smax | | |
| | comp=E,265nm,0.6s | | | | | | |
| GNBR | | | | smax | smax | | |
| | comp=E,343nm,0.5s | | | | | | |
| GNBR | | | | smax | smax | | |
| | comp=N,296nm,0.3s | | | | | | |
| GNBR | Gunib | 0.49 | 175 | ePg | Pg | 08 18 22.8 | +0.3 |
| | comp=N,45nm,0.6s | | | | | | |
| GNBR | | | | eSg | Sg | 08 18 29.5 | +0.6 |
| | comp=N,296nm,0.3s | | | | | | |
| BTLR | Botlikh | 0.55 | 247 | ⇓iPG | Pg | 08 18 23.7 | +0.1 |
| BTLR | | | | eS | Sb | 08 18 31.7 | -2.0 |
| BTLR | Botlikh | 0.55 | 247 | iPg | Pg | 08 18 23.7 | +0.1 |
| BTLR | | | | eSg | Sb | 08 18 31.7 | -2.0 |
| DVE | Vedeno | 0.58 | 278 | iPG | Pg | 08 18 23.8 | -0.4 |
| DVE | | | | eS | Sg | 08 18 32.3 | +0.6 |
| DVE | Vedeno | 0.58 | 278 | iPg | Pg | 08 18 23.8 | -0.4 |
| DVE | | | | eSg | Sg | 08 18 32.3 | +0.6 |
| KMKR | Kumukh | 0.76 | 169 | ePG | Pb | 08 18 29.0 | -0.1 |
| KMKR | | | | S | Sn | 08 18 41.0 | -2.1 |
| KMKR | | | | pmax | pmax | | |
| | comp=Z,70nm,0.2s | | | | | | |
| KMKR | Kumukh | 0.76 | 169 | ePg | Pb | 08 18 29.0 | -0.1 |
| | comp=Z,70nm,0.2s | | | | | | |
| GROC | Groznyy | 0.88 | 292 | ePG | Pg | 08 18 29.5 | -0.4 |
| GROC | | | | eS | Sn | 08 18 44.3 | -1.3 |
| GROC | Groznyy | 0.88 | 292 | ePg | Pg | 08 18 29.5 | -0.4 |
| URKR | Urkarakh | 0.89 | 143 | ePG | Pg | 08 18 30.0 | -0.2 |
| URKR | | | | eS | Sb | 08 18 43.0 | -0.7 |
| URKR | Urkarakh | 0.89 | 143 | ePg | Pg | 08 18 30.0 | -0.2 |
| URKR | | | | eSg | Sb | 08 18 43.0 | -0.7 |
| DRN | Derbent | 1.35 | 128 | ePG | Pg | 08 18 40.5 | +1.5 |
| DRN | | | | eS | Sn | 08 18 58.5 | +1.2 |
| DRN | Derbent | 1.35 | 128 | ePg | Pg | 08 18 40.5 | +1.5 |
| DRN | | | | eSg | Sn | 08 18 58.5 | +1.2 |
| KMGR | Komgaron | 1.51 | 277 | ⇓iPG | Pg | 08 18 42.5 | +0.5 |
| KMGR | | | | eS | Sg | 08 19 05.1 | +3.6 |
| KMGR | Komgaron | 1.51 | 277 | iPg | Pg | 08 18 42.5 | +0.5 |
| AKT | Akhty | 1.53 | 156 | ePG | Pg | 08 18 42.1 | -0.2 |
| AKT | | | | eS | Sg | 08 19 01.6 | -0.5 |
| AKT | Akhty | 1.53 | 156 | ePg | Pg | 08 18 42.1 | -0.2 |
| AKT | | | | eSg | Sg | 08 19 01.6 | -0.5 |
| BTKR | Batakoyurt | 1.80 | 287 | ePN | Pg | 08 18 47.9 | +0.3 |
| BTKR | | | | eS | Sg | 08 19 14.1 | +3.2 |
| LACR | Lac | 1.92 | 269 | ePN | Pb | 08 18 48.0 | -0.8 |
| LACR | | | | eS | Sg | 08 19 14.3 | -0.5 |
| LACR | Lac | 1.92 | 269 | ePn | Pb | 08 18 48.0 | -0.8 |
| LACR | | | | eSg | Sg | 08 19 14.3 | -0.5 |
| ZEI | Tsey | 2.21 | 269 | ePN | Pb | 08 18 52.9 | -1.0 |
| ZEI | | | | eS | Sb | 08 19 21.8 | 0.0 |
| ZEI | Tsey | 2.21 | 269 | ePn | Pb | 08 18 52.9 | -1.0 |
| DIGR | Digorskoe uzhe | 2.44 | 272 | ePN | Pb | 08 18 56.5 | -1.3 |
| DIGR | | | | eS | Sb | 08 19 28.2 | -0.2 |
| SHA1 | Shidzhatmaz | 3.22 | 287 | ePN | Pn | 08 19 04.0 | -0.8 |
| SHA1 | | | | eS | Sn | 08 19 42.2 | -1.6 |
| SHA1 | Shidzhatmaz | 3.22 | 287 | ePn | Pn | 08 19 04.0 | -0.8 |
| SHA1 | | | | eSn | Sn | 08 19 42.2 | -1.6 |
| GOF | Gofitskoye | 3.54 | 309 | ⇑ePN | Pn | 08 19 08.4 | -0.5 |
| GOF | Gofitskoye | 3.54 | 309 | ePn | Pn | 08 19 08.4 | -0.5 |
| TUTA | Tutak | 4.65 | 223 | iP | Pg | 08 19 50.9 | +8.7 |
| RPOR | Krasnaya Polya | 4.92 | 282 | ⇑ePN | Pn | 08 19 31.5 | +3.6 |
| TVAN | Van | 5.10 | 213 | iP | Pn | 08 19 34.7 | +4.1 |
| TVAN | Van | 5.10 | 213 | P | Pn | 08 19 34.7 | +4.1 |
| GEVA | Gevas | 5.42 | 214 | iP | Pn | 08 19 38.1 | +3.1 |

*ISCJB **02** 08:21:16.3±0.5, 56°.56N±0°.03×11°.59E±0°.06, h0km, Error ellipse: s-maj=5.3km s-min=3.9km az=36.3*
*UPP **02** 08:21:17.9±0.3, 56°.55N×11°.71E, h0km, ML2.6*
*CSEM **02** 08:21:17.2±0.2, 56°.60N×11°.69E, h2km, ML1.6, Error ellipse: s-maj=5.3km s-min=3.7km az=48.0, Mining explosion.*
*BER **02** 08:21:19.2±2.5, 56°.57N×11°.72E, h4km±14km, ML1.6, ML2.1(NAO)*
*NAO **02** 08:21:21.5±2.3, 56°.73N×11°.46E, h13km±16km, ML2.1*
**ISC 02 08:21:17.1**±0.9**, 56°.59N**±0°.03×**11°.69E**±0°.03**, h0km, n48,** σ**1s.12**/58**, Denmark**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| FABU | Falkenberg | 0.70 | 53 | P | Pg | 08 21 31.4 | +0.8 |
| FABU | | | | S | Sg | 08 21 40.7 | +1.0 |
| BJUU | Bjuv | 0.90 | 124 | P | Pg | 08 21 34.3 | -0.1 |
| COP | Copenhagen | 0.99 | 155 | iP | Pg | 08 21 36.5 | +0.4 |
| BORU | Boraas | 1.21 | 29 | P | Pg | 08 21 40.7 | +0.5 |
| DEL | Delary | 1.21 | 95 | P | Pg | 08 21 39.9 | -0.4 |
| LLD | Lille Linde | 1.29 | 167 | iP | Pg | 08 21 41.5 | -0.3 |
| LLD | | | | e | | 08 23 42.2 | |
| LLD | Lille Linde | 1.29 | 167 | iP | Pg | 08 21 41.5 | -0.3 |
| MUD | Monsted U'grnd | 1.40 | 266 | iP | Pn | 08 21 43.8 | 0.0 |
| MUD | | | | iS | Sn | 08 22 05.0 | +2.0 |
| MUD | Monsted U'grnd | 1.40 | 266 | eP | Pn | 08 21 43.8 | 0.0 |
| MUD | | | | eS | Sg | 08 22 03.3 | +1.2 |
| MUD | | | | IAML | | 08 22 08.2 | |
| | comp=Z,27nm,0.3s | | | | | | |
| MUD | Monsted U'grnd | 1.40 | 266 | eP | Pn | 08 21 43.8 | 0.0 |
| | SNR=50 | | | | | | |
| MUD | | | | eS | Sg | 08 22 03.3 | +1.2 |
| | SNR=50 | | | | | | |
| TJOU | Tjoern | 1.45 | 359 | P | Pn | 08 21 45.2 | +0.7 |
| TJOU | | | | S | Sg | 08 22 04.8 | +1.2 |
| VXJU | Vaexsjoe | 1.82 | 78 | P | Pn | 08 21 50.6 | +1.0 |
| VANU | Vaenersborg | 1.92 | 6 | P | Pn | 08 21 52.0 | +1.0 |
| FKPU | Falk | 1.92 | 34 | P | Pn | 08 21 52.8 | +1.7 |
| EKSU | Eksjoe | 2.21 | 62 | P | Pn | 08 21 56.2 | +1.2 |
| BLEU | Blekinge | 2.31 | 95 | P | Pn | 08 21 56.9 | +0.6 |
| BSD | Bornholm Skovb | 2.34 | 128 | iP | Pn | 08 21 56.1 | -0.7 |
| BSD | Bornholm Skovb | 2.34 | 128 | ePg | Pg | 08 22 02.2 | +0.3 |
| BSD | Bornholm Skovb | 2.34 | 128 | iP | Pn | 08 21 56.6 | -0.2 |
| | SNR=49 | | | | | | |
| BSD | Bornholm Skovb | 2.34 | 128 | ePg | Pg | 08 22 02.2 | +0.3 |
| | SNR=91 | | | | | | |
| HOMB | Homborsund | 2.41 | 316 | eP | Pn | 08 21 57.1 | -0.7 |
| HOMB | | | | eS | Sn | 08 22 26.4 | -1.5 |
| HOMB | | | | IAML | | 08 22 28.2 | |
| | comp=Z,4.9nm,0.1s | | | | | | |
| HOMB | Homborsund | 2.41 | 316 | eP | Pn | 08 21 57.1 | -0.7 |
| | SNR=50 | | | | | | |
| HOMB | | | | eS | Sn | 08 22 26.4 | -1.5 |
| | SNR=50 | | | | | | |
| NASU | Vaermlandsnaes | 2.48 | 18 | P | Pn | 08 22 00.4 | +1.7 |
| OSKU | Oskarshamn | 2.50 | 74 | P | Pn | 08 21 59.8 | +0.8 |
| LNKU | Linkoeping | 2.64 | 50 | P | Pn | 08 22 02.1 | +1.2 |
| ASPU | Aespoe | 2.81 | 71 | P | Pn | 08 22 04.7 | +1.4 |
| VSTU | Vaestervik | 2.85 | 66 | P | Pn | 08 22 05.2 | +1.3 |
| ASKU | Askersund | 2.86 | 35 | P | Pn | 08 22 05.6 | +1.6 |
| SNART | Snartemo | 2.99 | 308 | eP | Pn | 08 22 05.2 | -0.5 |
| SNART | | | | eS | Sn | 08 22 40.7 | -1.5 |
| SNART | | | | IAML | | 08 22 42.5 | |
| | comp=Z,3.7nm,0.1s | | | | | | |
| SNART | Snartemo | 2.99 | 308 | eP | Pn | 08 22 05.2 | -0.5 |
| | SNR=50 | | | | | | |
| SNART | | | | eS | Sn | 08 22 40.7 | -1.5 |
| | SNR=50 | | | | | | |
| KON | Kongsberg | 3.27 | 341 | Pn | Pn | 08 22 09.6 | +0.1 |
| KON | | | | Lg | Lg | 08 23 01.3 | |
| KONO | Kongsberg | 3.27 | 341 | eP | Pn | 08 22 09.7 | +0.1 |
| KONO | | | | e | | 08 23 02.0 | |
| KONO | Kongsberg | 3.27 | 341 | eP | Pn | 08 22 09.6 | +0.1 |
| | SNR=50 | | | | | | |
| KONO | | | | Lg | Lg | 08 23 01.3 | |
| HFS | Hagfors | 3.71 | 16 | Pn | Pn | 08 22 16.3 | +0.7 |
| | baz=205,slow=14 | | | | | | |
| HFS | | | | Sn | Sn | 08 22 57.1 | -2.9 |
| | baz=209,slow=28 | | | | | | |
| HFS | | | | Lg | Lg | 08 23 14.5 | |
| | baz=198,slow=28 | | | | | | |
| HFS | Hagfors | 3.71 | 16 | Pn | Pn | 08 22 16.3 | +0.7 |
| | baz=205,slow=14 | | | | | | |
| HFS | | | | Sn | Sn | 08 22 57.1 | -2.9 |
| | baz=209,slow=28 | | | | | | |
| HFS | | | | Lg | Lg | 08 23 14.5 | |
| | baz=198,slow=28 | | | | | | |
| HFS | Hagfors | 3.71 | 16 | Pn | Pn | 08 22 16.3 | +0.7 |
| | SNR=50 | | | | | | |
| HFS | | | | Sn | Sn | 08 22 57.1 | -2.9 |
| | SNR=50 | | | | | | |
| HFS | | | | Lg | Lg | 08 23 14.5 | |
| | SNR=4.0 | | | | | | |
| BLS5 | Blasjo | 3.98 | 318 | eP | Pn | 08 22 18.8 | -0.5 |
| BLS5 | Blasjo | 3.98 | 318 | eP | Pn | 08 22 18.8 | -0.5 |
| | SNR=49 | | | | | | |
| NC602 | NORSAR Array S | 4.16 | 359 | eP | Pn | 08 22 22.2 | +0.4 |
| NC602 | NORSAR Array S | 4.16 | 359 | eP | Pn | 08 22 22.2 | +0.4 |
| | SNR=49 | | | | | | |
| NB2 | NORSAR Subarra | 4.47 | 357 | Pn | Pn | 08 22 25.5 | -0.7 |
| | baz=178,slow=14 | | | | | | |
| NB2 | | | | Lg | Lg | 08 23 38.3 | |
| | baz=178,slow=37 | | | | | | |
| NB2 | NORSAR Subarra | 4.47 | 357 | Pn | Pn | 08 22 25.5 | -0.7 |
| | baz=178,slow=14 | | | | | | |
| NB2 | | | | Lg | Lg | 08 23 38.3 | |
| | baz=178,slow=37 | | | | | | |
| NB2 | NORSAR Subarra | 4.47 | 357 | Pn | Pn | 08 22 25.5 | -0.7 |
| | SNR=50 | | | | | | |
| NB2 | | | | Lg | Lg | 08 23 38.3 | |
| | SNR=3.5 | | | | | | |
| FIA0 | FINESS Array S | 8.87 | 51 | Pn | Pn | 08 23 26.6 | +0.2 |
| | baz=232,slow=12 | | | | | | |
| FIA0 | FINESS Array S | 8.87 | 51 | Pn | Pn | 08 23 26.6 | +0.2 |
| | baz=232,slow=12 | | | | | | |
| FIA0 | FINESS Array S | 8.87 | 51 | Pn | Pn | 08 23 26.5 | +0.2 |
| | SNR=50 | | | | | | |
| ARA0 | ARCESS Array S | 14.36 | 20 | Pn | Pn | 08 24 35.5 | -5.9 |
| | baz=205,slow=16 | | | | | | |
| ARA0 | ARCESS Array S | 14.36 | 20 | Pn | Pn | 08 24 35.5 | -5.9 |
| | baz=205,slow=16 | | | | | | |

*PGC **02** 08:25:05.7±1.4, 60°.30N×141°.31W, h1km, ML2.6/8, 151km Wnw of Yakutat, Ak Southeastern Alaska*
*NEIC **02** 08:25:07.0±0.0, 60°.34N×141°.23W, h14km, ML2.5(AEIC), After AEIC.*
**ISC 02 08:25:06.6**±1.2**, 60°.29N**±0°.04×**141°.22W**±0°.02**, h14km**±10km**, n34,** σ**1s.43**/55**, Southeastern Alaska**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PCA | Pinnacle | 0.52 | 111 | P | Pg | 08 25 16.9 | +0.1 |
| PCA | | | | S | Sg | 08 25 24.8 | +1.0 |
| PCA | Pinnacle | 0.52 | 111 | ePg | Pg | 08 25 17.1 | +0.3 |
| PNL | Peninsula | 1.11 | 123 | P | Pb | 08 25 25.7 | -1.8 |
| PNL | | | | S | Sb | 08 25 42.2 | +0.3 |
| YUK2 | White River | 1.52 | 7 | Pn | Pn | 08 25 33.0 | -0.4 |
| YUK2 | | | | Sg | Sb | 08 25 52.8 | -0.8 |
| YUK3 | Moose Creek | 1.54 | 14 | Pn | Pn | 08 25 33.3 | -0.5 |
| YUK3 | | | | Sg | Sb | 08 25 54.2 | -0.2 |
| YUK7 | Dusty Glacier | 1.55 | 80 | Pn | Pn | 08 25 34.1 | +0.2 |
| YUK7 | | | | Sg | Sn | 08 25 54.6 | +0.7 |
| RAGM | Ragged Mountai | 1.72 | 275 | ePn | Pn | 08 25 37.0 | +0.9 |
| RAGM | | | | eSn | Sg | 08 26 01.7 | -0.2 |
| BMRM | Bremner River | 1.80 | 294 | ePn | Pn | 08 25 37.0 | -0.3 |
| BMRM | | | | eSn | Sb | 08 26 01.1 | -0.7 |
| YUK1 | Sand Pete Hill | 1.90 | 10 | Pn | Pn | 08 25 38.9 | +0.2 |
| HYT | Haines Junctio | 1.91 | 72 | Pn | Pn | 08 25 39.4 | +0.5 |
| HYT | | | | Sg | Sn | 08 26 03.6 | +0.7 |
| HYT | Haines Junctio | 1.91 | 72 | ePn | Pn | 08 25 40.1 | +1.2 |
| HYT | | | | eSn | Sb | 08 26 05.5 | +0.4 |
| BVCY | Beaver Creek | 2.14 | 5 | Pn | Pn | 08 25 42.5 | +0.5 |
| BVCY | | | | Sg | Sb | 08 26 10.1 | -1.5 |
| EYAK | Cordova Ski Ar | 2.26 | 279 | ePn | Pb | 08 25 47.0 | -0.1 |
| EYAK | | | | eSn | Sn | 08 26 11.5 | +0.4 |
| DIV | Divide | 2.39 | 293 | Pn | Pn | 08 25 46.0 | +0.7 |
| DIV | | | | Sn | Sn | 08 26 13.4 | -1.1 |
| DIV | | | | Sg | Sb | 08 26 16.7 | -2.0 |
| DIV | Divide | 2.39 | 293 | ePn | Pb | 08 25 47.5 | -1.9 |
| DIV | | | | eSn | Sb | 08 26 17.2 | -1.6 |
| PLBC | Pleasant Camp | 2.59 | 107 | Pn | Pn | 08 25 47.5 | -0.5 |
| PLBC | | | | Sn | Sn | 08 26 19.4 | +0.2 |
| KLU | Klutina | 2.59 | 300 | ePn | Pn | 08 25 49.7 | +1.5 |
| KLU | | | | eSn | Sb | 08 26 23.9 | -0.7 |
| FID | Port Fidalgo | 2.64 | 282 | ePn | Pb | 08 25 53.7 | +0.1 |
| HARP | HAARP | 2.85 | 320 | Pn | Pn | 08 25 51.0 | -0.6 |
| MENT | Mentasta | 2.92 | 337 | ePn | Pn | 08 25 54.4 | +1.9 |
| WHY | Whitehorse | 3.16 | 80 | Pn | Pn | 08 25 54.8 | -1.2 |
| WHY | | | | Sn | Sn | 08 26 32.8 | -0.7 |
| WHY | | | | Sg | Sb | 08 26 43.1 | +2.2 |
| WHY | Whitehorse | 3.16 | 80 | ePn | Pn | 08 25 56.9 | +0.9 |
| SCM | Sheep Creek Mo | 3.35 | 300 | ePn | Pn | 08 25 60.0 | +1.4 |
| DOT | Dot Lake | 3.63 | 340 | Pn | Pn | 08 26 03.1 | +0.8 |
| DOT | | | | Sn | Sn | 08 26 46.5 | +1.5 |
| DOT | Dot Lake | 3.63 | 340 | ePn | Pn | 08 26 04.2 | +1.8 |
| BESE | Bessie Mountai | 3.68 | 115 | Pn | Pn | 08 26 01.8 | -1.2 |
| SML | Sawmill | 3.78 | 297 | ePn | Pb | 08 26 10.0 | -3.0 |
| DAWY | Dawson | 3.89 | 12 | Pn | Pn | 08 26 06.2 | +0.3 |
| DAWY | | | | Sn | Sn | 08 26 49.9 | -1.4 |
| DAWY | | | | Sg | Sb | 08 27 04.9 | +3.1 |
| DAWY | Dawson | 3.89 | 12 | ePn | Pn | 08 26 06.4 | +0.5 |
| EGAK | Eagle | 4.51 | 0 | ePn | Pn | 08 26 15.0 | +0.7 |
| RND | Reindeer | 4.78 | 314 | ePn | Pn | 08 26 19.8 | +1.6 |
| SUA | Susitna One | 4.80 | 288 | eSg | Sb | 08 27 33.2 | +5.1 |
| KTH | Kantishna Hill | 5.63 | 310 | ePn | Pn | 08 26 32.0 | +2.1 |
| DLBC | Dease Lake | 6.02 | 103 | ePn | Pn | 08 26 35.7 | +0.5 |

*ISK **02** 08:35:02.7, 41°.39N×35°.91E, h2km, MD2.7*
*ISCJB **02** 08:35:03.8±0.4, 41°.34N±0°.04×35°.83E±0°.05, h0km, Error ellipse: s-maj=6.8km s-min=3.6km az=43.8*
*DDA **02** 08:35:03.0, 41°.36N×35°.90E, h7km, Ml3.1, Suspected Mining explosion.*
*CSEM **02** 08:35:03.9±0.2, 41°.33N×35°.83E, h1km, ML3.1, Error ellipse: s-maj=5.4km s-min=3.5km az=38.0, Suspected Mining explosion.*
**ISC 02 08:35:02.4**±0.9**, 41°.32N**±0°.03×**35°.85E**±0°.03**, h0km, n35,** σ**0s.43**/41**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SAMS | Samsun-Alacam | 0.26 | 81 | iP | Pb | 08 35 09.8 | -0.2 |
| SAMS | Samsun-Alacam | 0.26 | 81 | P | Pb | 08 35 09.8 | -0.2 |
| HAVZ | Havza | 0.26 | 201 | iP | Pb | 08 35 09.7 | -0.4 |
| HAVZ | Havza | 0.26 | 201 | P | Pb | 08 35 09.7 | -0.4 |
| KVT | Kavak | 0.28 | 148 | ePG | Pb | 08 35 10.1 | -0.3 |
| KVT | | | | eSG | Sb | 08 35 15.7 | -0.1 |
| KVT | Kavak | 0.28 | 148 | ePg | Pb | 08 35 10.1 | -0.3 |
| KVT | | | | eSg | Sb | 08 35 15.7 | -0.1 |
| DIKM | Dikmen | 0.55 | 307 | ePG | Pb | 08 35 14.4 | -0.6 |
| DIKM | | | | eSG | Sb | 08 35 23.1 | -0.4 |
| DIKM | Dikmen | 0.55 | 307 | ePg | Pb | 08 35 14.4 | -0.6 |
| DIKM | | | | eSg | Sb | 08 35 23.1 | -0.4 |
| SNOP | Sinop | 0.85 | 326 | ePG | Pb | 08 35 19.6 | -0.4 |
| SNOP | | | | eSG | Sb | 08 35 31.9 | -0.1 |
| SNOP | Sinop | 0.85 | 326 | ePg | Pb | 08 35 19.7 | -0.4 |
| SNOP | | | | eSg | Sb | 08 35 31.9 | -0.1 |
| SINO | SINOP_Merkez | 0.85 | 326 | iP | Pb | 08 35 19.6 | -0.5 |
| SINO | SINOP_Merkez | 0.85 | 326 | P | Pb | 08 35 19.6 | -0.5 |
| ERBA | Erbaa | 0.94 | 133 | iP | Pb | 08 35 21.8 | +0.2 |
| ERBA | Erbaa | 0.94 | 133 | P | Pb | 08 35 21.8 | +0.2 |
| CTAK | Corum_Osmancik | 1.04 | 230 | iP | Pn | 08 35 24.2 | -0.3 |
| CTAK | Corum_Osmancik | 1.04 | 230 | P | Pn | 08 35 24.2 | -0.3 |
| COAL | Corum-Alaca | 1.25 | 212 | iP | Pn | 08 35 27.3 | 0.0 |
| COAL | Corum-Alaca | 1.25 | 212 | P | Pn | 08 35 27.3 | 0.0 |
| BZK | Bozkurt | 1.52 | 295 | ePN | Pg | 08 35 32.2 | +0.6 |
| BZK | Bozkurt | 1.52 | 295 | ePn | Pg | 08 35 32.2 | +0.6 |
| ORDU | Ordu-Boztepe | 1.55 | 102 | iP | Pb | 08 35 32.0 | -0.1 |
| ORDU | Ordu-Boztepe | 1.55 | 102 | P | Pb | 08 35 32.0 | -0.1 |
| ILGA | Ilgaz | 1.63 | 261 | iP | Pg | 08 35 34.2 | +0.5 |
| ILGA | Ilgaz | 1.63 | 261 | P | Pg | 08 35 34.2 | +0.5 |
| SVSK | Karacayir | 1.65 | 148 | ePN | Pg | 08 35 34.1 | 0.0 |
| SVSK | Karacayir | 1.65 | 148 | ePn | Pg | 08 35 34.1 | 0.0 |
| GRSN | GIRESUNGRSN | 1.87 | 101 | iP | Pb | 08 35 36.9 | -0.6 |
| GRSN | GIRESUNGRSN | 1.87 | 101 | P | Pb | 08 35 36.9 | -0.6 |
| CDAG | Cicekdag | 2.03 | 214 | iP | Pn | 08 35 38.7 | +0.6 |
| CDAG | Cicekdag | 2.03 | 214 | P | Pn | 08 35 38.7 | +0.6 |
| SUSE | Susehri | 2.11 | 121 | iP | Pg | 08 35 42.3 | -0.5 |
| SUSE | Susehri | 2.11 | 121 | P | Pg | 08 35 42.3 | -0.5 |
| ESPY | Espiye-Giresun | 2.21 | 100 | ePN | Pn | 08 35 41.1 | +0.7 |
| ESPY | Espiye-Giresun | 2.21 | 100 | ePn | Pn | 08 35 41.1 | +0.7 |
| KELT | Kelkit | 2.84 | 113 | iP | Pb | 08 35 54.1 | 0.0 |

*ISCJB **02** 08:38:20.3±0.4, 36°.60N±0°.03×71°.18E±0°.05, h150km, mb3.5/10, Error ellipse: s-maj=6.3km s-min=3.7km az=150.2*
*IDC **02** 08:38:20.4±2.8, 36°.42N×71°.32E, h160km±24km, mb3.4/10, mb1 3.5/17, mb1mx3.3/49, mbtmp3.9/17, Error ellipse: s-maj=20.8km s-min=14.7km az=178.0*
*NNC **02** 08:38:28.3±1.5, 37°.10N×71°.15E, h186km±21km, mb3.0, mpv4.0, Error ellipse: s-maj=16.4km s-min=11.9km az=61.0*
**ISC 02 08:38:20.3**±0.5**, 36°.57N**±0°.05×**71°.23E**±0°.06**, h150km, n44,** σ**2s.20**/53**, mb3.6**/10**, 9C-4D, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SFK | Sufi-Kurgan | 3.88 | 27 | ⇓P | Pn | 08 39 22.6 | +3.5 |
| | 22nm,0.3s | | | | | | |
| SFK | | | | ⇑S | Sn | 08 40 05.9 | +1.1 |
| | 91nm,0.2s | | | | | | |
| THN | Thein Dam | 5.54 | 137 | eP | Pn | 08 39 40.0 | -0.9 |
| THN | | | | eS | Sn | 08 40 46.6 | +2.8 |
| AML | Almayashu | 5.88 | 18 | P | Pn | 08 39 47.8 | +2.2 |
| | SNR=60 | | | | | | |
| MNAS | Manas | 5.99 | 9 | ⇑P | Pn | 08 39 49.3 | +2.3 |
| | 6.7nm,0.3s | | | | | | |
| MNAS | | | | ⇓S | Sn | 08 40 52.8 | -2.0 |
| | 54nm,0.4s | | | | | | |
| UCH | Uchtor | 6.20 | 23 | P | Pn | 08 39 52.2 | +2.2 |
| | SNR=15 | | | | | | |
| EKS2 | Erkin-Say | 6.40 | 17 | P | Pn | 08 39 54.8 | +2.5 |
| | SNR=15 | | | | | | |
| KK31 | Karatay Array | 6.55 | 355 | P | Pn | 08 39 56.0 | +1.7 |
| | 4.9nm,0.3s,baz=177,slow=12,SNR=139 | | | | | | |
| KK31 | | | | ⇑S | Sn | 08 41 04.9 | -3.1 |
| | 13nm,0.3s,baz=178,slow=17,SNR=17 | | | | | | |
| AAK | Ala-Archa | 6.57 | 22 | P | Pn | 08 39 57.0 | +2.4 |
| | 4.3nm,0.3s,baz=158,slow=6.2,SNR=40 | | | | | | |
| AAK | | | | S | Sn | 08 41 05.3 | -3.2 |
| | 1.4nm,0.3s,baz=126,slow=19,SNR=11 | | | | | | |
| AAK | Ala-Archa | 6.57 | 22 | ⇑P | Pn | 08 39 56.6 | +2.0 |
| | 4.8nm,0.5s | | | | | | |
| AAK | | | | ⇑S | Sn | 08 41 07.7 | -0.8 |
| | 21nm,0.5s | | | | | | |
| AAK | Ala-Archa | 6.57 | 22 | P | Pn | 08 39 57.0 | +2.4 |
| | SNR=13 | | | | | | |
| KBK | Karagaybulak | 6.72 | 24 | P | Pn | 08 40 00.2 | +3.4 |
| | SNR=6.2 | | | | | | |
| SDNR | Sundarnagar | 6.95 | 135 | eP | Pn | 08 40 02.5 | +2.9 |
| SDNR | | | | eS | Sn | 08 41 17.0 | -0.5 |
| TKM2 | Tokmak 2 | 7.18 | 27 | ⇓P | Pn | 08 40 04.5 | +1.7 |
| | 4.5nm,0.6s | | | | | | |
| TKM2 | | | | ⇑S | Sn | 08 41 21.8 | -1.5 |
| | 17nm,0.8s | | | | | | |
| TKM2 | Tokmak 2 | 7.18 | 27 | P | Pn | 08 40 05.1 | +2.3 |
| | SNR=13 | | | | | | |
| GEYT | Alibeck | 10.54 | 281 | P | Pn | 08 40 48.6 | +1.2 |
| | 1.7nm,0.3s,baz=104,slow=12,SNR=14 | | | | | | |
| GEYT | | | | S | Sn | 08 42 45.6 | +1.6 |
| | 1.1nm,0.3s,baz=118,slow=31,SNR=3.7 | | | | | | |
| MKAR | Makanchi Array | 13.13 | 35 | P | Pn | 08 41 21.5 | +0.5 |
| | 0.2nm,0.3s,baz=229,slow=13,SNR=6.4 | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KOLN | Koldanda | 13.65 | 126 | eP | P | 08 41 29.2 | -2.6 |
| | 18nm,0.3s | | | | | | |
| DMN | Daman | 14.76 | 123 | eP | P | 08 41 44.1 | 0.0 |
| | 38nm,0.4s | | | | | | |
| KKN | Kakani | 14.76 | 122 | eP | P | 08 41 44.1 | +0.1 |
| | 35nm,0.5s | | | | | | |
| PKIN | Phulchoki | 14.97 | 123 | eP | P | 08 41 46.2 | -0.3 |
| | 31nm,0.4s | | | | | | |
| PKI | Pulchoki | 14.99 | 123 | eP | P | 08 41 46.0 | -0.7 |
| | 41nm,0.5s | | | | | | |
| KURBB | Kurchatov Arra | 15.00 | 18 | P | Pn | 08 41 44.7 | +0.2 |
| | 0.1nm,0.3s,baz=205,slow=11,SNR=3.7 | | | | | | |
| GUN | Gumba | 15.09 | 121 | eP | P | 08 41 47.9 | 0.0 |
| | 24nm,0.4s | | | | | | |
| AB31 | Akbulak array | 15.12 | 331 | ⇑P | Pn | 08 41 47.3 | +1.4 |
| | 0.9nm,0.3s,baz=144,slow=13,SNR=50 | | | | | | |
| AB31 | | | | ⇑S | Sn | 08 44 25.9 | -7.8 |
| | 3.0nm,0.6s,baz=151,slow=23,SNR=9.5 | | | | | | |
| JIRN | Jiri | 15.46 | 121 | eP | P | 08 41 52.8 | +0.8 |
| | 402nm,0.4s | | | | | | |
| RAMN | Ramite | 16.20 | 122 | eP | P | 08 42 00.7 | +0.7 |
| | 33nm,0.7s | | | | | | |
| BVAR | Borovoye Array | 16.47 | 358 | P | P | 08 42 03.5 | +1.1 |
| | 0.2nm,0.3s,baz=159,slow=9.8,SNR=3.6 | | | | | | |
| TAPN | Taplejung | 16.72 | 119 | eP | Pn | 08 42 08.8 | +2.8 |
| | 19nm,0.3s | | | | | | |
| ODAN | Odare | 16.80 | 121 | eP | Pn | 08 42 08.9 | +2.0 |
| | 14nm,0.4s | | | | | | |
| AKTO | Aktyubinsk | 16.81 | 330 | P | P | 08 42 06.7 | +0.3 |
| | 0.6nm,0.3s,baz=116,slow=9.9,SNR=7.4 | | | | | | |
| AKTO | | | | S | S | 08 45 07.7 | -5.8 |
| | 0.2nm,0.3s,baz=99,slow=19,SNR=3.8 | | | | | | |
| AKTO | Aktyubinsk | 16.81 | 330 | ⇓P | P | 08 42 06.8 | +0.5 |
| | 1.2nm,0.4s | | | | | | |
| ZALV | Zalesovo Beam | 19.78 | 24 | P | P | 08 42 38.7 | +0.1 |
| | 0.6nm,0.3s,baz=217,slow=10,SNR=6.6 | | | | | | |
| BRTR | Keskin Array B | 29.59 | 288 | P | P | 08 44 12.5 | +1.3 |
| | 0.6nm,0.5s,baz=89,slow=8.9,SNR=3.1 | | | | | | |
| AKASG | Malin Array Be | 33.05 | 309 | P | P | 08 44 42.2 | +1.0 |
| | 0.4nm,0.3s,baz=81,slow=7.2,SNR=4.5 | | | | | | |
| FINES | FINESS Array B | 37.53 | 326 | P | P | 08 45 20.1 | +0.7 |
| | 1.0nm,0.4s,baz=123,slow=10,SNR=9.3 | | | | | | |
| ARCES | ARCESS Array B | 41.15 | 338 | P | P | 08 45 50.1 | +0.8 |
| | 1.6nm,0.6s,baz=108,slow=8.6,SNR=8.2 | | | | | | |
| NB2 | NORSAR Subarra | 44.44 | 323 | P | P | 08 46 16.0 | +0.1 |
| | comp=Z,1.2nm,0.5s,baz=97,slow=7.9 | | | | | | |
| NOA | NORSAR Array B | 44.44 | 323 | P | P | 08 46 16.1 | +0.1 |
| | comp=Z,0.2nm,0.3s,baz=100,slow=7.9,SNR=6.4 | | | | | | |
| TORD | Torodi Ar. Bea | 65.90 | 269 | P | P | 08 48 49.0 | -1.3 |
| | comp=Z,1.5nm,0.6s,baz=52,slow=5.8,SNR=11 | | | | | | |
| INK | Inuvik | 73.81 | 9 | P | P | 08 49 37.5 | -0.1 |
| | comp=Z,1.2nm,1.0s,baz=327,slow=5.7,SNR=6.2 | | | | | | |
| YKA | Yellowknife Ar | 81.17 | 3 | P | P | 08 50 18.0 | -0.7 |
| | comp=Z,0.5nm,0.6s,baz=351,slow=5.6,SNR=5.4 | | | | | | |
| WRA | Warramunga Arr | 81.87 | 122 | P | P | 08 50 21.2 | -1.8 |
| | comp=Z,0.1nm,0.4s,baz=323,slow=4.3,SNR=3.7 | | | | | | |
| ASAR | Alice Springs | 84.14 | 125 | P | P | 08 50 33.5 | -1.2 |
| | comp=Z,0.3nm,0.8s,baz=318,slow=5.0,SNR=3.9 | | | | | | |
| SYO | Syowa Base | 107.84 | 191 | ⇑eP | Pdif | 08 52 14.2 | -7.9 |

**IDC 02 08:52:39.8**±3.6**, 3°81S×152°26E, h0km, mb3.5**/2**, mb1 3.8**/2**, mb1mx3.2**/28**, mbtmp3.5**/2**, Error ellipse: s-maj=158.0km s-min=46.1km az=118.0, New Ireland region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 23.72 | 226 | P | P | 08 57 54.0 | +0.3 |
| | 0.8nm,0.4s,baz=52,slow=9.7,SNR=20 | | | | | | |
| ASAR | Alice Springs | 26.53 | 220 | P | P | 08 58 19.6 | +0.2 |
| | 0.5nm,1.0s,baz=47,slow=9.2,SNR=2.8 | | | | | | |
| TORD | Torodi Ar. Bea | 149.48 | 290 | PKPbc | PKPbc | 09 12 31.2 | -0.9 |
| | 0.6nm,0.5s,baz=62,slow=1.9,SNR=7.8 | | | | | | |

*KRSC 02 08:53:26.3±1.3, 52°25N×158°72E, h100km±9km, ML4.5*
*ISCJB 02 08:53:27.1±0.3, 52°36N±0°04×158°34E±0°06, h113km±2km, mb3.9/15, Error ellipse: s-maj=7.8km s-min=3.8km az=42.2*
*MOS 02 08:53:27.1±0.9, 52°39N×158°17E, h111km, mb4.0/12, Error ellipse: s-maj=12.6km s-min=4.6km az=72.9*
*IDC 02 08:53:29.3±0.7, 52°62N×157°91E, h118km±6km, mb3.7/11, mb1 3.9/13, mb1mx3.6/42, mbtmp4.1/13, Error ellipse: s-maj=27.9km s-min=11.9km az=136.0*
**ISC 02 08:53:27.6**±0.6**, 52°36N**±0°04×**158°40E**±0°04**, h107**km±4km**, n96, σ1**°**45**/145**, mb4.0**/15**, 3C-5D, Near east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RUS | Russkaya | 0.10 | 43 | PN | Pn | 08 53 42.8 | +0.5 |
| RUS | | | | S | Sn | 08 53 51.9 | -1.5 |
| RUS | Russkaya | 0.10 | 43 | eP | Pn | 08 53 42.8 | +0.5 |
| RUS | | | | eS | Sn | 08 53 51.9 | -1.5 |
| MTVR | Mutnovka | 0.18 | 314 | PN | Pn | 08 53 43.0 | +0.3 |
| MTVR | | | | S | Sn | 08 53 54.0 | -0.1 |
| MTVR | Mutnovka | 0.18 | 314 | eP | Pn | 08 53 43.0 | +0.3 |
| MTVR | | | | eS | Sn | 08 53 54.0 | -0.1 |
| GRL | Gorelyy | 0.28 | 314 | PN | Pn | 08 53 43.8 | +0.8 |
| GRL | | | | S | Sn | 08 53 56.7 | +2.1 |
| GRL | Gorelyy | 0.28 | 314 | eP | Pn | 08 53 43.8 | +0.8 |
| GRL | | | | eS | Sn | 08 53 56.7 | +2.1 |
| ASAK | Asacha | 0.31 | 275 | PN | Pn | 08 53 43.9 | +0.8 |
| ASAK | | | | S | Sn | 08 53 55.4 | +0.7 |
| ASAK | Asacha | 0.31 | 275 | eP | Pn | 08 53 43.9 | +0.8 |
| ASAK | | | | eS | Sn | 08 53 55.4 | +0.7 |
| KRMR | Karymshinskiy | 0.50 | 341 | PN | Pn | 08 53 44.3 | +0.2 |
| KRMR | | | | S | Sn | 08 53 56.9 | +0.5 |
| KRMR | Karymshinskiy | 0.50 | 341 | eP | Pn | 08 53 44.3 | +0.2 |
| KRMR | | | | eS | Sn | 08 53 56.9 | +0.5 |
| KDTR | Khodutka, Kamc | 0.58 | 200 | i P | Pn | 08 53 45.1 | +0.4 |
| KDTR | | | | eS | Sn | 08 53 57.9 | +0.5 |
| PET | Petropavlovsk | 0.69 | 13 | ⇓iPN | Pn | 08 53 45.5 | 0.0 |
| PET | | | | eS | Sn | 08 53 59.1 | +0.2 |
| PET | | | | pmax | pmax | | |
| | comp=Z,1μm,0.4s | | | | | | |
| PET | | | | pmax | pmax | | |
| | comp=Z,1μm,0.5s | | | | | | |
| PET | | | | smax | smax | | |
| | comp=N,3μm,0.6s | | | | | | |
| PET | | | | smax | smax | | |
| | comp=N,4μm,0.5s | | | | | | |
| PET | | | | smax | smax | | |
| | comp=E,3μm,0.5s | | | | | | |
| PET | Petropavlovsk | 0.69 | 13 | eP | Pn | 08 53 45.8 | +0.3 |
| PET | | | | eS | Sn | 08 53 59.2 | +0.3 |
| DALK | Dalny | 0.71 | 18 | PN | Pn | 08 53 46.1 | +0.4 |
| DALK | | | | S | Sn | 08 53 59.3 | +0.1 |
| DALK | Dalny | 0.71 | 18 | eP | Pn | 08 53 46.1 | +0.4 |
| DALK | | | | eS | Sn | 08 53 59.3 | +0.1 |
| PETK | Petropavlovsk- | 0.86 | 331 | P | Pn | 08 53 47.5 | +0.3 |
| | comp=E,617nm,0.3s,baz=128,slow=12 | | | | | | |
| PETK | | | | LR | LR | 08 53 53.3 | |
| | comp=E,53nm,20.1s,baz=134,slow=48 | | | | | | |
| PETK | | | | S | Sn | 08 54 02.1 | +0.2 |
| | comp=E,79nm,0.3s,baz=199,slow=7.0,SNR=9.7 | | | | | | |
| UGLR | Uglovaya | 0.89 | 17 | PN | Pn | 08 53 48.7 | +1.2 |
| UGLR | | | | S | Sn | 08 54 03.9 | +1.4 |
| UGLR | Uglovaya | 0.89 | 17 | eP | Pn | 08 53 48.7 | +1.2 |
| UGLR | | | | eS | Sn | 08 54 03.9 | +1.4 |
| AVH | Avacha | 0.93 | 13 | PN | Pn | 08 53 49.1 | +1.2 |
| AVH | | | | S | Sn | 08 54 05.1 | +1.9 |
| AVH | Avacha | 0.93 | 13 | eP | Pn | 08 53 49.1 | +1.2 |
| AVH | | | | eS | Sn | 08 54 05.1 | +1.9 |
| APC | Apacha | 0.95 | 307 | PN | Pn | 08 53 48.1 | +0.2 |
| APC | | | | S | Sn | 08 54 03.3 | +0.1 |
| APC | Apacha | 0.95 | 307 | i P | Pn | 08 53 48.1 | +0.2 |
| APC | | | | eS | Sn | 08 54 03.3 | +0.1 |
| KOK | Koryaka | 0.95 | 9 | PN | Pn | 08 53 49.5 | +1.4 |
| KOK | | | | S | Sn | 08 54 05.7 | +2.2 |
| KOK | Koryaka | 0.95 | 9 | eP | Pn | 08 53 49.5 | +1.4 |
| KOK | | | | eS | Sn | 08 54 05.7 | +2.2 |
| SDLR | Sedlovina | 0.97 | 17 | PN | Pn | 08 53 49.0 | +0.7 |
| SDLR | | | | S | Sn | 08 54 05.0 | +1.1 |
| SDLR | Sedlovina | 0.97 | 17 | eP | Pn | 08 53 49.0 | +0.7 |
| SDLR | | | | eS | Sn | 08 54 05.0 | +1.1 |
| KRER | Koryakskii | 0.97 | 12 | PN | Pn | 08 53 49.4 | +1.0 |
| KRER | | | | S | Sn | 08 54 05.7 | +1.6 |
| KRER | Koryakskii | 0.97 | 12 | eP | Pn | 08 53 49.4 | +1.0 |
| KRER | | | | eS | Sn | 08 54 05.7 | +1.6 |
| NLC | Nalytchevo | 1.00 | 35 | PN | Pn | 08 53 48.4 | 0.0 |
| NLC | | | | S | Sn | 08 54 03.2 | -0.9 |
| NLC | Nalytchevo | 1.00 | 35 | eP | Pn | 08 53 48.4 | 0.0 |
| NLC | | | | eS | Sn | 08 54 03.2 | -0.9 |
| KRX | Arik | 1.01 | 8 | PN | Pn | 08 53 49.5 | +0.7 |
| KRX | | | | S | Sn | 08 54 06.1 | +1.3 |
| KRX | Arik | 1.01 | 8 | eP | Pn | 08 53 49.5 | +0.7 |
| KRX | | | | eS | Sn | 08 54 06.1 | +1.3 |
| SPN | Mys Shipunski | 1.23 | 52 | PN | Pn | 08 53 52.0 | +1.0 |
| SPN | | | | S | Sn | 08 54 08.4 | -0.4 |
| SPN | Mys Shipunski | 1.23 | 52 | eP | Pn | 08 53 52.0 | +1.0 |
| SPN | | | | eS | Sn | 08 54 08.4 | -0.4 |
| GNL | Ganaly | 1.37 | 349 | PN | Pn | 08 53 52.8 | +0.1 |
| GNL | | | | S | Sn | 08 54 12.3 | +0.5 |
| GNL | Ganaly | 1.37 | 349 | eP | Pn | 08 53 52.8 | +0.1 |
| GNL | | | | eS | Sn | 08 54 12.3 | +0.5 |
| KII | Karymskiy | 1.80 | 20 | PN | Pn | 08 53 59.2 | +1.3 |
| KII | | | | S | Sn | 08 54 22.2 | +1.2 |
| KII | Karymskiy | 1.80 | 20 | eP | Pn | 08 53 59.2 | +1.3 |
| KII | | | | eS | Sn | 08 54 22.2 | +1.2 |
| SKR | Severo-Kuril's | 2.20 | 221 | ePN | Pn | 08 54 03.7 | +0.7 |
| SKR | | | | eS | Sn | 08 54 30.9 | +0.9 |
| SKR | | | | pmax | pmax | | |
| | comp=Z,589nm,0.5s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=E,669nm,0.8s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=N,800nm,0.7s | | | | | | |
| SKR | Severo-Kuril's | 2.20 | 221 | eP | Pn | 08 54 03.5 | +0.5 |
| SKR | | | | eS | Sn | 08 54 30.7 | +0.7 |
| MKZ | Mys Kozlova | 2.97 | 41 | PN | Pn | 08 54 13.6 | +0.6 |
| MKZ | | | | S | Sn | 08 54 47.1 | -0.9 |
| MKZ | Mys Kozlova | 2.97 | 41 | eP | Pn | 08 54 13.6 | +0.6 |
| MKZ | | | | eS | Sn | 08 54 47.1 | -0.9 |
| KZV | Kizimen | 2.98 | 21 | PN | Pn | 08 54 14.0 | +0.7 |
| KZV | Kizimen | 2.98 | 21 | eP | Pn | 08 54 14.0 | +0.7 |
| TUMR | Tumrok | 3.11 | 19 | PN | Pn | 08 54 17.2 | +2.2 |
| TUMR | Tumrok | 3.11 | 19 | eP | Pn | 08 54 17.2 | +2.2 |
| KMNR | Kamenistaya | 3.57 | 17 | PN | Pn | 08 54 23.4 | +2.2 |
| KMNR | Kamenistaya | 3.57 | 17 | eP | Pn | 08 54 23.4 | +2.2 |
| ESO | Esso | 3.58 | 3 | PN | Pn | 08 54 22.1 | +0.9 |
| ESO | Esso | 3.58 | 3 | eP | Pn | 08 54 22.1 | +0.9 |
| KPT | Kopyto | 3.77 | 16 | PN | Pn | 08 54 24.2 | +0.4 |
| KPT | Kopyto | 3.77 | 16 | eP | Pn | 08 54 24.2 | +0.4 |
| KIRR | Kirishev | 3.78 | 17 | PN | Pn | 08 54 26.1 | +2.1 |
| KIRR | Kirishev | 3.78 | 17 | eP | Pn | 08 54 26.1 | +2.1 |
| BZMR | Bezymyannaya | 3.79 | 18 | PN | Pn | 08 54 25.7 | +1.6 |
| BZMR | Bezymyannaya | 3.79 | 18 | eP | Pn | 08 54 25.7 | +1.6 |
| KOZ | Kozyrevsk | 3.81 | 13 | PN | Pn | 08 54 25.4 | +1.2 |
| KOZ | Kozyrevsk | 3.81 | 13 | eP | Pn | 08 54 25.4 | +1.2 |
| ZLN | Zelenaya | 3.93 | 20 | PN | Pn | 08 54 27.4 | +1.5 |
| ZLN | Zelenaya | 3.93 | 20 | eP | Pn | 08 54 27.4 | +1.5 |
| KLY | Klyuchi | 4.18 | 17 | PN | Pn | 08 54 32.1 | +3.0 |
| KLY | Klyuchi | 4.18 | 17 | eP | Pn | 08 54 32.1 | +3.0 |
| SMKR | Semkarok | 4.60 | 22 | PN | Pn | 08 54 37.1 | +2.2 |
| SMKR | Semkarok | 4.60 | 22 | eP | Pn | 08 54 37.1 | +2.2 |
| SRKR | Sorokina | 4.60 | 19 | PN | Pn | 08 54 37.2 | +2.3 |
| SRKR | Sorokina | 4.60 | 19 | eP | Pn | 08 54 37.2 | +2.3 |
| KBTR | Krutoberegovo | 4.65 | 32 | PN | Pn | 08 54 36.2 | +0.7 |
| KBTR | | | | S | Sn | 08 55 27.3 | -0.9 |
| KBTR | Krutoberegovo | 4.65 | 32 | eP | Pn | 08 54 36.2 | +0.7 |
| KBTR | | | | eS | Sn | 08 55 27.3 | -0.9 |
| BKI | Bering | 5.32 | 55 | PN | Pn | 08 54 43.3 | -1.2 |
| BKI | Bering | 5.32 | 55 | eP | Pn | 08 54 43.3 | -1.2 |
| BKI | | | | eS | Sn | 08 55 37.9 | -6.6 |
| MA2 | Magadan | 8.40 | 332 | P | Pn | 08 55 22.8 | -3.5 |
| | comp=N,0.5nm,0.3s,baz=144,slow=14,SNR=4.2 | | | | | | |
| UGL | Uglegorsk | 10.86 | 259 | ePN | Pn | 08 55 57.5 | -2.3 |
| UGL | | | | eS | Sn | 08 57 56.5 | -2.7 |
| ASAJ | Asahikawa | 13.35 | 238 | P | Pn | 08 56 33.7 | +0.9 |
| | comp=N,0.8nm,0.3s,baz=89,slow=13,SNR=5.5 | | | | | | |
| HABR | Khabarovsk | 15.36 | 265 | eP | Pn | 08 56 55.7 | -2.6 |
| HABR | | | | eS | Sn | 08 59 44.5 | -3.5 |
| HABR | | | | pmax | pmax | | |
| | comp=N,17nm,1.5s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=E,7.0nm,1.5s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=Z,19nm,1.5s | | | | | | |
| HABR | | | | MLR | MLR | | |
| | comp=Z,38nm,10.0s | | | | | | |
| YAK | Yakutsk | 18.17 | 313 | ⇑eP | P | 08 57 29.8 | -1.7 |
| YAK | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.5s | | | | | | |
| MJA0 | Matsu Arr-Jizo | 21.26 | 230 | eP | P | 08 58 06.0 | +0.8 |
| MJA0 | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.5s | | | | | | |
| MJAR | Matsushiro Arr | 21.28 | 230 | P | P | 08 58 06.0 | +0.6 |
| | comp=Z,1.8nm,0.5s,baz=24,slow=9.8,SNR=7.8 | | | | | | |
| MAJO | Matsushiro | 21.28 | 230 | ⇓eP | P | 08 58 06.0 | +0.6 |
| MAJO | | | | pmax | pmax | | |
| | comp=Z,14nm,1.5s | | | | | | |
| TIXI | Tiksi | 23.34 | 337 | ⇓eP | P | 08 58 24.9 | -1.0 |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,13nm,2.8s | | | | | | |
| HIA | Hailar | 24.42 | 278 | ⇑eP | P | 08 58 35.7 | -0.3 |
| HIA | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.5s | | | | | | |
| KDAK | Kodiak Island | 28.06 | 59 | P | P | 08 59 08.6 | 0.0 |
| | comp=Z,11nm,0.9s,baz=301,slow=6.9,SNR=9.3 | | | | | | |
| COLA | College | 29.65 | 44 | ⇓eP | P | 08 59 23.1 | +0.6 |
| ILAR | Eielson Array | 30.06 | 44 | P | P | 08 59 26.6 | +0.4 |
| | comp=Z,0.8nm,0.6s,baz=264,slow=7.1,SNR=20 | | | | | | |
| ILAR | | | | PcP | PcP | 09 02 24.5 | -0.7 |
| | comp=Z,0.3nm,0.6s,baz=290,slow=3.7,SNR=4.9 | | | | | | |
| INK | Inuvik | 35.08 | 37 | P | P | 09 00 10.9 | +1.1 |
| | comp=Z,0.8nm,0.4s,baz=284,slow=8.3,SNR=11 | | | | | | |
| INK | | | | PcP | PcP | 09 02 37.7 | -1.2 |
| | comp=Z,1.3nm,1.1s,baz=293,slow=2.4,SNR=3.1 | | | | | | |
| DGZ | Jazzator, Alta | 43.07 | 296 | ⇓eP | P | 09 01 15.6 | -1.2 |
| DGZ | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.8s | | | | | | |
| YKA | Yellowknife Ar | 44.40 | 42 | P | P | 09 01 28.0 | +1.0 |
| | comp=Z,0.8nm,0.6s,baz=300,slow=7.2,SNR=5.7 | | | | | | |
| KURK | Kurchatov | 47.24 | 302 | ⇑eP | P | 09 01 46.3 | -3.2 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.6s | | | | | | |
| MKAR | Makanchi Array | 47.54 | 295 | P | P | 09 01 49.2 | -2.7 |
| | comp=Z,0.3nm,0.4s,baz=61,slow=7.4,SNR=5.7 | | | | | | |
| PDAR | Pinedale Array | 58.78 | 59 | P | P | 09 03 16.5 | +1.9 |
| | comp=Z,1.9nm,0.7s,baz=336,slow=2.0,SNR=16 | | | | | | |
| ULM | Lac du Bonnet | 60.07 | 45 | P | P | 09 03 23.9 | +0.9 |
| | comp=Z,3.1nm,0.8s,baz=308,slow=8.8,SNR=3.6 | | | | | | |
| ULM | Lac du Bonnet | 60.07 | 45 | P | P | 09 03 24.0 | +0.9 |
| ULM | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.8s | | | | | | |
| TXAR | Lajitas Array | 71.88 | 66 | P | P | 09 04 40.9 | +1.8 |
| | comp=Z,2.7nm,0.7s,baz=296,slow=5.1,SNR=15 | | | | | | |
| WRA | Warramunga Arr | 74.99 | 203 | P | P | 09 04 57.8 | +0.8 |
| | comp=Z,1.3nm,0.7s,baz=17,slow=6.1,SNR=11 | | | | | | |
| WRA | Warramunga Arr | 74.99 | 203 | eP | P | 09 04 57.2 | +0.1 |
| WRA | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.6s | | | | | | |
| ASAR | Alice Springs | 78.67 | 203 | P | P | 09 05 19.2 | +1.5 |
| | comp=Z,1.2nm,0.5s,baz=15,slow=5.1,SNR=26 | | | | | | |
| PLCA | Paso Flores | 145.03 | 90 | PKPbc | PKPdf | 09 12 52.5 | +0.8 |
| | comp=Z,2.7nm,0.8s,baz=301,slow=2.5,SNR=6.2 | | | | | | |

*NIED 02 08:58:00, 38°60N×141°90E, h50km, Mw3.9 Best double couple: M0 7.28000×10^14 NP1:φs192.00000°, δ25.00000°, λ85.00000°. NP2:φs17.00000°, δ65.00000°, λ92.00000°.*
*ISCJB 02 08:58:44.3±0.8, 38°60N±0°04×141°95E±0°10, h55km±6km, mb3.6/6, Error ellipse: s-maj=13.5km s-min=5.7km az=20.4*
*JMA 02 08:58:45.6±0.1, 38°62N×141°91E, h48km±1km, M3.8*
*JMA Felt II J1.*
*IDC 02 08:58:45.2±2.5, 38°56N×141°98E, h43km±24km, mb3.4/6, mb1 3.6/10, mb1mx3.5/40, mbtmp3.7/10, ML3.1/4, MS3.0/2, Ms1 3.0/2, ms1mx2.5/29, Error ellipse: s-maj=26.2km s-min=15.3km az=108.0*
**ISC 02 08:58:45.3**±1.5**, 38°60N**±0°06×**141°97E**±0°10**, h41**km±14km**, n28, σ1**°**22**/30**, mb3.6**/6**, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JIO | Ouri | 0.51 | 254 | P | Pn | 08 58 56.3 | +0.2 |
| JIO | | | | S | Sn | 08 59 03.5 | -0.3 |
| OFUJ | Ofunato | 0.54 | 334 | P | Pn | 08 58 56.7 | +0.1 |
| OFUJ | | | | eS | Sn | 08 59 04.5 | -0.1 |
| JMK | Ichinoseki | 0.69 | 301 | P | Pn | 08 58 58.5 | 0.0 |
| JMK | | | | S | Sn | 08 59 07.6 | -0.5 |
| JOM | Ohasama | 1.02 | 329 | P | Pn | 08 59 03.2 | 0.0 |
| JOU | Okura | 1.05 | 258 | P | Pn | 08 59 03.4 | -0.1 |
| JOU | | | | S | Sn | 08 59 16.5 | -0.5 |
| JMM | Marumori | 1.18 | 232 | P | Pn | 08 59 04.9 | -0.4 |
| JMM | | | | eS | Sn | 08 59 19.1 | -1.0 |
| JYK | Kaneyama | 1.30 | 285 | P | Pn | 08 59 06.8 | -0.2 |
| JRG | Rokugo | 1.31 | 308 | P | Pn | 08 59 06.9 | -0.2 |
| JFK | Kawauchi | 1.50 | 216 | P | Pn | 08 59 09.7 | -0.1 |
| JFK | | | | eS | Sn | 08 59 27.4 | -0.7 |
| JYS | Shirataka | 1.54 | 257 | P | Pn | 08 59 10.5 | +0.2 |
| JYS | | | | eS | Sn | 08 59 28.8 | -0.3 |
| MJAR | Matsushiro Arr | 3.62 | 237 | P | Pn | 08 59 39.2 | +0.3 |
| | 5.0nm,0.3s,baz=40,slow=12,SNR=38 | | | | | | |
| MJAR | | | | S | Sn | 09 00 30.3 | +10 |
| | 3.0nm,0.3s,baz=40,slow=51,SNR=4.7 | | | | | | |
| MAT | Matsushiro | 3.62 | 237 | P | Pn | 08 59 40.6 | +1.7 |
| MAT | | | | eS | Sn | 09 00 25.7 | +5.3 |
| ASAJ | Asahikawa | 5.54 | 5 | P | Pn | 09 00 05.3 | +0.2 |
| | 0.9nm,0.3s,baz=226,slow=17,SNR=5.6 | | | | | | |
| ASAJ | | | | S | Sn | 09 01 08.2 | +0.8 |
| | 0.6nm,0.3s,baz=198,slow=20,SNR=3.1 | | | | | | |
| USRK | Ussuriysk Ar. | 9.36 | 310 | P | Pn | 09 00 58.1 | +0.6 |
| | 0.3nm,0.3s,baz=122,slow=15,SNR=15 | | | | | | |
| KSRS | Korea Array | 11.14 | 268 | P | Pn | 09 01 21.2 | -0.8 |
| | 0.1nm,0.3s,baz=69,slow=14,SNR=3.2 | | | | | | |
| KSRS | | | | LR | LR | 09 05 17.1 | |
| | comp=Z,59nm,18.5s,baz=42,slow=35 | | | | | | |
| PETK | Petropavlovsk- | 18.12 | 32 | LR | LR | 09 09 21.7 | |
| | comp=Z,46nm,19.7s,baz=203,slow=35 | | | | | | |
| SONM | Songino Array | 27.32 | 301 | P | P | 09 04 27.1 | +1.0 |
| | 0.5nm,0.5s,baz=102,slow=8.2,SNR=2.4 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 28.61 | 124 | T | T | 09 35 08.4 | |
| | baz=317,slow=76,SNR=122 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 28.62 | 124 | T | T | 09 35 14.5 | |
| | baz=317,slow=76,SNR=110 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 28.63 | 124 | T | T | 09 35 15.1 | |
| | baz=317,slow=76,SNR=99 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 29.38 | 126 | T | T | 09 36 04.1 | |
| | baz=318,slow=76,SNR=70 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 29.38 | 126 | T | T | 09 36 13.9 | |
| | baz=318,slow=76,SNR=84 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 29.39 | 126 | T | T | 09 36 06.0 | |
| | baz=318,slow=76,SNR=48 | | | | | | |
| ZALV | Zalesovo Beam | 41.21 | 311 | P | P | 09 06 24.9 | -0.7 |
| | 1.7nm,0.5s,baz=96,slow=8.9,SNR=7.4 | | | | | | |
| MKAR | Makanchi Array | 43.68 | 301 | P | P | 09 06 45.3 | -0.7 |
| | 0.8nm,0.5s,baz=76,slow=9.9,SNR=10 | | | | | | |
| ILAR | Eielson Array | 47.94 | 33 | P | P | 09 07 19.7 | +0.4 |
| | 0.4nm,0.9s,baz=273,slow=5.5,SNR=3.2 | | | | | | |
| WRA | Warramunga Arr | 58.67 | 188 | P | P | 09 08 37.4 | -1.1 |
| | 0.5nm,0.5s,baz=5.9,slow=7.1,SNR=9.0 | | | | | | |
| ASAR | Alice Springs | 62.39 | 188 | P | P | 09 09 03.3 | -0.5 |
| | 0.2nm,0.5s,baz=4.8,slow=5.6,SNR=4.1 | | | | | | |

**MEX 02 09:00:04.6**±0.2**, 18°08N×103°41W, h2km, MD3.7, Near coast of Michoacan**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MMIG | Aquila | 0.22 | 17 | i P | Pg | 09 00 08.7 | -0.2 |
| MMIG | | | | eS | Sg | 09 00 11.8 | +0.1 |
| R15V | | 1.21 | 334 | eP | Pg | 09 00 24.7 | -3.2 |
| R15V | | | | eS | Sg | 09 00 40.4 | -3.2 |
| EZ5V | | 1.41 | 353 | eP | Pn | 09 00 27.7 | -3.8 |
| EZ5V | | | | i S | Sg | 09 00 46.0 | -3.8 |
| ARIG | Puente Sto Nin | 2.92 | 86 | eP | Pn | 09 00 49.0 | -3.1 |

*ISCJB 02 09:02:55.8±0.7, 23°13S±0°05×66°72W±0°04, h223km±7km, mb3.2/1, Error ellipse: s-maj=8.3km s-min=5.0km az=34.0*
*SJA 02 09:02:56.4±0.7, 23°13S×66°63W, h220km±7km, ML2.5, MW2.5*
*GUC 02 09:02:58.1±0.4, 23°02S×67°09W, h231km±13km, ML4.1*
*IDC 02 09:03:01.6±10.0, 22°51S×65°82W, h224km±85km, mb2.9/1, mb1 3.1/2, mb1mx2.9/17, mbtmp3.5/2, Error ellipse: s-maj=119.6km s-min=86.2km az=39.0*
**ISC 02 09:02:56.0**±1.0**, 23°12S**±0°06×**66°69W**±0°04**, h221**km±9km**, n21, σ1**°**28**/34**, 1D, Jujuy Province**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| HJA | Humahuaca | 1.18 | 94 | ⇓eP | Pn | 09 03 30.6 | +0.9 |
| YJA | Yavi | 1.44 | 49 | eP | Pn | 09 03 32.3 | +0.6 |
| YJA | | | | IAML | | 09 03 33.1 | |
| | comp=Z,41nm,0.3s | | | | | | |
| AZAP | Zapla | 1.85 | 127 | eP | Pn | 09 03 35.5 | +0.5 |
| AZAP | | | | eS | S | 09 04 04.1 | -1.2 |
| LVC | Limon Verde | 2.11 | 284 | eP | Pn | 09 03 38.7 | +1.0 |
| LVC | | | | eS | S | 09 04 10.5 | +0.6 |
| LVC | Limon Verde | 2.11 | 284 | i P | Pn | 09 03 38.3 | +0.7 |
| LVC | | | | i S | S | 09 04 09.5 | -0.4 |
| ASTB | Santa Barbara | 2.21 | 112 | eP | Pn | 09 03 38.8 | +0.4 |
| ASTB | | | | eS | S | 09 04 10.1 | -1.3 |
| ALOL | LOMAS DE OLMED | 2.58 | 106 | eP | Pn | 09 03 42.3 | +0.1 |
| PB09 | IPOC Station P | 2.70 | 299 | i P | Pn | 09 03 45.1 | +1.4 |
| PB09 | | | | i S | S | 09 04 21.6 | +0.8 |
| PB09 | | | | IAML | | 09 04 26.0 | |
| | comp=N,407nm,0.2s | | | | | | |
| FSA | Cafayete | 3.05 | 168 | eP | Pn | 09 03 48.8 | +1.3 |
| FSA | | | | IAML | | 09 04 29.1 | |
| | comp=Z,4.2nm,0.8s | | | | | | |
| PB07 | IPOC Station P | 3.27 | 295 | i P | Pn | 09 03 50.7 | +0.6 |
| PB07 | | | | i S | S | 09 04 30.2 | -2.0 |
| PB07 | | | | IAML | | 09 04 32.5 | |
| | comp=N,428nm,0.2s | | | | | | |
| PB01 | IPOC Station P | 3.32 | 308 | i P | Pn | 09 03 51.1 | +0.5 |
| PB01 | | | | i S | S | 09 04 31.9 | -1.4 |
| PB01 | | | | IAML | | 09 04 34.7 | |
| | comp=N,166nm,0.1s | | | | | | |
| PB10 | IPOC Station P | 3.57 | 263 | eP | Pn | 09 03 54.5 | +0.9 |
| PB10 | | | | eS | S | 09 04 36.5 | -1.9 |
| PB10 | IPOC Station P | 3.57 | 263 | i P | Pn | 09 03 54.4 | +0.9 |
| PB10 | | | | i S | S | 09 04 36.5 | -1.9 |
| PB14 | IPOC Station P | 3.71 | 245 | i P | Pn | 09 03 56.1 | +0.6 |
| PB14 | | | | i S | S | 09 04 39.9 | -2.1 |
| PB14 | | | | IAML | | 09 04 41.4 | |
| | comp=E,263nm,0.4s | | | | | | |
| PB08 | IPOC Station P | 3.75 | 322 | i P | Pn | 09 03 57.3 | +1.3 |
| PB08 | | | | i S | S | 09 04 43.1 | +0.1 |
| PB08 | | | | IAML | | 09 04 47.2 | |
| | comp=E,68nm,0.3s | | | | | | |
| PSGC | Pisagua | 4.75 | 317 | i P | Pn | 09 04 06.9 | -1.1 |
| MNMC | Minye Minye | 4.81 | 325 | i P | Pn | 09 04 09.1 | +0.2 |
| MNMC | | | | i S | S | 09 05 03.8 | -2.5 |
| ACLC | CERRO LA CRUZ | 6.28 | 182 | eP | Pn | 09 04 27.7 | +0.3 |
| LPAZ | La Paz | 6.93 | 348 | P | Pn | 09 04 37.1 | +0.9 |
| | comp=E,0.7nm,0.3s,baz=138,slow=14,SNR=22 | | | | | | |
| LPAZ | | | | S | S | 09 05 53.8 | -2.2 |
| | baz=217,slow=20,SNR=3.5 | | | | | | |
| TORD | Torodi Ar. Bea | 75.99 | 69 | P | P | 09 14 19.2 | -0.1 |
| | comp=E,0.2nm,0.3s,baz=250,slow=4.3,SNR=3.5 | | | | | | |
| MKAR | Makanchi Array | 145.67 | 39 | PKP | PKPab | 09 22 10.9 | +1.6 |
| | comp=E,0.5nm,0.6s,baz=309,slow=3.0,SNR=4.2 | | | | | | |

**WEL 02 09:13:42.0**±0.4**, 37°38S×179°96E, h33km, ML3.7**/17**, 1C-1D, Error ellipse: s-maj=5.2km s-min=3.5km az=0.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WMGZ | Waiomatatini S | 1.30 | 250 | PN | Pn | 09 14 03.3 | -0.6 |
| WMGZ | | | | SN | Sn | 09 14 19.9 | -0.2 |
| WMGZ | | | | AML | AML | 09 14 22.8 | |
| MXZ | Matakaoa Point | 1.33 | 262 | ePN | Pn | 09 14 03.3 | -0.9 |
| MXZ | | | | SN | Sn | 09 14 19.7 | -1.1 |
| MXZ | | | | AML | AML | 09 14 24.0 | |
| PUZ | Puketiti | 1.52 | 242 | PN | Pn | 09 14 06.1 | -0.7 |
| PUZ | | | | SN | Sn | 09 14 23.8 | -1.6 |
| PUZ | | | | AML | AML | 09 14 24.6 | |
| PKGZ | Pakihiroa | 1.58 | 251 | PN | Pn | 09 14 07.0 | -0.7 |
| PKGZ | | | | eSN | Sn | 09 14 25.6 | -1.5 |
| PKGZ | | | | AML | AML | 09 14 27.8 | |
| TWGZ | Tauwhareparae | 1.76 | 243 | PN | Pn | 09 14 09.8 | -0.4 |
| TWGZ | | | | SN | Sn | 09 14 31.1 | -0.3 |
| TWGZ | | | | AML | AML | 09 14 31.5 | |
| CNGZ | Carnagh Statio | 1.77 | 231 | PN | Pn | 09 14 10.2 | -0.1 |
| CNGZ | | | | AML | AML | 09 14 35.3 | |
| HAZ | Te Kaha | 1.77 | 257 | PN | Pn | 09 14 10.3 | 0.0 |
| HAZ | | | | SN | Sn | 09 14 31.5 | -0.2 |
| HAZ | | | | AML | AML | 09 14 32.5 | |
| RUGZ | Raukumara Rang | 1.90 | 251 | PN | Pn | 09 14 11.9 | -0.4 |
| MWZ | Matawai | 2.15 | 243 | PN | Pn | 09 14 14.6 | -0.9 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| MWZ | | | | SN | Sn | 09 14 38.6 | -2.5 |
| MWZ | | | | AML | AML | 09 14 40.0 | |
| **RIGZ** | **Rimuhau** | **2.18** | **232** | PN | Pn | 09 14 15.4 | -0.6 |
| RIGZ | | | | SN | Sn | 09 14 41.0 | -0.9 |
| RIGZ | | | | AML | AML | 09 14 43.5 | |
| **RAGZ** | **Rawiri** | **2.30** | **240** | PN | Pn | 09 14 14.6 | -3.1 |
| RAGZ | | | | AML | AML | 09 14 44.5 | |
| RAGZ | | | | AML | AML | 09 14 51.0 | |
| **MHGZ** | **Mahia Peninsul** | **2.40** | **222** | *e*PN | Pn | 09 14 17.2 | -1.7 |
| **URZ** | **Urewera** | **2.42** | **248** | PN | Pn | 09 14 19.0 | -0.2 |
| URZ | | | | SN | Sn | 09 14 45.8 | -1.9 |
| URZ | | | | AML | AML | 09 14 48.0 | |
| **SNGZ** | **Shannon Statio** | **2.50** | **235** | PN | Pn | 09 14 19.6 | -0.7 |
| SNGZ | | | | AML | AML | 09 14 51.7 | |
| SNGZ | | | | AML | AML | 09 14 58.7 | |
| **MUGZ** | **Murupara** | **2.75** | **246** | ⇑PN | Pn | 09 14 23.3 | -0.5 |
| **MTHZ** | **Maungataniwha** | **2.87** | **238** | PN | Pn | 09 14 24.8 | -0.6 |
| **ARHZ** | **Aropaoanui** | **2.99** | **230** | *e*PN | Pn | 09 14 26.4 | -0.7 |
| ARHZ | | | | AML | AML | 09 15 01.8 | |
| ARHZ | | | | AML | AML | 09 15 04.4 | |
| **NMHZ** | **Naumai** | **3.02** | **234** | PN | Pn | 09 14 27.0 | -0.5 |
| NMHZ | | | | AML | AML | 09 15 03.3 | |
| NMHZ | | | | AML | AML | 09 15 05.6 | |
| **BKZ** | **Black Stump Fm** | **3.26** | **236** | PN | Pn | 09 14 29.8 | -1.0 |
| BKZ | | | | AML | AML | 09 15 07.8 | |
| **MCHZ** | **McNeill Hill** | **3.29** | **230** | PN | Pn | 09 14 30.3 | -0.9 |
| MCHZ | | | | AML | AML | 09 15 08.1 | |
| MCHZ | | | | AML | AML | 09 15 13.0 | |
| **KWHZ** | **Kaweka Forest** | **3.45** | **233** | PN | Pn | 09 14 32.3 | -1.2 |
| KWHZ | | | | AML | AML | 09 15 15.3 | |
| KWHZ | | | | AML | AML | 09 15 16.6 | |
| **BHHZ** | **Black Hill Sta** | **3.71** | **234** | *e*PN | Pn | 09 14 36.0 | -1.1 |
| **TSZ** | **Takapari Road** | **4.11** | **228** | ⇓PN | Pn | 09 14 40.2 | -2.4 |
| **BFZ** | **Birch Farm** | **4.38** | **220** | PN | Pn | 09 14 42.7 | -3.5 |
| BFZ | | | | *e*SN | Sn | 09 15 29.9 | -6.3 |
| **TIWZ** | **Tintock** | **4.64** | **222** | PN | Pn | 09 14 47.0 | -2.8 |
| **MRZ** | **Mangatainoka R** | **4.73** | **225** | PN | Pn | 09 14 47.9 | -3.1 |
| MRZ | | | | *e*SN | Sn | 09 15 38.6 | -6.0 |
| **CTZ** | **Chatham Island** | **6.86** | **159** | *e*PN | Pn | 09 15 21.8 | +1.6 |
| CTZ | | | | *e*SN | Sn | 09 16 32.6 | -4.5 |

**IDC 02 09:20:23.4**±2.0**, 4°.33S**×**127°.66E, h0**km**, mb3.1**/2**, mb1 3.5**/3**, mb1mx3.2**/36**, mbtmp3.3**/3**, ML3.4**/1**, MS2.7**/1**, Ms1 2.7**/1**, ms1mx2.2**/10**, Error ellipse: s-maj=134.9km s-min=30.0km az=72.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **16.83** | **158** | Pn | P | 09 24 22.6 | -0.3 |
| | 0.1nm,0.3s,baz=337,slow=12,SNR=10 | | | | | | |
| **ASAR** | **Alice Springs** | **20.15** | **163** | P | P | 09 24 58.5 | -1.0 |
| | 0.3nm,0.5s,baz=344,slow=11,SNR=8.5 | | | | | | |
| **KSRS** | **Korea Array** | **41.57** | **0** | LR | LR | 09 51 37.2 | |
| | comp=Z,8.4nm,18.1s,baz=222,slow=45 | | | | | | |
| **SONM** | **Songino Array** | **55.20** | **343** | P | P | 09 29 58.2 | 0.0 |
| | 0.2nm,0.4s,baz=162,slow=6.1,SNR=2.1 | | | | | | |

**IDC 02 09:41:27.7**±3.6**, 6°.69S**×**129°.71E, h0**km**, mb3.8**/1**, mb1 3.7**/3**, mb1mx3.2**/31**, mbtmp3.5**/3**, ML3.6**/2**, Error ellipse: s-maj=354.2km s-min=30.8km az=69.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **13.92** | **162** | Pn | Pn | 09 44 46.5 | +0.1 |
| | 0.3nm,0.3s,baz=343,slow=14,SNR=12 | | | | | | |
| WRA | | | | Sn | Sn | 09 47 09.0 | -13 |
| | 0.9nm,0.3s,baz=334,slow=22,SNR=13 | | | | | | |
| **ASAR** | **Alice Springs** | **17.35** | **167** | P | Pn | 09 45 31.5 | -0.1 |
| | 0.3nm,0.3s,baz=349,slow=9.6,SNR=17 | | | | | | |
| ASAR | | | | S | Sn | 09 48 33.5 | -12 |
| | 0.3nm,0.3s,baz=350,slow=25,SNR=4.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.81** | **327** | P | P | 09 52 27.7 | 0.0 |
| | 0.4nm,0.4s,baz=120,slow=8.0,SNR=10 | | | | | | |

*DDA **02** 09:47:54.8, 38°.71N×43°.69E, h7km, Ml2.9*
*ATA **02** 09:47:54.3±0.6, 38°.73N×43°.59E, h10km±60km, ML3.3, MW3.2*
*ISK **02** 09:47:54.5, 38°.75N×43°.61E, h5km, MD2.8*
*CSEM **02** 09:47:55.5±0.2, 38°.73N×43°.64E, h2km, MD2.8, Error ellipse: s-maj=5.2km s-min=3.3km az=91.0*
**ISC 02 09:47:55.6**±1.0**, 38°.74N**±0°.02×**43°.63E**±0°.03**, h10**km±8km**, n55, σ1s.03**/82**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.23** | **233** | *e*PG | **Pg** | **09 48 01.3** | **+0.8** |
| **VANB** | **Van** | **0.23** | **233** | *e*Pg | **Pg** | **09 48 01.3** | **+0.8** |
| **VMUR** | **Van-Muradiye** | **0.26** | **350** | *i* P | **Pg** | **09 48 00.6** | **-0.4** |
| VMUR | | | | *i* S | **Sb** | **09 48 05.9** | **-1.1** |
| **VMUR** | **Van-Muradiye** | **0.26** | **350** | P | **Pg** | **09 48 00.6** | **-0.4** |
| VMUR | | | | S | **Sb** | **09 48 05.9** | **-1.1** |
| **TVAN** | **Van** | **0.27** | **220** | *i* P | **Pg** | **09 48 01.2** | **0.0** |
| **TVAN** | **Van** | **0.27** | **220** | P | **Pg** | **09 48 01.2** | **0.0** |
| **CLDR** | **Caldiran** | **0.46** | **29** | *e*PG | **Pg** | **09 48 04.6** | **-0.2** |
| CLDR | | | | *e*SG | **Sb** | **09 48 12.4** | **-0.6** |
| **CLDR** | **Caldiran** | **0.46** | **29** | *i* P | **Pg** | **09 48 04.3** | **-0.5** |
| CLDR | | | | *i* S | **Sb** | **09 48 11.8** | **-1.2** |
| **CLDR** | **Caldiran** | **0.46** | **29** | P | **Pg** | **09 48 04.3** | **-0.5** |
| **CLDR** | **Caldiran** | **0.46** | **29** | *e*Pg | **Pg** | **09 48 04.6** | **-0.2** |
| CLDR | | | | S | **Sb** | **09 48 11.8** | **-1.2** |
| CLDR | | | | *e*Sg | **Sb** | **09 48 12.4** | **-0.6** |
| **GEVA** | **Gevas** | **0.62** | **227** | *e*P | **Pg** | **09 48 06.5** | **-1.2** |
| GEVA | | | | *e*S | **Sg** | **09 48 15.2** | **-0.5** |
| GEVA | | | | IAML | | 09 48 27.3 | |
| | comp=Z,123nm,0.6s | | | | | | |
| **GEVA** | **Gevas** | **0.62** | **227** | *i* P | **Pg** | **09 48 06.8** | **-0.8** |
| GEVA | | | | *i* S | **Sb** | **09 48 18.0** | **+0.7** |
| **GEVA** | **Gevas** | **0.62** | **227** | P | **Pg** | **09 48 06.8** | **-0.8** |
| GEVA | | | | S | **Sb** | **09 48 18.0** | **+0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.71** | **276** | *i* P | **Pb** | **09 48 09.6** | **-0.6** |
| ADCV | | | | *i* S | **Sb** | **09 48 21.1** | **+1.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.71** | **276** | P | **Pb** | **09 48 09.6** | **-0.6** |
| ADCV | | | | S | **Sb** | **09 48 21.1** | **+1.0** |
| **BASK** | **Baskale_VAN** | **0.74** | **157** | *i* P | **Pg** | **09 48 08.7** | **-1.3** |
| BASK | | | | *i* S | **Sb** | **09 48 21.6** | **+0.6** |
| **BASK** | **Baskale_VAN** | **0.74** | **157** | P | **Pg** | **09 48 08.7** | **-1.3** |
| BASK | | | | S | **Sb** | **09 48 21.6** | **+0.6** |
| **DYDN** | **Diyadin** | **0.81** | **3** | *e*P | **Pg** | **09 48 10.4** | **-0.9** |
| DYDN | | | | IAML | | 09 48 28.2 | |
| | comp=Z,46nm,0.4s | | | | | | |
| **DYDN** | **Diyadin** | **0.81** | **3** | *i* P | **Pg** | **09 48 10.6** | **-0.7** |
| DYDN | | | | *i* S | **Sb** | **09 48 23.3** | **+0.4** |
| **DYDN** | **Diyadin** | **0.81** | **3** | P | **Pg** | **09 48 10.6** | **-0.7** |
| DYDN | | | | S | **Sb** | **09 48 23.3** | **+0.4** |
| **TUTA** | **Tutak** | **0.92** | **317** | *e*P | **Pg** | **09 48 12.2** | **-1.2** |
| TUTA | | | | IAML | | 09 48 29.8 | |
| | comp=Z,145nm,0.6s | | | | | | |
| **TUTA** | **Tutak** | **0.92** | **317** | *i* P | **Pg** | **09 48 12.4** | **-1.0** |
| TUTA | | | | *i* S | **Sg** | **09 48 24.1** | **-1.3** |
| **TUTA** | **Tutak** | **0.92** | **317** | P | **Pg** | **09 48 12.4** | **-1.0** |
| TUTA | | | | S | **Sg** | **09 48 24.1** | **-1.3** |
| **AGRB** | **Hanur-Agry** | **0.97** | **330** | *e*PG | **Pg** | **09 48 13.6** | **-0.8** |
| AGRB | | | | *e*SG | **Sb** | **09 48 28.3** | **+0.6** |
| **AGRB** | **Hanur-Agry** | **0.97** | **330** | *e*Pg | **Pg** | **09 48 13.6** | **-0.8** |
| AGRB | | | | *e*Sg | **Sb** | **09 48 28.3** | **+0.6** |
| **HAKT** | **HAKKARI** | **1.18** | **177** | *i* P | **Pg** | **09 48 16.5** | **-1.8** |
| HAKT | | | | *i* S | **Sn** | **09 48 34.2** | **-0.3** |
| **HAKT** | **HAKKARI** | **1.18** | **177** | P | **Pg** | **09 48 16.5** | **-1.8** |
| HAKT | | | | S | **Sn** | **09 48 34.2** | **-0.3** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.26** | **155** | *i* P | **Pn** | **09 48 21.2** | **+1.8** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.26** | **155** | P | **Pn** | **09 48 21.2** | **+1.8** |
| **EKAR** | **Karacoban** | **1.33** | **294** | *i* P | **Pg** | **09 48 20.9** | **-0.2** |
| **EKAR** | **Karacoban** | **1.33** | **294** | P | **Pg** | **09 48 20.9** | **-0.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.33** | **21** | *e*PN | **Pg** | **09 48 21.1** | **-0.1** |
| TASB | | | | *e*SN | **Sn** | **09 48 40.5** | **+2.4** |
| **TASB** | **TASBURUN-IGDIR** | **1.33** | **21** | *e*Pn | **Pg** | **09 48 21.1** | **-0.1** |
| TASB | | | | *e*Sn | **Sn** | **09 48 40.5** | **+2.4** |
| **EATA** | **Eleskirt** | **1.43** | **322** | *e*P | **Pb** | **09 48 21.9** | **-0.7** |
| EATA | | | | IAML | | 09 48 50.0 | |
| | comp=Z,12nm,0.5s | | | | | | |
| **EATA** | **Eleskirt** | **1.43** | **322** | *i* P | **Pb** | **09 48 21.9** | **-0.7** |
| EATA | | | | *i* S | **Sg** | **09 48 43.8** | **+2.0** |
| **EATA** | **Eleskirt** | **1.43** | **322** | P | **Pb** | **09 48 21.9** | **-0.7** |
| EATA | | | | S | **Sg** | **09 48 43.8** | **+2.0** |
| **CUKT** | **Cukurca** | **1.49** | **181** | *e*PN | **Pg** | **09 48 23.7** | **-0.5** |
| CUKT | | | | *e*SN | **Sg** | **09 48 44.7** | **+1.3** |
| **CUKT** | **Cukurca** | **1.49** | **181** | *i* P | **Pn** | **09 48 22.2** | **-0.3** |
| **CUKT** | **Cukurca** | **1.49** | **181** | P | **Pn** | **09 48 22.2** | **-0.3** |
| **CUKT** | **Cukurca** | **1.49** | **181** | *e*Pn | **Pg** | **09 48 23.7** | **-0.5** |
| CUKT | | | | *e*Sn | **Sg** | **09 48 44.7** | **+1.3** |
| **SRTM** | **Siirt_Merkez** | **1.54** | **242** | *i* P | **Pg** | **09 48 24.2** | **-0.9** |
| **SRTM** | **Siirt_Merkez** | **1.54** | **242** | P | **Pg** | **09 48 24.2** | **-0.9** |
| **DIGO** | **Kars** | **1.69** | **353** | *i* P | **Pg** | **09 48 27.2** | **-0.8** |
| **DIGO** | **Kars** | **1.69** | **353** | P | **Pg** | **09 48 27.2** | **-0.8** |
| **HOMI** | **Horasan** | **1.87** | **315** | *i* P | **Pg** | **09 48 30.5** | **-1.0** |
| **EAK** | **Akyaka** | **1.95** | **359** | *i* P | **Pg** | **09 48 33.4** | **+0.4** |
| **EAK** | **Akyaka** | **1.95** | **359** | P | **Pg** | **09 48 33.4** | **+0.4** |
| **BTMN** | **Batman** | **2.04** | **246** | *i* P | **Pb** | **09 48 31.7** | **-1.1** |
| **BTMN** | **Batman** | **2.04** | **246** | P | **Pb** | **09 48 31.7** | **-1.1** |
| **SENK** | **Senkaya-Erzuru** | **2.07** | **332** | *e*PN | **Pb** | **09 48 32.1** | **-1.3** |
| **SENK** | **Senkaya-Erzuru** | **2.07** | **332** | *e*Pn | **Pb** | **09 48 32.1** | **-1.3** |
| **ERZM** | **Erzurum** | **2.11** | **304** | *i* P | **Pb** | **09 48 33.9** | **-0.2** |
| **ERZM** | **Erzurum** | **2.11** | **304** | P | **Pb** | **09 48 33.9** | **-0.2** |
| **BNGB** | **Bingˆ¶l** | **2.32** | **277** | *e*PN | **Pb** | **09 48 35.5** | **-2.0** |
| **BINT** | **Bingol** | **2.46** | **274** | *e*Pn | **Pn** | **09 48 35.5** | **-0.4** |

*ISCJB **02** 09:56:04.0±0.5, 50°.10N±0°.03×18°.36E±0°.03, h0km, Error ellipse: s-maj=4.6km s-min=2.4km az=14.9*
*IPEC **02** 09:56:05.4±0.2, 50°.07N×18°.46E, h0km±2km, ML2.3/3, Error ellipse: s-maj=2.0km s-min=1.1km az=160.0*
*CSEM **02** 09:56:05.0±0.3, 50°.09N×18°.38E, h2km, ML3.0/9, Error ellipse: s-maj=6.3km s-min=3.2km az=13.0*
*WAR **02** 09:56:05.5, 50°.05N×18°.44E, h1km, Mw2.5*
*PRU **02** 09:56:06.6, 50°.04N×18°.35E, h0km*
**ISC 02 09:56:05.4**±0.8**, 50°.08N**±0°.03×**18°.40E**±0°.02**, h0**km**, n40, σ0s.76**/66**, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RAC** | **Raciborz** | **0.13** | **270** | *e*Sg | **Sg** | **09 56 12.9** | **+3.2** |
| **OKC** | **Ostrava-Krasne** | **0.30** | **214** | *e*PG | **Pg** | **09 56 11.7** | **+0.7** |
| OKC | | | | *e*SG | **Sg** | **09 56 15.4** | **+0.5** |
| | comp=Z,136nm,0.4s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **0.30** | **214** | Pg | **Pg** | **09 56 11.7** | **+0.7** |
| OKC | | | | Sg | **Sg** | **09 56 15.4** | **+0.5** |
| | 136nm,0.4s | | | | | | |
| **MORC** | **Moravsky Berou** | **0.63** | **241** | *e*Pg | **Pg** | **09 56 18.0** | **+0.5** |
| MORC | | | | *e*Sg | **Sg** | **09 56 26.0** | **+0.3** |
| | 44nm,0.4s | | | | | | |
| **OJC** | **Ojcow** | **0.91** | **81** | *e*Pg | **Pg** | **09 56 22.4** | **-0.4** |
| OJC | | | | *e*Sg | **Sg** | **09 56 34.6** | **0.0** |
| **OJC** | **Ojcow** | **0.91** | **81** | *e*Pg | **Pg** | **09 56 22.4** | **-0.4** |
| OJC | | | | *e*Sg | **Sg** | **09 56 34.6** | **0.0** |
| **OJC** | **Ojcow** | **0.91** | **81** | *e*Pg | **Pg** | **09 56 22.4** | **-0.4** |
| OJC | | | | *e*Sg | **Sg** | **09 56 34.6** | **0.0** |
| **KRLC** | **Kraliky** | **1.04** | **270** | *e*SG | **Sg** | **09 56 38.6** | **-0.3** |
| **KRLC** | **Kraliky** | **1.04** | **270** | Sg | **Sg** | **09 56 38.6** | **-0.3** |
| **LANS** | **Liptovska Anna** | **1.16** | **143** | *e*Pg | **Pg** | **09 56 27.3** | **-0.4** |
| LANS | | | | *e*Sg | **Sg** | **09 56 42.0** | **-0.7** |
| **LANS** | **Liptovska Anna** | **1.16** | **143** | *e*PG | **Pg** | **09 56 27.3** | **-0.4** |
| LANS | | | | *e*SG | **Sg** | **09 56 42.0** | **-0.7** |
| **DPC** | **Dobruska-Polom** | **1.36** | **282** | *e*PG | **Pg** | **09 56 31.4** | **-0.1** |
| DPC | | | | *e*SG | **Sb** | **09 56 49.5** | **-0.3** |
| | comp=Z,54nm,0.3s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.36** | **282** | Pg | **Pg** | **09 56 31.4** | **-0.1** |
| DPC | | | | Sg | **Sb** | **09 56 49.5** | **-0.3** |
| | 54nm,0.3s | | | | | | |
| **NIE** | **Niedzica** | **1.40** | **118** | *e*Pg | **Pb** | **09 56 32.9** | **+0.5** |
| NIE | | | | *e*Sg | **Sn** | **09 56 52.0** | **+0.6** |
| **NIE** | **Niedzica** | **1.40** | **118** | *e*Pg | **Pb** | **09 56 32.9** | **+0.5** |
| NIE | | | | *e*Sg | **Sn** | **09 56 52.0** | **+0.6** |
| **NIE** | **Niedzica** | **1.40** | **118** | *e*Pg | **Pb** | **09 56 32.9** | **+0.5** |
| NIE | | | | *e*Sg | **Sn** | **09 56 52.0** | **+0.6** |
| **VRAC** | **Vranov** | **1.41** | **237** | *e*Pg | **Pg** | **09 56 31.8** | **-0.5** |
| VRAC | | | | *e*Sg | **Sg** | **09 56 50.1** | **-0.5** |
| | 35nm,0.5s | | | | | | |
| **KSP** | **Ksiaz** | **1.55** | **300** | *e*Pg | **Pn** | **09 56 33.9** | **-0.3** |
| KSP | | | | *e*Sg | **Sg** | **09 56 55.9** | **+0.8** |
| **KSP** | **Ksiaz** | **1.55** | **300** | *e*Pg | **Pn** | **09 56 33.9** | **-0.3** |
| KSP | | | | *e*Sg | **Sg** | **09 56 55.9** | **+0.8** |
| **KSP** | **Ksiaz** | **1.55** | **300** | *e*Pg | **Pn** | **09 56 33.9** | **-0.3** |
| KSP | | | | *e*Sg | **Sg** | **09 56 55.9** | **+0.8** |
| **UPC** | **Upice** | **1.59** | **286** | *e*SG | **Sg** | **09 56 56.5** | **0.0** |
| | comp=Z,18nm,0.4s | | | | | | |
| **UPC** | **Upice** | **1.59** | **286** | Sg | **Sg** | **09 56 56.5** | **0.0** |
| | 18nm,0.4s | | | | | | |
| **VYHS** | **Vyhne** | **1.62** | **170** | *e*Pg | **Pn** | **09 56 34.9** | **-0.3** |
| VYHS | | | | *e*Sn | **Sn** | **09 56 56.1** | **-0.6** |
| **VYHS** | **Vyhne** | **1.62** | **170** | *e*PG | **Pn** | **09 56 34.9** | **-0.3** |
| VYHS | | | | *e*SN | **Sn** | **09 56 56.1** | **-0.6** |
| **KRUC** | **Moravsky** | **1.66** | **233** | *e*Pn | **Pn** | **09 56 35.8** | **+0.1** |
| KRUC | | | | *e*Sg | **Sg** | **09 56 58.0** | **-0.6** |
| | 33nm,0.6s | | | | | | |
| **STHS** | **Stebnicka Huta** | **1.96** | **109** | *e*Pn | **Pg** | **09 56 42.7** | **-0.2** |
| STHS | | | | *e*Sn | **Sg** | **09 57 09.2** | **+0.9** |
| **STHS** | **Stebnicka Huta** | **1.96** | **109** | *e*PN | **Pg** | **09 56 42.7** | **-0.2** |
| STHS | | | | *e*SN | **Sg** | **09 57 09.2** | **+0.9** |
| STHS | | | | *e*LG | Lg | 09 57 13.9 | |
| **KECS** | **Kecovo** | **2.10** | **139** | *e*Pn | **Pn** | **09 56 41.5** | **-0.4** |
| **KECS** | **Kecovo** | **2.10** | **139** | *e*PN | **Pn** | **09 56 41.5** | **-0.4** |
| KECS | | | | *e*LG | Lg | 09 57 16.7 | |
| **GOPC** | **GO Pecny, Ondr** | **2.34** | **267** | *e*SG | **Sb** | **09 57 18.1** | **+0.3** |
| **GOPC** | **GO Pecny, Ondr** | **2.34** | **267** | Sg | **Sb** | **09 57 18.1** | **+0.3** |
| **PRU** | **Pruhonice** | **2.49** | **269** | *e*PG | **Pb** | **09 56 50.7** | **-0.3** |
| PRU | | | | *e*SG | **Sb** | **09 57 22.9** | **+0.7** |
| | comp=Z,8.1nm,0.4s | | | | | | |
| **PRU** | **Pruhonice** | **2.49** | **269** | Pg | **Pb** | **09 56 50.7** | **-0.3** |
| PRU | | | | Sg | **Sb** | **09 57 22.9** | **+0.7** |
| | 8.1nm,0.4s | | | | | | |
| **PVCC** | **Panska Ves** | **2.50** | **282** | *e*SG | **Sg** | **09 57 25.2** | **-0.4** |
| | comp=Z,22nm,0.3s | | | | | | |
| **PVCC** | **Panska Ves** | **2.50** | **282** | Sg | **Sg** | **09 57 25.2** | **-0.4** |
| | 22nm,0.3s | | | | | | |
| **BRG** | **Berggiesshubel** | **2.96** | **287** | SG | **Sg** | **09 57 39.7** | **-0.7** |
| | 8.5nm,0.3s | | | | | | |
| **KHC** | **Kasperske Hory** | **3.28** | **255** | *e*PN | **Pn** | **09 56 59.4** | **+1.4** |
| KHC | | | | *e*PG | **Pg** | **09 57 06.1** | **-2.1** |
| KHC | | | | *e*SG | **Sg** | **09 57 49.7** | **-1.0** |
| | comp=Z,8.7nm,0.3s | | | | | | |
| **KHC** | **Kasperske Hory** | **3.28** | **255** | Pn | **Pn** | **09 56 59.4** | **+1.4** |
| **NKC** | **Novy Kostel** | **3.83** | **275** | *e*SG | **Sg** | **09 58 07.1** | **-1.3** |
| **NKC** | **Novy Kostel** | **3.83** | **275** | Sg | **Sg** | **09 58 07.1** | **-1.3** |

*NNC **02** 09:56:59.5±7.2, 50°.02N×81°.53E, h0km, mb2.8, mpv2.4, Error ellipse: s-maj=79.8km s-min=40.8km az=46.0, Suspected Mining explosion.*
**IDC 02 09:57:04.2**±1.2**, 49°.80N**×**80°.92E, h0**km**, mb1 2.6**/2**, mb1mx2.6**/47**, mbtmp2.6**/2**, ML2.1**/2**, 4C-2D, Error ellipse: s-maj=18.6km s-min=8.0km az=52.0, Eastern Kazakhstan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KURK** | **Kurchatov** | **1.74** | **303** | ⇑Pn | Pn | 09 57 35.7 | +0.1 |
| | 3.4nm,0.6s | | | | | | |
| KURK | | | | ⇑Sn | Sg | 09 57 59.9 | -0.1 |
| | 6.6nm,0.4s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **1.74** | **299** | Pg | Pn | 09 57 35.9 | +0.2 |
| | 0.3nm,0.3s,baz=115,slow=18,SNR=23 | | | | | | |
| KURBB | | | | Lg | Lg | 09 57 59.8 | |
| | 0.7nm,0.3s,baz=120,slow=27,SNR=16 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **1.74** | **299** | ⇓Pn | Pn | 09 57 35.8 | +0.1 |
| | 1.8nm,0.3s,baz=113,slow=17 | | | | | | |
| KURBB | | | | ⇓Sn | Sg | 09 58 00.4 | +0.3 |
| | 21nm,0.5s,baz=154,slow=24 | | | | | | |
| **MK31** | **Makanchi Array** | **3.15** | **163** | ⇑Pn | Pn | 09 57 55.7 | +0.7 |
| | 0.1nm,0.2s,baz=5.0,slow=15,SNR=3.6 | | | | | | |
| MK31 | | | | ⇑Lg | Lg | 09 58 41.6 | |
| | 1.9nm,0.4s,baz=0.3,slow=27 | | | | | | |
| **MKAR** | **Makanchi Array** | **3.15** | **163** | Pn | Pn | 09 57 56.0 | +1.0 |
| | 0.3nm,0.3s,baz=345,slow=12,SNR=17 | | | | | | |
| MKAR | | | | Sn | Sn | 09 58 35.5 | +2.2 |
| | 0.4nm,0.3s,baz=339,slow=27,SNR=5.7 | | | | | | |
| MKAR | | | | Lg | Lg | 09 58 41.3 | |
| | 1.1nm,0.3s,baz=0.8,slow=25,SNR=10 | | | | | | |
| **I46RU** | **ZALESOVO INFRA** | **4.80** | **29** | *i* | | 10 23 58.6 | |
| | baz=207,slow=334,SNR=3.5 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **4.80** | **29** | Pn | Pn | 09 58 19.4 | +1.7 |
| | 0.3nm,0.3s,baz=216,slow=13,SNR=5.0 | | | | | | |
| ZALV | | | | Lg | Lg | 09 59 34.5 | |
| | 0.3nm,0.3s,baz=217,slow=23,SNR=4.0 | | | | | | |

**WEL 02 10:00:04.4**±0.4**, 37°.24S**×**179°.92E, h33**km**, ML3.5**/9**, 1C, Error ellipse: s-maj=4.7km s-min=3.8km az=0.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MXZ** | **Matakaoa Point** | **1.33** | **255** | PN | Pn | 10 00 26.1 | -0.5 |
| MXZ | | | | SN | Sn | 10 00 42.2 | -0.9 |
| **WMGZ** | **Waiomatatini S** | **1.33** | **244** | ⇑PN | Pn | 10 00 26.4 | -0.2 |
| WMGZ | | | | SN | Sn | 10 00 43.1 | -0.1 |
| WMGZ | | | | AML | AML | 10 00 43.6 | |
| **PUZ** | **Puketiti** | **1.56** | **237** | PN | Pn | 10 00 29.2 | -0.6 |
| PUZ | | | | SN | Sn | 10 00 47.5 | -1.5 |
| PUZ | | | | AML | AML | 10 00 49.1 | |
| **PKGZ** | **Pakihiroa** | **1.60** | **246** | PN | Pn | 10 00 29.0 | -1.5 |
| PKGZ | | | | AML | AML | 10 00 51.0 | |
| PKGZ | | | | AML | AML | 10 00 51.5 | |
| **TWGZ** | **Tauwhareparae** | **1.80** | **238** | PN | Pn | 10 00 32.8 | -0.4 |
| TWGZ | | | | SN | Sn | 10 00 54.0 | -1.0 |
| TWGZ | | | | AML | AML | 10 00 55.6 | |
| **CNGZ** | **Carnagh Statio** | **1.84** | **227** | *e*PN | Pn | 10 00 33.3 | -0.4 |
| **RUGZ** | **Raukumara Rang** | **1.92** | **247** | *e*PN | Pn | 10 00 35.2 | +0.2 |
| **MWZ** | **Matawai** | **2.19** | **239** | PN | Pn | 10 00 37.7 | -0.8 |
| MWZ | | | | AML | AML | 10 01 03.6 | |
| **RIGZ** | **Rimuhau** | **2.25** | **229** | PN | Pn | 10 00 38.6 | -0.8 |
| RIGZ | | | | SN | Sn | 10 01 04.1 | -1.8 |
| RIGZ | | | | AML | AML | 10 01 05.5 | |
| **RAGZ** | **Rawiri** | **2.35** | **237** | PN | Pn | 10 00 40.5 | -0.2 |
| RAGZ | | | | AML | AML | 10 01 10.4 | |
| RAGZ | | | | AML | AML | 10 01 12.5 | |
| **URZ** | **Urewera** | **2.45** | **245** | PN | Pn | 10 00 42.3 | +0.2 |
| URZ | | | | SN | Sn | 10 01 09.0 | -1.8 |
| URZ | | | | AML | AML | 10 01 12.5 | |
| **KNZ** | **Kokohu** | **2.51** | **224** | PN | Pn | 10 00 41.2 | -1.7 |
| **SNGZ** | **Shannon Statio** | **2.56** | **232** | PN | Pn | 10 00 43.0 | -0.6 |
| SNGZ | | | | AML | AML | 10 01 12.9 | |
| SNGZ | | | | AML | AML | 10 01 17.5 | |
| **MUGZ** | **Murupara** | **2.78** | **243** | PN | Pn | 10 00 46.5 | -0.2 |
| **MTHZ** | **Maungataniwha** | **2.92** | **236** | PN | Pn | 10 00 48.0 | -0.6 |
| **ARHZ** | **Aropaoanui** | **3.06** | **228** | PN | Pn | 10 00 49.8 | -0.7 |
| **BKZ** | **Black Stump Fm** | **3.32** | **234** | PN | Pn | 10 00 52.9 | -1.1 |
| **MCHZ** | **McNeill Hill** | **3.36** | **228** | *e*PN | Pn | 10 00 53.4 | -1.1 |
| **KWHZ** | **Kaweka Forest** | **3.51** | **231** | PN | Pn | 10 00 55.4 | -1.3 |
| **BHHZ** | **Black Hill Sta** | **3.77** | **232** | *e*PN | Pn | 10 00 59.1 | -1.3 |
| **BFZ** | **Birch Farm** | **4.47** | **219** | PN | Pn | 10 01 05.9 | -4.0 |
| **MRZ** | **Mangatainoka R** | **4.81** | **223** | PN | Pn | 10 01 11.1 | -3.4 |

**IDC 02 10:08:11.3**±2.4**, 4°.44S**×**126°.43E, h0**km**, mb3.6**/2**, mb1 3.8**/3**, mb1mx3.3**/44**, mbtmp3.6**/3**, ML3.6**/1**, Error ellipse: s-maj=346.2km s-min=27.1km az=64.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **17.23** | **154** | P | Pn | 10 12 13.8 | +0.1 |
| | 0.2nm,0.3s,baz=330,slow=12,SNR=12 | | | | | | |
| **ASAR** | **Alice Springs** | **20.44** | **160** | P | P | 10 12 50.4 | -0.1 |
| | 2.0nm,0.5s,baz=344,slow=12,SNR=44 | | | | | | |
| **MKAR** | **Makanchi Array** | **64.16** | **328** | P | P | 10 18 47.8 | 0.0 |
| | 0.4nm,0.7s,baz=123,slow=5.3,SNR=2.5 | | | | | | |

*ISK **02** 10:26:16.2, 38°.68N×43°.16E, h3km, ML3.2*
*ATA **02** 10:26:16.0±1.1, 38°.66N×43°.12E, h8km±14km, MD4.3, ML4.1, MW3.8*
*DDA **02** 10:26:16.9, 38°.68N×43°.14E, h19km, Ml3.4*
*CSEM **02** 10:26:17.3±0.2, 38°.69N×43°.15E, h5km, ML3.2, Error ellipse: s-maj=3.6km s-min=3.4km az=112.0*
**ISC 02 10:26:17.8**±0.8**, 38°.67N**±0°.02×**43°.15E**±0°.02**, h13**km±5km**, n78, σ1s.02**/120**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.20** | **111** | *e*PG | **Pg** | **10 26 22.2** | **-0.2** |
| VANB | | | | *e*SG | **Sb** | **10 26 26.4** | **-0.7** |
| **VANB** | **Van** | **0.20** | **111** | *e*Pg | **Pg** | **10 26 22.2** | **-0.2** |
| VANB | | | | *e*Sg | **Sb** | **10 26 26.4** | **-0.7** |
| **TVAN** | **Van** | **0.24** | **124** | *i* P | **Pg** | **10 26 22.2** | **-0.9** |
| TVAN | | | | *i* S | **Sg** | **10 26 27.3** | **+0.5** |
| **TVAN** | **Van** | **0.24** | **124** | P | **Pg** | **10 26 22.2** | **-0.9** |
| TVAN | | | | S | **Sg** | **10 26 27.3** | **+0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.36** | **293** | *i* P | **Pg** | **10 26 24.1** | **-1.0** |
| ADCV | | | | *i* S | **Sg** | **10 26 30.6** | **+0.5** |
| **GEVA** | **Gevas** | **0.36** | **191** | *e*P | **Pg** | **10 26 23.5** | **-1.6** |
| GEVA | | | | *e*S | **Sg** | **10 26 28.8** | **-1.3** |
| GEVA | | | | IAML | | 10 26 34.5 | |
| | comp=Z,2μm,0.4s | | | | | | |
| **GEVA** | **Gevas** | **0.36** | **191** | *i* P | **Pg** | **10 26 23.6** | **-1.5** |
| GEVA | | | | *i* S | **Sb** | **10 26 31.2** | **-0.6** |
| **ERCV** | **ERCIS-VAN** | **0.38** | **23** | *e*PG | **Pg** | **10 26 24.4** | **-1.1** |
| ERCV | | | | *e*SG | **Sg** | **10 26 30.0** | **-0.8** |
| **ERCV** | **ERCIS-VAN** | **0.38** | **23** | *e*Pg | **Pg** | **10 26 24.5** | **-1.1** |
| ERCV | | | | *e*Sg | **Sg** | **10 26 30.0** | **-0.8** |
| **VMUR** | **Van-Muradiye** | **0.46** | **46** | *i* P | **Pg** | **10 26 26.3** | **-0.7** |
| VMUR | | | | *i* S | **Sb** | **10 26 34.8** | **0.0** |
| **CLDR** | **Caldiran** | **0.77** | **51** | *e*PG | **Pg** | **10 26 31.4** | **-1.2** |
| CLDR | | | | *e*SG | **Sg** | **10 26 42.6** | **-0.2** |
| **CLDR** | **Caldiran** | **0.77** | **51** | *i* P | **Pg** | **10 26 31.7** | **-1.0** |
| CLDR | | | | *i* S | **Sb** | **10 26 44.1** | **+0.6** |
| **CLDR** | **Caldiran** | **0.77** | **51** | *e*Pg | **Pg** | **10 26 31.5** | **-1.2** |
| CLDR | | | | *e*Sg | **Sg** | **10 26 42.6** | **-0.2** |
| CLDR | | | | S | **Sb** | **10 26 44.1** | **+0.6** |
| **TUTA** | **Tutak** | **0.78** | **341** | *e*P | **Pg** | **10 26 31.5** | **-1.5** |
| | baz=1.0 | | | | | | |
| TUTA | | | | IAML | | 10 26 48.5 | |
| | comp=Z,704nm,0.2s | | | | | | |
| **TUTA** | **Tutak** | **0.78** | **341** | *i* P | **Pg** | **10 26 31.5** | **-1.5** |
| TUTA | | | | *i* S | **Sg** | **10 26 42.4** | **-0.8** |
| **TUTA** | **Tutak** | **0.78** | **341** | P | **Pg** | **10 26 31.5** | **-1.5** |
| TUTA | | | | S | **Sg** | **10 26 42.4** | **-0.8** |
| **BASK** | **Baskale_VAN** | **0.91** | **132** | *e*P | **Pg** | **10 26 34.0** | **-1.4** |
| BASK | | | | IAML | | 10 26 39.0 | |
| | comp=Z,135nm,0.4s | | | | | | |
| BASK | | | | *e*S | **Sn** | **10 26 48.9** | **-0.6** |
| **BASK** | **Baskale_VAN** | **0.91** | **132** | *i* P | **Pg** | **10 26 33.7** | **-1.7** |
| BASK | | | | *i* S | **Sb** | **10 26 48.1** | **+0.5** |
| **AGRB** | **Hanur-Agry** | **0.92** | **352** | *e*PG | **Pg** | **10 26 33.5** | **-2.0** |
| **AGRB** | **Hanur-Agry** | **0.92** | **352** | *e*Pg | **Pg** | **10 26 33.5** | **-2.0** |
| **DYDN** | **Diyadin** | **0.97** | **25** | *e*P | **Pg** | **10 26 35.0** | **-1.6** |
| | baz=1.0 | | | | | | |
| DYDN | | | | IAML | | 10 26 38.4 | |
| | comp=Z,210nm,0.3s | | | | | | |
| **DYDN** | **Diyadin** | **0.97** | **25** | *i* P | **Pg** | **10 26 34.4** | **-2.2** |
| **DYDN** | **Diyadin** | **0.97** | **25** | P | **Pg** | **10 26 34.4** | **-2.2** |
| **EKAR** | **Karacoban** | **1.03** | **305** | *e*P | **Pb** | **10 26 36.6** | **-1.0** |
| EKAR | | | | *e*S | **Sn** | **10 26 52.3** | **-0.2** |
| EKAR | | | | IAML | | 10 27 02.7 | |
| | comp=Z,202nm,0.3s | | | | | | |
| **EKAR** | **Karacoban** | **1.03** | **305** | *i* P | **Pb** | **10 26 37.0** | **-0.6** |
| EKAR | | | | *i* S | **Sn** | **10 26 55.9** | **+3.3** |
| **EKAR** | **Karacoban** | **1.03** | **305** | P | **Pb** | **10 26 37.0** | **-0.6** |
| **SRTM** | **Siirt_Merkez** | **1.18** | **235** | *i* P | **Pb** | **10 26 39.4** | **-0.6** |
| SRTM | | | | *i* S | **Sn** | **10 26 58.1** | **+2.1** |
| **SRTM** | **Siirt_Merkez** | **1.18** | **235** | P | **Pb** | **10 26 39.4** | **-0.6** |
| SRTM | | | | S | **Sn** | **10 26 58.1** | **+2.1** |
| **HAKT** | **HAKKARI** | **1.19** | **158** | *i* P | **Pb** | **10 26 38.8** | **-1.6** |
| HAKT | | | | *i* S | **Sn** | **10 26 57.4** | **+0.9** |
| **HAKT** | **HAKKARI** | **1.19** | **158** | P | **Pb** | **10 26 38.8** | **-1.6** |
| HAKT | | | | S | **Sn** | **10 26 57.4** | **+0.9** |
| **EATA** | **Eleskirt** | **1.30** | **337** | *e*P | **Pn** | **10 26 41.0** | **-0.9** |
| | baz=1.0 | | | | | | |
| EATA | | | | *e*S | **Sg** | **10 27 00.0** | **+0.3** |
| **EATA** | **Eleskirt** | **1.30** | **337** | *i* P | **Pn** | **10 26 40.7** | **-1.2** |
| EATA | | | | *i* S | **Sg** | **10 27 00.2** | **+0.4** |
| **EATA** | **Eleskirt** | **1.30** | **337** | P | **Pn** | **10 26 40.7** | **-1.2** |
| EATA | | | | S | **Sg** | **10 27 00.2** | **+0.4** |
| **VRTB** | **Varto-Mus** | **1.41** | **291** | *e*PN | **Pn** | **10 26 43.1** | **-0.2** |
| **VRTB** | **Varto-Mus** | **1.41** | **291** | *i* P | **Pn** | **10 26 42.5** | **-0.8** |
| VRTB | | | | *i* S | **Sg** | **10 27 04.3** | **+1.0** |
| **VRTB** | **Varto-Mus** | **1.41** | **291** | P | **Pn** | **10 26 42.5** | **-0.8** |
| **VRTB** | **Varto-Mus** | **1.41** | **291** | *e*Pn | **Pn** | **10 26 43.1** | **-0.2** |
| VRTB | | | | S | **Sg** | **10 27 04.3** | **+1.0** |
| **CUKT** | **Cukurca** | **1.46** | **166** | *e*PN | **Pb** | **10 26 44.9** | **0.0** |
| **CUKT** | **Cukurca** | **1.46** | **166** | *i* P | **Pb** | **10 26 45.2** | **+0.3** |
| **CUKT** | **Cukurca** | **1.46** | **166** | *e*Pn | **Pb** | **10 26 44.9** | **0.0** |
| **CUKT** | **Cukurca** | **1.46** | **166** | P | **Pb** | **10 26 45.2** | **+0.3** |
| **TASB** | **TASBURUN-IGDIR** | **1.56** | **32** | *e*PN | **Pn** | **10 26 45.6** | **+0.3** |
| **TASB** | **TASBURUN-IGDIR** | **1.56** | **32** | *e*Pn | **Pn** | **10 26 45.6** | **+0.3** |
| **BNGL** | **BINGOL** | **1.59** | **281** | *e*P | **Pn** | **10 26 46.0** | **+0.2** |
| BNGL | | | | *e*S | **Sg** | **10 27 09.1** | **+0.2** |
| BNGL | | | | IAML | | 10 27 13.2 | |
| | comp=Z,402nm,0.4s | | | | | | |
| **BNGL** | **BINGOL** | **1.59** | **281** | *i* P | **Pn** | **10 26 46.1** | **+0.4** |
| BNGL | | | | *i* S | **Sg** | **10 27 08.6** | **-0.3** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| **SVAN** | **Silvan-Diyarba** | **1.62** | **252** | ePN | **Pb** | **10 26 47.0** | **-0.5** |
| **SVAN** | **Silvan-Diyarba** | **1.62** | **252** | i P | **Pb** | **10 26 46.6** | **-0.9** |
| SVAN | | | | i S | **Sg** | **10 27 09.9** | **+0.1** |
| **SVAN** | **Silvan-Diyarba** | **1.62** | **252** | P | **Pb** | **10 26 46.6** | **-0.9** |
| **SVAN** | **Silvan-Diyarba** | **1.62** | **252** | ePn | **Pb** | **10 26 47.0** | **-0.5** |
| SVAN | | | | S | **Sg** | **10 27 09.9** | **+0.1** |
| **BTMN** | **Batman** | **1.67** | **243** | i P | **Pn** | **10 26 46.7** | **-0.1** |
| BTMN | | | | i S | **Sg** | **10 27 10.5** | **-1.0** |
| **BTMN** | **Batman** | **1.67** | **243** | P | **Pn** | **10 26 46.7** | **-0.1** |
| BTMN | | | | S | **Sg** | **10 27 10.5** | **-1.0** |
| **HOMI** | **Horasan** | **1.68** | **325** | eP | **Pb** | **10 26 48.8** | **+0.1** |
| | baz=1.0 | | | | | | |
| HOMI | | | | eS | **Sg** | **10 27 13.0** | **+1.0** |
| **HOMI** | **Horasan** | **1.68** | **325** | i P | **Pb** | **10 26 48.2** | **-0.5** |
| **DIGO** | **Kars** | **1.75** | **6** | eP | **Pb** | **10 26 49.6** | **-0.4** |
| | baz=1.0 | | | | | | |
| DIGO | | | | IAML | | 10 26 55.0 | |
| | comp=Z,67nm,0.6s | | | | | | |
| DIGO | | | | eS | **Sg** | **10 27 16.3** | **+2.0** |
| **DIGO** | **Kars** | **1.75** | **6** | i P | **Pn** | **10 26 48.7** | **+0.6** |
| **DIGO** | **Kars** | **1.75** | **6** | P | **Pn** | **10 26 48.7** | **+0.6** |
| **ERZM** | **Erzurum** | **1.86** | **312** | eP | **Pb** | **10 26 50.6** | **-1.1** |
| **ERZM** | **Erzurum** | **1.86** | **312** | i P | **Pb** | **10 26 51.4** | **-0.3** |
| **ERZM** | **Erzurum** | **1.86** | **312** | P | **Pb** | **10 26 51.4** | **-0.3** |
| **ECAT** | **Cat-ERZURUM** | **1.93** | **300** | eP | **Pb** | **10 26 52.0** | **-1.0** |
| ECAT | | | | eS | **Sg** | **10 27 20.1** | **0.0** |
| ECAT | | | | IAML | | 10 27 23.3 | |
| | comp=Z,33nm,0.4s | | | | | | |
| **BNGB** | **Bingˆ¶l** | **1.96** | **280** | ePN | **Pn** | **10 26 51.7** | **+0.9** |
| **KARS** | **Kars** | **1.96** | **358** | ePN | **Pn** | **10 26 51.2** | **+0.4** |
| **KARS** | **Kars** | **1.96** | **358** | ePn | **Pn** | **10 26 51.2** | **+0.4** |
| **SENK** | **Senkaya-Erzuru** | **1.99** | **342** | ePN | **Pn** | **10 26 52.1** | **+0.8** |
| **SENK** | **Senkaya-Erzuru** | **1.99** | **342** | ePn | **Pn** | **10 26 52.1** | **+0.8** |
| **EAK** | **Akyaka** | **2.05** | **10** | eP | **Pb** | **10 26 55.0** | **0.0** |
| EAK | | | | IAML | | 10 26 57.3 | |
| | comp=Z,54nm,0.5s | | | | | | |
| EAK | | | | eS | **Sg** | **10 27 23.9** | **+0.2** |
| **BINT** | **Bingol** | **2.09** | **277** | ePn | **Pn** | **10 26 51.7** | **-0.9** |
| **YEDI** | **Yedisu-Bingol** | **2.17** | **292** | ePN | **Pn** | **10 26 54.4** | **+0.7** |
| **YEDI** | **Yedisu-Bingol** | **2.17** | **292** | ePn | **Pn** | **10 26 54.4** | **+0.7** |
| **HANI** | **Diyarbakir_Han** | **2.17** | **264** | i P | **Pn** | **10 26 54.8** | **+1.1** |
| HANI | | | | i S | **Sb** | **10 27 24.7** | **+0.9** |
| **HANI** | **Diyarbakir_Han** | **2.17** | **264** | P | **Pn** | **10 26 54.8** | **+1.1** |
| HANI | | | | S | **Sb** | **10 27 24.7** | **+0.9** |
| **MARD** | **Mardin** | **2.31** | **235** | i P | **Pb** | **10 27 00.2** | **+0.8** |
| MARD | | | | i S | **Sb** | **10 27 27.6** | **-0.2** |
| **MAZI** | **Mazidag** | **2.45** | **241** | ePN | **Pn** | **10 26 57.9** | **+0.4** |
| **MAZI** | **Mazidag** | **2.45** | **241** | ePn | **Pn** | **10 26 57.9** | **+0.4** |
| **PTK** | **Pertek** | **2.94** | **276** | ePN | **Pn** | **10 27 05.2** | **+0.8** |
| **PTK** | **Pertek** | **2.94** | **276** | ePn | **Pn** | **10 27 05.2** | **+0.8** |
| **SVRC** | **Sivrice-ELAZID** | **3.03** | **266** | ePN | **Pn** | **10 27 07.3** | **+1.7** |
| **SVRC** | **Sivrice-ELAZID** | **3.03** | **266** | ePn | **Pn** | **10 27 07.3** | **+1.7** |

---

*BYKL **02** 10:34:31.9±0.3, 56°.05N×113°.66E, h21km±4km*

**MOS 02 10:34:31.3**±0.4**, 56°.03N×113°.70E, h10**km**, mb4.3**/1**, 5C-4D, Error ellipse: s-maj=25.3km s-min=15.3km az=82.8, East of Lake Baykal**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SVKR** | **Severomuysk** | **0.12** | **319** | ⇓iPg | Pg | 10 34 36.1 | +1.9 |
| SVKR | | | | e | | 10 34 38.3 | |
| SVKR | | | | eSg | Sg | 10 34 39.3 | +3.0 |
| **SVKR** | **Severomuysk** | **0.12** | **319** | ePG | Pg | 10 34 36.1 | +1.9 |
| SVKR | | | | e | | 10 34 39.0 | |
| SVKR | | | | pmax | pmax | | |
| | comp=Z,2µm,0.1s | | | | | | |
| SVKR | | | | smax | smax | | |
| | comp=N,20µm,0.4s | | | | | | |
| **UKT** | **Uakit** | **0.54** | **184** | ⇑iPg | Pb | 10 34 42.7 | -0.3 |
| UKT | | | | eSg | Sb | 10 34 50.5 | -0.3 |
| UKT | | | | Pmax | | | |
| | comp=N,31nm,0.2s | | | | | | |
| UKT | | | | Smax | | | |
| | comp=N,535nm,0.6s | | | | | | |
| **UKT** | **Uakit** | **0.54** | **184** | ePG | Pb | 10 34 42.8 | -0.2 |
| UKT | | | | e | | 10 34 50.8 | |
| UKT | | | | pmax | pmax | | |
| | comp=Z,25nm,0.2s | | | | | | |
| UKT | | | | smax | smax | | |
| | comp=E,490nm,0.2s | | | | | | |
| **YOA** | **Uoyan** | **1.11** | **276** | ⇑iPg | Pb | 10 34 51.8 | -0.8 |
| YOA | | | | i Sg | Sn | 10 35 07.9 | -0.4 |
| YOA | | | | eSb | Sb | 10 35 10.3 | +3.2 |
| YOA | | | | Pmax | | | |
| | comp=E,255nm,0.2s | | | | | | |
| YOA | | | | max | | | |
| | comp=E,2µm,0.4s | | | | | | |
| **YOA** | **Uoyan** | **1.11** | **276** | ⇑iPG | Pb | 10 34 51.9 | -0.7 |
| YOA | | | | e | | 10 35 07.9 | |
| YOA | | | | pmax | pmax | | |
| | comp=Z,248nm,0.3s | | | | | | |
| YOA | | | | smax | smax | | |
| | comp=E,2µm,0.5s | | | | | | |
| **NLYR** | **Nelyaty** | **1.21** | **67** | ⇑iPg | Pn | 10 34 54.2 | -0.1 |
| NLYR | | | | eSg | Sn | 10 35 11.2 | +0.4 |
| NLYR | | | | Pmax | | | |
| | comp=E,54nm,0.4s | | | | | | |
| NLYR | | | | Smax | | | |
| | comp=E,441nm,1.0s | | | | | | |
| **NLYR** | **Nelyaty** | **1.21** | **67** | ePG | Pn | 10 34 54.0 | -0.3 |
| NLYR | | | | e | | 10 35 10.3 | |
| NLYR | | | | pmax | pmax | | |
| | comp=Z,56nm,0.7s | | | | | | |
| NLYR | | | | smax | smax | | |
| | comp=N,442nm,1.1s | | | | | | |
| **KMO** | **Kumora** | **1.41** | **265** | ⇑iPg | Pn | 10 34 57.1 | +0.1 |
| KMO | | | | i Sg | Sb | 10 35 15.7 | 0.0 |
| KMO | | | | eSb | Sg | 10 35 17.4 | +0.8 |
| KMO | | | | Pmax | | | |
| | comp=N,59nm,0.3s | | | | | | |
| KMO | | | | max | | | |
| | comp=N,969nm,1.0s | | | | | | |
| **KMO** | **Kumora** | **1.41** | **265** | ePG | Pn | 10 34 57.0 | 0.0 |
| KMO | | | | e | | 10 35 15.7 | |
| KMO | | | | pmax | pmax | | |
| | comp=Z,58nm,0.3s | | | | | | |
| KMO | | | | smax | smax | | |
| | comp=N,975nm,1.0s | | | | | | |
| **BOD** | **Bodaibo** | **1.80** | **5** | ePg | Pn | 10 35 02.6 | +0.2 |
| BOD | | | | e | | 10 35 06.3 | |
| BOD | | | | e | | 10 35 23.1 | |
| BOD | | | | eSg | Sb | 10 35 26.8 | -0.2 |
| BOD | | | | Pmax | | | |
| | comp=N,21nm,0.2s | | | | | | |
| BOD | | | | Smax | | | |
| | comp=N,271nm,0.3s | | | | | | |
| **BOD** | **Bodaibo** | **1.80** | **5** | ePN | Pn | 10 35 03.3 | +0.9 |
| BOD | | | | e | | 10 35 26.8 | |
| BOD | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.1s | | | | | | |
| BOD | | | | smax | smax | | |
| | comp=E,357nm,0.7s | | | | | | |
| **YLYR** | **Ulyunkhan** | **1.85** | **232** | ⇓iPn | Pn | 10 35 03.7 | +0.6 |
| YLYR | | | | ⇓iPg | Pb | 10 35 04.7 | -0.5 |
| YLYR | | | | eSg | Sg | 10 35 30.0 | -0.7 |
| YLYR | | | | Pmax | | | |
| | comp=E,58nm,0.3s | | | | | | |
| YLYR | | | | Smax | | | |
| | comp=E,242nm,0.4s | | | | | | |
| **YLYR** | **Ulyunkhan** | **1.85** | **232** | ePN | Pb | 10 35 04.6 | -0.6 |
| YLYR | | | | e | | 10 35 30.1 | |
| YLYR | | | | pmax | pmax | | |
| | comp=Z,59nm,0.6s | | | | | | |
| YLYR | | | | smax | smax | | |
| | comp=N,241nm,0.6s | | | | | | |
| **NIZ** | **Nizh Angarsk** | **2.35** | **266** | ePn | Pn | 10 35 10.3 | +0.3 |
| NIZ | | | | ePg | Pb | 10 35 13.7 | -0.1 |
| NIZ | | | | eSn | Sn | 10 35 39.1 | +0.2 |
| NIZ | | | | eSg | Sg | 10 35 45.0 | -1.8 |
| NIZ | | | | Pmax | | | |
| | comp=N,20nm,0.8s | | | | | | |
| NIZ | | | | Smax | | | |
| | comp=N,83nm,0.8s | | | | | | |
| **CRS** | **Chara** | **2.68** | **69** | ePn | Pn | 10 35 15.0 | +0.4 |
| CRS | | | | ePg | Pb | 10 35 20.1 | +0.7 |
| CRS | | | | e | | 10 35 26.6 | |
| CRS | | | | eSg | Sg | 10 35 55.1 | -2.3 |
| CRS | | | | e | | 10 35 58.2 | |
| CRS | | | | max | | | |
| | comp=N,39nm,0.7s | | | | | | |
| CRS | | | | max | | | |
| | comp=N,108nm,0.5s | | | | | | |
| **SYVR** | **Suvo** | **3.20** | **223** | ⇓iPn | Pn | 10 35 21.8 | +0.2 |
| SYVR | | | | ePg | Pb | 10 35 28.4 | +0.3 |
| SYVR | | | | eSg | Sg | 10 36 10.9 | -2.9 |
| SYVR | | | | e | | 10 36 16.2 | |
| SYVR | | | | Pmax | | | |
| | comp=N,14nm,0.9s | | | | | | |
| SYVR | | | | max | | | |
| | comp=N,54nm,1.0s | | | | | | |
| **TUP** | **Tupik** | **3.93** | **112** | e | Pn | 10 35 32.1 | +0.5 |
| TUP | | | | ePg | Pb | 10 35 43.2 | +2.6 |
| TUP | | | | eSg | Sg | 10 36 35.5 | -1.8 |
| TUP | | | | Pmax | | | |
| | comp=N,7.0nm,0.7s | | | | | | |
| TUP | | | | Smax | | | |
| | comp=N,60nm,0.6s | | | | | | |
| **MXMB** | **Maximikha** | **3.99** | **228** | eSg | Sg | 10 36 35.3 | -4.1 |
| **CIT** | **Chita** | **4.02** | **181** | eSg | Sg | 10 36 37.4 | -2.8 |
| CIT | | | | e | | 10 36 41.0 | |
| CIT | | | | max | | | |
| | comp=N,133nm,0.2s | | | | | | |
| **OGRR** | **Ongureny** | **4.26** | **238** | ePg | Pb | 10 35 47.6 | +1.4 |
| OGRR | | | | eSg | Sb | 10 36 42.8 | +5.1 |
| OGRR | | | | Smax | | | |
| | comp=N,67nm,1.3s | | | | | | |
| **TRTB** | **Turuntaevo** | **5.21** | **226** | ePg | Pb | 10 36 05.7 | +3.2 |
| TRTB | | | | eSg | Sg | 10 37 13.7 | -4.9 |
| TRTB | | | | e | | 10 37 18.0 | |
| TRTB | | | | max | | | |
| | comp=N,20nm,1.0s | | | | | | |
| **TRG** | **Tyrgan** | **5.40** | **236** | e | Pg | 10 36 10.6 | -4.0 |
| TRG | | | | eSg | Sb | 10 37 16.4 | +6.0 |
| TRG | | | | Smax | | | |
| | comp=N,18nm,0.6s | | | | | | |
| **UUDB** | **Ulan-Yde** | **5.48** | **223** | ePg | Pb | 10 36 11.3 | +4.2 |
| UUDB | | | | eSg | Sg | 10 37 21.6 | -5.6 |
| UUDB | | | | Pmax | | | |
| | comp=N,16nm,1.0s | | | | | | |
| UUDB | | | | Smax | | | |
| | comp=N,45nm,1.3s | | | | | | |
| **STDB** | **Stepnoy Dvoret** | **5.79** | **231** | eSg | Sg | 10 37 30.6 | -6.4 |
| **HRMR** | **Khuramsha** | **5.95** | **225** | ePg | Pb | 10 36 19.0 | +4.0 |
| HRMR | | | | eSg | Sg | 10 37 36.8 | -5.2 |
| HRMR | | | | Smax | | | |
| | comp=N,67nm,0.8s | | | | | | |
| **LSTR** | **Listvyanka** | **6.69** | **235** | e | Pb | 10 36 26.1 | -1.5 |
| LSTR | | | | e | | 10 37 23.1 | |
| LSTR | | | | e | | 10 37 50.0 | |
| LSTR | | | | eSg | Sg | 10 37 58.8 | -7.0 |
| **ZAK** | **Zakamensk** | **8.43** | **232** | eSg | Sg | 10 38 52.8 | -8.6 |
| ZAK | | | | Smax | | | |
| | comp=N,12nm,0.3s | | | | | | |
| **MOY** | **Mondy** | **8.68** | **245** | eSg | Sg | 10 38 58.5 | -11 |
| MOY | | | | Smax | | | |
| | comp=N,25nm,1.6s | | | | | | |
| **ORL** | **Orlik** | **8.84** | **252** | ePg | Pg | 10 37 10.1 | -10 |
| ORL | | | | e | | 10 38 16.8 | |
| ORL | | | | eSg | Sg | 10 39 05.2 | -10 |
| ORL | | | | Smax | | | |
| | comp=N,9.0nm,1.4s | | | | | | |

---

**WEL 02 10:38:23.8**±0.4**, 37°.39S×179°.97W, h33**km**, ML3.6**/15**, 1D, Error ellipse: s-maj=5.1km s-min=3.5km az=0.0, East of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WMGZ** | **Waiomatatini S** | **1.36** | **251** | PN | Pn | 10 38 45.9 | -0.5 |
| WMGZ | | | | SN | Sn | 10 39 01.1 | -2.1 |
| WMGZ | | | | AML | AML | 10 39 02.8 | |
| **MXZ** | **Matakaoa Point** | **1.39** | **262** | ePN | Pn | 10 38 45.9 | -1.0 |
| MXZ | | | | SN | Sn | 10 39 03.6 | -0.4 |
| MXZ | | | | AML | AML | 10 39 06.8 | |
| **PUZ** | **Puketiti** | **1.56** | **244** | PN | Pn | 10 38 48.9 | -0.5 |
| PUZ | | | | eSN | Sn | 10 39 06.9 | -1.6 |
| PUZ | | | | AML | AML | 10 39 10.0 | |
| **PKGZ** | **Pakihiroa** | **1.63** | **252** | PN | Pn | 10 38 49.6 | -0.7 |
| PKGZ | | | | SN | Sn | 10 39 09.1 | -1.1 |
| PKGZ | | | | AML | AML | 10 39 13.1 | |
| **TWGZ** | **Tauwhareparae** | **1.81** | **244** | PN | Pn | 10 38 52.3 | -0.3 |
| TWGZ | | | | SN | Sn | 10 39 13.6 | -0.9 |
| TWGZ | | | | AML | AML | 10 39 13.9 | |
| **CNGZ** | **Carnagh Statio** | **1.81** | **232** | PN | Pn | 10 38 52.7 | +0.1 |
| **HAZ** | **Te Kaha** | **1.83** | **258** | PN | Pn | 10 38 52.9 | 0.0 |
| HAZ | | | | eSN | Sn | 10 39 13.9 | -1.0 |
| HAZ | | | | AML | AML | 10 39 15.1 | |
| **RUGZ** | **Raukumara Rang** | **1.96** | **252** | PN | Pn | 10 38 54.5 | -0.3 |
| **MWZ** | **Matawai** | **2.20** | **244** | PN | Pn | 10 38 57.1 | -0.9 |
| MWZ | | | | AML | AML | 10 39 22.6 | |
| MWZ | | | | AML | AML | 10 39 22.9 | |
| **RIGZ** | **Rimuhau** | **2.22** | **233** | PN | Pn | 10 38 58.0 | -0.4 |
| RIGZ | | | | AML | AML | 10 39 25.6 | |
| RIGZ | | | | AML | AML | 10 39 26.4 | |
| **RAGZ** | **Rawiri** | **2.35** | **241** | PN | Pn | 10 38 59.9 | -0.2 |
| RAGZ | | | | AML | AML | 10 39 29.3 | |
| RAGZ | | | | AML | AML | 10 39 31.7 | |
| **MHGZ** | **Mahia Peninsul** | **2.43** | **223** | PN | Pn | 10 39 00.6 | -0.6 |
| **KNZ** | **Kokohu** | **2.47** | **228** | ⇓PN | Pn | 10 39 00.7 | -1.1 |
| **URZ** | **Urewera** | **2.47** | **249** | PN | Pn | 10 39 01.6 | -0.1 |
| URZ | | | | eSN | Sn | 10 39 28.7 | -2.1 |
| URZ | | | | AML | AML | 10 39 30.8 | |
| **SNGZ** | **Shannon Statio** | **2.54** | **236** | PN | Pn | 10 39 02.2 | -0.6 |
| SNGZ | | | | AML | AML | 10 39 34.3 | |
| SNGZ | | | | AML | AML | 10 39 35.7 | |
| **MUGZ** | **Murupara** | **2.80** | **246** | PN | Pn | 10 39 05.9 | -0.4 |
| **ARHZ** | **Aropaoanui** | **3.03** | **231** | AML | AML | 10 39 45.6 | |
| ARHZ | | | | AML | AML | 10 39 47.2 | |
| **NMHZ** | **Naumai** | **3.06** | **235** | PN | Pn | 10 39 09.7 | -0.3 |
| NMHZ | | | | AML | AML | 10 39 50.5 | |
| NMHZ | | | | AML | AML | 10 39 51.4 | |
| **BKZ** | **Black Stump Fm** | **3.30** | **236** | PN | Pn | 10 39 12.4 | -0.9 |
| BKZ | | | | AML | AML | 10 39 49.8 | |
| **MCHZ** | **McNeill Hill** | **3.33** | **231** | PN | Pn | 10 39 13.0 | -0.6 |
| **KWHZ** | **Kaweka Forest** | **3.49** | **233** | PN | Pn | 10 39 14.9 | -0.9 |
| KWHZ | | | | AML | AML | 10 39 55.3 | |
| KWHZ | | | | AML | AML | 10 39 57.9 | |
| **BHHZ** | **Black Hill Sta** | **3.76** | **235** | PN | Pn | 10 39 18.6 | -0.9 |
| **TSZ** | **Takapari Road** | **4.15** | **229** | PN | Pn | 10 39 22.6 | -2.3 |
| **BFZ** | **Birch Farm** | **4.42** | **221** | PN | Pn | 10 39 25.4 | -3.1 |
| **MRZ** | **Mangatainoka R** | **4.76** | **225** | PN | Pn | 10 39 30.6 | -2.7 |
| MRZ | | | | eSN | Sn | 10 40 21.7 | -5.6 |

---

*NIED **02** 10:40:00, 38°.70N×142°.10E, h53km, Mw3.6 Best double couple: M₀2.57000×10^14 NP1:φs82.00000°, δ31.00000°, λ-21.00000°. NP2:φs190.00000°, δ80.00000°, λ-119.00000°.*

*ISCJB **02** 10:40:29.0±1.2, 38°.68N±0°.05×142°.1E±0°.1, h45km±10km, mb3.4/4, MS3.2/3, Error ellipse: s-maj=17.3km s-min=6.5km az=19.4*

*JMA **02** 10:40:29.3±0.1, 38°.70N×142°.14E, h37km±1km, M3.6*

*JMA Felt I J1.*

*IDC **02** 10:40:32.9±3.4, 38°.62N×142°.06E, h64km±30km, mb3.2/4, mb1 3.3/6, mb1mx3.1/36, mbtmp3.4/6, ML3.1/2, MS3.2/4, Ms1 3.2/4, ms1mx2.8/13, Error ellipse: s-maj=45.7km s-min=23.5km az=85.0*

**ISC 02 10:40:30.6**±1.3**, 38°.70N**±0°.06×**142°.0E**±0°.1**, h39**km±7km**, n25, σ1s.12**/22**, mb3.5**/4**, MS3.1**/3**, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OFUJ** | **Ofunato** | **0.48** | **323** | P | **Pn** | **10 40 40.4** | **-0.6** |
| OFUJ | | | | eS | **Sn** | **10 40 47.8** | **-0.6** |
| **JIO** | **Ouri** | **0.59** | **246** | P | **Pn** | **10 40 42.1** | **-0.5** |
| JIO | | | | S | **Sn** | **10 40 50.6** | **-0.5** |
| **JMK** | **Ichinoseki** | **0.69** | **292** | P | **Pn** | **10 40 43.8** | **-0.1** |
| JMK | | | | eS | **Sn** | **10 40 53.7** | **+0.3** |
| **JOM** | **Ohasama** | **0.97** | **323** | P | **Pn** | **10 40 47.6** | **-0.1** |
| JOM | | | | S | **Sn** | **10 41 00.6** | **+0.3** |
| **JOU** | **Okura** | **1.13** | **253** | P | **Pn** | **10 40 50.2** | **+0.3** |
| JOU | | | | eS | **Sn** | **10 41 05.6** | **+1.4** |
| **JTH** | **Tanohata** | **1.25** | **354** | P | **Pn** | **10 40 50.5** | **-1.0** |
| JTH | | | | eS | **Sn** | **10 41 05.9** | **-1.2** |
| **JMM** | **Marumori** | **1.28** | **230** | P | **Pn** | **10 40 51.6** | **-0.4** |
| JMM | | | | eS | **Sn** | **10 41 07.6** | **-0.4** |
| **JRG** | **Rokugo** | **1.30** | **303** | P | **Pn** | **10 40 52.6** | **+0.4** |
| **JYK** | **Kaneyama** | **1.33** | **280** | P | **Pn** | **10 40 53.2** | **+0.5** |
| **MJAR** | **Matsushiro Arr** | **3.73** | **236** | P | **Pn** | **10 41 27.5** | **+1.9** |
| | 1.1nm,0.3s,baz=42,slow=12,SNR=7.3 | | | | | | |
| **ASAJ** | **Asahikawa** | **5.43** | **4** | P | **Pn** | **10 41 52.2** | **+3.2** |
| | 0.5nm,0.3s,baz=197,slow=17,SNR=5.9 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **9.34** | **309** | LR | LR | 10 46 17.8 | |
| | comp=Z,72nm,20.6s,baz=153,slow=37 | | | | | | |
| **MA2** | **Magadan** | **21.63** | **12** | LR | LR | 10 55 18.6 | |
| | comp=Z,29nm,18.1s,baz=50,slow=41 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.62** | **124** | T | T | 11 16 44.5 | |
| | baz=317,slow=75,SNR=59 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.63** | **124** | T | T | 11 16 44.9 | |
| | baz=317,slow=75,SNR=89 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.64** | **124** | T | T | 11 16 47.9 | |
| | baz=317,slow=75,SNR=72 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.39** | **126** | T | T | 11 17 41.5 | |
| | baz=318,slow=76,SNR=21 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.39** | **126** | T | T | 11 17 43.8 | |
| | baz=318,slow=76,SNR=23 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.41** | **126** | T | T | 11 17 46.3 | |
| | baz=318,slow=76,SNR=25 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.18** | **311** | P | **P** | **10 48 11.7** | **+0.6** |
| | 0.7nm,0.5s,baz=92,slow=9.2,SNR=2.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.68** | **301** | P | **P** | **10 48 31.1** | **-0.3** |
| | 0.3nm,0.7s,baz=90,slow=8.6,SNR=3.5 | | | | | | |
| **BVAR** | **Borovoye Array** | **49.84** | **311** | LR | LR | 11 10 55.0 | |
| | comp=Z,98nm,18.7s,baz=70,slow=36 | | | | | | |
| **AAK** | **Ala-Archa** | **50.15** | **297** | LR | LR | 11 11 06.0 | |
| | comp=Z,18nm,19.1s,baz=41,slow=36 | | | | | | |
| **WRA** | **Warramunga Arr** | **58.77** | **188** | P | **P** | **10 50 23.5** | **-1.3** |
| | 0.3nm,0.5s,baz=5.5,slow=7.0,SNR=8.9 | | | | | | |
| **ASAR** | **Alice Springs** | **62.50** | **188** | P | **P** | **10 50 49.7** | **-0.4** |
| | 0.2nm,0.6s,baz=8.8,slow=6.7,SNR=3.2 | | | | | | |

---

*IDC **02** 10:56:10.0±2.9, 37°.73S×179°.97E, h0km, mb3.9/2, mb1 4.2/4, mb1mx3.8/26, mbtmp4.0/4, ML4.1/2, MS3.3/1, Ms1 3.2/1, ms1mx2.5/18, Error ellipse: s-maj=78.0km s-min=32.2km az=148.0*

*NEIC **02** 10:56:11.8±0.0, 37°.38S×179°.83W, h29km, ML4.2(WEL), After WEL.*

*WEL **02** 10:56:14.1±0.4, 37°.38S×179°.96E, h33km, ML4.2/49, Error ellipse: s-maj=4.6km s-min=3.4km az=0.0*

**ISC 02 10:56:10.6**±2.2**, 37°.73S**±0°.05×**179°.87E**±0°.08**, h8**km±10km**, n134, σ2s.16**/144**, mb3.8**/3**, 3C-1D, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WMGZ** | **Waiomatatini S** | **1.15** | **265** | PN | **Pn** | **10 56 35.3** | **+2.3** |
| WMGZ | | | | eSN | **Sn** | **10 56 51.4** | **+2.3** |
| WMGZ | | | | AML | AML | 10 56 54.3 | |
| **MXZ** | **Matakaoa Point** | **1.25** | **277** | PN | **Pn** | **10 56 35.3** | **+1.0** |
| MXZ | | | | SN | **Sn** | **10 56 52.1** | **+0.8** |
| MXZ | | | | AML | AML | 10 56 58.1 | |
| **PUZ** | **Puketiti** | **1.32** | **255** | PN | **Pg** | **10 56 38.2** | **+2.4** |
| PUZ | | | | SN | **Sn** | **10 56 55.9** | **+2.8** |
| PUZ | | | | AML | AML | 10 56 58.5 | |
| **PKGZ** | **Pakihiroa** | **1.43** | **263** | PN | **Pg** | **10 56 39.0** | **+1.1** |
| PKGZ | | | | AML | AML | 10 56 59.5 | |
| PKGZ | | | | AML | AML | 10 56 59.6 | |
| **CNGZ** | **Carnagh Statio** | **1.51** | **240** | Pn | **Pg** | **10 56 42.4** | **+2.9** |
| **CNGZ** | **Carnagh Statio** | **1.51** | **240** | PN | **Pg** | **10 56 42.4** | **+2.9** |
| CNGZ | | | | AML | AML | 10 57 07.4 | |
| CNGZ | | | | AML | AML | 10 57 08.2 | |
| **TWGZ** | **Tauwhareparae** | **1.56** | **253** | Pn | **Pg** | **10 56 41.9** | **+1.5** |
| TWGZ | | | | Sn | **Sg** | **10 57 03.7** | **+3.1** |
| **TWGZ** | **Tauwhareparae** | **1.56** | **253** | PN | **Pg** | **10 56 41.9** | **+1.5** |
| TWGZ | | | | eSN | **Sg** | **10 57 01.9** | **+1.3** |
| TWGZ | | | | AML | AML | 10 57 04.2 | |
| **HAZ** | **Te Kaha** | **1.65** | **269** | ⇑PN | **Pg** | **10 56 42.5** | **+0.2** |
| HAZ | | | | AML | AML | 10 57 07.6 | |
| HAZ | | | | AML | AML | 10 57 16.6 | |
| **TKGZ** | **Te Karaka** | **1.74** | **246** | Pn | **Pg** | **10 56 44.8** | **+0.8** |
| TKGZ | | | | Sn | **Sg** | **10 57 08.3** | **+1.8** |
| **TKGZ** | **Te Karaka** | **1.74** | **246** | PN | **Pg** | **10 56 44.7** | **+0.8** |
| TKGZ | | | | SN | **Sg** | **10 57 08.3** | **+1.8** |
| TKGZ | | | | AML | AML | 10 57 09.2 | |
| TKGZ | | | | AML | AML | 10 57 09.4 | |
| **RUGZ** | **Raukumara Rang** | **1.75** | **262** | PN | **Pg** | **10 56 43.9** | **-0.1** |
| **RIGZ** | **Rimuhau** | **1.92** | **239** | PN | **Pg** | **10 56 47.5** | **+0.2** |
| RIGZ | | | | AML | AML | 10 57 15.3 | |
| RIGZ | | | | AML | AML | 10 57 15.7 | |
| **MWZ** | **Matawai** | **1.94** | **251** | Pn | **Pg** | **10 56 46.8** | **-1.0** |
| **MWZ** | **Matawai** | **1.94** | **251** | PN | **Pg** | **10 56 46.8** | **-1.0** |
| MWZ | | | | AML | AML | 10 57 13.2 | |
| MWZ | | | | AML | AML | 10 57 13.4 | |
| **PRGZ** | **Paritu Road** | **1.96** | **232** | Pn | **Pg** | **10 56 48.3** | **+0.2** |
| **PRGZ** | **Paritu Road** | **1.96** | **232** | PN | **Pg** | **10 56 48.3** | **+0.2** |
| PRGZ | | | | AML | AML | 10 57 21.4 | |
| PRGZ | | | | AML | AML | 10 57 22.8 | |
| **RAGZ** | **Rawiri** | **2.08** | **248** | Pn | **Pg** | **10 56 49.3** | **-1.0** |
| **RAGZ** | **Rawiri** | **2.08** | **248** | PN | **Pg** | **10 56 49.3** | **-1.0** |
| RAGZ | | | | AML | AML | 10 57 17.3 | |
| RAGZ | | | | AML | AML | 10 57 22.1 | |
| **MHGZ** | **Mahia Peninsul** | **2.09** | **227** | Pn | **Pg** | **10 56 50.1** | **-0.5** |
| **MHGZ** | **Mahia Peninsul** | **2.09** | **227** | PN | **Pg** | **10 56 50.1** | **-0.5** |
| MHGZ | | | | AML | AML | 10 57 20.5 | |
| MHGZ | | | | AML | AML | 10 57 23.0 | |
| **KNZ** | **Kokohu** | **2.15** | **233** | Pn | **Pb** | **10 56 50.2** | **+0.4** |
| **KNZ** | **Kokohu** | **2.15** | **233** | ⇓PN | **Pb** | **10 56 50.2** | **+0.4** |
| KNZ | | | | AML | AML | 10 57 22.5 | |
| KNZ | | | | AML | AML | 10 57 24.8 | |
| **URZ** | **Urewera** | **2.24** | **256** | Pn | **Pg** | **10 56 51.2** | **-2.3** |
| | 87nm,0.3s,baz=152,slow=0.8,SNR=493 | | | | | | |
| URZ | | | | Sn | **Sb** | **10 57 18.7** | **-0.4** |
| | 25nm,0.3s,baz=185,slow=22,SNR=16 | | | | | | |
| **URZ** | **Urewera** | **2.24** | **256** | PN | **Pg** | **10 56 51.2** | **-2.3** |
| URZ | | | | eSN | **Sb** | **10 57 18.6** | **-0.6** |
| URZ | | | | AML | AML | 10 57 22.1 | |
| **SNGZ** | **Shannon Statio** | **2.25** | **241** | Pn | **Pg** | **10 56 51.8** | **-1.8** |
| SNGZ | | | | Sn | **Sg** | **10 57 21.3** | **-1.5** |
| **SNGZ** | **Shannon Statio** | **2.25** | **241** | PN | **Pg** | **10 56 51.8** | **-1.8** |
| SNGZ | | | | SN | **Sg** | **10 57 21.3** | **-1.5** |
| SNGZ | | | | AML | AML | 10 57 24.6 | |
| **WHHZ** | **Waihua** | **2.46** | **236** | PN | **Pb** | **10 56 55.0** | **-0.2** |
| WHHZ | | | | SN | **Sb** | **10 57 26.9** | **+1.2** |
| WHHZ | | | | AML | AML | 10 57 30.7 | |
| **MUGZ** | **Murupara** | **2.55** | **252** | ⇑PN | **Pb** | **10 56 55.4** | **-1.2** |
| **OPRZ** | **Ohinepanea** | **2.63** | **267** | Pn | **Pb** | **10 56 55.0** | **-2.9** |
| **OPRZ** | **Ohinepanea** | **2.63** | **267** | PN | **Pb** | **10 56 54.9** | **-2.9** |
| OPRZ | | | | AML | AML | 10 57 35.4 | |
| OPRZ | | | | AML | AML | 10 57 39.3 | |
| **MTHZ** | **Maungataniwha** | **2.63** | **244** | PN | **Pb** | **10 56 57.0** | **-0.9** |
| MTHZ | | | | SN | **Sb** | **10 57 30.2** | **-0.3** |
| **RRRZ** | **Republican Roa** | **2.71** | **256** | Pn | **Pb** | **10 56 58.0** | **-1.4** |
| **RRRZ** | **Republican Roa** | **2.71** | **256** | PN | **Pb** | **10 56 58.0** | **-1.4** |
| RRRZ | | | | AML | AML | 10 57 36.5 | |
| RRRZ | | | | AML | AML | 10 57 40.3 | |
| **ARHZ** | **Aropaoanui** | **2.72** | **235** | Pn | **Pb** | **10 56 58.7** | **-0.8** |
| **ARHZ** | **Aropaoanui** | **2.72** | **235** | PN | **Pb** | **10 56 58.7** | **-0.8** |
| ARHZ | | | | AML | AML | 10 57 34.8 | |
| ARHZ | | | | AML | AML | 10 57 35.8 | |
| **NMHZ** | **Naumai** | **2.76** | **240** | Pn | **Pb** | **10 56 59.0** | **-1.2** |
| **NMHZ** | **Naumai** | **2.76** | **240** | PN | **Pb** | **10 56 59.0** | **-1.2** |
| NMHZ | | | | AML | AML | 10 57 36.2 | |
| NMHZ | | | | AML | AML | 10 57 38.6 | |
| **PRRZ** | **Plateau Road** | **2.84** | **253** | Pn | **Pb** | **10 56 59.4** | **-2.2** |
| **PRRZ** | **Plateau Road** | **2.84** | **253** | AML | AML | 10 57 41.5 | |
| PRRZ | | | | AML | AML | 10 57 45.8 | |
| **TGRZ** | **Tauranga** | **2.86** | **269** | Pn | **Pb** | **10 56 58.6** | **-3.2** |
| **TGRZ** | **Tauranga** | **2.86** | **269** | PN | **Pb** | **10 56 58.6** | **-3.2** |
| **ALRZ** | **Allen Road** | **2.90** | **252** | Pn | **Pb** | **10 57 00.2** | **-2.3** |
| **ALRZ** | **Allen Road** | **2.90** | **252** | ePN | **Pb** | **10 57 00.0** | **-2.5** |
| ALRZ | | | | AML | AML | 10 57 42.7 | |
| ALRZ | | | | AML | AML | 10 57 53.4 | |
| **MRHZ** | **Matea Rd** | **2.93** | **247** | PN | **Pb** | **10 57 00.8** | **-2.2** |
| MRHZ | | | | AML | AML | 10 57 37.4 | |
| MRHZ | | | | AML | AML | 10 57 38.9 | |
| **BKZ** | **Black Stump Fm** | **3.01** | **241** | Pn | **Pb** | **10 57 01.8** | **-2.7** |
| **BKZ** | **Black Stump Fm** | **3.01** | **241** | PN | **Pb** | **10 57 01.8** | **-2.7** |
| BKZ | | | | eSN | **Sb** | **10 57 38.2** | **-3.3** |
| BKZ | | | | AML | AML | 10 57 39.9 | |
| **MCHZ** | **McNeill Hill** | **3.01** | **235** | Pn | **Pb** | **10 57 02.5** | **-2.1** |
| **MCHZ** | **McNeill Hill** | **3.01** | **235** | PN | **Pb** | **10 57 02.5** | **-2.1** |
| MCHZ | | | | AML | AML | 10 57 41.1 | |
| MCHZ | | | | AML | AML | 10 57 42.4 | |
| **KAHZ** | **Kahuranaki** | **3.11** | **228** | Pn | **Pb** | **10 57 03.5** | **-2.7** |
| **KAHZ** | **Kahuranaki** | **3.11** | **228** | PN | **Pb** | **10 57 03.5** | **-2.7** |
| KAHZ | | | | AML | AML | 10 57 48.2 | |
| KAHZ | | | | AML | AML | 10 57 53.3 | |
| **KWHZ** | **Kaweka Forest** | **3.18** | **237** | ⇑PN | **Pb** | **10 57 04.4** | **-3.0** |
| KWHZ | | | | AML | AML | 10 57 48.0 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| KWHZ | | | | AML | AML | 10 57 49.8 | |
| **PXZ** | **Pawanui** | **3.28** | **225** | Pn | **Pn** | **10 57 05.0** | **+2.7** |
| **PXZ** | **Pawanui** | **3.28** | **225** | PN | **Pn** | **10 57 05.0** | **+2.7** |
| PXZ | | | | AML | AML | 10 57 47.8 | |
| PXZ | | | | AML | AML | 10 57 47.8 | |
| PXZ | | | | AML | AML | 10 57 49.4 | |
| PXZ | | | | AML | AML | 10 57 49.4 | |
| **KRHZ** | **Kereru** | **3.33** | **234** | *e*PN | **Pb** | **10 57 06.1** | **-3.9** |
| KRHZ | | | | AML | AML | 10 57 47.9 | |
| KRHZ | | | | AML | AML | 10 57 48.3 | |
| **KUZ** | **Kuaotunu** | **3.45** | **285** | Pn | **Pn** | **10 57 04.7** | **+0.1** |
| **KUZ** | **Kuaotunu** | **3.45** | **285** | PN | **Pn** | **10 57 04.7** | **+0.1** |
| **BHHZ** | **Black Hill Sta** | **3.46** | **238** | Pn | **Pb** | **10 57 08.1** | **-4.0** |
| **BHHZ** | **Black Hill Sta** | **3.46** | **238** | PN | **Pb** | **10 57 08.1** | **-4.0** |
| BHHZ | | | | AML | AML | 10 57 50.4 | |
| BHHZ | | | | AML | AML | 10 57 51.6 | |
| **TOZ** | **Tahuroa Road** | **3.46** | **269** | Pn | **Pn** | **10 57 06.4** | **+1.7** |
| **TOZ** | **Tahuroa Road** | **3.46** | **269** | PN | **Pn** | **10 57 06.4** | **+1.7** |
| **WPHZ** | **Waipukurau** | **3.54** | **228** | Pn | **Pn** | **10 57 08.7** | **+2.8** |
| **WPHZ** | **Waipukurau** | **3.54** | **228** | PN | **Pn** | **10 57 08.7** | **+2.8** |
| WPHZ | | | | AML | AML | 10 57 56.0 | |
| WPHZ | | | | AML | AML | 10 58 02.5 | |
| **PRHZ** | **Porangahau** | **3.57** | **224** | Pn | **Pn** | **10 57 08.9** | **+2.6** |
| **PRHZ** | **Porangahau** | **3.57** | **224** | PN | **Pn** | **10 57 08.9** | **+2.6** |
| PRHZ | | | | AML | AML | 10 57 53.3 | |
| PRHZ | | | | AML | AML | 10 57 59.3 | |
| **KRVZ** | **Karewarewa** | **3.59** | **246** | Pn | **Pb** | **10 57 09.9** | **-4.4** |
| **OTVZ** | **Oturere** | **3.59** | **245** | Pn | **Pn** | **10 57 09.5** | **+2.8** |
| **OTVZ** | **Oturere** | **3.59** | **245** | PN | **Pn** | **10 57 09.5** | **+2.8** |
| OTVZ | | | | AML | AML | 10 58 01.7 | |
| OTVZ | | | | AML | AML | 10 58 18.1 | |
| **PNHZ** | **Pukenui** | **3.60** | **232** | Pn | **Pn** | **10 57 09.6** | **+2.9** |
| **PNHZ** | **Pukenui** | **3.60** | **232** | PN | **Pn** | **10 57 09.6** | **+2.9** |
| PNHZ | | | | AML | AML | 10 57 54.7 | |
| PNHZ | | | | AML | AML | 10 57 57.3 | |
| **WNVZ** | **Wahianoa** | **3.71** | **243** | Pn | **Pn** | **10 57 11.0** | **+2.6** |
| **WNVZ** | **Wahianoa** | **3.71** | **243** | *e*PN | **Pn** | **10 57 11.0** | **+2.6** |
| **FWVZ** | **Far West T-bar** | **3.71** | **244** | Pn | **Pb** | **10 57 11.9** | **-4.6** |
| **FWVZ** | **Far West T-bar** | **3.71** | **244** | *e*PN | **Pb** | **10 57 11.9** | **-4.6** |
| FWVZ | | | | AML | AML | 10 57 55.0 | |
| FWVZ | | | | AML | AML | 10 58 01.2 | |
| **ANWZ** | **Angora Road** | **3.79** | **223** | PN | **Pn** | **10 57 12.3** | **+3.0** |
| ANWZ | | | | AML | AML | 10 58 02.5 | |
| ANWZ | | | | AML | AML | 10 58 04.5 | |
| **MKAZ** | **Moumakai** | **3.80** | **278** | Pn | **Pn** | **10 57 10.7** | **+1.3** |
| **MKAZ** | **Moumakai** | **3.80** | **278** | PN | **Pn** | **10 57 10.7** | **+1.3** |
| **GRZ** | **Great Barrier** | **3.83** | **291** | PN | **Pn** | **10 57 10.9** | **+1.1** |
| **TSZ** | **Takapari Road** | **3.83** | **231** | Pn | **Pn** | **10 57 12.2** | **+2.3** |
| **TSZ** | **Takapari Road** | **3.83** | **231** | PN | **Pn** | **10 57 12.2** | **+2.3** |
| TSZ | | | | AML | AML | 10 57 58.9 | |
| TSZ | | | | AML | AML | 10 57 59.0 | |
| **DVHZ** | **Dannevirke** | **3.85** | **227** | Pn | **Pn** | **10 57 12.7** | **+2.5** |
| **DVHZ** | **Dannevirke** | **3.85** | **227** | PN | **Pn** | **10 57 12.7** | **+2.5** |
| DVHZ | | | | AML | AML | 10 58 01.1 | |
| DVHZ | | | | AML | AML | 10 58 03.0 | |
| **HIZ** | **Hauiti** | **4.03** | **257** | Pn | **Pn** | **10 57 15.8** | **+3.3** |
| **HIZ** | **Hauiti** | **4.03** | **257** | *e*PN | **Pn** | **10 57 15.8** | **+3.3** |
| **BFZ** | **Birch Farm** | **4.07** | **223** | Pn | **Pn** | **10 57 15.6** | **+2.4** |
| **BFZ** | **Birch Farm** | **4.07** | **223** | PN | **Pn** | **10 57 15.5** | **+2.4** |
| BFZ | | | | AML | AML | 10 58 04.7 | |
| BFZ | | | | AML | AML | 10 58 05.4 | |
| **PRWZ** | **Pori Road** | **4.14** | **226** | Pn | **Pn** | **10 57 17.2** | **+3.1** |
| **PRWZ** | **Pori Road** | **4.14** | **226** | PN | **Pn** | **10 57 17.2** | **+3.1** |
| PRWZ | | | | AML | AML | 10 58 08.8 | |
| PRWZ | | | | AML | AML | 10 58 11.1 | |
| **POWZ** | **Post Office Ro** | **4.15** | **229** | Pn | **Pn** | **10 57 16.7** | **+2.4** |
| **POWZ** | **Post Office Ro** | **4.15** | **229** | PN | **Pn** | **10 57 16.7** | **+2.4** |
| POWZ | | | | AML | AML | 10 58 13.3 | |
| POWZ | | | | AML | AML | 10 58 16.4 | |
| **VRZ** | **Vera Road** | **4.24** | **249** | Pn | **Pn** | **10 57 19.0** | **+3.4** |
| **VRZ** | **Vera Road** | **4.24** | **249** | PN | **Pn** | **10 57 19.0** | **+3.4** |
| **CPWZ** | **Castlepoint** | **4.26** | **221** | AML | AML | 10 58 11.8 | |
| CPWZ | | | | AML | AML | 10 58 11.8 | |
| **WAZ** | **Wanganui** | **4.32** | **241** | Pn | **Pn** | **10 57 17.2** | **+0.7** |
| **TIWZ** | **Tintock** | **4.33** | **224** | Pn | **Pn** | **10 57 19.3** | **+2.5** |
| **TIWZ** | **Tintock** | **4.33** | **224** | *e*PN | **Pn** | **10 57 19.2** | **+2.4** |
| TIWZ | | | | AML | AML | 10 58 14.8 | |
| TIWZ | | | | AML | AML | 10 58 16.2 | |
| **MRZ** | **Mangatainoka R** | **4.43** | **227** | Pn | **Pn** | **10 57 19.9** | **+1.8** |
| **MRZ** | **Mangatainoka R** | **4.43** | **227** | PN | **Pn** | **10 57 19.9** | **+1.8** |
| MRZ | | | | *e*SN | **Sn** | **10 58 10.8** | **+0.9** |
| MRZ | | | | AML | AML | 10 58 13.9 | |
| **TMWZ** | **Te Maipa** | **4.56** | **221** | Pn | **Pn** | **10 57 21.7** | **+1.8** |
| **TMWZ** | **Te Maipa** | **4.56** | **221** | PN | **Pn** | **10 57 21.7** | **+1.8** |
| TMWZ | | | | AML | AML | 10 58 17.8 | |
| **HOWZ** | **Holdsworth Sta** | **4.62** | **226** | Pn | **Pn** | **10 57 22.3** | **+1.6** |
| **HOWZ** | **Holdsworth Sta** | **4.62** | **226** | PN | **Pn** | **10 57 22.3** | **+1.6** |
| HOWZ | | | | AML | AML | 10 58 17.7 | |
| HOWZ | | | | AML | AML | 10 58 18.9 | |
| **OGWZ** | **Otaki Gorge** | **4.77** | **228** | Pn | **Pn** | **10 57 24.5** | **+1.7** |
| **NEZ** | **North Egmont** | **4.78** | **250** | Pn | Pn | 10 57 27.5 | +4.5 |
| **MTW** | **Mount Morrison** | **4.81** | **223** | Pn | **Pn** | **10 57 24.8** | **+1.5** |
| **MTW** | **Mount Morrison** | **4.81** | **223** | PN | **Pn** | **10 57 24.8** | **+1.5** |
| MTW | | | | AML | AML | 10 58 25.3 | |
| **KIW** | **Kapiti Island** | **4.95** | **229** | Pn | **Pn** | **10 57 26.8** | **+1.5** |
| **PAWZ** | **Paruwai Farm** | **5.00** | **222** | Pn | **Pn** | **10 57 26.8** | **+0.7** |
| **CAW** | **Cannon Point** | **5.02** | **226** | Pn | **Pn** | **10 57 27.9** | **+1.8** |
| **CAW** | **Cannon Point** | **5.02** | **226** | PN | **Pn** | **10 57 27.9** | **+1.8** |
| CAW | | | | AML | AML | 10 58 29.5 | |
| CAW | | | | AML | AML | 10 58 33.1 | |
| **DUWZ** | **D'Urville Isla** | **5.54** | **235** | Pn | **Pn** | **10 57 34.3** | **+0.9** |
| **DUWZ** | **D'Urville Isla** | **5.54** | **235** | PN | **Pn** | **10 57 34.3** | **+0.9** |
| **TCW** | **Tory Channel** | **5.55** | **230** | Pn | **Pn** | **10 57 35.1** | **+1.7** |
| **NNZ** | **Nelson** | **6.11** | **233** | Pn | **Pn** | **10 57 42.5** | **+1.4** |
| **NNZ** | **Nelson** | **6.11** | **233** | *e*PN | **Pn** | **10 57 42.3** | **+1.2** |
| **QRZ** | **Quartz Range** | **6.47** | **239** | Pn | **Pn** | **10 57 46.9** | **+0.7** |
| **QRZ** | **Quartz Range** | **6.47** | **239** | PN | **Pn** | **10 57 46.9** | **+0.7** |
| **CTZ** | **Chatham Island** | **6.56** | **157** | Pn | Pn | 10 57 54.1 | +6.7 |
| **CTZ** | **Chatham Island** | **6.56** | **157** | PN | Pn | 10 57 54.1 | +6.7 |
| **THZ** | **Tophouse** | **6.70** | **231** | Pn | **Pn** | **10 57 49.9** | **+0.5** |
| **THZ** | **Tophouse** | **6.70** | **231** | *e*PN | **Pn** | **10 57 48.9** | **-0.5** |
| **KHZ** | **Kahutara** | **6.74** | **224** | Pn | **Pn** | **10 57 49.9** | **+0.2** |
| **KHZ** | **Kahutara** | **6.74** | **224** | *e*PN | **Pn** | **10 57 49.9** | **+0.2** |
| **LTZ** | **Lake Taylor** | **7.69** | **227** | Pn | **Pn** | **10 58 00.3** | **-2.5** |
| **MQZ** | **McQueen's Vall** | **8.10** | **220** | Pn | **Pn** | **10 58 09.2** | **+0.8** |
| **MQZ** | **McQueen's Vall** | **8.10** | **220** | PN | **Pn** | **10 58 09.2** | **+0.8** |
| **INZ** | **Inchbonnie** | **8.14** | **230** | *e*PN | **Pn** | **10 58 09.2** | **+0.2** |
| **RPZ** | **Rata Peaks** | **8.97** | **225** | Pn | **Pn** | **10 58 20.7** | **+0.3** |
| | 0.9nm,0.3s,baz=79,slow=16,SNR=6.6 | | | | | | |
| RPZ | | | | Sn | **Sn** | **10 59 55.9** | **-5.7** |
| | 3.3nm,0.3s,baz=116,slow=22,SNR=16 | | | | | | |
| **ODZ** | **Otahua Downs** | **10.06** | **221** | Pn | **Pn** | **10 58 35.6** | **+0.3** |
| **STKA** | **Stephens Creek** | **31.81** | **269** | LR | LR | 11 15 59.1 | |
| | comp=Z,48nm,18.1s,baz=37,slow=37 | | | | | | |
| **ASAR** | **Alice Springs** | **41.53** | **276** | P | **P** | **11 03 59.6** | **+1.0** |
| | 1.2nm,0.5s,baz=122,slow=8.0,SNR=39 | | | | | | |
| **WRAB** | **Tennant Creek** | **43.18** | **281** | *e*P | **P** | **11 04 13.1** | **+1.0** |
| | 1.0nm,0.5s | | | | | | |
| **WRA** | **Warramunga Arr** | **43.18** | **281** | P | **P** | **11 04 12.4** | **+0.3** |
| | 0.9nm,0.5s,baz=123,slow=7.0,SNR=15 | | | | | | |
| **ARCES** | **ARCESS Array B** | **145.27** | **345** | PKPbc | **PKPdf** | **11 15 48.5** | **+0.6** |
| | 9.3nm,1.1s,baz=46,slow=3.9,SNR=7.7 | | | | | | |

*ISCJB **02** 10:57:02.1±0.5, 51°.74N±0°.02×7°.08E±0°.03, h0km, Error ellipse: s-maj=3.1km s-min=2.4km az=156.7*
*BNS **02** 10:57:02.8±1.0, 51°.78N×7°.07E, h1km±6km, ML2.9*
*CSEM **02** 10:57:02.8±0.3, 51°.74N×7°.07E, h2km, ML4.1/28, Error ellipse: s-maj=4.4km s-min=3.0km az=158.0*
*LDG **02** 10:57:03.1±0.2, 51°.77N×7°.04E, h2km, Md3.3/2, Ml4.1/13, Error ellipse: s-maj=2.7km s-min=2.4km az=117.0*
*BGR **02** 10:57:03.8±0.4, 51°.73N×7°.07E, h1km, ML3.4/6, Error ellipse: s-maj=6.7km s-min=4.4km az=149.0*
*BUG **02** 10:57:03.0, 51°.73N×7°.09E, h1km, ML3.7*
*BUG Felt IV EMS.*
*PRU **02** 10:57:11.0, 51°.31N×7°.26E, h93km*
**ISC 02 10:57:03.2**±0.8**, 51°.72N**±0°.02×**7°.01E**±0°.02**, h0**km**, n121,** σ**1ˢ.67**/169**, Germany**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BZER** | **Hlnxe** | **0.13** | **221** | *e*Pg | **Pg** | **10 57 07.5** | **+1.8** |
| **BZER** | **Hlnxe** | **0.13** | **221** | Pg | **Pg** | **10 57 07.5** | **+1.8** |
| **WTSB** | **Winterswijk** | **0.28** | **332** | *e*Pg | **Pg** | **10 57 08.5** | **0.0** |
| WTSB | | | | *e*Sg | **Sb** | **10 57 18.8** | **+2.4** |
| **WTSB** | **Winterswijk** | **0.28** | **332** | *e*Pg | **Pg** | **10 57 08.7** | **+0.2** |
| **WTSB** | **Winterswijk** | **0.28** | **332** | Pg | **Pg** | **10 57 08.7** | **+0.2** |
| **BTEZ** | **Ruhr-Universit** | **0.32** | **148** | *e*Pg | **Pg** | **10 57 09.2** | **-0.1** |
| **BTEZ** | **Ruhr-Universit** | **0.32** | **148** | Pg | **Pg** | **10 57 09.2** | **-0.1** |
| **BUG** | **Bochum--Univer** | **0.32** | **150** | *e*Pg | **Pg** | **10 57 09.9** | **+0.5** |
| BUG | | | | Sg | **Sb** | **10 57 15.7** | **-1.9** |
| **HES** | **Velbert-Hesper** | **0.35** | **177** | *e*Pg | **Pg** | **10 57 10.4** | **+0.4** |
| **HES** | **Velbert-Hesper** | **0.35** | **177** | Pg | **Pg** | **10 57 10.4** | **+0.4** |
| **LAUG** | **Laupendahl** | **0.37** | **186** | *e*Pg | **Pg** | **10 57 11.0** | **+0.7** |
| LAUG | | | | *e*Sg | **Sb** | **10 57 17.2** | **-1.8** |
| **LAUG** | **Laupendahl** | **0.37** | **186** | Pg | **Pg** | **10 57 11.0** | **+0.7** |
| LAUG | | | | Sg | **Sb** | **10 57 17.2** | **-1.8** |
| **HMES** | **Hamm, Michael-** | **0.45** | **98** | *e*Pg | **Pb** | **10 57 13.7** | **-0.3** |
| **ENTS** | **Ennepetalsperr** | **0.54** | **152** | *e*Pg | **Pg** | **10 57 13.9** | **+0.4** |
| ENTS | | | | *e*Sg | **Sg** | **10 57 22.0** | **+1.4** |
| **ENTS** | **Ennepetalsperr** | **0.54** | **152** | Pg | **Pg** | **10 57 13.9** | **+0.4** |
| ENTS | | | | Sg | **Sg** | **10 57 22.0** | **+1.4** |
| **SORT** | **Sorpetalsperre** | **0.71** | **121** | *e*Pg | **Pg** | **10 57 16.3** | **-0.4** |
| SORT | | | | *e*Sg | **Sg** | **10 57 25.6** | **-0.3** |
| **SORT** | **Sorpetalsperre** | **0.71** | **121** | Pg | **Pg** | **10 57 16.3** | **-0.4** |
| SORT | | | | Sg | **Sg** | **10 57 25.6** | **-0.3** |
| **PLH** | **Pulheim** | **0.73** | **190** | *e*Pg | **Pg** | **10 57 17.3** | **+0.2** |
| PLH | | | | *e*Sg | **Sb** | **10 57 28.5** | **-0.7** |
| | 899nm,0.2s | | | | | | |
| **PLH** | **Pulheim** | **0.73** | **190** | Pg | **Pg** | **10 57 17.3** | **+0.2** |
| PLH | | | | Sg | **Sb** | **10 57 28.5** | **-0.7** |
| | 899nm,0.2s | | | | | | |
| **IBBN** | **Ibbenburen** | **0.75** | **38** | *e*Sg | **Sg** | **10 57 26.2** | **-1.0** |
| **IBBN** | **Ibbenburen** | **0.75** | **38** | Sg | **Sg** | **10 57 26.2** | **-1.0** |
| **BNS** | **Bensberg** | **0.76** | **172** | *e*Pg | **Pb** | **10 57 18.6** | **-0.8** |
| BNS | | | | *e*Sg | **Sb** | **10 57 30.2** | **-0.1** |
| | 431nm,0.5s | | | | | | |
| **BNS** | **Bensberg** | **0.76** | **172** | Pg | **Pb** | **10 57 18.6** | **-0.8** |
| BNS | | | | Sg | **Sb** | **10 57 30.2** | **-0.1** |
| | 431nm,0.5s | | | | | | |
| **HOBG** | **Hohbusch** | **0.77** | **164** | *e*Sg | **Sb** | **10 57 30.3** | **0.0** |
| | 265nm,0.7s | | | | | | |
| **HOBG** | **Hohbusch** | **0.77** | **164** | Sg | **Sb** | **10 57 30.3** | **0.0** |
| | 265nm,0.7s | | | | | | |
| **RWB** | **Wassenberg** | **0.82** | **221** | *e*Sg | **Sb** | **10 57 31.7** | **-0.1** |
| **RWB** | **Wassenberg** | **0.82** | **221** | Sg | **Sb** | **10 57 31.7** | **-0.1** |
| **WBS** | **Wahnbachtalspe** | **0.93** | **169** | *e*Pg | **Pg** | **10 57 21.3** | **+0.3** |
| WBS | | | | *e*Sg | **Sb** | **10 57 34.6** | **-0.5** |
| | 189nm,0.3s | | | | | | |
| **WBS** | **Wahnbachtalspe** | **0.93** | **169** | Pg | **Pg** | **10 57 21.3** | **+0.3** |
| WBS | | | | Sg | **Sb** | **10 57 34.6** | **-0.5** |
| | 189nm,0.3s | | | | | | |
| **GSH** | **Grosshau** | **1.06** | **202** | *e*Pg | **Pb** | **10 57 24.2** | **-0.2** |
| GSH | | | | *e*Sg | **Sb** | **10 57 39.0** | **+0.1** |
| | 183nm,0.3s | | | | | | |
| **GSH** | **Grosshau** | **1.06** | **202** | Pg | **Pb** | **10 57 24.2** | **-0.2** |
| GSH | | | | Sg | **Sb** | **10 57 39.0** | **+0.1** |
| | 183nm,0.3s | | | | | | |
| **STB** | **Steinbach** | **1.13** | **185** | *e*Pg | **Pg** | **10 57 25.0** | **+0.1** |
| STB | | | | *e*Sg | **Sb** | **10 57 41.5** | **+0.6** |
| | 528nm,0.5s | | | | | | |
| **STB** | **Steinbach** | **1.13** | **185** | Pg | **Pg** | **10 57 25.0** | **+0.1** |
| STB | | | | Sg | **Sb** | **10 57 41.5** | **+0.6** |
| | 528nm,0.5s | | | | | | |
| **TDN** | **Todenfeld** | **1.15** | **182** | *e*Pg | **Pg** | **10 57 25.3** | **+0.1** |
| TDN | | | | *e*Sg | **Sb** | **10 57 41.3** | **0.0** |
| | 527nm,0.3s | | | | | | |
| **TDN** | **Todenfeld** | **1.15** | **182** | Pg | **Pg** | **10 57 25.3** | **+0.1** |
| TDN | | | | Sg | **Sb** | **10 57 41.3** | **0.0** |
| | 527nm,0.3s | | | | | | |
| **KLL** | **Kalltalsperre** | **1.16** | **203** | *e*Pg | **Pb** | **10 57 25.9** | **-0.2** |
| KLL | | | | *e*Sg | **Sb** | **10 57 41.6** | **-0.1** |
| | 117nm,0.6s | | | | | | |
| **KLL** | **Kalltalsperre** | **1.16** | **203** | Pg | **Pb** | **10 57 25.9** | **-0.2** |
| KLL | | | | Sg | **Sb** | **10 57 41.6** | **-0.1** |
| | 117nm,0.6s | | | | | | |
| **DREG** | **Dreilaegerbach** | **1.17** | **205** | *e*Pg | **Pb** | **10 57 26.1** | **-0.1** |
| DREG | | | | *e*Sg | **Sb** | **10 57 42.1** | **+0.2** |
| | 178nm,0.4s | | | | | | |
| **DREG** | **Dreilaegerbach** | **1.17** | **205** | Pg | **Pb** | **10 57 26.1** | **-0.1** |
| DREG | | | | Sg | **Sb** | **10 57 42.1** | **+0.2** |
| | 178nm,0.4s | | | | | | |
| **HGN** | **Heimansgroeve** | **1.17** | **216** | *e*Pg | **Pb** | **10 57 26.2** | **-0.1** |
| HGN | | | | *e*Sg | **Sb** | **10 57 42.7** | **+0.7** |
| **HGN** | **Heimansgroeve** | **1.17** | **216** | *e*Pg | **Pg** | **10 57 25.5** | **-0.2** |
| HGN | | | | *e*Sg | **Sb** | **10 57 42.5** | **+0.5** |
| **HGN** | **Heimansgroeve** | **1.17** | **216** | Pg | **Pg** | **10 57 25.5** | **-0.2** |
| HGN | | | | Sg | **Sb** | **10 57 42.5** | **+0.5** |
| **AHRW** | **Bad Neuenahr-A** | **1.18** | **178** | *e*Pg | **Pb** | **10 57 26.6** | **+0.1** |
| AHRW | | | | *e*Sg | **Sn** | **10 57 43.8** | **+0.1** |
| **AHRW** | **Bad Neuenahr-A** | **1.18** | **178** | Pg | **Pb** | **10 57 26.6** | **+0.1** |
| AHRW | | | | Sg | **Sn** | **10 57 43.8** | **+0.1** |
| **BEBN** | **Eben Emael** | **1.25** | **223** | P | **Pb** | **10 57 27.5** | **-0.1** |
| **BEBN** | **Eben Emael** | **1.25** | **223** | P | **Pb** | **10 57 27.4** | **-0.1** |
| **MEM** | **Membach** | **1.28** | **210** | P | **Pg** | **10 57 27.5** | **-0.1** |
| **MEM** | **Membach** | **1.28** | **210** | *e*Pg | **Pg** | **10 57 27.6** | **-0.1** |
| MEM | | | | *e*Sg | **Sn** | **10 57 46.4** | **+0.3** |
| **MEM** | **Membach** | **1.28** | **210** | Pg | **Pg** | **10 57 27.6** | **-0.1** |
| MEM | | | | Sg | **Sn** | **10 57 46.4** | **+0.3** |
| **OLFT** | **Oleftalsperre** | **1.28** | **197** | *e*Pg | **Pg** | **10 57 27.6** | **-0.2** |
| **OLFT** | **Oleftalsperre** | **1.28** | **197** | Pg | **Pg** | **10 57 27.6** | **-0.2** |
| **BHE** | **Schloss Buerre** | **1.37** | **175** | *e*Pg | **Pg** | **10 57 28.9** | **-0.6** |
| BHE | | | | *e*Sg | **Sg** | **10 57 47.3** | **+0.1** |
| | 134nm,0.3s | | | | | | |
| **BHE** | **Schloss Buerre** | **1.37** | **175** | Pg | **Pg** | **10 57 28.9** | **-0.6** |
| BHE | | | | Sg | **Sg** | **10 57 47.3** | **+0.1** |
| | 134nm,0.3s | | | | | | |
| **KOE** | **Koeppel** | **1.37** | **160** | *e*Pg | **Pg** | **10 57 27.7** | **-1.8** |
| KOE | | | | *e*Sg | **Sg** | **10 57 46.8** | **-0.5** |
| | 368nm,0.6s | | | | | | |
| **KOE** | **Koeppel** | **1.37** | **160** | Pg | **Pg** | **10 57 27.7** | **-1.8** |
| KOE | | | | Sg | **Sg** | **10 57 46.8** | **-0.5** |
| | 368nm,0.6s | | | | | | |
| **HILG** | **Hillesheim** | **1.45** | **188** | *e*Sg | **Sg** | **10 57 49.0** | **-0.6** |
| **HILG** | **Hillesheim** | **1.45** | **188** | Sg | **Sg** | **10 57 49.0** | **-0.6** |
| **BGG** | **Burgeitz** | **1.53** | **172** | *e*Sg | **Sg** | **10 57 52.0** | **-0.3** |
| **BGG** | **Burgeitz** | **1.53** | **172** | Sg | **Sg** | **10 57 52.0** | **-0.3** |
| **LOH** | **Wallersheim-Lo** | **1.57** | **191** | *e*Sg | **Sn** | **10 57 52.1** | **-1.3** |
| | 124nm,0.4s | | | | | | |
| **LOH** | **Wallersheim-Lo** | **1.57** | **191** | Sg | **Sn** | **10 57 52.1** | **-1.3** |
| | 124nm,0.4s | | | | | | |
| **BCLA** | **Clavier** | **1.69** | **220** | P | **Pg** | **10 57 38.0** | **+2.4** |
| **TNS** | **Taunus Mts** | **1.75** | **148** | *e*Pg | **Pb** | **10 57 35.5** | **-0.7** |
| TNS | | | | *e*Sg | **Sn** | **10 57 56.7** | **-1.3** |
| **TNS** | **Taunus Mts** | **1.75** | **148** | Pg | **Pb** | **10 57 35.5** | **-0.7** |
| **CLZ** | **Clausthal** | **2.09** | **85** | *e*Pg | **Pb** | **10 57 42.1** | **0.0** |
| CLZ | | | | *e*Sg | **Sg** | **10 58 09.9** | **-0.5** |
| **CLZ** | **Clausthal** | **2.09** | **85** | Pg | **Pb** | **10 57 42.1** | **0.0** |
| CLZ | | | | Sg | **Sg** | **10 58 09.9** | **-0.5** |
| **GIVF** | **Givet** | **2.13** | **221** | *e*Pn | **Pn** | **10 57 38.8** | **-1.2** |
| **GIVF** | **Givet** | **2.13** | **221** | *e*Pg | **Pg** | **10 57 43.4** | **-0.6** |
| GIVF | | | | *e*Sg | **Sg** | **10 58 11.7** | **+0.1** |
| | 707nm,1.1s | | | | | | |
| **GIVF** | **Givet** | **2.13** | **221** | *e*Pn | **Pn** | **10 57 38.8** | **-1.2** |
| **GIVF** | **Givet** | **2.13** | **221** | *e*Pg | **Pg** | **10 57 43.4** | **-0.6** |
| GIVF | | | | *e*Sg | **Sg** | **10 58 11.7** | **+0.1** |
| | 354nm,1.1s | | | | | | |
| **BAIF** | **Baives** | **2.43** | **228** | *e*Pn | **Pn** | **10 57 42.1** | **-2.1** |
| BAIF | | | | *e*Sg | **Sg** | **10 58 21.3** | **0.0** |
| | 559nm,1.3s | | | | | | |
| **BAIF** | **Baives** | **2.43** | **228** | *e*Pn | **Pn** | **10 57 42.1** | **-2.1** |
| BAIF | | | | *e*Sg | **Sg** | **10 58 21.3** | **0.0** |
| | 280nm,1.3s | | | | | | |
| **PAGF** | **Fort de Pagny** | **3.27** | **195** | *e*P | **Pn** | **10 57 57.2** | **+1.4** |
| PAGF | | | | *e*Sg | **Sg** | **10 58 47.5** | **-0.8** |
| | 106nm,1.2s,baz=11 | | | | | | |
| **PAGF** | **Fort de Pagny** | **3.27** | **195** | *e*P | **Pn** | **10 57 57.2** | **+1.4** |
| PAGF | | | | *e*Sg | **Sg** | **10 58 47.5** | **-0.8** |
| | 53nm,1.2s,baz=11 | | | | | | |
| **CDF** | **Champ du Feu** | **3.32** | **177** | *e*Pg | **Pg** | **10 58 05.4** | **-1.3** |
| CDF | | | | *e*Sg | **Sg** | **10 58 48.5** | **-1.2** |
| | 137nm,0.8s | | | | | | |
| **CDF** | **Champ du Feu** | **3.32** | **177** | *e*Pg | **Pg** | **10 58 05.4** | **-1.3** |
| CDF | | | | *e*Sg | **Sg** | **10 58 48.5** | **-1.2** |
| | 69nm,0.8s | | | | | | |
| **MEZF** | **Maizieres J'vi** | **3.46** | **202** | *e*Sg | **Sg** | **10 58 53.5** | **-0.8** |
| | 944nm,1.5s | | | | | | |
| **MEZF** | **Maizieres J'vi** | **3.46** | **202** | *e*Sg | **Sg** | **10 58 53.5** | **-0.8** |
| | 472nm,1.5s | | | | | | |
| **SFTF** | **Sexfontaines** | **3.74** | **201** | *e*Sg | **Sg** | **10 59 01.8** | **-1.5** |
| | 693nm,1.4s,baz=28 | | | | | | |
| **SFTF** | **Sexfontaines** | **3.74** | **201** | *e*Sg | **Sg** | **10 59 01.8** | **-1.5** |
| | 346nm,1.4s,baz=28 | | | | | | |
| **HAU** | **Haudompre** | **3.74** | **187** | *e*Sg | **Sg** | **10 59 01.7** | **-1.7** |
| | 329nm,1.2s | | | | | | |
| **HAU** | **Haudompre** | **3.74** | **187** | *e*Sg | **Sg** | **10 59 01.7** | **-1.7** |
| | 165nm,1.2s | | | | | | |
| **NKC** | **Novy Kostel** | **3.75** | **111** | *e*SG | **Sg** | **10 59 01.0** | **-2.5** |
| | comp=Z,227nm,1.4s | | | | | | |
| **NKC** | **Novy Kostel** | **3.75** | **111** | Sg | **Sg** | **10 59 01.0** | **-2.5** |
| | 227nm,1.4s | | | | | | |
| **CLL** | **Collm** | **3.77** | **94** | *e*Pg | **Pg** | **10 58 19.0** | **+3.6** |
| CLL | | | | *e*Sg | **Sb** | **10 59 00.0** | **+3.3** |
| | comp=Z,251nm,1.6s | | | | | | |
| **HINF** | **Hinteralfeld** | **3.91** | **182** | *e*Sg | **Sg** | **10 59 06.8** | **-1.9** |
| | comp=Z,496nm,1.3s | | | | | | |
| **HINF** | **Hinteralfeld** | **3.91** | **182** | *e*Sg | **Sg** | **10 59 06.8** | **-1.9** |
| | comp=Z,248nm,1.3s | | | | | | |
| **DAVA** | **Damuels** | **4.81** | **156** | *i* Sg | **Sg** | **10 59 41.2** | **+3.4** |
| | comp=Z,181nm,1.1s | | | | | | |
| **RETA** | **Reutte** | **4.89** | **149** | *i* Sg | **Sg** | **10 59 45.9** | **+5.7** |
| **LOR** | **Lormes** | **4.91** | **206** | *e*Pn | **Pn** | **10 58 15.8** | **-2.4** |
| **PVCC** | **Panska Ves** | **4.91** | **101** | *e*SG | **Sg** | **10 59 41.8** | **+1.0** |
| | comp=Z,205nm,1.2s | | | | | | |
| **PVCC** | **Panska Ves** | **4.91** | **101** | Sg | **Sg** | **10 59 41.8** | **+1.0** |
| | comp=Z,205nm,1.2s | | | | | | |
| **KHC** | **Kasperske Hory** | **4.93** | **119** | *e*PG | **Pg** | **10 58 34.8** | **-2.9** |
| KHC | | | | *e*SG | **Sg** | **10 59 38.7** | **-2.9** |
| | comp=Z,183nm,1.5s | | | | | | |
| **KHC** | **Kasperske Hory** | **4.93** | **119** | Pg | **Pg** | **10 58 34.8** | **-2.9** |
| KHC | | | | Sg | **Sg** | **10 59 38.7** | **-2.9** |
| | comp=Z,183nm,1.5s | | | | | | |
| **PRU** | **Pruhonice** | **5.08** | **107** | *e*SG | **Sg** | **10 59 45.7** | **-0.5** |
| | comp=Z,466nm,2.0s | | | | | | |
| **PRU** | **Pruhonice** | **5.08** | **107** | Sg | **Sg** | **10 59 45.7** | **-0.5** |
| | comp=Z,466nm,2.0s | | | | | | |
| **MOTA** | **Moosalm** | **5.13** | **147** | *i* Sg | **Sg** | **10 59 51.3** | **+3.5** |
| | comp=Z,55nm,1.1s | | | | | | |
| **CABF** | **La Chapelle** | **5.15** | **187** | *e*Sg | **Sg** | **10 59 49.9** | **+1.4** |
| | comp=Z,545nm,1.4s | | | | | | |
| **CABF** | **La Chapelle** | **5.15** | **187** | *e*Sg | **Sg** | **10 59 49.9** | **+1.4** |
| | comp=Z,272nm,1.4s | | | | | | |
| **SSF** | **Saint Saulge** | **5.19** | **207** | *e*P | **Pn** | **10 58 24.4** | **+2.3** |
| **SSF** | **Saint Saulge** | **5.19** | **207** | *e*P | **Pn** | **10 58 24.4** | **+2.3** |
| **GOPC** | **GO Pecny, Ondr** | **5.25** | **107** | *e*SG | **Sg** | **10 59 48.5** | **-3.3** |
| **GOPC** | **GO Pecny, Ondr** | **5.25** | **107** | Sg | **Sg** | **10 59 48.5** | **-3.3** |
| **WTTA** | **Wattenberg** | **5.38** | **144** | *i* Sg | **Sg** | **11 00 01.5** | **+5.5** |
| **SMF** | **Signal de Mont** | **5.49** | **203** | *e*Sg | **Sg** | **10 59 56.3** | **-3.1** |
| | comp=Z,75nm,1.2s | | | | | | |
| **UPC** | **Upice** | **5.80** | **99** | *e*SG | **Sg** | **11 00 07.6** | **-1.8** |
| | comp=Z,295nm,1.4s | | | | | | |
| **UPC** | **Upice** | **5.80** | **99** | Sg | **Sg** | **11 00 07.6** | **-1.8** |
| | comp=Z,295nm,1.4s | | | | | | |
| **DPC** | **Dobruska-Polom** | **6.03** | **99** | *e*SG | **Sg** | **11 00 15.1** | **-1.8** |
| | comp=Z,160nm,1.6s | | | | | | |
| **DPC** | **Dobruska-Polom** | **6.03** | **99** | Sg | **Sg** | **11 00 15.1** | **-1.8** |
| | comp=Z,160nm,1.6s | | | | | | |
| **MOA** | **Molln** | **6.09** | **127** | Sn | **Sn** | **10 59 44.9** | **+0.1** |
| | comp=Z,82nm,1.4s | | | | | | |
| **ABTA** | **Abfaltersbach** | **6.14** | **142** | *i* Sn | **Sn** | **10 59 47.6** | **+1.4** |
| | comp=Z,30nm,1.1s | | | | | | |
| **ABTA** | **Abfaltersbach** | **6.14** | **142** | Sn | **Sn** | **10 59 47.6** | **+1.4** |
| | comp=Z,30nm,1.1s | | | | | | |
| **VRAC** | **Vranov** | **6.57** | **108** | *e*Sg | **Sg** | **11 00 32.8** | **-1.4** |
| **MYKA** | **Terra Mystica** | **6.70** | **137** | *i* Sg | **Sg** | **11 00 43.2** | **+5.1** |
| | comp=Z,42nm,1.6s | | | | | | |
| **CONA** | **Conrad Observa** | **6.87** | **120** | *e*Sn | **Sn** | **11 00 06.3** | **+2.2** |
| | comp=Z,75nm,1.4s | | | | | | |
| **MORC** | **Moravsky Berou** | **6.96** | **102** | *e*Sg | **Sg** | **11 00 46.9** | **+0.3** |
| **ARSA** | **Arzberg** | **7.12** | **126** | *i* Sg | **Sg** | **11 00 59.3** | **+7.4** |
| | comp=Z,42nm,1.2s | | | | | | |
| **OBKA** | **Obir** | **7.19** | **134** | *i* Sg | **Sg** | **11 01 00.6** | **+6.7** |
| | comp=Z,23nm,1.2s | | | | | | |
| **MODS** | **Modra-Piesok** | **7.41** | **113** | *e*Sg | **Sg** | **11 01 01.4** | **+0.4** |
| **MODS** | **Modra-Piesok** | **7.41** | **113** | *e*SG | **Sg** | **11 01 01.4** | **+0.4** |
| **VYHS** | **Vyhne** | **8.26** | **108** | *e*SG | Sb | 11 01 15.6 | +10 |

*KRNET **02** 11:00:40.3±0.1, 42°.62N×70°.23E, mb2.7*
*NNC **02** 11:00:40.3±0.5, 42°.55N×70°.07E, h0km, mb3.0, mpv2.5, Error ellipse: s-maj=3.9km s-min=1.9km az=93.0, Suspected Mining explosion.*
*SOME **02** 11:00:40.2, 42°.50N×70°.12E*
**ISC 02 11:00:40.7**±2.4**, 42°.61N**±0°.06×**70°.2E**±0°.1**, h0**km**, n19,** σ**0ˢ.95**/36**, 22C-16D, Central Kazakhstan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KK07** | **Karatay Array** | **0.52** | **24** | ⇓P | **Pb** | **11 00 52.6** | **-0.1** |
| KK07 | | | | ⇑S | **Sb** | **11 01 01.4** | **+0.6** |
| **KK08** | **Karatay Array** | **0.53** | **22** | ⇑P | **Pb** | **11 00 52.8** | **-0.2** |
| KK08 | | | | ⇓S | **Sb** | **11 01 02.1** | **+1.0** |
| **KK03** | **Karatay Array** | **0.53** | **23** | ⇑P | **Pb** | **11 00 52.9** | **-0.1** |
| KK03 | | | | ⇓S | **Sb** | **11 01 01.9** | **+0.7** |
| **KK06** | **Karatay Array** | **0.53** | **25** | ⇓P | **Pb** | **11 00 52.9** | **0.0** |
| KK06 | | | | ⇑S | **Sb** | **11 01 01.8** | **+0.6** |
| **KK01** | **Karatay Array** | **0.54** | **24** | ⇓P | **Pb** | **11 00 53.0** | **-0.1** |
| KK01 | | | | ⇑S | **Sb** | **11 01 02.1** | **+0.8** |
| **KK02** | **Karatay Array** | **0.54** | **24** | ⇓P | **Pb** | **11 00 52.9** | **-0.1** |
| KK02 | | | | ⇑S | **Sb** | **11 01 02.1** | **+0.8** |
| **KK31** | **Karatay Array** | **0.54** | **24** | ⇓P | **Pb** | **11 00 53.0** | **0.0** |
| | 1.1nm,0.2s,baz=198,slow=18,SNR=121 | | | | | | |
| KK31 | | | | ⇑S | **Sb** | **11 01 02.0** | **+0.7** |
| | 2.8nm,0.3s,baz=207,slow=39,SNR=14 | | | | | | |
| **KK09** | **Karatay Array** | **0.55** | **22** | ⇑P | **Pb** | **11 00 53.2** | **-0.1** |
| KK09 | | | | ⇑S | **Sb** | **11 01 02.4** | **+0.7** |
| **KK05** | **Karatay Array** | **0.55** | **24** | ⇑P | **Pb** | **11 00 53.2** | **-0.1** |
| KK05 | | | | ⇑S | **Sb** | **11 01 02.2** | **+0.4** |
| **ARK** | **Arkit** | **1.54** | **122** | ⇑*i*P | **Pb** | **11 01 09.8** | **-0.3** |
| | baz=122 | | | | | | |
| ARK | | | | ⇑*i*S | **Sg** | **11 01 30.4** | **+0.4** |
| | baz=122 | | | | | | |
| **MNAS** | **Manas** | **1.70** | **94** | ⇓*i*P | **Pn** | **11 01 11.3** | **-0.4** |
| | baz=93 | | | | | | |
| MNAS | | | | ⇓*e*S | **Sn** | **11 01 35.0** | **+0.7** |
| | baz=93 | | | | | | |
| **MNAS** | **Manas** | **1.70** | **94** | ⇓Pn | **Pb** | **11 01 12.4** | **-0.5** |
| | 1.6nm,0.3s | | | | | | |
| MNAS | | | | ⇓Sn | **Sg** | **11 01 37.8** | **+2.5** |
| | 5.0nm,0.3s | | | | | | |
| **ARSB** | **Arslanbob** | **2.43** | **121** | ⇑*i*P | **Pn** | **11 01 23.1** | **+1.2** |
| | baz=121 | | | | | | |
| ARSB | | | | ⇑*i*S | **Sn** | **11 01 53.7** | **+1.3** |
| | baz=121 | | | | | | |
| **AML** | **Almayashu** | **2.62** | **99** | ⇑*e*P | **Pn** | **11 01 24.6** | **-0.1** |
| | baz=100 | | | | | | |
| AML | | | | ⇑*e*S | **Sn** | **11 01 57.7** | **+0.2** |
| | baz=100 | | | | | | |
| **EKS2** | **Erkin-Say** | **2.63** | **88** | ⇓*e*P | **Pn** | **11 01 24.9** | **+0.3** |
| | baz=88 | | | | | | |
| EKS2 | | | | ⇓*e*S | **Sn** | **11 01 58.7** | **+1.5** |
| | baz=88 | | | | | | |
| **AAK** | **Ala-Archa** | **3.16** | **88** | ⇓Pg | **Pg** | **11 01 40.0** | **-1.3** |
| | 1.1nm,0.6s | | | | | | |
| AAK | | | | ⇑Lg | Lg | 11 02 24.5 | |
| | 0.8nm,0.3s | | | | | | |
| **UCH** | **Uchtor** | **3.21** | **95** | ⇓*e*P | **Pn** | **11 01 32.8** | **0.0** |
| | baz=96 | | | | | | |
| UCH | | | | ⇓*e*S | **Sn** | **11 02 12.3** | **+0.4** |
| | baz=96 | | | | | | |
| **FRU1** | **Bishkek** | **3.26** | **85** | ⇑*i*P | **Pn** | **11 01 32.7** | **-0.5** |
| | baz=85 | | | | | | |
| FRU1 | | | | ⇑*i*S | **Sn** | **11 02 10.4** | **-2.3** |
| | baz=85 | | | | | | |
| **TKM2** | **Tokmak 2** | **3.98** | **84** | ⇑Pg | **Pg** | **11 01 54.6** | **-2.3** |
| | 0.6nm,0.3s | | | | | | |
| TKM2 | | | | ⇑Lg | Lg | 11 02 46.9 | |
| | 0.8nm,0.4s | | | | | | |

**IDC 02 11:23:17.6**±51.0**, 14°.90S**×**163°.62E, h0**km**, mb3.9**/3**, mb1 4.1**/3**, mb1mx3.7**/26**, mbtmp3.9**/3**, Error ellipse: s-maj=848.9km s-min=94.0km az=64.0, Vanuatu Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **STKA** | **Stephens Creek** | **26.26** | **226** | P | P | 11 28 54.6 | -0.1 |
| | 1.4nm,0.4s,baz=44,slow=12,SNR=10 | | | | | | |
| **WRA** | **Warramunga Arr** | **28.36** | **256** | P | P | 11 29 13.7 | 0.0 |
| | 0.3nm,0.5s,baz=86,slow=9.3,SNR=7.4 | | | | | | |
| **ASAR** | **Alice Springs** | **29.32** | **248** | P | P | 11 29 22.4 | +0.1 |
| | 1.0nm,0.5s,baz=74,slow=9.4,SNR=32 | | | | | | |

**IDC 02 11:26:09.2**±999.0**, 41°.76N**×**41°.17E, h0**km**, Error ellipse: s-maj=4536.0km s-min=308.4km az=51.0, Turkey-Georgia-Armenia border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **I31KZ** | **AKTYUBINSK INF** | **14.52** | **48** | *i* | | 12 53 25.0 | |
| | baz=242,slow=268,SNR=10 | | | | | | |
| **I46RU** | **ZALESOVO INFRA** | **31.22** | **52** | *i* | | 14 40 00.0 | |
| | baz=263,slow=376,SNR=1.9 | | | | | | |
| **I34MN** | **SONGINO INFRAS** | **45.47** | **59** | *i* | | 16 02 40.0 | |
| | baz=290,slow=325,SNR=0.7 | | | | | | |
| **I45RU** | **USSURIYSK INFR** | **63.04** | **54** | *i* | | 17 50 40.0 | |
| | baz=299,slow=331,SNR=1.2 | | | | | | |

*ISCJB **02** 11:30:29.7±0.6,27.°61S±0.°04×69.°38W±0.°06, h135km±11km, Error ellipse: s-maj=9.3km s-min=5.6km az=166.3*
*GUC **02** 11:30:29.9±0.7,27.°60S×69.°41W,h110km±21km,ML3.8*
*SJA **02** 11:30:30.0±1.2,27.°63S×69.°39W,h134km±10km,ML3.5, MW3.4*
**ISC 02 11:30:29.9**±1.6,**27.°61S**±0.°04×**69.°40W**±0.°05, **h138**km±19km,**n25**,σ1.**01**/32,**11D,Northern Chile**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VCA | Vinchina | 1.54 | 137 | eP | Pn | 11 31 00.0 | +0.8 |
| VCA | | | | eS | Sn | 11 31 20.7 | -0.9 |
| VCA | | | | IAML | | 11 31 22.6 | |
| | comp=Z,462nm,0.2s | | | | | | |
| VCA | Vinchina | 1.54 | 137 | IAML | | 11 31 22.6 | |
| | comp=E,1μm,0.4s | | | | | | |
| LCO | Las Campanas | 1.81 | 219 | ⇓eP | Pn | 11 31 02.5 | +0.2 |
| LCO | | | | eS | Sn | 11 31 27.0 | -0.2 |
| LCO | Las Campanas | 1.81 | 219 | ⇓iP | Pn | 11 31 02.4 | +0.1 |
| LCO | | | | iS | Sn | 11 31 26.2 | -0.9 |
| LCO | | | | IAML | | 11 31 26.9 | |
| | comp=N,837nm,0.3s | | | | | | |
| AGUA | GUANDACOL | 2.03 | 157 | ⇓eP | Pn | 11 31 06.1 | +1.3 |
| AGUA | | | | ⇓eS | Sn | 11 31 32.3 | +0.7 |
| AROD | Rodeo | 2.55 | 181 | ⇓eP | Pn | 11 31 13.3 | +2.0 |
| ACLC | CERRO LA CRUZ | 2.81 | 131 | ⇓eP | Pn | 11 31 15.2 | +0.7 |
| ACLC | | | | ⇓eS | Sn | 11 31 47.3 | -1.7 |
| TLL | Tololo Astrono | 2.83 | 205 | iP | Pn | 11 31 15.1 | +0.2 |
| TLL | | | | IAML | | 11 31 52.0 | |
| | comp=E,311nm,0.3s | | | | | | |
| ACCO | Cerro Coronel | 2.98 | 174 | ⇓eP | Pn | 11 31 18.2 | +1.3 |
| PB14 | IPOC Station P | 3.11 | 343 | iP | Pn | 11 31 19.2 | +0.7 |
| PB14 | | | | eS | Sn | 11 31 55.9 | -0.1 |
| CYA | Choya | 3.29 | 105 | ⇓eP | Pn | 11 31 20.6 | +0.1 |
| CYA | Choya | 3.29 | 105 | iP | Pn | 11 31 20.6 | +0.1 |
| AMOG | MOGNA | 3.41 | 167 | eP | Pn | 11 31 23.0 | +0.8 |
| AHML | Horco Molle | 3.71 | 78 | eP | Pn | 11 31 27.1 | +1.0 |
| RTLL | Cerro Villicun | 3.79 | 168 | eP | Pn | 11 31 27.9 | +0.7 |
| RTLL | | | | eS | Sn | 11 32 10.0 | -1.6 |
| RTLS | Leoncito | 4.17 | 179 | eP | Pn | 11 31 33.7 | +1.3 |
| RTLS | | | | IAML | | 11 31 34.8 | |
| | comp=Z,46nm,0.2s | | | | | | |
| PB10 | IPOC Station P | 4.21 | 345 | iP | Pn | 11 31 32.4 | -0.3 |
| RTCV | Cerro Valdivia | 4.30 | 170 | eP | Pn | 11 31 34.9 | +1.0 |
| RTCV | | | | ⇓eS | Sn | 11 32 22.4 | -1.2 |
| AUSP | Uspallata | 4.60 | 180 | eP | Pn | 11 31 39.3 | +1.3 |
| PB06 | IPOC Station P | 4.89 | 358 | iP | Pn | 11 31 41.5 | -0.3 |
| ASAL | Salagasta | 4.99 | 174 | eP | Pn | 11 31 44.0 | +1.0 |
| ACAN | Cantantal | 5.03 | 158 | ⇓eP | Pn | 11 31 44.3 | +0.8 |
| ARCO | CERRO ARCO | 5.23 | 176 | eP | Pn | 11 31 47.4 | +1.1 |
| ROC1 | El Roble | 5.53 | 194 | eP | Pn | 11 31 49.6 | -0.8 |
| MRA | San Martin | 5.76 | 147 | eP | Pn | 11 31 53.4 | +0.1 |
| MRA | | | | IAML | | 11 33 18.1 | |
| | comp=Z,20nm,0.5s | | | | | | |

---

*NEIC **02** 11:48:32.4±0.0,36.°75S×176.°74E,h259km,MG4.0(WEL), After WEL.*
**WEL 02 11:48:33.0**±0.3,**36.°70S**×**176.°63E,h246**km±6km,**ML3.9**/19, **12C-3D,Error ellipse: s-maj=8.6km s-min=8.1km az=0.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| HAZ | Te Kaha | 1.40 | 139 | PN | Pn | 11 49 10.2 | +0.2 |
| HAZ | | | | SN | S | 11 49 38.9 | -0.4 |
| HAZ | | | | AML | AML | 11 49 41.3 | |
| HAZ | | | | AML | AML | 11 49 41.3 | |
| HAZ | | | | AML | AML | 11 49 45.4 | |
| RUGZ | Raukumara Rang | 1.52 | 147 | PN | Pn | 11 49 10.8 | -0.2 |
| RUGZ | | | | SN | S | 11 49 40.0 | -1.1 |
| URZ | Urewera | 1.61 | 166 | Pn | Pn | 11 49 11.8 | +0.2 |
| URZ | Urewera | 1.61 | 166 | PN | Pn | 11 49 11.8 | +0.2 |
| URZ | | | | SN | S | 11 49 42.5 | +0.3 |
| RRRZ | Republican Roa | 1.64 | 183 | Pn | Pn | 11 49 13.5 | +1.5 |
| PKGZ | Pakihiroa | 1.66 | 136 | ⇑PN | Pn | 11 49 12.4 | +0.3 |
| PKGZ | | | | AML | AML | 11 49 43.8 | |
| PKGZ | | | | AML | AML | 11 49 45.3 | |
| MUGZ | Murupara | 1.78 | 177 | ⇑PN | Pn | 11 49 13.5 | +0.4 |
| MWZ | Matawai | 1.78 | 157 | Pn | Pn | 11 49 13.1 | -0.1 |
| MWZ | Matawai | 1.78 | 157 | PN | Pn | 11 49 13.1 | -0.1 |
| MWZ | | | | SN | S | 11 49 45.3 | +0.4 |
| MWZ | | | | AML | AML | 11 49 47.2 | |
| WMGZ | Waiomatatini S | 1.81 | 129 | Pn | Pn | 11 49 13.4 | +0.1 |
| WMGZ | | | | Sn | S | 11 49 44.4 | -0.8 |
| WMGZ | Waiomatatini S | 1.81 | 129 | ⇑PN | Pn | 11 49 13.4 | +0.1 |
| WMGZ | | | | SN | S | 11 49 44.4 | -0.8 |
| WMGZ | | | | AML | AML | 11 49 49.4 | |
| TWGZ | Tauwhareparae | 1.83 | 144 | Pn | Pn | 11 49 14.0 | +0.4 |
| TWGZ | Tauwhareparae | 1.83 | 144 | ⇑PN | Pn | 11 49 14.0 | +0.4 |
| TWGZ | | | | AML | AML | 11 49 50.6 | |
| TWGZ | | | | AML | AML | 11 49 52.9 | |
| ALRZ | Allen Road | 1.88 | 187 | Pn | Pn | 11 49 15.1 | +1.1 |
| ALRZ | Allen Road | 1.88 | 187 | PN | Pn | 11 49 15.1 | +1.1 |
| PUZ | Puketiti | 1.89 | 137 | Pn | Pn | 11 49 13.4 | -0.6 |
| PUZ | Puketiti | 1.89 | 137 | PN | Pn | 11 49 13.4 | -0.6 |
| PUZ | | | | SN | S | 11 49 44.9 | -1.5 |
| RAGZ | Rawiri | 1.90 | 161 | Pn | Pn | 11 49 14.3 | +0.1 |
| RAGZ | Rawiri | 1.90 | 161 | PN | Pn | 11 49 14.3 | +0.1 |
| RAGZ | | | | AML | AML | 11 49 49.5 | |
| RAGZ | | | | AML | AML | 11 49 50.0 | |
| TKGZ | Te Karaka | 1.99 | 151 | Pn | Pn | 11 49 14.7 | -0.2 |
| TKGZ | Te Karaka | 1.99 | 151 | PN | Pn | 11 49 14.7 | -0.2 |
| TKGZ | | | | AML | AML | 11 49 50.5 | |
| TKGZ | | | | AML | AML | 11 49 50.8 | |
| MRHZ | Matea Rd | 2.14 | 184 | ⇓PN | Pn | 11 49 16.7 | +0.3 |
| MRHZ | | | | AML | AML | 11 49 53.5 | |
| MRHZ | | | | AML | AML | 11 49 54.5 | |
| SNGZ | Shannon Statio | 2.16 | 165 | Pn | Pn | 11 49 16.4 | -0.1 |
| SNGZ | Shannon Statio | 2.16 | 165 | ⇑PN | Pn | 11 49 16.4 | -0.1 |
| SNGZ | | | | AML | AML | 11 49 53.9 | |
| SNGZ | | | | AML | AML | 11 49 54.6 | |
| MTHZ | Maungataniwha | 2.16 | 176 | PN | Pn | 11 49 16.5 | 0.0 |
| CNGZ | Carnagh Statio | 2.18 | 145 | Pn | Pn | 11 49 16.5 | -0.2 |
| CNGZ | Carnagh Statio | 2.18 | 145 | PN | Pn | 11 49 16.5 | -0.2 |
| RIGZ | Rimuhau | 2.20 | 156 | PN | Pn | 11 49 16.7 | -0.2 |
| RIGZ | | | | AML | AML | 11 49 54.6 | |
| RIGZ | | | | AML | AML | 11 49 54.8 | |
| NMHZ | Naumai | 2.40 | 177 | Pn | Pn | 11 49 19.3 | +0.3 |
| NMHZ | Naumai | 2.40 | 177 | ⇑PN | Pn | 11 49 19.3 | +0.3 |
| NMHZ | | | | AML | AML | 11 49 59.1 | |
| NMHZ | | | | AML | AML | 11 50 01.9 | |
| WHHZ | Waihua | 2.42 | 169 | PN | Pn | 11 49 18.8 | -0.3 |
| WHHZ | | | | AML | AML | 11 49 57.9 | |
| WHHZ | | | | AML | AML | 11 49 58.0 | |
| BKZ | Black Stump Fm | 2.47 | 183 | Pn | Pn | 11 49 19.0 | -0.5 |
| BKZ | Black Stump Fm | 2.47 | 183 | ⇑PN | Pn | 11 49 19.0 | -0.5 |
| BKZ | | | | AML | AML | 11 49 58.3 | |
| BKZ | | | | AML | AML | 11 49 58.4 | |
| ARHZ | Aropaoanui | 2.58 | 174 | Pn | Pn | 11 49 20.3 | -0.3 |
| ARHZ | Aropaoanui | 2.58 | 174 | PN | Pn | 11 49 20.3 | -0.3 |
| ARHZ | | | | AML | AML | 11 50 00.1 | |
| ARHZ | | | | AML | AML | 11 50 00.6 | |
| OTVZ | Oturere | 2.58 | 197 | Pn | Pn | 11 49 21.4 | +0.6 |
| OTVZ | Oturere | 2.58 | 197 | ⇑PN | Pn | 11 49 21.4 | +0.6 |
| MHGZ | Mahia Peninsul | 2.65 | 158 | Pn | Pn | 11 49 20.5 | -0.9 |
| MHGZ | Mahia Peninsul | 2.65 | 158 | PN | Pn | 11 49 20.5 | -0.9 |
| TUVZ | Tukino | 2.68 | 196 | Pn | Pn | 11 49 22.1 | +0.3 |
| TUVZ | Tukino | 2.68 | 196 | PN | Pn | 11 49 22.1 | +0.2 |
| FWVZ | Far West T-bar | 2.69 | 198 | Pn | Pn | 11 49 22.5 | +0.4 |
| FWVZ | Far West T-bar | 2.69 | 198 | PN | Pn | 11 49 22.5 | +0.4 |
| KWHZ | Kaweka Forest | 2.73 | 183 | ⇑PN | Pn | 11 49 21.7 | -0.5 |
| KWHZ | | | | AML | AML | 11 50 03.2 | |
| KWHZ | | | | AML | AML | 11 50 03.3 | |
| TRVZ | Turoa | 2.74 | 198 | Pn | Pn | 11 49 22.8 | +0.3 |
| TRVZ | Turoa | 2.74 | 198 | PN | Pn | 11 49 22.8 | +0.3 |
| MCHZ | McNeill Hill | 2.75 | 179 | Pn | Pn | 11 49 22.0 | -0.3 |
| MCHZ | McNeill Hill | 2.75 | 179 | PN | Pn | 11 49 22.0 | -0.3 |
| MCHZ | | | | AML | AML | 11 50 06.1 | |
| WNVZ | Wahianoa | 2.75 | 197 | Pn | Pn | 11 49 22.6 | 0.0 |
| WNVZ | Wahianoa | 2.75 | 197 | ⇑PN | Pn | 11 49 22.6 | 0.0 |
| MOVZ | Moawhango | 2.79 | 194 | Pn | Pn | 11 49 22.7 | -0.3 |
| MOVZ | Moawhango | 2.79 | 194 | PN | Pn | 11 49 22.7 | -0.3 |
| BHHZ | Black Hill Sta | 2.83 | 189 | Pn | Pn | 11 49 22.6 | -0.7 |
| BHHZ | Black Hill Sta | 2.83 | 189 | ⇑PN | Pn | 11 49 22.6 | -0.7 |
| VRZ | Vera Road | 2.84 | 211 | Pn | Pn | 11 49 25.0 | +1.7 |
| VRZ | Vera Road | 2.84 | 211 | PN | Pn | 11 49 25.0 | +1.7 |
| KRHZ | Kereru | 2.95 | 184 | PN | Pn | 11 49 23.4 | -1.2 |
| CKHZ | Cape Kidnapper | 2.98 | 173 | Pn | Pn | 11 49 23.3 | -1.5 |
| CKHZ | Cape Kidnapper | 2.98 | 173 | PN | Pn | 11 49 23.3 | -1.5 |
| KAHZ | Kahuranaki | 3.10 | 177 | Pn | Pn | 11 49 25.0 | -1.2 |
| KAHZ | Kahuranaki | 3.10 | 177 | PN | Pn | 11 49 25.0 | -1.2 |
| PNHZ | Pukenui | 3.23 | 186 | Pn | Pn | 11 49 26.0 | -1.7 |
| PNHZ | Pukenui | 3.23 | 186 | ⇓PN | Pn | 11 49 26.0 | -1.7 |
| WAZ | Wanganui | 3.32 | 202 | Pn | Pn | 11 49 28.4 | -0.2 |
| WAZ | Wanganui | 3.32 | 202 | PN | Pn | 11 49 28.4 | -0.2 |
| PXZ | Pawanui | 3.33 | 177 | Pn | Pn | 11 49 26.8 | -2.0 |
| PXZ | Pawanui | 3.33 | 177 | PN | Pn | 11 49 26.8 | -2.0 |
| WPHZ | Waipukurau | 3.37 | 183 | Pn | Pn | 11 49 27.9 | -1.3 |
| WPHZ | Waipukurau | 3.37 | 183 | PN | Pn | 11 49 27.9 | -1.3 |
| TSZ | Takapari Road | 3.40 | 189 | Pn | Pn | 11 49 27.7 | -1.9 |
| TSZ | Takapari Road | 3.40 | 189 | PN | Pn | 11 49 27.7 | -1.9 |
| PRHZ | Porangahau | 3.57 | 180 | Pn | Pn | 11 49 29.2 | -2.2 |
| PRHZ | Porangahau | 3.57 | 180 | PN | Pn | 11 49 29.2 | -2.2 |
| DVHZ | Dannevirke | 3.62 | 186 | Pn | Pn | 11 49 30.2 | -1.9 |
| DVHZ | Dannevirke | 3.62 | 186 | PN | Pn | 11 49 30.2 | -1.9 |
| OHWZ | Ohakea | 3.65 | 196 | PN | Pn | 11 49 31.4 | -1.0 |
| POWZ | Post Office Ro | 3.75 | 190 | Pn | Pn | 11 49 32.0 | -1.5 |
| POWZ | Post Office Ro | 3.75 | 190 | PN | Pn | 11 49 32.0 | -1.5 |
| ANWZ | Angora Road | 3.76 | 182 | PN | Pn | 11 49 31.6 | -2.0 |
| ANWZ | | | | AML | AML | 11 50 20.7 | |
| ANWZ | | | | AML | AML | 11 50 21.7 | |
| PRWZ | Pori Road | 3.89 | 187 | Pn | Pn | 11 49 33.6 | -1.5 |
| PRWZ | Pori Road | 3.89 | 187 | PN | Pn | 11 49 33.6 | -1.5 |
| BFZ | Birch Farm | 3.99 | 184 | Pn | Pn | 11 49 33.8 | -2.6 |
| BFZ | Birch Farm | 3.99 | 184 | PN | Pn | 11 49 33.8 | -2.6 |
| MRZ | Mangatainoka R | 4.04 | 191 | Pn | Pn | 11 49 34.1 | -2.9 |
| MRZ | Mangatainoka R | 4.04 | 191 | ⇑PN | Pn | 11 49 34.1 | -2.9 |
| MRZ | | | | SN | S | 11 50 24.0 | -3.9 |
| MRZ | | | | AML | AML | 11 50 26.1 | |
| TIWZ | Tintock | 4.12 | 188 | Pn | Pn | 11 49 35.4 | -2.5 |
| TIWZ | Tintock | 4.12 | 188 | PN | Pn | 11 49 35.4 | -2.5 |
| CPWZ | Castlepoint | 4.22 | 184 | Pn | Pn | 11 49 37.3 | -1.8 |
| CPWZ | Castlepoint | 4.22 | 184 | PN | Pn | 11 49 37.3 | -1.8 |
| OGWZ | Otaki Gorge | 4.27 | 195 | AML | AML | 11 50 31.7 | |
| OGWZ | | | | AML | AML | 11 50 33.6 | |
| HOWZ | Holdsworth Sta | 4.29 | 191 | Pn | Pn | 11 49 36.8 | -3.1 |
| HOWZ | Holdsworth Sta | 4.29 | 191 | PN | Pn | 11 49 36.8 | -3.1 |
| KIW | Kapiti Island | 4.37 | 197 | Pn | Pn | 11 49 38.0 | -2.9 |
| KIW | Kapiti Island | 4.37 | 197 | PN | Pn | 11 49 38.0 | -2.9 |
| TMWZ | Te Maipa | 4.44 | 187 | Pn | Pn | 11 49 39.3 | -2.4 |
| TMWZ | Te Maipa | 4.44 | 187 | PN | Pn | 11 49 39.3 | -2.4 |
| MTW | Mount Morrison | 4.54 | 191 | Pn | Pn | 11 49 39.5 | -3.4 |
| MTW | Mount Morrison | 4.54 | 191 | PN | Pn | 11 49 39.5 | -3.5 |
| CAW | Cannon Point | 4.57 | 195 | Pn | Pn | 11 49 40.0 | -3.3 |
| CAW | Cannon Point | 4.57 | 195 | PN | Pn | 11 49 40.0 | -3.3 |
| DUWZ | D'Urville Isla | 4.62 | 206 | Pn | Pn | 11 49 41.1 | -2.7 |
| DUWZ | D'Urville Isla | 4.62 | 206 | PN | Pn | 11 49 41.1 | -2.7 |
| TRWZ | Traveller | 4.75 | 189 | Pn | Pn | 11 49 42.3 | -3.2 |
| TRWZ | Traveller | 4.75 | 189 | PN | Pn | 11 49 42.3 | -3.2 |
| PAWZ | Paruwai Farm | 4.77 | 191 | Pn | Pn | 11 49 42.5 | -3.2 |
| PAWZ | Paruwai Farm | 4.77 | 191 | PN | Pn | 11 49 42.5 | -3.2 |
| WEL | Wellington | 4.81 | 197 | Pn | Pn | 11 49 42.8 | -3.3 |
| WEL | Wellington | 4.81 | 197 | PN | Pn | 11 49 42.8 | -3.3 |
| MSWZ | Moikau Station | 4.83 | 192 | Pn | Pn | 11 49 42.7 | -3.8 |
| MSWZ | Moikau Station | 4.83 | 192 | PN | Pn | 11 49 42.7 | -3.8 |
| TCW | Tory Channel | 4.87 | 201 | Pn | Pn | 11 49 44.0 | -2.9 |
| TCW | Tory Channel | 4.87 | 201 | PN | Pn | 11 49 44.0 | -2.9 |
| BHW | Baring Head | 4.90 | 196 | Pn | Pn | 11 49 43.9 | -3.4 |
| BHW | Baring Head | 4.90 | 196 | PN | Pn | 11 49 43.9 | -3.4 |
| PLWZ | Palliser | 4.98 | 192 | Pn | Pn | 11 49 44.5 | -3.8 |
| PLWZ | Palliser | 4.98 | 192 | PN | Pn | 11 49 44.5 | -3.8 |
| TUWZ | Tuamarina | 5.17 | 203 | Pn | Pn | 11 49 47.4 | -3.2 |
| TUWZ | Tuamarina | 5.17 | 203 | ⇓PN | Pn | 11 49 47.4 | -3.2 |
| NNZ | Nelson | 5.18 | 208 | Pn | Pn | 11 49 47.5 | -3.1 |
| NNZ | Nelson | 5.18 | 208 | PN | Pn | 11 49 47.5 | -3.1 |
| QRZ | Quartz Range | 5.22 | 217 | Pn | Pn | 11 49 48.3 | -2.9 |
| QRZ | Quartz Range | 5.22 | 217 | PN | Pn | 11 49 48.3 | -2.9 |
| BSWZ | Blackbirch Sta | 5.45 | 202 | Pn | Pn | 11 49 51.1 | -2.9 |
| BSWZ | Blackbirch Sta | 5.45 | 202 | PN | Pn | 11 49 51.1 | -2.9 |
| THZ | Tophouse | 5.83 | 209 | Pn | Pn | 11 49 54.8 | -4.0 |
| THZ | Tophouse | 5.83 | 209 | PN | Pn | 11 49 54.8 | -4.0 |
| KHZ | Kahutara | 6.19 | 202 | Pn | Pn | 11 49 59.9 | -3.4 |
| KHZ | Kahutara | 6.19 | 202 | PN | Pn | 11 49 59.9 | -3.4 |
| DSZ | Denniston Nort | 6.28 | 215 | Pn | Pn | 11 50 00.9 | -3.6 |
| DSZ | Denniston Nort | 6.28 | 215 | PN | Pn | 11 50 00.9 | -3.6 |
| INZ | Inchbonnie | 7.23 | 212 | PN | Pn | 11 50 12.1 | -4.2 |
| OXZ | Oxford | 7.50 | 207 | Pn | Pn | 11 50 14.8 | -5.0 |
| OXZ | Oxford | 7.50 | 207 | PN | Pn | 11 50 14.8 | -5.0 |
| MQZ | McQueen's Vall | 7.63 | 202 | Pn | Pn | 11 50 16.2 | -5.3 |
| MQZ | McQueen's Vall | 7.63 | 202 | PN | Pn | 11 50 16.2 | -5.3 |
| FOZ | Fox Glacier | 8.59 | 215 | Pn | Pn | 11 50 29.0 | -4.6 |
| FOZ | Fox Glacier | 8.59 | 215 | PN | Pn | 11 50 29.0 | -4.6 |
| JCZ | Jackson Bay | 9.49 | 217 | Pn | Pn | 11 50 40.6 | -4.4 |
| JCZ | Jackson Bay | 9.49 | 217 | PN | Pn | 11 50 40.6 | -4.4 |
| ODZ | Otahua Downs | 9.49 | 207 | ePN | Pn | 11 50 40.6 | -4.4 |

---

*IDC **02** 12:14:32.8±3.4,36.°32N×70.°90E,h154km±29km,mb3.5/14, mb1 3.6/19,mb1mx3.4/55,mbtmp4.0/19,MS3.6/2, Ms1 3.6/2,ms1mx2.6/36,Error ellipse: s-maj=22.6km s-min=15.1km az=13.0*
*ISCJB **02** 12:14:35.1±0.3,36.°53N±0.°03×71.°10E±0.°05,h188km, mb3.6/12,Error ellipse: s-maj=6.4km s-min=2.9km az=160.1*
*NNC **02** 12:14:39.0±4.3,36.°95N×70.°58E,h164km±73km,mb3.2, mpv4.1,Error ellipse: s-maj=42.1km s-min=34.4km az=54.0*
**ISC 02 12:14:35.9**±0.6,**36.°56N**±0.°05×**71.°07E**±0.°07,**h188**km,**n58**, σ1.**74**/66,**mb3.6**/12,**5C-8D,Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CEP | Cherat | 2.81 | 166 | P | Pn | 12 15 22.5 | -0.4 |
| CEP | | | | S | Sn | 12 15 57.0 | -2.5 |
| CHCP | Chirah Chowk | 3.41 | 148 | P | Pn | 12 15 30.3 | +0.4 |
| THW | Thamme Wali | 3.80 | 171 | P | Pn | 12 15 34.1 | -0.7 |
| SFK | Sufi-Kurgan | 3.94 | 28 | ⇓P | Pn | 12 15 37.3 | +0.6 |
| | 7.8nm,0.3s | | | | | | |
| SFK | | | | ⇓S | Sn | 12 16 23.7 | -0.7 |
| | 83nm,0.4s | | | | | | |
| SARP | Sargodha | 4.81 | 164 | P | Pn | 12 15 46.8 | -0.8 |
| THN | Thein Dam | 5.63 | 136 | eP | Pn | 12 15 57.0 | -1.1 |
| THN | | | | eS | Sn | 12 17 00.0 | -2.9 |
| AML | Almayashu | 5.92 | 19 | P | Pn | 12 16 02.0 | -0.3 |
| | SNR=74 | | | | | | |
| MNAS | Manas | 6.02 | 10 | ⇓P | Pn | 12 16 02.9 | -0.4 |
| | 21nm,0.7s | | | | | | |
| MNAS | | | | ⇓S | Sn | 12 17 09.2 | -3.2 |
| | 91nm,0.6s | | | | | | |
| DHRM | DHARAMSHALA | 6.09 | 133 | eP | Pn | 12 16 04.8 | +0.3 |
| DHRM | | | | eS | Sn | 12 17 11.9 | -2.3 |
| DHRM | | | | AML | AML | 12 17 14.0 | |
| | comp=E,217nm,0.4s | | | | | | |
| DHRM | | | | AML | AML | 12 17 14.4 | |
| | comp=N,209nm,0.3s | | | | | | |
| UCH | Uchtor | 6.26 | 24 | P | Pn | 12 16 06.7 | 0.0 |
| | SNR=20 | | | | | | |
| EKS2 | Erkin-Say | 6.44 | 18 | P | Pn | 12 16 09.2 | +0.5 |
| | SNR=6.1 | | | | | | |
| KK31 | Karatay Array | 6.55 | 356 | ⇑P | Pn | 12 16 08.8 | -1.3 |
| | comp=N,11nm,0.3s,baz=178,slow=13 | | | | | | |
| KK31 | | | | ⇑S | Sn | 12 17 19.1 | -5.5 |
| | comp=N,7.6nm,0.3s,baz=187,slow=24,SNR=13 | | | | | | |
| AAK | Ala-Archa | 6.62 | 22 | P | Pn | 12 16 11.9 | +0.8 |
| | comp=N,3.3nm,0.3s,baz=128,slow=2.2,SNR=30 | | | | | | |
| AAK | | | | S | Sn | 12 17 24.5 | -1.9 |
| | comp=N,2.2nm,0.3s,baz=336,slow=19,SNR=3.9 | | | | | | |
| AAK | Ala-Archa | 6.62 | 22 | ⇓P | Pn | 12 16 11.5 | +0.4 |
| | comp=N,3.6nm,0.4s | | | | | | |
| AAK | | | | ⇓S | Sn | 12 17 24.6 | -1.9 |
| | comp=N,67nm,0.6s | | | | | | |
| AAK | Ala-Archa | 6.62 | 22 | P | Pn | 12 16 11.3 | +0.2 |
| | SNR=13 | | | | | | |
| KBK | Karagaybulak | 6.78 | 25 | P | Pn | 12 16 14.2 | +1.0 |
| | SNR=8.8 | | | | | | |
| ULHL | Ulahol | 6.95 | 34 | P | Pn | 12 16 16.6 | +1.2 |
| | SNR=5.8 | | | | | | |
| CHMS | Chumysh | 7.03 | 23 | P | Pn | 12 16 16.4 | 0.0 |
| | SNR=6.0 | | | | | | |
| SDNR | Sundarnagar | 7.03 | 134 | eP | Pn | 12 16 15.5 | -1.0 |
| SDNR | | | | eS | Sn | 12 17 33.0 | -3.1 |
| USP | Ospenovka | 7.20 | 20 | P | Pn | 12 16 18.7 | +0.1 |
| | SNR=10 | | | | | | |
| TKM2 | Tokmak 2 | 7.25 | 27 | ⇑P | Pn | 12 16 19.4 | 0.0 |
| | comp=N,3.9nm,0.4s | | | | | | |
| TKM2 | | | | ⇑S | Sn | 12 17 38.8 | -2.5 |
| | comp=N,12nm,0.8s | | | | | | |
| TKM2 | Tokmak 2 | 7.25 | 27 | P | Pn | 12 16 19.6 | +0.2 |
| | SNR=13 | | | | | | |
| SMLA | Simla | 7.42 | 135 | eP | Pn | 12 16 21.1 | -0.4 |
| SMLA | | | | eS | Sn | 12 17 42.7 | -2.6 |
| SMLA | | | | AML | AML | 12 17 46.0 | |
| | comp=N,97nm,0.5s | | | | | | |
| SMLA | | | | AML | AML | 12 17 47.4 | |
| | comp=E,86nm,0.6s | | | | | | |
| JOSI | Joshimath | 9.27 | 128 | eS | Sn | 12 18 25.3 | -4.4 |
| JOSI | | | | AML | AML | 12 18 27.4 | |
| | comp=E,98nm,1.5s | | | | | | |
| JOSI | | | | AML | AML | 12 18 27.4 | |
| | comp=N,78nm,0.7s | | | | | | |
| KHET | Khetri | 9.36 | 153 | eP | Pn | 12 16 41.8 | -5.2 |
| KHET | | | | eS | Sn | 12 18 21.4 | -10 |
| KHET | | | | AML | AML | 12 18 27.0 | |
| | comp=N,46nm,0.6s | | | | | | |
| KHET | | | | AML | AML | 12 18 28.1 | |
| | comp=E,35nm,0.3s | | | | | | |
| KALG | Kalgarh | 9.54 | 135 | eS | Sn | 12 18 16.0 | -20 |
| PYUN | Piuthan | 13.13 | 127 | eP | Pn | 12 17 34.1 | -1.6 |
| | comp=E,16nm,0.5s | | | | | | |
| MKAR | Makanchi Array | 13.21 | 36 | P | Pn | 12 17 37.0 | +0.7 |
| | comp=E,0.2nm,0.3s,baz=204,slow=9.9,SNR=17 | | | | | | |
| KOLN | Koldanda | 13.75 | 126 | eP | Pn | 12 17 42.3 | -1.1 |
| BHPL | Bhopal | 14.37 | 156 | eP | P | 12 17 51.9 | -0.6 |
| BHPL | | | | ex | x | 12 20 20.8 | |
| KKN | Kakani | 14.86 | 122 | eP | P | 12 17 57.8 | -0.4 |
| | comp=E,25nm,0.7s | | | | | | |
| KURBB | Kurchatov Arra | 15.05 | 19 | P | P | 12 18 01.1 | +1.3 |
| | comp=E,0.2nm,0.3s,baz=209,slow=10,SNR=19 | | | | | | |
| AB31 | Akbulak array | 15.06 | 331 | ⇑P | Pn | 12 17 59.0 | -0.1 |
| | comp=E,1.4nm,0.4s,baz=158,slow=12,SNR=6.9 | | | | | | |
| AB31 | | | | ⇓S | S | 12 20 35.1 | -12 |
| | comp=E,2.5nm,0.5s,baz=152,slow=24,SNR=7.2 | | | | | | |
| PKIN | Phulchoki | 15.08 | 122 | eP | P | 12 18 01.0 | +0.3 |
| | comp=E,28nm,0.6s | | | | | | |
| PKI | Pulchoki | 15.09 | 122 | eP | P | 12 18 01.1 | +0.2 |
| | comp=E,35nm,0.6s | | | | | | |
| JIRN | Jiri | 15.57 | 120 | eP | P | 12 18 07.5 | +1.3 |
| | comp=E,118nm,0.4s | | | | | | |
| RAMN | Ramite | 16.30 | 122 | eP | Pn | 12 18 15.0 | +0.4 |
| | comp=E,14nm,0.6s | | | | | | |
| BVAR | Borovoye Array | 16.47 | 359 | P | Pn | 12 18 17.6 | +1.4 |
| | comp=E,0.7nm,0.3s,baz=161,slow=11,SNR=9.4 | | | | | | |
| AKTO | Aktyubinsk | 16.76 | 330 | P | Pn | 12 18 19.9 | +0.2 |
| | comp=E,0.6nm,0.3s,baz=134,slow=9.1,SNR=16 | | | | | | |
| AKTO | | | | S | S | 12 21 19.9 | -3.9 |
| | comp=E,0.4nm,0.3s,baz=323,slow=19,SNR=4.7 | | | | | | |
| AKTO | Aktyubinsk | 16.76 | 330 | ⇓P | P | 12 18 18.0 | -0.7 |
| | comp=E,4.8nm,0.7s | | | | | | |
| TAPN | Taplejung | 16.82 | 118 | eP | Pn | 12 18 23.7 | +2.7 |
| | comp=E,7.6nm,0.5s | | | | | | |
| ZALV | Zalesovo Beam | 19.84 | 24 | P | Pn | 12 18 53.6 | -2.4 |
| | comp=E,14nm,0.4s,baz=222,slow=11,SNR=90 | | | | | | |
| GNI | Garni | 20.93 | 288 | P | P | 12 19 02.7 | -1.4 |
| | comp=E,7.9nm,0.4s,baz=112,slow=7.5,SNR=3.6 | | | | | | |
| ARU | Arti | 21.59 | 341 | P | P | 12 19 10.7 | +0.1 |
| | comp=E,1.9nm,0.3s,baz=112,slow=5.4,SNR=3.5 | | | | | | |
| SONM | Songino Array | 28.25 | 55 | P | P | 12 20 14.6 | +3.2 |
| | comp=E,0.5nm,0.6s,baz=257,slow=12,SNR=3.7 | | | | | | |
| FINES | FINESS Array B | 37.47 | 326 | P | P | 12 21 32.2 | +1.4 |
| | comp=E,1.3nm,0.4s,baz=123,slow=9.4,SNR=7.0 | | | | | | |
| ARCES | ARCESS Array B | 41.11 | 338 | P | P | 12 22 03.0 | +2.0 |
| | comp=E,2.3nm,0.6s,baz=106,slow=8.9,SNR=13 | | | | | | |
| HFS | Hagfors | 43.05 | 322 | P | P | 12 22 18.0 | +1.3 |
| | comp=E,1.6nm,0.4s,baz=93,slow=14,SNR=5.1 | | | | | | |
| NB2 | NORSAR Subarra | 44.37 | 323 | P | P | 12 22 28.0 | +0.8 |
| | comp=Z,0.7nm,0.5s,baz=98,slow=7.9 | | | | | | |
| NOA | NORSAR Array B | 44.37 | 323 | P | P | 12 22 27.4 | +0.2 |
| | comp=Z,1.6nm,0.7s,baz=97,slow=7.9,SNR=3.7 | | | | | | |
| TGY | Tagaytay City | 49.67 | 103 | LR | LR | 12 44 47.3 | |
| | comp=Z,64nm,20.6s,baz=172,slow=36 | | | | | | |
| PETK | Petropavlovsk- | 59.89 | 44 | LR | LR | 12 51 25.7 | |
| | comp=Z,50nm,18.2s,baz=79,slow=37 | | | | | | |
| TORD | Torodi Ar. Bea | 65.78 | 269 | P | P | 12 25 00.7 | -0.3 |
| | comp=Z,0.6nm,0.5s,baz=48,slow=6.1,SNR=8.4 | | | | | | |
| INK | Inuvik | 73.84 | 9 | P | P | 12 25 52.1 | +2.8 |
| | comp=Z,1.6nm,0.6s,baz=359,slow=7.2,SNR=16 | | | | | | |
| ILAR | Eielson Array | 74.71 | 16 | P | P | 12 25 55.9 | +1.4 |
| | comp=Z,0.9nm,1.1s,baz=307,slow=5.7,SNR=6.2 | | | | | | |
| YKA | Yellowknife Ar | 81.18 | 3 | P | P | 12 26 31.2 | +1.2 |
| | comp=Z,0.6nm,0.5s,baz=352,slow=5.2,SNR=7.0 | | | | | | |
| WRA | Warramunga Arr | 81.97 | 122 | P | P | 12 26 35.4 | +0.6 |
| | comp=Z,0.1nm,0.4s,baz=325,slow=4.9,SNR=9.2 | | | | | | |
| ASAR | Alice Springs | 84.24 | 125 | P | P | 12 26 47.0 | +0.6 |
| | comp=Z,0.2nm,0.6s,baz=309,slow=5.0,SNR=6.0 | | | | | | |

---

*ISCJB **02** 12:33:57.8±0.8,38.°83N±0.°04×43.°57E±0.°08,h15km±6km, Error ellipse: s-maj=11.6km s-min=4.9km az=29.5*
*CSEM **02** 12:33:57.6±0.4,38.°86N×43.°50E,h10km,ML2.8,Error ellipse: s-maj=8.6km s-min=6.0km az=119.0*
*DDA **02** 12:33:57.6,38.°87N×43.°50E,h7km,Ml2.8*
**ISC 02 12:33:58.3**±1.0,**38.°86N**±0.°03×**43.°52E**±0.°03,**h13**km±7km, **n17**,σ1.**26**/31,**Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.13 | 17 | iP | Pg | 12 34 00.8 | -1.1 |
| VMUR | | | | iS | Sg | 12 34 06.7 | +2.3 |
| VANB | Van | 0.29 | 201 | ePG | Pg | 12 34 03.8 | -0.6 |
| VANB | Van | 0.29 | 201 | ePg | Pg | 12 34 03.8 | -0.6 |
| TVAN | Van | 0.35 | 195 | iP | Pg | 12 34 03.8 | -1.6 |
| TVAN | | | | iS | Sb | 12 34 11.0 | -1.0 |
| TVAN | Van | 0.35 | 195 | P | Pg | 12 34 03.8 | -1.6 |
| TVAN | | | | S | Sb | 12 34 11.0 | -1.0 |
| CLDR | Caldiran | 0.42 | 48 | ePG | Pg | 12 34 05.6 | -1.1 |
| CLDR | | | | eSG | Sb | 12 34 13.3 | -0.8 |
| CLDR | Caldiran | 0.42 | 48 | iP | Pg | 12 34 06.3 | -0.4 |
| CLDR | | | | iS | Sb | 12 34 14.4 | +0.3 |
| CLDR | Caldiran | 0.42 | 48 | P | Pg | 12 34 06.3 | -0.4 |
| CLDR | | | | eSg | Sb | 12 34 13.3 | -0.8 |
| CLDR | | | | S | Sb | 12 34 14.4 | +0.3 |
| ADCV | BITLIS_Adilcev | 0.62 | 265 | iP | Pg | 12 34 09.7 | -0.9 |
| ADCV | | | | iS | Sb | 12 34 20.8 | +0.8 |
| ADCV | BITLIS_Adilcev | 0.62 | 265 | P | Pg | 12 34 09.7 | -0.9 |
| ADCV | | | | S | Sb | 12 34 20.8 | +0.8 |
| DYDN | Diyadin | 0.69 | 11 | iP | Pg | 12 34 10.3 | -1.6 |
| DYDN | | | | iS | Sb | 12 34 22.0 | -0.1 |
| DYDN | Diyadin | 0.69 | 11 | P | Pg | 12 34 10.3 | -1.6 |
| DYDN | | | | S | Sb | 12 34 22.0 | -0.1 |
| TUTA | Tutak | 0.77 | 315 | iP | Pg | 12 34 11.6 | -1.7 |
| TUTA | | | | iS | Sb | 12 34 23.3 | -1.0 |
| TUTA | Tutak | 0.77 | 315 | P | Pg | 12 34 11.6 | -1.7 |
| TUTA | | | | S | Sb | 12 34 23.3 | -1.0 |
| AGRB | Hanur-Agry | 0.82 | 330 | ePG | Pb | 12 34 13.7 | -0.9 |
| AGRB | Hanur-Agry | 0.82 | 330 | ePg | Pb | 12 34 13.7 | -0.9 |
| EKAR | Karacoban | 1.20 | 290 | iP | Pn | 12 34 22.0 | +0.9 |
| EKAR | | | | iS | Sn | 12 34 40.1 | +2.7 |

---

**MAN 02 12:48:29,13.°05N×125.°42E,h30**km**,mb4.3,ML3.1,MS2.9, 1D,Philippine Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PVCP | Virac | 1.35 | 294 | eP | Pn | 12 48 52.2 | +0.4 |
| PVCP | | | | eS | Sn | 12 49 08.6 | -0.2 |
| BESP | Borongan | 1.44 | 179 | eP | Pn | 12 48 52.7 | -0.3 |
| BESP | | | | eS | Sn | 12 49 10.7 | -0.2 |
| PLP | Palo | 1.92 | 193 | ⇓eP | Pn | 12 48 57.4 | -2.3 |
| PLP | | | | eS | Sn | 12 49 23.7 | +0.8 |
| OCLP | Ormoc | 2.14 | 202 | eP | Pn | 12 49 04.0 | +1.3 |
| MSLP | Maasin | 2.95 | 191 | eP | Pn | 12 49 16.1 | +2.2 |
| MSLP | | | | eS | Sn | 12 49 51.9 | +3.7 |

---

*ISCJB **02** 12:51:43.2±0.6,18.°88N±0.°06×145.°7E±0.°2,h150km, mb3.7/13,Error ellipse: s-maj=24.3km s-min=7.9km az=3.7*
*IDC **02** 12:51:45.7±2.2,18.°79N×145.°74E,h159km±22km, mb3.6/13,mb1 3.7/15,mb1mx3.5/48,mbtmp4.0/15,Error ellipse: s-maj=20.8km s-min=13.1km az=94.0*
**ISC 02 12:51:44.9**±0.8,**18.°83N**±0.°08×**145.°8E**±0.°2,**h150**km,**n22**, σ1.**01**/17,**mb3.9**/13,**Mariana Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GUMO | Guam | 5.28 | 189 | P | Pn | 12 53 01.5 | -0.6 |
| | 13nm,0.3s,baz=58,slow=13,SNR=6.8 | | | | | | |
| GUMO | | | | S | Sn | 12 54 03.8 | +1.5 |
| | 3.8nm,0.3s,baz=150,slow=16,SNR=2.0 | | | | | | |
| MJAR | Matsushiro Arr | 18.86 | 341 | P | P | 12 55 52.9 | -0.5 |

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| | 0.4nm,0.3s,baz=166,slow=8.3,SNR=5.3 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **19.84** | **88** | T | T | 13 17 02.4 | |
| | baz=275,slow=75,SNR=6.0 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **19.86** | **88** | T | T | 13 16 54.2 | |
| | baz=275,slow=75,SNR=4.8 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **19.86** | **88** | T | T | 13 16 54.9 | |
| | baz=275,slow=75,SNR=5.0 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **19.98** | **84** | T | T | 13 17 24.4 | |
| | baz=270 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **19.98** | **84** | T | T | 13 17 24.4 | |
| | baz=270 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **20.00** | **84** | T | T | 13 17 25.6 | |
| | baz=270 | | | | | | |
| **WRA** | **Warramunga Arr** | **40.12** | **197** | P | **P** | **12 59 05.4** | **-0.8** |
| | 1.1nm,0.4s,baz=10,slow=8.8,SNR=32 | | | | | | |
| **MA2** | **Magadan** | **40.86** | **4** | P | **P** | **12 59 13.6** | **+1.8** |
| | 5.5nm,0.9s,baz=147,slow=5.0,SNR=3.8 | | | | | | |
| **ASAR** | **Alice Springs** | **43.79** | **196** | P | **P** | **12 59 35.0** | **-0.9** |
| | 0.6nm,0.4s,baz=14,slow=6.5,SNR=24 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **44.25** | **277** | P | **P** | **12 59 40.8** | **+1.1** |
| | 0.4nm,0.7s,baz=104,slow=4.0,SNR=4.5 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **57.94** | **322** | P | **P** | **13 01 20.7** | **-0.7** |
| | 0.3nm,0.4s,baz=134,slow=4.2,SNR=2.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **58.41** | **314** | P | **P** | **13 01 25.4** | **+0.6** |
| | 0.4nm,0.6s,baz=92,slow=7.0,SNR=4.8 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **61.26** | **318** | P | **P** | **13 01 43.8** | **-0.3** |
| | 0.5nm,0.4s,baz=92,slow=7.2,SNR=8.9 | | | | | | |
| **ILAR** | **Eielson Array** | **63.51** | **26** | P | **P** | **13 01 58.4** | **-0.4** |
| | 1.7nm,0.7s,baz=256,slow=5.0,SNR=23 | | | | | | |
| **BVAR** | **Borovoye Array** | **66.41** | **320** | P | **P** | **13 02 17.6** | **-0.2** |
| | 0.9nm,0.5s,baz=101,slow=7.9,SNR=5.9 | | | | | | |
| **INK** | **Inuvik** | **69.24** | **23** | P | **P** | **13 02 35.5** | **+0.3** |
| | 1.5nm,0.7s,baz=288,slow=7.9,SNR=8.6 | | | | | | |
| **YKA** | **Yellowknife Ar** | **77.85** | **28** | P | **P** | **13 03 25.9** | **+0.3** |
| | 0.8nm,0.6s,baz=294,slow=5.4,SNR=4.9 | | | | | | |
| **ARCES** | **ARCESS Array B** | **82.39** | **342** | P | **P** | **13 03 49.1** | **-0.7** |
| | 4.4nm,1.0s,baz=76,slow=7.5,SNR=4.1 | | | | | | |
| **FINES** | **FINESS Array B** | **86.79** | **335** | P | **P** | **13 04 10.1** | **-1.9** |
| | 0.9nm,0.4s,baz=67,slow=5.3,SNR=8.9 | | | | | | |
| **LPAZ** | **La Paz** | **147.63** | **91** | PKPbc | **PKPbc** | **13 11 13.7** | **+0.4** |
| | 1.2nm,0.7s,baz=357,slow=5.4,SNR=4.6 | | | | | | |

*ISCJB **02** 12:58:43.2±0.6, 34°.10N±0°.04×73°.62E±0°.09, h27km, mb3.7/8, Error ellipse: s-maj=11.8km s-min=4.3km az=156.2*

*NNC **02** 12:58:48.6±2.7, 34°.46N×72°.93E, h0km, mb4.1, mpv3.9, Error ellipse: s-maj=36.2km s-min=17.4km az=112.0*

*IDC **02** 12:58:49.3±5.6, 34°.29N×73°.54E, h55km±50km, mb3.5/8, mb1 3.7/13, mb1mx3.4/45, mbtmp3.8/13, ML3.7/5, Error ellipse: s-maj=34.8km s-min=17.5km az=35.0*

**ISC 02 12:58:45.3**±0.8**, 34°.09N**±0°.07×**73°.43E**±0°.10**, h27**km**, n37, σ1$^s$66**/43**, mb3.9**/8**, 8C-4D, Pakistan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **THN** | **Thein Dam** | **2.53** | **130** | *e*P | **Pb** | **12 59 28.4** | **-1.5** |
| THN | | | | *e*S | **Sb** | **13 00 04.0** | **+3.5** |
| **PONG** | **Pong** | **3.00** | **134** | *e*P | **Sb** | **13 00 15.0** | **+0.8** |
| **SFK** | **Sufi-Kurgan** | **5.92** | **1** | ⇑P | **Pn** | **13 00 15.1** | **+3.7** |
| | 8.9nm,0.4s | | | | | | |
| SFK | | | | ⇓S | **Sn** | **13 01 19.5** | **+1.2** |
| | 9.5nm,0.3s | | | | | | |
| **AML** | **Almayashu** | **8.04** | **1** | P | **Pn** | **13 00 42.2** | **+1.6** |
| | SNR=17 | | | | | | |
| **UCH** | **Uchtor** | **8.17** | **6** | P | **Pn** | **13 00 43.8** | **+1.3** |
| | SNR=15 | | | | | | |
| **MNAS** | **Manas** | **8.42** | **355** | ⇑P | **Pn** | **13 00 46.6** | **+1.0** |
| | 2.4nm,0.4s | | | | | | |
| MNAS | | | | ⇓S | **Sn** | **13 02 19.5** | **-0.4** |
| | 6.1nm,0.5s | | | | | | |
| **EKS2** | **Erkin-Say** | **8.57** | **2** | P | **Pn** | **13 00 49.8** | **+2.2** |
| | SNR=6.0 | | | | | | |
| **AAK** | **Ala-Archa** | **8.58** | **5** | P | **Pn** | **13 00 48.5** | **+0.7** |
| | 0.6nm,0.3s,baz=177,slow=11,SNR=11 | | | | | | |
| AAK | | | | S | **Sn** | **13 02 23.5** | **-0.2** |
| | 0.4nm,0.3s,baz=277,slow=20,SNR=3.9 | | | | | | |
| **AAK** | **Ala-Archa** | **8.58** | **5** | ⇑P | **Pn** | **13 00 50.1** | **+2.3** |
| | 1.0nm,0.4s | | | | | | |
| AAK | | | | ⇑S | **Sn** | **13 02 25.0** | **+1.2** |
| | 2.3nm,0.6s | | | | | | |
| **KBK** | **Karagaybulak** | **8.64** | **7** | P | **Pn** | **13 00 50.4** | **+1.8** |
| | SNR=5.4 | | | | | | |
| **CHMS** | **Chumysh** | **8.96** | **6** | P | **Pn** | **13 00 54.4** | **+1.5** |
| | SNR=8.6 | | | | | | |
| **TKM2** | **Tokmak 2** | **8.98** | **10** | ⇓P | **Pn** | **13 00 54.5** | **+1.1** |
| | 4.1nm,0.4s | | | | | | |
| TKM2 | | | | ⇑S | **Sn** | **13 02 33.7** | **-0.1** |
| | 6.6nm,0.8s | | | | | | |
| **TKM2** | **Tokmak 2** | **8.98** | **10** | P | **Pn** | **13 00 55.0** | **+1.6** |
| | SNR=6.8 | | | | | | |
| **KK31** | **Karatay Array** | **9.29** | **347** | ⇑P | **Pn** | **13 00 57.7** | **+0.3** |
| | 1.2nm,0.3s,baz=162,slow=12,SNR=29 | | | | | | |
| KK31 | | | | ⇑S | **Sn** | **13 02 39.2** | **-1.8** |
| | 0.9nm,0.3s,baz=168,slow=21,SNR=7.5 | | | | | | |
| **PYUN** | **Piuthan** | **10.13** | **124** | *e*P | **Pn** | **13 01 08.4** | **-0.8** |
| | 8.8nm,0.2s | | | | | | |
| **KOLN** | **Koldanda** | **10.76** | **123** | *e*P | **Pn** | **13 01 17.2** | **-0.6** |
| | 7.4nm,0.4s | | | | | | |
| **GKN** | **Gorkha** | **11.36** | **119** | *e*P | **Pn** | **13 01 25.0** | **-0.9** |
| **KKN** | **Kakani** | **11.95** | **119** | *e*P | **Pn** | **13 01 32.1** | **-1.9** |
| | 13nm,0.6s | | | | | | |
| **PKIN** | **Phulchoki** | **12.15** | **119** | *e*P | **Pn** | **13 01 35.5** | **-1.4** |
| | 14nm,0.5s | | | | | | |
| **GUN** | **Gumba** | **12.32** | **117** | *e*P | **Pn** | **13 01 37.6** | **-1.7** |
| | 8.0nm,0.4s | | | | | | |
| **JIRN** | **Jiri** | **12.69** | **117** | *e*P | **Pn** | **13 01 41.7** | **-2.6** |
| | 103nm,0.3s | | | | | | |
| **RAMN** | **Ramite** | **13.39** | **119** | *e*P | **Pn** | **13 01 49.9** | **-3.9** |
| | 6.8nm,0.4s | | | | | | |
| **TAPN** | **Taplejung** | **13.99** | **115** | *e*P | Pn | 13 01 57.1 | -4.9 |
| | 6.1nm,0.5s | | | | | | |
| **MKAR** | **Makanchi Array** | **14.36** | **25** | P | **Pn** | **13 02 07.5** | **+0.7** |
| | 0.1nm,0.3s,baz=207,slow=13,SNR=6.6 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **16.94** | **11** | P | **Pn** | **13 02 37.8** | **-2.4** |
| | 0.1nm,0.3s,baz=200,slow=10,SNR=11 | | | | | | |
| **AB31** | **Akbulak array** | **18.16** | **331** | ⇑P | **Pn** | **13 02 55.1** | **-0.2** |
| | 1.3nm,0.6s,baz=132,slow=11,SNR=16 | | | | | | |
| **BVAR** | **Borovoye Array** | **19.06** | **354** | P | **P** | **13 03 03.8** | **-1.6** |
| | 0.5nm,0.3s,baz=157,slow=9.7,SNR=9.5 | | | | | | |
| **AKTO** | **Aktyubinsk** | **19.86** | **330** | P | **Pn** | **13 03 15.0** | **-0.9** |
| | 0.9nm,0.3s,baz=139,slow=11,SNR=17 | | | | | | |
| **AKTO** | **Aktyubinsk** | **19.86** | **330** | ⇓P | **P** | **13 03 14.4** | **+0.3** |
| | 4.4nm,0.6s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **21.43** | **19** | P | **P** | **13 03 29.1** | **-1.9** |
| | 1.8nm,0.3s,baz=214,slow=12,SNR=11 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **27.56** | **118** | P | **P** | **13 04 30.9** | **+0.8** |
| | 0.8nm,0.7s,baz=299,slow=10,SNR=6.2 | | | | | | |
| **SONM** | **Songino Array** | **28.19** | **51** | P | **P** | **13 04 35.7** | **+0.1** |
| | 0.5nm,0.4s,baz=251,slow=9.0,SNR=2.9 | | | | | | |
| **ARCES** | **ARCESS Array B** | **44.13** | **338** | P | **P** | **13 06 51.0** | **+0.1** |
| | 1.5nm,0.7s,baz=114,slow=9.0,SNR=3.7 | | | | | | |
| **NOA** | **NORSAR Array B** | **47.50** | **324** | P | **P** | **13 07 17.0** | **-0.7** |
| | 1.3nm,1.0s,baz=111,slow=6.7,SNR=2.5 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **67.70** | **271** | P | **P** | **13 09 42.0** | **+1.5** |
| | 0.5nm,0.5s,baz=51,slow=5.5,SNR=5.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **79.02** | **123** | P | **P** | **13 10 48.0** | **+0.9** |
| | 0.5nm,0.7s,baz=321,slow=4.7,SNR=9.1 | | | | | | |
| **ASAR** | **Alice Springs** | **81.24** | **126** | P | **P** | **13 10 59.9** | **+0.9** |
| | 0.5nm,0.5s,baz=312,slow=5.4,SNR=14 | | | | | | |

**IDC 02 13:02:46.8**±1.1**, 0°.30S**×**128°.79E, h0**km**, mb3.5**/5**, mb1 3.7**/5**, mb1mx3.6**/32**, mbtmp3.5**/5**, Error ellipse: s-maj=64.4km s-min=20.2km az=79.0, Halmahera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **20.27** | **165** | P | P | 13 07 24.2 | +0.1 |
| | 0.4nm,0.6s,baz=348,slow=11,SNR=7.2 | | | | | | |
| **ASAR** | **Alice Springs** | **23.76** | **168** | P | P | 13 08 01.2 | +0.1 |
| | 0.4nm,0.6s,baz=353,slow=9.3,SNR=15 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **37.68** | **12** | P | P | 13 10 04.4 | +0.4 |
| | 3.0nm,0.6s,baz=199,slow=9.2,SNR=10 | | | | | | |
| **SONM** | **Songino Array** | **51.75** | **341** | P | P | 13 11 57.2 | +0.9 |
| | 0.3nm,0.4s,baz=146,slow=6.6,SNR=2.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **62.02** | **326** | P | P | 13 13 07.1 | -1.9 |
| | 0.2nm,0.5s,baz=121,slow=8.4,SNR=4.1 | | | | | | |

*ISK **02** 13:34:37.9, 37°.05N×34°.39E, h9km, MD2.6*

*ISCJB **02** 13:34:38.7±0.5, 37°.03N±0°.03×34°.39E±0°.03, h3km±6km, Error ellipse: s-maj=5.6km s-min=3.4km az=143.1*

*CSEM **02** 13:34:38.6±0.2, 37°.03N×34°.41E, h12km, MD2.6, Error ellipse: s-maj=5.0km s-min=3.2km az=133.0*

*DDA **02** 13:34:38.9, 37°.04N×34°.43E, h7km, Md2.6*

**ISC 02 13:34:38.7**±1.0**, 37°.04N**±0°.03×**34°.41E**±0°.03**, h10**km±8km**, n27, σ0$^s$51**/44**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MERS** | **Mersin** | **0.20** | **152** | *e*PG | **Pg** | **13 34 42.5** | **-0.3** |
| MERS | | | | *e*SG | **Sg** | **13 34 46.0** | **+0.3** |
| **MERS** | **Mersin** | **0.20** | **152** | *e*Pg | **Pg** | **13 34 42.5** | **-0.3** |
| MERS | | | | *e*Sg | **Sg** | **13 34 46.0** | **+0.3** |
| **DED** | **Mersin** | **0.33** | **104** | *i* P | **Pg** | **13 34 44.9** | **-0.3** |
| DED | | | | *i* S | **Sg** | **13 34 50.3** | **+0.7** |
| **KERG** | **Konya-Eregli** | **0.43** | **329** | *i* P | **Pg** | **13 34 47.3** | **0.0** |
| KERG | | | | *i* S | **Sb** | **13 34 54.9** | **-0.4** |
| **KERG** | **Konya-Eregli** | **0.43** | **329** | P | **Pg** | **13 34 47.3** | **0.0** |
| KERG | | | | S | **Sb** | **13 34 54.9** | **-0.4** |
| **KARA** | **Karaisali** | **0.56** | **67** | *e*PG | **Pg** | **13 34 49.3** | **-0.3** |
| KARA | | | | *e*SG | **Sb** | **13 34 58.0** | **-0.8** |
| **KARA** | **Karaisali** | **0.56** | **67** | *e*Pg | **Pg** | **13 34 49.3** | **-0.3** |
| KARA | | | | *e*Sg | **Sb** | **13 34 58.0** | **-0.8** |
| **KIZK** | **Mersin** | **0.60** | **201** | *e*PG | **Pg** | **13 34 50.3** | **0.0** |
| KIZK | | | | *e*SG | **Sg** | **13 34 58.8** | **+0.7** |
| **KIZK** | **Mersin** | **0.60** | **201** | *i* P | Pg | 13 34 45.3 | -5.0 |
| KIZK | | | | *i* S | **Sb** | **13 34 59.9** | **+0.1** |
| **KIZK** | **Mersin** | **0.60** | **201** | P | Pg | 13 34 45.3 | -5.0 |
| KIZK | | | | S | **Sb** | **13 34 59.9** | **+0.1** |
| **SILI** | **Silifke-Mersin** | **0.78** | **210** | *e*PG | **Pg** | **13 34 53.3** | **-0.4** |
| SILI | | | | *e*SG | **Sb** | **13 35 04.5** | **-0.4** |
| **SILI** | **Silifke-Mersin** | **0.78** | **210** | *e*Pg | **Pg** | **13 34 53.3** | **-0.4** |
| SILI | | | | *e*Sg | **Sb** | **13 35 04.5** | **-0.4** |
| **KEBE** | **Keben-Mersin** | **0.81** | **223** | *e*PG | **Pg** | **13 34 53.8** | **-0.6** |
| KEBE | | | | *e*SG | **Sb** | **13 35 05.5** | **-0.5** |
| **KEBE** | **Keben-Mersin** | **0.81** | **223** | *e*Pg | **Pg** | **13 34 53.8** | **-0.6** |
| KEBE | | | | *e*Sg | **Sb** | **13 35 05.6** | **-0.5** |
| **AKO** | **Adana** | **0.93** | **63** | *i* P | **Pb** | **13 34 57.0** | **0.0** |
| AKO | | | | *i* S | **Sn** | **13 35 11.2** | **-0.1** |
| **TEVE** | **Tevekalti-Mers** | **0.98** | **232** | *e*PG | **Pg** | **13 34 57.0** | **-0.6** |
| TEVE | | | | *e*SG | **Sb** | **13 35 11.1** | **+0.2** |
| **TEVE** | **Tevekalti-Mers** | **0.98** | **232** | *e*Pg | **Pg** | **13 34 57.0** | **-0.6** |
| TEVE | | | | *e*Sg | **Sb** | **13 35 11.1** | **+0.2** |
| **IKL** | **Isikli** | **0.99** | **216** | *e*PG | **Pg** | **13 34 56.8** | **-0.9** |
| IKL | | | | *e*SG | **Sb** | **13 35 11.5** | **+0.5** |
| **IKL** | **Isikli** | **0.99** | **216** | *e*Pg | **Pg** | **13 34 56.8** | **-0.9** |
| IKL | | | | *e*Sg | **Sb** | **13 35 11.5** | **+0.5** |
| **GULN** | **MERSIN_Gulnar** | **1.10** | **219** | *i* S | **Sn** | **13 35 16.4** | **+0.9** |
| **GULN** | **MERSIN_Gulnar** | **1.10** | **219** | S | **Sn** | **13 35 16.4** | **+0.9** |
| **AKKU** | **Akkuyu-Mersin** | **1.12** | **218** | *e*PN | **Pg** | **13 34 59.6** | **-0.6** |
| **AKKU** | **Akkuyu-Mersin** | **1.12** | **218** | *e*Pn | **Pg** | **13 34 59.6** | **-0.6** |
| **KOZT** | **Kozan** | **1.22** | **68** | *e*PN | **Pg** | **13 35 02.3** | **+0.3** |
| **KOZT** | **Kozan** | **1.22** | **68** | *e*Pn | **Pg** | **13 35 02.3** | **+0.3** |
| **TEKE** | **Tekeli-Mersin** | **1.37** | **230** | *e*PN | **Pn** | **13 35 03.7** | **-0.3** |
| **TEKE** | **Tekeli-Mersin** | **1.37** | **230** | *e*Pn | **Pn** | **13 35 03.7** | **-0.3** |

*IDC **02** 13:41:40.0±10.0, 15°.07N×119°.50E, h0km, mb3.6/2, mb1 3.7/3, mb1mx3.4/39, mbtmp3.5/3, MS2.8/2, Ms1 2.9/2, ms1mx2.3/40, Error ellipse: s-maj=354.3km s-min=32.3km az=36.0*

*MAN **02** 13:41:40, 15°.51N×119°.20E, h23km, mb4.4, ML3.3, MS3.1*

*ISCJB **02** 13:41:42.1±0.8, 15°.46N±0°.05×119°.30E±0°.07, h31km, mb3.5/2, MS3.0/1, Error ellipse: s-maj=10.5km s-min=6.3km az=19.3*

**ISC 02 13:41:42.4**±1.1**, 15°.30N**±0°.05×**119°.43E**±0°.09**, h31**km**, n14, σ1$^s$79**/16**, Luzon**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SCZP** | **Santa Cruz** | **0.66** | **45** | *e*P | **Pn** | **13 41 54.5** | **-1.2** |
| SCZP | | | | *e*S | **Sn** | **13 42 07.1** | **+2.1** |
| **LUBP** | **Lubang** | **1.75** | **153** | *e*P | **Pb** | **13 42 14.6** | **+0.7** |
| **TGY** | **Tagaytay City** | **1.89** | **129** | LR | LR | 13 42 20.5 | |
| | comp=Z,34nm,21.4s,baz=182,slow=24 | | | | | | |
| **BALP** | **Baler** | **2.12** | **78** | *e*P | **Pb** | **13 42 19.5** | **-0.7** |
| BALP | | | | *e*S | **Sn** | **13 42 41.3** | **+0.3** |
| **ABRA** | **Dolores** | **2.64** | **28** | *e*P | **Pn** | **13 42 21.8** | **-1.1** |
| **CAUP** | **Cauayan** | **2.82** | **54** | *e*P | **Pn** | **13 42 29.3** | **+3.9** |
| **APYP** | **Conner** | **3.08** | **34** | *e*P | **Pn** | **13 42 28.6** | **-0.4** |
| APYP | | | | *e*S | **Sn** | **13 43 04.5** | **-0.4** |
| **SJMP** | **San Jose** | **3.27** | **150** | *e*P | **Pb** | **13 42 36.5** | **-3.2** |
| SJMP | | | | *e*S | **Sb** | **13 43 17.4** | **-1.7** |
| **BUSP** | **Coron** | **3.37** | **167** | *e*P | **Pn** | **13 42 34.8** | **+2.0** |
| **ENPP** | **El Nido** | **4.07** | **180** | *e*P | **Pn** | **13 42 42.7** | **+0.1** |
| **CMAR** | **Chiang Mai Arr** | **19.85** | **282** | P | **Pn** | **13 46 13.8** | **+1.1** |
| | baz=97,slow=7.6,SNR=6.2 | | | | | | |
| CMAR | | | | LR | LR | 13 54 33.8 | |
| | comp=Z,14nm,18.1s,baz=55,slow=39 | | | | | | |
| **WRA** | **Warramunga Arr** | **37.97** | **157** | P | **P** | **13 48 57.3** | **-0.3** |
| | 0.6nm,0.5s,baz=336,slow=9.4,SNR=9.1 | | | | | | |
| **ASAR** | **Alice Springs** | **41.24** | **160** | P | **P** | **13 49 25.1** | **+0.4** |
| | 0.6nm,0.6s,baz=339,slow=7.0,SNR=21 | | | | | | |
| **PETK** | **Petropavlovsk-** | **48.24** | **30** | LR | LR | 14 10 08.9 | |
| | comp=Z,16nm,19.9s,baz=59,slow=35 | | | | | | |

*ISCJB **02** 13:42:30.9±0.2, 18°.86S±0°.04×177°.86W±0°.04, h600km, mb4.5/116, Error ellipse: s-maj=6.5km s-min=3.4km az=140.3*

*IDC **02** 13:42:32.0±1.2, 18°.73S×177°.88W, h601km±15km, mb3.8/17, mb1 4.0/18, mb1mx3.8/32, mbtmp4.8/18, Error ellipse: s-maj=13.7km s-min=8.3km az=131.0*

*NEIC **02** 13:42:32.7±0.6, 18°.79S×177°.86W, h607km±7km, mb4.5/81, Error ellipse: s-maj=9.2km s-min=5.0km az=139.0*

**ISC 02 13:42:31.6**±0.4**, 18°.87S**±0°.07×**177°.69W**±0°.06**, h600**km**, n191, σ1$^s$29**/201**, mb4.5**/119**, 1C, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MSVF** | **Nonsavu** | **4.20** | **285** | *e*P | **P** | **13 44 00.9** | **+2.3** |
| **NIUE** | **Niue** | **7.35** | **93** | P | **P** | **13 44 22.7** | **-2.2** |
| | baz=7.1,SNR=4.5 | | | | | | |
| **AFI** | **Afiamalu** | **7.52** | **50** | P | **P** | **13 44 26.2** | **-0.4** |
| | 18nm,0.3s,baz=45,slow=1.8,SNR=41 | | | | | | |
| AFI | | | | S | **S** | **13 45 59.2** | **-1.5** |
| | 1.8nm,0.3s,baz=198,slow=3.5,SNR=2.9 | | | | | | |
| **AFI** | **Afiamalu** | **7.52** | **50** | *e*P | **P** | **13 44 25.8** | **-0.8** |
| AFI | | | | S | **S** | **13 45 59.2** | **-1.5** |
| **DZM** | **Mont Dzumac** | **15.20** | **255** | P | **P** | **13 45 41.9** | **+0.1** |
| | 1.1nm,0.3s,baz=85,slow=17,SNR=15 | | | | | | |
| **DZM** | **Mont Dzumac** | **15.20** | **255** | *e*P | **P** | **13 45 42.4** | **+0.6** |
| | 50nm,1.2s | | | | | | |
| **TWGZ** | **Tauwhareparae** | **19.60** | **190** | *e*PN | **P** | **13 46 22.5** | **+0.9** |
| **URZ** | **Urewera** | **19.84** | **192** | P | **P** | **13 46 22.3** | **-1.5** |
| | 2.7nm,0.3s,baz=276,slow=3.1,SNR=27 | | | | | | |
| URZ | | | | S | **S** | **13 49 32.6** | **+1.2** |
| | 0.8nm,0.3s,baz=264,slow=21,SNR=5.7 | | | | | | |
| **URZ** | **Urewera** | **19.84** | **192** | *e*P | **P** | **13 46 22.8** | **-0.9** |
| | 21nm,0.6s | | | | | | |
| URZ | | | | S | **S** | **13 49 32.6** | **+1.2** |
| **WNVZ** | **Wahianoa** | **21.19** | **195** | *e*PN | **P** | **13 46 35.4** | **-0.7** |
| **MRZ** | **Mangatainoka R** | **22.47** | **193** | *e*PN | **P** | **13 46 45.7** | **-1.5** |
| **DUWZ** | **D'Urville Isla** | **23.01** | **196** | *e*PN | **P** | **13 46 51.1** | **-1.0** |
| **THZ** | **Tophouse** | **24.18** | **197** | *e*PN | **P** | **13 47 02.3** | **-0.2** |
| **INZ** | **Inchbonnie** | **25.50** | **199** | PN | **P** | **13 47 13.2** | **-0.7** |
| **RPZ** | **Rata Peaks** | **26.51** | **198** | P | **P** | **13 47 23.4** | **+0.4** |
| | 5.3nm,0.4s,baz=16,slow=4.3,SNR=11 | | | | | | |
| **FOZ** | **Fox Glacier** | **26.74** | **200** | *e*P | **P** | **13 47 24.5** | **-0.4** |
| | 47nm,0.7s | | | | | | |
| **JCZ** | **Jackson Bay** | **27.57** | **201** | *e*PN | **P** | **13 47 32.0** | **-0.2** |
| **MLZ** | **Mavora Lakes** | **28.93** | **201** | *e*P | **P** | **13 47 44.4** | **+0.4** |
| | 243nm,1.9s | | | | | | |
| **WHZ** | **Wether Hill Ro** | **29.45** | **201** | *e*P | **P** | **13 47 49.6** | **+1.2** |
| | 42nm,0.9s | | | | | | |
| **ARMA** | **Armidale** | **30.06** | **242** | P | **P** | **13 47 55.3** | **+1.2** |
| | baz=30,SNR=20 | | | | | | |
| **RMQ** | **Roma** | **31.80** | **250** | P | **P** | **13 48 09.2** | **+0.4** |
| | baz=32,SNR=16 | | | | | | |
| **CNB** | **Canberra Magne** | **33.39** | **234** | P | **P** | **13 48 23.6** | **+1.4** |
| | baz=34,SNR=17 | | | | | | |
| **CAN** | **Canberra** | **33.67** | **234** | *e*P | **P** | **13 48 25.4** | **+0.8** |
| | 32nm,0.8s | | | | | | |
| **YNG** | **Young** | **33.81** | **236** | P | **P** | **13 48 26.2** | **+0.6** |
| | baz=34,SNR=5.6 | | | | | | |
| **CTAO** | **Charters Tower** | **33.97** | **262** | *e*P | **P** | **13 48 27.3** | **+0.1** |
| | 31nm,0.8s | | | | | | |
| **CMSA** | **Cobar Meteorol** | **35.28** | **242** | P | **P** | **13 48 38.5** | **+0.7** |
| | baz=36,SNR=91 | | | | | | |
| **PMG** | **Port Moresby** | **35.30** | **281** | *e*P | **P** | **13 48 38.8** | **+0.6** |
| | 64nm,0.8s | | | | | | |
| **QLP** | **Quilpie** | **35.84** | **251** | P | **P** | **13 48 42.8** | **+0.2** |
| | baz=36,SNR=65 | | | | | | |
| **MTSU** | **Mount Surprise** | **35.99** | **265** | P | **P** | **13 48 43.8** | **-0.1** |
| | baz=36,SNR=32 | | | | | | |
| **TOO** | **Toolangi** | **37.10** | **232** | P | **P** | **13 48 53.7** | **+0.9** |
| | baz=37,SNR=42 | | | | | | |
| **COEN** | **Coen** | **37.80** | **271** | P | **P** | **13 48 59.2** | **+0.5** |
| | baz=38,SNR=69 | | | | | | |
| **COEN** | **Coen** | **37.80** | **271** | *e*P | **P** | **13 48 59.2** | **+0.5** |
| | 52nm,0.8s | | | | | | |
| **MOO** | **Moorlands** | **37.86** | **224** | P | **P** | **13 48 57.7** | **-1.1** |
| | baz=38,SNR=3.4 | | | | | | |
| **STKA** | **Stephens Creek** | **38.77** | **242** | P | **P** | **13 49 07.2** | **+0.9** |
| | 33nm,0.8s,baz=89,slow=9.5,SNR=54 | | | | | | |
| **STKA** | **Stephens Creek** | **38.77** | **242** | P | **P** | **13 49 07.2** | **+0.9** |
| | baz=39,SNR=32 | | | | | | |
| **STKA** | **Stephens Creek** | **38.77** | **242** | *e*P | **P** | **13 49 07.3** | **+0.9** |
| | 10nm,0.9s | | | | | | |
| **ARPS** | **Mount Arapiles** | **39.64** | **235** | P | **P** | **13 49 13.7** | **+0.6** |
| | baz=40,SNR=11 | | | | | | |
| **QIS** | **Mount Isa** | **40.15** | **260** | P | **P** | **13 49 16.4** | **-1.2** |
| | baz=40,SNR=8.6 | | | | | | |
| **BBOO** | **Buckleboo** | **43.55** | **242** | P | **P** | **13 49 44.2** | **+0.2** |
| | baz=44,SNR=35 | | | | | | |
| **BBOO** | **Buckleboo** | **43.55** | **242** | *e*P | **P** | **13 49 44.1** | **+0.2** |
| | 45nm,0.8s | | | | | | |
| **JAY** | **Jayapura** | **43.83** | **287** | P | **P** | **13 49 46.5** | **+0.1** |
| | 437nm,1.0s | | | | | | |
| **GENI** | **Genyem** | **44.28** | **286** | P | **P** | **13 49 51.0** | **+1.1** |
| | 64nm,1.0s | | | | | | |
| **WB2** | **Warramunga Arr** | **45.12** | **260** | *e*P | **P** | **13 49 55.6** | **-0.7** |
| **WRAB** | **Tennant Creek** | **45.12** | **260** | *e*P | **P** | **13 49 55.5** | **-0.7** |
| | 47nm,1.0s | | | | | | |
| **WRA** | **Warramunga Arr** | **45.13** | **260** | P | **P** | **13 49 55.5** | **-0.8** |
| | 29nm,0.6s,baz=97,slow=7.7,SNR=298 | | | | | | |
| WRA | | | | PcP | **PcP** | **13 51 23.6** | **-0.1** |
| | 3.4nm,0.8s,baz=98,slow=3.1,SNR=4.2 | | | | | | |
| WRA | | | | S | **S** | **13 55 50.3** | **-3.1** |
| | 0.7nm,0.8s,baz=86,slow=15,SNR=4.5 | | | | | | |
| **AS01** | **Alice Springs** | **45.15** | **255** | *e*P | **P** | **13 49 56.1** | **-0.3** |
| AS01 | | | | *e*PcP | **PcP** | **13 51 23.3** | **-0.5** |
| **AS31** | **Alice Springs** | **45.19** | **255** | *e*P | **P** | **13 49 56.5** | **-0.3** |
| | 12nm,0.8s | | | | | | |
| AS31 | | | | *e*S | **S** | **13 55 52.0** | **-2.1** |
| **ASAR** | **Alice Springs** | **45.19** | **255** | P | **P** | **13 49 56.5** | **-0.2** |
| | 50nm,0.7s,baz=89,slow=7.8,SNR=704 | | | | | | |
| ASAR | | | | PcP | **PcP** | **13 51 23.2** | **-0.7** |
| | 3.7nm,0.8s,baz=96,slow=3.4,SNR=6.1 | | | | | | |
| ASAR | | | | S | **S** | **13 55 52.0** | **-2.2** |
| | 5.2nm,0.7s,baz=91,slow=16,SNR=25 | | | | | | |
| **KDU** | **Kakadu** | **48.23** | **270** | P | **P** | **13 50 17.1** | **-2.5** |
| | baz=48,SNR=3.6 | | | | | | |
| **MTN** | **Manton Dam** | **49.46** | **269** | P | **P** | **13 50 27.8** | **-0.8** |
| | baz=50,SNR=18 | | | | | | |
| **MTN** | **Manton Dam** | **49.46** | **269** | *e*P | **P** | **13 50 27.8** | **-0.8** |
| | 24nm,0.8s | | | | | | |
| **WRKA** | **Warakurna** | **50.20** | **253** | P | **P** | **13 50 33.8** | **-0.2** |
| | baz=50,SNR=40 | | | | | | |
| **FORT** | **Forrest** | **50.22** | **245** | P | **P** | **13 50 32.9** | **-1.0** |
| | baz=50,SNR=13 | | | | | | |
| **FORT** | **Forrest** | **50.22** | **245** | *e*P | **P** | **13 50 33.4** | **-0.5** |
| | 458nm,0.8s | | | | | | |
| **KNRA** | **Kununurra** | **51.07** | **265** | P | **P** | **13 50 40.0** | **-0.4** |
| | baz=51,SNR=13 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **53.55** | **261** | P | **P** | **13 50 57.8** | **-0.2** |
| | baz=54,SNR=7.7 | | | | | | |
| **NLAI** | **Namlea** | **56.12** | **279** | P | **P** | **13 51 15.8** | **-0.1** |
| | 30nm,0.7s | | | | | | |
| **LBMI** | **Labuha** | **56.68** | **282** | P | **P** | **13 51 19.8** | **0.0** |
| | 24nm,1.0s | | | | | | |
| **SOEI** | **Soe** | **56.76** | **271** | P | **P** | **13 51 21.7** | **+1.2** |
| | 101nm,0.8s | | | | | | |
| **SOEI** | **Soe** | **56.76** | **271** | *e*P | **P** | **13 51 21.6** | **+1.1** |
| | 77nm,0.8s | | | | | | |
| **SANI** | **Sanana** | **57.57** | **280** | P | **P** | **13 51 24.8** | **-1.1** |
| | 29nm,0.9s | | | | | | |
| **KLBR** | **Kellerberrin** | **59.01** | **244** | P | **P** | **13 51 34.9** | **-0.4** |
| | baz=59,SNR=18 | | | | | | |
| **EDFI** | **Ende, Flores** | **59.48** | **271** | P | **P** | **13 51 38.0** | **-0.8** |
| | 27nm,0.8s | | | | | | |
| **SBA** | **Scott Base** | **59.50** | **184** | *e*P | **P** | **13 51 41.0** | **+3.3** |
| | 13nm,1.0s | | | | | | |
| **VNDA** | **Vanda** | **59.55** | **185** | P | **P** | **13 51 39.4** | **+1.4** |
| | 3.7nm,0.8s,baz=359,slow=7.9,SNR=14 | | | | | | |
| **VNDA** | **Vanda** | **59.55** | **185** | *e*P | **P** | **13 51 39.9** | **+1.9** |
| | 13nm,1.5s | | | | | | |
| **BLDU** | **Ballidu** | **59.99** | **245** | P | **P** | **13 51 41.2** | **-0.5** |
| | baz=60,SNR=17 | | | | | | |
| **MUN** | **Mundaring** | **60.30** | **243** | P | **P** | **13 51 44.0** | **+0.2** |
| | baz=60,SNR=6.4 | | | | | | |
| **MORW** | **Morawa** | **60.72** | **247** | P | **P** | **13 51 45.7** | **-0.9** |
| | baz=61,SNR=3.8 | | | | | | |
| **APSI** | **Ampana** | **62.03** | **279** | P | **P** | **13 51 55.7** | **+0.3** |
| | 52nm,1.0s | | | | | | |
| **MRSI** | **Marisa** | **62.26** | **281** | P | **P** | **13 51 56.8** | **0.0** |
| | 5.8nm,0.5s | | | | | | |
| **PLAI** | **Plampang** | **63.16** | **270** | P | **P** | **13 52 01.8** | **-0.8** |
| | 41nm,1.0s | | | | | | |
| **MPSI** | **Mapaga** | **64.11** | **280** | P | **P** | **13 52 07.9** | **-0.7** |
| | 15nm,0.8s | | | | | | |
| **SRBI** | **Singaraja** | **65.80** | **269** | P | **P** | **13 52 18.4** | **-0.9** |
| | 16nm,0.8s | | | | | | |
| **JAGI** | **Jajag, Banyuwa** | **66.70** | **269** | P | **P** | **13 52 22.9** | **-1.9** |
| | 42nm,0.7s | | | | | | |
| **JAGI** | **Jajag, Banyuwa** | **66.70** | **269** | *e*P | **P** | **13 52 23.1** | **-1.7** |
| | 33nm,0.8s | | | | | | |
| **KMMI** | **Kalianget** | **67.29** | **270** | P | **P** | **13 52 28.3** | **-0.1** |
| | 29nm,1.2s | | | | | | |
| **GMJI** | **Gumukmas** | **67.42** | **269** | P | **P** | **13 52 28.2** | **-1.0** |
| | 20nm,1.7s | | | | | | |
| **BLJI** | **Banyuglugur** | **67.44** | **269** | P | **P** | **13 52 28.8** | **-0.5** |
| | 45nm,0.8s | | | | | | |
| **PWJI** | **Pagerwojo** | **69.05** | **268** | P | **P** | **13 52 38.4** | **-0.7** |
| | 36nm,0.7s | | | | | | |
| PWJI | | | | pP | **P** | **13 52 42.8** | **+3.7** |
| | 36nm,0.7s | | | | | | |
| **MJAR** | **Matsushiro Arr** | **69.08** | **323** | P | **P** | **13 52 36.7** | **-2.1** |
| | 2.7nm,0.8s,baz=174,slow=5.8,SNR=6.0 | | | | | | |
| **PCJI** | **Pacitan** | **69.59** | **268** | P | **P** | **13 52 42.3** | **0.0** |
| PCJI | | | | pP | **P** | **13 52 47.0** | **+4.7** |
| **UGM** | **Wanagama** | **70.29** | **268** | P | **P** | **13 52 46.0** | **-0.5** |
| | 83nm,2.1s | | | | | | |
| **QSPA** | **South Pole Qui** | **71.19** | **180** | *e*P | **P** | **13 52 50.3** | **-0.6** |
| | 113nm,1.1s | | | | | | |
| **CNJI** | **Cibinong** | **73.68** | **268** | pP | pP | 13 55 13.2 | +4.2 |
| **PETK** | **Petropavlovsk-** | **74.78** | **345** | P | **P** | **13 53 10.8** | **-0.5** |
| | 12nm,0.9s,baz=108,slow=8.1,SNR=9.3 | | | | | | |
| **PMBI** | **Palembang** | **77.27** | **271** | pP | pP | 13 55 35.8 | +5.4 |
| | 288nm,0.4s,10μm | | | | | | |
| **ISA** | **Isabella, Lake** | **78.00** | **46** | *e*P | **P** | **13 53 30.7** | **+1.3** |
| | 7.0nm,0.8s | | | | | | |
| **CMB** | **Columbia Colle** | **78.08** | **43** | *e*P | **P** | **13 53 30.7** | **+0.9** |
| | 8.8nm,0.8s | | | | | | |
| **AFDM** | **Forest Hills D** | **78.24** | **42** | *e*P | **P** | **13 53 31.4** | **+0.8** |
| | 8.8nm,1.0s | | | | | | |
| **ORV** | **Oroville** | **78.27** | **41** | *e*P | **P** | **13 53 31.5** | **+0.9** |
| | 5.5nm,0.9s | | | | | | |
| **TPRI** | **Tanjung Pinang** | **78.74** | **275** | pP | pP | 13 55 43.2 | +4.2 |
| | 44nm,0.6s | | | | | | |
| **YBH** | **Yreka Blue Hor** | **78.84** | **39** | P | **P** | **13 53 35.1** | **+1.3** |
| | 5.8nm,0.6s,baz=179,slow=2.8,SNR=19 | | | | | | |
| **YBH** | **Yreka Blue Hor** | **78.84** | **39** | *e*P | **P** | **13 53 35.3** | **+1.5** |
| | 9.3nm,0.9s | | | | | | |
| **WAKR** | **Walker** | **78.96** | **43** | *e*P | **P** | **13 53 36.0** | **+1.4** |
| | 12nm,0.9s | | | | | | |
| **NJ2** | **Nanjing** | **79.07** | **309** | *e*P | **P** | **13 53 35.3** | **+0.2** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,19nm,0.5s | | | | | | |
| **GLA** | **Glamis** | **79.16** | **50** | *e*P | **P** | **13 53 37.4** | **+1.9** |
| | comp=Z,7.9nm,0.9s | | | | | | |
| **KDAK** | **Kodiak Island** | **79.18** | **13** | P | **P** | **13 53 34.5** | **-0.5** |
| | comp=Z,12nm,1.0s,baz=178,slow=1.2,SNR=4.8 | | | | | | |
| **PNTR** | **Pine Nut** | **79.19** | **42** | *e*P | **P** | **13 53 37.1** | **+1.3** |
| | comp=Z,22nm,0.8s | | | | | | |
| **HUMO** | **Hull Mountain** | **79.24** | **38** | *e*P | **P** | **13 53 37.2** | **+1.4** |
| | comp=Z,9.3nm,0.9s | | | | | | |
| **YERR** | **Yerington** | **79.36** | **43** | *e*P | **P** | **13 53 37.6** | **+0.9** |
| | comp=Z,11nm,0.6s | | | | | | |
| **PAHR** | **Pah Rah Range** | **79.68** | **42** | *e*P | **P** | **13 53 39.4** | **+1.1** |
| | comp=Z,8.4nm,1.0s | | | | | | |
| **TPNV** | **Topopah Spring** | **80.20** | **46** | *e*P | **P** | **13 53 41.9** | **+0.8** |
| | comp=Z,5.2nm,0.8s | | | | | | |
| **MOD** | **Modoc Plateau** | **80.39** | **40** | *e*P | **P** | **13 53 42.7** | **+0.8** |
| | comp=Z,13nm,0.8s | | | | | | |
| **BMN** | **Battle Mountai** | **81.46** | **42** | *e*P | **P** | **13 53 48.3** | **+0.8** |
| | comp=Z,11nm,1.0s | | | | | | |
| **WVOR** | **Wild Horse Val** | **81.70** | **40** | *e*P | **P** | **13 53 49.4** | **+0.7** |
| | comp=Z,14nm,1.0s | | | | | | |
| **TUC** | **Tucson** | **81.75** | **52** | *e*P | **P** | **13 53 50.7** | **+1.6** |
| | comp=Z,11nm,1.1s | | | | | | |
| **PDSI** | **Padang** | **81.99** | **272** | pP | pP | 13 56 02.3 | +5.1 |
| | comp=Z,24nm,1.3s,comp=Z,2μm | | | | | | |
| **I07A** | **Izee** | **82.14** | **38** | *e*P | **P** | **13 53 51.8** | **+1.0** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| | comp=Z,11nm,0.8s | | | | | | |
| LCMT | Little Creek M | 82.29 | 47 | eP | P | 13 53 53.1 | +1.3 |
| | comp=Z,6.8nm,0.9s | | | | | | |
| J08A | Circle Bar Ran | 82.33 | 39 | eP | P | 13 53 52.5 | +0.8 |
| | comp=Z,19nm,1.2s | | | | | | |
| CCUT | Cedar City | 82.48 | 46 | eP | P | 13 53 54.4 | +1.5 |
| | comp=Z,5.7nm,0.9s | | | | | | |
| SZCU | Shurtz Canyon | 82.69 | 46 | eP | P | 13 53 55.2 | +1.4 |
| | comp=Z,8.0nm,1.1s | | | | | | |
| WUAZ | Wupatki | 82.86 | 49 | eP | P | 13 53 56.2 | +1.5 |
| | comp=Z,6.1nm,1.0s | | | | | | |
| SUA | Susitna One | 82.92 | 13 | eP | P | 13 53 53.7 | -0.6 |
| | comp=Z,19nm,0.7s | | | | | | |
| SISI | Saibi | 83.15 | 271 | P | P | 13 53 53.2 | -3.2 |
| | comp=Z,103nm,1.7s | | | | | | |
| G08A | Pilot Rock | 83.16 | 37 | eP | P | 13 53 56.3 | +0.4 |
| | comp=Z,11nm,1.0s | | | | | | |
| MAW | Mawson | 83.18 | 200 | P | P | 13 53 55.9 | +0.4 |
| | comp=Z,3.1nm,0.6s,baz=136,slow=6.7,SNR=10 | | | | | | |
| E07A | Sunnyside | 83.39 | 36 | eP | P | 13 53 58.0 | +1.1 |
| | comp=Z,8.2nm,0.7s | | | | | | |
| HAWA | Hanford | 83.47 | 36 | eP | P | 13 53 57.9 | +0.6 |
| | comp=Z,11nm,1.0s | | | | | | |
| MTPU | Mount Pierson | 83.53 | 46 | eP | P | 13 54 00.1 | +1.9 |
| | comp=Z,4.1nm,0.8s | | | | | | |
| MFID | Camas Ranch | 83.96 | 40 | eP | P | 13 54 00.8 | +0.9 |
| | comp=Z,6.7nm,1.0s | | | | | | |
| D08A | Wollman Farm, | 84.20 | 36 | eP | P | 13 54 01.8 | +0.9 |
| | comp=Z,7.8nm,0.9s | | | | | | |
| CAST | Castle Rocks | 84.44 | 11 | eP | P | 13 53 60.0 | -1.7 |
| | comp=Z,13nm,0.8s | | | | | | |
| F10A | Beach Ranch, E | 84.54 | 38 | eP | P | 13 54 02.7 | 0.0 |
| | comp=Z,14nm,0.9s | | | | | | |
| PSI | Prapat | 84.64 | 275 | P | P | 13 54 02.7 | -1.2 |
| | comp=Z,5.1nm,0.7s,baz=225,slow=8.6 | | | | | | |
| B08A | Colville Reser | 84.74 | 35 | eP | P | 13 54 03.3 | -0.2 |
| | comp=Z,7.7nm,0.8s | | | | | | |
| KTH | Kantishna Hill | 84.78 | 12 | eP | P | 13 54 02.0 | -1.4 |
| | comp=Z,57nm,1.9s | | | | | | |
| TRF | Thorofare Moun | 84.81 | 12 | eP | P | 13 54 02.6 | -1.0 |
| | comp=Z,17nm,0.8s | | | | | | |
| TMUT | Trail Mountain | 84.82 | 46 | eP | P | 13 54 05.8 | +1.4 |
| | comp=Z,5.4nm,0.9s | | | | | | |
| SEY | Seymchan | 84.87 | 347 | P | P | 13 54 03.1 | -0.6 |
| | comp=Z,7.2nm,0.8s,baz=158,slow=6.2,SNR=12 | | | | | | |
| HLID | Hailey | 84.91 | 41 | eP | P | 13 54 05.6 | +1.0 |
| | comp=Z,4.5nm,0.8s | | | | | | |
| RND | Reindeer | 85.06 | 13 | eP | P | 13 54 03.7 | -1.0 |
| | comp=Z,18nm,0.8s | | | | | | |
| SRU | San Rafael Swe | 85.19 | 46 | eP | P | 13 54 06.9 | +0.9 |
| | comp=Z,5.8nm,0.7s | | | | | | |
| MCK | McKinley | 85.33 | 12 | eP | P | 13 54 05.2 | -0.7 |
| | comp=Z,13nm,0.8s | | | | | | |
| MNTX | Cornudas Mount | 85.58 | 55 | eP | P | 13 54 09.3 | +1.5 |
| | comp=Z,4.3nm,1.0s | | | | | | |
| P18A | Preston Nutter | 85.63 | 46 | eP | P | 13 54 10.6 | +2.3 |
| | comp=Z,63nm,1.1s | | | | | | |
| PV10 | Paradox Valley | 85.86 | 47 | eP | P | 13 54 10.1 | +0.7 |
| NEW | Newport | 85.89 | 36 | P | P | 13 54 08.9 | -0.1 |
| | comp=Z,2.7nm,0.7s,baz=179,slow=3.0,SNR=4.8 | | | | | | |
| TX31 | Lajitas Ar. Si | 85.94 | 57 | eP | P | 13 54 11.3 | +1.5 |
| TXAR | Lajitas Array | 85.94 | 57 | P | P | 13 54 11.3 | +1.6 |
| | comp=Z,4.8nm,0.8s,baz=220,slow=6.4,SNR=40 | | | | | | |
| MLY | Manley | 86.15 | 11 | eP | P | 13 54 08.6 | -1.2 |
| | comp=Z,21nm,1.8s | | | | | | |
| WRH | Wood River Hil | 86.16 | 12 | eP | P | 13 54 08.8 | -1.0 |
| | comp=Z,12nm,0.9s | | | | | | |
| ANMO | Albuquerque | 86.17 | 51 | eP | P | 13 54 11.5 | +0.7 |
| | comp=Z,4.3nm,1.0s | | | | | | |
| CCB | Clear Creek Bu | 86.37 | 12 | eP | P | 13 54 09.6 | -1.2 |
| | comp=Z,9.5nm,0.7s | | | | | | |
| MCMT | McKenzie Canyo | 86.53 | 40 | eP | P | 13 54 13.2 | +0.8 |
| COLA | College | 86.56 | 12 | eP | P | 13 54 10.6 | -1.1 |
| | comp=Z,18nm,0.8s | | | | | | |
| IL1 | Eielson Array | 86.67 | 13 | eP | P | 13 54 10.6 | -1.6 |
| ILAR | Eielson Array | 86.67 | 13 | P | P | 13 54 11.0 | -1.2 |
| | comp=Z,3.6nm,0.8s,baz=222,slow=4.4,SNR=40 | | | | | | |
| ILB | Eielson Array | 86.67 | 13 | eP | P | 13 54 11.2 | -1.0 |
| DLMT | Dillon | 86.96 | 40 | eP | P | 13 54 15.3 | +1.1 |
| | comp=Z,5.5nm,0.8s | | | | | | |
| TPAW | Teton Pass | 87.04 | 42 | eP | P | 13 54 15.6 | +0.8 |
| | comp=Z,6.0nm,1.0s | | | | | | |
| REDW | Red Top Meadow | 87.04 | 42 | eP | P | 13 54 15.4 | +0.6 |
| | comp=Z,14nm,1.3s | | | | | | |
| FXWY | Fox Creek | 87.07 | 42 | eP | P | 13 54 15.9 | +1.0 |
| | comp=Z,15nm,1.8s | | | | | | |
| SNOW | Snow King Moun | 87.15 | 42 | eP | P | 13 54 16.6 | +1.3 |
| | comp=Z,7.4nm,0.6s | | | | | | |
| IMW | Indian Meadow | 87.25 | 42 | eP | P | 13 54 17.0 | +1.2 |
| | comp=Z,7.4nm,0.9s | | | | | | |
| MOOW | Moose Ponds | 87.30 | 42 | eP | P | 13 54 16.9 | +0.9 |
| | comp=Z,12nm,1.6s | | | | | | |
| LOHW | Long Hollow | 87.32 | 42 | eP | P | 13 54 17.0 | +1.0 |
| | comp=Z,16nm,1.6s | | | | | | |
| QLMT | Earthquake Lak | 87.40 | 41 | eP | P | 13 54 18.1 | +1.7 |
| YHB | Horse Butte | 87.51 | 41 | eP | P | 13 54 18.7 | +1.7 |
| | comp=Z,11nm,1.0s | | | | | | |
| BW06 | Boulder Array | 87.58 | 43 | eP | P | 13 54 17.8 | +0.4 |
| | comp=Z,4.7nm,0.9s | | | | | | |
| PD31 | Pinedale Array | 87.58 | 43 | eP | P | 13 54 17.8 | +0.4 |
| PDAR | Pinedale Array | 87.58 | 43 | P | P | 13 54 17.4 | 0.0 |
| | comp=Z,2.6nm,0.7s,baz=214,slow=2.9,SNR=23 | | | | | | |
| YMR | Madison River | 87.61 | 41 | eP | P | 13 54 19.1 | +1.7 |
| | comp=Z,7.7nm,0.8s | | | | | | |
| BOZ | Bozeman (W) | 87.66 | 40 | eP | P | 13 54 18.6 | +1.1 |
| | comp=Z,7.1nm,1.0s | | | | | | |
| YHH | Holmes Hill | 87.74 | 41 | eP | P | 13 54 19.6 | +1.5 |
| | comp=Z,21nm,1.9s | | | | | | |
| DAWY | Dawson | 87.83 | 16 | eP | P | 13 54 17.8 | +0.1 |
| | comp=Z,49nm,2.0s | | | | | | |
| SYO | Syowa Base | 88.37 | 193 | ⇑eP | P | 13 54 18.0 | -2.2 |
| HHC | Hu-ho-hao-te | 88.43 | 314 | eP | P | 13 54 22.2 | +1.0 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,11nm,0.8s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,160nm,6.4s | | | | | | |
| RLMT | Red Lodge | 88.89 | 41 | eP | P | 13 54 24.6 | +1.2 |
| | comp=Z,4.6nm,0.9s | | | | | | |
| SNAA | Sanae | 89.62 | 178 | P | P | 13 54 26.0 | -0.1 |
| SNAA | Sanae | 89.62 | 178 | eP | P | 13 54 25.1 | -1.1 |
| | comp=Z,770nm,1.4s | | | | | | |
| VNA3 | Neumayer Olymp | 89.74 | 176 | P | P | 13 54 26.7 | 0.0 |
| CM01 | Chiang Mai Arr | 89.82 | 289 | eP | P | 13 54 28.9 | +1.0 |
| CMAR | Chiang Mai Arr | 89.85 | 289 | P | P | 13 54 27.8 | -0.3 |
| | comp=Z,1.7nm,0.9s,baz=119,slow=2.7,SNR=12 | | | | | | |
| VNA2 | Neumayer--Watz | 90.18 | 177 | P | P | 13 54 29.0 | +0.4 |
| | baz=186,slow=3.9 | | | | | | |
| VNA1 | Neumayer--Stat | 90.41 | 176 | P | P | 13 54 30.3 | +0.7 |
| LZH | Lanzhou | 92.02 | 307 | eP | P | 13 54 37.6 | -0.3 |
| LZH | | | | pP | pP | 13 56 48.1 | +0.3 |
| LZH | | | | sP | sP | 13 57 47.4 | 0.0 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,17nm,1.0s | | | | | | |
| INK | Inuvik | 92.64 | 15 | eP | P | 13 54 38.7 | -1.0 |
| | comp=Z,18nm,1.8s | | | | | | |
| DGMT | Dagmar | 93.50 | 40 | eP | P | 13 54 45.3 | +1.0 |
| | comp=Z,18nm,0.9s | | | | | | |
| MKAR | Makanchi Array | 110.29 | 314 | PKiKP | PKiKP | 13 59 55.1 | -1.3 |
| | comp=Z,0.3nm,0.9s,baz=207,slow=1.6,SNR=4.5 | | | | | | |
| KSH | Kashi | 114.19 | 306 | ePKP | PKPdf | 14 00 05.7 | +1.5 |
| KSH | | | | PP | PP | 14 01 18.8 | +7.5 |
| KSH | | | | sPKP | | 14 03 21.3 | |
| KSH | | | | PKS | PKSdf | 14 03 41.5 | +0.5 |
| KSH | | | | SKS | SKSdf | 14 06 21.1 | +0.8 |
| KSH | | | | SKKS | SKKSac | 14 07 09.3 | -1.2 |
| KSH | Kashi | 114.19 | 306 | SS | SS | 14 16 24.5 | +6.0 |
| KSH | | | | AMB | AMB | | |
| | comp=Z,140nm,5.3s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,74nm,3.8s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,30nm,3.6s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,300nm,5.9s | | | | | | |
| ARCES | ARCESS Array B | 127.38 | 350 | PKP | PKPdf | 14 00 28.0 | -0.5 |
| | comp=Z,4.9nm,1.1s,baz=343,slow=2.5,SNR=5.2 | | | | | | |
| AKASG | Malin Array Be | 141.73 | 332 | PKhKP | PKPpre | 14 00 50.1 | |
| | comp=Z,0.3nm,0.4s,baz=36,slow=4.2,SNR=4.2 | | | | | | |
| CLL | Collm | 146.55 | 348 | i PKPbc | PKPbc | 14 01 06.2 | -0.4 |
| | comp=Z,6.0nm,0.7s | | | | | | |
| CLL | | | | i PKPab | PKiKP | 14 01 08.7 | +0.1 |
| | comp=Z,6.0nm,0.8s | | | | | | |
| DPC | Dobruska-Polom | 146.66 | 344 | ePKP | PKPbc | 14 01 07.6 | +0.6 |
| DPC | | | | ex | x | 14 01 10.5 | |
| BRG | Berggiesshubel | 146.76 | 347 | ePKP | PKPab | 14 01 10.2 | -0.1 |
| | comp=Z,21nm,1.6s | | | | | | |
| KHC | Kasperske Hory | 148.48 | 346 | ePKP | PKPbc | 14 01 11.7 | 0.0 |
| KHC | | | | ex | x | 14 01 16.2 | |
| GERES | GERESS Array B | 148.71 | 345 | PKPbc | PKPbc | 14 01 11.6 | -0.8 |
| | comp=Z,0.9nm,0.6s,baz=29,slow=3.0,SNR=6.5 | | | | | | |
| TORD | Torodi Ar. Bea | 174.28 | 174 | PKPab | PKPab | 14 03 11.1 | +0.6 |
| | comp=Z,0.7nm,0.7s,baz=171,slow=3.6,SNR=5.5 | | | | | | |

*CSEM 02 14:09:18.5, 40.47N×30.32E, h5km, MD2.6*

**ISK 02 14:09:18.5, 40.47N×30.32E, h5km, MD2.6, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GULT | Gulveren | 0.16 | 103 | ePG | Pg | 14 09 22.5 | +0.8 |
| GULT | Gulveren | 0.16 | 103 | ePg | Pg | 14 09 22.5 | +0.8 |
| GPA | Golpazari | 0.18 | 182 | ePG | Pg | 14 09 22.8 | +0.8 |
| GPA | | | | eSG | Sg | 14 09 26.2 | +1.8 |
| GPA | Golpazari | 0.18 | 182 | ePg | Pg | 14 09 22.8 | +0.8 |
| GPA | | | | eSg | Sg | 14 09 26.2 | +1.8 |
| SPNC | Sapanca-Adapaz | 0.22 | 358 | ePG | Pg | 14 09 24.0 | +1.2 |
| SPNC | | | | eSG | Sg | 14 09 27.9 | +2.2 |
| SPNC | Sapanca-Adapaz | 0.22 | 358 | ePg | Pg | 14 09 24.0 | +1.2 |
| SPNC | | | | eSg | Sg | 14 09 27.9 | +2.2 |
| ADVT | Abdulvahap | 0.44 | 266 | ePG | Pb | 14 09 28.3 | -0.5 |
| ADVT | | | | eSG | Sb | 14 09 35.5 | -0.2 |
| ADVT | Abdulvahap | 0.44 | 266 | ePg | Pb | 14 09 28.3 | -0.5 |
| ADVT | | | | eSg | Sb | 14 09 35.5 | -0.2 |
| CAVI | Cavuskoy | 0.45 | 234 | ePG | Pb | 14 09 28.4 | -0.5 |
| CAVI | | | | eSG | Sb | 14 09 35.8 | -0.1 |
| CAVI | Cavuskoy | 0.45 | 234 | ePg | Pb | 14 09 28.4 | -0.5 |
| CAVI | | | | eSg | Sb | 14 09 35.8 | -0.1 |
| HRT | Hereke | 0.61 | 306 | ePG | Pb | 14 09 31.0 | -0.6 |
| HRT | Hereke | 0.61 | 306 | ePg | Pb | 14 09 31.0 | -0.6 |
| MDUB | Mudurnu | 0.67 | 89 | ePG | Pb | 14 09 32.6 | -0.1 |
| MDUB | Mudurnu | 0.67 | 89 | ePg | Pb | 14 09 32.7 | -0.1 |
| YLV | Yalova | 0.73 | 278 | ePG | Pb | 14 09 33.6 | -0.1 |
| YLV | Yalova | 0.73 | 278 | ePg | Pb | 14 09 33.6 | -0.1 |
| BUY | Buyukada | 0.99 | 293 | ePG | Pb | 14 09 38.5 | +0.4 |
| BUY | Buyukada | 0.99 | 293 | ePg | Pn | 14 09 38.6 | -0.4 |
| ARMT | Armutlu | 1.11 | 275 | ePN | Pb | 14 09 40.3 | +0.1 |
| ARMT | Armutlu | 1.11 | 275 | ePn | Pb | 14 09 40.3 | +0.1 |
| TVSB | Tavsanli | 1.21 | 213 | ePN | Pn | 14 09 43.6 | +1.4 |
| TVSB | Tavsanli | 1.21 | 213 | ePn | Pn | 14 09 43.6 | +1.4 |
| SVRH | Sivrihisar-ESK | 1.38 | 137 | ePN | Pg | 14 09 45.6 | +0.7 |
| SVRH | Sivrihisar-ESK | 1.38 | 137 | ePn | Pg | 14 09 45.6 | +0.7 |
| CTKS | Kestanelik-??a | 1.57 | 300 | ePN | Pg | 14 09 48.5 | -0.1 |
| CTKS | Kestanelik-??a | 1.57 | 300 | ePn | Pg | 14 09 48.5 | -0.1 |

**CASC 02 14:10:25.9±3.3, 10.48N×86.28W, h13km±28km, MD4.0, ML3.4, 1C, Off coast of Costa Rica**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VCR | Vista de Mar | 0.73 | 119 | eP | Pg | 14 10 37.5 | -2.6 |
| VCR | | | | eS | Sg | 14 10 49.5 | -0.3 |
| CRZ1 | La Cruz | 0.87 | 47 | ⇑iP | Pg | 14 10 42.4 | -0.3 |
| CONN | Concepcion | 1.26 | 31 | eP | Pn | 14 10 48.2 | -1.0 |
| COPN | Copaltepe | 1.72 | 350 | eP | Pn | 14 10 56.1 | +0.6 |
| ACON | Acoyapa | 1.84 | 36 | eP | Pn | 14 10 55.9 | -1.2 |
| CGA2 | Cerro Gallo 2 | 1.85 | 104 | eP | Pb | 14 10 58.7 | -0.9 |
| MOMN | Momotombo | 1.94 | 353 | eP | Pn | 14 10 57.7 | -0.8 |
| CRIN | San Cristobal | 2.33 | 341 | eP | Pn | 14 11 05.5 | +1.4 |
| CRIN | | | | eS | Sn | 14 11 31.2 | -1.4 |
| CRIN | | | | AML | AML | 14 11 33.9 | |
| | comp=N,272nm,0.5s | | | | | | |
| VTR0 | Volcan Turrial | 2.52 | 100 | eP | Pn | 14 11 08.2 | +1.2 |
| TRT1 | Tortuguero | 2.54 | 87 | eP | Pn | 14 11 08.4 | +1.6 |
| URSC | Urasca | 2.55 | 104 | eP | Pn | 14 11 05.8 | -1.3 |
| ESPN | Las Esperanzas | 2.59 | 49 | eP | Pn | 14 11 06.1 | -1.4 |
| ESTN | Estel | 2.61 | 358 | eP | Pn | 14 11 07.1 | -0.8 |

*WEL 02 14:29:20.0±0.3, 37.35S×179.96E, h33km, ML4.0/29, Error ellipse: s-maj=3.6km s-min=2.3km az=0.0*

*NEIC 02 14:29:20.2±0.0, 37.42S×179.99E, h35km, ML4.1(WEL), After WEL.*

*IDC 02 14:29:20.6±4.2, 36.95S×179.23E, h0km, mb3.7/2, mb1 4.0/3, mb1mx3.7/21, mbtmp3.8/3, ML4.1/1, Error ellipse: s-maj=89.8km s-min=36.5km az=125.0*

**ISC 02 14:29:17.3±3.4, 37.67S±0.07×179.98E±0.07, h10km±21km, n103, σ1.12/114, 2C-3D, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WMGZ | Waiomatatini S | 1.25 | 263 | Pn | Pb | 14 29 41.5 | +0.6 |
| WMGZ | | | | Sn | Sb | 14 29 58.0 | +0.9 |
| WMGZ | Waiomatatini S | 1.25 | 263 | ⇓PN | Pb | 14 29 41.5 | +0.6 |
| WMGZ | | | | SN | Sb | 14 29 58.0 | +0.9 |
| WMGZ | | | | AML | AML | 14 29 58.8 | |
| MXZ | Matakaoa Point | 1.33 | 274 | Pn | Pn | 14 29 41.6 | -0.3 |
| MXZ | Matakaoa Point | 1.33 | 274 | PN | Pn | 14 29 41.6 | -0.3 |
| MXZ | | | | eSN | Sn | 14 29 57.6 | -2.0 |
| MXZ | | | | AML | AML | 14 30 00.7 | |
| PUZ | Puketiti | 1.42 | 253 | Pn | Pb | 14 29 44.3 | +0.4 |
| PUZ | | | | Sn | Sb | 14 30 02.6 | +0.5 |
| PUZ | Puketiti | 1.42 | 253 | PN | Pb | 14 29 44.3 | +0.4 |
| PUZ | | | | SN | Sb | 14 30 02.6 | +0.5 |
| PUZ | | | | AML | AML | 14 30 03.1 | |
| PKGZ | Pakihiroa | 1.52 | 261 | PN | Pn | 14 29 45.1 | +0.5 |
| PKGZ | | | | SN | Sn | 14 30 04.3 | -0.2 |
| PKGZ | | | | AML | AML | 14 30 06.4 | |
| CNGZ | Carnagh Statio | 1.62 | 239 | Pn | Pb | 14 29 48.3 | +1.1 |
| CNGZ | Carnagh Statio | 1.62 | 239 | PN | Pb | 14 29 48.3 | +1.1 |
| CNGZ | | | | AML | AML | 14 30 13.1 | |
| CNGZ | | | | AML | AML | 14 30 13.8 | |
| TWGZ | Tauwhareparae | 1.66 | 252 | Pn | Pb | 14 29 47.9 | -0.1 |
| TWGZ | | | | Sn | Sb | 14 30 09.2 | +0.2 |
| TWGZ | Tauwhareparae | 1.66 | 252 | PN | Pb | 14 29 47.9 | -0.1 |
| TWGZ | | | | SN | Sb | 14 30 09.2 | +0.2 |
| TWGZ | | | | AML | AML | 14 30 10.6 | |
| HAZ | Te Kaha | 1.75 | 266 | PN | Pn | 14 29 48.3 | +0.7 |
| HAZ | | | | SN | Sn | 14 30 09.6 | -0.2 |
| HAZ | | | | AML | AML | 14 30 17.1 | |
| RUGZ | Raukumara Rang | 1.85 | 260 | PN | Pn | 14 29 50.0 | +0.9 |
| TKGZ | Te Karaka | 1.85 | 245 | Pn | Pb | 14 29 50.8 | -0.4 |
| TKGZ | Te Karaka | 1.85 | 245 | ⇑PN | Pb | 14 29 50.8 | -0.4 |
| TKGZ | | | | AML | AML | 14 30 14.7 | |
| TKGZ | | | | AML | AML | 14 30 15.2 | |
| RIGZ | Rimuhau | 2.03 | 239 | PN | Pb | 14 29 53.5 | -0.8 |
| RIGZ | | | | SN | Sb | 14 30 19.2 | -0.4 |
| RIGZ | | | | AML | AML | 14 30 20.6 | |
| MWZ | Matawai | 2.05 | 250 | Pn | Pn | 14 29 52.7 | +0.9 |
| MWZ | Matawai | 2.05 | 250 | ⇓PN | Pn | 14 29 52.7 | +0.9 |
| MWZ | | | | eSN | Sn | 14 30 16.9 | -0.5 |
| MWZ | | | | AML | AML | 14 30 18.5 | |
| PRGZ | Paritu Road | 2.07 | 232 | Pn | Pb | 14 29 54.3 | -0.7 |
| PRGZ | Paritu Road | 2.07 | 232 | PN | Pb | 14 29 54.3 | -0.7 |
| PRGZ | | | | AML | AML | 14 30 24.4 | |
| PRGZ | | | | AML | AML | 14 30 27.1 | |
| RAGZ | Rawiri | 2.19 | 247 | Pn | Pn | 14 29 55.1 | +1.4 |
| RAGZ | Rawiri | 2.19 | 247 | PN | Pn | 14 29 55.1 | +1.4 |
| RAGZ | | | | AML | AML | 14 30 27.1 | |
| RAGZ | | | | AML | AML | 14 30 27.6 | |
| MHGZ | Mahia Peninsul | 2.20 | 227 | Pn | Pb | 14 29 56.1 | -1.0 |
| MHGZ | Mahia Peninsul | 2.20 | 227 | PN | Pb | 14 29 56.1 | -1.0 |
| MHGZ | | | | AML | AML | 14 30 25.8 | |
| MHGZ | | | | AML | AML | 14 30 26.1 | |
| URZ | Urewera | 2.34 | 255 | Pn | Pn | 14 29 57.4 | +1.6 |
| | 65nm,0.3s,baz=85,slow=2.6,SNR=424 | | | | | | |
| URZ | | | | Sn | Sn | 14 30 24.4 | -0.2 |
| | 18nm,0.3s,baz=194,slow=20,SNR=8.1 | | | | | | |
| URZ | Urewera | 2.34 | 255 | PN | Pn | 14 29 57.2 | +1.4 |
| URZ | | | | eSN | Sn | 14 30 24.0 | -0.6 |
| URZ | | | | AML | AML | 14 30 27.7 | |
| SNGZ | Shannon Statio | 2.36 | 241 | Pn | Pn | 14 29 57.7 | +1.7 |
| SNGZ | Shannon Statio | 2.36 | 241 | PN | Pn | 14 29 57.7 | +1.7 |
| SNGZ | | | | AML | AML | 14 30 29.9 | |
| SNGZ | | | | AML | AML | 14 30 36.9 | |
| WHHZ | Waihua | 2.58 | 236 | PN | Pn | 14 30 01.0 | +2.0 |
| WHHZ | | | | AML | AML | 14 30 36.4 | |
| WHHZ | | | | AML | AML | 14 30 37.1 | |
| MUGZ | Murupara | 2.66 | 251 | PN | Pn | 14 30 01.3 | +1.1 |
| MTHZ | Maungataniwha | 2.74 | 243 | PN | Pn | 14 30 03.0 | +1.7 |
| RRRZ | Republican Roa | 2.82 | 255 | Pn | Pn | 14 30 03.6 | +1.2 |
| RRRZ | Republican Roa | 2.82 | 255 | PN | Pn | 14 30 03.6 | +1.2 |
| RRRZ | | | | AML | AML | 14 30 22.7 | |
| RRRZ | | | | AML | AML | 14 30 46.6 | |
| ARHZ | Aropaoanui | 2.83 | 235 | Pn | Pn | 14 30 04.8 | +2.2 |
| ARHZ | Aropaoanui | 2.83 | 235 | PN | Pn | 14 30 04.8 | +2.2 |
| ARHZ | | | | AML | AML | 14 30 42.3 | |
| ARHZ | | | | AML | AML | 14 30 48.2 | |
| NMHZ | Naumai | 2.87 | 239 | Pn | Pn | 14 30 05.0 | +1.8 |
| NMHZ | Naumai | 2.87 | 239 | PN | Pn | 14 30 05.0 | +1.8 |
| NMHZ | | | | AML | AML | 14 30 41.7 | |
| NMHZ | | | | AML | AML | 14 30 42.6 | |
| BKZ | Black Stump Fm | 3.12 | 240 | Pn | Pn | 14 30 08.0 | +1.4 |
| BKZ | Black Stump Fm | 3.12 | 240 | PN | Pn | 14 30 08.0 | +1.4 |
| BKZ | | | | AML | AML | 14 30 45.4 | |
| BKZ | | | | AML | AML | 14 30 46.6 | |
| MCHZ | McNeill Hill | 3.12 | 234 | Pn | Pn | 14 30 08.4 | +1.8 |
| MCHZ | McNeill Hill | 3.12 | 234 | PN | Pn | 14 30 08.4 | +1.8 |
| MCHZ | | | | AML | AML | 14 30 47.9 | |
| MCHZ | | | | AML | AML | 14 30 48.4 | |
| KAHZ | Kahuranaki | 3.22 | 228 | Pn | Pn | 14 30 09.3 | +1.4 |
| KAHZ | Kahuranaki | 3.22 | 228 | PN | Pn | 14 30 09.3 | +1.4 |
| KWHZ | Kaweka Forest | 3.29 | 237 | ⇑PN | Pn | 14 30 10.5 | +1.6 |
| KWHZ | | | | AML | AML | 14 30 53.6 | |
| KWHZ | | | | AML | AML | 14 30 53.6 | |
| PXZ | Pawanui | 3.39 | 225 | Pn | Pn | 14 30 10.9 | +0.8 |
| PXZ | Pawanui | 3.39 | 225 | PN | Pn | 14 30 10.9 | +0.8 |
| PXZ | | | | AML | AML | 14 30 53.5 | |
| KUZ | Kuaotunu | 3.52 | 284 | Pn | Pn | 14 30 11.3 | -0.7 |
| KUZ | Kuaotunu | 3.52 | 284 | PN | Pn | 14 30 11.3 | -0.7 |
| BHHZ | Black Hill Sta | 3.57 | 238 | Pn | Pn | 14 30 14.1 | +1.3 |
| BHHZ | Black Hill Sta | 3.57 | 238 | PN | Pn | 14 30 14.1 | +1.3 |
| BHHZ | | | | AML | AML | 14 30 55.6 | |
| BHHZ | | | | AML | AML | 14 30 55.6 | |
| PRHZ | Porangahau | 3.68 | 224 | Pn | Pn | 14 30 14.6 | +0.5 |
| PRHZ | Porangahau | 3.68 | 224 | PN | Pn | 14 30 14.6 | +0.5 |
| PRHZ | | | | AML | AML | 14 31 00.7 | |
| PRHZ | | | | AML | AML | 14 31 03.1 | |
| OTVZ | Oturere | 3.70 | 245 | Pn | Pn | 14 30 15.6 | +1.0 |
| OTVZ | Oturere | 3.70 | 245 | ePN | Pn | 14 30 15.6 | +1.0 |
| PNHZ | Pukenui | 3.71 | 232 | Pn | Pn | 14 30 15.3 | +0.7 |
| PNHZ | Pukenui | 3.71 | 232 | PN | Pn | 14 30 15.3 | +0.7 |
| NGZ | Ngauruhoe | 3.75 | 245 | Pn | Pn | 14 30 16.4 | +1.0 |
| WNVZ | Wahianoa | 3.82 | 243 | Pn | Pn | 14 30 17.1 | +0.9 |
| WNVZ | Wahianoa | 3.82 | 243 | PN | Pn | 14 30 17.1 | +0.9 |
| TRVZ | Turoa | 3.84 | 244 | Pn | Pn | 14 30 17.6 | +0.9 |
| MKAZ | Moumakai | 3.88 | 277 | Pn | Pn | 14 30 16.8 | -0.2 |
| MKAZ | Moumakai | 3.88 | 277 | ⇓PN | Pn | 14 30 16.8 | -0.2 |
| ANWZ | Angora Road | 3.90 | 223 | AML | AML | 14 31 09.8 | |
| MTVZ | Mangateitei | 3.93 | 243 | Pn | Pn | 14 30 19.7 | +2.0 |
| TSZ | Takapari Road | 3.94 | 232 | Pn | Pn | 14 30 18.2 | +0.4 |
| TSZ | Takapari Road | 3.94 | 232 | PN | Pn | 14 30 18.2 | +0.4 |
| DVHZ | Dannevirke | 3.97 | 227 | Pn | Pn | 14 30 18.5 | +0.3 |
| DVHZ | Dannevirke | 3.97 | 227 | ePN | Pn | 14 30 18.5 | +0.3 |
| HIZ | Hauiti | 4.13 | 257 | Pn | Pn | 14 30 21.6 | +1.3 |
| HIZ | Hauiti | 4.13 | 257 | PN | Pn | 14 30 21.6 | +1.3 |
| BFZ | Birch Farm | 4.18 | 223 | Pn | Pn | 14 30 20.9 | -0.2 |
| BFZ | Birch Farm | 4.18 | 223 | PN | Pn | 14 30 20.9 | -0.2 |
| BFZ | | | | AML | AML | 14 31 11.2 | |
| PRWZ | Pori Road | 4.25 | 226 | Pn | Pn | 14 30 22.5 | +0.6 |
| PRWZ | Pori Road | 4.25 | 226 | ePN | Pn | 14 30 22.5 | +0.6 |
| POWZ | Post Office Ro | 4.26 | 229 | Pn | Pn | 14 30 22.7 | +0.5 |
| VRZ | Vera Road | 4.35 | 249 | Pn | Pn | 14 30 25.1 | +1.6 |
| VRZ | Vera Road | 4.35 | 249 | ePN | Pn | 14 30 25.0 | +1.6 |
| WAZ | Wanganui | 4.43 | 240 | Pn | Pn | 14 30 26.2 | +1.8 |
| WAZ | Wanganui | 4.43 | 240 | ePN | Pn | 14 30 25.3 | +0.9 |
| TIWZ | Tintock | 4.44 | 224 | Pn | Pn | 14 30 25.0 | +0.3 |
| MRZ | Mangatainoka R | 4.54 | 228 | Pn | Pn | 14 30 25.9 | -0.1 |
| MRZ | Mangatainoka R | 4.54 | 228 | PN | Pn | 14 30 25.9 | -0.1 |
| MRZ | | | | SN | Sn | 14 31 17.4 | -1.5 |
| MRZ | | | | AML | AML | 14 31 20.1 | |
| HOWZ | Holdsworth Sta | 4.73 | 226 | Pn | Pn | 14 30 27.9 | -0.7 |
| HOWZ | Holdsworth Sta | 4.73 | 226 | AML | AML | 14 31 25.7 | |
| MTW | Mount Morrison | 4.92 | 223 | Pn | Pn | 14 30 30.7 | -0.5 |
| MTW | Mount Morrison | 4.92 | 223 | PN | Pn | 14 30 30.7 | -0.5 |
| CAW | Cannon Point | 5.13 | 226 | Pn | Pn | 14 30 33.5 | -0.6 |
| CAW | Cannon Point | 5.13 | 226 | PN | Pn | 14 30 33.5 | -0.6 |
| SNZO | South Karori | 5.46 | 227 | Pn | Pn | 14 30 40.8 | +2.1 |
| DUWZ | D'Urville Isla | 5.65 | 235 | Pn | Pn | 14 30 40.4 | -0.9 |
| DUWZ | D'Urville Isla | 5.65 | 235 | PN | Pn | 14 30 40.4 | -0.9 |
| NNZ | Nelson | 6.22 | 233 | Pn | Pn | 14 30 47.8 | -1.2 |
| QRZ | Quartz Range | 6.59 | 239 | Pn | Pn | 14 30 52.9 | -1.2 |
| CTZ | Chatham Island | 6.59 | 158 | Pn | Pn | 14 31 00.3 | +6.2 |
| CTZ | Chatham Island | 6.59 | 158 | PN | Pn | 14 31 00.3 | +6.2 |
| CTZ | | | | eSN | Sn | 14 32 09.8 | +0.6 |
| THZ | Tophouse | 6.81 | 231 | Pn | Pn | 14 30 56.0 | -1.3 |
| THZ | Tophouse | 6.81 | 231 | PN | Pn | 14 30 56.0 | -1.3 |
| KHZ | Kahutara | 6.85 | 224 | Pn | Pn | 14 30 56.8 | -0.9 |
| MQZ | McQueen's Vall | 8.20 | 220 | Pn | Pn | 14 31 14.6 | -1.6 |
| INZ | Inchbonnie | 8.25 | 230 | PN | Pn | 14 31 15.0 | -2.0 |
| ASAR | Alice Springs | 41.62 | 276 | P | P | 14 37 05.7 | 0.0 |
| | 0.7nm,0.5s,baz=125,slow=7.9,SNR=15 | | | | | | |
| WRA | Warramunga Arr | 43.26 | 281 | P | P | 14 37 17.8 | -1.3 |
| | 0.4nm,0.5s,baz=122,slow=7.8,SNR=28 | | | | | | |
| ARCES | ARCESS Array B | 145.24 | 345 | PKP | PKPdf | 14 48 56.3 | +2.3 |
| | 2.6nm,0.8s,baz=12,slow=4.6,SNR=3.6 | | | | | | |

**IDC 02 14:30:06.7±3.1, 15.67S×174.11W, h116km±30km, mb3.3/4, mb1 3.7/5, mb1mx3.4/26, mbtmp3.7/5, Error ellipse: s-maj=158.2km s-min=23.0km az=146.0, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AFI | Afiamalu | 2.85 | 52 | P | Pn | 14 30 51.0 | 0.0 |
| | 12nm,0.3s,baz=234,slow=8.7,SNR=38 | | | | | | |
| AFI | | | | S | Sn | 14 31 21.3 | -3.9 |
| | 36nm,0.3s,baz=227,slow=22,SNR=14 | | | | | | |
| WRA | Warramunga Arr | 49.12 | 257 | P | P | 14 38 42.7 | -0.3 |
| | 0.2nm,0.4s,baz=93,slow=6.7,SNR=4.6 | | | | | | |
| ASAR | Alice Springs | 49.38 | 252 | P | P | 14 38 44.9 | 0.0 |
| | 1.8nm,0.5s,baz=87,slow=7.8,SNR=30 | | | | | | |
| ILAR | Eielson Array | 82.84 | 11 | P | P | 14 42 17.8 | 0.0 |
| | 0.2nm,0.6s,baz=204,slow=5.6,SNR=6.6 | | | | | | |
| PDAR | Pinedale Array | 82.92 | 42 | P | P | 14 42 19.0 | 0.0 |
| | 0.4nm,0.7s,baz=181,slow=3.6,SNR=3.8 | | | | | | |

**JMA 02 14:32:00.7±0.1, 38.33N×142.14E, h32km±1km, M3.6, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JIO | Ouri | 0.63 | 282 | P | Pb | 14 32 13.0 | -0.4 |
| JIO | | | | S | Sb | 14 32 21.2 | -0.9 |
| OFUJ | Ofunato | 0.83 | 334 | P | Pn | 14 32 16.0 | -0.2 |
| OFUJ | | | | eS | Sn | 14 32 26.8 | -0.6 |
| JMK | Ichinoseki | 0.95 | 311 | P | Pn | 14 32 18.1 | +0.3 |
| JMK | | | | eS | Sn | 14 32 30.2 | -0.1 |
| JMM | Marumori | 1.16 | 247 | P | Pn | 14 32 20.4 | -0.3 |
| JMM | | | | eS | Sn | 14 32 34.7 | -0.7 |
| JOU | Okura | 1.16 | 272 | P | Pb | 14 32 21.5 | -0.7 |
| JOU | | | | eS | Sn | 14 32 36.2 | +0.7 |
| JOM | Ohasama | 1.32 | 330 | P | Pn | 14 32 23.6 | +0.7 |
| JOM | | | | eS | Sn | 14 32 40.2 | +0.8 |
| JFK | Kawauchi | 1.39 | 227 | P | Pn | 14 32 23.2 | -0.7 |
| JFK | | | | eS | Sn | 14 32 39.0 | -2.2 |
| JYK | Kaneyama | 1.51 | 293 | P | Pn | 14 32 26.5 | +0.9 |
| JRG | Rokugo | 1.59 | 313 | P | Pn | 14 32 27.9 | +1.3 |
| JYS | Shirataka | 1.64 | 267 | P | Pn | 14 32 28.4 | +1.1 |
| JFT | Otama | 1.64 | 241 | P | Pn | 14 32 28.1 | +0.8 |
| JFT | | | | eS | Sn | 14 32 48.5 | +1.2 |

*ISCJB 02 14:54:44.4±0.5, 40.19N±0.03×31.73E±0.04, h0km, Error ellipse: s-maj=4.6km s-min=3.9km az=42.9*

*CSEM 02 14:54:44.6±0.2, 40.18N×31.75E, h2km, MD2.9, Error ellipse: s-maj=5.1km s-min=4.9km az=33.0, Suspected Mining explosion.*

*DDA 02 14:54:44.1, 40.17N×31.71E, h7km, Md2.8, Suspected Mining explosion.*

*ISK 02 14:54:46.1, 40.11N×31.82E, h18km, MD2.9*

**ISC 02 14:54:44.1±0.8, 40.17N±0.03×31.74E±0.02, h0km, n35, σ0.55/46, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MDUB | Mudurnu | 0.51 | 306 | ePG | Pn | 14 54 58.5 | -0.2 |
| CMDR | Camlidere-ANKA | 0.65 | 60 | i P | Pg | 14 54 56.7 | +0.2 |
| CMDR | | | | i S | Sb | 14 55 07.1 | -0.9 |
| CMDR | Camlidere-ANKA | 0.65 | 60 | P | Pg | 14 54 56.7 | +0.2 |
| CMDR | | | | S | Sb | 14 55 07.1 | -0.9 |
| BTAS | Taskesti | 0.69 | 306 | i P | Pg | 14 54 57.7 | +0.4 |
| BTAS | Taskesti | 0.69 | 306 | P | Pg | 14 54 57.7 | +0.4 |
| BCAM | Yenicaga | 0.69 | 21 | i P | Pg | 14 54 57.8 | +0.5 |
| BCAM | Yenicaga | 0.69 | 21 | P | Pg | 14 54 57.8 | +0.5 |
| SVRH | Sivrihisar-ESK | 0.74 | 193 | ePG | Pb | 14 55 00.1 | +0.2 |
| SVRH | | | | eSG | Sb | 14 55 10.7 | +0.1 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **SVRH** | **Sivrihisar-ESK** | **0.74** | **193** | *e*Pg | **Pb** | **14 55 00.1** | **+0.2** |
| SVRH | | | | *e*Sg | **Sb** | **14 55 10.7** | **+0.1** |
| **LOD** | **Lodumlu** | **0.84** | **109** | *e*PG | **Pb** | **14 55 01.2** | **-0.3** |
| **LOD** | **Lodumlu** | **0.84** | **109** | *e*Pg | **Pb** | **14 55 01.2** | **-0.3** |
| **ESKT** | **Eskisehir** | **0.94** | **227** | *i* P | **Pg** | **14 55 01.5** | **-0.6** |
| ESKT | | | | *i* S | **Sb** | **14 55 16.1** | **-0.3** |
| **SEYT** | **Eskypehyr** | **0.94** | **227** | P | **Pg** | **14 55 01.5** | **-0.6** |
| SEYT | | | | S | **Sb** | **14 55 16.1** | **-0.3** |
| **SAHE** | **Sakarya_HENDEK** | **0.96** | **316** | *i* P | **Pg** | **14 55 02.5** | **+0.1** |
| SAHE | | | | *i* S | **Sn** | **14 55 20.1** | **+0.9** |
| **SAHE** | **Sakarya_HENDEK** | **0.96** | **316** | P | **Pg** | **14 55 02.5** | **+0.1** |
| **AFSR** | **Af¯ar-Bala (A** | **1.26** | **125** | *e*PN | **Pg** | **14 55 08.1** | **-0.1** |
| **AFSR** | **Af¯ar-Bala (A** | **1.26** | **125** | *e*Pn | **Pg** | **14 55 08.1** | **-0.1** |
| **KIZT** | **Kizilcal** | **1.29** | **175** | *e*PN | **Pb** | **14 55 08.9** | **-0.4** |
| **KIZT** | **Kizilcal** | **1.29** | **175** | *e*Pn | **Pb** | **14 55 08.9** | **-0.4** |
| **KKUL** | **Konya-Kulu** | **1.35** | **137** | *i* P | **Pb** | **14 55 10.4** | **+0.1** |
| KKUL | | | | *i* S | **Sn** | **14 55 29.5** | **+0.5** |
| **KKUL** | **Konya-Kulu** | **1.35** | **137** | P | **Pb** | **14 55 10.4** | **+0.1** |
| KKUL | | | | S | **Sn** | **14 55 29.5** | **+0.5** |
| **KULU** | **Kulu** | **1.49** | **139** | *e*PN | **Pn** | **14 55 11.9** | **-0.3** |
| **KULU** | **Kulu** | **1.49** | **139** | *e*Pn | **Pn** | **14 55 11.9** | **-0.3** |
| **KAND** | **Kocaeli-Kandir** | **1.49** | **309** | *i* P | **Pn** | **14 55 12.0** | **-0.1** |
| **KAND** | **Kocaeli-Kandir** | **1.49** | **309** | P | **Pn** | **14 55 12.0** | **-0.1** |
| **BOLV** | **Bolvadin** | **1.57** | **203** | *i* P | **Pn** | **14 55 13.0** | **-0.4** |
| BOLV | | | | *i* S | **Sb** | **14 55 36.0** | **+1.4** |
| **BOLV** | **Bolvadin** | **1.57** | **203** | P | **Pn** | **14 55 13.0** | **-0.4** |
| BOLV | | | | S | **Sb** | **14 55 36.0** | **+1.4** |
| **YLV** | **Yalova** | **1.85** | **283** | *e*PN | **Pb** | **14 55 18.8** | **0.0** |
| **YLV** | **Yalova** | **1.85** | **283** | *e*Pn | **Pb** | **14 55 18.8** | **0.0** |
| **SHUT** | **Suhut-Afyon** | **1.86** | **210** | *e*PN | **Pn** | **14 55 17.7** | **+0.4** |
| **SHUT** | **Suhut-Afyon** | **1.86** | **210** | *e*Pn | **Pn** | **14 55 17.7** | **+0.4** |
| **TVSB** | **Tavsanli** | **1.90** | **248** | *e*PN | **Pb** | **14 55 18.9** | **-0.7** |
| **TVSB** | **Tavsanli** | **1.90** | **248** | *e*Pn | **Pb** | **14 55 18.9** | **-0.7** |
| **ARMT** | **Armutlu** | **2.23** | **281** | *e*PN | **Pb** | **14 55 24.3** | **-1.0** |
| **ARMT** | **Armutlu** | **2.23** | **281** | *e*Pn | **Pb** | **14 55 24.3** | **-1.0** |

---

*DDA **02** 14:56:29.6, 36.°81N×28.°95E, h7km, Md2.6, Suspected Mining explosion.*
*ISK **02** 14:56:30.2, 36.°78N×29.°19E, h5km, MD2.5*
*ISCJB **02** 14:56:31.8±0.7, 36.°76N±0.°04×29.°19E±0.°05, h0km, Error ellipse: s-maj=7.0km s-min=5.0km az=141.2*
*CSEM **02** 14:56:31.5±0.3, 36.°76N×29.°20E, h1km, MD2.6, Error ellipse: s-maj=8.5km s-min=6.5km az=154.0, Suspected Mining explosion.*
**ISC 02 14:56:31.8**±1.2, **36.°78N**±0.°03×**29.°19E**±0.°03, **h0**km, **n11, σ0.s71**/17, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FETY** | **Fethiye** | **0.17** | **210** | *e*PG | **Pg** | **14 56 34.2** | **-0.9** |
| **FETY** | **Fethiye** | **0.17** | **210** | *e*Pg | **Pg** | **14 56 34.2** | **-0.9** |
| FETY | | | | S | **Sg** | **14 56 37.6** | **+0.3** |
| **DALY** | **Dalyan (Mu˜la** | **0.43** | **275** | *e*PG | **Pg** | **14 56 39.7** | **-0.5** |
| DALY | | | | *e*SG | **Sg** | **14 56 47.0** | **+1.2** |
| **DALY** | **Dalyan (Mu˜la** | **0.43** | **275** | *e*Pg | **Pg** | **14 56 39.7** | **-0.5** |
| DALY | | | | *e*Sg | **Sg** | **14 56 47.0** | **+1.2** |
| **GOLH** | **Golhisar** | **0.54** | **33** | *i* P | **Pg** | **14 56 41.7** | **-0.5** |
| GOLH | | | | *i* S | **Sb** | **14 56 52.2** | **-0.4** |
| **GOLH** | **Golhisar** | **0.54** | **33** | P | **Pg** | **14 56 41.7** | **-0.5** |
| GOLH | | | | S | **Sb** | **14 56 52.2** | **-0.4** |
| **ELL** | **Elmali** | **0.58** | **93** | *e*PG | **Pg** | **14 56 42.7** | **-0.2** |
| **ELL** | **Elmali** | **0.58** | **93** | *e*Pg | **Pg** | **14 56 42.7** | **-0.2** |
| **AKAS** | **Kas** | **0.64** | **149** | *e*PG | **Pg** | **14 56 43.9** | **-0.3** |
| **AKAS** | **Kas** | **0.64** | **149** | *i* P | **Pg** | **14 56 43.8** | **-0.3** |
| AKAS | | | | *i* S | **Sb** | **14 56 56.2** | **+0.6** |
| **AKAS** | **Kas** | **0.64** | **149** | P | **Pg** | **14 56 43.8** | **-0.3** |

---

**IDC 02 15:15:06.4**±4.8, **7.°76S**×**78.°77W**, **h0**km, **mb4.1**/3, **mb1 4.1**/4, **mb1mx3.8**/27, **mbtmp4.0**/4, **ML3.6**/1, **MS3.3**/4, **Ms1 3.3**/4, **ms1mx2.9**/26, **Error ellipse: s-maj=176.2km s-min=38.9km az=42.0, Northern Peru**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LPAZ** | **La Paz** | **13.42** | **130** | Pn | Pn | 15 18 19.2 | +0.5 |
| | 0.1nm,0.3s,baz=304,slow=8.1,SNR=5.8 | | | | | | |
| LPAZ | | | | LR | LR | 15 23 02.2 | |
| | comp=Z,76nm,18.6s,baz=306,slow=36 | | | | | | |
| **SIV** | **San Ignacio** | **19.14** | **117** | LR | LR | 15 27 08.1 | |
| | comp=Z,75nm,20.4s,baz=220,slow=38 | | | | | | |
| **CPUP** | **Villa Florida** | **27.51** | **135** | LR | LR | 15 33 15.9 | |
| | comp=Z,38nm,20.5s,baz=300,slow=40 | | | | | | |
| **DBIC** | **Dimbokro** | **75.09** | **81** | P | P | 15 26 51.0 | 0.0 |
| | 4.6nm,0.9s,baz=231,slow=6.5,SNR=4.4 | | | | | | |
| **YKA** | **Yellowknife Ar** | **75.27** | **344** | P | P | 15 26 51.1 | +0.2 |
| | 0.5nm,0.5s,baz=146,slow=6.2,SNR=4.4 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **82.55** | **76** | P | P | 15 27 31.7 | -0.2 |
| | 1.1nm,0.8s,baz=274,slow=4.5,SNR=5.5 | | | | | | |
| **URZ** | **Urewera** | **96.18** | **230** | LR | LR | 16 03 13.7 | |
| | comp=Z,40nm,21.8s,slow=30 | | | | | | |

---

*IDC **02** 15:25:28.9±1.5, 24.°31N×121.°09E, h0km, mb3.4/3, mb1 3.7/4, mb1mx3.3/57, mbtmp3.6/4, ML3.7/1, MS3.2/1, Ms1 3.2/1, ms1mx2.4/19, Error ellipse: s-maj=70.0km s-min=27.0km az=68.0*
*ISCJB **02** 15:25:37.8±0.4, 24.°84N±0.°03×121.°99E±0.°02, h99km±3km, mb3.2/3, Error ellipse: s-maj=4.5km s-min=2.7km az=158.3*
*JMA **02** 15:25:37.4±0.2, 24.°81N×121.°92E, h98km±2km, M3.5*
*TAP **02** 15:25:38.4, 24.°82N×121.°97E, h95km, ML4.2, B*
**ISC 02 15:25:38.5**±0.8, **24.°82N**±0.°04×**121.°99E**±0.°03, **h95**km±5km, **n70, σ0.s74**/126, **mb3.3**/3, **3C-20D, Taiwan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TWB1** | **Santiao Chiao** | **0.19** | **0** | ⇓*i*P | **Pn** | **15 25 52.0** | **+0.1** |
| | baz=8.0 | | | | | | |
| TWB1 | | | | S | **Sn** | **15 26 01.5** | **-0.5** |
| | baz=8.0 | | | | | | |
| **ILA** | **Ilan** | **0.22** | **257** | P | **Pn** | **15 25 52.3** | **+0.2** |
| | baz=253 | | | | | | |
| ILA | | | | *e*S | **Sn** | **15 26 02.7** | **+0.5** |
| | baz=253 | | | | | | |
| **TWC** | **Suao** | **0.24** | **212** | ⇓*i*P | **Pn** | **15 25 52.4** | **+0.3** |
| | baz=206 | | | | | | |
| TWC | | | | S | **Sn** | **15 26 02.2** | **-0.1** |
| | baz=206 | | | | | | |
| **TWE** | **Neicheng** | **0.31** | **252** | ⇓P | **Pn** | **15 25 52.6** | **+0.2** |
| | baz=248 | | | | | | |
| TWE | | | | *e*S | **Sn** | **15 26 03.8** | **+0.9** |
| | baz=248 | | | | | | |
| **NWF** | **Wu-fen Shan** | **0.32** | **324** | ⇓*i*P | **Pn** | **15 25 52.5** | **-0.1** |
| | baz=320 | | | | | | |
| NWF | | | | *e*S | **Sn** | **15 26 02.8** | **-0.4** |
| | baz=320 | | | | | | |
| **TWA** | **Mucha** | **0.40** | **294** | ⇓P | **Pn** | **15 25 53.2** | **+0.2** |
| | baz=297 | | | | | | |
| TWA | | | | *e*S | **Sn** | **15 26 03.1** | **-0.7** |
| | baz=297 | | | | | | |
| **ENTT** | **Nioudou** | **0.42** | **246** | ⇓P | **Pn** | **15 25 53.8** | **+0.7** |
| | baz=243 | | | | | | |
| ENTT | | | | *e*S | **Sn** | **15 26 05.1** | **+1.0** |
| | baz=243 | | | | | | |
| **ENA** | **Nanau** | **0.45** | **210** | ⇓*i*P | **Pn** | **15 25 54.0** | **+0.7** |
| | baz=201 | | | | | | |
| ENA | | | | *e*S | **Sn** | **15 26 05.3** | **+0.9** |
| | baz=201 | | | | | | |
| **TAP1** | **Taipei** | **0.48** | **298** | *e*P | **Pn** | **15 25 53.1** | **-0.3** |
| | baz=300 | | | | | | |
| TAP1 | | | | *e*S | **Sn** | **15 26 04.2** | **-0.5** |
| | baz=300 | | | | | | |
| **TAP** | **Taipei** | **0.49** | **297** | *e*P | **Pn** | **15 25 53.3** | **-0.2** |
| | baz=300 | | | | | | |
| TAP | | | | *e*S | **Sn** | **15 26 04.6** | **-0.3** |
| | baz=300 | | | | | | |
| **TWY** | **Chenhua** | **0.58** | **323** | *e*P | **Pn** | **15 25 53.9** | **-0.4** |
| | baz=326 | | | | | | |
| TWY | | | | *e*S | **Sn** | **15 26 05.3** | **-0.8** |
| | baz=326 | | | | | | |
| **TWS1** | **Kuangyinshan** | **0.59** | **299** | P | **Pn** | **15 25 54.5** | **+0.1** |
| | baz=302 | | | | | | |
| TWS1 | | | | *e*S | **Sn** | **15 26 06.5** | **+0.2** |
| | baz=302 | | | | | | |
| **NNS** | **Nan Shan** | **0.67** | **236** | ⇓*i*P | **Pn** | **15 25 55.7** | **+0.5** |
| | baz=239 | | | | | | |
| NNS | | | | *e*S | **Sn** | **15 26 07.7** | **-0.1** |
| | baz=239 | | | | | | |
| **NCU** | **National Centr** | **0.74** | **282** | ⇑*e*P | **Pn** | **15 25 56.0** | **+0.2** |
| | baz=281 | | | | | | |
| NCU | | | | *e*S | **Sn** | **15 26 09.1** | **+0.3** |
| | baz=281 | | | | | | |
| **TWD** | **Chiawan** | **0.81** | **206** | ⇓P | **Pn** | **15 25 56.2** | **-0.3** |
| | baz=213 | | | | | | |
| TWD | | | | *e*S | **Sn** | **15 26 09.8** | **-0.1** |
| | baz=213 | | | | | | |
| **HWA** | **Hwalien** | **0.90** | **203** | *e*P | **Pn** | **15 25 57.5** | **0.0** |
| | baz=191 | | | | | | |
| HWA | | | | *e*S | **Sn** | **15 26 12.5** | **+0.9** |
| | baz=191 | | | | | | |
| **NSTT** | **Nanjuang** | **0.92** | **259** | ⇓*i*P | **Pn** | **15 25 57.7** | **+0.1** |
| | baz=250 | | | | | | |
| NSTT | | | | S | **Sn** | **15 26 11.5** | **-0.4** |
| | baz=250 | | | | | | |
| **HSN** | **Hsinchu** | **0.93** | **269** | *e*P | **Pn** | **15 25 57.5** | **-0.1** |
| | baz=261 | | | | | | |
| HSN | | | | S | **Sn** | **15 26 11.5** | **-0.6** |
| | baz=261 | | | | | | |
| **TWT** | **Tachien** | **0.93** | **233** | ⇓*i*P | **Pn** | **15 25 58.9** | **+1.0** |
| | baz=226 | | | | | | |
| TWT | | | | S | **Sn** | **15 26 13.3** | **+0.9** |
| | baz=226 | | | | | | |
| **JYNG** | **Yonagunijimaku** | **0.94** | **112** | P | **Pn** | **15 25 57.8** | **0.0** |
| JYNG | | | | S | **Sn** | **15 26 12.8** | **+0.4** |
| **YOJ** | **Yonaguni jima** | **0.99** | **110** | ⇓*i*P | **Pn** | **15 25 58.7** | **+0.3** |
| | baz=114 | | | | | | |
| YOJ | | | | *e*S | **Sn** | **15 26 13.8** | **+0.4** |
| | baz=114 | | | | | | |
| **YOJ** | **Yonaguni jima** | **0.99** | **110** | P | **Pn** | **15 25 58.7** | **+0.3** |
| YOJ | | | | S | **Sn** | **15 26 13.4** | **0.0** |
| **ESF** | **Shoufeng Towns** | **1.04** | **205** | *e*P | **Pn** | **15 25 58.5** | **-0.4** |
| | baz=210 | | | | | | |
| **ESL** | **Shilin** | **1.12** | **207** | ⇓*e*P | **Pn** | **15 25 58.8** | **-1.0** |
| | baz=206 | | | | | | |
| **TEGC** | **Jichi Village** | **1.17** | **200** | *e*P | **Pn** | **15 26 00.7** | **+0.2** |
| | baz=192 | | | | | | |
| **NSY** | **Sanyi** | **1.19** | **251** | ⇓P | **Pn** | **15 26 01.1** | **+0.5** |
| | baz=249 | | | | | | |
| NSY | | | | *e*S | **Sn** | **15 26 17.6** | **+0.2** |
| | baz=249 | | | | | | |
| **TWQ1** | **Liyutan** | **1.20** | **247** | ⇓*i*P | **Pn** | **15 26 01.1** | **+0.3** |
| | baz=246 | | | | | | |
| TWQ1 | | | | *e*S | **Sn** | **15 26 17.3** | **-0.4** |
| | baz=246 | | | | | | |
| **SMLT** | **Sun Moon Lake** | **1.36** | **227** | ⇓*e*P | **Pn** | **15 26 03.5** | **+0.6** |
| | baz=232 | | | | | | |
| SMLT | | | | *e*S | **Sn** | **15 26 22.1** | **+1.0** |
| | baz=232 | | | | | | |
| **TCU** | **Taichung** | **1.37** | **241** | ⇓*e*P | **Pn** | **15 26 03.3** | **+0.5** |
| | baz=240 | | | | | | |
| TCU | | | | S | **Sn** | **15 26 21.2** | **+0.1** |
| | baz=240 | | | | | | |
| **TYC** | **Yuchr** | **1.37** | **229** | ⇓*i*P | **Pn** | **15 26 03.4** | **+0.5** |
| | baz=234 | | | | | | |
| TYC | | | | *e*S | **Sn** | **15 26 22.0** | **+0.7** |
| | baz=234 | | | | | | |
| **EHY** | **Hungye** | **1.44** | **205** | *e*P | **Pn** | **15 26 02.5** | **-1.2** |
| | baz=197 | | | | | | |
| **WNT** | **Mingjian** | **1.51** | **232** | *e*P | **Pn** | **15 26 05.1** | **+0.6** |
| | baz=239 | | | | | | |
| WNT | | | | *e*S | **Sn** | **15 26 25.2** | **+0.9** |
| | baz=239 | | | | | | |
| **TWF1** | **Yuli** | **1.59** | **204** | *e*P | **Pn** | **15 26 04.5** | **-1.1** |
| | baz=204 | | | | | | |
| TWF1 | | | | *e*S | **Sn** | **15 26 25.3** | **-0.8** |
| | baz=204 | | | | | | |
| **YUS** | **Yu-Shan** | **1.62** | **216** | *e*P | **Pn** | **15 26 07.5** | **+1.0** |
| | baz=209 | | | | | | |
| YUS | | | | *e*S | **Sn** | **15 26 28.2** | **+0.5** |
| | baz=209 | | | | | | |
| **IRIF** | **Iriomote-Funau** | **1.66** | **106** | P | **Pn** | **15 26 06.3** | **-0.1** |
| IRIF | | | | *e*S | **Sn** | **15 26 27.9** | **+0.3** |
| **ALS** | **Alishan** | **1.69** | **220** | ⇓P | **Pn** | **15 26 07.9** | **+0.8** |
| | baz=227 | | | | | | |
| ALS | | | | *e*S | **Sn** | **15 26 29.9** | **+1.0** |
| | baz=227 | | | | | | |
| **CHN5** | **Tsauling** | **1.70** | **225** | *e*P | **Pn** | **15 26 07.5** | **+0.4** |
| | baz=224 | | | | | | |
| CHN5 | | | | *e*S | **Sn** | **15 26 30.1** | **+1.3** |
| | baz=224 | | | | | | |
| **WGK** | **Gukeng** | **1.72** | **229** | *e*P | **Pn** | **15 26 08.0** | **+0.8** |
| | baz=238 | | | | | | |
| WGK | | | | *e*S | **Sn** | **15 26 29.9** | **+0.9** |
| | baz=238 | | | | | | |
| **CHKT** | **Chengkung** | **1.80** | **199** | *e*P | **Pn** | **15 26 07.8** | **-0.4** |
| | baz=199 | | | | | | |
| CHKT | | | | *e*S | **Sn** | **15 26 28.9** | **-1.9** |
| | baz=199 | | | | | | |
| **HATJ** | **Hateruma jima** | **1.82** | **114** | P | **Pn** | **15 26 08.9** | **+0.4** |
| **WTCT** | **Ta-ch'eng** | **1.82** | **239** | *e*P | **Pn** | **15 26 08.5** | **0.0** |
| | baz=237 | | | | | | |
| WTCT | | | | *e*S | **Sn** | **15 26 30.8** | **-0.6** |
| | baz=237 | | | | | | |
| **ELDTW** | **Lidau** | **1.85** | **209** | *e*P | **Pn** | **15 26 08.8** | **-0.1** |
| | baz=204 | | | | | | |
| **CHN2** | **Minshiung** | **1.88** | **228** | *e*P | **Pn** | **15 26 09.9** | **+0.6** |
| | baz=235 | | | | | | |
| CHN2 | | | | *e*S | **Sn** | **15 26 32.7** | **-0.1** |
| | baz=235 | | | | | | |
| **JKRS** | **Kuro-shima** | **1.93** | **107** | P | **Pn** | **15 26 10.5** | **+0.6** |
| JKRS | | | | *e*S | **Sn** | **15 26 34.5** | **+0.7** |
| **CHN4** | **Tsaushan** | **1.94** | **221** | *e*P | **Pn** | **15 26 11.0** | **+1.0** |
| | baz=221 | | | | | | |
| CHN4 | | | | *e*S | **Sn** | **15 26 35.4** | **+1.3** |
| | baz=221 | | | | | | |
| **CHY** | **Chiayi** | **1.94** | **228** | *e*P | **Pn** | **15 26 10.4** | **+0.4** |
| | baz=235 | | | | | | |
| CHY | | | | *e*S | **Sn** | **15 26 34.6** | **+0.5** |
| | baz=235 | | | | | | |
| **STYT** | **Tauyuan** | **1.99** | **215** | ⇓*e*P | **Pn** | **15 26 11.8** | **+1.0** |
| | baz=224 | | | | | | |
| STYT | | | | *e*S | **Sn** | **15 26 36.7** | **+1.2** |
| | baz=224 | | | | | | |
| **WSF** | **Szhu** | **1.99** | **234** | *e*P | **Pn** | **15 26 12.2** | **+1.4** |
| | baz=233 | | | | | | |
| WSF | | | | *e*S | **Sn** | **15 26 35.5** | **+0.2** |
| | baz=233 | | | | | | |
| **WTP** | **Ta-pu** | **2.00** | **219** | ⇑P | **Pn** | **15 26 11.7** | **+0.7** |
| | baz=218 | | | | | | |
| WTP | | | | *e*S | **Sn** | **15 26 36.5** | **+0.8** |
| | baz=218 | | | | | | |
| **JIJ** | **Ishigaki jima** | **2.01** | **102** | P | **Pn** | **15 26 10.9** | **-0.1** |
| JIJ | | | | S | **Sn** | **15 26 35.4** | **-0.4** |
| **TWK** | **Hsinying** | **2.06** | **222** | *e*P | **Pn** | **15 26 12.3** | **+0.6** |
| | baz=221 | | | | | | |
| TWK | | | | *e*S | **Sn** | **15 26 37.9** | **+0.8** |
| | baz=221 | | | | | | |
| **CHN1** | **Nanshi** | **2.10** | **220** | ⇑P | **Pn** | **15 26 12.9** | **+0.7** |
| | baz=219 | | | | | | |
| CHN1 | | | | S | **Sn** | **15 26 38.1** | **+0.2** |
| | baz=219 | | | | | | |
| **JISG** | **Ishigakijimahi** | **2.12** | **96** | P | **Pn** | **15 26 12.7** | **+0.3** |
| JISG | | | | *e*S | **Sn** | **15 26 39.4** | **+1.0** |
| **SGST** | **Jiashian** | **2.15** | **217** | *e*P | **Pn** | **15 26 13.5** | **+0.7** |
| | baz=224 | | | | | | |
| SGST | | | | *e*S | **Sn** | **15 26 39.5** | **+0.4** |
| | baz=224 | | | | | | |
| **TWG** | **Pinlang** | **2.15** | **203** | *e*P | **Pn** | **15 26 12.2** | **-0.7** |
| | baz=196 | | | | | | |
| TWG | | | | *e*S | **Sn** | **15 26 37.6** | **-1.6** |
| | baz=196 | | | | | | |
| **CHN8** | **Yiju** | **2.19** | **228** | *e*P | **Pn** | **15 26 13.0** | **-0.3** |
| | baz=236 | | | | | | |
| CHN8 | | | | *e*S | **Sn** | **15 26 40.3** | **+0.5** |
| | baz=236 | | | | | | |
| **SCLT** | **Jiali** | **2.31** | **226** | *e*P | **Pn** | **15 26 15.5** | **+0.6** |
| | baz=225 | | | | | | |
| SCLT | | | | *e*S | **Sn** | **15 26 43.7** | **+0.8** |
| | baz=225 | | | | | | |
| **ECL** | **Taimali** | **2.40** | **203** | *e*P | **Pn** | **15 26 15.8** | **-0.3** |
| | baz=199 | | | | | | |
| ECL | | | | *e*S | **Sn** | **15 26 43.2** | **-1.8** |
| | baz=199 | | | | | | |
| **SSD** | **Sandimen** | **2.41** | **211** | *e*P | **Pn** | **15 26 17.3** | **+1.2** |
| | baz=211 | | | | | | |
| SSD | | | | *e*S | **Sn** | **15 26 46.6** | **+1.6** |
| | baz=211 | | | | | | |
| **JTJ** | **Tarama** | **2.47** | **93** | P | **Pn** | **15 26 17.7** | **+0.7** |
| JTJ | | | | *e*S | **Sn** | **15 26 47.8** | **+1.1** |
| **PNG** | **Penghu** | **2.54** | **241** | *e*P | **Pn** | **15 26 18.0** | **+0.1** |
| | baz=239 | | | | | | |
| **EAST** | **Anshuo** | **2.64** | **204** | *e*P | **Pn** | **15 26 19.8** | **+0.5** |
| | baz=197 | | | | | | |
| **SCZT** | **Fangliau** | **2.74** | **208** | *e*P | **Pn** | **15 26 22.0** | **+1.4** |
| | baz=208 | | | | | | |
| SCZT | | | | *e*S | **Sn** | **15 26 52.7** | **-0.3** |
| | baz=208 | | | | | | |
| **LAY** | **Lan-yu** | **2.79** | **188** | *e*P | **Pn** | **15 26 20.4** | **-0.9** |
| | baz=186 | | | | | | |
| LAY | | | | *e*S | **Sn** | **15 26 52.0** | **-2.3** |
| | baz=186 | | | | | | |
| **JIRB** | **Irabujima** | **2.89** | **89** | *e*S | **Sn** | **15 26 57.1** | **+0.4** |
| **KNM** | **Kinmen** | **3.26** | **264** | *e*P | **Pn** | **15 26 27.6** | **+0.1** |
| | baz=262 | | | | | | |
| **KSRS** | **Korea Array** | **13.58** | **21** | Pn | **P** | **15 28 53.2** | **+0.5** |
| | 0.3nm,0.3s,baz=200,slow=12,SNR=12 | | | | | | |
| **MKAR** | **Makanchi Array** | **38.40** | **315** | P | **P** | **15 32 50.0** | **-0.6** |
| | 0.2nm,0.5s,baz=108,slow=9.6,SNR=4.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **46.08** | **164** | P | **P** | **15 33 52.2** | **-1.0** |
| | 0.7nm,0.7s,baz=346,slow=8.2,SNR=4.9 | | | | | | |
| WRA | | | | LR | LR | 15 53 36.9 | |
| | comp=Z,28nm,21.4s,baz=175,slow=37 | | | | | | |
| **ASAR** | **Alice Springs** | **49.56** | **166** | P | **P** | **15 34 20.1** | **+0.1** |
| | 0.1nm,0.6s,baz=343,slow=6.4,SNR=4.6 | | | | | | |

---

**IDC 02 15:28:24.4**±3.0, **15.°76S**×**174.°00W**, **h0**km, **mb3.9**/3, **mb1 4.1**/3, **mb1mx3.7**/26, **mbtmp3.9**/3, **ML2.5**/1, **Error ellipse: s-maj=192.7km s-min=30.5km az=147.0, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AFI** | **Afiamalu** | **2.83** | **50** | Pn | Pn | 15 29 10.9 | -0.1 |
| | 0.7nm,0.3s,baz=285,slow=20,SNR=1.5 | | | | | | |
| AFI | | | | Sn | Sn | 15 29 31.1 | -15 |
| | 2.1nm,0.3s,baz=287,slow=17,SNR=6.3 | | | | | | |
| **STKA** | **Stephens Creek** | **43.35** | **240** | P | P | 15 36 28.0 | -0.7 |
| | 0.8nm,0.7s,baz=86,slow=14,SNR=1.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **49.20** | **257** | P | P | 15 37 14.9 | +0.1 |
| | 0.4nm,0.5s,baz=90,slow=8.1,SNR=12 | | | | | | |
| **ASAR** | **Alice Springs** | **49.45** | **252** | P | P | 15 37 16.8 | 0.0 |
| | 3.1nm,0.4s,baz=89,slow=8.5,SNR=143 | | | | | | |

---

*CSEM **02** 15:30:04.7, 38.°83N×43.°56E, h5km, MD2.8*
*ATA **02** 15:30:04.7±1.0, 38.°81N×43.°50E, h2km±12km, ML3.3, MW3.6*
*ISK **02** 15:30:04.7, 38.°83N×43.°56E, h5km, MD2.8, ML2.8*
**ISC 02 15:30:05.8**±1.1, **38.°82N**±0.°02×**43.°54E**±0.°03, **h15**km±10km, **n30, σ1.s11**/40, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.25** | **208** | *e*PG | **Pb** | **15 30 12.3** | **+0.2** |
| **VANB** | **Van** | **0.25** | **208** | *e*Pg | **Pb** | **15 30 12.3** | **+0.2** |
| **ERCV** | **ERCIS-VAN** | **0.26** | **322** | *e*PG | **Pg** | **15 30 10.6** | **-0.8** |
| ERCV | | | | *e*SG | **Sb** | **15 30 16.0** | **-0.6** |
| **ERCV** | **ERCIS-VAN** | **0.26** | **322** | *e*Pg | **Pg** | **15 30 10.6** | **-0.8** |
| ERCV | | | | *e*Sg | **Sb** | **15 30 16.0** | **-0.6** |
| **CLDR** | **Caldiran** | **0.44** | **42** | *e*PG | **Pb** | **15 30 14.1** | **-1.3** |
| CLDR | | | | *e*SG | **Sb** | **15 30 21.5** | **-0.4** |
| **CLDR** | **Caldiran** | **0.44** | **42** | *e*Pg | **Pb** | **15 30 14.1** | **-1.3** |
| CLDR | | | | *e*Sg | **Sb** | **15 30 21.5** | **-0.4** |
| **GEVA** | **Gevas** | **0.63** | **217** | *e*P | **Pg** | **15 30 16.8** | **-1.3** |
| GEVA | | | | *e*S | **Sb** | **15 30 27.0** | **-0.3** |
| GEVA | | | | IAML | | 15 30 35.8 | |
| | comp=Z,77nm,0.4s | | | | | | |
| **DYDN** | **Diyadin** | **0.73** | **9** | *e*P | **Pb** | **15 30 19.5** | **-0.9** |
| **TUTA** | **Tutak** | **0.81** | **316** | *e*P | **Pg** | **15 30 20.3** | **-1.3** |
| TUTA | | | | *e*S | **Sb** | **15 30 33.0** | **+0.3** |
| TUTA | | | | IAML | | 15 30 36.6 | |
| | comp=Z,140nm,0.2s | | | | | | |
| **BASK** | **Baskale_VAN** | **0.85** | **154** | *e*P | **Pb** | **15 30 22.0** | **-0.3** |
| BASK | | | | IAML | | 15 30 27.2 | |
| | comp=Z,58nm,0.2s | | | | | | |
| **AGRB** | **Hanur-Agry** | **0.87** | **331** | *e*PG | **Pg** | **15 30 21.7** | **-1.0** |
| AGRB | | | | *e*SG | **Sb** | **15 30 35.4** | **+1.1** |
| **AGRB** | **Hanur-Agry** | **0.87** | **331** | *e*Pg | **Pg** | **15 30 21.7** | **-1.0** |
| AGRB | | | | *e*Sg | **Sb** | **15 30 35.4** | **+1.1** |
| **EKAR** | **Karacoban** | **1.23** | **291** | *e*P | **Pn** | **15 30 29.1** | **+0.4** |
| EKAR | | | | IAML | | 15 31 01.3 | |
| | comp=Z,36nm,0.5s | | | | | | |
| **TASB** | **TASBURUN-IGDIR** | **1.28** | **25** | *e*PN | **Pn** | **15 30 29.9** | **+0.6** |
| **TASB** | **TASBURUN-IGDIR** | **1.28** | **25** | *e*Pn | **Pn** | **15 30 29.9** | **+0.6** |
| **EATA** | **Eleskirt** | **1.32** | **322** | *e*P | **Pb** | **15 30 30.5** | **0.0** |
| EATA | | | | IAML | | 15 31 02.8 | |
| | comp=Z,6.2nm,0.5s | | | | | | |
| **CUKT** | **Cukurca** | **1.57** | **178** | *e*PN | **Pg** | **15 30 35.3** | **-0.6** |
| **CUKT** | **Cukurca** | **1.57** | **178** | *e*Pn | **Pg** | **15 30 35.3** | **-0.6** |
| **SIRT** | **Sirnak** | **1.57** | **214** | *e*PN | **Pg** | **15 30 35.6** | **-0.4** |
| **SIRT** | **Sirnak** | **1.57** | **214** | *e*Pn | **Pg** | **15 30 35.6** | **-0.4** |
| **DIGO** | **Kars** | **1.60** | **355** | *e*P | **Pg** | **15 30 36.2** | **-0.3** |
| DIGO | | | | IAML | | 15 30 43.7 | |
| | comp=Z,7.6nm,0.4s | | | | | | |
| DIGO | | | | *e*S | **Sg** | **15 31 00.4** | **+3.0** |
| **VRTB** | **Varto-Mus** | **1.66** | **283** | *e*PN | **Pg** | **15 30 36.6** | **-1.1** |
| **VRTB** | **Varto-Mus** | **1.66** | **283** | *e*Pn | **Pg** | **15 30 36.6** | **-1.1** |
| **BNGL** | **BINGOL** | **1.87** | **275** | *e*P | **Pg** | **15 30 40.6** | **-1.1** |
| BNGL | | | | *e*S | **Sg** | **15 31 07.9** | **+1.9** |
| BNGL | | | | IAML | | 15 31 10.3 | |
| | comp=Z,51nm,0.6s | | | | | | |
| **SENK** | **Senkaya-Erzuru** | **1.97** | **333** | *e*PN | **Pb** | **15 30 40.6** | **-0.8** |
| **SENK** | **Senkaya-Erzuru** | **1.97** | **333** | *e*Pn | **Pb** | **15 30 40.6** | **-0.8** |
| **BNGB** | **Bingˆ¶l** | **2.24** | **275** | *e*PN | **Pb** | **15 30 45.2** | **-0.8** |
| **BINT** | **Bingol** | **2.38** | **272** | *e*Pn | **Pn** | **15 30 45.2** | **+0.8** |
| **MAZI** | **Mazidag** | **2.79** | **242** | *e*PN | **Pb** | **15 30 53.3** | **-2.1** |
| **MAZI** | **Mazidag** | **2.79** | **242** | *e*Pn | **Pb** | **15 30 53.3** | **-2.1** |

---

*IDC **02** 15:47:25.7±1.9, 9.°71N×126.°20E, h0km, mb3.9/4, mb1 4.1/4, mb1mx3.5/47, mbtmp3.9/4, Error ellipse: s-maj=205.9km s-min=29.4km az=69.0*
*ISCJB **02** 15:47:29.1±1.6, 9.°61N±0.°04×126.°45E±0.°06, h24km±10km, mb4.0/4, Error ellipse: s-maj=10.4km s-min=7.5km az=175.5*
*MAN **02** 15:47:33, 9.°74N×126.°16E, h101km, mb4.4, ML3.2, MS3.0*
**ISC 02 15:47:29.4**±1.2, **9.°68N**±0.°05×**126.°42E**±0.°09, **h20**km±7km, **n20, σ1.s26**/23, **mb4.1**/4, **1C-2D, Mindanao**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SCPH** | **Surigao** | **0.93** | **276** | ⇓*e*P | **Pb** | **15 47 46.9** | **+0.2** |
| SCPH | | | | *e*S | **Sb** | **15 47 57.4** | **-1.2** |
| **MSLP** | **Maasin** | **1.60** | **286** | *e*P | **Pb** | **15 47 57.7** | **-0.6** |
| MSLP | | | | *e*S | **Sn** | **15 48 17.4** | **+0.7** |
| **PLP** | **Palo** | **2.05** | **316** | ⇓*e*P | **Pn** | **15 48 04.3** | **+1.6** |
| PLP | | | | *e*S | **Sb** | **15 48 29.6** | **-1.3** |
| **BESP** | **Borongan** | **2.14** | **333** | *e*P | **Pb** | **15 48 07.8** | **+0.4** |
| BESP | | | | *e*S | **Sb** | **15 48 33.6** | **+0.1** |
| **BUKP** | **Musuan** | **2.24** | **217** | *e*P | **Pb** | **15 48 09.5** | **+0.2** |
| BUKP | | | | *e*S | **Sn** | **15 48 33.9** | **+1.4** |
| **OCLP** | **Ormoc** | **2.24** | **307** | *e*P | **Pn** | **15 48 06.7** | **+1.3** |
| OCLP | | | | *e*S | **Sb** | **15 48 36.3** | **-0.3** |
| **LLP** | **Lapu-Lapu** | **2.50** | **285** | *e*P | **Pn** | **15 48 10.2** | **+1.3** |
| LLP | | | | *e*S | **Sn** | **15 48 39.8** | **+0.9** |
| **TBP** | **Tagbilaran** | **2.52** | **270** | *e*P | **Pn** | **15 48 11.2** | **+1.9** |
| **DCPH** | **Dipolog City** | **3.22** | **250** | ⇑*e*P | **Pn** | **15 48 20.6** | **+1.7** |
| DCPH | | | | *i* S | **Sn** | **15 48 55.9** | **-0.8** |
| **CNP** | **Catarman** | **3.30** | **329** | *e*P | **Pn** | **15 48 21.2** | **+1.3** |
| CNP | | | | *e*S | **Sn** | **15 49 00.4** | **+1.9** |
| **ASAR** | **Alice Springs** | **33.94** | **168** | P | **P** | **15 54 11.6** | **0.0** |
| | 0.3nm,0.9s,baz=346,slow=7.4,SNR=5.2 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **39.95** | **73** | T | T | 16 37 56.8 | |
| | baz=262,slow=75,SNR=7.1 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **39.96** | **73** | T | T | 16 37 54.9 | |
| | baz=262,slow=75,SNR=6.4 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **39.96** | **73** | T | T | 16 37 57.9 | |
| | baz=262,slow=75,SNR=6.0 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **40.30** | **71** | T | T | 16 38 19.9 | |
| | baz=262,slow=75,SNR=13 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **40.31** | **71** | T | T | 16 38 21.9 | |
| | baz=262,slow=75,SNR=8.3 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **40.32** | **71** | T | T | 16 38 24.0 | |
| | baz=262,slow=75,SNR=10 | | | | | | |
| **MKAR** | **Makanchi Array** | **52.58** | **323** | P | **P** | **15 56 40.2** | **-1.6** |
| | 0.2nm,0.3s,baz=121,slow=8.4,SNR=3.0 | | | | | | |
| **ARCES** | **ARCESS Array B** | **84.79** | **340** | P | **P** | **16 00 01.4** | **-0.7** |
| | 3.4nm,0.8s,baz=62,slow=5.9,SNR=5.7 | | | | | | |
| **FINES** | **FINESS Array B** | **86.47** | **332** | P | **P** | **16 00 09.2** | **-1.3** |
| | 3.6nm,1.0s,baz=82,slow=10.0,SNR=3.4 | | | | | | |

---

**KRSC 02 15:48:49.7**±1.0, **54.°34N**×**163.°38E**, **h60**km±20km, **ML3.5, Off east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MKZ** | **Mys Kozlova** | **0.99** | **283** | *e*P | Pn | 15 49 09.5 | +1.9 |
| MKZ | | | | *e*S | Sn | 15 49 22.0 | +1.2 |
| **BKI** | **Bering** | **1.73** | **59** | *e*P | Pn | 15 49 18.8 | +1.3 |
| BKI | | | | *e*S | Sn | 15 49 38.9 | +0.4 |

| Code | Station Name | Δ° | AZ° | Op | ISC | h m s | Res |
|---|---|---|---|---|---|---|---|
| KBTR | Krutoberegovo | 1.90 | 350 | eP | Pn | 15 49 21.6 | +1.9 |
| KBTR | | | | eS | Sn | 15 49 43.3 | +0.8 |
| KZV | Kizimen | 1.95 | 295 | eP | Pn | 15 49 23.6 | +3.0 |
| KZV | | | | eS | Sn | 15 49 46.6 | +2.5 |
| TUMR | Tumrok | 2.10 | 298 | eP | Pn | 15 49 25.9 | +3.3 |
| ZLN | Zelenaya | 2.24 | 320 | eP | Pn | 15 49 27.9 | +3.5 |
| KMNR | Kamenistaya | 2.30 | 309 | eP | Pn | 15 49 28.3 | +3.0 |
| KMNR | | | | eS | Sn | 15 49 54.4 | +1.9 |
| BZMR | Bezymyannaya | 2.30 | 315 | eP | Pn | 15 49 27.4 | +2.0 |
| CIRR | Tsirk | 2.33 | 321 | eP | Pn | 15 49 28.7 | +2.9 |
| KII | Karymskiy | 2.33 | 264 | eP | Pn | 15 49 28.8 | +3.1 |
| SPN | Mys Shipunski | 2.35 | 239 | eP | Pn | 15 49 28.4 | +2.5 |
| SPN | | | | eS | Sn | 15 49 54.6 | +1.0 |
| KPT | Kopyto | 2.44 | 313 | eP | Pn | 15 49 29.7 | +2.5 |
| SMKR | Semkarok | 2.50 | 335 | eP | Pn | 15 49 30.9 | +3.0 |
| SMKR | | | | eS | Sn | 15 49 59.0 | +1.8 |
| KLY | Klyuchi | 2.52 | 323 | eP | Pn | 15 49 30.1 | +2.0 |
| KLY | | | | eS | Sn | 15 49 58.1 | +0.5 |
| BDR | Baidarnaya | 2.55 | 332 | eP | Pn | 15 49 31.9 | +3.2 |
| SRKR | Sorokina | 2.64 | 332 | eP | Pn | 15 49 32.7 | +2.8 |
| KOZ | Kozyrevsk | 2.65 | 312 | eP | Pn | 15 49 33.0 | +3.1 |
| NLC | Nalytchevo | 2.67 | 246 | eP | Pn | 15 49 33.4 | +3.2 |
| NLC | | | | eS | Sn | 15 50 03.0 | +1.7 |
| SDLR | Sedlovina | 2.87 | 250 | eP | Pn | 15 49 36.2 | +3.1 |
| UGLR | Uglovaya | 2.93 | 249 | eP | Pn | 15 49 37.7 | +3.7 |
| KRER | Koryakskii | 2.94 | 251 | eP | Pn | 15 49 36.4 | +2.3 |
| AVH | Avacha | 2.96 | 250 | eP | Pn | 15 49 37.2 | +2.9 |
| AVH | | | | eS | Sn | 15 50 12.1 | +3.5 |
| PET | Petropavlovsk | 3.11 | 247 | eP | Pn | 15 49 38.9 | +2.7 |
| PET | | | | eS | Sn | 15 50 14.1 | +2.0 |
| GNL | Ganaly | 3.27 | 261 | eP | Pn | 15 49 43.2 | +4.6 |
| KRMR | Karymshinskiy | 3.48 | 246 | eP | Pn | 15 49 45.1 | +3.8 |
| KRMR | | | | eS | Sn | 15 50 24.5 | +3.3 |
| RUS | Russkaya | 3.49 | 239 | eP | Pn | 15 49 45.6 | +4.2 |
| RUS | | | | eS | Sn | 15 50 25.5 | +4.1 |
| MTVR | Mutnovka | 3.63 | 241 | eP | Pn | 15 49 46.5 | +3.0 |
| MTVR | | | | eS | Sn | 15 50 27.5 | +2.5 |
| ASAK | Asacha | 3.83 | 241 | eP | Pn | 15 49 49.1 | +3.0 |
| KDTR | Khodutka, Kamc | 4.08 | 234 | eS | Sn | 15 50 38.4 | +2.4 |

**IDC 02 15:57:36.1±1.8, 1°.85N×127°.23E, h0$^{km}$, mb3.6/4, mb1 3.8/5, mb1mx3.5/41, mbtmp3.7/5, ML3.5/1, Error ellipse: s-maj=101.8km s-min=24.3km az=68.0, Halmahera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| FITZ | Fitzroy Crossi | 19.89 | 184 | P | Pn | 16 02 10.8 | 0.0 |
| | 0.1nm,0.3s,baz=14,slow=15,SNR=2.6 | | | | | | |
| WRA | Warramunga Arr | 22.76 | 162 | P | P | 16 02 40.2 | 0.0 |
| | 1.4nm,0.4s,baz=340,slow=11,SNR=22 | | | | | | |
| ASAR | Alice Springs | 26.18 | 166 | P | P | 16 03 11.8 | -0.7 |
| | 0.3nm,0.5s,baz=344,slow=7.9,SNR=10 | | | | | | |
| STKA | Stephens Creek | 36.21 | 159 | P | P | 16 04 40.6 | -0.2 |
| | 1.4nm,0.6s,baz=331,slow=13,SNR=3.8 | | | | | | |
| MKAR | Makanchi Array | 59.37 | 326 | P | P | 16 07 40.3 | 0.0 |
| | 0.4nm,0.6s,baz=120,slow=8.3,SNR=4.7 | | | | | | |

*NEIC **02** 16:11:53.8±4.5, 3°.31S×147°.10E, h35$^{km}$, mb4.2/1, Error ellipse: s-maj=76.0km s-min=20.6km az=51.0*
*IDC **02** 16:12:23.0±8.5, 5°.54S×146°.58E, h124$^{km}$±53$^{km}$, mb4.0/3, mb1 4.3/4, mb1mx3.5/32, mbtmp4.5/4, Error ellipse: s-maj=88.8km s-min=51.8km az=46.0*
**ISC 02 16:12:22.3±4.0, 5°.5S±0°.3×146°.3E±0°.4, h100$^{km}$, n15, σ0.97/16, mb4.2/3, Eastern New Guinea region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PMG | Port Moresby | 3.99 | 168 | P | Pn | 16 13 21.6 | +0.2 |
| | 1.8nm,0.3s,baz=346,slow=8.3,SNR=2.9 | | | | | | |
| PMG | | | | S | Sn | 16 14 06.4 | -0.9 |
| | 3.2nm,0.3s,baz=170,slow=19,SNR=5.1 | | | | | | |
| PMG | Port Moresby | 3.99 | 168 | P | Pn | 16 13 21.6 | +0.2 |
| PMG | | | | S | Sn | 16 14 06.4 | -0.9 |
| CTA | Charters Tower | 14.52 | 180 | P | P | 16 15 48.0 | +1.2 |
| | 0.5nm,0.3s,baz=8.8,slow=14,SNR=6.9 | | | | | | |
| CTA | Charters Tower | 14.52 | 180 | P | P | 16 15 48.0 | +1.2 |
| CTAO | Charters Tower | 14.52 | 180 | ePn | Pn | 16 15 43.6 | +0.6 |
| WRAB | Tennant Creek | 18.48 | 218 | eP | P | 16 16 30.7 | +0.1 |
| | 4.7nm,0.4s | | | | | | |
| WRA | Warramunga Arr | 18.49 | 218 | P | P | 16 16 31.5 | +0.7 |
| | 2.2nm,0.3s,baz=40,slow=12,SNR=75 | | | | | | |
| WRA | Warramunga Arr | 18.49 | 218 | P | P | 16 16 31.5 | +0.7 |
| ASAR | Alice Springs | 21.67 | 212 | P | P | 16 17 05.4 | +0.3 |
| | 6.4nm,0.6s,baz=47,slow=7.9,SNR=118 | | | | | | |
| ASAR | Alice Springs | 21.67 | 212 | P | P | 16 17 05.4 | +0.3 |
| FITZ | Fitzroy Crossi | 23.76 | 236 | P | P | 16 17 25.3 | -0.5 |
| | 20nm,0.5s,baz=49,slow=9.7,SNR=92 | | | | | | |
| FITZ | Fitzroy Crossi | 23.76 | 236 | P | P | 16 17 25.3 | -0.5 |
| KAPI | Kappang | 26.44 | 270 | P | P | 16 17 35.2 | -15 |
| STKA | Stephens Creek | 26.63 | 189 | P | P | 16 17 49.9 | -1.7 |
| | 1.6nm,0.8s,baz=22,slow=13,SNR=3.7 | | | | | | |
| STKA | Stephens Creek | 26.63 | 189 | P | P | 16 17 49.9 | -1.7 |

*CSEM **02** 16:18:51.4±0.2, 38°.51N×43°.35E, h8$^{km}$, ML3.3, Error ellipse: s-maj=4.9km s-min=3.7km az=85.0*
*ISCJB **02** 16:18:52.0±0.4, 38°.49N±0°.02×43°.34E±0°.04, h7$^{km}$±3$^{km}$, Error ellipse: s-maj=4.8km s-min=3.7km az=8.0*
*ATA **02** 16:18:51.6±0.9, 38°.50N×43°.31E, h7$^{km}$±23$^{km}$, MD3.7, ML3.1, MW3.1*
*ISK **02** 16:18:51.4, 38°.50N×43°.33E, h6$^{km}$, MD3.0*
*IASPEI **02** 16:18:51.7±0.8, 38°.51N±0°.02×43°.37E±0°.03, h8$^{km}$±5$^{km}$, Error ellipse: s-maj=3.9km s-min=2.8km az=86.5, GT5 selection from ISC bulletin GT5 identified by Bondˆ¡r and McLaughlin (2009) selection criteria Bondˆ¡r and McLaughlin, A new ground truth data set for seismic studies, <i>Seism. Res. Let.</i>, <b>80</b>, 465-472, 2009*
*DDA **02** 16:19:45.8, 38°.51N×43°.37E, h8$^{km}$, Ml3.3*
**ISC 02 16:18:51.6±0.8, 38°.51N±0°.02×43°.36E±0°.03, h8$^{km}$±5$^{km}$, n33, σ0.72/56, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TVAN | Van | 0.04 | 58 | iP | Pg | 16 18 53.8 | +0.2 |
| TVAN | | | | iS | Sg | 16 18 55.6 | +0.6 |
| TVAN | Van | 0.04 | 58 | P | Pg | 16 18 53.8 | +0.2 |
| TVAN | | | | S | Sg | 16 18 55.6 | +0.6 |
| VANB | Van | 0.09 | 14 | ePG | Pg | 16 18 53.4 | -0.7 |
| VANB | | | | eSG | Sg | 16 18 54.6 | -1.1 |
| VANB | Van | 0.09 | 14 | ePg | Pg | 16 18 53.4 | -0.7 |
| VANB | | | | eSg | Sg | 16 18 54.6 | -1.1 |
| GEVA | Gevas | 0.31 | 231 | eP | Pg | 16 18 57.4 | -0.3 |
| GEVA | | | | eS | Sg | 16 19 02.5 | +0.7 |
| GEVA | | | | IAML | | 16 19 07.9 | |
| | comp=Z,238nm,0.6s | | | | | | |
| GEVA | Gevas | 0.31 | 231 | iP | Pg | 16 18 57.5 | -0.3 |
| GEVA | | | | iS | Sb | 16 19 03.2 | -1.5 |
| GEVA | Gevas | 0.31 | 231 | P | Pg | 16 18 57.5 | -0.3 |
| GEVA | | | | S | Sb | 16 19 03.2 | -1.5 |
| VMUR | Van-Muradiye | 0.51 | 19 | iP | Pg | 16 18 59.7 | -1.8 |
| VMUR | | | | iS | Sb | 16 19 12.4 | +1.8 |
| ADCV | BITLIS_Adilcev | 0.58 | 301 | iP | Pg | 16 19 03.3 | +0.3 |
| ADCV | | | | iS | Sb | 16 19 13.0 | +0.3 |
| ADCV | BITLIS_Adilcev | 0.58 | 301 | P | Pg | 16 19 03.3 | +0.3 |
| BASK | Baskale_VAN | 0.68 | 132 | eP | Pb | 16 19 06.0 | +0.2 |
| BASK | | | | eS | Sb | 16 19 16.7 | +1.2 |
| BASK | | | | IAML | | 16 19 21.4 | |
| | comp=Z,84nm,0.2s | | | | | | |
| BASK | Baskale_VAN | 0.68 | 132 | iP | Pg | 16 19 04.6 | -0.2 |
| BASK | | | | iS | Sb | 16 19 15.8 | +0.3 |
| BASK | Baskale_VAN | 0.68 | 132 | P | Pg | 16 19 04.6 | -0.2 |
| BASK | | | | S | Sb | 16 19 15.8 | +0.3 |
| CLDR | Caldiran | 0.77 | 34 | ePG | Pb | 16 19 07.3 | -0.2 |
| CLDR | | | | eSG | Sb | 16 19 18.5 | +0.3 |
| CLDR | Caldiran | 0.77 | 34 | iP | Pb | 16 19 07.2 | -0.2 |
| CLDR | | | | iS | Sn | 16 19 20.2 | -0.7 |
| CLDR | Caldiran | 0.77 | 34 | P | Pb | 16 19 07.2 | -0.2 |
| CLDR | | | | eSg | Sb | 16 19 18.5 | +0.3 |
| HAKT | HAKKARI | 0.99 | 164 | iP | Pg | 16 19 09.6 | -1.0 |
| HAKT | | | | iS | Sb | 16 19 24.4 | 0.0 |
| HAKT | HAKKARI | 0.99 | 164 | P | Pg | 16 19 09.6 | -1.0 |
| HAKT | | | | S | Sb | 16 19 24.4 | 0.0 |
| TUTA | Tutak | 0.99 | 335 | eP | Pg | 16 19 10.9 | +0.1 |
| TUTA | | | | eS | Sb | 16 19 25.3 | +0.8 |
| TUTA | | | | IAML | | 16 19 29.8 | |
| | comp=Z,47nm,0.3s | | | | | | |
| TUTA | Tutak | 0.99 | 335 | iP | Pg | 16 19 10.7 | 0.0 |
| TUTA | | | | iS | Sn | 16 19 27.1 | +0.7 |
| TUTA | Tutak | 0.99 | 335 | P | Pg | 16 19 10.7 | 0.0 |
| AGRB | Hanur-Agry | 1.11 | 345 | ePN | Pb | 16 19 13.2 | 0.0 |
| AGRB | | | | eSN | Sn | 16 19 28.8 | -0.3 |
| AGRB | Hanur-Agry | 1.11 | 345 | ePn | Pb | 16 19 13.2 | 0.0 |
| AGRB | | | | eSn | Sn | 16 19 28.8 | -0.3 |
| SIRT | Sirnak | 1.24 | 216 | ePN | Pb | 16 19 15.0 | -0.3 |
| SIRT | | | | eSN | Sn | 16 19 32.5 | +0.2 |
| SIRT | Sirnak | 1.24 | 216 | ePn | Pb | 16 19 15.0 | -0.3 |
| SIRT | | | | eSn | Sn | 16 19 32.5 | +0.2 |
| EKAR | Karacoban | 1.26 | 307 | eP | Pg | 16 19 15.8 | 0.0 |
| EKAR | | | | IAML | | 16 19 48.8 | |
| | comp=Z,15nm,0.5s | | | | | | |
| CUKT | Cukurca | 1.27 | 171 | ePN | Pg | 16 19 16.3 | +0.2 |
| CUKT | Cukurca | 1.27 | 171 | ePn | Pg | 16 19 16.3 | +0.2 |
| EATA | Eleskirt | 1.51 | 334 | eP | Pg | 16 19 21.0 | +0.3 |
| EATA | | | | IAML | | 16 19 46.5 | |
| | comp=Z,6.6nm,0.4s | | | | | | |
| BNGB | Bingˆ¶l | 2.15 | 284 | ePN | Pn | 16 19 28.3 | +0.4 |
| BINT | Bingol | 2.28 | 280 | ePn | Pn | 16 19 28.3 | -1.3 |
| MAZI | Mazidag | 2.53 | 246 | ePN | Pn | 16 19 34.1 | +1.0 |
| MAZI | Mazidag | 2.53 | 246 | ePn | Pn | 16 19 34.1 | +1.0 |

*IDC **02** 16:20:09.7±1.9, 33°.04S×178°.92W, h0$^{km}$, mb3.8/3, mb1 4.1/4, mb1mx3.8/38, mbtmp3.9/4, ML3.8/1, Error ellipse: s-maj=45.2km s-min=40.1km az=44.0*
*ISCJB **02** 16:20:13.1±1.4, 33°.32S±0°.07×178°.8W±0°.2, h45$^{km}$, mb3.7/3, Error ellipse: s-maj=26.0km s-min=8.2km az=11.0*
**ISC 02 16:20:15.4±1.6, 33°.37S±0°.09×178°.8W±0°.2, h45$^{km}$, n24, σ2.36/32, mb3.7/3, South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WMGZ | Waiomatatini S | 5.00 | 207 | PN | Pn | 16 21 28.8 | +1.0 |
| WMGZ | | | | SN | Sn | 16 22 28.7 | +4.4 |
| PKGZ | Pakihiroa | 5.19 | 209 | ePN | Pn | 16 21 30.7 | +0.2 |
| PKGZ | | | | SN | Sn | 16 22 31.8 | +2.7 |
| HAZ | Te Kaha | 5.20 | 212 | PN | Pn | 16 21 31.2 | +0.6 |
| HAZ | | | | eSN | Sn | 16 22 30.7 | +1.4 |
| PUZ | Puketiti | 5.28 | 207 | ePN | Pn | 16 21 31.4 | -0.3 |
| PUZ | | | | SN | Sn | 16 22 33.9 | +2.7 |
| RUGZ | Raukumara Rang | 5.42 | 211 | ePN | Pn | 16 21 34.6 | +0.8 |
| TWGZ | Tauwhareparae | 5.47 | 208 | PN | Pn | 16 21 35.1 | +0.7 |
| TWGZ | | | | eSN | Sn | 16 22 37.5 | +1.3 |
| CNGZ | Carnagh Statio | 5.66 | 205 | PN | Pn | 16 21 40.1 | +3.2 |
| MWZ | Matawai | 5.79 | 210 | ePN | Pn | 16 21 39.2 | +0.4 |
| URZ | Urewera | 5.92 | 213 | Pn | Pn | 16 21 40.7 | +0.3 |
| | 2.5nm,0.3s,baz=276,slow=2.4,SNR=24 | | | | | | |
| URZ | | | | Sn | Sn | 16 22 48.1 | +1.2 |
| | 4.3nm,0.3s,baz=204,slow=18,SNR=8.5 | | | | | | |
| URZ | Urewera | 5.92 | 213 | ePN | Pn | 16 21 39.1 | -1.3 |
| RAGZ | Rawiri | 5.98 | 210 | PN | Pn | 16 21 42.9 | +1.6 |
| SNGZ | Shannon Statio | 6.25 | 209 | PN | Pn | 16 21 47.2 | +2.1 |
| KNZ | Kokohu | 6.33 | 206 | ePN | Pn | 16 21 44.2 | -1.8 |
| KNZ | | | | eSN | Sn | 16 22 56.4 | -0.6 |
| MTHZ | Maungataniwha | 6.52 | 212 | ePN | Pn | 16 21 49.7 | +1.0 |
| OUZ | Omahuta | 6.59 | 252 | ePN | Pn | 16 21 51.0 | +1.4 |
| NMHZ | Naumai | 6.74 | 211 | PN | Pn | 16 21 52.1 | +0.3 |
| BKZ | Black Stump Fm | 6.93 | 212 | PN | Pn | 16 21 54.2 | -0.2 |
| MRZ | Mangatainoka R | 8.56 | 210 | ePN | Pn | 16 22 12.7 | -4.0 |
| MRZ | | | | eSN | Sn | 16 23 44.4 | -7.6 |
| KHZ | Kahutara | 10.88 | 212 | ePN | Pn | 16 22 45.1 | -3.3 |
| ASAR | Alice Springs | 42.39 | 271 | P | P | 16 28 04.8 | -0.8 |
| | 0.9nm,0.6s,baz=108,slow=7.5,SNR=22 | | | | | | |
| WRA | Warramunga Arr | 43.65 | 276 | P | P | 16 28 14.3 | -1.6 |
| | 0.7nm,0.5s,baz=116,slow=7.8,SNR=13 | | | | | | |
| FITZ | Fitzroy Crossi | 51.77 | 273 | P | P | 16 29 19.3 | +0.5 |
| | 1.0nm,0.7s,baz=162,slow=6.4,SNR=2.7 | | | | | | |
| FINES | FINESS Array B | 147.68 | 338 | PKPbc | PKPbc | 16 39 53.5 | -0.7 |
| | 1.2nm,0.5s,baz=56,slow=5.2,SNR=6.4 | | | | | | |
| TORD | Torodi Ar. Bea | 159.86 | 181 | PKPab | PKPab | 16 40 51.3 | +2.3 |
| | 0.6nm,0.9s,baz=177,slow=3.3,SNR=2.7 | | | | | | |

*ISN **02** 16:23:29.0±0.3, 37°.22N×42°.63E, h0$^{km}$, ML2.9*
*CSEM **02** 16:23:32.5±0.4, 37°.21N×42°.59E, h2$^{km}$, MD2.7, Error ellipse: s-maj=12.8km s-min=7.6km az=41.0*
**ISK 02 16:23:31.9, 37°.30N×42°.59E, h5$^{km}$, MD2.7, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SIRT | Sirnak | 0.23 | 330 | ePG | Pg | 16 23 37.1 | +0.6 |
| SIRT | | | | eSG | Sg | 16 23 41.9 | +2.3 |
| SIRT | Sirnak | 0.23 | 330 | ePg | Pg | 16 23 37.1 | +0.6 |
| SIRT | | | | eSg | Sg | 16 23 41.9 | +2.3 |
| CUKT | Cukurca | 0.82 | 93 | ePG | Pb | 16 23 48.8 | +0.2 |
| CUKT | | | | eSG | Sb | 16 24 01.0 | +1.0 |
| CUKT | Cukurca | 0.82 | 93 | ePg | Pb | 16 23 48.8 | +0.2 |
| CUKT | | | | eSg | Sb | 16 24 01.0 | +1.0 |
| SVAN | Silvan-Diyarba | 1.39 | 308 | ePN | Pg | 16 23 59.8 | +1.2 |
| SVAN | Silvan-Diyarba | 1.39 | 308 | ePn | Pg | 16 23 59.8 | +1.2 |
| MAZI | Mazidag | 1.71 | 276 | ePN | Pb | 16 24 04.1 | +0.1 |
| MAZI | Mazidag | 1.71 | 276 | ePn | Pb | 16 24 04.1 | +0.2 |
| DIY | Diyarbakir | 1.97 | 288 | ePn | Pg | 16 24 09.2 | -0.4 |
| DYBB | Diyarbakir | 2.05 | 289 | ePN | Pb | 16 24 09.2 | -0.5 |
| AGRB | Hanur-Agry | 2.29 | 8 | ePN | Pb | 16 24 12.7 | -1.2 |
| AGRB | Hanur-Agry | 2.29 | 8 | ePn | Pb | 16 24 12.7 | -1.2 |

*IDC **02** 16:28:21.7±7.9, 37°.67N×142°.37E, h0$^{km}$, mb3.5/2, mb1 3.6/3, mb1mx3.2/43, mbtmp3.3/3, ML2.5/1, Error ellipse: s-maj=162.8km s-min=40.1km az=6.0*
*ISCJB **02** 16:28:23.9±1.6, 37°.63N±0°.05×142°.11E±0°.09, h21$^{km}$±9$^{km}$, mb3.6/2, Error ellipse: s-maj=12.1km s-min=8.7km az=12.0*
*JMA **02** 16:28:25.3±0.2, 37°.65N×142°.05E, h30$^{km}$±4$^{km}$, M3.0*
**ISC 02 16:28:24.7±3.8, 37°.66N±0°.06×142°.04E±0°.09, h16$^{km}$±25$^{km}$, n16, σ0.83/16, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JIO | Ouri | 0.96 | 326 | P | Pb | 16 28 43.0 | 0.0 |
| JIO | | | | S | Sb | 16 28 55.1 | -0.4 |
| JFK | Kawauchi | 0.97 | 253 | P | Pb | 16 28 43.0 | -0.1 |
| JFK | | | | S | Sb | 16 28 55.6 | -0.1 |
| JMM | Marumori | 1.01 | 282 | P | Pb | 16 28 43.7 | -0.1 |
| JMM | | | | S | Sb | 16 28 56.5 | -0.3 |
| ONAJ | Iwakimizuishiy | 1.13 | 241 | P | Pn | 16 28 45.3 | -0.6 |
| ONAJ | | | | S | Sb | 16 28 59.4 | -1.0 |
| JOU | Okura | 1.30 | 304 | S | Sn | 16 29 05.2 | 0.0 |
| JFT | Otama | 1.36 | 265 | P | Pn | 16 28 49.7 | +0.7 |
| JFT | | | | S | Sn | 16 29 06.8 | +0.1 |
| JMK | Ichinoseki | 1.45 | 334 | P | Pn | 16 28 50.1 | -0.1 |
| MJAR | Matsushiro Arr | 3.26 | 251 | Pn | Pn | 16 29 17.3 | +2.1 |
| | 0.5nm,0.3s,baz=70,slow=12,SNR=5.3 | | | | | | |
| MJAR | | | | Sn | Sb | 16 30 00.4 | -1.2 |
| | 0.9nm,0.3s,baz=127,slow=26,SNR=5.1 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 28.05 | 123 | T | T | 17 03 40.5 | |
| | baz=315,slow=75,SNR=6.7 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 28.06 | 123 | T | T | 17 03 38.0 | |
| | baz=315,slow=75,SNR=5.3 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 28.07 | 123 | T | T | 17 03 41.8 | |
| | baz=315,slow=75,SNR=6.1 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 28.79 | 125 | T | T | 17 04 33.7 | |
| | baz=317,slow=76,SNR=7.2 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 28.79 | 125 | T | T | 17 04 40.3 | |
| | baz=317,slow=76,SNR=5.2 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 28.81 | 125 | T | T | 17 04 40.0 | |
| | baz=317,slow=76,SNR=7.2 | | | | | | |
| WRA | Warramunga Arr | 57.75 | 189 | P | P | 16 38 14.9 | 0.0 |
| | 0.4nm,0.5s,baz=7.3,slow=7.1,SNR=3.4 | | | | | | |
| ASAR | Alice Springs | 61.48 | 188 | P | P | 16 38 40.4 | -0.1 |
| | 0.3nm,0.7s,baz=14,slow=6.6,SNR=5.2 | | | | | | |

*ISCJB **02** 16:30:25.9±0.9, 38°.67N±0°.03×43°.83E±0°.06, h5$^{km}$±6$^{km}$, Error ellipse: s-maj=7.9km s-min=5.5km az=169.9*
*ISK **02** 16:30:25.8, 38°.64N×43°.73E, h2$^{km}$, MD2.7*
*DDA **02** 16:30:25.3, 38°.57N×43°.83E, h7$^{km}$, Ml2.7*
*CSEM **02** 16:30:26.1±0.3, 38°.64N×43°.72E, h2$^{km}$, MD2.7, Error ellipse: s-maj=9.0km s-min=5.4km az=79.0*
**ISC 02 16:30:26.1±1.4, 38°.63N±0°.02×43°.71E±0°.03, h5$^{km}$±12$^{km}$, n25, σ0.70/41, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.25 | 262 | ePG | Pb | 16 30 32.6 | -0.6 |
| VANB | Van | 0.25 | 262 | ePg | Pb | 16 30 32.6 | -0.6 |
| TVAN | Van | 0.26 | 247 | iP | Pg | 16 30 31.2 | 0.0 |
| TVAN | | | | iS | Sb | 16 30 38.7 | +0.5 |
| TVAN | Van | 0.26 | 247 | P | Pg | 16 30 31.2 | 0.0 |
| TVAN | | | | S | Sb | 16 30 38.7 | +0.5 |
| VMUR | Van-Muradiye | 0.37 | 343 | iP | Pb | 16 30 34.2 | -1.1 |
| VMUR | | | | iS | Sb | 16 30 42.7 | +1.2 |
| VMUR | Van-Muradiye | 0.37 | 343 | P | Pb | 16 30 34.2 | -1.1 |
| VMUR | | | | S | Sb | 16 30 42.7 | +1.2 |
| CLDR | Caldiran | 0.54 | 18 | ePG | Pb | 16 30 37.0 | -1.1 |
| CLDR | Caldiran | 0.54 | 18 | iP | Pg | 16 30 36.9 | +0.5 |
| CLDR | | | | iS | Sn | 16 30 49.9 | -0.2 |
| CLDR | Caldiran | 0.54 | 18 | P | Pg | 16 30 36.9 | +0.5 |
| GEVA | Gevas | 0.60 | 238 | iP | Pg | 16 30 37.7 | 0.0 |
| GEVA | | | | iS | Sn | 16 30 50.8 | -0.9 |
| GEVA | Gevas | 0.60 | 238 | P | Pg | 16 30 37.7 | 0.0 |
| BASK | Baskale_VAN | 0.62 | 158 | iP | Pb | 16 30 39.0 | -0.5 |
| BASK | | | | iS | Sn | 16 30 51.5 | -0.7 |
| BASK | Baskale_VAN | 0.62 | 158 | P | Pb | 16 30 39.0 | -0.5 |
| BASK | | | | S | Sn | 16 30 51.5 | -0.7 |
| ADCV | BITLIS_Adilcev | 0.79 | 283 | iP | Pg | 16 30 41.4 | +0.1 |
| ADCV | | | | iS | Sn | 16 30 55.6 | -0.7 |
| ADCV | BITLIS_Adilcev | 0.79 | 283 | P | Pg | 16 30 41.4 | +0.1 |
| ADCV | | | | S | Sn | 16 30 55.6 | -0.7 |
| TUTA | Tutak | 1.04 | 318 | iP | Pg | 16 30 45.6 | -0.4 |
| TUTA | | | | iS | Sb | 16 31 01.6 | +0.9 |
| TUTA | Tutak | 1.04 | 318 | P | Pg | 16 30 45.6 | -0.4 |
| TUTA | | | | S | Sb | 16 31 01.6 | +0.9 |
| HAKT | HAKKARI | 1.07 | 180 | iP | Pg | 16 30 45.7 | -0.9 |
| HAKT | | | | iS | Sn | 16 31 04.1 | +0.8 |
| HAKT | HAKKARI | 1.07 | 180 | P | Pg | 16 30 45.7 | -0.9 |
| HAKT | | | | S | Sn | 16 31 04.1 | +0.8 |
| AGRB | Hanur-Agry | 1.09 | 330 | ePN | Pb | 16 30 47.6 | 0.0 |
| AGRB | | | | eSN | Sn | 16 31 03.8 | -0.1 |
| AGRB | Hanur-Agry | 1.09 | 330 | ePn | Pb | 16 30 47.6 | 0.0 |
| AGRB | | | | eSn | Sn | 16 31 03.8 | -0.1 |
| CUKT | Cukurca | 1.38 | 183 | ePN | Pb | 16 30 53.3 | +0.8 |
| CUKT | Cukurca | 1.38 | 183 | ePn | Pb | 16 30 53.3 | +0.8 |
| SIRT | Sirnak | 1.51 | 222 | ePN | Pg | 16 30 54.9 | -0.1 |
| SIRT | Sirnak | 1.51 | 222 | ePn | Pg | 16 30 54.9 | -0.1 |

**IDC 02 16:32:12.7±2.7, 26°.76N×143°.94E, h0$^{km}$, mb3.7/7, mb1 3.9/7, mb1mx3.6/38, mbtmp3.7/7, MS3.0/2, Ms1 3.0/2, ms1mx2.3/36, Error ellipse: s-maj=87.8km s-min=22.3km az=73.0, Bonin Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TGY | Tagaytay City | 24.91 | 244 | LR | LR | 16 45 27.2 | |
| | comp=Z,23nm,21.0s,baz=142,slow=32 | | | | | | |
| SONM | Songino Array | 36.04 | 316 | P | P | 16 39 16.9 | +1.0 |
| | 0.4nm,0.4s,baz=123,slow=7.8,SNR=3.9 | | | | | | |
| CMAR | Chiang Mai Arr | 42.17 | 268 | P | P | 16 40 07.0 | -0.4 |
| | 0.5nm,0.3s,baz=67,slow=6.9,SNR=4.1 | | | | | | |
| WRA | Warramunga Arr | 47.35 | 192 | P | P | 16 40 48.9 | +0.4 |
| | 2.2nm,0.7s,baz=13,slow=8.5,SNR=15 | | | | | | |
| FITZ | Fitzroy Crossi | 48.00 | 204 | LR | LR | 17 01 25.4 | |
| | comp=Z,21nm,18.9s,baz=70,slow=36 | | | | | | |
| ZALV | Zalesovo Beam | 50.77 | 319 | P | P | 16 41 14.0 | -0.4 |
| | 0.3nm,0.4s,baz=66,slow=3.7,SNR=3.5 | | | | | | |
| ASAR | Alice Springs | 51.06 | 192 | P | P | 16 41 16.4 | -0.5 |
| | 0.4nm,0.7s,baz=15,slow=16,SNR=7.1 | | | | | | |
| MKAR | Makanchi Array | 51.89 | 310 | P | P | 16 41 22.9 | -0.2 |
| | 1.2nm,0.6s,baz=91,slow=8.8,SNR=13 | | | | | | |
| BRTR | Keskin Array B | 87.37 | 314 | P | P | 16 45 01.5 | -0.7 |
| | 0.5nm,0.8s,baz=51,slow=4.6,SNR=2.6 | | | | | | |

*ISCJB **02** 16:45:07.3±0.3, 0°.86N±0°.04×99°.99E±0°.06, h200$^{km}$, mb3.8/15, Error ellipse: s-maj=8.3km s-min=5.0km az=161.7*
*IDC **02** 16:45:07.3±1.1, 0°.97N×100°.20E, h184$^{km}$±7$^{km}$, mb3.7/16, mb1 3.7/18, mb1mx3.5/57, mbtmp4.1/18, Error ellipse: s-maj=29.6km s-min=10.8km az=49.0*
*DJA **02** 16:45:08.8±0.5, 1°N±3°×10°0E±°, h181$^{km}$±5$^{km}$, M4.2/11, MLv4.2/11*
**ISC 02 16:45:08.4±0.6, 0°.89N±0°.05×100°.00E±0°.07, h200$^{km}$, n47, σ1.40/50, mb4.0/15, 2C-1D, Northern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BKNI | Bangkinang | 1.18 | 119 | P | Pn | 16 45 38.6 | -0.9 |
| PDSI | Padang | 1.85 | 166 | P | Pn | 16 45 44.8 | -0.7 |
| PDSI | | | | S | Sn | 16 46 13.5 | -0.9 |
| PBSI | Pulau Batu | 1.96 | 241 | P | Pn | 16 45 46.2 | -0.4 |
| PBSI | | | | S | Sn | 16 46 14.4 | -1.8 |
| PSI | Prapat | 2.18 | 330 | P | Pn | 16 45 47.5 | -1.5 |
| | 6.7nm,0.3s,baz=147,slow=9.3,SNR=44 | | | | | | |
| PSI | | | | S | Sn | 16 46 16.2 | -4.4 |
| | 2.5nm,0.3s,baz=14,slow=20,SNR=14 | | | | | | |
| SISI | Saibi | 2.39 | 203 | P | Pn | 16 45 50.0 | -1.1 |
| SISI | | | | S | Sn | 16 46 22.2 | -2.2 |
| GSI | Gunungsitoli | 2.46 | 280 | P | Pn | 16 45 51.9 | 0.0 |
| KCSI | Kotacane, Aceh | 3.43 | 320 | P | Pn | 16 46 02.3 | -1.0 |
| PPSI | Pulau Pagai | 3.63 | 180 | P | Pn | 16 46 03.9 | -1.8 |
| SNSI | Sinabang, Aceh | 3.97 | 292 | P | Pn | 16 46 10.1 | +0.2 |
| SNSI | | | | S | Sn | 16 46 54.7 | -3.4 |
| MASI | Maura Aman, Be | 4.59 | 151 | P | Pn | 16 46 17.6 | -0.1 |
| MLSI | Meulaboh, Aceh | 4.92 | 313 | P | Pn | 16 46 21.4 | -0.4 |
| CMAR | Chiang Mai Arr | 17.49 | 357 | P | Pn | 16 48 58.5 | -2.1 |
| | 0.2nm,0.3s,baz=187,slow=11,SNR=13 | | | | | | |
| PALK | Pallekele | 20.26 | 289 | P | Pn | 16 49 32.3 | -1.3 |
| | 4.3nm,0.5s,baz=113,slow=9.1,SNR=9.8 | | | | | | |
| ODAN | Odare | 28.52 | 336 | eP | P | 16 50 46.7 | +1.0 |
| | 16nm,0.6s | | | | | | |
| H08S2 | Diego Garcia H | 28.72 | 252 | T | T | 17 18 20.2 | |
| | baz=71,slow=75,SNR=8.7 | | | | | | |
| H08S3 | Diego Garcia H | 28.72 | 252 | T | T | 17 18 20.6 | |
| | baz=71,slow=75,SNR=8.9 | | | | | | |
| H08S1 | Diego Carcia H | 28.74 | 252 | T | T | 17 18 23.9 | |
| | baz=71,slow=75,SNR=8.3 | | | | | | |
| TAPN | Taplejung | 28.83 | 337 | eP | P | 16 50 50.1 | +1.6 |
| RAMN | Ramite | 28.93 | 335 | eP | P | 16 50 50.6 | +1.2 |
| | 12nm,0.5s | | | | | | |
| JIRN | Jiri | 29.73 | 335 | eP | P | 16 50 57.8 | +1.3 |
| PKI | Pulchoki | 29.99 | 333 | eP | P | 16 50 59.5 | +0.7 |
| PKIN | Phulchoki | 30.00 | 333 | eP | P | 16 50 59.6 | +0.7 |
| GUN | Gumba | 30.08 | 334 | eP | P | 16 51 00.9 | +1.3 |
| | 50nm,0.5s | | | | | | |
| DMN | Daman | 30.16 | 333 | eP | P | 16 51 01.2 | +1.0 |
| KKN | Kakani | 30.24 | 333 | eP | P | 16 51 01.8 | +0.9 |
| | 35nm,0.7s | | | | | | |
| GKN | Gorkha | 30.71 | 333 | eP | P | 16 51 06.1 | +1.1 |
| | 2.3nm,0.3s | | | | | | |
| KOLN | Koldanda | 31.01 | 331 | eP | P | 16 51 08.8 | +1.2 |
| | 44nm,0.6s | | | | | | |
| DANN | Dangsing | 31.41 | 332 | eP | P | 16 51 12.6 | +1.3 |
| PYUN | Piuthan | 31.58 | 330 | eP | P | 16 51 13.8 | +1.2 |
| | 15nm,0.4s | | | | | | |
| WRA | Warramunga Arr | 39.51 | 123 | P | P | 16 52 19.4 | -0.7 |
| | 5.9nm,0.9s,baz=304,slow=8.9,SNR=24 | | | | | | |
| WRA | | | | ScP | ScP | 16 57 52.7 | -0.8 |
| | 0.3nm,0.7s,baz=299,slow=3.8,SNR=4.1 | | | | | | |
| ASAR | Alice Springs | 41.00 | 129 | P | P | 16 52 31.6 | -0.6 |
| | 0.4nm,0.4s,baz=307,slow=7.9,SNR=9.2 | | | | | | |
| ASAR | | | | ScP | ScP | 16 57 59.5 | +0.2 |
| | 0.9nm,0.7s,baz=306,slow=4.0,SNR=13 | | | | | | |
| SONM | Songino Array | 47.09 | 6 | P | P | 16 53 20.4 | +0.2 |
| | 0.9nm,0.8s,baz=190,slow=9.0,SNR=4.0 | | | | | | |
| AAK | Ala-Archa | 47.44 | 334 | P | P | 16 53 24.0 | +0.8 |
| | 1.0nm,0.6s,baz=150,slow=6.7,SNR=6.6 | | | | | | |
| MKAR | Makanchi Array | 48.27 | 344 | P | P | 16 53 29.9 | +0.7 |
| | 8.8nm,0.7s,baz=158,slow=8.5,SNR=109 | | | | | | |
| STKA | Stephens Creek | 51.09 | 133 | P | P | 16 53 50.5 | -0.3 |
| | 0.8nm,0.6s,baz=315,slow=13,SNR=3.3 | | | | | | |
| KURBB | Kurchatov Arra | 52.80 | 343 | P | P | 16 54 03.5 | +0.5 |
| | 3.2nm,0.6s,baz=161,slow=7.0,SNR=23 | | | | | | |
| ZALV | Zalesovo Beam | 54.35 | 349 | P | P | 16 54 14.8 | +0.6 |
| | 2.5nm,0.5s,baz=169,slow=7.5,SNR=17 | | | | | | |
| BVAR | Borovoye Array | 57.49 | 339 | P | P | 16 54 36.6 | 0.0 |
| | 3.6nm,0.5s,baz=141,slow=9.5,SNR=28 | | | | | | |
| BRTR | Keskin Array B | 71.40 | 312 | P | P | 16 56 07.5 | +0.4 |
| | 1.7nm,0.6s,baz=141,slow=7.0,SNR=8.4 | | | | | | |
| AKASG | Malin Array Be | 77.22 | 322 | P | P | 16 56 40.4 | +0.1 |
| | 1.0nm,0.4s,baz=88,slow=4.9,SNR=7.8 | | | | | | |
| MLR | Muntele Rosu | 78.22 | 316 | ⇓iP | P | 16 56 47.4 | +1.3 |
| DOPR | Dopca | 78.69 | 317 | ⇑iP | P | 16 56 51.7 | +3.1 |
| VOIR | | 78.83 | 316 | ⇑iP | P | 16 56 50.6 | +1.2 |
| FINES | FINESS Array B | 81.57 | 332 | P | P | 16 57 04.2 | +0.6 |
| | 1.7nm,0.5s,baz=91,slow=4.4,SNR=11 | | | | | | |
| ARCES | ARCESS Array B | 83.77 | 340 | P | P | 16 57 15.3 | +0.5 |
| | 2.8nm,0.7s,baz=85,slow=5.1,SNR=6.2 | | | | | | |
| GERES | GERESS Array B | 86.89 | 319 | P | P | 16 57 32.4 | +1.6 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 0.5nm,0.6s,baz=46,slow=3.9,SNR=4.2 | | | | | | |
| **HFS** | **Hagfors** | **87.39** | **330** | P | **P** | **16 57 34.4** | **+1.6** |
| | 1.7nm,0.6s,baz=113,slow=3.7,SNR=9.2 | | | | | | |

---

*IDC* ***02*** *16:45:45.9±1.9, 59.°77N×155.°04W, h140km±21km, mb3.4/5, mb1 3.6/9, mb1mx3.2/55, mbtmp3.8/9, MS2.9/1, Ms1 2.9/1, ms1mx2.3/28, Error ellipse: s-maj=25.9km s-min=19.9km az=25.0*
*ISCJB* ***02*** *16:45:46.7±0.3, 59.°53N±0.°04×154.°37W±0.°08, h191km±4km, mb3.7/5, Error ellipse: s-maj=7.6km s-min=4.3km az=37.5*
*NEIC* ***02*** *16:45:48.8±0.0, 59.°51N×154.°41W, h182km, MG3.0(AEIC), After AEIC.*
**ISC 02 16:45:47.9**±0.8**, 59.°54N**±0.°04×**154.°41W**±0.°05**, h184**km±6km**, n66,** σ1.s**53**/75**, mb3.7**/5**, Southern Alaska**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AUNW** | **Augustine NWes** | **0.50** | **108** | P | **Pn** | **16 46 13.5** | **+0.4** |
| **AUE** | **Augustine Isla** | **0.56** | **108** | P | **Pn** | **16 46 13.8** | **+0.4** |
| **CDD** | **Cape Douglas** | **0.73** | **147** | P | **Pn** | **16 46 14.2** | **-0.2** |
| **FONW** | **Fourpeaked Sta** | **0.75** | **160** | P | **Pn** | **16 46 14.3** | **-0.2** |
| **ILS** | **Iliamna Low So** | **0.80** | **58** | P | **Pn** | **16 46 15.1** | **+0.3** |
| **FOPK** | **Fourpeaked Vol** | **0.92** | **148** | P | **Pn** | **16 46 15.2** | **-0.4** |
| **KAHC** | **Katmai Hardscr** | **0.94** | **199** | P | **Pn** | **16 46 15.0** | **-0.7** |
| **KAWH** | **Katmai** | **1.17** | **190** | P | **Pn** | **16 46 16.8** | **-0.7** |
| **RED** | **Redoubt Volcan** | **1.21** | **42** | P | **Pn** | **16 46 17.7** | **0.0** |
| RED | | | | S | **Sn** | **16 46 40.3** | **-0.6** |
| **RDWB** | **Redoubt West** | **1.24** | **39** | P | **Pn** | **16 46 17.8** | **-0.2** |
| RDWB | | | | S | **Sn** | **16 46 41.2** | **-0.2** |
| **KVTA** | **Katmai Vly 10** | **1.25** | **202** | P | **Pn** | **16 46 17.5** | **-0.4** |
| **KELA** | **Mount Kelaz** | **1.30** | **213** | P | **Pn** | **16 46 17.8** | **-0.7** |
| **KABU** | **Katmai Buttres** | **1.35** | **200** | P | **Pn** | **16 46 18.8** | **-0.1** |
| **HOM** | **Homer** | **1.42** | **84** | P | **Pn** | **16 46 19.8** | **+0.5** |
| **CNPM** | **China Poot** | **1.62** | **89** | P | **Pn** | **16 46 21.7** | **+0.3** |
| CNPM | | | | S | **Sn** | **16 46 45.9** | **-1.4** |
| **SVW2** | **Sparrevohn** | **1.67** | **340** | P | **Pn** | **16 46 21.9** | **+0.1** |
| SVW2 | | | | S | **Sn** | **16 46 47.5** | **-0.8** |
| **BRLK** | **Bradley Lake** | **1.81** | **81** | P | **Pn** | **16 46 23.5** | **+0.3** |
| BRLK | | | | S | **Sn** | **16 46 49.1** | **-1.5** |
| **SPWE** | **Spurr West** | **1.97** | **27** | P | **Pn** | **16 46 25.4** | **+0.4** |
| **KDAK** | **Kodiak Island** | **2.00** | **151** | P | **Pn** | **16 46 24.3** | **-1.0** |
| | 23nm,0.3s,baz=65,slow=3.7,SNR=540 | | | | | | |
| KDAK | | | | S | **Sn** | **16 46 51.3** | **-2.9** |
| | 24nm,0.3s,baz=216,slow=20,SNR=13 | | | | | | |
| **SPBG** | **Spurr Blockage** | **2.00** | **30** | P | **Pn** | **16 46 25.9** | **+0.6** |
| SPBG | | | | S | **Sn** | **16 46 55.5** | **+1.0** |
| **PLK2** | **Peulik 2** | **2.04** | **210** | P | **Pn** | **16 46 25.4** | **-0.3** |
| **PLK1** | **Peulik 1** | **2.08** | **214** | P | **Pn** | **16 46 26.0** | **-0.1** |
| **PLK3** | **Peulik 3** | **2.09** | **208** | P | **Pn** | **16 46 26.0** | **-0.2** |
| **PLK4** | **Peulik 4** | **2.16** | **209** | P | **Pn** | **16 46 26.6** | **-0.5** |
| **SLKM** | **Skilak Lake** | **2.32** | **63** | P | **Pn** | **16 46 29.1** | **+0.4** |
| **STLK** | **Strandline Lak** | **2.35** | **32** | P | **Pn** | **16 46 29.7** | **+0.6** |
| **SEW** | **Seward** | **2.57** | **75** | P | **Pn** | **16 46 31.8** | **+0.3** |
| **SUA** | **Susitna One** | **2.65** | **42** | P | **Pn** | **16 46 32.5** | **-0.1** |
| **FIB** | **Fire Island** | **2.67** | **50** | P | **Pn** | **16 46 33.3** | **+0.7** |
| **RC01** | **Rabbit Creek A** | **2.80** | **54** | P | **Pn** | **16 46 34.1** | **-0.1** |
| **SKT** | **Skwentna** | **2.83** | **29** | P | **Pn** | **16 46 35.6** | **+0.9** |
| **ANNE** | **Aniakchak Nort** | **3.26** | **218** | P | **Pn** | **16 46 39.5** | **-0.5** |
| **ANNW** | **Aniakchak Nort** | **3.27** | **220** | P | **Pn** | **16 46 40.4** | **+0.3** |
| **ANPK** | **Aniakchak Peak** | **3.34** | **218** | P | **Pn** | **16 46 40.5** | **-0.5** |
| **TT01** | **Tatalina** | **3.47** | **348** | P | **Pn** | **16 46 42.4** | **0.0** |
| **TTA** | **Tatalina** | **3.49** | **348** | P | **Pn** | **16 46 43.1** | **+0.3** |
| **KNK** | **Knik Glacier** | **3.50** | **55** | P | **Pn** | **16 46 41.8** | **-1.0** |
| KNK | | | | S | **Sn** | **16 47 23.8** | **-2.0** |
| **GHO** | **Glory Hole Cre** | **3.51** | **48** | P | **Pn** | **16 46 41.6** | **-1.3** |
| **SML** | **Sawmill** | **3.76** | **50** | P | **Pn** | **16 46 44.7** | **-1.3** |
| **GLI** | **Glacier Island** | **3.89** | **67** | P | **Pn** | **16 46 46.5** | **-1.1** |
| **CAST** | **Castle Rocks** | **4.05** | **15** | P | **Pn** | **16 46 49.9** | **+0.1** |
| **FID** | **Port Fidalgo** | **4.15** | **70** | P | **Pn** | **16 46 50.4** | **-0.6** |
| **JPK** | **Jack Peak** | **4.18** | **65** | P | **Pn** | **16 46 51.3** | **0.0** |
| **SCM** | **Sheep Creek Mo** | **4.18** | **53** | P | **Pn** | **16 46 50.7** | **-0.6** |
| **VLZ** | **Valdez** | **4.32** | **65** | P | **Pn** | **16 46 53.3** | **+0.2** |
| **KTH** | **Kantishna Hill** | **4.36** | **21** | P | **Pn** | **16 46 52.8** | **-0.8** |
| **DIV** | **Divide** | **4.58** | **66** | P | **Pn** | **16 46 56.8** | **+0.2** |
| **KLU** | **Klutina** | **4.63** | **61** | P | **Pn** | **16 46 56.7** | **-0.5** |
| **RND** | **Reindeer** | **4.71** | **32** | P | **Pn** | **16 46 57.5** | **-0.6** |
| **BMRM** | **Bremner River** | **5.09** | **69** | P | **Pn** | **16 47 03.5** | **+0.4** |
| **MLY** | **Manley** | **5.77** | **16** | P | **Pn** | **16 47 10.5** | **-1.4** |
| **WRH** | **Wood River Hil** | **5.78** | **28** | P | **Pn** | **16 47 10.3** | **-1.6** |
| **CCB** | **Clear Creek Bu** | **5.99** | **28** | P | **Pn** | **16 47 13.2** | **-1.5** |
| **IL1** | **Eielson Array** | **6.32** | **31** | P | **Pn** | **16 47 17.4** | **-1.7** |
| **ILAR** | **Eielson Array** | **6.32** | **31** | P | **Pn** | **16 47 17.2** | **-1.8** |
| | 1.9nm,0.3s,baz=222,slow=13,SNR=130 | | | | | | |
| ILAR | | | | S | **Sn** | **16 48 23.1** | **-7.8** |
| | 1.6nm,0.3s,baz=215,slow=23,SNR=15 | | | | | | |
| **ILB** | **Eielson Array** | **6.32** | **31** | P | **Pn** | **16 47 17.2** | **-1.8** |
| **IM3** | **Indian Mountai** | **6.48** | **2** | P | **Pn** | **16 47 20.4** | **-0.6** |
| **BCA3** | **Beaver Creek A** | **7.03** | **54** | P | **Pn** | **16 47 27.6** | **-0.8** |
| **INK** | **Inuvik** | **12.64** | **37** | P | **Pn** | **16 48 41.5** | **+0.5** |
| | 0.3nm,0.3s,baz=209,slow=12,SNR=5.3 | | | | | | |
| INK | | | | S | **S** | **16 51 08.2** | **+2.8** |
| | 0.0nm,0.3s,baz=215,slow=33,SNR=5.3 | | | | | | |
| **YKA** | **Yellowknife Ar** | **19.30** | **64** | P | **Pn** | **16 49 59.5** | **-2.0** |
| | 0.3nm,0.3s,baz=276,slow=9.8,SNR=12 | | | | | | |
| **NEW** | **Newport** | **24.35** | **101** | P | **P** | **16 50 54.9** | **+6.2** |
| | 3.2nm,0.4s,baz=305,slow=18,SNR=8.0 | | | | | | |
| **RES** | **Resolute Bay** | **26.08** | **31** | LR | LR | 17 02 17.3 | |
| | comp=Z,28nm,19.4s,baz=116,slow=38 | | | | | | |
| **SONM** | **Songino Array** | **54.48** | **305** | P | **P** | **16 54 57.0** | **+0.9** |
| | 0.4nm,0.6s,baz=34,slow=11,SNR=3.7 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **57.32** | **323** | P | **P** | **16 55 16.0** | **0.0** |
| | 0.8nm,0.5s,baz=37,slow=7.6,SNR=3.9 | | | | | | |
| **BVAR** | **Borovoye Array** | **62.14** | **331** | P | **P** | **16 55 48.3** | **-0.5** |
| | 0.6nm,0.5s,baz=35,slow=5.3,SNR=3.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **64.34** | **320** | P | **P** | **16 56 02.1** | **-1.3** |
| | 0.2nm,0.4s,baz=31,slow=7.0,SNR=4.1 | | | | | | |

---

*ISN* ***02*** *16:53:02.6±1.0, 38.°99N×43.°37E, h0km±48km, ML3.9*
*AZER* ***02*** *16:53:07.5±0.4, 38.°94N×42.°86E, h7km, Error ellipse: s-maj=3.0km s-min=2.3km az=117.0*
*ATA* ***02*** *16:53:08.4±1.3, 38.°77N×43.°23E, h14km±10km, ML4.5, MW4.3*
*DDA* ***02*** *16:53:08.7, 38.°73N×43.°28E, h21km, Ml4.0*
*ISK* ***02*** *16:53:09.1, 38.°73N×43.°38E, h10km, ML3.8*
*CSEM* ***02*** *16:53:09.4±0.1, 38.°72N×43.°27E, h2km, ML3.8, Error ellipse: s-maj=3.4km s-min=2.7km az=145.0*
**ISC 02 16:53:10.0**±0.8**, 38.°72N**±0.°01×**43.°32E**±0.°01**, h16**km±5km**, n165,** σ2.s**52**/272**, 32C-43D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.14** | **158** | PG | **Pg** | **16 53 14.0** | **0.0** |
| VANB | | | | eSG | **Sg** | **16 53 18.7** | **+2.1** |
| **VANB** | **Van** | **0.14** | **158** | i Pg | **Pg** | **16 53 14.0** | **0.0** |
| **TVAN** | **Van** | **0.20** | **161** | ⇓iP | **Pg** | **16 53 14.2** | **-0.8** |
| TVAN | | | | i S | **Sg** | **16 53 18.6** | **+0.2** |
| **TVAN** | **Van** | **0.20** | **161** | P | **Pg** | **16 53 14.2** | **-0.8** |
| TVAN | | | | S | **Sg** | **16 53 18.5** | **+0.2** |
| **ERCV** | **ERCIS-VAN** | **0.30** | **2** | ePG | **Pg** | **16 53 15.2** | **-1.3** |
| ERCV | | | | eSG | **Sb** | **16 53 20.8** | **-1.1** |
| **ERCV** | **ERCIS-VAN** | **0.30** | **2** | ePg | **Pg** | **16 53 15.2** | **-1.3** |
| ERCV | | | | eSg | **Sb** | **16 53 20.8** | **-1.1** |
| **VMUR** | **Van-Muradiye** | **0.33** | **36** | ⇓iP | **Pb** | **16 53 16.5** | **-1.2** |
| VMUR | | | | i S | **Sb** | **16 53 22.7** | **-0.1** |
| **VMUR** | **Van-Muradiye** | **0.33** | **36** | P | **Pb** | **16 53 16.5** | **-1.2** |
| VMUR | | | | S | **Sb** | **16 53 22.7** | **-0.1** |
| **GEVA** | **Gevas** | **0.46** | **207** | eP | **Pg** | **16 53 17.6** | **-1.7** |
| GEVA | | | | IAML | | 16 53 18.1 | |
| | comp=Z,7µm,0.4s | | | | | | |
| GEVA | | | | eS | **Sg** | **16 53 25.6** | **0.0** |
| **GEVA** | **Gevas** | **0.46** | **207** | ⇓iP | **Pg** | **16 53 17.6** | **-1.7** |
| GEVA | | | | i S | **Sg** | **16 53 25.5** | **0.0** |
| **GEVA** | **Gevas** | **0.46** | **207** | P | **Pg** | **16 53 17.6** | **-1.7** |
| GEVA | | | | S | **Sg** | **16 53 25.5** | **0.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.48** | **281** | ⇑iP | **Pg** | **16 53 17.8** | **-1.8** |
| ADCV | | | | i S | **Sg** | **16 53 24.9** | **-1.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.48** | **281** | P | **Pg** | **16 53 17.8** | **-1.8** |
| ADCV | | | | S | **Sg** | **16 53 24.9** | **-1.2** |
| **CLDR** | **Caldiran** | **0.63** | **47** | ePG | **Pg** | **16 53 20.5** | **-2.0** |
| **CLDR** | **Caldiran** | **0.63** | **47** | ⇓iP | **Pb** | **16 53 21.2** | **-1.5** |
| CLDR | | | | i S | **Sb** | **16 53 31.7** | **+0.3** |
| **CLDR** | **Caldiran** | **0.63** | **47** | ePg | **Pg** | **16 53 20.5** | **-2.0** |
| **CLDR** | **Caldiran** | **0.63** | **47** | P | **Pb** | **16 53 21.2** | **-1.5** |
| CLDR | | | | S | **Sb** | **16 53 31.7** | **+0.3** |
| **TUTA** | **Tutak** | **0.79** | **330** | eP | **Pg** | **16 53 23.1** | **-2.3** |
| TUTA | | | | eS | **Sg** | **16 53 33.7** | **-2.3** |
| TUTA | | | | IAML | | 16 53 35.5 | |
| | comp=Z,4µm,0.6s | | | | | | |
| **TUTA** | **Tutak** | **0.79** | **330** | ⇓iP | **Pg** | **16 53 23.2** | **-2.3** |
| TUTA | | | | i S | **Sg** | **16 53 33.6** | **-2.3** |
| **TUTA** | **Tutak** | **0.79** | **330** | P | **Pg** | **16 53 23.2** | **-2.3** |
| TUTA | | | | S | **Sg** | **16 53 33.6** | **-2.3** |
| **BASK** | **Baskale_VAN** | **0.85** | **141** | eP | **Pn** | **16 53 27.6** | **0.0** |
| BASK | | | | eS | **Sn** | **16 53 41.3** | **+1.5** |
| BASK | | | | IAML | | 16 53 46.3 | |
| | comp=Z,1µm,0.5s | | | | | | |
| **BASK** | **Baskale_VAN** | **0.85** | **141** | i P | **Pg** | **16 53 25.0** | **-1.7** |
| BASK | | | | i S | **Sn** | **16 53 38.9** | **-0.9** |
| **BASK** | **Baskale_VAN** | **0.85** | **141** | P | **Pg** | **16 53 25.0** | **-1.7** |
| BASK | | | | S | **Sn** | **16 53 38.9** | **-0.9** |
| **DYDN** | **Diyadin** | **0.87** | **19** | eP | **Pg** | **16 53 24.9** | **-2.0** |
| DYDN | | | | IAML | | 16 53 26.9 | |
| | comp=Z,575nm,0.5s | | | | | | |
| DYDN | | | | eS | **Sb** | **16 53 38.6** | **+0.2** |
| **DYDN** | **Diyadin** | **0.87** | **19** | ⇓iP | **Pg** | **16 53 25.0** | **-2.0** |
| DYDN | | | | i S | **Sb** | **16 53 37.6** | **-0.8** |
| **DYDN** | **Diyadin** | **0.87** | **19** | P | **Pg** | **16 53 25.0** | **-2.0** |
| DYDN | | | | S | **Sb** | **16 53 37.6** | **-0.8** |
| **AGRB** | **Hanur-Agry** | **0.89** | **343** | ePG | **Pg** | **16 53 25.1** | **-2.3** |
| **AGRB** | **Hanur-Agry** | **0.89** | **343** | ePg | **Pg** | **16 53 25.1** | **-2.3** |
| **EKAR** | **Karacoban** | **1.12** | **299** | eP | **Pb** | **16 53 29.7** | **-1.4** |
| EKAR | | | | eS | **Sg** | **16 53 45.3** | **-1.1** |
| EKAR | | | | IAML | | 16 54 06.8 | |
| | comp=Z,700nm,0.6s | | | | | | |
| **EKAR** | **Karacoban** | **1.12** | **299** | ⇓iP | **Pb** | **16 53 29.7** | **-1.4** |
| EKAR | | | | i S | **Sn** | **16 53 47.2** | **+0.8** |
| **EKAR** | **Karacoban** | **1.12** | **299** | P | **Pb** | **16 53 29.7** | **-1.4** |
| EKAR | | | | S | **Sn** | **16 53 47.2** | **+0.8** |
| **HAKT** | **HAKKARI** | **1.20** | **165** | ⇓iP | **Pb** | **16 53 30.7** | **-1.8** |
| HAKT | | | | i S | **Sn** | **16 53 50.1** | **+1.7** |
| **HAKT** | **HAKKARI** | **1.20** | **165** | P | **Pb** | **16 53 30.7** | **-1.8** |
| HAKT | | | | S | **Sn** | **16 53 50.1** | **+1.7** |
| **EATA** | **Eleskirt** | **1.31** | **331** | ⇓eP | **Pn** | **16 53 32.8** | **-1.1** |
| EATA | | | | eS | **Sb** | **16 53 50.3** | **-0.8** |
| EATA | | | | IAML | | 16 53 51.7 | |
| | comp=Z,342nm,0.4s | | | | | | |
| **EATA** | **Eleskirt** | **1.31** | **331** | ⇓iP | **Pn** | **16 53 32.8** | **-1.1** |
| EATA | | | | i S | **Sb** | **16 53 51.2** | **+0.1** |
| **EATA** | **Eleskirt** | **1.31** | **331** | P | **Pn** | **16 53 32.8** | **-1.1** |
| EATA | | | | S | **Sb** | **16 53 51.2** | **+0.1** |
| **SRTM** | **Siirt_Merkez** | **1.32** | **237** | ⇑iP | **Pn** | **16 53 33.9** | **0.0** |
| SRTM | | | | i S | **Sb** | **16 53 51.4** | **+0.2** |
| **SRTM** | **Siirt_Merkez** | **1.32** | **237** | P | **Pn** | **16 53 33.9** | **0.0** |
| SRTM | | | | S | **Sb** | **16 53 51.4** | **+0.2** |
| **SIRT** | **Sirnak** | **1.40** | **210** | ePN | **Pn** | **16 53 35.2** | **+0.2** |
| **SIRT** | **Sirnak** | **1.40** | **210** | ePn | **Pn** | **16 53 35.2** | **+0.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.45** | **29** | ePN | **Pb** | **16 53 35.7** | **-0.9** |
| **TASB** | **TASBURUN-IGDIR** | **1.45** | **29** | ePn | **Pb** | **16 53 35.7** | **-0.9** |
| **CUKT** | **Cukurca** | **1.49** | **171** | ePN | **Pb** | **16 53 36.8** | **-0.5** |
| **CUKT** | **Cukurca** | **1.49** | **171** | ⇑iP | **Pb** | **16 53 36.8** | **-0.5** |
| CUKT | | | | i S | **Sg** | **16 53 56.8** | **-1.2** |
| **CUKT** | **Cukurca** | **1.49** | **171** | P | **Pb** | **16 53 36.8** | **-0.5** |
| CUKT | | | | S | **Sg** | **16 53 56.8** | **-1.2** |
| **VRTB** | **Varto-Mus** | **1.52** | **287** | ePN | **Pn** | **16 53 36.9** | **+0.2** |
| **VRTB** | **Varto-Mus** | **1.52** | **287** | i P | **Pn** | **16 53 36.8** | **+0.1** |
| VRTB | | | | i S | **Sg** | **16 53 59.1** | **0.0** |
| **VRTB** | **Varto-Mus** | **1.52** | **287** | P | **Pn** | **16 53 36.8** | **+0.1** |
| VRTB | | | | S | **Sg** | **16 53 59.1** | **0.0** |
| **HYR** | **Heyderabad** | **1.55** | **49** | ⇓P | **Pg** | **16 53 38.2** | **-1.7** |
| HYR | | | | ⇑S | **Sg** | **16 54 01.7** | **+1.7** |
| **HYR** | **Heyderabad** | **1.55** | **49** | P | **Pg** | **16 53 38.2** | **-1.7** |
| HYR | | | | S | **Sg** | **16 54 01.7** | **+1.7** |
| **DIGO** | **Kars** | **1.69** | **1** | eP | **Pn** | **16 53 39.5** | **+0.3** |
| DIGO | | | | IAML | | 16 53 43.0 | |
| | comp=Z,159nm,0.4s | | | | | | |
| DIGO | | | | eS | **Sg** | **16 54 04.5** | **-0.1** |
| **DIGO** | **Kars** | **1.69** | **1** | ⇓iP | **Pb** | **16 53 39.6** | **-1.3** |
| DIGO | | | | i S | **Sg** | **16 54 05.3** | **+0.7** |
| **DIGO** | **Kars** | **1.69** | **1** | P | **Pb** | **16 53 39.6** | **-1.3** |
| DIGO | | | | S | **Sg** | **16 54 05.3** | **+0.7** |
| **BNGL** | **BINGOL** | **1.71** | **278** | eP | **Pn** | **16 53 39.8** | **+0.5** |
| BNGL | | | | eS | **Sb** | **16 54 03.4** | **+0.8** |
| BNGL | | | | IAML | | 16 54 06.4 | |
| | comp=Z,1µm,0.6s | | | | | | |
| **BNGL** | **BINGOL** | **1.71** | **278** | i P | **Pn** | **16 53 39.3** | **-0.1** |
| BNGL | | | | i S | **Sb** | **16 54 04.2** | **+1.6** |
| **HOMI** | **Horasan** | **1.72** | **321** | eP | **Pn** | **16 53 40.1** | **+0.6** |
| HOMI | | | | eS | **Sb** | **16 54 03.6** | **+0.8** |
| HOMI | | | | IAML | | 16 54 10.9 | |
| | comp=Z,441nm,0.6s | | | | | | |
| **HOMI** | **Horasan** | **1.72** | **321** | i P | **Pb** | **16 53 40.5** | **-0.9** |
| HOMI | | | | i S | **Sb** | **16 54 03.4** | **+0.6** |
| **NAX** | **Nakhchivan** | **1.75** | **74** | ⇑P | **Pg** | **16 53 42.6** | **-1.1** |
| | SNR=13 | | | | | | |
| NAX | | | | ⇓S | **Sg** | **16 54 08.4** | **+1.9** |
| **NAX** | **Nakhchivan** | **1.75** | **74** | P | **Pg** | **16 53 42.6** | **-1.1** |
| | SNR=13 | | | | | | |
| NAX | | | | S | **Sg** | **16 54 08.4** | **+1.9** |
| **SVAN** | **Silvan-Diyarba** | **1.76** | **252** | ePN | **Pn** | **16 53 40.8** | **+0.8** |
| **SVAN** | **Silvan-Diyarba** | **1.76** | **252** | i P | **Pn** | **16 53 40.7** | **+0.8** |
| SVAN | | | | i S | **Sn** | **16 54 03.7** | **+1.7** |
| **SVAN** | **Silvan-Diyarba** | **1.76** | **252** | P | **Pn** | **16 53 40.7** | **+0.8** |
| SVAN | | | | S | **Sn** | **16 54 03.7** | **+1.7** |
| **BTMN** | **Batman** | **1.81** | **244** | i P | **Pn** | **16 53 40.8** | **+0.1** |
| BTMN | | | | i S | **Sn** | **16 54 05.3** | **+2.0** |
| **BTMN** | **Batman** | **1.81** | **244** | P | **Pn** | **16 53 40.8** | **+0.1** |
| BTMN | | | | S | **Sn** | **16 54 05.3** | **+2.0** |
| **SBZ** | **Shahbuz** | **1.86** | **68** | ⇓P | **Pg** | **16 53 43.6** | **-2.2** |
| SBZ | | | | ⇓S | **Sg** | **16 54 13.2** | **+3.2** |
| **SBZ** | **Shahbuz** | **1.86** | **68** | P | **Pg** | **16 53 43.6** | **-2.2** |
| **KARS** | **Kars** | **1.91** | **354** | ePN | **Pn** | **16 53 42.5** | **+0.4** |
| **KARS** | **Kars** | **1.91** | **354** | ePn | **Pn** | **16 53 42.5** | **+0.4** |
| **ERZM** | **Erzurum** | **1.93** | **309** | eP | **Pn** | **16 53 42.8** | **+0.5** |
| **ERZM** | **Erzurum** | **1.93** | **309** | i P | **Pn** | **16 53 43.0** | **+0.6** |
| ERZM | | | | i S | **Sb** | **16 54 10.1** | **+1.3** |
| **ERZM** | **Erzurum** | **1.93** | **309** | P | **Pn** | **16 53 43.0** | **+0.6** |
| ERZM | | | | S | **Sb** | **16 54 10.1** | **+1.3** |
| **EAK** | **Akyaka** | **1.98** | **6** | eP | **Pb** | **16 53 44.1** | **-1.6** |
| EAK | | | | IAML | | 16 53 56.0 | |
| | comp=Z,222nm,0.7s | | | | | | |
| **EAK** | **Akyaka** | **1.98** | **6** | ⇓iP | **Pg** | **16 53 46.1** | **-1.9** |
| EAK | | | | i S | **Sg** | **16 54 15.5** | **+1.9** |
| **EAK** | **Akyaka** | **1.98** | **6** | P | **Pg** | **16 53 46.1** | **-1.9** |
| **SENK** | **Senkaya-Erzuru** | **1.99** | **338** | ePN | **Pn** | **16 53 43.9** | **+0.8** |
| **SENK** | **Senkaya-Erzuru** | **1.99** | **338** | ePn | **Pn** | **16 53 43.9** | **+0.8** |
| **ECAT** | **Cat-ERZURUM** | **2.03** | **297** | eP | **Pn** | **16 53 44.7** | **+1.0** |
| ECAT | | | | IAML | | 16 53 53.5 | |
| | comp=Z,102nm,0.4s | | | | | | |
| ECAT | | | | eS | **Sb** | **16 54 12.2** | **+0.5** |
| **ECAT** | **Cat-ERZURUM** | **2.03** | **297** | i P | **Pn** | **16 53 45.1** | **+1.4** |
| ECAT | | | | i S | **Sb** | **16 54 11.8** | **+0.1** |
| **ECAT** | **Cat-ERZURUM** | **2.03** | **297** | P | **Pn** | **16 53 45.1** | **+1.4** |
| ECAT | | | | S | **Sb** | **16 54 11.8** | **+0.1** |
| **BNGB** | **Bingˆ¶l** | **2.08** | **278** | ePN | **Pn** | **16 53 45.7** | **+1.3** |
| **ORD** | **Ordubad** | **2.10** | **83** | P | **Pg** | **16 53 48.7** | **-1.6** |
| **BINT** | **Bingol** | **2.22** | **275** | ePn | **Pn** | **16 53 45.7** | **-0.6** |
| **YEDI** | **Yedisu-Bingol** | **2.28** | **289** | ePN | **Pn** | **16 53 48.6** | **+1.5** |
| **YEDI** | **Yedisu-Bingol** | **2.28** | **289** | ePn | **Pn** | **16 53 48.6** | **+1.5** |
| **KOPT** | **Kop Dagi** | **2.54** | **301** | eP | **Pn** | **16 53 51.8** | **+1.0** |
| KOPT | | | | IAML | | 16 54 43.1 | |
| | comp=Z,71nm,0.6s | | | | | | |
| **BGD** | **Bogdanovka** | **2.55** | **5** | P | **Pn** | **16 53 52.1** | **+1.2** |
| **DIY** | **Diyarbakir** | **2.57** | **252** | ePn | **Pn** | **16 53 53.4** | **+2.4** |
| **MAZI** | **Mazidag** | **2.59** | **242** | ePN | **Pn** | **16 53 53.4** | **+2.0** |
| **MAZI** | **Mazidag** | **2.59** | **242** | ePn | **Pn** | **16 53 53.4** | **+2.0** |
| **DYBB** | **Diyarbakir** | **2.62** | **254** | ePN | **Pn** | **16 53 53.4** | **+1.7** |
| **ARTV** | **Artvin** | **2.69** | **337** | eP | **Pn** | **16 53 53.1** | **+0.3** |
| ARTV | | | | IAML | | 16 54 08.6 | |
| | comp=Z,17nm,0.4s | | | | | | |
| **AKH** | **Akhalkalaki** | **2.69** | **3** | ePN | **Pn** | **16 53 53.5** | **+0.7** |
| **AKH** | **Akhalkalaki** | **2.69** | **3** | P | **Pb** | **16 53 58.4** | **+0.6** |
| **AKH** | **Akhalkalaki** | **2.69** | **3** | ePn | **Pn** | **16 53 53.5** | **+0.7** |
| **GDB** | **GEDABAY** | **2.74** | **42** | ⇓P | **Pn** | **16 53 53.7** | **+0.3** |
| | SNR=17 | | | | | | |
| GDB | | | | ⇑S | **Sb** | **16 54 29.4** | **-2.7** |
| **GDB** | **GEDABAY** | **2.74** | **42** | P | **Pn** | **16 53 53.7** | **+0.3** |
| | SNR=17 | | | | | | |
| GDB | | | | S | **Sb** | **16 54 29.4** | **-2.7** |
| **EPOS** | **Posof** | **2.82** | **351** | eP | **Pn** | **16 53 55.4** | **+0.9** |
| EPOS | | | | IAML | | 16 54 04.9 | |
| | comp=Z,26nm,0.7s | | | | | | |
| **QZX** | **Qazax, Azerbai** | **2.82** | **33** | ⇑P | **Pn** | **16 53 53.7** | **-0.7** |
| | SNR=10.0 | | | | | | |
| QZX | | | | ⇓S | **Sn** | **16 54 29.3** | **+1.3** |
| **QZX** | **Qazax, Azerbai** | **2.82** | **33** | P | **Pn** | **16 53 53.7** | **-0.7** |
| | SNR=10.0 | | | | | | |
| QZX | | | | S | **Sn** | **16 54 29.3** | **+1.3** |
| **ERZN** | **Erzincan** | **2.93** | **288** | ePN | **Pn** | **16 53 58.0** | **+2.0** |
| **GANJ** | **Ganja** | **3.01** | **49** | ⇑P | **Pn** | **16 53 57.9** | **+0.9** |
| | SNR=13 | | | | | | |
| GANJ | | | | ⇑S | **Sb** | **16 54 36.9** | **-2.8** |
| **GANJ** | **Ganja** | **3.01** | **49** | P | **Pn** | **16 53 57.9** | **+0.9** |
| | SNR=13 | | | | | | |
| GANJ | | | | S | **Sb** | **16 54 36.9** | **-2.8** |
| **PTK** | **Pertek** | **3.08** | **274** | ePN | **Pn** | **16 54 00.2** | **+2.1** |
| **PTK** | **Pertek** | **3.08** | **274** | ePn | **Pn** | **16 54 00.2** | **+2.1** |
| **SVRC** | **Sivrice-ELAZID** | **3.17** | **265** | ePN | **Pn** | **16 54 01.5** | **+2.2** |
| **SVRC** | **Sivrice-ELAZID** | **3.17** | **265** | ePn | **Pn** | **16 54 01.5** | **+2.2** |
| **TBLG** | **Delisi** | **3.20** | **19** | ePN | **Pn** | **16 54 00.5** | **+0.9** |
| **TBLG** | **Delisi** | **3.20** | **19** | P | **Pb** | **16 54 06.2** | **-0.2** |
| **TBLG** | **Delisi** | **3.20** | **19** | ePn | **Pn** | **16 54 00.5** | **+0.9** |
| **BRDA** | **Brd** | **3.36** | **61** | ⇑P | **Pn** | **16 54 03.5** | **+1.7** |
| | SNR=3.2 | | | | | | |
| BRDA | | | | ⇓S | **Sb** | **16 54 47.0** | **-2.7** |
| **BRDA** | **Brd** | **3.36** | **61** | P | **Pn** | **16 54 03.5** | **+1.7** |
| | SNR=3.2 | | | | | | |
| BRDA | | | | S | **Sb** | **16 54 47.0** | **-2.7** |
| **DDFL** | **Dedoflistskaro** | **3.46** | **37** | P | **Pb** | **16 54 12.2** | **+1.2** |
| **MNGR** | **Mingechevir, A** | **3.55** | **54** | ⇓P | **Pn** | **16 54 05.5** | **+1.1** |
| | SNR=3.3 | | | | | | |
| MNGR | | | | ⇑S | **Sb** | **16 54 50.7** | **-4.6** |
| **MNGR** | **Mingechevir, A** | **3.55** | **54** | P | **Pn** | **16 54 05.5** | **+1.1** |
| | SNR=3.3 | | | | | | |
| MNGR | | | | S | **Sb** | **16 54 50.7** | **-4.6** |
| **ZRD** | **Zardab** | **3.71** | **64** | ⇑P | **Pn** | **16 54 08.5** | **+1.8** |
| | SNR=5.2 | | | | | | |
| ZRD | | | | ⇓S | **Sb** | **16 54 56.1** | **-3.9** |
| **ZRD** | **Zardab** | **3.71** | **64** | P | **Pn** | **16 54 08.5** | **+1.8** |
| | SNR=5.2 | | | | | | |
| ZRD | | | | S | **Sb** | **16 54 56.1** | **-3.9** |
| **URFA** | **Urfa** | **3.77** | **252** | ePN | **Pn** | **16 54 09.9** | **+2.3** |
| **URFA** | **Urfa** | **3.77** | **252** | ePn | **Pn** | **16 54 09.9** | **+2.3** |
| **ZKTA** | **Zakatala** | **3.86** | **40** | ⇓P | **Pn** | **16 54 08.6** | **-0.1** |
| | SNR=6.5 | | | | | | |
| ZKTA | | | | ⇓S | **Sn** | **16 54 56.2** | **+2.6** |
| **MALT** | **Malatya** | **3.86** | **265** | ePN | **Pn** | **16 54 10.9** | **+2.1** |
| **MALT** | **Malatya** | **3.86** | **265** | ePn | **Pn** | **16 54 10.9** | **+2.1** |
| **ONI** | **Oni** | **3.87** | **1** | P | **Pb** | **16 54 19.2** | **+1.4** |
| **SEKA** | **Sheki** | **3.88** | **49** | ⇓P | **Pn** | **16 54 10.4** | **+1.4** |
| | SNR=4.1 | | | | | | |
| SEKA | | | | ⇑S | **Sb** | **16 54 59.5** | **-5.2** |
| **SEKA** | **Sheki** | **3.88** | **49** | P | **Pn** | **16 54 10.4** | **+1.4** |
| | SNR=4.1 | | | | | | |
| SEKA | | | | S | **Sb** | **16 54 59.5** | **-5.2** |
| **LRK** | **Lerik** | **3.93** | **90** | ⇓P | **Pn** | **16 54 13.0** | **+3.2** |
| | SNR=6.7 | | | | | | |
| LRK | | | | ⇓S | **Sb** | **16 55 04.1** | **-2.1** |
| **LRK** | **Lerik** | **3.93** | **90** | P | **Pn** | **16 54 13.0** | **+3.2** |
| | SNR=6.7 | | | | | | |
| **GLBA** | **Clilabad** | **3.98** | **81** | ⇑P | **Pn** | **16 54 13.3** | **+2.9** |
| | SNR=4.8 | | | | | | |
| GLBA | | | | ⇓S | **Sb** | **16 55 04.8** | **-3.0** |
| **GLBA** | **Clilabad** | **3.98** | **81** | P | **Pn** | **16 54 13.3** | **+2.9** |
| | SNR=4.8 | | | | | | |
| GLBA | | | | S | **Sb** | **16 55 04.8** | **-3.0** |
| **KDMR** | **Kurdemir** | **4.11** | **65** | ⇑P | **Pn** | **16 54 13.9** | **+1.9** |
| KDMR | | | | ⇓S | **Sb** | **16 55 05.7** | **-5.5** |
| **KDMR** | **Kurdemir** | **4.11** | **65** | P | **Pn** | **16 54 13.9** | **+1.9** |
| KDMR | | | | S | **Sb** | **16 55 05.7** | **-5.5** |
| **SAAT** | **Saatly** | **4.12** | **72** | ⇑P | **Pn** | **16 54 14.1** | **+1.9** |
| SAAT | | | | ⇓S | **Sb** | **16 55 06.2** | **-5.4** |
| **SAAT** | **Saatly** | **4.12** | **72** | P | **Pn** | **16 54 14.1** | **+1.9** |
| SAAT | | | | S | **Sb** | **16 55 06.2** | **-5.4** |
| **QBL** | **Gabala** | **4.12** | **56** | ⇓P | **Pn** | **16 54 13.5** | **+1.1** |
| | SNR=4.0 | | | | | | |
| QBL | | | | ⇓S | **Sb** | **16 55 05.1** | **-6.8** |
| **QBL** | **Gabala** | **4.12** | **56** | P | **Pn** | **16 54 13.5** | **+1.1** |
| | SNR=4.0 | | | | | | |
| QBL | | | | S | **Sb** | **16 55 05.1** | **-6.8** |
| **LKRN** | **Lenkeran, Azer** | **4.27** | **88** | ⇑P | **Pn** | **16 54 17.6** | **+3.3** |
| LKRN | | | | ⇑S | **Sb** | **16 55 12.4** | **-3.4** |
| **LKRN** | **Lenkeran, Azer** | **4.27** | **88** | P | **Pn** | **16 54 17.6** | **+3.3** |
| **IML** | **Ismayilli** | **4.28** | **60** | ⇓P | **Pn** | **16 54 15.9** | **+1.4** |
| | SNR=3.2 | | | | | | |
| IML | | | | ⇓S | **Sb** | **16 55 09.4** | **-6.9** |
| **IML** | **Ismayilli** | **4.28** | **60** | P | **Pn** | **16 54 15.9** | **+1.4** |
| | SNR=3.2 | | | | | | |
| IML | | | | S | **Sb** | **16 55 09.4** | **-6.9** |
| **ASTR** | **Astara** | **4.28** | **90** | ⇑P | **Pn** | **16 54 17.9** | **+3.4** |
| ASTR | | | | ⇓S | **Sb** | **16 55 13.0** | **-3.4** |
| **ASTR** | **Astara** | **4.28** | **90** | P | **Pn** | **16 54 17.9** | **+3.4** |
| **XNQ** | **Khinaliq** | **4.44** | **55** | ⇑P | **Pn** | **16 54 17.8** | **+1.0** |
| | SNR=3.3 | | | | | | |
| XNQ | | | | ⇑S | **Sn** | **16 55 12.7** | **+4.5** |
| **XNQ** | **Khinaliq** | **4.44** | **55** | P | **Pn** | **16 54 17.8** | **+1.0** |
| | SNR=3.3 | | | | | | |
| XNQ | | | | S | **Sn** | **16 55 12.7** | **+4.5** |
| **PQL** | **Pirkuli** | **4.56** | **61** | ⇑P | **Pn** | **16 54 19.8** | **+1.4** |
| PQL | | | | ⇓S | **Sn** | **16 55 16.5** | **+5.4** |
| **PQL** | **Pirkuli** | **4.56** | **61** | P | **Pn** | **16 54 19.8** | **+1.4** |
| PQL | | | | S | **Sn** | **16 55 16.5** | **+5.4** |
| **ALIB** | **Äli-Bayra** | **4.58** | **73** | ⇑P | **Pn** | **16 54 20.9** | **+2.4** |
| ALIB | | | | ⇓S | **Sb** | **16 55 18.4** | **-6.4** |
| **ALIB** | **Äli-Bayra** | **4.58** | **73** | P | **Pn** | **16 54 20.9** | **+2.4** |
| ALIB | | | | S | **Sb** | **16 55 18.4** | **-6.4** |
| **GBS** | **Qobustan** | **4.70** | **66** | ⇑P | **Pn** | **16 54 22.1** | **+1.8** |
| GBS | | | | ⇑S | **Sb** | **16 55 20.5** | **-7.9** |
| **GBS** | **Qobustan** | **4.70** | **66** | P | **Pn** | **16 54 22.1** | **+1.8** |
| GBS | | | | S | **Sb** | **16 55 20.5** | **-7.9** |
| **QSAR** | **Qusar** | **4.70** | **52** | ⇓P | **Pn** | **16 54 21.1** | **+0.8** |
| | SNR=2.9 | | | | | | |
| QSAR | | | | ⇓S | **Sn** | **16 55 18.7** | **+4.1** |
| **QSAR** | **Qusar** | **4.70** | **52** | P | **Pn** | **16 54 21.1** | **+0.8** |
| | SNR=2.9 | | | | | | |
| QSAR | | | | S | **Sn** | **16 55 18.7** | **+4.1** |
| **QUBA** | **Quba, Azerbaij** | **4.76** | **55** | ⇓P | **Pn** | **16 54 22.1** | **+1.0** |
| QUBA | | | | ⇑S | **Sn** | **16 55 20.5** | **+4.6** |
| **QUBA** | **Quba, Azerbaij** | **4.76** | **55** | P | **Pn** | **16 54 22.1** | **+1.0** |
| QUBA | | | | S | **Sn** | **16 55 20.5** | **+4.6** |
| **ATGJ** | **Altiaghaj** | **4.82** | **62** | ⇑P | **Pn** | **16 54 23.5** | **+1.5** |
| ATGJ | | | | ⇓S | **Sn** | **16 55 23.1** | **+5.5** |
| **ATGJ** | **Altiaghaj** | **4.82** | **62** | P | **Pn** | **16 54 23.5** | **+1.5** |
| ATGJ | | | | S | **Sn** | **16 55 23.1** | **+5.5** |
| **SIZA** | **Siyzn** | **4.89** | **59** | ⇑P | **Pn** | **16 54 24.3** | **+1.4** |
| SIZA | | | | ⇑S | **Sn** | **16 55 24.4** | **+5.2** |
| **SIZA** | **Siyzn** | **4.89** | **59** | P | **Pn** | **16 54 24.3** | **+1.4** |
| SIZA | | | | S | **Sn** | **16 55 24.4** | **+5.2** |
| **GOBA** | **Gobu** | **5.23** | **69** | ⇑P | **Pn** | **16 54 29.6** | **+2.1** |
| GOBA | | | | ⇓S | **Sn** | **16 55 34.0** | **+6.6** |
| **GOBA** | **Gobu** | **5.23** | **69** | P | **Pn** | **16 54 29.6** | **+2.1** |
| GOBA | | | | S | **Sn** | **16 55 34.0** | **+6.6** |
| **NDR** | **Nardaran** | **5.47** | **68** | ⇓P | **Pn** | **16 54 32.8** | **+2.0** |
| NDR | | | | ⇓S | **Sn** | **16 55 39.7** | **+6.4** |
| **NDR** | **Nardaran** | **5.47** | **68** | P | **Pn** | **16 54 32.8** | **+2.0** |
| **BHD** | **Baghdad** | **5.51** | **171** | ePn | **Pn** | **16 54 31.0** | **-0.3** |
| | SNR=3.0 | | | | | | |
| **GALA** | **Gala** | **5.54** | **70** | ⇑P | **Pn** | **16 54 34.0** | **+2.2** |
| GALA | | | | ⇑S | **Sn** | **16 55 41.8** | **+6.7** |
| **GALA** | **Gala** | **5.54** | **70** | P | **Pn** | **16 54 34.0** | **+2.2** |
| **RTB** | **Rutbah** | **6.18** | **204** | ePn | **Pn** | **16 54 40.0** | **-0.7** |
| | SNR=3.0 | | | | | | |
| **NSR** | **Nassriya** | **8.03** | **162** | ePn | **Pn** | **16 55 06.0** | **0.0** |
| | SNR=3.0 | | | | | | |

---

*ISCJB* ***02*** *16:53:23.8±0.5, 67.°21N±0.°03×20.°83E±0.°07, h0km, Error ellipse: s-maj=4.1km s-min=3.9km az=141.7*
*UPP* ***02*** *16:53:24.9±0.0, 67.°20N×20.°65E, h0km, ML2.6*
*HEL* ***02*** *16:53:25.2±0.3, 67.°19N×20.°60E, h0km, ML1.5, Explosion*
**ISC 02 16:53:24.6**±0.9**, 67.°19N**±0.°03×**20.°69E**±0.°03**, h0**km**, n16,** σ1.s**01**/23**, Sweden**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DUNU** | **Dundret** | **0.08** | **214** | P | **Pg** | **16 53 26.8** | **+0.6** |
| DUNU | | | | S | **Sg** | **16 53 28.3** | **+1.1** |
| **MASU** | **Masugnsbyn** | **0.57** | **62** | P | **Pg** | **16 53 36.3** | **+0.8** |
| **RATU** | **Laukkuluspa** | **0.76** | **327** | P | **Pg** | **16 53 39.4** | **+0.2** |
| **KUA** | **Kurravaara** | **0.78** | **350** | P | **Pg** | **16 53 38.8** | **-0.7** |
| **ERTU** | **Ertsjaerv** | **0.87** | **136** | P | **Pg** | **16 53 41.2** | **-0.1** |
| **NIKU** | **Nikkaluokta** | **0.93** | **318** | P | **Pg** | **16 53 42.4** | **0.0** |
| **PAJU** | **Pajala** | **0.96** | **99** | P | **Pg** | **16 53 43.1** | **+0.1** |
| **LANU** | **Lannavaara** | **1.00** | **29** | P | **Pg** | **16 53 43.6** | **-0.1** |
| **HEF** | **Hetta** | **1.66** | **41** | PG | **Pn** | **16 53 55.1** | **+0.1** |
| | baz=229 | | | | | | |
| HEF | | | | MSG | | 16 54 15.7 | |
| | comp=Z,1.8nm,0.2s | | | | | | |
| HEF | | | | SG | **Sn** | **16 54 16.8** | **-0.2** |
| **KIF** | **Kilpisjarvi** | **1.82** | **1** | PG | **Pb** | **16 53 58.4** | **-0.4** |
| KIF | | | | MSG | | 16 54 20.7 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | comp=Z,5.4nm,0.2s | | | | | | |
| KIF | | | | SG | **Sg** | **16 54 23.4** | **+0.3** |
| **TOF** | **Tornio** | **1.83** | **126** | PG | **Pb** | **16 53 58.3** | **-0.5** |
| | baz=318 | | | | | | |
| TOF | | | | SG | **Sg** | **16 54 23.4** | **+0.2** |
| **RNF** | **Rovaniemi** | **2.18** | **103** | PG | **Pg** | **16 54 07.2** | **+0.9** |
| RNF | | | | SG | **Sg** | **16 54 35.9** | **+1.4** |
| **SGF** | **Sodankyl** | **2.28** | **81** | PG | **Pb** | **16 54 05.4** | **-1.1** |
| SGF | | | | SG | **Sb** | **16 54 35.7** | **+0.6** |
| **ARE0** | **ARCESS Array S** | **2.95** | **35** | PN | **Pn** | **16 54 14.2** | **+1.5** |
| | baz=218 | | | | | | |
| ARE0 | | | | SB | **Sb** | **16 54 54.1** | **-0.5** |
| **KU6** | **Riekki** | **3.85** | **103** | SG | **Sg** | **16 55 26.8** | **-1.4** |
| **VAF** | **Ylistaro** | **4.25** | **168** | SG | **Sg** | **16 55 38.0** | **-2.9** |

*ISCJB **02** 17:03:02.6±0.7, 37°.93N±0°.03×28°.73E±0°.07, h5km±11km, Error ellipse: s-maj=10.2km s-min=4.1km az=160.7*
*CSEM **02** 17:03:02.6±0.1, 37°.93N×28°.73E, h5km, MD2.6, Error ellipse: s-maj=3.4km s-min=2.0km az=74.0*
*DDA **02** 17:03:02.6, 37°.93N×28°.73E, h7km, Ml2.8*
*ISK **02** 17:03:02.3, 37°.95N×28°.79E, h10km, MD2.6*
**ISC 02 17:03:03.0**±1.1, **37°.94N**±0°.03×**28°.76E**±0°.05, **h10**km±11km, **n18**, σ**0$^s$.41**/30, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DENT** | **Denizli** | **0.28** | **130** | *e*PG | **Pg** | **17 03 07.9** | **-0.8** |
| DENT | | | | *e*SG | **Sg** | **17 03 12.7** | **+0.2** |
| **DENT** | **Denizli** | **0.28** | **130** | *e*Pg | **Pg** | **17 03 07.9** | **-0.8** |
| DENT | | | | *e*Sg | **Sg** | **17 03 12.7** | **+0.2** |
| **DNZL** | **Cakiroluk** | **0.34** | **137** | *i* P | **Pg** | **17 03 09.9** | **+0.2** |
| DNZL | | | | *i* S | **Sg** | **17 03 14.8** | **+0.6** |
| **DNZL** | **Cakiroluk** | **0.34** | **137** | P | **Pg** | **17 03 09.9** | **+0.2** |
| DNZL | | | | S | **Sg** | **17 03 14.8** | **+0.6** |
| **TAVA** | **DENIZLI_Tavas** | **0.48** | **165** | *i* P | **Pg** | **17 03 12.2** | **-0.2** |
| TAVA | | | | *i* S | **Sg** | **17 03 19.1** | **+0.3** |
| **TAVA** | **DENIZLI_Tavas** | **0.48** | **165** | P | **Pg** | **17 03 12.2** | **-0.2** |
| TAVA | | | | S | **Sg** | **17 03 19.1** | **+0.3** |
| **MANT** | **Manisa** | **0.58** | **344** | *i* P | **Pg** | **17 03 14.0** | **-0.2** |
| MANT | | | | *i* S | **Sg** | **17 03 22.4** | **+0.5** |
| **MANT** | **Manisa** | **0.58** | **344** | P | **Pg** | **17 03 14.0** | **-0.2** |
| MANT | | | | S | **Sg** | **17 03 22.4** | **+0.5** |
| **KULA** | **Kula-Manisa** | **0.58** | **352** | *e*PG | **Pg** | **17 03 13.9** | **-0.4** |
| KULA | | | | *e*SG | **Sg** | **17 03 22.4** | **+0.4** |
| **KULA** | **Kula-Manisa** | **0.58** | **352** | *e*Pg | **Pg** | **17 03 13.9** | **-0.4** |
| KULA | | | | *e*Sg | **Sg** | **17 03 22.4** | **+0.4** |
| **KHAL** | **Karahalli** | **0.72** | **53** | *i* P | **Pg** | **17 03 16.6** | **-0.3** |
| KHAL | | | | *i* S | **Sb** | **17 03 27.8** | **+0.1** |
| **KHAL** | **Karahalli** | **0.72** | **53** | P | **Pg** | **17 03 16.6** | **-0.3** |
| KHAL | | | | S | **Sb** | **17 03 27.8** | **+0.1** |
| **DALY** | **Dalyan (Mu˜la** | **1.12** | **184** | *e*PN | **Pn** | **17 03 24.7** | **+0.1** |
| **DALY** | **Dalyan (Mu˜la** | **1.12** | **184** | *e*Pn | **Pn** | **17 03 24.7** | **+0.1** |
| **GCAM** | **G?zelcaml?** | **1.23** | **259** | *e*PN | **Pn** | **17 03 26.1** | **-0.1** |
| **GCAM** | **G?zelcaml?** | **1.23** | **259** | *e*Pn | **Pn** | **17 03 26.1** | **-0.1** |
| **FETY** | **Fethiye** | **1.32** | **169** | *e*PN | **Pg** | **17 03 27.9** | **-0.4** |
| **FETY** | **Fethiye** | **1.32** | **169** | *e*Pn | **Pg** | **17 03 27.9** | **-0.4** |

*IDC **02** 17:09:22.7±1.1, 35°.66N×136°.57E, h313km±12km, mb3.2/4, mb1 3.2/7, mb1mx2.8/36, mbtmp3.8/7, Error ellipse: s-maj=26.5km s-min=18.9km az=118.0*
*ISCJB **02** 17:09:23.1±0.5, 35°.92N±0°.09×136°.41E±0°.08, h300km, mb3.5/4, Error ellipse: s-maj=12.6km s-min=7.8km az=161.0*
*JMA **02** 17:09:23.2±0.1, 35°.74N×136°.46E, h308km±2km, M3.3*
**ISC 02 17:09:22.6**±0.9, **35°.72N**±0°.10×**136°.47E**±0°.08, **h300**km, **n19**, σ**1$^s$.39**/23, **mb3.5**/4, **Western Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JKG** | **Kaga** | **0.56** | **349** | P | **Pn** | **17 10 02.9** | **+1.6** |
| **JWT** | **Wachi** | **0.98** | **244** | P | **Pn** | **17 10 04.4** | **+1.5** |
| JWT | | | | S | **S** | **17 10 35.7** | **+0.8** |
| **MAT** | **Matsushiro** | **1.63** | **59** | P | **Pn** | **17 10 07.7** | **+1.1** |
| MAT | | | | *e*S | **S** | **17 10 41.5** | **-0.1** |
| **MAT** | **Matsushiro** | **1.63** | **59** | P | **Pn** | **17 10 07.9** | **+1.3** |
| **MJAR** | **Matsushiro Arr** | **1.63** | **59** | P | **Pn** | **17 10 08.2** | **+1.6** |
| | 3.1nm,0.3s,baz=179,slow=14,SNR=26 | | | | | | |
| **JWY** | **Kouya** | **1.66** | **206** | P | **Pn** | **17 10 08.6** | **+1.6** |
| **JYN** | **Shimob** | **1.71** | **97** | P | **Pn** | **17 10 08.7** | **+1.5** |
| JYN | | | | *e*S | **S** | **17 10 44.1** | **+1.3** |
| **JRY** | **Ryogami san** | **2.00** | **81** | P | **Pn** | **17 10 10.8** | **+1.5** |
| JRY | | | | *e*S | **S** | **17 10 47.4** | **+0.8** |
| **JOD2** | **Odawara 2** | **2.19** | **101** | P | **Pn** | **17 10 12.5** | **+1.6** |
| **JWZ** | **Kozaga** | **2.27** | **196** | P | **Pn** | **17 10 12.5** | **+0.8** |
| **JAG** | **Ashikaga** | **2.52** | **73** | P | **Pn** | **17 10 14.1** | **+0.4** |
| **JSD** | **Sado** | **2.72** | **31** | P | **Pn** | **17 10 16.7** | **+1.2** |
| **JNU** | **Nakatsue** | **5.30** | **242** | P | **Pn** | **17 10 45.0** | **+1.4** |
| | 0.9nm,0.3s,baz=152,slow=1.4,SNR=9.7 | | | | | | |
| **KSRS** | **Korea Array** | **7.09** | **287** | P | **Pn** | **17 11 07.0** | **+2.0** |
| | 0.3nm,0.3s,baz=101,slow=13,SNR=1.4 | | | | | | |
| **ASAJ** | **Asahikawa** | **9.61** | **27** | P | **Pn** | **17 11 34.2** | **-1.6** |
| | 1.0nm,0.3s,baz=216,slow=14,SNR=14 | | | | | | |
| ASAJ | | | | S | S | 17 13 15.2 | -9.2 |
| | 0.3nm,0.3s,baz=5.1,slow=33,SNR=1.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **55.40** | **182** | P | **P** | **17 18 24.4** | **-1.9** |
| | 0.2nm,0.3s,baz=359,slow=7.6,SNR=5.2 | | | | | | |
| **INK** | **Inuvik** | **57.35** | **26** | P | **P** | **17 18 39.4** | **0.0** |
| | 0.3nm,0.4s,baz=256,slow=4.2,SNR=1.6 | | | | | | |
| **ARCES** | **ARCESS Array B** | **63.78** | **339** | P | **P** | **17 19 22.5** | **-0.2** |
| | 2.2nm,0.9s,baz=55,slow=7.8,SNR=0.9 | | | | | | |
| **FINES** | **FINESS Array B** | **68.07** | **331** | P | **P** | **17 19 48.8** | **-1.1** |
| | 2.8nm,1.0s,baz=94,slow=6.3,SNR=4.4 | | | | | | |

*KRNET **02** 17:14:19.2±0.1, 38°.61N×72°.32E, mb2.9*
*NNC **02** 17:14:20.0±6.7, 38°.55N×73°.05E, h0km, mb3.6, mpv3.3, Error ellipse: s-maj=67.5km s-min=47.5km az=115.0*
**ISC 02 17:14:16.0**±3.4, **38°.3N**±0°.2×**73°.2E**±0°.1, **h10**km, **n14**, σ**2$^s$.10**/22, **13C-5D**, **Tajikistan-Xinjiang border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SFK** | **Sufi-Kurgan** | **1.77** | **7** | ⇓*i*P | **Pb** | **17 14 50.2** | **+1.6** |
| | baz=33 | | | | | | |
| SFK | | | | ⇓*i*S | **Sb** | **17 15 12.8** | **+1.9** |
| | baz=33 | | | | | | |
| **SFK** | **Sufi-Kurgan** | **1.77** | **7** | ⇑Pn | **Pb** | **17 14 50.0** | **+1.5** |
| | 24nm,0.2s | | | | | | |
| SFK | | | | ⇑Sn | **Sb** | **17 15 12.6** | **+1.7** |
| | 106nm,0.3s | | | | | | |
| **ARSB** | **Arslanbob** | **3.07** | **357** | ⇑*i*P | **Pn** | **17 15 05.9** | **+1.3** |
| | baz=10.0 | | | | | | |
| ARSB | | | | ⇑*i*S | **Sn** | **17 15 40.3** | **-1.1** |
| | baz=10.0 | | | | | | |
| **ARK** | **Arkit** | **3.66** | **345** | ⇓*i*P | **Pn** | **17 15 11.8** | **-1.0** |
| | baz=355 | | | | | | |
| ARK | | | | ⇓*i*S | **Sn** | **17 15 49.8** | **-6.3** |
| | baz=355 | | | | | | |
| **TOKL** | **Toktogul** | **3.69** | **356** | ⇑*i*P | **Pn** | **17 15 14.4** | **+1.3** |
| | baz=7.0 | | | | | | |
| TOKL | | | | ⇑*i*S | **Sn** | **17 15 55.1** | **-1.6** |
| | baz=7.0 | | | | | | |
| **AML** | **Almayashu** | **3.88** | **5** | P | **Pn** | **17 15 16.6** | **+0.5** |
| | SNR=14 | | | | | | |
| **UCH** | **Uchtor** | **4.08** | **14** | P | **Pn** | **17 15 18.9** | **0.0** |
| | SNR=36 | | | | | | |
| **MNAS** | **Manas** | **4.26** | **353** | ⇑Pn | **Pn** | **17 15 21.9** | **+0.9** |
| | 3.4nm,0.3s | | | | | | |
| MNAS | | | | ⇓Sn | **Sn** | **17 16 08.3** | **-2.5** |
| | 5.2nm,0.4s | | | | | | |
| **EKS2** | **Erkin-Say** | **4.42** | **5** | P | **Pn** | **17 15 23.9** | **+0.8** |
| | SNR=18 | | | | | | |
| **AAK** | **Ala-Archa** | **4.48** | **12** | ⇑Pn | **Pn** | **17 15 24.0** | **0.0** |
| | 0.9nm,0.3s | | | | | | |
| AAK | | | | ⇑Sn | **Sn** | **17 16 14.9** | **-1.4** |
| | 2.0nm,0.5s | | | | | | |
| **ULHL** | **Ulahol** | **4.60** | **29** | P | **Pn** | **17 15 24.3** | **-1.6** |
| | SNR=10 | | | | | | |
| **TKM2** | **Tokmak 2** | **5.00** | **20** | ⇑Pn | **Pn** | **17 15 30.3** | **-0.9** |
| | 1.6nm,0.3s | | | | | | |
| TKM2 | | | | ⇑Lg | Lg | 17 16 48.8 | |
| | 1.3nm,0.5s | | | | | | |
| **TKM2** | **Tokmak 2** | **5.00** | **20** | P | **Pn** | **17 15 30.4** | **-0.8** |
| | SNR=8.5 | | | | | | |
| **KK31** | **Karatay Array** | **5.26** | **338** | ⇑Pn | **Pn** | **17 15 35.9** | **+1.3** |
| | 0.7nm,0.2s,baz=139,slow=13,SNR=28 | | | | | | |
| KK31 | | | | ⇑Sn | **Sn** | **17 16 32.2** | **-3.1** |
| | 2.2nm,0.3s,baz=148,slow=20,SNR=5.5 | | | | | | |

**IDC 02 17:23:07.5**±1.3, **26°.81N**×**144°.01E**, **h0**km, **mb3.7**/7, **mb1 3.9**/7, **mb1mx3.7**/25, **mbtmp3.7**/7, **MS3.2**/1, **Ms1 3.2**/1, **ms1mx2.2**/37, **Error ellipse: s-maj=41.9km s-min=23.6km az=88.0**, **Bonin Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CMAR** | **Chiang Mai Arr** | **42.24** | **268** | P | P | 17 31 02.1 | -0.6 |
| | 0.3nm,0.6s,baz=66,slow=6.0,SNR=2.9 | | | | | | |
| **TIXI** | **Tiksi** | **45.67** | **353** | LR | LR | 17 53 53.2 | |
| | comp=Z,28nm,19.7s,baz=114,slow=40 | | | | | | |
| **WRA** | **Warramunga Arr** | **47.41** | **192** | P | P | 17 31 43.6 | -0.2 |
| | 1.6nm,0.6s,baz=12,slow=8.5,SNR=9.8 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **50.77** | **319** | P | P | 17 32 08.0 | -1.2 |
| | 0.5nm,0.5s,baz=99,slow=9.2,SNR=2.8 | | | | | | |
| **ASAR** | **Alice Springs** | **51.12** | **192** | P | P | 17 32 12.1 | 0.0 |
| | 0.3nm,0.6s,baz=12,slow=6.3,SNR=2.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **51.91** | **310** | P | P | 17 32 17.5 | -0.4 |
| | 1.1nm,0.7s,baz=92,slow=7.8,SNR=9.1 | | | | | | |
| **ILAR** | **Eielson Array** | **57.18** | **28** | P | P | 17 32 54.7 | -1.3 |
| | 0.3nm,0.7s,baz=270,slow=4.5,SNR=2.2 | | | | | | |
| **FINES** | **FINESS Array B** | **78.92** | **334** | P | P | 17 35 14.4 | +1.9 |
| | 8.0nm,1.2s,baz=54,slow=7.1,SNR=3.3 | | | | | | |

*CSEM **02** 17:24:58.9±0.3, 38°.96N×43°.77E, h10km, ML2.8, Error ellipse: s-maj=6.6km s-min=4.9km az=124.0*
*DDA **02** 17:24:58.1, 38°.90N×43°.79E, h7km, Ml2.8*
*ISK **02** 17:24:58.6, 38°.96N×43°.71E, h9km, MD2.6*
*ISCJB **02** 17:24:59.1±1.1, 38°.95N±0°.05×43°.76E±0°.06, h13km±6km, Error ellipse: s-maj=9.6km s-min=6.7km az=148.6*
**ISC 02 17:24:58.9**±1.3, **38°.96N**±0°.05×**43°.77E**±0°.03, **h18**km±2km, **n15**, σ**0$^s$.52**/26, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.15** | **283** | *i* P | **Pb** | **17 25 02.4** | **0.0** |
| VMUR | | | | *i* S | **Sg** | **17 25 05.9** | **-0.7** |
| **VMUR** | **Van-Muradiye** | **0.15** | **283** | P | **Pb** | **17 25 02.4** | **0.0** |
| VMUR | | | | S | **Sg** | **17 25 05.9** | **-0.7** |
| **CLDR** | **Caldiran** | **0.22** | **32** | *e*PG | **Pb** | **17 25 04.0** | **-0.2** |
| CLDR | | | | *e*SG | **Sb** | **17 25 07.8** | **+0.1** |
| **CLDR** | **Caldiran** | **0.22** | **32** | *i* P | **Pb** | **17 25 03.9** | **-0.3** |
| CLDR | | | | *i* S | **Sb** | **17 25 07.8** | **+0.1** |
| **CLDR** | **Caldiran** | **0.22** | **32** | *e*Pg | **Pb** | **17 25 04.0** | **-0.2** |
| CLDR | | | | S | **Sb** | **17 25 07.8** | **+0.1** |
| **VANB** | **Van** | **0.47** | **219** | *e*PG | **Pb** | **17 25 08.9** | **+0.3** |
| **VANB** | **Van** | **0.47** | **219** | *e*Pg | **Pb** | **17 25 08.9** | **+0.3** |
| **DYDN** | **Diyadin** | **0.59** | **354** | *i* P | **Pb** | **17 25 10.7** | **0.0** |
| DYDN | | | | *i* S | **Sg** | **17 25 20.2** | **+1.4** |
| **DYDN** | **Diyadin** | **0.59** | **354** | P | **Pb** | **17 25 10.7** | **0.0** |
| DYDN | | | | S | **Sg** | **17 25 20.2** | **+1.4** |
| **AGRB** | **Hanur-Agry** | **0.86** | **316** | *e*PG | **Pg** | **17 25 15.7** | **-0.1** |
| AGRB | | | | *e*SG | **Sg** | **17 25 26.8** | **-0.4** |
| **AGRB** | **Hanur-Agry** | **0.86** | **316** | *e*Pg | **Pg** | **17 25 15.7** | **-0.1** |
| AGRB | | | | *e*Sg | **Sg** | **17 25 26.8** | **-0.4** |
| **TUTA** | **Tutak** | **0.86** | **301** | *i* P | **Pb** | **17 25 15.4** | **-0.1** |
| TUTA | | | | *i* S | **Sg** | **17 25 27.4** | **+0.2** |
| **TUTA** | **Tutak** | **0.86** | **301** | P | **Pb** | **17 25 15.4** | **-0.1** |
| TUTA | | | | S | **Sg** | **17 25 27.5** | **+0.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.09** | **19** | *e*PN | **Pg** | **17 25 19.8** | **-0.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.09** | **19** | *e*Pn | **Pg** | **17 25 19.8** | **-0.2** |

*IDC **02** 17:31:12.8±1.9, 36°.97N×142°.92E, h0km, mb3.5/5, mb1 3.5/7, mb1mx3.4/37, mbtmp3.5/7, ML3.3/2, Error ellipse: s-maj=50.7km s-min=23.5km az=73.0*
*ISCJB **02** 17:31:16.4±0.8, 36°.97N±0°.05×142°.69E±0°.06, h35km, mb3.6/5, Error ellipse: s-maj=8.2km s-min=5.7km az=38.1*
*JMA **02** 17:31:16.8±0.2, 37°.00N×142°.65E, h43km, M3.3*
**ISC 02 17:31:18.2**±1.2, **37°.00N**±0°.06×**142°.69E**±0°.09, **h35**km, **n20**, σ**1$^s$.15**/30, **mb3.5**/5, **Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JFK** | **Kawauchi** | **1.50** | **285** | P | **Pn** | **17 31 41.4** | **-1.2** |
| **ONAJ** | **Iwakimizuishiy** | **1.52** | **274** | P | **Pn** | **17 31 41.5** | **-1.4** |
| ONAJ | | | | *e*S | **Sn** | **17 31 59.5** | **-2.0** |
| **JMM** | **Marumori** | **1.74** | **300** | P | **Pn** | **17 31 44.9** | **-1.0** |
| JMM | | | | *e*S | **Sn** | **17 32 06.3** | **-0.5** |
| **JHO** | **Hitachi** | **1.75** | **258** | P | **Pn** | **17 31 45.0** | **-1.0** |
| **JIO** | **Ouri** | **1.80** | **324** | P | **Pn** | **17 31 45.8** | **-0.9** |
| JIO | | | | *e*S | **Sn** | **17 32 07.0** | **-1.3** |
| **JMK** | **Ichinoseki** | **2.27** | **330** | P | **Pn** | **17 31 52.6** | **-0.5** |
| **JYK** | **Kaneyama** | **2.66** | **317** | P | **Pn** | **17 31 58.4** | **-0.1** |
| **JAG** | **Ashikaga** | **2.67** | **258** | P | **Pn** | **17 31 58.1** | **-0.5** |
| JAG | | | | *e*S | **Sn** | **17 32 28.8** | **-0.9** |
| **JOM** | **Ohasama** | **2.70** | **336** | P | **Pn** | **17 31 59.2** | **+0.1** |
| **JRY** | **Ryogami san** | **3.21** | **253** | P | **Pn** | **17 32 05.7** | **-0.4** |
| JRY | | | | *e*S | **Sn** | **17 32 41.2** | **-1.9** |
| **JOD2** | **Odawara 2** | **3.39** | **240** | P | **Pn** | **17 32 08.0** | **-0.7** |
| JOD2 | | | | *e*S | **Sn** | **17 32 45.4** | **-2.3** |
| **MJAR** | **Matsushiro Arr** | **3.63** | **264** | Pn | **Pn** | **17 32 12.4** | **+0.5** |
| | 1.9nm,0.3s,baz=78,slow=30,SNR=6.5 | | | | | | |
| MJAR | | | | Sn | **Sn** | **17 32 54.2** | **+0.7** |
| | 0.4nm,0.3s,baz=91,slow=16,SNR=1.3 | | | | | | |
| **MAT** | **Matsushiro** | **3.63** | **264** | P | **Pn** | **17 32 12.5** | **+0.6** |
| MAT | | | | *e*S | **Sn** | **17 32 55.5** | **+2.0** |
| **JYN** | **Shimob** | **3.67** | **247** | P | **Pn** | **17 32 12.9** | **+0.4** |
| JYN | | | | *e*S | **Sn** | **17 32 54.4** | **-0.2** |
| **ASAJ** | **Asahikawa** | **7.11** | **359** | Pn | **Pn** | **17 32 59.3** | **-0.3** |
| | 0.5nm,0.3s,baz=216,slow=14,SNR=1.7 | | | | | | |
| ASAJ | | | | Sn | **Sn** | **17 34 17.6** | **-1.6** |
| | 0.5nm,0.3s,baz=5.7,slow=26,SNR=1.6 | | | | | | |
| **SONM** | **Songino Array** | **28.65** | **304** | P | **P** | **17 37 13.1** | **+1.5** |
| | 0.9nm,0.5s,baz=104,slow=8.7,SNR=4.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **45.00** | **302** | P | **P** | **17 39 31.2** | **+1.1** |
| | 0.5nm,0.7s,baz=87,slow=8.6,SNR=3.5 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **46.83** | **308** | P | **P** | **17 39 45.1** | **+0.8** |
| | 1.2nm,0.8s,baz=84,slow=8.0,SNR=7.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **57.18** | **189** | P | **P** | **17 41 00.5** | **-1.1** |
| | 0.2nm,0.6s,baz=5.4,slow=7.0,SNR=1.3 | | | | | | |
| **ASAR** | **Alice Springs** | **60.91** | **189** | P | **P** | **17 41 27.9** | **+0.4** |
| | 0.3nm,0.8s,baz=5.8,slow=6.4,SNR=1.8 | | | | | | |

*ISK **02** 17:34:11.7, 38°.73N×43°.28E, h19km, MD2.5*
*ISCJB **02** 17:34:12.9±0.5, 38°.78N±0°.03×43°.24E±0°.04, h12km±6km, Error ellipse: s-maj=5.8km s-min=4.3km az=161.1*
*CSEM **02** 17:34:12.9±0.3, 38°.78N×43°.24E, h2km, MD2.5, Error ellipse: s-maj=6.3km s-min=5.3km az=66.0*
*DDA **02** 17:34:12.2, 38°.76N×43°.21E, h7km, Ml3.0*
**ISC 02 17:34:12.8**±0.9, **38°.76N**±0°.03×**43°.24E**±0°.03, **h17**km±7km, **n14**, σ**0$^s$.98**/28, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.20** | **145** | *e*PG | **Pg** | **17 34 17.8** | **0.0** |
| VANB | | | | *e*SG | **Sg** | **17 34 22.2** | **+1.1** |
| **VANB** | **Van** | **0.20** | **145** | *e*Pg | **Pg** | **17 34 17.8** | **0.0** |
| VANB | | | | *e*Sg | **Sg** | **17 34 22.2** | **+1.1** |
| **TVAN** | **Van** | **0.27** | **151** | *i* P | **Pg** | **17 34 17.6** | **-1.2** |
| TVAN | | | | *i* S | **Sg** | **17 34 22.6** | **-0.4** |
| **TVAN** | **Van** | **0.27** | **151** | P | **Pg** | **17 34 17.6** | **-1.2** |
| TVAN | | | | S | **Sg** | **17 34 22.6** | **-0.4** |
| **VMUR** | **Van-Muradiye** | **0.34** | **49** | *i* P | **Pg** | **17 34 19.5** | **-0.6** |
| VMUR | | | | *i* S | **Sb** | **17 34 25.7** | **-0.2** |
| **VMUR** | **Van-Muradiye** | **0.34** | **49** | P | **Pg** | **17 34 19.5** | **-0.6** |
| VMUR | | | | S | **Sb** | **17 34 25.7** | **-0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.41** | **277** | *i* P | **Pg** | **17 34 20.5** | **-0.7** |
| ADCV | | | | *i* S | **Sb** | **17 34 27.6** | **-0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.41** | **277** | P | **Pg** | **17 34 20.5** | **-0.7** |
| ADCV | | | | S | **Sb** | **17 34 27.6** | **-0.1** |
| **CLDR** | **Caldiran** | **0.65** | **54** | *e*PG | **Pg** | **17 34 24.8** | **-0.9** |
| CLDR | | | | *e*SG | **Sb** | **17 34 34.5** | **-0.3** |
| **CLDR** | **Caldiran** | **0.65** | **54** | *e*Pg | **Pg** | **17 34 24.8** | **-0.9** |
| CLDR | | | | *e*Sg | **Sb** | **17 34 34.5** | **-0.3** |
| **TUTA** | **Tutak** | **0.72** | **333** | *i* P | **Pg** | **17 34 26.0** | **-1.0** |
| TUTA | | | | *i* S | **Sg** | **17 34 36.1** | **-0.5** |
| **AGRB** | **Hanur-Agry** | **0.83** | **347** | *e*PG | **Pb** | **17 34 28.9** | **-0.1** |
| AGRB | | | | *e*SG | **Sb** | **17 34 41.6** | **+1.6** |
| **AGRB** | **Hanur-Agry** | **0.83** | **347** | *e*Pg | **Pb** | **17 34 28.9** | **-0.1** |
| AGRB | | | | *e*Sg | **Sb** | **17 34 41.6** | **+1.6** |
| **HAKT** | **HAKKARI** | **1.26** | **163** | *i* P | **Pg** | **17 34 35.3** | **-1.8** |
| HAKT | | | | *i* S | **Sn** | **17 34 54.6** | **+2.1** |

*IDC **02** 17:39:04.1±2.1, 40°.22N×78°.23E, h0km, mb3.4/2, mb1 3.3/7, mb1mx3.2/55, mbtmp3.3/7, ML2.8/5, MS2.4/1, Ms1 2.4/1, ms1mx2.1/31, Error ellipse: s-maj=27.5km s-min=22.7km az=165.0*
*KRNET **02** 17:39:08.1±0.1, 40°.53N×78°.18E, mb3.9*
*NNC **02** 17:39:09.2±1.1, 40°.58N×78°.16E, h0km, mb3.9, mpv3.5, Error ellipse: s-maj=9.5km s-min=6.2km az=137.0*
*SOME **02** 17:39:09.1, 40°.67N×78°.15E, h0km*
**ISC 02 17:39:08.7**±1.9, **40°.65N**±0°.07×**78°.13E**±0°.04, **h8**km±11km, **n51**, σ**2$^s$.11**/80, **34C-10D**, **Southern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PRZ** | **Przheval'sk** | **1.85** | **6** | ⇑*i*P | **Pg** | **17 39 44.4** | **+0.3** |
| | baz=5.0 | | | | | | |
| PRZ | | | | ⇑*i*S | **Sg** | **17 40 10.8** | **+2.7** |
| | baz=5.0 | | | | | | |
| **ULHL** | **Ulahol** | **2.14** | **319** | ⇑*i*P | **Pb** | **17 39 48.0** | **+0.2** |
| | baz=320 | | | | | | |
| ULHL | | | | ⇑*i*S | **Sg** | **17 40 18.4** | **+0.9** |
| | baz=320 | | | | | | |
| **ULHL** | **Ulahol** | **2.14** | **319** | P | **Pg** | **17 39 49.7** | **0.0** |
| | SNR=46 | | | | | | |
| **SATY** | **Saty** | **2.42** | **5** | *e*P | **Pg** | **17 39 54.9** | **-0.2** |
| | 71nm,0.5s | | | | | | |
| SATY | | | | *e*S | **Sg** | **17 40 28.3** | **+1.8** |
| | 143nm,0.4s | | | | | | |
| **BOOM** | **Boomskoye usch** | **2.47** | **319** | ⇑*i*P | **Pb** | **17 39 54.1** | **+0.6** |
| | baz=320 | | | | | | |
| BOOM | | | | ⇑*i*S | **Sg** | **17 40 27.3** | **-0.8** |
| | baz=320 | | | | | | |
| **ZHN** | **Zhinishke** | **2.53** | **5** | *e*P | **Pg** | **17 39 56.9** | **-0.3** |
| | 29nm,0.4s | | | | | | |
| ZHN | | | | *e*S | **Sg** | **17 40 31.8** | **+1.8** |
| | 53nm,0.2s | | | | | | |
| **UZB** | **Uzynbulak** | **2.59** | **15** | *e*P | **Pg** | **17 39 57.6** | **-0.7** |
| | 15nm,0.3s | | | | | | |
| UZB | | | | *e*S | **Sg** | **17 40 32.5** | **+0.7** |
| | 53nm,0.6s | | | | | | |
| **MDOK** | **Medeo** | **2.64** | **343** | ⇑Pg | **Pg** | **17 39 58.4** | **-1.0** |
| MDOK | | | | ⇑Lg | Lg | 17 40 35.9 | |
| **MDOK** | **Medeo** | **2.64** | **343** | *e*P | **Pg** | **17 39 59.2** | **-0.2** |
| | 122nm,0.6s | | | | | | |
| MDOK | | | | *e*S | **Sg** | **17 40 35.4** | **+1.8** |
| | 68nm,0.7s | | | | | | |
| **IZV** | **Izvestkoviy** | **2.65** | **335** | *e*P | **Pg** | **17 39 59.4** | **0.0** |
| | 179nm,0.5s | | | | | | |
| IZV | | | | *e*S | **Sg** | **17 40 35.6** | **+1.9** |
| | 104nm,0.6s | | | | | | |
| **SHLS** | **Shalkode** | **2.70** | **21** | *e*P | **Pg** | **17 40 00.6** | **+0.2** |
| | 12nm,0.5s | | | | | | |
| SHLS | | | | *e*S | **Sg** | **17 40 37.5** | **+2.1** |
| | 148nm,0.5s | | | | | | |
| **KNDC** | **Almaty** | **2.71** | **342** | ⇑Pg | **Pg** | **17 40 00.2** | **-0.5** |
| | 39nm,0.4s | | | | | | |
| KNDC | | | | ⇑Lg | Lg | 17 40 38.8 | |
| | 191nm,0.6s | | | | | | |
| **AAA** | **Alma-Ata** | **2.72** | **341** | *e*P | **Pg** | **17 40 01.5** | **+0.7** |
| | 127nm,0.2s | | | | | | |
| AAA | | | | *e*S | **Sg** | **17 40 39.2** | **+3.2** |
| | 238nm,0.3s | | | | | | |
| **KURS** | **Kuram** | **2.84** | **1** | *e*P | **Pg** | **17 40 03.1** | **0.0** |
| | 8.6nm,0.3s | | | | | | |
| KURS | | | | *e*S | **Sg** | **17 40 41.6** | **+1.7** |
| | 78nm,0.9s | | | | | | |
| **PDGK** | **Podgornoye** | **2.87** | **20** | ⇑*i*P | **Pb** | **17 39 57.9** | **-2.3** |
| | baz=19 | | | | | | |
| PDGK | | | | ⇑*i*S | **Sb** | **17 40 35.3** | **-0.1** |
| | baz=19 | | | | | | |
| **PDGK** | **Podgornoye** | **2.87** | **20** | ⇑Pn | **Pb** | **17 39 57.5** | **-2.7** |
| | 14nm,0.4s | | | | | | |
| PDGK | | | | ⇑Lg | Lg | 17 40 40.0 | |
| | 87nm,0.7s | | | | | | |
| **KST** | **Kastek** | **2.89** | **327** | *e*P | **Pg** | **17 40 03.0** | **-1.1** |
| | 10nm,0.5s | | | | | | |
| KST | | | | *e*S | **Sg** | **17 40 41.5** | **-0.1** |
| | 35nm,0.8s | | | | | | |
| **TKM2** | **Tokmak 2** | **2.96** | **321** | ⇑Pg | **Pg** | **17 40 04.2** | **-1.2** |
| | 33nm,0.7s | | | | | | |
| TKM2 | | | | ⇑Lg | Lg | 17 40 48.7 | |
| | 26nm,0.4s | | | | | | |
| **TKM2** | **Tokmak 2** | **2.96** | **321** | P | **Pg** | **17 40 05.5** | **0.0** |
| | SNR=11 | | | | | | |
| **KBK** | **Karagaybulak** | **3.12** | **311** | ⇑*i*P | **Pn** | **17 40 01.4** | **+3.0** |
| | baz=312 | | | | | | |
| KBK | | | | ⇑*i*S | **Sb** | **17 40 40.8** | **-2.0** |
| | baz=312 | | | | | | |
| **KBK** | **Karagaybulak** | **3.12** | **311** | P | **Pg** | **17 40 07.2** | **-1.3** |
| | SNR=62 | | | | | | |
| **DGS** | **Degeres** | **3.13** | **327** | *e*P | **Pg** | **17 40 07.8** | **-1.0** |
| DGS | | | | *e*S | **Sg** | **17 40 50.2** | **+0.8** |
| **UCH** | **Uchtor** | **3.15** | **301** | ⇑*i*P | **Pn** | **17 40 01.7** | **+2.7** |
| | baz=303 | | | | | | |
| UCH | | | | ⇑*e*S | **Sb** | **17 40 41.1** | **-2.7** |
| | baz=303 | | | | | | |
| **UCH** | **Uchtor** | **3.15** | **301** | P | **Pn** | **17 40 02.0** | **+3.0** |
| | SNR=16 | | | | | | |
| **CHKK** | **Chushkaly** | **3.32** | **346** | *e*P | **Pg** | **17 40 11.2** | **-1.1** |
| | 23nm,0.4s | | | | | | |
| CHKK | | | | *e*S | **Sg** | **17 40 55.7** | **+0.5** |
| | 116nm,0.3s | | | | | | |
| **AAK** | **Ala-Archa** | **3.38** | **307** | Pn | **Pb** | **17 40 06.2** | **-2.6** |
| | 0.9nm,0.3s,baz=114,slow=10,SNR=7.7 | | | | | | |
| AAK | | | | Pg | **Pg** | **17 40 11.5** | **-1.9** |
| | 11nm,0.3s,baz=118,slow=8.4,SNR=89 | | | | | | |
| AAK | | | | Lg | Lg | 17 40 56.2 | |
| | 3.6nm,0.3s,baz=150,slow=23,SNR=2.5 | | | | | | |
| AAK | | | | LR | LR | 17 41 15.0 | |
| | comp=Z,46nm,18.1s,baz=114,slow=35 | | | | | | |
| **AAK** | **Ala-Archa** | **3.38** | **307** | ⇓*i*P | **Pn** | **17 40 05.1** | **+3.2** |
| | baz=308 | | | | | | |
| AAK | | | | ⇓*i*S | **Sb** | **17 40 47.5** | **-2.6** |
| | baz=308 | | | | | | |
| **AAK** | **Ala-Archa** | **3.38** | **307** | ⇓Pg | **Pb** | **17 40 11.2** | **+2.3** |
| | 42nm,0.8s | | | | | | |
| AAK | | | | ⇓Lg | Lg | 17 40 56.8 | |
| | 71nm,0.8s | | | | | | |
| **AAK** | **Ala-Archa** | **3.38** | **307** | P | **Pg** | **17 40 11.5** | **-1.9** |
| | SNR=46 | | | | | | |
| **FRU1** | **Bishkek** | **3.40** | **311** | ⇑*i*P | **Pb** | **17 40 06.2** | **-3.0** |
| | baz=312 | | | | | | |
| FRU1 | | | | ⇑*i*S | **Sb** | **17 40 48.9** | **-1.8** |
| | baz=312 | | | | | | |
| **CHMS** | **Chumysh** | **3.45** | **314** | ⇓*e*P | **Pn** | **17 40 05.9** | **+3.1** |
| | baz=315 | | | | | | |
| CHMS | | | | ⇓*i*S | **Sb** | **17 40 48.9** | **-3.3** |
| | baz=315 | | | | | | |
| **CHMS** | **Chumysh** | **3.45** | **314** | P | **Pg** | **17 40 12.9** | **-1.9** |
| | SNR=34 | | | | | | |
| **KUU** | **Kurty** | **3.51** | **338** | *e*P | **Pg** | **17 40 13.8** | **-2.1** |
| | 17nm,0.4s | | | | | | |
| KUU | | | | *e*S | **Sg** | **17 41 00.6** | **-0.8** |
| | 34nm,0.9s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **3.59** | **261** | ⇑*i*P | **Pn** | **17 40 07.7** | **+2.8** |
| | baz=263 | | | | | | |
| SFK | | | | ⇑*i*S | **Sn** | **17 40 51.6** | **+3.9** |
| | baz=263 | | | | | | |
| **SFK** | **Sufi-Kurgan** | **3.59** | **261** | ⇓Pn | **Pn** | **17 40 06.8** | **+1.9** |
| | 2.1nm,0.6s | | | | | | |
| SFK | | | | ⇑Pg | **Pb** | **17 40 14.1** | **+1.5** |
| | 6.5nm,0.4s | | | | | | |
| SFK | | | | ⇓Lg | Lg | 17 41 03.2 | |
| | 34nm,0.5s | | | | | | |
| **AML** | **Almayashu** | **3.65** | **295** | ⇓*i*P | **Pn** | **17 40 07.3** | **+1.4** |
| | baz=297 | | | | | | |
| AML | | | | ⇓*e*S | **Sn** | **17 40 52.6** | **+3.2** |
| | baz=297 | | | | | | |
| **AML** | **Almayashu** | **3.65** | **295** | P | **Pn** | **17 40 09.3** | **+3.4** |
| | SNR=5.7 | | | | | | |
| **USP** | **Ospenovka** | **3.77** | **315** | P | **Pg** | **17 40 18.4** | **-2.4** |
| | SNR=102 | | | | | | |
| **EKS2** | **Erkin-Say** | **3.83** | **303** | P | **Pg** | **17 40 20.1** | **-2.0** |
| | SNR=15 | | | | | | |
| **DJR** | **Jarkent** | **3.88** | **18** | *e*P | **Pg** | **17 40 20.9** | **-2.2** |
| | 14nm,0.5s | | | | | | |
| DJR | | | | *e*S | **Sg** | **17 41 12.1** | **-1.2** |
| | 31nm,0.5s | | | | | | |
| **ARSB** | **Arslanbob** | **3.96** | **282** | ⇑*i*P | **Pn** | **17 40 13.6** | **+3.8** |
| | baz=283 | | | | | | |
| ARSB | | | | ⇑*i*S | **Sb** | **17 41 02.2** | **-4.7** |
| | baz=283 | | | | | | |
| **MRKS** | **Merke** | **4.23** | **301** | *e*P | **Pb** | **17 40 26.8** | **+3.4** |
| | 15nm,0.4s | | | | | | |
| MRKS | | | | *e*S | **Sg** | **17 41 23.0** | **-1.5** |
| | 19nm,0.5s | | | | | | |
| **MNAS** | **Manas** | **4.61** | **295** | ⇑Pn | **Pn** | **17 40 21.6** | **+2.9** |
| | 0.8nm,0.4s | | | | | | |
| MNAS | | | | ⇑Pg | **Pb** | **17 40 32.4** | **+2.6** |
| | 4.2nm,0.5s | | | | | | |
| MNAS | | | | ⇑Lg | Lg | 17 41 35.7 | |
| | 13nm,0.7s | | | | | | |
| **KK31** | **Karatay Array** | **6.20** | **296** | ⇑Pg | **Pg** | **17 41 05.4** | **-1.9** |
| | 1.9nm,0.5s,baz=114,slow=16,SNR=11 | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| KK31 | | | | ⇑Lg | Lg | 17 42 25.9 | |
| | 3.0nm,0.5s,baz=111,slow=27,SNR=4.5 | | | | | | |
| **MK31** | **Makanchi Array** | **6.84** | **25** | ⇑Pn | **Pn** | **17 40 51.6** | **+2.2** |
| | 0.6nm,0.6s,baz=200,slow=12,SNR=12 | | | | | | |
| MK31 | | | | ⇑Lg | Lg | 17 42 44.4 | |
| | 4.2nm,0.6s | | | | | | |
| **MKAR** | **Makanchi Array** | **6.84** | **25** | Pn | **Pn** | **17 40 50.9** | **+1.5** |
| | 0.3nm,0.3s,baz=201,slow=11,SNR=5.1 | | | | | | |
| MKAR | | | | Lg | Lg | 17 42 46.8 | |
| | 0.4nm,0.3s,baz=208,slow=20,SNR=2.7 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **9.98** | **1** | Pn | **Pn** | **17 41 34.2** | **+1.9** |
| | 0.1nm,0.3s,baz=188,slow=12,SNR=9.1 | | | | | | |
| KURBB | | | | Lg | Lg | 17 44 24.0 | |
| | 0.0nm,0.3s,baz=189,slow=27,SNR=4.4 | | | | | | |
| **BVAR** | **Borovoye Array** | **13.46** | **340** | Pn | **Pn** | **17 42 19.4** | **-0.5** |
| | 0.1nm,0.3s,baz=140,slow=7.6,SNR=3.3 | | | | | | |
| BVAR | | | | Lg | Lg | 17 46 22.4 | |
| | 0.3nm,0.3s,baz=246,slow=39,SNR=1.9 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **14.05** | **16** | Pn | **Pn** | **17 42 28.2** | **+0.3** |
| | 0.1nm,0.3s,baz=215,slow=10,SNR=2.2 | | | | | | |
| **SONM** | **Songino Array** | **21.41** | **61** | P | **P** | **17 43 56.0** | **-0.9** |
| | 0.5nm,0.7s,baz=246,slow=11,SNR=2.8 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **71.31** | **271** | P | **P** | **17 50 25.8** | **-3.3** |
| | 0.7nm,0.6s,baz=46,slow=5.7,SNR=5.4 | | | | | | |

*NIED **02** 17:44:00, 27°.10N×144°.00E, h11km, Mw4.0 Best double couple: $M_0$9.98000×$10^{14}$ NP1:$\phi_s$119.00000°, δ5.00000°, λ-42.00000°. NP2:$\phi_s$251.00000°, δ87.00000°, λ-94.00000°.*
*IDC **02** 17:44:34.7±0.9, 26°.83N×144°.00E, h0km, mb4.0/14, mb1 4.2/16, mb1mx3.9/49, mbtmp4.0/16, ML3.7/2, Error ellipse: s-maj=27.4km s-min=16.5km az=87.0*
*JMA **02** 17:44:36.9±0.1, 27°.12N×143°.98E, h30km, M4.1*
*NEIC **02** 17:44:36.9±0.4, 26°.86N×143°.99E, h15km, mb4.6/13, Error ellipse: s-maj=8.7km s-min=6.2km az=91.0*
**ISC 02 17:44:40.5**±0.8**, 27°.03N**±0°.08×**143°.86E**±0°.08**, h35**km**, n57,** σ**1.46s**/55**, mb4.3**/22**, Bonin Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CBIJ** | **Chichi jima** | **1.50** | **273** | P | **Pn** | **17 45 04.0** | **-0.9** |
| CBIJ | | | | eS | **Sn** | **17 45 23.5** | **+0.2** |
| **CBIJ** | **Chichi jima** | **1.50** | **273** | ePn | **Pn** | **17 45 04.2** | **-0.8** |
| CBIJ | | | | eSn | **Sn** | **17 45 22.6** | **-0.7** |
| **JHHJ** | **Haha-jima-NKT** | **1.56** | **256** | P | **Pn** | **17 45 05.1** | **-0.7** |
| JHHJ | | | | eS | **Sn** | **17 45 26.0** | **+1.3** |
| **JHU** | **Hanno** | **9.62** | **337** | P | **Pn** | **17 46 54.9** | **-1.7** |
| JHU | | | | S | **Sn** | **17 48 38.7** | **-4.7** |
| **MJAR** | **Matsushiro Arr** | **10.63** | **335** | Pn | **Pn** | **17 47 09.7** | **-0.7** |
| | 0.8nm,0.3s,baz=65,slow=33,SNR=7.1 | | | | | | |
| **MAJO** | **Matsushiro** | **10.63** | **335** | ePn | **Pn** | **17 47 09.6** | **-0.8** |
| **MJB9** | **Matsu-Tunnel** | **10.64** | **335** | ePn | **Pn** | **17 47 09.4** | **-1.0** |
| **KSRS** | **Korea Array** | **17.00** | **312** | P | **P** | **17 48 38.4** | **+1.3** |
| | 0.2nm,0.3s,baz=127,slow=9.5,SNR=6.6 | | | | | | |
| **KSAR** | **Wonju Array Be** | **17.02** | **312** | P | **P** | **17 48 38.4** | **+1.0** |
| **ASAJ** | **Asahikawa** | **17.08** | **357** | ePn | **P** | **17 48 38.6** | **+0.7** |
| | 12nm,1.4s | | | | | | |
| **NACB** | **Ninganchiao** | **20.28** | **267** | eP | **P** | **17 49 12.3** | **-1.0** |
| | 82nm,1.7s | | | | | | |
| **YHNB** | **Yeheng** | **20.37** | **268** | eP | **P** | **17 49 14.8** | **+0.5** |
| | 89nm,1.5s | | | | | | |
| **YULB** | **Yu-li** | **20.73** | **265** | eP | **P** | **17 49 17.9** | **-0.3** |
| | 43nm,1.4s | | | | | | |
| **SSLB** | **Suanglung** | **20.94** | **266** | eP | **P** | **17 49 21.7** | **+1.2** |
| | 15nm,0.9s | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **22.33** | **104** | T | T | 18 12 27.7 | |
| | baz=294 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **22.34** | **104** | T | T | 18 12 27.7 | |
| | baz=294 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **22.35** | **104** | T | T | 18 12 34.6 | |
| | baz=294 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **22.67** | **107** | T | T | 18 12 58.4 | |
| | baz=294 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **22.67** | **107** | T | T | 18 13 01.7 | |
| | baz=294 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **22.69** | **107** | T | T | 18 13 11.1 | |
| | baz=294 | | | | | | |
| **SONA1** | **Songino Array** | **35.80** | **316** | eP | **P** | **17 51 38.0** | **+1.4** |
| **SONA0** | **Songino Array** | **35.80** | **316** | eP | **P** | **17 51 38.4** | **+1.8** |
| **SONM** | **Songino Array** | **35.80** | **316** | P | **P** | **17 51 38.4** | **+1.8** |
| | 0.6nm,0.5s,baz=120,slow=7.2,SNR=5.5 | | | | | | |
| **MTN** | **Manton Dam** | **41.52** | **199** | eP | **P** | **17 52 22.5** | **-2.1** |
| | 10.0nm,1.1s | | | | | | |
| **CHTO** | **Chiang Mai** | **42.00** | **269** | eP | **P** | **17 52 28.9** | **+0.2** |
| | 9.7nm,1.6s | | | | | | |
| **CM01** | **Chiang Mai Arr** | **42.12** | **268** | eP | **P** | **17 52 29.2** | **-0.4** |
| **CM31** | **Chiang Mai Arr** | **42.12** | **268** | eP | **P** | **17 52 28.7** | **-1.0** |
| **CMAR** | **Chiang Mai Arr** | **42.12** | **268** | P | **P** | **17 52 29.6** | **0.0** |
| | 0.9nm,0.6s,baz=70,slow=5.6,SNR=11 | | | | | | |
| **WB2** | **Warramunga Arr** | **47.60** | **192** | eP | **P** | **17 53 10.8** | **-2.3** |
| **WR1** | **Warramunga Arr** | **47.60** | **192** | eP | **P** | **17 53 11.1** | **-2.0** |
| | 6.6nm,0.7s | | | | | | |
| **WRA** | **Warramunga Arr** | **47.60** | **192** | P | **P** | **17 53 11.1** | **-2.0** |
| | 3.4nm,0.7s,baz=14,slow=8.5,SNR=21 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **48.22** | **204** | P | **P** | **17 53 16.6** | **-1.4** |
| | 4.5nm,0.7s,baz=45,slow=4.9,SNR=4.6 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **50.52** | **319** | P | **P** | **17 53 36.2** | **+1.1** |
| | 0.8nm,0.4s,baz=101,slow=7.7,SNR=5.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **50.52** | **319** | eP | **P** | **17 53 35.7** | **+0.6** |
| **ZAA1** | **Zalesovo Array** | **50.52** | **319** | eP | **P** | **17 53 36.2** | **+1.1** |
| **AS01** | **Alice Springs** | **51.30** | **192** | eP | **P** | **17 53 38.9** | **-2.5** |
| **AS31** | **Alice Springs** | **51.31** | **192** | eP | **P** | **17 53 39.5** | **-1.9** |
| | 0.8nm,0.6s | | | | | | |
| **ASAR** | **Alice Springs** | **51.31** | **192** | P | **P** | **17 53 39.3** | **-2.1** |
| | 0.4nm,0.7s,baz=15,slow=14,SNR=9.4 | | | | | | |
| **MK01** | **Makanchi Array** | **51.66** | **310** | eP | **P** | **17 53 45.1** | **+1.2** |
| **MK31** | **Makanchi Array** | **51.67** | **310** | eP | **P** | **17 53 45.1** | **+1.2** |
| **MK32** | **Makanchi Array** | **51.67** | **310** | eP | **P** | **17 53 45.0** | **+1.0** |
| **MKAR** | **Makanchi Array** | **51.67** | **310** | P | **P** | **17 53 45.0** | **+1.0** |
| | 2.6nm,0.7s,baz=89,slow=9.4,SNR=27 | | | | | | |
| **MAKZ** | **Makanchi** | **51.88** | **310** | eP | **P** | **17 53 47.0** | **+1.4** |
| | 5.8nm,1.3s | | | | | | |
| **HOM** | **Homer** | **54.23** | **34** | eP | **P** | **17 54 00.6** | **-2.0** |
| | 159nm,1.1s | | | | | | |
| **IMAR** | **Indian Mountai** | **54.43** | **26** | eP | **P** | **17 54 03.8** | **-0.2** |
| **PPLA** | **Purkeypile** | **54.46** | **30** | eP | **P** | **17 54 04.5** | **+0.1** |
| | 56nm,1.7s | | | | | | |
| **ILAR** | **Eielson Array** | **57.05** | **29** | P | **P** | **17 54 22.7** | **-0.1** |
| | 0.8nm,1.0s,baz=250,slow=5.4,SNR=3.6 | | | | | | |
| **AAK** | **Ala-Archa** | **57.52** | **305** | eP | **P** | **17 54 28.1** | **+1.4** |
| | 9.4nm,1.8s | | | | | | |
| **BVAR** | **Borovoye Array** | **59.10** | **318** | P | **P** | **17 54 38.5** | **+1.2** |
| | 1.7nm,0.5s,baz=90,slow=8.1,SNR=9.3 | | | | | | |
| **INK** | **Inuvik** | **62.47** | **25** | P | **P** | **17 55 00.9** | **+1.0** |
| | 0.4nm,0.4s,baz=236,slow=3.6,SNR=4.8 | | | | | | |
| **INK** | **Inuvik** | **62.47** | **25** | eP | **P** | **17 55 01.0** | **+1.0** |
| | 17nm,1.9s | | | | | | |
| **AKTO** | **Aktyubinsk** | **67.12** | **316** | P | **P** | **17 55 31.0** | **+0.5** |
| | 1.4nm,0.8s,baz=91,slow=13,SNR=4.7 | | | | | | |
| **FIA0** | **FINESS Array S** | **78.66** | **334** | eP | **P** | **17 56 40.6** | **+1.9** |
| **FINES** | **FINESS Array B** | **78.66** | **334** | P | **P** | **17 56 40.6** | **+1.9** |
| | 3.7nm,1.1s,baz=40,slow=7.3,SNR=4.8 | | | | | | |
| **KBZ** | **Khabaz** | **79.14** | **314** | P | **P** | **17 56 43.1** | **+1.5** |
| | 2.8nm,0.7s,baz=174,slow=4.0,SNR=6.9 | | | | | | |
| **BR101** | **Keskin Array S** | **87.14** | **314** | eP | **P** | **17 57 22.3** | **-0.9** |
| **BRTR** | **Keskin Array B** | **87.14** | **314** | P | **P** | **17 57 22.3** | **-0.9** |
| | 0.7nm,0.8s,baz=56,slow=5.4,SNR=3.1 | | | | | | |

**IDC 02 17:51:01.6**±5.9**, 4°.00S**×**141°.52E, h150**km±61km**, mb3.3**/4**, mb1 3.5**/6**, mb1mx3.2**/29**, mbtmp3.9**/6**, Error ellipse: s-maj=44.2km s-min=23.5km az=146.0, New Guinea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **7.76** | **134** | P | Pn | 17 52 52.4 | +0.5 |
| | 1.0nm,0.3s,baz=293,slow=15,SNR=2.4 | | | | | | |
| PMG | | | | S | Sn | 17 54 19.3 | +0.8 |
| | 0.5nm,0.3s,baz=230,slow=22,SNR=1.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **17.32** | **203** | P | P | 17 54 53.1 | -0.6 |
| | 1.3nm,0.3s,baz=33,slow=12,SNR=25 | | | | | | |
| **ASAR** | **Alice Springs** | **20.89** | **200** | P | P | 17 55 31.7 | -0.6 |
| | 1.6nm,0.5s,baz=26,slow=12,SNR=29 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **20.93** | **227** | P | P | 17 55 32.9 | +0.2 |
| | 1.8nm,0.5s,baz=40,slow=10 | | | | | | |
| **MKAR** | **Makanchi Array** | **72.52** | **322** | P | P | 18 02 12.9 | +0.6 |
| | 0.4nm,0.7s,baz=124,slow=7.7,SNR=5.0 | | | | | | |
| **ILAR** | **Eielson Array** | **85.85** | **24** | P | P | 18 03 23.1 | -1.1 |
| | 0.5nm,0.7s,baz=264,slow=4.1,SNR=6.0 | | | | | | |
| **LPAZ** | **La Paz** | **144.42** | **125** | PKP | PKPdf | 18 10 23.1 | +1.1 |
| | 0.9nm,0.5s,baz=333,slow=2.3,SNR=4.9 | | | | | | |

*ECX **02** 18:12:22.8±0.4, 32°.12N×115°.22W, h8km, MD3.0, ML3.2*
*NEIC **02** 18:12:22.9±0.0, 32°.12N×115°.23W, h8km, ML3.2(PAS), ML3.3(ECX), After ECX.*
*MEX **02** 18:12:23.5±0.6, 32°.21N×115°.09W, h17km±138km, MD3.7*
**ISC 02 18:12:21.4**±1.0**, 32°.14N**±0°.02×**115°.13W**±0°.03**, h18**km±4km**, n67,** σ**1.65s**/91**, 4C-7D, California-Baja California border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MBIG** | **Mexicali** | **0.28** | **349** | eP | **Pg** | **18 12 28.0** | **+0.5** |
| MBIG | | | | eS | **Sg** | **18 12 30.6** | **-1.1** |
| **MBIG** | **Mexicali** | **0.28** | **349** | ⇑eP | **Pg** | **18 12 28.4** | **+0.8** |
| **CPBX** | **Cerro Prieto** | **0.32** | **333** | ⇓eP | **Pg** | **18 12 28.5** | **+0.3** |
| CPBX | | | | eS | **Sg** | **18 12 33.0** | **+0.2** |
| CPBX | | | | IAML | | 18 12 36.5 | |
| | comp=N,8μm,0.1s | | | | | | |
| CPBX | | | | ⇑e | | 18 12 36.5 | |
| **CPBX** | **Cerro Prieto** | **0.32** | **333** | eP | **Pg** | **18 12 28.5** | **+0.3** |
| CPBX | | | | iS | **Sg** | **18 12 31.3** | **-1.6** |
| **EMSC** | **East Mesa** | **0.62** | **12** | ⇓iP | **Pg** | **18 12 34.0** | **+0.4** |
| **ECBX** | **El Chinero** | **0.66** | **174** | ⇓eP | **Pb** | **18 12 34.4** | **0.0** |
| ECBX | | | | eS | **Sg** | **18 12 43.7** | **+0.4** |
| **SGL** | **Mount Signal** | **0.72** | **316** | eP | **Pg** | **18 12 34.5** | **-0.9** |
| **DREC** | **Desert Rsrch C** | **0.72** | **338** | eP | **Pg** | **18 12 35.6** | **+0.1** |
| **COA** | **Coachella** | **0.73** | **1** | ⇓iP | **Pg** | **18 12 35.3** | **-0.3** |
| **ERPC** | **Ernies Place** | **0.75** | **324** | ePg | **Pg** | **18 12 36.3** | **+0.2** |
| **WESC** | **Westside Schoo** | **0.80** | **321** | eP | **Pb** | **18 12 36.6** | **-0.2** |
| **WESC** | **Westside Schoo** | **0.80** | **321** | ePg | **Pb** | **18 12 37.8** | **+1.0** |
| **YUH** | **Yuha Desert** | **0.84** | **308** | ⇓iP | **Pb** | **18 12 36.3** | **-1.1** |
| **YUH** | **Yuha Desert** | **0.84** | **308** | ePg | **Pb** | **18 12 36.3** | **-1.1** |
| **COK** | **Cook Ranch** | **0.87** | **325** | eP | **Pb** | **18 12 37.6** | **-0.3** |
| **RMX** | **La Rumorosa** | **0.93** | **300** | ⇑eP | **Pb** | **18 12 37.6** | **-1.3** |
| RMX | | | | eS | **Sb** | **18 12 48.9** | **-2.1** |
| RMX | | | | IAML | | 18 12 50.0 | |
| | comp=E,462nm,0.3s | | | | | | |
| RMX | | | | e | | 18 12 50.0 | |
| **GLA** | **Glamis** | **0.95** | **16** | P | **Pb** | **18 12 38.5** | **-0.8** |
| | baz=198,SNR=35 | | | | | | |
| GLA | | | | S | **Sb** | **18 12 50.5** | **-1.1** |
| | baz=198 | | | | | | |
| **GLA** | **Glamis** | **0.95** | **16** | eP | **Pb** | **18 12 38.6** | **-0.8** |
| GLA | | | | ePn | **Sb** | **18 12 50.7** | **-0.9** |
| **IKP** | **In-Ko-Pah, Jac** | **0.97** | **302** | P | **Pb** | **18 12 38.5** | **-1.2** |
| | baz=125,SNR=39 | | | | | | |
| IKP | | | | S | **Sb** | **18 12 51.3** | **-1.0** |
| | baz=125 | | | | | | |
| **IKP** | **In-Ko-Pah, Jac** | **0.97** | **302** | eP | **Pb** | **18 12 38.5** | **-1.2** |
| **SWSC** | **Sam W. Stewart** | **0.98** | **325** | P | **Pb** | **18 12 38.2** | **-1.7** |
| | baz=148,SNR=22 | | | | | | |
| SWSC | | | | S | **Sb** | **18 12 51.5** | **-1.1** |
| | baz=148 | | | | | | |
| **CRR** | **Carrizo Plain** | **1.03** | **317** | ePg | **Pb** | **18 12 40.2** | **-0.4** |
| **SPIG** | **San Pedro Mart** | **1.12** | **195** | eP | **Pn** | **18 12 41.9** | **-0.6** |
| SPIG | | | | iS | **Sb** | **18 12 56.9** | **+0.1** |
| **SPIG** | **San Pedro Mart** | **1.12** | **195** | ⇑eP | **Pn** | **18 12 42.0** | **-0.6** |
| **SPIG** | **San Pedro Mart** | **1.12** | **195** | eP | **Pn** | **18 12 41.9** | **-0.6** |
| SPIG | | | | iS | **Sb** | **18 12 56.9** | **+0.1** |
| **SPX** | **San Pedro Mart** | **1.12** | **195** | ⇓eP | **Pn** | **18 12 41.9** | **-0.6** |
| **SPX** | **San Pedro Mart** | **1.12** | **195** | eP | **Pn** | **18 12 42.1** | **-0.4** |
| SPX | | | | eS | **Sb** | **18 12 56.6** | **-0.2** |
| **CBKC** | **Canebrake** | **1.21** | **309** | ePg | **Pn** | **18 12 43.8** | **+0.3** |
| **CBX** | **Cerro Bola** | **1.31** | **278** | eP | **Pn** | **18 12 44.0** | **-0.9** |
| CBX | | | | eS | **Sn** | **18 12 59.7** | **-2.2** |
| **CBX** | **Cerro Bola** | **1.31** | **278** | ⇓eP | **Pn** | **18 12 44.1** | **-0.8** |
| CBX | | | | IAML | | 18 13 02.4 | |
| | comp=E,982nm,0.5s | | | | | | |
| **CBX** | **Cerro Bola** | **1.31** | **278** | eP | **Pn** | **18 12 44.0** | **-0.9** |
| CBX | | | | eS | **Sn** | **18 12 59.7** | **-2.2** |
| **MONP2** | **Monument Peak** | **1.32** | **305** | P | **Pn** | **18 12 43.7** | **-1.5** |
| | baz=127,SNR=31 | | | | | | |
| MONP2 | | | | S | **Sb** | **18 13 01.2** | **-1.4** |
| | baz=127 | | | | | | |
| **TJIG** | **Tijuana** | **1.34** | **283** | eP | **Pn** | **18 12 44.5** | **-0.6** |
| TJIG | | | | eS | **Sn** | **18 13 00.0** | **-2.5** |
| **BAR** | **Barrett** | **1.41** | **293** | ePg | **Pn** | **18 12 45.5** | **-0.7** |
| BAR | | | | eSn | **Sn** | **18 13 04.0** | **-0.3** |
| **BC3** | **Big Chuckawall** | **1.54** | **350** | P | **Pn** | **18 12 46.9** | **-1.1** |
| | baz=172,SNR=17 | | | | | | |
| BC3 | | | | S | **Sn** | **18 13 05.8** | **-1.9** |
| | baz=172 | | | | | | |
| **EML** | **El Monte Cty P** | **1.63** | **298** | ePg | **Pn** | **18 12 51.0** | **+1.8** |
| EML | | | | eSn | **Sn** | **18 13 10.6** | **+0.9** |
| **BLYC** | **Blythe** | **1.69** | **17** | ePn | **Pg** | **18 12 55.5** | **+1.6** |
| **Y12C** | **Blythe** | **1.69** | **17** | Sb | **Sb** | **18 13 12.3** | **-0.6** |
| | baz=199 | | | | | | |
| **Y12C** | **Blythe** | **1.69** | **17** | ePn | **Pb** | **18 12 52.5** | **+0.5** |
| **DPP** | **Dos Picos Cty** | **1.75** | **300** | ePn | **Pn** | **18 12 53.2** | **+2.3** |
| DPP | | | | eSn | **Sn** | **18 13 14.5** | **+1.7** |
| **HWB** | **Hans Werner Br** | **1.78** | **300** | ePn | **Pn** | **18 12 53.9** | **+2.7** |
| HWB | | | | eSn | **Sn** | **18 13 15.4** | **+1.9** |
| **109C** | **Camp Elliot, M** | **1.83** | **295** | S | **Sn** | **18 13 13.6** | **-1.0** |
| | baz=116 | | | | | | |
| **CPE** | **Camp Elliot** | **1.83** | **295** | eSn | **Sn** | **18 13 16.4** | **+1.8** |
| **FRD** | **Ford Ranch, An** | **1.84** | **318** | eSn | **Sb** | **18 13 18.3** | **+1.1** |
| **XPFO** | **Piæon Flat** | **1.84** | **323** | ePn | **Pn** | **18 12 50.7** | **-1.6** |
| XPFO | | | | eSn | **Sb** | **18 13 18.4** | **+0.9** |
| **PFO** | **Pinyon Flats O** | **1.85** | **323** | P | **Pn** | **18 12 50.8** | **-1.5** |
| | baz=144,SNR=12 | | | | | | |
| PFO | | | | Sb | **Sn** | **18 13 17.3** | **+2.0** |
| | baz=144 | | | | | | |
| **PFO** | **Pinyon Flats O** | **1.85** | **323** | ePn | **Pn** | **18 12 50.7** | **-1.6** |
| PFO | | | | eSn | **Sb** | **18 13 18.4** | **+0.8** |
| **SNDA** | **J Saunders Pla** | **1.88** | **319** | eSn | **Sb** | **18 13 20.2** | **+1.6** |
| **CRY** | **Cary Ranch** | **1.96** | **317** | eSn | **Sb** | **18 13 22.2** | **+1.4** |
| **214A** | **Organ Pipe Nat** | **1.98** | **95** | P | **Pn** | **18 12 53.5** | **-0.5** |
| | baz=275 | | | | | | |
| 214A | | | | Sb | **Sb** | **18 13 23.0** | **+1.8** |
| | baz=275 | | | | | | |
| **IRM** | **Iron Mountain** | **2.02** | **360** | S | **Sn** | **18 13 17.1** | **-2.2** |
| | baz=181 | | | | | | |
| **HMTC** | **Hemet** | **2.22** | **315** | ePn | **Pb** | **18 13 02.6** | **+1.6** |
| HMTC | | | | eSn | **Sb** | **18 13 29.3** | **+1.1** |
| **MURC** | **Murrieta** | **2.27** | **311** | Sb | **Sb** | **18 13 30.4** | **+0.8** |
| | baz=131 | | | | | | |
| **PDMCI** | **Parker Dam,Lak** | **2.32** | **21** | S | **Sn** | **18 13 25.2** | **-1.4** |
| | baz=202 | | | | | | |
| **CIAC** | **Catalina I. Ai** | **3.04** | **295** | eSn | **Sn** | **18 13 47.1** | **+2.6** |
| **CIS** | **Catalina Islan** | **3.04** | **295** | Sb | **Sb** | **18 13 52.5** | **+0.7** |
| | baz=115 | | | | | | |
| **RPV** | **Rancho Palos V** | **3.18** | **301** | ePn | **Pn** | **18 13 09.3** | **-1.2** |
| **PASC** | **Pasadena Art C** | **3.27** | **309** | ePn | **Pn** | **18 13 11.8** | **+0.1** |
| **SBI** | **Santa Barbara** | **3.54** | **293** | eSn | **Sn** | **18 13 58.9** | **+2.0** |
| **EDW2** | **Edwards Air Fo** | **3.63** | **320** | Sb | **Sb** | **18 14 11.6** | **+2.7** |
| | baz=139 | | | | | | |
| **TUC** | **Tucson** | **3.69** | **86** | ePn | **Pg** | **18 13 32.8** | **+0.7** |
| **TPNV** | **Topopah Spring** | **4.89** | **349** | ePg | **Pg** | **18 13 55.5** | **+0.5** |
| **CARC** | **Carrizo Plain** | **5.04** | **310** | ePn | Pn | 18 13 42.9 | +6.8 |
| CARC | | | | eSg | **Sb** | **18 14 54.9** | **+5.4** |
| **MDPB** | **Devils Postpil** | **6.37** | **331** | ePn | **Pn** | **18 13 58.8** | **+4.2** |
| **BBGB** | **Big Mountain B** | **6.59** | **314** | eSn | **Sn** | **18 15 05.3** | **-7.0** |
| **LAZ** | **Ladron** | **7.07** | **69** | ePn | Pb | 18 14 19.3 | -4.3 |
| **ANMO** | **Albuquerque** | **7.77** | **66** | ePn | Pb | 18 14 26.4 | -9.2 |

*ISCJB **02** 18:18:06.3±0.9, 38°.19N±0°.06×75°.3E±0°.1, h10km, Error ellipse: s-maj=11.6km s-min=8.2km az=169.8*
*KRNET **02** 18:18:08.3±0.1, 38°.68N×75°.75E, mb3.2*
*NNC **02** 18:18:10.9±3.3, 38°.49N×75°.31E, h0km, mb4.1, mpv3.7, Error ellipse: s-maj=26.0km s-min=16.4km az=176.0*
**ISC 02 18:18:05.5**±1.1**, 38°.07N**±0°.06×**75°.19E**±0°.08**, h10**km**, n17,** σ**1.98s**/27**, 8C-9D, Southern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SFK** | **Sufi-Kurgan** | **2.34** | **326** | ⇑iP | **Pn** | **18 18 47.1** | **+2.7** |
| | baz=308 | | | | | | |
| SFK | | | | ⇑iS | **Sn** | **18 19 15.4** | **+2.1** |
| | baz=308 | | | | | | |
| **SFK** | **Sufi-Kurgan** | **2.34** | **326** | ⇓Pn | **Pb** | **18 18 47.6** | **-0.4** |
| | 7.5nm,0.1s | | | | | | |
| SFK | | | | ⇓Sn | **Sb** | **18 19 16.2** | **-1.0** |
| | 31nm,0.3s | | | | | | |
| **ARSB** | **Arslanbob** | **3.67** | **333** | ⇑iP | **Pn** | **18 19 03.5** | **+1.0** |
| | baz=322 | | | | | | |
| ARSB | | | | ⇑iS | **Sn** | **18 19 44.0** | **-1.9** |
| | baz=322 | | | | | | |
| **UCH** | **Uchtor** | **4.18** | **353** | P | **Pn** | **18 19 11.8** | **+2.0** |
| | SNR=16 | | | | | | |
| **AML** | **Almayashu** | **4.22** | **345** | P | **Pn** | **18 19 12.1** | **+1.9** |
| | SNR=21 | | | | | | |
| **ARK** | **Arkit** | **4.48** | **327** | ⇑iP | **Pn** | **18 19 14.8** | **+1.3** |
| | baz=318 | | | | | | |
| ARK | | | | ⇑iS | **Sn** | **18 20 03.3** | **-2.4** |
| | baz=318 | | | | | | |
| **KBK** | **Karagaybulak** | **4.58** | **358** | P | **Pn** | **18 19 17.0** | **+2.0** |
| | SNR=15 | | | | | | |
| **AAK** | **Ala-Archa** | **4.59** | **354** | Pn | **Pn** | **18 19 17.1** | **+1.9** |
| | 9.3nm,0.6s | | | | | | |
| AAK | | | | ⇓Sn | **Sn** | **18 20 08.0** | **-0.7** |
| | 5.4nm,0.6s | | | | | | |
| **AAK** | **Ala-Archa** | **4.59** | **354** | P | **Pn** | **18 19 17.4** | **+2.2** |
| | SNR=18 | | | | | | |
| **EKS2** | **Erkin-Say** | **4.71** | **347** | P | **Pn** | **18 19 19.0** | **+2.2** |
| | SNR=10 | | | | | | |
| **TKM2** | **Tokmak 2** | **4.86** | **3** | ⇑Pn | **Pn** | **18 19 20.6** | **+1.8** |
| | 8.8nm,0.5s | | | | | | |
| TKM2 | | | | ⇑Sn | **Sn** | **18 20 13.7** | **-1.5** |
| | 4.4nm,0.5s | | | | | | |
| **TKM2** | **Tokmak 2** | **4.86** | **3** | P | **Pn** | **18 19 20.8** | **+1.9** |
| | SNR=28 | | | | | | |
| **MNAS** | **Manas** | **4.87** | **336** | ⇓Pn | **Pn** | **18 19 20.4** | **+1.5** |
| | 15nm,0.5s | | | | | | |
| MNAS | | | | ⇓Sn | **Sn** | **18 20 13.8** | **-1.6** |
| | 10nm,0.4s | | | | | | |
| **CHMS** | **Chumysh** | **4.94** | **356** | P | **Pn** | **18 19 21.6** | **+1.9** |
| | SNR=7.2 | | | | | | |
| **THN** | **Thein Dam** | **5.64** | **176** | eP | **Pn** | **18 19 32.0** | **+2.6** |
| THN | | | | eS | **Sn** | **18 20 31.9** | **-2.3** |
| **KK31** | **Karatay Array** | **6.16** | **326** | ⇓Pn | **Pn** | **18 19 37.2** | **+0.6** |
| | 1.2nm,0.3s,baz=124,slow=12,SNR=29 | | | | | | |
| KK31 | | | | ⇓Sn | **Sn** | **18 20 44.2** | **-2.9** |
| | 2.0nm,0.4s,baz=144,slow=26,SNR=9.5 | | | | | | |
| **PDGK** | **Podgornoye** | **6.18** | **30** | ⇓Pn | **Pn** | **18 19 37.6** | **+0.6** |
| | 2.4nm,0.6s | | | | | | |
| PDGK | | | | ⇓Sn | **Sn** | **18 20 45.7** | **-2.1** |
| | 13nm,1.0s | | | | | | |

*ISK **02** 18:20:51.7, 38°.69N×43°.50E, h5km, MD2.8*
*CSEM **02** 18:20:52.4±0.2, 38°.69N×43°.57E, h2km, MD2.8, Error ellipse: s-maj=6.2km s-min=3.6km az=101.0*
*DDA **02** 18:20:52.4, 38°.70N×43°.54E, h7km, Md2.7*
*ISCJB **02** 18:20:53.2±0.5, 38°.70N±0°.02×43°.53E±0°.05, h8km±4km, Error ellipse: s-maj=6.3km s-min=3.5km az=16.0*
**ISC 02 18:20:52.9**±0.9**, 38°.69N**±0°.02×**43°.55E**±0°.03**, h13**km±6km**, n33,** σ**0.86s**/54**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.16** | **234** | ePG | **Pg** | **18 20 56.6** | **-0.1** |
| **VANB** | **Van** | **0.16** | **234** | ePg | **Pg** | **18 20 56.6** | **-0.1** |
| **TVAN** | **Van** | **0.20** | **216** | iP | **Pg** | **18 20 56.6** | **-0.8** |
| TVAN | | | | iS | **Sg** | **18 21 00.9** | **+0.4** |
| **TVAN** | **Van** | **0.20** | **216** | P | **Pg** | **18 20 56.6** | **-0.8** |
| TVAN | | | | S | **Sg** | **18 21 00.9** | **+0.4** |
| **VMUR** | **Van-Muradiye** | **0.30** | **3** | iP | **Pg** | **18 20 58.3** | **-0.9** |
| VMUR | | | | iS | **Sb** | **18 21 05.5** | **+0.2** |
| **VMUR** | **Van-Muradiye** | **0.30** | **3** | P | **Pg** | **18 20 58.3** | **-0.9** |
| VMUR | | | | S | **Sb** | **18 21 05.5** | **+0.2** |
| **ERCV** | **ERCIS-VAN** | **0.37** | **333** | ePG | **Pg** | **18 20 59.9** | **-0.6** |
| ERCV | | | | eSG | **Sg** | **18 21 06.0** | **+0.4** |
| **ERCV** | **ERCIS-VAN** | **0.37** | **333** | ePg | **Pg** | **18 20 59.9** | **-0.6** |
| ERCV | | | | eSg | **Sg** | **18 21 06.0** | **+0.4** |
| **CLDR** | **Caldiran** | **0.54** | **32** | ePG | **Pb** | **18 21 03.7** | **-0.7** |
| CLDR | | | | eSG | **Sb** | **18 21 12.6** | **+0.5** |
| **CLDR** | **Caldiran** | **0.54** | **32** | iP | **Pb** | **18 21 03.6** | **-0.7** |
| CLDR | | | | iS | **Sb** | **18 21 13.5** | **+1.4** |
| **CLDR** | **Caldiran** | **0.54** | **32** | P | **Pb** | **18 21 03.6** | **-0.7** |
| CLDR | | | | S | **Sb** | **18 21 13.5** | **+1.4** |
| **GEVA** | **Gevas** | **0.54** | **226** | iP | **Pg** | **18 21 02.4** | **-1.1** |
| GEVA | | | | iS | **Sb** | **18 21 11.7** | **-0.4** |
| **GEVA** | **Gevas** | **0.54** | **226** | P | **Pg** | **18 21 02.4** | **-1.1** |
| GEVA | | | | S | **Sb** | **18 21 11.6** | **-0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.66** | **281** | iP | **Pg** | **18 21 05.5** | **-0.3** |
| ADCV | | | | iS | **Sb** | **18 21 15.2** | **-0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.66** | **281** | P | **Pg** | **18 21 05.5** | **-0.3** |
| ADCV | | | | S | **Sb** | **18 21 15.2** | **-0.3** |
| **DYDN** | **Diyadin** | **0.86** | **7** | iP | **Pg** | **18 21 08.7** | **-0.9** |
| DYDN | | | | iS | **Sb** | **18 21 22.1** | **+0.7** |
| **DYDN** | **Diyadin** | **0.86** | **7** | P | **Pg** | **18 21 08.7** | **-0.9** |
| DYDN | | | | S | **Sb** | **18 21 22.1** | **+0.7** |
| **TUTA** | **Tutak** | **0.92** | **321** | iP | **Pg** | **18 21 09.0** | **-1.6** |
| TUTA | | | | iS | **Sg** | **18 21 22.1** | **-0.6** |
| **TUTA** | **Tutak** | **0.92** | **321** | P | **Pg** | **18 21 09.0** | **-1.6** |
| TUTA | | | | S | **Sg** | **18 21 22.1** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **0.99** | **334** | ePG | **Pg** | **18 21 10.9** | **-1.0** |
| **AGRB** | **Hanur-Agry** | **0.99** | **334** | ePg | **Pg** | **18 21 11.0** | **-1.0** |
| **HAKT** | **HAKKARI** | **1.13** | **174** | iP | **Pg** | **18 21 12.8** | **-2.0** |
| HAKT | | | | iS | **Sn** | **18 21 30.7** | **+0.4** |
| **HAKT** | **HAKKARI** | **1.13** | **174** | P | **Pg** | **18 21 12.8** | **-2.0** |
| HAKT | | | | S | **Sn** | **18 21 30.7** | **+0.4** |
| **TASB** | **TASBURUN-IGDIR** | **1.40** | **22** | ePN | **Pg** | **18 21 19.4** | **-0.3** |
| **TASB** | **TASBURUN-IGDIR** | **1.40** | **22** | ePn | **Pg** | **18 21 19.5** | **-0.3** |
| **CUKT** | **Cukurca** | **1.44** | **178** | ePN | **Pg** | **18 21 20.1** | **-0.4** |
| **CUKT** | **Cukurca** | **1.44** | **178** | ePn | **Pg** | **18 21 20.2** | **-0.4** |
| **SRTM** | **Siirt_Merkez** | **1.46** | **242** | iP | **Pn** | **18 21 19.6** | **+0.5** |
| SRTM | | | | iS | **Sg** | **18 21 41.0** | **+1.1** |
| **SRTM** | **Siirt_Merkez** | **1.46** | **242** | P | **Pn** | **18 21 19.5** | **+0.5** |
| SRTM | | | | S | **Sg** | **18 21 41.0** | **+1.1** |
| **SIRT** | **Sirnak** | **1.47** | **217** | ePN | **Pb** | **18 21 20.1** | **-0.1** |
| **SIRT** | **Sirnak** | **1.47** | **217** | ePn | **Pb** | **18 21 20.2** | **-0.1** |
| **VRTB** | **Varto-Mus** | **1.70** | **287** | ePN | **Pn** | **18 21 23.2** | **+0.7** |
| **VRTB** | **Varto-Mus** | **1.70** | **287** | ePn | **Pn** | **18 21 23.2** | **+0.7** |

*ISCJB **02** 18:31:17.2±0.5, 10°.90N±0°.03×62°.45W±0°.06, h90km±7km, mb3.6/6, Error ellipse: s-maj=9.1km s-min=5.2km az=7.3*
*TRN **02** 18:31:19.9, 10°.90N×62°.27W, h94km, MD4.0*
*IDC **02** 18:31:26.0±5.5, 11°.52N×62°.54W, h140km±37km, mb3.3/6, mb1 3.5/6, mb1mx3.3/26, mbtmp3.7/6, Error ellipse: s-maj=53.7km s-min=20.3km az=9.0*
**ISC 02 18:31:19.4**±1.4**, 10°.92N**±0°.05×**62°.3W**±0°.1**, h91**km±11km**, n31,** σ**0.92s**/39**, mb3.6**/6**, Near coast of Venezuela**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TRN** | **Trinidad (W)** | **0.94** | **107** | eP | **Pn** | **18 31 39.4** | **+0.9** |
| TRN | | | | eS | **Sn** | **18 31 52.5** | **-0.4** |
| **TPP** | **Pointe-a-Pierr** | **1.05** | **125** | eP | **Pn** | **18 31 40.2** | **+0.5** |
| TPP | | | | eS | **Sn** | **18 31 54.4** | **-0.5** |
| **TBH** | **Brigand Hill** | **1.31** | **109** | eP | **Pn** | **18 31 43.7** | **+0.9** |
| TBH | | | | eS | **Sn** | **18 31 59.3** | **-1.2** |
| **GRGR** | **Grenville** | **1.37** | **28** | eP | **Pn** | **18 31 43.7** | **+0.1** |
| GRGR | | | | eS | **Sn** | **18 32 01.8** | **-0.1** |
| **TOSP** | **Speyside** | **1.79** | **78** | eP | **Pn** | **18 31 48.9** | **0.0** |
| TOSP | | | | eS | **Sn** | **18 32 10.5** | **-0.9** |
| **FCV** | **Fort Charlotte** | **2.46** | **25** | eP | **Pn** | **18 31 59.1** | **+1.3** |
| FCV | | | | eS | **Sn** | **18 32 26.7** | **-0.5** |
| **SVB** | **Belmont** | **2.56** | **24** | eP | **Pn** | **18 31 59.3** | **+0.1** |
| SVB | | | | eS | **Sn** | **18 32 29.3** | **-0.3** |
| **SVCV** | **St. Vincent, C** | **2.61** | **26** | eP | **Pn** | **18 31 59.7** | **0.0** |
| SVCV | | | | eS | **Sn** | **18 32 30.8** | **+0.1** |
| **SVV** | **Soufriere Volc** | **2.62** | **24** | eP | **Pn** | **18 32 01.3** | **+1.4** |
| SVV | | | | eS | **Sn** | **18 32 30.9** | **0.0** |
| **SSV** | **Crater Summit** | **2.64** | **25** | eP | **Pn** | **18 32 01.6** | **+1.4** |
| SSV | | | | eS | **Sn** | **18 32 31.6** | **+0.1** |
| **MCLT** | **Moule a Chique** | **3.08** | **26** | eP | **Pn** | **18 32 06.5** | **+0.4** |
| MCLT | | | | eS | **Sn** | **18 32 41.1** | **-1.1** |
| **SLB** | **Belfond** | **3.15** | **23** | eP | **Pn** | **18 32 06.9** | **-0.1** |
| SLB | | | | eS | **Sn** | **18 32 43.4** | **-0.4** |
| **BBGH** | **Gun Hill** | **3.49** | **50** | eP | **Pn** | **18 32 11.4** | **-0.2** |
| **BBSP** | **Saint Philip** | **3.55** | **52** | eP | **Pn** | **18 32 13.1** | **+0.8** |
| **H05S1** | **Guadeloupe/Mar** | **3.77** | **22** | P | **Pn** | **18 32 16.4** | **+1.0** |
| H05S1 | | | | S | **Sn** | **18 32 57.7** | **-1.1** |
| **BIM** | **Bigot** | **3.78** | **19** | eP | **Pn** | **18 32 16.8** | **+1.2** |
| **FDF** | **Fort de France** | **3.96** | **17** | eP | **Pn** | **18 32 19.5** | **+1.5** |
| FDF | | | | eS | **Sn** | **18 33 01.6** | **-1.7** |
| **PML** | **Morne Lenard** | **4.00** | **16** | eP | **Pn** | **18 32 18.9** | **+0.4** |
| **PCM** | **Pelee Case Pet** | **4.02** | **16** | eP | **Pn** | **18 32 18.4** | **-0.4** |
| **MGG** | **Marie-Galante** | **5.06** | **11** | eP | **Pn** | **18 32 33.8** | **+0.9** |
| **ANWB** | **Willy Bob** | **6.73** | **4** | eP | **Pn** | **18 32 56.8** | **+1.2** |
| **SDV** | **Santo Domingo** | **8.43** | **257** | eP | Pn | 18 33 14.8 | -4.2 |
| **PAMC** | **Pamplona, Colo** | **10.84** | **252** | eP | Pn | 18 33 48.2 | -3.9 |
| **RUSC** | **La Rusia** | **11.76** | **246** | eP | Pn | 18 34 00.5 | -4.0 |
| **SJAC** | **San Juan de Ar** | **13.81** | **237** | eP | Pn | 18 34 24.7 | -6.7 |
| **TXAR** | **Lajitas Array** | **42.65** | **302** | P | **P** | **18 39 05.7** | **-1.5** |
| | 0.3nm,0.6s,baz=103,slow=11,SNR=4.1 | | | | | | |
| **PDAR** | **Pinedale Array** | **51.80** | **317** | P | P | 18 40 15.6 | -2.8 |
| | 0.7nm,0.5s,baz=106,slow=9.4,SNR=8.3 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **62.51** | **81** | P | **P** | **18 41 35.6** | **+1.6** |
| | 0.2nm,0.4s,baz=286,slow=7.5,SNR=3.9 | | | | | | |
| **YKA** | **Yellowknife Ar** | **63.53** | **336** | P | P | 18 41 35.2 | -4.8 |
| | 0.3nm,0.8s,baz=106,slow=7.1,SNR=2.5 | | | | | | |
| **FINES** | **FINESS Array B** | **79.73** | **29** | P | **P** | **18 43 16.6** | **-0.5** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| | 4.5nm,1.1s,baz=282,slow=2.7,SNR=11 | | | | | | |
| **BRTR** | **Keskin Array B** | **87.64** | **50** | P | **P** | **18 43 58.4** | **+0.2** |
| | 0.5nm,0.6s,baz=297,slow=6.3,SNR=2.8 | | | | | | |

*ISK **02** 18:33:33.5, 38°81N×43°39E, h2km, MD2.6*
*DDA **02** 18:33:34.7, 38°68N×43°60E, h7km, Md2.7*
*ISCJB **02** 18:33:35.2±0.6, 38°76N±0°04×43°45E±0°09, h13km, Error ellipse: s-maj=10.6km s-min=4.1km az=21.5*
*CSEM **02** 18:33:35.1±0.4, 38°79N×43°42E, h10km, MD2.7, Error ellipse: s-maj=11.5km s-min=7.1km az=106.0*
**ISC 02 18:33:34.5**±0.9**, 38°77N**±0°03×**43°41E**±0°06**, h13km, n17,** σ**0.92**/24**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.17** | **186** | *e*PG | **Pb** | **18 33 40.3** | **+0.7** |
| **VANB** | **Van** | **0.17** | **186** | *e*Pg | **Pb** | **18 33 40.3** | **+0.7** |
| **TVAN** | **Van** | **0.24** | **181** | *i* P | **Pg** | **18 33 39.7** | **0.0** |
| TVAN | | | | *i* S | **Sg** | **18 33 44.4** | **+1.2** |
| **TVAN** | **Van** | **0.24** | **181** | P | **Pg** | **18 33 39.7** | **0.0** |
| TVAN | | | | S | **Sg** | **18 33 44.4** | **+1.2** |
| **VMUR** | **Van-Muradiye** | **0.26** | **29** | *i* P | **Pg** | **18 33 40.4** | **+0.3** |
| VMUR | | | | *i* S | **Sb** | **18 33 46.0** | **+0.4** |
| **VMUR** | **Van-Muradiye** | **0.26** | **29** | P | **Pg** | **18 33 40.4** | **+0.3** |
| VMUR | | | | S | **Sb** | **18 33 46.0** | **+0.4** |
| **CLDR** | **Caldiran** | **0.55** | **46** | *e*PG | **Pg** | **18 33 44.8** | **-0.5** |
| CLDR | | | | *e*SG | **Sb** | **18 33 53.0** | **-1.0** |
| **CLDR** | **Caldiran** | **0.55** | **46** | *i* P | **Pg** | **18 33 45.6** | **+0.3** |
| CLDR | | | | *i* S | **Sb** | **18 33 53.7** | **-0.3** |
| **CLDR** | **Caldiran** | **0.55** | **46** | *e*Pg | **Pg** | **18 33 44.8** | **-0.5** |
| **CLDR** | **Caldiran** | **0.55** | **46** | P | **Pg** | **18 33 45.6** | **+0.3** |
| CLDR | | | | *e*Sg | **Sb** | **18 33 53.0** | **-1.0** |
| **TUTA** | **Tutak** | **0.79** | **324** | *i* P | **Pn** | **18 33 51.6** | **0.0** |
| **TUTA** | **Tutak** | **0.79** | **324** | P | **Pn** | **18 33 51.6** | **0.0** |
| **AGRB** | **Hanur-Agry** | **0.87** | **338** | *e*PG | **Pg** | **18 33 50.4** | **-1.1** |
| **AGRB** | **Hanur-Agry** | **0.87** | **338** | *e*Pg | **Pg** | **18 33 50.4** | **-1.1** |
| **HAKT** | **HAKKARI** | **1.23** | **169** | *i* P | **Pn** | **18 33 55.0** | **-2.6** |
| **CUKT** | **Cukurca** | **1.52** | **174** | *e*PN | **Pb** | **18 34 03.7** | **+1.0** |
| **CUKT** | **Cukurca** | **1.52** | **174** | *e*Pn | **Pb** | **18 34 03.7** | **+1.0** |

*ISCJB **02** 19:08:10.6±0.5, 43°83N±0°04×105°11W±0°07, h0km, mb4.1/4, MS3.2/1, Error ellipse: s-maj=7.8km s-min=5.6km az=34.3*
*NEIC **02** 19:08:13.0±0.5, 43°77N×105°23W, h0km, ML3.4, Error ellipse: s-maj=7.3km s-min=5.8km az=138.0, Suspected Mining explosion.*
*NEIC 62 km [38 miles] SSE of Gillette.*
*IDC **02** 19:08:13.2±0.9, 43°93N×105°69W, h0km, mb3.9/4, mb1 3.9/7, mb1mx3.5/53, mbtmp3.7/7, ML3.3/3, MS3.2/2, Ms1 3.3/2, ms1mx2.5/46, Error ellipse: s-maj=21.6km s-min=7.7km az=145.0*
**ISC 02 19:08:12.8**±0.8**, 43°77N**±0°06×**105°22W**±0°07**, h0km, n34,** σ**1.32**/31**, mb3.9**/4**, Wyoming**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RSSD** | **Black Hills** | **0.93** | **67** | *e*Pg | **Pb** | **19 08 32.6** | **+0.7** |
| **K22A** | **Casper** | **1.47** | **221** | P | **Pn** | **19 08 38.7** | **-2.0** |
| | baz=40 | | | | | | |
| **K22A** | **Casper** | **1.47** | **221** | *e*Pn | **Pn** | **19 08 38.1** | **-2.6** |
| **PHWY** | **Pilot Hill** | **2.47** | **184** | *e*Pn | **Pn** | **19 08 54.8** | **+0.1** |
| **RWWY** | **Rawlins** | **2.54** | **216** | *e*Pn | **Pn** | **19 08 56.1** | **+0.6** |
| **N23A** | **Red Feather La** | **2.92** | **191** | P | **Pn** | **19 09 01.0** | **+0.2** |
| | baz=10 | | | | | | |
| **BW06** | **Boulder Array** | **3.32** | **254** | *e*Pn | **Pn** | **19 09 05.8** | **-0.5** |
| **PDAR** | **Pinedale Array** | **3.32** | **254** | Pn | **Pn** | **19 09 06.2** | **0.0** |
| | 4.1nm,0.3s,baz=76,slow=15,SNR=27 | | | | | | |
| PDAR | | | | Lg | Lg | 19 09 48.4 | |
| | 24nm,0.3s,baz=64,slow=23,SNR=13 | | | | | | |
| **LOHW** | **Long Hollow** | **3.91** | **270** | *e*Pn | **Pn** | **19 09 14.5** | **+0.2** |
| **H17A** | **Grant Village** | **3.91** | **281** | P | **Pn** | **19 09 15.6** | **+1.2** |
| | baz=97 | | | | | | |
| **H17A** | **Grant Village** | **3.91** | **281** | *e*Pn | **Pn** | **19 09 16.0** | **+1.7** |
| **ISCO** | **Idaho Springs** | **3.98** | **184** | *e*Pn | **Pn** | **19 09 15.1** | **-0.2** |
| **MOOW** | **Moose Ponds** | **4.00** | **272** | *e*Pn | **Pn** | **19 09 15.7** | **+0.1** |
| **SNOW** | **Snow King Moun** | **4.03** | **268** | *e*Pn | **Pn** | **19 09 16.5** | **+0.5** |
| **REDW** | **Red Top Meadow** | **4.11** | **266** | *e*Pn | **Pn** | **19 09 16.9** | **-0.2** |
| **IMW** | **Indian Meadow** | **4.14** | **274** | *e*Pn | **Pn** | **19 09 18.9** | **+1.3** |
| **TPAW** | **Teton Pass** | **4.17** | **268** | *e*Pn | **Pn** | **19 09 17.3** | **-0.6** |
| **O20A** | **White River Ci** | **4.27** | **213** | *e*Pn | **Pn** | **19 09 19.3** | **0.0** |
| **AHID** | **Auburn Hatcher** | **4.41** | **259** | *e*Pn | Pn | 19 09 13.7 | -7.5 |
| **EGMT** | **Eagleton** | **5.30** | **325** | *e*Pn | **Pn** | **19 09 32.1** | **-1.2** |
| | 20nm,0.6s | | | | | | |
| **SDCO** | **Great Sand Dun** | **6.02** | **182** | *e*Pn | **Pn** | **19 09 44.3** | **+0.9** |
| | 4.5nm,0.7s | | | | | | |
| **PV04** | **Paradox Valley** | **6.05** | **209** | *e*Pn | **Pn** | **19 09 43.9** | **+0.2** |
| **HLID** | **Hailey** | **6.67** | **271** | *e*Pn | **Pn** | **19 09 53.6** | **+1.4** |
| | 1.7nm,0.8s | | | | | | |
| **DUG** | **Dugway, Tooele** | **6.69** | **240** | *e*Pn | **Pn** | **19 09 50.9** | **-1.6** |
| | 4.4nm,0.5s | | | | | | |
| **I10CA** | **LAC DU BONNET** | **8.99** | **41** | *i* | | 20 06 30.0 | |
| | baz=223,slow=309,SNR=2.0 | | | | | | |
| **ULM** | **Lac du Bonnet** | **9.09** | **41** | Pn | **Pn** | **19 10 24.4** | **-0.8** |
| | 0.8nm,0.3s,baz=230,slow=11,SNR=7.3 | | | | | | |
| ULM | | | | Sn | **Sn** | **19 12 07.1** | **-1.2** |
| | 0.5nm,0.3s,baz=54,slow=3.1,SNR=3.0 | | | | | | |
| ULM | | | | Lg | Lg | 19 12 55.9 | |
| | 0.3nm,0.3s,baz=236,slow=3.6,SNR=2.9 | | | | | | |
| **WUAZ** | **Wupatki** | **9.51** | **212** | *e*Pn | **Pn** | **19 10 31.3** | **+0.2** |
| | 6.5nm,0.6s | | | | | | |
| **YBH** | **Yreka Blue Hor** | **13.02** | **267** | LR | LR | 19 16 48.2 | |
| | comp=Z,96nm,20.5s,baz=328,slow=41 | | | | | | |
| **TXAR** | **Lajitas Array** | **14.46** | **175** | Pn | **Pn** | **19 11 43.2** | **+4.4** |
| | 0.0nm,0.3s,baz=345,slow=9.3,SNR=3.9 | | | | | | |
| TXAR | | | | Pg | P | 19 12 41.0 | +55 |
| | 0.1nm,0.3s,baz=18,slow=12,SNR=6.8 | | | | | | |
| TXAR | | | | Lg | Lg | 19 15 50.2 | |
| | 0.0nm,0.3s,baz=352,slow=24,SNR=4.2 | | | | | | |
| **ILAR** | **Eielson Array** | **31.27** | **327** | LR | LR | 19 28 54.2 | |
| | comp=Z,51nm,18.1s,baz=152,slow=40 | | | | | | |
| **ARCES** | **ARCESS Array B** | **61.38** | **18** | P | **P** | **19 18 29.5** | **-0.5** |
| | 6.1nm,1.0s,baz=331,slow=7.2,SNR=5.6 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **82.28** | **354** | P | **P** | **19 20 34.5** | **-1.3** |
| | 0.7nm,0.5s,baz=2.9,slow=5.9,SNR=4.4 | | | | | | |
| **SONM** | **Songino Array** | **84.62** | **339** | P | **P** | **19 20 47.8** | **-0.3** |
| | 0.4nm,0.8s,baz=11,slow=2.9,SNR=3.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **89.58** | **355** | P | **P** | **19 21 12.1** | **0.0** |
| | 0.5nm,0.8s,baz=19,slow=4.9,SNR=3.4 | | | | | | |

**IDC 02 19:30:00.2**±11.0**, 15°19N**×**119°62E, h0km, mb3.5**/3**, mb1 3.8**/3**, mb1mx3.3**/50**, mbtmp3.5**/3**, Error ellipse: s-maj=365.6km s-min=31.8km az=36.0, Luzon**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CMAR** | **Chiang Mai Arr** | **20.06** | **282** | P | P | 19 34 35.2 | 0.0 |
| | 0.3nm,0.4s,baz=92,slow=7.7,SNR=7.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **37.79** | **157** | P | P | 19 37 18.2 | -0.3 |
| | 0.9nm,0.6s,baz=337,slow=9.4,SNR=17 | | | | | | |
| **ASAR** | **Alice Springs** | **41.06** | **160** | P | P | 19 37 45.9 | +0.1 |
| | 0.4nm,0.4s,baz=337,slow=7.2,SNR=16 | | | | | | |

**ROM 02 19:32:20.8**±0.2**, 39°92N**×**16°01E, h7km**±2km**, Ml0.7**/2**, Error ellipse: s-maj=2.0km s-min=1.1km az=157.0, Southern Italy**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MMN** | **Mormanno** | **0.03** | **208** | Pg | Pg | 19 32 22.5 | +0.5 |
| MMN | | | | Sg | Sg | 19 32 23.4 | +0.5 |
| | 119nm,0.1s | | | | | | |
| **T0711** | **Rotonda (PZ)** | **0.05** | **63** | Pg | Pg | 19 32 22.5 | +0.1 |
| T0711 | | | | Sg | Sg | 19 32 23.8 | +0.3 |
| | 75nm,0.2s | | | | | | |
| **CUC** | **Castrocucco** | **0.17** | **298** | Pg | Pg | 19 32 24.6 | +0.4 |
| CUC | | | | Sg | Sg | 19 32 27.8 | +1.3 |
| | 13nm,0.4s | | | | | | |
| **SIRI** | **Monte Sirino -** | **0.29** | **338** | Pg | Pb | 19 32 27.6 | -0.8 |
| | 11nm,0.2s | | | | | | |

**IDC 02 19:33:44.4**±2.6**, 6°66N**×**93°49E, h0km, mb3.5**/4**, mb1 3.6**/5**, mb1mx3.3**/47**, mbtmp3.4**/5**, ML3.4**/1**, Error ellipse: s-maj=83.1km s-min=29.2km az=63.0, Nicobar Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CMAR** | **Chiang Mai Arr** | **12.87** | **24** | Pn | Pn | 19 36 46.9 | -1.9 |
| | 0.1nm,0.3s,baz=209,slow=15,SNR=7.1 | | | | | | |
| **H08S3** | **Diego Garcia H** | **25.31** | **236** | T | T | 20 06 13.4 | |
| | baz=54,slow=76,SNR=8.5 | | | | | | |
| **H08S2** | **Diego Garcia H** | **25.31** | **236** | T | T | 20 06 09.8 | |
| | baz=54,slow=76,SNR=12 | | | | | | |
| **H08S1** | **Diego Carcia H** | **25.32** | **236** | T | T | 20 06 13.7 | |
| | baz=54,slow=76,SNR=8.4 | | | | | | |
| **SONM** | **Songino Array** | **42.48** | **13** | P | P | 19 41 42.8 | +1.3 |
| | 0.6nm,0.8s,baz=202,slow=8.5,SNR=3.2 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **45.56** | **347** | P | P | 19 42 06.3 | +0.3 |
| | 0.3nm,0.8s,baz=172,slow=6.6,SNR=5.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **47.67** | **353** | P | P | 19 42 21.0 | -1.5 |
| | 0.8nm,0.5s,baz=179,slow=8.6,SNR=3.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **48.10** | **124** | P | P | 19 42 26.2 | -0.2 |
| | 0.4nm,0.9s,baz=302,slow=9.1,SNR=5.1 | | | | | | |
| **FINES** | **FINESS Array B** | **73.48** | **332** | P | P | 19 45 23.9 | +5.3 |
| | 1.6nm,0.8s,baz=129,slow=5.9,SNR=3.7 | | | | | | |

*IDC **02** 19:36:42.2±0.8, 15°95N×91°27W, h0km, mb4.0/10, mb1 4.3/11, mb1mx4.1/30, mbtmp4.1/11, ML4.1/1, MS4.0/15, Ms1 3.9/15, ms1mx3.8/36, Error ellipse: s-maj=26.6km s-min=15.2km az=43.0*
*ISCJB **02** 19:36:45.3±0.8, 15°96N±0°02×91°28W±0°02, h24km±5km, mb4.7/131, MS3.8/13, Error ellipse: s-maj=3.8km s-min=2.8km az=21.7*
*NEIC **02** 19:36:46.8±0.6, 15°88N×91°29W, h27km±4km, mb4.7/172, MD4.7(MEX), Error ellipse: s-maj=4.4km s-min=3.0km az=214.0*
*NEIC Felt [II] at Guatemala. Also felt at Chimaltenango, Huehuetenango and San Cristobal Verapaz.*
*MEX **02** 19:36:47.9±0.8, 16°05N×91°24W, h10km±16km, MD4.7*
*CASC **02** 19:36:49.7±2.6, 15°09N×92°42W, h15km, ML4.3, mb4.7(NEIC)*
**ISC 02 19:36:47.9**±0.9**, 16°07N**±0°04×**91°34W**±0°03**, h30km**±6km**, n496,** σ**1.74**/491**, mb4.7**/129**, MS3.8**/14**, Mexico-Guatemala border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CCIG** | **Comitan** | **0.79** | **285** | *e*P | **Pb** | **19 37 02.4** | **-0.9** |
| CCIG | | | | *e*S | **Sb** | **19 37 14.3** | **+0.6** |
| **CCIG** | **Comitan** | **0.79** | **285** | *e*Pn | **Pb** | **19 37 02.4** | **-0.9** |
| CCIG | | | | *e*S | **Sb** | **19 37 14.3** | **+0.6** |
| **TGBT** | **Tuxtla Gutierr** | **1.81** | **293** | *e*P | **Pn** | **19 37 18.0** | **+0.9** |
| TGBT | | | | *e*S | **Sn** | **19 37 40.5** | **+1.4** |
| **PCIG** | | **1.84** | **259** | *e*P | **Pn** | **19 37 17.8** | **+0.3** |
| PCIG | | | | *e*S | **Sn** | **19 37 41.4** | **+1.6** |
| **PCIG** | | **1.84** | **259** | *e*P | **Pn** | **19 37 17.8** | **+0.3** |
| PCIG | | | | *e*S | **Sn** | **19 37 41.4** | **+1.6** |
| **TGIG** | | **1.84** | **293** | *e*P | **Pn** | **19 37 18.3** | **+0.8** |
| TGIG | | | | *e*S | **Sn** | **19 37 41.4** | **+1.4** |
| **TGIG** | | **1.84** | **293** | *e*P | **Pn** | **19 37 18.3** | **+0.8** |
| TGIG | | | | *e*S | **Sn** | **19 37 41.4** | **+1.4** |
| **RBDL** | **Robledal** | **2.52** | **140** | *e*P | **Pb** | **19 37 32.0** | **-0.6** |
| **CUS1** | **Cusmapa** | **2.54** | **148** | *e*P | **Pb** | **19 37 32.1** | **-0.8** |
| CUS1 | | | | *e*S | **Sb** | **19 38 06.8** | **+3.2** |
| **UNIC** | **Santa Ana** | **2.69** | **140** | *e*P | **Pb** | **19 37 35.4** | **-0.1** |
| UNIC | | | | *e*S | **Sb** | **19 38 08.8** | **+0.6** |
| **RTR** | **El Retiro** | **2.72** | **143** | *e*P | **Pb** | **19 37 35.0** | **-1.0** |
| RTR | | | | *e*S | **Sb** | **19 38 11.9** | **+3.0** |
| **MONT** | **Ecomontaæa** | **2.75** | **143** | *e*P | **Pb** | **19 37 35.6** | **-0.9** |
| **SNJE** | **San Jose** | **2.76** | **142** | *e*P | **Pb** | **19 37 36.1** | **-0.6** |
| **SBLS** | **San Blas** | **2.77** | **143** | *e*P | **Pb** | **19 37 35.9** | **-1.1** |
| **BOQS** | **Boqueron** | **3.06** | **139** | *e*P | **Pb** | **19 37 41.8** | **0.0** |
| **OPAM** | **San Salvador** | **3.13** | **138** | *e*P | **Pb** | **19 37 42.9** | **+0.1** |
| OPAM | | | | *e*S | **Sb** | **19 38 22.6** | **+1.9** |
| OPAM | | | | AML | AML | 19 38 31.3 | |
| | comp=Z,2μm,0.6s | | | | | | |
| **SNET** | **Serv Nac Est T** | **3.13** | **139** | *e*P | **Pb** | **19 37 43.8** | **+0.9** |
| SNET | | | | *e*S | **Sb** | **19 38 22.6** | **+1.9** |
| SNET | | | | AML | AML | 19 38 40.5 | |
| | comp=Z,2μm,0.8s | | | | | | |
| **LBRS** | **Las Brisas** | **3.21** | **136** | *e*P | **Pb** | **19 37 43.4** | **-1.0** |
| LBRS | | | | *e*S | **Sb** | **19 38 25.4** | **+2.3** |
| **LFRS** | **El Faro** | **3.29** | **138** | *e*P | **Pb** | **19 37 45.3** | **-0.3** |
| **TUIG** | **Tuzandepetl** | **3.53** | **304** | *e*P | **Pb** | **19 37 47.8** | **-1.9** |
| TUIG | | | | *e*S | **Sn** | **19 38 21.9** | **+0.4** |
| **TUIG** | **Tuzandepetl** | **3.53** | **304** | *e*Pn | **Pn** | **19 37 41.7** | **+0.9** |
| TUIG | | | | *e*S | **Sn** | **19 38 21.9** | **+0.4** |
| TUIG | | | | *e*Lg | Lg | 19 38 44.5 | |
| **CMIG** | **Matias Romero** | **3.54** | **287** | Pn | **Pn** | **19 37 40.6** | **-0.3** |
| | comp=Z,16nm,0.3s,baz=98,slow=8.8,SNR=49 | | | | | | |
| CMIG | | | | Sn | **Sn** | **19 38 22.3** | **+0.5** |
| | comp=Z,58nm,0.3s,baz=76,slow=16,SNR=7.3 | | | | | | |
| CMIG | | | | Lg | Lg | 19 38 35.5 | |
| | comp=Z,133nm,0.3s,baz=25,slow=22,SNR=18 | | | | | | |
| **CAHU** | **Cacacuatique** | **3.80** | **127** | *e*P | **Pb** | **19 37 55.6** | **+1.3** |
| **LCY** | **Lacayo** | **3.96** | **131** | *e*P | **Pb** | **19 37 58.9** | **+1.9** |
| **VSM** | **San Miguel** | **3.97** | **131** | *e*P | **Pb** | **19 37 58.3** | **+1.0** |
| **TGUH** | **Tegucigalpa,Un** | **4.41** | **116** | *e*Pn | **Pn** | **19 37 50.2** | **-2.7** |
| **TGUH** | **Tegucigalpa,Un** | **4.41** | **116** | *e*P | **Pb** | **19 38 06.8** | **+2.1** |
| **HUIG** | **Huatulco** | **4.59** | **267** | *e*P | **Pn** | **19 37 54.6** | **-0.8** |
| HUIG | | | | *e*S | **Sn** | **19 38 49.3** | **+1.6** |
| **HUIG** | **Huatulco** | **4.59** | **267** | *e*P | **Pn** | **19 37 54.6** | **-0.8** |
| HUIG | | | | *e*S | **Sn** | **19 38 49.3** | **+1.6** |
| **TEIG** | **Tepich** | **5.05** | **35** | *e*Pn | **Pn** | **19 38 05.5** | **+3.8** |
| TEIG | | | | *e*Sn | **Sn** | **19 38 58.7** | **-0.4** |
| **MYIG** | **MØrida** | **5.09** | **17** | *e*Pn | **Pn** | **19 38 02.0** | **-0.1** |
| MYIG | | | | *e*S | **Sn** | **19 38 58.1** | **-1.8** |
| **VHO** | **Vista Hermosa** | **5.26** | **282** | *e*P | **Pn** | **19 38 04.7** | **0.0** |
| VHO | | | | *e*S | **Sn** | **19 39 04.6** | **+0.1** |
| **VHO** | **Vista Hermosa** | **5.26** | **282** | *e*P | **Pn** | **19 38 04.7** | **0.0** |
| VHO | | | | *e*S | **Sn** | **19 39 04.6** | **+0.1** |
| **LVIG** | **Laguna Verde** | **6.04** | **308** | *e*Pn | **Pn** | **19 38 15.2** | **0.0** |
| **MGAN** | **Managua** | **6.30** | **128** | *e*Pn | **Pn** | **19 38 16.5** | **-2.3** |
| **TLIG** | **Tlapa** | **7.07** | **283** | *e*Pn | **Pn** | **19 38 29.7** | **+0.2** |
| **HDC** | **Heredia** | **9.28** | **130** | *e*Pn | **Pn** | **19 39 00.2** | **+0.4** |
| **MOIG** | **Morelia** | **10.04** | **292** | *e*Pn | Pn | 19 39 17.3 | +7.1 |
| **LNIG** | **Linares** | **11.61** | **320** | *e*Pn | **Pn** | **19 39 30.4** | **-1.3** |
| **ZAIG** | **Zacatecas** | **12.50** | **304** | *e*Pn | **Pn** | **19 39 43.9** | **-0.2** |
| **BCIP** | **Isla Barro Col** | **13.16** | **120** | *e*Pn | **Pn** | **19 39 48.5** | **-4.3** |
| **MTDJ** | **Mount Denham** | **13.37** | **79** | *e*Pn | **Pn** | **19 39 55.1** | **-0.7** |
| **833A** | **Chaparral WMA,** | **14.28** | **330** | P | **Pn** | **19 40 11.3** | **+3.2** |
| | baz=147 | | | | | | |
| **346A** | **Big Creek Wild** | **15.34** | **6** | P | **Pn** | **19 40 23.0** | **+0.7** |
| | baz=187 | | | | | | |
| **340A** | **Bronson** | **15.45** | **352** | P | **Pn** | **19 40 23.8** | **+0.1** |
| | baz=171 | | | | | | |
| **338A** | **Crockett** | **15.64** | **347** | P | **Pn** | **19 40 26.2** | **+0.1** |
| | baz=166 | | | | | | |
| **435B** | **Jarrell** | **15.71** | **340** | P | **Pn** | **19 40 28.1** | **+1.0** |
| | baz=158 | | | | | | |
| **NATX** | **Nacogdoches** | **15.90** | **350** | P | **Pn** | **19 40 29.5** | **-0.1** |
| | baz=168 | | | | | | |
| **NATX** | **Nacogdoches** | **15.90** | **350** | *e*Pn | **Pn** | **19 40 30.1** | **+0.6** |
| | comp=Z,24nm,0.8s | | | | | | |
| **GTBY** | **Guantanamo Bay** | **15.91** | **74** | *e*Pn | **Pn** | **19 40 29.0** | **-0.7** |
| | comp=Z,129nm,1.0s | | | | | | |
| **242A** | **Grayson** | **15.93** | **357** | P | **Pn** | **19 40 30.3** | **+0.3** |
| | baz=177 | | | | | | |
| **336A** | **Riesel** | **16.05** | **343** | P | **Pn** | **19 40 31.3** | **-0.2** |
| | baz=161 | | | | | | |
| **VBMS** | **Vicksburg** | **16.09** | **3** | P | **Pn** | **19 40 33.0** | **+1.0** |
| | baz=183 | | | | | | |
| **VBMS** | **Vicksburg** | **16.09** | **3** | *e*Pn | **Pn** | **19 40 32.2** | **+0.2** |
| | comp=Z,169nm,0.3s | | | | | | |
| **239A** | **Gary** | **16.13** | **350** | P | **P** | **19 40 35.9** | **+0.5** |
| | baz=169 | | | | | | |
| **238A** | **Jacksonville** | **16.23** | **348** | P | **P** | **19 40 35.7** | **-0.8** |
| | baz=167 | | | | | | |
| **JCT** | **Junction City** | **16.30** | **333** | P | **Pn** | **19 40 36.2** | **+1.6** |
| | baz=150 | | | | | | |
| **JCT** | **Junction City** | **16.30** | **333** | *e*Pn | **P** | **19 40 39.0** | **+1.6** |
| | comp=Z,13nm,0.7s | | | | | | |
| **142A** | **Monroe** | **16.41** | **358** | P | **Pn** | **19 40 37.4** | **+1.3** |
| | baz=178 | | | | | | |
| **141A** | **Papa Simpson,** | **16.52** | **355** | P | **P** | **19 40 41.1** | **+1.4** |
| | baz=175 | | | | | | |
| **236A** | **Katherine and** | **16.54** | **344** | P | **Pn** | **19 40 36.8** | **-0.9** |
| | baz=162 | | | | | | |
| **143A** | **Socs Landing,** | **16.56** | **360** | P | **Pn** | **19 40 37.2** | **-0.6** |
| | baz=180 | | | | | | |
| **140A** | **Cam and Jess,** | **16.62** | **353** | P | **Pn** | **19 40 37.8** | **-0.8** |
| | baz=172 | | | | | | |
| **146A** | **Union** | **16.62** | **7** | P | **Pn** | **19 40 38.7** | **0.0** |
| | baz=187 | | | | | | |
| **147A** | **Livingston** | **16.76** | **9** | P | **Pn** | **19 40 41.5** | **+1.0** |
| | baz=190 | | | | | | |
| **WHTX** | **Lake Whitney,** | **16.79** | **342** | P | **P** | **19 40 44.6** | **+1.7** |
| | baz=159 | | | | | | |
| **WHTX** | **Lake Whitney,** | **16.79** | **342** | *e*Pn | **P** | **19 40 46.4** | **+3.5** |
| | comp=Z,39nm,0.8s | | | | | | |
| WHTX | | | | *e*Sn | **Sn** | **19 43 39.5** | **-7.1** |
| **TIGA** | **Tifton** | **16.85** | **23** | P | **Pn** | **19 40 41.6** | **0.0** |
| | baz=206 | | | | | | |
| **TIGA** | **Tifton** | **16.85** | **23** | *e*Pn | **P** | **19 40 45.1** | **+1.6** |
| | comp=Z,114nm,1.3s | | | | | | |
| **138A** | **Matatall Enter** | **16.86** | **349** | P | **P** | **19 40 45.4** | **+1.9** |
| | baz=168 | | | | | | |
| **137A** | **Heron Place, G** | **16.93** | **347** | P | **P** | **19 40 46.1** | **+1.8** |
| | baz=165 | | | | | | |
| **MOTC** | **Monteria, Cord** | **16.93** | **113** | *e*P | **Pn** | **19 40 43.2** | **+0.4** |
| **136A** | **Ennis** | **16.99** | **345** | P | **P** | **19 40 46.9** | **+1.8** |
| | baz=163 | | | | | | |
| **Z42A** | **Norrel Spur, H** | **17.13** | **358** | P | **P** | **19 40 46.4** | **-0.1** |
| | baz=178 | | | | | | |
| **HPIG** | | **17.14** | **311** | *e*Pn | **Pn** | **19 40 46.9** | **+1.4** |
| | comp=Z,19nm,1.2s | | | | | | |
| **Z44A** | **Pea Ridge, Bel** | **17.15** | **3** | P | **Pn** | **19 40 46.1** | **+0.8** |
| | baz=183 | | | | | | |
| **Z41A** | **Richland Creek** | **17.16** | **356** | P | **Pn** | **19 40 45.3** | **-0.1** |
| | baz=175 | | | | | | |
| **Z46A** | **Louisville** | **17.18** | **7** | P | **Pn** | **19 40 45.5** | **-0.3** |
| | baz=188 | | | | | | |
| **Z40A** | **Long Farm, Mag** | **17.21** | **354** | P | **P** | **19 40 48.4** | **+1.0** |
| | baz=173 | | | | | | |
| **Z39A** | **Irene McRaven,** | **17.29** | **352** | P | **P** | **19 40 49.6** | **+1.3** |
| | baz=171 | | | | | | |
| **Z45A** | **Winona** | **17.29** | **5** | P | **P** | **19 40 48.5** | **+0.2** |
| | baz=185 | | | | | | |
| **Z47A** | **Carrollton** | **17.31** | **9** | P | **Pn** | **19 40 48.1** | **+0.8** |
| | baz=190 | | | | | | |
| **LRAL** | **Lakeview Retre** | **17.34** | **12** | *e*Pn | **Pn** | **19 40 48.5** | **+0.8** |
| | comp=Z,22nm,1.3s | | | | | | |
| **LTX** | **Lajitas** | **17.40** | **321** | *e*Pn | **P** | **19 40 51.7** | **+2.0** |
| **TXAR** | **Lajitas Array** | **17.40** | **321** | P | **P** | **19 40 51.7** | **+2.0** |
| | comp=Z,0.1nm,0.3s,baz=152,slow=9.5,SNR=18 | | | | | | |
| TXAR | | | | LR | LR | 19 49 13.5 | |
| | comp=Z,97nm,20.5s,baz=0.0,slow=43 | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **17.40** | **321** | *e*Pn | **P** | **19 40 51.2** | **+1.5** |
| **Z38A** | **Mt. Pleasant** | **17.43** | **350** | P | **P** | **19 40 50.3** | **+0.5** |
| | baz=168 | | | | | | |
| **Z48A** | **Northport** | **17.56** | **11** | P | **Pn** | **19 40 50.6** | **+0.1** |
| | baz=192 | | | | | | |
| **WLAR** | **White Oak Lake** | **17.61** | **355** | *e*Pn | **Pn** | **19 40 51.3** | **+0.2** |
| | comp=Z,75nm,1.0s | | | | | | |
| **Z36A** | **Blue Ridge** | **17.73** | **346** | P | **P** | **19 40 54.1** | **+0.9** |
| | baz=164 | | | | | | |
| **Y43A** | **Makayla and Ka** | **17.77** | **1** | P | **P** | **19 40 55.0** | **+1.4** |
| | baz=181 | | | | | | |
| **Y41A** | **Eaglette Beard** | **17.77** | **357** | P | **P** | **19 40 55.5** | **+2.0** |
| | baz=176 | | | | | | |
| **Y45A** | **Yeager Farm, C** | **17.79** | **5** | P | **Pn** | **19 40 53.6** | **+0.3** |
| | baz=185 | | | | | | |
| **Y44A** | **Strider, Charl** | **17.84** | **3** | P | **Pn** | **19 40 54.4** | **+0.6** |
| | baz=183 | | | | | | |
| **Y46A** | **Houston** | **17.87** | **7** | P | **Pn** | **19 40 54.6** | **+0.3** |
| | baz=188 | | | | | | |
| **Y40A** | **Okolona** | **17.95** | **355** | P | **Pn** | **19 40 55.8** | **+0.6** |
| | baz=174 | | | | | | |
| **Y39A** | **Lockesburg** | **17.96** | **353** | P | **P** | **19 40 56.2** | **+0.5** |
| | baz=171 | | | | | | |
| **Y47A** | **UCPARC, Winfie** | **18.03** | **9** | P | **Pn** | **19 40 56.7** | **+0.5** |
| | baz=191 | | | | | | |
| **Y38A** | **Idabel** | **18.04** | **351** | P | **P** | **19 40 57.7** | **+1.1** |
| | baz=169 | | | | | | |
| **ABTX** | **Abilene, Hawle** | **18.11** | **337** | *e*P | **P** | **19 41 04.2** | **+6.7** |
| | comp=Z,28nm,1.0s | | | | | | |
| **Y37A** | **Hugo** | **18.24** | **349** | P | **P** | **19 40 59.5** | **+0.7** |
| | baz=167 | | | | | | |
| **Y36A** | **Durant** | **18.30** | **347** | P | **Pn** | **19 41 02.4** | **+2.8** |
| | baz=165 | | | | | | |
| **HELC** | **Santa Helena** | **18.35** | **121** | *e*Pn | **Pn** | **19 40 58.0** | **-2.6** |
| | comp=Z,19nm,0.9s | | | | | | |
| **X43A** | **Marvell** | **18.37** | **1** | P | **P** | **19 40 60.0** | **-0.2** |
| | baz=181 | | | | | | |
| **X41A** | **Kaden, Bauxite** | **18.37** | **357** | P | **Pn** | **19 41 02.7** | **+2.3** |
| | baz=176 | | | | | | |
| **X44A** | **Crenshaw** | **18.38** | **3** | P | **Pn** | **19 41 02.9** | **+2.5** |
| | baz=183 | | | | | | |
| **X40A** | **Basin Creek Fa** | **18.39** | **356** | P | **Pn** | **19 41 01.2** | **+0.6** |
| | baz=175 | | | | | | |
| **OXF** | **Oxford** | **18.44** | **5** | *e*P | **P** | **19 41 01.3** | **+0.3** |
| | comp=Z,74nm,1.2s | | | | | | |
| **Y35A** | **Marietta** | **18.48** | **345** | P | **P** | **19 41 01.9** | **+0.4** |
| | baz=163 | | | | | | |
| **MIAR** | **Mount Ida** | **18.50** | **354** | P | **Pn** | **19 41 02.9** | **+0.9** |
| | baz=173 | | | | | | |
| **MIAR** | **Mount Ida** | **18.50** | **354** | *e*P | **Pn** | **19 41 03.1** | **+1.1** |
| | comp=Z,21nm,0.9s | | | | | | |
| **X39A** | **Fountain Ranch** | **18.53** | **353** | P | **Pn** | **19 41 04.1** | **+1.8** |
| | baz=172 | | | | | | |
| **UALR** | **University of** | **18.64** | **357** | *e*P | **P** | **19 41 04.0** | **+0.7** |
| | comp=Z,16nm,0.8s | | | | | | |
| **GOGA** | **Godfrey** | **18.67** | **21** | *e*P | **Pn** | **19 41 06.1** | **+2.1** |
| | comp=Z,14nm,0.9s | | | | | | |
| **X38A** | **Whitesboro** | **18.78** | **351** | P | **Pn** | **19 41 06.7** | **+1.3** |
| | baz=170 | | | | | | |
| **X37A** | **Clayton** | **18.79** | **350** | P | **Pn** | **19 41 06.7** | **+1.2** |
| | baz=168 | | | | | | |
| **X37A** | **Clayton** | **18.79** | **350** | *e*P | **Pn** | **19 41 06.2** | **+0.7** |
| | comp=Z,29nm,0.9s | | | | | | |
| **X35A** | **Drake** | **18.94** | **346** | *e*P | **Pn** | **19 41 08.1** | **+0.8** |
| | comp=Z,97nm,1.0s | | | | | | |
| X35A | | | | *e*Sn | Sn | 19 44 25.9 | -13 |
| **X36A** | **Centrahoma** | **18.96** | **347** | P | **Pn** | **19 41 08.7** | **+1.1** |
| | baz=165 | | | | | | |
| **GUYC** | **Guyana, Colomb** | **19.01** | **123** | *e*P | **P** | **19 41 04.5** | **-3.4** |
| **W41B** | **Gary Mavity, V** | **19.04** | **358** | P | **Pn** | **19 41 09.1** | **+0.6** |
| | baz=177,SNR=6.8 | | | | | | |
| **SLBS** | **Sierra La Lagu** | **19.05** | **296** | *e*P | **Pn** | **19 41 09.5** | **+0.7** |
| | comp=Z,24nm,1.4s | | | | | | |
| **PLAL** | **Pickwick Lake** | **19.06** | **8** | *e*P | **P** | **19 41 07.2** | **-0.5** |
| | comp=Z,40nm,1.6s | | | | | | |
| **W40A** | **Ferguson Farm,** | **19.10** | **356** | P | **Pn** | **19 41 10.9** | **+1.7** |
| | baz=175 | | | | | | |
| **X301** | **Greenbrier Sit** | **19.11** | **357** | *e*P | **Pn** | **19 41 09.7** | **+0.4** |
| | comp=Z,73nm,1.6s | | | | | | |
| **W38A** | **Poteau** | **19.13** | **352** | P | **Pn** | **19 41 10.9** | **+1.3** |
| | baz=171 | | | | | | |
| **WHAR** | **Wooly Hollow** | **19.16** | **358** | *e*P | **Pn** | **19 41 10.1** | **+0.2** |
| | comp=Z,91nm,1.4s | | | | | | |
| **W39A** | **Magazine** | **19.17** | **354** | P | **Pn** | **19 41 11.3** | **+1.3** |
| | baz=173 | | | | | | |
| **URIC** | **Uribia, Colomb** | **19.28** | **101** | *e*P | **Pn** | **19 41 12.4** | **+0.9** |
| **W37B** | **Quinton** | **19.34** | **350** | P | **Pn** | **19 41 13.0** | **+1.0** |
| | baz=168 | | | | | | |
| **W37B** | **Quinton** | **19.34** | **350** | *e*P | **Pn** | **19 41 17.2** | **+5.2** |
| | comp=Z,35nm,1.0s | | | | | | |
| **SDDR** | **Presa de Saban** | **19.34** | **78** | *e*P | **P** | **19 41 11.6** | **+0.5** |
| | comp=Z,25nm,0.9s | | | | | | |
| **HBAR** | **Harrisburg** | **19.41** | **2** | *e*P | **P** | **19 41 12.5** | **+0.9** |
| | comp=Z,174nm,1.6s | | | | | | |
| **W36A** | **Wetumka** | **19.48** | **348** | P | **Pn** | **19 41 13.8** | **0.0** |
| | baz=166 | | | | | | |
| **W36A** | **Wetumka** | **19.48** | **348** | *e*P | **Pn** | **19 41 14.8** | **+1.0** |
| | comp=Z,9.3nm,1.0s | | | | | | |
| **LPIG** | **La Paz** | **19.50** | **297** | LR | LR | 19 48 49.1 | |
| | comp=Z,1μm,19.0s,baz=136,slow=37 | | | | | | |
| **W35A** | **Tecumseh** | **19.64** | **346** | P | **P** | **19 41 15.0** | **+0.9** |
| | baz=164 | | | | | | |
| **W35A** | **Tecumseh** | **19.64** | **346** | *e*P | **P** | **19 41 15.2** | **+1.1** |
| | comp=Z,44nm,1.0s | | | | | | |
| **V41A** | **Mountainview** | **19.64** | **358** | P | **Pn** | **19 41 15.9** | **+0.2** |
| | baz=178 | | | | | | |
| **V42A** | **Cord** | **19.65** | **360** | P | **Pn** | **19 41 15.6** | **-0.2** |
| | baz=180 | | | | | | |
| **SWET** | **Sewanee** | **19.67** | **13** | *e*P | **P** | **19 41 15.0** | **+0.5** |
| | comp=Z,52nm,1.5s | | | | | | |
| **CSU** | **Charleston Sou** | **19.69** | **29** | *e*P | **Pn** | **19 41 17.1** | **+0.9** |
| **V40A** | **Witts Springs** | **19.69** | **356** | P | **Pn** | **19 41 17.1** | **+0.8** |
| | baz=176 | | | | | | |
| **NHSC** | **New Hope** | **19.74** | **29** | *e*P | **Pn** | **19 41 16.7** | **-0.1** |
| | comp=Z,67nm,0.8s | | | | | | |
| **WMOK** | **Wichita Mounta** | **19.75** | **342** | P | **Pn** | **19 41 16.9** | **-0.1** |
| | baz=158 | | | | | | |
| **WMOK** | **Wichita Mounta** | **19.75** | **342** | *e*P | **P** | **19 41 15.8** | **+0.4** |
| | comp=Z,36nm,1.4s | | | | | | |
| **V39A** | **Pettigrew** | **19.79** | **354** | P | **Pn** | **19 41 17.9** | **+0.3** |
| | baz=173 | | | | | | |
| **HALT** | **Halls** | **19.84** | **5** | *e*P | **P** | **19 41 15.6** | **-0.7** |
| | comp=Z,89nm,0.4s | | | | | | |
| **HODGE** | **Hodges** | **19.84** | **23** | *e*P | **P** | **19 41 17.0** | **+0.6** |
| | comp=Z,22nm,1.2s | | | | | | |
| **GNAR** | **Gosnell** | **19.84** | **3** | *e*P | **P** | **19 41 17.7** | **+1.3** |
| | comp=Z,525nm,2.0s | | | | | | |
| **V38A** | **Canehill** | **19.90** | **353** | P | **P** | **19 41 18.2** | **+1.2** |
| | baz=171 | | | | | | |
| **OK022** | **N3560 Road, Pr** | **19.96** | **347** | *e*P | **P** | **19 41 17.9** | **+0.3** |

comp=Z,39nm,1.1s
OK020 N3440 Road, Me 20.00 347 eP P 19 41 18.7 +0.6
comp=Z,39nm,1.0s
V37A Hulbert 20.02 351 P Pn 19 41 20.3 +0.2
baz=169
OK021 N3530 Road, Sp 20.03 347 eP P 19 41 19.0 +0.6
comp=Z,42nm,1.2s
V36A Jenks 20.06 349 P Pn 19 41 20.8 +0.2
baz=167
V36A Jenks 20.06 349 eP Pn 19 41 23.1 +2.5
comp=Z,18nm,0.7s
CMBC Cumbal 20.09 137 eP P 19 41 19.8 0.0
ROSC El Rosal 20.10 122 P Pn 19 41 21.1 -0.5
comp=Z,6.9nm,0.3s,baz=342,slow=20,SNR=4.5
ROSC LR LR 19 49 40.9
comp=Z,407nm,19.1s,baz=26,slow=39
ROSC El Rosal 20.10 122 eP P 19 41 19.1 -0.7
ROSC El Rosal 20.10 122 eP P 19 41 17.7 -2.1
comp=Z,32nm,1.3s
MNTX Cornudas Mount 20.13 323 P P 19 41 21.2 +1.6
baz=138
MNTX Cornudas Mount 20.13 323 eP P 19 41 20.5 +1.0
comp=Z,7.7nm,0.8s
TUL1 Leonard 20.15 349 P P 19 41 20.5 +0.8
baz=168
TUL1 Leonard 20.15 349 eP Pn 19 41 26.9 +5.2
comp=Z,32nm,0.8s
BANI BANI 20.18 80 eP P 19 41 18.5 -1.8
U41A Viola 20.20 359 P Pn 19 41 22.4 +0.1
baz=178
U42A Revenden 20.20 0 P Pn 19 41 22.4 +0.1
baz=180
GLAT Glass 20.20 5 eP Pn 19 41 24.3 +2.1
comp=Z,113nm,0.5s
V35A Meyer Ranch, C 20.21 347 P Pn 19 41 22.3 -0.1
baz=165
V35A Meyer Ranch, C 20.21 347 eP Pn 19 41 26.1 +3.6
comp=Z,44nm,1.2s
WVT Waverly 20.22 8 eP P 19 41 20.8 +0.3
comp=Z,15nm,1.0s
U43A Rector 20.23 2 P Pn 19 41 22.5 -0.1
baz=182
OTAV Otavalo 20.23 140 eP P 19 41 19.0 -2.2
comp=Z,8.8nm,0.8s
CPCT Cooper Cave 20.24 16 eP P 19 41 20.8 +0.1
comp=Z,20nm,1.2s
U40A Yellville 20.25 356 P P 19 41 22.1 +1.4
baz=176
HHAR Hobbs 20.26 354 eP P 19 41 21.9 +1.0
comp=Z,17nm,1.1s
HHAR eS S 19 45 01.1 -5.5
U44B Burton Farm, H 20.26 5 P Pn 19 41 22.8 -0.2
baz=185
JSC Jenkinsville 20.27 25 eP Pn 19 41 22.4 -0.7
comp=Z,15nm,1.0s
BG3 Lake Jocassee 20.29 20 eP P 19 41 22.1 +0.8
comp=Z,17nm,1.0s
PRAC Prado 20.31 125 eP P 19 41 20.6 -1.1
comp=Z,91nm,1.8s
U39A Green Forest 20.32 355 P P 19 41 22.5 +1.0
baz=174
U38A Gravette 20.46 353 P Pn 19 41 25.8 +0.4
baz=172
U37A Salina 20.53 351 P P 19 41 24.7 +0.9
baz=170
PARMO Parma 20.56 4 eP P 19 41 25.2 +1.1
comp=Z,84nm,0.5s
PARMO eS S 19 45 11.3 -1.2
RUSC La Rusia 20.56 117 eP P 19 41 21.7 -3.1
RUSC La Rusia 20.56 117 eP P 19 41 23.9 -1.0
comp=Z,18nm,1.1s
MSTX Muleshoe 20.58 332 eP Pn 19 41 27.4 +0.5
comp=Z,125nm,1.9s
SDD Santo Domingo 20.60 80 eP P 19 41 25.8 +1.1
comp=Z,105nm,1.0s
U36A Oologah 20.61 350 P P 19 41 25.7 +1.0
baz=168
PBMO Poplar Bluff 20.64 2 eP P 19 41 26.1 +1.1
comp=Z,27nm,0.9s
TKL Tuckaleechee C 20.64 18 P Pn 19 41 27.2 -0.2
comp=Z,16nm,1.0s,baz=186,slow=12,SNR=8.7
TKL LR LR 19 50 46.2
comp=Z,722nm,18.9s,baz=206,slow=41
TKL Tuckaleechee C 20.64 18 eP Pn 19 41 27.5 +0.1
comp=Z,24nm,1.0s
U35A Pawnee 20.78 348 P P 19 41 27.4 +0.9
baz=165
EPT El Paso 20.85 321 eP P 19 41 28.2 +0.8
comp=Z,11nm,0.8s
T42A Van Buren 20.87 1 P P 19 41 28.9 +1.4
baz=180
T41A Mountain View 20.89 359 P Pn 19 41 30.8 +0.5
baz=179,SNR=6.4
AMTX Amarillo 20.90 336 P P 19 41 29.2 +1.3
baz=151
AMTX Amarillo 20.90 336 eP P 19 41 29.2 +1.3
comp=Z,65nm,1.3s
T39A Clever 20.95 355 P Pn 19 41 30.7 -0.2
baz=174
T43A Greenville 20.95 2 P P 19 41 29.4 +1.1
baz=183,SNR=5.4
T44A Benton 20.99 4 P P 19 41 30.2 +1.5
baz=184
KMSC Kings Mountain 21.00 23 eP P 19 41 27.5 -1.4
comp=Z,22nm,0.9s
T40A Mansfield 21.02 357 P P 19 41 32.6 +3.5
baz=177,SNR=11
VILC Villavicencio, 21.03 123 eP P 19 41 30.4 +0.8
T38A Diamond 21.04 353 P P 19 41 30.5 +1.2
baz=172
T35A Sooner Cattle 21.26 349 P P 19 41 33.2 +1.5
baz=166
T36A Boggs Farm, Ca 21.29 350 P P 19 41 33.5 +1.5
baz=168
SJAC San Juan de Ar 21.32 125 eP P 19 41 31.7 -1.0
U32A Winter Ranch, 21.34 343 P P 19 41 35.5 +2.9
baz=160
S41A Jillco Farms, 21.43 359 P P 19 41 36.1 +2.5
baz=179,SNR=6.2
SDV Santo Domingo 21.43 107 P P 19 41 35.6 +1.6
comp=Z,60nm,0.9s,baz=288,slow=5.2,SNR=14
SDV LR LR 19 51 40.3
comp=Z,334nm,18.3s,baz=233,slow=42
SDV Santo Domingo 21.43 107 eP P 19 41 37.7 +3.7
SDV Santo Domingo 21.43 107 eP P 19 41 30.2 -3.8
comp=Z,61nm,0.8s
S43A Fulton Ridge, 21.44 3 P P 19 41 34.9 +1.2
baz=183
S40A Lebanon 21.46 357 P P 19 41 34.5 +0.6
baz=177
T34A McClaskey Farm 21.50 347 P P 19 41 35.3 +1.0
baz=165
S38A Stockton 21.59 354 P P 19 41 36.2 +1.0
baz=173
S39A Bolivar 21.60 356 P P 19 41 37.7 +2.3
baz=175,SNR=9.3
S44A Carbondale 21.61 5 P P 19 41 37.0 +1.5
baz=185,SNR=6.5
S42A Caledonia 21.62 1 P P 19 41 37.9 +2.4
baz=181
SIUC Southern Illin 21.64 5 eP P 19 41 36.8 +1.1
comp=Z,139nm,1.3s
S45A Carrier Mills 21.66 6 P P 19 41 37.6 +1.7
baz=187
S46A Don Dixon Farm 21.76 8 P P 19 41 38.6 +1.5
baz=189
S37A Fort Scott 21.82 353 P P 19 41 38.9 +1.2
baz=171
FVM French Village 21.84 2 eP P 19 41 41.1 +3.2
comp=Z,9.7nm,0.6s
S36A Lake Cedric, C 21.89 351 P P 19 41 39.4 +0.9
baz=169
CCM Cathedral Cave 21.90 0 eP P 19 41 40.4 +1.9
comp=Z,19nm,0.9s
S35A Otter Creek Ra 21.97 349 P P 19 41 42.0 +2.7
baz=167
USIN University of 22.05 8 eP P 19 41 40.7 +0.6
comp=Z,108nm,1.1s
R42A Luebbering 22.13 1 P P 19 41 43.0 +2.1
baz=181
S34A Willow Spring 22.14 348 P P 19 41 42.1 +1.0
baz=165
R41A Rosebud 22.14 360 P P 19 41 43.8 +2.6
baz=180
R38A Fenwick Farm, 22.14 355 P P 19 41 42.6 +1.4
baz=173
R40A Maddies Statio 22.15 358 P P 19 41 43.6 +2.5
baz=178,SNR=15

R43A Red Bud 22.15 3 P P 19 41 43.2 +1.9
baz=183
121A Cookes Peak, D 22.15 321 P P 19 41 43.2 +1.7
baz=134
R44A Waltonville 22.18 5 P P 19 41 43.1 +1.6
baz=186
HSIG 22.18 309 eP P 19 41 44.0 +2.3
comp=Z,53nm,1.9s
R39A Chumby, Stover 22.20 356 P P 19 41 45.4 +3.6
baz=176
R45A Skylar, Fairfi 22.30 6 P P 19 41 44.9 +2.1
baz=188
R46A Gibon Southern 22.31 8 P P 19 41 43.8 +0.9
baz=190
R37A Teagarden Farm 22.37 353 P P 19 41 46.2 +2.7
baz=171
SRIG Santa Rosalia 22.37 304 eP P 19 41 42.6 -1.2
comp=Z,153nm,1.8s
R36A Gordon, Harris 22.46 351 P P 19 41 47.1 +2.4
baz=170
SLM Saint Louis 22.50 2 eP P 19 41 47.9 +2.9
comp=Z,31nm,0.4s
WCI Wyandotte Cave 22.51 10 eP P 19 41 45.6 +0.5
comp=Z,55nm,1.2s
CNNC Cliffs of the 22.57 30 eP P 19 41 47.2 +1.4
comp=Z,85nm,1.3s
R35A Emporia Munici 22.57 350 P P 19 41 46.5 +0.7
baz=168
BNM Barren Site 22.65 325 eP P 19 41 49.3 +2.4
R34A Isabella, Hill 22.74 348 P P 19 41 49.7 +2.1
baz=165
OLIL Olney 22.75 7 eP P 19 41 48.8 +1.1
comp=Z,34nm,0.9s
Q42A Golden Eagle 22.76 2 P P 19 41 49.9 +2.1
baz=182
LPM Los Pinos Moun 22.78 326 eP P 19 41 45.4 -2.8
Q41A Truxton 22.79 0 P P 19 41 50.4 +2.3
baz=180
Q43A New Douglas 22.83 3 P P 19 41 48.4 0.0
baz=184
Q44A Meyer Farm, Va 22.83 5 P P 19 41 49.7 +1.2
baz=186
Q40A Laux Farm, Aux 22.84 359 P P 19 41 52.4 +3.8
baz=178,SNR=6.4
Q38A Cooks Store, C 22.89 355 P P 19 41 51.0 +2.0
baz=174
Q45A Warren Harvey, 22.91 6 P P 19 41 50.8 +1.5
baz=188
Q39A Willow Grove F 22.93 357 P P 19 41 49.6 +0.1
baz=176
Q35A Mercer Eighty, 23.07 351 P P 19 41 54.9 +3.9
baz=168
Q36A Arnold C. Orve 23.09 352 P P 19 41 52.4 +1.3
baz=170
ANMO Albuquerque 23.17 327 P P 19 41 59.3 +7.1
comp=Z,1.5nm,0.8s,baz=333,slow=14,SNR=3.7
ANMO LR LR 19 52 42.0
comp=Z,142nm,19.4s,baz=354,slow=41
ANMO Albuquerque 23.17 327 P P 19 41 53.6 +1.4
baz=141
ANMO Albuquerque 23.17 327 eP P 19 41 53.1 +0.9
comp=Z,5.7nm,1.0s
BLA Blacksburg 23.17 23 eP P 19 41 53.1 +1.0
comp=Z,55nm,1.2s
Q47A Beord North L 23.18 10 P P 19 41 53.0 +0.9
baz=192
MPR Mayaguez 23.22 81 eP P 19 41 51.0 -1.7
comp=Z,78nm,1.8s
P39B Salisbury 23.36 357 P P 19 41 55.4 +1.6
baz=176
P40A Paris 23.38 359 P P 19 41 55.1 +1.1
baz=178
BLO Bloomington 23.40 9 eP P 19 41 55.0 +0.8
comp=Z,99nm,1.6s
P44A Sand Creek, Wi 23.43 5 P P 19 41 56.5 +2.0
baz=186
P42A Winchester 23.44 2 P P 19 41 55.7 +1.1
baz=182
P41A Barry, Barry 23.52 1 P P 19 41 57.1 +1.7
baz=181
P43A Skaggs, Pawnee 23.53 4 P P 19 41 58.2 +2.7
baz=184
P38A Dawn 23.54 356 P P 19 41 56.3 +0.7
baz=175
P45A Graceland, Par 23.58 7 P P 19 41 57.3 +1.4
baz=188
P36A Good Intent, A 23.70 353 P P 19 41 57.8 +0.7
baz=171
P35A Duane Minner, 23.72 351 P P 19 41 58.5 +1.2
baz=169
P46A Rosedale 23.73 8 P P 19 41 58.7 +1.3
baz=190
CBKS Cedar Bluff 23.82 344 P P 19 42 00.1 +1.8
baz=160
CBKS Cedar Bluff 23.82 344 eP P 19 41 59.0 +0.7
comp=Z,22nm,0.9s
P34A Walnut Farm, R 23.87 349 P P 19 41 59.6 +0.8
baz=167
TUC Tucson 23.93 316 P P 19 41 58.8 -0.7
baz=128
TUC Tucson 23.93 316 eP P 19 42 01.4 +1.9
comp=Z,22nm,1.3s
O41A Passleys Farm, 23.96 1 P P 19 42 01.3 +1.8
baz=181
O40A La Belle 23.96 359 P P 19 42 00.8 +1.2
baz=179
T25A Trinidad 23.96 334 P P 19 42 02.7 +2.7
baz=148,SNR=7.1
T25A Trinidad 23.96 334 eP P 19 42 02.5 +2.6
comp=Z,26nm,0.9s
HGTCO Madrid Canyon 24.05 333 eP P 19 42 01.0 +0.3
comp=Z,30nm,0.4s
MHTCO State Highway 24.08 333 eP P 19 42 02.2 +1.2
comp=Z,77nm,0.5s
O39A Kirksville 24.11 358 P P 19 42 03.1 +2.0
baz=177
O37A Wolven Farm, M 24.13 355 P P 19 42 01.5 +0.4
baz=173
SJG San Juan 24.16 82 LR LR 19 52 08.1
comp=Z,177nm,20.1s,baz=240,slow=38
O36A Bolckow 24.18 353 P P 19 42 02.9 +1.3
baz=171
O45A Potomac 24.29 7 P P 19 42 05.3 +2.7
baz=188
O34A Beatrice 24.47 350 P P 19 42 04.9 +0.6
baz=168
O47A Sheridan 24.49 10 P P 19 42 05.9 +1.4
baz=192
SFIN Lafayette 24.50 8 P P 19 42 05.5 +1.0
baz=190
O33A Hebron 24.52 348 P P 19 42 07.5 +2.7
baz=165
JSRW J. Sargeant Re 24.60 26 eP P 19 42 06.5 +1.0
URVA University of 24.65 27 eP P 19 42 07.0 +1.1
IP07 Quail 24.73 26 eP P 19 42 07.3 +0.7
comp=Z,69nm,1.3s
MTP Monte Pirata 24.73 82 eP P 19 42 05.2 -1.6
comp=Z,39nm,1.0s
IP06 Yanceyville 24.76 26 eP P 19 42 07.6 +0.7
comp=Z,44nm,1.0s
IP05 Hopewell Churc 24.77 26 eP P 19 42 08.4 +1.4
comp=Z,53nm,1.2s
IP01 Cuckoo 24.81 26 eP P 19 42 08.6 +1.3
comp=Z,67nm,1.2s
IP03 Louisa 24.82 26 eP P 19 42 07.8 +0.3
comp=Z,41nm,1.1s
IP04 Greensprings 24.85 25 eP P 19 42 08.6 +0.9
comp=Z,51nm,1.3s
SPRD Spring Road, M 24.88 26 eP P 19 42 08.2 +0.2
comp=Z,77nm,1.4s
SDCO Great Sand Dun 24.95 333 P P 19 42 10.8 +1.8
baz=146
SDCO Great Sand Dun 24.95 333 eP P 19 42 12.8 +3.8
comp=Z,12nm,1.2s
CVRD Centerville Ro 24.95 26 eP P 19 42 09.1 +0.5
comp=Z,55nm,1.3s
PTRD Partlow Road 25.07 26 eP P 19 42 12.3 +2.6
comp=Z,81nm,1.4s
214A Organ Pipe Nat 25.11 313 P P 19 42 11.5 +1.3
baz=124
SPFD Spotsylvania F 25.12 26 eP P 19 42 10.5 +0.3
comp=Z,90nm,1.5s
ACSO Alum Creek Sta 25.15 15 eP P 19 42 11.4 +1.0
comp=Z,65nm,1.3s
CBN Corbin Frederi 25.25 26 eP P 19 42 12.7 +1.4
comp=Z,106nm,1.5s
STVI Saint Thomas 25.30 81 eP P 19 42 11.4 -0.6
comp=Z,131nm,2.0s

S22A 4UR Ranch, Cre 25.55 331 P P 19 42 16.4 +2.0
baz=144
S22A 4UR Ranch, Cre 25.55 331 eP P 19 42 16.4 +2.0
comp=Z,9.0nm,1.0s
MVCO Mesa Verde 25.96 327 P P 19 42 19.4 +1.3
baz=140
MVCO Mesa Verde 25.96 327 eP P 19 42 18.8 +0.6
comp=Z,19nm,1.2s
WUAZ Wupatki 26.36 321 P P 19 42 23.5 +1.8
baz=132
WUAZ Wupatki 26.36 321 eP P 19 42 24.2 +2.6
comp=Z,16nm,1.4s
ATAH Atahualpa 26.38 150 P P 19 42 24.3 +2.0
comp=Z,2.0nm,0.6s,baz=324,slow=8.7,SNR=2.7
ATAH LR LR 19 51 50.6
comp=Z,177nm,20.8s,baz=328,slow=35
OGNE Ogallala 26.46 342 eP P 19 42 25.1 +2.8
comp=Z,56nm,1.6s
SDMD Soldier's Deli 26.48 26 eP P 19 42 21.8 -0.7
comp=Z,16nm,1.4s
O56A Blue Knob Stat 26.55 22 P P 19 42 27.6 +4.4
baz=208
PCRV Puerto La Cruz 26.65 99 LR LR 19 54 15.2
comp=Z,163nm,19.6s,baz=332,slow=40
ISCO Idaho Springs 26.72 335 eP P 19 42 30.4 +5.5
comp=Z,21nm,1.8s
SMCO Snowmass 26.78 332 eP P 19 42 27.6 +2.0
comp=Z,6.6nm,1.0s
PV05 Paradox Valley 26.93 328 eP P 19 42 28.2 +1.3
AAM Ann Arbor 26.96 13 eP P 19 42 28.0 +1.2
comp=Z,22nm,0.9s
SSPA Standing Stone 27.12 23 eP P 19 42 27.6 -0.7
comp=Z,19nm,1.0s
MVL Millersville 27.18 26 eP P 19 42 29.1 +0.4
comp=Z,18nm,1.2s
Y12C Blythe 27.31 314 P P 19 42 30.9 +0.9
baz=125
PDMCI Parker Dam,Lak 27.37 316 P P 19 42 32.2 +1.6
baz=126
WESC Westside Schoo 27.63 311 ePcP PcP 19 45 49.9 0.0
BC3 Big Chuckawall 27.90 313 P P 19 42 37.6 +2.1
baz=123
IRM Iron Mountain 27.97 314 P P 19 42 37.9 +1.9
baz=124
BAR Barrett 28.27 310 eP P 19 42 39.9 +1.2
comp=Z,11nm,1.4s
SRU San Rafael Swe 28.44 328 eP P 19 42 41.5 +1.2
comp=Z,19nm,1.7s
BELC Belle Mtn. Jos 28.47 313 P P 19 42 41.0 +0.4
baz=123
LCMT Little Creek M 28.48 321 eP P 19 42 42.5 +1.8
comp=Z,2.5nm,1.0s
MTPU Mount Pierson 28.56 324 eP P 19 42 44.5 +2.9
comp=Z,4.9nm,1.0s
XPFO Piæon Flat 28.59 312 eP P 19 42 43.3 +1.6
comp=Z,25nm,1.9s
PFO Pinyon Flats O 28.59 312 LR LR 19 55 53.0
comp=Z,410nm,18.0s,baz=148,slow=40
PFO Pinyon Flats O 28.59 312 P P 19 42 43.2 +1.6
baz=122
PFO Pinyon Flats O 28.59 312 eP P 19 42 43.0 +1.3
comp=Z,24nm,1.9s
FRD Ford Ranch, An 28.63 312 eS S 19 47 32.3 +3.4
Q16A Castle Valley 28.64 326 eP P 19 42 39.6 -2.4
comp=Z,7nm,1.8s
GMRC Granite Mounta 28.67 315 P P 19 42 44.2 +1.8
baz=125
P18A Preston Nutter 28.69 329 eP P 19 42 39.8 -2.8
comp=Z,17nm,1.7s
PLM Palomar 28.75 311 eS S 19 47 30.3 -0.5
CRY Cary Ranch 28.77 312 eS S 19 47 30.8 -0.2
P17A Butcher Ranch, 28.82 328 eP P 19 42 45.2 +1.5
comp=Z,5.3nm,1.1s
ODNJ Ogdensburg 28.82 27 eP P 19 42 42.1 -1.3
comp=Z,27nm,1.4s
TMUT Trail Mountain 28.93 327 eP P 19 42 43.6 -1.2
comp=Z,3.6nm,0.5s
RWWY Rawlins 28.96 335 eP P 19 42 43.5 -1.5
comp=Z,20nm,0.9s
DGR Domenigoni Val 29.00 312 eS S 19 47 34.5 -0.1
HMTC Hemet 29.03 312 eS S 19 47 32.3 -2.7
PAL Palisades 29.07 28 eP P 19 42 44.2 -1.4
comp=Z,85nm,1.8s
HEC Hector,Ludlow 29.16 314 P P 19 42 48.8 +2.2
baz=124
HEC Hector,Ludlow 29.16 314 ePcP PcP 19 45 54.0 +0.2
TUQ Turquoise Moun 29.22 316 P P 19 42 48.9 +1.6
baz=125
MPU Maple Canyon 29.68 327 eP P 19 42 50.5 -0.8
comp=Z,3.8nm,0.9s
GSC Goldstone, Bar 29.74 315 P P 19 42 52.6 +0.8
baz=124
GSC Goldstone, Bar 29.74 315 eP P 19 42 52.8 +1.0
comp=Z,28nm,1.9s
BFSC Mount Baldy Ra 29.77 312 epP pP 19 43 06.3 +5.5
BFSC ePcP PcP 19 45 52.7 -2.8
PASC Pasadena Art C 30.11 312 epP pP 19 43 02.7 -1.1
CCCA Chr Cany lake 30.24 315 eP P 19 42 58.0 +1.8
TPNV Topopah Spring 30.32 318 P P 19 42 59.2 +2.2
baz=127
TPNV Topopah Spring 30.32 318 eP P 19 42 59.7 +2.7
comp=Z,22nm,2.0s
TCUT Toone Canyon 30.40 329 eP P 19 43 00.8 +3.1
comp=Z,18nm,1.2s
DUG Dugway, Tooele 30.43 326 P P 19 43 01.1 +3.2
baz=136
DUG Dugway, Tooele 30.43 326 eP P 19 42 59.9 +1.9
comp=Z,3.9nm,1.1s
FURC Furnace Creek, 30.43 317 P P 19 43 00.1 +2.4
baz=126
LRMC Laurel Mtn Rad 30.44 314 P P 19 42 58.4 +0.4
baz=123
PT2 Point Dume 30.48 311 eP P 19 42 59.5 +1.3
MPMC Manual Prospec 30.62 315 P P 19 43 01.7 +2.0
baz=124
R11A Troy Canyon, C 30.76 321 P P 19 43 03.1 +2.2
baz=130
BW06 Boulder Array 30.83 333 P P 19 43 03.6 +2.0
baz=144
BW06 Boulder Array 30.83 333 eP P 19 43 04.6 +3.0
comp=Z,9.4nm,1.6s
PD31 Pinedale Array 30.83 333 eP P 19 43 02.0 +0.5
PDAR Pinedale Array 30.83 333 P P 19 43 02.2 +0.7
comp=Z,0.2nm,0.4s,baz=122,slow=8.6,SNR=2.9
PDAR Pinedale Array 30.83 333 eP P 19 43 01.6 +0.1
HWUT Hardware Ranch 30.84 330 eP P 19 43 02.9 +1.4
comp=Z,14nm,1.5s
SPUT South Promonto 31.06 328 eP P 19 43 03.2 -0.2
comp=Z,6.3nm,1.0s
GRAC Grapevine Rang 31.07 317 P P 19 43 05.7 +2.2
baz=126
BGU Big Grassy Mou 31.07 327 eP P 19 43 05.2 +1.6
comp=Z,21nm,1.9s
ISA Isabella, Lake 31.08 314 P P 19 43 07.4 +3.8
baz=122
ISA Isabella, Lake 31.08 314 eP P 19 43 06.0 +2.4
comp=Z,17nm,1.8s
CWC Cottonwood Cre 31.23 316 P P 19 43 08.1 +3.0
baz=124
SBC Santa Barbara 31.34 311 epP pP 19 43 15.5 +0.9
AHID Auburn Hatcher 31.52 332 eP P 19 43 07.8 +0.2
comp=Z,41nm,1.9s
HVU Hansel Valley 31.57 329 eP P 19 43 09.7 +1.8
comp=Z,43nm,1.8s
VES Vestal, Richgr 31.60 314 P P 19 43 10.3 +2.2
baz=122
LONY Lake Ozonia 31.79 23 eP P 19 43 11.1 +1.5
comp=Z,25nm,1.3s
REDW Red Top Meadow 31.88 333 eP P 19 43 12.0 +1.3
comp=Z,16nm,0.9s
SNOW Snow King Moun 31.91 333 eP P 19 43 11.5 +0.4
comp=Z,18nm,0.8s
RCTC Rector, Farmer 31.95 314 P P 19 43 13.4 +2.2
baz=122
LOHW Long Hollow 31.97 333 eP P 19 43 11.6 +0.1
comp=Z,6.3nm,0.9s
MSNY Massena 32.01 22 eP P 19 43 11.7 +0.2
TPAW Teton Pass 32.02 333 eP P 19 43 13.0 +1.0
comp=Z,16nm,1.1s
FFD Franklin Falls 32.04 28 eP P 19 43 10.8 -1.0
comp=Z,118nm,1.9s
MOOW Moose Ponds 32.14 333 eP P 19 43 13.6 +0.6
comp=Z,5.7nm,0.9s
FXWY Fox Creek 32.17 333 eP P 19 43 14.3 +1.0
comp=Z,4.9nm,1.0s
IMW Indian Meadow 32.34 333 eP P 19 43 16.1 +1.2
comp=Z,6.8nm,1.1s

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MDPB | Devils Postpil | 32.55 | 317 | *e*P | P | 19 43 17.7 | +1.0 |
| | comp=Z,11nm,0.8s | | | | | | |
| RLMT | Red Lodge | 32.65 | 336 | P | P | 19 43 17.9 | +0.4 |
| | baz=147 | | | | | | |
| LAO | LASA Array | 32.94 | 341 | *e*P | P | 19 43 16.7 | -3.1 |
| | comp=Z,15nm,0.6s | | | | | | |
| YMR | Madison River | 32.97 | 334 | *e*P | P | 19 43 19.7 | -0.6 |
| | comp=Z,8.8nm,0.8s | | | | | | |
| YHH | Holmes Hill | 33.02 | 334 | *e*P | P | 19 43 25.1 | +4.3 |
| | comp=Z,6.9nm,1.2s | | | | | | |
| YHB | Horse Butte | 33.13 | 334 | *e*P | P | 19 43 23.6 | +1.8 |
| | comp=Z,5.4nm,0.9s | | | | | | |
| TRQ | Mont Tremblant | 33.17 | 22 | *e*P | P | 19 43 23.4 | +1.6 |
| WAKR | Walker | 33.28 | 318 | *e*P | P | 19 43 24.4 | +1.5 |
| | comp=Z,9.9nm,1.4s | | | | | | |
| QLMT | Earthquake Lak | 33.30 | 334 | *e*P | P | 19 43 24.7 | +1.6 |
| YERR | Yerington | 33.42 | 319 | *e*P | P | 19 43 24.1 | -0.1 |
| | comp=Z,7.1nm,1.2s | | | | | | |
| CMB | Columbia Colle | 33.64 | 316 | *e*P | P | 19 43 27.1 | +1.1 |
| | comp=Z,9.7nm,1.4s | | | | | | |
| HLID | Hailey | 33.70 | 329 | P | P | 19 43 27.4 | +0.8 |
| | baz=137 | | | | | | |
| HLID | Hailey | 33.70 | 329 | *e*P | P | 19 43 26.2 | -0.4 |
| | comp=Z,6.1nm,1.4s | | | | | | |
| MCMT | McKenzie Canyo | 33.92 | 332 | *e*P | P | 19 43 27.6 | -1.0 |
| PAHR | Pah Rah Range | 33.93 | 319 | *e*P | P | 19 43 27.8 | -0.9 |
| | comp=Z,18nm,1.8s | | | | | | |
| BOZ | Bozeman (W) | 34.00 | 334 | P | P | 19 43 30.0 | +0.9 |
| | baz=144 | | | | | | |
| BOZ | Bozeman (W) | 34.00 | 334 | *e*P | P | 19 43 29.4 | +0.2 |
| | comp=Z,3.6nm,0.9s | | | | | | |
| DLMT | Dillon | 34.22 | 333 | *e*P | P | 19 43 32.6 | +1.5 |
| | comp=Z,6.3nm,0.9s | | | | | | |
| ULM | Lac du Bonnet | 34.28 | 355 | P | P | 19 43 30.1 | -1.2 |
| | comp=Z,3.3nm,0.9s,baz=180,slow=4.0,SNR=2.7 | | | | | | |
| ULM | | | | LR | LR | 20 01 27.4 | |
| | comp=Z,328nm,18.4s,baz=232,slow=43 | | | | | | |
| AFDM | Forest Hills D | 34.52 | 317 | *e*P | P | 19 43 35.2 | +1.6 |
| | comp=Z,27nm,1.9s | | | | | | |
| LRM | Limekiln Ridge | 34.52 | 334 | *e*P | P | 19 43 34.0 | +0.2 |
| CPIM | Pinole Ridge | 34.85 | 315 | *e*PcP | PcP | 19 46 08.7 | -0.4 |
| EMMW | East Machias | 34.94 | 30 | *e*P | P | 19 43 37.0 | -0.1 |
| | comp=Z,40nm,1.5s | | | | | | |
| HRY | Holter Researc | 34.98 | 335 | *e*P | P | 19 43 40.1 | +2.5 |
| WVOR | Wild Horse Val | 35.17 | 324 | *e*P | P | 19 43 40.8 | +1.6 |
| | comp=Z,7.3nm,0.8s | | | | | | |
| PTGA | Pitinga | 35.19 | 115 | *e*P | P | 19 43 37.3 | -2.3 |
| | comp=Z,7.5nm,0.8s | | | | | | |
| J08A | Circle Bar Ran | 35.68 | 325 | *e*P | P | 19 43 44.7 | +1.1 |
| | comp=Z,8.2nm,0.8s | | | | | | |
| BMO | Blue Mountains | 36.08 | 328 | *e*P | P | 19 43 46.6 | -0.4 |
| | comp=Z,10nm,1.4s | | | | | | |
| JTMT | Jette | 36.81 | 334 | *e*P | P | 19 43 55.0 | +1.7 |
| | comp=Z,5.2nm,1.1s | | | | | | |
| F10A | Beach Ranch, E | 36.83 | 329 | *e*P | P | 19 43 54.6 | +1.2 |
| | comp=Z,17nm,1.4s | | | | | | |
| SAML | Samuel | 37.35 | 130 | *e*P | P | 19 43 54.8 | -3.2 |
| | comp=Z,8.3nm,0.9s | | | | | | |
| C09A | Chrisman Ranch | 38.64 | 331 | *e*P | P | 19 44 08.3 | -0.3 |
| | comp=Z,18nm,1.4s | | | | | | |
| LPAZ | La Paz | 39.48 | 143 | P | P | 19 44 16.2 | -0.4 |
| | comp=Z,2.8nm,0.8s,baz=322,slow=8.0,SNR=8.7 | | | | | | |
| LPAZ | | | | LR | LR | 20 01 06.1 | |
| | comp=Z,131nm,18.4s,baz=302,slow=37 | | | | | | |
| LPAZ | La Paz | 39.48 | 143 | *e*P | P | 19 44 14.8 | -1.8 |
| | comp=Z,4.7nm,1.0s | | | | | | |
| MNMC | Minye Minye | 41.01 | 148 | *e*P | P | 19 44 28.0 | -0.8 |
| | comp=Z,14nm,1.0s | | | | | | |
| PB11 | IPOC Station P | 41.51 | 148 | *e*P | P | 19 44 32.2 | -0.5 |
| | comp=Z,15nm,0.9s | | | | | | |
| PGC | Sidney | 41.76 | 328 | *e*P | P | 19 44 35.3 | +1.0 |
| | comp=Z,38nm,1.3s | | | | | | |
| LLLB | Lillooet | 42.30 | 331 | *e*P | P | 19 44 40.1 | +1.3 |
| | comp=Z,15nm,1.5s | | | | | | |
| SCHQ | Schefferville | 43.07 | 21 | LR | LR | 20 03 31.1 | |
| | comp=Z,770nm,19.6s,baz=209,slow=37 | | | | | | |
| PB04 | IPOC Station P | 43.45 | 151 | *e*P | P | 19 44 47.8 | -0.8 |
| | comp=Z,75nm,1.9s | | | | | | |
| LVC | Limon Verde | 44.28 | 150 | *e*P | P | 19 44 53.0 | -2.5 |
| | comp=Z,7.5nm,1.0s | | | | | | |
| YKA | Yellowknife Ar | 49.17 | 346 | P | P | 19 45 33.1 | +0.3 |
| | comp=Z,0.6nm,0.4s,baz=144,slow=7.8,SNR=7.2 | | | | | | |
| YKA | | | | LR | LR | 20 09 28.3 | |
| | comp=Z,7.8nm,20.6s,baz=180,slow=40 | | | | | | |
| YKB5 | Yellowknife Ar | 49.17 | 346 | *e*P | P | 19 45 33.1 | +0.3 |
| ROC1 | El Roble | 52.50 | 158 | *e*P | P | 19 45 56.0 | -2.6 |
| | comp=Z,5.4nm,0.7s | | | | | | |
| PEL | Peldehue | 52.77 | 158 | *e*P | P | 19 45 59.1 | -1.2 |
| | comp=Z,7.6nm,0.9s | | | | | | |
| BDFB | Brasilia | 53.13 | 124 | LR | LR | 20 11 29.9 | |
| | comp=Z,161nm,20.0s,baz=271,slow=39 | | | | | | |
| CPUP | Villa Florida | 53.58 | 141 | P | P | 19 46 02.4 | -3.9 |
| | comp=Z,4.5nm,1.0s,baz=321,slow=5.4,SNR=6.0 | | | | | | |
| TAOE | Nuku Hiva Isla | 54.29 | 246 | *e*LR | LR | 20 02 04.2 | |
| | comp=Z,327nm,24.1s | | | | | | |
| RKT | Rikitea | 57.78 | 229 | *e*LR | LR | 20 03 37.8 | |
| | comp=Z,277nm,25.2s | | | | | | |
| INK | Inuvik | 58.65 | 343 | P | P | 19 46 42.4 | +0.4 |
| | comp=Z,1.1nm,0.6s,baz=137,slow=8.0,SNR=6.6 | | | | | | |
| INK | Inuvik | 58.65 | 343 | *e*P | P | 19 46 42.4 | +0.4 |
| | comp=Z,24nm,1.6s | | | | | | |
| PLCA | Paso Flores | 59.73 | 162 | P | P | 19 46 49.4 | -0.5 |
| | comp=Z,6.7nm,0.8s,baz=8.8,slow=5.6,SNR=8.3 | | | | | | |
| PLCA | | | | LR | LR | 20 07 17.9 | |
| | comp=Z,104nm,20.2s,baz=340,slow=31 | | | | | | |
| PLCA | Paso Flores | 59.73 | 162 | *e*P | P | 19 46 48.8 | -1.1 |
| | comp=Z,13nm,1.0s | | | | | | |
| IL1 | Eielson Array | 61.20 | 336 | *e*P | P | 19 46 58.8 | -0.8 |
| ILAR | Eielson Array | 61.20 | 336 | P | P | 19 46 59.8 | +0.2 |
| | comp=Z,1.3nm,1.1s,baz=163,slow=5.1,SNR=7.5 | | | | | | |
| ILB | Eielson Array | 61.20 | 336 | *e*P | P | 19 46 59.8 | +0.2 |
| TULEG | Thule | 61.60 | 6 | *e*P | P | 19 47 04.9 | +2.8 |
| | comp=Z,9.7nm,1.2s | | | | | | |
| COLA | College | 61.62 | 336 | *e*S | S | 19 55 22.6 | +0.2 |
| KTH | Kantishna Hill | 62.35 | 334 | *e*P | P | 19 47 07.5 | 0.0 |
| | comp=Z,17nm,0.7s | | | | | | |
| PPT2 | Papeete2 | 66.41 | 242 | *e*LR | LR | 20 07 39.6 | |
| | comp=Z,153nm,26.0s | | | | | | |
| TBI | Tubuai | 69.01 | 237 | *e*LR | LR | 20 08 51.4 | |
| | comp=Z,112nm,27.0s | | | | | | |
| ESDC | Sonseca Array | 77.94 | 52 | P | P | 19 48 42.9 | -0.5 |
| | comp=Z,0.8nm,0.7s,baz=294,slow=6.2,SNR=4.0 | | | | | | |
| KOWA | Kowa | 83.58 | 77 | *e*P | P | 19 49 13.7 | -0.3 |
| | comp=Z,6.3nm,0.7s | | | | | | |
| TIC | Toumodi | 84.67 | 85 | *e*P | P | 19 49 20.0 | +0.5 |
| LIC | Lamto | 84.78 | 85 | *e*P | P | 19 49 20.2 | +0.2 |
| | comp=Z,32nm,1.0s | | | | | | |
| DBIC | Dimbokro | 84.82 | 85 | P | P | 19 49 19.7 | -0.6 |
| | comp=Z,3.7nm,0.8s,baz=324,slow=3.9,SNR=4.1 | | | | | | |
| DBIC | Dimbokro | 84.82 | 85 | *e*P | P | 19 49 19.7 | -0.6 |
| | comp=Z,20nm,1.3s | | | | | | |
| KIC | Kosan Boka | 85.01 | 85 | *e*P | P | 19 49 21.8 | +0.5 |
| | comp=Z,20nm,0.9s | | | | | | |
| TUE | Stuetta | 85.66 | 43 | *e*P | P | 19 49 24.5 | +0.3 |
| | comp=Z,123nm,1.9s | | | | | | |
| FUORN | Ofenpass-Fuorn | 86.21 | 43 | *e*P | P | 19 49 27.1 | +0.1 |
| | comp=Z,110nm,1.8s | | | | | | |
| CLL | Collm | 86.29 | 38 | *e*pP | pP | 19 49 36.0 | -0.5 |
| VLC | Villacollemand | 87.11 | 45 | *e*P | P | 19 49 30.9 | -0.2 |
| | comp=Z,72nm,1.5s | | | | | | |
| TOA1 | Torodi Ar. Sit | 89.28 | 77 | *e*P | P | 19 49 39.5 | -2.4 |
| TORD | Torodi Ar. Bea | 89.28 | 77 | P | P | 19 49 39.5 | -2.5 |
| | comp=Z,0.5nm,0.7s,baz=298,slow=3.1,SNR=3.5 | | | | | | |
| KSH | Kashi | 123.44 | 12 | *e*PKP | PKPdf | 19 55 45.0 | +2.2 |
| KSH | | | | PP | PP | 19 57 29.9 | +7.3 |
| KSH | | | | PKS | PKSdf | 19 59 19.9 | +0.4 |
| KSH | | | | SKS | SKSdf | 20 02 55.4 | +2.5 |
| KSH | | | | SKKS | SKKSac | 20 04 24.4 | +3.4 |
| KSH | Kashi | 123.44 | 12 | SS | SS | 20 14 16.3 | +10 |
| KSH | | | | AMB | AMB | | |
| | comp=Z,250nm,5.6s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,38nm,4.0s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,32nm,3.4s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,220nm,5.6s | | | | | | |
| WR1 | Warramunga Arr | 136.48 | 258 | *e*PKPdf | PKPdf | 19 56 05.7 | -2.1 |
| WRA | Warramunga Arr | 136.48 | 258 | PKP | PKPdf | 19 56 05.7 | -2.1 |
| | comp=Z,0.3nm,0.5s,baz=86,slow=2.0,SNR=6.6 | | | | | | |
| AS31 | Alice Springs | 136.92 | 252 | *e*PKPdf | PKPdf | 19 56 08.3 | -0.2 |
| ASAR | Alice Springs | 136.92 | 252 | PKP | PKPdf | 19 56 08.3 | -0.2 |
| | comp=Z,0.4nm,0.8s,baz=123,slow=1.4,SNR=3.9 | | | | | | |
| CM31 | Chiang Mai Arr | 144.22 | 343 | *e*PKPdf | PKPab | 19 56 19.8 | +0.2 |
| CMAR | Chiang Mai Arr | 144.22 | 343 | PKP | PKPab | 19 56 19.5 | 0.0 |
| | comp=Z,2.9nm,0.8s,baz=339,slow=3.5,SNR=34 | | | | | | |
| FITZ | Fitzroy Crossi | 144.63 | 261 | PKP | PKPab | 19 56 20.7 | -0.3 |
| | comp=Z,4.9nm,0.7s,baz=168,slow=3.2,SNR=14 | | | | | | |
| SUKH | Sukhothai | 144.94 | 342 | P | PKPab | 19 56 22.5 | +0.3 |
| | comp=Z,4.7nm,0.8s | | | | | | |
| PBKT | Sadao Pong | 145.36 | 339 | P | PKPbc | 19 56 23.5 | -0.1 |
| | comp=Z,38nm,1.2s | | | | | | |
| CHAI | Chaiyaphum | 145.61 | 337 | P | PKPdf | 19 56 24.4 | +0.2 |

---

*ATA* ***02*** *19:36:52.3±0.7, 38°.68N×43°.15E, h0km±2km, ML4.1, MW3.8*
*ISK* ***02*** *19:36:52.8, 38°.66N×43°.16E, h2km, ML3.1*
*CSEM* ***02*** *19:36:53.7±0.1, 38°.67N×43°.19E, h2km, ML3.1, Error ellipse: s-maj=3.5km s-min=3.3km az=77.0*
*DDA* ***02*** *19:36:53.6, 38°.63N×43°.18E, h17km, Ml3.8*
*ISN* ***02*** *19:36:57.1±5.6, 38°.12N×43°.49E, h0km±30km, ML3.6*
**ISC 02 19:36:54.5**±0.8**, 38°.65N**±0°.02**×43°.18E**±0°.02**, h13**km±6km**, n81, σ1s.25**/121**, 1D, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.17 | 107 | *e*PG | Pg | 19 36 58.5 | -0.2 |
| VANB | | | | *e*SG | Sg | 19 37 02.9 | +1.4 |
| VANB | Van | 0.17 | 107 | *e*Pg | Pg | 19 36 58.5 | -0.2 |
| VANB | | | | *e*Sg | Sg | 19 37 02.9 | +1.4 |
| TVAN | Van | 0.21 | 123 | *i* P | Pg | 19 36 58.4 | -1.0 |
| TVAN | | | | *i* S | Sg | 19 37 02.5 | -0.2 |
| TVAN | Van | 0.21 | 123 | P | Pg | 19 36 58.4 | -1.0 |
| TVAN | | | | S | Sg | 19 37 02.5 | -0.2 |
| GEVA | Gevas | 0.35 | 196 | *e*P | Pg | 19 37 00.4 | -1.2 |
| GEVA | | | | *e*S | Sb | 19 37 07.5 | -0.6 |
| GEVA | | | | IAML | | 19 37 08.9 | |
| | comp=Z,3μm,0.3s | | | | | | |
| GEVA | Gevas | 0.35 | 196 | *i* P | Pg | 19 37 00.3 | -1.4 |
| GEVA | | | | *i* S | Sb | 19 37 08.0 | -0.1 |
| ADCV | BITLIS_Adilcev | 0.39 | 295 | *i* P | Pg | 19 37 01.2 | -1.2 |
| ADCV | | | | *i* S | Sg | 19 37 07.9 | +0.1 |
| ADCV | BITLIS_Adilcev | 0.39 | 295 | P | Pg | 19 37 01.2 | -1.2 |
| ADCV | | | | S | Sg | 19 37 07.9 | +0.1 |
| ERCV | ERCIS-VAN | 0.39 | 19 | *e*PG | Pg | 19 37 01.5 | -1.1 |
| ERCV | ERCIS-VAN | 0.39 | 19 | *e*Pg | Pg | 19 37 01.5 | -1.1 |
| VMUR | Van-Muradiye | 0.46 | 42 | *i* P | Pg | 19 37 03.3 | -0.5 |
| VMUR | | | | *i* S | Sb | 19 37 11.6 | +0.2 |
| CLDR | Caldiran | 0.76 | 49 | *e*PG | Pg | 19 37 08.5 | -0.9 |
| CLDR | | | | *e*SG | Sb | 19 37 19.9 | -0.2 |
| CLDR | Caldiran | 0.76 | 49 | *i* P | Pg | 19 37 08.3 | -1.1 |
| CLDR | | | | *i* S | Sb | 19 37 20.6 | +0.5 |
| CLDR | Caldiran | 0.76 | 49 | *e*Pg | Pg | 19 37 08.5 | -0.9 |
| CLDR | | | | *e*Sg | Sb | 19 37 19.9 | -0.2 |
| CLDR | | | | S | Sb | 19 37 20.6 | +0.5 |
| TUTA | Tutak | 0.81 | 340⇓ | *i*P | Pg | 19 37 08.4 | -1.8 |
| TUTA | | | | IAML | | 19 37 08.8 | |
| | comp=Z,930nm,0.3s | | | | | | |
| TUTA | | | | *e*S | Sb | 19 37 21.0 | -0.4 |
| TUTA | Tutak | 0.81 | 340 | *i* P | Pg | 19 37 08.6 | -1.6 |
| TUTA | | | | *i* S | Sg | 19 37 18.4 | -2.5 |
| TUTA | Tutak | 0.81 | 340 | P | Pg | 19 37 08.6 | -1.6 |
| TUTA | | | | S | Sg | 19 37 18.4 | -2.5 |
| BASK | Baskale_VAN | 0.88 | 132 | *e*P | Pb | 19 37 11.7 | -0.1 |
| BASK | | | | IAML | | 19 37 15.8 | |
| | comp=Z,355nm,0.4s | | | | | | |
| BASK | | | | *e*S | Sn | 19 37 25.7 | +0.2 |
| BASK | Baskale_VAN | 0.88 | 132 | *i* P | Pg | 19 37 09.9 | -1.6 |
| BASK | | | | *i* S | Sg | 19 37 21.8 | -1.4 |
| AGRB | Hanur-Agry | 0.94 | 351 | *e*PG | Pg | 19 37 10.8 | -1.9 |
| AGRB | Hanur-Agry | 0.94 | 351 | *e*Pg | Pg | 19 37 10.8 | -1.9 |
| DYDN | Diyadin | 0.98 | 24 | *e*P | Pg | 19 37 11.6 | -2.0 |
| DYDN | Diyadin | 0.98 | 24 | *i* P | Pg | 19 37 11.4 | -2.1 |
| DYDN | Diyadin | 0.98 | 24 | P | Pg | 19 37 11.4 | -2.1 |
| EKAR | Karacoban | 1.06 | 305 | *e*P | Pg | 19 37 13.5 | -1.6 |
| EKAR | | | | IAML | | 19 37 42.9 | |
| | comp=Z,203nm,0.4s | | | | | | |
| EKAR | Karacoban | 1.06 | 305 | *i* P | Pg | 19 37 13.7 | -1.4 |
| EKAR | | | | *i* S | Sn | 19 37 31.3 | +1.3 |
| EKAR | Karacoban | 1.06 | 305 | P | Pg | 19 37 13.7 | -1.4 |
| EKAR | | | | S | Sn | 19 37 31.3 | +1.3 |
| HAKT | HAKKARI | 1.16 | 159 | *i* P | Pg | 19 37 15.0 | -2.0 |
| HAKT | | | | *i* S | Sn | 19 37 33.4 | +0.8 |
| HAKT | HAKKARI | 1.16 | 159 | P | Pg | 19 37 15.0 | -2.0 |
| HAKT | | | | S | Sn | 19 37 33.3 | +0.8 |
| SRTM | Siirt_Merkez | 1.18 | 237 | *i* P | Pg | 19 37 16.6 | -0.8 |
| SRTM | | | | *i* S | Sg | 19 37 32.0 | -0.8 |
| SRTM | Siirt_Merkez | 1.18 | 237 | P | Pg | 19 37 16.6 | -0.8 |
| SRTM | | | | S | Sg | 19 37 32.0 | -0.8 |
| SIRT | Sirnak | 1.28 | 207 | *e*PN | Pg | 19 37 18.3 | -0.9 |
| SIRT | Sirnak | 1.28 | 207 | *e*Pn | Pg | 19 37 18.3 | -0.9 |
| EATA | Eleskirt | 1.33 | 337 | *e*P | Pg | 19 37 17.9 | -2.2 |
| EATA | | | | *e*S | Sn | 19 37 38.5 | +1.8 |
| EATA | | | | IAML | | 19 37 40.5 | |
| | comp=Z,54nm,0.6s | | | | | | |
| EATA | Eleskirt | 1.33 | 337 | *i* P | Pg | 19 37 18.1 | -2.0 |
| EATA | | | | *i* S | Sn | 19 37 39.3 | +2.6 |
| EATA | Eleskirt | 1.33 | 337 | P | Pg | 19 37 18.1 | -2.0 |
| EATA | | | | S | Sn | 19 37 39.3 | +2.6 |
| YOVA | Hakkari_Yˆ…kse | 1.37 | 140 | *i* P | Pg | 19 37 19.6 | -1.4 |
| YOVA | | | | *i* S | Sg | 19 37 38.2 | -0.7 |
| YOVA | Hakkari_Yˆ…kse | 1.37 | 140 | P | Pg | 19 37 19.6 | -1.4 |
| YOVA | | | | S | Sg | 19 37 38.2 | -0.7 |
| CUKT | Cukurca | 1.44 | 166 | *e*PN | Pn | 19 37 20.7 | +0.4 |
| CUKT | Cukurca | 1.44 | 166 | *i* P | Pn | 19 37 20.4 | 0.0 |
| CUKT | Cukurca | 1.44 | 166 | P | Pn | 19 37 20.4 | 0.0 |
| CUKT | Cukurca | 1.44 | 166 | *e*Pn | Pn | 19 37 20.7 | +0.4 |
| VRTB | Varto-Mus | 1.44 | 291 | *e*PN | Pn | 19 37 19.9 | -0.5 |
| VRTB | Varto-Mus | 1.44 | 291 | *i* P | Pn | 19 37 19.8 | -0.5 |
| VRTB | | | | *i* S | Sn | 19 37 41.9 | +2.7 |
| VRTB | Varto-Mus | 1.44 | 291 | *e*Pn | Pn | 19 37 19.9 | -0.5 |
| VRTB | | | | S | Sn | 19 37 41.9 | +2.7 |
| TASB | TASBURUN-IGDIR | 1.57 | 31 | *e*PN | Pn | 19 37 22.3 | +0.2 |
| TASB | TASBURUN-IGDIR | 1.57 | 31 | *e*Pn | Pn | 19 37 22.3 | +0.2 |
| BNGL | BINGOL | 1.61 | 282 | *e*P | Pn | 19 37 23.4 | +0.4 |
| BNGL | | | | IAML | | 19 37 51.2 | |
| | comp=Z,456nm,0.4s | | | | | | |
| BNGL | BINGOL | 1.61 | 282 | *i* P | Pn | 19 37 23.3 | +0.4 |
| BNGL | | | | *i* S | Sg | 19 37 45.8 | -0.8 |
| SVAN | Silvan-Diyarba | 1.63 | 253 | *e*PN | Pn | 19 37 23.7 | +0.7 |
| SVAN | Silvan-Diyarba | 1.63 | 253 | *i* P | Pn | 19 37 23.8 | +0.9 |
| SVAN | | | | *i* S | Sg | 19 37 46.5 | -0.6 |
| SVAN | Silvan-Diyarba | 1.63 | 253 | *e*Pn | Pn | 19 37 23.7 | +0.7 |
| SVAN | | | | S | Sg | 19 37 46.5 | -0.6 |
| BTMN | Batman | 1.68 | 244 | *i* P | Pb | 19 37 24.9 | -0.4 |
| BTMN | | | | *i* S | Sg | 19 37 48.5 | -0.1 |
| BTMN | Batman | 1.68 | 244 | P | Pb | 19 37 24.9 | -0.4 |
| BTMN | | | | S | Sg | 19 37 48.5 | -0.1 |
| HOMI | Horasan | 1.71 | 325 | *e*P | Pn | 19 37 25.2 | +0.9 |
| HOMI | | | | IAML | | 19 37 55.1 | |
| | comp=Z,59nm,0.6s | | | | | | |
| HOMI | Horasan | 1.71 | 325 | *i* P | Pn | 19 37 25.1 | +0.9 |
| HOMI | | | | *i* S | Sg | 19 37 53.2 | +3.5 |
| DIGO | Kars | 1.77 | 5 | *e*P | Pb | 19 37 26.5 | -0.5 |
| DIGO | | | | IAML | | 19 37 28.5 | |
| | comp=Z,56nm,0.4s | | | | | | |
| ERZM | Erzurum | 1.89 | 312 | *e*P | Pb | 19 37 28.3 | -0.7 |
| KARS | Kars | 1.98 | 358 | *e*PN | Pn | 19 37 28.4 | +0.5 |
| KARS | Kars | 1.98 | 358 | *e*Pn | Pn | 19 37 28.4 | +0.5 |
| BNGB | Bingˆ¶l | 1.98 | 281 | *e*PN | Pn | 19 37 28.5 | +0.7 |
| SENK | Senkaya-Erzuru | 2.02 | 342 | *e*PN | Pn | 19 37 28.9 | +0.5 |
| SENK | Senkaya-Erzuru | 2.02 | 342 | *e*Pn | Pn | 19 37 28.9 | +0.5 |
| EAK | Akyaka | 2.06 | 9 | *i* P | Pg | 19 37 32.9 | -1.3 |
| EAK | Akyaka | 2.06 | 9 | P | Pg | 19 37 32.9 | -1.3 |
| BINT | Bingol | 2.11 | 277 | *e*Pn | Pn | 19 37 28.5 | -1.2 |
| HANI | Diyarbakir_Han | 2.19 | 265 | *i* P | Pb | 19 37 33.1 | -0.9 |
| HANI | | | | *i* S | Sb | 19 38 01.6 | +0.5 |
| HANI | Diyarbakir_Han | 2.19 | 265 | P | Pb | 19 37 33.1 | -0.9 |
| HANI | | | | S | Sb | 19 38 01.6 | +0.5 |
| YEDI | Yedisu-Bingol | 2.20 | 292 | *e*PN | Pn | 19 37 31.4 | +0.6 |
| YEDI | Yedisu-Bingol | 2.20 | 292 | *e*Pn | Pn | 19 37 31.4 | +0.6 |
| MARD | Mardin | 2.31 | 236 | *i* P | Pn | 19 37 34.5 | +2.1 |
| MARD | | | | *i* S | Sb | 19 38 05.3 | +0.6 |
| DIY | Diyarbakir | 2.44 | 253 | *e*Pn | Pn | 19 37 35.8 | +1.7 |
| MAZI | Mazidag | 2.46 | 242 | *e*PN | Pn | 19 37 35.0 | +0.6 |
| MAZI | Mazidag | 2.46 | 242 | *e*Pn | Pn | 19 37 35.0 | +0.6 |
| DYBB | Diyarbakir | 2.49 | 255 | *e*PN | Pn | 19 37 35.8 | +1.0 |
| AKH | Akhalkalaki | 2.77 | 5 | *e*PN | Pn | 19 37 40.0 | +1.2 |
| AKH | Akhalkalaki | 2.77 | 5 | *e*Pn | Pn | 19 37 40.0 | +1.2 |
| PTK | Pertek | 2.97 | 276 | *e*PN | Pn | 19 37 43.0 | +1.5 |
| PTK | Pertek | 2.97 | 276 | *e*Pn | Pn | 19 37 43.0 | +1.5 |
| SVRC | Sivrice-ELAZID | 3.05 | 266 | *e*PN | Pn | 19 37 43.5 | +0.9 |
| SVRC | Sivrice-ELAZID | 3.05 | 266 | *e*Pn | Pn | 19 37 43.5 | +0.9 |

---

*BJI* ***02*** *19:37:45.1, 7°.63N×93°.70E, h36km, mb5.0/72, mB5.3/55, Ms5.0/75, Ms7 4.7/72*
*ISCJB* ***02*** *19:37:45.0±0.7, 7°.73N±0°.02×93°.79E±0°.02, h29km±4km, mb5.2/215, MS4.5/55, Error ellipse: s-maj=3.7km s-min=2.4km az=40.8*
*IDC* ***02*** *19:37:46.4±0.6, 7°.81N×93°.98E, h20km±3km, mb4.8/35, mb1 4.8/37, mb1mx4.8/43, mbtmp4.9/37, ML4.3/2, MS4.3/32, Ms1 4.3/32, ms1mx4.1/49, Error ellipse: s-maj=12.3km s-min=9.0km az=52.0*
*MOS* ***02*** *19:37:47.2±1.2, 7°.89N×93°.83E, h38km, mb5.5/71, MS4.5/9, Error ellipse: s-maj=7.6km s-min=4.1km az=116.9*
*GCMT* ***02*** *19:37:48.0±0.2, 7°.90N×94°.12E, h15km, MW5.1/101, Moment Tensor Solution. s69,c91; s101,c174; Duration: 0 Moment tensor: Scale 10^16Nm; Mrr-4.20±.14; Mθθ0.33±.08; Mφφ3.87±.10; Mrθ2.10±.21; Mθφ0.88±.07; Mφr-3.84±.25; Best double couple: M0 5.95000×10^16 NP1:φs346.00000°, δ69.00000°, λ-109.00000°. NP2: φs209.00000°, δ28.00000°, λ-51.00000°. Principal axes: T 5.4050, Plg22.0000°, Azm91.0000°; N 1.0880, Plg17.0000°, Azm353.0000°; P -6.4950, Plg62.0000°, Azm228.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*NEIC* ***02*** *19:37:48.0±0.6, 7°.73N×93°.85E, h38km±5km, mb5.4/99 Error ellipse: s-maj=5.4km s-min=3.6km az=46.0*
*DJA* ***02*** *19:37:48.9±0.6, 8°N±2°×9°4E±°, h32km±5km, M5.0/37, mb5.1/37, mB5.5/24, MLv5.3/8, Mw(mB)5.0/24*
**ISC 02 19:37:47.4**±0.3**, 7°.80N**±0°.03**×93°.86E**±0°.03**, h30**km±2km**, h30**km**:pP-P, n806, σ1s.63**/923**, mb5.3**/219**, MS4.5**/55**, 48C-20D, Nicobar Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PBA | Port Blair | 3.99 | 344 | *e*P | Pn | 19 38 48.8 | +2.3 |
| LHMI | Lhok Sumawe | 4.00 | 130 | P | Pn | 19 38 45.7 | -0.9 |
| LHMI | | | | S | Sn | 19 39 34.5 | +2.0 |
| LHMI | Lhok Sumawe | 4.00 | 130 | *e*Pn | Pn | 19 38 47.0 | +0.4 |
| LHMI | | | | *e*Sn | Sn | 19 39 32.1 | -0.4 |
| MLSI | Meulaboh, Aceh | 4.33 | 144 | P | Pn | 19 38 52.6 | +1.4 |
| PKDT | Phuket | 4.44 | 89 | P | Pn | 19 38 52.9 | +0.2 |
| SURT | Suratani | 5.02 | 76 | P | Pn | 19 39 01.6 | +0.9 |
| DGPR | DIGLIPUR | 5.42 | 350 | *e*P | Pn | 19 39 07.2 | +0.9 |
| DGPR | | | | *e*P | Pn | 19 39 09.6 | +3.4 |
| KCSI | Kotacane, Aceh | 5.76 | 137 | P | Pn | 19 39 13.9 | +2.9 |
| | 326nm,1.1s,4μm2.0nm | | | | | | |
| TRTT | Trang | 5.78 | 89 | P | Pn | 19 39 11.3 | +0.1 |
| | 617nm,0.9s,8μm2.8nm | | | | | | |
| SNSI | Sinabang, Aceh | 5.89 | 155 | P | Pn | 19 39 10.4 | -2.3 |
| | 349nm,0.8s,1.9nm | | | | | | |
| TSI | Tuntungan | 6.34 | 132 | P | Pn | 19 39 22.4 | +3.5 |
| | 241nm,1.1s,6μm2.8nm | | | | | | |
| PSI | Prapat | 7.08 | 134 | Pn | Pn | 19 39 30.8 | +1.6 |
| | 9.2nm,0.3s,baz=314,slow=10,SNR=31 | | | | | | |
| PSI | | | | Sn | Sn | 19 40 50.6 | +1.9 |
| | 4.8nm,0.3s,baz=162,slow=20,SNR=2.9 | | | | | | |
| PSI | | | | LR | LR | 19 42 42.6 | |
| | comp=Z,7μm,19.7s,baz=300,slow=42 | | | | | | |
| PSI | Prapat | 7.08 | 134 | *e*P | Pn | 19 39 30.5 | +1.4 |
| PSI | | | | *e* | | 19 40 49.7 | |
| PSI | Prapat | 7.08 | 134 | *e*Pn | Pn | 19 39 30.5 | +1.4 |
| PSI | | | | *e*Sn | Sn | 19 40 49.7 | +1.0 |
| KULM | Kulim | 7.20 | 110 | *e*Pn | Pn | 19 39 29.2 | -1.4 |
| KULM | | | | *e*Sn | Sn | 19 40 47.9 | -3.6 |
| GSI | Gunungsitoli | 7.44 | 150 | P | Pn | 19 39 35.4 | +1.4 |
| | 64nm,1.4s,2μm0.7nm | | | | | | |
| GSI | Gunungsitoli | 7.44 | 150 | *e*Pn | Pn | 19 39 33.6 | -0.4 |
| GSI | | | | *e*Sn | Sn | 19 40 54.4 | -3.1 |
| IPM | Ipoh | 7.85 | 114 | *e*Pn | Pn | 19 39 37.5 | -2.2 |
| IPM | | | | *e*Sn | Sn | 19 41 01.8 | -6.0 |
| CHBT | CHBT | 9.68 | 59 | P | Pn | 19 40 05.7 | +0.9 |
| SRAK | Srakaew | 10.13 | 52 | P | Pn | 19 40 18.7 | +7.7 |
| BKNI | Bangkinang | 10.31 | 136 | P | Pn | 19 40 14.3 | +0.8 |
| | 139nm,1.0s,2μm | | | | | | |
| BKNI | Bangkinang | 10.31 | 136 | *e*Pn | Pn | 19 40 13.6 | +0.2 |
| PDSI | Padang | 10.88 | 142 | P | Pn | 19 40 20.9 | -0.3 |
| | 33nm,0.9s,979nm | | | | | | |
| PBKT | Sadao Pong | 11.15 | 38 | P | Pn | 19 40 26.8 | +2.0 |
| | 90nm,1.4s,1μm | | | | | | |
| SUKH | Sukhothai | 11.15 | 30 | P | Pn | 19 40 27.5 | +2.6 |
| | 10.0nm,1.1s,122nm | | | | | | |
| CHAI | Chaiyaphum | 11.32 | 44 | P | Pn | 19 40 28.6 | +1.4 |
| | 12nm,1.1s,233nm | | | | | | |
| MYKOM | Kota Tinggi | 11.61 | 120 | *e*Pn | Pn | 19 40 30.4 | -0.8 |
| CM01 | Chiang Mai Arr | 11.67 | 25 | *e*Pn | Pn | 19 40 34.7 | +2.7 |
| CM31 | Chiang Mai Arr | 11.69 | 25 | *e*Pn | Pn | 19 40 35.5 | +3.2 |
| CMAR | Chiang Mai Arr | 11.69 | 25 | Pn | Pn | 19 40 35.5 | +3.2 |
| | 1.8nm,0.3s,baz=212,slow=14,SNR=134 | | | | | | |
| CMAR | | | | ScP | ScP | 19 49 53.4 | +1.2 |
| | 0.1nm,0.3s,baz=238,slow=2.9,SNR=8.4 | | | | | | |
| CHTO | Chiang Mai | 12.01 | 24 | P | Pn | 19 40 40.1 | +3.4 |
| | 425nm,1.1s,5μm | | | | | | |
| CHTO | Chiang Mai | 12.01 | 24 | *e*P | Pn | 19 40 39.5 | +2.8 |
| CHTO | Chiang Mai | 12.01 | 24 | *e*Pn | Pn | 19 40 39.5 | +2.8 |
| CMMT | Chiang Mai | 12.02 | 24 | P | Pn | 19 40 40.2 | +3.5 |
| | 94nm,1.1s,1μm | | | | | | |
| KHON | Khomkaen | 12.20 | 45 | P | Pn | 19 40 42.1 | +2.9 |
| | 17nm,1.0s | | | | | | |
| PALK | Pallekele | 13.05 | 269 | Pn | Pn | 19 40 52.8 | +1.8 |
| | 0.8nm,0.3s,baz=115,slow=12,SNR=7.1 | | | | | | |
| PALK | | | | LR | LR | 19 45 43.9 | |
| | comp=Z,4μm,18.9s,baz=116,slow=36 | | | | | | |
| PALK | Pallekele | 13.05 | 269 | *e*P | Pn | 19 40 51.9 | +1.0 |
| PALK | Pallekele | 13.05 | 269 | *e*Pn | Pn | 19 40 51.9 | +1.0 |
| SKNT | Sakolnakorn | 13.45 | 46 | P | Pn | 19 40 52.1 | -4.2 |
| UBPT | Khong Chiam | 13.59 | 56 | P | Pn | 19 40 59.7 | +1.5 |
| | 88nm,1.5s | | | | | | |
| NONG | Nongkai | 13.63 | 41 | P | Pn | 19 41 02.1 | +3.3 |
| VIS | Vishakhapatnam | 14.23 | 315 | *e*P | Pn | 19 41 07.8 | +0.8 |
| VIS | | | | AMB | AMB | 19 41 17.2 | |
| | comp=Z,78nm,1.2s | | | | | | |
| CHLP | Challavanipeta | 14.28 | 319 | *e*P | Pn | 19 41 07.6 | -0.2 |
| CHLP | | | | IAmb | IAmb | 19 41 14.2 | |
| | comp=Z,48nm,0.8s | | | | | | |
| CHLP | | | | *e*S | Sn | 19 43 32.1 | -13 |
| MDRS | Chennai | 14.37 | 292 | *e*P | Pn | 19 41 09.5 | +0.6 |
| MDRS | | | | AMB | AMB | 19 41 19.2 | |
| | comp=Z,104nm,0.9s | | | | | | |
| BWNR | Bhubaneshwar | 14.66 | 329 | *e*x | Pn | 19 41 06.0 | -6.9 |
| BWNR | | | | AMB | AMB | 19 41 15.8 | |
| | comp=Z,126nm,1.7s | | | | | | |
| SKHT | Srikalahasti | 15.10 | 294 | *e*P | Pn | 19 41 18.6 | -0.1 |
| SKHT | | | | IAmb | IAmb | 19 41 30.2 | |
| | comp=Z,92nm,0.8s | | | | | | |
| SKHT | | | | *e*S | Sn | 19 43 58.8 | -6.3 |
| PVM | Polavaram | 15.18 | 309 | *e*P | Pn | 19 41 19.7 | -0.1 |
| PVM | | | | IAmb | IAmb | 19 41 30.9 | |
| | comp=Z,59nm,1.2s | | | | | | |
| PVM | | | | *e*S | Sn | 19 43 56.2 | -11 |
| BELO | BELONIA | 15.54 | 352 | *e*x | Pn | 19 41 20.5 | -3.9 |
| BELO | | | | AMB | AMB | 19 41 29.5 | |
| AGT | Agartala | 16.19 | 351 | *e*P | Pn | 19 41 31.9 | -0.9 |
| AGT | | | | AMB | AMB | 19 41 45.4 | |
| | comp=Z,192nm,0.8s | | | | | | |
| LWLI | Liwa | 16.30 | 141 | P | Pn | 19 41 35.7 | +1.3 |
| | comp=Z,110nm,0.8s,comp=Z,5μm | | | | | | |
| NJS | Nagarjunasagar | 16.66 | 303 | *e*P | Pn | 19 41 38.5 | -0.4 |
| NJS | | | | IAmb | IAmb | 19 41 44.7 | |
| | comp=Z,96nm,1.3s | | | | | | |
| NJS | | | | *e*S | Sn | 19 44 33.0 | -10 |
| TRD | Trivandrum | 16.74 | 274 | *e*P | Pn | 19 41 38.6 | -1.3 |
| SRLM | Srisailam | 16.79 | 301 | *e*P | Pn | 19 41 40.3 | -0.3 |
| SRLM | | | | IAmb | IAmb | 19 41 46.3 | |
| | comp=Z,91nm,1.0s | | | | | | |
| SRLM | | | | *e*S | Sn | 19 44 35.3 | -11 |
| SILR | SILCHAR | 16.92 | 357 | *e*P | Pn | 19 41 39.8 | -2.3 |
| SILR | | | | AMB | AMB | 19 41 48.9 | |
| | comp=Z,432nm,1.0s | | | | | | |
| IMP | Imphal | 16.94 | 0 | *e*P | Pn | 19 41 40.9 | -1.5 |
| IMP | | | | AMB | AMB | 19 41 49.0 | |
| | comp=Z,106nm,1.3s | | | | | | |
| KASI | Kota Agung | 16.97 | 141 | P | Pn | 19 41 43.3 | +0.6 |
| | comp=Z,57nm,1.1s,comp=Z,3μm | | | | | | |
| KSM | Kuching | 17.55 | 110 | *e*Pn | P | 19 41 52.3 | +1.4 |
| | comp=Z,102nm,1.2s | | | | | | |
| BOK | Bokaro | 17.65 | 335 | *e*P | P | 19 41 52.0 | +0.1 |
| BOK | | | | AMB | AMB | 19 41 55.5 | |
| | comp=Z,101nm,1.2s | | | | | | |
| HYB | Hyderabad | 17.72 | 304 | *i* P | Pn | 19 41 52.0 | -0.1 |
| HYB | | | | *e*S | S | 19 45 17.0 | +1.6 |
| HYB | Hyderabad | 17.72 | 304 | *e*P | Pn | 19 41 52.2 | +0.1 |
| HYBB | Hyderabad (bro | 17.72 | 304 | *e*P | Pn | 19 41 52.1 | -0.1 |
| HYBB | | | | IAmb | IAmb | 19 42 02.7 | |

HYBB *eSn* **Sn** **19 45 09.5 +0.6**
comp=Z,263nm,2.0s
**SHL** **Shillong** **17.77 354** ⇑ *iP* **Pn** **19 41 52.0 -0.8**
SHL *ex* x 19 45 16.0
**RPR** **Rampur** **17.92 309** *eP* **P** **19 41 54.7 -0.2**
RPR IAmb IAmb 19 41 59.1
comp=Z,110nm,1.7s
RPR *eS* **Sn** **19 45 13.1 -0.5**
**TURI** **Tura** **17.97 350** *eP* **Pn** **19 41 52.8 -2.4**
**MOKO** **MOKOCHONG** **18.43 2** *ex* **Pn** **19 41 56.0 -4.9**
**DHUB** **DHUBRI** **18.49 349** *eP* **Pn** **19 42 01.8 +0.4**
**SRSP** **Sriramsagar** **18.69 308** *eP* **P** **19 42 03.4 -0.1**
SRSP IAmb IAmb 19 42 09.3
comp=Z,241nm,2.1s
SRSP *eS* **Sn** **19 45 27.2 -5.2**
**TEZP** **TEZPUR** **18.74 357** *ex* P 19 41 56.1 -7.8
**JORH** **JORHAT** **18.84 1** *eP* **P** **19 42 02.6 -2.4**
**QIZ** **Qiongzhong** **19.12 53** P **P** **19 42 08.1 -0.1**
QIZ pP **pP** **19 42 16.5 +0.4**
QIZ S **Sn** **19 45 42.3 -0.4**
QIZ sS **sS** **19 45 57.3 +1.0**
QIZ pmax pmax
comp=Z,39nm,2.4s
QIZ LR LR
comp=Z,7μm,11.4s
QIZ LR LR
comp=Z,2μm,10.8s
**QIZ** **Qiongzhong** **19.12 53** *eP* **Pn** **19 42 11.3 +2.1**
comp=Z,222nm,1.4s
**STKI** **Sintang** **19.17 113** P **Pn** **19 42 13.1 +3.3**
comp=Z,90nm,1.9s,comp=Z,8μm
**KMI** **Kunming** **19.20 25** P **Pn** **19 42 13.1 +2.8**
KMI pP sP 19 42 21.5 +0.5
KMI sP pP 19 42 26.6 +9.4
KMI PP **PnPn** **19 42 29.4 +5.8**
KMI S **Sn** **19 45 43.1 -1.8**
KMI sS sS 19 45 57.1 -1.2
KMI SS **SnSn** **19 46 09.1 +10**
KMI pmax pmax
comp=Z,36nm,1.1s
KMI pmax pmax
comp=Z,850nm,3.5s
KMI LR LR
comp=Z,2μm,8.9s
KMI LR LR
comp=Z,2μm,13.0s
KMI LR LR
comp=Z,2μm,8.9s
**ITAN** **ITANAGAR** **19.24 360** *eP* **P** **19 42 06.8 -2.6**
ITAN AMB AMB 19 42 18.6
comp=Z,262nm,1.4s
**MNGI** **Mangalore** **19.40 287** *ex* Pn 19 42 19.9 +7.3
MNGI *i* x x 19 45 55.8
**NGP** **Nagpur** **19.51 314** *eP* **P** **19 42 12.4 0.0**
**LKP** **Lekhapani** **19.52 5** *eP* **P** **19 42 08.4 -4.0**
LKP AMB AMB 19 42 18.4
comp=Z,91nm,0.5s
**ZIRO** **ZIRO** **19.62 360** *ex* **P** **19 42 09.7 -4.1**
**KLRI** **Killari** **19.66 303** *eP* **Pn** **19 42 14.9 -0.7**
KLRI IAmb IAmb 19 42 24.8
comp=Z,210nm,1.7s
KLRI *eS* **S** **19 45 54.4 0.0**
**ODAN** **Odare** **19.93 343** *eP* **P** **19 42 17.5 +0.3**
**GTK** **Tadong** **20.04 346** *eP* **P** **19 42 18.2 -0.2**
GTK AMB AMB 19 42 20.2
comp=Z,241nm,1.3s
**COCO** **West Island** **20.08 171** *eP* **P** **19 42 16.1 -2.5**
COCO pmax pmax
comp=Z,675nm,1.7s
**COCO** **West Island** **20.08 171** *eP* **P** **19 42 16.1 -2.5**
comp=Z,675nm,1.7s
**RAMN** **Ramite** **20.25 341** *eP* Pn 19 42 21.9 -0.9
comp=Z,1μm,1.1s
**JBP** **Jabalpur** **20.27 320** ‖ *eP* Pn 19 42 22.6 -0.2
JBP *ex* x 19 46 10.6
**TAPN** **Taplejung** **20.30 344** *eP* **P** **19 42 21.7 +0.4**
comp=Z,3μm,1.6s
**MNCY** **Minicoy** **20.62 273** *eP* **P** **19 42 24.4 -0.2**
MNCY AMB AMB 19 42 31.3
comp=Z,169nm,1.7s
**CISI** **Cisompet, Garu** **20.65 137** *eP* **P** **19 42 22.2 -2.7**
comp=Z,159nm,1.7s
**GOA** **Goa** **21.04 293** *eP* **P** **19 42 28.6 -0.5**
**JIRN** **Jiri** **21.05 341** *eP* **P** **19 42 29.7 +0.3**
**PKI** **Pulchoki** **21.23 339** *eP* **P** **19 42 31.8 +0.4**
**PKIN** **Phulchoki** **21.24 339** *eP* **P** **19 42 32.2 +0.8**
comp=Z,181nm,0.6s
**DMN** **Daman** **21.38 338** *eP* **P** **19 42 33.2 +0.3**
comp=Z,323nm,0.9s
**GUN** **Gumba** **21.38 340** *eP* **P** **19 42 33.2 +0.2**
comp=Z,244nm,0.7s
**KKN** **Kakani** **21.48 339** *eP* **P** **19 42 34.0 +0.1**
comp=Z,231nm,0.8s
**XMIS** **Christmas Isla** **21.63 147** *eP* **P** **19 42 34.9 -0.5**
comp=Z,308nm,1.8s
**GKN** **Gorkha** **21.91 338** *eP* **P** **19 42 38.8 +0.4**
**LSA** **Lhasa** **21.93 354** P **P** **19 42 38.6 -0.5**
LSA S **S** **19 46 35.4 -4.7**
LSA LR LR
comp=Z,450nm,21.5s
LSA LR LR
comp=Z,3μm,21.5s
LSA LR LR
comp=Z,970nm,21.5s
**LSA** **Lhasa** **21.93 354** *eP* **P** **19 42 38.6 -0.5**
LSA *eS* **S** **19 46 36.5 -3.6**
LSA pmax pmax
comp=Z,145nm,0.8s
**LSA** **Lhasa** **21.93 354** *eP* **P** **19 42 38.5 -0.5**
comp=Z,145nm,0.8s
LSA *eS* **S** **19 46 36.5 -3.6**
**BHPL** **Bhopal** **22.02 316** *eP* **P** **19 42 38.8 -0.7**
BHPL AMB AMB 19 42 45.2
comp=Z,108nm,0.9s
**KOLN** **Koldanda** **22.11 335** *eP* **P** **19 42 41.3 +0.6**
comp=Z,1μm,1.5s
**SMRI** **Semarang** **22.16 131** P **P** **19 42 43.2 +2.1**
comp=Z,223nm,2.4s
**SMRI** **Semarang** **22.16 131** *eP* **P** **19 42 41.8 +0.7**
comp=Z,831nm,1.7s
**POO** **Poona** **22.18 301** *ex* **P** **19 42 36.5 -4.9**
**GYA** **Guiyang** **22.20 32** ⇑ *iP* **P** **19 42 43.5 +2.0**
GYA pP sP 19 42 52.8 -0.6
GYA PP **PnPn** **19 43 10.0 +5.6**
GYA S **S** **19 46 49.0 +4.5**
GYA sS Sn 19 46 56.8 +0.1
GYA ScP **ScP** **19 50 12.1 -1.2**
GYA pmax pmax
comp=Z,90nm,1.1s
GYA pmax pmax
comp=Z,370nm,5.7s
GYA LR LR
comp=Z,2μm,13.1s
GYA LR LR
comp=Z,1μm,12.2s
GYA LR LR
comp=Z,2μm,11.5s
**KKM** **Kota Kinabalu** **22.26 93** *eP* **P** **19 42 41.0 -1.4**
comp=Z,300nm,1.8s
**DANN** **Dangsing** **22.56 336** *eP* **P** **19 42 46.0 +0.4**
**PYUN** **Piuthan** **22.66 334** *eP* **P** **19 42 47.2 +0.7**
comp=Z,817nm,1.3s
**MTKI** **Muara Teweh, K** **22.71 112** P **P** **19 42 47.8 +0.8**
comp=Z,60nm,1.0s,comp=Z,3μm
**UGM** **Wanagama** **22.80 133** *eP* **P** **19 42 45.7 -2.2**
comp=Z,393nm,1.8s
**GZH** **Guangzhou** **24.11 49** P P 19 43 09.7 +9.0
GZH S S 19 47 35.9 +19
GZH SS SnSn 19 48 46.6 +47
GZH pmax pmax
comp=Z,450nm,4.1s
**MYLDM** **Lahad Datu** **24.62 95** *eP* **P** **19 43 04.2 -1.3**
comp=Z,402nm,1.4s
**CD2** **Chengdu** **24.79 21** ⇑ *iP* **P** **19 43 07.7 +0.8**
CD2 pP sP 19 43 17.6 -1.5
CD2 PP **PnPn** **19 43 40.1 +0.3**
CD2 S **S** **19 47 27.5 -0.1**
CD2 SS **SnSn** **19 48 24.5 +8.5**
CD2 pmax pmax
comp=Z,40nm,1.4s
CD2 pmax pmax
comp=Z,620nm,5.2s
CD2 LR LR
comp=Z,2μm,10.7s
CD2 LR LR
comp=Z,3μm,9.8s
CD2 LR LR
comp=Z,3μm,13.1s
**KMMI** **Kalianget** **24.90 126** P **P** **19 43 10.1 +2.2**
comp=Z,95nm,0.9s,comp=Z,2μm
**BLJI** **Banyuglugur** **25.01 128** P **P** **19 43 09.7 +0.7**
comp=Z,103nm,1.3s,comp=Z,2μm
**JAGI** **Jajag, Banyuwa** **25.89 128** *eP* **P** **19 43 15.1 -1.9**
comp=Z,32nm,0.9s
**NDI** **New Delhi** **26.03 325** *eP* **P** **19 43 17.0 -1.1**
**H08S3** **Diego Garcia H** **26.25 235** T T 20 10 04.6
baz=54,slow=75,SNR=507
**H08S2** **Diego Garcia H** **26.25 235** T T 20 10 04.8
baz=54,slow=75,SNR=681
**H08S1** **Diego Carcia H** **26.26 235** T T 20 10 06.0
baz=54,slow=75,SNR=671
**SRBI** **Singaraja** **26.50 126** P **P** **19 43 23.1 +0.6**
comp=Z,53nm,1.4s,comp=Z,697nm
**ENH** **Enshi** **26.73 31** *eP* **P** **19 43 24.1 -0.3**
comp=Z,28nm,0.9s
**DDI** **Dehra Dun** **26.86 329** *eP* **P** **19 43 26.1 +0.4**
DDI AMB AMB 19 43 36.7
comp=Z,219nm,1.5s
**MPSI** **Mapaga** **27.00 105** P **P** **19 43 28.9 +1.9**
comp=Z,56nm,1.2s,comp=Z,1μm
**TGY** **Tagaytay City** **27.30 74** LR LR 19 53 48.0
comp=Z,798nm,19.8s,baz=252,slow=35
**BHJ** **Bhuj** **27.85 306** *eP* **P** **19 43 31.3 -3.2**
**SMLA** **Simla** **27.96 328** *eP* **P** **19 43 35.3 -0.1**
SMLA AMB AMB 19 43 46.5
comp=Z,79nm,1.8s
**TTSI** **Tana Toraja** **28.05 112** P **P** **19 43 40.9 +4.5**
comp=Z,18nm,1.5s,comp=Z,495nm
**KAPI** **Kappang** **28.80 115** *eP* **P** **19 43 42.5 -0.6**
comp=Z,807nm,0.7s
**MRSI** **Marisa** **28.92 103** P **P** **19 43 44.2 0.0**
comp=Z,21nm,1.2s,comp=Z,380nm
**APSI** **Ampana** **29.04 106** P **P** **19 43 47.9 +2.7**
comp=Z,78nm,1.2s,comp=Z,845nm
**QZH** **Quanzhou** **29.13 51** *eP* **P** **19 43 44.2 -1.7**
QZH *eS* **S** **19 48 37.0 +0.8**
QZH LR LR
comp=Z,5μm,11.2s
QZH LR LR
comp=Z,3μm,15.2s
QZH LR LR
comp=Z,7μm,37.7s
**DHRM** **DHARAMSHALA** **29.30 329** *eP* **P** **19 43 47.7 +0.1**
**XAN** **Xi'an** **29.58 26** P **P** **19 43 48.9 -1.0**
XAN pP pP 19 43 57.3 -1.3
XAN PP **PP** **19 44 52.6 -4.4**
XAN pmax pmax
comp=Z,21nm,1.3s
XAN pmax pmax
comp=Z,190nm,6.5s
XAN LR LR
comp=Z,2μm,14.0s
XAN LR LR
comp=Z,860nm,14.0s
XAN LR LR
comp=Z,2μm,14.0s
**LZH** **Lanzhou** **29.60 17** *eP* **P** **19 43 51.2 +1.1**
LZH pP sP 19 44 01.4 -1.1
LZH sP pP 19 44 04.0 +5.2
LZH sS sS 19 49 02.2 +4.2
LZH pmax pmax
comp=Z,77nm,1.1s
LZH LR LR
comp=Z,1μm,11.0s
LZH LR LR
comp=Z,900nm,11.6s
LZH LR LR
comp=Z,950nm,12.2s
**WHN** **Wuhan** **29.67 38** P **P** **19 43 52.2 +1.6**
WHN S **S** **19 48 50.6 +6.1**
WHN LR LR
comp=Z,4μm,13.3s
WHN LR LR
comp=Z,1μm,4.7s
WHN LR LR
comp=Z,4μm,13.2s
**THN** **Thein Dam** **29.75 328** *eP* **P** **19 43 51.0 -0.3**
THN *ex* x 19 46 55.0
**LUWI** **Luwuk** **30.14 106** P **P** **19 43 57.0 +2.0**
comp=Z,137nm,1.1s,comp=Z,1μm
**LUWI** **Luwuk** **30.14 106** *eP* **P** **19 43 55.7 +0.6**
comp=Z,132nm,1.0s
**YULB** **Yu-li** **30.55 56** *eP* **P** **19 43 57.4 -1.2**
comp=Z,146nm,2.0s
**KMSI** **Cibinong** **30.87 102** P **P** **19 44 04.5 +3.0**
comp=Z,126nm,1.1s,comp=Z,2μm
**NACB** **Ninganchiao** **31.14 55** *eP* **P** **19 44 02.7 -1.1**
comp=Z,107nm,1.8s
**MMRI** **Maumere** **32.66 119** *eP* **P** **19 44 13.7 -3.5**
comp=Z,45nm,1.2s
**NJ2** **Nanjing** **33.51 41** *eP* **P** **19 44 26.0 +1.6**
NJ2 S S 19 49 35.8 -8.8
NJ2 pmax pmax
comp=Z,15nm,0.5s
NJ2 LR LR
comp=Z,1μm,11.9s
NJ2 LR LR
comp=Z,2μm,13.0s
NJ2 LR LR
comp=Z,1μm,11.9s
**SANI** **Sanana** **33.51 106** P **P** **19 44 24.6 0.0**
comp=Z,19nm,1.9s
**SSE** **Sheshan** **34.47 44** P **P** **19 44 30.6 -2.2**
SSE S **S** **19 49 59.3 -0.2**
SSE sS **sS** **19 50 14.3 +0.4**
SSE pmax pmax
comp=Z,32nm,0.7s
SSE pmax pmax
comp=Z,130nm,2.8s
SSE LR LR
comp=Z,640nm,13.4s
SSE LR LR
comp=Z,1μm,13.4s
SSE LR LR
comp=Z,1μm,11.9s
**LBMI** **Labuha** **34.58 103** P **P** **19 44 35.5 +1.6**
comp=Z,38nm,1.1s,comp=Z,886nm
**SOEI** **Soe** **34.95 119** P **P** **19 44 34.3 -2.9**
comp=Z,41nm,0.8s
**SOEI** **Soe** **34.95 119** *eP* **P** **19 44 33.2 -4.0**
comp=Z,33nm,1.0s
**KBL** **Kabul** **35.06 323** *eP* **P** **19 44 38.6 +0.5**
KBL pmax pmax
comp=Z,106nm,1.5s
**KBL** **Kabul** **35.06 323** *eP* **P** **19 44 38.6 +0.5**
comp=Z,106nm,1.5s
**KSH** **Kashi** **35.42 336** P **P** **19 44 39.4 -1.6**
KSH pP pP 19 44 50.1 +0.3
KSH PP **PnPn** **19 45 59.5 -0.7**
KSH PcP **PcP** **19 47 09.3 -1.2**
KSH S **S** **19 50 08.1 -6.1**
KSH SS **SnSn** **19 52 32.4 -2.4**
KSH ScS **ScS** **19 54 50.1 -8.9**
KSH pmax pmax
comp=Z,16nm,0.8s
KSH pmax pmax
comp=Z,86nm,3.2s
KSH LR LR
comp=Z,330nm,9.5s
KSH LR LR
comp=Z,360nm,11.5s
KSH LR LR
comp=Z,460nm,12.8s
**BTO** **Baotou** **35.71 21** *eP* **P** **19 44 41.5 -1.9**
**AAI** **Ambon** **36.11 107** P **P** **19 44 46.1 -1.0**
comp=Z,40nm,1.0s
**WMQ** **Urumqi** **36.28 352** P **P** **19 44 49.2 +0.9**
WMQ pP pP 19 44 57.2 +0.2
WMQ PP **PP** **19 46 16.8 +5.6**
WMQ S **S** **19 50 28.1 +0.9**
WMQ SS **SnSn** **19 52 48.9 -6.5**
WMQ pmax pmax
comp=Z,120nm,1.1s
WMQ pmax pmax
comp=Z,610nm,3.8s
WMQ LR LR
comp=Z,620nm,21.9s
WMQ LR LR
comp=Z,2μm,26.9s
WMQ LR LR
comp=Z,650nm,21.9s
**HHC** **Hu-ho-hao-te** **36.50 23** *eP* **P** **19 44 51.9 +1.7**
HHC sP sP 19 45 04.7 +2.1
HHC PP **PP** **19 46 17.6 +4.0**
HHC S **S** **19 50 32.2 +1.6**
HHC pmax pmax
comp=Z,45nm,1.1s
HHC pmax pmax
comp=Z,260nm,5.2s
HHC LR LR
comp=Z,460nm,10.6s
HHC LR LR
comp=Z,1μm,10.2s
HHC LR LR
comp=Z,370nm,12.2s
**MSAI** **Masohi** **36.70 106** P **P** **19 44 53.5 +1.4**
comp=Z,10.0nm,1.3s,comp=Z,185nm
**SFK** **Sufi-Kurgan** **36.89 334** *i* P **P** **19 44 54.0 +0.3**
SFK pmax pmax
comp=Z,65nm,1.2s
**WSAR** **Wadi Sarin** **37.12 298** P **P** **19 44 58.2 +2.7**
comp=Z,13nm,1.0s,baz=136,slow=5.9,SNR=6.3
WSAR LR LR 19 58 58.5
comp=Z,717nm,21.1s,baz=120,slow=34
**SHLS** **Shalkode** **37.42 343** *eP* **P** **19 44 55.1 -2.9**
comp=Z,257nm,1.5s
SHLS *eS* **S** **19 50 41.6 -3.0**
SHLS LR LR 20 00 10.2
comp=Z,113nm,16.0s
**UZB** **Uzynbulak** **37.54 342** *i* P **P** **19 44 57.1 -2.0**
comp=Z,140nm,1.5s
**PDGK** **Podgornoye** **37.57 343** *i* P **P** **19 44 58.3 -1.0**
PDGK pmax pmax
comp=Z,47nm,1.5s
**BJT** **Baijiatuao** **37.78 28** *eP* **P** **19 45 01.5 +0.5**
BJT pmax pmax
comp=Z,27nm,0.8s
**BJT** **Baijiatuao** **37.78 28** *eP* **P** **19 45 01.5 +0.5**
comp=Z,27nm,0.8s
**BJI** **Beijing** **37.80 28** P **P** **19 45 02.2 +1.1**
BJI S **S** **19 50 52.2 +2.0**
BJI pmax pmax
comp=Z,33nm,1.2s
BJI pmax pmax
comp=Z,620nm,4.5s
BJI LR LR
comp=Z,560nm,15.2s
BJI LR LR
comp=Z,790nm,18.9s
BJI LR LR
comp=Z,450nm,19.6s
**KPKS** **Kokpek** **37.94 342** *eP* **P** **19 45 00.4 -1.9**
comp=Z,244nm,1.5s
KPKS LRM MLR 20 02 50.7
comp=Z,103nm,15.1s
**MDOK** **Medeo** **38.19 340** *i* P **P** **19 45 02.6 -2.0**
comp=Z,496nm,0.9s
MDOK *i* S **S** **19 50 55.1 -1.3**
MDOK LRM MLR 20 02 41.9
comp=Z,140nm,17.2s
**AAA** **Alma-Ata** **38.28 340** *i* P **P** **19 45 04.4 -0.9**
comp=Z,486nm,0.8s
AAA LR LR 20 01 49.4
comp=Z,216nm,16.4s
**UCH** **Uchtor** **38.31 337** P **P** **19 45 07.2 +1.3**
SNR=16
**MBWA** **Marble Bar** **38.39 139** *eP* **P** **19 45 04.2 -2.1**
comp=Z,72nm,1.5s
**TKM2** **Tokmak 2** **38.49 338** *i* P **P** **19 45 06.9 -0.3**
TKM2 pmax pmax
comp=Z,20nm,1.1s
**TKM2** **Tokmak 2** **38.49 338** P **P** **19 45 06.9 -0.3**
SNR=14
**KBK** **Karagaybulak** **38.51 337** P **P** **19 45 08.2 +1.0**
SNR=32
**AML** **Almayashu** **38.56 336** P **P** **19 45 08.8 +0.8**
SNR=55
**AAK** **Ala-Archa** **38.66 337** LR LR 20 02 52.2
comp=Z,592nm,20.8s,baz=143,slow=39
**AAK** **Ala-Archa** **38.66 337** P **P** **19 45 09.1 +0.5**
AAK pmax pmax
comp=Z,48nm,1.3s
**AAK** **Ala-Archa** **38.66 337** P **P** **19 45 09.3 +0.7**
SNR=24
**AAK** **Ala-Archa** **38.66 337** *eP* **P** **19 45 09.2 +0.7**
comp=Z,44nm,1.1s
**AAK** **Ala-Archa** **38.66 337** P **P** **19 45 09.8 +1.2**
SNR=20
**AAK** **Ala-Archa** **38.66 337** P **P** **19 45 09.8 +1.2**
SNR=20
AAK P **P** **19 45 09.8 +1.2**
SNR=20
**FRU** **Bishkek** **38.78 337** *eP* **P** **19 45 10.0 +0.6**
FRU *i* 19 45 18.0
FRU *i* 19 46 48.0
FRU *eS* **S** **19 51 08.0 +2.9**
FRU pmax pmax
comp=Z,70nm,2.0s
FRU MLR MLR
comp=Z,500nm,20.0s
**CHMS** **Chumysh** **38.87 338** P **P** **19 45 11.2 +1.0**
SNR=15
**EKS2** **Erkin-Say** **38.97 336** P **P** **19 45 11.8 +0.7**
SNR=20
**KUU** **Kurty** **39.08 340** *i* P **P** **19 45 10.1 -1.8**
comp=Z,134nm,1.4s
KUU LR LR 20 01 59.3
comp=Z,81nm,17.3s
**USP** **Ospenovka** **39.20 337** P **P** **19 45 13.5 +0.6**
SNR=34
**MNAS** **Manas** **39.34 335** *i* P **P** **19 45 14.9 +0.6**
MNAS pmax pmax
comp=Z,62nm,1.6s
**FAKI** **Fak Fak** **39.75 104** *eP* **P** **19 45 16.4 -1.5**
comp=Z,46nm,1.2s
**UOSS** **Minazif** **39.76 300** *eP* **P** **19 45 17.6 -0.2**
comp=Z,27nm,1.1s
**HATD** **Hatta, Dubai** **39.78 300** *i* P **P** **19 45 21.4 +3.4**
SNR=7.3
**DL2** **Dalian** **39.79 35** P **P** **19 45 19.9 +2.1**
DL2 *eS* **S** **19 51 23.2 +3.0**
DL2 pmax pmax
comp=Z,56nm,1.9s
DL2 pmax pmax
comp=Z,380nm,5.7s
DL2 LR LR
comp=Z,770nm,10.8s
DL2 LR LR
comp=Z,900nm,10.8s
DL2 LR LR
comp=Z,760nm,12.0s
**ASHO** **Ashiyiah** **39.80 299** P **P** **19 45 21.1 +2.9**
**MK01** **Makanchi Array** **40.08 348** *eP* **P** **19 45 19.7 -0.4**
MK01 *ePP* **PP** **19 46 51.1 -1.5**
**MK31** **Makanchi Array** **40.10 348** *eP* **P** **19 45 19.9 -0.4**
MK31 *e* 19 46 51.2
**MK31** **Makanchi Array** **40.10 348** *eP* **P** **19 45 19.9 -0.4**
MK31 *ePP* **PP** **19 46 51.1 -1.7**
**MK32** **Makanchi Array** **40.10 348** *eP* **P** **19 45 19.8 -0.5**
MK32 *ePcP* **PcP** **19 47 25.6 +1.0**
**MKAR** **Makanchi Array** **40.10 348** P **P** **19 45 19.8 -0.5**
comp=Z,11nm,0.8s,baz=168,slow=8.2,SNR=58
MKAR PcP **PcP** **19 47 25.6 +1.0**
comp=Z,2.3nm,0.7s,baz=191,slow=3.8,SNR=3.4
MKAR LR LR 20 05 20.5
comp=Z,394nm,19.9s,baz=164,slow=41
**IUG** **Iuzhnay** **40.16 332** *i* P **P** **19 45 19.1 -2.0**
comp=Z,586nm,1.1s
IUG *eS* **S** **19 51 24.6 -1.3**
IUG LR LR 20 02 37.3
comp=Z,134nm,15.1s
**MAKZ** **Makanchi** **40.18 347** *i* P **P** **19 45 20.6 -0.4**
MAKZ pmax pmax
comp=Z,28nm,1.6s
**MAKZ** **Makanchi** **40.18 347** *eP* **P** **19 45 20.6 -0.4**
comp=Z,42nm,1.6s
MAKZ *ePP* **PP** **19 46 50.9 -2.9**
**ZSN** **Zaisan** **40.25 351** *i* P **P** **19 45 20.6 -1.0**
comp=Z,135nm,1.3s
ZSN *eS* **S** **19 51 27.4 +0.5**
**FITZ** **Fitzroy Crossi** **40.58 130** P **P** **19 45 22.3 -2.3**
comp=Z,11nm,0.9s,baz=342,slow=7.8,SNR=33
FITZ PcP **PcP** **19 47 27.1 +0.5**
comp=Z,7.1nm,0.9s,baz=206,slow=4.4,SNR=4.0
FITZ LR LR 20 04 50.6
comp=Z,322nm,19.8s,slow=40
**FITZ** **Fitzroy Crossi** **40.58 130** P **P** **19 45 22.5 -2.1**
baz=41,SNR=21

KK31 **Karatay Array** 40.70 334 *i* P **P** 19 45 25.4 0.0
KK31 pmax pmax
comp=Z,8.0nm,0.5s
SONA0 **Songino Array** 41.30 13 *e*P **P** 19 45 30.3 0.0
SONA0 *e*PcP **PcP** 19 47 28.7 +0.1
SONA0 *e*ScP **ScP** 19 51 17.3 +0.7
SONM **Songino Array** 41.30 13 P **P** 19 45 30.3 0.0
comp=Z,28nm,0.8s,baz=196,slow=8.9,SNR=104
SONM PcP **PcP** 19 47 28.7 +0.1
comp=Z,3.5nm,1.0s,baz=192,slow=3.9,SNR=4.5
SONM ScP **ScP** 19 51 17.3 +0.7
comp=Z,1.4nm,0.8s,baz=194,slow=3.6,SNR=7.4
SONM LR LR 20 04 08.6
comp=Z,390nm,18.4s,baz=184,slow=38
SONA1 **Songino Array** 41.31 13 *e*P **P** 19 45 29.9 -0.6
ULN **Ulaanbaatar** 41.47 13 *d i*P **P** 19 45 31.7 -0.1
ULN pmax pmax
comp=Z,29nm,1.0s
ULN **Ulaanbaatar** 41.47 13 *e*P **P** 19 45 31.2 -0.6
ULN **Ulaanbaatar** 41.47 13 P **P** 19 45 31.5 -0.3
SNR=10
ULN **Ulaanbaatar** 41.47 13 P **P** 19 45 31.5 -0.3
SNR=10
KNRA **Kununurra** 41.71 124 P P 19 45 41.6 +7.7
baz=42,SNR=6.6
TJN **Taejon** 41.72 42⇓ *e*P **P** 19 45 35.2 +1.4
DGZ **Jazzator, Alta** 42.11 354 *i* P **P** 19 45 37.6 +0.6
DGZ pmax pmax
comp=Z,13nm,1.0s
MTN **Manton Dam** 42.34 119 P **P** 19 45 37.3 -1.8
baz=42,SNR=18
MTN **Manton Dam** 42.34 119 *e*P **P** 19 45 37.2 -1.9
comp=Z,16nm,1.3s
MORW **Morawa** 42.43 151 P **P** 19 45 40.1 +0.4
baz=43,SNR=5.8
JNU **Nakatsue** 42.51 48 *e*P **P** 19 45 40.9 +0.5
comp=Z,36nm,1.3s
KS01 **Wonju Array Si** 42.70 41 *e*P **P** 19 45 40.2 -1.5
KSRS **Korea Array** 42.71 41 P **P** 19 45 41.9 +0.1
comp=Z,3.0nm,0.9s,baz=225,slow=10,SNR=5.1
KSRS LR LR 20 05 04.0
comp=Z,142nm,18.3s,baz=237,slow=38
ZAK **Zakamensk** 43.17 9 *e*P **P** 19 45 44.0 -1.5
ZAK *e* 19 47 23.1
ZAK pmax pmax
comp=Z,16nm,1.3s
ZAK pmax pmax
comp=Z,7.0nm,1.6s
SEM **Semipalatinsk** 43.96 347 *i* P **P** 19 45 49.8 -2.2
comp=Z,327nm,1.4s
SEM LRM MLR 20 07 12.9
comp=Z,194nm,19.2s
BLDU **Ballidu** 44.04 151 P **P** 19 45 53.7 +1.1
baz=44
GEYT **Alibeck** 44.07 318 P **P** 19 45 54.4 +1.5
comp=Z,20nm,0.5s,baz=142,slow=7.5,SNR=72
GEYT LR LR 20 06 39.0
comp=Z,283nm,19.6s,baz=135,slow=39
TLY **Talaya** 44.48 9 *e*P **P** 19 45 56.7 +0.7
TLY pmax pmax
comp=Z,18nm,1.0s
TLY **Talaya** 44.48 9 *e*P **P** 19 45 56.7 +0.7
comp=Z,18nm,1.0s
KURBB **Kurchatov Arra** 44.55 346 P **P** 19 45 56.8 +0.3
comp=Z,13nm,0.8s,baz=166,slow=7.1,SNR=112
KURK **Kurchatov** 44.62 346 *d i*P **P** 19 45 57.2 +0.2
KURK *i* *PP **pP** 19 46 05.0 -0.9
KURK *i* *SP **sP** 19 46 11.2 +1.7
KURK pmax pmax
comp=Z,350nm,1.7s
KURK **Kurchatov** 44.62 346 *e*P **P** 19 45 56.8 -0.2
KURK *e*PcP **PP** 19 47 40.5 -0.9
KURK **Kurchatov** 44.62 346 P **P** 19 45 57.3 +0.4
SNR=31
KURK **Kurchatov** 44.62 346 P **P** 19 45 57.3 +0.4
SNR=31
KURK P **P** 19 45 57.3 +0.4
SNR=31
MUN **Mundaring** 44.95 153 P **P** 19 46 00.4 +0.6
baz=45,SNR=8.7
CN2 **Changchun** 45.24 32 ⇑P **P** 19 46 03.5 +1.4
CN2 *e*pP sP 19 46 15.5 +0.9
CN2 *e*S **S** 19 52 41.1 +0.7
CN2 pmax pmax
comp=Z,10.0nm,0.6s
CN2 pmax pmax
comp=Z,100nm,3.0s
CN2 LR LR
comp=Z,300nm,15.0s
CN2 LR LR
comp=Z,500nm,15.0s
CN2 LR LR
comp=Z,500nm,16.0s
KLBR **Kellerberrin** 45.35 151 P **P** 19 46 03.4 +0.3
baz=46,SNR=8.3
NWAO **Narrogin (SRO)** 46.21 152 P **P** 19 46 10.0 +0.2
comp=Z,17nm,0.6s,baz=197,slow=5.7,SNR=19
NWAO LR LR 20 04 16.0
comp=Z,401nm,21.3s,baz=264,slow=34
NWAO **Narrogin (SRO)** 46.21 152 P **P** 19 46 10.8 +0.9
baz=46,SNR=12
NWAO P **P** 19 46 10.8 +0.9
baz=46,SNR=12
NWAO **Narrogin (SRO)** 46.21 152 *e*P **P** 19 46 07.8 -2.1
NWAO pmax pmax
comp=Z,142nm,1.7s
NWAO **Narrogin (SRO)** 46.21 152 *e*P **P** 19 46 07.8 -2.1
comp=Z,142nm,1.7s
ZAA0 **Zalesovo Array** 46.59 353 *e*P **P** 19 46 12.7 +0.1
comp=Z,118nm,1.0s
ZALV **Zalesovo Beam** 46.59 353 P **P** 19 46 12.6 +0.1
comp=Z,24nm,0.4s,baz=177,slow=7.9,SNR=218
ZALV pP **pP** 19 46 19.4 -2.1
comp=Z,25nm,0.3s,baz=175,slow=8.0,SNR=21
ZALV ScP **ScP** 19 51 36.8 -1.1
comp=Z,2.0nm,0.8s,baz=222,slow=2.0,SNR=6.2
ZALV LR LR 20 10 20.6
comp=Z,388nm,19.0s,baz=216,slow=42
ZALV **Zalesovo Beam** 46.59 353 *e*P **P** 19 46 12.0 -0.5
ZALV **Zalesovo Beam** 46.59 353 *e*P **P** 19 46 12.0 -0.5
ZAA1 **Zalesovo Array** 46.60 353 *e*P **P** 19 46 12.6 0.0
ZAA1 *e*pwP **pP** 19 46 19.4 -2.1
ZAA1 *e*ScP **ScP** 19 51 36.8 -1.1
HIA **Hailar** 46.70 23 *e*P **P** 19 46 14.0 +0.5
HIA **Hailar** 46.70 23 *e*P **P** 19 46 14.0 +0.5
WRKA **Warakurna** 46.80 135 P **P** 19 46 13.8 -0.9
baz=47,SNR=41
CIT **Chita** 46.96 17 *e*P **P** 19 46 15.0 -0.6
KMBL **Kambalda** 47.28 147 P **P** 19 46 18.5 +0.2
baz=47,SNR=5.7
RKGY **Rocky Gully** 47.51 154 P **P** 19 46 21.1 +1.1
baz=48
NVS **Novosibirsk** 47.68 352 *e*P **P** 19 46 20.8 -0.2
NVS *e*S **S** 19 53 14.3 -0.6
NVS pmax pmax
comp=Z,74nm,1.2s
NVS pmax pmax
comp=N,44nm,1.0s
NVS pmax pmax
comp=E,18nm,1.3s
NVS smax smax
comp=E,31nm,2.0s
NVS smax smax
comp=N,9.0nm,1.8s
MSHR **Mys Shultsa** 47.70 37⇑ *e*P **P** 19 46 22.4 +1.0
MDJ **Mudanjiang** 48.03 34 *e*P **P** 19 46 25.4 +1.5
comp=N,34nm,1.1s
WR1 **Warramunga Arr** 48.45 125 *e*P **P** 19 46 25.6 -1.9
comp=N,19nm,0.9s
WR1 *e*PcP **PcP** 19 47 52.6 -0.9
WR1 *e*ScP **ScP** 19 51 45.7 -0.7
WRA **Warramunga Arr** 48.45 125 P **P** 19 46 25.6 -1.9
comp=N,8.0nm,0.7s,baz=305,slow=8.4,SNR=124
WRA PcP **PcP** 19 47 52.6 -0.9
comp=N,2.8nm,0.6s,baz=312,slow=3.3,SNR=5.1
WRA ScP **ScP** 19 51 45.7 -0.7
comp=N,1.8nm,1.1s,baz=310,slow=3.9,SNR=7.2
WRA LR LR 20 10 50.7
comp=N,303nm,18.5s,baz=290,slow=41
WRA **Warramunga Arr** 48.45 125 *i* P **P** 19 46 25.6 -1.9
WRA pmax pmax
comp=Z,10.0nm,0.6s
WRAB **Tennant Creek** 48.45 125 *d i*P **P** 19 46 26.1 -1.5
WRAB pmax pmax
comp=Z,62nm,1.7s
WRAB **Tennant Creek** 48.45 125 *e*P **P** 19 46 25.8 -1.8
comp=Z,23nm,1.0s
WB2 **Warramunga Arr** 48.46 125 *e*P **P** 19 46 25.4 -2.2
comp=Z,20nm,0.9s
WB2 *e*PcP **PcP** 19 47 53.0 -0.7
RAYN **Ar Rayn** 48.86 294 *e*P **P** 19 46 32.9 +2.1
comp=Z,105nm,1.1s
BRVK **Borovoye** 49.03 341 *d i*P **P** 19 46 31.1 -0.4
BRVK pmax pmax
comp=Z,47nm,1.2s
BRVK **Borovoye** 49.03 341 *e*P **P** 19 46 31.4 -0.1
comp=Z,29nm,1.4s
BRVK **Borovoye** 49.03 341 P **P** 19 46 31.4 -0.1
SNR=7.2
BRVK **Borovoye** 49.03 341 P **P** 19 46 31.4 -0.1
SNR=7.2
BRVK P **P** 19 46 31.4 -0.1
SNR=7.2
USRK **Ussuriysk Ar.** 49.14 36 P **P** 19 46 33.3 +0.9
comp=Z,6.6nm,1.0s,baz=226,slow=5.0,SNR=11
JHJ2 **Mitsune** 49.35 53 *e*P **P** 19 46 33.7 -0.6
comp=Z,338nm,0.8s
MJB9 **Matsu-Tunnel** 49.42 48 *e*P **P** 19 46 34.6 -0.1
comp=Z,19nm,1.0s
MAJO **Matsushiro** 49.42 48 *e*P **P** 19 46 34.9 +0.1
MAJO pmax pmax
comp=Z,20nm,1.0s
MAJO **Matsushiro** 49.42 48 *e*P **P** 19 46 34.9 +0.1
comp=Z,20nm,1.0s
MJAR **Matsushiro Arr** 49.42 48 P **P** 19 46 36.1 +1.3
comp=Z,1.4nm,0.8s,baz=235,slow=6.4,SNR=3.9
MJAR PcP **PcP** 19 47 58.5 +1.7
comp=Z,1.0nm,0.4s,baz=223,slow=1.2,SNR=13
MJAR LR LR 20 10 32.5
comp=Z,152nm,18.6s,baz=190,slow=40
ASAR **Alice Springs** 50.08 130 P **P** 19 46 38.1 -1.9
comp=Z,8.8nm,0.6s,baz=301,slow=7.8,SNR=155
ASAR PcP **PcP** 19 47 59.0 -0.5
comp=Z,4.9nm,0.8s,baz=308,slow=4.2,SNR=6.8
ASAR ScP **ScP** 19 51 52.6 -0.8
comp=Z,0.6nm,0.9s,baz=308,slow=4.5,SNR=3.2
ASAR S **S** 19 53 45.1 -4.6
comp=Z,0.5nm,0.9s,baz=295,slow=14,SNR=3.7
ASAR LR LR 20 08 39.4
comp=Z,228nm,20.6s,baz=301,slow=37
AS31 **Alice Springs** 50.09 130 *e*P **P** 19 46 38.2 -1.8
comp=Z,3.9nm,0.4s
AS31 *e*PcP **PcP** 19 47 58.9 -0.6
AS31 *e*ScP **ScP** 19 51 52.6 -0.8
AS31 *e*S **S** 19 53 45.1 -4.6
**AS01** **Alice Springs** 50.12 130 *e*P **P** 19 46 38.5 -1.8
AS01 *e*PcP **PcP** 19 47 58.9 -0.7
**AB31** **Akbulak array** 50.16 332 *i* P **P** 19 46 40.3 +0.1
AB31 pmax pmax
comp=Z,14nm,0.7s
ATD **Arta Tunnel** 50.37 278 LR LR 20 04 59.1
comp=Z,448nm,20.8s,slow=32
ATD **Arta Tunnel** 50.37 278 *e*P **P** 19 46 45.6 +3.3
comp=Z,70nm,1.3s
FORT **Forrest** 50.46 141 *e*P **P** 19 46 42.4 -0.3
comp=Z,512nm,0.8s
AKTO **Aktyubinsk** 51.88 332 *i* P **P** 19 46 52.9 -0.2
AKTO pmax pmax
comp=Z,68nm,1.6s
BOD **Bodaibo** 52.29 13 *e*P **P** 19 46 55.2 -0.7
BOD pmax pmax
comp=Z,49nm,1.3s
OPO **Ambohidratompo** 52.96 240 P **P** 19 47 04.0 +2.2
comp=Z,7.9nm,1.1s,baz=37,slow=14,SNR=6.6
OPO LR LR 20 05 24.3
comp=Z,558nm,21.6s,baz=59,slow=31
QIS **Mount Isa** 53.07 123 P **P** 19 47 01.4 -0.9
baz=53,SNR=6.0
ABPO **Ambohimpanom** 53.12 239 *e*P **P** 19 47 06.1 +3.2
ABPO pmax pmax
comp=Z,41nm,1.4s
ABPO **Ambohimpanom** 53.12 239 *e*P **P** 19 47 06.1 +3.2
comp=Z,41nm,1.4s
HABR **Khabarovsk** 53.36 33 *ce*P **P** 19 47 01.9 -2.1
HABR *e**PP **pP** 19 47 11.6 -1.5
HABR *e**SP **sP** 19 47 16.1 -0.5
HABR *e* 19 48 08.7
HABR 19 49 03.3
HABR S **S** 19 54 32.4 -1.6
HABR *e* 19 54 44.3
HABR *e* 19 54 45.7
HABR *e* 19 56 48.5
HABR *e*SS **SS** 19 58 13.7 -0.5
HABR *e*SSS SSS 20 00 07.4
HABR pmax pmax
comp=N,37nm,1.6s
HABR pmax pmax
comp=E,25nm,1.6s
HABR pmax pmax
comp=Z,122nm,1.6s
HABR MLR MLR
comp=Z,452nm,19.0s
GNI **Garni** 54.29 314 *i* P **P** 19 47 11.1 -0.1
SNR=7.4
GNI **Garni** 54.29 314 *d i*P **P** 19 47 12.0 +0.7
GNI pmax pmax
comp=Z,181nm,1.2s
GNI **Garni** 54.29 314 *e*P **P** 19 47 12.1 +0.9
comp=Z,103nm,1.3s
GNI **Garni** 54.29 314 P **P** 19 47 11.9 +0.7
SNR=6.1
GNI **Garni** 54.29 314 P **P** 19 47 11.9 +0.7
SNR=6.1
CLNS **Chul'man** 54.60 20 *e*P **P** 19 47 14.9 +1.9
CLNS *e**PP **pP** 19 47 21.6 -0.5
CLNS *e*S S 19 55 04.0 +13
CLNS pmax pmax
comp=Z,60nm,1.0s
CLNS pmax pmax
comp=E,30nm,1.1s
CLNS pmax pmax
comp=N,33nm,1.0s
CLNS pmax pmax
comp=Z,5.0nm,0.8s
CLNS MLR MLR
comp=N,468nm,13.0s
CLNS MLR MLR
comp=E,650nm,14.0s
CLNS MLR MLR
comp=Z,577nm,14.0s
GROC **Groznyy** 54.81 318 *e*P **P** 19 47 14.3 -0.5
GROC *e* 19 48 14.7
GROC pmax pmax
comp=Z,58nm,1.6s
SVE **Sverdlovsk** 55.37 339⇑ *e*P **P** 19 47 18.8 +0.3
SVE pmax pmax
comp=Z,126nm,1.9s
AKH **Akhalkalaki** 55.65 315⇑ *i*P **P** 19 47 21.7 +0.7
ASAJ **Asahikawa** 55.66 41 P **P** 19 47 21.0 +0.2
comp=Z,6.6nm,0.8s,baz=239,slow=5.9,SNR=5.9
ASAJ **Asahikawa** 55.66 41 *e*P **P** 19 47 22.4 +1.5
comp=Z,12nm,1.0s
PMG **Port Moresby** 55.78 107 P **P** 19 47 22.0 -0.1
comp=Z,23nm,0.8s,baz=284,slow=11,SNR=9.6
PMG **Port Moresby** 55.78 107 *e*P **P** 19 47 22.1 -0.1
PMG pmax pmax
comp=Z,31nm,0.9s
PMG **Port Moresby** 55.78 107 *e*P **P** 19 47 22.1 -0.1
comp=Z,31nm,0.9s
ARU **Arti** 55.85 337 LR LR 20 13 41.5
comp=Z,334nm,21.3s,baz=144,slow=39
ARU **Arti** 55.85 337 *c i*P **P** 19 47 22.7 +0.7
ARU 19 48 17.9
ARU 19 49 25.1
ARU S **S** 19 55 10.8 +3.5
ARU SS **SS** 19 58 56.2 +3.0
ARU pmax pmax
comp=Z,66nm,1.5s
ARU **Arti** 55.85 337 *e*P **P** 19 47 22.3 +0.3
comp=Z,120nm,1.6s
ZEI **Tsey** 55.91 317 *e*P **P** 19 47 20.8 -2.1
ZEI pmax pmax
comp=Z,6.0nm,0.6s
MARD **Mardin** 56.22 310 *e*P **P** 19 47 25.0 -0.2
comp=Z,65nm,1.5s
NCK **Nalchik** 56.40 318⇑ *e*P **P** 19 47 26.8 +0.6
NCK pmax pmax
comp=Z,50nm,2.0s
NEY **Neytrino** 56.88 317⇑ *e*P **P** 19 47 31.4 +1.6
NEY pmax pmax
comp=Z,9.0nm,2.1s
BBOO **Buckleboo** 56.95 138 P **P** 19 47 29.2 -1.0
baz=57,SNR=14
KBZ **Khabaz** 56.95 318 P **P** 19 47 30.6 +0.5
comp=Z,8.0nm,1.0s,baz=125,slow=7.5,SNR=9.3
KBZ LR LR 20 15 40.7
comp=Z,149nm,19.8s,baz=125,slow=40
YSS **Yuzh-Sakhalins** 57.02 38⇑ *i*P **P** 19 47 32.0 +1.6
YSS *e* 19 47 41.8
YSS pmax pmax
comp=Z,30nm,0.8s
YSS pmax pmax
comp=Z,300nm,4.0s
YSS **Yuzh-Sakhalins** 57.02 38 *e*P **P** 19 47 31.7 +1.3
comp=Z,29nm,0.7s
KMBO **Kilima Mbogo** 57.13 264 P **P** 19 47 35.4 +3.2
comp=Z,13nm,0.9s,baz=57,slow=7.6,SNR=33
KMBO LR LR 20 09 37.5
comp=Z,334nm,18.3s,baz=92,slow=33
KMBO **Kilima Mbogo** 57.13 264 *e*P **P** 19 47 34.8 +2.6
KMBO pmax pmax
comp=Z,27nm,1.1s
KMBO **Kilima Mbogo** 57.13 264 *e*P **P** 19 47 34.8 +2.6
comp=Z,27nm,1.1s
KIV **Kislovodsk** 57.18 318 *i* P **P** 19 47 31.9 +0.1
SNR=7.1
KIV **Kislovodsk** 57.18 318 *d i*P **P** 19 47 32.0 +0.1
KIV *i* 19 47 39.0
KIV *e* 19 49 37.5
KIV *i* S S 19 55 43.2 +18
KIV pmax pmax
comp=Z,37nm,1.0s
KIV MLR MLR
comp=Z,191nm,19.0s
KIV **Kislovodsk** 57.18 318 *e*P **P** 19 47 31.9 +0.1
comp=Z,45nm,0.9s
GOF **Gofitskoye** 57.39 319⇑ *e*P **P** 19 47 33.3 +0.1
SOKR **Solikamsk** 58.79 339 *c i*P **P** 19 47 41.6 -1.0
SOKR pmax pmax
comp=Z,68nm,1.4s
SOKR MLR MLR
comp=Z,524nm,22.0s
TYV **Tymovskoe** 58.81 34 *e*P **P** 19 47 38.3 -4.7
TYV *e* 19 55 50.4
TYV pmax pmax
comp=Z,800nm,5.0s
TYV MLR MLR
comp=Z,900nm,18.0s
QLP **Quilpie** 59.61 127 P **P** 19 47 48.2 -0.7
baz=60,SNR=22
YAK **Yakutsk** 60.16 19 *e*P P 19 47 46.8 -5.2
YAK *e**PP pP 19 47 57.9 -3.3
YAK *e* 19 48 31.9
YAK *e*S S 19 55 52.8 -11
YAK *e**SS pS 19 56 14.7 +0.2
YAK *e* 19 57 30.7
YAK pmax pmax
comp=Z,99nm,1.3s
YAK pmax pmax
comp=N,34nm,1.5s
YAK pmax pmax
comp=E,36nm,1.3s
YAK pmax pmax
comp=Z,213nm,4.4s
YAK pmax pmax
comp=N,86nm,2.2s
YAK pmax pmax
comp=E,138nm,4.2s
YAK smax smax
comp=N,201nm,4.9s
YAK smax smax
comp=E,157nm,4.4s
YAK **Yakutsk** 60.16 19 *e*P **P** 19 47 52.1 +0.1
comp=E,96nm,1.0s
STKA **Stephens Creek** 60.26 134 P **P** 19 47 52.0 -1.3
comp=E,7.4nm,0.7s,baz=325,slow=5.4,SNR=20
STKA LR LR 20 18 52.3
comp=E,237nm,18.3s,baz=303,slow=41
STKA **Stephens Creek** 60.26 134 P **P** 19 47 52.1 -1.2
baz=60,SNR=18
STKA **Stephens Creek** 60.26 134 *e*P **P** 19 47 52.5 -0.8
STKA pmax pmax
comp=Z,2.0nm,0.9s
STKA **Stephens Creek** 60.26 134 *e*P **P** 19 47 52.5 -0.8
comp=Z,2.3nm,0.9s
VRH **Novokhopyorsk** 60.83 325 *e*P **P** 19 47 56.0 -0.8
VRH pmax pmax
comp=Z,30nm,0.7s
ANN **Anapa** 61.00 317 *e*P **P** 19 47 56.0 -2.1
ANN *e**PP **pP** 19 48 06.1 -1.2
ANN *e* 19 50 13.3
ANN *e*S **S** 19 56 13.6 -1.2
ANN *e*SS **SS** 20 00 11.4 -3.2
ANN pmax pmax
comp=Z,32nm,1.0s
CSS **Mathiatis** 61.49 306 *e*P **P** 19 48 02.0 +0.4
comp=Z,24nm,1.9s
BR101 **Keskin Array S** 62.26 311 *e*P **P** 19 48 05.9 -1.1
BR101 *e*pwP **pP** 19 48 13.7 -2.5
BR131 **Keskin Array S** 62.26 311 *e*P **P** 19 48 05.8 -1.1
BRTR **Keskin Array B** 62.26 311 P **P** 19 48 05.9 -1.1
comp=Z,8.7nm,0.7s,baz=125,slow=7.4,SNR=58
BRTR pP **pP** 19 48 13.7 -2.5
comp=Z,8.3nm,0.7s,baz=130,slow=6.6,SNR=14
BRTR LR LR 20 18 19.7
comp=Z,132nm,19.6s,baz=106,slow=39
BRTR **Keskin Array B** 62.26 311 *i* P **P** 19 48 05.8 -1.1
BRTR pmax pmax
comp=Z,9.0nm,0.7s
VSR **Storozhevoye** 62.29 325 *e*P **P** 19 48 05.2 -1.5
VSR pmax pmax
comp=Z,40nm,1.3s
ILGA **Ilgaz** 62.53 312 *e*P **P** 19 48 08.7 -0.2
comp=Z,79nm,1.6s
ANTO **Ankara** 62.93 311 *e*P **P** 19 48 10.5 -0.8
ANTO pmax pmax
comp=Z,102nm,1.8s
ANTO **Ankara** 62.93 311 *e*P **P** 19 48 10.5 -0.8
comp=Z,102nm,1.8s
ANTO **Ankara** 62.93 311 P **P** 19 48 10.7 -0.6
SNR=5.1
ANTO **Ankara** 62.93 311 P **P** 19 48 10.7 -0.6
SNR=5.1
ANTO P **P** 19 48 10.7 -0.6
SNR=5.1
LPSR **Galich'ya Gora** 62.99 326 *e*P **P** 19 48 10.8 -0.6
LPSR pmax pmax
comp=Z,30nm,0.7s
CMSA **Cobar Meteorol** 63.09 131 P **P** 19 48 11.5 -0.8
baz=63,SNR=9.7
RMQ **Roma** 63.20 125 P **P** 19 48 13.6 +0.4
baz=63,SNR=4.1
SIM **Simferopol'** 63.29 317 *ce*P **P** 19 48 13.8 +0.3
SIM pmax pmax
comp=Z,19nm,1.2s
MOS **Moscow** 65.00 329 *e*P **P** 19 48 22.8 -1.7
MOS *e* 19 48 31.6
MOS pmax pmax
comp=Z,191nm,1.5s
FETY **Fethiye** 65.18 307 *e*P **P** 19 48 23.5 -2.6
FETY **Fethiye** 65.18 307 P **P** 19 48 23.5 -2.6
OBN **Obninsk** 65.29 328 *d i*P **P** 19 48 26.2 -0.1
OBN *e* 19 50 49.2
OBN pmax pmax
comp=Z,99nm,1.2s
OBN MLR MLR
comp=Z,235nm,18.0s
OBN **Obninsk** 65.29 328 *e*P **P** 19 48 26.3 -0.1
comp=Z,155nm,1.4s
MANT **Manisa** 65.89 309 *e*P **P** 19 48 30.3 -0.6
comp=Z,97nm,1.4s
TOO **Toolangi** 66.00 137 P **P** 19 48 32.1 +0.8
baz=66,SNR=8.3
KLMR **Klimovskoe** 66.40 334 *e*P **P** 19 48 31.5 -1.9
KLMR *e* 19 50 59.6
KLMR pmax pmax
comp=Z,100nm,1.4s
YNG **Young** 66.41 133 P **P** 19 48 34.3 +0.3
baz=66,SNR=5.3
KARP **Karpathos** 66.56 305 *e*P **P** 19 48 34.9 -0.2
comp=Z,27nm,0.9s
KARP **Karpathos** 66.56 305 P **P** 19 48 34.9 -0.2
MA2 **Magadan** 66.96 28 *c i*P **P** 19 48 37.8 +0.7
TLCR 66.98 316⇑ *i*P **P** 19 48 37.0 -0.5
TIRR **Tirgusor** 67.11 315⇓ *i*P **P** 19 48 37.5 -0.8
ARMA **Armidale** 67.14 128 P **P** 19 48 39.8 +1.0
baz=67,SNR=3.9
CAN **Canberra** 67.33 133 P **P** 19 48 39.7 -0.2

baz=67
**CAN Canberra 67.33 133** *e*P P 19 48 39.3 -0.5
CAN pmax pmax
comp=Z,22nm,0.9s
**CAN Canberra 67.33 133** *e*P P 19 48 39.3 -0.5
comp=Z,22nm,0.9s
**TIXI Tiksi 67.36 11***d i*P P 19 48 38.3 -1.1
TIXI pmax pmax
comp=Z,122nm,1.7s
TIXI MLR MLR
comp=Z,208nm,15.0s
**TIXI Tiksi 67.36 11** *e*P P 19 48 38.5 -0.9
comp=Z,215nm,1.7s
**CFR Carcaliu 67.45 316**⇑ *i*P P 19 48 40.2 -0.2
**LEOM Leova 67.65 317**⇑ *i*P P 19 48 41.4 -0.3
**PRK Paraskevi 67.77 309** P P 19 48 42.3 -0.3
**NPS Neapolis 67.79 305** P P 19 48 39.9 -2.9
**CHOS Chios island 67.82 308** P P 19 48 42.9 -0.1
**MGCD Mangrove Creek 67.92 130** P P 19 48 44.2 +0.6
baz=68,SNR=4.2
**HNR Honiara 68.02 103** P P 19 48 45.1 +0.5
comp=Z,61nm,0.7s,baz=188,slow=5.6,SNR=8.0
**HNR Honiara 68.02 103** *e*P P 19 48 44.5 -0.1
HNR pmax pmax
comp=Z,200nm,1.4s
**HNR Honiara 68.02 103** *e*P P 19 48 44.5 -0.1
comp=Z,200nm,1.4s
**AKASG Malin Array Be 68.04 322** P P 19 48 42.6 -1.4
comp=Z,6.2nm,0.7s,baz=89,slow=4.8,SNR=34
AKASG PP PP 19 51 09.6 -4.7
comp=Z,0.5nm,0.3s,baz=84,slow=6.5,SNR=4.0
**AKASG Malin Array Be 68.04 322** *i*P P 19 48 43.0 -1.0
AKASG pmax pmax
comp=Z,6.0nm,0.7s
**AKBB Malin Array Si 68.04 322** *e*P P 19 48 42.7 -1.3
AKBB pmax pmax
comp=Z,12nm,1.0s
**AKBB Malin Array Si 68.04 322** *e*P P 19 48 42.7 -1.3
comp=Z,12nm,1.0s
**KIEV Kiev 68.05 322**⇓ *i*P P 19 48 42.8 -1.2
KIEV pmax pmax
comp=Z,13nm,0.9s
**KIEV Kiev 68.05 322** *e*P P 19 48 42.8 -1.2
comp=Z,11nm,0.9s
**AK11 Malin Array Si 68.07 322** *e*P P 19 48 42.9 -1.3
**SIGR SIGRI 68.08 309** P P 19 48 39.1 -5.4
**ALN Alexandroupoli 68.19 311** P P 19 48 42.8 -2.4
**GADA Gvkgeada 68.19 310** *e*P P 19 48 44.8 -0.4
**GADA Gvkgeada 68.19 310** P P 19 48 44.8 -0.4
**PETK Petropavlovsk- 68.23 36** P P 19 48 43.9 -1.3
comp=Z,2.5nm,0.8s,baz=306,slow=2.8,SNR=4.4
PETK LR LR 20 19 49.8
comp=Z,124nm,21.1s,baz=239,slow=37
**PEA1 Petropavlovsk- 68.23 36** *e*P P 19 48 43.9 -1.3
**IDI Anoyia 68.38 305** *e*P P 19 48 46.2 -0.4
**IDI Anoyia 68.38 305** P P 19 48 46.2 -0.4
**SIVA Sivas 68.42 304** P P 19 48 47.2 +0.5
**SMTH Samothraki Isl 68.51 310** *e*P P 19 48 46.4 -0.8
**SMTH Samothraki Isl 68.51 310** P P 19 48 46.4 -0.8
**ISR Istrita 68.54 315**⇑ *i*P P 19 48 47.6 +0.2
**VRI Vrincioaia 68.56 316**⇑ *i*P P 19 48 48.1 +0.7
**TMCR Tamitsa 68.59 337** *e*P P 19 48 47.4 +0.2
TMCR pmax pmax
comp=Z,64nm,1.0s
**RDO Rodhopi 68.60 311** *e*P P 19 48 46.8 -1.0
**RDO Rodhopi 68.60 311** P P 19 48 46.8 -1.0
**PLOR Plostina 68.61 316**⇓ *i*P P 19 48 48.4 +0.6
**LIA Limnos Island 68.69 310** P P 19 48 47.3 -1.0
**TESR Tescani 68.74 317**⇓ *i*P P 19 48 48.1 -0.4
**PET Petropavlovsk 68.76 36** *i*P P 19 48 49.1 +0.6
PET pmax pmax
comp=Z,30nm,1.1s
**KDZ Kurdzhali 68.77 312** *e*P P 19 48 48.8 0.0
**SGRR Singureni 68.78 314**⇑ *i*P P 19 48 49.1 +0.3
**SECR 68.86 315**⇑ *i*P P 19 48 49.1 -0.2
**MHLO Agia Marina, M 68.92 306** P P 19 48 49.1 -0.7
**VAM Vamos 68.95 305** P P 19 48 50.2 +0.1
**LSZ Lusaka 68.98 250** *e*P P 19 48 51.7 +1.0
LSZ pmax pmax
comp=Z,19nm,0.7s
**LSZ Lusaka 68.98 250** *e*P P 19 48 51.7 +1.0
comp=Z,19nm,0.7s
**LSZ Lusaka 68.98 250** P P 19 48 52.7 +2.0
SNR=6.0
**LSZ Lusaka 68.98 250** P P 19 48 52.7 +2.0
SNR=6.0
LSZ P P 19 48 52.7 +2.0
SNR=6.0
**MLR Muntele Rosu 69.03 316**⇓ *i*P P 19 48 50.0 -0.5
**MLR Muntele Rosu 69.03 316** *e*P P 19 48 50.8 +0.3
MLR pmax pmax
comp=Z,110nm,1.5s
**MLR Muntele Rosu 69.03 316** *e*P P 19 48 50.8 +0.3
comp=Z,110nm,1.5s
**KARY Karystos 69.04 308** P P 19 48 50.4 -0.1
**SEY Seymchan 69.11 25** P P 19 48 51.0 +0.5
comp=Z,20nm,1.1s,baz=236,slow=6.1,SNR=18
**SEY Seymchan 69.11 25**⇑ *i*P P 19 48 50.9 +0.5
**ZIMR 69.12 314**⇑ *i*P P 19 48 50.1 -0.8
**IMMV Iera Moni Meta 69.13 305** P P 19 48 51.5 +0.3
**PRAR RASCA 69.19 318**⇑ *i*P P 19 48 51.0 -0.3
**KAVA Kavala 69.35 311** *e*P P 19 48 52.0 -0.2
**KAVA Kavala 69.35 311** P P 19 48 52.2 -0.2
**EREA Eretria 69.47 308** P P 19 48 52.7 -0.6
**PTL Penteli 69.49 308** *e*P P 19 48 52.1 -1.3
**PTL Penteli 69.49 308** P P 19 48 52.1 -1.3
**DOPR Dopca 69.50 316**⇑ *i*P P 19 48 53.5 +0.2
**VLY Voula,Athens 69.52 307** *e*P P 19 48 52.2 -1.4
**VLY Voula,Athens 69.52 307** P P 19 48 52.2 -1.4
**HUMR Humele 69.53 315**⇑ *i*P P 19 48 53.3 -0.2
**VOIR 69.64 316**⇑ *i*P P 19 48 53.4 -0.8
**OUR Ouranopolis 69.66 310** *e*P P 19 48 54.0 -0.3
**OUR Ouranopolis 69.66 310** *e*P P 19 48 54.0 -0.3
**OUR Ouranopolis 69.66 310** P P 19 48 54.0 -0.3
**ANKY Antikythira Is 69.72 305** *e*P P 19 48 54.1 -0.7
**ANKY Antikythira Is 69.72 305** P P 19 48 54.1 -0.7
**MICGM Minsk 69.83 325** *e* P 19 48 54.0 -1.1
**MNK Minsk 69.83 325** *e*P P 19 48 59.0 +3.9
**PAIG Paliouri 69.84 310** *e*P P 19 48 54.8 -0.7
**PAIG Paliouri 69.84 310** *e*P P 19 48 54.8 -0.7
**PAIG Paliouri 69.84 310** P P 19 48 54.8 -0.7
**NVR Nevrokopi 69.88 311** P P 19 48 54.0 -1.8
**BURAR Bucovina Array 69.91 318**⇑ *i*P P 19 48 55.2 -0.7
**BUR04 Bucovina Ar. S 69.92 318** *e*P P 19 48 55.3 -0.6
**DID Didima 69.93 307** *e*P P 19 48 53.9 -2.2
**DID Didima 69.93 307** P P 19 48 53.9 -2.2
**BUR08 Bucovina Ar. S 69.93 318** *e*P P 19 48 55.0 -1.0
**VILL Villia 69.93 308** P P 19 48 54.4 -1.8
**KYTH Kithira 69.96 306** *e*P P 19 48 55.9 -0.4
**KYTH Kithira 69.96 306** P P 19 48 55.9 -0.4
**MMB Musomiste 70.01 311** *e*P P 19 48 57.0 +0.4
**PUL Pulkovo 70.14 331**⇑ *i*P P 19 48 57.6 +0.7
PUL pmax pmax
comp=Z,126nm,1.0s
**XOR Xorichti 70.15 309** P P 19 48 55.5 -2.0
**LOUT Loutraki 70.18 307** P P 19 48 55.5 -2.1
**LTK Loutraki 70.19 308** *e*P P 19 48 55.5 -2.2
**LTK Loutraki 70.19 308** P P 19 48 55.5 -2.2
**KKB Krupnik 70.53 312** *e*P P 19 48 59.3 -0.4
**VTS Vitosha 70.53 312**⇑ *i*P P 19 48 59.5 -0.3
**VTS Vitosha 70.53 312** *e*P P 19 48 58.7 -1.1
VTS pmax pmax
comp=Z,88nm,1.9s
**VTS Vitosha 70.53 312** *e*P P 19 48 59.9 +0.1
**VTS Vitosha 70.53 312** *e*P P 19 48 58.7 -1.1
comp=Z,88nm,1.9s
**VTS Vitosha 70.53 312** P P 19 48 59.0 -0.8
**LOT Lotru 70.53 315**⇑ *i*P P 19 48 59.1 -0.6
**DSF Desfina 70.57 308** *e*P P 19 48 58.2 -1.9
**DSF Desfina 70.57 308** P P 19 48 58.2 -1.9
**KNT Kendrikon 70.58 311** P P 19 48 59.0 -1.0
**VLX Vlachokerasia 70.59 307** *e*P P 19 48 59.0 -1.3
**VLX Vlachokerasia 70.59 307** P P 19 48 59.0 -1.3
**GUR Goura 70.67 307** *e*P P 19 48 59.1 -1.7
**GUR Goura 70.67 307** P P 19 48 59.1 -1.7
**IDID Didziasalis 70.68 326** *e*P P 19 48 59.6 -0.6
IDID IAmb IAmb 19 49 01.5
comp=Z,29nm,1.2s
**LIT Litokhoron 70.77 310** *e*P P 19 48 59.6 -1.6
**LIT Litokhoron 70.77 310** *e*P P 19 48 59.6 -1.6
**LIT Litokhoron 70.77 310** P P 19 48 59.6 -1.6
**AGG Agios Georgios 70.78 309** *e*P P 19 48 59.1 -2.2
AGG pmax pmax
comp=Z,35nm,0.7s
**AGG Agios Georgios 70.78 309** *e*P P 19 48 59.1 -2.2
comp=Z,35nm,0.7s
**AGG Agios Georgios 70.78 309** P P 19 48 59.2 -2.1
**KLV Kalavryta, Ach 70.83 307** *e*P P 19 48 59.5 -2.2
**KLV Kalavryta, Ach 70.83 307** P P 19 48 59.5 -2.2
**VAY Valandovo 70.84 311** *e*P P 19 49 00.0 -1.6
**VAY Valandovo 70.84 311** *e*P P 19 49 00.0 -1.6
**VAY Valandovo 70.84 311** P P 19 49 00.0 -1.6
**VAY Valandovo 70.84 311** *e*P P 19 49 01.1 -0.5
**CJR Cluj-Napoca 70.84 317**⇑ *i*P P 19 49 02.0 +0.4
**KALE Kalithea 70.87 308** *e*P P 19 49 00.0 -1.9
**KALE Kalithea 70.87 308** P P 19 49 00.0 -1.9
**GRG Griva 70.93 311** *e*P P 19 49 00.9 -1.3
**GRG Griva 70.93 311** *e*P P 19 49 00.9 -1.3
**GRG Griva 70.93 311** P P 19 49 00.9 -1.3
**ITM Ithomi 70.94 307** P P 19 49 01.2 -1.1
**SERG Sergoula 70.94 308** P P 19 49 00.5 -1.8
**IIGN Ignalina 70.97 326** *e*P P 19 49 02.0 -0.1
IIGN IAmb IAmb 19 49 03.3
comp=Z,11nm,0.7s
**EFP Efpalio 71.06 308** P P 19 49 00.9 -2.0
**IZAR Zarasai 71.06 326** *e*P P 19 49 02.0 -0.6
IZAR IAmb IAmb 19 49 03.7
comp=Z,10nm,0.7s
**PYL PYLOS 71.06 306** *e*P P 19 49 01.2 -1.8
**PYL PYLOS 71.06 306** P P 19 49 01.2 -1.8
**ANX Ano Chora 71.06 308** P P 19 49 01.9 -1.2
**ISAL Salakas 71.08 326** *e*P P 19 49 02.0 -0.7
ISAL IAmb IAmb 19 49 04.0
comp=Z,28nm,1.2s
**THL Klokotos Trika 71.08 309** P P 19 49 00.9 -2.1
**LVV L'vov 71.09 320** *e*P P 19 49 01.7 -1.2
**AMT Artemida-Makis 71.14 307** P P 19 49 02.0 -1.5
**DRO Drossia 71.17 307** P P 19 49 03.2 -0.5
**EVR Evrytania 71.18 308** P P 19 49 02.1 -1.7
**KZN Kozani 71.34 310** P P 19 49 04.0 -0.7
**RLS Riolos of Patr 71.37 307** P P 19 49 04.2 -0.6
**HERR Herculane 71.39 315**⇑ *i*P P 19 49 04.9 0.0
**DRGR 71.46 317**⇑ *i*P P 19 49 05.5 +0.2
**VSU Vasula 71.51 329***d i*P P 19 49 05.2 0.0
VSU pmax pmax
comp=Z,124nm,1.0s
**PDO Prodromos 71.64 308** P P 19 49 05.6 -0.9
**FNA Florina 71.69 310** P P 19 49 05.2 -1.6
**TRPA Tarpa 71.78 318**⇑ *e*P P 19 49 07.3 +0.2
**APA Apatity 71.82 339**⇑ *i*P P 19 49 06.2 -0.7
APA pmax pmax
comp=Z,23nm,1.0s
APA MLR MLR
comp=Z,3μm,15.0s
**KRUS Krusevo 71.84 311** *e*P P 19 49 06.4 -1.4
**MDVR Molovita 71.88 315**⇑ *i*P P 19 49 07.6 -0.2
**KWP Kalwaria Pacla 71.90 320** *e*P P 19 49 08.4 +0.6
**KWP Kalwaria Pacla 71.90 320** *e*P P 19 49 08.4 +0.6
**UZH Uzhgorod 72.02 319** *e*P P 19 49 08.0 -0.5
UZH *e* 19 49 14.6
UZH *e* 19 49 24.4
**BZS Buzias 72.05 315**⇑ *i*P P 19 49 09.1 +0.3
**LKD2 Lefkada island 72.06 308** P P 19 49 08.0 -1.0
**VLS Valsamata 72.07 308** P P 19 49 08.2 -0.9
**OHR Ohrid 72.15 311** *e*P P 19 49 07.5 -2.0
**IGT Igoumenitsa 72.37 309** *e*P P 19 49 09.2 -1.7
**IGT Igoumenitsa 72.37 309** *e*P P 19 49 09.2 -1.7
**IGT Igoumenitsa 72.37 309** P P 19 49 09.2 -1.7
**SUW Suwalki 72.40 324** *e*P P 19 49 10.2 -0.4
**SUW Suwalki 72.40 324** *e*P P 19 49 10.3 -0.4
**CRVS Cervenica-Dubn 72.60 319** *e*P P 19 49 12.5 +0.5
**CRVS Cervenica-Dubn 72.60 319** *e*P P 19 49 12.5 +0.5
**FIA1 FINESS Array S 72.64 332** *e*P P 19 49 11.4 -0.6
**FIA0 FINESS Array S 72.64 332** *e*P P 19 49 11.7 -0.3
**FIA0 FINESS Array S 72.64 332** *e*P P 19 49 11.7 -0.3
**FINES FINESS Array B 72.64 332** P P 19 49 11.7 -0.3
comp=Z,36nm,0.7s,baz=98,slow=6.2,SNR=119
**FINES FINESS Array B 72.64 332** *i*P P 19 49 11.6 -0.4
FINES pmax pmax
comp=Z,36nm,0.7s
**KEK Kerkira 72.80 309** P P 19 49 12.1 -1.3
**STHS Stebnicka Huta 72.81 319** *e*P P 19 49 14.0 +0.7
STHS pmax pmax
comp=Z,9.0nm,1.0s
**STHS Stebnicka Huta 72.81 319** *e*P P 19 49 14.0 +0.7
**DIVS Divbare 73.03 314** *e*P P 19 49 13.7 -1.1
comp=Z,13nm,1.3s
**KECS Kecovo 73.18 318** *e*P P 19 49 15.7 +0.2
KECS pmax pmax
comp=Z,5.0nm,0.8s
**KECS Kecovo 73.18 318** *e*P P 19 49 15.7 +0.2
**PDG Podgorica 73.42 312**⇑ *i*P P 19 49 16.1 -0.8
**TTG Podgorica 73.42 312** *e*P P 19 49 16.3 -0.6
TTG pmax pmax
comp=Z,121nm,1.9s
**TTG Podgorica 73.42 312** *e*P P 19 49 16.3 -0.6
comp=Z,121nm,1.9s
**NIE Niedzica 73.42 319** *e*P P 19 49 17.6 +0.7
**NIE Niedzica 73.42 319** *e*P P 19 49 17.6 +0.7
**BEL Belsk 73.45 322** *e*P P 19 49 17.5 +0.5
**BEL Belsk 73.45 322** *e*P P 19 49 17.5 +0.5
**PSZ Piszkesteto 73.51 318** *e*P P 19 49 16.4 -1.1
PSZ pmax pmax
comp=Z,103nm,1.8s
**PSZ Piszkesteto 73.51 318**⇓ *e*P P 19 49 24.2 +6.7
**PSZ Piszkesteto 73.51 318** *e*P P 19 49 16.4 -1.1
comp=Z,103nm,1.8s
**OJC Ojcow 73.85 320** *e*P P 19 49 19.7 +0.3
**OJC Ojcow 73.85 320** *e*P P 19 49 19.7 +0.3
**OJC Ojcow 73.85 320** *e*P P 19 49 18.4 -1.0
comp=Z,38nm,1.1s
**LANS Liptovska Anna 73.93 319** *e*P P 19 49 20.1 +0.2
**LANS Liptovska Anna 73.93 319** *e*P P 19 49 20.1 +0.2
**LBTB Lobatse 73.96 241** *e*P P 19 49 21.5 +0.9
LBTB pmax pmax
comp=Z,35nm,0.9s
**LBTB Lobatse 73.96 241** *e*P P 19 49 21.5 +0.9
comp=Z,35nm,0.9s
**VYHS Vyhne 74.27 318** *e*P P 19 49 21.9 0.0
VYHS pmax pmax
comp=Z,7.0nm,1.1s
**VYHS Vyhne 74.27 318** *e*P P 19 49 21.8 -0.1
**CSKK Cs˘ˇtkako 74.55 317**⇑ *e*P P 19 49 23.9 +0.4
**OKC Ostrava-Krasne 74.86 319** *e*P P 19 49 25.9 +0.6
**OKC Ostrava-Krasne 74.86 319** *e*P P 19 49 25.9 +0.6
**BLY Banja Luka 75.09 314** *e*P P 19 49 26.4 -0.3
comp=Z,51nm,1.6s
**ARA0 ARCESS Array S 75.24 340** *e*P P 19 49 27.5 +0.4
**ARCES ARCESS Array B 75.24 340** P P 19 49 27.5 +0.4
comp=Z,11nm,0.8s,baz=100,slow=7.1,SNR=11
**ARCES ARCESS Array B 75.24 340** *e*P P 19 49 25.9 -1.2
**ARCES ARCESS Array B 75.24 340** *e*P P 19 49 25.9 -1.2
**MODS Modra-Piesok 75.30 318** *e*P P 19 49 27.6 -0.3
**MODS Modra-Piesok 75.30 318** *e*P P 19 49 27.5 -0.3
**BOSA Boshof 75.31 238** P P 19 49 29.7 +1.4
comp=Z,18nm,0.6s,baz=82,slow=3.7,SNR=37
BOSA LR LR 20 18 34.0
comp=Z,85nm,19.3s,baz=65,slow=32
**BOSA Boshof 75.31 238** *e*P P 19 49 29.5 +1.1
BOSA pmax pmax
comp=Z,99nm,1.4s
**BOSA Boshof 75.31 238** *e*P P 19 49 29.4 +1.1
comp=Z,99nm,1.4s
**BEHE Becsehely 75.49 316**⇓ *e*P P 19 49 29.8 +0.9
**SOP Sopron 75.72 317**⇑ *e*P P 19 49 30.9 +0.7
**KRLC Kraliky 75.76 320** *e*P P 19 49 31.4 +0.9
**KRLC Kraliky 75.76 320** *e*P P 19 49 31.4 +0.9
**VRAC Vranov 75.82 319**⇑ *i*P P 19 49 31.1 +0.3
**CUC Castrocucco 75.87 309** *e*P P 19 49 30.7 -0.6
comp=Z,13nm,1.3s
**DPC Dobruska-Polom 76.08 320** *e*P P 19 49 33.0 +0.7
DPC *ex* x 19 49 38.0
**DPC Dobruska-Polom 76.08 320** *e*P P 19 49 33.0 +0.7
DPC *e* 19 49 38.0
**KSP Ksiaz 76.14 320** *e*P P 19 49 33.5 +0.9
**KSP Ksiaz 76.14 320** *e*P P 19 49 33.4 +0.9
**CONA Conrad Observa 76.21 317** *e*P P 19 49 33.6 +0.5
comp=Z,10nm,1.2s
**BILL Bilibino 76.26 22***c i*P P 19 49 33.0 +0.1
BILL *i* *PP **pP** 19 49 41.2 -1.1
BILL *e* 19 49 44.4
BILL *e**SP **sP** 19 49 50.5 +4.7
BILL SSS SSS 20 07 23.0
BILL pmax pmax
comp=Z,33nm,1.3s
BILL MLR MLR
comp=Z,447nm,16.0s
**UPC Upice 76.29 320** *e*P P 19 49 34.4 +1.0
**UPC Upice 76.29 320** *e*P P 19 49 34.4 +1.0
**ARSA Arzberg 76.40 317** *e*P P 19 49 34.9 +0.7
comp=Z,38nm,1.6s,SNR=8.8
**BOJS Bojanci 76.50 315** *i*P P 19 49 34.6 -0.1
**TREC Trest 76.54 319** *e*P P 19 49 35.4 +0.5
**TREC Trest 76.54 319** *e*P P 19 49 35.4 +0.5
**PERS Pernice 76.64 316** *i*P P 19 49 35.8 +0.2
**SOKA Soboth 76.70 316** *e*P P 19 49 36.4 +0.5
comp=Z,42nm,1.6s,SNR=14
**VISS Visnje 76.80 315** *i*P P 19 49 36.3 -0.1
**DZM Mont Dzumac 77.02 115** *e*P P 19 49 38.9 +0.7
comp=Z,42nm,1.6s
**DZM Mont Dzumac 77.02 115** *e*LR LR 20 13 39.8
comp=Z,456nm,25.4s
**OBKA Obir 77.03 316** *e*P P 19 49 38.3 +0.5
comp=Z,20nm,1.1s
**GOPC GO Pecny, Ondr 77.04 319** *e*P P 19 49 38.4 +0.7
**GOPC GO Pecny, Ondr 77.04 319** *e*P P 19 49 38.4 +0.7
**PRU Pruhonice 77.20 319** *e*P P 19 49 39.2 +0.6
PRU *ep*P **pP** 19 49 44.2 -3.8
**PRU Pruhonice 77.20 319** *e*P P 19 49 39.2 +0.6
PRU *e* 19 49 44.2
**PVCC Panska Ves 77.21 320** *e*P P 19 49 39.6 +1.0
**PVCC Panska Ves 77.21 320** *e*P P 19 49 39.6 +1.0
**MOA Molln 77.28 317** *e*P P 19 49 39.5 +0.4
comp=Z,22nm,1.2s
**JAVS Javornik 77.34 315** *i*P P 19 49 39.8 +0.2
**BRG Berggiesshubel 77.63 320** *e*P P 19 49 40.5 -0.4
comp=Z,58nm,1.8s
BRG *e*PP **PP** 19 52 39.1 +3.0
comp=Z,35nm,1.9s
BRG *e*PKKS 20 11 57.8
comp=Z,7.6nm,1.2s
**BRG Berggiesshubel 77.63 320** *e*P P 19 49 40.5 -0.4
BRG *e* 19 52 39.1
BRG pmax pmax
comp=Z,58nm,1.8s
BRG pmax pmax
comp=Z,35nm,1.9s
**MYKA Terra Mystica 77.66 316** *e*P P 19 49 41.5 +0.2
comp=Z,35nm,1.7s,SNR=6.3
**GEA0 GERESS Array S 77.69 318** *e*P P 19 49 41.4 -0.1
**GEC2 GERESS Array S 77.69 318** *e*P P 19 49 41.3 -0.2
GEC2 pmax pmax
comp=Z,18nm,0.7s
**GEC2 GERESS Array S 77.69 318** *e*P P 19 49 41.3 -0.2
comp=Z,18nm,0.7s
**GERES GERESS Array B 77.69 318** P P 19 49 41.7 +0.2
comp=Z,13nm,0.7s,baz=86,slow=5.5,SNR=79
GERES pP **pP** 19 49 49.5 -1.5
comp=Z,8.6nm,0.7s,baz=86,slow=6.4,SNR=15
**KHC Kasperske Hory 77.79 319** *e*P P 19 49 41.8 -0.1
KHC *ex* x 19 49 47.2
**KHC Kasperske Hory 77.79 319** *e*P P 19 49 41.8 -0.1
KHC *e* 19 49 47.2
**KHC Kasperske Hory 77.79 319** *e*P P 19 49 41.5 -0.4
comp=Z,3.9nm,0.8s
**KBA Koelnbreinsper 77.87 316** *e*P P 19 49 42.4 -0.3
comp=Z,22nm,1.1s,SNR=5.1
**CLL Collm 78.24 321** *i*P P 19 49 44.5 +0.2
CLL *i* 19 49 52.1
CLL pmax pmax
comp=Z,40nm,1.6s
**CLL Collm 78.24 321** *i*P P 19 49 44.5 +0.2
comp=Z,40nm,1.6s
CLL *i* (pP) **pP** 19 49 52.1 -1.7
CLL *e*PP **PP** 19 52 43.0 +1.8
CLL LmV 20 31 00.0
comp=Z,200nm,20.5s
**CLL Collm 78.24 321** *e*P P 19 49 44.3 0.0
comp=Z,37nm,1.5s
**MAW Mawson 78.41 192** P P 19 49 46.6 +1.9
comp=Z,5.3nm,0.6s,baz=23,slow=4.9,SNR=16
**MAW Mawson 78.41 192** P P 19 49 46.6 +1.9
baz=78,SNR=9.1
**NKC Novy Kostel 78.56 320** *e*P P 19 49 46.9 +0.8
**NKC Novy Kostel 78.56 320** *e*P P 19 49 46.9 +0.8
**WTTA Wattenberg 79.04 317** *i*P P 19 49 48.7 -0.3
comp=Z,25nm,1.0s,SNR=7.1
**WATA Walderalm 79.08 317** *i*P P 19 49 48.4 -0.9
comp=Z,22nm,1.0s
**GRFO Grafenberg 79.34 319** *e*P P 19 49 50.7 +0.3
GRFO pmax pmax
comp=Z,104nm,1.8s
**GRFO Grafenberg 79.34 319** *e*P P 19 49 50.7 +0.3
comp=Z,104nm,1.8s
**MOTA Moosalm 79.41 317** *e*P P 19 49 50.6 -0.4
comp=Z,32nm,1.1s
**NC405 NORSAR Array S 79.42 331** *e*P P 19 49 49.9 -0.7
**NC602 NORSAR Array S 79.48 330** *e*P P 19 49 50.6 -0.4
**NC303 NORSAR Array S 79.59 331** *e*P P 19 49 51.0 -0.5
**RETA Reutte 79.64 317** *i*P P 19 49 52.2 0.0
comp=Z,21nm,0.6s,SNR=5.3
**NB2 NORSAR Subarra 79.66 331** P P 19 49 51.3 -0.7
comp=Z,22nm,1.1s,baz=95,slow=5.3
**NB2 NORSAR Subarra 79.66 331** P P 19 49 51.3 -0.7
baz=95,slow=5.3
**NB200 NORSAR Array S 79.66 331** *e*P P 19 49 51.5 -0.4
NB200 *ep*wP **PcP** 19 49 59.3 -0.4
**NOA NORSAR Array B 79.66 331** P P 19 49 51.5 -0.4
comp=Z,17nm,0.8s,baz=93,slow=5.5,SNR=29
NOA pP **PcP** 19 49 59.3 -0.4
comp=Z,10nm,0.6s,baz=95,slow=5.0,SNR=12
**FETA Feichten 79.66 316** *e*P P 19 49 52.5 0.0
comp=Z,20nm,0.9s
**NAO01 NORSAR Array S 79.81 330** *e*P P 19 49 52.1 -0.7
**NBO02 NORSAR Array S 79.83 331** *e*P P 19 49 52.6 -0.3
**NC204 NORSAR Array S 79.89 331** *e*P P 19 49 53.2 -0.1
**FUORN Ofenpass-Fuorn 79.99 316** *e*P P 19 49 54.6 +0.3
comp=Z,110nm,1.8s
**DAVA Damuels 80.24 317** *i*P P 19 49 55.9 +0.3
comp=Z,30nm,1.2s,SNR=6.6
**KONO Kongsberg 80.42 329**⇑ *i*P P 19 49 55.6 -0.4
KONO pmax pmax
comp=Z,316nm,1.2s
**KONO Kongsberg 80.42 329** *e*P P 19 49 56.3 +0.3
comp=Z,88nm,1.4s
**MUD Monsted U'grnd 80.61 326** *e*P P 19 49 58.4 +1.3
MUD pmax pmax
comp=Z,71nm,1.3s
**MUD Monsted U'grnd 80.61 326** *i*P P 19 49 58.4 +1.3
comp=Z,71nm,1.3s
**TUE Stuetta 80.62 316** *e*P P 19 49 57.5 -0.2
comp=Z,123nm,1.9s
**KBS Kingsbay 80.84 349**⇑ *e*P P 19 49 58.3 +0.3
**KEST Kesra 81.05 305** P P 19 50 01.4 +1.3
comp=Z,12nm,0.8s,baz=78,slow=1.4,SNR=9.2
KEST LR LR 20 32 19.3
comp=Z,73nm,18.7s,baz=321,slow=40
**KEST Kesra 81.05 305** *e*P P 19 50 00.5 +0.4
comp=Z,66nm,1.5s
**BFO Black Forest 81.26 318** *i*P P 19 50 01.5 +0.7
**BFO Black Forest 81.26 318** *e*P P 19 50 00.2 -0.6
comp=Z,15nm,1.1s
**SENIN Lac Senin/Sane 82.04 316** *e*P P 19 50 05.2 -0.1
comp=Z,92nm,1.8s
**BNI Bardonecchia 82.55 314** *e*P P 19 50 08.1 +0.3
BNI pmax pmax
comp=Z,13nm,0.9s
**BNI Bardonecchia 82.55 314** *e*P P 19 50 08.1 +0.3
comp=Z,13nm,0.9s
**SSB Saint Sauveur 84.04 315** *e*P P 19 50 15.0 -0.4
SSB pmax pmax
comp=Z,17nm,1.0s
**SSB Saint Sauveur 84.04 315** *e*P P 19 50 15.0 -0.4
comp=Z,17nm,1.0s
**SYO Syowa Base 85.25 197**⇑ *e*P P 19 50 21.0 +0.2
**SYO Syowa Base 85.25 197**⇓ *e*PCP **PcP** 19 50 24.6 +0.7
**TAM Tamanrasset 85.50 292** *e*P P 19 50 24.7 +1.4
TAM pmax pmax
comp=Z,87nm,1.9s
**TAM Tamanrasset 85.50 292** *e*P P 19 50 24.7 +1.4
comp=Z,87nm,1.9s
**RPZ Rata Peaks 86.19 135** LR LR 20 29 38.5
comp=Z,190nm,21.3s,baz=277,slow=36
**DAG Danmarks Havn 87.49 348** *i*P P 19 50 31.3 -0.5
**DAG Danmarks Havn 87.49 348** *i*P P 19 50 31.3 -0.5
**BKZ Black Stump Fm 89.20 130** *e*P P 19 50 39.5 -1.2
comp=Z,44nm,1.6s
**URZ Urewera 89.51 129** LR LR 20 31 22.2
comp=Z,230nm,20.9s,baz=293,slow=36
**TOA0 Torodi Ar. Sit 90.34 283** *e*P P 19 50 47.6 +1.1
comp=Z,36nm,1.4s

TORD Torodi Ar. Bea 90.34 283 P P 19 50 47.8 +1.4
comp=Z,9.8nm,1.0s,baz=88,slow=4.6,SNR=36
TORD PP PP 19 54 24.0 +3.1
comp=Z,1.0nm,1.0s,baz=82,slow=7.3,SNR=3.6
TORD LR LR 20 31 14.0
comp=Z,222nm,18.6s,baz=250,slow=36
TOA1 Torodi Ar. Sit 90.34 283 eP P 19 50 47.8 +1.4
TOA1 ePP PP 19 54 24.0 +3.1
ES19 SONSECA Array 91.00 310 eP P 19 50 49.3 +0.2
ESDC Sonseca Array 91.05 310 P P 19 50 50.0 +0.6
comp=Z,3.5nm,0.5s,baz=63,slow=4.2,SNR=31
IMAR Indian Mountai 91.81 22 eP P 19 50 52.4 +0.1
RAO Raoul Island 92.22 119 LR LR 20 33 35.2
comp=Z,84nm,20.1s,baz=104,slow=36
COLD Coldfoot 92.56 21 eP P 19 50 56.5 +0.8
comp=Z,39nm,2.0s
VNDA Vanda 92.91 168 P P 19 50 57.3 +0.3
comp=Z,0.9nm,0.4s,baz=310,slow=5.7,SNR=9.1
VNDA LR LR 20 30 17.4
comp=Z,167nm,18.3s,baz=312,slow=34
VNDA Vanda 92.91 168 eP P 19 50 57.3 +0.3
VNDA pmax pmax
comp=Z,20nm,1.9s
VNDA Vanda 92.91 168 eP P 19 50 57.3 +0.3
comp=Z,20nm,1.9s
SVW2 Sparrevohn 92.94 27 eP P 19 50 58.8 +1.2
comp=Z,30nm,1.4s
MLY Manley 93.35 23 eP P 19 50 59.9 +0.4
comp=Z,23nm,1.5s
CAST Castle Rocks 93.52 24 eP P 19 51 00.7 +0.4
comp=Z,23nm,0.9s
BPAW Bear Paw Mtn. 93.66 23 eP P 19 51 01.7 +0.8
comp=Z,23nm,1.0s
SBA Scott Base 94.02 168 eP P 19 51 03.1 +1.0
SBA pmax pmax
comp=Z,36nm,1.9s
SBA Scott Base 94.02 168 eP P 19 51 03.1 +1.0
comp=Z,36nm,1.9s
SUMG Summit 94.15 347 i P P 19 51 04.2 +0.8
SUMG Summit 94.15 347 i P P 19 51 04.2 +0.8
MCK McKinley 94.64 23 eP P 19 51 05.7 +0.3
MCK pmax pmax
comp=Z,30nm,1.4s
MCK McKinley 94.64 23 eP P 19 51 05.7 +0.3
comp=Z,30nm,1.4s
IL1 Eielson Array 94.92 22 eP P 19 51 05.1 -1.5
ILAR Eielson Array 94.92 22 P P 19 51 06.8 +0.2
comp=Z,1.5nm,0.8s,baz=307,slow=4.8,SNR=15
ILAR PP PP 19 54 54.6 -0.7
comp=Z,0.9nm,0.9s,baz=296,slow=7.5,SNR=5.0
ILAR PKKP PKKPdf 20 08 01.3 -2.6
comp=Z,0.5nm,0.8s,baz=130,slow=2.6,SNR=4.4
ILAR LR LR 20 37 19.0
comp=Z,193nm,19.0s,baz=310,slow=38
ILB Eielson Array 94.92 22 eP P 19 51 06.4 -0.2
SUA Susitna One 94.92 26 eP P 19 51 06.8 0.0
comp=Z,22nm,0.9s
TULEG Thule 95.20 356 eP P 19 51 07.5 -0.1
comp=Z,23nm,1.5s
KDAK Kodiak Island 95.64 30 i P P 19 51 10.8 +0.8
INK Inuvik 97.14 16 P Pdif 19 51 16.9 +0.2
comp=Z,8.3nm,1.1s,baz=319,slow=5.8,SNR=11
INK Inuvik 97.14 16 eP P 19 51 16.6 0.0
INK pmax pmax
comp=Z,19nm,1.3s
INK Inuvik 97.14 16 eP P 19 51 16.6 0.0
comp=Z,19nm,1.3s
DBIC Dimbokro 97.67 278 P Pdif 19 51 21.5 +1.3
comp=Z,3.6nm,0.8s,baz=54,slow=3.6,SNR=4.8
DBIC LR LR 20 35 41.3
comp=Z,386nm,18.5s,baz=57,slow=36
DBIC Dimbokro 97.67 278 eP P 19 51 19.5 -0.7
DBIC pmax pmax
comp=Z,20nm,1.3s
DBIC Dimbokro 97.67 278 eP P 19 51 19.5 -0.7
comp=Z,20nm,1.3s
YKA Yellowknife Ar 106.56 13 PP PP 19 56 19.5 -3.6
comp=Z,1.0nm,0.8s,baz=332,slow=6.8,SNR=4.4
YKA PKKPbc PKKPbc 20 07 28.4 -2.9
comp=Z,0.5nm,0.6s,baz=150,slow=3.3,SNR=4.0
YKB5 Yellowknife Ar 106.56 13 ePP PP 19 56 19.6 -3.6
YKB5 ePKKPbc PKKPbc 20 07 28.4 -2.9
TBI Tubuai 117.52 112 eLR LR 20 32 30.2
comp=Z,180nm,25.0s
PPT2 Papeete2 117.59 106 eLR LR 20 32 28.7
comp=Z,218nm,34.2s
MSO Missoula 120.25 22 ePKPdf PKPdf 19 56 35.3 -0.7
EGMT Eagleton 120.64 18 ePKPdf PKPdf 19 56 36.2 -0.5
ULM Lac du Bonnet 121.58 7 PKP PKPdf 19 56 38.2 -0.1
comp=Z,5.3nm,0.7s,baz=39,slow=1.5,SNR=5.9
BOZ Bozeman (W) 122.14 21 ePKIKP PKPdf 19 56 38.6 -1.1
BOZ Bozeman (W) 122.14 21 ePKPdf PKPdf 19 56 38.6 -1.1
HLID Hailey 122.81 24 ePKPdf PKPdf 19 56 41.6 +0.5
YHB Horse Butte 123.03 21 ePKPdf PKPdf 19 56 41.7 +0.1
YHH Holmes Hill 123.12 21 ePKPdf PKPdf 19 56 41.2 -0.6
YHH ePP PP 19 58 21.2 +0.7
YMR Madison River 123.18 21 ePKPdf PKPdf 19 56 43.3 +1.5
YMR ePP PP 19 58 19.3 -1.5
H17A Grant Village 123.56 21 ePKPdf PKPdf 19 56 44.7 +2.1
H17A ePP PP 19 58 25.1 +1.7
FXWY Fox Creek 124.05 22 ePKPdf PKPdf 19 56 43.8 +0.2
FXWY ePP PP 19 58 24.5 -2.2
MOOW Moose Ponds 124.06 21 ePKPdf PKPdf 19 56 43.8 +0.2
MOOW ePP PP 19 58 27.5 +0.8
TPAW Teton Pass 124.20 22 ePKPdf PKPdf 19 56 44.5 +0.6
TPAW ePP PP 19 58 28.4 +0.7
LOHW Long Hollow 124.23 21 ePKPdf PKPdf 19 56 44.3 +0.4
LOHW ePP PP 19 58 27.9 +0.1
SNOW Snow King Moun 124.30 22 ePKPdf PKPdf 19 56 45.0 +0.9
SNOW ePP PP 19 58 29.0 +0.6
REDW Red Top Meadow 124.35 22 ePKPdf PKPdf 19 56 45.1 +0.9
REDW ePP PP 19 58 23.7 -5.0
KVN Kaiserville 124.75 30 ePKIKP PKPdf 19 56 45.3 +0.3
KVN e 19 58 31.6
KVN Kaiserville 124.75 30 ePKPdf PKPdf 19 56 45.3 +0.3
KVN ePP PP 19 58 31.6 0.0
HVU Hansel Valley 124.96 24 ePKIKP PKPdf 19 56 45.9 +0.6
HVU e 19 58 29.3
HVU Hansel Valley 124.96 24 ePKPdf PKPdf 19 56 45.9 +0.6
HVU ePP PP 19 58 29.3 -3.4
LMCR Lookout Mounta 125.33 32 ePKPpre PKPpre 19 56 36.8
BW06 Boulder Array 125.34 21 ePKPdf PKPdf 19 56 45.6 -0.4
PD31 Pinedale Array 125.34 21 ePKPdf PKPdf 19 56 45.2 -0.8
PDAR Pinedale Array 125.34 21 PKP PKPdf 19 56 45.2 -0.8
comp=Z,6.5nm,1.1s,baz=22,slow=1.6,SNR=14
PDAR Pinedale Array 125.34 21 ePKPdf PKPdf 19 56 42.8 -3.2
MCMM Convict Lake 125.45 32 ePKPpre PKPpre 19 56 34.6
BGU Big Grassy Mou 125.57 25 ePKPdf PKPdf 19 56 46.4 -0.1
HWUT Hardware Ranch 125.59 23 ePKPdf PKPdf 19 56 45.8 -0.7
E39A Mellen 125.92 4 P PKPdf 19 56 47.2 +0.5
baz=355
F36A Milaca 126.17 6 P PKPdf 19 56 47.2 0.0
baz=351
DUG Dugway, Tooele 126.27 25 ePKIKP PKPdf 19 56 48.8 +1.0
DUG Dugway, Tooele 126.27 25 ePKPdf PKPdf 19 56 48.8 +1.0
CTU Camp Tracy 126.29 24 ePKPdf PKPdf 19 56 46.9 -1.0
F39A Loretta 126.36 4 P PKPdf 19 56 47.9 +0.3
baz=354
R11A Troy Canyon, C 126.53 29 ePKPdf PKPdf 19 56 49.3 +0.9
NLU North Lily Min 126.78 25 ePKPdf PKPdf 19 56 49.1 +0.2
TPNV Topopah Spring 127.30 30 ePKIKP PKPdf 19 56 47.2 -2.7
TPNV Topopah Spring 127.30 30 ePKPdf PKPdf 19 56 47.2 -2.7
TMUT Trail Mountain 127.69 25 ePKPdf PKPdf 19 56 48.1 -2.7
BTPC Burnt Peak 127.80 34 ePKPpre PKPpre 19 56 40.4
P18A Preston Nutter 127.80 24 ePKPdf PKPdf 19 56 51.1 +0.2
ECSD EROS Data Cent 127.84 10 ePKPdf PKPdf 19 56 50.6 0.0
O20A White River Ci 128.12 22 ePKPpre PKPpre 19 56 45.2
O20A ePKPdf PKPdf 19 56 51.5 0.0
CCUT Cedar City 128.21 28 ePKPdf PKPdf 19 56 51.6 -0.1
GSC Goldstone, Bar 128.29 32 ePKIKP PKPdf 19 56 49.6 -2.1
GSC Goldstone, Bar 128.29 32 ePKPdf PKPdf 19 56 49.6 -2.1
SZCU Shurtz Canyon 128.30 27 ePKPdf PKPdf 19 56 52.2 +0.4
MTPU Mount Pierson 128.33 26 ePKPdf PKPdf 19 56 53.1 +1.0
LCMT Little Creek M 128.70 28 ePKPdf PKPdf 19 56 53.7 +1.1
KNB Kanab 128.89 27 ePKIKP PKPdf 19 56 54.3 +1.3
KNB Kanab 128.89 27 ePKPdf PKPdf 19 56 54.3 +1.3
SMCO Snowmass 129.42 21 ePKPdf PKPdf 19 56 54.2 0.0
PV05 Paradox Valley 129.59 24 ePKPdf PKPdf 19 56 54.9 +0.6
S22A 4UR Ranch, Cre 130.74 22 ePKPdf PKPdf 19 56 57.1 +0.5
MVL Millersville 131.59 350 ePKPdf PKPdf 19 56 58.1 +0.4
ANMO Albuquerque 133.35 23 ePKIKP PKPdf 19 57 01.4 -0.1
ANMO Albuquerque 133.35 23 ePKPdf PKPdf 19 57 01.4 -0.1
HHAR Hobbs 135.55 9 ePKPdf PKPdf 19 57 03.9 -1.4
MSTX Muleshoe 135.57 20 ePKPdf PKPdf 19 57 04.5 -1.1
MNTX Cornudas Mount 136.63 24 ePKPdf PKPdf 19 57 07.4 -0.1
MIAR Mount Ida 137.30 9 ePKIKP PKPdf 19 57 08.9 +0.3
MIAR Mount Ida 137.30 9 ePKPdf PKPdf 19 57 08.9 +0.3
LTX Lajitas 139.41 24 ePKIKP PKPdf 19 57 12.8 +0.1
LTX e 20 00 05.7
LTX Lajitas 139.41 24 ePKPdf PKPdf 19 57 12.8 +0.1
LTX ePP PP 20 00 05.7 +0.2
LTX eSKPbc SKPbc 20 00 47.4 +1.1
TX31 Lajitas Ar. Si 139.41 24 ePKPpre PKPpre 19 57 06.5
TX31 ePKPdf PKPdf 19 57 12.6 -0.2
TXAR Lajitas Array 139.41 24 PKP PKPdf 19 57 12.8 +0.1
comp=Z,0.7nm,0.5s,baz=232,slow=1.4,SNR=11
TXAR PP PP 20 00 05.7 +0.2
comp=Z,1.2nm,1.1s,baz=0.0,slow=2.5,SNR=3.7
TXAR SKP 20 00 47.4
comp=Z,0.7nm,0.8s,baz=9.0,slow=2.7,SNR=5.2
JCT Junction City 139.75 18 ePKIKP PKPdf 19 57 13.9 +0.7
JCT Junction City 139.75 18 ePKPdf PKPdf 19 57 13.9 +0.7
BDFB Brasilia 141.91 255 PKP PKPdf 19 57 18.6 +1.1
comp=Z,6.7nm,0.9s,baz=346,slow=4.2,SNR=5.2
PLCA Paso Flores 144.38 201 PKP PKPdf 19 57 20.5 -0.7
comp=Z,14nm,1.1s,baz=174,slow=3.5,SNR=8.3
PLCA Paso Flores 144.38 201 ePKIKP PKPdf 19 57 20.9 -0.3
PLCA Paso Flores 144.38 201 ePKPdf PKPdf 19 57 20.9 -0.3
LNIG Linares 145.00 21 ePKPbc PKPab 19 57 21.7 -0.3
ZAIG Zacatecas 145.63 28 ePKPdf PKPab 19 57 25.0 +0.3
CPUP Villa Florida 146.99 233 PKPbc PKPbc 19 57 28.2 +0.3
comp=Z,12nm,0.8s,baz=89,slow=2.8,SNR=25
CPUP Villa Florida 146.99 233 ePKP2 PKPdf 19 57 26.7 +0.7
CPUP Villa Florida 146.99 233 ePKPdf PKPdf 19 57 26.7 +0.7
MTP Monte Pirata 147.21 322 ePKPdf PKPbc 19 57 28.1 -0.6
MTP ePKPbc PKPab 19 57 30.3 -0.1
HUMP Col San Antoni 147.35 322 ePKPdf PKPdf 19 57 27.4 +0.6
HUMP ePKPbc PKPab 19 57 30.2 -0.7
CELP Cerrillos 147.84 323 ePKPdf PKPdf 19 57 26.4 -1.3
CELP ePKPbc PKPbc 19 57 31.2 +0.7
MPR Mayaguez 148.06 324 ePKPdf PKPdf 19 57 27.0 -1.0
MPR ePKPbc PKPbc 19 57 31.2 +0.1
IDE Isla Desecheo 148.12 325 ePKPbc PKPbc 19 57 32.1 +0.8
TCA Tanti 149.13 218 eP PKPdf 19 57 30.7 +1.2
SDDR Presa de Saban 149.62 331 ePKPbc PKPbc 19 57 36.2 +1.1
SDDR ePKPab PKPab 19 57 41.5 +1.4
GO05 HualaæØ 149.94 204 ePKPbc PKPbc 19 57 35.2 -0.2
GO05 ePKPab PKPab 19 57 42.7 +1.7
GO05 HualaæØ 149.94 204 eP PKPbc 19 57 35.2 -0.2
LVIG Laguna Verde 150.84 20 ePKPbc PKPbc 19 57 38.2 +0.3
LVIG ePKPab sPKPdf 19 57 44.7 -0.9
APLL PUNTA DE LOS L 150.97 217⇓ eP PKPbc 19 57 38.6 +0.5
RTCV Cerro Valdivia 150.98 212 eP PKPbc 19 57 38.9 +0.8
PEL Peldehue 151.00 207 ePKIKP PKPbc 19 57 38.2 +0.1
PEL Peldehue 151.00 207 ePKPbc PKPbc 19 57 38.2 +0.1
AUSP Uspallata 151.13 210 eP PKPbc 19 57 39.8 +1.0
ROC1 El Roble 151.29 207 ePKPdf PKPdf 19 57 33.5 +0.5
ROC1 ePKPbc PKiKP 19 57 39.5 -0.1
ROC1 El Roble 151.29 207 eP PKPbc 19 57 39.3 +0.3
RTLS Leoncito 151.43 211 eP PKPbc 19 57 40.4 +1.0
CYA Choya 151.89 221 eP PKPbc 19 57 40.8 +0.6
ACLC CERRO LA CRUZ 151.92 218 eP PKPbc 19 57 41.1 +0.6
TLIG Tlapa 151.97 26 ePKPdf PKPdf 19 57 35.2 +0.9
TLIG ePKPbc PKiKP 19 57 41.9 +0.8
ACCO Cerro Coronel 152.26 213 eP PKPbc 19 57 41.9 +0.5
AHML Horco Molle 152.67 224 eP PKPbc 19 57 40.4 -1.6
PTGA Pitinga 152.98 284 ePKPdf PKPdf 19 57 36.3 +0.6
FSA Cafayete 153.55 224 eP PKPdf 19 57 37.6 +1.2
LCO Las Campanas 154.37 213 ePKPdf PKPdf 19 57 38.3 +0.6
LCO ePKPbc pPKPdf 19 57 47.0 -0.5
SAML Samuel 157.25 265 ePKPdf PKPdf 19 57 41.8 +0.3
SAML ePKPab PKPab 19 58 11.8 -0.9
LVC Limon Verde 157.83 227 ePKPdf PKPdf 19 57 42.6 +0.1
LVC ePKPab PKPab 19 58 14.8 -0.4
PB11 IPOC Station P 160.08 232 ePKPdf PKPdf 19 57 45.5 +0.6
PB11 ePKPab PKPab 19 58 26.0 +1.2
MNMC Minye Minye 160.38 233 ePKPdf PKPdf 19 57 44.0 -1.5
LPAZ La Paz 160.48 243 PKP PKPdf 19 57 47.3 +1.2
comp=Z,4.8nm,1.0s,baz=194,slow=4.2,SNR=11
LPAZ PKPab PKPab 19 58 28.2 +1.0
comp=Z,3.4nm,0.8s,baz=109,slow=6.0,SNR=5.7
LPAZ La Paz 160.48 243 ePKIKP PKPdf 19 57 46.0 -0.1
LPAZ e 19 58 27.0
LPAZ La Paz 160.48 243 ePKPdf PKPdf 19 57 46.0 -0.1
LPAZ ePKPab PKPab 19 58 27.0 -0.3
OTAV Otavalo 168.93 316 ePKPdf PKPdf 19 57 53.3 0.0
OTAV ePKPab PKPab 19 59 04.1 0.0

---

**JMA 02 19:47:11.6, 37.°58N×141.°60E, h48km±2km, M3.5, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JFK | Kawauchi | 0.61 | 250 | P | Pn | 19 47 24.2 | 0.0 |
| JFK | | | | S | Sn | 19 47 33.0 | -0.3 |
| JMM | Marumori | 0.70 | 294 | P | Pn | 19 47 25.4 | +0.1 |
| JMM | | | | S | Sn | 19 47 34.8 | -0.4 |
| ONAJ | Iwakimizuishiy | 0.80 | 233 | P | Pn | 19 47 26.5 | -0.1 |
| ONAJ | | | | S | Sn | 19 47 37.1 | -0.4 |
| JIO | Ouri | 0.90 | 347 | P | Pn | 19 47 27.9 | 0.0 |
| JIO | | | | S | Sn | 19 47 39.4 | -0.4 |
| JFT | Otama | 1.01 | 267 | P | Pn | 19 47 29.9 | +0.5 |
| JFT | | | | S | Sn | 19 47 43.1 | +0.6 |
| JOU | Okura | 1.08 | 317 | P | Pn | 19 47 30.5 | +0.1 |
| JOU | | | | S | Sn | 19 47 44.6 | +0.4 |
| JYS | Shirataka | 1.37 | 298 | P | Pn | 19 47 34.7 | +0.4 |
| JMK | Ichinoseki | 1.40 | 348 | P | Pn | 19 47 35.1 | +0.4 |
| JMK | | | | S | Sn | 19 47 52.2 | +0.1 |
| JFY | Yanaizu | 1.52 | 264 | P | Pn | 19 47 36.7 | +0.4 |
| JFY | | | | S | Sn | 19 47 55.3 | +0.4 |
| JYK | Kaneyama | 1.66 | 324 | P | Pn | 19 47 38.8 | +0.6 |
| MAT | Matsushiro | 2.91 | 250 | P | Pn | 19 47 56.6 | +1.3 |
| MAT | | | | eS | Sn | 19 48 32.5 | +3.5 |

---

*ISCJB **02** 19:49:47.1±0.9, 7.°9N±0.°1×94.°3E±0.°2, h18km, mb3.6/8, Error ellipse: s-maj=27.9km s-min=15.8km az=151.1*
*IDC **02** 19:49:48.5±1.0, 7.°79N×94.°03E, h19km±4km, mb3.5/7, mb1 3.6/8, mb1mx3.4/39, mbtmp3.5/8, ML3.2/1, Error ellipse: s-maj=49.3km s-min=16.8km az=56.0*
**ISC 02 19:49:48.8**±1.0**, 7.°8N**±0.°2×**94.°2E**±0.°2**, h18km, n12, σ1.s00**/14**, mb3.8**/8**, Nicobar Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CMAR | Chiang Mai Arr | 11.54 | 23 | Pn | Pn | 19 52 33.2 | +0.3 |
| | 0.1nm,0.3s,baz=216,slow=13,SNR=2.8 | | | | | | |
| H08S3 | Diego Garcia H | 26.51 | 235 | T | T | 20 22 09.9 | |
| | baz=54,slow=75,SNR=6.0 | | | | | | |
| H08S2 | Diego Garcia H | 26.51 | 235 | T | T | 20 22 06.4 | |
| | baz=54,slow=75,SNR=10 | | | | | | |
| H08S1 | Diego Carcia H | 26.53 | 235 | T | T | 20 22 06.6 | |
| | baz=54,slow=75,SNR=8.2 | | | | | | |
| MKAR | Makanchi Array | 40.14 | 347 | P | P | 19 57 22.8 | -1.0 |
| | 0.3nm,0.8s,baz=171,slow=9.8,SNR=2.9 | | | | | | |
| MKAR | | | | pP | pP | 19 57 28.4 | -1.0 |
| | 0.4nm,0.6s,baz=176,slow=8.1,SNR=3.5 | | | | | | |
| GEYT | Alibeck | 44.25 | 318 | P | P | 19 57 59.9 | +2.5 |
| | 3.3nm,0.6s,baz=146,slow=8.6,SNR=9.7 | | | | | | |
| KURBB | Kurchatov Arra | 44.60 | 346 | P | P | 19 57 59.6 | -0.3 |
| | 0.1nm,0.4s,baz=169,slow=5.4,SNR=2.8 | | | | | | |
| KURBB | | | | pP | pP | 19 58 05.0 | -0.5 |
| | 0.7nm,0.7s,baz=170,slow=7.2,SNR=5.1 | | | | | | |
| ZALV | Zalesovo Beam | 46.61 | 352 | P | P | 19 58 16.6 | +0.8 |
| | 0.6nm,0.4s,baz=170,slow=7.9,SNR=4.4 | | | | | | |
| WRA | Warramunga Arr | 48.22 | 126 | P | P | 19 58 28.9 | 0.0 |
| | 0.2nm,0.4s,baz=306,slow=8.3,SNR=5.3 | | | | | | |
| ASAR | Alice Springs | 49.87 | 130 | P | P | 19 58 41.3 | -0.2 |
| | 0.5nm,0.7s,baz=300,slow=6.7,SNR=7.1 | | | | | | |
| ASAR | | | | pP | pP | 19 58 47.6 | +0.5 |
| | 0.3nm,0.6s,baz=308,slow=7.1,SNR=3.1 | | | | | | |
| FINES | FINESS Array B | 72.76 | 332 | P | P | 20 01 15.1 | -0.8 |
| | 2.4nm,0.7s,baz=39,slow=10,SNR=3.5 | | | | | | |
| FINES | | | | pP | pP | 20 01 21.3 | -0.4 |
| | 2.4nm,0.7s,baz=205,slow=7.2,SNR=2.5 | | | | | | |
| GERES | GERESS Array B | 77.88 | 318 | P | P | 20 01 44.7 | -1.0 |
| | 0.2nm,0.4s,baz=249,slow=2.7,SNR=2.8 | | | | | | |
| GERES | | | | pP | pP | 20 01 51.5 | -0.1 |
| | 0.3nm,0.3s,baz=54,slow=2.3,SNR=3.8 | | | | | | |

---

*IDC **02** 19:52:06.5±1.2, 7.°53N×93.°73E, h0km, mb3.6/8, mb1 3.7/9, mb1mx3.6/38, mbtmp3.6/9, ML3.2/1, Error ellipse: s-maj=50.1km s-min=20.6km az=53.0*
*ISCJB **02** 19:52:10.0±0.9, 7.°6N±0.°1×93.°8E±0.°2, h35km, mb3.6/8, Error ellipse: s-maj=27.9km s-min=16.1km az=149.5*
**ISC 02 19:52:11.8**±1.2**, 7.°5N**±0.°2×**93.°8E**±0.°2**, h35km, n12, σ0.s52**/9**, mb3.5**/8**, Nicobar Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CMAR | Chiang Mai Arr | 11.97 | 24 | Pn | Pn | 19 55 00.4 | +0.3 |
| | 0.1nm,0.3s,baz=215,slow=15,SNR=6.5 | | | | | | |
| H08S3 | Diego Garcia H | 26.01 | 235 | T | T | 20 24 26.2 | |
| | baz=54,slow=76,SNR=7.0 | | | | | | |
| H08S2 | Diego Garcia H | 26.02 | 235 | T | T | 20 24 29.8 | |
| | baz=54,slow=76,SNR=8.7 | | | | | | |
| H08S1 | Diego Carcia H | 26.03 | 235 | T | T | 20 24 27.6 | |
| | baz=54,slow=76,SNR=10 | | | | | | |
| MKAR | Makanchi Array | 40.33 | 348 | P | P | 19 59 45.1 | -0.8 |
| | 0.2nm,0.7s,baz=179,slow=7.6,SNR=2.8 | | | | | | |
| GEYT | Alibeck | 44.20 | 319 | P | P | 20 00 17.9 | +0.3 |
| | 1.5nm,0.6s,baz=108,slow=9.3,SNR=3.9 | | | | | | |
| KURBB | Kurchatov Arra | 44.78 | 346 | P | P | 20 00 22.0 | 0.0 |
| | 0.3nm,0.7s,baz=168,slow=7.8,SNR=3.6 | | | | | | |
| ZALV | Zalesovo Beam | 46.84 | 353 | P | P | 20 00 37.5 | -0.7 |
| | 0.8nm,0.4s,baz=178,slow=6.8,SNR=4.9 | | | | | | |
| WRA | Warramunga Arr | 48.38 | 125 | P | P | 20 00 50.6 | 0.0 |
| | 0.4nm,0.8s,baz=305,slow=8.5,SNR=4.5 | | | | | | |
| ASAR | Alice Springs | 50.00 | 129 | P | P | 20 01 03.0 | 0.0 |
| | 0.3nm,0.7s,baz=321,slow=7.3,SNR=4.3 | | | | | | |
| FINES | FINESS Array B | 72.83 | 332 | P | P | 20 03 36.5 | -0.3 |
| | 3.3nm,1.0s,baz=112,slow=5.1,SNR=3.4 | | | | | | |
| GERES | GERESS Array B | 77.82 | 318 | P | P | 20 04 06.3 | +0.5 |
| | 0.3nm,0.5s,baz=112,slow=4.7,SNR=3.2 | | | | | | |

---

*ISCJB **02** 19:59:41.6±0.3, 7.°79N±0.°05×93.°96E±0.°05, h20km, mb4.1/26, Error ellipse: s-maj=8.7km s-min=4.8km az=137.8*
*IDC **02** 19:59:44.0±1.0, 7.°83N×94.°03E, h26km±5km, mb3.8/18, mb1 3.9/18, mb1mx3.8/52, mbtmp4.0/18, MS3.5/1, Ms1 3.5/1, ms1mx2.8/43, Error ellipse: s-maj=27.9km s-min=16.6km az=55.0*
*NEIC **02** 19:59:45.9±0.7, 7.°85N×94.°06E, h41km±6km, mb4.5/8, Error ellipse: s-maj=8.1km s-min=4.9km az=64.0*
**ISC 02 19:59:43.6**±0.5**, 7.°76N**±0.°07×**93.°97E**±0.°08**, h20km, n87, σ1.s29**/86**, mb4.3**/26**, Nicobar Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LHMI | Lhok Sumawe | 3.89 | 130 | ePn | Pn | 20 00 43.5 | +1.2 |
| PKDT | Phuket | 4.33 | 88 | P | Pn | 20 00 49.8 | +1.4 |
| SURT | Suratani | 4.92 | 76 | P | Pn | 20 00 58.7 | +2.2 |
| | 35nm,0.8s,503nm0.1nm | | | | | | |
| KRAB | Krabi | 5.20 | 85 | P | Pn | 20 01 03.0 | +2.7 |
| | 172nm,1.0s,182µm20nm | | | | | | |
| PSI | Prapat | 6.97 | 135 | ePn | Pn | 20 01 26.4 | +1.6 |
| KULM | Kulim | 7.08 | 110 | ePn | Pn | 20 01 26.8 | +0.6 |
| GSI | Gunungsitoli | 7.36 | 151 | ePn | Pn | 20 01 30.9 | +1.0 |
| IPM | Ipoh | 7.74 | 115 | ePn | Pn | 20 01 35.8 | +0.6 |
| CM01 | Chiang Mai Arr | 11.65 | 24 | ePn | Pn | 20 02 26.9 | -2.0 |
| CM31 | Chiang Mai Arr | 11.68 | 24 | ePn | Pn | 20 02 26.5 | -2.8 |
| CMAR | Chiang Mai Arr | 11.68 | 24 | Pn | Pn | 20 02 33.2 | +3.9 |
| | 0.1nm,0.3s,baz=212,slow=14,SNR=8.4 | | | | | | |
| CMAR | Chiang Mai Arr | 11.68 | 24 | Pn | Pn | 20 02 33.2 | +3.9 |
| CHTO | Chiang Mai | 12.00 | 23 | ePn | Pn | 20 02 35.5 | +1.8 |
| PALK | Pallekele | 13.16 | 269 | LR | LR | 20 07 53.2 | |
| | comp=Z,191nm,19.2s,baz=116,slow=37 | | | | | | |
| PALK | Pallekele | 13.16 | 269 | ePn | Pn | 20 02 51.8 | +2.1 |
| ODAN | Odare | 19.99 | 343 | eP | P | 20 04 15.9 | +0.6 |
| RAMN | Ramite | 20.32 | 341 | eP | P | 20 04 20.0 | +1.1 |
| | 58nm,0.6s | | | | | | |
| TAPN | Taplejung | 20.36 | 344 | eP | P | 20 04 19.9 | +0.5 |
| JIRN | Jiri | 21.12 | 341 | eP | P | 20 04 27.6 | 0.0 |
| PKI | Pulchoki | 21.30 | 339 | eP | P | 20 04 29.9 | +0.3 |
| PKIN | Phulchoki | 21.31 | 339 | eP | P | 20 04 29.5 | -0.1 |
| DMN | Daman | 21.45 | 338 | eP | P | 20 04 31.4 | +0.3 |
| | 28nm,0.8s | | | | | | |
| GUN | Gumba | 21.45 | 340 | eP | P | 20 04 30.7 | -0.5 |
| KKN | Kakani | 21.55 | 339 | eP | P | 20 04 31.5 | -0.6 |
| LSA | Lhasa | 21.98 | 353 | eP | P | 20 04 35.9 | -1.1 |
| | 7.0nm,0.6s | | | | | | |
| KOLN | Koldanda | 22.19 | 335 | eP | P | 20 04 38.9 | 0.0 |
| | 23nm,0.8s | | | | | | |
| PYUN | Piuthan | 22.73 | 334 | eP | P | 20 04 44.5 | -0.3 |
| H08S3 | Diego Garcia H | 26.32 | 235 | T | T | 20 32 16.7 | |
| | baz=54,slow=76,SNR=44 | | | | | | |
| H08S2 | Diego Garcia H | 26.32 | 235 | T | T | 20 32 10.4 | |
| | baz=54,slow=76,SNR=88 | | | | | | |
| H08S1 | Diego Carcia H | 26.33 | 235 | T | T | 20 32 19.7 | |
| | baz=54,slow=76,SNR=60 | | | | | | |
| MK01 | Makanchi Array | 40.13 | 348 | eP | P | 20 07 17.2 | -0.9 |
| MK31 | Makanchi Array | 40.16 | 348 | eP | P | 20 07 16.4 | -2.0 |
| MK32 | Makanchi Array | 40.16 | 348 | eP | P | 20 07 17.2 | -1.1 |
| MKAR | Makanchi Array | 40.16 | 348 | P | P | 20 07 17.2 | -1.1 |
| | 0.7nm,0.8s,baz=160,slow=7.9,SNR=6.1 | | | | | | |
| MKAR | | | | pP | pP | 20 07 25.8 | +1.2 |
| | 0.6nm,0.5s,baz=171,slow=8.9,SNR=3.2 | | | | | | |
| MKAR | Makanchi Array | 40.16 | 348 | P | P | 20 07 17.2 | -1.1 |
| SONA0 | Songino Array | 41.31 | 13 | eP | P | 20 07 27.8 | -0.2 |
| SONM | Songino Array | 41.31 | 13 | P | P | 20 07 27.8 | -0.2 |
| | 0.9nm,0.6s,baz=194,slow=9.9,SNR=6.7 | | | | | | |
| SONM | Songino Array | 41.31 | 13 | P | P | 20 07 27.8 | -0.2 |
| SONA1 | Songino Array | 41.32 | 13 | eP | P | 20 07 27.4 | -0.7 |
| ULN | Ulaanbaatar | 41.48 | 13 | eP | P | 20 07 28.4 | -1.1 |
| GEYT | Alibeck | 44.17 | 318 | P | P | 20 07 51.7 | +0.4 |
| | 1.5nm,0.5s,baz=140,slow=8.1,SNR=5.2 | | | | | | |
| KURBB | Kurchatov Arra | 44.61 | 346 | P | P | 20 07 54.0 | -0.6 |
| | 0.7nm,0.7s,baz=172,slow=7.1,SNR=5.8 | | | | | | |
| NWAO | Narrogin (SRO) | 46.13 | 153 | eP | P | 20 08 06.7 | -0.1 |
| | 59nm,1.7s | | | | | | |
| ZAA0 | Zalesovo Array | 46.64 | 353 | eP | P | 20 08 09.8 | -0.8 |
| | 11nm,1.4s | | | | | | |
| ZALV | Zalesovo Beam | 46.64 | 353 | P | P | 20 08 09.8 | -0.7 |
| | 2.3nm,0.4s,baz=180,slow=8.4,SNR=16 | | | | | | |
| ZALV | Zalesovo Beam | 46.64 | 353 | P | P | 20 08 09.8 | -0.8 |
| ZAA1 | Zalesovo Array | 46.65 | 353 | eP | P | 20 08 09.8 | -0.8 |
| WR1 | Warramunga Arr | 48.34 | 125 | eP | P | 20 08 23.4 | -0.8 |
| | 8.6nm,1.5s | | | | | | |
| WRA | Warramunga Arr | 48.34 | 125 | P | P | 20 08 23.4 | -0.8 |
| | 0.2nm,0.5s,baz=306,slow=8.3,SNR=13 | | | | | | |
| WRA | Warramunga Arr | 48.34 | 125 | P | P | 20 08 23.4 | -0.8 |
| WRAB | Tennant Creek | 48.34 | 125 | eP | P | 20 08 23.9 | -0.4 |
| | 35nm,1.9s | | | | | | |
| WB2 | Warramunga Arr | 48.35 | 125 | eP | P | 20 08 23.3 | -1.0 |
| RAYN | Ar Rayn | 48.98 | 294 | eP | P | 20 08 30.4 | +1.2 |
| | 2.2nm,0.6s | | | | | | |
| AS31 | Alice Springs | 49.98 | 130 | eP | P | 20 08 35.5 | -1.3 |
| | 1.0nm,1.3s | | | | | | |
| ASAR | Alice Springs | 49.98 | 130 | P | P | 20 08 35.9 | -0.9 |
| | 0.6nm,0.6s,baz=300,slow=7.3,SNR=10 | | | | | | |
| ASAR | Alice Springs | 49.98 | 130 | P | P | 20 08 35.9 | -0.9 |
| BR101 | Keskin Array S | 62.37 | 311 | eP | P | 20 10 03.1 | -2.2 |
| BRTR | Keskin Array B | 62.37 | 311 | P | P | 20 10 03.1 | -2.2 |
| | 0.8nm,0.6s,baz=116,slow=8.4,SNR=5.2 | | | | | | |
| BRTR | Keskin Array B | 62.37 | 311 | P | P | 20 10 03.1 | -2.2 |
| BR231 | Keskin MP Arra | 63.05 | 311 | eP | P | 20 10 09.6 | -0.2 |
| TIXI | Tiksi | 67.37 | 11 | eP | P | 20 10 35.8 | -1.3 |
| | 3.5nm,0.5s | | | | | | |
| MLR | Muntele Rosu | 69.13 | 316 | P | P | 20 10 47.8 | -1.0 |
| | 0.2nm,0.5s,baz=314,slow=17 | | | | | | |
| MLR | Muntele Rosu | 69.13 | 316 | P | P | 20 10 47.8 | -1.0 |
| FIA0 | FINESS Array S | 72.73 | 332 | eP | P | 20 11 09.2 | -0.9 |
| FINES | FINESS Array B | 72.73 | 332 | P | P | 20 11 09.2 | -0.9 |
| | 2.9nm,0.7s,baz=105,slow=6.2,SNR=9.9 | | | | | | |
| FINES | | | | pP | pP | 20 11 17.3 | +0.6 |
| | 3.6nm,0.7s,baz=100,slow=7.9,SNR=2.7 | | | | | | |
| FINES | FINESS Array B | 72.73 | 332 | P | P | 20 11 09.2 | -0.9 |
| ARA0 | ARCESS Array S | 75.31 | 340 | eP | P | 20 11 24.8 | -0.3 |
| ARCES | ARCESS Array B | 75.31 | 340 | P | P | 20 11 24.8 | -0.3 |
| | 6.5nm,0.9s,baz=90,slow=6.3,SNR=3.3 | | | | | | |
| ARCES | ARCESS Array B | 75.31 | 340 | P | P | 20 11 24.8 | -0.3 |
| BOSA | Boshof | 75.38 | 238 | P | P | 20 11 27.5 | +1.0 |
| | 3.2nm,1.1s,baz=58,slow=3.4,SNR=4.6 | | | | | | |
| BOSA | Boshof | 75.38 | 238 | P | P | 20 11 27.5 | +1.0 |
| GERES | GERESS Array B | 77.79 | 318 | P | P | 20 11 39.1 | -0.6 |
| | 0.8nm,0.6s,baz=79,slow=6.9,SNR=7.9 | | | | | | |
| GERES | | | | pP | sP | 20 11 47.7 | -1.0 |
| | 1.2nm,0.8s,baz=86,slow=5.5,SNR=6.4 | | | | | | |
| GERES | GERESS Array B | 77.79 | 318 | P | P | 20 11 39.1 | -0.6 |
| HFS | Hagfors | 78.47 | 330 | P | P | 20 11 42.5 | -0.5 |
| | 3.3nm,0.9s,baz=56,slow=5.4,SNR=6.5 | | | | | | |
| HFS | Hagfors | 78.47 | 330 | P | P | 20 11 42.5 | -0.5 |
| NB2 | NORSAR Subarra | 79.74 | 331 | P | P | 20 11 48.8 | -1.3 |
| | comp=Z,44nm,2.0s,baz=91,slow=5.1 | | | | | | |
| NB2 | NORSAR Subarra | 79.74 | 331 | P | P | 20 11 48.8 | -1.3 |
| | baz=91,slow=5.1 | | | | | | |
| NB200 | NORSAR Array S | 79.74 | 331 | eP | P | 20 11 48.1 | -2.0 |
| NOA | NORSAR Array B | 79.74 | 331 | P | P | 20 11 48.1 | -2.0 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| | comp=Z,1.6nm,0.9s,baz=268,slow=11,SNR=2.5 | | | | | | |
| **NOA** | **NORSAR Array B** | **79.74** | **331** | P | **P** | **20 11 48.1** | **-2.0** |
| **DAVOX** | **Davos/Dischmat** | **80.35** | **316** | P | **P** | **20 11 54.5** | **+0.6** |
| | comp=Z,2.0nm,0.7s,baz=18,slow=13,SNR=2.7 | | | | | | |
| **DAVOX** | **Davos/Dischmat** | **80.35** | **316** | P | **P** | **20 11 54.5** | **+0.6** |
| **TORD** | **Torodi Ar. Bea** | **90.46** | **283** | P | **P** | **20 12 45.1** | **+0.4** |
| | comp=Z,0.3nm,0.7s,baz=87,slow=5.8,SNR=2.8 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **90.46** | **283** | P | **P** | **20 12 45.1** | **+0.4** |
| **TOA1** | **Torodi Ar. Sit** | **90.46** | **283** | eP | **P** | **20 12 45.1** | **+0.4** |
| **ESDC** | **Sonseca Array** | **91.16** | **310** | P | **P** | **20 12 47.0** | **-0.5** |
| | comp=Z,0.2nm,0.4s,baz=46,slow=3.8,SNR=3.4 | | | | | | |
| **ESDC** | **Sonseca Array** | **91.16** | **310** | P | **P** | **20 12 47.0** | **-0.5** |

*ISCJB **02** 19:59:56.9±0.3, 7°.68N±0°.04×94°.16E±0°.05, h10km, mb4.5/29, Error ellipse: s-maj=7.5km s-min=5.7km az=144.8*

*IDC **02** 19:59:57.7±0.6, 7°.69N×94°.08E, h0km, mb4.2/15, mb1 4.3/18, mb1mx4.1/56, mbtmp4.2/18, ML4.0/3, Error ellipse: s-maj=24.9km s-min=14.6km az=53.0*

*NEIC **02** 20:00:02.0±0.3, 7°.64N×94°.18E, h35km, mb4.7/14, Error ellipse: s-maj=9.4km s-min=5.7km az=51.0*

**ISC 02 19:59:58.7**±0.4**, 7°.69N**±0°.07×**94°.12E**±0°.07**, h10km, n63,** σ1s.**27**/71**, mb4.4**/29**, Nicobar Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LHMI** | **Lhok Sumawe** | **3.72** | **131** | ePn | **Pn** | **20 00 54.6** | **-1.6** |
| **PSI** | **Prapat** | **6.81** | **135** | Pn | **Pn** | **20 01 40.2** | **+1.3** |
| | 1.5nm,0.3s,baz=324,slow=10,SNR=4.4 | | | | | | |
| **PSI** | **Prapat** | **6.81** | **135** | ePn | **Pn** | **20 01 39.7** | **+0.8** |
| **KULM** | **Kulim** | **6.91** | **110** | ePn | **Pn** | **20 01 37.3** | **-2.8** |
| **GSI** | **Gunungsitoli** | **7.21** | **151** | ePn | **Pn** | **20 01 41.5** | **-2.8** |
| **PHET** | **Kaeng Krachan** | **7.50** | **46** | P | **Pn** | **20 01 47.9** | **-0.4** |
| | 15nm,0.7s,204nm | | | | | | |
| **IPM** | **Ipoh** | **7.57** | **115** | ePn | **Pn** | **20 01 47.0** | **-2.1** |
| **UTHA** | **Uthaitani** | **9.40** | **33** | P | **Pn** | **20 02 15.0** | **+0.7** |
| | 4.0nm,1.0s | | | | | | |
| **PBKT** | **Sadao Pong** | **11.08** | **37** | P | **Pn** | **20 02 37.7** | **+0.4** |
| | 18nm,0.9s | | | | | | |
| **CHAI** | **Chaiyaphum** | **11.22** | **43** | P | Pn | 20 02 48.5 | +9.3 |
| **CM01** | **Chiang Mai Arr** | **11.66** | **23** | ePn | **Pn** | **20 02 42.4** | **-2.9** |
| **CM31** | **Chiang Mai Arr** | **11.69** | **23** | ePn | **Pn** | **20 02 46.6** | **+0.9** |
| **CMAR** | **Chiang Mai Arr** | **11.69** | **23** | Pn | **Pn** | **20 02 46.2** | **+0.5** |
| | 0.4nm,0.3s,baz=213,slow=14,SNR=11 | | | | | | |
| **CHTO** | **Chiang Mai** | **12.01** | **22** | P | **Pn** | **20 02 51.4** | **+1.3** |
| | 31nm,1.0s | | | | | | |
| **CHTO** | **Chiang Mai** | **12.01** | **22** | ePn | **Pn** | **20 02 50.8** | **+0.7** |
| **CMMT** | **Chiang Mai** | **12.01** | **23** | P | **Pn** | **20 02 51.4** | **+1.3** |
| **PALK** | **Pallekele** | **13.31** | **269** | Pn | **Pn** | **20 03 07.2** | **-0.7** |
| | 0.6nm,0.3s,baz=114,slow=11,SNR=5.0 | | | | | | |
| **PALK** | **Pallekele** | **13.31** | **269** | ePn | **Pn** | **20 03 07.5** | **-0.4** |
| **LSA** | **Lhasa** | **22.08** | **353** | eP | **P** | **20 04 54.2** | **-0.3** |
| | 12nm,0.6s | | | | | | |
| **MYLDM** | **Lahad Datu** | **24.35** | **94** | eP | **P** | **20 05 16.8** | **-0.3** |
| | 31nm,1.0s | | | | | | |
| **AAK** | **Ala-Archa** | **38.87** | **337** | eP | **P** | **20 07 25.4** | **+0.9** |
| | 15nm,1.9s | | | | | | |
| **MK01** | **Makanchi Array** | **40.24** | **347** | eP | **P** | **20 07 36.0** | **+0.3** |
| **MK31** | **Makanchi Array** | **40.27** | **347** | eP | **P** | **20 07 34.1** | **-1.8** |
| **MK32** | **Makanchi Array** | **40.27** | **347** | eP | **P** | **20 07 36.4** | **+0.6** |
| MK32 | | | | ePcP | **PcP** | **20 09 41.1** | **+1.5** |
| **MKAR** | **Makanchi Array** | **40.27** | **347** | P | **P** | **20 07 36.4** | **+0.6** |
| | 1.7nm,0.9s,baz=156,slow=7.8,SNR=5.0 | | | | | | |
| MKAR | | | | PcP | **PcP** | **20 09 41.1** | **+1.5** |
| | 0.5nm,0.7s,baz=194,slow=3.3,SNR=2.6 | | | | | | |
| **MAKZ** | **Makanchi** | **40.35** | **347** | eP | **P** | **20 07 36.5** | **-0.1** |
| | 9.2nm,1.6s | | | | | | |
| **MSEY** | **Mahe Island** | **40.46** | **254** | eP | **P** | **20 07 37.1** | **-0.9** |
| | 54nm,1.6s | | | | | | |
| **SONA0** | **Songino Array** | **41.35** | **13** | eP | **P** | **20 07 46.3** | **+1.4** |
| SONA0 | | | | ePcP | **PcP** | **20 09 43.8** | **+0.5** |
| **SONM** | **Songino Array** | **41.35** | **13** | P | **P** | **20 07 46.3** | **+1.4** |
| | 1.1nm,0.5s,baz=202,slow=8.6,SNR=6.1 | | | | | | |
| SONM | | | | PcP | **PcP** | **20 09 43.8** | **+0.5** |
| | 0.7nm,0.8s,baz=168,slow=3.0,SNR=3.6 | | | | | | |
| **SONA1** | **Songino Array** | **41.36** | **13** | eP | **P** | **20 07 45.9** | **+0.9** |
| **MTN** | **Manton Dam** | **42.05** | **119** | eP | **P** | **20 07 51.4** | **+0.5** |
| | 15nm,1.4s | | | | | | |
| **GEYT** | **Alibeck** | **44.33** | **318** | P | **P** | **20 08 10.7** | **+1.5** |
| | 4.3nm,0.6s,baz=147,slow=8.5,SNR=7.5 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **44.72** | **346** | P | **P** | **20 08 12.8** | **+0.8** |
| | 1.0nm,0.6s,baz=167,slow=7.0,SNR=7.0 | | | | | | |
| KURBB | | | | PcP | **PP** | **20 09 55.7** | **-0.8** |
| | 1.2nm,0.9s,baz=160,slow=2.9,SNR=4.6 | | | | | | |
| **KURK** | **Kurchatov** | **44.79** | **346** | eP | **P** | **20 08 12.8** | **+0.3** |
| KURK | | | | ePcP | **PcP** | **20 09 55.7** | **+1.2** |
| **NWAO** | **Narrogin (SRO)** | **45.99** | **153** | eP | **P** | **20 08 24.4** | **+2.1** |
| | 58nm,1.5s | | | | | | |
| **WR1** | **Warramunga Arr** | **48.17** | **125** | eP | **P** | **20 08 40.1** | **+0.5** |
| WR1 | | | | ePcP | **PcP** | **20 10 07.9** | **+0.9** |
| **WRA** | **Warramunga Arr** | **48.17** | **125** | P | **P** | **20 08 40.1** | **+0.5** |
| | 4.6nm,1.3s,baz=269,slow=5.8,SNR=12 | | | | | | |
| WRA | | | | PcP | **PcP** | **20 10 07.9** | **+0.9** |
| | 0.9nm,0.8s,baz=308,slow=3.0,SNR=3.9 | | | | | | |
| **WB2** | **Warramunga Arr** | **48.18** | **125** | eP | **P** | **20 08 35.5** | **-4.1** |
| | 27nm,1.7s | | | | | | |
| **RAYN** | **Ar Rayn** | **49.15** | **294** | eP | **P** | **20 08 47.4** | **+0.2** |
| | 17nm,1.6s | | | | | | |
| **BRVK** | **Borovoye** | **49.22** | **341** | eP | **P** | **20 08 46.3** | **-0.9** |
| | 3.9nm,1.1s | | | | | | |
| **AS31** | **Alice Springs** | **49.81** | **130** | eP | **P** | **20 08 51.8** | **-0.4** |
| | 0.8nm,0.8s | | | | | | |
| **ASAR** | **Alice Springs** | **49.81** | **130** | P | **P** | **20 08 52.4** | **+0.3** |
| | 2.1nm,0.6s,baz=303,slow=7.2,SNR=22 | | | | | | |
| ASAR | | | | PcP | **PcP** | **20 10 13.9** | **+1.0** |
| | 1.2nm,0.7s,baz=304,slow=3.4,SNR=7.1 | | | | | | |
| **AS01** | **Alice Springs** | **49.84** | **130** | eP | **P** | **20 08 53.4** | **+1.0** |
| **FORT** | **Forrest** | **50.20** | **141** | eP | **P** | **20 08 54.5** | **-0.5** |
| | 342nm,0.9s | | | | | | |
| **CSS** | **Mathiatis** | **61.77** | **306** | eP | **P** | **20 10 16.8** | **-1.1** |
| | 12nm,1.9s | | | | | | |
| **BR101** | **Keskin Array S** | **62.54** | **311** | eP | **P** | **20 10 22.2** | **-0.9** |
| **BRTR** | **Keskin Array B** | **62.54** | **311** | P | **P** | **20 10 22.2** | **-0.9** |
| | 1.2nm,0.7s,baz=122,slow=8.1,SNR=5.4 | | | | | | |
| **AKASG** | **Malin Array Be** | **68.29** | **322** | P | **P** | **20 10 58.6** | **-1.3** |
| | 0.2nm,0.3s,baz=85,slow=5.5,SNR=4.1 | | | | | | |
| **AGG** | **Agios Georgios** | **71.06** | **309** | eP | **P** | **20 11 17.8** | **+0.4** |
| | 33nm,1.7s | | | | | | |
| **FIA0** | **FINESS Array S** | **72.87** | **332** | eP | **P** | **20 11 28.4** | **+0.7** |
| **FINES** | **FINESS Array B** | **72.87** | **332** | P | **P** | **20 11 28.4** | **+0.7** |
| | 6.0nm,0.7s,baz=109,slow=10,SNR=7.7 | | | | | | |
| **ARA0** | **ARCESS Array S** | **75.44** | **340** | eP | **P** | **20 11 42.1** | **-0.4** |
| **ARCES** | **ARCESS Array B** | **75.44** | **340** | P | **P** | **20 11 42.1** | **-0.4** |
| | 2.6nm,0.7s,baz=40,slow=2.1,SNR=8.0 | | | | | | |
| **BOSA** | **Boshof** | **75.47** | **238** | P | **P** | **20 11 44.9** | **+1.3** |
| | 2.7nm,0.6s,baz=69,slow=4.4,SNR=7.6 | | | | | | |
| **GEA0** | **GERESS Array S** | **77.95** | **318** | eP | **P** | **20 11 57.6** | **+0.4** |
| **GEC2** | **GERESS Array S** | **77.95** | **318** | eP | **P** | **20 11 57.2** | **-0.1** |
| | 3.4nm,0.8s | | | | | | |
| **GERES** | **GERESS Array B** | **77.95** | **318** | P | **P** | **20 11 57.9** | **+0.6** |
| | 2.2nm,0.8s,baz=90,slow=5.3,SNR=11 | | | | | | |
| **NB200** | **NORSAR Array S** | **79.89** | **331** | eP | **P** | **20 12 07.1** | **-0.5** |
| **NOA** | **NORSAR Array B** | **79.89** | **331** | P | **P** | **20 12 07.1** | **-0.5** |
| | 1.9nm,0.8s,baz=94,slow=5.4,SNR=4.4 | | | | | | |
| **DAVOX** | **Davos/Dischmat** | **80.51** | **316** | P | **P** | **20 12 11.9** | **+0.4** |
| | 4.1nm,0.8s,baz=91,slow=10,SNR=5.0 | | | | | | |
| **ESDC** | **Sonseca Array** | **91.33** | **310** | P | **P** | **20 13 05.7** | **+0.6** |
| | 0.8nm,0.7s,baz=45,slow=4.4,SNR=4.9 | | | | | | |
| **IMAR** | **Indian Mountai** | **91.81** | **22** | eP | **P** | **20 13 03.1** | **-3.5** |
| **CPUP** | **Villa Florida** | **147.13** | **232** | PKPbc | **PKPbc** | **20 19 43.5** | **+0.6** |
| | 1.6nm,0.7s,baz=180,slow=5.1,SNR=5.1 | | | | | | |

**IDC 02 20:10:33.2**±1.8**, 19°.64N**×**121°.37E, h0km, mb3.5**/4**, mb1 3.7**/4**, mb1mx3.3**/57**, mbtmp3.5**/4**, Error ellipse: s-maj=67.4km s-min=23.6km az=54.0, Philippine Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CMAR** | **Chiang Mai Arr** | **21.23** | **271** | P | P | 20 15 20.9 | 0.0 |
| | 0.4nm,0.7s,baz=76,slow=7.2,SNR=4.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **41.34** | **161** | P | P | 20 18 20.7 | -0.3 |
| | 1.2nm,0.6s,baz=342,slow=8.9,SNR=13 | | | | | | |
| **ASAR** | **Alice Springs** | **44.74** | **164** | P | P | 20 18 48.8 | +0.1 |
| | 0.9nm,0.7s,baz=352,slow=7.9,SNR=9.8 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **45.75** | **323** | P | P | 20 18 56.1 | -0.2 |
| | 0.2nm,0.3s,baz=123,slow=7.2,SNR=2.8 | | | | | | |

*ISCJB **02** 20:13:43.9±0.3, 10°.31S±0°.06×161°.46E±0°.05, h61km, mb4.7/38, Error ellipse: s-maj=8.8km s-min=6.9km az=150.7*

*IDC **02** 20:13:43.1±0.7, 10°.31S×161°.74E, h48km±5km, mb3.9/15, mb1 4.0/16, mb1mx3.9/35, mbtmp4.2/16, MS3.5/6, Ms1 3.5/6, ms1mx3.2/32, Error ellipse: s-maj=15.1km s-min=8.6km az=28.0*

*BJI **02** 20:13:44.9, 10°.28S×161°.85E, h81km, mb4.7/15, mB5.2/11, Ms5.2/5, Ms7 5.1/5*

*NEIC **02** 20:13:47.0±0.8, 10°.26S×161°.45E, h75km±7km, mb5.0/23, Error ellipse: s-maj=8.0km s-min=6.0km az=148.0*

**ISC 02 20:13:45.1**±0.4**, 10°.36S**±0°.06×**161°.55E**±0°.06**, h61km, n76,** σ1s.**75**/81**, mb4.8**/38**, Bougainville-Solomon Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HNR** | **Honiara** | **1.83** | **300** | iP | **Pn** | **20 14 15.0** | **+0.8** |
| HNR | | | | iS | **Sn** | **20 14 37.0** | **+0.7** |
| **HNR** | **Honiara** | **1.83** | **300** | P | **Pn** | **20 14 14.8** | **+0.5** |
| | 643nm,0.3s,baz=134,slow=1.5,SNR=263 | | | | | | |
| HNR | | | | S | **Sn** | **20 14 38.3** | **+2.0** |
| | 1µm,0.3s,baz=163,slow=24,SNR=25 | | | | | | |
| HNR | | | | LR | LR | 20 15 09.5 | |
| | comp=Z,509nm,18.9s,baz=127,slow=44 | | | | | | |
| **HNR** | **Honiara** | **1.83** | **300** | ePn | **Pn** | **20 14 14.9** | **+0.7** |
| HNR | | | | eSn | **Sn** | **20 14 37.8** | **+1.4** |
| HNR | | | | e | | 20 15 09.5 | |
| **RABL** | **Rabaul** | **11.14** | **303** | ePn | **Pn** | **20 16 22.5** | **+0.8** |
| **DZM** | **Mont Dzumac** | **12.56** | **159** | P | **Pn** | **20 16 42.6** | **+1.5** |
| | 1.4nm,0.3s,baz=40,slow=8.0,SNR=32 | | | | | | |
| DZM | | | | S | **Sn** | **20 18 57.4** | **-2.0** |
| | 0.7nm,0.3s,baz=154,slow=23,SNR=7.8 | | | | | | |
| DZM | | | | LR | LR | 20 21 10.1 | |
| | comp=Z,126nm,18.3s,baz=347,slow=36 | | | | | | |
| **PMG** | **Port Moresby** | **14.21** | **273** | P | **P** | **20 17 09.4** | **+0.5** |
| | 0.6nm,0.3s,baz=48,slow=12,SNR=4.0 | | | | | | |
| PMG | | | | LR | LR | 20 22 06.9 | |
| | comp=Z,127nm,20.1s,baz=68,slow=35 | | | | | | |
| **PMG** | **Port Moresby** | **14.21** | **273** | ePn | **Pn** | **20 17 02.3** | **-1.1** |
| **TARA** | **Tarawa** | **16.23** | **45** | ePn | **Pn** | **20 17 30.1** | **+0.8** |
| | 131nm,1.0s | | | | | | |
| **FUNA** | **Funafuti** | **17.50** | **86** | ePn | **P** | **20 17 48.4** | **+2.9** |
| | 217nm,1.7s | | | | | | |
| **CTA** | **Charters Tower** | **17.64** | **235** | P | **P** | **20 17 49.6** | **+2.6** |
| | 0.6nm,0.3s,baz=54,slow=13,SNR=8.4 | | | | | | |
| **CTAO** | **Charters Tower** | **17.64** | **235** | ePn | **Pn** | **20 17 41.4** | **-5.3** |
| | 17nm,0.8s | | | | | | |
| **EIDS** | **Eidsvold** | **17.93** | **212** | eP | **Pn** | **20 17 52.9** | **+2.6** |
| | 44nm,1.5s | | | | | | |
| **COEN** | **Coen** | **18.32** | **257** | eP | **Pn** | **20 17 59.5** | **+4.5** |
| | 34nm,1.4s | | | | | | |
| **AFI** | **Afiamalu** | **26.31** | **100** | LR | LR | 20 28 10.2 | |
| | comp=Z,98nm,21.6s,baz=270,slow=33 | | | | | | |
| **WRAB** | **Tennant Creek** | **27.89** | **247** | eP | **P** | **20 19 29.7** | **+0.2** |
| | 18nm,1.4s | | | | | | |
| **WB2** | **Warramunga Arr** | **27.89** | **247** | eP | **P** | **20 19 28.7** | **-0.8** |
| **WR1** | **Warramunga Arr** | **27.90** | **247** | eP | **P** | **20 19 29.9** | **+0.3** |
| | 35nm,1.8s | | | | | | |
| **WRA** | **Warramunga Arr** | **27.90** | **247** | P | **P** | **20 19 29.9** | **+0.3** |
| | 4.2nm,0.7s,baz=74,slow=9.2,SNR=44 | | | | | | |
| **STKA** | **Stephens Creek** | **28.27** | **218** | LR | LR | 20 30 12.3 | |
| | comp=Z,151nm,19.4s,baz=18,slow=35 | | | | | | |
| **GUMO** | **Guam** | **28.98** | **325** | LR | LR | 20 29 29.0 | |
| | comp=Z,80nm,21.7s,baz=108,slow=33 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.11** | **10** | T | T | 20 48 36.4 | |
| | baz=194,slow=76,SNR=32 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.11** | **10** | T | T | 20 48 34.0 | |
| | baz=194,slow=76,SNR=24 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.13** | **10** | T | T | 20 48 34.2 | |
| | baz=194,slow=76,SNR=24 | | | | | | |
| **ASAR** | **Alice Springs** | **29.49** | **240** | P | **P** | **20 19 44.0** | **+0.3** |
| | 0.6nm,0.7s,baz=71,slow=9.7,SNR=6.1 | | | | | | |
| ASAR | | | | LR | LR | 20 31 20.6 | |
| | comp=Z,142nm,18.9s,baz=56,slow=36 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **30.34** | **10** | T | T | 20 50 06.5 | |
| | baz=194,slow=76,SNR=16 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **30.35** | **10** | T | T | 20 50 07.7 | |
| | baz=194,slow=76,SNR=20 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **30.36** | **10** | T | T | 20 50 08.7 | |
| | baz=194,slow=76,SNR=17 | | | | | | |
| **BBOO** | **Buckleboo** | **32.41** | **223** | eP | **P** | **20 20 10.2** | **+0.9** |
| | 70nm,1.8s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **35.60** | **253** | P | **P** | **20 20 37.0** | **-0.2** |
| | 4.6nm,0.7s,baz=65,slow=9.3,SNR=24 | | | | | | |
| **MBWA** | **Marble Bar** | **41.54** | **250** | eP | **P** | **20 21 27.1** | **+0.1** |
| | 63nm,1.4s | | | | | | |
| **JAGI** | **Jajag, Banyuwa** | **46.77** | **268** | eP | **P** | **20 22 06.4** | **-2.4** |
| | 18nm,0.7s | | | | | | |
| **MJAR** | **Matsushiro Arr** | **51.56** | **336** | P | **P** | **20 22 43.1** | **-2.0** |
| | 2.1nm,0.8s,baz=168,slow=7.4,SNR=5.2 | | | | | | |
| **ASAJ** | **Asahikawa** | **56.88** | **344** | P | **P** | **20 23 24.4** | **+0.7** |
| | 6.1nm,0.6s,baz=210,slow=8.3,SNR=9.5 | | | | | | |
| **ASAJ** | **Asahikawa** | **56.88** | **344** | eP | **P** | **20 23 23.5** | **-0.1** |
| | 25nm,1.6s | | | | | | |
| **NJ2** | **Nanjing** | **58.68** | **318** | eP | **P** | **20 23 36.2** | **-0.3** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,13nm,0.5s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **60.56** | **336** | P | **P** | **20 23 49.6** | **+0.5** |
| | 4.1nm,0.7s,baz=121,slow=6.2,SNR=8.3 | | | | | | |
| **CN2** | **Changchun** | **63.10** | **331** | eP | **P** | **20 24 09.1** | **+2.9** |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.7s | | | | | | |
| **VNDA** | **Vanda** | **67.15** | **180** | P | **P** | **20 24 33.6** | **+1.6** |
| | 0.6nm,0.7s,baz=0.0,slow=7.1,SNR=3.4 | | | | | | |
| VNDA | | | | pP | **pP** | **20 24 45.6** | **-3.0** |
| | 1.8nm,0.6s,baz=327,slow=7.7,SNR=9.2 | | | | | | |
| **VNDA** | **Vanda** | **67.15** | **180** | eP | **P** | **20 24 32.8** | **+0.8** |
| **KMI** | **Kunming** | **67.26** | **303** | P | **P** | **20 24 34.2** | **+0.3** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,11nm,0.5s | | | | | | |
| **CM01** | **Chiang Mai Arr** | **68.04** | **295** | eP | **P** | **20 24 39.6** | **+0.9** |
| **CM31** | **Chiang Mai Arr** | **68.07** | **295** | eP | **P** | **20 24 39.3** | **+0.5** |
| **CMAR** | **Chiang Mai Arr** | **68.07** | **295** | P | **P** | **20 24 39.8** | **+0.9** |
| | 0.8nm,0.7s,baz=135,slow=4.8,SNR=10.0 | | | | | | |
| CMAR | | | | pP | **pP** | **20 24 52.0** | **-3.4** |
| | 0.6nm,0.7s,baz=134,slow=5.6,SNR=5.5 | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **68.68** | **321** | eP | **P** | **20 24 43.3** | **+0.9** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.8s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,100nm,7.0s | | | | | | |
| **SEY** | **Seymchan** | **73.41** | **356** | P | **P** | **20 25 09.5** | **-0.8** |
| | 0.9nm,0.7s,baz=53,slow=22,SNR=4.3 | | | | | | |
| **ULN** | **Ulaanbaatar** | **75.36** | **325** | eP | **P** | **20 25 20.4** | **-1.9** |
| ULN | | | | ePcP | **P** | **20 25 21.4** | **-0.8** |
| **SONA0** | **Songino Array** | **75.71** | **325** | eP | **P** | **20 25 24.3** | **+0.1** |
| **SONM** | **Songino Array** | **75.71** | **325** | P | **P** | **20 25 24.3** | **+0.1** |
| | 2.9nm,0.7s,baz=142,slow=5.9,SNR=22 | | | | | | |
| SONM | | | | pP | **PcP** | **20 25 38.4** | **+1.7** |
| | 4.3nm,0.6s,baz=144,slow=5.8,SNR=17 | | | | | | |
| **SONA1** | **Songino Array** | **75.71** | **325** | eP | **P** | **20 25 23.8** | **-0.5** |
| **YAK** | **Yakutsk** | **76.32** | **345** | eP | **P** | **20 25 26.4** | **-0.7** |
| | 13nm,0.6s | | | | | | |
| **SVW2** | **Sparrevohn** | **78.80** | **20** | eP | **P** | **20 25 42.3** | **+1.3** |
| | 32nm,1.7s | | | | | | |
| **TTA** | **Tatalina** | **80.01** | **18** | eP | **P** | **20 25 48.2** | **+0.5** |
| **CAST** | **Castle Rocks** | **81.61** | **19** | eP | **P** | **20 25 56.0** | **-0.1** |
| | 21nm,1.5s | | | | | | |
| **IMAR** | **Indian Mountai** | **82.92** | **17** | eP | **P** | **20 26 02.9** | **0.0** |
| **MLY** | **Manley** | **83.15** | **18** | eP | **P** | **20 26 04.7** | **+0.5** |
| | 19nm,1.7s | | | | | | |
| **WRH** | **Wood River Hil** | **83.62** | **20** | eP | **P** | **20 26 06.5** | **0.0** |
| | 42nm,2.0s | | | | | | |
| **CCB** | **Clear Creek Bu** | **83.83** | **20** | eP | **P** | **20 26 07.5** | **0.0** |
| | 20nm,1.9s | | | | | | |
| **IL1** | **Eielson Array** | **84.22** | **20** | eP | **P** | **20 26 09.6** | **+0.1** |
| **ILAR** | **Eielson Array** | **84.22** | **20** | P | **P** | **20 26 09.3** | **-0.3** |
| | 1.4nm,0.7s,baz=246,slow=5.0,SNR=15 | | | | | | |
| ILAR | | | | pP | **pP** | **20 26 23.1** | **-3.6** |
| | 0.8nm,0.5s,baz=247,slow=5.0,SNR=4.1 | | | | | | |
| **ILB** | **Eielson Array** | **84.22** | **20** | eP | **P** | **20 26 09.7** | **+0.1** |
| **DOT** | **Dot Lake** | **84.50** | **21** | eP | **P** | **20 26 11.8** | **+0.7** |
| | 65nm,1.8s | | | | | | |
| **TIXI** | **Tiksi** | **84.67** | **350** | eP | **P** | **20 26 12.7** | **+1.0** |
| | 14nm,1.9s | | | | | | |
| **WMQ** | **Urumqi** | **85.71** | **316** | eP | **P** | **20 26 17.2** | **-0.4** |
| WMQ | | | | pP | sP | 20 26 41.8 | +0.3 |
| WMQ | | | | sP | pP | 20 26 51.9 | +17 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,22nm,0.6s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,480nm,5.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,120nm,15.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,96nm,17.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,90nm,15.5s | | | | | | |
| **SAO** | **San Andreas Ge** | **85.91** | **52** | eP | **P** | **20 26 19.2** | **+0.5** |
| | 12nm,1.0s | | | | | | |
| **BBGB** | **Big Mountain B** | **86.18** | **52** | eP | **P** | **20 26 20.4** | **+0.2** |
| **EGAK** | **Eagle** | **86.19** | **21** | eP | **P** | **20 26 20.4** | **+0.9** |
| | 25nm,1.6s | | | | | | |
| **MDPB** | **Devils Postpil** | **87.96** | **51** | eP | **P** | **20 26 28.9** | **-0.1** |
| | 14nm,0.8s | | | | | | |
| **YUH** | **Yuha Desert** | **89.31** | **57** | eP | **P** | **20 26 37.0** | **+1.9** |
| **MK32** | **Makanchi Array** | **90.22** | **318** | eP | **P** | **20 26 38.0** | **-1.0** |
| **MKAR** | **Makanchi Array** | **90.22** | **318** | P | **P** | **20 26 38.0** | **-1.0** |
| | 0.9nm,0.7s,baz=96,slow=6.7,SNR=10.0 | | | | | | |
| MKAR | | | | pP | **pP** | **20 26 51.9** | **-4.4** |
| | 0.6nm,0.6s,baz=98,slow=6.4,SNR=4.2 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **90.61** | **325** | P | **P** | **20 26 38.6** | **-2.0** |
| | 0.4nm,0.5s,baz=99,slow=8.9,SNR=2.7 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **90.61** | **325** | eP | **P** | **20 26 38.6** | **-2.0** |
| **KSH** | **Kashi** | **93.12** | **309** | eP | **P** | **20 26 54.0** | **+1.2** |
| KSH | | | | pP | sP | 20 27 19.5 | +2.8 |
| KSH | | | | PP | **PP** | **20 30 40.3** | **+3.4** |
| KSH | | | | SKS | **SKSac** | **20 37 19.2** | **-2.8** |
| KSH | | | | S | **S** | **20 37 50.5** | **-4.5** |
| KSH | | | | SS | **SS** | **20 44 11.9** | **+0.5** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.3s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,240nm,4.5s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,110nm,5.4s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,63nm,4.4s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,310nm,6.5s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **93.53** | **321** | P | **P** | **20 26 52.5** | **-1.7** |
| | 0.3nm,0.6s,baz=102,slow=3.6,SNR=5.6 | | | | | | |
| **YKA** | **Yellowknife Ar** | **96.27** | **28** | P | **P** | **20 27 05.8** | **-0.7** |
| | 0.3nm,0.6s,baz=253,slow=5.1,SNR=2.8 | | | | | | |
| **PHWY** | **Pilot Hill** | **98.98** | **50** | eP | **P** | **20 27 19.4** | **-0.3** |
| | 18nm,0.8s | | | | | | |

*ATA **02** 20:23:22.7±0.8, 38°.68N×43°.18E, h7km±17km, ML3.7, MW3.6*

*ISK **02** 20:23:22.4, 38°.66N×43°.23E, h2km, ML2.9*

*CSEM **02** 20:23:23.4±0.2, 38°.65N×43°.24E, h2km, ML2.9, Error ellipse: s-maj=3.9km s-min=3.4km az=100.0*

*DDA **02** 20:23:23.1, 38°.64N×43°.21E, h15km, Ml3.4*

**ISC 02 20:23:23.4**±0.8**, 38°.67N**±0°.01×**43°.23E**±0°.02**, h12**km±6km**, n70,** σ1s.**01**/110**, 3D, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.15** | **120** | ePG | **Pb** | **20 23 27.3** | **-0.9** |
| VANB | | | | eSG | **Sg** | **20 23 31.4** | **+1.8** |
| **VANB** | **Van** | **0.15** | **120** | ePg | **Pb** | **20 23 27.3** | **-0.9** |
| **TVAN** | **Van** | **0.20** | **135** | iP | **Pg** | **20 23 27.4** | **-0.5** |
| TVAN | | | | iS | **Sg** | **20 23 31.2** | **+0.2** |
| **TVAN** | **Van** | **0.20** | **135** | P | **Pg** | **20 23 27.4** | **-0.5** |
| TVAN | | | | S | **Sg** | **20 23 31.2** | **+0.2** |
| **ERCV** | **ERCIS-VAN** | **0.36** | **14** | ePG | **Pg** | **20 23 30.8** | **+0.1** |
| ERCV | | | | eSG | **Sb** | **20 23 37.1** | **-0.5** |
| **ERCV** | **ERCIS-VAN** | **0.36** | **14** | ePg | **Pg** | **20 23 30.8** | **+0.1** |
| ERCV | | | | eSg | **Sb** | **20 23 37.1** | **-0.5** |
| **GEVA** | **Gevas** | **0.38** | **200** | ⇓iP | **Pg** | **20 23 30.2** | **-0.9** |
| GEVA | | | | eS | **Sb** | **20 23 37.0** | **-1.1** |
| GEVA | | | | IAML | | 20 23 39.2 | |
| | comp=Z,2µm,0.4s | | | | | | |
| **GEVA** | **Gevas** | **0.38** | **200** | iP | **Pg** | **20 23 30.2** | **-0.9** |
| GEVA | | | | iS | **Sb** | **20 23 36.8** | **-1.3** |
| **GEVA** | **Gevas** | **0.38** | **200** | P | **Pg** | **20 23 30.2** | **-0.9** |
| GEVA | | | | S | **Sb** | **20 23 36.8** | **-1.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.42** | **289** | iP | **Pg** | **20 23 31.6** | **-0.1** |
| ADCV | | | | iS | **Sb** | **20 23 38.5** | **-0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.42** | **289** | P | **Pg** | **20 23 31.6** | **-0.1** |
| ADCV | | | | S | **Sb** | **20 23 38.5** | **-0.7** |
| **VMUR** | **Van-Muradiye** | **0.42** | **40** | iP | **Pb** | **20 23 32.5** | **-0.4** |
| VMUR | | | | iS | **Sb** | **20 23 40.4** | **+1.2** |
| **VMUR** | **Van-Muradiye** | **0.42** | **40** | P | **Pb** | **20 23 32.5** | **-0.4** |
| VMUR | | | | S | **Sb** | **20 23 40.4** | **+1.2** |
| **CLDR** | **Caldiran** | **0.72** | **49** | ePG | **Pg** | **20 23 37.2** | **-0.2** |
| CLDR | | | | eSG | **Sb** | **20 23 48.3** | **+0.5** |
| **CLDR** | **Caldiran** | **0.72** | **49** | iP | **Pg** | **20 23 37.4** | **+0.1** |
| CLDR | | | | iS | **Sn** | **20 23 49.6** | **-1.0** |
| **CLDR** | **Caldiran** | **0.72** | **49** | P | **Pg** | **20 23 37.4** | **+0.1** |
| CLDR | | | | eSg | **Sb** | **20 23 48.3** | **+0.5** |
| CLDR | | | | S | **Sn** | **20 23 49.6** | **-1.0** |
| **TUTA** | **Tutak** | **0.80** | **336** | ⇓iP | **Pg** | **20 23 38.3** | **-0.6** |
| TUTA | | | | IAML | | 20 23 44.2 | |
| | comp=Z,291nm,0.2s | | | | | | |
| TUTA | | | | eS | **Sb** | **20 23 50.0** | **-0.2** |
| **TUTA** | **Tutak** | **0.80** | **336** | iP | **Pg** | **20 23 38.5** | **-0.4** |
| TUTA | | | | iS | **Sg** | **20 23 49.5** | **+0.1** |
| **TUTA** | **Tutak** | **0.80** | **336** | P | **Pg** | **20 23 38.5** | **-0.4** |
| TUTA | | | | S | **Sg** | **20 23 49.5** | **+0.1** |
| **BASK** | **Baskale_VAN** | **0.87** | **135** | eP | **Pn** | **20 23 40.8** | **-0.8** |
| BASK | | | | IAML | | 20 23 44.5 | |
| | comp=Z,105nm,0.6s | | | | | | |
| BASK | | | | eS | **Sn** | **20 23 54.1** | **-0.2** |
| **BASK** | **Baskale_VAN** | **0.87** | **135** | iP | **Pg** | **20 23 38.7** | **-1.5** |
| **BASK** | **Baskale_VAN** | **0.87** | **135** | P | **Pg** | **20 23 38.7** | **-1.5** |
| **AGRB** | **Hanur-Agry** | **0.92** | **349** | ePG | **Pg** | **20 23 40.6** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **0.92** | **349** | ePg | **Pg** | **20 23 40.6** | **-0.6** |
| **DYDN** | **Diyadin** | **0.94** | **22** | iP | **Pb** | **20 23 42.0** | **+0.2** |
| DYDN | | | | iS | **Sg** | **20 23 54.2** | **+0.2** |
| **DYDN** | **Diyadin** | **0.94** | **22** | P | **Pb** | **20 23 42.0** | **+0.2** |
| DYDN | | | | S | **Sg** | **20 23 54.2** | **+0.2** |
| **EKAR** | **Karacoban** | **1.08** | **303** | eP | **Pb** | **20 23 43.7** | **-0.5** |
| EKAR | | | | IAML | | 20 24 09.9 | |
| | comp=Z,74nm,0.6s | | | | | | |
| **EKAR** | **Karacoban** | **1.08** | **303** | iP | **Pb** | **20 23 43.9** | **-0.2** |
| EKAR | | | | iS | **Sn** | **20 24 01.0** | **+1.4** |
| **EKAR** | **Karacoban** | **1.08** | **303** | P | **Pb** | **20 23 43.9** | **-0.2** |
| EKAR | | | | S | **Sn** | **20 24 01.0** | **+1.4** |
| **HAKT** | **HAKKARI** | **1.17** | **161** | iP | **Pb** | **20 23 44.4** | **-1.4** |
| HAKT | | | | iS | **Sn** | **20 24 04.5** | **+2.6** |
| **HAKT** | **HAKKARI** | **1.17** | **161** | P | **Pb** | **20 23 44.4** | **-1.4** |
| HAKT | | | | S | **Sn** | **20 24 04.5** | **+2.6** |
| **SRTM** | **Siirt_Merkez** | **1.23** | **237** | iP | **Pg** | **20 23 47.0** | **-0.1** |
| SRTM | | | | iS | **Sg** | **20 24 04.0** | **+0.9** |
| **SRTM** | **Siirt_Merkez** | **1.23** | **237** | P | **Pg** | **20 23 47.0** | **-0.1** |
| SRTM | | | | S | **Sg** | **20 24 04.0** | **+0.9** |
| **EATA** | **Eleskirt** | **1.32** | **335** | ⇓iP | **Pn** | **20 23 47.7** | **-0.3** |
| EATA | | | | IAML | | 20 23 53.5 | |
| | comp=Z,23nm,0.4s | | | | | | |
| **EATA** | **Eleskirt** | **1.32** | **335** | iP | **Pn** | **20 23 48.0** | **0.0** |
| EATA | | | | iS | **Sg** | **20 24 07.9** | **+1.9** |
| **EATA** | **Eleskirt** | **1.32** | **335** | P | **Pn** | **20 23 48.0** | **0.0** |
| EATA | | | | S | **Sg** | **20 24 07.9** | **+1.9** |
| **SIRT** | **Sirnak** | **1.32** | **208** | ePN | **Pg** | **20 23 48.6** | **-0.2** |
| **SIRT** | **Sirnak** | **1.32** | **208** | ePn | **Pg** | **20 23 48.6** | **-0.2** |
| **CUKT** | **Cukurca** | **1.45** | **168** | ePN | **Pb** | **20 23 50.2** | **-0.2** |
| **CUKT** | **Cukurca** | **1.45** | **168** | iP | **Pg** | **20 23 50.5** | **-0.8** |
| CUKT | | | | iS | **Sg** | **20 24 13.6** | **+3.4** |
| **CUKT** | **Cukurca** | **1.45** | **168** | ePn | **Pb** | **20 23 50.2** | **-0.2** |
| **CUKT** | **Cukurca** | **1.45** | **168** | P | **Pg** | **20 23 50.5** | **-0.8** |
| CUKT | | | | S | **Sg** | **20 24 13.6** | **+3.4** |
| **VRTB** | **Varto-Mus** | **1.47** | **290** | ePN | **Pb** | **20 23 50.5** | **-0.2** |
| **VRTB** | **Varto-Mus** | **1.47** | **290** | ePn | **Pb** | **20 23 50.5** | **-0.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.53** | **31** | ePN | **Pg** | **20 23 52.2** | **-0.6** |
| **TASB** | **TASBURUN-IGDIR** | **1.53** | **31** | ePn | **Pg** | **20 23 52.2** | **-0.6** |
| **BNGL** | **BINGOL** | **1.65** | **280** | iP | **Pb** | **20 23 53.5** | **-0.3** |
| BNGL | | | | IAML | | 20 24 20.8 | |
| | comp=Z,178nm,0.4s | | | | | | |
| **BNGL** | **BINGOL** | **1.65** | **280** | iP | **Pb** | **20 23 53.6** | **-0.3** |
| BNGL | | | | iS | **Sg** | **20 24 17.4** | **+0.9** |
| **SVAN** | **Silvan-Diyarba** | **1.68** | **253** | ePN | **Pb** | **20 23 53.9** | **-0.3** |
| **SVAN** | **Silvan-Diyarba** | **1.68** | **253** | iP | **Pb** | **20 23 54.1** | **-0.1** |
| SVAN | | | | iS | **Sg** | **20 24 17.7** | **+0.4** |
| **SVAN** | **Silvan-Diyarba** | **1.68** | **253** | ePn | **Pb** | **20 23 53.9** | **-0.3** |
| SVAN | | | | S | **Sg** | **20 24 17.7** | **+0.4** |
| **BTMN** | **Batman** | **1.73** | **244** | iP | **Pb** | **20 23 55.0** | **-0.1** |
| BTMN | | | | iS | **Sg** | **20 24 19.8** | **+0.9** |
| **BTMN** | **Batman** | **1.73** | **244** | P | **Pb** | **20 23 55.0** | **-0.1** |
| BTMN | | | | S | **Sg** | **20 24 19.8** | **+0.9** |
| **DIGO** | **Kars** | **1.75** | **4** | eP | **Pg** | **20 23 56.2** | **-0.7** |
| DIGO | | | | IAML | | 20 24 04.3 | |
| | comp=Z,15nm,0.6s | | | | | | |
| **ERZM** | **Erzurum** | **1.90** | **311** | eP | **Pb** | **20 23 58.4** | **+0.2** |
| **ERZM** | **Erzurum** | **1.90** | **311** | iP | **Pg** | **20 23 59.0** | **-0.9** |
| ERZM | | | | iS | **Sg** | **20 24 24.6** | **+0.1** |
| **ERZM** | **Erzurum** | **1.90** | **311** | P | **Pg** | **20 23 59.0** | **-0.9** |
| ERZM | | | | S | **Sg** | **20 24 24.6** | **+0.1** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| KARS | Kars | 1.96 | 357 | ePN | Pb | 20 23 57.8 | -1.3 |
| KARS | Kars | 1.96 | 357 | ePn | Pb | 20 23 57.8 | -1.3 |
| ECAT | Cat-ERZURUM | 1.99 | 299 | eP | Pb | 20 23 59.6 | 0.0 |
| ECAT | | | | IAML | | 20 24 06.6 | |
| | comp=Z,15nm,0.6s | | | | | | |
| SENK | Senkaya-Erzuru | 2.01 | 341 | ePN | Pb | 20 23 58.6 | -1.3 |
| SENK | Senkaya-Erzuru | 2.01 | 341 | ePn | Pb | 20 23 58.6 | -1.3 |
| BNGB | Bingˆ¶l | 2.02 | 280 | ePN | Pb | 20 23 58.6 | -1.4 |
| BINT | Bingol | 2.15 | 276 | ePn | Pn | 20 23 58.6 | -0.6 |
| YEDI | Yedisu-Bingol | 2.23 | 291 | ePN | Pb | 20 24 02.0 | -1.6 |
| YEDI | Yedisu-Bingol | 2.23 | 291 | ePn | Pb | 20 24 02.0 | -1.6 |
| HANI | Diyarbakir_Han | 2.23 | 264 | i P | Pb | 20 24 03.4 | -0.3 |
| HANI | | | | i S | Sg | 20 24 34.6 | -0.5 |
| HANI | Diyarbakir_Han | 2.23 | 264 | P | Pb | 20 24 03.4 | -0.3 |
| DIY | Diyarbakir | 2.48 | 253 | ePn | Pb | 20 24 06.0 | -2.0 |
| DYBB | Diyarbakir | 2.53 | 255 | ePN | Pn | 20 24 06.0 | +1.6 |

*ISK **02** 20:32:38.7, 38°.68N×43°.20E, h5km, MD3.0*
*CSEM **02** 20:32:39.9±0.2, 38°.67N×43°.18E, h5km, MD3.0, Error ellipse: s-maj=4.0km s-min=3.7km az=120.0*
*ISCJB **02** 20:32:40.2±0.5, 38°.66N±0°.03×43°.16E±0°.04, h7km±6km, Error ellipse: s-maj=5.5km s-min=4.6km az=21.2*
*DDA **02** 20:32:40.0, 38°.63N×43°.18E, h7km, Ml3.2*
**ISC 02 20:32:40.4**±0.9**, 38°.65N**±0°.03×**43°.17E**±0°.03**, h11**km±9km**, n36, σ0s80**/50**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.18 | 109 | ePG | Pg | 20 32 44.0 | -0.4 |
| VANB | | | | eSG | Sg | 20 32 48.6 | +1.4 |
| VANB | Van | 0.18 | 109 | ePg | Pg | 20 32 44.0 | -0.4 |
| VANB | | | | eSg | Sg | 20 32 48.6 | +1.4 |
| TVAN | Van | 0.22 | 124 | i P | Pg | 20 32 44.0 | -1.2 |
| TVAN | | | | i S | Sg | 20 32 48.5 | 0.0 |
| TVAN | Van | 0.22 | 124 | P | Pg | 20 32 44.0 | -1.2 |
| TVAN | | | | S | Sg | 20 32 48.5 | 0.0 |
| GEVA | Gevas | 0.35 | 194 | i P | Pg | 20 32 46.3 | -1.2 |
| GEVA | | | | i S | Sg | 20 32 52.2 | 0.0 |
| GEVA | Gevas | 0.35 | 194 | P | Pg | 20 32 46.3 | -1.2 |
| GEVA | | | | S | Sg | 20 32 52.2 | 0.0 |
| ADCV | BITLIS_Adilcev | 0.38 | 294 | i P | Pg | 20 32 47.8 | -0.2 |
| ADCV | | | | i S | Sb | 20 32 55.2 | -0.2 |
| ADCV | BITLIS_Adilcev | 0.38 | 294 | P | Pg | 20 32 47.8 | -0.2 |
| ADCV | | | | S | Sb | 20 32 55.2 | -0.2 |
| ERCV | ERCIS-VAN | 0.39 | 20 | ePG | Pg | 20 32 46.8 | -1.4 |
| ERCV | ERCIS-VAN | 0.39 | 20 | ePg | Pg | 20 32 46.8 | -1.4 |
| VMUR | Van-Muradiye | 0.46 | 43 | i P | Pg | 20 32 49.3 | -0.2 |
| VMUR | | | | i S | Sb | 20 32 57.6 | -0.1 |
| VMUR | Van-Muradiye | 0.46 | 43 | P | Pg | 20 32 49.3 | -0.2 |
| VMUR | | | | S | Sb | 20 32 57.6 | -0.1 |
| CLDR | Caldiran | 0.76 | 50 | ePG | Pg | 20 32 54.2 | -1.0 |
| CLDR | | | | eSG | Sg | 20 33 05.1 | -0.1 |
| CLDR | Caldiran | 0.76 | 50 | i P | Pg | 20 32 54.5 | -0.7 |
| CLDR | | | | i S | Sb | 20 33 07.3 | +0.9 |
| CLDR | Caldiran | 0.76 | 50 | ePg | Pg | 20 32 54.2 | -1.0 |
| CLDR | Caldiran | 0.76 | 50 | P | Pg | 20 32 54.5 | -0.7 |
| CLDR | | | | eSg | Sg | 20 33 05.1 | -0.1 |
| CLDR | | | | S | Sb | 20 33 07.3 | +0.9 |
| TUTA | Tutak | 0.80 | 340 | i P | Pg | 20 32 55.1 | -0.8 |
| TUTA | Tutak | 0.80 | 340 | P | Pg | 20 32 55.1 | -0.8 |
| AGRB | Hanur-Agry | 0.93 | 352 | ePG | Pg | 20 32 57.0 | -1.4 |
| AGRB | Hanur-Agry | 0.93 | 352 | ePg | Pg | 20 32 57.0 | -1.4 |
| SIRT | Sirnak | 1.29 | 207 | ePN | Pb | 20 33 04.9 | +0.2 |
| SIRT | Sirnak | 1.29 | 207 | ePn | Pb | 20 33 04.9 | +0.2 |
| VRTB | Varto-Mus | 1.43 | 291 | ePN | Pg | 20 33 07.3 | -0.6 |
| VRTB | Varto-Mus | 1.43 | 291 | ePn | Pg | 20 33 07.3 | -0.6 |
| CUKT | Cukurca | 1.45 | 166 | ePN | Pb | 20 33 07.3 | -0.1 |
| CUKT | Cukurca | 1.45 | 166 | ePn | Pb | 20 33 07.3 | -0.1 |
| TASB | TASBURUN-IGDIR | 1.57 | 32 | ePN | Pn | 20 33 08.4 | +0.1 |
| TASB | TASBURUN-IGDIR | 1.57 | 32 | ePn | Pn | 20 33 08.4 | +0.1 |
| SVAN | Silvan-Diyarba | 1.63 | 253 | ePN | Pn | 20 33 10.0 | +0.9 |
| SVAN | Silvan-Diyarba | 1.63 | 253 | ePn | Pn | 20 33 10.0 | +0.9 |
| KARS | Kars | 1.97 | 358 | ePN | Pn | 20 33 14.2 | +0.2 |
| KARS | Kars | 1.97 | 358 | ePn | Pn | 20 33 14.2 | +0.2 |
| BNGB | Bingˆ¶l | 1.97 | 281 | ePN | Pn | 20 33 15.0 | +1.1 |
| SENK | Senkaya-Erzuru | 2.01 | 342 | ePN | Pn | 20 33 15.3 | +0.8 |
| SENK | Senkaya-Erzuru | 2.01 | 342 | ePn | Pn | 20 33 15.3 | +0.8 |
| BINT | Bingol | 2.11 | 277 | ePn | Pn | 20 33 15.0 | -0.8 |

*ISCJB **02** 20:37:38.3±0.3, 59°.65N±0°.02×153°.22W±0°.05, h131km±3km, mb3.3/1, Error ellipse: s-maj=5.1km s-min=3.0km az=35.1*
*IDC **02** 20:37:38.1±1.8, 59°.76N×153°.43W, h90km±30km, mb3.2/1, mb1 3.2/4, mb1mx2.9/54, mbtmp3.3/4, Error ellipse: s-maj=37.2km s-min=12.5km az=104.0*
*NEIC **02** 20:37:40.5±0.0, 59°.67N×153°.43W, h121km, MG2.8(AEIC), After AEIC.*
**ISC 02 20:37:38.9**±0.9**, 59°.68N**±0°.03×**153°.27W**±0°.04**, h132**km±6km**, n86, σ1s99**/121**, Southern Alaska**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AUL | Augustine Lava | 0.31 | 196 | P | Pn | 20 37 57.2 | -0.2 |
| AUE | Augustine Isla | 0.33 | 189 | ePn | Pn | 20 37 57.1 | -0.2 |
| AUJK | Augustine Jueg | 0.34 | 192 | P | Pn | 20 37 57.3 | -0.2 |
| AUI | Augustine Isla | 0.36 | 193 | P | Pn | 20 37 57.2 | -0.3 |
| AUI | | | | S | Sn | 20 38 10.0 | -1.6 |
| IVE | Iliamna Volcan | 0.36 | 21 | P | Pn | 20 37 57.4 | -0.3 |
| RED | Redoubt Volcan | 0.78 | 18 | P | Pn | 20 38 00.3 | +0.1 |
| RED | | | | S | Sn | 20 38 15.6 | -0.8 |
| CDD | Cape Douglas | 0.78 | 194 | P | Pn | 20 37 59.8 | -0.4 |
| RSO | Redoubt South | 0.82 | 18 | ePn | Pn | 20 38 00.8 | +0.2 |
| RSO | | | | eSn | Sn | 20 38 16.5 | -0.7 |
| HOM | Homer | 0.83 | 91 | ePn | Pn | 20 37 58.9 | -1.5 |
| RDWB | Redoubt West | 0.84 | 15 | P | Pn | 20 38 00.7 | 0.0 |
| RDWB | | | | S | Sn | 20 38 16.5 | -0.7 |
| FOSS | Fourpeaked Sta | 0.91 | 194 | ePn | Pn | 20 38 00.8 | -0.4 |
| FONW | Fourpeaked Sta | 0.91 | 202 | P | Pn | 20 38 00.9 | -0.4 |
| FOPK | Fourpeaked Vol | 0.93 | 187 | P | Pn | 20 38 00.9 | -0.6 |
| RDJH | Redoubt Jeurge | 0.94 | 14 | P | Pn | 20 38 01.8 | +0.2 |
| RDJH | | | | S | Sn | 20 38 18.7 | -0.2 |
| DFR | Drift River | 0.96 | 18 | P | Pn | 20 38 02.0 | +0.3 |
| DFR | | | | S | Sn | 20 38 18.8 | -0.3 |
| CNPM | China Poot | 1.05 | 98 | ePn | Pn | 20 38 03.0 | +0.6 |
| CNPM | | | | eSn | Sn | 20 38 20.4 | +0.1 |
| BRLK | Bradley Lake | 1.21 | 85 | ePn | Pn | 20 38 04.4 | +0.3 |
| BRLK | | | | eSn | Sn | 20 38 23.1 | -0.1 |
| BRLK | | | | eSn | Sn | 20 38 23.3 | +0.1 |
| KAPH | Katmai Pasha | 1.22 | 207 | P | Pn | 20 38 03.8 | -0.4 |
| KAPH | | | | S | Sn | 20 38 21.7 | -1.8 |
| KAHC | Katmai Hardscr | 1.37 | 222 | P | Pn | 20 38 05.2 | -0.7 |
| KAWH | Katmai | 1.52 | 212 | P | Pn | 20 38 06.9 | -0.6 |
| CKL | Chakachamna La | 1.59 | 17 | P | Pn | 20 38 09.1 | +0.9 |
| SPU | Mount Spurr | 1.62 | 21 | ePn | Pn | 20 38 09.3 | +0.8 |
| SPU | | | | eSn | Sn | 20 38 31.0 | -0.1 |
| SPWE | Spurr West | 1.64 | 12 | P | Pn | 20 38 09.9 | +1.1 |
| KVTA | Katmai Vly 10 | 1.67 | 220 | P | Pn | 20 38 08.8 | -0.3 |
| SPCP | Crater Peak Br | 1.68 | 19 | P | Pn | 20 38 10.4 | +1.0 |
| SPCP | | | | S | Sn | 20 38 33.4 | +0.8 |
| KABU | Katmai Buttres | 1.76 | 217 | P | Pn | 20 38 10.0 | -0.2 |
| KABU | | | | S | Sn | 20 38 33.1 | -1.0 |
| KELA | Mount Kelaz | 1.78 | 227 | P | Pn | 20 38 09.8 | -0.7 |
| SVW2 | Sparrevohn | 1.82 | 322 | ePn | Pn | 20 38 10.1 | -0.8 |
| KDAK | Kodiak Island | 1.94 | 169 | P | Pn | 20 38 11.5 | -0.7 |
| | 4.6nm,0.3s,baz=24,slow=8.0,SNR=336 | | | | | | |
| KDAK | | | | S | Sn | 20 38 35.8 | -1.9 |
| | 34nm,0.3s,baz=218,slow=23,SNR=51 | | | | | | |
| KDAK | Kodiak Island | 1.94 | 169 | ePn | Pn | 20 38 11.5 | -0.7 |
| KDAK | | | | eSn | Sn | 20 38 34.5 | -3.2 |
| STLK | Strandline Lak | 1.96 | 21 | P | Pn | 20 38 13.8 | +1.3 |
| SEW | Seward | 1.97 | 76 | ePn | Pn | 20 38 13.5 | +1.0 |
| SEW | | | | eSn | Sn | 20 38 38.1 | -0.2 |
| SUA | Susitna One | 2.18 | 34 | ePn | Pn | 20 38 16.8 | +1.5 |
| SUA | | | | eSn | Sn | 20 38 42.8 | -0.4 |
| RC01 | Rabbit Creek A | 2.25 | 50 | ePn | Pn | 20 38 17.4 | +1.4 |
| RC01 | | | | eSn | Sn | 20 38 43.7 | -0.8 |
| SKT | Skwentna | 2.46 | 20 | ePn | Pn | 20 38 19.3 | +0.7 |
| OHAK | Old Harbor | 2.47 | 180 | ePn | Pn | 20 38 17.6 | -1.2 |
| OHAK | | | | eSn | Sn | 20 38 46.9 | -2.4 |
| PLK2 | Peulik 2 | 2.50 | 221 | P | Pn | 20 38 19.0 | -0.1 |
| PLK1 | Peulik 1 | 2.57 | 224 | P | Pn | 20 38 19.8 | -0.1 |
| PMR | Palmer | 2.80 | 45 | ePn | Pn | 20 38 23.9 | +1.1 |
| PMR | | | | eSn | Sn | 20 38 55.5 | -1.3 |
| KNK | Knik Glacier | 2.94 | 52 | ePn | Pn | 20 38 25.5 | +0.7 |
| SML | Sawmill | 3.23 | 47 | P | Pn | 20 38 28.7 | +0.2 |
| PPLA | Purkeypile | 3.27 | 9 | ePn | Pn | 20 38 31.0 | +1.9 |
| PPLA | | | | eSn | Sn | 20 38 55.7 | -12 |
| GLI | Glacier Island | 3.30 | 66 | ePn | Pn | 20 38 30.4 | +0.9 |
| GLI | | | | eSn | Sn | 20 39 04.0 | -4.5 |
| TT01 | Tatalina | 3.50 | 339 | ePn | Pn | 20 38 31.9 | -0.1 |
| TTA | Tatalina | 3.52 | 339 | ePn | Pn | 20 38 31.9 | -0.4 |
| TTA | | | | eSn | Sn | 20 38 55.3 | -18 |
| FID | Port Fidalgo | 3.55 | 70 | P | Pn | 20 38 33.0 | +0.2 |
| JPK | Jack Peak | 3.59 | 65 | ePn | Pn | 20 38 34.6 | +1.4 |
| SCM | Sheep Creek Mo | 3.63 | 51 | ePn | Pn | 20 38 34.6 | +0.8 |
| SCM | | | | eSn | Sn | 20 39 15.9 | -0.3 |
| CAST | Castle Rocks | 3.79 | 8 | ePn | Pn | 20 38 36.6 | +0.7 |
| EYAK | Cordova Ski Ar | 3.86 | 74 | ePn | Pn | 20 38 38.5 | +1.7 |
| EYAK | | | | eSn | Sn | 20 39 20.3 | -1.3 |
| DIV | Divide | 3.99 | 65 | ePn | Pn | 20 38 39.9 | +1.4 |
| DIV | | | | eSn | Sn | 20 39 23.2 | -1.6 |
| TRF | Thorofare Moun | 4.04 | 19 | ePn | Pn | 20 38 39.9 | +0.6 |
| TRF | | | | eSn | Sn | 20 39 19.3 | -6.8 |
| KTH | Kantishna Hill | 4.04 | 15 | ePn | Pn | 20 38 40.2 | +1.0 |
| KLU | Klutina | 4.05 | 60 | ePn | Pn | 20 38 40.1 | +0.7 |
| KLU | | | | eSn | Sn | 20 39 24.3 | -2.0 |
| RND | Reindeer | 4.29 | 28 | ePn | Pn | 20 38 42.9 | +0.4 |
| RND | | | | eSn | Sn | 20 39 27.0 | -4.9 |
| CHGN | Chignik | 4.36 | 221 | ePn | Pn | 20 38 42.8 | -0.5 |
| CHGN | | | | eSn | Sn | 20 39 29.6 | -3.8 |
| RAGM | Ragged Mountai | 4.37 | 77 | ePn | Pn | 20 38 45.2 | +1.7 |
| RAGM | | | | eSn | Sn | 20 39 32.7 | -1.1 |
| DHY | Denali Highway | 4.43 | 37 | ePn | Pn | 20 38 45.6 | +1.2 |
| BMRM | Bremner River | 4.50 | 70 | ePn | Pn | 20 38 46.7 | +1.5 |
| BMRM | | | | eSn | Sn | 20 39 30.8 | -6.0 |
| MCK | McKinley | 4.56 | 25 | ePn | Pn | 20 38 45.9 | -0.1 |
| BPAW | Bear Paw Mtn. | 4.56 | 13 | ePn | Pn | 20 38 46.2 | +0.1 |
| HARP | HAARP | 4.80 | 52 | ePn | Pn | 20 38 49.2 | 0.0 |
| PAX | Paxson | 5.00 | 45 | ePn | Pn | 20 38 52.6 | +0.7 |
| PAX | | | | eSn | Sn | 20 39 42.9 | -5.9 |
| WRH | Wood River Hil | 5.38 | 25 | ePn | Pn | 20 38 56.5 | -0.5 |
| WRH | | | | eSn | Sn | 20 39 46.3 | -12 |
| MLY | Manley | 5.50 | 11 | ePn | Pn | 20 38 57.8 | -0.7 |
| HDA | Harding Lake | 5.60 | 29 | ePn | Pn | 20 39 00.2 | +0.4 |
| HDA | | | | eSn | Sn | 20 39 59.8 | -3.2 |
| CCB | Clear Creek Bu | 5.60 | 25 | ePn | Pn | 20 39 00.0 | +0.1 |
| MENT | Mentasta | 5.64 | 51 | ePn | Pn | 20 39 02.3 | +1.8 |
| MDM | Murphy Dome | 5.79 | 22 | ePn | Pn | 20 38 59.7 | -2.8 |
| IL1 | Eielson Array | 5.91 | 28 | ePn | Pn | 20 39 03.9 | -0.2 |
| IL1 | | | | eSn | Sn | 20 40 04.1 | -6.5 |
| ILAR | Eielson Array | 5.91 | 28 | P | Pn | 20 39 04.4 | +0.3 |
| | 1.3nm,0.3s,baz=217,slow=13,SNR=61 | | | | | | |
| ILAR | | | | S | Sn | 20 40 07.6 | -3.0 |
| | 0.5nm,0.3s,baz=212,slow=26,SNR=6.6 | | | | | | |
| ILB | Eielson Array | 5.91 | 28 | ePn | Pn | 20 39 04.1 | 0.0 |
| ILB | | | | eSn | Sn | 20 40 02.8 | -7.8 |
| DOT | Dot Lake | 5.92 | 44 | ePn | Pn | 20 39 04.3 | +0.1 |
| DOT | | | | eSn | Sn | 20 40 07.4 | -3.4 |
| IMAR | Indian Mountai | 6.33 | 358 | ePn | Pn | 20 39 10.4 | +0.8 |
| YKU2 | Yakutat | 6.91 | 86 | ePn | Pn | 20 39 17.6 | +0.1 |
| YKU2 | | | | eSn | Sn | 20 40 29.8 | -4.7 |
| EGAK | Eagle | 7.62 | 43 | ePn | Pn | 20 39 26.2 | -0.8 |
| COLD | Coldfoot | 7.70 | 9 | ePn | Pn | 20 39 21.9 | -6.2 |
| FYU | Fort Yukon | 7.80 | 24 | ePn | Pn | 20 39 27.5 | -1.9 |
| DAWY | Dawson | 7.89 | 50 | ePn | Pn | 20 39 31.7 | +1.0 |
| HYT | Haines Junctio | 7.92 | 75 | ePn | Pn | 20 39 33.2 | +1.9 |
| HYT | | | | eSn | Sn | 20 40 49.9 | -9.4 |
| WHY | Whitehorse | 9.21 | 76 | ePn | Pn | 20 39 51.0 | +2.4 |
| WHY | | | | eSn | Sn | 20 41 15.7 | -15 |
| BESE | Bessie Mountai | 9.53 | 89 | ePn | Pn | 20 39 51.3 | -1.5 |
| YKA | Yellowknife Ar | 18.71 | 65 | P | Pn | 20 41 50.0 | +1.3 |
| | 0.1nm,0.3s,baz=271,slow=13,SNR=4.5 | | | | | | |
| YKA | Yellowknife Ar | 18.71 | 65 | P | Pn | 20 41 50.0 | +1.3 |
| SONA0 | Songino Array | 54.87 | 306 | eP | P | 20 46 57.7 | +2.4 |
| SONM | Songino Array | 54.87 | 306 | P | P | 20 46 57.7 | +2.4 |
| | 0.4nm,0.6s,baz=56,slow=7.7,SNR=3.6 | | | | | | |

*ISCJB **02** 20:39:08.3±0.5, 42°.44N±0°.05×138°.20E±0°.06, h250km, mb3.2/5, Error ellipse: s-maj=7.4km s-min=6.0km az=169.4*
*JMA **02** 20:39:08.7±0.5, 42°.39N×138°.20E, h262km±4km, M3.1*
*IDC **02** 20:39:08.9±1.2, 42°.49N×138°.19E, h252km±15km, mb2.9/5, mb1 2.9/8, mb1mx2.7/51, mbtmp3.4/8, Error ellipse: s-maj=28.0km s-min=15.1km az=158.0*
**ISC 02 20:39:08.5**±0.9**, 42°.39N**±0°.06×**138°.26E**±0°.06**, h250**km**, n26, σ1s32**/30**, mb3.2**/5**, Eastern Sea of Japan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JOSM | Okushiri--Mats | 0.95 | 108 | P | Pn | 20 39 45.0 | +1.8 |
| JSH | Shimam | 1.35 | 78 | P | Pn | 20 39 47.4 | +1.8 |
| JYM2 | Yakumo 2 | 1.59 | 99 | P | Pn | 20 39 49.6 | +2.1 |
| JKB | Kayabe | 2.12 | 103 | P | Pn | 20 39 53.5 | +1.5 |
| JOT | Ohata | 2.31 | 115 | P | Pn | 20 39 55.1 | +1.2 |
| JEW | Eniwo | 2.40 | 78 | P | Pn | 20 39 56.5 | +1.8 |
| JHR | Hokuryu | 2.88 | 61 | P | Pn | 20 40 01.8 | +2.2 |
| JANG | Nango | 3.17 | 128 | P | Pn | 20 40 03.1 | +0.3 |
| JNBK | Urakawa-nobuka | 3.33 | 90 | P | Pn | 20 40 05.0 | +0.4 |
| JKK2 | Kamakawa 2 | 3.61 | 64 | P | Pn | 20 40 09.1 | +1.5 |
| JKK2 | | | | eS | S | 20 40 55.0 | +0.4 |
| ASAJ | Asahikawa | 3.61 | 60 | P | Pn | 20 40 08.9 | +1.2 |
| | 1.2nm,0.3s,baz=222,slow=12,SNR=19 | | | | | | |
| ASAJ | | | | S | S | 20 40 55.0 | +0.3 |
| | 0.3nm,0.3s,baz=62,slow=32,SNR=11 | | | | | | |
| JOM | Ohasama | 3.71 | 141 | eS | S | 20 40 56.6 | -0.3 |
| JCH | Churui | 3.78 | 85 | P | Pn | 20 40 10.0 | +0.3 |
| JCH | | | | eS | S | 20 40 56.6 | -1.6 |
| JYK | Kaneyama | 3.82 | 155 | P | Pn | 20 40 11.5 | +1.3 |
| JSE | Soyaes | 4.06 | 49 | P | Pn | 20 40 13.8 | +1.0 |
| JMK | Ichinoseki | 4.11 | 146 | P | Pn | 20 40 13.7 | +0.2 |
| JAR | Ashorobuto | 4.15 | 76 | P | Pn | 20 40 14.2 | +0.2 |
| JAR | | | | eS | S | 20 41 04.3 | -1.8 |
| JSD | Sado | 4.34 | 180 | P | Pn | 20 40 18.2 | +1.8 |
| JTKR | Abashiri--Toko | 4.42 | 67 | P | Pn | 20 40 18.6 | +1.4 |
| USRK | Ussuriysk Ar. | 4.92 | 294 | P | Pn | 20 40 23.4 | +0.2 |
| | 0.4nm,0.3s,baz=95,slow=12,SNR=7.5 | | | | | | |
| MJAR | Matsushiro Arr | 5.84 | 180 | P | Pn | 20 40 36.5 | +1.8 |
| | 0.5nm,0.3s,baz=360,slow=11,SNR=6.1 | | | | | | |
| SONM | Songino Array | 23.03 | 295 | P | P | 20 43 51.9 | 0.0 |
| | 0.2nm,0.5s,baz=105,slow=11,SNR=1.8 | | | | | | |
| ZALV | Zalesovo Beam | 36.62 | 307 | P | P | 20 45 49.8 | -1.0 |
| | 1.1nm,0.5s,baz=88,slow=8.7,SNR=7.2 | | | | | | |
| MKAR | Makanchi Array | 39.38 | 296 | P | P | 20 46 12.9 | -1.1 |
| | 0.6nm,0.6s,baz=86,slow=10,SNR=9.4 | | | | | | |
| BVAR | Borovoye Array | 45.26 | 308 | P | P | 20 47 00.3 | -0.7 |
| | 0.6nm,0.5s,baz=78,slow=7.9,SNR=6.9 | | | | | | |
| ILAR | Eielson Array | 46.39 | 35 | P | P | 20 47 09.8 | +0.2 |
| | 0.3nm,0.5s,baz=258,slow=4.8,SNR=7.5 | | | | | | |

*IDC **02** 20:53:16.3±2.9, 35°.51N×141°.37E, h0km, mb3.5/5, mb1 3.5/6, mb1mx3.3/47, mbtmp3.4/6, ML3.0/1, MS3.9/1, Ms1 3.9/1, ms1mx3.1/34, Error ellipse: s-maj=98.1km s-min=21.1km az=62.0*
*ISCJB **02** 20:53:18.3±0.9, 35°.40N±0°.05×141°.34E±0°.07, h25km, mb3.5/5, MS3.9/1, Error ellipse: s-maj=8.6km s-min=6.7km az=163.5*
*JMA **02** 20:53:19.1±0.1, 35°.41N×141°.27E, h29km±1km, M2.6*
**ISC 02 20:53:20.1**±1.2**, 35°.42N**±0°.05×**141°.23E**±0°.08**, h25**km**, n22, σ1s19**/19**, mb3.6**/5**, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CHOJ | Chosi | 0.41 | 314 | P | Pb | 20 53 28.5 | -0.4 |
| CHOJ | | | | eS | Sb | 20 53 35.4 | +0.5 |
| BSO1 | Boso 1 | 0.79 | 195 | P | Pb | 20 53 33.7 | -1.1 |
| BSO1 | | | | eX | | 20 53 45.0 | |
| KTR | Katsuura | 0.79 | 251 | P | Pb | 20 53 34.1 | -1.1 |
| KTR | | | | S | Sb | 20 53 46.1 | +0.6 |
| JCN | Nagara | 0.84 | 270 | eS | Sb | 20 53 47.3 | +0.5 |
| BSO4 | Boso 4 | 0.84 | 240 | P | Pb | 20 53 35.5 | -0.5 |
| BSO4 | | | | eX | | 20 53 46.6 | |
| BSO3 | Boso 3 | 0.85 | 224 | P | Pb | 20 53 35.2 | -0.8 |
| BSO3 | | | | X | | 20 53 48.1 | |
| JYT | Yasato | 1.17 | 314 | P | Pn | 20 53 40.6 | -0.2 |
| JYT | | | | eS | Sn | 20 53 55.6 | -0.3 |
| JHO | Hitachi | 1.31 | 336 | P | Pn | 20 53 42.3 | -0.5 |
| MJAR | Matsushiro Arr | 2.69 | 296 | Pn | Pn | 20 54 03.1 | +1.3 |
| | 2.3nm,0.3s,baz=98,slow=7.7,SNR=24 | | | | | | |
| MAT | Matsushiro | 2.69 | 296 | P | Pn | 20 54 03.3 | +1.4 |
| MAT | | | | eS | Sn | 20 54 31.3 | -2.4 |
| H11N2 | WAKE ISLAND Hy | 27.49 | 118 | T | T | 21 27 52.8 | |
| | baz=310,slow=75,SNR=9.4 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 27.50 | 118 | T | T | 21 27 54.5 | |
| | baz=310,slow=75,SNR=6.4 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 27.51 | 118 | T | T | 21 27 53.3 | |
| | baz=310,slow=75,SNR=7.1 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 28.14 | 120 | T | T | 21 28 37.0 | |
| | baz=312,slow=76,SNR=39 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 28.14 | 120 | T | T | 21 28 36.7 | |
| | baz=312,slow=76,SNR=33 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 28.16 | 120 | T | T | 21 28 36.7 | |
| | baz=312,slow=76,SNR=43 | | | | | | |
| TIXI | Tiksi | 36.88 | 354 | LR | LR | 21 16 38.4 | |
| | comp=Z,199nm,20.7s,baz=112,slow=38 | | | | | | |
| ZALV | Zalesovo Beam | 42.91 | 314 | P | P | 21 01 16.8 | +0.5 |
| | 0.4nm,0.4s,baz=79,slow=9.6,SNR=2.5 | | | | | | |
| MKAR | Makanchi Array | 44.87 | 303 | P | P | 21 01 32.2 | 0.0 |
| | 0.4nm,0.5s,baz=84,slow=10.0,SNR=7.1 | | | | | | |
| KURBB | Kurchatov Arra | 46.89 | 309 | P | P | 21 01 47.6 | -0.5 |
| | 0.5nm,0.4s,baz=82,slow=7.6,SNR=5.2 | | | | | | |
| WRA | Warramunga Arr | 55.44 | 188 | P | P | 21 02 51.6 | -0.9 |
| | 0.3nm,0.5s,baz=1.8,slow=7.7,SNR=10.0 | | | | | | |
| ASAR | Alice Springs | 59.17 | 188 | P | P | 21 03 21.5 | +2.6 |
| | 0.2nm,0.7s,baz=0.0,slow=9.3,SNR=3.9 | | | | | | |

**WEL 02 20:54:44.6**±0.2**, 37°.55S**×**179°.87E, h33**km**, ML3.6**/14**, 5C-1D, Error ellipse: s-maj=2.7km s-min=2.1km az=0.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WMGZ | Waiomatatini S | 1.18 | 257 | ⇑PN | Pn | 20 55 04.2 | -0.5 |
| WMGZ | | | | AML | AML | 20 55 21.1 | |
| WMGZ | | | | AML | AML | 20 55 21.3 | |
| MXZ | Matakaoa Point | 1.24 | 269 | ⇑PN | Pn | 20 55 04.9 | -0.7 |
| MXZ | | | | SN | Sn | 20 55 20.4 | -0.8 |
| MXZ | | | | AML | AML | 20 55 23.8 | |
| PUZ | Puketiti | 1.38 | 247 | ⇓PN | Pn | 20 55 06.5 | -0.9 |
| PUZ | | | | SN | Sn | 20 55 23.6 | -1.0 |
| PUZ | | | | AML | AML | 20 55 24.6 | |
| PKGZ | Pakihiroa | 1.46 | 256 | PN | Pn | 20 55 07.9 | -0.8 |
| PKGZ | | | | SN | Sn | 20 55 25.0 | -1.7 |
| PKGZ | | | | AML | AML | 20 55 27.3 | |
| CNGZ | Carnagh Statio | 1.61 | 234 | PN | Pn | 20 55 10.4 | -0.3 |
| TWGZ | Tauwhareparae | 1.62 | 247 | PN | Pn | 20 55 10.4 | -0.5 |
| TWGZ | | | | AML | AML | 20 55 31.6 | |
| TWGZ | | | | AML | AML | 20 55 32.3 | |
| HAZ | Te Kaha | 1.67 | 262 | PN | Pn | 20 55 11.3 | -0.1 |
| HAZ | | | | SN | Sn | 20 55 31.0 | -0.7 |
| HAZ | | | | AML | AML | 20 55 36.1 | |
| RUGZ | Raukumara Rang | 1.78 | 256 | PN | Pn | 20 55 12.7 | -0.4 |
| MWZ | Matawai | 2.01 | 246 | ⇑PN | Pn | 20 55 15.3 | -0.9 |
| MWZ | | | | AML | AML | 20 55 40.3 | |
| MWZ | | | | AML | AML | 20 55 40.7 | |
| RIGZ | Rimuhau | 2.02 | 235 | PN | Pn | 20 55 15.7 | -0.7 |
| RIGZ | | | | AML | AML | 20 55 40.9 | |
| RIGZ | | | | AML | AML | 20 55 41.7 | |
| RAGZ | Rawiri | 2.15 | 243 | PN | Pn | 20 55 17.8 | -0.4 |
| RAGZ | | | | AML | AML | 20 55 48.5 | |
| RAGZ | | | | AML | AML | 20 55 49.2 | |
| MHGZ | Mahia Peninsul | 2.22 | 223 | PN | Pn | 20 55 18.4 | -0.7 |
| KNZ | Kokohu | 2.27 | 229 | PN | Pn | 20 55 18.3 | -1.3 |
| URZ | Urewera | 2.29 | 251 | PN | Pn | 20 55 20.0 | -0.1 |
| URZ | | | | SN | Sn | 20 55 45.8 | -1.2 |
| URZ | | | | AML | AML | 20 55 48.5 | |
| SNGZ | Shannon Statio | 2.34 | 238 | PN | Pn | 20 55 19.8 | -1.0 |
| SNGZ | | | | AML | AML | 20 55 48.1 | |
| SNGZ | | | | AML | AML | 20 55 53.0 | |
| WHHZ | Waihua | 2.57 | 233 | PN | Pn | 20 55 23.3 | -0.6 |
| WHHZ | | | | AML | AML | 20 55 58.1 | |
| MUGZ | Murupara | 2.61 | 248 | ⇑PN | Pn | 20 55 23.8 | -0.7 |
| MTHZ | Maungataniwha | 2.71 | 241 | ⇑PN | Pn | 20 55 25.3 | -0.6 |
| ARHZ | Aropaoanui | 2.83 | 232 | PN | Pn | 20 55 26.9 | -0.6 |
| ARHZ | | | | AML | AML | 20 56 03.2 | |
| BKZ | Black Stump Fm | 3.10 | 238 | PN | Pn | 20 55 30.2 | -1.1 |
| MCHZ | McNeill Hill | 3.12 | 232 | PN | Pn | 20 55 30.6 | -0.9 |
| KWHZ | Kaweka Forest | 3.29 | 234 | PN | Pn | 20 55 32.5 | -1.2 |
| KWHZ | | | | AML | AML | 20 56 12.5 | |
| KWHZ | | | | AML | AML | 20 56 16.0 | |
| BHHZ | Black Hill Sta | 3.56 | 236 | PN | Pn | 20 55 36.2 | -1.3 |
| OTVZ | Oturere | 3.67 | 243 | PN | Pn | 20 55 37.9 | -1.2 |
| PRHZ | Porangahau | 3.70 | 222 | PN | Pn | 20 55 36.7 | -2.7 |
| PNHZ | Pukenui | 3.71 | 229 | PN | Pn | 20 55 37.7 | -1.9 |
| PRWZ | Pori Road | 4.26 | 224 | PN | Pn | 20 55 45.3 | -1.8 |
| MRZ | Mangatainoka R | 4.56 | 226 | PN | Pn | 20 55 48.2 | -3.0 |
| MRZ | | | | SN | Sn | 20 56 37.7 | -5.2 |
| TMWZ | Te Maipa | 4.70 | 220 | PN | Pn | 20 55 48.8 | -4.4 |
| DUWZ | D'Urville Isla | 5.64 | 233 | ePN | Pn | 20 56 02.9 | -3.3 |
| QRZ | Quartz Range | 6.57 | 238 | ePN | Pn | 20 56 15.4 | -3.4 |
| CTZ | Chatham Island | 6.73 | 158 | PN | Pn | 20 56 21.4 | +0.4 |
| CTZ | | | | SN | Sn | 20 57 29.7 | -6.7 |

*NIED **02** 20:55:00, 35°.30N×140°.40E, h20km, Mw5.1 Best double couple: M0 4.75000×10^16 NP1:φs251.00000°, δ19.00000°, λ98.00000°. NP2:φs63.00000°, δ71.00000°, λ87.00000°.*
*BJI **02** 20:55:19.7, 35°.20N×140°.98E, h20km, mb4.9/66, mB5.0/58, Ms5.0/80, Ms7 4.8/75*
*ISCJB **02** 20:55:28.9±0.2, 35°.24N±0°.02×140°.20E±0°.02, h37km±2km, mb5.3/362, MS4.8/71, Error ellipse: s-maj=2.8km s-min=2.3km az=158.5*
*MOS **02** 20:55:28.1±1.0, 35°.22N×140°.16E, h33km, mb5.5/104, MS5.0/36, Error ellipse: s-maj=6.3km s-min=3.9km az=112.3*
*IDC **02** 20:55:29.2±0.5, 35°.23N×140°.16E, h29km±3km, mb4.9/39, mb1 5.0/42, mb1mx4.9/48, mbtmp5.0/42, ML4.7/2, MS4.7/34, Ms1 4.7/34, ms1mx4.5/46, Error ellipse: s-maj=9.9km s-min=8.0km az=89.0*
*GCMT **02** 20:55:29.5±0.2, 35°.29N×140°.38E, h29km, MW5.2/95, Moment Tensor Solution. s70,c118; s95,c165; Duration: 1s0 Moment tensor: Scale 10^16 Nm; Mrr5.47±.17; Mθθ-5.26±.12; Mφφ-0.21±.12; Mrθ4.28±.19; Mθφ-2.31±.09; Mφr2.46±.19; Best double couple: M0 7.63100×10^16 NP1:φs63.00000°, δ65.00000°, λ84.00000°. NP2:φs256.00000°, δ25.00000°, λ102.00000°. Principal axes: T 7.3200, Plg69.0000°, Azm322.0000°; N 0.6200, Plg5.0000°, Azm65.0000°; P -7.9420, Plg20.0000°, Azm157.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*JMA **02** 20:55:29.0±0.1, 35°.35N×140°.32E, h22km±1km, M5.2 Broadband fault plane solution: P waves. NP1: φs64.00000°, δ58.00000°, λ83.00000°. NP2:φs257.00000°, δ33.00000°, λ101.00000°. Principal axes: T Plg76.0000°, Azm314.0000°; N Plg6.0000°, Azm68.0000°; P Plg13.0000°, Azm159.0000°;*
*JMA Felt IV J1.*
*NEIC **02** 20:55:29.5±0.9, 35°.26N×140°.15E, h31km±6km, mb5.3/271 Error ellipse: s-maj=2.7km s-min=2.1km az=132.0*
*NEIC Felt [IV] at Chiba; [III] at Atsugi, Narita, Tokyo and Yokosuka; [II] at Yokohama and Zushi. Recorded [4 JMA] in Chiba.*
**ISC 02 20:55:28.8**±0.3**, 35°.25N**±0°.03×**140°.27E**±0°.03**, h28**km±2km**, h28**km**:pP-P, n1028, σ1s37**/1124**, mb5.3**/374**, MS4.9**/71**, 67C-55D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KTR | Katsuura | 0.10 | 161 | ⇑P | Pb | 20 55 34.0 | +0.2 |
| JCN | Nagara | 0.18 | 341 | ⇓P | Pb | 20 55 33.5 | -1.0 |
| BSO4 | Boso 4 | 0.26 | 168 | ⇑P | Pn | 20 55 36.9 | +0.2 |
| TATJ | Tateyama 2 | 0.38 | 236 | ⇓P | Pn | 20 55 38.7 | +0.2 |
| BSO3 | Boso 3 | 0.48 | 156 | ⇓P | Pn | 20 55 40.1 | +0.4 |
| TOK | Tokyo | 0.61 | 316 | P | Pb | 20 55 40.2 | -0.7 |
| BSO1 | Boso 1 | 0.83 | 135 | ⇓P | Pn | 20 55 43.8 | -0.3 |
| JIM2 | Oshima 3 | 0.87 | 233 | P | Pn | 20 55 44.9 | -0.4 |
| JIM2 | | | | S | Sn | 20 55 57.3 | +0.3 |
| JOD2 | Odawara 2 | 0.97 | 271 | ⇑P | Pn | 20 55 46.3 | -0.3 |
| JYT | Yasato | 0.98 | 356 | ⇓P | Pn | 20 55 44.6 | -2.1 |
| JYT | | | | S | Sn | 20 55 56.7 | -3.0 |
| AJI | Ajiro2 | 0.99 | 259 | P | Pn | 20 55 46.4 | -0.5 |
| JIZS | Izushimoda | 1.26 | 246 | P | Pn | 20 55 50.6 | 0.0 |
| JIZS | | | | S | Sn | 20 56 07.0 | +0.3 |
| JAG | Ashikaga | 1.35 | 331 | ⇓P | Pn | 20 55 50.6 | -1.3 |
| JRY | Ryogami san | 1.36 | 305 | P | Pn | 20 55 51.3 | -0.7 |
| JHO | Hitachi | 1.38 | 10 | ⇓P | Pn | 20 55 49.9 | -2.4 |
| JKO | Kozu shima | 1.41 | 222 | P | Pn | 20 55 53.0 | +0.3 |
| JYN | Shimob | 1.44 | 281 | ⇑P | Pn | 20 55 53.0 | -0.1 |
| SHZ3 | Shizuoka 3 | 1.70 | 264 | ⇑P | Pn | 20 55 57.6 | +0.9 |
| SHZ3 | | | | S | Sb | 20 56 19.4 | -1.1 |
| JKT | Katashina | 1.73 | 332 | P | Pn | 20 55 56.7 | -0.4 |
| JSB | Shiboa | 1.74 | 351 | P | Pn | 20 55 55.8 | -1.5 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **JNT** | **Takato** | **1.85** | **290** | ⇑P | **Pn** | **20 55 59.6** | **+0.8** |
| **JNY** | **Yasuok** | **1.98** | **274** | ⇑P | **Pn** | **20 56 02.1** | **+1.6** |
| **JNG** | **Nsakai** | **2.11** | **304** | P | **Pn** | **20 56 03.1** | **+0.7** |
| **MJAR** | **Matsushiro Arr** | **2.12** | **308** | Pn | **Pn** | **20 56 02.2** | **-0.2** |
| | 156nm,0.3s,baz=134,slow=13,SNR=284 | | | | | | |
| **MAJO** | **Matsushiro** | **2.12** | **308** | *c i*P | **Pn** | **20 56 02.9** | **+0.5** |
| **MAJO** | **Matsushiro** | **2.12** | **308** | *e*Pn | **Pn** | **20 56 02.9** | **+0.5** |
| **MAT** | **Matsushiro** | **2.12** | **308** | P | **Pn** | **20 56 02.4** | **0.0** |
| MAT | | | | *e*S | **Sn** | **20 56 29.3** | **+1.4** |
| **MAT** | **Matsushiro** | **2.12** | **308** | P | **Pn** | **20 56 02.8** | **+0.4** |
| **MJB9** | **Matsu-Tunnel** | **2.12** | **308** | *e*Pn | **Pn** | **20 56 02.9** | **+0.4** |
| **HMMJ** | **Hamamatsu 2** | **2.13** | **260** | P | **Pn** | **20 56 03.5** | **+0.9** |
| **JHJ** | **Hachijo jima 2** | **2.16** | **191** | Pn | **Pn** | **20 56 03.1** | **+0.1** |
| | 869nm,0.3s,baz=323,slow=18,SNR=50 | | | | | | |
| JHJ | | | | Sn | **Sn** | **20 56 28.4** | **-0.5** |
| | 484nm,0.3s,baz=65,slow=23,SNR=6.8 | | | | | | |
| **JHJ2** | **Mitsune** | **2.16** | **190** | ⇓P | **Pn** | **20 56 03.0** | **0.0** |
| JHJ2 | | | | S | **Sn** | **20 56 28.7** | **-0.2** |
| **JHJ2** | **Mitsune** | **2.16** | **190** | *e*Pn | **Pn** | **20 56 03.0** | **0.0** |
| JHJ2 | | | | *e*Sn | **Sn** | **20 56 27.4** | **-1.5** |
| **JHK** | **Hiroka** | **2.24** | **333** | P | **Pn** | **20 56 03.9** | **-0.2** |
| **JGF** | **Kuroka** | **2.41** | **279** | P | **Pn** | **20 56 08.1** | **+1.7** |
| **JAO** | **Obara** | **2.47** | **271** | P | **Pn** | **20 56 08.5** | **+1.2** |
| JAO | | | | S | **Sb** | **20 56 41.8** | **-0.7** |
| **JJN** | **Nakama** | **2.52** | **318** | P | **Pn** | **20 56 08.6** | **+0.7** |
| **JGN** | **Niukaw** | **2.60** | **293** | P | **Pn** | **20 56 10.4** | **+1.4** |
| **JAA** | **Atsumi** | **2.64** | **257** | P | **Pn** | **20 56 10.3** | **+0.7** |
| **JMM** | **Marumori** | **2.65** | **9** | P | **Pn** | **20 56 08.7** | **-1.0** |
| **INU** | **Inuyama** | **2.67** | **273** | *e*Pn | **Pn** | **20 56 11.1** | **+1.2** |
| **JTT** | **Ttatey** | **2.75** | **300** | P | **Pn** | **20 56 12.3** | **+1.3** |
| **JSZ** | **Suzu** | **3.22** | **314** | P | **Pn** | **20 56 16.5** | **-1.0** |
| **JSD** | **Sado** | **3.22** | **330** | P | **Pn** | **20 56 16.9** | **-0.7** |
| **JJH** | **Hakui** | **3.29** | **302** | P | **Pn** | **20 56 19.1** | **+0.7** |
| **JKN2** | **Miekihoku** | **3.44** | **254** | P | **Pn** | **20 56 22.0** | **+1.4** |
| **JHG** | **Hegura jima** | **3.75** | **315** | P | **Pn** | **20 56 24.7** | **0.0** |
| **JAH** | **Hinai** | **4.94** | **3** | P | **Pn** | **20 56 42.3** | **+1.1** |
| **ERM** | **Erimo** | **7.12** | **18** | *e*P | **Pn** | **20 57 09.3** | **-1.8** |
| **ERM** | **Erimo** | **7.12** | **18** | *e*Pn | **Pn** | **20 57 09.3** | **-1.8** |
| **JNU** | **Nakatsue** | **8.07** | **257** | Pn | **Pn** | **20 57 27.7** | **+3.5** |
| | 1.6nm,0.3s,baz=77,slow=2.5,SNR=7.2 | | | | | | |
| **JNU** | **Nakatsue** | **8.07** | **257** | *e*Pn | **Pn** | **20 57 24.4** | **+0.2** |
| **CBIJ** | **Chichi jima** | **8.29** | **168** | *e*Pn | **Pn** | **20 57 25.4** | **-1.7** |
| **JHHJ** | **Haha-jima-NKT** | **8.74** | **169** | P | **Pn** | **20 57 31.2** | **-2.2** |
| **ASAJ** | **Asahikawa** | **9.04** | **11** | Pn | **Pn** | **20 57 34.3** | **-3.1** |
| | 6.7nm,0.3s,baz=203,slow=14,SNR=49 | | | | | | |
| ASAJ | | | | Sn | **Sn** | **20 59 16.0** | **-2.2** |
| | baz=195,slow=20,SNR=1.8 | | | | | | |
| **ASAJ** | **Asahikawa** | **9.04** | **11** | *e*Pn | **Pn** | **20 57 33.5** | **-3.9** |
| ASAJ | | | | Sn | **Sn** | **20 59 16.0** | **-2.2** |
| **YUK** | **Yuzh-Kuril'sk** | **9.77** | **24** | *e*P | **Pn** | **20 57 44.0** | **-3.5** |
| YUK | | | | pmax | pmax | | |
| | comp=Z,184nm,0.4s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=E,43nm,0.3s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=N,88nm,0.2s | | | | | | |
| YUK | | | | MLR | MLR | | |
| | comp=Z,2μm,18.0s | | | | | | |
| YUK | | | | MLR | MLR | | |
| | comp=N,2μm,22.0s | | | | | | |
| **MSHR** | **Mys Shultsa** | **10.20** | **319** | ⇓*e*P | **Pn** | **20 57 55.0** | **+1.7** |
| **KSRS** | **Korea Array** | **10.20** | **286** | Pn | **Pn** | **20 57 55.2** | **+1.9** |
| | comp=N,0.8nm,0.3s,baz=101,slow=13,SNR=15 | | | | | | |
| KSRS | | | | LR | LR | 21 01 55.1 | |
| | comp=N,6μm,19.2s,baz=92,slow=38 | | | | | | |
| **VLA** | **Vladivostok** | **10.20** | **323** | *de*P | **Pn** | **20 57 55.4** | **+2.1** |
| **KS01** | **Wonju Array Si** | **10.23** | **286** | *e*Pn | **Pn** | **20 57 53.4** | **-0.3** |
| **KS15** | **Wonju Array Si** | **10.23** | **286** | *e*Pn | **Pn** | **20 57 53.9** | **+0.1** |
| **KSAR** | **Wonju Array Be** | **10.23** | **286** | P | **Pn** | **20 57 55.3** | **+1.5** |
| **KSAR** | **Wonju Array Be** | **10.23** | **286** | Pn | **Pn** | **20 57 55.2** | **+1.5** |
| **TJN** | **Taejon** | **10.55** | **280** | ⇓*e*P | **Pn** | **20 58 02.5** | **+4.4** |
| **USRK** | **Ussuriysk Ar.** | **10.98** | **327** | Pn | **Pn** | **20 58 05.5** | **+1.6** |
| | comp=N,1.0nm,0.3s,baz=136,slow=12,SNR=33 | | | | | | |
| USRK | | | | LR | LR | 21 02 00.3 | |
| | comp=N,5μm,20.2s,baz=127,slow=36 | | | | | | |
| **INCN** | **Inchon** | **11.22** | **285** | *e*Pn | **Pn** | **20 58 09.0** | **+1.6** |
| **KUR** | **Kuril'sk** | **11.53** | **28** | *e*P | **Pn** | **20 58 09.2** | **-2.3** |
| KUR | | | | pmax | pmax | | |
| | comp=Z,66nm,0.7s | | | | | | |
| KUR | | | | MLR | MLR | | |
| | comp=N,2μm,15.0s | | | | | | |
| KUR | | | | MLR | MLR | | |
| | comp=E,2μm,10.0s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **11.84** | **8** | *e*P | **Pn** | **20 58 13.6** | **-2.2** |
| YSS | | | | pmax | pmax | | |
| | comp=Z,20nm,0.6s | | | | | | |
| YSS | | | | MLR | MLR | | |
| | comp=N,4μm,15.0s | | | | | | |
| YSS | | | | MLR | MLR | | |
| | comp=E,5μm,15.0s | | | | | | |
| YSS | | | | MLR | MLR | | |
| | comp=Z,6μm,15.0s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **11.84** | **8** | *e*Pn | **Pn** | **20 58 13.4** | **-2.3** |
| **MDJ** | **Mudanjiang** | **12.43** | **322** | *e*Pn | **Pn** | **20 58 25.1** | **+1.2** |
| **JOW** | **Kunigami** | **13.27** | **234** | *e*Pn | **Pn** | **20 58 34.3** | **-1.0** |
| **HABR** | **Khabarovsk** | **13.77** | **345** | *e*P | **Pn** | **20 58 39.1** | **-3.0** |
| HABR | | | | *e*S | **Sn** | **21 01 11.5** | **-2.5** |
| HABR | | | | pmax | pmax | | |
| | comp=N,7.0nm,1.5s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=E,23nm,1.4s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=Z,34nm,1.4s | | | | | | |
| HABR | | | | MLR | MLR | | |
| | comp=Z,3μm,13.0s | | | | | | |
| **CN2** | **Changchun** | **14.26** | **311** | ⇑P | **Pn** | **20 58 51.6** | **+2.7** |
| CN2 | | | | *e*sP | P | 20 58 59.6 | +3.8 |
| CN2 | | | | *e*S | **Sn** | **21 01 30.1** | **+4.0** |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,200nm,3.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,3μm,15.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,2μm,15.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,3μm,16.0s | | | | | | |
| **SNY** | **Shenyang** | **14.62** | **302** | ⇓P | **Pn** | **20 58 56.0** | **+2.4** |
| SNY | | | | S | **Sn** | **21 01 41.1** | **+6.5** |
| SNY | | | | pmax | pmax | | |
| | comp=Z,36nm,1.9s | | | | | | |
| SNY | | | | LR | LR | | |
| | comp=Z,3μm,14.1s | | | | | | |
| SNY | | | | LR | LR | | |
| | comp=Z,4μm,15.9s | | | | | | |
| SNY | | | | LR | LR | | |
| | comp=Z,6μm,16.6s | | | | | | |
| **DL2** | **Dalian** | **15.32** | **289** | P | **P** | **20 59 05.6** | **-2.0** |
| DL2 | | | | S | **Sn** | **21 01 57.3** | **+5.4** |
| DL2 | | | | pmax | pmax | | |
| | comp=Z,150nm,1.1s | | | | | | |
| DL2 | | | | pmax | pmax | | |
| | comp=Z,800nm,6.9s | | | | | | |
| DL2 | | | | LR | LR | | |
| | comp=Z,5μm,15.2s | | | | | | |
| DL2 | | | | LR | LR | | |
| | comp=Z,6μm,15.9s | | | | | | |
| **TYV** | **Tymovskoe** | **15.70** | **6** | *e*P | Pn | 20 58 58.8 | -9.2 |
| TYV | | | | pmax | pmax | | |
| | comp=Z,67nm,1.5s | | | | | | |
| TYV | | | | MLR | MLR | | |
| | comp=N,2μm,14.0s | | | | | | |
| TYV | | | | MLR | MLR | | |
| | comp=Z,3μm,17.0s | | | | | | |
| **SSE** | **Sheshan** | **16.51** | **261** | P | **Pn** | **20 59 18.7** | **+0.3** |
| SSE | | | | pP | **pP** | **20 59 26.4** | **-1.8** |
| SSE | | | | S | **Sn** | **21 02 22.5** | **+1.8** |
| SSE | | | | sS | **sS** | **21 02 42.0** | **-1.7** |
| SSE | | | | pmax | pmax | | |
| | comp=Z,31nm,0.8s | | | | | | |
| SSE | | | | pmax | pmax | | |
| | comp=Z,160nm,4.3s | | | | | | |
| SSE | | | | LR | LR | | |
| | comp=Z,2μm,17.4s | | | | | | |
| SSE | | | | LR | LR | | |
| | comp=Z,3μm,17.4s | | | | | | |
| SSE | | | | LR | LR | | |
| | comp=Z,4μm,15.0s | | | | | | |
| **NJ2** | **Nanjing** | **18.11** | **266** | *e*P | **Pn** | **20 59 37.5** | **-0.9** |
| NJ2 | | | | S | **Sn** | **21 03 01.2** | **+1.5** |
| NJ2 | | | | sS | **S** | **21 03 10.2** | **+5.5** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,16nm,0.5s | | | | | | |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,530nm,4.6s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,3μm,15.7s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,2μm,14.1s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,2μm,15.7s | | | | | | |
| **YOJ** | **Yonaguni jima** | **18.40** | **239** | *e*P | **P** | **20 59 39.6** | **-2.2** |
| YOJ | | | | pmax | pmax | | |
| | comp=Z,153nm,0.9s | | | | | | |
| **YOJ** | **Yonaguni jima** | **18.40** | **239** | *e*P | **P** | **20 59 39.6** | **-2.2** |
| | comp=Z,153nm,0.9s | | | | | | |
| **TIA** | **Tai'an** | **18.82** | **280** | ⇓P | **Pn** | **20 59 49.1** | **+2.2** |
| TIA | | | | S | **S** | **21 03 24.0** | **+5.3** |
| TIA | | | | pmax | pmax | | |
| | comp=Z,30nm,1.2s | | | | | | |
| TIA | | | | pmax | pmax | | |
| | comp=Z,570nm,6.5s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,2μm,14.4s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,4μm,15.1s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,4μm,17.3s | | | | | | |
| **SARN** | **Sarigan** | **19.11** | **164** | *e*P | **Pn** | **20 59 51.7** | **+1.1** |
| **SKR** | **Severo-Kuril's** | **19.23** | **32** | ⇑*e*P | **P** | **20 59 48.5** | **-2.2** |
| **YHNB** | **Yeheng** | **19.44** | **242** | *e*P | **P** | **20 59 52.4** | **-0.8** |
| | comp=Z,88nm,1.4s | | | | | | |
| **NACB** | **Ninganchiao** | **19.59** | **241** | *e*P | **P** | **20 59 55.2** | **+0.5** |
| | comp=Z,24nm,0.8s | | | | | | |
| **BJI** | **Beijing** | **19.65** | **291** | P | **P** | **20 59 55.4** | **0.0** |
| BJI | | | | S | **S** | **21 03 34.8** | **-0.7** |
| BJI | | | | pmax | pmax | | |
| | comp=Z,420nm,11.2s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,1μm,18.8s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,2μm,16.6s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,2μm,25.0s | | | | | | |
| **BJT** | **Baijiatuau** | **19.66** | **291** | *e*P | **P** | **20 59 54.3** | **-1.2** |
| BJT | | | | pmax | pmax | | |
| | comp=Z,73nm,1.0s | | | | | | |
| **BJT** | **Baijiatuau** | **19.66** | **291** | *e*P | **P** | **20 59 54.2** | **-1.2** |
| | comp=Z,73nm,1.0s | | | | | | |
| **SSLB** | **Suanglung** | **20.29** | **241** | *e*P | **P** | **21 00 03.0** | **+0.6** |
| | comp=Z,32nm,1.0s | | | | | | |
| **YULB** | **Yu-li** | **20.29** | **239** | *e*P | **P** | **21 00 02.5** | **+0.1** |
| | comp=Z,26nm,1.0s | | | | | | |
| **HIA** | **Hailar** | **20.58** | **319** | *e*P | **P** | **21 00 02.4** | **-3.0** |
| HIA | | | | pmax | pmax | | |
| | comp=Z,35nm,0.7s | | | | | | |
| **HIA** | **Hailar** | **20.58** | **319** | *e*P | **P** | **21 00 02.4** | **-3.0** |
| | comp=Z,34nm,0.7s | | | | | | |
| **TWG** | **Pinlang** | **20.82** | **239** | *e*P | **P** | **21 00 07.8** | **-0.3** |
| | comp=Z,112nm,0.8s | | | | | | |
| **TPUB** | **Ta-pu** | **20.82** | **240** | *e*P | **P** | **21 00 07.7** | **-0.5** |
| | comp=Z,44nm,1.0s | | | | | | |
| **QZH** | **Quanzhou** | **21.34** | **247** | *e*P | P | 21 00 23.1 | +9.3 |
| QZH | | | | S | Sn | 21 04 21.4 | +3.8 |
| QZH | | | | LR | LR | | |
| | comp=N,2μm,14.2s | | | | | | |
| QZH | | | | LR | LR | | |
| | comp=E,2μm,13.2s | | | | | | |
| QZH | | | | LR | LR | | |
| | comp=Z,3μm,17.2s | | | | | | |
| **PEA0B** | **Petropavlovsk-** | **21.69** | **29** | *e*P | **P** | **21 00 17.4** | **+0.1** |
| | comp=Z,124nm,1.0s | | | | | | |
| **PETK** | **Petropavlovsk-** | **21.69** | **29** | P | **P** | **21 00 17.3** | **0.0** |
| | comp=Z,54nm,1.0s,baz=212,slow=5.6,SNR=20 | | | | | | |
| PETK | | | | LR | LR | 21 09 27.3 | |
| | comp=Z,973nm,18.4s,baz=217,slow=38 | | | | | | |
| **PETK** | **Petropavlovsk-** | **21.69** | **29** | *e*P | **P** | **21 00 17.7** | **+0.3** |
| **PETK** | **Petropavlovsk-** | **21.69** | **29** | *e*P | **P** | **21 00 17.6** | **+0.3** |
| **PEA1** | **Petropavlovsk-** | **21.70** | **29** | *e*P | **P** | **21 00 17.3** | **-0.1** |
| **GUMO** | **Guam** | **21.96** | **168** | P | **P** | **21 00 21.5** | **+1.0** |
| | comp=Z,91nm,0.7s,baz=256,slow=1.1,SNR=3.7 | | | | | | |
| GUMO | | | | LR | LR | 21 08 40.1 | |
| | comp=Z,768nm,18.3s,baz=9.0,slow=36 | | | | | | |
| **PET** | **Petropavlovsk** | **22.02** | **31** | *e*P | **P** | **21 00 23.2** | **+2.4** |
| PET | | | | *e*S | **S** | **21 04 26.0** | **+3.8** |
| PET | | | | pmax | pmax | | |
| | comp=Z,87nm,1.2s | | | | | | |
| PET | | | | pmax | pmax | | |
| | comp=Z,600nm,18.5s | | | | | | |
| PET | | | | MLR | MLR | | |
| | comp=Z,2μm,17.0s | | | | | | |
| PET | | | | MLR | MLR | | |
| | comp=Z,1μm,19.0s | | | | | | |
| **PET** | **Petropavlovsk** | **22.02** | **31** | *e*P | **P** | **21 00 22.1** | **+1.3** |
| | comp=Z,146nm,1.2s | | | | | | |
| **WHN** | **Wuhan** | **22.24** | **265** | ⇓P | **P** | **21 00 23.3** | **-0.1** |
| WHN | | | | S | **S** | **21 04 19.7** | **-7.0** |
| WHN | | | | LR | LR | | |
| | comp=Z,2μm,12.8s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=Z,3μm,14.1s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=Z,4μm,18.9s | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **23.23** | **293** | *e*P | **P** | **21 00 31.3** | **-2.6** |
| HHC | | | | sP | pP | 21 00 38.6 | -2.9 |
| HHC | | | | PP | **PnPn** | **21 01 00.6** | **+0.8** |
| HHC | | | | S | **S** | **21 04 38.7** | **-5.5** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,120nm,6.2s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,770nm,14.2s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,2μm,14.2s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,2μm,13.6s | | | | | | |
| **CLNS** | **Chul'man** | **23.98** | **339** | *e*P | **P** | **21 00 39.3** | **-1.5** |
| CLNS | | | | *e**PP | **pP** | **21 00 46.2** | **-2.6** |
| CLNS | | | | *e*PPP | PPP | 21 01 20.5 | |
| CLNS | | | | *e*SS | Sn | 21 05 48.8 | +29 |
| CLNS | | | | pmax | pmax | | |
| | comp=Z,63nm,1.3s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=N,50nm,1.2s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=E,19nm,0.9s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=N,84nm,1.5s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=E,41nm,1.1s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=Z,71nm,1.2s | | | | | | |
| CLNS | | | | MLR | MLR | | |
| | comp=E,795nm,15.0s | | | | | | |
| CLNS | | | | MLR | MLR | | |
| | comp=Z,2μm,17.0s | | | | | | |
| CLNS | | | | MLR | MLR | | |
| | comp=N,2μm,16.0s | | | | | | |
| **BTO** | **Baotou** | **24.39** | **292** | *e*P | **P** | **21 00 38.8** | **-6.0** |
| **MA2** | **Magadan** | **25.29** | **13** | P | **P** | **21 00 53.3** | **+0.6** |
| | comp=N,30nm,0.7s,baz=199,slow=11,SNR=14 | | | | | | |
| MA2 | | | | LR | LR | 21 11 24.2 | |
| | comp=N,1μm,19.5s,baz=202,slow=38 | | | | | | |
| **MA2** | **Magadan** | **25.29** | **13** | ⇓*i*P | **P** | **21 00 53.7** | **+1.0** |
| **XAN** | **Xi'an** | **25.77** | **276** | P | **P** | **21 00 56.8** | **-0.6** |
| XAN | | | | pP | pP | 21 01 03.9 | -1.5 |
| XAN | | | | S | **S** | **21 05 25.6** | **+0.7** |
| XAN | | | | pmax | pmax | | |
| | comp=N,12nm,0.7s | | | | | | |
| XAN | | | | pmax | pmax | | |
| | comp=N,250nm,10.5s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=N,820nm,16.2s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=N,960nm,19.3s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=N,2μm,20.5s | | | | | | |
| **ENH** | **Enshi** | **26.30** | **268** | *e*P | **P** | **21 01 00.2** | **-2.0** |
| | comp=N,49nm,0.9s | | | | | | |
| **GZH** | **Guangzhou** | **26.36** | **250** | P | **P** | **21 00 56.5** | **-6.2** |
| GZH | | | | S | **S** | **21 05 28.9** | **-5.4** |
| GZH | | | | pmax | pmax | | |
| | comp=Z,450nm,5.7s | | | | | | |
| GZH | | | | LR | LR | | |
| | comp=Z,3μm,14.3s | | | | | | |
| **YAK** | **Yakutsk** | **27.63** | **349** | P | **P** | **21 01 12.6** | **-1.1** |
| | comp=Z,41nm,0.7s,baz=14,slow=2.9,SNR=31 | | | | | | |
| YAK | | | | LR | LR | 21 12 14.0 | |
| | comp=Z,3μm,18.7s,baz=124,slow=36 | | | | | | |
| **YAK** | **Yakutsk** | **27.63** | **349** | *e*P | **P** | **21 01 12.6** | **-1.1** |
| YAK | | | | *e**PP | **pP** | **21 01 19.6** | **-2.2** |
| YAK | | | | *e* | | 21 02 03.9 | |
| YAK | | | | *e*PPP | PPP | 21 02 14.2 | |
| YAK | | | | *e* | | 21 04 27.4 | |
| YAK | | | | *e*S | **S** | **21 05 55.5** | **+2.0** |
| YAK | | | | *e*SS | **SnSn** | **21 07 17.0** | **+11** |
| YAK | | | | *e*SSS | SSS | 21 07 29.0 | |
| YAK | | | | pmax | pmax | | |
| | comp=Z,79nm,1.3s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,63nm,1.4s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,10.0nm,1.6s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=Z,117nm,2.0s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,60nm,1.6s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,73nm,1.8s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=N,816nm,5.3s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=E,360nm,4.0s | | | | | | |
| YAK | | | | MLR | MLR | | |
| | comp=Z,3μm,20.0s | | | | | | |
| YAK | | | | MLR | MLR | | |
| | comp=N,7μm,23.0s | | | | | | |
| YAK | | | | MLR | MLR | | |
| | comp=E,789nm,20.0s | | | | | | |
| **YAK** | **Yakutsk** | **27.63** | **349** | *e*P | **P** | **21 01 12.3** | **-1.4** |
| | comp=E,84nm,0.7s | | | | | | |
| **ULN** | **Ulaanbaatar** | **27.65** | **307** | *de*P | **P** | **21 01 12.8** | **-1.5** |
| ULN | | | | pmax | pmax | | |
| | comp=Z,21nm,1.2s | | | | | | |
| **ULN** | **Ulaanbaatar** | **27.65** | **307** | *e*P | **P** | **21 01 11.3** | **-3.0** |
| **SONA1** | **Songino Array** | **28.07** | **307** | *e*P | **P** | **21 01 15.7** | **-2.3** |
| **SONA0** | **Songino Array** | **28.07** | **307** | *e*P | **P** | **21 01 16.1** | **-1.9** |
| SONA0 | | | | *e*ScP | **ScP** | **21 08 12.0** | **+1.1** |
| **SONM** | **Songino Array** | **28.07** | **307** | P | **P** | **21 01 16.1** | **-1.9** |
| | comp=Z,9.6nm,0.8s,baz=105,slow=8.9,SNR=23 | | | | | | |
| SONM | | | | ScP | **ScP** | **21 08 12.0** | **+1.1** |
| | comp=Z,1.3nm,1.0s,baz=163,slow=3.3,SNR=3.6 | | | | | | |
| SONM | | | | LR | LR | 21 13 08.0 | |
| | comp=Z,3μm,18.6s,baz=108,slow=38 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.11** | **116** | T | T | 21 30 39.2 | |
| | baz=309,slow=75,SNR=1149 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.11** | **116** | T | T | 21 30 35.6 | |
| | baz=309,slow=75,SNR=1412 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.12** | **116** | T | T | 21 30 29.1 | |
| | baz=309,slow=75,SNR=1266 | | | | | | |
| **BOD** | **Bodaibo** | **28.59** | **330** | *e*P | **P** | **21 01 20.4** | **-1.9** |
| BOD | | | | pmax | pmax | | |
| | comp=Z,57nm,1.6s | | | | | | |
| **SEY** | **Seymchan** | **28.72** | **12** | P | **P** | **21 01 23.9** | **+0.5** |
| | comp=Z,7.6nm,0.8s,baz=202,slow=6.4,SNR=17 | | | | | | |
| **SEY** | **Seymchan** | **28.72** | **12** | ⇓*e*P | **P** | **21 01 24.2** | **+0.8** |
| **H11S3** | **WAKE ISLAND Hy** | **28.74** | **119** | T | T | 21 31 24.3 | |
| | baz=311,slow=75,SNR=1250 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.74** | **119** | T | T | 21 31 21.3 | |
| | baz=311,slow=75,SNR=1900 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.76** | **119** | T | T | 21 31 25.8 | |
| | baz=311,slow=75,SNR=1204 | | | | | | |
| **LZH** | **Lanzhou** | **29.50** | **282** | ⇓P | **P** | **21 01 31.5** | **+0.6** |
| LZH | | | | pP | pP | 21 01 35.6 | -3.4 |
| LZH | | | | sP | sP | 21 01 39.3 | -3.1 |
| LZH | | | | PP | **PnPn** | **21 02 27.1** | **+1.5** |
| LZH | | | | S | **S** | **21 06 21.0** | **-2.9** |
| LZH | | | | pmax | pmax | | |
| | comp=Z,30nm,0.9s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,210nm,7.6s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,1μm,13.7s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,2μm,14.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,2μm,18.4s | | | | | | |
| **SMY** | **Shemya** | **29.59** | **43** | *e*P | **P** | **21 01 32.0** | **+0.8** |
| SMY | | | | pmax | pmax | | |
| | comp=Z,461nm,1.7s | | | | | | |
| **SMY** | **Shemya** | **29.59** | **43** | *e*P | **P** | **21 01 32.0** | **+0.8** |
| | comp=Z,461nm,1.7s | | | | | | |
| **GYA** | **Guiyang** | **30.04** | **262** | ⇓*i*P | **P** | **21 01 33.1** | **-2.6** |
| GYA | | | | PP | **PnPn** | **21 02 34.6** | **+1.7** |
| GYA | | | | S | **S** | **21 06 31.5** | **-0.9** |
| GYA | | | | ScS | **ScS** | **21 12 12.8** | **-0.5** |
| GYA | | | | pmax | pmax | | |
| | comp=Z,20nm,0.9s | | | | | | |
| GYA | | | | pmax | pmax | | |
| | comp=Z,120nm,5.8s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,1μm,17.0s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,1μm,17.4s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,2μm,17.2s | | | | | | |
| **ZAK** | **Zakamensk** | **30.70** | **311** | *e*P | **P** | **21 01 38.4** | **-2.8** |
| **CD2** | **Chengdu** | **30.79** | **272** | P | **P** | **21 01 41.7** | **-0.5** |
| CD2 | | | | pP | pP | 21 01 46.5 | -3.8 |
| CD2 | | | | PP | **PnPn** | **21 02 42.9** | **+0.2** |
| CD2 | | | | S | **S** | **21 06 38.4** | **-5.5** |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,20nm,0.6s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,2μm,14.3s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,2μm,15.5s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,2μm,16.7s | | | | | | |
| **TLY** | **Talaya** | **30.85** | **314** | P | **P** | **21 01 42.3** | **-0.2** |
| | comp=Z,8.8nm,0.8s,baz=34,slow=0.7,SNR=4.4 | | | | | | |
| TLY | | | | LR | LR | 21 14 52.7 | |
| | comp=Z,2μm,18.4s,baz=108,slow=38 | | | | | | |
| **TLY** | **Talaya** | **30.85** | **314** | *e*P | **P** | **21 01 42.9** | **+0.5** |
| TLY | | | | *e*S | **S** | **21 06 48.4** | **+4.0** |
| TLY | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.8s | | | | | | |
| TLY | | | | MLR | MLR | | |
| | comp=Z,2μm,17.0s | | | | | | |
| **TLY** | **Talaya** | **30.85** | **314** | *e*P | **P** | **21 01 42.1** | **-0.3** |
| | comp=Z,11nm,0.9s | | | | | | |
| **QIZ** | **Qiongzhong** | **31.37** | **247** | P | **P** | **21 01 48.3** | **+1.0** |
| QIZ | | | | sP | **pP** | **21 01 52.8** | **-2.6** |
| QIZ | | | | S | **S** | **21 06 57.0** | **+4.0** |
| QIZ | | | | LR | LR | | |
| | comp=Z,1μm,23.9s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=Z,950nm,20.7s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=Z,790nm,16.3s | | | | | | |
| **GTA** | **Gaotai** | **32.25** | **290** | *e*P | **P** | **21 01 54.4** | **-0.6** |
| GTA | | | | pP | pP | 21 01 58.5 | -4.7 |
| GTA | | | | sP | sP | 21 02 01.9 | -4.7 |
| GTA | | | | PcP | **PcP** | **21 04 44.3** | **+1.3** |
| GTA | | | | S | **S** | **21 07 05.2** | **-1.6** |
| GTA | | | | pmax | pmax | | |
| | comp=Z,250nm,6.2s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,670nm,15.0s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,2μm,19.0s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,2μm,18.8s | | | | | | |
| **KMI** | **Kunming** | **33.80** | **263** | P | **P** | **21 02 09.0** | **+0.1** |
| KMI | | | | pP | pP | 21 02 14.6 | -2.4 |
| KMI | | | | sP | sP | 21 02 16.6 | -3.8 |
| KMI | | | | PP | **PnPn** | **21 03 20.3** | **-1.3** |
| KMI | | | | S | **S** | **21 07 31.0** | **-0.3** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,18nm,1.1s | | | | | | |
| KMI | | | | pmax | pmax | | |
| | comp=Z,110nm,4.1s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,1μm,13.8s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,1μm,15.3s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,2μm,16.7s | | | | | | |
| **ADK** | **Adak** | **34.75** | **48** | *e*P | **P** | **21 02 17.3** | **+0.8** |
| ADK | | | | pmax | pmax | | |
| | comp=Z,129nm,1.4s | | | | | | |
| **ADK** | **Adak** | **34.75** | **48** | *e*P | **P** | **21 02 17.3** | **+0.8** |
| | comp=Z,129nm,1.4s | | | | | | |
| **BILL** | **Bilibino** | **36.00** | **16** | *d i*P | **P** | **21 02 27.8** | **+0.8** |
| BILL | | | | *i* *PP | **pP** | **21 02 34.7** | **-0.5** |
| BILL | | | | *e**SP | **sP** | **21 02 45.1** | **+6.5** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| BILL | | | | | | 21 03 47.0 | |
| BILL | | | | PPP | PPP | 21 04 08.0 | |
| BILL | | | | | | 21 04 54.0 | |
| BILL | | | | pmax | pmax | | |
| | comp=Z,29nm,1.1s | | | | | | |
| BILL | | | | MLR | MLR | | |
| | comp=Z,1µm,17.0s | | | | | | |
| MYLDM | Lahad Datu | 36.05 | 219 | eP | P | 21 02 28.9 | +0.9 |
| | comp=Z,18nm,1.0s | | | | | | |
| TIXI | Tiksi | 36.96 | 354 | P | P | 21 02 34.5 | -0.6 |
| | comp=Z,17nm,0.9s,baz=147,slow=6.7,SNR=40 | | | | | | |
| TIXI | Tiksi | 36.96 | 354c | iP | P | 21 02 34.2 | -0.9 |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,47nm,1.7s | | | | | | |
| TIXI | | | | MLR | MLR | | |
| | comp=Z,1µm,17.0s | | | | | | |
| TIXI | Tiksi | 36.96 | 354 | eP | P | 21 02 34.0 | -1.2 |
| | comp=Z,70nm,1.6s | | | | | | |
| NONG | Nongkai | 37.07 | 252 | P | P | 21 02 36.2 | -0.5 |
| | comp=Z,39nm,0.9s,comp=Z,7µm | | | | | | |
| KHON | Khomkaen | 38.33 | 250 | P | P | 21 02 48.6 | +1.2 |
| | comp=Z,8.6nm,1.0s | | | | | | |
| FAKI | Fak Fak | 38.70 | 193 | eP | P | 21 02 50.1 | -0.4 |
| | comp=Z,25nm,0.8s | | | | | | |
| CHAI | Chaiyaphum | 39.23 | 251 | P | P | 21 02 54.1 | -0.8 |
| | comp=Z,13nm,0.9s,comp=Z,101nm | | | | | | |
| PBKT | Sadao Pong | 39.63 | 252 | P | P | 21 02 57.3 | -0.9 |
| | comp=Z,32nm,1.1s | | | | | | |
| LUWI | Luwuk | 39.64 | 208 | eP | P | 21 02 58.8 | +0.5 |
| | comp=Z,28nm,0.9s | | | | | | |
| NIKH | Nikolski High | 39.65 | 47 | eP | P | 21 02 58.2 | +0.1 |
| | comp=Z,721nm,1.9s | | | | | | |
| CMMT | Chiang Mai | 39.97 | 257 | P | P | 21 03 00.5 | -0.6 |
| | comp=Z,11nm,0.9s | | | | | | |
| CHTO | Chiang Mai | 39.97 | 257 | P | P | 21 03 00.5 | -0.6 |
| | comp=Z,51nm,0.9s | | | | | | |
| CHTO | Chiang Mai | 39.97 | 257 | eP | P | 21 02 59.8 | -1.3 |
| CHTO | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.9s | | | | | | |
| CHTO | Chiang Mai | 39.97 | 257 | eP | P | 21 02 59.8 | -1.3 |
| | comp=Z,8.5nm,0.9s | | | | | | |
| SUKH | Sukhothai | 40.16 | 255 | P | P | 21 03 02.1 | -0.5 |
| | comp=Z,6.4nm,0.9s,comp=Z,66nm | | | | | | |
| CM31 | Chiang Mai Arr | 40.17 | 256 | eP | P | 21 03 01.2 | -1.6 |
| CMAR | Chiang Mai Arr | 40.17 | 256 | P | P | 21 03 01.6 | -1.2 |
| | comp=Z,6.1nm,0.9s,baz=48,slow=7.4,SNR=17 | | | | | | |
| CMAR | | | | PcP | PcP | 21 05 08.6 | +1.8 |
| | comp=Z,3.4nm,1.0s,baz=5.9,slow=2.9,SNR=4.8 | | | | | | |
| CMAR | | | | LR | LR | 21 22 26.5 | |
| | comp=Z,569nm,19.1s,baz=56,slow=40 | | | | | | |
| CMAR | Chiang Mai Arr | 40.17 | 256 | P | P | 21 03 01.6 | -1.2 |
| CMAR | | | | | | 21 05 08.6 | |
| CMAR | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.6s | | | | | | |
| CMAR | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.0s | | | | | | |
| CMAR | | | | MLR | MLR | | |
| | comp=Z,569nm,19.1s | | | | | | |
| CM01 | Chiang Mai Arr | 40.17 | 256 | eP | P | 21 03 00.8 | -2.0 |
| SRAK | Srakaew | 40.33 | 248 | P | P | 21 03 01.3 | -2.8 |
| | comp=Z,67nm,0.9s | | | | | | |
| NAYO | Nakonayok | 40.70 | 249 | P | P | 21 03 08.1 | +1.0 |
| | comp=Z,54nm,0.8s | | | | | | |
| DGZ | Jazzator, Alta | 40.72 | 308⇓ | eP | P | 21 03 09.1 | +2.0 |
| WMQ | Urumqi | 40.85 | 298 | P | P | 21 03 08.7 | +0.5 |
| WMQ | | | | pP | pP | 21 03 14.3 | -2.2 |
| WMQ | | | | S | S | 21 09 19.2 | +1.4 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,120nm,0.9s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,700nm,3.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,850nm,18.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,2µm,21.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,2µm,22.7s | | | | | | |
| UTHA | Uthaitani | 41.41 | 252 | P | P | 21 03 13.9 | +1.0 |
| | comp=Z,4.3nm,1.1s | | | | | | |
| LSA | Lhasa | 41.48 | 277 | eP | P | 21 03 13.5 | -0.5 |
| LSA | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| LSA | Lhasa | 41.48 | 277 | eP | P | 21 03 13.5 | -0.5 |
| | comp=Z,10nm,0.8s | | | | | | |
| SRDT | SRDT | 42.37 | 251 | P | P | 21 03 21.7 | +0.9 |
| | comp=Z,54nm,0.9s | | | | | | |
| ZAA0 | Zalesovo Array | 42.46 | 314 | eP | P | 21 03 20.3 | -0.8 |
| | comp=Z,74nm,0.9s | | | | | | |
| ZAA1 | Zalesovo Array | 42.46 | 314 | eP | P | 21 03 20.4 | -0.7 |
| ZAA1 | | | | epP | pP | 21 03 29.8 | +0.4 |
| ZAA1 | | | | ePcP | PcP | 21 05 14.2 | +0.5 |
| ZAA1 | | | | eScP | ScP | 21 09 03.6 | +1.2 |
| ZALV | Zalesovo Beam | 42.46 | 314 | P | P | 21 03 20.4 | -0.7 |
| | comp=Z,64nm,0.8s,baz=92,slow=6.4,SNR=232 | | | | | | |
| ZALV | | | | pP | pP | 21 03 29.8 | +0.4 |
| | comp=Z,42nm,0.7s,baz=94,slow=6.3,SNR=18 | | | | | | |
| ZALV | | | | PcP | PcP | 21 05 14.2 | +0.5 |
| | comp=Z,10nm,0.6s,baz=99,slow=3.1,SNR=9.2 | | | | | | |
| ZALV | | | | ScP | ScP | 21 09 03.6 | +1.2 |
| | comp=Z,2.1nm,0.8s,baz=114,slow=3.6,SNR=4.0 | | | | | | |
| ZALV | | | | LR | LR | 21 21 43.5 | |
| | comp=Z,564nm,18.4s,baz=76,slow=37 | | | | | | |
| ZALV | Zalesovo Beam | 42.46 | 314 | eP | P | 21 03 20.0 | -1.1 |
| ZALV | | | | PcP | PcP | 21 05 14.2 | +0.5 |
| ZALV | | | | ScP | ScP | 21 09 03.6 | +1.2 |
| PHET | Kaeng Krachan | 42.85 | 249 | P | P | 21 03 26.1 | +1.3 |
| | comp=Z,14nm,0.8s,comp=Z,100nm | | | | | | |
| NVS | Novosibirsk | 43.43 | 315 | eP | P | 21 03 28.7 | -0.3 |
| NVS | | | | pmax | pmax | | |
| | comp=Z,100nm,1.0s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=N,20nm,0.9s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=E,66nm,1.0s | | | | | | |
| KSM | Kuching | 43.65 | 226 | eP | P | 21 03 31.1 | -0.1 |
| | comp=E,41nm,1.2s | | | | | | |
| SAUI | Saumlaki | 43.82 | 193 | eP | P | 21 03 32.8 | +0.3 |
| | comp=E,51nm,0.7s | | | | | | |
| MK01 | Makanchi Array | 44.30 | 303 | eP | P | 21 03 35.4 | -0.8 |
| MK31 | Makanchi Array | 44.31 | 303 | eP | P | 21 03 35.5 | -0.7 |
| MK31 | Makanchi Array | 44.31 | 303 | eP | P | 21 03 35.5 | -0.7 |
| MK32 | Makanchi Array | 44.31 | 303 | eP | P | 21 03 36.0 | -0.2 |
| MK32 | | | | ePP | PcP | 21 05 20.5 | +0.4 |
| MK32 | | | | eScP | ScP | 21 09 10.7 | +0.6 |
| MKAR | Makanchi Array | 44.31 | 303 | P | P | 21 03 36.0 | -0.2 |
| | comp=E,32nm,0.7s,baz=84,slow=9.6,SNR=301 | | | | | | |
| MKAR | | | | pP | pP | 21 03 45.2 | +0.7 |
| | comp=E,33nm,0.6s,baz=88,slow=9.3,SNR=21 | | | | | | |
| MKAR | | | | PP | PcP | 21 05 20.5 | +0.4 |
| | comp=E,4.4nm,0.7s,baz=72,slow=9.3,SNR=2.4 | | | | | | |
| MKAR | | | | ScP | ScP | 21 09 10.7 | +0.6 |
| | comp=E,1.4nm,0.8s,baz=78,slow=6.0,SNR=3.5 | | | | | | |
| MKAR | | | | LR | LR | 21 22 52.0 | |
| | comp=E,2µm,20.1s,baz=80,slow=37 | | | | | | |
| KAPI | Kappang | 44.46 | 210 | P | P | 21 03 38.4 | +0.8 |
| | SNR=6.0 | | | | | | |
| KAPI | Kappang | 44.46 | 210 | P | P | 21 03 38.4 | +0.8 |
| | SNR=6.0 | | | | | | |
| KAPI | | | | P | P | 21 03 38.4 | +0.8 |
| | SNR=6.0 | | | | | | |
| MAKZ | Makanchi | 44.52 | 304 | eP | P | 21 03 37.4 | -0.5 |
| MAKZ | | | | pmax | pmax | | |
| | comp=Z,71nm,1.1s | | | | | | |
| MAKZ | Makanchi | 44.52 | 304 | eP | P | 21 03 37.4 | -0.5 |
| | comp=Z,71nm,1.1s | | | | | | |
| SDPT | Sand Point | 44.72 | 44 | eP | P | 21 03 38.8 | -0.5 |
| | comp=Z,377nm,1.8s | | | | | | |
| PMG | Port Moresby | 44.88 | 170 | LR | LR | 21 21 04.0 | |
| | comp=Z,141nm,21.4s,baz=18,slow=34 | | | | | | |
| PMG | Port Moresby | 44.88 | 170d | eP | P | 21 03 44.8 | +3.8 |
| PMG | | | | pmax | pmax | | |
| | comp=Z,232nm,2.5s | | | | | | |
| PMG | Port Moresby | 44.88 | 170 | eP | P | 21 03 41.0 | +0.1 |
| | comp=Z,25nm,0.8s | | | | | | |
| TAPN | Taplejung | 45.16 | 275 | eP | P | 21 03 42.8 | -0.8 |
| | comp=Z,35nm,0.8s | | | | | | |
| TARA | Tarawa | 45.37 | 131 | eP | P | 21 03 44.1 | -0.9 |
| | comp=Z,543nm,1.9s | | | | | | |
| ODAN | Odare | 45.62 | 275 | eP | P | 21 03 46.2 | -0.9 |
| | comp=Z,54nm,1.0s | | | | | | |
| CHGN | Chignik | 45.89 | 43 | eP | P | 21 03 48.4 | -0.2 |
| | comp=Z,134nm,1.7s | | | | | | |
| KRAB | Krabi | 46.18 | 244 | P | P | 21 03 52.9 | +1.5 |
| | comp=Z,40nm,0.8s | | | | | | |
| RAMN | Ramite | 46.23 | 275 | eP | P | 21 03 51.1 | -0.9 |
| | comp=Z,100nm,0.8s | | | | | | |
| JIRN | Jiri | 46.28 | 276 | eP | P | 21 03 52.2 | -0.3 |
| KURK | Kurchatov | 46.33 | 309c | iP | P | 21 03 51.6 | -0.5 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,276nm,0.9s | | | | | | |
| KURK | Kurchatov | 46.33 | 309 | eP | P | 21 03 51.3 | -0.8 |
| | comp=Z,246nm,0.9s | | | | | | |
| KURK | | | | eS | S | 21 10 37.1 | -0.3 |
| KURK | Kurchatov | 46.33 | 309 | P | P | 21 03 52.0 | -0.1 |
| | SNR=85 | | | | | | |
| KURK | Kurchatov | 46.33 | 309 | P | P | 21 03 52.0 | -0.1 |
| | SNR=85 | | | | | | |
| KURBB | Kurchatov Arra | 46.39 | 309 | P | P | 21 03 52.2 | -0.4 |
| | comp=Z,139nm,0.8s,baz=85,slow=8.0,SNR=754 | | | | | | |
| KURBB | | | | S | S | 21 10 37.1 | -1.3 |
| | comp=Z,1.0nm,0.8s,baz=81,slow=12,SNR=6.0 | | | | | | |
| GUN | Gumba | 46.43 | 277 | eP | P | 21 03 53.2 | -0.5 |
| | comp=Z,108nm,1.0s | | | | | | |
| MMRI | Maumere | 46.85 | 205 | eP | P | 21 03 55.5 | -1.0 |
| | comp=Z,32nm,1.1s | | | | | | |
| SHLS | Shalkode | 46.87 | 299 | iP | P | 21 03 52.7 | -4.0 |
| | comp=Z,703nm,1.3s | | | | | | |
| SHLS | | | | LR | LR | 21 23 52.6 | |
| | comp=Z,470nm,15.2s | | | | | | |
| PKI | Pulchoki | 46.95 | 277 | eP | P | 21 03 56.9 | -0.8 |
| | comp=Z,64nm,1.2s | | | | | | |
| PKIN | Phulchoki | 46.96 | 277 | eP | P | 21 03 57.3 | -0.4 |
| | comp=Z,46nm,0.8s | | | | | | |
| KKN | Kakani | 46.97 | 277 | eP | P | 21 03 57.0 | -0.7 |
| | comp=Z,40nm,0.8s | | | | | | |
| PKDT | Phuket | 47.04 | 245 | P | P | 21 03 59.4 | +1.3 |
| | comp=Z,33nm,0.9s | | | | | | |
| KULM | Kulim | 47.12 | 240 | eP | P | 21 03 59.0 | +0.3 |
| | comp=Z,40nm,1.5s | | | | | | |
| DMN | Daman | 47.18 | 277 | eP | P | 21 03 58.8 | -0.6 |
| | comp=Z,32nm,0.8s | | | | | | |
| UZB | Uzynbulak | 47.19 | 299 | iP | P | 21 03 57.7 | -1.4 |
| | comp=Z,519nm,1.4s | | | | | | |
| UZB | | | | LR | LR | 21 24 21.9 | |
| | comp=Z,263nm,13.5s | | | | | | |
| SOEI | Soe | 47.25 | 202 | eP | P | 21 03 59.5 | -0.3 |
| | comp=Z,103nm,1.2s | | | | | | |
| KPKS | Kokpek | 47.36 | 299 | iP | P | 21 03 59.3 | -1.2 |
| | comp=Z,518nm,1.6s | | | | | | |
| KPKS | | | | LR | LR | 21 24 27.4 | |
| | comp=Z,509nm,15.8s | | | | | | |
| GKN | Gorkha | 47.40 | 277 | eP | P | 21 04 00.5 | -0.5 |
| TTA | Tatalina | 47.41 | 34 | eP | P | 21 04 01.1 | +0.6 |
| TTA | Tatalina | 47.41 | 34 | eP | P | 21 04 01.1 | +0.6 |
| IPM | Ipoh | 47.43 | 239 | eP | P | 21 04 00.2 | -0.9 |
| | comp=Z,26nm,1.2s | | | | | | |
| SVW2 | Sparrevohn | 47.50 | 36 | eP | P | 21 04 02.1 | +1.0 |
| | comp=Z,31nm,1.1s | | | | | | |
| DANN | Dangsing | 47.98 | 278 | eP | P | 21 04 05.6 | -0.1 |
| HNR | Honiara | 48.17 | 154 | LR | LR | 21 22 52.1 | |
| | comp=Z,265nm,21.4s,baz=326,slow=34 | | | | | | |
| HNR | Honiara | 48.17 | 154 | eP | P | 21 04 05.4 | -1.4 |
| HNR | | | | pmax | pmax | | |
| | comp=Z,92nm,1.3s | | | | | | |
| HNR | Honiara | 48.17 | 154 | eP | P | 21 04 05.4 | -1.4 |
| | comp=Z,92nm,1.3s | | | | | | |
| JOHN | Johnston Islan | 48.21 | 99 | eP | P | 21 04 12.6 | +5.4 |
| | comp=Z,246nm,0.9s | | | | | | |
| MDOK | Medeo | 48.59 | 299 | iP | P | 21 04 08.3 | -1.8 |
| | comp=Z,727nm,1.1s | | | | | | |
| MDOK | | | | eS | S | 21 11 09.9 | -0.3 |
| MDOK | | | | LR | LR | 21 24 20.1 | |
| | comp=Z,495nm,19.3s | | | | | | |
| MTN | Manton Dam | 48.60 | 192 | eP | P | 21 04 09.6 | -0.5 |
| | comp=Z,44nm,0.6s | | | | | | |
| IMAR | Indian Mountai | 48.66 | 30 | eP | P | 21 04 10.2 | +0.2 |
| AAA | Alma-Ata | 48.68 | 300 | iP | P | 21 04 09.1 | -1.5 |
| | comp=Z,726nm,1.4s | | | | | | |
| AAA | | | | LR | LR | 21 24 44.4 | |
| | comp=Z,460nm,16.4s | | | | | | |
| OHAK | Old Harbor | 48.70 | 42 | eP | P | 21 04 10.8 | +0.5 |
| | comp=Z,72nm,1.2s | | | | | | |
| PYUN | Piuthan | 48.70 | 278 | eP | P | 21 04 10.9 | -0.2 |
| | comp=Z,235nm,1.0s | | | | | | |
| RSO | Redoubt South | 48.88 | 37 | eP | P | 21 04 12.3 | +0.3 |
| KUU | Kurty | 48.93 | 301 | iP | P | 21 04 11.0 | -1.5 |
| | comp=Z,399nm,1.2s | | | | | | |
| KUU | | | | eS | S | 21 11 14.6 | -0.2 |
| KUU | | | | LR | LR | 21 24 29.1 | |
| | comp=Z,142nm,13.5s | | | | | | |
| COEN | Coen | 49.01 | 176 | eP | P | 21 04 14.0 | +0.8 |
| | comp=Z,41nm,0.8s | | | | | | |
| KDAK | Kodiak Island | 49.05 | 41 | P | P | 21 04 13.2 | +0.1 |
| | comp=Z,29nm,0.8s,baz=258,slow=4.3,SNR=16 | | | | | | |
| KDAK | Kodiak Island | 49.05 | 41 | eP | P | 21 04 13.2 | +0.1 |
| | comp=Z,341nm,2.0s | | | | | | |
| PPLA | Purkeypile | 49.16 | 34 | eP | P | 21 04 15.7 | +1.6 |
| | comp=Z,70nm,1.3s | | | | | | |
| SPU | Mount Spurr | 49.21 | 36 | eP | P | 21 04 14.8 | +0.4 |
| CAST | Castle Rocks | 49.22 | 33 | eP | P | 21 04 15.5 | +1.1 |
| | comp=Z,84nm,1.9s | | | | | | |
| CNPM | China Poot | 49.66 | 38 | eP | P | 21 04 18.1 | +0.3 |
| | comp=Z,71nm,1.2s | | | | | | |
| TKM2 | Tokmak 2 | 49.69 | 299 | P | P | 21 04 19.2 | +0.7 |
| | SNR=77 | | | | | | |
| BPAW | Bear Paw Mtn. | 49.72 | 32 | eP | P | 21 04 18.8 | +0.6 |
| | comp=Z,26nm,1.1s | | | | | | |
| KTH | Kantishna Hill | 49.74 | 33 | eP | P | 21 04 19.2 | +0.8 |
| | comp=Z,68nm,1.4s | | | | | | |
| BRLK | Bradley Lake | 49.83 | 38 | eP | P | 21 04 18.6 | -0.5 |
| | comp=Z,57nm,1.0s | | | | | | |
| SUA | Susitna One | 49.84 | 36 | eP | P | 21 04 19.1 | -0.2 |
| | comp=Z,32nm,0.9s | | | | | | |
| MLY | Manley | 49.85 | 31 | eP | P | 21 04 20.0 | +0.8 |
| | comp=Z,24nm,0.9s | | | | | | |
| JAGI | Jajag, Banyuwa | 49.99 | 215 | eP | P | 21 04 21.4 | +0.7 |
| | comp=Z,63nm,1.6s | | | | | | |
| PSI | Prapat | 50.09 | 239 | eP | P | 21 04 20.8 | -0.9 |
| PSI | | | | pmax | pmax | | |
| | comp=Z,17nm,1.0s | | | | | | |
| PSI | Prapat | 50.09 | 239 | eP | P | 21 04 20.8 | -0.9 |
| | comp=Z,17nm,1.0s | | | | | | |
| COLD | Coldfoot | 50.16 | 28 | eP | P | 21 04 22.2 | +0.8 |
| | comp=Z,14nm,1.2s | | | | | | |
| BRZS | Berezniki | 50.20 | 309 | iP | P | 21 04 20.4 | -1.6 |
| | comp=Z,131nm,1.1s | | | | | | |
| KBK | Karagaybulak | 50.21 | 299 | P | P | 21 04 23.0 | +0.5 |
| | SNR=83 | | | | | | |
| CHMS | Chumysh | 50.27 | 300 | P | P | 21 04 23.0 | +0.3 |
| | SNR=36 | | | | | | |
| KSH | Kashi | 50.31 | 295 | P | P | 21 04 26.9 | +3.7 |
| KSH | | | | pP | pP | 21 04 33.0 | +1.4 |
| KSH | | | | PP | PP | 21 06 22.2 | +3.7 |
| KSH | | | | S | S | 21 11 38.2 | +3.9 |
| KSH | | | | ScS | ScS | 21 14 14.4 | +1.9 |
| KSH | | | | SS | SS | 21 15 09.7 | +2.0 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,47nm,1.1s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,180nm,3.4s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,250nm,5.8s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,290nm,5.9s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,410nm,10.3s | | | | | | |
| RC01 | Rabbit Creek A | 50.34 | 36 | eP | P | 21 04 23.0 | +0.1 |
| | comp=Z,57nm,1.2s | | | | | | |
| USP | Ospenovka | 50.38 | 300 | P | P | 21 04 23.8 | +0.2 |
| | SNR=44 | | | | | | |
| FRU | Bishkek | 50.41 | 300⇑ | eP | P | 21 04 22.0 | -1.7 |
| FRU | | | | e | | 21 05 49.0 | |
| FRU | | | | eS | S | 21 11 34.0 | -1.3 |
| FRU | | | | pmax | pmax | | |
| | comp=Z,140nm,1.9s | | | | | | |
| FRU | | | | MLR | MLR | | |
| | comp=Z,1µm,20.0s | | | | | | |
| BKNI | Bangkinang | 50.42 | 235 | eP | P | 21 04 24.5 | +0.5 |
| | comp=Z,62nm,0.5s | | | | | | |
| SEW | Seward | 50.53 | 38 | eP | P | 21 04 24.3 | 0.0 |
| | comp=Z,229nm,1.7s | | | | | | |
| AAK | Ala-Archa | 50.54 | 299c | iP | P | 21 04 24.9 | 0.0 |
| AAK | | | | pmax | pmax | | |
| | comp=Z,44nm,1.0s | | | | | | |
| AAK | Ala-Archa | 50.54 | 299 | P | P | 21 04 25.2 | +0.3 |
| | SNR=32 | | | | | | |
| AAK | Ala-Archa | 50.54 | 299 | eP | P | 21 04 24.8 | -0.2 |
| | comp=Z,38nm,0.9s | | | | | | |
| AAK | Ala-Archa | 50.54 | 299 | P | P | 21 04 25.2 | +0.3 |
| | SNR=14 | | | | | | |
| AAK | Ala-Archa | 50.54 | 299 | P | P | 21 04 25.2 | +0.3 |
| | SNR=14 | | | | | | |
| AAK | | | | P | P | 21 04 25.2 | +0.3 |
| | SNR=14 | | | | | | |
| PMR | Palmer | 50.61 | 36 | eP | P | 21 04 24.9 | 0.0 |
| PMR | | | | pmax | pmax | | |
| | comp=Z,30nm,1.0s | | | | | | |
| PMR | Palmer | 50.61 | 36 | eP | P | 21 04 24.9 | 0.0 |
| | comp=Z,30nm,1.0s | | | | | | |
| MCK | McKinley | 50.63 | 33 | eP | P | 21 04 25.7 | +0.6 |
| MCK | | | | pmax | pmax | | |
| | comp=Z,24nm,0.9s | | | | | | |
| MCK | McKinley | 50.63 | 33 | eP | P | 21 04 25.7 | +0.6 |
| | comp=Z,24nm,0.9s | | | | | | |
| UCH | Uchtor | 50.63 | 299 | P | P | 21 04 26.8 | +0.8 |
| | SNR=23 | | | | | | |
| RND | Reindeer | 50.67 | 33 | eP | P | 21 04 25.7 | +0.2 |
| RND | | | | pmax | pmax | | |
| | comp=Z,54nm,1.4s | | | | | | |
| RND | Reindeer | 50.67 | 33 | eP | P | 21 04 25.7 | +0.2 |
| | comp=Z,54nm,1.4s | | | | | | |
| MDM | Murphy Dome | 50.92 | 31 | eP | P | 21 04 28.0 | +0.7 |
| | comp=Z,16nm,0.8s | | | | | | |
| SML | Sawmill | 50.98 | 35 | eP | P | 21 04 27.9 | +0.2 |
| SML | | | | pmax | pmax | | |
| | comp=Z,39nm,0.9s | | | | | | |
| SML | Sawmill | 50.98 | 35 | eP | P | 21 04 27.9 | +0.2 |
| | comp=Z,39nm,0.9s | | | | | | |
| WRH | Wood River Hil | 50.98 | 32 | eP | P | 21 04 28.1 | +0.4 |
| | comp=Z,16nm,0.8s | | | | | | |
| EKS2 | Erkin-Say | 51.05 | 300 | P | P | 21 04 28.9 | +0.2 |
| | SNR=23 | | | | | | |
| COLA | College | 51.08 | 31 | eP | P | 21 04 30.0 | +1.6 |
| COLA | | | | pmax | pmax | | |
| | comp=Z,29nm,0.8s | | | | | | |
| COLA | College | 51.08 | 31 | eP | P | 21 04 30.0 | +1.6 |
| | comp=Z,28nm,0.8s | | | | | | |
| CCB | Clear Creek Bu | 51.10 | 32 | eP | P | 21 04 28.6 | 0.0 |
| | comp=Z,38nm,1.6s | | | | | | |
| BVAR | Borovoye Array | 51.11 | 313 | P | P | 21 04 28.4 | -0.4 |
| | comp=Z,6.6nm,0.5s,baz=79,slow=6.5,SNR=63 | | | | | | |
| BVAR | | | | pP | pP | 21 04 37.2 | 0.0 |
| | comp=Z,13nm,0.6s,baz=91,slow=8.1,SNR=18 | | | | | | |
| BVAR | | | | PcP | PcP | 21 05 43.5 | -0.7 |
| | comp=Z,7.8nm,0.6s,baz=93,slow=3.0,SNR=4.5 | | | | | | |
| BRVK | Borovoye | 51.16 | 313c | iP | P | 21 04 28.7 | -0.5 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,91nm,1.2s | | | | | | |
| BRVK | Borovoye | 51.16 | 313 | eP | P | 21 04 28.9 | -0.3 |
| | comp=Z,25nm,1.0s | | | | | | |
| BRVK | Borovoye | 51.16 | 313 | P | P | 21 04 29.1 | -0.1 |
| | SNR=10.0 | | | | | | |
| BRVK | Borovoye | 51.16 | 313 | P | P | 21 04 29.1 | -0.1 |
| | SNR=10.0 | | | | | | |
| AML | Almayashu | 51.25 | 299 | P | P | 21 04 31.2 | +0.7 |
| | SNR=112 | | | | | | |
| UGM | Wanagama | 51.29 | 219 | eP | P | 21 04 28.5 | -2.1 |
| | comp=Z,122nm,1.2s | | | | | | |
| SCM | Sheep Creek Mo | 51.45 | 35 | eP | P | 21 04 31.9 | +0.5 |
| SCM | | | | pmax | pmax | | |
| | comp=Z,56nm,0.9s | | | | | | |
| SCM | Sheep Creek Mo | 51.45 | 35 | eP | P | 21 04 31.9 | +0.5 |
| | comp=Z,56nm,0.9s | | | | | | |
| HDA | Harding Lake | 51.48 | 32 | eP | P | 21 04 31.2 | -0.3 |
| | comp=Z,37nm,1.0s | | | | | | |
| ILAR | Eielson Array | 51.49 | 32 | P | P | 21 04 31.6 | 0.0 |
| | comp=Z,20nm,0.9s,baz=270,slow=5.9,SNR=120 | | | | | | |
| ILAR | | | | LR | LR | 21 25 56.4 | |
| | comp=Z,156nm,21.9s,baz=294,slow=35 | | | | | | |
| ILB | Eielson Array | 51.49 | 32 | eP | P | 21 04 31.1 | -0.5 |
| IL1 | Eielson Array | 51.50 | 32 | eP | P | 21 04 31.4 | -0.2 |
| GLI | Glacier Island | 51.64 | 37 | eP | P | 21 04 33.2 | +0.5 |
| | comp=Z,146nm,1.6s | | | | | | |
| FID | Port Fidalgo | 51.95 | 37 | eP | P | 21 04 34.7 | -0.3 |
| | comp=Z,70nm,1.1s | | | | | | |
| GSI | Gunungsitoli | 52.09 | 239 | eP | P | 21 04 35.7 | -0.9 |
| | comp=Z,60nm,0.9s | | | | | | |
| FYU | Fort Yukon | 52.12 | 29 | eP | P | 21 04 38.1 | +2.0 |
| | comp=Z,98nm,1.5s | | | | | | |
| KLU | Klutina | 52.15 | 36 | eP | P | 21 04 37.2 | +0.7 |
| | comp=Z,48nm,1.0s | | | | | | |
| PAX | Paxson | 52.23 | 34 | eP | P | 21 04 37.7 | +0.5 |
| PAX | | | | pmax | pmax | | |
| | comp=Z,34nm,1.5s | | | | | | |
| PAX | Paxson | 52.23 | 34 | eP | P | 21 04 37.6 | +0.5 |
| | comp=Z,34nm,1.5s | | | | | | |
| DIV | Divide | 52.26 | 36 | eP | P | 21 04 38.0 | +0.7 |
| | comp=Z,87nm,1.2s | | | | | | |
| EYAK | Cordova Ski Ar | 52.33 | 37 | eP | P | 21 04 38.8 | +1.0 |
| | comp=Z,194nm,1.6s | | | | | | |
| HARP | HAARP | 52.42 | 34 | eP | P | 21 04 39.5 | +1.0 |
| | comp=Z,265nm,1.8s | | | | | | |
| CISI | Cisompet, Garu | 52.44 | 222 | eP | P | 21 04 38.7 | -0.5 |
| | comp=Z,201nm,2.0s | | | | | | |
| DOT | Dot Lake | 52.80 | 33 | eP | P | 21 04 41.2 | -0.1 |
| | comp=Z,40nm,0.9s | | | | | | |
| BMRM | Bremner River | 52.84 | 36 | eP | P | 21 04 42.8 | +1.1 |
| | comp=Z,52nm,0.8s | | | | | | |
| THN | Thein Dam | 52.84 | 287 | eP | P | 21 04 40.4 | -1.6 |
| RAGM | Ragged Mountai | 52.88 | 37 | eP | P | 21 04 43.0 | +1.0 |
| | comp=Z,310nm,1.8s | | | | | | |
| MENT | Mentasta | 53.03 | 34 | eP | P | 21 04 44.0 | +1.0 |
| | comp=Z,51nm,1.2s | | | | | | |
| JBP | Jabalpur | 53.27 | 274⇑ | eP | P | 21 04 44.9 | -0.3 |
| BRLS | Borolday | 53.73 | 301 | iP | P | 21 04 48.4 | -0.1 |
| | comp=Z,33nm,0.6s | | | | | | |
| IUG | Iuzhnay | 53.85 | 300 | iP | P | 21 04 48.1 | -1.4 |
| | comp=Z,668nm,1.1s | | | | | | |
| IUG | | | | LR | LR | 21 28 11.2 | |
| | comp=Z,438nm,17.3s | | | | | | |
| EGAK | Eagle | 53.94 | 31 | eP | P | 21 04 49.4 | -0.2 |
| | comp=Z,45nm,1.4s | | | | | | |
| DAWY | Dawson | 54.80 | 32 | eP | P | 21 04 56.9 | +1.0 |
| | comp=Z,6.5nm,0.9s | | | | | | |
| WRAB | Tennant Creek | 55.16 | 187d | iP | P | 21 04 58.3 | -0.6 |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,60nm,1.2s | | | | | | |
| WRAB | Tennant Creek | 55.16 | 187 | eP | P | 21 04 58.5 | -0.5 |
| | comp=Z,84nm,0.9s | | | | | | |
| WB2 | Warramunga Arr | 55.17 | 187 | eP | P | 21 04 58.4 | -0.6 |
| | comp=Z,77nm,0.8s | | | | | | |
| WR1 | Warramunga Arr | 55.17 | 187 | eP | P | 21 04 58.3 | -0.7 |
| | comp=Z,73nm,0.7s | | | | | | |
| WR1 | | | | eS | S | 21 12 37.6 | -2.9 |
| WRA | Warramunga Arr | 55.17 | 187 | P | P | 21 04 58.3 | -0.7 |
| | comp=Z,39nm,0.6s,baz=1.4,slow=7.5,SNR=155 | | | | | | |
| WRA | | | | S | S | 21 12 37.6 | -2.9 |
| | comp=Z,0.9nm,0.9s,baz=12,slow=14,SNR=4.6 | | | | | | |
| CTAO | Charters Tower | 55.32 | 173 | eP | P | 21 05 00.0 | -0.1 |
| CTAO | | | | pmax | pmax | | |
| | comp=Z,76nm,1.8s | | | | | | |
| CTAO | Charters Tower | 55.32 | 173 | eP | P | 21 04 60.0 | -0.1 |
| | comp=Z,76nm,1.8s | | | | | | |
| SVE | Sverdlovsk | 55.88 | 319d | iP | P | 21 05 04.0 | +0.2 |
| SVE | | | | pmax | pmax | | |
| | comp=Z,105nm,1.6s | | | | | | |
| SVE | | | | MLR | MLR | | |
| | comp=Z,2µm,18.0s | | | | | | |
| HYT | Haines Junctio | 56.28 | 36 | eP | P | 21 05 08.6 | +1.9 |
| | comp=Z,30nm,0.7s | | | | | | |
| INK | Inuvik | 56.40 | 26 | P | P | 21 05 07.6 | +0.4 |
| | comp=Z,9.5nm,0.8s,baz=270,slow=7.3,SNR=25 | | | | | | |
| INK | | | | LR | LR | 21 31 29.7 | |
| | comp=Z,359nm,19.9s,baz=288,slow=38 | | | | | | |
| INK | Inuvik | 56.40 | 26 | eP | P | 21 05 07.2 | 0.0 |
| | comp=Z,22nm,0.8s | | | | | | |
| ARU | Arti | 57.09 | 319 | LR | LR | 21 32 09.8 | |
| | comp=Z,1µm,18.7s,baz=72,slow=39 | | | | | | |
| ARU | Arti | 57.09 | 319c | iP | P | 21 05 12.0 | -0.4 |
| ARU | | | | | | 21 06 06.7 | |
| ARU | | | | | | 21 07 15.5 | |
| ARU | | | | S | S | 21 13 07.4 | +2.0 |
| ARU | | | | | | 21 14 52.4 | |
| ARU | | | | SS | SS | 21 16 51.8 | -2.0 |
| ARU | | | | pmax | pmax | | |
| | comp=Z,121nm,1.7s | | | | | | |
| ARU | | | | MLR | MLR | | |
| | comp=Z,1µm,16.0s | | | | | | |
| ARU | Arti | 57.09 | 319 | eP | P | 21 05 11.8 | -0.6 |
| | comp=Z,64nm,1.0s | | | | | | |
| SOKR | Solikamsk | 57.19 | 323d | iP | P | 21 05 11.2 | -1.7 |
| SOKR | | | | pmax | pmax | | |
| | comp=Z,66nm,1.3s | | | | | | |
| SOKR | | | | MLR | MLR | | |
| | comp=Z,1µm,22.0s | | | | | | |
| KBL | Kabul | 57.20 | 292 | eP | P | 21 05 12.7 | -1.1 |
| KBL | | | | pmax | pmax | | |
| | comp=Z,39nm,0.9s | | | | | | |
| KBL | Kabul | 57.20 | 292 | eP | P | 21 05 12.7 | -1.1 |
| | comp=Z,39nm,0.9s | | | | | | |
| HYB | Hyderabad | 57.24 | 269 | eP | P | 21 05 04.0 | -10 |

**WHY Whitehorse** 57.57 36 *e*P P 21 05 17.2 +1.4
comp=Z,82nm,1.6s
**BESE Bessie Mountai** 58.15 38 *e*P P 21 05 21.0 +1.1
comp=Z,54nm,1.2s
**AS01 Alice Springs** 58.90 187 *e*P P 21 05 25.1 -0.2
**AS31 Alice Springs** 58.90 187 *e*P P 21 05 25.1 -0.2
comp=Z,7.7nm,0.7s
AS31 ⇑*e* 21 35 13.1
**ASAR Alice Springs** 58.90 187 P P 21 05 25.4 0.0
comp=Z,34nm,0.9s,baz=10,slow=9.2,SNR=71
ASAR S S 21 13 29.4 -0.2
comp=Z,2.6nm,1.0s,baz=16,slow=17,SNR=11
ASAR PKP2bc 21 35 13.1
comp=Z,1.0nm,0.8s,baz=161,slow=2.3,SNR=8.4
**AKTO Aktyubinsk** 59.19 312 LR LR 21 32 18.7
comp=Z,1μm,18.6s,baz=75,slow=37
**MBWA Marble Bar** 59.39 202 *e*P P 21 05 28.2 -0.5
comp=Z,38nm,0.6s
**CRAG Craig** 60.01 41 *e*P P 21 05 34.3 +1.6
comp=Z,258nm,1.8s
**POO Poona** 60.52 273⇓*i*P P 21 05 30.0 -6.8
comp=Z,50nm,1.0s
**DLBC Dease Lake** 60.60 37 *e*P P 21 05 38.5 +1.7
comp=Z,21nm,1.0s
**PALK Pallekele** 61.09 258 *i* P P 21 05 42.7 +2.0
**PALK Pallekele** 61.09 258 *e*P P 21 05 40.5 -0.2
comp=Z,56nm,1.6s
**DIB Dawson Inlet,** 61.15 43 *e*P P 21 05 41.9 +1.5
comp=Z,200nm,1.9s
**EIDS Eidsvold** 61.15 169 *e*P P 21 05 40.8 +0.1
comp=Z,41nm,1.3s
**SPA0 Spitsbergen Ar** 62.09 349 *e*P P 21 05 48.1 +1.6
**DZM Mont Dzumac** 62.17 152 *e*S S 21 14 06.9 -4.8
comp=Z,358nm,26.8s
**DZM Mont Dzumac** 62.17 152 *e*LR LR 21 24 09.5
comp=Z,643nm,23.6s
**DZM Mont Dzumac** 62.17 152 *e*P P 21 05 49.6 +1.8
comp=Z,26nm,0.9s
**MSVF Nonsavu** 63.73 139 *e*P P 21 06 01.0 +2.8
MSVF pmax pmax
comp=Z,64nm,1.4s
**MSVF Nonsavu** 63.73 139 *e*P P 21 06 01.0 +2.8
comp=Z,64nm,1.4s
**TMCR Tamitsa** 63.87 332 *e*P P 21 05 57.2 -1.3
TMCR pmax pmax
comp=Z,71nm,1.1s
**GEYT Alibeck** 63.90 299 P P 21 05 59.3 +0.1
comp=Z,16nm,1.0s,baz=46,slow=4.3,SNR=27
GEYT LR LR 21 36 00.8
comp=Z,1μm,18.2s,baz=70,slow=38
**APA Apatity** 63.94 336⇓*i*P P 21 05 51.0 -7.9
APA MLR MLR
comp=Z,2μm,17.0s
**RES Resolute Bay** 64.56 14 P P 21 06 02.7 -0.1
comp=Z,10nm,0.6s,baz=317,slow=5.5,SNR=40
**KLMR Klimovskoe** 64.77 328 *e*P P 21 06 02.9 -1.6
KLMR *e* 21 08 26.0
KLMR pmax pmax
comp=Z,31nm,0.8s
**KEV Kevo** 64.78 339 *e*P P 21 06 04.5 +0.1
KEV pmax pmax
comp=Z,263nm,1.8s
**KEV Kevo** 64.78 339 *e*P P 21 06 04.5 +0.1
comp=Z,263nm,1.8s
**ARA0 ARCESS Array S** 65.34 339 *e*P P 21 06 08.3 +0.3
**ARCES ARCESS Array B** 65.34 339 P P 21 06 08.3 +0.3
comp=Z,17nm,0.9s,baz=58,slow=9.1,SNR=13
ARCES LR LR 21 37 15.4
comp=Z,1μm,21.6s,baz=62,slow=38
**ARCES ARCESS Array B** 65.34 339 *e*P P 21 06 07.3 -0.8
**ARCES ARCESS Array B** 65.34 339 *e*P P 21 06 07.3 -0.8
**ARE0 ARCESS Array S** 65.34 339 *e*P P 21 06 07.3 -0.8
comp=Z,69nm,1.3s
**YKW3 Yellowknife Ar** 65.78 29 *e*P P 21 06 11.1 +0.1
comp=Z,13nm,1.0s
**YKA Yellowknife Ar** 65.81 29 P P 21 06 11.1 0.0
comp=Z,6.0nm,0.7s,baz=300,slow=6.5,SNR=35
YKA LR LR 21 36 50.0
comp=Z,14nm,21.4s,baz=0.0,slow=38
**YKB5 Yellowknife Ar** 65.81 29 *e*P P 21 06 11.8 +0.7
**ARMA Armidale** 66.19 169 *e*P P 21 06 15.4 +1.4
comp=Z,14nm,0.8s
**FORT Forrest** 66.67 191 *e*P P 21 06 17.3 +0.3
comp=Z,837nm,0.8s
**STKA Stephens Creek** 66.78 179 P P 21 06 18.0 +0.4
comp=Z,13nm,0.8s,baz=343,slow=6.6,SNR=11
STKA LR LR 21 36 28.0
comp=Z,242nm,19.7s,baz=15,slow=37
**STKA Stephens Creek** 66.78 179 P P 21 06 18.0 +0.4
STKA pmax pmax
comp=Z,10.0nm,0.7s
STKA MLR MLR
comp=Z,242nm,19.7s
**STKA Stephens Creek** 66.78 179 *e*P P 21 06 17.6 -0.1
comp=Z,3.2nm,0.8s
**TULEG Thule** 66.99 7 *e*P P 21 06 18.0 -0.5
comp=Z,129nm,2.0s
**DAG Danmarks Havn** 67.47 355 *i* P P 21 06 21.2 -0.3
DAG pmax pmax
comp=Z,9.0nm,0.8s
**DAG Danmarks Havn** 67.47 355 *i* P P 21 06 21.2 -0.3
comp=Z,8.7nm,0.8s
**BBOO Buckleboo** 67.82 184 *e*P P 21 06 24.7 +0.6
comp=Z,23nm,0.8s
**MOS Moscow** 68.13 324 *e*P P 21 06 25.2 -0.8
MOS pmax pmax
comp=Z,87nm,1.2s
MOS MLR MLR
comp=Z,1μm,16.0s
**LLLB Lillooet** 68.18 43 *e*P P 21 06 26.2 -0.3
comp=Z,17nm,1.0s
**VRH Novokhopyorsk** 68.28 318 *e*P P 21 06 25.9 -1.1
VRH pmax pmax
comp=Z,30nm,0.7s
**OBN Obninsk** 68.97 323 LR LR 21 39 03.9
comp=Z,966nm,20.0s,baz=80,slow=38
**OBN Obninsk** 68.97 323⇑*e*P P 21 06 30.8 -0.5
OBN *e* 21 06 55.1
OBN *e* 21 09 02.9
OBN *e*S S 21 15 27.9 -6.0
OBN pmax pmax
comp=Z,50nm,1.0s
OBN MLR MLR
comp=Z,1μm,16.0s
**OBN Obninsk** 68.97 323 *e*P P 21 06 30.4 -0.9
comp=Z,38nm,0.9s
**LPSR Galich'ya Gora** 69.08 320 *e*P P 21 06 31.6 -0.4
LPSR pmax pmax
comp=Z,60nm,1.0s
**B05A Bryant** 69.22 45 P P 21 06 34.0 +1.1
baz=300
**PUL Pulkovo** 69.26 329⇓*i*P P 21 06 33.4 +0.4
PUL pmax pmax
comp=Z,81nm,0.9s
**B06A Marblemount** 69.44 45 *e*P P 21 06 34.8 +0.5
comp=Z,73nm,1.4s
**VSR Storozhevoye** 69.67 319 *e*P P 21 06 34.7 -0.9
VSR pmax pmax
comp=Z,50nm,0.9s
**GROC Groznyy** 69.81 309 *e*P P 21 06 34.3 -2.4
GROC *e* 21 06 55.2
GROC pmax pmax
comp=Z,33nm,1.4s
**D05A Enumclaw** 69.82 46 *e*P P 21 06 38.2 +1.6
comp=Z,44nm,1.0s
**FIA0 FINESS Array S** 69.96 332 *e*P P 21 06 37.0 -0.3
**FIA0 FINESS Array S** 69.96 332 *e*P P 21 06 37.0 -0.3
**FINES FINESS Array B** 69.96 332 P P 21 06 37.0 -0.3
comp=Z,38nm,0.8s,baz=97,slow=6.1,SNR=50
FINES LR LR 21 39 16.7
comp=Z,595nm,19.6s,baz=33,slow=38
**C06D Leavenworth** 70.08 45 P P 21 06 39.8 +1.4
baz=301
**LON Longmire** 70.15 46 *e*P P 21 06 40.4 +1.6
LON pmax pmax
comp=Z,24nm,1.3s
**LON Longmire** 70.15 46 *e*P P 21 06 40.4 +1.6
comp=Z,24nm,1.3s
**F04A Amboy** 70.20 47 *e*P P 21 06 40.4 +1.4
comp=Z,54nm,1.1s
**LTY Liberty** 70.56 46 *e*P P 21 06 41.6 +0.3
comp=Z,51nm,1.4s
**GOF Gofitskoye** 70.59 312⇑*e*P P 21 06 40.9 -0.6
GOF pmax pmax
comp=Z,69nm,1.0s
**CAN Canberra** 70.68 172 *e*P P 21 06 45.8 +3.9
CAN pmax pmax
comp=Z,12nm,0.8s
**CAN Canberra** 70.68 172 *e*P P 21 06 45.8 +3.9
comp=Z,12nm,0.8s
**B08A Colville Reser** 70.76 44 *e*P P 21 06 43.0 +0.5
comp=Z,54nm,1.3s
**I03D Drain, OR** 70.76 50 P P 21 06 44.1 +1.7
baz=301
**BANOM Banah** 70.90 289 P P 21 06 44.3 +0.6
**H04A Detroit Lake** 70.97 48 *e*P P 21 06 45.1 +1.3
comp=Z,49nm,1.1s
**GUDG Gudauri** 71.02 309 P P 21 06 44.6 +0.2
**NCK Nalchik** 71.05 310⇓*i*P P 21 06 44.7 +0.4
NCK pmax pmax
comp=Z,31nm,1.0s
**NWAO Narrogin (SRO)** 71.18 200 *e*P P 21 06 45.2 +0.3
NWAO pmax pmax
comp=Z,59nm,0.8s
**NWAO Narrogin (SRO)** 71.18 200 *e*P P 21 06 45.2 +0.3
comp=Z,59nm,0.8s
**G05D Wamic, OR** 71.21 48 P P 21 06 46.8 +1.6
baz=301
**ZEI Tsey** 71.22 309 *e*P P 21 06 42.3 -3.3
ZEI pmax pmax
comp=Z,8.0nm,0.9s
**TBLG Delisi** 71.22 308 P P 21 06 45.5 +0.1
**TBLG Delisi** 71.22 308 P P 21 06 45.5 +0.1
**I04A Tendick Farm,** 71.29 49 P P 21 06 46.5 +0.7
baz=301
**KBZ Khabaz** 71.36 311 P P 21 06 46.5 +0.4
comp=Z,38nm,0.9s,baz=58,slow=2.5,SNR=47
KBZ pP **pP** 21 06 56.0 +1.1
comp=Z,32nm,0.8s,baz=28,slow=3.0,SNR=12
KBZ LR LR 21 42 00.9
comp=Z,427nm,18.9s,baz=42,slow=39
**KVAR Kislovodsk Arr** 71.37 311 LR LR 21 40 45.8
comp=Z,414nm,20.0s,slow=38
**KIV Kislovodsk** 71.38 311 *i* P P 21 06 46.0 -0.3
SNR=16
**KIV Kislovodsk** 71.38 311 *c* *i*P P 21 06 46.5 +0.1
KIV *i* 21 06 53.1
KIV *i* 21 07 04.8
KIV *e*S S 21 15 55.3 -7.4
KIV pmax pmax
comp=Z,95nm,0.9s
KIV MLR MLR
comp=Z,661nm,19.0s
**KIV Kislovodsk** 71.38 311 *e*P P 21 06 46.7 +0.3
comp=Z,92nm,1.0s
**KIV Kislovodsk** 71.38 311 pP P 21 06 47.5 +1.1
SNR=6.9
**KIV Kislovodsk** 71.38 311 P P 21 06 47.5 +1.1
SNR=6.9
KIV P P 21 06 47.5 +1.1
SNR=6.9
**L02D Cave Junction,** 71.38 51 P P 21 06 47.6 +1.2
baz=301
**E07A Sunnyside** 71.40 46 *e*P P 21 06 47.4 +1.0
comp=Z,48nm,1.2s
**UOSS Minazif** 71.47 288 *e*P P 21 06 47.4 +0.2
comp=Z,32nm,1.0s
**VSU Vasula** 71.52 329⇑*e*P P 21 06 46.8 0.0
VSU pmax pmax
comp=Z,224nm,1.0s
**HUMO Hull Mountain** 71.56 51 *e*P P 21 06 48.8 +1.3
comp=Z,50nm,1.6s
**HATD Hatta, Dubai** 71.59 288 *i* P P 21 06 49.0 +1.1
SNR=7.3
**ONI Oni** 71.60 309 P P 21 06 48.5 +0.7
**ONI Oni** 71.60 309 P P 21 06 48.4 +0.7
**G06A Carlson Farm,** 71.63 47 *e*P P 21 06 49.1 +1.3
comp=Z,43nm,1.3s
**C09A Chrisman Ranch** 71.65 44 *e*P P 21 06 48.4 +0.5
comp=Z,49nm,1.0s
**I05D Terrebonne, OR** 71.67 48 P P 21 06 49.7 +1.7
baz=302
**HAWA Hanford** 71.67 46 *e*P P 21 06 49.1 +1.1
comp=Z,29nm,1.2s
**D08A Wollman Farm,** 71.68 45 *e*P P 21 06 48.7 +0.7
comp=Z,31nm,1.0s
**F07A Phinny Hill Vi** 71.70 46 *e*P P 21 06 49.2 +1.0
comp=Z,56nm,1.2s
**ASHO Ashiyiah** 71.72 288 *i* P P 21 06 48.8 +0.1
SNR=7.6
**NEY Neytrino** 71.72 310⇑*e*P P 21 06 49.6 +1.0
NEY pmax pmax
comp=Z,5.0nm,1.1s
**J04D Umpqua Nationa** 71.77 50 P P 21 06 50.2 +1.4
baz=302
**E08A Dider Farm, El** 71.90 46 *e*P P 21 06 50.1 +0.8
comp=Z,51nm,1.4s
**GNI Garni** 72.03 307 LR LR 21 41 25.6
comp=Z,1μm,18.2s,baz=44,slow=38
**GNI Garni** 72.03 307 P P 21 06 51.0 +0.5
**GNI Garni** 72.03 307 *c* *i*P P 21 06 51.2 +0.7
GNI pmax pmax
comp=Z,168nm,1.4s
**GNI Garni** 72.03 307 *e*P P 21 06 51.3 +0.8
comp=Z,34nm,1.0s
**FAQ Al Faqa, Dubai** 72.05 288 P P 21 06 50.6 -0.1
**NEW Newport** 72.06 43 P P 21 06 51.1 +0.8
comp=Z,22nm,1.1s,baz=298,slow=5.3,SNR=11
**NEW Newport** 72.06 43 P P 21 06 51.2 +0.8
baz=303
**NEW Newport** 72.06 43 *e*P P 21 06 50.9 +0.6
NEW pmax pmax
comp=Z,38nm,1.2s
**NEW Newport** 72.06 43 *e*P P 21 06 50.9 +0.6
comp=Z,38nm,1.2s
**YBH Yreka Blue Hor** 72.17 51 P P 21 06 52.8 +1.6
comp=Z,6.6nm,0.8s,baz=3.8,slow=6.6,SNR=11
**YBH Yreka Blue Hor** 72.17 51 *e*P P 21 06 52.5 +1.3
comp=Z,18nm,0.9s
**AKH Akhalkalaki** 72.19 308 P P 21 06 52.6 +1.1
**AKH Akhalkalaki** 72.19 308⇑*i*P P 21 06 52.2 +0.8
**AKH Akhalkalaki** 72.19 308 P P 21 06 52.5 +1.1
**BGD Bogdanovka** 72.20 308 P P 21 06 52.9 +1.4
**M02C Callahan** 72.26 52 P P 21 06 53.5 +1.8
baz=302
**J05D Fort Rock, OR** 72.29 49 P P 21 06 53.5 +1.5
baz=302
**K04D Chiloquin, OR** 72.31 50 P P 21 06 53.5 +1.5
baz=302
**E09A Wood Farm, Sta** 72.42 45 *e*P P 21 06 53.3 +0.8
comp=Z,54nm,1.1s
**SUMG Summit** 72.47 360 *i* P P 21 06 53.5 +0.7
SUMG pmax pmax
comp=Z,13nm,0.8s
**SUMG Summit** 72.47 360 *i* P P 21 06 53.5 +0.7
comp=Z,13nm,0.8s
**SUMG Summit** 72.47 360 *e*P P 21 06 52.9 +0.1
comp=Z,19nm,0.9s
**N02D Trinity Center** 72.57 52 P P 21 06 55.1 +1.5
baz=302
**G08A Pilot Rock** 72.60 47 *e*P P 21 06 54.9 +1.2
comp=Z,12nm,1.1s
**KCPM Cahto Peak** 72.67 53 *e*P P 21 06 55.3 +1.0
comp=Z,72nm,1.3s
**M04C Macdoel** 72.70 51 P P 21 06 56.0 +1.6
baz=302
**WDC Whiskeytown Da** 72.88 52 *e*P P 21 06 55.8 +0.5
WDC pmax pmax
comp=Z,19nm,0.9s
**WDC Whiskeytown Da** 72.88 52 *e*P P 21 06 55.8 +0.5
comp=Z,19nm,0.9s
**I07A Izee** 72.92 48 *e*P P 21 06 56.4 +0.7
comp=Z,24nm,1.4s
**F10A Beach Ranch, E** 73.25 45 *e*P P 21 06 58.2 +0.7
comp=Z,34nm,1.4s
**ARTV Artvin** 73.31 309 *e*P P 21 06 58.4 +0.3
comp=Z,19nm,0.9s
**WALA Waterton Lakes** 73.38 41 *e*P P 21 06 59.0 +0.8
comp=Z,35nm,1.3s
**IZAR Zarasai** 73.42 327 *e*P P 21 06 58.1 0.0
IZAR IAmb IAmb 21 07 00.0
comp=Z,23nm,0.8s
**MICGM Minsk** 73.45 326⇓*e*P P 21 06 59.0 +0.6
MICGM PM 21 07 00.0
comp=Z,0.3nm,1.5s
**MNK Minsk** 73.45 326⇓*e*P P 21 06 59.0 +0.6
MNK pmax pmax
comp=Z,300nm,1.5s
**IDID Didziasalis** 73.47 327 *e*P P 21 06 58.4 0.0
IDID IAmb IAmb 21 07 00.1
comp=Z,22nm,0.8s
**O03D Paynes Creek** 73.51 52 P P 21 06 59.9 +0.8
baz=302
**ISAL Salakas** 73.58 327 *e*P P 21 06 59.0 -0.1
ISAL IAmb IAmb 21 07 00.9
comp=Z,38nm,0.9s
**MOD Modoc Plateau** 73.61 50 *e*P P 21 07 00.8 +1.0
comp=Z,19nm,0.9s
**IIGN Ignalina** 73.68 327 *e*P P 21 06 59.6 -0.1
IIGN IAmb IAmb 21 07 01.4
comp=Z,20nm,0.8s
**NACGM Naroch** 73.70 327 *e* P 21 07 00.0 +0.1
**BMO Blue Mountains** 73.82 46 *e*P P 21 07 01.4 +0.5
BMO pmax pmax
comp=Z,47nm,1.4s
**BMO Blue Mountains** 73.82 46 *e*P P 21 07 01.4 +0.5
comp=Z,47nm,1.4s
**JTMT Jette** 73.93 43 *e*P P 21 07 02.4 +0.8
comp=Z,42nm,0.9s
**J08A Circle Bar Ran** 73.94 48 *e*P P 21 07 02.6 +1.0
comp=Z,39nm,1.1s
**ANN Anapa** 74.10 314 *e*P P 21 07 00.3 -2.1
ANN *e*PP **pP** 21 07 12.0 +0.9
ANN *e*PPP PPP 21 11 30.4
ANN *e*S S 21 16 31.7 -1.8
ANN pmax pmax
comp=Z,133nm,1.8s
**ORV Oroville** 74.11 53 *e*P P 21 07 02.8 +0.3
ORV pmax pmax
comp=Z,14nm,0.9s
**ORV Oroville** 74.11 53 *e*P P 21 07 02.8 +0.3
comp=Z,14nm,0.9s
**WVOR Wild Horse Val** 74.35 49 *e*P P 21 07 05.2 +1.1
WVOR pmax pmax
comp=Z,26nm,1.0s
**WVOR Wild Horse Val** 74.35 49 *e*P P 21 07 05.2 +1.1
comp=Z,26nm,1.0s
**MSO Missoula** 74.64 43 P P 21 07 06.8 +1.1
baz=305
**MSO Missoula** 74.64 43 *e*P P 21 07 05.9 +0.2
comp=Z,22nm,1.0s
**AFDM Forest Hills D** 74.78 53 *e*P P 21 07 07.1 +0.6
comp=Z,8.3nm,1.1s
**KOPT Kop Dagi** 74.86 308 *e*P P 21 07 07.8 +0.6
comp=Z,20nm,1.0s
**AKASG Malin Array Be** 75.14 322 P P 21 07 07.7 -0.6
comp=Z,32nm,0.8s,baz=47,slow=6.1,SNR=90
AKASG LR LR 21 43 16.4
comp=Z,2μm,18.1s,baz=40,slow=38
**AKASG Malin Array Be** 75.14 322 *i* P P 21 07 07.9 -0.4
AKASG pmax pmax
comp=Z,35nm,0.8s
**AKBB Malin Array Si** 75.14 322 *e*P P 21 07 07.7 -0.6
AKBB pmax pmax
comp=Z,51nm,0.9s
**AKBB Malin Array Si** 75.14 322 *e*P P 21 07 07.7 -0.6
comp=Z,51nm,0.9s
**KIEV Kiev** 75.15 322 *c* *i*P P 21 07 07.6 -0.8
KIEV pmax pmax
comp=Z,65nm,1.1s
KIEV MLR MLR
comp=Z,2μm,17.0s
**KIEV Kiev** 75.15 322 *e*P P 21 07 07.5 -0.8
comp=Z,46nm,0.9s
**AK11 Malin Array Si** 75.18 322 *e*P P 21 07 07.8 -0.8
**NC405 NORSAR Array S** 75.26 337 *e*P P 21 07 08.4 -0.4
**NC303 NORSAR Array S** 75.28 337 *e*P P 21 07 09.1 +0.1
**PAHR Pah Rah Range** 75.39 52 *e*P P 21 07 10.2 0.0
comp=Z,17nm,0.9s
**NC204 NORSAR Array S** 75.44 337 *e*P P 21 07 09.8 -0.1
**NB201 NORSAR Array S** 75.44 337 *e*P P 21 07 09.8 0.0
**NB2 NORSAR Subarra** 75.47 337 P P 21 07 09.6 -0.5
comp=Z,43nm,1.0s,baz=39,slow=5.9
**NB2 NORSAR Subarra** 75.47 337 P P 21 07 09.6 -0.5
baz=39,slow=5.9
**NB200 NORSAR Array S** 75.47 337 *e*P P 21 07 09.9 -0.1
NB200 *e*PP **PP** 21 09 57.1 -1.5
**NOA NORSAR Array B** 75.47 337 P P 21 07 09.9 -0.1
comp=Z,22nm,0.8s,baz=39,slow=5.8,SNR=39
NOA PP **PP** 21 09 57.1 -1.5
comp=Z,3.3nm,0.9s,baz=38,slow=7.9,SNR=3.6
NOA LR LR 21 43 34.5
comp=Z,866nm,19.8s,baz=35,slow=38
**MFID Camas Ranch** 75.51 47 *e*P P 21 07 03.7 -7.0
comp=Z,19nm,0.9s
**NBO02 NORSAR Array S** 75.58 337 *e*P P 21 07 10.7 0.0
**PNTR Pine Nut** 75.59 52 *e*P P 21 07 12.1 +0.6
comp=Z,16nm,0.9s
**NC602 NORSAR Array S** 75.60 337 *e*P P 21 07 10.3 -0.4
**NBO00 NORSAR Array S** 75.62 337 *e*P P 21 07 11.0 +0.1
**SAO San Andreas Ge** 75.66 55 *e*P P 21 07 11.3 -0.2
SAO pmax pmax
comp=Z,19nm,1.3s
**SAO San Andreas Ge** 75.66 55 *e*P P 21 07 11.3 -0.2
comp=Z,19nm,1.3s
**CMB Columbia Colle** 75.66 54 *e*P P 21 07 12.3 +0.7
CMB pmax pmax
comp=Z,19nm,0.9s
**CMB Columbia Colle** 75.66 54 *e*P P 21 07 12.3 +0.7
comp=Z,19nm,0.9s
**FFC Flin Flon** 75.70 32 *e*P P 21 07 11.3 -0.2
FFC pmax pmax
comp=Z,28nm,1.0s
**FFC Flin Flon** 75.70 32 *e*P P 21 07 11.3 -0.2
comp=Z,28nm,1.0s
**NAO01 NORSAR Array S** 75.72 337 *e*P P 21 07 11.3 -0.1
**YERR Yerington** 75.88 52 *e*P P 21 07 13.7 +0.7
comp=Z,22nm,1.0s
**HRY Holter Researc** 75.89 42 *e*P P 21 07 13.0 +0.2
**SUW Suwalki** 75.89 327 *e*P P 21 07 12.6 +0.1
**SUW Suwalki** 75.89 327 *e*P P 21 07 12.6 +0.1
**SIM Simferopol'** 75.95 315 *de*P P 21 07 13.4 +0.3
SIM *e*PPP PPP 21 11 51.0
SIM *e*PS PnS 21 17 52.0 +19
SIM pmax pmax
comp=Z,29nm,0.9s
SIM MLR MLR
comp=Z,500nm,17.0s
**WAKR Walker** 76.02 53 *e*P P 21 07 15.2 +1.3
comp=Z,14nm,1.1s
**LRM Limekiln Ridge** 76.07 43 *e*P P 21 07 14.7 +0.7
**MARD Mardin** 76.17 306 *e*P P 21 07 15.2 +0.6
comp=Z,41nm,0.6s
**EGMT Eagleton** 76.22 41 P P 21 07 15.2 +0.5
baz=308,SNR=7.7
**EGMT Eagleton** 76.22 41 *e*P P 21 07 15.6 +0.9
comp=Z,41nm,0.9s
**DLMT Dillon** 76.26 44 *e*P P 21 07 15.9 +0.9
comp=Z,103nm,1.5s
**HLID Hailey** 76.27 46 P P 21 07 16.3 +1.2
baz=306
**HLID Hailey** 76.27 46 *e*P P 21 07 15.8 +0.7
comp=Z,18nm,1.0s
**LCCM Lewis and Clar** 76.38 43 *e*P P 21 07 16.8 +1.0
**MCMT McKenzie Canyo** 76.43 44 *e*P P 21 07 15.3 -0.9
**BOZ Bozeman (W)** 76.67 43 P P 21 07 18.2 +0.9
baz=307,SNR=18
**BOZ Bozeman (W)** 76.67 43 *e*P P 21 07 18.1 +0.7
BOZ pmax pmax
comp=Z,36nm,1.1s
**BOZ Bozeman (W)** 76.67 43 *e*P P 21 07 18.1 +0.7
comp=Z,36nm,1.1s
**MDPB Devils Postpil** 76.75 53 *e*P P 21 07 18.6 +0.5
comp=Z,14nm,0.8s
**PAGB Antelope Grade** 77.03 55 *e*P P 21 07 20.9 +1.5
comp=Z,57nm,1.1s
**TOKA Tokat** 77.23 310 *e*P P 21 07 21.2 +0.8
comp=Z,35nm,1.0s
**QLMT Earthquake Lak** 77.24 44 *e*P P 21 07 21.8 +1.1
**YHB Horse Butte** 77.42 44 *e*P P 21 07 22.9 +1.2
comp=Z,24nm,1.0s
**YHH Holmes Hill** 77.59 44 *e*P P 21 07 23.6 +0.8
comp=Z,25nm,1.2s
**YMR Madison River** 77.60 44 *e*P P 21 07 24.2 +1.5
comp=Z,27nm,1.1s
**GCMT Greycliff** 77.64 42 *e*P P 21 07 23.6 +0.8
**KIS Kishinev** 77.65 319 *e*P P 21 07 21.0 -1.6
KIS LRM MLR 21 44 32.0
comp=Z,2μm,16.0s
**KIS Kishinev** 77.65 319 *e*P P 21 07 21.0 -1.6
KIS *e* 21 17 26.0
KIS *e* 21 22 08.0
KIS MLR MLR
comp=Z,2μm,15.0s
KIS MLR MLR
comp=N,1μm,17.0s
KIS MLR MLR
comp=E,700nm,15.0s
KIS MLR MLR
comp=Z,2μm,16.0s

SFJD Kangerlussuaq 77.74 4 P P 21 07 23.3 +0.6
comp=Z,12nm,0.9s,baz=329,slow=6.7,SNR=3.1
VES Vestal, Richgr 77.75 55 P P 21 07 23.7 +0.3
baz=305
MCID Moose Creek 77.77 44 eP P 21 07 25.8 +2.1
PKM Mcpherson Peak 77.80 56 P P 21 07 25.4 +1.4
baz=305
LKWY Lake 77.99 44 eP P 21 07 27.4 +2.5
LKWY pmax pmax
comp=Z,27nm,1.2s
LKWY Lake 77.99 44 eP P 21 07 27.4 +2.5
comp=Z,27nm,1.2s
H17A Grant Village 77.99 44 P P 21 07 27.5 +2.6
baz=308,SNR=28
H17A Grant Village 77.99 44 eP P 21 07 27.4 +2.5
comp=Z,30nm,0.9s
CWC Cottonwood Cre 78.08 54 P P 21 07 26.5 +1.1
baz=305
IMW Indian Meadow 78.09 44 eP P 21 07 26.9 +1.4
comp=Z,16nm,0.9s
SBC Santa Barbara 78.12 56 P P 21 07 26.5 +1.1
baz=305
IAS Iasi 78.19 320⇑iP P 21 07 25.8 +0.2
IAS Iasi 78.19 320 ⇑P P 21 07 25.8 +0.2
FXWY Fox Creek 78.20 45 eP P 21 07 27.2 +1.2
comp=Z,25nm,1.4s
GRAC Grapevine Rang 78.23 53 P P 21 07 27.2 +1.1
baz=305
ISA Isabella, Lake 78.26 55 P P 21 07 26.6 +0.3
baz=305
ISA Isabella, Lake 78.26 55 eP P 21 07 26.6 +0.3
ISA pmax pmax
comp=Z,10.0nm,0.9s
ISA Isabella, Lake 78.26 55 eP P 21 07 26.6 +0.3
comp=Z,10nm,0.9s
LVV L'vov 78.27 324 eP P 21 07 25.8 -0.2
LVV MLR MLR
comp=Z,1µm,19.0s
RLMT Red Lodge 78.28 43 P P 21 07 27.6 +1.2
baz=309,SNR=8.9
RLMT Red Lodge 78.28 43 eP P 21 07 27.5 +1.1
comp=Z,23nm,1.2s
MOOW Moose Ponds 78.29 44 eP P 21 07 27.7 +1.2
comp=Z,38nm,1.8s
HVU Hansel Valley 78.30 47 eP P 21 07 27.9 +1.4
HVU pmax pmax
comp=Z,21nm,0.9s
HVU Hansel Valley 78.30 47 eP P 21 07 27.9 +1.4
comp=Z,21nm,0.9s
ARVC Arvin 78.33 55 P P 21 07 27.4 +0.8
baz=305
TPAW Teton Pass 78.33 45 eP P 21 07 28.1 +1.2
comp=Z,21nm,0.9s
SCZ2 Santa Cruz Isl 78.43 57 P P 21 07 28.1 +0.9
baz=305
BEL Belsk 78.43 327 eP P 21 07 27.6 +0.8
BEL Belsk 78.43 327 eP P 21 07 27.6 +0.8
LOHW Long Hollow 78.45 44 eP P 21 07 28.8 +1.3
comp=Z,27nm,1.7s
SNOW Snow King Moun 78.46 45 eP P 21 07 28.9 +1.4
comp=Z,29nm,1.4s
REDW Red Top Meadow 78.47 45 eP P 21 07 28.6 +1.0
comp=Z,35nm,1.4s
ILGA Ilgaz 78.50 312 eP P 21 07 29.0 +1.3
comp=Z,152nm,1.8s
BSD Bornholm Skovb 78.58 331 i P P 21 07 27.3 -0.2
BSD pmax pmax
comp=Z,46nm,0.9s
BSD Bornholm Skovb 78.58 331 i P P 21 07 27.3 -0.2
comp=Z,46nm,0.9s
R11A Troy Canyon, C 78.59 51 P P 21 07 29.3 +1.0
baz=306,SNR=22
R11A Troy Canyon, C 78.59 51 eP P 21 07 28.9 +0.6
comp=Z,29nm,1.1s
BGU Big Grassy Mou 78.65 48 eP P 21 07 29.9 +1.4
comp=Z,26nm,1.3s
AHID Auburn Hatcher 78.69 45 eP P 21 07 29.8 +1.1
comp=Z,10nm,0.8s
MPMC Manual Prospec 78.69 54 P P 21 07 30.3 +1.4
baz=306,SNR=11
FRB Frobisher Bay 78.72 13 P P 21 07 28.4 +0.2
comp=Z,10nm,0.8s,baz=171,slow=5.0,SNR=5.3
BLG Laguna Peak, P 78.75 56 P P 21 07 29.6 +0.6
baz=305
BTPC Burnt Peak 78.76 56 eP P 21 07 28.7 -0.5
SPUT South Promonto 78.77 47 eP P 21 07 31.1 +1.9
comp=Z,26nm,1.3s
PRAR RASCA 78.78 321⇓iP P 21 07 28.1 -0.8
DGMT Dagmar 78.81 38 P P 21 07 29.5 +0.4
baz=311
DGMT Dagmar 78.81 38 eP P 21 07 29.5 +0.4
comp=Z,41nm,1.2s
FURC Furnace Creek, 78.87 53 P P 21 07 30.8 +1.3
baz=306,SNR=7.7
LRMC Laurel Mtn Rad 78.90 54 P P 21 07 30.8 +0.8
baz=306
SNCC San Nicolas Is 78.93 57 P P 21 07 31.8 +1.8
baz=305
LAO LASA Array 78.93 40 P P 21 07 30.7 +0.9
baz=310
LAO LASA Array 78.93 40 eP P 21 07 30.7 +0.9
comp=Z,25nm,1.0s
GKP Gorka Klasztor 78.97 329 eP P 21 07 29.9 +0.1
GKP Gorka Klasztor 78.97 329 eP P 21 07 29.9 +0.1
TPNV Topopah Spring 78.99 53 P P 21 07 31.5 +1.0
baz=306,SNR=15
TPNV Topopah Spring 78.99 53 eP P 21 07 31.2 +0.8
TPNV pmax pmax
comp=Z,24nm,1.0s
TPNV Topopah Spring 78.99 53 eP P 21 07 31.2 +0.8
comp=Z,24nm,1.0s
EDW2 Edwards Air Fo 79.03 55 P P 21 07 31.6 +1.0
baz=306,SNR=11
KWP Kalwaria Pacla 79.04 324 eP P 21 07 31.1 +0.8
KWP Kalwaria Pacla 79.04 324 eP P 21 07 31.1 +0.8
TESR Tescani 79.11 320⇑iP P 21 07 30.8 +0.1
HWUT Hardware Ranch 79.12 47 eP P 21 07 31.9 +0.8
comp=Z,48nm,1.1s
BUR08 Bucovina Ar. S 79.12 321 eP P 21 07 30.8 -0.1
BUR04 Bucovina Ar. S 79.13 321 eP P 21 07 31.0 +0.1
BURAR Bucovina Array 79.13 321⇑iP P 21 07 31.3 +0.4
BURAR Bucovina Array 79.13 321 ⇑P P 21 07 31.3 +0.4
CFR Carcaliu 79.17 318⇓iP P 21 07 31.1 +0.1
CFR Carcaliu 79.17 318 ⇓P P 21 07 31.1 +0.1
DECC Green Verdugo 79.17 56 P P 21 07 31.6 +0.4
baz=305
DUG Dugway, Tooele 79.22 48 P P 21 07 32.8 +1.2
baz=307,SNR=22
DUG Dugway, Tooele 79.22 48 eP P 21 07 32.6 +1.0
DUG pmax pmax
comp=Z,44nm,1.2s
DUG Dugway, Tooele 79.22 48 eP P 21 07 32.6 +1.0
comp=Z,44nm,1.2s
PETR Petresti 79.31 319⇓iP P 21 07 33.4 +1.7
BR101 Keskin Array S 79.34 311 eP P 21 07 32.4 +0.1
BR101 ePP PP 21 10 30.9 -0.9
BR131 Keskin Array S 79.34 311 eP P 21 07 32.1 -0.1
BRTR Keskin Array B 79.34 311 P P 21 07 32.4 +0.1
comp=Z,13nm,0.8s,baz=105,slow=3.9,SNR=49
BRTR PP PP 21 10 30.9 -0.9
comp=Z,4.7nm,1.1s,baz=74,slow=6.6,SNR=4.8
BRTR LR LR 21 47 13.3
comp=Z,291nm,18.1s,baz=52,slow=39
BRTR Keskin Array B 79.34 311 P P 21 07 32.4 +0.1
BRTR 21 10 30.9
BRTR pmax pmax
comp=Z,12nm,0.8s
BRTR pmax pmax
comp=Z,5.0nm,1.1s
BRTR MLR MLR
comp=Z,291nm,18.1s
MWC Mount Wilson 79.37 56 eP P 21 07 33.0 +0.4
MWC pmax pmax
comp=Z,33nm,1.0s
MWC Mount Wilson 79.37 56 eP P 21 07 33.0 +0.4
comp=Z,33nm,1.0s
ODBI Odobesti 79.38 319⇓iP P 21 07 33.9 +1.8
TIRR Tirgusor 79.47 317⇓iP P 21 07 32.9 +0.2
TIRR Tirgusor 79.47 317 ⇓P P 21 07 32.9 +0.2
VRI Vrincioaia 79.48 319⇓iP P 21 07 33.5 +0.7
VRI Vrincioaia 79.48 319 ⇓P P 21 07 33.5 +0.7
TCUT Toone Canyon 79.51 47 eP P 21 07 34.6 +1.2
comp=Z,64nm,1.1s
PLOR Plostina 79.53 319⇓iP P 21 07 33.7 +0.6
PLOR Plostina 79.53 319 ⇓P P 21 07 33.7 +0.6
CTU Camp Tracy 79.57 47 eP P 21 07 34.3 +0.8
comp=Z,15nm,1.0s
BW06 Boulder Array 79.58 45 P P 21 07 33.9 +0.2
baz=309,SNR=17
BW06 Boulder Array 79.58 45 eP P 21 07 33.8 +0.2
comp=Z,9.4nm,0.9s
PD31 Pinedale Array 79.58 45 eP P 21 07 34.1 +0.5
PDAR Pinedale Array 79.58 45 P P 21 07 34.1 +0.5
comp=Z,7.8nm,0.6s,baz=262,slow=2.0,SNR=52
PDAR PP PP 21 10 37.7 +3.9
comp=Z,0.6nm,0.8s,baz=328,slow=4.3,SNR=2.6
PDAR Pinedale Array 79.58 45 eP P 21 07 33.7 +0.1
PDAR PP PP 21 10 37.7 +3.9
PSUT Pine Spring 79.58 50 eP P 21 07 33.3 -0.4
comp=Z,30nm,1.2s
GSC Goldstone, Bar 79.58 54 P P 21 07 34.4 +0.8
baz=306,SNR=5.8
GSC Goldstone, Bar 79.58 54 eP P 21 07 34.2 +0.6
GSC pmax pmax
comp=Z,24nm,1.3s
GSC Goldstone, Bar 79.58 54 eP P 21 07 34.2 +0.6
comp=Z,24nm,1.3s
CIS Catalina Islan 79.60 57 P P 21 07 35.3 +1.7
baz=306
BFSC Mount Baldy Ra 79.63 55 P P 21 07 34.4 +0.5
baz=306,SNR=6.0
MUD Monsted U'grnd 79.68 335 eP P 21 07 33.2 -0.4
MUD pmax pmax
comp=Z,58nm,1.3s
MUD Monsted U'grnd 79.68 335 i P P 21 07 33.2 -0.4
comp=Z,58nm,1.3s
SCI2 San Clemente I 79.75 57 P P 21 07 35.3 +0.8
baz=306
ANTO Ankara 79.77 312 eP P 21 07 34.6 +0.1
ANTO pmax pmax
comp=Z,24nm,0.8s
ANTO Ankara 79.77 312 eP P 21 07 34.6 +0.1
comp=Z,24nm,0.8s
ANTO Ankara 79.77 312 P P 21 07 35.1 +0.6
SNR=5.6
ANTO Ankara 79.77 312 P P 21 07 35.1 +0.6
SNR=5.6
ANTO P P 21 07 35.1 +0.6
SNR=5.6
BR231 Keskin MP Arra 79.80 312 eP P 21 07 32.7 -2.0
JLU Jordanelle 79.80 47 eP P 21 07 35.5 +0.6
comp=Z,50nm,1.3s
NLU North Lily Min 79.82 48 eP P 21 07 35.3 +0.3
comp=Z,24nm,1.1s
STHS Stebnicka Huta 79.88 325 eP P 21 07 35.5 +0.6
STHS pmax pmax
comp=Z,18nm,1.0s
STHS Stebnicka Huta 79.88 325 eP P 21 07 35.5 +0.6
UZH Uzhgorod 79.91 323 eP P 21 07 34.8 -0.2
UZH e 21 07 43.8
SHPR Sheep Range 79.95 52 eP P 21 07 36.2 +0.5
comp=Z,16nm,1.0s
PGOR Pogoanele 79.97 318⇓iP P 21 07 36.8 +1.5
BMR Baia Mare 79.97 322⇓iP P 21 07 36.5 +1.2
BMR Baia Mare 79.97 322 ⇓P P 21 07 36.5 +1.2
OJC Ojcow 80.00 326 eP P 21 07 36.0 +0.5
OJC Ojcow 80.00 326 eP P 21 07 36.0 +0.5
OJC Ojcow 80.00 326 eP P 21 07 35.2 -0.2
comp=Z,66nm,1.1s
ICOR Ion Corvin 80.03 317⇓iP P 21 07 36.8 +1.1
MPU Maple Canyon 80.05 48 eP P 21 07 37.4 +1.2
comp=Z,43nm,1.4s
ISR Istrita 80.07 319⇓iP P 21 07 37.2 +1.2
ISR Istrita 80.07 319 ⇓P P 21 07 37.2 +1.2
TUQ Turquoise Moun 80.09 54 P P 21 07 37.4 +1.0
baz=306,SNR=17
BBRC Big Bear Solar 80.11 55 P P 21 07 37.4 +0.7
baz=306
DOPR Dopca 80.13 320⇑iP P 21 07 37.1 +0.8
CRVS Cervenica-Dubn 80.13 324 eP P 21 07 36.6 +0.4
CRVS Cervenica-Dubn 80.13 324 eP P 21 07 36.6 +0.4
MLR Muntele Rosu 80.14 319⇓iP P 21 07 37.2 +0.7
MLR Muntele Rosu 80.14 319 ⇓P P 21 07 37.2 +0.7
MLR Muntele Rosu 80.14 319 eP P 21 07 37.2 +0.7
comp=Z,33nm,1.4s
HEC Hector,Ludlow 80.17 54 P P 21 07 37.8 +1.0
baz=306,SNR=14
MURC Murrieta 80.31 56 P P 21 07 38.0 +0.5
baz=306
NIE Niedzica 80.33 325 eP P 21 07 38.1 +0.8
NIE Niedzica 80.33 325 eP P 21 07 38.1 +0.8
SECR 80.38 319⇑iP P 21 07 38.8 +1.2
RAYN Ar Rayn 80.47 292 eP P 21 07 38.4 -0.2
comp=Z,22nm,0.7s
CCUT Cedar City 80.48 51 eP P 21 07 39.8 +1.2
comp=Z,39nm,1.3s
CJR Cluj-Napoca 80.56 321⇑iP P 21 07 39.5 +0.9
CJR Cluj-Napoca 80.56 321 ⇑P P 21 07 39.5 +0.9
SZCU Shurtz Canyon 80.63 50 eP P 21 07 40.5 +1.1
comp=Z,15nm,1.1s
GMRC Granite Mounta 80.65 54 P P 21 07 40.3 +0.9
baz=307,SNR=16
VOIR 80.66 320⇓iP P 21 07 39.8 +0.6
VOIR 80.66 320 ⇓P P 21 07 39.8 +0.6
TMUT Trail Mountain 80.75 48 eP P 21 07 41.3 +1.1
comp=Z,28nm,1.2s
109C Camp Elliot, M 80.79 56 P P 21 07 41.0 +0.9
baz=306
PFO Pinyon Flats O 80.80 55 P P 21 07 41.1 +0.9
comp=Z,28nm,1.0s,baz=300,slow=4.3,SNR=20
PFO pP pP 21 07 49.6 +0.5
comp=Z,30nm,0.9s,baz=282,slow=6.6,SNR=12
PFO Pinyon Flats O 80.80 55 P P 21 07 41.0 +0.7
baz=306,SNR=18
PFO Pinyon Flats O 80.80 55 eP P 21 07 40.6 +0.4
PFO ePcP PcP 21 07 40.8 -6.1
XPFO Piæon Flat 80.81 55 eP P 21 07 40.9 +0.6
comp=Z,51nm,1.1s
LCMT Little Creek M 80.88 51 eP P 21 07 41.7 +1.1
comp=Z,40nm,1.1s
BELC Belle Mtn. Jos 80.88 55 P P 21 07 41.2 +0.5
baz=307,SNR=12
KECS Kecovo 80.89 324 eP P 21 07 41.3 +1.0
KECS pmax pmax
comp=Z,11nm,1.5s
KECS Kecovo 80.89 324 eP P 21 07 41.3 +1.0
KECS ePP PP 21 10 46.5 +2.3
LANS Liptovska Anna 80.90 325 eP P 21 07 41.3 +0.9
LANS Liptovska Anna 80.90 325 eP P 21 07 41.3 +0.9
ARR Arges 80.92 320⇑iP P 21 07 41.8 +1.2
MTPU Mount Pierson 80.92 50 eP P 21 07 42.5 +1.3
comp=Z,31nm,1.1s
P17A Butcher Ranch, 80.93 48 eP P 21 07 41.9 +1.0
comp=Z,68nm,1.2s
DRGR 80.96 322⇑iP P 21 07 40.9 +0.1
DRGR 80.96 322 ⇑P P 21 07 40.9 +0.1
Q16A Castle Valley 81.01 48 eP P 21 07 42.6 +1.3
comp=Z,63nm,1.4s
OKC Ostrava-Krasne 81.03 326⇑eP P 21 07 41.4 +0.4
OKC AMS AMS 21 47 30.0
comp=Z,1µm,14.9s
OKC Ostrava-Krasne 81.03 326 eP P 21 07 41.4 +0.4
OKC MLR MLR
comp=Z,1µm,14.9s
KSP Ksiaz 81.13 328 eP P 21 07 42.1 +0.6
KSP Ksiaz 81.13 328 eP P 21 07 42.1 +0.6
P18A Preston Nutter 81.13 47 eP P 21 07 43.0 +0.9
comp=Z,44nm,1.1s
KNB Kanab 81.15 51 eP P 21 07 43.3 +1.2
KNB pmax pmax
comp=Z,65nm,1.2s
KNB Kanab 81.15 51 eP P 21 07 43.2 +1.2
comp=Z,65nm,1.2s
BAR Barrett 81.21 56 eP P 21 07 43.1 +0.8
comp=Z,29nm,0.9s
MONP2 Monument Peak 81.25 56 P P 21 07 43.6 +0.8
baz=306,SNR=16
SRU San Rafael Swe 81.28 48 eP P 21 07 43.7 +0.9
SRU pmax pmax
comp=Z,34nm,0.9s
SRU San Rafael Swe 81.28 48 eP P 21 07 43.7 +0.9
comp=Z,34nm,0.9s
HUMR Humele 81.29 319⇑iP P 21 07 42.7 +0.2
IRM Iron Mountain 81.36 54 P P 21 07 44.0 +0.9
baz=307,SNR=24
MMU Miners Mountai 81.38 49 eP P 21 07 45.0 +1.5
BC3 Big Chuckawall 81.45 55 P P 21 07 44.4 +0.7
baz=307,SNR=15
KRLC Kraliky 81.47 327⇑eP P 21 07 43.9 +0.5
KRLC epP pP 21 07 52.3 +0.1
KRLC Kraliky 81.47 327 eP P 21 07 43.9 +0.5
KRLC e 21 07 52.3
DPC Dobruska-Polom 81.47 327⇑iP P 21 07 43.9 +0.5
DPC epP pP 21 07 52.6 +0.3
DPC ePP PP 21 10 44.4 -4.6
DPC AMS AMS 21 48 30.0
comp=Z,900nm,15.0s
DPC Dobruska-Polom 81.47 327⇑iP P 21 07 43.9 +0.5
DPC e 21 07 52.6
DPC e 21 10 44.4
DPC MLR MLR
comp=Z,900nm,15.0s
MDND Maddock 81.49 36 eP P 21 07 43.8 +0.3
comp=Z,24nm,0.9s
UPC Upice 81.49 328⇑eP P 21 07 44.2 +0.7
UPC AMS AMS 21 48 20.0
comp=Z,1µm,14.4s
UPC Upice 81.49 328 eP P 21 07 44.2 +0.7
UPC MLR MLR
comp=Z,1µm,14.4s
ULM Lac du Bonnet 81.50 33 P P 21 07 43.4 -0.1
comp=Z,9.9nm,1.1s,baz=320,slow=9.7,SNR=4.7
ULM Lac du Bonnet 81.50 33 eP P 21 07 43.7 +0.2
ULM pmax pmax
comp=Z,48nm,1.6s
ULM Lac du Bonnet 81.50 33 eP P 21 07 43.7 +0.2
comp=Z,48nm,1.6s
PSZ Piszkesteto 81.57 324⇑iP P 21 07 44.8 +0.8
PSZ Piszkesteto 81.57 324 ⇑P P 21 07 44.8 +0.8
PSZ Piszkesteto 81.57 324 eP P 21 07 44.7 +0.7
comp=Z,59nm,1.3s
BOLV Bolvadin 81.60 312 eP P 21 07 44.4 0.0
comp=Z,30nm,0.8s
IKP In-Ko-Pah, Jac 81.61 56 P P 21 07 45.4 +0.9
baz=307,SNR=14
SWSC Sam W. Stewart 81.64 56 P P 21 07 45.1 +0.5
baz=307,SNR=6.3
VYHS Vyhne 81.66 325 eP P 21 07 44.8 +0.4
VYHS e 21 07 54.4
VYHS e 21 10 51.9
VYHS pmax pmax
comp=Z,20nm,1.3s
VYHS Vyhne 81.66 325 eP P 21 07 44.8 +0.4
VYHS e 21 07 54.3
VYHS ePP PP 21 10 51.9 +1.3
RSSD Black Hills 81.78 41 P P 21 07 45.3 -0.1
baz=312
PDMCI Parker Dam,Lak 81.94 54 P P 21 07 47.0 +1.0
baz=307,SNR=6.3
O20A White River Ci 82.01 46 P P 21 07 46.7 +0.1
baz=310
O20A White River Ci 82.01 46 eP P 21 07 46.9 +0.3
comp=Z,28nm,1.1s
Y12C Blythe 82.02 54 P P 21 07 47.6 +1.0
baz=307,SNR=6.4
Y12C Blythe 82.02 54 eP P 21 07 47.5 +1.0
comp=Z,33nm,1.0s
PVCC Panska Ves 82.10 328⇑iP P 21 07 47.1 +0.5
PVCC epP pP 21 07 55.8 +0.3
PVCC AMS AMS 21 51 50.0
comp=Z,1µm,16.5s
PVCC Panska Ves 82.10 328⇑iP P 21 07 47.1 +0.5
PVCC e 21 07 55.8
PVCC MLR MLR
comp=Z,1µm,16.5s
VRAC Vranov 82.11 327⇓iP P 21 07 47.7 +1.0
VRAC Vranov 82.11 327 ⇓P P 21 07 47.7 +1.0
BRG Berggiesshubel 82.11 329 eP P 21 07 46.6 -0.1
comp=Z,21nm,1.0s
BRG i 21 07 55.3
comp=Z,19nm,1.1s
BRG ePP PP 21 10 47.0 -7.2
comp=Z,20nm,1.5s
comp=N,753nm,22.3s
comp=E,549nm,13.5s
comp=Z,1µm,17.9s
BRG Berggiesshubel 82.11 329 eP P 21 07 46.6 -0.1
BRG i 21 07 55.3
BRG pmax pmax
comp=Z,21nm,1.0s
BRG pmax pmax
comp=Z,19nm,1.1s
BRG pmax pmax
comp=Z,20nm,1.5s
BRG MLR MLR
comp=N,753nm,22.3s
BRG MLR MLR
comp=E,549nm,13.5s
BRG MLR MLR
comp=Z,1µm,17.9s
SRE Strehaia 82.14 320⇑iP P 21 07 48.7 +1.7
SRE Strehaia 82.14 320 ⇑P P 21 07 48.7 +1.7
CLL Collm 82.18 330⇑iP P 21 07 46.8 -0.2
CLL i *SP pP 21 07 54.9 -1.0
CLL pmax pmax
comp=Z,37nm,1.0s
CLL MLR MLR
comp=Z,700nm,18.2s
CLL Collm 82.18 330⇑iP P 21 07 46.8 -0.2
comp=Z,37nm,1.0s
CLL i pP pP 21 07 54.9 -1.0
CLL ePP PP 21 10 55.0 +0.3
CLL epPP 21 11 02.0
CLL eS S 21 18 06.0 +5.9
CLL e(SS) 21 23 54.0
CLL LmV 21 52 00.0
comp=Z,700nm,18.2s
CLL Collm 82.18 330 eP P 21 07 46.9 -0.2
comp=Z,33nm,0.9s
GLA Glamis 82.23 55 P P 21 07 48.8 +1.1
baz=307,SNR=9.5
GLA Glamis 82.23 55 eP P 21 07 49.0 +1.3
GLA pmax pmax
comp=Z,38nm,0.9s
GLA Glamis 82.23 55 eP P 21 07 49.0 +1.3
comp=Z,38nm,0.9s
SMOL Smolenice 82.30 326 eP P 21 07 48.8 +1.0
SMOL Smolenice 82.30 326 eP P 21 07 48.8 +1.0
BZS Buzias 82.31 322⇑iP P 21 07 47.9 +0.1
BZS Buzias 82.31 322 ⇑P P 21 07 47.9 +0.1
CSS Mathiatis 82.42 308 eP P 21 07 48.6 -0.1
comp=Z,6.6nm,0.8s
CSS Mathiatis 82.42 308 P P 21 07 48.9 +0.2
GOPC GO Pecny, Ondr 82.46 328⇑eP P 21 07 48.6 0.0
GOPC epP pP 21 07 57.3 -0.2
GOPC AMS AMS 21 48 00.0
comp=Z,800nm,17.4s
GOPC GO Pecny, Ondr 82.46 328 eP P 21 07 48.6 0.0
GOPC e 21 07 57.3
GOPC MLR MLR
comp=Z,800nm,17.4s
MODS Modra-Piesok 82.47 326 eP P 21 07 49.3 +0.6
MODS e 21 07 57.8
MODS Modra-Piesok 82.47 326 eP P 21 07 49.3 +0.6
MODS e 21 07 57.8
PRU Pruhonice 82.52 328⇑eP P 21 07 49.1 +0.3
PRU epP pP 21 07 57.4 -0.3
PRU ePP PP 21 10 58.6 +1.1
PRU AMS AMS 21 49 00.0
comp=Z,1µm,15.7s
PRU Pruhonice 82.52 328 eP P 21 07 49.1 +0.3
PRU e 21 07 57.4
PRU e 21 10 58.6
PRU MLR MLR
comp=Z,1µm,15.7s
PV09 Paradox Valley 82.52 48 eP P 21 07 50.8 +1.4
TREC Trest 82.61 327⇑eP P 21 07 49.6 +0.2
TREC AMS AMS 21 48 40.0
comp=Z,1µm,14.5s
TREC Trest 82.61 327 eP P 21 07 49.6 +0.2
TREC MLR MLR
comp=Z,1µm,14.5s
PV10 Paradox Valley 82.65 48 eP P 21 07 51.3 +1.2
PV05 Paradox Valley 82.80 48 eP P 21 07 52.2 +1.3
MDVR Moldovita 82.84 321⇑iP P 21 07 50.7 0.0
N23A Red Feather La 82.85 44 eP P 21 07 52.0 +0.8
comp=Z,30nm,1.1s
PHWY Pilot Hill 82.86 44 eP P 21 07 48.4 -2.7
comp=Z,17nm,1.2s
AGMN Agassiz Nation 82.93 34 eP P 21 07 48.7 -2.3
comp=Z,30nm,1.0s
KDZ Kurdzhali 82.96 317 eP P 21 07 51.7 +0.4
WUAZ Wupatki 82.99 51 P P 21 07 52.8 +1.0
baz=309,SNR=21
WUAZ Wupatki 82.99 51 eP P 21 07 52.4 +0.6
comp=Z,36nm,1.0s

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PV01 | Paradox Valley | 83.09 | 48 | eP | P | 21 07 53.3 | +0.9 |
| ALN | Alexandroupoli | 83.10 | 316 | P | P | 21 07 51.7 | -0.3 |
| MANT | Manisa | 83.20 | 313 | eP | P | 21 07 52.6 | -0.2 |
| | comp=Z,132nm,1.4s | | | | | | |
| NKC | Novy Kostel | 83.22 | 329 | ⇑eP | P | 21 07 52.9 | +0.4 |
| NKC | | | | epP | pP | 21 08 00.8 | -0.6 |
| NKC | | | | AMS | AMS | 21 50 00.0 | |
| | comp=Z,800nm,15.8s | | | | | | |
| NKC | Novy Kostel | 83.22 | 329 | eP | P | 21 07 52.9 | +0.4 |
| NKC | | | | e | | 21 08 00.8 | |
| NKC | | | | MLR | MLR | | |
| | comp=Z,800nm,15.8s | | | | | | |
| RDO | Rodhopi | 83.23 | 316 | P | P | 21 07 52.8 | +0.1 |
| RZN | Rozhen | 83.33 | 317 | eP | P | 21 07 54.6 | +1.2 |
| SMCO | Snowmass | 83.37 | 46 | eP | P | 21 07 54.7 | +0.7 |
| | comp=Z,20nm,1.1s | | | | | | |
| CONA | Conrad Observa | 83.45 | 326 | i PcP | P | 21 07 54.6 | +0.8 |
| | comp=Z,36nm,1.4s,SNR=14 | | | | | | |
| VTS | Vitosha | 83.55 | 319 | ⇑iP | P | 21 07 55.1 | +0.6 |
| VTS | Vitosha | 83.55 | 319 | ⇑P | P | 21 07 55.1 | +0.6 |
| VTS | Vitosha | 83.55 | 319 | eP | P | 21 07 55.9 | +1.4 |
| VTS | Vitosha | 83.55 | 319 | eP | P | 21 07 54.4 | -0.1 |
| | comp=Z,51nm,1.1s | | | | | | |
| VTS | Vitosha | 83.55 | 319 | P | P | 21 07 54.7 | +0.2 |
| KHC | Kasperske Hory | 83.57 | 328 | ⇑iP | P | 21 07 54.5 | +0.1 |
| KHC | | | | epP | pP | 21 08 03.0 | -0.3 |
| KHC | | | | ex | x | 21 08 14.0 | |
| KHC | | | | AMS | AMS | 21 49 10.0 | |
| | comp=Z,2µm,17.5s | | | | | | |
| KHC | Kasperske Hory | 83.57 | 328 | ⇑iP | P | 21 07 54.5 | +0.1 |
| KHC | | | | e | | 21 08 03.0 | |
| KHC | | | | MLR | MLR | | |
| | comp=Z,2µm,17.5s | | | | | | |
| KHC | Kasperske Hory | 83.57 | 328 | eP | P | 21 07 54.1 | -0.3 |
| | comp=Z,17nm,1.4s | | | | | | |
| MVCO | Mesa Verde | 83.72 | 48 | P | P | 21 07 56.7 | +1.1 |
| | baz=310 | | | | | | |
| MVCO | Mesa Verde | 83.72 | 48 | eP | P | 21 07 56.5 | +0.8 |
| | comp=Z,35nm,1.0s | | | | | | |
| GEC2 | GERESS Array S | 83.73 | 328 | eP | P | 21 07 55.2 | -0.1 |
| GEC2 | | | | pmax | pmax | | |
| | comp=Z,37nm,1.5s | | | | | | |
| GEC2 | GERESS Array S | 83.73 | 328 | eP | P | 21 07 55.2 | -0.1 |
| | comp=Z,37nm,1.5s | | | | | | |
| GERES | GERESS Array B | 83.73 | 328 | P | P | 21 07 54.9 | -0.4 |
| | comp=Z,5.3nm,0.8s,baz=35,slow=5.6,SNR=42 | | | | | | |
| GERES | | | | pP | pP | 21 08 03.9 | -0.3 |
| | comp=Z,4.4nm,0.7s,baz=38,slow=4.4,SNR=14 | | | | | | |
| GERES | | | | PP | PP | 21 11 01.2 | -6.5 |
| | comp=Z,1.1nm,0.9s,baz=31,slow=12,SNR=3.7 | | | | | | |
| GERES | | | | LR | LR | 21 49 02.4 | |
| | comp=Z,589nm,18.6s,baz=18,slow=38 | | | | | | |
| GEA0 | GERESS Array S | 83.74 | 328 | eP | P | 21 07 54.3 | -1.0 |
| ISCO | Idaho Springs | 83.76 | 45 | P | P | 21 07 56.8 | +1.0 |
| | baz=312 | | | | | | |
| ISCO | Idaho Springs | 83.76 | 45 | eP | P | 21 07 56.6 | +0.7 |
| ISCO | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.9s | | | | | | |
| ISCO | Idaho Springs | 83.76 | 45 | eP | P | 21 07 56.6 | +0.7 |
| | comp=Z,9.6nm,0.9s | | | | | | |
| MMB | Musomiste | 83.94 | 318 | eP | P | 21 07 57.1 | +0.7 |
| AKAS | Kas | 84.00 | 310 | eP | P | 21 07 56.1 | -0.8 |
| | comp=Z,24nm,0.9s | | | | | | |
| NVR | Nevrokopi | 84.03 | 317 | P | P | 21 07 56.9 | 0.0 |
| FETY | Fethiye | 84.07 | 311 | P | P | 21 07 56.5 | -0.6 |
| KSL | Kastellorizon | 84.07 | 310 | P | P | 21 07 56.4 | -0.7 |
| ARSA | Arzberg | 84.10 | 326 | i P | P | 21 07 57.4 | +0.3 |
| | comp=Z,25nm,1.6s,SNR=8.6 | | | | | | |
| KKB | Krupnik | 84.11 | 318 | eP | P | 21 07 57.4 | +0.2 |
| GRFO | Grafenberg | 84.15 | 330 | eP | P | 21 07 57.5 | +0.2 |
| GRFO | | | | pmax | pmax | | |
| | comp=Z,83nm,1.4s | | | | | | |
| GRFO | Grafenberg | 84.15 | 330 | eP | P | 21 07 57.5 | +0.2 |
| | comp=Z,83nm,1.4s | | | | | | |
| DIVS | Divibare | 84.20 | 321 | P | P | 21 07 57.5 | -0.2 |
| SUSD | Miller | 84.21 | 38 | P | P | 21 07 58.5 | +0.9 |
| | baz=315 | | | | | | |
| MOA | Molln | 84.23 | 327 | i P | P | 21 07 58.0 | +0.3 |
| | comp=Z,22nm,1.1s,SNR=5.5 | | | | | | |
| 214A | Organ Pipe Nat | 84.25 | 55 | P | P | 21 07 59.1 | +0.9 |
| | baz=308 | | | | | | |
| LIA | Limnos Island | 84.26 | 316 | P | P | 21 07 57.1 | -0.9 |
| W18A | Petrified Fore | 84.28 | 51 | P | P | 21 07 59.5 | +1.1 |
| | baz=310 | | | | | | |
| W18A | Petrified Fore | 84.28 | 51 | eP | P | 21 07 58.9 | +0.4 |
| | comp=Z,14nm,0.8s | | | | | | |
| SIGR | SIGRI | 84.33 | 315 | P | P | 21 07 58.0 | -0.3 |
| PMOR | Pomariorio Ree | 84.33 | 113 | eT | T | 22 40 39.7 | |
| | comp=Z,18nm,0.2s | | | | | | |
| SRS | Serrai | 84.34 | 317 | P | P | 21 07 58.0 | -0.4 |
| S22A | 4UR Ranch, Cre | 84.39 | 47 | P | P | 21 08 00.6 | +1.5 |
| | baz=311 | | | | | | |
| S22A | 4UR Ranch, Cre | 84.39 | 47 | eP | P | 21 07 59.8 | +0.7 |
| | comp=Z,22nm,0.9s | | | | | | |
| Q24A | Divide | 84.58 | 45 | P | P | 21 08 00.8 | +0.7 |
| | baz=312 | | | | | | |
| Q24A | Divide | 84.58 | 45 | eP | P | 21 08 00.6 | +0.6 |
| | comp=Z,16nm,1.0s | | | | | | |
| OUR | Ouranopolis | 84.65 | 317 | P | P | 21 07 59.2 | -0.7 |
| PPT | Papeete | 84.68 | 116 | LR | LR | 21 47 07.6 | |
| | comp=Z,173nm,18.4s,baz=344,slow=37 | | | | | | |
| PPT2 | Papeete2 | 84.69 | 116 | eLR | LR | 21 34 28.7 | |
| | comp=Z,557nm,28.2s | | | | | | |
| PPT2 | Papeete2 | 84.69 | 116 | eT | T | 22 41 09.7 | |
| | comp=Z,7.4nm,0.3s | | | | | | |
| KNT | Kendrikon | 84.69 | 318 | P | P | 21 07 59.9 | -0.3 |
| PERS | Pernice | 84.75 | 326 | i P | P | 21 08 00.4 | 0.0 |
| PERS | | | | i | | 21 08 08.8 | |
| SOKA | Soboth | 84.75 | 326 | i PcP | P | 21 08 00.6 | +0.1 |
| | comp=Z,59nm,1.4s,SNR=19 | | | | | | |
| CHOS | Chios island | 84.75 | 314 | P | P | 21 08 00.2 | -0.4 |
| VAY | Valandovo | 84.76 | 318 | P | P | 21 08 00.5 | 0.0 |
| VAY | Valandovo | 84.76 | 318 | i P | P | 21 08 01.0 | +0.5 |
| PLG | Polygyros | 84.92 | 317 | P | P | 21 08 00.9 | -0.5 |
| ARG | Arkhangelos | 84.93 | 311 | P | P | 21 08 01.1 | -0.3 |
| SKO | Skopje | 84.93 | 319 | P | P | 21 08 02.1 | +0.8 |
| SKO | Skopje | 84.93 | 319 | i P | P | 21 08 02.4 | +1.0 |
| OGNE | Ogallala | 85.01 | 42 | P | P | 21 08 02.3 | +0.4 |
| | baz=314 | | | | | | |
| PAIG | Paliouri | 85.09 | 316 | P | P | 21 08 00.9 | -1.3 |
| OBKA | Obir | 85.10 | 326 | eP | P | 21 08 01.8 | -0.4 |
| | comp=Z,7.4nm,0.8s | | | | | | |
| EYMN | Ely | 85.14 | 32 | P | P | 21 08 02.2 | -0.1 |
| | baz=320 | | | | | | |
| BLY | Banja Luka | 85.14 | 323 | eP | P | 21 08 01.8 | -0.6 |
| | comp=Z,15nm,0.8s | | | | | | |
| SDCO | Great Sand Dun | 85.18 | 47 | P | P | 21 08 04.1 | +1.0 |
| | baz=312 | | | | | | |
| SDCO | Great Sand Dun | 85.18 | 47 | eP | P | 21 08 03.7 | +0.6 |
| | comp=Z,28nm,1.4s | | | | | | |
| KBA | Koelnbreinsper | 85.22 | 327 | i PcP | P | 21 08 02.9 | 0.0 |
| | comp=Z,14nm,0.8s,SNR=6.1 | | | | | | |
| HPK | Haverah Park | 85.25 | 339 | eP | P | 21 08 03.5 | +0.8 |
| TUC | Tucson | 85.38 | 53 | P | P | 21 08 04.8 | +1.0 |
| | baz=309 | | | | | | |
| MYKA | Terra Mystica | 85.43 | 326 | i P | P | 21 08 03.1 | -0.7 |
| | comp=Z,14nm,0.7s,SNR=6.0 | | | | | | |
| KRUS | Krusevo | 85.45 | 319 | i P | P | 21 08 03.9 | -0.1 |
| MEM | Membach | 85.48 | 333 | P | P | 21 08 03.9 | 0.0 |
| | comp=Z,19nm,1.4s | | | | | | |
| MEM | | | | AP | pP | 21 08 12.0 | -0.8 |
| VISS | Visnje | 85.49 | 325 | i P | P | 21 08 03.6 | -0.4 |
| VISS | | | | i | | 21 08 12.4 | |
| BOJS | Bojanci | 85.52 | 325 | i P | P | 21 08 03.9 | -0.3 |
| BOJS | | | | i | | 21 08 12.9 | |
| LIT | Litokhoron | 85.64 | 317 | P | P | 21 08 04.0 | -1.0 |
| LHO | Holmfirth | 85.67 | 338 | eP | P | 21 08 05.2 | +0.4 |
| XOR | Xorichti | 85.75 | 316 | P | P | 21 08 04.0 | -1.5 |
| PDG | Podgorica | 85.76 | 320 | ⇑iP | P | 21 08 05.4 | -0.1 |
| PDG | Podgorica | 85.76 | 320 | P | P | 21 08 05.4 | -0.1 |
| JAVS | Javornik | 85.79 | 326 | i P | P | 21 08 04.8 | -0.8 |
| JAVS | | | | i | | 21 08 13.2 | |
| WATA | Walderalm | 85.81 | 328 | eP | P | 21 08 05.3 | -0.5 |
| | comp=Z,2.5nm,0.5s | | | | | | |
| ABTA | Abfaltersbach | 85.85 | 327 | eP | P | 21 08 04.8 | -1.1 |
| | comp=Z,12nm,0.9s | | | | | | |
| OHR | Ohrid | 85.87 | 319 | i P | P | 21 08 05.6 | -0.5 |
| ECSD | EROS Data Cent | 85.89 | 37 | P | P | 21 08 06.7 | +0.6 |
| | baz=317 | | | | | | |
| ECSD | EROS Data Cent | 85.89 | 37 | eP | P | 21 08 05.8 | -0.3 |
| | comp=Z,7.8nm,0.8s | | | | | | |
| BCLA | Clavier | 85.90 | 333 | P | P | 21 08 05.6 | -0.4 |
| | comp=Z,21nm,1.5s | | | | | | |
| BCLA | | | | AP | pP | 21 08 14.3 | -0.5 |
| APE | Apeiranthos | 85.94 | 313 | ⇑iP | P | 21 08 05.8 | -0.7 |
| APE | Apeiranthos | 85.94 | 313 | ⇑P | P | 21 08 05.8 | -0.7 |
| MOTA | Moosalm | 86.01 | 328 | i P | P | 21 08 06.3 | -0.5 |
| | comp=Z,7.5nm,0.9s | | | | | | |
| RETA | Reutte | 86.04 | 328 | ePcP | P | 21 08 06.9 | 0.0 |
| | comp=Z,32nm,1.7s,SNR=5.8 | | | | | | |
| TRI | Trieste | 86.06 | 326 | eP | P | 21 08 05.2 | -1.7 |
| TRI | | | | pmax | pmax | | |
| | comp=Z,24nm,0.9s | | | | | | |
| TRI | Trieste | 86.06 | 326 | eP | P | 21 08 05.2 | -1.7 |
| | comp=Z,24nm,0.9s | | | | | | |
| MHTCO | State Highway | 86.07 | 47 | eP | P | 21 08 06.9 | -0.5 |
| | comp=Z,33nm,1.3s | | | | | | |
| LANF | Langenberg | 86.09 | 331 | eP | P | 21 08 06.6 | -0.4 |
| WLF | Walferdange | 86.19 | 332 | P | P | 21 08 07.9 | +0.5 |
| | comp=Z,30nm,1.8s | | | | | | |
| WLF | | | | AP | pP | 21 08 16.2 | -0.1 |
| WLF | Walferdange | 86.19 | 332 | eP | P | 21 08 06.2 | -1.2 |
| WLF | | | | pmax | pmax | | |
| | comp=Z,86nm,1.7s | | | | | | |
| WLF | Walferdange | 86.19 | 332 | eP | P | 21 08 06.2 | -1.2 |
| | comp=Z,86nm,1.7s | | | | | | |
| SNF | Seneffe | 86.20 | 334 | P | P | 21 08 07.6 | +0.2 |
| SNF | | | | AP | pP | 21 08 15.9 | -0.5 |
| CWF | Charnwood Fore | 86.20 | 338 | eP | P | 21 08 07.4 | 0.0 |
| CWF | | | | IAmb | IAmb | 21 08 08.1 | |
| | comp=Z,39nm,0.9s | | | | | | |
| CWF | Charnwood Fore | 86.20 | 338 | eP | P | 21 08 07.3 | -0.2 |
| | comp=Z,43nm,1.0s | | | | | | |
| GMM | Mts of Mourne | 86.23 | 341 | eP | P | 21 08 08.3 | +0.8 |
| T25A | Trinidad | 86.23 | 46 | P | P | 21 08 09.0 | +0.8 |
| | baz=312 | | | | | | |
| T25A | Trinidad | 86.23 | 46 | eP | P | 21 08 09.0 | +0.8 |
| | comp=Z,30nm,0.9s | | | | | | |
| STON | Ston | 86.24 | 322 | P | P | 21 08 05.9 | -1.9 |
| LAZ | Ladron | 86.38 | 50 | eP | P | 21 08 10.0 | +1.1 |
| BFO | Black Forest | 86.40 | 330 | i P | P | 21 08 08.6 | 0.0 |
| BFO | Black Forest | 86.40 | 330 | eP | P | 21 08 07.7 | -0.9 |
| | comp=Z,25nm,1.0s | | | | | | |
| FETA | Feichten | 86.42 | 328 | i PcP | P | 21 08 08.5 | -0.3 |
| | comp=Z,10nm,1.0s | | | | | | |
| DOU | Dourbes | 86.42 | 333 | P | P | 21 08 08.3 | -0.3 |
| | comp=Z,18nm,2.0s | | | | | | |
| DOU | | | | AP | pP | 21 08 16.9 | -0.6 |
| ANMO | Albuquerque | 86.45 | 49 | P | P | 21 08 10.8 | +1.5 |
| | comp=Z,9.1nm,1.0s,baz=94,slow=4.3,SNR=12 | | | | | | |
| ANMO | Albuquerque | 86.45 | 49 | P | P | 21 08 10.2 | +0.9 |
| | baz=311 | | | | | | |
| ANMO | Albuquerque | 86.45 | 49 | ceP | P | 21 08 10.3 | +1.0 |
| ANMO | | | | pmax | pmax | | |
| | comp=Z,13nm,1.1s | | | | | | |
| ANMO | | | | MLR | MLR | | |
| | comp=Z,120nm,18.0s | | | | | | |
| ANMO | Albuquerque | 86.45 | 49 | eP | P | 21 08 09.6 | +0.3 |
| | comp=Z,10nm,0.9s | | | | | | |
| AGG | Agios Georgios | 86.47 | 316 | eP | P | 21 08 07.5 | -1.6 |
| AGG | | | | pmax | pmax | | |
| | comp=Z,21nm,0.9s | | | | | | |
| AGG | Agios Georgios | 86.47 | 316 | eP | P | 21 08 07.5 | -1.6 |
| | comp=Z,21nm,0.9s | | | | | | |
| DAVA | Damuels | 86.58 | 329 | i P | P | 21 08 08.9 | -0.7 |
| | comp=Z,34nm,1.6s,SNR=6.5 | | | | | | |
| FOEL | Foel Wylfa | 86.65 | 339 | eP | P | 21 08 10.5 | +0.9 |
| FOEL | | | | IAmb | IAmb | 21 08 11.3 | |
| | comp=Z,46nm,0.8s | | | | | | |
| TAOE | Nuku Hiva Isla | 86.65 | 103 | eLR | LR | 21 35 46.4 | |
| | comp=Z,513nm,25.5s | | | | | | |
| LPM | Los Pinos Moun | 86.75 | 50 | eP | P | 21 08 12.0 | +1.3 |
| BNM | Barren Site | 86.86 | 50 | eP | P | 21 08 11.1 | -0.3 |
| FUORN | Ofenpass-Fuorn | 86.93 | 328 | eP | P | 21 08 11.5 | 0.0 |
| | comp=Z,24nm,0.9s | | | | | | |
| ECH | Echery | 86.96 | 331 | eP | P | 21 08 10.8 | -0.5 |
| ECH | Echery | 86.96 | 331 | eP | P | 21 08 11.1 | -0.2 |
| ECH | | | | pmax | pmax | | |
| | comp=Z,17nm,0.9s | | | | | | |
| ECH | Echery | 86.96 | 331 | eP | P | 21 08 11.1 | -0.2 |
| | comp=Z,17nm,0.9s | | | | | | |
| ANX | Ano Chora | 87.00 | 316 | P | P | 21 08 05.2 | -6.6 |
| MOF | Molkenrain | 87.27 | 331 | eP | P | 21 08 12.2 | -0.7 |
| SCHQ | Schefferville | 87.30 | 15 | P | P | 21 08 13.3 | +0.5 |
| | comp=Z,6.7nm,0.7s,baz=320,slow=10,SNR=3.2 | | | | | | |
| SCHQ | | | | LR | LR | 21 48 53.7 | |
| | comp=Z,212nm,21.9s,baz=346,slow=37 | | | | | | |
| SCHQ | Schefferville | 87.30 | 15 | eP | P | 21 08 13.6 | +0.8 |
| | comp=Z,91nm,1.9s | | | | | | |
| STRD | Stroud | 87.30 | 338 | eP | P | 21 08 13.0 | +0.2 |
| MCH1 | Michaelchurch | 87.37 | 338 | eP | P | 21 08 13.3 | +0.2 |
| MCH1 | | | | IAmb | IAmb | 21 08 13.5 | |
| | comp=Z,61nm,1.1s | | | | | | |
| PDO | Prodromos | 87.41 | 317 | P | P | 21 08 12.4 | -1.2 |
| THEF | They Montfort | 87.42 | 331 | eP | P | 21 08 13.0 | -0.5 |
| TUE | Stuetta | 87.44 | 328 | eP | P | 21 08 13.3 | -0.6 |
| | comp=Z,24nm,1.4s | | | | | | |
| LPW | Lampeter | 87.58 | 339 | eP | P | 21 08 13.7 | -0.5 |
| LPW | | | | IAmb | IAmb | 21 08 15.2 | |
| | comp=Z,49nm,0.9s | | | | | | |
| CBKS | Cedar Bluff | 87.76 | 43 | P | P | 21 08 15.1 | -0.3 |
| | baz=315 | | | | | | |
| TBI | Tubuai | 88.42 | 120 | eLR | LR | 21 36 15.6 | |
| | comp=Z,292nm,26.0s | | | | | | |
| TBI | Tubuai | 88.42 | 120 | eT | T | 22 45 50.9 | |
| | comp=Z,7.3nm,0.3s | | | | | | |
| AQU | L'Aquila | 88.76 | 324 | eP | P | 21 08 20.1 | 0.0 |
| AQU | | | | pmax | pmax | | |
| | comp=Z,29nm,0.7s | | | | | | |
| AQU | L'Aquila | 88.76 | 324 | eP | P | 21 08 20.1 | 0.0 |
| | comp=Z,29nm,0.7s | | | | | | |
| P34A | Walnut Farm, R | 88.82 | 40 | P | P | 21 08 20.4 | +0.1 |
| | baz=317 | | | | | | |
| Q34A | Chapman | 89.21 | 41 | P | P | 21 08 22.7 | +0.5 |
| | baz=317 | | | | | | |
| KSU1 | Kansas State U | 89.26 | 41 | eP | P | 21 08 22.6 | +0.2 |
| | comp=Z,20nm,0.8s | | | | | | |
| AMTX | Amarillo | 89.39 | 47 | P | P | 21 08 23.6 | +0.4 |
| | baz=314 | | | | | | |
| AMTX | Amarillo | 89.39 | 47 | eP | P | 21 08 23.7 | +0.5 |
| | comp=Z,17nm,0.8s | | | | | | |
| ATD | Arta Tunnel | 89.40 | 284 | eP | P | 21 08 23.5 | 0.0 |
| | comp=Z,27nm,1.3s | | | | | | |
| R34A | Isabella, Hill | 89.50 | 42 | P | P | 21 08 24.0 | +0.5 |
| | baz=316 | | | | | | |
| R35A | Emporia Munici | 90.05 | 41 | P | P | 21 08 26.6 | +0.5 |
| | baz=317 | | | | | | |
| R36A | Gordon, Harris | 90.42 | 41 | P | P | 21 08 27.5 | -0.3 |
| | baz=318 | | | | | | |
| S35A | Otter Creek Ra | 90.45 | 41 | P | P | 21 08 27.8 | -0.2 |
| | baz=317 | | | | | | |
| T34A | McClaskey Farm | 90.45 | 42 | P | P | 21 08 28.0 | 0.0 |
| | baz=317 | | | | | | |
| S36A | Lake Cedric, C | 90.81 | 41 | P | P | 21 08 29.5 | -0.2 |
| | baz=318 | | | | | | |
| T35A | Sooner Cattle | 90.90 | 42 | P | P | 21 08 30.3 | +0.2 |
| | baz=317 | | | | | | |
| Q38A | Cooks Store, C | 90.93 | 39 | P | P | 21 08 30.1 | -0.1 |
| | baz=319 | | | | | | |
| O40A | La Belle | 90.94 | 37 | P | P | 21 08 30.4 | +0.2 |
| | baz=320 | | | | | | |
| T36A | Boggs Farm, Ca | 91.14 | 42 | P | P | 21 08 31.3 | +0.1 |
| | baz=317 | | | | | | |
| WMOK | Wichita Mounta | 91.19 | 45 | P | P | 21 08 31.6 | +0.1 |
| | baz=316 | | | | | | |
| WMOK | Wichita Mounta | 91.19 | 45 | eP | P | 21 08 31.3 | -0.2 |
| WMOK | | | | pmax | pmax | | |
| | comp=Z,11nm,1.1s | | | | | | |
| WMOK | Wichita Mounta | 91.19 | 45 | eP | P | 21 08 31.3 | -0.2 |
| | comp=Z,11nm,1.1s | | | | | | |
| S37A | Fort Scott | 91.19 | 41 | P | P | 21 08 31.1 | -0.3 |
| | baz=318 | | | | | | |
| Q39A | Willow Grove F | 91.20 | 39 | P | P | 21 08 30.9 | -0.6 |
| | baz=319 | | | | | | |
| P40A | Paris | 91.30 | 38 | P | P | 21 08 32.2 | +0.3 |
| | baz=320 | | | | | | |
| O41A | Passleys Farm, | 91.43 | 37 | P | P | 21 08 32.5 | 0.0 |
| | baz=321 | | | | | | |
| V35A | Meyer Ranch, C | 91.56 | 43 | P | P | 21 08 33.4 | +0.2 |
| | baz=317 | | | | | | |
| P41A | Barry, Barry | 91.68 | 37 | P | P | 21 08 33.6 | -0.1 |
| | baz=320 | | | | | | |
| Q40A | Laux Farm, Aux | 91.69 | 38 | P | P | 21 08 34.2 | +0.4 |
| | baz=320 | | | | | | |
| R39A | Chumby, Stover | 91.72 | 39 | P | P | 21 08 33.3 | -0.6 |
| | baz=319 | | | | | | |
| OK021 | N3530 Road, Sp | 91.74 | 43 | eP | P | 21 08 34.5 | +0.5 |
| | comp=Z,13nm,0.9s | | | | | | |
| S38A | Stockton | 91.78 | 40 | P | P | 21 08 33.7 | -0.4 |
| | baz=319 | | | | | | |
| TX31 | Lajitas Ar. Si | 91.94 | 52 | eP | P | 21 08 35.5 | +0.2 |
| LTX | Lajitas | 91.94 | 52 | eP | P | 21 08 36.0 | +0.8 |
| LTX | Lajitas | 91.94 | 52 | eP | P | 21 08 36.0 | +0.8 |
| TXAR | Lajitas Array | 91.94 | 52 | P | P | 21 08 36.0 | +0.8 |
| | comp=Z,5.1nm,1.0s,baz=291,slow=3.9,SNR=8.6 | | | | | | |
| TXAR | | | | LR | LR | 21 46 01.4 | |
| | comp=Z,106nm,20.6s,baz=0.0,slow=33 | | | | | | |
| W35A | Tecumseh | 91.98 | 44 | P | P | 21 08 35.2 | +0.1 |
| | baz=317 | | | | | | |
| T38A | Diamond | 92.02 | 41 | P | P | 21 08 35.3 | +0.1 |
| | baz=318 | | | | | | |
| TUL1 | Leonard | 92.03 | 42 | P | P | 21 08 35.2 | -0.2 |
| | baz=317 | | | | | | |
| U37A | Salina | 92.04 | 42 | P | P | 21 08 35.8 | +0.5 |
| | baz=318 | | | | | | |
| S39A | Bolivar | 92.04 | 40 | P | P | 21 08 35.0 | -0.3 |
| | baz=319 | | | | | | |
| V36A | Jenks | 92.04 | 43 | P | P | 21 08 35.6 | +0.2 |
| | baz=317 | | | | | | |
| V36A | Jenks | 92.04 | 43 | eP | P | 21 08 35.6 | +0.2 |
| | comp=Z,15nm,0.9s | | | | | | |
| P42A | Winchester | 92.10 | 37 | P | P | 21 08 35.1 | -0.5 |
| | baz=321 | | | | | | |
| R40A | Maddies Statio | 92.13 | 39 | P | P | 21 08 35.7 | -0.1 |
| | baz=320 | | | | | | |
| W36A | Wetumka | 92.35 | 43 | P | P | 21 08 36.9 | +0.1 |
| | baz=317 | | | | | | |
| U38A | Gravette | 92.41 | 41 | P | P | 21 08 36.8 | -0.3 |
| | baz=318 | | | | | | |
| V37A | Hulbert | 92.41 | 42 | P | P | 21 08 37.6 | +0.5 |
| | baz=318 | | | | | | |
| X35A | Drake | 92.47 | 44 | P | P | 21 08 36.5 | -0.9 |
| | baz=317 | | | | | | |
| X35A | Drake | 92.47 | 44 | eP | P | 21 08 37.0 | -0.4 |
| | comp=Z,12nm,0.9s | | | | | | |
| S40A | Lebanon | 92.53 | 39 | P | P | 21 08 36.8 | -0.9 |
| | baz=320 | | | | | | |
| X36A | Centrahoma | 92.70 | 44 | P | P | 21 08 38.5 | +0.1 |
| | baz=317 | | | | | | |
| Y35A | Marietta | 92.79 | 44 | P | P | 21 08 38.6 | -0.3 |
| | baz=317 | | | | | | |
| W37B | Quinton | 92.80 | 43 | P | P | 21 08 38.6 | -0.3 |
| | baz=318 | | | | | | |
| V38A | Canehill | 92.82 | 42 | P | P | 21 08 39.2 | +0.2 |
| | baz=318 | | | | | | |
| U39A | Green Forest | 92.94 | 41 | P | P | 21 08 39.4 | -0.1 |
| | baz=319 | | | | | | |
| P44A | Sand Creek, Wi | 93.03 | 36 | P | P | 21 08 40.1 | +0.3 |
| | baz=322 | | | | | | |
| V39A | Pettigrew | 93.25 | 41 | P | P | 21 08 41.3 | +0.2 |
| | baz=319 | | | | | | |
| S42A | Caledonia | 93.28 | 38 | P | P | 21 08 40.9 | -0.1 |
| | baz=321 | | | | | | |
| U40A | Yellville | 93.29 | 40 | P | P | 21 08 41.2 | 0.0 |
| | baz=319 | | | | | | |
| R43A | Red Bud | 93.32 | 37 | P | P | 21 08 42.3 | +1.0 |
| | baz=321 | | | | | | |
| X38A | Whitesboro | 93.48 | 43 | P | P | 21 08 42.5 | +0.4 |
| | baz=318 | | | | | | |
| JCT | Junction City | 93.58 | 49 | P | P | 21 08 42.6 | 0.0 |
| | baz=315 | | | | | | |
| T42A | Van Buren | 93.69 | 39 | P | P | 21 08 42.7 | -0.2 |
| | baz=320 | | | | | | |
| Q45A | Warren Harvey, | 93.70 | 36 | P | P | 21 08 42.2 | -0.8 |
| | baz=322 | | | | | | |
| MIAR | Mount Ida | 94.26 | 42 | P | P | 21 08 45.8 | +0.2 |
| | baz=319 | | | | | | |
| KEST | Kesra | 95.87 | 322 | LR | LR | 21 56 58.4 | |
| | comp=Z,517nm,18.4s,baz=324,slow=38 | | | | | | |
| ESDC | Sonseca Array | 98.47 | 333 | PP | PP | 21 13 03.2 | -0.9 |
| | comp=Z,0.8nm,0.5s,baz=27,slow=7.5,SNR=5.1 | | | | | | |
| ESDC | | | | LR | LR | 21 57 27.0 | |
| | comp=Z,305nm,19.3s,baz=15,slow=38 | | | | | | |
| RKT | Rikitea | 98.94 | 112 | eLR | LR | 21 41 08.4 | |
| | comp=Z,467nm,30.2s | | | | | | |
| VNDA | Vanda | 113.28 | 175 | PP | PP | 21 14 55.4 | +1.6 |
| | comp=Z,1.3nm,1.0s,baz=318,slow=8.6,SNR=3.3 | | | | | | |
| TOA1 | Torodi Ar. Sit | 117.91 | 313 | ePKPdf | PKPdf | 21 14 13.3 | 0.0 |
| TOA1 | | | | ePP | PP | 21 15 18.7 | -7.9 |
| TOA1 | | | | ePKKPbc | PKKPab | 21 24 38.7 | 0.0 |
| TORD | Torodi Ar. Bea | 117.91 | 313 | PKP | PKPdf | 21 14 13.3 | 0.0 |
| | comp=Z,1.1nm,0.6s,baz=5.3,slow=2.1,SNR=5.8 | | | | | | |
| TORD | | | | PP | PP | 21 15 18.7 | -7.9 |
| | comp=Z,2.0nm,1.0s,baz=14,slow=4.7,SNR=4.1 | | | | | | |
| TORD | | | | PKKPab | PKKPab | 21 24 38.7 | +0.1 |
| | comp=Z,0.7nm,0.6s,baz=242,slow=3.2,SNR=4.8 | | | | | | |
| KOWA | Kowa | 120.05 | 319 | ePKPdf | PKPdf | 21 14 16.8 | -0.7 |
| QSPA | South Pole Qui | 124.99 | 180 | ePKPdf | PKPdf | 21 14 25.7 | +0.3 |
| BOSA | Boshof | 125.31 | 258 | PKP | PKPdf | 21 14 27.7 | +0.4 |
| | comp=Z,1.7nm,0.7s,baz=75,slow=4.8,SNR=4.0 | | | | | | |
| DBIC | Dimbokro | 126.92 | 315 | PKP | PKPdf | 21 14 30.8 | +0.1 |
| | comp=Z,2.8nm,0.6s,baz=20,slow=1.7,SNR=8.0 | | | | | | |
| DBIC | Dimbokro | 126.92 | 315 | ePKIKP | PKPdf | 21 14 30.4 | -0.3 |
| DBIC | Dimbokro | 126.92 | 315 | ePKPdf | PKPdf | 21 14 30.4 | -0.3 |
| SDV | Santo Domingo | 127.28 | 40 | PKP | PKPdf | 21 14 31.7 | +0.1 |
| | comp=Z,13nm,1.0s,baz=344,slow=2.1,SNR=13 | | | | | | |
| SDV | | | | pPKP | pPKPdf | 21 14 40.4 | -0.4 |
| | comp=Z,14nm,0.8s,baz=67,slow=3.2,SNR=7.6 | | | | | | |
| SDV | Santo Domingo | 127.28 | 40 | ePKPdf | PKPdf | 21 14 31.3 | -0.3 |
| SDV | | | | pPKP | pPKPdf | 21 14 40.4 | -0.4 |
| RUSC | La Rusia | 128.43 | 44 | ePKPdf | PKPdf | 21 14 33.6 | -0.6 |
| PRAC | Prado | 129.11 | 48 | ePKPdf | PKPdf | 21 14 36.6 | +1.6 |
| PRAC | Prado | 129.11 | 48 | eS | PKPdf | 21 14 37.0 | +2.1 |
| SNAA | Sanae | 138.78 | 197 | PKP | PKPdf | 21 14 49.5 | -1.8 |
| VNA2 | Neumayer--Watz | 140.35 | 196 | PKP | PKPpre | 21 14 48.2 | |
| | baz=114,slow=2.0 | | | | | | |
| VNA3 | Neumayer Olymp | 140.61 | 195 | PKP | PKPpre | 21 14 51.4 | |
| VNA1 | Neumayer--Stat | 140.75 | 196 | PKP | PKPpre | 21 14 49.6 | |
| SAML | Samuel | 146.16 | 45 | ePKPdf | PKPbc | 21 15 06.5 | -0.5 |
| LPAZ | La Paz | 148.38 | 61 | PKP | PKPdf | 21 15 12.1 | +1.6 |
| | comp=Z,6.3nm,0.7s,baz=267,slow=3.0,SNR=20 | | | | | | |
| LPAZ | | | | PKPbc | PKPbc | 21 15 14.6 | +0.7 |
| | comp=Z,5.4nm,0.6s,baz=313,slow=2.4,SNR=19 | | | | | | |
| LPAZ | La Paz | 148.38 | 61 | ePKIKP | PKPdf | 21 15 11.5 | +1.1 |
| LPAZ | La Paz | 148.38 | 61 | ePKPdf | PKPdf | 21 15 11.5 | +1.1 |
| PB11 | IPOC Station P | 149.45 | 68 | ePKPdf | PKPdf | 21 15 12.2 | +0.7 |
| PB11 | | | | ePKPbc | PKiKP | 21 15 17.1 | 0.0 |
| PB01 | IPOC Station P | 150.32 | 69 | ePKPbc | PKPbc | 21 15 18.9 | +0.9 |
| PB01 | | | | ePKPab | pPKPbc | 21 15 27.1 | 0.0 |
| PB04 | IPOC Station P | 150.52 | 72 | ePKPbc | PKPbc | 21 15 19.8 | +1.3 |
| LVC | Limon Verde | 151.63 | 72 | ePKPbc | PKPbc | 21 15 22.6 | +1.3 |
| LVC | | | | ePKPab | pPKPbc | 21 15 30.8 | +0.2 |
| GO09 | Cerro Castillo | 151.66 | 135 | ePKPbc | PKPbc | 21 15 20.4 | +0.4 |
| GO09 | | | | ePKPab | pPKPbc | 21 15 29.7 | +0.5 |
| USHA | Ushuaia | 152.12 | 144 | PKPab | PKPab | 21 15 31.9 | +1.3 |
| | comp=Z,58nm,0.9s,baz=222,slow=0.9,SNR=3.8 | | | | | | |
| LCO | Las Campanas | 153.11 | 85 | ePKPbc | PKPbc | 21 15 24.2 | -0.2 |
| LCO | | | | ePKPab | pPKPbc | 21 15 33.1 | -0.4 |
| ROC1 | El Roble | 154.05 | 94 | ePKPbc | PKPbc | 21 15 25.7 | -0.6 |
| ROC1 | | | | ePKPab | pPKPbc | 21 15 34.3 | -1.1 |

*NIED* **02** *21:03:00, 35°30N×140°40E, h20km, Mw4.2 Best double couple: $M_0$2.29000×$10^{15}$ NP1:φs278.00000°, δ23.00000°, λ146.00000°. NP2:φs40.00000°, δ78.00000°, λ71.00000°.*

*ISCJB* **02** *21:03:40.5±0.5, 35°28N±0°03×140°35E±0°06, h38km±4km, mb3.9/17, Error ellipse: s-maj=8.9km s-min=5.0km az=169.7*

*JMA* **02** *21:03:41.6±0.1, 35°36N×140°30E, h20km±1km, M4.2 Broadband fault plane solution: P waves. NP1: φs56.00000°, δ61.00000°, λ76.00000°. NP2:φs263.00000°, δ32.00000°, λ113.00000°. Principal axes: T Plg71.0000°, Azm295.0000°; N Plg12.0000°, Azm63.0000°; P Plg15.0000°, Azm156.0000°;*

*JMA Felt III J1.*

*IDC* **02** *21:03:41.8±5.0, 35°26N×140°23E, h31km±37km, mb3.8/14, mb1 3.9/17, mb1mx3.8/55, mbtmp4.0/17, ML3.9/3 Error ellipse: s-maj=20.3km s-min=12.6km az=91.0*

*NEIC* **02** *21:03:42.1±0.9, 35°25N×140°32E, h35km±8km, mb4.1/3, Error ellipse: s-maj=10.0km s-min=7.6km az=108.0*

*NEIC Recorded [3 JMA] in Chiba.*

**ISC 02 21:03:40.9**±1.1, **35°31N**±0°04×**140°35E**±0°07, **h26**km±7km, **n44**, σ1s**18**/43, **mb4.0**/17, **2C-4D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KTR | Katsuura | 0.16 | 190 | ⇑P | Pb | 21 03 46.4 | +0.2 |
| JCN | Nagara | 0.16 | 313 | ⇓P | Pb | 21 03 45.7 | -0.6 |
| BSO4 | Boso 4 | 0.32 | 182 | ⇑P | Pn | 21 03 49.4 | -0.4 |
| TATJ | Tateyama 2 | 0.47 | 234 | P | Pb | 21 03 51.1 | +0.5 |
| BSO3 | Boso 3 | 0.52 | 165 | P | Pn | 21 03 52.5 | +0.1 |
| JYO | Yokosk | 0.56 | 262 | ⇓P | Pb | 21 03 52.3 | 0.0 |
| BSO1 | Boso 1 | 0.83 | 141 | ⇓P | Pn | 21 03 56.2 | -0.2 |
| JYT | Yasato | 0.93 | 352 | ⇓P | Pn | 21 03 56.9 | -1.4 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| JYT | | | | S | Sn | 21 04 09.2 | -1.6 |
| MJAR | Matsushiro Arr | 2.13 | 306 | Pn | Pn | 21 04 15.4 | +0.6 |
| | 22nm,0.3s,baz=70,slow=19,SNR=75 | | | | | | |
| MAJO | Matsushiro | 2.13 | 306 | *e*Pn | Pn | 21 04 15.7 | +0.8 |
| MAT | Matsushiro | 2.13 | 306 | P | Pn | 21 04 14.8 | -0.1 |
| MAT | | | | *e*S | Sn | 21 04 41.3 | +0.8 |
| JHJ | Hachijo jima 2 | 2.23 | 192 | Pn | Pn | 21 04 15.6 | -0.7 |
| | 423nm,0.3s,baz=88,slow=21,SNR=27 | | | | | | |
| JHJ | | | | Sn | Sn | 21 04 40.3 | -2.6 |
| | 355nm,0.3s,baz=244,slow=22,SNR=9.7 | | | | | | |
| JHJ2 | Mitsune | 2.23 | 192 | *e*Pn | Pn | 21 04 15.3 | -1.0 |
| JHJ2 | | | | *e*Sn | Sn | 21 04 42.2 | -0.8 |
| ERM | Erimo | 7.05 | 17 | *e*Pn | Pn | 21 05 24.0 | +1.7 |
| ASAJ | Asahikawa | 8.97 | 10 | Pn | Pn | 21 05 47.8 | -0.9 |
| | 0.8nm,0.3s,baz=186,slow=12,SNR=5.6 | | | | | | |
| KSRS | Korea Array | 10.25 | 286 | Pn | Pn | 21 06 08.7 | +2.5 |
| | 0.1nm,0.3s,baz=81,slow=15,SNR=3.0 | | | | | | |
| KSAR | Wonju Array Be | 10.28 | 286 | Pn | Pn | 21 06 08.7 | +2.1 |
| USRK | Ussuriysk Ar. | 10.96 | 327 | Pn | Pn | 21 06 19.2 | +3.2 |
| | 0.1nm,0.3s,baz=237,slow=8.1,SNR=2.7 | | | | | | |
| MDJ | Mudanjiang | 12.42 | 322 | *e*Pn | Pn | 21 06 36.7 | +0.7 |
| ENH | Enshi | 26.37 | 268 | *e*P | P | 21 09 13.6 | -1.4 |
| | 3.2nm,0.6s | | | | | | |
| H11N2 | WAKE ISLAND Hy | 28.08 | 117 | T | T | 21 38 41.6 | |
| | baz=309,slow=75,SNR=154 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 28.08 | 117 | T | T | 21 38 48.4 | |
| | baz=309,slow=75,SNR=115 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 28.09 | 117 | T | T | 21 38 38.4 | |
| | baz=309,slow=75,SNR=154 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 28.71 | 119 | T | T | 21 39 25.5 | |
| | baz=312,slow=75,SNR=152 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 28.72 | 119 | T | T | 21 39 37.3 | |
| | baz=312,slow=75,SNR=191 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 28.73 | 119 | T | T | 21 39 30.0 | |
| | baz=312,slow=75,SNR=111 | | | | | | |
| CMAR | Chiang Mai Arr | 40.24 | 256 | P | P | 21 11 14.3 | -1.3 |
| | 0.5nm,0.7s,baz=45,slow=5.8,SNR=5.1 | | | | | | |
| ZALV | Zalesovo Beam | 42.46 | 314 | P | P | 21 11 33.6 | +0.1 |
| | 5.3nm,0.9s,baz=96,slow=6.5,SNR=12 | | | | | | |
| ZALV | | | | PcP | PcP | 21 13 26.1 | +0.1 |
| | 0.8nm,0.4s,baz=100,slow=2.6,SNR=4.3 | | | | | | |
| MKAR | Makanchi Array | 44.33 | 303 | P | P | 21 11 48.7 | 0.0 |
| | 1.8nm,0.5s,baz=84,slow=9.1,SNR=36 | | | | | | |
| KURK | Kurchatov | 46.34 | 309 | *e*P | P | 21 12 03.9 | -0.6 |
| KURBB | Kurchatov Arra | 46.40 | 309 | P | P | 21 12 04.7 | -0.3 |
| AAK | Ala-Archa | 50.57 | 299 | *e*P | P | 21 12 37.3 | -0.2 |
| | 0.8nm,0.5s | | | | | | |
| COLA | College | 51.00 | 31 | P | P | 21 12 40.4 | +0.3 |
| | 1.9nm,0.7s | | | | | | |
| ILAR | Eielson Array | 51.41 | 32 | P | P | 21 12 44.5 | +1.2 |
| | 1.0nm,0.8s,baz=272,slow=6.3,SNR=6.8 | | | | | | |
| FITZ | Fitzroy Crossi | 54.92 | 197 | P | P | 21 13 08.6 | -0.9 |
| | 2.3nm,0.8s,baz=27,slow=6.8,SNR=4.0 | | | | | | |
| WRA | Warramunga Arr | 55.24 | 187 | P | P | 21 13 11.9 | 0.0 |
| | 3.3nm,0.5s,baz=2.6,slow=7.5,SNR=40 | | | | | | |
| INK | Inuvik | 56.31 | 26 | P | P | 21 13 18.8 | -0.2 |
| | 0.6nm,0.4s,baz=223,slow=4.7,SNR=3.2 | | | | | | |
| ASAR | Alice Springs | 58.97 | 187 | P | P | 21 13 38.1 | 0.0 |
| | 0.9nm,0.5s,baz=9.3,slow=8.6,SNR=19 | | | | | | |
| YKA | Yellowknife Ar | 65.73 | 29 | P | P | 21 14 24.3 | +1.3 |
| | 0.4nm,0.7s,baz=303,slow=6.6,SNR=3.8 | | | | | | |
| FINES | FINESS Array B | 69.94 | 332 | P | P | 21 14 49.5 | 0.0 |
| | 2.3nm,0.7s,baz=58,slow=7.1,SNR=4.7 | | | | | | |
| AKASG | Malin Array Be | 75.13 | 322 | P | P | 21 15 18.8 | -1.8 |
| | 0.3nm,0.3s,baz=47,slow=5.7,SNR=5.7 | | | | | | |
| NOA | NORSAR Array B | 75.44 | 337 | P | P | 21 15 22.8 | +0.5 |
| | 1.2nm,0.8s,baz=38,slow=9.0,SNR=2.9 | | | | | | |
| BRTR | Keskin Array B | 79.35 | 311 | P | P | 21 15 45.4 | +0.7 |
| | 0.6nm,0.6s,baz=90,slow=3.7,SNR=3.5 | | | | | | |
| PDAR | Pinedale Array | 79.49 | 45 | P | P | 21 15 46.4 | +0.9 |
| | 0.3nm,0.5s,baz=31,slow=2.1,SNR=3.3 | | | | | | |

---

**RSNC 02 21:13:43.3±0.6, 4.°00N×76.°72W, h103km±5km, ML1.8, Colombia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PLMC | San Josˆ' del | 1.00 | 26 | *e*P | Pn | 21 14 03.3 | -0.7 |
| PLMC | | | | *e*S | Sn | 21 14 19.3 | -0.3 |
| PRAC | Prado | 1.85 | 99 | *e*P | Pn | 21 14 14.1 | -0.1 |

---

*AZER **02** 21:17:25.1±0.9, 39.°11N×43.°27E, h9km±5km, Error ellipse: s-maj=5.4km s-min=1.3km az=68.0*
*ISK **02** 21:17:26.4, 39.°03N×43.°66E, h5km, ML3.1*
*ATA **02** 21:17:26.2±1.3, 39.°03N×43.°61E, h4km±17km, ML3.8, MW4.1*
*DDA **02** 21:17:27.2, 39.°05N×43.°67E, h5km, Ml3.6*
*CSEM **02** 21:17:27.3±0.2, 39.°03N×43.°64E, h0km±1km, ML3.6, Error ellipse: s-maj=3.5km s-min=2.6km az=149.0*
*IASPEI **02** 21:17:27.4±0.9, 39.°02N±0.°02×43.°65E±0.°02, h5km±7km, Error ellipse: s-maj=3.5km s-min=2.9km az=137.2, GT5 selection from ISC bulletin GT5 identified by Bondˆ¡r and McLaughlin (2009) selection criteria Bondˆ¡r and McLaughlin, A new ground truth data set for seismic studies, <i>Seism. Res. Let.</i>, <b>80</b>, 465-472, 2009*
*ISN **02** 21:17:29.8±1.1, 38.°44N×43.°54E, h0km±5km, ML3.4*
**ISC 02 21:17:27.3±0.9, 39.°02N±0.°02×43.°64E±0.°01, h3km±7km, n98, σ1.°91/154, 21C-18D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.07 | 240 | *i* P | Pg | 21 17 28.5 | -0.2 |
| VMUR | | | | *i* S | Sg | 21 17 31.0 | +1.2 |
| VMUR | Van-Muradiye | 0.07 | 240 | P | Pg | 21 17 28.5 | -0.2 |
| VMUR | | | | S | Sg | 21 17 31.0 | +1.2 |
| ERCV | ERCIS-VAN | 0.24 | 270 | *e*PG | Pg | 21 17 32.3 | +0.4 |
| ERCV | ERCIS-VAN | 0.24 | 270 | *e*Pg | Pg | 21 17 32.3 | +0.4 |
| CLDR | Caldiran | 0.24 | 60 | *e*PG | Pg | 21 17 31.7 | -0.4 |
| CLDR | | | | *e*SG | Sg | 21 17 36.1 | +0.8 |
| CLDR | Caldiran | 0.24 | 60 | *i* P | Pg | 21 17 31.6 | -0.4 |
| CLDR | | | | *i* S | Sg | 21 17 36.4 | +1.1 |
| CLDR | Caldiran | 0.24 | 60 | *e*Pg | Pg | 21 17 31.7 | -0.4 |
| CLDR | | | | *e*Sg | Sg | 21 17 36.1 | +0.8 |
| VANB | Van | 0.47 | 205 | *e*PG | Pb | 21 17 38.0 | -0.3 |
| VANB | Van | 0.47 | 205 | *e*Pg | Pb | 21 17 38.0 | -0.3 |
| DYDN | Diyadin | 0.52 | 4 | *e*P | Pg | 21 17 36.6 | -0.7 |
| DYDN | | | | *e*S | Sg | 21 17 45.1 | +1.0 |
| DYDN | | | | IAML | | 21 17 46.0 | |
| | comp=Z,259nm,0.3s | | | | | | |
| DYDN | Diyadin | 0.52 | 4 | *i* P | Pg | 21 17 37.1 | -0.2 |
| DYDN | | | | *i* S | Sb | 21 17 46.1 | -1.2 |
| DYDN | Diyadin | 0.52 | 4 | P | Pg | 21 17 37.1 | -0.2 |
| DYDN | | | | S | Sb | 21 17 46.1 | -1.2 |
| TVAN | Van | 0.53 | 201 | *i* P | Pg | 21 17 37.9 | +0.5 |
| TVAN | | | | *i* S | Sb | 21 17 47.7 | +0.4 |
| TVAN | Van | 0.53 | 201 | P | Pg | 21 17 37.9 | +0.5 |
| ADCV | BITLIS_Adilcev | 0.75 | 254 | *i* P | Pg | 21 17 42.0 | +0.4 |
| ADCV | BITLIS_Adilcev | 0.75 | 254 | P | Pg | 21 17 42.0 | +0.4 |
| TUTA | Tutak | 0.75 | 301 | ⇓*i*P | Pg | 21 17 41.7 | +0.1 |
| TUTA | | | | *e*S | Sg | 21 17 51.7 | +0.4 |
| TUTA | | | | IAML | | 21 17 56.3 | |
| | comp=Z,397nm,0.4s | | | | | | |
| TUTA | Tutak | 0.75 | 301 | *i* P | Pg | 21 17 41.8 | +0.1 |
| TUTA | | | | *i* S | Sg | 21 17 52.0 | +0.6 |
| TUTA | Tutak | 0.75 | 301 | P | Pg | 21 17 41.8 | +0.2 |
| TUTA | | | | S | Sg | 21 17 52.0 | +0.6 |
| AGRB | Hanur-Agry | 0.75 | 318 | *e*PG | Pg | 21 17 41.8 | +0.1 |
| AGRB | | | | *e*SG | Sb | 21 17 53.7 | -0.1 |
| AGRB | Hanur-Agry | 0.75 | 318 | *e*Pg | Pg | 21 17 41.8 | +0.1 |
| AGRB | | | | *e*Sg | Sb | 21 17 53.7 | -0.1 |
| GEVA | Gevas | 0.84 | 213 | *e*P | Pg | 21 17 42.5 | -1.0 |
| GEVA | | | | *e*S | Sb | 21 17 56.2 | -0.2 |
| GEVA | | | | IAML | | 21 18 08.4 | |
| | comp=Z,177nm,0.5s | | | | | | |
| GEVA | Gevas | 0.84 | 213 | *i* P | Pg | 21 17 43.0 | -0.5 |
| GEVA | | | | *i* S | Sn | 21 17 58.1 | -1.0 |
| GEVA | Gevas | 0.84 | 213 | P | Pg | 21 17 43.0 | -0.5 |
| BASK | Baskale_VAN | 1.01 | 164 | *e*P | Pg | 21 17 46.0 | -0.6 |
| BASK | | | | IAML | | 21 17 54.7 | |
| | comp=Z,110nm,0.4s | | | | | | |
| BASK | | | | *e*S | Sn | 21 18 02.5 | -0.8 |
| BASK | Baskale_VAN | 1.01 | 164 | *i* P | Pg | 21 17 46.0 | -0.6 |
| BASK | | | | *i* S | Sn | 21 18 03.8 | +0.5 |
| BASK | Baskale_VAN | 1.01 | 164 | P | Pg | 21 17 46.0 | -0.6 |
| TASB | TASBURUN-IGDIR | 1.06 | 25 | *e*PG | Pg | 21 17 47.6 | -0.1 |
| TASB | TASBURUN-IGDIR | 1.06 | 25 | *e*Pg | Pg | 21 17 47.6 | -0.1 |
| HYR | Heyderabad | 1.17 | 53 | ⇑P | Pn | 21 17 51.0 | +0.4 |
| HYR | | | | ⇑S | Sn | 21 18 09.0 | +2.0 |
| HYR | Heyderabad | 1.17 | 53 | P | Pn | 21 17 51.0 | +0.4 |
| HYR | | | | S | Sn | 21 18 09.0 | +2.0 |
| EATA | Eleskirt | 1.23 | 314 | *i* P | Pb | 21 17 50.5 | -0.7 |
| EATA | | | | IAML | | 21 18 02.4 | |
| | comp=Z,22nm,0.4s | | | | | | |
| EATA | Eleskirt | 1.23 | 314 | *i* P | Pb | 21 17 50.7 | -0.5 |
| EATA | Eleskirt | 1.23 | 314 | P | Pb | 21 17 50.7 | -0.5 |
| EKAR | Karacoban | 1.25 | 281 | *e*P | Pn | 21 17 49.5 | -2.3 |
| EKAR | | | | IAML | | 21 18 18.0 | |
| | comp=Z,62nm,0.4s | | | | | | |
| EKAR | Karacoban | 1.25 | 281 | *i* P | Pg | 21 17 52.5 | +1.2 |
| EKAR | Karacoban | 1.25 | 281 | P | Pg | 21 17 52.5 | +1.2 |
| DIGO | Kars | 1.41 | 352 | *e*P | Pb | 21 17 54.1 | -0.2 |
| DIGO | | | | IAML | | 21 17 57.3 | |
| | comp=Z,51nm,0.5s | | | | | | |
| DIGO | Kars | 1.41 | 352 | *i* P | Pg | 21 17 54.2 | 0.0 |
| DIGO | Kars | 1.41 | 352 | P | Pg | 21 17 54.2 | 0.0 |
| NAX | Nakhchivan | 1.45 | 83 | ⇑P | Pg | 21 17 55.4 | +0.4 |
| | SNR=14 | | | | | | |
| NAX | | | | ⇑S | Sg | 21 18 18.5 | +4.7 |
| NAX | Nakhchivan | 1.45 | 83 | P | Pg | 21 17 55.4 | +0.4 |
| | SNR=14 | | | | | | |
| NAX | | | | S | Sg | 21 18 18.5 | +4.7 |
| SBZ | Shahbuz | 1.53 | 75 | ⇓P | Pb | 21 17 56.3 | 0.0 |
| SBZ | | | | ⇓S | Sg | 21 18 20.7 | +4.2 |
| SBZ | Shahbuz | 1.53 | 75 | P | Pb | 21 17 56.3 | 0.0 |
| SBZ | | | | S | Sg | 21 18 20.7 | +4.2 |
| KARS | Kars | 1.66 | 345 | *e*PN | Pb | 21 17 57.7 | -0.9 |
| KARS | Kars | 1.66 | 345 | *e*Pn | Pb | 21 17 57.7 | -0.9 |
| EAK | Akyaka | 1.66 | 359 | *e*P | Pb | 21 17 58.7 | +0.1 |
| EAK | | | | IAML | | 21 18 08.9 | |
| | comp=Z,49nm,0.4s | | | | | | |
| VRTB | Varto-Mus | 1.71 | 275 | *e*PN | Pb | 21 17 58.8 | -0.6 |
| VRTB | Varto-Mus | 1.71 | 275 | *e*Pn | Pb | 21 17 58.8 | -0.6 |
| CUKT | Cukurca | 1.77 | 181 | *e*PN | Pb | 21 17 59.5 | -0.9 |
| CUKT | Cukurca | 1.77 | 181 | *e*Pn | Pb | 21 17 59.6 | -0.9 |
| SIRT | Sirnak | 1.79 | 212 | *e*PN | Pb | 21 17 59.7 | -1.0 |
| SIRT | Sirnak | 1.79 | 212 | *e*Pn | Pb | 21 17 59.7 | -1.0 |
| SENK | Senkaya-Erzuru | 1.83 | 327 | *e*PN | Pb | 21 18 00.6 | -0.9 |
| SENK | Senkaya-Erzuru | 1.83 | 327 | *e*Pn | Pb | 21 18 00.6 | -0.9 |
| ORD | Ordubad | 1.83 | 92 | P | Pb | 21 18 00.5 | -1.0 |
| BNGL | BINGOL | 1.94 | 269 | *e*P | Pb | 21 18 03.1 | -0.3 |
| BNGL | | | | *e*S | Sg | 21 18 32.4 | +2.7 |
| BNGL | | | | IAML | | 21 18 40.3 | |
| | comp=Z,143nm,0.5s | | | | | | |
| SVAN | Silvan-Diyarba | 2.10 | 246 | *e*PN | Pb | 21 18 04.4 | -1.7 |
| SVAN | Silvan-Diyarba | 2.10 | 246 | *e*Pn | Pb | 21 18 04.4 | -1.7 |
| BNGB | Bingˆ¶l | 2.31 | 270 | *e*PN | Pn | 21 18 07.3 | +1.0 |
| GDB | GEDABAY | 2.35 | 43 | ⇓P | Pn | 21 18 06.1 | -0.8 |
| | SNR=4.2 | | | | | | |
| GDB | | | | ⇓S | Sb | 21 18 37.9 | -1.9 |
| GDB | GEDABAY | 2.35 | 43 | P | Pn | 21 18 06.1 | -0.8 |
| | SNR=4.2 | | | | | | |
| GDB | | | | S | Sb | 21 18 37.9 | -1.9 |
| AKH | Akhalkalaki | 2.39 | 357 | *e*PN | Pn | 21 18 08.0 | +0.5 |
| AKH | Akhalkalaki | 2.39 | 357 | *e*Pn | Pn | 21 18 08.0 | +0.5 |
| QZX | Qazax, Azerbai | 2.43 | 33 | ⇑P | Pn | 21 18 06.3 | -1.6 |
| | SNR=3.4 | | | | | | |
| QZX | | | | ⇓S | Sn | 21 18 38.1 | +0.1 |
| QZX | Qazax, Azerbai | 2.43 | 33 | P | Pn | 21 18 06.3 | -1.6 |
| | SNR=3.4 | | | | | | |
| QZX | | | | S | Sn | 21 18 38.1 | +0.1 |
| YEDI | Yedisu-Bingol | 2.44 | 281 | *e*PN | Pb | 21 18 09.8 | -2.1 |
| YEDI | Yedisu-Bingol | 2.44 | 281 | *e*Pn | Pb | 21 18 09.8 | -2.1 |
| BINT | Bingol | 2.46 | 268 | *e*Pn | Pn | 21 18 07.3 | -1.1 |
| GANJ | Ganja | 2.62 | 51 | ⇓P | Pn | 21 18 10.2 | -0.3 |
| | SNR=8.5 | | | | | | |
| GANJ | | | | ⇑S | Sb | 21 18 45.2 | -2.3 |
| GANJ | Ganja | 2.62 | 51 | P | Pn | 21 18 10.2 | -0.3 |
| | SNR=8.5 | | | | | | |
| GANJ | | | | S | Sb | 21 18 45.2 | -2.3 |
| MAZI | Mazidag | 2.96 | 239 | *e*PN | Pn | 21 18 16.6 | +1.4 |
| MAZI | Mazidag | 2.96 | 239 | *e*Pn | Pn | 21 18 16.6 | +1.4 |
| BRDA | Brd | 3.00 | 64 | ⇓P | Pn | 21 18 15.9 | +0.3 |
| BRDA | | | | ⇓S | Sb | 21 18 55.4 | -2.9 |
| BRDA | Brd | 3.00 | 64 | P | Pn | 21 18 15.9 | +0.3 |
| BRDA | | | | S | Sb | 21 18 55.4 | -2.9 |
| MNGR | Mingechevir, A | 3.17 | 55 | ⇑P | Pn | 21 18 17.8 | -0.2 |
| MNGR | | | | ⇑S | Sb | 21 18 58.9 | -4.4 |
| MNGR | Mingechevir, A | 3.17 | 55 | P | Pn | 21 18 17.8 | -0.2 |
| MNGR | | | | S | Sb | 21 18 58.9 | -4.4 |
| ZRD | Zardab | 3.36 | 67 | ⇓P | Pn | 21 18 20.9 | +0.3 |
| ZRD | | | | ⇑S | Sb | 21 19 04.5 | -4.2 |
| ZRD | Zardab | 3.36 | 67 | P | Pn | 21 18 20.9 | +0.3 |
| ZRD | | | | S | Sb | 21 19 04.5 | -4.2 |
| ZKTA | Zakatala | 3.46 | 40 | ⇓P | Pn | 21 18 21.1 | -1.0 |
| | SNR=4.7 | | | | | | |
| ZKTA | | | | ⇓S | Sn | 21 19 04.8 | +1.2 |
| SEKA | Sheki | 3.49 | 50 | ⇑P | Pn | 21 18 22.8 | +0.3 |
| | SNR=3.4 | | | | | | |
| SEKA | | | | ⇓S | Sb | 21 19 07.9 | -4.7 |
| SEKA | Sheki | 3.49 | 50 | P | Pn | 21 18 22.8 | +0.3 |
| | SNR=3.4 | | | | | | |
| SEKA | | | | S | Sb | 21 19 07.9 | -4.7 |
| LRK | Lerik | 3.69 | 94 | ⇑P | Pn | 21 18 26.2 | +0.9 |
| | SNR=3.5 | | | | | | |
| LRK | | | | ⇓S | Sb | 21 19 14.0 | -4.3 |
| LRK | Lerik | 3.69 | 94 | P | Pn | 21 18 26.2 | +0.9 |
| | SNR=3.5 | | | | | | |
| LRK | | | | S | Sb | 21 19 14.0 | -4.3 |
| GLBA | Clilabad | 3.70 | 85 | ⇑P | Pn | 21 18 26.2 | +0.9 |
| | SNR=4.1 | | | | | | |
| GLBA | | | | ⇑S | Sb | 21 19 14.0 | -4.5 |
| GLBA | Clilabad | 3.70 | 85 | P | Pn | 21 18 26.2 | +0.9 |
| | SNR=4.1 | | | | | | |
| GLBA | | | | S | Sb | 21 19 14.0 | -4.5 |
| QBL | Gabala | 3.75 | 58 | ⇑P | Pn | 21 18 25.9 | -0.2 |
| | SNR=4.6 | | | | | | |
| QBL | | | | ⇑S | Sn | 21 19 13.4 | +2.7 |
| QBL | Gabala | 3.75 | 58 | P | Pn | 21 18 25.9 | -0.2 |
| | SNR=4.6 | | | | | | |
| QBL | | | | S | Sn | 21 19 13.4 | +2.7 |
| KDMR | Kurdemir | 3.75 | 67 | ⇑P | Pn | 21 18 26.3 | +0.3 |
| KDMR | | | | ⇑S | Sn | 21 19 14.2 | +3.5 |
| KDMR | Kurdemir | 3.75 | 67 | P | Pn | 21 18 26.3 | +0.3 |
| KDMR | | | | S | Sn | 21 19 14.2 | +3.5 |
| SAAT | Saatly | 3.79 | 76 | ⇑P | Pn | 21 18 26.7 | +0.1 |
| SAAT | | | | ⇑S | Sn | 21 19 14.9 | +3.2 |
| SAAT | Saatly | 3.79 | 76 | P | Pn | 21 18 26.7 | +0.1 |
| SAAT | | | | S | Sn | 21 19 14.9 | +3.2 |
| IML | Ismayilli | 3.91 | 62 | ⇑P | Pn | 21 18 28.3 | 0.0 |
| IML | | | | ⇓S | Sn | 21 19 17.7 | +3.0 |
| IML | Ismayilli | 3.91 | 62 | P | Pn | 21 18 28.3 | 0.0 |
| IML | | | | S | Sn | 21 19 17.7 | +3.0 |
| LKRN | Lenkeran, Azer | 4.02 | 93 | ⇓P | Pn | 21 18 30.8 | +1.1 |
| | SNR=3.1 | | | | | | |
| LKRN | | | | ⇓S | Sb | 21 19 22.2 | -5.5 |
| LKRN | Lenkeran, Azer | 4.02 | 93 | P | Pn | 21 18 30.8 | +1.1 |
| | SNR=3.1 | | | | | | |
| LKRN | | | | S | Sb | 21 19 22.2 | -5.5 |
| XNQ | Khinaliq | 4.06 | 57 | ⇑P | Pn | 21 18 30.1 | -0.4 |
| XNQ | | | | ⇓S | Sn | 21 19 21.0 | +2.4 |
| XNQ | Khinaliq | 4.06 | 57 | P | Pn | 21 18 30.1 | -0.4 |
| XNQ | | | | S | Sn | 21 19 21.0 | +2.4 |

---

**MEX 02 21:22:24.6±0.4, 16.°08N×91.°14W, h27km±67km, MD3.8, Mexico-Guatemala border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CCIG | Comitan | 0.98 | 282 | *e*P | Pn | 21 22 40.4 | -2.5 |
| CCIG | | | | *i* S | Sb | 21 22 52.1 | -3.6 |
| TGIG | | 2.03 | 290 | *e*P | Pn | 21 22 54.9 | -2.2 |
| TGIG | | | | *i* S | Sn | 21 23 18.3 | -3.3 |
| PCIG | | 2.04 | 260 | *e*P | Pn | 21 22 55.4 | -1.8 |
| PCIG | | | | *i* S | Sn | 21 23 18.6 | -3.2 |

---

*CSEM **02** 21:25:38.6±0.1, 39.°89N×15.°93E, h2km, ML3.6/6, Error ellipse: s-maj=3.8km s-min=2.7km az=74.0*
*ISCJB **02** 21:25:38.5±0.2, 39.°90N±0.°01×15.°98E±0.°02, h7km±2km, mb3.8/5, MS4.1/1, Error ellipse: s-maj=2.9km s-min=2.3km az=162.1*
*ROM **02** 21:25:38.2±0.1, 39.°91N×16.°00E, h8km±1km, Ml3.2/44, Error ellipse: s-maj=1.5km s-min=1.1km az=57.0*
*IASPEI **02** 21:25:39.4±1.0, 39.°92N±0.°02×16.°01E±0.°02, h5km±5km, mb3.9/5, Error ellipse: s-maj=3.4km s-min=2.7km az=46.3, GT5 selection from ISC bulletin GT5 identified by Bondˆ¡r and McLaughlin (2009) selection criteria Bondˆ¡r and McLaughlin, A new ground truth data set for seismic studies, <i>Seism. Res. Let.</i>, <b>80</b>, 465-472, 2009*
*IDC **02** 21:25:40.2±1.1, 40.°14N×16.°00E, h0km, mb3.8/5, mb1 3.7/10, mb1mx3.5/39, mbtmp3.6/10, ML2.6/4, MS3.7/2, Ms1 3.6/2, ms1mx2.7/48, Error ellipse: s-maj=20.2km s-min=19.3km az=52.0*
*THE **02** 21:25:52.4, 39.°84N×16.°86E, h27km±27km, ML3.4/2, Error ellipse: s-maj=33.4km s-min=2.9km az=274.0*
**ISC 02 21:25:39.3±0.7, 39.°90N±0.°02×16.°00E±0.°02, h6km±4km, n168, σ1.°55/198, mb3.9/5, 15C-4D, Southern Italy**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MMN | Mormanno | 0.01 | 216 | ⇑*i*Pg | Pg | 21 25 40.4 | 0.0 |
| MMN | | | | Sg | Sg | 21 25 41.3 | +0.1 |
| | 8µm,7.5s | | | | | | |
| MMN | Mormanno | 0.01 | 216 | ⇑*i*Pg | Pg | 21 25 40.4 | 0.0 |
| MMN | | | | Sg | Sg | 21 25 41.3 | +0.1 |
| | 8µm,7.5s | | | | | | |
| T0711 | Rotonda (PZ) | 0.06 | 53 | ⇑*i*Pg | Pg | 21 25 40.3 | -0.7 |
| T0711 | | | | Sg | Sg | 21 25 41.6 | -0.6 |
| | 120µm,0.3s | | | | | | |
| CUC | Castrocucco | 0.17 | 304 | ⇑*i*Pg | Pg | 21 25 42.3 | -0.5 |
| CUC | | | | Sg | Sg | 21 25 45.1 | 0.0 |
| | 4µm,0.6s | | | | | | |
| CUC | Castrocucco | 0.17 | 304 | ⇑*i*Pg | Pg | 21 25 42.3 | -0.5 |
| CUC | | | | Sg | Sg | 21 25 45.1 | 0.0 |
| | 4µm,0.6s | | | | | | |
| SALB | San Lorenzo Be | 0.27 | 95 | ⇑*i*Pg | Pg | 21 25 43.9 | -0.7 |
| SALB | | | | Sg | Sg | 21 25 48.4 | +0.2 |
| | 7µm,0.4s | | | | | | |
| SALB | San Lorenzo Be | 0.27 | 95 | ⇑*i*Pg | Pg | 21 25 43.9 | -0.7 |
| SALB | | | | Sg | Sg | 21 25 48.4 | +0.2 |
| | 7µm,0.4s | | | | | | |
| SIRI | Monte Sirino - | 0.30 | 340 | Pg | Pg | 21 25 44.6 | -0.7 |
| SIRI | | | | Sg | Sg | 21 25 50.4 | +1.1 |
| | 3µm,0.5s | | | | | | |
| SIRI | Monte Sirino - | 0.30 | 340 | Pg | Pg | 21 25 44.6 | -0.7 |
| SIRI | | | | Sg | Sg | 21 25 50.4 | +1.1 |
| | 3µm,0.5s | | | | | | |
| SCHR | S. Chirico Rap | 0.31 | 11 | ⇑*i*Pg | Pg | 21 25 44.2 | -1.2 |
| SCHR | | | | Sg | Sg | 21 25 50.5 | +1.1 |
| | 2µm,0.7s | | | | | | |
| CET2 | Cetraro | 0.37 | 185 | ⇑*i*Pg | Pg | 21 25 46.5 | -0.1 |
| CET2 | | | | Sg | Sb | 21 25 52.3 | -2.1 |
| | 5µm,0.4s | | | | | | |
| CET2 | Cetraro | 0.37 | 185 | ⇑*i*Pg | Pg | 21 25 46.5 | -0.1 |
| ORI | Oriolo Calabro | 0.38 | 64 | ⇑*i*Pg | Pg | 21 25 46.1 | -0.7 |
| ORI | | | | Sg | Sg | 21 25 53.2 | +1.4 |
| | 6µm,0.5s | | | | | | |
| ORI | Oriolo Calabro | 0.38 | 64 | ⇑*i*Pg | Pg | 21 25 46.1 | -0.7 |
| ORI | | | | Sg | Sg | 21 25 53.2 | +1.4 |
| | 6µm,0.5s | | | | | | |
| MTSN | Montesano sull | 0.41 | 333 | Pg | Pg | 21 25 46.4 | -1.0 |
| MTSN | | | | Sg | Sg | 21 25 53.1 | +0.3 |
| | 2µm,0.7s | | | | | | |
| MTSN | Montesano sull | 0.41 | 333 | Pg | Pg | 21 25 46.4 | -1.0 |
| MTSN | | | | Sg | Sg | 21 25 53.1 | +0.3 |
| | 2µm,0.7s | | | | | | |
| MGR | Morigerati | 0.42 | 305 | Pg | Pg | 21 25 46.5 | -0.9 |
| MGR | | | | Sg | Sg | 21 25 54.1 | +1.2 |
| | 1µm,0.7s | | | | | | |
| MGR | Morigerati | 0.42 | 305 | Pg | Pg | 21 25 46.5 | -0.9 |
| MCEL | Monticello | 0.45 | 341 | Pg | Pg | 21 25 47.0 | -1.1 |
| | 2µm,0.9s | | | | | | |
| MCEL | Monticello | 0.45 | 341 | Pg | Pg | 21 25 47.0 | -1.1 |
| | 2µm,0.9s | | | | | | |
| BULG | Bulgheria - Ca | 0.51 | 291 | Pg | Pg | 21 25 48.4 | -0.8 |
| BULG | | | | Sg | Sb | 21 25 57.1 | -1.3 |
| | 1µm,0.6s | | | | | | |
| BULG | Bulgheria - Ca | 0.51 | 291 | Pg | Pg | 21 25 48.4 | -0.8 |
| SLCN | Sala Consilina | 0.56 | 330 | Pg | Pg | 21 25 49.1 | -1.2 |
| SLCN | | | | Sg | Sg | 21 25 58.1 | +0.5 |
| | 2µm,0.6s | | | | | | |
| SLCN | Sala Consilina | 0.56 | 330 | Pg | Pg | 21 25 49.1 | -1.2 |
| SLCN | | | | Sg | Sg | 21 25 58.1 | +0.5 |
| | 2µm,0.6s | | | | | | |
| CELI | Celico | 0.63 | 141 | Pg | Pg | 21 25 51.4 | -0.1 |
| | 1µm,0.5s | | | | | | |
| CELI | Celico | 0.63 | 141 | Pg | Pg | 21 25 51.4 | -0.1 |
| | 1µm,0.5s | | | | | | |
| CAR1 | CAROLEI | 0.67 | 166 | Pg | Pg | 21 25 51.8 | -0.3 |
| | 3µm,0.6s | | | | | | |
| CAR1 | CAROLEI | 0.67 | 166 | Pg | Pg | 21 25 51.8 | -0.3 |
| | 3µm,0.6s | | | | | | |
| CMPR | Campora | 0.68 | 308 | Pg | Pg | 21 25 51.0 | -1.4 |
| | 908nm,0.8s | | | | | | |
| CMPR | Campora | 0.68 | 308 | Pg | Pg | 21 25 51.0 | -1.4 |
| | 908nm,0.8s | | | | | | |
| PIPA | Pietrapaola | 0.75 | 123 | Pg | Pg | 21 25 53.6 | -0.2 |
| | 641nm,0.8s | | | | | | |
| PIPA | Pietrapaola | 0.75 | 123 | Pg | Pg | 21 25 53.6 | -0.2 |
| | 641nm,0.8s | | | | | | |
| MIGL | Miglionico | 0.78 | 26 | Pg | Pg | 21 25 52.8 | -1.6 |
| | 3µm,0.8s | | | | | | |
| MIGL | Miglionico | 0.78 | 26 | Pg | Pg | 21 25 52.8 | -1.6 |
| | 3µm,0.8s | | | | | | |
| CDRU | Civita di Ruta | 0.79 | 318 | Pg | Pg | 21 25 53.1 | -1.5 |
| | 319nm,0.6s | | | | | | |
| CDRU | Civita di Ruta | 0.79 | 318 | Pg | Pg | 21 25 53.1 | -1.5 |
| | 319nm,0.6s | | | | | | |
| ACER | Acerenza | 0.89 | 357 | Pg | Pg | 21 25 54.6 | -1.8 |
| | 1µm,1.1s | | | | | | |
| ACER | Acerenza | 0.89 | 357 | Pg | Pg | 21 25 54.6 | -1.8 |
| | 1µm,1.1s | | | | | | |
| MATE | Matera | 0.92 | 36 | Pg | Pg | 21 25 55.4 | -1.7 |
| | 674nm,0.5s | | | | | | |
| MATE | Matera | 0.92 | 36 | Pg | Pg | 21 25 55.4 | -1.7 |
| | 674nm,0.5s | | | | | | |
| MRLC | Muro Lucano | 0.94 | 336 | Pg | Pg | 21 25 57.4 | 0.0 |
| | 931nm,1.4s | | | | | | |
| MRLC | Muro Lucano | 0.94 | 336 | Pg | Pg | 21 25 57.4 | 0.0 |
| | 931nm,1.4s | | | | | | |
| SERS | Sersale | 1.01 | 148 | Pg | Pb | 21 25 58.9 | -0.5 |
| | 598nm,0.8s | | | | | | |
| SERS | Sersale | 1.01 | 148 | Pg | Pb | 21 25 58.9 | -0.5 |
| | 598nm,0.8s | | | | | | |
| PALZ | Palazzo San Ge | 1.04 | 358 | Pg | Pg | 21 25 57.9 | -1.5 |
| | 2µm,1.3s | | | | | | |
| PALZ | Palazzo San Ge | 1.04 | 358 | Pg | Pg | 21 25 57.9 | -1.5 |
| | 2µm,1.3s | | | | | | |
| SG1 | Sgolgore (BA) | 1.07 | 29 | *e*Pg | Pg | 21 25 59.9 | -0.1 |
| SG1 | | | | Sg | Sn | 21 26 18.3 | +2.1 |
| MCRV | Calabrutti - M | 1.09 | 325 | Pg | Pg | 21 25 59.8 | -0.4 |
| | 551nm,1.1s | | | | | | |
| MCRV | Calabrutti - M | 1.09 | 325 | Pg | Pg | 21 25 59.8 | -0.4 |
| | 551nm,1.1s | | | | | | |
| AMUR | Altamura | 1.11 | 24 | Pg | Pg | 21 25 59.5 | -1.1 |
| | 677nm,1.0s | | | | | | |
| AMUR | Altamura | 1.11 | 24 | Pg | Pg | 21 25 59.5 | -1.1 |
| | 677nm,1.0s | | | | | | |
| GRI | Girifalco | 1.12 | 163 | Pg | Pb | 21 26 00.6 | -0.6 |
| | 418nm,0.6s | | | | | | |
| GRI | Girifalco | 1.12 | 163 | Pg | Pb | 21 26 00.6 | -0.6 |
| | 418nm,0.6s | | | | | | |
| MASS | Massafra | 1.14 | 50 | *e*Pn | Pg | 21 26 00.6 | -0.7 |
| MASS | | | | Sn | Sn | 21 26 20.3 | +2.5 |
| TAR1 | Taranto | 1.17 | 57 | *e*Pn | Pg | 21 26 01.3 | -0.4 |
| MRVN | Minervino Murg | 1.17 | 7 | Pg | Pg | 21 26 00.7 | -1.1 |
| | 371nm,1.0s | | | | | | |
| MRVN | Minervino Murg | 1.17 | 7 | Pg | Pg | 21 26 00.7 | -1.1 |
| | 371nm,1.0s | | | | | | |
| CDT | Castel del Mon | 1.20 | 10 | *e*Pg | Pg | 21 26 00.5 | -1.9 |
| CDT | | | | Sg | Sn | 21 26 20.2 | +0.9 |
| NOCI | Noci | 1.21 | 42 | Pg | Pb | 21 26 01.3 | -1.3 |
| | 410nm,0.5s | | | | | | |
| NOCI | Noci | 1.21 | 42 | Pg | Pb | 21 26 01.3 | -1.3 |
| | 410nm,0.5s | | | | | | |
| CAFE | Carife | 1.27 | 333 | Pg | Pn | 21 26 02.9 | -0.8 |
| | 678nm,1.1s | | | | | | |
| CAFE | Carife | 1.27 | 333 | Pg | Pn | 21 26 02.9 | -0.8 |
| | 678nm,1.1s | | | | | | |
| JOPP | Joppolo | 1.29 | 184 | Pg | Pn | 21 26 02.7 | -1.3 |
| | 267nm,0.5s | | | | | | |
| JOPP | Joppolo | 1.29 | 184 | Pg | Pn | 21 26 02.7 | -1.3 |
| | 267nm,0.5s | | | | | | |
| CGL1 | Ceglie Messapi | 1.36 | 56 | *e*Pn | Pn | 21 26 04.5 | -0.3 |
| BAI | Bari | 1.38 | 29 | *e*Pn | Pn | 21 26 04.2 | -0.9 |
| FASA | Fasano | 1.38 | 48 | *e*Pn | Pn | 21 26 03.8 | -1.4 |
| FASA | | | | Sn | Sg | 21 26 24.6 | +0.8 |
| PLAC | Placanica | 1.49 | 167 | Pn | Pn | 21 26 06.0 | -0.6 |
| | 314nm,0.7s | | | | | | |
| PLAC | Placanica | 1.49 | 167 | Pn | Pn | 21 26 06.0 | -0.6 |
| | 314nm,0.7s | | | | | | |
| PSB1 | Pescosannita | 1.60 | 326 | Pn | Pb | 21 26 09.2 | -0.2 |
| | 549nm,1.3s | | | | | | |
| PSB1 | Pescosannita | 1.60 | 326 | Pn | Pb | 21 26 09.2 | -0.2 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| | 549nm,1.3s | | | | | | |
| **MSCL** | **Scilla** | **1.67** | **186** | Pn | **Pn** | **21 26 07.7** | **-1.5** |
| | 827nm,0.7s | | | | | | |
| **MSCL** | **Scilla** | **1.67** | **186** | Pn | **Pn** | **21 26 07.7** | **-1.5** |
| | 827nm,0.7s | | | | | | |
| **MSRU** | **Castanea** | **1.68** | **193** | Pn | **Pn** | **21 26 07.7** | **-1.5** |
| | 406nm,0.5s | | | | | | |
| **MSRU** | **Castanea** | **1.68** | **193** | Pn | **Pn** | **21 26 07.7** | **-1.5** |
| | 406nm,0.5s | | | | | | |
| **GMB** | **Gambarie** | **1.73** | **184** | Pn | **Pn** | **21 26 08.5** | **-1.6** |
| | 1μm,1.2s | | | | | | |
| **GMB** | **Gambarie** | **1.73** | **184** | Pn | **Pn** | **21 26 08.5** | **-1.6** |
| | 1μm,1.2s | | | | | | |
| **SACR** | **S. Croce Del S** | **1.79** | **327** | Pn | **Pb** | **21 26 11.9** | **-0.7** |
| **SACR** | **S. Croce Del S** | **1.79** | **327** | Pn | **Pb** | **21 26 11.9** | **-0.7** |
| **MS1** | **Monte Sant'Ang** | **1.81** | **359** | *e*Pn | **Pg** | **21 26 14.4** | **+0.5** |
| **MPNC** | **Port Mandanici** | **1.82** | **196** | Pn | **Pn** | **21 26 10.4** | **-0.8** |
| | 450nm,0.5s | | | | | | |
| **MPNC** | **Port Mandanici** | **1.82** | **196** | Pn | **Pn** | **21 26 10.4** | **-0.8** |
| | 450nm,0.5s | | | | | | |
| **SOI** | **Samo** | **1.82** | **179** | Pn | **Pn** | **21 26 10.3** | **-0.9** |
| | 176nm,0.8s | | | | | | |
| **SOI** | **Samo** | **1.82** | **179** | Pn | **Pn** | **21 26 10.3** | **-0.9** |
| | 176nm,0.8s | | | | | | |
| **SGRT** | **San Giovanni R** | **1.86** | **354** | Pn | **Pn** | **21 26 12.0** | **+0.1** |
| | 126nm,0.8s | | | | | | |
| **SGRT** | **San Giovanni R** | **1.86** | **354** | Pn | **Pn** | **21 26 12.0** | **+0.1** |
| | 126nm,0.8s | | | | | | |
| **SCTE** | **Santa Cesarea** | **1.90** | **84** | Pn | **Pn** | **21 26 12.7** | **+0.4** |
| | 86nm,0.8s | | | | | | |
| **SCTE** | **Santa Cesarea** | **1.90** | **84** | Pn | **Pn** | **21 26 12.7** | **+0.4** |
| | 86nm,0.8s | | | | | | |
| **MCSR** | **Castroreale** | **1.92** | **198** | Pn | **Pn** | **21 26 11.6** | **-1.1** |
| | 284nm,0.5s | | | | | | |
| **MCSR** | **Castroreale** | **1.92** | **198** | Pn | **Pn** | **21 26 11.6** | **-1.1** |
| | 284nm,0.5s | | | | | | |
| **SGG** | **Gregorio Mates** | **1.93** | **321** | Pn | **Pn** | **21 26 13.4** | **+0.6** |
| **SGG** | **Gregorio Mates** | **1.93** | **321** | Pn | **Pn** | **21 26 13.4** | **+0.6** |
| **MPAZ** | **Palizzi** | **1.94** | **180** | Pn | **Pn** | **21 26 11.7** | **-1.2** |
| | 177nm,0.8s | | | | | | |
| **MPAZ** | **Palizzi** | **1.94** | **180** | Pn | **Pn** | **21 26 11.7** | **-1.2** |
| | 177nm,0.8s | | | | | | |
| **NOV** | **Novara** | **1.99** | **200** | Pn | **Pn** | **21 26 12.0** | **-1.5** |
| | 242nm,0.8s | | | | | | |
| **NOV** | **Novara** | **1.99** | **200** | Pn | **Pn** | **21 26 12.0** | **-1.5** |
| | 242nm,0.8s | | | | | | |
| **MUCR** | **Ucria** | **2.05** | **206** | Pn | **Pn** | **21 26 13.3** | **-1.1** |
| | 114nm,0.5s | | | | | | |
| **MUCR** | **Ucria** | **2.05** | **206** | Pn | **Pn** | **21 26 13.3** | **-1.1** |
| | 114nm,0.5s | | | | | | |
| **MSFR** | **San Fratello** | **2.16** | **211** | Pn | **Pn** | **21 26 13.8** | **-2.1** |
| | 465nm,3.1s | | | | | | |
| **MSFR** | **San Fratello** | **2.16** | **211** | Pn | **Pn** | **21 26 13.8** | **-2.1** |
| | 465nm,3.1s | | | | | | |
| **HLNI** | **Lentini** | **2.70** | **199** | Pn | **Pn** | **21 26 22.8** | **-0.4** |
| | 80nm,0.8s | | | | | | |
| **HLNI** | **Lentini** | **2.70** | **199** | Pn | **Pn** | **21 26 22.8** | **-0.4** |
| | 80nm,0.8s | | | | | | |
| **VAE** | **Valguarnera** | **2.72** | **208** | Pn | **Pb** | **21 26 28.6** | **+0.2** |
| | 0.4nm,0.3s,baz=63,slow=6.5,SNR=7.7 | | | | | | |
| **KEK** | **Kerkira** | **2.93** | **92** | P | **Pn** | **21 26 27.7** | **+1.2** |
| **KEK** | **Kerkira** | **2.93** | **92** | P | **Pn** | **21 26 27.7** | **+1.2** |
| **STON** | **Ston** | **3.23** | **23** | *e*Pn | **Pn** | **21 26 31.1** | **+0.5** |
| STON | | | | Sn | **Sn** | **21 27 08.5** | **-0.9** |
| **STON** | **Ston** | **3.23** | **23** | *e*Pn | **Pn** | **21 26 31.0** | **+0.5** |
| STON | | | | Sn | **Sn** | **21 27 08.4** | **-0.9** |
| **TREB** | **Trebinje** | **3.33** | **31** | *e*Pn | **Pn** | **21 26 30.3** | **-1.6** |
| **IGT** | **Igoumenitsa** | **3.36** | **95** | P | **Pn** | **21 26 34.3** | **+1.9** |
| **IGT** | **Igoumenitsa** | **3.36** | **95** | P | **Pn** | **21 26 34.3** | **+1.9** |
| **PDG** | **Podgorica** | **3.53** | **43** | *e*Pn | **Pn** | **21 26 33.8** | **-0.8** |
| **LKD2** | **Lefkada island** | **3.78** | **106** | P | **Pn** | **21 26 40.6** | **+2.5** |
| **LKD2** | **Lefkada island** | **3.78** | **106** | P | **Pn** | **21 26 40.6** | **+2.5** |
| **VLS** | **Valsamata** | **3.97** | **114** | P | **Pn** | **21 26 42.5** | **+1.8** |
| **VLS** | **Valsamata** | **3.97** | **114** | P | **Pn** | **21 26 42.5** | **+1.8** |
| **DSL** | **Palaion Diasel** | **4.02** | **99** | P | **Pn** | **21 26 43.4** | **+2.0** |
| **DSL** | **Palaion Diasel** | **4.02** | **99** | P | **Pn** | **21 26 43.4** | **+2.0** |
| **KPRO** | **Kipourio** | **4.12** | **88** | P | **Pn** | **21 26 45.4** | **+2.5** |
| **KPRO** | **Kipourio** | **4.12** | **88** | P | **Pn** | **21 26 45.4** | **+2.5** |
| **FNA** | **Florina** | **4.20** | **76** | P | **Pn** | **21 26 45.5** | **+1.5** |
| **FNA** | **Florina** | **4.20** | **76** | P | **Pn** | **21 26 45.5** | **+1.5** |
| FNA | | | | S | **Sn** | **21 27 28.6** | **-4.8** |
| **UDBI** | **Udbina** | **4.63** | **358** | *e*Pn | **Pn** | **21 26 49.2** | **-0.7** |
| UDBI | | | | Sn | **Sn** | **21 27 46.7** | **+2.8** |
| **UDBI** | **Udbina** | **4.63** | **358** | *e*Pn | **Pn** | **21 26 49.1** | **-0.7** |
| UDBI | | | | Sn | **Sn** | **21 27 46.7** | **+2.8** |
| **BBLS** | **Lazići** | **4.71** | **32** | *e*Pn | **Pn** | **21 26 52.7** | **+1.8** |
| **NVLJ** | **Novalja** | **4.74** | **350** | *e*Pn | **Pn** | **21 26 51.3** | **0.0** |
| NVLJ | | | | Sn | **Sn** | **21 27 48.5** | **+2.1** |
| **NVLJ** | **Novalja** | **4.74** | **350** | *e*Pn | **Pn** | **21 26 51.2** | **0.0** |
| NVLJ | | | | Sn | **Sn** | **21 27 48.5** | **+2.1** |
| **ANX** | **Ano Chora** | **4.78** | **104** | P | **Pn** | **21 26 54.6** | **+2.7** |
| **ANX** | **Ano Chora** | **4.78** | **104** | P | **Pn** | **21 26 54.6** | **+2.7** |
| **IVAS** | **Ivanjica** | **4.81** | **39** | *e*Pn | **Pn** | **21 26 55.0** | **+2.6** |
| **EFP** | **Efpalio** | **4.82** | **106** | P | **Pn** | **21 26 54.9** | **+2.5** |
| **EFP** | **Efpalio** | **4.82** | **106** | P | **Pn** | **21 26 54.9** | **+2.5** |
| **AGG** | **Agios Georgios** | **4.98** | **98** | P | **Pn** | **21 26 56.1** | **+1.5** |
| **AGG** | **Agios Georgios** | **4.98** | **98** | P | **Pn** | **21 26 56.1** | **+1.5** |
| AGG | | | | S | **Sn** | **21 27 47.1** | **-5.4** |
| **LIT** | **Litokhoron** | **4.99** | **86** | P | **Pn** | **21 26 56.8** | **+2.0** |
| **LIT** | **Litokhoron** | **4.99** | **86** | P | **Pn** | **21 26 56.8** | **+2.0** |
| **AMT** | **Artemida-Makis** | **5.05** | **116** | P | **Pn** | **21 26 58.0** | **+2.4** |
| **AMT** | **Artemida-Makis** | **5.05** | **116** | P | **Pn** | **21 26 58.0** | **+2.4** |
| **DIVS** | **Divibare** | **5.14** | **34** | *e*Pn | **Pn** | **21 26 55.1** | **-1.8** |
| **GRUS** | **Gruza** | **5.32** | **40** | *e*Pn | **Pn** | **21 26 59.2** | **0.0** |
| **TEKS** | **Tekeris** | **5.33** | **28** | *e*Pn | **Pn** | **21 26 58.4** | **-1.1** |
| **TRUS** | **Trudelj** | **5.42** | **36** | *e*Pn | **Pn** | **21 27 01.5** | **+0.8** |
| **XOR** | **Xorichti** | **5.58** | **93** | P | **Pn** | **21 27 04.6** | **+1.7** |
| **XOR** | **Xorichti** | **5.58** | **93** | P | **Pn** | **21 27 04.6** | **+1.7** |
| **BOVS** | **Bovan** | **5.67** | **47** | *e*Pn | **Pn** | **21 27 04.9** | **+0.8** |
| **PLG** | **Polygyros** | **5.73** | **83** | P | **Pn** | **21 27 06.8** | **+1.9** |
| **PLG** | **Polygyros** | **5.73** | **83** | P | **Pn** | **21 27 06.8** | **+1.9** |
| **ZAPS** | **Zavoj** | **6.01** | **54** | *e*Pn | **Pn** | **21 27 10.1** | **+1.3** |
| **VTS** | **Vitosha** | **6.06** | **61** | ⇓*i*P | **Pn** | **21 27 10.6** | **+1.0** |
| **ZAGS** | **Zajecar** | **6.08** | **48** | *e*Pn | **Pn** | **21 27 09.0** | **-0.7** |
| **DID** | **Didima** | **6.14** | **111** | P | **Pn** | **21 27 13.8** | **+3.2** |
| DID | | | | S | **Sn** | **21 28 16.0** | **-5.2** |
| **MDVR** | **Moldovita** | **6.46** | **39** | ⇑*i*P | **Pn** | **21 27 14.3** | **-0.7** |
| **KEST** | **Kesra** | **6.71** | **234** | Pn | **Pn** | **21 27 21.2** | **+2.8** |
| | 0.2nm,0.3s,baz=352,slow=7.1,SNR=4.9 | | | | | | |
| **BZS** | **Buzias** | **7.05** | **34** | ⇑*i*P | **Pn** | **21 27 26.8** | **+3.8** |
| **HUMR** | **Humele** | **8.11** | **52** | ⇓*i*P | **Pn** | **21 27 37.9** | **+0.3** |
| **IDI** | **Anoyia** | **8.42** | **120** | Pn | **Pn** | **21 27 44.4** | **+2.4** |
| | 0.2nm,0.3s,baz=309,slow=17,SNR=4.5 | | | | | | |
| IDI | | | | Sn | **Sn** | **21 29 13.9** | **-3.5** |
| | 0.2nm,0.3s,baz=323,slow=20,SNR=3.3 | | | | | | |
| **VOIR** | | **8.66** | **47** | ⇑*i*P | **Pn** | **21 27 47.2** | **+2.0** |
| **GERES** | **GERESS Array B** | **9.09** | **350** | Pn | **Pn** | **21 27 50.0** | **-1.1** |
| | baz=161,slow=13,SNR=4.5 | | | | | | |
| **MLR** | **Muntele Rosu** | **9.21** | **49** | Pn | Pn | 21 27 57.7 | +4.9 |
| | 0.0nm,0.3s,baz=153,slow=18,SNR=3.4 | | | | | | |
| **VRI** | **Vrincioaia** | **9.87** | **49** | ⇓*i*P | **Pn** | **21 28 03.2** | **+1.5** |
| **BURAR** | **Bucovina Array** | **10.19** | **38** | ⇓*i*P | **Pn** | **21 28 09.5** | **+3.4** |
| **BRTR** | **Keskin Array B** | **13.57** | **85** | Pn | **Pn** | **21 28 54.2** | **+1.9** |
| | 0.1nm,0.3s,baz=269,slow=12,SNR=3.7 | | | | | | |
| **MDT** | **Midelt** | **18.02** | **253** | LR | LR | 21 36 16.9 | |
| | comp=Z,94nm,19.2s,baz=354,slow=35 | | | | | | |
| **FINES** | **FINESS Array B** | **22.44** | **13** | P | **P** | **21 30 37.3** | **-1.4** |
| | 6.7nm,1.1s,baz=202,slow=15,SNR=3.4 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **47.19** | **49** | P | **P** | **21 34 13.1** | **+0.6** |
| | 0.7nm,0.7s,baz=276,slow=6.9,SNR=4.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **47.41** | **59** | P | **P** | **21 34 16.4** | **+2.0** |
| | 0.4nm,0.6s,baz=264,slow=7.0,SNR=4.6 | | | | | | |
| **SONM** | **Songino Array** | **62.06** | **50** | P | **P** | **21 36 02.0** | **+1.3** |
| | 0.7nm,0.8s,baz=286,slow=8.8,SNR=3.9 | | | | | | |
| **BOSA** | **Boshof** | **68.70** | **171** | LR | LR | 22 10 16.4 | |
| | comp=Z,104nm,20.2s,baz=30,slow=39 | | | | | | |
| **ULM** | **Lac du Bonnet** | **72.19** | **321** | P | **P** | **21 37 05.8** | **+1.0** |
| | 1.3nm,0.6s,baz=90,slow=3.0,SNR=3.1 | | | | | | |

*ATH **02** 21:39:56.4, 36.°72N×21.°13E, h45km±13km, ML2.4/12, Error ellipse: s-maj=13.1km s-min=2.1km az=139.0*
*ISCJB **02** 21:39:57.0±1.0, 36.°84N±0.°05×21.°04E±0.°06, h24km±6km, Error ellipse: s-maj=8.4km s-min=6.7km az=40.5*
*CSEM **02** 21:39:57.6±0.6, 36.°79N×21.°11E, h30km, ML2.6, Error ellipse: s-maj=11.3km s-min=7.4km az=38.0*
*THE **02** 21:39:58.9, 36.°98N×21.°14E, h13km±1km, ML2.6/9, Error ellipse: s-maj=1.9km s-min=1.1km az=65.0*
**ISC 02 21:39:56.0**±1.6, **36.°78N**±0.°05×**21.°11E**±0.°05, **h20**km±4km, **n60**, σ**0.s70**/100, **Southern Greece**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PYL** | **PYLOS** | **0.52** | **76** | P | **Pn** | **21 40 09.8** | **+1.4** |
| PYL | | | | S | **Sn** | **21 40 18.4** | **+1.7** |
| PYL | | | | AML | AML | 21 40 19.0 | |
| | comp=N,1460μm,0.3s | | | | | | |
| PYL | | | | AML | AML | 21 40 20.1 | |
| | comp=E,1347μm,0.3s | | | | | | |
| **PYL** | **PYLOS** | **0.52** | **76** | P | **Pn** | **21 40 08.7** | **+0.3** |
| PYL | | | | S | **Sn** | **21 40 16.4** | **-0.3** |
| **PYL** | **PYLOS** | **0.52** | **76** | P | **Pn** | **21 40 08.7** | **+0.3** |
| PYL | | | | S | **Sn** | **21 40 16.4** | **-0.3** |
| **ITM** | **Ithomi** | **0.77** | **58** | P | **Pb** | **21 40 10.2** | **-0.6** |
| ITM | | | | AML | AML | 21 40 22.3 | |
| | comp=E,1023μm,0.5s | | | | | | |
| ITM | | | | AML | AML | 21 40 22.6 | |
| | comp=N,905μm,0.3s | | | | | | |
| ITM | | | | S | **Sn** | **21 40 22.8** | **-0.1** |
| **ITM** | **Ithomi** | **0.77** | **58** | P | **Pg** | **21 40 11.1** | **-0.1** |
| ITM | | | | S | **Sn** | **21 40 22.8** | **-0.1** |
| **ITM** | **Ithomi** | **0.77** | **58** | P | **Pg** | **21 40 11.1** | **-0.1** |
| ITM | | | | S | **Sb** | **21 40 20.6** | **-0.2** |
| **AMT** | **Artemida-Makis** | **0.90** | **32** | P | **Pb** | **21 40 13.0** | **+0.1** |
| AMT | | | | S | **Sn** | **21 40 26.6** | **+0.6** |
| AMT | | | | AML | AML | 21 40 28.3 | |
| | comp=N,1138μm,0.5s | | | | | | |
| AMT | | | | AML | AML | 21 40 28.4 | |
| | comp=E,1417μm,0.5s | | | | | | |
| **AMT** | **Artemida-Makis** | **0.90** | **32** | P | **Pb** | **21 40 13.0** | **+0.1** |
| AMT | | | | S | **Sn** | **21 40 26.6** | **+0.6** |
| **AMT** | **Artemida-Makis** | **0.90** | **32** | P | **Pb** | **21 40 12.5** | **-0.4** |
| AMT | | | | S | **Sb** | **21 40 23.2** | **-1.3** |
| **VLX** | **Vlachokerasia** | **1.18** | **59** | P | **Pg** | **21 40 18.7** | **-0.2** |
| VLX | | | | S | **Sg** | **21 40 33.9** | **-0.5** |
| VLX | | | | AML | AML | 21 40 37.6 | |
| | comp=N,565μm,0.6s | | | | | | |
| VLX | | | | AML | AML | 21 40 38.9 | |
| | comp=E,846μm,0.5s | | | | | | |
| **VLX** | **Vlachokerasia** | **1.18** | **59** | P | **Pb** | **21 40 18.1** | **+0.3** |
| VLX | | | | S | **Sg** | **21 40 33.8** | **-0.5** |
| **VLX** | **Vlachokerasia** | **1.18** | **59** | P | **Pb** | **21 40 18.1** | **+0.3** |
| VLX | | | | S | **Sg** | **21 40 33.9** | **-0.5** |
| **TRIP** | **Tripoli** | **1.19** | **51** | P | **Pb** | **21 40 18.0** | **-0.1** |
| TRIP | | | | S | **Sg** | **21 40 34.8** | **-0.1** |
| TRIP | | | | AML | AML | 21 40 37.3 | |
| | comp=E,154μm,0.4s | | | | | | |
| TRIP | | | | AML | AML | 21 40 42.7 | |
| | comp=N,164μm,0.4s | | | | | | |
| **TRIP** | **Tripoli** | **1.19** | **51** | P | **Pb** | **21 40 18.0** | **-0.1** |
| TRIP | | | | S | **Sg** | **21 40 34.8** | **-0.1** |
| **DRO** | **Drossia** | **1.27** | **22** | P | **Pg** | **21 40 20.1** | **-0.5** |
| DRO | | | | S | **Sn** | **21 40 36.2** | **+1.0** |
| **DRO** | **Drossia** | **1.27** | **22** | P | **Pn** | **21 40 17.9** | **-0.8** |
| DRO | | | | S | **Sn** | **21 40 36.2** | **+1.0** |
| **DRO** | **Drossia** | **1.27** | **22** | P | **Pn** | **21 40 17.9** | **-0.8** |
| **RLS** | **Riolos of Patr** | **1.31** | **12** | P | **Pg** | **21 40 21.6** | **+0.2** |
| RLS | | | | S | **Sg** | **21 40 38.8** | **+0.2** |
| RLS | | | | AML | AML | 21 40 43.2 | |
| | comp=E,155μm,0.4s | | | | | | |
| RLS | | | | AML | AML | 21 40 43.3 | |
| | comp=N,130μm,0.5s | | | | | | |
| **RLS** | **Riolos of Patr** | **1.31** | **12** | P | **Pg** | **21 40 21.6** | **+0.2** |
| RLS | | | | S | **Sg** | **21 40 38.8** | **+0.2** |
| **AXS** | **Araxos** | **1.43** | **8** | P | **Pn** | **21 40 21.1** | **+0.2** |
| **AXS** | **Araxos** | **1.43** | **8** | P | **Pn** | **21 40 21.1** | **+0.2** |
| **VLS** | **Valsamata** | **1.46** | **344** | P | **Pn** | **21 40 21.6** | **+0.2** |
| VLS | | | | S | **Sg** | **21 40 43.0** | **-0.3** |
| VLS | | | | AML | AML | 21 40 47.1 | |
| | comp=N,124μm,0.3s | | | | | | |
| VLS | | | | AML | AML | 21 40 51.8 | |
| | comp=E,77μm,0.4s | | | | | | |
| **VLS** | **Valsamata** | **1.46** | **344** | P | **Pn** | **21 40 21.6** | **+0.2** |
| VLS | | | | S | **Sg** | **21 40 43.0** | **-0.3** |
| **VLI** | **Veliai** | **1.47** | **92** | P | **Pg** | **21 40 24.5** | **+0.1** |
| **VLI** | **Veliai** | **1.47** | **92** | P | **Pg** | **21 40 24.5** | **+0.1** |
| VLI | | | | S | **Sg** | **21 40 43.9** | **+0.3** |
| **KLV** | **Kalavryta, Ach** | **1.51** | **33** | P | **Pn** | **21 40 22.3** | **+0.2** |
| **KLV** | **Kalavryta, Ach** | **1.51** | **33** | P | **Pn** | **21 40 22.3** | **+0.2** |
| KLV | | | | S | **Sn** | **21 40 41.1** | **-0.2** |
| **KLV** | **Kalavryta, Ach** | **1.51** | **33** | P | **Pn** | **21 40 21.9** | **-0.2** |
| KLV | | | | S | **Sn** | **21 40 41.1** | **-0.2** |
| **GUR** | **Goura** | **1.52** | **40** | P | **Pn** | **21 40 22.3** | **+0.1** |
| GUR | | | | S | **Sn** | **21 40 41.5** | **0.0** |
| **GUR** | **Goura** | **1.52** | **40** | P | **Pn** | **21 40 22.3** | **+0.1** |
| GUR | | | | S | **Sn** | **21 40 41.5** | **0.0** |
| **LAKA** | **Lakka** | **1.62** | **25** | P | **Pn** | **21 40 23.7** | **+0.2** |
| LAKA | | | | S | **Sn** | **21 40 43.9** | **+0.1** |
| LAKA | | | | AML | AML | 21 40 49.9 | |
| | comp=N,105μm,0.5s | | | | | | |
| LAKA | | | | AML | AML | 21 40 53.9 | |
| | comp=E,96μm,0.4s | | | | | | |
| **LAKA** | **Lakka** | **1.62** | **25** | P | **Pn** | **21 40 23.7** | **+0.2** |
| LAKA | | | | S | **Sn** | **21 40 43.9** | **+0.1** |
| **TRIZ** | **Trizonia** | **1.76** | **25** | P | **Pb** | **21 40 28.1** | **+0.4** |
| TRIZ | | | | S | **Sn** | **21 40 46.8** | **-0.5** |
| **TRIZ** | **Trizonia** | **1.76** | **25** | P | **Pb** | **21 40 28.1** | **+0.4** |
| TRIZ | | | | S | **Sn** | **21 40 46.8** | **-0.5** |
| **SERG** | **Sergoula** | **1.80** | **24** | P | **Pn** | **21 40 25.7** | **-0.3** |
| **SERG** | **Sergoula** | **1.80** | **24** | P | **Pn** | **21 40 25.7** | **-0.3** |
| **SERG** | **Sergoula** | **1.80** | **24** | P | **Pn** | **21 40 25.6** | **-0.4** |
| **KALE** | **Kalithea** | **1.81** | **27** | P | **Pn** | **21 40 27.5** | **+1.3** |
| KALE | | | | S | **Sn** | **21 40 48.4** | **-0.2** |
| KALE | | | | AML | AML | 21 40 59.0 | |
| | comp=N,99μm,0.4s | | | | | | |
| KALE | | | | AML | AML | 21 40 59.3 | |
| | comp=E,143μm,0.4s | | | | | | |
| **KALE** | **Kalithea** | **1.81** | **27** | P | **Pn** | **21 40 27.3** | **+1.1** |
| KALE | | | | S | **Sn** | **21 40 48.4** | **-0.2** |
| **KALE** | **Kalithea** | **1.81** | **27** | P | **Pn** | **21 40 27.3** | **+1.1** |
| KALE | | | | S | **Sn** | **21 40 48.1** | **-0.5** |
| **DID** | **Didima** | **1.85** | **66** | P | **Pn** | **21 40 27.5** | **+0.8** |
| **DID** | **Didima** | **1.85** | **66** | P | **Pn** | **21 40 27.4** | **+0.7** |
| **DID** | **Didima** | **1.85** | **66** | P | **Pn** | **21 40 27.4** | **+0.7** |
| **ANX** | **Ano Chora** | **1.93** | **19** | P | **Pn** | **21 40 29.1** | **+1.3** |
| ANX | | | | S | **Sn** | **21 40 51.7** | **+0.2** |
| ANX | | | | AML | AML | 21 41 04.6 | |
| | comp=E,160μm,0.5s | | | | | | |
| ANX | | | | AML | AML | 21 41 08.1 | |
| | comp=N,130μm,0.7s | | | | | | |
| **ANX** | **Ano Chora** | **1.93** | **19** | P | **Pn** | **21 40 29.1** | **+1.3** |
| ANX | | | | S | **Sn** | **21 40 51.7** | **+0.2** |
| **LTK** | **Loutraki** | **1.93** | **49** | P | **Pn** | **21 40 28.1** | **+0.2** |
| **LTK** | **Loutraki** | **1.93** | **49** | P | **Pn** | **21 40 28.1** | **+0.2** |
| **ANKY** | **Antikythira Is** | **1.99** | **116** | P | **Pg** | **21 40 33.3** | **-1.0** |
| **LKD2** | **Lefkada island** | **2.04** | **350** | P | **Pn** | **21 40 30.5** | **+1.1** |
| LKD2 | | | | S | **Sn** | **21 40 53.1** | **-1.2** |
| **LKD2** | **Lefkada island** | **2.04** | **350** | P | **Pn** | **21 40 30.5** | **+1.1** |
| LKD2 | | | | S | **Sn** | **21 40 53.1** | **-1.2** |
| **PROD** | **Prodromos** | **2.05** | **43** | P | **Pn** | **21 40 28.8** | **-0.7** |
| **PROD** | **Prodromos** | **2.05** | **43** | P | **Pn** | **21 40 28.8** | **-0.7** |
| **VILL** | **Villia** | **2.23** | **51** | P | **Pn** | **21 40 32.2** | **+0.2** |
| VILL | | | | S | **Sn** | **21 41 00.8** | **+1.7** |
| **VIL2** | **Platees** | **2.24** | **49** | P | **Pn** | **21 40 32.1** | **+0.1** |
| VIL2 | | | | S | **Sn** | **21 41 00.8** | **+1.7** |
| VIL2 | | | | AML | AML | 21 41 14.6 | |
| | comp=E,59μm,0.7s | | | | | | |
| VIL2 | | | | AML | AML | 21 41 15.9 | |
| | comp=N,104μm,0.8s | | | | | | |
| **AXAR** | **Agios Charalam** | **2.34** | **31** | P | **Pn** | **21 40 33.5** | **+0.1** |
| **AXAR** | **Agios Charalam** | **2.34** | **31** | P | **Pn** | **21 40 33.5** | **+0.1** |
| **SERI** | **Serifos** | **2.73** | **81** | P | **Pn** | **21 40 40.0** | **+1.2** |
| SERI | | | | S | **Sn** | **21 41 09.5** | **-1.8** |
| SERI | | | | AML | AML | 21 41 10.6 | |
| | comp=N,45μm,0.3s | | | | | | |
| SERI | | | | AML | AML | 21 41 10.7 | |
| | comp=E,31μm,0.5s | | | | | | |
| **SERI** | **Serifos** | **2.73** | **81** | P | **Pn** | **21 40 40.0** | **+1.2** |
| SERI | | | | S | **Sn** | **21 41 09.5** | **-1.8** |
| **EREA** | **Eretria** | **2.78** | **53** | P | **Pn** | **21 40 38.9** | **-0.6** |
| **EREA** | **Eretria** | **2.78** | **53** | P | **Pn** | **21 40 38.9** | **-0.6** |

*BJI **02** 21:42:18.6, 8.°42S×104.°44E, h29km, mb4.6/36, mB5.2/23, Ms5.0/10, Ms7 4.7/9*
*ISCJB **02** 21:42:20.0±1.4, 7.°89S±0.°04×104.°39E±0.°03, h13km±9km, mb4.6/47, MS4.1/2, Error ellipse: s-maj=7.0km s-min=4.8km az=36.6*
*IDC **02** 21:42:20.4±1.4, 7.°75S×104.°32E, h0km, mb4.1/12, mb1 4.2/12, mb1mx4.0/38, mbtmp4.1/12, Error ellipse: s-maj=51.5km s-min=14.9km az=52.0*
*NEIC **02** 21:42:20.2±0.4, 8.°00S×104.°27E, h10km, mb4.8/23, Error ellipse: s-maj=9.4km s-min=4.1km az=224.0*
*DJA **02** 21:42:22.9±1.3, 8.°S±9.°×10.°4E±.°, h27km±22km, M4.7/15, mB5.3/2, mb5.0/6, MLv4.6/15, Mw(mB)4.8/2*
**ISC 02 21:42:22.1**±2.2, **7.°87S**±0.°07×**104.°38E**±0.°06, **h14**km±13km, **n98**, σ**1.s23**/106, **mb4.5**/47, **Southwest of Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SKJI** | **Sukabumi** | **2.32** | **69** | P | **Pn** | **21 42 59.1** | **-0.8** |
| SKJI | | | | S | **Sn** | **21 43 28.2** | **0.0** |
| **KASI** | **Kota Agung** | **2.33** | **3** | P | **Pn** | **21 42 59.1** | **-0.9** |
| KASI | | | | S | **Sn** | **21 43 26.9** | **-1.5** |
| **SBJI** | **Serang** | **2.46** | **45** | P | **Pn** | **21 43 01.1** | **-0.6** |
| **BLSI** | **Bandar Lampung** | **2.63** | **19** | P | **Pn** | **21 43 03.5** | **-0.6** |
| BLSI | | | | S | **Sn** | **21 43 34.5** | **-1.3** |
| **CNJI** | **Cibinong** | **2.78** | **79** | P | **Pn** | **21 43 05.6** | **-0.6** |
| **CBJI** | **Citeko** | **2.84** | **60** | P | **Pn** | **21 43 06.1** | **-0.9** |
| CBJI | | | | S | **Sn** | **21 43 39.8** | **-1.3** |
| **LWLI** | **Liwa** | **2.85** | **354** | P | **Pn** | **21 43 05.9** | **-1.3** |
| LWLI | | | | S | **Sn** | **21 43 39.8** | **-1.6** |
| **XMIS** | **Christmas Isla** | **2.89** | **154** | *e*Pn | Pn | 21 43 03.4 | -4.2 |
| **KLI** | **Kotabumi** | **3.02** | **9** | P | **Pn** | **21 43 09.5** | **0.0** |
| **CISI** | **Cisompet, Garu** | **3.42** | **85** | P | **Pn** | **21 43 15.0** | **0.0** |
| **CISI** | **Cisompet, Garu** | **3.42** | **85** | *e*Pn | **Pn** | **21 43 16.0** | **+1.0** |
| **MNAI** | **Manna** | **3.76** | **338** | P | **Pn** | **21 43 17.8** | **-1.8** |
| **MNAI** | **Manna** | **3.76** | **338** | *e*Pn | **Pn** | **21 43 18.2** | **-1.4** |
| **KPJI** | **Karang Pucung** | **4.54** | **84** | P | **Pn** | **21 43 30.4** | **0.0** |
| **MASI** | **Maura Aman, Be** | **5.15** | **336** | P | **Pn** | **21 43 37.8** | **-1.1** |
| | 123nm,1.1s,1.0nm | | | | | | |
| **UGM** | **Wanagama** | **6.09** | **91** | P | **Pn** | **21 43 52.2** | **+0.5** |
| | 152nm,0.6s,0.6nm | | | | | | |
| **UGM** | **Wanagama** | **6.09** | **91** | *e*Pn | **Pn** | **21 43 52.6** | **+0.9** |
| **PCJI** | **Pacitan** | **6.74** | **93** | P | **Pn** | **21 44 00.2** | **-0.4** |
| | 102nm,0.7s,0.3nm | | | | | | |
| **PWJI** | **Pagerwojo** | **7.36** | **92** | P | **Pn** | **21 44 09.7** | **+0.6** |
| **JAGI** | **Jajag, Banyuwa** | **9.70** | **94** | *e*Pn | **Pn** | **21 44 40.0** | **-1.2** |
| **LHMI** | **Lhok Sumawe** | **14.97** | **330** | *e*Pn | **Pn** | **21 45 53.7** | **+0.3** |
| | 144nm,1.2s | | | | | | |
| **KAPI** | **Kappang** | **15.54** | **80** | *e*Pn | **Pn** | **21 46 00.2** | **-0.6** |
| | 919nm,0.8s | | | | | | |
| **MMRI** | **Maumere** | **17.69** | **94** | *e*Pn | **Pn** | **21 46 28.1** | **-0.2** |
| | 26nm,0.8s | | | | | | |
| **LUWI** | **Luwuk** | **19.54** | **71** | *e*P | **P** | **21 46 50.3** | **+0.9** |
| | 49nm,1.5s | | | | | | |
| **SOEI** | **Soe** | **19.74** | **97** | *e*P | **P** | **21 46 50.1** | **-1.7** |
| | 42nm,0.8s | | | | | | |
| SOEI | | | | *e*S | **S** | **21 50 34.2** | **0.0** |
| **FITZ** | **Fitzroy Crossi** | **23.05** | **118** | P | **P** | **21 47 28.0** | **+0.8** |
| | 2.7nm,0.9s,baz=257,slow=9.1,SNR=3.4 | | | | | | |
| **CHAI** | **Chaiyaphum** | **23.73** | **354** | P | **P** | **21 47 34.2** | **+0.3** |
| | 5.7nm,0.8s | | | | | | |
| **UTHA** | **Uthaitani** | **23.78** | **348** | P | **P** | **21 47 35.6** | **+1.2** |
| | 2.9nm,0.9s | | | | | | |
| **PBKT** | **Sadao Pong** | **24.51** | **352** | P | **P** | **21 47 41.4** | **+0.2** |
| | 12nm,1.1s | | | | | | |
| **CM01** | **Chiang Mai Arr** | **26.66** | **348** | *e*P | **P** | **21 48 00.1** | **-0.5** |
| **CM31** | **Chiang Mai Arr** | **26.70** | **348** | *e*P | **P** | **21 48 01.0** | **0.0** |
| **CMAR** | **Chiang Mai Arr** | **26.70** | **348** | P | **P** | **21 48 00.3** | **-0.7** |
| | 11nm,0.8s,baz=182,slow=8.4,SNR=75 | | | | | | |
| **MTN** | **Manton Dam** | **26.77** | **103** | *e*P | **P** | **21 48 01.5** | **-0.2** |
| | 7.8nm,0.8s | | | | | | |
| **CMMT** | **Chiang Mai** | **27.05** | **349** | P | **P** | **21 48 03.5** | **-0.6** |
| | 18nm,0.9s | | | | | | |
| **CHTO** | **Chiang Mai** | **27.05** | **349** | P | **P** | **21 48 03.6** | **-0.6** |
| | 82nm,1.0s | | | | | | |
| **CHTO** | **Chiang Mai** | **27.05** | **349** | *e*P | **P** | **21 48 03.6** | **-0.6** |
| | 13nm,0.7s | | | | | | |
| **PALK** | **Pallekele** | **27.99** | **302** | *e*P | **P** | **21 48 10.9** | **-1.8** |
| | 20nm,1.4s | | | | | | |
| **WRA** | **Warramunga Arr** | **31.40** | **116** | P | **P** | **21 48 43.4** | **+0.5** |
| | 2.2nm,0.8s,baz=287,slow=10,SNR=11 | | | | | | |
| **WRAB** | **Tennant Creek** | **31.40** | **116** | *e*P | **P** | **21 48 42.5** | **-0.4** |
| | 32nm,1.8s | | | | | | |
| **WB2** | **Warramunga Arr** | **31.41** | **116** | *e*P | **P** | **21 48 42.6** | **-0.4** |
| **H08S2** | **Diego Garcia H** | **31.59** | **268** | T | T | 22 22 43.3 | |
| | baz=90,slow=75,SNR=25 | | | | | | |
| **H08S3** | **Diego Garcia H** | **31.60** | **268** | T | T | 22 22 38.0 | |
| | baz=90,slow=75,SNR=23 | | | | | | |
| **H08S1** | **Diego Carcia H** | **31.61** | **268** | T | T | 22 22 49.9 | |
| | baz=90,slow=75,SNR=26 | | | | | | |
| **ASAR** | **Alice Springs** | **32.36** | **122** | P | **P** | **21 48 53.6** | **+2.2** |
| | 1.1nm,0.9s,baz=286,slow=7.9,SNR=7.1 | | | | | | |
| **AS31** | **Alice Springs** | **32.36** | **122** | *e*P | **P** | **21 48 50.3** | **-1.1** |
| | 2.4nm,1.4s | | | | | | |
| **AS01** | **Alice Springs** | **32.40** | **122** | *e*P | **P** | **21 48 51.2** | **-0.5** |
| **KMI** | **Kunming** | **32.83** | **357** | P | P | 21 49 01.6 | +6.0 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.5s | | | | | | |
| **GYA** | **Guiyang** | **34.19** | **4** | *e*P | **P** | **21 49 10.8** | **+3.5** |
| GYA | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| **TWG** | **Pinlang** | **34.60** | **28** | *e*P | **P** | **21 49 11.1** | **+0.3** |
| | 207nm,1.4s | | | | | | |
| **TPUB** | **Ta-pu** | **34.82** | **27** | *e*P | **P** | **21 49 11.9** | **-0.8** |
| | 82nm,1.4s | | | | | | |
| **NACB** | **Ninganchiao** | **36.01** | **27** | *e*P | **P** | **21 49 22.8** | **-0.1** |
| | 86nm,1.7s | | | | | | |
| **TATO** | **Taipei** | **36.65** | **27** | *e*P | **P** | **21 49 28.8** | **+0.4** |
| | 491nm,1.9s | | | | | | |
| **ENH** | **Enshi** | **38.24** | **7** | *e*P | **P** | **21 49 41.2** | **-0.5** |
| | 5.2nm,0.8s | | | | | | |
| **ODAN** | **Odare** | **38.25** | **335** | *e*P | **P** | **21 49 42.8** | **+0.6** |
| **TAPN** | **Taplejung** | **38.55** | **336** | *e*P | **P** | **21 49 45.6** | **+0.8** |
| | 22nm,0.9s | | | | | | |
| **RAMN** | **Ramite** | **38.66** | **334** | *e*P | **P** | **21 49 46.6** | **+0.9** |
| **LSA** | **Lhasa** | **39.46** | **342** | *e*P | **P** | **21 49 53.3** | **+0.7** |
| | 8.7nm,0.8s | | | | | | |
| **JIRN** | **Jiri** | **39.46** | **334** | *e*P | **P** | **21 49 53.1** | **+0.6** |
| **PKIN** | **Phulchoki** | **39.74** | **333** | *e*P | **P** | **21 49 56.1** | **+1.4** |
| **GUN** | **Gumba** | **39.81** | **334** | *e*P | **P** | **21 49 55.9** | **+0.5** |
| **DMN** | **Daman** | **39.90** | **333** | *e*P | **P** | **21 49 57.2** | **+1.2** |
| **KKN** | **Kakani** | **39.97** | **333** | *e*P | **P** | **21 49 57.0** | **+0.4** |
| | 9.6nm,0.7s | | | | | | |
| **KOLN** | **Koldanda** | **40.73** | **331** | *e*P | **P** | **21 50 03.1** | **+0.2** |
| | 12nm,0.8s | | | | | | |
| **DANN** | **Dangsing** | **41.15** | **332** | *e*P | **P** | **21 50 08.2** | **+1.8** |
| **JOW** | **Kunigami** | **41.55** | **33** | *e*P | **P** | **21 50 08.9** | **-0.5** |
| | 80nm,1.1s | | | | | | |
| **XAN** | **Xi'an** | **41.90** | **6** | P | **P** | **21 50 11.5** | **-0.6** |
| XAN | | | | pP | sP | 21 50 20.4 | +2.0 |
| XAN | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.8s | | | | | | |
| **NJ2** | **Nanjing** | **42.03** | **18** | *e*P | **P** | **21 50 13.5** | **+0.3** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,15nm,0.5s | | | | | | |
| **STKA** | **Stephens Creek** | **42.04** | **130** | P | **P** | **21 50 15.1** | **+1.7** |
| | 2.1nm,0.9s,baz=328,slow=13,SNR=2.9 | | | | | | |
| **STKA** | **Stephens Creek** | **42.04** | **130** | *e*P | **P** | **21 50 11.8** | **-1.5** |
| | 7.4nm,1.9s | | | | | | |
| **CTAO** | **Charters Tower** | **42.29** | **111** | *e*P | **P** | **21 50 14.2** | **-1.4** |
| | 58nm,1.9s | | | | | | |
| **PMG** | **Port Moresby** | **42.31** | **95** | *e*P | **P** | **21 50 15.2** | **-0.5** |
| | 22nm,1.3s | | | | | | |
| **LZH** | **Lanzhou** | **43.72** | **359** | *e*P | **P** | **21 50 29.0** | **+2.0** |
| LZH | | | | pP | sP | 21 50 40.9 | +7.6 |
| LZH | | | | sP | pP | 21 50 42.1 | +11 |
| LZH | | | | PP | **PcP** | **21 52 12.1** | **-1.9** |
| LZH | | | | *e*S | **S** | **21 57 00.2** | **+3.2** |
| LZH | | | | sS | sS | 21 57 15.5 | +11 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,16nm,1.0s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,140nm,6.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=N,200nm,16.2s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=E,190nm,16.6s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,240nm,17.9s | | | | | | |
| **GUMO** | **Guam** | **45.50** | **62** | *e*P | **P** | **21 50 42.1** | **+0.7** |
| | 325nm,1.4s | | | | | | |
| **GTA** | **Gaotai** | **47.23** | **355** | *e*P | **P** | **21 50 55.2** | **+0.5** |
| GTA | | | | pP | sP | 21 51 02.3 | +1.2 |
| GTA | | | | sP | pP | 21 51 05.9 | +6.6 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.1s | | | | | | |
| **ANA2** | **Anatahan** | **47.45** | **59** | *e*P | **P** | **21 50 55.8** | **-1.0** |
| **JNU** | **Nakatsue** | **47.93** | **30** | *e*P | **P** | **21 51 00.9** | **+0.7** |
| | 58nm,1.8s | | | | | | |
| **BJI** | **Beijing** | **48.90** | **12** | P | **P** | **21 51 07.9** | **+0.4** |
| BJI | | | | pmax | pmax | | |
| | comp=Z,9.0nm,2.0s | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **48.92** | **7** | *e*P | **P** | **21 51 09.3** | **+1.5** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,17nm,0.8s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,160nm,6.3s | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **KSAR** | **Wonju Array Be** | **50.15** | **24** | P | **P** | **21 51 16.8** | **-0.3** |
| **KSRS** | **Korea Array** | **50.17** | **24** | P | **P** | **21 51 16.8** | **-0.5** |
| | 1.8nm,0.7s,baz=230,slow=6.8,SNR=4.3 | | | | | | |
| **WMQ** | **Urumqi** | **53.62** | **345** | P | **P** | **21 51 43.3** | **+0.3** |
| WMQ | | | | pP | sP | 21 51 52.3 | +3.0 |
| WMQ | | | | sP | pP | 21 51 56.0 | +8.4 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,22nm,0.6s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,400nm,5.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,100nm,16.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,92nm,18.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,84nm,18.1s | | | | | | |
| **KBL** | **Kabul** | **53.81** | **324** | *e*P | **P** | **21 51 43.0** | **-1.7** |
| | 2.7nm,1.0s | | | | | | |
| **KSH** | **Kashi** | **53.99** | **333** | *e*P | **P** | **21 51 48.3** | **+2.4** |
| KSH | | | | pP | sP | 21 51 56.8 | +4.6 |
| KSH | | | | PcP | **PcP** | **21 52 52.7** | **+1.7** |
| KSH | | | | PP | **PP** | **21 53 51.7** | **+4.3** |
| KSH | | | | S | **S** | **21 59 21.7** | **+0.2** |
| KSH | | | | ScS | **ScS** | **22 01 31.8** | **-3.4** |
| KSH | | | | SS | **SS** | **22 03 03.5** | **+0.3** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.6s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,100nm,5.4s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,210nm,5.1s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,210nm,6.0s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,220nm,6.9s | | | | | | |
| **CN2** | **Changchun** | **54.86** | **19** | *e*P | **P** | **21 51 55.5** | **+3.6** |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.7s | | | | | | |
| **SONM** | **Songino Array** | **55.49** | **2** | P | **P** | **21 51 57.1** | **+0.6** |
| | 2.4nm,0.8s,baz=176,slow=8.8,SNR=17 | | | | | | |
| **SONA1** | **Songino Array** | **55.50** | **2** | *e*P | **P** | **21 51 56.8** | **+0.1** |
| **ULN** | **Ulaanbaatar** | **55.54** | **2** | *e*P | **P** | **21 51 57.1** | **+0.2** |
| | 3.3nm,1.0s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **57.52** | **23** | P | **P** | **21 52 10.7** | **-0.3** |
| | 2.2nm,0.6s,baz=191,slow=5.5,SNR=5.3 | | | | | | |
| **MK01** | **Makanchi Array** | **57.84** | **342** | *e*P | **P** | **21 52 12.4** | **-0.8** |
| **MKAR** | **Makanchi Array** | **57.86** | **342** | P | **P** | **21 52 13.0** | **-0.4** |
| | 1.7nm,0.7s,baz=143,slow=8.1,SNR=12 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **62.41** | **342** | P | **P** | **21 52 44.0** | **-0.4** |
| | 1.5nm,0.5s,baz=158,slow=6.1,SNR=5.6 | | | | | | |
| **KURK** | **Kurchatov** | **62.47** | **342** | P | **P** | **21 52 44.0** | **-0.8** |
| **ZAA0** | **Zalesovo Array** | **63.76** | **347** | *e*P | **P** | **21 52 52.6** | **-0.7** |
| | 6.5nm,0.9s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **63.76** | **347** | P | **P** | **21 52 52.6** | **-0.7** |
| | 3.5nm,0.6s,baz=160,slow=3.6,SNR=24 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **63.76** | **347** | *e*P | **P** | **21 52 52.5** | **-0.8** |
| **YAK** | **Yakutsk** | **72.40** | **12** | *e*P | **P** | **21 53 46.8** | **-0.6** |
| | 23nm,0.8s | | | | | | |
| **BRTR** | **Keskin Array B** | **80.47** | **312** | P | **P** | **21 54 33.7** | **-0.2** |
| | 0.6nm,0.8s,baz=197,slow=3.8,SNR=3.7 | | | | | | |
| **TXAR** | **Lajitas Array** | **146.07** | **47** | PKPbc | **PKPab** | **22 02 04.0** | **+0.9** |
| | 1.3nm,0.7s,baz=311,slow=2.3,SNR=16 | | | | | | |

**IDC 02 21:58:21.7**±2.2**, 3°.09N**×**129°.06E, h0**km**, mb3.4**/4**, mb1 3.7**/4**, mb1mx3.4**/29**, mbtmp3.5**/4**, MS3.1**/1**, Ms1 3.1**/1**, ms1mx2.4**/17**, Error ellipse: s-maj=112.8km s-min=24.7km az=72.0, North of Halmahera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **21.32** | **189** | P | P | 22 03 08.9 | -1.5 |
| | 2.9nm,1.1s,baz=0.0,slow=8.1,SNR=2.2 | | | | | | |
| **PMG** | **Port Moresby** | **21.90** | **125** | LR | LR | 22 11 35.6 | |
| | comp=Z,46nm,19.0s,baz=254,slow=36 | | | | | | |
| **WRA** | **Warramunga Arr** | **23.47** | **167** | P | P | 22 03 33.2 | +0.1 |
| | 0.7nm,0.7s,baz=348,slow=9.6,SNR=6.9 | | | | | | |
| **ASAR** | **Alice Springs** | **27.01** | **170** | P | P | 22 04 05.3 | -0.3 |
| | 0.3nm,0.5s,baz=356,slow=8.3,SNR=7.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **59.41** | **324** | P | P | 22 08 27.2 | +1.0 |
| | 0.3nm,0.8s,baz=117,slow=9.9,SNR=4.6 | | | | | | |

*IDC **02** 22:12:14.7±1.3, 7°.44N×93°.47E, h0km, mb3.7/7, mb1 3.9/8, mb1mx3.6/29, mbtmp3.7/8, ML4.0/1, MS3.3/1, Ms1 3.3/1, ms1mx2.5/34, Error ellipse: s-maj=50.9km s-min=20.4km az=58.0*

*ISCJB **02** 22:12:18.8±0.9, 7°.6N±0°.1×93°.7E±0°.2, h35km, mb3.6/8, MS3.3/1, Error ellipse: s-maj=26.9km s-min=16.3km az=152.2*

**ISC 02 22:12:20.6**±1.2**, 7°.5N**±0°.2×**93°.7E**±0°.2**, h35**km**, n13,** σ**1s.18**/9**, mb3.7**/8**, Nicobar Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CMAR** | **Chiang Mai Arr** | **12.04** | **25** | Pn | **Pn** | **22 15 10.3** | **+0.5** |
| | 0.3nm,0.3s,baz=214,slow=14,SNR=5.0 | | | | | | |
| **H08S3** | **Diego Garcia H** | **25.92** | **235** | T | T | 22 44 40.5 | |
| | baz=54,slow=75,SNR=39 | | | | | | |
| **H08S2** | **Diego Garcia H** | **25.92** | **235** | T | T | 22 44 44.2 | |
| | baz=54,slow=75,SNR=42 | | | | | | |
| **H08S1** | **Diego Carcia H** | **25.94** | **235** | T | T | 22 44 41.9 | |
| | baz=54,slow=75,SNR=38 | | | | | | |
| **MKAR** | **Makanchi Array** | **40.35** | **348** | P | **P** | **22 19 53.1** | **-1.8** |
| | 0.2nm,0.5s,baz=174,slow=7.8,SNR=4.4 | | | | | | |
| **SONM** | **Songino Array** | **41.63** | **13** | P | **P** | **22 20 05.1** | **-0.4** |
| | 0.8nm,0.8s,baz=186,slow=8.9,SNR=5.2 | | | | | | |
| **GEYT** | **Alibeck** | **44.17** | **319** | P | **P** | **22 20 28.0** | **+1.9** |
| | 1.1nm,0.7s,baz=118,slow=8.3,SNR=3.1 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **46.87** | **353** | P | **P** | **22 20 47.5** | **+0.4** |
| | 1.0nm,0.3s,baz=177,slow=8.3,SNR=6.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **48.43** | **125** | P | **P** | **22 21 00.3** | **+0.5** |
| | 0.2nm,0.5s,baz=306,slow=7.6,SNR=18 | | | | | | |
| **ASAR** | **Alice Springs** | **50.04** | **129** | P | **P** | **22 21 11.8** | **-0.3** |
| | 0.4nm,0.4s,baz=302,slow=7.7,SNR=6.3 | | | | | | |
| **PMG** | **Port Moresby** | **55.87** | **107** | LR | LR | 22 49 40.3 | |
| | comp=Z,22nm,18.0s,baz=308,slow=40 | | | | | | |
| **FINES** | **FINESS Array B** | **72.82** | **332** | P | **P** | **22 23 44.9** | **-0.6** |
| | 2.4nm,0.8s,baz=134,slow=11,SNR=4.5 | | | | | | |
| **GERES** | **GERESS Array B** | **77.79** | **318** | P | **P** | **22 24 13.9** | **-0.6** |
| | 0.3nm,0.4s,baz=92,slow=4.0,SNR=4.1 | | | | | | |

*ISCJB **02** 22:43:01.9±0.5, 50°.22N±0°.04×19°.16E±0°.03, h0km, Error ellipse: s-maj=5.5km s-min=2.2km az=18.8*

*CSEM **02** 22:43:02.8±0.3, 50°.23N×19°.24E, h2km, ML3.0/7, Error ellipse: s-maj=8.1km s-min=3.5km az=15.0*

*WAR **02** 22:43:04.5, 50°.18N×19°.36E, h1km, Mw2.6*

*PRU **02** 22:43:04.5, 50°.19N×19°.22E, h0km*

**ISC 02 22:43:03.4**±0.8**, 50°.16N**±0°.03×**19°.24E**±0°.02**, h0**km**, n43,** σ**0s.84**/71**, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OJC** | **Ojcow** | **0.36** | **81** | *e*Pg | **Pg** | **22 43 09.9** | **-0.4** |
| OJC | | | | *e*Sg | **Sg** | **22 43 14.3** | **-0.7** |
| **OJC** | **Ojcow** | **0.36** | **81** | *e*Pg | **Pg** | **22 43 09.9** | **-0.4** |
| OJC | | | | *e*Sg | **Sg** | **22 43 14.3** | **-0.7** |
| **OJC** | **Ojcow** | **0.36** | **81** | *e*Pg | **Pg** | **22 43 09.9** | **-0.4** |
| OJC | | | | *e*Sg | **Sg** | **22 43 14.3** | **-0.7** |
| **OKC** | **Ostrava-Krasne** | **0.78** | **246** | *e*PG | **Pb** | **22 43 19.8** | **0.0** |
| OKC | | | | *e*SG | **Sb** | **22 43 31.4** | **+0.4** |
| | comp=Z,31nm,0.3s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **0.78** | **246** | Pg | **Pb** | **22 43 19.8** | **0.0** |
| OKC | | | | Sg | **Sb** | **22 43 31.4** | **+0.4** |
| | 31nm,0.3s | | | | | | |
| **NIE** | **Niedzica** | **1.01** | **137** | *e*Pg | **Pg** | **22 43 23.0** | **+0.2** |
| NIE | | | | *e*Sg | **Sb** | **22 43 37.4** | **-0.3** |
| **NIE** | **Niedzica** | **1.01** | **137** | *e*Pg | **Pg** | **22 43 23.0** | **+0.2** |
| NIE | | | | *e*Sg | **Sb** | **22 43 37.4** | **-0.3** |
| **NIE** | **Niedzica** | **1.01** | **137** | *e*Pg | **Pg** | **22 43 23.0** | **+0.2** |
| NIE | | | | *e*Sg | **Sb** | **22 43 37.4** | **-0.3** |
| **LANS** | **Liptovska Anna** | **1.02** | **172** | *e*Pg | **Pb** | **22 43 23.9** | **-0.2** |
| LANS | | | | *e*Sg | **Sb** | **22 43 38.5** | **+0.4** |
| **LANS** | **Liptovska Anna** | **1.02** | **172** | *e*PG | **Pb** | **22 43 23.9** | **-0.2** |
| LANS | | | | *e*SG | **Sb** | **22 43 38.5** | **+0.4** |
| **MORC** | **Moravsky Berou** | **1.16** | **251** | *e*Pg | **Pb** | **22 43 26.4** | **-0.1** |
| MORC | | | | *e*Sg | **Sb** | **22 43 42.7** | **+0.6** |
| **STHS** | **Stebnicka Huta** | **1.50** | **119** | *e*Pg | **Pg** | **22 43 32.4** | **+0.3** |
| STHS | | | | *e*Sn | **Sn** | **22 43 53.0** | **+1.2** |
| **STHS** | **Stebnicka Huta** | **1.50** | **119** | *e*PG | **Pg** | **22 43 32.4** | **+0.3** |
| STHS | | | | *e*SN | **Sn** | **22 43 53.0** | **+1.2** |
| STHS | | | | *e*LG | Lg | 22 43 54.2 | |
| **KRLC** | **Kraliky** | **1.59** | **268** | *e*PG | **Pn** | **22 43 33.1** | **+0.3** |
| KRLC | | | | *e*SG | **Sn** | **22 43 53.9** | **-0.2** |
| **KRLC** | **Kraliky** | **1.59** | **268** | Pg | **Pn** | **22 43 33.1** | **+0.3** |
| KRLC | | | | Sg | **Sn** | **22 43 53.9** | **-0.2** |
| **VYHS** | **Vyhne** | **1.69** | **189** | *e*Pg | **Pn** | **22 43 34.2** | **0.0** |
| VYHS | | | | *e*Sn | **Sn** | **22 43 56.5** | **-0.1** |
| **VYHS** | **Vyhne** | **1.69** | **189** | *e*PG | **Pn** | **22 43 34.2** | **0.0** |
| VYHS | | | | *e*SN | **Sn** | **22 43 56.5** | **-0.1** |
| VYHS | | | | *e*LG | Lg | 22 43 59.6 | |
| **KECS** | **Kecovo** | **1.87** | **154** | *e*Sn | **Sb** | **22 44 02.9** | **+0.6** |
| **KECS** | **Kecovo** | **1.87** | **154** | *e*SN | **Sb** | **22 44 02.9** | **+0.6** |
| KECS | | | | *e*LG | Lg | 22 44 11.8 | |
| **DPC** | **Dobruska-Polom** | **1.88** | **277** | *e*PG | **Pn** | **22 43 37.3** | **+0.4** |
| DPC | | | | *e*SG | **Sg** | **22 44 03.5** | **-0.4** |
| | comp=Z,24nm,0.4s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.88** | **277** | Pg | **Pn** | **22 43 37.3** | **+0.4** |
| DPC | | | | Sg | **Sg** | **22 44 03.5** | **-0.4** |
| | 24nm,0.4s | | | | | | |
| **CRVS** | **Cervenica-Dubn** | **1.92** | **130** | *e*Sn | **Sg** | **22 44 05.5** | **+0.5** |
| **CRVS** | **Cervenica-Dubn** | **1.92** | **130** | *e*SN | **Sg** | **22 44 05.5** | **+0.5** |
| **VRAC** | **Vranov** | **1.92** | **245** | *e*Pn | **Pb** | **22 43 38.6** | **-0.7** |
| VRAC | | | | *e*Sg | **Sg** | **22 44 05.4** | **+0.3** |
| **KSP** | **Ksiaz** | **2.00** | **291** | *e*Pg | **Pg** | **22 43 42.0** | **+0.2** |
| KSP | | | | *e*Sg | **Sg** | **22 44 08.7** | **+1.0** |
| **KSP** | **Ksiaz** | **2.00** | **291** | *e*Pg | **Pg** | **22 43 42.0** | **+0.2** |
| KSP | | | | *e*Sg | **Sg** | **22 44 08.7** | **+1.0** |
| **KSP** | **Ksiaz** | **2.00** | **291** | *e*Pg | **Pg** | **22 43 42.0** | **+0.2** |
| KSP | | | | *e*Sg | **Sg** | **22 44 08.7** | **+1.0** |
| **UPC** | **Upice** | **2.10** | **281** | *e*PG | **Pb** | **22 43 41.2** | **-1.2** |
| UPC | | | | *e*SG | **Sb** | **22 44 09.1** | **+0.1** |
| | comp=Z,10nm,0.5s | | | | | | |
| **UPC** | **Upice** | **2.10** | **281** | Pg | **Pb** | **22 43 41.2** | **-1.2** |
| UPC | | | | Sg | **Sb** | **22 44 09.1** | **+0.1** |
| | 10nm,0.5s | | | | | | |
| **TREC** | **Trest** | **2.59** | **252** | *e*SG | **Sg** | **22 44 26.0** | **-0.5** |
| **TREC** | **Trest** | **2.59** | **252** | Sg | **Sg** | **22 44 26.0** | **-0.5** |
| **GOPC** | **GO Pecny, Ondr** | **2.88** | **267** | *e*SG | **Sg** | **22 44 34.4** | **-1.6** |
| | comp=Z,9.5nm,0.7s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **2.88** | **267** | Sg | **Sg** | **22 44 34.4** | **-1.6** |
| | 9.5nm,0.7s | | | | | | |
| **PVCC** | **Panska Ves** | **3.02** | **279** | *e*SG | **Sg** | **22 44 39.5** | **-0.8** |
| | comp=Z,20nm,0.5s | | | | | | |
| **PVCC** | **Panska Ves** | **3.02** | **279** | Sg | **Sg** | **22 44 39.5** | **-0.8** |
| | 20nm,0.5s | | | | | | |
| **PRU** | **Pruhonice** | **3.03** | **268** | *e*SG | **Sg** | **22 44 38.5** | **-2.4** |
| | comp=Z,8.7nm,0.4s | | | | | | |
| **PRU** | **Pruhonice** | **3.03** | **268** | Sg | **Sg** | **22 44 38.5** | **-2.4** |
| | 8.7nm,0.4s | | | | | | |
| **BRG** | **Berggiesshubel** | **3.46** | **284** | PG | **Pg** | **22 44 12.7** | **+3.0** |
| BRG | | | | SG | **Sg** | **22 44 54.5** | **+0.1** |
| | 8.0nm,0.6s | | | | | | |
| **KHC** | **Kasperske Hory** | **3.82** | **256** | *e*PN | **Pn** | **22 44 03.5** | **-0.1** |
| KHC | | | | *e*PG | **Pg** | **22 44 15.5** | **-1.2** |
| KHC | | | | *e*SG | **Sg** | **22 45 05.5** | **-0.7** |
| | comp=Z,7.1nm,0.4s | | | | | | |
| **KHC** | **Kasperske Hory** | **3.82** | **256** | Pn | **Pn** | **22 44 03.5** | **-0.1** |
| **CLL** | **Collm** | **4.13** | **289** | *e*Pg | Pg | 22 44 27.0 | +4.5 |
| CLL | | | | *e*Sg | **Sg** | **22 45 17.0** | **+1.1** |
| **NKC** | **Novy Kostel** | **4.37** | **274** | *e*SG | **Sg** | **22 45 22.7** | **-0.9** |
| **NKC** | **Novy Kostel** | **4.37** | **274** | Sg | **Sg** | **22 45 22.7** | **-0.9** |

*IDC **02** 22:55:23.9±1.9, 48°.01N×153°.82E, h0km, mb3.5/2, mb1 3.7/3, mb1mx3.3/42, mbtmp3.4/3, ML2.5/1, Error ellipse: s-maj=54.8km s-min=34.7km az=99.0*

*KRSC **02** 22:55:29.9±1.8, 48°.12N×156°.28E, h16km±22km, ML4.1*

*MOS **02** 22:55:42.7±0.5, 48°.81N×156°.74E, h16km, mb4.3/1, Error ellipse: s-maj=78.3km s-min=7.9km az=82.9*

**ISC 02 22:55:27.6**±1.6**, 47°.9N**±0°.1×**155°.3E**±0°.3**, h27**km**, n31,** σ**2s.09**/33**, East of Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SKR** | **Severo-Kuril's** | **2.82** | **11** | *e*PN | **Pb** | **22 56 15.6** | **-1.6** |
| SKR | | | | *e*S | **Sn** | **22 56 42.2** | **-1.6** |
| SKR | | | | smax | smax | | |
| | comp=E,157nm,0.9s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=N,120nm,0.7s | | | | | | |
| **SKR** | **Severo-Kuril's** | **2.82** | **11** | *e*P | **Pn** | **22 56 11.5** | **+0.7** |
| SKR | | | | *e*S | **Sn** | **22 56 42.5** | **-1.3** |
| **KDTR** | **Khodutka, Kamc** | **4.29** | **24** | *e*P | **Pn** | **22 56 32.3** | **+1.2** |
| KDTR | | | | *e*S | **Sn** | **22 57 19.9** | **-0.4** |
| **ASAK** | **Asacha** | **4.78** | **20** | PN | **Pn** | **22 56 39.7** | **+1.9** |
| **ASAK** | **Asacha** | **4.78** | **20** | *e*P | **Pn** | **22 56 39.7** | **+1.9** |
| **MTVR** | **Mutnovka** | **4.93** | **21** | PN | **Pn** | **22 56 42.5** | **+2.4** |
| MTVR | | | | S | **Sn** | **22 57 36.1** | **-0.2** |
| **MTVR** | **Mutnovka** | **4.93** | **21** | *e*P | **Pn** | **22 56 42.5** | **+2.4** |
| MTVR | | | | *e*S | **Sn** | **22 57 36.1** | **-0.2** |
| **RUS** | **Russkaya** | **4.97** | **24** | PN | **Pn** | **22 56 41.7** | **+1.3** |
| RUS | | | | S | **Sn** | **22 57 36.0** | **-1.0** |
| **RUS** | **Russkaya** | **4.97** | **24** | *e*P | **Pn** | **22 56 41.7** | **+1.3** |
| RUS | | | | *e*S | **Sn** | **22 57 36.0** | **-1.0** |
| **KRMR** | **Karymshinskiy** | **5.24** | **20** | S | **Sn** | **22 57 44.9** | **+1.3** |
| **PETK** | **Petropavlovsk-** | **5.42** | **16** | Pn | **Pn** | **22 56 49.4** | **+2.8** |
| | comp=N,0.6nm,0.3s,baz=181,slow=12,SNR=4.8 | | | | | | |
| **DALK** | **Dalny** | **5.58** | **22** | PN | **Pn** | **22 56 51.0** | **+2.3** |
| DALK | | | | S | **Sn** | **22 57 50.1** | **-1.8** |
| **DALK** | **Dalny** | **5.58** | **22** | *e*P | **Pn** | **22 56 51.0** | **+2.3** |
| DALK | | | | *e*S | **Sn** | **22 57 50.1** | **-1.8** |
| **UGLR** | **Uglovaya** | **5.76** | **22** | PN | **Pn** | **22 56 53.9** | **+2.6** |
| **UGLR** | **Uglovaya** | **5.76** | **22** | *e*P | **Pn** | **22 56 53.9** | **+2.6** |
| **AVH** | **Avacha** | **5.79** | **21** | PN | **Pn** | **22 56 53.5** | **+1.8** |
| **AVH** | **Avacha** | **5.79** | **21** | *e*P | **Pn** | **22 56 53.5** | **+1.8** |
| **SDLR** | **Sedlovina** | **5.83** | **22** | PN | **Pn** | **22 56 54.1** | **+1.7** |
| **SDLR** | **Sedlovina** | **5.83** | **22** | *e*P | **Pn** | **22 56 54.1** | **+1.7** |
| **KRX** | **Arik** | **5.85** | **20** | PN | **Pn** | **22 56 55.7** | **+3.1** |
| **KRX** | **Arik** | **5.85** | **20** | *e*P | **Pn** | **22 56 55.7** | **+3.1** |
| **GNL** | **Ganaly** | **6.02** | **15** | PN | **Pn** | **22 56 58.6** | **+3.7** |
| **GNL** | **Ganaly** | **6.02** | **15** | *e*P | **Pn** | **22 56 58.6** | **+3.7** |
| **H11N2** | **WAKE ISLAND Hy** | **29.68** | **157** | T | T | 23 33 18.9 | |
| | baz=345,slow=76,SNR=8.9 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **29.69** | **157** | T | T | 23 33 10.6 | |
| | baz=345,slow=76,SNR=23 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **29.69** | **157** | T | T | 23 33 15.0 | |
| | baz=345,slow=76,SNR=15 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **30.80** | **158** | T | T | 23 34 36.5 | |
| | baz=344,slow=76,SNR=186 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **30.81** | **158** | T | T | 23 34 36.3 | |
| | baz=344,slow=76,SNR=210 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **30.82** | **158** | T | T | 23 34 37.4 | |
| | baz=344,slow=76,SNR=142 | | | | | | |
| **MKAR** | **Makanchi Array** | **47.69** | **297** | P | P | 23 03 54.8 | -6.8 |
| | comp=N,0.2nm,0.6s,baz=70,slow=11,SNR=3.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **70.12** | **201** | P | **P** | **23 06 36.5** | **-0.9** |
| | comp=N,0.7nm,0.7s,baz=16,slow=6.7,SNR=5.3 | | | | | | |

*IDC **02** 23:05:22.4±1.6, 44°.34N×105°.56W, h0km, mb3.5/1, mb1 3.4/3, mb1mx3.2/44, mbtmp3.3/3, ML2.8/2, Error ellipse: s-maj=57.5km s-min=8.5km az=145.0*

*ISCJB **02** 23:05:24.4±0.6, 44°.44N±0°.04×105°.22W±0°.06, h0km, mb3.6/1, Error ellipse: s-maj=5.9km s-min=5.1km az=166.5*

*NEIC **02** 23:05:26.5±0.7, 44°.32N×105°.23W, h0km, ML2.8, Error ellipse: s-maj=9.9km s-min=8.1km az=180.0, Suspected Mining explosion.*

*NEIC 22 km [14 miles] E of Gillette. ML 2.8 [GS].*

**ISC 02 23:05:24.9**±0.8**, 44°.43N**±0°.04×**105°.24W**±0°.04**, h0**km**, n21,** σ**2s.22**/30**, Wyoming**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RSSD** | **Black Hills** | **0.92** | **109** | *e*Pg | **Pg** | **23 05 44.6** | **+2.1** |
| RSSD | | | | *e*Sg | **Sb** | **23 05 58.6** | **+2.0** |
| **K22A** | **Casper** | **2.01** | **208** | *e*Pn | **Pn** | **23 05 58.2** | **-1.9** |
| K22A | | | | *e*Sn | **Sn** | **23 06 25.7** | **-0.4** |
| **LAO** | **LASA Array** | **2.36** | **343** | *e*Pn | **Pn** | **23 06 03.2** | **-1.7** |
| LAO | | | | *e*Sn | **Sn** | **23 06 32.5** | **-2.2** |
| **RWWY** | **Rawlins** | **3.10** | **208** | *e*Pn | **Pn** | **23 06 14.4** | **-0.8** |
| RWWY | | | | *e*Pg | **Pg** | **23 06 27.3** | **+3.1** |
| RWWY | | | | *e*Sn | **Sn** | **23 06 53.2** | **+0.1** |
| **PHWY** | **Pilot Hill** | **3.13** | **183** | *e*Pn | **Pn** | **23 06 15.1** | **-0.7** |
| PHWY | | | | Pg | **Pg** | **23 06 28.0** | **+3.1** |
| PHWY | | | | *e*Sn | **Sn** | **23 06 54.2** | **+0.3** |
| **PDAR** | **Pinedale Array** | **3.55** | **244** | Pn | **Pn** | **23 06 18.2** | **-3.2** |
| | 0.5nm,0.3s,baz=60,slow=13,SNR=6.2 | | | | | | |
| PDAR | | | | Pg | **Pb** | **23 06 25.4** | **-3.2** |
| | 2.9nm,0.3s,baz=70,slow=17,SNR=18 | | | | | | |
| PDAR | | | | Lg | Lg | 23 07 06.0 | |
| | 4.6nm,0.3s,baz=62,slow=33,SNR=10 | | | | | | |
| **BW06** | **Boulder Array** | **3.55** | **244** | *e*Pn | **Pn** | **23 06 22.2** | **+0.8** |
| BW06 | | | | *e*Sn | **Sn** | **23 07 05.9** | **+1.7** |
| **H17A** | **Grant Village** | **3.82** | **271** | *e*Pn | **Pn** | **23 06 25.4** | **+0.2** |
| H17A | | | | *e*Sn | **Sn** | **23 07 13.1** | **+2.1** |
| **LOHW** | **Long Hollow** | **3.95** | **260** | *e*Pn | **Pn** | **23 06 29.3** | **+2.4** |
| **DGMT** | **Dagmar** | **4.11** | **10** | Pn | **Pn** | **23 06 32.6** | **+3.7** |
| **IMW** | **Indian Meadow** | **4.13** | **265** | *e*Pn | **Pn** | **23 06 31.5** | **+2.0** |
| **REDW** | **Red Top Meadow** | **4.19** | **257** | *e*Pn | **Pn** | **23 06 32.5** | **+2.2** |
| **OGNE** | **Ogallala** | **4.21** | **145** | Pn | **Pn** | **23 06 32.4** | **+2.1** |
| **TPAW** | **Teton Pass** | **4.23** | **259** | *e*Pn | **Pn** | **23 06 33.2** | **+2.5** |
| **AHID** | **Auburn Hatcher** | **4.57** | **251** | *e*Pn | **Pn** | **23 06 36.5** | **+1.0** |
| **ISCO** | **Idaho Springs** | **4.64** | **184** | Pn | **Pn** | **23 06 36.6** | **+0.1** |
| **BOZ** | **Bozeman (W)** | **4.68** | **287** | *e*Pn | **Pn** | **23 06 40.6** | **+3.8** |
| **SMCO** | **Snowmass** | **5.41** | **194** | *e*Pn | **Pn** | **23 06 47.8** | **+0.7** |
| | 2.8nm,0.7s | | | | | | |
| **I10CA** | **LAC DU BONNET** | **8.51** | **44** | *i* | | 00 01 00.0 | |
| | baz=224,slow=297,SNR=1.1 | | | | | | |
| **ULM** | **Lac du Bonnet** | **8.62** | **44** | Pn | **Pn** | **23 07 30.4** | **-0.3** |
| | 0.4nm,0.3s,baz=225,slow=10,SNR=5.4 | | | | | | |
| ULM | | | | Lg | Lg | 23 09 53.7 | |
| | 0.2nm,0.3s,baz=133,slow=19,SNR=2.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **88.92** | **355** | P | **P** | **23 18 18.0** | **-3.0** |
| | 0.3nm,0.8s,baz=16,slow=4.5,SNR=2.1 | | | | | | |

**MEX 02 23:31:09.7**±0.4**, 14°.27N**×**93°.13W, h16**km±45km**, MD3.9, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PCIG** | | **1.43** | **357** | *i* P | Pn | 23 31 31.1 | -3.9 |
| PCIG | | | | *i* S | Sn | 23 31 48.1 | -5.3 |
| **CCIG** | **Comitan** | **2.22** | **26** | *e*P | Pn | 23 31 43.3 | -2.8 |
| CCIG | | | | *e*S | Sn | 23 32 08.4 | -4.8 |

**IDC 02 23:45:16.4**±2.1**, 7°.59N**×**93°.71E, h0**km**, mb3.7**/6**, mb1 3.8**/6**, mb1mx3.6**/27**, mbtmp3.7**/6**, MS3.7**/1**, Ms1 3.7**/1**, ms1mx2.5**/41**, Error ellipse: s-maj=89.0km s-min=21.4km az=60.0, Nicobar Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **H08S3** | **Diego Garcia H** | **26.01** | **235** | T | T | 00 17 39.3 | |
| | baz=54,slow=75,SNR=11 | | | | | | |
| **H08S2** | **Diego Garcia H** | **26.01** | **235** | T | T | 00 17 36.7 | |
| | baz=54,slow=75,SNR=19 | | | | | | |
| **H08S1** | **Diego Carcia H** | **26.02** | **235** | T | T | 00 17 37.2 | |
| | baz=54,slow=75,SNR=12 | | | | | | |
| **MKAR** | **Makanchi Array** | **40.27** | **348** | P | P | 23 52 54.5 | -0.7 |
| | 0.3nm,0.7s,baz=173,slow=6.7,SNR=3.4 | | | | | | |
| **SONM** | **Songino Array** | **41.53** | **13** | P | P | 23 53 05.6 | -0.1 |
| | 0.5nm,0.8s,baz=189,slow=8.2,SNR=2.6 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **46.78** | **353** | P | P | 23 53 47.9 | +0.4 |
| | 0.9nm,0.4s,baz=176,slow=7.3,SNR=6.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **48.45** | **125** | P | P | 23 54 00.8 | -0.2 |
| | 0.2nm,0.3s,baz=318,slow=11,SNR=6.2 | | | | | | |
| **ASAR** | **Alice Springs** | **50.07** | **129** | P | P | 23 54 13.4 | 0.0 |
| | 0.4nm,0.6s,baz=298,slow=7.5,SNR=6.8 | | | | | | |
| **AKTO** | **Aktyubinsk** | **51.99** | **332** | LR | LR | 00 18 01.4 | |
| | comp=Z,85nm,21.1s,slow=38 | | | | | | |
| **FINES** | **FINESS Array B** | **72.76** | **332** | P | P | 23 56 46.5 | +0.1 |
| | 5.7nm,1.1s,baz=110,slow=6.1,SNR=3.9 | | | | | | |

**MEX 02 23:57:51.5**±0.4**, 26°.53N**×**111°.49W, h5**km±301km**, MD3.7, Gulf of California**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SRIG** | **Santa Rosalia** | **1.03** | **319** | *e*P | Pg | 23 58 08.8 | -2.5 |
| SRIG | | | | *i* S | Sg | 23 58 22.0 | -2.7 |
| **GUYB** | **Guaymas** | **1.47** | **22** | *e*P | Pn | 23 58 14.8 | -3.9 |
| GUYB | | | | *i* S | Sn | 23 58 33.6 | -4.6 |

**GUC 03 00:02:57.7**±0.6**, 19°.92S**×**69°.24W, h96**km±3km**, ML3.5, 4C-1D, Northern Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PB08** | **IPOC Station P** | **0.24** | **159** | ⇓*i*P | Pn | 00 03 12.3 | +0.3 |
| PB08 | | | | *i* S | Sn | 00 03 23.9 | +1.1 |
| PB08 | | | | IAML | | 00 03 25.7 | |
| | comp=E,3μm,0.2s | | | | | | |
| **PB11** | **IPOC Station P** | **0.42** | **291** | ⇑*i*P | Pn | 00 03 12.8 | +0.1 |
| PB11 | | | | *e*S | Sn | 00 03 24.5 | +0.6 |
| **MNMC** | **Minye Minye** | **0.85** | **337** | ⇑*i*P | Pn | 00 03 17.0 | +0.4 |
| MNMC | | | | *i* S | Sn | 00 03 31.6 | +1.1 |
| MNMC | | | | IAML | | 00 03 32.0 | |
| | comp=E,3μm,0.4s | | | | | | |
| **PSGC** | **Pisagua** | **0.89** | **291** | ⇑*i*P | Pn | 00 03 16.8 | +0.1 |
| PSGC | | | | *e*S | Sn | 00 03 31.8 | +0.8 |
| PSGC | | | | IAML | | 00 03 32.4 | |
| | comp=E,1μm,0.1s | | | | | | |
| **PB01** | **IPOC Station P** | **1.15** | **191** | ⇑*i*P | Pn | 00 03 20.0 | +0.4 |
| PB01 | | | | *e*S | Sn | 00 03 37.2 | +1.2 |
| PB01 | | | | IAML | | 00 03 38.2 | |
| | comp=E,2μm,0.2s | | | | | | |

*ATA **03** 00:04:17.9±1.2, 38°.73N×43°.24E, h3km±35km, ML4.1, MW4.1*

*ISK **03** 00:04:17.6, 38°.71N×43°.38E, h5km, ML3.2*

*DDA **03** 00:04:18.6, 38°.73N×43°.29E, h7km, Ml3.8*

*TEH **03** 00:04:19.9, 38°.97N×43°.30E, h18km, ML3.1*

*CSEM **03** 00:04:19.3±0.2, 38°.73N×43°.35E, h10km, ML3.2, Error ellipse: s-maj=5.0km s-min=4.8km az=80.0*

*ISCJB **03** 00:04:19.1±0.4, 38°.73N±0°.02×43°.36E±0°.03, h3km±4km, Error ellipse: s-maj=3.4km s-min=3.1km az=3.3*

**ISC 03 00:04:19.2**±0.8**, 38°.73N**±0°.02×**43°.32E**±0°.02**, h12**km±6km**, n71,** σ**1s.16**/98**, 1D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.14** | **158** | PG | **Pg** | **00 04 22.7** | **0.0** |
| VANB | | | | *e*SG | **Sg** | **00 04 26.2** | **+1.0** |
| **VANB** | **Van** | **0.14** | **158** | *i* Pg | **Pg** | **00 04 22.7** | **0.0** |
| VANB | | | | *e*Sg | **Sg** | **00 04 26.2** | **+1.0** |
| **TVAN** | **Van** | **0.21** | **161** | *i* P | **Pg** | **00 04 22.6** | **-1.2** |
| TVAN | | | | *i* S | **Sg** | **00 04 26.9** | **-0.1** |
| **TVAN** | **Van** | **0.21** | **161** | P | **Pg** | **00 04 22.6** | **-1.2** |
| TVAN | | | | S | **Sg** | **00 04 26.9** | **-0.1** |
| **ERCV** | **ERCIS-VAN** | **0.29** | **2** | PG | **Pg** | **00 04 24.6** | **-0.8** |
| ERCV | | | | *e*SG | **Sb** | **00 04 30.4** | **-1.0** |
| **ERCV** | **ERCIS-VAN** | **0.29** | **2** | *i* Pg | **Pg** | **00 04 24.6** | **-0.8** |
| ERCV | | | | *e*Sg | **Sb** | **00 04 30.4** | **-1.0** |
| **VMUR** | **Van-Muradiye** | **0.33** | **36** | *i* P | **Pg** | **00 04 25.5** | **-0.4** |
| VMUR | | | | *i* S | **Sb** | **00 04 31.9** | **-0.5** |
| **VMUR** | **Van-Muradiye** | **0.33** | **36** | P | **Pg** | **00 04 25.5** | **-0.4** |
| VMUR | | | | S | **Sb** | **00 04 31.9** | **-0.5** |
| **GEVA** | **Gevas** | **0.46** | **207** | *e*P | **Pg** | **00 04 26.7** | **-1.6** |
| GEVA | | | | *e*S | **Sg** | **00 04 34.0** | **-0.6** |
| **GEVA** | **Gevas** | **0.46** | **207** | *i* P | **Pg** | **00 04 27.0** | **-1.4** |
| GEVA | | | | *i* S | **Sb** | **00 04 35.2** | **-1.0** |
| **GEVA** | **Gevas** | **0.46** | **207** | P | **Pg** | **00 04 27.0** | **-1.4** |
| GEVA | | | | S | **Sb** | **00 04 35.2** | **-1.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.47** | **280** | *i* P | **Pg** | **00 04 28.1** | **-0.5** |
| ADCV | | | | *i* S | **Sb** | **00 04 36.1** | **-0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.47** | **280** | P | **Pg** | **00 04 28.1** | **-0.5** |
| ADCV | | | | S | **Sb** | **00 04 36.1** | **-0.5** |
| **CLDR** | **Caldiran** | **0.62** | **48** | *e*PG | **Pg** | **00 04 30.6** | **-0.8** |
| CLDR | | | | *e*SG | **Sg** | **00 04 40.0** | **+0.3** |
| **CLDR** | **Caldiran** | **0.62** | **48** | *e*Pg | **Pg** | **00 04 30.6** | **-0.8** |
| CLDR | | | | *e*Sg | **Sg** | **00 04 40.0** | **+0.3** |
| **TUTA** | **Tutak** | **0.78** | **330** | ⇓*i*P | **Pg** | **00 04 33.2** | **-1.1** |
| TUTA | | | | IAML | | 00 04 34.9 | |
| | comp=Z,916nm,0.2s | | | | | | |
| TUTA | | | | *e*S | **Sb** | **00 04 44.6** | **-1.0** |
| **TUTA** | **Tutak** | **0.78** | **330** | *i* P | **Pg** | **00 04 33.3** | **-1.1** |
| TUTA | | | | *i* S | **Sg** | **00 04 44.4** | **-0.3** |
| **TUTA** | **Tutak** | **0.78** | **330** | P | **Pg** | **00 04 33.3** | **-1.1** |
| TUTA | | | | S | **Sg** | **00 04 44.4** | **-0.3** |
| **BASK** | **Baskale_VAN** | **0.86** | **141** | *e*P | **Pb** | **00 04 36.7** | **+0.6** |
| BASK | | | | IAML | | 00 04 54.5 | |
| | comp=Z,371nm,0.5s | | | | | | |
| **DYDN** | **Diyadin** | **0.86** | **19** | *e*P | **Pg** | **00 04 34.7** | **-1.2** |
| DYDN | | | | IAML | | 00 04 48.5 | |
| | comp=Z,126nm,0.4s | | | | | | |
| **AGRB** | **Hanur-Agry** | **0.89** | **343** | *e*PG | **Pg** | **00 04 35.6** | **-0.8** |
| **AGRB** | **Hanur-Agry** | **0.89** | **343** | *e*Pg | **Pg** | **00 04 35.6** | **-0.8** |
| **EKAR** | **Karacoban** | **1.11** | **299** | *i* P | **Pg** | **00 04 39.8** | **-0.9** |
| **EKAR** | **Karacoban** | **1.11** | **299** | P | **Pg** | **00 04 39.8** | **-0.9** |
| **HAKT** | **HAKKARI** | **1.21** | **165** | *i* P | **Pg** | **00 04 39.6** | **-2.8** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **HAKT** | **HAKKARI** | **1.21** | **165** | P | **Pg** | **00 04 39.6** | **-2.8** |
| **EATA** | **Eleskirt** | **1.30** | **331** | *e*P | **Pn** | **00 04 42.7** | **-0.8** |
| EATA | | | | IAML | | 00 04 45.2 | |
| | comp=Z,59nm,0.5s | | | | | | |
| **EATA** | **Eleskirt** | **1.30** | **331** | *i* P | **Pn** | **00 04 42.9** | **-0.6** |
| EATA | | | | *i* S | **Sn** | **00 05 02.4** | **+1.4** |
| **EATA** | **Eleskirt** | **1.30** | **331** | P | **Pn** | **00 04 42.9** | **-0.6** |
| EATA | | | | S | **Sn** | **00 05 02.4** | **+1.4** |
| **SRTM** | **Siirt_Merkez** | **1.32** | **237** | *i* P | **Pg** | **00 04 43.9** | **-0.8** |
| SRTM | | | | *i* S | **Sn** | **00 05 03.4** | **+2.3** |
| **SRTM** | **Siirt_Merkez** | **1.32** | **237** | P | **Pg** | **00 04 43.8** | **-0.8** |
| SRTM | | | | S | **Sn** | **00 05 03.4** | **+2.3** |
| **SIRT** | **Sirnak** | **1.41** | **210** | *e*PN | **Pg** | **00 04 45.5** | **-0.7** |
| **SIRT** | **Sirnak** | **1.41** | **210** | *e*Pn | **Pg** | **00 04 45.6** | **-0.7** |
| **TASB** | **TASBURUN-IGDIR** | **1.44** | **29** | *e*PN | **Pb** | **00 04 45.8** | **-0.3** |
| **TASB** | **TASBURUN-IGDIR** | **1.44** | **29** | *e*Pn | **Pb** | **00 04 45.8** | **-0.3** |
| **CUKT** | **Cukurca** | **1.49** | **171** | *e*PN | **Pn** | **00 04 46.3** | **+0.4** |
| **CUKT** | **Cukurca** | **1.49** | **171** | *e*Pn | **Pn** | **00 04 46.3** | **+0.4** |
| **VRTB** | **Varto-Mus** | **1.52** | **287** | *e*PN | **Pg** | **00 04 47.3** | **-1.1** |
| **VRTB** | **Varto-Mus** | **1.52** | **287** | *i* P | **Pn** | **00 04 46.3** | **0.0** |
| VRTB | | | | *i* S | **Sg** | **00 05 10.2** | **+2.1** |
| **VRTB** | **Varto-Mus** | **1.52** | **287** | P | **Pn** | **00 04 46.3** | **0.0** |
| **VRTB** | **Varto-Mus** | **1.52** | **287** | *e*Pn | **Pg** | **00 04 47.3** | **-1.1** |
| VRTB | | | | S | **Sg** | **00 05 10.2** | **+2.1** |
| **DIGO** | **Kars** | **1.69** | **1** | *e*P | **Pb** | **00 04 50.4** | **+0.1** |
| **BNGL** | **BINGOL** | **1.71** | **278** | *e*P | **Pb** | **00 04 50.4** | **-0.3** |
| BNGL | | | | *e*S | **Sg** | **00 05 14.4** | **+0.1** |
| BNGL | | | | IAML | | 00 05 17.3 | |
| | comp=Z,360nm,0.4s | | | | | | |
| **HOMI** | **Horasan** | **1.71** | **321** | *e*P | **Pb** | **00 04 50.2** | **-0.6** |
| HOMI | | | | IAML | | 00 04 54.8 | |
| | comp=Z,76nm,0.6s | | | | | | |
| **SVAN** | **Silvan-Diyarba** | **1.76** | **252** | *e*PN | **Pb** | **00 04 51.3** | **-0.2** |
| **SVAN** | **Silvan-Diyarba** | **1.76** | **252** | *e*Pn | **Pb** | **00 04 51.3** | **-0.2** |
| **ISHB** | **Shabestar** | **1.85** | **103** | *e*Pn | **Pn** | **00 04 51.8** | **+0.8** |
| ISHB | | | | *e*AMB | AMB | 00 04 56.5 | |
| | comp=Z,3μm,0.3s | | | | | | |
| **IMRD** | **Marand** | **1.86** | **90** | *e*Pn | **Pn** | **00 04 51.4** | **+0.4** |
| IMRD | | | | *e*Sg | **Sg** | **00 05 19.3** | **+0.2** |
| IMRD | | | | *e*AMB | AMB | 00 05 24.0 | |
| | comp=Z,3μm,0.2s | | | | | | |
| **IMRD** | **Marand** | **1.86** | **90** | *e*Pn | **Pn** | **00 04 51.4** | **+0.4** |
| IMRD | | | | *e*Sg | **Sg** | **00 05 19.3** | **+0.2** |
| **KARS** | **Kars** | **1.91** | **354** | *e*PN | **Pb** | **00 04 53.0** | **-1.0** |
| **KARS** | **Kars** | **1.91** | **354** | *e*Pn | **Pb** | **00 04 53.0** | **-1.0** |
| **ERZM** | **Erzurum** | **1.92** | **308** | *e*P | **Pb** | **00 04 54.4** | **+0.1** |
| **SENK** | **Senkaya-Erzuru** | **1.98** | **338** | *e*PN | **Pb** | **00 04 54.4** | **-0.9** |
| **SENK** | **Senkaya-Erzuru** | **1.98** | **338** | *e*Pn | **Pb** | **00 04 54.4** | **-0.9** |
| **ECAT** | **Cat-ERZURUM** | **2.03** | **296** | *e*P | **Pb** | **00 04 55.5** | **-0.6** |
| ECAT | | | | IAML | | 00 05 03.4 | |
| | comp=Z,46nm,0.4s | | | | | | |
| **ECAT** | **Cat-ERZURUM** | **2.03** | **296** | *i* P | **Pb** | **00 04 54.7** | **-1.3** |
| **ECAT** | **Cat-ERZURUM** | **2.03** | **296** | P | **Pb** | **00 04 54.7** | **-1.3** |
| **BNGB** | **Bingˆ¶l** | **2.08** | **278** | *e*PN | **Pb** | **00 04 55.7** | **-1.2** |
| **BINT** | **Bingol** | **2.22** | **275** | *e*Pn | **Pn** | **00 04 55.7** | **-0.2** |
| **ITBZ** | **Tabriz** | **2.27** | **102** | *e*Pn | **Pn** | **00 04 57.6** | **+0.9** |
| ITBZ | | | | *e*AMB | AMB | 00 05 04.8 | |
| | comp=Z,356nm,0.1s | | | | | | |
| **ITBZ** | **Tabriz** | **2.27** | **102** | *e*Pn | **Pn** | **00 04 57.6** | **+0.9** |
| **YEDI** | **Yedisu-Bingol** | **2.28** | **289** | *e*PN | **Pb** | **00 04 58.6** | **-1.7** |
| **YEDI** | **Yedisu-Bingol** | **2.28** | **289** | *e*Pn | **Pb** | **00 04 58.6** | **-1.7** |
| **DIY** | **Diyarbakir** | **2.57** | **252** | *e*Pn | **Pb** | **00 05 03.9** | **-1.4** |
| **DYBB** | **Diyarbakir** | **2.62** | **254** | *e*PN | **Pb** | **00 05 03.9** | **-2.2** |
| **IHRS** | **Heris** | **2.95** | **97** | *e*AMB | AMB | 00 05 14.2 | |
| | comp=Z,458nm,0.3s | | | | | | |
| IHRS | | | | *e*Pn | **Pn** | **00 05 06.9** | **+0.9** |
| **IBST** | **Bostanabad** | **2.99** | **109** | *e*AMB | AMB | 00 05 16.1 | |
| | comp=Z,234nm,0.2s | | | | | | |
| IBST | | | | *e*Pn | **Pn** | **00 05 08.2** | **+1.6** |
| **PTK** | **Pertek** | **3.08** | **274** | *e*PN | **Pn** | **00 05 10.0** | **+2.3** |
| **PTK** | **Pertek** | **3.08** | **274** | *e*Pn | **Pn** | **00 05 10.0** | **+2.3** |
| **SVRC** | **Sivrice-ELAZID** | **3.17** | **265** | *e*PN | **Pn** | **00 05 11.6** | **+2.6** |
| **SVRC** | **Sivrice-ELAZID** | **3.17** | **265** | *e*Pn | **Pn** | **00 05 11.6** | **+2.6** |

*ISCJB* ***03*** *00:19:16.0±0.5, 39.27N±0.02×25.81E±0.04, h0km±5km, Error ellipse: s-maj=5.4km s-min=3.4km az=174.5*
*ISK* ***03*** *00:19:15.9, 39.27N×25.87E, h6km, MD2.8*
*CSEM* ***03*** *00:19:16.2±0.1, 39.25N×25.83E, h8km, MD2.8, Error ellipse: s-maj=3.3km s-min=2.1km az=90.0*
*ATH* ***03*** *00:19:16.4, 39.26N×25.81E, h9km±3km, ML1.6/5, Error ellipse: s-maj=3.1km s-min=0.9km az=8.0*
**ISC 03 00:19:16.2**±0.8**, 39.26N**±0.02×**25.82E**±0.03**, h8**km±5km**, n38, σ0.47**/55**, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SIGR** | **SIGRI** | **0.05** | **153** | *e*PG | **Pg** | **00 19 17.9** | **0.0** |
| SIGR | | | | *e*SG | **Sg** | **00 19 19.0** | **-0.1** |
| **SIGR** | **SIGRI** | **0.05** | **153** | *e*Pg | **Pg** | **00 19 17.9** | **0.0** |
| SIGR | | | | *e*Sg | **Sg** | **00 19 19.0** | **-0.1** |
| **PRK** | **Paraskevi** | **0.35** | **92** | P | **Pg** | **00 19 23.3** | **+0.3** |
| PRK | | | | AML | AML | 00 19 29.3 | |
| | comp=E,470μm,0.6s | | | | | | |
| PRK | | | | S | **Sb** | **00 19 29.4** | **-0.8** |
| PRK | | | | AML | AML | 00 19 29.5 | |
| | comp=N,298μm,0.5s | | | | | | |
| **PRK** | **Paraskevi** | **0.35** | **92** | P | **Pg** | **00 19 23.3** | **+0.3** |
| PRK | | | | S | **Sb** | **00 19 29.5** | **-0.8** |
| **BOZC** | **Bozcaada** | **0.61** | **17** | *e*PG | **Pg** | **00 19 27.9** | **0.0** |
| BOZC | | | | *e*SG | **Sg** | **00 19 36.6** | **+0.7** |
| **BOZC** | **Bozcaada** | **0.61** | **17** | *e*Pg | **Pg** | **00 19 27.9** | **0.0** |
| BOZC | | | | *e*Sg | **Sg** | **00 19 36.6** | **+0.7** |
| **EZN** | **Ezine** | **0.69** | **34** | *e*PG | **Pg** | **00 19 29.2** | **-0.2** |
| EZN | | | | *e*SG | **Sg** | **00 19 38.7** | **+0.4** |
| **EZN** | **Ezine** | **0.69** | **34** | *e*Pg | **Pg** | **00 19 29.2** | **-0.2** |
| EZN | | | | *e*Sg | **Sg** | **00 19 38.7** | **+0.4** |
| **LIA** | **Limnos Island** | **0.81** | **322** | P | **Pb** | **00 19 32.8** | **+0.4** |
| LIA | | | | S | **Sb** | **00 19 43.0** | **-0.5** |
| LIA | | | | AML | AML | 00 19 45.2 | |
| | comp=E,46μm,0.6s | | | | | | |
| LIA | | | | AML | AML | 00 19 47.8 | |
| | comp=N,41μm,0.5s | | | | | | |
| **DKL** | **Dikili** | **0.86** | **102** | *e*PG | **Pg** | **00 19 32.4** | **-0.3** |
| **DKL** | **Dikili** | **0.86** | **102** | *e*Pg | **Pg** | **00 19 32.4** | **-0.3** |
| **CHOS** | **Chios island** | **0.89** | **168** | *e*PG | **Pb** | **00 19 33.8** | **-0.1** |
| **CHOS** | **Chios island** | **0.89** | **168** | P | **Pg** | **00 19 32.9** | **-0.4** |
| CHOS | | | | S | **Sg** | **00 19 45.4** | **+0.5** |
| CHOS | | | | AML | AML | 00 19 48.6 | |
| | comp=N,156μm,0.3s | | | | | | |
| CHOS | | | | AML | AML | 00 19 49.1 | |
| | comp=E,359μm,0.3s | | | | | | |
| **CHOS** | **Chios island** | **0.89** | **168** | P | **Pg** | **00 19 32.9** | **-0.4** |
| **CHOS** | **Chios island** | **0.89** | **168** | *e*Pg | **Pb** | **00 19 33.8** | **-0.1** |
| CHOS | | | | S | **Sg** | **00 19 45.3** | **+0.5** |
| **GADA** | **Gvkgeada** | **0.93** | **4** | *e*PG | **Pg** | **00 19 33.9** | **-0.1** |
| **GADA** | **Gvkgeada** | **0.93** | **4** | *e*Pg | **Pg** | **00 19 33.9** | **-0.1** |
| **SKY** | **Skiros Island** | **1.06** | **249** | P | **Pg** | **00 19 36.0** | **-0.5** |
| SKY | | | | S | **Sb** | **00 19 51.4** | **+0.5** |
| SKY | | | | AML | AML | 00 19 52.2 | |
| | comp=E,161μm,0.3s | | | | | | |
| SKY | | | | AML | AML | 00 19 53.0 | |
| | comp=N,111μm,0.2s | | | | | | |
| **SKY** | **Skiros Island** | **1.06** | **249** | P | **Pg** | **00 19 36.0** | **-0.5** |
| SKY | | | | S | **Sb** | **00 19 51.3** | **+0.5** |
| **URLA** | **Izmir** | **1.08** | **146** | *e*PG | **Pg** | **00 19 36.5** | **-0.4** |
| **URLA** | **Izmir** | **1.08** | **146** | *e*Pg | **Pg** | **00 19 36.5** | **-0.4** |
| **SMTH** | **Samothraki Isl** | **1.23** | **350** | P | **Pb** | **00 19 38.5** | **-1.2** |
| SMTH | | | | S | **Sn** | **00 19 57.1** | **+0.6** |
| SMTH | | | | AML | AML | 00 20 00.6 | |
| | comp=E,12μm,0.5s | | | | | | |
| SMTH | | | | AML | AML | 00 20 01.1 | |
| | comp=N,21μm,0.3s | | | | | | |
| **GELI** | **Tayfur-Gelibol** | **1.24** | **24** | *e*PN | **Pn** | **00 19 39.3** | **-0.5** |
| **GELI** | **Tayfur-Gelibol** | **1.24** | **24** | *e*Pn | **Pn** | **00 19 39.3** | **-0.5** |
| **LPK** | **Lapseki** | **1.32** | **33** | *e*PN | **Pn** | **00 19 41.1** | **+0.1** |
| **LPK** | **Lapseki** | **1.32** | **33** | *e*Pn | **Pn** | **00 19 41.1** | **+0.1** |
| **ENEZ** | **Enez** | **1.50** | **10** | *e*PN | **Pb** | **00 19 43.9** | **-0.3** |
| **ENEZ** | **Enez** | **1.50** | **10** | *e*Pn | **Pb** | **00 19 43.9** | **-0.3** |
| **ERIK** | **Erikli-Kesan** | **1.51** | **20** | *e*PN | **Pn** | **00 19 43.8** | **+0.3** |
| **ERIK** | **Erikli-Kesan** | **1.51** | **20** | *e*Pn | **Pn** | **00 19 43.8** | **+0.3** |
| **KRBG** | **Karabiga-Canak** | **1.60** | **45** | *e*PN | **Pn** | **00 19 45.1** | **+0.3** |
| **KRBG** | **Karabiga-Canak** | **1.60** | **45** | *e*Pn | **Pn** | **00 19 45.1** | **+0.3** |
| **ALN** | **Alexandroupoli** | **1.64** | **6** | *e*PN | **Pb** | **00 19 46.1** | **-0.6** |
| **ALN** | **Alexandroupoli** | **1.64** | **6** | P | **Pb** | **00 19 47.1** | **+0.4** |
| ALN | | | | S | **Sg** | **00 20 08.9** | **-0.1** |
| **ALN** | **Alexandroupoli** | **1.64** | **6** | *e*Pn | **Pb** | **00 19 46.1** | **-0.6** |
| ALN | | | | S | **Sg** | **00 20 08.9** | **-0.1** |
| **SMG** | **Samos** | **1.74** | **153** | P | **Pg** | **00 19 49.1** | **-0.4** |
| SMG | | | | S | **Sg** | **00 20 13.1** | **+1.0** |
| **RKY** | **Sarkoy-Tekirda** | **1.77** | **36** | *e*PN | **Pn** | **00 19 47.5** | **+0.4** |
| **RKY** | **Sarkoy-Tekirda** | **1.77** | **36** | *e*Pn | **Pn** | **00 19 47.5** | **+0.4** |

**WEL 03 00:31:11.4**±0.3**, 40.46S**×**173.41E, h152**km±2km**, ML3.6**/22**, 9C-5D, Error ellipse: s-maj=1.5km s-min=0.8km az=90.0, Cook Strait**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DUWZ** | **D'Urville Isla** | **0.52** | **131** | ⇑PN | Pn | 00 31 33.0 | -0.1 |
| DUWZ | | | | SN | Sn | 00 31 48.8 | -0.9 |
| **NNZ** | **Nelson** | **0.76** | **182** | ⇑PN | Pn | 00 31 34.3 | -0.2 |
| NNZ | | | | SN | Sn | 00 31 50.8 | -1.4 |
| **QRZ** | **Quartz Range** | **0.76** | **241** | ⇑PN | Pn | 00 31 34.3 | -0.2 |
| QRZ | | | | SN | Sn | 00 31 50.6 | -1.6 |
| **TCW** | **Tory Channel** | **1.00** | **139** | PN | Pn | 00 31 36.5 | +0.2 |
| TCW | | | | AML | AML | 00 31 37.2 | |
| TCW | | | | AML | AML | 00 31 55.9 | |
| **TUWZ** | **Tuamarina** | **1.05** | **157** | PN | Pn | 00 31 36.7 | 0.0 |
| TUWZ | | | | AML | AML | 00 31 37.9 | |
| TUWZ | | | | AML | AML | 00 31 56.3 | |
| **NMEZ** | **Namu Road** | **1.11** | **19** | PN | Pn | 00 31 37.3 | 0.0 |
| **KIW** | **Kapiti Island** | **1.21** | **110** | PN | Pn | 00 31 38.1 | -0.1 |
| KIW | | | | AML | AML | 00 31 56.7 | |
| KIW | | | | AML | AML | 00 31 57.4 | |
| **KHEZ** | **Kahui Hut** | **1.25** | **22** | PN | Pn | 00 31 38.7 | -0.1 |
| **BSWZ** | **Blackbirch Sta** | **1.30** | **164** | PN | Pn | 00 31 39.4 | +0.3 |
| **NEZ** | **North Egmont** | **1.30** | **24** | ⇓PN | Pn | 00 31 38.8 | -0.5 |
| **WEL** | **Wellington** | **1.32** | **129** | PN | Pn | 00 31 39.3 | +0.1 |
| WEL | | | | AML | AML | 00 32 00.9 | |
| WEL | | | | AML | AML | 00 32 01.3 | |
| WEL | | | | AML | AML | 00 32 01.3 | |
| **PKE** | **Pukeiti** | **1.34** | **20** | PN | Pn | 00 31 39.4 | -0.1 |
| **THZ** | **Tophouse** | **1.35** | **196** | PN | Pn | 00 31 39.6 | -0.1 |
| **OGWZ** | **Otaki Gorge** | **1.39** | **105** | PN | Pn | 00 31 39.9 | 0.0 |
| OGWZ | | | | AML | AML | 00 32 02.4 | |
| OGWZ | | | | AML | AML | 00 32 02.4 | |
| **WAZ** | **Wanganui** | **1.40** | **60** | PN | Pn | 00 31 40.3 | +0.2 |
| **CAW** | **Cannon Point** | **1.42** | **118** | PN | Pn | 00 31 40.1 | -0.1 |
| CAW | | | | AML | AML | 00 32 02.7 | |
| CAW | | | | AML | AML | 00 32 04.0 | |
| **BHW** | **Baring Head** | **1.46** | **131** | PN | Pn | 00 31 40.5 | -0.1 |
| BHW | | | | AML | AML | 00 32 03.1 | |
| BHW | | | | AML | AML | 00 32 03.2 | |
| **OHWZ** | **Ohakea** | **1.48** | **81** | PN | Pn | 00 31 41.2 | +0.4 |
| **HOWZ** | **Holdsworth Sta** | **1.66** | **106** | ⇑PN | Pn | 00 31 42.5 | -0.3 |
| HOWZ | | | | AML | AML | 00 32 06.9 | |
| HOWZ | | | | AML | AML | 00 32 07.5 | |
| **MRZ** | **Mangatainoka R** | **1.67** | **98** | PN | Pn | 00 31 42.7 | -0.2 |
| MRZ | | | | AML | AML | 00 32 07.0 | |
| MRZ | | | | AML | AML | 00 32 07.2 | |
| **MSWZ** | **Moikau Station** | **1.69** | **125** | ⇑PN | Pn | 00 31 42.9 | -0.2 |
| MSWZ | | | | AML | AML | 00 32 07.2 | |
| MSWZ | | | | AML | AML | 00 32 07.4 | |
| **VRZ** | **Vera Road** | **1.69** | **38** | ⇓PN | Pn | 00 31 42.4 | -0.8 |
| **MTW** | **Mount Morrison** | **1.73** | **114** | PN | Pn | 00 31 43.4 | -0.2 |
| MTW | | | | AML | AML | 00 32 06.6 | |
| MTW | | | | AML | AML | 00 32 08.2 | |
| **DSZ** | **Denniston Nort** | **1.77** | **223** | PN | Pn | 00 31 43.7 | -0.2 |
| **PLWZ** | **Palliser** | **1.78** | **129** | ⇑PN | Pn | 00 31 43.9 | -0.3 |
| PLWZ | | | | AML | AML | 00 32 07.7 | |
| PLWZ | | | | AML | AML | 00 32 08.3 | |
| **PAWZ** | **Paruwai Farm** | **1.79** | **122** | ⇑PN | Pn | 00 31 43.9 | -0.3 |
| PAWZ | | | | AML | AML | 00 32 09.0 | |
| PAWZ | | | | AML | AML | 00 32 09.2 | |
| **POWZ** | **Post Office Ro** | **1.80** | **89** | PN | Pn | 00 31 43.9 | -0.4 |
| **TIWZ** | **Tintock** | **1.91** | **100** | PN | Pn | 00 31 45.3 | -0.3 |
| TIWZ | | | | AML | AML | 00 32 10.9 | |
| TIWZ | | | | AML | AML | 00 32 11.0 | |
| **KHZ** | **Kahutara** | **1.96** | **177** | ⇑PN | Pn | 00 31 45.9 | -0.1 |
| **PRWZ** | **Pori Road** | **1.96** | **94** | PN | Pn | 00 31 46.0 | -0.1 |
| PRWZ | | | | AML | AML | 00 32 12.5 | |
| PRWZ | | | | AML | AML | 00 32 12.9 | |
| **TRWZ** | **Traveller** | **1.96** | **119** | PN | Pn | 00 31 46.1 | -0.1 |
| TRWZ | | | | AML | AML | 00 32 11.4 | |
| **TMWZ** | **Te Maipa** | **1.99** | **110** | PN | Pn | 00 31 46.3 | -0.3 |
| TMWZ | | | | AML | AML | 00 32 11.9 | |
| TMWZ | | | | AML | AML | 00 32 12.8 | |
| **TSZ** | **Takapari Road** | **2.00** | **79** | PN | Pn | 00 31 45.6 | -1.0 |
| TSZ | | | | AML | AML | 00 32 51.6 | |
| **TRVZ** | **Turoa** | **2.01** | **56** | PN | Pn | 00 31 46.2 | -0.8 |
| **WNVZ** | **Wahianoa** | **2.03** | **57** | PN | Pn | 00 31 46.2 | -0.9 |
| **FWVZ** | **Far West T-bar** | **2.04** | **55** | PN | Pn | 00 31 46.2 | -1.2 |
| **TWVZ** | **Taurewa** | **2.09** | **49** | PN | Pn | 00 31 46.7 | -1.1 |
| **DVHZ** | **Dannevirke** | **2.11** | **87** | PN | Pn | 00 31 47.1 | -0.8 |
| DVHZ | | | | AML | AML | 00 32 13.8 | |
| DVHZ | | | | AML | AML | 00 32 16.2 | |
| **NGZ** | **Ngauruhoe** | **2.12** | **53** | PN | Pn | 00 31 47.5 | -0.7 |
| **OTVZ** | **Oturere** | **2.17** | **54** | PN | Pn | 00 31 47.7 | -1.1 |
| **BFZ** | **Birch Farm** | **2.17** | **97** | PN | Pn | 00 31 48.1 | -0.5 |
| BFZ | | | | SN | Sn | 00 32 13.8 | -3.5 |
| BFZ | | | | AML | AML | 00 32 16.3 | |
| BFZ | | | | AML | AML | 00 32 16.4 | |
| BFZ | | | | AML | AML | 00 32 16.9 | |
| **PNHZ** | **Pukenui** | **2.21** | **77** | PN | Pn | 00 31 48.2 | -0.9 |
| **HIZ** | **Hauiti** | **2.25** | **30** | ⇓PN | Pn | 00 31 48.5 | -1.0 |
| **BHHZ** | **Black Hill Sta** | **2.26** | **65** | PN | Pn | 00 31 48.4 | -1.4 |
| **ANWZ** | **Angora Road** | **2.34** | **91** | PN | Pn | 00 31 50.1 | -0.5 |
| ANWZ | | | | AML | AML | 00 32 18.3 | |
| ANWZ | | | | AML | AML | 00 32 20.1 | |
| **WPHZ** | **Waipukurau** | **2.35** | **81** | ⇑PN | Pn | 00 31 50.2 | -0.6 |
| **KRHZ** | **Kereru** | **2.42** | **71** | PN | Pn | 00 31 50.4 | -1.2 |
| KRHZ | | | | AML | AML | 00 32 24.1 | |
| **LTZ** | **Lake Taylor** | **2.47** | **200** | PN | Pn | 00 31 50.5 | -1.7 |
| **PRHZ** | **Porangahau** | **2.47** | **87** | ⇓PN | Pn | 00 31 51.8 | -0.5 |
| **KWHZ** | **Kaweka Forest** | **2.54** | **67** | PN | Pn | 00 31 52.0 | -1.1 |
| **INZ** | **Inchbonnie** | **2.70** | **212** | ⇓PN | Pn | 00 31 54.1 | -0.9 |
| **BKZ** | **Black Stump Fm** | **2.71** | **62** | PN | Pn | 00 31 53.5 | -1.7 |
| **MCHZ** | **McNeill Hill** | **2.72** | **69** | PN | Pn | 00 31 54.5 | -0.8 |
| **KAHZ** | **Kahuranaki** | **2.74** | **77** | PN | Pn | 00 31 54.7 | -0.9 |
| **ARHZ** | **Aropaoanui** | **3.01** | **68** | PN | Pn | 00 31 57.5 | -1.5 |
| **OXZ** | **Oxford** | **3.04** | **199** | PN | Pn | 00 31 57.6 | -1.7 |
| **KNZ** | **Kokohu** | **3.59** | **68** | PN | Pn | 00 32 04.0 | -2.3 |
| **URZ** | **Urewera** | **3.62** | **54** | PN | Pn | 00 32 03.5 | -3.2 |
| **RIGZ** | **Rimuhau** | **3.79** | **64** | PN | Pn | 00 32 06.8 | -2.2 |
| **MWZ** | **Matawai** | **3.83** | **58** | PN | Pn | 00 32 06.8 | -2.7 |
| **FOZ** | **Fox Glacier** | **4.07** | **220** | PN | Pn | 00 32 10.8 | -1.8 |
| **RUGZ** | **Raukumara Rang** | **4.15** | **54** | PN | Pn | 00 32 10.3 | -3.4 |

*ISCJB* ***03*** *00:32:24.2±0.3, 45.63N±0.02×26.41E±0.03, h150km±2km, mb3.3/5, Error ellipse: s-maj=3.4km s-min=2.6km az=145.7*
*SIGU* ***03*** *00:32:24.1, 45.64N×26.42E, h153km, mb3.5*
*CSEM* ***03*** *00:32:24.9±0.2, 45.60N×26.39E, h149km±2km, MD4.2, Error ellipse: s-maj=3.5km s-min=3.1km az=11.0*
*BUC* ***03*** *00:32:24.9±0.6, 45.63N×26.41E, h155km±6km, MD4.2/7, Error ellipse: s-maj=4.4km s-min=3.7km az=12.0*
*IDC* ***03*** *00:32:25.5±0.6, 45.54N×26.36E, h144km±5km, mb3.1/5, mb1 3.0/8, mb1mx2.8/33, mbtmp3.4/8, Error ellipse: s-maj=27.0km s-min=15.8km az=142.0*
**ISC 03 00:32:25.4**±0.8**, 45.62N**±0.02×**26.41E**±0.03**, h152**km±4km**, n157, σ0.95**/226**, mb3.4**/5**, 76C-36D, Romania**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PLOR** | **Plostina** | **0.29** | **36** | ⇑*i*P | **Pn** | **00 32 45.6** | **-0.6** |
| **PLOR** | **Plostina** | **0.29** | **36** | ⇑*i*P | **Pn** | **00 32 45.6** | **-0.6** |
| PLOR | | | | *i* S | **Sn** | **00 33 01.0** | **-1.1** |
| **PLOR** | **Plostina** | **0.29** | **36** | ⇑*i*P | **Pn** | **00 32 45.6** | **-0.6** |
| PLOR | | | | *i* S | **Sn** | **00 33 01.0** | **-1.1** |
| **VRI** | **Vrincioaia** | **0.33** | **42** | ⇑*i*P | **Pn** | **00 32 45.9** | **-0.4** |
| **VRI** | **Vrincioaia** | **0.33** | **42** | ⇑*i*P | **Pn** | **00 32 45.9** | **-0.4** |
| VRI | | | | *i* S | **Sn** | **00 33 01.2** | **-1.0** |
| **VRI** | **Vrincioaia** | **0.33** | **42** | ⇑*i*P | **Pn** | **00 32 45.9** | **-0.4** |
| VRI | | | | *i* S | **Sn** | **00 33 01.2** | **-1.0** |
| **MLR** | **Muntele Rosu** | **0.35** | **249** | P | **Pn** | **00 32 46.1** | **-0.3** |
| | 16nm,0.3s,baz=105,slow=12,SNR=395 | | | | | | |
| MLR | | | | S | **Sn** | **00 33 01.9** | **-0.6** |
| | 19nm,0.3s,baz=243,slow=16,SNR=40 | | | | | | |
| **MLR** | **Muntele Rosu** | **0.35** | **249** | ⇑*i*P | **Pn** | **00 32 46.2** | **-0.3** |
| **MLR** | **Muntele Rosu** | **0.35** | **249** | ⇑*i*P | **Pn** | **00 32 46.2** | **-0.3** |
| MLR | | | | *i* S | **Sn** | **00 33 01.5** | **-1.0** |
| **MLR** | **Muntele Rosu** | **0.35** | **249** | ⇑*i*P | **Pn** | **00 32 46.2** | **-0.3** |
| MLR | | | | *i* S | **Sn** | **00 33 01.5** | **-1.0** |
| **GRER** | | **0.46** | **121** | ⇑*i*P | **Pn** | **00 32 47.2** | **+0.4** |
| **GRER** | | **0.46** | **121** | ⇑*i*P | **Pn** | **00 32 47.2** | **+0.4** |
| **GRER** | | **0.46** | **121** | ⇑*i*P | **Pn** | **00 32 47.2** | **+0.4** |
| **ODBI** | **Odobesti** | **0.47** | **72** | ⇑*i*P | **Pn** | **00 32 47.4** | **+0.6** |
| **ODBI** | **Odobesti** | **0.47** | **72** | ⇑*i*P | **Pn** | **00 32 47.4** | **+0.6** |
| ODBI | | | | *i* S | **Sn** | **00 33 02.5** | **-0.6** |
| **ODBI** | **Odobesti** | **0.47** | **72** | ⇑*i*P | **Pn** | **00 32 47.4** | **+0.6** |
| ODBI | | | | *i* S | **Sn** | **00 33 02.5** | **-0.6** |
| **ISR** | **Istrita** | **0.51** | **169** | ⇓*i*P | **Pn** | **00 32 47.0** | **-0.1** |
| **ISR** | **Istrita** | **0.51** | **169** | ⇓*i*P | **Pn** | **00 32 47.0** | **-0.1** |
| ISR | | | | *i* S | **Sn** | **00 33 02.1** | **-1.5** |
| **ISR** | **Istrita** | **0.51** | **169** | ⇓*i*P | **Pn** | **00 32 47.0** | **-0.1** |
| **PETR** | **Petresti** | **0.58** | **80** | ⇑*i*P | **Pn** | **00 32 47.6** | **+0.3** |
| **PETR** | **Petresti** | **0.58** | **80** | ⇑*i*P | **Pn** | **00 32 47.6** | **+0.3** |
| PETR | | | | *i* S | **Sn** | **00 33 04.0** | **-0.1** |
| **PETR** | **Petresti** | **0.58** | **80** | ⇑*i*P | **Pn** | **00 32 47.6** | **+0.3** |
| PETR | | | | *i* S | **Sn** | **00 33 04.0** | **-0.1** |
| **SECR** | | **0.63** | **203** | ⇑*i*P | **Pn** | **00 32 47.8** | **+0.1** |
| **SECR** | | **0.63** | **203** | ⇑*i*P | **Pn** | **00 32 47.8** | **+0.1** |
| SECR | | | | *i* S | **Sn** | **00 33 04.0** | **-0.7** |
| **SECR** | | **0.63** | **203** | ⇑*i*P | **Pn** | **00 32 47.8** | **+0.1** |
| SECR | | | | *i* S | **Sn** | **00 33 04.0** | **-0.7** |
| **DOPR** | **Dopca** | **0.79** | **296** | ⇑*i*P | **Pn** | **00 32 48.3** | **-0.4** |
| **DOPR** | **Dopca** | **0.79** | **296** | ⇑*i*P | **Pn** | **00 32 48.3** | **-0.4** |
| DOPR | | | | *i* S | **Sn** | **00 33 05.7** | **-0.9** |
| **DOPR** | **Dopca** | **0.79** | **296** | ⇑*i*P | **Pn** | **00 32 48.3** | **-0.4** |
| DOPR | | | | *i* S | **Sn** | **00 33 05.7** | **-0.9** |
| **PGOR** | **Pogoanele** | **0.82** | **150** | ⇓*i*P | **Pn** | **00 32 48.7** | **-0.2** |
| **PGOR** | **Pogoanele** | **0.82** | **150** | ⇓*i*P | **Pn** | **00 32 48.7** | **-0.2** |
| PGOR | | | | *i* S | **Sn** | **00 33 06.2** | **-0.6** |
| **PGOR** | **Pogoanele** | **0.82** | **150** | ⇓*i*P | **Pn** | **00 32 48.7** | **-0.2** |
| PGOR | | | | *i* S | **Sn** | **00 33 06.2** | **-0.6** |
| **TESR** | **Tescani** | **0.91** | **10** | ⇑*i*P | **Pn** | **00 32 48.9** | **-0.7** |
| **TESR** | **Tescani** | **0.91** | **10** | ⇑*i*P | **Pn** | **00 32 48.9** | **-0.7** |
| TESR | | | | *i* S | **Sn** | **00 33 06.1** | **-2.0** |
| **TESR** | **Tescani** | **0.91** | **10** | ⇑*i*P | **Pn** | **00 32 48.9** | **-0.7** |
| TESR | | | | *i* S | **Sn** | **00 33 06.1** | **-2.0** |
| **SULR** | | **0.95** | **187** | ⇑*i*P | **Pn** | **00 32 50.0** | **+0.1** |
| **SULR** | | **0.95** | **187** | ⇑*i*P | **Pn** | **00 32 50.0** | **+0.1** |
| SULR | | | | *i* S | **Sn** | **00 33 08.9** | **+0.3** |
| **SULR** | | **0.95** | **187** | ⇑*i*P | **Pn** | **00 32 50.0** | **+0.1** |
| SULR | | | | *i* S | **Sn** | **00 33 08.9** | **+0.3** |
| **VOIR** | | **0.97** | **260** | ⇑*i*P | **Pn** | **00 32 49.6** | **-0.6** |
| **VOIR** | | **0.97** | **260** | ⇑*i*P | **Pn** | **00 32 49.6** | **-0.6** |
| VOIR | | | | *i* S | **Sn** | **00 33 07.9** | **-1.2** |
| **VOIR** | | **0.97** | **260** | ⇑*i*P | **Pn** | **00 32 49.6** | **-0.6** |
| VOIR | | | | *i* S | **Sn** | **00 33 07.9** | **-1.2** |
| **MTUR** | **Matau** | **1.03** | **248** | ⇑*i*P | **Pn** | **00 32 50.5** | **-0.2** |
| **MTUR** | **Matau** | **1.03** | **248** | ⇑*i*P | **Pn** | **00 32 50.5** | **-0.2** |
| **MTUR** | **Matau** | **1.03** | **248** | ⇑*i*P | **Pn** | **00 32 50.5** | **-0.2** |
| **INCR** | **INCERC-Sediu C** | **1.19** | **189** | S | **Sn** | **00 33 11.3** | **-1.1** |
| **INCR** | **INCERC-Sediu C** | **1.19** | **189** | *i* S | **Sn** | **00 33 11.3** | **-1.1** |
| **INCR** | **INCERC-Sediu C** | **1.19** | **189** | *i* S | **Sn** | **00 33 11.3** | **-1.1** |
| **AMRR** | **Amara** | **1.20** | **147** | ⇑*i*P | **Pn** | **00 32 52.1** | **0.0** |
| **AMRR** | **Amara** | **1.20** | **147** | ⇑*i*P | **Pn** | **00 32 52.1** | **0.0** |
| AMRR | | | | *i* S | **Sn** | **00 33 11.8** | **-0.7** |
| **AMRR** | **Amara** | **1.20** | **147** | ⇑*i*P | **Pn** | **00 32 52.1** | **0.0** |
| AMRR | | | | *i* S | **Sn** | **00 33 11.8** | **-0.7** |
| **JOSR** | **Joseni** | **1.25** | **331** | ⇑*i*P | **Pn** | **00 32 52.0** | **-0.6** |
| **JOSR** | **Joseni** | **1.25** | **331** | ⇑*i*P | **Pn** | **00 32 52.0** | **-0.6** |
| **JOSR** | **Joseni** | **1.25** | **331** | ⇑*i*P | **Pn** | **00 32 52.0** | **-0.6** |
| **ARR** | **Arges** | **1.27** | **259** | ⇑*i*P | **Pn** | **00 32 53.2** | **+0.3** |
| **ARR** | **Arges** | **1.27** | **259** | ⇑*i*P | **Pn** | **00 32 53.2** | **+0.3** |
| ARR | | | | *i* S | **Sn** | **00 33 13.1** | **-0.8** |
| **ARR** | **Arges** | **1.27** | **259** | ⇑*i*P | **Pn** | **00 32 53.2** | **+0.3** |
| ARR | | | | *i* S | **Sn** | **00 33 13.1** | **-0.8** |
| **CFR** | **Carcaliu** | **1.29** | **109** | ⇓*i*P | **Pn** | **00 32 52.2** | **-0.8** |
| **CFR** | **Carcaliu** | **1.29** | **109** | ⇓*i*P | **Pn** | **00 32 52.2** | **-0.8** |
| CFR | | | | *i* S | **Sn** | **00 33 12.3** | **-1.7** |
| **CFR** | **Carcaliu** | **1.29** | **109** | ⇓*i*P | **Pn** | **00 32 52.2** | **-0.8** |
| CFR | | | | *i* S | **Sn** | **00 33 12.3** | **-1.7** |
| **BUC1** | **Bucharest** | **1.30** | **192** | ⇑*i*P | **Pn** | **00 32 52.8** | **-0.3** |
| **BUC1** | **Bucharest** | **1.30** | **192** | ⇑*i*P | **Pn** | **00 32 52.8** | **-0.3** |
| BUC1 | | | | *i* S | **Sn** | **00 33 13.4** | **-0.8** |
| **BUC1** | **Bucharest** | **1.30** | **192** | ⇑*i*P | **Pn** | **00 32 52.8** | **-0.3** |
| BUC1 | | | | *i* S | **Sn** | **00 33 13.4** | **-0.8** |
| **HARR** | **Harsova** | **1.42** | **130** | ⇓*i*P | **Pn** | **00 32 54.0** | **-0.3** |
| **HARR** | **Harsova** | **1.42** | **130** | ⇓*i*P | **Pn** | **00 32 54.0** | **-0.3** |
| **HARR** | **Harsova** | **1.42** | **130** | ⇓*i*P | **Pn** | **00 32 54.0** | **-0.3** |
| **SGRR** | **Singureni** | **1.43** | **193** | ⇑*i*P | **Pn** | **00 32 53.9** | **-0.5** |
| **SGRR** | **Singureni** | **1.43** | **193** | ⇑*i*P | **Pn** | **00 32 53.9** | **-0.5** |
| SGRR | | | | *i* S | **Sn** | **00 33 14.8** | **-1.7** |
| **SGRR** | **Singureni** | **1.43** | **193** | ⇑*i*P | **Pn** | **00 32 53.9** | **-0.5** |
| SGRR | | | | *i* S | **Sn** | **00 33 14.8** | **-1.7** |
| **HUMR** | **Humele** | **1.49** | **223** | ⇑*i*P | **Pn** | **00 32 54.5** | **-0.5** |
| **HUMR** | **Humele** | **1.49** | **223** | ⇑*i*P | **Pn** | **00 32 54.5** | **-0.5** |
| HUMR | | | | *i* S | **Sn** | **00 33 16.4** | **-1.2** |
| **HUMR** | **Humele** | **1.49** | **223** | ⇑*i*P | **Pn** | **00 32 54.5** | **-0.5** |
| HUMR | | | | *i* S | **Sn** | **00 33 16.4** | **-1.2** |
| **LEOM** | **Leova** | **1.54** | **56** | ⇑*i*P | **Pn** | **00 32 54.9** | **-0.5** |
| **LEOM** | **Leova** | **1.54** | **56** | ⇑*i*P | **Pn** | **00 32 54.9** | **-0.5** |
| LEOM | | | | *i* S | **Sn** | **00 33 17.2** | **-1.3** |
| **LEOM** | **Leova** | **1.54** | **56** | ⇑*i*P | **Pn** | **00 32 54.9** | **-0.5** |
| LEOM | | | | *i* S | **Sn** | **00 33 17.2** | **-1.3** |
| **CVDA** | **Cernavoda** | **1.73** | **137** | ⇑*i*P | **Pn** | **00 32 57.4** | **-0.1** |
| **CVDA** | **Cernavoda** | **1.73** | **137** | ⇑*i*P | **Pn** | **00 32 57.4** | **-0.1** |
| CVDA | | | | *i* S | **Sn** | **00 33 20.4** | **-1.7** |
| **CVDA** | **Cernavoda** | **1.73** | **137** | ⇑*i*P | **Pn** | **00 32 57.4** | **-0.1** |
| CVDA | | | | *i* S | **Sn** | **00 33 20.4** | **-1.7** |
| **PRAR** | **RASCA** | **1.75** | **356** | ⇑*i*P | **Pn** | **00 32 57.9** | **+0.2** |
| **PRAR** | **RASCA** | **1.75** | **356** | ⇑*i*P | **Pn** | **00 32 57.9** | **+0.2** |
| **PRAR** | **RASCA** | **1.75** | **356** | ⇑*i*P | **Pn** | **00 32 57.9** | **+0.2** |
| **TLCR** | | **1.75** | **104** | ⇓*i*P | **Pn** | **00 32 57.3** | **-0.4** |
| **TLCR** | | **1.75** | **104** | ⇓*i*P | **Pn** | **00 32 57.3** | **-0.4** |
| TLCR | | | | *i* S | **Sn** | **00 33 21.6** | **-0.9** |
| **TLCR** | | **1.75** | **104** | ⇓*i*P | **Pn** | **00 32 57.3** | **-0.4** |
| TLCR | | | | *i* S | **Sn** | **00 33 21.6** | **-0.9** |
| **ICOR** | **Ion Corvin** | **1.80** | **146** | ⇓*i*P | **Pn** | **00 32 58.2** | **-0.1** |
| **ICOR** | **Ion Corvin** | **1.80** | **146** | ⇓*i*P | **Pn** | **00 32 58.2** | **-0.1** |
| ICOR | | | | *i* S | **Sn** | **00 33 22.5** | **-1.1** |
| **ICOR** | **Ion Corvin** | **1.80** | **146** | ⇓*i*P | **Pn** | **00 32 58.2** | **-0.1** |
| ICOR | | | | *i* S | **Sn** | **00 33 22.5** | **-1.1** |
| **TIRR** | **Tirgusor** | **1.83** | **129** | ⇓*i*P | **Pn** | **00 32 58.3** | **-0.4** |
| **TIRR** | **Tirgusor** | **1.83** | **129** | ⇓*i*P | **Pn** | **00 32 58.3** | **-0.4** |
| TIRR | | | | *i* S | **Sn** | **00 33 21.9** | **-2.3** |
| **TIRR** | **Tirgusor** | **1.83** | **129** | ⇓*i*P | **Pn** | **00 32 58.3** | **-0.4** |
| TIRR | | | | *i* S | **Sn** | **00 33 21.9** | **-2.3** |
| **LOT** | **Lotru** | **1.86** | **266** | ⇓*i*P | **Pn** | **00 32 59.1** | **-0.1** |
| **LOT** | **Lotru** | **1.86** | **266** | ⇓*i*P | **Pn** | **00 32 59.1** | **-0.1** |
| LOT | | | | *i* S | **Sn** | **00 33 23.9** | **-1.2** |
| **LOT** | **Lotru** | **1.86** | **266** | ⇓*i*P | **Pn** | **00 32 59.1** | **-0.1** |
| LOT | | | | *i* S | **Sn** | **00 33 23.9** | **-1.2** |
| **ZIMR** | | **2.10** | **201** | ⇑*i*P | **Pn** | **00 33 01.4** | **-0.4** |
| **ZIMR** | | **2.10** | **201** | ⇑*i*P | **Pn** | **00 33 01.4** | **-0.4** |
| ZIMR | | | | *i* S | **Sn** | **00 33 28.0** | **-1.7** |
| **MILM** | **Milestii Mici** | **2.11** | **51** | ⇑*i*P | **Pn** | **00 33 01.5** | **-0.4** |
| **MILM** | **Milestii Mici** | **2.11** | **51** | ⇑*i*P | **Pn** | **00 33 01.5** | **-0.4** |
| MILM | | | | *i* S | **Sn** | **00 33 27.6** | **-2.4** |
| **MILM** | **Milestii Mici** | **2.11** | **51** | ⇑*i*P | **Pn** | **00 33 01.5** | **-0.4** |
| **KIS** | **Kishinev** | **2.17** | **50** | *i* S | **Sn** | **00 33 28.5** | **-2.6** |
| | 800nm,0.7s | | | | | | |
| **KIS** | **Kishinev** | **2.17** | **50** | *i* S | **Sn** | **00 33 28.5** | **-2.6** |
| KIS | | | | Sm | | 00 33 29.0 | |
| **KIS** | **Kishinev** | **2.17** | **50** | *i* S | **Sn** | **00 33 28.5** | **-2.6** |
| | 800nm,0.7s | | | | | | |
| **EFOR** | **EFORIE** | **2.21** | **133** | ⇓*i*P | **Pn** | **00 33 03.0** | **0.0** |
| **EFOR** | **EFORIE** | **2.21** | **133** | ⇓*i*P | **Pn** | **00 33 03.0** | **0.0** |
| EFOR | | | | *i* S | **Sn** | **00 33 30.8** | **-1.2** |
| **EFOR** | **EFORIE** | **2.21** | **133** | ⇓*i*P | **Pn** | **00 33 03.0** | **0.0** |
| EFOR | | | | *i* S | **Sn** | **00 33 30.8** | **-1.2** |
| **CJR** | **Cluj-Napoca** | **2.24** | **300** | ⇓*i*P | **Pn** | **00 33 03.7** | **+0.2** |
| **CJR** | **Cluj-Napoca** | **2.24** | **300** | ⇓*i*P | **Pn** | **00 33 03.7** | **+0.2** |
| CJR | | | | *i* S | **Sn** | **00 33 29.2** | **-3.6** |
| **CJR** | **Cluj-Napoca** | **2.24** | **300** | ⇓*i*P | **Pn** | **00 33 03.7** | **+0.2** |
| **SRE** | **Strehaia** | **2.46** | **248** | ⇓*i*P | **Pn** | **00 33 05.6** | **-0.5** |
| **SRE** | **Strehaia** | **2.46** | **248** | ⇓*i*P | **Pn** | **00 33 05.6** | **-0.5** |
| **SRE** | **Strehaia** | **2.46** | **248** | ⇓*i*P | **Pn** | **00 33 05.6** | **-0.5** |
| **CHRU** | **Chernivtsi** | **2.70** | **353** | *e*P | **Pn** | **00 33 08.1** | **-0.9** |
| CHRU | | | | *i* S | **Sn** | **00 33 42.1** | **-0.7** |
| **DRGR** | | **2.82** | **296** | ⇑*i*P | **Pn** | **00 33 09.8** | **-0.8** |
| **DRGR** | | **2.82** | **296** | ⇑*i*P | **Pn** | **00 33 09.8** | **-0.8** |
| **DRGR** | | **2.82** | **296** | ⇑*i*P | **Pn** | **00 33 09.8** | **-0.8** |
| **KSV** | **Kosov** | **2.85** | **342** | *e*P | **Pn** | **00 33 10.2** | **-0.7** |
| KSV | | | | Pm | | 00 33 12.8 | |
| KSV | | | | *i* S | **Sn** | **00 33 45.6** | **-0.5** |
| KSV | | | | Sm | | 00 33 46.2 | |
| **RAKU** | **Rahkiv** | **2.86** | **328** | *e*P | **Pn** | **00 33 10.7** | **-0.3** |
| RAKU | | | | Pm | | 00 33 11.7 | |
| RAKU | | | | *e*S | **Sn** | **00 33 45.1** | **-1.2** |
| RAKU | | | | Sm | | 00 33 50.3 | |
| **NSLU** | **Nyzhne Selyshc** | **2.91** | **333** | *i* P | Pn | 00 33 16.1 | +4.5 |
| NSLU | | | | Pm | | 00 33 17.7 | |
| NSLU | | | | *i* S | Sn | 00 33 55.9 | +8.6 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| NSLU | | | | Sm | | 00 34 17.7 | |
| **KMPD** | **K-Podol'skiy** | **2.94** | **1** | *e*P | **Pn** | **00 33 11.2** | **-0.8** |
| KMPD | | | | *i* S | **Sn** | **00 33 47.0** | **-1.2** |
| **STNU** | **Starunia** | **3.35** | **338** | *i* P | **Pn** | **00 33 15.9** | **-1.4** |
| STNU | | | | *e*S | **Sn** | **00 33 56.9** | **-0.7** |
| **KORU** | **Korolevo** | **3.39** | **320** | *i* P | **Pn** | **00 33 16.7** | **-1.0** |
| KORU | | | | Pm | | 00 33 18.1 | |
| KORU | | | | *e*S | **Sn** | **00 33 57.3** | **-1.0** |
| KORU | | | | Sm | | 00 34 10.1 | |
| **MDVR** | **Moldovita** | **3.42** | **258** | ⇑*i*P | **Pn** | **00 33 17.8** | **-0.5** |
| **MDVR** | **Moldovita** | **3.42** | **258** | ⇑*i*P | **Pn** | **00 33 17.8** | **-0.5** |
| MDVR | | | | *i* S | **Sn** | **00 33 56.8** | **-2.4** |
| **MDVR** | **Moldovita** | **3.42** | **258** | ⇑*i*P | **Pn** | **00 33 17.8** | **-0.5** |
| MDVR | | | | *i* S | **Sn** | **00 33 56.8** | **-2.4** |
| **TRSU** | **Trosnyk** | **3.43** | **318** | *e*P | **Pn** | **00 33 17.1** | **-1.1** |
| TRSU | | | | Pm | | 00 33 20.6 | |
| TRSU | | | | *e*S | **Sn** | **00 33 58.0** | **-1.1** |
| TRSU | | | | Sm | | 00 34 36.2 | |
| **KUBS** | **Kucevo** | **3.57** | **252** | ⇑*i*Pn | **Pn** | **00 33 17.7** | **-2.4** |
| **BRIU** | **Brid** | **3.57** | **321** | *i* P | **Pn** | **00 33 19.4** | **-0.7** |
| BRIU | | | | Pm | | 00 33 21.6 | |
| BRIU | | | | *e*S | **Sn** | **00 34 02.2** | **-0.4** |
| BRIU | | | | Sm | | 00 34 21.2 | |
| **ZAPS** | **Zavoj** | **3.58** | **230** | ⇑*i*Pn | **Pn** | **00 33 19.8** | **-0.5** |
| **HORU** | **Horodok** | **3.60** | **0** | *i* P | **Pn** | **00 33 19.8** | **-0.6** |
| HORU | | | | *i* S | **Sn** | **00 34 02.8** | **-0.3** |
| **BERU** | **Beregovo** | **3.67** | **317** | *i* P | **Pn** | **00 33 21.1** | **-0.2** |
| BERU | | | | *e*S | **Sn** | **00 34 04.3** | **-0.5** |
| **VTS** | **Vitosha** | **3.81** | **218** | ⇓*i*P | **Pn** | **00 33 23.0** | **-0.3** |
| **VTS** | **Vitosha** | **3.81** | **218** | ⇓*i*P | **Pn** | **00 33 23.0** | **-0.3** |
| **VTS** | **Vitosha** | **3.81** | **218** | ⇓*i*P | **Pn** | **00 33 23.0** | **-0.3** |
| **MUKU** | **Mukachevo** | **3.81** | **319** | *i* P | **Pn** | **00 33 21.9** | **-1.2** |
| MUKU | | | | Pm | | 00 33 22.3 | |
| MUKU | | | | *e*S | **Sn** | **00 34 07.7** | **-0.3** |
| MUKU | | | | Sm | | 00 34 08.5 | |
| **BOVS** | **Bovan** | **3.90** | **241** | *e*Pn | **Pn** | **00 33 23.1** | **-1.3** |
| **UZH** | **Uzhgorod** | **4.12** | **318** | *e*P | **Pn** | **00 33 27.0** | **-0.1** |
| UZH | | | | Pm | | 00 33 30.6 | |
| UZH | | | | *e*S | **Sn** | **00 34 14.2** | **-1.0** |
| UZH | | | | Sm | | 00 34 15.6 | |
| **ONO** | **Onokovtsy** | **4.12** | **319** | *i* P | **Pn** | **00 33 26.1** | **-1.1** |
| ONO | | | | *e*S | **Sn** | **00 34 14.9** | **-0.4** |
| **SHIU** | **Shidnytsya** | **4.16** | **331** | *e*P | **Pn** | **00 33 27.6** | **-0.1** |
| SHIU | | | | Pm | | 00 33 35.2 | |
| SHIU | | | | *e*S | **Sn** | **00 34 16.0** | **-0.2** |
| SHIU | | | | Sm | | 00 34 19.8 | |
| SHIU | | | | Sm | | 00 34 19.8 | |
| **STZU** | **Stuzhytsa** | **4.26** | **324** | *i* P | **Pn** | **00 33 28.6** | **-0.5** |
| STZU | | | | Pm | | 00 33 31.8 | |
| STZU | | | | *e*S | **Sn** | **00 34 17.6** | **-1.0** |
| STZU | | | | Sm | | 00 34 35.4 | |
| **GRUS** | **Gruza** | **4.41** | **249** | *e*Pn | **Pn** | **00 33 30.4** | **-0.6** |
| **TRUS** | **Trudelj** | **4.49** | **254** | *e*Pn | **Pn** | **00 33 30.9** | **-1.1** |
| **CRVS** | **Cervenica-Dubn** | **4.70** | **316** | *e*PN | **Pn** | **00 33 34.6** | **-0.2** |
| **DIVS** | **Divibare** | **4.81** | **254** | *e*Pn | **Pn** | **00 33 36.3** | **-0.1** |
| **KECS** | **Kecovo** | **4.96** | **307** | *e*Pn | **Pn** | **00 33 36.0** | **-2.2** |
| **KECS** | **Kecovo** | **4.96** | **307** | *e*PN | **Pn** | **00 33 36.0** | **-2.2** |
| KECS | | | | *e*SG | Sn | 00 35 09.7 | +35 |
| **STHS** | **Stebnicka Huta** | **5.16** | **319** | *e*Pn | **Pn** | **00 33 41.5** | **+0.5** |
| **STHS** | **Stebnicka Huta** | **5.16** | **319** | *e*PN | **Pn** | **00 33 41.4** | **+0.5** |
| **SEV** | **Sevastopol'** | **5.25** | **99** | *e*P | **Pn** | **00 33 40.3** | **-1.8** |
| SEV | | | | Pm | | 00 33 40.5 | |
| **AKASG** | **Malin Array Be** | **5.42** | **19** | P | **Pn** | **00 33 43.8** | **-0.5** |
| | 0.5nm,0.3s,baz=203,slow=13,SNR=3.1 | | | | | | |
| **ALU** | **Alushta** | **5.73** | **97** | *e*P | **Pn** | **00 33 47.2** | **-1.2** |
| ALU | | | | Pm | | 00 33 47.6 | |
| **LANS** | **Liptovska Anna** | **5.89** | **309** | *e*Pn | **Pn** | **00 33 51.0** | **+0.4** |
| **LANS** | **Liptovska Anna** | **5.89** | **309** | *e*PN | **Pn** | **00 33 51.0** | **+0.4** |
| **SUDU** | **Sudak** | **6.11** | **94** | *e*P | **Pn** | **00 33 52.2** | **-1.3** |
| SUDU | | | | Pm | | 00 33 52.5 | |
| **BRTR** | **Keskin Array B** | **7.94** | **135** | P | **Pn** | **00 34 17.7** | **-0.4** |
| | 0.1nm,0.3s,baz=322,slow=12,SNR=4.8 | | | | | | |
| **GERES** | **GERESS Array B** | **9.23** | **295** | P | **Pn** | **00 34 36.0** | **+0.9** |
| | 0.1nm,0.3s,baz=106,slow=13,SNR=4.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **37.64** | **56** | P | **P** | **00 39 26.3** | **+1.0** |
| | 0.5nm,0.3s,baz=287,slow=8.9,SNR=3.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **37.99** | **68** | P | **P** | **00 39 29.4** | **+0.9** |
| | 0.1nm,0.4s,baz=283,slow=9.0,SNR=4.4 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **38.55** | **221** | P | **P** | **00 39 33.4** | **+0.1** |
| | 0.3nm,0.3s,baz=30,slow=8.7,SNR=3.4 | | | | | | |
| **DBIC** | **Dimbokro** | **47.31** | **225** | P | **P** | **00 40 43.3** | **-0.4** |
| | 1.7nm,0.8s,baz=360,slow=8.1,SNR=6.2 | | | | | | |
| **SONM** | **Songino Array** | **52.51** | **57** | P | **P** | **00 41 24.9** | **+2.2** |
| | 0.6nm,1.1s,baz=280,slow=10.0,SNR=2.5 | | | | | | |

*ISCJB **03** 00:36:43.5±0.5, 38.°50N±0.°03×39.°37E±0.°03, h5km±5km, Error ellipse: s-maj=4.4km s-min=4.2km az=24.7*
*CSEM **03** 00:36:43.4±0.2, 38.°50N×39.°35E, h10km, MD2.6, Error ellipse: s-maj=4.6km s-min=3.9km az=25.0*
*DDA **03** 00:36:43.4, 38.°52N×39.°37E, h7km, Ml2.3*
*ISK **03** 00:36:43.4, 38.°51N×39.°30E, h8km, MD2.6*
**ISC 03 00:36:43.5**±0.9**, 38.°51N**±0.°03×**39.°35E**±0.°02**, h11**km±7km**, n21,** σ**0.s62**/36**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SVRC** | **Sivrice-ELAZID** | **0.14** | **193** | *e*PG | **Pg** | **00 36 46.8** | **-0.1** |
| SVRC | | | | *e*SG | **Sg** | **00 36 49.3** | **0.0** |
| **SVRC** | **Sivrice-ELAZID** | **0.14** | **193** | *e*Pg | **Pg** | **00 36 46.8** | **-0.1** |
| SVRC | | | | *e*Sg | **Sg** | **00 36 49.3** | **0.0** |
| **ELZG** | **Elazig** | **0.28** | **267** | *i* P | **Pg** | **00 36 49.3** | **-0.1** |
| ELZG | | | | *i* S | **Sb** | **00 36 54.5** | **-1.1** |
| **PTK** | **Pertek** | **0.38** | **6** | *e*PG | **Pg** | **00 36 51.4** | **+0.2** |
| PTK | | | | *e*SG | **Sb** | **00 36 57.3** | **-1.1** |
| **PTK** | **Pertek** | **0.38** | **6** | *e*Pg | **Pg** | **00 36 51.4** | **+0.2** |
| PTK | | | | *e*Sg | **Sb** | **00 36 57.3** | **-1.1** |
| **TNCL** | **Tunceli-Merkez** | **0.62** | **14** | *i* P | **Pg** | **00 36 55.1** | **-0.5** |
| TNCL | | | | *i* S | **Sb** | **00 37 05.7** | **+0.4** |
| **MALT** | **Malatya** | **0.75** | **255** | *e*PG | **Pg** | **00 36 57.6** | **-0.4** |
| MALT | | | | *e*SG | **Sg** | **00 37 08.0** | **+0.2** |
| **MALT** | **Malatya** | **0.75** | **255** | *e*Pg | **Pg** | **00 36 57.6** | **-0.4** |
| MALT | | | | *e*Sg | **Sg** | **00 37 08.0** | **+0.2** |
| **HANI** | **Diyarbakir_Han** | **0.83** | **96** | *i* P | **Pg** | **00 36 59.2** | **-0.4** |
| HANI | | | | *i* S | **Sg** | **00 37 10.6** | **+0.1** |
| **HANI** | **Diyarbakir_Han** | **0.83** | **96** | P | **Pg** | **00 36 59.2** | **-0.4** |
| HANI | | | | S | **Sg** | **00 37 10.6** | **+0.1** |
| **DYBB** | **Diyarbakir** | **0.84** | **132** | *e*PG | **Pb** | **00 37 00.0** | **-0.2** |
| **DIYA** | **Diyarbakir** | **0.85** | **134** | *i* P | **Pg** | **00 37 00.0** | **+0.1** |
| DIYA | | | | *i* S | **Sb** | **00 37 12.2** | **+0.4** |
| **DIY** | **Diyarbakir** | **0.93** | **131** | *e*Pg | **Pg** | **00 37 00.0** | **-1.4** |
| **KEMA** | **Kemaliye** | **1.00** | **319** | *i* P | **Pg** | **00 37 02.3** | **-0.6** |
| KEMA | | | | *i* S | **Sb** | **00 37 17.2** | **+0.9** |
| **KEMA** | **Kemaliye** | **1.00** | **319** | P | **Pg** | **00 37 02.3** | **-0.6** |
| KEMA | | | | S | **Sb** | **00 37 17.2** | **+0.9** |
| **AKCD** | **Akcadag** | **1.14** | **259** | *i* P | **Pg** | **00 37 04.6** | **-0.8** |
| AKCD | | | | *i* S | **Sn** | **00 37 22.0** | **+0.7** |
| **AKCD** | **Akcadag** | **1.14** | **259** | P | **Pg** | **00 37 04.6** | **-0.8** |
| AKCD | | | | S | **Sn** | **00 37 22.0** | **+0.7** |
| **URFA** | **Urfa** | **1.15** | **201** | *e*PN | **Pn** | **00 37 05.8** | **+0.2** |
| **URFA** | **Urfa** | **1.15** | **201** | *e*Pn | **Pn** | **00 37 05.8** | **+0.2** |
| **MAZI** | **Mazidag** | **1.37** | **140** | *e*PN | **Pg** | **00 37 09.7** | **-0.1** |
| **MAZI** | **Mazidag** | **1.37** | **140** | *e*Pn | **Pg** | **00 37 09.7** | **-0.1** |

*KRNET **03** 01:03:34.9±0.1, 39.°12N×72.°91E, mb3.7*
*NNC **03** 01:03:35.9±2.4, 39.°28N×72.°77E, h0km, mb3.9, mpv3.5, Error ellipse: s-maj=19.3km s-min=9.6km az=155.0*
*IDC **03** 01:03:35.8±3.8, 39.°19N×72.°52E, h0km, mb3.9/2, mb1 3.7/6, mb1mx3.4/33, mbtmp3.5/6, ML3.0/4, Error ellipse: s-maj=57.2km s-min=26.5km az=175.0*
**ISC 03 01:03:36.3**±1.5**, 39.°29N**±0.°09×**72.°65E**±0.°06**, h10**km**, n29,** σ**2.s48**/42**, 22C-8D, Kyrgyzstan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SFK** | **Sufi-Kurgan** | **0.98** | **42** | ⇑*e*P | **Pg** | **01 03 53.1** | **-2.1** |
| | baz=27 | | | | | | |
| SFK | | | | ⇑*e*S | **Sg** | **01 04 07.1** | **-0.8** |
| | baz=27 | | | | | | |
| **SFK** | **Sufi-Kurgan** | **0.98** | **42** | ⇓P | **Pg** | **01 03 53.4** | **-1.8** |
| | 18nm,0.5s | | | | | | |
| SFK | | | | ⇓S | **Sg** | **01 04 07.2** | **-0.8** |
| | 137nm,0.4s | | | | | | |
| **ARSB** | **Arslanbob** | **2.05** | **7** | ⇑*e*P | **Pb** | **01 04 12.2** | **-1.4** |
| | baz=1.0 | | | | | | |
| ARSB | | | | ⇑*e*S | **Sb** | **01 04 40.0** | **+0.8** |
| | baz=1.0 | | | | | | |
| **ARK** | **Arkit** | **2.56** | **348** | ⇑*e*P | **Pn** | **01 04 19.9** | **+2.0** |
| | baz=345 | | | | | | |
| ARK | | | | ⇑*e*S | **Sb** | **01 04 52.8** | **-1.1** |
| | baz=345 | | | | | | |
| **TOKL** | **Toktogul** | **2.65** | **4** | ⇑*e*P | **Pn** | **01 04 21.0** | **+1.8** |
| | baz=359 | | | | | | |
| TOKL | | | | ⇑*e*S | **Sb** | **01 04 55.1** | **-1.5** |
| | baz=359 | | | | | | |
| **AML** | **Almayashu** | **2.95** | **15** | ⇑*i*P | **Pn** | **01 04 25.2** | **+1.7** |
| | baz=11 | | | | | | |
| AML | | | | ⇑*i*S | **Sn** | **01 05 02.6** | **+3.4** |
| | baz=11 | | | | | | |
| **AML** | **Almayashu** | **2.95** | **15** | P | **Pn** | **01 04 25.6** | **+2.1** |
| | SNR=34 | | | | | | |
| **MNAS** | **Manas** | **3.19** | **358** | ⇑*i*P | **Pn** | **01 04 28.4** | **+1.7** |
| | baz=355 | | | | | | |
| MNAS | | | | ⇑*i*S | **Sn** | **01 05 08.2** | **+3.3** |
| | baz=355 | | | | | | |
| **MNAS** | **Manas** | **3.19** | **358** | ⇓Pn | **Pn** | **01 04 28.0** | **+1.3** |
| | 16nm,0.4s | | | | | | |
| MNAS | | | | ⇓Sn | **Sn** | **01 05 09.0** | **+4.1** |
| | 44nm,0.6s | | | | | | |
| **UCH** | **Uchtor** | **3.26** | **25** | ⇑*i*P | **Pn** | **01 04 30.2** | **+2.3** |
| | baz=21 | | | | | | |
| UCH | | | | ⇑*i*S | **Sn** | **01 05 09.3** | **+2.4** |
| | baz=21 | | | | | | |
| **UCH** | **Uchtor** | **3.26** | **25** | P | **Pn** | **01 04 30.8** | **+2.9** |
| | SNR=12 | | | | | | |
| **EKS2** | **Erkin-Say** | **3.48** | **14** | ⇑*i*P | **Pn** | **01 04 32.7** | **+2.2** |
| | baz=10.0 | | | | | | |
| EKS2 | | | | ⇑*i*S | **Sn** | **01 05 14.5** | **+2.7** |
| | baz=10.0 | | | | | | |
| **EKS2** | **Erkin-Say** | **3.48** | **14** | P | **Pb** | **01 04 34.5** | **-3.5** |
| | SNR=11 | | | | | | |
| **AAK** | **Ala-Archa** | **3.62** | **22** | ⇑*i*P | **Pn** | **01 04 34.3** | **+1.7** |
| | baz=18 | | | | | | |
| AAK | | | | ⇑*i*S | **Sn** | **01 05 17.7** | **+2.2** |
| | baz=18 | | | | | | |
| **AAK** | **Ala-Archa** | **3.62** | **22** | ⇑Pn | **Pn** | **01 04 35.9** | **+3.3** |
| | 13nm,0.5s | | | | | | |
| AAK | | | | ⇓Sn | **Sn** | **01 05 18.8** | **+3.3** |
| | 22nm,0.6s | | | | | | |
| **AAK** | **Ala-Archa** | **3.62** | **22** | P | **Pn** | **01 04 36.0** | **+3.4** |
| | SNR=9.0 | | | | | | |
| **KBK** | **Karagaybulak** | **3.79** | **27** | P | **Pb** | **01 04 39.4** | **-3.9** |
| | SNR=9.5 | | | | | | |
| **CHMS** | **Chumysh** | **4.03** | **23** | P | **Pn** | **01 04 41.2** | **+3.1** |
| | SNR=9.8 | | | | | | |
| **KK31** | **Karatay Array** | **4.13** | **338** | Pn | **Pn** | **01 04 40.5** | **+1.0** |
| | 3.7nm,0.3s,baz=144,slow=12,SNR=159 | | | | | | |
| KK31 | | | | ⇓Sn | **Sn** | **01 05 30.3** | **+2.4** |
| | 13nm,0.6s,baz=149,slow=23,SNR=6.2 | | | | | | |
| **USP** | **Ospenovka** | **4.21** | **19** | P | **Pn** | **01 04 43.7** | **+3.2** |
| | SNR=8.2 | | | | | | |
| **TKM2** | **Tokmak 2** | **4.26** | **31** | ⇓Pn | **Pn** | **01 04 44.3** | **+3.0** |
| | 2.2nm,0.8s | | | | | | |
| TKM2 | | | | ⇑Lg | Lg | 01 05 48.0 | |
| | 13nm,0.9s | | | | | | |
| **PDGK** | **Podgornoye** | **6.54** | **50** | ⇑Pn | **Pn** | **01 05 14.2** | **+1.6** |
| | 4.7nm,1.0s | | | | | | |
| PDGK | | | | ⇓Lg | Lg | 01 07 02.3 | |
| | 20nm,1.1s | | | | | | |
| **MKAR** | **Makanchi Array** | **10.29** | **40** | Pn | **Pn** | **01 06 08.1** | **+4.2** |
| | 0.0nm,0.3s,baz=230,slow=11,SNR=2.5 | | | | | | |
| **AB31** | **Akbulak array** | **13.47** | **322** | ⇑Pn | **Pn** | **01 06 45.4** | **-2.0** |
| | 0.9nm,0.4s | | | | | | |
| **BVAR** | **Borovoye Array** | **13.82** | **354** | Pn | **Pn** | **01 06 50.8** | **-1.3** |
| | 0.1nm,0.3s,baz=168,slow=11,SNR=4.1 | | | | | | |
| **AKTO** | **Aktyubinsk** | **15.19** | **322** | Pn | **Pn** | **01 07 10.3** | **-0.4** |
| | 0.2nm,0.3s,baz=143,slow=15,SNR=2.7 | | | | | | |
| AKTO | | | | Sn | Sn | 01 09 47.9 | -11 |
| | 0.1nm,0.3s,baz=291,slow=18,SNR=2.5 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **16.84** | **25** | Pn | **P** | **01 07 32.9** | **-1.2** |
| | 0.2nm,0.3s,baz=213,slow=11,SNR=5.1 | | | | | | |
| **FINES** | **FINESS Array B** | **35.95** | **324** | P | **P** | **01 10 37.0** | **+0.3** |
| | 2.0nm,0.9s,baz=109,slow=12,SNR=3.5 | | | | | | |
| **YKA** | **Yellowknife Ar** | **78.39** | **3** | P | **P** | **01 15 38.6** | **+2.0** |
| | 0.5nm,0.7s,baz=350,slow=5.5,SNR=4.5 | | | | | | |

*ISCJB **03** 01:16:20.5±0.3, 14.°90S±0.°07×178.°43W±0.°06, h390km, mb4.2/32, Error ellipse: s-maj=11.0km s-min=6.4km az=150.9*
*NEIC **03** 01:16:20.8±0.6, 14.°89S×178.°35W, h382km±5km, mb4.3/19, Error ellipse: s-maj=10.0km s-min=5.7km az=143.0*
*IDC **03** 01:16:20.1±1.6, 14.°89S×178.°37W, h373km±17km, mb3.8/14, mb1 4.0/16, mb1mx3.8/31, mbtmp4.5/16, Error ellipse: s-maj=18.8km s-min=10.0km az=141.0*
**ISC 03 01:16:21.3**±0.4**, 14.°88S**±0.°09×**178.°32W**±0.°07**, h390**km**, n68,** σ**0.s82**/69**, mb4.3**/32**, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MSVF** | **Nonsavu** | **4.50** | **230** | *e*Pn | **Pn** | **01 17 38.0** | **+0.2** |
| **AFI** | **Afiamalu** | **6.41** | **82** | P | **Pn** | **01 17 56.7** | **-1.6** |
| | 9.4nm,0.3s,baz=154,slow=1.9,SNR=20 | | | | | | |
| AFI | | | | S | **S** | **01 19 17.0** | **-0.3** |
| | 2.4nm,0.3s,baz=255,slow=20,SNR=1.8 | | | | | | |
| **AFI** | **Afiamalu** | **6.41** | **82** | *e*Pn | **Pn** | **01 17 56.6** | **-1.6** |
| | 145nm,0.9s | | | | | | |
| AFI | | | | S | **S** | **01 19 16.9** | **-0.3** |
| **FUNA** | **Funafuti** | **6.77** | **339** | *e*Pn | **Pn** | **01 18 00.7** | **-1.6** |
| | 2µm,0.9s | | | | | | |
| **DZM** | **Mont Dzumac** | **16.12** | **241** | P | **P** | **01 19 45.6** | **-0.9** |
| | 0.8nm,0.3s,baz=234,slow=24,SNR=14 | | | | | | |
| **URZ** | **Urewera** | **23.64** | **189** | P | **P** | **01 20 57.9** | **-1.5** |
| | 14nm,0.4s,baz=293,slow=2.3,SNR=15 | | | | | | |
| **CTA** | **Charters Tower** | **34.14** | **256** | P | **P** | **01 22 32.9** | **+1.2** |
| | 8.8nm,0.8s,baz=73,slow=11,SNR=5.4 | | | | | | |
| **CTAO** | **Charters Tower** | **34.14** | **256** | *e*P | **P** | **01 22 32.1** | **+0.4** |
| | 50nm,0.7s | | | | | | |
| **COEN** | **Coen** | **37.28** | **266** | *e*P | **P** | **01 22 58.9** | **+0.8** |
| | 11nm,1.1s | | | | | | |
| **STKA** | **Stephens Creek** | **40.23** | **238** | P | **P** | **01 23 23.1** | **+1.0** |
| | 5.9nm,0.7s,baz=64,slow=8.5,SNR=12 | | | | | | |
| **BBOO** | **Buckleboo** | **45.00** | **238** | *e*P | **P** | **01 24 00.2** | **+0.2** |
| | 5.1nm,0.7s | | | | | | |
| **WRAB** | **Tennant Creek** | **45.33** | **257** | *e*P | **P** | **01 24 02.5** | **-0.3** |
| | 2.0nm,0.4s | | | | | | |
| **WRA** | **Warramunga Arr** | **45.34** | **257** | P | **P** | **01 24 01.4** | **-1.5** |
| | 1.5nm,0.4s,baz=99,slow=5.8,SNR=57 | | | | | | |
| WRA | | | | PcP | **PcP** | **01 25 35.1** | **+0.2** |
| | 0.3nm,0.4s,baz=90,slow=3.5,SNR=3.1 | | | | | | |
| **ASAR** | **Alice Springs** | **45.77** | **251** | P | **P** | **01 24 05.3** | **-0.8** |
| | 19nm,0.5s,baz=84,slow=8.6,SNR=133 | | | | | | |
| ASAR | | | | PcP | **PcP** | **01 25 36.4** | **0.0** |
| | 0.3nm,0.3s,baz=97,slow=4.3,SNR=2.9 | | | | | | |
| **FAKI** | **Fak Fak** | **50.14** | **279** | *e*P | **P** | **01 24 37.9** | **-1.4** |
| **FORT** | **Forrest** | **51.43** | **242** | *e*P | **P** | **01 24 48.5** | **0.0** |
| **SOEI** | **Soe** | **56.20** | **268** | *e*P | **P** | **01 25 23.1** | **0.0** |
| | 7.9nm,0.7s | | | | | | |
| **VNDA** | **Vanda** | **63.45** | **185** | P | **P** | **01 26 11.2** | **+0.6** |
| | 1.6nm,0.7s,baz=355,slow=7.0,SNR=9.7 | | | | | | |
| **PETK** | **Petropavlovsk-** | **70.79** | **345** | P | **P** | **01 26 56.8** | **+0.3** |
| | 9.0nm,0.8s,baz=127,slow=9.3,SNR=8.4 | | | | | | |
| **QSPA** | **South Pole Qui** | **75.16** | **180** | *e*P | **P** | **01 27 22.0** | **+0.1** |
| | 120nm,1.1s | | | | | | |
| **YBH** | **Yreka Blue Hor** | **76.14** | **40** | P | **P** | **01 27 28.9** | **+1.2** |
| | 6.2nm,0.8s,baz=282,slow=0.5,SNR=8.5 | | | | | | |
| **MCK** | **McKinley** | **81.58** | **13** | *e*P | **P** | **01 27 55.8** | **-0.6** |
| | 6.1nm,0.8s | | | | | | |
| **HLID** | **Hailey** | **82.30** | **41** | *e*P | **P** | **01 28 01.9** | **+1.2** |
| | 4.3nm,0.8s | | | | | | |
| **COLA** | **College** | **82.81** | **13** | *e*P | **P** | **01 28 02.3** | **-0.2** |
| | 8.9nm,1.1s | | | | | | |
| **ILAR** | **Eielson Array** | **82.93** | **13** | P | **P** | **01 28 02.9** | **-0.4** |
| | 6.8nm,0.9s,baz=229,slow=6.1,SNR=41 | | | | | | |
| **MNTX** | **Cornudas Mount** | **83.78** | **55** | *e*P | **P** | **01 28 09.4** | **+1.2** |
| | 0.9nm,0.6s | | | | | | |
| **TXAR** | **Lajitas Array** | **84.31** | **58** | P | **P** | **01 28 12.9** | **+1.8** |
| | 2.7nm,0.8s,baz=218,slow=6.5,SNR=15 | | | | | | |
| **COLD** | **Coldfoot** | **84.44** | **11** | *e*P | **P** | **01 28 11.8** | **+1.1** |
| | 7.8nm,1.3s | | | | | | |
| **TPAW** | **Teton Pass** | **84.50** | **42** | *e*P | **P** | **01 28 13.3** | **+1.4** |
| | 7.3nm,1.1s | | | | | | |
| **REDW** | **Red Top Meadow** | **84.51** | **43** | *e*P | **P** | **01 28 12.8** | **+0.9** |
| | 13nm,1.3s | | | | | | |
| **SNOW** | **Snow King Moun** | **84.62** | **43** | *e*P | **P** | **01 28 14.1** | **+1.6** |
| | 6.7nm,0.9s | | | | | | |
| **IMW** | **Indian Meadow** | **84.69** | **42** | *e*P | **P** | **01 28 14.1** | **+1.2** |
| | 14nm,1.2s | | | | | | |
| **MOOW** | **Moose Ponds** | **84.75** | **42** | *e*P | **P** | **01 28 13.9** | **+0.8** |
| | 7.6nm,1.4s | | | | | | |
| **LOHW** | **Long Hollow** | **84.78** | **42** | *e*P | **P** | **01 28 14.2** | **+1.0** |
| | 16nm,1.8s | | | | | | |
| **PDAR** | **Pinedale Array** | **85.11** | **44** | P | **P** | **01 28 15.7** | **+0.8** |
| | 2.8nm,0.8s,baz=222,slow=2.8,SNR=21 | | | | | | |
| **MAW** | **Mawson** | **86.72** | **200** | P | **P** | **01 28 22.3** | **+0.3** |
| | 4.2nm,0.8s,baz=149,slow=6.6,SNR=6.9 | | | | | | |
| **AMTX** | **Amarillo** | **87.80** | **53** | *e*P | **P** | **01 28 28.0** | **+0.2** |
| | 2.4nm,0.7s | | | | | | |
| **INK** | **Inuvik** | **88.96** | **15** | *e*P | **P** | **01 28 32.0** | **-0.2** |
| | 3.3nm,1.1s | | | | | | |
| **SONM** | **Songino Array** | **91.33** | **319** | P | **P** | **01 28 44.5** | **+0.5** |
| | 0.4nm,0.8s,baz=80,slow=1.8,SNR=2.6 | | | | | | |
| **YKA** | **Yellowknife Ar** | **91.56** | **25** | P | **P** | **01 28 44.5** | **+0.1** |
| | 0.6nm,0.7s,baz=249,slow=3.9,SNR=4.3 | | | | | | |
| **SNAA** | **Sanae** | **93.61** | **179** | P | **P** | **01 28 52.6** | **-1.4** |
| **SNAA** | **Sanae** | **93.61** | **179** | *e*P | **P** | **01 28 53.2** | **-0.8** |
| **VNA3** | **Neumayer Olymp** | **93.74** | **176** | P | **P** | **01 28 55.0** | **+0.5** |
| **VNA2** | **Neumayer--Watz** | **94.18** | **177** | P | **P** | **01 28 55.9** | **-0.6** |
| | baz=193,slow=3.0 | | | | | | |
| **ARCES** | **ARCESS Array B** | **123.36** | **350** | PKP | **PKPdf** | **01 34 31.9** | **-0.2** |
| | 5.6nm,1.0s,baz=21,slow=1.3,SNR=13 | | | | | | |
| **PSZ** | **Piszkesteto** | **143.77** | **339** | *e*PKPdf | PKPbc | 01 35 09.6 | +0.3 |
| **GRFO** | **Grafenberg** | **144.42** | **349** | *e*PKPdf | **PKPdf** | **01 35 11.8** | **0.0** |
| **KHC** | **Kasperske Hory** | **144.48** | **347** | *e*PKP | PKPbc | 01 35 11.0 | -0.5 |
| **MMAI** | **Mount Meron Ar** | **144.50** | **307** | PKP | **PKPdf** | **01 35 13.0** | **+0.4** |
| | 16nm,0.8s,baz=68,slow=4.8,SNR=7.8 | | | | | | |
| **GERES** | **GERESS Array B** | **144.72** | **346** | PKP | PKPbc | 01 35 12.4 | +0.1 |
| | 4.5nm,0.8s,baz=22,slow=3.7,SNR=28 | | | | | | |
| **CONA** | **Conrad Observa** | **145.02** | **343** | *e*PKPab | **PKPab** | **01 35 14.0** | **+0.3** |
| | 12nm,1.2s | | | | | | |
| **WLF** | **Walferdange** | **145.12** | **355** | *e*PKPbc | **PKPbc** | **01 35 13.7** | **+0.3** |
| **CSS** | **Mathiatis** | **145.25** | **311** | *e*PKPbc | **PKPbc** | **01 35 14.5** | **+0.2** |
| **MOA** | **Molln** | **145.51** | **345** | *e*PKPab | **PKPab** | **01 35 15.2** | **-0.4** |
| | 8.2nm,1.0s | | | | | | |
| **ARSA** | **Arzberg** | **145.73** | **343** | *e*PKPbc | **PKPdf** | **01 35 14.5** | **+0.4** |
| | 3.6nm,0.8s | | | | | | |
| **BFO** | **Black Forest** | **146.20** | **352** | *e*PKPbc | **PKPbc** | **01 35 16.5** | **-0.2** |
| **SOKA** | **Soboth** | **146.39** | **343** | *i* PKPbc | **PKPbc** | **01 35 17.2** | **-0.1** |
| | 8.1nm,1.0s | | | | | | |
| **KBA** | **Koelnbreinsper** | **146.46** | **346** | *e*PKPab | **PKPbc** | **01 35 18.0** | **+0.4** |
| | 7.1nm,1.0s | | | | | | |
| **WATA** | **Walderalm** | **146.61** | **348** | *i* PKPab | **PKPbc** | **01 35 18.6** | **+0.6** |
| | 1.8nm,0.5s | | | | | | |
| **RETA** | **Reutte** | **146.62** | **349** | *i* PKPbc | **PKPbc** | **01 35 18.1** | **+0.1** |
| | 5.2nm,1.0s | | | | | | |
| **WTTA** | **Wattenberg** | **146.66** | **348** | *i* PKPab | **PKPbc** | **01 35 18.5** | **+0.3** |
| | 7.7nm,0.8s | | | | | | |
| **MOTA** | **Moosalm** | **146.69** | **348** | *i* PKPbc | **PKPbc** | **01 35 18.0** | **-0.3** |
| | 7.5nm,0.9s | | | | | | |
| **MYKA** | **Terra Mystica** | **146.80** | **345** | *e*PKPbc | **PKPdf** | **01 35 17.1** | **+1.0** |
| | 9.9nm,0.9s | | | | | | |
| **ABTA** | **Abfaltersbach** | **146.96** | **346** | *i* PKPbc | **PKPbc** | **01 35 18.3** | **-0.6** |
| | 7.5nm,0.8s | | | | | | |
| **DAVA** | **Damuels** | **146.98** | **350** | *e*PKPbc | **PKPbc** | **01 35 18.7** | **-0.3** |
| | 14nm,1.3s | | | | | | |
| **FETA** | **Feichten** | **147.08** | **349** | *e*PKPbc | **PKPbc** | **01 35 19.3** | **0.0** |
| | 8.9nm,1.4s | | | | | | |
| **DAVOX** | **Davos/Dischmat** | **147.47** | **350** | PKPbc | **PKPbc** | **01 35 20.5** | **+0.1** |
| | 5.7nm,0.7s,baz=323,slow=4.5,SNR=9.9 | | | | | | |
| **AQU** | **L'Aquila** | **150.82** | **342** | *e*PKPbc | **PKPbc** | **01 35 28.8** | **+0.2** |

**MEX 03 01:20:00.4**±0.3**, 26.°32N**×**111.°75W, h6**km±50km**, MD3.8, Gulf of California**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SRIG** | **Santa Rosalia** | **1.09** | **336** | *e*P | Pg | 01 20 18.4 | -3.0 |
| SRIG | | | | *i* S | Sg | 01 20 32.2 | -3.3 |
| **GUYB** | **Guaymas** | **1.76** | **26** | *e*P | Pn | 01 20 27.8 | -3.5 |
| GUYB | | | | *i* S | Sn | 01 20 49.3 | -4.7 |

*JMA **03** 01:30:17.3, 23.°92N×121.°54E, h13km±1km, M3.4*
*TAP **03** 01:30:18.0, 23.°93N×121.°47E, h18km, ML3.9, B*
*ISCJB **03** 01:30:18.1±0.2, 23.°91N±0.°01×121.°54E±0.°02, h20km±2km, Error ellipse: s-maj=3.0km s-min=1.7km az=36.0*
**ISC 03 01:30:18.2**±0.9**, 23.°92N**±0.°02×**121.°52E**±0.°02**, h20**km±3km**, n62,** σ**0.s72**/111**, 11C-3D, Taiwan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ESF** | **Shoufeng Towns** | **0.05** | **196** | *e*P | **Pg** | **01 30 22.1** | **+0.4** |
| | baz=151 | | | | | | |
| ESF | | | | *e*S | **Sg** | **01 30 24.4** | **+0.4** |
| | baz=151 | | | | | | |
| **HWA** | **Hwalien** | **0.10** | **51** | ⇑*i*P | **Pg** | **01 30 22.5** | **+0.4** |
| | baz=71 | | | | | | |
| HWA | | | | S | **Sg** | **01 30 25.7** | **+1.0** |
| | baz=71 | | | | | | |
| **ESL** | **Shilin** | **0.13** | **219** | ⇓*i*P | **Pg** | **01 30 22.0** | **-0.4** |
| | baz=193 | | | | | | |
| ESL | | | | *e*S | **Sg** | **01 30 24.3** | **-0.8** |
| | baz=193 | | | | | | |
| **TWD** | **Chiawan** | **0.18** | **23** | ⇑P | **Pg** | **01 30 22.9** | **0.0** |
| | baz=33 | | | | | | |
| TWD | | | | S | **Sg** | **01 30 26.1** | **-0.1** |
| | baz=33 | | | | | | |
| **TEGC** | **Jichi Village** | **0.21** | **175** | *e*P | **Pg** | **01 30 24.5** | **+1.1** |
| | baz=161 | | | | | | |
| **WDT** | **Danda** | **0.39** | **246** | ⇓*i*P | **Pg** | **01 30 25.9** | **-0.6** |
| | baz=232 | | | | | | |
| WDT | | | | *e*S | **Sg** | **01 30 30.9** | **-1.3** |
| | baz=232 | | | | | | |
| **EHP** | **Heping Village** | **0.44** | **27** | *e*P | **Pg** | **01 30 27.3** | **0.0** |
| | baz=34 | | | | | | |
| EHP | | | | *e*S | **Sb** | **01 30 34.2** | **+0.6** |
| | baz=34 | | | | | | |
| **EHY** | **Hungye** | **0.45** | **204** | ⇑P | **Pg** | **01 30 26.2** | **-1.2** |
| | baz=190 | | | | | | |
| EHY | | | | *e*S | **Sg** | **01 30 32.7** | **-0.8** |
| | baz=190 | | | | | | |
| **TWT** | **Tachien** | **0.46** | **317** | ⇑*i*P | **Pg** | **01 30 27.2** | **-0.5** |
| | baz=312 | | | | | | |
| TWT | | | | *e*S | **Sg** | **01 30 33.1** | **-1.1** |
| | baz=312 | | | | | | |
| **NNS** | **Nan Shan** | **0.54** | **346** | ⇑*i*P | **Pg** | **01 30 28.6** | **-0.5** |
| | baz=359 | | | | | | |
| NNS | | | | S | **Sg** | **01 30 35.5** | **-1.0** |
| | baz=359 | | | | | | |
| **ENA** | **Nanau** | **0.55** | **21** | ⇓P | **Pb** | **01 30 28.5** | **-0.6** |
| | baz=27 | | | | | | |
| ENA | | | | *e*S | **Sg** | **01 30 36.0** | **-0.6** |
| | baz=27 | | | | | | |
| **SMLT** | **Sun Moon Lake** | **0.57** | **267** | ⇑*i*P | **Pb** | **01 30 28.8** | **-0.7** |
| | baz=265 | | | | | | |
| SMLT | | | | *e*S | **Sg** | **01 30 35.8** | **-1.5** |
| | baz=265 | | | | | | |
| **TWF1** | **Yuli** | **0.60** | **200** | ⇑*e*P | **Pb** | **01 30 28.3** | **-1.6** |
| | baz=194 | | | | | | |
| TWF1 | | | | *e*S | **Sb** | **01 30 37.9** | **0.0** |
| | baz=194 | | | | | | |
| **TYC** | **Yuchr** | **0.61** | **269** | ⇑*i*P | **Pb** | **01 30 29.3** | **-0.7** |
| | baz=273 | | | | | | |
| TYC | | | | *e*S | **Sb** | **01 30 36.5** | **-1.7** |
| | baz=273 | | | | | | |
| **YUS** | **Yu-Shan** | **0.67** | **231** | P | **Pb** | **01 30 31.3** | **-0.2** |
| | baz=218 | | | | | | |
| YUS | | | | *e*S | **Sg** | **01 30 40.0** | **-0.8** |
| | baz=218 | | | | | | |
| **ENTT** | **Nioudou** | **0.72** | **3** | *e*P | **Pb** | **01 30 31.7** | **-0.4** |
| | baz=8.0 | | | | | | |
| ENTT | | | | S | **Sb** | **01 30 41.0** | **-0.6** |
| | baz=8.0 | | | | | | |
| **TWC** | **Suao** | **0.75** | **23** | *e*P | **Pb** | **01 30 32.0** | **-0.6** |
| | baz=28 | | | | | | |
| TWC | | | | S | **Sb** | **01 30 42.3** | **-0.2** |
| | baz=28 | | | | | | |
| **WNT** | **Mingjian** | **0.77** | **267** | *e*P | **Pb** | **01 30 32.8** | **-0.1** |
| | baz=266 | | | | | | |
| WNT | | | | *e*S | **Sb** | **01 30 43.0** | **+0.1** |
| | baz=266 | | | | | | |
| **ALS** | **Alishan** | **0.77** | **239** | *e*P | **Pb** | **01 30 32.8** | **-0.3** |
| | baz=227 | | | | | | |
| ALS | | | | *e*S | **Sb** | **01 30 42.4** | **-0.8** |
| | baz=227 | | | | | | |
| **TCU** | **Taichung** | **0.81** | **287** | *e*P | **Pb** | **01 30 33.9** | **+0.3** |
| | baz=287 | | | | | | |
| TCU | | | | *e*S | **Sg** | **01 30 45.2** | **+0.5** |
| | baz=287 | | | | | | |
| **TWQ1** | **Liyutan** | **0.81** | **302** | ⇑*e*P | **Pb** | **01 30 33.6** | **+0.1** |
| | baz=314 | | | | | | |
| TWQ1 | | | | *e*S | **Sb** | **01 30 44.2** | **+0.2** |
| | baz=314 | | | | | | |
| **TWE** | **Neicheng** | **0.81** | **9** | *e*P | **Pb** | **01 30 33.0** | **-0.7** |
| | baz=14 | | | | | | |
| TWE | | | | *e*S | **Sb** | **01 30 44.3** | **0.0** |
| | baz=14 | | | | | | |
| **CHKT** | **Chengkung** | **0.82** | **190** | *e*P | **Pb** | **01 30 32.6** | **-1.2** |
| | baz=185 | | | | | | |
| CHKT | | | | *e*S | **Sb** | **01 30 44.7** | **+0.2** |
| | baz=185 | | | | | | |
| **CHN5** | **Tsauling** | **0.83** | **248** | *e*P | **Pb** | **01 30 34.2** | **+0.1** |
| | baz=246 | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| CHN5 | | | | eS | Sg | 01 30 45.8 | +0.1 |
| | baz=246 | | | | | | |
| NSY | Sanyi | 0.85 | 306 | eP | Pb | 01 30 34.8 | +0.4 |
| | baz=317 | | | | | | |
| NSY | | | | eS | Sb | 01 30 45.2 | -0.3 |
| | baz=317 | | | | | | |
| NSTT | Nanjuang | 0.86 | 326 | ⇑P | Pb | 01 30 34.2 | -0.2 |
| | baz=329 | | | | | | |
| NSTT | | | | eS | Sb | 01 30 44.3 | -1.2 |
| | baz=329 | | | | | | |
| ELDTW | Lidau | 0.86 | 213 | eP | Pb | 01 30 32.5 | -2.0 |
| | baz=216 | | | | | | |
| ELDTW | | | | eS | Sb | 01 30 44.5 | -1.1 |
| | baz=216 | | | | | | |
| ILA | Ilan | 0.87 | 14 | eP | Pg | 01 30 35.4 | +0.2 |
| | baz=19 | | | | | | |
| WGK | Gukeng | 0.91 | 256 | eP | Pb | 01 30 35.5 | +0.3 |
| | baz=254 | | | | | | |
| WGK | | | | eS | Sb | 01 30 47.2 | +0.3 |
| | baz=254 | | | | | | |
| HSN | Hsinchu | 1.02 | 330 | eP | Pb | 01 30 37.6 | +0.5 |
| | baz=324 | | | | | | |
| CHN4 | Tsaushan | 1.02 | 237 | eP | Pb | 01 30 37.2 | +0.1 |
| | baz=223 | | | | | | |
| CHN4 | | | | eS | Sg | 01 30 51.7 | +0.3 |
| | baz=223 | | | | | | |
| STYT | Tauyuan | 1.03 | 223 | eP | Pb | 01 30 37.0 | -0.3 |
| | baz=216 | | | | | | |
| STYT | | | | eS | Sb | 01 30 50.6 | +0.2 |
| | baz=216 | | | | | | |
| TWA | Mucha | 1.06 | 3 | eP | Pb | 01 30 36.5 | -1.4 |
| | baz=16 | | | | | | |
| WTP | Ta-pu | 1.07 | 232 | ⇑P | Pb | 01 30 38.1 | +0.1 |
| | baz=218 | | | | | | |
| WTP | | | | eS | Sb | 01 30 52.3 | +0.8 |
| | baz=218 | | | | | | |
| CHY | Chiayi | 1.09 | 248 | eP | Pb | 01 30 38.3 | -0.1 |
| | baz=257 | | | | | | |
| CHY | | | | eS | Sb | 01 30 52.7 | +0.6 |
| | baz=257 | | | | | | |
| NCU | National Centr | 1.09 | 344 | eP | Pn | 01 30 39.0 | +0.5 |
| | baz=347 | | | | | | |
| NCU | | | | eS | Sg | 01 30 54.0 | +0.1 |
| | baz=347 | | | | | | |
| TAP | Taipei | 1.12 | 359 | eP | Pn | 01 30 38.4 | -0.3 |
| | baz=2.0 | | | | | | |
| TAP | | | | eS | Sb | 01 30 53.8 | +0.7 |
| | baz=2.0 | | | | | | |
| TAP1 | Taipei | 1.12 | 0 | eP | Pn | 01 30 38.5 | -0.3 |
| | baz=2.0 | | | | | | |
| TAP1 | | | | eS | Sb | 01 30 53.5 | +0.5 |
| | baz=2.0 | | | | | | |
| WTCT | Ta-ch'eng | 1.14 | 268 | eP | Pn | 01 30 38.1 | -0.9 |
| | baz=267 | | | | | | |
| WTCT | | | | eS | Sb | 01 30 54.2 | +0.7 |
| | baz=267 | | | | | | |
| TWK | Hsinying | 1.15 | 236 | eP | Pn | 01 30 39.5 | +0.3 |
| | baz=233 | | | | | | |
| TWK | | | | eS | Sn | 01 30 55.1 | +0.8 |
| | baz=233 | | | | | | |
| CHN1 | Nanshi | 1.17 | 232 | eP | Pb | 01 30 40.0 | +0.4 |
| | baz=229 | | | | | | |
| CHN1 | | | | eS | Sn | 01 30 55.4 | +0.6 |
| | baz=229 | | | | | | |
| TWG | Pinlang | 1.17 | 201 | eP | Pn | 01 30 39.1 | -0.3 |
| | baz=183 | | | | | | |
| TWG | | | | eS | Sn | 01 30 55.7 | +0.9 |
| | baz=183 | | | | | | |
| TWB1 | Santiao Chiao | 1.17 | 21 | eP | Pn | 01 30 39.9 | +0.5 |
| | baz=24 | | | | | | |
| TWB1 | | | | eS | Sb | 01 30 55.0 | +0.5 |
| | baz=24 | | | | | | |
| NWF | Wu-fen Shan | 1.18 | 12 | eP | Pn | 01 30 39.0 | -0.6 |
| | baz=14 | | | | | | |
| NWF | | | | eS | Sb | 01 30 54.8 | 0.0 |
| | baz=14 | | | | | | |
| TWS1 | Kuangyinshan | 1.18 | 355 | eP | Pn | 01 30 39.8 | +0.2 |
| | baz=10.0 | | | | | | |
| TWS1 | | | | eS | Sn | 01 30 56.2 | +1.0 |
| | baz=10.0 | | | | | | |
| SGST | Jiashian | 1.20 | 226 | eP | Pb | 01 30 40.5 | +0.3 |
| | baz=223 | | | | | | |
| SGST | | | | eS | Sg | 01 30 57.0 | -0.1 |
| | baz=223 | | | | | | |
| CHN8 | Yiju | 1.33 | 245 | eP | Pn | 01 30 41.5 | -0.1 |
| | baz=241 | | | | | | |
| TWY | Chenhua | 1.36 | 3 | eP | Pn | 01 30 42.9 | +0.9 |
| | baz=8.0 | | | | | | |
| ECL | Taimali | 1.41 | 202 | eP | Pn | 01 30 43.2 | +0.5 |
| | baz=184 | | | | | | |
| SSD | Sandimen | 1.42 | 215 | eP | Pn | 01 30 43.7 | +0.8 |
| | baz=212 | | | | | | |
| SSD | | | | eS | Sb | 01 31 02.8 | +1.1 |
| | baz=212 | | | | | | |
| YOJ | Yonaguni jima | 1.47 | 68 | eP | Pn | 01 30 43.0 | -0.5 |
| | baz=69 | | | | | | |
| YOJ | Yonaguni jima | 1.47 | 68 | P | Pn | 01 30 43.2 | -0.3 |
| YOJ | | | | eS | Sn | 01 31 02.4 | +0.2 |
| TWM1 | Shoushan | 1.48 | 223 | eP | Pb | 01 30 46.0 | +0.9 |
| | baz=219 | | | | | | |
| EAST | Anshuo | 1.65 | 202 | eP | Pn | 01 30 46.8 | +0.7 |
| | baz=186 | | | | | | |
| SCZT | Fangliau | 1.75 | 209 | eP | Pn | 01 30 48.8 | +1.4 |
| | baz=198 | | | | | | |
| PNG | Penghu | 1.83 | 260 | eP | Pn | 01 30 48.2 | -0.4 |
| | baz=258 | | | | | | |
| PNG | | | | eS | Sn | 01 31 11.5 | +0.2 |
| | baz=258 | | | | | | |
| IRIF | Iriomote-Funau | 2.06 | 78 | P | Pn | 01 30 51.6 | -0.1 |
| IRIF | | | | eS | Sn | 01 31 17.7 | +0.8 |
| HATJ | Hateruma jima | 2.09 | 86 | eS | Sn | 01 31 18.2 | +0.5 |
| JKRS | Kuro-shima | 2.30 | 81 | P | Pn | 01 30 55.6 | +0.7 |
| JKRS | | | | eS | Sn | 01 31 24.0 | +1.3 |
| JIJ | Ishigaki jima | 2.44 | 79 | P | Pn | 01 30 56.7 | -0.2 |
| JIJ | | | | eS | Sn | 01 31 25.2 | -0.9 |
| JISG | Ishigakijimahi | 2.63 | 75 | P | Pn | 01 30 59.4 | -0.2 |
| JISG | | | | eS | Sn | 01 31 29.9 | -1.1 |
| KNM | Kinmen | 2.86 | 281 | eP | Pn | 01 31 03.7 | +1.0 |
| | baz=279 | | | | | | |

*ISN **03** 01:30:43.2±1.1, 39°.40N×43°.97E, h0km±57km, ML4.7*
*BJI **03** 01:30:51.6, 38°.90N×43°.80E, h5km, mb4.5/25, mB5.1/17, Ms4.6/8, Ms7 4.4/8*
*AZER **03** 01:30:52.2±0.3, 38°.45N×44°.03E, h9km, Error ellipse: s-maj=2.9km s-min=2.3km az=124.0*
*ISCJB **03** 01:30:53.9±0.1, 38°.69N±0°.02×44°.06E±0°.01, h10km, mb4.5/92, MS3.7/22, Error ellipse: s-maj=2.5km s-min=1.4km az=164.3*
*MOS **03** 01:30:53.7±1.4, 38°.65N×44°.00E, h8km, mb4.7/46, Error ellipse: s-maj=5.5km s-min=3.4km az=108.5*
*CSEM **03** 01:30:53.4±0.1, 38°.63N×44°.09E, h2km, mb4.6/39, Error ellipse: s-maj=3.6km s-min=2.2km az=164.0*
*ATA **03** 01:30:53.6±1.1, 38°.91N×43°.79E, h0km±5km, ML4.9, MW4.9*
*DSN **03** 01:30:53.6±4.6, 38°.78N×43°.55E, h10km, Error ellipse: s-maj=85.4km s-min=7.3km az=88.0*
*NEIC **03** 01:30:54.6±0.0, 38°.87N×43°.79E, h5km, mb4.7/49, ML4.5(ISK), After ISK.*
*DDA **03** 01:30:54.1, 38°.85N×43°.79E, h4km, Ml4.3*
*ISK **03** 01:30:54.6, 38°.87N×43°.78E, h5km, ML4.3*
*IDC **03** 01:30:55.0±0.5, 38°.85N×43°.76E, h0km, mb4.3/26, mb1 4.3/37, mb1mx4.2/55, mbtmp4.2/37, ML3.3/10, MS3.7/25, Ms1 3.7/25, ms1mx3.5/42, Error ellipse: s-maj=10.7km s-min=7.6km az=148.0*

**ISC 03 01:30:54.1**±1.0**, 38°.78N**±0°.01×**43°.98E**±0°.01**, h3**km±6km**,**
**n619, σ1§98**/695**, mb4.7**/92**, MS3.7**/22**, 68C-66D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CLDR | Caldiran | 0.37 | 353 | ePG | Pg | 01 31 00.8 | -0.5 |
| CLDR | | | | eSG | Sg | 01 31 06.9 | +0.7 |
| CLDR | Caldiran | 0.37 | 353 | ⇓iP | Pg | 01 31 00.4 | -0.9 |
| CLDR | | | | iS | Sb | 01 31 09.4 | -0.3 |
| CLDR | Caldiran | 0.37 | 353 | ePg | Pg | 01 31 00.8 | -0.5 |
| CLDR | | | | Sg | Sg | 01 31 06.8 | +0.7 |
| CLDR | | | | S | Sb | 01 31 09.4 | -0.3 |
| CLDR | Caldiran | 0.37 | 353 | Pg | Pg | 01 31 00.8 | -0.5 |
| CLDR | | | | Sg | Sg | 01 31 06.8 | +0.7 |
| VMUR | Van-Muradiye | 0.38 | 304 | ⇓iP | Pg | 01 30 58.5 | -3.0 |
| VMUR | | | | iS | Sg | 01 31 02.8 | -3.7 |
| VANB | Van | 0.49 | 249 | ePG | Pb | 01 31 04.0 | -1.5 |
| VANB | Van | 0.49 | 249 | ePg | Pb | 01 31 04.0 | -1.5 |
| VANB | Van | 0.49 | 249 | Pg | Pb | 01 31 04.9 | -0.6 |
| TVAN | Van | 0.51 | 241 | ⇓iP | Pg | 01 31 03.8 | -0.1 |
| TVAN | | | | iS | Sn | 01 31 14.9 | -2.9 |
| TVAN | Van | 0.51 | 241 | P | Pg | 01 31 03.8 | -0.1 |
| ERCV | ERCIS-VAN | 0.56 | 296 | ePG | Pg | 01 31 02.3 | -2.5 |
| ERCV | ERCIS-VAN | 0.56 | 296 | ePg | Pg | 01 31 02.3 | -2.5 |
| BASK | Baskale_VAN | 0.72 | 178 | iP | Pn | 01 31 11.9 | +0.5 |
| BASK | | | | IAML | | 01 31 42.2 | |
| | comp=Z,2µm,0.6s | | | | | | |
| BASK | Baskale_VAN | 0.72 | 178 | ⇓iP | Pb | 01 31 09.5 | +0.1 |
| BASK | | | | iS | Sn | 01 31 27.1 | +4.1 |
| DYDN | Diyadin | 0.80 | 344 | eP | Pg | 01 31 07.2 | -2.2 |
| DYDN | | | | IAML | | 01 31 28.9 | |
| | comp=Z,5µm,0.8s | | | | | | |
| DYDN | Diyadin | 0.80 | 344 | ⇓iP | Pg | 01 31 07.1 | -2.3 |
| DYDN | | | | iS | Sg | 01 31 18.3 | -1.6 |
| GEVA | Gevas | 0.86 | 238 | eP | Pg | 01 31 10.0 | -0.5 |
| GEVA | | | | eS | Sn | 01 31 24.1 | -2.2 |
| GEVA | | | | IAML | | 01 31 36.3 | |
| | comp=Z,4µm,0.6s | | | | | | |
| GEVA | Gevas | 0.86 | 238 | ⇑iP | Pg | 01 31 09.8 | -0.7 |
| GEVA | | | | iS | Sn | 01 31 24.0 | -2.2 |
| GEVA | Gevas | 0.86 | 238 | P | Pg | 01 31 09.8 | -0.7 |
| ADCV | BITLIS_Adilcev | 0.98 | 272 | ⇑iP | Pg | 01 31 10.8 | -2.1 |
| ADCV | | | | iS | Sg | 01 31 20.3 | -5.3 |
| TUTA | Tutak | 1.10 | 305 | eP | Pg | 01 31 12.0 | -3.2 |
| TUTA | | | | IAML | | 01 31 18.6 | |
| | comp=Z,3µm,0.4s | | | | | | |
| TUTA | Tutak | 1.10 | 305 | iP | Pg | 01 31 12.1 | -3.2 |
| TUTA | | | | iS | Sg | 01 31 27.5 | -1.9 |
| AGRB | Hanur-Agry | 1.11 | 317 | ePG | Pg | 01 31 12.7 | -2.6 |
| AGRB | Hanur-Agry | 1.11 | 317 | Pg | Pg | 01 31 12.4 | -2.9 |
| HYR | Heyderabad | 1.16 | 36 | ⇑P | Pn | 01 31 18.1 | +0.8 |
| HYR | | | | ⇑S | Sn | 01 31 38.7 | +5.0 |
| HYR | Heyderabad | 1.16 | 36 | P | Pn | 01 31 18.1 | +0.8 |
| TASB | TASBURUN-IGDIR | 1.22 | 9 | ePN | Pg | 01 31 18.0 | +0.5 |
| TASB | TASBURUN-IGDIR | 1.22 | 9 | ePn | Pg | 01 31 18.0 | +0.5 |
| HAKT | HAKKARI | 1.23 | 190 | ⇓iP | Pg | 01 31 17.8 | 0.0 |
| HAKT | | | | iS | Sn | 01 31 40.7 | +5.0 |
| NAX | Nakhchivan | 1.25 | 71 | ⇓P | Pn | 01 31 17.3 | -1.2 |
| | SNR=285 | | | | | | |
| NAX | | | | ⇓S | Sn | 01 31 36.4 | +0.6 |
| NAX | Nakhchivan | 1.25 | 71 | P | Pn | 01 31 17.3 | -1.2 |
| | SNR=285 | | | | | | |
| NAX | | | | S | Sn | 01 31 36.4 | +0.6 |
| SBZ | Shahbuz | 1.37 | 63 | ⇓P | Pb | 01 31 19.4 | -1.1 |
| SBZ | | | | ⇑S | Sg | 01 31 40.7 | +2.5 |
| SBZ | Shahbuz | 1.37 | 63 | P | Pb | 01 31 19.4 | -1.1 |
| SBZ | | | | S | Sg | 01 31 40.7 | +2.5 |
| GNI | Garni | 1.49 | 23 | Pg | Pg | 01 31 22.9 | +0.2 |
| | comp=Z,48nm,0.3s,baz=231,slow=2.8,SNR=238 | | | | | | |
| GNI | | | | Lg | Lg | 01 31 44.3 | |
| | comp=Z,125nm,0.3s,baz=197,slow=19,SNR=7.0 | | | | | | |
| GNI | | | | LR | LR | 01 32 15.3 | |
| | comp=Z,1µm,20.1s,baz=184,slow=53 | | | | | | |
| GNI | Garni | 1.49 | 23 | eP | Pg | 01 31 22.8 | +0.1 |
| | SNR=12 | | | | | | |
| GNI | Garni | 1.49 | 23 | ⇑eP | Pn | 01 31 20.4 | -1.6 |
| GNI | Garni | 1.49 | 23 | eP | Pn | 01 31 20.4 | -1.6 |
| GNI | Garni | 1.49 | 23 | ePn | Pg | 01 31 22.0 | -0.8 |
| GNI | | | | Lg | Lg | 01 31 44.3 | |
| GNI | Garni | 1.49 | 23 | ePn | Pg | 01 31 21.9 | -0.8 |
| GNI | | | | Lg | Lg | 01 31 44.3 | |
| CUKT | Cukurca | 1.55 | 191 | ePN | Pg | 01 31 25.5 | +1.7 |
| CUKT | Cukurca | 1.55 | 191 | ⇓iP | Pg | 01 31 23.8 | 0.0 |
| CUKT | | | | iS | Sg | 01 31 47.9 | +3.9 |
| CUKT | Cukurca | 1.55 | 191 | Pn | Pg | 01 31 25.1 | +1.3 |
| EKAR | Karacoban | 1.57 | 288 | eP | Pn | 01 31 22.0 | -1.0 |
| EKAR | | | | eS | Sb | 01 31 42.6 | -1.5 |
| EKAR | | | | IAML | | 01 31 53.9 | |
| | comp=Z,1µm,0.7s | | | | | | |
| EKAR | Karacoban | 1.57 | 288 | ⇓iP | Pn | 01 31 21.9 | -1.1 |
| EKAR | | | | iS | Sg | 01 31 45.7 | +1.3 |
| EKAR | Karacoban | 1.57 | 288 | P | Pn | 01 31 21.9 | -1.1 |
| EKAR | | | | S | Sg | 01 31 45.7 | +1.3 |
| ORD | Ordubad | 1.58 | 84 | P | Pn | 01 31 21.0 | -2.1 |
| ORD | | | | S | Sn | 01 31 42.7 | -1.4 |
| EATA | Eleskirt | 1.58 | 314 | eP | Pn | 01 31 20.3 | -3.0 |
| EATA | | | | IAML | | 01 31 27.1 | |
| | comp=Z,236nm,0.4s | | | | | | |
| EATA | Eleskirt | 1.58 | 314 | iP | Pn | 01 31 20.6 | -2.7 |
| EATA | | | | iS | Sg | 01 31 46.8 | +1.8 |
| DIGO | Kars | 1.70 | 344 | eP | Pn | 01 31 24.0 | -0.9 |
| DIGO | | | | IAML | | 01 31 34.6 | |
| | comp=Z,608nm,0.5s | | | | | | |
| DIGO | | | | eS | Sb | 01 31 47.1 | -1.0 |
| DIGO | Kars | 1.70 | 344 | iP | Pb | 01 31 24.4 | -1.8 |
| DIGO | | | | iS | Sg | 01 31 51.7 | +2.9 |
| DIGO | Kars | 1.70 | 344 | P | Pb | 01 31 24.4 | -1.8 |
| DIGO | | | | S | Sg | 01 31 51.7 | +2.9 |
| SIRT | Sirnak | 1.76 | 224 | ePN | Pb | 01 31 26.5 | -0.5 |
| SIRT | Sirnak | 1.76 | 224 | ePn | Pb | 01 31 26.5 | -0.5 |
| SRTM | Siirt_Merkez | 1.79 | 245 | ⇑iP | Pb | 01 31 25.8 | -1.8 |
| SRTM | | | | iS | Sg | 01 31 52.8 | +1.1 |
| SRTM | Siirt_Merkez | 1.79 | 245 | P | Pb | 01 31 25.8 | -1.8 |
| EAK | Akyaka | 1.93 | 352 | eP | Pb | 01 31 29.4 | -0.5 |
| EAK | | | | IAML | | 01 31 40.2 | |
| | comp=Z,885nm,0.7s | | | | | | |
| EAK | Akyaka | 1.93 | 352 | ⇑iP | Pb | 01 31 29.5 | -0.5 |
| EAK | | | | iS | Sg | 01 31 57.3 | +1.2 |
| EAK | Akyaka | 1.93 | 352 | P | Pb | 01 31 29.5 | -0.5 |
| EAK | | | | S | Sg | 01 31 57.3 | +1.2 |
| KARS | Kars | 1.98 | 340 | ePN | Pb | 01 31 28.9 | -1.8 |
| KARS | Kars | 1.98 | 340 | P | Pb | 01 31 28.9 | -1.8 |
| KARS | Kars | 1.98 | 340 | ePn | Pb | 01 31 28.9 | -1.8 |
| KARS | Kars | 1.98 | 340 | Pn | Pb | 01 31 28.9 | -1.8 |
| VRTB | Varto-Mus | 2.00 | 282 | ePN | Pn | 01 31 28.4 | -0.5 |
| VRTB | Varto-Mus | 2.00 | 282 | ⇑iP | Pn | 01 31 27.2 | -1.7 |
| VRTB | | | | iS | Sb | 01 31 55.9 | -0.7 |
| VRTB | Varto-Mus | 2.00 | 282 | Pn | Pb | 01 31 29.2 | -2.0 |
| VRTB | | | | S | Sb | 01 31 55.9 | -0.7 |
| VRTB | Varto-Mus | 2.00 | 282 | Pn | Pb | 01 31 29.2 | -2.0 |
| HOMI | Horasan | 2.04 | 309 | eP | Pb | 01 31 29.6 | -2.4 |
| HOMI | | | | eS | Sg | 01 31 57.8 | -2.0 |
| HOMI | Horasan | 2.04 | 309 | ⇓iP | Pb | 01 31 30.0 | -2.0 |
| HOMI | | | | iS | Sg | 01 32 06.4 | +6.6 |
| SENK | Senkaya-Erzuru | 2.18 | 325 | ePN | Pn | 01 31 31.1 | -0.3 |
| SENK | Senkaya-Erzuru | 2.18 | 325 | ePn | Pn | 01 31 31.1 | -0.3 |
| BNGL | BINGOL | 2.21 | 275 | eP | Pb | 01 31 32.2 | -2.6 |
| BNGL | | | | IAML | | 01 32 11.8 | |
| | comp=Z,1µm,0.6s | | | | | | |
| BNGL | BINGOL | 2.21 | 275 | ⇑iP | Pn | 01 31 31.5 | -0.4 |
| BNGL | | | | iS | Sg | 01 32 03.6 | -1.6 |
| SVAN | Silvan-Diyarba | 2.27 | 255 | ePN | Pb | 01 31 33.8 | -1.9 |
| SVAN | Silvan-Diyarba | 2.27 | 255 | ⇑iP | Pn | 01 31 32.0 | -0.5 |
| SVAN | | | | iS | Sg | 01 32 05.1 | -1.9 |
| SVAN | Silvan-Diyarba | 2.27 | 255 | P | Pn | 01 31 32.0 | -0.5 |
| SVAN | Silvan-Diyarba | 2.27 | 255 | Pn | Pn | 01 31 32.5 | 0.0 |
| SVAN | Silvan-Diyarba | 2.27 | 255 | Pn | Pn | 01 31 32.5 | 0.0 |
| BTMN | Batman | 2.31 | 248 | ⇑iP | Pn | 01 31 32.7 | -0.3 |
| BTMN | | | | iS | Sg | 01 32 06.4 | -1.7 |
| BTMN | Batman | 2.31 | 248 | P | Pn | 01 31 32.7 | -0.3 |
| ERZM | Erzurum | 2.32 | 300 | eP | Pn | 01 31 33.5 | +0.2 |
| ERZM | Erzurum | 2.32 | 300 | iP | Pn | 01 31 32.9 | -0.5 |
| ERZM | | | | iS | Sg | 01 32 11.2 | +2.6 |
| ERZM | Erzurum | 2.32 | 300 | P | Pn | 01 31 32.8 | -0.5 |
| GDB | GEDABAY | 2.38 | 35 | ⇑P | Pb | 01 31 34.8 | -2.8 |
| | SNR=8.6 | | | | | | |
| GDB | | | | ⇓S | Sg | 01 32 08.5 | -1.9 |
| GDB | GEDABAY | 2.38 | 35 | P | Pb | 01 31 34.8 | -2.8 |
| | SNR=8.6 | | | | | | |
| GDB | | | | S | Sg | 01 32 08.5 | -1.9 |
| MSL | Mosul | 2.47 | 196 | ePn | Pn | 01 31 33.7 | -1.5 |
| | SNR=39 | | | | | | |
| ECAT | Cat-ERZURUM | 2.48 | 291 | eP | Pn | 01 31 35.9 | +0.3 |
| ECAT | | | | IAML | | 01 31 55.2 | |
| | comp=Z,297nm,0.6s | | | | | | |
| ECAT | Cat-ERZURUM | 2.48 | 291 | iP | Pn | 01 31 35.8 | +0.3 |
| ECAT | | | | iS | Sg | 01 32 14.3 | +0.6 |
| ECAT | Cat-ERZURUM | 2.48 | 291 | P | Pn | 01 31 35.8 | +0.3 |
| BGD | Bogdanovka | 2.50 | 353 | P | Pb | 01 31 37.7 | -2.1 |
| QZX | Qazax, Azerbai | 2.52 | 25 | ⇓P | Pb | 01 31 37.0 | -3.0 |
| | SNR=306 | | | | | | |
| QZX | | | | ⇓S | Sg | 01 32 12.7 | -2.3 |
| QZX | Qazax, Azerbai | 2.52 | 25 | P | Pb | 01 31 37.0 | -3.0 |
| | SNR=306 | | | | | | |
| QZX | | | | S | Sg | 01 32 12.7 | -2.3 |
| BNGB | Bingˆ¶l | 2.58 | 276 | ePN | Pn | 01 31 36.9 | +0.1 |
| BNGB | Bingˆ¶l | 2.58 | 276 | Pn | Pn | 01 31 36.9 | +0.1 |
| BNGB | Bingˆ¶l | 2.58 | 276 | Pn | Pn | 01 31 36.9 | +0.1 |
| GANJ | Ganja | 2.60 | 43 | ⇓P | Pn | 01 31 37.4 | +0.4 |
| | SNR=95 | | | | | | |
| GANJ | | | | ⇑S | Sb | 01 32 13.1 | -0.6 |
| GANJ | Ganja | 2.60 | 43 | P | Pn | 01 31 37.4 | +0.4 |
| | SNR=95 | | | | | | |
| GANJ | | | | S | Sb | 01 32 13.1 | -0.6 |
| AKH | Akhalkalaki | 2.66 | 352 | ePN | Pn | 01 31 38.7 | +0.8 |
| AKH | Akhalkalaki | 2.66 | 352 | P | Pb | 01 31 42.5 | 0.0 |
| AKH | | | | S | Sg | 01 32 22.3 | +2.8 |
| AKH | Akhalkalaki | 2.66 | 352 | P | Pb | 01 31 42.4 | 0.0 |
| AKH | | | | S | Sg | 01 32 22.2 | +2.8 |
| AKH | Akhalkalaki | 2.66 | 352 | ePn | Pn | 01 31 38.7 | +0.8 |
| AKH | Akhalkalaki | 2.66 | 352 | P | Pb | 01 31 42.4 | 0.0 |
| DDEM | Demirkent | 2.72 | 322 | iP | Pn | 01 31 39.3 | +0.6 |
| DDEM | | | | iS | Sg | 01 32 27.1 | +5.6 |
| DDEM | Demirkent | 2.72 | 322 | P | Pn | 01 31 39.3 | +0.6 |
| BINT | Bingol | 2.73 | 273 | P | Pn | 01 31 36.9 | -2.0 |
| BINT | Bingol | 2.73 | 273 | ePn | Pn | 01 31 36.9 | -2.0 |
| YEDI | Yedisu-Bingol | 2.75 | 285 | ePN | Pn | 01 31 38.9 | -0.3 |
| YEDI | Yedisu-Bingol | 2.75 | 285 | Pn | Pn | 01 31 39.8 | +0.6 |
| YEDI | Yedisu-Bingol | 2.75 | 285 | Pn | Pn | 01 31 39.8 | +0.6 |
| DAGI | Agillar | 2.79 | 326 | ⇓iP | Pn | 01 31 40.4 | +0.6 |
| DAGI | | | | iS | Sg | 01 32 30.9 | +7.1 |
| HANI | Diyarbakir_Han | 2.83 | 264 | iP | Pn | 01 31 40.8 | +0.6 |
| HANI | | | | iS | Sg | 01 32 22.0 | -2.9 |
| HANI | Diyarbakir_Han | 2.83 | 264 | P | Pn | 01 31 40.8 | +0.6 |
| ARTV | Artvin | 2.88 | 327 | eP | Pn | 01 31 42.0 | +1.1 |
| ARTV | | | | IAML | | 01 31 55.3 | |
| | comp=Z,60nm,0.6s | | | | | | |
| ARTV | Artvin | 2.88 | 327 | ePn | Pb | 01 31 43.0 | -3.2 |
| ARTV | Artvin | 2.88 | 327 | ePn | Pb | 01 31 43.0 | -3.2 |
| BRDA | Brd | 2.89 | 58 | ⇑P | Pn | 01 31 40.3 | -0.6 |
| | SNR=25 | | | | | | |
| BRDA | | | | ⇑S | Sb | 01 32 17.9 | -4.0 |
| BRDA | Brd | 2.89 | 58 | P | Pn | 01 31 40.3 | -0.6 |
| | SNR=25 | | | | | | |
| BRDA | | | | S | Sb | 01 32 17.9 | -4.0 |
| EPOS | Posof | 2.89 | 341 | eP | Pn | 01 31 42.2 | +1.1 |
| EPOS | | | | IAML | | 01 32 00.6 | |
| | comp=Z,82nm,0.6s | | | | | | |
| MARD | Mardin | 2.92 | 241 | ePn | Pn | 01 31 42.0 | +0.5 |
| MARD | Mardin | 2.92 | 241 | ePn | Pn | 01 31 42.0 | +0.5 |
| KOPT | Kop Dagi | 2.97 | 296 | iP | Pb | 01 31 47.1 | -0.7 |
| KOPT | | | | iS | Sg | 01 32 38.3 | +8.9 |
| KOPT | Kop Dagi | 2.97 | 296 | ePn | Pb | 01 31 45.6 | -2.2 |
| KOPT | Kop Dagi | 2.97 | 296 | ePn | Pb | 01 31 45.6 | -2.2 |
| TBLG | Delisi | 3.01 | 11 | ePN | Pb | 01 31 44.8 | -3.5 |
| TBLG | Delisi | 3.01 | 11 | P | Sg | 01 32 31.4 | +0.6 |
| TBLG | Delisi | 3.01 | 11 | ePn | Pb | 01 31 44.8 | -3.5 |
| DIY | Diyarbakir | 3.08 | 255 | ePn | Pb | 01 31 45.6 | -3.9 |
| MAZI | Mazidag | 3.08 | 246 | ePN | Pn | 01 31 44.2 | +0.5 |
| MAZI | Mazidag | 3.08 | 246 | ePn | Pn | 01 31 44.2 | +0.5 |
| MAZI | Mazidag | 3.08 | 246 | Pn | Pn | 01 31 44.2 | +0.5 |
| MNGR | Mingechevir, A | 3.12 | 49 | ⇑P | Pn | 01 31 44.0 | -0.1 |
| | SNR=7.3 | | | | | | |
| MNGR | | | | ⇓S | Sb | 01 32 24.7 | -3.8 |
| MNGR | Mingechevir, A | 3.12 | 49 | P | Pn | 01 31 44.0 | -0.1 |
| | SNR=7.3 | | | | | | |
| MNGR | | | | S | Sb | 01 32 24.7 | -3.8 |
| DYBB | Diyarbakir | 3.13 | 256 | ePN | Pn | 01 31 45.6 | +1.3 |
| DDFL | Dedoflistskaro | 3.13 | 31 | P | Pn | 01 31 44.8 | +0.4 |
| ZRD | Zardab | 3.24 | 61 | ⇓P | Pn | 01 31 44.9 | -0.8 |
| | SNR=25 | | | | | | |
| ZRD | | | | ⇑S | Sn | 01 32 26.1 | +1.4 |
| ZRD | Zardab | 3.24 | 61 | P | Pn | 01 31 44.9 | -0.8 |
| | SNR=25 | | | | | | |
| ZRD | | | | S | Sn | 01 32 26.1 | +1.4 |
| ERZN | Erzincan | 3.41 | 285 | ePN | Pn | 01 31 48.3 | +0.1 |
| ERZN | Erzincan | 3.41 | 285 | Pn | Pn | 01 31 48.7 | +0.5 |
| ERZN | Erzincan | 3.41 | 285 | Pn | Pn | 01 31 48.7 | +0.5 |
| LRK | Lerik | 3.42 | 91 | ⇑P | Pn | 01 31 45.6 | -2.8 |
| | SNR=64 | | | | | | |
| LRK | | | | ⇓S | Sn | 01 32 25.7 | -3.7 |
| LRK | Lerik | 3.42 | 91 | P | Pn | 01 31 45.6 | -2.8 |
| | SNR=64 | | | | | | |
| LRK | | | | S | Sn | 01 32 25.7 | -3.7 |
| SEKA | Sheki | 3.47 | 44 | ⇑P | Pn | 01 31 49.8 | +0.8 |
| | SNR=4.8 | | | | | | |
| SEKA | | | | ⇑S | Sb | 01 32 35.4 | -3.3 |
| SEKA | Sheki | 3.47 | 44 | P | Pn | 01 31 49.8 | +0.8 |
| | SNR=4.8 | | | | | | |
| SEKA | | | | S | Sb | 01 32 35.4 | -3.3 |
| GLBA | Clilabad | 3.47 | 81 | ⇓P | Pn | 01 31 46.9 | -2.0 |
| | SNR=20 | | | | | | |
| GLBA | | | | ⇑S | Sn | 01 32 28.7 | -1.9 |
| GLBA | Clilabad | 3.47 | 81 | P | Pn | 01 31 46.9 | -2.0 |
| | SNR=20 | | | | | | |
| GLBA | | | | S | Sn | 01 32 28.7 | -1.9 |
| ZKTA | Zakatala | 3.50 | 34 | ⇑P | Pn | 01 31 50.2 | +0.8 |
| | SNR=22 | | | | | | |
| ZKTA | | | | ⇑S | Sb | 01 32 36.2 | -3.5 |
| PTK | Pertek | 3.58 | 273 | ePN | Pn | 01 31 51.2 | +0.5 |
| PTK | Pertek | 3.58 | 273 | ePn | Pn | 01 31 51.2 | +0.5 |
| PTK | Pertek | 3.58 | 273 | Pn | Pn | 01 31 51.2 | +0.5 |
| SAAT | Saatly | 3.62 | 71 | ⇑P | Pn | 01 31 49.2 | -1.7 |
| | SNR=18 | | | | | | |
| SAAT | | | | ⇑S | Sn | 01 32 33.3 | -0.7 |
| SAAT | Saatly | 3.62 | 71 | P | Pn | 01 31 49.2 | -1.7 |
| | SNR=18 | | | | | | |
| SAAT | | | | S | Sn | 01 32 33.3 | -0.7 |
| KDMR | Kurdemir | 3.62 | 62 | ⇓P | Pn | 01 31 50.1 | -0.9 |
| | SNR=3.7 | | | | | | |
| KDMR | | | | ⇑S | Sn | 01 32 35.4 | +1.1 |
| KDMR | Kurdemir | 3.62 | 62 | P | Pn | 01 31 50.1 | -0.9 |
| | SNR=3.7 | | | | | | |
| KDMR | | | | S | Sn | 01 32 35.4 | +1.1 |
| QBL | Gabala | 3.68 | 53 | ⇑P | Pn | 01 31 51.5 | -0.4 |
| | SNR=9.8 | | | | | | |
| QBL | | | | ⇓S | Sn | 01 32 38.3 | +2.6 |
| QBL | Gabala | 3.68 | 53 | P | Pn | 01 31 51.5 | -0.4 |
| | SNR=9.8 | | | | | | |
| QBL | | | | S | Sn | 01 32 38.3 | +2.6 |
| SVRC | Sivrice-ELAZID | 3.68 | 265 | ePN | Pn | 01 31 52.5 | +0.5 |
| SVRC | Sivrice-ELAZID | 3.68 | 265 | ePn | Pn | 01 31 52.5 | +0.5 |
| SVRC | Sivrice-ELAZID | 3.68 | 265 | Pn | Pn | 01 31 52.5 | +0.5 |
| GUDG | Gudauri | 3.71 | 6 | P | Pb | 01 31 55.2 | -5.1 |
| LKRN | Lenkeran, Azer | 3.75 | 89 | ⇑P | Pn | 01 31 50.3 | -2.5 |
| | SNR=23 | | | | | | |
| LKRN | | | | ⇓S | Sn | 01 32 34.2 | -3.3 |
| LKRN | Lenkeran, Azer | 3.75 | 89 | P | Pn | 01 31 50.3 | -2.5 |
| | SNR=23 | | | | | | |
| LKRN | | | | S | Sn | 01 32 34.2 | -3.3 |
| ASTR | Astara | 3.77 | 92 | ⇓P | Pn | 01 31 50.5 | -2.6 |
| | SNR=28 | | | | | | |
| ASTR | | | | ⇓S | Sn | 01 32 34.5 | -3.5 |
| ASTR | Astara | 3.77 | 92 | P | Pn | 01 31 50.5 | -2.6 |
| | SNR=28 | | | | | | |
| ASTR | | | | S | Sn | 01 32 34.5 | -3.5 |
| IML | Ismayilli | 3.81 | 57 | ⇑P | Pn | 01 31 53.1 | -0.6 |
| | SNR=6.0 | | | | | | |
| IML | | | | ⇑S | Sn | 01 32 40.9 | +1.8 |
| IML | Ismayilli | 3.81 | 57 | P | Pn | 01 31 53.1 | -0.6 |
| | SNR=6.0 | | | | | | |
| IML | | | | S | Sn | 01 32 40.9 | +1.8 |
| ONI | Oni | 3.83 | 354 | P | Pn | 01 31 56.0 | +1.9 |
| ONI | Oni | 3.83 | 354 | P | Pn | 01 31 55.9 | +1.9 |
| ONI | Oni | 3.83 | 354 | P | Pn | 01 31 55.9 | +1.9 |
| KTUT | Trabzon | 3.92 | 306 | ePN | Pn | 01 31 55.8 | +0.7 |
| KTUT | Trabzon | 3.92 | 306 | Pn | Pn | 01 31 56.1 | +1.0 |
| KTUT | Trabzon | 3.92 | 306 | Pn | Pn | 01 31 56.1 | +1.0 |
| XNQ | Khinaliq | 4.00 | 52 | ⇑P | Pn | 01 31 55.9 | -0.4 |
| | SNR=8.1 | | | | | | |
| XNQ | | | | ⇑S | Sn | 01 32 46.3 | +2.5 |
| XNQ | Khinaliq | 4.00 | 52 | P | Pn | 01 31 55.9 | -0.4 |
| | SNR=8.1 | | | | | | |
| XNQ | | | | S | Sn | 01 32 46.3 | +2.5 |
| ZEI | Tsey | 4.01 | 359 | eP | Pn | 01 31 57.7 | +1.1 |
| ZEI | | | | pmax | pmax | | |
| | comp=Z,51nm,0.6s | | | | | | |
| ALIB | Äli-Bayra | 4.07 | 72 | ⇑P | Pn | 01 31 55.7 | -1.5 |
| | SNR=6.7 | | | | | | |
| ALIB | | | | ⇓S | Sn | 01 32 45.0 | -0.4 |
| ALIB | Äli-Bayra | 4.07 | 72 | P | Pn | 01 31 55.7 | -1.5 |
| | SNR=6.7 | | | | | | |
| ALIB | | | | S | Sn | 01 32 45.0 | -0.4 |
| PQL | Pirkuli | 4.08 | 59 | ⇑P | Pn | 01 31 56.7 | -0.9 |
| | SNR=21 | | | | | | |
| PQL | | | | ⇓S | Sn | 01 32 47.2 | +1.3 |
| PQL | Pirkuli | 4.08 | 59 | P | Pn | 01 31 56.7 | -0.9 |
| | SNR=21 | | | | | | |
| PQL | | | | S | Sn | 01 32 47.2 | +1.3 |
| CHVG | Ch'k'valeri | 4.19 | 341 | ePN | Pn | 01 31 60.0 | +1.1 |
| CHVG | Ch'k'valeri | 4.19 | 341 | P | Pb | 01 32 10.2 | +1.7 |
| CHVG | Ch'k'valeri | 4.19 | 341 | ePn | Pn | 01 32 00.0 | +1.1 |
| GBS | Qobustan | 4.22 | 64 | ⇓P | Pn | 01 31 58.1 | -1.1 |

SNR=8.0
GBS ⇓S Sn 01 32 49.7 +0.7
**GBS Qobustan 4.22 64** P Pn 01 31 58.1 -1.1
SNR=8.0
GBS S Sn 01 32 49.7 +0.7
**ILIC ilic-Erzincan 4.26 281** *e*PN Pn 01 32 01.0 +1.0
**ILIC ilic-Erzincan 4.26 281** *e*Pn Pn 01 32 01.0 +1.0
**ILIC ilic-Erzincan 4.26 281** Pn Pn 01 32 01.0 +1.0
**QSAR Qusar 4.28 49** ⇓P Pn 01 31 59.8 -0.2
SNR=7.0
QSAR ⇓S Sn 01 32 53.3 +2.8
**QSAR Qusar 4.28 49** ⇑P Pn 01 31 59.8 -0.2
SNR=7.0
QSAR S Sn 01 32 53.3 +2.8
**URFA Urfa 4.28 253** *e*PN Pn 01 32 01.9 +1.7
**URFA Urfa 4.28 253** *e*Pn Pn 01 32 01.9 +1.7
**URFA Urfa 4.28 253** Pn Pn 01 32 01.9 +1.7
**QUBA Quba, Azerbaij 4.32 52** ⇑P Pn 01 32 00.3 -0.3
SNR=7.1
QUBA ⇑S Sn 01 32 54.0 +2.5
**QUBA Quba, Azerbaij 4.32 52** P Pn 01 32 00.3 -0.3
SNR=7.1
QUBA S Sn 01 32 54.0 +2.5
**ATGJ Altiaghaj 4.35 60** ⇑P Pn 01 32 00.2 -0.9
ATGJ ⇓S Sn 01 32 53.6 +1.2
**ATGJ Altiaghaj 4.35 60** P Pn 01 32 00.2 -0.9
ATGJ S Sn 01 32 53.6 +1.2
**MALT Malatya 4.38 266** *e*PN Pn 01 32 03.0 +1.5
**MALT Malatya 4.38 266** P Pn 01 32 03.0 +1.5
**MALT Malatya 4.38 266** *e*Pn Pn 01 32 03.0 +1.5
**MALT Malatya 4.38 266** Pn Pn 01 32 03.0 +1.5
**SIZA Siyzn 4.43 57** ⇓P Pn 01 32 01.4 -0.8
SNR=8.2
SIZA ⇓S Sn 01 32 55.8 +1.6
**SIZA Siyzn 4.43 57** P Pn 01 32 01.4 -0.8
SNR=8.2
SIZA S Sn 01 32 55.8 +1.6
**NEY Neytrino 4.57 348** ⇓*e*P Pn 01 32 07.6 +3.4
**NEY Neytrino 4.57 348** *e*P Pn 01 32 07.6 +3.4
**GROC Groznyy 4.63 17** *e*P Pb 01 32 10.7 -5.2
GROC *e*S Sb 01 33 11.6 -0.5
GROC pmax pmax
comp=Z,183nm,1.5s
GROC smax smax
comp=N,279nm,1.5s
GROC smax smax
comp=N,725nm,1.4s
**GROC Groznyy 4.63 17** *e*P Pb 01 32 10.7 -5.2
comp=N,183nm,1.5s
**NCK Nalchik 4.72 357** ⇑*e*P Pn 01 32 08.3 +2.1
**NCK Nalchik 4.72 357** *e*P Pn 01 32 08.3 +2.1
**GOBA Gobu 4.73 68** ⇑P Pn 01 32 05.0 -1.3
GOBA ⇓S Sn 01 33 01.7 0.0
**GOBA Gobu 4.73 68** P Pn 01 32 05.0 -1.3
GOBA S Sn 01 33 01.7 0.0
**MAK Makhachkala 4.96 31** *e*P Pn 01 32 08.5 -0.9
MAK *e*S Sn 01 33 07.5 +0.2
MAK pmax pmax
comp=Z,65nm,1.0s
MAK MLR MLR
comp=Z,406nm,10.0s
**MAK Makhachkala 4.96 31** *e*P Pn 01 32 08.5 -0.9
comp=Z,65nm,1.0s
MAK *e*S Sn 01 33 07.5 +0.2
comp=Z,406nm,10.0s
**NDR Nardaran 4.97 67** ⇓P Pn 01 32 08.4 -1.2
NDR ⇑S Sn 01 33 07.8 +0.2
**NDR Nardaran 4.97 67** P Pn 01 32 08.4 -1.2
NDR S Sn 01 33 07.8 +0.2
**KBZ Khabaz 5.01 351** Pn Pn 01 32 13.1 +2.9
comp=Z,0.1nm,0.3s,baz=180,slow=19,SNR=3.5
KBZ LR LR 01 34 29.3
comp=Z,2μm,21.7s,baz=172,slow=44
**GALA Gala 5.04 69** ⇓P Pn 01 32 09.2 -1.4
GALA ⇑S Sn 01 33 09.1 -0.2
**GALA Gala 5.04 69** P Pn 01 32 09.2 -1.4
GALA S Sn 01 33 09.1 -0.2
**KVAR Kislovodsk Arr 5.26 350** Pn Pn 01 32 15.8 +2.1
baz=232,slow=12,SNR=5.8
KVAR LR LR 01 34 36.9
comp=Z,2μm,19.9s,baz=134,slow=43
**KIV Kislovodsk 5.27 350** ⇑*e*P Pn 01 32 16.0 +2.3
KIV *e*S Sn 01 33 10.9 -4.0
**KIV Kislovodsk 5.27 350** *e*P Pn 01 32 16.0 +2.3
**KIV Kislovodsk 5.27 350** *e*Pn Pn 01 32 11.5 -2.2
**BHD Baghdad 5.50 176** *e*Pn Pn 01 32 16.0 -0.9
SNR=39
**SOC Sochi 5.78 328** *e*P Pn 01 32 24.7 +4.0
SOC *e* 01 33 30.2
SOC MLR MLR
comp=Z,745nm,11.0s
**SOC Sochi 5.78 328** *e*P Pn 01 32 24.7 +4.0
comp=Z,745nm,11.0s
SOC *e*S Sn 01 33 30.2 +2.8
**TOKA Tokat 6.00 287** *e*Pn Pn 01 32 27.8 +4.0
**GOF Gofitskoye 6.32 354** ⇑*e*P Pn 01 32 28.6 +0.6
GOF pmax pmax
comp=Z,10.0nm,0.7s
**GOF Gofitskoye 6.32 354** *e*P Pn 01 32 28.6 +0.6
comp=Z,10.0nm,0.7s
**RTB Rutbah 6.46 209** *e*Pn Pn 01 32 29.1 -1.0
SNR=39
RTB *e*Sn Sn 01 33 43.1 -1.2
SNR=39
**HWQ Hawqa 7.87 238** *e*P Pn 01 32 51.8 +2.3
**BR131 Keskin Array S 8.08 280** *e*Pn Pn 01 32 56.0 +3.6
**BRTR Keskin Array B 8.08 280** Pn Pn 01 32 54.4 +2.0
comp=Z,0.1nm,0.3s,baz=96,slow=13,SNR=16
BRTR LR LR 01 35 36.6
comp=Z,83nm,21.1s,baz=96,slow=36
**BRTR Keskin Array B 8.08 280** *i* P Pn 01 32 56.5 +4.1
BRTR pmax pmax
comp=Z,5.0nm,1.1s
**ILGA Ilgaz 8.21 289** *e*Pn Pn 01 32 58.6 +4.4
**BHL Bhannes 8.29 237** *e*P Pn 01 33 01.0 +5.8
**DQRL Deir Qamar 8.47 236** *e*P Pn 01 32 59.9 +2.3
**QRWL Qaraoun 8.49 235** *e*P Pn 01 33 01.4 +3.4
**SHBL Chebaa 8.59 233** *e*P Pn 01 33 00.9 +1.6
**ANTO Ankara 8.74 281** *e*P Pn 01 32 58.4 -2.9
**ANTO Ankara 8.74 281** *e*Pn Pn 01 32 58.4 -2.9
**BR231 Keskin MP Arra 8.75 281** *e*Pn Pn 01 32 57.9 -3.6
**ASF Jabal al Asfar 8.76 223** Pn Pn 01 33 02.7 +1.0
comp=Z,0.4nm,0.3s,baz=3.6,slow=12,SNR=18
ASF Lg Lg 01 35 44.7
comp=Z,0.2nm,0.3s,baz=118,slow=19,SNR=3.1
**MMAI Mount Meron Ar 9.02 233** Pn Pn 01 33 08.3 +3.1
comp=Z,1.6nm,0.3s,baz=78,slow=16,SNR=26
**CSS Mathiatis 9.34 249** *e*Pn Pn 01 33 09.3 -0.3
**CSS Mathiatis 9.34 249** *e*Pn Pn 01 33 09.3 -0.3
**BOLV Bolvadin 10.18 274** *e*Pn Pn 01 33 24.4 +3.3
**BOLV Bolvadin 10.18 274** *e*Pn Pn 01 33 24.4 +3.3
**GEYT Alibeck 11.14 90** Pn Pn 01 33 37.2 +3.0
comp=Z,0.3nm,0.3s,baz=296,slow=11,SNR=16
GEYT LR LR 01 38 47.0
comp=Z,157nm,21.3s,baz=265,slow=42
**AKAS Kas 11.70 262** *e*Pn Pn 01 33 45.8 +3.9
**EIL Elat 11.75 222** Pn Pn 01 33 44.6 +2.0
comp=Z,0.0nm,0.3s,baz=49,slow=19,SNR=2.3
EIL Lg Lg 01 37 23.7
comp=Z,0.1nm,0.3s,baz=356,slow=19,SNR=2.9
**MANT Manisa 12.07 273** *e*Pn Pn 01 33 50.1 +3.0
**MANT Manisa 12.07 273** *e*Pn Pn 01 33 50.1 +3.0
**VRH Novokhopyorsk 12.53 353** *e*P Pn 01 33 54.7 +1.6
VRH pmax pmax
comp=Z,20nm,1.5s
**VRH Novokhopyorsk 12.53 353** *e*P Pn 01 33 54.7 +1.6
comp=Z,20nm,1.5s
**VSR Storozhevoye 12.89 346** *e*P Pn 01 33 59.6 +1.5
VSR pmax pmax
comp=Z,20nm,1.3s
**VSR Storozhevoye 12.89 346** *e*P Pn 01 33 59.6 +1.5
comp=Z,20nm,1.3s
**CFR Carcaliu 13.40 304** ⇑*i*P P 01 34 13.7 -1.0
**LPSR Galich'ya Gora 14.26 347** *e*P Pn 01 34 18.3 +1.5
LPSR pmax pmax
comp=Z,60nm,1.4s
**ODBI Odobesti 14.33 305** ⇑*i*P P 01 34 26.1 +1.1
**ISR Istrita 14.43 302** ⇑*i*P P 01 34 27.2 +1.0
**ISR Istrita 14.43 302** P P 01 34 24.6 -1.6
**KDZ Kurdzhali 14.47 287** *e*P P 01 34 29.1 +2.5
**SULR 14.48 300** ⇑*i*P P 01 34 28.8 +2.1
**VRI Vrincioaia 14.58 305** ⇑*i*P P 01 34 24.1 -3.8
**PLOR Plostina 14.62 304** ⇓*i*P P 01 34 29.8 +1.4
**SECR 14.72 301** ⇓*i*P P 01 34 31.5 +2.1

**ZIMR 14.83 295** ⇓*i*P P 01 34 32.5 +2.0
**SANT Santorini 14.88 266** *e*Pn P 01 34 27.2 -4.0
**SANT Santorini 14.88 266** *e*Pn P 01 34 27.2 -4.0
**TESR Tescani 14.89 307** ⇑*i*P P 01 34 32.2 +0.9
**MLR Muntele Rosu 14.95 302** Pn Pn 01 34 27.2 +0.8
comp=Z,0.0nm,0.3s,baz=90,slow=15,SNR=2.5
MLR LR LR 01 40 41.8
comp=Z,37nm,20.3s,baz=141,slow=40
**MLR Muntele Rosu 14.95 302** ⇑*i*P P 01 34 34.0 +1.9
**MLR Muntele Rosu 14.95 302** *e*P P 01 34 28.5 -3.6
MLR pmax pmax
comp=Z,20nm,1.2s
**MLR Muntele Rosu 14.95 302** *e*Pn P 01 34 28.5 -3.6
comp=Z,20nm,1.2s
**MLR Muntele Rosu 14.95 302** *e*Pn P 01 34 28.5 -3.6
comp=Z,20nm,1.2s
**RAYN Ar Rayn 15.26 175** *e*Pn Pn 01 34 29.1 -1.4
comp=Z,16nm,0.8s
**RAYN Ar Rayn 15.26 175** *e*Pn Pn 01 34 29.1 -1.4
comp=Z,16nm,0.8s
**HUMR Humele 15.31 298** ⇑*i*P P 01 34 38.2 +2.3
**AKTO Aktyubinsk 15.32 36** Pn Pn 01 34 31.7 +0.6
comp=Z,0.1nm,0.3s,baz=228,slow=12,SNR=16
AKTO LR LR 01 41 49.9
comp=Z,96nm,21.7s,baz=215,slow=43
**AKTO Aktyubinsk 15.32 36** *i* P Pn 01 34 31.1 -0.1
AKTO pmax pmax
comp=Z,71nm,2.3s
**DOPR Dopca 15.48 304** ⇑*i*P P 01 34 40.0 +2.1
**PGB Panagyurishte 15.49 290** *e*P P 01 34 40.7 +2.6
**AB31 Akbulak array 15.51 42** *e*P Pn 01 34 33.1 -0.5
AB31 pmax pmax
comp=Z,9.0nm,0.9s
**PRAR RASCA 15.53 309** ⇑*i*P P 01 34 39.7 +1.4
**VOIR 15.53 301** ⇑*i*P P 01 34 41.0 +2.6
**IDI Anoyia 15.63 263** Pn Pn 01 34 35.2 -0.1
comp=Z,0.1nm,0.3s,baz=66,slow=8.2,SNR=5.3
**ARR Arges 15.78 301** ⇑*i*P P 01 34 43.6 +2.3
**AKASG Malin Array Be 15.84 324** Pn Pn 01 34 37.0 -0.9
comp=Z,0.5nm,0.3s,baz=129,slow=12,SNR=10.0
AKASG LR LR 01 41 41.0
comp=Z,454nm,19.0s,baz=120,slow=41
**AKASG Malin Array Be 15.84 324** P Pn 01 34 37.0 -0.9
AKASG pmax pmax
comp=Z,1.0nm,0.3s
AKASG MLR MLR
comp=Z,454nm,19.0s
**AKBB Malin Array Si 15.84 324** *e*P P 01 34 41.1 -0.6
AKBB pmax pmax
comp=Z,24nm,1.2s
**AKBB Malin Array Si 15.84 324** *e*P P 01 34 41.1 -0.6
comp=Z,24nm,1.2s
**AKBB Malin Array Si 15.84 324** *e*Pn P 01 34 41.1 -0.6
comp=Z,24nm,1.2s
**KIEV Kiev 15.84 324** ⇓*e*P P 01 34 41.5 -0.3
KIEV pmax pmax
comp=Z,20nm,1.3s
KIEV MLR MLR
comp=Z,425nm,20.0s
**KIEV Kiev 15.84 324** *e*P P 01 34 41.5 -0.3
comp=Z,425nm,20.0s
**KIEV Kiev 15.84 324** *e*Pn Pn 01 34 35.9 -2.0
comp=Z,24nm,1.2s
**AK11 Malin Array Si 15.85 323** *e*Pn P 01 34 40.7 -1.2
**AK11 Malin Array Si 15.85 323** *e*Pn P 01 34 40.7 -1.2
**VTS Vitosha 16.20 290** ⇓*i*P P 01 34 47.5 +1.5
**VTS Vitosha 16.20 290** *e*P P 01 34 44.4 -1.7
VTS pmax pmax
comp=Z,26nm,1.4s
**VTS Vitosha 16.20 290** *e*P P 01 34 45.9 -0.1
**VTS Vitosha 16.20 290** *e*Pn P 01 34 44.3 -1.7
comp=Z,26nm,1.4s
**VTS Vitosha 16.20 290** *e*Pn P 01 34 44.4 -1.7
comp=Z,26nm,1.4s
**KKB Krupnik 16.23 288** *e*P P 01 34 44.3 -1.9
**BURAR Bucovina Array 16.25 309** ⇓*i*P P 01 34 48.4 +1.9
**BUR04 Bucovina Ar. S 16.26 309** *e*Pn P 01 34 44.9 -1.6
**BUR04 Bucovina Ar. S 16.26 309** *e*Pn P 01 34 44.9 -1.6
**BUR08 Bucovina Ar. S 16.28 309** *e*Pn P 01 34 45.4 -1.4
**BUR08 Bucovina Ar. S 16.28 309** *e*Pn P 01 34 45.4 -1.4
**BANOM Banah 16.49 137** P P 01 34 47.9 -1.2
**AGG Agios Georgios 16.85 278** *e*P P 01 34 52.0 -1.1
AGG pmax pmax
comp=Z,21nm,0.9s
**AGG Agios Georgios 16.85 278** *e*P P 01 34 52.0 -1.1
comp=Z,21nm,0.9s
**AGG Agios Georgios 16.85 278** *e*Pn P 01 34 52.0 -1.1
comp=Z,21nm,0.9s
**CJR Cluj-Napoca 16.91 305** ⇑*i*P P 01 34 56.5 +2.8
**ZAGS Zajecar 17.08 294** *e*P P 01 34 56.1 +0.5
**OBN Obninsk 17.09 345** Pn P 01 34 53.7 -1.9
comp=Z,1.0nm,0.3s,baz=165,slow=20,SNR=7.3
OBN LR LR 01 42 08.0
comp=Z,554nm,19.0s,baz=120,slow=40
**OBN Obninsk 17.09 345** ⇓*i*P P 01 34 54.3 -1.3
OBN *e*S Sn 01 38 00.9 -3.2
OBN pmax pmax
comp=Z,69nm,1.5s
OBN MLR MLR
comp=Z,699nm,16.0s
**OBN Obninsk 17.09 345** *e*Pn P 01 34 54.5 -1.1
comp=Z,126nm,1.6s
**OBN Obninsk 17.09 345** *e*Pn P 01 34 54.5 -1.1
comp=Z,126nm,1.6s
**UOSS Minazif 17.24 140** *e*Pn Pn 01 34 50.6 -5.2
comp=Z,21nm,0.9s
**UOSS Minazif 17.24 140** *e*Pn Pn 01 34 50.6 -5.2
comp=Z,21nm,0.9s
**BARS Barje 17.25 291** *e*P P 01 34 59.3 +1.8
**ASHO Ashiyiah 17.38 140** *i* P P 01 34 59.8 +0.8
SNR=9.0
**BOVS Bovan 17.43 293** *e*P P 01 34 59.6 +0.1
**MOS Moscow 17.50 348** *e*P P 01 35 03.7 +3.6
MOS pmax pmax
comp=Z,46nm,0.9s
**MOS Moscow 17.50 348** *e*P P 01 35 03.7 +3.6
comp=Z,46nm,0.9s
**DRGR 17.51 304** ⇓*i*P P 01 35 04.1 +3.7
**MDVR Moldovita 17.63 297** ⇑*i*P P 01 35 04.3 +2.6
**SELS Selova 17.80 292** *e*P P 01 35 05.0 +1.4
**BZS Buzias 17.89 300** ⇑*i*P P 01 35 04.8 +0.3
**SIRR Siria 18.04 302** ⇓*i*P P 01 35 08.8 +2.6
**TRPA Tarpa 18.11 308** ⇓*e*Pn P 01 35 08.5 +1.7
**GRUS Gruza 18.18 294** *e*P P 01 35 10.2 +2.5
**UZH Uzhgorod 18.46 309** *e*P Pn 01 35 09.5 -1.2
**BEO Beograd 18.50 297** *e*P Pn 01 35 14.2 +2.8
**BEO Beograd 18.50 297** *e*P Pn 01 35 14.2 +2.8
**IVAS Ivanjica 18.54 293** *e*P Pn 01 35 12.5 +0.6
**TIR Tirane 18.62 286** *e*P Pn 01 35 14.2 +1.4
TIR pmax pmax
comp=Z,56nm,1.5s
**TIR Tirane 18.62 286** *e*P Pn 01 35 14.2 +1.4
comp=Z,56nm,1.5s
**TIR Tirane 18.62 286** *e*P Pn 01 35 14.2 +1.4
comp=Z,56nm,1.5s
**KWP Kalwaria Pacla 18.65 312** *e*P Pn 01 35 18.5 +5.4
**KWP Kalwaria Pacla 18.65 312** *e*P Pn 01 35 18.5 +5.4
**FGSL Fruska Gora 19.03 297** *e*P Pn 01 35 16.5 -1.3
**CRVS Cervenica-Dubn 19.07 309** *e*P Pn 01 35 22.4 +4.2
**CRVS Cervenica-Dubn 19.07 309** *e*P Pn 01 35 22.4 +4.2
**PDG Podgorica 19.10 289** ⇓*i*P Pn 01 35 20.3 +1.7
**TEKS Tekeris 19.12 295** *e*P Pn 01 35 17.6 -1.3
**DZET Dzherino 19.36 82** P Pn 01 35 27.6 +5.7
**STHS Stebnicka Huta 19.41 311** *e*P Pn 01 35 25.3 +3.0
STHS pmax pmax
comp=Z,4.0nm,0.9s
**STHS Stebnicka Huta 19.41 311** *e*P Pn 01 35 25.3 +3.0
**KECS Kecovo 19.51 307** *e*P Pn 01 35 26.0 +2.5
KECS pmax pmax
comp=Z,5.0nm,1.0s
**KECS Kecovo 19.51 307** *e*P Pn 01 35 26.0 +2.5
comp=Z,5.0nm,1.0s
**KECS Kecovo 19.51 307** *e*P Pn 01 35 26.0 +2.5
**PSZ Piszkesteto 19.69 305** ⇓*i*P Pn 01 35 26.9 +1.2
**PSZ Piszkesteto 19.69 305** *e*P P 01 35 22.4 -1.9
PSZ pmax pmax
comp=Z,18nm,0.9s
**PSZ Piszkesteto 19.69 305** ⇓*e*P Pn 01 35 28.1 +2.4
**PSZ Piszkesteto 19.69 305** ⇓*e*P Pn 01 35 28.1 +2.4
**PSZ Piszkesteto 19.69 305** *e*P P 01 35 22.4 -1.9
comp=Z,18nm,0.9s
**WSAR Wadi Sarin 19.90 137** P Pn 01 35 30.9 +2.7
comp=Z,5.6nm,0.7s,baz=329,slow=12,SNR=3.6
WSAR LR LR 01 45 16.0
comp=Z,248nm,20.2s,baz=334,slow=43

**NIE Niedzica 19.98 310** *e*P Pn 01 35 31.5 +2.4
**NIE Niedzica 19.98 310** *e*P Pn 01 35 31.5 +2.4
**BUD Budapest 20.12 304** ⇓*e*P Pn 01 35 34.6 +3.9
**ARU Arti 20.14 24** P Pn 01 35 30.8 -0.1
comp=Z,11nm,0.7s,baz=226,slow=8.6,SNR=21
ARU LR LR 01 45 22.9
comp=Z,238nm,18.8s,baz=222,slow=43
**ARU Arti 20.14 24** *c i*P Pn 01 35 30.6 -0.3
ARU 01 35 46.4
ARU S Sn 01 39 17.1 -0.6
ARU pmax pmax
comp=Z,60nm,1.7s
**ARU Arti 20.14 24** *e*P Pn 01 35 30.5 -0.4
comp=Z,124nm,1.7s
ARU S Sn 01 39 17.1 -0.6
**ARU Arti 20.14 24** *e*P Pn 01 35 30.5 -0.4
comp=Z,124nm,1.7s
**LANS Liptovska Anna 20.38 309** *e*P Pn 01 35 37.4 +3.6
**LANS Liptovska Anna 20.38 309** *e*P Pn 01 35 37.4 +3.6
**KK31 Karatay Array 20.47 69** *ce*P Pn 01 35 36.0 +1.1
KK31 pmax pmax
comp=Z,12nm,0.9s
**KBL Kabul 20.53 94** *e*P P 01 35 31.4 -2.3
KBL pmax pmax
comp=Z,12nm,1.0s
**KBL Kabul 20.53 94** *e*P P 01 35 31.4 -2.3
comp=Z,12nm,1.0s
**KBL Kabul 20.53 94** *e*P P 01 35 31.4 -2.3
comp=Z,12nm,1.0s
**VYHS Vyhne 20.54 306** *e*P Pn 01 35 36.5 +0.8
VYHS pmax pmax
comp=Z,47nm,2.0s
**VYHS Vyhne 20.54 306** *e*P Pn 01 35 36.5 +0.8
comp=Z,47nm,2.0s
**VYHS Vyhne 20.54 306** *e*P Pn 01 35 36.5 +0.8
**CSKK Cs˙tkako 20.58 303** *e*P Pn 01 35 39.2 +3.0
**OJC Ojcow 20.60 312** *e*P Pn 01 35 36.1 -0.3
**OJC Ojcow 20.60 312** *e*P Pn 01 35 36.1 -0.2
**OJC Ojcow 20.60 312** *e*P Pn 01 35 36.1 -0.2
**OJC Ojcow 20.60 312** *e*P Pn 01 35 37.5 +1.2
comp=Z,18nm,0.9s
**SUW Suwalki 20.81 324** *e*P Pn 01 35 38.8 +0.1
**SUW Suwalki 20.81 324** *e*P Pn 01 35 38.8 +0.1
**SUW Suwalki 20.81 324** *e*P Pn 01 35 38.8 +0.1
**SVE Sverdlovsk 21.14 26** ⇑*e*P P 01 35 44.2 +4.3
SVE pmax pmax
comp=Z,42nm,1.1s
**BEHE Becsehely 21.37 300** ⇓*e*P P 01 35 45.7 +3.2
**BEHE Becsehely 21.37 300** ⇓*e*P P 01 35 45.7 +3.2
**OKC Ostrava-Krasne 21.43 309** *e*P P 01 35 45.7 +2.6
**OKC Ostrava-Krasne 21.43 309** *e*P P 01 35 45.7 +2.6
**OKC Ostrava-Krasne 21.43 309** *e*P P 01 35 45.7 +2.6
**SMOL Smolenice 21.44 306** *e*P P 01 35 47.1 +3.9
**SMOL Smolenice 21.44 306** *e*P P 01 35 47.1 +3.9
**MODS Modra-Piesok 21.50 305** *e*P P 01 35 47.6 +3.7
**MODS Modra-Piesok 21.50 305** *e*P P 01 35 47.6 +3.7
**MODS Modra-Piesok 21.50 305** *e*P P 01 35 47.6 +3.7
**CUC Castrocucco 21.77 282** *e*P P 01 35 46.7 -0.2
comp=Z,28nm,1.5s
**CUC Castrocucco 21.77 282** *e*P P 01 35 46.7 -0.2
comp=Z,28nm,1.5s
**SOP Sopron 21.78 303** ⇓*e*P P 01 35 49.9 +3.0
**SOP Sopron 21.78 303** ⇓*e*P P 01 35 49.9 +3.0
**MNAS Manas 21.92 71** *i* P P 01 35 51.8 +3.2
MNAS pmax pmax
comp=Z,9.0nm,0.9s
**CEL Celeste 21.95 278** *e*P P 01 35 50.5 +1.7
comp=Z,14nm,0.9s
**CEL Celeste 21.95 278** *e*P P 01 35 50.5 +1.7
comp=Z,14nm,0.9s
**VRAC Vranov 22.21 307** P P 01 35 52.6 +1.1
comp=Z,21nm,0.9s,baz=108,slow=9.1,SNR=31
VRAC LR LR 01 45 51.1
comp=Z,56nm,19.1s,baz=72,slow=41
**VRAC Vranov 22.21 307** ⇓*i*P P 01 35 52.2 +0.7
**KLMR Klimovskoe 22.28 354** *e*P P 01 35 50.3 -1.8
KLMR pmax pmax
comp=Z,161nm,1.3s
**CONA Conrad Observa 22.30 303** *e*P P 01 35 54.7 +2.2
comp=Z,27nm,1.2s,SNR=9.0
**CONA Conrad Observa 22.30 303** P P 01 35 54.7 +2.2
comp=Z,27nm,1.2s,SNR=9.0
**KRLC Kraliky 22.34 309** *e*P P 01 35 54.7 +1.8
KRLC *ex* x 01 35 58.3
**KRLC Kraliky 22.34 309** *e*P P 01 35 54.7 +1.8
KRLC *e* 01 35 58.3
**KRLC Kraliky 22.34 309** *e*P P 01 35 54.7 +1.8
**ARSA Arzberg 22.37 301** *e*P P 01 35 55.6 +2.3
comp=Z,17nm,1.1s,SNR=6.6
**ARSA Arzberg 22.37 301** P P 01 35 55.6 +2.3
comp=Z,17nm,1.1s,SNR=6.6
**SOKR Solikamsk 22.38 17** ⇑*i*P P 01 35 53.1 0.0
SOKR pmax pmax
comp=Z,38nm,1.1s
SOKR MLR MLR
comp=Z,397nm,20.0s
**SOKA Soboth 22.59 300** *e*P P 01 35 58.1 +2.4
comp=Z,8.0nm,0.9s
**SOKA Soboth 22.59 300** P P 01 35 58.1 +2.4
comp=Z,8.0nm,0.9s
**VSU Vasula 22.63 336** ⇓*e*P P 01 35 58.1 +2.2
VSU pmax pmax
comp=Z,225nm,2.9s
**VSU Vasula 22.63 336** *e*P P 01 35 58.1 +2.2
comp=Z,225nm,2.9s
**DPC Dobruska-Polom 22.71 310** *e*P P 01 35 58.4 +1.5
DPC *ex* x 01 36 04.1
**DPC Dobruska-Polom 22.71 310** *e*P P 01 35 58.4 +1.5
DPC *e* 01 36 04.1
**DPC Dobruska-Polom 22.71 310** P P 01 35 58.4 +1.5
**PUL Pulkovo 22.73 342** ⇑*e*P P 01 35 58.6 +1.7
PUL pmax pmax
comp=Z,49nm,0.8s
PUL MLR MLR
comp=Z,393nm,18.0s
**SFK Sufi-Kurgan 22.81 78** *i* P P 01 36 02.4 +4.2
SFK pmax pmax
comp=Z,9.0nm,0.8s
**TREC Trest 22.89 307** *e*P P 01 36 00.4 +1.6
**TREC Trest 22.89 307** *e*P P 01 36 00.4 +1.6
**TREC Trest 22.89 307** P P 01 36 00.4 +1.6
**KSP Ksiaz 22.90 311** *e*P P 01 36 00.0 +1.2
**KSP Ksiaz 22.90 311** *e*P P 01 36 00.0 +1.2
**KSP Ksiaz 22.90 311** *e*P P 01 36 00.0 +1.2
**UPC Upice 22.95 310** *e*P P 01 35 59.9 +0.5
**UPC Upice 22.95 310** *e*P P 01 35 59.9 +0.5
**UPC Upice 22.95 310** P P 01 35 59.9 +0.5
**BRVK Borovoye 23.04 43** ⇑*e*P P 01 36 02.6 +2.4
BRVK pmax pmax
comp=Z,25nm,1.0s
BRVK MLR MLR
comp=Z,84nm,15.0s
**BRVK Borovoye 23.04 43** *e*P P 01 36 01.2 +1.0
comp=Z,15nm,0.9s
**BVA0 Borovoye Array 23.08 43** *i* P P 01 36 03.3 +2.6
BVA0 pmax pmax
comp=Z,15nm,1.0s
**BVAR Borovoye Array 23.08 43** P P 01 36 03.1 +2.4
comp=Z,3.1nm,0.8s,baz=247,slow=9.2,SNR=19
**VAE Valguarnera 23.25 276** P P 01 36 03.6 +1.0
comp=Z,4.7nm,1.0s,baz=0.0,slow=11,SNR=2.4
VAE LR LR 01 46 55.9
comp=Z,109nm,18.1s,baz=58,slow=42
**MOA Molln 23.32 303** *e*P P 01 36 04.2 +1.0
comp=Z,20nm,0.8s,SNR=8.0
**MOA Molln 23.32 303** P P 01 36 04.2 +1.0
comp=Z,20nm,0.8s,SNR=8.0
**AAK Ala-Archa 23.39 71** P P 01 36 08.1 +4.1
comp=Z,5.0nm,0.9s,baz=261,slow=7.7,SNR=8.1
**AAK Ala-Archa 23.39 71** ⇓*e*P P 01 36 08.8 +4.7
AAK pmax pmax
comp=Z,22nm,2.3s
**AAK Ala-Archa 23.39 71** *e*P P 01 36 05.1 +1.0
comp=Z,18nm,1.2s
**AQU L'Aquila 23.44 289** *e*P P 01 36 04.4 0.0
AQU pmax pmax
comp=Z,56nm,1.2s
**AQU L'Aquila 23.44 289** *e*P P 01 36 04.4 0.0
comp=Z,56nm,1.2s
**FRU Bishkek 23.48 70** *e*P P 01 36 10.0 +5.2
FRU pmax pmax
comp=Z,144nm,2.2s
**GOPC GO Pecny, Ondr 23.51 308** *e*P P 01 36 05.9 +0.8
GOPC *ex* x 01 36 09.8
**GOPC GO Pecny, Ondr 23.51 308** *e*P P 01 36 05.9 +0.8

GOPC e 01 36 09.8
**GOPC GO Pecny, Ondr 23.51 308 P P 01 36 05.9 +0.8**
**MYKA Terra Mystica 23.53 299** *i* P P 01 36 06.1 +0.8
comp=E,5.6nm,0.9s
**MYKA Terra Mystica 23.53 299** P P 01 36 06.1 +0.8
comp=E,5.6nm,0.9s
**WDD Wied Dalam 23.57 272** *e*P P 01 36 06.3 +0.6
comp=E,22nm,0.7s
**PRU Pruhonice 23.68 308** *e*P P 01 36 07.1 +0.4
**PRU Pruhonice 23.68 308** *e*P P 01 36 07.1 +0.4
**PRU Pruhonice 23.68 308** P P 01 36 07.1 +0.4
**KBA Koelnbreinsper 23.80 300** *e*P P 01 36 08.7 +0.6
comp=E,44nm,1.2s,SNR=14
**KBA Koelnbreinsper 23.80 300** P P 01 36 08.7 +0.6
comp=E,44nm,1.2s,SNR=14
**PVCC Panska Ves 23.83 309** *e*P P 01 36 08.3 +0.1
**PVCC Panska Ves 23.83 309** *e*P P 01 36 08.3 +0.1
**PVCC Panska Ves 23.83 309** P P 01 36 08.3 +0.1
**GEA0 GERESS Array S 23.91 305** *e*P P 01 36 08.7 -0.4
**GEC2 GERESS Array S 23.91 305** *e*P P 01 36 09.8 +0.7
GEC2 pmax pmax
comp=E,29nm,1.1s
**GEC2 GERESS Array S 23.91 305** *e*P P 01 36 09.8 +0.7
comp=E,29nm,1.1s
**GERES GERESS Array B 23.91 305** P P 01 36 09.3 +0.2
comp=E,9.8nm,0.8s,baz=107,slow=8.5,SNR=57
GERES PcP **PcP** 01 39 51.9 +0.3
comp=E,0.3nm,0.5s,baz=118,slow=2.0,SNR=3.9
**KHC Kasperske Hory 24.06 305** *e*P P 01 36 10.7 +0.3
KHC *ex* x 01 36 54.0
**KHC Kasperske Hory 24.06 305** *e*P P 01 36 10.7 +0.3
KHC *e* 01 36 54.0
**KHC Kasperske Hory 24.06 305** P P 01 36 10.7 +0.3
**KHC Kasperske Hory 24.06 305** *e*P P 01 36 10.8 +0.3
comp=E,48nm,1.8s
**CLTB Caltabellotta 24.16 277** *e*P P 01 36 11.8 +0.3
comp=E,42nm,1.3s
**TKM2 Tokmak 2 24.20 70** P P 01 36 15.3 +3.3
TKM2 pmax pmax
comp=E,12nm,1.0s
**ABTA Abfaltersbach 24.31 299** *e*P P 01 36 13.1 +0.2
comp=E,14nm,0.9s,SNR=5.7
**ABTA Abfaltersbach 24.31 299** P P 01 36 13.1 +0.2
comp=E,14nm,0.9s,SNR=5.7
**BRG Berggiesshubel 24.32 310** *e*P P 01 36 12.3 -0.4
comp=E,5.1nm,0.7s
**BRG Berggiesshubel 24.32 310** *e*P P 01 36 12.3 -0.4
BRG pmax pmax
comp=E,5.0nm,0.7s
**KSH Kashi 24.76 78** *e*P P 01 36 18.9 +1.9
KSH pP sP 01 36 21.7 +3.3
KSH PP **PnPn** 01 36 52.6 +3.9
KSH PcP **PcP** 01 39 57.8 +4.1
KSH S **S** 01 40 36.8 -3.1
KSH SS **SnSn** 01 41 32.2 +6.4
KSH pmax pmax
comp=E,4.0nm,0.7s
KSH pmax pmax
comp=E,170nm,4.1s
KSH LR LR
comp=E,160nm,5.8s
KSH LR LR
comp=E,150nm,5.2s
KSH LR LR
comp=E,270nm,7.1s
**WTTA Wattenberg 24.98 300** *i* P P 01 36 19.0 0.0
comp=E,25nm,1.0s,SNR=7.3
**WTTA Wattenberg 24.98 300** P P 01 36 19.0 0.0
comp=E,25nm,1.0s,SNR=7.3
**CLL Collm 25.01 310** ||*i* P P 01 36 19.2 +0.2
CLL pmax pmax
comp=E,19nm,1.0s
**CLL Collm 25.01 310** ||*i* P P 01 36 19.2 +0.2
comp=E,19nm,1.0s
**CLL Collm 25.01 310** *e*P P 01 36 19.3 +0.2
comp=E,17nm,0.9s
**WATA Walderalm 25.03 301** *e*P P 01 36 19.0 -0.4
comp=E,25nm,1.0s,SNR=15
**WATA Walderalm 25.03 301** P P 01 36 19.0 -0.4
comp=E,25nm,1.0s,SNR=15
**NKC Novy Kostel 25.05 308** *e*P P 01 36 19.1 -0.3
**NKC Novy Kostel 25.05 308** *e*P P 01 36 19.1 -0.3
**NKC Novy Kostel 25.05 308** P P 01 36 19.1 -0.3
**FIA1 FINESS Array S 25.26 340** *e*P P 01 36 22.0 +0.9
**FINES FINESS Array B 25.26 340** P P 01 36 21.2 +0.1
comp=E,6.6nm,0.9s,baz=144,slow=9.6,SNR=7.3
FINES LR LR 01 47 06.4
comp=E,386nm,18.4s,baz=158,slow=39
**MOTA Moosalm 25.35 300** *e*pP P 01 36 21.6 -0.6
comp=E,32nm,0.9s,SNR=25
**MOTA Moosalm 25.35 300** P P 01 36 21.6 -0.6
comp=E,32nm,0.9s,SNR=25
**FETA Feichten 25.56 300** *e*pP P 01 36 23.5 -0.7
comp=E,12nm,0.8s,SNR=7.2
**FETA Feichten 25.56 300** P P 01 36 23.5 -0.7
comp=E,12nm,0.8s,SNR=7.2
**RETA Reutte 25.60 301** *e*P P 01 36 24.9 +0.5
comp=E,15nm,0.9s
**RETA Reutte 25.60 301** P P 01 36 24.9 +0.5
comp=E,15nm,0.9s
**TMCR Tamitsa 25.67 354** *e*P P 01 36 25.1 +0.3
TMCR pmax pmax
comp=E,28nm,0.9s
**GRFO Grafenberg 25.68 306** *e*P P 01 36 25.8 +0.6
GRFO pmax pmax
comp=E,45nm,1.1s
**GRFO Grafenberg 25.68 306** *e*P P 01 36 25.8 +0.6
comp=E,45nm,1.1s
**FUORN Ofenpass-Fuorn 25.84 299** *e*P P 01 36 27.6 +0.7
comp=E,16nm,0.8s
**RGN Rugen 26.02 317** *e*P P 01 36 29.5 +1.4
comp=E,108nm,0.9s
**DAVOX Davos/Dischmat 26.11 299** P P 01 36 28.8 -0.5
comp=E,16nm,0.7s,baz=99,slow=7.7,SNR=23
DAVOX LR LR 01 47 48.3
comp=E,174nm,21.6s,baz=87,slow=39
**DAVA Damuels 26.17 300** *i* pP P 01 36 29.2 -0.5
comp=E,22nm,0.8s,SNR=7.8
**DAVA Damuels 26.17 300** P P 01 36 29.2 -0.5
comp=E,22nm,0.8s,SNR=7.8
**TUE Stuetta 26.45 298** *e*P P 01 36 31.8 -0.6
comp=E,15nm,0.9s
**VSL Villasalto 26.75 283** *e*P P 01 36 36.1 +1.2
comp=E,16nm,1.0s
**STU Stuttgart 26.82 303** *e*P P 01 36 36.4 +1.0
STU pmax pmax
comp=E,25nm,1.0s
**STU Stuttgart 26.82 303** *e*P P 01 36 36.4 +1.0
comp=E,25nm,1.0s
**KURBB Kurchatov Arra 27.02 53** P P 01 36 40.1 +3.0
comp=E,4.0nm,0.6s,baz=263,slow=9.0,SNR=20
**KURK Kurchatov 27.09 53** ||*e*P P 01 36 40.1 +2.3
KURK pmax pmax
comp=E,29nm,1.7s
**KURK Kurchatov 27.09 53** *e*P P 01 36 37.2 -0.6
comp=E,8.8nm,0.9s
**ATD Arta Tunnel 27.15 182** LR LR 01 47 45.8
comp=E,129nm,21.0s,baz=349,slow=37
**BFO Black Forest 27.33 302** *e*P P 01 36 41.6 +1.6
BFO pmax pmax
comp=E,9.0nm,1.2s
**BFO Black Forest 27.33 302** *e*P P 01 36 41.6 +1.6
comp=E,8.9nm,1.2s
**MON Monaco 27.77 292** *e*P P 01 36 45.3 +1.3
**SENIN Lac Senin/Sane 27.86 298** *e*P P 01 36 45.4 +0.4
comp=E,13nm,1.0s
**BNI Bardonecchia 28.27 295** *e*P P 01 36 48.6 0.0
BNI pmax pmax
comp=E,26nm,1.3s
**BNI Bardonecchia 28.27 295** *e*P P 01 36 48.6 0.0
comp=E,26nm,1.3s
**HFS Hagfors 28.62 328** P P 01 36 51.4 0.0
comp=E,9.2nm,0.9s,baz=126,slow=7.3,SNR=7.1
HFS LR LR 01 49 10.6
comp=E,247nm,20.1s,baz=83,slow=38
**WLF Walferdange 28.92 305** *e*P P 01 36 55.5 +1.3
WLF pmax pmax
comp=E,28nm,1.3s
**WLF Walferdange 28.92 305** *e*P P 01 36 55.5 +1.3
comp=E,28nm,1.3s
**MK31 Makanchi Array 29.01 61** *e*P P 01 36 53.9 -1.1
**MK31 Makanchi Array 29.01 61** *e*P P 01 36 53.9 -1.1
**MKAR Makanchi Array 29.01 61** P P 01 36 58.0 +2.9
comp=E,2.1nm,0.7s,baz=269,slow=7.1,SNR=16
**MKAR Makanchi Array 29.01 61** *e*eP P 01 36 58.4 +3.4
MKAR pmax pmax
comp=E,2.0nm,0.7s
**MK01 Makanchi Array 29.01 62** *e*P P 01 36 54.9 -0.1
**SSB Saint Sauveur 29.78 295** *e*P P 01 37 01.2 -0.7
SSB pmax pmax
comp=E,11nm,1.1s
**SSB Saint Sauveur 29.78 295** *e*P P 01 37 01.2 -0.7
comp=E,11nm,1.1s
**NOA NORSAR Array B 30.14 328** P P 01 37 04.1 -0.8
comp=E,1.4nm,0.8s,baz=129,slow=7.3,SNR=3.1
NOA LR LR 01 50 18.8
comp=E,220nm,18.4s,baz=135,slow=39
**NVS Novosibirsk 30.81 46** *e*P P 01 37 13.8 +3.0
NVS *e* 01 38 17.5
NVS pmax pmax
comp=E,4.0nm,0.7s
NVS pmax pmax
comp=N,3.0nm,0.9s
NVS pmax pmax
comp=E,3.0nm,0.8s
**ZALV Zalesovo Beam 31.50 48** P P 01 37 19.0 +2.0
comp=E,0.8nm,0.4s,baz=258,slow=11,SNR=5.9
**ZALV Zalesovo Beam 31.50 48** *e*P P 01 37 20.3 +3.4
**ZALV Zalesovo Beam 31.50 48** *e*P P 01 37 20.3 +3.4
**ARCES ARCESS Array B 32.37 348** P P 01 37 24.7 +0.3
comp=E,7.5nm,0.8s,baz=168,slow=6.2,SNR=8.4
ARCES LR LR 01 51 11.8
comp=E,530nm,18.3s,baz=135,slow=38
**ARCES ARCESS Array B 32.37 348** *e*P P 01 37 25.6 +1.2
**ARCES ARCESS Array B 32.37 348** *e*P P 01 37 25.6 +1.2
**ARCES ARCESS Array B 32.37 348** *e*P P 01 37 25.6 +1.2
**WMQ Urumqi 32.94 67** P P 01 37 30.5 +0.7
WMQ pP sP 01 37 34.9 +3.8
WMQ sP pP 01 37 37.5 +6.8
WMQ pmax pmax
comp=E,22nm,0.7s
WMQ pmax pmax
comp=E,250nm,4.7s
WMQ LR LR
comp=E,150nm,20.7s
WMQ LR LR
comp=E,150nm,13.7s
WMQ LR LR
comp=E,72nm,16.5s
**TAM Tamanrasset 36.38 255** *e*P P 01 37 59.3 -0.5
TAM pmax pmax
comp=E,20nm,1.5s
**TAM Tamanrasset 36.38 255** *e*P P 01 37 59.3 -0.5
comp=E,20nm,1.5s
**TAM Tamanrasset 36.38 255** *e*P P 01 37 59.3 -0.5
comp=E,20nm,1.5s
**ES19 SONSECA Array 36.74 287** *e*P P 01 38 01.6 -1.1
**ES19 SONSECA Array 36.74 287** *e*P P 01 38 01.6 -1.1
**ESDC Sonseca Array 36.80 287** P P 01 38 02.1 -1.1
comp=E,3.9nm,0.8s,baz=67,slow=8.0,SNR=18
**MTE Manteigas 39.28 289** *e*P P 01 38 24.6 +0.6
comp=E,30nm,1.2s
**MTE Manteigas 39.28 289** *e*P P 01 38 24.6 +0.6
comp=E,30nm,1.2s
**LSA Lhasa 39.67 89** *e*P P 01 38 25.7 -2.2
LSA pmax pmax
comp=E,4.0nm,0.6s
**LSA Lhasa 39.67 89** *e*P P 01 38 25.7 -2.2
comp=E,4.0nm,0.6s
**LSA Lhasa 39.67 89** *e*P P 01 38 25.6 -2.2
comp=E,4.3nm,0.6s
**KMBO Kilima Mbogo 40.19 190** LR LR 01 54 03.6
comp=E,201nm,20.6s,baz=6.0,slow=34
**SPA0 Spitsbergen Ar 41.14 352** *e*P P 01 38 41.1 +2.1
**SPA0 Spitsbergen Ar 41.14 352** *e*P P 01 38 41.1 +2.1
**PFVI Vila Bisbo 41.19 285** *e*P P 01 38 40.8 +1.0
comp=E,139nm,1.4s
**PFVI Vila Bisbo 41.19 285** *e*P P 01 38 40.8 +1.0
comp=E,139nm,1.4s
**KBS Kingsbay 42.26 351** *e*P P 01 38 49.5 +1.4
KBS pmax pmax
comp=E,56nm,1.3s
**KBS Kingsbay 42.26 351** *e*P P 01 38 49.5 +1.4
comp=E,56nm,1.3s
**KBS Kingsbay 42.26 351** *e*P P 01 38 49.5 +1.4
comp=E,56nm,1.3s
**MSEY Mahe Island 44.52 164** *e*P P 01 39 04.7 -2.4
MSEY pmax pmax
comp=E,29nm,1.1s
**MSEY Mahe Island 44.52 164** *e*P P 01 39 04.7 -2.4
comp=E,29nm,1.1s
**MSEY Mahe Island 44.52 164** *e*P P 01 39 04.7 -2.4
comp=E,29nm,1.1s
**SONM Songino Array 45.19 57** P P 01 39 14.0 +1.8
comp=E,0.7nm,0.6s,baz=280,slow=9.8,SNR=3.5
SONM PcP **PP** 01 40 53.9 -3.7
comp=E,0.9nm,0.9s,baz=252,slow=3.0,SNR=4.7
**SONM Songino Array 45.19 57** P P 01 39 14.0 +1.8
comp=E,1.0nm,0.6s
**SONA1 Songino Array 45.19 57** *e*P P 01 39 11.9 -0.4
**SONA1 Songino Array 45.19 57** *e*P P 01 39 11.9 -0.4
**TOA0 Torodi Ar. Sit 45.23 247** *e*P P 01 39 13.2 +0.5
comp=E,16nm,1.6s
**TOA0 Torodi Ar. Sit 45.23 247** *e*P P 01 39 13.2 +0.5
comp=E,16nm,1.6s
**TORD Torodi Ar. Bea 45.23 247** P P 01 39 11.5 -1.2
comp=E,2.3nm,1.0s,baz=51,slow=7.1,SNR=10.0
TORD PcP **PcP** 01 40 52.8 0.0
comp=E,0.6nm,0.8s,baz=62,slow=3.4,SNR=2.8
**PALK Pallekele 45.58 124** LR LR 01 59 25.4
comp=E,79nm,19.0s,baz=296,slow=37
**PALK Pallekele 45.58 124** *e*P P 01 39 13.1 -2.4
PALK pmax pmax
comp=E,34nm,1.8s
**PALK Pallekele 45.58 124** *e*P P 01 39 13.1 -2.4
comp=E,34nm,1.8s
**PALK Pallekele 45.58 124** *e*P P 01 39 13.1 -2.4
comp=E,34nm,1.8s
**ULN Ulaanbaatar 45.62 57** ||*e*P P 01 39 18.3 +2.6
ULN pmax pmax
comp=E,6.0nm,1.0s
**ULN Ulaanbaatar 45.62 57** *e*P P 01 39 13.9 -1.8
comp=E,5.4nm,1.0s
**ULN Ulaanbaatar 45.62 57** *e*P P 01 39 13.9 -1.8
comp=E,5.4nm,1.0s
**LZH Lanzhou 46.87 74** *e*P P 01 39 24.2 -1.5
LZH pP pP 01 39 27.7 +1.0
LZH sP sP 01 39 31.4 +4.3
LZH PP **PP** 01 41 13.0 -2.7
LZH *e*S **S** 01 46 12.0 -5.2
LZH sS sS 01 46 30.2 +11
LZH SS SS 01 49 31.0 -13
LZH pmax pmax
comp=E,28nm,1.0s
LZH pmax pmax
comp=E,160nm,5.4s
LZH LR LR
comp=E,200nm,16.4s
LZH LR LR
comp=E,270nm,16.1s
LZH LR LR
comp=E,280nm,17.0s
**BOD Bodaibo 47.95 43** *e*P P 01 39 35.1 +1.5
BOD pmax pmax
comp=E,11nm,2.0s
**BOD Bodaibo 47.95 43** *e*P P 01 39 35.1 +1.5
comp=E,11nm,2.0s
**KOWA Kowa 48.56 254** *e*P P 01 39 38.5 -0.3
comp=E,6.8nm,0.8s
**KOWA Kowa 48.56 254** *e*P P 01 39 38.5 -0.3
comp=E,6.8nm,0.8s
**HHC Hu-ho-hao-te 50.77 65** *e*P P 01 39 54.4 -1.1
HHC pmax pmax
comp=E,12nm,0.7s
HHC pmax pmax
comp=E,160nm,4.8s
**CHTO Chiang Mai 51.32 97** *e*P P 01 39 57.1 -2.7
CHTO pmax pmax
comp=E,4.0nm,0.8s
**CHTO Chiang Mai 51.32 97** *e*P P 01 39 57.1 -2.7
comp=E,3.7nm,0.8s
**CHTO Chiang Mai 51.32 97** *e*P P 01 39 57.1 -2.7
comp=E,3.7nm,0.8s
**XAN Xi'an 51.51 74** P P 01 40 08.5 +7.4
XAN pP sP 01 40 11.5 +9.0
XAN pmax pmax
comp=E,10.0nm,0.8s
**CMAR Chiang Mai Arr 51.52 97** P P 01 40 03.4 +2.1
comp=E,1.8nm,0.6s,baz=303,slow=8.1,SNR=6.1
CMAR LR LR 02 07 26.9
comp=E,34nm,19.4s,baz=292,slow=42
**CMAR Chiang Mai Arr 51.52 97** P P 01 40 03.4 +2.1
CMAR pmax pmax
comp=E,1.0nm,0.4s
**TIXI Tiksi 52.15 24** ||*e*P P 01 40 08.5 +3.3
TIXI pmax pmax
comp=E,4.0nm,1.1s
TIXI MLR MLR
comp=E,94nm,17.0s
**TIXI Tiksi 52.15 24** *e*P P 01 40 04.6 -0.6
comp=E,6.8nm,0.3s
**TIXI Tiksi 52.15 24** *e*P P 01 40 04.6 -0.6
comp=E,6.8nm,0.3s
**DBIC Dimbokro 54.33 247** P P 01 40 21.5 -0.5
comp=E,2.1nm,0.6s,baz=46,slow=4.8,SNR=4.5
**LSZ Lusaka 55.76 199** *e*P P 01 40 31.2 -1.2
LSZ pmax pmax
comp=E,5.0nm,0.8s
**LSZ Lusaka 55.76 199** *e*P P 01 40 31.1 -1.2
comp=E,5.0nm,0.8s
**LSZ Lusaka 55.76 199** *e*P P 01 40 31.1 -1.2
comp=E,5.0nm,0.8s
**KULM Kulim 61.00 108** *e*P P 01 41 06.7 -2.3
comp=E,20nm,1.2s
**KULM Kulim 61.00 108** *e*P P 01 41 06.7 -2.3
comp=E,20nm,1.2s
**USRK Ussuriysk Ar. 63.07 54** LR LR 02 11 43.2
comp=E,31nm,18.2s,baz=292,slow=39
**SEY Seymchan 63.79 29** P P 01 41 29.4 +2.4
comp=E,2.7nm,0.6s,baz=34,slow=7.3,SNR=7.6
**SEY Seymchan 63.79 29** ||*e*P P 01 41 28.7 +1.7
**SEY Seymchan 63.79 29** *e*P P 01 41 28.7 +1.7
**BILL Bilibino 65.11 21** *e*P P 01 41 37.7 +2.1
BILL *e* 01 42 08.1
BILL *e* 01 44 00.0
BILL pmax pmax
comp=E,4.0nm,1.3s
**BILL Bilibino 65.11 21** *e*P P 01 41 37.7 +2.1
comp=E,4.0nm,1.3s
**BILL Bilibino 65.11 21** *e*PcP **PcP** 01 42 08.1 -0.2
**BOSA Boshof 69.28 198** P P 01 42 05.2 +2.6
comp=E,7.1nm,0.7s,baz=2.1,slow=6.4,SNR=17
**PETK Petropavlovsk- 72.06 35** LR LR 02 17 32.2
comp=E,27nm,19.3s,baz=314,slow=39
**COLD Coldfoot 73.77 6** *e*P P 01 42 30.6 +1.5
**COLD Coldfoot 73.77 6** *e*P P 01 42 30.6 +1.5
**IMAR Indian Mountai 74.67 7** *e*P P 01 42 34.9 +0.5
**IMAR Indian Mountai 74.67 7** *e*P P 01 42 34.9 +0.5
**ILAR Eielson Array 76.44 5** P P 01 42 45.8 +1.2
comp=E,0.9nm,0.9s,baz=287,slow=3.6,SNR=5.6
ILAR LR LR 02 17 24.5
comp=E,42nm,21.7s,baz=359,slow=36
**CAST Castle Rocks 77.34 7** *e*P P 01 42 51.6 +1.9
**CAST Castle Rocks 77.34 7** *e*P P 01 42 51.6 +1.9
**YKA Yellowknife Ar 77.61 350** P P 01 42 51.5 +0.4
comp=E,2.7nm,0.9s,baz=15,slow=6.4,SNR=12
**FFC Flin Flon 82.39 341** *e*P P 01 43 17.2 0.0
FFC pmax pmax
comp=E,6.0nm,0.9s
**FFC Flin Flon 82.39 341** *e*P P 01 43 17.2 0.0
comp=E,5.5nm,0.9s
**FFC Flin Flon 82.39 341** *e*P P 01 43 17.2 0.0
comp=E,5.5nm,0.9s
**KDAK Kodiak Island 82.80 9** P P 01 43 20.5 +1.3
comp=E,6.8nm,0.7s,baz=76,slow=0.2,SNR=5.0
**KDAK Kodiak Island 82.80 9** *i* P P 01 43 21.7 +2.5
**ULM Lac du Bonnet 84.57 335** P P 01 43 28.4 0.0
comp=E,3.8nm,0.8s,baz=335,slow=2.5,SNR=3.9
**SSPA Standing Stone 84.80 320** *e*P P 01 43 30.4 +0.6
**SSPA Standing Stone 84.80 320** *e*P P 01 43 30.4 +0.6
**LAO LASA Array 90.83 340** *e*P P 01 44 01.1 +2.3
**LAO LASA Array 90.83 340** *e*P P 01 44 01.1 +2.3
**PDAR Pinedale Array 95.35 341** LR LR 02 27 13.3
comp=E,67nm,18.3s,baz=46,slow=36
**WRA Warramunga Arr 102.48 106** *i* P **Pdif** 01 44 51.2 -0.7
**WRA Warramunga Arr 102.48 106** *i* P **Pdif** 01 44 51.2 -0.7
**SNAA Sanae 114.99 195** PKP PKPdf 01 49 35.3 0.0
**VNA1 Neumayer--Stat 115.37 197** PKP **PKPdf** 01 49 36.0 +0.1
**VNA2 Neumayer--Watz 115.38 197** PKP **PKPdf** 01 49 36.2 +0.3
baz=326,slow=8.8
**VNA3 Neumayer Olymp 116.12 197** PKP **PKPdf** 01 49 37.5 +0.1

---

**SGS 03 01:31:02.3, 25.25N×37.79E, h7km, Western Arabian Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LNY12** | **LNY12** | **0.03** | **321** | S | Sg | 01 31 04.5 | -0.2 |
| LNY12 | | | | P | Pg | 01 31 03.7 | 0.0 |
| **LNY06** | **LNY06** | **0.04** | **193** | S | Sg | 01 31 04.9 | 0.0 |
| LNY06 | | | | P | Pg | 01 31 03.9 | 0.0 |
| **LNY11** | **LNY11** | **0.07** | **347** | S | Sg | 01 31 05.3 | -0.1 |
| LNY11 | | | | P | Pg | 01 31 04.2 | +0.1 |
| **LNY10** | **LNY10** | **0.07** | **75** | S | Sg | 01 31 05.5 | 0.0 |
| LNY10 | | | | P | Pg | 01 31 04.3 | +0.1 |
| **LNY02** | **LNY02** | **0.13** | **150** | S | Sg | 01 31 07.1 | +0.1 |
| LNY02 | | | | P | Pg | 01 31 05.2 | +0.1 |
| **LNY04** | **LNY04** | **0.13** | **279** | S | Sg | 01 31 07.0 | 0.0 |
| LNY04 | | | | P | Pg | 01 31 05.2 | +0.1 |
| **LNY03** | **LNY03** | **0.14** | **25** | S | Sg | 01 31 07.4 | +0.1 |
| LNY03 | | | | P | Pg | 01 31 05.4 | +0.2 |
| **LNY01** | **LNY01** | **0.16** | **102** | S | Sg | 01 31 07.9 | +0.1 |
| LNY01 | | | | P | Pg | 01 31 05.7 | +0.1 |
| **LNY07** | **LNY07** | **0.23** | **238** | P | Pg | 01 31 07.0 | +0.1 |

---

*DDA* ***03*** *01:33:47.9, 38.86N×43.82E, h7km, Ml3.0*
*ISK* ***03*** *01:33:47.7, 38.91N×43.72E, h5km, ML3.2*
*ISCJB* ***03*** *01:33:48.6±0.9, 38.88N±0.04×43.78E±0.06, h8km±7km, Error ellipse: s-maj=9.1km s-min=5.3km az=33.1*
*CSEM* ***03*** *01:33:48.7±0.3, 38.92N×43.74E, h5km, ML3.0, Error ellipse: s-maj=7.4km s-min=4.4km az=119.0*

**ISC 03 01:33:48.4±1.0, 38.90N±0.03×43.78E±0.04, h12km±7km, n32, σ0=87/39, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.18** | **298** | *i* P | **Pg** | **01 33 51.6** | **-1.0** |
| VMUR | | | | *i* S | **Sg** | **01 33 56.3** | **+0.8** |
| **VMUR** | **Van-Muradiye** | **0.18** | **298** | P | **Pg** | **01 33 51.6** | **-1.0** |
| VMUR | | | | S | **Sg** | **01 33 56.3** | **+0.8** |
| **CLDR** | **Caldiran** | **0.26** | **24** | *e*PG | **Pg** | **01 33 54.0** | **+0.1** |
| CLDR | | | | *e*SG | **Sb** | **01 33 59.9** | **+0.1** |
| **CLDR** | **Caldiran** | **0.26** | **24** | *i* P | **Pg** | **01 33 53.5** | **-0.4** |
| CLDR | | | | *i* S | **Sb** | **01 33 59.4** | **-0.4** |
| **CLDR** | **Caldiran** | **0.26** | **24** | P | **Pg** | **01 33 53.5** | **-0.4** |
| **CLDR** | **Caldiran** | **0.26** | **24** | *e*Pg | **Pg** | **01 33 54.0** | **+0.1** |
| CLDR | | | | S | **Sb** | **01 33 59.4** | **-0.4** |
| **ERCV** | **ERCIS-VAN** | **0.36** | **289** | *e*PG | **Pg** | **01 33 55.3** | **-0.4** |
| **ERCV** | **ERCIS-VAN** | **0.36** | **289** | *e*Pg | **Pg** | **01 33 55.3** | **-0.4** |
| **VANB** | **Van** | **0.43** | **225** | *e*PG | **Pb** | **01 33 57.9** | **-0.1** |
| **VANB** | **Van** | **0.43** | **225** | *e*Pg | **Pb** | **01 33 57.9** | **-0.1** |
| **TVAN** | **Van** | **0.47** | **218** | *i* P | **Pg** | **01 33 57.5** | **-0.3** |
| **TVAN** | **Van** | **0.47** | **218** | P | **Pg** | **01 33 57.5** | **-0.3** |
| **DYDN** | **Diyadin** | **0.64** | **354** | *i* P | **Pg** | **01 34 00.6** | **-0.3** |
| DYDN | | | | *i* S | **Sb** | **01 34 12.3** | **+1.6** |
| **DYDN** | **Diyadin** | **0.64** | **354** | P | **Pg** | **01 34 00.6** | **-0.3** |
| **GEVA** | **Gevas** | **0.82** | **224** | *i* P | **Pb** | **01 34 04.0** | **-0.6** |
| **GEVA** | **Gevas** | **0.82** | **224** | P | **Pb** | **01 34 04.0** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.83** | **264** | *i* P | **Pb** | **01 34 03.8** | **-1.0** |
| ADCV | | | | *i* S | **Sn** | **01 34 17.8** | **-0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.83** | **264** | P | **Pb** | **01 34 03.8** | **-1.0** |
| **TUTA** | **Tutak** | **0.90** | **304** | *i* P | **Pg** | **01 34 05.0** | **-0.8** |
| **TUTA** | **Tutak** | **0.90** | **304** | P | **Pg** | **01 34 04.9** | **-0.8** |
| **AGRB** | **Hanur-Agry** | **0.91** | **318** | *e*PG | **Pb** | **01 34 05.5** | **-0.7** |
| **AGRB** | **Hanur-Agry** | **0.91** | **318** | *e*Pg | **Pb** | **01 34 05.5** | **-0.7** |
| **TASB** | **TASBURUN-IGDIR** | **1.14** | **18** | *e*PN | **Pn** | **01 34 11.0** | **+0.8** |
| **TASB** | **TASBURUN-IGDIR** | **1.14** | **18** | *e*Pn | **Pn** | **01 34 11.0** | **+0.8** |
| **EKAR** | **Karacoban** | **1.38** | **285** | *i* P | **Pb** | **01 34 16.0** | **+1.7** |
| **EKAR** | **Karacoban** | **1.38** | **285** | P | **Pb** | **01 34 16.0** | **+1.7** |
| **CUKT** | **Cukurca** | **1.66** | **185** | *e*PN | **Pg** | **01 34 19.5** | **-0.7** |
| **CUKT** | **Cukurca** | **1.66** | **185** | *e*Pn | **Pg** | **01 34 19.5** | **-0.7** |
| **KARS** | **Kars** | **1.80** | **343** | *e*PN | **Pb** | **01 34 20.5** | **-0.9** |
| **KARS** | **Kars** | **1.80** | **343** | *e*Pn | **Pb** | **01 34 20.5** | **-0.9** |
| **SENK** | **Senkaya-Erzuru** | **1.99** | **327** | *e*PN | **Pb** | **01 34 23.2** | **-1.4** |
| **SENK** | **Senkaya-Erzuru** | **1.99** | **327** | *e*Pn | **Pb** | **01 34 23.2** | **-1.4** |

---

*NIED* ***03*** *01:33:00, 37.80N×144.40E, h5km, Mw4.2 Best double couple: Mo1.99000×10^15 NP1:φs17.00000°, δ21.00000°, λ-103.00000°. NP2:φs211.00000°, δ70.00000°, λ-85.00000°.*
*IDC* ***03*** *01:33:51.0±0.7, 37.67N×144.62E, h0km, mb4.0/16,*

*mb1 4.1/20, mb1mx4.0/54, mbtmp4.0/20, ML4.1/3, MS2.9/2, Ms1 2.9/2, ms1mx2.3/33, Error ellipse: s-maj=20.1km s-min=15.3km az=100.0*

*NEIC **03** 01:33:52.7±3.9, 37°.71N×144°.60E, h10km±24km, mb4.4/2, Error ellipse: s-maj=10.9km s-min=7.0km az=121.0*

*ISCJB **03** 01:33:55.0±0.5, 37°.86N±0°.04×144°.41E±0°.04, h33km, mb4.0/18, MS2.8/1, Error ellipse: s-maj=5.7km s-min=4.4km az=11.4*

*JMA **03** 01:33:55.6±0.2, 37°.83N×144°.35E, h43km, M4.6*

**ISC 03 01:33:56.8**±0.7**, 37°.83N**±0°.05×**144°.43E**±0°.07**, h35**km**, n51,** σ**2.12**/61**, mb4.0**/18**, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OFUJ** | **Ofunato** | **2.50** | **301** | P | **Pn** | **01 34 34.5** | **-0.5** |
| OFUJ | | | | S | **Sn** | **01 35 03.3** | **-1.0** |
| **JIO** | **Ouri** | **2.51** | **285** | P | **Pn** | **01 34 34.5** | **-0.6** |
| JIO | | | | S | **Sn** | **01 35 03.0** | **-1.4** |
| **MIYJ** | **Miyakonagasawa** | **2.69** | **311** | P | **Pn** | **01 34 36.6** | **-0.9** |
| MIYJ | | | | S | **Sn** | **01 35 07.2** | **-1.7** |
| **JMK** | **Ichinoseki** | **2.76** | **295** | P | **Pn** | **01 34 38.2** | **-0.3** |
| JMK | | | | *e*S | **Sn** | **01 35 09.6** | **-1.1** |
| **JOM** | **Ohasama** | **2.96** | **305** | P | **Pn** | **01 34 41.0** | **-0.2** |
| JOM | | | | *e*S | **Sn** | **01 35 14.8** | **-0.7** |
| **JOU** | **Okura** | **3.02** | **281** | P | **Pn** | **01 34 42.2** | **+0.1** |
| JOU | | | | *e*S | **Sn** | **01 35 16.6** | **-0.5** |
| **JFT** | **Otama** | **3.27** | **266** | *e*S | **Sn** | **01 35 21.9** | **-1.2** |
| **JRG** | **Rokugo** | **3.36** | **299** | *e*S | **Sn** | **01 35 25.3** | **-0.2** |
| **JYK** | **Kaneyama** | **3.38** | **290** | P | **Pn** | **01 34 47.3** | **+0.2** |
| JYK | | | | *e*S | **Sn** | **01 35 25.8** | **-0.2** |
| **JANG** | **Nango** | **3.41** | **319** | *e*S | **Sn** | **01 35 25.2** | **-1.4** |
| **JAH** | **Hinai** | **3.78** | **310** | P | **Pn** | **01 34 53.0** | **+0.5** |
| JAH | | | | *e*S | **Sn** | **01 35 35.8** | **0.0** |
| **JTM** | **Tenmabayashi** | **3.94** | **320** | *e*S | **Sn** | **01 35 37.6** | **-2.2** |
| **JRY** | **Ryogami san** | **4.79** | **249** | P | **Pn** | **01 35 05.1** | **-1.3** |
| JRY | | | | *e*S | **Sn** | **01 35 56.5** | **-4.2** |
| **JCH** | **Churui** | **4.85** | **351** | P | **Pn** | **01 35 05.6** | **-1.6** |
| JCH | | | | *e*S | **Sn** | **01 35 57.7** | **-4.4** |
| **MJAR** | **Matsushiro Arr** | **5.13** | **257** | Pn | **Pn** | **01 35 11.1** | **0.0** |
| | 4.5nm,0.3s,baz=95,slow=16,SNR=15 | | | | | | |
| MJAR | | | | Sn | **Sn** | **01 36 08.8** | **-0.3** |
| | 3.1nm,0.3s,baz=89,slow=13,SNR=6.7 | | | | | | |
| **MAJO** | **Matsushiro** | **5.13** | **257** | *e*Pn | **Pn** | **01 35 11.7** | **+0.5** |
| | 17nm,0.3s | | | | | | |
| **MAT** | **Matsushiro** | **5.13** | **257** | P | **Pn** | **01 35 11.9** | **+0.7** |
| MAT | | | | S | **Sn** | **01 36 06.4** | **-2.8** |
| **NEM2** | **Nemuro 2** | **5.62** | **10** | P | **Pn** | **01 35 14.4** | **-3.4** |
| NEM2 | | | | *e*S | **Sn** | **01 36 14.3** | **-6.8** |
| **JHJ** | **Hachijo jima 2** | **6.04** | **220** | Pn | **Pn** | **01 35 19.9** | **-3.7** |
| | 28nm,0.3s,baz=37,slow=15,SNR=3.2 | | | | | | |
| JHJ | | | | Sn | **Sn** | **01 36 23.6** | **-7.8** |
| | 64nm,0.3s,baz=74,slow=17,SNR=4.4 | | | | | | |
| **JTKR** | **Abashiri--Toko** | **6.15** | **356** | P | **Pn** | **01 35 23.6** | **-1.4** |
| JTKR | | | | *e*S | **Sn** | **01 36 29.0** | **-5.1** |
| **JHR** | **Hokuryu** | **6.26** | **342** | P | **Pn** | **01 35 27.4** | **+0.9** |
| JHR | | | | *e*S | **Sn** | **01 36 36.1** | **-0.6** |
| **ASAJ** | **Asahikawa** | **6.43** | **348** | Pn | **Pn** | **01 35 28.8** | **-0.1** |
| | 2.9nm,0.3s,baz=172,slow=15,SNR=4.8 | | | | | | |
| ASAJ | | | | Sn | **Sn** | **01 36 37.6** | **-3.6** |
| | 1.6nm,0.3s,baz=18,slow=20,SNR=3.2 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **11.35** | **308** | Pn | **Pn** | **01 36 37.1** | **+0.8** |
| | 0.2nm,0.3s,baz=108,slow=14,SNR=2.9 | | | | | | |
| **KSRS** | **Korea Array** | **13.10** | **273** | LR | LR | 01 41 13.5 | |
| | comp=Z,54nm,22.0s,baz=137,slow=33 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **26.58** | **126** | T | T | 02 06 58.3 | |
| | baz=318,slow=75,SNR=100 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **26.59** | **126** | T | T | 02 07 03.2 | |
| | baz=318,slow=75,SNR=32 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **26.60** | **126** | T | T | 02 07 01.8 | |
| | baz=318,slow=75,SNR=54 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **27.37** | **129** | T | T | 02 08 13.3 | |
| | baz=319,slow=76,SNR=7.0 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **27.37** | **129** | T | T | 02 07 52.5 | |
| | baz=319,slow=76,SNR=6.3 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **27.39** | **129** | T | T | 02 08 15.2 | |
| | baz=319,slow=76,SNR=6.3 | | | | | | |
| **SONM** | **Songino Array** | **29.37** | **302** | P | **P** | **01 39 57.7** | **+1.2** |
| | 0.3nm,0.5s,baz=97,slow=10,SNR=2.2 | | | | | | |
| **TLY** | **Talaya** | **31.66** | **309** | LR | LR | 01 53 23.4 | |
| | comp=Z,21nm,20.2s,baz=166,slow=37 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **43.17** | **312** | P | **P** | **01 41 53.9** | **+0.1** |
| | 0.6nm,0.5s,baz=95,slow=8.8,SNR=2.7 | | | | | | |
| ZALV | | | | PcP | **PcP** | **01 43 42.6** | **-0.3** |
| | 1.4nm,0.6s,baz=90,slow=2.8,SNR=5.6 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **44.02** | **257** | P | **P** | **01 42 01.9** | **+0.8** |
| | 1.1nm,0.4s,baz=45,slow=7.8,SNR=4.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **45.74** | **302** | P | **P** | **01 42 15.5** | **+1.0** |
| | 1.1nm,0.8s,baz=85,slow=8.3,SNR=6.9 | | | | | | |
| **KURK** | **Kurchatov** | **47.34** | **308** | *e*P | **P** | **01 42 27.4** | **+0.5** |
| **KURBB** | **Kurchatov Arra** | **47.41** | **308** | P | **P** | **01 42 28.5** | **+1.0** |
| | 2.6nm,0.5s,baz=82,slow=8.0,SNR=13 | | | | | | |
| **ILAR** | **Eielson Array** | **47.53** | **33** | P | **P** | **01 42 28.1** | **-0.1** |
| | 1.3nm,0.7s,baz=262,slow=6.7,SNR=14 | | | | | | |
| **DOT** | **Dot Lake** | **48.80** | **34** | *e*P | **P** | **01 42 38.3** | **+0.2** |
| | 7.4nm,0.7s | | | | | | |
| **BVAR** | **Borovoye Array** | **51.82** | **312** | P | **P** | **01 43 02.4** | **+1.4** |
| | 0.8nm,0.5s,baz=69,slow=9.7,SNR=5.6 | | | | | | |
| **INK** | **Inuvik** | **52.58** | **28** | P | **P** | **01 43 06.7** | **+0.3** |
| | 0.9nm,0.6s,baz=308,slow=6.2,SNR=6.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **58.24** | **191** | P | **P** | **01 43 45.9** | **-1.8** |
| | 3.1nm,0.5s,baz=11,slow=7.3,SNR=27 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **58.37** | **201** | P | **P** | **01 43 47.9** | **-0.7** |
| | 2.6nm,0.9s,baz=6.3,slow=9.2,SNR=3.2 | | | | | | |
| **ASAR** | **Alice Springs** | **61.96** | **191** | P | **P** | **01 44 11.8** | **-1.4** |
| | 0.5nm,0.5s,baz=9.9,slow=7.4,SNR=8.5 | | | | | | |
| **GEYT** | **Alibeck** | **65.54** | **300** | P | **P** | **01 44 38.3** | **+1.5** |
| | 1.9nm,0.7s,baz=98,slow=2.9,SNR=2.8 | | | | | | |
| **FINES** | **FINESS Array B** | **69.21** | **333** | P | **P** | **01 45 00.3** | **+0.8** |
| | 2.8nm,1.0s,baz=40,slow=14,SNR=3.0 | | | | | | |
| **HFS** | **Hagfors** | **74.33** | **337** | P | **P** | **01 45 31.5** | **+1.2** |
| | 2.4nm,0.7s,baz=46,slow=6.2,SNR=4.3 | | | | | | |
| **R11A** | **Troy Canyon, C** | **74.37** | **54** | *e*P | **P** | **01 45 31.1** | **0.0** |
| | 1.0nm,0.7s | | | | | | |
| **AKASG** | **Malin Array Be** | **75.12** | **323** | P | **P** | **01 45 35.3** | **+0.3** |
| | 0.7nm,0.4s,baz=42,slow=5.8,SNR=6.4 | | | | | | |
| **PDAR** | **Pinedale Array** | **75.38** | **47** | P | **P** | **01 45 36.7** | **-0.3** |
| | 0.3nm,0.6s,baz=245,slow=3.1,SNR=3.9 | | | | | | |
| **CLL** | **Collm** | **81.58** | **332** | *e*P | **P** | **01 46 12.0** | **+1.3** |

---

**IDC 03 01:39:58.0**±1.4**, 2°.12S**×**139°.87E, h0**km**, mb3.7**/5**, mb1 3.9**/6**, mb1mx3.6**/36**, mbtmp3.7**/6**, ML3.8**/1**, MS2.7**/1**, Ms1 2.7**/1**, ms1mx2.3**/20**, Error ellipse: s-maj=62.9km s-min=23.9km az=94.0, Near north coast of Irian Jaya**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **18.52** | **197** | P | P | 01 44 15.8 | -0.4 |
| | 0.3nm,0.3s,baz=18,slow=11,SNR=10 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **21.15** | **220** | LR | LR | 01 52 29.7 | |
| | comp=Z,19nm,18.6s,baz=55,slow=36 | | | | | | |
| **ASAR** | **Alice Springs** | **22.18** | **195** | P | P | 01 44 56.2 | +0.2 |
| | 1.0nm,0.5s,baz=28,slow=11,SNR=13 | | | | | | |
| **MKAR** | **Makanchi Array** | **70.04** | **322** | P | P | 01 51 11.6 | -0.3 |
| | 0.5nm,0.7s,baz=112,slow=7.4,SNR=5.1 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **73.92** | **324** | P | P | 01 51 35.3 | +0.3 |
| | 0.2nm,0.3s,baz=111,slow=4.7,SNR=4.0 | | | | | | |
| **BVAR** | **Borovoye Array** | **79.50** | **325** | P | P | 01 52 06.4 | -0.2 |
| | 0.8nm,0.6s,baz=103,slow=6.4,SNR=6.2 | | | | | | |
| **ILAR** | **Eielson Array** | **84.82** | **24** | P | P | 01 52 34.5 | +0.3 |
| | 0.5nm,0.9s,baz=250,slow=4.7,SNR=3.7 | | | | | | |

---

**MEX 03 01:46:06.1**±0.3**, 26°.22N**×**111°.75W, h20**km±18km**, MD3.8, Gulf of California**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SRIG** | **Santa Rosalia** | **1.18** | **338** | *e*P | Pn | 01 46 24.3 | -3.1 |
| SRIG | | | | *e*S | Sb | 01 46 38.3 | -4.3 |
| **GUYB** | **Guaymas** | **1.85** | **25** | *e*P | Pn | 01 46 33.8 | -2.9 |
| GUYB | | | | *i* S | Sn | 01 46 55.3 | -4.1 |

---

*IDC **03** 02:14:40.3±0.5, 4°.63N×36°.75E, h0km, mb4.4/18, mb1 4.6/20, mb1mx4.4/39, mbtmp4.5/20, ML4.1/2, MS4.4/33, Ms1 4.4/33, ms1mx4.3/38, Error ellipse: s-maj=18.3km s-min=11.3km az=101.0*

*ISCJB **03** 02:14:41.3±0.2, 4°.65N±0°.03×36°.55E±0°.04, h10km, mb4.8/75, MS4.4/43, Error ellipse: s-maj=5.7km s-min=4.3km az=6.9*

*MOS **03** 02:14:41.1±1.2, 4°.63N×36°.72E, h12km, mb5.2/30, MS4.6/5, Error ellipse: s-maj=11.3km s-min=5.4km az=89.4*

*BJI **03** 02:14:41.9, 4°.21N×36°.89E, h18km, mb4.8/38, mB5.2/27, Ms5.0/21, Ms7 4.7/21*

*NEIC **03** 02:14:42.3±0.3, 4°.60N×36°.71E, h10km, mb4.9/26, Error ellipse: s-maj=8.7km s-min=6.5km az=85.0*

*NEIC Felt at Lodwar, Kenya.*

*GCMT **03** 02:14:42.3±0.1, 4°.75N×36°.73E, h12km, MW5.1/106, Moment Tensor Solution. s63,c94; s106,c167; Duration: 0 Moment tensor: Scale $10^{16}$Nm; $M_{rr}$-3.88±.10; $M_{\theta\theta}$0.57±.08; $M_{\phi\phi}$3.31±.09; $M_{r\theta}$2.24±.27; $M_{\theta\phi}$3.33±.07; $M_{\phi r}$-1.00±.26; Best double couple: $M_0$5.50100×$10^{16}$ NP1:$\phi_s$242.00000°, δ56.00000°, λ-50.00000°. NP2: $\phi_s$5.00000°, δ51.00000°, λ-134.00000°. Principal axes: T 5.5620, Plg3.0000°, Azm305.0000°; N -0.1180, Plg32.0000°, Azm37.0000°; P -5.4410, Plg57.0000°, Azm210.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

**ISC 03 02:14:42.7**±0.3**, 4°.65N**±0°.04×**36°.55E**±0°.06**, h10**km**, n230,** σ**1.98**/240**, mb4.8**/75**, MS4.4**/44**, 23C-10D, Ethiopia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KMBO** | **Kilima Mbogo** | **5.78** | **173** | Pn | **Pn** | **02 16 06.4** | **-2.4** |
| | 20nm,0.3s,baz=351,slow=15,SNR=166 | | | | | | |
| KMBO | | | | Pg | **Pb** | **02 16 25.7** | **+1.9** |
| | 19nm,0.3s,baz=343,slow=16,SNR=8.1 | | | | | | |
| KMBO | | | | Sn | **Sn** | **02 17 14.8** | **-0.5** |
| | 20nm,0.3s,baz=354,slow=10,SNR=5.1 | | | | | | |
| KMBO | | | | Lg | Lg | 02 17 35.6 | |
| | 102nm,0.3s,baz=95,slow=23,SNR=20 | | | | | | |
| KMBO | | | | LR | LR | 02 18 13.4 | |
| | comp=Z,7µm,20.3s,baz=350,slow=37 | | | | | | |
| **KMBO** | **Kilima Mbogo** | **5.78** | **173** | *i* P | **Pn** | **02 16 06.9** | **-1.9** |
| **KMBO** | **Kilima Mbogo** | **5.78** | **173** | *e*Pn | **Pn** | **02 16 06.2** | **-2.6** |
| KMBO | | | | Pg | **Pb** | **02 16 25.7** | **+1.9** |
| KMBO | | | | *e*Sn | **Sn** | **02 17 09.2** | **-6.2** |
| KMBO | | | | Sn | **Sn** | **02 17 14.8** | **-0.5** |
| KMBO | | | | Lg | Lg | 02 17 35.6 | |
| **KMBO** | **Kilima Mbogo** | **5.78** | **173** | Pn | **Pn** | **02 16 06.7** | **-2.1** |
| | SNR=109 | | | | | | |
| **KMBO** | **Kilima Mbogo** | **5.78** | **173** | P | **Pn** | **02 16 06.7** | **-2.1** |
| | SNR=109 | | | | | | |
| **NBI** | **Nairobi** | **5.88** | **178** | *i* P | **Pn** | **02 16 09.6** | **-0.6** |
| **ATD** | **Arta Tunnel** | **9.25** | **42** | Pn | **Pn** | **02 16 55.5** | **-0.7** |
| | 0.6nm,0.3s,baz=238,slow=6.5,SNR=25 | | | | | | |
| ATD | | | | Pg | | 02 17 24.2 | |
| | 1.0nm,0.3s,baz=220,slow=18,SNR=7.9 | | | | | | |
| ATD | | | | Lg | Lg | 02 19 25.3 | |
| | 3.4nm,0.3s,baz=254,slow=20,SNR=5.1 | | | | | | |
| ATD | | | | LR | LR | 02 20 25.9 | |
| | comp=Z,2µm,18.6s,baz=208,slow=38 | | | | | | |
| **ATD** | **Arta Tunnel** | **9.25** | **42** | *e*Pn | **Pn** | **02 16 59.0** | **+2.7** |
| ATD | | | | Pg | | 02 17 24.2 | |
| ATD | | | | *e*Sn | **Sn** | **02 18 41.5** | **+0.9** |
| ATD | | | | Lg | Lg | 02 19 25.3 | |
| **RAYN** | **Ar Rayn** | **20.66** | **24** | *e*P | **P** | **02 19 23.4** | **+0.6** |
| | 34nm,1.5s | | | | | | |
| **MSEY** | **Mahe Island** | **21.05** | **116** | *i* P | **P** | **02 19 25.4** | **-1.8** |
| **MSEY** | **Mahe Island** | **21.05** | **116** | *e*P | **P** | **02 19 23.6** | **-3.5** |
| | 302nm,1.4s | | | | | | |
| **MSEY** | **Mahe Island** | **21.05** | **116** | P | **P** | **02 19 24.9** | **-2.3** |
| | SNR=8.4 | | | | | | |
| **MSEY** | **Mahe Island** | **21.05** | **116** | P | **P** | **02 19 24.9** | **-2.3** |
| | SNR=8.4 | | | | | | |
| **LSZ** | **Lusaka** | **21.46** | **203** | P | **P** | **02 19 32.0** | **+0.5** |
| | 30nm,1.1s,baz=28,slow=9.5,SNR=33 | | | | | | |
| LSZ | | | | Lg | Lg | 02 25 56.1 | |
| | 58nm,1.1s,baz=114,slow=18,SNR=5.2 | | | | | | |
| LSZ | | | | LR | LR | 02 27 44.4 | |
| | comp=Z,1µm,20.6s,baz=34,slow=36 | | | | | | |
| **LSZ** | **Lusaka** | **21.46** | **203** | *e*P | **P** | **02 19 32.7** | **+1.1** |
| LSZ | | | | pmax | pmax | | |
| | comp=Z,75nm,1.3s | | | | | | |
| **LSZ** | **Lusaka** | **21.46** | **203** | *e*P | **P** | **02 19 32.7** | **+1.1** |
| | comp=Z,75nm,1.3s | | | | | | |
| LSZ | | | | Lg | Lg | 02 25 56.1 | |
| **LSZ** | **Lusaka** | **21.46** | **203** | P | **P** | **02 19 32.5** | **+1.0** |
| | SNR=16 | | | | | | |
| **LSZ** | **Lusaka** | **21.46** | **203** | P | **P** | **02 19 32.5** | **+1.0** |
| | SNR=16 | | | | | | |
| **EIL** | **Elat** | **24.93** | **357** | P | **P** | **02 20 10.4** | **+4.2** |
| | comp=Z,12nm,1.1s,baz=164,slow=14,SNR=3.0 | | | | | | |
| EIL | | | | Lg | Lg | 02 27 52.4 | |
| | comp=Z,3.6nm,0.9s,baz=127,slow=20,SNR=3.2 | | | | | | |
| **OPO** | **Ambohidratompo** | **25.34** | **156** | LR | LR | 02 29 09.5 | |
| | comp=Z,502nm,20.5s,baz=329,slow=34 | | | | | | |
| **ABPO** | **Ambohimpanom** | **25.76** | **156** | *e*P | **P** | **02 20 14.3** | **+0.3** |
| ABPO | | | | pmax | pmax | | |
| | comp=Z,208nm,1.9s | | | | | | |
| **ABPO** | **Ambohimpanom** | **25.76** | **156** | *e*P | **P** | **02 20 14.3** | **+0.3** |
| | comp=Z,208nm,1.9s | | | | | | |
| **MATP** | **Matopo** | **26.14** | **197** | P | **P** | **02 20 17.1** | **-0.3** |
| | comp=Z,22nm,1.1s,baz=31,slow=10.0 | | | | | | |
| **ASF** | **Jabal al Asfar** | **27.38** | **1** | P | **P** | **02 20 28.5** | **+0.1** |
| | comp=Z,1.2nm,0.9s,baz=156,slow=7.2,SNR=4.2 | | | | | | |
| **UOSS** | **Minazif** | **27.64** | **41** | *e*P | **P** | **02 20 32.4** | **+1.7** |
| | comp=Z,29nm,1.4s | | | | | | |
| **WSAR** | **Wadi Sarin** | **28.21** | **47** | LR | LR | 02 30 56.4 | |
| | comp=Z,568nm,18.8s,baz=240,slow=35 | | | | | | |
| **MMAI** | **Mount Meron Ar** | **28.24** | **358** | LR | LR | 02 31 08.7 | |
| | comp=Z,704nm,18.4s,baz=175,slow=35 | | | | | | |
| **LBTB** | **Lobatse** | **31.35** | **199** | *e*P | **P** | **02 21 05.1** | **+1.3** |
| LBTB | | | | pmax | pmax | | |
| | comp=Z,34nm,1.4s | | | | | | |
| **LBTB** | **Lobatse** | **31.35** | **199** | *e*P | **P** | **02 21 05.0** | **+1.3** |
| | comp=Z,34nm,1.4s | | | | | | |
| **BOSA** | **Boshof** | **34.81** | **198** | P | **P** | **02 21 33.4** | **-0.6** |
| | comp=Z,12nm,1.0s,baz=14,slow=10.0,SNR=8.9 | | | | | | |
| BOSA | | | | LR | LR | 02 36 00.9 | |
| | comp=Z,1µm,19.8s,baz=28,slow=37 | | | | | | |
| **BOSA** | **Boshof** | **34.81** | **198** | *e*P | **P** | **02 21 33.7** | **-0.3** |
| BOSA | | | | pmax | pmax | | |
| | comp=Z,30nm,1.1s | | | | | | |
| **BOSA** | **Boshof** | **34.81** | **198** | *e*P | **P** | **02 21 33.7** | **-0.3** |
| | comp=Z,30nm,1.1s | | | | | | |
| **TAM** | **Tamanrasset** | **34.99** | **304** | *e*P | **P** | **02 21 36.6** | **+0.9** |
| TAM | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.9s | | | | | | |
| **TAM** | **Tamanrasset** | **34.99** | **304** | *e*P | **P** | **02 21 36.6** | **+0.9** |
| | comp=Z,4.4nm,0.9s | | | | | | |
| **BRTR** | **Keskin Array B** | **35.02** | **356** | P | **P** | **02 21 35.4** | **-0.2** |
| | comp=Z,0.9nm,0.9s,baz=190,slow=11,SNR=7.0 | | | | | | |
| BRTR | | | | PcP | **PcP** | **02 24 07.3** | **-0.4** |
| | comp=Z,1.8nm,1.0s,baz=112,slow=1.3,SNR=4.3 | | | | | | |
| BRTR | | | | LR | LR | 02 34 53.1 | |
| | comp=Z,326nm,19.5s,baz=218,slow=35 | | | | | | |
| **BR231** | **Keskin MP Arra** | **35.20** | **355** | *e*P | **P** | **02 21 38.5** | **+1.3** |
| **TOA0** | **Torodi Ar. Sit** | **35.42** | **286** | *e*P | **P** | **02 21 41.2** | **+1.9** |
| **TORD** | **Torodi Ar. Bea** | **35.42** | **286** | P | **P** | **02 21 40.4** | **+1.1** |
| | comp=Z,3.8nm,0.9s,baz=90,slow=8.7,SNR=11 | | | | | | |
| TORD | | | | LR | LR | 02 35 41.1 | |
| | comp=Z,698nm,18.2s,baz=90,slow=35 | | | | | | |
| **GNI** | **Garni** | **36.11** | **11** | *de*P | **P** | **02 21 43.1** | **-1.9** |
| GNI | | | | pmax | pmax | | |
| | comp=Z,12nm,0.6s | | | | | | |
| **AGG** | **Agios Georgios** | **36.57** | **341** | *e*P | **P** | **02 21 49.6** | **+0.7** |
| AGG | | | | pmax | pmax | | |
| | comp=Z,40nm,1.0s | | | | | | |
| **AGG** | **Agios Georgios** | **36.57** | **341** | *e*P | **P** | **02 21 49.6** | **+0.7** |
| | comp=Z,40nm,1.0s | | | | | | |
| **AKH** | **Akhalkalaki** | **37.13** | **9** | ⇑*i*P | **P** | **02 21 54.1** | **+0.4** |
| **GEYT** | **Alibeck** | **38.53** | **28** | P | **P** | **02 22 04.0** | **-1.5** |
| | comp=Z,2.4nm,0.9s,baz=223,slow=5.9,SNR=2.3 | | | | | | |
| GEYT | | | | LR | LR | 02 39 20.1 | |
| | comp=Z,673nm,18.1s,baz=215,slow=38 | | | | | | |
| **ZEI** | **Tsey** | **38.54** | **9** | *e*P | **P** | **02 22 09.4** | **+3.7** |
| ZEI | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.1s | | | | | | |
| **NCK** | **Nalchik** | **39.18** | **8** | ⇓*e*P | **P** | **02 22 13.4** | **+2.5** |
| NCK | | | | pmax | pmax | | |
| | comp=Z,52nm,1.7s | | | | | | |
| **GROC** | **Groznyy** | **39.26** | **11** | *e*P | **P** | **02 22 09.2** | **-2.2** |
| GROC | | | | *e*S | **S** | **02 28 08.4** | **-3.7** |
| GROC | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.4s | | | | | | |
| **KBZ** | **Khabaz** | **39.32** | **7** | P | **P** | **02 22 11.9** | **0.0** |
| | comp=Z,3.1nm,0.9s,baz=193,slow=6.7,SNR=3.9 | | | | | | |
| KBZ | | | | LR | LR | 02 39 23.8 | |
| | comp=Z,599nm,18.2s,baz=194,slow=38 | | | | | | |
| **KBZ** | **Khabaz** | **39.32** | **7** | P | **P** | **02 22 12.0** | **0.0** |
| **MAK** | **Makhachkala** | **39.37** | **13** | *e*P | P | 02 22 07.2 | -5.2 |
| MAK | | | | *e*S | **S** | **02 28 10.1** | **-3.6** |
| MAK | | | | pmax | pmax | | |
| | comp=Z,65nm,0.9s | | | | | | |
| MAK | | | | MLR | MLR | | |
| | comp=Z,1µm,13.0s | | | | | | |
| **KIV** | **Kislovodsk** | **39.52** | **7** | *e*P | **P** | **02 22 14.9** | **+1.2** |
| KIV | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.2s | | | | | | |
| KIV | | | | MLR | MLR | | |
| | comp=Z,569nm,14.0s | | | | | | |
| **VTS** | **Vitosha** | **39.60** | **344** | ⇑*i*P | P | 02 22 08.9 | -5.6 |
| **VTS** | **Vitosha** | **39.60** | **344** | ⇑P | P | 02 22 08.9 | -5.6 |
| **VTS** | **Vitosha** | **39.60** | **344** | *e*P | **P** | **02 22 17.6** | **+3.1** |
| | comp=Z,13nm,1.4s | | | | | | |
| **KEST** | **Kesra** | **39.82** | **324** | LR | LR | 02 41 01.8 | |
| | comp=Z,2µm,18.4s,baz=80,slow=40 | | | | | | |
| **CUC** | **Castrocucco** | **39.85** | **335** | *e*P | **P** | **02 22 15.3** | **-1.2** |
| | comp=Z,5.8nm,1.0s | | | | | | |
| **PDG** | **Podgorica** | **40.65** | **340** | ⇑*i*P | **P** | **02 22 22.3** | **-0.7** |
| **CFR** | **Carcaliu** | **41.03** | **351** | ⇑*i*P | **P** | **02 22 25.6** | **-0.5** |
| **CFR** | **Carcaliu** | **41.03** | **351** | ⇑P | **P** | **02 22 25.6** | **-0.5** |
| **KOWA** | **Kowa** | **41.12** | **287** | *e*P | **P** | **02 22 27.5** | **+0.2** |
| | comp=Z,12nm,1.1s | | | | | | |
| **KIC** | **Kosan Boka** | **41.13** | **274** | *e*P | **P** | **02 22 28.2** | **+0.7** |
| | comp=Z,103nm,1.8s | | | | | | |
| **DBIC** | **Dimbokro** | **41.25** | **275** | P | **P** | **02 22 29.5** | **+1.2** |
| | comp=Z,5.6nm,0.9s,baz=63,slow=3.6,SNR=4.6 | | | | | | |
| DBIC | | | | LR | LR | 02 38 33.7 | |
| | comp=Z,736nm,20.6s,baz=70,slow=35 | | | | | | |
| **DBIC** | **Dimbokro** | **41.25** | **275** | *e*P | **P** | **02 22 29.6** | **+1.2** |
| DBIC | | | | pmax | pmax | | |
| | comp=Z,19nm,1.1s | | | | | | |
| **DBIC** | **Dimbokro** | **41.25** | **275** | *e*P | **P** | **02 22 29.6** | **+1.2** |
| | comp=Z,19nm,1.1s | | | | | | |
| **TIC** | **Toumodi** | **41.41** | **275** | *e*P | **P** | **02 22 29.6** | **-0.2** |
| **LIC** | **Lamto** | **41.41** | **274** | *e*P | **P** | **02 22 30.3** | **+0.5** |
| | comp=Z,54nm,1.4s | | | | | | |
| **MLR** | **Muntele Rosu** | **41.72** | **349** | ⇓*i*P | P | 02 22 37.1 | +5.1 |
| **MLR** | **Muntele Rosu** | **41.72** | **349** | ⇓P | P | 02 22 37.1 | +5.1 |
| **VOIR** | | **41.85** | **348** | ⇑*i*P | **P** | **02 22 34.9** | **+1.9** |
| **VOIR** | | **41.85** | **348** | ⇑P | **P** | **02 22 34.9** | **+1.9** |
| **ARR** | **Arges** | **41.87** | **347** | ⇑*i*P | **P** | **02 22 37.0** | **+3.8** |
| **PLOR** | **Plostina** | **41.94** | **350** | ⇑*i*P | **P** | **02 22 33.7** | **+0.1** |
| **PLOR** | **Plostina** | **41.94** | **350** | ⇑P | **P** | **02 22 33.7** | **+0.1** |
| **VRI** | **Vrincioaia** | **41.94** | **350** | ⇑*i*P | **P** | **02 22 33.5** | **-0.1** |
| **VRI** | **Vrincioaia** | **41.94** | **350** | ⇑P | **P** | **02 22 33.5** | **-0.1** |
| **DOPR** | **Dopca** | **42.29** | **348** | ⇑*i*P | **P** | **02 22 33.9** | **-2.6** |
| **BZS** | **Buzias** | **42.84** | **345** | ⇑*i*P | P | 02 22 54.5 | +14 |
| **DRGR** | | **43.66** | **346** | ⇑*i*P | **P** | **02 22 47.9** | **+0.3** |
| **DRGR** | | **43.66** | **346** | ⇑P | **P** | **02 22 47.9** | **+0.3** |
| **BURAR** | **Bucovina Array** | **43.90** | **349** | ⇑*i*P | **P** | **02 22 48.2** | **-1.4** |
| **BURAR** | **Bucovina Array** | **43.90** | **349** | ⇑P | **P** | **02 22 48.2** | **-1.4** |
| **BUR04** | **Bucovina Ar. S** | **43.91** | **349** | *e*P | **P** | **02 22 49.5** | **-0.2** |
| **BUR08** | **Bucovina Ar. S** | **43.93** | **349** | *e*P | **P** | **02 22 50.0** | **+0.2** |
| **PALK** | **Pallekele** | **43.98** | **84** | *e*P | **P** | **02 22 50.2** | **-0.5** |
| PALK | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.9s | | | | | | |
| **PALK** | **Pallekele** | **43.98** | **84** | *e*P | **P** | **02 22 50.2** | **-0.5** |
| | comp=Z,6.0nm,0.9s | | | | | | |
| **PSZ** | **Piszkesteto** | **45.42** | **344** | ⇑*i*P | **P** | **02 23 03.0** | **+1.3** |
| **PSZ** | **Piszkesteto** | **45.42** | **344** | *e*P | **P** | **02 23 02.4** | **+0.7** |
| PSZ | | | | pmax | pmax | | |
| | comp=Z,14nm,1.1s | | | | | | |
| **PSZ** | **Piszkesteto** | **45.42** | **344** | *e*P | **P** | **02 23 02.4** | **+0.7** |
| | comp=Z,14nm,1.1s | | | | | | |
| **UZH** | **Uzhgorod** | **45.48** | **347** | *e*P | P | 02 23 08.5 | +6.4 |
| UZH | | | | *e* | | 02 23 15.0 | |
| **SOKA** | **Soboth** | **45.83** | **339** | *e*P | **P** | **02 23 05.9** | **+1.0** |
| | comp=Z,8.3nm,1.2s | | | | | | |
| **OBKA** | **Obir** | **45.85** | **339** | *e*P | **P** | **02 23 06.2** | **+1.1** |
| | comp=Z,14nm,1.6s | | | | | | |
| **KIEV** | **Kiev** | **46.30** | **354** | ⇓*e*P | **P** | **02 23 10.0** | **+1.5** |
| KIEV | | | | pmax | pmax | | |
| | comp=Z,20nm,1.8s | | | | | | |
| **AKASG** | **Malin Array Be** | **46.31** | **354** | P | **P** | **02 23 07.1** | **-1.4** |
| | comp=Z,0.2nm,0.3s,baz=174,slow=6.6,SNR=11 | | | | | | |
| AKASG | | | | PcP | **PcP** | **02 24 42.6** | **-1.2** |
| | comp=Z,0.4nm,0.4s,baz=185,slow=3.7,SNR=4.3 | | | | | | |
| AKASG | | | | LR | LR | 02 45 10.6 | |
| | comp=Z,246nm,19.6s,baz=210,slow=40 | | | | | | |
| **STHS** | **Stebnicka Huta** | **46.46** | **346** | *e*P | **P** | **02 23 12.8** | **+3.0** |
| STHS | | | | pmax | pmax | | |
| | comp=Z,47nm,3.2s | | | | | | |
| **STHS** | **Stebnicka Huta** | **46.46** | **346** | *e*P | **P** | **02 23 12.8** | **+3.0** |
| **BNI** | **Bardonecchia** | **47.98** | **332** | *e*P | **P** | **02 23 22.0** | **+0.1** |
| BNI | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.2s | | | | | | |
| **BNI** | **Bardonecchia** | **47.98** | **332** | *e*P | **P** | **02 23 22.0** | **+0.1** |
| | comp=Z,9.0nm,1.2s | | | | | | |
| **RETA** | **Reutte** | **48.10** | **337** | *e*P | **P** | **02 23 25.1** | **+2.4** |
| | comp=Z,12nm,1.5s | | | | | | |
| **GEA0** | **GERESS Array S** | **48.14** | **340** | *e*P | **P** | **02 23 22.4** | **-0.6** |
| **GEC2** | **GERESS Array S** | **48.15** | **340** | *e*P | **P** | **02 23 23.2** | **+0.1** |
| GEC2 | | | | pmax | pmax | | |
| | comp=Z,48nm,1.9s | | | | | | |
| **GEC2** | **GERESS Array S** | **48.15** | **340** | *e*P | **P** | **02 23 23.1** | **+0.1** |
| | comp=Z,48nm,1.9s | | | | | | |
| **GERES** | **GERESS Array B** | **48.15** | **340** | P | **P** | **02 23 22.7** | **-0.4** |
| | comp=Z,2.5nm,1.1s,baz=158,slow=1.4,SNR=10 | | | | | | |
| GERES | | | | LR | LR | 02 45 25.8 | |
| | comp=Z,392nm,20.4s,baz=155,slow=38 | | | | | | |
| **DAVA** | **Damuels** | **48.29** | **336** | *e*P | **P** | **02 23 23.8** | **-0.5** |
| **KHC** | **Kasperske Hory** | **48.43** | **340** | *e*P | **P** | **02 23 26.6** | **+1.4** |
| KHC | | | | *e*x | x | 02 23 40.0 | |
| **KHC** | **Kasperske Hory** | **48.43** | **340** | *e*P | **P** | **02 23 26.6** | **+1.4** |
| **KHC** | **Kasperske Hory** | **48.43** | **340** | *e*P | **P** | **02 23 27.0** | **+1.8** |
| | comp=Z,3.2nm,1.0s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **48.45** | **38** | P | **P** | **02 23 26.3** | **+0.6** |
| **DPC** | **Dobruska-Polom** | **48.62** | **343** | *e*P | **P** | **02 23 25.3** | **-1.4** |
| DPC | | | | *e*x | x | 02 23 40.9 | |
| **DPC** | **Dobruska-Polom** | **48.62** | **343** | *e*P | **P** | **02 23 25.3** | **-1.4** |
| **PRU** | **Pruhonice** | **48.85** | **341** | *e*P | **P** | **02 23 27.8** | **-0.6** |
| **PRU** | **Pruhonice** | **48.85** | **341** | *e*P | **P** | **02 23 27.8** | **-0.6** |
| **UPC** | **Upice** | **48.86** | **343** | *e*P | **P** | **02 23 30.2** | **+1.8** |
| UPC | | | | *e*x | x | 02 23 45.4 | |
| **UPC** | **Upice** | **48.86** | **343** | *e*P | **P** | **02 23 30.2** | **+1.8** |
| **SSB** | **Saint Sauveur** | **49.17** | **330** | *e*P | **P** | **02 23 34.1** | **+3.1** |
| SSB | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.1s | | | | | | |
| **SSB** | **Saint Sauveur** | **49.17** | **330** | *e*P | **P** | **02 23 34.1** | **+3.1** |
| | comp=Z,10nm,1.1s | | | | | | |
| **MNAS** | **Manas** | **49.38** | **35** | P | **P** | **02 23 32.7** | **0.0** |
| **KSH** | **Kashi** | **49.71** | **40** | *e*P | **P** | **02 23 34.6** | **-0.7** |
| KSH | | | | pP | sP | 02 23 40.1 | +0.4 |
| KSH | | | | PcP | **PcP** | **02 24 57.7** | **+1.3** |
| KSH | | | | PP | **PP** | **02 25 29.2** | **-0.7** |
| KSH | | | | S | **S** | **02 30 37.7** | **-6.8** |
| KSH | | | | ScS | **ScS** | **02 33 21.0** | **-6.5** |
| KSH | | | | SS | SS | 02 34 04.4 | -13 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.5s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,230nm,5.7s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,690nm,12.0s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,770nm,10.6s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,1µm,10.1s | | | | | | |
| **NKC** | **Novy Kostel** | **49.76** | **340** | *e*P | **P** | **02 23 32.7** | **-2.6** |
| **NKC** | **Novy Kostel** | **49.76** | **340** | *e*P | **P** | **02 23 32.7** | **-2.6** |
| **AML** | **Almayashu** | **49.85** | **36** | P | **P** | **02 23 39.6** | **+3.0** |
| | SNR=8.7 | | | | | | |
| **EKS2** | **Erkin-Say** | **50.22** | **35** | P | **P** | **02 23 41.9** | **+2.8** |
| | SNR=5.0 | | | | | | |
| **OBN** | **Obninsk** | **50.31** | **0** | ⇓*i*P | **P** | **02 23 39.8** | **+0.4** |
| OBN | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.6s | | | | | | |
| OBN | | | | MLR | MLR | | |
| | comp=Z,182nm,14.0s | | | | | | |
| **UCH** | **Uchtor** | **50.39** | **36** | P | **P** | **02 23 43.7** | **+2.9** |
| | SNR=9.5 | | | | | | |
| **ES19** | **SONSECA Array** | **50.48** | **320** | *e*P | **P** | **02 23 41.4** | **+0.4** |
| **CLL** | **Collm** | **50.49** | **341** | *e*P | P | 02 23 55.0 | +14 |
| CLL | | | | *e*S | **S** | **02 30 50.0** | **-4.6** |
| CLL | | | | MLR | MLR | | |
| | comp=Z,400nm,19.9s | | | | | | |
| **CLL** | **Collm** | **50.49** | **341** | *e* | P | 02 23 55.0 | +14 |
| CLL | | | | *e*S | **S** | **02 30 50.0** | **-4.6** |
| CLL | | | | LmH | | 02 45 00.0 | |
| | comp=N,300nm,18.7s | | | | | | |
| CLL | | | | LmH | | 02 45 00.0 | |
| | comp=E,300nm,20.4s | | | | | | |
| **ESDC** | **Sonseca Array** | **50.50** | **319** | P | **P** | **02 23 41.5** | **+0.3** |
| | comp=E,7.4nm,0.9s,baz=125,slow=7.4,SNR=17 | | | | | | |
| ESDC | | | | LR | LR | 02 45 00.5 | |
| | comp=E,197nm,19.6s,baz=90,slow=36 | | | | | | |
| **AAK** | **Ala-Archa** | **50.62** | **36** | ⇓*i*P | **P** | **02 23 42.0** | **-0.2** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| AAK | | | | pmax | pmax | | |
| | comp=Z,35nm,1.5s | | | | | | |
| **AAK** | **Ala-Archa** | **50.62** | **36** | P | **P** | **02 23 45.3** | **+3.1** |
| | SNR=7.2 | | | | | | |
| **AAK** | **Ala-Archa** | **50.62** | **36** | *e*P | **P** | **02 23 41.6** | **-0.6** |
| | comp=Z,38nm,1.4s | | | | | | |
| **AAK** | **Ala-Archa** | **50.62** | **36** | P | **P** | **02 23 43.8** | **+1.6** |
| | SNR=8.2 | | | | | | |
| **AAK** | **Ala-Archa** | **50.62** | **36** | P | **P** | **02 23 43.8** | **+1.6** |
| | SNR=8.2 | | | | | | |
| AAK | | | | P | **P** | **02 23 43.8** | **+1.6** |
| | SNR=8.2 | | | | | | |
| **FRU** | **Bishkek** | **50.81** | **36** | *e*P | **P** | **02 23 43.5** | **0.0** |
| FRU | | | | pmax | pmax | | |
| | comp=Z,80nm,1.9s | | | | | | |
| FRU | | | | MLR | MLR | | |
| | comp=E,1μm,14.0s | | | | | | |
| **KBK** | **Karagaybulak** | **50.90** | **36** | P | **P** | **02 23 44.3** | **-0.1** |
| | SNR=9.8 | | | | | | |
| **MOS** | **Moscow** | **50.95** | **1** | *e*P | **P** | **02 23 45.0** | **+0.8** |
| MOS | | | | *e* | | 02 25 42.7 | |
| MOS | | | | pmax | pmax | | |
| | comp=Z,54nm,1.5s | | | | | | |
| **CHMS** | **Chumysh** | **50.99** | **36** | P | **P** | **02 23 47.1** | **+2.3** |
| | SNR=5.2 | | | | | | |
| **USP** | **Ospenovka** | **51.01** | **35** | P | **P** | **02 23 47.5** | **+2.5** |
| | SNR=8.0 | | | | | | |
| **TKM2** | **Tokmak 2** | **51.44** | **36** | P | **P** | **02 23 50.9** | **+2.5** |
| | SNR=8.1 | | | | | | |
| **ARU** | **Arti** | **54.53** | **15** | P | **P** | **02 24 11.2** | **+0.6** |
| ARU | | | | | | 02 25 11.9 | |
| ARU | | | | | | 02 26 13.4 | |
| ARU | | | | S | **S** | **02 31 52.4** | **+2.7** |
| ARU | | | | SS | **SS** | **02 35 30.3** | **-2.1** |
| **ARU** | **Arti** | **54.53** | **15** | *e*P | **P** | **02 24 09.7** | **-1.0** |
| | comp=Z,70nm,1.5s | | | | | | |
| **SVE** | **Sverdlovsk** | **55.42** | **16** | *e*P | **P** | **02 24 17.8** | **+0.7** |
| SVE | | | | pmax | pmax | | |
| | comp=Z,30nm,1.8s | | | | | | |
| **BRVK** | **Borovoye** | **55.63** | **24** | ⇓*i*P | **P** | **02 24 19.5** | **+0.8** |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,15nm,1.6s | | | | | | |
| **BRVK** | **Borovoye** | **55.63** | **24** | *e*P | **P** | **02 24 18.1** | **-0.6** |
| | comp=Z,35nm,1.8s | | | | | | |
| **KLMR** | **Klimovskoe** | **56.12** | **2** | *e*P | **P** | **02 24 20.0** | **-2.0** |
| KLMR | | | | pmax | pmax | | |
| | comp=Z,35nm,1.5s | | | | | | |
| **SHL** | **Shillong** | **56.86** | **63** | *e*P | **P** | **02 24 26.0** | **-2.2** |
| **FINES** | **FINESS Array B** | **57.21** | **354** | LR | LR | 02 51 16.8 | |
| | comp=Z,283nm,19.9s,baz=182,slow=38 | | | | | | |
| **MAKZ** | **Makanchi** | **57.38** | **36** | *e*P | **P** | **02 24 33.2** | **+1.8** |
| MAKZ | | | | pmax | pmax | | |
| | comp=Z,87nm,1.8s | | | | | | |
| **MAKZ** | **Makanchi** | **57.38** | **36** | *e*P | **P** | **02 24 33.2** | **+1.8** |
| | comp=Z,87nm,1.8s | | | | | | |
| **MKAR** | **Makanchi Array** | **57.56** | **36** | P | **P** | **02 24 31.2** | **-1.4** |
| | comp=Z,13nm,0.8s,baz=234,slow=5.8,SNR=17 | | | | | | |
| MKAR | | | | LR | LR | 02 52 47.1 | |
| | comp=Z,482nm,19.7s,baz=250,slow=40 | | | | | | |
| **KURK** | **Kurchatov** | **57.82** | **30** | ⇑*e*P | **P** | **02 24 33.4** | **-0.9** |
| KURK | | | | pmax | pmax | | |
| | comp=Z,57nm,1.5s | | | | | | |
| **KURK** | **Kurchatov** | **57.82** | **30** | *e*P | **P** | **02 24 33.5** | **-0.9** |
| | comp=Z,67nm,1.4s | | | | | | |
| **NB2** | **NORSAR Subarra** | **59.42** | **346** | P | **P** | **02 24 46.0** | **+0.7** |
| | comp=Z,57nm,1.7s,baz=150,slow=6.9 | | | | | | |
| **NB2** | **NORSAR Subarra** | **59.42** | **346** | P | **P** | **02 24 46.0** | **+0.7** |
| | baz=150,slow=6.9 | | | | | | |
| **NOA** | **NORSAR Array B** | **59.42** | **346** | P | **P** | **02 24 44.4** | **-0.9** |
| | comp=Z,2.3nm,0.9s,baz=152,slow=6.5,SNR=2.8 | | | | | | |
| NOA | | | | LR | LR | 02 53 40.1 | |
| | comp=Z,159nm,18.3s,baz=165,slow=39 | | | | | | |
| **WMQ** | **Urumqi** | **59.46** | **41** | P | **P** | **02 24 47.1** | **+1.1** |
| WMQ | | | | pP | sP | 02 24 51.9 | +1.5 |
| WMQ | | | | sP | pP | 02 24 55.2 | +6.0 |
| WMQ | | | | ScP | **ScP** | **02 29 30.3** | **-4.5** |
| WMQ | | | | PcS | **PcS** | **02 29 36.2** | **+0.6** |
| WMQ | | | | S | **S** | **02 32 51.6** | **-3.8** |
| WMQ | | | | SS | **SS** | **02 36 52.5** | **+1.9** |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,42nm,1.7s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,570nm,3.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,500nm,23.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,630nm,23.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,420nm,27.5s | | | | | | |
| **LHMI** | **Lhok Sumawe** | **60.15** | **87** | P | **P** | **02 24 54.4** | **+3.2** |
| **PBSI** | **Pulau Batu** | **61.83** | **93** | P | **P** | **02 25 05.9** | **+3.3** |
| **CMAR** | **Chiang Mai Arr** | **62.37** | **72** | P | **P** | **02 25 03.6** | **-2.5** |
| | comp=Z,3.4nm,0.8s,baz=268,slow=7.9,SNR=7.5 | | | | | | |
| CMAR | | | | LR | LR | 02 50 09.7 | |
| | comp=Z,119nm,20.4s,baz=262,slow=34 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **62.37** | **72** | *i* P | **P** | **02 25 03.9** | **-2.2** |
| CMAR | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.8s | | | | | | |
| **CM01** | **Chiang Mai Arr** | **62.38** | **72** | *e*P | **P** | **02 25 04.0** | **-2.2** |
| **NVS** | **Novosibirsk** | **62.53** | **28** | *e*P | **P** | **02 25 06.4** | **-0.1** |
| NVS | | | | pmax | pmax | | |
| | comp=Z,63nm,1.6s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=N,17nm,1.5s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=E,20nm,1.9s | | | | | | |
| **UTHA** | **Uthaitani** | **62.66** | **75** | P | **P** | **02 25 10.8** | **+2.7** |
| | comp=E,3.1nm,1.2s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **62.80** | **30** | P | **P** | **02 25 06.4** | **-1.9** |
| | comp=E,4.7nm,0.7s,baz=246,slow=7.1,SNR=24 | | | | | | |
| ZALV | | | | LR | LR | 02 54 10.6 | |
| | comp=E,357nm,21.1s,baz=243,slow=38 | | | | | | |
| **SUKH** | **Sukhothai** | **62.95** | **73** | P | **P** | **02 25 12.7** | **+2.7** |
| | comp=E,2.5nm,1.1s | | | | | | |
| **ARCES** | **ARCESS Array B** | **65.20** | **356** | LR | LR | 02 55 24.4 | |
| | comp=E,140nm,18.6s,baz=171,slow=38 | | | | | | |
| **RGRI** | **Rengat** | **65.90** | **92** | P | P | 02 25 40.9 | +12 |
| **KMI** | **Kunming** | **66.50** | **65** | P | **P** | **02 25 33.4** | **0.0** |
| KMI | | | | S | **S** | **02 34 24.4** | **-0.2** |
| KMI | | | | pmax | pmax | | |
| | comp=E,24nm,0.5s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=E,190nm,18.9s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=E,100nm,15.5s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=E,140nm,23.0s | | | | | | |
| **GTA** | **Gaotai** | **66.53** | **49** | *e*P | **P** | **02 25 34.5** | **+1.3** |
| GTA | | | | pP | sP | 02 25 39.2 | +1.6 |
| GTA | | | | sP | pP | 02 25 42.3 | +5.9 |
| GTA | | | | S | **S** | **02 34 25.8** | **+1.5** |
| GTA | | | | sS | sS | 02 34 33.6 | +3.9 |
| GTA | | | | pmax | pmax | | |
| | comp=E,5.0nm,1.0s | | | | | | |
| GTA | | | | pmax | pmax | | |
| | comp=E,110nm,5.9s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=E,260nm,11.2s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=E,270nm,16.6s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=E,240nm,15.4s | | | | | | |
| **MNAI** | **Manna** | **66.94** | **97** | P | **P** | **02 25 39.2** | **+3.1** |
| **CD2** | **Chengdu** | **68.09** | **59** | P | **P** | **02 25 44.7** | **+1.5** |
| CD2 | | | | pP | sP | 02 25 48.4 | +0.8 |
| CD2 | | | | PP | **PP** | **02 28 17.4** | **+4.0** |
| CD2 | | | | S | **S** | **02 34 43.6** | **+0.3** |
| CD2 | | | | pmax | pmax | | |
| | comp=E,10.0nm,0.8s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=E,360nm,11.8s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=E,170nm,11.9s | | | | | | |
| **PMBI** | **Palembang** | **68.58** | **95** | P | **P** | **02 25 49.4** | **+3.0** |
| **KASI** | **Kota Agung** | **68.60** | **98** | P | **P** | **02 25 49.7** | **+3.2** |
| **LZH** | **Lanzhou** | **68.97** | **53** | *e*P | **P** | **02 25 51.1** | **+2.4** |
| LZH | | | | pP | sP | 02 25 55.6 | +2.4 |
| LZH | | | | sP | pP | 02 25 58.0 | +6.1 |
| LZH | | | | PP | **PP** | **02 28 25.1** | **+4.1** |
| LZH | | | | S | **S** | **02 34 55.1** | **+1.3** |
| LZH | | | | sS | sS | 02 35 03.0 | +3.8 |
| LZH | | | | SS | **SS** | **02 39 21.1** | **+1.7** |
| LZH | | | | pmax | pmax | | |
| | comp=E,28nm,1.0s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=E,160nm,5.8s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=E,260nm,17.4s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=E,230nm,17.4s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=E,340nm,18.6s | | | | | | |
| **SBJI** | **Serang** | **70.29** | **98** | P | **P** | **02 26 00.3** | **+3.3** |
| **CNJI** | **Cibinong** | **71.42** | **99** | P | **P** | **02 26 07.0** | **+3.1** |
| **CISI** | **Cisompet, Garu** | **72.13** | **99** | P | **P** | **02 26 11.3** | **+3.1** |
| **TLY** | **Talaya** | **72.27** | **37** | *e*P | **P** | **02 26 04.5** | **-3.8** |
| TLY | | | | *e*S | **S** | **02 35 34.3** | **+2.9** |
| TLY | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.4s | | | | | | |
| TLY | | | | MLR | MLR | | |
| | comp=Z,442nm,17.0s | | | | | | |
| **JCJI** | **Jatiwangi** | **72.44** | **98** | P | **P** | **02 26 13.3** | **+3.3** |
| **QIZ** | **Qiongzhong** | **72.71** | **72** | P | **P** | **02 26 11.9** | **+0.4** |
| QIZ | | | | sP | **sP** | **02 26 16.8** | **+0.8** |
| QIZ | | | | S | **S** | **02 35 37.4** | **-0.1** |
| QIZ | | | | ScS | **SKSac** | **02 36 13.8** | **-3.7** |
| QIZ | | | | pmax | pmax | | |
| | comp=Z,260nm,4.9s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=Z,310nm,4.0s | | | | | | |
| **SONM** | **Songino Array** | **73.09** | **41** | P | **P** | **02 26 13.2** | **-0.3** |
| | comp=Z,6.7nm,1.2s,baz=247,slow=4.3,SNR=13 | | | | | | |
| SONM | | | | LR | LR | 03 04 11.9 | |
| | comp=Z,168nm,18.9s,baz=234,slow=41 | | | | | | |
| **SONA1** | **Songino Array** | **73.09** | **41** | *e*P | **P** | **02 26 13.0** | **-0.5** |
| **ULN** | **Ulaanbaatar** | **73.53** | **41** | ⇑*e*P | **P** | **02 26 16.8** | **+0.8** |
| ULN | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.2s | | | | | | |
| **ULN** | **Ulaanbaatar** | **73.53** | **41** | *e*P | **P** | **02 26 18.1** | **+2.1** |
| **SYO** | **Syowa Base** | **73.53** | **179** | ⇓*i*P | **P** | **02 26 14.0** | **-1.3** |
| **MAW** | **Mawson** | **74.45** | **170** | P | **P** | **02 26 19.7** | **-1.0** |
| | comp=Z,8.4nm,1.0s,baz=14,slow=6.3,SNR=7.4 | | | | | | |
| MAW | | | | LR | LR | 02 56 14.0 | |
| | comp=Z,428nm,18.3s,baz=50,slow=34 | | | | | | |
| **MAW** | **Mawson** | **74.45** | **170** | *e*P | **P** | **02 26 20.8** | **0.0** |
| **MAW** | **Mawson** | **74.45** | **170** | *e*P | **P** | **02 26 20.8** | **0.0** |
| **HHC** | **Hu-ho-hao-te** | **75.64** | **49** | *e*P | **P** | **02 26 31.1** | **+2.7** |
| HHC | | | | PP | **PP** | **02 29 22.6** | **+4.6** |
| HHC | | | | S | **S** | **02 36 10.3** | **+0.3** |
| HHC | | | | sS | sS | 02 36 18.2 | +2.8 |
| HHC | | | | SKS | **SKSac** | **02 36 35.5** | **-3.5** |
| HHC | | | | SS | **SS** | **02 41 04.0** | **+2.8** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,31nm,1.0s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,170nm,5.5s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,170nm,15.7s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,180nm,17.1s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,94nm,14.9s | | | | | | |
| **NVL** | **N'lazarevskaya** | **77.05** | **188** | *e*P | **P** | **02 26 36.1** | **+0.5** |
| **BJI** | **Beijing** | **79.08** | **50** | P | **P** | **02 26 48.9** | **+1.4** |
| BJI | | | | pmax | pmax | | |
| | comp=Z,11nm,1.6s | | | | | | |
| **BOD** | **Bodaibo** | **79.40** | **32** | *e*P | **P** | **02 26 47.4** | **-1.5** |
| BOD | | | | pmax | pmax | | |
| | comp=Z,40nm,1.7s | | | | | | |
| **SNAA** | **Sanae** | **80.37** | **192** | P | **P** | **02 26 54.5** | **+0.6** |
| **SNAA** | **Sanae** | **80.37** | **192** | *d i*P | **P** | **02 26 53.9** | **0.0** |
| **SNAA** | **Sanae** | **80.37** | **192** | *e*P | **P** | **02 26 54.2** | **+0.3** |
| **VNA2** | **Neumayer--Watz** | **80.80** | **193** | P | **P** | **02 26 56.6** | **+0.4** |
| | baz=34,slow=5.6 | | | | | | |
| **VNA1** | **Neumayer--Stat** | **80.81** | **194** | P | **P** | **02 26 57.4** | **+1.2** |
| **NJ2** | **Nanjing** | **81.03** | **58** | *e*P | **P** | **02 26 59.4** | **+1.1** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,18nm,1.0s | | | | | | |
| **VNA3** | **Neumayer Olymp** | **81.55** | **194** | P | **P** | **02 27 00.5** | **+0.3** |
| **TGY** | **Tagaytay City** | **83.45** | **76** | LR | LR | 03 03 26.5 | |
| | comp=Z,114nm,18.4s,baz=344,slow=35 | | | | | | |
| **KAPI** | **Kappang** | **83.65** | **96** | *e*P | **P** | **02 27 09.9** | **-2.4** |
| | comp=Z,5.9nm,0.7s | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **84.71** | **124** | LR | LR | 02 58 55.2 | |
| | comp=Z,148nm,19.3s,slow=31 | | | | | | |
| **BDFB** | **Brasilia** | **86.02** | **254** | LR | LR | 03 02 12.6 | |
| | comp=Z,81nm,21.1s,baz=252,slow=33 | | | | | | |
| **TIXI** | **Tiksi** | **86.35** | **18** | ⇑*e*P | **P** | **02 27 23.8** | **-0.9** |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,30nm,1.7s | | | | | | |
| **TIXI** | **Tiksi** | **86.35** | **18** | *e*P | **P** | **02 27 24.6** | **-0.1** |
| **YAK** | **Yakutsk** | **87.40** | **28** | *e*P | **P** | **02 27 27.0** | **-3.0** |
| YAK | | | | pmax | pmax | | |
| | comp=Z,23nm,1.0s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,3.0nm,0.9s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,13nm,1.3s | | | | | | |
| **KSRS** | **Korea Array** | **88.29** | **53** | LR | LR | 03 09 41.4 | |
| | comp=E,72nm,18.9s,baz=290,slow=38 | | | | | | |
| **SOEI** | **Soe** | **88.53** | **100** | *e*P | **P** | **02 27 34.1** | **-2.4** |
| | comp=E,27nm,1.0s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **90.69** | **46** | LR | LR | 03 14 58.0 | |
| | comp=E,174nm,18.2s,baz=279,slow=40 | | | | | | |
| **SCHQ** | **Schefferville** | **93.89** | **326** | LR | LR | 03 12 02.5 | |
| | comp=E,111nm,18.1s,baz=262,slow=37 | | | | | | |
| **CPUP** | **Villa Florida** | **95.51** | **244** | LR | LR | 03 09 45.1 | |
| | comp=E,238nm,18.1s,baz=92,slow=34 | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **97.58** | **42** | *e*P | Pdif | 02 28 23.7 | +6.2 |
| **ASAR** | **Alice Springs** | **98.57** | **113** | P | **P** | **02 28 20.3** | **-2.2** |
| | comp=E,1.3nm,0.9s,baz=294,slow=4.0,SNR=7.3 | | | | | | |
| ASAR | | | | LR | LR | 03 11 04.9 | |
| | comp=E,186nm,18.2s,baz=286,slow=34 | | | | | | |
| **WRA** | **Warramunga Arr** | **98.88** | **109** | LR | LR | 03 10 43.4 | |
| | comp=E,94nm,19.6s,baz=270,slow=34 | | | | | | |
| **BILL** | **Bilibino** | **99.50** | **17** | *e*P | **Pdif** | **02 28 27.0** | **+1.4** |
| BILL | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.1s | | | | | | |
| **BOZ** | **Bozeman (W)** | **122.50** | **334** | *e*PKIKP | **PKPdf** | **02 33 39.2** | **+0.3** |
| **BOZ** | **Bozeman (W)** | **122.50** | **334** | *e*PKPdf | **PKPdf** | **02 33 39.2** | **+0.3** |
| **BW06** | **Boulder Array** | **123.70** | **330** | *e*PKPdf | **PKPdf** | **02 33 40.4** | **-1.0** |
| **PDAR** | **Pinedale Array** | **123.70** | **330** | PKP | **PKPdf** | **02 33 40.0** | **-1.4** |
| | comp=Z,0.7nm,0.9s,baz=25,slow=3.0,SNR=4.2 | | | | | | |
| **TPAW** | **Teton Pass** | **123.82** | **332** | *e*PKPdf | **PKPdf** | **02 33 42.1** | **+0.4** |
| **REDW** | **Red Top Meadow** | **123.87** | **332** | *e*PKPdf | **PKPdf** | **02 33 40.6** | **-1.1** |
| **SMCO** | **Snowmass** | **124.91** | **326** | *e*PKPdf | **PKPdf** | **02 33 43.9** | **-0.2** |
| **SDCO** | **Great Sand Dun** | **125.03** | **323** | *e*PKPdf | **PKPdf** | **02 33 45.0** | **+0.8** |
| **HLID** | **Hailey** | **125.33** | **334** | *e*PKPdf | **PKPdf** | **02 33 42.6** | **-1.8** |
| **DUG** | **Dugway, Tooele** | **127.24** | **331** | *e*PKIKP | **PKPdf** | **02 33 48.0** | **-0.1** |
| **DUG** | **Dugway, Tooele** | **127.24** | **331** | *e*PKPdf | **PKPdf** | **02 33 48.0** | **-0.1** |
| **ANMO** | **Albuquerque** | **127.45** | **321** | *e*PKIKP | **PKPdf** | **02 33 48.3** | **-0.5** |
| **ANMO** | **Albuquerque** | **127.45** | **321** | *e*PKPdf | **PKPdf** | **02 33 48.3** | **-0.5** |
| **DZM** | **Mont Dzumac** | **128.54** | **115** | *e*LR | LR | 03 14 19.3 | |
| | comp=Z,219nm,28.0s | | | | | | |
| **TXAR** | **Lajitas Array** | **129.02** | **314** | PKP | **PKPdf** | **02 33 50.5** | **-1.2** |
| | comp=Z,0.5nm,0.9s,baz=100,slow=2.0,SNR=3.3 | | | | | | |
| **TBI** | **Tubuai** | **160.52** | **163** | *e*LR | LR | 03 29 11.7 | |
| | comp=Z,145nm,22.2s | | | | | | |
| **PPT2** | **Papeete2** | **165.81** | **155** | *e*LR | LR | 03 31 35.4 | |
| | comp=Z,185nm,23.0s | | | | | | |

---

*ISCJB **03** 02:18:09.1±0.4, 36°.46N±0°.03×54°.07E±0°.04, h10km, Error ellipse: s-maj=5.0km s-min=3.2km az=139.0*
*CSEM **03** 02:18:10.1±0.3, 36°.31N×54°.19E, h2km, ML3.1, Error ellipse: s-maj=9.0km s-min=5.0km az=170.0*
*AZER **03** 02:18:11.7±99.0, 36°.72N×53°.85E, h2km±4km, Error ellipse: s-maj=174.1km s-min=4.8km az=305.0*
*TEH **03** 02:18:11.3, 36°.30N×54°.19E, h3km, ML3.1*
**ISC 03 02:18:09.6**±1.0**, 36°.32N**±0°.04×**54°.22E**±0°.04**, h10**km**, n57,** σ**2.s11**/74**, 17C-11D, Northern and central Iran**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **IGLO** | **Ghaloghah** | **0.36** | **301** | *e*Pg | **Pg** | **02 18 17.6** | **+0.7** |
| IGLO | | | | *e*Sg | **Sg** | **02 18 24.1** | **+2.4** |
| IGLO | | | | *e*AMB | AMB | 02 18 25.8 | |
| | comp=Z,34μm,0.2s | | | | | | |
| **IANJ** | **Anjilo** | **0.88** | **196** | *e*Pg | **Pg** | **02 18 25.4** | **-1.2** |
| IANJ | | | | *e*AMB | AMB | 02 18 42.2 | |
| | comp=Z,8μm,0.1s | | | | | | |
| **IANJ** | **Anjilo** | **0.88** | **196** | *e*Pg | **Pg** | **02 18 25.4** | **-1.2** |
| **ISHM** | **Shahmirzad** | **0.91** | **236** | *e*Pg | **Pg** | **02 18 25.3** | **-1.8** |
| ISHM | | | | *e*AMB | AMB | 02 18 43.0 | |
| | comp=Z,18μm,0.1s | | | | | | |
| **IALA** | **Alasht** | **1.16** | **259** | *e*Pg | **Pg** | **02 18 31.7** | **-0.3** |
| IALA | | | | *e*AMB | AMB | 02 18 51.4 | |
| | comp=Z,4μm,0.2s | | | | | | |
| **IALA** | **Alasht** | **1.16** | **259** | *e*Pg | **Pg** | **02 18 31.7** | **-0.3** |
| **IFIR** | **Firoozkooh** | **1.37** | **241** | *e*Pg | **Pn** | **02 18 34.6** | **-0.4** |
| IFIR | | | | *e*AMB | AMB | 02 18 57.9 | |
| | comp=Z,5μm,0.1s | | | | | | |
| **IFIR** | **Firoozkooh** | **1.37** | **241** | *e*Pg | **Pn** | **02 18 34.6** | **-0.4** |
| **SHRO** | **Shahrood** | **1.49** | **102** | *e*Pg | **Pn** | **02 18 37.4** | **+0.9** |
| **IPRN** | **Peran** | **1.52** | **268** | *e*Pn | **Pn** | **02 18 38.4** | **+1.4** |
| IPRN | | | | *e*AMB | AMB | 02 18 40.0 | |
| | comp=Z,4μm,0.2s | | | | | | |
| **IDMV** | **Damavand** | **1.92** | **248** | *e*Pn | **Pn** | **02 18 44.9** | **+2.3** |
| IDMV | | | | *e*AMB | AMB | 02 18 46.5 | |
| | comp=Z,2μm,0.1s | | | | | | |
| **IDMV** | **Damavand** | **1.92** | **248** | *e*Pn | **Pn** | **02 18 44.9** | **+2.3** |
| **MRVT** | **Maraveh tapeh** | **2.01** | **48** | *e*Pn | **Pn** | **02 18 44.8** | **+1.2** |
| **IVRN** | **Varamin** | **2.42** | **238** | *e*Pn | **Pn** | **02 18 51.3** | **+2.0** |
| IVRN | | | | *e*Sg | **Sb** | **02 19 25.9** | **+2.7** |
| IVRN | | | | *e*AMB | AMB | 02 19 30.4 | |
| | comp=Z,5μm,0.1s | | | | | | |
| **IVRN** | **Varamin** | **2.42** | **238** | *e*Pn | **Pn** | **02 18 51.3** | **+2.0** |
| IVRN | | | | *e*Sg | **Sb** | **02 19 25.9** | **+2.7** |
| **CHTH** | **Charan** | **2.54** | **262** | *e*Pn | **Pn** | **02 18 52.1** | **+1.0** |
| **IMHD** | **Mahdasht** | **2.95** | **259** | *e*Pn | **Pn** | **02 18 59.7** | **+3.1** |
| IMHD | | | | *e*AMB | AMB | 02 19 05.6 | |
| | comp=Z,378nm,0.2s | | | | | | |
| **IMHD** | **Mahdasht** | **2.95** | **259** | *e*Pn | **Pn** | **02 18 59.7** | **+3.1** |
| **ISFR** | **Sfrayin** | **3.13** | **75** | *e*Pn | **Pn** | **02 19 01.1** | **+1.9** |
| ISFR | | | | *e*AMB | AMB | 02 20 05.4 | |
| | comp=Z,283nm,0.2s | | | | | | |
| **ISFR** | **Sfrayin** | **3.13** | **75** | *e*Pn | **Pn** | **02 19 01.1** | **+1.9** |
| **IGZV** | **Ghazvin** | **3.23** | **272** | *e*Pn | **Pn** | **02 19 02.7** | **+2.1** |
| IGZV | | | | *e*AMB | AMB | 02 19 54.8 | |
| | comp=Z,602nm,0.2s | | | | | | |
| **IGZV** | **Ghazvin** | **3.23** | **272** | *e*Pn | **Pn** | **02 19 02.7** | **+2.1** |
| **QAM** | **Ghamsar** | **3.42** | **223** | *e*Pn | **Pn** | **02 19 04.1** | **+0.9** |
| QAM | | | | *e*AMB | AMB | 02 19 59.9 | |
| | comp=Z,566nm,0.2s | | | | | | |
| **IKLH** | **Kolahrood** | **3.70** | **217** | *e*Pn | **Pn** | **02 19 07.9** | **+0.9** |
| IKLH | | | | *e*AMB | AMB | 02 20 08.5 | |
| | comp=Z,496nm,0.3s | | | | | | |
| **IKLH** | **Kolahrood** | **3.70** | **217** | *e*Pn | **Pn** | **02 19 07.9** | **+0.9** |
| **IZEF** | **Zefreh** | **3.75** | **205** | *e*Pn | **Pn** | **02 19 09.4** | **+1.6** |
| IZEF | | | | *e*AMB | AMB | 02 20 16.4 | |
| | comp=Z,376nm,0.2s | | | | | | |
| **IZEF** | **Zefreh** | **3.75** | **205** | *e*Pn | **Pn** | **02 19 09.4** | **+1.6** |
| **ASAO** | **Ashtian** | **3.85** | **244** | *e*Pn | **Pn** | **02 19 10.0** | **+0.9** |
| **IPAY** | **Payeh** | **3.86** | **87** | *e*Pn | **Pn** | **02 19 12.0** | **+2.8** |
| IPAY | | | | *e*AMB | AMB | 02 19 30.8 | |
| | comp=Z,106nm,0.2s | | | | | | |
| **IPAY** | **Payeh** | **3.86** | **87** | *e*Pn | **Pn** | **02 19 12.0** | **+2.8** |
| **ISAD** | **Sadrabad** | **4.42** | **186** | *e*Pn | **Pn** | **02 19 19.0** | **+2.1** |
| **ISAD** | **Sadrabad** | **4.42** | **186** | *e*Pn | **Pn** | **02 19 19.0** | **+2.1** |
| **IRAM** | **Ramesheh** | **4.75** | **199** | *e*Pn | **Pn** | **02 19 23.7** | **+2.2** |
| IRAM | | | | *e*AMB | AMB | 02 20 51.1 | |
| | comp=Z,116nm,0.3s | | | | | | |
| **IRAM** | **Ramesheh** | **4.75** | **199** | *e*Pn | **Pn** | **02 19 23.7** | **+2.2** |
| **IMYA** | **Miami** | **4.75** | **88** | *e*Pn | **Pn** | **02 19 23.8** | **+2.4** |
| IMYA | | | | *e*AMB | AMB | 02 19 28.6 | |
| | comp=Z,49nm,0.1s | | | | | | |
| **IMYA** | **Miami** | **4.75** | **88** | *e*Pn | **Pn** | **02 19 23.8** | **+2.4** |
| **IBAF** | **Bafgh** | **4.85** | **166** | *e*Pn | **Pn** | **02 19 23.9** | **+1.2** |
| **IBAF** | **Bafgh** | **4.85** | **166** | *e*Pn | **Pn** | **02 19 23.9** | **+1.2** |
| **ASTR** | **Astara** | **4.87** | **299** | P | **Pn** | **02 19 23.0** | **+0.2** |
| | SNR=4.9 | | | | | | |
| ASTR | | | | ⇑S | **Sn** | **02 20 16.6** | **-2.5** |
| **LKRN** | **Lenkeran, Azer** | **4.94** | **301** | ⇑P | **Pn** | **02 19 24.2** | **+0.3** |
| LKRN | | | | ⇑S | **Sn** | **02 20 18.3** | **-2.7** |
| **ITEG** | **Tejag** | **5.06** | **131** | *e*Pn | **Pn** | **02 19 28.1** | **+2.4** |
| ITEG | | | | *e*AMB | AMB | 02 21 39.3 | |
| | comp=Z,230nm,0.5s | | | | | | |
| **ITEG** | **Tejag** | **5.06** | **131** | *e*Pn | **Pn** | **02 19 28.1** | **+2.4** |
| **LRK** | **Lerik** | **5.22** | **298** | ⇓P | **Pn** | **02 19 28.0** | **+0.2** |
| | SNR=11 | | | | | | |
| LRK | | | | ⇓S | **Sn** | **02 20 24.7** | **-3.5** |
| **GLBA** | **Clilabad** | **5.46** | **304** | ⇑P | **Pn** | **02 19 31.4** | **+0.4** |
| | SNR=4.2 | | | | | | |
| GLBA | | | | ⇓S | **Sn** | **02 20 32.6** | **-1.2** |
| **GRMI** | **Germi** | **5.61** | **298** | *e*Pn | **Pn** | **02 19 33.3** | **+0.2** |
| **SHRT** | **Shahrakht** | **5.65** | **116** | *e*Pn | **Pn** | **02 19 35.6** | **+1.9** |
| **ATGJ** | **Altiaghaj** | **6.14** | **319** | ⇑P | **Pn** | **02 19 40.9** | **+0.5** |
| ATGJ | | | | ⇑S | **Sn** | **02 20 47.8** | **-3.0** |
| **PQL** | **Pirkuli** | **6.27** | **317** | ⇑P | **Pn** | **02 19 41.3** | **-1.0** |
| PQL | | | | ⇑S | **Sn** | **02 20 50.0** | **-4.2** |
| **IML** | **Ismayilli** | **6.51** | **315** | ⇓P | **Pn** | **02 19 45.4** | **0.0** |
| IML | | | | ⇓S | **Sn** | **02 20 56.9** | **-2.8** |
| **QUBA** | **Quba, Azerbaij** | **6.73** | **320** | ⇑P | **Pn** | **02 19 48.0** | **-0.4** |
| QUBA | | | | ⇑S | **Sn** | **02 21 02.1** | **-3.0** |
| **XNQ** | **Khinaliq** | **6.79** | **317** | ⇓P | **Pn** | **02 19 50.1** | **+0.8** |
| | SNR=7.8 | | | | | | |
| XNQ | | | | ⇓S | **Sn** | **02 21 03.3** | **-3.5** |
| **QBL** | **Gabala** | **6.80** | **315** | ⇑P | **Pn** | **02 19 49.0** | **-0.5** |
| QBL | | | | ⇑S | **Sn** | **02 21 04.2** | **-2.8** |
| **SEKA** | **Sheki** | **7.34** | **314** | ⇑P | **Pn** | **02 19 55.9** | **-1.0** |
| SEKA | | | | ⇓S | **Sn** | **02 21 15.9** | **-4.4** |
| **SBZ** | **Shahbuz** | **7.51** | **297** | ⇓P | **Pn** | **02 19 59.9** | **+0.6** |
| SBZ | | | | ⇑S | **Sn** | **02 21 23.0** | **-1.6** |
| **GANJ** | **Ganja** | **7.55** | **307** | ⇓P | **Pn** | **02 19 59.0** | **-0.8** |
| GANJ | | | | ⇓S | **Sn** | **02 21 20.0** | **-5.4** |
| **ZKTA** | **Zakatala** | **7.95** | **314** | ⇑P | **Pn** | **02 20 05.2** | **0.0** |
| ZKTA | | | | ⇑S | **Sn** | **02 21 32.0** | **-3.1** |
| **GDB** | **GEDABAY** | **7.96** | **306** | ⇑P | **Pn** | **02 20 05.0** | **-0.5** |

---

**IDC 03 02:22:12.1**±14.0**, 6°.65S**×**129°.69E, h137**km±159km**, mb3.1**/1**, mb1 3.3**/4**, mb1mx3.1**/27**, mbtmp3.6**/4**, ML3.6**/3**, Error ellipse: s-maj=96.3km s-min=56.5km az=32.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **12.05** | **199** | P | Pn | 02 25 00.7 | +1.2 |
| | 0.1nm,0.3s,baz=26,slow=14,SNR=11 | | | | | | |
| FITZ | | | | S | Sn | 02 27 11.2 | -1.3 |
| | 0.3nm,0.3s,baz=108,slow=20,SNR=4.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **13.97** | **162** | P | Pn | 02 25 22.8 | -1.4 |
| | 0.6nm,0.3s,baz=342,slow=13,SNR=26 | | | | | | |
| WRA | | | | S | Sn | 02 27 50.6 | -8.1 |
| | 0.7nm,0.3s,baz=336,slow=22,SNR=12 | | | | | | |
| **ASAR** | **Alice Springs** | **17.40** | **167** | P | Pn | 02 26 06.4 | -0.2 |
| | 0.2nm,0.3s,baz=350,slow=12,SNR=10 | | | | | | |
| ASAR | | | | S | S | 02 29 12.8 | -7.3 |
| | 0.1nm,0.3s,baz=354,slow=26,SNR=3.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.76** | **327** | P | P | 02 32 54.9 | -0.1 |
| | 0.3nm,0.5s,baz=122,slow=8.0,SNR=5.4 | | | | | | |

---

*ISCJB **03** 02:28:00.9±0.5, 39°.52N±0°.03×27°.92E±0°.05, h5km±5km, Error ellipse: s-maj=7.0km s-min=4.1km az=166.4*
*DDA **03** 02:28:00.8, 39°.51N×27°.87E, h7km, Ml2.3*
*ISK **03** 02:28:00.9, 39°.54N×27°.93E, h7km, MD2.8*
*CSEM **03** 02:28:01.0±0.1, 39°.52N×27°.96E, h5km, MD2.8, Error ellipse: s-maj=1.7km s-min=1.0km az=73.0*
**ISC 03 02:28:01.3**±0.9**, 39°.52N**±0°.02×**27°.91E**±0°.03**, h9**km±7km**, n44,** σ**0.s40**/50**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BALB** | **Balikesir** | **0.12** | **349** | *e*PG | **Pg** | **02 28 04.1** | **0.0** |
| BALB | | | | *e*SG | **Sg** | **02 28 06.5** | **+0.3** |
| **BALB** | **Balikesir** | **0.12** | **349** | *e*Pg | **Pg** | **02 28 04.1** | **0.0** |
| BALB | | | | *e*Sg | **Sg** | **02 28 06.5** | **+0.3** |
| **STEP** | **BALIKESIR_Sava** | **0.21** | **226** | *i* P | **Pg** | **02 28 04.8** | **-0.7** |
| **STEP** | **BALIKESIR_Sava** | **0.21** | **226** | P | **Pg** | **02 28 04.8** | **-0.7** |
| **BALY** | **Balya** | **0.32** | **315** | *i* P | **Pg** | **02 28 06.8** | **-0.8** |
| **BALY** | **Balya** | **0.32** | **315** | P | **Pg** | **02 28 06.8** | **-0.8** |
| **GONE** | **Gonen-Balikesi** | **0.55** | **342** | *e*PG | **Pg** | **02 28 11.8** | **-0.2** |
| GONE | | | | *e*SG | **Sg** | **02 28 19.8** | **+0.5** |
| **GONE** | **Gonen-Balikesi** | **0.55** | **342** | *e*Pg | **Pg** | **02 28 11.8** | **-0.2** |
| GONE | | | | *e*Sg | **Sg** | **02 28 19.8** | **+0.5** |
| **AKHS** | **Akhisar** | **0.64** | **187** | *i* P | **Pg** | **02 28 13.7** | **0.0** |
| AKHS | | | | *i* S | **Sg** | **02 28 22.6** | **+0.5** |
| **AKHS** | **Akhisar** | **0.64** | **187** | P | **Pg** | **02 28 13.7** | **0.0** |
| AKHS | | | | S | **Sg** | **02 28 22.6** | **+0.5** |
| **DEMI** | **Demirci** | **0.79** | **127** | *i* P | **Pg** | **02 28 15.9** | **-0.5** |
| **DEMI** | **Demirci** | **0.79** | **127** | P | **Pg** | **02 28 15.9** | **-0.5** |
| **KCTX** | **Karacabey (Bur** | **0.82** | **25** | *e*PG | **Pg** | **02 28 16.5** | **-0.6** |
| **KCTX** | **Karacabey (Bur** | **0.82** | **25** | *e*Pg | **Pg** | **02 28 16.5** | **-0.6** |
| **EDC** | **Edincik** | **0.83** | **358** | *e*PG | **Pg** | **02 28 16.9** | **-0.3** |
| **EDC** | **Edincik** | **0.83** | **358** | *e*Pg | **Pg** | **02 28 16.9** | **-0.3** |
| **DKL** | **Dikili** | **0.90** | **240** | *e*PG | **Pb** | **02 28 19.0** | **0.0** |
| **DKL** | **Dikili** | **0.90** | **240** | *e*Pg | **Pb** | **02 28 19.0** | **0.0** |
| **SIMA** | **Simav-Kutahya** | **0.94** | **117** | *e*PG | **Pb** | **02 28 19.6** | **-0.2** |
| **SIMA** | **Simav-Kutahya** | **0.94** | **117** | *e*Pg | **Pb** | **02 28 19.6** | **-0.2** |
| **KRBG** | **Karabiga-Canak** | **0.99** | **332** | *e*PG | **Pg** | **02 28 20.1** | **-0.2** |
| **KRBG** | **Karabiga-Canak** | **0.99** | **332** | *e*Pg | **Pg** | **02 28 20.1** | **-0.2** |

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BAYC** | **CANAKKALE_Bayr** | **1.08** | **282** | *i* P | **Pg** | **02 28 21.4** | **-0.6** |
| **BAYC** | **CANAKKALE_Bayr** | **1.08** | **282** | P | **Pg** | **02 28 21.4** | **-0.6** |
| **MDNY** | **Mudanya-Bursa** | **1.13** | **41** | *e*PN | **Pb** | **02 28 22.5** | **-0.5** |
| **MDNY** | **Mudanya-Bursa** | **1.13** | **41** | *e*Pn | **Pb** | **02 28 22.5** | **-0.5** |
| **MANT** | **Manisa** | **1.14** | **154** | *i* P | **Pg** | **02 28 22.9** | **-0.4** |
| **MANT** | **Manisa** | **1.14** | **154** | P | **Pg** | **02 28 22.9** | **-0.4** |
| **KULA** | **Kula-Manisa** | **1.16** | **150** | *e*PN | **Pn** | **02 28 23.8** | **+0.1** |
| **KULA** | **Kula-Manisa** | **1.16** | **150** | *e*Pn | **Pn** | **02 28 23.8** | **+0.1** |
| **TVSB** | **Tavsanli** | **1.20** | **93** | *e*PN | **Pb** | **02 28 24.0** | **-0.3** |
| **TVSB** | **Tavsanli** | **1.20** | **93** | *e*Pn | **Pb** | **02 28 24.0** | **-0.3** |
| **ARMT** | **Armutlu** | **1.27** | **35** | *e*PN | **Pn** | **02 28 25.2** | **0.0** |
| **ARMT** | **Armutlu** | **1.27** | **35** | *e*Pn | **Pn** | **02 28 25.2** | **0.0** |
| **GDZ** | **Gediz** | **1.29** | **109** | *i* P | **Pg** | **02 28 26.2** | **+0.1** |
| **GDZ** | **Gediz** | **1.29** | **109** | P | **Pg** | **02 28 26.2** | **+0.1** |
| **RKY** | **Sarkoy-Tekirda** | **1.29** | **335** | *e*PN | **Pb** | **02 28 25.8** | **0.0** |
| **RKY** | **Sarkoy-Tekirda** | **1.29** | **335** | *e*Pn | **Pb** | **02 28 25.8** | **0.0** |
| **SBT3** | **Marmara-Eregli** | **1.36** | **2** | *e*PN | **Pb** | **02 28 26.8** | **-0.1** |
| **SBT3** | **Marmara-Eregli** | **1.36** | **2** | *e*Pn | **Pb** | **02 28 26.8** | **-0.1** |
| **GELI** | **Tayfur-Gelibol** | **1.41** | **309** | *e*PN | **Pb** | **02 28 27.6** | **-0.1** |
| **GELI** | **Tayfur-Gelibol** | **1.41** | **309** | *e*Pn | **Pb** | **02 28 27.6** | **-0.1** |
| **ERIK** | **Erikli-Kesan** | **1.57** | **317** | *e*PN | **Pn** | **02 28 29.8** | **+0.5** |
| **ERIK** | **Erikli-Kesan** | **1.57** | **317** | *e*Pn | **Pn** | **02 28 29.8** | **+0.5** |

**WEL 03 02:32:31.7**±0.6**, 36.°90S**×**176.°56E, h312**km±5km**, ML3.8**/8**, 3C, Error ellipse: s-maj=11.6km s-min=8.2km az=90.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HAZ** | **Te Kaha** | **1.30** | **132** | ⇑PN | Pn | 02 33 14.9 | +0.2 |
| HAZ | | | | SN | S | 02 33 48.3 | -0.8 |
| **RUGZ** | **Raukumara Rang** | **1.39** | **141** | PN | Pn | 02 33 15.1 | -0.4 |
| **URZ** | **Urewera** | **1.43** | **162** | ⇑PN | Pn | 02 33 15.8 | +0.3 |
| URZ | | | | SN | S | 02 33 50.0 | -0.4 |
| **PKGZ** | **Pakihiroa** | **1.56** | **130** | PN | Pn | 02 33 16.8 | +0.4 |
| **MWZ** | **Matawai** | **1.63** | **152** | PN | Pn | 02 33 17.1 | +0.3 |
| **WMGZ** | **Waiomatatini S** | **1.74** | **122** | PN | Pn | 02 33 17.6 | +0.1 |
| **PUZ** | **Puketiti** | **1.79** | **131** | PN | Pn | 02 33 17.8 | -0.2 |
| **RIGZ** | **Rimuhau** | **2.04** | **153** | PN | Pn | 02 33 20.2 | +0.4 |
| **BKZ** | **Black Stump Fm** | **2.27** | **181** | ⇑PN | Pn | 02 33 21.9 | +0.2 |
| BKZ | | | | SN | S | 02 34 01.1 | -0.5 |
| **KNZ** | **Kokohu** | **2.29** | **158** | PN | Pn | 02 33 21.8 | 0.0 |

*ISCJB **03** 02:36:15.9±1.1, 50.°7N±0.°1×171.°9W±0.°1, h33km, mb3.4/4, Error ellipse: s-maj=19.5km s-min=7.6km az=22.3*
*NEIC **03** 02:36:18.3±0.0, 50.°75N×172.°25W, h30km, ML3.4(AEIC), After AEIC.*
*IDC **03** 02:36:25.0±5.9, 51.°17N×169.°42W, h0km, mb3.6/4, mb1 4.0/6, mb1mx3.6/35, mbtmp3.7/6, ML3.3/2, Error ellipse: s-maj=107.6km s-min=46.0km az=81.0*
**ISC 03 02:36:17.3**±1.3**, 50.°7N**±0.°1×**172.°07W**±0.°07**, h35**km**, n14,** σ**1.s45**/16**, mb3.6**/4**, Andreanof Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ATKA** | **Atka Island** | **2.04** | **320** | P | **Pn** | **02 36 49.0** | **-0.1** |
| ATKA | | | | S | **Sn** | **02 37 12.9** | **-0.4** |
| **KOFP** | **Korovin Flat P** | **2.06** | **323** | P | **Pn** | **02 36 49.7** | **+0.3** |
| KOFP | | | | S | **Sn** | **02 37 15.6** | **+1.8** |
| **KOSE** | **Korovin Southe** | **2.09** | **324** | P | **Pn** | **02 36 50.3** | **+0.4** |
| **KOKL** | **Mount Kliuchef** | **2.13** | **322** | P | **Pn** | **02 36 51.7** | **+1.2** |
| **ADAG** | **Mount Adagdak** | **3.14** | **297** | P | **Pn** | **02 37 04.5** | **+0.3** |
| **ADK** | **Adak** | **3.15** | **295** | P | **Pn** | **02 37 05.7** | **+1.4** |
| ADK | | | | S | **Sn** | **02 37 39.8** | **-0.8** |
| **OKFG** | **Magazine Ridge** | **3.77** | **41** | P | **Pn** | **02 37 15.2** | **+2.4** |
| **TASE** | **Tanaga Southea** | **3.93** | **290** | P | **Pn** | **02 37 18.1** | **+2.9** |
| **KDAK** | **Kodiak Island** | **13.41** | **50** | Pn | Pn | 02 39 18.5 | -6.4 |
| | 0.2nm,0.3s,baz=200,slow=4.4,SNR=5.1 | | | | | | |
| **ILAR** | **Eielson Array** | **19.31** | **33** | P | **P** | **02 40 36.9** | **-2.1** |
| | 0.1nm,0.3s,baz=232,slow=11,SNR=9.6 | | | | | | |
| **INK** | **Inuvik** | **25.70** | **32** | P | **P** | **02 41 43.8** | **+0.1** |
| | 1.7nm,0.6s,baz=254,slow=8.5,SNR=19 | | | | | | |
| **YKA** | **Yellowknife Ar** | **32.64** | **47** | P | **P** | **02 42 45.2** | **-0.2** |
| | 0.1nm,0.5s,baz=272,slow=7.6,SNR=4.5 | | | | | | |
| **PDAR** | **Pinedale Array** | **42.42** | **76** | P | **P** | **02 44 08.0** | **-0.7** |
| | 0.6nm,0.7s,baz=319,slow=4.3,SNR=6.2 | | | | | | |
| **TXAR** | **Lajitas Array** | **54.51** | **86** | P | **P** | **02 45 41.1** | **-0.5** |
| | 0.6nm,0.7s,baz=293,slow=6.5,SNR=5.0 | | | | | | |

*ISK **03** 02:52:33.8, 38.°81N×43.°48E, h25km, MD2.6*
*ISCJB **03** 02:52:34.7±0.8, 38.°83N±0.°04×43.°48E±0.°08, h30km±6km, Error ellipse: s-maj=10.4km s-min=6.1km az=15.0*
*CSEM **03** 02:52:34.4±0.2, 38.°82N×43.°49E, h25km±3km, ML2.5, Error ellipse: s-maj=6.7km s-min=4.6km az=111.0*
*DDA **03** 02:52:35.6, 38.°83N×43.°46E, h7km, Ml2.5*
**ISC 03 02:52:34.9**±1.1**, 38.°83N**±0.°03×**43.°48E**±0.°04**, h24**km±7km**, n20,** σ**0.s69**/31**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.17** | **24** | *i* P | **Pb** | **02 52 40.0** | **-0.3** |
| VMUR | | | | *i* S | **Sb** | **02 52 44.1** | **+0.1** |
| **VMUR** | **Van-Muradiye** | **0.17** | **24** | P | **Pb** | **02 52 40.0** | **-0.3** |
| VMUR | | | | S | **Sb** | **02 52 44.2** | **+0.1** |
| **ERCV** | **ERCIS-VAN** | **0.22** | **330** | *e*PG | **Pb** | **02 52 40.2** | **-0.7** |
| ERCV | | | | *e*SG | **Sb** | **02 52 45.2** | **+0.3** |
| **ERCV** | **ERCIS-VAN** | **0.22** | **330** | *e*Pg | **Pb** | **02 52 40.2** | **-0.7** |
| ERCV | | | | *e*Sg | **Sb** | **02 52 45.2** | **+0.3** |
| **VANB** | **Van** | **0.24** | **197** | *e*PG | **Pb** | **02 52 41.4** | **+0.3** |
| VANB | | | | *e*SG | **Sb** | **02 52 47.0** | **+1.6** |
| **VANB** | **Van** | **0.24** | **197** | *e*Pg | **Pb** | **02 52 41.4** | **+0.3** |
| VANB | | | | *e*Sg | **Sb** | **02 52 47.0** | **+1.6** |
| **TVAN** | **Van** | **0.31** | **191** | *i* P | **Pb** | **02 52 41.6** | **-0.5** |
| TVAN | | | | *i* S | **Sb** | **02 52 47.4** | **+0.4** |
| **TVAN** | **Van** | **0.31** | **191** | P | **Pb** | **02 52 41.6** | **-0.5** |
| TVAN | | | | S | **Sb** | **02 52 47.4** | **+0.4** |
| **CLDR** | **Caldiran** | **0.46** | **47** | *e*PG | **Pb** | **02 52 44.2** | **-0.4** |
| CLDR | | | | *e*SG | **Sb** | **02 52 52.1** | **+0.9** |
| **CLDR** | **Caldiran** | **0.46** | **47** | *i* P | **Pb** | **02 52 44.8** | **+0.2** |
| CLDR | | | | *i* S | **Sb** | **02 52 52.3** | **+1.1** |
| **CLDR** | **Caldiran** | **0.46** | **47** | *e*Pg | **Pb** | **02 52 44.2** | **-0.4** |
| **CLDR** | **Caldiran** | **0.46** | **47** | P | **Pb** | **02 52 44.8** | **+0.2** |
| CLDR | | | | *e*Sg | **Sb** | **02 52 52.1** | **+0.9** |
| **ADCV** | **BITLIS_Adilcev** | **0.59** | **268** | *i* P | **Pb** | **02 52 46.6** | **-0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.59** | **268** | P | **Pb** | **02 52 46.6** | **-0.1** |
| **TUTA** | **Tutak** | **0.77** | **318** | *i* P | **Pn** | **02 52 50.6** | **+0.1** |
| **TUTA** | **Tutak** | **0.77** | **318** | P | **Pn** | **02 52 50.6** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **0.83** | **333** | *e*PG | **Pb** | **02 52 50.7** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **0.83** | **333** | *e*Pg | **Pb** | **02 52 50.7** | **-0.1** |
| **CUKT** | **Cukurca** | **1.58** | **176** | *e*PN | **Pn** | **02 53 00.5** | **-1.0** |
| **CUKT** | **Cukurca** | **1.58** | **176** | *e*Pn | **Pn** | **02 53 00.5** | **-1.0** |

**IDC 03 02:52:56.6**±2.2**, 6.°67S**×**129.°49E, h0**km**, mb3.5**/1**, mb1 3.4**/4**, mb1mx3.3**/25**, mbtmp3.3**/4**, ML3.2**/3**, Error ellipse: s-maj=90.9km s-min=29.0km az=76.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **11.97** | **198** | Pn | Pn | 02 55 50.2 | +1.6 |
| | 0.1nm,0.3s,baz=14,slow=12,SNR=3.6 | | | | | | |
| FITZ | | | | Sn | Sn | 02 57 50.9 | -12 |
| | 0.3nm,0.3s,baz=14,slow=18,SNR=6.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **14.01** | **161** | Pn | Pn | 02 56 15.9 | -0.7 |
| | 0.2nm,0.3s,baz=341,slow=12,SNR=5.2 | | | | | | |
| WRA | | | | Sn | Sn | 02 58 34.9 | -18 |
| | 0.4nm,0.3s,baz=330,slow=23,SNR=7.6 | | | | | | |
| **ASAR** | **Alice Springs** | **17.43** | **166** | P | Pn | 02 57 00.4 | -0.9 |
| | 0.1nm,0.3s,baz=339,slow=8.1,SNR=4.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.67** | **327** | P | P | 03 03 55.7 | 0.0 |
| | 0.2nm,0.4s,baz=133,slow=8.1,SNR=4.8 | | | | | | |

*CSEM **03** 03:00:48.8±0.2, 38.°96N×43.°55E, h10km, ML2.7, Error ellipse: s-maj=4.8km s-min=3.6km az=147.0*
*DDA **03** 03:00:48.5, 38.°94N×43.°58E, h11km, Ml2.7*
*ISK **03** 03:00:48.4, 38.°93N×43.°57E, h13km, MD2.6*
*ISCJB **03** 03:00:49.0±0.6, 38.°96N±0.°04×43.°57E±0.°05, h12km±4km, Error ellipse: s-maj=7.6km s-min=5.6km az=136.6*
**ISC 03 03:00:48.7**±0.9**, 38.°95N**±0.°03×**43.°56E**±0.°03**, h11**km±5km**, n22,** σ**0.s55**/34**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.04** | **10** | *i* P | **Pg** | **03 00 50.7** | **-0.3** |
| VMUR | | | | *i* S | **Sg** | **03 00 52.6** | **0.0** |
| **VMUR** | **Van-Muradiye** | **0.04** | **10** | P | **Pg** | **03 00 50.7** | **-0.3** |
| VMUR | | | | S | **Sg** | **03 00 52.6** | **0.0** |
| **ERCV** | **ERCIS-VAN** | **0.19** | **293** | *e*PG | **Pg** | **03 00 53.1** | **+0.3** |
| ERCV | | | | *e*SG | **Sg** | **03 00 56.8** | **+1.1** |
| **ERCV** | **ERCIS-VAN** | **0.19** | **293** | *e*Pg | **Pg** | **03 00 53.2** | **+0.3** |
| ERCV | | | | *e*Sg | **Sg** | **03 00 56.8** | **+1.1** |
| **CLDR** | **Caldiran** | **0.34** | **55** | *e*PG | **Pg** | **03 00 55.8** | **+0.2** |
| CLDR | | | | *e*SG | **Sb** | **03 01 01.3** | **-1.2** |
| **CLDR** | **Caldiran** | **0.34** | **55** | *i* P | **Pg** | **03 00 55.6** | **0.0** |
| CLDR | | | | *i* S | **Sg** | **03 01 00.8** | **+0.6** |
| **CLDR** | **Caldiran** | **0.34** | **55** | P | **Pg** | **03 00 55.6** | **0.0** |
| **CLDR** | **Caldiran** | **0.34** | **55** | *e*Pg | **Pg** | **03 00 55.8** | **+0.2** |
| CLDR | | | | S | **Sg** | **03 01 00.8** | **+0.6** |
| CLDR | | | | *e*Sg | **Sb** | **03 01 01.3** | **-1.2** |
| **VANB** | **Van** | **0.38** | **201** | *e*PG | **Pb** | **03 00 57.7** | **+0.2** |
| **VANB** | **Van** | **0.38** | **201** | *e*Pg | **Pb** | **03 00 57.7** | **+0.2** |
| **TVAN** | **Van** | **0.43** | **196** | *i* P | **Pg** | **03 00 57.3** | **0.0** |
| TVAN | | | | *i* S | **Sb** | **03 01 04.7** | **-0.5** |
| **TVAN** | **Van** | **0.43** | **196** | P | **Pg** | **03 00 57.3** | **0.0** |
| TVAN | | | | S | **Sb** | **03 01 04.7** | **-0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.67** | **258** | *i* P | **Pg** | **03 01 00.8** | **-0.8** |
| ADCV | | | | *i* S | **Sb** | **03 01 11.9** | **0.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.67** | **258** | P | **Pg** | **03 01 00.8** | **-0.8** |
| ADCV | | | | S | **Sb** | **03 01 11.9** | **0.0** |
| **TUTA** | **Tutak** | **0.74** | **308** | *i* P | **Pg** | **03 01 02.7** | **-0.3** |
| **TUTA** | **Tutak** | **0.74** | **308** | P | **Pg** | **03 01 02.7** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **0.77** | **325** | *e*PG | **Pb** | **03 01 03.9** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **0.77** | **325** | *e*Pg | **Pb** | **03 01 03.9** | **-0.3** |
| **TASB** | **TASBURUN-IGDIR** | **1.16** | **27** | *e*PN | **Pg** | **03 01 11.6** | **+0.6** |
| **TASB** | **TASBURUN-IGDIR** | **1.16** | **27** | *e*Pn | **Pg** | **03 01 11.6** | **+0.6** |
| **EKAR** | **Karacoban** | **1.21** | **285** | *i* P | **Pg** | **03 01 12.0** | **+0.1** |
| **EKAR** | **Karacoban** | **1.21** | **285** | P | **Pg** | **03 01 12.0** | **+0.1** |

*DDA **03** 03:05:06.9, 38.°87N×43.°82E, h7km, Ml2.5*
*ISK **03** 03:05:07.3, 38.°92N×43.°72E, h5km, MD2.7*
*ISCJB **03** 03:05:08.5±0.8, 38.°92N±0.°05×43.°74E±0.°07, h10km±6km, Error ellipse: s-maj=10.2km s-min=6.9km az=42.3*
*CSEM **03** 03:05:08.3±0.3, 38.°94N×43.°73E, h5km, ML2.5, Error ellipse: s-maj=8.0km s-min=5.4km az=123.0*
**ISC 03 03:05:08.1**±1.0**, 38.°92N**±0.°04×**43.°72E**±0.°06**, h16**km±7km**, n24,** σ**0.s97**/28**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.13** | **304** | *i* P | **Pg** | **03 05 11.3** | **-0.9** |
| VMUR | | | | *i* S | **Sg** | **03 05 15.8** | **+0.9** |
| **VMUR** | **Van-Muradiye** | **0.13** | **304** | P | **Pg** | **03 05 11.3** | **-0.9** |
| VMUR | | | | S | **Sg** | **03 05 15.8** | **+0.9** |
| **CLDR** | **Caldiran** | **0.28** | **35** | *e*PG | **Pg** | **03 05 13.6** | **-0.7** |
| CLDR | | | | *e*SG | **Sb** | **03 05 18.9** | **-0.5** |
| **CLDR** | **Caldiran** | **0.28** | **35** | *i* P | **Pg** | **03 05 13.1** | **-1.2** |
| **CLDR** | **Caldiran** | **0.28** | **35** | P | **Pg** | **03 05 13.1** | **-1.2** |
| **CLDR** | **Caldiran** | **0.28** | **35** | *e*Pg | **Pg** | **03 05 13.6** | **-0.7** |
| CLDR | | | | *e*Sg | **Sb** | **03 05 18.9** | **-0.5** |
| **ERCV** | **ERCIS-VAN** | **0.31** | **290** | *e*PG | **Pb** | **03 05 14.6** | **-0.8** |
| **ERCV** | **ERCIS-VAN** | **0.31** | **290** | *e*Pg | **Pb** | **03 05 14.6** | **-0.8** |
| **VANB** | **Van** | **0.41** | **219** | *e*PG | **Pb** | **03 05 18.0** | **+1.0** |
| **VANB** | **Van** | **0.41** | **219** | *e*Pg | **Pb** | **03 05 18.0** | **+1.0** |
| **TVAN** | **Van** | **0.46** | **212** | *i* P | **Pg** | **03 05 16.4** | **-0.9** |
| **TVAN** | **Van** | **0.46** | **212** | P | **Pg** | **03 05 16.5** | **-0.9** |
| **TUTA** | **Tutak** | **0.85** | **305** | *i* P | **Pb** | **03 05 24.4** | **-0.3** |
| **TUTA** | **Tutak** | **0.85** | **305** | P | **Pb** | **03 05 24.4** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **0.87** | **320** | *e*PG | **Pb** | **03 05 25.2** | **+0.4** |
| **AGRB** | **Hanur-Agry** | **0.87** | **320** | *e*Pg | **Pb** | **03 05 25.3** | **+0.4** |
| **TASB** | **TASBURUN-IGDIR** | **1.14** | **21** | *e*PN | **Pn** | **03 05 30.4** | **+0.9** |
| **TASB** | **TASBURUN-IGDIR** | **1.14** | **21** | *e*Pn | **Pn** | **03 05 30.4** | **+0.9** |
| **EKAR** | **Karacoban** | **1.33** | **285** | *i* P | **Pb** | **03 05 34.1** | **+1.3** |
| **EKAR** | **Karacoban** | **1.33** | **285** | P | **Pb** | **03 05 34.1** | **+1.3** |
| **CUKT** | **Cukurca** | **1.67** | **183** | *e*PN | **Pg** | **03 05 39.0** | **-1.2** |
| **CUKT** | **Cukurca** | **1.67** | **183** | *e*Pn | **Pg** | **03 05 39.0** | **-1.2** |
| **SVAN** | **Silvan-Diyarba** | **2.12** | **250** | *e*PN | **Pb** | **03 05 45.2** | **-0.9** |
| **SVAN** | **Silvan-Diyarba** | **2.12** | **250** | *e*Pn | **Pb** | **03 05 45.2** | **-0.9** |

*CSEM **03** 03:08:15.9±0.4, 38.°64N×43.°68E, h10km, MD2.8, Error ellipse: s-maj=9.4km s-min=5.9km az=95.0*
*ISK **03** 03:08:15.9, 38.°63N×43.°66E, h16km, MD2.8*
*ISCJB **03** 03:08:16.3±0.8, 38.°63N±0.°04×43.°67E±0.°08, h13km, Error ellipse: s-maj=9.5km s-min=5.8km az=11.0*
*DDA **03** 03:08:16.4, 38.°63N×43.°64E, h7km, Ml2.7*
**ISC 03 03:08:16.2**±1.0**, 38.°63N**±0.°03×**43.°65E**±0.°04**, h13**km**, n29,** σ**0.s35**/31**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.20** | **259** | *e*PG | **Pb** | **03 08 21.5** | **-0.4** |
| **VANB** | **Van** | **0.20** | **259** | *e*Pg | **Pb** | **03 08 21.5** | **-0.4** |
| **TVAN** | **Van** | **0.21** | **241** | *i* P | **Pg** | **03 08 21.3** | **+0.3** |
| **TVAN** | **Van** | **0.21** | **241** | P | **Pg** | **03 08 21.3** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.36** | **351** | *i* P | **Pg** | **03 08 23.9** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.36** | **351** | P | **Pg** | **03 08 23.9** | **+0.3** |
| **CLDR** | **Caldiran** | **0.55** | **23** | *e*PG | **Pg** | **03 08 27.4** | **+0.3** |
| **CLDR** | **Caldiran** | **0.55** | **23** | *i* P | **Pb** | **03 08 27.5** | **-0.4** |
| **CLDR** | **Caldiran** | **0.55** | **23** | P | **Pb** | **03 08 27.5** | **-0.4** |
| **GEVA** | **Gevas** | **0.56** | **235** | *i* P | **Pg** | **03 08 27.4** | **+0.2** |
| **GEVA** | **Gevas** | **0.56** | **235** | P | **Pg** | **03 08 27.4** | **+0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.74** | **284** | *i* P | **Pg** | **03 08 30.3** | **-0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.74** | **284** | P | **Pg** | **03 08 30.3** | **-0.3** |
| **TUTA** | **Tutak** | **1.00** | **320** | *i* P | **Pb** | **03 08 35.2** | **-0.4** |
| **TUTA** | **Tutak** | **1.00** | **320** | P | **Pb** | **03 08 35.2** | **-0.4** |
| **AGRB** | **Hanur-Agry** | **1.07** | **332** | *e*PN | **Pb** | **03 08 36.3** | **-0.4** |
| AGRB | | | | *e*SN | **Sn** | **03 08 52.2** | **+0.3** |
| **AGRB** | **Hanur-Agry** | **1.07** | **332** | *e*Pn | **Pb** | **03 08 36.3** | **-0.4** |
| AGRB | | | | *e*Sn | **Sn** | **03 08 52.2** | **+0.3** |
| **HAKT** | **HAKKARI** | **1.07** | **177** | *i* P | **Pb** | **03 08 36.6** | **-0.2** |
| **HAKT** | **HAKKARI** | **1.07** | **177** | P | **Pb** | **03 08 36.6** | **-0.2** |
| **EKAR** | **Karacoban** | **1.38** | **297** | *i* P | **Pg** | **03 08 42.6** | **-0.2** |
| **EKAR** | **Karacoban** | **1.38** | **297** | P | **Pg** | **03 08 42.6** | **-0.2** |
| **CUKT** | **Cukurca** | **1.38** | **181** | *e*PN | **Pn** | **03 08 40.9** | **-0.4** |
| **CUKT** | **Cukurca** | **1.38** | **181** | *e*Pn | **Pn** | **03 08 40.9** | **-0.4** |
| **SRTM** | **Siirt_Merkez** | **1.50** | **245** | *i* P | **Pg** | **03 08 45.4** | **+0.4** |
| **SRTM** | **Siirt_Merkez** | **1.50** | **245** | P | **Pg** | **03 08 45.4** | **+0.4** |
| **VRTB** | **Varto-Mus** | **1.79** | **288** | *e*PN | **Pn** | **03 08 47.2** | **+0.3** |
| **VRTB** | **Varto-Mus** | **1.79** | **288** | *e*Pn | **Pn** | **03 08 47.2** | **+0.3** |
| **SVAN** | **Silvan-Diyarba** | **1.98** | **257** | *e*PN | **Pn** | **03 08 49.9** | **+0.4** |
| **SVAN** | **Silvan-Diyarba** | **1.98** | **257** | *e*Pn | **Pn** | **03 08 49.9** | **+0.4** |

*NIED **03** 03:41:00, 37.°40N×143.°90E, h5km, Mw3.9 Best double couple: $M_0$6.95000×$10^{14}$ NP1:$\phi_s$197.00000°, δ44.00000°, λ-95.00000°. NP2:$\phi_s$24.00000°, δ46.00000°, λ-86.00000°.*
*IDC **03** 03:41:52.1±0.9, 37.°26N×144.°16E, h0km, mb3.8/11, mb1 4.0/14, mb1mx3.8/46, mbtmp3.9/14, ML4.1/2, MS2.7/2, Ms1 2.7/2, ms1mx2.4/53, Error ellipse: s-maj=22.6km s-min=18.3km az=102.0*
*ISCJB **03** 03:41:55.5±0.6, 37.°38N±0.°04×144.°00E±0.°05, h33km, mb3.9/13, MS4.3/1, Error ellipse: s-maj=6.4km s-min=5.3km az=166.6*
*JMA **03** 03:41:56.6±0.3, 37.°41N×143.°93E, h51km, M4.1*
*NEIC **03** 03:41:57.5±0.6, 37.°39N×144.°10E, h35km, mb4.4/1, Error ellipse: s-maj=13.9km s-min=9.8km az=112.0*
**ISC 03 03:41:57.8**±0.8**, 37.°43N**±0.°06×**144.°02E**±0.°08**, h35**km**, n41,** σ**1.s59**/45**, mb3.8**/13**, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JIO** | **Ouri** | **2.35** | **297** | P | **Pn** | **03 42 33.3** | **-0.5** |
| JIO | | | | S | **Sn** | **03 43 00.5** | **-0.9** |
| **OFUJ** | **Ofunato** | **2.48** | **313** | P | **Pn** | **03 42 34.8** | **-0.8** |
| OFUJ | | | | S | **Sn** | **03 43 03.0** | **-1.7** |
| **JFK** | **Kawauchi** | **2.50** | **270** | P | **Pn** | **03 42 35.1** | **-0.9** |
| JFK | | | | *e*S | **Sn** | **03 43 03.3** | **-2.0** |
| **ONAJ** | **Iwakimizuishiy** | **2.59** | **264** | S | **Sn** | **03 43 05.2** | **-2.2** |
| **JMK** | **Ichinoseki** | **2.68** | **306** | P | **Pn** | **03 42 38.4** | **0.0** |
| JMK | | | | S | **Sn** | **03 43 08.8** | **-0.8** |
| **JFT** | **Otama** | **2.93** | **273** | P | **Pn** | **03 42 42.1** | **+0.3** |
| JFT | | | | *e*S | **Sn** | **03 43 14.8** | **-1.0** |
| **JOM** | **Ohasama** | **2.96** | **315** | P | **Pn** | **03 42 42.1** | **-0.1** |
| JOM | | | | S | **Sn** | **03 43 15.6** | **-0.9** |
| **JYK** | **Kaneyama** | **3.24** | **298** | P | **Pn** | **03 42 46.5** | **+0.3** |
| **JANG** | **Nango** | **3.53** | **327** | P | **Pn** | **03 42 49.8** | **-0.3** |
| **JRY** | **Ryogami san** | **4.34** | **253** | P | **Pn** | **03 43 00.0** | **-1.3** |
| JRY | | | | S | **Sn** | **03 43 47.4** | **-3.3** |
| **JOD2** | **Odawara 2** | **4.53** | **243** | P | **Pn** | **03 43 02.2** | **-1.6** |
| **ERM** | **Erimo** | **4.63** | **352** | *e*Pn | **Pn** | **03 43 03.6** | **-1.6** |
| **MJAR** | **Matsushiro Arr** | **4.73** | **261** | Pn | **Pn** | **03 43 06.8** | **+0.1** |
| | 5.1nm,0.3s,baz=89,slow=15,SNR=37 | | | | | | |
| MJAR | | | | Sn | **Sn** | **03 44 01.0** | **+0.7** |
| | 1.8nm,0.3s,baz=93,slow=26,SNR=5.9 | | | | | | |
| MJAR | | | | LR | LR | 03 45 16.2 | |
| | comp=Z,73nm,20.8s,baz=85,slow=43 | | | | | | |
| **MAJO** | **Matsushiro** | **4.73** | **261** | *e*Pn | **Pn** | **03 43 07.2** | **+0.5** |
| **JCH** | **Churui** | **5.21** | **355** | P | **Pn** | **03 43 11.4** | **-1.7** |
| JCH | | | | S | **Sn** | **03 44 07.5** | **-4.4** |
| **JHJ** | **Hachijo jima 2** | **5.52** | **220** | Sn | **Sn** | **03 44 15.8** | **-3.8** |
| | 51nm,0.3s,baz=78,slow=20,SNR=4.8 | | | | | | |
| **ASAJ** | **Asahikawa** | **6.77** | **351** | Pn | **Pn** | **03 43 33.8** | **-0.8** |
| | 3.7nm,0.3s,baz=200,slow=11,SNR=19 | | | | | | |
| ASAJ | | | | Sn | **Sn** | **03 44 47.6** | **-2.8** |
| | 0.2nm,0.3s,baz=229,slow=19,SNR=2.6 | | | | | | |
| **ASAJ** | **Asahikawa** | **6.77** | **351** | *e*Pn | **Pn** | **03 43 33.2** | **-1.4** |
| | 5.4nm,0.6s | | | | | | |
| ASAJ | | | | Sn | **Sn** | **03 44 47.6** | **-2.8** |
| **USRK** | **Ussuriysk Ar.** | **11.35** | **310** | Pn | **Pn** | **03 44 37.9** | **+0.7** |
| | 0.3nm,0.3s,baz=110,slow=13,SNR=3.7 | | | | | | |
| **KSRS** | **Korea Array** | **12.79** | **275** | LR | LR | 03 49 56.7 | |
| | comp=Z,39nm,18.2s,baz=40,slow=37 | | | | | | |
| **SEY** | **Seymchan** | **26.05** | **9** | P | **P** | **03 47 28.5** | **+1.0** |
| | 2.9nm,0.6s,baz=197,slow=17,SNR=6.0 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **26.62** | **125** | T | T | 04 15 09.4 | |
| | baz=317,slow=75,SNR=25 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **26.63** | **125** | T | T | 04 15 05.8 | |
| | baz=317,slow=75,SNR=12 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **26.64** | **125** | T | T | 04 15 09.7 | |
| | baz=317,slow=75,SNR=18 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **27.38** | **127** | T | T | 04 16 06.5 | |
| | baz=319 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **27.39** | **127** | T | T | 04 16 10.0 | |
| | baz=319 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **27.40** | **127** | T | T | 04 16 11.0 | |
| | baz=319 | | | | | | |
| **SONM** | **Songino Array** | **29.30** | **303** | P | **P** | **03 47 58.2** | **+1.3** |
| | 0.3nm,0.4s,baz=107,slow=9.7,SNR=2.5 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **43.19** | **312** | P | **P** | **03 49 55.6** | **+0.6** |
| | 0.4nm,0.3s,baz=72,slow=6.4,SNR=3.7 | | | | | | |
| ZALV | | | | PcP | **PcP** | **03 51 44.1** | **+0.2** |
| | 0.7nm,0.5s,baz=78,slow=3.7,SNR=4.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **45.67** | **302** | P | **P** | **03 50 16.1** | **+1.1** |
| | 0.6nm,0.7s,baz=91,slow=9.8,SNR=5.3 | | | | | | |
| **KURK** | **Kurchatov** | **47.33** | **308** | *e*P | **P** | **03 50 27.8** | **-0.1** |
| | 11nm,0.6s | | | | | | |
| **ILAR** | **Eielson Array** | **48.05** | **33** | P | **P** | **03 50 32.8** | **-0.5** |
| | 0.7nm,0.7s,baz=265,slow=6.8,SNR=4.8 | | | | | | |
| **INK** | **Inuvik** | **53.09** | **27** | P | **P** | **03 51 12.1** | **+0.9** |
| | 0.6nm,0.5s,baz=287,slow=8.5,SNR=7.3 | | | | | | |
| **ARU** | **Arti** | **57.44** | **319** | *e*P | **P** | **03 51 43.5** | **+0.8** |
| **WRAB** | **Tennant Creek** | **57.77** | **191** | *e*P | **P** | **03 51 45.2** | **-0.3** |
| | 2.7nm,0.7s | | | | | | |
| **WRA** | **Warramunga Arr** | **57.78** | **191** | P | **P** | **03 51 43.6** | **-1.9** |
| | 1.0nm,0.6s,baz=9.7,slow=7.3,SNR=5.2 | | | | | | |
| **AKTO** | **Aktyubinsk** | **59.95** | **313** | P | **P** | **03 52 01.6** | **+1.3** |
| | 1.4nm,0.9s,baz=88,slow=10,SNR=2.7 | | | | | | |
| **ASAR** | **Alice Springs** | **61.51** | **191** | P | **P** | **03 52 09.9** | **-1.2** |
| | 0.1nm,0.2s,baz=12,slow=7.9,SNR=3.5 | | | | | | |
| **RES** | **Resolute Bay** | **61.70** | **15** | LR | LR | 04 19 20.8 | |
| | comp=Z,234nm,21.4s,baz=250,slow=36 | | | | | | |
| **FINES** | **FINESS Array B** | **69.42** | **333** | P | **P** | **03 53 02.5** | **+0.7** |
| | 4.6nm,1.0s,baz=42,slow=6.4,SNR=5.1 | | | | | | |
| **GERES** | **GERESS Array B** | **83.45** | **330** | P | **P** | **03 54 22.3** | **+0.6** |
| | 0.4nm,0.5s,baz=36,slow=7.0,SNR=4.4 | | | | | | |

*NIED **03** 04:16:00, 38.°90N×142.°00E, h50km, Mw4.6 Best double couple: $M_0$9.45000×$10^{15}$ NP1:$\phi_s$191.00000°, δ22.00000°, λ78.00000°. NP2:$\phi_s$24.00000°, δ69.00000°, λ95.00000°.*
*NEIC **03** 04:16:36.1±1.7, 38.°90N×141.°89E, h28km±12km, mb4.6/9, Error ellipse: s-maj=6.7km s-min=5.7km az=106.0*
*NEIC Recorded [3 JMA] in Iwate and Miyagi.*
*ISCJB **03** 04:16:36.6±0.5, 38.°88N±0.°03×142.°06E±0.°05, h51km±3km, mb4.5/57, MS3.5/10, Error ellipse: s-maj=7.0km s-min=4.1km az=25.6*
*MOS **03** 04:16:37.7±0.9, 39.°17N×141.°79E, h42km, mb4.8/37, Error ellipse: s-maj=8.5km s-min=5.6km az=96.0*
*JMA **03** 04:16:38.2±0.1, 38.°88N×141.°98E, h50km±1km, M4.4*
*JMA Felt III J1.*
*IDC **03** 04:16:40.1±2.2, 38.°87N×141.°86E, h63km±19km, mb4.1/28, mb1 4.2/32, mb1mx4.1/55, mbtmp4.4/32, MS3.4/12, Ms1 3.5/12, ms1mx3.2/43, Error ellipse: s-maj=14.8km s-min=12.7km az=96.0*
**ISC 03 04:16:37.9**±0.6**, 38.°89N**±0.°04×**142.°08E**±0.°05**, h48**km±4km**, n145,** σ**1.s46**/158**, mb4.5**/57**, MS3.6**/10**, 8C-8D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OFUJ** | **Ofunato** | **0.38** | **301** | P | **Pn** | **04 16 47.5** | **-0.1** |
| OFUJ | | | | S | **Sn** | **04 16 53.8** | **-0.7** |
| **JMK** | **Ichinoseki** | **0.68** | **276** | P | **Pn** | **04 16 50.7** | **-0.5** |
| JMK | | | | S | **Sn** | **04 16 59.4** | **-1.5** |
| **JIO** | **Ouri** | **0.72** | **233** | P | **Pn** | **04 16 51.2** | **-0.6** |
| JIO | | | | S | **Sn** | **04 17 00.0** | **-1.8** |
| **JOM** | **Ohasama** | **0.85** | **314** | P | **Pn** | **04 16 53.2** | **-0.3** |
| JOM | | | | S | **Sn** | **04 17 04.1** | **-0.8** |
| **JOU** | **Okura** | **1.23** | **245** | P | **Pn** | **04 16 57.9** | **-0.8** |
| JOU | | | | S | **Sn** | **04 17 13.0** | **-1.1** |
| **JRG** | **Rokugo** | **1.24** | **295** | P | **Pn** | **04 16 58.2** | **-0.6** |
| JRG | | | | *e*S | **Sn** | **04 17 12.7** | **-1.6** |
| **JYK** | **Kaneyama** | **1.35** | **272** | P | **Pn** | **04 16 59.6** | **-0.6** |
| **JMM** | **Marumori** | **1.44** | **225** | P | **Pn** | **04 17 00.5** | **-1.0** |
| JMM | | | | *e*S | **Sn** | **04 17 17.7** | **-1.5** |
| **JANG** | **Nango** | **1.55** | **344** | P | **Pn** | **04 17 03.0** | **0.0** |
| JANG | | | | *e*S | **Sn** | **04 17 22.7** | **+0.8** |
| **ERM** | **Erimo** | **3.23** | **14** | *e*P | **Pn** | **04 17 23.7** | **-2.3** |
| **ERM** | **Erimo** | **3.23** | **14** | *e*Pn | **Pn** | **04 17 23.7** | **-2.3** |
| **MJAR** | **Matsushiro Arr** | **3.86** | **234** | P | **Pn** | **04 17 36.0** | **+1.2** |
| | 30nm,0.3s,baz=36,slow=12,SNR=105 | | | | | | |
| MJAR | | | | S | **Sn** | **04 18 24.5** | **+5.6** |
| | 11nm,0.3s,baz=316,slow=31,SNR=4.4 | | | | | | |
| MJAR | | | | LR | LR | 04 19 25.3 | |
| | comp=Z,379nm,19.6s,baz=60,slow=45 | | | | | | |
| **MAJO** | **Matsushiro** | **3.86** | **234** | ⇑*e*P | **Pn** | **04 17 36.0** | **+1.2** |
| **MAJO** | **Matsushiro** | **3.86** | **234** | *e*Pn | **Pn** | **04 17 35.1** | **+0.4** |
| **MAT** | **Matsushiro** | **3.86** | **234** | P | **Pn** | **04 17 36.1** | **+1.3** |
| MAT | | | | *e*S | **Sn** | **04 18 23.9** | **+5.0** |
| **ASAJ** | **Asahikawa** | **5.24** | **4** | P | **Pn** | **04 17 53.7** | **+0.1** |
| | 3.8nm,0.3s,baz=223,slow=17,SNR=9.4 | | | | | | |
| ASAJ | | | | S | **Sn** | **04 18 55.6** | **+3.0** |
| | 5.1nm,0.3s,baz=285,slow=20,SNR=2.6 | | | | | | |
| **ASAJ** | **Asahikawa** | **5.24** | **4** | *e*Pn | **Pn** | **04 17 52.2** | **-1.4** |
| | 10.0nm,0.6s | | | | | | |
| ASAJ | | | | S | **Sn** | **04 18 55.6** | **+3.0** |
| **YUK** | **Yuzh-Kuril'sk** | **5.87** | **28** | *e*P | **Pn** | **04 18 02.2** | **-0.1** |
| YUK | | | | *e*S | **Sn** | **04 19 03.8** | **-4.4** |
| YUK | | | | pmax | pmax | | |
| | comp=Z,234nm,0.2s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=E,446nm,0.4s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,156nm,0.2s | | | | | | |
| **JHJ** | **Hachijo jima 2** | **6.05** | **199** | P | **Pn** | **04 18 04.5** | **-0.3** |
| | comp=N,37nm,0.3s,baz=56,slow=16,SNR=4.8 | | | | | | |
| JHJ | | | | S | **Sn** | **04 19 09.2** | **-3.5** |
| | comp=N,39nm,0.3s,baz=52,slow=19,SNR=3.7 | | | | | | |
| **SHO** | **Shikotan** | **6.12** | **34** | *e*P | **Pn** | **04 18 04.9** | **-0.8** |
| SHO | | | | *e*S | **Sn** | **04 19 08.8** | **-5.6** |
| SHO | | | | pmax | pmax | | |
| | comp=Z,44nm,0.8s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=N,18nm,0.3s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=E,43nm,0.3s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=N,213nm,0.4s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=E,357nm,0.4s | | | | | | |
| **KUR** | **Kuril'sk** | **7.66** | **32** | P | **Pn** | **04 18 27.4** | **+0.6** |
| KUR | | | | *e*S | **Sn** | **04 19 49.0** | **-3.1** |
| KUR | | | | pmax | pmax | | |
| | comp=Z,47nm,0.7s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=N,129nm,0.5s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,131nm,0.5s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **8.08** | **3** | *e*P | **Pn** | **04 18 33.6** | **+1.1** |
| YSS | | | | *e*S | **Sn** | **04 20 03.0** | **+0.6** |
| YSS | | | | pmax | pmax | | |
| | comp=Z,20nm,1.1s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **9.24** | **308** | P | **Pn** | **04 18 49.1** | **+0.7** |
| | comp=Z,2.7nm,0.3s,baz=114,slow=13,SNR=18 | | | | | | |
| USRK | | | | LR | LR | 04 22 13.4 | |
| | comp=Z,288nm,20.8s,baz=123,slow=37 | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| JNU | Nakatsue | 10.74 | 241 | P | Pn | 04 19 11.6 | +2.5 |
| | comp=Z,1.0nm,0.3s,baz=76,slow=4.2,SNR=3.2 | | | | | | |
| MDJ | Mudanjiang | 10.94 | 306 | ePn | Pn | 04 19 09.2 | -2.5 |
| | comp=Z,8.5nm,0.7s | | | | | | |
| KSRS | Korea Array | 11.24 | 267 | P | Pn | 04 19 16.6 | +0.8 |
| | comp=Z,1.2nm,0.3s,baz=81,slow=14,SNR=10 | | | | | | |
| KSRS | | | | LR | LR | 04 23 21.6 | |
| | comp=Z,152nm,18.2s,baz=88,slow=36 | | | | | | |
| KSAR | Wonju Array Be | 11.27 | 267 | P | Pn | 04 19 16.6 | +0.3 |
| KSAR | Wonju Array Be | 11.27 | 267 | P | Pn | 04 19 16.6 | +0.3 |
| CBIJ | Chichi jima | 11.76 | 180 | ePn | Pn | 04 19 23.1 | +0.2 |
| TYV | Tymovskoe | 11.98 | 2 | eP | Pn | 04 19 16.5 | -9.3 |
| TYV | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.3s | | | | | | |
| MA2 | Magadan | 21.43 | 12 | LR | LR | 04 28 59.1 | |
| | comp=Z,54nm,20.7s,baz=182,slow=34 | | | | | | |
| YAK | Yakutsk | 24.39 | 346 | P | P | 04 21 51.5 | +0.2 |
| | comp=Z,12nm,0.3s,baz=11,slow=0.6,SNR=3.3 | | | | | | |
| YAK | Yakutsk | 24.39 | 346 | eP | P | 04 21 49.9 | -1.4 |
| YAK | | | | e*PP | sP | 04 22 09.6 | +0.1 |
| YAK | | | | e | | 04 25 25.4 | |
| YAK | | | | eS | S | 04 26 05.3 | -2.1 |
| YAK | | | | pmax | pmax | | |
| | comp=Z,19nm,0.9s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,3.0nm,1.1s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,5.0nm,0.9s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=N,148nm,4.2s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=E,49nm,4.6s | | | | | | |
| SEY | Seymchan | 24.87 | 11 | P | P | 04 21 57.1 | +1.4 |
| | comp=E,4.4nm,0.8s,baz=219,slow=6.9,SNR=8.8 | | | | | | |
| SEY | Seymchan | 24.87 | 11⇓ | eP | P | 04 21 56.4 | +0.7 |
| BOD | Bodaibo | 26.28 | 325 | eP | P | 04 22 07.4 | -1.1 |
| BOD | | | | pmax | pmax | | |
| | comp=Z,12nm,1.3s | | | | | | |
| ULN | Ulaanbaatar | 26.80 | 301 | eP | P | 04 22 12.6 | -0.9 |
| ULN | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.6s | | | | | | |
| ULN | Ulaanbaatar | 26.80 | 301 | eP | P | 04 22 12.6 | -0.9 |
| | comp=Z,2.3nm,0.6s | | | | | | |
| SONM | Songino Array | 27.24 | 301 | P | P | 04 22 16.9 | -0.5 |
| | comp=Z,1.1nm,0.3s,baz=98,slow=9.0,SNR=10 | | | | | | |
| SONM | | | | PcP | PcP | 04 25 36.9 | +0.6 |
| | comp=Z,0.5nm,0.6s,baz=122,slow=5.4,SNR=3.2 | | | | | | |
| SONM | | | | LR | LR | 04 33 23.6 | |
| | comp=Z,94nm,18.8s,baz=344,slow=37 | | | | | | |
| ENH | Enshi | 28.06 | 262 | eP | P | 04 22 23.8 | -1.1 |
| | comp=Z,26nm,0.8s | | | | | | |
| H11N2 | WAKE ISLAND Hy | 28.70 | 125 | T | T | 04 52 52.5 | |
| | baz=317,slow=75,SNR=4236 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 28.71 | 125 | T | T | 04 52 57.9 | |
| | baz=317,slow=75,SNR=5500 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 28.72 | 125 | T | T | 04 53 08.0 | |
| | baz=317,slow=75,SNR=3295 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 29.48 | 127 | T | T | 04 53 49.7 | |
| | baz=318,slow=76,SNR=793 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 29.48 | 127 | T | T | 04 53 49.8 | |
| | baz=318,slow=76,SNR=833 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 29.50 | 127 | T | T | 04 53 48.0 | |
| | baz=318,slow=76,SNR=679 | | | | | | |
| TLY | Talaya | 29.56 | 308⇑ | eP | P | 04 22 35.0 | -2.9 |
| TLY | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.5s | | | | | | |
| BILL | Bilibino | 32.10 | 17 | eP | P | 04 23 01.7 | +1.6 |
| BILL | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.6s | | | | | | |
| TIXI | Tiksi | 33.52 | 352⇓ | eP | P | 04 23 11.3 | -1.1 |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.7s | | | | | | |
| DGZ | Jazzator, Alta | 39.77 | 304⇑ | eP | P | 04 24 02.7 | -3.3 |
| ZALV | Zalesovo Beam | 41.08 | 311 | P | P | 04 24 16.4 | -0.3 |
| | comp=Z,5.2nm,0.4s,baz=88,slow=7.7,SNR=38 | | | | | | |
| ZALV | | | | PcP | PcP | 04 26 15.3 | -0.1 |
| | comp=Z,1.8nm,0.4s,baz=110,slow=2.7,SNR=6.9 | | | | | | |
| ZALV | | | | LR | LR | 04 41 43.0 | |
| | comp=Z,74nm,19.3s,baz=45,slow=37 | | | | | | |
| NVS | Novosibirsk | 41.97 | 312 | eP | P | 04 24 23.5 | -0.3 |
| NVS | | | | e | | 04 24 41.7 | |
| NVS | | | | pmax | pmax | | |
| | comp=E,8.0nm,1.2s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=Z,12nm,1.2s | | | | | | |
| CMAR | Chiang Mai Arr | 42.50 | 254 | LR | LR | 04 43 18.4 | |
| | comp=Z,24nm,18.3s,baz=44,slow=38 | | | | | | |
| MKAR | Makanchi Array | 43.61 | 301 | P | P | 04 24 36.9 | -0.4 |
| | comp=Z,9.4nm,0.6s,baz=80,slow=9.8,SNR=78 | | | | | | |
| MKAR | | | | PcP | PcP | 04 26 23.7 | -0.3 |
| | comp=Z,0.8nm,0.9s,baz=67,slow=4.8,SNR=1.8 | | | | | | |
| MAKZ | Makanchi | 43.82 | 301 | P | P | 04 24 37.3 | -1.7 |
| MAKZ | | | | pmax | pmax | | |
| | comp=Z,17nm,1.2s | | | | | | |
| KURK | Kurchatov | 45.23 | 307c | iP | P | 04 24 49.2 | -0.9 |
| KURK | Kurchatov | 45.23 | 307 | eP | P | 04 24 48.9 | -1.3 |
| KDAK | Kodiak Island | 45.38 | 43 | P | P | 04 24 53.0 | +1.8 |
| | comp=Z,7.4nm,1.1s,baz=281,slow=10,SNR=3.2 | | | | | | |
| JIRN | Jiri | 47.40 | 274 | eP | P | 04 25 08.2 | +0.3 |
| | comp=Z,52nm,0.3s | | | | | | |
| RAMN | Ramite | 47.42 | 273 | eP | P | 04 25 08.0 | 0.0 |
| | comp=Z,21nm,0.6s | | | | | | |
| GUN | Gumba | 47.52 | 274 | eP | P | 04 25 09.1 | +0.2 |
| | comp=Z,21nm,0.3s | | | | | | |
| ILAR | Eielson Array | 47.65 | 33 | P | P | 04 25 10.4 | +1.5 |
| | comp=Z,1.1nm,0.6s,baz=265,slow=6.1,SNR=25 | | | | | | |
| DANN | Dangsing | 48.96 | 276 | ePn | P | 04 25 20.6 | +0.7 |
| DOT | Dot Lake | 48.98 | 35 | eP | P | 04 25 19.6 | +0.4 |
| | comp=Z,8.9nm,1.0s | | | | | | |
| TKM2 | Tokmak 2 | 49.23 | 297 | i P | P | 04 25 21.8 | +0.1 |
| TKM2 | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.5s | | | | | | |
| KOLN | Koldanda | 49.36 | 275 | eP | P | 04 25 22.7 | -0.2 |
| | comp=Z,8.0nm,0.3s | | | | | | |
| PYUN | Piuthan | 49.68 | 276 | eP | P | 04 25 25.3 | 0.0 |
| | comp=Z,11nm,0.4s | | | | | | |
| BVA0 | Borovoye Array | 49.73 | 311 | i P | P | 04 25 24.2 | -0.9 |
| BVA0 | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.5s | | | | | | |
| BRVK | Borovoye | 49.79 | 311⇓ | iP | P | 04 25 25.8 | +0.3 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.6s | | | | | | |
| BRVK | Borovoye | 49.79 | 311 | eP | P | 04 25 24.5 | -1.0 |
| | comp=Z,14nm,0.5s | | | | | | |
| AAK | Ala-Archa | 50.09 | 297 | LR | LR | 04 46 28.0 | |
| | comp=Z,66nm,18.3s,baz=34,slow=36 | | | | | | |
| AAK | Ala-Archa | 50.09 | 297⇓ | iP | P | 04 25 27.9 | -0.3 |
| AAK | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.4s | | | | | | |
| AAK | Ala-Archa | 50.09 | 297 | eP | P | 04 25 27.6 | -0.6 |
| | comp=Z,2.2nm,0.4s | | | | | | |
| MNAS | Manas | 51.53 | 298 | i P | P | 04 25 38.7 | -0.2 |
| MNAS | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.6s | | | | | | |
| SFK | Sufi-Kurgan | 51.73 | 294 | i P | P | 04 25 40.0 | -0.6 |
| SFK | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.5s | | | | | | |
| INK | Inuvik | 52.50 | 28 | P | P | 04 25 47.4 | +1.8 |
| | comp=Z,2.2nm,0.8s,baz=313,slow=7.7,SNR=11 | | | | | | |
| KK31 | Karatay Array | 52.67 | 299c | eP | P | 04 25 46.5 | -0.8 |
| KK31 | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.8s | | | | | | |
| SVE | Sverdlovsk | 54.12 | 318 | eP | P | 04 25 58.4 | +0.8 |
| SVE | | | | pmax | pmax | | |
| | comp=Z,21nm,0.8s | | | | | | |
| ARU | Arti | 55.33 | 318 | P | P | 04 26 06.5 | 0.0 |
| | comp=Z,7.5nm,0.4s,baz=78,slow=5.4,SNR=21 | | | | | | |
| ARU | Arti | 55.33 | 318c | iP | P | 04 26 06.4 | 0.0 |
| ARU | | | | *PP | pP | 04 26 22.0 | +2.3 |
| ARU | | | | | | 04 28 06.9 | |
| ARU | | | | S | S | 04 33 47.0 | +0.1 |
| ARU | | | | SS | SS | 04 37 26.1 | -5.1 |
| ARU | | | | pmax | pmax | | |
| | comp=Z,73nm,1.7s | | | | | | |
| ARU | Arti | 55.33 | 318 | eP | P | 04 26 06.4 | -0.1 |
| | comp=Z,15nm,0.8s | | | | | | |
| AB31 | Akbulak array | 57.16 | 309c | eP | P | 04 26 18.9 | -0.7 |
| AB31 | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.3s | | | | | | |
| AKTO | Aktyubinsk | 57.84 | 311 | P | P | 04 26 24.1 | -0.3 |
| | comp=Z,5.3nm,0.6s,baz=73,slow=12,SNR=16 | | | | | | |
| WRAB | Tennant Creek | 58.96 | 188 | eP | P | 04 26 31.7 | -0.7 |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.6s | | | | | | |
| WRAB | Tennant Creek | 58.96 | 188 | eP | P | 04 26 31.7 | -0.7 |
| | comp=Z,2.5nm,0.6s | | | | | | |
| WRA | Warramunga Arr | 58.97 | 189 | P | P | 04 26 32.1 | -0.3 |
| | comp=Z,4.5nm,0.5s,baz=6.3,slow=7.0,SNR=80 | | | | | | |
| RES | Resolute Bay | 60.68 | 15 | P | P | 04 26 44.0 | +0.4 |
| | comp=Z,2.3nm,0.5s,baz=318,slow=5.9,SNR=14 | | | | | | |
| RES | Resolute Bay | 60.68 | 15 | P | P | 04 26 44.0 | +0.4 |
| RES | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.5s | | | | | | |
| YKA | Yellowknife Ar | 61.95 | 31 | P | P | 04 26 53.6 | +1.3 |
| | comp=Z,0.4nm,0.6s,baz=302,slow=5.8,SNR=4.0 | | | | | | |
| ARCES | ARCESS Array B | 62.45 | 339 | P | P | 04 26 55.6 | 0.0 |
| | comp=Z,5.0nm,0.9s,baz=53,slow=8.0,SNR=7.4 | | | | | | |
| ARCES | ARCESS Array B | 62.45 | 339 | eP | P | 04 26 56.6 | +1.0 |
| ARCES | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.9s | | | | | | |
| ASAR | Alice Springs | 62.70 | 188 | P | P | 04 26 57.8 | +0.1 |
| | comp=Z,1.5nm,0.6s,baz=6.0,slow=6.4,SNR=22 | | | | | | |
| GEYT | Alibeck | 63.41 | 298 | LR | LR | 04 56 14.3 | |
| | comp=Z,46nm,18.1s,baz=335,slow=38 | | | | | | |
| OBN | Obninsk | 66.93 | 323 | eP | P | 04 27 24.7 | -0.3 |
| OBN | | | | e | | 04 27 51.6 | |
| OBN | | | | e | | 04 29 52.9 | |
| OBN | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.9s | | | | | | |
| FINES | FINESS Array B | 67.42 | 332 | P | P | 04 27 27.7 | -0.3 |
| | comp=Z,5.1nm,0.6s,baz=34,slow=10,SNR=28 | | | | | | |
| FINES | FINESS Array B | 67.42 | 332 | eP | P | 04 27 27.8 | -0.2 |
| FINES | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.6s | | | | | | |
| JMIC | Jan Mayen | 68.42 | 350 | LR | LR | 04 56 21.8 | |
| | comp=Z,32nm,21.9s,baz=290,slow=35 | | | | | | |
| SUMG | Summit | 68.83 | 0 | eP | P | 04 27 37.3 | +0.1 |
| SUMG | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.0s | | | | | | |
| SUMG | Summit | 68.83 | 0 | eP | P | 04 27 37.3 | +0.1 |
| | comp=Z,6.6nm,1.0s | | | | | | |
| VSU | Vasula | 69.13 | 329⇓ | eP | P | 04 27 36.5 | -2.2 |
| KVAR | Kislovodsk Arr | 70.09 | 311 | P | P | 04 27 46.0 | +0.9 |
| | comp=Z,13nm,0.8s,baz=246,slow=1.6,SNR=4.5 | | | | | | |
| KIV | Kislovodsk | 70.10 | 311d | eP | P | 04 27 46.0 | +0.9 |
| KIV | | | | e | | 04 28 06.2 | |
| KIV | | | | e | | 04 30 16.6 | |
| KIV | | | | pmax | pmax | | |
| | comp=Z,22nm,1.0s | | | | | | |
| KIV | | | | MLR | MLR | | |
| | comp=Z,83nm,15.0s | | | | | | |
| KIV | Kislovodsk | 70.10 | 311 | eP | P | 04 27 45.5 | +0.5 |
| | comp=Z,20nm,1.1s | | | | | | |
| KBZ | Khabaz | 70.10 | 310 | P | P | 04 27 45.6 | +0.6 |
| | comp=Z,6.0nm,0.9s,baz=18,slow=5.0,SNR=9.0 | | | | | | |
| NEY | Neytrino | 70.48 | 310⇑ | iP | P | 04 27 49.1 | +1.5 |
| NEY | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.4s | | | | | | |
| NB2 | NORSAR Subarra | 72.68 | 337 | P | P | 04 28 00.5 | +0.2 |
| | comp=Z,3.8nm,0.8s,baz=38,slow=6.2 | | | | | | |
| NOA | NORSAR Array B | 72.68 | 337 | P | P | 04 27 59.8 | -0.6 |
| | comp=Z,2.5nm,0.8s,baz=39,slow=6.2,SNR=4.3 | | | | | | |
| NOA | | | | LR | LR | 05 02 22.9 | |
| | comp=Z,47nm,21.9s,baz=265,slow=38 | | | | | | |
| NOA | NORSAR Array B | 72.68 | 337 | eP | P | 04 28 00.5 | +0.2 |
| NOA | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | |
| AKASG | Malin Array Be | 73.16 | 322 | P | P | 04 28 02.4 | -0.9 |
| | comp=Z,2.7nm,0.4s,baz=45,slow=6.5,SNR=20 | | | | | | |
| AKASG | Malin Array Be | 73.16 | 322 | eP | P | 04 28 02.7 | -0.5 |
| AKASG | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.4s | | | | | | |
| KIEV | Kiev | 73.17 | 322⇓ | iP | P | 04 28 03.1 | -0.2 |
| KIEV | | | | pmax | pmax | | |
| | comp=Z,18nm,2.2s | | | | | | |
| FRB | Frobisher Bay | 74.85 | 14 | P | P | 04 28 13.4 | +0.6 |
| | comp=Z,13nm,0.9s,baz=140,slow=6.2,SNR=5.0 | | | | | | |
| FRB | Frobisher Bay | 74.85 | 14 | P | P | 04 28 13.4 | +0.6 |
| FRB | | | | pmax | pmax | | |
| | comp=Z,17nm,1.0s | | | | | | |
| PDAR | Pinedale Array | 76.00 | 46 | P | P | 04 28 21.6 | +1.4 |
| | comp=Z,0.4nm,0.7s,baz=218,slow=1.7,SNR=3.5 | | | | | | |
| STHS | Stebnicka Huta | 77.75 | 325 | eP | P | 04 28 30.0 | +0.4 |
| STHS | | | | pmax | pmax | | |
| | comp=Z,304nm,5.8s | | | | | | |
| BRTR | Keskin Array B | 78.02 | 312 | P | P | 04 28 31.3 | -0.2 |
| | comp=Z,1.1nm,0.4s,baz=114,slow=3.1,SNR=22 | | | | | | |
| BRTR | | | | PP | PP | 04 31 27.1 | -0.4 |
| | comp=Z,0.7nm,0.9s,baz=69,slow=7.0,SNR=3.9 | | | | | | |
| BRTR | Keskin Array B | 78.02 | 312 | eP | P | 04 28 31.5 | 0.0 |
| BRTR | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.4s | | | | | | |
| MLR | Muntele Rosu | 78.31 | 320 | P | P | 04 28 33.0 | 0.0 |
| | comp=Z,0.3nm,0.6s,baz=195,slow=5.5,SNR=3.0 | | | | | | |
| MLR | Muntele Rosu | 78.31 | 320 | P | P | 04 28 33.0 | 0.0 |
| DPC | Dobruska-Polom | 79.17 | 328 | eP | P | 04 28 38.4 | +0.9 |
| DPC | Dobruska-Polom | 79.17 | 328 | eP | P | 04 28 38.4 | +0.9 |
| KRLC | Kraliky | 79.19 | 328 | eP | P | 04 28 38.4 | +0.8 |
| KRLC | Kraliky | 79.19 | 328 | eP | P | 04 28 38.4 | +0.8 |
| PSZ | Piszkesteto | 79.46 | 325 | eP | P | 04 28 38.7 | -0.4 |
| PSZ | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.9s | | | | | | |
| PSZ | Piszkesteto | 79.46 | 325 | eP | P | 04 28 38.7 | -0.4 |
| | comp=Z,5.0nm,0.9s | | | | | | |
| BRG | Berggiesshubel | 79.73 | 330 | eP | P | 04 28 40.3 | -0.1 |
| BRG | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.4s | | | | | | |
| CLL | Collm | 79.75 | 330⇓ | iP | P | 04 28 40.9 | +0.4 |
| CLL | | | | e*PP | pP | 04 28 54.0 | -0.5 |
| CLL | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.8s | | | | | | |
| PRU | Pruhonice | 80.18 | 329 | eP | P | 04 28 43.7 | +0.8 |
| PRU | Pruhonice | 80.18 | 329 | eP | P | 04 28 43.7 | +0.8 |
| RAYN | Ar Rayn | 80.44 | 292 | eP | P | 04 28 43.9 | -0.9 |
| | comp=Z,2.3nm,0.8s | | | | | | |
| KHC | Kasperske Hory | 81.24 | 329 | eP | P | 04 28 49.4 | +0.8 |
| KHC | Kasperske Hory | 81.24 | 329 | eP | P | 04 28 49.4 | +0.8 |
| GERES | GERESS Array B | 81.42 | 328 | P | P | 04 28 49.5 | -0.2 |
| | comp=Z,0.8nm,0.4s,baz=36,slow=6.7,SNR=5.8 | | | | | | |
| GERES | GERESS Array B | 81.42 | 328 | eP | P | 04 28 49.8 | +0.2 |
| GERES | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.4s | | | | | | |
| BFO | Black Forest | 83.94 | 331 | i P | P | 04 29 04.9 | +2.2 |
| DAVOX | Davos/Dischmat | 84.61 | 329 | P | P | 04 29 06.7 | +0.4 |
| | comp=Z,3.0nm,0.8s,baz=327,slow=6.7,SNR=4.6 | | | | | | |
| PPT | Papeete | 85.00 | 117 | LR | LR | 04 58 12.1 | |
| | comp=Z,30nm,21.1s,baz=358,slow=29 | | | | | | |
| IDI | Anoyia | 86.11 | 313 | P | P | 04 29 12.6 | -1.2 |
| | comp=Z,3.2nm,0.6s,baz=40,slow=7.6,SNR=5.8 | | | | | | |
| TXAR | Lajitas Array | 88.58 | 53 | P | P | 04 29 27.3 | +1.4 |
| | comp=Z,0.3nm,0.6s,baz=293,slow=2.3,SNR=4.5 | | | | | | |
| TXAR | Lajitas Array | 88.58 | 53 | eP | P | 04 29 27.7 | +1.8 |
| H06E1 | SOCORRO T-PHAS | 90.92 | 65 | T | T | 06 10 51.5 | |
| KEST | Kesra | 93.86 | 323 | P | P | 04 29 52.4 | +2.1 |
| | comp=Z,3.0nm,1.0s,baz=102,slow=9.3,SNR=2.5 | | | | | | |
| BOSA | Boshof | 127.41 | 261 | PKP | PKPdf | 04 35 38.7 | +1.2 |
| | comp=Z,1.8nm,0.8s,baz=107,slow=11,SNR=2.6 | | | | | | |
| LPAZ | La Paz | 145.28 | 58 | PKPbc | PKPdf | 04 36 12.1 | +0.6 |
| | comp=Z,1.3nm,0.6s,baz=28,slow=3.6,SNR=8.0 | | | | | | |
| SIV | San Ignacio | 149.47 | 48 | PKPbc | PKPbc | 04 36 23.0 | +0.8 |
| | comp=Z,2.4nm,0.8s,baz=286,slow=2.6,SNR=5.6 | | | | | | |

**IDC 03 04:21:59.2**±401.0**, 59°.93N×105°.82W, h0km, Error ellipse: s-maj=196.1km s-min=150.4km az=112.0, Saskatchewan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| I10CA | LAC DU BONNET | 11.23 | 146 | i | | 05 35 40.0 | |
| | baz=333,slow=327,SNR=2.2 | | | | | | |
| I56US | NEWPORT INFRAS | 13.41 | 214 | i | | 05 44 30.0 | |
| | baz=24,slow=318,SNR=1.2 | | | | | | |
| I18DK | QAANAAQ INFRAS | 21.34 | 21 | i | | 06 31 40.0 | |
| | baz=231,slow=341,SNR=1.8 | | | | | | |

*ISK **03** 04:25:12.1, 38°.69N×43°.18E, h5km, MD2.8*
*CSEM **03** 04:25:13.9±0.2, 38°.71N×43°.18E, h2km, MD2.8, Error ellipse: s-maj=5.1km s-min=4.9km az=46.0*
*DDA **03** 04:25:13.6, 38°.68N×43°.16E, h7km, Ml2.9*
**ISC 03 04:25:14.0**±1.1**, 38°.72N**±0°.03×**43°.16E**±0°.02**, h4**km±10km**, n27, σ1s.09**/42**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.22 | 123 | ePG | Pg | 04 25 18.3 | +0.1 |
| VANB | | | | eSG | Sg | 04 25 22.4 | +1.3 |
| VANB | Van | 0.22 | 123 | ePg | Pg | 04 25 18.3 | +0.1 |
| VANB | | | | eSg | Sg | 04 25 22.4 | +1.3 |
| TVAN | Van | 0.27 | 134 | i P | Pg | 04 25 18.3 | -1.0 |
| TVAN | | | | i S | Sg | 04 25 23.1 | +0.3 |
| TVAN | Van | 0.27 | 134 | P | Pg | 04 25 18.3 | -1.0 |
| TVAN | | | | S | Sg | 04 25 23.1 | +0.3 |
| ADCV | BITLIS_Adilcev | 0.35 | 285 | i P | Pg | 04 25 20.8 | 0.0 |
| ADCV | | | | i S | Sg | 04 25 27.3 | +1.8 |
| GEVA | Gevas | 0.41 | 191 | i P | Pg | 04 25 20.4 | -1.5 |
| GEVA | | | | i S | Sg | 04 25 27.4 | +0.1 |
| VMUR | Van-Muradiye | 0.42 | 50 | i P | Pg | 04 25 22.5 | +0.3 |
| VMUR | | | | i S | Sb | 04 25 29.9 | -1.0 |
| VMUR | Van-Muradiye | 0.42 | 50 | P | Pg | 04 25 22.5 | +0.3 |
| VMUR | | | | S | Sb | 04 25 29.9 | -1.0 |
| CLDR | Caldiran | 0.73 | 54 | ePG | Pg | 04 25 26.9 | -1.1 |
| CLDR | | | | eSG | Sb | 04 25 39.5 | -0.4 |
| CLDR | Caldiran | 0.73 | 54 | i P | Pg | 04 25 27.7 | -0.3 |
| CLDR | | | | i S | Sb | 04 25 39.3 | -0.5 |
| CLDR | Caldiran | 0.73 | 54 | ePg | Pg | 04 25 26.9 | -1.1 |
| CLDR | | | | S | Sb | 04 25 39.3 | -0.5 |
| TUTA | Tutak | 0.74 | 339 | i P | Pg | 04 25 27.9 | -0.2 |
| TUTA | Tutak | 0.74 | 339 | P | Pg | 04 25 27.9 | -0.2 |
| AGRB | Hanur-Agry | 0.87 | 352 | ePG | Pg | 04 25 30.1 | -0.6 |
| AGRB | Hanur-Agry | 0.87 | 352 | ePg | Pg | 04 25 30.1 | -0.6 |
| EKAR | Karacoban | 1.01 | 303 | i P | Pn | 04 25 34.8 | -0.3 |
| EKAR | Karacoban | 1.01 | 303 | P | Pn | 04 25 34.8 | -0.3 |
| SRTM | Siirt_Merkez | 1.21 | 234 | i P | Pn | 04 25 41.0 | +3.3 |
| SRTM | Siirt_Merkez | 1.21 | 234 | P | Pn | 04 25 41.0 | +3.3 |
| EATA | Eleskirt | 1.26 | 336 | i P | Pg | 04 25 37.5 | -0.6 |
| EATA | | | | i S | Sn | 04 25 56.5 | +0.4 |
| EATA | Eleskirt | 1.26 | 336 | P | Pg | 04 25 37.5 | -0.6 |
| EATA | | | | S | Sn | 04 25 56.5 | +0.4 |
| CUKT | Cukurca | 1.51 | 166 | ePN | Pb | 04 25 41.4 | -1.2 |
| CUKT | Cukurca | 1.51 | 166 | ePn | Pb | 04 25 41.4 | -1.2 |
| SVAN | Silvan-Diyarba | 1.64 | 250 | ePN | Pb | 04 25 44.0 | -0.8 |
| SVAN | Silvan-Diyarba | 1.64 | 250 | ePn | Pb | 04 25 44.0 | -0.8 |
| BTMN | Batman | 1.70 | 242 | i P | Pg | 04 25 46.0 | -0.5 |
| BTMN | | | | i S | Sg | 04 26 07.8 | -0.7 |
| BTMN | Batman | 1.70 | 242 | P | Pg | 04 25 46.0 | -0.5 |
| BTMN | | | | S | Sg | 04 26 07.8 | -0.7 |

**IDC 03 04:27:29.5**±12.0**, 2°.79S×101°.84W, h0km, mb3.5**/4**, mb1 3.9**/4**, mb1mx3.6**/46**, mbtmp3.5**/4**, MS3.4**/2**, Ms1 3.4**/2**, ms1mx2.8**/17**, Error ellipse: s-maj=468.6km s-min=137.1km az=110.0, Central East Pacific Rise**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LPIG | La Paz | 27.96 | 343 | LR | LR | 04 41 16.4 | |
| | comp=Z,64nm,20.6s,baz=154,slow=30 | | | | | | |
| TXAR | Lajitas Array | 31.98 | 357 | P | P | 04 33 56.2 | -1.4 |
| | 0.2nm,0.7s,baz=165,slow=14,SNR=2.2 | | | | | | |
| PDAR | Pinedale Array | 45.88 | 352 | P | P | 04 35 55.3 | +1.3 |
| | 0.5nm,0.9s,baz=168,slow=9.1,SNR=3.7 | | | | | | |
| PLCA | Paso Flores | 47.16 | 147 | LR | LR | 04 52 00.8 | |
| | comp=Z,44nm,18.7s,baz=192,slow=31 | | | | | | |
| YKA | Yellowknife Ar | 65.82 | 354 | P | P | 04 38 17.2 | +0.8 |
| | 0.9nm,0.8s,baz=163,slow=6.8,SNR=4.8 | | | | | | |
| ILAR | Eielson Array | 75.00 | 342 | P | P | 04 39 11.7 | -0.9 |
| | 0.6nm,0.8s,baz=148,slow=5.9,SNR=5.6 | | | | | | |
| H01W1 | Cape Leeuwin H | 129.55 | 219 | T | T | 07 09 58.8 | |
| | baz=140,slow=76,SNR=5.4 | | | | | | |
| H01W2 | Cape Leeuwin H | 129.56 | 219 | T | T | 07 09 59.6 | |
| | baz=140,slow=76,SNR=7.3 | | | | | | |
| H01W3 | Cape Leeuwin H | 129.57 | 219 | T | T | 07 10 00.4 | |
| | baz=140,slow=76,SNR=5.2 | | | | | | |

*IDC **03** 04:30:05.8±0.9, 53°.73N×162°.96W, h0km, mb4.0/15, mb1 4.0/17, mb1mx3.8/67, mbtmp3.9/17, ML3.0/2, MS2.9/2, Ms1 2.8/2, ms1mx2.6/40, Error ellipse: s-maj=21.1km s-min=17.8km az=177.0*
*ISCJB **03** 04:30:08.8±0.5, 53°.63N±0°.05×162°.83W±0°.06, h32km, mb4.0/16, MS2.8/2, Error ellipse: s-maj=7.1km s-min=4.3km az=156.0*
*NEIC **03** 04:30:09.9±0.0, 53°.66N×162°.89W, h39km, ML3.4(AEIC), After AEIC.*
**ISC 03 04:30:10.5**±0.7**, 53°.74N**±0°.07×**162°.93W**±0°.04**, h32**km**, n54, σ1s.31**/53**, mb4.1**/16**, South of Alaska**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ISLZ | Isanotski Laza | 1.09 | 335 | P | Pb | 04 30 30.3 | -0.6 |
| FALS | False Pass | 1.16 | 346 | P | Pb | 04 30 31.5 | -0.5 |
| FALS | | | | S | Sb | 04 30 46.2 | -0.4 |
| SSLS | Shishaldin Sou | 1.16 | 328 | P | Pb | 04 30 31.9 | -0.2 |
| SSLS | | | | S | Sn | 04 30 45.5 | +0.1 |
| WESE | West Dahl East | 1.22 | 308 | P | Pb | 04 30 32.1 | -1.0 |
| WESN | West Dahl Nort | 1.28 | 311 | P | Pb | 04 30 33.4 | -0.6 |
| WESP | Westdahl Peak | 1.30 | 306 | P | Pb | 04 30 33.3 | -1.1 |
| WESP | | | | S | Sb | 04 30 50.5 | -0.2 |
| DT1 | Dutton Round H | 1.42 | 15 | P | Pn | 04 30 34.4 | +0.2 |
| BALA | Baldy Mountain | 1.46 | 3 | P | Pb | 04 30 36.8 | -0.3 |
| DTNA | Dutton South F | 1.47 | 15 | P | Pb | 04 30 35.4 | -1.8 |
| AKSA | Akutan Strait | 1.68 | 285 | P | Pn | 04 30 38.0 | +0.3 |
| HAG | Hague Volcano | 1.69 | 20 | P | Pb | 04 30 39.1 | -1.9 |
| AKUT | Akutan | 1.73 | 284 | ePn | Pn | 04 30 36.1 | -2.2 |
| PS4A | Pavlof South-4 | 1.73 | 21 | P | Pb | 04 30 39.5 | -2.1 |
| AKLV | Akutan Long Va | 1.84 | 285 | P | Pn | 04 30 40.3 | +0.5 |
| AKMO | Akutan Morgan | 1.86 | 282 | P | Pn | 04 30 40.6 | +0.5 |
| AKRB | Akutan Reef Bi | 1.90 | 283 | P | Pb | 04 30 41.5 | -2.9 |
| SDPT | Sand Point | 2.16 | 41 | P | Pn | 04 30 44.7 | +0.5 |
| SDPT | | | | S | Sn | 04 31 11.3 | +1.5 |
| MTBL | Makushin Table | 2.23 | 277 | P | Pn | 04 30 46.2 | +0.8 |
| MREP | Makushin Rep't | 2.27 | 273 | P | Pn | 04 30 45.9 | +0.2 |
| MSW | Makushin Switc | 2.29 | 276 | P | Pn | 04 30 46.3 | +0.2 |
| MGOD | Makushin Gods | 2.34 | 273 | P | Pn | 04 30 46.9 | +0.1 |
| MSOM | Makushin Julie | 2.39 | 274 | P | Pn | 04 30 47.7 | +0.4 |
| OKFG | Magazine Ridge | 2.99 | 266 | P | Pn | 04 30 56.6 | +1.0 |
| OKTU | Okmok Mt. Tuli | 3.07 | 265 | P | Pn | 04 30 57.6 | +0.8 |
| CHGN | Chignik | 3.65 | 44 | P | Pn | 04 31 05.1 | +0.4 |
| CHGN | | | | S | Sn | 04 31 47.3 | +0.7 |
| KDAK | Kodiak Island | 7.10 | 51 | Pn | Pn | 04 31 50.5 | -1.5 |
| | 0.4nm,0.3s,baz=190,slow=4.7,SNR=22 | | | | | | |
| KDAK | | | | Sn | Sn | 04 33 07.4 | -4.2 |
| | 1.0nm,0.3s,baz=318,slow=24,SNR=9.7 | | | | | | |
| ILAR | Eielson Array | 13.72 | 30 | Pn | Pn | 04 33 20.3 | -2.2 |
| | 0.1nm,0.3s,baz=223,slow=18,SNR=3.5 | | | | | | |
| COLD | Coldfoot | 14.86 | 20 | ePn | Pn | 04 33 38.3 | +0.3 |
| | 2.0nm,0.6s | | | | | | |
| DAWY | Dawson | 15.85 | 40 | ePn | P | 04 33 56.3 | +1.8 |
| INK | Inuvik | 20.09 | 32 | P | P | 04 34 38.7 | -2.3 |
| | 0.8nm,0.5s,baz=222,slow=11,SNR=8.7 | | | | | | |
| PETK | Petropavlovsk- | 23.27 | 285 | P | P | 04 35 14.4 | -0.6 |
| | 2.8nm,0.5s,baz=76,slow=14,SNR=14 | | | | | | |
| YKA | Yellowknife Ar | 26.38 | 51 | P | P | 04 35 46.8 | +3.3 |
| | 0.6nm,0.6s,baz=275,slow=9.2,SNR=10.0 | | | | | | |
| YKA | | | | LR | LR | 04 47 16.5 | |
| | comp=Z,8.3nm,19.7s,baz=180,slow=39 | | | | | | |
| RES | Resolute Bay | 33.43 | 27 | LR | LR | 04 52 42.4 | |
| | comp=Z,55nm,19.5s,baz=216,slow=41 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 41.08 | 226 | T | T | 05 21 48.1 | |
| | baz=26,slow=76,SNR=22 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 41.09 | 226 | T | T | 05 22 00.9 | |
| | baz=26,slow=76,SNR=28 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 41.10 | 226 | T | T | 05 22 01.1 | |
| | baz=26,slow=76,SNR=15 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 42.25 | 226 | T | T | 05 23 24.7 | |
| | baz=26,slow=76,SNR=34 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 42.27 | 226 | T | T | 05 23 27.4 | |
| | baz=26,slow=76,SNR=30 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 42.27 | 226 | T | T | 05 23 17.6 | |
| | baz=26,slow=76,SNR=26 | | | | | | |
| TXAR | Lajitas Array | 48.91 | 95 | P | P | 04 38 54.6 | +1.1 |
| | 0.8nm,0.6s,baz=303,slow=5.3,SNR=12 | | | | | | |
| SONM | Songino Array | 53.86 | 303 | P | P | 04 39 30.6 | +0.3 |
| | 0.5nm,0.4s,baz=64,slow=6.7,SNR=5.7 | | | | | | |
| ARCES | ARCESS Array B | 56.88 | 356 | P | P | 04 39 51.0 | -0.5 |
| | 3.1nm,0.8s,baz=22,slow=5.9,SNR=6.1 | | | | | | |
| ZALV | Zalesovo Beam | 58.94 | 320 | P | P | 04 40 06.7 | +0.5 |
| | 0.5nm,0.3s,baz=34,slow=9.7,SNR=3.4 | | | | | | |
| KURK | Kurchatov | 63.83 | 321 | P | P | 04 40 41.0 | +1.7 |
| KURBB | Kurchatov Arra | 63.94 | 321 | P | P | 04 40 41.0 | +1.0 |
| | 0.6nm,0.3s,baz=39,slow=5.8,SNR=4.6 | | | | | | |
| BVAR | Borovoye Array | 64.74 | 328 | P | P | 04 40 45.4 | +0.2 |
| | 0.6nm,0.4s,baz=56,slow=5.4,SNR=3.6 | | | | | | |
| FINES | FINESS Array B | 64.94 | 355 | P | P | 04 40 46.3 | -0.1 |
| | 1.6nm,0.8s,baz=352,slow=7.7,SNR=6.6 | | | | | | |
| MKAR | Makanchi Array | 65.58 | 317 | P | P | 04 40 50.9 | +0.1 |
| | 0.2nm,0.3s,baz=41,slow=7.3,SNR=7.1 | | | | | | |
| HFS | Hagfors | 66.45 | 2 | P | P | 04 40 56.2 | +0.1 |
| | 1.1nm,0.4s,baz=9.5,slow=3.5,SNR=14 | | | | | | |
| AKTO | Aktyubinsk | 70.64 | 334 | P | P | 04 41 23.4 | +0.9 |
| | 1.9nm,0.7s,baz=25,slow=5.2,SNR=3.8 | | | | | | |
| PPT | Papeete | 71.94 | 167 | P | P | 04 41 30.5 | 0.0 |
| | 16nm,0.7s,baz=101,slow=16,SNR=3.2 | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AAK** | **Ala-Archa** | **72.13** | **319** | P | **P** | **04 41 31.8** | **0.0** |
| | 1.6nm,0.5s,baz=31,slow=5.9,SNR=7.3 | | | | | | |
| **AKASG** | **Malin Array Be** | **75.43** | **352** | P | **P** | **04 41 50.4** | **-0.3** |
| | 0.4nm,0.3s,baz=13,slow=6.2,SNR=2.0 | | | | | | |
| **BRTR** | **Keskin Array B** | **85.82** | **347** | P | **P** | **04 42 46.5** | **-0.2** |
| | 1.1nm,1.0s,baz=11,slow=2.2,SNR=4.9 | | | | | | |

*CSEM **03** 04:33:48.8±0.2, 39°.13N×40°.42E, h5km, MD2.8, Error ellipse: s-maj=3.6km s-min=3.4km az=170.0*
*DDA **03** 04:33:48.8, 39°.16N×40°.41E, h7km, Md2.8*
*ISK **03** 04:33:48.4, 39°.12N×40°.43E, h8km, MD2.8*
**ISC 03 04:33:49.0**±1.0, **39°.12N**±0°.02×**40°.41E**±0°.02, **h6**km±9km, **n31**, σ**0s.81**/51, **Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BNGB** | **Bingˆ¶l** | **0.25** | **121** | *e*PG | **Pg** | **04 33 53.5** | **-0.4** |
| BNGB | | | | *e*SG | **Sg** | **04 33 57.1** | **0.0** |
| **BINT** | **Bingol** | **0.25** | **165** | *e*Pg | **Pg** | **04 33 53.5** | **-0.5** |
| BINT | | | | *e*Sg | **Sg** | **04 33 57.1** | **-0.2** |
| **YEDI** | **Yedisu-Bingol** | **0.33** | **18** | *e*PG | **Pg** | **04 33 55.0** | **-0.6** |
| YEDI | | | | *e*SG | **Sg** | **04 34 00.9** | **+0.9** |
| **YEDI** | **Yedisu-Bingol** | **0.33** | **18** | *e*Pg | **Pg** | **04 33 55.0** | **-0.6** |
| YEDI | | | | *e*Sg | **Sg** | **04 34 00.9** | **+0.9** |
| **BNGL** | **BINGOL** | **0.60** | **106** | *i* P | **Pg** | **04 34 00.8** | **+0.2** |
| BNGL | | | | *i* S | **Sb** | **04 34 10.7** | **-0.2** |
| **ECAT** | **Cat-ERZURUM** | **0.66** | **42** | *i* P | **Pg** | **04 34 00.6** | **-1.0** |
| ECAT | | | | *i* S | **Sg** | **04 34 10.2** | **0.0** |
| **ECAT** | **Cat-ERZURUM** | **0.66** | **42** | P | **Pg** | **04 34 00.6** | **-1.0** |
| ECAT | | | | S | **Sg** | **04 34 10.2** | **0.0** |
| **TNCL** | **Tunceli-Merkez** | **0.67** | **270** | *i* P | **Pg** | **04 34 01.8** | **-0.1** |
| TNCL | | | | *i* S | **Sg** | **04 34 11.7** | **+1.0** |
| **TNCL** | **Tunceli-Merkez** | **0.67** | **270** | P | **Pg** | **04 34 01.8** | **-0.1** |
| TNCL | | | | S | **Sg** | **04 34 11.7** | **+1.0** |
| **HANI** | **Diyarbakir_Han** | **0.70** | **181** | *i* P | **Pg** | **04 34 02.2** | **-0.3** |
| HANI | | | | *i* S | **Sn** | **04 34 15.2** | **-1.6** |
| **HANI** | **Diyarbakir_Han** | **0.70** | **181** | P | **Pg** | **04 34 02.2** | **-0.3** |
| HANI | | | | S | **Sn** | **04 34 15.2** | **-1.6** |
| **PTK** | **Pertek** | **0.82** | **254** | *e*PG | **Pg** | **04 34 04.7** | **-0.1** |
| PTK | | | | *e*SG | **Sb** | **04 34 17.1** | **-0.1** |
| **PTK** | **Pertek** | **0.82** | **254** | *e*Pg | **Pg** | **04 34 04.7** | **-0.1** |
| PTK | | | | *e*Sg | **Sb** | **04 34 17.1** | **-0.1** |
| **SVRC** | **Sivrice-ELAZID** | **1.14** | **230** | *e*PN | **Pb** | **04 34 11.2** | **+0.1** |
| **SVRC** | **Sivrice-ELAZID** | **1.14** | **230** | *e*Pn | **Pb** | **04 34 11.2** | **+0.1** |
| **SVAN** | **Silvan-Diyarba** | **1.15** | **147** | *e*PN | **Pg** | **04 34 10.8** | **-0.2** |
| **SVAN** | **Silvan-Diyarba** | **1.15** | **147** | *i* P | **Pn** | **04 34 11.2** | **-0.4** |
| SVAN | | | | *i* S | **Sn** | **04 34 27.4** | **-0.3** |
| **SVAN** | **Silvan-Diyarba** | **1.15** | **147** | *e*Pn | **Pg** | **04 34 10.8** | **-0.2** |
| **SVAN** | **Silvan-Diyarba** | **1.15** | **147** | P | **Pn** | **04 34 11.2** | **-0.4** |
| SVAN | | | | S | **Sn** | **04 34 27.4** | **-0.3** |
| **EKAR** | **Karacoban** | **1.29** | **83** | *i* P | **Pg** | **04 34 14.4** | **+0.6** |
| EKAR | | | | *i* S | **Sn** | **04 34 34.5** | **+2.9** |
| **EKAR** | **Karacoban** | **1.29** | **83** | P | **Pg** | **04 34 14.4** | **+0.6** |
| **BTMN** | **Batman** | **1.40** | **151** | *i* P | **Pb** | **04 34 15.5** | **-0.1** |
| BTMN | | | | *i* S | **Sg** | **04 34 35.6** | **+1.6** |
| **BTMN** | **Batman** | **1.40** | **151** | P | **Pb** | **04 34 15.5** | **-0.1** |
| BTMN | | | | S | **Sg** | **04 34 35.6** | **+1.6** |
| **ILIC** | **ilic-Erzincan** | **1.47** | **284** | *e*PN | **Pb** | **04 34 16.5** | **-0.2** |
| **ILIC** | **ilic-Erzincan** | **1.47** | **284** | *e*Pn | **Pb** | **04 34 16.5** | **-0.2** |
| **KEMA** | **Kemaliye** | **1.50** | **276** | *i* P | **Pb** | **04 34 17.0** | **-0.2** |
| KEMA | | | | *i* S | **Sg** | **04 34 38.4** | **+1.3** |
| **KEMA** | **Kemaliye** | **1.50** | **276** | P | **Pb** | **04 34 17.0** | **-0.2** |
| KEMA | | | | S | **Sg** | **04 34 38.4** | **+1.3** |
| **MAZI** | **Mazidag** | **1.66** | **179** | *e*PN | **Pn** | **04 34 18.6** | **-0.1** |
| **MAZI** | **Mazidag** | **1.66** | **179** | *e*Pn | **Pn** | **04 34 18.6** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **2.06** | **76** | *e*PN | **Pn** | **04 34 23.9** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **2.06** | **76** | *e*Pn | **Pn** | **04 34 23.9** | **-0.3** |

*IASPEI **03** 04:42:11.2±0.9, 35°.53N±0°.03×96°.77W±0°.03, h12km±5km, Error ellipse: s-maj=4.3km s-min=3.7km az=127.7, GT5 selection from ISC bulletin GT5 identified by Bondˆ¡r and McLaughlin (2009) selection criteria Bondˆ¡r and McLaughlin, A new ground truth data set for seismic studies, <i>Seism. Res. Let.</i>, <b>80</b>, 465-472, 2009*
*ISCJB **03** 04:42:11.3±0.3, 35°.54N±0°.01×96°.79W±0°.02, h9km±2km, Error ellipse: s-maj=2.9km s-min=2.5km az=7.0*
*NEIC **03** 04:42:12.0±0.0, 35°.53N×96°.77W, h9km, ML3.3(TUL), After TUL.*
*NEIC Felt [III] at Prague and [II] at Meeker. Also felt at Claremore, Enid, Kiefer, Newalla, Norman, Oklahoma City, Sparks and Stroud.*
**ISC 03 04:42:11.9**±0.8, **35°.53N**±0°.02×**96°.77W**±0°.02, **h13**km±4km, **n69**, σ**1s.43**/106, **Oklahoma**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OK021** | **N3530 Road, Sp** | **0.08** | **29** | *e*Pg | **Pg** | **04 42 14.3** | **-0.4** |
| OK021 | | | | *e*Sg | **Sg** | **04 42 15.6** | **-1.0** |
| **OK022** | **N3560 Road, Pr** | **0.08** | **87** | *e*Pg | **Pg** | **04 42 14.3** | **-0.4** |
| OK022 | | | | *e*Sg | **Sg** | **04 42 15.6** | **-1.0** |
| **OK020** | **N3440 Road, Me** | **0.09** | **274** | *e*Pg | **Pg** | **04 42 14.2** | **-0.5** |
| OK020 | | | | *e*Sg | **Sg** | **04 42 15.5** | **-1.3** |
| **V35A** | **Meyer Ranch, C** | **0.24** | **346** | P | **Pg** | **04 42 16.8** | **-0.2** |
| | baz=165,SNR=340 | | | | | | |
| V35A | | | | S | **Sg** | **04 42 20.6** | **+0.2** |
| | baz=165 | | | | | | |
| **OK002** | **Wilshire Harra** | **0.35** | **273** | *e*Pg | **Pg** | **04 42 18.9** | **-0.1** |
| **W35A** | **Tecumseh** | **0.39** | **193** | P | **Pg** | **04 42 19.3** | **-0.4** |
| | baz=14,SNR=690 | | | | | | |
| W35A | | | | S | **Sg** | **04 42 24.9** | **0.0** |
| | baz=14 | | | | | | |
| **OK001** | **Jones High Sch** | **0.43** | **274** | *e*Pg | **Pg** | **04 42 19.8** | **-0.6** |
| **W36A** | **Wetumka** | **0.59** | **131** | P | **Pg** | **04 42 23.0** | **-0.4** |
| | baz=312,SNR=48 | | | | | | |
| W36A | | | | S | **Sg** | **04 42 31.1** | **-0.1** |
| | baz=312 | | | | | | |
| **V36A** | **Jenks** | **0.72** | **69** | P | **Pg** | **04 42 25.2** | **-0.6** |
| | baz=249,SNR=91 | | | | | | |
| V36A | | | | S | **Sg** | **04 42 34.9** | **-0.4** |
| | baz=249 | | | | | | |
| **U35A** | **Pawnee** | **0.84** | **2** | P | **Pg** | **04 42 27.3** | **-0.8** |
| | baz=182,SNR=48 | | | | | | |
| U35A | | | | S | **Sg** | **04 42 39.1** | **0.0** |
| | baz=182 | | | | | | |
| **TUL1** | **Leonard** | **0.88** | **64** | P | **Pg** | **04 42 28.6** | **-0.3** |
| | baz=245,SNR=93 | | | | | | |
| TUL1 | | | | S | **Sg** | **04 42 39.8** | **-0.6** |
| | baz=245 | | | | | | |
| **TUL1** | **Leonard** | **0.88** | **64** | *e*Pg | **Pg** | **04 42 27.6** | **-1.2** |
| TUL1 | | | | *e*Sg | **Sg** | **04 42 39.6** | **-0.7** |
| **X36A** | **Centrahoma** | **1.02** | **160** | P | **Pg** | **04 42 30.4** | **-1.2** |
| | baz=341,SNR=37 | | | | | | |
| X36A | | | | S | **Sg** | **04 42 44.6** | **-0.2** |
| | baz=341 | | | | | | |
| **X35A** | **Drake** | **1.14** | **189** | P | **Pb** | **04 42 32.2** | **-1.3** |
| | baz=8.6,SNR=111 | | | | | | |
| X35A | | | | S | **Sg** | **04 42 47.8** | **-0.9** |
| | baz=8.6 | | | | | | |
| **W37B** | **Quinton** | **1.16** | **109** | P | **Pb** | **04 42 33.1** | **-0.7** |
| | baz=290,SNR=67 | | | | | | |
| W37B | | | | S | **Sb** | **04 42 48.9** | **+0.1** |
| | baz=290 | | | | | | |
| **U36A** | **Oologah** | **1.20** | **44** | P | **Pb** | **04 42 33.3** | **-1.2** |
| | baz=224,SNR=19 | | | | | | |
| U36A | | | | S | **Sb** | **04 42 49.8** | **-0.1** |
| | baz=224 | | | | | | |
| **V37A** | **Hulbert** | **1.37** | **75** | P | **Pn** | **04 42 36.3** | **-0.4** |
| | baz=256,SNR=122 | | | | | | |
| V37A | | | | S | **Sb** | **04 42 55.0** | **+0.2** |
| | baz=256 | | | | | | |
| **T35A** | **Sooner Cattle** | **1.40** | **8** | P | **Pn** | **04 42 36.4** | **-0.7** |
| | baz=188,SNR=56 | | | | | | |
| T35A | | | | S | **Sb** | **04 42 56.0** | **+0.3** |
| | baz=188 | | | | | | |
| **X37A** | **Clayton** | **1.48** | **129** | P | **Pn** | **04 42 38.5** | **+0.3** |
| | baz=310,SNR=88 | | | | | | |
| X37A | | | | S | **Sb** | **04 42 59.0** | **+1.0** |
| | baz=310 | | | | | | |
| **T34A** | **McClaskey Farm** | **1.53** | **347** | P | **Pn** | **04 42 38.9** | **0.0** |
| | baz=167,SNR=43 | | | | | | |
| T34A | | | | S | **Sb** | **04 42 59.9** | **+0.6** |
| | baz=167 | | | | | | |
| **U37A** | **Salina** | **1.60** | **56** | P | **Pn** | **04 42 40.4** | **+0.5** |
| | baz=237,SNR=40 | | | | | | |
| U37A | | | | S | **Sb** | **04 43 02.1** | **+0.8** |
| | baz=237 | | | | | | |
| **Y35A** | **Marietta** | **1.64** | **188** | P | **Pn** | **04 42 41.1** | **+0.7** |
| | baz=7.8,SNR=30 | | | | | | |
| Y35A | | | | Sb | **Sg** | **04 43 04.5** | **-0.1** |
| | baz=7.8 | | | | | | |
| **Y36A** | **Durant** | **1.68** | **166** | P | **Pn** | **04 42 41.2** | **+0.3** |
| | baz=347,SNR=13 | | | | | | |
| Y36A | | | | S | **Sb** | **04 43 03.6** | **0.0** |
| | baz=347 | | | | | | |
| **T36A** | **Boggs Farm, Ca** | **1.69** | **25** | P | **Pn** | **04 42 41.4** | **+0.3** |
| | baz=205,SNR=75 | | | | | | |
| T36A | | | | S | **Sb** | **04 43 04.5** | **+0.5** |
| | baz=205 | | | | | | |
| **X38A** | **Whitesboro** | **1.81** | **118** | P | **Pn** | **04 42 43.7** | **+1.0** |
| | baz=299,SNR=135 | | | | | | |
| X38A | | | | Sb | **Sg** | **04 43 09.3** | **-0.7** |
| | baz=299 | | | | | | |
| **Y37A** | **Hugo** | **1.81** | **148** | P | **Pn** | **04 42 43.2** | **+0.4** |
| | baz=329 | | | | | | |
| Y37A | | | | S | **Sn** | **04 43 07.1** | **+1.4** |
| | baz=329 | | | | | | |
| **WMOK** | **Wichita Mounta** | **1.83** | **245** | P | **Pn** | **04 42 43.7** | **+0.5** |
| | baz=64,SNR=148 | | | | | | |
| **WMOK** | **Wichita Mounta** | **1.83** | **245** | *e*Pn | **Pn** | **04 42 43.2** | **+0.1** |
| WMOK | | | | *e*Sg | **Sb** | **04 43 08.4** | **+0.2** |
| **W38A** | **Poteau** | **1.90** | **103** | Pb | **Pn** | **04 42 45.2** | **+1.3** |
| | baz=285,SNR=47 | | | | | | |
| W38A | | | | Sb | **Sb** | **04 43 11.7** | **+1.7** |
| | baz=285 | | | | | | |
| **V38A** | **Canehill** | **1.95** | **80** | P | **Pn** | **04 42 45.3** | **+0.6** |
| | baz=261,SNR=86 | | | | | | |
| **U32A** | **Winter Ranch,** | **2.00** | **296** | P | **Pn** | **04 42 45.8** | **+0.4** |
| | baz=114,SNR=30 | | | | | | |
| **U38A** | **Gravette** | **2.13** | **64** | P | **Pn** | **04 42 48.0** | **+0.7** |
| | baz=245,SNR=55 | | | | | | |
| **S35A** | **Otter Creek Ra** | **2.18** | **9** | P | **Pn** | **04 42 48.4** | **+0.6** |
| | baz=190,SNR=39 | | | | | | |
| **S34A** | **Willow Spring** | **2.18** | **353** | P | **Pn** | **04 42 48.1** | **+0.2** |
| | baz=172,SNR=11 | | | | | | |
| **S36A** | **Lake Cedric, C** | **2.38** | **23** | P | **Pn** | **04 42 51.2** | **+0.6** |
| | baz=204,SNR=12 | | | | | | |
| **X39A** | **Fountain Ranch** | **2.40** | **114** | P | **Pn** | **04 42 52.1** | **+1.1** |
| | baz=296 | | | | | | |
| **HHAR** | **Hobbs** | **2.41** | **71** | *e*Pn | **Pn** | **04 42 53.2** | **+2.1** |
| **W39A** | **Magazine** | **2.46** | **97** | P | **Pn** | **04 42 52.6** | **+0.9** |
| | baz=279 | | | | | | |
| **T38A** | **Diamond** | **2.50** | **52** | P | **Pn** | **04 42 53.0** | **+0.7** |
| | baz=234,SNR=7.0 | | | | | | |
| **V39A** | **Pettigrew** | **2.56** | **82** | P | **Pn** | **04 42 53.5** | **+0.4** |
| | baz=264 | | | | | | |
| **R34A** | **Isabella, Hill** | **2.79** | **352** | P | **Pn** | **04 42 56.6** | **+0.3** |
| | baz=172 | | | | | | |
| **MIAR** | **Mount Ida** | **2.80** | **110** | P | **Pn** | **04 42 57.6** | **+1.2** |
| | baz=292,SNR=26 | | | | | | |
| **MIAR** | **Mount Ida** | **2.80** | **110** | *e*Pn | **Pn** | **04 42 57.7** | **+1.4** |
| MIAR | | | | *e*Sn | **Sn** | **04 43 27.9** | **-2.1** |
| **U39A** | **Green Forest** | **2.80** | **71** | P | **Pn** | **04 42 56.7** | **+0.3** |
| | baz=253 | | | | | | |
| **R36A** | **Gordon, Harris** | **2.96** | **20** | P | **Pn** | **04 42 58.8** | **+0.2** |
| | baz=200,SNR=12 | | | | | | |
| **W40A** | **Ferguson Farm,** | **3.04** | **95** | P | **Pn** | **04 43 00.1** | **+0.4** |
| | baz=278 | | | | | | |
| **S38A** | **Stockton** | **3.11** | **47** | P | **Pn** | **04 43 01.4** | **+0.7** |
| | baz=228 | | | | | | |
| **T39A** | **Clever** | **3.12** | **60** | P | **Pn** | **04 43 01.5** | **+0.7** |
| | baz=242 | | | | | | |
| **R37A** | **Teagarden Farm** | **3.18** | **29** | P | **Pn** | **04 43 02.1** | **+0.4** |
| | baz=210 | | | | | | |
| **V40A** | **Witts Springs** | **3.22** | **84** | P | **Pn** | **04 43 02.9** | **+0.7** |
| | baz=266 | | | | | | |
| **U40A** | **Yellville** | **3.28** | **74** | P | **Pn** | **04 43 03.6** | **+0.5** |
| | baz=257 | | | | | | |
| **Q35A** | **Mercer Eighty,** | **3.37** | **10** | P | **Pn** | **04 43 04.5** | **+0.3** |
| | baz=190,SNR=7.0 | | | | | | |
| **Q34A** | **Chapman** | **3.39** | **358** | P | **Pn** | **04 43 04.8** | **+0.3** |
| | baz=178,SNR=8.4 | | | | | | |
| **X40A** | **Basin Creek Fa** | **3.39** | **107** | P | **Pn** | **04 43 04.9** | **+0.3** |
| | baz=289 | | | | | | |
| **R38A** | **Fenwick Farm,** | **3.50** | **40** | P | **Pn** | **04 43 06.5** | **+0.4** |
| | baz=222,SNR=12 | | | | | | |
| **S39A** | **Bolivar** | **3.51** | **51** | P | **Pn** | **04 43 06.8** | **+0.6** |
| | baz=233,SNR=8.5 | | | | | | |
| **WLAR** | **White Oak Lake** | **3.53** | **120** | *e*Pg | **Pg** | **04 43 17.8** | **-1.7** |
| **KSU1** | **Kansas State U** | **3.56** | **2** | *e*Pn | **Pn** | **04 43 08.7** | **+1.8** |
| KSU1 | | | | *e*Pg | **Pb** | **04 43 17.3** | **+2.5** |
| KSU1 | | | | *e*Sg | **Sg** | **04 44 04.1** | **-2.3** |
| **X301** | **Greenbrier Sit** | **3.58** | **93** | *e*Pn | **Pn** | **04 43 10.3** | **+3.2** |
| X301 | | | | *e*Sg | **Sb** | **04 44 02.6** | **+4.2** |
| **WHAR** | **Wooly Hollow** | **3.67** | **92** | *e*Pn | **Pn** | **04 43 11.3** | **+3.0** |
| WHAR | | | | *e*Sg | **Sg** | **04 44 05.9** | **-3.7** |
| **ABTX** | **Abilene, Hawle** | **3.76** | **220** | *e*Pn | **Pn** | **04 43 09.8** | **+0.2** |
| ABTX | | | | *e*Pg | **Pb** | **04 43 20.2** | **+2.1** |
| ABTX | | | | *e*Sn | **Sn** | **04 43 54.1** | **+0.4** |
| ABTX | | | | *e*Sg | **Sb** | **04 44 07.3** | **+3.8** |
| **T40A** | **Mansfield** | **3.79** | **64** | P | **Pn** | **04 43 10.5** | **+0.5** |
| | baz=246 | | | | | | |
| **S40A** | **Lebanon** | **4.00** | **58** | P | **Pn** | **04 43 13.5** | **+0.5** |
| | baz=240,SNR=7.7 | | | | | | |
| **P34A** | **Walnut Farm, R** | **4.01** | **359** | P | **Pn** | **04 43 13.5** | **+0.4** |
| | baz=179,SNR=22 | | | | | | |
| **U41A** | **Viola** | **4.01** | **77** | P | **Pn** | **04 43 13.4** | **+0.3** |
| | baz=260 | | | | | | |
| **CBKS** | **Cedar Bluff** | **4.04** | **325** | P | **Pn** | **04 43 13.9** | **+0.3** |
| | baz=143 | | | | | | |
| **AMTX** | **Amarillo** | **4.08** | **262** | *e*Pn | **Pn** | **04 43 14.6** | **+0.6** |
| AMTX | | | | *e*Sg | **Sg** | **04 44 18.9** | **-3.9** |
| **R40A** | **Maddies Statio** | **4.54** | **51** | P | **Pn** | **04 43 20.7** | **+0.5** |
| | baz=234,SNR=11 | | | | | | |
| **JCT** | **Junction City** | **5.65** | **208** | *e*Pn | **Pn** | **04 43 36.6** | **+1.0** |
| JCT | | | | *e*Pg | **Pb** | **04 43 52.4** | **+2.1** |
| JCT | | | | *e*Sg | **Sg** | **04 45 05.8** | **-7.4** |

*IDC **03** 05:08:27.8±1.0, 6°.49S×81°.35W, h0km, mb4.2/11, mb1 4.3/15, mb1mx4.1/37, mbtmp4.2/15, ML3.3/4, MS3.3/7, Ms1 3.4/7, ms1mx3.1/32, Error ellipse: s-maj=25.4km s-min=15.0km az=48.0*
*ISCJB **03** 05:08:31.6±0.3, 6°.41S±0°.04×81°.29W±0°.05, h33km, mb4.5/26, MS3.7/4, Error ellipse: s-maj=7.9km s-min=5.8km az=153.5*
*NEIC **03** 05:08:33.9±0.9, 6°.37S×81°.23W, h35km±8km, mb4.5/18, Error ellipse: s-maj=9.3km s-min=5.8km az=57.0*
*NEIC Felt at Paita.*
**ISC 03 05:08:33.3**±0.5, **6°.46S**±0°.06×**81°.30W**±0°.07, **h35**km, **n60**, σ**1s.28**/59, **mb4.5**/26, **MS3.4**/4, **Near coast of northern Peru**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ATAH** | **Atahualpa** | **2.96** | **103** | Pn | **Pn** | **05 09 19.2** | **+1.0** |
| | 4.1nm,0.3s,baz=274,slow=6.4,SNR=16 | | | | | | |
| ATAH | | | | LR | LR | 05 09 50.5 | |
| | comp=Z,198nm,18.7s,baz=286,slow=28 | | | | | | |
| ATAH | | | | Sn | **Sn** | **05 09 56.3** | **+3.5** |
| | 11nm,0.3s,baz=338,slow=10,SNR=4.0 | | | | | | |
| **NNA** | **Nana** | **7.04** | **142** | Pn | **Pn** | **05 10 12.6** | **-1.4** |
| | 0.6nm,0.3s,baz=316,slow=12,SNR=3.7 | | | | | | |
| NNA | | | | Sn | **Sn** | **05 11 28.0** | **-4.9** |
| | 0.5nm,0.3s,baz=162,slow=20,SNR=1.8 | | | | | | |
| **OTAV** | **Otavalo** | **7.23** | **23** | *e*Pn | **Pn** | **05 10 15.7** | **-1.3** |
| OTAV | | | | *e*Sn | **Sn** | **05 11 39.3** | **+1.1** |
| **PAYG** | **Puerto Ayora** | **10.65** | **302** | *e*Pn | **Pn** | **05 11 03.5** | **+0.1** |
| **ROSC** | **El Rosal** | **13.21** | **32** | LR | LR | 05 16 47.8 | |
| | comp=Z,118nm,21.7s,baz=176,slow=38 | | | | | | |
| **RUSC** | **La Rusia** | **14.76** | **34** | *e*Pn | **Pn** | **05 12 01.6** | **+1.5** |
| **LPAZ** | **La Paz** | **16.18** | **128** | Pn | **Pn** | **05 12 18.7** | **0.0** |
| | 0.2nm,0.3s,baz=315,slow=9.8,SNR=26 | | | | | | |
| LPAZ | | | | LR | LR | 05 19 24.6 | |
| | comp=Z,83nm,18.6s,baz=309,slow=41 | | | | | | |
| **LPAZ** | **La Paz** | **16.18** | **128** | *e*Pn | **Pn** | **05 12 20.0** | **+1.3** |
| **HDC** | **Heredia** | **16.59** | **350** | *e*Pn | **Pn** | **05 12 21.6** | **-1.8** |
| | 93nm,1.5s | | | | | | |
| **MNMC** | **Minye Minye** | **16.98** | **139** | *e*Pn | **P** | **05 12 31.5** | **+1.3** |
| | 14nm,1.4s | | | | | | |
| **SAML** | **Samuel** | **18.12** | **99** | *e*Pn | **Pn** | **05 12 41.6** | **-0.8** |
| | 7.6nm,1.0s | | | | | | |
| **SDV** | **Santo Domingo** | **18.59** | **35** | P | **P** | **05 12 47.4** | **-0.3** |
| | 0.3nm,0.3s,baz=233,slow=20,SNR=5.0 | | | | | | |
| SDV | | | | LR | LR | 05 20 18.7 | |
| | comp=Z,123nm,19.6s,baz=218,slow=38 | | | | | | |
| **SDV** | **Santo Domingo** | **18.59** | **35** | *e*P | **P** | **05 12 45.2** | **-2.6** |
| | 7.7nm,1.1s | | | | | | |
| **LVC** | **Limon Verde** | **20.02** | **145** | P | Pn | 05 13 05.6 | +0.1 |
| | 13nm,0.7s,baz=309,slow=14,SNR=3.3 | | | | | | |
| **LVC** | **Limon Verde** | **20.02** | **145** | *e*P | Pn | 05 13 06.5 | +1.0 |
| | 26nm,1.5s | | | | | | |
| **SIV** | **San Ignacio** | **21.97** | **117** | P | **P** | **05 13 24.1** | **-0.3** |
| | 2.5nm,0.8s,baz=302,slow=14,SNR=9.4 | | | | | | |
| SIV | | | | LR | LR | 05 22 39.1 | |
| | comp=Z,111nm,18.6s,baz=359,slow=39 | | | | | | |
| **PTGA** | **Pitinga** | **22.03** | **76** | P | **P** | **05 13 23.8** | **-1.1** |
| | 10nm,0.8s,baz=256,slow=11,SNR=15 | | | | | | |
| PTGA | | | | LR | LR | 05 23 25.2 | |
| | comp=Z,183nm,18.1s,baz=268,slow=41 | | | | | | |
| **PTGA** | **Pitinga** | **22.03** | **76** | *e*P | **P** | **05 13 23.9** | **-1.1** |
| | 15nm,0.9s | | | | | | |
| **PCRV** | **Puerto La Cruz** | **23.42** | **45** | P | **P** | **05 13 39.8** | **+0.3** |
| | 21nm,0.9s,baz=184,slow=5.5,SNR=5.3 | | | | | | |
| **IDE** | **Isla Desecheo** | **28.20** | **29** | *e*P | **P** | **05 14 21.3** | **-1.6** |
| **CELP** | **Cerrillos** | **28.38** | **31** | *e*P | **P** | **05 14 22.8** | **-1.6** |
| **SJG** | **San Juan** | **28.63** | **31** | P | **P** | **05 14 26.4** | **-0.2** |
| | 15nm,0.7s,baz=221,slow=5.4,SNR=9.7 | | | | | | |
| SJG | | | | LR | LR | 05 27 23.8 | |
| | comp=Z,65nm,18.4s,baz=112,slow=40 | | | | | | |
| **SJG** | **San Juan** | **28.63** | **31** | *e*P | **P** | **05 14 27.2** | **+0.5** |
| | 18nm,0.8s | | | | | | |
| **CPUP** | **Villa Florida** | **30.21** | **134** | P | **P** | **05 14 40.7** | **0.0** |
| | 1.5nm,1.0s,baz=322,slow=9.3,SNR=2.9 | | | | | | |
| **PLCA** | **Paso Flores** | **35.46** | **166** | P | **P** | **05 15 25.2** | **-1.2** |
| | 2.4nm,1.1s,baz=6.8,slow=8.2,SNR=3.7 | | | | | | |
| PLCA | | | | LR | LR | 05 27 02.1 | |
| | comp=Z,1μm,20.4s,baz=281,slow=31 | | | | | | |
| **H06E1** | **SOCORRO T-PHAS** | **38.49** | **311** | T | T | 05 56 37.5 | |
| **LRAL** | **Lakeview Retre** | **39.65** | **352** | *e*P | **P** | **05 16 01.8** | **0.0** |
| | 25nm,1.8s | | | | | | |
| **TXAR** | **Lajitas Array** | **41.58** | **330** | P | **P** | **05 16 18.2** | **+0.2** |
| | 0.3nm,0.9s,baz=123,slow=6.6,SNR=2.5 | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **41.58** | **330** | *e*P | **P** | **05 16 19.7** | **+1.7** |
| **CPCT** | **Cooper Cave** | **41.79** | **356** | *e*P | **P** | **05 16 19.2** | **-0.3** |
| | 4.6nm,0.8s | | | | | | |
| **MIAR** | **Mount Ida** | **42.40** | **345** | *e*P | **P** | **05 16 25.3** | **+0.9** |
| | 6.0nm,1.0s | | | | | | |
| **CCM** | **Cathedral Cave** | **45.24** | **349** | *e*P | **P** | **05 16 47.0** | **-0.3** |
| | 4.5nm,0.7s | | | | | | |
| **KSU1** | **Kansas State U** | **47.50** | **344** | *e*P | **P** | **05 17 05.0** | **0.0** |
| | 9.7nm,0.8s | | | | | | |
| **ANMO** | **Albuquerque** | **47.53** | **332** | P | **P** | **05 17 06.4** | **+0.9** |
| | 0.8nm,0.7s,baz=336,slow=11,SNR=5.0 | | | | | | |
| **PTCN** | **Pitcairn Islan** | **50.15** | **243** | *e*P | **P** | **05 17 28.6** | **+3.0** |
| | 184nm,0.8s | | | | | | |
| **MVCO** | **Mesa Verde** | **50.33** | **332** | *e*P | **P** | **05 17 26.4** | **-0.7** |
| | 6.8nm,1.4s | | | | | | |
| **PD31** | **Pinedale Array** | **55.32** | **335** | *e*P | **P** | **05 18 04.4** | **+0.6** |
| **PDAR** | **Pinedale Array** | **55.32** | **335** | P | **P** | **05 18 03.3** | **-0.5** |
| | 0.8nm,0.7s,baz=120,slow=8.8,SNR=6.9 | | | | | | |
| **PDAR** | **Pinedale Array** | **55.32** | **335** | *e*P | **P** | **05 18 04.0** | **+0.2** |
| **BW06** | **Boulder Array** | **55.32** | **335** | *e*P | **P** | **05 18 04.4** | **+0.6** |
| | 12nm,2.0s | | | | | | |
| **YERR** | **Yerington** | **57.26** | **325** | *e*P | **P** | **05 18 17.9** | **+0.2** |
| | 9.7nm,1.4s | | | | | | |
| **ULM** | **Lac du Bonnet** | **57.87** | **349** | *e*P | **P** | **05 18 21.6** | **+0.1** |
| | 26nm,1.6s | | | | | | |
| **HLID** | **Hailey** | **58.11** | **332** | *e*P | **P** | **05 18 25.3** | **+1.7** |
| | 2.1nm,0.9s | | | | | | |
| **RAR** | **Rarotonga** | **76.97** | **250** | *e*P | **P** | **05 20 24.5** | **+1.6** |
| | 241nm,1.6s | | | | | | |
| **DBIC** | **Dimbokro** | **77.38** | **82** | P | **P** | **05 20 25.4** | **0.0** |
| | 4.7nm,0.8s,baz=275,slow=5.0,SNR=5.4 | | | | | | |
| **HPAH** | **Hawaii Prepara** | **77.68** | **292** | *e*P | **P** | **05 20 27.6** | **+0.6** |
| | 367nm,1.6s | | | | | | |
| **VNA3** | **Neumayer Olymp** | **78.05** | **162** | P | **P** | **05 20 28.0** | **0.0** |
| **VNA2** | **Neumayer--Watz** | **78.69** | **161** | P | **P** | **05 20 31.3** | **-0.3** |
| | baz=294,slow=6.4 | | | | | | |
| **KOWA** | **Kowa** | **79.39** | **74** | *e*P | **P** | **05 20 37.5** | **+1.0** |
| | 4.7nm,0.8s | | | | | | |
| **SNAA** | **Sanae** | **80.28** | **162** | P | **P** | **05 20 39.8** | **-0.5** |
| **ESDC** | **Sonseca Array** | **84.43** | **49** | P | **P** | **05 21 02.8** | **+0.2** |
| | 2.3nm,0.8s,baz=272,slow=5.0,SNR=12 | | | | | | |
| **ES19** | **SONSECA Array** | **84.48** | **49** | *e*P | **P** | **05 21 03.5** | **+0.6** |
| **TORD** | **Torodi Ar. Bea** | **84.68** | **76** | P | **P** | **05 21 04.1** | **-0.1** |
| | 1.5nm,0.8s,baz=291,slow=4.5,SNR=7.7 | | | | | | |
| **KURK** | **Kurchatov** | **132.81** | **17** | PKP | **PKPdf** | **05 27 44.5** | **-0.2** |
| **KURBB** | **Kurchatov Arra** | **132.87** | **17** | PKP | **PKPdf** | **05 27 44.5** | **-0.3** |
| | 0.3nm,0.7s,baz=321,slow=2.6,SNR=3.1 | | | | | | |
| **WRAB** | **Tennant Creek** | **136.21** | **232** | *e*PKPdf | **PKPdf** | **05 27 51.6** | **-0.4** |
| **MKAR** | **Makanchi Array** | **137.40** | **17** | PKP | **PKPdf** | **05 27 53.0** | **-0.4** |
| | 0.6nm,0.9s,baz=300,slow=3.2,SNR=2.6 | | | | | | |
| **SONM** | **Songino Array** | **138.25** | **352** | PKP | **PKPdf** | **05 27 55.2** | **0.0** |
| | 0.3nm,0.6s,baz=346,slow=4.9,SNR=2.8 | | | | | | |
| **GTA** | **Gaotai** | **147.18** | **358** | *e*PKPbc | **PKPdf** | **05 28 10.2** | **-1.0** |
| **LZH** | **Lanzhou** | **150.13** | **352** | *e*PKPbc | **PKPdf** | **05 28 16.0** | **-0.1** |
| LZH | | | | pPKP | PKPab | 05 28 26.1 | -0.9 |
| LZH | | | | sPKP | | 05 28 30.0 | |

*NEIC **03** 05:12:49.5±1.1, 44°.08N×128°.74W, h10km, ML3.5, Error ellipse: s-maj=13.9km s-min=7.8km az=70.0*
*IDC **03** 05:12:49.3±2.5, 44°.18N×128°.47W, h0km, mb3.5/4, mb1 3.7/7, mb1mx3.5/49, mbtmp3.4/7, ML3.5/3, MS3.1/3, Ms1 3.1/3, ms1mx2.7/24, Error ellipse: s-maj=44.7km s-min=21.1km az=49.0*
**ISC 03 05:12:52.6**±1.2, **44°.21N**±0°.05×**128°.31W**±0°.08, **h13**km, **n64**, σ**2s.55**/67, **mb3.4**/3, **Off coast of Oregon**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KEBM** | **Edson Butte** | **3.18** | **113** | *e*Pn | **Pn** | **05 13 39.8** | **-2.5** |
| KEBM | | | | *e*Sn | **Sb** | **05 14 27.2** | **-0.5** |
| **COR** | **Corvallis** | **3.61** | **82** | *e*Pn | **Pn** | **05 13 50.5** | **+2.4** |
| COR | | | | *e*Sn | **Sb** | **05 14 39.8** | **+0.1** |
| **I03D** | **Drain, OR** | **3.62** | **96** | P | **Pn** | **05 13 49.2** | **+1.0** |
| | baz=275,SNR=406 | | | | | | |
| I03D | | | | S | **Sb** | **05 14 38.1** | **-2.0** |
| | baz=275 | | | | | | |
| **G03D** | **McMinnville, O** | **3.73** | **73** | P | **Pn** | **05 13 50.9** | **+1.1** |
| | baz=254,SNR=22 | | | | | | |
| G03D | | | | S | **Sb** | **05 14 42.7** | **-0.7** |
| | baz=254 | | | | | | |
| **F03A** | **Seaside** | **3.78** | **61** | *e*Pn | **Pn** | **05 13 51.9** | **+1.5** |
| F03A | | | | *e*Sn | **Sb** | **05 14 43.2** | **-1.5** |
| **HSO** | **Harness Mounta** | **3.83** | **98** | *e*Pn | **Pn** | **05 13 52.8** | **+1.4** |
| **L02D** | **Cave Junction,** | **4.00** | **119** | P | **Pn** | **05 13 51.9** | **-1.7** |
| | baz=296,SNR=11 | | | | | | |
| L02D | | | | S | **Sn** | **05 14 43.8** | **+3.5** |
| | baz=296 | | | | | | |
| **E03A** | **Lebam** | **4.08** | **53** | *e*Pn | **Pn** | **05 13 55.5** | **+0.9** |
| **B023** | **Clatskanie** | **4.16** | **61** | *e*Pn | **Pn** | **05 13 52.7** | **-3.0** |
| **HUMO** | **Hull Mountain** | **4.21** | **110** | *e*Pn | **Pn** | **05 13 56.5** | **0.0** |
| HUMO | | | | *e*Sn | **Sn** | **05 14 50.2** | **+4.6** |
| **I04A** | **Tendick Farm,** | **4.27** | **94** | P | **Pn** | **05 13 59.7** | **+2.4** |
| | baz=274,SNR=5.9 | | | | | | |
| I04A | | | | S | **Sb** | **05 14 55.8** | **-3.3** |
| | baz=274 | | | | | | |
| **IRO** | **Indian Ridge** | **4.36** | **91** | *e*Pn | **Pn** | **05 14 01.8** | **+3.1** |
| **H04A** | **Detroit Lake** | **4.41** | **82** | *e*Pn | **Pn** | **05 14 01.5** | **+2.3** |
| **F04A** | **Amboy** | **4.51** | **65** | *e*Pn | **Pn** | **05 14 02.9** | **+2.4** |
| **LVP** | **Lakeview Peak** | **4.57** | **64** | *e*Pn | **Pn** | **05 13 58.8** | **-2.6** |
| **J04D** | **Umpqua Nationa** | **4.59** | **100** | P | **Pn** | **05 14 03.4** | **+1.5** |
| | baz=280 | | | | | | |
| **B203** | **Quarry, Mount** | **4.65** | **63** | *e*Pn | **Pn** | **05 13 59.8** | **-2.7** |
| **FL2** | **Flat Top 2** | **4.65** | **63** | *e*Pn | **Pn** | **05 13 59.8** | **-2.9** |
| **B201** | **Coldwater, Mou** | **4.75** | **62** | *e*Pn | **Pn** | **05 14 00.9** | **-3.0** |
| **TDH** | **Tom, Dick, Har** | **4.77** | **75** | *e*Pn | **Pn** | **05 14 04.5** | **+0.3** |
| **YBH** | **Yreka Blue Hor** | **4.79** | **119** | Pn | **Pn** | **05 14 03.4** | **-1.1** |
| | 0.4nm,0.3s,baz=319,slow=11,SNR=16 | | | | | | |
| YBH | | | | Sn | **Sn** | **05 15 03.4** | **+3.4** |
| | 0.1nm,0.3s,baz=29,slow=19,SNR=1.8 | | | | | | |
| **YBH** | **Yreka Blue Hor** | **4.79** | **119** | *e*Pn | **Pn** | **05 14 03.8** | **-0.7** |
| YBH | | | | Sn | **Sn** | **05 15 03.4** | **+3.4** |
| **TDL** | **Tradedollar La** | **4.80** | **61** | *e*Pn | **Pn** | **05 14 01.6** | **-3.1** |
| **G05D** | **Wamic, OR** | **5.09** | **76** | P | **Pn** | **05 14 11.3** | **+2.8** |
| | baz=259,SNR=5.4 | | | | | | |
| **ASR** | **Mount Adams--S** | **5.13** | **65** | *e*Pn | **Pn** | **05 14 06.7** | **-2.4** |
| **J05D** | **Fort Rock, OR** | **5.21** | **98** | P | **Pn** | **05 14 11.5** | **+1.3** |
| | baz=279,SNR=6.8 | | | | | | |
| **LON** | **Longmire** | **5.23** | **59** | *e*Pn | **Pn** | **05 14 12.4** | **+1.9** |
| **D05A** | **Enumclaw** | **5.33** | **54** | *e*Pn | **Pn** | **05 14 14.9** | **+3.1** |
| **G06A** | **Carlson Farm,** | **5.56** | **77** | *e*Pn | **Pn** | **05 14 17.3** | **+2.3** |
| **PGC** | **Sidney** | **5.57** | **35** | *e*Pn | **Pn** | **05 14 14.4** | **-0.6** |
| PGC | | | | *e*Sn | **Sn** | **05 15 21.0** | **+2.2** |
| **B05A** | **Bryant** | **5.92** | **45** | P | **Pn** | **05 14 21.1** | **+1.3** |
| | baz=230 | | | | | | |
| **A04D** | **Lummi Island** | **5.94** | **39** | P | **Pn** | **05 14 20.9** | **+0.8** |
| | baz=225 | | | | | | |
| **JCW** | **Jim Creek** | **5.95** | **46** | *e*Pn | **Pn** | **05 14 17.7** | **-2.7** |
| **LTY** | **Liberty** | **6.15** | **58** | *e*Pn | **Pn** | **05 14 25.3** | **+2.1** |
| **I07A** | **Izee** | **6.33** | **88** | *e*Pn | **Pn** | **05 14 28.4** | **+2.6** |
| **B06A** | **Marblemount** | **6.39** | **45** | *e*Pn | **Pn** | **05 14 28.0** | **+1.7** |
| **HAWA** | **Hanford** | **6.56** | **68** | *e*Pn | **Pn** | **05 14 31.3** | **+2.6** |
| **G08A** | **Pilot Rock** | **6.74** | **78** | *e*Pn | **Pn** | **05 14 33.5** | **+2.1** |
| **D08A** | **Wollman Farm,** | **7.17** | **63** | *e*Pn | **Pn** | **05 14 39.6** | **+2.5** |
| **LLLB** | **Lillooet** | **7.74** | **32** | *e*Pn | **Pn** | **05 14 45.7** | **+0.7** |
| **C09A** | **Chrisman Ranch** | **7.85** | **59** | *e*Pn | **Pn** | **05 14 48.3** | **+1.8** |
| **NEW** | **Newport** | **8.75** | **58** | Pn | **Pn** | **05 14 59.9** | **+1.2** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 0.3nm,0.3s,baz=258,slow=14,SNR=5.2 | | | | | | |
| NEW | | | | LR | LR | 05 18 27.9 | |
| | comp=Z,88nm,21.4s,baz=252,slow=38 | | | | | | |
| NEW | Newport | 8.75 | 58 | ePn | Pn | 05 15 00.2 | +1.5 |
| BBGB | Big Mountain B | 9.42 | 142 | eSn | Sn | 05 17 02.3 | +8.5 |
| SHG | Shirttail Gulc | 9.46 | 143 | eSn | Sn | 05 16 42.6 | -12 |
| TIN | Tinemaha, Big | 10.47 | 130 | ePn | Pn | 05 15 21.3 | -1.2 |
| TIN | | | | eSn | Sn | 05 17 14.1 | -5.5 |
| YHB | Horse Butte | 12.24 | 81 | eSn | Sn | 05 17 59.0 | -4.1 |
| BREC | Barre Substati | 13.12 | 139 | ePn | Pn | 05 15 43.7 | -15 |
| PD31 | Pinedale Array | 13.69 | 90 | ePn | Pn | 05 16 09.1 | +2.5 |
| PDAR | Pinedale Array | 13.69 | 90 | Pn | Pn | 05 16 11.1 | +4.5 |
| | 0.0nm,0.3s,baz=278,slow=13,SNR=2.7 | | | | | | |
| PDAR | | | | LR | LR | 05 22 01.8 | |
| | comp=Z,82nm,18.3s,baz=334,slow=40 | | | | | | |
| ARGU | Argyle Ridge | 13.91 | 102 | ePn | Pn | 05 16 00.9 | -8.7 |
| SRU | San Rafael Swe | 14.23 | 105 | ePn | Pn | 05 16 15.1 | +1.3 |
| | 6.5nm,0.8s | | | | | | |
| YKA | Yellowknife Ar | 19.98 | 19 | P | P | 05 17 23.4 | -0.9 |
| | 0.6nm,0.9s,baz=209,slow=12,SNR=3.1 | | | | | | |
| YKB5 | Yellowknife Ar | 19.98 | 19 | eP | P | 05 17 23.4 | -0.9 |
| LTX | Lajitas | 24.57 | 119 | eP | P | 05 18 12.6 | +0.3 |
| TXAR | Lajitas Array | 24.57 | 119 | P | P | 05 18 12.6 | +0.3 |
| | 0.3nm,0.7s,baz=299,slow=6.1,SNR=3.9 | | | | | | |
| TXAR | | | | LR | LR | 05 29 15.4 | |
| | comp=Z,37nm,18.0s,baz=0.0,slow=40 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 58.55 | 267 | T | T | 06 25 24.9 | |
| | baz=50,slow=75,SNR=570 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 58.56 | 267 | T | T | 06 25 23.7 | |
| | baz=50,slow=75,SNR=375 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 58.57 | 267 | T | T | 06 25 37.1 | |
| | baz=50,slow=75,SNR=338 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 59.49 | 267 | T | T | 06 26 29.6 | |
| | baz=49,slow=75,SNR=85 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 59.50 | 267 | T | T | 06 26 38.9 | |
| | baz=49,slow=75,SNR=63 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 59.51 | 267 | T | T | 06 26 35.8 | |
| | baz=49,slow=75,SNR=62 | | | | | | |
| ARCES | ARCESS Array B | 64.94 | 10 | P | P | 05 23 30.4 | -0.9 |
| | 4.8nm,0.9s,baz=327,slow=9.7,SNR=3.3 | | | | | | |
| GERES | GERESS Array B | 81.53 | 24 | P | P | 05 25 09.4 | -0.3 |
| | 0.2nm,0.6s,baz=336,slow=4.3,SNR=2.3 | | | | | | |

*JMA **03** 05:23:44.9±0.3, 36°.20N×141°.93E, h32km, M3.1*
*IDC **03** 05:23:44.5±7.1, 36°.35N×141°.75E, h0km, mb3.4/3, mb1 3.4/4, mb1mx3.2/38, mbtmp3.2/4, ML2.7/1, Error ellipse: s-maj=175.8km s-min=31.5km az=166.0*
**ISC 03 05:23:47.9**±1.3**, 36°.28N**±0°.06×**141°.68E**±0°.09**, h26**km**, n18, σ1s.31**/15**, mb3.5**/3**, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CHOJ | Chosi | 0.88 | 229 | P | Pb | 05 24 03.1 | -1.4 |
| CHOJ | | | | S | Sb | 05 24 16.0 | +0.1 |
| JHO | Hitachi | 0.95 | 290 | P | Pb | 05 24 05.7 | -0.1 |
| ONAJ | Iwakimizuishiy | 1.08 | 319 | eS | Sn | 05 24 23.9 | +2.3 |
| JFK | Kawauchi | 1.26 | 329 | P | Pn | 05 24 09.0 | -0.9 |
| JFT | Otama | 1.64 | 319 | P | Pb | 05 24 15.7 | -1.7 |
| JMM | Marumori | 1.73 | 336 | P | Pn | 05 24 16.7 | +0.4 |
| MJAR | Matsushiro Arr | 2.81 | 276 | Pn | Pn | 05 24 31.2 | 0.0 |
| | 1.2nm,0.3s,baz=96,slow=8.2,SNR=10 | | | | | | |
| MJAR | | | | Sn | Sb | 05 25 10.7 | -0.7 |
| | 1.0nm,0.3s,baz=71,slow=15,SNR=2.0 | | | | | | |
| MAT | Matsushiro | 2.81 | 276 | P | Pn | 05 24 32.6 | +1.4 |
| MAT | | | | eS | Sb | 05 25 09.2 | -2.3 |
| NJ2 | Nanjing | 19.34 | 264 | eP | Pn | 05 28 12.8 | +0.3 |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,19nm,1.1s | | | | | | |
| H11N2 | WAKE ISLAND Hy | 27.58 | 120 | T | T | 05 58 09.7 | |
| | baz=312,slow=75,SNR=8.4 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 27.59 | 120 | T | T | 05 58 06.5 | |
| | baz=312,slow=75,SNR=6.4 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 27.60 | 120 | T | T | 05 58 04.5 | |
| | baz=312,slow=75,SNR=4.9 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 28.28 | 122 | T | T | 05 58 56.8 | |
| | baz=314,slow=75,SNR=8.5 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 28.28 | 122 | T | T | 05 58 51.7 | |
| | baz=314,slow=75,SNR=8.5 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 28.29 | 122 | T | T | 05 58 55.6 | |
| | baz=314,slow=75,SNR=6.3 | | | | | | |
| SONM | Songino Array | 28.39 | 305 | P | P | 05 29 39.8 | -0.3 |
| | comp=Z,0.2nm,0.3s,baz=91,slow=8.6,SNR=2.3 | | | | | | |
| KURBB | Kurchatov Arra | 46.63 | 309 | P | P | 05 32 15.0 | +1.2 |
| | comp=Z,0.3nm,0.6s,baz=94,slow=7.5,SNR=2.5 | | | | | | |
| ILAR | Eielson Array | 50.02 | 32 | P | P | 05 32 39.5 | -0.2 |
| | comp=Z,0.3nm,0.6s,baz=258,slow=7.1,SNR=4.1 | | | | | | |

*ISK **03** 05:32:35.4, 38°.75N×43°.44E, h9km, MD2.5*
*DDA **03** 05:32:35.7, 38°.68N×43°.54E, h7km, Md2.6*
*CSEM **03** 05:32:35.9±0.3, 38°.75N×43°.50E, h10km, MD2.6, Error ellipse: s-maj=7.4km s-min=5.0km az=120.0*
*ISCJB **03** 05:32:36.3±0.6, 38°.73N±0°.03×43°.55E±0°.07, h15km±5km, Error ellipse: s-maj=9.0km s-min=4.6km az=21.4*
**ISC 03 05:32:35.6**±1.3**, 38°.73N**±0°.03×**43°.53E**±0°.04**, h20**km±2km**, n22, σ0s.85**/36**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.18 | 219 | ePG | Pb | 05 32 40.8 | -0.3 |
| VANB | Van | 0.18 | 219 | ePg | Pb | 05 32 40.8 | -0.3 |
| TVAN | Van | 0.23 | 206 | i P | Pb | 05 32 40.4 | -1.2 |
| TVAN | | | | i S | Sb | 05 32 47.2 | +1.6 |
| TVAN | Van | 0.23 | 206 | P | Pb | 05 32 40.4 | -1.2 |
| TVAN | | | | S | Sb | 05 32 47.2 | +1.6 |
| VMUR | Van-Muradiye | 0.26 | 7 | i P | Pb | 05 32 41.3 | -0.6 |
| VMUR | | | | i S | Sb | 05 32 47.1 | +0.9 |
| VMUR | Van-Muradiye | 0.26 | 7 | P | Pb | 05 32 41.3 | -0.6 |
| VMUR | | | | S | Sb | 05 32 47.1 | +0.9 |
| CLDR | Caldiran | 0.51 | 36 | ePG | Pb | 05 32 45.8 | -0.2 |
| CLDR | | | | eSG | Sn | 05 32 54.8 | -1.4 |
| CLDR | Caldiran | 0.51 | 36 | i P | Pb | 05 32 46.0 | 0.0 |
| CLDR | | | | i S | Sn | 05 32 55.5 | -0.7 |
| CLDR | Caldiran | 0.51 | 36 | ePg | Pb | 05 32 45.8 | -0.2 |
| CLDR | Caldiran | 0.51 | 36 | P | Pb | 05 32 46.0 | 0.0 |
| CLDR | | | | eSg | Sn | 05 32 54.8 | -1.4 |
| CLDR | | | | S | Sn | 05 32 55.5 | -0.7 |
| GEVA | Gevas | 0.56 | 222 | i P | Pb | 05 32 46.1 | -0.7 |
| GEVA | | | | i S | Sn | 05 32 56.1 | -1.3 |
| GEVA | Gevas | 0.56 | 222 | P | Pb | 05 32 46.2 | -0.7 |
| GEVA | | | | S | Sn | 05 32 56.1 | -1.3 |
| ADCV | BITLIS_Adilcev | 0.64 | 277 | i P | Pb | 05 32 48.0 | -0.2 |
| ADCV | | | | i S | Sn | 05 32 58.6 | -0.7 |
| ADCV | BITLIS_Adilcev | 0.64 | 277 | P | Pb | 05 32 48.0 | -0.2 |
| ADCV | | | | S | Sn | 05 32 58.6 | -0.7 |
| TUTA | Tutak | 0.87 | 320 | i P | Pb | 05 32 51.5 | -0.7 |
| TUTA | | | | i S | Sn | 05 33 05.4 | +0.2 |
| TUTA | Tutak | 0.87 | 320 | P | Pb | 05 32 51.5 | -0.7 |
| TUTA | | | | S | Sn | 05 33 05.4 | +0.2 |
| AGRB | Hanur-Agry | 0.94 | 334 | ePG | Pb | 05 32 53.3 | -0.1 |
| AGRB | Hanur-Agry | 0.94 | 334 | ePg | Pb | 05 32 53.3 | -0.1 |
| EKAR | Karacoban | 1.26 | 295 | i P | Pb | 05 32 59.1 | +0.3 |
| EKAR | Karacoban | 1.26 | 295 | P | Pb | 05 32 59.1 | +0.3 |
| CUKT | Cukurca | 1.48 | 178 | ePN | Pb | 05 33 03.3 | +0.8 |
| CUKT | Cukurca | 1.48 | 178 | ePn | Pb | 05 33 03.3 | +0.8 |

**IDC 03 05:34:00.3**±13.0**, 7°.53S**×**120°.40E, h156**km±162km**, mb2.6**/2**, mb1 2.9**/4**, mb1mx2.8**/39**, mbtmp3.2**/4**, ML3.3**/2**, Error ellipse: s-maj=233.3km s-min=43.7km az=45.0, Flores Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| FITZ | Fitzroy Crossi | 11.68 | 155 | P | Pn | 05 36 42.2 | 0.0 |
| | 0.1nm,0.3s,baz=336,slow=16,SNR=3.1 | | | | | | |
| FITZ | | | | S | Sn | 05 38 39.3 | -12 |
| | 0.1nm,0.3s,baz=315,slow=20,SNR=1.4 | | | | | | |
| WRA | Warramunga Arr | 18.30 | 134 | P | P | 05 38 01.9 | -0.5 |
| | 0.2nm,0.3s,baz=307,slow=12,SNR=5.4 | | | | | | |
| ASAR | Alice Springs | 20.62 | 143 | P | P | 05 38 27.9 | +0.4 |
| | 0.2nm,0.4s,baz=320,slow=9.2,SNR=4.8 | | | | | | |
| MKAR | Makanchi Array | 63.81 | 332 | P | P | 05 44 15.8 | 0.0 |
| | 0.2nm,0.6s,baz=116,slow=5.0,SNR=2.4 | | | | | | |

**IDC 03 05:48:48.9**±3.3**, 35°.21S**×**179°.67W, h0**km**, mb4.0**/2**, mb1 4.2**/3**, mb1mx3.9**/20**, mbtmp4.0**/3**, ML4.1**/1**, Error ellipse: s-maj=73.3km s-min=36.7km az=120.0, East of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| URZ | Urewera | 4.00 | 219 | Pn | Pn | 05 49 51.2 | -0.2 |
| | 11nm,0.3s,baz=297,slow=1.9,SNR=70 | | | | | | |
| URZ | | | | Sn | Sn | 05 50 39.2 | +0.3 |
| | 10.0nm,0.3s,baz=335,slow=23,SNR=9.4 | | | | | | |
| ASAR | Alice Springs | 41.70 | 273 | P | P | 05 56 40.0 | +0.3 |
| | 1.7nm,0.5s,baz=115,slow=7.7,SNR=27 | | | | | | |
| WRA | Warramunga Arr | 43.13 | 278 | P | P | 05 56 50.9 | -0.4 |
| | 1.0nm,0.6s,baz=120,slow=7.6,SNR=13 | | | | | | |
| FINES | FINESS Array B | 149.07 | 336 | PKPbc | PKPbc | 06 08 37.6 | -0.6 |
| | 1.9nm,0.8s,baz=67,slow=4.7,SNR=3.9 | | | | | | |

*ISCJB **03** 05:55:03.9±0.7, 67°.87N±0°.03×20°.2E±0°.1, h0km, Error ellipse: s-maj=6.0km s-min=4.5km az=7.4*
*UPP **03** 05:55:03.2±0.1, 67°.83N×20°.19E, h0km, ML2.5*
*HEL **03** 05:55:04.7±0.3, 67°.89N×20°.05E, h0km, ML1.4, Explosion*
**ISC 03 05:55:02.9**±1.0**, 67°.81N**±0°.03×**20°.25E**±0°.04**, h0**km**, n13, σ0s.88**/22**, Sweden**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KUA | Kurravaara | 0.15 | 13 | P | Pg | 05 55 06.1 | +0.3 |
| KUA | | | | S | Sg | 05 55 07.8 | 0.0 |
| RATU | Laukkuluspa | 0.25 | 274 | P | Pg | 05 55 07.8 | +0.2 |
| LANU | Lannavaara | 0.70 | 69 | P | Pg | 05 55 16.7 | +0.4 |
| LANU | Lannavaara | 0.70 | 69 | PG | Pb | 05 55 18.5 | +0.5 |
| LANU | | | | SG | Sb | 05 55 27.2 | -1.0 |
| KIF | Kilpisjarvi | 1.22 | 9 | PN | Pn | 05 55 28.1 | +0.9 |
| KIF | | | | SB | Sb | 05 55 42.2 | -0.9 |
| PAJU | Pajala | 1.36 | 124 | P | Pg | 05 55 28.7 | -0.2 |
| HEF | Hetta | 1.42 | 63 | PG | Pb | 05 55 31.0 | +0.9 |
| | baz=248 | | | | | | |
| HEF | | | | MSG | | 05 55 48.2 | |
| | comp=Z,3.3nm,0.2s | | | | | | |
| HEF | | | | SG | Sb | 05 55 49.1 | +0.4 |
| KALU | Kalix | 2.31 | 146 | PN | Pb | 05 55 44.3 | -1.0 |
| KALU | | | | SN | Sb | 05 56 15.1 | +0.8 |
| TOF | Tornio | 2.36 | 135 | PN | Pb | 05 55 45.7 | -0.5 |
| TOF | | | | SN | Sb | 05 56 16.9 | +1.1 |
| SGF | Sodankyl | 2.43 | 96 | PN | Pb | 05 55 46.7 | -0.7 |
| SGF | | | | SB | Sg | 05 56 20.5 | -0.4 |
| RNF | Rovaniemi | 2.55 | 115 | PG | Pg | 05 55 52.0 | +0.4 |
| RNF | | | | SG | Sg | 05 56 24.9 | +0.3 |
| ARE0 | ARCESS Array S | 2.59 | 45 | PN | Pb | 05 55 48.2 | -2.0 |
| ARE0 | | | | SB | Sb | 05 56 22.6 | +0.1 |
| KU6 | Riekki | 4.20 | 111 | SG | Sg | 05 57 15.8 | -1.7 |

*IDC **03** 05:58:31.7±0.8, 35°.29S×179°.34W, h0km, mb4.5/5, mb1 4.6/6, mb1mx4.2/36, mbtmp4.6/6, ML4.6/1, MS3.7/3, Ms1 3.7/3, ms1mx3.2/26, Error ellipse: s-maj=33.0km s-min=24.8km az=155.0*
*ISCJB **03** 05:58:33.8±0.8, 35°.56S±0°.05×179°.0W±0°.1, h47km, mb4.6/10, MS3.6/3, Error ellipse: s-maj=14.9km s-min=5.1km az=21.7*
*NEIC **03** 05:58:40.6±1.6, 35°.56S×179°.56W, h62km±12km, mb4.7/6, Error ellipse: s-maj=14.9km s-min=10.0km az=70.0*
**ISC 03 05:58:37.6**±0.7**, 35°.58S**±0°.08×**179°.14W**±0°.10**, h47**km**, n84, σ1s.42**/89**, mb4.7**/10**, MS3.6**/3**, East of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MXZ | Matakaoa Point | 2.85 | 225 | ePn | Pn | 05 59 20.7 | +0.1 |
| MXZ | | | | eSn | Sn | 05 59 58.2 | +4.5 |
| MXZ | Matakaoa Point | 2.85 | 225 | PN | Pn | 05 59 19.8 | -0.8 |
| MXZ | | | | eSN | Sn | 05 59 54.8 | +1.1 |
| WMGZ | Waiomatatini S | 2.98 | 221 | PN | Pn | 05 59 22.4 | +0.1 |
| PKGZ | Pakihiroa | 3.21 | 223 | PN | Pn | 05 59 25.4 | -0.2 |
| PKGZ | | | | SN | Sn | 06 00 04.7 | +2.1 |
| PUZ | Puketiti | 3.25 | 219 | PN | Pn | 05 59 25.4 | -0.6 |
| PUZ | | | | eSN | Sn | 06 00 04.5 | +1.0 |
| HAZ | Te Kaha | 3.29 | 228 | PN | Pn | 05 59 26.4 | -0.2 |
| HAZ | | | | eSN | Sn | 06 00 06.6 | +2.0 |
| TWGZ | Tauwhareparae | 3.47 | 221 | PN | Pn | 05 59 28.9 | -0.3 |
| RUGZ | Raukumara Rang | 3.50 | 226 | PN | Pn | 05 59 29.4 | -0.1 |
| TKGZ | Te Karaka | 3.74 | 219 | PN | Pn | 05 59 33.2 | +0.5 |
| TKGZ | | | | SN | Sn | 06 00 17.3 | +1.9 |
| MWZ | Matawai | 3.83 | 223 | PN | Pn | 05 59 33.2 | -0.9 |
| MWZ | | | | eSN | Sn | 06 00 18.6 | +0.7 |
| RIGZ | Rimuhau | 3.98 | 218 | PN | Pn | 05 59 35.0 | -1.2 |
| RAGZ | Rawiri | 4.01 | 222 | PN | Pn | 05 59 36.0 | -0.5 |
| URZ | Urewera | 4.02 | 227 | Pn | Pn | 05 59 35.8 | -0.8 |
| | 35nm,0.3s,baz=298,slow=1.5,SNR=212 | | | | | | |
| URZ | | | | Sn | Sn | 06 00 24.0 | +1.5 |
| | 38nm,0.3s,baz=306,slow=22,SNR=14 | | | | | | |
| URZ | Urewera | 4.02 | 227 | ePn | Pn | 05 59 36.1 | -0.5 |
| URZ | | | | eSn | Sn | 06 00 24.0 | +1.5 |
| URZ | Urewera | 4.02 | 227 | PN | Pn | 05 59 35.5 | -1.1 |
| URZ | | | | SN | Sn | 06 00 23.1 | +0.6 |
| PRGZ | Paritu Road | 4.10 | 215 | PN | Pn | 05 59 37.1 | -0.6 |
| OPRZ | Ohinepanea | 4.13 | 236 | PN | Pn | 05 59 36.9 | -1.2 |
| SNGZ | Shannon Statio | 4.26 | 220 | PN | Pn | 05 59 39.7 | -0.1 |
| MHGZ | Mahia Peninsul | 4.27 | 213 | PN | Pn | 05 59 40.8 | +0.7 |
| KNZ | Kokohu | 4.28 | 216 | PN | Pn | 05 59 39.0 | -1.1 |
| MUGZ | Murupara | 4.37 | 227 | PN | Pn | 05 59 40.1 | -1.2 |
| WHHZ | Waihua | 4.53 | 219 | PN | Pn | 05 59 43.5 | -0.1 |
| MTHZ | Maungataniwha | 4.58 | 223 | PN | Pn | 05 59 43.4 | -0.9 |
| NMHZ | Naumai | 4.77 | 221 | PN | Pn | 05 59 46.1 | -0.9 |
| ARHZ | Aropaoanui | 4.79 | 219 | PN | Pn | 05 59 46.4 | -0.8 |
| MKAZ | Moumakai | 4.85 | 250 | ePN | Pn | 05 59 47.7 | -0.2 |
| BKZ | Black Stump Fm | 4.99 | 223 | ePn | Pn | 05 59 48.8 | -1.2 |
| BKZ | | | | eSn | Sn | 06 00 48.6 | +2.2 |
| MCHZ | McNeill Hill | 5.08 | 219 | ePN | Pn | 05 59 50.7 | -0.5 |
| KWHZ | Kaweka Forest | 5.21 | 221 | ePN | Pn | 05 59 52.2 | -0.9 |
| KAHZ | Kahuranaki | 5.26 | 216 | ePN | Pn | 05 59 51.4 | -2.3 |
| KRHZ | Kereru | 5.40 | 220 | PN | Pn | 05 59 54.4 | -1.2 |
| KRVZ | Karewarewa | 5.44 | 228 | PN | Pn | 05 59 55.4 | -0.8 |
| BHHZ | Black Hill Sta | 5.46 | 223 | PN | Pn | 05 59 55.1 | -1.2 |
| PXZ | Pawanui | 5.46 | 214 | ePN | Pn | 05 59 53.6 | -2.7 |
| OTVZ | Oturere | 5.47 | 228 | PN | Pn | 05 59 55.6 | -1.0 |
| WTVZ | West Tongariro | 5.49 | 228 | PN | Pn | 05 59 56.1 | -0.7 |
| HIZ | Hauiti | 5.63 | 237 | ePn | Pn | 05 59 58.7 | +0.1 |
| PNHZ | Pukenui | 5.69 | 219 | PN | Pn | 05 59 55.3 | -4.3 |
| PRHZ | Porangahau | 5.75 | 214 | PN | Pn | 05 59 56.9 | -3.4 |
| OUZ | Omahuta | 5.95 | 271 | ePn | Pn | 06 00 01.8 | -1.2 |
| BFZ | Birch Farm | 6.26 | 214 | eSn | Sn | 06 01 16.2 | -1.3 |
| RPZ | Rata Peaks | 11.09 | 220 | Sn | Sn | 06 03 04.6 | -11 |
| | 3.6nm,0.3s,baz=348,slow=21,SNR=14 | | | | | | |
| DZM | Mont Dzumac | 18.43 | 313 | eLR | LR | 06 06 48.8 | |
| | 885nm,26.6s | | | | | | |
| DZM | Mont Dzumac | 18.43 | 313 | eP | P | 06 02 49.1 | -0.1 |
| | 26nm,1.5s | | | | | | |
| TBI | Tubuai | 28.45 | 73 | eLR | LR | 06 11 36.4 | |
| | 208nm,28.8s,baz=230 | | | | | | |
| PPT2 | Papeete2 | 31.76 | 63 | eLR | LR | 06 13 18.7 | |
| | 176nm,25.0s,baz=240 | | | | | | |
| PPT | Papeete | 31.77 | 63 | LR | LR | 06 14 54.2 | |
| | comp=Z,75nm,19.5s,baz=236,slow=31 | | | | | | |
| STKA | Stephens Creek | 32.72 | 265 | P | P | 06 05 05.8 | +0.1 |
| | 0.7nm,0.3s,baz=40,slow=16,SNR=2.1 | | | | | | |
| STKA | | | | LR | LR | 06 17 33.3 | |
| | comp=Z,126nm,18.2s,baz=169,slow=35 | | | | | | |
| STKA | Stephens Creek | 32.72 | 265 | eP | P | 06 05 05.4 | -0.3 |
| | 1.2nm,1.3s | | | | | | |
| CTA | Charters Tower | 34.07 | 288 | P | P | 06 05 15.8 | -1.8 |
| | 4.3nm,0.5s,baz=108,slow=13,SNR=5.1 | | | | | | |
| COEN | Coen | 40.08 | 293 | eP | P | 06 06 08.2 | -0.4 |
| | 31nm,1.5s | | | | | | |
| PMG | Port Moresby | 40.25 | 302 | LR | LR | 06 19 41.7 | |
| | comp=Z,177nm,21.4s,baz=128,slow=32 | | | | | | |
| AS01 | Alice Springs | 42.12 | 273 | eP | P | 06 06 24.1 | -1.3 |
| AS31 | Alice Springs | 42.16 | 273 | eP | P | 06 06 25.0 | -0.7 |
| | 4.7nm,0.3s | | | | | | |
| ASAR | Alice Springs | 42.16 | 273 | P | P | 06 06 24.6 | -1.1 |
| | 4.5nm,0.4s,baz=116,slow=7.6,SNR=121 | | | | | | |
| WB2 | Warramunga Arr | 43.60 | 278 | eP | P | 06 06 36.0 | -1.4 |
| | 9.7nm,0.5s | | | | | | |
| WRAB | Tennant Creek | 43.61 | 278 | eP | P | 06 06 35.3 | -2.1 |
| | 8.4nm,0.8s | | | | | | |
| WR1 | Warramunga Arr | 43.61 | 278 | eP | P | 06 06 35.7 | -1.7 |
| | 8.7nm,0.6s | | | | | | |
| WRA | Warramunga Arr | 43.61 | 278 | P | P | 06 06 35.7 | -1.7 |
| | 3.1nm,0.4s,baz=119,slow=7.7,SNR=45 | | | | | | |
| FIGC | Figueroa Mtn. | 89.09 | 45 | eP | P | 06 11 30.3 | +2.5 |
| SHG | Shirttail Gulc | 89.58 | 43 | eP | P | 06 11 36.8 | +6.8 |
| PETK | Petropavlovsk- | 90.59 | 346 | P | P | 06 11 34.2 | +0.1 |
| | 6.2nm,0.9s,baz=175,slow=7.2,SNR=4.8 | | | | | | |
| PEA1 | Petropavlovsk- | 90.59 | 346 | eP | P | 06 11 34.2 | 0.0 |
| MK32 | Makanchi Array | 120.29 | 308 | ePKPdf | PKPdf | 06 17 23.1 | 0.0 |
| MKAR | Makanchi Array | 120.29 | 308 | PKP | PKPdf | 06 17 23.1 | 0.0 |
| | 0.9nm,0.9s,baz=140,slow=1.5,SNR=3.5 | | | | | | |
| KURK | Kurchatov | 123.85 | 312 | ePKPdf | PKPdf | 06 17 28.6 | -1.2 |
| KURBB | Kurchatov Arra | 123.88 | 311 | PKP | PKPdf | 06 17 28.6 | -1.3 |
| | 1.2nm,0.2s,baz=109,slow=2.2,SNR=7.5 | | | | | | |
| BVAR | Borovoye Array | 129.34 | 313 | PKP | PKPdf | 06 17 41.0 | +0.8 |
| | 0.4nm,0.4s,baz=42,slow=4.7,SNR=2.9 | | | | | | |
| KBZ | Khabaz | 146.92 | 297 | PKPbc | PKPbc | 06 18 15.0 | +0.5 |
| | 3.0nm,1.0s,baz=90,slow=6.1,SNR=3.2 | | | | | | |
| OBN | Obninsk | 148.69 | 320 | PKPbc | PKPbc | 06 18 19.0 | +0.1 |
| | 18nm,0.3s,baz=265,slow=18,SNR=3.2 | | | | | | |
| OBN | Obninsk | 148.69 | 320 | ePKPbc | PKPbc | 06 18 20.0 | +1.1 |
| FIA1 | FINESS Array S | 149.58 | 336 | ePKPbc | PKPbc | 06 18 22.5 | +1.6 |
| FIA0 | FINESS Array S | 149.58 | 336 | ePKPbc | PKPbc | 06 18 21.3 | +0.3 |
| FINES | FINESS Array B | 149.58 | 336 | PKPbc | PKPbc | 06 18 21.3 | +0.4 |
| | 1.9nm,0.6s,baz=73,slow=5.3,SNR=9.6 | | | | | | |
| ASF | Jabal al Asfar | 149.99 | 274 | PKPbc | PKPbc | 06 18 22.4 | -0.7 |
| | 1.5nm,0.6s,baz=245,slow=1.9,SNR=4.4 | | | | | | |
| DBIC | Dimbokro | 150.75 | 168 | PKPbc | PKPab | 06 18 28.7 | -3.5 |
| | 3.0nm,0.8s,baz=186,slow=6.1,SNR=3.1 | | | | | | |
| EIL | Elat | 150.79 | 268 | PKPbc | PKPbc | 06 18 24.2 | -0.7 |
| | 2.8nm,0.7s,baz=155,slow=17,SNR=4.1 | | | | | | |
| MMAI | Mount Meron Ar | 151.44 | 275 | PKPbc | PKPbc | 06 18 28.2 | +1.8 |
| | 0.8nm,0.4s,baz=158,slow=4.2,SNR=3.9 | | | | | | |
| NC303 | NORSAR Array S | 153.47 | 349 | ePKPbc | PKPbc | 06 18 31.9 | +2.0 |
| BR101 | Keskin Array S | 153.81 | 289 | ePKPbc | PKPbc | 06 18 31.0 | -0.6 |
| BRTR | Keskin Array B | 153.81 | 289 | PKPbc | PKPbc | 06 18 31.0 | -0.6 |
| | 0.5nm,0.4s,baz=134,slow=4.2,SNR=5.2 | | | | | | |
| AKASG | Malin Array Be | 154.58 | 315 | PKPbc | PKPbc | 06 18 32.9 | +0.3 |
| | 0.4nm,0.4s,baz=45,slow=2.5,SNR=3.1 | | | | | | |
| AKASG | | | | PKPab | PKPab | 06 18 47.2 | -0.2 |
| | 0.5nm,0.4s,baz=54,slow=3.8,SNR=5.5 | | | | | | |
| TORD | Torodi Ar. Bea | 157.65 | 182 | PKPab | PKPab | 06 19 03.2 | +1.9 |
| | 0.6nm,0.6s,baz=132,slow=2.1,SNR=2.2 | | | | | | |
| TOA1 | Torodi Ar. Sit | 157.66 | 182 | ePKPab | PKPab | 06 19 03.2 | +1.8 |

**WEL 03 05:59:18.0**±0.2**, 41°.29S**×**173°.48E, h86**km±2km**, ML3.3**/17**, 3C-6D, Error ellipse: s-maj=1.7km s-min=1.5km az=0.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| NNZ | Nelson | 0.10 | 314 | PN | Pn | 05 59 29.4 | -0.8 |
| NNZ | | | | SN | Sn | 05 59 37.6 | -1.5 |
| TUWZ | Tuamarina | 0.38 | 112 | ⇑PN | Pn | 05 59 31.3 | 0.0 |
| TUWZ | | | | SN | Sn | 05 59 40.3 | -1.0 |
| TUWZ | | | | AML | AML | 05 59 41.8 | |
| BSWZ | Blackbirch Sta | 0.52 | 145 | PN | Pn | 05 59 32.6 | +0.1 |
| BSWZ | | | | AML | AML | 05 59 44.5 | |
| BSWZ | | | | AML | AML | 05 59 44.7 | |
| DUWZ | D'Urville Isla | 0.59 | 35 | PN | Pn | 05 59 33.2 | +0.1 |
| DUWZ | | | | SN | Sn | 05 59 44.1 | -0.2 |
| TCW | Tory Channel | 0.61 | 83 | ⇓PN | Pn | 05 59 33.7 | +0.5 |
| TCW | | | | SN | Sn | 05 59 44.0 | -0.5 |
| TCW | | | | AML | AML | 05 59 45.5 | |
| THZ | Tophouse | 0.64 | 222 | PN | Pn | 05 59 33.4 | -0.2 |
| QRZ | Quartz Range | 0.85 | 302 | PN | Pn | 05 59 35.3 | -0.3 |
| WEL | Wellington | 0.97 | 90 | PN | Pn | 05 59 37.1 | +0.1 |
| WEL | | | | AML | AML | 05 59 51.3 | |
| WEL | | | | AML | AML | 05 59 52.4 | |
| WEL | | | | AML | AML | 06 01 43.8 | |
| BHW | Baring Head | 1.06 | 97 | PN | Pn | 05 59 37.8 | -0.2 |
| BHW | | | | AML | AML | 05 59 57.1 | |
| BHW | | | | AML | AML | 05 59 58.2 | |
| KHZ | Kahutara | 1.13 | 178 | ⇑PN | Pn | 05 59 39.0 | +0.1 |
| KHZ | | | | AML | AML | 05 59 54.7 | |
| KHZ | | | | AML | AML | 05 59 54.7 | |
| KIW | Kapiti Island | 1.17 | 69 | ⇓PN | Pn | 05 59 39.7 | +0.3 |
| KIW | | | | AML | AML | 05 59 59.4 | |
| KIW | | | | AML | AML | 06 01 35.5 | |
| CAW | Cannon Point | 1.21 | 82 | PN | Pn | 05 59 39.7 | -0.2 |
| CAW | | | | AML | AML | 05 59 57.3 | |
| CAW | | | | AML | AML | 06 00 02.3 | |
| DSZ | Denniston Nort | 1.33 | 249 | ⇓PN | Pn | 05 59 41.2 | -0.3 |
| MSWZ | Moikau Station | 1.34 | 96 | PN | Pn | 05 59 41.1 | -0.4 |
| MSWZ | | | | AML | AML | 05 59 58.8 | |
| MSWZ | | | | AML | AML | 05 59 59.1 | |
| OGWZ | Otaki Gorge | 1.37 | 70 | PN | Pn | 05 59 41.8 | 0.0 |
| OGWZ | | | | AML | AML | 06 00 07.4 | |
| OGWZ | | | | AML | AML | 06 01 32.0 | |
| PLWZ | Palliser | 1.37 | 102 | PN | Pn | 05 59 41.2 | -0.6 |
| PLWZ | | | | AML | AML | 05 59 58.6 | |
| PLWZ | | | | AML | AML | 05 59 58.9 | |
| PAWZ | Paruwai Farm | 1.47 | 94 | PN | Pn | 05 59 42.5 | -0.7 |
| MTW | Mount Morrison | 1.53 | 86 | PN | Pn | 05 59 43.2 | -0.8 |
| MTW | | | | AML | AML | 06 01 33.5 | |
| MTW | | | | AML | AML | 06 01 34.4 | |
| HOWZ | Holdsworth Sta | 1.59 | 76 | ⇓PN | Pn | 05 59 44.0 | -0.6 |
| HOWZ | | | | AML | AML | 06 00 12.8 | |
| HOWZ | | | | AML | AML | 06 00 14.6 | |
| MRZ | Mangatainoka R | 1.71 | 69 | ⇓PN | Pn | 05 59 45.6 | -0.6 |
| MRZ | | | | AML | AML | 06 00 08.8 | |
| MRZ | | | | AML | AML | 06 01 23.9 | |
| LTZ | Lake Taylor | 1.74 | 211 | PN | Pn | 05 59 46.5 | -0.2 |
| OHWZ | Ohakea | 1.77 | 53 | PN | Pn | 05 59 47.5 | +0.6 |
| TIWZ | Tintock | 1.89 | 75 | PN | Pn | 05 59 47.8 | -0.9 |
| TIWZ | | | | AML | AML | 06 00 11.7 | |
| TIWZ | | | | AML | AML | 06 00 12.5 | |
| WAZ | Wanganui | 1.92 | 37 | PN | Pn | 05 59 50.9 | +1.9 |
| PREZ | Palmer Road | 2.01 | 15 | PN | Pn | 05 59 51.5 | +1.3 |
| PRWZ | Pori Road | 2.03 | 70 | PN | Pn | 05 59 49.6 | -0.8 |
| PRWZ | | | | AML | AML | 06 00 15.9 | |
| KHEZ | Kahui Hut | 2.03 | 12 | PN | Pn | 05 59 51.9 | +1.3 |
| NEZ | North Egmont | 2.07 | 13 | PN | Pn | 05 59 52.4 | +1.4 |
| INZ | Inchbonnie | 2.09 | 226 | ⇑PN | Pn | 05 59 51.3 | +0.1 |
| PKE | Pukeiti | 2.13 | 11 | PN | Pn | 05 59 53.1 | +1.3 |
| DREZ | Durham Road | 2.17 | 15 | PN | Pn | 05 59 53.6 | +1.4 |
| BFZ | Birch Farm | 2.18 | 75 | PN | Pn | 05 59 51.2 | -1.3 |
| TSZ | Takapari Road | 2.25 | 58 | PN | Pn | 05 59 52.6 | -0.8 |
| DVHZ | Dannevirke | 2.27 | 65 | PN | Pn | 05 59 52.3 | -1.3 |
| DVHZ | | | | AML | AML | 06 00 20.1 | |
| OXZ | Oxford | 2.30 | 207 | PN | Pn | 05 59 52.5 | -1.5 |
| VRZ | Vera Road | 2.37 | 25 | ⇓PN | Pn | 05 59 56.7 | +1.7 |
| PNHZ | Pukenui | 2.49 | 57 | PN | Pn | 05 59 58.2 | +1.7 |
| MQZ | McQueen's Vall | 2.49 | 194 | PN | Pn | 05 59 54.7 | -1.9 |
| WNVZ | Wahianoa | 2.54 | 40 | PN | Pn | 05 59 56.7 | -0.7 |
| WNVZ | Wahianoa | 2.54 | 40 | PN | Pn | 05 59 57.2 | -0.3 |
| WPHZ | Waipukurau | 2.56 | 63 | PN | Pn | 05 59 57.7 | +0.2 |

*MOS **03** 06:19:06.9±1.3, 41°.22S×174°.32E, h41km, mb5.1/24, Error ellipse: s-maj=18.0km s-min=11.7km az=121.5*
*BJI **03** 06:19:08.3, 42°.02S×174°.02E, h64km, mb5.4/16, mB5.7/14, Ms5.3/9, Ms7 5.0/10*
*ISCJB **03** 06:19:08.2±0.2, 41°.39S±0°.02×174°.35E±0°.03, h64km±1km, mb5.2/44, Error ellipse: s-maj=4.2km s-min=2.1km az=41.3*
*WEL **03** 06:19:10.5±0.1, 41°.35S×174°.32E, h55km, ML5.6/57, Mw5.1, Error ellipse: s-maj=0.5km s-min=0.4km az=0.0, MM 7.*
*WEL Felt between Waikato, Otago and Hawkes Bay, maximimum reported intensity.*
*NEIC **03** 06:19:10.4±0.0, 41°.36S×174°.32E, h56km, mb5.3/28, ML5.7(WEL), After WEL.*
*NEIC Felt [V] at Picton; [IV] at Blenheim, Lower Hutt, Porirua and Wellington; [III] at Nelson. Felt in the southern part of the North Island and the northern part of the South Island.*
*IDC **03** 06:19:10.0±0.8, 41°.16S×174°.36E, h62km±6km, mb4.8/12, mb1 4.9/13, mb1mx4.7/23, mbtmp5.1/13, MS4.0/22, Ms1 4.0/22, ms1mx3.9/32, Error ellipse: s-maj=14.6km s-min=11.3km az=128.0*
*GCMT **03** 06:19:10.4±0.2, 41°.38S×174°.08E, h69km±2km, MW5.1/91, Moment Tensor Solution. s57,c78; s91,c132; Duration: 0 Moment tensor: Scale $10^{16}$Nm; $M_{rr}$-0.61±.19; $M_{\theta\theta}$-0.70±.20; $M_{\phi\phi}$1.32±.17; $M_{r\theta}$3.30±.12; $M_{\theta\phi}$4.29±.13; $M_{\phi r}$2.70±.12; Best double couple: $M_0$5.76200×$10^{16}$ NP1:$\phi_s$80.00000°, δ87.00000°, λ39.00000°. NP2: $\phi_s$347.00000°, δ51.00000°, λ176.00000°. Principal axes: T 7.0130, Plg29.0000°, Azm311.0000°; N -2.5000, Plg51.0000°, Azm84.0000°; P -4.5110, Plg24.0000°, Azm207.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
**ISC 03 06:19:09.6**±0.4**, 41°.40S**±0°.03×**174°.34E**±0°.03**, h57**km±3km**, h57**km**:pP-P, n459, σ1s.69**/479**, mb5.3**/44**, MS4.2**/22**, 35C-66D, Cook Strait**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **TCW** | **Tory Channel** | **0.20** | **347** | ⇑PN | **Pn** | **06 19 18.7** | **0.0** |
| TCW | | | | SN | **Sn** | **06 19 24.6** | **-0.6** |
| TCW | | | | AML | AML | 06 19 25.5 | |
| **SNZO** | **South Karori** | **0.29** | **72** | *e*Pn | **Pn** | **06 19 19.7** | **+0.4** |
| SNZO | | | | *e*Sn | **Sn** | **06 19 27.4** | **+1.1** |
| **TUWZ** | **Tuamarina** | **0.30** | **265** | ⇓PN | **Pn** | **06 19 19.5** | **+0.2** |
| TUWZ | | | | SN | **Sn** | **06 19 26.1** | **-0.3** |
| TUWZ | | | | AML | AML | 06 19 26.8 | |
| **WEL** | **Wellington** | **0.35** | **70** | ⇑PN | **Pn** | **06 19 20.3** | **+0.5** |
| WEL | | | | AML | AML | 06 19 28.7 | |
| WEL | | | | AML | AML | 06 19 29.0 | |
| **CMWZ** | **Cape Campbell** | **0.36** | **195** | ⇑PN | **Pn** | **06 19 21.5** | **+1.5** |
| CMWZ | | | | SN | **Sn** | **06 19 30.3** | **+2.9** |
| CMWZ | | | | AML | AML | 06 19 32.7 | |
| **BHW** | **Baring Head** | **0.40** | **91** | ⇑PN | **Pn** | **06 19 21.0** | **+0.7** |
| BHW | | | | AML | AML | 06 19 29.8 | |
| BHW | | | | AML | AML | 06 19 30.7 | |
| **BSWZ** | **Blackbirch Sta** | **0.47** | **228** | ⇓PN | **Pn** | **06 19 21.8** | **+0.8** |
| BSWZ | | | | AML | AML | 06 19 31.9 | |
| BSWZ | | | | AML | AML | 06 19 32.0 | |
| **CAW** | **Cannon Point** | **0.62** | **62** | ⇓PN | **Pn** | **06 19 23.1** | **+0.3** |
| CAW | | | | AML | AML | 06 19 33.4 | |
| CAW | | | | AML | AML | 06 19 34.8 | |
| **DUWZ** | **D'Urville Isla** | **0.68** | **332** | ⇑PN | **Pn** | **06 19 22.9** | **-0.5** |
| **MSWZ** | **Moikau Station** | **0.69** | **91** | ⇓PN | **Pn** | **06 19 24.0** | **+0.5** |
| MSWZ | | | | AML | AML | 06 19 34.8 | |
| MSWZ | | | | AML | AML | 06 19 35.7 | |
| **KIW** | **Kapiti Island** | **0.69** | **39** | ⇓PN | **Pn** | **06 19 23.8** | **+0.2** |
| KIW | | | | AML | AML | 06 19 35.9 | |
| KIW | | | | AML | AML | 06 19 35.9 | |
| **PLWZ** | **Palliser** | **0.71** | **104** | ⇑PN | **Pn** | **06 19 24.5** | **+0.7** |
| PLWZ | | | | AML | AML | 06 19 35.2 | |
| PLWZ | | | | AML | AML | 06 19 35.3 | |
| **NNZ** | **Nelson** | **0.74** | **284** | PN | **Pn** | **06 19 24.0** | **-0.2** |
| **PAWZ** | **Paruwai Farm** | **0.82** | **89** | ⇓PN | **Pn** | **06 19 25.5** | **+0.2** |
| PAWZ | | | | AML | AML | 06 19 37.7 | |
| PAWZ | | | | AML | AML | 06 19 38.9 | |
| **OGWZ** | **Otaki Gorge** | **0.86** | **47** | ⇓PN | **Pn** | **06 19 25.8** | **+0.1** |
| OGWZ | | | | AML | AML | 06 19 40.1 | |
| OGWZ | | | | AML | AML | 06 19 40.1 | |
| **MTW** | **Mount Morrison** | **0.91** | **75** | ⇓PN | **Pn** | **06 19 26.3** | **0.0** |
| MTW | | | | AML | AML | 06 19 40.4 | |
| MTW | | | | AML | AML | 06 19 40.6 | |
| **TRWZ** | **Traveller** | **1.02** | **90** | ⇓PN | **Pn** | **06 19 27.9** | **+0.1** |
| TRWZ | | | | AML | AML | 06 19 42.5 | |
| TRWZ | | | | AML | AML | 06 19 42.5 | |
| **HOWZ** | **Holdsworth Sta** | **1.02** | **61** | ⇓PN | **Pn** | **06 19 27.6** | **-0.3** |
| HOWZ | | | | AML | AML | 06 19 42.9 | |
| HOWZ | | | | AML | AML | 06 19 43.4 | |
| **THZ** | **Tophouse** | **1.13** | **251** | *e*Pn | **Pn** | **06 19 29.7** | **+0.4** |
| THZ | | | | *e*Sn | **Sn** | **06 19 44.8** | **+0.8** |
| **THZ** | **Tophouse** | **1.13** | **251** | ⇓*e*PN | **Pn** | **06 19 29.4** | **+0.1** |
| **KHZ** | **Kahutara** | **1.17** | **210** | *e*Pn | **Pn** | **06 19 30.9** | **+1.1** |
| KHZ | | | | *e*Sn | **Sn** | **06 19 45.6** | **+0.7** |
| **KHZ** | **Kahutara** | **1.17** | **210** | *e*PN | **Pn** | **06 19 30.8** | **+1.1** |
| KHZ | | | | AML | AML | 06 19 46.2 | |
| KHZ | | | | AML | AML | 06 19 46.2 | |
| KHZ | | | | AML | AML | 06 19 47.2 | |
| KHZ | | | | AML | AML | 06 19 47.2 | |
| **MRZ** | **Mangatainoka R** | **1.20** | **52** | ⇑*e*PN | **Pn** | **06 19 29.7** | **-0.4** |
| MRZ | | | | AML | AML | 06 19 47.5 | |
| MRZ | | | | AML | AML | 06 19 47.7 | |
| **TMWZ** | **Te Maipa** | **1.21** | **76** | ⇓PN | **Pn** | **06 19 30.0** | **-0.3** |
| TMWZ | | | | AML | AML | 06 19 47.6 | |
| TMWZ | | | | AML | AML | 06 19 47.9 | |
| **TIWZ** | **Tintock** | **1.33** | **62** | ⇓PN | **Pn** | **06 19 31.3** | **-0.6** |
| TIWZ | | | | AML | AML | 06 19 50.6 | |
| TIWZ | | | | AML | AML | 06 19 51.0 | |
| **OHWZ** | **Ohakea** | **1.41** | **32** | ⇓PN | **Pn** | **06 19 33.6** | **+0.6** |
| **POWZ** | **Post Office Ro** | **1.48** | **48** | ⇓PN | **Pn** | **06 19 33.2** | **-0.7** |
| POWZ | | | | AML | AML | 06 20 01.1 | |
| POWZ | | | | AML | AML | 06 20 22.7 | |
| **QRZ** | **Quartz Range** | **1.48** | **292** | PN | **Pn** | **06 19 34.4** | **+0.4** |
| **CPWZ** | **Castlepoint** | **1.49** | **71** | ⇓PN | **Pn** | **06 19 33.7** | **-0.4** |
| CPWZ | | | | AML | AML | 06 19 58.4 | |
| CPWZ | | | | AML | AML | 06 20 08.2 | |
| **PRWZ** | **Pori Road** | **1.50** | **56** | ⇓PN | **Pn** | **06 19 33.7** | **-0.5** |
| PRWZ | | | | AML | AML | 06 19 55.2 | |
| PRWZ | | | | AML | AML | 06 19 55.6 | |
| **BFZ** | **Birch Farm** | **1.61** | **64** | *e*Pn | **Pn** | **06 19 34.7** | **-1.1** |
| BFZ | | | | *e*Sn | **Sn** | **06 19 55.3** | **-0.2** |
| **BFZ** | **Birch Farm** | **1.61** | **64** | ⇓PN | **Pn** | **06 19 34.3** | **-1.5** |
| BFZ | | | | AML | AML | 06 19 56.3 | |
| BFZ | | | | AML | AML | 06 19 56.3 | |
| BFZ | | | | AML | AML | 06 19 56.8 | |
| BFZ | | | | AML | AML | 06 19 56.9 | |
| **WAZ** | **Wanganui** | **1.72** | **17** | ⇓PN | **Pn** | **06 19 38.0** | **+0.8** |
| **DVHZ** | **Dannevirke** | **1.77** | **52** | ⇓PN | **Pn** | **06 19 36.6** | **-1.3** |
| DVHZ | | | | AML | AML | 06 20 02.4 | |
| DVHZ | | | | AML | AML | 06 20 19.7 | |
| **TSZ** | **Takapari Road** | **1.82** | **43** | PN | **Pn** | **06 19 37.1** | **-1.5** |
| TSZ | | | | AML | AML | 06 20 16.5 | |
| TSZ | | | | AML | AML | 06 20 28.4 | |
| **ANWZ** | **Angora Road** | **1.87** | **61** | ⇓PN | **Pn** | **06 19 37.9** | **-1.3** |
| ANWZ | | | | AML | AML | 06 20 03.2 | |
| ANWZ | | | | AML | AML | 06 20 03.9 | |
| **DSZ** | **Denniston Nort** | **1.93** | **259** | PN | **Pn** | **06 19 40.0** | **-0.1** |
| **LREZ** | **Lake Rotokare** | **1.94** | **2** | ⇑PN | **Pn** | **06 19 41.6** | **+1.4** |
| **NMEZ** | **Namu Road** | **2.02** | **350** | ⇑PN | **Pn** | **06 19 42.3** | **+1.0** |
| **PNHZ** | **Pukenui** | **2.06** | **44** | AML | AML | 06 20 21.1 | |
| PNHZ | | | | AML | AML | 06 20 27.5 | |
| **PREZ** | **Palmer Road** | **2.06** | **356** | PN | **Pn** | **06 19 43.0** | **+1.0** |
| **LTZ** | **Lake Taylor** | **2.06** | **227** | *e*Pn | **Pn** | **06 19 42.2** | **+0.3** |
| LTZ | | | | *e*Sn | **Sn** | **06 20 06.0** | **-0.6** |
| **LTZ** | **Lake Taylor** | **2.06** | **227** | PN | **Pn** | **06 19 41.8** | **-0.2** |
| **PRHZ** | **Porangahau** | **2.08** | **58** | ⇓PN | **Pn** | **06 19 40.5** | **-1.6** |
| PRHZ | | | | AML | AML | 06 20 09.8 | |
| PRHZ | | | | AML | AML | 06 20 10.5 | |
| **WPHZ** | **Waipukurau** | **2.08** | **51** | ⇓PN | **Pn** | **06 19 40.8** | **-1.4** |
| WPHZ | | | | AML | AML | 06 20 11.7 | |
| WPHZ | | | | AML | AML | 06 20 15.4 | |
| **KHEZ** | **Kahui Hut** | **2.12** | **353** | PN | **Pn** | **06 19 43.6** | **+0.8** |
| **NEZ** | **North Egmont** | **2.14** | **355** | PN | **Pn** | **06 19 43.7** | **+0.7** |
| **NWEZ** | **Newall Road** | **2.16** | **350** | PN | **Pn** | **06 19 43.8** | **+0.7** |
| **MTVZ** | **Mangateitei** | **2.19** | **24** | PN | **Pn** | **06 19 44.1** | **+0.4** |
| **DREZ** | **Durham Road** | **2.21** | **357** | PN | **Pn** | **06 19 44.8** | **+0.9** |
| **PKE** | **Pukeiti** | **2.22** | **353** | PN | **Pn** | **06 19 44.7** | **+0.6** |
| **PKVZ** | **Pokaka** | **2.25** | **20** | PN | **Pn** | **06 19 44.6** | **+0.1** |
| **MOVZ** | **Moawhango** | **2.27** | **29** | ⇓PN | **Pn** | **06 19 44.1** | **-0.6** |
| **WNVZ** | **Wahianoa** | **2.29** | **25** | PN | **Pn** | **06 19 44.9** | **-0.2** |
| **TRVZ** | **Turoa** | **2.30** | **24** | PN | **Pn** | **06 19 45.5** | **+0.2** |
| **VRZ** | **Vera Road** | **2.30** | **8** | PN | **Pn** | **06 19 45.9** | **+0.8** |
| **BHHZ** | **Black Hill Sta** | **2.32** | **35** | ⇓PN | **Pn** | **06 19 44.5** | **-1.0** |
| BHHZ | | | | AML | AML | 06 20 34.2 | |
| BHHZ | | | | AML | AML | 06 20 39.2 | |
| **DRZ** | **Dome Shelter** | **2.32** | **24** | PN | **Pn** | **06 19 45.9** | **+0.2** |
| **MHEZ** | **Mangahewa** | **2.32** | **360** | ⇑PN | **Pn** | **06 19 46.9** | **+1.5** |
| **WHVZ** | **Whangaehu Hut** | **2.32** | **25** | PN | **Pn** | **06 19 45.6** | **-0.1** |
| **FWVZ** | **Far West T-bar** | **2.34** | **24** | PN | **Pn** | **06 19 45.6** | **-0.3** |
| **KRHZ** | **Kereru** | **2.34** | **42** | ⇓PN | **Pn** | **06 19 44.2** | **-1.5** |
| KRHZ | | | | AML | AML | 06 20 40.3 | |
| KRHZ | | | | AML | AML | 06 20 42.7 | |
| **PXZ** | **Pawanui** | **2.36** | **55** | PN | **Pn** | **06 19 44.0** | **-1.9** |
| PXZ | | | | AML | AML | 06 20 14.2 | |
| PXZ | | | | AML | AML | 06 20 14.3 | |
| PXZ | | | | AML | AML | 06 20 14.3 | |
| PXZ | | | | AML | AML | 06 20 14.4 | |
| **TUVZ** | **Tukino** | **2.36** | **26** | PN | **Pn** | **06 19 46.0** | **0.0** |
| **NGZ** | **Ngauruhoe** | **2.43** | **24** | PN | **Pn** | **06 19 47.1** | **+0.1** |
| **OTVZ** | **Oturere** | **2.46** | **25** | PN | **Pn** | **06 19 47.2** | **-0.2** |
| **TWVZ** | **Taurewa** | **2.48** | **20** | PN | **Pn** | **06 19 47.5** | **-0.1** |
| **WTVZ** | **West Tongariro** | **2.48** | **23** | ⇓PN | **Pn** | **06 19 47.7** | **+0.1** |
| **CRLZ** | **Canterbury Las** | **2.51** | **210** | *e*Pn | **Pn** | **06 19 47.1** | **-0.8** |
| **CRLZ** | **Canterbury Las** | **2.51** | **210** | ⇓PN | **Pn** | **06 19 47.0** | **-1.0** |
| **KRVZ** | **Karewarewa** | **2.51** | **24** | ⇓PN | **Pn** | **06 19 48.1** | **0.0** |
| **KAHZ** | **Kahuranaki** | **2.51** | **51** | ⇓PN | **Pn** | **06 19 46.3** | **-1.8** |
| KAHZ | | | | AML | AML | 06 20 18.7 | |
| KAHZ | | | | AML | AML | 06 20 25.4 | |
| **INZ** | **Inchbonnie** | **2.53** | **238** | ⇑PN | **Pn** | **06 19 47.8** | **-0.4** |
| **KWHZ** | **Kaweka Forest** | **2.54** | **40** | ⇓PN | **Pn** | **06 19 46.9** | **-1.6** |
| KWHZ | | | | AML | AML | 06 20 43.6 | |
| KWHZ | | | | AML | AML | 06 20 45.4 | |
| **OXZ** | **Oxford** | **2.57** | **221** | *e*Pn | **Pn** | **06 19 48.0** | **-0.8** |
| OXZ | | | | *e*Sn | **Sn** | **06 20 17.3** | **-1.5** |
| **OXZ** | **Oxford** | **2.57** | **221** | PN | **Pn** | **06 19 47.7** | **-1.0** |
| **MQZ** | **McQueen's Vall** | **2.62** | **208** | *e*Pn | **Pn** | **06 19 48.3** | **-1.1** |
| MQZ | | | | *e*Sn | **Sn** | **06 20 17.0** | **-3.0** |
| **MQZ** | **McQueen's Vall** | **2.62** | **208** | PN | **Pn** | **06 19 48.0** | **-1.4** |
| **KATZ** | **Kakaramea** | **2.64** | **24** | PN | **Pn** | **06 19 49.7** | **-0.1** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **MCHZ** | **McNeill Hill** | **2.66** | **43** | ⇓PN | **Pn** | **06 19 48.5** | **-1.5** |
| MCHZ | | | | AML | AML | 06 20 25.4 | |
| MCHZ | | | | AML | AML | 06 21 06.2 | |
| **RITZ** | **Rihia Road** | **2.69** | **26** | ⇓PN | **Pn** | **06 19 50.1** | **-0.4** |
| **CKHZ** | **Cape Kidnapper** | **2.72** | **51** | ⇑PN | **Pn** | **06 19 48.6** | **-2.2** |
| CKHZ | | | | AML | AML | 06 20 24.3 | |
| CKHZ | | | | AML | AML | 06 20 28.1 | |
| **RATZ** | **Rangitukua** | **2.76** | **24** | PN | **Pn** | **06 19 51.3** | **-0.1** |
| **BKZ** | **Black Stump Fm** | **2.78** | **37** | *e*Pn | **Pn** | **06 19 50.2** | **-1.5** |
| **BKZ** | **Black Stump Fm** | **2.78** | **37** | PN | **Pn** | **06 19 49.8** | **-1.9** |
| BKZ | | | | AML | AML | 06 20 55.6 | |
| BKZ | | | | AML | AML | 06 21 05.6 | |
| **HATZ** | **Hinemaiaia** | **2.85** | **29** | PN | **Pn** | **06 19 51.2** | **-1.4** |
| **WATZ** | **Wairara** | **2.90** | **22** | PN | **Pn** | **06 19 53.0** | **-0.3** |
| **HIZ** | **Hauiti** | **2.91** | **8** | *e*Pn | **Pn** | **06 19 54.4** | **+0.8** |
| **HIZ** | **Hauiti** | **2.91** | **8** | PN | **Pn** | **06 19 54.0** | **+0.5** |
| **ARHZ** | **Aropaoanui** | **2.95** | **44** | PN | **Pn** | **06 19 51.9** | **-2.1** |
| ARHZ | | | | AML | AML | 06 20 28.5 | |
| ARHZ | | | | AML | AML | 06 20 30.9 | |
| **NMHZ** | **Naumai** | **2.98** | **40** | ⇓PN | **Pn** | **06 19 52.6** | **-1.8** |
| NMHZ | | | | AML | AML | 06 20 31.4 | |
| NMHZ | | | | AML | AML | 06 20 49.9 | |
| **MRHZ** | **Matea Rd** | **3.02** | **33** | PN | **Pn** | **06 19 53.3** | **-1.7** |
| MRHZ | | | | AML | AML | 06 20 28.8 | |
| MRHZ | | | | AML | AML | 06 20 54.5 | |
| **KUTZ** | **Kaahu Road** | **3.13** | **22** | PN | **Pn** | **06 19 55.9** | **-0.5** |
| **WVZ** | **Waitaha Valley** | **3.15** | **237** | PN | **Pn** | **06 19 56.0** | **-0.7** |
| **MTHZ** | **Maungataniwha** | **3.19** | **38** | ⇓PN | **Pn** | **06 19 55.1** | **-2.3** |
| **WPRZ** | **Whakapapatarin** | **3.20** | **27** | ⇓PN | **Pn** | **06 19 56.2** | **-1.3** |
| **TLZ** | **Tolley Road** | **3.21** | **17** | PN | **Pn** | **06 19 57.4** | **-0.1** |
| **WHHZ** | **Waihua** | **3.21** | **45** | ⇑PN | **Pn** | **06 19 55.2** | **-2.4** |
| WHHZ | | | | AML | AML | 06 20 34.8 | |
| WHHZ | | | | AML | AML | 06 20 37.0 | |
| **ALRZ** | **Allen Road** | **3.23** | **29** | ⇓PN | **Pn** | **06 19 56.1** | **-1.7** |
| **PRRZ** | **Plateau Road** | **3.30** | **29** | ⇓PN | **Pn** | **06 19 57.1** | **-1.8** |
| **GRRZ** | **Galatos Road** | **3.34** | **25** | PN | **Pn** | **06 19 58.5** | **-0.9** |
| **RPZ** | **Rata Peaks** | **3.35** | **225** | P | **Pn** | **06 19 58.8** | **-0.7** |
| | 101nm,0.3s,baz=57,slow=1.2,SNR=124 | | | | | | |
| RPZ | | | | S | **Sn** | **06 20 35.0** | **-3.0** |
| | 594nm,0.3s,baz=150,slow=23,SNR=45 | | | | | | |
| RPZ | | | | LR | LR | 06 21 06.5 | |
| | comp=Z,578nm,18.1s,baz=60,slow=33 | | | | | | |
| **RPZ** | **Rata Peaks** | **3.35** | **225** | *e*Pn | **Pn** | **06 19 58.9** | **-0.6** |
| RPZ | | | | *e*Sn | **Sn** | **06 20 39.0** | **+1.0** |
| **RPZ** | **Rata Peaks** | **3.35** | **225** | PN | **Pn** | **06 19 58.3** | **-1.1** |
| **HRRZ** | **Handcock Road** | **3.36** | **27** | ⇓PN | **Pn** | **06 19 58.5** | **-1.2** |
| **HSRZ** | **Hossack Road** | **3.42** | **26** | PN | **Pn** | **06 19 59.1** | **-1.3** |
| **MUGZ** | **Murupara** | **3.47** | **33** | ⇓PN | **Pn** | **06 19 58.3** | **-2.8** |
| **SNGZ** | **Shannon Statio** | **3.49** | **42** | PN | **Pn** | **06 19 58.5** | **-2.9** |
| SNGZ | | | | AML | AML | 06 20 46.6 | |
| SNGZ | | | | AML | AML | 06 20 47.7 | |
| **RRRZ** | **Republican Roa** | **3.49** | **29** | PN | **Pn** | **06 19 59.3** | **-2.1** |
| **KNZ** | **Kokohu** | **3.49** | **48** | ⇓PN | **Pn** | **06 19 58.1** | **-3.3** |
| KNZ | | | | AML | AML | 06 20 40.0 | |
| KNZ | | | | AML | AML | 06 20 40.7 | |
| **UTU** | **Utuhina** | **3.52** | **25** | PN | **Pn** | **06 20 01.1** | **-0.8** |
| **MHGZ** | **Mahia Peninsul** | **3.54** | **52** | PN | **Pn** | **06 19 59.3** | **-2.7** |
| MHGZ | | | | AML | AML | 06 20 41.9 | |
| MHGZ | | | | AML | AML | 06 20 48.5 | |
| **TARZ** | **Mount Tarawera** | **3.58** | **29** | ⇑PN | **Pn** | **06 20 01.1** | **-1.6** |
| **NGRZ** | **Ngongotaha** | **3.59** | **24** | PN | **Pn** | **06 20 01.8** | **-1.0** |
| **OMRZ** | **Omania** | **3.65** | **26** | PN | **Pn** | **06 20 02.3** | **-1.3** |
| **PRGZ** | **Paritu Road** | **3.68** | **49** | PN | **Pn** | **06 20 00.7** | **-3.2** |
| PRGZ | | | | AML | AML | 06 20 47.1 | |
| PRGZ | | | | AML | AML | 06 20 48.5 | |
| **KARZ** | **Kaharoa** | **3.69** | **24** | PN | **Pn** | **06 20 03.8** | **-0.2** |
| **RAGZ** | **Rawiri** | **3.75** | **40** | PN | **Pn** | **06 20 01.7** | **-3.2** |
| RAGZ | | | | AML | AML | 06 20 50.9 | |
| RAGZ | | | | AML | AML | 06 20 51.6 | |
| **RIGZ** | **Rimuhau** | **3.76** | **45** | ⇓PN | **Pn** | **06 20 01.7** | **-3.5** |
| RIGZ | | | | AML | AML | 06 20 48.8 | |
| RIGZ | | | | AML | AML | 06 20 49.0 | |
| **TOZ** | **Tahuroa Road** | **3.78** | **14** | PN | **Pn** | **06 20 05.0** | **-0.3** |
| **EDRZ** | **Edgecumbe** | **3.78** | **30** | PN | **Pn** | **06 20 03.1** | **-2.3** |
| **URZ** | **Urewera** | **3.80** | **35** | P | **Pn** | **06 20 02.5** | **-3.1** |
| | 82nm,0.3s,baz=261,slow=4.2,SNR=499 | | | | | | |
| URZ | | | | S | **Sn** | **06 20 45.3** | **-3.7** |
| | 462nm,0.3s,baz=76,slow=17,SNR=14 | | | | | | |
| URZ | | | | LR | LR | 06 21 23.7 | |
| | comp=Z,1μm,21.6s,baz=218,slow=37 | | | | | | |
| **URZ** | **Urewera** | **3.80** | **35** | *e*Pn | **Pn** | **06 20 03.0** | **-2.5** |
| URZ | | | | *e*Sn | **Sn** | **06 20 46.4** | **-2.6** |
| **URZ** | **Urewera** | **3.80** | **35** | ⇓PN | **Pn** | **06 20 02.3** | **-3.3** |
| URZ | | | | AML | AML | 06 20 47.2 | |
| URZ | | | | AML | AML | 06 20 56.4 | |
| **MWZ** | **Matawai** | **3.93** | **40** | ⇓PN | **Pn** | **06 20 03.9** | **-3.5** |
| MWZ | | | | AML | AML | 06 20 50.9 | |
| MWZ | | | | AML | AML | 06 20 54.4 | |
| **OPRZ** | **Ohinepanea** | **3.94** | **26** | ⇓PN | **Pn** | **06 20 05.6** | **-2.0** |
| **TGRZ** | **Tauranga** | **3.96** | **23** | ⇓PN | **Pn** | **06 20 06.8** | **-1.0** |
| **FOZ** | **Fox Glacier** | **3.96** | **236** | *e*Pn | **Pn** | **06 20 06.9** | **-0.9** |
| FOZ | | | | *e*Sn | **Sn** | **06 20 53.6** | **+0.6** |
| **FOZ** | **Fox Glacier** | **3.96** | **236** | ⇓PN | **Pn** | **06 20 06.7** | **-1.2** |
| **TKGZ** | **Te Karaka** | **4.01** | **44** | PN | **Pn** | **06 20 04.8** | **-3.6** |
| TKGZ | | | | AML | AML | 06 20 52.7 | |
| TKGZ | | | | AML | AML | 06 20 53.3 | |
| **WHRZ** | **Whale Island** | **4.09** | **31** | PN | **Pn** | **06 20 07.5** | **-2.0** |
| **CNGZ** | **Carnagh Statio** | **4.17** | **47** | ⇑PN | **Pn** | **06 20 06.9** | **-3.7** |
| CNGZ | | | | AML | AML | 06 20 59.7 | |
| CNGZ | | | | AML | AML | 06 21 01.7 | |
| **LBZ** | **Lake Benmore** | **4.26** | **224** | *e*Pn | **Pn** | **06 20 11.0** | **-1.0** |
| LBZ | | | | *e*Sn | **Sn** | **06 20 57.5** | **-2.9** |
| **LBZ** | **Lake Benmore** | **4.26** | **224** | PN | **Pn** | **06 20 10.6** | **-1.4** |
| **TWGZ** | **Tauwhareparae** | **4.27** | **42** | PN | **Pn** | **06 20 08.8** | **-3.3** |
| TWGZ | | | | AML | AML | 06 21 01.2 | |
| TWGZ | | | | AML | AML | 06 21 03.5 | |
| **RUGZ** | **Raukumara Rang** | **4.29** | **38** | PN | **Pn** | **06 20 09.2** | **-3.3** |
| **KBAZ** | **Karaka Road Bo** | **4.32** | **6** | ⇑PN | **Pn** | **06 20 13.4** | **+0.6** |
| **AWAZ** | **Awhitu Peninsu** | **4.34** | **3** | PN | **Pn** | **06 20 13.2** | **+0.2** |
| **MKAZ** | **Moumakai** | **4.34** | **9** | ⇑PN | **Pn** | **06 20 13.0** | **0.0** |
| **ETAZ** | **East Tamaki Re** | **4.47** | **6** | PN | **Pn** | **06 20 15.0** | **+0.3** |
| **WTAZ** | **Waiatarua** | **4.47** | **2** | PN | **Pn** | **06 20 15.1** | **+0.3** |
| **PUZ** | **Puketiti** | **4.49** | **44** | PN | **Pn** | **06 20 10.9** | **-4.3** |
| PUZ | | | | AML | AML | 06 21 03.9 | |
| PUZ | | | | AML | AML | 06 21 06.8 | |
| **HAZ** | **Te Kaha** | **4.51** | **37** | ⇓PN | **Pn** | **06 20 11.4** | **-3.9** |
| HAZ | | | | AML | AML | 06 21 06.6 | |
| HAZ | | | | AML | AML | 06 21 06.6 | |
| HAZ | | | | AML | AML | 06 21 10.3 | |
| HAZ | | | | AML | AML | 06 21 11.7 | |
| **ODZ** | **Otahua Downs** | **4.53** | **215** | *e*Pn | **Pn** | **06 20 14.4** | **-1.2** |
| **ODZ** | **Otahua Downs** | **4.53** | **215** | ⇓PN | **Pn** | **06 20 14.0** | **-1.6** |
| **EPAZ** | **Eden Park BICE** | **4.53** | **4** | PN | **Pn** | **06 20 16.5** | **+0.8** |
| **PKGZ** | **Pakihiroa** | **4.54** | **41** | PN | **Pn** | **06 20 12.4** | **-3.5** |
| PKGZ | | | | AML | AML | 06 21 06.3 | |
| PKGZ | | | | AML | AML | 06 21 08.0 | |
| **HBAZ** | **Herne Bay Bore** | **4.56** | **4** | PN | **Pn** | **06 20 16.7** | **+0.7** |
| **RVAZ** | **Riverhead Bore** | **4.63** | **2** | PN | **Pn** | **06 20 17.3** | **+0.3** |
| **WIAZ** | **Waiheke Island** | **4.64** | **8** | PN | **Pn** | **06 20 17.3** | **+0.1** |
| **WMGZ** | **Waiomatatini S** | **4.77** | **43** | PN | **Pn** | **06 20 14.7** | **-4.2** |
| WMGZ | | | | AML | AML | 06 21 11.4 | |
| WMGZ | | | | AML | AML | 06 21 14.0 | |
| **KUZ** | **Kuaotunu** | **4.77** | **13** | PN | **Pn** | **06 20 18.2** | **-0.8** |
| **ABAZ** | **Army Bay** | **4.81** | **5** | PN | **Pn** | **06 20 19.8** | **+0.3** |
| **JCZ** | **Jackson Bay** | **4.88** | **235** | PN | **Pn** | **06 20 18.5** | **-2.0** |
| **MXZ** | **Matakaoa Point** | **4.91** | **40** | *e*Pn | **Pn** | **06 20 17.8** | **-3.1** |
| MXZ | | | | *e*Sn | **Sn** | **06 21 15.6** | **-0.7** |
| **MXZ** | **Matakaoa Point** | **4.91** | **40** | ⇑PN | **Pn** | **06 20 17.6** | **-3.3** |
| MXZ | | | | AML | AML | 06 21 16.6 | |
| MXZ | | | | AML | AML | 06 21 18.2 | |
| **WKZ** | **Wanaka** | **5.18** | **227** | *e*Pn | **Pn** | **06 20 21.7** | **-2.9** |
| **WKZ** | **Wanaka** | **5.18** | **227** | ⇑PN | **Pn** | **06 20 21.7** | **-2.9** |
| **GRZ** | **Great Barrier** | **5.22** | **10** | PN | **Pn** | **06 20 24.5** | **-0.5** |
| **HHSZ** | **Highcliff Hill** | **5.24** | **210** | PN | **Pn** | **06 20 24.0** | **-1.3** |
| **EAZ** | **Earnscleugh** | **5.30** | **222** | PN | **Pn** | **06 20 24.4** | **-1.8** |
| **WCZ** | **Waipu Caves** | **5.46** | **0** | PN | **Pn** | **06 20 28.0** | **-0.4** |
| **TUZ** | **Tuapeka** | **5.69** | **215** | PN | **Pn** | **06 20 29.9** | **-1.5** |
| **MSZ** | **Milford Sound** | **5.72** | **233** | PN | **Pn** | **06 20 28.9** | **-3.0** |
| **MLZ** | **Mavora Lakes** | **6.02** | **227** | *e*Pn | **Pn** | **06 20 33.0** | **-3.1** |
| MLZ | | | | *e*Sn | **Sn** | **06 21 43.8** | **+0.2** |
| **MLZ** | **Mavora Lakes** | **6.02** | **227** | PN | **Pn** | **06 20 32.7** | **-3.3** |
| **OUZ** | **Omahuta** | **6.20** | **354** | PN | **Pn** | **06 20 38.7** | **+0.2** |
| **SYZ** | **Scrubby Hill** | **6.36** | **214** | PN | **Pn** | **06 20 39.6** | **-1.0** |
| **WHZ** | **Wether Hill Ro** | **6.45** | **224** | *e*Pn | **Pn** | **06 20 39.0** | **-2.9** |
| **WHZ** | **Wether Hill Ro** | **6.45** | **224** | PN | **Pn** | **06 20 38.8** | **-3.1** |
| **DCZ** | **Deep Cove** | **6.62** | **230** | *e*Pn | **Pn** | **06 20 43.4** | **-0.8** |
| DCZ | | | | *e*Sn | **Sn** | **06 21 55.3** | **-2.9** |
| **DCZ** | **Deep Cove** | **6.62** | **230** | PN | **Pn** | **06 20 42.2** | **-2.0** |
| **CTZ** | **Chatham Island** | **7.07** | **112** | ⇓PN | **Pn** | **06 20 49.0** | **-1.4** |
| **APZ** | **The Paps** | **7.09** | **218** | PN | **Pn** | **06 20 48.3** | **-2.4** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **PYZ** | **Puysegur Point** | **7.30** | **227** | *e*Pn | **Pn** | **06 20 52.6** | **-0.9** |
| PYZ | | | | *e*Sn | **Sn** | **06 22 11.8** | **-3.2** |
| **NFK** | **Norfolk Island** | **13.39** | **335** | P | **Pn** | **06 22 16.2** | **-0.6** |
| | baz=14,SNR=4.3 | | | | | | |
| **RAO** | **Raoul Island** | **13.66** | **30** | LR | LR | 06 27 54.7 | |
| | comp=Z,441nm,18.6s,baz=72,slow=39 | | | | | | |
| **MILA** | **Mila** | **19.96** | **274** | P | **Pn** | **06 23 38.2** | **-0.9** |
| | baz=20,SNR=11 | | | | | | |
| **MGCD** | **Mangrove Creek** | **20.16** | **286** | P | Pn | 06 23 41.1 | -0.4 |
| | baz=21,SNR=13 | | | | | | |
| **DZM** | **Mont Dzumac** | **20.39** | **339** | P | Pn | 06 23 43.7 | -0.7 |
| | 47nm,0.8s,baz=148,slow=11,SNR=9.1 | | | | | | |
| DZM | | | | LR | LR | 06 30 27.6 | |
| | comp=Z,1μm,21.7s,baz=178,slow=34 | | | | | | |
| **DZM** | **Mont Dzumac** | **20.39** | **339** | *e*LR | LR | 06 28 40.5 | |
| | 3μm,28.1s | | | | | | |
| **DZM** | **Mont Dzumac** | **20.39** | **339** | *e*P | Pn | 06 23 44.3 | -0.1 |
| | 52nm,0.8s | | | | | | |
| **CNB** | **Canberra Magne** | **20.47** | **279** | P | Pn | 06 23 44.2 | -1.0 |
| | baz=21,SNR=16 | | | | | | |
| **CAN** | **Canberra** | **20.74** | **279** | *e*P | Pn | 06 23 47.3 | -1.1 |
| CAN | | | | pmax | pmax | | |
| | comp=Z,97nm,1.3s | | | | | | |
| **CAN** | **Canberra** | **20.74** | **279** | *e*P | Pn | 06 23 47.3 | -1.1 |
| | comp=Z,98nm,1.3s | | | | | | |
| **ARMA** | **Armidale** | **21.35** | **294** | P | **P** | **06 23 54.4** | **+2.3** |
| | baz=22,SNR=17 | | | | | | |
| **ARMA** | **Armidale** | **21.35** | **294** | *e*P | **P** | **06 23 53.2** | **+1.1** |
| | comp=Z,70nm,1.1s | | | | | | |
| **YNG** | **Young** | **21.63** | **281** | P | **P** | **06 23 56.4** | **+1.4** |
| | baz=22,SNR=8.8 | | | | | | |
| **TOO** | **Toolangi** | **22.54** | **270** | P | **P** | **06 24 05.6** | **+0.8** |
| | baz=23,SNR=8.0 | | | | | | |
| **MSVF** | **Nonsavu** | **23.80** | **9** | *e*P | **P** | **06 24 16.2** | **-1.1** |
| **MSVF** | **Nonsavu** | **23.80** | **9** | *e*P | **P** | **06 24 16.2** | **-1.1** |
| | comp=Z,46nm,0.8s | | | | | | |
| **CMSA** | **Cobar Meteorol** | **24.95** | **284** | P | **P** | **06 24 28.0** | **+0.4** |
| | baz=25,SNR=15 | | | | | | |
| **EIDS** | **Eidsvold** | **25.04** | **302** | P | **P** | **06 24 29.0** | **+0.5** |
| | baz=26,SNR=6.2 | | | | | | |
| **EIDS** | **Eidsvold** | **25.04** | **302** | *e*P | **P** | **06 24 29.0** | **+0.5** |
| | comp=Z,50nm,1.0s | | | | | | |
| **ARPS** | **Mount Arapiles** | **25.56** | **270** | P | **P** | **06 24 33.9** | **+0.8** |
| | baz=26,SNR=7.8 | | | | | | |
| **STKA** | **Stephens Creek** | **27.80** | **279** | P | **P** | **06 24 54.0** | **+0.7** |
| | comp=Z,33nm,1.0s,baz=111,slow=10,SNR=26 | | | | | | |
| STKA | | | | LR | LR | 06 34 37.6 | |
| | comp=Z,567nm,21.0s,baz=123,slow=33 | | | | | | |
| **STKA** | **Stephens Creek** | **27.80** | **279** | P | **P** | **06 24 54.2** | **+0.9** |
| | baz=28,SNR=18 | | | | | | |
| **STKA** | **Stephens Creek** | **27.80** | **279** | *e*P | **P** | **06 24 54.5** | **+1.2** |
| **STKA** | **Stephens Creek** | **27.80** | **279** | *e*P | **P** | **06 24 54.1** | **+0.7** |
| | comp=Z,11nm,1.1s | | | | | | |
| **QLP** | **Quilpie** | **28.83** | **291** | P | **P** | **06 25 02.9** | **+0.4** |
| | baz=29,SNR=10.0 | | | | | | |
| **RAR** | **Rarotonga** | **29.72** | **55** | LR | LR | 06 35 14.5 | |
| | comp=Z,236nm,19.9s,baz=234,slow=33 | | | | | | |
| **AFI** | **Afiamalu** | **29.94** | **28** | LR | LR | 06 36 44.8 | |
| | comp=Z,70nm,18.3s,baz=185,slow=36 | | | | | | |
| **BBOO** | **Buckleboo** | **31.50** | **273** | P | **P** | **06 25 25.6** | **-0.4** |
| | baz=32,SNR=16 | | | | | | |
| **BBOO** | **Buckleboo** | **31.50** | **273** | *e*P | **P** | **06 25 26.0** | **-0.1** |
| | comp=Z,29nm,0.8s | | | | | | |
| **CTA** | **Charters Tower** | **31.92** | **303** | P | **P** | **06 25 30.7** | **+0.8** |
| | comp=Z,25nm,0.8s,baz=149,slow=8.0,SNR=15 | | | | | | |
| **CTAO** | **Charters Tower** | **31.92** | **303** | *e*P | **P** | **06 25 30.6** | **+0.8** |
| CTAO | | | | pmax | pmax | | |
| | comp=Z,38nm,0.9s | | | | | | |
| **CTAO** | **Charters Tower** | **31.92** | **303** | *e*P | **P** | **06 25 30.6** | **+0.8** |
| | comp=Z,38nm,0.9s | | | | | | |
| **HNR** | **Honiara** | **34.29** | **334** | LR | LR | 06 38 48.1 | |
| | comp=Z,271nm,19.6s,baz=165,slow=35 | | | | | | |
| **MTSU** | **Mount Surprise** | **34.59** | **303** | P | **P** | **06 25 53.4** | **+0.3** |
| | baz=35,SNR=8.5 | | | | | | |
| **TBI** | **Tubuai** | **35.16** | **71** | *e*LR | LR | 06 35 25.7 | |
| | comp=Z,553nm,28.5s | | | | | | |
| **TBI** | **Tubuai** | **35.16** | **71** | *e*T | T | 07 03 15.3 | |
| | comp=Z,10nm,0.3s | | | | | | |
| **QIS** | **Mount Isa** | **35.97** | **295** | P | **P** | **06 26 04.9** | **-0.1** |
| | baz=36,SNR=10 | | | | | | |
| **VNDA** | **Vanda** | **36.60** | **185** | P | **P** | **06 26 10.7** | **+1.1** |
| | comp=Z,7.3nm,1.0s,baz=0.4,slow=8.5,SNR=11 | | | | | | |
| VNDA | | | | LR | LR | 06 38 19.5 | |
| | comp=Z,164nm,21.6s,baz=12,slow=31 | | | | | | |
| **VNDA** | **Vanda** | **36.60** | **185** | *e*P | **P** | **06 26 13.2** | **+3.6** |
| VNDA | | | | pmax | pmax | | |
| | comp=Z,14nm,1.1s | | | | | | |
| **VNDA** | **Vanda** | **36.60** | **185** | *e*P | **P** | **06 26 13.2** | **+3.6** |
| | comp=Z,14nm,1.1s | | | | | | |
| **AS01** | **Alice Springs** | **37.97** | **285** | *e*P | **P** | **06 26 21.1** | **-0.9** |
| **AS31** | **Alice Springs** | **38.00** | **285** | *e*P | **P** | **06 26 21.6** | **-0.7** |
| | comp=Z,26nm,0.3s | | | | | | |
| **ASAR** | **Alice Springs** | **38.00** | **285** | P | **P** | **06 26 21.5** | **-0.7** |
| | comp=Z,25nm,0.4s,baz=121,slow=7.1,SNR=418 | | | | | | |
| ASAR | | | | S | **S** | **06 32 06.5** | **-4.0** |
| | comp=Z,3.1nm,0.9s,baz=133,slow=14,SNR=11 | | | | | | |
| ASAR | | | | ScP | **ScP** | **06 32 16.1** | **-3.4** |
| | comp=Z,2.0nm,0.8s,baz=123,slow=4.2,SNR=5.3 | | | | | | |
| ASAR | | | | LR | LR | 06 41 00.7 | |
| | comp=Z,640nm,22.0s,baz=132,slow=34 | | | | | | |
| **FORT** | **Forrest** | **38.47** | **271** | P | **P** | **06 26 25.6** | **-0.4** |
| | baz=39,SNR=8.6 | | | | | | |
| **FORT** | **Forrest** | **38.47** | **271** | *e*P | **P** | **06 26 25.6** | **-0.4** |
| | comp=Z,572nm,0.9s | | | | | | |
| **COEN** | **Coen** | **38.48** | **306** | P | **P** | **06 26 26.0** | **-0.2** |
| | baz=39,SNR=27 | | | | | | |
| **COEN** | **Coen** | **38.48** | **306** | *e*P | **P** | **06 26 26.4** | **+0.2** |
| | comp=Z,36nm,0.8s | | | | | | |
| **PAE** | **Paea** | **38.89** | **63** | *e*T | T | 07 07 50.2 | |
| | comp=Z,4.4nm,0.3s | | | | | | |
| **PPT2** | **Papeete2** | **38.95** | **63** | *e*S | **S** | **06 32 29.5** | **+4.7** |
| | comp=Z,264nm,26.0s | | | | | | |
| PPT2 | | | | *e*LQ | LQ | 06 35 35.9 | |
| | comp=Z,354nm,23.5s | | | | | | |
| PPT2 | | | | *e*LR | LR | 06 37 11.4 | |
| | comp=Z,404nm,22.8s | | | | | | |
| **PPT2** | **Papeete2** | **38.95** | **63** | *e*T | T | 07 07 54.7 | |
| | comp=Z,4.3nm,0.2s | | | | | | |
| **PPT** | **Papeete** | **38.96** | **63** | LR | LR | 06 38 20.5 | |
| | comp=Z,336nm,19.9s,baz=232,slow=30 | | | | | | |
| **TVO** | **Taravao** | **39.03** | **64** | *e*T | T | 07 08 01.2 | |
| | comp=Z,1.2nm,0.3s | | | | | | |
| **PMG** | **Port Moresby** | **39.89** | **315** | P | **P** | **06 26 37.4** | **-0.5** |
| | comp=Z,44nm,0.8s,baz=124,slow=8.3,SNR=13 | | | | | | |
| **PMG** | **Port Moresby** | **39.89** | **315** | ⇑*e*P | **P** | **06 26 38.3** | **+0.4** |
| **PMG** | **Port Moresby** | **39.89** | **315** | *e*P | **P** | **06 26 38.5** | **+0.6** |
| | comp=Z,80nm,0.9s | | | | | | |
| **WB2** | **Warramunga Arr** | **40.04** | **290** | *e*P | **P** | **06 26 38.4** | **-0.8** |
| **WRAB** | **Tennant Creek** | **40.04** | **290** | *d i*P | **P** | **06 26 38.2** | **-1.1** |
| WRAB | | | | *i* *PP | **pP** | **06 26 53.5** | **-0.3** |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,48nm,0.8s | | | | | | |
| **WRAB** | **Tennant Creek** | **40.04** | **290** | *e*P | **P** | **06 26 38.5** | **-0.8** |
| | comp=Z,65nm,0.7s | | | | | | |
| **WRA** | **Warramunga Arr** | **40.05** | **290** | P | **P** | **06 26 38.2** | **-1.1** |
| | comp=Z,29nm,0.5s,baz=127,slow=8.1,SNR=218 | | | | | | |
| WRA | | | | S | **S** | **06 32 39.1** | **-2.1** |
| | comp=Z,1.9nm,0.9s,baz=129,slow=14,SNR=5.6 | | | | | | |
| WRA | | | | LR | LR | 06 42 16.5 | |
| | comp=Z,485nm,21.6s,baz=135,slow=35 | | | | | | |
| **WRKA** | **Warakurna** | **41.33** | **279** | P | **P** | **06 26 48.4** | **-1.4** |
| | baz=42,SNR=61 | | | | | | |
| **RABL** | **Rabaul** | **42.04** | **326** | *e*P | **P** | **06 26 56.2** | **+0.5** |
| RABL | | | | *e*pP | **pP** | **06 27 11.3** | **+0.9** |
| **KMBL** | **Kambalda** | **42.83** | **266** | P | **P** | **06 27 01.2** | **-0.8** |
| | baz=43,SNR=5.1 | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **45.57** | **261** | LR | LR | 06 42 56.3 | |
| | comp=Z,330nm,21.5s,baz=268,slow=31 | | | | | | |
| **KLBR** | **Kellerberrin** | **45.81** | **263** | P | **P** | **06 27 24.4** | **-1.4** |
| | baz=46,SNR=9.3 | | | | | | |
| **RKT** | **Rikitea** | **45.89** | **83** | *e*T | T | 07 16 43.6 | |
| | comp=Z,1.7nm,0.2s | | | | | | |
| **MUN** | **Mundaring** | **46.78** | **262** | P | **P** | **06 27 31.9** | **-1.5** |
| | baz=47,SNR=5.9 | | | | | | |
| **KNRA** | **Kununurra** | **46.83** | **289** | P | **P** | **06 27 33.7** | **-0.2** |
| | baz=47,SNR=11 | | | | | | |
| **BLDU** | **Ballidu** | **47.07** | **264** | P | **P** | **06 27 34.8** | **-0.9** |
| | baz=47,SNR=7.5 | | | | | | |
| **MTN** | **Manton Dam** | **47.13** | **294** | P | **P** | **06 27 35.4** | **-0.8** |
| | baz=48,SNR=44 | | | | | | |
| **MTN** | **Manton Dam** | **47.13** | **294** | *e*P | **P** | **06 27 35.6** | **-0.6** |
| | comp=Z,84nm,0.8s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **47.49** | **284** | LR | LR | 06 47 07.8 | |
| | comp=Z,284nm,20.8s,baz=116,slow=35 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **47.49** | **284** | P | **P** | **06 27 38.1** | **-0.9** |
| | baz=48,SNR=53 | | | | | | |
| **MORW** | **Morawa** | **48.35** | **265** | P | **P** | **06 27 44.6** | **-1.0** |
| | baz=49,SNR=4.5 | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| QSPA | South Pole Qui | 48.73 | 180 | eP | P | 06 27 51.1 | +3.0 |
| | comp=Z,349nm,1.2s | | | | | | |
| JAY | Jayapura | 49.12 | 313 | P | P | 06 27 50.7 | -0.9 |
| GENI | Genyem | 49.35 | 312 | P | P | 06 27 54.3 | +0.9 |
| MIR | Mirnyy | 49.52 | 211 | i P | P | 06 27 55.0 | +1.0 |
| MIR | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.0s | | | | | | |
| MBWA | Marble Bar | 49.98 | 276 | eP | P | 06 27 56.6 | -1.5 |
| | comp=Z,57nm,1.1s | | | | | | |
| TAOE | Nuku Hiva Isla | 51.56 | 64 | eLR | LR | 06 43 06.2 | |
| | comp=Z,447nm,23.6s | | | | | | |
| GIRL | Giralia | 53.23 | 271 | P | P | 06 28 21.7 | -0.7 |
| | baz=54,SNR=5.1 | | | | | | |
| RKPI | Ransiki, Papua | 53.70 | 307 | P | P | 06 28 25.9 | 0.0 |
| FAKI | Fak Fak | 53.78 | 304 | P | P | 06 28 24.5 | -1.9 |
| FAKI | Fak Fak | 53.78 | 304 | eP | P | 06 28 24.8 | -1.7 |
| | comp=Z,22nm,1.0s | | | | | | |
| BNDI | Bandanaira | 54.05 | 300 | P | P | 06 28 28.2 | -0.2 |
| SOEI | Soe | 54.06 | 291 | P | P | 06 28 29.6 | +0.9 |
| SOEI | Soe | 54.06 | 291 | eP | P | 06 28 27.3 | -1.4 |
| | comp=Z,83nm,0.9s | | | | | | |
| MSAI | Masohi | 55.57 | 300 | P | P | 06 28 38.2 | -1.2 |
| MMRI | Maumere | 56.27 | 290 | P | P | 06 28 43.9 | -0.6 |
| EDFI | Ende, Flores | 56.58 | 290 | P | P | 06 28 46.2 | -0.6 |
| NLAI | Namlea | 56.84 | 299 | P | P | 06 28 47.5 | -1.0 |
| BBSI | Bau Bau | 58.26 | 293 | P | P | 06 28 57.2 | -1.3 |
| SANI | Sanana | 58.46 | 299 | P | P | 06 28 58.3 | -1.5 |
| LBMI | Labuha | 58.54 | 301 | P | P | 06 29 02.8 | +2.4 |
| BSSI | Bau Bau, Buton | 59.25 | 291 | P | P | 06 29 04.0 | -1.3 |
| PLAI | Plampang | 59.33 | 286 | P | P | 06 29 05.4 | -0.5 |
| MAW | Mawson | 59.80 | 204 | P | P | 06 29 10.1 | +1.7 |
| | comp=Z,25nm,1.0s,baz=119,slow=10,SNR=25 | | | | | | |
| MAW | | | | LR | LR | 06 54 34.5 | |
| | comp=Z,231nm,19.3s,baz=74,slow=35 | | | | | | |
| MAW | Mawson | 59.80 | 204 | eP | P | 06 29 10.5 | +2.2 |
| MAW | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.0s | | | | | | |
| MAW | Mawson | 59.80 | 204 | eP | P | 06 29 10.5 | +2.2 |
| | comp=Z,7.1nm,1.0s | | | | | | |
| KAPI | Kappang | 60.56 | 291 | eP | P | 06 29 14.4 | +0.1 |
| | comp=Z,12nm,0.9s | | | | | | |
| BNSI | Bone | 60.75 | 292 | P | P | 06 29 14.9 | -0.7 |
| SPSI | Sidrap Palu | 61.29 | 292 | P | P | 06 29 18.7 | -0.6 |
| LUWI | Luwuk | 61.35 | 297 | P | P | 06 29 19.8 | +0.1 |
| TTSI | Tana Toraja | 61.91 | 293 | P | P | 06 29 23.0 | -0.5 |
| JAGI | Jajag, Banyuwa | 62.20 | 284 | P | P | 06 29 25.0 | -0.4 |
| GMJI | Gumukmas | 62.85 | 284 | P | P | 06 29 29.0 | -0.7 |
| BLJI | Banyuglugur | 63.09 | 284 | P | P | 06 29 30.7 | -0.6 |
| SGSI | Sangihe | 63.11 | 303 | P | P | 06 29 31.6 | +0.2 |
| KMMI | Kalianget | 63.29 | 285 | P | P | 06 29 31.6 | -1.0 |
| PWJI | Pagerwojo | 64.22 | 283 | P | P | 06 29 37.9 | -0.8 |
| PCJI | Pacitan | 64.56 | 282 | P | P | 06 29 40.2 | -0.8 |
| SYO | Syowa Base | 64.93 | 196⇑ | iP | P | 06 29 41.6 | -1.0 |
| SYO | Syowa Base | 64.93 | 196⇑ | ipP | pP | 06 29 56.4 | -1.7 |
| UGM | Wanagama | 65.23 | 282 | P | P | 06 29 44.5 | -0.9 |
| KPJI | Karang Pucung | 66.79 | 281 | P | P | 06 29 54.9 | -0.5 |
| SNAA | Sanae | 67.21 | 181 | P | P | 06 29 59.1 | +1.8 |
| SNAA | Sanae | 67.21 | 181 | deP | P | 06 29 52.7 | -4.6 |
| SNAA | Sanae | 67.21 | 181 | eP | P | 06 29 58.6 | +1.3 |
| | comp=Z,28nm,1.2s | | | | | | |
| NVL | N'lazarevskaya | 67.43 | 186 | eP | P | 06 30 00.1 | +1.5 |
| CISI | Cisompet, Garu | 67.47 | 280 | P | P | 06 29 59.2 | -0.5 |
| CISI | Cisompet, Garu | 67.47 | 280 | eP | P | 06 29 59.2 | -0.5 |
| | comp=Z,61nm,0.8s | | | | | | |
| VNA3 | Neumayer Olymp | 67.63 | 179 | P | P | 06 30 01.6 | +1.7 |
| VNA2 | Neumayer--Watz | 67.97 | 179 | P | P | 06 30 04.1 | +2.0 |
| | baz=178,slow=6.2 | | | | | | |
| CNJI | Cibinong | 68.14 | 280 | P | P | 06 30 03.1 | -0.8 |
| VNA1 | Neumayer--Stat | 68.24 | 179 | P | P | 06 30 05.4 | +1.7 |
| MYLDM | Lahad Datu | 68.80 | 298 | eP | P | 06 30 09.3 | +1.3 |
| | comp=Z,46nm,1.1s | | | | | | |
| KKM | Kota Kinabalu | 70.96 | 297 | eP | P | 06 30 19.8 | -1.6 |
| | comp=Z,58nm,1.3s | | | | | | |
| GO09 | Cerro Castillo | 71.00 | 142 | eP | P | 06 30 23.5 | +2.5 |
| | comp=Z,56nm,1.2s | | | | | | |
| PPBI | Pangkal Pinang | 72.31 | 283 | P | P | 06 30 28.4 | -1.0 |
| TGY | Tagaytay City | 74.00 | 306 | LR | LR | 07 03 52.3 | |
| | comp=Z,69nm,21.6s,baz=26,slow=36 | | | | | | |
| EFI | East Falkland | 76.72 | 150 | eP | P | 06 30 54.8 | +0.4 |
| EFI | | | | pmax | pmax | | |
| | comp=Z,81nm,1.3s | | | | | | |
| EFI | East Falkland | 76.72 | 150 | eP | P | 06 30 54.8 | +0.4 |
| | comp=Z,81nm,1.3s | | | | | | |
| PLCA | Paso Flores | 79.30 | 136 | P | P | 06 31 11.3 | +2.2 |
| | comp=Z,15nm,1.0s,baz=230,slow=7.1,SNR=16 | | | | | | |
| PLCA | | | | LR | LR | 06 58 19.4 | |
| | comp=Z,213nm,21.8s,baz=278,slow=30 | | | | | | |
| MJAR | Matsushiro Arr | 84.33 | 332 | P | P | 06 31 33.8 | -1.3 |
| | comp=Z,3.6nm,0.9s,baz=157,slow=5.3,SNR=4.1 | | | | | | |
| MJAR | | | | LR | LR | 07 05 42.4 | |
| | comp=Z,42nm,21.9s,baz=165,slow=33 | | | | | | |
| ROC1 | El Roble | 84.65 | 130 | eP | P | 06 31 39.1 | +1.6 |
| | comp=Z,18nm,0.9s | | | | | | |
| QIZ | Qiongzhong | 84.67 | 301 | P | P | 06 31 38.3 | +1.0 |
| QIZ | | | | pP | sP | 06 31 56.6 | -3.0 |
| QIZ | | | | S | S | 06 42 03.7 | +3.4 |
| QIZ | | | | pmax | pmax | | |
| | comp=Z,17nm,1.6s | | | | | | |
| QIZ | | | | pmax | pmax | | |
| | comp=Z,170nm,6.4s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=Z,280nm,4.4s | | | | | | |
| AUSP | Uspallata | 86.14 | 130⇓ | eP | P | 06 31 48.4 | +3.5 |
| RTLS | Leoncito | 86.50 | 130 | eP | P | 06 31 49.8 | +3.0 |
| RTCV | Cerro Valdivia | 86.89 | 131 | eP | P | 06 31 49.3 | +0.9 |
| ACAN | Cantantal | 87.35 | 132⇓ | eP | P | 06 31 53.1 | +2.6 |
| ACCO | Cerro Coronel | 87.53 | 129 | eP | P | 06 31 54.7 | +2.9 |
| AMOG | MOGNA | 87.60 | 130⇓ | eP | P | 06 31 54.6 | +2.8 |
| AROD | Rodeo | 87.60 | 129 | eP | P | 06 31 54.6 | +2.4 |
| LCO | Las Campanas | 87.72 | 127 | epP | pP | 06 32 07.5 | -1.3 |
| NONG | Nongkai | 88.41 | 296 | P | P | 06 31 56.2 | +0.6 |
| | comp=Z,77nm,1.0s | | | | | | |
| AGUA | GUANDACOL | 88.67 | 129⇓ | eP | P | 06 32 00.2 | +3.2 |
| APLL | PUNTA DE LOS L | 89.13 | 131⇓ | eP | P | 06 32 01.6 | +2.6 |
| NJ2 | Nanjing | 89.20 | 316 | eP | P | 06 31 58.9 | 0.0 |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,13nm,0.5s | | | | | | |
| KSRS | Korea Array | 89.21 | 325 | P | P | 06 31 57.4 | -1.4 |
| | comp=Z,9.8nm,0.8s,baz=146,slow=5.1,SNR=16 | | | | | | |
| KSRS | | | | pP | pP | 06 32 15.0 | -0.1 |
| | comp=Z,9.9nm,0.9s,baz=142,slow=5.6,SNR=7.8 | | | | | | |
| KSRS | | | | LR | LR | 07 07 36.3 | |
| | comp=Z,74nm,21.8s,baz=152,slow=33 | | | | | | |
| KSAR | Wonju Array Be | 89.22 | 325 | P | P | 06 31 57.4 | -1.5 |
| KSAR | | | | *PP | pP | 06 32 15.0 | -0.1 |
| KSAR | Wonju Array Be | 89.22 | 325 | P | P | 06 31 57.4 | -1.5 |
| KSAR | | | | pP | pP | 06 32 15.0 | -0.1 |
| UTHA | Uthaitani | 89.23 | 291 | P | P | 06 32 00.9 | +1.4 |
| | comp=Z,4.2nm,1.1s,comp=Z,96nm | | | | | | |
| KS01 | Wonju Array Si | 89.24 | 325 | eP | P | 06 31 59.1 | +0.1 |
| KS01 | | | | epP | pP | 06 32 14.5 | -0.7 |
| VCA | Vinchina | 89.40 | 129⇓ | eP | P | 06 32 03.7 | +3.2 |
| TCA | Tanti | 89.50 | 133 | eP | P | 06 32 02.5 | +1.8 |
| ACLC | CERRO LA CRUZ | 89.61 | 130⇓ | eP | P | 06 32 03.9 | +2.5 |
| CYA | Choya | 91.01 | 130⇓ | eP | P | 06 32 10.3 | +2.4 |
| CM01 | Chiang Mai Arr | 91.53 | 293 | eP | P | 06 32 10.3 | +0.2 |
| CM31 | Chiang Mai Arr | 91.56 | 293 | eP | P | 06 32 11.6 | +1.3 |
| CMAR | Chiang Mai Arr | 91.56 | 293 | P | P | 06 32 10.3 | +0.1 |
| | comp=Z,3.5nm,0.5s,baz=147,slow=3.1,SNR=15 | | | | | | |
| CMAR | | | | LR | LR | 07 19 07.9 | |
| | comp=Z,36nm,18.4s,baz=147,slow=39 | | | | | | |
| CHTO | Chiang Mai | 91.81 | 293 | P | P | 06 32 15.1 | +3.7 |
| | comp=Z,42nm,1.5s | | | | | | |
| GYA | Guiyang | 92.05 | 304 | P | P | 06 32 14.0 | +1.5 |
| GYA | | | | pP | pP | 06 32 31.2 | +2.4 |
| GYA | | | | PP | PP | 06 35 58.4 | +5.1 |
| GYA | | | | SKS | SKSac | 06 42 40.4 | -0.4 |
| GYA | | | | S | S | 06 43 10.8 | +0.6 |
| GYA | | | | pmax | pmax | | |
| | comp=Z,20nm,1.0s | | | | | | |
| GYA | | | | pmax | pmax | | |
| | comp=Z,130nm,6.2s | | | | | | |
| YSS | Yuzh-Sakhalins | 92.35 | 339⇑ | eP | P | 06 32 13.5 | +0.3 |
| YSS | | | | pmax | pmax | | |
| | comp=Z,12nm,1.0s | | | | | | |
| ENH | Enshi | 93.09 | 308 | eP | P | 06 32 17.0 | -0.1 |
| | comp=Z,12nm,0.8s | | | | | | |
| KMI | Kunming | 93.61 | 300 | P | P | 06 32 19.9 | 0.0 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,18nm,1.0s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,150nm,19.6s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,170nm,22.7s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,190nm,27.7s | | | | | | |
| PETK | Petropavlovsk- | 95.23 | 350 | P | P | 06 32 25.1 | -1.1 |
| | comp=Z,4.6nm,0.9s,baz=205,slow=2.5,SNR=3.8 | | | | | | |
| PETK | | | | LR | LR | 07 09 07.3 | |
| | comp=Z,102nm,20.8s,baz=152,slow=32 | | | | | | |
| CPUP | Villa Florida | 97.36 | 135 | LR | LR | 07 09 47.1 | |
| | comp=Z,87nm,19.1s,baz=228,slow=31 | | | | | | |
| DGR | Domenigoni Val | 97.76 | 52 | eP | P | 06 32 36.0 | -2.3 |
| HHC | Hu-ho-hao-te | 99.68 | 317 | eP | Pdif | 06 32 49.8 | +2.9 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,26nm,0.7s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,120nm,6.5s | | | | | | |
| LZH | Lanzhou | 100.54 | 309 | eP | Pdif | 06 32 52.0 | +1.1 |
| LZH | | | | PP | PP | 06 37 04.2 | +5.4 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,28nm,1.2s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,140nm,8.7s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,190nm,18.2s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,190nm,19.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,160nm,20.2s | | | | | | |
| HIA | Hailar | 102.26 | 327⇑ | eP | Pdif | 06 32 53.9 | -4.1 |
| TXAR | Lajitas Array | 103.28 | 63 | Pdiff | Pdif | 06 33 02.8 | -0.3 |
| | comp=Z,0.1nm,0.7s,baz=270,slow=4.5,SNR=2.6 | | | | | | |
| ILAR | Eielson Array | 110.12 | 17 | PKKPab | PKKPab | 06 48 47.2 | +3.8 |
| | comp=Z,1.6nm,0.9s,baz=17,slow=2.9,SNR=11 | | | | | | |
| WMQ | Urumqi | 115.00 | 307 | ePKP | PKPdf | 06 37 43.4 | -0.3 |
| WMQ | | | | LR | LR | | |
| | comp=Z,140nm,18.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,240nm,21.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,140nm,15.7s | | | | | | |
| INK | Inuvik | 116.10 | 19 | ePKIKP | PKPdf | 06 37 43.8 | -1.1 |
| INK | Inuvik | 116.10 | 19 | ePKPdf | PKPdf | 06 37 43.8 | -1.1 |
| ECSD | EROS Data Cent | 116.41 | 54 | ePKPdf | PKPdf | 06 37 45.8 | -0.5 |
| YKA | Yellowknife Ar | 118.04 | 30 | PKP | PKPdf | 06 37 47.8 | -1.0 |
| | comp=Z,2.1nm,0.8s,baz=227,slow=1.5,SNR=13 | | | | | | |
| YKA | | | | pPKP | pPKPdf | 06 38 06.4 | +0.8 |
| | comp=Z,1.3nm,0.8s,baz=228,slow=1.7,SNR=4.4 | | | | | | |
| YKA | | | | PKKPbc | PKKPbc | 06 48 09.9 | +0.5 |
| | comp=Z,0.7nm,0.9s,baz=45,slow=4.9,SNR=7.8 | | | | | | |
| MK01 | Makanchi Array | 119.80 | 308 | ePKPdf | PKPdf | 06 37 50.8 | -2.0 |
| MK31 | Makanchi Array | 119.81 | 308 | ePKIKP | PKPdf | 06 37 50.9 | -1.9 |
| MK31 | Makanchi Array | 119.81 | 308 | ePKPdf | PKPdf | 06 37 50.9 | -1.9 |
| MKAR | Makanchi Array | 119.81 | 308 | PKP | PKPdf | 06 37 50.8 | -2.1 |
| | comp=Z,1.8nm,0.7s,baz=203,slow=1.6,SNR=19 | | | | | | |
| CPCT | Cooper Cave | 119.94 | 68 | ePKPdf | PKPdf | 06 37 53.9 | +0.5 |
| JFWS | Jewell Farm | 119.94 | 58 | ePKIKP | PKPdf | 06 37 53.2 | +0.1 |
| JFWS | Jewell Farm | 119.94 | 58 | ePKPdf | PKPdf | 06 37 53.2 | +0.1 |
| KSH | Kashi | 120.14 | 298 | ePKP | PKPdf | 06 37 56.4 | +2.6 |
| KSH | | | | AMB | AMB | | |
| | comp=Z,330nm,7.7s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,270nm,6.6s | | | | | | |
| WCI | Wyandotte Cave | 120.16 | 64 | ePKIKP | PKPdf | 06 37 54.5 | +0.8 |
| WCI | Wyandotte Cave | 120.16 | 64 | ePKPdf | PKPdf | 06 37 54.5 | +0.8 |
| ULM | Lac du Bonnet | 120.22 | 48 | PKP | PKPdf | 06 37 52.4 | -1.1 |
| | comp=Z,2.0nm,0.7s,baz=247,slow=4.0,SNR=6.5 | | | | | | |
| ZALV | Zalesovo Beam | 121.85 | 316 | PKP | PKPdf | 06 37 53.8 | -2.6 |
| | comp=Z,1.1nm,0.6s,baz=156,slow=3.2,SNR=5.5 | | | | | | |
| AAK | Ala-Archa | 122.65 | 300⇑ | iPKIKP | PKPdf | 06 37 55.6 | -3.0 |
| KURK | Kurchatov | 123.80 | 310⇑ | ePKIKP | PKPdf | 06 37 58.0 | -2.3 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,32nm,2.5s | | | | | | |
| KURK | Kurchatov | 123.80 | 310 | ePKPdf | PKPdf | 06 37 58.4 | -1.9 |
| SPFD | Spotsylvania F | 126.15 | 68 | ePKPpre | PKPpre | 06 37 54.2 | |
| BVAR | Borovoye Array | 129.39 | 311 | PKP | PKPdf | 06 38 09.5 | -1.4 |
| | comp=Z,1.4nm,0.6s,baz=75,slow=1.2,SNR=9.1 | | | | | | |
| BRVK | Borovoye | 129.46 | 311⇑ | ePKIKP | PKPdf | 06 38 12.4 | +1.4 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,27nm,2.5s | | | | | | |
| GEYT | Alibeck | 131.77 | 288 | PKP | PKPdf | 06 38 16.0 | 0.0 |
| | comp=Z,1.6nm,0.5s,baz=112,slow=3.9,SNR=2.5 | | | | | | |
| PQI | Presque Isle | 135.90 | 61 | ePKPdf | PKPdf | 06 38 25.1 | +1.8 |
| AKTO | Aktyubinsk | 136.04 | 304 | PKP | PKPdf | 06 38 22.0 | -1.5 |
| | comp=Z,2.1nm,0.6s,baz=97,slow=1.8,SNR=7.2 | | | | | | |
| ARU | Arti | 136.85 | 313 | i PKIKP | PKPdf | 06 38 25.7 | +0.9 |
| ARU | | | | | | 06 41 09.6 | |
| ARU | Arti | 136.85 | 313 | ePKPdf | PKPdf | 06 38 25.9 | +1.1 |
| ZEI | Tsey | 143.62 | 289 | i PKIKP | PKPdf | 06 38 38.7 | +0.9 |
| ZEI | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.1s | | | | | | |
| DAG | Danmarks Havn | 144.09 | 5 | i PKHKP | PKPab | 06 38 32.8 | -2.3 |
| DAG | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.8s | | | | | | |
| DAG | Danmarks Havn | 144.09 | 5 | i P | PKPab | 06 38 32.8 | -2.3 |
| | comp=Z,4.4nm,0.8s | | | | | | |
| KBZ | Khabaz | 144.56 | 290 | PKP | PKPab | 06 38 36.5 | -1.2 |
| | comp=Z,12nm,0.8s,baz=116,slow=2.7,SNR=19 | | | | | | |
| KBZ | Khabaz | 144.56 | 290 | PKIKP | PKPab | 06 38 36.6 | -1.2 |
| KBZ | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.8s | | | | | | |
| NEY | Neytrino | 144.57 | 290 | i PKIKP | PKPdf | 06 38 39.4 | 0.0 |
| GOF | Gofitskoye | 144.75 | 293⇑ | ePKIKP | PKPab | 06 38 38.4 | 0.0 |
| GOF | | | | pmax | pmax | | |
| | comp=Z,41nm,0.8s | | | | | | |
| KIV | Kislovodsk | 144.76 | 291⇓ | iPKIKP | PKPdf | 06 38 40.6 | +1.0 |
| KIV | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.1s | | | | | | |
| SUMG | Summit | 144.96 | 17 | i PKIKP | PKPbc | 06 38 38.9 | 0.0 |
| SUMG | Summit | 144.96 | 17 | i P | PKPbc | 06 38 38.9 | 0.0 |
| LIC | Lamto | 144.97 | 181 | ePKP1 | PKPab | 06 38 40.0 | -0.1 |
| | comp=Z,128nm,1.1s | | | | | | |
| KIC | Kosan Boka | 145.10 | 182 | ePKP1 | PKPbc | 06 38 40.5 | 0.0 |
| | comp=Z,163nm,1.2s | | | | | | |
| TIC | Toumodi | 145.38 | 181 | ePKP1 | PKPbc | 06 38 41.4 | 0.0 |
| DBIC | Dimbokro | 145.41 | 181 | PKPbc | PKPab | 06 38 42.3 | +0.6 |
| | comp=Z,33nm,1.0s,baz=145,slow=4.3,SNR=18 | | | | | | |
| DBIC | Dimbokro | 145.41 | 181 | ePKP2 | PKPab | 06 38 42.1 | +0.4 |
| DBIC | Dimbokro | 145.41 | 181 | ePKPdf | PKPab | 06 38 42.1 | +0.4 |
| VRH | Novokhopyorsk | 146.36 | 303 | ePKIKP | PKPdf | 06 38 41.7 | -0.2 |
| VRH | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.6s | | | | | | |
| KLMR | Klimovskoe | 146.52 | 321 | ePKIKP | PKPdf | 06 38 41.1 | -0.8 |
| KLMR | | | | e | | 06 42 10.8 | |
| KLMR | | | | pmax | pmax | | |
| | comp=Z,88nm,1.0s | | | | | | |
| KEV | Kevo | 146.94 | 340 | ePKP2 | PKPdf | 06 38 42.7 | +0.3 |
| KEV | Kevo | 146.94 | 340 | ePKPdf | PKPdf | 06 38 42.7 | +0.3 |
| ARCES | ARCESS Array B | 147.47 | 340 | PKPbc | PKPdf | 06 38 44.5 | +1.1 |
| | comp=Z,2.2nm,0.6s,baz=122,slow=32,SNR=9.1 | | | | | | |
| ARCES | | | | pPKPbc | pPKPbc | 06 39 01.5 | -1.2 |
| | comp=Z,14nm,0.8s,baz=30,slow=2.1,SNR=4.8 | | | | | | |
| ARE0 | ARCESS Array S | 147.47 | 340 | ePKPbc | PKPbc | 06 38 44.7 | -1.3 |
| VSR | Storozhevoye | 147.97 | 303 | ePKIKP | PKPdf | 06 38 46.2 | +1.6 |
| VSR | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.4s | | | | | | |
| LPSR | Galich'ya Gora | 148.09 | 306 | ePKP2 | PKPab | 06 38 50.0 | -1.1 |
| LPSR | | | | pmax | pmax | | |
| | comp=Z,30nm,0.9s | | | | | | |
| MOS | Moscow | 148.54 | 312 | ePKP2 | PKPbc | 06 38 48.3 | -0.8 |
| NRS | Narsarsuaq | 148.94 | 37 | i PKP2 | PKPbc | 06 38 49.9 | -0.1 |
| NRS | | | | pmax | pmax | | |
| | comp=Z,23nm,0.7s | | | | | | |
| NRS | Narsarsuaq | 148.94 | 37 | i P | PKPbc | 06 38 49.9 | -0.1 |
| | comp=Z,23nm,0.7s | | | | | | |
| OBN | Obninsk | 149.24 | 311⇑ | iPKP2 | PKPbc | 06 38 51.0 | +0.1 |
| OBN | | | | pmax | pmax | | |
| | comp=Z,13nm,1.0s | | | | | | |
| BR131 | Keskin Array S | 150.27 | 280 | ePKPbc | PKPbc | 06 38 53.2 | -1.0 |
| BRTR | Keskin Array B | 150.27 | 280 | PKPbc | PKPbc | 06 38 52.9 | -1.3 |
| | comp=Z,5.7nm,0.8s,baz=139,slow=5.0,SNR=34 | | | | | | |
| ILGA | Ilgaz | 150.55 | 283 | ePKPbc | PKPbc | 06 38 54.1 | -0.8 |
| BR231 | Keskin MP Arra | 150.94 | 280 | ePKPbc | PKPbc | 06 38 53.9 | -1.8 |
| TOA0 | Torodi Ar. Sit | 151.13 | 195 | ePKPdf | PKPdf | 06 38 51.1 | +0.3 |
| TOA0 | | | | ePKPbc | PKiKP | 06 38 57.0 | -0.3 |
| TORD | Torodi Ar. Bea | 151.13 | 195 | PKP | PKPdf | 06 38 51.3 | +0.5 |
| | comp=Z,5.6nm,1.0s,baz=187,slow=0.8,SNR=13 | | | | | | |
| TORD | | | | PKPbc | PKiKP | 06 38 57.3 | +0.1 |
| | comp=Z,38nm,1.1s,baz=159,slow=2.0,SNR=48 | | | | | | |
| AKAS | Kas | 152.17 | 271 | ePKPbc | PKPbc | 06 38 59.3 | +0.7 |
| FIA1 | FINESS Array S | 152.28 | 327 | ePKPbc | PKPbc | 06 38 56.2 | -1.6 |
| FINES | FINESS Array B | 152.28 | 327 | PKPbc | PKPbc | 06 38 56.2 | -1.6 |
| | comp=Z,8.5nm,0.6s,baz=36,slow=4.2,SNR=47 | | | | | | |
| KOWA | Kowa | 153.15 | 184 | ePKPbc | PKPbc | 06 39 02.1 | +0.8 |
| VSU | Vasula | 153.43 | 321 | cePKP2 | PKPab | 06 39 16.5 | +3.5 |
| VSU | | | | pmax | pmax | | |
| | comp=Z,254nm,2.5s | | | | | | |
| AKASG | Malin Array Be | 154.27 | 303 | PKPbc | PKPbc | 06 39 01.1 | -1.5 |
| | comp=Z,3.6nm,0.6s,baz=72,slow=2.6,SNR=25 | | | | | | |
| AKASG | | | | PKPab | PKPab | 06 39 15.8 | -1.0 |
| | comp=Z,6.3nm,0.8s,baz=68,slow=4.0,SNR=12 | | | | | | |
| AKBB | Malin Array Si | 154.27 | 303 | ePKIKP | PKPbc | 06 39 01.2 | -1.4 |
| AKBB | Malin Array Si | 154.27 | 303 | ePKPbc | PKPbc | 06 39 01.2 | -1.4 |
| KIEV | Kiev | 154.28 | 303⇓ | iPKIKP | PKPbc | 06 39 01.1 | -1.5 |
| KIEV | Kiev | 154.28 | 303 | ePKPbc | PKPbc | 06 39 01.1 | -1.5 |
| AK11 | Malin Array Si | 154.31 | 303 | ePKPbc | PKPbc | 06 39 01.1 | -1.5 |
| CFR | Carcaliu | 155.22 | 290⇓ | iP | PKPab | 06 39 18.4 | -2.7 |
| VRI | Vrincioaia | 156.23 | 292⇑ | iP | PKPab | 06 39 26.0 | +0.5 |
| PLOR | Plostina | 156.29 | 292⇑ | iP | PKPab | 06 39 26.0 | +0.3 |
| TESR | Tescani | 156.29 | 293⇓ | iP | PKPab | 06 39 25.4 | -0.3 |
| MLR | Muntele Rosu | 156.77 | 291⇓ | iP | PKPab | 06 39 24.2 | -3.8 |
| BURAR | Bucovina Array | 157.22 | 296⇑ | iP | PKPab | 06 39 30.3 | +0.5 |
| BUR04 | Bucovina Ar. S | 157.22 | 296 | ePKPab | PKPab | 06 39 29.9 | +0.1 |
| BUR08 | Bucovina Ar. S | 157.23 | 296 | ePKPab | PKPab | 06 39 30.0 | +0.2 |
| VOIR | | 157.40 | 291⇓ | iP | PKPab | 06 39 29.9 | -0.7 |
| NB2 | NORSAR Subarra | 157.81 | 338 | PKP | PKPab | 06 39 34.9 | +3.2 |
| | comp=Z,7.2nm,1.0s,baz=36,slow=4.3 | | | | | | |
| NOA | NORSAR Array B | 157.81 | 338 | PKPab | PKPab | 06 39 30.1 | -1.6 |
| | comp=Z,1.2nm,0.7s,baz=38,slow=4.6,SNR=3.3 | | | | | | |
| DRGR | | 158.99 | 294⇑ | iP | PKPab | 06 39 31.2 | -6.2 |
| UZH | Uzhgorod | 159.04 | 300 | ePKP2 | PKPab | 06 39 38.0 | +0.6 |
| CRVS | Cervenica-Dubn | 159.53 | 301 | ePKP2 | PKPab | 06 39 40.1 | +0.5 |
| CRVS | Cervenica-Dubn | 159.53 | 301 | ePKP | PKPab | 06 39 40.1 | +0.5 |
| CRVS | | | | e | | 06 39 54.1 | |
| KECS | Kecovo | 160.25 | 300 | ePKP2 | PKPab | 06 39 40.6 | -2.1 |
| KECS | Kecovo | 160.25 | 300 | ePKP | PKPab | 06 39 40.6 | -2.1 |
| OKC | Ostrava-Krasne | 161.39 | 305 | ePKPAB | PKPab | 06 39 47.4 | -0.3 |
| OKC | | | | epPKP | pPKPab | 06 40 02.4 | -1.6 |
| OKC | Ostrava-Krasne | 161.39 | 305 | ePKP2 | PKPab | 06 39 47.4 | -0.3 |
| DPC | Dobruska-Polom | 162.32 | 308 | ePKPAB | PKPab | 06 39 50.0 | -1.8 |
| DPC | | | | ex | x | 06 39 55.7 | |
| DPC | | | | epPKP | pPKPab | 06 40 07.3 | -0.9 |
| DPC | Dobruska-Polom | 162.32 | 308 | ePKP2 | PKPab | 06 39 50.0 | -1.8 |
| UPC | Upice | 162.45 | 309 | ePKPAB | PKPab | 06 39 56.0 | +3.7 |
| UPC | | | | epPKP | pPKPab | 06 40 07.6 | -1.0 |
| UPC | Upice | 162.45 | 309 | ePKP2 | PKPab | 06 39 56.0 | +3.7 |
| VRAC | Vranov | 162.52 | 304⇑ | iP | PKPab | 06 39 53.7 | +1.0 |
| PVCC | Panska Ves | 163.28 | 310 | ePKPAB | PKPab | 06 39 59.6 | +3.7 |
| PVCC | | | | epPKP | pPKPab | 06 40 11.5 | -0.8 |
| PVCC | Panska Ves | 163.28 | 310 | ePKP2 | PKPab | 06 39 59.6 | +3.7 |
| GOPC | GO Pecny, Ondr | 163.40 | 308 | ePKPAB | PKPab | 06 39 55.7 | -0.8 |
| GOPC | | | | epPKP | pPKPab | 06 40 13.6 | +0.7 |
| GOPC | GO Pecny, Ondr | 163.40 | 308 | ePKP2 | PKPab | 06 39 55.7 | -0.8 |
| BRG | Berggiesshubel | 163.48 | 312 | ePKP2 | PKPab | 06 39 59.1 | +2.3 |
| BRG | | | | pmax | pmax | | |
| | comp=Z,24nm,1.6s | | | | | | |
| BRG | | | | pmax | pmax | | |
| | comp=Z,21nm,1.4s | | | | | | |
| PRU | Pruhonice | 163.52 | 308 | ePKPAB | PKPab | 06 39 56.3 | -0.7 |
| PRU | | | | epPKP | pPKPab | 06 40 14.5 | +1.2 |
| PRU | Pruhonice | 163.52 | 308 | ePKP2 | PKPab | 06 39 56.3 | -0.7 |
| CLL | Collm | 163.79 | 314 | ePKIKP | PKPdf | 06 39 02.0 | -3.4 |
| CLL | | | | e | | 06 39 55.0 | |
| CLL | Collm | 163.79 | 314 | ePKPdf | PKPdf | 06 39 02.0 | -3.4 |
| CLL | | | | ePKPab | PKPab | 06 39 55.0 | -3.1 |
| KHC | Kasperske Hory | 164.43 | 306 | ePKPAB | PKPab | 06 40 00.7 | -0.4 |
| KHC | | | | epPKP | pPKPab | 06 40 15.9 | -1.6 |
| KHC | Kasperske Hory | 164.43 | 306 | ePKP2 | PKPab | 06 40 00.7 | -0.4 |
| GERES | GERESS Array B | 164.46 | 305 | PKPab | PKPab | 06 40 00.5 | -0.9 |
| | comp=Z,3.4nm,0.9s,baz=66,slow=5.0,SNR=13 | | | | | | |
| GERES | | | | pPKPab | pPKPab | 06 40 16.5 | -1.2 |
| | comp=Z,4.0nm,0.9s,baz=60,slow=5.3,SNR=8.4 | | | | | | |
| GEA0 | GERESS Array S | 164.47 | 305 | ePKPab | PKPab | 06 40 00.7 | -0.7 |
| ES19 | SONSECA Array | 177.83 | 219 | ePKPdf | PKPdf | 06 39 14.6 | +1.3 |
| ESDC | Sonseca Array | 177.84 | 217 | PKP | PKPdf | 06 39 14.6 | +1.3 |
| | comp=Z,2.9nm,1.0s,baz=352,slow=2.4,SNR=9.3 | | | | | | |

**IDC 03 06:25:23.0±2.6, 18°.82S×174°.35W, h0km, mb4.1/6, mb1 4.3/6, mb1mx4.0/33, mbtmp4.1/6, Error ellipse: s-maj=158.0km s-min=32.1km az=153.0, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CTA | Charters Tower | 37.11 | 261 | P | P | 06 32 36.1 | +0.5 |
| | 1.8nm,0.4s,baz=97,slow=12,SNR=7.5 | | | | | | |
| STKA | Stephens Creek | 41.61 | 243 | P | P | 06 33 13.1 | 0.0 |
| | 1.5nm,0.8s,baz=83,slow=8.1,SNR=1.7 | | | | | | |
| WRA | Warramunga Arr | 48.26 | 260 | P | P | 06 34 05.5 | -0.8 |
| | 0.6nm,0.3s,baz=96,slow=7.5,SNR=17 | | | | | | |
| ASAR | Alice Springs | 48.26 | 255 | P | P | 06 34 05.8 | -0.5 |
| | 2.6nm,0.6s,baz=92,slow=8.3,SNR=26 | | | | | | |
| FITZ | Fitzroy Crossi | 56.68 | 260 | P | P | 06 35 09.2 | +0.5 |
| | 1.2nm,0.9s,baz=104,slow=4.2,SNR=1.3 | | | | | | |
| PDAR | Pinedale Array | 85.40 | 42 | P | P | 06 38 02.7 | 0.0 |
| | 0.1nm,0.7s,baz=232,slow=4.4,SNR=4.1 | | | | | | |

*MOS **03** 06:31:33.2±2.9, 49°.19N×155°.95E, h26km, mb4.2/1, Error ellipse: s-maj=90.2km s-min=8.1km az=75.9*

**KRSC 03 06:31:33.3±1.5, 49°.19N×155°.95E, h26km±18km, ML4.0, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SKR | Severo-Kuril's | 1.50 | 4 | ePN | Pb | 06 32 02.2 | +1.8 |
| SKR | | | | eS | Sb | 06 32 19.5 | +0.6 |
| SKR | | | | pmax | pmax | | |
| | comp=Z,90nm,0.4s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=E,123nm,0.2s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=N,92nm,0.3s | | | | | | |
| SKR | Severo-Kuril's | 1.50 | 4 | eP | Pb | 06 31 59.9 | -0.5 |
| SKR | | | | eS | Sb | 06 32 19.2 | +0.3 |
| KDTR | Khodutka, Kamc | 2.95 | 27 | eP | Pn | 06 32 21.4 | +3.0 |
| KDTR | | | | eS | Sn | 06 32 56.5 | +3.5 |
| ASAK | Asacha | 3.43 | 20 | PN | Pn | 06 32 29.0 | +3.9 |
| ASAK | Asacha | 3.43 | 20 | eP | Pn | 06 32 29.0 | +3.9 |
| MTVR | Mutnovka | 3.59 | 22 | PN | Pb | 06 32 31.7 | -4.3 |
| MTVR | | | | S | Sb | 06 33 14.1 | -5.0 |
| MTVR | Mutnovka | 3.59 | 22 | eP | Pb | 06 32 31.7 | -4.3 |
| MTVR | | | | eS | Sb | 06 33 14.1 | -5.0 |
| RUS | Russkaya | 3.63 | 26 | PN | Pn | 06 32 30.9 | +3.1 |
| RUS | | | | S | Sn | 06 33 13.2 | +3.5 |
| RUS | Russkaya | 3.63 | 26 | eP | Pn | 06 32 30.9 | +3.1 |
| RUS | | | | eS | Sn | 06 33 13.2 | +3.5 |
| KRMR | Karymshinskiy | 3.89 | 20 | PN | Pb | 06 32 36.4 | -4.8 |
| KRMR | Karymshinskiy | 3.89 | 20 | eP | Pb | 06 32 36.4 | -4.8 |
| DALK | Dalny | 4.23 | 24 | eS | Sn | 06 33 30.9 | +6.4 |
| UGLR | Uglovaya | 4.41 | 23 | PN | Pn | 06 32 43.1 | +4.5 |
| UGLR | Uglovaya | 4.41 | 23 | eP | Pn | 06 32 43.1 | +4.5 |
| AVH | Avacha | 4.44 | 22 | PN | Pb | 06 32 44.8 | -5.7 |
| AVH | Avacha | 4.44 | 22 | eP | Pb | 06 32 44.8 | -5.7 |
| SDLR | Sedlovina | 4.49 | 23 | PN | Pn | 06 32 44.0 | +4.3 |
| SDLR | Sedlovina | 4.49 | 23 | eP | Pn | 06 32 44.0 | +4.3 |
| NLC | Nalytchevo | 4.52 | 27 | eS | Sn | 06 33 36.4 | +4.8 |
| SPN | Mys Shipunski | 4.68 | 32 | PN | Pn | 06 32 47.0 | +4.9 |
| SPN | | | | S | Sn | 06 33 40.6 | +5.1 |
| SPN | Mys Shipunski | 4.68 | 32 | eP | Pn | 06 32 47.0 | +4.9 |
| SPN | | | | eS | Sn | 06 33 40.6 | +5.1 |
| GNL | Ganaly | 4.68 | 15 | PN | Pn | 06 32 45.6 | +3.3 |
| GNL | Ganaly | 4.68 | 15 | eP | Pn | 06 32 45.6 | +3.3 |
| KBTR | Krutoberegovo | 8.17 | 28 | PN | Pn | 06 33 34.4 | +4.4 |
| KBTR | Krutoberegovo | 8.17 | 28 | eP | Pn | 06 33 34.4 | +4.4 |

*IDC **03** 06:35:47.5±1.1, 15°.65N×119°.52E, h0km, mb3.7/7, mb1 3.9/8, mb1mx3.6/51, mbtmp3.8/8, ML4.7/1, MS4.0/1, Ms1 4.0/1, ms1mx2.8/31, Error ellipse: s-maj=61.6km s-min=19.1km az=62.0*

*ISCJB **03** 06:35:50.8±0.7, 15°.48N±0°.07×119°.04E±0°.05, h29km, mb3.7/7, MS4.0/1, Error ellipse: s-maj=10.4km s-min=6.0km az=166.2*

*MAN **03** 06:35:50, 15°.64N×119°.09E, h5km, mb4.3, ML3.2, MS3.0*

**ISC 03 06:35:52.7±0.8, 15°.59N±0°.08×119°.14E±0°.06, h29km, n15, σ1s.79/18, mb3.7/7, Luzon**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SCZP | Santa Cruz | 0.76 | 76 | eP | Pn | 06 36 06.8 | -0.7 |
| SCZP | | | | eS | Sn | 06 36 19.0 | +1.0 |
| BOLP | Bolinao | 1.08 | 43 | eP | Pn | 06 36 11.3 | -0.5 |
| BOLP | | | | eS | Sb | 06 36 27.5 | +0.9 |
| PCPH | Palayan | 1.88 | 90 | eP | Pb | 06 36 35.4 | +9.0 |
| PCPH | | | | eS | Sn | 06 36 47.4 | +1.7 |
| BALP | Baler | 2.35 | 86 | eP | Pn | 06 36 31.2 | +1.9 |
| BALP | | | | eS | Sb | 06 37 02.1 | -0.8 |
| APYP | Conner | 3.03 | 41 | eP | Pn | 06 36 39.4 | +0.8 |
| APYP | | | | eS | Sb | 06 37 17.9 | -4.6 |

APYP Conner 3.03 41 eP Sn 06 37 16.7 +2.8
CMAR Chiang Mai Arr 19.53 281 P Pn 06 40 20.6 +1.2
0.9nm,0.3s,baz=90,slow=11,SNR=4.6
SONM Songino Array 33.84 345 P P 06 42 32.7 +0.1
0.5nm,0.6s,baz=174,slow=5.8,SNR=3.9
WRA Warramunga Arr 38.34 157 P P 06 43 09.1 -2.1
0.3nm,0.4s,baz=332,slow=10,SNR=6.0
ASAR Alice Springs 41.59 159 P P 06 43 37.4 -0.9
0.6nm,0.6s,baz=341,slow=6.6,SNR=7.8
MKAR Makanchi Array 43.63 323 P P 06 43 55.2 +0.7
0.9nm,0.9s,baz=130,slow=6.2,SNR=2.8
KURBB Kurchatov Arra 47.79 326 P P 06 44 28.3 +1.0
0.6nm,0.3s,baz=114,slow=9.2,SNR=1.4
BVAR Borovoye Array 53.38 326 LR LR 07 06 53.7
comp=Z,158nm,21.5s,baz=256,slow=35
FINES FINESS Array B 77.91 331 P P 06 47 46.6 -1.0
2.0nm,0.8s,baz=90,slow=7.6,SNR=3.3
AKASG Malin Array Be 78.06 319 P P 06 47 48.7 0.0
0.5nm,0.6s,baz=62,slow=4.3,SNR=2.0

---

**ROM 03 06:37:38.4**±0.1**, 39.92N**×**16.00E, h8**km±1km**, Md1.5**/3**, Ml0.5**/1**, Error ellipse: s-maj=1.0km s-min=0.7km az=158.0, Southern Italy**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MMN** | **Mormanno** | **0.03** | **194** | Pg | Pg | 06 37 40.3 | +0.4 |
| MMN | | | | Sg | Sg | 06 37 41.4 | +0.4 |
| **T0711** | **Rotonda (PZ)** | **0.05** | **75** | Pg | Pg | 06 37 40.4 | +0.2 |
| T0711 | | | | Sg | Sg | 06 37 41.8 | +0.4 |
| | 151nm,0.1s | | | | | | |
| **CUC** | **Castrocucco** | **0.16** | **296** | Pg | Pg | 06 37 42.3 | +0.5 |
| CUC | | | | Sg | Sg | 06 37 45.2 | +1.1 |
| | 10.0nm,0.5s | | | | | | |

---

*NIED **03** 06:42:00, 37.30N×141.60E, h47km, Mw4.5 Best double couple: M₀7.43000×10^15 NP1:φs202.00000°, δ20.00000°, λ91.00000°. NP2:φs20.00000°, δ70.00000°, λ89.00000°.*
*ISCJB **03** 06:42:22.6±0.5, 37.33N±0.03×141.61E±0.04, h47km±3km, mb4.7/84, MS3.6/5, Error ellipse: s-maj=6.0km s-min=3.5km az=31.5*
*JMA **03** 06:42:23.3±0.1, 37.34N×141.57E, h44km±2km, M4.3*
*JMA Felt II J1.*
*MOS **03** 06:42:23.1±0.9, 37.39N×141.58E, h54km, mb4.7/39, Error ellipse: s-maj=8.6km s-min=5.9km az=103.5*
*BJI **03** 06:42:23.4, 37.13N×141.43E, h57km, mb4.7/46, mB5.0/30, Ms4.6/15, Ms7 4.4/12*
*IDC **03** 06:42:24.1±0.5, 37.40N×141.64E, h46km±3km, mb4.1/26, mb1 4.2/33, mb1mx4.2/45, mbtmp4.3/33, MS3.3/6, Ms1 3.2/6, ms1mx3.0/32, Error ellipse: s-maj=11.8km s-min=8.2km az=145.0*
*NEIC **03** 06:42:25.2±0.7, 37.37N×141.54E, h53km±6km, mb4.9/36, Error ellipse: s-maj=7.0km s-min=4.7km az=134.0*
*NEIC Recorded [2 JMA] in Fukushima and Miyagi.*
**ISC 03 06:42:24.1**±0.4**, 37.32N**±0.04×**141.67E**±0.04**, h47**km±3km**, h47**km**:pP-P, n210, σ1.42**/249**, mb4.7**/84**, MS3.8**/5**, 20C-11D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JFK** | **Kawauchi** | **0.64** | **274** | P | **Pn** | **06 42 34.9** | **-2.1** |
| JFK | | | | eS | **Sn** | **06 42 42.8** | **-3.4** |
| **ONAJ** | **Iwakimizuishiy** | **0.73** | **253** | P | **Pn** | **06 42 36.3** | **-1.9** |
| ONAJ | | | | eS | **Sn** | **06 42 45.3** | **-3.1** |
| **JMM** | **Marumori** | **0.89** | **308** | P | **Pn** | **06 42 38.3** | **-1.9** |
| JMM | | | | eS | **Sn** | **06 42 49.1** | **-2.9** |
| **JFT** | **Otama** | **1.08** | **281** | P | **Pn** | **06 42 41.8** | **-1.1** |
| JFT | | | | S | **Sn** | **06 42 54.9** | **-1.9** |
| **JHO** | **Hitachi** | **1.13** | **232** | P | **Pn** | **06 42 41.7** | **-1.8** |
| JHO | | | | eS | **Sn** | **06 42 55.4** | **-2.6** |
| **JIO** | **Ouri** | **1.16** | **347** | P | **Pn** | **06 42 42.6** | **-1.3** |
| JIO | | | | eS | **Sn** | **06 42 56.1** | **-2.5** |
| **JOU** | **Okura** | **1.31** | **323** | P | **Pn** | **06 42 44.7** | **-1.3** |
| JOU | | | | eS | **Sn** | **06 43 00.9** | **-1.5** |
| **JYS** | **Shirataka** | **1.56** | **306** | P | **Pn** | **06 42 48.6** | **-0.8** |
| **JFY** | **Yanaizu** | **1.57** | **274** | P | **Pn** | **06 42 48.5** | **-1.0** |
| **JMK** | **Ichinoseki** | **1.67** | **348** | P | **Pn** | **06 42 50.1** | **-0.7** |
| JMK | | | | eS | **Sn** | **06 43 10.1** | **-0.9** |
| **MJAR** | **Matsushiro Arr** | **2.88** | **255** | P | **Pn** | **06 43 07.4** | **-0.1** |
| | 42nm,0.3s,baz=80,slow=15,SNR=74 | | | | | | |
| MJAR | | | | S | **Sn** | **06 43 41.8** | **+0.8** |
| | 30nm,0.3s,baz=91,slow=26,SNR=6.3 | | | | | | |
| MJAR | | | | LR | LR | 06 44 29.3 | |
| | comp=Z,803nm,19.7s,baz=70,slow=44 | | | | | | |
| **MAJO** | **Matsushiro** | **2.88** | **255**d | iP | **Pn** | **06 43 07.4** | **-0.1** |
| **MAJO** | **Matsushiro** | **2.88** | **255** | ePn | **Pn** | **06 43 07.8** | **+0.3** |
| **MAT** | **Matsushiro** | **2.88** | **255** | P | **Pn** | **06 43 07.7** | **+0.2** |
| MAT | | | | S | **Sn** | **06 43 42.9** | **+1.9** |
| **INU** | **Inuyama** | **4.24** | **244** | ePn | **Pn** | **06 43 27.3** | **+1.1** |
| **JHJ2** | **Mitsune** | **4.47** | **200** | ePn | **Pn** | **06 43 29.6** | **+0.4** |
| JHJ2 | | | | eSn | **Sn** | **06 44 17.8** | **-2.1** |
| **JHJ** | **Hachijo jima 2** | **4.47** | **201** | P | **Pn** | **06 43 29.5** | **+0.3** |
| | 46nm,0.3s,baz=116,slow=22,SNR=12 | | | | | | |
| JHJ | | | | S | **Sn** | **06 44 16.8** | **-3.2** |
| | 130nm,0.3s,baz=86,slow=22,SNR=8.2 | | | | | | |
| **ERM** | **Erimo** | **4.83** | **13** | eP | **Pn** | **06 43 34.6** | **+0.5** |
| ERM | | | | e | | 06 44 29.5 | |
| **ERM** | **Erimo** | **4.83** | **13** | ePn | **Pn** | **06 43 34.6** | **+0.5** |
| ERM | | | | eSn | **Sn** | **06 44 29.5** | **+0.8** |
| **ASAJ** | **Asahikawa** | **6.83** | **6** | P | **Pn** | **06 44 00.0** | **-1.5** |
| | 4.2nm,0.3s,baz=205,slow=14,SNR=12 | | | | | | |
| ASAJ | | | | S | **Sn** | **06 45 16.8** | **-1.1** |
| | 2.5nm,0.3s,baz=49,slow=20,SNR=3.0 | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **7.42** | **24** | P | Pn | 06 44 03.8 | -5.9 |
| YUK | | | | eS | **Sn** | **06 45 28.0** | **-4.5** |
| YUK | | | | smax | smax | | |
| | comp=E,121nm,0.6s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,365nm,0.5s | | | | | | |
| **KUR** | **Kuril'sk** | **9.17** | **29** | P | **Pn** | **06 44 35.7** | **+2.0** |
| KUR | | | | eS | **Sn** | **06 46 13.8** | **-1.7** |
| KUR | | | | pmax | pmax | | |
| | comp=Z,29nm,0.5s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **9.66** | **4** | eP | **Pn** | **06 44 42.3** | **+2.0** |
| YSS | | | | e | | 06 46 31.5 | |
| YSS | | | | pmax | pmax | | |
| | comp=Z,20nm,0.4s | | | | | | |
| **JNU** | **Nakatsue** | **9.77** | **248** | P | **Pn** | **06 44 44.0** | **+2.0** |
| | comp=Z,1.1nm,0.3s,baz=268,slow=3.6,SNR=7.3 | | | | | | |
| **JNU** | **Nakatsue** | **9.77** | **248** | ePn | **Pn** | **06 44 43.1** | **+1.1** |
| **USRK** | **Ussuriysk Ar.** | **10.05** | **316** | P | **Pn** | **06 44 45.8** | **0.0** |
| | comp=Z,0.8nm,0.3s,baz=120,slow=14,SNR=17 | | | | | | |
| USRK | | | | LR | LR | 06 48 21.4 | |
| | comp=Z,221nm,19.8s,baz=125,slow=36 | | | | | | |
| **KSRS** | **Korea Array** | **10.94** | **275** | P | **Pn** | **06 44 60.0** | **+2.0** |
| | comp=Z,0.8nm,0.3s,baz=90,slow=14,SNR=15 | | | | | | |
| KSRS | | | | LR | LR | 06 48 52.2 | |
| | comp=Z,210nm,18.9s,baz=64,slow=36 | | | | | | |
| **KSRS** | **Korea Array** | **10.94** | **275** | P | **Pn** | **06 45 00.0** | **+2.0** |
| KSRS | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.3s | | | | | | |
| KSRS | | | | MLR | MLR | | |
| | comp=Z,210nm,18.9s | | | | | | |
| **KSAR** | **Wonju Array Be** | **10.97** | **275** | P | **Pn** | **06 45 00.0** | **+1.6** |
| **KSAR** | **Wonju Array Be** | **10.97** | **275** | P | **Pn** | **06 44 60.0** | **+1.6** |
| **JOW** | **Kunigami** | **15.42** | **231** | ePn | **P** | **06 46 04.2** | **+2.0** |
| | comp=Z,116nm,1.3s | | | | | | |
| **PEA0B** | **Petropavlovsk-** | **19.34** | **30** | eP | **Pn** | **06 46 47.4** | **+0.7** |
| | comp=Z,44nm,1.3s | | | | | | |
| **PETK** | **Petropavlovsk-** | **19.34** | **30** | P | **P** | **06 46 45.1** | **-0.1** |
| | comp=Z,0.4nm,0.3s,baz=225,slow=5.7,SNR=3.5 | | | | | | |
| PETK | | | | LR | LR | 06 53 54.3 | |
| | comp=Z,51nm,19.7s,baz=234,slow=36 | | | | | | |
| **NJ2** | **Nanjing** | **19.47** | **261** | eP | **P** | **06 46 46.6** | **-0.3** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,13nm,0.6s | | | | | | |
| **TIA** | **Tai'an** | **19.69** | **274** | eP | **P** | **06 46 47.2** | **-2.1** |
| TIA | | | | pmax | pmax | | |
| | comp=Z,20nm,1.0s | | | | | | |
| **YHNB** | **Yeheng** | **21.43** | **240** | eP | **P** | **06 47 07.1** | **-1.2** |
| | comp=Z,224nm,1.9s | | | | | | |
| **SSLB** | **Suanglung** | **22.30** | **239** | eP | **P** | **06 47 15.1** | **-2.5** |
| | comp=Z,65nm,1.6s | | | | | | |
| **TPUB** | **Ta-pu** | **22.85** | **238** | eP | **P** | **06 47 20.2** | **-3.2** |
| | comp=Z,140nm,1.7s | | | | | | |
| **MA2** | **Magadan** | **23.03** | **12** | LR | LR | 06 57 59.8 | |
| | comp=Z,53nm,18.4s,baz=120,slow=41 | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **23.58** | **288** | eP | **P** | **06 47 30.7** | **+0.2** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,11nm,0.7s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,120nm,6.8s | | | | | | |
| **WHN** | **Wuhan** | **23.61** | **261** | ⇑P | **P** | **06 47 26.6** | **-4.1** |
| **YAK** | **Yakutsk** | **25.84** | **347** | P | **P** | **06 47 49.2** | **-1.4** |
| | comp=Z,21nm,0.4s,baz=77,slow=0.8,SNR=7.8 | | | | | | |
| **YAK** | **Yakutsk** | **25.84** | **347** | eP | **P** | **06 47 49.3** | **-1.4** |
| YAK | | | | e*PP | **sP** | **06 48 09.5** | **+0.8** |
| YAK | | | | e | | 06 48 36.6 | |
| YAK | | | | e | | 06 51 14.1 | |
| YAK | | | | eS | **S** | **06 52 16.8** | **+0.1** |
| YAK | | | | pmax | pmax | | |
| | comp=Z,24nm,0.9s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,3.0nm,1.0s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,5.0nm,0.9s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=Z,213nm,5.1s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,150nm,5.8s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,101nm,5.6s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=N,85nm,3.5s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=E,63nm,3.7s | | | | | | |
| **YAK** | **Yakutsk** | **25.84** | **347** | eP | **P** | **06 47 49.2** | **-1.4** |
| | comp=E,33nm,0.6s | | | | | | |
| **SEY** | **Seymchan** | **26.47** | **11** | P | **P** | **06 47 55.9** | **-0.5** |
| | comp=E,2.3nm,0.6s,baz=180,slow=20,SNR=2.8 | | | | | | |
| **SEY** | **Seymchan** | **26.47** | **11**⇓ | eP | **P** | **06 47 55.8** | **-0.6** |
| **XAN** | **Xi'an** | **26.73** | **273** | P | **P** | **06 47 58.0** | **-1.1** |
| XAN | | | | pmax | pmax | | |
| | comp=E,18nm,0.7s | | | | | | |
| **ULN** | **Ulaanbaatar** | **27.37** | **304**c | iP | **P** | **06 48 04.5** | **-0.3** |
| ULN | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.2s | | | | | | |
| **ULN** | **Ulaanbaatar** | **27.37** | **304** | eP | **P** | **06 48 04.6** | **-0.3** |
| | comp=Z,4.3nm,0.8s | | | | | | |
| **BOD** | **Bodaibo** | **27.40** | **327** | eP | **P** | **06 48 03.5** | **-1.3** |
| BOD | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.4s | | | | | | |
| **ENH** | **Enshi** | **27.56** | **265** | eP | **P** | **06 48 06.6** | **0.0** |
| | comp=Z,22nm,0.7s | | | | | | |
| **SONA1** | **Songino Array** | **27.80** | **303** | eP | **P** | **06 48 08.5** | **-0.1** |
| **SONM** | **Songino Array** | **27.80** | **303** | P | **P** | **06 48 07.8** | **-0.9** |
| | comp=Z,5.5nm,0.6s,baz=102,slow=9.2,SNR=27 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.12** | **122** | T | T | 07 18 33.2 | |
| | baz=314,slow=75,SNR=841 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.13** | **122** | T | T | 07 18 26.2 | |
| | baz=314,slow=75,SNR=786 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.14** | **122** | T | T | 07 18 26.9 | |
| | baz=314,slow=75,SNR=696 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.84** | **124** | T | T | 07 19 23.9 | |
| | baz=317,slow=75,SNR=422 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.84** | **124** | T | T | 07 19 22.1 | |
| | baz=317,slow=75,SNR=352 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.86** | **124** | T | T | 07 19 32.9 | |
| | baz=317,slow=75,SNR=273 | | | | | | |
| **LZH** | **Lanzhou** | **30.22** | **279** | eP | **P** | **06 48 31.0** | **+0.6** |
| LZH | | | | pP | pP | 06 48 45.0 | +2.2 |
| LZH | | | | sP | sP | 06 48 53.3 | +4.9 |
| LZH | | | | PP | **PnPn** | **06 49 30.8** | **+1.5** |
| LZH | | | | S | **S** | **06 53 24.2** | **-2.5** |
| LZH | | | | sS | sS | 06 53 47.3 | -0.3 |
| LZH | | | | SS | **SnSn** | **06 55 03.3** | **-0.3** |
| LZH | | | | pmax | pmax | | |
| | comp=Z,13nm,1.2s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,61nm,4.5s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,170nm,15.7s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,190nm,15.3s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,310nm,16.2s | | | | | | |
| **TLY** | **Talaya** | **30.30** | **311**⇓ | eP | **P** | **06 48 29.8** | **-0.9** |
| TLY | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.8s | | | | | | |
| **GYA** | **Guiyang** | **31.47** | **260**⇑ | iP | **P** | **06 48 40.2** | **-1.2** |
| GYA | | | | pP | pP | 06 48 55.8 | +1.9 |
| GYA | | | | PP | **PnPn** | **06 49 47.2** | **+1.5** |
| GYA | | | | PcP | **PcP** | **06 51 34.5** | **+0.8** |
| GYA | | | | S | S | 06 53 35.0 | -11 |
| GYA | | | | sS | sS | 06 54 09.6 | +2.4 |
| GYA | | | | ScP | **ScP** | **06 55 12.2** | **-0.6** |
| GYA | | | | SS | **SnSn** | **06 55 34.0** | **-0.1** |
| GYA | | | | pmax | pmax | | |
| | comp=Z,20nm,0.8s | | | | | | |
| GYA | | | | pmax | pmax | | |
| | comp=Z,120nm,5.0s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,560nm,17.1s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,480nm,17.6s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,510nm,17.2s | | | | | | |
| **CD2** | **Chengdu** | **31.88** | **270** | eP | **P** | **06 48 44.3** | **-0.6** |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.0s | | | | | | |
| **QIZ** | **Qiongzhong** | **33.23** | **246** | P | **P** | **06 48 57.3** | **+0.6** |
| QIZ | | | | sP | **sP** | **06 49 20.2** | **+5.3** |
| QIZ | | | | S | **S** | **06 54 12.8** | **-0.8** |
| QIZ | | | | pmax | pmax | | |
| | comp=Z,17nm,1.6s | | | | | | |
| **BILL** | **Bilibino** | **33.69** | **16** | eP | **P** | **06 48 59.3** | **-0.9** |
| BILL | | | | e | | 06 50 17.9 | |
| BILL | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.1s | | | | | | |
| **TIXI** | **Tiksi** | **35.03** | **353**⇑ | eP | **P** | **06 49 10.9** | **-0.8** |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.5s | | | | | | |
| **TIXI** | **Tiksi** | **35.03** | **353** | eP | **P** | **06 49 11.7** | **0.0** |
| | comp=Z,7.8nm,1.5s | | | | | | |
| **KMI** | **Kunming** | **35.21** | **261** | P | **P** | **06 49 12.8** | **-1.3** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,27nm,1.0s | | | | | | |
| **HVS** | **Khovu-Aksy** | **36.38** | **308**⇑ | eP | **P** | **06 49 22.7** | **-1.0** |
| HVS | | | | pmax | pmax | | |
| | comp=Z,20nm,0.8s | | | | | | |
| **GAMB** | **Gambell** | **38.36** | **31** | eP | **P** | **06 49 38.0** | **-2.2** |
| | comp=Z,96nm,1.6s | | | | | | |
| **WMQ** | **Urumqi** | **40.90** | **297** | P | **P** | **06 50 02.1** | **+0.5** |
| WMQ | | | | pP | pP | 06 50 15.7 | +1.4 |
| WMQ | | | | sP | sP | 06 50 21.8 | +1.9 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,24nm,0.5s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,550nm,6.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,80nm,16.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,87nm,17.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,100nm,16.9s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **41.77** | **255** | P | **P** | **06 50 08.7** | **-0.2** |
| | comp=Z,2.8nm,0.3s,baz=49,slow=5.4,SNR=4.7 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **41.77** | **255**c | eP | **P** | **06 50 11.1** | **+2.2** |
| CMAR | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.4s | | | | | | |
| **ZAA0** | **Zalesovo Array** | **41.88** | **312** | eP | **P** | **06 50 09.1** | **-0.3** |
| | comp=Z,12nm,1.1s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.88** | **312** | P | **P** | **06 50 09.1** | **-0.3** |
| | comp=Z,4.8nm,0.4s,baz=89,slow=7.2,SNR=26 | | | | | | |
| ZALV | | | | PcP | **PcP** | **06 52 03.7** | **-0.7** |
| | comp=Z,0.7nm,0.3s,baz=113,slow=3.3,SNR=4.5 | | | | | | |
| ZALV | | | | pPcP | | 06 52 18.3 | |
| | comp=Z,1.7nm,0.7s,baz=62,slow=3.8,SNR=4.1 | | | | | | |
| **NVS** | **Novosibirsk** | **42.79** | **313** | eP | **P** | **06 50 17.0** | **+0.2** |
| NVS | | | | pmax | pmax | | |
| | comp=Z,13nm,1.1s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=E,6.0nm,0.7s | | | | | | |
| **MK01** | **Makanchi Array** | **44.14** | **302** | eP | **P** | **06 50 27.6** | **-0.3** |
| **MK31** | **Makanchi Array** | **44.14** | **302**c | eP | **P** | **06 50 26.4** | **-1.5** |
| MK31 | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.6s | | | | | | |
| **MK31** | **Makanchi Array** | **44.14** | **302** | eP | **P** | **06 50 27.4** | **-0.4** |
| **MKAR** | **Makanchi Array** | **44.14** | **302** | P | **P** | **06 50 27.4** | **-0.5** |
| | comp=Z,6.6nm,0.6s,baz=84,slow=10.0,SNR=62 | | | | | | |
| **MAKZ** | **Makanchi** | **44.35** | **302** | eP | **P** | **06 50 29.0** | **-0.5** |
| MAKZ | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.7s | | | | | | |
| **MAKZ** | **Makanchi** | **44.35** | **302** | eP | **P** | **06 50 29.0** | **-0.5** |
| | comp=Z,6.3nm,0.7s | | | | | | |
| **KURK** | **Kurchatov** | **45.92** | **308**c | iP | **P** | **06 50 40.9** | **-0.9** |
| KURK | | | | pmax | pmax | | |
| | comp=Z,78nm,1.0s | | | | | | |
| **KURK** | **Kurchatov** | **45.92** | **308** | eP | **P** | **06 50 41.2** | **-0.6** |
| | comp=Z,21nm,0.9s | | | | | | |
| KURK | | | | pP | **pP** | **06 50 53.5** | **-1.2** |
| **KURBB** | **Kurchatov Arra** | **45.99** | **308** | P | **P** | **06 50 41.8** | **-0.6** |
| | comp=Z,17nm,0.5s,baz=83,slow=7.9,SNR=67 | | | | | | |
| KURBB | | | | pP | **pP** | **06 50 53.5** | **-1.8** |
| | comp=Z,9.7nm,0.6s,baz=83,slow=7.9,SNR=5.4 | | | | | | |
| **ODAN** | **Odare** | **46.60** | **273** | eP | **P** | **06 50 47.5** | **-0.3** |
| | comp=Z,10nm,0.4s | | | | | | |
| **KDAK** | **Kodiak Island** | **46.75** | **42** | P | **P** | **06 50 48.3** | **+0.1** |
| | comp=Z,3.7nm,0.8s,baz=347,slow=1.8,SNR=7.2 | | | | | | |
| **KDAK** | **Kodiak Island** | **46.75** | **42** | eP | **P** | **06 50 49.2** | **+1.0** |
| KDAK | | | | pmax | pmax | | |
| | comp=Z,58nm,1.4s | | | | | | |
| **KDAK** | **Kodiak Island** | **46.75** | **42** | eP | **P** | **06 50 49.2** | **+1.0** |
| | comp=Z,58nm,1.4s | | | | | | |
| **PPLA** | **Purkeypile** | **46.81** | **35** | eP | **P** | **06 50 49.5** | **+0.5** |
| | comp=Z,158nm,2.4s | | | | | | |
| **RAMN** | **Ramite** | **47.19** | **274** | eP | **P** | **06 50 52.1** | **-0.3** |
| | comp=Z,32nm,0.7s | | | | | | |
| **JIRN** | **Jiri** | **47.20** | **275** | eP | **P** | **06 50 52.7** | **+0.1** |
| | comp=Z,119nm,0.4s | | | | | | |
| **GUN** | **Gumba** | **47.33** | **276** | eP | **P** | **06 50 54.1** | **+0.4** |
| | comp=Z,30nm,0.4s | | | | | | |
| **KTH** | **Kantishna Hill** | **47.40** | **34** | eP | **P** | **06 50 56.5** | **+3.2** |
| | comp=Z,46nm,1.9s | | | | | | |
| **PKI** | **Pulchoki** | **47.86** | **275** | eP | **P** | **06 50 57.4** | **-0.3** |
| | comp=Z,9.1nm,0.4s | | | | | | |
| **KKN** | **Kakani** | **47.86** | **276** | eP | **P** | **06 50 57.8** | **+0.2** |
| | comp=Z,24nm,0.6s | | | | | | |
| **PKIN** | **Phulchoki** | **47.87** | **275** | eP | **P** | **06 50 57.9** | **+0.2** |
| | comp=Z,16nm,0.6s | | | | | | |
| **RND** | **Reindeer** | **48.33** | **34** | eP | **P** | **06 51 01.5** | **+1.0** |
| RND | | | | pmax | pmax | | |
| | comp=Z,24nm,1.5s | | | | | | |
| **RND** | **Reindeer** | **48.33** | **34** | eP | **P** | **06 51 01.5** | **+1.0** |
| | comp=Z,24nm,1.5s | | | | | | |
| **CCB** | **Clear Creek Bu** | **48.75** | **33** | eP | **P** | **06 51 07.2** | **+3.5** |
| | comp=Z,21nm,1.9s | | | | | | |
| **DANN** | **Dangsing** | **48.82** | **277** | eP | **P** | **06 51 05.4** | **+0.3** |
| **DHY** | **Denali Highway** | **49.01** | **35** | eP | **P** | **06 51 07.7** | **+1.8** |
| | comp=Z,14nm,1.4s | | | | | | |
| **SCM** | **Sheep Creek Mo** | **49.11** | **36** | eP | **P** | **06 51 08.0** | **+1.4** |
| SCM | | | | pmax | pmax | | |
| | comp=Z,58nm,1.6s | | | | | | |
| **SCM** | **Sheep Creek Mo** | **49.11** | **36** | eP | **P** | **06 51 08.0** | **+1.4** |
| | comp=Z,58nm,1.6s | | | | | | |
| **IL1** | **Eielson Array** | **49.14** | **32** | eP | **P** | **06 51 07.5** | **+0.8** |
| **ILAR** | **Eielson Array** | **49.14** | **32** | P | **P** | **06 51 07.3** | **+0.6** |
| | comp=Z,2.2nm,0.8s,baz=271,slow=6.4,SNR=27 | | | | | | |
| **ILB** | **Eielson Array** | **49.14** | **32** | eP | **P** | **06 51 08.0** | **+1.3** |
| **KOLN** | **Koldanda** | **49.20** | **277** | eP | **P** | **06 51 07.6** | **-0.3** |
| | comp=Z,8.3nm,0.4s | | | | | | |
| **PYUN** | **Piuthan** | **49.54** | **277** | eP | **P** | **06 51 10.2** | **-0.3** |
| | comp=Z,30nm,0.6s | | | | | | |
| **KSH** | **Kashi** | **50.48** | **294** | eP | **P** | **06 51 21.2** | **+3.8** |
| KSH | | | | pP | sP | 06 51 35.2 | -0.7 |
| KSH | | | | PcP | **PcP** | **06 52 38.2** | **+3.3** |
| KSH | | | | PP | **PP** | **06 53 17.3** | **+4.1** |
| KSH | | | | S | **S** | **06 58 29.9** | **+2.0** |
| KSH | | | | ScS | **ScS** | **07 01 03.5** | **-0.8** |
| KSH | | | | SS | **SS** | **07 02 00.7** | **-1.2** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.8s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,220nm,4.5s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,250nm,5.9s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,320nm,5.8s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,400nm,6.2s | | | | | | |
| **BVA0** | **Borovoye Array** | **50.53** | **312** | i P | **P** | **06 51 16.5** | **-0.9** |
| BVA0 | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.6s | | | | | | |
| **BVAR** | **Borovoye Array** | **50.53** | **312** | P | **P** | **06 51 17.0** | **-0.4** |
| | comp=Z,4.0nm,0.5s,baz=73,slow=7.3,SNR=32 | | | | | | |
| BVAR | | | | PcP | **PcP** | **06 52 35.1** | **+0.4** |
| | comp=Z,1.6nm,0.7s,baz=92,slow=3.3,SNR=2.6 | | | | | | |
| **AAK** | **Ala-Archa** | **50.53** | **298** | P | **P** | **06 51 17.3** | **-0.5** |
| | comp=Z,2.7nm,0.6s,baz=118,slow=5.5,SNR=7.3 | | | | | | |
| **AAK** | **Ala-Archa** | **50.53** | **298**⇑ | eP | **P** | **06 51 15.9** | **-1.9** |
| AAK | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.0s | | | | | | |
| **AAK** | **Ala-Archa** | **50.53** | **298** | eP | **P** | **06 51 17.4** | **-0.3** |
| | comp=Z,10nm,1.4s | | | | | | |
| **BRVK** | **Borovoye** | **50.59** | **312**c | iP | **P** | **06 51 17.4** | **-0.4** |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,11nm,0.7s | | | | | | |
| **BRVK** | **Borovoye** | **50.59** | **312** | eP | **P** | **06 51 16.9** | **-0.9** |
| | comp=Z,8.0nm,1.0s | | | | | | |
| **MTN** | **Manton Dam** | **50.87** | **193** | eP | **P** | **06 51 20.9** | **+0.7** |
| | comp=Z,16nm,1.4s | | | | | | |
| **KK31** | **Karatay Array** | **53.16** | **300**c | eP | **P** | **06 51 36.5** | **-0.7** |
| KK31 | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.4s | | | | | | |
| **INK** | **Inuvik** | **54.04** | **27** | P | **P** | **06 51 44.2** | **+1.1** |
| | comp=Z,1.8nm,0.8s,baz=264,slow=7.9,SNR=6.7 | | | | | | |
| **INK** | **Inuvik** | **54.04** | **27** | eP | **P** | **06 51 44.6** | **+1.5** |
| INK | | | | pmax | pmax | | |
| | comp=Z,14nm,1.8s | | | | | | |
| **INK** | **Inuvik** | **54.04** | **27** | eP | **P** | **06 51 44.6** | **+1.5** |
| | comp=Z,14nm,1.8s | | | | | | |
| **SVE** | **Sverdlovsk** | **55.07** | **319** | eP | **P** | **06 51 51.3** | **+0.5** |
| SVE | | | | pmax | pmax | | |
| | comp=Z,18nm,0.8s | | | | | | |
| **DZET** | **Dzherino** | **55.91** | **296** | P | **P** | **06 51 56.5** | **-0.8** |
| DZET | | | | pmax | pmax | | |
| | comp=Z,16nm,0.6s | | | | | | |
| **ARU** | **Arti** | **56.28** | **318**c | iP | **P** | **06 51 59.0** | **-0.5** |
| ARU | | | | | | 06 52 55.9 | |
| ARU | | | | S | **S** | **06 59 48.9** | **+3.1** |
| ARU | | | | SS | **SS** | **07 03 35.4** | **+2.9** |
| ARU | | | | pmax | pmax | | |
| | comp=Z,20nm,1.0s | | | | | | |
| **ARU** | **Arti** | **56.28** | **318** | eP | **P** | **06 51 59.2** | **-0.3** |
| | comp=Z,14nm,0.7s | | | | | | |
| **WRAB** | **Tennant Creek** | **57.36** | **188**⇑ | eP | **P** | **06 52 07.0** | **-0.5** |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.5s | | | | | | |
| **WB2** | **Warramunga Arr** | **57.37** | **188** | eP | **P** | **06 52 07.4** | **-0.1** |
| | comp=Z,12nm,1.3s | | | | | | |
| **WRA** | **Warramunga Arr** | **57.37** | **188** | P | **P** | **06 52 07.5** | **-0.1** |
| | comp=Z,1.8nm,0.5s,baz=6.2,slow=7.2,SNR=33 | | | | | | |
| **AB31** | **Akbulak array** | **57.91** | **310**c | eP | **P** | **06 52 10.1** | **-1.0** |
| AB31 | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.5s | | | | | | |
| **AKTO** | **Aktyubinsk** | **58.64** | **312** | i P | **P** | **06 52 14.5** | **-1.7** |
| AKTO | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.8s | | | | | | |
| **AS01** | **Alice Springs** | **61.09** | **188** | eP | **P** | **06 52 34.0** | **+0.7** |
| **ASAR** | **Alice Springs** | **61.10** | **188** | P | **P** | **06 52 33.6** | **+0.3** |
| | comp=Z,1.0nm,0.8s,baz=2.0,slow=6.9,SNR=11 | | | | | | |
| ASAR | | | | pP | **pP** | **06 52 47.4** | **+0.7** |
| | comp=Z,1.4nm,0.8s,baz=18,slow=6.3,SNR=7.4 | | | | | | |
| **RES** | **Resolute Bay** | **62.27** | **15** | P | **P** | **06 52 39.7** | **-0.8** |
| | comp=Z,2.1nm,0.8s,baz=285,slow=3.5,SNR=6.4 | | | | | | |
| **RES** | **Resolute Bay** | **62.27** | **15** | P | **P** | **06 52 39.7** | **-0.8** |
| RES | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.8s | | | | | | |
| **PALK** | **Pallekele** | **62.63** | **258** | i P | **P** | **06 52 45.2** | **+1.3** |
| **YKA** | **Yellowknife Ar** | **63.46** | **30** | P | **P** | **06 52 47.9** | **-0.6** |
| | comp=Z,1.0nm,0.8s,baz=302,slow=7.1,SNR=6.0 | | | | | | |
| YKA | | | | LR | LR | 07 22 05.9 | |
| | comp=Z,9.3nm,19.2s,baz=180,slow=38 | | | | | | |
| **YKA** | **Yellowknife Ar** | **63.46** | **30** | P | **P** | **06 52 48.0** | **-0.6** |
| **KLMR** | **Klimovskoe** | **63.62** | **328** | eP | **P** | **06 52 46.7** | **-3.0** |
| KLMR | | | | pmax | pmax | | |
| | comp=Z,18nm,1.5s | | | | | | |
| **ARCES** | **ARCESS Array B** | **63.80** | **339** | P | **P** | **06 52 50.7** | **-0.1** |
| | comp=Z,3.2nm,0.8s,baz=59,slow=8.9,SNR=10 | | | | | | |
| **ARCES** | **ARCESS Array B** | **63.80** | **339** | eP | **P** | **06 52 50.9** | **+0.1** |
| **ARCES** | **ARCESS Array B** | **63.80** | **339** | eP | **P** | **06 52 50.9** | **+0.1** |
| **ARE0** | **ARCESS Array S** | **63.80** | **339** | eP | **P** | **06 52 51.1** | **+0.3** |
| | comp=Z,102nm,1.6s | | | | | | |
| **GEYT** | **Alibeck** | **63.88** | **299** | P | **P** | **06 52 51.8** | **-0.1** |
| | comp=Z,2.4nm,0.6s,baz=68,slow=3.9,SNR=3.3 | | | | | | |
| **PGC** | **Sidney** | **65.99** | **46** | P | **P** | **06 53 08.6** | **+3.3** |
| **OBN** | **Obninsk** | **67.99** | **323**⇓ | eP | **P** | **06 53 17.7** | **-0.2** |
| OBN | | | | e | | 06 53 44.7 | |
| OBN | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.9s | | | | | | |
| **FIA1** | **FINESS Array S** | **68.66** | **332** | eP | **P** | **06 53 22.4** | **+0.5** |
| | comp=Z,84nm,1.7s | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| FINES | FINESS Array B | 68.66 | 332 | P | P | 06 53 21.8 | -0.2 |
| | comp=Z,3.9nm,0.6s,baz=31,slow=8.8,SNR=20 | | | | | | |
| FORT | Forrest | 68.93 | 193 | eP | P | 06 53 25.3 | +1.3 |
| | comp=Z,177nm,0.8s | | | | | | |
| KBZ | Khabaz | 70.87 | 311 | P | P | 06 53 35.2 | -0.7 |
| | comp=Z,4.1nm,0.9s,baz=157,slow=9.1,SNR=7.1 | | | | | | |
| KBZ | | | | pP | pP | 06 53 49.2 | -0.3 |
| | comp=Z,4.8nm,0.8s,baz=80,slow=1.1,SNR=6.5 | | | | | | |
| KIV | Kislovodsk | 70.88 | 311⇓ | eP | P | 06 53 36.4 | +0.3 |
| KIV | | | | e | | 06 53 48.3 | |
| KIV | | | | e | | 06 53 54.2 | |
| KIV | | | | ePPP | PPP | 06 57 54.7 | |
| KIV | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.8s | | | | | | |
| GNI | Garni | 71.70 | 307d | eP | P | 06 53 39.4 | -1.9 |
| UOSS | Minazif | 71.92 | 288 | eP | P | 06 53 42.6 | +0.1 |
| | comp=Z,11nm,1.1s | | | | | | |
| NC405 | NORSAR Array S | 73.79 | 337 | eP | P | 06 53 53.2 | +0.1 |
| NC204 | NORSAR Array S | 73.95 | 338 | eP | P | 06 53 54.1 | 0.0 |
| NB2 | NORSAR Subarra | 74.00 | 337 | P | P | 06 53 54.1 | -0.2 |
| | comp=Z,6.6nm,0.8s,baz=39,slow=6.2 | | | | | | |
| NOA | NORSAR Array B | 74.00 | 337 | P | P | 06 53 54.3 | 0.0 |
| | comp=Z,2.4nm,0.7s,baz=38,slow=5.8,SNR=5.7 | | | | | | |
| NOA | | | | pP | pP | 06 54 07.7 | -0.4 |
| | comp=Z,4.0nm,0.8s,baz=38,slow=5.9,SNR=4.7 | | | | | | |
| NBO00 | NORSAR Array S | 74.14 | 338 | eP | P | 06 53 55.8 | +0.6 |
| AKASG | Malin Array Be | 74.20 | 322 | P | P | 06 53 55.0 | -0.6 |
| | comp=Z,2.5nm,0.4s,baz=45,slow=6.0,SNR=24 | | | | | | |
| AKASG | | | | pP | pP | 06 54 08.2 | -1.1 |
| | comp=Z,2.1nm,0.5s,baz=46,slow=5.8,SNR=6.5 | | | | | | |
| AKBB | Malin Array Si | 74.20 | 322 | eP | P | 06 53 55.1 | -0.5 |
| AKBB | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.0s | | | | | | |
| AKBB | Malin Array Si | 74.20 | 322 | eP | P | 06 53 55.1 | -0.5 |
| | comp=Z,8.8nm,1.0s | | | | | | |
| KIEV | Kiev | 74.21 | 322⇓ | eP | P | 06 53 55.3 | -0.3 |
| KIEV | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.9s | | | | | | |
| KIEV | Kiev | 74.21 | 322 | eP | P | 06 53 55.1 | -0.6 |
| | comp=Z,9.1nm,1.0s | | | | | | |
| AK11 | Malin Array Si | 74.24 | 322 | eP | P | 06 53 55.5 | -0.4 |
| PDAR | Pinedale Array | 77.32 | 46 | P | P | 06 54 14.2 | +0.2 |
| | comp=Z,0.7nm,0.8s,baz=298,slow=3.2,SNR=5.3 | | | | | | |
| PDAR | | | | pP | pP | 06 54 26.7 | -1.0 |
| | comp=Z,0.4nm,0.6s,baz=228,slow=1.8,SNR=4.1 | | | | | | |
| PDAR | Pinedale Array | 77.32 | 46 | eP | P | 06 54 14.9 | +1.0 |
| PDAR | | | | pP | pP | 06 54 26.7 | -1.0 |
| BUR04 | Bucovina Ar. S | 78.21 | 322 | eP | P | 06 54 18.7 | +0.1 |
| BURAR | Bucovina Array | 78.22 | 322⇑ | iP | P | 06 54 18.5 | -0.1 |
| TESR | Tescani | 78.25 | 320⇓ | iP | P | 06 54 18.9 | +0.2 |
| DNR | Dunn Ranch,Anz | 78.62 | 57 | eP | P | 06 54 22.1 | +0.9 |
| VRI | Vrincioaia | 78.64 | 320⇓ | iP | P | 06 54 22.3 | +1.4 |
| DPP | Dos Picos Cty | 78.76 | 57 | eP | P | 06 54 22.2 | +0.5 |
| BRTR | Keskin Array B | 78.82 | 312 | P | P | 06 54 22.0 | -0.1 |
| | comp=Z,1.0nm,0.7s,baz=87,slow=4.2,SNR=5.1 | | | | | | |
| BRTR | | | | pP | pP | 06 54 35.8 | -0.2 |
| | comp=Z,0.9nm,0.8s,baz=138,slow=7.6,SNR=4.1 | | | | | | |
| P18A | Preston Nutter | 78.91 | 48 | eP | P | 06 54 21.2 | -1.6 |
| UZH | Uzhgorod | 78.92 | 324 | eP | P | 06 54 24.9 | +2.6 |
| UZH | | | | e | | 06 54 32.3 | |
| UZH | | | | e | | 06 54 37.9 | |
| DOPR | Dopca | 79.26 | 320⇑ | iP | P | 06 54 26.0 | +1.7 |
| VOIR | | 79.80 | 320⇓ | iP | P | 06 54 28.3 | +1.0 |
| DRGR | | 80.02 | 322⇑ | iP | P | 06 54 28.6 | +0.2 |
| ARR | Arges | 80.06 | 320⇑ | iP | P | 06 54 30.2 | +1.5 |
| DPC | Dobruska-Polom | 80.33 | 328 | eP | P | 06 54 30.2 | +0.2 |
| DPC | Dobruska-Polom | 80.33 | 328 | eP | P | 06 54 30.2 | +0.2 |
| BRG | Berggiesshubel | 80.91 | 330 | eP | P | 06 54 33.0 | 0.0 |
| | comp=Z,5.5nm,1.1s | | | | | | |
| BRG | Berggiesshubel | 80.91 | 330 | eP | P | 06 54 33.0 | 0.0 |
| BRG | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.1s | | | | | | |
| CLL | Collm | 80.95 | 330 | eP | P | 06 54 33.0 | -0.3 |
| CLL | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.9s | | | | | | |
| CLL | Collm | 80.95 | 330 | eP | P | 06 54 33.0 | -0.3 |
| | comp=Z,6.0nm,0.9s | | | | | | |
| VRAC | Vranov | 80.99 | 327⇑ | iP | P | 06 54 34.0 | +0.4 |
| PRU | Pruhonice | 81.35 | 329 | eP | P | 06 54 36.0 | +0.6 |
| PRU | Pruhonice | 81.35 | 329 | eP | P | 06 54 36.0 | +0.6 |
| MDVR | Moldovita | 81.94 | 321⇑ | iP | P | 06 54 38.4 | -0.3 |
| KHC | Kasperske Hory | 82.41 | 329 | eP | P | 06 54 41.2 | +0.2 |
| KHC | Kasperske Hory | 82.41 | 329 | eP | P | 06 54 41.5 | +0.5 |
| KHC | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.9s | | | | | | |
| KHC | Kasperske Hory | 82.41 | 329 | eP | P | 06 54 41.5 | +0.5 |
| | comp=Z,1.9nm,0.9s | | | | | | |
| GEC2 | GERESS Array S | 82.58 | 328 | eP | P | 06 54 42.0 | 0.0 |
| GEC2 | | | | pmax | pmax | | |
| | comp=Z,20nm,1.8s | | | | | | |
| GEC2 | GERESS Array S | 82.58 | 328 | eP | P | 06 54 42.0 | 0.0 |
| | comp=Z,20nm,1.8s | | | | | | |
| GERES | GERESS Array B | 82.58 | 328 | P | P | 06 54 41.5 | -0.5 |
| | comp=Z,0.9nm,0.5s,baz=33,slow=5.0,SNR=9.7 | | | | | | |
| GERES | | | | pP | pP | 06 54 55.0 | -0.9 |
| | comp=Z,0.8nm,0.6s,baz=38,slow=6.8,SNR=4.2 | | | | | | |
| GEA0 | GERESS Array S | 82.58 | 328 | eP | P | 06 54 41.8 | -0.3 |
| VTS | Vitosha | 82.73 | 319⇓ | iP | P | 06 54 43.9 | +0.9 |
| KARP | Karpathos | 85.43 | 312 | eP | P | 06 54 56.3 | -0.4 |
| | comp=Z,9.1nm,1.0s | | | | | | |
| FUORN | Ofenpass-Fuorn | 85.76 | 329 | eP | P | 06 54 58.9 | +0.5 |
| | comp=Z,41nm,2.0s | | | | | | |
| VLDQ | Val d'Or | 88.07 | 25 | eP | P | 06 55 09.0 | -0.3 |
| | comp=Z,45nm,1.8s | | | | | | |
| TX31 | Lajitas Ar. Si | 89.78 | 53 | eP | P | 06 55 19.2 | +1.4 |
| TXAR | Lajitas Array | 89.78 | 53 | P | P | 06 55 18.9 | +1.1 |
| | comp=Z,0.6nm,0.7s,baz=295,slow=2.7,SNR=4.7 | | | | | | |
| TXAR | | | | pP | pP | 06 55 32.2 | +0.4 |
| | comp=Z,0.5nm,0.7s,baz=303,slow=3.1,SNR=4.9 | | | | | | |
| H06E1 | SOCORRO T-PHAS | 91.87 | 65 | T | T | 08 37 42.0 | |
| MET | Memphis--Engin | 93.45 | 40 | eP | P | 06 55 35.3 | +0.8 |
| | comp=Z,72nm,0.6s | | | | | | |
| NNA | Nana | 137.30 | 64 | i PKIKP | PKPdf | 07 01 41.8 | -1.0 |
| SNAA | Sanae | 141.08 | 197 | PKP | PKPdf | 07 01 43.9 | -4.2 |
| VNA2 | Neumayer--Watz | 142.65 | 196 | PKP | PKPdf | 07 01 46.6 | -4.2 |
| | baz=109,slow=5.2 | | | | | | |
| VNA3 | Neumayer Olymp | 142.90 | 195 | PKP | PKPdf | 07 01 49.3 | -1.9 |
| VNA1 | Neumayer--Stat | 143.05 | 196 | PKP | PKPdf | 07 01 52.9 | +1.4 |
| LPAZ | La Paz | 146.37 | 60 | PKPbc | PKPbc | 07 02 01.2 | +0.3 |
| | comp=Z,1.1nm,0.5s,baz=33,slow=3.9,SNR=9.2 | | | | | | |
| LPAZ | | | | pPKPbc | pPKPdf | 07 02 14.2 | +0.1 |
| | comp=Z,1.9nm,0.7s,baz=316,slow=2.2,SNR=6.2 | | | | | | |

*DDA **03** 06:50:40.8, 38°.66N×43°.58E, h14km, Ml3.0*
*ISK **03** 06:50:40.9, 38°.66N×43°.51E, h8km, MD2.6*
*ISCJB **03** 06:50:41.4±0.5, 38°.66N±0°.02×43°.59E±0°.04, h2km±5km, Error ellipse: s-maj=5.0km s-min=3.3km az=3.4*
*CSEM **03** 06:50:41.2±0.2, 38°.66N×43°.58E, h5km, MD2.6, Error ellipse: s-maj=4.9km s-min=3.3km az=86.0*
**ISC 03 06:50:41.6**±0.9**, 38°.66N**±0°.02×**43°.57E**±0°.02**, h12**km±7km**, n41,** σ**0.s78**/67**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.16 | 245 | ePG | Pg | 06 50 45.1 | -0.3 |
| VANB | Van | 0.16 | 245 | ePg | Pg | 06 50 45.1 | -0.3 |
| TVAN | Van | 0.18 | 224 | i P | Pg | 06 50 45.2 | -0.7 |
| TVAN | | | | i S | Sg | 06 50 49.4 | +0.4 |
| TVAN | Van | 0.18 | 224 | P | Pg | 06 50 45.2 | -0.7 |
| TVAN | | | | S | Sg | 06 50 49.3 | +0.4 |
| VMUR | Van-Muradiye | 0.33 | 0 | i P | Pg | 06 50 47.8 | -0.6 |
| VMUR | | | | i S | Sb | 06 50 55.4 | +0.5 |
| VMUR | Van-Muradiye | 0.33 | 0 | P | Pg | 06 50 47.8 | -0.6 |
| VMUR | | | | S | Sb | 06 50 55.4 | +0.5 |
| GEVA | Gevas | 0.53 | 229 | i P | Pg | 06 50 51.0 | -1.1 |
| GEVA | | | | i S | Sg | 06 50 59.4 | +0.2 |
| GEVA | Gevas | 0.53 | 229 | P | Pg | 06 50 51.0 | -1.1 |
| GEVA | | | | S | Sg | 06 50 59.4 | +0.2 |
| CLDR | Caldiran | 0.55 | 29 | ePG | Pg | 06 50 52.3 | -0.2 |
| CLDR | | | | eSG | Sb | 06 51 01.1 | -0.3 |
| CLDR | Caldiran | 0.55 | 29 | i P | Pg | 06 50 52.4 | -0.2 |
| CLDR | | | | i S | Sb | 06 51 02.5 | +1.1 |
| CLDR | Caldiran | 0.55 | 29 | ePg | Pg | 06 50 52.3 | -0.2 |
| CLDR | | | | eSg | Sb | 06 51 01.1 | -0.3 |
| CLDR | | | | S | Sb | 06 51 02.5 | +1.1 |
| ADCV | BITLIS_Adilcev | 0.68 | 283 | i P | Pg | 06 50 54.2 | -0.7 |
| ADCV | | | | i S | Sb | 06 51 05.3 | +0.3 |
| ADCV | BITLIS_Adilcev | 0.68 | 283 | P | Pg | 06 50 54.2 | -0.7 |
| ADCV | | | | S | Sb | 06 51 05.3 | +0.3 |
| BASK | Baskale_VAN | 0.70 | 151 | i P | Pg | 06 50 54.2 | -1.0 |
| BASK | | | | i S | Sg | 06 51 04.6 | +0.2 |
| BASK | Baskale_VAN | 0.70 | 151 | P | Pg | 06 50 54.2 | -1.0 |
| BASK | | | | S | Sg | 06 51 04.6 | +0.2 |
| DYDN | Diyadin | 0.89 | 6 | i S | Sn | 06 51 13.2 | +0.1 |
| DYDN | Diyadin | 0.89 | 6 | S | Sn | 06 51 13.2 | +0.1 |
| TUTA | Tutak | 0.95 | 322 | i P | Pg | 06 50 58.6 | -1.4 |
| TUTA | | | | i S | Sg | 06 51 12.6 | +0.2 |
| TUTA | Tutak | 0.95 | 322 | P | Pg | 06 50 58.6 | -1.4 |
| TUTA | | | | S | Sg | 06 51 12.6 | +0.2 |
| AGRB | Hanur-Agry | 1.02 | 334 | ePG | Pg | 06 51 00.3 | -1.0 |
| AGRB | | | | eSG | Sb | 06 51 14.8 | 0.0 |
| AGRB | Hanur-Agry | 1.02 | 334 | ePg | Pg | 06 51 00.3 | -1.0 |
| AGRB | | | | eSg | Sb | 06 51 14.8 | 0.0 |
| HAKT | HAKKARI | 1.11 | 174 | i P | Pg | 06 51 01.4 | -1.6 |
| HAKT | | | | i S | Sb | 06 51 17.5 | +0.2 |
| HAKT | HAKKARI | 1.11 | 174 | P | Pg | 06 51 01.4 | -1.6 |
| HAKT | | | | S | Sb | 06 51 17.5 | +0.2 |
| EKAR | Karacoban | 1.32 | 297 | i P | Pn | 06 51 06.2 | +0.1 |
| EKAR | Karacoban | 1.32 | 297 | P | Pn | 06 51 06.2 | +0.1 |
| CUKT | Cukurca | 1.41 | 179 | i P | Pg | 06 51 08.9 | +0.1 |
| CUKT | Cukurca | 1.41 | 179 | P | Pg | 06 51 08.9 | +0.1 |
| TASB | TASBURUN-IGDIR | 1.42 | 21 | ePN | Pb | 06 51 07.8 | -0.3 |
| TASB | TASBURUN-IGDIR | 1.42 | 21 | ePn | Pb | 06 51 07.8 | -0.3 |
| SRTM | Siirt_Merkez | 1.46 | 243 | i P | Pg | 06 51 09.4 | -0.3 |
| SRTM | | | | i S | Sg | 06 51 30.9 | +2.3 |
| SRTM | Siirt_Merkez | 1.46 | 243 | P | Pg | 06 51 09.4 | -0.3 |
| SRTM | | | | S | Sg | 06 51 30.9 | +2.3 |
| SIRT | Sirnak | 1.46 | 218 | ePN | Pn | 06 51 08.1 | +0.1 |
| SIRT | Sirnak | 1.46 | 218 | ePn | Pn | 06 51 08.1 | +0.1 |
| EATA | Eleskirt | 1.46 | 325 | i P | Pn | 06 51 08.3 | +0.1 |
| EATA | | | | i S | Sb | 06 51 27.9 | +0.2 |
| EATA | Eleskirt | 1.46 | 325 | P | Pn | 06 51 08.3 | +0.1 |
| EATA | | | | S | Sb | 06 51 27.9 | +0.2 |
| DIGO | Kars | 1.76 | 355 | i P | Pb | 06 51 14.0 | 0.0 |
| DIGO | Kars | 1.76 | 355 | P | Pb | 06 51 14.0 | 0.0 |
| HOMI | Horasan | 1.89 | 317 | i P | Pb | 06 51 15.6 | -0.7 |
| BNGL | BINGOL | 1.91 | 280 | i P | Pb | 06 51 16.2 | -0.4 |
| BTMN | Batman | 1.97 | 248 | i P | Pn | 06 51 16.0 | +1.1 |
| BTMN | | | | i S | Sg | 06 51 43.9 | -1.0 |
| BTMN | Batman | 1.97 | 248 | P | Pn | 06 51 16.0 | +1.1 |
| BTMN | | | | S | Sg | 06 51 43.9 | -1.0 |

*ISK **03** 06:52:48.4, 38°.75N×43°.36E, h22km, MD2.6, ML2.6*
*CSEM **03** 06:52:49.9±0.2, 38°.71N×43°.57E, h10km, MD2.6, Error ellipse: s-maj=6.0km s-min=4.1km az=104.0*
*DDA **03** 06:52:49.8, 38°.73N×43°.56E, h15km, Ml2.9*
*ISCJB **03** 06:52:50.5±0.5, 38°.70N±0°.03×43°.60E±0°.05, h12km±3km, Error ellipse: s-maj=6.5km s-min=3.6km az=26.9*
**ISC 03 06:52:50.3**±0.9**, 38°.73N**±0°.02×**43°.57E**±0°.03**, h17**km±6km**, n32,** σ**1.s06**/57**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.19 | 227 | ePG | Pg | 06 52 54.4 | -0.7 |
| VANB | | | | eSG | Sg | 06 52 59.4 | +1.1 |
| VANB | Van | 0.19 | 227 | ePg | Pg | 06 52 54.4 | -0.7 |
| VANB | | | | eSg | Sg | 06 52 59.4 | +1.1 |
| TVAN | Van | 0.24 | 213 | i P | Pg | 06 52 54.7 | -1.1 |
| TVAN | | | | i S | Sg | 06 52 59.6 | 0.0 |
| TVAN | Van | 0.24 | 213 | P | Pg | 06 52 54.7 | -1.1 |
| TVAN | | | | S | Sg | 06 52 59.6 | 0.0 |
| VMUR | Van-Muradiye | 0.26 | 0 | i P | Pg | 06 52 55.8 | -0.4 |
| VMUR | | | | i S | Sb | 06 53 01.4 | +0.4 |
| VMUR | Van-Muradiye | 0.26 | 0 | P | Pg | 06 52 55.8 | -0.4 |
| VMUR | | | | S | Sb | 06 53 01.4 | +0.4 |
| CLDR | Caldiran | 0.50 | 33 | ePG | Pg | 06 53 00.7 | +0.3 |
| CLDR | | | | eSG | Sb | 06 53 09.8 | +1.9 |
| CLDR | Caldiran | 0.50 | 33 | i P | Pg | 06 53 00.3 | -0.1 |
| CLDR | | | | i S | Sn | 06 53 10.3 | -1.0 |
| CLDR | Caldiran | 0.50 | 33 | P | Pg | 06 53 00.3 | -0.1 |
| CLDR | Caldiran | 0.50 | 33 | ePg | Pg | 06 53 00.7 | +0.3 |
| CLDR | | | | S | Sn | 06 53 10.3 | -1.0 |
| GEVA | Gevas | 0.58 | 224 | i P | Pg | 06 53 00.2 | -1.6 |
| GEVA | | | | i S | Sg | 06 53 10.0 | +0.5 |
| GEVA | Gevas | 0.58 | 224 | P | Pg | 06 53 00.2 | -1.6 |
| GEVA | | | | S | Sg | 06 53 10.0 | +0.5 |
| ADCV | BITLIS_Adilcev | 0.67 | 277 | i P | Pg | 06 53 02.0 | -1.5 |
| ADCV | | | | i S | Sg | 06 53 12.5 | +0.2 |
| ADCV | BITLIS_Adilcev | 0.67 | 277 | P | Pg | 06 53 02.0 | -1.5 |
| ADCV | | | | S | Sg | 06 53 12.5 | +0.2 |
| BASK | Baskale_VAN | 0.76 | 153 | i P | Pg | 06 53 04.4 | -0.7 |
| BASK | Baskale_VAN | 0.76 | 153 | P | Pg | 06 53 04.4 | -0.7 |
| DYDN | Diyadin | 0.82 | 7 | i P | Pb | 06 53 06.4 | +0.1 |
| DYDN | | | | i S | Sn | 06 53 19.4 | +0.1 |
| DYDN | Diyadin | 0.82 | 7 | P | Pb | 06 53 06.4 | +0.1 |
| DYDN | | | | S | Sn | 06 53 19.4 | +0.1 |
| TUTA | Tutak | 0.89 | 319 | i P | Pb | 06 53 06.2 | -1.3 |
| TUTA | | | | i S | Sb | 06 53 19.4 | +0.1 |
| TUTA | Tutak | 0.89 | 319 | P | Pb | 06 53 06.2 | -1.3 |
| TUTA | | | | S | Sb | 06 53 19.4 | +0.1 |
| AGRB | Hanur-Agry | 0.96 | 332 | ePG | Pb | 06 53 06.0 | -2.6 |
| HAKT | HAKKARI | 1.17 | 175 | i P | Pn | 06 53 11.1 | -1.2 |
| HAKT | | | | i S | Sg | 06 53 29.8 | +1.4 |
| HAKT | HAKKARI | 1.17 | 175 | P | Pn | 06 53 11.1 | -1.2 |
| HAKT | | | | S | Sg | 06 53 29.8 | +1.4 |
| EKAR | Karacoban | 1.29 | 295 | i P | Pb | 06 53 15.1 | +0.9 |
| EKAR | Karacoban | 1.29 | 295 | P | Pb | 06 53 15.1 | +0.9 |
| TASB | TASBURUN-IGDIR | 1.36 | 22 | ePN | Pn | 06 53 12.9 | -1.7 |
| EATA | Eleskirt | 1.41 | 324 | i P | Pn | 06 53 16.2 | +0.7 |
| EATA | | | | i S | Sg | 06 53 36.2 | +0.3 |
| EATA | Eleskirt | 1.41 | 324 | P | Pn | 06 53 16.2 | +0.7 |
| EATA | | | | S | Sg | 06 53 36.2 | +0.3 |
| SRTM | Siirt_Merkez | 1.49 | 241 | i P | Pn | 06 53 17.5 | +1.1 |
| SRTM | | | | i S | Sg | 06 53 39.5 | +1.1 |
| SRTM | Siirt_Merkez | 1.49 | 241 | P | Pn | 06 53 17.5 | +1.1 |
| SRTM | | | | S | Sg | 06 53 39.5 | +1.1 |
| BTMN | Batman | 1.99 | 246 | i P | Pn | 06 53 24.6 | +1.3 |
| BTMN | | | | i S | Sb | 06 53 52.4 | +1.7 |
| BTMN | Batman | 1.99 | 246 | P | Pn | 06 53 24.6 | +1.3 |
| BTMN | | | | S | Sb | 06 53 52.4 | +1.7 |

*IDC **03** 06:55:34.0±1.3, 14°.17N×93°.02E, h0km, mb3.8/7, mb1 3.9/8, mb1mx3.7/37, mbtmp3.8/8, ML3.7/1, Error ellipse: s-maj=40.9km s-min=23.2km az=57.0*
*ISCJB **03** 06:55:37.0±1.2, 14°.2N±0°.2×93°.2E±0°.2, h32km, mb3.8/7, Error ellipse: s-maj=24.8km s-min=20.3km az=29.0*
**ISC 03 06:55:39.1**±1.4**, 14°.2N**±0°.2×**93°.1E**±0°.2**, h32**km**, n11,** σ**0.s41**/8**, mb3.8**/7**, Andaman Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CMAR | Chiang Mai Arr | 6.98 | 52 | Pn | Pn | 06 57 19.0 | -0.3 |
| | 0.3nm,0.3s,baz=241,slow=15,SNR=4.8 | | | | | | |
| H08S3 | Diego Garcia H | 29.86 | 225 | T | T | 07 32 44.7 | |
| | baz=42,slow=76,SNR=7.2 | | | | | | |
| H08S2 | Diego Garcia H | 29.86 | 225 | T | T | 07 32 52.6 | |
| | baz=42,slow=76,SNR=9.9 | | | | | | |
| H08S1 | Diego Carcia H | 29.87 | 225 | T | T | 07 32 50.5 | |
| | baz=42,slow=76,SNR=8.1 | | | | | | |
| MKAR | Makanchi Array | 33.71 | 347 | P | P | 07 02 17.4 | 0.0 |
| | 0.8nm,0.5s,baz=162,slow=8.6,SNR=7.2 | | | | | | |
| SONM | Songino Array | 35.27 | 16 | P | P | 07 02 31.7 | +0.7 |
| | 0.5nm,0.8s,baz=216,slow=8.8,SNR=2.7 | | | | | | |
| KURBB | Kurchatov Arra | 38.19 | 345 | P | P | 07 02 55.2 | -0.3 |
| | 1.4nm,0.8s,baz=164,slow=8.1,SNR=16 | | | | | | |
| ZALV | Zalesovo Beam | 40.17 | 352 | P | P | 07 03 11.9 | -0.2 |
| | 0.4nm,0.3s,baz=181,slow=7.4,SNR=4.0 | | | | | | |
| ASAR | Alice Springs | 54.84 | 133 | P | P | 07 05 06.7 | +0.1 |
| | 0.4nm,0.4s,baz=309,slow=6.7,SNR=13 | | | | | | |
| FINES | FINESS Array B | 66.68 | 331 | P | P | 07 06 26.3 | -0.3 |
| | 5.0nm,1.0s,baz=112,slow=11,SNR=8.1 | | | | | | |
| GERES | GERESS Array B | 72.49 | 317 | P | P | 07 07 02.9 | 0.0 |
| | 0.6nm,0.6s,baz=96,slow=8.2,SNR=5.5 | | | | | | |

*IDC **03** 06:57:21.5±2.1, 8°.53N×102°.87W, h0km, mb3.6/5, mb1 4.0/5, mb1mx3.7/26, mbtmp3.7/5, MS3.8/9, Ms1 3.8/9, ms1mx3.6/19, Error ellipse: s-maj=113.4km s-min=21.5km az=59.0*
*NEIC **03** 06:57:22.4±0.7, 8°.06N×103°.31W, h10km, mb4.3/10, Error ellipse: s-maj=16.4km s-min=10.7km az=58.0*
*ISCJB **03** 06:57:24.7±0.7, 8°.19N±0°.08×103°.15W±0°.10, h33km, mb4.2/17, MS3.7/8, Error ellipse: s-maj=14.2km s-min=10.8km az=153.7*
**ISC 03 06:57:26.1**±0.8**, 8°.2N**±0°.1×**103°.3W**±0°.1**, h35**km**, n46,** σ**1.s71**/30**, mb4.2**/17**, MS3.8**/8**, Northern East Pacific Rise**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TLIG | Tlapa | 10.39 | 26 | ePn | Pn | 06 59 51.9 | -1.0 |
| MOIG | Morelia | 11.61 | 10 | ePn | Pn | 07 00 10.3 | +0.7 |
| CMIG | Matias Romero | 12.05 | 42 | LR | LR | 07 03 43.3 | |
| | comp=Z,863nm,18.1s,baz=184,slow=33 | | | | | | |
| H06S1 | SOCORRO T | 12.90 | 325 | T | T | 07 13 31.5 | |
| | SNR=9.5 | | | | | | |
| H06E1 | SOCORRO T-PHAS | 12.92 | 326 | T | T | 07 13 37.0 | |
| | SNR=33 | | | | | | |
| TUIG | Tuzandepetl | 13.03 | 40 | ePn | Pn | 07 00 31.0 | +2.1 |
| TXAR | Lajitas Array | 21.06 | 359 | P | P | 07 02 03.9 | -3.4 |
| | 1.0nm,0.9s,baz=184,slow=13,SNR=7.6 | | | | | | |
| TX31 | Lajitas Ar. Si | 21.06 | 359 | eP | P | 07 02 09.8 | +2.4 |
| JCT | Junction City | 22.43 | 8 | eP | P | 07 02 23.3 | +1.3 |
| | 12nm,1.0s | | | | | | |
| MNTX | Cornudas Mount | 23.50 | 355 | eP | P | 07 02 33.8 | +0.9 |
| | 5.8nm,1.4s | | | | | | |
| TUC | Tucson | 25.02 | 345 | eP | P | 07 02 48.1 | +1.1 |
| | 4.7nm,1.0s | | | | | | |
| ANMO | Albuquerque | 26.81 | 354 | LR | LR | 07 12 36.1 | |
| | comp=Z,164nm,19.7s,baz=0.0,slow=34 | | | | | | |
| MTDJ | Mount Denham | 26.92 | 66 | eP | P | 07 03 03.5 | -0.9 |
| | 200nm,1.4s | | | | | | |
| MIAR | Mount Ida | 27.72 | 17 | eP | P | 07 03 12.4 | +1.1 |
| | 9.2nm,1.1s | | | | | | |
| PFO | Pinyon Flats O | 28.11 | 336 | LR | LR | 07 13 20.9 | |
| | comp=Z,216nm,18.2s,baz=142,slow=34 | | | | | | |
| DNR | Dunn Ranch,Anz | 28.14 | 336 | eP | P | 07 03 12.0 | -3.2 |
| CRY | Cary Ranch | 28.18 | 336 | eP | P | 07 03 16.8 | +1.3 |
| WUAZ | Wupatki | 28.22 | 346 | eP | P | 07 03 17.4 | +1.5 |
| | 4.6nm,1.0s | | | | | | |
| ATAH | Atahualpa | 29.07 | 121 | LR | LR | 07 12 35.5 | |
| | comp=Z,359nm,20.4s,baz=269,slow=32 | | | | | | |
| LCMT | Little Creek M | 30.11 | 344 | eP | P | 07 03 33.5 | +0.8 |
| | 5.6nm,1.4s | | | | | | |
| BW06 | Boulder Array | 34.90 | 352 | eP | P | 07 04 15.1 | +0.4 |
| | 16nm,2.0s | | | | | | |
| PDAR | Pinedale Array | 34.90 | 352 | P | P | 07 04 15.4 | +0.7 |
| | 1.3nm,1.0s,baz=159,slow=5.8,SNR=5.5 | | | | | | |
| PDAR | Pinedale Array | 34.90 | 352 | eP | P | 07 04 14.1 | -0.6 |
| GDXM | Geysers | 35.21 | 333 | eP | P | 07 04 17.8 | +0.6 |
| | 85nm,1.6s | | | | | | |
| TAOE | Nuku Hiva Isla | 40.47 | 246 | eLR | LR | 07 16 01.5 | |
| | 263nm,25.8s | | | | | | |
| TAOE | Nuku Hiva Isla | 40.47 | 246 | eT | T | 07 48 21.9 | |
| | 45nm,0.2s | | | | | | |
| LPAZ | La Paz | 42.41 | 125 | P | P | 07 05 18.4 | 0.0 |
| | 2.0nm,0.7s,baz=298,slow=7.4,SNR=8.1 | | | | | | |
| LPAZ | | | | LR | LR | 07 18 50.1 | |
| | comp=Z,25nm,20.6s,baz=328,slow=30 | | | | | | |
| LPAZ | La Paz | 42.41 | 125 | eP | P | 07 05 19.1 | +0.8 |
| | 11nm,1.4s | | | | | | |
| SAML | Samuel | 43.39 | 112 | eP | P | 07 05 25.7 | +0.1 |
| | 4.4nm,1.1s | | | | | | |
| RKT | Rikitea | 43.94 | 224 | eLR | LR | 07 17 46.7 | |
| | 266nm,26.2s | | | | | | |
| RKT | Rikitea | 43.94 | 224 | eT | T | 07 52 38.3 | |
| | 10.0nm,0.3s | | | | | | |
| PMOR | Pomariorio Ree | 49.89 | 243 | eT | T | 08 00 09.4 | |
| | 3.3nm,0.3s | | | | | | |
| PPT | Papeete | 52.43 | 241 | LR | LR | 07 22 32.3 | |
| | comp=Z,113nm,21.9s,baz=11,slow=28 | | | | | | |
| PPT2 | Papeete2 | 52.44 | 240 | eLR | LR | 07 21 39.9 | |
| | 213nm,24.8s,baz=52 | | | | | | |
| YKA | Yellowknife Ar | 54.85 | 354 | P | P | 07 06 50.9 | -1.7 |
| | 0.2nm,0.7s,baz=164,slow=7.4,SNR=3.0 | | | | | | |
| TBI | Tubuai | 54.97 | 234 | eS | S | 07 14 36.2 | +2.2 |
| | 128nm,33.8s | | | | | | |
| TBI | | | | eLR | LR | 07 22 51.9 | |
| | 181nm,26.5s | | | | | | |
| TBI | Tubuai | 54.97 | 234 | eT | T | 08 06 30.6 | |
| | 2.7nm,0.3s | | | | | | |
| CPUP | Villa Florida | 56.23 | 129 | P | P | 07 07 02.7 | -0.5 |
| | 2.8nm,0.9s,baz=323,slow=4.8,SNR=5.3 | | | | | | |
| CPUP | | | | LR | LR | 07 29 46.4 | |
| | comp=Z,34nm,18.7s,baz=308,slow=35 | | | | | | |
| PLCA | Paso Flores | 57.23 | 151 | LR | LR | 07 26 25.8 | |
| | comp=Z,81nm,18.7s,baz=348,slow=30 | | | | | | |
| DOT | Dot Lake | 62.57 | 341 | eP | P | 07 07 47.3 | +0.9 |
| | 39nm,1.6s | | | | | | |
| IL1 | Eielson Array | 64.24 | 341 | eP | P | 07 07 56.9 | -0.5 |
| ILAR | Eielson Array | 64.24 | 341 | P | P | 07 07 56.4 | -1.0 |
| | 0.9nm,0.8s,baz=148,slow=4.8,SNR=12 | | | | | | |
| ILAR | | | | LR | LR | 07 33 16.4 | |
| | comp=Z,63nm,18.3s,baz=146,slow=34 | | | | | | |
| IMAR | Indian Mountai | 67.26 | 340 | eP | P | 07 08 17.9 | +1.1 |
| DZM | Mont Dzumac | 93.31 | 248 | eLR | LR | 07 40 38.2 | |
| | 92nm,23.9s | | | | | | |
| MKAR | Makanchi Array | 125.06 | 355 | PKP | PKPdf | 07 16 24.4 | +1.3 |
| | 0.5nm,0.7s,baz=13,slow=1.8,SNR=3.9 | | | | | | |
| LZH | Lanzhou | 129.13 | 332 | ePKP | PKPdf | 07 16 26.9 | -4.4 |
| LZH | | | | sPKP | | 07 16 41.1 | |

**KRNET 03 06:58:47.4**±0.1**, 40°.19N**×**78°.96E, mb3.5, 8C-1D, Southern Xinjiang**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ULHL | Ulahol | 2.90 | 316⇓ | iP | Pn | 06 59 37.0 | +1.9 |
| | baz=316 | | | | | | |
| PDGK | Podgornoye | 3.16 | 7⇑ | iP | Pn | 06 59 41.1 | +2.5 |
| | baz=7.0 | | | | | | |
| PDGK | | | ⇑ | iS | Sn | 07 00 19.8 | +2.7 |
| | baz=7.0 | | | | | | |
| BOOM | Boomskoye usch | 3.23 | 316⇑ | eP | Pn | 06 59 42.2 | +2.6 |
| | baz=316 | | | | | | |
| BOOM | | | ⇑ | eS | Sn | 07 00 21.0 | +2.1 |
| | baz=316 | | | | | | |
| TKM2 | Tokmak 2 | 3.71 | 318⇑ | iP | Pn | 06 59 48.1 | +1.8 |
| | baz=318 | | | | | | |
| TKM2 | | | ⇑ | iS | Sn | 07 00 33.4 | +2.6 |
| | baz=318 | | | | | | |
| KBK | Karagaybulak | 3.89 | 311⇑ | iP | Pn | 06 59 50.7 | +2.0 |
| | baz=311 | | | | | | |
| KBK | | | ⇑ | iS | Sn | 07 00 37.6 | +2.4 |
| | baz=311 | | | | | | |

**KRNET 03 06:59:42.1**±0.1**, 41°.53N**×**78°.29E, mb3.0, 8C-1D, Kyrgyzstan-Xinjiang border region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ULHL | Ulahol | 1.69 | 296⇑ | iP | Pb | 07 00 13.7 | -0.4 |
| | baz=295 | | | | | | |
| ULHL | | | ⇑ | iS | Sg | 07 00 36.8 | +0.6 |
| | baz=295 | | | | | | |
| ULHL | Ulahol | 1.69 | 296⇓ | iS | Pb | 07 00 14.0 | -0.1 |
| | baz=316 | | | | | | |
| BOOM | Boomskoye usch | 1.99 | 300⇑ | eP | Pb | 07 00 18.8 | -0.5 |
| | baz=300 | | | | | | |
| BOOM | | | ⇑ | eS | Sb | 07 00 45.1 | +0.3 |
| | baz=300 | | | | | | |
| PDGK | Podgornoye | 2.01 | 26⇑ | iP | Pb | 07 00 18.5 | -1.0 |
| | baz=26 | | | | | | |
| PDGK | | | ⇑ | eS | Sb | 07 00 45.6 | +0.5 |
| | baz=26 | | | | | | |
| TKM2 | Tokmak 2 | 2.43 | 306⇑ | iP | Pb | 07 00 25.4 | -1.4 |
| | baz=306 | | | | | | |
| TKM2 | | | ⇑ | iS | Sb | 07 00 56.3 | -1.1 |
| | baz=306 | | | | | | |

*ISN **03** 07:10:19.4±1.4, 39°.42N×43°.83E, h0km±79km, ML3.5*
*AZER **03** 07:10:26.7±0.8, 38°.66N×43°.49E, h6km±21km, Error ellipse: s-maj=22.5km s-min=5.1km az=54.0*
*ATA **03** 07:10:27.8±1.0, 38°.92N×43°.65E, h0km±3km, ML4.0, MW4.2*
*DDA **03** 07:10:27.8, 38°.86N×43°.79E, h5km, Ml3.5*
*ISK **03** 07:10:27.4, 38°.88N×43°.80E, h5km, ML3.3*
*CSEM **03** 07:10:29.2±0.1, 38°.86N×43°.72E, h2km, ML3.5, Error ellipse: s-maj=3.9km s-min=3.3km az=128.0*
**ISC 03 07:10:29.4**±1.1**, 38°.88N**±0°.02×**43°.73E**±0°.02**, h0**km±10km**, n102,** σ**1.s61**/152**, 15C-13D, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.17 | 312 | i P | Pg | 07 10 31.9 | -0.8 |
| VMUR | | | | i S | Sg | 07 10 36.9 | +1.9 |
| VMUR | Van-Muradiye | 0.17 | 312 | P | Pg | 07 10 31.9 | -0.8 |
| VMUR | | | | S | Sg | 07 10 36.8 | +1.9 |
| CLDR | Caldiran | 0.30 | 28 | ePG | Pg | 07 10 33.9 | -1.4 |
| CLDR | Caldiran | 0.30 | 28 | i P | Pg | 07 10 33.9 | -1.4 |
| CLDR | | | | i S | Sb | 07 10 41.6 | -1.9 |
| CLDR | Caldiran | 0.30 | 28 | ePg | Pg | 07 10 33.9 | -1.4 |
| CLDR | | | | S | Sb | 07 10 41.6 | -1.9 |
| ERCV | ERCIS-VAN | 0.34 | 295 | ePG | Pg | 07 10 36.0 | 0.0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ERCV | | | | eSG | Sb | 07 10 42.9 | -1.6 |
| ERCV | ERCIS-VAN | 0.34 | 295 | ePg | Pg | 07 10 36.0 | 0.0 |
| ERCV | | | | eSg | Sb | 07 10 42.9 | -1.6 |
| VANB | Van | 0.39 | 224 | ePG | Pg | 07 10 37.3 | +0.5 |
| VANB | Van | 0.39 | 224 | ePg | Pg | 07 10 37.3 | +0.5 |
| TVAN | Van | 0.43 | 217 | i P | Pg | 07 10 37.5 | -0.2 |
| TVAN | | | | i S | Sb | 07 10 48.2 | +1.1 |
| TVAN | Van | 0.43 | 217 | P | Pg | 07 10 37.5 | -0.2 |
| DYDN | Diyadin | 0.67 | 357 | eP | Pg | 07 10 40.5 | -1.7 |
| DYDN | | | | IAML | | 07 10 55.2 | |
| | comp=Z,330nm,0.4s | | | | | | |
| DYDN | Diyadin | 0.67 | 357 | i P | Pg | 07 10 40.9 | -1.3 |
| DYDN | | | | i S | Sg | 07 10 51.9 | +0.9 |
| DYDN | Diyadin | 0.67 | 357 | P | Pg | 07 10 40.9 | -1.3 |
| DYDN | | | | S | Sg | 07 10 51.9 | +0.9 |
| GEVA | Gevas | 0.77 | 223 | eP | Pg | 07 10 43.1 | -1.1 |
| GEVA | | | | IAML | | 07 11 09.0 | |
| | comp=Z,478nm,0.6s | | | | | | |
| GEVA | Gevas | 0.77 | 223 | i P | Pg | 07 10 43.5 | -0.7 |
| GEVA | | | | i S | Sn | 07 10 59.0 | -1.0 |
| GEVA | Gevas | 0.77 | 223 | P | Pg | 07 10 43.5 | -0.7 |
| ADCV | BITLIS_Adilcev | 0.79 | 265 | i P | Pg | 07 10 44.1 | -0.5 |
| ADCV | | | | i S | Sn | 07 10 59.5 | -1.1 |
| ADCV | BITLIS_Adilcev | 0.79 | 265 | P | Pg | 07 10 44.1 | -0.5 |
| BASK | Baskale_VAN | 0.85 | 165 | ⇑i P | Pb | 07 10 46.6 | -0.5 |
| BASK | | | | eS | Sn | 07 11 01.0 | -1.0 |
| BASK | | | | IAML | | 07 11 05.8 | |
| | comp=Z,200nm,0.6s | | | | | | |
| BASK | Baskale_VAN | 0.85 | 165 | i P | Pg | 07 10 44.0 | -1.7 |
| BASK | | | | i S | Sb | 07 10 59.4 | +0.2 |
| BASK | Baskale_VAN | 0.85 | 165 | P | Pg | 07 10 44.0 | -1.7 |
| TUTA | Tutak | 0.89 | 307 | ⇓i P | Pg | 07 10 45.1 | -1.3 |
| TUTA | | | | eS | Sg | 07 10 57.6 | -0.4 |
| TUTA | | | | IAML | | 07 11 11.8 | |
| | comp=Z,345nm,0.6s | | | | | | |
| TUTA | Tutak | 0.89 | 307 | i P | Pg | 07 10 45.2 | -1.3 |
| TUTA | Tutak | 0.89 | 307 | P | Pg | 07 10 45.2 | -1.3 |
| AGRB | Hanur-Agry | 0.91 | 321 | ePG | Pg | 07 10 46.0 | -0.8 |
| AGRB | | | | eSG | Sb | 07 11 00.3 | -0.5 |
| AGRB | Hanur-Agry | 0.91 | 321 | ePg | Pg | 07 10 46.0 | -0.8 |
| AGRB | | | | eSg | Sb | 07 11 00.3 | -0.5 |
| TASB | TASBURUN-IGDIR | 1.17 | 19 | ePN | Pg | 07 10 50.7 | -1.2 |
| TASB | TASBURUN-IGDIR | 1.17 | 19 | ePn | Pg | 07 10 50.7 | -1.2 |
| HYR | Heyderabad | 1.21 | 45 | ⇑P | Pn | 07 10 53.7 | +0.1 |
| HYR | | | | ⇑S | Sn | 07 11 15.4 | +4.6 |
| HYR | Heyderabad | 1.21 | 45 | P | Pn | 07 10 53.7 | +0.1 |
| HAKT | HAKKARI | 1.31 | 181 | i P | Pn | 07 10 53.0 | -2.2 |
| HAKT | HAKKARI | 1.31 | 181 | P | Pn | 07 10 53.0 | -2.2 |
| EKAR | Karacoban | 1.35 | 287 | eP | Pn | 07 10 53.6 | -2.2 |
| EKAR | | | | eS | Sg | 07 11 12.8 | -0.1 |
| EKAR | | | | IAML | | 07 11 26.1 | |
| | comp=Z,126nm,0.7s | | | | | | |
| EKAR | Karacoban | 1.35 | 287 | i P | Pn | 07 10 55.2 | -0.6 |
| EKAR | | | | i S | Sn | 07 11 19.9 | +5.3 |
| EKAR | Karacoban | 1.35 | 287 | P | Pn | 07 10 55.2 | -0.6 |
| EATA | Eleskirt | 1.38 | 316 | eP | Pn | 07 10 54.1 | -2.1 |
| EATA | | | | IAML | | 07 10 59.5 | |
| | comp=Z,28nm,0.4s | | | | | | |
| EATA | | | | eS | Sn | 07 11 15.2 | -0.1 |
| EATA | Eleskirt | 1.38 | 316 | i P | Pn | 07 10 54.2 | -2.0 |
| EATA | Eleskirt | 1.38 | 316 | P | Pn | 07 10 54.2 | -2.0 |
| NAX | Nakhchivan | 1.40 | 77 | ⇑P | Pb | 07 10 56.4 | -0.1 |
| | SNR=18 | | | | | | |
| NAX | | | | ⇓S | Sn | 07 11 19.2 | +3.6 |
| NAX | Nakhchivan | 1.40 | 77 | P | Pb | 07 10 56.4 | -0.1 |
| | SNR=18 | | | | | | |
| NAX | | | | S | Sn | 07 11 19.2 | +3.6 |
| SBZ | Shahbuz | 1.51 | 69 | ⇑P | Pb | 07 10 57.9 | -0.4 |
| SBZ | | | | ⇑S | Sg | 07 11 21.9 | +4.0 |
| SBZ | Shahbuz | 1.51 | 69 | P | Pb | 07 10 57.9 | -0.4 |
| SBZ | | | | S | Sg | 07 11 21.9 | +4.0 |
| DIGO | Kars | 1.56 | 350 | eP | Pn | 07 10 58.0 | -0.7 |
| DIGO | | | | IAML | | 07 11 08.1 | |
| | comp=Z,82nm,0.5s | | | | | | |
| DIGO | | | | eS | Sg | 07 11 21.1 | +1.5 |
| DIGO | Kars | 1.56 | 350 | i P | Pb | 07 10 58.9 | -0.5 |
| DIGO | Kars | 1.56 | 350 | P | Pb | 07 10 58.9 | -0.5 |
| CUKT | Cukurca | 1.63 | 184 | i P | Pn | 07 10 58.9 | -0.5 |
| CUKT | Cukurca | 1.63 | 184 | P | Pn | 07 10 58.9 | -0.5 |
| SRTM | Siirt_Merkez | 1.67 | 239 | i P | Pn | 07 10 59.9 | -0.2 |
| SRTM | | | | i S | Sg | 07 11 29.7 | +6.5 |
| SRTM | Siirt_Merkez | 1.67 | 239 | P | Pn | 07 10 59.9 | -0.2 |
| SIRT | Sirnak | 1.71 | 217 | ePN | Pn | 07 10 60.0 | -0.5 |
| SIRT | Sirnak | 1.71 | 217 | ePn | Pn | 07 11 00.0 | -0.5 |
| ORD | Ordubad | 1.76 | 88 | P | Pn | 07 11 01.1 | -0.2 |
| ORD | | | | S | Sg | 07 11 27.4 | +1.3 |
| EAK | Akyaka | 1.81 | 357 | eP | Pb | 07 11 02.7 | -0.8 |
| EAK | | | | IAML | | 07 11 13.8 | |
| | comp=Z,94nm,0.6s | | | | | | |
| EAK | | | | eS | Sg | 07 11 29.8 | +2.1 |
| KARS | Kars | 1.82 | 344 | ePN | Pn | 07 11 01.5 | -0.6 |
| KARS | Kars | 1.82 | 344 | ePn | Pn | 07 11 01.5 | -0.6 |
| HOMI | Horasan | 1.84 | 310 | eP | Pn | 07 11 02.3 | -0.1 |
| HOMI | Horasan | 1.84 | 310 | i P | Pb | 07 11 03.4 | -0.6 |
| SENK | Senkaya-Erzuru | 1.99 | 328 | ePN | Pn | 07 11 04.2 | -0.4 |
| SENK | Senkaya-Erzuru | 1.99 | 328 | ePn | Pn | 07 11 04.2 | -0.4 |
| BNGL | BINGOL | 2.02 | 273 | eP | Pb | 07 11 05.9 | -1.2 |
| BNGL | | | | IAML | | 07 11 47.5 | |
| | comp=Z,176nm,0.6s | | | | | | |
| BNGL | BINGOL | 2.02 | 273 | i P | Pb | 07 11 06.8 | -0.3 |
| ERZM | Erzurum | 2.10 | 300 | eP | Pn | 07 11 06.3 | +0.2 |
| ERZM | Erzurum | 2.10 | 300 | i P | Pg | 07 11 09.3 | -0.4 |
| SVAN | Silvan-Diyarba | 2.12 | 251 | ePN | Pn | 07 11 06.8 | +0.7 |
| SVAN | Silvan-Diyarba | 2.12 | 251 | ePn | Pn | 07 11 06.8 | +0.7 |
| ECAT | Cat-ERZURUM | 2.26 | 290 | eP | Pn | 07 11 09.1 | +0.8 |
| ECAT | | | | IAML | | 07 11 28.1 | |
| | comp=Z,25nm,0.4s | | | | | | |
| ECAT | | | | eS | Sg | 07 11 41.0 | -1.2 |
| BNGB | Bingˆ¶l | 2.38 | 274 | ePN | Pn | 07 11 10.0 | +0.1 |
| BGD | Bogdanovka | 2.39 | 358 | P | Pb | 07 11 13.2 | -0.2 |
| GDB | GEDABAY | 2.41 | 40 | ⇓P | Pn | 07 11 10.9 | +0.6 |
| | SNR=25 | | | | | | |
| GDB | | | | ⇓S | Sb | 07 11 45.0 | +0.9 |
| GDB | GEDABAY | 2.41 | 40 | P | Pn | 07 11 10.9 | +0.6 |
| | SNR=25 | | | | | | |
| GDB | | | | S | Sb | 07 11 45.0 | +0.9 |
| QZX | Qazax, Azerbai | 2.52 | 29 | ⇓P | Pn | 07 11 12.1 | +0.5 |
| | SNR=27 | | | | | | |
| QZX | | | | ⇑S | Sb | 07 11 47.1 | +0.1 |
| QZX | Qazax, Azerbai | 2.52 | 29 | P | Pn | 07 11 12.1 | +0.5 |
| | SNR=27 | | | | | | |
| QZX | | | | S | Sb | 07 11 47.1 | +0.1 |
| BINT | Bingol | 2.53 | 271 | ePn | Pn | 07 11 10.0 | -1.9 |
| AKH | Akhalkalaki | 2.54 | 356 | P | Pg | 07 11 18.5 | +0.4 |
| HANI | Diyarbakir_Han | 2.65 | 261 | i P | Pn | 07 11 15.0 | +1.5 |
| HANI | Diyarbakir_Han | 2.65 | 261 | P | Pn | 07 11 15.0 | +1.5 |
| GANJ | Ganja | 2.67 | 48 | ⇑P | Pn | 07 11 14.3 | +0.7 |
| | SNR=9.2 | | | | | | |
| GANJ | | | | ⇓S | Sb | 07 11 51.1 | -0.2 |
| GANJ | Ganja | 2.67 | 48 | P | Pn | 07 11 14.3 | +0.7 |
| | SNR=9.2 | | | | | | |
| GANJ | | | | S | Sb | 07 11 51.1 | -0.2 |
| KOPT | Kop Dagi | 2.75 | 296 | eP | Pn | 07 11 16.0 | +0.9 |
| KOPT | | | | IAML | | 07 11 27.7 | |
| | comp=Z,25nm,0.6s | | | | | | |
| MAZI | Mazidag | 2.95 | 242 | ePN | Pn | 07 11 17.2 | -0.4 |
| MAZI | Mazidag | 2.95 | 242 | ePn | Pn | 07 11 17.2 | -0.4 |
| BRDA | Brd | 3.00 | 61 | ⇓P | Pn | 07 11 18.5 | +0.3 |
| BRDA | | | | ⇑S | Sb | 07 11 58.7 | -2.2 |
| BRDA | Brd | 3.00 | 61 | P | Pn | 07 11 18.5 | +0.3 |
| BRDA | | | | S | Sb | 07 11 58.7 | -2.2 |
| DDFL | Dedoflistskaro | 3.15 | 35 | P | Pg | 07 11 28.6 | -1.3 |
| MNGR | Mingechevir, A | 3.20 | 53 | ⇓P | Pn | 07 11 21.4 | +0.5 |
| MNGR | | | | ⇑S | Sb | 07 12 03.9 | -2.7 |
| MNGR | Mingechevir, A | 3.20 | 53 | P | Pn | 07 11 21.4 | +0.5 |
| MNGR | | | | S | Sb | 07 12 03.9 | -2.7 |
| ZRD | Zardab | 3.36 | 64 | ⇑P | Pn | 07 11 23.3 | +0.2 |
| ZRD | | | | ⇓S | Sb | 07 12 07.3 | -3.9 |
| ZRD | Zardab | 3.36 | 64 | P | Pn | 07 11 23.3 | +0.2 |
| ZRD | | | | S | Sb | 07 12 07.3 | -3.9 |
| PTK | Pertek | 3.39 | 272 | ePN | Pn | 07 11 24.8 | +1.1 |
| PTK | Pertek | 3.39 | 272 | ePn | Pn | 07 11 24.8 | +1.1 |
| SVRC | Sivrice-ELAZID | 3.50 | 263 | ePN | Pn | 07 11 25.8 | +0.5 |
| SVRC | Sivrice-ELAZID | 3.50 | 263 | ePn | Pn | 07 11 25.8 | +0.5 |
| ZKTA | Zakatala | 3.54 | 38 | ⇑P | Pn | 07 11 26.2 | +0.7 |
| | SNR=3.1 | | | | | | |
| ZKTA | | | | ⇓S | Sb | 07 12 12.6 | -3.7 |
| SEKA | Sheki | 3.54 | 48 | ⇑P | Pn | 07 11 26.9 | +1.3 |
| | SNR=4.9 | | | | | | |
| SEKA | | | | ⇓S | Sb | 07 12 13.7 | -2.6 |
| SEKA | Sheki | 3.54 | 48 | P | Pn | 07 11 26.9 | +1.3 |
| | SNR=4.9 | | | | | | |
| SEKA | | | | S | Sb | 07 12 13.7 | -2.6 |
| LRK | Lerik | 3.61 | 92 | ⇓P | Pn | 07 11 25.6 | -1.1 |
| | SNR=5.4 | | | | | | |
| LRK | | | | ⇓S | Sn | 07 12 11.5 | +1.4 |
| LRK | Lerik | 3.61 | 92 | P | Pn | 07 11 25.6 | -1.1 |
| | SNR=5.4 | | | | | | |
| LRK | | | | S | Sn | 07 12 11.5 | +1.4 |
| GLBA | Clilabad | 3.65 | 83 | ⇑P | Pn | 07 11 26.6 | -0.4 |
| | SNR=2.8 | | | | | | |
| GLBA | | | | ⇑S | Sn | 07 12 13.2 | +2.5 |
| GLBA | Clilabad | 3.65 | 83 | P | Pn | 07 11 26.6 | -0.4 |
| | SNR=2.8 | | | | | | |
| GLBA | | | | S | Sn | 07 12 13.2 | +2.5 |
| BHD | Baghdad | 5.62 | 174 | ePn | Pn | 07 11 53.0 | -1.1 |
| | SNR=39 | | | | | | |
| BHD | | | | eSn | Sn | 07 12 58.7 | -0.6 |
| | SNR=39 | | | | | | |
| RTB | Rutbah | 6.46 | 206 | ePn | Pn | 07 12 05.4 | -0.4 |
| | SNR=39 | | | | | | |
| RTB | | | | eSn | Sn | 07 13 18.5 | -1.7 |
| | SNR=39 | | | | | | |

**IDC 03 07:12:34.3±5.1, 17.53N×145.87E, h217km±75km, mb3.2/6, mb1 3.5/7, mb1mx3.1/38, mbtmp3.8/7, Error ellipse: s-maj=74.1km s-min=31.5km az=12.0, Mariana Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GUMO | Guam | 4.03 | 194 | P | Pn | 07 13 38.3 | +1.1 |
| | 4.2nm,0.3s,baz=333,slow=11,SNR=5.0 | | | | | | |
| GUMO | | | | S | S | 07 14 26.6 | +0.2 |
| | 16nm,0.3s,baz=338,slow=18,SNR=4.5 | | | | | | |
| SONM | Songino Array | 44.16 | 322 | P | P | 07 20 21.7 | 0.0 |
| | 0.4nm,0.5s,baz=131,slow=5.4,SNR=3.7 | | | | | | |
| MKAR | Makanchi Array | 59.39 | 314 | P | P | 07 22 13.8 | -0.2 |
| | 0.1nm,0.4s,baz=97,slow=7.6,SNR=4.3 | | | | | | |
| ILAR | Eielson Array | 64.62 | 26 | P | P | 07 22 48.0 | -0.4 |
| | 0.8nm,0.5s,baz=254,slow=5.7,SNR=18 | | | | | | |
| INK | Inuvik | 70.38 | 23 | P | P | 07 23 24.4 | +0.1 |
| | 1.0nm,0.8s,baz=290,slow=7.3,SNR=4.6 | | | | | | |
| YKA | Yellowknife Ar | 78.94 | 28 | P | P | 07 24 13.9 | +0.4 |
| | 0.7nm,0.7s,baz=286,slow=5.7,SNR=5.2 | | | | | | |
| PDAR | Pinedale Array | 88.53 | 45 | P | P | 07 25 03.1 | +0.3 |
| | 0.2nm,0.4s,baz=131,slow=1.7,SNR=4.4 | | | | | | |

*CSEM 03 07:18:01.4, 39.91N×16.03E, h8km, MD1.9/6*
**ROM 03 07:18:01.4±0.1, 39.91N×16.03E, h8km±1km, Md1.9/6, Ml1.1/5, Error ellipse: s-maj=1.6km s-min=1.3km az=44.0, Southern Italy**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| T0711 | Rotonda (PZ) | 0.04 | 41 | Pg | Pg | 07 18 03.3 | +0.3 |
| T0711 | | | | Sg | Sg | 07 18 04.5 | +0.4 |
| MMN | Mormanno | 0.04 | 239 | Pg | Pg | 07 18 03.3 | +0.4 |
| MMN | | | | Sg | Sg | 07 18 04.3 | +0.4 |
| MMN | Mormanno | 0.04 | 239 | Pg | Pg | 07 18 03.3 | +0.4 |
| MMN | | | | Sg | Sg | 07 18 04.3 | +0.4 |
| CUC | Castrocucco | 0.19 | 297 | Pg | Pg | 07 18 05.7 | +0.5 |
| CUC | | | | Sg | Sg | 07 18 08.7 | +0.9 |
| | 31nm,0.2s | | | | | | |
| CUC | Castrocucco | 0.19 | 297 | Pg | Pg | 07 18 05.7 | +0.5 |
| CUC | | | | Sg | Sg | 07 18 08.7 | +0.9 |
| | 31nm,0.2s | | | | | | |
| SALB | San Lorenzo Be | 0.24 | 97 | Pg | Pg | 07 18 06.9 | +0.6 |
| SALB | | | | Sg | Sg | 07 18 11.3 | +1.7 |
| | 28nm,0.3s | | | | | | |
| SALB | San Lorenzo Be | 0.24 | 97 | Pg | Pg | 07 18 06.9 | +0.6 |
| SALB | | | | Sg | Sg | 07 18 11.3 | +1.7 |
| | 28nm,0.3s | | | | | | |
| SCHR | S. Chirico Rap | 0.29 | 7 | Pg | Pg | 07 18 08.0 | +0.8 |
| SCHR | | | | Sg | Sg | 07 18 12.2 | +1.1 |
| | 76nm,2.3s | | | | | | |
| SIRI | Monte Sirino - | 0.30 | 335 | Pg | Pb | 07 18 08.8 | -0.4 |
| SIRI | | | | Sg | Sb | 07 18 12.9 | -1.5 |
| | 22nm,0.2s | | | | | | |
| SIRI | Monte Sirino - | 0.30 | 335 | Pg | Pb | 07 18 08.8 | -0.4 |
| SIRI | | | | Sg | Sb | 07 18 12.9 | -1.5 |
| | 22nm,0.2s | | | | | | |
| CET2 | Cetraro | 0.38 | 189 | Pg | Pb | 07 18 09.9 | -0.6 |
| CET2 | | | | Sg | Sb | 07 18 15.5 | -1.2 |
| | 30nm,0.6s | | | | | | |
| CET2 | Cetraro | 0.38 | 189 | Pg | Pb | 07 18 09.9 | -0.6 |
| CET2 | | | | Sg | Sb | 07 18 15.5 | -1.2 |
| | 30nm,0.6s | | | | | | |
| MGR | Morigerati | 0.43 | 302 | Pg | Pb | 07 18 10.9 | -0.4 |
| MGR | | | | Sg | Sb | 07 18 18.2 | +0.2 |
| MGR | Morigerati | 0.43 | 302 | Pg | Pb | 07 18 10.9 | -0.4 |
| MGR | | | | Sg | Sb | 07 18 18.2 | +0.2 |

*DDA 03 07:19:48.1, 38.92N×27.95E, h10km, Ml2.7*
*CSEM 03 07:19:48.5±0.1, 38.90N×27.93E, h8km, MD2.6, Error ellipse: s-maj=2.1km s-min=1.8km az=13.0*
**ISK 03 07:19:48.0, 38.89N×27.94E, h8km, MD2.6, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AKHS | Akhisar | 0.10 | 265 | i P | Pg | 07 19 50.9 | +0.5 |
| AKHS | | | | i S | Sg | 07 19 53.1 | +1.1 |
| AKS | Akhisar | 0.10 | 265 | ePG | Pg | 07 19 50.5 | +0.1 |
| AKS | | | | eSG | Sg | 07 19 52.7 | +0.6 |
| AKS | Akhisar | 0.10 | 265 | ePg | Pg | 07 19 50.5 | +0.1 |
| AKS | | | | eSg | Sg | 07 19 52.7 | +0.6 |
| STEP | BALIKESIR_Sava | 0.52 | 341 | i P | Pg | 07 19 57.9 | -0.1 |
| STEP | | | | i S | Sg | 07 20 05.8 | +0.9 |
| STEP | BALIKESIR_Sava | 0.52 | 341 | P | Pg | 07 19 57.9 | -0.1 |
| STEP | | | | S | Sg | 07 20 05.8 | +1.0 |
| DEMI | Demirci | 0.62 | 75 | i P | Pb | 07 20 01.8 | +0.5 |
| DEMI | | | | i S | Sb | 07 20 09.4 | -0.8 |
| MANT | Manisa | 0.62 | 129 | i P | Pb | 07 20 01.1 | -0.2 |
| MANT | | | | i S | Sb | 07 20 09.6 | -0.7 |
| KULA | Kula-Manisa | 0.68 | 123 | ePG | Pb | 07 20 02.1 | 0.0 |
| KULA | | | | eSG | Sb | 07 20 10.9 | -0.8 |
| KULA | Kula-Manisa | 0.68 | 123 | ePg | Pb | 07 20 02.1 | 0.0 |
| KULA | | | | eSg | Sb | 07 20 10.9 | -0.7 |
| BALB | Balikesir | 0.75 | 356 | ePG | Pg | 07 20 02.9 | +0.4 |
| BALB | Balikesir | 0.75 | 356 | ePg | Pg | 07 20 02.9 | +0.4 |
| DKL | Dikili | 0.83 | 283 | ePG | Pb | 07 20 04.7 | +0.1 |
| DKL | Dikili | 0.83 | 283 | ePg | Pb | 07 20 04.7 | +0.1 |
| SIMA | Simav-Kutahya | 0.84 | 76 | ePG | Pb | 07 20 04.7 | -0.1 |
| SIMA | Simav-Kutahya | 0.84 | 76 | ePg | Pb | 07 20 04.7 | -0.1 |
| BALY | Balya | 0.89 | 344 | i P | Pg | 07 20 05.2 | +0.2 |
| BALY | | | | i S | Sg | 07 20 17.1 | +0.4 |
| BALY | Balya | 0.89 | 344 | P | Pg | 07 20 05.2 | +0.1 |
| BALY | | | | S | Sg | 07 20 17.0 | +0.4 |
| DST | Dursunbey | 0.89 | 36 | ePG | Pb | 07 20 05.5 | -0.2 |
| DST | Dursunbey | 0.89 | 36 | ePg | Pb | 07 20 05.5 | -0.2 |
| GONE | Gonen-Balikesi | 1.17 | 350 | ePN | Pn | 07 20 10.7 | 0.0 |
| GONE | Gonen-Balikesi | 1.17 | 350 | ePn | Pn | 07 20 10.7 | 0.0 |
| DGB | ˜zmir | 1.18 | 225 | i P | Pn | 07 20 11.4 | +0.6 |
| DGB | | | | i S | Sn | 07 20 27.1 | +0.2 |
| URLA | Izmir | 1.18 | 244 | ePN | Pn | 07 20 11.1 | +0.3 |
| URLA | Izmir | 1.18 | 244 | i P | Pg | 07 20 10.3 | -0.3 |
| URLA | | | | i S | Sn | 07 20 27.7 | +0.6 |
| URLA | Izmir | 1.18 | 244 | P | Pg | 07 20 10.3 | -0.3 |
| URLA | Izmir | 1.18 | 244 | ePn | Pn | 07 20 11.1 | +0.3 |
| URLA | | | | S | Sn | 07 20 27.7 | +0.7 |
| GDZ | Gediz | 1.22 | 80 | i P | Pn | 07 20 11.9 | +0.5 |
| GDZ | | | | i S | Sn | 07 20 27.9 | -0.3 |
| AYDN | Tasoluk | 1.23 | 182 | i P | Pg | 07 20 12.2 | +0.7 |
| AYDN | Tasoluk | 1.23 | 182 | P | Pg | 07 20 12.2 | +0.7 |
| ZEY | ˜zmir | 1.30 | 241 | i P | Pg | 07 20 14.8 | +1.9 |
| ZEY | | | | i S | Sn | 07 20 33.1 | +3.2 |
| TVSB | Tavsanli | 1.31 | 64 | ePN | Pg | 07 20 13.1 | 0.0 |
| TVSB | Tavsanli | 1.31 | 64 | ePn | Pg | 07 20 13.1 | 0.0 |
| KHAL | Karahalli | 1.32 | 113 | i P | Pg | 07 20 14.4 | +1.1 |
| KHAL | | | | i S | Sn | 07 20 31.4 | +0.8 |
| KHAL | Karahalli | 1.32 | 113 | P | Pg | 07 20 14.4 | +1.1 |
| KHAL | | | | S | Sn | 07 20 31.5 | +0.8 |
| BAYC | CANAKKALE_Bayr | 1.38 | 309 | i P | Pg | 07 20 14.3 | -0.1 |
| BAYC | CANAKKALE_Bayr | 1.38 | 309 | P | Pg | 07 20 14.4 | 0.0 |
| CHOS | Chios island | 1.56 | 252 | ePN | Pn | 07 20 16.6 | +0.5 |
| CHOS | Chios island | 1.56 | 252 | ePn | Pn | 07 20 16.6 | +0.5 |

*ISCJB 03 07:27:42.3±0.4, 5.22S±0.03×129.91E±0.05, h10km, mb3.9/4, MS3.4/1, Error ellipse: s-maj=6.6km s-min=4.8km az=165.7*
*IDC 03 07:27:43.8±1.1, 5.27S×130.08E, h0km, mb3.8/4, mb1 3.9/8, mb1mx3.8/27, mbtmp3.9/8, ML3.4/4, MS3.4/1, Ms1 3.4/1, ms1mx2.5/27, Error ellipse: s-maj=43.5km s-min=22.4km az=75.0*
*DJA 03 07:27:47.1±0.3, 5°S±3°×13°0E±°, h71km±6km, M4.0/10, mB5.6/2, mb4.2/6, MLv3.9/10, Mw(mB)5.1/2*
*NEIC 03 07:27:48.5±0.4, 5.34S×130.17E, h35km, mb4.0/3, Error ellipse: s-maj=12.1km s-min=6.7km az=77.0*
**ISC 03 07:27:44.0±0.6, 5.24S±0.04×130.11E±0.07, h10km, n39, σ2.90/43, mb3.9/4, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BNDI | Bandanaira | 0.74 | 344 | P | Pn | 07 28 02.8 | +2.3 |
| BNDI | | | | S | Sb | 07 28 09.3 | +0.2 |
| MSAI | Masohi | 2.22 | 328 | P | Pn | 07 28 16.3 | -4.6 |
| AAI | Ambon | 2.45 | 309 | P | Pn | 07 28 19.5 | -4.6 |
| SAUI | Saumlaki | 2.97 | 157 | P | Pb | 07 28 37.4 | +0.3 |
| SAUI | | | | S | Sg | 07 29 16.6 | -3.0 |
| FAKI | Fak Fak | 3.14 | 43 | P | Pn | 07 28 34.8 | +1.2 |
| FAKI | | | | S | Sn | 07 29 08.5 | -2.8 |
| FAKI | Fak Fak | 3.14 | 43 | ePn | Pn | 07 28 35.4 | +1.7 |
| NLAI | Namlea | 3.59 | 303 | P | Pn | 07 28 35.3 | -4.5 |
| SANI | Sanana | 5.19 | 307 | P | Pn | 07 28 56.4 | -5.3 |
| LBMI | Labuha | 5.26 | 330 | P | Pn | 07 28 57.9 | -4.8 |
| RKPI | Ransiki, Papua | 5.50 | 48 | P | Pn | 07 29 05.8 | -0.2 |
| SOEI | Soe | 7.32 | 232 | P | Pn | 07 29 32.1 | +0.9 |
| BBSI | Bau Bau | 7.51 | 268 | P | Pn | 07 29 31.3 | -2.3 |
| MTN | Manton Dam | 7.62 | 172 | ePn | Pn | 07 29 40.8 | +5.6 |
| MTN | | | | eSn | Sn | 07 31 07.2 | +5.4 |
| KMSI | Cibinong | 8.41 | 313 | P | Pn | 07 29 40.9 | -5.2 |
| LUWI | Luwuk | 8.43 | 299 | P | Pn | 07 29 41.5 | -4.7 |
| MMRI | Maumere | 8.51 | 246 | P | Pn | 07 29 47.2 | -0.2 |
| EDFI | Ende, Flores | 9.05 | 247 | P | Pn | 07 29 54.5 | -0.4 |
| APSI | Ampana | 9.47 | 297 | P | Pn | 07 29 56.2 | -4.4 |
| BSSI | Bau Bau, Buton | 9.61 | 264 | P | Pn | 07 30 00.2 | -2.3 |
| MRSI | Marisa | 9.94 | 305 | P | Pn | 07 30 02.2 | -4.8 |
| BKSI | Bulukumba | 9.94 | 269 | P | Pn | 07 30 04.6 | -2.4 |
| FITZ | Fitzroy Crossi | 13.51 | 198 | Pn | Pn | 07 30 56.8 | +0.9 |
| | 0.3nm,0.3s,baz=26,slow=11,SNR=10 | | | | | | |
| FITZ | | | | Sn | Sn | 07 33 25.3 | -0.9 |
| | 0.1nm,0.3s,baz=223,slow=19,SNR=2.5 | | | | | | |
| WR1 | Warramunga Arr | 15.19 | 165 | ePn | Pn | 07 31 17.7 | -1.1 |
| | 6.8nm,1.3s | | | | | | |
| WR1 | | | | eSn | Sn | 07 34 00.9 | -6.2 |
| WRA | Warramunga Arr | 15.19 | 165 | Pn | Pn | 07 31 17.7 | -1.1 |
| | 0.2nm,0.3s,baz=347,slow=13,SNR=9.8 | | | | | | |
| WRA | | | | Sn | Sn | 07 34 00.9 | -6.2 |
| | 0.5nm,0.3s,baz=355,slow=22,SNR=7.1 | | | | | | |
| WB2 | Warramunga Arr | 15.19 | 165 | ePn | Pn | 07 31 19.8 | +1.0 |
| | 14nm,1.4s | | | | | | |
| WB2 | | | | eSn | Sn | 07 34 04.4 | -2.8 |
| COEN | Coen | 15.52 | 125 | ePn | Pn | 07 31 23.9 | +0.7 |
| | 39nm,1.9s | | | | | | |
| PMG | Port Moresby | 17.41 | 105 | P | Pn | 07 31 47.6 | +0.4 |
| | 0.5nm,0.3s,baz=223,slow=5.5,SNR=3.0 | | | | | | |
| AS31 | Alice Springs | 18.68 | 169 | eP | Pn | 07 32 06.2 | +3.3 |
| ASAR | Alice Springs | 18.68 | 169 | P | Pn | 07 32 04.3 | +1.5 |
| | 0.3nm,0.3s,baz=347,slow=9.7,SNR=22 | | | | | | |
| ASAR | | | | S | Sn | 07 35 29.0 | -3.0 |
| | 0.1nm,0.3s,baz=0.8,slow=27,SNR=4.3 | | | | | | |
| MJAR | Matsushiro Arr | 42.25 | 10 | LR | LR | 07 51 50.2 | |
| | comp=Z,54nm,20.9s,baz=55,slow=34 | | | | | | |
| SONA0 | Songino Array | 56.82 | 341 | eP | P | 07 37 30.6 | +1.9 |
| SONM | Songino Array | 56.82 | 341 | P | P | 07 37 30.7 | +1.9 |
| | 0.2nm,0.3s,baz=152,slow=9.8,SNR=2.9 | | | | | | |
| PETK | Petropavlovsk- | 62.63 | 18 | P | P | 07 38 10.7 | +2.2 |
| | 5.5nm,0.9s,baz=187,slow=5.8,SNR=4.4 | | | | | | |
| PEA1 | Petropavlovsk- | 62.63 | 18 | eP | P | 07 38 10.7 | +2.2 |
| MK01 | Makanchi Array | 66.80 | 326 | eP | P | 07 38 37.5 | +1.5 |
| MK32 | Makanchi Array | 66.82 | 326 | eP | P | 07 38 37.7 | +1.6 |
| MKAR | Makanchi Array | 66.82 | 326 | P | P | 07 38 37.7 | +1.6 |
| | 0.4nm,0.5s,baz=115,slow=8.1,SNR=5.2 | | | | | | |
| ZALV | Zalesovo Beam | 70.06 | 333 | P | P | 07 38 56.5 | +0.4 |
| | 0.5nm,0.5s,baz=112,slow=11,SNR=3.9 | | | | | | |
| ZAA1 | Zalesovo Array | 70.06 | 333 | eP | P | 07 38 56.5 | +0.3 |

*ISCJB 03 07:36:15.7±0.6, 37.12N±0.05×27.99E±0.04, h0km, Error ellipse: s-maj=7.9km s-min=4.0km az=17.6*
*CSEM 03 07:36:16.0±0.2, 37.10N×27.99E, h1km, ML2.6, Error ellipse: s-maj=6.4km s-min=3.4km az=22.0, Suspected Mining explosion.*
*ISK 03 07:36:16.8, 37.13N×27.86E, h28km, MD2.5*
*DDA 03 07:36:17.1, 37.12N×27.89E, h7km, Ml2.6, Suspected Mining explosion.*
**ISC 03 07:36:15.3±0.9, 37.12N±0.04×28.02E±0.03, h0km, n20, σ0.44/28, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BDRM | Kayabasi | 0.47 | 263 | i P | Pg | 07 36 24.1 | -0.1 |
| BDRM | | | | i S | Sg | 07 36 30.8 | +0.5 |
| BDRM | Kayabasi | 0.47 | 263 | P | Pg | 07 36 24.1 | -0.1 |
| BDRM | | | | S | Sg | 07 36 30.8 | +0.5 |
| TURN | Turunc | 0.53 | 118 | ePG | Pb | 07 36 27.2 | -0.3 |
| TURN | | | | eSG | Sb | 07 36 35.5 | -0.2 |
| TURN | Turunc | 0.53 | 118 | i P | Pg | 07 36 26.0 | +0.5 |
| TURN | Turunc | 0.53 | 118 | P | Pg | 07 36 26.0 | +0.5 |
| TURN | Turunc | 0.53 | 118 | ePg | Pb | 07 36 27.2 | -0.3 |
| TURN | | | | eSg | Sb | 07 36 35.5 | -0.2 |
| AYDN | Tasoluk | 0.55 | 348 | i P | Pb | 07 36 27.2 | -0.7 |
| AYDN | Tasoluk | 0.55 | 348 | P | Pb | 07 36 27.2 | -0.7 |
| BODT | Bodrum | 0.57 | 264 | ePG | Pg | 07 36 26.7 | +0.4 |
| BODT | | | | eSG | Sg | 07 36 34.1 | +0.4 |
| BODT | Bodrum | 0.57 | 264 | ePg | Pg | 07 36 26.7 | +0.4 |
| BODT | | | | eSg | Sg | 07 36 34.1 | +0.4 |
| GCAM | G?zelcaml? | 0.85 | 313 | ePG | Pg | 07 36 32.4 | +0.7 |
| GCAM | G?zelcaml? | 0.85 | 313 | i P | Pb | 07 36 32.8 | -0.2 |
| GCAM | | | | i S | Sg | 07 36 42.9 | +0.2 |
| GCAM | G?zelcaml? | 0.85 | 313 | ePg | Pg | 07 36 32.4 | +0.7 |
| GCAM | G?zelcaml? | 0.85 | 313 | P | Pb | 07 36 32.8 | -0.2 |
| GCAM | | | | S | Sg | 07 36 42.9 | +0.2 |
| NIS1 | Nisyros Isl. | 0.85 | 233 | ePG | Pg | 07 36 32.0 | +0.3 |
| NIS1 | Nisyros Isl. | 0.85 | 233 | ePg | Pg | 07 36 32.0 | +0.3 |
| FETY | Fethiye | 0.98 | 119 | ePN | Pn | 07 36 36.4 | 0.0 |
| FETY | Fethiye | 0.98 | 119 | ePn | Pn | 07 36 36.4 | 0.0 |
| AKAS | Kas | 1.55 | 124 | ePN | Pn | 07 36 43.9 | -0.5 |
| AKAS | Kas | 1.55 | 124 | ePn | Pn | 07 36 43.9 | -0.5 |

*IDC 03 07:55:25.9±1.0, 33.39N×141.94E, h0km, mb3.9/7, mb1 4.0/8, mb1mx3.8/29, mbtmp3.8/8, ML3.0/1, MS3.3/2, Ms1 3.3/2, ms1mx2.7/35, Error ellipse: s-maj=20.8km s-min=18.6km az=114.0*
*ISCJB 03 07:55:29.1±0.5, 33.37N±0.05×141.95E±0.06, h34km, mb4.2/14, MS3.3/2, Error ellipse: s-maj=7.7km s-min=6.3km az=41.4*
*NEIC 03 07:55:31.4±0.4, 33.39N×141.89E, h35km, mb4.6/7, Error ellipse: s-maj=8.5km s-min=7.7km az=77.0*
**ISC 03 07:55:31.3±0.8, 33.38N±0.08×141.88E±0.08, h34km, n30, σ1.25/33, mb4.1/14, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JHJ2 | Mitsune | 1.75 | 262 | ePn | Pn | 07 55 58.8 | -0.4 |
| JHJ | Hachijo jima 2 | 1.77 | 262 | Pn | Pn | 07 55 58.6 | -1.0 |
| | 35nm,0.3s,baz=331,slow=22,SNR=7.7 | | | | | | |
| JHJ | | | | Sn | Sn | 07 56 21.4 | +0.4 |
| | 74nm,0.3s,baz=72,slow=20,SNR=8.3 | | | | | | |
| MJAR | Matsushiro Arr | 4.36 | 317 | Pn | Pn | 07 56 33.9 | -1.4 |
| | 0.8nm,0.3s,baz=146,slow=11,SNR=12 | | | | | | |
| MJAR | | | | Sn | Sn | 07 57 24.9 | 0.0 |
| | 1.0nm,0.3s,baz=204,slow=20,SNR=6.3 | | | | | | |
| MAJO | Matsushiro | 4.36 | 317 | ePn | Pn | 07 56 35.6 | +0.3 |
| MAJO | | | | eSn | Sn | 07 57 28.1 | +3.1 |
| MAT | Matsushiro | 4.36 | 317 | P | Pn | 07 56 34.3 | -0.9 |
| MAT | | | | eS | Sn | 07 57 21.7 | -3.2 |
| MJB9 | Matsu-Tunnel | 4.37 | 317 | ePn | Pn | 07 56 35.2 | -0.1 |
| INU | Inuyama | 4.47 | 297 | ePn | Pn | 07 56 37.9 | +1.1 |
| PETK | Petropavlovsk- | 22.74 | 25 | P | P | 08 00 28.1 | -2.3 |
| | 1.9nm,0.5s,baz=73,slow=5.0,SNR=7.2 | | | | | | |
| PETK | | | | LR | LR | 08 09 00.1 | |
| | comp=Z,21nm,21.0s,baz=187,slow=36 | | | | | | |
| PEA1 | Petropavlovsk- | 22.75 | 25 | eP | P | 08 00 28.1 | -2.3 |
| SONA1 | Songino Array | 30.26 | 309 | eP | P | 08 01 40.0 | +0.8 |
| SONA0 | Songino Array | 30.26 | 309 | eP | P | 08 01 39.8 | +0.6 |
| SONM | Songino Array | 30.26 | 309 | P | P | 08 01 39.8 | +0.6 |
| | 1.3nm,0.8s,baz=115,slow=7.8,SNR=8.1 | | | | | | |
| CMAR | Chiang Mai Arr | 41.08 | 260 | P | P | 08 03 11.4 | -0.5 |
| | 2.0nm,0.4s,baz=39,slow=9.2,SNR=4.0 | | | | | | |
| MK01 | Makanchi Array | 46.45 | 305 | eP | P | 08 03 55.2 | +0.3 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| MK32 | Makanchi Array | 46.46 | 305 | eP | P | 08 03 54.5 | -0.4 |
| MKAR | Makanchi Array | 46.46 | 305 | P | P | 08 03 54.5 | -0.4 |
| | 1.4nm,0.7s,baz=87,slow=9.8,SNR=3.7 | | | | | | |
| MTN | Manton Dam | 47.09 | 194 | eP | P | 08 04 00.6 | +0.5 |
| | 5.4nm,0.8s | | | | | | |
| KURK | Kurchatov | 48.54 | 311 | eP | P | 08 04 10.9 | -0.1 |
| | 2.9nm,0.9s | | | | | | |
| IMAR | Indian Mountai | 49.63 | 29 | eP | P | 08 04 20.5 | +1.4 |
| ILAR | Eielson Array | 52.40 | 31 | P | P | 08 04 39.6 | -0.3 |
| | 0.5nm,0.6s,baz=262,slow=6.0,SNR=10 | | | | | | |
| ILB | Eielson Array | 52.40 | 31 | eP | P | 08 04 39.6 | -0.3 |
| WB2 | Warramunga Arr | 53.51 | 189 | eP | P | 08 04 48.0 | -0.6 |
| WR1 | Warramunga Arr | 53.51 | 189 | eP | P | 08 04 48.0 | -0.6 |
| | 8.6nm,1.4s | | | | | | |
| WRA | Warramunga Arr | 53.51 | 189 | P | P | 08 04 48.0 | -0.6 |
| | 1.1nm,0.6s,baz=6.0,slow=7.6,SNR=21 | | | | | | |
| AS31 | Alice Springs | 57.23 | 189 | eP | P | 08 05 15.6 | +0.2 |
| | 1.0nm,1.1s | | | | | | |
| ASAR | Alice Springs | 57.24 | 189 | P | P | 08 05 15.6 | +0.2 |
| | 0.4nm,0.6s,baz=11,slow=9.4,SNR=6.2 | | | | | | |
| INK | Inuvik | 57.48 | 26 | eP | P | 08 05 17.4 | +0.8 |
| | 6.3nm,1.4s | | | | | | |
| CRAG | Craig | 60.55 | 41 | eP | P | 08 05 38.0 | 0.0 |
| | 45nm,1.3s | | | | | | |
| KBO | Bosley Butte | 71.07 | 52 | eP | P | 08 06 48.1 | +1.9 |
| | 55nm,1.0s | | | | | | |
| AKASG | Malin Array Be | 77.43 | 323 | LR | LR | 08 45 47.3 | |
| | comp=Z,74nm,18.4s,baz=295,slow=39 | | | | | | |

*CSEM **03** 07:56:28.5±0.4, 39°.70N×33°.07E, h2km, ML2.6, Error ellipse: s-maj=9.4km s-min=4.6km az=149.0*
*ISCJB **03** 07:56:29.3±2.2, 39°.7N±0°.1×33°.13E±0°.09, h2km±15km, Error ellipse: s-maj=20.1km s-min=9.0km az=155.4*
*ISK **03** 07:56:29.6, 39°.60N×33°.13E, h5km, MD2.4*
*DDA **03** 07:56:29.6, 39°.59N×33°.14E, h5km, Ml2.6*
**ISC 03 07:56:29.5**±1.8**, 39°.6N**±0°.1×**33°.14E**±0°.08**, h6**km±7km**, n14, σ0s.76**/21**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BBAL | Bala | 0.06 | 189 | i P | Pg | 07 56 31.0 | -0.2 |
| BBAL | | | | i S | Sg | 07 56 32.1 | -0.3 |
| BBAL | Bala | 0.06 | 189 | P | Pg | 07 56 31.0 | -0.2 |
| AFSR | Af¯ar-Bala (A | 0.16 | 198 | ePG | Pg | 07 56 33.5 | +0.7 |
| AFSR | | | | eSG | Sg | 07 56 36.5 | +1.4 |
| AFSR | Af¯ar-Bala (A | 0.16 | 198 | ePg | Pg | 07 56 33.5 | +0.7 |
| AFSR | | | | eSg | Sg | 07 56 36.5 | +1.4 |
| KKUL | Konya-Kulu | 0.46 | 202 | i P | Pb | 07 56 39.2 | -0.9 |
| KKUL | | | | i S | Sb | 07 56 46.3 | -0.9 |
| KKUL | Konya-Kulu | 0.46 | 202 | P | Pb | 07 56 39.2 | -0.9 |
| KKUL | | | | S | Sb | 07 56 46.3 | -0.9 |
| KAMT | Kaman | 0.50 | 117 | ePG | Pb | 07 56 40.0 | -0.7 |
| KAMT | Kaman | 0.50 | 117 | ePg | Pb | 07 56 40.1 | -0.7 |
| KULU | Kulu | 0.57 | 191 | ePG | Pb | 07 56 41.6 | -0.3 |
| KULU | Kulu | 0.57 | 191 | ePg | Pb | 07 56 41.6 | -0.3 |
| CDAG | Cicekdag | 0.95 | 88 | i P | Pb | 07 56 48.5 | 0.0 |
| CDAG | | | | i S | Sb | 07 57 01.1 | -0.3 |
| CDAG | Cicekdag | 0.95 | 88 | P | Pb | 07 56 48.5 | 0.0 |
| CDAG | | | | S | Sb | 07 57 01.1 | -0.3 |
| KIZT | Kizilcal | 1.21 | 234 | ePN | Pn | 07 56 53.3 | +0.2 |
| KIZT | Kizilcal | 1.21 | 234 | ePn | Pn | 07 56 53.3 | +0.2 |

**JMA 03 08:12:05.5**±0.2**, 26°.87N**×**128°.77E, h16**km±3km**, M3.5, Ryukyu Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JOW | Kunigami | 0.44 | 265 | P | Pg | 08 12 14.4 | -0.1 |
| JOW | | | | S | Sg | 08 12 20.6 | +0.1 |
| JOKE | Okinoerabujima | 0.52 | 340 | P | Pg | 08 12 15.8 | -0.1 |
| JOKE | | | | S | Sg | 08 12 22.2 | -0.7 |
| JIH | Iheya | 0.73 | 283 | P | Pg | 08 12 19.7 | -0.2 |
| JIH | | | | S | Sg | 08 12 29.4 | -0.2 |
| JNTH | Nagotoyohara | 0.76 | 243 | P | Pg | 08 12 19.5 | -0.7 |
| JNTH | | | | S | Sg | 08 12 28.7 | -1.5 |
| JTK | Tokunoshima | 0.93 | 10 | P | Pb | 08 12 22.6 | -0.6 |
| JTK | | | | eS | Sb | 08 12 34.5 | -0.8 |
| JJT2 | Tamagusuku 2 | 1.17 | 232 | P | Pb | 08 12 27.5 | +0.2 |
| JJT2 | | | | eS | Sb | 08 12 42.3 | +0.1 |
| JAGN | Aguni-jima | 1.40 | 259 | P | Pb | 08 12 30.9 | -0.3 |
| JAGN | | | | eS | Sb | 08 12 49.0 | +0.3 |
| JAMN | Amaminishikomi | 1.41 | 15 | P | Pn | 08 12 29.9 | -0.7 |
| JAM | Amami Oshima | 1.71 | 26 | P | Pb | 08 12 36.2 | -0.3 |
| JKE | Kume jima 2 | 1.86 | 253 | P | Pn | 08 12 36.8 | +0.1 |
| JKE | | | | eS | Sn | 08 13 00.3 | +0.5 |
| JMZ | Minamidaito 2 | 2.44 | 115 | P | Pn | 08 12 41.4 | -3.2 |
| JMZ | | | | S | Sn | 08 13 09.4 | -4.7 |

*IDC **03** 08:26:42.0±1.4, 32°.31N×142°.87E, h0km, mb3.5/4, mb1 3.8/7, mb1mx3.5/37, mbtmp3.7/7, ML3.7/3, Error ellipse: s-maj=31.3km s-min=25.2km az=74.0*
*JMA **03** 08:26:44.4±0.6, 32°.44N×142°.77E, h32km, M4.1*
*ISCJB **03** 08:26:45.5±1.0, 32°.50N±0°.09×142°.8E±0°.1, h35km, mb3.5/4, Error ellipse: s-maj=16.5km s-min=9.6km az=141.9*
**ISC 03 08:26:47.3**±1.2**, 32°.4N**±0°.1×**142°.8E**±0°.1**, h35**km**, n14, σ1s.14**/17**, mb3.6**/4**, Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JHJ2 | Mitsune | 2.58 | 286 | P | Pn | 08 27 25.4 | -1.1 |
| JHJ | Hachijo jima 2 | 2.61 | 286 | Pn | Pn | 08 27 25.5 | -1.4 |
| | 21nm,0.3s,baz=41,slow=19,SNR=3.7 | | | | | | |
| BSO1 | Boso 1 | 2.68 | 327 | P | Pn | 08 27 26.9 | -0.6 |
| JHU | Hanno | 4.48 | 321 | P | Pn | 08 27 52.7 | 0.0 |
| JHU | | | | S | Sn | 08 28 43.3 | -0.3 |
| JHO | Hitachi | 4.56 | 337 | P | Pn | 08 27 52.4 | -1.4 |
| JYN | Shimob | 4.66 | 312 | P | Pn | 08 27 55.3 | 0.0 |
| JAG | Ashikaga | 4.84 | 327 | P | Pn | 08 27 57.4 | -0.3 |
| MJAR | Matsushiro Arr | 5.57 | 319 | Pn | Pn | 08 28 07.9 | +0.2 |
| | 2.2nm,0.3s,baz=149,slow=11,SNR=26 | | | | | | |
| MJAR | | | | Sn | Sn | 08 29 10.2 | -0.4 |
| | 0.7nm,0.3s,baz=271,slow=28,SNR=4.1 | | | | | | |
| MAT | Matsushiro | 5.58 | 319 | P | Pn | 08 28 07.9 | +0.1 |
| MAT | | | | eS | Sn | 08 29 09.2 | -1.4 |
| ASAJ | Asahikawa | 11.68 | 359 | Pn | Pn | 08 29 29.2 | -2.2 |
| | 0.9nm,0.3s,baz=190,slow=11,SNR=6.3 | | | | | | |
| SONM | Songino Array | 31.45 | 310 | P | P | 08 33 07.1 | +1.6 |
| | 1.1nm,0.9s,baz=112,slow=8.2,SNR=4.9 | | | | | | |
| MKAR | Makanchi Array | 47.62 | 306 | P | P | 08 35 21.1 | +1.2 |
| | 0.3nm,0.5s,baz=82,slow=9.1,SNR=3.0 | | | | | | |
| WRA | Warramunga Arr | 52.68 | 190 | P | P | 08 35 57.3 | -1.0 |
| | 0.8nm,0.7s,baz=8.6,slow=7.5,SNR=3.9 | | | | | | |
| ILAR | Eielson Array | 52.85 | 30 | P | P | 08 35 59.5 | +0.4 |
| | 0.2nm,0.7s,baz=277,slow=7.1,SNR=4.2 | | | | | | |

**JMA 03 08:39:46.1**±0.6**, 37°.37N**×**144°.02E, h56**km**, M3.6, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JFK | Kawauchi | 2.51 | 271 | eS | Sn | 08 40 55.2 | +1.4 |
| ONAJ | Iwakimizuishiy | 2.58 | 265 | P | Pn | 08 40 26.4 | +0.9 |
| ONAJ | | | | S | Sn | 08 40 56.9 | +1.1 |
| JMK | Ichinoseki | 2.71 | 306 | S | Sn | 08 41 00.3 | +1.5 |
| JFT | Otama | 2.94 | 274 | P | Pn | 08 40 32.1 | +1.8 |
| JOM | Ohasama | 3.00 | 315 | S | Sn | 08 41 06.3 | +0.4 |
| JAG | Ashikaga | 3.78 | 257 | P | Pn | 08 40 43.1 | +1.3 |
| JAG | | | | eS | Sn | 08 41 26.2 | +1.1 |
| JRY | Ryogami san | 4.33 | 253 | P | Pn | 08 40 50.0 | +0.6 |

*ISK **03** 08:43:04.7, 39°.20N×44°.14E, h22km, MD2.3*
*CSEM **03** 08:43:05.1±1.5, 38°.88N×43°.79E, h3km±10km, ML2.8, Error ellipse: s-maj=24.4km s-min=11.8km az=153.0*
*ISCJB **03** 08:43:06.0±2.1, 38°.95N±0°.10×43°.79E±0°.09, h8km±7km, Error ellipse: s-maj=18.3km s-min=8.0km az=150.4*
*DDA **03** 08:43:06.1, 38°.98N×43°.78E, h7km, Ml2.8*
**ISC 03 08:43:07.4**±1.4**, 39°.00N**±0°.06×**43°.77E**±0°.04**, h2**km±15km**, n13, σ0s.72**/22**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.15 | 265 | i P | Pg | 08 43 09.8 | -0.6 |
| VMUR | | | | i S | Sg | 08 43 13.2 | +0.7 |
| VMUR | Van-Muradiye | 0.15 | 265 | P | Pg | 08 43 09.8 | -0.6 |
| VMUR | | | | S | Sg | 08 43 13.1 | +0.7 |
| CLDR | Caldiran | 0.18 | 40 | ePG | Pg | 08 43 10.2 | -0.8 |
| CLDR | | | | eSG | Sg | 08 43 14.0 | +0.6 |
| CLDR | Caldiran | 0.18 | 40 | i P | Pg | 08 43 10.3 | -0.6 |
| CLDR | | | | i S | Sg | 08 43 13.9 | +0.6 |
| CLDR | Caldiran | 0.18 | 40 | P | Pg | 08 43 10.3 | -0.6 |
| CLDR | | | | eSg | Sg | 08 43 14.0 | +0.6 |
| ERCV | ERCIS-VAN | 0.34 | 273 | ePG | Pn | 08 43 18.7 | -0.7 |
| VANB | Van | 0.50 | 216 | ePG | Pn | 08 43 22.4 | +0.7 |
| DYDN | Diyadin | 0.54 | 354 | i P | Pb | 08 43 19.7 | 0.0 |
| DYDN | | | | i S | Sg | 08 43 25.9 | +1.0 |
| DYDN | Diyadin | 0.54 | 354 | P | Pb | 08 43 19.7 | 0.0 |
| DYDN | | | | S | Sg | 08 43 25.9 | +1.0 |
| AGRB | Hanur-Agry | 0.83 | 314 | ePG | Pg | 08 43 23.3 | 0.0 |
| AGRB | Hanur-Agry | 0.83 | 314 | ePg | Pg | 08 43 23.3 | 0.0 |
| TUTA | Tutak | 0.84 | 299 | i P | Pg | 08 43 22.6 | -0.9 |
| TUTA | | | | i S | Sg | 08 43 34.9 | +0.5 |
| TUTA | Tutak | 0.84 | 299 | P | Pg | 08 43 22.6 | -0.9 |
| TUTA | | | | S | Sg | 08 43 34.9 | +0.5 |

**WEL 03 08:46:53.0**±0.3**, 36°.84S**×**176°.72E, h216**km±4km**, ML3.5**/8**, 3C-1D, Error ellipse: s-maj=6.3km s-min=6.2km az=90.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| HAZ | Te Kaha | 1.24 | 137 | PN | Pn | 08 47 26.3 | +0.2 |
| HAZ | | | | eSN | S | 08 47 51.8 | -0.1 |
| HAZ | | | | AML | AML | 08 47 58.0 | |
| RUGZ | Raukumara Rang | 1.35 | 146 | PN | Pn | 08 47 27.0 | -0.1 |
| RUGZ | | | | SN | S | 08 47 52.8 | -0.8 |
| URZ | Urewera | 1.45 | 168 | ⇑PN | Pn | 08 47 28.0 | +0.3 |
| URZ | | | | eSN | S | 08 47 55.3 | +0.6 |
| PKGZ | Pakihiroa | 1.50 | 134 | PN | Pn | 08 47 27.7 | -0.5 |
| PKGZ | | | | AML | AML | 08 47 47.8 | |
| PKGZ | | | | AML | AML | 08 48 00.0 | |
| MWZ | Matawai | 1.62 | 157 | PN | Pn | 08 47 29.2 | 0.0 |
| MWZ | | | | SN | S | 08 47 58.4 | +1.0 |
| MUGZ | Murupara | 1.63 | 179 | PN | Pn | 08 47 29.6 | +0.3 |
| WMGZ | Waiomatatini S | 1.66 | 126 | PN | Pn | 08 47 30.0 | +0.4 |
| WMGZ | | | | AML | AML | 08 47 47.1 | |
| TWGZ | Tauwhareparae | 1.67 | 143 | PN | Pn | 08 47 30.0 | +0.3 |
| TWGZ | | | | AML | AML | 08 48 00.2 | |
| TWGZ | | | | AML | AML | 08 48 07.5 | |
| TKGZ | Te Karaka | 1.83 | 151 | PN | Pn | 08 47 31.1 | +0.1 |
| TKGZ | | | | AML | AML | 08 48 01.5 | |
| TKGZ | | | | AML | AML | 08 48 16.0 | |
| SNGZ | Shannon Statio | 2.00 | 166 | ⇑PN | Pn | 08 47 32.5 | -0.2 |
| MRHZ | Matea Rd | 2.00 | 187 | PN | Pn | 08 47 32.8 | 0.0 |
| MTHZ | Maungataniwha | 2.01 | 177 | PN | Pn | 08 47 32.4 | -0.4 |
| CNGZ | Carnagh Statio | 2.02 | 145 | PN | Pn | 08 47 32.9 | +0.1 |
| RIGZ | Rimuhau | 2.03 | 156 | PN | Pn | 08 47 32.8 | -0.3 |
| RIGZ | | | | AML | AML | 08 48 07.8 | |
| RIGZ | | | | AML | AML | 08 48 18.2 | |
| NMHZ | Naumai | 2.25 | 178 | PN | Pn | 08 47 35.4 | 0.0 |
| WHHZ | Waihua | 2.27 | 170 | PN | Pn | 08 47 34.9 | -0.5 |
| KNZ | Kokohu | 2.30 | 161 | ⇑PN | Pn | 08 47 34.6 | -1.2 |
| BKZ | Black Stump Fm | 2.33 | 184 | PN | Pn | 08 47 35.2 | -0.9 |
| ARHZ | Aropaoanui | 2.43 | 175 | PN | Pn | 08 47 36.5 | -0.6 |
| OTVZ | Oturere | 2.46 | 200 | PN | Pn | 08 47 37.7 | 0.0 |
| MHGZ | Mahia Peninsul | 2.49 | 158 | PN | Pn | 08 47 36.8 | -0.9 |
| KWHZ | Kaweka Forest | 2.59 | 185 | PN | Pn | 08 47 38.0 | -0.9 |
| KWHZ | | | | AML | AML | 08 48 16.1 | |
| KWHZ | | | | AML | AML | 08 48 16.1 | |
| MCHZ | McNeill Hill | 2.60 | 180 | PN | Pn | 08 47 38.2 | -0.7 |
| WNVZ | Wahianoa | 2.63 | 199 | ⇓PN | Pn | 08 47 39.1 | -0.5 |
| BHHZ | Black Hill Sta | 2.69 | 191 | PN | Pn | 08 47 38.9 | -1.2 |
| CKHZ | Cape Kidnapper | 2.83 | 174 | PN | Pn | 08 47 39.8 | -1.6 |
| KAHZ | Kahuranaki | 2.95 | 178 | PN | Pn | 08 47 41.3 | -1.6 |
| PNHZ | Pukenui | 3.09 | 187 | PN | Pn | 08 47 42.3 | -2.2 |
| PXZ | Pawanui | 3.19 | 178 | PN | Pn | 08 47 43.2 | -2.3 |
| TSZ | Takapari Road | 3.27 | 190 | PN | Pn | 08 47 44.3 | -2.3 |
| PRHZ | Porangahau | 3.42 | 181 | PN | Pn | 08 47 45.7 | -2.6 |
| POWZ | Post Office Ro | 3.62 | 192 | PN | Pn | 08 47 48.4 | -2.4 |
| BFZ | Birch Farm | 3.85 | 185 | PN | Pn | 08 47 50.3 | -3.2 |
| MRZ | Mangatainoka R | 3.92 | 193 | PN | Pn | 08 47 50.9 | -3.4 |
| TIWZ | Tintock | 3.98 | 189 | PN | Pn | 08 47 52.3 | -2.9 |
| OGWZ | Otaki Gorge | 4.15 | 197 | PN | Pn | 08 47 53.8 | -3.3 |
| OGWZ | | | | AML | AML | 08 48 44.7 | |
| HOWZ | Holdsworth Sta | 4.16 | 193 | PN | Pn | 08 47 54.0 | -3.3 |
| KIW | Kapiti Island | 4.25 | 199 | PN | Pn | 08 47 55.2 | -3.2 |
| TMWZ | Te Maipa | 4.31 | 188 | PN | Pn | 08 47 56.2 | -2.9 |
| MTW | Mount Morrison | 4.41 | 192 | PN | Pn | 08 47 56.7 | -3.7 |
| CAW | Cannon Point | 4.45 | 196 | PN | Pn | 08 47 57.1 | -3.7 |
| DUWZ | D'Urville Isla | 4.52 | 208 | PN | Pn | 08 47 58.1 | -3.7 |
| TCW | Tory Channel | 4.76 | 203 | PN | Pn | 08 48 00.9 | -3.8 |
| TUWZ | Tuamarina | 5.06 | 204 | PN | Pn | 08 48 04.4 | -4.1 |
| THZ | Tophouse | 5.74 | 210 | PN | Pn | 08 48 13.3 | -3.8 |

*CSEM **03** 08:47:09.3±0.9, 50°.29N×18°.77E, h1km, Error ellipse: s-maj=15.5km s-min=7.3km az=27.0*
**PRU 03 08:47:09.8, 50°.25N**×**18°.77E, h0**km**, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| OKC | Ostrava-Krasne | 0.58 | 224 | ePG | Pg | 08 47 21.4 | +0.6 |
| OKC | | | | eSG | Sg | 08 47 28.2 | -0.1 |
| | comp=Z,5.5nm,0.2s | | | | | | |
| OKC | Ostrava-Krasne | 0.58 | 224 | Pg | Pg | 08 47 21.4 | +0.6 |
| OKC | | | | Sg | Sg | 08 47 28.2 | -0.1 |
| | 5.5nm,0.2s | | | | | | |
| MORC | Moravsky Berou | 0.92 | 240 | ePg | Pg | 08 47 27.8 | +0.3 |
| MORC | | | | eSg | Sb | 08 47 41.0 | -0.5 |
| LANS | Liptovska Anna | 1.19 | 157 | ePg | Pg | 08 47 32.8 | +0.2 |
| LANS | | | | eSg | Sb | 08 47 48.9 | -0.3 |
| LANS | Liptovska Anna | 1.19 | 157 | ePG | Pg | 08 47 32.8 | +0.2 |
| LANS | | | | eSG | Sb | 08 47 48.9 | -0.3 |
| DPC | Dobruska-Polom | 1.57 | 275 | ePG | Pn | 08 47 38.6 | -0.4 |
| DPC | | | | eSG | Sb | 08 48 00.2 | 0.0 |
| DPC | Dobruska-Polom | 1.57 | 275 | Pg | Pn | 08 47 38.6 | -0.4 |
| DPC | | | | Sg | Sb | 08 48 00.2 | 0.0 |
| VRAC | Vranov | 1.70 | 237 | ePn | Pb | 08 47 41.4 | -0.5 |
| VRAC | | | | eSg | Sg | 08 48 04.3 | 0.0 |
| VYHS | Vyhne | 1.76 | 179 | eSn | Sn | 08 48 02.3 | -2.3 |
| VYHS | Vyhne | 1.76 | 179 | ePG | Pn | 08 47 40.6 | -0.9 |
| VYHS | | | | eSN | Sn | 08 48 02.2 | -2.4 |
| KHC | Kasperske Hory | 3.55 | 254 | eSG | Sg | 08 49 01.6 | -2.3 |
| KHC | Kasperske Hory | 3.55 | 254 | Sg | Sg | 08 49 01.6 | -2.3 |

*IDC **03** 08:55:58.4±2.5, 8°.08N×103°.61W, h0km, mb3.8/7, mb1 4.1/7, mb1mx3.9/29, mbtmp3.8/7, MS4.1/11, Ms1 4.1/11, ms1mx3.8/35, Error ellipse: s-maj=116.0km s-min=20.5km az=59.0*
*GCMT **03** 08:56:00.0±0.3, 8°.55N×102°.94W, h15km, MW4.9/69, Moment Tensor Solution. s21,c25; s69,c94; Duration: 0 Moment tensor: Scale 10^16Nm; Mrr-0.19±.08; Mθθ0.31±.08; Mφφ-0.11±.10; Mrθ-1.88±.27; Mθφ-2.15±.06; Mφr-0.79±.28; Best double couple: M0 2.92500×10^16 NP1:φs87.00000°, δ84.00000°, λ-139.00000°. NP2: φs352.00000°, δ50.00000°, λ-8.00000°. Principal axes: T 2.6160, Plg22.0000°, Azm213.0000°; N 0.6190, Plg49.0000°, Azm95.0000°; P -3.2350, Plg32.0000°, Azm318.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
**ISC 03 08:56:03.9**±2.6**, 8°.2N**±0°.4×**103°.5W**±0°.7**, h35**km**, n23, σ0s.89**/7**, mb4.0**/7**, MS4.1**/9**, Northern East Pacific Rise**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CMIG | Matias Romero | 12.22 | 43 | LR | LR | 09 02 21.3 | |
| | comp=Z,2μm,18.5s,baz=201,slow=31 | | | | | | |
| LPIG | La Paz | 17.14 | 338 | LR | LR | 09 05 02.3 | |
| | comp=Z,1μm,19.4s,baz=160,slow=32 | | | | | | |
| TXAR | Lajitas Array | 21.06 | 360 | P | P | 09 00 45.2 | 0.0 |
| | 1.3nm,0.8s,baz=177,slow=9.6,SNR=11 | | | | | | |
| TXAR | | | | LR | LR | 09 08 15.3 | |
| | comp=Z,349nm,19.1s,baz=0.0,slow=35 | | | | | | |
| ANMO | Albuquerque | 26.80 | 355 | LR | LR | 09 10 45.5 | |
| | comp=Z,196nm,19.2s,baz=356,slow=33 | | | | | | |
| PFO | Pinyon Flats O | 28.02 | 337 | LR | LR | 09 10 55.0 | |
| | comp=Z,677nm,20.8s,baz=142,slow=32 | | | | | | |
| ATAH | Atahualpa | 29.28 | 121 | LR | LR | 09 11 13.2 | |
| | comp=Z,728nm,20.4s,baz=286,slow=31 | | | | | | |
| PDAR | Pinedale Array | 34.88 | 352 | P | P | 09 02 53.0 | +0.7 |
| | 0.2nm,0.3s,baz=149,slow=7.4,SNR=2.8 | | | | | | |
| ULM | Lac du Bonnet | 42.43 | 7 | LR | LR | 09 20 47.8 | |
| | comp=Z,168nm,21.3s,baz=201,slow=35 | | | | | | |
| LPAZ | La Paz | 42.60 | 125 | P | P | 09 03 57.4 | -0.4 |
| | 3.1nm,0.9s,baz=321,slow=9.0,SNR=10 | | | | | | |
| RKT | Rikitea | 43.76 | 224 | eLR | LR | 09 16 33.3 | |
| | 584nm,27.5s,baz=43 | | | | | | |
| RKT | Rikitea | 43.76 | 224 | eT | T | 09 51 17.5 | |
| | 7.1nm,0.2s | | | | | | |
| PMOR | Pomariorio Ree | 49.67 | 242 | eT | T | 09 58 56.4 | |
| | 2.7nm,0.2s | | | | | | |
| PPT | Papeete | 52.21 | 240 | LR | LR | 09 21 31.5 | |
| | comp=Z,169nm,18.4s,baz=38,slow=29 | | | | | | |
| PPT2 | Papeete2 | 52.22 | 240 | eS | S | 09 12 57.6 | +23 |
| | 80nm,26.0s | | | | | | |
| PPT2 | | | | eLR | LR | 09 20 18.6 | |
| | 445nm,25.2s,baz=54 | | | | | | |
| TBI | Tubuai | 54.77 | 234 | eS | S | 09 13 30.0 | +21 |
| | 80nm,26.8s | | | | | | |
| TBI | | | | eLR | LR | 09 21 42.2 | |
| | 362nm,27.5s,baz=55 | | | | | | |
| TBI | Tubuai | 54.77 | 234 | eT | T | 10 05 03.9 | |
| | 2.4nm,0.3s | | | | | | |
| YKA | Yellowknife Ar | 54.83 | 354 | P | P | 09 05 29.1 | -1.2 |
| | 0.4nm,0.8s,baz=154,slow=6.1,SNR=3.6 | | | | | | |
| CPUP | Villa Florida | 56.42 | 129 | P | P | 09 05 42.8 | +0.5 |
| | 2.8nm,1.0s,baz=290,slow=10,SNR=3.1 | | | | | | |
| INK | Inuvik | 63.28 | 348 | P | P | 09 06 29.7 | +0.9 |
| | 1.9nm,1.1s,baz=158,slow=13,SNR=3.0 | | | | | | |
| ILAR | Eielson Array | 64.17 | 341 | P | P | 09 06 34.5 | -0.2 |
| | 1.5nm,1.0s,baz=160,slow=5.1,SNR=12 | | | | | | |
| AFI | Afiamalu | 71.22 | 252 | LR | LR | 09 31 56.6 | |
| | comp=Z,109nm,18.0s,baz=76,slow=30 | | | | | | |
| PMSA | Palmer Station | 78.45 | 164 | LR | LR | 09 33 04.4 | |
| | comp=Z,65nm,18.9s,baz=322,slow=28 | | | | | | |
| URZ | Urewera | 86.76 | 231 | LR | LR | 09 38 13.4 | |
| | comp=Z,78nm,21.5s,baz=16,slow=29 | | | | | | |

*CSEM **03** 09:02:19.9±0.0, 46°.68N×9°.96E, h12km, ML1.1, Error ellipse: s-maj=1.2km s-min=0.9km az=140.0*
*ZUR **03** 09:02:20.2, 46°.67N×9°.96E, h9km±3km, ML1.1/4*
**VIE 03 09:02:20.4**±0.7**, 46°.70N**×**9°.98E, h8**km±5km**, ML1.1**/1**, 5C-2D, Error ellipse: s-maj=3.5km s-min=1.7km az=46.0, Switzerland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DAVOX | Davos/Dischmat | 0.11 | 318 | ⇓iPg | Pg | 09 02 23.4 | +0.3 |
| | 243nm,0.1s | | | | | | |
| DAVOX | | | | i Sg | Sg | 09 02 25.4 | +0.4 |
| | 243nm,0.1s | | | | | | |
| DAVOX | Davos/Dischmat | 0.11 | 318 | ⇓iPg | Pg | 09 02 23.4 | +0.3 |
| | 243nm,0.1s | | | | | | |
| DAVOX | | | | i Sg | Sg | 09 02 25.4 | +0.4 |
| | 243nm,0.1s | | | | | | |
| FUORN | Ofenpass-Fuorn | 0.21 | 112 | ⇑iPg | Pg | 09 02 25.0 | +0.3 |
| | 36nm,0.3s | | | | | | |
| FUORN | | | | eSg | Sg | 09 02 28.3 | +0.6 |
| | 36nm,0.3s | | | | | | |
| FUORN | Ofenpass-Fuorn | 0.21 | 112 | ⇑iPg | Pg | 09 02 25.0 | +0.3 |
| | 36nm,0.3s | | | | | | |
| FUORN | | | | eSg | Sg | 09 02 28.3 | +0.6 |
| | 36nm,0.3s | | | | | | |
| SCEL | Celerina | 0.21 | 205 | ⇑iPg | Pg | 09 02 24.5 | -0.3 |
| SCEL | | | | i Sg | Sg | 09 02 27.1 | -0.6 |
| SCEL | Celerina | 0.21 | 205 | ⇑iPg | Pg | 09 02 24.5 | -0.3 |
| SCEL | | | | i Sg | Sg | 09 02 27.1 | -0.6 |
| BERNI | Berninapass | 0.29 | 175 | ePg | Pg | 09 02 25.9 | -0.3 |
| | 27nm,0.1s | | | | | | |
| BERNI | Berninapass | 0.29 | 175 | ePg | Pg | 09 02 25.9 | -0.3 |
| | 27nm,0.1s | | | | | | |
| VDL | Val di Lei | 0.43 | 240 | ⇑iPg | Pg | 09 02 28.0 | -0.8 |
| | 49nm,0.2s | | | | | | |
| FETA | Feichten | 0.60 | 58 | Pg | Pg | 09 02 32.2 | +0.1 |
| | 1.1nm,0.1s | | | | | | |
| FETA | | | | Sg | Sg | 09 02 40.8 | +0.7 |
| | 1.1nm,0.1s | | | | | | |

**IDC 03 09:02:55.4**±35.0**, 8°.50N**×**105°.32W, h0**km**, mb3.2**/3**, mb1 3.8**/3**, mb1mx3.5**/21**, mbtmp3.3**/3**, Error ellipse: s-maj=982.8km s-min=106.8km az=122.0, Northern East Pacific Rise**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TXAR | Lajitas Array | 20.79 | 4 | P | P | 09 07 37.9 | -0.4 |
| | 0.6nm,0.9s,baz=185,slow=12,SNR=5.8 | | | | | | |
| PDAR | Pinedale Array | 34.34 | 354 | P | P | 09 09 44.5 | +0.4 |
| | 0.2nm,0.3s,baz=181,slow=8.7,SNR=2.9 | | | | | | |
| ILAR | Eielson Array | 63.27 | 341 | P | P | 09 13 25.4 | -0.3 |
| | 0.6nm,1.0s,baz=154,slow=5.3,SNR=4.5 | | | | | | |

*ISCJB **03** 09:25:41.8±1.0, 5°.4S±0°.2×11°.6W±0°.2, h13km, mb4.2/7, MS4.4/2, Error ellipse: s-maj=30.2km s-min=18.0km az=44.6*
*IDC **03** 09:25:41.6±1.3, 5°.44S×11°.55W, h0km, mb4.2/7, mb1 4.3/8, mb1mx4.0/45, mbtmp4.2/8, ML3.4/1, MS3.6/2, Ms1 3.5/2, ms1mx3.2/34, Error ellipse: s-maj=39.5km s-min=26.0km az=140.0*
**ISC 03 09:25:43.5**±1.2**, 5°.4S**±0°.2×**11°.5W**±0°.2**, h13**km**, n17, σ1s.06**/8**, mb4.3**/7**, Ascension Island region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| H10N2 | ASCENSION HYDR | 3.77 | 231 | T | T | 09 30 31.0 | |
| | baz=54,slow=74,SNR=1252 | | | | | | |
| H10N1 | ASCENSION HYDR | 3.78 | 230 | T | T | 09 30 17.8 | |
| | baz=54,slow=74,SNR=1214 | | | | | | |
| H10N3 | ASCENSION HYDR | 3.79 | 231 | T | T | 09 30 32.4 | |
| | baz=54,slow=74,SNR=1170 | | | | | | |
| H10S1 | ASCENSION HYDR | 4.66 | 221 | T | T | 09 31 36.0 | |
| | baz=43,slow=75,SNR=189 | | | | | | |
| H10S2 | ASCENSION HYDR | 4.67 | 221 | T | T | 09 31 35.0 | |
| | baz=43,slow=75,SNR=212 | | | | | | |
| H10S3 | ASCENSION HYDR | 4.67 | 221 | T | T | 09 31 37.3 | |
| | baz=43,slow=75,SNR=200 | | | | | | |
| DBIC | Dimbokro | 13.75 | 29 | Pn | Pn | 09 28 57.9 | -0.3 |
| | 0.2nm,0.3s,baz=176,slow=17,SNR=3.7 | | | | | | |
| DBIC | | | | LR | LR | 09 33 21.7 | |
| | comp=Z,139nm,18.3s,baz=177,slow=33 | | | | | | |
| TORD | Torodi Ar. Bea | 22.66 | 35 | P | P | 09 30 43.3 | -1.4 |
| | 8.1nm,0.5s,baz=217,slow=11,SNR=45 | | | | | | |
| H09N1 | TRISTAN DA CUN | 31.50 | 181 | T | T | 10 06 13.2 | |
| | SNR=33 | | | | | | |
| TSUM | Tsumeb | 31.50 | 118 | LR | LR | 09 42 49.7 | |
| | comp=Z,135nm,18.2s,baz=332,slow=33 | | | | | | |
| BDFB | Brasilia | 37.20 | 251 | P | P | 09 32 54.6 | -0.4 |
| | 1.6nm,0.5s,baz=247,slow=12,SNR=3.9 | | | | | | |
| LSZ | Lusaka | 40.22 | 107 | P | P | 09 33 20.1 | -0.3 |
| | 1.4nm,0.3s,baz=268,slow=8.1,SNR=5.0 | | | | | | |
| GERES | GERESS Array B | 58.38 | 19 | P | P | 09 35 38.8 | +0.1 |
| | 0.8nm,0.6s,baz=212,slow=5.3,SNR=6.9 | | | | | | |
| BRTR | Keskin Array B | 61.23 | 39 | P | P | 09 36 00.1 | +1.6 |
| | 2.3nm,0.9s,baz=216,slow=6.9,SNR=9.8 | | | | | | |
| AKASG | Malin Array Be | 65.99 | 27 | P | P | 09 36 29.6 | +0.1 |
| | 3.5nm,0.8s,baz=224,slow=6.2,SNR=12 | | | | | | |
| KBZ | Khabaz | 69.21 | 39 | P | P | 09 36 51.0 | +1.0 |
| | 2.2nm,0.9s,baz=177,slow=5.2,SNR=3.6 | | | | | | |
| ZALV | Zalesovo Beam | 98.11 | 36 | LR | LR | 10 29 45.3 | |
| | comp=Z,705nm,19.8s,baz=358,slow=39 | | | | | | |

*ISCJB **03** 09:27:09.4±0.1, 17°.952N±0°.010×59°.82W±0°.01, h10km, mb5.3/319, MS5.2/175, Error ellipse: s-maj=1.8km s-min=1.4km az=17.4*
*MOS **03** 09:27:09.5±0.9, 18°.00N×59°.83W, h10km, mb5.6/91, MS5.0/18, Error ellipse: s-maj=5.2km s-min=4.3km az=75.4*
*IDC **03** 09:27:09.2±0.3, 18°.00N×59°.81W, h0km, mb5.1/37, mb1 5.2/42, mb1mx5.1/50, mbtmp5.1/42, ML4.7/5, MS4.9/33, Ms1 4.9/33, ms1mx4.8/37, Error ellipse: s-maj=10.3km s-min=8.8km az=87.0*
*GCMT **03** 09:27:11.1±0.1, 18°.07N×59°.70W, h12km, MW5.6/130, Moment Tensor Solution. s110,c185; s130,c332; Duration: 1s.6 Moment tensor: Scale 10^17Nm; Mrr-1.47±.03; Mθθ0.47±.03; Mφφ0.99±.03; Mrθ0.81±.08; Mθφ-2.98±.03; Mφr0.26±.08; Best double couple: M0 3.24400×10^17 NP1:φs278.00000°, δ71.00000°, λ-154.00000°. NP2:φs178.00000°, δ65.00000°, λ-21.00000°. Principal axes: T 3.7490, Plg4.0000°, Azm47.0000°; N -1.0140, Plg58.0000°, Azm311.0000°; P -2.7390, Plg32.0000°, Azm139.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

*NEIC **03** 09:27:11.0±0.0, 17°.74N×59°.83W, h17km, Moment Tensor Solution. s18 Moment tensor: Scale $10^{17}$Nm; $M_{rr}$-2.14; $M_{\theta\theta}$0.97; $M_{\phi\phi}$1.17; $M_{r\theta}$1.85; $M_{\theta\phi}$-1.65; $M_{\phi r}$-0.73; Best double couple: $M_0$3.20000×$10^{17}$ NP1:$\phi_s$299.00000°, δ66.00000°, λ-107.00000°. NP2:$\phi_s$157.00000°, δ30.00000°, λ-55.00000°. Principal axes: T 3.3300, Plg18.0000°, Azm42.0000°; N -0.3300, Plg16.0000°, Azm306.0000°; P -3.0000, Plg64.0000°, Azm178.0000°;*

*TRN **03** 09:27:11.6, 18°.00N×59°.85W, h26km, MD5.3*

*TRN Felt in Antigua, MMI II.*

*NEIC **03** 09:27:11.3±0.1, 17°.95N×59°.80W, h10km, mb5.4/240, MS5.2/133, MW5.6, MW5.6, MD5.4(TRN), Error ellipse: s-maj=2.6km s-min=2.3km az=88.0, Moment Tensor Solution. s37 Moment tensor: Scale $10^{17}$Nm; $M_{rr}$-1.40; $M_{\theta\theta}$0.61; $M_{\phi\phi}$0.79; $M_{r\theta}$0.30; $M_{\theta\phi}$-2.59; $M_{\phi r}$0.33; Best double couple: $M_0$2.90000×$10^{17}$ NP1:$\phi_s$275.00000°, δ69.00000°, λ-158.00000°. NP2:$\phi_s$177.00000°, δ69.00000°, λ-23.00000°. Principal axes: T 3.2900, Plg0.0000°, Azm226.0000°; N -1.1400, Plg59.0000°, Azm317.0000°; P -2.1500, Plg31.0000°, Azm136.0000°;*

*NEIC Felt on Antigua, Guadeloupe, Martinique, Montserrat, Saint Lucia and Saint Martin.*

**ISC 03 09:27:12.1**±0.8**, 17°.94N**±0°.03×**59°.91W**±0°.03**, h17**km±4km**, n1331,** σ1s**32**/1375**, mb5.4**/320**, MS5.2**/176**, 39C-52D, Leeward Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ANWB | Willy Bob | 1.81 | 262 | ePn | Pn | 09 27 42.9 | +0.5 |
| ANWB | | | | eSn | Sb | 09 28 07.9 | +0.9 |
| ANWB | Willy Bob | 1.81 | 262⇑ | eP | Pb | 09 27 44.2 | -0.5 |
| ANWB | | | | eS | Sb | 09 28 06.7 | -0.4 |
| DEG | La Desirade | 1.95 | 214 | eP | Pb | 09 27 46.0 | -1.3 |
| DEG | La Desirade | 1.95 | 214 | eP | Pb | 09 27 46.0 | -1.3 |
| BPA | Boggy Peak | 2.06 | 245 | iP | Pb | 09 27 47.7 | -1.3 |
| BPA | | | | eS | Sb | 09 28 13.1 | -1.3 |
| BPA | Boggy Peak | 2.06 | 245⇓ | iP | Pb | 09 27 47.7 | -1.3 |
| BPA | | | | eS | Sb | 09 28 13.1 | -1.3 |
| MGG | Marie-Galante | 2.42 | 214 | eP | Pn | 09 27 52.4 | +1.6 |
| MGG | Marie-Galante | 2.42 | 214 | eP | Pn | 09 27 52.4 | +1.6 |
| GDHS | Morne Mazeau, | 2.43 | 227 | ePn | Pn | 09 27 52.4 | +1.4 |
| GDHS | | | | eSn | Sn | 09 28 22.8 | +2.5 |
| MLYT | Lee's Yard | 2.49 | 241 | eP | Pn | 09 27 53.8 | +1.9 |
| MLYT | | | | eS | Sn | 09 28 24.4 | +2.5 |
| TBG | Guadaloupe-3 | 2.66 | 219 | eP | Pn | 09 27 56.1 | +2.0 |
| NEV | Hard Times | 2.66 | 253 | eP | Pn | 09 27 56.8 | +2.6 |
| NEV | | | | eS | Sn | 09 28 27.8 | +1.7 |
| NEV | Hard Times | 2.66 | 253 | eP | Pn | 09 27 56.8 | +2.6 |
| NEV | | | | eS | Sn | 09 28 27.8 | +1.7 |
| NVRH | Round Hill, Ne | 2.67 | 254 | eP | Pn | 09 27 56.1 | +1.8 |
| NVRH | | | | eS | Sn | 09 28 28.9 | +2.5 |
| MDPV | Dominica, Penn | 2.71 | 212 | eP | Pn | 09 27 57.6 | +2.6 |
| MDPV | | | | eS | Sn | 09 28 30.4 | +3.0 |
| MDVC | Dominica, Viel | 2.72 | 212 | eP | Pn | 09 27 56.7 | +1.8 |
| MDVC | | | | eS | Sn | 09 28 29.7 | +2.3 |
| MDMP | Dominica, Moor | 2.74 | 212 | eP | Pn | 09 27 57.1 | +1.9 |
| MDMP | | | | eS | Sn | 09 28 30.2 | +2.3 |
| SKI | Saint Kitts | 2.76 | 258 | eP | Pn | 09 27 57.2 | +1.6 |
| SKI | | | | e | | 09 28 31.6 | |
| SKI | Saint Kitts | 2.76 | 258 | ePn | Pn | 09 27 57.2 | +1.6 |
| SKI | | | | eSn | Sn | 09 28 31.6 | +3.0 |
| SKI | Saint Kitts | 2.76 | 258 | eP | Pn | 09 27 57.1 | +1.4 |
| SKI | | | | eS | Sn | 09 28 29.8 | +1.1 |
| BBL | Barber's Block | 2.83 | 212 | eP | Pn | 09 27 58.0 | +1.6 |
| BBL | Barber's Block | 2.83 | 212 | eP | Pn | 09 27 58.0 | +1.6 |
| BBL | | | | eS | Sn | 09 28 32.3 | +2.2 |
| DLPL | La Plaine | 2.89 | 207 | eP | Pn | 09 27 59.5 | +2.1 |
| DLPL | | | | eS | Sn | 09 28 33.3 | +1.6 |
| DLPL | La Plaine | 2.89 | 207 | eP | Pn | 09 27 59.5 | +2.1 |
| DLPL | | | | eS | Sn | 09 28 33.3 | +1.6 |
| SEUS | St. Eustatius | 2.96 | 262 | ePn | Pn | 09 27 59.8 | +1.5 |
| SEUS | | | | eSn | Sn | 09 28 35.3 | +1.9 |
| SEUS | St. Eustatius | 2.96 | 262 | eP | Pn | 09 27 60.0 | +1.7 |
| SEUS | | | | eS | Sn | 09 28 35.4 | +1.9 |
| MDN | Morne-Daniel | 2.97 | 209 | eP | Pn | 09 28 00.4 | +2.0 |
| MDN | | | | eS | Sn | 09 28 36.2 | +2.6 |
| MDN | Morne-Daniel | 2.97 | 209 | eP | Pn | 09 28 00.4 | +2.0 |
| MDN | Morne-Daniel | 2.97 | 209 | eP | Pn | 09 28 01.3 | +2.9 |
| MDN | | | | eS | Sn | 09 28 36.2 | +2.6 |
| DBCT | Belle View Cho | 2.99 | 208 | eP | Pn | 09 28 01.6 | +2.8 |
| DBCT | | | | eS | Sn | 09 28 35.5 | +1.4 |
| DBCT | Belle View Cho | 2.99 | 208 | eP | Pn | 09 28 00.8 | +2.1 |
| DBCT | | | | eS | Sn | 09 28 35.5 | +1.4 |
| DSHT | Scott's Head | 3.05 | 208 | eP | Pn | 09 28 01.5 | +2.0 |
| DSHT | | | | eS | Sn | 09 28 38.2 | +2.6 |
| DSHT | Scott's Head | 3.05 | 208 | eP | Pn | 09 28 01.4 | +1.8 |
| DSHT | | | | eS | Sn | 09 28 38.2 | +2.6 |
| SABA | Saba | 3.19 | 265 | ePn | Pn | 09 28 02.8 | +1.3 |
| SABA | | | | eSn | Sn | 09 28 39.3 | +0.2 |
| SABA | Saba | 3.19 | 265 | eP | Pn | 09 28 02.9 | +1.3 |
| SABA | | | | eS | Sn | 09 28 39.8 | +0.6 |
| SVN | Savane Anatole | 3.31 | 202 | eP | Pn | 09 28 04.0 | +0.9 |
| BAMF | Morne Balai | 3.32 | 201 | eP | Pn | 09 28 04.3 | +1.0 |
| PCM | Pelee Case Pet | 3.34 | 202 | eP | Pn | 09 28 04.4 | +0.8 |
| PCM | Pelee Case Pet | 3.34 | 202 | eP | Pn | 09 28 04.6 | +1.0 |
| PML | Morne Lenard | 3.37 | 201 | eP | Pn | 09 28 04.8 | +0.9 |
| FDF | Fort de France | 3.40 | 201 | eP | Pn | 09 28 06.0 | +1.6 |
| FDF | | | | e | | 09 28 44.7 | |
| FDF | Fort de France | 3.40 | 201 | ePn | Pn | 09 28 06.0 | +1.6 |
| FDF | | | | eSn | Sn | 09 28 44.7 | +0.3 |
| FDF | Fort de France | 3.40 | 201⇑ | iP | Pn | 09 28 05.3 | +0.9 |
| FDF | Fort de France | 3.40 | 201 | eP | Pn | 09 28 06.1 | +1.6 |
| FDF | | | | eS | Sn | 09 28 46.0 | +1.7 |
| MVM | Montagne Vaucl | 3.49 | 196 | eP | Pn | 09 28 06.7 | +1.0 |
| ZAM | Aeronautique | 3.51 | 198 | eP | Pn | 09 28 06.7 | +0.8 |
| TRMF | Trois Ilets | 3.55 | 198 | eP | Pn | 09 28 07.5 | +1.0 |
| BIM | Bigot | 3.58 | 198 | eP | Pn | 09 28 08.1 | +1.3 |
| H05S1 | Guadeloupe/Mar | 3.60 | 194 | Pn | Pn | 09 28 10.1 | +3.0 |
| H05S1 | | | | Sn | Sn | 09 28 49.3 | 0.0 |
| SLW | Petit Monier | 4.02 | 194 | eP | Pn | 09 28 14.2 | +1.3 |
| ABVI | Anegada Island | 4.28 | 281 | ePn | Pn | 09 28 15.0 | -1.3 |
| MCLT | Moule a Chique | 4.32 | 193 | eP | Pn | 09 28 18.4 | +1.4 |
| MCLT | | | | eS | Sn | 09 29 08.4 | +1.5 |
| MCLT | Moule a Chique | 4.32 | 193 | eP | Pn | 09 28 18.4 | +1.4 |
| TBVI | Tortola | 4.50 | 277 | ePn | Pn | 09 28 18.6 | -0.8 |
| TBVI | | | | eSn | Sn | 09 29 08.6 | -2.9 |
| SVV | Soufriere Volc | 4.76 | 196 | eP | Pn | 09 28 25.8 | +2.7 |
| SVV | | | | eS | Sn | 09 29 18.5 | +0.6 |
| SVV | Soufriere Volc | 4.76 | 196 | eP | Pn | 09 28 25.8 | +2.7 |
| BBGH | Gun Hill | 4.78 | 176 | ePn | Pn | 09 28 24.2 | +0.9 |
| BBGH | | | | eS | Sn | 09 29 20.7 | +2.4 |
| BBGH | Gun Hill | 4.78 | 176 | eP | Pn | 09 28 24.9 | +1.6 |
| BBGH | Gun Hill | 4.78 | 176 | eS | Sn | 09 29 19.1 | +0.8 |
| SVCV | St. Vincent, C | 4.79 | 195 | eP | Pn | 09 28 25.2 | +1.8 |
| SVCV | St. Vincent, C | 4.79 | 195 | eS | Sn | 09 29 18.9 | +0.3 |
| SVB | Belmont | 4.81 | 196 | ePn | Pn | 09 28 25.3 | +1.4 |
| SVB | | | | eSn | Sn | 09 29 21.1 | +1.9 |
| SVB | Belmont | 4.81 | 196 | eP | Pn | 09 28 25.4 | +1.6 |
| SVB | Belmont | 4.81 | 196 | eS | Sn | 09 29 19.7 | +0.5 |
| STVI | Saint Thomas | 4.81 | 276 | ePn | Pn | 09 28 23.2 | -0.6 |
| STVI | | | | eSn | Sn | 09 29 15.6 | -3.6 |
| BBSP | Saint Philip | 4.82 | 175 | eP | Pn | 09 28 26.4 | +2.5 |
| BBSP | | | | eS | Sn | 09 29 19.4 | 0.0 |
| BBSP | Saint Philip | 4.82 | 175 | eP | Pn | 09 28 26.4 | +2.5 |
| FCV | Fort Charlotte | 4.92 | 195 | eP | Pn | 09 28 28.4 | +3.0 |
| FCV | | | | eS | Sn | 09 29 22.6 | +0.7 |
| FCV | Fort Charlotte | 4.92 | 195 | eP | Pn | 09 28 27.7 | +2.4 |
| SJG | San Juan | 5.94 | 273 | Pn | Pn | 09 28 39.4 | +0.1 |
| | 72nm,0.3s,baz=86,slow=15,SNR=35 | | | | | | |
| SJG | | | | Sn | Sn | 09 29 44.2 | -2.8 |
| | 166nm,0.3s,baz=119,slow=12,SNR=19 | | | | | | |
| SJG | | | | LR | LR | 09 31 43.6 | |
| | comp=Z,7μm,21.5s,baz=87,slow=46 | | | | | | |
| SJG | San Juan | 5.94 | 273 | eP | Pn | 09 28 39.3 | 0.0 |
| SJG | | | | e | | 09 29 46.2 | |
| SJG | San Juan | 5.94 | 273 | ePn | Pn | 09 28 39.3 | 0.0 |
| SJG | | | | eSn | Sn | 09 29 46.1 | -0.8 |
| GRGR | Grenville | 6.01 | 197 | ePn | Pn | 09 28 42.1 | +1.8 |
| | 1μm,0.5s | | | | | | |
| GRGR | | | | eSn | Sn | 09 29 49.0 | +0.2 |
| GRGR | Grenville | 6.01 | 197 | eP | Pn | 09 28 43.1 | +2.9 |
| GRGR | Grenville | 6.01 | 197 | eS | Sn | 09 29 49.6 | +0.9 |
| CELP | Cerrillos | 6.35 | 272 | ePn | Pn | 09 28 45.0 | +0.1 |
| CELP | | | | eSn | Sn | 09 29 57.1 | 0.0 |
| TOSP | Speyside | 6.63 | 185 | eP | Pn | 09 28 50.9 | +2.2 |
| TOSP | | | | eS | Sn | 09 30 03.5 | -0.3 |
| TOSP | Speyside | 6.63 | 185 | eP | Pn | 09 28 50.9 | +2.2 |
| MPR | Mayaguez | 6.88 | 273 | ePn | Pn | 09 28 51.1 | -1.1 |
| MPR | | | | eSn | Sn | 09 30 10.7 | +0.5 |
| AGP | Aguadilla | 6.89 | 275 | ePn | Pn | 09 28 50.5 | -1.8 |
| AGP | | | | eSn | Sn | 09 30 09.2 | -1.2 |
| IDE | Isla Desecheo | 7.21 | 275 | ePn | Pn | 09 28 55.2 | -1.5 |
| IDE | | | | eSn | Sn | 09 30 17.9 | -0.3 |
| TRN | Trinidad (W) | 7.39 | 191 | eP | Pn | 09 29 01.7 | +2.5 |
| TRN | | | | eS | Sn | 09 30 21.2 | -1.4 |
| TRN | Trinidad (W) | 7.39 | 191 | eP | Pn | 09 29 01.7 | +2.5 |
| TRN | | | | eS | Sn | 09 30 21.2 | -1.4 |
| TRN | Trinidad (W) | 7.39 | 191 | eP | Pn | 09 29 01.7 | +2.5 |
| TRN | Trinidad (W) | 7.39 | 191 | eS | Sn | 09 30 21.2 | -1.4 |
| TBH | Brigand Hill | 7.49 | 189 | eP | Pn | 09 29 03.8 | +3.2 |
| TBH | | | | eS | Sn | 09 30 24.2 | -1.1 |
| TBH | Brigand Hill | 7.49 | 189 | eP | Pn | 09 29 03.8 | +3.2 |
| TBH | | | | eS | Sn | 09 30 24.2 | -1.1 |
| TBH | Brigand Hill | 7.49 | 189 | eP | Pn | 09 29 01.9 | +1.3 |
| TPP | Pointe-a-Pierr | 7.72 | 191 | eS | Sn | 09 30 29.6 | -1.2 |
| PCRV | Puerto La Cruz | 8.97 | 211 | Pn | Pn | 09 29 23.4 | +2.4 |
| | 15nm,0.3s,baz=360,slow=4.5,SNR=43 | | | | | | |
| PCRV | | | | Sn | Sn | 09 30 59.6 | -2.1 |
| | 13nm,0.3s,baz=27,slow=3.6,SNR=2.1 | | | | | | |
| PCRV | | | | LR | LR | 09 33 18.6 | |
| | comp=Z,14μm,19.6s,baz=21,slow=41 | | | | | | |
| SDD | Santo Domingo | 9.52 | 275 | ePn | Pn | 09 29 30.6 | +2.2 |
| BANI | BANI | 9.94 | 274 | ePn | Pn | 09 29 36.5 | +2.1 |
| BANI | | | | eSn | Sn | 09 31 24.7 | -1.0 |
| SDDR | Presa de Saban | 10.85 | 277 | ePn | Pn | 09 29 45.1 | -1.7 |
| GRTK | Grand Turk | 11.15 | 290 | ePn | Pn | 09 29 48.3 | -2.5 |
| GRTK | | | | eSn | Sn | 09 31 44.3 | -11 |
| LGNH | LØogne | 12.08 | 275 | ePn | Pn | 09 30 02.5 | -1.0 |
| LGNH | | | | eSn | Sn | 09 32 17.9 | +0.1 |
| URIC | Uribia, Colomb | 13.22 | 244 | eP | Pn | 09 30 16.4 | -2.7 |
| SDV | Santo Domingo | 13.77 | 231 | Pn | Pn | 09 30 27.6 | +0.8 |
| | 5.3nm,0.3s,baz=58,slow=8.3,SNR=70 | | | | | | |
| SDV | | | | LR | LR | 09 35 56.3 | |
| | comp=Z,6μm,21.9s,baz=48,slow=38 | | | | | | |
| CODC | Agustˆ›n Codaz | 15.35 | 241 | eP | Pn | 09 30 45.2 | -2.8 |
| CBRI | Barrientos, No | 16.15 | 233 | eP | Pn | 09 30 57.9 | -0.7 |
| OCAC | Ocana | 16.22 | 235 | eP | Pn | 09 30 58.2 | -1.3 |
| PAMC | Pamplona, Colo | 16.32 | 231 | eP | Pn | 09 31 00.5 | -0.5 |
| MTDJ | Mount Denham | 16.76 | 274 | ePn | P | 09 31 10.7 | +2.3 |
| | 553nm,0.9s | | | | | | |
| GIRC | Giron, Santand | 16.86 | 232 | eP | Pn | 09 31 07.0 | -0.5 |
| BARC | Barichara | 17.17 | 231 | eP | Pn | 09 31 11.1 | -0.4 |
| BRRC | Barranca, Sant | 17.23 | 233 | eP | Pn | 09 31 11.0 | -1.0 |
| YOPC | Yopal, Colombi | 17.49 | 226 | eP | Pn | 09 31 13.4 | -2.0 |
| RUSC | La Rusia | 17.57 | 229 | eP | Pn | 09 31 16.9 | +0.1 |
| RUSC | La Rusia | 17.57 | 229 | ePn | Pn | 09 31 17.1 | +0.2 |
| | 153nm,1.0s | | | | | | |
| MOTC | Monteria, Cord | 17.82 | 241 | eP | Pn | 09 31 15.7 | -3.6 |
| PTGA | Pitinga | 18.55 | 180 | P | P | 09 31 27.2 | -1.0 |
| | 21nm,0.3s,baz=8.6,slow=15,SNR=76 | | | | | | |
| PTGA | | | | S | Sn | 09 34 40.3 | -15 |
| | 15nm,0.3s,baz=56,slow=8.9,SNR=10 | | | | | | |
| PTGA | Pitinga | 18.55 | 180 | eP | P | 09 31 27.1 | -1.0 |
| | 288nm,1.1s | | | | | | |
| PTGA | | | | S | Sn | 09 34 40.3 | -15 |
| CTAU | Tausa, Cundina | 18.74 | 229 | eP | Pn | 09 31 32.4 | +1.2 |
| CHIC | Chingaza | 18.91 | 227 | eP | P | 09 31 32.2 | -0.4 |
| CTAB | Cerro Tablazo, | 18.98 | 229 | eP | Pn | 09 31 34.5 | +0.4 |
| NORC | Norcasia | 19.10 | 232 | eP | P | 09 31 33.4 | -0.9 |
| ROSC | El Rosal | 19.18 | 229 | P | Pn | 09 31 37.4 | +0.9 |
| | 8.2nm,0.3s,baz=56,slow=2.4,SNR=50 | | | | | | |
| ROSC | | | | S | S | 09 35 14.4 | +1.7 |
| | 1.4nm,0.3s,baz=180,slow=18,SNR=6.0 | | | | | | |
| ROSC | | | | LR | LR | 09 41 39.3 | |
| | comp=Z,5μm,18.3s,baz=42,slow=45 | | | | | | |
| ROSC | El Rosal | 19.18 | 229 | eP | Pn | 09 31 36.3 | -0.2 |
| ROSC | El Rosal | 19.18 | 229 | eP | Pn | 09 31 37.4 | +0.9 |
| | 167nm,0.9s | | | | | | |
| ROSC | | | | S | S | 09 35 14.4 | +1.7 |
| HELC | Santa Helena | 19.20 | 234 | eP | P | 09 31 33.4 | -2.3 |
| HELC | Santa Helena | 19.20 | 234 | eP | P | 09 31 35.3 | -0.3 |
| | 420nm,1.0s | | | | | | |
| CVER | Cruz Verde, Cu | 19.23 | 228 | eP | Pn | 09 31 37.6 | +0.5 |
| DBBC | Dabeiba | 19.24 | 238 | eP | P | 09 31 35.8 | 0.0 |
| VILC | Villavicencio, | 19.26 | 226 | eP | P | 09 31 36.3 | +0.2 |
| CAPC | Capurgana | 19.31 | 244 | eP | P | 09 31 36.9 | +0.4 |
| GUYC | Guyana, Colomb | 19.71 | 232 | eP | P | 09 31 39.8 | -1.6 |
| GUVC | San Jose del G | 19.74 | 221 | eP | Pn | 09 31 43.2 | +0.5 |
| SJAC | San Juan de Ar | 20.04 | 225 | eP | P | 09 31 45.2 | +0.6 |
| PRAC | Prado | 20.37 | 228 | eP | P | 09 31 48.0 | -0.1 |
| PRAC | Prado | 20.37 | 228 | eP | P | 09 31 49.0 | +0.9 |
| | 143nm,0.6s | | | | | | |
| PLMC | San Jos˜' del | 20.59 | 233 | eP | P | 09 31 50.4 | -0.2 |
| SOLC | Bahia Solano | 20.67 | 238 | eP | Pn | 09 31 52.8 | -0.8 |
| BCIP | Isla Barro Col | 21.23 | 248 | eP | P | 09 31 58.7 | +1.4 |
| BCIP | Isla Barro Col | 21.23 | 248 | eP | P | 09 31 59.2 | +2.0 |
| | 214nm,0.8s | | | | | | |
| BCIP | | | | LR | LR | | |
| | comp=Z,4μm,20.0s | | | | | | |
| BETC | Betania | 21.49 | 227 | eP | P | 09 31 58.6 | -1.6 |
| DWPF | Disney Wildern | 22.21 | 301 | eP | P | 09 32 11.7 | +3.8 |
| | comp=Z,480nm,1.3s | | | | | | |
| POPC | Popayan, Colom | 22.46 | 229 | eP | P | 09 32 09.2 | -1.7 |
| CRUC | La Cruz | 23.34 | 228 | eP | P | 09 32 20.4 | +0.3 |
| CNNC | Cliffs of the | 23.50 | 321 | eP | P | 09 32 23.4 | +2.2 |
| | comp=Z,267nm,1.8s | | | | | | |
| CNNC | | | | eS | S | 09 36 35.5 | +1.3 |
| CNNC | | | | LR | LR | | |
| | comp=Z,5μm,20.0s | | | | | | |
| CSU | Charleston Sou | 23.52 | 313 | eP | P | 09 32 25.1 | +3.9 |
| RGRS | Roger Stewart | 23.56 | 313 | eP | P | 09 32 23.8 | +2.1 |
| | comp=Z,2μm,0.3s | | | | | | |
| RGRS | | | | eS | S | 09 36 36.2 | +1.1 |
| NHSC | New Hope | 23.66 | 314 | eP | P | 09 32 20.4 | -2.3 |
| | comp=Z,577nm,1.5s | | | | | | |
| NHSC | | | | eS | S | 09 36 41.4 | +4.7 |
| NHSC | | | | LR | LR | | |
| | comp=Z,4μm,20.0s | | | | | | |
| CMBC | Cumbal | 24.40 | 228 | eP | P | 09 32 30.9 | +0.6 |
| TUMC | Tumaco | 24.45 | 231 | eP | P | 09 32 30.3 | +0.1 |
| HDC | Heredia | 24.76 | 255 | eP | P | 09 32 37.0 | +3.9 |
| | comp=Z,172nm,0.9s | | | | | | |
| URVA | University of | 24.94 | 325 | eP | P | 09 32 35.4 | +1.0 |
| JSC | Jenkinsville | 25.07 | 315 | eP | P | 09 32 34.9 | -0.7 |
| JSC | | | | pmax | pmax | | |
| | comp=Z,95nm,1.2s | | | | | | |
| JSC | Jenkinsville | 25.07 | 315 | eP | P | 09 32 34.9 | -0.7 |
| | comp=Z,95nm,1.2s | | | | | | |
| JSRW | J. Sargeant Re | 25.21 | 325 | eP | P | 09 32 37.9 | +1.0 |
| IP05 | Hopewell Churc | 25.25 | 325 | eP | P | 09 32 38.2 | +0.9 |
| | comp=Z,74nm,1.1s | | | | | | |
| TIGA | Tifton | 25.30 | 307 | P | P | 09 32 39.1 | +1.4 |
| | baz=116 | | | | | | |
| TIGA | Tifton | 25.30 | 307 | eP | P | 09 32 39.2 | +1.4 |
| | comp=Z,520nm,1.5s | | | | | | |
| CBN | Corbin Frederi | 25.32 | 326 | eP | P | 09 32 38.8 | +1.0 |
| | comp=Z,75nm,1.0s | | | | | | |
| CBN | | | | LR | LR | | |
| | comp=Z,6μm,20.0s | | | | | | |
| OTAV | Otavalo | 25.33 | 228 | eP | P | 09 32 37.9 | -0.8 |
| OTAV | Otavalo | 25.33 | 228 | eP | P | 09 32 41.0 | +2.3 |
| | comp=Z,85nm,1.5s | | | | | | |
| OTAV | | | | LR | LR | | |
| | comp=Z,8μm,22.0s | | | | | | |
| SPFD | Spotsylvania F | 25.34 | 326 | eP | P | 09 32 39.0 | +0.9 |
| | comp=Z,84nm,1.3s | | | | | | |
| MAPC | Malpelo | 25.36 | 239 | eP | P | 09 32 39.1 | +0.6 |
| IP01 | Cuckoo | 25.42 | 325 | eP | P | 09 32 39.8 | +1.0 |
| | comp=Z,206nm,1.7s | | | | | | |
| JTS | JuntasAbangare | 25.43 | 256 | eP | P | 09 32 39.3 | +0.1 |
| JTS | | | | pmax | pmax | | |
| | comp=Z,50nm,0.9s | | | | | | |
| JTS | | | | MLR | MLR | | |
| | comp=Z,3μm,20.0s | | | | | | |
| JTS | JuntasAbangare | 25.43 | 256 | eP | P | 09 32 39.3 | +0.1 |
| | comp=Z,50nm,0.9s | | | | | | |
| JTS | | | | LR | LR | | |
| | comp=Z,3μm,20.0s | | | | | | |
| IP06 | Yanceyville | 25.44 | 325 | eP | P | 09 32 40.0 | +1.0 |
| | comp=Z,62nm,1.0s | | | | | | |
| CVRD | Centerville Ro | 25.45 | 326 | eP | P | 09 32 40.0 | +1.0 |
| | comp=Z,164nm,1.5s | | | | | | |
| SPRD | Spring Road, M | 25.45 | 325 | eP | P | 09 32 40.2 | +1.1 |
| | comp=Z,98nm,1.4s | | | | | | |
| IP07 | Quail | 25.46 | 325 | eP | P | 09 32 40.1 | +1.0 |
| | comp=Z,115nm,1.4s | | | | | | |
| IP03 | Louisa | 25.52 | 325 | eP | P | 09 32 40.7 | +0.9 |
| | comp=Z,175nm,1.5s | | | | | | |
| KMSC | Kings Mountain | 25.62 | 316 | P | P | 09 32 42.0 | +1.3 |
| | baz=126,SNR=28 | | | | | | |
| KMSC | Kings Mountain | 25.62 | 316 | eP | P | 09 32 41.3 | +0.6 |
| | comp=Z,216nm,1.4s | | | | | | |
| IP04 | Greensprings | 25.62 | 325 | eP | P | 09 32 41.5 | +0.9 |
| | comp=Z,68nm,1.2s | | | | | | |
| PSUB | Penn St. - Bra | 25.71 | 332 | eP | P | 09 32 42.8 | +1.3 |
| | comp=Z,101nm,1.3s | | | | | | |
| HODGE | Hodges | 25.72 | 313 | eP | P | 09 32 43.2 | +1.6 |
| | comp=Z,108nm,1.3s | | | | | | |
| CPNY | Central Park | 25.79 | 335 | eP | P | 09 32 45.0 | +2.9 |
| | comp=Z,98nm,1.3s | | | | | | |
| YLE | Yale | 25.84 | 337 | eP | P | 09 32 44.8 | +2.2 |
| | comp=Z,165nm,1.2s | | | | | | |
| BRNJ | Basking Ridge | 25.95 | 334 | eP | P | 09 32 48.4 | +4.8 |
| | comp=Z,96nm,0.6s | | | | | | |
| PAL | Palisades | 25.95 | 335 | eP | P | 09 32 44.9 | +1.3 |
| PAL | | | | pmax | pmax | | |
| | comp=Z,58nm,0.6s | | | | | | |
| PAL | Palisades | 25.95 | 335 | eP | P | 09 32 44.9 | +1.3 |
| | comp=Z,58nm,0.6s | | | | | | |
| SDMD | Soldier's Deli | 25.96 | 329 | eP | P | 09 32 45.1 | +1.4 |
| | comp=Z,84nm,1.6s | | | | | | |
| GOGA | Godfrey | 26.14 | 311 | eP | P | 09 32 46.7 | +1.2 |
| GOGA | | | | pmax | pmax | | |
| | comp=Z,290nm,1.8s | | | | | | |
| GOGA | Godfrey | 26.14 | 311 | eP | P | 09 32 46.7 | +1.2 |
| | comp=Z,287nm,1.8s | | | | | | |
| GOGA | | | | LR | LR | | |
| | comp=Z,4μm,19.0s | | | | | | |
| BCX | Boston College | 26.15 | 341 | eP | P | 09 32 48.8 | +3.4 |
| | comp=Z,132nm,1.1s | | | | | | |
| MVL | Millersville | 26.19 | 330 | eP | P | 09 32 47.4 | +1.7 |
| | comp=Z,153nm,1.6s | | | | | | |
| LUPA | Lehigh Univers | 26.23 | 333 | eP | P | 09 32 48.2 | +2.1 |
| | comp=Z,22nm,1.3s | | | | | | |
| WES | Weston | 26.24 | 341 | eP | P | 09 32 47.5 | +1.3 |
| WES | | | | pmax | pmax | | |
| | comp=Z,270nm,1.4s | | | | | | |
| WES | Weston | 26.24 | 341 | eP | P | 09 32 47.5 | +1.3 |
| | comp=Z,270nm,1.4s | | | | | | |
| BLA | Blacksburg | 26.34 | 321 | eP | P | 09 32 48.8 | +1.6 |
| BLA | | | | pmax | pmax | | |
| | comp=Z,190nm,1.3s | | | | | | |
| BLA | Blacksburg | 26.34 | 321 | eP | P | 09 32 48.8 | +1.6 |
| | comp=Z,187nm,1.4s | | | | | | |
| BLA | | | | LR | LR | | |
| | comp=Z,4μm,20.0s | | | | | | |
| HRV | Adam Dziewonsk | 26.42 | 340 | eP | P | 09 32 49.9 | +2.0 |
| HRV | | | | pmax | pmax | | |
| | comp=Z,180nm,1.5s | | | | | | |
| HRV | Adam Dziewonsk | 26.42 | 340 | eP | P | 09 32 49.9 | +2.0 |
| | comp=Z,177nm,1.5s | | | | | | |
| QUA2 | Belchertown | 26.48 | 339 | eP | P | 09 32 49.9 | +1.5 |
| | comp=Z,229nm,1.7s | | | | | | |
| BG3 | Lake Jocassee | 26.61 | 314 | eP | P | 09 32 51.8 | +2.2 |
| | comp=Z,472nm,1.8s | | | | | | |
| N59A | State Game Lan | 26.66 | 333 | P | P | 09 32 51.8 | +1.7 |
| | baz=144 | | | | | | |
| SAML | Samuel | 26.91 | 187 | eP | P | 09 32 53.5 | +1.1 |
| | comp=Z,118nm,1.1s | | | | | | |
| SAML | | | | LR | LR | | |
| | comp=Z,2μm,20.0s | | | | | | |
| FFD | Franklin Falls | 27.32 | 341 | eP | P | 09 32 58.2 | +2.2 |
| | comp=Z,141nm,1.6s | | | | | | |
| TRY | Troy | 27.34 | 338 | eP | P | 09 32 58.5 | +2.4 |
| | comp=Z,274nm,1.8s | | | | | | |
| SSPA | Standing Stone | 27.42 | 329 | eP | P | 09 32 58.1 | +1.2 |
| | comp=Z,76nm,1.4s | | | | | | |
| O56A | Blue Knob Stat | 27.47 | 328 | P | P | 09 32 59.0 | +1.6 |
| | baz=139,SNR=15 | | | | | | |
| TKL | Tuckaleechee C | 27.55 | 315 | P | P | 09 32 59.3 | +1.2 |
| | comp=Z,16nm,0.8s,baz=120,slow=7.3,SNR=14 | | | | | | |
| TKL | | | | LR | LR | 09 42 39.0 | |
| | comp=Z,4μm,20.7s,baz=132,slow=34 | | | | | | |
| TKL | Tuckaleechee C | 27.55 | 315 | eP | P | 09 32 59.3 | +1.2 |
| TKL | | | | pmax | pmax | | |
| | comp=Z,260nm,1.6s | | | | | | |
| TKL | Tuckaleechee C | 27.55 | 315 | eP | P | 09 32 59.2 | +1.2 |
| | comp=Z,264nm,1.6s | | | | | | |
| MCWV | Mont Chateau | 27.70 | 326 | eP | P | 09 33 01.3 | +1.9 |
| | comp=Z,107nm,1.3s | | | | | | |
| GGN | Saint George | 27.72 | 349 | eP | P | 09 33 00.0 | +0.6 |
| | comp=Z,58nm,1.2s | | | | | | |
| HNH | Hanover | 27.73 | 340 | eP | P | 09 33 01.2 | +1.6 |
| | comp=Z,53nm,1.1s | | | | | | |
| BINY | Binghamton | 27.80 | 334 | eP | P | 09 33 02.3 | +2.0 |
| | comp=Z,40nm,0.9s | | | | | | |
| BINY | | | | LR | LR | | |
| | comp=Z,6μm,21.0s | | | | | | |
| BRAL | Brewton | 27.89 | 303 | PFAKE | | 09 33 10.0 | +8.8 |
| BRAL | | | | LR | LR | | |
| | comp=Z,4μm,20.0s | | | | | | |
| ACCN | Adirondack Com | 27.91 | 338 | eP | P | 09 33 03.6 | +2.3 |
| | comp=Z,83nm,1.3s | | | | | | |
| CPCT | Cooper Cave | 27.95 | 313 | eP | P | 09 33 02.9 | +1.2 |
| | comp=Z,88nm,1.4s | | | | | | |
| LBNH | Lisbon | 28.11 | 341 | eP | P | 09 33 04.5 | +1.5 |
| LBNH | | | | pmax | pmax | | |
| | comp=Z,62nm,1.1s | | | | | | |
| LBNH | Lisbon | 28.11 | 341 | eP | P | 09 33 04.5 | +1.5 |
| | comp=Z,62nm,1.1s | | | | | | |
| LMN | Caledonia Moun | 28.13 | 353 | eP | P | 09 33 03.5 | +0.3 |
| | comp=Z,48nm,0.9s | | | | | | |
| PKME | Peaks-Kenny Pk | 28.35 | 346 | eP | P | 09 33 06.5 | +1.4 |
| | comp=Z,82nm,1.5s | | | | | | |
| PKME | | | | LR | LR | | |
| | comp=Z,7μm,19.0s | | | | | | |
| 448A | Bay Minette | 28.46 | 302 | P | P | 09 33 07.4 | +1.2 |
| | baz=110 | | | | | | |
| LRAL | Lakeview Retre | 28.59 | 307 | eP | P | 09 33 08.5 | +1.1 |
| | comp=Z,162nm,1.9s | | | | | | |
| NCB | Newcomb | 28.62 | 338 | eP | P | 09 33 08.5 | +0.9 |
| | comp=Z,25nm,0.9s | | | | | | |
| N54A | Moraine State | 28.71 | 327 | P | P | 09 33 10.0 | +1.6 |
| | baz=137,SNR=15 | | | | | | |
| 248A | Dixon Mills | 28.79 | 305 | P | P | 09 33 10.6 | +1.4 |
| | baz=113 | | | | | | |
| SWET | Sewanee | 28.81 | 312 | eP | P | 09 33 10.8 | +1.4 |
| | comp=Z,162nm,1.7s | | | | | | |
| M54A | Oil Creek Stat | 28.95 | 328 | P | P | 09 33 12.0 | +1.5 |
| | baz=138,SNR=9.6 | | | | | | |
| 447A | Lucedale | 29.05 | 302 | P | P | 09 33 12.0 | +0.5 |
| | baz=109 | | | | | | |
| MMNY | Mt. Morris Dam | 29.07 | 332 | eP | P | 09 33 13.3 | +1.8 |
| Z48A | Northport | 29.16 | 307 | P | P | 09 33 13.2 | +0.7 |
| | baz=115 | | | | | | |
| FRNY | Flat Rock | 29.16 | 340 | eP | P | 09 33 13.3 | +1.0 |
| | comp=Z,118nm,1.8s | | | | | | |
| 347A | Saraland | 29.17 | 303 | P | P | 09 33 13.1 | +0.6 |
| | baz=111 | | | | | | |
| ALLY | Alegheny Colle | 29.30 | 328 | eP | P | 09 33 15.0 | +1.4 |
| | comp=Z,91nm,1.1s | | | | | | |
| LONY | Lake Ozonia | 29.31 | 338 | eP | P | 09 33 15.1 | +1.4 |
| | comp=Z,116nm,1.8s | | | | | | |
| LONY | | | | LR | LR | | |
| | comp=Z,6μm,19.0s | | | | | | |
| 147A | Livingston | 29.43 | 305 | P | P | 09 33 15.3 | +0.5 |
| | baz=113 | | | | | | |
| PQI | Presque Isle | 29.43 | 349 | eP | P | 09 33 15.2 | +0.6 |
| | comp=Z,169nm,1.8s | | | | | | |
| 247A | Quitman | 29.46 | 304 | P | P | 09 33 15.9 | +0.8 |
| | baz=112 | | | | | | |
| Z47A | Carrollton | 29.48 | 306 | P | P | 09 33 15.9 | +0.7 |
| | baz=114,SNR=13 | | | | | | |
| ERPA | Erie | 29.57 | 329 | eP | P | 09 33 17.4 | +1.4 |
| | comp=Z,72nm,1.1s | | | | | | |
| Y47A | UCPARC, Winfie | 29.61 | 308 | P | P | 09 33 17.1 | +0.7 |
| | baz=115 | | | | | | |
| 446A | Poplarville | 29.63 | 301 | P | P | 09 33 17.1 | +0.5 |
| | baz=109 | | | | | | |
| ACSO | Alum Creek Sta | 29.84 | 323 | eP | P | 09 33 19.9 | +1.5 |
| | comp=Z,92nm,1.4s | | | | | | |
| ACSO | | | | LR | LR | | |
| | comp=Z,6μm,21.0s | | | | | | |
| 346A | Big Creek Wild | 29.90 | 302 | P | P | 09 33 19.5 | +0.4 |
| | baz=110 | | | | | | |
| 146A | Union | 30.02 | 305 | P | P | 09 33 20.7 | +0.6 |
| | baz=112 | | | | | | |
| Z46A | Louisville | 30.15 | 306 | P | P | 09 33 21.9 | +0.6 |
| | baz=113 | | | | | | |
| PLAL | Pickwick Lake | 30.25 | 310 | eP | P | 09 33 23.6 | +1.5 |
| | comp=Z,56nm,1.2s | | | | | | |
| 645A | Chauvin | 30.26 | 298 | P | P | 09 33 22.6 | +0.4 |
| | baz=105 | | | | | | |
| 345A | Thompson Farm, | 30.34 | 302 | P | P | 09 33 23.4 | +0.5 |
| | baz=109 | | | | | | |
| Y46A | Houston | 30.36 | 307 | P | P | 09 33 24.2 | +1.1 |
| | baz=114,SNR=12 | | | | | | |
| 445A | Amite | 30.41 | 300 | P | P | 09 33 23.9 | +0.4 |
| | baz=108 | | | | | | |
| 245A | Little AP, Sta | 30.47 | 303 | P | P | 09 33 24.6 | +0.5 |

baz=110
**WVT** **Waverly** 30.61 312 eP P 09 33 26.1 +0.9
WVT pmax pmax
comp=Z,120nm,1.9s
**WVT** **Waverly** 30.61 312 eP P 09 33 26.1 +0.9
comp=Z,119nm,1.9s
**WCI** **Wyandotte Cave** 30.65 317 eP P 09 33 27.2 +1.6
WCI pmax pmax
comp=Z,71nm,1.2s
**WCI** **Wyandotte Cave** 30.65 317 eP P 09 33 27.2 +1.6
comp=Z,71nm,1.3s
**145A** **Houston Renfro** 30.70 304 P P 09 33 27.4 +1.3
baz=111
**TRQ** **Mont Tremblant** 30.71 340 eP P 09 33 27.3 +1.2
**LMQ** **La Malbaie** 30.75 346 eP P 09 33 27.0 +0.7
**Z45A** **Winona** 30.80 306 P P 09 33 28.3 +1.4
baz=112
**CCIG** **Comitan** 30.83 272 eP P 09 33 28.9 +1.3
comp=Z,294nm,1.4s
**Y45A** **Yeager Farm, C** 30.87 307 P P 09 33 28.8 +1.2
baz=113,SNR=8.3
**344A** **Westbrook Farm** 30.95 302 P P 09 33 29.6 +1.3
baz=108
**X45A** **UM Field Stati** 30.99 308 P P 09 33 29.8 +1.2
baz=114,SNR=6.8
**VBMS** **Vicksburg** 31.03 303 P P 09 33 30.3 +1.3
baz=110
**OXF** **Oxford** 31.04 308 eP P 09 33 30.6 +1.5
OXF pmax pmax
comp=Z,100nm,1.1s
**OXF** **Oxford** 31.04 308 eP P 09 33 30.6 +1.5
comp=Z,105nm,1.1s
**144A** **Alexander Plac** 31.09 304 P P 09 33 30.6 +1.0
baz=111
**244A** **Avery, Jackson** 31.10 303 P P 09 33 31.0 +1.4
baz=109
**Q47A** **Bedord North L** 31.14 318 P P 09 33 31.2 +1.3
baz=125
**W45A** **Hickory Valley** 31.14 309 P P 09 33 31.2 +1.2
baz=116,SNR=7.7
**SADO** **Sadowa** 31.23 333 P P 09 33 30.8 +0.2
comp=Z,12nm,0.7s,baz=174,slow=8.4,SNR=6.9
SADO PcP PcP 09 36 26.5 +1.5
comp=Z,12nm,0.9s,baz=122,slow=4.7,SNR=3.0
**SADO** **Sadowa** 31.23 333 eP P 09 33 31.2 +0.6
comp=Z,35nm,1.0s
SADO PcP PcP 09 36 26.5 +1.5
**V45A** **Humboldt** 31.24 310 P P 09 33 31.5 +0.7
baz=117
**S46A** **Don Dixon Farm** 31.31 315 P P 09 33 32.6 +1.2
baz=121
**BLO** **Bloomington** 31.33 318 eP P 09 33 33.2 +1.6
BLO pmax pmax
comp=Z,50nm,0.6s
**BLO** **Bloomington** 31.33 318 eP P 09 33 33.2 +1.6
comp=Z,50nm,0.6s
**Z44A** **Pea Ridge, Bel** 31.34 305 P P 09 33 32.8 +1.1
baz=112
**U45A** **Rockin P Farm,** 31.38 312 P P 09 33 33.2 +1.2
baz=118
**USIN** **University of** 31.42 315 eP P 09 33 33.8 +1.4
comp=Z,186nm,1.5s
**Y44A** **Strider, Charl** 31.42 306 P P 09 33 33.5 +1.1
baz=113
**UTMT** **University of** 31.44 311 eP P 09 33 34.6 +2.0
comp=Z,372nm,1.5s
**R46A** **Gibon Southern** 31.45 316 P P 09 33 34.1 +1.4
baz=122
**543A** **St. Martinvill** 31.48 299 P P 09 33 34.1 +1.1
baz=105
**X44A** **Crenshaw** 31.59 307 P P 09 33 35.5 +1.6
baz=114
**AAM** **Ann Arbor** 31.60 325 eP P 09 33 35.4 +1.5
AAM pmax pmax
comp=Z,93nm,1.1s
**AAM** **Ann Arbor** 31.60 325 eP P 09 33 35.4 +1.5
comp=Z,93nm,1.1s
AAM LR LR
comp=Z,6µm,21.0s
**O47A** **Sheridan** 31.74 320 P P 09 33 36.0 +0.8
baz=127,SNR=10
**Q46A** **CEJHS Indians,** 31.79 317 P P 09 33 36.5 +0.9
baz=124
**U44B** **Burton Farm, H** 31.79 311 P P 09 33 36.9 +1.2
baz=117
**S45A** **Carrier Mills** 31.89 314 P P 09 33 37.0 +0.4
baz=120
**Z43A** **Armstrong Fami** 31.95 305 P P 09 33 37.6 +0.5
baz=111
**Y43A** **Makayla and Ka** 31.95 306 P P 09 33 38.3 +1.2
baz=112
**R45A** **Skylar, Fairfi** 32.00 315 P P 09 33 39.0 +1.4
baz=121
**P46A** **Rosedale** 32.02 318 P P 09 33 38.9 +1.3
baz=124
**U44A** **Portageville** 32.11 311 P P 09 33 39.4 +0.9
baz=117
**OLIL** **Olney** 32.12 316 eP P 09 33 40.6 +2.1
comp=Z,97nm,1.4s
**X43A** **Marvell** 32.15 307 P P 09 33 40.0 +1.2
baz=113
**342A** **Flagon Creek P** 32.22 301 P P 09 33 40.3 +0.7
baz=107
**Q45A** **Warren Harvey,** 32.24 316 P P 09 33 40.9 +1.3
baz=122,SNR=7.5
**142A** **Monroe** 32.28 303 P P 09 33 40.6 +0.6
baz=109
**242A** **Grayson** 32.29 302 P P 09 33 41.3 +1.2
baz=108,SNR=8.9
**T44A** **Benton** 32.31 312 P P 09 33 40.9 +0.7
baz=118
**P45A** **Graceland, Par** 32.31 318 P P 09 33 41.5 +1.3
baz=124,SNR=6.1
**SIUC** **Southern Illin** 32.35 313 eP P 09 33 41.8 +1.2
comp=Z,56nm,0.9s
**S44A** **Carbondale** 32.37 313 P P 09 33 41.4 +0.7
baz=119
**SFIN** **Lafayette** 32.39 319 P P 09 33 42.2 +1.3
baz=126,SNR=8.6
**SFIN** **Lafayette** 32.39 319 eP P 09 33 41.5 +0.6
comp=Z,51nm,0.6s
**V43A** **Jonesboro** 32.41 309 P P 09 33 41.7 +0.6
baz=115
**N46A** **Monticello** 32.47 320 P P 09 33 42.4 +0.8
baz=127
**Z42A** **Norrel Spur, H** 32.52 304 P P 09 33 42.5 +0.4
baz=110
**R44A** **Waltonville** 32.52 314 P P 09 33 43.3 +1.3
baz=120,SNR=7.2
**M46A** **Old House Fiel** 32.55 322 P P 09 33 42.9 +0.6
baz=128
**U43A** **Rector** 32.56 310 P P 09 33 43.3 +0.8
baz=116
**541A** **Lake Charles** 32.59 298 P P 09 33 43.0 +0.3
baz=104
**Y42A** **Garnett, Star** 32.59 305 P P 09 33 43.4 +0.7
baz=111,SNR=9.3
**CCAR** **Cane Creek** 32.61 305 eP P 09 33 44.7 +1.8
comp=Z,52nm,0.9s
**O45A** **Potomac** 32.71 319 P P 09 33 44.4 +0.8
baz=125
**X42A** **Stuttgart** 32.73 307 P P 09 33 45.1 +1.2
baz=112
**PBMO** **Poplar Bluff** 32.76 311 eP P 09 33 44.8 +0.6
comp=Z,72nm,1.4s
**441A** **DeRidder** 32.77 299 P P 09 33 45.3 +1.0
baz=105
**T43A** **Greenville** 32.80 312 P P 09 33 45.3 +0.7
baz=117,SNR=6.7
**Q44A** **Meyer Farm, Va** 32.81 316 P P 09 33 46.0 +1.4
baz=121,SNR=7.5
**P44A** **Sand Creek, Wi** 32.85 317 P P 09 33 45.7 +0.7
baz=122,SNR=16
**S43A** **Fulton Ridge,** 32.88 313 P P 09 33 45.8 +0.6
baz=118,SNR=7.6
**241A** **Mo Tay, Goldon** 32.90 302 P P 09 33 46.5 +1.1
baz=107
**341A** **Kurthwood** 32.90 300 P P 09 33 46.5 +1.0
baz=106
**N45A** **Kentland** 32.92 320 P P 09 33 46.8 +1.3
baz=126
**W42A** **Bald Knob** 32.93 308 P P 09 33 46.7 +1.0
baz=113
**V42A** **Cord** 33.05 309 P P 09 33 47.7 +1.0
baz=114,SNR=15
**141A** **Papa Simpson,** 33.06 303 P P 09 33 48.0 +1.2
baz=108
**M45A** **Boilermakers S** 33.08 321 P P 09 33 48.2 +1.3
baz=127
**R43A** **Red Bud** 33.12 314 P P 09 33 48.1 +0.9
baz=119
**O44A** **Mansfield** 33.12 318 P P 09 33 48.1 +0.7
baz=124,SNR=13
**U42A** **Revenden** 33.16 310 P P 09 33 48.4 +0.7
baz=115
**Z41A** **Richland Creek** 33.19 304 P P 09 33 48.7 +0.7
baz=109
**Y41A** **Eaglette Beard** 33.25 305 P P 09 33 49.7 +1.2
baz=110,SNR=8.0
**N44A** **Piper City** 33.27 319 P P 09 33 49.4 +0.8
baz=125,SNR=5.8
**Q43A** **New Douglas** 33.29 315 P P 09 33 50.1 +1.3
baz=120,SNR=9.8
**FVM** **French Village** 33.32 313 eP P 09 33 50.2 +1.1
FVM pmax pmax
comp=Z,230nm,1.8s
**FVM** **French Village** 33.32 313 eP P 09 33 50.2 +1.1
comp=Z,233nm,1.8s
**VLDQ** **Val d'Or** 33.33 338 eP P 09 33 50.6 +1.6
comp=Z,18nm,0.8s
**T42A** **Van Buren** 33.35 311 P P 09 33 50.3 +1.0
baz=116
**UALR** **University of** 33.36 307 eP P 09 33 53.6 +4.1
comp=Z,86nm,1.6s
**X41A** **Kaden, Bauxite** 33.39 306 P P 09 33 50.4 +0.7
baz=111
**440A** **Kirbyville** 33.40 299 P P 09 33 50.4 +0.5
baz=104
**W41B** **Gary Mavity, V** 33.44 307 P P 09 33 50.9 +0.7
baz=112,SNR=16
**RCBR** **Riachuelo** 33.45 133 P P 09 33 50.8 +0.3
comp=Z,85nm,0.9s,baz=322,slow=9.6,SNR=22
RCBR LR LR 09 45 36.5
comp=Z,2µm,21.2s,baz=314,slow=33
**RCBR** **Riachuelo** 33.45 133 eP P 09 33 50.7 +0.2
comp=Z,104nm,0.9s
**S42A** **Caledonia** 33.47 312 P P 09 33 51.1 +0.7
baz=118,SNR=8.4
**SLM** **Saint Louis** 33.50 314 eP P 09 33 54.8 +4.1
SLM pmax pmax
comp=Z,71nm,1.3s
**SLM** **Saint Louis** 33.50 314 eP P 09 33 54.8 +4.1
comp=Z,71nm,1.3s
**WHAR** **Wooly Hollow** 33.51 307 eP P 09 33 51.8 +1.0
comp=Z,57nm,1.1s
**P43A** **Skaggs, Pawnee** 33.53 316 P P 09 33 52.2 +1.3
baz=122,SNR=27
**M44A** **Midewin, Midew** 33.56 320 P P 09 33 52.0 +0.9
baz=126
**WLAR** **White Oak Lake** 33.58 304 eP P 09 33 53.3 +2.0
comp=Z,40nm,0.9s
**X301** **Greenbrier Sit** 33.58 307 eP P 09 33 52.5 +1.1
comp=Z,45nm,1.0s
**V41A** **Mountainview** 33.61 308 P P 09 33 52.3 +0.6
baz=113,SNR=20
**140A** **Cam and Jess,** 33.61 302 P P 09 33 52.5 +0.9
baz=108
**X40A** **Basin Creek Fa** 33.63 306 P P 09 33 52.6 +0.7
baz=111,SNR=16
**U41A** **Viola** 33.66 309 P P 09 33 52.7 +0.6
baz=114,SNR=27
**R42A** **Luebbering** 33.71 313 P P 09 33 53.3 +0.8
baz=118,SNR=16
**SIV** **San Ignacio** 33.73 182 P P 09 33 54.2 +1.4
comp=Z,8.6nm,0.5s,baz=26,slow=9.8,SNR=24
**O43A** **Sugar Creek Fa** 33.74 317 P P 09 33 53.9 +1.2
baz=123
**Y40A** **Okolona** 33.82 305 P P 09 33 54.5 +1.0
baz=110
**Q42A** **Golden Eagle** 33.84 314 P P 09 33 54.7 +1.2
baz=119,SNR=7.1
**T41A** **Mountain View** 33.84 311 P P 09 33 54.3 +0.6
baz=116,SNR=19
**GLMI** **Grayling** 33.85 328 eP P 09 33 55.0 +1.4
comp=Z,115nm,0.8s
GLMI LR LR
comp=Z,5µm,21.0s
**HDIL** **Hopedale** 33.87 318 P P 09 33 55.1 +1.3
baz=123
**HDIL** **Hopedale** 33.87 318 eP P 09 33 55.2 +1.3
comp=Z,86nm,0.6s
HDIL LR LR
comp=Z,4µm,20.0s
**CCM** **Cathedral Cave** 33.92 313 eP P 09 33 54.7 +0.4
CCM pmax pmax
comp=Z,210nm,1.9s
**CCM** **Cathedral Cave** 33.92 313 eP P 09 33 54.7 +0.4
comp=Z,211nm,1.9s
**L44A** **Lake County Fo** 33.95 321 P P 09 33 55.8 +1.3
baz=127
**N43A** **Stutzman Famil** 34.01 319 P P 09 33 55.7 +0.7
baz=124
**P42A** **Winchester** 34.05 316 P P 09 33 56.1 +0.7
baz=120,SNR=17
**339A** **Huntington** 34.05 300 P P 09 33 56.1 +0.6
baz=105
**S41A** **Jillco Farms,** 34.06 312 P P 09 33 56.2 +0.6
baz=116,SNR=22
**W40A** **Ferguson Farm,** 34.07 307 P P 09 33 56.7 +1.1
baz=112,SNR=9.3
**NNA** **Nana** 34.11 211 eP P 09 33 56.9 +0.7
NNA pmax pmax
comp=Z,140nm,0.8s
**NNA** **Nana** 34.11 211 eP P 09 33 56.9 +0.7
comp=Z,143nm,0.8s
NNA LR LR
comp=Z,2µm,20.0s
**V40A** **Witts Springs** 34.11 308 P P 09 33 56.5 +0.5
baz=113,SNR=15
**R41A** **Rosebud** 34.13 313 P P 09 33 56.7 +0.6
baz=118,SNR=11
**M43A** **Waltham Townsh** 34.15 319 P P 09 33 57.1 +0.8
baz=124,SNR=7.7
**239A** **Gary** 34.16 301 P P 09 33 56.7 +0.2
baz=106
**O42A** **Bath** 34.19 317 P P 09 33 57.3 +0.7
baz=122,SNR=12
**MIAR** **Mount Ida** 34.23 306 P P 09 33 57.6 +0.5
baz=110
**MIAR** **Mount Ida** 34.23 306 eP P 09 33 57.9 +0.9
MIAR pmax pmax
comp=Z,13nm,1.0s
**MIAR** **Mount Ida** 34.23 306 eP P 09 33 57.9 +0.9
comp=Z,13nm,1.0s
MIAR LR LR
comp=Z,3µm,20.0s
**NATX** **Nacogdoches** 34.25 300 P P 09 33 57.8 +0.6
baz=105
**NATX** **Nacogdoches** 34.25 300 eP P 09 33 59.0 +1.8
comp=Z,113nm,1.3s
NATX LR LR
comp=Z,3µm,20.0s
**Z39A** **Irene McRaven,** 34.28 303 P P 09 33 58.0 +0.5
baz=108
**139A** **Bunkhouse Ranc** 34.28 302 P P 09 33 58.3 +0.8
baz=107
**Q41A** **Truxton** 34.34 314 P P 09 33 58.5 +0.7
baz=119,SNR=6.9
**U40A** **Yellville** 34.35 309 P P 09 33 58.5 +0.4
baz=113,SNR=15
**Y39A** **Lockesburg** 34.43 304 P P 09 33 58.2 -0.5
baz=109
**T40A** **Mansfield** 34.43 310 P P 09 33 59.3 +0.5
baz=115,SNR=16
**L43A** **Garden Prairie** 34.45 321 P P 09 33 59.6 +0.8
baz=126,SNR=5.5
**N42A** **Yates City** 34.49 318 P P 09 33 59.8 +0.6
baz=122,SNR=8.1
**P41A** **Barry, Barry** 34.57 315 P P 09 34 00.3 +0.4
baz=120,SNR=8.3
**F46A** **Macinaw City C** 34.59 329 P P 09 34 00.9 +0.9
baz=135
**S40A** **Lebanon** 34.61 311 P P 09 34 00.8 +0.5
baz=115,SNR=12
**W39A** **Magazine** 34.62 307 P P 09 34 00.9 +0.6
baz=111,SNR=17
**X39A** **Fountain Ranch** 34.63 305 P P 09 34 00.8 +0.2
baz=110,SNR=9.1
**M42A** **Sheffield** 34.66 319 P P 09 34 01.1 +0.5
baz=124
**O41A** **Passleys Farm,** 34.67 316 P P 09 34 01.4 +0.6
baz=120,SNR=6.5
**338A** **Crockett** 34.68 299 P P 09 34 02.0 +1.1
baz=104,SNR=14
**238A** **Jacksonville** 34.69 301 P P 09 34 01.8 +0.8
baz=105
**V39A** **Pettigrew** 34.74 308 P P 09 34 01.9 +0.4
baz=112,SNR=18
**R40A** **Maddies Statio** 34.75 312 P P 09 34 01.9 +0.4
baz=117,SNR=16
**HKT** **Hockley** 34.80 297 eP P 09 34 02.3 +0.3
HKT pmax pmax
comp=Z,14nm,0.9s
**U39A** **Green Forest** 34.83 309 P P 09 34 02.5 +0.3
baz=113,SNR=8.2
**138A** **Matatall Enter** 34.84 302 P P 09 34 02.9 +0.5
baz=106
**L42A** **Oliver, Polo** 34.91 320 P P 09 34 03.3 +0.5
baz=124,SNR=18
**Y38A** **Idabel** 34.93 304 P P 09 34 03.3 +0.2
baz=108,SNR=15
**Z38A** **Mt. Pleasant** 34.93 303 P P 09 34 03.3 +0.2
baz=107
**Q40A** **Laux Farm, Aux** 34.93 314 P P 09 34 03.5 +0.4
baz=118
**LPAZ** **La Paz** 34.96 194 P P 09 34 05.3 +1.2
comp=Z,57nm,0.8s,baz=11,slow=9.2,SNR=110
LPAZ LR LR 09 49 42.2
comp=Z,4µm,21.9s,baz=1.5,slow=39
**N41A** **Harden Midland** 34.96 317 P P 09 34 04.0 +0.7
baz=121
**J43A** **Natural Harves** 34.97 323 P P 09 34 04.2 +0.8
baz=128,SNR=8.5
**T39A** **Clever** 35.01 310 P P 09 34 04.2 +0.5
baz=114,SNR=11
**M41A** **Milan** 35.11 318 P P 09 34 05.0 +0.4
baz=122
**I43A** **Langenfeld Bro** 35.13 324 P P 09 34 05.5 +0.8
baz=128
**HHAR** **Hobbs** 35.13 308 eP P 09 34 05.3 +0.5
comp=Z,18nm,0.8s
**W38A** **Poteau** 35.14 306 P P 09 34 05.2 +0.4
baz=110
**PAYG** **Puerto Ayora** 35.15 241 eP P 09 34 08.8 +3.7
comp=Z,79nm,1.1s
**K42A** **Prairie Point,** 35.16 321 P P 09 34 05.7 +0.8
baz=126,SNR=12
**P40A** **Paris** 35.17 314 P P 09 34 06.0 +0.9
baz=118
**E45A** **Wooded Hills,** 35.21 329 P P 09 34 06.6 +1.2
baz=135
**S39A** **Bolivar** 35.24 311 P P 09 34 06.0 +0.3
baz=115,SNR=19
**X38A** **Whitesboro** 35.24 305 P P 09 34 06.7 +0.9
baz=109,SNR=7.5
**237A** **Washetta, Mont** 35.25 300 P P 09 34 06.8 +0.9
baz=105,SNR=9.6
**H43A** **Windswept, Lux** 35.29 325 P P 09 34 06.6 +0.5
baz=130
**R39A** **Chumby, Stover** 35.30 312 P P 09 34 06.7 +0.4
baz=116,SNR=17
**V38A** **Canehill** 35.33 307 P P 09 34 07.1 +0.6
baz=111,SNR=14
**O40A** **La Belle** 35.34 315 P P 09 34 07.1 +0.6
baz=119,SNR=19
**J42A** **Columbus** 35.34 322 P P 09 34 07.6 +1.1
baz=126
**137A** **Heron Place, G** 35.36 301 P P 09 34 07.3 +0.4
baz=106,SNR=9.7
**BDFB** **Brasilia** 35.36 160 P P 09 34 06.9 -0.2
comp=Z,4.7nm,0.6s,baz=113,slow=11,SNR=7.0
BDFB PcP PcP 09 36 37.3 +0.1
comp=Z,16nm,1.1s,baz=77,slow=4.4,SNR=3.9
BDFB LR LR 09 48 52.7
comp=Z,4µm,21.1s,baz=122,slow=37
**BDFB** **Brasilia** 35.36 160 eP P 09 34 08.8 +1.8
comp=Z,63nm,1.6s
BDFB PcP PcP 09 36 37.3 +0.1
**L41A** **Preston** 35.46 319 P P 09 34 08.1 +0.5
baz=123,SNR=13
**N40A** **Mertquake, Sal** 35.52 317 P P 09 34 08.6 +0.5
baz=121
**U38A** **Gravette** 35.52 308 P P 09 34 08.6 +0.3
baz=112
**F44A** **Big Bay de Noc** 35.56 328 P P 09 34 09.0 +0.6
baz=133
**I42A** **Draeger Farm,** 35.57 323 P P 09 34 09.0 +0.5
baz=127
**Q39A** **Willow Grove F** 35.58 313 P P 09 34 09.1 +0.5
baz=117
**P39B** **Salisbury** 35.63 314 P P 09 34 09.4 +0.3
baz=118
**S38A** **Stockton** 35.64 310 P P 09 34 09.8 +0.7
baz=114,SNR=11
**X37A** **Clayton** 35.64 305 P P 09 34 10.0 +0.8
baz=108,SNR=9.2
**K41A** **Shullsburg** 35.64 320 P P 09 34 09.6 +0.5
baz=124
**Y37A** **Hugo** 35.65 304 P P 09 34 09.6 +0.3
baz=108,SNR=14
**T38A** **Diamond** 35.68 309 P P 09 34 10.1 +0.5
baz=113
**H42A** **Shiocton** 35.73 324 P P 09 34 10.6 +0.8
baz=129
**M40A** **Post Highland** 35.75 318 P P 09 34 10.4 +0.4
baz=121
**JFWS** **Jewell Farm** 35.78 321 eP P 09 34 11.3 +1.0
JFWS pmax pmax
comp=Z,52nm,0.7s
**JFWS** **Jewell Farm** 35.78 321 eP P 09 34 11.3 +1.0
comp=Z,52nm,0.7s
JFWS LR LR
comp=Z,5µm,22.0s
**236A** **Katherine and** 35.84 300 P P 09 34 11.2 +0.2
baz=104
**O39A** **Kirksville** 35.85 315 P P 09 34 11.4 +0.5
baz=119
**F43A** **Flat Rock, Esc** 35.85 327 P P 09 34 11.8 +1.0
baz=132
**R38A** **Fenwick Farm,** 35.87 311 P P 09 34 11.4 +0.3
baz=115,SNR=10
**W37B** **Quinton** 35.87 306 P P 09 34 11.7 +0.5
baz=109,SNR=18
**V37A** **Hulbert** 35.89 307 P P 09 34 11.7 +0.3
baz=116,SNR=10
**J41A** **Loganville** 35.90 321 P P 09 34 11.9 +0.6
baz=125,SNR=12
**L40A** **Anamosa** 35.91 319 P P 09 34 11.9 +0.5
baz=122
**136A** **Ennis** 35.96 301 P P 09 34 12.1 +0.1
baz=105
**336A** **Riesel** 35.96 299 P P 09 34 12.3 +0.3
baz=103
**CMLA** **Cha da Macela** 35.97 50 eP P 09 34 12.4 +0.4
CMLA pmax pmax
comp=Z,150nm,0.7s
**CMLA** **Cha da Macela** 35.97 50 eP P 09 34 12.4 +0.4
comp=Z,155nm,0.7s
CMLA LR LR
comp=Z,3µm,20.0s
**Q38A** **Cooks Store, C** 35.99 313 P P 09 34 12.6 +0.5
baz=116,SNR=13
**U37A** **Salina** 36.06 308 P P 09 34 13.0 +0.2
baz=111,SNR=10
**Z36A** **Blue Ridge** 36.09 302 P P 09 34 13.4 +0.3
baz=106
**N39A** **Derby Farms, D** 36.12 316 P P 09 34 13.7 +0.4
baz=120,SNR=8.0
**E43A** **Lone Tree Farm** 36.13 328 P P 09 34 14.0 +0.8
baz=133
**G42A** **Mountain** 36.14 325 P P 09 34 13.8 +0.5
baz=130
**Y36A** **Durant** 36.15 303 P P 09 34 13.8 +0.2
baz=107
**KVTX** **Kingsville** 36.19 292 PFAKE 09 34 30.0 +16
KVTX LR LR
comp=Z,3µm,19.0s
**K40A** **Colesburg** 36.20 320 P P 09 34 14.5 +0.5
baz=123,SNR=14
**M39A** **Webster** 36.21 317 P P 09 34 14.4 +0.4
baz=121
**I41A** **Arkdale** 36.22 322 P P 09 34 14.7 +0.6
baz=126,SNR=13
**P38A** **Dawn** 36.23 314 P P 09 34 14.5 +0.3
baz=117
**F42A** **Maple Grove Fa** 36.31 326 P P 09 34 15.5 +0.7
baz=130
**J40A** **Soldiers Grove** 36.35 321 P P 09 34 15.9 +0.7
baz=124,SNR=8.4
**S37A** **Fort Scott** 36.36 310 P P 09 34 15.6 +0.3
baz=113,SNR=7.4
**TUL1** **Leonard** 36.40 307 P P 09 34 16.1 +0.4
baz=110,SNR=12
**TUL1** **Leonard** 36.40 307 eP P 09 34 15.5 -0.2

comp=Z,42nm,0.9s
X36A **Centrahoma** 36.40 304 P P 09 34 16.1 +0.4
baz=108,SNR=14
O38A **Galt** 36.41 314 P P 09 34 16.2 +0.4
baz=118
H41A **Junction City** 36.43 323 P P 09 34 16.5 +0.7
baz=127
L39A **Vinton** 36.43 318 P P 09 34 16.5 +0.6
baz=122,SNR=6.1
435B **Jarrell** 36.45 298 P P 09 34 16.5 +0.3
baz=102
V36A **Jenks** 36.47 306 P P 09 34 16.6 +0.3
baz=110,SNR=16
W36A **Wetumka** 36.48 305 P P 09 34 16.6 +0.2
baz=108,SNR=7.5
U36A **Oologah** 36.52 307 P P 09 34 17.4 +0.6
baz=110
G41A **Antigo** 36.53 325 P P 09 34 17.4 +0.7
baz=128
Q37A **Longview Farm,** 36.54 312 P P 09 34 17.1 +0.2
baz=115
I40A **Norwalk** 36.56 322 P P 09 34 17.7 +0.7
baz=125,SNR=13
N38A **Joes South For** 36.57 316 P P 09 34 17.5 +0.4
baz=119,SNR=13
R37A **Teagarden Farm** 36.58 311 P P 09 34 17.4 +0.2
baz=114,SNR=11
WHTX **Lake Whitney,** 36.61 300 P P 09 34 17.7 +0.2
baz=103
WHTX **Lake Whitney,** 36.61 300 eP P 09 34 17.8 +0.2
comp=Z,17nm,0.8s
WHTX eP cP cP 09 36 40.2 -0.4
E42A **Champion** 36.64 327 P P 09 34 18.3 +0.7
baz=131
K39A **Oelwein** 36.67 319 P P 09 34 18.3 +0.4
baz=122
Y35A **Marietta** 36.75 303 P P 09 34 19.1 +0.4
baz=106
TLIG **Tlapa** 36.77 276 eP P 09 34 21.2 +2.0
comp=Z,65nm,1.1s
P37A **Lathrop** 36.78 313 P P 09 34 19.2 +0.4
baz=116,SNR=12
F41A **Three Lakes** 36.82 325 P P 09 34 19.7 +0.5
baz=129
X35A **Drake** 36.84 304 P P 09 34 19.6 +0.1
baz=107,SNR=17
M38A **Pleasantville** 36.85 316 P P 09 34 19.8 +0.3
baz=119,SNR=18
H40A **Chili** 36.86 323 P P 09 34 20.0 +0.5
baz=126,SNR=17
T36A **Boggs Farm, Ca** 36.87 308 P P 09 34 20.0 +0.3
baz=111,SNR=8.5
O37A **Wolven Farm, M** 36.89 314 P P 09 34 20.3 +0.4
baz=117
J39A **Decorah** 36.90 320 P P 09 34 20.3 +0.4
baz=123,SNR=6.2
S36A **Lake Cedric, C** 36.90 310 P P 09 34 20.2 +0.2
baz=112,SNR=11
OK022 **N3560 Road, Pr** 36.95 306 eP P 09 34 20.9 +0.5
comp=Z,37nm,1.0s
W35A **Tecumseh** 36.99 305 P P 09 34 21.1 +0.4
baz=108,SNR=16
OK021 **N3530 Road, Sp** 37.01 306 eP P 09 34 21.7 +0.7
comp=Z,69nm,1.3s
L38A **Oak Wood Farm,** 37.05 318 P P 09 34 21.6 +0.4
baz=120
R36A **Gordon, Harris** 37.07 311 P P 09 34 21.6 +0.2
baz=113
I39A **Houston** 37.08 321 P P 09 34 21.9 +0.5
baz=124,SNR=10
SCIA **State Center** 37.10 317 eP P 09 34 21.7 +0.1
comp=Z,188nm,1.4s
SCIA LR LR
comp=Z,5µm,20.0s
OK020 **N3440 Road, Me** 37.11 306 eP P 09 34 22.6 +0.8
comp=Z,48nm,0.9s
G40A **Rib Lake** 37.14 324 P P 09 34 22.7 +0.8
baz=127,SNR=11
V35A **Meyer Ranch, C** 37.15 306 P P 09 34 22.5 +0.4
baz=109,SNR=12
K38A **Parkersburg** 37.19 319 P P 09 34 22.7 +0.4
baz=121,SNR=16
N37A **Lee Faris, Mou** 37.21 315 P P 09 34 22.8 +0.3
baz=117,SNR=18
E41A **Kenton** 37.21 326 P P 09 34 22.9 +0.4
baz=130,SNR=8.1
SCHQ **Schefferville** 37.21 353 P P 09 34 22.8 +0.4
comp=Z,14nm,0.6s,baz=194,slow=7.9,SNR=11
SCHQ PcP PcP 09 36 41.5 -0.5
SCHQ LR LR 09 48 06.7
comp=Z,10nm,0.8s,baz=164,slow=3.4,SNR=2.8
comp=Z,3µm,18.6s,baz=174,slow=34
SCHQ **Schefferville** 37.21 353 eP P 09 34 22.4 +0.1
comp=Z,152nm,1.5s
SCHQ PcP PcP 09 36 41.5 -0.5
U35A **Pawnee** 37.27 307 P P 09 34 23.5 +0.4
baz=110,SNR=10
T35A **Sooner Cattle** 37.29 308 P P 09 34 23.7 +0.4
baz=110,SNR=15
Q36A **Arnold C. Orve** 37.29 312 P P 09 34 23.7 +0.5
baz=114
J38A **Wedel Dairy, R** 37.36 320 P P 09 34 24.4 +0.6
baz=122
LNIG **Linares** 37.37 288 eP P 09 34 23.7 -0.5
comp=Z,39nm,1.1s
P36A **Good Intent, A** 37.39 313 P P 09 34 24.4 +0.4
baz=115
D41A **Chassel** 37.39 327 P P 09 34 24.7 +0.8
baz=131
H39A **Augusta** 37.41 322 P P 09 34 24.8 +0.7
baz=125,SNR=14
M37A **Trindle Farm,** 37.41 316 P P 09 34 24.6 +0.4
baz=118,SNR=7.6
S35A **Otter Creek Ra** 37.42 309 P P 09 34 24.8 +0.4
baz=112
O36A **Bolckow** 37.44 314 P P 09 34 24.8 +0.3
baz=116,SNR=18
F40A **Park Falls** 37.49 325 P P 09 34 25.7 +0.9
baz=128,SNR=8.9
L37A **Phoenix Point,** 37.56 317 P P 09 34 26.0 +0.5
baz=120,SNR=6.0
R35A **Emporia Munici** 37.57 310 P P 09 34 26.1 +0.4
baz=112
833A **Chaparral WMA,** 37.61 293 P P 09 34 26.7 +0.6
baz=97
Q35A **Mercer Eighty,** 37.66 311 P P 09 34 26.7 +0.2
baz=113,SNR=8.6
I38A **Scanlan Farm,** 37.67 321 P P 09 34 26.9 +0.6
baz=123,SNR=11
G39A **Holcombe** 37.70 323 P P 09 34 27.3 +0.7
baz=126,SNR=28
E40A **Wakefield** 37.70 326 P P 09 34 27.2 +0.6
baz=129,SNR=11
N36A **Muff Farm, Cla** 37.74 315 P P 09 34 27.5 +0.4
baz=117,SNR=21
K37A **Belmond** 37.80 318 P P 09 34 28.1 +0.5
baz=120,SNR=17
T34A **McClaskey Farm** 37.84 308 P P 09 34 28.2 +0.3
baz=110,SNR=14
P35A **Duane Minner,** 37.92 312 P P 09 34 28.8 +0.2
baz=114
M36A **Felix, Anita** 37.92 316 P P 09 34 29.0 +0.4
baz=118,SNR=6.7
F39A **Loretta** 37.93 324 P P 09 34 29.5 +0.9
baz=127,SNR=20
H38A **Maiden Rock** 37.99 322 P P 09 34 29.9 +0.8
baz=124
E39A **Mellen** 38.01 325 P P 09 34 30.0 +0.8
baz=128,SNR=17
S34A **Willow Spring** 38.01 309 P P 09 34 29.7 +0.3
baz=111,SNR=8.0
G38A **Ridgeland** 38.02 323 P P 09 34 30.2 +0.8
baz=125
J37A **Redenius Farm,** 38.03 319 P P 09 34 30.1 +0.7
baz=121,SNR=13
MNMC **Minye Minye** 38.05 195 eP P 09 34 28.1 -2.0
comp=Z,84nm,0.9s
L36A **Harm Buss Farm** 38.14 317 P P 09 34 30.9 +0.5
baz=118
O35A **Humboldt** 38.15 313 P P 09 34 31.1 +0.5
baz=115
KSU1 **Kansas State U** 38.17 311 P P 09 34 31.2 +0.5
baz=113,SNR=8.5
KSU1 **Kansas State U** 38.17 311 eP P 09 34 30.5 -0.2
comp=Z,36nm,0.6s
KSU1 LR LR
comp=Z,3µm,21.0s
N35A **Tabor** 38.22 314 P P 09 34 31.5 +0.4
baz=116
K36A **Gilmore City** 38.26 317 P P 09 34 31.8 +0.4
baz=119
JCT **Junction City** 38.27 297 P P 09 34 32.3 +0.5
baz=100
JCT **Junction City** 38.27 297 eP P 09 34 32.3 +0.5
JCT pmax pmax
comp=Z,25nm,1.0s
JCT **Junction City** 38.27 297 eP P 09 34 32.3 +0.5
comp=Z,25nm,0.9s
JCT LR LR
comp=Z,2µm,20.0s
I37A **Lemond, Waseca** 38.30 320 P P 09 34 32.2 +0.5
baz=122,SNR=7.4
H37A **Dierke Farm, C** 38.31 321 P P 09 34 32.3 +0.4
baz=123
R34A **Isabella, Hill** 38.33 310 P P 09 34 32.4 +0.4
baz=111,SNR=7.8
Q34A **Chapman** 38.34 311 P P 09 34 32.5 +0.3
baz=112
WMOK **Wichita Mounta** 38.37 304 P P 09 34 32.8 +0.3
baz=106
WMOK **Wichita Mounta** 38.37 304 eP P 09 34 32.8 +0.3
WMOK pmax pmax
comp=Z,32nm,1.2s
WMOK **Wichita Mounta** 38.37 304 eP P 09 34 32.8 +0.3
comp=Z,32nm,1.3s
WMOK LR LR
comp=Z,4µm,21.0s
F38A **Pierce - Schro** 38.49 324 P P 09 34 33.9 +0.6
baz=126,SNR=17
P34A **Walnut Farm, R** 38.50 312 P P 09 34 34.0 +0.5
baz=113
M35A **Neola** 38.53 315 P P 09 34 34.0 +0.4
baz=117
J36A **Seneca 1, Swea** 38.53 319 P P 09 34 34.0 +0.3
baz=120
ABTX **Abilene, Hawle** 38.55 300 P P 09 34 34.4 +0.4
baz=102
ABTX **Abilene, Hawle** 38.55 300 eP P 09 34 33.9 -0.2
comp=Z,30nm,0.9s
SPMN **Marine on St.** 38.60 322 P P 09 34 34.7 +0.5
baz=124,SNR=22
SPMN **Marine on St.** 38.60 322 eP P 09 34 34.5 +0.3
comp=Z,80nm,0.7s
SPMN eP cP cP 09 36 46.4 -0.1
O34A **Beatrice** 38.66 313 P P 09 34 35.3 +0.5
baz=114
I36A **Fitzsimmons Fa** 38.68 320 P P 09 34 35.7 +0.8
baz=121
C39A **Grand Marais** 38.69 327 P P 09 34 35.6 +0.7
baz=130
E38A **The Farm, Brul** 38.70 325 P P 09 34 35.5 +0.5
baz=127
L35A **Bielow Farm, R** 38.72 316 P P 09 34 35.9 +0.6
baz=118
F37A **Hinrichs Farm,** 38.78 323 P P 09 34 36.3 +0.6
baz=125,SNR=9.4
N34A **Lincoln** 38.80 314 P P 09 34 36.2 +0.3
baz=115
K35A **Storm Lake** 38.80 317 P P 09 34 36.4 +0.4
baz=118
H36A **Jessenland, He** 38.92 320 P P 09 34 37.4 +0.5
baz=123
U32A **Winter Ranch,** 39.01 306 P P 09 34 38.5 +0.7
baz=108,SNR=6.4
J35A **Milford** 39.10 318 P P 09 34 39.2 +0.7
baz=119
E37A **Wrenshall** 39.14 324 P P 09 34 39.2 +0.4
baz=126
M34A **Aspy Farms, Fr** 39.14 315 P P 09 34 39.6 +0.8
baz=116,SNR=5.3
G36A **St. Michael** 39.17 321 P P 09 34 39.4 +0.4
baz=123
I35A **Creekview Farm** 39.20 319 P P 09 34 40.0 +0.7
baz=120
C38A **Sawbill Land.** 39.22 326 P P 09 34 39.8 +0.4
baz=128,SNR=6.6
O33A **Hebron** 39.24 312 P P 09 34 40.3 +0.6
baz=113
K34A **Le Mars** 39.35 317 P P 09 34 41.0 +0.4
baz=118,SNR=6.0
F36A **Milaca** 39.38 322 P P 09 34 41.5 +0.7
baz=124,SNR=14
N33A **J Bar K, Exete** 39.41 313 P P 09 34 41.6 +0.4
baz=114
EYMN **Ely** 39.48 326 P P 09 34 42.2 +0.6
baz=128
EYMN **Ely** 39.48 326 eP P 09 34 43.6 +2.0
comp=Z,49nm,1.0s
EYMN LR LR
comp=Z,5µm,20.0s
D37A **Cotton** 39.51 325 P P 09 34 42.7 +0.9
baz=126,SNR=25
H35A **Sunnyside Ranc** 39.53 320 P P 09 34 42.7 +0.6
baz=121,SNR=10
J34A **George** 39.54 318 P P 09 34 42.8 +0.6
baz=118
M33A **Taylor Creek F** 39.59 314 P P 09 34 43.0 +0.5
baz=115
E36A **McGor** 39.60 323 P P 09 34 43.1 +0.6
baz=125,SNR=23
G35A **Watkins** 39.60 321 P P 09 34 43.1 +0.5
baz=122,SNR=12
C37A **Embarrass** 39.72 326 P P 09 34 44.0 +0.5
baz=127
I34A **Hadley** 39.84 319 P P 09 34 45.3 +0.6
baz=119
PB01 **IPOC Station P** 39.86 194 eP P 09 34 43.9 -1.1
comp=Z,163nm,1.0s
L33A **Hoskins** 39.89 315 P P 09 34 45.6 +0.5
baz=116
K33A **Hardington** 39.91 316 P P 09 34 45.7 +0.5
baz=116
D36A **Goodland** 39.92 324 P P 09 34 45.7 +0.5
baz=126
F35A **Swanville** 39.99 322 P P 09 34 46.3 +0.4
baz=122,SNR=15
C36A **Pine Crest Far** 40.09 325 P P 09 34 47.0 +0.4
baz=126,SNR=11
H34A **Spellman Lake,** 40.10 320 P P 09 34 47.3 +0.6
baz=120
BGNE **Belgrade** 40.17 314 P P 09 34 47.9 +0.4
baz=114
BGNE **Belgrade** 40.17 314 eP P 09 34 47.9 +0.4
comp=Z,125nm,1.0s
ECSD **EROS Data Cent** 40.17 318 P P 09 34 47.7 +0.3
baz=118,SNR=18
ECSD **EROS Data Cent** 40.17 318 eP P 09 34 47.4 0.0
comp=Z,114nm,1.6s
ECSD LR LR
comp=Z,4µm,20.0s
ZAIG **Zacatecas** 40.18 284 eP P 09 34 50.2 +2.1
comp=Z,37nm,1.2s
J33A **Davis** 40.21 317 P P 09 34 48.2 +0.6
baz=117,SNR=5.7
E35A **Pequot Lakes** 40.27 323 P P 09 34 48.5 +0.4
baz=123,SNR=13
G34A **Benson** 40.30 320 P P 09 34 48.7 +0.3
baz=121,SNR=8.9
L32A **Elgin** 40.32 315 P P 09 34 48.9 +0.2
baz=115
CBKS **Cedar Bluff** 40.34 309 P P 09 34 49.0 +0.2
baz=110,SNR=9.5
CBKS **Cedar Bluff** 40.34 309 eP P 09 34 49.2 +0.3
CBKS pmax pmax
comp=Z,48nm,1.1s
CBKS **Cedar Bluff** 40.34 309 eP P 09 34 49.2 +0.3
comp=Z,48nm,1.1s
CBKS LR LR
comp=Z,4µm,19.0s
F34A **Alexandria** 40.36 321 P P 09 34 49.3 +0.3
baz=122
D35A **Remer** 40.37 324 P P 09 34 49.4 +0.4
baz=124
I33A **Coleman** 40.44 318 P P 09 34 50.0 +0.4
baz=118
K32A **Verdigre** 40.57 316 P P 09 34 50.7 -0.1
baz=116
C35A **Jirik Farms, M** 40.68 325 P P 09 34 51.8 +0.3
baz=125,SNR=43
E34A **Wadena** 40.69 322 P P 09 34 52.0 +0.3
baz=122,SNR=12
H33A **Prehn Over Nor** 40.71 319 P P 09 34 52.0 +0.2
baz=119,SNR=17
AMTX **Amarillo** 40.72 303 P P 09 34 52.4 +0.3
baz=104
AMTX **Amarillo** 40.72 303 eP P 09 34 52.5 +0.3
comp=Z,173nm,1.7s
G33A **Ortonville** 40.77 320 P P 09 34 52.5 +0.2
baz=120
J32A **Parkston** 40.80 317 P P 09 34 52.9 +0.3
baz=116,SNR=5.7
I32A **Karley and Nic** 40.85 318 P P 09 34 53.3 +0.3
baz=117
B35A **Bob, Littlefor** 40.92 325 P P 09 34 54.0 +0.5
baz=126,SNR=10
F33A **5 Mile Ranch,** 41.01 321 P P 09 34 55.0 +0.7
baz=120,SNR=9.3
D34A **Park Rapids** 41.02 323 P P 09 34 54.8 +0.5
baz=123,SNR=16
PMOZ **Porto Moniz, M** 41.05 60 A A 09 51 09.8
comp=Z,1µm,18.0s
H32A **Carlson Farm,** 41.06 318 P P 09 34 55.1 +0.3
baz=118,SNR=12
K31A **O'Neill** 41.08 315 P P 09 34 55.3 +0.3
baz=115
C34A **RKJ Ranch, Bem** 41.17 324 P P 09 34 55.9 +0.3
baz=124,SNR=20
E33A **Westby DABS, E** 41.18 322 P P 09 34 55.9 +0.3
baz=122
HJA **Humahuaca** 41.24 188‖ eP P 09 34 55.9 -0.9
LVC **Limon Verde** 41.25 193 P P 09 34 57.0 +0.2
comp=Z,447nm,1.0s,baz=3.9,slow=6.0,SNR=62
LVC **Limon Verde** 41.25 193 eP P 09 34 56.9 +0.2
comp=Z,93nm,0.8s
LVC LR LR
comp=Z,3µm,22.0s
PB04 **IPOC Station P** 41.26 194 eP P 09 34 54.2 -2.5
comp=Z,42nm,1.0s
J31A **Geddes** 41.35 316 P P 09 34 57.8 +0.6
baz=115
MSTX **Muleshoe** 41.40 301 P P 09 34 57.9 +0.2
baz=102,SNR=7.6
MSTX **Muleshoe** 41.40 301 eP P 09 34 57.9 +0.2
comp=Z,46nm,1.1s
D33A **AnnSam, Waubun** 41.42 323 P P 09 34 58.3 +0.6
baz=122
TX31 **Lajitas Ar. Si** 41.45 294 eP P 09 34 59.5 +1.3
TXAR **Lajitas Array** 41.45 294 P P 09 34 59.5 +1.3
comp=Z,8.3nm,1.0s,baz=124,slow=8.2,SNR=26
TXAR cP cP 09 36 57.2 +1.2
comp=Z,6.8nm,0.8s,baz=93,slow=3.2,SNR=3.5
TXAR LR LR 09 55 03.4
comp=Z,1µm,21.5s,baz=0.0,slow=40
G32A **Webster** 41.45 319 P P 09 34 58.3 +0.3
baz=119
B34A **Aery, Baudette** 41.50 325 P P 09 34 58.7 +0.5
baz=125,SNR=11
F32A **Veblen** 41.52 320 P P 09 34 59.1 +0.7
baz=120
ALOL **LOMAS DE OLMED** 41.69 186‖ eP P 09 35 00.2 +0.2
BBTS **Labate** 41.69 88 P P 09 35 00.2 0.0
comp=Z,13nm,0.3s,baz=236,slow=4.8,SNR=2.7
H31A **Wolsey** 41.71 318 P P 09 35 00.8 +0.7
baz=117
C33A **Trail** 41.71 324 P P 09 35 00.4 +0.4
baz=123
G31A **Conde** 41.88 319 P P 09 35 01.7 +0.2
baz=118
B33A **Robert and Kas** 41.89 324 P P 09 35 01.8 +0.4
baz=124
SUSD **Miller** 42.00 318 P P 09 35 02.5 +0.1
baz=116
AGMN **Agassiz Nation** 42.06 324 P P 09 35 03.3 +0.4
baz=123,SNR=18
AGMN **Agassiz Nation** 42.06 324 eP P 09 35 02.9 0.0
comp=Z,46nm,0.7s
AGMN LR LR
comp=Z,5µm,19.0s
A33A **Warroad** 42.16 325 P P 09 35 04.0 +0.4
baz=124
AZAP **Zapla** 42.20 187‖ eP P 09 35 02.2 -2.2
F31A **Hecla** 42.21 320 P P 09 35 04.3 +0.2
baz=118
E31A **Nome** 42.32 321 P P 09 35 05.4 +0.3
baz=120,SNR=11
PB10 **IPOC Station P** 42.49 195 eP P 09 35 06.5 0.0
comp=Z,57nm,1.2s
B32A **Ashes, Strandq** 42.49 324 P P 09 35 06.9 +0.5
baz=123,SNR=21
KSCO **Kaye Shedlock'** 42.54 309 P P 09 35 07.5 +0.5
baz=107
KSCO **Kaye Shedlock'** 42.54 309 eP P 09 35 07.6 +0.5
comp=Z,24nm,0.7s
OGNE **Ogallala** 42.72 312 P P 09 35 08.6 +0.2
baz=110
OGNE **Ogallala** 42.72 312 eP P 09 35 10.3 +1.8
comp=Z,222nm,1.9s
OGNE LR LR
comp=Z,4µm,19.0s
A32A **Rocking H Ranc** 42.75 325 P P 09 35 09.0 +0.6
baz=123,SNR=8.3
C31A **Landman Farms,** 42.85 323 P P 09 35 09.7 +0.3
baz=121,SNR=15
HPIG 43.04 290 eP P 09 35 12.7 +1.3
comp=Z,36nm,0.9s
B31A **Greenbush Farm** 43.13 323 P P 09 35 11.9 +0.4
baz=122,SNR=6.1
A31A **Linda, St. Vin** 43.14 324 P P 09 35 12.1 +0.5
baz=122
ULM **Lac du Bonnet** 43.17 327 P P 09 35 11.6 -0.3
comp=Z,13nm,0.6s,baz=118,slow=9.4,SNR=16
ULM LR LR 09 53 12.5
comp=Z,4µm,18.4s,baz=134,slow=36
ULM **Lac du Bonnet** 43.17 327 eP P 09 35 11.5 -0.3
ULM pmax pmax
comp=Z,190nm,1.6s
ULM **Lac du Bonnet** 43.17 327 eP P 09 35 11.5 -0.3
comp=Z,190nm,1.6s
MNTX **Cornudas Mount** 43.19 297 P P 09 35 12.4 +0.1
baz=97,SNR=29
MNTX **Cornudas Mount** 43.19 297 eP P 09 35 11.2 -1.0
comp=Z,26nm,0.8s
MNTX LR LR
comp=Z,2µm,20.0s
T25A **Trinidad** 43.40 305 P P 09 35 14.1 0.0
baz=104,SNR=16
MHTCO **State Highway** 43.61 305 eP P 09 35 16.6 +0.8
comp=Z,34nm,1.4s
MDND **Maddock** 43.98 322 P P 09 35 18.9 +0.5
baz=119
MDND **Maddock** 43.98 322 eP P 09 35 18.7 +0.3
comp=Z,59nm,0.6s
CPUP **Villa Florida** 44.07 177 P P 09 35 18.1 -1.2
comp=Z,46nm,0.9s,baz=356,slow=8.4,SNR=59
CPUP cP cP 09 37 04.5 0.0
comp=Z,8.0nm,0.7s,baz=1.8,slow=3.4,SNR=3.6
CPUP LR LR 09 56 34.2
comp=Z,1µm,18.8s,baz=352,slow=40
EPT **El Paso** 44.15 297 eP P 09 35 20.8 +0.6
comp=Z,108nm,1.8s
FSA **Cafayete** 44.18 188‖ eP P 09 35 19.6 -0.7
SDCO **Great Sand Dun** 44.38 306 P P 09 35 22.6 +0.4
baz=104,SNR=23
SDCO **Great Sand Dun** 44.38 306 eP P 09 35 22.6 +0.4
comp=Z,36nm,1.4s
SDCO LR LR
comp=Z,4µm,19.0s
NRS **Narsarsuaq** 44.39 10 i P P 09 35 21.5 +0.1
NRS pmax pmax
comp=Z,130nm,1.0s
NRS **Narsarsuaq** 44.39 10 i P P 09 35 21.5 +0.1
comp=Z,129nm,1.0s
Q24A **Divide** 44.41 308 P P 09 35 22.8 +0.4
baz=105
ANMO **Albuquerque** 44.57 302 P P 09 35 24.1 +0.5
baz=100
ANMO **Albuquerque** 44.57 302 c iP P 09 35 24.7 +1.1
ANMO pmax pmax
comp=Z,24nm,1.7s
ANMO **Albuquerque** 44.57 302 eP P 09 35 24.4 +0.8
comp=Z,12nm,1.0s
ANMO LR LR
comp=Z,4µm,19.0s
BNM **Barren Site** 44.58 301 eP P 09 35 24.6 +0.9
LPM **Los Pinos Moun** 44.61 301 eP P 09 35 25.1 +1.2
AHML **Horco Molle** 44.77 187‖ eP P 09 35 23.5 -1.4
ISCO **Idaho Springs** 44.98 309 P P 09 35 27.4 +0.4
baz=105,SNR=11
ISCO **Idaho Springs** 44.98 309 eP P 09 35 28.3 +1.4
ISCO pmax pmax
comp=Z,34nm,1.5s
ISCO **Idaho Springs** 44.98 309 eP P 09 35 28.3 +1.4
comp=Z,34nm,1.5s
ISCO LR LR

comp=Z,3µm,20.0s
**LAZ Ladron 45.03 301** *e*P **P 09 35 28.7 +1.5**
**RSSD Black Hills 45.21 315** P **P 09 35 29.2 +0.7**
baz=111
**RSSD Black Hills 45.21 315** *e*P **P 09 35 29.4 +0.8**
RSSD pmax pmax
comp=Z,26nm,1.1s
**RSSD Black Hills 45.21 315** *e*P **P 09 35 29.4 +0.8**
comp=Z,26nm,1.1s
**PHWY Pilot Hill 45.29 311** *e*P **P 09 35 30.4 +1.1**
comp=Z,43nm,1.4s
**121A Cookes Peak, D 45.31 298** P **P 09 35 29.4 -0.1**
baz=97,SNR=10
**121A Cookes Peak, D 45.31 298** *e*P **P 09 35 31.2 +1.7**
comp=Z,93nm,1.5s
**S22A 4UR Ranch, Cre 45.41 306** P **P 09 35 30.8 +0.4**
baz=102,SNR=16
**N23A Red Feather La 45.52 310** P **P 09 35 31.1 0.0**
baz=106
**SMCO Snowmass 45.84 308** *e*P **P 09 35 34.6 +0.7**
comp=Z,30nm,1.4s
**K22A Casper 46.44 312** P **P 09 35 38.8 +0.6**
baz=107,SNR=12
**K22A Casper 46.44 312** *e*P **P 09 35 38.3 +0.1**
comp=Z,32nm,0.9s
**CYA Choya 46.45 187**‖ *e*P **P 09 35 37.4 -0.8**
**MVCO Mesa Verde 46.60 305** P **P 09 35 40.1 +0.4**
baz=101
**MVCO Mesa Verde 46.60 305** *e*P **P 09 35 39.8 +0.1**
comp=Z,17nm,0.9s
MVCO LR LR
comp=Z,2µm,20.0s
**RWWY Rawlins 46.66 311** *e*P **P 09 35 41.5 +1.5**
comp=Z,106nm,1.9s
**PV01 Paradox Valley 46.84 306** *e*P **P 09 35 42.8 +1.3**
**SLBS Sierra La Lagu 46.93 286** *e*P **P 09 35 44.8 +2.5**
comp=Z,102nm,1.6s
**DGMT Dagmar 47.00 321** P **P 09 35 42.8 +0.4**
baz=115,SNR=10
**DGMT Dagmar 47.00 321** *e*P **P 09 35 42.6 +0.3**
comp=Z,71nm,0.7s
DGMT LR LR
comp=Z,3µm,20.0s
**O20A White River Ci 47.02 308** P **P 09 35 42.9 +0.1**
baz=104
**O20A White River Ci 47.02 308** *e*P **P 09 35 44.1 +1.3**
comp=Z,19nm,1.0s
**VCA Vinchina 47.09 190**‖ *e*P **P 09 35 43.5 +0.2**
**PV04 Paradox Valley 47.15 306** *e*P **P 09 35 44.1 +0.3**
**PV05 Paradox Valley 47.23 306** *e*P **P 09 35 45.4 +0.8**
**LPIG La Paz 47.25 286** LR LR 09 58 46.3
comp=Z,855nm,21.0s,baz=93,slow=40
LPIG PKPPKP 10 07 03.0
comp=Z,15nm,0.3s,baz=238,slow=4.8,SNR=4.0
**PV10 Paradox Valley 47.25 306** *e*P **P 09 35 45.8 +1.1**
**W18A Petrified Fore 47.25 301** P **P 09 35 44.7 -0.1**
baz=98
**W18A Petrified Fore 47.25 301** *e*P **P 09 35 45.8 +1.1**
comp=Z,78nm,1.4s
**PV09 Paradox Valley 47.34 306** *e*P **P 09 35 46.5 +0.9**
**LAO LASA Array 47.57 318** P **P 09 35 47.2 +0.3**
baz=111,SNR=7.3
**LAO LASA Array 47.57 318** *e*P **P 09 35 47.7 +0.8**
comp=Z,223nm,1.8s
LAO LR LR
comp=Z,4µm,19.0s
**ACLC CERRO LA CRUZ 47.57 188** *e*P **P 09 35 47.2 +0.1**
**TUC Tucson 47.82 298** P **P 09 35 49.6 +0.6**
baz=95
**TUC Tucson 47.82 298** *e*P **P 09 35 50.5 +1.5**
TUC pmax pmax
comp=Z,34nm,1.3s
**TUC Tucson 47.82 298** *e*P **P 09 35 50.5 +1.5**
comp=Z,34nm,1.3s
TUC LR LR
comp=Z,2µm,20.0s
**LCO Las Campanas 47.82 193** *e*P **P 09 35 48.5 -0.6**
comp=Z,76nm,1.2s
LCO LR LR
comp=Z,2µm,22.0s
**AGUA GUANDACOL 47.87 190** *e*P **P 09 35 49.4 +0.1**
**P18A Preston Nutter 48.42 307** *e*P **P 09 35 55.0 +1.1**
comp=Z,96nm,1.8s
**APLL PUNTA DE LOS L 48.47 188**‖ *e*P **P 09 35 53.5 -0.4**
**SRU San Rafael Swe 48.53 307** *e*P **P 09 35 55.6 +1.1**
SRU pmax pmax
comp=Z,22nm,1.1s
**SRU San Rafael Swe 48.53 307** *e*P **P 09 35 55.6 +1.1**
comp=Z,22nm,1.1s
**BW06 Boulder Array 48.62 312** P **P 09 35 55.7 +0.4**
baz=105
**BW06 Boulder Array 48.62 312** *e*P **P 09 35 55.6 +0.4**
comp=Z,11nm,0.6s
BW06 LR LR
comp=Z,4µm,20.0s
**PD31 Pinedale Array 48.62 312** *e*P **P 09 35 55.6 +0.3**
**PDAR Pinedale Array 48.62 312** P **P 09 35 55.6 +0.3**
comp=Z,5.0nm,0.8s,baz=96,slow=11,SNR=24
PDAR PcP **PcP 09 37 19.7 -1.0**
comp=Z,6.8nm,0.8s,baz=109,slow=5.5,SNR=4.7
PDAR LR LR 09 56 13.4
comp=Z,2µm,20.3s,baz=118,slow=36
**PDAR Pinedale Array 48.62 312** *e*P **P 09 35 54.3 -1.0**
PDAR PcP **PcP 09 37 19.7 -1.0**
**WUAZ Wupatki 48.63 302** P **P 09 35 55.9 +0.5**
baz=97,SNR=28
**WUAZ Wupatki 48.63 302** *e*P **P 09 35 56.8 +1.4**
comp=Z,86nm,1.5s
WUAZ LR LR
comp=Z,3µm,19.0s
**MORF Marmelete 48.72 56** *e*P **P 09 35 56.2 +0.3**
MORF AMb AMB 09 36 09.7
comp=Z,133nm,1.1s
MORF *e*S **S 09 42 59.1 +1.2**
**MORF Marmelete 48.72 56** *e*P **P 09 35 56.1 +0.3**
MORF *e*S **S 09 42 59.1 +1.2**
MORF pmax pmax
comp=Z,133nm,1.0s
**MORF Marmelete 48.72 56** *e*P **P 09 35 56.3 +0.4**
comp=Z,133nm,1.9s
**FFC Flin Flon 48.76 329** *e*P **P 09 35 55.7 -0.1**
FFC pmax pmax
comp=Z,130nm,1.8s
**FFC Flin Flon 48.76 329** *e*P **P 09 35 55.7 -0.1**
comp=Z,132nm,1.8s
FFC LR LR
comp=Z,4µm,21.0s
**P17A Butcher Ranch, 48.76 307** *e*P **P 09 35 58.0 +1.7**
comp=Z,39nm,1.1s
**RLMT Red Lodge 49.07 315** P **P 09 35 59.3 +0.7**
baz=107,SNR=17
**RLMT Red Lodge 49.07 315** *e*P **P 09 35 59.4 +0.7**
comp=Z,124nm,1.8s
RLMT LR LR
comp=Z,4µm,19.0s
**TMUT Trail Mountain 49.08 307** *e*P **P 09 36 00.7 +1.7**
comp=Z,54nm,1.3s
**MESJ Messejana 49.14 55** *e*P **P 09 35 59.6 +0.5**
MESJ AMb AMB 09 36 02.0
comp=Z,76nm,1.6s
MESJ *e*S **S 09 43 05.1 +1.5**
**MESJ Messejana 49.14 55** *e*P **P 09 35 59.5 +0.5**
MESJ *e*S **S 09 43 05.1 +1.5**
MESJ pmax pmax
comp=Z,76nm,1.6s
**PBDV Barranco-do-Ve 49.28 56** *e*P **P 09 35 59.5 -0.6**
comp=Z,136nm,1.6s
**AMOG MOGNA 49.29 190** *e*P **P 09 36 00.0 -0.2**
**PCAS Casmilo, Conde 49.31 52** *e*P **P 09 36 00.2 -0.1**
comp=Z,105nm,1.8s
**PMTG Montargil 49.34 54** *e*P **P 09 36 00.3 -0.2**
comp=Z,76nm,1.6s
**HTU Hoyt Peak 49.36 309** *e*P **P 09 36 02.3 +1.3**
**SFJD Kangerlussuaq 49.41 5** P **P 09 35 59.4 -1.1**
comp=Z,25nm,1.0s,baz=175,slow=7.4,SNR=5.2
**SFJD Kangerlussuaq 49.41 5** *i* P **P 09 36 00.3 -0.2**
comp=Z,57nm,1.2s
**SFJD Kangerlussuaq 49.41 5** *e*P **P 09 36 02.0 +1.4**
comp=Z,61nm,1.2s
SFJD LR LR
comp=Z,3µm,19.0s
**PBEJ Beja 49.44 55** *e*P **P 09 36 02.0 +0.6**
comp=Z,75nm,1.4s
**PVAQ Vaqueiros 49.47 56** *e*P **P 09 36 00.6 -0.9**
comp=Z,102nm,1.7s
PVAQ A A 09 56 16.8
comp=Z,1µm,16.0s
**214A Organ Pipe Nat 49.51 297** P **P 09 36 02.5 +0.5**
baz=93
**214A Organ Pipe Nat 49.51 297** *e*P **P 09 36 03.8 +1.8**
comp=Z,213nm,1.6s
**JLU Jordanelle 49.51 308** *e*P **P 09 36 03.4 +1.3**
comp=Z,68nm,1.4s
**GCMT Greycliff 49.53 315** *e*P **P 09 36 03.4 +1.3**
**MPU Maple Canyon 49.54 308** *e*P **P 09 36 03.7 +1.3**
comp=Z,23nm,1.2s
**LOHW Long Hollow 49.58 312** *e*P **P 09 36 03.2 +0.6**
comp=Z,10nm,0.6s
**TCUT Toone Canyon 49.59 309** *e*P **P 09 36 03.6 +0.9**
comp=Z,93nm,1.6s
**MTPU Mount Pierson 49.63 305** *e*P **P 09 36 04.8 +1.6**
comp=Z,32nm,1.0s
**SNOW Snow King Moun 49.65 312** *e*P **P 09 36 03.9 +0.7**
comp=Z,27nm,1.2s
**RTLL Cerro Villicun 49.67 190**‖ *e*P **P 09 36 02.5 -0.6**
**LKWY Lake 49.69 314** PFAKE 09 36 20.0 +17
LKWY LR LR
comp=Z,9µm,19.0s
**REDW Red Top Meadow 49.69 312** *e*P **P 09 36 04.3 +0.8**
comp=Z,34nm,1.3s
**MOOW Moose Ponds 49.71 313** *e*P **P 09 36 02.8 -0.8**
comp=Z,6.7nm,0.8s
**AHID Auburn Hatcher 49.73 311** *e*P **P 09 36 04.5 +0.8**
comp=Z,29nm,0.7s
AHID LR LR
comp=Z,3µm,19.0s
**CTU Camp Tracy 49.76 308** *e*P **P 09 36 05.3 +1.4**
comp=Z,38nm,1.3s
**H17A Grant Village 49.76 313** P **P 09 36 04.7 +0.7**
baz=105
**RTC Rabat Centre 49.78 60** PFAKE 09 36 20.0 +16
RTC LR LR
comp=Z,9µm,21.0s
**PESTR Estremoz 49.79 54** *e*P **P 09 36 04.8 +0.8**
comp=Z,84nm,1.6s
**TPAW Teton Pass 49.79 312** *e*P **P 09 36 05.2 +1.0**
comp=Z,11nm,0.7s
**NLU North Lily Min 49.86 307** *e*P **P 09 36 06.2 +1.4**
comp=Z,56nm,1.7s
**PGAV Gavieira, Arco 49.87 50** *e*P **P 09 36 04.7 0.0**
PGAV A A 09 56 32.5
comp=Z,1µm,16.0s
**FXWY Fox Creek 49.88 312** *e*P **P 09 36 05.6 +0.7**
comp=Z,23nm,0.4s
**PVIS Viseu 49.89 52** *e*P **P 09 36 04.7 -0.1**
**PCAB Cabril 49.99 50** *e*P **P 09 36 04.8 -0.7**
comp=Z,84nm,1.6s
**PMRV Marv??o 50.04 53** A A 09 51 45.6
comp=Z,1µm,20.0s
**YHH Holmes Hill 50.05 314** *e*P **P 09 36 07.6 +1.3**
comp=Z,16nm,1.0s
**MTE Manteigas 50.09 52** PFAKE 09 36 20.0 +14
MTE LR LR
comp=Z,2µm,20.0s
**MTE Manteigas 50.09 52** *e*P **P 09 36 05.9 -0.4**
comp=Z,62nm,1.4s
MTE A A 09 51 13.3
comp=Z,1µm,22.0s
**POLO Lamas de Olo 50.09 51** *e*P **P 09 36 07.1 +0.7**
comp=Z,43nm,1.4s
**YMR Madison River 50.10 314** *e*P **P 09 36 08.3 +1.7**
comp=Z,68nm,1.5s
**PBAR Barrancos 50.11 55** *e*P **P 09 36 06.7 +0.3**
comp=Z,128nm,1.6s
**PVRL Vila Real 50.13 51** *e*P **P 09 36 05.9 -0.7**
comp=Z,73nm,1.8s
**RTCV Cerro Valdivia 50.20 190**‖ *e*P **P 09 36 06.4 -0.7**
**RTLS Leoncito 50.26 190** *e*P **P 09 36 07.4 -0.5**
**SZCU Shurtz Canyon 50.27 304** *e*P **P 09 36 09.2 +1.2**
comp=Z,122nm,1.9s
**YHB Horse Butte 50.28 314** *e*P **P 09 36 05.5 -2.4**
comp=Z,75nm,1.2s
**EGMT Eagleton 50.28 318** P **P 09 36 08.6 +0.9**
baz=109,SNR=14
**EGMT Eagleton 50.28 318** *e*P **P 09 36 08.7 +0.9**
comp=Z,121nm,1.6s
EGMT LR LR
comp=Z,3µm,21.0s
**LCMT Little Creek M 50.32 303** *e*P **P 09 36 09.7 +1.5**
comp=Z,8.4nm,0.8s
**MRA San Martin 50.38 186**‖ *e*P **P 09 36 08.2 -0.3**
**ACAN Cantantal 50.41 188**‖ *e*P **P 09 36 07.8 -0.9**
**DUG Dugway, Tooele 50.46 308** P **P 09 36 10.2 +0.9**
baz=100,SNR=14
**DUG Dugway, Tooele 50.46 308** *e*P **P 09 36 10.8 +1.5**
DUG pmax pmax
comp=Z,46nm,1.2s
**DUG Dugway, Tooele 50.46 308** *e*P **P 09 36 10.8 +1.5**
comp=Z,46nm,1.3s
DUG LR LR
comp=Z,3µm,22.0s
**QLMT Earthquake Lak 50.46 314** *e*P **P 09 36 11.5 +2.2**
**CCUT Cedar City 50.48 304** *e*P **P 09 36 11.2 +1.7**
comp=Z,36nm,1.1s
**MVO Moncorvo 50.62 51** *e*P **P 09 36 10.6 +0.3**
comp=Z,84nm,1.6s
MVO A A 09 58 50.0
comp=Z,1µm,16.0s
**AUSP Uspallata 50.69 190**‖ *e*P **P 09 36 11.7 +0.6**
**PDMCI Parker Dam,Lak 50.78 300** P **P 09 36 12.4 +0.9**
baz=94
**BOZ Bozeman (W) 50.80 315** P **P 09 36 12.7 +1.0**
baz=105,SNR=15
**BOZ Bozeman (W) 50.80 315** *e*P **P 09 36 12.5 +0.8**
BOZ pmax pmax
comp=Z,24nm,1.1s
**BOZ Bozeman (W) 50.80 315** *e*P **P 09 36 12.5 +0.8**
comp=Z,24nm,1.1s
BOZ LR LR
comp=Z,4µm,19.0s
**Y12C Blythe 51.05 299** P **P 09 36 14.3 +0.7**
baz=94
**HRY Holter Researc 51.24 316** *e*P **P 09 36 16.0 +1.1**
**GLA Glamis 51.27 298** P **P 09 36 16.2 +0.9**
baz=93
**DLMT Dillon 51.40 314** *e*P **P 09 36 17.5 +1.3**
comp=Z,42nm,1.1s
**LRM Limekiln Ridge 51.41 315** *e*P **P 09 36 17.3 +0.8**
**MCMT McKenzie Canyo 51.44 313** *e*P **P 09 36 18.1 +1.5**
**VAL Valentia 51.55 37** *e*P **P 09 36 12.9 -4.1**
VAL *i* S **S 09 43 33.2 -3.5**
**ILULI Ilulissat 51.55 4** *i* P **P 09 36 16.7 0.0**
ILULI pmax pmax
comp=Z,53nm,0.9s
**ILULI Ilulissat 51.55 4** *i* P **P 09 36 16.7 0.0**
comp=Z,53nm,0.9s
**ILULI Ilulissat 51.55 4** *e*P **P 09 36 16.7 0.0**
comp=Z,63nm,0.9s
**MDT Midelt 51.57 62** P **P 09 36 16.8 -0.9**
comp=Z,12nm,0.8s,baz=277,slow=7.7,SNR=12
**IRM Iron Mountain 51.60 300** P **P 09 36 18.5 +0.7**
baz=94,SNR=12
**H10N3 ASCENSION HYDR 51.63 116** T T 10 32 42.6
baz=301
**LDFC Landfair 51.63 301** *e*P **P 09 36 20.4 +2.3**
comp=Z,28nm,1.2s
**H10N2 ASCENSION HYDR 51.64 116** T T 10 32 46.6
baz=301
**H10N1 ASCENSION HYDR 51.65 116** T T 10 32 38.4
baz=301
**ROC1 El Roble 51.73 192** *e*P **P 09 36 19.1 +0.3**
comp=Z,28nm,1.0s
**ROC1 El Roble 51.73 192**‖ *e*P **P 09 36 18.8 0.0**
**SHPR Sheep Range 51.79 303** *e*P **P 09 36 21.1 +1.8**
comp=Z,21nm,1.4s
**ASCN Ascension 51.80 116** PFAKE 09 36 30.0 +11
ASCN LR LR
comp=Z,2µm,21.0s
**BC3 Big Chuckawall 51.82 299** P **P 09 36 19.8 +0.3**
baz=93
**PEL Peldehue 51.83 192** *e*P **P 09 36 19.7 +0.4**
PEL pmax pmax
comp=Z,38nm,1.1s
**PEL Peldehue 51.83 192** *e*P **P 09 36 19.7 +0.4**
comp=Z,38nm,1.1s
**H10S3 ASCENSION HYDR 52.06 117** T T 10 33 07.6
baz=300,slow=74
**GMRC Granite Mounta 52.06 300** P **P 09 36 22.2 +0.8**
baz=94
**H10S1 ASCENSION HYDR 52.06 117** T T 10 33 10.4
baz=300,slow=74
**H10S2 ASCENSION HYDR 52.07 117** T T 10 33 10.0
baz=300
**SWSC Sam W. Stewart 52.08 298** P **P 09 36 22.2 +0.9**
baz=92
**HLID Hailey 52.27 312** P **P 09 36 23.6 +0.8**
baz=101,SNR=18
**HLID Hailey 52.27 312** *e*P **P 09 36 23.5 +0.8**
comp=Z,22nm,1.4s
HLID LR LR
comp=Z,2µm,20.0s
**BELC Belle Mtn. Jos 52.29 299** P **P 09 36 23.8 +0.7**
baz=93
**R11A Troy Canyon, C 52.32 305** P **P 09 36 24.0 +0.7**
baz=96,SNR=19
**R11A Troy Canyon, C 52.32 305** *e*P **P 09 36 24.4 +1.2**
comp=Z,39nm,1.5s
R11A *e*PcP **PcP 09 37 35.6 +1.2**
**IKP In-Ko-Pah, Jac 52.33 298** P **P 09 36 23.6 +0.4**
baz=92
**PAB San Pablo 52.38 54** *e*P **P 09 36 23.1 -0.5**
PAB pmax pmax
comp=Z,36nm,1.6s
PAB MLR MLR
comp=Z,1µm,19.0s
**PAB San Pablo 52.38 54** *e*P **P 09 36 23.1 -0.5**
comp=Z,36nm,1.6s
PAB LR LR
comp=Z,1µm,19.0s
**MONP2 Monument Peak 52.60 298** P **P 09 36 25.6 +0.2**
baz=92
**HEC Hector,Ludlow 52.62 300** P **P 09 36 26.3 +0.9**
baz=93
**TPFO Pinon Flats 52.66 299** P **P 09 36 26.5 +0.8**
baz=92
**PFO Pinyon Flats O 52.66 299** P **P 09 36 26.2 +0.5**
baz=92
**PFO Pinyon Flats O 52.66 299** *e*P **P 09 36 27.2 +1.4**
PFO pmax pmax
comp=Z,32nm,1.8s
PFO MLR MLR
comp=Z,1µm,19.0s
**PFO Pinyon Flats O 52.66 299** *e*P **P 09 36 27.2 +1.4**
comp=Z,32nm,1.8s
PFO LR LR
comp=Z,1µm,19.0s
**MSO Missoula 52.67 316** P **P 09 36 26.2 +0.6**
baz=104,SNR=6.5
**MSO Missoula 52.67 316** *e*P **P 09 36 26.1 +0.5**
comp=Z,22nm,1.0s
**ESDC Sonseca Array 52.69 54** P **P 09 36 25.6 -0.2**
comp=Z,5.0nm,0.8s,baz=257,slow=7.8,SNR=23
ESDC PcP **PcP 09 37 35.5 -0.1**
comp=Z,2.5nm,0.8s,baz=263,slow=2.9,SNR=4.1
ESDC LR LR 09 53 55.6
comp=Z,664nm,21.4s,baz=270,slow=30
**ES19 SONSECA Array 52.75 53** *e*P **P 09 36 24.9 -1.3**
**GSC Goldstone, Bar 53.03 301** P **P 09 36 28.9 +0.5**
baz=93
**GSC Goldstone, Bar 53.03 301** *e*P **P 09 36 29.5 +1.0**
GSC pmax pmax
comp=Z,44nm,1.6s
**GSC Goldstone, Bar 53.03 301** *e*P **P 09 36 29.5 +1.0**
comp=Z,44nm,1.6s
**BBRC Big Bear Solar 53.07 300** P **P 09 36 29.1 +0.2**
baz=93
**JTMT Jette 53.12 317** *e*P **P 09 36 29.8 +0.9**
comp=Z,223nm,1.9s
**RRX Edison Barstow 53.16 300** P **P 09 36 29.8 +0.5**
baz=93
**109C Camp Elliot, M 53.17 298** P **P 09 36 30.3 +0.9**
baz=92
**WALA Waterton Lakes 53.23 318** *e*P **P 09 36 32.3 +2.6**
comp=Z,86nm,1.8s
**MFID Camas Ranch 53.25 311** *e*P **P 09 36 30.9 +1.0**
comp=Z,24nm,1.4s
**MURC Murrieta 53.27 299** P **P 09 36 30.4 +0.2**
baz=92
**GRAC Grapevine Rang 53.60 303** P **P 09 36 33.4 +0.8**
baz=94
**KOWA Kowa 53.62 85** *e*P **P 09 36 31.9 -1.0**
comp=Z,62nm,0.8s
**MPMC Manual Prospec 53.63 302** P **P 09 36 33.6 +0.6**
baz=94
**BFSC Mount Baldy Ra 53.68 300** P **P 09 36 33.7 +0.4**
baz=92
**GO05 HualaæØ 53.88 192** *e*P **P 09 36 34.8 +0.4**
comp=Z,94nm,1.1s
**GO05 HualaæØ 53.88 192**‖ *e*P **P 09 36 32.3 -2.1**
**EDW2 Edwards Air Fo 53.98 300** P **P 09 36 36.3 +0.9**
baz=92,SNR=8.9
**MWC Mount Wilson 54.01 300** *e*P **P 09 36 39.5 +3.7**
MWC pmax pmax
comp=Z,25nm,1.2s
**MWC Mount Wilson 54.01 300** *e*P **P 09 36 39.5 +3.7**
comp=Z,25nm,1.3s
**CWC Cottonwood Cre 54.13 302** P **P 09 36 37.3 +0.7**
baz=94
**DECC Green Verdugo 54.24 300** P **P 09 36 37.8 +0.6**
baz=92
**ISA Isabella, Lake 54.41 301** P **P 09 36 39.1 +0.6**
baz=93
**ISA Isabella, Lake 54.41 301** *e*P **P 09 36 40.5 +1.9**
ISA pmax pmax
comp=Z,25nm,1.4s
**ISA Isabella, Lake 54.41 301** *e*P **P 09 36 40.5 +1.9**
comp=Z,25nm,1.4s
**BMO Blue Mountains 54.55 313** *e*P **P 09 36 39.2 -0.2**
BMO pmax pmax
comp=Z,17nm,1.1s
**BMO Blue Mountains 54.55 313** *e*P **P 09 36 39.2 -0.2**
comp=Z,17nm,1.1s
BMO LR LR
comp=Z,4µm,20.0s
**TIC Toumodi 54.61 95** *e*P **P 09 36 38.8 -1.4**
**ARVC Arvin 54.68 301** P **P 09 36 40.6 +0.2**
baz=92
**F10A Beach Ranch, E 54.70 314** *e*P **P 09 36 40.3 -0.2**
comp=Z,18nm,0.9s
**LIC Lamto 54.73 95** *e*P **P 09 36 39.8 -1.2**
comp=Z,120nm,0.6s
**DBIC Dimbokro 54.76 95** P **P 09 36 40.2 -1.0**
comp=Z,63nm,0.7s,baz=273,slow=7.7,SNR=61
DBIC LR LR 09 58 49.8
comp=Z,873nm,18.2s,baz=260,slow=35
**DBIC Dimbokro 54.76 95** *e*P **P 09 36 40.2 -1.0**
DBIC pmax pmax
comp=Z,81nm,0.9s
**DBIC Dimbokro 54.76 95** *e*P **P 09 36 40.2 -1.0**
comp=Z,81nm,0.8s
**MLAC Mammoth, Mammo 54.82 304** P **P 09 36 42.2 +0.5**
baz=94
**VES Vestal, Richgr 54.92 301** P **P 09 36 42.9 +0.8**
baz=92
**KIC Kosan Boka 54.96 95** *e*P **P 09 36 41.5 -1.2**
comp=Z,80nm,0.6s
**RCTC Rector, Farmer 55.07 302** P **P 09 36 43.7 +0.5**
baz=93,SNR=8.1
**NEW Newport 55.10 317** P **P 09 36 43.2 -0.1**
comp=Z,8.9nm,0.8s,baz=101,slow=6.6,SNR=23
**NEW Newport 55.10 317** P **P 09 36 43.6 +0.3**
baz=102,SNR=22
**NEW Newport 55.10 317** *e*P **P 09 36 42.5 -0.8**
NEW pmax pmax
comp=Z,46nm,1.1s
**NEW Newport 55.10 317** *e*P **P 09 36 42.5 -0.8**
comp=Z,46nm,1.1s
NEW LR LR
comp=Z,2µm,19.0s
**WVOR Wild Horse Val 55.14 310** *e*P **P 09 36 44.5 +0.7**
WVOR pmax pmax
comp=Z,24nm,1.4s
**WVOR Wild Horse Val 55.14 310** *e*P **P 09 36 44.5 +0.7**
comp=Z,24nm,1.4s
WVOR LR LR
comp=Z,2µm,20.0s
**J08A Circle Bar Ran 55.14 311** *e*P **P 09 36 44.4 +0.6**
comp=Z,50nm,1.7s
**YERR Yerington 55.23 305** *e*P **P 09 36 46.1 +1.5**
comp=Z,18nm,1.0s
**WAKR Walker 55.35 305** *e*P **P 09 36 47.3 +1.9**
comp=Z,96nm,1.6s
**E09A Wood Farm, Sta 55.43 315** *e*P **P 09 36 46.0 +0.4**
comp=Z,107nm,1.9s
**PKM Mcpherson Peak 55.48 300** P **P 09 36 47.0 +0.5**
baz=91
**SMMC Simmler 55.64 301** P **P 09 36 48.0 +0.6**
baz=92,SNR=5.6
**TRQA Tornquist 55.73 182** *e*P **P 09 36 47.9 +0.1**
comp=Z,23nm,0.9s
TRQA LR LR
comp=Z,2µm,20.0s

**C09A Chrisman Ranch** 55.76 316 *e*P P 09 36 48.9 +0.9
comp=Z,101nm,1.8s
**G08A Pilot Rock** 55.78 313 *e*P P 09 36 48.8 +0.5
comp=Z,22nm,1.2s
**I07A Izee** 55.98 311 *e*P P 09 36 50.2 +0.4
comp=Z,13nm,0.9s
**SUMG Summit** 56.03 8 *e*P P 09 36 49.2 -0.7
SUMG pmax pmax
comp=Z,86nm,1.3s
**SUMG Summit** 56.03 8 *i* P P 09 36 49.3 -0.7
comp=Z,112nm,1.4s
**SUMG Summit** 56.03 8 *e*P P 09 36 49.2 -0.7
comp=Z,86nm,1.3s
**E08A Dider Farm, El** 56.04 314 *e*P P 09 36 50.0 -0.1
comp=Z,37nm,1.5s
**D08A Wollman Farm,** 56.05 315 *e*P P 09 36 50.7 +0.6
comp=Z,89nm,1.6s
**CMB Columbia Colle** 56.07 304 *e*P P 09 36 54.3 +3.9
CMB pmax pmax
comp=Z,35nm,1.6s
**CMB Columbia Colle** 56.07 304 *e*P P 09 36 54.3 +3.9
comp=Z,35nm,1.6s
**BEKR Beckworth** 56.17 306 *e*P P 09 36 52.2 +0.9
comp=Z,19nm,1.1s
**HAWA Hanford** 56.35 314 *e*P P 09 36 52.4 +0.2
comp=Z,89nm,1.8s
HAWA LR LR
comp=Z,3µm,20.0s
**F07A Phinny Hill Vi** 56.54 314 *e*P P 09 36 54.1 +0.5
comp=Z,17nm,1.1s
**B08A Colville Reser** 56.56 317 *e*P P 09 36 55.2 +1.4
comp=Z,69nm,1.9s
**AFDM Forest Hills D** 56.58 305 *e*P P 09 36 55.6 +1.5
comp=Z,37nm,1.5s
**E07A Sunnyside** 56.60 314 *e*P P 09 36 54.5 +0.5
comp=Z,144nm,1.9s
**G06A Carlson Farm,** 56.94 313 *e*P P 09 36 58.1 +1.6
comp=Z,161nm,1.8s
**CWF Charnwood Fore** 57.00 38 *e*P P 09 36 58.2 +1.5
comp=Z,104nm,1.5s
**ORV Oroville** 57.02 306 *e*P P 09 36 57.7 +0.6
ORV pmax pmax
comp=Z,41nm,1.2s
**ORV Oroville** 57.02 306 *e*P P 09 36 57.7 +0.6
comp=Z,41nm,1.2s
**J05D Fort Rock, OR** 57.13 310 P P 09 36 58.5 +0.5
baz=96
**LTY Liberty** 57.26 315 *e*P P 09 36 59.3 +0.5
comp=Z,142nm,1.8s
**SCO Scoresbysund** 57.28 14 *i* P P 09 36 57.1 -1.3
SCO pmax pmax
comp=Z,46nm,1.3s
**SCO Scoresbysund** 57.28 14 *i* P P 09 36 57.1 -1.3
comp=Z,46nm,1.3s
**O03D Paynes Creek** 57.30 307 P P 09 36 59.2 0.0
baz=94
**I05D Terrebonne, OR** 57.33 312 P P 09 36 59.9 +0.6
baz=97
**G05D Wamic, OR** 57.42 313 P P 09 37 00.7 +0.8
baz=97
**M04C Macdoel** 57.44 308 P P 09 37 01.0 +0.8
baz=95,SNR=7.6
**C06D Leavenworth** 57.52 316 P P 09 37 01.3 +0.8
baz=99
**J04D Umpqua Nationa** 57.77 310 P P 09 37 03.3 +0.7
baz=95
**H04A Detroit Lake** 57.97 312 *e*P P 09 37 04.7 +0.9
comp=Z,27nm,0.9s
**I04A Tendick Farm,** 58.04 311 P P 09 37 04.9 +0.7
baz=95
**YBH Yreka Blue Hor** 58.08 308 P P 09 37 03.5 -1.2
comp=Z,6.8nm,1.1s,baz=131,slow=4.8,SNR=7.9
**YBH Yreka Blue Hor** 58.08 308 *e*P P 09 37 04.2 -0.5
comp=Z,21nm,1.4s
**M02C Callahan** 58.17 308 P P 09 37 05.3 0.0
baz=94
**YKA Yellowknife Ar** 58.23 334 P P 09 37 04.2 -0.9
comp=Z,31nm,0.9s,baz=108,slow=7.3,SNR=117
YKA LR LR 10 00 01.4
comp=Z,276nm,21.4s,baz=180,slow=34
YKA PKP2bc 10 06 54.0
comp=Z,0.8nm,0.9s,baz=315,slow=2.4,SNR=4.7
**LLLB Lilooet** 58.60 319 *e*P P 09 37 08.2 +0.1
**G03D McMinnville, O** 58.78 312 P P 09 37 10.1 +0.8
baz=96
**TULEG Thule** 58.81 358 *e*P P 09 37 08.4 -0.6
**PLCA Paso Flores** 59.20 189 P P 09 37 12.8 +0.5
comp=Z,63nm,1.0s,baz=29,slow=7.7,SNR=71
PLCA LR LR 10 07 25.7
comp=Z,867nm,18.3s,baz=32,slow=41
**PLCA Paso Flores** 59.20 189 *e*P P 09 37 12.8 +0.5
PLCA pmax pmax
comp=Z,61nm,0.9s
**PLCA Paso Flores** 59.20 189 *e*P P 09 37 12.8 +0.5
comp=Z,61nm,0.8s
**TOA0 Torodi Ar. Sit** 59.32 85 *e*P P 09 37 12.0 -1.6
**TORD Torodi Ar. Bea** 59.32 85 P P 09 37 12.0 -1.6
comp=Z,37nm,0.8s,baz=290,slow=5.7,SNR=86
TORD LR LR 10 00 13.8
comp=Z,2µm,18.4s,baz=260,slow=34
**SSB Saint Sauveur** 59.56 48 PFAKE 09 37 30.0 +15
SSB LR LR
comp=Z,2µm,21.0s
**RES Resolute Bay** 59.84 350 P P 09 37 15.1 -1.1
comp=Z,3.2nm,0.6s,baz=163,slow=7.4,SNR=11
**DOU Dourbes** 60.13 42 P P 09 37 18.5 0.0
**THEF They Montfort** 60.82 44 *e*P P 09 37 23.1 -0.3
**BNI Bardonecchia** 61.05 48 *e*P P 09 37 27.6 +2.5
BNI pmax pmax
comp=Z,69nm,1.5s
**BNI Bardonecchia** 61.05 48 *e*P P 09 37 27.6 +2.5
comp=Z,69nm,1.5s
BNI LR LR
comp=Z,2µm,20.0s
**WLF Walferdange** 61.08 43 P P 09 37 25.2 +0.2
comp=Z,43nm,2.1s
**WLF Walferdange** 61.08 43 *e*P P 09 37 27.2 +2.1
WLF pmax pmax
comp=Z,59nm,1.4s
**WLF Walferdange** 61.08 43 *e*P P 09 37 27.1 +2.1
comp=Z,59nm,1.4s
WLF LR LR
comp=Z,1µm,21.0s
**MEM Membach** 61.09 42 P P 09 37 25.2 +0.1
comp=Z,21nm,1.2s
**TAM Tamanrasset** 61.11 73 *e*P P 09 37 26.3 +0.4
TAM pmax pmax
comp=Z,26nm,1.1s
TAM MLR MLR
comp=Z,1µm,22.0s
**TAM Tamanrasset** 61.11 73 *e*P P 09 37 26.2 +0.4
comp=Z,26nm,1.1s
TAM LR LR
comp=Z,1µm,22.0s
**MOF Molkenrain** 61.55 45 *e*P P 09 37 27.4 -1.0
**SENIN Lac Senin/Sane** 61.56 47 *e*P P 09 37 29.5 +0.8
**ECH Echery** 61.60 44 *e*P P 09 37 28.3 -0.4
**ECH Echery** 61.60 44 *e*P P 09 37 28.1 -0.5
**ECH Echery** 61.60 44 *e*P P 09 37 28.1 -0.5
**LANF Langenberg** 62.09 44 *e*P P 09 37 30.9 -1.0
**BFO Black Forest** 62.39 44 PFAKE 09 37 50.0 +16
BFO LR LR
comp=Z,842nm,20.0s
**DAG Danmarks Havn** 62.44 10 *i* P P 09 37 33.3 -0.5
DAG pmax pmax
comp=Z,39nm,1.0s
DAG MLR MLR
comp=Z,3µm,20.0s
**DAG Danmarks Havn** 62.44 10 *i* P P 09 37 33.3 -0.5
comp=Z,39nm,1.0s
comp=Z,3µm,20.0s
**VSL Villasalto** 62.97 54 *e*P P 09 37 38.6 +0.6
comp=Z,98nm,1.7s
VSL LR LR
comp=Z,863nm,19.0s
**TUE Stuetta** 62.98 47 *e*P P 09 37 38.0 -0.2
TUE LR LR
comp=Z,2µm,21.0s
**SHEL Horse Pasture** 63.09 119 *i* P P 09 37 40.7 +1.6
**KEST Kesra** 63.11 59 P P 09 37 38.8 -0.3
comp=Z,18nm,0.9s,baz=185,slow=2.6,SNR=13
KEST LR LR 10 02 26.3
comp=Z,250nm,18.7s,baz=234,slow=34
**KEST Kesra** 63.11 59 *e*P P 09 37 39.1 0.0
comp=Z,98nm,1.6s
**DAVA Damuels** 63.38 46 *e*pP P 09 37 41.5 +0.8
comp=Z,30nm,0.8s,SNR=10

**FUORN Ofenpass-Fuorn** 63.62 46 *e*P P 09 37 42.4 0.0
**VLC Villacollemand** 63.67 49 PFAKE 09 37 50.0 +7.4
VLC LR LR
comp=Z,1µm,21.0s
**FETA Feichten** 63.95 46 *e*P P 09 37 44.9 +0.4
comp=Z,27nm,0.9s,SNR=10
**RETA Reutte** 63.98 45 *e*P P 09 37 43.5 -1.1
comp=Z,21nm,1.0s,SNR=8.5
**MOTA Moosalm** 64.21 46 *e*P P 09 37 45.5 -0.7
comp=Z,11nm,0.8s,SNR=6.9
**KONO Kongsberg** 64.35 32⇑ *e*P P 09 37 46.9 +0.2
KONO pmax pmax
comp=Z,14nm,0.7s
**ABTA Abfaltersbach** 65.17 46 *e*P P 09 37 51.5 -0.9
comp=Z,18nm,0.8s,SNR=7.6
**NKC Novy Kostel** 65.17 42 *e*P P 09 37 52.6 +0.3
NKC *ex* x 09 38 06.1
**NKC Novy Kostel** 65.17 42 *e*P P 09 37 52.6 +0.3
**NB2 NORSAR Subarra** 65.34 30 P P 09 37 53.8 +0.6
comp=Z,27nm,1.0s,baz=262,slow=6.5
**NB2 NORSAR Subarra** 65.34 30 P P 09 37 53.8 +0.6
baz=262,slow=6.5
**NOA NORSAR Array B** 65.34 30 P P 09 37 53.3 +0.1
comp=Z,11nm,0.8s,baz=262,slow=6.3,SNR=24
NOA LR LR 10 00 45.3
comp=Z,914nm,21.6s,baz=260,slow=31
**WRAK Wrangell Islan** 65.54 324 PFAKE 09 38 10.0 +16
WRAK LR LR
comp=Z,3µm,19.0s
**CLL Collm** 65.55 41⇓ *i*P P 09 37 53.7 -0.9
CLL *eS* S 09 46 46.0 +6.9
CLL pmax pmax
comp=Z,28nm,1.1s
**CLL Collm** 65.55 41⇓ *i*P P 09 37 53.7 -0.9
comp=Z,28nm,1.1s
CLL *e* 09 38 05.0
CLL *eS* S 09 46 46.0 +6.9
CLL *e*PPS PPS 09 47 11.0
CLL *eSS* SS 09 50 54.0 +1.3
CLL *eSSS* SSS 09 53 54.0
**CLL Collm** 65.55 41 *e*P P 09 37 53.8 -0.9
**KBA Koelnbreinsper** 65.74 46 *i* P P 09 37 55.7 -0.5
comp=Z,22nm,1.4s,SNR=6.7
**KHC Kasperske Hory** 65.89 44 *e*P P 09 37 55.3 -1.7
KHC *ex* x 09 38 06.0
**KHC Kasperske Hory** 65.89 44 *e*P P 09 37 55.3 -1.7
**KHC Kasperske Hory** 65.89 44 *e*P P 09 37 57.1 +0.1
**AQU L'Aquila** 65.91 51 P P 09 37 58.1 +0.8
AQU MLR MLR
comp=Z,1µm,20.0s
**AQU L'Aquila** 65.91 51 P P 09 37 58.0 +0.8
AQU LR LR
comp=Z,1µm,20.0s
**MYKA Terra Mystica** 65.95 46 *i* P P 09 37 57.4 -0.1
comp=Z,17nm,0.9s,SNR=6.5
**GEC2 GERESS Array S** 65.97 44 *e*P P 09 37 57.5 -0.1
**GEC2 GERESS Array S** 65.97 44 *e*P P 09 37 57.5 -0.1
**GERES GERESS Array S** 65.97 44 P P 09 37 56.7 -0.9
comp=Z,5.7nm,0.8s,baz=264,slow=5.2,SNR=26
GERES LR LR 10 03 17.5
comp=Z,312nm,18.1s,baz=270,slow=33
**GEA0 GERESS Array S** 65.97 44 *e*P P 09 37 56.1 -1.4
**CADS Cadrg** 66.02 47 *i* P P 09 37 57.4 -0.5
**CLTB Caltabellotta** 66.08 56 PFAKE 09 38 10.0 +12
CLTB LR LR
comp=Z,749nm,19.0s
**BRG Berggiesshubel** 66.14 42 *e*P P 09 37 57.6 -0.9
comp=Z,24nm,1.0s
BRG *e* 09 38 08.6
comp=Z,15nm,0.9s
**BRG Berggiesshubel** 66.14 42 *e*P P 09 37 57.6 -0.9
BRG pmax pmax
comp=Z,25nm,1.0s
BRG pmax pmax
comp=Z,15nm,0.9s
**MOA Mon** 66.35 45 *e*P P 09 37 59.4 -0.6
comp=Z,18nm,1.3s
**CEY Cerknica** 66.52 47 *e*P P 09 38 00.6 -0.4
**PRU Pruhonice** 66.52 43 *e*P P 09 38 00.4 -0.5
PRU *ex* x 09 38 11.6
PRU *eS* S 09 46 53.0 +2.1
PRU AMS AMS 10 10 30.0
comp=Z,2µm,19.6s
**PRU Pruhonice** 66.52 43 *e*P P 09 38 00.4 -0.5
PRU *eS* S 09 46 53.0 +2.1
PRU MLR MLR
comp=Z,2µm,19.6s
**PVCC Panska Ves** 66.53 42 *e*P P 09 38 01.1 +0.1
**PVCC Panska Ves** 66.53 42 *e*P P 09 38 01.1 +0.1
**LJU Ljubljana** 66.58 47 *i* P P 09 38 01.5 +0.1
**OBKA Obir** 66.58 46 *i* P P 09 38 01.2 -0.3
comp=Z,30nm,0.9s,SNR=8.5
**GOPC GO Pecny, Ondr** 66.67 43 *e*P P 09 38 01.8 -0.2
GOPC *ex* x 09 38 15.1
GOPC *eS* S 09 46 55.6 +2.7
GOPC AMS AMS 10 06 40.0
comp=Z,1µm,17.3s
**GOPC GO Pecny, Ondr** 66.67 43 *e*P P 09 38 01.8 -0.2
GOPC *eS* S 09 46 55.6 +2.7
GOPC MLR MLR
comp=Z,1µm,17.3s
**SOKA Soboth** 66.90 46 *i* P P 09 38 02.7 -0.9
comp=Z,37nm,2.3s,SNR=6.0
**TREC Trest** 67.14 43 *e*P P 09 38 04.9 0.0
**TREC Trest** 67.14 43 *e*P P 09 38 04.9 0.0
**ARSA Arzberg** 67.22 46 *e*P P 09 38 04.9 -0.6
comp=Z,31nm,1.6s,SNR=8.4
**WDD Wied Dalam** 67.29 58 PFAKE 09 38 20.0 +14
WDD LR LR
comp=Z,826nm,19.0s
**INK Inuvik** 67.42 337 P P 09 38 04.7 -1.6
comp=Z,82nm,1.1s,baz=80,slow=6.6,SNR=16
**CONA Conrad Observa** 67.42 45 *e*P P 09 38 06.0 -0.9
comp=Z,17nm,1.3s,SNR=6.9
**UPC Upice** 67.45 42 *e*P P 09 38 05.8 -1.1
UPC *eS* S 09 47 08.9 +6.7
**UPC Upice** 67.45 42 *e*P P 09 38 05.8 -1.1
UPC *eS* S 09 47 08.9 +6.7
**KSP Ksiaz** 67.63 42 *e*P P 09 38 07.5 -0.5
**KSP Ksiaz** 67.63 42 *e*P P 09 38 07.5 -0.5
**DPC Dobruska-Polom** 67.66 42 *e*P P 09 38 07.4 -0.8
DPC *ex* x 09 38 19.4
**DPC Dobruska-Polom** 67.66 42 *e*P P 09 38 07.4 -0.8
**VRAC Vranov** 67.86 43 ⇑ *i*P P 09 38 09.7 +0.2
**VRAC Vranov** 67.86 43 ⇑ *i*P P 09 38 09.7 +0.2
**CUC Castrocucco** 67.90 53 *e*P P 09 38 09.9 -0.1
CUC LR LR
comp=Z,792nm,19.0s
**KRLC Kraliky** 67.96 43 *e*P P 09 38 09.8 -0.3
KRLC *ex* x 09 38 23.7
**KRLC Kraliky** 67.96 43 *e*P P 09 38 09.8 -0.3
**CEL Celeste** 68.13 55 PFAKE 09 38 20.0 +8.6
CEL LR LR
comp=Z,820nm,21.0s
**MODS Modra-Piesok** 68.35 44 *e*P P 09 38 11.9 -0.7
**MODS Modra-Piesok** 68.35 44 *e*P P 09 38 11.9 -0.7
MODS *e* 09 38 24.6
**OKC Ostrava-Krasne** 68.85 43 *e*P P 09 38 15.2 -0.4
**OKC Ostrava-Krasne** 68.85 43 *e*P P 09 38 15.2 -0.4
**KBS Kingsbay** 69.05 11⇑ *e*P P 09 38 17.4 +1.0
**KBS Kingsbay** 69.05 11 PFAKE 09 38 30.0 +14
KBS LR LR
comp=Z,1µm,19.0s
**EFI East Falkland** 69.33 179 *d i*P P 09 38 18.9 +0.6
EFI pmax pmax
comp=Z,68nm,0.9s
**EFI East Falkland** 69.33 179 *e*P P 09 38 19.1 +0.8
EFI LR LR
comp=Z,1µm,21.0s
**VYHS Vyhne** 69.38 44 *e*P P 09 38 18.4 -0.6
VYHS pmax pmax
comp=Z,59nm,2.4s
**VYHS Vyhne** 69.38 44 *e*P P 09 38 18.4 -0.6
**GO09 Cerro Castillo** 69.76 188 *e*P P 09 38 22.2 +1.1
**PSZ Piszkesteto** 70.13 45 ⇑ *i*P P 09 38 24.1 +0.4
**PSZ Piszkesteto** 70.13 45 ⇑ P P 09 38 24.1 +0.4
**PSZ Piszkesteto** 70.13 45 *e*P P 09 38 24.3 +0.6
PSZ LR LR
comp=Z,827nm,20.0s
**EGAK Eagle** 70.21 333 PFAKE 09 38 40.0 +16
EGAK LR LR
comp=Z,2µm,22.0s
**PDG Podgorica** 70.23 51 ⇑ *i*P P 09 38 25.3 +1.0
**KECS Kecovo** 70.48 44 *e*P P 09 38 25.5 -0.2

KECS pmax pmax
comp=Z,5.0nm,1.2s
**KECS Kecovo** 70.48 44 *e*P P 09 38 25.5 -0.2
**TRIS Tristan da Cun** 70.74 141 PFAKE 09 38 40.0 +13
TRIS LR LR
comp=Z,803nm,19.0s
**TIR Tirane** 70.81 52 PFAKE 09 38 40.0 +12
TIR LR LR
comp=Z,881nm,22.0s
**CRVS Cervenica-Dubn** 71.08 44 *e*P P 09 38 29.9 +0.5
**CRVS Cervenica-Dubn** 71.08 44 *e*P P 09 38 29.9 +0.5
**SIRR Siria** 71.50 46 ⇑ *i*P P 09 38 32.7 +0.7
**OHR Ohrid** 71.54 52 *e*P P 09 38 33.5 +1.1
**BZS Buzias** 71.55 47 ⇓ *i*P P 09 38 33.0 +0.7
**BZS Buzias** 71.55 47 ⇓ P P 09 38 33.0 +0.7
**UZH Uzhgorod** 71.66 44 ⇓ *e*P P 09 38 32.5 -0.3
UZH *i* 09 38 40.1
**MDVR Moldovita** 71.72 48 ⇓ *i*P P 09 38 33.8 +0.4
**ARCES ARCESS Array B** 71.74 22 P P 09 38 32.5 -0.5
comp=Z,22nm,0.9s,baz=268,slow=4.4,SNR=17
ARCES LR LR 10 02 53.4
comp=Z,524nm,21.5s,baz=265,slow=30
**ARCES ARCESS Array B** 71.74 22 *e*P P 09 38 32.7 -0.3
**KWP Kalwaria Pacla** 71.81 43 *e*P P 09 38 35.3 +1.5
**KWP Kalwaria Pacla** 71.81 43 *e*P P 09 38 35.3 +1.5
**KRUS Krusevo** 71.84 52 *e*P P 09 38 34.5 +0.2
**SKO Skopje** 71.90 51 *e*P P 09 38 34.6 +0.1
**BIA Bitola** 71.95 52 *e*P P 09 38 36.2 +1.4
**DRGR** 72.16 46 ⇑ *i*P P 09 38 35.5 -0.5
**DRGR** 72.16 46 ⇑ P P 09 38 35.5 -0.5
**HERR Herculane** 72.20 48 ⇓ *i*P P 09 38 36.1 -0.1
**DEV Deva** 72.41 47 ⇓ *i*P P 09 38 38.8 +1.4
**DEV Deva** 72.41 47 ⇓ P P 09 38 38.8 +1.4
**FINES FINESS Array B** 72.52 30 P P 09 38 37.0 -0.7
comp=Z,7.6nm,0.5s,baz=274,slow=4.4,SNR=32
FINES LR LR 10 05 59.1
comp=Z,535nm,20.3s,baz=279,slow=32
**FIA1 FINESS Array S** 72.52 30 *e*P P 09 38 38.1 +0.4
**LVV L'vov** 72.64 42 *e*P P 09 38 39.1 +0.3
**ILAR Eielson Array** 72.66 333 LR LR 10 09 09.7
comp=Z,2µm,21.5s,baz=88,slow=35
**DRO Drossia** 72.71 55 P P 09 38 39.5 +0.1
**GRG Griva** 72.76 52 P P 09 38 38.9 -0.8
**GRG Griva** 72.76 52 P P 09 38 38.9 -0.8
**GRG Griva** 72.76 52 P P 09 38 38.9 -0.8
**CJR Cluj-Napoca** 72.77 46 ⇓ *i*P P 09 38 38.3 -1.3
**CJR Cluj-Napoca** 72.77 46 ⇓ P P 09 38 38.3 -1.3
**ANX Ano Chora** 72.77 54 P P 09 38 40.0 +0.1
**VAY Valandovo** 72.83 51 *e*P P 09 38 40.1 +0.1
**PYL PYLOS** 72.92 56 P P 09 38 39.8 -0.8
**PYL PYLOS** 72.92 56 P P 09 38 39.8 -0.8
**AGG Agios Georgios** 73.02 54 *e*P P 09 38 41.6 +0.3
**AGG Agios Georgios** 73.02 54 *e*P P 09 38 41.5 +0.3
**AGG Agios Georgios** 73.02 54 P P 09 38 39.4 -1.8
**COLA College** 73.06 334 ⇑ *e*P P 09 38 41.1 +0.2
COLA pmax pmax
comp=Z,85nm,1.1s
**COLA College** 73.06 334 PFAKE 09 38 50.0 +9.1
COLA LR LR
comp=Z,2µm,19.0s
**LOT Lotru** 73.07 47 ⇑ *i*P P 09 38 41.8 +0.3
**VTS Vitosha** 73.10 50 ⇓ *i*P P 09 38 42.0 +0.2
**VTS Vitosha** 73.10 50 ⇓ P P 09 38 42.0 +0.2
**VTS Vitosha** 73.10 50 *e*P P 09 38 41.5 -0.3
**VTS Vitosha** 73.10 50 *e*P P 09 38 41.5 -0.3
**KKB Krupnik** 73.13 51 *e*P P 09 38 42.5 +0.7
**VSU Vasula** 73.16 33 *d i*P P 09 38 41.4 -0.2
VSU pmax pmax
comp=Z,154nm,1.2s
**ARCR ARCALIA** 73.23 45 ⇑ *i*P P 09 38 43.1 +0.8
**ARR Arges** 73.69 47 ⇑ *i*P P 09 38 44.6 -0.5
**BUR08 Bucovina Ar. S** 73.72 45 *e*P P 09 38 45.5 +0.2
**BUR04 Bucovina Ar. S** 73.73 45 *e*P P 09 38 45.2 -0.2
**BURAR Bucovina Array** 73.73 45 ⇑ *i*P P 09 38 45.5 +0.1
**BURAR Bucovina Array** 73.73 45 ⇑ P P 09 38 45.5 +0.1
**DOPR Dopca** 74.11 46 ⇓ *i*P P 09 38 47.7 +0.2
**RZN Rozhen** 74.36 51 *e*P P 09 38 49.2 -0.1
**MLR Muntele Rosu** 74.58 47 ⇑ *i*P P 09 38 51.6 +1.2
**MLR Muntele Rosu** 74.58 47 *e*P P 09 38 50.5 +0.1
**MLR Muntele Rosu** 74.58 47 *e*P P 09 38 50.5 +0.1
**HOPE Hope Point** 74.68 166 PFAKE 09 39 00.0 +10
HOPE LR LR
comp=Z,820nm,19.0s
**PUL Pulkovo** 74.81 32 ⇑ *e*P P 09 38 52.4 +1.2
**APA Apatity** 74.84 23 ⇑ *i*P P 09 38 55.4 +4.1
**TESR Tescani** 74.88 46 ⇓ *i*P P 09 38 52.6 +0.7
**PLOR Plostina** 75.00 46 ⇑ *i*P P 09 38 53.2 +0.5
**PLOR Plostina** 75.00 46 ⇑ P P 09 38 53.2 +0.5
**VRI Vrincioaia** 75.05 46 ⇓ *i*P P 09 38 54.0 +1.1
**VRI Vrincioaia** 75.05 46 ⇓ P P 09 38 54.1 +1.1
**ISR Istrita** 75.06 47 ⇑ *i*P P 09 38 53.0 0.0
**ISR Istrita** 75.06 47 ⇑ P P 09 38 53.1 0.0
**SIGR SIGRI** 75.68 53 P P 09 38 56.1 -0.6
**SIGR SIGRI** 75.68 53 P P 09 38 56.1 -0.6
**AK11 Malin Array Si** 75.77 41 *e*P P 09 38 56.4 -0.5
**KIEV Kiev** 75.79 41 ⇓ *e*P P 09 38 56.6 -0.4
KIEV pmax pmax
comp=Z,12nm,1.2s
**KIEV Kiev** 75.79 41 *e*P P 09 38 56.9 -0.1
KIEV LR LR
comp=Z,2µm,19.0s
**AKASG Malin Array Be** 75.80 41 P P 09 38 55.5 -1.6
comp=Z,5.4nm,0.9s,baz=278,slow=4.1,SNR=29
AKASG LR LR 10 09 26.6
comp=Z,1µm,19.3s,baz=285,slow=34
**AKASG Malin Array Be** 75.80 41 *i* P P 09 38 56.5 -0.6
AKASG pmax pmax
comp=Z,5.0nm,0.7s
**AKBB Malin Array Si** 75.80 41 *e*P P 09 38 57.0 -0.1
**AKBB Malin Array Si** 75.80 41 *e*P P 09 38 57.0 -0.1
**APE Apeiranthos** 75.86 55 ⇓ *i*P P 09 38 56.6 -1.2
**APE Apeiranthos** 75.86 55 ⇓ P P 09 38 56.6 -1.2
**SANT Santorini** 75.95 56 *e*P P 09 38 57.0 -1.4
SANT LR LR
comp=Z,713nm,22.0s
**CHOS Chios island** 76.00 54 P P 09 38 58.3 -0.3
**CHOS Chios island** 76.00 54 P P 09 38 58.3 -0.3
**CFR Carcaliu** 76.15 47 ⇓ *i*P P 09 38 58.2 -1.0
**CFR Carcaliu** 76.15 47 ⇓ P P 09 38 58.2 -1.0
**KDAK Kodiak Island** 76.43 327 PFAKE 09 39 10.0 +9.5
KDAK LR LR
comp=Z,1µm,21.0s
**TIRR Tirgusor** 76.49 47 ⇑ *i*P P 09 39 01.6 +0.4
**TIRR Tirgusor** 76.49 47 ⇑ P P 09 39 01.6 +0.4
**TIRR Tirgusor** 76.49 47 *e*P P 09 39 01.1 -0.1
**TLCR** 76.62 47 ⇓ *i*P P 09 39 02.5 +0.6
**TLCR** 76.62 47 ⇓ P P 09 39 02.5 +0.6
**TMCR Tamitsa** 77.44 26 *e*P P 09 39 04.7 -1.4
TMCR pmax pmax
comp=Z,75nm,1.3s
**KARP Karpathos** 77.48 57 *e*P P 09 39 06.1 -0.8
**MANT Manisa** 77.89 53 *e*P P 09 39 09.1 -0.4
**KLMR Klimovskoe** 79.01 29 *e*P P 09 39 11.3 -3.6
KLMR *e* 09 42 10.8
KLMR pmax pmax
comp=Z,70nm,1.4s
**OBN Obninsk** 79.12 36 *de*P P 09 39 14.9 -0.7
OBN *e* 09 39 23.5
OBN *e* 09 42 13.6
OBN pmax pmax
comp=Z,223nm,1.7s
**OBN Obninsk** 79.12 36 *e*P P 09 39 15.6 0.0
OBN LR LR
comp=Z,2µm,20.0s
**AKAS Kas** 79.24 55 *e*P P 09 39 16.4 -0.4
**MOS Moscow** 79.52 35 *e*P P 09 39 17.5 -0.3
MOS *e*PPP PPP 09 44 06.0
MOS *eS* S 09 49 17.4 -1.1
MOS pmax pmax
comp=Z,125nm,1.3s
MOS pmax pmax
comp=E,70nm,1.2s
MOS MLR MLR
comp=Z,1µm,17.0s
**SIM Simferopol'** 80.33 46 *ce*P P 09 39 22.6 +0.2
SIM S S 09 49 30.1 +2.7
SIM pmax pmax
comp=Z,27nm,1.2s
**BR231 Keskin MP Arra** 80.74 51 *e*P P 09 39 25.9 +1.1
**ANTO Ankara** 80.74 51 *e*P P 09 39 24.9 +0.1
**ANTO Ankara** 80.74 51 *e*P P 09 39 24.9 +0.1
ANTO LR LR

comp=Z,674nm,22.0s
**LPSR Galich'ya Gora 81.18 38** *e*P **P 09 39 26.5 -0.3**
LPSR pmax pmax
comp=Z,70nm,1.0s
**BR131 Keskin Array S 81.41 51** *e*P **P 09 39 27.7 -0.8**
**BRTR Keskin Array B 81.41 51** P **P 09 39 27.6 -0.8**
comp=Z,16nm,0.8s,baz=270,slow=4.4,SNR=62
BRTR LR LR 10 11 00.8
comp=Z,272nm,21.6s,baz=285,slow=32
**VSR Storozhevoye 81.75 39** *e*P **P 09 39 29.1 -0.7**
VSR pmax pmax
comp=Z,40nm,0.9s
**CSS Mathiatis 82.51 56** *e*P **P 09 39 33.7 -0.4**
**PMSA Palmer Station 82.51 182** *e*P **P 09 39 35.3 +2.1**
PMSA LR LR
comp=Z,2μm,19.0s
**ANN Anapa 82.63 45** *e*P **P 09 39 33.6 -0.9**
**VRH Novokhopyorsk 83.27 38** *e*P **P 09 39 37.3 -0.4**
VRH pmax pmax
comp=Z,70nm,1.4s
**TAOE Nuku Hiva Isla 83.53 259** *e*LR LR 10 05 54.5
comp=Z,739nm,24.3s
**RKT Rikitea 83.89 243** *e*S **S 09 50 05.3 +0.6**
comp=Z,713nm,26.5s
RKT *e*SS **SS 09 55 32.3 -0.7**
comp=Z,822nm,32.0s
RKT *e*LQ LQ 10 02 28.1
comp=Z,1μm,38.2s
RKT *e*LR LR 10 06 07.0
comp=Z,1μm,38.0s
**TSUM Tsumeb 84.56 112** P **P 09 39 44.8 -0.2**
comp=Z,28nm,0.9s,baz=304,slow=5.0,SNR=27
**TSUM Tsumeb 84.56 112** *e*P **P 09 39 44.5 -0.6**
comp=Z,33nm,0.9s
TSUM LR LR
comp=Z,1μm,22.0s
**SOC Sochi 84.57 46** *e*P **P 09 39 43.6 -1.0**
SOC *e* 09 42 54.7
SOC *e*S **S 09 50 05.7 -5.3**
SOC pmax pmax
comp=Z,67nm,1.1s
**GOF Gofitskoye 86.29 44**⇑ *i*P **P 09 39 53.4 +0.3**
GOF pmax pmax
comp=Z,84nm,1.3s
**KIV Kislovodsk 86.46 45** *de*P **P 09 39 54.2 +0.1**
KIV *e* 09 40 02.0
KIV *e* 09 43 15.9
KIV pmax pmax
comp=Z,75nm,1.7s
**KIV Kislovodsk 86.46 45** *e*P **P 09 39 54.9 +0.8**
KIV LR LR
comp=Z,614nm,19.0s
**KBZ Khabaz 86.68 45** P **P 09 39 55.2 +0.2**
comp=Z,18nm,1.1s,baz=267,slow=3.2,SNR=13
KBZ LR LR 10 17 58.1
comp=Z,221nm,18.4s,baz=306,slow=35
**ARTV Artvin 86.94 48** *e*P **P 09 39 58.5 +1.8**
**NCK Nalchik 87.24 45**⇑ *i*P **P 09 39 58.5 +0.7**
NCK pmax pmax
comp=Z,82nm,1.0s
**SOKR Solikamsk 87.36 27**⇓ *i*P **P 09 39 56.6 -1.4**
SOKR pmax pmax
comp=Z,68nm,1.7s
SOKR MLR MLR
comp=Z,613nm,17.0s
**MARD Mardin 87.48 52** *e*P **P 09 39 59.7 +0.4**
**ONI Oni 87.48 46** P **P 09 39 59.2 +0.1**
**ONI Oni 87.48 46** P **P 09 39 59.2 +0.1**
**ZEI Tsey 87.72 46** *e*P **P 09 39 58.6 -1.8**
ZEI pmax pmax
comp=Z,21nm,1.1s
**AKH Akhalkalaki 87.95 47** P **P 09 40 01.4 -0.1**
**AKH Akhalkalaki 87.95 47**⇑ *i*P **P 09 40 02.1 +0.6**
**AKH Akhalkalaki 87.95 47** P **P 09 40 01.4 -0.1**
**BILL Biibino 87.96 344** *e*P **P 09 39 58.0 -2.7**
BILL *e* 09 43 25.6
BILL pmax pmax
comp=Z,27nm,1.3s
**TBLG Delisi 88.69 46** P **P 09 40 05.3 +0.4**
**TBLG Delisi 88.69 46** P **P 09 40 05.2 +0.4**
**GROC Groznyy 88.83 45** *e*P **P 09 40 03.0 -2.4**
GROC S **SKSac 09 50 29.8 -4.5**
GROC pmax pmax
comp=Z,71nm,1.7s
**DGRG David-gareji 89.24 46** P **P 09 40 07.7 +0.3**
**DGRG David-gareji 89.24 46** P **P 09 40 07.7 +0.3**
**GNI Garni 89.31 48** P **P 09 40 08.7 +0.8**
comp=Z,41nm,1.0s,baz=70,slow=1.6,SNR=17
**GNI Garni 89.31 48** *d* *i*P **P 09 40 08.3 +0.4**
**GNI Garni 89.31 48** *e*P **P 09 40 09.0 +1.1**
GNI LR LR
comp=Z,605nm,19.0s
**DDFL Dedoflistskaro 89.76 46** P **P 09 40 11.0 +1.1**
**ARU Arti 89.86 29** *c* *i*P **P 09 40 10.2 +0.3**
ARU 09 43 39.9
ARU S **SKSac 09 50 40.1 +0.2**
ARU pmax pmax
comp=Z,60nm,1.7s
**ARU Arti 89.86 29** *e*P **P 09 40 10.1 +0.1**
ARU comp=Z,50nm,1.4s LR LR
comp=Z,2μm,20.0s
**TIXI Tiksi 90.44 357** P **P 09 40 11.9 -0.5**
comp=Z,20nm,1.1s,baz=25,slow=4.6,SNR=23
**TIXI Tiksi 90.44 357**⇓ *e*P **P 09 40 11.5 -0.8**
TIXI pmax pmax
comp=Z,25nm,1.1s
**TIXI Tiksi 90.44 357**⇓ *e*P **P 09 40 11.5 -0.8**
TIXI pmax pmax
comp=Z,25nm,1.1s
**TIXI Tiksi 90.44 357** P **P 09 40 11.9 -0.5**
TIXI LR LR
comp=Z,1μm,19.0s
**TIXI Tiksi 90.44 357** *e*P **P 09 40 11.7 -0.6**
comp=Z,30nm,1.1s
**SVE Sverdlovsk 90.59 28** *e*P **P 09 40 12.8 -0.5**
SVE pmax pmax
comp=Z,38nm,1.7s
**SUR Sutherland 91.91 123** PFAKE 09 40 30.0 +10
SUR LR LR
comp=Z,2μm,20.0s
**LSZ Lusaka 92.84 105** *e*P **P 09 40 24.7 0.0**
LSZ pmax pmax
comp=Z,18nm,1.2s
LSZ MLR MLR
comp=Z,656nm,20.0s
**LSZ Lusaka 92.84 105** *e*P **P 09 40 24.7 0.0**
comp=Z,18nm,1.2s
LSZ LR LR
comp=Z,656nm,20.0s
**BOSA Boshof 94.32 119** P **P 09 40 30.4 -0.8**
comp=Z,3.1nm,0.7s,baz=262,slow=4.0,SNR=5.2
BOSA LR LR 10 13 49.0
comp=Z,572nm,21.6s,baz=283,slow=30
**PPT Papeete 94.97 253** LR LR 10 16 58.6
comp=Z,471nm,20.2s,baz=60,slow=31
**PPT2 Papeete2 94.97 253** *e*S **S 09 51 43.1 -5.5**
comp=Z,464nm,26.5s
PPT2 *e*SS **SS 09 58 12.0 -2.3**
comp=Z,964nm,28.0s
PPT2 *e*LQ LQ 10 07 11.3
comp=Z,511nm,27.5s
PPT2 *e*LR LR 10 11 01.8
comp=Z,1μm,24.8s
**VNA3 Neumayer Olymp 95.32 166** P **P 09 40 33.3 -1.4**
**SEY Seymchan 95.51 346** P **P 09 40 35.1 -0.7**
comp=Z,6.6nm,0.9s,baz=35,slow=6.0,SNR=5.3
SEY LR LR 10 25 19.5
comp=Z,2μm,18.8s,baz=5.5,slow=37
**SEY Seymchan 95.51 346**⇑ *e*P **P 09 40 36.4 +0.6**
**VNA2 Neumayer--Watz 95.66 165** P **P 09 40 33.2 -3.0**
baz=319,slow=6.0
**RAYN Ar Rayn 96.36 63** PFAKE 09 40 50.0 +9.4
RAYN LR LR
comp=Z,538nm,19.0s
**TBI Tubuai 96.53 248** *e*S **S 09 51 57.3 -4.4**
comp=Z,336nm,29.0s
TBI *e*SS **SS 09 58 34.5 -1.6**
comp=Z,664nm,28.8s
**TBI Tubuai 96.53 248** *e*LR LR 10 11 58.3
comp=Z,2μm,33.2s
**KMBO Kilima Mbogo 97.16 89** LR LR 10 21 22.3
comp=Z,1μm,20.3s,baz=280,slow=34
**KMBO Kilima Mbogo 97.16 89** PFAKE 09 41 00.0 +15
KMBO LR LR
comp=Z,14μm,19.0s
**SNAA Sanae 97.28 164** P **P 09 40 42.0 -1.6**
**SNAA Sanae 97.28 164** P **P 09 40 42.5 -1.1**
comp=Z,5.0nm,0.9s,baz=306,slow=4.0,SNR=11
**SNAA Sanae 97.28 164** *de*P **P 09 40 43.4 -0.2**
**SNAA Sanae 97.28 164** *e*P **P 09 40 42.6 -0.9**
comp=Z,316nm,0.9s
**BRVK Borovoye 97.28 28**⇓ *e*P **P 09 40 43.6 -0.5**
BRVK pmax pmax
comp=Z,33nm,1.7s
**BRVK Borovoye 97.28 28** PFAKE 09 41 00.0 +16
BRVK LR LR
comp=Z,973nm,21.0s
**GEYT Alibeck 99.58 45** LR LR 10 23 35.8
comp=Z,298nm,21.7s,baz=300,slow=34
**YAK Yakutsk 99.94 355**⇑ *e*P **Pdif 09 40 55.7 -0.1**
YAK pmax pmax
comp=Z,9.0nm,0.9s
**YAK Yakutsk 99.94 355** PFAKE 09 41 10.0 +14
YAK LR LR
comp=Z,1μm,22.0s
**PET Petropavlovsk 101.87 337**⇑ *e*P **Pdif 09 41 04.0 -0.6**
PET pmax pmax
comp=Z,43nm,1.1s
**PET Petropavlovsk 101.87 337** PFAKE 09 41 20.0 +15
PET LR LR
comp=Z,1μm,22.0s
**KURK Kurchatov 102.55 26**⇑ *e*P **Pdif 09 41 07.4 -0.2**
**KURK Kurchatov 102.55 26** PFAKE 09 41 20.0 +12
KURK LR LR
comp=Z,2μm,20.0s
**AAK Ala-Archa 106.56 33** PFAKE 09 45 50.0
AAK LR LR
comp=Z,829nm,21.0s
**MKAR Makanchi Array 107.12 26** PKKPbc PKKPbc 09 56 53.2 -2.2
comp=Z,2.2nm,1.0s,baz=114,slow=5.4,SNR=7.5
**TLY Talaya 109.20 11** PFAKE 09 45 50.0
TLY LR LR
comp=Z,643nm,19.0s
**KSH Kashi 109.55 35** *e*Pdif **Pdif 09 41 41.7 +2.4**
KSH PP **PP 09 46 19.7 +7.6**
KSH S **Sdif 09 53 51.4 +0.6**
KSH SS **SS 10 01 38.2 +4.7**
KSH LR LR
comp=Z,360nm,5.6s
KSH LR LR
comp=Z,320nm,5.7s
**ABPO Ambohimpanom 111.38 104** PFAKE 09 46 00.0
ABPO LR LR
comp=Z,252nm,20.0s
**WMQ Urumqi 111.76 25** PKP **PKiKP 09 45 44.3 -2.0**
WMQ LR LR
comp=Z,1μm,17.9s
WMQ LR LR
comp=Z,1μm,20.9s
WMQ LR LR
comp=Z,1μm,19.3s
**YSS Yuzh-Sakhalins 112.26 343** PFAKE 09 46 00.0
YSS LR LR
comp=Z,721nm,19.0s
**HIA Hailar 113.10 0** PFAKE 09 46 00.0
HIA LR LR
comp=Z,883nm,20.0s
**SONM Songino Array 113.39 10** PKiKP **PKiKP 09 45 48.4 -1.0**
comp=Z,0.7nm,0.6s,baz=305,slow=1.4,SNR=3.9
SONM PKKPbc **PKKPbc 09 56 32.3 -3.0**
comp=Z,1.8nm,0.8s,baz=162,slow=3.2,SNR=10.0
**ULN Ulaanbaatar 113.47 10**⇓ *i*PKIKP **PKiKP 09 45 49.1 -0.4**
**ULN Ulaanbaatar 113.47 10** PFAKE 09 46 00.0
ULN LR LR
comp=Z,1μm,22.0s
**MSEY Mahe Island 115.57 87** PFAKE 09 46 10.0 +16
MSEY LR LR
comp=Z,685nm,20.0s
**SBA Scott Base 115.95 190** PFAKE 09 46 10.0 +17
SBA LR LR
comp=Z,559nm,21.0s
**ERM Erimo 116.66 341** PFAKE 09 46 10.0 +14
ERM LR LR
comp=Z,1μm,22.0s
**VNDA Vanda 116.95 189** PKP **PKPdf 09 45 55.0 -0.1**
comp=Z,3.2nm,0.9s,baz=162,slow=3.2,SNR=4.5
**MDJ Mudanjiang 117.15 352** PFAKE 09 46 10.0 +14
MDJ LR LR
comp=Z,1μm,20.0s
**USRK Ussuriysk Ar. 117.22 350** PKP **PKPdf 09 45 55.5 -1.1**
comp=Z,1.5nm,0.7s,baz=4.8,slow=2.4,SNR=3.4
**MAW Mawson 118.70 158** PKP **PKPdf 09 45 58.4 -0.2**
comp=Z,5.4nm,0.8s,baz=234,slow=0.8,SNR=9.8
**GTA Gaotai 119.89 18** *e*PKP PKPdf 09 45 49.4 -13
GTA PP **PP 09 47 18.2 -6.4**
GTA SKKS 09 54 08.9
**GTA Gaotai 119.89 18** SS SS 10 03 35.7 -13
GTA AMB AMB
comp=Z,110nm,6.7s
GTA LR LR
comp=N,730nm,20.7s
GTA LR LR
comp=E,510nm,16.4s
GTA LR LR
comp=Z,1μm,19.2s
**SNY Shenyang 120.45 357** SS SS 10 03 28.0 -27
SNY AMB AMB
comp=Z,250nm,5.7s
SNY LR LR
comp=N,860nm,16.9s
SNY LR LR
comp=E,780nm,18.5s
SNY LR LR
comp=Z,1μm,19.4s
**HHC Hu-ho-hao-te 120.98 8** *e*PKP **PKPdf 09 45 59.4 -4.7**
HHC PP **PP 09 47 33.3 +1.4**
HHC LR LR
comp=Z,360nm,18.8s
HHC LR LR
comp=Z,450nm,20.4s
HHC LR LR
comp=Z,510nm,21.7s
**PYUN Piuthan 121.83 39** *e*P **PKPdf 09 46 05.4 -0.8**
comp=Z,29nm,0.9s
**FUNA Funafuti 121.91 271** PFAKE 09 46 20.0 +14
FUNA LR LR
comp=Z,4μm,20.0s
**DANN Dangsing 122.10 38** *e*P **PKPdf 09 46 06.7 -0.2**
**BJI Beijing 122.21 4** PKP **PKPdf 09 46 06.0 -0.3**
BJI PP **PP 09 47 43.6 +3.6**
BJI SS SS 10 04 18.4 +0.7
BJI AMB AMB
comp=Z,380nm,4.3s
BJI LR LR
comp=Z,770nm,16.0s
BJI LR LR
comp=Z,610nm,21.6s
BJI LR LR
comp=Z,680nm,22.0s
**BJT Baijiatuau 122.23 4** PFAKE 09 46 20.0 +14
BJT LR LR
comp=Z,835nm,20.0s
**KOLN Koldanda 122.43 39** *e*P **PKPdf 09 46 06.3 -1.1**
**MAJO Matsushiro 123.18 343**⇑ *i*PKIKP **PKPdf 09 46 07.6 -0.7**
**MAJO Matsushiro 123.18 343** PFAKE 09 46 20.0 +12
MAJO LR LR
comp=Z,883nm,20.0s
**MJAR Matsushiro Arr 123.18 343** PKP **PKPdf 09 46 06.3 -2.0**
comp=Z,4.1nm,0.8s,baz=38,slow=1.7,SNR=11
**KKN Kakani 123.40 37** *e*P **PKPdf 09 46 08.4 -0.9**
comp=Z,17nm,0.5s
**DMN Daman 123.44 38** *e*P **PKPdf 09 46 08.5 -0.9**
comp=Z,14nm,0.7s
**PKI Pulchoki 123.64 37** *e*P **PKPdf 09 46 08.6 -1.3**
comp=Z,21nm,0.9s
**GUN Gumba 123.66 37** *e*P **PKPdf 09 46 09.2 -0.7**
comp=Z,16nm,0.5s
**JIRN Jiri 124.02 37** *e*P **PKPdf 09 46 09.7 -1.0**
**LZH Lanzhou 124.11 16** *e*PKP **PKPdf 09 46 06.1 -4.3**
LZH sPKP 09 46 20.1
LZH PP **PP 09 47 54.2 +0.9**
LZH PKS **PKSdf 09 49 41.4 -5.8**
LZH AMB AMB
comp=Z,160nm,5.8s
LZH LR LR
comp=Z,860nm,18.0s
LZH LR LR
comp=Z,750nm,17.4s
LZH LR LR
comp=Z,990nm,20.6s
**KSRS Korea Array 124.42 352** PKP **PKPdf 09 46 10.4 -0.2**
comp=Z,3.6nm,0.9s,baz=20,slow=1.3,SNR=6.8
**KSAR Wonju Array Be 124.43 352** PKIKP **PKPdf 09 46 10.5 -0.2**
**KSAR Wonju Array Be 124.43 352** PKP **PKPdf 09 46 10.4 -0.2**
**INCN Inchon 124.54 354** PFAKE 09 46 20.0 +9.1
INCN LR LR
comp=Z,1μm,19.0s
**RAMN Ramite 124.80 37** *e*P **PKPdf 09 46 11.2 -0.8**
comp=Z,48nm,0.8s
**LSA Lhasa 125.03 31** *e*PKIKP **PKPdf 09 46 13.2 +0.5**
LSA MLR MLR
comp=Z,529nm,22.0s
**LSA Lhasa 125.03 31** *e*PKPdf **PKPdf 09 46 13.2 +0.5**
LSA LR LR
comp=Z,529nm,22.0s
**MSVF Nonsavu 125.03 261** PFAKE 09 46 20.0 +7.7
MSVF LR LR
comp=Z,1μm,22.0s
**TAPN Taplejung 125.12 36** *e*P **PKPdf 09 46 11.6 -1.1**
comp=Z,32nm,0.8s
**SNZO South Karori 128.07 231** PFAKE 09 46 30.0 +13
SNZO LR LR
comp=Z,788nm,21.0s
**SHL Shillong 128.78 33** *e*P **PKPdf 09 46 20.0 +0.4**
**CD2 Chengdu 128.96 18** *e*PKP **PKPdf 09 46 18.6 -1.0**
CD2 SS SS 10 05 43.7 +0.7
CD2 LR LR
comp=Z,660nm,21.4s
CD2 LR LR
comp=Z,730nm,17.8s
CD2 LR LR
comp=Z,620nm,19.0s
**NJ2 Nanjing 130.28 1** *e*PKP **PKPdf 09 46 21.2 -0.8**
**ENH Enshi 131.00 12** *e*PKPdf **PKPdf 09 46 22.9 -0.5**
ENH LR LR
comp=Z,564nm,20.0s
**PALK Pallekele 133.74 61** PKP **PKPdf 09 46 28.6 -0.4**
comp=Z,2.6nm,0.5s,baz=332,slow=1.1,SNR=4.8
**GYA Guiyang 133.98 17** Pdif **Pdif 09 43 27.0 -1.2**
GYA PKP **PKPdf 09 46 29.4 +0.1**
GYA PP **PP 09 49 02.8 +5.0**
GYA PKS **PKSdf 09 50 04.0 -2.0**
GYA SKKS 09 55 51.6
GYA SS **SS 10 06 44.8 +0.3**
GYA AMB AMB
comp=Z,140nm,7.8s
GYA LR LR
comp=Z,200nm,22.1s
GYA LR LR
comp=Z,180nm,23.0s
GYA LR LR
comp=Z,150nm,22.2s
**KMI Kunming 133.99 22** PKP **PKPdf 09 46 29.7 +0.2**
KMI PP **PP 09 49 03.7 +5.6**
KMI SKKS 09 55 51.4
KMI SS **SS 10 06 44.3 -0.6**
KMI AMB AMB
comp=Z,180nm,4.7s
KMI LR LR
comp=Z,400nm,22.8s
KMI LR LR
comp=Z,870nm,19.8s
KMI LR LR
comp=Z,620nm,20.6s
**DZM Mont Dzumac 136.37 257** *e*LR LR 10 30 25.6
comp=Z,697nm,29.1s
**YHNB Yeheng 137.63 358** PFAKE 09 46 50.0 +14
YHNB LR LR
comp=Z,1μm,21.0s
**CHTO Chiang Mai 137.98 31** PFAKE 09 46 50.0 +13
CHTO LR LR
comp=Z,487nm,21.0s
**CMAR Chiang Mai Arr 138.28 31** PKP **PKPdf 09 46 37.1 -0.2**
comp=Z,3.1nm,0.8s,baz=319,slow=2.9,SNR=8.4
**GUMO Guam 140.27 320** PFAKE 09 46 50.0 +9.0
GUMO LR LR
comp=Z,1μm,20.0s
**HNR Honiara 140.43 277** PFAKE 09 46 50.0 +8.7
HNR LR LR
comp=Z,614nm,20.0s
**QIZ Qiongzhong 141.91 16** PKP **PKPdf 09 46 43.1 -0.8**
QIZ PP **PP 09 49 48.9 +1.9**
QIZ SS SS 10 08 21.9 +3.8
QIZ LR LR
comp=Z,830nm,22.6s
QIZ LR LR
comp=Z,750nm,21.9s
**QIZ Qiongzhong 141.91 16** PFAKE 09 47 00.0 +16
QIZ LR LR
comp=Z,815nm,22.0s
**TGY Tagaytay City 148.15 358** PKPbc **PKPbc 09 46 58.0 0.0**
baz=230,slow=7.9
**ARMA Armidale 148.77 241** *e*PKPdf **PKPdf 09 46 55.5 0.0**
ARMA *e*PKPbc **PKPbc 09 46 59.7 +0.4**
ARMA *e*PKPab **pPKPbc 09 47 05.0 -0.3**
**CAN Canberra 149.06 230** *e*PKIKP **PKPdf 09 46 55.7 0.0**
CAN *e* 09 47 00.4
CAN *e* 09 47 04.0
CAN MLR MLR
comp=Z,665nm,22.0s
**CAN Canberra 149.06 230** *e*PKPdf **PKPdf 09 46 55.7 0.0**
CAN *e*PKPbc **PKPbc 09 47 00.4 +0.6**
CAN *e*PKPab **PKPab 09 47 04.0 0.0**
CAN LR LR
comp=Z,665nm,22.0s
**KULM Kulim 149.99 42** PFAKE 09 47 10.0 +1.8
KULM LR LR
comp=Z,648nm,21.0s
**PSI Prapat 150.68 47** PKPbc **PKPbc 09 47 03.9 -0.6**
baz=307,slow=4.0
PSI PKPab **sPKPbc 09 47 11.8 -0.6**
comp=Z,35nm,0.9s,baz=315,slow=5.7,SNR=4.0
**IPM Ipoh 150.85 42** *e*P **PKPbc 09 47 04.0 -0.7**
**PMG Port Moresby 152.40 284** PKP **PKPdf 09 47 01.1 -0.3**
comp=Z,15nm,1.0s,baz=80,slow=1.2,SNR=3.3
PMG PKPab **PKPab 09 47 19.2 +0.9**
comp=Z,19nm,0.9s,baz=246,slow=1.3,SNR=4.4
**PMG Port Moresby 152.40 284** PKP **PKPdf 09 47 01.1 -0.3**
PMG PKPab **PKPab 09 47 19.2 +0.9**
PMG LR LR
comp=Z,564nm,20.0s
**DAV Davao City (W) 154.57 347** PFAKE 09 47 20.0 +7.0
DAV LR LR
comp=Z,532nm,22.0s
**CTA Charters Tower 155.18 261** PKP **PKPdf 09 47 03.8 -1.4**
comp=Z,4.5nm,0.8s,baz=159,slow=0.8,SNR=3.7
CTA PKPab **PKPab 09 47 31.0 +1.0**
comp=Z,7.4nm,0.9s,baz=0.0,slow=6.1,SNR=3.3
**CTAO Charters Tower 155.18 261** PFAKE 09 47 20.0 -10
CTAO LR LR
comp=Z,630nm,20.0s
**KKM Kota Kinabalu 155.87 9** PFAKE 09 47 20.0 -13
KKM LR LR
comp=Z,546nm,22.0s
**STKA Stephens Creek 156.12 230** PKP **PKPdf 09 47 05.4 -0.7**
comp=Z,4.1nm,1.0s,baz=47,slow=3.3,SNR=4.7
STKA PKPab **PKPab 09 47 34.1 +0.5**
comp=Z,4.7nm,0.9s,baz=162,slow=3.2,SNR=4.0
**STKA Stephens Creek 156.12 230** PKIKP **PKPdf 09 47 05.4 -0.7**
STKA pmax pmax
comp=Z,7.0nm,1.2s
STKA pmax pmax
comp=Z,5.0nm,0.9s
**KSM Kuching 158.44 28** PFAKE 09 47 20.0 +10
KSM LR LR
comp=Z,445nm,20.0s
**NWAO Narrogin (SRO) 164.85 171** PFAKE 09 47 30.0 +14
NWAO LR LR
comp=Z,489nm,19.0s
**ASAR Alice Springs 165.88 244** PKP **PKPdf 09 47 15.6 -1.3**
comp=Z,9.4nm,1.0s,baz=112,slow=0.9,SNR=49
ASAR PKPab **PKPab 09 48 16.2 -0.4**
comp=Z,3.7nm,0.9s,baz=122,slow=4.5,SNR=9.3
ASAR SKKPbc 09 56 58.0
comp=Z,1.0nm,1.0s,baz=286,slow=4.1,SNR=4.3
**WRAB Tennant Creek 166.36 259** *d* *i*PKIKP **PKPdf 09 47 16.0 -1.3**
**WRAB Tennant Creek 166.36 259** *e*P **PKPdf 09 47 15.9 -1.3**
WRAB LR LR
comp=Z,794nm,22.0s
**WRA Warramunga Arr 166.37 259** PKP **PKPdf 09 47 16.0 -1.3**
comp=Z,13nm,0.9s,baz=50,slow=0.7,SNR=60
WRA SKKPbc 09 56 56.9
comp=Z,1.5nm,1.0s,baz=280,slow=1.8,SNR=6.2
**KAPI Kappang 167.15 2** *e*PKPab **PKPab 09 48 19.3 -2.7**
KAPI LR LR
comp=Z,332nm,21.0s

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| MMRI | Maumere | 170.52 | 347 | ePKPab | PKPab | 09 48 34.6 | -2.3 |
| FITZ | Fitzroy Crossi | 174.72 | 267 | PKP | PKPdf | 09 47 20.5 | -1.3 |
| | comp=Z,4.0nm,1.1s,baz=316,slow=3.6,SNR=3.7 | | | | | | |
| MBWA | Marble Bar | 176.78 | 174 | PFAKE | | 09 47 30.0 | +7.7 |
| MBWA | | | | LR | LR | | |
| | comp=Z,793nm,22.0s | | | | | | |

**IDC 03 09:31:31.9**±1.7**, 10°.15S×161°.33E, h0**km**, mb3.5**/4**, mb1 3.8**/4**, mb1mx3.6**/31**, mbtmp3.5**/4**, MS3.4**/2**, Ms1 3.4**/2**, ms1mx2.9**/27**, Error ellipse: s-maj=33.7km s-min=29.5km az=166.0, Bougainville-Solomon Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| HNR | Honiara | 1.54 | 297 | i P | Pn | 09 32 01.0 | +0.3 |
| HNR | Honiara | 1.54 | 297 | Pn | Pg | 09 32 01.7 | +0.2 |
| | 102nm,0.3s,baz=170,slow=12,SNR=65 | | | | | | |
| HNR | | | | Sn | Sn | 09 32 20.8 | -0.6 |
| | 2μm,0.3s,baz=178,slow=15,SNR=39 | | | | | | |
| HNR | | | | LR | LR | 09 32 51.1 | |
| | comp=Z,176nm,18.5s,baz=209,slow=51 | | | | | | |
| PMG | Port Moresby | 13.99 | 272 | LR | LR | 09 39 44.2 | |
| | comp=Z,64nm,20.8s,baz=79,slow=35 | | | | | | |
| WRA | Warramunga Arr | 27.79 | 246 | P | P | 09 37 22.0 | -1.0 |
| | 0.3nm,0.4s,baz=74,slow=9.2,SNR=3.6 | | | | | | |
| ASAR | Alice Springs | 29.41 | 239 | P | P | 09 37 38.1 | +0.7 |
| | 0.1nm,0.4s,baz=61,slow=10.0,SNR=4.8 | | | | | | |
| URZ | Urewera | 31.37 | 156 | LR | LR | 09 48 50.9 | |
| | comp=Z,170nm,18.4s,baz=286,slow=33 | | | | | | |
| SONM | Songino Array | 75.42 | 325 | P | P | 09 43 18.0 | +0.2 |
| | 0.7nm,0.6s,baz=134,slow=6.7,SNR=5.0 | | | | | | |
| ILAR | Eielson Array | 84.09 | 20 | P | P | 09 44 04.2 | -0.2 |
| | 0.2nm,0.4s,baz=240,slow=5.0,SNR=4.4 | | | | | | |

*BJI **03** 09:33:55.0, 62°.00N×151°.00W, h10km, mb4.7/19, mB5.2/12, Ms4.9/5, Ms7 4.9/4*

*MOS **03** 09:33:55.5±1.1, 62°.08N×151°.10W, h11km, mb4.6/12, Error ellipse: s-maj=28.2km s-min=9.2km az=96.1*

*ISCJB **03** 09:33:56.2±0.2, 62°.08N±0°.02×151°.09W±0°.04, h10km, mb4.5/43, Error ellipse: s-maj=2.5km s-min=2.2km az=10.2*

*NEIC **03** 09:33:58.6±0.0, 61°.96N×150°.96W, h6km, mb4.8/9, MW4.2, ML4.4(AEIC), Moment Tensor Solution. s78 Moment tensor: Scale $10^{15}$Nm; $M_{rr}$0.78; $M_{\theta\theta}$-0.10; $M_{\phi\phi}$-0.68; $M_{r\theta}$-1.15; $M_{\theta\phi}$-1.04; $M_{\phi r}$1.82; Best double couple: $M_0$2.50000×$10^{15}$ NP1:$\phi_s$242.00000°, δ31.00000°, λ162.00000°. NP2:$\phi_s$348.00000°, δ81.00000°, λ61.00000°. Principal axes: T 2.8200, Plg46.0000°, Azm228.0000°; N -0.8700, Plg29.0000°, Azm353.0000°; P -1.9400, Plg30.0000°, Azm101.0000°; After AEIC.*

*NEIC Felt [III] at Anchorage, Talkeetna, Wasilla and Willow. Also felt at Cantwell, Eagle River, Elmendorf AFB and Trapper Creek.*

*IDC **03** 09:34:02.9±3.1, 62°.22N×151°.11W, h52km±25km, mb3.9/21, mb1 4.0/23, mb1mx3.9/54, mbtmp4.1/23, ML4.1/2, MS3.7/1, Ms1 3.7/1, ms1mx3.2/29 Error ellipse: s-maj=19.6km s-min=14.4km az=16.0*

**ISC 03 09:33:57.2**±1.0**, 62°.02N**±0°.02×**150°.97W**±0°.02**, h8**km±6km**, n167, σ1s.28**/190**, mb4.5**/43**, 12C-6D, Central Alaska**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SKT | Skwentna | 0.27 | 262 | P | Pb | 09 34 04.1 | -0.1 |
| SKT | | | | S | Sb | 09 34 08.6 | -0.4 |
| SUA | Susitna One | 0.57 | 169 | P | Pg | 09 34 08.8 | +0.7 |
| SUA | | | | S | Sb | 09 34 17.0 | -0.7 |
| STLK | Strandline Lak | 0.66 | 219 | P | Pg | 09 34 10.5 | +0.5 |
| SPCG | Spurr Capps Gl | 0.88 | 215 | P | Pg | 09 34 14.2 | 0.0 |
| SPCG | | | | S | Sb | 09 34 26.5 | -0.3 |
| FIB | Fire Island | 0.94 | 156 | P | Pb | 09 34 16.0 | +0.4 |
| FIB | | | | S | Sn | 09 34 30.4 | +0.2 |
| SPCP | Crater Peak Br | 0.94 | 217 | P | Pg | 09 34 15.2 | -0.1 |
| PMR | Palmer | 0.97 | 115 | P | Pg | 09 34 15.2 | -0.6 |
| SPU | Mount Spurr | 0.99 | 212 | ePn | Pg | 09 34 16.1 | 0.0 |
| SPU | | | | eSn | Sg | 09 34 27.7 | -1.2 |
| PPLA | Purkeypile | 1.05 | 328 | P | Pn | 09 34 18.7 | +0.4 |
| CKL | Chakachamna La | 1.05 | 219 | P | Pg | 09 34 17.1 | -0.2 |
| SPWE | Spurr West | 1.06 | 226 | P | Pg | 09 34 17.5 | -0.1 |
| RC01 | Rabbit Creek A | 1.10 | 147 | P | Pg | 09 34 17.6 | -0.8 |
| RC01 | | | | S | Sg | 09 34 32.1 | -0.6 |
| SML | Sawmill | 1.27 | 98 | P | Pn | 09 34 20.0 | -1.2 |
| SML | | | | S | Sb | 09 34 37.3 | -0.5 |
| KNK | Knik Glacier | 1.34 | 116 | P | Pn | 09 34 21.8 | -0.5 |
| KNK | | | | S | Sb | 09 34 39.2 | -0.8 |
| TRF | Thorofare Moun | 1.47 | 12 | P | Pb | 09 34 24.7 | -0.2 |
| TRF | | | | S | Sg | 09 34 44.8 | +0.3 |
| CAST | Castle Rocks | 1.50 | 341 | P | Pn | 09 34 24.7 | +0.4 |
| CAST | | | | S | Sg | 09 34 45.3 | 0.0 |
| KTH | Kantishna Hill | 1.54 | 1 | P | Pb | 09 34 25.8 | -0.3 |
| KTH | | | | S | Sg | 09 34 46.7 | +0.1 |
| SLKM | Skilak Lake | 1.56 | 166 | P | Pn | 09 34 24.3 | -0.9 |
| DFR | Drift River | 1.65 | 211 | P | Pn | 09 34 26.1 | -0.5 |
| RDJH | Redoubt Jeurge | 1.68 | 212 | P | Pn | 09 34 26.8 | -0.2 |
| RND | Reindeer | 1.70 | 34 | P | Pn | 09 34 27.3 | +0.1 |
| RND | | | | S | Sg | 09 34 51.4 | -0.4 |
| SCM | Sheep Creek Mo | 1.73 | 95 | P | Pn | 09 34 27.1 | -0.5 |
| SCM | | | | S | Sb | 09 34 50.9 | -0.3 |
| RDWB | Redoubt West | 1.78 | 211 | P | Pn | 09 34 28.3 | -0.1 |
| RDWB | | | | S | Sn | 09 34 51.8 | +0.5 |
| RSO | Redoubt South | 1.78 | 210 | ePn | Pn | 09 34 28.2 | -0.3 |
| RED | Redoubt Volcan | 1.83 | 209 | P | Pn | 09 34 29.1 | +0.1 |
| MCK | McKinley | 1.96 | 28 | P | Pn | 09 34 31.4 | +0.7 |
| DHY | Denali Highway | 1.98 | 56 | P | Pn | 09 34 30.5 | -0.6 |
| SEW | Seward | 2.06 | 158 | P | Pn | 09 34 32.1 | +0.1 |
| BPAW | Bear Paw Mtn. | 2.09 | 360 | P | Pn | 09 34 32.6 | +0.1 |
| GLI | Glacier Island | 2.19 | 120 | P | Pn | 09 34 34.4 | +0.6 |
| INE | Iliamna NE | 2.21 | 208 | P | Pn | 09 34 35.6 | +1.3 |
| ILW | Iliamna West | 2.23 | 209 | P | Pn | 09 34 35.8 | +1.2 |
| BRLK | Bradley Lake | 2.26 | 179 | P | Pn | 09 34 35.5 | +0.6 |
| JPK | Jack Peak | 2.31 | 113 | P | Pn | 09 34 36.4 | +0.8 |
| HOM | Homer | 2.39 | 188 | ePn | Pn | 09 34 38.3 | +1.7 |
| SVW2 | Sparrevohn | 2.39 | 249 | P | Pn | 09 34 36.7 | 0.0 |
| VMT | TAPS Tl Valdez | 2.40 | 111 | P | Pn | 09 34 37.7 | +1.1 |
| KLU | Klutina | 2.46 | 100 | P | Pn | 09 34 38.3 | +0.7 |
| CNPM | China Poot | 2.50 | 183 | P | Pn | 09 34 38.6 | +0.4 |
| FID | Port Fidalgo | 2.51 | 118 | P | Pn | 09 34 38.3 | 0.0 |
| TT01 | Tatalina | 2.51 | 293 | P | Pn | 09 34 38.9 | +0.6 |
| TTA | Tatalina | 2.51 | 294 | P | Pn | 09 34 38.6 | +0.2 |
| DIV | Divide | 2.64 | 107 | ePn | Pn | 09 34 40.8 | +0.7 |
| PAX | Paxson | 2.73 | 67 | P | Pn | 09 34 42.2 | +0.8 |
| HARP | HAARP | 2.75 | 79 | P | Pn | 09 34 43.5 | +1.9 |
| PS10 | TAPS Pump St10 | 2.78 | 57 | P | Pn | 09 34 43.6 | +1.6 |
| WRH | Wood River Hil | 2.79 | 27 | P | Pn | 09 34 42.3 | +0.2 |
| EYAK | Cordova Ski Ar | 2.92 | 118 | P | Pn | 09 34 44.1 | +0.2 |
| CCB | Clear Creek Bu | 3.00 | 27 | P | Pn | 09 34 45.0 | 0.0 |
| HDA | Harding Lake | 3.01 | 35 | P | Pn | 09 34 45.8 | +0.7 |
| MLY | Manley | 3.03 | 2 | P | Pn | 09 34 45.5 | +0.1 |
| PS08 | TAPS Pump Stn8 | 3.15 | 35 | P | Pn | 09 34 47.5 | +0.4 |
| COLA | College | 3.19 | 25 | i P | Pn | 09 34 47.7 | +0.1 |
| COLA | College | 3.19 | 25 | P | Pn | 09 34 47.9 | +0.3 |
| MDM | Murphy Dome | 3.20 | 21 | P | Pn | 09 34 48.0 | +0.3 |
| BMRM | Bremner River | 3.23 | 106 | P | Pn | 09 34 49.0 | +0.8 |
| IL1 | Eielson Array | 3.32 | 32 | ePn | Pn | 09 34 49.0 | -0.4 |
| ILAR | Eielson Array | 3.32 | 32 | P | Pn | 09 34 49.3 | 0.0 |
| | 29nm,0.3s,baz=219,slow=14,SNR=170 | | | | | | |
| ILAR | | | | S | Sn | 09 35 28.0 | -1.0 |
| | 59nm,0.3s,baz=217,slow=26,SNR=8.1 | | | | | | |
| ILB | Eielson Array | 3.32 | 32 | P | Pn | 09 34 49.4 | 0.0 |
| CDD | Cape Douglas | 3.37 | 204 | P | Pn | 09 34 51.2 | +1.1 |
| GLM | Gilmore Dome | 3.38 | 27 | P | Pn | 09 34 50.9 | +0.6 |
| RAGM | Ragged Mountai | 3.46 | 115 | ePn | Pn | 09 34 53.7 | +2.4 |
| MENT | Mentasta | 3.49 | 71 | P | Pn | 09 34 53.4 | +1.6 |
| DOT | Dot Lake | 3.57 | 60 | P | Pn | 09 34 55.0 | +2.2 |
| PS06 | TAPS Pump Stn6 | 3.89 | 8 | P | Pn | 09 34 58.0 | +0.7 |
| IM3 | Indian Mountai | 4.16 | 344 | P | Pn | 09 35 01.4 | +0.4 |
| IMAR | Indian Mountai | 4.16 | 344 | ePn | Pn | 09 35 01.3 | +0.3 |
| KDAK | Kodiak Island | 4.33 | 192 | P | Pn | 09 35 03.8 | +0.7 |
| | 8.4nm,0.3s,baz=48,slow=6.8,SNR=391 | | | | | | |
| KDAK | | | | S | Sb | 09 36 00.8 | -4.8 |
| | 9.6nm,0.3s,baz=340,slow=15,SNR=2.1 | | | | | | |
| KDAK | | | | LR | LR | 09 37 04.6 | |
| | comp=Z,781nm,19.7s,baz=33,slow=40 | | | | | | |
| KDAK | Kodiak Island | 4.33 | 192 | i P | Pn | 09 35 03.4 | +0.2 |
| KDAK | Kodiak Island | 4.33 | 192 | P | Pn | 09 35 04.0 | +0.8 |
| BCA3 | Beaver Creek A | 4.38 | 72 | P | Pn | 09 35 05.5 | +1.5 |
| ISLE | Juniper Island | 4.40 | 105 | P | Pn | 09 35 05.8 | +1.5 |
| BAGL | Bagley Icefiel | 4.55 | 106 | P | Pn | 09 35 07.3 | +1.0 |
| BVCY | Beaver Creek | 4.75 | 81 | P | Pn | 09 35 11.0 | +1.9 |
| PS05 | TAPS Pump Stn5 | 4.81 | 1 | P | Pn | 09 35 11.0 | +1.1 |
| OHAK | Old Harbor | 4.95 | 195 | ePn | Pn | 09 35 11.4 | -0.3 |
| FYU | Fort Yukon | 5.20 | 26 | ePn | Pn | 09 35 15.7 | +0.5 |
| EGAK | Eagle | 5.21 | 54 | P | Pn | 09 35 16.1 | +0.8 |
| COLD | Coldfoot | 5.24 | 3 | P | Pn | 09 35 16.6 | +0.8 |
| DAWY | Dawson | 5.65 | 64 | P | Pn | 09 35 22.9 | +1.4 |
| BM3 | Burnt Mountain | 6.07 | 24 | P | Pn | 09 35 27.9 | +0.8 |
| HYT | Haines Junctio | 6.57 | 95 | ePn | Pn | 09 35 35.1 | +0.9 |
| WHY | Whitehorse | 7.86 | 93 | ePn | Pn | 09 35 53.0 | +1.2 |
| SKAG | Skagway | 8.08 | 102 | ePn | Pn | 09 35 55.9 | +1.3 |
| BESE | Bessie Mountai | 8.71 | 106 | ePn | Pn | 09 36 09.3 | +6.0 |
| INK | Inuvik | 9.65 | 42 | P | Pn | 09 36 17.0 | +0.9 |
| | 0.9nm,0.3s,baz=236,slow=15,SNR=34 | | | | | | |
| INK | Inuvik | 9.65 | 42 | ePn | Pn | 09 36 17.4 | +1.3 |
| DLBC | Dease Lake | 11.00 | 100 | ePn | Pn | 09 36 38.5 | +3.8 |
| YKA | Yellowknife Ar | 16.80 | 72 | PcP | PcP | 09 42 39.2 | -0.7 |
| | 0.1nm,0.3s,baz=288,slow=1.5,SNR=6.3 | | | | | | |
| YKA | | | | ScP | ScP | 09 46 13.3 | -1.1 |
| | 0.1nm,0.3s,baz=290,slow=2.2,SNR=7.5 | | | | | | |
| BILL | Bilibino | 18.69 | 307 | eP | P | 09 38 13.3 | -2.1 |
| BILL | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.9s | | | | | | |
| F04A | Amboy | 22.98 | 121 | eP | P | 09 39 03.8 | +1.9 |
| | comp=Z,16nm,1.0s | | | | | | |
| RES | Resolute Bay | 23.07 | 34 | P | P | 09 39 02.9 | +0.3 |
| | comp=Z,2.2nm,0.5s,baz=227,slow=13,SNR=5.6 | | | | | | |
| SEY | Seymchan | 25.48 | 297 | P | P | 09 39 24.3 | -1.0 |
| | comp=Z,3.0nm,0.8s,baz=73,slow=12,SNR=6.8 | | | | | | |
| SEY | Seymchan | 25.48 | 297 | ⇓eP | P | 09 39 26.0 | +0.7 |
| MA2 | Magadan | 27.71 | 291 | ⇑eP | P | 09 39 44.4 | -1.1 |
| PETK | Petropavlovsk- | 28.21 | 275 | P | P | 09 39 54.8 | +4.7 |
| | comp=Z,5.2nm,0.9s,baz=60,slow=13,SNR=6.3 | | | | | | |
| PDAR | Pinedale Array | 31.01 | 109 | P | P | 09 40 16.4 | +1.2 |
| | comp=Z,0.4nm,0.5s,baz=316,slow=3.8,SNR=3.7 | | | | | | |
| PDAR | | | | PcP | PcP | 09 43 10.2 | -0.6 |
| | comp=Z,1.2nm,1.0s,baz=107,slow=1.2,SNR=3.5 | | | | | | |
| YAK | Yakutsk | 35.04 | 306 | ⇑eP | P | 09 40 49.2 | -0.6 |
| YAK | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.9s | | | | | | |
| KIP | Kipapa | 40.86 | 190 | ⇑eP | P | 09 41 39.9 | +0.6 |
| TXAR | Lajitas Array | 44.84 | 114 | P | P | 09 42 13.2 | +1.5 |
| | comp=Z,0.6nm,0.6s,baz=307,slow=5.2,SNR=5.7 | | | | | | |
| TXAR | | | | PcP | PcP | 09 43 51.9 | -1.5 |
| | comp=Z,0.5nm,0.5s,baz=24,slow=1.4,SNR=4.0 | | | | | | |
| JCT | Junction City | 45.55 | 110 | eP | P | 09 42 20.6 | +3.4 |
| | comp=Z,7.5nm,0.8s | | | | | | |
| HKT | Hockley | 47.78 | 106 | ⇑eP | P | 09 42 34.6 | 0.0 |
| HKT | | | | pmax | pmax | | |
| | comp=Z,28nm,1.3s | | | | | | |
| HIA | Hailar | 47.92 | 298 | ⇑eP | P | 09 42 34.1 | -1.5 |
| HIA | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.9s | | | | | | |
| ARCES | ARCESS Array B | 48.71 | 2 | P | P | 09 42 39.5 | -1.9 |
| | comp=Z,4.3nm,1.0s,baz=339,slow=4.8,SNR=4.8 | | | | | | |
| MJAR | Matsushiro Arr | 49.64 | 273 | P | P | 09 42 48.4 | -0.5 |
| | comp=Z,2.9nm,1.0s,baz=284,slow=10,SNR=6.1 | | | | | | |
| CN2 | Changchun | 49.73 | 289 | eP | P | 09 42 48.7 | -0.8 |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.6s | | | | | | |
| TLY | Talaya | 52.26 | 311 | ⇑eP | P | 09 43 07.0 | -1.4 |
| TLY | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.9s | | | | | | |
| KSRS | Korea Array | 53.70 | 283 | P | P | 09 43 17.7 | -1.5 |
| | comp=Z,3.0nm,0.8s,baz=36,slow=7.3,SNR=6.4 | | | | | | |
| KSAR | Wonju Array Be | 53.73 | 283 | P | P | 09 43 17.7 | -1.7 |
| ULN | Ulaanbaatar | 54.12 | 306 | deP | P | 09 43 22.2 | -0.2 |
| ULN | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.0s | | | | | | |
| ULN | Ulaanbaatar | 54.12 | 306 | eP | P | 09 43 22.2 | -0.2 |
| | comp=Z,4.1nm,0.7s | | | | | | |
| SONA1 | Songino Array | 54.39 | 306 | eP | P | 09 43 24.2 | -0.1 |
| SONM | Songino Array | 54.40 | 306 | P | P | 09 43 24.2 | -0.2 |
| | comp=Z,4.5nm,0.7s,baz=43,slow=6.9,SNR=25 | | | | | | |
| ZAA0 | Zalesovo Array | 56.32 | 324 | eP | P | 09 43 36.6 | -1.3 |
| | comp=Z,4.4nm,0.8s | | | | | | |
| ZALV | Zalesovo Beam | 56.32 | 324 | P | P | 09 43 36.4 | -1.6 |
| | comp=Z,3.0nm,0.5s,baz=25,slow=6.5,SNR=14 | | | | | | |
| ZALV | Zalesovo Beam | 56.32 | 324 | eP | P | 09 43 36.2 | -1.8 |
| NOA | NORSAR Array B | 56.51 | 10 | P | P | 09 43 36.9 | -2.3 |
| | comp=Z,1.5nm,0.9s,baz=350,slow=7.2,SNR=2.4 | | | | | | |
| FINES | FINESS Array B | 56.84 | 2 | P | P | 09 43 39.5 | -2.0 |
| | comp=Z,1.2nm,0.5s,baz=349,slow=8.0,SNR=6.8 | | | | | | |
| TLIG | Tlapa | 57.39 | 116 | eP | P | 09 43 46.0 | -0.1 |
| | comp=Z,28nm,1.9s | | | | | | |
| HHC | Hu-ho-hao-te | 58.13 | 298 | eP | P | 09 43 53.3 | +2.3 |
| HHC | | | | S | S | 09 51 51.6 | -0.6 |
| HHC | | | | SS | SS | 09 55 45.9 | +3.0 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.8s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,86nm,7.4s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,280nm,14.8s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,250nm,14.8s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,220nm,14.8s | | | | | | |
| BRVK | Borovoye | 60.72 | 333 | ⇓eP | P | 09 44 07.0 | -1.6 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.9s | | | | | | |
| BVAR | Borovoye Array | 60.73 | 333 | P | P | 09 44 06.8 | -1.9 |
| | comp=Z,2.7nm,0.7s,baz=36,slow=7.5,SNR=4.5 | | | | | | |
| KURK | Kurchatov | 60.90 | 326 | ⇑eP | P | 09 44 08.0 | -1.9 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.1s | | | | | | |
| KURK | Kurchatov | 60.90 | 326 | eP | P | 09 44 08.4 | -1.4 |
| | comp=Z,8.2nm,1.3s | | | | | | |
| KURBB | Kurchatov Arra | 61.01 | 326 | P | P | 09 44 08.9 | -1.7 |
| | comp=Z,1.5nm,0.5s,baz=28,slow=6.9,SNR=4.5 | | | | | | |
| OBN | Obninsk | 63.06 | 355 | ⇓eP | P | 09 44 23.8 | -0.4 |
| OBN | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.7s | | | | | | |
| MK31 | Makanchi Array | 63.46 | 322 | eP | P | 09 44 25.4 | -1.8 |
| MKAR | Makanchi Array | 63.46 | 322 | P | P | 09 44 25.2 | -1.9 |
| | comp=Z,1.8nm,0.5s,baz=37,slow=6.7,SNR=32 | | | | | | |
| MK01 | Makanchi Array | 63.48 | 322 | eP | P | 09 44 25.1 | -2.2 |
| GTA | Gaotai | 64.07 | 306 | eP | P | 09 44 31.1 | -0.3 |
| GTA | | | | pP | sP | 09 44 35.2 | +0.3 |
| GTA | | | | sP | pP | 09 44 38.2 | +4.3 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.9s | | | | | | |
| WMQ | Urumqi | 64.48 | 317 | P | P | 09 44 37.0 | +3.1 |
| WMQ | | | | pP | sP | 09 44 41.7 | +4.3 |
| WMQ | | | | sP | pP | 09 44 44.0 | +7.5 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,24nm,0.6s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,400nm,5.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,310nm,19.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,430nm,21.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,250nm,23.1s | | | | | | |
| LZH | Lanzhou | 65.35 | 301 | eP | P | 09 44 41.1 | +1.2 |
| LZH | | | | pP | sP | 09 44 45.8 | +2.4 |
| LZH | | | | sP | pP | 09 44 47.7 | +5.3 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,14nm,1.0s | | | | | | |
| AKTO | Aktyubinsk | 65.54 | 340 | P | P | 09 44 39.0 | -1.6 |
| | comp=Z,2.0nm,0.5s,baz=32,slow=5.4,SNR=6.9 | | | | | | |
| UPC | Upice | 67.34 | 9 | eP | P | 09 44 52.1 | -0.1 |
| UPC | Upice | 67.34 | 9 | eP | P | 09 44 52.1 | -0.1 |
| DPC | Dobruska-Polom | 67.52 | 9 | eP | P | 09 44 52.6 | -0.8 |
| DPC | Dobruska-Polom | 67.52 | 9 | eP | P | 09 44 52.6 | -0.8 |
| AKASG | Malin Array Be | 67.63 | 360 | P | P | 09 44 52.0 | -2.0 |
| | comp=Z,2.5nm,0.4s,baz=4.3,slow=6.7,SNR=9.1 | | | | | | |
| AKASG | Malin Array Be | 67.63 | 360 | ceP | P | 09 44 52.0 | -2.0 |
| AKASG | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.4s | | | | | | |
| AKBB | Malin Array Si | 67.63 | 360 | eP | P | 09 44 52.2 | -1.7 |
| | comp=Z,22nm,1.5s | | | | | | |
| KIEV | Kiev | 67.64 | 360 | ⇓eP | P | 09 44 53.0 | -1.0 |
| KIEV | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.1s | | | | | | |
| KIEV | Kiev | 67.64 | 360 | eP | P | 09 44 51.6 | -2.4 |
| | comp=Z,22nm,1.5s | | | | | | |
| KRLC | Kraliky | 67.83 | 8 | eP | P | 09 44 54.2 | -1.1 |
| KRLC | Kraliky | 67.83 | 8 | eP | P | 09 44 54.2 | -1.1 |
| KHC | Kasperske Hory | 68.51 | 11 | eP | P | 09 44 59.2 | -0.4 |
| KHC | Kasperske Hory | 68.51 | 11 | eP | P | 09 44 59.2 | -0.4 |
| STHS | Stebnicka Huta | 68.74 | 5 | eP | P | 09 45 00.4 | -0.6 |
| STHS | Stebnicka Huta | 68.74 | 5 | eP | P | 09 45 00.4 | -0.6 |
| GERES | GERESS Array B | 68.81 | 11 | P | P | 09 44 60.0 | -1.6 |
| | comp=Z,0.2nm,0.3s,baz=350,slow=7.1,SNR=4.2 | | | | | | |
| AAK | Ala-Archa | 69.45 | 326 | P | P | 09 45 04.8 | -0.9 |
| | comp=Z,0.8nm,0.4s,baz=66,slow=12,SNR=3.5 | | | | | | |
| KECS | Kecovo | 69.64 | 6 | eP | P | 09 45 05.8 | -0.7 |
| KECS | Kecovo | 69.64 | 6 | eP | P | 09 45 05.8 | -0.7 |
| BUR08 | Bucovina Ar. S | 70.65 | 3 | eP | P | 09 45 12.0 | -0.9 |
| BURAR | Bucovina Array | 70.67 | 3 | ⇑iP | P | 09 45 12.1 | -0.9 |
| DRGR | | 71.42 | 5 | ⇓iP | P | 09 45 24.5 | +6.9 |
| KSH | Kashi | 71.95 | 324 | eP | P | 09 45 22.8 | +1.9 |
| KSH | | | | pP | sP | 09 45 25.4 | +0.9 |
| KSH | | | | PcP | PcP | 09 45 42.0 | +2.4 |
| KSH | | | | PP | PP | 09 48 04.1 | +4.1 |
| KSH | | | | S | S | 09 54 42.4 | +0.2 |
| KSH | | | | ScS | SKSac | 09 55 24.9 | -0.2 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.7s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,97nm,5.4s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,180nm,5.3s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,81nm,4.7s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,590nm,6.8s | | | | | | |
| DOPR | Dopca | 72.33 | 3 | ⇑iP | P | 09 45 22.7 | -0.2 |
| VOIR | | 72.85 | 3 | ⇑iP | P | 09 45 26.2 | +0.1 |
| KIV | Kislovodsk | 73.80 | 350 | ⇑eP | P | 09 45 32.0 | +0.2 |
| KIV | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.9s | | | | | | |
| ES19 | SONSECA Array | 75.19 | 26 | eP | P | 09 45 39.5 | -0.3 |
| ESDC | Sonseca Array | 75.20 | 26 | P | P | 09 45 39.5 | -0.5 |
| | comp=Z,2.1nm,0.7s,baz=345,slow=5.5,SNR=8.5 | | | | | | |
| BR231 | Keskin MP Arra | 78.44 | 357 | eP | P | 09 45 58.1 | -0.2 |
| BRTR | Keskin Array B | 78.54 | 356 | P | P | 09 45 56.8 | -2.1 |
| | comp=Z,0.3nm,0.4s,baz=331,slow=0.9,SNR=4.1 | | | | | | |
| BRTR | Keskin Array B | 78.54 | 356 | i P | P | 09 45 59.0 | +0.1 |
| CMAR | Chiang Mai Arr | 82.89 | 296 | P | P | 09 46 20.8 | -1.5 |
| | comp=Z,0.7nm,0.3s,baz=3.9,slow=6.0,SNR=4.6 | | | | | | |
| TNTI | Ternate | 85.40 | 263 | eP | P | 09 46 35.5 | +0.4 |
| | comp=Z,19μm,0.9s | | | | | | |
| BOSA | Boshof | 146.50 | 6 | PKPbc | PKPdf | 09 53 37.2 | 0.0 |
| | comp=Z,3.8nm,0.9s,baz=330,slow=4.9,SNR=5.0 | | | | | | |

**IDC 03 09:45:21.1**±1.8**, 19°.00S×177°.81W, h0**km**, mb3.8**/5**, mb1 4.1**/5**, mb1mx3.8**/34**, mbtmp3.8**/5**, Error ellipse: s-maj=110.8km s-min=25.4km az=151.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| STKA | Stephens Creek | 38.62 | 242 | P | P | 09 52 45.5 | -0.8 |
| | 3.0nm,0.7s,baz=83,slow=12,SNR=4.2 | | | | | | |
| WRA | Warramunga Arr | 45.01 | 261 | P | P | 09 53 39.4 | +0.7 |
| | 0.5nm,0.4s,baz=97,slow=8.6,SNR=7.8 | | | | | | |
| ASAR | Alice Springs | 45.06 | 255 | P | P | 09 53 38.9 | -0.2 |
| | 2.4nm,0.9s,baz=82,slow=8.0,SNR=18 | | | | | | |
| TXAR | Lajitas Array | 86.10 | 57 | P | P | 09 58 04.6 | +0.2 |
| | 0.1nm,0.6s,baz=232,slow=4.4,SNR=2.7 | | | | | | |
| ILAR | Eielson Array | 86.81 | 13 | P | P | 09 58 06.6 | -0.4 |
| | 0.3nm,0.4s,baz=225,slow=5.9,SNR=5.9 | | | | | | |

**IDC 03 09:49:20.8**±11.0**, 7°.43S×128°.49E, h237**km±87km**, mb3.5**/1**, mb1 3.3**/4**, mb1mx3.0**/34**, mbtmp3.8**/4**, MS3.7**/1**, Ms1 3.7**/1**, ms1mx3.0**/23**, Error ellipse: s-maj=124.3km s-min=76.0km az=140.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| FITZ | Fitzroy Crossi | 10.97 | 194 | P | Pn | 09 51 51.9 | +0.1 |
| | 0.2nm,0.3s,baz=10,slow=11,SNR=7.3 | | | | | | |
| FITZ | | | | S | S | 09 53 55.5 | +0.9 |
| | 0.0nm,0.3s,baz=324,slow=19,SNR=2.6 | | | | | | |
| WRA | Warramunga Arr | 13.67 | 156 | P | Pn | 09 52 25.6 | +0.1 |
| | 0.3nm,0.3s,baz=330,slow=12,SNR=17 | | | | | | |
| ASAR | Alice Springs | 16.96 | 163 | P | P | 09 53 02.0 | -1.1 |
| | 0.5nm,0.3s,baz=342,slow=12,SNR=30 | | | | | | |
| STKA | Stephens Creek | 27.22 | 155 | P | P | 09 54 43.4 | +0.3 |
| | 0.9nm,0.3s,baz=330,slow=8.1,SNR=3.6 | | | | | | |
| NWAO | Narrogin (SRO) | 27.44 | 201 | LR | LR | 10 06 19.1 | |
| | comp=Z,152nm,20.3s,baz=134,slow=37 | | | | | | |

**IDC 03 09:49:25.0**±8.4**, 1°.77N×92°.25W, h0**km**, mb3.6**/3**, mb1 4.0**/3**, mb1mx3.7**/24**, mbtmp3.6**/3**, Error ellipse: s-maj=894.7km s-min=154.2km az=73.0, Galapagos Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TXAR | Lajitas Array | 29.49 | 339 | P | P | 09 55 31.3 | +0.2 |
| | 0.7nm,0.8s,baz=165,slow=10,SNR=6.7 | | | | | | |
| PDAR | Pinedale Array | 43.66 | 341 | P | P | 09 57 31.6 | -0.3 |
| | 0.7nm,0.9s,baz=136,slow=9.6,SNR=4.5 | | | | | | |
| ILAR | Eielson Array | 74.00 | 339 | P | P | 10 01 02.2 | 0.0 |
| | 0.4nm,0.7s,baz=153,slow=5.6,SNR=5.0 | | | | | | |

*DDA **03** 09:56:42.9, 40°.21N×29°.20E, h6km, Ml2.8*

*ISCJB **03** 09:56:44.0±0.6, 40°.28N±0°.04×29°.24E±0°.04, h7km±7km, Error ellipse: s-maj=6.2km s-min=4.7km az=6.3*

*CSEM **03** 09:56:44.5±0.2, 40°.30N×29°.25E, h10km, MD2.5, Error ellipse: s-maj=3.7km s-min=2.8km az=15.0*

*ISK **03** 09:56:44.2, 40°.31N×29°.24E, h5km, MD2.5*

**ISC 03 09:56:44.1**±1.0**, 40°.29N**±0°.03×**29°.24E**±0°.02**, h4**km±9km**, n37, σ0s.65**/47**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| IGD | Bursa | 0.04 | 224 | i P | Pg | 09 56 44.3 | -0.8 |
| MDNY | Mudanya-Bursa | 0.28 | 286 | ePG | Pg | 09 56 49.6 | +0.1 |
| MDNY | | | | eSG | Sg | 09 56 54.2 | +1.0 |
| MDNY | Mudanya-Bursa | 0.28 | 286 | ePg | Pg | 09 56 49.6 | +0.1 |
| MDNY | | | | eSg | Sg | 09 56 54.2 | +1.0 |
| YLV | Yalova | 0.29 | 21 | ePG | Pg | 09 56 50.8 | +1.0 |
| YLV | | | | eSG | Sg | 09 56 53.9 | +0.3 |
| YLV | Yalova | 0.29 | 21 | ePg | Pg | 09 56 50.8 | +1.0 |
| YLV | | | | eSg | Sg | 09 56 53.9 | +0.3 |
| ARMT | Armutlu | 0.40 | 314 | ePG | Pg | 09 56 51.8 | +0.1 |
| ARMT | | | | eSG | Sg | 09 56 58.4 | +1.5 |
| ARMT | Armutlu | 0.40 | 314 | ePg | Pg | 09 56 51.8 | +0.1 |
| ARMT | | | | eSg | Sg | 09 56 58.4 | +1.5 |
| ADVT | Abdulvahap | 0.41 | 70 | ePG | Pg | 09 56 52.5 | +0.6 |
| ADVT | | | | eSG | Sb | 09 56 59.3 | -1.1 |
| ADVT | Abdulvahap | 0.41 | 70 | ePg | Pg | 09 56 52.5 | +0.6 |
| ADVT | | | | eSg | Sb | 09 56 59.3 | -1.1 |
| SBT5 | Esenkoy-Cinarc | 0.43 | 321 | ePG | Pb | 09 56 53.6 | -0.7 |
| SBT5 | Esenkoy-Cinarc | 0.43 | 321 | ePg | Pb | 09 56 53.6 | -0.7 |
| CAVI | Cavuskoy | 0.47 | 101 | ePG | Pg | 09 56 53.1 | 0.0 |
| CAVI | Cavuskoy | 0.47 | 101 | ePg | Pg | 09 56 53.1 | 0.0 |
| BUY | Buyukada | 0.57 | 351 | ePG | Pb | 09 56 56.1 | -0.5 |
| BUY | Buyukada | 0.57 | 351 | i P | Pb | 09 56 55.8 | -0.8 |
| BUY | | | | i S | Sb | 09 57 04.3 | -0.7 |
| BUY | Buyukada | 0.57 | 351 | P | Pb | 09 56 55.8 | -0.8 |
| BUY | Buyukada | 0.57 | 351 | ePg | Pb | 09 56 56.1 | -0.5 |
| BUY | | | | S | Sb | 09 57 04.3 | -0.7 |
| KCTX | Karacabey (Bur | 0.68 | 268 | ePG | Pb | 09 56 58.5 | +0.1 |
| KCTX | Karacabey (Bur | 0.68 | 268 | ePg | Pb | 09 56 58.5 | +0.1 |
| KAVV | Kandilli-Istan | 0.78 | 350 | ePG | Pg | 09 56 59.5 | +0.4 |
| KAVV | Kandilli-Istan | 0.78 | 350 | ePg | Pg | 09 56 59.5 | +0.4 |
| ISK | Istanbul-Kandi | 0.78 | 350 | ePG | Pg | 09 56 59.3 | +0.2 |
| ISK | Istanbul-Kandi | 0.78 | 350 | ePg | Pg | 09 56 59.3 | +0.2 |
| SBT2 | Guzelce-Avcila | 0.80 | 317 | ePG | Pb | 09 57 00.3 | -0.2 |
| SBT2 | Guzelce-Avcila | 0.80 | 317 | ePg | Pb | 09 57 00.3 | -0.2 |
| TVSB | Tavsanli | 0.86 | 168 | ePG | Pb | 09 57 01.9 | +0.3 |
| TVSB | Tavsanli | 0.86 | 168 | ePg | Pb | 09 57 01.9 | +0.3 |
| KLYT | Kilyos | 0.97 | 351 | ePG | Pg | 09 57 02.1 | -0.5 |
| KLYT | Kilyos | 0.97 | 351 | ePg | Pg | 09 57 02.2 | -0.5 |
| GULT | Gulveren | 0.99 | 81 | ePG | Pg | 09 57 03.2 | +0.2 |
| GULT | Gulveren | 0.99 | 81 | ePg | Pg | 09 57 03.2 | +0.2 |
| EDC | Edincik | 1.05 | 273 | ePG | Pb | 09 57 04.6 | -0.2 |
| EDC | Edincik | 1.05 | 273 | ePg | Pb | 09 57 04.6 | -0.2 |
| CTKS | Kestanelik-??a | 1.09 | 330 | ePN | Pg | 09 57 05.2 | +0.2 |
| CTKS | Kestanelik-??a | 1.09 | 330 | ePn | Pg | 09 57 05.2 | +0.2 |
| SBT3 | Marmara-Eregli | 1.13 | 302 | ePN | Pn | 09 57 06.5 | 0.0 |
| SBT3 | Marmara-Eregli | 1.13 | 302 | ePn | Pn | 09 57 06.5 | 0.0 |

*CSEM **03** 09:58:29.9, 37°.47N×27°.23E, h7km, ML2.8*

*DDA **03** 09:58:29.9, 37°.47N×27°.23E, h7km, Ml2.8*

**ISC 03 09:58:24.5**±1.4**, 37°.64N**±0°.06×**27°.0E**±0°.1**, h12$^{km}$, n7, σ2$^{s}$.09**/12**, Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BODT** | **Bodrum** | **0.64** | **155** | *e*PG | **Pn** | **09 58 41.1** | **+1.6** |
| BODT | | | | *e*SG | **Sn** | **09 58 49.5** | **0.0** |
| **BDRM** | **Kayabasi** | **0.69** | **146** | *i* P | **Pg** | **09 58 37.7** | **-0.2** |
| BDRM | | | | *i* S | **Sg** | **09 58 46.0** | **-1.0** |
| **BDRM** | **Kayabasi** | **0.69** | **146** | P | **Pg** | **09 58 37.7** | **-0.2** |
| BDRM | | | | S | **Sg** | **09 58 46.0** | **-1.0** |
| **AYDN** | **Tasoluk** | **0.72** | **88** | *i* P | **Pn** | **09 58 42.2** | **+1.5** |
| **AYDN** | **Tasoluk** | **0.72** | **88** | P | **Pn** | **09 58 42.2** | **+1.5** |
| **BAYC** | **CANAKKALE_Bayr** | **2.12** | **351** | *i* P | **Pg** | **09 59 06.7** | **+1.4** |
| BAYC | | | | *i* S | **Sn** | **09 59 22.6** | **-3.6** |
| **BAYC** | **CANAKKALE_Bayr** | **2.12** | **351** | P | **Pg** | **09 59 06.7** | **+1.4** |
| BAYC | | | | S | **Sn** | **09 59 22.6** | **-3.6** |

*JMA **03** 10:06:19.6±0.2, 35°.27N×141°.20E, h32$^{km}$±3$^{km}$, M3.1*
*ISCJB **03** 10:06:20.2±1.5, 35°.24N±0°.06×141°.2E±0°.2, h35$^{km}$, mb3.8/2, Error ellipse: s-maj=19.3km s-min=7.3km az=169.6*
*IDC **03** 10:06:26.2±1.6, 34°.31N×138°.01E, h0$^{km}$, mb3.7/2, mb1 3.9/2, mb1mx3.4/35, mbtmp3.7/2, ML2.8/1, Error ellipse: s-maj=38.6km s-min=24.8km az=75.0*
**ISC 03 10:06:20.2**±2.0**, 35°.27N**±0°.06×**141°.4E**±0°.2**, h35$^{km}$, n10, σ2$^{s}$.19**/12**, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CHOJ** | **Chosi** | **0.59** | **318** | P | **Pn** | **10 06 30.2** | **-1.9** |
| CHOJ | | | | S | **Sn** | **10 06 37.6** | **-2.9** |
| **BSO1** | **Boso 1** | **0.68** | **206** | P | **Pn** | **10 06 31.8** | **-1.1** |
| **BSO3** | **Boso 3** | **0.83** | **236** | P | **Pn** | **10 06 33.6** | **-1.6** |
| **BSO4** | **Boso 4** | **0.87** | **252** | P | **Pn** | **10 06 34.3** | **-1.6** |
| **JCN** | **Nagara** | **0.95** | **279** | P | **Pn** | **10 06 35.8** | **-1.2** |
| **JHJ** | **Hachijo jima 2** | **2.50** | **212** | Pn | **Pn** | **10 07 00.0** | **+1.6** |
| | 35nm,0.3s,baz=91,slow=20,SNR=5.2 | | | | | | |
| JHJ | | | | Sn | **Sn** | **10 07 25.9** | **-1.9** |
| | 37nm,0.3s,baz=78,slow=20,SNR=4.1 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **2.85** | **297** | Pn | **Pn** | **10 07 04.2** | **+1.0** |
| | 2.5nm,0.3s,baz=116,slow=11,SNR=19 | | | | | | |
| **MAT** | **Matsushiro** | **2.85** | **297** | P | **Pn** | **10 07 04.4** | **+1.2** |
| MAT | | | | S | **Sn** | **10 07 40.0** | **+3.7** |
| **WRA** | **Warramunga Arr** | **55.31** | **188** | P | **P** | **10 15 51.3** | **+0.9** |
| | 0.7nm,0.4s,baz=1.1,slow=7.3,SNR=20 | | | | | | |
| **ASAR** | **Alice Springs** | **59.03** | **188** | P | P | 10 16 20.8 | +4.1 |
| | 0.3nm,0.6s,baz=15,slow=13,SNR=5.0 | | | | | | |

*SOME **03** 10:13:19.5, 42°.12N×79°.48E, h20$^{km}$*
*KRNET **03** 10:13:20.5±0.1, 42°.31N×79°.43E, mb3.4*
*NNC **03** 10:13:20.4±1.9, 42°.26N×79°.62E, h0$^{km}$, mb3.8, mpv3.5, Error ellipse: s-maj=15.2km s-min=7.6km az=138.0*
**ISC 03 10:13:22.2**±1.7**, 42°.39N**±0°.05×**79°.42E**±0°.04**, h1$^{km}$**±10$^{km}$**, n46, σ1$^{s}$.05**/75**, 28C-11D, Lake Issyk-Kul region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PRZ** | **Przheval'sk** | **0.76** | **278** | ⇓*e*P | **Pg** | **10 13 35.6** | **-1.2** |
| | baz=283 | | | | | | |
| PRZ | | | | ⇓*i*S | **Sg** | **10 13 47.4** | **+0.7** |
| | baz=283 | | | | | | |
| **SHLS** | **Shalkode** | **0.77** | **2** | *e*P | **Pn** | **10 13 39.1** | **-1.3** |
| | 88nm,0.2s | | | | | | |
| SHLS | | | | *e*S | **Sn** | **10 13 53.1** | **+0.5** |
| | 472nm,0.5s | | | | | | |
| **UZB** | **Uzynbulak** | **0.81** | **339** | *e*P | **Pg** | **10 13 38.5** | **+0.6** |
| | 21nm,0.2s | | | | | | |
| UZB | | | | *e*S | **Sn** | **10 13 52.0** | **-1.7** |
| | 91nm,0.1s | | | | | | |
| **PDGK** | **Podgornoye** | **0.94** | **3** | ⇑*i*P | **Pg** | **10 13 40.4** | **+0.1** |
| | baz=2.0 | | | | | | |
| PDGK | | | | ⇑*i*S | **Sn** | **10 13 55.3** | **-1.5** |
| | baz=2.0 | | | | | | |
| **PDGK** | **Podgornoye** | **0.94** | **3** | ⇑P | **Pg** | **10 13 40.4** | **+0.1** |
| | 26nm,0.3s | | | | | | |
| PDGK | | | | ⇓S | **Sn** | **10 13 55.4** | **-1.5** |
| | 54nm,0.7s | | | | | | |
| **SATY** | **Saty** | **1.01** | **312** | *e*P | **Pg** | **10 13 41.1** | **-0.4** |
| | 71nm,0.3s | | | | | | |
| SATY | | | | *e*S | **Sb** | **10 13 56.6** | **+0.3** |
| | 494nm,0.1s | | | | | | |
| **ZHN** | **Zhinishke** | **1.07** | **317** | *e*P | **Pg** | **10 13 42.4** | **-0.2** |
| | 29nm,0.2s | | | | | | |
| ZHN | | | | *e*S | **Sn** | **10 13 58.9** | **-1.0** |
| | 783nm,0.2s | | | | | | |
| **KPKS** | **Kokpek** | **1.21** | **334** | *e*P | **Pn** | **10 13 45.5** | **-0.8** |
| | 51nm,0.2s | | | | | | |
| KPKS | | | | *e*S | **Sn** | **10 14 04.0** | **+0.6** |
| | 796nm,0.3s | | | | | | |
| **KTMS** | **Ketmen** | **1.26** | **33** | *e*P | **Pn** | **10 13 46.1** | **-1.0** |
| | 161nm,0.2s | | | | | | |
| KTMS | | | | *e*S | **Sn** | **10 14 05.5** | **+0.8** |
| | 103nm,0.2s | | | | | | |
| **KURS** | **Kuram** | **1.43** | **321** | *e*P | **Pn** | **10 13 48.9** | **-0.5** |
| KURS | | | | *e*S | **Sg** | **10 14 10.4** | **+2.1** |
| **KOTS** | **Kotyrbulak** | **1.90** | **297** | *e*P | **Pn** | **10 13 56.2** | **+0.3** |
| KOTS | | | | *e*S | **Sb** | **10 14 22.5** | **+0.5** |
| **MDOK** | **Medeo** | **1.91** | **295** | ⇓Pn | **Pn** | **10 13 56.2** | **+0.1** |
| MDOK | | | | ⇑Sn | **Sg** | **10 14 23.6** | **-0.1** |
| **MDOK** | **Medeo** | **1.91** | **295** | *e*P | **Pn** | **10 13 56.4** | **+0.3** |
| | 64nm,0.1s | | | | | | |
| MDOK | | | | *e*S | **Sb** | **10 14 22.8** | **+0.4** |
| | 163nm,0.5s | | | | | | |
| **TNSS** | **Tian-Shan** | **1.94** | **290** | *e*P | **Pn** | **10 13 56.5** | **-0.1** |
| | 387nm,0.3s | | | | | | |
| TNSS | | | | *e*S | **Sb** | **10 14 23.5** | **+0.1** |
| | 213nm,0.3s | | | | | | |
| **DJR** | **Jarkent** | **1.96** | **8** | *e*P | **Pb** | **10 13 58.7** | **0.0** |
| | 102nm,0.2s | | | | | | |
| DJR | | | | *e*S | **Sg** | **10 14 27.3** | **+2.0** |
| | 150nm,0.3s | | | | | | |
| **KNDC** | **Almaty** | **1.99** | **295** | ⇑Pn | **Pb** | **10 13 57.9** | **-1.3** |
| | 90nm,0.6s | | | | | | |
| KNDC | | | | ⇑Sn | **Sg** | **10 14 28.0** | **+1.9** |
| | 74nm,0.5s | | | | | | |
| **ARXS** | **Arharly** | **2.17** | **328** | *e*P | **Pb** | **10 14 01.5** | **-0.8** |
| | 38nm,0.3s | | | | | | |
| ARXS | | | | *e*S | **Sg** | **10 14 31.9** | **+0.1** |
| | 528nm,0.5s | | | | | | |
| **IZV** | **Izvestkoviy** | **2.17** | **288** | *e*P | **Pn** | **10 13 59.8** | **+0.2** |
| | 124nm,0.2s | | | | | | |
| IZV | | | | *e*S | **Sb** | **10 14 28.9** | **-0.9** |
| | 236nm,0.5s | | | | | | |
| **CHKK** | **Chushkaly** | **2.31** | **310** | *e*P | **Pb** | **10 14 05.1** | **+0.5** |
| | 29nm,0.4s | | | | | | |
| CHKK | | | | *e*S | **Sg** | **10 14 37.9** | **+1.5** |
| | 248nm,0.3s | | | | | | |
| **ULHL** | **Ulahol** | **2.36** | **268** | P | **Pn** | **10 14 03.1** | **+0.8** |
| | SNR=23 | | | | | | |
| **KTBS** | **Karatobe** | **2.41** | **304** | *e*P | **Pb** | **10 14 05.7** | **-0.6** |
| KTBS | | | | *e*S | **Sg** | **10 14 39.1** | **-0.4** |
| **BOOM** | **Boomskoye usch** | **2.58** | **273** | ⇑*e*P | **Pn** | **10 14 04.9** | **-0.4** |
| | baz=275 | | | | | | |
| BOOM | | | | ⇑*e*S | **Sb** | **10 14 39.1** | **-2.5** |
| | baz=275 | | | | | | |
| **DGS** | **Degeres** | **2.82** | **289** | *e*P | **Pb** | **10 14 11.4** | **-2.0** |
| | 42nm,0.3s | | | | | | |
| DGS | | | | *e*S | **Sb** | **10 14 48.6** | **+0.2** |
| | 111nm,0.3s | | | | | | |
| **TKM2** | **Tokmak 2** | **2.87** | **282** | ⇑*i*P | **Pn** | **10 14 10.2** | **+0.9** |
| | baz=284 | | | | | | |
| TKM2 | | | | ⇑*i*S | **Sn** | **10 14 46.0** | **+1.4** |
| | baz=284 | | | | | | |
| **TKM2** | **Tokmak 2** | **2.87** | **282** | ⇑Pn | **Pn** | **10 14 10.8** | **+1.5** |
| | 12nm,0.4s | | | | | | |
| TKM2 | | | | ⇓Sn | **Sb** | **10 14 50.9** | **+0.9** |
| | 20nm,0.4s | | | | | | |
| **TKM2** | **Tokmak 2** | **2.87** | **282** | P | **Pn** | **10 14 10.6** | **+1.2** |
| | SNR=26 | | | | | | |
| **KAPS** | **Kapalarasan** | **2.90** | **359** | *e*P | **Pb** | **10 14 14.7** | **0.0** |
| | 7.5nm,0.3s | | | | | | |
| KAPS | | | | *e*S | **Sg** | **10 14 54.4** | **-0.8** |
| | 90nm,0.3s | | | | | | |
| **KBK** | **Karagaybulak** | **3.32** | **276** | ⇑*i*P | **Pn** | **10 14 16.0** | **+0.6** |
| | baz=278 | | | | | | |
| KBK | | | | ⇑*i*S | **Sn** | **10 14 56.5** | **+0.9** |
| | baz=278 | | | | | | |
| **KBK** | **Karagaybulak** | **3.32** | **276** | P | **Pn** | **10 14 18.1** | **+2.7** |
| | SNR=8.6 | | | | | | |
| **CHMS** | **Chumysh** | **3.50** | **282** | ⇑*i*P | **Pn** | **10 14 18.8** | **+1.1** |
| | baz=283 | | | | | | |
| CHMS | | | | ⇑*i*S | **Sn** | **10 15 00.6** | **+0.8** |
| | baz=283 | | | | | | |
| **UCH** | **Uchtor** | **3.65** | **269** | ⇑*i*P | **Pn** | **10 14 20.6** | **+0.5** |
| | baz=270 | | | | | | |
| UCH | | | | ⇑*i*S | **Sn** | **10 15 04.2** | **+0.2** |
| | baz=270 | | | | | | |
| **UCH** | **Uchtor** | **3.65** | **269** | P | **Pb** | **10 14 26.5** | **-1.2** |
| | SNR=9.8 | | | | | | |
| **AAK** | **Ala-Archa** | **3.65** | **276** | ⇑*i*P | **Pn** | **10 14 20.6** | **+0.6** |
| | baz=277 | | | | | | |
| AAK | | | | ⇑*i*S | **Sn** | **10 15 04.2** | **+0.4** |
| | baz=277 | | | | | | |
| **AAK** | **Ala-Archa** | **3.65** | **276** | ⇓Pg | **Pb** | **10 14 28.6** | **+0.9** |
| | 7.0nm,0.4s | | | | | | |
| AAK | | | | Lg | Lg | 10 15 21.8 | |
| **AAK** | **Ala-Archa** | **3.65** | **276** | P | **Pg** | **10 14 30.0** | **-2.2** |
| | SNR=7.8 | | | | | | |
| **USP** | **Ospenovka** | **3.73** | **285** | ⇑*i*P | **Pn** | **10 14 21.7** | **+0.8** |
| | baz=286 | | | | | | |
| USP | | | | ⇑*i*S | **Sn** | **10 15 06.3** | **+0.9** |
| | baz=286 | | | | | | |
| **USP** | **Ospenovka** | **3.73** | **285** | P | **Pb** | **10 14 27.8** | **-1.0** |
| | SNR=8.6 | | | | | | |
| **EKS2** | **Erkin-Say** | **4.18** | **276** | P | **Pb** | **10 14 36.1** | **-0.5** |
| | SNR=10 | | | | | | |
| **AML** | **Almayashu** | **4.26** | **268** | ⇑*i*P | **Pn** | **10 14 29.3** | **+0.8** |
| | baz=270 | | | | | | |
| AML | | | | ⇑*i*S | **Sn** | **10 15 19.2** | **+0.1** |
| | baz=270 | | | | | | |
| **AML** | **Almayashu** | **4.26** | **268** | P | **Pb** | **10 14 38.5** | **+0.4** |
| | SNR=9.7 | | | | | | |
| **MAKZ** | **Makanchi** | **4.78** | **22** | ⇑Pn | **Pn** | **10 14 36.1** | **+0.8** |
| | 1.2nm,0.3s | | | | | | |
| MAKZ | | | | ⇑Lg | Lg | 10 15 53.6 | |
| | 2.8nm,0.5s | | | | | | |
| **MK31** | **Makanchi Array** | **4.86** | **24** | Pn | **Pn** | **10 14 37.2** | **+0.8** |
| | 1.4nm,0.3s,baz=204,slow=13,SNR=130 | | | | | | |
| MK31 | | | | ⇓Lg | Lg | 10 15 54.8 | |
| | 4.4nm,0.6s,baz=203,slow=26,SNR=3.8 | | | | | | |
| **SFK** | **Sufi-Kurgan** | **5.06** | **244** | ⇓Pg | **Pb** | **10 14 51.7** | **+0.1** |
| | 3.1nm,0.7s | | | | | | |
| SFK | | | | ⇓Lg | Lg | 10 16 01.2 | |
| | 24nm,0.9s | | | | | | |
| **MNAS** | **Manas** | **5.12** | **273** | ⇓Pg | **Pb** | **10 14 52.6** | **-0.1** |
| | 4.0nm,0.6s | | | | | | |
| MNAS | | | | ⇓Lg | Lg | 10 16 03.4 | |
| | 5.5nm,0.5s | | | | | | |
| **KK31** | **Karatay Array** | **6.60** | **279** | ⇑Pg | Pb | 10 15 22.6 | +4.8 |
| | 1.3nm,0.5s | | | | | | |
| KK31 | | | | ⇑Lg | Lg | 10 16 53.5 | |
| | 1.8nm,0.4s | | | | | | |
| **KURK** | **Kurchatov** | **8.35** | **356** | ⇑Lg | Lg | 10 17 50.4 | |
| | 9.2nm,0.9s | | | | | | |

**MEX 03 10:21:05.7**±0.4**, 14°.11N**×**93°.91W, h15$^{km}$**±154$^{km}$**, MD3.9, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PCIG** | | **1.72** | **23** | *i* P | Pn | 10 21 31.8 | -3.3 |
| PCIG | | | | *i* S | Sn | 10 21 52.1 | -4.8 |
| **CCIG** | **Comitan** | **2.76** | **38** | *e*P | Pn | 10 21 49.0 | -0.6 |
| CCIG | | | | *i* S | Sn | 10 22 19.2 | -3.6 |

*ISCJB **03** 10:24:24.4±0.5, 38°.78N±0°.03×43°.33E±0°.05, h10$^{km}$±6$^{km}$, Error ellipse: s-maj=6.6km s-min=4.6km az=38.4*
*CSEM **03** 10:24:24.4±0.2, 38°.81N×43°.32E, h10$^{km}$, ML2.8, Error ellipse: s-maj=3.9km s-min=3.4km az=129.0*
*DDA **03** 10:24:24.5, 38°.78N×43°.31E, h7$^{km}$, Ml2.8*
**ISC 03 10:24:24.5**±1.0**, 38°.79N**±0°.03×**43°.33E**±0°.03**, h9$^{km}$**±10$^{km}$**, n19, σ1$^{s}$.07**/32**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.20** | **166** | *e*PG | **Pg** | **10 24 29.1** | **+0.4** |
| **VANB** | **Van** | **0.20** | **166** | *e*Pg | **Pg** | **10 24 29.1** | **+0.4** |
| **TVAN** | **Van** | **0.27** | **167** | *i* P | **Pg** | **10 24 27.8** | **-2.1** |
| TVAN | | | | *i* S | **Sg** | **10 24 33.7** | **+0.1** |
| **VMUR** | **Van-Muradiye** | **0.28** | **44** | *i* P | **Pg** | **10 24 30.4** | **+0.3** |
| VMUR | | | | *i* S | **Sb** | **10 24 36.0** | **-0.6** |
| **VMUR** | **Van-Muradiye** | **0.28** | **44** | P | **Pg** | **10 24 30.4** | **+0.3** |
| VMUR | | | | S | **Sb** | **10 24 36.0** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.47** | **272** | *i* P | **Pg** | **10 24 33.2** | **-0.5** |
| ADCV | | | | *i* S | **Sb** | **10 24 41.1** | **-1.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.47** | **272** | P | **Pg** | **10 24 33.2** | **-0.5** |
| ADCV | | | | S | **Sb** | **10 24 41.1** | **-1.1** |
| **GEVA** | **Gevas** | **0.52** | **204** | *i* P | **Pb** | **10 24 36.0** | **+0.1** |
| GEVA | | | | *i* S | **Sg** | **10 24 42.2** | **+0.7** |
| **GEVA** | **Gevas** | **0.52** | **204** | P | **Pb** | **10 24 36.0** | **+0.1** |
| GEVA | | | | S | **Sg** | **10 24 42.2** | **+0.7** |
| **CLDR** | **Caldiran** | **0.58** | **52** | *e*PG | **Pg** | **10 24 35.9** | **+0.1** |
| CLDR | | | | *e*SG | **Sg** | **10 24 43.5** | **+0.1** |
| **CLDR** | **Caldiran** | **0.58** | **52** | *i* P | **Pg** | **10 24 35.7** | **0.0** |
| CLDR | | | | *i* S | **Sn** | **10 24 47.4** | **-1.5** |
| **CLDR** | **Caldiran** | **0.58** | **52** | P | **Pg** | **10 24 35.7** | **0.0** |
| **CLDR** | **Caldiran** | **0.58** | **52** | *e*Pg | **Pg** | **10 24 35.9** | **+0.1** |
| CLDR | | | | *e*Sg | **Sg** | **10 24 43.5** | **+0.1** |
| **TUTA** | **Tutak** | **0.73** | **327** | *i* P | **Pg** | **10 24 38.0** | **-0.6** |
| TUTA | | | | *i* S | **Sb** | **10 24 49.1** | **-0.6** |
| **TUTA** | **Tutak** | **0.73** | **327** | P | **Pg** | **10 24 38.0** | **-0.6** |
| TUTA | | | | S | **Sb** | **10 24 49.1** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **0.83** | **342** | *e*PG | **Pg** | **10 24 39.8** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **0.83** | **342** | *e*Pg | **Pg** | **10 24 39.8** | **-0.6** |
| **EKAR** | **Karacoban** | **1.09** | **296** | *i* P | **Pb** | **10 24 45.4** | **-0.2** |
| EKAR | | | | *i* S | **Sn** | **10 25 05.7** | **+4.2** |
| **EKAR** | **Karacoban** | **1.09** | **296** | P | **Pb** | **10 24 45.4** | **-0.2** |

*CSEM **03** 10:28:01.9±0.2, 77°.04N×18°.51E, h8$^{km}$, ML2.6, Error ellipse: s-maj=6.2km s-min=3.7km az=34.0*
*ISCJB **03** 10:28:02.7±1.1, 76°.70N±0°.06×18°.0E±0°.3, h22$^{km}$±11$^{km}$, Error ellipse: s-maj=13.0km s-min=6.3km az=40.7*
*NAO **03** 10:28:02.3±1.0, 77°.01N×18°.36E, h8$^{km}$±6$^{km}$, ML2.9*
*BER **03** 10:28:04.4±2.9, 77°.01N×18°.28E, h17$^{km}$±14$^{km}$, ML2.6, ML2.9(NAO)*
**ISC 03 10:28:03.3**±1.2**, 76°.90N**±0°.06×**18°.18E**±0°.04**, h25$^{km}$**±14$^{km}$**, n22, σ1$^{s}$.00**/33**, 2D, Svalbard region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HSP** | **Hornsund** | **0.61** | **281** | Pg | **Pb** | **10 28 15.3** | **+0.1** |
| HSP | | | | Lg | Lg | 10 28 23.4 | |
| **HSPB** | **Hornsund (broa** | **0.61** | **281** | ⇓*i*P | **Pb** | **10 28 15.2** | **-0.1** |
| HSPB | | | | *e*S | **Sb** | **10 28 23.4** | **-0.1** |
| HSPB | | | | IAML | | 10 28 29.7 | |
| | comp=Z,66nm,0.1s | | | | | | |
| **HSPB** | **Hornsund (broa** | **0.61** | **281** | ⇓*i*P | **Pb** | **10 28 15.2** | **-0.1** |
| | SNR=98 | | | | | | |
| **HSPB** | **Hornsund (broa** | **0.61** | **281** | *e*Pn | **Pn** | **10 28 17.7** | **+1.4** |
| HSPB | | | | *e*S | **Sb** | **10 28 23.4** | **-0.1** |
| | SNR=98 | | | | | | |
| HSPB | | | | *e*Sn | **Sn** | **10 28 26.7** | **+1.3** |
| **SPA0** | **Spitsbergen Ar** | **1.34** | **344** | Pn | **Pn** | **10 28 25.4** | **-1.0** |
| | baz=156,slow=22 | | | | | | |
| SPA0 | | | | Pg | **Pn** | **10 28 26.4** | **0.0** |
| | baz=152,slow=16 | | | | | | |
| SPA0 | | | | Lg | Lg | 10 28 41.5 | |
| | baz=168,slow=37 | | | | | | |
| **SPA0** | **Spitsbergen Ar** | **1.34** | **344** | Pn | **Pn** | **10 28 25.4** | **-1.0** |
| | baz=156,slow=22 | | | | | | |
| SPA0 | | | | Pg | **Pn** | **10 28 26.4** | **0.0** |
| | baz=152,slow=16 | | | | | | |
| SPA0 | | | | Lg | Lg | 10 28 41.5 | |
| | baz=168,slow=37 | | | | | | |
| **SPA0** | **Spitsbergen Ar** | **1.34** | **344** | Pn | **Pn** | **10 28 25.4** | **-1.0** |
| | SNR=55 | | | | | | |
| **SPA0** | **Spitsbergen Ar** | **1.34** | **344** | Pg | **Pn** | **10 28 26.4** | **0.0** |
| | SNR=93 | | | | | | |
| SPA0 | | | | Lg | Lg | 10 28 41.5 | |
| | SNR=50 | | | | | | |
| **BRBA** | **Barentsburg A** | **1.45** | **325** | Pn | **Pn** | **10 28 27.9** | **0.0** |
| | SNR=55 | | | | | | |
| **BRBA** | **Barentsburg A** | **1.45** | **325** | Pg | **Pb** | **10 28 28.9** | **-0.6** |
| | SNR=92 | | | | | | |
| BRBA | | | | Lg | Lg | 10 28 45.5 | |
| | SNR=50 | | | | | | |
| **HOPEN** | **Hopen** | **1.63** | **101** | Pn | **Pn** | **10 28 31.0** | **+0.7** |
| HOPEN | | | | Sn | **Sn** | **10 28 51.1** | **+0.7** |
| HOPEN | | | | Lg | Lg | 10 28 53.6 | |
| **HOPEN** | **Hopen** | **1.63** | **101** | *e*P | **Pn** | **10 28 31.2** | **+0.9** |
| HOPEN | | | | *e*Sg | **Sb** | **10 28 53.0** | **+0.4** |
| HOPEN | | | | IAML | | 10 28 56.4 | |
| | comp=Z,267nm,0.3s | | | | | | |
| **HOPEN** | **Hopen** | **1.63** | **101** | Pn | **Pn** | **10 28 31.0** | **+0.7** |
| HOPEN | | | | Sn | **Sn** | **10 28 51.1** | **+0.7** |
| HOPEN | | | | *e*Sg | **Sb** | **10 28 53.0** | **+0.4** |
| | SNR=92 | | | | | | |
| **KBS** | **Kingsbay** | **2.42** | **330** | Pn | **Pn** | **10 28 40.3** | **-0.9** |
| KBS | | | | Pg | **Pb** | **10 28 45.6** | **-0.4** |
| KBS | | | | Lg | Lg | 10 29 15.1 | |
| **KBS** | **Kingsbay** | **2.42** | **330** | *e*P | **Pn** | **10 28 40.2** | **-0.9** |
| KBS | | | | *e*Pg | **Pb** | **10 28 45.6** | **-0.4** |
| KBS | | | | *e*Sg | **Sb** | **10 29 14.9** | **-0.4** |
| KBS | | | | IAML | | 10 29 23.1 | |
| | comp=Z,197nm,0.6s | | | | | | |
| **KBS** | **Kingsbay** | **2.42** | **330** | Pn | **Pn** | **10 28 40.3** | **-0.9** |
| **BJO1** | **Bjornoya** | **2.42** | **175** | Lg | Lg | 10 29 22.5 | |
| **BJO** | **Bjornoya** | **2.42** | **174** | Lg | Lg | 10 29 22.5 | |
| **BJO** | **Bjornoya** | **2.42** | **174** | Lg | Lg | 10 29 22.5 | |
| **ARA0** | **ARCESS Array S** | **7.70** | **160** | Pn | **Pn** | **10 29 54.8** | **+1.2** |
| | baz=0.5,slow=10 | | | | | | |
| ARA0 | | | | Sn | **Sn** | **10 31 17.4** | **-2.4** |
| | baz=357,slow=22 | | | | | | |
| **ARA0** | **ARCESS Array S** | **7.70** | **160** | Pn | **Pn** | **10 29 54.8** | **+1.2** |
| | baz=0.5,slow=10 | | | | | | |
| ARA0 | | | | Sn | **Sn** | **10 31 17.4** | **-2.4** |
| | baz=357,slow=22 | | | | | | |
| **ARA0** | **ARCESS Array S** | **7.70** | **160** | Pn | **Pn** | **10 29 54.8** | **+1.2** |
| | SNR=55 | | | | | | |

*IDC **03** 10:29:38.6±0.4, 21°.46S×71°.73W, h0$^{km}$, mb4.7/15, mb1 4.8/20, mb1mx4.8/31, mbtmp4.8/20, ML4.6/4, MS4.1/13, Ms1 4.1/13, ms1mx3.9/30, Error ellipse: s-maj=16.5km s-min=14.1km az=66.0*
*GCMT **03** 10:29:40.3±0.3, 21°.48S×71°.75W, h31$^{km}$, MW5.0/70, Moment Tensor Solution. s31,c35; s70,c91; Duration: 0 Moment tensor: Scale $10^{16}$Nm; $M_{rr}$-3.56±.23; $M_{\theta\theta}$0.65±.13; $M_{\phi\phi}$2.91±.19; $M_{r\theta}$2.20±.14; $M_{\theta\phi}$1.27±.10; $M_{\phi r}$-0.33±.20; Best double couple: $M_0$4.06500×$10^{16}$ NP1:$\phi_s$229.00000°, δ55.00000°, λ-60.00000°. NP2: $\phi_s$3.00000°, δ44.00000°, λ-126.00000°. Principal axes: T 3.5410, Plg6.0000°, Azm298.0000°; N 1.0420, Plg24.0000°, Azm30.0000°; P -4.5880, Plg65.0000°, Azm195.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*NEIC **03** 10:29:40.3±0.2, 21°.62S×71°.65W, h10$^{km}$, mb5.1/76, ML4.9(GUC) Error ellipse: s-maj=6.1km s-min=3.8km az=67.0*
*SJA **03** 10:29:42.4±0.8, 22°.34S×71°.66W, h10$^{km}$±123$^{km}$, ML4.0*
*MOS **03** 10:29:42.9±1.3, 21°.55S×71°.76W, h33$^{km}$, mb5.1/31, Error ellipse: s-maj=17.4km s-min=8.0km az=100.6*
*ISCJB **03** 10:29:42.2±0.7, 21°.53S±0°.03×71°.66W±0°.04, h38$^{km}$±7$^{km}$, mb5.0/102, MS4.0/10, Error ellipse: s-maj=6.7km s-min=4.2km az=168.7*
*GUC **03** 10:29:43.4±0.5, 21°.58S×71°.48W, h38$^{km}$±3$^{km}$, ML4.9*
**ISC 03 10:29:41.2**±0.8**, 21°.57S**±0°.04×**71°.75W**±0°.05**, h18$^{km}$**±4$^{km}$**, n479, σ1$^{s}$.59**/496**, mb5.1**/102**, MS4.1**/10**, 17C-7D, Off coast of northern Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PB04** | **IPOC Station P** | **1.67** | **117** | *e*Pn | **Pn** | **10 30 08.7** | **-1.0** |
| PB04 | | | | *e*Sn | **Sn** | **10 30 28.2** | **-2.6** |
| **PB04** | **IPOC Station P** | **1.67** | **117** | ⇑*i*P | **Pn** | **10 30 08.9** | **-0.9** |
| PB04 | | | | *i* S | **Sn** | **10 30 28.1** | **-2.7** |
| PB04 | | | | IAML | | 10 30 29.5 | |
| | comp=E,28μm,0.3s | | | | | | |
| **PB01** | **IPOC Station P** | **2.17** | **76** | *e*Pn | **Pn** | **10 30 16.0** | **-0.6** |
| PB01 | | | | *e*Sn | **Sn** | **10 30 40.4** | **-2.8** |
| **PB01** | **IPOC Station P** | **2.17** | **76** | ⇑*i*P | **Pn** | **10 30 16.0** | **-0.6** |
| PB01 | | | | *i* S | **Sn** | **10 30 40.1** | **-3.1** |
| PB01 | | | | IAML | | 10 30 41.6 | |
| | comp=N,20μm,0.2s | | | | | | |
| **PB10** | **IPOC Station P** | **2.23** | **150** | *e*Pn | **Pn** | **10 30 15.9** | **-1.4** |
| PB10 | | | | *e*Sn | **Sn** | **10 30 41.4** | **-3.0** |
| **PB06** | **IPOC Station P** | **2.31** | **120** | ⇑*i*P | **Pn** | **10 30 18.0** | **-0.6** |
| PB06 | | | | *i* S | **Sn** | **10 30 44.6** | **-2.1** |
| PB06 | | | | IAML | | 10 30 46.1 | |
| | comp=E,9μm,0.3s | | | | | | |
| **PB09** | **IPOC Station P** | **2.34** | **96** | ⇑*i*P | **Pn** | **10 30 19.4** | **+0.3** |
| PB09 | | | | *i* S | **Sn** | **10 30 46.2** | **-1.3** |
| **PB08** | **IPOC Station P** | **2.81** | **60** | ⇑*i*P | **Pn** | **10 30 25.3** | **-0.4** |
| PB08 | | | | *i* S | **Sn** | **10 30 56.4** | **-3.0** |
| PB08 | | | | IAML | | 10 30 58.1 | |
| | comp=E,7μm,0.2s | | | | | | |
| **LVC** | **Limon Verde** | **2.83** | **112** | Pn | **Pn** | **10 30 26.3** | **+0.5** |
| | baz=274,slow=14 | | | | | | |
| LVC | | | | Sn | **Sn** | **10 30 58.0** | **-1.8** |
| | comp=E,15μm,0.3s,baz=114,slow=17,SNR=13 | | | | | | |
| LVC | | | | LR | LR | 10 31 37.3 | |
| | comp=E,22μm,19.4s,baz=4.5,slow=42 | | | | | | |
| **LVC** | **Limon Verde** | **2.83** | **112** | *e*Pn | **Pn** | **10 30 26.4** | **+0.5** |
| LVC | | | | *e*Sn | **Sn** | **10 30 59.4** | **-0.4** |
| **LVC** | **Limon Verde** | **2.83** | **112** | *e*P | **Pn** | **10 30 26.5** | **+0.6** |
| LVC | | | | *e*S | **Sn** | **10 30 59.6** | **-0.1** |
| **LVC** | **Limon Verde** | **2.83** | **112** | *e*P | **Pn** | **10 30 26.4** | **+0.5** |
| LVC | | | | *i* S | **Sn** | **10 30 58.0** | **-1.8** |
| **MNMC** | **Minye Minye** | **3.16** | **40** | *e*Pn | **Pn** | **10 30 30.2** | **-0.2** |
| MNMC | | | | *e*Sn | **Sn** | **10 31 03.9** | **-3.9** |
| **PB14** | **IPOC Station P** | **3.28** | **158** | *e*P | **Pn** | **10 30 30.4** | **-1.7** |
| PB14 | | | | ⇓*e*S | **Sn** | **10 31 06.6** | **-4.3** |
| **PB14** | **IPOC Station P** | **3.28** | **158** | IAML | | 10 31 09.0 | |
| | comp=N,2μm,1.0s | | | | | | |
| **YJA** | **Yavi** | **5.82** | **97** | *e*P | **Pn** | **10 31 10.2** | **+3.1** |
| **HJA** | **Humahuaca** | **6.09** | **107** | *e*P | **Pn** | **10 31 13.7** | **+2.9** |
| HJA | | | | IAML | | 10 31 23.1 | |
| | comp=Z,59nm,0.5s | | | | | | |
| **LPAZ** | **La Paz** | **6.27** | **34** | Pn | **Pn** | **10 31 15.9** | **+2.4** |
| | comp=Z,1.6nm,0.3s,baz=227,slow=6.6,SNR=21 | | | | | | |
| LPAZ | | | | LR | LR | 10 33 49.3 | |
| | comp=Z,2μm,21.0s,baz=219,slow=41 | | | | | | |
| **LPAZ** | **La Paz** | **6.27** | **34** | *e*P | **Pn** | **10 31 15.8** | **+2.3** |
| **SLA** | **San Lorenzo** | **6.55** | **120** | *e*P | **Pn** | **10 31 19.8** | **+2.9** |
| **AZAP** | **Zapla** | **6.70** | **114** | *e*P | **Pn** | **10 31 20.8** | **+1.7** |
| **FSA** | **Cafayete** | **6.95** | **132** | *e*P | **Pn** | **10 31 24.0** | **+1.6** |
| FSA | | | | IAML | | 10 31 31.2 | |
| | comp=Z,27nm,0.7s | | | | | | |
| **ASTB** | **Santa Barbara** | **7.14** | **111** | ⇓*e*P | **Pn** | **10 31 26.5** | **+1.5** |
| **LCO** | **Las Campanas** | **7.47** | **173** | *e*Pn | **Pn** | **10 31 26.2** | **-3.4** |
| LCO | | | | *e*Sn | **Sn** | **10 32 47.2** | **-6.8** |
| **AHML** | **Horco Molle** | **7.83** | **133** | ⇓*e*P | **Pn** | **10 31 35.9** | **+1.6** |
| **AGUA** | **GUANDACOL** | **8.41** | **160** | ⇓*e*P | **Pn** | **10 31 43.8** | **+1.3** |
| **CYA** | **Choya** | **8.71** | **143** | *e*P | **Pn** | **10 31 46.8** | **+0.4** |
| CYA | | | | IAML | | 10 31 48.8 | |
| | comp=Z,19nm,0.7s | | | | | | |
| **ACLC** | **CERRO LA CRUZ** | **8.94** | **152** | *e*P | **Pn** | **10 31 48.8** | **-0.9** |
| **APLL** | **PUNTA DE LOS L** | **9.96** | **153** | *e*P | **Pn** | **10 32 00.1** | **-3.6** |
| **NNA** | **Nana** | **10.70** | **332** | Pn | **Pn** | **10 32 12.5** | **-1.3** |
| | comp=Z,14nm,0.3s,baz=128,slow=12,SNR=18 | | | | | | |
| NNA | | | | Sn | **Sn** | **10 34 05.8** | **-7.5** |
| | comp=Z,21nm,0.3s,baz=231,slow=15,SNR=10 | | | | | | |
| NNA | | | | LR | LR | 10 35 55.4 | |
| | comp=Z,1μm,19.6s,baz=168,slow=36 | | | | | | |
| **NNA** | **Nana** | **10.70** | **332** | *i* P | **Pn** | **10 32 12.8** | **-1.0** |
| **NNA** | **Nana** | **10.70** | **332** | *e*Pn | **Pn** | **10 32 12.4** | **-1.4** |
| | comp=Z,189nm,0.7s | | | | | | |
| NNA | | | | *e*Sn | Sn | 10 34 01.6 | -12 |
| **ROC1** | **El Roble** | **11.38** | **177** | *e*Pn | **Pn** | **10 32 21.7** | **-1.5** |
| **SIV** | **San Ignacio** | **11.53** | **63** | Pn | **Pn** | **10 32 23.2** | **-1.9** |
| | comp=Z,3.9nm,0.3s,baz=259,slow=12,SNR=48 | | | | | | |
| **PEL** | **Peldehue** | **11.57** | **176** | *e*P | **Pn** | **10 32 29.4** | **+3.8** |
| PEL | | | | *e* | | 10 34 30.4 | |
| **PEL** | **Peldehue** | **11.57** | **176** | *e*Pn | **Pn** | **10 32 29.4** | **+3.8** |
| PEL | | | | *e*Sn | **Sn** | **10 34 30.4** | **-3.9** |
| **GO05** | **HualaæØ** | **13.39** | **181** | *e*Pn | **Pn** | **10 32 47.0** | **-3.5** |
| **CPUP** | **Villa Florida** | **14.01** | **113** | Pn | **Pn** | **10 32 56.9** | **-2.0** |
| | comp=Z,0.2nm,0.3s,baz=291,slow=12,SNR=33 | | | | | | |
| CPUP | | | | LR | LR | 10 39 00.0 | |
| | comp=Z,1μm,18.0s,baz=294,slow=40 | | | | | | |
| **SAML** | **Samuel** | **15.02** | **35** | *e*Pn | **Pn** | **10 33 10.9** | **-1.8** |
| **ATAH** | **Atahualpa** | **15.72** | **335** | Pn | **P** | **10 33 25.2** | **-1.1** |
| | comp=Z,0.6nm,0.3s,baz=146,slow=10,SNR=11 | | | | | | |
| **TRQA** | **Tornquist** | **18.47** | **155** | *e*P | **P** | **10 33 56.3** | **+0.1** |
| | comp=Z,142nm,1.4s | | | | | | |
| **PLCA** | **Paso Flores** | **19.13** | **177** | P | **Pn** | **10 34 05.5** | **+1.2** |
| | comp=Z,0.5nm,0.3s,baz=20,slow=12,SNR=44 | | | | | | |
| PLCA | | | | PcP | **PcP** | **10 38 27.7** | **+0.4** |
| | comp=Z,0.2nm,0.3s,baz=20,slow=1.2,SNR=8.0 | | | | | | |
| PLCA | | | | LR | LR | 10 41 54.1 | |
| | comp=Z,311nm,20.1s,baz=15,slow=38 | | | | | | |
| **PLCA** | **Paso Flores** | **19.13** | **177** | *e*P | **Pn** | **10 34 05.2** | **+0.9** |
| PLCA | | | | pmax | pmax | | |
| | comp=Z,91nm,1.4s | | | | | | |

PLCA **Paso Flores** 19.13 177 *e*P Pn 10 34 05.2 +0.9
comp=Z,91nm,1.4s
PLCA PcP PcP 10 38 27.7 +0.4
OTAV **Otavalo** 22.64 342 *e*P P 10 34 44.6 +2.6
comp=Z,27nm,1.3s
CMBC **Cumbal** 23.15 344 *e*P P 10 34 49.7 +2.5
BDFB **Brasilia** 23.24 79 P P 10 34 48.7 +0.8
comp=Z,17nm,0.5s,baz=57,slow=10,SNR=16
BDFB **Brasilia** 23.24 79 *e*P P 10 34 47.1 -0.8
BDFB pmax pmax
comp=Z,177nm,1.8s
BDFB **Brasilia** 23.24 79 *e*P P 10 34 47.0 -0.8
comp=Z,177nm,1.8s
CRUC **La Cruz** 23.55 347 *e*P P 10 34 53.8 +2.6
PTGA **Pitinga** 23.69 31 P P 10 34 51.7 -0.5
comp=Z,14nm,0.3s,baz=217,slow=17,SNR=34
PTGA LR LR 10 44 31.0
comp=Z,357nm,20.3s,baz=200,slow=38
POPC **Popayan, Colom** 24.44 348 *e*P P 10 35 03.0 +3.6
PRAC **Prado** 25.32 353 *e*P P 10 35 06.3 -0.8
PRAC **Prado** 25.32 353 *e*P P 10 35 08.2 +1.1
comp=Z,58nm,0.8s
CHIC **Chingaza** 26.11 356 *e*P P 10 35 18.4 +3.6
ROSC **El Rosal** 26.37 354 P P 10 35 22.8 +5.7
comp=Z,13nm,0.8s,baz=180,slow=19,SNR=5.1
ROSC LR LR 10 44 49.4
comp=Z,238nm,18.7s,baz=179,slow=35
RUSC **La Rusia** 27.32 357 *e*P P 10 35 24.2 -1.5
RUSC **La Rusia** 27.32 357 *e*P P 10 35 27.4 +1.6
comp=Z,13nm,0.9s
HELC **Santa Helena** 27.84 352 *e*P P 10 35 33.5 +3.3
comp=Z,24nm,0.8s
GO09 **Cerro Castillo** 29.65 181 *e*P P 10 35 46.4 +0.8
comp=Z,72nm,1.9s
EFI **East Falkland** 31.88 164⇓ *e*P P 10 36 05.7 +0.4
EFI pmax pmax
comp=Z,21nm,1.2s
USHA **Ushuaia** 33.30 177 P P 10 36 18.3 +0.6
comp=Z,53nm,0.8s,baz=351,slow=6.2,SNR=9.7
RCBR **Riachuelo** 38.05 71 P P 10 36 59.4 +0.4
comp=Z,44nm,0.8s,baz=234,slow=8.1,SNR=19
RCBR **Riachuelo** 38.05 71 *e*P P 10 36 59.3 +0.3
comp=Z,51nm,0.9s
MOIG **Morelia** 50.10 323 *e*P P 10 38 41.5 +5.7
comp=Z,44nm,0.4s
NHSC **New Hope** 54.96 351 *e*P P 10 39 16.6 +5.3
comp=Z,56nm,1.0s
LRAL **Lakeview Retre** 56.22 345 *e*P P 10 39 24.8 +4.5
comp=Z,40nm,1.8s
HKT **Hockley** 56.22 335⇑ *e*P P 10 39 22.3 +2.0
HKT pmax pmax
comp=Z,36nm,1.2s
244A **Avery, Jackson** 56.31 341 P P 10 39 22.8 +1.9
baz=159
833A **Chaparral WMA,** 56.33 331 P P 10 39 22.7 +1.5
baz=149
146A **Union** 56.38 342 P P 10 39 23.7 +2.1
baz=161
VBMS **Vicksburg** 56.42 341 P P 10 39 23.9 +2.2
baz=159
439A **Center Grove,** 56.56 336 P P 10 39 24.8 +2.0
baz=154
145A **Houston Renfro** 56.60 342 P P 10 39 25.0 +1.9
baz=160
Z47A **Carrollton** 56.65 344 P P 10 39 25.6 +2.2
baz=162
Z48A **Northport** 56.68 344 P P 10 39 25.8 +2.2
baz=162
340A **Bronson** 56.80 337 P P 10 39 25.2 +0.7
baz=155
241A **Mo Tay, Goldon** 57.02 339 P P 10 39 26.7 +0.7
baz=156,SNR=5.4
KMSC **Kings Mountain** 57.13 351 P P 10 39 30.2 +3.4
baz=169
143A **Socs Landing,** 57.15 340 P P 10 39 29.8 +2.9
baz=158
142A **Monroe** 57.17 340 P P 10 39 30.4 +3.3
baz=158
Z45A **Winona** 57.25 342 P P 10 39 30.8 +3.1
baz=160
Y47A **UCPARC, Winfie** 57.26 344 P P 10 39 30.7 +3.1
baz=162
338A **Crockett** 57.27 336 P P 10 39 30.0 +2.2
baz=154
240A **Hunter Patters** 57.32 338 P P 10 39 30.5 +2.3
baz=156
NATX **Nacogdoches** 57.39 337 P P 10 39 30.8 +2.2
baz=154
337A **Centerville** 57.46 335 P P 10 39 32.8 +3.6
baz=153
Y46A **Houston** 57.50 343 P P 10 39 31.9 +2.5
baz=161
141A **Papa Simpson,** 57.54 339 P P 10 39 30.9 +1.2
baz=157,SNR=5.8
Y45A **Yeager Farm, C** 57.68 342 P P 10 39 33.0 +2.3
baz=160
238A **Jacksonville** 57.78 337 P P 10 39 33.6 +2.2
baz=154
Z42A **Norrel Spur, H** 57.84 340 P P 10 39 32.7 +0.9
baz=158
336A **Riesel** 57.90 335 P P 10 39 33.4 +1.2
baz=152,SNR=5.2
CPCT **Cooper Cave** 57.99 348 *e*P P 10 39 37.6 +4.8
comp=Z,16nm,1.2s
237A **Washetta, Mont** 58.04 336 P P 10 39 33.8 +0.5
baz=154
TKL **Tuckaleechee C** 58.05 348 *e*P P 10 39 37.7 +4.5
TKL pmax pmax
comp=Z,16nm,1.0s
TKL **Tuckaleechee C** 58.05 348 *e*P P 10 39 37.7 +4.5
comp=Z,16nm,1.0s
SWET **Sewanee** 58.06 346 *e*P P 10 39 37.7 +4.4
comp=Z,17nm,0.9s
Z41A **Richland Creek** 58.11 339 P P 10 39 34.3 +0.6
baz=157
X45A **UM Field Stati** 58.16 343 P P 10 39 35.1 +1.1
baz=161
OXF **Oxford** 58.25 343 *e*P P 10 39 38.7 +4.1
OXF pmax pmax
comp=Z,45nm,1.0s
OXF **Oxford** 58.25 343 *e*P P 10 39 38.7 +4.1
comp=Z,45nm,1.0s
Z40A **Long Farm, Mag** 58.31 339 P P 10 39 37.5 +2.4
baz=156
Y42A **Garnett, Star** 58.31 340 P P 10 39 37.2 +2.1
baz=158
236A **Katherine and** 58.31 335 P P 10 39 35.5 +0.4
baz=153
JCT **Junction City** 58.35 332 P P 10 39 36.3 +0.8
baz=149
JCT **Junction City** 58.35 332 *e*P P 10 39 36.0 +0.4
JCT pmax pmax
comp=Z,9.0nm,0.9s
JCT **Junction City** 58.35 332 *e*P P 10 39 36.0 +0.4
comp=Z,9.4nm,0.9s
137A **Heron Place, G** 58.55 336 P P 10 39 39.8 +3.0
baz=154
WLAR **White Oak Lake** 58.60 339 *e*P P 10 39 38.0 +0.9
comp=Z,68nm,0.9s
Y41A **Eaglette Beard** 58.62 340 P P 10 39 39.7 +2.5
baz=157,SNR=5.6
136A **Ennis** 58.73 336 P P 10 39 39.7 +1.6
baz=153
W45A **Hickory Valley** 58.79 343 P P 10 39 40.5 +2.1
baz=161
Y40A **Okolona** 58.95 339 P P 10 39 41.2 +1.7
baz=156
X41A **Kaden, Bauxite** 59.15 340 P P 10 39 43.3 +2.4
baz=157
Y39A **Lockesburg** 59.16 338 P P 10 39 41.5 +0.5
baz=156
TXAR **Lajitas Array** 59.22 327 P P 10 39 41.8 +0.1
comp=Z,0.8nm,0.7s,baz=150,slow=8.1,SNR=11
TXAR LR LR 11 01 54.4
comp=Z,142nm,20.3s,baz=0.0,slow=33
TX31 **Lajitas Ar. Si** 59.22 327 *e*P P 10 39 42.1 +0.5
V45A **Humboldt** 59.28 344 P P 10 39 42.5 +0.7
baz=161
WVT **Waverly** 59.37 345 *e*P P 10 39 41.1 -1.3
WVT pmax pmax
comp=Z,15nm,1.0s
WVT **Waverly** 59.37 345 *e*P P 10 39 41.1 -1.3
comp=Z,15nm,1.0s
Y38A **Idabel** 59.37 338 P P 10 39 44.1 +1.6
baz=155
Z36A **Blue Ridge** 59.41 336 P P 10 39 43.1 +0.4
baz=153,SNR=6.3
IP07 **Quail** 59.47 354 *e*P P 10 39 43.6 +0.6
comp=Z,42nm,1.0s
IP06 **Yanceyville** 59.48 354 *e*P P 10 39 43.9 +0.8
comp=Z,32nm,0.9s
IP01 **Cuckoo** 59.49 354 *e*P P 10 39 43.8 +0.6
comp=Z,36nm,1.0s
MIAR **Mount Ida** 59.54 339 P P 10 39 43.7 +0.1
baz=156,SNR=5.9
MIAR **Mount Ida** 59.54 339 *e*P P 10 39 43.5 -0.1
MIAR pmax pmax
comp=Z,17nm,0.9s
MIAR **Mount Ida** 59.54 339 *e*P P 10 39 43.5 -0.1
comp=Z,17nm,0.9s
SPRD **Spring Road, M** 59.56 354 *e*P P 10 39 44.0 +0.3
comp=Z,30nm,0.9s
IP03 **Louisa** 59.56 354 *e*P P 10 39 43.8 +0.1
comp=Z,32nm,0.9s
CVRD **Centerville Ro** 59.59 354 *e*P P 10 39 44.7 +0.8
comp=Z,26nm,1.0s
SPFD **Spotsylvania F** 59.63 355 *e*P P 10 39 44.8 +0.6
comp=Z,20nm,0.9s
IP04 **Greensprings** 59.64 354 *e*P P 10 39 44.9 +0.6
comp=Z,34nm,1.0s
X39A **Fountain Ranch** 59.69 339 P P 10 39 44.9 +0.3
baz=156
W41B **Gary Mavity, V** 59.69 341 P P 10 39 44.5 -0.2
baz=158,SNR=6.8
Y37A **Hugo** 59.74 337 P P 10 39 45.9 +0.9
baz=154,SNR=5.9
X301 **Greenbrier Sit** 59.80 340 *e*P P 10 39 45.1 -0.3
comp=Z,16nm,1.0s
WHAR **Wooly Hollow** 59.81 341 *e*P P 10 39 46.0 +0.5
comp=Z,18nm,1.0s
W40A **Ferguson Farm,** 59.97 340 P P 10 39 47.6 +1.0
baz=157
V42A **Cord** 60.02 342 P P 10 39 48.9 +2.0
baz=159
X38A **Whitesboro** 60.08 338 P P 10 39 47.8 +0.4
baz=155,SNR=5.1
ABTX **Abilene, Hawle** 60.13 333 P P 10 39 48.1 +0.4
baz=150
X37A **Clayton** 60.20 338 P P 10 39 48.5 +0.3
baz=155,SNR=5.9
U44A **Portageville** 60.20 343 P P 10 39 49.8 +1.7
baz=161
Y35A **Marietta** 60.20 336 P P 10 39 48.6 +0.4
baz=153
W39A **Magazine** 60.20 339 P P 10 39 49.2 +1.1
baz=156,SNR=6.3
V41A **Mountainview** 60.23 341 P P 10 39 49.0 +0.6
baz=158,SNR=6.0
W38A **Poteau** 60.34 339 P P 10 39 50.2 +1.1
baz=156
V40A **Witts Springs** 60.45 340 P P 10 39 51.2 +1.3
baz=157,SNR=5.8
U42A **Revenden** 60.48 342 P P 10 39 49.5 -0.6
baz=159,SNR=8.3
X36A **Centrahoma** 60.53 337 P P 10 39 49.6 -0.8
baz=154
X35A **Drake** 60.61 336 P P 10 39 50.3 -0.7
baz=153
PBMO **Poplar Bluff** 60.66 343 *e*P P 10 39 50.7 -0.6
comp=Z,17nm,0.9s
U41A **Viola** 60.68 341 P P 10 39 50.5 -0.9
baz=158,SNR=6.0
W37B **Quinton** 60.71 338 P P 10 39 51.7 +0.1
baz=155,SNR=5.9
T44A **Benton** 60.72 344 P P 10 39 52.7 +1.0
baz=161
V39A **Pettigrew** 60.75 340 P P 10 39 51.5 -0.4
baz=157,SNR=13
S46A **Don Dixon Farm** 60.83 346 P P 10 39 52.3 -0.1
baz=163
VNA3 **Neuayer Olymp** 60.87 161 P P 10 39 53.5 +1.2
T43A **Greenville** 60.90 343 P P 10 39 52.3 -0.6
baz=160,SNR=7.6
U40A **Yellville** 60.97 341 P P 10 39 52.8 -0.6
baz=158,SNR=5.6
W36A **Wetumka** 61.00 337 P P 10 39 52.8 -0.8
baz=154
V38A **Canehill** 61.02 339 P P 10 39 53.3 -0.5
baz=156
S45A **Carrier Mills** 61.02 345 P P 10 39 53.5 -0.2
baz=162
WCI **Wyandotte Cave** 61.03 347 *e*P P 10 39 57.6 +3.9
WCI pmax pmax
comp=Z,19nm,0.9s
WCI **Wyandotte Cave** 61.03 347 *e*P P 10 39 57.6 +3.9
comp=Z,19nm,0.9s
T42A **Van Buren** 61.08 342 P P 10 39 53.4 -0.6
baz=159,SNR=5.0
VNA1 **Neumayer--Stat** 61.11 160 P P 10 39 54.2 +0.3
U39A **Green Forest** 61.19 340 P P 10 39 54.3 -0.6
baz=157,SNR=5.5
S44A **Carbondale** 61.21 344 P P 10 39 54.7 -0.2
baz=161,SNR=5.1
SIUC **Southern Illin** 61.22 344 *e*P P 10 39 54.4 -0.7
comp=Z,40nm,1.1s
W35A **Tecumseh** 61.24 337 P P 10 39 53.7 -1.5
baz=153
HHAR **Hobbs** 61.25 340 *e*P P 10 39 54.9 -0.4
comp=Z,13nm,1.0s
T41A **Mountain View** 61.28 342 P P 10 39 55.3 -0.2
baz=159,SNR=6.6
V37A **Hulbert** 61.28 338 P P 10 39 55.8 +0.2
baz=155,SNR=5.1
S43A **Fulton Ridge,** 61.30 343 P P 10 39 54.2 -1.4
baz=160
VNA2 **Neumayer--Watz** 61.47 160 P P 10 39 56.5 +0.1
baz=284,slow=8.0
V36A **Jenks** 61.48 338 P P 10 39 56.4 -0.4
baz=154
TUL1 **Leonard** 61.53 338 P P 10 39 57.2 0.0
baz=154
TUL1 **Leonard** 61.53 338 *e*P P 10 39 56.6 -0.6
comp=Z,33nm,1.1s
U38A **Gravette** 61.54 339 P P 10 39 56.9 -0.3
baz=156
R45A **Skylar, Fairfi** 61.54 345 P P 10 39 56.8 -0.4
baz=162
OK020 **N3440 Road, Me** 61.59 337 *e*P P 10 40 02.2 +4.6
comp=Z,9.1nm,0.8s
OK021 **N3530 Road, Sp** 61.59 337 *e*P P 10 40 01.8 +4.2
comp=Z,11nm,0.9s
T40A **Mansfield** 61.60 341 P P 10 39 57.1 -0.6
baz=158
S42A **Caledonia** 61.69 343 P P 10 39 57.5 -0.7
baz=160
R44A **Waltonville** 61.69 345 P P 10 39 58.1 -0.1
baz=162
Q47A **Bedord North L** 61.74 347 P P 10 39 58.1 -0.4
baz=164
T39A **Clever** 61.75 340 P P 10 39 58.2 -0.4
baz=157,SNR=5.2
U37A **Salina** 61.75 339 P P 10 39 58.3 -0.3
baz=155
V35A **Meyer Ranch, C** 61.77 337 P P 10 39 59.3 +0.4
baz=153
S41A **Jillco Farms,** 61.78 342 P P 10 39 58.0 -0.8
baz=159,SNR=6.0
FVM **French Village** 61.79 343 *e*P P 10 39 58.2 -0.7
FVM pmax pmax
comp=Z,30nm,1.1s
FVM **French Village** 61.79 343 *e*P P 10 39 58.2 -0.7
comp=Z,30nm,1.1s
O56A **Blue Knob Stat** 61.85 354 P P 10 39 59.7 +0.5
baz=173
R43A **Red Bud** 61.93 344 P P 10 39 59.0 -0.8
baz=161
MNTX **Cornudas Mount** 62.00 328 P P 10 40 00.2 -0.3
baz=144
MNTX **Cornudas Mount** 62.00 328 *e*P P 10 40 00.4 -0.1
comp=Z,12nm,1.1s
S40A **Lebanon** 62.01 341 P P 10 39 60.0 -0.4
baz=158
T38A **Diamond** 62.05 340 P P 10 40 00.7 0.0
baz=156,SNR=14
CCM **Cathedral Cave** 62.08 343 *e*P P 10 40 00.1 -0.7
CCM pmax pmax
comp=Z,17nm,1.0s
CCM **Cathedral Cave** 62.08 343 *e*P P 10 40 00.1 -0.7
comp=Z,17nm,1.0s
Q45A **Warren Harvey,** 62.08 346 P P 10 40 00.2 -0.6
baz=163
R42A **Luebbering** 62.16 343 P P 10 40 01.0 -0.4
baz=160
U35A **Pawnee** 62.28 337 P P 10 40 01.1 -1.1
baz=154,SNR=7.4
Q44A **Meyer Farm, Va** 62.29 345 P P 10 40 01.9 -0.4
baz=162
R41A **Rosebud** 62.34 343 P P 10 40 02.0 -0.6
baz=159,SNR=7.9
S39A **Bolivar** 62.34 341 P P 10 40 02.4 -0.3
baz=157,SNR=7.6
ACSO **Alum Creek Sta** 62.37 350 *e*P P 10 40 02.4 -0.4
comp=Z,18nm,0.8s
S38A **Stockton** 62.47 340 P P 10 40 03.0 -0.5
baz=157,SNR=5.8
R40A **Maddies Statio** 62.59 342 P P 10 40 03.6 -0.6
baz=158,SNR=6.7
P45A **Graceland, Par** 62.59 346 P P 10 40 03.2 -1.1
baz=163
T36A **Boggs Farm, Ca** 62.60 338 P P 10 40 04.5 +0.2
baz=155
MSTX **Muleshoe** 62.64 331 P P 10 40 04.7 -0.1
baz=147
MSTX **Muleshoe** 62.64 331 *e*P P 10 40 04.6 -0.2
comp=Z,31nm,1.1s
N54A **Moraine State** 62.68 353 P P 10 40 04.6 -0.2
baz=171
Q42A **Golden Eagle** 62.69 344 P P 10 40 03.9 -0.9
baz=160
T35A **Sooner Cattle** 62.69 338 P P 10 40 05.5 +0.6
baz=154
R39A **Chumby, Stover** 62.83 341 P P 10 40 05.3 -0.6
baz=158
S37A **Fort Scott** 62.88 340 P P 10 40 06.2 0.0
baz=156
Q41A **Truxton** 62.91 343 P P 10 40 06.5 +0.1
baz=160
AMTX **Amarillo** 62.93 333 P P 10 40 06.8 +0.1
baz=149
O47A **Sheridan** 62.94 348 P P 10 40 05.2 -1.3
baz=165
R38A **Fenwick Farm,** 62.98 341 P P 10 40 06.4 -0.5
baz=157
T34A **McClaskey Farm** 63.03 337 P P 10 40 06.5 -0.8
baz=153
SNAA **Sanae** 63.08 161 P P 10 40 07.8 +0.5
SNAA **Sanae** 63.08 161 *d* P P 10 40 07.8 +0.5
SNAA **Sanae** 63.08 161 *e*P P 10 40 08.0 +0.7
comp=Z,32nm,0.9s
S36A **Lake Cedric, C** 63.10 339 P P 10 40 07.4 -0.3
baz=155,SNR=5.3
P43A **Skaggs, Pawnee** 63.12 345 P P 10 40 07.0 -0.7
baz=161
Q40A **Laux Farm, Aux** 63.19 342 P P 10 40 07.4 -0.8
baz=159
SFIN **Lafayette** 63.27 347 P P 10 40 07.2 -1.5
baz=164
P42A **Winchester** 63.27 344 P P 10 40 08.1 -0.7
baz=161
S35A **Otter Creek Ra** 63.31 338 P P 10 40 08.8 -0.3
baz=154
R37A **Teagarden Farm** 63.39 340 P P 10 40 08.8 -0.8
baz=156
Q39A **Willow Grove F** 63.49 342 P P 10 40 09.5 -0.8
baz=158,SNR=5.6
P41A **Barry, Barry** 63.54 343 P P 10 40 09.6 -0.9
baz=160
Q38A **Cooks Store, C** 63.60 341 P P 10 40 10.8 -0.2
baz=157,SNR=15
P40A **Paris** 63.68 343 P P 10 40 10.9 -0.5
baz=159,SNR=5.6
Q37A **Longview Farm,** 63.78 340 P P 10 40 11.9 -0.3
baz=156
P39B **Salisbury** 63.84 342 P P 10 40 11.9 -0.6
baz=158,SNR=5.9
121A **Cookes Peak, D** 63.88 326 P P 10 40 13.1 -0.1
baz=142
R34A **Isabella, Hill** 64.19 338 P P 10 40 16.1 +1.2
baz=154
P38A **Dawn** 64.19 341 P P 10 40 15.0 +0.1
baz=157,SNR=5.4
MMNY **Mt. Morris Dam** 64.23 355 *e*P P 10 40 14.0 -1.0
N43A **Stutzman Famil** 64.27 345 P P 10 40 14.8 -0.5
baz=162
Q35A **Mercer Eighty,** 64.28 339 P P 10 40 15.4 -0.1
baz=155
N41A **Harden Midland** 64.46 344 P P 10 40 15.2 -1.4
baz=160
O39A **Kirksville** 64.49 342 P P 10 40 15.9 -0.8
baz=158
BNM **Barren Site** 64.59 328 *e*P P 10 40 18.6 +0.7
O38A **Galt** 64.63 342 P P 10 40 16.9 -0.8
baz=158
KSU1 **Kansas State U** 64.69 339 *e*P P 10 40 19.6 +1.5
LPM **Los Pinos Moun** 64.73 328 *e*P P 10 40 20.3 +1.6
N40A **Mertquake, Sal** 64.81 343 P P 10 40 17.8 -1.1
baz=160
O37A **Wolven Farm, M** 64.87 341 P P 10 40 18.7 -0.6
baz=157
P35A **Duane Minner,** 64.88 339 P P 10 40 18.4 -0.9
baz=155
LAZ **Ladron** 65.05 328 *e*P P 10 40 19.6 -1.3
N39A **Derby Farms, D** 65.06 343 P P 10 40 19.6 -0.8
baz=159
O36A **Bolckow** 65.09 341 P P 10 40 20.8 +0.1
baz=156
ANMO **Albuquerque** 65.16 329 P P 10 40 22.6 +1.2
baz=144
ANMO **Albuquerque** 65.16 329⇑ *e*P P 10 40 22.5 +1.0
ANMO pmax pmax
comp=Z,3.0nm,1.0s
ANMO **Albuquerque** 65.16 329 *e*P P 10 40 22.7 +1.2
comp=Z,13nm,1.2s
P34A **Walnut Farm, R** 65.16 339 P P 10 40 20.7 -0.5
baz=154
N38A **Joes South For** 65.18 342 P P 10 40 22.5 +1.2
baz=158
M40A **Post Highland** 65.28 344 P P 10 40 21.0 -0.9
baz=160
TUC **Tucson** 65.30 324 P P 10 40 23.7 +1.3
baz=140
N37A **Lee Faris, Mou** 65.44 341 P P 10 40 22.6 -0.3
baz=157
CBKS **Cedar Bluff** 65.55 336 P P 10 40 24.0 +0.2
baz=151
CBKS **Cedar Bluff** 65.55 336 *e*P P 10 40 25.1 +1.4
CBKS pmax pmax
comp=Z,32nm,1.1s
CBKS **Cedar Bluff** 65.55 336 *e*P P 10 40 25.1 +1.4
comp=Z,32nm,1.1s
M38A **Pleasantville** 65.75 342 P P 10 40 24.3 -0.6
baz=158
L40A **Anamosa** 65.83 344 P P 10 40 25.2 -0.2
baz=160
O33A **Hebron** 65.89 339 P P 10 40 25.4 -0.5
baz=154
N35A **Tabor** 65.97 340 P P 10 40 25.8 -0.6
baz=156
M37A **Trindle Farm,** 65.98 342 P P 10 40 26.4 0.0
baz=157
T25A **Trinidad** 66.02 332 P P 10 40 28.0 +1.0
baz=147
K42A **Prairie Point,** 66.05 346 P P 10 40 26.1 -0.8
baz=162
MHTCO **State Highway** 66.13 332 *e*P P 10 40 29.1 +1.3
comp=Z,26nm,1.4s
SCIA **State Center** 66.21 343 *e*P P 10 40 27.6 -0.2
comp=Z,18nm,0.9s
L38A **Oak Wood Farm,** 66.36 343 P P 10 40 27.7 -1.1
baz=158
K40A **Colesburg** 66.40 345 P P 10 40 28.5 -0.7
baz=160
K39A **Oelwein** 66.60 344 P P 10 40 29.1 -1.2
baz=160
W18A **Petrified Fore** 66.92 327 P P 10 40 34.4 +1.6
baz=142
SDCO **Great Sand Dun** 67.00 331 *e*P P 10 40 34.7 +1.3
comp=Z,31nm,1.3s
I42A **Draeger Farm,** 67.02 347 P P 10 40 34.9 +1.9
baz=163
M33A **Taylor Creek F** 67.11 340 P P 10 40 33.9 +0.2
baz=154
K37A **Belmond** 67.12 343 P P 10 40 32.9 -0.8
baz=158
J39A **Decorah** 67.14 344 P P 10 40 32.9 -0.9
baz=160
K36A **Gilmore City** 67.23 342 P P 10 40 33.9 -0.5
baz=157
BGNE **Belgrade** 67.28 339 P P 10 40 34.9 +0.2
baz=153
J38A **Wedel Dairy, R** 67.33 344 P P 10 40 34.3 -0.7
baz=159
I39A **Houston** 67.58 345 P P 10 40 36.0 -0.7
baz=160

S22A 4UR Ranch, Cre 67.60 330 P P 10 40 38.0 +0.8
baz=145
J37A Redenius Farm, 67.60 343 P P 10 40 36.5 -0.3
baz=158
NVL N'lazarevskaya 67.71 159 *e*P P 10 40 38.2 +1.1
K34A Le Mars 67.77 341 P P 10 40 37.8 0.0
baz=156
J36A Seneca 1, Swea 67.84 342 P P 10 40 38.4 +0.1
baz=157
Q24A Divide 67.86 332 P P 10 40 38.8 -0.1
baz=146
MVCO Mesa Verde 67.95 329 P P 10 40 40.5 +1.1
baz=143
MVCO Mesa Verde 67.95 329 *e*P P 10 40 40.7 +1.3
comp=Z,11nm,0.9s
I38A Scanlan Farm, 67.96 344 P P 10 40 39.4 +0.4
baz=159
WUAZ Wupatki 68.07 326 P P 10 40 41.9 +1.8
baz=140
WUAZ Wupatki 68.07 326 *e*P P 10 40 41.9 +1.8
comp=Z,13nm,1.1s
K31A O'Neill 68.56 339 P P 10 40 43.3 +0.5
baz=153
QSPA South Pole Qui 68.62 180 *e*P P 10 40 44.5 +1.4
comp=Z,258nm,1.1s
QSPA *e*PcP PcP 10 41 06.3 -1.7
PV01 Paradox Valley 68.73 330 *e*P P 10 40 45.8 +1.5
ISCO Idaho Springs 68.75 333 P P 10 40 45.4 +0.9
baz=146
ISCO Idaho Springs 68.75 333 *e*P P 10 40 45.1 +0.7
ISCO pmax pmax
comp=Z,17nm,1.4s
ISCO Idaho Springs 68.75 333 *e*P P 10 40 45.1 +0.7
comp=Z,17nm,1.4s
SMCO Snowmass 68.84 331 *e*P P 10 40 46.2 +1.2
comp=Z,23nm,1.4s
G39A Holcombe 68.85 345 P P 10 40 43.3 -1.2
baz=161
ECSD EROS Data Cent 68.88 341 P P 10 40 44.6 -0.2
baz=155
ECSD EROS Data Cent 68.88 341 *e*P P 10 40 44.5 -0.2
comp=Z,26nm,1.4s
G38A Ridgeland 68.90 345 P P 10 40 46.1 +1.2
baz=160
BC3 Big Chuckawall 68.92 322 P P 10 40 46.1 +0.7
baz=136
MONP2 Monument Peak 68.94 321 P P 10 40 43.6 -2.0
baz=136
SPMN Marine on St. 69.19 344 P P 10 40 45.2 -1.4
baz=159
H35A Sunnyside Ranc 69.24 343 P P 10 40 46.7 -0.3
baz=157
PFO Pinyon Flats O 69.47 321 P P 10 40 49.7 +0.9
baz=136
H34A Spellman Lake, 69.48 342 P P 10 40 50.3 +1.9
baz=156
F37A Hinrichs Farm, 69.61 345 P P 10 40 49.3 +0.1
baz=159
H33A Prehn Over Nor 69.78 341 P P 10 40 50.6 +0.3
baz=155
N23A Red Feather La 69.80 333 P P 10 40 51.8 +0.9
baz=146
H32A Carlson Farm, 69.83 341 P P 10 40 49.4 -1.2
baz=154
GMRC Granite Mounta 69.86 323 P P 10 40 52.6 +1.4
baz=137
F36A Milaca 69.97 344 P P 10 40 50.2 -1.2
baz=158
G33A Ortonville 70.15 342 P P 10 40 52.1 -0.4
baz=156
O20A White River Ci 70.18 331 P P 10 40 54.0 +0.8
baz=144
O20A White River Ci 70.18 331 *e*P P 10 40 54.0 +0.8
comp=Z,16nm,1.0s
F35A Swanville 70.24 343 P P 10 40 52.4 -0.7
baz=157
HEC Hector,Ludlow 70.27 322 P P 10 40 54.4 +0.7
baz=136
MTPU Mount Pierson 70.42 327 *e*P P 10 40 56.5 +1.7
comp=Z,29nm,2.0s
SRU San Rafael Swe 70.43 329 *e*P P 10 40 56.0 +1.3
SRU pmax pmax
comp=Z,11nm,1.0s
SRU San Rafael Swe 70.43 329 *e*P P 10 40 56.0 +1.3
comp=Z,11nm,1.0s
CCUT Cedar City 70.65 326 *e*P P 10 40 58.6 +2.5
comp=Z,21nm,1.4s
P18A Preston Nutter 70.71 329 *e*P P 10 40 58.2 +1.7
comp=Z,29nm,1.4s
P17A Butcher Ranch, 70.82 329 *e*P P 10 40 58.5 +1.5
comp=Z,35nm,1.5s
SHPR Sheep Range 70.83 324 *e*P P 10 40 59.1 +1.9
comp=Z,31nm,2.0s
LIC Lamto 70.95 75 *e*P P 10 40 57.0 -1.2
comp=Z,45nm,1.6s
TIC Toumodi 71.14 75 *e*P P 10 40 58.1 -1.2
EDW2 Edwards Air Fo 71.27 321 P P 10 41 00.9 +1.3
baz=135
KIC Kosan Boka 71.27 75 *e*P P 10 40 59.2 -0.9
comp=Z,45nm,1.3s
DBIC Dimbokro 71.30 75 P P 10 40 59.5 -0.7
comp=Z,8.0nm,0.8s,baz=213,slow=7.1,SNR=8.3
DBIC LR LR 11 11 28.0
comp=Z,108nm,19.8s,baz=238,slow=35
DBIC Dimbokro 71.30 75 *e*P P 10 40 59.6 -0.7
DBIC pmax pmax
comp=Z,9.0nm,0.8s
DBIC Dimbokro 71.30 75 *e*P P 10 40 59.5 -0.7
comp=Z,8.7nm,0.8s
F31A Hecla 71.30 341 P P 10 40 59.3 -0.2
baz=154
K22A Casper 71.50 334 P P 10 41 01.7 +0.6
baz=146
RSSD Black Hills 71.75 336 P P 10 41 03.5 +0.9
baz=148
MPMC Manual Prospec 71.81 322 P P 10 41 04.5 +1.4
baz=136
JLU Jordanelle 72.04 329 *e*P P 10 41 06.0 +1.6
comp=Z,32nm,1.7s
DUG Dugway, Tooele 72.39 328 P P 10 41 07.6 +1.2
baz=140
DUG Dugway, Tooele 72.39 328 *e*P P 10 41 08.0 +1.6
DUG pmax pmax
comp=Z,22nm,1.4s
DUG Dugway, Tooele 72.39 328 *e*P P 10 41 08.0 +1.6
comp=Z,22nm,1.4s
CWC Cottonwood Cre 72.42 322 P P 10 41 07.1 +0.5
baz=135
R11A Troy Canyon, C 72.42 325 P P 10 41 08.2 +1.5
baz=138
VES Vestal, Richgr 72.58 321 P P 10 41 09.2 +1.7
baz=134
PD31 Pinedale Array 72.89 332 *e*P P 10 41 09.7 +0.3
PDAR Pinedale Array 72.89 332 P P 10 41 09.8 +0.3
comp=Z,0.7nm,0.7s,baz=141,slow=5.0,SNR=6.8
PDAR Pinedale Array 72.89 332 *e*P P 10 41 09.3 -0.1
B32A Ashes, Strandq 73.10 343 P P 10 41 09.9 -0.4
baz=156
A33A Warroad 73.29 344 P P 10 41 10.5 -0.8
baz=157
MDND Maddock 73.49 341 *e*P P 10 41 13.1 +0.5
comp=Z,8.4nm,0.4s
AHID Auburn Hatcher 73.58 331 *e*P P 10 41 14.5 +1.0
comp=Z,55nm,1.7s
REDW Red Top Meadow 73.94 331 *e*P P 10 41 16.7 +1.1
comp=Z,15nm,1.1s
SNOW Snow King Moun 73.97 332 *e*P P 10 41 17.1 +1.3
TPAW Teton Pass 74.08 331 *e*P P 10 41 17.8 +1.3
comp=Z,14nm,1.3s
MOOW Moose Ponds 74.19 332 *e*P P 10 41 18.2 +1.1
comp=Z,20nm,1.7s
FXWY Fox Creek 74.23 331 *e*P P 10 41 18.3 +1.0
comp=Z,9.8nm,1.3s
ULM Lac du Bonnet 74.63 344 P P 10 41 17.8 -1.3
comp=Z,4.9nm,0.8s,baz=140,slow=5.0,SNR=5.3
ULM LR LR 11 16 52.4
comp=Z,103nm,18.3s,baz=222,slow=38
RLMT Red Lodge 74.66 333 P P 10 41 20.4 +0.6
baz=144
RLMT Red Lodge 74.66 333 *e*P P 10 41 20.9 +1.2
comp=Z,32nm,1.5s
YMR Madison River 75.02 332 *e*P P 10 41 24.3 +2.5
comp=Z,19nm,1.1s
YHH Holmes Hill 75.06 332 *e*P P 10 41 24.2 +2.0
comp=Z,26nm,1.4s
GCMT Greycliff 75.37 334 *e*P P 10 41 24.8 +1.0
PAHR Pah Rah Range 75.45 324 *e*P P 10 41 26.2 +1.9
comp=Z,16nm,1.1s

KOWA Kowa 75.48 68 *e*P P 10 41 24.3 -0.6
comp=Z,15nm,0.6s
DGMT Dagmar 75.53 338 P P 10 41 25.6 +1.2
baz=149
DGMT Dagmar 75.53 338 *e*P P 10 41 25.5 +1.1
comp=Z,13nm,1.1s
DGMT *e*pP sP 10 41 29.9 -2.6
HLID Hailey 75.73 329 P P 10 41 27.1 +1.2
baz=139
HLID Hailey 75.73 329 *e*P P 10 41 27.3 +1.4
comp=Z,17nm,1.4s
MCMT McKenzie Canyo 75.98 331 *e*P P 10 41 28.9 +1.6
BOZ Bozeman (W) 76.04 332 P P 10 41 28.5 +0.9
baz=142
BOZ Bozeman (W) 76.04 332 *e*P P 10 41 28.6 +0.9
BOZ pmax pmax
comp=Z,10.0nm,1.4s
BOZ Bozeman (W) 76.04 332 *e*P P 10 41 28.6 +0.9
comp=Z,9.5nm,1.4s
SCHQ Schefferville 76.21 3 P P 10 41 28.1 -0.1
comp=Z,7.6nm,0.8s,baz=74,slow=19,SNR=4.6
SCHQ LR LR 11 14 25.2
comp=Z,63nm,21.7s,baz=18,slow=35
DLMT Dillon 76.28 332 *e*P P 10 41 30.3 +1.4
comp=Z,22nm,1.5s
MFID Camas Ranch 76.29 329 *e*P P 10 41 30.6 +1.6
comp=Z,20nm,1.4s
VNDA Vanda 76.31 190 P P 10 41 30.5 +1.9
comp=Z,5.8nm,0.9s,baz=125,slow=4.4,SNR=8.3
ORV Oroville 76.52 323 *e*P P 10 41 31.9 +1.6
ORV pmax pmax
comp=Z,12nm,1.1s
ORV Oroville 76.52 323 *e*P P 10 41 31.9 +1.6
comp=Z,12nm,1.1s
EGMT Eagleton 77.21 335 P P 10 41 34.5 +0.4
baz=144
SYO Syowa Base 77.36 160⇑*i*P P 10 41 34.0 -0.6
SYO Syowa Base 77.36 160⇑*e*sP P 10 41 39.6 +5.0
MSO Missoula 78.01 332 P P 10 41 40.0 +1.4
baz=140
BMO Blue Mountains 78.07 329 *e*P P 10 41 39.9 +0.9
BMO pmax pmax
comp=Z,5.0nm,1.0s
BMO Blue Mountains 78.07 329 *e*P P 10 41 39.9 +0.9
comp=Z,4.8nm,1.0s
M04C Macdoel 78.23 324 P P 10 41 39.4 -0.6
baz=133
F10A Beach Ranch, E 78.86 330 *e*P P 10 41 44.4 +1.1
comp=Z,9.3nm,1.1s
TOA0 Torodi Ar. Sit 79.88 72 *e*P P 10 41 49.0 -0.5
TORD Torodi Ar. Bea 79.88 72 P P 10 41 48.9 -0.6
comp=Z,32nm,0.8s,baz=251,slow=5.0,SNR=143
TORD LR LR 11 16 47.2
comp=Z,126nm,19.5s,baz=320,slow=35
HAWA Hanford 80.27 329 *e*P P 10 41 51.9 +1.1
comp=Z,9.4nm,0.9s
C09A Chrisman Ranch 80.69 330 *e*P P 10 41 53.3 +0.2
comp=Z,5.5nm,0.6s
SUR Sutherland 80.82 121 LR LR 11 12 55.0
comp=Z,9.3nm,21.4s,baz=279,slow=32
B08A Colville Reser 81.58 330 *e*P P 10 41 58.3 +0.5
comp=Z,10nm,1.2s
TSUM Tsumeb 82.55 108 LR LR 11 17 08.4
comp=Z,87nm,18.3s,baz=327,slow=34
TSUM Tsumeb 82.55 108 *e*P P 10 42 04.2 +0.4
comp=Z,12nm,0.8s
MAW Mawson 85.00 164 P P 10 42 16.2 +1.0
comp=Z,16nm,0.7s,baz=206,slow=6.2,SNR=34
MAW Mawson 85.00 164 *e*P P 10 42 16.2 +1.0
comp=Z,18nm,0.4s
BOSA Boshof 85.74 119 P P 10 42 20.2 +0.3
comp=Z,5.4nm,1.0s,baz=295,slow=5.7,SNR=5.1
ESDC Sonseca Array 87.75 46 P P 10 42 29.6 +0.4
comp=Z,0.2nm,0.2s,baz=265,slow=4.1,SNR=3.6
ES19 SONSECA Array 87.81 46 *e*P P 10 42 29.4 -0.2
YKA Yellowknife Ar 90.40 342 P P 10 42 40.3 -0.7
comp=Z,1.2nm,0.6s,baz=143,slow=5.0,SNR=24
KIEV Kiev 113.24 43⇑*i*PKIKP PKiKP 10 48 16.8 -0.8
BRTR Keskin Array B 115.03 55 PKP PKPdf 10 48 21.2 -0.4
comp=Z,0.7nm,0.8s,baz=204,slow=2.7,SNR=6.2
OBN Obninsk 117.86 38 *e*PKIKP PKPdf 10 48 24.7 -1.6
OBN *e* 10 49 38.5
OBN pmax pmax
comp=Z,4.0nm,0.8s
OBN MLR MLR
comp=Z,71nm,7.0s
STKA Stephens Creek 118.00 212 PKP PKPdf 10 48 26.0 -1.5
comp=Z,2.0nm,0.8s,baz=47,slow=3.0,SNR=3.2
STKA Stephens Creek 118.00 212 PKIKP PKPdf 10 48 26.0 -1.5
STKA pmax pmax
comp=Z,3.0nm,1.0s
KIV Kislovodsk 122.07 51 *i* PKIKP PKPdf 10 48 34.7 -0.2
KIV pmax pmax
comp=Z,5.0nm,0.9s
KBZ Khabaz 122.22 51 PKP PKPdf 10 48 34.6 -0.4
comp=Z,5.7nm,0.9s,baz=241,slow=2.4,SNR=9.6
NCK Nalchik 122.73 51⇑*i*PKIKP PKPdf 10 48 36.6 +0.5
H11S2 WAKE ISLAND Hy125.27 278 T T 13 06 20.0
baz=102
H11S1 WAKE ISLAND Hy125.27 278 T T 13 06 12.1
baz=102
H11S3 WAKE ISLAND Hy125.28 278 T T 13 06 16.2
baz=102
H11N3 WAKE ISLAND Hy125.36 279 T T 13 06 22.0
baz=103,slow=74
H11N2 WAKE ISLAND Hy125.37 279 T T 13 06 25.8
baz=103,slow=74
H11N1 WAKE ISLAND Hy125.37 279 T T 13 06 18.7
baz=103,slow=74
TIXI Tiksi 128.51 352 PKP PKPdf 10 48 45.5 -0.8
comp=Z,3.1nm,0.8s,baz=36,slow=2.8,SNR=8.4
TIXI Tiksi 128.51 352⇑*i*PKIKP PKPdf 10 48 45.8 -0.5
TIXI Tiksi 128.51 352 *e*PKPdf PKPdf 10 48 45.9 -0.4
ASAR Alice Springs 128.57 211 PKhKP PKPpre 10 48 33.6
comp=Z,0.4nm,0.7s,baz=90,slow=1.7,SNR=5.1
ASAR PKP PKPdf 10 48 47.7 -0.3
comp=Z,6.3nm,0.8s,baz=143,slow=2.3,SNR=44
SEY Seymchan 129.10 336⇑*i*PKIKP PKPdf 10 48 48.4 +0.8
ARU Arti 129.68 33 PKP PKPdf 10 48 48.9 0.0
comp=Z,2.6nm,0.4s,baz=286,slow=4.0,SNR=5.7
ARU Arti 129.68 33 *i* PKIKP PKPdf 10 48 50.1 +1.2
ARU 10 50 59.7
ARU SS SS 11 08 16.2 -5.7
AKTO Aktyubinsk 131.43 41 PKP PKPdf 10 48 52.7 +0.2
comp=Z,2.3nm,0.9s,baz=25,slow=2.5,SNR=7.4
WRA Warramunga Arr 131.49 214 PKhKP PKPpre 10 48 38.4
comp=Z,0.8nm,1.0s,baz=117,slow=2.9,SNR=5.4
WRA PKP PKPdf 10 48 53.7 +0.1
comp=Z,7.8nm,0.8s,baz=144,slow=1.7,SNR=79
WRAB Tennant Creek 131.49 214*c* *i*PKIKP PKPdf 10 48 53.9 +0.3
MA2 Magadan 131.59 333⇑*i*PKIKP PKPdf 10 48 54.6 +2.1
GEYT Alibeck 134.07 58 PKP PKPdf 10 48 58.5 +0.6
comp=Z,2.5nm,0.3s,baz=294,slow=2.4,SNR=6.7
BRVK Borovoye 137.25 33⇑*e*PKIKP PKPdf 10 49 03.3 0.0
BVAR Borovoye Array 137.32 33 PKP PKPdf 10 49 04.3 +0.8
comp=Z,1.8nm,0.6s,baz=267,slow=2.7,SNR=10
NVS Novosibirsk 141.82 23 *e*PKIKP PKPdf 10 49 12.4 +0.9
NVS pmax pmax
comp=E,7.0nm,1.4s
NVS pmax pmax
comp=Z,14nm,1.4s
KURK Kurchatov 142.80 31⇓*e*PKIKP PKPdf 10 49 13.8 +0.4
KURK Kurchatov 142.80 31 *e*PKPdf PKPdf 10 49 14.2 +0.8
KURBB Kurchatov Arra 142.81 31 PKhKP PKPpre 10 49 08.5
comp=Z,1.9nm,0.8s,baz=306,slow=2.9,SNR=9.5
KURBB PKP PKPdf 10 49 14.3 +0.8
comp=Z,1.9nm,0.7s,baz=306,slow=2.6,SNR=14
ZALV Zalesovo Beam 143.10 23 PKhKP PKPpre 10 49 09.8
comp=Z,9.1nm,0.6s,baz=300,slow=2.9,SNR=19
ZALV PKP PKPdf 10 49 14.4 +0.6
comp=Z,9.1nm,0.6s,baz=294,slow=2.5,SNR=30
ZALV Zalesovo Beam 143.10 23 *i* PKHKP PKPpre 10 49 09.9
ZALV 10 49 14.5
ZALV pmax pmax
comp=Z,9.0nm,0.6s
ZALV pmax pmax
comp=Z,9.0nm,0.6s
BOD Bodaibo 143.55 355 *e*PKHKP PKPpre 10 49 10.9
BOD pmax pmax
comp=Z,6.0nm,1.3s
AML Almayashu 144.54 47 P PKPbc 10 49 17.1 +1.2
SNR=10
AAK Ala-Archa 144.86 45 *e*PKIKP PKPbc 10 49 17.7 +1.1
AAK *e* 10 49 22.4
AAK Ala-Archa 144.86 45 P PKPdf 10 49 18.1 +0.5
SNR=13
AAK Ala-Archa 144.86 45 *e*PKPdf PKPbc 10 49 17.7 +1.1

AAK *e*pPKPdf pPKPdf 10 49 22.4 -1.3
CHMS Chumysh 144.87 45 P PKPbc 10 49 17.4 +0.9
SNR=6.0
UCH Uchtor 145.05 46 P PKPdf 10 49 19.1 +0.9
SNR=13
SOEI Soe 145.12 208 *e*PKPbc PKPbc 10 49 18.9 +0.7
KBK Karagaybulak 145.15 45 P PKPdf 10 49 19.3 +1.2
SNR=7.4
TKM2 Tokmak 2 145.46 44 P PKPab 10 49 19.6 +0.7
SNR=15
MMRI Maumere 146.99 206 *e*PKPbc PKPbc 10 49 24.3 +0.5
KSH Kashi 147.18 50 PKPbc PKPdf 10 49 22.5 +1.0
KSH PP PP 10 52 53.2 +4.2
KSH SKS SKSdf 10 56 25.0 -4.6
KSH SKKS SKKSac 10 59 37.1 -3.1
KSH SS SS 11 11 46.3 -3.7
KSH AMB AMB
comp=Z,420nm,6.0s
KSH LR LR
comp=Z,100nm,5.0s
KSH LR LR
comp=Z,150nm,4.5s
KSH LR LR
comp=Z,450nm,6.5s
MKAR Makanchi Array 147.20 34 PKPbc PKPdf 10 49 21.5 +0.3
comp=Z,19nm,0.8s,baz=331,slow=1.0,SNR=60
POO Poona 147.58 89⇑*i*P PKPdf 10 49 19.0 -3.7
comp=Z,30nm,1.0s
THN Thein Dam 149.17 63 *e*P PKPdf 10 49 26.0 +1.2
THN *e*P PKPdf 10 49 26.0 +1.2
PALK Pallekele 149.85 114 *i* PKP2 PKPbc 10 49 32.1 +0.8
MJAR Matsushiro Arr 150.01 306 PKPbc PKPbc 10 49 31.4 +0.3
comp=Z,19nm,0.9s,baz=114,slow=1.3,SNR=42
MAT Matsushiro 150.01 306 PKP PKPbc 10 49 30.7 -0.3
USRK Ussuriysk Ar. 150.09 325 PKPbc PKPbc 10 49 31.4 +0.5
comp=Z,18nm,0.8s,baz=42,slow=1.5,SNR=19
USRK PKPab pPKPbc 10 49 36.4 -0.7
comp=Z,11nm,0.9s,baz=44,slow=2.7,SNR=7.2
ZAK Zakamensk 150.98 7 *e*PKIKP PKPbc 10 49 33.2 +0.2
ZAK pmax pmax
comp=Z,8.0nm,1.3s
CISI Cisompet, Garu 151.05 179 *e*PKPbc PKPbc 10 49 34.4 +0.2
KAPI Kappang 151.28 204 *e*PKPbc PKPbc 10 49 35.7 +1.0
KAPI *e*PKPab PKPab 10 49 43.6 +1.1
WMQ Urumqi 152.01 33 PKPbc PKPdf 10 49 31.5 +2.5
WMQ LR LR
comp=Z,110nm,14.7s
WMQ LR LR
comp=Z,170nm,18.5s
WMQ LR LR
comp=Z,140nm,20.3s
ULN Ulaanbaatar 153.75 2 *e*PKIKP PKPdf 10 49 32.5 +1.0
ULN *e* 10 49 52.9
ULN Ulaanbaatar 153.75 2 *e*PKPdf PKPdf 10 49 32.5 +1.0
ULN *e*PKPab PKPab 10 49 52.9 +0.8
SONM Songino Array 153.75 3 PKP PKPdf 10 49 31.2 -0.3
comp=Z,2.1nm,0.8s,baz=232,slow=0.8,SNR=13
SONM PKPbc PKPbc 10 49 39.2 -0.1
comp=Z,3.1nm,0.7s,baz=150,slow=0.3,SNR=14
SONM PKPab PKPab 10 49 52.1 -0.1
comp=Z,2.3nm,0.8s,baz=337,slow=2.7,SNR=4.8
HHC Hu-ho-hao-te 160.58 352 *e*PKP PKPdf 10 49 39.8 -0.5
HHC AMB AMB
comp=Z,480nm,9.0s
GTA Gaotai 160.81 20 *e*PKP PKPdf 10 49 41.3 +0.6
LZH Lanzhou 165.03 14 *e*PKP PKPdf 10 49 44.3 -0.6
NJ2 Nanjing 165.92 320 *e*PKP PKPdf 10 49 44.6 -0.9
CMAR Chiang Mai Arr 170.72 108 PKP PKPdf 10 49 49.5 +0.4
comp=Z,1.0nm,0.5s,baz=297,slow=2.0,SNR=8.3
CMAR PKPab PKPab 10 51 07.0 0.0
comp=Z,2.3nm,0.7s,baz=251,slow=5.2,SNR=9.8
GYA Guiyang 174.92 16 *e*PKP PKPdf 10 49 49.8 -1.0
GYA PKPab PKPab 10 51 26.0 +0.7
GYA PKS PKSdf 10 53 20.4 -2.8
GYA PP PP 10 55 18.9 +2.4
GYA AMB AMB
comp=Z,120nm,8.4s

---

*ISCJB **03** 10:29:49.6±1.5, 15°.5S±0°.6×175°.1W±0°.3, h10km, mb3.9/5, MS3.6/2, Error ellipse: s-maj=96.1km s-min=15.1km az=155.7*
*IDC **03** 10:29:50.0±2.2, 15°.50S×175°.08W, h0km, mb3.9/4, mb1 4.3/5, mb1mx3.9/31, mbtmp4.0/5, ML4.6/1, MS3.6/4, Ms1 3.6/4, ms1mx3.3/28, Error ellipse: s-maj=120.7km s-min=23.1km az=151.0*
**ISC 03 10:29:51.1**±1.8**, 15°.5S**±0°.6×**174°.9W**±0°.3**, h10km, n27, σ1s.53**/9**, mb4.0**/5**, Tonga Islands**

Code Station Name Δ° AZ° Phase ID Op ISC Time h m s Res ISC
AFI Afiamalu 3.44 63 Pn Pn 10 30 45.8 +1.0
47nm,0.3s,baz=256,slow=7.8,SNR=199
AFI Sn Sn 10 31 23.2 -2.4
85nm,0.3s,baz=95,slow=21,SNR=4.6
AFI LR LR 10 31 50.9
comp=Z,596nm,20.7s,baz=301,slow=34
RAO Raoul Island 13.96 191 LR LR 10 37 53.3
comp=Z,478nm,19.8s,baz=122,slow=35
PAE Paea 24.38 99 *e*T T 11 00 44.7
2.7nm,0.2s
PPT Papeete 24.38 98 LR LR 10 43 01.8
comp=Z,79nm,21.4s,baz=262,slow=32
PPT2 Papeete2 24.39 98 *e*LQ LQ 10 40 17.4
613nm,26.2s
PPT2 *e*LR LR 10 41 19.2
377nm,26.5s
PPT2 Papeete2 24.39 98 *e*T T 11 00 45.6
4.9nm,0.3s
TVO Taravao 24.70 99 *e*T T 11 01 09.0
1.8nm,0.3s
TBI Tubuai 25.22 112 *e*LQ LQ 10 40 31.2
579nm,28.2s
TBI *e*LR LR 10 41 54.2
297nm,26.2s
TBI Tubuai 25.22 112 *e*T T 11 02 05.6
9.2nm,0.3s
PMOR Pomariorio Ree 26.08 93 *e*T T 11 02 43.7
3.3nm,0.2s
TAOE Nuku Hiva Isla 34.60 83 *e*LR LR 10 45 57.2
507nm,27.1s
H11S2 WAKE ISLAND Hy 38.32 331 T T 11 16 53.3
baz=149,slow=76,SNR=14
H11S3 WAKE ISLAND Hy 38.33 331 T T 11 16 56.6
baz=149,slow=76,SNR=13
H11S1 WAKE ISLAND Hy 38.34 331 T T 11 16 53.4
baz=149,slow=76,SNR=5.4
RKT Rikitea 38.36 108 *e*T T 11 18 24.5
4.6nm,0.3s
H11N3 WAKE ISLAND Hy 39.30 332 T T 11 18 04.1
baz=151,slow=76,SNR=51
H11N1 WAKE ISLAND Hy 39.30 332 T T 11 18 06.7
baz=151,slow=76,SNR=100
H11N2 WAKE ISLAND Hy 39.31 332 T T 11 18 05.5
baz=151,slow=76,SNR=68
WRA Warramunga Arr 48.39 257 P P 10 38 31.8 -1.9
0.2nm,0.2s,baz=93,slow=7.4,SNR=2.6
ASAR Alice Springs 48.68 252 P P 10 38 35.6 -0.3
1.9nm,0.6s,baz=87,slow=8.5,SNR=29
PETK Petropavlovsk- 72.29 343 LR LR 11 07 53.3
comp=Z,84nm,20.6s,baz=184,slow=32
TXAR Lajitas Array 81.89 57 P P 10 42 16.6 +5.3
1.4nm,1.0s,baz=213,slow=4.3,SNR=5.9
ILAR Eielson Array 82.84 12 P P 10 42 15.1 -0.2
0.8nm,0.9s,baz=224,slow=6.1,SNR=5.9
PDAR Pinedale Array 83.33 42 P P 10 42 20.1 +1.5
0.9nm,0.8s,baz=251,slow=4.7,SNR=3.9
BRTR Keskin Array B 145.29 320 PKPbc PKPdf 10 49 29.9 +0.2
2.5nm,0.8s,baz=110,slow=3.0,SNR=9.8
KHC Kasperske Hory 145.75 350 *e*P PKPab 10 49 31.7 +0.9
GERES GERESS Array B 146.00 350 PKPbc PKPab 10 49 31.6 -0.2
1.2nm,0.7s,baz=36,slow=3.4,SNR=6.4

---

*ISK **03** 10:47:54.8, 37°.23N×28°.24E, h4km, MD2.7*
*ISCJB **03** 10:47:55.5±0.5, 37°.23N±0°.03×28°.24E±0°.03, h0km, Error ellipse: s-maj=4.6km s-min=3.4km az=11.6*
*CSEM **03** 10:47:55.6±0.2, 37°.23N×28°.24E, h1km, MD2.7, Error ellipse: s-maj=3.9km s-min=2.9km az=21.0, Suspected Mining explosion.*
*DDA **03** 10:47:55.5, 37°.23N×28°.24E, h7km, Ml2.5, Suspected Mining explosion.*
**ISC 03 10:47:54.8**±0.8**, 37°.30N**±0°.04×**28°.22E**±0°.02**, h0km, n27, σ0s.81**/42**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AYDN** | **Tasoluk** | **0.45** | **323** | *i* P | **Pb** | **10 48 05.2** | **-0.5** |
| **AYDN** | **Tasoluk** | **0.45** | **323** | P | **Pb** | **10 48 05.2** | **-0.5** |
| **TURN** | **Turunc** | **0.52** | **144** | *e*PG | **Pg** | **10 48 04.4** | **-0.4** |
| TURN | | | | *e*SG | **Sg** | **10 48 11.2** | **-0.4** |
| **TURN** | **Turunc** | **0.52** | **144** | *e*Pg | **Pg** | **10 48 04.4** | **-0.4** |
| TURN | | | | *e*Sg | **Sg** | **10 48 11.2** | **-0.4** |
| **TAVA** | **DENIZLI_Tavas** | **0.57** | **73** | *i* P | **Pb** | **10 48 07.8** | **0.0** |
| TAVA | | | | *i* S | **Sb** | **10 48 16.1** | **-0.4** |
| **TAVA** | **DENIZLI_Tavas** | **0.57** | **73** | P | **Pb** | **10 48 07.8** | **0.0** |
| TAVA | | | | S | **Sb** | **10 48 16.1** | **-0.4** |
| **DALY** | **Dalyan (Mu˜la** | **0.59** | **144** | *e*PG | **Pg** | **10 48 05.9** | **-0.2** |
| **DALY** | **Dalyan (Mu˜la** | **0.59** | **144** | *i* P | **Pg** | **10 48 05.7** | **-0.4** |
| DALY | | | | *i* S | **Sb** | **10 48 16.6** | **-0.3** |
| **DALY** | **Dalyan (Mu˜la** | **0.59** | **144** | *e*Pg | **Pg** | **10 48 05.9** | **-0.2** |
| DALY | | | | S | **Sb** | **10 48 16.6** | **-0.3** |
| **BDRM** | **Kayabasi** | **0.67** | **250** | *i* P | **Pg** | **10 48 07.7** | **+0.2** |
| BDRM | | | | *i* S | **Sb** | **10 48 18.4** | **-0.7** |
| **BDRM** | **Kayabasi** | **0.67** | **250** | P | **Pg** | **10 48 07.7** | **+0.2** |
| BDRM | | | | S | **Sb** | **10 48 18.4** | **-0.7** |
| **BODT** | **Bodrum** | **0.77** | **252** | *e*PG | **Pg** | **10 48 10.2** | **+0.7** |
| BODT | | | | *e*SG | **Sb** | **10 48 21.3** | **-0.7** |
| **BODT** | **Bodrum** | **0.77** | **252** | *e*Pg | **Pg** | **10 48 10.2** | **+0.7** |
| BODT | | | | *e*Sg | **Sb** | **10 48 21.3** | **-0.7** |
| **GCAM** | **G?zelcaml?** | **0.88** | **297** | *e*PG | **Pb** | **10 48 13.1** | **+0.1** |
| **GCAM** | **G?zelcaml?** | **0.88** | **297** | *i* P | **Pb** | **10 48 13.3** | **+0.3** |
| GCAM | | | | *i* S | **Sn** | **10 48 27.7** | **-0.3** |
| **GCAM** | **G?zelcaml?** | **0.88** | **297** | P | **Pb** | **10 48 13.3** | **+0.3** |
| GCAM | | | | S | **Sn** | **10 48 27.7** | **-0.3** |
| **FETY** | **Fethiye** | **0.95** | **134** | *e*PG | **Pg** | **10 48 12.4** | **-0.6** |
| **FETY** | **Fethiye** | **0.95** | **134** | *e*Pg | **Pg** | **10 48 12.5** | **-0.6** |
| **NIS1** | **Nisyros Isl.** | **1.09** | **231** | *e*PG | **Pg** | **10 48 15.6** | **-0.1** |
| **NIS1** | **Nisyros Isl.** | **1.09** | **231** | *e*Pg | **Pg** | **10 48 15.6** | **-0.1** |
| **MANT** | **Manisa** | **1.22** | **12** | *i* P | **Pn** | **10 48 19.7** | **+0.4** |
| MANT | | | | *i* S | **Sn** | **10 48 37.3** | **+0.7** |
| **MANT** | **Manisa** | **1.22** | **12** | P | **Pn** | **10 48 19.7** | **+0.4** |
| MANT | | | | S | **Sn** | **10 48 37.3** | **+0.7** |
| **AKAS** | **Kas** | **1.54** | **133** | *e*PN | **Pn** | **10 48 23.1** | **-0.4** |
| **AKAS** | **Kas** | **1.54** | **133** | *i* P | **Pn** | **10 48 23.2** | **-0.4** |
| AKAS | | | | *i* S | **Sn** | **10 48 48.5** | **+4.2** |
| **AKAS** | **Kas** | **1.54** | **133** | *e*Pn | **Pn** | **10 48 23.1** | **-0.4** |
| **URLA** | **Izmir** | **1.67** | **310** | *e*PN | **Pb** | **10 48 26.4** | **0.0** |
| **URLA** | **Izmir** | **1.67** | **310** | *e*Pn | **Pb** | **10 48 26.4** | **0.0** |

*DDA **03** 11:02:44.9, 39°.25N×27°.98E, h7km, Ml2.7*
*ISCJB **03** 11:02:45.2±0.4, 39°.24N±0°.02×27°.99E±0°.03, h7km±5km, Error ellipse: s-maj=4.7km s-min=3.4km az=142.3*
*ISK **03** 11:02:45.0, 39°.24N×27°.96E, h8km, MD2.6*
*CSEM **03** 11:02:45.3±0.1, 39°.23N×27°.99E, h8km, ML2.7, Error ellipse: s-maj=2.5km s-min=1.9km az=50.0*
**ISC 03 11:02:45.2**±0.9**, 39°.23N**±0°.02×**27°.96E**±0°.02**, h15**km±8km**, n36, σ0s.40**/54**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **STEP** | **BALIKESIR_Sava** | **0.24** | **307** | *i* P | **Pg** | **11 02 50.1** | **-0.3** |
| STEP | | | | *i* S | **Sg** | **11 02 54.3** | **+0.3** |
| **STEP** | **BALIKESIR_Sava** | **0.24** | **307** | P | **Pg** | **11 02 50.1** | **-0.3** |
| STEP | | | | S | **Sg** | **11 02 54.3** | **+0.3** |
| **AKHS** | **Akhisar** | **0.37** | **198** | *i* P | **Pg** | **11 02 52.5** | **-0.3** |
| AKHS | | | | *i* S | **Sg** | **11 02 58.6** | **+0.8** |
| **AKHS** | **Akhisar** | **0.37** | **198** | P | **Pg** | **11 02 52.5** | **-0.3** |
| AKHS | | | | S | **Sg** | **11 02 58.7** | **+0.8** |
| **AKS** | **Akhisar** | **0.37** | **198** | *e*PG | **Pg** | **11 02 52.4** | **-0.4** |
| AKS | | | | *e*SG | **Sg** | **11 02 58.7** | **+0.8** |
| **AKS** | **Akhisar** | **0.37** | **198** | *e*Pg | **Pg** | **11 02 52.4** | **-0.4** |
| AKS | | | | *e*Sg | **Sg** | **11 02 58.7** | **+0.8** |
| **BALB** | **Balikesir** | **0.41** | **351** | *e*PG | **Pb** | **11 02 54.1** | **-0.1** |
| BALB | | | | *e*SG | **Sb** | **11 03 00.0** | **-0.3** |
| **BALB** | **Balikesir** | **0.41** | **351** | *e*Pg | **Pb** | **11 02 54.1** | **-0.1** |
| BALB | | | | *e*Sg | **Sb** | **11 03 00.0** | **-0.3** |
| **BALY** | **Balya** | **0.57** | **333** | *i* P | **Pb** | **11 02 57.0** | **0.0** |
| BALY | | | | *i* S | **Sg** | **11 03 03.8** | **-0.3** |
| **BALY** | **Balya** | **0.57** | **333** | P | **Pb** | **11 02 57.0** | **0.0** |
| BALY | | | | S | **Sg** | **11 03 03.8** | **-0.3** |
| **DEMI** | **Demirci** | **0.62** | **108** | *i* P | **Pg** | **11 02 57.2** | **-0.1** |
| DEMI | | | | *i* S | **Sg** | **11 03 05.7** | **+0.1** |
| **DEMI** | **Demirci** | **0.62** | **108** | P | **Pg** | **11 02 57.2** | **-0.1** |
| DEMI | | | | S | **Sg** | **11 03 05.7** | **+0.1** |
| **SIMA** | **Simav-Kutahya** | **0.81** | **100** | *e*PG | **Pg** | **11 03 00.9** | **0.0** |
| **SIMA** | **Simav-Kutahya** | **0.81** | **100** | *e*Pg | **Pg** | **11 03 00.9** | **0.0** |
| **GONE** | **Gonen-Balikesi** | **0.84** | **345** | *e*PG | **Pg** | **11 03 01.1** | **-0.4** |
| **GONE** | **Gonen-Balikesi** | **0.84** | **345** | *e*Pg | **Pg** | **11 03 01.1** | **-0.4** |
| **MANT** | **Manisa** | **0.88** | **148** | *i* P | **Pg** | **11 03 02.0** | **-0.2** |
| MANT | | | | *i* S | **Sg** | **11 03 12.8** | **-1.0** |
| **MANT** | **Manisa** | **0.88** | **148** | P | **Pg** | **11 03 02.0** | **-0.2** |
| MANT | | | | S | **Sg** | **11 03 12.8** | **-1.0** |
| **KULA** | **Kula-Manisa** | **0.90** | **143** | *e*PG | **Pg** | **11 03 02.6** | **-0.1** |
| **KULA** | **Kula-Manisa** | **0.90** | **143** | *e*Pg | **Pg** | **11 03 02.6** | **-0.1** |
| **KCTX** | **Karacabey (Bur** | **1.07** | **16** | *e*PG | **Pb** | **11 03 05.3** | **-0.2** |
| **KCTX** | **Karacabey (Bur** | **1.07** | **16** | *e*Pg | **Pb** | **11 03 05.3** | **-0.2** |
| **ORLT** | **Orhaneli** | **1.09** | **41** | *e*PN | **Pn** | **11 03 06.3** | **+0.4** |
| **ORLT** | **Orhaneli** | **1.09** | **41** | *e*Pn | **Pn** | **11 03 06.3** | **+0.4** |
| **TVSB** | **Tavsanli** | **1.18** | **79** | *e*PN | **Pg** | **11 03 08.5** | **+0.5** |
| **TVSB** | **Tavsanli** | **1.18** | **79** | *e*Pn | **Pg** | **11 03 08.5** | **+0.5** |
| **GDZ** | **Gediz** | **1.19** | **96** | *i* P | **Pb** | **11 03 07.2** | **-0.4** |
| GDZ | | | | *i* S | **Sn** | **11 03 23.6** | **+0.1** |
| **GDZ** | **Gediz** | **1.19** | **96** | P | **Pb** | **11 03 07.2** | **-0.4** |
| GDZ | | | | S | **Sn** | **11 03 23.6** | **+0.1** |
| **BAYC** | **CANAKKALE_Bayr** | **1.21** | **295** | *i* P | **Pb** | **11 03 08.1** | **+0.4** |
| BAYC | | | | *i* S | **Sg** | **11 03 24.4** | **+0.2** |
| **BAYC** | **CANAKKALE_Bayr** | **1.21** | **295** | P | **Pb** | **11 03 08.1** | **+0.4** |
| BAYC | | | | S | **Sg** | **11 03 24.4** | **+0.2** |
| **BOZC** | **Bozcaada** | **1.60** | **293** | *e*PN | **Pb** | **11 03 14.4** | **0.0** |
| **BOZC** | **Bozcaada** | **1.60** | **293** | *e*Pn | **Pb** | **11 03 14.4** | **0.0** |
| **SIGR** | **SIGRI** | **1.64** | **270** | *e*PN | **Pb** | **11 03 14.9** | **-0.2** |
| **SIGR** | **SIGRI** | **1.64** | **270** | *e*Pn | **Pb** | **11 03 14.9** | **-0.2** |
| **CHOS** | **Chios island** | **1.71** | **241** | *e*PN | **Pb** | **11 03 16.0** | **-0.4** |
| **CHOS** | **Chios island** | **1.71** | **241** | *e*Pn | **Pb** | **11 03 16.0** | **-0.4** |

*JMA **03** 11:33:37.3±0.3, 31°.26N×138°.65E, h449km, M3.6*
*ISCJB **03** 11:33:41.3±0.6, 31°.38N±0°.05×138°.9E±0°.1, h381km, mb3.0/5, Error ellipse: s-maj=15.6km s-min=6.5km az=169.1*
*IDC **03** 11:33:42.7±2.2, 31°.35N×138°.41E, h386km±33km, mb2.8/5, mb1 2.9/6, mb1mx2.7/51, mbtmp3.5/6, Error ellipse: s-maj=73.5km s-min=15.5km az=70.0*
**ISC 03 11:33:41.1**±0.8**, 31°.42N**±0°.08×**138°.9E**±0°.1**, h381**km**, n17, σ1s.85**/21**, mb3.0**/5**, Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JIE** | **Ise** | **3.48** | **329** | P | **Pn** | **11 34 49.2** | **+2.2** |
| **JHMK** | **Hamakita** | **3.52** | **345** | P | **Pn** | **11 34 49.9** | **+2.7** |
| **HMMJ** | **Hamamatsu 2** | **3.56** | **344** | P | **Pn** | **11 34 50.6** | **+2.8** |
| **JKN2** | **Miekihoku** | **3.57** | **323** | P | **Pn** | **11 34 49.2** | **+1.4** |
| **JWY** | **Kouya** | **3.93** | **316** | P | **Pn** | **11 34 52.8** | **+1.4** |
| **JHU** | **Hanno** | **4.43** | **4** | P | **Pn** | **11 34 58.1** | **+1.9** |
| JHU | | | | *e*S | **S** | **11 35 56.1** | **-1.1** |
| **JRY** | **Ryogami san** | **4.59** | **0** | P | **Pn** | **11 35 00.2** | **+2.4** |
| **JYT** | **Yasato** | **4.92** | **12** | P | **Pn** | **11 35 03.0** | **+1.8** |
| JYT | | | | *e*S | **S** | **11 36 04.3** | **-2.0** |
| **JAG** | **Ashikaga** | **5.02** | **5** | P | **Pn** | **11 35 03.5** | **+1.2** |
| JAG | | | | S | **S** | **11 36 06.4** | **-1.8** |
| **MJAR** | **Matsushiro Arr** | **5.14** | **354** | P | **Pn** | **11 35 05.6** | **+2.0** |
| | 1.5nm,0.3s,baz=170,slow=11,SNR=14 | | | | | | |
| **MAT** | **Matsushiro** | **5.14** | **354** | P | **Pn** | **11 35 05.9** | **+2.3** |
| **CBIJ** | **Chichi jima** | **5.19** | **145** | P | **Pn** | **11 35 05.1** | **+0.8** |
| CBIJ | | | | *e*S | **S** | **11 36 10.4** | **-1.3** |
| **SONM** | **Songino Array** | **29.63** | **313** | P | **P** | **11 39 12.6** | **-0.4** |
| | 0.3nm,0.4s,baz=108,slow=9.4,SNR=2.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **45.54** | **307** | P | **P** | **11 41 22.7** | **-1.7** |
| | 0.3nm,0.6s,baz=89,slow=8.8,SNR=3.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **51.25** | **185** | P | **P** | **11 42 07.7** | **0.0** |
| | 0.3nm,0.3s,baz=1.5,slow=7.8,SNR=15 | | | | | | |
| **ASAR** | **Alice Springs** | **54.98** | **186** | P | **P** | **11 42 35.3** | **+0.8** |
| | 0.3nm,0.8s,baz=17,slow=10.0,SNR=7.5 | | | | | | |
| **FINES** | **FINESS Array B** | **72.80** | **332** | P | **P** | **11 44 29.1** | **+0.4** |
| | 1.1nm,0.7s,baz=66,slow=6.7,SNR=5.2 | | | | | | |

*ISCJB **03** 11:42:47.9±1.3, 37°.34N±0°.05×38°.82E±0°.05, h1km±9km, Error ellipse: s-maj=8.4km s-min=6.4km az=139.3*
*CSEM **03** 11:42:48.3±0.3, 37°.36N×38°.81E, h5km, MD2.7, Error ellipse: s-maj=5.9km s-min=4.9km az=139.0*
*DDA **03** 11:42:48.8, 37°.36N×38°.72E, h7km, Ml2.9*
*ISK **03** 11:42:48.2, 37°.36N×38°.78E, h6km, MD2.7*
**ISC 03 11:42:48.4**±1.2**, 37°.36N**±0°.04×**38°.78E**±0°.03**, h6**km±8km**, n20, σ0s.40**/30**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **URFA** | **Urfa** | **0.09** | **25** | *e*PG | **Pg** | **11 42 50.4** | **0.0** |
| **URFA** | **Urfa** | **0.09** | **25** | *e*Pg | **Pg** | **11 42 50.4** | **0.0** |
| **MALT** | **Malatya** | **0.99** | **344** | *e*PG | **Pb** | **11 43 07.8** | **-0.2** |
| MALT | | | | *e*SG | **Sb** | **11 43 22.0** | **+0.7** |
| **MALT** | **Malatya** | **0.99** | **344** | *e*Pg | **Pb** | **11 43 07.8** | **-0.2** |
| MALT | | | | *e*Sg | **Sb** | **11 43 22.0** | **+0.7** |
| **SVRC** | **Sivrice-ELAZID** | **1.10** | **22** | *e*PN | **Pn** | **11 43 10.3** | **-0.2** |
| SVRC | | | | *e*SN | **Sn** | **11 43 25.4** | **-0.7** |
| **SVRC** | **Sivrice-ELAZID** | **1.10** | **22** | *e*Pn | **Pn** | **11 43 10.3** | **-0.2** |
| SVRC | | | | *e*Sn | **Sn** | **11 43 25.4** | **-0.7** |
| **ELZG** | **Elazig** | **1.15** | **8** | *i* P | **Pg** | **11 43 09.6** | **-0.7** |
| ELZG | | | | *i* S | **Sn** | **11 43 27.8** | **+0.6** |
| **ELZG** | **Elazig** | **1.15** | **8** | P | **Pg** | **11 43 09.6** | **-0.7** |
| ELZG | | | | S | **Sn** | **11 43 27.8** | **+0.6** |
| **AKCD** | **Akcadag** | **1.15** | **324** | *i* P | **Pg** | **11 43 10.3** | **-0.1** |
| AKCD | | | | *i* S | **Sn** | **11 43 27.3** | **0.0** |
| **AKCD** | **Akcadag** | **1.15** | **324** | P | **Pg** | **11 43 10.4** | **-0.1** |
| AKCD | | | | S | **Sn** | **11 43 27.3** | **0.0** |
| **DYBB** | **Diyarbakir** | **1.23** | **61** | *e*PN | **Pn** | **11 43 12.4** | **+0.2** |
| **GAZ** | **Gaziantep** | **1.26** | **262** | *e*PN | **Pn** | **11 43 12.7** | **0.0** |
| **GAZ** | **Gaziantep** | **1.26** | **262** | *e*Pn | **Pn** | **11 43 12.7** | **0.0** |
| **DIY** | **Diyarbakir** | **1.27** | **65** | *e*Pn | **Pg** | **11 43 12.4** | **-0.3** |
| **MAZI** | **Mazidag** | **1.33** | **85** | *e*PN | **Pg** | **11 43 13.9** | **-0.1** |
| **MAZI** | **Mazidag** | **1.33** | **85** | *e*Pn | **Pg** | **11 43 13.9** | **-0.1** |
| **KUZU** | **Kuzuini** | **1.48** | **247** | *i* P | **Pg** | **11 43 16.5** | **-0.3** |
| KUZU | | | | *i* S | **Sg** | **11 43 36.0** | **0.0** |
| **KUZU** | **Kuzuini** | **1.48** | **247** | P | **Pg** | **11 43 16.5** | **-0.3** |
| KUZU | | | | S | **Sg** | **11 43 36.0** | **0.0** |
| **PTK** | **Pertek** | **1.60** | **17** | *e*PN | **Pn** | **11 43 17.7** | **+0.3** |
| **PTK** | **Pertek** | **1.60** | **17** | *e*Pn | **Pn** | **11 43 17.7** | **+0.3** |

*DDA **03** 11:55:14.2, 40°.05N×27°.11E, h7km, Ml2.5*
*ISCJB **03** 11:55:15.9±0.5, 39°.93N±0°.03×27°.11E±0°.04, h7km±6km, Error ellipse: s-maj=5.6km s-min=4.6km az=3.9*
*ISK **03** 11:55:15.7, 39°.93N×27°.13E, h9km, MD2.5*
*CSEM **03** 11:55:16.2±0.1, 39°.92N×27°.12E, h10km, MD2.5, Error ellipse: s-maj=2.6km s-min=2.1km az=8.0*
**ISC 03 11:55:16.1**±1.0**, 39°.92N**±0°.03×**27°.13E**±0°.02**, h12**km±11km**, n28, σ0s.40**/38**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BALY** | **Balya** | **0.42** | **115** | *i* P | **Pg** | **11 55 23.8** | **-0.7** |
| BALY | | | | *i* S | **Sb** | **11 55 31.5** | **-0.3** |
| **BALY** | **Balya** | **0.42** | **115** | P | **Pg** | **11 55 23.8** | **-0.7** |
| BALY | | | | S | **Sb** | **11 55 31.5** | **-0.3** |
| **GONE** | **Gonen-Balikesi** | **0.45** | **74** | *e*PG | **Pg** | **11 55 24.9** | **-0.1** |
| GONE | | | | *e*SG | **Sg** | **11 55 31.4** | **+0.4** |
| **GONE** | **Gonen-Balikesi** | **0.45** | **74** | *e*Pg | **Pg** | **11 55 24.9** | **-0.1** |
| GONE | | | | *e*Sg | **Sg** | **11 55 31.4** | **+0.4** |
| **BAYC** | **CANAKKALE_Bayr** | **0.48** | **248** | *i* P | **Pg** | **11 55 25.4** | **-0.2** |
| BAYC | | | | *i* S | **Sg** | **11 55 32.2** | **+0.2** |
| **BAYC** | **CANAKKALE_Bayr** | **0.48** | **248** | P | **Pg** | **11 55 25.4** | **-0.2** |
| BAYC | | | | S | **Sg** | **11 55 32.2** | **+0.2** |
| **KRBG** | **Karabiga-Canak** | **0.49** | **16** | *e*PG | **Pg** | **11 55 25.5** | **-0.2** |
| KRBG | | | | *e*SG | **Sg** | **11 55 32.6** | **+0.4** |
| **KRBG** | **Karabiga-Canak** | **0.49** | **16** | *e*Pg | **Pg** | **11 55 25.5** | **-0.2** |
| KRBG | | | | *e*Sg | **Sg** | **11 55 32.6** | **+0.4** |
| **LPK** | **Lapseki** | **0.53** | **328** | *e*PG | **Pg** | **11 55 26.2** | **-0.3** |
| LPK | | | | *e*SG | **Sb** | **11 55 34.0** | **-1.0** |
| **LPK** | **Lapseki** | **0.53** | **328** | *e*Pg | **Pg** | **11 55 26.2** | **-0.3** |
| LPK | | | | *e*Sg | **Sb** | **11 55 34.0** | **-1.0** |
| **BALB** | **Balikesir** | **0.65** | **116** | *e*PG | **Pg** | **11 55 28.3** | **-0.4** |
| **BALB** | **Balikesir** | **0.65** | **116** | *e*Pg | **Pg** | **11 55 28.3** | **-0.4** |
| **STEP** | **BALIKESIR_Sava** | **0.71** | **140** | *i* P | **Pb** | **11 55 30.5** | **+0.1** |
| **STEP** | **BALIKESIR_Sava** | **0.71** | **140** | P | **Pb** | **11 55 30.5** | **+0.1** |
| **RKY** | **Sarkoy-Tekirda** | **0.77** | **3** | *e*PG | **Pg** | **11 55 30.8** | **-0.2** |
| **RKY** | **Sarkoy-Tekirda** | **0.77** | **3** | *e*Pg | **Pg** | **11 55 30.8** | **-0.2** |
| **BOZC** | **Bozcaada** | **0.83** | **265** | *e*PG | **Pg** | **11 55 32.1** | **0.0** |
| **BOZC** | **Bozcaada** | **0.83** | **265** | *e*Pg | **Pg** | **11 55 32.1** | **0.0** |
| **ENEZ** | **Enez** | **1.10** | **318** | *e*PN | **Pg** | **11 55 37.2** | **-0.1** |
| **ENEZ** | **Enez** | **1.10** | **318** | *e*Pn | **Pg** | **11 55 37.2** | **-0.1** |
| **SBT3** | **Marmara-Eregli** | **1.16** | **34** | *e*PN | **Pg** | **11 55 38.7** | **+0.3** |
| **SBT3** | **Marmara-Eregli** | **1.16** | **34** | *e*Pn | **Pg** | **11 55 38.7** | **+0.3** |
| **SIGR** | **SIGRI** | **1.21** | **235** | *e*PN | **Pg** | **11 55 39.5** | **+0.1** |
| **SIGR** | **SIGRI** | **1.21** | **235** | *e*Pn | **Pg** | **11 55 39.5** | **+0.1** |
| **ARMT** | **Armutlu** | **1.48** | **64** | *e*PN | **Pb** | **11 55 43.2** | **-0.3** |
| **ARMT** | **Armutlu** | **1.48** | **64** | *e*Pn | **Pb** | **11 55 43.2** | **-0.3** |
| **CTKS** | **Kestanelik-??a** | **1.68** | **38** | *e*PN | **Pn** | **11 55 45.9** | **+0.6** |
| **CTKS** | **Kestanelik-??a** | **1.68** | **38** | *e*Pn | **Pn** | **11 55 45.9** | **+0.6** |

*ISK **03** 12:13:44.7, 38°.88N×43°.63E, h27km, MD2.2*
*CSEM **03** 12:13:45.9±0.3, 38°.92N×43°.56E, h10km, ML2.6, Error ellipse: s-maj=8.1km s-min=6.5km az=130.0*
*DDA **03** 12:13:45.7, 38°.86N×43°.51E, h7km, Ml2.6*
**ISC 03 12:13:45.8**±1.0**, 38°.89N**±0°.03×**43°.55E**±0°.03**, h14**km±8km**, n18, σ0s.81**/32**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.11** | **11** | *i* P | **Pg** | **12 13 48.9** | **-0.4** |
| VMUR | | | | *i* S | **Sb** | **12 13 52.5** | **+0.1** |
| **VMUR** | **Van-Muradiye** | **0.11** | **11** | P | **Pg** | **12 13 48.9** | **-0.4** |
| **ERCV** | **ERCIS-VAN** | **0.21** | **310** | *e*PG | **Pb** | **12 13 52.4** | **+0.8** |
| ERCV | | | | *e*SG | **Sb** | **12 13 56.9** | **+1.5** |
| **ERCV** | **ERCIS-VAN** | **0.21** | **310** | *e*Pg | **Pb** | **12 13 52.4** | **+0.8** |
| ERCV | | | | *e*Sg | **Sb** | **12 13 56.9** | **+1.5** |
| **VANB** | **Van** | **0.32** | **203** | *e*PG | **Pb** | **12 13 54.1** | **+0.8** |
| VANB | | | | *e*SG | **Sn** | **12 14 01.0** | **-1.5** |
| **VANB** | **Van** | **0.32** | **203** | *e*Pg | **Pb** | **12 13 54.1** | **+0.8** |
| VANB | | | | *e*Sg | **Sn** | **12 14 01.0** | **-1.5** |
| **TVAN** | **Van** | **0.37** | **197** | *i* P | **Pg** | **12 13 53.2** | **-0.3** |
| TVAN | | | | *i* S | **Sb** | **12 14 00.8** | **+0.8** |
| **TVAN** | **Van** | **0.37** | **197** | P | **Pg** | **12 13 53.2** | **-0.3** |
| TVAN | | | | S | **Sb** | **12 14 00.8** | **+0.8** |
| **CLDR** | **Caldiran** | **0.39** | **48** | *e*PG | **Pg** | **12 13 53.2** | **-0.5** |
| CLDR | | | | *e*SG | **Sg** | **12 13 58.9** | **-0.2** |
| **CLDR** | **Caldiran** | **0.39** | **48** | *i* P | **Pg** | **12 13 53.5** | **-0.2** |
| CLDR | | | | *i* S | **Sb** | **12 14 01.2** | **+0.7** |
| **CLDR** | **Caldiran** | **0.39** | **48** | *e*Pg | **Pg** | **12 13 53.2** | **-0.5** |
| **CLDR** | **Caldiran** | **0.39** | **48** | P | **Pg** | **12 13 53.5** | **-0.2** |
| CLDR | | | | *e*Sg | **Sg** | **12 13 58.9** | **-0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.65** | **263** | *i* P | **Pg** | **12 13 58.0** | **-0.5** |
| ADCV | | | | *i* S | **Sb** | **12 14 08.3** | **+0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.65** | **263** | P | **Pg** | **12 13 58.0** | **-0.5** |
| ADCV | | | | S | **Sb** | **12 14 08.3** | **+0.4** |
| **TUTA** | **Tutak** | **0.77** | **312** | *i* P | **Pg** | **12 13 59.9** | **-0.9** |
| TUTA | | | | *i* S | **Sb** | **12 14 11.8** | **+0.3** |
| **TUTA** | **Tutak** | **0.77** | **312** | P | **Pg** | **12 13 59.9** | **-0.9** |
| TUTA | | | | S | **Sb** | **12 14 11.8** | **+0.3** |
| **AGRB** | **Hanur-Agry** | **0.81** | **328** | *e*PG | **Pg** | **12 14 01.2** | **-0.5** |
| **AGRB** | **Hanur-Agry** | **0.81** | **328** | *e*Pg | **Pg** | **12 14 01.2** | **-0.5** |

**JMA 03 12:24:52.5**±0.1**, 36°.86N**×**141°.13E, h49**km±1km**, M2.8, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ONAJ** | **Iwakimizuishiy** | **0.36** | **312** | P | Pn | 12 25 01.9 | -0.3 |
| ONAJ | | | | S | Sn | 12 25 08.4 | -0.7 |
| **JHO** | **Hitachi** | **0.52** | **241** | P | Pn | 12 25 03.7 | -0.2 |
| JHO | | | | S | Sn | 12 25 11.6 | -0.4 |
| **JFK** | **Kawauchi** | **0.55** | **338** | P | Pn | 12 25 03.9 | -0.4 |
| JFK | | | | S | Sn | 12 25 11.7 | -1.1 |
| **JFT** | **Otama** | **0.91** | **316** | P | Pn | 12 25 09.8 | +0.8 |
| JFT | | | | S | Sn | 12 25 21.6 | +0.4 |
| **JMM** | **Marumori** | **1.04** | **345** | P | Pn | 12 25 10.5 | -0.2 |
| JMM | | | | S | Sn | 12 25 23.6 | -0.6 |
| **JFY** | **Yanaizu** | **1.26** | **296** | P | Pn | 12 25 14.5 | +0.7 |
| **MAT** | **Matsushiro** | **2.37** | **263** | P | Pn | 12 25 30.3 | +1.4 |
| MAT | | | | *e*S | Sn | 12 26 02.8 | +6.0 |

*IDC **03** 12:26:14.9±0.5, 0°.54S×131°.85E, h0km, mb4.7/18, mb1 4.8/20, mb1mx4.6/31, mbtmp4.7/20, ML5.1/1, MS4.1/17, Ms1 4.1/17, ms1mx4.0/27, Error ellipse: s-maj=21.3km s-min=11.1km az=74.0*
*MOS **03** 12:26:17.9±1.0, 0°.52S×131°.82E, h35km, mb5.1/32, MS4.3/6, Error ellipse: s-maj=12.8km s-min=6.0km az=112.0*
*ISCJB **03** 12:26:17.3±0.2, 0°.53S±0°.02×131°.97E±0°.03, h31km, mb5.0/91, MS4.3/21, Error ellipse: s-maj=3.9km s-min=3.0km az=160.3*
*BJI **03** 12:26:17.7, 0°.60S×131°.90E, h35km, mb4.8/50, mB5.2/36, Ms4.7/31, Ms7 4.5/26*
*DJA **03** 12:26:17.9±1.3, 0°S±3°×13°2E±°, h15km±8km, M5.0/36, mb5.1/36, mB5.5/16, Mw(mB)4.9/16*
*GCMT **03** 12:26:19.7±0.2, 0°.49S×131°.86E, h22km±1km, MW5.1/94, Moment Tensor Solution. s40,c48; s94,c142; Duration: 0 Moment tensor: Scale $10^{16}$Nm; $M_{rr}$-2.18±.22; $M_{\theta\theta}$-4.45±.16; $M_{\phi\phi}$6.63±.18; $M_{r\theta}$0.57±.30; $M_{\theta\phi}$1.16±.13; $M_{\phi r}$2.83±.32; Best double couple: $M_0$6.10400×$10^{16}$ NP1:$\phi_s$51.00000°, δ85.00000°, λ18.00000°. NP2: $\phi_s$319.00000°, δ72.00000°, λ175.00000°. Principal axes: T 7.5950, Plg16.0000°, Azm276.0000°; N -2.9820, Plg71.0000°, Azm66.0000°; P -4.6130, Plg9.0000°, Azm184.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*NEIC **03** 12:26:19.7±0.2, 0°.59S×131°.94E, h35km, mb5.1/33 Error ellipse: s-maj=5.9km s-min=4.1km az=66.0*
*NEIC Felt [III] at Sorong.*
**ISC 03 12:26:19.2**±0.3**, 0°.58S**±0°.03×**131°.97E**±0°.04**, h31**km**, n278, σ1s.60**/282**, mb5.0**/91**, MS4.3**/22**, 17C-11D, Irian Jaya region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FAKI** | **Fak Fak** | **2.34** | **173** | P | **Pn** | **12 26 56.0** | **+0.4** |
| **FAKI** | **Fak Fak** | **2.34** | **173** | *e*Pn | **Pn** | **12 26 56.0** | **+0.4** |
| FAKI | | | | *e*Sn | **Pb** | **12 27 03.8** | **+3.1** |
| **RKPI** | **Ransiki, Papua** | **2.39** | **113** | P | **Pb** | **12 27 01.5** | **-0.1** |
| **MSAI** | **Masohi** | **4.10** | **228** | P | **Pn** | **12 27 21.5** | **+1.7** |
| **BNDI** | **Bandanaira** | **4.42** | **208** | P | **Pn** | **12 27 25.1** | **+0.8** |
| **LBMI** | **Labuha** | **4.47** | **269** | P | **Pn** | **12 27 23.4** | **-1.5** |
| **AAI** | **Ambon** | **4.87** | **231** | P | **Pn** | **12 27 31.0** | **+0.5** |
| **NLAI** | **Namlea** | **5.54** | **241** | P | **Pn** | **12 27 39.5** | **-0.1** |
| **SANI** | **Sanana** | **6.16** | **256** | P | **Pn** | **12 27 45.6** | **-2.5** |
| **SAUI** | **Saumlaki** | **7.38** | **185** | P | **Pn** | **12 28 05.5** | **+0.6** |
| **SAUI** | **Saumlaki** | **7.38** | **185** | *e*Pn | **Pn** | **12 28 00.6** | **-4.3** |
| SAUI | | | | *e*Sn | **Sn** | **12 29 26.4** | **-1.3** |
| **SGSI** | **Sangihe** | **7.71** | **303** | P | Pb | 12 28 23.2 | -9.1 |
| **PALU** | **Palau** | **8.26** | **18** | P | **Pn** | **12 28 16.9** | **-0.1** |
| | baz=8.3,SNR=6.6 | | | | | | |
| **GENI** | **Genyem** | **8.43** | **104** | P | Pn | 12 28 27.9 | +8.6 |
| **LUWI** | **Luwuk** | **9.21** | **267** | P | **Pn** | **12 28 28.9** | **-1.2** |
| **LUWI** | **Luwuk** | **9.21** | **267** | *e*Pn | **Pn** | **12 28 28.9** | **-1.2** |
| **DAV** | **Davao City (W)** | **9.92** | **320** | *e*Pn | **Pn** | **12 28 40.8** | **+0.9** |
| **MRSI** | **Marisa** | **10.09** | **276** | P | **Pn** | **12 28 43.6** | **+1.5** |
| **APSI** | **Ampana** | **10.33** | **268** | P | **Pn** | **12 28 44.2** | **-1.2** |
| **BBSI** | **Bau Bau** | **10.58** | **242** | P | Pn | 12 28 55.9 | +7.1 |
| **BUKP** | **Musuan** | **10.87** | **321** | *e*P | **Pn** | **12 28 52.4** | **-0.4** |
| **CTBH** | **Cotabato--PC H** | **10.93** | **315** | ⇑*i*P | **Pn** | **12 28 52.9** | **-0.7** |
| **BUTP** | **Butuan** | **11.40** | **326** | *e*P | **Pn** | **12 29 03.1** | **+3.0** |
| **SOEI** | **Soe** | **11.91** | **220** | P | **Pn** | **12 29 09.8** | **+2.7** |
| **SOEI** | **Soe** | **11.91** | **220** | *e*Pn | **Pn** | **12 29 04.9** | **-2.2** |
| **KDU** | **Kakadu** | **12.04** | **178** | P | **Pn** | **12 29 05.6** | **-3.2** |
| | baz=12,SNR=40 | | | | | | |
| **MPSI** | **Mapaga** | **12.11** | **274** | P | **Pn** | **12 29 09.0** | **-0.8** |
| **MTN** | **Manton Dam** | **12.21** | **184** | P | **Pn** | **12 29 07.5** | **-3.6** |
| | baz=12,SNR=220 | | | | | | |
| **MTN** | **Manton Dam** | **12.21** | **184** | *e*Pn | **Pn** | **12 29 08.2** | **-2.9** |
| **TTSI** | **Tana Toraja** | **12.39** | **258** | P | **P** | **12 29 28.0** | **+2.8** |
| **BNSI** | **Bone** | **12.45** | **252** | P | **Pn** | **12 29 15.4** | **+1.0** |
| **MMRI** | **Maumere** | **12.57** | **230** | P | Pn | 12 29 20.9 | +4.8 |
| **MMRI** | **Maumere** | **12.57** | **230** | *e*Pn | **Pn** | **12 29 17.3** | **+1.3** |
| **SPSI** | **Sidrap Palu** | **12.65** | **254** | P | **Pn** | **12 29 18.7** | **+1.6** |
| | 51nm,0.9s,930nm | | | | | | |
| **KAPI** | **Kappang** | **12.97** | **250** | *e*Pn | **Pn** | **12 29 22.1** | **+0.5** |
| | 81nm,1.0s | | | | | | |
| KAPI | | | | *e*Sn | **Sn** | **12 31 47.8** | **+2.9** |
| **EDFI** | **Ende, Flores** | **13.06** | **231** | P | **Pn** | **12 29 26.8** | **+3.9** |
| | 43nm,1.1s | | | | | | |
| **MYLDM** | **Lahad Datu** | **14.62** | **293** | ⇓P | **Pn** | **12 29 44.5** | **+0.4** |
| **MYLDM** | **Lahad Datu** | **14.62** | **293** | *e*Pn | **Pn** | **12 29 43.4** | **-0.7** |
| **TSM** | **Tawau** | **14.90** | **289** | ⇑P | **Pn** | **12 29 47.1** | **-0.7** |
| **RCP** | **Roxas** | **15.15** | **323** | ⇑*e*P | **Pn** | **12 29 50.5** | **-0.7** |
| **SDKM** | **Sandakan** | **16.00** | **293** | ⇓P | **Pn** | **12 30 02.6** | **+0.4** |
| **KBKI** | **Kotabaru** | **16.02** | **260** | P | **P** | **12 30 04.2** | **-1.5** |
| | 85nm,1.3s,2µm | | | | | | |
| **PLAI** | **Plampang** | **16.34** | **240** | P | **P** | **12 30 08.2** | **-1.0** |
| | 71nm,1.6s,1µm | | | | | | |
| **SJMP** | **San Jose** | **16.85** | **321** | *e*P | **Pn** | **12 30 11.9** | **-1.1** |
| **KKM** | **Kota Kinabalu** | **17.05** | **293** | ⇓P | **Pn** | **12 30 15.8** | **+0.2** |
| **MTKI** | **Muara Teweh, K** | **17.08** | **269** | P | **P** | **12 30 19.0** | **+1.6** |
| **COEN** | **Coen** | **17.31** | **141** | P | **Pn** | **12 30 17.2** | **-1.5** |
| | baz=17,SNR=27 | | | | | | |
| **COEN** | **Coen** | **17.31** | **141** | *e*Pn | **Pn** | **12 30 16.8** | **-1.9** |
| | 44nm,0.8s | | | | | | |
| **PMG** | **Port Moresby** | **17.47** | **121** | P | **P** | **12 30 21.3** | **-0.4** |
| | 0.6nm,0.3s,baz=321,slow=13,SNR=4.7 | | | | | | |
| PMG | | | | LR | LR | 12 39 41.4 | |
| | comp=Z,1µm,18.0s,baz=298,slow=46 | | | | | | |
| **PMG** | **Port Moresby** | **17.47** | **121** | ⇓*e*P | **P** | **12 30 22.2** | **+0.5** |
| PMG | | | | pmax | pmax | | |
| | comp=Z,169nm,1.0s | | | | | | |
| **PMG** | **Port Moresby** | **17.47** | **121** | *e*Pn | **Pn** | **12 30 20.7** | **0.0** |
| | comp=Z,70nm,1.1s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **18.49** | **199** | P | **P** | **12 30 28.4** | **-4.5** |
| | comp=Z,0.8nm,0.3s,baz=30,slow=11,SNR=34 | | | | | | |
| FITZ | | | | LR | LR | 12 39 35.9 | |
| | comp=Z,418nm,19.1s,baz=23,slow=43 | | | | | | |
| **GUMO** | **Guam** | **19.02** | **42** | LR | LR | 12 37 32.0 | |
| | comp=Z,169nm,18.8s,baz=224,slow=36 | | | | | | |
| **WRAB** | **Tennant Creek** | **19.37** | **173** | *c i*P | **Pn** | **12 30 43.5** | **-0.4** |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,417nm,1.7s | | | | | | |
| **WRAB** | **Tennant Creek** | **19.37** | **173** | *e*P | **P** | **12 30 42.3** | **-0.3** |
| | comp=Z,222nm,1.5s | | | | | | |
| **WRA** | **Warramunga Arr** | **19.38** | **173** | P | **P** | **12 30 42.1** | **-0.6** |
| | comp=Z,5.4nm,0.3s,baz=354,slow=11,SNR=138 | | | | | | |
| **WB2** | **Warramunga Arr** | **19.38** | **173** | *e*P | **P** | **12 30 42.3** | **-0.4** |
| WB2 | | | | *e*S | **S** | **12 34 16.8** | **-3.6** |
| **JAGI** | **Jajag, Banyuwa** | **19.40** | **246** | P | **Pn** | **12 30 45.0** | **+0.7** |
| | comp=Z,229nm,1.3s,comp=Z,2µm | | | | | | |
| **JAGI** | **Jajag, Banyuwa** | **19.40** | **246** | *e*P | **Pn** | **12 30 43.9** | **-0.5** |
| | comp=Z,222nm,1.0s | | | | | | |
| **BLJI** | **Banyuglugur** | **19.65** | **248** | P | Pn | 12 30 55.0 | +7.8 |
| **GMJI** | **Gumukmas** | **19.98** | **247** | P | **Pn** | **12 30 51.5** | **+0.4** |
| | comp=Z,114nm,1.6s,comp=Z,2µm | | | | | | |
| **CAUP** | **Cauayan** | **20.09** | **331** | *e*P | Pn | 12 30 52.9 | +0.6 |
| **SCZP** | **Santa Cruz** | **20.15** | **324** | *e*P | **P** | **12 30 51.0** | **-0.2** |
| **PBKI** | **Pangkalan Bun** | **20.40** | **264** | P | Pn | 12 30 55.8 | -0.3 |
| | comp=Z,156nm,0.9s | | | | | | |
| **RABL** | **Rabaul** | **20.49** | **100** | *e*P | Pn | 12 30 57.0 | -0.1 |
| | comp=Z,59nm,0.6s | | | | | | |
| **STKI** | **Sintang** | **20.51** | **272** | P | Pn | 12 30 57.7 | +0.4 |
| **QIS** | **Mount Isa** | **21.21** | **160** | P | **P** | **12 31 02.2** | **-0.3** |
| | baz=21,SNR=43 | | | | | | |
| **MTSU** | **Mount Surprise** | **21.25** | **146** | P | **P** | **12 31 03.3** | **+0.3** |
| | baz=21,SNR=44 | | | | | | |
| **PWJI** | **Pagerwojo** | **21.41** | **249** | P | **P** | **12 31 05.7** | **+0.9** |
| | comp=Z,60nm,1.0s | | | | | | |
| **KSM** | **Kuching** | **21.76** | **275** | ⇑P | **P** | **12 31 09.4** | **+0.8** |
| **KSM** | **Kuching** | **21.76** | **275** | *e*P | **P** | **12 31 08.8** | **+0.3** |
| | comp=Z,90nm,1.5s | | | | | | |
| **UGM** | **Wanagama** | **22.58** | **251** | ⇓P | **P** | **12 31 18.3** | **+0.9** |
| **AS31** | **Alice Springs** | **23.02** | **175** | *e*P | **P** | **12 31 21.8** | **-0.1** |
| | comp=Z,70nm,1.4s | | | | | | |
| **ASAR** | **Alice Springs** | **23.02** | **175** | P | **P** | **12 31 21.6** | **-0.3** |
| | comp=Z,46nm,0.7s,baz=351,slow=12,SNR=481 | | | | | | |
| ASAR | | | | LR | LR | 12 41 54.8 | |
| | comp=Z,2µm,18.0s,baz=350,slow=41 | | | | | | |
| **ASAR** | **Alice Springs** | **23.02** | **175** | P | **P** | **12 31 21.6** | **-0.3** |
| ASAR | | | | pmax | pmax | | |
| | comp=Z,41nm,0.7s | | | | | | |
| ASAR | | | | MLR | MLR | | |
| | comp=Z,2µm,18.0s | | | | | | |
| **AS01** | **Alice Springs** | **23.02** | **175** | *e*P | **P** | **12 31 21.7** | **-0.2** |
| **MBWA** | **Marble Bar** | **23.69** | **210** | *e*P | **P** | **12 31 27.4** | **-1.0** |
| | comp=Z,135nm,1.5s | | | | | | |
| **CTA** | **Charters Tower** | **23.90** | **145** | P | **P** | **12 31 31.6** | **+1.1** |
| | comp=Z,63nm,1.1s,baz=341,slow=11,SNR=15 | | | | | | |
| **CTAO** | **Charters Tower** | **23.90** | **145** | *e*P | **P** | **12 31 31.9** | **+1.4** |
| CTAO | | | | pmax | pmax | | |
| | comp=Z,156nm,1.4s | | | | | | |
| **CTAO** | **Charters Tower** | **23.90** | **145** | *e*P | **P** | **12 31 31.9** | **+1.4** |
| | comp=Z,156nm,1.4s | | | | | | |
| **KPJI** | **Karang Pucung** | **23.93** | **253** | P | **P** | **12 31 33.5** | **+2.7** |
| | comp=Z,85nm,1.3s | | | | | | |
| **WRKA** | **Warakurna** | **24.57** | **188** | P | **P** | **12 31 37.1** | **+0.5** |
| | baz=25,SNR=31 | | | | | | |
| **CISI** | **Cisompet, Garu** | **25.06** | **253** | P | **P** | **12 31 41.2** | **0.0** |

comp=Z,96nm,0.9s
**CISI Cisompet, Garu 25.06 253** *e*P **P** **12 31 40.5 -0.7**
comp=Z,263nm,1.4s
**DSRI Dabo 27.39 270** P **P** **12 32 03.0 +0.7**
comp=Z,86nm,1.0s
**KASI Kota Agung 27.86 259** P P 12 32 15.1 +8.7
**MYKOM Kota Tinggi 28.22 275** ⇑P **P** **12 32 10.6 +1.0**
**MYKOM Kota Tinggi 28.22 275** *e*P **P** **12 32 10.3 +0.7**
comp=Z,50nm,0.8s
**QLP Quilpie 28.42 156** P **P** **12 32 11.7 +0.5**
baz=28,SNR=8.0
**KGM Kluang 28.77 275** ⇓P **P** **12 32 15.3 +0.7**
**QIZ Qiongzhong 29.19 313** P **P** **12 32 18.8 +0.6**
QIZ S **S** **12 37 09.6 +0.7**
QIZ sS **sS** **12 37 27.3 +3.6**
QIZ SS **SnSn** **12 38 40.0 +4.8**
QIZ LR LR
comp=Z,610nm,13.3s
QIZ LR LR
comp=Z,440nm,12.1s
**HNR Honiara 29.19 108** LR LR 12 44 30.4
comp=Z,428nm,19.6s,baz=292,slow=37
**KTGM Kuala Trenggan 29.39 282** ⇓P **P** **12 32 20.6 +0.5**
**FORT Forrest 30.26 187** P **P** **12 32 28.4 +0.9**
baz=30,SNR=7.4
**FORT Forrest 30.26 187** *e*P **P** **12 32 26.0 -1.5**
comp=Z,940nm,1.2s
**RMQ Roma 30.40 149** P **P** **12 32 29.4 +0.5**
baz=30,SNR=4.5
**FRIM Kepong 30.57 277** ⇑P **P** **12 32 31.2 +0.7**
**EIDS Eidsvold 30.79 145** *e*P **P** **12 32 32.9 +0.6**
comp=Z,32nm,1.0s
**IPM Ipoh 31.33 280** ⇑P **P** **12 32 37.8 +0.6**
**IPM Ipoh 31.33 280** *e*P **P** **12 32 37.2 +0.1**
comp=Z,43nm,0.8s
**KULM Kulim 31.82 281** ⇑P **P** **12 32 41.8 +0.3**
**KULM Kulim 31.82 281** *e*P **P** **12 32 41.5 -0.1**
comp=Z,36nm,1.0s
**KMBL Kambalda 32.07 196** P **P** **12 32 43.8 +0.3**
baz=32,SNR=12
**BBOO Buckleboo 32.29 174** P **P** **12 32 45.6 +0.2**
baz=32,SNR=7.2
**BBOO Buckleboo 32.29 174** *e*P **P** **12 32 45.1 -0.3**
comp=Z,121nm,1.4s
**STKA Stephens Creek 32.43 165** P **P** **12 32 46.8 +0.2**
comp=Z,4.9nm,0.5s,baz=336,slow=8.8,SNR=9.7
STKA LR LR 12 47 24.6
comp=Z,874nm,19.5s,baz=342,slow=39
**STKA Stephens Creek 32.43 165** P **P** **12 32 46.9 +0.2**
baz=33,SNR=5.1
**STKA Stephens Creek 32.43 165** *e*P **P** **12 32 46.8 +0.2**
comp=Z,5.8nm,1.3s
**SKNT Sakolnakorn 32.64 304** P **P** **12 32 51.0 +2.3**
comp=Z,30nm,1.6s
**SRAK Srakaew 33.00 297** P **P** **12 32 47.2 -4.6**
**BLDU Ballidu 33.20 204** P **P** **12 32 53.6 +0.2**
baz=33,SNR=8.1
**PSI Prapat 33.21 276** P **P** **12 32 52.3 -1.6**
comp=Z,50nm,0.8s,baz=78,slow=7.5,SNR=42
**PSI Prapat 33.21 276** *e*P **P** **12 32 53.1 -0.8**
PSI pmax pmax
comp=Z,57nm,0.8s
**PSI Prapat 33.21 276** *e*P **P** **12 32 53.1 -0.8**
comp=Z,57nm,0.8s
**TRTT Trang 33.26 285** P **P** **12 32 54.2 +0.1**
comp=Z,95nm,0.9s
**CMSA Cobar Meteorol 33.41 158** P **P** **12 32 55.8 +0.6**
baz=34,SNR=16
**KLBR Kellerberrin 33.65 202** P **P** **12 32 57.5 +0.2**
baz=34,SNR=12
**NAYO Nakonayok 33.76 297** P **P** **12 32 58.8 +0.4**
comp=Z,21nm,1.2s,comp=Z,3μm
**KRAB Krabi 33.82 286** P **P** **12 32 59.1 +0.1**
comp=Z,87nm,0.8s,comp=Z,706nm
**CHAI Chaiyaphum 33.84 300** P **P** **12 32 58.9 -0.2**
comp=Z,7.3nm,0.8s
**SURT Suratani 34.38 287** P **P** **12 33 04.0 +0.1**
comp=Z,25nm,1.2s
**KCSI Kotacane, Aceh 34.42 277** P **P** **12 33 02.8 -1.5**
comp=Z,61nm,0.7s,comp=Z,2μm
**PKDT Phuket 34.58 285** P **P** **12 33 05.7 +0.1**
comp=Z,86nm,1.0s,comp=Z,3μm
**MUN Mundaring 34.60 204** P **P** **12 33 06.5 +1.0**
baz=35,SNR=4.7
**PHET Kaeng Krachan 34.77 294** P **P** **12 33 07.9 +0.7**
comp=Z,15nm,1.0s,comp=Z,147nm
**PBKT Sadao Pong 35.01 301** P **P** **12 33 09.4 +0.2**
comp=Z,22nm,2.0s,comp=Z,1μm
**NWAO Narrogin (SRO) 35.04 202** P **P** **12 33 09.8 +0.5**
comp=Z,12nm,0.8s,baz=248,slow=4.3,SNR=6.4
**NWAO Narrogin (SRO) 35.04 202** P **P** **12 33 10.1 +0.8**
baz=35,SNR=5.8
NWAO P **P** **12 33 10.1 +0.8**
baz=35,SNR=5.8
**ARMA Armidale 35.06 150** P **P** **12 33 10.4 +0.8**
baz=35,SNR=32
**ARMA Armidale 35.06 150** *e*P **P** **12 33 10.5 +0.8**
comp=Z,130nm,1.6s
**SRDT SRDT 35.74 296** P **P** **12 33 16.6 +1.0**
comp=Z,98nm,1.0s
**MLSI Meulaboh, Aceh 35.87 278** P **P** **12 33 15.8 -0.9**
comp=Z,175nm,0.9s
**UTHA Uthaitani 35.91 298** P **P** **12 33 17.0 -0.1**
comp=Z,7.1nm,1.2s,comp=Z,76nm
**YNG Young 36.90 157** P **P** **12 33 25.7 +0.5**
baz=37,SNR=5.3
**TJN Taejon 37.02 354**⇓ *e*P **P** **12 33 25.8 -0.4**
**ARPS Mount Arapiles 37.15 167** P **P** **12 33 28.4 +1.2**
baz=37,SNR=9.0
**MJAR Matsushiro Art 37.39 8** P **P** **12 33 28.4 -1.0**
comp=Z,1.1nm,0.7s,baz=187,slow=8.7,SNR=3.9
MJAR LR LR 12 45 49.2
comp=Z,419nm,21.5s,baz=190,slow=31
**CM01 Chiang Mai Arr 37.54 302** *e*P **P** **12 33 30.5 -0.4**
**CMAR Chiang Mai Arr 37.57 302** P **P** **12 33 30.4 -0.8**
comp=Z,3.1nm,0.9s,baz=129,slow=7.3,SNR=23
**CMMT Chiang Mai 37.73 302** P **P** **12 33 32.6 +0.1**
comp=Z,14nm,1.5s,comp=Z,354nm
**CHTO Chiang Mai 37.73 302** P **P** **12 33 32.6 +0.1**
comp=Z,92nm,1.2s,comp=Z,1μm
**CHTO Chiang Mai 37.73 302** *e*P **P** **12 33 32.3 -0.2**
CHTO pmax pmax
comp=Z,23nm,1.3s
**CHTO Chiang Mai 37.73 302** *e*P **P** **12 33 32.3 -0.2**
comp=Z,23nm,1.3s
**KSAR Wonju Array Be 38.02 355** P **P** **12 33 35.0 +0.3**
**KSAR Wonju Array Be 38.02 355** P **P** **12 33 35.0 +0.3**
**CAN Canberra 38.03 157** *e*P **P** **12 33 36.5 +1.6**
CAN pmax pmax
comp=Z,48nm,1.4s
**CAN Canberra 38.03 157** *e*P **P** **12 33 36.5 +1.6**
comp=Z,48nm,1.4s
**KSRS Korea Array 38.03 355** P **P** **12 33 35.0 +0.3**
comp=Z,1.5nm,0.8s,baz=176,slow=8.9,SNR=4.8
KSRS LR LR 12 48 22.4
comp=Z,327nm,19.1s,baz=188,slow=35
**KSRS Korea Array 38.03 355** P **P** **12 33 35.0 +0.3**
KSRS pmax pmax
comp=Z,2.0nm,0.8s
KSRS MLR MLR
comp=Z,327nm,19.1s
**KMI Kunming 38.12 314** P **P** **12 33 36.9 +0.9**
KMI sP sP 12 33 55.3 +6.4
KMI S **S** **12 39 26.9 -0.5**
KMI sS sS 12 39 47.7 +5.2
KMI SS **SnSn** **12 42 07.7 -4.5**
KMI pmax pmax
comp=Z,15nm,0.6s
KMI LR LR
comp=Z,500nm,15.5s
KMI LR LR
comp=Z,230nm,19.1s
**DZM Mont Dzumac 39.78 125** *e*LR LR 12 44 46.6
comp=Z,724nm,25.9s
**XAN Xi'an 40.67 330** P **P** **12 33 55.1 -1.9**
XAN pP sP 12 34 09.6 -0.3
XAN pmax pmax
comp=Z,18nm,1.3s
**CD2 Chengdu 41.22 322** *e*P **P** **12 34 00.8 -0.7**
CD2 pP pP 12 34 09.9 -0.8
CD2 sP sP 12 34 16.3 +1.8
CD2 S **S** **12 40 18.2 +4.7**
CD2 pmax pmax
comp=Z,20nm,1.3s
CD2 LR LR
comp=Z,860nm,14.3s
CD2 LR LR
comp=Z,730nm,13.1s
CD2 LR LR
comp=Z,340nm,19.0s
**BJI Beijing 42.93 342** P **P** **12 34 14.8 -0.4**
BJI S **S** **12 40 41.8 +3.6**
BJI pmax pmax
comp=Z,17nm,1.1s
BJI LR LR
comp=Z,420nm,22.0s
**USRK Ussuriysk Ar. 44.59 0** P **P** **12 34 28.2 -0.3**
comp=Z,4.9nm,0.7s,baz=193,slow=8.1,SNR=6.3
USRK LR LR 12 51 02.7
comp=Z,199nm,20.1s,baz=187,slow=33
**LZH Lanzhou 44.90 327** *e*P **P** **12 34 33.9 +2.6**
LZH pP sP 12 34 43.9 -0.4
LZH sP pP 12 34 47.0 +6.4
LZH PP **PP** **12 36 20.2 +3.6**
LZH S **S** **12 41 09.0 +1.5**
LZH sS sS 12 41 26.5 +3.7
LZH SS **ScS** **12 44 23.2 -3.7**
LZH pmax pmax
comp=Z,26nm,1.0s
LZH pmax pmax
comp=Z,240nm,6.9s
LZH LR LR
comp=Z,570nm,15.6s
LZH LR LR
comp=Z,290nm,12.0s
LZH LR LR
comp=Z,270nm,15.7s
**HHC Hu-ho-hao-te 45.22 338** *e*P **P** **12 34 35.4 +1.6**
HHC pmax pmax
comp=Z,15nm,0.8s
HHC pmax pmax
comp=Z,140nm,5.4s
**YSS Yuzh-Sakhalins 48.28 10**⇑ *e*P **P** **12 34 57.5 +0.1**
YSS pmax pmax
comp=Z,19nm,1.1s
**LSA Lhasa 49.20 311** *e*P **P** **12 35 05.2 -0.2**
LSA pmax pmax
comp=Z,4.0nm,0.6s
**LSA Lhasa 49.20 311** *e*P **P** **12 35 05.2 -0.2**
comp=Z,3.9nm,0.6s
**GTA Gaotai 49.50 327** *e*P **P** **12 35 06.8 -0.3**
GTA pP pP 12 35 16.1 -0.4
GTA sP sP 12 35 19.9 -0.3
GTA S **S** **12 42 11.1 -1.9**
GTA sS sS 12 42 28.0 -0.4
GTA SS **SS** **12 45 40.1 -5.2**
GTA pmax pmax
comp=Z,7.0nm,1.1s
GTA pmax pmax
comp=Z,100nm,8.1s
GTA LR LR
comp=Z,140nm,13.3s
GTA LR LR
comp=Z,240nm,11.6s
GTA LR LR
comp=Z,370nm,14.0s
**TAPN Taplejung 50.78 307** *e*P **P** **12 35 15.8 -1.4**
**ODAN Odare 50.83 306** *e*P **P** **12 35 16.2 -1.3**
comp=Z,17nm,0.5s
**RAMN Ramite 51.50 306** *e*P **P** **12 35 21.7 -0.9**
comp=Z,27nm,0.6s
**PALK Pallekele 51.73 280** *e*P **P** **12 35 22.8 -1.5**
PALK pmax pmax
comp=Z,14nm,1.1s
**PALK Pallekele 51.73 280** *e*P **P** **12 35 22.8 -1.5**
comp=Z,14nm,1.1s
**TYV Tymovskoe 52.06 9** *e*P **P** **12 35 26.7 +0.7**
TYV pmax pmax
comp=Z,13nm,1.7s
**JIRN Jiri 52.13 306** *e*P **P** **12 35 26.0 -1.4**
comp=Z,150nm,0.8s
**GUN Gumba 52.48 307** *e*P **P** **12 35 28.6 -1.4**
comp=Z,19nm,0.7s
**PKI Pulchoki 52.72 306** *e*P **P** **12 35 30.0 -1.8**
**ULN Ulaanbaatar 52.90 339** *c i*P **P** **12 35 32.2 -0.3**
ULN pmax pmax
comp=Z,18nm,1.0s
**ULN Ulaanbaatar 52.90 339** *e*P **P** **12 35 32.9 +0.3**
comp=Z,16nm,0.8s
**KKN Kakani 52.92 306** *e*P **P** **12 35 31.5 -1.6**
**DMN Daman 52.98 306** *e*P **P** **12 35 32.2 -1.4**
**SONM Songino Array 53.12 339** P **P** **12 35 33.9 -0.2**
comp=Z,5.2nm,0.8s,baz=155,slow=8.0,SNR=38
**SONA1 Songino Array 53.12 339** *e*P **P** **12 35 33.9 -0.2**
**KOLN Koldanda 54.27 305** *e*P **P** **12 35 41.9 -1.1**
comp=Z,83nm,0.8s
**DANN Dangsing 54.37 306** *e*P **P** **12 35 43.0 -0.8**
**PYUN Piuthan 54.90 305** *e*P **P** **12 35 46.7 -0.9**
comp=Z,120nm,0.9s
**HYB Hyderabad 55.53 292** *i*P **P** **12 35 51.0 -1.1**
**BKZ Black Stump Fm 55.90 139** *e*P **P** **12 35 55.7 +1.3**
comp=Z,17nm,0.9s
**ZAK Zakamensk 56.37 338** *e*P **P** **12 35 57.1 -0.5**
ZAK pmax pmax
comp=Z,6.0nm,1.3s
**PETK Petropavlovsk- 57.65 18** P **P** **12 36 07.3 +0.8**
comp=Z,12nm,0.9s,baz=149,slow=2.4,SNR=7.5
PETK LR LR 12 58 25.8
comp=Z,117nm,21.0s,baz=202,slow=34
**PETK Petropavlovsk- 57.65 18** *e*P **P** **12 36 07.0 +0.5**
**PETK Petropavlovsk- 57.65 18** *e*P **P** **12 36 07.0 +0.5**
**PET Petropavlovsk 57.88 19** *e*P P 12 36 19.3 +11
PET eS S 12 44 16.4 +11
PET *e*SS **SS** **12 48 02.2 +5.2**
PET pmax pmax
comp=Z,100nm,15.9s
**WMQ Urumqi 59.25 324** P **P** **12 36 17.9 0.0**
WMQ pP pP 12 36 28.7 +1.2
WMQ sP sP 12 36 33.7 +2.6
WMQ pmax pmax
comp=Z,44nm,1.5s
WMQ pmax pmax
comp=Z,200nm,3.7s
WMQ LR LR
comp=Z,440nm,27.1s
WMQ LR LR
comp=Z,220nm,25.1s
WMQ LR LR
comp=Z,280nm,18.9s
**BOD Bodaibo 59.97 349** *e*P **P** **12 36 22.1 -0.4**
BOD pmax pmax
comp=Z,13nm,1.5s
**SMLA Simla 60.72 307** *e*P **P** **12 36 27.5 -0.6**
**HVS Khovu-Aksy 60.87 333**⇑ *e*P **P** **12 36 28.4 -0.5**
HVS pmax pmax
comp=Z,33nm,1.1s
**DHRM DHARAMSHALA 61.81 307** *e*P **P** **12 36 34.7 -1.1**
**YAK Yakutsk 62.48 359** *c i*P **P** **12 36 39.2 -0.1**
YAK *e**PP **pP** **12 36 49.6 +0.7**
YAK *e* 12 37 16.1
YAK *e* 12 39 05.2
YAK *e*S **S** **12 45 07.0 +2.7**
YAK *e* 12 46 29.9
YAK pmax pmax
comp=Z,34nm,0.9s
YAK pmax pmax
comp=N,9.0nm,1.2s
YAK pmax pmax
comp=E,2.0nm,1.3s
YAK pmax pmax
comp=Z,141nm,4.1s
YAK pmax pmax
comp=E,91nm,4.0s
YAK pmax pmax
comp=N,102nm,5.8s
YAK smax smax
comp=N,112nm,4.6s
YAK smax smax
comp=E,73nm,4.3s
YAK MLR MLR
comp=Z,189nm,21.0s
YAK MLR MLR
comp=N,243nm,20.0s
**YAK Yakutsk 62.48 359** *e*P **P** **12 36 38.9 -0.5**
comp=N,43nm,0.7s
**MK01 Makanchi Array 64.06 324** *e*P **P** **12 36 49.8 -0.5**
**MK31 Makanchi Array 64.08 324** *e*P **P** **12 36 50.3 -0.1**
**MK31 Makanchi Array 64.08 324** *e*P **P** **12 36 50.2 -0.1**
**MKAR Makanchi Array 64.08 324** P **P** **12 36 50.2 -0.1**
comp=N,12nm,0.9s,baz=118,slow=8.3,SNR=64
MKAR LR LR 13 06 49.9
comp=N,196nm,18.2s,baz=112,slow=38
**MAKZ Makanchi 64.27 324** P **P** **12 36 50.7 -0.9**
MAKZ pmax pmax
comp=Z,32nm,1.2s
**MAKZ Makanchi 64.27 324** *e*P **P** **12 36 51.1 -0.5**
comp=Z,31nm,1.1s
**KSH Kashi 64.78 315** P **P** **12 36 56.2 +1.0**
KSH pP pP 12 37 06.2 +1.4
KSH PcP **PcP** **12 37 29.8 +1.2**
KSH PP **PP** **12 39 21.5 +3.5**
KSH S **S** **12 45 31.8 -2.4**
KSH ScS **SKSac** **12 46 41.1 -6.8**
KSH SS **SS** **12 49 45.4 -0.5**
KSH pmax pmax
comp=Z,16nm,1.1s
KSH pmax pmax
comp=Z,380nm,5.5s
KSH LR LR
comp=Z,250nm,6.7s
KSH LR LR
comp=Z,260nm,5.2s
KSH LR LR
comp=Z,300nm,5.8s
**SEY Seymchan 65.18 10**⇑ *e*P **P** **12 36 57.7 +0.5**
**TKM2 Tokmak 2 66.43 318** P **P** **12 37 05.9 0.0**
SNR=5.8
**SFK Sufi-Kurgan 66.72 315** P **P** **12 37 07.8 -0.1**
**ZAA0 Zalesovo Array 66.81 332** *e*P **P** **12 37 06.5 -1.3**
**ZALV Zalesovo Beam 66.81 332** P **P** **12 37 06.8 -1.0**
comp=Z,5.2nm,0.7s,baz=119,slow=5.9,SNR=31
**ZALV Zalesovo Beam 66.81 332** *e*P **P** **12 37 06.5 -1.3**
**ZALV Zalesovo Beam 66.81 332** *e*P **P** **12 37 06.5 -1.3**
**UCH Uchtor 66.88 317** P **P** **12 37 09.6 +0.5**
SNR=14
**AAK Ala-Archa 67.05 317** P **P** **12 37 07.3 -2.5**
AAK pmax pmax
comp=Z,18nm,1.4s
**AAK Ala-Archa 67.05 317** *e*P **P** **12 37 10.2 +0.3**
comp=Z,20nm,1.4s
**USP Ospenovka 67.30 318** P **P** **12 37 10.8 -0.5**
SNR=13
**AML Almayashu 67.40 317** P **P** **12 37 13.0 +0.6**
SNR=11
**EKS2 Erkin-Say 67.55 317** P **P** **12 37 13.0 +0.1**
SNR=6.9
**NVS Novosibirsk 68.09 332** *e*P **P** **12 37 15.1 -0.8**
NVS pmax pmax
comp=Z,22nm,1.5s
NVS pmax pmax
comp=N,5.0nm,0.8s
NVS pmax pmax
comp=E,14nm,1.5s
**KURK Kurchatov 68.18 327**⇑ *e*P **P** **12 37 16.2 -0.4**
**KURK Kurchatov 68.18 327** *e*P **P** **12 37 16.3 -0.3**
comp=E,47nm,1.1s
**KBL Kabul 68.29 308** *e*P **P** **12 37 17.2 -0.6**
KBL pmax pmax
comp=Z,9.0nm,0.8s
**KBL Kabul 68.29 308** *e*P **P** **12 37 17.2 -0.6**
comp=Z,9.4nm,0.8s
**MNAS Manas 68.35 317** P **P** **12 37 18.0 0.0**
**DZET Dzherino 69.72 312** P **P** **12 37 25.9 -0.7**
**KK31 Karatay Array 69.94 317** *i*P **P** **12 37 26.7 -1.0**
KK31 pmax pmax
comp=Z,20nm,1.1s
**TIXI Tiksi 72.14 359**⇓ *e*P **P** **12 37 39.5 -0.9**
TIXI pmax pmax
comp=Z,11nm,1.4s
**TIXI Tiksi 72.14 359** *e*P **P** **12 37 40.0 -0.3**
comp=Z,42nm,2.0s
**BILL Bilibino 72.46 13** *e*P **P** **12 37 41.3 -1.1**
BILL *e* 12 37 55.9
BILL pmax pmax
comp=Z,3.0nm,1.2s
**BVA0 Borovoye Array 73.78 326** *i*P **P** **12 37 49.6 -0.9**
BVA0 pmax pmax
comp=Z,24nm,1.2s
**BRVK Borovoye 73.85 326** *c i*P **P** **12 37 50.6 -0.3**
BRVK pmax pmax
comp=Z,99nm,1.7s
**BRVK Borovoye 73.85 326** *e*P **P** **12 37 51.1 +0.2**
comp=Z,18nm,0.8s
**GEYT Alibeck 77.66 309** P **P** **12 38 13.3 +0.2**
comp=Z,14nm,0.9s,baz=147,slow=3.0,SNR=14
**VNDA Vanda 78.55 174** P **P** **12 38 17.6 +0.4**
comp=Z,4.8nm,0.7s,baz=317,slow=7.1,SNR=16
**VNDA Vanda 78.55 174** *e*P **P** **12 38 19.2 +2.0**
VNDA pmax pmax
comp=Z,21nm,1.4s
**VNDA Vanda 78.55 174** *e*P **P** **12 38 19.1 +2.0**
comp=Z,20nm,1.4s
**AB31 Akbulak array 78.78 321** *i*P **P** **12 38 17.1 -1.9**
AB31 pmax pmax
comp=Z,11nm,0.9s
**PPT Papeete 78.81 108** LR LR 13 11 09.6
comp=Z,43nm,20.0s,baz=274,slow=34
**PPT2 Papeete2 78.81 108** *e*LQ LQ 12 59 37.0
comp=Z,406nm,33.5s
PPT2 *e*LR LR 13 02 55.6
comp=Z,274nm,25.2s
**TBI Tubuai 79.27 114** *e*SS SS 12 53 32.0 +3.9
comp=Z,144nm,28.5s
TBI *e*LR LR 13 03 09.9
comp=Z,267nm,36.0s
**AKTO Aktyubinsk 80.27 321** P **P** **12 38 24.7 -2.4**
AKTO pmax pmax
comp=Z,16nm,1.2s
**SVE Sverdlovsk 80.36 328** *e*P **P** **12 38 27.3 -0.1**
SVE pmax pmax
comp=Z,27nm,1.1s
**ARU Arti 81.36 327** *d i*P **P** **12 38 32.4 -0.4**
ARU S **S** **12 48 43.5 +1.9**
ARU SS **SS** **12 53 53.7 -4.3**
ARU pmax pmax
comp=Z,26nm,0.9s
**ARU Arti 81.36 327** *e*P **P** **12 38 31.6 -1.1**
comp=Z,21nm,0.8s
**MAW Mawson 81.60 201** P **P** **12 38 35.3 +1.5**
comp=Z,11nm,1.1s,baz=88,slow=5.5,SNR=7.9
MAW LR LR 13 13 54.0
comp=Z,160nm,20.2s,baz=62,slow=35
**MAW Mawson 81.60 201** P **P** **12 38 35.7 +2.0**
baz=82,SNR=5.4
**MAW Mawson 81.60 201** *e*P **P** **12 38 36.1 +2.3**
comp=Z,3.0nm,1.1s
**IMAR Indian Mountai 84.16 23** *e*P **P** **12 38 46.8 -0.3**
**MLY Manley 85.17 25** *e*P **P** **12 38 53.3 +1.0**
comp=Z,55nm,0.3s
**RND Reindeer 85.67 26** *e*P **P** **12 38 55.0 +0.1**
RND pmax pmax
comp=Z,72nm,0.8s
**RND Reindeer 85.67 26** *e*P **P** **12 38 55.0 +0.1**
comp=Z,72nm,0.8s
**WRH Wood River Hil 86.18 25** *e*P **P** **12 38 57.6 +0.4**
**CCB Clear Creek Bu 86.33 25** *e*P **P** **12 38 57.4 -0.6**
comp=Z,32nm,0.5s
**COLA College 86.35 25**⇑ *e*P **P** **12 38 58.8 +0.8**
COLA pmax pmax
comp=Z,1.0nm,0.9s
**IL1 Eielson Array 86.74 25** *e*P **P** **12 38 58.7 -1.3**
**ILAR Eielson Array 86.74 25** P **P** **12 38 57.7 -2.3**
comp=Z,1.0nm,0.9s,baz=259,slow=4.9,SNR=8.2
ILAR LR LR 13 11 21.4
comp=Z,75nm,21.2s,baz=278,slow=31
**RAYN Ar Rayn 86.99 293** *e*P **P** **12 39 01.7 -0.5**
comp=Z,29nm,1.2s
**PAX Paxson 87.12 27** *e*P **P** **12 39 05.6 +3.5**
**PAX Paxson 87.12 27** *e*P **P** **12 39 05.6 +3.5**
comp=Z,90nm,0.5s
**TAOE Nuku Hiva Isla 87.81 99** *e*S **S** **12 49 48.8 +1.1**
comp=Z,240nm,29.3s
TAOE *e*SS **SS** **12 55 34.4 -0.9**
comp=Z,141nm,24.3s
**TAOE Nuku Hiva Isla 87.81 99** *e*LR LR 13 07 08.9
comp=Z,255nm,23.6s
**QSPA South Pole Qui 89.35 180** *e*P **P** **12 39 12.3 -0.2**
comp=Z,132nm,1.0s
**KBZ Khabaz 89.73 314** LR LR 13 25 10.7
comp=Z,52nm,18.2s,baz=58,slow=40
**KIV Kislovodsk 89.89 314** *e*P **P** **12 39 11.7 -3.8**
KIV *e* 12 42 43.0
KIV *e*PPP PPP 12 44 41.5
KIV pmax pmax
comp=Z,3.0nm,0.9s
**SYO Syowa Base 90.32 201**⇓ *i*X P 12 39 09.0 -7.8
**INK Inuvik 92.21 22** P **P** **12 39 26.1 +0.4**
comp=Z,1.0nm,0.9s,baz=294,slow=4.1,SNR=2.9
**RKT Rikitea 92.58 113** *e*LR LR 13 09 19.6

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| | comp=Z,250nm,26.5s | | | | | | |
| **OBN** | **Obninsk** | **93.58** | **325** | *e*P | **P** | **12 39 28.8** | **-3.4** |
| OBN | | | | *e* | | 12 43 12.1 | |
| OBN | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.9s | | | | | | |
| **KMBO** | **Kilima Mbogo** | **94.71** | **269** | LR | LR | 13 19 50.6 | |
| | comp=Z,87nm,19.3s,baz=92,slow=34 | | | | | | |
| **ARCES** | **ARCESS Array B** | **96.27** | **340** | P | **P** | **12 39 43.1** | **-1.2** |
| | comp=Z,2.4nm,0.7s,baz=70,slow=4.0,SNR=5.4 | | | | | | |
| **BRTR** | **Keskin Array B** | **96.79** | **310** | LR | LR | 13 30 16.1 | |
| | comp=Z,36nm,18.1s,baz=62,slow=40 | | | | | | |
| **YKA** | **Yellowknife Ar** | **101.16** | **26** | P | **Pdif** | **12 40 04.2** | **-2.1** |
| | comp=Z,0.4nm,0.8s,baz=302,slow=5.6,SNR=4.3 | | | | | | |
| **TXAR** | **Lajitas Array** | **119.85** | **56** | PKP | **PKPdf** | **12 45 07.5** | **+0.2** |
| | comp=Z,0.3nm,0.8s,baz=270,slow=0.4,SNR=2.6 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **129.20** | **286** | PKP | **PKPdf** | **12 45 25.2** | **-0.3** |
| | comp=Z,1.4nm,0.9s,baz=54,slow=2.6,SNR=4.8 | | | | | | |
| **AGUA** | **GUANDACOL** | **144.28** | **149** | *e*P | **PKPdf** | **12 45 53.0** | **-0.1** |
| **APLL** | **PUNTA DE LOS L** | **144.51** | **152** | *e*P | PKPbc | 12 45 52.5 | +0.5 |
| **TCA** | **Tanti** | **144.57** | **155** | *e*P | **PKPdf** | **12 45 52.9** | **-0.7** |
| **ACLC** | **CERRO LA CRUZ** | **145.11** | **150** | *e*P | **PKPdf** | **12 45 54.5** | **-0.2** |
| **BBTS** | **Babate** | **145.87** | **296** | PKPbc | **PKPab** | **12 45 57.3** | **+0.2** |
| | comp=Z,24nm,0.8s,baz=39,slow=3.3,SNR=4.4 | | | | | | |
| **ATAH** | **Atahualpa** | **148.75** | **105** | PKPbc | **PKPbc** | **12 46 06.7** | **+1.5** |
| | comp=Z,6.3nm,0.9s,baz=243,slow=4.5,SNR=5.7 | | | | | | |
| **LVC** | **Limon Verde** | **149.25** | **140** | PKPbc | **PKPbc** | **12 46 08.1** | **+1.9** |
| | comp=Z,13nm,0.7s,baz=270,slow=3.0,SNR=4.0 | | | | | | |
| **CPUP** | **Villa Florida** | **151.78** | **162** | PKPbc | **PKPbc** | **12 46 13.4** | **+1.8** |
| | comp=Z,1.1nm,0.4s,baz=146,slow=1.6,SNR=5.1 | | | | | | |
| **LPAZ** | **La Paz** | **154.03** | **131** | PKPbc | **PKPbc** | **12 46 18.4** | **+0.7** |
| | comp=Z,1.2nm,0.8s,baz=225,slow=4.3,SNR=3.9 | | | | | | |

---

*IDC **03** 12:29:03.9±0.5, 0°.56S×131°.87E, h0km, mb4.6/13, mb1 4.7/16, mb1mx4.4/35, mbtmp4.6/16, ML4.5/2, MS3.8/2, Ms1 3.9/2, ms1mx3.4/27, Error ellipse: s-maj=24.6km s-min=13.0km az=66.0*

*ISCJB **03** 12:29:06.7±0.4, 0°.57S±0°.05×131°.88E±0°.06, h31km, mb4.7/21, MS3.8/2, Error ellipse: s-maj=9.2km s-min=6.2km az=159.9*

*NEIC **03** 12:29:09.5±1.1, 0°.60S×131°.84E, h39km±10km, mb4.7/6, Error ellipse: s-maj=9.3km s-min=5.1km az=51.0*

**ISC 03 12:29:08.5**±0.5**, 0°.60S**±0°.06×**131°.92E**±0°.08**, h31**km**, n40,** σ**1s.50**/45**, mb4.7**/21**, 1C-1D, Irian Jaya region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FAKI** | **Fak Fak** | **2.32** | **172** | *e*Pn | **Pn** | **12 29 45.6** | **+0.9** |
| FAKI | | | | Sn | **Sb** | **12 30 19.3** | **+1.2** |
| **KAPI** | **Kappang** | **12.91** | **250** | *e*Pn | **Pn** | **12 32 08.9** | **-1.1** |
| KAPI | | | | *e*Sn | **Sn** | **12 34 36.0** | **+3.2** |
| **COEN** | **Coen** | **17.33** | **140** | *e*Sn | **Pn** | **12 33 08.9** | **+0.7** |
| **PMG** | **Port Moresby** | **17.51** | **120** | P | **P** | **12 33 12.3** | **+0.9** |
| | 0.6nm,0.3s,baz=313,slow=13,SNR=5.1 | | | | | | |
| **PMG** | **Port Moresby** | **17.51** | **120** | *e*Sn | **P** | **12 33 13.3** | **+1.8** |
| **FITZ** | **Fitzroy Crossi** | **18.45** | **199** | P | **Pn** | **12 33 21.9** | **-0.1** |
| | 0.6nm,0.3s,baz=37,slow=13,SNR=3.0 | | | | | | |
| FITZ | | | | S | Sn | 12 36 34.9 | -13 |
| | 0.4nm,0.3s,baz=0.0,slow=20,SNR=2.0 | | | | | | |
| **WRAB** | **Tennant Creek** | **19.36** | **173** | *e*P | **Pn** | **12 33 32.5** | **-0.5** |
| WRAB | | | | *e*Sn | **S** | **12 37 03.8** | **-5.3** |
| **WRA** | **Warramunga Arr** | **19.37** | **173** | P | **P** | **12 33 32.3** | **+0.4** |
| | 2.1nm,0.3s,baz=351,slow=11,SNR=6.8 | | | | | | |
| WRA | | | | S | S | 12 36 56.3 | -13 |
| | 0.3nm,0.3s,baz=354,slow=23,SNR=2.6 | | | | | | |
| **ASAR** | **Alice Springs** | **23.01** | **175** | P | **P** | **12 34 12.0** | **+0.9** |
| | 40nm,0.7s,baz=357,slow=10,SNR=16 | | | | | | |
| **CTA** | **Charters Tower** | **23.91** | **145** | P | **P** | **12 34 19.7** | **-0.2** |
| | 34nm,1.0s,baz=335,slow=12,SNR=7.8 | | | | | | |
| **CTAO** | **Charters Tower** | **23.91** | **145** | *e*P | **P** | **12 34 19.9** | **0.0** |
| | 227nm,1.0s | | | | | | |
| **IPM** | **Ipoh** | **31.27** | **280** | *e*P | **P** | **12 35 26.6** | **+0.6** |
| | 9.9nm,0.6s | | | | | | |
| **KULM** | **Kulim** | **31.77** | **281** | *e*P | **P** | **12 35 29.0** | **-1.4** |
| | 11nm,0.9s | | | | | | |
| **STKA** | **Stephens Creek** | **32.42** | **165** | P | **P** | **12 35 35.5** | **-0.3** |
| | 8.2nm,0.8s,baz=344,slow=7.0,SNR=4.0 | | | | | | |
| **PSI** | **Prapat** | **33.15** | **276** | P | **P** | **12 35 42.4** | **-0.3** |
| | 17nm,0.7s,baz=112,slow=6.4,SNR=11 | | | | | | |
| **ARMA** | **Armidale** | **35.07** | **150** | *e*P | **P** | **12 35 59.2** | **+0.2** |
| | 33nm,0.9s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **37.54** | **302** | P | **P** | **12 36 20.6** | **+0.4** |
| | 0.8nm,0.3s,baz=105,slow=6.8,SNR=4.4 | | | | | | |
| CMAR | | | | ScP | **ScP** | **12 42 24.6** | **+1.3** |
| | 0.3nm,0.3s,baz=110,slow=2.7,SNR=4.2 | | | | | | |
| CMAR | | | | LR | LR | 12 52 40.7 | |
| | comp=Z,135nm,18.8s,baz=118,slow=38 | | | | | | |
| **ULN** | **Ulaanbaatar** | **52.90** | **339** | *e*P | **P** | **12 38 21.9** | **+0.1** |
| | 8.9nm,1.0s | | | | | | |
| **SONM** | **Songino Array** | **53.11** | **339** | P | **P** | **12 38 23.2** | **-0.1** |
| | 1.7nm,0.8s,baz=157,slow=7.5,SNR=4.6 | | | | | | |
| SONM | | | | LR | LR | 13 02 58.7 | |
| | comp=Z,82nm,18.9s,baz=178,slow=38 | | | | | | |
| **PETK** | **Petropavlovsk-** | **57.69** | **18** | P | **P** | **12 38 56.1** | **+0.1** |
| | 7.0nm,1.0s,baz=190,slow=7.3,SNR=3.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **64.06** | **324** | P | **P** | **12 39 39.1** | **-0.4** |
| | 5.0nm,0.9s,baz=119,slow=8.5,SNR=6.5 | | | | | | |
| **SEY** | **Seymchan** | **65.21** | **10** | P | **P** | **12 39 47.8** | **+1.1** |
| | 8.4nm,1.1s,baz=194,slow=8.3,SNR=4.4 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **66.80** | **332** | P | **P** | **12 39 56.0** | **-1.0** |
| | 2.9nm,0.9s,baz=117,slow=6.5,SNR=5.6 | | | | | | |
| **KURK** | **Kurchatov** | **68.17** | **327** | *e*P | **P** | **12 40 05.8** | **0.0** |
| | 118nm,1.1s | | | | | | |
| **TIXI** | **Tiksi** | **72.16** | **359** | *e*P | **P** | **12 40 29.6** | **-0.2** |
| | 1.2nm,0.6s | | | | | | |
| **BRVK** | **Borovoye** | **73.83** | **326** | *e*P | **P** | **12 40 39.5** | **-0.6** |
| | 6.6nm,0.6s | | | | | | |
| **GEYT** | **Alibeck** | **77.63** | **309** | P | **P** | **12 41 02.8** | **+0.6** |
| | 2.4nm,0.8s,baz=96,slow=5.8,SNR=3.7 | | | | | | |
| **VNDA** | **Vanda** | **78.54** | **174** | P | **P** | **12 41 07.1** | **+0.7** |
| | 3.3nm,0.7s,baz=324,slow=6.6,SNR=7.9 | | | | | | |
| **ARU** | **Arti** | **81.35** | **327** | *e*P | **P** | **12 41 21.7** | **-0.3** |
| | 16nm,1.3s | | | | | | |
| **QSPA** | **South Pole Qui** | **89.33** | **180** | *e*P | **P** | **12 42 02.3** | **+0.5** |
| **SYO** | **Syowa Base** | **90.28** | **201⇓** | *e*P | **P** | **12 42 01.2** | **-4.7** |
| **SYO** | **Syowa Base** | **90.28** | **201⇑** | *e*PcP | **PcP** | **12 42 09.8** | **+2.7** |
| **ARCES** | **ARCESS Array B** | **96.27** | **340** | P | **P** | **12 42 31.9** | **-1.6** |
| | 4.4nm,1.1s,baz=86,slow=6.7,SNR=3.7 | | | | | | |
| **TXAR** | **Lajitas Array** | **119.91** | **56** | PKP | **PKPdf** | **12 47 57.0** | **+0.2** |
| | 0.2nm,0.7s,baz=242,slow=1.9,SNR=2.5 | | | | | | |
| **TXAR** | **Lajitas Array** | **119.91** | **56** | PKP | **PKPdf** | **12 47 57.0** | **+0.2** |
| **TORD** | **Torodi Ar. Bea** | **129.15** | **286** | PKP | **PKPdf** | **12 48 14.8** | **+0.2** |
| | 0.6nm,0.6s,baz=38,slow=3.2,SNR=3.0 | | | | | | |
| **ATAH** | **Atahualpa** | **148.80** | **105** | PKPbc | **PKPbc** | **12 48 54.0** | **-0.7** |
| | 6.0nm,0.7s,baz=275,slow=3.1,SNR=4.1 | | | | | | |
| **LVC** | **Limon Verde** | **149.28** | **140** | PKPbc | **PKPbc** | **12 48 54.9** | **-0.7** |
| | 18nm,1.0s,baz=331,slow=19,SNR=3.0 | | | | | | |
| **CPUP** | **Villa Florida** | **151.78** | **162** | PKPbc | **PKPbc** | **12 49 00.6** | **-0.3** |
| | 1.4nm,0.7s,baz=135,slow=2.9,SNR=3.1 | | | | | | |
| **LPAZ** | **La Paz** | **154.06** | **131** | PKPbc | **PKPbc** | **12 49 07.8** | **+0.7** |
| | 1.5nm,0.9s,baz=315,slow=2.9,SNR=3.4 | | | | | | |
| LPAZ | | | | PKPab | **sPKPbc** | **12 49 22.4** | **+1.7** |
| | 2.6nm,0.8s,baz=208,slow=4.7,SNR=5.8 | | | | | | |

---

*SJA **03** 12:37:02.6±1.0, 35°.06S×72°.00W, h20km±16km, ML3.2, MW3.6*

*ISCJB **03** 12:37:05.8±0.8, 35°.09S±0°.03×71°.92W±0°.07, h33km±7km, Error ellipse: s-maj=10.0km s-min=5.3km az=16.1*

*GUC **03** 12:37:05.3±0.5, 35°.14S×71°.92W, h43km±1km, ML3.6*

**ISC 03 12:37:06.4**±1.0**, 35°.10S**±0°.04×**71°.97W**±0°.06**, h33**km±6km**, n17,** σ**1s.49**/26**, Central Chile**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GO05** | **HualaæØ** | **0.09** | **19** | *e*P | **Pb** | **12 37 12.2** | **+0.1** |
| GO05 | | | | *e*S | **Sb** | **12 37 17.3** | **+1.3** |
| GO05 | | | | IAML | | 12 37 18.7 | |
| | comp=N,6μm,0.1s | | | | | | |
| **NICH** | **Los Niches** | **0.61** | **81** | *e*P | **Pb** | **12 37 17.0** | **-1.8** |
| NICH | | | | *e*S | **Sb** | **12 37 25.7** | **-1.5** |
| **CHPI** | **Pichilemu** | **0.71** | **358** | *e*P | **Pn** | **12 37 19.0** | **-1.1** |
| CHPI | | | | *e*S | **Sb** | **12 37 29.6** | **-0.1** |
| CHPI | | | | IAML | | 12 37 30.4 | |
| | comp=N,3μm,0.6s | | | | | | |
| **COCH** | **Cobquecura** | **1.23** | **213** | *e*P | **Pn** | **12 37 25.9** | **-1.3** |
| COCH | | | | *e*S | **Sn** | **12 37 44.0** | **+1.3** |
| **COCH** | **Cobquecura** | **1.23** | **213** | *e*P | **Pn** | **12 37 25.9** | **-1.3** |
| COCH | | | | *e*S | **Sn** | **12 37 41.8** | **-1.0** |
| COCH | | | | IAML | | 12 37 47.0 | |
| | comp=E,778nm,0.3s | | | | | | |
| **CCHI** | **Chillan** | **1.50** | **183** | *e*P | **Pn** | **12 37 31.9** | **+0.8** |
| CCHI | | | | *e*S | **Sn** | **12 37 51.7** | **+2.1** |
| **CLCH** | **Cerro Calan** | **2.07** | **35** | *e*P | **Pn** | **12 37 38.1** | **-0.8** |
| CLCH | | | | *e*S | **Sn** | **12 38 03.4** | **-0.3** |
| CLCH | | | | IAML | | 12 38 09.4 | |
| | comp=E,1μm,0.1s | | | | | | |
| **PEL** | **Peldehue** | **2.22** | **29** | *e*P | **Pn** | **12 37 40.0** | **-1.0** |
| PEL | | | | IAML | | 12 38 12.3 | |
| | comp=N,699nm,0.2s | | | | | | |
| **ROC1** | **El Roble** | **2.26** | **21** | *e*P | **Pn** | **12 37 41.1** | **-0.6** |
| ROC1 | | | | *e*S | **Sn** | **12 38 12.8** | **+4.2** |
| **ROCH** | **El Roble** | **2.27** | **21** | *e*P | **Pn** | **12 37 41.0** | **-0.7** |
| ROCH | | | | *e*S | **Sn** | **12 38 09.1** | **+0.4** |
| ROCH | | | | IAML | | 12 38 15.1 | |
| | comp=N,992nm,0.6s | | | | | | |
| **CANA** | **Caviahue** | **2.88** | **166** | *e*P | **Pb** | **12 37 57.1** | **0.0** |
| CANA | | | | IAML | | 12 38 06.8 | |
| | comp=Z,54nm,0.5s | | | | | | |
| **RFA** | **San Rafael** | **2.90** | **85** | *e*P | **Pn** | **12 37 50.5** | **+0.2** |
| **AUSP** | **Uspallata** | **3.58** | **38** | *e*P | **Pn** | **12 38 00.8** | **+0.8** |
| **RTLS** | **Leoncito** | **3.98** | **35** | *e*P | **Pn** | **12 38 06.1** | **+0.8** |
| RTLS | | | | *e*S | **Sb** | **12 39 05.6** | **+1.9** |
| RTLS | | | | IAML | | 12 39 06.9 | |
| | comp=Z,50nm,0.6s | | | | | | |
| **AMOG** | **MOGNA** | **5.07** | **36** | *e*P | **Pn** | **12 38 19.1** | **-1.1** |
| **AGUA** | **GUANDACOL** | **6.32** | **29** | *e*P | **Pn** | **12 38 35.8** | **-1.7** |
| **APLL** | **PUNTA DE LOS L** | **6.56** | **46** | *e*P | Pn | 12 38 37.9 | -2.7 |

---

*ISK **03** 12:56:11.9, 37°.12N×37°.19E, h6km, MD2.7*

*CSEM **03** 12:56:11.8±0.4, 37°.06N×37°.16E, h2km, MD2.7, Error ellipse: s-maj=13.9km s-min=7.4km az=133.0*

*DDA **03** 12:56:15.2, 37°.13N×37°.22E, h7km, Ml2.4*

**ISC 03 12:56:12.9**±1.3**, 37°.10N**±0°.04×**37°.23E**±0°.04**, h2**km±10km**, n20,** σ**1s.35**/26**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GAZ** | **Gaziantep** | **0.07** | **351** | *e*PG | **Pg** | **12 56 14.0** | **-0.4** |
| GAZ | | | | *e*SG | **Sg** | **12 56 14.8** | **-0.6** |
| **GAZ** | **Gaziantep** | **0.07** | **351** | *e*Pg | **Pg** | **12 56 14.0** | **-0.4** |
| **KUZU** | **Kuzuini** | **0.35** | **200** | *i* P | **Pb** | **12 56 23.4** | **+1.5** |
| **HCB** | **Kahramanmara¯** | **0.35** | **314** | *i* P | **Pg** | **12 56 20.6** | **+0.9** |
| HCB | | | | *i* S | **Sb** | **12 56 28.4** | **+0.5** |
| **KAMA** | **Osmaniye** | **0.45** | **281** | *i* P | **Pg** | **12 56 23.5** | **+1.8** |
| KAMA | | | | *i* S | **Sg** | **12 56 29.8** | **+2.2** |
| **KMRS** | **Kahramanmaras** | **0.48** | **327** | *e*PG | **Pg** | **12 56 21.5** | **-0.7** |
| **KMRS** | **Kahramanmaras** | **0.48** | **327** | *e*Pg | **Pg** | **12 56 21.5** | **-0.7** |
| **ANDN** | **Andirin** | **0.85** | **305** | *i* P | **Pb** | **12 56 32.3** | **+1.9** |
| ANDN | | | | *i* S | **Sn** | **12 56 44.5** | **-0.6** |
| **ANDN** | **Andirin** | **0.85** | **305** | P | **Pb** | **12 56 32.3** | **+1.9** |
| **TAHT** | **Tahtakopru-Hat** | **1.10** | **229** | *e*PN | **Pb** | **12 56 33.2** | **-1.5** |
| **TAHT** | **Tahtakopru-Hat** | **1.10** | **229** | *e*Pn | **Pb** | **12 56 33.3** | **-1.5** |
| **KOZT** | **Kozan** | **1.18** | **289** | *e*PN | **Pb** | **12 56 33.9** | **-2.1** |
| **KOZT** | **Kozan** | **1.18** | **289** | *e*Pn | **Pb** | **12 56 33.9** | **-2.1** |
| **AKCD** | **Akcadag** | **1.31** | **25** | *i* P | **Pn** | **12 56 39.0** | **+0.6** |
| AKCD | | | | *i* S | **Sn** | **12 56 57.2** | **+0.6** |
| **AKCD** | **Akcadag** | **1.31** | **25** | P | **Pn** | **12 56 39.0** | **+0.6** |
| AKCD | | | | S | **Sn** | **12 56 57.2** | **+0.6** |
| **URFA** | **Urfa** | **1.32** | **75** | *e*PN | **Pn** | **12 56 37.7** | **-0.7** |
| **URFA** | **Urfa** | **1.32** | **75** | *e*Pn | **Pn** | **12 56 37.7** | **-0.7** |
| **SARI** | **SarD1z-Kayseri** | **1.45** | **334** | *e*PN | **Pn** | **12 56 39.1** | **-1.2** |
| **KRTS** | **Karatas** | **1.57** | **251** | *e*PN | **Pn** | **12 56 40.7** | **-1.1** |
| **KRTS** | **Karatas** | **1.57** | **251** | *e*Pn | **Pn** | **12 56 40.7** | **-1.1** |

---

**IDC 03 13:06:09.0**±2.6**, 0°.65S**×**131°.73E, h0**km**, mb3.6**/2**, mb1 3.8**/4**, mb1mx3.5**/29**, mbtmp3.6**/4**, ML3.6**/2**, Error ellipse: s-maj=125.5km s-min=24.3km az=76.0, Irian Jaya region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **18.35** | **199** | P | Pn | 13 10 24.9 | -0.2 |
| | 0.1nm,0.3s,baz=28,slow=9.4,SNR=6.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **19.35** | **173** | P | P | 13 10 36.0 | -0.3 |
| | 0.2nm,0.3s,baz=351,slow=11,SNR=16 | | | | | | |
| WRA | | | | S | Sn | 13 13 59.7 | -15 |
| | 0.1nm,0.3s,baz=356,slow=22,SNR=3.5 | | | | | | |
| **ASAR** | **Alice Springs** | **22.98** | **175** | P | P | 13 11 15.6 | +0.1 |
| | 2.3nm,0.6s,baz=357,slow=10,SNR=42 | | | | | | |
| **MKAR** | **Makanchi Array** | **63.98** | **324** | P | P | 13 16 44.4 | 0.0 |
| | 0.3nm,0.5s,baz=122,slow=8.0,SNR=3.3 | | | | | | |

---

**MEX 03 13:06:50.1**±0.5**, 18°.77N**×**102°.55W, h30**km±10km**, MD3.7, Michoacan**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MMIG** | **Aquila** | **0.89** | **238** | *e*P | Pn | 13 07 04.1 | -2.5 |
| MMIG | | | | *e*S | Sn | 13 07 15.5 | -2.9 |
| **EZ5V** | | **1.22** | **306** | *e*P | Pn | 13 07 09.5 | -1.8 |
| EZ5V | | | | *e*S | Sn | 13 07 24.0 | -3.0 |
| **R15V** | | **1.41** | **287** | *e*P | Pn | 13 07 11.8 | -2.0 |
| R15V | | | | *e*S | Sn | 13 07 28.6 | -2.9 |
| **ZIIG** | **Zihuatanejo** | **1.55** | **138** | *e*P | Pn | 13 07 13.9 | -1.7 |
| ZIIG | | | | *e*S | Sn | 13 07 32.5 | -2.2 |
| **ARIG** | **Puente Sto Nin** | **2.15** | **103** | *e*P | Pn | 13 07 21.7 | -2.3 |
| ARIG | | | | *e*S | Sn | 13 07 47.1 | -2.4 |

---

*ISK **03** 13:10:00.7, 36°.96N×34°.53E, h5km, MD2.6*

*ISCJB **03** 13:10:01.2±0.5, 36°.90N±0°.05×34°.57E±0°.05, h10km±4km, Error ellipse: s-maj=9.5km s-min=4.3km az=140.8*

*CSEM **03** 13:10:01.4±0.2, 36°.92N×34°.56E, h10km, MD2.6, Error ellipse: s-maj=6.1km s-min=3.7km az=139.0*

*DDA **03** 13:10:01.6, 36°.91N×34°.59E, h7km, Ml2.5*

**ISC 03 13:10:01.5**±0.9**, 36°.92N**±0°.03×**34°.57E**±0°.03**, h9**km±6km**, n26,** σ**0s.52**/36**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MERS** | **Mersin** | **0.06** | **219** | *e*PG | **Pg** | **13 10 03.3** | **-0.3** |
| MERS | | | | *e*SG | **Sg** | **13 10 05.2** | **+0.1** |
| **MERS** | **Mersin** | **0.06** | **219** | *e*Pg | **Pg** | **13 10 03.3** | **-0.3** |
| MERS | | | | *e*Sg | **Sg** | **13 10 05.2** | **+0.1** |
| **DED** | **Mersin** | **0.19** | **76** | *i* P | **Pg** | **13 10 04.6** | **-0.8** |
| DED | | | | *i* S | **Sg** | **13 10 09.6** | **+1.5** |
| **KARA** | **Karaisali** | **0.52** | **48** | *e*PG | **Pg** | **13 10 11.1** | **-0.5** |
| KARA | | | | *e*SG | **Sg** | **13 10 18.8** | **+0.4** |
| **KARA** | **Karaisali** | **0.52** | **48** | *e*Pg | **Pg** | **13 10 11.1** | **-0.5** |
| KARA | | | | *e*Sg | **Sg** | **13 10 18.8** | **+0.4** |
| **KIZK** | **Mersin** | **0.56** | **218** | *e*PG | **Pg** | **13 10 12.1** | **-0.2** |
| KIZK | | | | *e*SG | **Sg** | **13 10 20.2** | **+0.6** |
| **KIZK** | **Mersin** | **0.56** | **218** | *i* P | **Pg** | **13 10 12.4** | **+0.1** |
| KIZK | | | | *i* S | **Sb** | **13 10 21.2** | **-0.3** |
| **KIZK** | **Mersin** | **0.56** | **218** | P | **Pg** | **13 10 12.4** | **+0.1** |
| KIZK | | | | S | **Sb** | **13 10 21.2** | **-0.3** |
| **KERG** | **Konya-Eregli** | **0.61** | **324** | *i* P | **Pg** | **13 10 13.0** | **-0.5** |
| KERG | | | | *i* S | **Sb** | **13 10 23.9** | **+0.6** |
| **KERG** | **Konya-Eregli** | **0.61** | **324** | P | **Pg** | **13 10 13.0** | **-0.5** |
| KERG | | | | S | **Sb** | **13 10 23.9** | **+0.6** |
| **KRTS** | **Karatas** | **0.73** | **118** | *e*PG | **Pb** | **13 10 16.5** | **+0.1** |
| **KRTS** | **Karatas** | **0.73** | **118** | *e*Pg | **Pb** | **13 10 16.5** | **+0.1** |
| **SILI** | **Silifke-Mersin** | **0.76** | **224** | *e*PG | **Pg** | **13 10 15.9** | **-0.2** |
| **SILI** | **Silifke-Mersin** | **0.76** | **224** | *e*Pg | **Pg** | **13 10 15.9** | **-0.2** |
| **KEBE** | **Keben-Mersin** | **0.83** | **236** | *e*PG | **Pg** | **13 10 17.5** | **-0.1** |
| **KEBE** | **Keben-Mersin** | **0.83** | **236** | *e*Pg | **Pg** | **13 10 17.5** | **-0.1** |
| **IKL** | **Isikli** | **0.98** | **227** | *e*PG | **Pg** | **13 10 19.5** | **-0.9** |
| **IKL** | **Isikli** | **0.98** | **227** | *e*Pg | **Pg** | **13 10 19.5** | **-0.9** |
| **TEVE** | **Tevekalti-Mers** | **1.03** | **242** | *e*PG | **Pg** | **13 10 20.7** | **-0.6** |
| **TEVE** | **Tevekalti-Mers** | **1.03** | **242** | *e*Pg | **Pg** | **13 10 20.7** | **-0.6** |
| **AKKU** | **Akkuyu-Mersin** | **1.12** | **228** | *e*PN | **Pg** | **13 10 22.9** | **-0.1** |
| **AKKU** | **Akkuyu-Mersin** | **1.12** | **228** | *e*Pn | **Pg** | **13 10 22.9** | **-0.1** |
| **KOZT** | **Kozan** | **1.15** | **60** | *e*PN | **Pg** | **13 10 23.1** | **-0.5** |
| **KOZT** | **Kozan** | **1.15** | **60** | *e*Pn | **Pg** | **13 10 23.1** | **-0.5** |
| **TEKE** | **Tekeli-Mersin** | **1.41** | **237** | *e*PN | **Pb** | **13 10 27.7** | **-0.3** |
| **TEKE** | **Tekeli-Mersin** | **1.41** | **237** | *e*Pn | **Pb** | **13 10 27.7** | **-0.3** |

---

**MAN 03 13:16:28, 11°.44N**×**121°.20E, h32**km**, mb4.3, ML3.2, MS3.0, 2D, Panay**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JAP** | **San Jose, Anti** | **1.01** | **133⇓** | *e*P | Pb | 13 16 47.2 | +0.2 |
| JAP | | | | *e*S | Sn | 13 16 59.0 | -0.1 |
| **SJMP** | **San Jose** | **1.01** | **356** | *e*P | Pn | 13 16 45.9 | -0.1 |
| **BUSP** | **Coron** | **1.12** | **300** | *e*P | Pn | 13 16 47.5 | 0.0 |
| BUSP | | | | *e*S | Sb | 13 17 04.7 | +1.4 |
| **OTRP** | **Odiongan** | **1.22** | **41** | *e*P | Pn | 13 16 49.5 | +0.7 |
| OTRP | | | | *e*S | Sn | 13 17 04.7 | +0.4 |
| **RCP** | **Roxas** | **1.52** | **85⇓** | *e*P | Pn | 13 16 54.1 | +1.1 |
| **ENPP** | **El Nido** | **1.75** | **262** | *e*P | Pn | 13 16 56.6 | +0.4 |
| **BOAC** | **Boac** | **2.10** | **17** | *e*P | Pb | 13 17 05.0 | -0.5 |

---

*ISCJB **03** 13:18:54.2±0.5, 47°.12N±0°.05×152°.83E±0°.06, h50km, mb3.8/14, MS2.9/1, Error ellipse: s-maj=8.7km s-min=4.3km az=143.1*

*SKHL **03** 13:18:56.2±0.8, 46°.84N×152°.99E, h79km±6km, mb4.5/6*

*IDC **03** 13:18:57.7±0.7, 47°.16N×152°.67E, h73km±6km, mb3.5/13, mb1 3.8/18, mb1mx3.6/38, mbtmp3.8/18, MS2.8/2, Ms1 2.9/2, ms1mx2.5/26, Error ellipse: s-maj=20.1km s-min=11.8km az=133.0*

*MOS **03** 13:18:57.3±1.1, 47°.16N×152°.63E, h86km, mb4.0/10, Error ellipse: s-maj=10.8km s-min=7.8km az=60.6*

**ISC 03 13:18:56.0**±0.6**, 47°.03N**±0°.07×**152°.86E**±0°.06**, h50**km**, n58,** σ**2s.03**/66**, mb3.8**/14**, 7C-1D, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KUR** | **Kuril'sk** | **3.91** | **244c** | *i*PN | **Pn** | **13 19 56.6** | **+3.2** |
| KUR | | | | *i* S | **Sn** | **13 20 41.6** | **+3.6** |
| KUR | | | | pmax | pmax | | |
| | comp=E,23nm,0.3s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=Z,76nm,0.3s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=N,42nm,0.2s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=N,145nm,0.6s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,81nm,0.6s | | | | | | |
| **KUR** | **Kuril'sk** | **3.91** | **244** | *i* P | **Pn** | **13 19 55.5** | **+2.1** |
| KUR | | | | AMB | AMB | 13 19 56.9 | |
| | comp=E,34nm,0.3s | | | | | | |
| KUR | | | | AMB | AMB | 13 19 56.9 | |
| | comp=E,24nm,0.3s | | | | | | |
| KUR | | | | AMB | AMB | 13 19 56.9 | |
| | comp=E,76nm,0.3s | | | | | | |
| KUR | | | | *i* S | **Sn** | **13 20 40.3** | **+2.3** |
| KUR | | | | A | A | 13 20 50.2 | |
| | comp=E,145nm,0.6s | | | | | | |
| KUR | | | | A | A | 13 20 50.2 | |
| | comp=E,81nm,0.6s | | | | | | |
| **SKR** | **Severo-Kuril's** | **4.24** | **29** | *e*PN | **Pn** | **13 20 01.3** | **+3.4** |
| SKR | | | | *e*S | **Sn** | **13 20 44.8** | **-1.2** |
| SKR | | | | pmax | pmax | | |
| | comp=Z,63nm,0.7s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=N,152nm,1.0s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=E,223nm,0.9s | | | | | | |
| **SKR** | **Severo-Kuril's** | **4.24** | **29** | *e*P | **Pn** | **13 20 00.3** | **+2.4** |
| SKR | | | | AMB | AMB | 13 20 01.9 | |
| | comp=E,54nm,0.6s | | | | | | |
| SKR | | | | *e*S | **Sn** | **13 20 47.7** | **+1.7** |
| SKR | | | | A | A | 13 21 01.0 | |
| | comp=E,160nm,0.6s | | | | | | |
| SKR | | | | A | A | 13 21 01.0 | |
| | comp=E,223nm,0.6s | | | | | | |
| **SHO** | **Shikotan** | **5.29** | **235** | *e*PN | **Pn** | **13 20 11.6** | **-0.8** |
| SHO | | | | *e*S | **Sn** | **13 21 08.5** | **-3.5** |
| SHO | | | | pmax | pmax | | |
| | comp=Z,20nm,0.3s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=N,15nm,0.2s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=E,15nm,0.2s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=E,234nm,0.8s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=N,142nm,0.6s | | | | | | |
| **SHO** | **Shikotan** | **5.29** | **235** | *e*P | **Pn** | **13 20 11.6** | **-0.8** |
| SHO | | | | AMB | AMB | 13 20 14.5 | |
| | comp=N,20nm,0.3s | | | | | | |
| SHO | | | | *e*S | **Sn** | **13 21 08.5** | **-3.5** |
| SHO | | | | A | A | 13 21 25.5 | |
| | comp=N,234nm,0.8s | | | | | | |
| SHO | | | | A | A | 13 21 25.5 | |
| | comp=N,142nm,0.8s | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **5.76** | **241⇑** | *e*PN | **Pn** | **13 20 20.3** | **+1.5** |
| **PETK** | **Petropavlovsk-** | **6.83** | **25** | P | **Pn** | **13 20 35.1** | **+1.7** |
| | comp=N,0.4nm,0.3s,baz=174,slow=11,SNR=14 | | | | | | |
| PETK | | | | LR | LR | 13 23 24.5 | |
| | comp=N,54nm,18.5s,baz=244,slow=39 | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **6.91** | **273⇑** | *e*PN | **Pn** | **13 20 37.1** | **+2.5** |
| **PET** | **Petropavlovsk** | **7.06** | **30** | *e*PN | Pn | 13 20 43.5 | +6.9 |
| **PET** | **Petropavlovsk** | **7.06** | **30** | *e*P | **Pn** | **13 20 39.7** | **+3.1** |
| PET | | | | *e*S | **Sn** | **13 21 54.3** | **-1.1** |
| PET | | | | AMB | AMB | 13 22 01.8 | |
| | comp=N,51nm,0.8s | | | | | | |
| PET | | | | AMB | AMB | 13 22 01.8 | |
| | comp=N,38nm,0.8s | | | | | | |
| PET | | | | AMS | AMS | 13 23 08.4 | |
| | comp=N,120nm,13.0s | | | | | | |
| **UGL** | **Uglegorsk** | **7.52** | **290** | *e*PN | **Pn** | **13 20 42.4** | **-0.4** |
| UGL | | | | *e*S | **Sn** | **13 22 06.5** | **-0.1** |
| **UGL** | **Uglegorsk** | **7.52** | **290** | *e*P | **Pn** | **13 20 46.2** | **+3.4** |
| UGL | | | | AMB | AMB | 13 20 47.5 | |
| | comp=N,60nm,0.8s | | | | | | |
| UGL | | | | AMS | AMS | 13 24 43.0 | |
| | comp=N,1μm,15.0s | | | | | | |
| **TYV** | **Tymovskoe** | **7.73** | **303** | *e*PN | Pn | 13 20 39.3 | -6.5 |
| TYV | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.0s | | | | | | |
| **TYV** | **Tymovskoe** | **7.73** | **303** | *e*P | **Pn** | **13 20 48.3** | **+2.5** |
| TYV | | | | AMB | AMB | 13 20 49.4 | |
| | comp=Z,9.0nm,1.0s | | | | | | |
| **JKA** | **Kamikawa-asahi** | **7.77** | **252** | *e*P | **Pn** | **13 20 48.4** | **+2.1** |
| **ASAJ** | **Asahikawa** | **7.77** | **252** | P | **Pn** | **13 20 48.4** | **+2.1** |
| | comp=Z,1.4nm,0.3s,baz=65,slow=13,SNR=13 | | | | | | |
| **HABR** | **Khabarovsk** | **12.07** | **283** | *e*PN | **Pn** | **13 21 44.4** | **-0.8** |
| HABR | | | | *e*S | **Sn** | **13 23 57.5** | **-0.7** |
| HABR | | | | pmax | pmax | | |
| | comp=E,70nm,2.3s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=Z,50nm,2.3s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=N,51nm,2.3s | | | | | | |
| HABR | | | | MLR | MLR | | |
| | comp=Z,35nm,14.0s | | | | | | |
| **HABR** | **Khabarovsk** | **12.07** | **283** | *e*P | **Pn** | **13 21 44.4** | **-0.8** |
| **MA2** | **Magadan** | **12.63** | **355** | P | **Pn** | **13 21 53.7** | **+1.1** |
| | comp=Z,2.1nm,0.3s,baz=175,slow=11,SNR=7.9 | | | | | | |
| **MA2** | **Magadan** | **12.63** | **355⇑** | *e*PN | **Pn** | **13 21 53.4** | **+0.8** |
| **MA2** | **Magadan** | **12.63** | **355** | *e*P | **Pn** | **13 21 53.4** | **+0.8** |
| **EKMR** | **Ekimchan** | **14.12** | **303** | *e*P | **Pn** | **13 22 15.9** | **+2.8** |
| EKMR | | | | AMB | AMB | 13 22 21.8 | |
| | comp=Z,5.0nm,0.6s | | | | | | |
| **MAJO** | **Matsushiro** | **15.12** | **231⇑** | *e*P | **Pn** | **13 22 27.1** | **+0.9** |
| **MAJO** | **Matsushiro** | **15.12** | **231** | *e*P | **Pn** | **13 22 23.7** | **-2.5** |
| **MJAR** | **Matsushiro Arr** | **15.12** | **231** | P | **Pn** | **13 22 28.3** | **+2.1** |
| | comp=Z,0.4nm,0.3s,baz=48,slow=9.4,SNR=7.0 | | | | | | |
| **SEY** | **Seymchan** | **15.94** | **359** | P | **Pn** | **13 22 36.0** | **-0.5** |
| | comp=Z,0.1nm,0.3s,baz=0.0,slow=20,SNR=2.3 | | | | | | |
| **KSRS** | **Korea Array** | **20.72** | **252** | P | **P** | **13 23 32.6** | **+0.7** |
| | comp=Z,1.7nm,0.7s,baz=54,slow=11,SNR=5.8 | | | | | | |
| **HIA** | **Hailar** | **22.11** | **288⇑** | *e*P | **P** | **13 23 46.8** | **-0.1** |
| HIA | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.0s | | | | | | |
| **HIA** | **Hailar** | **22.11** | **288** | *e*P | **P** | **13 23 46.8** | **-0.1** |
| **H11N2** | **WAKE ISLAND Hy** | **29.55** | **152** | T | T | 13 56 33.7 | |
| | baz=340,slow=76,SNR=650 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **29.57** | **152** | T | T | 13 56 34.8 | |
| | baz=340,slow=76,SNR=525 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **29.57** | **152** | T | T | 13 56 35.0 | |
| | baz=340,slow=76,SNR=508 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **30.64** | **154** | T | T | 13 57 55.7 | |
| | baz=341,slow=76,SNR=410 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **30.65** | **154** | T | T | 13 58 15.8 | |
| | baz=341,slow=76,SNR=306 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **30.66** | **154** | T | T | 13 57 54.9 | |
| | baz=341,slow=76,SNR=284 | | | | | | |
| **COLA** | **College** | **36.02** | **39⇑** | *e*P | **P** | **13 25 51.3** | **-0.6** |
| COLA | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.9s | | | | | | |
| **COLA** | **College** | **36.02** | **39** | *e*P | **P** | **13 25 51.2** | **-0.6** |
| **ILAR** | **Eielson Array** | **36.44** | **39** | P | **P** | **13 25 55.3** | **-0.1** |
| | comp=Z,1.2nm,1.0s,baz=266,slow=5.6,SNR=11 | | | | | | |
| ILAR | | | | pP | **pP** | **13 26 11.8** | **+3.3** |
| | comp=Z,0.2nm,0.5s,baz=269,slow=5.7,SNR=1.8 | | | | | | |
| ILAR | | | | LR | LR | 13 41 54.8 | |
| | comp=Z,21nm,18.7s,baz=162,slow=38 | | | | | | |
| **INK** | **Inuvik** | **41.51** | **33** | P | **P** | **13 26 37.8** | **+0.2** |
| | comp=Z,1.0nm,0.4s,baz=304,slow=6.9,SNR=10.0 | | | | | | |
| INK | | | | pP | **pP** | **13 26 54.2** | **+3.3** |
| | comp=Z,0.9nm,0.6s,baz=323,slow=5.0,SNR=2.3 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.30** | **305** | PcP | **PcP** | **13 28 35.4** | **-1.7** |
| | comp=Z,1.0nm,0.6s,baz=79,slow=2.3,SNR=5.8 | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MKAR | Makanchi Array | 46.66 | 297 | P | P | 13 27 17.0 | -2.3 |
| | comp=Z,0.3nm,0.5s,baz=58,slow=7.5,SNR=4.8 | | | | | | |
| MKAR | | | | PcP | PcP | 13 28 50.2 | -2.1 |
| | comp=Z,0.6nm,0.5s,baz=73,slow=2.5,SNR=10.0 | | | | | | |
| MKAR | Makanchi Array | 46.66 | 297 | eP | P | 13 27 18.7 | -0.6 |
| KURK | Kurchatov | 47.06 | 303⇓ | eP | P | 13 27 20.4 | -1.9 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.1s | | | | | | |
| KURK | Kurchatov | 47.06 | 303 | eP | P | 13 27 20.4 | -1.9 |
| YKA | Yellowknife Ar | 50.80 | 37 | P | P | 13 27 50.4 | -0.3 |
| | comp=Z,0.4nm,0.6s,baz=298,slow=7.0,SNR=5.8 | | | | | | |
| YKA | | | | pP | pP | 13 28 07.9 | +3.6 |
| | comp=Z,0.4nm,0.6s,baz=297,slow=7.0,SNR=3.4 | | | | | | |
| YKA | | | | PcP | PcP | 13 29 05.7 | -1.2 |
| | comp=Z,0.2nm,0.4s,baz=304,slow=3.7,SNR=5.2 | | | | | | |
| CMAR | Chiang Mai Arr | 52.27 | 256 | P | P | 13 28 01.8 | -0.5 |
| | comp=Z,0.2nm,0.3s,baz=45,slow=6.9,SNR=4.0 | | | | | | |
| CMAR | Chiang Mai Arr | 52.27 | 256 | eP | P | 13 28 03.9 | +1.6 |
| FINES | FINESS Array B | 63.71 | 335 | P | P | 13 29 18.9 | -2.8 |
| | comp=Z,1.2nm,0.3s,baz=38,slow=6.8,SNR=19 | | | | | | |
| FINES | FINESS Array B | 63.71 | 335 | iP | P | 13 29 19.8 | -1.9 |
| FINES | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.3s | | | | | | |
| FINES | FINESS Array B | 63.71 | 335 | eP | P | 13 29 19.8 | -1.9 |
| PDAR | Pinedale Array | 64.72 | 54 | P | P | 13 29 28.8 | -0.2 |
| | comp=Z,0.5nm,0.5s,baz=295,slow=2.1,SNR=5.7 | | | | | | |
| NOA | NORSAR Array B | 67.90 | 341 | P | P | 13 29 46.3 | -2.5 |
| | comp=Z,1.3nm,1.0s,baz=32,slow=6.7,SNR=4.6 | | | | | | |
| NOA | NORSAR Array B | 67.90 | 341 | eP | P | 13 29 46.9 | -1.9 |
| NOA | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.5s | | | | | | |
| WRA | Warramunga Arr | 68.72 | 199 | P | P | 13 29 52.7 | -1.6 |
| | comp=Z,0.3nm,0.6s,baz=11,slow=6.4,SNR=3.4 | | | | | | |
| AKASG | Malin Array Be | 71.21 | 326 | P | P | 13 30 06.7 | -2.6 |
| | comp=Z,0.6nm,0.3s,baz=36,slow=6.1,SNR=3.7 | | | | | | |
| ASAR | Alice Springs | 72.42 | 198 | P | P | 13 30 16.4 | -0.4 |
| | comp=Z,0.6nm,0.8s,baz=15,slow=6.3,SNR=4.9 | | | | | | |
| ASAR | | | | pP | sP | 13 30 37.1 | +0.5 |
| | comp=Z,0.4nm,0.5s,baz=0.5,slow=10,SNR=2.1 | | | | | | |
| TXAR | Lajitas Array | 77.50 | 60 | P | P | 13 30 45.8 | -0.6 |
| | comp=Z,2.2nm,0.5s,baz=298,slow=4.8,SNR=45 | | | | | | |
| TXAR | | | | pP | pP | 13 31 04.0 | +3.3 |
| | comp=Z,0.9nm,0.6s,baz=301,slow=4.0,SNR=5.7 | | | | | | |

**IDC 03 13:19:39.5±2.6, 0°.93S×131°.57E, h0km, mb3.3/2, mb1 3.5/4, mb1mx3.4/27, mbtmp3.3/4, ML3.5/2, Error ellipse: s-maj=126.5km s-min=24.3km az=76.0, Irian Jaya region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| FITZ | Fitzroy Crossi | 18.04 | 199 | P | Pn | 13 23 51.5 | -0.2 |
| | 0.1nm,0.3s,baz=29,slow=12,SNR=6.8 | | | | | | |
| WRA | Warramunga Arr | 19.09 | 172 | P | P | 13 24 04.0 | +0.1 |
| | 0.1nm,0.3s,baz=351,slow=11,SNR=9.3 | | | | | | |
| WRA | | | | S | Sn | 13 27 33.9 | -5.3 |
| | 0.1nm,0.3s,baz=342,slow=24,SNR=3.6 | | | | | | |
| ASAR | Alice Springs | 22.72 | 174 | P | P | 13 24 43.0 | -0.1 |
| | 1.2nm,0.6s,baz=359,slow=10,SNR=21 | | | | | | |
| MKAR | Makanchi Array | 64.12 | 325 | P | P | 13 30 15.7 | +0.1 |
| | 0.3nm,0.7s,baz=107,slow=9.5,SNR=3.8 | | | | | | |

**IDC 03 13:25:40.3±2.0, 8°.13S×130°.49E, h0km, mb3.3/1, mb1 3.3/4, mb1mx3.2/24, mbtmp3.1/4, ML2.9/3, Error ellipse: s-maj=63.0km s-min=28.5km az=79.0, Tanimbar Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| FITZ | Fitzroy Crossi | 10.98 | 205 | Pn | Pn | 13 28 19.0 | +0.3 |
| | 0.1nm,0.3s,baz=27,slow=9.7,SNR=3.7 | | | | | | |
| FITZ | | | | Sn | Sn | 13 30 17.0 | -5.3 |
| | 0.1nm,0.3s,baz=216,slow=8.7,SNR=3.8 | | | | | | |
| WRA | Warramunga Arr | 12.32 | 163 | Pn | Pn | 13 28 37.0 | -0.1 |
| | 0.1nm,0.3s,baz=342,slow=14,SNR=5.2 | | | | | | |
| WRA | | | | Sn | Sn | 13 30 50.0 | -5.2 |
| | 0.1nm,0.3s,baz=345,slow=21,SNR=4.4 | | | | | | |
| ASAR | Alice Springs | 15.79 | 168 | Pn | Pn | 13 29 23.9 | -0.2 |
| | 0.1nm,0.3s,baz=344,slow=8.7,SNR=5.1 | | | | | | |
| MKAR | Makanchi Array | 69.44 | 327 | P | P | 13 36 50.3 | 0.0 |
| | 0.2nm,0.5s,baz=123,slow=7.5,SNR=3.5 | | | | | | |

**JMA 03 13:29:26.2, 35°.16N×135°.93E, h10km, M2.7, Western Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JWT | Wachi | 0.45 | 286 | P | Pg | 13 29 34.9 | -0.1 |
| JWT | | | | S | Sg | 13 29 40.5 | -0.5 |
| JHE | Heguri | 0.54 | 202 | P | Pg | 13 29 36.6 | -0.2 |
| JHE | | | | S | Sg | 13 29 43.8 | -0.1 |
| TSUJ | Tsu 2 | 0.60 | 138 | P | Pg | 13 29 37.6 | -0.3 |
| TSUJ | | | | S | Sg | 13 29 45.6 | -0.2 |
| JKY | Yasaka | 0.82 | 305 | P | Pg | 13 29 41.8 | -0.2 |
| JKY | | | | S | Sg | 13 29 52.9 | +0.1 |
| JKS | Kasai | 0.91 | 259 | P | Pg | 13 29 43.2 | -0.5 |
| JKS | | | | S | Sg | 13 29 55.3 | -0.2 |
| JKN2 | Miekihoku | 0.96 | 163 | P | Pg | 13 29 43.8 | -0.9 |
| JKN2 | | | | S | Sg | 13 29 56.0 | -1.2 |
| JWY | Kouya | 0.98 | 197 | P | Pg | 13 29 44.5 | -0.6 |
| JWY | | | | S | Sg | 13 29 57.1 | -0.7 |
| JIE | Ise | 1.00 | 140 | P | Pg | 13 29 44.5 | -0.9 |
| MAT | Matsushiro | 2.31 | 53 | P | Pn | 13 30 05.9 | +1.6 |
| MAT | | | | S | Sb | 13 30 38.3 | +1.8 |

**IDC 03 13:48:30.5±1.7, 25°.75N×97°.03E, h0km, mb3.3/2, mb1 3.4/2, mb1mx3.1/37, mbtmp3.3/2, MS2.6/1, Ms1 2.6/1, ms1mx2.2/16, Error ellipse: s-maj=103.6km s-min=22.2km az=68.0, Myanmar-China border region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CMAR | Chiang Mai Arr | 7.47 | 166 | Pg | Pg | 13 50 48.6 | -5.1 |
| | 0.1nm,0.3s,baz=335,slow=17,SNR=4.0 | | | | | | |
| CMAR | | | | Lg | Lg | 13 52 30.4 | |
| | 0.1nm,0.3s,baz=330,slow=26,SNR=4.3 | | | | | | |
| MKAR | Makanchi Array | 24.05 | 335 | P | P | 13 53 48.0 | +0.7 |
| | 0.3nm,0.5s,baz=141,slow=8.2,SNR=9.0 | | | | | | |
| FITZ | Fitzroy Crossi | 51.71 | 145 | LR | LR | 14 24 19.8 | |
| | comp=Z,5.7nm,19.8s,slow=42 | | | | | | |
| ASAR | Alice Springs | 60.72 | 141 | P | P | 13 58 43.0 | -1.1 |
| | 0.3nm,0.9s,baz=319,slow=6.3,SNR=4.5 | | | | | | |

*ISK 03 13:51:56.7, 40°.42N×39°.73E, h28km, MD2.7*
*ATA 03 13:51:56.2±1.1, 40°.35N×39°.63E, h22km±8km, ML3.3, MW3.1*
*ISCJB 03 13:51:57.5±0.5, 40°.38N±0°.02×39°.64E±0°.03, h1km±5km, Error ellipse: s-maj=4.1km s-min=3.7km az=28.5*
*DDA 03 13:51:57.0, 40°.40N×39°.63E, h8km, Ml3.1*
*CSEM 03 13:51:57.7±0.3, 40°.39N×39°.65E, h8km, ML3.1, Error ellipse: s-maj=6.0km s-min=5.3km az=32.0*
**ISC 03 13:51:57.1±1.1, 40°.39N±0°.02×39°.64E±0°.02, h12km±9km, n52, σ0s.68/74, 2C, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KELT | Kelkit | 0.38 | 231⇑ | iP | Pg | 13 52 04.7 | +0.1 |
| KELT | | | | eS | Sb | 13 52 10.4 | -1.3 |
| KELT | | | | IAML | | 13 52 11.9 | |
| | comp=Z,272nm,0.5s | | | | | | |
| KELT | Kelkit | 0.38 | 231 | iP | Pg | 13 52 04.8 | +0.1 |
| KELT | | | | iS | Sb | 13 52 10.4 | -1.3 |
| KELT | Kelkit | 0.38 | 231 | P | Pg | 13 52 04.8 | +0.1 |
| KELT | | | | S | Sb | 13 52 10.4 | -1.3 |
| KTUT | Trabzon | 0.61 | 9 | ePG | Pb | 13 52 09.2 | -0.5 |
| KTUT | | | | eSG | Sb | 13 52 18.1 | -0.1 |
| KTUT | Trabzon | 0.61 | 9 | ePg | Pb | 13 52 09.2 | -0.5 |
| KTUT | | | | eSg | Sb | 13 52 18.1 | -0.1 |
| EZC | Erzincan | 0.67 | 199 | ePg | Pn | 13 52 12.7 | +0.2 |
| KOPT | Kop Dagi | 0.76 | 119⇑ | iP | Pb | 13 52 11.9 | -0.4 |
| KOPT | | | | IAML | | 13 52 12.8 | |
| | comp=Z,92nm,0.2s | | | | | | |
| KOPT | | | | eS | Sb | 13 52 22.9 | +0.1 |
| KOPT | Kop Dagi | 0.76 | 119 | iP | Pb | 13 52 11.9 | -0.4 |
| KOPT | | | | iS | Sb | 13 52 22.8 | +0.1 |
| KOPT | Kop Dagi | 0.76 | 119 | P | Pb | 13 52 11.9 | -0.4 |
| KOPT | | | | S | Sb | 13 52 22.8 | +0.1 |
| ERZN | Erzincan | 0.80 | 175 | ePG | Pb | 13 52 12.7 | -0.4 |
| ERZN | | | | eSG | Sb | 13 52 24.4 | +0.6 |
| ESPY | Espiye-Giresun | 0.87 | 308 | ePG | Pb | 13 52 14.1 | -0.1 |
| ESPY | | | | eSG | Sb | 13 52 26.6 | +0.8 |
| ESPY | Espiye-Giresun | 0.87 | 308 | ePg | Pb | 13 52 14.1 | -0.1 |
| ESPY | | | | eSg | Sb | 13 52 26.6 | +0.8 |
| SUSE | Susehri | 1.11 | 261 | iP | Pn | 13 52 18.8 | +0.2 |
| SUSE | | | | iS | Sn | 13 52 35.2 | +1.3 |
| SUSE | Susehri | 1.11 | 261 | P | Pn | 13 52 18.8 | +0.2 |
| SUSE | | | | S | Sn | 13 52 35.2 | +1.3 |
| GRSN | GIRESUNGRSN | 1.17 | 298 | iP | Pn | 13 52 19.4 | +0.1 |
| GRSN | | | | iS | Sn | 13 52 35.9 | +0.6 |
| GRSN | GIRESUNGRSN | 1.17 | 298 | P | Pn | 13 52 19.4 | +0.1 |
| GRSN | | | | S | Sn | 13 52 35.9 | +0.6 |
| REFA | Refahiye_ERZ˜ | 1.20 | 214 | eP | Pg | 13 52 12.7 | -7.3 |
| REFA | | | | IAML | | 13 52 14.0 | |
| | comp=Z,24nm,0.3s | | | | | | |
| REFA | | | | eS | Sg | 13 52 23.9 | -12 |
| REFA | Refahiye_ERZ˜ | 1.20 | 214 | iP | Pg | 13 52 13.1 | -7.0 |
| ILIC | ilic-Erzincan | 1.24 | 222 | ePN | Pb | 13 52 19.9 | -0.7 |
| ILIC | ilic-Erzincan | 1.24 | 222 | ePn | Pb | 13 52 19.9 | -0.7 |
| TNCL | Tunceli-Merkez | 1.27 | 183 | iP | Pg | 13 52 22.2 | +0.6 |
| TNCL | Tunceli-Merkez | 1.27 | 183 | P | Pg | 13 52 22.2 | +0.6 |
| ERZM | Erzurum | 1.41 | 109 | iP | Pg | 13 52 24.5 | +0.3 |
| ERZM | Erzurum | 1.41 | 109 | P | Pg | 13 52 24.5 | +0.3 |
| KEMA | Kemaliye | 1.42 | 219 | eP | Pn | 13 52 22.2 | -0.6 |
| KEMA | Kemaliye | 1.42 | 219 | iP | Pg | 13 52 23.6 | -0.8 |
| KEMA | | | | iS | Sg | 13 52 43.6 | +0.7 |
| KEMA | Kemaliye | 1.42 | 219 | P | Pg | 13 52 23.6 | -0.8 |
| KEMA | | | | S | Sg | 13 52 43.6 | +0.7 |
| ORDU | Ordu-Boztepe | 1.48 | 295 | iP | Pg | 13 52 24.9 | -0.6 |
| ORDU | | | | iS | Sg | 13 52 44.8 | 0.0 |
| ORDU | Ordu-Boztepe | 1.48 | 295 | P | Pg | 13 52 24.9 | -0.6 |
| ORDU | | | | S | Sg | 13 52 44.8 | 0.0 |
| PTK | Pertek | 1.50 | 187 | ePN | Pn | 13 52 23.7 | -0.4 |
| PTK | Pertek | 1.50 | 187 | ePn | Pn | 13 52 23.7 | -0.4 |
| CUZAR | Zara_SIVAS | 1.51 | 251 | iS | Pb | 13 52 25.3 | +0.1 |
| CUZAR | | | | iS | Sg | 13 52 45.7 | -0.2 |
| CUZAR | Zara_SIVAS | 1.51 | 251 | S | Sg | 13 52 45.7 | -0.2 |
| BNGB | Bingˆ¶l | 1.61 | 150 | ePN | Pn | 13 52 24.0 | -1.4 |
| BINT | Bingol | 1.65 | 156 | ePn | Pn | 13 52 24.0 | -1.9 |
| DDEM | Demirkent | 1.69 | 72 | iP | Pb | 13 52 27.9 | -0.1 |
| DDEM | Demirkent | 1.69 | 72 | iP | Pb | 13 52 28.1 | 0.0 |
| DDEM | | | | iS | Pg | 13 52 30.3 | +0.8 |
| DDEM | Demirkent | 1.69 | 72 | P | Pb | 13 52 28.0 | -0.1 |
| HOMI | Horasan | 1.77 | 100 | iP | Pg | 13 52 30.7 | -0.4 |
| HOMI | Horasan | 1.77 | 100 | iP | Pg | 13 52 30.6 | -0.5 |
| DAGI | Agillar | 1.86 | 68 | iP | Pb | 13 52 31.2 | 0.0 |
| DAGI | | | | iS | Pg | 13 52 32.2 | -0.6 |
| ARTV | Artvin | 1.92 | 65 | iP | Pg | 13 52 33.1 | -0.7 |
| ARTV | | | | iS | Pg | 13 52 34.4 | +0.5 |
| ELZG | Elazig | 1.95 | 195 | iP | Pb | 13 52 33.0 | +0.3 |
| ELZG | Elazig | 1.95 | 195 | P | Pb | 13 52 33.0 | +0.3 |
| CUKAN | kangal_SIVAS | 1.98 | 238 | iP | Pb | 13 52 33.5 | +0.3 |
| CUKAN | kangal_SIVAS | 1.98 | 238 | P | Pb | 13 52 33.5 | +0.3 |
| HEKM | Malatya_Hekimh | 1.99 | 221 | iP | Pg | 13 52 35.0 | -0.1 |
| HEKM | | | | iS | Sg | 13 53 02.6 | +1.7 |
| SCER | sogukcermik | 1.99 | 256 | iP | Pg | 13 52 34.1 | -1.2 |
| SCER | sogukcermik | 1.99 | 256 | P | Pg | 13 52 34.1 | -1.2 |
| SVRC | Sivrice-ELAZID | 2.02 | 187 | ePN | Pn | 13 52 30.5 | -0.7 |
| SVRC | Sivrice-ELAZID | 2.02 | 187 | ePn | Pn | 13 52 30.5 | -0.7 |
| EPOS | Posof | 2.59 | 64 | iP | Pb | 13 52 43.3 | -0.3 |

*ISCJB 03 14:01:41.7±0.6, 38°.26N±0°.03×42°.46E±0°.03, h2km±6km, Error ellipse: s-maj=5.4km s-min=3.5km az=157.6*
*CSEM 03 14:01:41.6±0.3, 38°.27N×42°.48E, h2km, ML3.1, Error ellipse: s-maj=6.9km s-min=4.5km az=152.0*
*DDA 03 14:01:41.3, 38°.26N×42°.47E, h7km, Ml3.1*
*ISK 03 14:01:43.9, 38°.48N×42°.32E, h9km, MD3.0*
**ISC 03 14:01:41.8±1.1, 38°.29N±0°.02×42°.46E±0°.02, h7km±10km, n33, σ1s.12/52, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GEVA | Gevas | 0.47 | 88 | iP | Pg | 14 01 50.3 | -0.6 |
| GEVA | | | | iS | Sb | 14 01 58.5 | -1.3 |
| GEVA | Gevas | 0.47 | 88 | P | Pg | 14 01 50.3 | -0.6 |
| GEVA | | | | S | Sb | 14 01 58.5 | -1.3 |
| SRTM | Siirt_Merkez | 0.52 | 235 | iP | Pg | 14 01 50.7 | -1.1 |
| SRTM | | | | iS | Sg | 14 01 58.7 | +0.1 |
| SRTM | Siirt_Merkez | 0.52 | 235 | P | Pg | 14 01 50.7 | -1.1 |
| SRTM | | | | S | Sg | 14 01 58.7 | +0.1 |
| ADCV | BITLIS_Adilcev | 0.55 | 22 | iP | Pg | 14 01 53.0 | +0.5 |
| ADCV | | | | iS | Sb | 14 02 02.3 | +0.1 |
| ADCV | BITLIS_Adilcev | 0.55 | 22 | P | Pg | 14 01 53.0 | +0.5 |
| ADCV | | | | S | Sb | 14 02 02.3 | +0.1 |
| SIRT | Sirnak | 0.79 | 181 | ePG | Pn | 14 02 03.4 | +3.9 |
| SVAN | Silvan-Diyarba | 1.00 | 262 | ePG | Pn | 14 02 03.0 | +0.7 |
| SVAN | | | | eSG | Sb | 14 02 14.9 | -0.1 |
| SVAN | Silvan-Diyarba | 1.00 | 262 | ePg | Pn | 14 02 03.1 | +0.7 |
| SVAN | | | | eSg | Sb | 14 02 14.9 | -0.1 |
| EKAR | Karacoban | 1.01 | 342 | iP | Pg | 14 02 01.2 | 0.0 |
| EKAR | | | | iS | Sn | 14 02 17.2 | -0.1 |
| EKAR | Karacoban | 1.01 | 342 | P | Pg | 14 02 01.2 | 0.0 |
| EKAR | | | | S | Sn | 14 02 17.2 | -0.1 |
| BTMN | Batman | 1.02 | 247 | iP | Pg | 14 02 01.1 | -0.3 |
| BTMN | | | | iS | Sg | 14 02 14.7 | 0.0 |
| BTMN | Batman | 1.02 | 247 | P | Pg | 14 02 01.1 | -0.3 |
| BTMN | | | | S | Sg | 14 02 14.7 | 0.0 |
| VMUR | Van-Muradiye | 1.11 | 51 | iP | Pg | 14 02 02.1 | -1.1 |
| VMUR | | | | iS | Sb | 14 02 18.9 | +0.5 |
| VMUR | Van-Muradiye | 1.11 | 51 | P | Pg | 14 02 02.1 | -1.1 |
| VMUR | | | | S | Sb | 14 02 18.9 | +0.5 |
| TUTA | Tutak | 1.14 | 14 | iP | Pg | 14 02 03.0 | -0.7 |
| TUTA | | | | iS | Sg | 14 02 19.1 | +0.6 |
| TUTA | Tutak | 1.14 | 14 | P | Pg | 14 02 03.0 | -0.7 |
| TUTA | | | | S | Sg | 14 02 19.1 | +0.6 |
| BNGL | BINGOL | 1.22 | 303 | iP | Pn | 14 02 05.8 | +0.3 |
| BNGL | | | | iS | Sn | 14 02 23.5 | +1.1 |
| HAKT | HAKKARI | 1.23 | 126 | iP | Pg | 14 02 04.3 | -1.1 |
| HAKT | | | | iS | Sn | 14 02 21.9 | -0.8 |
| HAKT | HAKKARI | 1.23 | 126 | P | Pg | 14 02 04.3 | -1.1 |
| HAKT | | | | S | Sn | 14 02 21.9 | -0.8 |
| AGRB | Hanur-Agry | 1.35 | 18 | ePN | Pn | 14 02 07.3 | +0.1 |
| AGRB | Hanur-Agry | 1.35 | 18 | ePn | Pn | 14 02 07.3 | +0.1 |
| CLDR | Caldiran | 1.42 | 53 | ePN | Pg | 14 02 10.3 | +1.2 |
| CLDR | Caldiran | 1.42 | 53 | ePn | Pg | 14 02 10.3 | +1.2 |
| BNGB | Bingˆ¶l | 1.56 | 297 | ePN | Pn | 14 02 10.0 | -0.1 |
| BINT | Bingol | 1.65 | 291 | ePn | Pn | 14 02 10.0 | -1.4 |
| MAZI | Mazidag | 1.80 | 243 | ePN | Pb | 14 02 15.1 | -0.1 |
| MAZI | Mazidag | 1.80 | 243 | ePn | Pb | 14 02 15.1 | -0.1 |
| HOMI | Horasan | 1.80 | 346 | iP | Pg | 14 02 23.3 | +7.0 |
| HOMI | | | | iS | Sn | 14 02 33.1 | -3.8 |
| PTK | Pertek | 2.48 | 285 | ePN | Pn | 14 02 24.2 | +1.4 |
| PTK | Pertek | 2.48 | 285 | ePn | Pn | 14 02 24.2 | +1.4 |
| SVRC | Sivrice-ELAZID | 2.48 | 273 | ePN | Pn | 14 02 24.4 | +1.5 |
| SVRC | Sivrice-ELAZID | 2.48 | 273 | ePn | Pn | 14 02 24.4 | +1.5 |

**MEX 03 14:22:35.8±0.3, 19°.20N×104°.04W, h16km±3km, MD3.6, Near coast of Jalisco**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| R15V | | 0.06 | 117 | iP | Pg | 14 22 38.0 | -1.0 |
| R15V | | | | eS | Sg | 14 22 40.3 | -0.8 |
| EZ5V | | 0.50 | 55 | eP | Pg | 14 22 44.3 | -1.6 |
| EZ5V | | | | iS | Sg | 14 22 51.4 | -1.3 |
| CJM | Chamela | 1.00 | 288 | iP | Pb | 14 22 51.4 | -3.3 |
| CJM | | | | eS | Sb | 14 23 03.6 | -3.9 |
| MMIG | Aquila | 1.11 | 144 | eP | Pb | 14 22 53.2 | -3.5 |
| MMIG | | | | iS | Sb | 14 23 06.5 | -4.4 |
| ARIG | Puente Sto Nin | 3.61 | 104 | eP | Pn | 14 23 30.6 | -0.5 |
| ARIG | | | | eS | Sn | 14 24 09.8 | -3.7 |

*ISCJB 03 14:30:41.9±1.4, 38°.75N±0°.05×43°.59E±0°.09, h23km±13km, Error ellipse: s-maj=12.8km s-min=5.8km az=27.1*
*CSEM 03 14:30:42.1±0.3, 38°.79N×43°.50E, h10km, ML2.8, Error ellipse: s-maj=9.0km s-min=5.1km az=114.0*
*DDA 03 14:30:42.3, 38°.77N×43°.52E, h7km, Ml2.8*
**ISC 03 14:30:42.4±1.0, 38°.77N±0°.03×43°.51E±0°.04, h15km±8km, n17, σ0s.83/27, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.20 | 207 | ePG | Pg | 14 30 47.0 | -0.1 |
| VANB | Van | 0.20 | 207 | ePg | Pg | 14 30 47.0 | -0.1 |
| VMUR | Van-Muradiye | 0.23 | 13 | iP | Pg | 14 30 46.8 | -0.8 |
| VMUR | | | | iS | Sg | 14 30 51.6 | +0.4 |
| VMUR | Van-Muradiye | 0.23 | 13 | P | Pg | 14 30 46.8 | -0.8 |
| VMUR | | | | S | Sg | 14 30 51.6 | +0.4 |
| TVAN | Van | 0.25 | 198 | iP | Pg | 14 30 47.6 | -0.5 |
| TVAN | | | | iS | Sb | 14 30 52.8 | -0.3 |
| TVAN | Van | 0.25 | 198 | P | Pg | 14 30 47.6 | -0.5 |
| TVAN | | | | S | Sb | 14 30 52.8 | -0.3 |
| CLDR | Caldiran | 0.49 | 41 | ePG | Pg | 14 30 51.8 | -0.5 |
| CLDR | | | | eSG | Sb | 14 31 00.7 | +0.6 |
| CLDR | Caldiran | 0.49 | 41 | iP | Pg | 14 30 51.8 | -0.5 |
| CLDR | | | | iS | Sb | 14 31 01.1 | +1.1 |
| CLDR | Caldiran | 0.49 | 41 | P | Pg | 14 30 51.8 | -0.5 |
| CLDR | | | | eSg | Sb | 14 31 00.6 | +0.6 |
| GEVA | Gevas | 0.58 | 218 | iP | Pg | 14 30 52.9 | -1.0 |
| GEVA | | | | iS | Sb | 14 31 03.4 | +1.0 |
| GEVA | Gevas | 0.58 | 218 | P | Pg | 14 30 52.8 | -1.0 |
| GEVA | | | | S | Sb | 14 31 03.4 | +1.0 |
| ADCV | BITLIS_Adilcev | 0.61 | 274 | iP | Pb | 14 30 54.8 | -0.1 |
| ADCV | | | | iS | Sb | 14 31 05.1 | +1.7 |
| ADCV | BITLIS_Adilcev | 0.61 | 274 | P | Pb | 14 30 54.8 | -0.1 |
| TUTA | Tutak | 0.83 | 320 | iP | Pg | 14 30 58.1 | -0.5 |
| TUTA | Tutak | 0.83 | 320 | P | Pg | 14 30 58.1 | -0.5 |
| AGRB | Hanur-Agry | 0.90 | 334 | ePG | Pg | 14 30 58.7 | -1.2 |
| AGRB | Hanur-Agry | 0.90 | 334 | ePg | Pg | 14 30 58.7 | -1.2 |

**RSNC 03 14:42:42.6±1.4, 3°.67N×74°.11W, h4km±8km, ML3.8, 2C-2D, Colombia**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SJAC | San Juan de Ar | 0.43 | 158⇓ | iP | Pg | 14 42 50.6 | -0.3 |
| SJAC | | | | eS | Sg | 14 42 56.1 | -0.4 |
| SJAC | | | | i | | 14 42 57.9 | |
| | comp=Z,17µm,0.3s | | | | | | |
| VILC | Villavicencio, | 0.60 | 44 | iP | Pg | 14 42 53.2 | -1.0 |
| VILC | | | | eS | Sg | 14 43 01.9 | -0.1 |
| VILC | | | | i | | 14 43 03.5 | |
| | comp=Z,7µm,0.5s | | | | | | |
| PRAC | Prado | 0.78 | 273⇓ | iP | Pg | 14 42 55.9 | -1.6 |
| PRAC | | | | eS | Sg | 14 43 06.5 | -1.1 |
| CHIC | Chingaza | 1.02 | 22⇑ | iP | Pg | 14 43 00.3 | -2.0 |
| CHIC | | | | i | | 14 43 17.2 | |
| | comp=Z,2µm,0.4s | | | | | | |
| ROSC | El Rosal | 1.18 | 350⇑ | iP | Pg | 14 43 03.9 | -1.3 |
| ROSC | | | | i | | 14 43 35.3 | |
| | comp=Z,811nm,0.4s | | | | | | |
| BETC | Betania | 1.65 | 233 | eP | Pn | 14 43 11.3 | -1.2 |
| BETC | | | | eS | Sn | 14 43 32.3 | -2.0 |
| GUVC | San Jose del G | 1.86 | 127 | eP | Pn | 14 43 14.3 | -1.0 |
| GUYC | Guyana, Colomb | 2.00 | 320 | eP | Pn | 14 43 17.1 | -0.5 |
| GUYC | | | | i | | 14 43 47.3 | |
| | comp=Z,884nm,0.3s | | | | | | |
| NORC | Norcasia | 2.02 | 338 | eP | Pn | 14 43 16.6 | -0.9 |
| NORC | | | | eS | Sn | 14 43 42.5 | -0.9 |
| HELC | Santa Helena | 2.87 | 331 | eP | Pn | 14 43 28.4 | -1.1 |
| HELC | | | | i | | 14 44 09.7 | |
| | comp=Z,273nm,0.4s | | | | | | |

*ISK 03 14:51:19.8, 41°.49N×35°.15E, h10km, MD2.4*
*ISCJB 03 14:51:20.5±0.6, 41°.53N±0°.03×35°.08E±0°.04, h0km±7km, Error ellipse: s-maj=5.6km s-min=5.1km az=144.6*
*CSEM 03 14:51:20.7±0.3, 41°.54N×35°.11E, h10km, ML2.8, Error ellipse: s-maj=6.4km s-min=5.5km az=104.0*
*DDA 03 14:51:20.5, 41°.51N×35°.11E, h11km, Ml2.8*
**ISC 03 14:51:20.4±0.9, 41°.50N±0°.03×35°.12E±0°.03, h11km±7km, n28, σ1s.51/42, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DIKM | Dikmen | 0.18 | 35 | ePG | Pg | 14 51 24.1 | -0.3 |
| DIKM | | | | eSG | Sg | 14 51 27.1 | 0.0 |
| DIKM | Dikmen | 0.18 | 35 | ePg | Pg | 14 51 24.1 | -0.3 |
| DIKM | | | | eSg | Sg | 14 51 27.1 | 0.0 |
| BOYT | Boyabat | 0.18 | 243 | iP | Pg | 14 51 24.2 | -0.3 |
| BOYT | Boyabat | 0.18 | 243 | P | Pg | 14 51 24.2 | -0.3 |
| SINO | SINOP_Merkez | 0.52 | 7 | iP | Pg | 14 51 30.6 | +0.1 |
| SINO | SINOP_Merkez | 0.52 | 7 | P | Pg | 14 51 30.6 | +0.1 |
| SNOP | Sinop | 0.52 | 7 | ePG | Pg | 14 51 30.6 | 0.0 |
| SNOP | Sinop | 0.52 | 7 | ePg | Pg | 14 51 30.6 | 0.0 |
| HAVZ | Havza | 0.62 | 133 | iP | Pg | 14 51 33.0 | +0.5 |
| HAVZ | | | | iS | Sb | 14 51 44.0 | +2.0 |
| HAVZ | Havza | 0.62 | 133 | P | Pg | 14 51 33.0 | +0.5 |
| SAMS | Samsun-Alacam | 0.81 | 100 | iP | Pb | 14 51 36.7 | +0.1 |
| SAMS | Samsun-Alacam | 0.81 | 100 | P | Pb | 14 51 36.7 | +0.1 |
| KVT | Kavak | 0.81 | 121 | ePG | Pg | 14 51 35.4 | -0.8 |
| KVT | Kavak | 0.81 | 121 | ePg | Pg | 14 51 35.4 | -0.8 |
| CTAK | Corum_Osmancik | 0.89 | 196 | iP | Pg | 14 51 37.7 | +0.1 |
| CTAK | | | | iS | Sn | 14 51 51.8 | -0.2 |
| CTAK | Corum_Osmancik | 0.89 | 196 | P | Pg | 14 51 37.7 | +0.1 |
| CTAK | | | | S | Sn | 14 51 51.8 | -0.2 |
| BZK | Bozkurt | 0.95 | 299 | ePG | Pb | 14 51 39.0 | +0.1 |
| BZK | Bozkurt | 0.95 | 299 | ePg | Pb | 14 51 39.0 | +0.1 |
| ILGA | Ilgaz | 1.15 | 247 | iP | Pg | 14 51 42.3 | -0.3 |
| ILGA | | | | iS | Sn | 14 51 58.9 | +0.4 |
| ILGA | Ilgaz | 1.15 | 247 | P | Pg | 14 51 42.3 | -0.3 |
| ILGA | | | | S | Sn | 14 51 58.9 | +0.4 |
| COAL | Corum-Alaca | 1.25 | 185 | iP | Pn | 14 51 43.8 | -0.2 |
| COAL | | | | iS | Sn | 14 52 03.1 | +2.3 |
| COAL | Corum-Alaca | 1.25 | 185 | P | Pn | 14 51 43.8 | -0.2 |
| COAL | | | | S | Sn | 14 52 03.1 | +2.3 |
| ERBA | Erbaa | 1.48 | 123 | iP | Pb | 14 51 48.5 | +0.5 |
| ERBA | | | | iS | Sg | 14 52 10.2 | +2.0 |
| ERBA | Erbaa | 1.48 | 123 | P | Pb | 14 51 48.5 | +0.5 |
| ERBA | | | | S | Sg | 14 52 10.1 | +2.0 |
| CDAG | Cicekdag | 1.96 | 197 | iP | Pb | 14 51 56.6 | +0.4 |
| CDAG | | | | iS | Sb | 14 52 20.0 | -0.7 |
| CDAG | Cicekdag | 1.96 | 197 | P | Pb | 14 51 56.6 | +0.4 |
| CDAG | | | | S | Sb | 14 52 20.0 | -0.7 |
| CUSAR | Sarkisla-SIVAS | 2.25 | 157 | iP | Pb | 14 51 59.9 | -1.3 |
| CUSAR | | | | iS | Sn | 14 52 18.0 | -7.6 |
| CUSAR | Sarkisla-SIVAS | 2.25 | 157 | P | Pb | 14 51 59.9 | -1.3 |

*ISCJB 03 14:51:19.4±0.9, 56°.1S±0°.2×122°.6W±0°.3, h12km, mb3.9/5, MS4.0/11, Error ellipse: s-maj=25.5km s-min=22.6km az=168.7*
*IDC 03 14:51:19.0±0.9, 56°.24S×122°.50W, h0km, mb3.9/5, mb1 4.2/5, mb1mx4.0/28, mbtmp3.9/5, MS4.0/11, Ms1 3.9/11, ms1mx3.9/15, Error ellipse: s-maj=41.7km s-min=27.8km az=152.0*
*GCMT 03 14:51:20.0±0.3, 56°.11S×122°.73W, h12km±2km, MW4.8/82, Moment Tensor Solution. s17,c17; s82,c104; Duration: 0 Moment tensor: Scale $10^{16}$Nm; $M_{rr}$-0.04±.10; $M_{\theta\theta}$1.00±.12; $M_{\phi\phi}$-0.96±.11; $M_{r\theta}$0.09±.27; $M_{\theta\phi}$2.01±.09; $M_{\phi r}$0.18±.29; Best double couple: $M_0$2.24600×$10^{16}$ NP1:$\phi_s$13.00000°,δ89.00000°,λ175.00000°. NP2: $\phi_s$103.00000°,δ85.00000°,λ1.00000°. Principal axes: T 2.2680, Plg4.0000°, Azm328.0000°; N -0.0440, Plg85.0000°, Azm182.0000°; P -2.2240, Plg3.0000°, Azm58.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
**ISC 03 14:51:21.0±0.9, 56°.2S±0°.2×122°.4W±0°.2, h12km, n39, σ2s.04/11, mb3.9/5, MS3.9/11, 1C-1D, Southern East Pacific Rise**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PMSA | Palmer Station | 28.96 | 131 | LR | LR | 15 05 59.7 | |
| | comp=Z,317nm,19.9s,baz=283,slow=30 | | | | | | |
| VNDA | Vanda | 32.91 | 203 | LR | LR | 15 07 18.8 | |
| | comp=Z,99nm,21.5s,baz=90,slow=29 | | | | | | |
| RKT | Rikitea | 34.33 | 339 | eLR | LR | 15 07 04.8 | |
| | 814nm,27.5s,baz=174 | | | | | | |
| RKT | Rikitea | 34.33 | 339 | eT | T | 15 33 29.2 | |
| | 4.0nm,0.4s | | | | | | |
| PLCA | Paso Flores | 36.75 | 88 | LR | LR | 15 09 47.3 | |
| | comp=Z,155nm,19.2s,baz=216,slow=30 | | | | | | |
| TBI | Tubuai | 38.35 | 318 | eLR | LR | 15 08 45.6 | |
| | 548nm,29.2s,baz=166 | | | | | | |
| TBI | Tubuai | 38.35 | 318 | eT | T | 15 38 45.5 | |
| | 73nm,0.4s | | | | | | |
| PPT2 | Papeete2 | 43.68 | 321 | eS | S | 15 05 35.9 | -19 |
| | 83nm,25.5s | | | | | | |
| PPT2 | | | | eLQ | LQ | 15 09 26.6 | |
| | 528nm,26.0s | | | | | | |
| PPT2 | | | | eLR | LR | 15 11 30.4 | |
| | 652nm,26.0s,baz=155 | | | | | | |
| PPT | Papeete | 43.70 | 321 | LR | LR | 15 13 04.4 | |
| | comp=Z,191nm,18.6s,baz=155,slow=30 | | | | | | |
| VNA3 | Neumayer Olymp | 44.37 | 155 | P | P | 14 59 31.8 | +1.2 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VNA1** | **Neumayer--Stat** | **45.11** | **155** | P | **P** | **14 59 31.8** | **-4.6** |
| **VNA2** | **Neumayer--Watz** | **45.12** | **155** | P | **P** | **14 59 38.9** | **+2.3** |
| | baz=222,slow=9.7 | | | | | | |
| **VAH** | **Vaihoa** | **45.21** | **325** | *e*T | T | 15 47 14.2 | |
| | 59nm,0.3s | | | | | | |
| **PMOR** | **Pomariorio Ree** | **45.51** | **324** | *e*T | T | 15 47 37.5 | |
| | 6.9nm,0.3s | | | | | | |
| **SNAA** | **Sanae** | **45.61** | **157** | P | **P** | **14 59 41.1** | **+0.6** |
| | 1.2nm,0.8s,baz=249,slow=11,SNR=3.7 | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **49.25** | **337** | *e*LR | LR | 15 13 58.8 | |
| | 525nm,26.7s | | | | | | |
| **SYO** | **Syowa Base** | **54.39** | **172** | ⇑*e*P | **P** | **15 00 47.8** | **+0.7** |
| **SYO** | **Syowa Base** | **54.39** | **172** | ⇓*e*P | P | 15 00 51.8 | +4.7 |
| **CPUP** | **Villa Florida** | **54.76** | **85** | LR | LR | 15 21 15.8 | |
| | comp=Z,102nm,19.0s,baz=228,slow=33 | | | | | | |
| **MAW** | **Mawson** | **56.43** | **182** | LR | LR | 15 24 17.7 | |
| | comp=Z,209nm,19.4s,baz=212,slow=35 | | | | | | |
| **LPAZ** | **La Paz** | **57.02** | **68** | P | **P** | **15 01 06.4** | **-0.9** |
| | 2.1nm,1.0s,baz=241,slow=10,SNR=3.7 | | | | | | |
| LPAZ | | | | LR | LR | 15 19 60.0 | |
| | comp=Z,71nm,22.0s,baz=210,slow=30 | | | | | | |
| **DZM** | **Mont Dzumac** | **61.48** | **273** | *e*LR | LR | 15 19 03.9 | |
| | 239nm,25.8s | | | | | | |
| **STKA** | **Stephens Creek** | **67.27** | **247** | LR | LR | 15 26 04.9 | |
| | comp=Z,146nm,20.8s,baz=200,slow=31 | | | | | | |
| **ROSC** | **El Rosal** | **72.41** | **51** | LR | LR | 15 28 21.7 | |
| | comp=Z,46nm,21.8s,baz=132,slow=31 | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **77.33** | **225** | T | T | 16 29 03.3 | |
| | baz=150,slow=76,SNR=8.6 | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **77.33** | **225** | T | T | 16 29 11.1 | |
| | baz=150,slow=76,SNR=8.0 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **77.34** | **225** | T | T | 16 29 14.0 | |
| | baz=150,slow=76,SNR=9.5 | | | | | | |
| **ASAR** | **Alice Springs** | **77.88** | **246** | P | **P** | **15 03 18.0** | **-0.6** |
| | 0.5nm,0.8s,baz=151,slow=4.2,SNR=3.4 | | | | | | |
| ASAR | | | | LR | LR | 15 32 49.8 | |
| | comp=Z,144nm,19.6s,baz=133,slow=32 | | | | | | |
| **WRA** | **Warramunga Arr** | **80.74** | **248** | P | **P** | **15 03 33.0** | **-1.2** |
| | 1.4nm,0.8s,baz=143,slow=4.9,SNR=9.4 | | | | | | |
| **TXAR** | **Lajitas Array** | **86.69** | **16** | P | **P** | **15 04 05.3** | **+1.0** |
| | 0.6nm,0.7s,baz=195,slow=7.8,SNR=4.5 | | | | | | |
| **BOSA** | **Boshof** | **91.14** | **152** | LR | LR | 15 40 14.9 | |
| | comp=Z,115nm,18.6s,baz=199,slow=32 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **95.03** | **296** | T | T | 16 49 58.5 | |
| | baz=148,slow=76,SNR=26 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **95.05** | **296** | T | T | 16 50 03.7 | |
| | baz=148,slow=76,SNR=12 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **95.05** | **296** | T | T | 16 50 02.3 | |
| | baz=148,slow=76,SNR=13 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **95.97** | **297** | T | T | 16 51 20.8 | |
| | baz=148,slow=76,SNR=9.2 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **95.97** | **297** | T | T | 16 51 16.2 | |
| | baz=148,slow=76,SNR=5.8 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **95.98** | **297** | T | T | 16 51 13.7 | |
| | baz=148,slow=76,SNR=6.9 | | | | | | |
| **ILAR** | **Eielson Array** | **122.10** | **348** | PKP | **PKPdf** | **15 10 14.0** | **+0.1** |
| | 0.4nm,0.8s,baz=192,slow=4.1,SNR=3.3 | | | | | | |
| **SONM** | **Songino Array** | **149.40** | **275** | PKPbc | **PKPbc** | **15 11 09.7** | **+0.7** |
| | 0.2nm,0.4s,baz=123,slow=2.8,SNR=2.6 | | | | | | |

*IDC **03** 14:51:49.7±1.7, 11°.30S×162°.37E, h0km, mb4.0/8, mb1 4.2/10, mb1mx4.0/35, mbtmp4.0/10, ML3.7/2, MS3.7/10, Ms1 3.7/10, ms1mx3.5/25, Error ellipse: s-maj=47.3km s-min=23.0km az=129.0*

*ISCJB **03** 14:51:52.1±1.0, 11°.52S±0°.10×162°.5E±0°.1, h39km, mb3.9/8, MS3.6/7, Error ellipse: s-maj=17.2km s-min=13.1km az=148.5*

**ISC 03 14:51:54.2**±1.0**, 11°.5S**±0°.1×**162°.5E**±0°.1**, h39**km**, n21,** σ**1s.25**/15**, mb4.0**/8**, MS3.7**/7**, Bougainville-Solomon Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HNR** | **Honiara** | **3.25** | **309** | *e*P | **Pn** | **14 52 41.0** | **-1.7** |
| HNR | | | | *e*S | **Sn** | **14 53 22.0** | **+1.8** |
| **HNR** | **Honiara** | **3.25** | **309** | Pn | Pn | 14 52 37.9 | -4.8 |
| | 39nm,0.3s,baz=33,slow=2.6,SNR=17 | | | | | | |
| HNR | | | | Sn | **Sn** | **14 53 20.5** | **+0.3** |
| | 125nm,0.3s,baz=108,slow=15,SNR=7.3 | | | | | | |
| HNR | | | | LR | LR | 14 53 58.6 | |
| | comp=Z,2µm,18.4s,baz=110,slow=43 | | | | | | |
| **DZM** | **Mont Dzumac** | **11.18** | **161** | LR | LR | 14 58 20.5 | |
| | comp=Z,379nm,18.4s,baz=24,slow=34 | | | | | | |
| **PMG** | **Port Moresby** | **15.25** | **276** | LR | LR | 15 01 14.7 | |
| | comp=Z,414nm,19.9s,baz=114,slow=38 | | | | | | |
| **CTA** | **Charters Tower** | **17.83** | **239** | P | **Pn** | **14 55 59.1** | **-0.4** |
| | 0.1nm,0.3s,baz=38,slow=19,SNR=1.8 | | | | | | |
| **AFI** | **Afiamalu** | **25.18** | **98** | LR | LR | 15 05 54.1 | |
| | comp=Z,92nm,20.5s,baz=277,slow=33 | | | | | | |
| **STKA** | **Stephens Creek** | **28.00** | **220** | LR | LR | 15 08 17.9 | |
| | comp=Z,253nm,20.0s,baz=30,slow=35 | | | | | | |
| **WRA** | **Warramunga Arr** | **28.37** | **249** | P | **P** | **14 57 44.8** | **-0.2** |
| | 1.3nm,0.9s,baz=78,slow=8.9,SNR=4.5 | | | | | | |
| **ASAR** | **Alice Springs** | **29.78** | **242** | P | **P** | **14 57 58.0** | **+0.5** |
| | 2.3nm,0.9s,baz=76,slow=9.6,SNR=14 | | | | | | |
| ASAR | | | | LR | LR | 15 09 40.2 | |
| | comp=Z,176nm,18.6s,baz=70,slow=36 | | | | | | |
| **GUMO** | **Guam** | **30.45** | **324** | LR | LR | 15 08 44.7 | |
| | comp=Z,205nm,21.2s,baz=161,slow=34 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **36.21** | **255** | P | **P** | **14 58 53.3** | **-0.3** |
| | 5.7nm,1.1s,baz=20,slow=5.5,SNR=4.9 | | | | | | |
| **KSRS** | **Korea Array** | **58.51** | **328** | LR | LR | 15 24 53.7 | |
| | comp=Z,35nm,19.1s,baz=130,slow=34 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **61.98** | **336** | P | **P** | **15 02 11.3** | **+1.0** |
| | 3.1nm,0.8s,baz=106,slow=11,SNR=3.5 | | | | | | |
| **VNDA** | **Vanda** | **66.03** | **180** | LR | LR | 15 25 48.0 | |
| | comp=Z,34nm,21.6s,baz=337,slow=31 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **69.41** | **295** | P | **P** | **15 02 58.0** | **-0.8** |
| | 0.3nm,0.5s,baz=122,slow=5.3,SNR=4.5 | | | | | | |
| **SONM** | **Songino Array** | **77.18** | **325** | P | **P** | **15 03 43.7** | **-0.4** |
| | 1.5nm,0.9s,baz=141,slow=5.1,SNR=6.4 | | | | | | |
| SONM | | | | LR | LR | 15 40 22.5 | |
| | comp=Z,45nm,18.0s,baz=17,slow=38 | | | | | | |
| **ILAR** | **Eielson Array** | **84.95** | **19** | P | **P** | **15 04 24.6** | **-0.4** |
| | 0.6nm,0.9s,baz=240,slow=4.9,SNR=7.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **91.69** | **317** | P | **P** | **15 04 57.2** | **-0.4** |
| | 0.6nm,0.8s,baz=103,slow=2.6,SNR=3.7 | | | | | | |
| **IDI** | **Anoyia** | **134.93** | **309** | PKP | **PKPdf** | **15 11 08.9** | **-0.8** |
| | 1.6nm,0.6s,baz=37,slow=4.1,SNR=3.8 | | | | | | |
| **KEST** | **Kesra** | **145.76** | **319** | PKPbc | **PKPab** | **15 11 31.7** | **+1.6** |
| | 2.9nm,0.9s,baz=321,slow=6.5,SNR=3.4 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **161.19** | **277** | PKPab | **PKPab** | **15 12 37.8** | **+2.6** |
| | 1.0nm,1.1s,baz=101,slow=2.9,SNR=3.6 | | | | | | |

*ISK **03** 14:57:01.6, 39°.35N×39°.13E, h2km, MD2.7*

*CSEM **03** 14:57:02.8±0.2, 39°.34N×39°.16E, h5km, ML2.6, Error ellipse: s-maj=3.5km s-min=3.1km az=44.0*

*DDA **03** 14:57:02.5, 39°.34N×39°.13E, h7km, Ml2.6*

**ISC 03 14:57:02.9**±1.0**, 39°.35N**±0°.02×**39°.16E**±0°.02**, h8**km±9km**, n40,** σ**1s.16**/64**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **REFA** | **Refahiye_ERZ˜** | **0.31** | **278** | *i* P | **Pn** | **14 57 14.7** | **+0.7** |
| REFA | | | | *i* S | **Sb** | **14 57 23.9** | **+7.9** |
| **TNCL** | **Tunceli-Merkez** | **0.38** | **128** | *i* P | **Pg** | **14 57 10.5** | **+0.1** |
| TNCL | | | | *i* S | **Sg** | **14 57 15.9** | **+0.5** |
| **TNCL** | **Tunceli-Merkez** | **0.38** | **128** | P | **Pg** | **14 57 10.5** | **+0.1** |
| TNCL | | | | S | **Sg** | **14 57 15.9** | **+0.5** |
| **ILIC** | **ilic-Erzincan** | **0.47** | **282** | *e*PG | **Pg** | **14 57 11.1** | **-0.9** |
| ILIC | | | | *e*SG | **Sg** | **14 57 18.5** | **+0.3** |
| **ILIC** | **ilic-Erzincan** | **0.47** | **282** | *e*Pg | **Pg** | **14 57 11.1** | **-0.9** |
| ILIC | | | | *e*Sg | **Sg** | **14 57 18.5** | **+0.3** |
| **PTK** | **Pertek** | **0.49** | **158** | *e*PG | **Pg** | **14 57 12.3** | **-0.2** |
| PTK | | | | *e*SG | **Sg** | **14 57 19.9** | **+0.9** |
| **PTK** | **Pertek** | **0.49** | **158** | *e*Pg | **Pg** | **14 57 12.3** | **-0.2** |
| PTK | | | | *e*Sg | **Sg** | **14 57 19.9** | **+0.9** |
| **KEMA** | **Kemaliye** | **0.52** | **261** | *i* P | **Pg** | **14 57 12.2** | **-0.8** |
| KEMA | | | | *i* S | **Sg** | **14 57 20.1** | **+0.2** |
| **KEMA** | **Kemaliye** | **0.52** | **261** | P | **Pg** | **14 57 12.2** | **-0.8** |
| KEMA | | | | S | **Sg** | **14 57 20.1** | **+0.2** |
| **EUZM** | **Uzumlu** | **0.55** | **50** | *i* P | **Pb** | **14 57 14.6** | **-0.3** |
| EUZM | | | | *i* S | **Sb** | **14 57 22.6** | **-0.4** |
| **EUZM** | **Uzumlu** | **0.55** | **50** | P | **Pb** | **14 57 14.6** | **-0.3** |
| EUZM | | | | S | **Sb** | **14 57 22.6** | **-0.4** |
| **KELT** | **Kelkit** | **0.80** | **5** | *i* P | **Pg** | **14 57 17.3** | **-1.0** |
| KELT | | | | *i* S | **Sg** | **14 57 29.3** | **+0.6** |
| **KELT** | **Kelkit** | **0.80** | **5** | P | **Pg** | **14 57 17.3** | **-1.0** |
| KELT | | | | S | **Sg** | **14 57 29.3** | **+0.6** |
| **ELZG** | **Elazig** | **0.86** | **189** | *i* P | **Pg** | **14 57 18.8** | **-0.8** |
| ELZG | | | | *i* S | **Sb** | **14 57 31.9** | **-0.2** |
| **ELZG** | **Elazig** | **0.86** | **189** | P | **Pg** | **14 57 18.8** | **-0.8** |
| ELZG | | | | S | **Sb** | **14 57 31.9** | **-0.2** |
| **SVRC** | **Sivrice-ELAZID** | **0.98** | **173** | *e*PG | **Pg** | **14 57 21.5** | **-0.2** |
| **SVRC** | **Sivrice-ELAZID** | **0.98** | **173** | *e*Pg | **Pg** | **14 57 21.5** | **-0.2** |
| **HEKM** | **Malatya_Hekimh** | **1.05** | **243** | *i* P | **Pn** | **14 57 23.5** | **-0.6** |
| HEKM | | | | *i* S | **Sn** | **14 57 38.4** | **-0.6** |
| **HEKM** | **Malatya_Hekimh** | **1.05** | **243** | P | **Pn** | **14 57 23.5** | **-0.6** |
| HEKM | | | | S | **Sn** | **14 57 38.4** | **-0.6** |
| **YEDI** | **Yedisu-Bingol** | **1.08** | **85** | *e*PN | **Pb** | **14 57 23.9** | **0.0** |
| **YEDI** | **Yedisu-Bingol** | **1.08** | **85** | *e*Pn | **Pb** | **14 57 23.9** | **0.0** |
| **SUSE** | **Susehri** | **1.13** | **320** | *i* P | **Pg** | **14 57 24.0** | **-0.6** |
| SUSE | | | | *i* S | **Sn** | **14 57 40.4** | **-0.6** |
| **SUSE** | **Susehri** | **1.13** | **320** | P | **Pg** | **14 57 24.0** | **-0.6** |
| SUSE | | | | S | **Sn** | **14 57 40.4** | **-0.6** |
| **BINT** | **Bingol** | **1.14** | **114** | *e*Pn | **Pn** | **14 57 25.8** | **+0.5** |
| **MALT** | **Malatya** | **1.19** | **209** | *e*PN | **Pg** | **14 57 24.7** | **-0.9** |
| **MALT** | **Malatya** | **1.19** | **209** | *e*Pn | **Pg** | **14 57 24.7** | **-0.9** |
| **CUZAR** | **Zara_SIVAS** | **1.20** | **297** | *i* P | **Pn** | **14 57 26.0** | **-0.2** |
| CUZAR | | | | *i* S | **Sn** | **14 57 42.2** | **-0.5** |
| **CUZAR** | **Zara_SIVAS** | **1.20** | **297** | P | **Pn** | **14 57 26.0** | **-0.2** |
| CUZAR | | | | S | **Sn** | **14 57 42.2** | **-0.5** |
| **BNGB** | **Bingˆ¶l** | **1.24** | **107** | *e*PN | **Pg** | **14 57 25.8** | **-0.8** |
| **AKCD** | **Akcadag** | **1.43** | **223** | *i* P | **Pn** | **14 57 28.9** | **-0.5** |
| AKCD | | | | *i* S | **Sn** | **14 57 48.2** | **-0.2** |
| **AKCD** | **Akcadag** | **1.43** | **223** | P | **Pn** | **14 57 28.9** | **-0.5** |
| AKCD | | | | S | **Sn** | **14 57 48.2** | **-0.2** |
| **DARE** | **Darende-Malaty** | **1.52** | **240** | *e*PN | **Pb** | **14 57 30.9** | **-0.6** |
| **DARE** | **Darende-Malaty** | **1.52** | **240** | *e*Pn | **Pb** | **14 57 30.9** | **-0.6** |
| **ESPY** | **Espiye-Giresun** | **1.60** | **348** | *e*PN | **Pn** | **14 57 32.0** | **+0.5** |
| **ESPY** | **Espiye-Giresun** | **1.60** | **348** | *e*Pn | **Pn** | **14 57 32.0** | **+0.5** |
| **SVSK** | **Karacayir** | **1.76** | **289** | *e*PN | **Pb** | **14 57 35.0** | **-0.5** |
| **SVSK** | **Karacayir** | **1.76** | **289** | *e*Pn | **Pb** | **14 57 35.0** | **-0.5** |
| **CUALT** | **Altinyayla-SIV** | **1.86** | **268** | *i* P | **Pb** | **14 57 36.7** | **-0.6** |
| CUALT | | | | *i* S | **Sg** | **14 58 02.8** | **0.0** |
| **CUALT** | **Altinyayla-SIV** | **1.86** | **268** | P | **Pb** | **14 57 36.7** | **-0.6** |
| **SARI** | **SarD1z-Kayseri** | **2.34** | **247** | *e*PN | **Pn** | **14 57 42.2** | **+0.3** |

*ISCJB **03** 15:03:44.1±0.5, 37°.00N±0°.03×28°.33E±0°.03, h0km, Error ellipse: s-maj=4.5km s-min=3.3km az=0.4*

*CSEM **03** 15:03:44.3±0.2, 36°.99N×28°.34E, h1km, ML2.1, Error ellipse: s-maj=5.5km s-min=4.0km az=178.0, Suspected Mining explosion.*

*DDA **03** 15:03:44.6, 36°.98N×28°.36E, h7km, Ml2.5, Suspected Mining explosion.*

*ISK **03** 15:03:44.0, 36°.95N×28°.38E, h15km, ML2.1*

**ISC 03 15:03:43.6**±0.9**, 37°.04N**±0°.04×**28°.33E**±0°.02**, h0**km**, n31,** σ**0s.64**/45**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TURN** | **Turunc** | **0.27** | **127** | *e*PG | **Pg** | **15 03 49.3** | **+0.5** |
| TURN | | | | *e*SG | **Sg** | **15 03 52.9** | **+0.7** |
| **TURN** | **Turunc** | **0.27** | **127** | *i* P | **Pg** | **15 03 49.1** | **+0.4** |
| TURN | | | | *i* S | **Sg** | **15 03 53.0** | **+0.7** |
| **TURN** | **Turunc** | **0.27** | **127** | *e*Pg | **Pg** | **15 03 49.3** | **+0.5** |
| TURN | | | | S | **Sg** | **15 03 53.0** | **+0.7** |
| **DALY** | **Dalyan (Mu˜la** | **0.34** | **130** | *e*PG | **Pg** | **15 03 50.1** | **+0.1** |
| **DALY** | **Dalyan (Mu˜la** | **0.34** | **130** | *i* P | **Pg** | **15 03 50.6** | **+0.5** |
| DALY | | | | *i* S | **Sg** | **15 03 56.0** | **+1.6** |
| **DALY** | **Dalyan (Mu˜la** | **0.34** | **130** | *e*Pg | **Pg** | **15 03 50.1** | **+0.1** |
| DALY | | | | S | **Sg** | **15 03 56.0** | **+1.6** |
| **MRSB** | **Marmaris-Mugla** | **0.34** | **199** | *e*PG | **Pg** | **15 03 50.2** | **+0.2** |
| MRSB | | | | *e*SG | **Sg** | **15 03 54.9** | **+0.5** |
| **MRSB** | **Marmaris-Mugla** | **0.34** | **199** | *e*Pg | **Pg** | **15 03 50.2** | **+0.2** |
| MRSB | | | | *e*Sg | **Sg** | **15 03 54.9** | **+0.5** |
| **TAVA** | **DENIZLI_Tavas** | **0.63** | **47** | *i* P | **Pb** | **15 03 57.2** | **-0.4** |
| TAVA | | | | *i* S | **Sb** | **15 04 06.9** | **-0.1** |
| **TAVA** | **DENIZLI_Tavas** | **0.63** | **47** | P | **Pb** | **15 03 57.2** | **-0.4** |
| TAVA | | | | S | **Sb** | **15 04 06.9** | **-0.1** |
| **BDRM** | **Kayabasi** | **0.71** | **273** | *i* S | **Sb** | **15 04 09.0** | **-0.3** |
| **BDRM** | **Kayabasi** | **0.71** | **273** | S | **Sb** | **15 04 09.0** | **-0.3** |
| **FETY** | **Fethiye** | **0.72** | **123** | *e*PG | **Pg** | **15 03 57.1** | **-0.4** |
| **FETY** | **Fethiye** | **0.72** | **123** | *e*Pg | **Pg** | **15 03 57.1** | **-0.4** |
| **FETY** | **Fethiye** | **0.72** | **123** | P | **Pg** | **15 03 57.5** | **+0.1** |
| FETY | | | | S | **Sg** | **15 04 07.8** | **+1.0** |
| **BODT** | **Bodrum** | **0.82** | **272** | *e*PG | **Pb** | **15 04 01.3** | **+0.5** |
| **BODT** | **Bodrum** | **0.82** | **272** | *e*Pg | **Pb** | **15 04 01.3** | **+0.5** |
| **DNZL** | **Cakiroluk** | **0.87** | **41** | *i* P | **Pb** | **15 04 01.6** | **-0.1** |
| **DNZL** | **Cakiroluk** | **0.87** | **41** | P | **Pb** | **15 04 01.6** | **-0.1** |
| **GOLH** | **Golhisar** | **1.00** | **78** | *i* P | **Pb** | **15 04 04.0** | **+0.1** |
| GOLH | | | | *i* S | **Sb** | **15 04 17.9** | **+0.3** |
| **GOLH** | **Golhisar** | **1.00** | **78** | P | **Pb** | **15 04 04.0** | **+0.1** |
| GOLH | | | | S | **Sb** | **15 04 18.0** | **+0.3** |
| **NIS1** | **Nisyros Isl.** | **1.02** | **245** | *e*PG | **Pb** | **15 04 04.2** | **0.0** |
| **NIS1** | **Nisyros Isl.** | **1.02** | **245** | *e*Pg | **Pb** | **15 04 04.2** | **0.0** |
| **GCAM** | **G?zelcaml?** | **1.10** | **307** | *e*PN | **Pn** | **15 04 06.2** | **-0.1** |
| **GCAM** | **G?zelcaml?** | **1.10** | **307** | *e*Pn | **Pn** | **15 04 06.2** | **-0.1** |
| **AKAS** | **Kas** | **1.30** | **128** | *e*PN | **Pg** | **15 04 07.2** | **-1.3** |
| **AKAS** | **Kas** | **1.30** | **128** | *i* P | **Pb** | **15 04 08.8** | **-0.1** |
| AKAS | | | | *i* S | **Sb** | **15 04 26.4** | **+0.2** |
| **AKAS** | **Kas** | **1.30** | **128** | *e*Pn | **Pg** | **15 04 07.2** | **-1.3** |
| **AKAS** | **Kas** | **1.30** | **128** | P | **Pb** | **15 04 08.9** | **-0.1** |
| AKAS | | | | S | **Sb** | **15 04 26.5** | **+0.2** |
| **KARP** | **Karpathos** | **1.76** | **213** | *e*PN | **Pn** | **15 04 14.2** | **-1.2** |
| **KARP** | **Karpathos** | **1.76** | **213** | *e*Pn | **Pn** | **15 04 14.2** | **-1.2** |

*ISCJB **03** 15:14:28.6±0.8, 36°.12N±0°.05×70°.35E±0°.08, h110km, mb3.4/1, Error ellipse: s-maj=9.6km s-min=6.0km az=156.2*

*IDC **03** 15:14:29.3±8.6, 36°.04N×70°.40E, h118km±69km, mb3.5/2, mb1 3.3/6, mb1mx3.0/40, mbtmp3.7/6, Error ellipse: s-maj=91.1km s-min=49.9km az=83.0*

*NNC **03** 15:14:33.9±2.2, 36°.47N×70°.18E, h150km±18km, mb3.1, mpv3.9, Error ellipse: s-maj=19.2km s-min=10.9km az=171.0*

**ISC 03 15:14:28.6**±1.2**, 36°.11N**±0°.08×**70°.24E**±0°.08**, h110**km**, n22,** σ**1s.91**/31**, 11C-4D, Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZET** | **Dzherino** | **2.92** | **338** | ⇑P | **Pn** | **15 15 16.1** | **+2.5** |
| | 19nm,0.5s | | | | | | |
| DZET | | | | ⇑S | **Sn** | **15 15 48.9** | **+0.7** |
| | 58nm,0.5s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **4.67** | **32** | ⇑P | **Pn** | **15 15 39.4** | **+2.2** |
| | 8.9nm,0.3s | | | | | | |
| SFK | | | | ⇑S | **Sn** | **15 16 31.0** | **+0.6** |
| | 25nm,0.4s | | | | | | |
| **THN** | **Thein Dam** | **5.83** | **127** | *e*P | **Pn** | **15 15 53.0** | **+0.3** |
| THN | | | | *e*S | **Sn** | **15 16 57.0** | **-1.2** |
| **AML** | **Almayashu** | **6.58** | **23** | P | **Pn** | **15 16 05.3** | **+2.1** |
| | SNR=82 | | | | | | |
| **MNAS** | **Manas** | **6.60** | **15** | ⇓P | **Pn** | **15 16 04.4** | **+1.1** |
| | 2.4nm,0.4s | | | | | | |
| MNAS | | | | ⇓S | **Sn** | **15 17 17.4** | **+0.2** |
| | 18nm,0.8s | | | | | | |
| **UCH** | **Uchtor** | **6.95** | **27** | P | **Pn** | **15 16 09.6** | **+1.3** |
| | SNR=7.4 | | | | | | |
| **KK31** | **Karatay Array** | **6.99** | **2** | P | **Pn** | **15 16 09.3** | **+1.0** |
| | 3.3nm,0.3s,baz=191,slow=16,SNR=37 | | | | | | |
| KK31 | | | | ⇑S | **Sn** | **15 17 25.0** | **-1.2** |
| | 5.5nm,0.6s,baz=194,slow=22,SNR=4.2 | | | | | | |
| **EKS2** | **Erkin-Say** | **7.09** | **22** | P | **Pn** | **15 16 12.7** | **+2.8** |
| | SNR=18 | | | | | | |
| **AAK** | **Ala-Archa** | **7.30** | **26** | P | **Pn** | **15 16 13.9** | **+1.2** |
| | 1.8nm,0.3s,baz=172,slow=6.3,SNR=26 | | | | | | |
| AAK | | | | S | **Sn** | **15 17 34.0** | **-0.1** |
| | 0.6nm,0.3s,baz=146,slow=23,SNR=14 | | | | | | |
| **AAK** | **Ala-Archa** | **7.30** | **26** | ⇓P | **Pn** | **15 16 13.7** | **+1.0** |
| | 9.2nm,0.8s | | | | | | |
| AAK | | | | ⇑S | **Sn** | **15 17 32.9** | **-1.2** |
| | 11nm,0.7s | | | | | | |
| **AAK** | **Ala-Archa** | **7.30** | **26** | P | **Pn** | **15 16 14.1** | **+1.4** |
| | SNR=9.1 | | | | | | |
| **ULHL** | **Ulahol** | **7.70** | **35** | P | **Pn** | **15 16 19.2** | **+1.1** |
| | SNR=8.0 | | | | | | |
| **CHMS** | **Chumysh** | **7.71** | **25** | P | **Pn** | **15 16 18.9** | **+0.8** |
| | SNR=12 | | | | | | |
| **USP** | **Ospenovka** | **7.86** | **23** | P | **Pn** | **15 16 21.7** | **+1.5** |
| | SNR=27 | | | | | | |
| **TKM2** | **Tokmak 2** | **7.96** | **30** | ⇑P | **Pn** | **15 16 22.1** | **+0.4** |
| | 6.6nm,0.9s | | | | | | |
| TKM2 | | | | ⇑S | **Sn** | **15 17 49.3** | **-0.8** |
| | 4.4nm,0.8s | | | | | | |
| **MKAR** | **Makanchi Array** | **13.97** | **36** | P | **Pn** | **15 17 43.5** | **+1.9** |
| | 0.2nm,0.3s,baz=209,slow=8.3,SNR=10 | | | | | | |
| **AB31** | **Akbulak array** | **15.14** | **333** | ⇓P | **Pn** | **15 17 57.3** | **+0.8** |
| | 2.9nm,0.6s,baz=168,slow=7.2,SNR=46 | | | | | | |
| AB31 | | | | ⇑S | Sn | 15 20 34.6 | -9.1 |
| | 1.0nm,0.6s,baz=155,slow=22,SNR=4.7 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **15.69** | **20** | P | **P** | **15 18 04.5** | **-0.6** |
| | 0.0nm,0.3s,baz=210,slow=10,SNR=9.3 | | | | | | |
| **AKTO** | **Aktyubinsk** | **16.82** | **332** | ⇑P | **P** | **15 18 19.6** | **+2.0** |
| | 1.9nm,1.0s | | | | | | |
| AKTO | | | | ⇑S | **Sn** | **15 21 17.3** | **-7.0** |
| | 1.6nm,0.8s | | | | | | |
| **BVAR** | **Borovoye Array** | **16.91** | **0** | P | **Pn** | **15 18 18.0** | **-0.4** |
| | 0.3nm,0.3s,baz=164,slow=10,SNR=6.3 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **20.52** | **25** | P | **P** | **15 18 59.1** | **+1.2** |
| | 3.9nm,0.4s,baz=220,slow=11,SNR=28 | | | | | | |
| **WRA** | **Warramunga Arr** | **82.31** | **121** | P | **P** | **15 26 36.9** | **-1.4** |
| | 0.6nm,1.0s,baz=324,slow=4.9,SNR=4.6 | | | | | | |

*NIED **03** 15:25:00, 32°.40N×138°.00E, h400km, Mw4.2 Best double couple: Mo2.07000×10^15 NP1:ϕs331.00000°, δ14.00000°, λ64.00000°. NP2:ϕs178.00000°, δ78.00000°, λ96.00000°.*

*JMA **03** 15:25:22.1±0.2, 32°.42N×137°.97E, h398km, M4.2*

*ISCJB **03** 15:25:24.8±0.4, 32°.57N±0°.04×137°.94E±0°.05, h376km, mb3.8/15, Error ellipse: s-maj=7.1km s-min=4.6km az=135.4*

*IDC **03** 15:25:25.6±0.5, 32°.49N×137°.76E, h361km±5km, mb3.6/15, mb1 3.7/20, mb1mx3.6/34, mbtmp4.2/20, Error ellipse: s-maj=11.9km s-min=9.2km az=72.0*

**ISC 03 15:25:26.6**±0.6**, 32°.63N**±0°.06×**137°.92E**±0°.06**, h376**km**, n68,** σ**1s.34**/83**, mb3.9**/15**, 16C, Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TK01** | **Tokai 1** | **1.17** | **346** | P | **Pn** | **15 26 14.9** | **-0.4** |
| **TTO3** | **TONANKAI O.B.S** | **1.30** | **341** | ⇑P | **Pn** | **15 26 16.0** | **-0.1** |
| **TK02** | **Tokai 2** | **1.32** | **354** | ⇑P | **Pn** | **15 26 15.8** | **-0.3** |
| **TTO2** | **TONANKAI O.B.S** | **1.33** | **326** | ⇑P | **Pn** | **15 26 15.7** | **-0.3** |
| **TTO1** | **TONANKAI O.B.S** | **1.37** | **316** | ⇑P | **Pn** | **15 26 15.6** | **-0.7** |
| **TTO4** | **TONANKAI O.B.S** | **1.41** | **347** | ⇑P | **Pn** | **15 26 16.2** | **-0.3** |
| **JHJ** | **Hachijo jima 2** | **1.64** | **72** | P | **Pn** | **15 26 17.3** | **-0.8** |
| | 88nm,0.3s,baz=346,slow=21,SNR=23 | | | | | | |
| JHJ | | | | S | **S** | **15 26 58.1** | **-1.4** |
| | 52nm,0.3s,baz=68,slow=22,SNR=10 | | | | | | |
| **JHJ2** | **Mitsune** | **1.67** | **73** | P | **Pn** | **15 26 17.6** | **-0.6** |
| **JIE** | **Ise** | **2.03** | **330** | ⇑P | **Pn** | **15 26 19.8** | **-0.6** |
| **JWZ** | **Kozaga** | **2.06** | **296** | ⇑P | **Pn** | **15 26 18.8** | **-1.8** |
| **JKN2** | **Miekihoku** | **2.11** | **320** | ⇑P | **Pn** | **15 26 19.7** | **-1.3** |
| **JHMK** | **Hamakita** | **2.19** | **357** | P | **Pn** | **15 26 20.9** | **-0.4** |
| **HMMJ** | **Hamamatsu 2** | **2.23** | **356** | ⇑P | **Pn** | **15 26 21.4** | **-0.3** |
| **JWY** | **Kouya** | **2.51** | **310** | ⇑P | **Pn** | **15 26 23.0** | **-0.9** |
| **JAO** | **Obara** | **2.69** | **348** | ⇑P | **Pn** | **15 26 25.2** | **-0.1** |
| JAO | | | | *e*S | **S** | **15 27 12.2** | **-0.5** |
| **JNY** | **Yasuok** | **2.72** | **359** | ⇑P | **Pn** | **15 26 25.6** | **0.0** |
| **JOD2** | **Odawara 2** | **2.80** | **20** | P | **Pn** | **15 26 25.7** | **-0.5** |
| JOD2 | | | | *e*S | **S** | **15 27 13.5** | **-0.9** |
| **JEG** | **Eigenji** | **2.80** | **333** | ⇑P | **Pn** | **15 26 26.1** | **-0.1** |
| **JYN** | **Shimob** | **2.91** | **10** | P | **Pn** | **15 26 27.5** | **+0.4** |
| **BSO3** | **Boso 3** | **3.06** | **44** | P | **Pn** | **15 26 26.0** | **-2.0** |
| BSO3 | | | | *e*S | **S** | **15 27 14.9** | **-2.9** |
| **BSO4** | **Boso 4** | **3.10** | **40** | P | **Pn** | **15 26 26.9** | **-1.7** |
| **JAI** | **Aioi** | **3.13** | **293** | ⇑P | **Pn** | **15 26 27.4** | **-1.6** |
| **BSO1** | **Boso 1** | **3.25** | **51** | P | **Pn** | **15 26 27.2** | **-2.2** |
| BSO1 | | | | S | **S** | **15 27 16.3** | **-4.1** |
| **JWT** | **Wachi** | **3.37** | **322** | P | **Pn** | **15 26 30.5** | **-0.6** |
| **JHU** | **Hanno** | **3.41** | **19** | P | **Pn** | **15 26 30.5** | **-0.9** |
| JHU | | | | *e*S | **S** | **15 27 19.9** | **-4.0** |
| **JRY** | **Ryogami san** | **3.48** | **13** | P | **Pn** | **15 26 32.1** | **0.0** |
| JRY | | | | *e*S | **S** | **15 27 24.5** | **-0.6** |
| **JMN** | **Monobe** | **3.56** | **289** | ⇑P | **Pn** | **15 26 31.6** | **-1.3** |
| **MJAR** | **Matsushiro Arr** | **3.91** | **3** | P | **Pn** | **15 26 35.9** | **-0.3** |
| | 13nm,0.3s,baz=182,slow=11,SNR=146 | | | | | | |
| MJAR | | | | S | **S** | **15 27 31.4** | **-1.1** |
| | 2.1nm,0.3s,baz=186,slow=20,SNR=6.2 | | | | | | |
| **MAT** | **Matsushiro** | **3.91** | **3** | P | **Pn** | **15 26 36.0** | **-0.2** |
| MAT | | | | S | **S** | **15 27 29.5** | **-3.1** |
| **JAG** | **Ashikaga** | **3.99** | **18** | P | **Pn** | **15 26 35.4** | **-1.6** |
| **JYT** | **Yasato** | **4.05** | **27** | P | **Pn** | **15 26 35.5** | **-2.0** |
| **JTO** | **Tosashimizu** | **4.32** | **274** | ⇑P | **Pn** | **15 26 38.4** | **-1.9** |
| **JHO** | **Hitachi** | **4.53** | **28** | P | **Pn** | **15 26 40.5** | **-1.9** |
| **JHS** | **Saijyo** | **4.64** | **302** | P | **Pn** | **15 26 43.1** | **-0.5** |
| **JFK** | **Kawauchi** | **5.31** | **26** | P | **Pn** | **15 26 49.3** | **-1.4** |
| **JNU** | **Nakatsue** | **5.94** | **277** | P | **Pn** | **15 26 56.4** | **-1.4** |
| | 1.2nm,0.3s,baz=110,slow=3.2,SNR=13 | | | | | | |
| **CBIJ** | **Chichi jima** | **6.64** | **145** | P | Pn | 15 27 00.0 | -5.6 |
| **KSRS** | **Korea Array** | **9.50** | **303** | P | **P** | **15 27 38.7** | **-0.5** |
| | 1.1nm,0.3s,baz=120,slow=11,SNR=24 | | | | | | |
| **ASAJ** | **Asahikawa** | **12.04** | **16** | P | **Pn** | **15 28 10.5** | **+2.2** |
| | 1.0nm,0.3s,baz=249,slow=8.3,SNR=11 | | | | | | |
| ASAJ | | | | S | **S** | **15 30 18.2** | **-2.2** |
| | 0.8nm,0.3s,baz=158,slow=27,SNR=7.5 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **12.45** | **340** | P | **Pn** | **15 28 12.4** | **-0.6** |
| | 0.3nm,0.3s,baz=166,slow=12,SNR=8.2 | | | | | | |
| USRK | | | | S | **S** | **15 30 26.6** | **-2.2** |
| | 0.2nm,0.3s,baz=146,slow=33,SNR=4.2 | | | | | | |
| **SONM** | **Songino Array** | **28.21** | **312** | P | **P** | **15 30 47.2** | **+0.8** |
| | 2.4nm,0.5s,baz=116,slow=8.0,SNR=24 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **37.67** | **258** | P | **P** | **15 32 05.8** | **-1.7** |
| | 1.0nm,0.7s,baz=49,slow=7.2,SNR=11 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.92** | **316** | P | **P** | **15 32 49.0** | **-0.6** |
| | 1.6nm,0.3s,baz=76,slow=6.4,SNR=11 | | | | | | |
| ZALV | | | | ScP | **ScP** | **15 37 47.4** | **+0.6** |
| | 0.6nm,0.5s,baz=120,slow=4.1,SNR=3.5 | | | | | | |
| **TAPN** | **Taplejung** | **43.48** | **277** | *e*P | **P** | **15 32 54.3** | **-0.5** |
| | 22nm,0.4s | | | | | | |
| **ODAN** | **Odare** | **43.91** | **276** | *e*P | **P** | **15 32 57.5** | **-0.7** |
| | 24nm,0.5s | | | | | | |
| **MKAR** | **Makanchi Array** | **44.17** | **306** | P | **P** | **15 32 59.8** | **+0.1** |
| | 5.3nm,0.5s,baz=86,slow=10.0,SNR=93 | | | | | | |
| MKAR | | | | ScP | **ScP** | **15 37 52.6** | **+0.4** |
| | 0.6nm,0.7s,baz=103,slow=3.2,SNR=4.9 | | | | | | |
| **RAMN** | **Ramite** | **44.55** | **277** | *e*P | **P** | **15 33 02.2** | **-0.9** |
| | 64nm,0.7s | | | | | | |
| **JIRN** | **Jiri** | **44.65** | **278** | *e*P | **P** | **15 33 03.7** | **-0.4** |
| | 710nm,0.6s | | | | | | |
| **GUN** | **Gumba** | **44.83** | **278** | *e*P | **P** | **15 33 04.9** | **-0.5** |
| | 64nm,0.7s | | | | | | |
| **PKI** | **Pulchoki** | **45.33** | **278** | *e*P | **P** | **15 33 08.3** | **-1.0** |
| | 31nm,0.7s | | | | | | |
| **PKIN** | **Phulchoki** | **45.34** | **278** | *e*P | **P** | **15 33 08.7** | **-0.6** |
| | 22nm,0.6s | | | | | | |
| **KKN** | **Kakani** | **45.37** | **278** | *e*P | **P** | **15 33 08.7** | **-0.8** |
| | 43nm,0.8s | | | | | | |
| **DMN** | **Daman** | **45.57** | **278** | *e*P | **P** | **15 33 10.2** | **-0.9** |
| **GKN** | **Gorkha** | **45.83** | **279** | *e*P | **P** | **15 33 12.8** | **-0.2** |
| **DANN** | **Dangsing** | **46.45** | **280** | *e*P | **P** | **15 33 17.9** | **0.0** |
| **KOLN** | **Koldanda** | **46.78** | **279** | *e*P | **P** | **15 33 19.8** | **-0.5** |
| | 12nm,0.3s | | | | | | |
| **PYUN** | **Piuthan** | **47.17** | **280** | *e*P | **P** | **15 33 22.9** | **-0.4** |
| | 82nm,0.4s | | | | | | |
| **WRA** | **Warramunga Arr** | **52.39** | **184** | P | **P** | **15 34 00.6** | **-1.3** |
| | 3.0nm,0.3s,baz=0.2,slow=7.7,SNR=147 | | | | | | |
| WRA | | | | PcP | **PcP** | **15 35 07.6** | **+0.7** |
| | 0.9nm,0.6s,baz=354,slow=4.1,SNR=5.9 | | | | | | |
| WRA | | | | ScP | **ScP** | **15 38 28.2** | **+1.0** |
| | 0.3nm,0.7s,baz=354,slow=4.4,SNR=4.3 | | | | | | |
| **ILAR** | **Eielson Array** | **54.74** | **30** | P | **P** | **15 34 19.9** | **+1.7** |
| | 1.9nm,0.7s,baz=273,slow=5.9,SNR=27 | | | | | | |
| **ASAR** | **Alice Springs** | **56.11** | **184** | P | **P** | **15 34 27.4** | **-1.0** |
| | 2.2nm,0.6s,baz=13,slow=9.8,SNR=50 | | | | | | |
| ASAR | | | | ScP | **ScP** | **15 38 44.5** | **+1.0** |
| | 0.4nm,1.0s,baz=0.0,slow=4.3,SNR=4.5 | | | | | | |
| **STKA** | **Stephens Creek** | **64.25** | **177** | P | **P** | **15 35 22.8** | **0.0** |
| | 3.1nm,0.8s,baz=354,slow=13,SNR=5.2 | | | | | | |
| **YKA** | **Yellowknife Ar** | **69.05** | **28** | P | **P** | **15 35 54.1** | **+1.7** |
| | 0.8nm,0.6s,baz=305,slow=6.3,SNR=10 | | | | | | |
| **FINES** | **FINESS Array B** | **71.35** | **332** | P | **P** | **15 36 06.9** | **+0.7** |
| | 4.2nm,0.9s,baz=101,slow=4.9,SNR=14 | | | | | | |
| **KBZ** | **Khabaz** | **71.57** | **310** | P | **P** | **15 36 08.7** | **+0.8** |
| | 2.6nm,0.7s,baz=39,slow=1.4,SNR=7.1 | | | | | | |
| **AKASG** | **Malin Array Be** | **75.98** | **322** | P | **P** | **15 36 33.3** | **+0.2** |
| | 0.9nm,0.4s,baz=52,slow=6.2,SNR=8.3 | | | | | | |
| **BRTR** | **Keskin Array B** | **79.57** | **311** | P | **P** | **15 36 54.0** | **+0.9** |
| | 1.7nm,0.8s,baz=120,slow=4.3,SNR=9.3 | | | | | | |
| **PDAR** | **Pinedale Array** | **82.82** | **43** | P | **P** | **15 37 11.6** | **+1.5** |
| | 0.9nm,0.7s,baz=48,slow=2.2,SNR=6.9 | | | | | | |
| **TXAR** | **Lajitas Array** | **95.11** | **50** | P | **P** | **15 38 10.6** | **+2.4** |
| | 1.0nm,0.7s,baz=290,slow=2.6,SNR=14 | | | | | | |

*NIED **03** 15:46:00, 37°.80N×143°.10E, h8km, Mw3.7 Best double couple: Mo3.40000×10^14 NP1:ϕs45.00000°, δ37.00000°, λ-55.00000°. NP2:ϕs184.00000°, δ60.00000°, λ-114.00000°.*

*IDC **03** 15:46:21.0±1.1, 37°.69N×143°.24E, h0km, mb3.7/7, mb1 3.7/10, mb1mx3.6/39, mbtmp3.6/10, ML3.1/3, Error ellipse: s-maj=27.5km s-min=18.9km az=89.0*

*ISCJB **03** 15:46:22.4±0.7, 37°.78N±0°.05×143°.06E±0°.06, h18km, mb3.6/7, Error ellipse: s-maj=7.6km s-min=6.7km az=143.4*

*JMA **03** 15:46:22.8±0.2, 37°.78N×143°.06E, h29km, M4.1*

**ISC 03 15:46:24.5**±1.0**, 37°.82N**±0°.07×**143°.01E**±0°.08**, h18**km**, n27, σ1s.31**/27**, mb3.6**/7**, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JIO | Ouri | 1.45 | 296 | P | Pn | 15 46 48.4 | -1.4 |
| JIO | | | | S | Sn | 15 47 07.3 | -1.1 |
| OFUJ | Ofunato | 1.64 | 321 | P | Pn | 15 46 51.1 | -1.3 |
| OFUJ | | | | S | Sn | 15 47 12.1 | -0.9 |
| JMM | Marumori | 1.75 | 272 | P | Pn | 15 46 52.3 | -1.7 |
| JMM | | | | eS | Sn | 15 47 14.3 | -1.5 |
| JFK | Kawauchi | 1.75 | 256 | P | Pn | 15 46 52.2 | -1.8 |
| JMK | Ichinoseki | 1.80 | 309 | P | Pn | 15 46 53.7 | -0.9 |
| JOU | Okura | 1.93 | 287 | P | Pn | 15 46 55.8 | -0.6 |
| JOM | Ohasama | 2.13 | 321 | P | Pn | 15 46 58.5 | -0.6 |
| JOM | | | | eS | Sn | 15 47 24.9 | -0.2 |
| JFT | Otama | 2.14 | 263 | P | Pn | 15 46 58.9 | -0.4 |
| JFT | | | | S | Sn | 15 47 25.4 | 0.0 |
| JYK | Kaneyama | 2.35 | 299 | P | Pn | 15 47 02.3 | +0.1 |
| JYS | Shirataka | 2.35 | 281 | P | Pn | 15 47 02.3 | 0.0 |
| MJAR | Matsushiro Arr | 4.04 | 253 | Pn | Pn | 15 47 26.1 | +0.6 |
| | 1.4nm,0.3s,baz=330,slow=14,SNR=7.4 | | | | | | |
| MAT | Matsushiro | 4.04 | 253 | P | Pn | 15 47 26.5 | +1.1 |
| MAT | | | | eS | Sn | 15 48 13.1 | +0.8 |
| ASAJ | Asahikawa | 6.30 | 357 | Pn | Pn | 15 47 57.0 | +0.6 |
| | 0.9nm,0.3s,baz=203,slow=13,SNR=19 | | | | | | |
| USRK | Ussuriysk Ar. | 10.48 | 311 | Pn | Pn | 15 48 57.5 | +3.8 |
| | 0.1nm,0.3s,baz=95,slow=16,SNR=3.0 | | | | | | |
| SEY | Seymchan | 25.79 | 10 | P | P | 15 51 55.4 | +1.3 |
| | 2.6nm,0.6s,baz=183,slow=7.9,SNR=4.8 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 27.50 | 124 | T | T | 16 21 04.7 | |
| | baz=316,slow=75,SNR=74 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 27.51 | 124 | T | T | 16 21 01.9 | |
| | baz=316,slow=75,SNR=37 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 27.52 | 124 | T | T | 16 21 06.1 | |
| | baz=316,slow=75,SNR=50 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 28.26 | 126 | T | T | 16 21 58.7 | |
| | baz=318,slow=76,SNR=18 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 28.27 | 126 | T | T | 16 21 58.8 | |
| | baz=318,slow=76,SNR=22 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 28.28 | 126 | T | T | 16 22 00.1 | |
| | baz=318,slow=76,SNR=16 | | | | | | |
| SONM | Songino Array | 28.41 | 302 | P | P | 15 52 19.3 | +1.3 |
| | 0.6nm,0.8s,baz=106,slow=8.0,SNR=3.0 | | | | | | |
| ZALV | Zalesovo Beam | 42.33 | 312 | P | P | 15 54 16.9 | -0.2 |
| | 0.5nm,0.5s,baz=84,slow=7.5,SNR=2.6 | | | | | | |
| MKAR | Makanchi Array | 44.78 | 302 | P | P | 15 54 38.1 | +1.1 |
| | 0.4nm,0.6s,baz=88,slow=11,SNR=4.4 | | | | | | |
| ILAR | Eielson Array | 48.15 | 33 | P | P | 15 55 01.9 | -1.3 |
| | 0.5nm,0.8s,baz=260,slow=6.7,SNR=5.0 | | | | | | |
| WRA | Warramunga Arr | 58.03 | 190 | P | P | 15 56 15.1 | -1.3 |
| | 0.9nm,0.6s,baz=8.2,slow=7.2,SNR=12 | | | | | | |
| ASAR | Alice Springs | 61.76 | 189 | P | P | 15 56 40.9 | -1.0 |
| | 0.4nm,0.8s,baz=15,slow=9.3,SNR=5.0 | | | | | | |

**WEL 03 15:59:21.7**±0.7**, 37°.45S**×**179°.99W, h33**km**, ML3.5**/7**, 1C, Error ellipse: s-maj=6.6km s-min=4.7km az=90.0, East of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WMGZ | Waiomatatini S | 1.31 | 253 | PN | Pn | 15 59 42.9 | -0.8 |
| WMGZ | | | | SN | Sn | 15 59 59.2 | -0.9 |
| WMGZ | | | | AML | AML | 15 59 59.8 | |
| PUZ | Puketiti | 1.52 | 245 | PN | Pn | 15 59 45.8 | -0.7 |
| PUZ | | | | AML | AML | 16 00 04.6 | |
| PUZ | | | | AML | AML | 16 00 05.6 | |
| CNGZ | Carnagh Statio | 1.75 | 234 | PN | Pn | 15 59 49.7 | -0.1 |
| HAZ | Te Kaha | 1.79 | 260 | PN | Pn | 15 59 49.8 | -0.5 |
| HAZ | | | | AML | AML | 16 00 12.7 | |
| HAZ | | | | AML | AML | 16 00 12.8 | |
| RUGZ | Raukumara Rang | 1.92 | 254 | PN | Pn | 15 59 52.4 | +0.3 |
| TKGZ | Te Karaka | 1.97 | 239 | PN | Pn | 15 59 52.2 | -0.5 |
| TKGZ | | | | SN | Sn | 16 00 15.2 | -1.0 |
| TKGZ | | | | AML | AML | 16 00 15.9 | |
| MWZ | Matawai | 2.15 | 245 | PN | Pn | 15 59 54.4 | -0.8 |
| MWZ | | | | SN | Sn | 16 00 19.2 | -1.5 |
| MWZ | | | | AML | AML | 16 00 19.5 | |
| RIGZ | Rimuhau | 2.17 | 234 | PN | Pn | 15 59 55.0 | -0.5 |
| RIGZ | | | | AML | AML | 16 00 21.8 | |
| RIGZ | | | | AML | AML | 16 00 24.4 | |
| MHGZ | Mahia Peninsul | 2.37 | 224 | PN | Pn | 15 59 58.0 | -0.2 |
| KNZ | Kokohu | 2.41 | 229 | ⇑PN | Pn | 15 59 57.7 | -1.2 |
| URZ | Urewera | 2.43 | 250 | PN | Pn | 15 59 58.9 | -0.1 |
| URZ | | | | AML | AML | 16 00 27.0 | |
| SNGZ | Shannon Statio | 2.48 | 237 | PN | Pn | 15 59 59.3 | -0.5 |
| WHHZ | Waihua | 2.72 | 233 | PN | Pn | 16 00 02.5 | -0.5 |
| ARHZ | Aropaoanui | 2.98 | 232 | PN | Pn | 16 00 05.9 | -0.7 |
| NMHZ | Naumai | 3.00 | 236 | PN | Pn | 16 00 06.7 | -0.4 |
| KWHZ | Kaweka Forest | 3.43 | 234 | PN | Pn | 16 00 11.8 | -1.2 |

*DDA **03** 16:02:42.6, 39°.33N×39°.11E, h5km, Ml3.5*

*ISK **03** 16:02:42.0, 39°.33N×39°.14E, h5km, ML3.4*

*CSEM **03** 16:02:43.5±0.1, 39°.32N×39°.13E, h2km, ML3.5, Error ellipse: s-maj=3.8km s-min=3.1km az=164.0*

*ATA **03** 16:02:43.1±1.1, 39°.36N×39°.17E, h17km±6km, ML4.0, MW3.7*

**ISC 03 16:02:43.7**±1.0**, 39°.34N**±0°.02×**39°.12E**±0°.01**, h6**km±9km**, n89, σ1s.11**/134**, 1D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| REFA | Refahiye_ERZ˜ | 0.28 | 282 | eP | Pn | 16 02 55.8 | +1.3 |
| REFA | | | | ⇓eS | Sb | 16 03 06.3 | +10 |
| REFA | | | | IAML | | 16 03 08.9 | |
| | comp=Z,281nm,0.5s | | | | | | |
| REFA | Refahiye_ERZ˜ | 0.28 | 282 | iP | Pn | 16 02 55.3 | +0.8 |
| REFA | | | | iS | Sb | 16 03 03.8 | +7.6 |
| TNCL | Tunceli-Merkez | 0.40 | 124 | eP | Pg | 16 02 51.1 | -0.3 |
| TNCL | | | | eS | Sg | 16 02 57.6 | +0.9 |
| TNCL | | | | IAML | | 16 03 00.4 | |
| | comp=Z,2μm,0.4s | | | | | | |
| TNCL | Tunceli-Merkez | 0.40 | 124 | iP | Pg | 16 02 51.1 | -0.3 |
| TNCL | | | | iS | Sg | 16 02 56.7 | 0.0 |
| TNCL | Tunceli-Merkez | 0.40 | 124 | P | Pg | 16 02 51.2 | -0.3 |
| TNCL | | | | S | Sg | 16 02 56.7 | 0.0 |
| ILIC | ilic-Erzincan | 0.44 | 285 | ePG | Pg | 16 02 51.8 | -0.4 |
| ILIC | | | | eSG | Sb | 16 02 58.8 | -2.0 |
| ILIC | ilic-Erzincan | 0.44 | 285 | ePg | Pg | 16 02 51.8 | -0.4 |
| ILIC | | | | eSg | Sb | 16 02 58.8 | -2.0 |
| EZC | Erzincan | 0.45 | 24 | ePg | Pb | 16 02 53.3 | -0.9 |
| EZC | | | | eSg | Sb | 16 03 01.2 | -0.1 |
| KEMA | Kemaliye | 0.49 | 262 | eP | Pb | 16 02 53.6 | -1.1 |
| KEMA | | | | eS | Sb | 16 03 03.0 | +0.8 |
| KEMA | Kemaliye | 0.49 | 262 | iP | Pg | 16 02 52.8 | -0.3 |
| KEMA | | | | iS | Sb | 16 03 00.8 | -1.4 |
| KEMA | Kemaliye | 0.49 | 262 | P | Pg | 16 02 52.8 | -0.3 |
| KEMA | | | | S | Sb | 16 03 00.8 | -1.4 |
| ERZN | Erzincan | 0.53 | 62 | ePG | Pg | 16 02 53.3 | -0.6 |
| ERZN | | | | eSG | Sg | 16 03 01.2 | +0.3 |
| EUZM | Uzumlu | 0.58 | 50 | eP | Pg | 16 02 54.5 | -0.5 |
| EUZM | | | | eS | Sg | 16 03 03.3 | +0.7 |
| EUZM | | | | IAML | | 16 03 03.9 | |
| | comp=Z,524nm,0.2s | | | | | | |
| EUZM | Uzumlu | 0.58 | 50 | iP | Pg | 16 02 54.4 | -0.5 |
| EUZM | | | | iS | Sg | 16 03 03.5 | +0.9 |
| EUZM | Uzumlu | 0.58 | 50 | P | Pg | 16 02 54.4 | -0.5 |
| EUZM | | | | S | Sg | 16 03 03.5 | +0.9 |
| KELT | Kelkit | 0.82 | 8 | eP | Pg | 16 02 58.2 | -1.2 |
| KELT | | | | eS | Sg | 16 03 10.6 | +0.5 |
| KELT | | | | IAML | | 16 03 11.3 | |
| | comp=Z,261nm,0.3s | | | | | | |
| KELT | Kelkit | 0.82 | 8 | iP | Pg | 16 02 58.0 | -1.4 |
| KELT | | | | iS | Sg | 16 03 10.0 | -0.1 |
| KELT | Kelkit | 0.82 | 8 | P | Pg | 16 02 58.0 | -1.4 |
| KELT | | | | S | Sg | 16 03 10.0 | -0.1 |
| ELZG | Elazig | 0.84 | 187 | iP | Pg | 16 02 59.1 | -0.8 |
| ELZG | | | | iS | Sb | 16 03 12.1 | -0.4 |
| ELZG | Elazig | 0.84 | 187 | P | Pg | 16 02 59.1 | -0.8 |
| ELZG | | | | S | Sb | 16 03 12.1 | -0.4 |
| SVRC | Sivrice-ELAZID | 0.97 | 171 | ePG | Pg | 16 03 01.3 | -1.0 |
| SVRC | Sivrice-ELAZID | 0.97 | 171 | ePg | Pg | 16 03 01.3 | -1.0 |
| HEKM | Malatya_Hekimh | 1.01 | 243 | iP | Pb | 16 03 02.8 | -0.9 |
| HEKM | | | | iS | Sn | 16 03 18.9 | -0.3 |
| HEKM | Malatya_Hekimh | 1.01 | 243 | P | Pb | 16 03 02.8 | -0.9 |
| HEKM | | | | S | Sn | 16 03 18.9 | -0.3 |
| YEDI | Yedisu-Bingol | 1.11 | 84 | ePN | Pg | 16 03 03.9 | -1.1 |
| YEDI | Yedisu-Bingol | 1.11 | 84 | ePn | Pg | 16 03 03.9 | -1.1 |
| SUSE | Susehri | 1.12 | 321 | iP | Pg | 16 03 04.6 | -0.6 |
| SUSE | | | | iS | Sn | 16 03 21.0 | -0.9 |
| SUSE | Susehri | 1.12 | 321 | P | Pg | 16 03 04.6 | -0.6 |
| SUSE | | | | S | Sn | 16 03 21.0 | -0.9 |
| MALT | Malatya | 1.16 | 208 | ePN | Pg | 16 03 04.8 | -1.1 |
| MALT | Malatya | 1.16 | 208 | ePn | Pg | 16 03 04.8 | -1.1 |
| BINT | Bingol | 1.16 | 113 | ePn | Pn | 16 03 06.3 | -0.3 |
| CUZAR | Zara_SIVAS | 1.18 | 298 | iP | Pb | 16 03 05.8 | -0.7 |
| CUZAR | | | | iS | Sn | 16 03 23.4 | +0.2 |
| CUZAR | Zara_SIVAS | 1.18 | 298 | P | Pb | 16 03 05.8 | -0.7 |
| CUZAR | | | | S | Sn | 16 03 23.5 | +0.2 |
| BNGB | Bingˆ¶l | 1.26 | 105 | ePN | Pg | 16 03 06.3 | -1.7 |
| KOPT | Kop Dagi | 1.26 | 57 | eP | Pg | 16 03 07.2 | -0.8 |
| KOPT | | | | eS | Sb | 16 03 24.8 | +0.1 |
| KOPT | Kop Dagi | 1.26 | 57 | iP | Pg | 16 03 07.3 | -0.7 |
| KOPT | | | | iS | Sn | 16 03 25.8 | +0.2 |
| KOPT | Kop Dagi | 1.26 | 57 | P | Pg | 16 03 07.3 | -0.7 |
| KOPT | | | | S | Sn | 16 03 25.8 | +0.2 |
| CUKAN | kangal_SIVAS | 1.28 | 270 | iP | Pg | 16 03 06.9 | -1.3 |
| CUKAN | | | | iS | Sn | 16 03 26.6 | +0.8 |
| CUKAN | kangal_SIVAS | 1.28 | 270 | P | Pg | 16 03 06.9 | -1.3 |
| CUKAN | | | | S | Sn | 16 03 26.6 | +0.8 |
| AKCD | Akcadag | 1.40 | 222 | iP | Pn | 16 03 08.8 | -1.0 |
| AKCD | | | | iS | Sn | 16 03 27.7 | -1.0 |
| AKCD | Akcadag | 1.40 | 222 | P | Pn | 16 03 08.8 | -1.0 |
| AKCD | | | | S | Sn | 16 03 27.7 | -1.0 |
| ECAT | Cat-ERZURUM | 1.46 | 79 | eP | Pn | 16 03 09.7 | -1.1 |
| ECAT | | | | eS | Sb | 16 03 30.6 | +0.3 |
| ECAT | | | | IAML | | 16 03 38.3 | |
| | comp=Z,52nm,0.5s | | | | | | |
| ECAT | Cat-ERZURUM | 1.46 | 79 | iP | Pg | 16 03 11.8 | +0.1 |
| ECAT | | | | iS | Sg | 16 03 33.0 | +2.3 |
| ECAT | Cat-ERZURUM | 1.46 | 79 | P | Pg | 16 03 11.8 | +0.1 |
| DARE | Darende-Malaty | 1.48 | 240 | ePN | Pg | 16 03 11.2 | -1.0 |
| DARE | Darende-Malaty | 1.48 | 240 | ePn | Pg | 16 03 11.2 | -1.0 |
| CUGUR | Gurin_S˜VAS | 1.56 | 247 | iP | Pg | 16 03 13.8 | +0.2 |
| CUGUR | | | | iS | Sg | 16 03 35.7 | +1.8 |
| CUGUR | Gurin_S˜VAS | 1.56 | 247 | P | Pg | 16 03 13.8 | +0.2 |
| CUGUR | | | | S | Sg | 16 03 35.7 | +1.8 |
| DYBB | Diyarbakir | 1.60 | 150 | ePN | Pn | 16 03 12.3 | -0.2 |
| ESPY | Espiye-Giresun | 1.60 | 349 | ePN | Pn | 16 03 12.8 | +0.2 |
| ESPY | Espiye-Giresun | 1.60 | 349 | ePn | Pn | 16 03 12.8 | +0.2 |
| DIYA | Diyarbakir | 1.62 | 151 | iP | Pg | 16 03 14.5 | -0.2 |
| DIYA | | | | iS | Sg | 16 03 37.0 | +1.3 |
| DIYA | Diyarbakir | 1.62 | 151 | P | Pg | 16 03 14.5 | -0.2 |
| SCER | sogukcermik | 1.62 | 289 | iP | Pg | 16 03 14.3 | -0.5 |
| SCER | | | | iS | Sg | 16 03 35.5 | -0.4 |
| SCER | sogukcermik | 1.62 | 289 | P | Pg | 16 03 14.3 | -0.5 |
| SCER | | | | S | Sg | 16 03 35.5 | -0.4 |
| BNGL | BINGOL | 1.63 | 103 | eP | Pb | 16 03 13.6 | -0.6 |
| BNGL | | | | eS | Sg | 16 03 37.4 | +1.4 |
| BNGL | | | | IAML | | 16 03 43.1 | |
| | comp=Z,376nm,0.5s | | | | | | |
| BNGL | BINGOL | 1.63 | 103 | iP | Pb | 16 03 14.1 | -0.1 |
| BNGL | | | | iS | Sg | 16 03 38.1 | +2.1 |
| DIY | Diyarbakir | 1.68 | 149 | ePn | Pn | 16 03 12.4 | -1.3 |
| KTUT | Trabzon | 1.72 | 17 | ePN | Pn | 16 03 14.6 | +0.4 |
| KTUT | Trabzon | 1.72 | 17 | ePn | Pn | 16 03 14.6 | +0.4 |
| SVSK | Karacayir | 1.73 | 290 | ePN | Pb | 16 03 15.4 | -0.5 |
| SVSK | Karacayir | 1.73 | 290 | ePn | Pb | 16 03 15.4 | -0.5 |
| RSDY | Resadiye-TOKAT | 1.74 | 308 | ePN | Pb | 16 03 15.4 | -0.6 |
| RSDY | Resadiye-TOKAT | 1.74 | 308 | ePn | Pb | 16 03 15.4 | -0.6 |
| VRTB | Varto-Mus | 1.82 | 95 | ePN | Pn | 16 03 15.5 | -0.2 |
| VRTB | Varto-Mus | 1.82 | 95 | iP | Pb | 16 03 17.9 | +0.3 |
| VRTB | | | | iS | Sg | 16 03 44.3 | +1.9 |
| VRTB | Varto-Mus | 1.82 | 95 | ePn | Pn | 16 03 15.5 | -0.2 |
| VRTB | Varto-Mus | 1.82 | 95 | P | Pb | 16 03 17.9 | +0.3 |
| ERZM | Erzurum | 1.83 | 71 | eP | Pn | 16 03 16.5 | +0.6 |
| ERZM | | | | eS | Sg | 16 03 42.6 | +0.1 |
| ERZM | Erzurum | 1.83 | 71 | iP | Pb | 16 03 17.6 | -0.1 |
| ERZM | Erzurum | 1.83 | 71 | P | Pb | 16 03 17.6 | -0.1 |
| ELBS | KAHRAMANMARAS_ | 1.85 | 237 | iP | Pb | 16 03 17.5 | -0.5 |
| ELBS | | | | iS | Sg | 16 03 44.4 | +1.3 |
| ELBS | KAHRAMANMARAS_ | 1.85 | 237 | P | Pb | 16 03 17.5 | -0.5 |
| URFA | Urfa | 1.91 | 187 | ePN | Pn | 16 03 17.1 | +0.3 |
| URFA | Urfa | 1.91 | 187 | ePn | Pn | 16 03 17.1 | +0.3 |
| SVAN | Silvan-Diyarba | 2.01 | 125 | ePN | Pn | 16 03 18.7 | +0.5 |
| SVAN | Silvan-Diyarba | 2.01 | 125 | iS | Sb | 16 03 46.9 | +0.8 |
| SVAN | Silvan-Diyarba | 2.01 | 125 | ePn | Pn | 16 03 18.7 | +0.5 |
| BTMN | Batman | 2.22 | 130 | iP | Pb | 16 03 23.6 | -0.7 |
| BTMN | | | | iS | Sg | 16 03 54.4 | -0.6 |
| EKAR | Karacoban | 2.29 | 91 | iP | Pg | 16 03 26.9 | -0.6 |
| SARI | SarD1z-Kayseri | 2.30 | 247 | ePN | Pn | 16 03 23.2 | +0.9 |
| KMRS | Kahramanmaras | 2.52 | 224 | ePN | Pn | 16 03 26.1 | +0.9 |
| KMRS | Kahramanmaras | 2.52 | 224 | ePn | Pn | 16 03 26.1 | +0.9 |
| BNN | Bunyan | 2.59 | 260 | ePN | Pn | 16 03 27.2 | +0.9 |
| BNN | Bunyan | 2.59 | 260 | ePn | Pn | 16 03 27.2 | +0.9 |
| SENK | Senkaya-Erzuru | 2.77 | 63 | ePN | Pn | 16 03 29.3 | +0.5 |
| SENK | Senkaya-Erzuru | 2.77 | 63 | ePn | Pn | 16 03 29.3 | +0.5 |
| KOZT | Kozan | 3.18 | 235 | ePN | Pn | 16 03 35.7 | +1.4 |
| KOZT | Kozan | 3.18 | 235 | ePn | Pn | 16 03 35.7 | +1.4 |

**WEL 03 16:08:29.4**±0.5**, 38°.33S**×**175°.86E, h176**km±3km**, ML3.6**/26**, 14C-3D, Error ellipse: s-maj=2.8km s-min=2.8km az=90.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RATZ | Rangitukua | 0.54 | 187 | ⇑PN | Pn | 16 08 54.3 | +0.3 |
| OTVZ | Oturere | 0.84 | 190 | PN | Pn | 16 08 55.9 | +0.1 |
| OTVZ | | | | SN | Sn | 16 09 16.3 | 0.0 |
| MTHZ | Maungataniwha | 0.93 | 124 | PN | Pn | 16 08 55.7 | -0.6 |
| MTHZ | | | | SN | Sn | 16 09 16.4 | -0.6 |
| TUVZ | Tukino | 0.94 | 189 | PN | Pn | 16 08 56.6 | +0.2 |
| BKZ | Black Stump Fm | 0.97 | 149 | PN | Pn | 16 08 56.4 | -0.1 |
| BKZ | | | | AML | AML | 16 09 18.1 | |
| URZ | Urewera | 0.99 | 86 | PN | Pn | 16 08 56.6 | 0.0 |
| URZ | | | | SN | Sn | 16 09 17.0 | -0.6 |
| URZ | | | | AML | AML | 16 09 17.4 | |
| TRVZ | Turoa | 0.99 | 194 | PN | Pn | 16 08 57.0 | +0.1 |
| WNVZ | Wahianoa | 1.01 | 191 | ⇑PN | Pn | 16 08 57.0 | 0.0 |
| NMHZ | Naumai | 1.06 | 136 | ⇑PN | Pn | 16 08 58.2 | +0.9 |
| NMHZ | | | | AML | AML | 16 08 59.0 | |
| NMHZ | | | | SN | Sn | 16 09 19.4 | +0.5 |
| BHHZ | Black Hill Sta | 1.17 | 172 | ⇑PN | Pn | 16 08 57.7 | -0.4 |
| BHHZ | | | | AML | AML | 16 09 19.0 | |
| BHHZ | | | | AML | AML | 16 09 19.1 | |
| VRZ | Vera Road | 1.17 | 227 | PN | Pn | 16 08 58.2 | +0.2 |
| KWHZ | Kaweka Forest | 1.18 | 158 | ⇑PN | Pn | 16 08 58.3 | +0.1 |
| KWHZ | | | | AML | AML | 16 08 60.0 | |
| KWHZ | | | | AML | AML | 16 09 24.9 | |
| MCHZ | McNeill Hill | 1.29 | 150 | ⇑PN | Pn | 16 08 59.6 | +0.6 |
| MCHZ | | | | SN | Sn | 16 09 22.7 | +0.5 |
| WHHZ | Waihua | 1.31 | 125 | PN | Pn | 16 08 59.6 | +0.4 |
| WHHZ | | | | AML | AML | 16 09 31.3 | |
| MWZ | Matawai | 1.32 | 91 | PN | Pn | 16 08 59.5 | +0.1 |
| MWZ | | | | SN | Sn | 16 09 21.5 | -1.0 |
| MWZ | | | | AML | AML | 16 09 23.1 | |
| KRHZ | Kereru | 1.37 | 163 | ⇑PN | Pn | 16 08 59.6 | -0.3 |
| KRHZ | | | | AML | AML | 16 09 22.0 | |
| KRHZ | | | | AML | AML | 16 09 23.7 | |
| RUGZ | Raukumara Rang | 1.48 | 76 | PN | Pn | 16 09 00.5 | -0.5 |
| RIGZ | Rimuhau | 1.54 | 105 | ⇑PN | Pn | 16 09 01.8 | +0.3 |
| RIGZ | | | | AML | AML | 16 09 26.0 | |
| RIGZ | | | | AML | AML | 16 09 26.4 | |
| TKGZ | Te Karaka | 1.57 | 94 | PN | Pn | 16 09 02.3 | +0.6 |
| TKGZ | | | | AML | AML | 16 09 26.8 | |
| TKGZ | | | | AML | AML | 16 09 26.8 | |
| WAZ | Wanganui | 1.57 | 205 | PN | Pn | 16 09 01.4 | -0.4 |
| KNZ | Kokohu | 1.58 | 116 | PN | Pn | 16 09 01.8 | 0.0 |
| HAZ | Te Kaha | 1.63 | 70 | PN | Pn | 16 09 02.0 | -0.2 |
| HAZ | | | | AML | AML | 16 09 26.1 | |
| HAZ | | | | AML | AML | 16 09 27.5 | |
| CKHZ | Cape Kidnapper | 1.63 | 145 | ⇑PN | Pn | 16 09 02.3 | +0.1 |
| CKHZ | | | | SN | Sn | 16 09 26.9 | -0.9 |
| KAHZ | Kahuranaki | 1.66 | 152 | ⇑PN | Pn | 16 09 02.6 | -0.1 |
| TWGZ | Tauwhareparae | 1.68 | 85 | PN | Pn | 16 09 03.4 | +0.5 |
| TWGZ | | | | AML | AML | 16 09 33.0 | |
| TWGZ | | | | AML | AML | 16 09 34.0 | |
| PRGZ | Paritu Road | 1.69 | 111 | PN | Pn | 16 09 03.1 | +0.1 |
| TSZ | Takapari Road | 1.72 | 177 | PN | Pn | 16 09 02.4 | -0.9 |
| TSZ | | | | AML | AML | 16 09 28.8 | |
| TSZ | | | | AML | AML | 16 09 29.0 | |
| WPHZ | Waipukurau | 1.79 | 165 | ⇑PN | Pn | 16 09 03.1 | -0.8 |
| WPHZ | | | | AML | AML | 16 09 30.2 | |
| WPHZ | | | | AML | AML | 16 09 34.4 | |
| MHGZ | Mahia Peninsul | 1.80 | 118 | ⇓PN | Pn | 16 09 04.3 | +0.3 |
| CNGZ | Carnagh Statio | 1.85 | 95 | PN | Pn | 16 09 05.2 | +0.6 |
| PXZ | Pawanui | 1.87 | 156 | PN | Pn | 16 09 03.9 | -0.8 |
| PXZ | | | | SN | Sn | 16 09 30.4 | -1.8 |
| PUZ | Puketiti | 1.91 | 83 | PN | Pn | 16 09 05.0 | -0.3 |
| OHWZ | Ohakea | 1.92 | 192 | PN | Pn | 16 09 04.6 | -0.6 |
| DVHZ | Dannevirke | 1.98 | 173 | ⇑PN | Pn | 16 09 04.5 | -1.4 |
| DVHZ | | | | AML | AML | 16 09 30.7 | |
| DVHZ | | | | AML | AML | 16 09 31.2 | |
| PRHZ | Porangahau | 2.02 | 163 | PN | Pn | 16 09 05.3 | -1.1 |
| PRHZ | | | | AML | AML | 16 09 35.7 | |
| PRHZ | | | | AML | AML | 16 09 35.8 | |
| POWZ | Post Office Ro | 2.06 | 182 | PN | Pn | 16 09 05.3 | -1.5 |
| POWZ | | | | AML | AML | 16 09 39.5 | |
| WMGZ | Waiomatatini S | 2.08 | 77 | PN | Pn | 16 09 07.2 | +0.1 |
| WMGZ | | | | AML | AML | 16 09 35.7 | |
| WMGZ | | | | AML | AML | 16 09 36.2 | |
| ANWZ | Angora Road | 2.18 | 167 | ⇓PN | Pn | 16 09 06.9 | -1.2 |
| ANWZ | | | | AML | AML | 16 09 37.6 | |
| ANWZ | | | | AML | AML | 16 09 39.1 | |
| PRWZ | Pori Road | 2.22 | 178 | PN | Pn | 16 09 07.2 | -1.4 |
| MRZ | Mangatainoka R | 2.33 | 185 | ⇑PN | Pn | 16 09 07.9 | -2.0 |
| MRZ | | | | SN | Sn | 16 09 36.9 | -4.6 |
| MRZ | | | | AML | AML | 16 09 38.8 | |
| BFZ | Birch Farm | 2.36 | 173 | PN | Pn | 16 09 08.3 | -1.9 |
| TIWZ | Tintock | 2.44 | 179 | PN | Pn | 16 09 09.2 | -2.0 |
| TIWZ | | | | AML | AML | 16 09 39.4 | |
| TIWZ | | | | AML | AML | 16 09 40.7 | |
| OGWZ | Otaki Gorge | 2.54 | 192 | PN | Pn | 16 09 10.3 | -1.9 |
| OGWZ | | | | AML | AML | 16 09 41.7 | |
| OGWZ | | | | AML | AML | 16 09 41.8 | |
| HOWZ | Holdsworth Sta | 2.57 | 186 | PN | Pn | 16 09 10.4 | -2.3 |
| HOWZ | | | | AML | AML | 16 09 42.8 | |
| HOWZ | | | | AML | AML | 16 09 43.2 | |
| KIW | Kapiti Island | 2.63 | 196 | PN | Pn | 16 09 11.0 | -2.4 |
| MTW | Mount Morrison | 2.83 | 185 | PN | Pn | 16 09 13.0 | -2.8 |
| MTW | | | | AML | AML | 16 09 48.8 | |
| MTW | | | | AML | AML | 16 09 49.0 | |
| CAW | Cannon Point | 2.83 | 192 | PN | Pn | 16 09 13.2 | -2.6 |
| DUWZ | D'Urville Isla | 2.88 | 211 | ⇓PN | Pn | 16 09 13.9 | -2.5 |
| MSWZ | Moikau Station | 3.11 | 188 | PN | Pn | 16 09 16.0 | -3.2 |
| MSWZ | | | | AML | AML | 16 09 54.3 | |
| MSWZ | | | | AML | AML | 16 09 54.4 | |
| TCW | Tory Channel | 3.12 | 202 | PN | Pn | 16 09 16.6 | -2.6 |
| TCW | | | | AML | AML | 16 09 55.2 | |
| TCW | | | | AML | AML | 16 09 55.3 | |
| PLWZ | Palliser | 3.26 | 188 | PN | Pn | 16 09 17.8 | -3.3 |
| TUWZ | Tuamarina | 3.42 | 205 | PN | Pn | 16 09 19.8 | -3.2 |
| NNZ | Nelson | 3.45 | 213 | PN | Pn | 16 09 20.5 | -2.9 |
| THZ | Tophouse | 4.10 | 213 | PN | Pn | 16 09 28.4 | -3.3 |
| KHZ | Kahutara | 4.44 | 203 | ⇑PN | Pn | 16 09 32.6 | -3.4 |
| OXZ | Oxford | 5.76 | 209 | PN | Pn | 16 09 48.1 | -5.0 |

*ISCJB **03** 16:48:50.8±0.5, 50°.24N±0°.03×18°.70E±0°.03, h0km, Error ellipse: s-maj=5.2km s-min=2.2km az=15.5*

*CSEM **03** 16:48:51.9±0.3, 50°.24N×18°.74E, h1km, ML3.0/6, Error ellipse: s-maj=7.8km s-min=3.3km az=13.0*

*WAR **03** 16:48:52.9, 50°.27N×18°.83E, h1km, Mw2.7*

*PRU **03** 16:48:52.9, 50°.23N×18°.73E, h0km*

**ISC 03 16:48:52.2**±0.8**, 50°.20N**±0°.04×**18°.73E**±0°.02**, h0**km**, n41, σ0s.79**/73**, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| OKC | Ostrava-Krasne | 0.52 | 226 | ePG | Pb | 16 49 04.6 | +0.5 |
| OKC | | | | eSG | Sg | 16 49 10.2 | +1.5 |
| | comp=Z,31nm,0.2s | | | | | | |
| OKC | Ostrava-Krasne | 0.52 | 226 | Pg | Pb | 16 49 04.6 | +0.5 |
| OKC | | | | Sg | Sg | 16 49 10.2 | +1.5 |
| | 31nm,0.2s | | | | | | |
| OJC | Ojcow | 0.69 | 88 | ePg | Pg | 16 49 04.7 | -0.7 |
| OJC | | | | eSg | Sg | 16 49 14.7 | +0.4 |
| OJC | Ojcow | 0.69 | 88 | ePg | Pg | 16 49 04.7 | -0.7 |
| OJC | | | | eSg | Sg | 16 49 14.7 | +0.4 |
| OJC | Ojcow | 0.69 | 88 | ePg | Pg | 16 49 04.7 | -0.7 |
| OJC | | | | eSg | Sg | 16 49 14.7 | +0.4 |
| MORC | Moravsky Berou | 0.87 | 242 | ePg | Pb | 16 49 10.4 | +0.2 |
| MORC | | | | eSg | Sb | 16 49 22.8 | +0.4 |
| LANS | Liptovska Anna | 1.15 | 155 | ePg | Pn | 16 49 15.5 | -0.1 |
| LANS | | | | eSg | Sn | 16 49 32.3 | +0.2 |
| LANS | Liptovska Anna | 1.15 | 155 | ePG | Pn | 16 49 15.5 | -0.1 |
| LANS | | | | eSG | Sn | 16 49 32.3 | +0.2 |
| KRLC | Kraliky | 1.26 | 265 | eSG | Sb | 16 49 33.6 | +0.1 |
| KRLC | Kraliky | 1.26 | 265 | Sg | Sb | 16 49 33.6 | +0.1 |
| NIE | Niedzica | 1.28 | 127 | ePg | Pb | 16 49 17.1 | -0.1 |
| NIE | | | | eSg | Sn | 16 49 36.3 | +1.0 |
| NIE | Niedzica | 1.28 | 127 | ePg | Pb | 16 49 17.1 | -0.1 |
| NIE | | | | eSg | Sn | 16 49 36.3 | +1.0 |
| NIE | Niedzica | 1.28 | 127 | ePg | Pb | 16 49 17.1 | -0.1 |
| NIE | | | | eSg | Sn | 16 49 36.3 | +1.0 |
| DPC | Dobruska-Polom | 1.55 | 277 | ePG | Pn | 16 49 21.1 | +0.1 |
| DPC | | | | eSG | Sb | 16 49 42.8 | +0.9 |
| | comp=Z,19nm,0.4s | | | | | | |
| DPC | Dobruska-Polom | 1.55 | 277 | Pg | Pn | 16 49 21.1 | +0.1 |
| DPC | | | | Sg | Sb | 16 49 42.8 | +0.9 |
| | 19nm,0.4s | | | | | | |
| VRAC | Vranov | 1.64 | 238 | ePn | Pb | 16 49 23.3 | 0.0 |
| VRAC | | | | eSg | Sg | 16 49 46.5 | +1.6 |
| KSP | Ksiaz | 1.68 | 294 | iPg | Pg | 16 49 24.6 | +0.2 |
| KSP | | | | eSg | Sg | 16 49 47.4 | +1.2 |
| KSP | Ksiaz | 1.68 | 294 | iPg | Pg | 16 49 24.6 | +0.2 |
| KSP | | | | eSg | Sg | 16 49 47.4 | +1.2 |
| KSP | Ksiaz | 1.68 | 294 | iPg | Pg | 16 49 24.6 | +0.2 |
| KSP | | | | eSg | Sg | 16 49 47.4 | +1.2 |
| VYHS | Vyhne | 1.71 | 178 | ePg | Pn | 16 49 23.6 | +0.4 |
| VYHS | | | | eSn | Sn | 16 49 44.1 | -1.6 |
| VYHS | Vyhne | 1.71 | 178 | ePG | Pn | 16 49 23.6 | +0.4 |
| VYHS | | | | eSN | Sn | 16 49 44.0 | -1.6 |
| VYHS | | | | eLG | Lg | 16 49 48.5 | |
| UPC | Upice | 1.77 | 281 | ePG | Pb | 16 49 25.1 | -0.3 |
| UPC | | | | eSG | Sg | 16 49 49.6 | +0.8 |
| | comp=Z,8.2nm,0.4s | | | | | | |
| UPC | Upice | 1.77 | 281 | Pg | Pb | 16 49 25.1 | -0.3 |
| UPC | | | | Sg | Sg | 16 49 49.6 | +0.8 |
| | 8.2nm,0.4s | | | | | | |
| STHS | Stebnicka Huta | 1.81 | 115 | ePn | Pb | 16 49 26.1 | -0.1 |
| STHS | | | | eSg | Sg | 16 49 51.4 | +1.2 |
| STHS | Stebnicka Huta | 1.81 | 115 | ePN | Pb | 16 49 26.0 | -0.1 |
| STHS | | | | eSG | Sg | 16 49 51.4 | +1.2 |
| STHS | | | | eLG | Lg | 16 49 56.9 | |
| KECS | Kecovo | 2.06 | 145 | ePn | Pn | 16 49 27.5 | -0.6 |
| KECS | | | | eSn | Sn | 16 49 53.2 | -1.3 |
| KECS | Kecovo | 2.06 | 145 | ePN | Pn | 16 49 27.5 | -0.6 |
| KECS | | | | eSN | Sn | 16 49 53.2 | -1.3 |
| KECS | | | | eLG | Lg | 16 50 05.0 | |
| CRVS | Cervenica-Dubn | 2.20 | 125 | ePg | Pb | 16 49 33.0 | +0.1 |
| CRVS | Cervenica-Dubn | 2.20 | 125 | ePG | Pb | 16 49 33.0 | +0.1 |
| TREC | Trest | 2.29 | 248 | eSG | Sg | 16 50 05.2 | -0.4 |
| | comp=Z,7.8nm,0.2s | | | | | | |
| TREC | Trest | 2.29 | 248 | Sg | Sg | 16 50 05.2 | -0.4 |
| | 7.8nm,0.2s | | | | | | |
| GOPC | GO Pecny, Ondr | 2.55 | 265 | eSG | Sg | 16 50 13.3 | -0.9 |
| GOPC | GO Pecny, Ondr | 2.55 | 265 | Sg | Sg | 16 50 13.3 | -0.9 |
| PVCC | Panska Ves | 2.68 | 279 | eSG | Sg | 16 50 18.3 | 0.0 |
| | comp=Z,8.3nm,0.2s | | | | | | |
| PVCC | Panska Ves | 2.68 | 279 | Sg | Sg | 16 50 18.3 | 0.0 |
| | 8.3nm,0.2s | | | | | | |
| PRU | Pruhonice | 2.70 | 267 | ePG | Pb | 16 49 41.0 | -0.3 |
| PRU | | | | eSN | Sn | 16 50 09.8 | -0.4 |
| PRU | | | | eSG | Sg | 16 50 17.7 | -1.2 |
| PRU | Pruhonice | 2.70 | 267 | Sn | Sn | 16 50 09.8 | -0.4 |
| PRU | | | | Sg | Sg | 16 50 17.7 | -1.2 |
| BRG | Berggiesshubel | 3.13 | 284 | PG | Pg | 16 49 51.5 | -0.5 |
| BRG | | | | SG | Sg | 16 50 34.3 | +1.8 |
| | 7.2nm,0.5s | | | | | | |
| KHC | Kasperske Hory | 3.51 | 254 | ePN | Pn | 16 49 47.0 | -1.0 |
| KHC | | | | ePG | Pg | 16 49 59.5 | +0.1 |
| KHC | | | | eSG | Sg | 16 50 44.6 | -0.2 |
| | comp=Z,10.0nm,0.5s | | | | | | |
| KHC | Kasperske Hory | 3.51 | 254 | Pn | Pn | 16 49 47.0 | -1.0 |
| KHC | Kasperske Hory | 3.51 | 254 | Pg | Pg | 16 49 59.5 | +0.1 |
| KHC | | | | Sg | Sg | 16 50 44.6 | -0.2 |
| | 10.0nm,0.5s | | | | | | |

**NNC 03 16:59:02.4**±7.6**, 37°.87N**×**72°.09E, h0**km**, mb3.6, mpv3.2, 4C-4D, Error ellipse: s-maj=70.0km s-min=23.0km az=156.0, Tajikistan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| SFK | Sufi-Kurgan | 2.41 | 27 | ⇑Pn | Pn | 16 59 44.1 | +0.9 |
| | 8.3nm,0.4s | | | | | | |
| SFK | | | | ⇑Sn | Sb | 17 00 16.5 | -0.5 |
| | 9.4nm,0.5s | | | | | | |
| DZET | Dzherino | 2.73 | 291 | ⇑Pn | Pn | 16 59 47.0 | -0.5 |
| | 0.6nm,0.3s | | | | | | |
| DZET | | | | ⇓Sn | Sn | 17 00 22.6 | +1.4 |
| | 24nm,0.6s | | | | | | |
| MNAS | Manas | 4.62 | 4 | ⇑Pn | Pn | 17 00 12.2 | -1.4 |
| | 4.2nm,0.5s | | | | | | |
| MNAS | | | | ⇓Sn | Sn | 17 01 09.4 | +1.4 |
| | 2.1nm,0.6s | | | | | | |
| AAK | Ala-Archa | 5.10 | 20 | ⇓Pn | Pn | 17 00 18.0 | -2.2 |
| | 2.8nm,0.5s | | | | | | |
| AAK | | | | ⇓Sn | Sn | 17 01 18.8 | -1.2 |
| | 1.4nm,0.9s | | | | | | |
| KK31 | Karatay Array | 5.36 | 348 | Pn | Pn | 17 00 21.6 | -2.1 |
| | 1.3nm,0.5s,baz=151,slow=11,SNR=6.3 | | | | | | |
| KK31 | | | | Sn | Sn | 17 01 24.4 | -1.6 |
| | 0.7nm,0.3s,baz=150,slow=23,SNR=5.5 | | | | | | |

*ISCJB **03** 17:00:53.8±0.5, 41°.95N±0°.05×142°.31E±0°.05, h73km±4km, mb3.7/7, Error ellipse: s-maj=8.4km s-min=5.8km az=149.7*
*JMA **03** 17:00:54.4±0.2, 41°.96N×142°.32E, h69km±3km, M3.2*
*IDC **03** 17:00:59.4±7.4, 41°.98N×142°.53E, h121km±57km, mb3.4/7, mb1 3.4/9, mb1mx3.2/48, mbtmp3.7/9, MS3.6/1, Ms1 3.6/1, ms1mx2.6/29, Error ellipse: s-maj=73.2km s-min=21.2km az=67.0*
**ISC 03 17:00:54.5**±0.9**, 41°.96N**±0°.05×**142°.30E**±0°.04**, h64**km±8km**, n27, σ**$0^s72$/31**, mb3.8**/7**, 3C-5D, Hokkaido region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JNBK | Urakawa-nobuka | 0.47 | 46 | ⇑P | Pn | 17 01 06.0 | -0.5 |
| JNBK | | | | eS | Sn | 17 01 15.1 | -0.1 |
| JEM | Erimo | 0.64 | 84 | ⇑P | Pn | 17 01 08.6 | +0.3 |
| JEM | | | | eS | Sn | 17 01 19.1 | +0.6 |
| JBT2 | Biratori 2 | 0.82 | 3 | ⇓P | Pn | 17 01 10.4 | -0.1 |
| JKB | Kayabe | 0.95 | 266 | ⇓P | Pn | 17 01 12.3 | +0.3 |
| JKB | | | | eS | Sn | 17 01 25.3 | +0.3 |
| JCH | Churui | 1.03 | 50 | P | Pn | 17 01 13.3 | +0.2 |
| JCH | | | | eS | Sn | 17 01 27.5 | +0.7 |
| JNB | Noboribetsu | 1.07 | 299 | ⇓P | Pn | 17 01 13.4 | -0.2 |
| JNB | | | | eS | Sn | 17 01 27.6 | -0.2 |
| JEW | Eniwo | 1.08 | 325 | ⇓P | Pn | 17 01 14.3 | +0.5 |
| JOT | Ohata | 1.10 | 239 | P | Pn | 17 01 14.5 | +0.5 |
| JFR | Furan | 1.23 | 10 | P | Pn | 17 01 15.5 | -0.2 |
| JFR | | | | eS | Sn | 17 01 31.5 | 0.0 |
| JYM2 | Yakumo 2 | 1.45 | 277 | P | Pn | 17 01 19.0 | +0.4 |
| JSR | Shiriuchi | 1.47 | 254 | P | Pn | 17 01 19.0 | +0.1 |
| JOB | Onbets | 1.48 | 50 | P | Pn | 17 01 20.2 | +1.2 |
| JTM | Tenmabayashi | 1.49 | 219 | P | Pn | 17 01 20.0 | +0.8 |
| JAB | Ashibetsu | 1.55 | 358 | ⇑P | Pn | 17 01 20.7 | +0.7 |
| JAB | | | | eS | Sn | 17 01 41.0 | +1.9 |
| JANG | Nango | 1.69 | 201 | P | Pn | 17 01 22.7 | +0.9 |
| JAR | Ashorobuto | 1.72 | 39 | P | Pn | 17 01 22.5 | +0.2 |
| JHR | Hokuryu | 1.83 | 347 | ⇓P | Pn | 17 01 24.9 | +1.1 |
| MJAR | Matsushiro Arr | 6.27 | 212 | P | Pn | 17 02 31.3 | +6.9 |
| | baz=25,slow=12,SNR=2.1 | | | | | | |
| KSRS | Korea Array | 11.95 | 253 | P | Pn | 17 03 47.8 | +5.9 |
| | 0.1nm,0.3s,baz=59,slow=14,SNR=3.1 | | | | | | |
| SONM | Songino Array | 25.94 | 295 | P | P | 17 06 21.8 | +1.0 |
| | 0.5nm,0.6s,baz=77,slow=9.3,SNR=3.7 | | | | | | |
| ZALV | Zalesovo Beam | 39.26 | 308 | P | P | 17 08 16.1 | -0.4 |
| | 0.4nm,0.3s,baz=79,slow=7.7,SNR=3.9 | | | | | | |
| MKAR | Makanchi Array | 42.26 | 298 | P | P | 17 08 41.4 | 0.0 |
| | 0.6nm,0.7s,baz=81,slow=9.0,SNR=5.5 | | | | | | |
| KURBB | Kurchatov Arra | 43.66 | 304 | P | P | 17 08 52.7 | +0.1 |
| | 1.0nm,0.6s,baz=77,slow=8.7,SNR=4.7 | | | | | | |
| BVAR | Borovoye Array | 47.88 | 309 | P | P | 17 09 26.4 | +0.6 |
| | 0.7nm,0.3s,baz=77,slow=9.3,SNR=13 | | | | | | |
| AAK | Ala-Archa | 48.89 | 295 | LR | LR | 17 30 58.3 | |
| | comp=Z,57nm,18.1s,baz=338,slow=37 | | | | | | |
| WRA | Warramunga Arr | 62.02 | 188 | P | P | 17 11 07.1 | -1.0 |
| | 0.5nm,1.0s,baz=6.3,slow=6.9,SNR=5.0 | | | | | | |
| FINES | FINESS Array B | 64.80 | 332 | P | P | 17 11 24.9 | -1.1 |
| | 5.7nm,1.1s,baz=64,slow=4.4,SNR=8.8 | | | | | | |

**WEL 03 17:04:14.9**±0.1**, 44°.53S×169°.31E, h12**km**, ML3.6**/13**, 4C-2D, Error ellipse: s-maj=1.1km s-min=0.8km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WKZ | Wanaka | 0.36 | 215 | ⇑P* | Pg | 17 04 22.0 | -0.3 |
| WKZ | | | | S* | Sg | 17 04 26.9 | -0.3 |
| WKZ | | | | AML | AML | 17 04 28.0 | |
| WKZ | | | | AML | AML | 17 04 28.0 | |
| WKZ | | | | AML | AML | 17 04 28.3 | |
| JCZ | Jackson Bay | 0.59 | 320 | ⇓P* | Pg | 17 04 26.3 | -0.2 |
| JCZ | | | | S* | Sg | 17 04 33.9 | -0.5 |
| JCZ | | | | AML | AML | 17 04 35.2 | |
| LBZ | Lake Benmore | 0.64 | 77 | P* | Pg | 17 04 27.2 | -0.2 |
| LBZ | | | | S* | Sg | 17 04 35.1 | -0.8 |
| LBZ | | | | AML | AML | 17 04 36.0 | |
| LBZ | | | | AML | AML | 17 04 36.0 | |
| EAZ | Earnscleugh | 0.70 | 180 | ⇑P* | Pg | 17 04 27.9 | -0.6 |
| EAZ | | | | AML | AML | 17 04 40.9 | |
| EAZ | | | | AML | AML | 17 04 40.9 | |
| EAZ | | | | AML | AML | 17 04 42.8 | |
| EAZ | | | | AML | AML | 17 04 42.9 | |
| MSZ | Milford Sound | 1.00 | 261 | P* | Pb | 17 04 33.2 | -1.0 |
| MSZ | | | | S* | Sg | 17 04 45.8 | -1.5 |
| MSZ | | | | AML | AML | 17 04 47.7 | |
| MSZ | | | | AML | AML | 17 04 47.8 | |
| MSZ | | | | AML | AML | 17 04 47.9 | |
| FOZ | Fox Glacier | 1.06 | 20 | ⇑P* | Pb | 17 04 33.7 | -1.5 |
| FOZ | | | | AML | AML | 17 04 51.9 | |
| FOZ | | | | AML | AML | 17 04 52.6 | |
| ODZ | Otahua Downs | 1.08 | 119 | ⇓P* | Pb | 17 04 34.7 | -0.9 |
| ODZ | | | | AML | AML | 17 04 51.9 | |
| ODZ | | | | AML | AML | 17 04 51.9 | |
| ODZ | | | | AML | AML | 17 04 52.1 | |
| ODZ | | | | AML | AML | 17 04 52.1 | |
| MLZ | Mavora Lakes | 1.19 | 225 | ⇑P* | Pn | 17 04 36.9 | -0.6 |
| MLZ | | | | AML | AML | 17 04 54.8 | |
| MLZ | | | | AML | AML | 17 04 55.7 | |
| TUZ | Tuapeka | 1.44 | 171 | PN | Pn | 17 04 40.4 | -0.5 |
| TUZ | | | | SN | Sn | 17 04 58.3 | -1.4 |
| TUZ | | | | AML | AML | 17 05 00.6 | |
| TUZ | | | | AML | AML | 17 05 01.3 | |
| TUZ | | | | AML | AML | 17 05 01.3 | |
| HHSZ | Highcliff Hill | 1.63 | 147 | PN | Pn | 17 04 44.1 | +0.6 |
| HHSZ | | | | AML | AML | 17 05 11.0 | |
| HHSZ | | | | AML | AML | 17 05 12.2 | |
| WVZ | Waitaha Valley | 1.78 | 36 | ePN | Pn | 17 04 46.5 | +1.0 |
| WVZ | | | | AML | AML | 17 04 57.9 | |
| WVZ | | | | AML | AML | 17 07 53.4 | |
| DCZ | Deep Cove | 1.79 | 238 | PN | Pb | 17 04 46.7 | -1.0 |
| DCZ | | | | AML | AML | 17 05 11.0 | |
| DCZ | | | | AML | AML | 17 05 11.1 | |
| DCZ | | | | AML | AML | 17 05 11.4 | |
| DCZ | | | | AML | AML | 17 05 11.4 | |
| SYZ | Scrubby Hill | 2.01 | 183 | ePN | Pn | 17 04 48.0 | -0.7 |
| SYZ | | | | AML | AML | 17 04 51.4 | |
| SYZ | | | | AML | AML | 17 05 21.3 | |
| OXZ | Oxford | 2.31 | 60 | PN | Pn | 17 04 52.3 | -0.5 |
| INZ | Inchbonnie | 2.38 | 41 | ePN | Pn | 17 04 53.8 | +0.1 |
| PYZ | Puysegur Point | 2.48 | 228 | PN | Pn | 17 04 56.0 | +1.0 |
| APZ | The Paps | 2.48 | 201 | ePN | Pn | 17 04 54.5 | -0.7 |
| MQZ | McQueen's Vall | 2.54 | 72 | ePN | Pn | 17 04 55.7 | -0.3 |

**IDC 03 17:17:06.7**±2.7**, 8°.62S×112°.95E, h0**km**, mb3.1**/3**, mb1 3.4**/4**, mb1mx3.2**/54**, mbtmp3.2**/4**, ML2.9**/1**, Error ellipse: s-maj=152.4km s-min=26.5km az=48.0, Jawa**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| FITZ | Fitzroy Crossi | 15.52 | 129 | Pn | Pn | 17 20 48.4 | +1.4 |
| | 0.0nm,0.3s,baz=317,slow=12,SNR=5.9 | | | | | | |
| FITZ | | | | Sn | Sn | 17 23 25.9 | -14 |
| | 0.1nm,0.3s,baz=186,slow=21,SNR=6.2 | | | | | | |
| WRA | Warramunga Arr | 23.55 | 121 | P | P | 17 22 19.0 | 0.0 |
| | 0.3nm,0.7s,baz=297,slow=11,SNR=6.6 | | | | | | |
| ASAR | Alice Springs | 25.03 | 129 | P | P | 17 22 32.1 | -0.6 |
| | 0.1nm,0.4s,baz=304,slow=9.2,SNR=7.9 | | | | | | |
| MKAR | Makanchi Array | 61.56 | 337 | P | P | 17 27 26.0 | +0.3 |
| | 0.2nm,0.4s,baz=155,slow=7.7,SNR=4.2 | | | | | | |

*ISCJB **03** 17:31:18.5±1.3, 34°.03N±0°.05×24°.39E±0°.06, h20km±10km, mb3.9/8, Error ellipse: s-maj=9.9km s-min=6.4km az=36.0*
*THE **03** 17:31:18.5, 34°.05N×24°.26E, h0km±2km, ML3.6/9, Error ellipse: s-maj=6.3km s-min=1.4km az=211.0*
*ATH **03** 17:31:18.6, 34°.21N×24°.24E, h11km±3km, ML3.3/8, Error ellipse: s-maj=6.7km s-min=1.8km az=25.0*
*IDC **03** 17:31:18.5±1.0, 34°.37N×24°.30E, h0km, mb4.0/8, mb1 4.1/14, mb1mx3.8/51, mbtmp3.9/14, ML3.5/6, MS2.4/1, Ms1 2.4/1, ms1mx2.1/45, Error ellipse: s-maj=21.2km s-min=15.9km az=146.0*
*CSEM **03** 17:31:22.9±0.7, 34°.39N×24°.38E, h10km, ML3.3, Error ellipse: s-maj=15.9km s-min=6.1km az=17.0*
**ISC 03 17:31:19.0**±1.8**, 34°.16N**±0°.07×**24°.36E**±0°.04**, h9**km±10km**, n90, σ**$1^s29$/98**, mb4.0**/8**, Crete**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GVD | Gavdhos | 0.72 | 342 | P | Pg | 17 31 31.1 | -1.7 |
| GVD | | | | S | Sg | 17 31 40.2 | -2.0 |
| GVD | | | | AML | AML | 17 31 50.0 | |
| | comp=E,13461μm,0.4s | | | | | | |
| GVD | | | | AML | AML | 17 31 51.1 | |
| | comp=N,10806μm,0.5s | | | | | | |
| GVD | Gavdhos | 0.72 | 342 | P | Pg | 17 31 32.2 | -0.7 |
| GVD | | | | S | Sg | 17 31 40.2 | -2.0 |
| GVD | Gavdhos | 0.72 | 342 | P | Pg | 17 31 32.2 | -0.7 |
| GVD | | | | S | Sn | 17 31 46.8 | +0.4 |
| SIVA | Sivas | 0.94 | 23 | P | Pb | 17 31 37.0 | -0.4 |
| SIVA | | | | AML | AML | 17 31 57.0 | |
| | comp=N,10029μm,0.7s | | | | | | |
| SIVA | | | | AML | AML | 17 32 00.5 | |
| | comp=E,16093μm,0.7s | | | | | | |
| SIVA | Sivas | 0.94 | 23 | P | Pb | 17 31 37.0 | -0.4 |
| SIVA | Sivas | 0.94 | 23 | P | Pn | 17 31 39.4 | +1.1 |
| IDI | Anoyia | 1.21 | 21 | Pn | Pn | 17 31 40.6 | -1.6 |
| | comp=E,8.6nm,0.3s,baz=206,slow=16,SNR=60 | | | | | | |
| IDI | | | | Sn | Sb | 17 31 57.9 | 0.0 |
| | comp=E,36nm,0.3s,baz=295,slow=19,SNR=13 | | | | | | |
| IDI | Anoyia | 1.21 | 21 | P | Pn | 17 31 40.4 | -1.8 |
| IDI | | | | AML | AML | 17 32 07.1 | |
| | comp=N,1332μm,0.8s | | | | | | |
| IDI | | | | AML | AML | 17 32 08.1 | |
| | comp=E,1570μm,0.7s | | | | | | |
| IDI | Anoyia | 1.21 | 21 | P | Pn | 17 31 40.4 | -1.8 |
| IDI | Anoyia | 1.21 | 21 | P | Pg | 17 31 43.8 | +1.5 |
| VAM | Vamos | 1.25 | 354 | P | Pn | 17 31 40.9 | -1.8 |
| VAM | | | | AML | AML | 17 32 09.4 | |
| | comp=E,3178μm,0.8s | | | | | | |
| VAM | | | | AML | AML | 17 32 11.6 | |
| | comp=N,3395μm,0.7s | | | | | | |
| VAM | Vamos | 1.25 | 354 | P | Pn | 17 31 40.9 | -1.8 |
| VAM | Vamos | 1.25 | 354 | P | Pg | 17 31 44.0 | +0.9 |
| VAM | | | | S | Sg | 17 32 02.6 | +3.2 |
| IMMV | Iera Moni Meta | 1.34 | 347 | P | Pn | 17 31 42.8 | -1.0 |
| IMMV | | | | AML | AML | 17 32 07.5 | |
| | comp=E,4164μm,1.0s | | | | | | |
| IMMV | | | | AML | AML | 17 32 13.5 | |
| | comp=N,3577μm,0.7s | | | | | | |
| IMMV | Iera Moni Meta | 1.34 | 347 | P | Pb | 17 31 44.7 | +0.4 |
| IMMV | | | | S | Sg | 17 32 03.8 | +1.7 |
| IMMV | Iera Moni Meta | 1.34 | 347 | P | Pb | 17 31 44.7 | +0.4 |
| IMMV | | | | S | Sg | 17 32 03.8 | +1.7 |
| LAST | Lasithi | 1.36 | 42 | P | Pn | 17 31 44.5 | +0.2 |
| LAST | | | | AML | AML | 17 32 18.1 | |
| | comp=E,1127μm,0.9s | | | | | | |
| LAST | | | | AML | AML | 17 32 20.8 | |
| | comp=N,1016μm,0.6s | | | | | | |
| LAST | Lasithi | 1.36 | 42 | P | Pn | 17 31 44.6 | +0.3 |
| LAST | Lasithi | 1.36 | 42 | P | Pn | 17 31 44.6 | +0.3 |
| NPS | Neapolis | 1.51 | 43 | P | Pn | 17 31 46.8 | +0.6 |
| NPS | | | | AML | AML | 17 32 18.2 | |
| | comp=N,827μm,0.8s | | | | | | |
| NPS | | | | AML | AML | 17 32 20.4 | |
| | comp=E,1201μm,0.7s | | | | | | |
| NPS | Neapolis | 1.51 | 43 | P | Pb | 17 31 47.1 | -0.1 |
| NPS | Neapolis | 1.51 | 43 | P | Pb | 17 31 47.1 | -0.1 |
| ZKR | Zakros | 1.81 | 58 | P | Pg | 17 31 53.9 | +0.3 |
| ZKR | | | | AML | AML | 17 32 29.3 | |
| | comp=N,305μm,0.6s | | | | | | |
| ZKR | | | | AML | AML | 17 32 31.5 | |
| | comp=E,715μm,0.7s | | | | | | |
| ZKR | Zakros | 1.81 | 58 | P | Pg | 17 31 53.9 | +0.3 |
| ANKY | Antikythira Is | 1.91 | 333 | P | Pn | 17 31 50.9 | -0.9 |
| ANKY | Antikythira Is | 1.91 | 333 | P | Pb | 17 31 53.3 | -0.8 |
| ANKY | Antikythira Is | 1.91 | 333 | P | Pb | 17 31 53.3 | -0.8 |
| THR6 | Thira Island, | 2.35 | 21 | P | Pn | 17 31 58.9 | +1.1 |
| THR6 | Thira Island, | 2.35 | 21 | P | Pn | 17 31 58.9 | +1.1 |
| SAP1 | Santorini-Akro | 2.35 | 21 | P | Pn | 17 31 59.1 | +1.3 |
| SAP1 | Santorini-Akro | 2.35 | 21 | P | Pn | 17 31 59.1 | +1.3 |
| KYTH | Kithira | 2.36 | 333 | P | Pn | 17 31 58.5 | +0.6 |
| KYTH | Kithira | 2.36 | 333 | P | Pn | 17 31 58.4 | +0.4 |
| SANT | Santorini | 2.38 | 22 | P | Pn | 17 31 59.2 | +0.9 |
| SANT | Santorini | 2.38 | 22 | P | Pn | 17 31 59.2 | +0.9 |
| SANT | Santorini | 2.38 | 22 | P | Pn | 17 31 59.3 | +0.9 |
| THR5 | Thira Island, | 2.40 | 19 | P | Pn | 17 31 59.0 | +0.6 |
| THR5 | Thira Island, | 2.40 | 19 | P | Pn | 17 31 59.0 | +0.6 |
| THR3 | Thira Island, | 2.40 | 20 | P | Pn | 17 32 00.0 | +1.5 |
| THR3 | Thira Island, | 2.40 | 20 | P | Pn | 17 32 00.0 | +1.5 |
| THR2 | Thira island, | 2.45 | 21 | P | Pn | 17 32 00.6 | +1.5 |
| THR2 | Thira island, | 2.45 | 21 | P | Pn | 17 32 00.6 | +1.5 |
| CMBO | Columbo, Santo | 2.46 | 20 | P | Pn | 17 32 00.3 | +1.0 |
| CMBO | Columbo, Santo | 2.46 | 20 | P | Pn | 17 32 00.3 | +1.0 |
| CMBO | Columbo, Santo | 2.46 | 20 | P | Pn | 17 32 00.1 | +0.8 |
| MHLO | Agia Marina, M | 2.53 | 1 | P | Pn | 17 32 00.8 | +0.6 |
| MHLO | Agia Marina, M | 2.53 | 1 | P | Pn | 17 32 00.8 | +0.6 |
| KARP | Karpathos | 2.69 | 58 | P | Pb | 17 32 06.0 | -1.3 |
| KARP | Karpathos | 2.69 | 58 | P | Pb | 17 32 05.6 | -1.7 |
| KARP | Karpathos | 2.69 | 58 | P | Pb | 17 32 05.6 | -1.7 |
| VLI | Veliai | 2.81 | 336 | P | Pn | 17 32 05.5 | +1.4 |
| VLI | Veliai | 2.81 | 336 | P | Pn | 17 32 05.5 | +1.4 |
| VLI | Veliai | 2.81 | 336 | P | Pn | 17 32 05.0 | +0.9 |
| APE | Apeiranthos | 3.06 | 18 | P | Pn | 17 32 08.9 | +1.3 |
| APE | Apeiranthos | 3.06 | 18 | P | Pn | 17 32 08.9 | +1.3 |
| KRND | KRANIDI | 3.37 | 343 | P | Pn | 17 32 11.3 | -0.4 |
| KRND | KRANIDI | 3.37 | 343 | P | Pn | 17 32 11.3 | -0.4 |
| KRND | KRANIDI | 3.37 | 343 | P | Pn | 17 32 12.2 | +0.5 |
| DID | Didima | 3.46 | 345 | P | Pn | 17 32 13.6 | +0.5 |
| DID | Didima | 3.46 | 345 | P | Pn | 17 32 13.6 | +0.5 |
| DID | Didima | 3.46 | 345 | P | Pn | 17 32 12.4 | -0.7 |
| PYL | PYLOS | 3.47 | 323 | P | Pn | 17 32 14.5 | +1.3 |
| PYL | PYLOS | 3.47 | 323 | P | Pn | 17 32 14.5 | +1.3 |
| PYL | PYLOS | 3.47 | 323 | P | Pn | 17 32 15.2 | +2.1 |
| GUR | Goura | 4.11 | 337 | P | Pn | 17 32 24.6 | +2.5 |
| GUR | Goura | 4.11 | 337 | P | Pn | 17 32 23.4 | +1.3 |
| GUR | Goura | 4.11 | 337 | P | Pn | 17 32 23.4 | +1.3 |
| KLV | Kalavryta, Ach | 4.27 | 336 | P | Pn | 17 32 25.5 | +1.2 |
| KLV | Kalavryta, Ach | 4.27 | 336 | P | Pn | 17 32 25.5 | +1.2 |
| FETY | Fethiye | 4.58 | 56 | P | Pn | 17 32 30.3 | +1.8 |
| FETY | Fethiye | 4.58 | 56 | P | Pn | 17 32 30.3 | +1.8 |
| CSS | Mathiatis | 7.45 | 81 | P | Pn | 17 33 08.7 | +0.9 |
| CSS | Mathiatis | 7.45 | 81 | P | Pn | 17 33 08.7 | +0.9 |
| BRTR | Keskin Array B | 9.27 | 51 | Pn | Pn | 17 33 35.1 | +2.1 |
| | comp=E,0.1nm,0.3s,baz=224,slow=14,SNR=6.4 | | | | | | |
| MMAI | Mount Meron Ar | 9.29 | 94 | Pn | Pn | 17 33 34.3 | +1.2 |
| | comp=E,1.4nm,0.3s,baz=274,slow=12,SNR=10 | | | | | | |
| MMAI | | | | Sn | Sn | 17 35 15.3 | -2.4 |
| | comp=E,0.6nm,0.3s,baz=287,slow=25,SNR=3.0 | | | | | | |
| EIL | Elat | 10.05 | 114 | Pn | Pn | 17 33 43.8 | +0.3 |
| | comp=E,0.6nm,0.3s,baz=281,slow=5.9,SNR=4.8 | | | | | | |
| MLR | Muntele Rosu | 11.38 | 6 | LR | LR | 17 38 16.3 | |
| | comp=E,21nm,20.3s,baz=269,slow=37 | | | | | | |
| GERES | GERESS Array B | 16.68 | 335 | Pn | Pn | 17 35 12.8 | -0.1 |
| | comp=E,0.1nm,0.3s,baz=147,slow=11,SNR=5.3 | | | | | | |
| AKASG | Malin Array Be | 16.91 | 11 | Pn | Pn | 17 35 14.6 | -1.1 |
| | comp=E,1.0nm,0.3s,baz=200,slow=10,SNR=8.7 | | | | | | |
| KHC | Kasperske Hory | 16.96 | 335 | eP | P | 17 35 18.7 | +0.3 |
| KHC | | | | ex | x | 17 35 34.4 | |
| KBZ | Khabaz | 17.27 | 51 | P | Pn | 17 35 20.2 | 0.0 |
| | comp=E,0.1nm,0.3s,baz=272,slow=8.2,SNR=3.8 | | | | | | |
| ESDC | Sonseca Array | 23.25 | 292 | P | P | 17 36 26.7 | -0.1 |
| | comp=E,1.2nm,0.7s,baz=81,slow=9.2,SNR=9.5 | | | | | | |
| FINES | FINESS Array B | 27.32 | 2 | P | P | 17 37 01.6 | -2.3 |
| | comp=E,3.7nm,1.1s,baz=161,slow=12,SNR=3.8 | | | | | | |
| NB2 | NORSAR Subarra | 28.21 | 346 | P | P | 17 37 09.8 | -2.0 |
| | comp=Z,7.1nm,1.2s,baz=156,slow=9.3 | | | | | | |
| NOA | NORSAR Array B | 28.21 | 346 | P | P | 17 37 09.5 | -2.3 |
| | comp=Z,4.2nm,0.9s,baz=148,slow=9.3,SNR=6.6 | | | | | | |
| TORD | Torodi Ar. Bea | 29.34 | 230 | P | P | 17 37 24.4 | +2.2 |
| | comp=Z,1.4nm,0.6s,baz=38,slow=8.7,SNR=10 | | | | | | |
| AKTO | Aktyubinsk | 29.42 | 46 | P | P | 17 37 22.5 | -0.1 |
| | comp=Z,0.8nm,0.5s,baz=248,slow=9.4,SNR=3.6 | | | | | | |
| MKAR | Makanchi Array | 44.88 | 56 | P | P | 17 39 34.7 | +1.0 |
| | comp=Z,2.9nm,0.6s,baz=280,slow=6.3,SNR=26 | | | | | | |
| MKAR | | | | PcP | PcP | 17 41 16.3 | +1.0 |
| | comp=Z,0.3nm,0.7s,baz=309,slow=4.8,SNR=2.2 | | | | | | |
| ZALV | Zalesovo Beam | 46.17 | 45 | P | P | 17 39 42.5 | -1.3 |
| | comp=Z,0.9nm,0.5s,baz=270,slow=9.6,SNR=5.8 | | | | | | |
| SONM | Songino Array | 60.63 | 50 | P | P | 17 41 31.0 | +0.7 |
| | comp=Z,0.5nm,0.6s,baz=285,slow=8.6,SNR=4.8 | | | | | | |

*JMA **03** 17:36:43.0±0.1, 24°.51N×121°.77E, h70km±2km, M3.0*
*TAP **03** 17:36:43.9, 24°.57N×121°.80E, h70km±1km, ML3.4, C*
*ISCJB **03** 17:36:44.2±0.5, 24°.59N±0°.03×121°.85E±0°.02, h67km±4km, Error ellipse: s-maj=4.7km s-min=2.6km az=154.2*
**ISC 03 17:36:44.8**±1.3**, 24°.57N**±0°.03×**121°.84E**±0°.03**, h64**km±6km**, n51, σ**$1^s11$/91**, Taiwan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TWC | Suao | 0.04 | 12 | i P | Pn | 17 36 54.2 | 0.0 |
| | baz=57 | | | | | | |
| TWC | | | | eS | Sn | 17 37 02.2 | +1.1 |
| | baz=57 | | | | | | |
| ENA | Nanau | 0.17 | 212 | i P | Pn | 17 36 54.4 | -0.2 |
| | baz=196 | | | | | | |
| ENA | | | | S | Sn | 17 37 02.5 | +0.8 |
| | baz=196 | | | | | | |
| ILA | Ilan | 0.21 | 336 | i P | Pn | 17 36 55.2 | +0.4 |
| | baz=349 | | | | | | |
| ILA | | | | eS | Sn | 17 37 03.6 | +1.6 |
| | baz=349 | | | | | | |
| TWE | Neicheng | 0.22 | 313 | i P | Pn | 17 36 54.8 | -0.1 |
| | baz=325 | | | | | | |
| TWE | | | | eS | Sn | 17 37 02.9 | +0.8 |
| | baz=325 | | | | | | |
| ENTT | Nioudou | 0.26 | 285 | i P | Pn | 17 36 54.7 | -0.4 |
| | baz=288 | | | | | | |
| ENTT | | | | eS | Sn | 17 37 02.7 | +0.2 |
| | baz=288 | | | | | | |
| NNS | Nan Shan | 0.45 | 253 | i P | Pn | 17 36 56.2 | -0.6 |
| | baz=250 | | | | | | |
| NNS | | | | eS | Sn | 17 37 05.4 | 0.0 |
| | baz=250 | | | | | | |
| TWB1 | Santiao Chiao | 0.45 | 17 | eP | Pn | 17 36 56.9 | +0.2 |
| | baz=22 | | | | | | |
| TWB1 | | | | eS | Sn | 17 37 06.4 | +1.1 |
| | baz=22 | | | | | | |
| TWA | Mucha | 0.47 | 330 | eS | Sn | 17 37 05.9 | +0.3 |
| | baz=335 | | | | | | |
| NWF | Wu-fen Shan | 0.50 | 354 | eP | Pn | 17 36 57.4 | +0.1 |
| | baz=358 | | | | | | |
| NWF | | | | S | Sn | 17 37 07.0 | +0.8 |
| | baz=358 | | | | | | |
| TWD | Chiawan | 0.54 | 204 | i P | Pn | 17 36 56.3 | -1.3 |
| | baz=199 | | | | | | |
| TWD | | | | eS | Sn | 17 37 05.7 | -1.2 |
| | baz=199 | | | | | | |
| TAP1 | Taipei | 0.55 | 328 | eP | Pn | 17 36 57.1 | -0.5 |
| | baz=331 | | | | | | |
| TAP1 | | | | eS | Sn | 17 37 06.4 | -0.5 |
| | baz=331 | | | | | | |
| TAP | Taipei | 0.55 | 327 | eS | Sn | 17 37 06.7 | -0.4 |
| | baz=331 | | | | | | |
| HWA | Hwalien | 0.63 | 200 | eP | Pn | 17 36 57.6 | -1.0 |
| | baz=195 | | | | | | |
| HWA | | | | eS | Sn | 17 37 08.9 | +0.4 |
| | baz=195 | | | | | | |
| TWS1 | Kuangyinshan | 0.65 | 324 | eP | Pn | 17 36 58.3 | -0.5 |
| | baz=327 | | | | | | |
| TWS1 | | | | eS | Sn | 17 37 09.0 | +0.1 |
| | baz=327 | | | | | | |
| TWT | Tachien | 0.69 | 242 | i P | Pn | 17 36 59.2 | -0.1 |
| | baz=241 | | | | | | |
| TWT | | | | eS | Sn | 17 37 10.2 | +0.2 |
| | baz=241 | | | | | | |
| NCU | National Centr | 0.71 | 304 | eP | Pn | 17 36 59.0 | -0.5 |
| | baz=305 | | | | | | |
| NCU | | | | eS | Sn | 17 37 08.3 | -1.9 |
| | baz=305 | | | | | | |
| NSTT | Nanjuang | 0.77 | 274 | eP | Pn | 17 36 59.3 | -0.8 |
| | baz=274 | | | | | | |
| NSTT | | | | eS | Sn | 17 37 10.2 | -1.2 |
| | baz=274 | | | | | | |
| HSN | Hsinchu | 0.82 | 286 | eP | Pn | 17 37 02.4 | +1.6 |
| | baz=289 | | | | | | |
| HSN | | | | eS | Sn | 17 37 11.0 | -1.6 |
| | baz=289 | | | | | | |
| ESL | Shilin | 0.84 | 206 | eP | Pn | 17 36 59.1 | -2.0 |
| | baz=203 | | | | | | |
| ESL | | | | eS | Sn | 17 37 12.2 | -0.9 |
| | baz=203 | | | | | | |
| NSY | Sanyi | 1.00 | 261 | eS | Sn | 17 37 15.7 | -0.8 |
| | baz=260 | | | | | | |
| TWQ1 | Liyutan | 1.00 | 257 | eP | Pn | 17 37 02.0 | -1.0 |
| | baz=256 | | | | | | |
| TWQ1 | | | | eS | Sn | 17 37 14.4 | -2.1 |
| | baz=256 | | | | | | |
| JYNG | Yonagunijimaku | 1.01 | 97 | eS | Sn | 17 37 16.6 | -0.2 |
| YOJ | Yonaguni jima | 1.07 | 96 | P | Pn | 17 37 03.6 | -0.4 |
| YOJ | | | | S | Sn | 17 37 18.1 | -0.1 |
| SMLT | Sun Moon Lake | 1.10 | 232 | eP | Pn | 17 37 04.2 | -0.2 |
| | baz=229 | | | | | | |
| SMLT | | | | eS | Sn | 17 37 19.9 | +0.8 |
| | baz=229 | | | | | | |
| TYC | Yuchr | 1.12 | 234 | P | Pn | 17 37 04.3 | -0.3 |
| | baz=231 | | | | | | |
| TYC | | | | eS | Sn | 17 37 19.3 | 0.0 |
| | baz=231 | | | | | | |
| TCU | Taichung | 1.14 | 248 | eS | Sn | 17 37 19.4 | -0.4 |
| | baz=247 | | | | | | |
| EHY | Hungye | 1.16 | 204 | eP | Pn | 17 37 04.3 | -0.9 |
| | baz=201 | | | | | | |
| EHY | | | | eS | Sn | 17 37 18.8 | -1.5 |
| | baz=201 | | | | | | |
| WNT | Mingjian | 1.26 | 237 | eP | Pn | 17 37 06.2 | -0.3 |
| | baz=235 | | | | | | |
| WNT | | | | eS | Sn | 17 37 22.5 | -0.1 |
| | baz=235 | | | | | | |
| TWF1 | Yuli | 1.31 | 202 | eP | Pn | 17 37 06.6 | -0.6 |
| | baz=200 | | | | | | |
| TWF1 | | | | eS | Sn | 17 37 23.2 | -0.7 |
| | baz=200 | | | | | | |
| YUS | Yu-Shan | 1.35 | 217 | eP | Pn | 17 37 08.7 | +0.5 |
| | baz=215 | | | | | | |
| YUS | | | | eS | Sn | 17 37 26.4 | +0.9 |
| | baz=215 | | | | | | |
| ALS | Alishan | 1.42 | 222 | eP | Pn | 17 37 09.2 | +0.3 |
| | baz=220 | | | | | | |
| ALS | | | | eS | Sn | 17 37 28.2 | +1.3 |
| | baz=220 | | | | | | |
| CHN5 | Tsauling | 1.44 | 228 | eP | Pn | 17 37 08.8 | -0.1 |
| | baz=226 | | | | | | |
| CHN5 | | | | eS | Sn | 17 37 27.7 | +0.7 |
| | baz=226 | | | | | | |
| WGK | Gukeng | 1.47 | 233 | P | Pn | 17 37 08.9 | -0.2 |
| | baz=231 | | | | | | |
| WGK | | | | eS | Sn | 17 37 24.7 | -2.7 |
| | baz=231 | | | | | | |
| CHKT | Chengkung | 1.53 | 197 | eS | Sn | 17 37 31.4 | +2.3 |
| | baz=194 | | | | | | |
| ELDTW | Lidau | 1.57 | 209 | eP | Pn | 17 37 10.4 | -0.3 |
| | baz=207 | | | | | | |
| ELDTW | | | | eS | Sn | 17 37 30.1 | -0.1 |
| | baz=207 | | | | | | |
| CHN2 | Minshiung | 1.62 | 231 | eS | Sn | 17 37 32.9 | +1.7 |
| | baz=229 | | | | | | |
| CHN4 | Tsaushan | 1.67 | 223 | eP | Pn | 17 37 13.6 | +1.7 |
| | baz=222 | | | | | | |
| CHN4 | | | | eS | Sn | 17 37 34.1 | +1.8 |
| | baz=222 | | | | | | |
| STYT | Tauyuan | 1.72 | 215 | eP | Pn | 17 37 13.8 | +1.2 |
| | baz=213 | | | | | | |
| STYT | | | | eS | Sn | 17 37 35.6 | +2.0 |
| | baz=213 | | | | | | |
| WTP | Ta-pu | 1.73 | 221 | eP | Pn | 17 37 12.7 | -0.2 |
| | baz=219 | | | | | | |
| WTP | | | | eS | Sn | 17 37 36.0 | +2.0 |
| | baz=219 | | | | | | |
| IRIF | Iriomote-Funau | 1.74 | 97 | P | Pn | 17 37 12.2 | -0.6 |
| IRIF | | | | eS | Sn | 17 37 33.4 | -0.6 |
| TWK | Hsinying | 1.80 | 224 | eP | Pn | 17 37 14.0 | +0.3 |
| | baz=222 | | | | | | |
| TWK | | | | eS | Sn | 17 37 36.3 | +0.8 |
| | baz=222 | | | | | | |
| CHN1 | Nanshi | 1.83 | 221 | eP | Pn | 17 37 14.6 | +0.5 |
| | baz=220 | | | | | | |
| CHN1 | | | | eS | Sn | 17 37 38.6 | +2.3 |
| | baz=220 | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **HATJ** | **Hateruma jima** | **1.86** | **106** | *e*S | **Sn** | **17 37 37.8** | **+0.7** |
| **SGST** | **Jiashian** | **1.88** | **218** | *e*S | **Sn** | **17 37 39.3** | **+1.8** |
| | baz=216 | | | | | | |
| **TWG** | **Pinlang** | **1.88** | **202** | *e*P | **Pn** | **17 37 13.4** | **-1.4** |
| | baz=200 | | | | | | |
| TWG | | | | *e*S | **Sn** | **17 37 34.5** | **-3.0** |
| | baz=200 | | | | | | |
| **JKRS** | **Kuro-shima** | **2.00** | **99** | P | **Pn** | **17 37 16.4** | **0.0** |
| JKRS | | | | S | **Sn** | **17 37 39.9** | **-0.6** |
| **JIJ** | **Ishigaki jima** | **2.11** | **95** | P | **Pn** | **17 37 17.2** | **-0.6** |
| JIJ | | | | S | **Sn** | **17 37 41.8** | **-1.2** |
| **SSD** | **Sandimen** | **2.13** | **212** | *e*P | **Pn** | **17 37 19.6** | **+1.5** |
| | baz=210 | | | | | | |
| SSD | | | | *e*S | **Sn** | **17 37 46.0** | **+2.4** |
| | baz=210 | | | | | | |
| **JISG** | **Ishigakijimahi** | **2.25** | **89** | P | **Pn** | **17 37 19.5** | **-0.2** |
| JISG | | | | S | **Sn** | **17 37 46.3** | **-0.1** |
| **JTJ** | **Tarama** | **2.60** | **88** | S | **Sn** | **17 37 55.7** | **+0.6** |
| **JIRB** | **Irabujima** | **3.04** | **85** | S | **Sn** | **17 38 06.5** | **+0.7** |

*ROM **03** 17:40:49.6±0.2, 38°.65N×18°.08E, h10km, Ml2.6/20, Error ellipse: s-maj=4.3km s-min=2.4km az=134.0*
*ISCJB **03** 17:40:50.4±0.3, 38°.76N±0°.04×18°.03E±0°.03, h10km, Error ellipse: s-maj=6.1km s-min=3.3km az=1.0*
*CSEM **03** 17:40:52.0±0.1, 38°.72N×18°.00E, h20km, ML2.6, Error ellipse: s-maj=4.7km s-min=2.6km az=177.0*
*THE **03** 17:40:56.4, 38°.73N×18°.25E, h40km±36km, ML2.7/4, Error ellipse: s-maj=36.3km s-min=2.1km az=61.0*
**ISC 03 17:40:49.2**±0.9**, 38°.71N**±0°.03×**18°.05E**±0°.02**, h10**km**, n72,** σ1s.09/82**, Ionian Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SERS** | **Sersale** | **1.11** | **287** | Pn | **Pn** | **17 41 11.8** | **+0.9** |
| **SERS** | **Sersale** | **1.11** | **287** | Pn | **Pn** | **17 41 11.8** | **+0.9** |
| **PIPA** | **Pietrapaola** | **1.23** | **309** | Pn | **Pg** | **17 41 13.4** | **+0.6** |
| | 54nm,0.6s | | | | | | |
| **PIPA** | **Pietrapaola** | **1.23** | **309** | Pn | **Pg** | **17 41 13.4** | **+0.6** |
| | 54nm,0.6s | | | | | | |
| **CELI** | **Celico** | **1.38** | **300** | Pn | **Pg** | **17 41 15.7** | **-0.1** |
| **CELI** | **Celico** | **1.38** | **300** | Pn | **Pg** | **17 41 15.7** | **-0.1** |
| **SCTE** | **Santa Cesarea** | **1.40** | **13** | Pn | **Pg** | **17 41 16.3** | **+0.3** |
| | 69nm,0.8s | | | | | | |
| **SCTE** | **Santa Cesarea** | **1.40** | **13** | Pn | **Pg** | **17 41 16.3** | **+0.3** |
| | 69nm,0.8s | | | | | | |
| **CAR1** | **CAROLEI** | **1.53** | **291** | Pn | **Pb** | **17 41 17.7** | **0.0** |
| | 63nm,0.7s | | | | | | |
| **CAR1** | **CAROLEI** | **1.53** | **291** | Pn | **Pb** | **17 41 17.7** | **0.0** |
| | 63nm,0.7s | | | | | | |
| **KEK** | **Kerkira** | **1.69** | **53** | Pn | **Pb** | **17 41 20.4** | **+0.1** |
| | 24nm,0.7s | | | | | | |
| **KEK** | **Kerkira** | **1.69** | **53** | Pn | **Pb** | **17 41 20.4** | **+0.1** |
| | 24nm,0.7s | | | | | | |
| **KEK** | **Kerkira** | **1.69** | **53** | P | **Pb** | **17 41 20.6** | **+0.3** |
| KEK | | | | S | **Sb** | **17 41 40.8** | **-0.8** |
| **KEK** | **Kerkira** | **1.69** | **53** | P | **Pb** | **17 41 20.6** | **+0.3** |
| KEK | | | | S | **Sb** | **17 41 40.8** | **-0.8** |
| **JOPP** | **Joppolo** | **1.70** | **267** | Pn | **Pb** | **17 41 20.5** | **0.0** |
| | 40nm,1.0s | | | | | | |
| **JOPP** | **Joppolo** | **1.70** | **267** | Pn | **Pb** | **17 41 20.5** | **0.0** |
| | 40nm,1.0s | | | | | | |
| **CEL** | **Celeste** | **1.75** | **256** | Pn | **Pb** | **17 41 20.9** | **-0.5** |
| **CEL** | **Celeste** | **1.75** | **256** | Pn | **Pb** | **17 41 20.9** | **-0.5** |
| **SALB** | **San Lorenzo Be** | **1.76** | **312** | Pn | **Pb** | **17 41 21.5** | **-0.2** |
| | 48nm,1.0s | | | | | | |
| **SALB** | **San Lorenzo Be** | **1.76** | **312** | Pn | **Pb** | **17 41 21.5** | **-0.2** |
| | 48nm,1.0s | | | | | | |
| **MPAZ** | **Palizzi** | **1.77** | **245** | Pn | **Pn** | **17 41 20.6** | **+0.6** |
| | 31nm,0.5s | | | | | | |
| **MPAZ** | **Palizzi** | **1.77** | **245** | Pn | **Pn** | **17 41 20.6** | **+0.6** |
| | 31nm,0.5s | | | | | | |
| **CET2** | **Cetraro** | **1.82** | **297** | Pn | **Pb** | **17 41 22.6** | **0.0** |
| | 52nm,0.5s | | | | | | |
| **CET2** | **Cetraro** | **1.82** | **297** | Pn | **Pb** | **17 41 22.6** | **0.0** |
| | 52nm,0.5s | | | | | | |
| **GMB** | **Gambarie** | **1.82** | **253** | Pn | **Pn** | **17 41 21.6** | **+0.8** |
| | 98nm,0.6s | | | | | | |
| **GMB** | **Gambarie** | **1.82** | **253** | Pn | **Pn** | **17 41 21.6** | **+0.8** |
| | 98nm,0.6s | | | | | | |
| **ORI** | **Oriolo Calabro** | **1.83** | **318** | Pn | **Pb** | **17 41 22.7** | **-0.1** |
| | 98nm,0.4s | | | | | | |
| **ORI** | **Oriolo Calabro** | **1.83** | **318** | Pn | **Pb** | **17 41 22.7** | **-0.1** |
| | 98nm,0.4s | | | | | | |
| **MSCL** | **Scilla** | **1.84** | **256** | Pn | **Pb** | **17 41 22.0** | **-0.9** |
| | 54nm,0.6s | | | | | | |
| **MSCL** | **Scilla** | **1.84** | **256** | Pn | **Pb** | **17 41 22.0** | **-0.9** |
| | 54nm,0.6s | | | | | | |
| **MESG** | **Mesagne** | **1.88** | **355** | Pn | **Pb** | **17 41 22.6** | **-1.0** |
| | 115nm,0.7s | | | | | | |
| **MESG** | **Mesagne** | **1.88** | **355** | Pn | **Pb** | **17 41 22.6** | **-1.0** |
| | 115nm,0.7s | | | | | | |
| **SGD** | **Sagiada** | **1.92** | **61** | P | **Pb** | **17 41 24.1** | **-0.2** |
| **SGD** | **Sagiada** | **1.92** | **61** | P | **Pb** | **17 41 24.1** | **-0.2** |
| **IGT** | **Igoumenitsa** | **1.96** | **65** | P | **Pb** | **17 41 24.6** | **-0.3** |
| IGT | | | | S | **Sn** | **17 41 47.3** | **+0.2** |
| **IGT** | **Igoumenitsa** | **1.96** | **65** | P | **Pb** | **17 41 24.6** | **-0.3** |
| IGT | | | | S | **Sn** | **17 41 47.3** | **+0.2** |
| **LKD2** | **Lefkada island** | **2.04** | **87** | P | **Pb** | **17 41 26.1** | **-0.3** |
| **LKD2** | **Lefkada island** | **2.04** | **87** | P | **Pb** | **17 41 26.1** | **-0.3** |
| **MSRU** | **Castanea** | **2.04** | **258** | Pn | **Pn** | **17 41 24.6** | **+1.0** |
| | 42nm,0.8s | | | | | | |
| **MSRU** | **Castanea** | **2.04** | **258** | Pn | **Pn** | **17 41 24.6** | **+1.0** |
| | 42nm,0.8s | | | | | | |
| **VLS** | **Valsamata** | **2.07** | **104** | P | **Pb** | **17 41 26.1** | **-0.7** |
| VLS | | | | S | **Sn** | **17 41 49.2** | **-0.6** |
| **VLS** | **Valsamata** | **2.07** | **104** | P | **Pb** | **17 41 26.1** | **-0.7** |
| VLS | | | | S | **Sn** | **17 41 49.2** | **-0.6** |
| **CUC** | **Castrocucco** | **2.15** | **307** | Pn | **Pb** | **17 41 27.6** | **-0.7** |
| | 30nm,0.8s | | | | | | |
| **CUC** | **Castrocucco** | **2.15** | **307** | Pn | **Pb** | **17 41 27.6** | **-0.7** |
| | 30nm,0.8s | | | | | | |
| **MPNC** | **Port Mandanici** | **2.19** | **256** | Pn | **Pn** | **17 41 26.7** | **+1.0** |
| | 54nm,0.7s | | | | | | |
| **MPNC** | **Port Mandanici** | **2.19** | **256** | Pn | **Pn** | **17 41 26.7** | **+1.0** |
| | 54nm,0.7s | | | | | | |
| **NOCI** | **Noci** | **2.21** | **340** | Pn | **Pn** | **17 41 27.1** | **+1.2** |
| | 69nm,0.6s | | | | | | |
| **NOCI** | **Noci** | **2.21** | **340** | Pn | **Pn** | **17 41 27.1** | **+1.2** |
| | 69nm,0.6s | | | | | | |
| **SIRI** | **Monte Sirino -** | **2.24** | **312** | Pn | **Pb** | **17 41 28.3** | **-1.5** |
| | 230nm,2.7s | | | | | | |
| **SIRI** | **Monte Sirino -** | **2.24** | **312** | Pn | **Pb** | **17 41 28.3** | **-1.5** |
| | 230nm,2.7s | | | | | | |
| **MILZ** | **Milazzo** | **2.25** | **260** | Pn | **Pn** | **17 41 26.9** | **+0.4** |
| | 27nm,0.7s | | | | | | |
| **MILZ** | **Milazzo** | **2.25** | **260** | Pn | **Pn** | **17 41 26.9** | **+0.4** |
| | 27nm,0.7s | | | | | | |
| **DSL** | **Palaion Diasel** | **2.42** | **79** | P | **Pb** | **17 41 31.7** | **-1.0** |
| **DSL** | **Palaion Diasel** | **2.42** | **79** | P | **Pb** | **17 41 31.7** | **-1.0** |
| **PDO** | **Prodromos** | **2.46** | **92** | P | **Pb** | **17 41 32.1** | **-1.3** |
| PDO | | | | S | **Sn** | **17 41 59.8** | **+0.4** |
| **PDO** | **Prodromos** | **2.46** | **92** | P | **Pb** | **17 41 32.1** | **-1.3** |
| PDO | | | | S | **Sn** | **17 41 59.8** | **+0.4** |
| **AMUR** | **Altamura** | **2.46** | **334** | Pn | **Pn** | **17 41 30.2** | **+0.8** |
| | 58nm,0.8s | | | | | | |
| **AMUR** | **Altamura** | **2.46** | **334** | Pn | **Pn** | **17 41 30.2** | **+0.8** |
| | 58nm,0.8s | | | | | | |
| **SLCN** | **Sala Consilina** | **2.51** | **313** | Pn | **Pb** | **17 41 32.2** | **-2.2** |
| | 47nm,0.9s | | | | | | |
| **SLCN** | **Sala Consilina** | **2.51** | **313** | Pn | **Pb** | **17 41 32.2** | **-2.2** |
| | 47nm,0.9s | | | | | | |
| **AXS** | **Araxos** | **2.66** | **100** | P | **Pb** | **17 41 35.5** | **-1.4** |
| **PVO** | **Paravola** | **2.72** | **91** | P | **Pb** | **17 41 36.4** | **-1.6** |
| **RLS** | **Riolos of Patr** | **2.76** | **103** | P | **Pb** | **17 41 36.5** | **-2.2** |
| **DRO** | **Drossia** | **2.98** | **104** | P | **Pn** | **17 41 39.0** | **+2.5** |
| **DRO** | **Drossia** | **2.98** | **104** | P | **Pn** | **17 41 39.0** | **+2.5** |
| **THL** | **Klokotos Trika** | **3.20** | **73** | P | **Pb** | **17 41 43.1** | **-3.0** |
| **THL** | **Klokotos Trika** | **3.20** | **73** | P | **Pb** | **17 41 43.1** | **-3.0** |
| **STON** | **Ston** | **4.16** | **356** | *e*Pn | **Pn** | **17 41 53.2** | **+0.5** |
| STON | | | | Sn | **Sn** | **17 42 40.8** | **-0.7** |
| **STON** | **Ston** | **4.16** | **356** | *e*Pn | **Pn** | **17 41 53.2** | **+0.5** |
| STON | | | | Sn | **Sn** | **17 42 40.7** | **-0.7** |
| **UDBI** | **Udbina** | **6.06** | **344** | *e*Pn | **Pn** | **17 42 21.6** | **+2.8** |
| **OZLJ** | **Ozalj** | **7.16** | **345** | *i* Pn | **Pn** | **17 42 35.0** | **+1.1** |
| **OZLJ** | **Ozalj** | **7.16** | **345** | *i* Pn | **Pn** | **17 42 35.0** | **+1.1** |

*IDC **03** 17:41:12.9±2.6, 35°.40N×141°.51E, h0km, mb3.7/3, mb1 3.9/4, mb1mx3.4/44, mbtmp3.8/4, ML3.0/2, MS3.0/3, Ms1 3.0/3, ms1mx2.6/42, Error ellipse: s-maj=64.9km s-min=24.5km az=70.0*
*ISCJB **03** 17:41:15.5±1.3, 35°.39N±0°.05×141°.4E±0°.1, h25km, mb3.7/3, MS3.4/1, Error ellipse: s-maj=13.9km s-min=6.5km az=164.5*
*JMA **03** 17:41:17.6±0.1, 35°.42N×141°.23E, h33km±1km, M2.9*
**ISC 03 17:41:17.3**±1.6**, 35°.37N**±0°.06×**141°.3E**±0°.1**, h25**km**, n19,** σ0s.70/15**, mb3.6**/3**, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CHOJ** | **Chosi** | **0.48** | **314** | P | **Pb** | **17 41 26.8** | **-0.5** |
| CHOJ | | | | *e*S | **Sb** | **17 41 33.5** | **-0.5** |
| **BSO1** | **Boso 1** | **0.76** | **200** | P | **Pn** | **17 41 32.2** | **+0.3** |
| **KTR** | **Katsuura** | **0.83** | **255** | P | **Pn** | **17 41 32.5** | **-0.9** |
| **BSO3** | **Boso 3** | **0.85** | **229** | P | **Pn** | **17 41 33.3** | **-0.2** |
| **BSO4** | **Boso 4** | **0.86** | **244** | P | **Pn** | **17 41 33.4** | **-0.4** |
| **JYT** | **Yasato** | **1.23** | **314** | P | **Pn** | **17 41 38.4** | **-0.6** |
| **JHJ** | **Hachijo jima 2** | **2.57** | **209** | Pn | **Pn** | **17 41 57.5** | **+0.2** |
| | 14nm,0.3s,baz=31,slow=15,SNR=4.8 | | | | | | |
| JHJ | | | | Sn | **Sn** | **17 42 28.1** | **+0.3** |
| | 16nm,0.3s,baz=90,slow=20,SNR=4.2 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **2.76** | **296** | Pn | **Pn** | **17 42 00.3** | **+0.3** |
| | 0.9nm,0.3s,baz=99,slow=14,SNR=12 | | | | | | |
| MJAR | | | | LR | LR | 17 43 22.1 | |
| | comp=Z,108nm,19.9s,baz=65,slow=45 | | | | | | |
| **MAT** | **Matsushiro** | **2.76** | **296** | P | **Pn** | **17 42 01.4** | **+1.4** |
| MAT | | | | *e*S | **Sn** | **17 42 33.9** | **+1.3** |
| **KSRS** | **Korea Array** | **10.97** | **285** | LR | LR | 17 48 05.5 | |
| | comp=Z,60nm,18.1s,baz=85,slow=37 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **27.42** | **118** | T | T | 18 15 55.1 | |
| | baz=310,slow=75,SNR=10 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **27.43** | **118** | T | T | 18 16 04.2 | |
| | baz=310,slow=75,SNR=6.6 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **27.44** | **118** | T | T | 18 15 57.0 | |
| | baz=310,slow=75,SNR=6.4 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.08** | **120** | T | T | 18 16 41.0 | |
| | baz=312,slow=75,SNR=44 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.08** | **120** | T | T | 18 16 43.1 | |
| | baz=312,slow=75,SNR=47 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.09** | **120** | T | T | 18 16 44.8 | |
| | baz=312,slow=75,SNR=38 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.98** | **314** | P | **P** | **17 49 14.3** | **+0.1** |
| | 0.4nm,0.5s,baz=90,slow=7.2,SNR=2.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.93** | **304** | P | **P** | **17 49 30.3** | **+0.2** |
| | 0.6nm,0.8s,baz=81,slow=7.5,SNR=3.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **55.40** | **188** | P | **P** | **17 50 49.3** | **-0.2** |
| | 2.6nm,0.7s,baz=4.7,slow=7.6,SNR=15 | | | | | | |
| WRA | | | | LR | LR | 18 14 34.0 | |
| | comp=Z,38nm,21.9s,baz=240,slow=36 | | | | | | |

*CSEM **03** 17:46:35.8±0.5, 39°.65N×33°.16E, h2km, MD1.9, Error ellipse: s-maj=9.5km s-min=5.8km az=162.0*
*DDA **03** 17:46:36.8, 39°.57N×33°.14E, h4km, Md1.9*
*ISK **03** 17:46:36.6, 39°.53N×33°.22E, h5km, MD2.5*
**ISC 03 17:46:36.1**±1.5**, 39°.57N**±0°.10×**33°.23E**±0°.05**, h3**km±10km**, n15,** σ0s.88/25**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BBAL** | **Bala** | **0.09** | **249** | *i* P | **Pg** | **17 46 37.8** | **-0.2** |
| BBAL | | | | *i* S | **Sg** | **17 46 38.9** | **-0.3** |
| BBAL | | | | *i* S | **Sg** | **17 46 39.0** | **-0.3** |
| **BBAL** | **Bala** | **0.09** | **249** | P | **Pg** | **17 46 37.8** | **-0.2** |
| BBAL | | | | S | **Sg** | **17 46 39.0** | **-0.2** |
| **AFSR** | **Af¯ar-Bala (A** | **0.18** | **224** | *e*PG | **Pg** | **17 46 39.9** | **+0.3** |
| AFSR | | | | *e*SG | **Sg** | **17 46 42.6** | **+0.7** |
| **AFSR** | **Af¯ar-Bala (A** | **0.18** | **224** | *e*Pg | **Pg** | **17 46 39.9** | **+0.3** |
| AFSR | | | | *e*Sg | **Sg** | **17 46 42.6** | **+0.7** |
| **KAMT** | **Kaman** | **0.43** | **119** | *e*PG | **Pb** | **17 46 46.0** | **-0.3** |
| KAMT | | | | *e*SG | **Sb** | **17 46 52.8** | **-0.4** |
| **KAMT** | **Kaman** | **0.43** | **119** | *e*Pg | **Pb** | **17 46 46.0** | **-0.3** |
| KAMT | | | | *e*Sg | **Sb** | **17 46 52.8** | **-0.4** |
| **KKUL** | **Konya-Kulu** | **0.47** | **211** | *i* P | **Pg** | **17 46 45.8** | **+0.6** |
| KKUL | | | | *i* S | **Sb** | **17 46 52.2** | **-2.3** |
| **KKUL** | **Konya-Kulu** | **0.47** | **211** | P | **Pg** | **17 46 45.8** | **+0.6** |
| KKUL | | | | S | **Sb** | **17 46 52.2** | **-2.3** |
| **KULU** | **Kulu** | **0.56** | **199** | *e*PG | **Pb** | **17 46 48.7** | **+0.1** |
| **KULU** | **Kulu** | **0.56** | **199** | *e*Pg | **Pb** | **17 46 48.7** | **+0.1** |
| **CHBY** | **Cihanbeyli** | **1.02** | **195** | *e*PG | **Pb** | **17 46 56.3** | **-0.2** |
| **CHBY** | **Cihanbeyli** | **1.02** | **195** | *e*Pg | **Pb** | **17 46 56.3** | **-0.2** |
| **KIZT** | **Kizilcal** | **1.26** | **237** | *e*PN | **Pn** | **17 47 01.4** | **+0.7** |
| **KIZT** | **Kizilcal** | **1.26** | **237** | *e*Pn | **Pn** | **17 47 01.4** | **+0.7** |
| **KDHN** | **Kadinhani** | **1.36** | **220** | *i* P | **Pb** | **17 47 03.6** | **+1.3** |
| KDHN | | | | *i* S | **Sn** | **17 47 20.3** | **-0.4** |

*IDC **03** 17:50:15.3±1.6, 38°.13N×142°.72E, h0km, mb3.4/3, mb1 3.5/5, mb1mx3.3/42, mbtmp3.4/5, ML2.9/2, MS2.5/1, Ms1 2.5/1, ms1mx2.1/29, Error ellipse: s-maj=38.0km s-min=25.9km az=81.0*
*ISCJB **03** 17:50:17.4±1.1, 38°.36N±0°.04×142°.23E±0°.07, h28km±6km, mb3.5/3, Error ellipse: s-maj=8.9km s-min=6.4km az=15.6*
*JMA **03** 17:50:18.7±0.1, 38°.41N×142°.17E, h35km±1km, M3.8*
*JMA Felt I J1.*
**ISC 03 17:50:18.4**±3.5**, 38°.37N**±0°.04×**142°.15E**±0°.07**, h17**km±23km**, n18,** σ1s.61/30**, mb3.5**/3**, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JIO** | **Ouri** | **0.64** | **278** | P | **Pb** | **17 50 31.4** | **+0.3** |
| JIO | | | | S | **Sb** | **17 50 39.9** | **+0.2** |
| **OFUJ** | **Ofunato** | **0.81** | **332** | P | **Pb** | **17 50 33.3** | **-0.7** |
| OFUJ | | | | *e*S | **Sb** | **17 50 43.5** | **-1.1** |
| **JMK** | **Ichinoseki** | **0.94** | **309** | P | **Pn** | **17 50 35.5** | **-1.2** |
| JMK | | | | *e*S | **Sb** | **17 50 47.3** | **-1.0** |
| **JOU** | **Okura** | **1.17** | **270** | P | **Pn** | **17 50 39.5** | **-0.5** |
| JOU | | | | *e*S | **Sn** | **17 50 54.5** | **-1.1** |
| **JMM** | **Marumori** | **1.19** | **245** | P | **Pn** | **17 50 38.9** | **-1.3** |
| JMM | | | | S | **Sn** | **17 50 54.0** | **-1.9** |
| **JOM** | **Ohasama** | **1.29** | **329** | P | **Pn** | **17 50 40.8** | **-0.9** |
| JOM | | | | S | **Sn** | **17 50 57.1** | **-1.5** |
| **JFK** | **Kawauchi** | **1.42** | **226** | P | **Pn** | **17 50 42.0** | **-1.5** |
| JFK | | | | *e*S | **Sn** | **17 50 58.8** | **-3.0** |
| **JYK** | **Kaneyama** | **1.51** | **292** | P | **Pn** | **17 50 44.3** | **-0.3** |
| JYK | | | | *e*S | **Sn** | **17 51 03.3** | **-0.6** |
| **JRG** | **Rokugo** | **1.57** | **311** | P | **Pn** | **17 50 45.5** | **0.0** |
| JRG | | | | *e*S | **Sn** | **17 51 04.5** | **-0.9** |
| **JYS** | **Shirataka** | **1.65** | **266** | P | **Pn** | **17 50 46.2** | **-0.4** |
| JYS | | | | *e*S | **Sn** | **17 51 06.8** | **-0.6** |
| **JFT** | **Otama** | **1.67** | **240** | P | **Pn** | **17 50 46.5** | **-0.3** |
| JFT | | | | *e*S | **Sn** | **17 51 07.2** | **-0.7** |
| **MJAR** | **Matsushiro Arr** | **3.63** | **241** | Pn | **Pn** | **17 51 15.0** | **+1.2** |
| | 1.3nm,0.3s,baz=54,slow=10,SNR=16 | | | | | | |
| MJAR | | | | Sn | **Sb** | **17 52 04.3** | **-1.5** |
| | 0.5nm,0.3s,baz=134,slow=6.7,SNR=2.8 | | | | | | |
| **MAT** | **Matsushiro** | **3.63** | **241** | P | **Pn** | **17 51 16.7** | **+2.9** |
| MAT | | | | *e*S | **Sn** | **17 51 57.8** | **+1.5** |
| **ASAJ** | **Asahikawa** | **5.75** | **3** | Pn | **Pn** | **17 51 43.4** | **+0.4** |
| | 0.2nm,0.3s,baz=192,slow=19,SNR=4.3 | | | | | | |
| **KSRS** | **Korea Array** | **11.28** | **270** | LR | LR | 17 57 17.6 | |
| | comp=Z,20nm,19.0s,baz=10.0,slow=36 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.92** | **301** | P | **P** | **17 58 28.7** | **+4.6** |
| | 0.5nm,0.7s,baz=84,slow=10,SNR=2.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **58.46** | **189** | P | **P** | **18 00 11.4** | **-2.0** |
| | 0.6nm,0.9s,baz=6.4,slow=6.9,SNR=12 | | | | | | |
| **ASAR** | **Alice Springs** | **62.19** | **189** | P | **P** | **18 00 37.9** | **-1.0** |
| | 0.3nm,0.9s,baz=355,slow=5.6,SNR=5.4 | | | | | | |

**MEX 03 17:56:58.9**±0.3**, 28°.48N**×**112°.61W, h20**km±131km**, MD3.7, Gulf of California**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SRIG** | **Santa Rosalia** | **1.20** | **164** | *e*P | Pn | 17 57 17.3 | -3.2 |
| SRIG | | | | *e*S | Sb | 17 57 31.6 | -4.3 |
| **HSIG** | | **1.56** | **69** | *e*P | Pn | 17 57 20.8 | -4.7 |
| HSIG | | | | *i* S | Sn | 17 57 40.9 | -4.1 |
| **GUYB** | **Guaymas** | **1.64** | **110** | *e*P | Pn | 17 57 23.4 | -3.1 |
| GUYB | | | | *i* S | Sn | 17 57 43.1 | -3.9 |

*CSEM **03** 17:59:53.7, 34°.47N×24°.41E, h14km, ML2.7/4*
**ATH 03 17:59:53.7, 34°.47N**×**24°.41E, h14**km±6km**, ML2.7**/4**, Error ellipse: s-maj=7.4km s-min=2.0km az=349.0, Crete**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GVD** | **Gavdhos** | **0.45** | **324** | P | Pg | 18 00 02.4 | -0.4 |
| GVD | | | | AML | AML | 18 00 21.7 | |
| | comp=N,4265μm,0.4s | | | | | | |
| GVD | | | | AML | AML | 18 00 21.7 | |
| | comp=E,3964μm,0.5s | | | | | | |
| **GVD** | **Gavdhos** | **0.45** | **324** | P | Pg | 18 00 01.5 | -1.2 |
| GVD | | | | S | Sb | 18 00 10.9 | +0.8 |
| GVD | | | | AML | AML | 18 00 21.7 | |
| | comp=N,4265μm,0.4s | | | | | | |
| GVD | | | | AML | AML | 18 00 21.9 | |
| | comp=E,3964μm,0.5s | | | | | | |
| **GVD** | **Gavdhos** | **0.45** | **324** | P | Pg | 18 00 01.5 | -1.2 |
| GVD | | | | S | Sb | 18 00 10.9 | +0.8 |
| **SIVA** | **Sivas** | **0.64** | **31** | P | Pb | 18 00 06.4 | -0.2 |
| SIVA | | | | S | Sn | 18 00 17.9 | -0.4 |
| SIVA | | | | AML | AML | 18 00 28.3 | |
| | comp=N,2669μm,0.7s | | | | | | |
| SIVA | | | | AML | AML | 18 00 30.9 | |
| | comp=E,2550μm,0.6s | | | | | | |
| **SIVA** | **Sivas** | **0.64** | **31** | P | Pn | 18 00 07.5 | -0.8 |
| SIVA | | | | S | Sg | 18 00 14.7 | +0.1 |
| SIVA | | | | AML | AML | 18 00 28.0 | |
| | comp=N,2669μm,0.7s | | | | | | |
| SIVA | | | | AML | AML | 18 00 30.6 | |
| | comp=E,2550μm,0.6s | | | | | | |
| **SIVA** | **Sivas** | **0.64** | **31** | P | Pn | 18 00 07.5 | -0.8 |
| SIVA | | | | S | Sg | 18 00 14.7 | +0.1 |
| **IDI** | **Anoyia** | **0.91** | **26** | P | Pg | 18 00 10.6 | -0.7 |
| IDI | | | | S | Sn | 18 00 28.0 | +3.0 |
| IDI | | | | AML | AML | 18 00 37.0 | |
| | comp=N,259μm,0.6s | | | | | | |
| IDI | | | | AML | AML | 18 00 37.2 | |
| | comp=E,264μm,0.8s | | | | | | |
| **IDI** | **Anoyia** | **0.91** | **26** | P | Pg | 18 00 10.6 | -0.6 |
| IDI | | | | S | Sg | 18 00 22.8 | -0.3 |
| IDI | | | | AML | AML | 18 00 37.0 | |
| | comp=N,259μm,0.6s | | | | | | |
| IDI | | | | AML | AML | 18 00 37.2 | |
| | comp=E,264μm,0.8s | | | | | | |
| **IDI** | **Anoyia** | **0.91** | **26** | P | Pg | 18 00 10.6 | -0.7 |
| IDI | | | | S | Sg | 18 00 22.8 | -0.4 |
| **VAM** | **Vamos** | **0.95** | **350** | P | Pg | 18 00 12.4 | +0.3 |
| **VAM** | **Vamos** | **0.95** | **350** | P | Pb | 18 00 11.9 | 0.0 |
| VAM | | | | S | Sb | 18 00 24.3 | -0.1 |
| VAM | | | | AML | AML | 18 00 38.8 | |
| | comp=N,510μm,0.5s | | | | | | |
| VAM | | | | AML | AML | 18 00 42.7 | |
| | comp=E,733μm,0.6s | | | | | | |
| **VAM** | **Vamos** | **0.95** | **350** | P | Pb | 18 00 11.9 | -0.1 |
| VAM | | | | S | Sb | 18 00 24.3 | -0.1 |
| **IMMV** | **Iera Moni Meta** | **1.05** | **341** | P | Pb | 18 00 13.2 | -0.4 |
| IMMV | | | | AML | AML | 18 00 37.9 | |
| | comp=N,651μm,0.5s | | | | | | |
| IMMV | | | | AML | AML | 18 00 39.4 | |
| | comp=E,919μm,0.9s | | | | | | |
| **IMMV** | **Iera Moni Meta** | **1.05** | **341** | P | Pb | 18 00 13.5 | -0.1 |
| **IMMV** | **Iera Moni Meta** | **1.05** | **341** | P | Pb | 18 00 13.5 | -0.1 |
| **LAST** | **Lasithi** | **1.12** | **52** | P | Pb | 18 00 14.6 | -0.3 |
| LAST | | | | AML | AML | 18 00 39.5 | |
| | comp=N,138μm,0.5s | | | | | | |
| LAST | | | | AML | AML | 18 00 40.8 | |
| | comp=E,177μm,0.9s | | | | | | |
| **LAST** | **Lasithi** | **1.12** | **52** | P | Pb | 18 00 14.3 | -0.5 |
| **LAST** | **Lasithi** | **1.12** | **52** | P | Pb | 18 00 14.3 | -0.6 |
| **ANKY** | **Antikythira Is** | **1.66** | **327** | P | Pn | 18 00 22.0 | -0.4 |
| **KARP** | **Karpathos** | **2.50** | **64** | P | Pn | 18 00 36.2 | +2.2 |
| **KARP** | **Karpathos** | **2.50** | **64** | P | Pb | 18 00 36.6 | -1.8 |
| **KARP** | **Karpathos** | **2.50** | **64** | P | Pb | 18 00 36.6 | -1.8 |

*GUC **03** 18:10:43.3±0.5, 31°.66S×71°.73W, h12km±7km, ML3.1*
*SJA **03** 18:10:51.5±0.9, 31°.86S×71°.60W, h89km±84km, ML3.3, MW3.5*
**ISC 03 18:10:46.3**±2.5**, 31°.82S**±0°.05×**71°.82W**±0°.10**, h14**km±15km**, n18,** σ2s.29/29**, 4D, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ROCH** | **El Roble** | **1.34** | **149** | *e*P | **Pg** | **18 11 10.6** | **-1.5** |
| ROCH | | | | *e*S | **Sg** | **18 11 31.4** | **+1.9** |
| ROCH | | | | IAML | | 18 11 37.2 | |
| | comp=N,531nm,0.5s | | | | | | |
| **ROC1** | **El Roble** | **1.34** | **150** | *e*P | **Pg** | **18 11 11.5** | **-0.6** |
| ROC1 | | | | *e*S | **Sg** | **18 11 32.6** | **+3.0** |
| **PEL** | **Peldehue** | **1.63** | **144** | *e*P | **Pb** | **18 11 15.0** | **-1.2** |
| PEL | | | | *e*S | **Sg** | **18 11 38.7** | **-0.2** |
| PEL | | | | IAML | | 18 11 44.9 | |
| | comp=E,425nm,0.8s | | | | | | |
| **RCDM** | **Rinconada Maip** | **1.87** | **153** | *e*P | **Pb** | **18 11 18.7** | **-1.6** |
| **FCH** | **Farellones** | **1.98** | **140** | *e*P | **Pb** | **18 11 20.4** | **-2.0** |
| FCH | | | | IAML | | 18 11 55.3 | |
| | comp=E,200nm,0.2s | | | | | | |
| **AUSP** | **Uspallata** | **2.11** | **102** | *e*P | **Pb** | **18 11 24.5** | **0.0** |
| AUSP | | | | *e*S | **Sg** | **18 11 56.4** | **+2.3** |
| **RTLS** | **Leoncito** | **2.15** | **90** | *e*P | **Pb** | **18 11 24.8** | **-0.4** |
| RTLS | | | | *e*S | **Sg** | **18 11 57.3** | **+1.8** |
| RTLS | | | | IAML | | 18 11 59.7 | |
| | comp=Z,112nm,0.6s | | | | | | |
| **LMEL** | **Las Melosas** | **2.44** | **146** | *e*P | **Pn** | **18 11 26.9** | **+1.0** |
| LMEL | | | | *e*S | **Sb** | **18 12 00.0** | **0.0** |
| **ASAL** | **Salagasta** | **2.65** | **108** | *e*P | **Pg** | **18 11 35.1** | **-1.9** |
| ASAL | | | | *e*S | **Sg** | **18 12 15.1** | **+3.8** |
| **ACCO** | **Cerro Coronel** | **2.66** | **63** | *e*P | **Pb** | **18 11 32.9** | **-1.1** |
| **RTCV** | **Cerro Valdivia** | **2.79** | **92** | *e*P | **Pn** | **18 11 32.8** | **+2.1** |
| RTCV | | | | ⇓*e*S | **Sg** | **18 12 18.3** | **+2.3** |
| **AAGR** | **Agrelo** | **2.83** | **117** | *e*P | **Pg** | **18 11 39.3** | **-1.2** |
| **RTLL** | **Cerro Villicun** | **2.90** | **81** | *e*P | **Pb** | **18 11 35.5** | **-2.3** |
| RTLL | | | | *e*S | **Sg** | **18 12 18.8** | **-0.6** |
| **AMOG** | **MOGNA** | **2.98** | **74** | ⇓*e*P | **Pb** | **18 11 36.2** | **-3.0** |
| **AGUA** | **GUANDACOL** | **3.69** | **52** | *e*P | **Pn** | **18 11 44.9** | **+1.9** |
| AGUA | | | | ⇓*e*S | **Sb** | **18 12 38.4** | **+2.3** |
| **VCA** | **Vinchina** | **4.38** | **46** | *e*P | **Pn** | **18 11 55.7** | **+3.1** |
| VCA | | | | ⇓*e*S | **Sb** | **18 12 54.0** | **-2.0** |
| VCA | | | | IAML | | 18 13 06.4 | |
| | comp=Z,71nm,0.5s | | | | | | |
| **APLL** | **PUNTA DE LOS L** | **4.76** | **74** | *e*S | **Sb** | **18 13 01.5** | **-5.1** |
| **TCA** | **Tanti** | **6.18** | **87** | *e*P | **Pn** | **18 12 19.4** | **+2.1** |

*IDC **03** 18:12:19.1±2.3, 6°.88N×126°.25E, h0km, mb3.4/4, mb1 3.6/4, mb1mx3.4/37, mbtmp3.4/4, Error ellipse: s-maj=144.7km s-min=24.9km az=68.0*
*ISCJB **03** 18:12:23.3±1.2, 7°.2N±0°.1×127°.22E±0°.09, h60km, mb3.2/4, Error ellipse: s-maj=20.5km s-min=9.5km az=26.4*
**ISC 03 18:12:26.3**±1.4**, 7°.0N**±0°.1×**127°.1E**±0°.1**, h60**km**, n8,** σ1s.57/10**, mb3.2**/4**, 1D, Philippine Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MATI** | **Mati** | **0.82** | **264** | *e*P | **Pn** | **18 12 43.6** | **+1.6** |
| MATI | | | | *e*S | **Sn** | **18 12 54.1** | **+0.5** |
| **BUKP** | **Musuan** | **2.17** | **293** | *e*P | **Pn** | **18 13 01.1** | **+1.0** |
| BUKP | | | | *e*S | **Sn** | **18 13 24.2** | **-1.8** |
| **BUTP** | **Butuan** | **2.41** | **323** | *e*P | **Sn** | **18 13 33.7** | **+2.1** |
| **CTBH** | **Cotabato--PC H** | **2.82** | **274** | ⇓*i*P | **Pn** | **18 13 09.2** | **+0.2** |
| **FITZ** | **Fitzroy Crossi** | **25.02** | **183** | P | **P** | **18 17 43.7** | **-1.1** |
| | 1.3nm,1.0s,baz=0.0,slow=12,SNR=2.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **27.74** | **165** | P | **P** | **18 18 09.2** | **-0.2** |
| | 0.4nm,1.1s,baz=344,slow=9.8,SNR=3.7 | | | | | | |
| **ASAR** | **Alice Springs** | **31.23** | **168** | P | **P** | **18 18 41.5** | **+1.1** |
| | 0.1nm,0.3s,baz=334,slow=7.3,SNR=12 | | | | | | |
| **MKAR** | **Makanchi Array** | **55.09** | **324** | P | **P** | **18 21 50.3** | **-1.9** |
| | 0.3nm,0.6s,baz=110,slow=6.8,SNR=6.3 | | | | | | |

*NEIC **03** 18:14:29.9±0.0, 32°.14N×115°.19W, h7km, ML2.6(ECX), ML2.8(PAS), After ECX.*
**ECX 03 18:14:29.7**±0.5**, 32°.13N**×**115°.17W, h7**km**, MD2.6, ML2.8, 1C-3D, California-Baja California border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MBIG** | **Mexicali** | **0.28** | **354** | ⇓*e*P | Pg | 18 14 35.0 | -0.1 |
| **CPBX** | **Cerro Prieto** | **0.31** | **338** | *e*P | Pg | 18 14 35.4 | -0.3 |
| CPBX | | | | *e*S | Sg | 18 14 39.5 | -0.4 |
| CPBX | | | | IAML | | 18 14 42.7 | |
| | comp=E,4μm,0.3s | | | | | | |
| CPBX | | | | ⇓*e* | | 18 14 42.7 | |
| CPBX | | | | IAML | | 18 14 45.0 | |
| | comp=N,3μm,0.3s | | | | | | |
| CPBX | | | | ⇑*e* | | 18 14 45.0 | |
| **EMSC** | **East Mesa** | **0.62** | **14** | *e*P | Pg | 18 14 40.6 | -1.1 |
| **YMD** | **Yuma Desert** | **0.67** | **51** | *e*P | Pg | 18 14 41.3 | -1.3 |
| **COA** | **Coachella** | **0.73** | **3** | *e*P | Pg | 18 14 42.9 | -0.9 |
| **WESC** | **Westside Schoo** | **0.79** | **323** | *e*P | Pg | 18 14 43.6 | -1.2 |
| **YUH** | **Yuha Desert** | **0.82** | **309** | *e*P | Pg | 18 14 43.7 | -1.7 |
| **YUH** | **Yuha Desert** | **0.82** | **309** | *e*Pg | Pg | 18 14 43.7 | -1.8 |
| YUH | | | | *e*Sg | Sg | 18 14 54.6 | -1.6 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| RMX | La Rumorosa | 0.90 | 301 | eP | Pg | 18 14 44.6 | -2.5 |
| RMX | | | | eS | Sg | 18 14 56.5 | -2.3 |
| IKP | In-Ko-Pah, Jac | 0.95 | 303 | eP | Pg | 18 14 45.8 | -2.2 |
| GLA | Glamis | 0.96 | 17 | ePg | Pg | 18 14 45.4 | -2.8 |
| GLA | | | | eSg | Sg | 18 14 57.8 | -2.9 |
| GLA | | | | eSn | Sb | 18 14 58.7 | -2.9 |
| CRR | Carrizo Plain | 1.01 | 318 | ePg | Pg | 18 14 47.2 | -2.0 |
| SPIG | San Pedro Mart | 1.11 | 193 | eP | Pg | 18 14 48.9 | -2.2 |
| SPX | San Pedro Mart | 1.11 | 193 | ⇓eP | Pg | 18 14 49.2 | -1.9 |
| CBX | Cerro Bola | 1.28 | 278 | eP | Pn | 18 14 51.5 | -2.6 |
| TJIG | Tijuana | 1.31 | 284 | eP | Pn | 18 14 52.3 | -2.2 |
| BAR | Barrett | 1.39 | 294 | eP | Pn | 18 14 53.7 | -1.8 |
| BAR | Barrett | 1.39 | 294 | ePn | Pn | 18 14 53.9 | -1.6 |
| BAR | | | | eSg | Sb | 18 15 10.9 | -3.0 |
| BAR | | | | eSn | Sn | 18 15 11.6 | -2.5 |
| BORC | Borrego Spring | 1.55 | 317 | eSn | Sn | 18 15 16.9 | -1.2 |
| EML | El Monte Cty P | 1.61 | 298 | eSn | Sn | 18 15 17.6 | -2.0 |
| Y12C | Blythe | 1.70 | 18 | ePn | Pn | 18 14 57.4 | -2.4 |
| Y12C | | | | eSn | Sn | 18 15 21.8 | -0.1 |
| DPP | Dos Picos Cty | 1.73 | 300 | eSn | Sn | 18 15 21.5 | -1.1 |
| HWB | Hans Werner Br | 1.76 | 301 | eSn | Sn | 18 15 22.4 | -0.8 |
| CPE | Camp Elliot | 1.80 | 295 | ePn | Pn | 18 14 55.2 | -6.0 |
| CPE | | | | eSn | Sn | 18 15 18.0 | -6.3 |
| CPE | | | | eSg | Sb | 18 15 23.4 | -2.4 |
| XPFO | Piæon Flat | 1.83 | 324 | ePn | Pn | 18 14 57.8 | -3.9 |
| PFO | Pinyon Flats O | 1.83 | 324 | ePn | Pn | 18 14 57.8 | -3.9 |
| BBSC | Beaumont Base | 2.35 | 320 | ePn | Pb | 18 15 11.6 | -0.8 |
| BFSC | Mount Baldy Ra | 2.96 | 316 | ePn | Pn | 18 15 17.6 | +0.3 |
| PASC | Pasadena Art C | 3.25 | 310 | ePn | Pn | 18 15 14.8 | -6.3 |
| SBI | Santa Barbara | 3.52 | 293 | eSn | Sn | 18 16 08.1 | +1.4 |
| SBI | | | | eSg | Sb | 18 16 17.0 | +1.7 |
| TUC | Tucson | 3.72 | 86 | ePn | Pn | 18 15 26.9 | -0.7 |
| TUC | | | | eSg | Sb | 18 16 24.3 | +3.2 |
| WSHM | Spangler Hills | 3.96 | 331 | ePg | Pg | 18 15 46.0 | +0.4 |
| WSHM | | | | eSg | Sb | 18 16 31.2 | +3.1 |
| STCC | Santa Clara | 4.00 | 304 | eSn | Sn | 18 16 22.8 | +4.1 |
| VPEM | Volcano Peak E | 4.40 | 331 | ePg | Pb | 18 15 47.2 | -0.2 |
| VPEM | | | | eSg | Sb | 18 16 43.8 | +3.2 |
| ISA | Isabella, Lake | 4.47 | 323 | ePn | Pn | 18 15 35.2 | -2.7 |
| HSIG | | 4.78 | 129 | ePn | Pn | 18 15 41.4 | -0.8 |

*NEIC **03** 18:20:46.2±0.0, 10°.94N×61°.41W, h3km, MD4.0(TRN), After TRN.*

**TRN 03 18:20:45.8, 10°.95N×61°.42W, h0km, MD4.0, 2C, Trinidad**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TOSP | Speyside | 0.93 | 68 | iP | Pb | 18 21 04.5 | -0.3 |
| TOSP | | | | eS | Sb | 18 21 17.1 | -0.7 |
| TOSP | Speyside | 0.93 | 68 | ⇑iP | Pb | 18 21 04.5 | -0.3 |
| TOSP | | | | eS | Sb | 18 21 17.1 | -0.7 |
| GRGR | Grenville | 1.20 | 349 | iP | Pg | 18 21 08.8 | -0.1 |
| GRGR | | | | eS | Sn | 18 21 26.6 | -0.3 |
| GRGR | Grenville | 1.20 | 349 | ⇑iP | Pg | 18 21 08.8 | -0.1 |
| GRGR | | | | eS | Sn | 18 21 26.6 | -0.3 |
| FCV | Fort Charlotte | 2.21 | 4 | eP | Pn | 18 21 24.6 | +1.0 |
| FCV | | | | eS | Sn | 18 21 52.3 | +0.6 |
| FCV | Fort Charlotte | 2.21 | 4 | eP | Pn | 18 21 24.6 | +1.0 |
| FCV | | | | eS | Sn | 18 21 52.3 | +0.6 |
| SVB | Belmont | 2.32 | 4 | eP | Pn | 18 21 25.3 | 0.0 |
| SVB | | | | eS | Sn | 18 21 54.7 | +0.2 |
| SVB | Belmont | 2.32 | 4 | eP | Pn | 18 21 25.3 | 0.0 |
| SVB | | | | eS | Sn | 18 21 54.7 | +0.2 |
| SVCV | St. Vincent, C | 2.33 | 7 | eP | Pn | 18 21 25.6 | +0.2 |
| SVCV | | | | eS | Sn | 18 21 55.1 | +0.3 |
| SVV | Soufriere Volc | 2.37 | 5 | eP | Pn | 18 21 26.6 | +0.7 |
| SVV | | | | eS | Sn | 18 21 55.7 | 0.0 |
| SVV | Soufriere Volc | 2.37 | 5 | eP | Pn | 18 21 26.6 | +0.7 |
| SVV | | | | eS | Sn | 18 21 55.7 | 0.0 |
| SSV | Crater Summit | 2.38 | 5 | eP | Pn | 18 21 27.4 | +1.2 |
| SSV | | | | eS | Sn | 18 21 56.5 | +0.4 |
| SSV | Crater Summit | 2.38 | 5 | eP | Pn | 18 21 27.4 | +1.2 |
| SSV | | | | eS | Sn | 18 21 56.5 | +0.4 |
| MCLT | Moule a Chique | 2.79 | 10 | eP | Pn | 18 21 31.8 | +0.1 |
| MCLT | | | | eS | Sn | 18 22 06.7 | +0.7 |
| MCLT | Moule a Chique | 2.79 | 10 | eP | Pn | 18 21 31.8 | +0.1 |
| MCLT | | | | eS | Sn | 18 22 06.7 | +0.7 |
| BBGH | Gun Hill | 2.84 | 40 | eP | Pn | 18 21 32.5 | 0.0 |

*SJA **03** 18:30:49.8±1.2, 32°.31S×71°.30W, h6km±10km, ML2.4, MW2.8*
*GUC **03** 18:30:51.5±0.6, 32°.38S×71°.10W, h36km±6km, ML2.7*

**ISC 03 18:30:50.6**±2.4**, 32°.48S**±0°.05×**71°.3W**±0°.1**, h10km**±11km**, n15, σ0s.81**/25**, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ROCH | El Roble | 0.55 | 154 | eP | Pn | 18 31 04.6 | -0.1 |
| ROCH | | | | eS | Sn | 18 31 14.6 | +0.5 |
| ROCH | | | | IAML | | 18 31 15.2 | |
| | comp=E,768nm,0.3s | | | | | | |
| ROC1 | El Roble | 0.55 | 155 | eP | Pn | 18 31 04.7 | 0.0 |
| ROC1 | | | | eS | Sn | 18 31 14.5 | +0.4 |
| PEL | Peldehue | 0.84 | 143 | eP | Pn | 18 31 07.9 | -0.7 |
| PEL | | | | eS | Sn | 18 31 20.5 | -0.5 |
| PEL | | | | IAML | | 18 31 21.8 | |
| | comp=N,439nm,0.2s | | | | | | |
| RCDM | Rinconada Maip | 1.09 | 158 | eP | Pg | 18 31 10.8 | -0.7 |
| RCDM | | | | eS | Sg | 18 31 26.2 | +0.5 |
| CLCH | Cerro Calan | 1.12 | 145 | eP | Pg | 18 31 12.1 | 0.0 |
| CLCH | | | | eS | Sg | 18 31 28.3 | +1.7 |
| CLCH | | | | IAML | | 18 31 29.4 | |
| | comp=E,270nm,0.7s | | | | | | |
| FCH | Farellones | 1.20 | 135 | eP | Pg | 18 31 13.6 | -0.1 |
| FCH | | | | eS | Sg | 18 31 30.4 | +1.2 |
| FCH | | | | IAML | | 18 31 32.0 | |
| | comp=E,303nm,0.2s | | | | | | |
| AUSP | Uspallata | 1.63 | 82 | eP | Pg | 18 31 21.5 | -0.5 |
| AUSP | | | | eS | Sg | 18 31 43.7 | +0.5 |
| LMEL | Las Melosas | 1.65 | 147 | eP | Pb | 18 31 20.4 | -0.7 |
| LMEL | | | | eS | Sb | 18 31 42.4 | +0.4 |
| RTLS | Leoncito | 1.82 | 69 | eP | Pb | 18 31 24.0 | -0.3 |
| RTLS | | | | IAML | | 18 31 24.3 | |
| | comp=Z,25nm,0.2s | | | | | | |
| RTLS | | | | eS | Sg | 18 31 49.0 | -0.3 |
| ASAL | Salagasta | 2.08 | 94 | eP | Pb | 18 31 28.4 | 0.0 |
| ASAL | | | | eS | Sg | 18 31 57.3 | -0.2 |
| AAGR | Agrelo | 2.16 | 107 | eP | Pb | 18 31 29.6 | -0.3 |
| RTCV | Cerro Valdivia | 2.41 | 76 | eP | Pb | 18 31 32.1 | -2.0 |
| RTCV | | | | eS | Sn | 18 31 48.9 | -11 |
| ACCO | Cerro Coronel | 2.68 | 46 | eP | Pn | 18 31 35.1 | +1.0 |
| ACCO | | | | IAML | | 18 31 55.8 | |
| | comp=Z,20nm,0.4s | | | | | | |
| AMOG | MOGNA | 2.84 | 58 | eP | Pn | 18 31 36.8 | +0.8 |
| AGUA | GUANDACOL | 3.83 | 40 | eP | Pn | 18 31 50.5 | +0.8 |

**MAN 03 18:50:55, 13°.78N×120°.11E, h40km, mb4.1, ML2.9, MS2.6, 1D, Mindoro**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LUBP | Lubang | 0.14 | 109 | eP | Pn | 18 51 03.1 | +1.2 |
| LUBP | | | | eS | Sn | 18 51 07.0 | +0.4 |
| PGP | Puerto Galera | 0.86 | 108 | ⇓eP | Pn | 18 51 11.9 | +1.2 |
| PGP | | | | iS | Sn | 18 51 24.6 | +2.4 |
| SJMP | San Jose | 1.64 | 143 | eP | Pn | 18 51 22.3 | +1.0 |

*ISCJB **03** 19:07:52.6±0.6, 39°.09N±0°.04×29°.02E±0°.05, h9km±4km, Error ellipse: s-maj=7.0km s-min=5.3km az=139.8*
*CSEM **03** 19:07:52.5±0.1, 39°.11N×29°.01E, h6km, MD2.5, Error ellipse: s-maj=2.3km s-min=2.0km az=117.0*
*DDA **03** 19:07:52.5, 39°.08N×29°.03E, h7km, Md2.2*
*ISK **03** 19:07:52.0, 39°.12N×28°.91E, h6km, MD2.5*

**ISC 03 19:07:52.7**±0.9**, 39°.10N**±0°.04×**29°.02E**±0°.03**, h8km**±5km**, n17, σ0s.26**/28**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SIMA | Simav-Kutahya | 0.03 | 243 | ePG | Pg | 19 07 54.2 | -0.1 |
| SIMA | | | | eSG | Sg | 19 07 55.6 | +0.1 |
| SIMA | Simav-Kutahya | 0.03 | 243 | ePg | Pg | 19 07 54.2 | -0.1 |
| SIMA | | | | eSg | Sg | 19 07 55.6 | +0.1 |
| DEMI | Demirci | 0.24 | 257 | iP | Pg | 19 07 57.5 | 0.0 |
| DEMI | | | | iS | Sg | 19 08 01.1 | +0.3 |
| DEMI | Demirci | 0.24 | 257 | P | Pg | 19 07 57.5 | 0.0 |
| DEMI | | | | S | Sg | 19 08 01.1 | +0.3 |
| GDZ | Gediz | 0.36 | 91 | iP | Pg | 19 07 59.6 | -0.2 |
| GDZ | | | | iS | Sg | 19 08 04.9 | +0.4 |
| GDZ | Gediz | 0.36 | 91 | P | Pg | 19 07 59.6 | -0.2 |
| GDZ | | | | S | Sg | 19 08 04.9 | +0.4 |
| KULA | Kula-Manisa | 0.65 | 206 | ePG | Pg | 19 08 04.9 | -0.2 |
| KULA | | | | eSG | Sg | 19 08 14.0 | +0.4 |
| KULA | Kula-Manisa | 0.65 | 206 | ePg | Pg | 19 08 04.9 | -0.2 |
| KULA | | | | eSg | Sg | 19 08 14.0 | +0.4 |
| MANT | Manisa | 0.71 | 211 | iP | Pg | 19 08 06.3 | 0.0 |
| MANT | | | | iS | Sg | 19 08 15.9 | +0.4 |
| KHAL | Karahalli | 0.81 | 153 | iP | Pb | 19 08 08.9 | -0.3 |
| KHAL | | | | iS | Sg | 19 08 19.3 | +0.3 |
| KHAL | Karahalli | 0.81 | 153 | P | Pb | 19 08 08.9 | -0.3 |
| KHAL | | | | S | Sg | 19 08 19.3 | +0.3 |
| CAVI | Cavuskoy | 1.27 | 30 | ePN | Pg | 19 08 17.0 | -0.1 |
| CAVI | Cavuskoy | 1.27 | 30 | ePn | Pg | 19 08 17.0 | -0.1 |
| ARMT | Armutlu | 1.47 | 355 | ePN | Pn | 19 08 19.4 | -0.1 |
| ARMT | Armutlu | 1.47 | 355 | ePn | Pn | 19 08 19.4 | -0.1 |
| YLV | Yalova | 1.49 | 10 | ePN | Pn | 19 08 20.1 | +0.2 |
| YLV | Yalova | 1.49 | 10 | ePn | Pn | 19 08 20.1 | +0.2 |

*IDC **03** 19:09:22.4±1.3, 0°.74S×127°.62E, h0km, mb3.3/3, mb1 3.6/4, mb1mx3.3/37, mbtmp3.4/4, ML3.3/1, Error ellipse: s-maj=70.9km s-min=23.2km az=78.0*
*DJA **03** 19:09:23.3±0.7, 1°S±6°×12°7E±°, h78km±9km, M4.0/5, mB4.9/1, MLv4.0/5, Mw(mB)4.2/1*
*ISCJB **03** 19:09:26.5±0.7, 0°.86S±0°.07×126°.86E±0°.05, h34km, mb4.0/3, Error ellipse: s-maj=11.0km s-min=6.7km az=152.9*

**ISC 03 19:09:27.2**±0.9**, 0°.91S**±0°.07×**126°.88E**±0°.06**, h34km, n11, σ1s.61**/13**, mb3.5**/3**, Southern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LBMI | Labuha | 0.68 | 67 | P | Pn | 19 09 39.8 | -0.6 |
| LBMI | | | | S | Sn | 19 09 49.6 | -0.2 |
| SANI | Sanana | 1.44 | 218 | P | Pn | 19 09 50.0 | -0.9 |
| SANI | | | | S | Sb | 19 10 09.8 | -1.7 |
| AAI | Ambon | 3.06 | 155 | P | Pn | 19 10 14.9 | +1.7 |
| MSAI | Masohi | 3.17 | 140 | P | Pn | 19 10 16.4 | +1.6 |
| LUWI | Luwuk | 4.11 | 268 | P | Pn | 19 10 28.1 | +0.5 |
| APSI | Ampana | 5.23 | 270 | P | Pn | 19 10 44.6 | +1.6 |
| FITZ | Fitzroy Crossi | 17.13 | 184 | P | P | 19 13 26.0 | +0.5 |
| | 0.1nm,0.3s,baz=30,slow=11,SNR=4.3 | | | | | | |
| WRA | Warramunga Arr | 20.28 | 159 | P | P | 19 13 58.8 | -1.3 |
| | 0.6nm,0.6s,baz=338,slow=11,SNR=12 | | | | | | |
| ASAR | Alice Springs | 23.63 | 164 | P | P | 19 14 35.1 | -0.3 |
| | 0.8nm,0.7s,baz=346,slow=12,SNR=14 | | | | | | |
| MKAR | Makanchi Array | 61.46 | 327 | P | P | 19 19 43.0 | +2.6 |
| | 0.3nm,0.8s,baz=142,slow=7.2,SNR=4.1 | | | | | | |
| ILAR | Eielson Array | 89.20 | 25 | P | P | 19 22 17.2 | -2.2 |
| | 7.3nm,0.4s,baz=246,slow=5.5,SNR=9.0 | | | | | | |

*IDC **03** 19:11:34.0±1.0, 36°.77N×140°.58E, h0km, mb3.6/7, mb1 3.8/7, mb1mx3.5/46, mbtmp3.6/7, Error ellipse: s-maj=25.3km s-min=22.7km az=48.0*
*ISCJB **03** 19:11:34.7±1.8, 36°.74N±0°.03×140°.65E±0°.06, h12km±12km, mb3.5/7, Error ellipse: s-maj=7.8km s-min=4.3km az=19.8*
*JMA **03** 19:11:35.8, 36°.76N×140°.57E, h9km±1km, M3.9 Broadband fault plane solution: P waves. NP1: φs313.00000°, δ49.00000°, λ-109.00000°. NP2: φs160.00000°, δ45.00000°, λ-70.00000°. Principal axes: T Plg2.0000°, Azm56.0000°; N Plg14.0000°, Azm326.0000°; P Plg76.0000°, Azm154.0000°;*
*JMA Felt II J1.*

**ISC 03 19:11:35.6**±1.0**, 36°.78N**±0°.03×**140°.54E**±0°.06**, h8km**±7km**, n24, σ0s.61**/26**, mb3.5**/7**, 6C, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JHO | Hitachi | 0.17 | 171 | ⇑P | Pg | 19 11 39.1 | -0.1 |
| JHO | | | | S | Sg | 19 11 41.4 | -0.3 |
| ONAJ | Iwakimizuishiy | 0.38 | 33 | ⇑P | Pg | 19 11 43.3 | +0.2 |
| ONAJ | | | | S | Sg | 19 11 48.6 | +0.4 |
| JSB | Shiboa | 0.53 | 291 | ⇑P | Pb | 19 11 47.2 | +0.1 |
| JSB | | | | S | Sb | 19 11 54.7 | -0.1 |
| JYT | Yasato | 0.62 | 206 | ⇑P | Pg | 19 11 47.4 | -0.1 |
| JYT | | | | S | Sg | 19 11 55.5 | -0.1 |
| JFK | Kawauchi | 0.64 | 25 | ⇑P | Pg | 19 11 47.9 | -0.1 |
| JFK | | | | eS | Sg | 19 11 57.0 | +0.5 |
| JFT | Otama | 0.75 | 348 | ⇑P | Pb | 19 11 50.6 | -0.3 |
| JFT | | | | S | Sb | 19 12 01.1 | -0.2 |
| MJAR | Matsushiro Arr | 1.89 | 263 | Pn | Pn | 19 12 08.7 | +0.6 |
| | 35nm,0.3s,baz=93,slow=16,SNR=190 | | | | | | |
| MJAR | | | | Sn | Sb | 19 12 33.7 | -0.2 |
| | 50nm,0.3s,baz=104,slow=22,SNR=14 | | | | | | |
| MAT | Matsushiro | 1.89 | 263 | P | Pn | 19 12 08.9 | +0.8 |
| MAT | | | | S | Sb | 19 12 34.4 | +0.4 |
| JHJ | Hachijo jima 2 | 3.71 | 190 | Sn | Sn | 19 13 18.3 | +1.4 |
| | 13nm,0.3s,baz=16,slow=16,SNR=2.4 | | | | | | |
| SONM | Songino Array | 27.34 | 305 | P | P | 19 17 20.7 | -0.3 |
| | 0.5nm,0.6s,baz=100,slow=7.9,SNR=2.4 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 28.63 | 119 | T | T | 19 47 16.6 | |
| | baz=313,slow=75,SNR=134 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 28.64 | 119 | T | T | 19 47 18.0 | |
| | baz=313,slow=75,SNR=117 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 28.65 | 119 | T | T | 19 47 18.7 | |
| | baz=313,slow=75,SNR=89 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 29.32 | 121 | T | T | 19 48 07.2 | |
| | baz=314,slow=76,SNR=418 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 29.32 | 121 | T | T | 19 48 09.0 | |
| | baz=314,slow=76,SNR=187 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 29.34 | 121 | T | T | 19 48 10.2 | |
| | baz=314,slow=76,SNR=226 | | | | | | |
| ZALV | Zalesovo Beam | 41.56 | 313 | P | P | 19 19 22.1 | -1.3 |
| | 0.4nm,0.4s,baz=99,slow=8.9,SNR=2.8 | | | | | | |
| FITZ | Fitzroy Crossi | 56.37 | 197 | P | P | 19 21 17.5 | +0.3 |
| | 0.9nm,0.8s,baz=4.1,slow=14,SNR=2.6 | | | | | | |
| WRA | Warramunga Arr | 56.72 | 187 | P | P | 19 21 18.6 | -1.2 |
| | 0.5nm,0.6s,baz=2.2,slow=7.5,SNR=10.0 | | | | | | |
| ASAR | Alice Springs | 60.45 | 187 | P | P | 19 21 45.1 | -0.5 |
| | 0.3nm,0.9s,baz=3.5,slow=7.6,SNR=3.5 | | | | | | |
| BRTR | Keskin Array B | 78.49 | 311 | P | P | 19 23 37.5 | +0.2 |
| | 0.2nm,0.6s,baz=52,slow=2.4,SNR=2.6 | | | | | | |
| TXAR | Lajitas Array | 90.83 | 52 | P | P | 19 24 40.3 | +0.5 |
| | 0.3nm,0.5s,baz=329,slow=3.4,SNR=4.0 | | | | | | |
| BDFB | Brasilia | 157.61 | 22 | PKPab | PKPab | 19 32 04.5 | -0.4 |
| | 1.0nm,0.3s,baz=315,slow=4.3,SNR=2.9 | | | | | | |
| CPUP | Villa Florida | 161.58 | 61 | PKP | PKPdf | 19 31 37.0 | -0.1 |
| | 1.0nm,0.3s,baz=326,slow=2.3,SNR=4.1 | | | | | | |

*IDC **03** 19:17:45.9±0.9, 1°.14S×126°.84E, h0km, mb3.8/8, mb1 4.0/9, mb1mx3.7/39, mbtmp3.9/9, ML3.7/1, Error ellipse: s-maj=39.2km s-min=16.1km az=80.0*
*DJA **03** 19:17:47.2±0.3, 1°S±3°×12°7E±°, h10km, M4.1/8, mB5.0/2, mb4.3/2, MLv4.0/8, Mw(mB)4.3/2*
*ISCJB **03** 19:17:48.4±0.4, 1°.13S±0°.04×126°.95E±0°.04, h34km, mb3.8/8, Error ellipse: s-maj=6.3km s-min=5.8km az=18.8*
*NEIC **03** 19:17:50.6±0.4, 1°.22S×126°.83E, h35km, mb4.2/5, Error ellipse: s-maj=11.1km s-min=6.6km az=58.0*

**ISC 03 19:17:50.6**±0.6**, 1°.07S**±0°.05×**126°.93E**±0°.06**, h34km, n33, σ1s.95**/37**, mb3.8**/8**, Southern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LBMI | Labuha | 0.71 | 53 | P | Pn | 19 18 01.1 | -3.2 |
| LBMI | | | | S | Sn | 19 18 11.4 | -2.7 |
| SANI | Sanana | 1.36 | 224 | P | Pn | 19 18 11.0 | -2.2 |
| SANI | | | | S | Sb | 19 18 30.8 | -1.8 |
| AAI | Ambon | 2.89 | 154 | P | Pn | 19 18 34.6 | +0.3 |
| MSAI | Masohi | 3.02 | 139 | P | Pn | 19 18 38.1 | +2.1 |
| KMSI | Cibinong | 3.37 | 299 | P | Pn | 19 18 42.4 | +1.5 |
| LUWI | Luwuk | 4.16 | 270 | P | Pn | 19 18 49.2 | -2.5 |
| LUWI | Luwuk | 4.16 | 270 | ePn | Pn | 19 18 49.0 | -2.7 |
| MRSI | Marisa | 5.22 | 287 | P | Pn | 19 19 03.1 | -3.3 |
| APSI | Ampana | 5.28 | 272 | P | Pn | 19 19 05.9 | -1.3 |
| FAKI | Fak Fak | 5.62 | 109 | ePn | Pn | 19 19 10.2 | -1.7 |
| SPSI | Sidrap Palu | 7.71 | 248 | P | Pn | 19 19 40.7 | +0.1 |
| SAUI | Saumlaki | 8.13 | 148 | ePn | Pn | 19 19 44.6 | -1.7 |
| KAPI | Kappang | 8.17 | 241 | Pn | Pn | 19 19 44.6 | -2.2 |
| | 74nm,0.3s,baz=240,slow=16,SNR=8.6 | | | | | | |
| MTN | Manton Dam | 12.42 | 161 | ePn | Pn | 19 20 44.4 | -0.7 |
| FITZ | Fitzroy Crossi | 16.97 | 184 | Pn | Pn | 19 21 45.1 | -0.5 |
| | 0.2nm,0.3s,baz=16,slow=8.5,SNR=9.3 | | | | | | |
| WRAB | Tennant Creek | 20.11 | 159 | eP | P | 19 22 20.6 | -1.0 |
| | 37nm,2.0s | | | | | | |
| WR1 | Warramunga Arr | 20.11 | 159 | eP | P | 19 22 20.2 | -1.5 |
| | 42nm,1.9s | | | | | | |
| WR1 | | | | eScP | ScP | 19 30 14.1 | +3.8 |
| WRA | Warramunga Arr | 20.11 | 159 | P | P | 19 22 20.2 | -1.5 |
| | 1.7nm,0.6s,baz=336,slow=12,SNR=16 | | | | | | |
| WRA | | | | ScP | ScP | 19 30 14.0 | +3.8 |
| | 0.3nm,0.7s,baz=322,slow=2.1,SNR=2.9 | | | | | | |
| WB2 | Warramunga Arr | 20.11 | 159 | eP | P | 19 22 18.9 | -2.8 |
| COEN | Coen | 20.55 | 129 | eP | P | 19 22 27.3 | +0.8 |
| | 9.8nm,0.8s | | | | | | |
| AS31 | Alice Springs | 23.46 | 164 | eP | P | 19 22 56.7 | -0.5 |
| | 1.2nm,0.7s | | | | | | |
| ASAR | Alice Springs | 23.46 | 164 | P | P | 19 22 56.5 | -0.8 |
| | 2.8nm,0.7s,baz=346,slow=12,SNR=35 | | | | | | |
| AS01 | Alice Springs | 23.47 | 164 | eP | P | 19 22 56.5 | -0.9 |
| STKA | Stephens Creek | 33.63 | 157 | P | P | 19 24 28.9 | +0.8 |
| | 1.8nm,0.7s,baz=328,slow=9.9,SNR=4.9 | | | | | | |
| STKA | Stephens Creek | 33.63 | 157 | eP | P | 19 24 28.8 | +0.7 |
| | 3.2nm,1.4s | | | | | | |
| KSAR | Wonju Array Be | 38.33 | 1 | P | P | 19 25 10.6 | +2.3 |
| KSRS | Korea Array | 38.34 | 1 | P | P | 19 25 10.6 | +2.2 |
| | 1.2nm,0.7s,baz=172,slow=8.9,SNR=4.0 | | | | | | |
| MJAR | Matsushiro Arr | 38.86 | 15 | P | P | 19 25 14.0 | +1.3 |
| | 1.8nm,0.8s,baz=189,slow=7.9,SNR=2.9 | | | | | | |
| SONA0 | Songino Array | 51.89 | 343 | eP | P | 19 26 56.8 | +0.8 |
| SONM | Songino Array | 51.89 | 343 | P | P | 19 26 56.8 | +0.8 |
| | 0.2nm,0.4s,baz=168,slow=7.4,SNR=3.2 | | | | | | |
| MK32 | Makanchi Array | 61.62 | 327 | eP | P | 19 28 05.2 | +0.2 |
| MKAR | Makanchi Array | 61.62 | 327 | P | P | 19 28 05.2 | +0.2 |
| | 0.6nm,0.7s,baz=116,slow=6.9,SNR=7.1 | | | | | | |
| TIXI | Tiksi | 72.61 | 1 | P | P | 19 29 13.5 | -0.7 |
| | 1.1nm,0.4s,baz=180,slow=5.1,SNR=3.8 | | | | | | |

*SOME **03** 19:34:16.8, 42°.17N×76°.42E, h15km*
*NNC **03** 19:34:16.2±0.8, 42°.20N×76°.38E, h4km±7km, mb2.8, mpv2.5, Error ellipse: s-maj=5.5km s-min=2.8km az=164.0*
*KNET **03** 19:34:16.9±0.5, 42°.28N×76°.43E, h13km±1km, ml2.2, Error ellipse: s-maj=4.2km s-min=1.7km az=72.0*
*KRNET **03** 19:34:17.7±0.1, 42°.21N×76°.33E, h23km, mb2.6*

**ISC 03 19:34:17.3**±1.0**, 42°.23N**±0°.04×**76°.39E**±0°.02**, h16km**±6km**, n41, σ0s.79**/74**, 29C-14D, Lake Issyk-Kul region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ULHL | Ulahol | 0.11 | 279 | ⇑iP | Pg | 19 34 20.6 | -0.5 |
| | baz=281 | | | | | | |
| ULHL | | | | ⇑iS | Sg | 19 34 23.7 | +0.1 |
| | baz=281 | | | | | | |
| ULHL | Ulahol | 0.11 | 279 | ⇑P | Pg | 19 34 20.8 | -0.3 |
| | 287nm,0.1s | | | | | | |
| ULHL | | | | ⇑S | Sb | 19 34 24.0 | +0.4 |
| | 172nm,0.1s | | | | | | |
| BOOM | Boomskoye usch | 0.42 | 308 | ⇓eP | Pg | 19 34 25.3 | -0.6 |
| | baz=314 | | | | | | |
| BOOM | | | | ⇓iS | Sg | 19 34 32.0 | +0.2 |
| | baz=314 | | | | | | |
| IZV | Izvestkoviy | 0.82 | 12 | eP | Pb | 19 34 33.5 | +0.2 |
| | 19nm,0.2s | | | | | | |
| IZV | | | | eS | Sn | 19 34 45.6 | -0.7 |
| | 76nm,0.2s | | | | | | |
| KST | Kastek | 0.87 | 339 | eP | Pb | 19 34 33.9 | -0.2 |
| | 4.8nm,0.2s | | | | | | |
| KST | | | | eS | Sg | 19 34 46.8 | +1.0 |
| | 154nm,0.3s | | | | | | |
| MTBS | Maitube | 0.90 | 2 | eP | Pb | 19 34 34.3 | -0.3 |
| | 21nm,0.2s | | | | | | |
| MTBS | | | | eS | Sg | 19 34 47.3 | +0.6 |
| | 95nm,0.3s | | | | | | |
| TKM2 | Tokmak 2 | 0.91 | 320 | ⇑iP | Pb | 19 34 34.2 | -0.5 |
| | baz=323 | | | | | | |
| TKM2 | | | | ⇑iS | Sg | 19 34 47.3 | +0.5 |
| | baz=323 | | | | | | |
| TKM2 | Tokmak 2 | 0.91 | 320 | ⇑P | Pb | 19 34 34.4 | -0.3 |
| | 3.0nm,0.3s | | | | | | |
| TKM2 | | | | ⇑S | Sb | 19 34 47.2 | +0.6 |
| | 6.9nm,0.3s | | | | | | |
| TKM2 | Tokmak 2 | 0.91 | 320 | P | Pb | 19 34 34.4 | -0.3 |
| | 6.5nm,0.1s,SNR=129 | | | | | | |
| TKM2 | | | | ⇑S | Sg | 19 34 47.8 | +0.9 |
| | 81nm,0.1s | | | | | | |
| TNSS | Tian-Shan | 0.91 | 27 | eP | Pb | 19 34 35.0 | +0.2 |
| | 25nm,0.3s | | | | | | |
| TNSS | | | | eS | Sn | 19 34 48.0 | -0.6 |
| | 32nm,0.4s | | | | | | |
| MDOK | Medeo | 1.05 | 27 | eP | Pb | 19 34 36.6 | -0.6 |
| | 17nm,0.4s | | | | | | |
| MDOK | | | | eS | Sb | 19 34 50.6 | -0.2 |
| | 38nm,0.5s | | | | | | |
| AAA | Alma-Ata | 1.05 | 22 | eP | Pn | 19 34 37.4 | -0.1 |
| | 93nm,0.1s | | | | | | |
| AAA | | | | eS | Sn | 19 34 51.9 | +0.1 |
| | 93nm,0.2s | | | | | | |
| KNDC | Almaty | 1.08 | 23 | ⇑P | Pb | 19 34 37.4 | -0.1 |
| | 11nm,0.3s | | | | | | |
| KNDC | | | | ⇓S | Sn | 19 34 52.7 | +0.4 |
| | 31nm,0.3s | | | | | | |
| DGS | Degeres | 1.11 | 336 | eP | Pg | 19 34 38.6 | -0.1 |
| | 5.7nm,0.2s | | | | | | |
| DGS | | | | eS | Sn | 19 34 54.2 | +1.0 |
| | 41nm,0.3s | | | | | | |
| KOTS | Kotyrbulak | 1.14 | 28 | eP | Pg | 19 34 38.8 | -0.5 |
| KOTS | | | | eS | Sn | 19 34 54.5 | +0.5 |
| KBK | Karagaybulak | 1.15 | 292 | ⇑iP | Pn | 19 34 38.4 | -0.4 |
| | baz=294 | | | | | | |
| KBK | | | | ⇑iS | Sn | 19 34 54.7 | +0.5 |
| | baz=294 | | | | | | |
| KBK | Karagaybulak | 1.15 | 292 | P | Pn | 19 34 38.8 | 0.0 |
| | 2.7nm,0.1s,SNR=18 | | | | | | |
| KBK | | | | ⇓S | Sg | 19 34 54.9 | +0.4 |
| | 40nm,0.2s | | | | | | |
| UCH | Uchtor | 1.39 | 271 | ⇓iP | Pn | 19 34 42.2 | -0.2 |
| | baz=271 | | | | | | |
| UCH | | | | ⇓iS | Sn | 19 35 01.1 | +0.5 |
| | baz=271 | | | | | | |
| FRU1 | Bishkek | 1.42 | 295 | ⇓eP | Pb | 19 34 44.1 | +0.7 |
| | baz=296 | | | | | | |
| FRU1 | | | | ⇓eS | Sg | 19 35 03.8 | +0.6 |
| | baz=296 | | | | | | |
| CHMS | Chumysh | 1.43 | 303 | ⇑iP | Pn | 19 34 43.2 | +0.6 |
| | baz=304 | | | | | | |
| CHMS | | | | ⇑iS | Sb | 19 35 02.7 | +1.2 |
| | baz=304 | | | | | | |
| CHMS | Chumysh | 1.43 | 303 | P | Pb | 19 34 43.5 | -0.1 |
| | 3.1nm,0.2s,SNR=10 | | | | | | |
| AAK | Ala-Archa | 1.46 | 287 | ⇑iP | Pn | 19 34 43.6 | +0.5 |
| | baz=288 | | | | | | |
| AAK | | | | ⇑iS | Sb | 19 35 03.5 | +1.0 |
| | baz=288 | | | | | | |
| AAK | Ala-Archa | 1.46 | 287 | ⇑P | Pn | 19 34 43.5 | +0.5 |
| | 1.0nm,0.3s | | | | | | |
| AAK | | | | ⇑S | Sn | 19 35 02.6 | +0.7 |
| | 11nm,0.3s | | | | | | |
| AAK | Ala-Archa | 1.46 | 287 | P | Pb | 19 34 44.0 | -0.1 |
| | 3.5nm,0.2s,SNR=10 | | | | | | |
| KUU | Kurty | 1.66 | 359 | eP | Pb | 19 34 47.7 | +0.2 |
| | 16nm,0.2s | | | | | | |
| KUU | | | | eS | Sg | 19 35 10.3 | -0.6 |
| | 34nm,0.3s | | | | | | |
| CHKK | Chushkaly | 1.68 | 15 | eP | Pb | 19 34 48.0 | +0.2 |
| | 12nm,0.2s | | | | | | |
| CHKK | | | | eS | Sg | 19 35 10.8 | -0.7 |
| | 41nm,0.2s | | | | | | |
| SATY | Saty | 1.71 | 60 | eP | Pb | 19 34 48.0 | -0.2 |
| | 2.5nm,0.2s | | | | | | |
| SATY | | | | eS | Sb | 19 35 10.2 | +0.7 |
| | 34nm,0.2s | | | | | | |
| USP | Ospenovka | 1.73 | 307 | ⇑iP | Pb | 19 34 48.4 | -0.3 |
| | baz=309 | | | | | | |
| USP | | | | ⇑iS | Sb | 19 35 11.0 | +0.7 |
| | baz=309 | | | | | | |
| USP | Ospenovka | 1.73 | 307 | P | Pb | 19 34 48.8 | 0.0 |
| | 11nm,0.2s,SNR=59 | | | | | | |
| USP | | | | ⇓S | Sg | 19 35 12.5 | -0.7 |
| | 21nm,0.3s | | | | | | |
| EKS2 | Erkin-Say | 1.98 | 284 | ⇑iP | Pb | 19 34 52.0 | -0.9 |
| | baz=284 | | | | | | |
| EKS2 | | | | ⇑iS | Sb | 19 35 17.7 | +0.3 |
| | baz=284 | | | | | | |
| EKS2 | Erkin-Say | 1.98 | 284 | ⇑P | Pb | 19 34 53.9 | +0.9 |
| | 3.4nm,0.2s,SNR=15 | | | | | | |
| AML | Almayashu | 2.00 | 268 | ⇑iP | Pb | 19 34 52.6 | -0.9 |
| | baz=268 | | | | | | |
| AML | | | | ⇑iS | Sb | 19 35 19.2 | +0.9 |
| | baz=268 | | | | | | |
| AML | Almayashu | 2.00 | 268 | P | Pb | 19 34 53.7 | +0.2 |
| | 1.1nm,0.2s,SNR=7.6 | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **UZB** | **Uzynbulak** | **2.15** | **64** | *e*P | **Pb** | **19 34 55.5** | **-0.3** |
| | 1.4nm,0.4s | | | | | | |
| UZB | | | | *e*S | **Sb** | **19 35 23.0** | **+0.7** |
| | 20nm,0.4s | | | | | | |
| **MRKS** | **Merke** | **2.39** | **284** | *e*P | **Pb** | **19 35 00.7** | **+0.7** |
| | 2.1nm,0.1s | | | | | | |
| MRKS | | | | *e*S | **Sg** | **19 35 32.6** | **-1.7** |
| | 22nm,0.3s | | | | | | |
| **PDGK** | **Podgornoye** | **2.54** | **63** | ⇑*e*P | **Pb** | **19 35 01.4** | **-1.0** |
| | baz=63 | | | | | | |
| PDGK | | | | ⇑*e*S | **Sb** | **19 35 34.0** | **+0.6** |
| | baz=63 | | | | | | |
| **PDGK** | **Podgornoye** | **2.54** | **63** | ⇓Pg | **Pb** | **19 35 01.2** | **-1.3** |
| | 0.6nm,0.4s | | | | | | |
| PDGK | | | | ⇑Lg | Lg | 19 35 34.7 | |
| | 2.9nm,0.4s | | | | | | |
| **MNAS** | **Manas** | **2.89** | **276** | ⇓Pg | **Pb** | **19 35 08.1** | **-0.4** |
| | 0.8nm,0.5s | | | | | | |
| MNAS | | | | ⇓Lg | Lg | 19 35 47.0 | |
| | 1.9nm,0.6s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **3.10** | **225** | ⇑Pg | **Pb** | **19 35 13.2** | **+1.0** |
| | 1.0nm,0.6s | | | | | | |
| SFK | | | | ⇓Lg | Lg | 19 35 53.7 | |
| | 0.8nm,0.4s | | | | | | |
| **KTMS** | **Ketmen** | **3.16** | **66** | *e*P | **Pb** | **19 35 13.4** | **+0.3** |
| | 0.3nm,0.1s | | | | | | |
| KTMS | | | | *e*S | **Sb** | **19 35 54.1** | **+2.7** |
| | 6.1nm,0.3s | | | | | | |
| **KK31** | **Karatay Array** | **4.42** | **283** | Pg | **Pg** | **19 35 38.7** | **-3.2** |
| | 0.9nm,0.9s,baz=97,slow=16,SNR=8.1 | | | | | | |
| KK31 | | | | ⇓Lg | Lg | 19 36 34.1 | |
| | 1.2nm,0.5s,baz=98,slow=30,SNR=11 | | | | | | |

**MAN 03 19:37:46, 9.°53N×126.°05E, h10km, mb4.2, ML3.0, MS2.8, 1D, Mindanao**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SCPH** | **Surigao** | **0.61** | **295** | ⇓*e*P | Pb | 19 37 58.9 | +0.2 |
| SCPH | | | | *e*S | Sn | 19 38 11.5 | +0.9 |
| **BUTP** | **Butuan** | **0.70** | **217** | *e*P | Pb | 19 38 00.4 | +0.1 |
| BUTP | | | | *e*S | Sn | 19 38 14.1 | +1.3 |
| **MSLP** | **Maasin** | **1.32** | **297** | *e*P | Pb | 19 38 10.9 | +0.1 |
| **BUKP** | **Musuan** | **1.91** | **211** | *e*P | Pn | 19 38 19.3 | +0.7 |
| **OCLP** | **Ormoc** | **2.07** | **317** | *e*P | Pn | 19 38 21.7 | +0.8 |

*GUC **03** 19:43:42.3±0.4, 32.°25S×72.°70W, h18km±10km, ML3.6*

**ISC 03 19:43:41.0**±3.0**, 31.°50S**±0.°06×**72.°1W**±0.°1**, h20**km±8km**, n15, σ1.s63**/23**, 1D, Off coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ROCH** | **El Roble** | **1.72** | **149** | *e*P | **Pn** | **19 44 10.5** | **+0.4** |
| ROCH | | | | *e*S | **Sn** | **19 44 32.0** | **+0.4** |
| ROCH | | | | IAML | | 19 44 36.8 | |
| | comp=N,990nm,0.5s | | | | | | |
| **ROC1** | **El Roble** | **1.72** | **149** | *e*P | **Pb** | **19 44 10.9** | **-1.2** |
| ROC1 | | | | *e*S | **Sb** | **19 44 32.4** | **-1.2** |
| **PEL** | **Peldehue** | **2.02** | **145** | *e*P | **Pn** | **19 44 15.1** | **+1.1** |
| PEL | | | | *e*S | **Sb** | **19 44 40.5** | **-1.3** |
| PEL | | | | IAML | | 19 44 44.6 | |
| | comp=E,756nm,0.7s | | | | | | |
| **CLCH** | **Cerro Calan** | **2.29** | **146** | *e*P | **Pn** | **19 44 19.1** | **+1.3** |
| CLCH | | | | *e*S | **Sn** | **19 44 47.0** | **+1.5** |
| CLCH | | | | IAML | | 19 44 55.2 | |
| | comp=E,836nm,0.5s | | | | | | |
| **FCH** | **Farellones** | **2.37** | **141** | *e*P | **Pb** | **19 44 22.1** | **-1.0** |
| **RTLS** | **Leoncito** | **2.38** | **98** | *e*S | **Sb** | **19 44 56.3** | **+3.8** |
| RTLS | | | | IAML | | 19 44 59.4 | |
| | comp=Z,192nm,0.6s | | | | | | |
| **AUSP** | **Uspallata** | **2.39** | **108** | *e*P | **Pn** | **19 44 16.7** | **-2.7** |
| **AROD** | **Rodeo** | **2.59** | **60** | *e*P | **Pn** | **19 44 20.7** | **-1.5** |
| AROD | | | | ⇓*e*S | **Sg** | **19 45 05.8** | **+1.3** |
| **ACCO** | **Cerro Coronel** | **2.73** | **71** | *e*P | **Pn** | **19 44 25.1** | **+1.0** |
| **LMEL** | **Las Melosas** | **2.82** | **147** | *e*P | **Pn** | **19 44 26.3** | **+1.1** |
| LMEL | | | | *e*S | **Sn** | **19 44 59.5** | **+0.7** |
| **ASAL** | **Salagasta** | **2.95** | **113** | *e*P | **Pn** | **19 44 26.2** | **-0.7** |
| ASAL | | | | *e*S | **Sg** | **19 45 16.7** | **+0.8** |
| **RTCV** | **Cerro Valdivia** | **3.03** | **98** | *e*P | **Pn** | **19 44 26.5** | **-1.4** |
| RTCV | | | | *e*S | **Sg** | **19 45 17.9** | **-0.5** |
| **AMOG** | **MOGNA** | **3.11** | **81** | *e*P | **Pn** | **19 44 29.1** | **0.0** |
| **VCA** | **Vinchina** | **4.33** | **52** | *e*P | **Pn** | **19 44 46.7** | **+0.8** |
| VCA | | | | IAML | | 19 46 06.1 | |
| | comp=Z,127nm,0.4s | | | | | | |
| **APLL** | **PUNTA DE LOS L** | **4.88** | **78** | *e*P | **Pn** | **19 44 50.7** | **-2.7** |

*ISCJB **03** 19:45:55.6±0.3, 5.°40S±0.°05×151.°72E±0.°05, h45km, mb4.6/33, MS3.4/13, Error ellipse: s-maj=8.3km s-min=6.0km az=31.5*

*NEIC **03** 19:45:56.4±1.3, 5.°37S×151.°74E, h37km±12km, mb4.8/24, Error ellipse: s-maj=8.7km s-min=6.5km az=168.0*

*IDC **03** 19:45:56.0±3.4, 5.°35S×151.°76E, h32km±23km, mb4.1/14, mb1 4.3/15, mb1mx4.0/39, mbtmp4.3/15, ML2.3/1, MS3.4/14, Ms1 3.4/14, ms1mx3.2/36, Error ellipse: s-maj=32.2km s-min=11.3km az=123.0*

**ISC 03 19:45:57.2**±0.5**, 5.°40S**±0.°07×**151.°72E**±0.°07**, h45**km**, n69, σ1.s44**/68**, mb4.6**/33**, MS3.4**/13**, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **6.02** | **228** | Pn | **Pn** | **19 47 25.4** | **+1.5** |
| | 4.4nm,0.3s,baz=36,slow=12,SNR=32 | | | | | | |
| PMG | | | | Sn | **Sn** | **19 48 31.4** | **-0.1** |
| | 2.9nm,0.3s,baz=106,slow=12,SNR=5.1 | | | | | | |
| PMG | | | | LR | LR | 19 49 00.4 | |
| | comp=Z,69nm,19.2s,baz=19,slow=30 | | | | | | |
| **PMG** | **Port Moresby** | **6.02** | **228** | *e*Pn | **Pn** | **19 47 25.6** | **+1.8** |
| PMG | | | | *e*Sn | **Sn** | **19 48 25.1** | **-6.5** |
| PMG | | | | Sn | Sn | 19 48 31.4 | -0.1 |
| **HNR** | **Honiara** | **9.09** | **117** | *e*Pn | **Pn** | **19 48 04.8** | **-1.2** |
| **COEN** | **Coen** | **11.96** | **224** | *e*Pn | **Pn** | **19 48 43.3** | **-1.9** |
| **CTAO** | **Charters Tower** | **15.54** | **200** | *e*Pn | **Pn** | **19 49 34.0** | **+0.6** |
| | 53nm,1.7s | | | | | | |
| **EIDS** | **Eidsvold** | **19.87** | **182** | *e*P | **P** | **19 50 25.0** | **+0.2** |
| | 46nm,1.6s | | | | | | |
| **GUMO** | **Guam** | **20.05** | **340** | LR | LR | 19 56 54.2 | |
| | comp=Z,62nm,21.8s,baz=112,slow=33 | | | | | | |
| **MTN** | **Manton Dam** | **21.61** | **249** | *e*P | **P** | **19 50 45.1** | **+1.4** |
| | 52nm,1.6s | | | | | | |
| **DZM** | **Mont Dzumac** | **21.86** | **141** | LR | LR | 19 58 30.7 | |
| | comp=Z,221nm,19.5s,baz=242,slow=34 | | | | | | |
| **DZM** | **Mont Dzumac** | **21.86** | **141** | *e*P | **P** | **19 50 45.9** | **-0.4** |
| | 39nm,1.6s | | | | | | |
| **WC3** | **Warramunga Arr** | **22.23** | **228** | *e*P | **P** | **19 50 49.8** | **-0.5** |
| | 10.0nm,0.8s | | | | | | |
| **WRAB** | **Tennant Creek** | **22.23** | **228** | *e*P | **P** | **19 50 49.9** | **-0.3** |
| | 13nm,0.8s | | | | | | |
| **WB2** | **Warramunga Arr** | **22.23** | **228** | *e*P | **P** | **19 50 49.6** | **-0.7** |
| **WR1** | **Warramunga Arr** | **22.24** | **228** | *e*P | **P** | **19 50 50.7** | **+0.3** |
| | 14nm,1.0s | | | | | | |
| WR1 | | | | *e*S | **S** | **19 54 52.0** | **-0.7** |
| **WRA** | **Warramunga Arr** | **22.24** | **228** | P | **P** | **19 50 50.7** | **+0.3** |
| | 6.1nm,0.9s,baz=52,slow=10,SNR=30 | | | | | | |
| WRA | | | | S | **S** | **19 54 52.0** | **-0.7** |
| | 3.8nm,1.1s,baz=54,slow=20,SNR=4.6 | | | | | | |
| WRA | | | | LR | LR | 20 00 57.6 | |
| | comp=Z,119nm,18.1s,baz=60,slow=40 | | | | | | |
| **AS01** | **Alice Springs** | **24.95** | **222** | *e*P | **P** | **19 51 17.3** | **+0.6** |
| **AS31** | **Alice Springs** | **24.98** | **222** | *e*P | **P** | **19 51 16.9** | **0.0** |
| | 3.4nm,0.8s | | | | | | |
| **ASAR** | **Alice Springs** | **24.98** | **222** | P | **P** | **19 51 17.6** | **+0.6** |
| | 3.4nm,0.7s,baz=58,slow=8.8,SNR=54 | | | | | | |
| ASAR | | | | S | **S** | **19 55 43.6** | **+5.7** |
| | 2.2nm,1.1s,baz=41,slow=19,SNR=7.0 | | | | | | |
| ASAR | | | | LR | LR | 20 02 03.2 | |
| | comp=Z,66nm,19.4s,baz=83,slow=39 | | | | | | |
| **SOEI** | **Soe** | **27.54** | **259** | *e*P | **P** | **19 51 39.5** | **-0.8** |
| | 14nm,0.9s | | | | | | |
| **STKA** | **Stephens Creek** | **28.00** | **199** | P | **P** | **19 51 45.5** | **+1.6** |
| | 1.8nm,0.8s,baz=72,slow=11,SNR=3.5 | | | | | | |
| STKA | | | | LR | LR | 20 03 11.6 | |
| | comp=Z,91nm,19.5s,baz=31,slow=37 | | | | | | |
| **STKA** | **Stephens Creek** | **28.00** | **199** | *e*P | **P** | **19 51 43.6** | **-0.3** |
| | 4.9nm,1.7s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **28.43** | **241** | P | **P** | **19 51 47.9** | **0.0** |
| | 13nm,0.9s,baz=48,slow=7.6,SNR=17 | | | | | | |
| FITZ | | | | LR | LR | 20 04 51.2 | |
| | comp=Z,68nm,18.6s,baz=62,slow=40 | | | | | | |
| **MSVF** | **Nonsavu** | **28.51** | **118** | *e*P | **P** | **19 51 50.5** | **+1.7** |
| | 23nm,1.4s | | | | | | |
| **LUWI** | **Luwuk** | **29.21** | **278** | *e*P | **P** | **19 51 54.4** | **-0.6** |
| | 22nm,0.7s | | | | | | |
| **MBWA** | **Marble Bar** | **34.74** | **240** | *e*P | **P** | **19 52 43.5** | **+0.1** |
| | 64nm,1.8s | | | | | | |
| **TGY** | **Tagaytay City** | **36.16** | **303** | LR | LR | 20 05 18.8 | |
| | comp=Z,88nm,21.6s,baz=228,slow=32 | | | | | | |
| **AFI** | **Afiamalu** | **36.93** | **106** | *e*P | **P** | **19 52 59.6** | **-2.7** |
| | 104nm,1.8s | | | | | | |
| **JAGI** | **Jajag, Banyuwa** | **37.40** | **263** | *e*P | **P** | **19 53 05.3** | **-0.9** |
| | 40nm,1.2s | | | | | | |
| **TPUB** | **Ta-pu** | **41.65** | **314** | *e*P | **P** | **19 53 41.4** | **-0.2** |
| | 269nm,2.0s | | | | | | |
| **SSLB** | **Suanglung** | **41.73** | **315** | *e*P | **P** | **19 53 40.3** | **-1.9** |
| | 132nm,2.0s | | | | | | |
| **YHNB** | **Yeheng** | **42.02** | **317** | *e*P | **P** | **19 53 43.0** | **-1.6** |
| | 132nm,1.6s | | | | | | |
| **MJAR** | **Matsushiro Arr** | **43.59** | **344** | LR | LR | 20 09 51.6 | |
| | comp=Z,50nm,21.7s,baz=260,slow=33 | | | | | | |
| **CISI** | **Cisompet, Garu** | **43.66** | **265** | *e*P | **P** | **19 53 57.6** | **-0.5** |
| | 28nm,1.1s | | | | | | |
| **KSRS** | **Korea Array** | **48.06** | **334** | LR | LR | 20 13 20.5 | |
| | comp=Z,20nm,21.2s,baz=140,slow=34 | | | | | | |
| **PSI** | **Prapat** | **53.36** | **278** | LR | LR | 20 20 20.5 | |
| | comp=Z,31nm,21.1s,baz=78,slow=39 | | | | | | |
| **CM01** | **Chiang Mai Arr** | **57.13** | **296** | *e*P | **P** | **19 55 40.9** | **+1.1** |
| **CM31** | **Chiang Mai Arr** | **57.16** | **296** | *e*P | **P** | **19 55 41.5** | **+1.5** |
| **CMAR** | **Chiang Mai Arr** | **57.16** | **296** | P | **P** | **19 55 41.6** | **+1.6** |
| | 0.9nm,0.8s,baz=122,slow=5.9,SNR=9.6 | | | | | | |
| CMAR | | | | LR | LR | 20 20 34.3 | |
| | comp=Z,22nm,18.9s,baz=121,slow=36 | | | | | | |
| **PETK** | **Petropavlovsk-** | **58.51** | **4** | P | **P** | **19 55 48.6** | **-0.2** |
| | 4.8nm,1.0s,baz=177,slow=7.2,SNR=4.3 | | | | | | |
| PETK | | | | LR | LR | 20 15 34.9 | |
| | comp=Z,40nm,20.5s,baz=172,slow=30 | | | | | | |
| **PEA1** | **Petropavlovsk-** | **58.51** | **4** | *e*P | **P** | **19 55 48.6** | **-0.2** |
| **ULN** | **Ulaanbaatar** | **65.94** | **329** | *e*P | **P** | **19 56 39.5** | **+0.7** |
| **SONA0** | **Songino Array** | **66.26** | **328** | *e*P | **P** | **19 56 41.7** | **+0.8** |
| **SONM** | **Songino Array** | **66.26** | **328** | P | **P** | **19 56 41.7** | **+0.8** |
| | 2.3nm,0.7s,baz=134,slow=3.8,SNR=8.6 | | | | | | |
| **SONA1** | **Songino Array** | **66.26** | **328** | *e*P | **P** | **19 56 41.5** | **+0.5** |
| **MK01** | **Makanchi Array** | **80.05** | **319** | *e*P | **P** | **19 58 02.8** | **+0.6** |
| **MK31** | **Makanchi Array** | **80.07** | **319** | *e*P | **P** | **19 58 02.0** | **-0.4** |
| **MK32** | **Makanchi Array** | **80.07** | **319** | *e*P | **P** | **19 58 03.0** | **+0.7** |
| **MKAR** | **Makanchi Array** | **80.07** | **319** | P | **P** | **19 58 03.0** | **+0.7** |
| | 1.9nm,0.9s,baz=102,slow=6.2,SNR=11 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **81.05** | **327** | P | **P** | **19 58 07.3** | **0.0** |
| | 1.0nm,0.5s,baz=89,slow=5.6,SNR=8.3 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **81.05** | **327** | *e*P | **P** | **19 58 06.2** | **-1.2** |
| **ZAA1** | **Zalesovo Array** | **81.05** | **327** | *e*P | **P** | **19 58 07.3** | **0.0** |
| **ILAR** | **Eielson Array** | **83.12** | **22** | P | **P** | **19 58 16.9** | **-1.1** |
| | 1.2nm,0.7s,baz=250,slow=4.3,SNR=14 | | | | | | |
| **ILB** | **Eielson Array** | **83.12** | **22** | *e*P | **P** | **19 58 16.9** | **-1.1** |
| **KURK** | **Kurchatov** | **83.57** | **322** | *e*P | **P** | **19 58 20.9** | **+0.3** |
| | 5.3nm,1.1s | | | | | | |
| **BVAR** | **Borovoye Array** | **89.07** | **323** | P | **P** | **19 58 47.1** | **-0.5** |
| | 2.2nm,0.8s,baz=100,slow=5.3,SNR=13 | | | | | | |
| **INK** | **Inuvik** | **89.40** | **21** | P | **P** | **19 58 47.9** | **-0.8** |
| | 0.6nm,0.8s,baz=264,slow=7.5,SNR=3.1 | | | | | | |
| **INK** | **Inuvik** | **89.40** | **21** | *e*P | **P** | **19 58 47.3** | **-1.5** |
| | 22nm,2.0s | | | | | | |
| **I07A** | **Izee** | **92.84** | **46** | *e*P | **P** | **19 59 06.3** | **+0.8** |
| | 4.7nm,0.9s | | | | | | |
| **WVOR** | **Wild Horse Val** | **93.34** | **48** | *e*P | **P** | **19 59 09.2** | **+1.3** |
| | 18nm,1.9s | | | | | | |
| **F10A** | **Beach Ranch, E** | **94.58** | **44** | *e*P | **P** | **19 59 13.6** | **+0.2** |
| | 6.6nm,1.2s | | | | | | |
| **YKA** | **Yellowknife Ar** | **96.46** | **28** | P | **P** | **19 59 21.7** | **+0.2** |
| | 0.2nm,0.6s,baz=273,slow=4.9,SNR=2.6 | | | | | | |
| **YKB5** | **Yellowknife Ar** | **96.46** | **28** | *e*P | **P** | **19 59 21.7** | **+0.2** |
| **PD31** | **Pinedale Array** | **100.05** | **48** | *e*Pdif | **Pdif** | **19 59 37.6** | **-0.8** |
| **PDAR** | **Pinedale Array** | **100.05** | **48** | P | **Pdif** | **19 59 37.3** | **-1.1** |
| | 1.1nm,0.8s,baz=262,slow=1.8,SNR=5.6 | | | | | | |
| PDAR | | | | LR | LR | 20 39 39.6 | |
| | comp=Z,50nm,18.4s,baz=302,slow=32 | | | | | | |
| **GERES** | **GERESS Array B** | **123.99** | **328** | PKP | **PKPdf** | **20 04 51.6** | **+0.7** |
| | 1.0nm,0.7s,baz=5.7,slow=3.9,SNR=2.1 | | | | | | |
| **LPAZ** | **La Paz** | **135.08** | **119** | PKP | **PKPdf** | **20 05 14.8** | **+1.3** |
| | 1.0nm,0.7s,baz=277,slow=1.3,SNR=3.7 | | | | | | |
| **LPAZ** | **La Paz** | **135.08** | **119** | *e*PKPpre | PKPpre | 20 05 03.5 | |
| LPAZ | | | | *e*PKPdf | **PKPdf** | **20 05 13.9** | **+0.4** |
| **TORD** | **Torodi Ar. Bea** | **149.45** | **287** | PKPbc | **PKPbc** | **20 05 42.8** | **+0.2** |
| | 11nm,0.8s,baz=76,slow=3.0,SNR=56 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **149.46** | **287** | *e*PKPbc | **PKPbc** | **20 05 42.8** | **+0.2** |

**IDC 03 20:04:01.4**±1.9**, 1.°12N**×**124.°69E, h0**km**, mb3.2**/3**, mb1 3.4**/4**, mb1mx3.2**/43**, mbtmp3.2**/4**, ML3.2**/1**, Error ellipse: s-maj=124.1km s-min=25.8km az=66.0, Minahassa Peninsula, Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **19.13** | **177** | P | P | 20 08 24.4 | -1.8 |
| | 0.1nm,0.3s,baz=360,slow=11,SNR=5.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **22.97** | **156** | P | P | 20 09 09.2 | +1.4 |
| | 0.5nm,0.4s,baz=338,slow=10,SNR=21 | | | | | | |
| **ASAR** | **Alice Springs** | **26.22** | **161** | P | P | 20 09 37.7 | -0.6 |
| | 0.1nm,0.3s,baz=330,slow=8.5,SNR=5.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **58.57** | **327** | P | P | 20 14 00.2 | +0.1 |
| | 0.1nm,0.3s,baz=136,slow=8.3,SNR=3.7 | | | | | | |

*ISCJB **03** 20:05:48.3±0.8, 5.°56S±0.°09×151.°9E±0.°1, h45km, mb4.2/14, MS3.4/11, Error ellipse: s-maj=22.5km s-min=7.3km az=27.7*

*NEIC **03** 20:05:49.9±0.9, 5.°55S×151.°97E, h48km±8km, mb4.4/7, Error ellipse: s-maj=19.2km s-min=6.4km az=117.0*

*IDC **03** 20:05:54.3±2.9, 5.°64S×151.°69E, h80km±23km, mb3.8/9, mb1 4.0/10, mb1mx3.7/33, mbtmp4.1/10, MS3.4/12, Ms1 3.4/12, ms1mx3.2/40, Error ellipse: s-maj=35.7km s-min=13.5km az=124.0*

**ISC 03 20:05:49.1**±0.8**, 5.°72S**±0.°09×**152.°0E**±0.°1**, h45**km**, n40, σ2.s05**/37**, mb4.2**/14**, MS3.3**/11**, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RABL** | **Rabaul** | **1.53** | **7** | *e*Pn | **Pn** | **20 06 14.0** | **0.0** |
| RABL | | | | *e*Sn | **Sn** | **20 06 34.4** | **+1.6** |
| **PMG** | **Port Moresby** | **6.02** | **232** | P | **Pn** | **20 07 18.6** | **+3.0** |
| | 6.6nm,0.3s,baz=53,slow=7.3,SNR=24 | | | | | | |
| PMG | | | | S | **Sn** | **20 08 22.9** | **-0.4** |
| | 4.6nm,0.3s,baz=45,slow=16,SNR=3.6 | | | | | | |
| **PMG** | **Port Moresby** | **6.02** | **232** | *e*Pn | **Pn** | **20 07 18.6** | **+2.9** |
| PMG | | | | *e*Sn | **Sn** | **20 08 18.6** | **-4.6** |
| **HNR** | **Honiara** | **8.72** | **115** | LR | LR | 20 10 57.2 | |
| | comp=Z,105nm,21.8s,baz=244,slow=34 | | | | | | |
| **COEN** | **Coen** | **11.92** | **226** | *e*Pn | **Pn** | **20 08 38.0** | **+1.4** |
| COEN | | | | *e*Sn | Sn | 20 10 33.8 | -14 |
| **PATS** | **Pohnpei** | **13.98** | **27** | *e*Pn | **Pn** | **20 09 01.7** | **-3.0** |
| **CTAO** | **Charters Tower** | **15.33** | **201** | *e*Pn | **Pn** | **20 09 17.4** | **-5.1** |
| | 58nm,2.0s | | | | | | |
| **EIDS** | **Eidsvold** | **19.56** | **182** | *e*P | **P** | **20 10 16.1** | **+2.9** |
| | 34nm,1.5s | | | | | | |
| **FAKI** | **Fak Fak** | **19.87** | **277** | *e*P | P | 20 10 05.4 | -11 |
| **DZM** | **Mont Dzumac** | **21.45** | **141** | LR | LR | 20 18 13.9 | |
| | comp=Z,118nm,20.0s,baz=20,slow=34 | | | | | | |
| **MTN** | **Manton Dam** | **21.74** | **250** | *e*P | **P** | **20 10 38.5** | **+1.6** |
| | 23nm,1.0s | | | | | | |
| **WRAB** | **Tennant Creek** | **22.21** | **229** | *e*P | **P** | **20 10 42.8** | **+0.9** |
| | 9.9nm,0.6s | | | | | | |
| **WB2** | **Warramunga Arr** | **22.22** | **229** | *e*P | **P** | **20 10 42.4** | **+0.5** |
| **WR1** | **Warramunga Arr** | **22.23** | **229** | *e*P | **P** | **20 10 43.4** | **+1.4** |
| | 11nm,0.7s | | | | | | |
| WR1 | | | | *e*S | **S** | **20 14 41.2** | **-3.1** |
| **WRA** | **Warramunga Arr** | **22.23** | **229** | P | **P** | **20 10 43.4** | **+1.4** |
| | 5.1nm,0.8s,baz=53,slow=10,SNR=24 | | | | | | |
| WRA | | | | S | **S** | **20 14 41.2** | **-3.1** |
| | 1.5nm,1.2s,baz=48,slow=25,SNR=3.1 | | | | | | |
| **AS01** | **Alice Springs** | **24.89** | **222** | *e*P | **P** | **20 11 11.4** | **+3.5** |
| **AS31** | **Alice Springs** | **24.92** | **222** | *e*P | **P** | **20 11 10.1** | **+1.9** |
| | 2.2nm,0.9s | | | | | | |
| **ASAR** | **Alice Springs** | **24.92** | **222** | P | **P** | **20 11 10.3** | **+2.1** |
| | 5.1nm,0.6s,baz=57,slow=8.7,SNR=58 | | | | | | |
| ASAR | | | | LR | LR | 20 20 46.8 | |
| | comp=Z,63nm,20.9s,baz=86,slow=36 | | | | | | |
| **STKA** | **Stephens Creek** | **27.78** | **199** | LR | LR | 20 22 56.2 | |
| | comp=Z,62nm,20.2s,baz=26,slow=37 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **28.51** | **242** | P | **P** | **20 11 40.9** | **+0.4** |
| | 7.7nm,0.8s,baz=57,slow=13,SNR=20 | | | | | | |
| FITZ | | | | LR | LR | 20 24 35.6 | |
| | comp=Z,27nm,19.2s,baz=76,slow=40 | | | | | | |
| **RPZ** | **Rata Peaks** | **41.40** | **159** | LR | LR | 20 28 57.3 | |
| | comp=Z,74nm,18.8s,baz=30,slow=33 | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **42.16** | **226** | LR | LR | 20 31 59.1 | |
| | comp=Z,73nm,21.8s,baz=340,slow=37 | | | | | | |
| **CISI** | **Cisompet, Garu** | **43.89** | **265** | *e*P | **P** | **20 13 51.0** | **-0.8** |
| | 64nm,1.5s | | | | | | |
| **MJAR** | **Matsushiro Arr** | **43.98** | **344** | LR | LR | 20 31 13.5 | |
| | comp=Z,23nm,20.9s,baz=160,slow=35 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **57.53** | **296** | P | **P** | **20 15 35.1** | **+0.7** |
| | 0.4nm,0.6s,baz=86,slow=5.8,SNR=3.8 | | | | | | |
| CMAR | | | | LR | LR | 20 40 21.4 | |
| | comp=Z,25nm,18.9s,baz=106,slow=36 | | | | | | |
| **SONA0** | **Songino Array** | **66.67** | **328** | *e*P | **P** | **20 16 35.5** | **+0.1** |
| **SONM** | **Songino Array** | **66.67** | **328** | P | **P** | **20 16 35.5** | **+0.1** |
| | 1.2nm,0.6s,baz=142,slow=5.3,SNR=5.8 | | | | | | |
| **MK32** | **Makanchi Array** | **80.48** | **319** | *e*P | **P** | **20 17 56.5** | **0.0** |
| **MKAR** | **Makanchi Array** | **80.48** | **319** | P | **P** | **20 17 56.5** | **0.0** |
| | 1.0nm,0.8s,baz=105,slow=7.1,SNR=6.9 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **81.46** | **327** | P | **P** | **20 18 00.3** | **-1.1** |
| | 0.7nm,0.4s,baz=97,slow=5.9,SNR=5.4 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **81.47** | **327** | *e*P | **P** | **20 18 00.3** | **-1.1** |
| **ILAR** | **Eielson Array** | **83.31** | **22** | P | **P** | **20 18 10.5** | **-0.4** |
| | 1.0nm,0.8s,baz=259,slow=5.1,SNR=9.9 | | | | | | |
| **MAW** | **Mawson** | **84.41** | **203** | LR | LR | 20 54 42.1 | |
| | comp=Z,26nm,18.8s,baz=59,slow=35 | | | | | | |
| **BVAR** | **Borovoye Array** | **89.48** | **323** | P | **P** | **20 18 40.1** | **-1.3** |
| | 1.3nm,0.8s,baz=117,slow=4.9,SNR=7.4 | | | | | | |
| **YBH** | **Yreka Blue Hor** | **90.27** | **48** | LR | LR | 20 50 44.7 | |
| | comp=Z,32nm,21.8s,baz=325,slow=30 | | | | | | |
| **ARU** | **Arti** | **96.62** | **326** | LR | LR | 21 05 40.7 | |
| | comp=Z,109nm,18.2s,baz=294,slow=37 | | | | | | |
| **GERES** | **GERESS Array B** | **124.40** | **328** | PKP | **PKPdf** | **20 24 44.4** | **+0.9** |
| | 1.0nm,0.6s,baz=46,slow=5.8,SNR=4.4 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **149.80** | **286** | PKPbc | **PKPbc** | **20 25 35.7** | **+0.4** |
| | 6.2nm,0.7s,baz=76,slow=3.1,SNR=36 | | | | | | |
| TORD | | | | PKPab | **PKPab** | **20 25 41.0** | **+0.3** |
| | 2.0nm,0.6s,baz=85,slow=2.6,SNR=7.3 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **149.80** | **286** | *e*PKPbc | **PKPbc** | **20 25 35.7** | **+0.4** |
| TOA1 | | | | *e*PKPab | **PKPab** | **20 25 41.0** | **+0.3** |
| **BDFB** | **Brasilia** | **150.97** | **137** | PKPbc | **PKPbc** | **20 25 39.6** | **+1.4** |
| | 1.5nm,0.6s,baz=343,slow=2.0,SNR=3.6 | | | | | | |

*KRNET **03** 20:14:44.8±0.1, 42.°90N×77.°80E, h27km, mb2.8*

*SOME **03** 20:14:45.0, 42.°95N×77.°78E, h5km*

**ISC 03 20:14:42.9**±1.1**, 42.°91N**±0.°04×**77.°80E**±0.°02**, h10**km±11km**, n20, σ0.s79**/38**, 10C-6D, Lake Issyk-Kul region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SATY** | **Saty** | **0.47** | **71** | *e*P | **Pb** | **20 14 53.7** | **+0.3** |
| | 9.5nm,0.1s | | | | | | |
| SATY | | | | *e*S | **Sb** | **20 14 59.9** | **-0.5** |
| | 33nm,0.1s | | | | | | |
| **KOTS** | **Kotyrbulak** | **0.60** | **303** | *e*P | **Pb** | **20 14 55.6** | **0.0** |
| KOTS | | | | *e*S | **Sb** | **20 15 03.3** | **-0.9** |
| **MDOK** | **Medeo** | **0.60** | **295** | *e*P | **Pb** | **20 14 56.0** | **+0.4** |
| | 2.4nm,0.2s | | | | | | |
| MDOK | | | | *e*S | **Sb** | **20 15 04.0** | **-0.3** |
| | 13nm,0.5s | | | | | | |
| **PRZ** | **Przheval'sk** | **0.62** | **134** | ⇑*i*P | **Pn** | **20 14 58.0** | **+0.1** |
| | baz=134 | | | | | | |
| PRZ | | | | ⇑*i*S | **Sb** | **20 15 06.1** | **+1.5** |
| | baz=134 | | | | | | |
| **TNSS** | **Tian-Shan** | **0.64** | **282** | *e*P | **Pb** | **20 14 56.3** | **-0.1** |
| | 1.1nm,0.2s | | | | | | |
| TNSS | | | | *e*S | **Sb** | **20 15 04.5** | **-1.0** |
| | 4.0nm,0.2s | | | | | | |
| **KURS** | **Kuram** | **0.64** | **25** | *e*P | **Pn** | **20 14 56.8** | **-1.3** |
| | 1.0nm,0.1s | | | | | | |
| KURS | | | | *e*S | **Sb** | **20 15 05.1** | **-0.1** |
| | 4.3nm,0.2s | | | | | | |
| **IZV** | **Izvestkoviy** | **0.88** | **279** | *e*P | **Pn** | **20 15 00.8** | **-0.6** |
| | 4.6nm,0.2s | | | | | | |
| IZV | | | | *e*S | **Sb** | **20 15 12.5** | **+0.3** |
| | 13nm,0.4s | | | | | | |
| **UZB** | **Uzynbulak** | **0.93** | **75** | *e*P | **Pn** | **20 15 01.8** | **-0.4** |
| | 1.6nm,0.1s | | | | | | |
| UZB | | | | *e*S | **Sb** | **20 15 13.8** | **+0.1** |
| | 9.3nm,0.2s | | | | | | |
| **CHKK** | **Chushkaly** | **1.11** | **328** | *e*P | **Pn** | **20 15 06.0** | **+1.5** |
| | 0.3nm,0.1s | | | | | | |
| CHKK | | | | *e*S | **Sn** | **20 15 21.2** | **+1.2** |
| | 7.8nm,0.1s | | | | | | |
| **SHLS** | **Shalkode** | **1.25** | **78** | *e*P | Pg | 20 15 13.1 | +6.3 |
| | 3.1nm,0.3s | | | | | | |
| SHLS | | | | *e*S | Sn | 20 15 33.2 | +10 |
| | 4.5nm,0.4s | | | | | | |
| **PDGK** | **Podgornoye** | **1.31** | **71** | ⇑*e*P | **Pg** | **20 15 08.4** | **+0.4** |
| | baz=70 | | | | | | |
| PDGK | | | | ⇑*i*S | **Sg** | **20 15 25.1** | **+0.1** |
| | baz=70 | | | | | | |
| **ULHL** | **Ulahol** | **1.33** | **240** | ⇑*i*P | **Pg** | **20 15 08.4** | **0.0** |
| | baz=240 | | | | | | |
| ULHL | | | | ⇑*i*S | **Sg** | **20 15 25.9** | **+0.3** |
| | baz=240 | | | | | | |
| **BOOM** | **Boomskoye usch** | **1.43** | **254** | ⇓*e*P | **Pg** | **20 15 10.6** | **+0.2** |
| | baz=254 | | | | | | |
| BOOM | | | | ⇓*e*S | **Sg** | **20 15 28.8** | **-0.2** |
| | baz=254 | | | | | | |
| **KUU** | **Kurty** | **1.45** | **313** | *e*P | **Pg** | **20 15 11.7** | **+1.0** |
| | 1.6nm,0.5s | | | | | | |
| KUU | | | | *e*S | **Sg** | **20 15 30.9** | **+1.4** |
| | 3.4nm,0.3s | | | | | | |
| **DGS** | **Degeres** | **1.52** | **283** | *e*P | **Pg** | **20 15 12.2** | **+0.1** |
| | 1.1nm,0.3s | | | | | | |
| DGS | | | | *e*S | **Sg** | **20 15 31.9** | **0.0** |
| | 1.9nm,0.3s | | | | | | |
| **TKM2** | **Tokmak 2** | **1.62** | **271** | ⇑*i*P | **Pg** | **20 15 13.7** | **-0.2** |
| | baz=271 | | | | | | |
| TKM2 | | | | ⇑*i*S | **Sg** | **20 15 35.5** | **+0.6** |
| | baz=271 | | | | | | |
| **DJR** | **Jarkent** | **2.03** | **45** | *e*P | **Pg** | **20 15 21.2** | **-0.6** |
| | 2.1nm,0.2s | | | | | | |
| DJR | | | | *e*S | **Sg** | **20 15 46.9** | **-1.2** |
| | 7.1nm,0.2s | | | | | | |
| **KBK** | **Karagaybulak** | **2.11** | **264** | ⇓*i*P | **Pb** | **20 15 21.2** | **-0.2** |
| | baz=264 | | | | | | |
| KBK | | | | ⇓*i*S | **Sb** | **20 15 48.3** | **+0.6** |
| | baz=264 | | | | | | |
| **USP** | **Ospenovka** | **2.44** | **280** | ⇓*i*P | **Pb** | **20 15 26.0** | **-0.9** |
| | baz=280 | | | | | | |
| USP | | | | ⇓*i*S | **Sb** | **20 15 56.6** | **-0.5** |
| | baz=280 | | | | | | |
| **AAK** | **Ala-Archa** | **2.45** | **265** | ⇑*i*P | **Pb** | **20 15 25.6** | **-1.5** |
| | baz=265 | | | | | | |
| AAK | | | | ⇑*i*S | **Sb** | **20 15 56.0** | **-1.3** |
| | baz=265 | | | | | | |

**IDC 03 20:17:25.5**±4.7**, 7.°88S**×**104.°30E, h0**km**, mb3.6**/6**, mb1 3.7**/6**, mb1mx3.5**/46**, mbtmp3.6**/6**, Error ellipse: s-maj=196.1km s-min=22.5km az=52.0, Southwest of Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CMAR** | **Chiang Mai Arr** | **26.70** | **349** | P | P | 20 23 06.5 | -0.1 |
| | 1.2nm,0.7s,baz=179,slow=9.1,SNR=15 | | | | | | |
| **WRA** | **Warramunga Arr** | **31.46** | **116** | P | P | 20 23 47.7 | -1.3 |
| | 0.5nm,0.7s,baz=286,slow=12,SNR=4.6 | | | | | | |
| **ASAR** | **Alice Springs** | **32.42** | **122** | P | P | 20 23 58.6 | +1.1 |
| | 0.7nm,1.1s,baz=297,slow=8.2,SNR=3.7 | | | | | | |
| **SONM** | **Songino Array** | **55.50** | **2** | P | P | 20 27 03.1 | +0.7 |
| | 0.2nm,0.4s,baz=185,slow=8.7,SNR=2.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **57.85** | **342** | P | P | 20 27 18.8 | -0.3 |
| | 0.3nm,0.7s,baz=159,slow=4.5,SNR=2.4 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **63.76** | **347** | P | P | 20 27 58.5 | -0.5 |
| | 0.5nm,0.4s,baz=158,slow=6.9,SNR=3.6 | | | | | | |
| **TXAR** | **Lajitas Array** | **146.14** | **47** | PKPbc | PKPbc | 20 37 08.2 | -0.3 |
| | 0.3nm,0.6s,baz=282,slow=1.2,SNR=4.1 | | | | | | |

*ATH **03** 20:18:47.9, 38.°36N×21.°80E, h18km, ML3.3/22, Error ellipse: s-maj=0.8km s-min=0.6km az=134.0*

*ISCJB **03** 20:18:48.5±0.2, 38.°36N±0.°01×21.°79E±0.°02, h10km±2km, mb3.9/6, Error ellipse: s-maj=2.5km s-min=2.3km az=137.6*

*IASPEI **03** 20:18:48.4±0.8, 38.°37N±0.°02×21.°79E±0.°02, h11km±5km, mb4.0/6, Error ellipse: s-maj=2.5km s-min=2.1km az=142.8, GT5 selection from ISC bulletin GT5 identified by Bondˆ¡r and McLaughlin (2009) selection criteria Bondˆ¡r and McLaughlin, A new ground truth data set for seismic studies, <i>Seism. Res. Let.</i>, <b>80</b>, 465-472, 2009*

*CSEM **03** 20:18:48.5±0.1, 38.°36N×21.°82E, h2km, ML3.5, Error ellipse: s-maj=2.3km s-min=1.9km az=65.0*

*THE **03** 20:18:48.6, 38.°35N×21.°80E, h0km±1km, ML3.5/9, Error ellipse: s-maj=1.7km s-min=0.5km az=250.0*

*IDC **03** 20:18:54.5±2.2, 38.°35N×21.°81E, h59km±25km, mb3.5/7,*

*mb1 3.5/10, mb1mx3.3/42, mbtmp3.6/10, ML3.1/3, Error ellipse: s-maj=19.6km s-min=13.2km az=86.0*

**ISC 03 20:18:49.0**±0.7**, 38.35N**±0.01×**21.81E**±0.01**, h10**$^{km}$±4$^{km}$**, n219,** σ**1.06**/265**, mb4.0**/6**, 6C-4D, Greece**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| UPR | University Cam | 0.07 | 193 | P | Pg | 20 18 50.2 | -0.9 |
| UPR | University Cam | 0.07 | 193 | P | Pg | 20 18 50.8 | -0.3 |
| UPR | | | | S | Sg | 20 18 52.7 | 0.0 |
| UPR | University Cam | 0.07 | 193 | P | Pg | 20 18 50.8 | -0.3 |
| EFP | Efpalio | 0.11 | 46 | P | Pg | 20 18 50.7 | -0.9 |
| EFP | | | | S | Sg | 20 18 52.8 | -0.7 |
| EFP | | | | AML | AML | 20 18 53.7 | |
| | comp=E,98535µm,0.2s | | | | | | |
| EFP | | | | AML | AML | 20 18 54.6 | |
| | comp=N,37790µm,0.3s | | | | | | |
| EFP | Efpalio | 0.11 | 46 | P | Pg | 20 18 51.1 | -0.5 |
| EFP | | | | S | Sg | 20 18 52.8 | -0.7 |
| EFP | Efpalio | 0.11 | 46 | P | Pg | 20 18 51.1 | -0.5 |
| EFP | | | | S | Sg | 20 18 53.5 | 0.0 |
| LAKA | Lakka | 0.17 | 129 | P | Pg | 20 18 52.5 | -0.2 |
| LAKA | | | | S | Sg | 20 18 55.2 | -0.1 |
| LAKA | | | | AML | AML | 20 18 55.9 | |
| | comp=N,19848µm,0.4s | | | | | | |
| LAKA | | | | AML | AML | 20 18 56.8 | |
| | comp=E,15064µm,0.1s | | | | | | |
| LAKA | Lakka | 0.17 | 129 | P | Pg | 20 18 52.5 | -0.2 |
| LAKA | | | | S | Sg | 20 18 55.2 | -0.1 |
| LAKA | Lakka | 0.17 | 129 | P | Pg | 20 18 52.5 | -0.2 |
| LAKA | | | | S | Sg | 20 18 55.7 | +0.4 |
| SERG | Sergoula | 0.21 | 73 | P | Pg | 20 18 53.1 | -0.2 |
| SERG | | | | S | Sg | 20 18 56.5 | +0.2 |
| SERG | | | | AML | AML | 20 18 57.6 | |
| | comp=E,23367µm,0.4s | | | | | | |
| SERG | | | | AML | AML | 20 18 57.8 | |
| | comp=N,22774µm,0.2s | | | | | | |
| SERG | Sergoula | 0.21 | 73 | P | Pg | 20 18 52.9 | -0.4 |
| SERG | | | | S | Sg | 20 18 56.4 | +0.2 |
| SERG | Sergoula | 0.21 | 73 | P | Pg | 20 18 53.0 | -0.2 |
| SERG | | | | S | Sg | 20 18 56.6 | +0.4 |
| TRIZ | Trizonia | 0.21 | 86 | P | Pg | 20 18 53.4 | +0.1 |
| TRIZ | | | | S | Sg | 20 18 57.5 | +1.2 |
| TRIZ | Trizonia | 0.21 | 86 | P | Pg | 20 18 53.2 | -0.1 |
| TRIZ | | | | S | Sg | 20 18 56.8 | +0.6 |
| ANX | Ano Chora | 0.26 | 20 | P | Pg | 20 18 53.6 | -0.6 |
| ANX | | | | AML | AML | 20 18 58.1 | |
| | comp=N,19105µm,0.3s | | | | | | |
| ANX | | | | AML | AML | 20 18 58.3 | |
| | comp=E,25461µm,0.3s | | | | | | |
| ANX | | | | S | Sg | 20 18 58.4 | +0.6 |
| ANX | Ano Chora | 0.26 | 20 | P | Pg | 20 18 53.6 | -0.6 |
| ANX | | | | S | Sg | 20 18 56.9 | -0.9 |
| ANX | Ano Chora | 0.26 | 20 | P | Pg | 20 18 53.6 | -0.6 |
| KALE | Kalithea | 0.27 | 81 | P | Pg | 20 18 54.3 | -0.1 |
| KALE | | | | S | Sb | 20 18 59.2 | -1.4 |
| KALE | | | | AML | AML | 20 19 00.0 | |
| | comp=N,19431µm,0.2s | | | | | | |
| KALE | | | | AML | AML | 20 19 01.3 | |
| | comp=E,11325µm,0.2s | | | | | | |
| KALE | Kalithea | 0.27 | 81 | P | Pg | 20 18 54.0 | -0.4 |
| KALE | | | | S | Sg | 20 18 58.5 | +0.5 |
| KALE | Kalithea | 0.27 | 81 | P | Pg | 20 18 54.0 | -0.4 |
| KALE | | | | S | Sg | 20 18 58.5 | +0.5 |
| PVO | Paravola | 0.34 | 320 | P | Pg | 20 18 54.5 | -1.3 |
| PVO | | | | S | Sg | 20 19 00.8 | +0.4 |
| PVO | | | | AML | AML | 20 19 04.3 | |
| | comp=E,8399µm,0.3s | | | | | | |
| PVO | | | | AML | AML | 20 19 04.3 | |
| | comp=N,17722µm,0.6s | | | | | | |
| PVO | Paravola | 0.34 | 320 | P | Pg | 20 18 54.7 | -1.1 |
| PVO | | | | S | Sg | 20 19 00.8 | +0.4 |
| PVO | Paravola | 0.34 | 320 | P | Pg | 20 18 54.7 | -1.1 |
| AXS | Araxos | 0.37 | 245 | P | Pg | 20 18 54.9 | -1.5 |
| AXS | | | | S | Sg | 20 19 01.4 | +0.1 |
| AXS | Araxos | 0.37 | 245 | P | Pg | 20 18 55.2 | -1.1 |
| AXS | | | | S | Sg | 20 19 01.6 | +0.4 |
| AXS | Araxos | 0.37 | 245 | P | Pg | 20 18 55.2 | -1.1 |
| RLS | Riolos of Patr | 0.40 | 222 | P | Pg | 20 18 56.5 | -0.2 |
| RLS | | | | AML | AML | 20 19 03.0 | |
| | comp=N,8249µm,0.4s | | | | | | |
| RLS | | | | S | Sb | 20 19 03.6 | -0.6 |
| RLS | | | | AML | AML | 20 19 04.8 | |
| | comp=E,12393µm,0.3s | | | | | | |
| RLS | Riolos of Patr | 0.40 | 222 | P | Pg | 20 18 56.5 | -0.2 |
| RLS | | | | S | Sg | 20 19 02.5 | +0.5 |
| RLS | Riolos of Patr | 0.40 | 222 | P | Pg | 20 18 56.3 | -0.5 |
| RLS | | | | S | Sg | 20 19 02.7 | +0.7 |
| DRO | Drossia | 0.41 | 191 | P | Pg | 20 18 56.6 | -0.3 |
| DRO | | | | S | Sb | 20 19 03.6 | -1.0 |
| DRO | | | | AML | AML | 20 19 04.2 | |
| | comp=E,28979µm,0.3s | | | | | | |
| DRO | | | | AML | AML | 20 19 04.8 | |
| | comp=N,16802µm,0.2s | | | | | | |
| DRO | Drossia | 0.41 | 191 | P | Pg | 20 18 56.6 | -0.3 |
| DRO | | | | S | Sg | 20 19 02.6 | +0.3 |
| DRO | Drossia | 0.41 | 191 | P | Pg | 20 18 56.5 | -0.4 |
| DRO | | | | S | Sg | 20 19 02.8 | +0.5 |
| KLV | Kalavryta, Ach | 0.41 | 139 | P | Pg | 20 18 56.6 | -0.4 |
| KLV | | | | AML | AML | 20 19 04.3 | |
| | comp=N,2306µm,0.3s | | | | | | |
| KLV | | | | AML | AML | 20 19 05.8 | |
| | comp=E,3022µm,0.2s | | | | | | |
| KLV | Kalavryta, Ach | 0.41 | 139 | P | Pg | 20 18 56.5 | -0.5 |
| KLV | Kalavryta, Ach | 0.41 | 139 | P | Pg | 20 18 56.5 | -0.5 |
| PDO | Prodromos | 0.55 | 297 | P | Pg | 20 18 57.9 | -1.7 |
| PDO | | | | AML | AML | 20 19 11.7 | |
| | comp=N,12648µm,0.3s | | | | | | |
| PDO | | | | AML | AML | 20 19 13.1 | |
| | comp=E,5881µm,0.3s | | | | | | |
| PDO | Prodromos | 0.55 | 297 | P | Pg | 20 18 58.3 | -1.3 |
| PDO | | | | S | Sg | 20 19 07.3 | +0.5 |
| PDO | Prodromos | 0.55 | 297 | P | Pg | 20 18 58.3 | -1.3 |
| PDO | | | | S | Sg | 20 19 07.8 | +1.0 |
| EVR | Evrytania | 0.56 | 0 | P | Pg | 20 18 58.5 | -1.4 |
| EVR | | | | AML | AML | 20 19 15.0 | |
| | comp=N,3213µm,0.6s | | | | | | |
| EVR | | | | AML | AML | 20 19 15.0 | |
| | comp=E,5621µm,0.8s | | | | | | |
| EVR | Evrytania | 0.56 | 0 | P | Pg | 20 18 58.6 | -1.4 |
| EVR | Evrytania | 0.56 | 0 | P | Pg | 20 18 58.6 | -1.4 |
| DSF | Desfina | 0.57 | 84 | P | Pg | 20 18 58.8 | -1.2 |
| DSF | | | | S | Sb | 20 19 08.3 | -1.0 |
| DSF | | | | AML | AML | 20 19 09.7 | |
| | comp=E,5247µm,0.2s | | | | | | |
| DSF | | | | AML | AML | 20 19 10.2 | |
| | comp=N,6917µm,0.2s | | | | | | |
| DSF | Desfina | 0.57 | 84 | P | Pg | 20 18 58.9 | -1.1 |
| DSF | | | | S | Sg | 20 19 07.8 | +0.3 |
| DSF | Desfina | 0.57 | 84 | P | Pg | 20 18 58.9 | -1.1 |
| DSF | | | | S | Sg | 20 19 07.8 | +0.3 |
| GUR | Goura | 0.59 | 134 | P | Pg | 20 18 59.4 | -1.1 |
| GUR | | | | S | Sb | 20 19 08.8 | -1.2 |
| GUR | | | | AML | AML | 20 19 09.1 | |
| | comp=N,11472µm,0.5s | | | | | | |
| GUR | | | | AML | AML | 20 19 11.0 | |
| | comp=E,9829µm,0.4s | | | | | | |
| GUR | Goura | 0.59 | 134 | P | Pg | 20 18 59.5 | -1.0 |
| GUR | | | | S | Sb | 20 19 08.8 | -1.2 |
| GUR | Goura | 0.59 | 134 | P | Pg | 20 18 59.5 | -1.0 |
| VTN | Vitineika | 0.66 | 229 | P | Pg | 20 19 02.0 | +0.4 |
| VTN | Vitineika | 0.66 | 229 | P | Pg | 20 19 02.0 | +0.4 |
| THAL | Thalero | 0.74 | 115 | P | Pg | 20 19 03.0 | -0.3 |
| THAL | | | | AML | AML | 20 19 21.4 | |
| | comp=N,6112µm,0.2s | | | | | | |
| THAL | | | | AML | AML | 20 19 21.9 | |
| | comp=E,8011µm,0.3s | | | | | | |
| THAL | Thalero | 0.74 | 115 | P | Pg | 20 19 02.6 | -0.7 |
| THAL | Thalero | 0.74 | 115 | P | Pg | 20 19 02.6 | -0.7 |
| AGG | Agios Georgios | 0.79 | 31 | P | Pg | 20 19 02.2 | -2.0 |
| AGG | | | | S | Sb | 20 19 15.6 | +0.1 |
| AGG | | | | AML | AML | 20 19 16.7 | |
| | comp=N,6666µm,0.4s | | | | | | |
| AGG | | | | AML | AML | 20 19 16.8 | |
| | comp=E,7828µm,0.3s | | | | | | |
| AGG | Agios Georgios | 0.79 | 31 | P | Pg | 20 19 02.5 | -1.6 |
| AGG | | | | S | Sg | 20 19 14.7 | +0.3 |
| AGG | Agios Georgios | 0.79 | 31 | P | Pg | 20 19 02.5 | -1.6 |
| AGG | | | | S | Sg | 20 19 14.7 | +0.3 |
| AMT | Artemida-Makis | 0.82 | 185 | P | Pg | 20 19 04.2 | -0.7 |
| AMT | | | | AML | AML | 20 19 21.6 | |
| | comp=N,5300µm,0.4s | | | | | | |
| AMT | | | | AML | AML | 20 19 24.5 | |
| | comp=E,5542µm,0.5s | | | | | | |
| AMT | Artemida-Makis | 0.82 | 185 | P | Pg | 20 19 04.6 | -0.2 |
| AMT | Artemida-Makis | 0.82 | 185 | P | Pg | 20 19 04.6 | -0.2 |
| PROD | Prodromos | 0.87 | 96 | P | Pg | 20 19 04.4 | -1.2 |
| PROD | | | | AML | AML | 20 19 21.4 | |
| | comp=E,7066µm,0.5s | | | | | | |
| PROD | | | | AML | AML | 20 19 23.7 | |
| | comp=N,4652µm,0.3s | | | | | | |
| PROD | Prodromos | 0.87 | 96 | P | Pg | 20 19 04.4 | -1.2 |
| TRIP | Tripoli | 0.90 | 156 | P | Pg | 20 19 05.1 | -1.2 |
| TRIP | Tripoli | 0.90 | 156 | P | Pg | 20 19 05.1 | -1.2 |
| DSL | Palaion Diasel | 0.96 | 325 | P | Pg | 20 19 04.6 | -2.8 |
| DSL | Palaion Diasel | 0.96 | 325 | P | Pg | 20 19 06.2 | -1.2 |
| DSL | Palaion Diasel | 0.96 | 325 | P | Pg | 20 19 06.2 | -1.2 |
| LTK | Loutraki | 0.97 | 109 | P | Pn | 20 19 08.2 | -0.6 |
| LTK | Loutraki | 0.97 | 109 | P | Pg | 20 19 07.3 | -0.4 |
| LTK | Loutraki | 0.97 | 109 | P | Pg | 20 19 07.3 | -0.4 |
| VLS | Valsamata | 0.97 | 260 | P | Pg | 20 19 05.4 | -2.3 |
| VLS | | | | S | Sg | 20 19 19.4 | -0.9 |
| VLS | | | | AML | AML | 20 19 22.4 | |
| | comp=N,3839µm,0.2s | | | | | | |
| VLS | | | | AML | AML | 20 19 22.5 | |
| | comp=E,2369µm,0.2s | | | | | | |
| VLS | Valsamata | 0.97 | 260 | P | Pg | 20 19 05.9 | -1.8 |
| VLS | | | | S | Sg | 20 19 19.5 | -0.9 |
| VLS | Valsamata | 0.97 | 260 | P | Pg | 20 19 05.9 | -1.8 |
| LKR | Lokris | 0.98 | 72 | P | Pg | 20 19 06.7 | -1.2 |
| LKR | | | | S | Sb | 20 19 21.6 | +0.5 |
| LKR | | | | AML | AML | 20 19 23.5 | |
| | comp=E,1747µm,0.2s | | | | | | |
| LKR | | | | AML | AML | 20 19 25.7 | |
| | comp=N,1778µm,0.5s | | | | | | |
| LKR | Lokris | 0.98 | 72 | P | Pg | 20 19 06.7 | -1.2 |
| LKR | Lokris | 0.98 | 72 | P | Pg | 20 19 06.7 | -1.2 |
| LOUT | Loutraki | 0.99 | 111 | P | Pb | 20 19 08.1 | -0.2 |
| LOUT | Loutraki | 0.99 | 111 | P | Pg | 20 19 07.3 | -0.7 |
| LOUT | Loutraki | 0.99 | 111 | P | Pg | 20 19 07.3 | -0.7 |
| VLX | Vlachokerasia | 1.08 | 155 | P | Pg | 20 19 08.5 | -1.2 |
| VLX | Vlachokerasia | 1.08 | 155 | P | Pg | 20 19 08.5 | -1.2 |
| VLX | Vlachokerasia | 1.08 | 155 | P | Pg | 20 19 08.2 | -1.5 |
| VIL2 | Platees | 1.16 | 96 | P | Pn | 20 19 11.2 | -0.1 |
| VIL2 | | | | S | Sg | 20 19 25.9 | -0.4 |
| VIL2 | | | | AML | AML | 20 19 32.7 | |
| | comp=N,3456µm,1.0s | | | | | | |
| VIL2 | | | | AML | AML | 20 19 32.9 | |
| | comp=E,2516µm,0.5s | | | | | | |
| ITM | Ithomi | 1.17 | 175 | P | Pb | 20 19 10.2 | -1.2 |
| ITM | | | | AML | AML | 20 19 34.0 | |
| | comp=E,1148µm,0.4s | | | | | | |
| ITM | | | | AML | AML | 20 19 36.4 | |
| | comp=N,886µm,0.5s | | | | | | |
| ITM | Ithomi | 1.17 | 175 | P | Pb | 20 19 10.2 | -1.2 |
| ITM | Ithomi | 1.17 | 175 | P | Pb | 20 19 10.2 | -1.2 |
| VILL | Villia | 1.20 | 99 | P | Pb | 20 19 11.2 | -0.7 |
| VILL | | | | S | Sb | 20 19 25.9 | -1.6 |
| VILL | Villia | 1.20 | 99 | P | Pb | 20 19 11.4 | -0.5 |
| SMIA | Simia | 1.22 | 64 | P | Pn | 20 19 11.6 | -0.6 |
| SMIA | Simia | 1.22 | 64 | P | Pn | 20 19 11.6 | -0.6 |
| THL | Klokotos Trika | 1.22 | 8 | P | Pn | 20 19 10.9 | -1.2 |
| THL | | | | S | Sb | 20 19 26.9 | -1.1 |
| THL | | | | AML | AML | 20 19 35.7 | |
| | comp=N,717µm,0.8s | | | | | | |
| THL | | | | AML | AML | 20 19 36.0 | |
| | comp=E,1104µm,0.7s | | | | | | |
| THL | Klokotos Trika | 1.22 | 8 | P | Pn | 20 19 12.0 | -0.2 |
| THL | | | | S | Sb | 20 19 27.0 | -1.1 |
| THL | Klokotos Trika | 1.22 | 8 | P | Pn | 20 19 12.0 | -0.2 |
| FYTO | Fytoko, Volos | 1.38 | 40 | P | Pn | 20 19 14.6 | +0.3 |
| FYTO | Fytoko, Volos | 1.38 | 40 | P | Pn | 20 19 14.2 | -0.1 |
| FYTO | Fytoko, Volos | 1.38 | 40 | P | Pn | 20 19 14.2 | -0.1 |
| LRSO | Larissa Observ | 1.39 | 19 | P | Pb | 20 19 15.4 | +0.3 |
| LRSO | Larissa Observ | 1.39 | 19 | P | Pb | 20 19 15.4 | +0.3 |
| DID | Didima | 1.41 | 126 | P | Pn | 20 19 14.4 | -0.4 |
| DID | Didima | 1.41 | 126 | P | Pn | 20 19 14.4 | -0.4 |
| DID | | | | S | Sg | 20 19 34.4 | 0.0 |
| DID | Didima | 1.41 | 126 | P | Pb | 20 19 15.1 | -0.3 |
| DID | | | | S | Sg | 20 19 34.4 | 0.0 |
| KRND | KRANIDI | 1.44 | 132 | P | Pn | 20 19 14.5 | -0.6 |
| KRND | KRANIDI | 1.44 | 132 | P | Pn | 20 19 15.0 | -0.1 |
| KRND | KRANIDI | 1.44 | 132 | P | Pn | 20 19 15.0 | -0.1 |
| PYL | PYLOS | 1.46 | 182 | P | Pn | 20 19 14.4 | -0.9 |
| PYL | PYLOS | 1.46 | 182 | P | Pn | 20 19 15.1 | -0.3 |
| PYL | PYLOS | 1.46 | 182 | P | Pn | 20 19 15.1 | -0.3 |
| NEO | Neokhori | 1.46 | 49 | P | Pn | 20 19 14.9 | -0.6 |
| NEO | Neokhori | 1.46 | 49 | P | Pn | 20 19 14.9 | -0.6 |
| NEO | Neokhori | 1.46 | 49 | P | Pn | 20 19 14.8 | -0.6 |
| XOR | Xorichti | 1.48 | 46 | P | Pn | 20 19 14.9 | -0.8 |
| XOR | Xorichti | 1.48 | 46 | P | Pn | 20 19 15.0 | -0.8 |
| XOR | Xorichti | 1.48 | 46 | P | Pn | 20 19 15.0 | -0.8 |
| ATHU | Athens Univers | 1.61 | 103 | P | Pn | 20 19 17.5 | 0.0 |
| ATHU | Athens Univers | 1.61 | 103 | P | Pn | 20 19 17.5 | 0.0 |
| ATHU | Athens Univers | 1.61 | 103 | P | Pn | 20 19 17.0 | -0.5 |
| KPRO | Kipourio | 1.64 | 348 | P | Pb | 20 19 19.7 | +0.4 |
| KPRO | Kipourio | 1.64 | 348 | P | Pn | 20 19 19.0 | +1.0 |
| KPRO | Kipourio | 1.64 | 348 | P | Pn | 20 19 19.0 | +1.0 |
| VLY | Voula,Athens | 1.65 | 107 | P | Pn | 20 19 17.8 | -0.2 |
| VLY | Voula,Athens | 1.65 | 107 | P | Pn | 20 19 17.8 | -0.2 |
| VLY | Voula,Athens | 1.65 | 107 | P | Pn | 20 19 18.1 | +0.1 |
| IGT | Igoumenitsa | 1.65 | 316 | P | Pb | 20 19 19.4 | -0.1 |
| IGT | Igoumenitsa | 1.65 | 316 | P | Pn | 20 19 18.6 | +0.6 |
| IGT | Igoumenitsa | 1.65 | 316 | P | Pn | 20 19 18.6 | +0.6 |
| PTL | Penteli | 1.65 | 100 | P | Pn | 20 19 17.7 | -0.4 |
| PTL | Penteli | 1.65 | 100 | P | Pn | 20 19 17.7 | -0.4 |
| PTL | Penteli | 1.65 | 100 | P | Pn | 20 19 18.5 | +0.4 |
| EREA | Eretria | 1.67 | 87 | P | Pn | 20 19 18.6 | +0.2 |
| EREA | Eretria | 1.67 | 87 | P | Pn | 20 19 18.6 | +0.2 |
| SGD | Sagiada | 1.76 | 316 | P | Pb | 20 19 21.4 | +0.1 |
| SGD | Sagiada | 1.76 | 316 | P | Pn | 20 19 20.3 | +0.8 |
| SGD | Sagiada | 1.76 | 316 | P | Pn | 20 19 20.3 | +0.8 |
| LIT | Litokhoron | 1.83 | 17 | P | Pn | 20 19 21.3 | +0.8 |
| LIT | Litokhoron | 1.83 | 17 | P | Pn | 20 19 20.7 | +0.2 |
| LIT | Litokhoron | 1.83 | 17 | P | Pn | 20 19 20.7 | +0.2 |
| VLI | Veliai | 1.86 | 151 | P | Pn | 20 19 20.2 | -0.7 |
| VLI | Veliai | 1.86 | 151 | P | Pn | 20 19 20.9 | -0.1 |
| VLI | Veliai | 1.86 | 151 | P | Pn | 20 19 20.9 | -0.1 |
| PENT | Pentalofos | 1.91 | 344 | P | Pn | 20 19 22.6 | +0.8 |
| PENT | Pentalofos | 1.91 | 344 | P | Pn | 20 19 22.6 | +0.8 |
| KZN | Kozani | 1.95 | 359 | P | Pn | 20 19 22.6 | +0.3 |
| KZN | Kozani | 1.95 | 359 | P | Pn | 20 19 22.6 | +0.3 |
| KZN | Kozani | 1.95 | 359 | P | Pn | 20 19 22.9 | +0.6 |
| KEK | Kerkira | 2.07 | 312 | P | Pn | 20 19 25.4 | +1.5 |
| KEK | Kerkira | 2.07 | 312 | P | Pn | 20 19 25.4 | +1.5 |
| KARY | Karystos | 2.10 | 98 | P | Pn | 20 19 24.8 | +0.6 |
| KARY | Karystos | 2.10 | 98 | P | Pn | 20 19 24.4 | +0.2 |
| KARY | Karystos | 2.10 | 98 | P | Pn | 20 19 24.4 | +0.2 |
| NEST | Nestorio | 2.14 | 344 | P | Pn | 20 19 26.1 | +1.2 |
| NEST | Nestorio | 2.14 | 344 | P | Pn | 20 19 26.1 | +1.2 |
| PAIG | Paliouri | 2.14 | 42 | P | Pn | 20 19 22.8 | -2.0 |
| PAIG | Paliouri | 2.14 | 42 | P | Pn | 20 19 24.1 | -0.7 |
| PAIG | Paliouri | 2.14 | 42 | P | Pn | 20 19 24.1 | -0.7 |
| KYTH | Kithira | 2.31 | 154 | P | Pn | 20 19 27.9 | +0.8 |
| PLG | Polygyros | 2.39 | 32 | P | Pn | 20 19 27.8 | -0.4 |
| PLG | Polygyros | 2.39 | 32 | P | Pn | 20 19 27.8 | -0.4 |
| FNA | Florina | 2.45 | 352 | P | Pn | 20 19 28.9 | -0.2 |
| FNA | Florina | 2.45 | 352 | P | Pn | 20 19 28.9 | -0.2 |
| FNA | Florina | 2.45 | 352 | P | Pn | 20 19 30.5 | +1.4 |
| HORT | Hortiatis | 2.46 | 24 | P | Pn | 20 19 28.0 | -1.2 |
| HORT | Hortiatis | 2.46 | 24 | P | Pn | 20 19 28.0 | -1.2 |
| OUR | Ouranopolis | 2.60 | 40 | P | Pn | 20 19 30.0 | -1.1 |
| OUR | Ouranopolis | 2.60 | 40 | P | Pn | 20 19 30.0 | -1.1 |
| MHLA | Plaka, Milos I | 2.62 | 127 | P | Pn | 20 19 30.8 | -0.7 |
| MHLA | Plaka, Milos I | 2.62 | 127 | P | Pn | 20 19 30.8 | -0.7 |
| GRG | Griva | 2.64 | 10 | P | Pn | 20 19 33.8 | +2.0 |
| GRG | Griva | 2.64 | 10 | P | Pn | 20 19 33.8 | +2.0 |
| MHLO | Agia Marina, M | 2.65 | 128 | P | Pn | 20 19 31.5 | -0.3 |
| MHLO | Agia Marina, M | 2.65 | 128 | P | Pn | 20 19 31.5 | -0.3 |
| BIA | Bitola | 2.69 | 352 | *e*Pn | Pb | 20 19 36.9 | -0.3 |
| SOH | Sokhos | 2.74 | 25 | P | Pn | 20 19 32.6 | -0.5 |
| SOH | Sokhos | 2.74 | 25 | P | Pn | 20 19 33.5 | +0.4 |
| SOH | Sokhos | 2.74 | 25 | P | Pn | 20 19 33.5 | +0.4 |
| ANKY | Antikythira Is | 2.75 | 154 | P | Pn | 20 19 33.7 | +0.5 |
| ANKY | Antikythira Is | 2.75 | 154 | P | Pn | 20 19 33.7 | +0.5 |
| OHR | Ohrid | 2.86 | 345 | *e*Pn | Pb | 20 19 40.9 | +0.7 |
| KNT | Kendrikon | 2.93 | 16 | P | Pn | 20 19 36.4 | +0.7 |
| KNT | Kendrikon | 2.93 | 16 | P | Pn | 20 19 36.4 | +0.7 |
| VAY | Valandovo | 3.02 | 11 | *e*Pn | Pb | 20 19 41.8 | -1.1 |
| KRUS | Krusevo | 3.04 | 352 | *e*Pn | Pn | 20 19 39.8 | +2.5 |
| APE | Apeiranthos | 3.22 | 112 | ⇑*i*P | Pn | 20 19 39.5 | -0.2 |
| APE | Apeiranthos | 3.22 | 112 | P | Pn | 20 19 38.8 | -0.9 |
| APE | Apeiranthos | 3.22 | 112 | P | Pn | 20 19 39.5 | -0.2 |
| APE | Apeiranthos | 3.22 | 112 | P | Pn | 20 19 39.5 | -0.2 |
| SIGR | SIGRI | 3.28 | 74 | P | Pn | 20 19 39.9 | -0.5 |
| SIGR | SIGRI | 3.28 | 74 | P | Pn | 20 19 39.9 | -0.5 |
| TIR | Tirane | 3.34 | 334 | ⇓*i*P | Pb | 20 19 50.4 | +2.0 |
| IMMV | Iera Moni Meta | 3.37 | 148 | P | Pn | 20 19 44.1 | +2.4 |
| IMMV | Iera Moni Meta | 3.37 | 148 | P | Pn | 20 19 44.1 | +2.4 |
| IDI | Anoyia | 3.93 | 140 | P | Pn | 20 19 51.1 | +1.6 |
| | comp=E,1.1nm,0.3s,baz=306,slow=14,SNR=16 | | | | | | |
| IDI | | | | S | Sn | 20 20 38.5 | +2.7 |
| | comp=E,1.7nm,0.3s,baz=122,slow=20,SNR=3.6 | | | | | | |
| IDI | Anoyia | 3.93 | 140 | P | Pn | 20 19 52.0 | +2.5 |
| IDI | Anoyia | 3.93 | 140 | P | Pn | 20 19 52.0 | +2.5 |
| GVD | Gavdhos | 3.96 | 152 | P | Pn | 20 19 51.4 | +1.6 |
| GVD | Gavdhos | 3.96 | 152 | P | Pn | 20 19 51.4 | +1.6 |
| VTS | Vitosha | 4.37 | 14 | ⇑*i*P | Pn | 20 19 57.1 | +1.5 |
| BARS | Barje | 4.46 | 0 | *e*Pn | Pn | 20 19 57.7 | +1.0 |
| BOVS | Bovan | 5.28 | 359 | *e*Pn | Pn | 20 20 08.2 | +0.3 |
| IVAS | Ivanjica | 5.37 | 347 | *e*Pn | Pn | 20 20 09.5 | +0.3 |
| ZAGS | Zajecar | 5.46 | 3 | *e*Pn | Pn | 20 20 12.5 | +2.0 |
| STON | Ston | 5.49 | 327 | *i* Pn | Pn | 20 20 09.7 | -1.1 |
| STON | Ston | 5.49 | 327 | *i* Pn | Pn | 20 20 09.7 | -1.1 |
| DIVS | Divibare | 5.90 | 347 | *e*Pn | Pn | 20 20 18.2 | +1.6 |
| TEKS | Tekeris | 6.42 | 345 | *e*Pn | Pn | 20 20 23.6 | -0.1 |
| MDVR | Moldovita | 6.42 | 359 | ⇑*i*P | Pn | 20 20 29.0 | +5.3 |
| ARR | Arges | 7.32 | 16 | ⇑*i*P | Pn | 20 20 38.9 | +2.9 |
| VOIR | | 7.48 | 18 | ⇓*i*P | Pn | 20 20 41.0 | +2.8 |
| MLR | Muntele Rosu | 7.77 | 22 | P | Pn | 20 20 46.3 | +4.0 |
| | comp=E,0.1nm,0.3s,baz=329,slow=8.9,SNR=12 | | | | | | |
| MLR | | | | S | Sn | 20 22 13.2 | +2.8 |
| | comp=E,0.0nm,0.3s,baz=205,slow=19,SNR=1.7 | | | | | | |
| MLR | Muntele Rosu | 7.77 | 22 | ⇑*i*P | Pn | 20 20 44.6 | +2.3 |
| DOPR | Dopca | 8.06 | 18 | ⇓*i*P | Pn | 20 20 49.0 | +2.9 |
| PLOR | Plostina | 8.31 | 24 | ⇑*i*P | Pn | 20 20 51.6 | +2.0 |
| VRI | Vrincioaia | 8.35 | 24 | ⇓*i*P | Pn | 20 20 52.3 | +2.2 |
| BRTR | Keskin Array B | 9.31 | 78 | P | Pn | 20 21 04.9 | +1.5 |
| | comp=E,0.2nm,0.3s,baz=263,slow=13,SNR=6.3 | | | | | | |
| KECS | Kecovo | 10.17 | 355 | *e* | Pn | 20 21 21.3 | +6.3 |
| ESDC | Sonseca Array | 20.05 | 282 | P | P | 20 23 22.8 | +0.5 |
| | comp=E,0.4nm,0.7s,baz=76,slow=12,SNR=3.4 | | | | | | |
| HFS | Hagfors | 22.40 | 349 | P | P | 20 23 48.1 | +0.7 |
| | comp=E,5.8nm,1.0s,baz=169,slow=9.7,SNR=4.6 | | | | | | |
| FINES | FINESS Array B | 23.27 | 5 | P | P | 20 23 56.0 | -0.5 |
| | comp=E,14nm,1.2s,baz=238,slow=3.6,SNR=3.5 | | | | | | |
| TORD | Torodi Ar. Bea | 30.81 | 221 | P | P | 20 25 05.2 | +0.1 |
| | comp=E,0.3nm,0.5s,baz=31,slow=9.4,SNR=3.4 | | | | | | |
| ARCES | ARCESS Array B | 31.31 | 3 | P | P | 20 25 07.8 | -1.2 |
| | comp=E,1.8nm,0.9s,baz=206,slow=10.0,SNR=3.6 | | | | | | |
| MKAR | Makanchi Array | 44.35 | 59 | P | P | 20 26 59.0 | -0.3 |
| | comp=E,1.0nm,0.5s,baz=276,slow=7.4,SNR=29 | | | | | | |
| ZALV | Zalesovo Beam | 44.82 | 48 | P | P | 20 27 02.2 | -0.7 |
| | comp=E,0.8nm,0.5s,baz=265,slow=8.6,SNR=5.9 | | | | | | |

---

**IDC 03 20:21:23.5**±11.0**, 16.50S**×**175.70W, h0**$^{km}$**, mb3.8**/3**, mb1 4.0**/3**, mb1mx3.6**/28**, mbtmp3.8**/3**, Error ellipse: s-maj=357.0km s-min=59.4km az=129.0, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 47.44 | 258 | P | P | 20 30 00.5 | +0.2 |
| | 0.3nm,0.3s,baz=93,slow=7.4,SNR=19 | | | | | | |
| ASAR | Alice Springs | 47.67 | 253 | P | P | 20 30 01.7 | -0.4 |
| | 0.7nm,0.4s,baz=89,slow=8.4,SNR=28 | | | | | | |
| SONM | Songino Array | 94.19 | 319 | P | P | 20 34 44.4 | -0.1 |
| | 0.3nm,0.7s,baz=123,slow=5.3,SNR=2.6 | | | | | | |

---

**IDC 03 20:49:27.3**±2.2**, 50.07N**×**114.76W, h0**$^{km}$**, mb1 3.6**/2**, mb1mx3.1**/58**, mbtmp3.3**/2**, ML3.2**/2**, Error ellipse: s-maj=44.5km s-min=9.2km az=118.0, Alberta**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| NEW | Newport | 2.38 | 222 | Pn | Pb | 20 50 09.6 | -1.5 |
| | 1.6nm,0.3s,baz=55,slow=14,SNR=16 | | | | | | |
| NEW | | | | Lg | Lg | 20 50 41.0 | |
| | 3.3nm,0.3s,baz=72,slow=20,SNR=15 | | | | | | |
| I56US | NEWPORT INFRAS | 2.38 | 222 | *i* | | 21 07 50.0 | |
| | baz=39,slow=307,SNR=1.0 | | | | | | |
| I10CA | LAC DU BONNET | 12.02 | 82 | *i* | | 22 00 10.0 | |
| | baz=272,slow=324,SNR=1.4 | | | | | | |
| YKA | Yellowknife Ar | 12.45 | 0 | Pn | Pn | 20 52 21.5 | -4.1 |
| | 0.2nm,0.3s,baz=180,slow=13,SNR=13 | | | | | | |
| YKA | | | | Sn | Sn | 20 54 30.2 | -15 |
| | 0.1nm,0.3s,baz=178,slow=23,SNR=4.4 | | | | | | |
| YKA | | | | Lg | Lg | 20 55 52.3 | |
| | 0.1nm,0.3s,baz=172,slow=28,SNR=4.9 | | | | | | |

---

*ISCJB **03** 21:04:05.2±0.9, 37.59N±0.04×141.52E±0.10, h57$^{km}$±6$^{km}$, mb3.6/6, Error ellipse: s-maj=13.3km s-min=6.1km az=18.6*

*IDC **03** 21:04:06.6±1.8, 37.59N×141.59E, h56$^{km}$±8$^{km}$, mb3.4/6, mb1 3.5/7, mb1mx3.2/50, mbtmp3.6/7, Error ellipse: s-maj=53.7km s-min=17.6km az=64.0*

*JMA **03** 21:04:06.1, 37.60N×141.51E, h47$^{km}$±1$^{km}$, M3.6*

*JMA Felt I J1.*

**ISC 03 21:04:06.2**±1.0**, 37.61N**±0.05×**141.55E**±0.08**, h49**$^{km}$±8$^{km}$**, n24,** σ**1.07**/31**, mb3.6**/6**, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JFK | Kawauchi | 0.59 | 246 | P | Pn | 21 04 18.0 | -0.5 |
| JFK | | | | S | Sn | 21 04 25.9 | -1.5 |
| JMM | Marumori | 0.66 | 294 | P | Pn | 21 04 18.9 | -0.4 |
| JMM | | | | S | Sn | 21 04 27.7 | -1.1 |
| ONAJ | Iwakimizuishiy | 0.78 | 230 | P | Pn | 21 04 20.3 | -0.8 |
| ONAJ | | | | S | Sn | 21 04 30.2 | -1.7 |
| JIO | Ouri | 0.86 | 349 | P | Pn | 21 04 22.0 | 0.0 |
| JIO | | | | S | Sn | 21 04 32.7 | -0.9 |
| JFT | Otama | 0.97 | 265 | P | Pn | 21 04 23.6 | +0.1 |
| JFT | | | | S | Sn | 21 04 35.9 | -0.3 |
| JOU | Okura | 1.03 | 317 | P | Pn | 21 04 24.0 | -0.4 |
| JOU | | | | *e*S | Sn | 21 04 37.0 | -0.8 |
| JYS | Shirataka | 1.33 | 298 | P | Pn | 21 04 28.2 | -0.1 |
| JYS | | | | S | Sn | 21 04 44.6 | -0.3 |
| JMK | Ichinoseki | 1.37 | 349 | P | Pn | 21 04 29.0 | +0.1 |
| JMK | | | | S | Sn | 21 04 45.5 | -0.4 |
| JFY | Yanaizu | 1.48 | 263 | P | Pn | 21 04 30.5 | 0.0 |
| JYK | Kaneyama | 1.61 | 325 | P | Pn | 21 04 32.4 | +0.2 |
| MJAR | Matsushiro Arr | 2.88 | 249 | P | Pn | 21 04 50.2 | +0.7 |
| | 1.9nm,0.3s,baz=50,slow=10,SNR=20 | | | | | | |
| MJAR | | | | S | Sn | 21 05 26.3 | +3.3 |
| | 2.3nm,0.3s,baz=75,slow=18,SNR=7.6 | | | | | | |
| MAT | Matsushiro | 2.88 | 249 | P | Pn | 21 04 50.5 | +0.9 |
| MAT | | | | *e*S | Sn | 21 05 20.9 | -2.1 |
| SONM | Songino Array | 27.56 | 303 | P | P | 21 09 48.0 | -0.6 |
| | 0.6nm,0.6s,baz=102,slow=8.0,SNR=4.7 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 28.35 | 122 | T | T | 21 40 07.7 | |
| | baz=315,slow=75,SNR=62 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 28.36 | 122 | T | T | 21 40 08.3 | |
| | baz=315,slow=75,SNR=62 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 28.37 | 122 | T | T | 21 40 09.2 | |
| | baz=315,slow=75,SNR=41 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 29.08 | 124 | T | T | 21 41 08.9 | |
| | baz=317,slow=76,SNR=22 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 29.08 | 124 | T | T | 21 41 02.8 | |
| | baz=317,slow=76,SNR=20 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 29.10 | 124 | T | T | 21 41 04.5 | |
| | baz=317,slow=76,SNR=14 | | | | | | |
| ZALV | Zalesovo Beam | 41.61 | 312 | P | P | 21 11 49.3 | +0.1 |
| | 0.9nm,0.6s,baz=100,slow=7.1,SNR=5.2 | | | | | | |
| MKAR | Makanchi Array | 43.91 | 302 | P | P | 21 12 08.1 | +0.1 |
| | 1.0nm,0.9s,baz=87,slow=9.9,SNR=7.1 | | | | | | |
| KURBB | Kurchatov Arra | 45.74 | 308 | P | P | 21 12 22.2 | -0.2 |
| | 1.5nm,0.7s,baz=83,slow=8.1,SNR=10.0 | | | | | | |
| KURBB | | | | pP | pP | 21 12 37.0 | +1.4 |
| | 2.0nm,0.7s,baz=83,slow=8.1,SNR=6.2 | | | | | | |
| WRA | Warramunga Arr | 57.64 | 188 | P | P | 21 13 51.0 | -0.5 |
| | 0.7nm,1.0s,baz=4.8,slow=7.3,SNR=5.0 | | | | | | |
| WRA | | | | pP | pP | 21 14 05.5 | +0.4 |
| | 0.5nm,0.6s,baz=6.2,slow=7.4,SNR=3.1 | | | | | | |
| ASAR | Alice Springs | 61.37 | 188 | P | P | 21 14 16.6 | -0.4 |
| | 0.4nm,0.8s,baz=0.9,slow=5.7,SNR=3.5 | | | | | | |
| ASAR | | | | pP | pP | 21 14 32.2 | +1.4 |
| | 0.4nm,0.8s,baz=1.6,slow=6.5,SNR=3.0 | | | | | | |

---

*IDC **03** 21:08:10.7±1.5, 43.74N×105.64W, h0$^{km}$, mb1 3.5/2, mb1mx3.2/42, mbtmp3.3/2, ML3.1/2, Error ellipse: s-maj=33.1km s-min=9.6km az=150.0*

*NEIC **03** 21:08:10.9±0.7, 43.71N×105.38W, h0$^{km}$, ML2.9, Error ellipse: s-maj=13.6km s-min=7.2km az=144.0, Suspected*

*Mining explosion.*
*NEIC 66 km [41 miles] S of Gillette.*
**ISC 03 21:08:10.3**±0.9, **43.72N**±0.05×**105.41W**±0.04, **h0km**, **n12**, σ**1.44**/23, **Wyoming**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RSSD** | **Black Hills** | **1.07** | **68** | *e*Pg | **Pb** | **21 08 31.4** | **-0.4** |
| RSSD | | | | *e*Sg | **Sn** | **21 08 48.0** | **-0.4** |
| **K22A** | **Casper** | **1.35** | **218** | *e*Pg | **Pg** | **21 08 35.0** | **-1.1** |
| K22A | | | | S | **Sn** | **21 08 57.8** | **+2.6** |
| **PHWY** | **Pilot Hill** | **2.42** | **181** | *e*Pn | **Pn** | **21 08 51.3** | **-0.1** |
| PHWY | | | | *e*Sn | **Sn** | **21 09 22.9** | **+1.1** |
| **RWWY** | **Rawlins** | **2.43** | **214** | *e*Pn | **Pn** | **21 08 53.2** | **+1.7** |
| RWWY | | | | *e*Sn | **Sn** | **21 09 20.7** | **-1.3** |
| RWWY | | | | *e*Sg | **Sb** | **21 09 25.8** | **+0.2** |
| **PDAR** | **Pinedale Array** | **3.18** | **254** | Pn | **Pn** | **21 09 03.4** | **+1.6** |
| | 2.4nm,0.3s,baz=81,slow=17,SNR=29 | | | | | | |
| PDAR | | | | Lg | Lg | 21 09 44.9 | |
| | 2.3nm,0.3s,baz=73,slow=35,SNR=5.3 | | | | | | |
| **BW06** | **Boulder Array** | **3.18** | **254** | *e*Pn | **Pn** | **21 09 03.1** | **+1.4** |
| BW06 | | | | *e*Sg | **Sb** | **21 09 48.9** | **+1.7** |
| **OGNE** | **Ogallala** | **3.73** | **137** | *e*Pn | **Pn** | **21 09 10.1** | **+0.8** |
| OGNE | | | | *e*Pb | **Pb** | **21 09 19.1** | **+1.9** |
| OGNE | | | | S | **Sb** | **21 10 04.5** | **+1.5** |
| **ISCO** | **Idaho Springs** | **3.92** | **182** | *e*Pn | **Pn** | **21 09 12.8** | **+0.8** |
| ISCO | | | | *e*Pb | **Pb** | **21 09 19.8** | **-0.7** |
| ISCO | | | | *e*Pg | **Pg** | **21 09 24.2** | **-1.2** |
| ISCO | | | | *e*Sb | **Sb** | **21 10 09.8** | **+1.2** |
| **O20A** | **White River Ci** | **4.16** | **212** | *e*Pn | **Pn** | **21 09 15.1** | **-0.2** |
| O20A | | | | *e*Pg | **Pg** | **21 09 29.0** | **-1.1** |
| O20A | | | | *e*Sg | **Sg** | **21 10 21.2** | **-2.8** |
| **I10CA** | **LAC DU BONNET** | **9.11** | **41** | *i* | | 22 05 20.0 | |
| | baz=220,slow=312,SNR=1.3 | | | | | | |
| **ULM** | **Lac du Bonnet** | **9.22** | **42** | Pn | **Pn** | **21 10 23.8** | **-0.6** |
| | 0.4nm,0.3s,baz=232,slow=14,SNR=6.3 | | | | | | |
| ULM | | | | Lg | Lg | 21 12 58.9 | |
| | 0.4nm,0.3s,baz=139,slow=20,SNR=2.7 | | | | | | |
| **TXAR** | **Lajitas Array** | **14.43** | **174** | Pg | P | 21 12 36.4 | +53 |
| | 0.0nm,0.3s,baz=358,slow=18,SNR=3.2 | | | | | | |
| TXAR | | | | Lg | Lg | 21 15 42.2 | |
| | 0.0nm,0.3s,baz=1.5,slow=33,SNR=2.9 | | | | | | |

---

*IDC **03** 21:20:57.0±0.8, 0.53S×131.87E, h0km, mb4.0/9, mb1 4.2/10, mb1mx4.0/35, mbtmp4.0/10, ML4.2/1, MS3.1/3, Ms1 3.1/3, ms1mx2.7/30, Error ellipse: s-maj=31.8km s-min=16.9km az=74.0*
*ISCJB **03** 21:20:59.8±0.5, 0.46S±0.05×131.91E±0.06, h31km, mb4.0/13, MS3.1/1, Error ellipse: s-maj=9.6km s-min=6.6km az=24.0*
*DJA **03** 21:21:01.3±0.4, 0°S±4°×13°2E±°, h10km, M4.6/7, mB5.0/1, mb4.7/2, MLv4.5/7, Mw(mB)4.3/1*
*NEIC **03** 21:21:02.2±0.5, 0.61S×131.76E, h35km, mb4.0/4, Error ellipse: s-maj=19.5km s-min=7.6km az=76.0*
**ISC 03 21:21:01.6**±0.6, **0.50S**±0.06×**131.92E**±0.06, **h31km**, **n32**, σ**1.30**/30, **mb3.9**/13, **Irian Jaya region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FAKI** | **Fak Fak** | **2.42** | **172** | P | **Pn** | **21 21 39.1** | **0.0** |
| FAKI | | | | S | **Sb** | **21 22 13.2** | **-0.9** |
| **FAKI** | **Fak Fak** | **2.42** | **172** | *e*Pn | **Pn** | **21 21 38.9** | **-0.2** |
| **RKPI** | **Ransiki, Papua** | **2.47** | **114** | P | **Pb** | **21 21 45.1** | **-0.3** |
| RKPI | | | | S | **Sb** | **21 22 15.7** | **+0.2** |
| **MSAI** | **Masohi** | **4.11** | **227** | P | **Pn** | **21 22 03.8** | **+1.5** |
| MSAI | | | | S | **Sn** | **21 22 52.7** | **+3.3** |
| **LBMI** | **Labuha** | **4.42** | **268** | P | **Pn** | **21 22 06.8** | **+0.2** |
| **BNDI** | **Bandanaira** | **4.47** | **207** | P | **Pn** | **21 22 08.1** | **+0.8** |
| **AAI** | **Ambon** | **4.88** | **230** | P | **Pn** | **21 22 13.6** | **+0.6** |
| AAI | | | | S | **Sn** | **21 23 09.9** | **+1.4** |
| **SANI** | **Sanana** | **6.12** | **255** | P | **Pn** | **21 22 28.6** | **-1.4** |
| **APSI** | **Ampana** | **10.27** | **268** | P | **Pn** | **21 23 25.9** | **-1.1** |
| **PMG** | **Port Moresby** | **17.56** | **121** | LR | LR | 21 32 19.4 | |
| | comp=Z,95nm,20.2s,baz=314,slow=39 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **18.55** | **199** | P | **P** | **21 25 11.4** | **-4.5** |
| | 0.1nm,0.3s,baz=29,slow=13,SNR=6.8 | | | | | | |
| FITZ | | | | S | Sn | 21 28 26.7 | -16 |
| | 0.1nm,0.3s,baz=0.0,slow=16,SNR=2.4 | | | | | | |
| FITZ | | | | LR | LR | 21 34 52.9 | |
| | comp=Z,24nm,19.8s,baz=65,slow=45 | | | | | | |
| **WRAB** | **Tennant Creek** | **19.46** | **173** | *e*P | **P** | **21 25 25.8** | **-0.2** |
| | 7.5nm,0.6s | | | | | | |
| **WRA** | **Warramunga Arr** | **19.47** | **173** | P | **P** | **21 25 24.6** | **-1.4** |
| | 0.8nm,0.3s,baz=350,slow=11,SNR=42 | | | | | | |
| WRA | | | | S | S | 21 28 49.5 | -15 |
| | 0.1nm,0.3s,baz=349,slow=24,SNR=3.9 | | | | | | |
| **ASAR** | **Alice Springs** | **23.11** | **175** | P | **P** | **21 26 04.7** | **-0.5** |
| | 10nm,0.6s,baz=350,slow=6.8,SNR=193 | | | | | | |
| ASAR | | | | S | **S** | **21 30 14.0** | **-0.5** |
| | 0.4nm,0.7s,baz=354,slow=27,SNR=2.8 | | | | | | |
| ASAR | | | | LR | LR | 21 36 02.0 | |
| | comp=Z,73nm,21.6s,baz=335,slow=39 | | | | | | |
| **STKA** | **Stephens Creek** | **32.52** | **165** | P | **P** | **21 27 29.9** | **+0.1** |
| | 2.0nm,0.6s,baz=3.6,slow=7.5,SNR=5.7 | | | | | | |
| **PSI** | **Prapat** | **33.14** | **276** | P | **P** | **21 27 35.1** | **-0.5** |
| | 3.3nm,0.5s,baz=72,slow=1.4,SNR=5.3 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **37.48** | **302** | P | **P** | **21 28 12.3** | **-0.5** |
| | 0.2nm,0.3s,baz=122,slow=6.7,SNR=3.7 | | | | | | |
| **CHTO** | **Chiang Mai** | **37.64** | **302** | P | **P** | **21 28 14.4** | **+0.2** |
| | 0.6nm,0.5s | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **39.04** | **59** | T | T | 22 11 32.3 | |
| | baz=249,slow=74 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **39.05** | **59** | T | T | 22 11 32.3 | |
| | baz=249 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **39.05** | **59** | T | T | 22 11 46.4 | |
| | baz=249,slow=74 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **39.73** | **58** | T | T | 22 12 29.3 | |
| | baz=247,slow=75,SNR=4.7 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **39.75** | **58** | T | T | 22 12 29.3 | |
| | baz=247,slow=75,SNR=4.8 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **39.75** | **58** | T | T | 22 12 29.3 | |
| | baz=247,slow=75,SNR=4.6 | | | | | | |
| **MDJ** | **Mudanjiang** | **44.97** | **358** | *e*P | **P** | **21 29 14.4** | **+0.5** |
| | 2.8nm,0.7s | | | | | | |
| **ULN** | **Ulaanbaatar** | **52.81** | **339** | P | **P** | **21 30 14.6** | **+0.4** |
| | 0.8nm,0.6s | | | | | | |
| **SONM** | **Songino Array** | **53.02** | **339** | P | **P** | **21 30 15.8** | **+0.1** |
| | 1.1nm,1.0s,baz=145,slow=5.4,SNR=5.0 | | | | | | |
| **PETK** | **Petropavlovsk-** | **57.59** | **18** | P | **P** | **21 30 48.5** | **0.0** |
| | 1.7nm,0.8s,baz=223,slow=7.7,SNR=3.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **63.98** | **324** | P | **P** | **21 31 32.5** | **+0.4** |
| | 0.6nm,0.6s,baz=114,slow=8.2,SNR=14 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **66.71** | **332** | P | **P** | **21 31 49.7** | **+0.2** |
| | 0.4nm,0.6s,baz=136,slow=5.3,SNR=2.6 | | | | | | |
| **ILAR** | **Eielson Array** | **86.69** | **25** | P | **P** | **21 33 43.2** | **+1.0** |
| | 0.6nm,1.0s,baz=260,slow=3.6,SNR=3.4 | | | | | | |
| **QSPA** | **South Pole Qui** | **89.43** | **180** | *e*P | **P** | **21 33 55.7** | **+0.4** |
| | 14nm,0.8s | | | | | | |

---

**WEL 03 21:30:49.1**±0.5, **37.52S**×**179.80E**, **h33km**, **ML3.5**/10, **1C**, **Error ellipse: s-maj=4.8km s-min=4.6km az=0.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WMGZ** | **Waiomatatini S** | **1.14** | **255** | PN | Pn | 21 31 08.4 | -0.3 |
| WMGZ | | | | SN | Sn | 21 31 23.1 | -0.2 |
| WMGZ | | | | AML | AML | 21 31 24.6 | |
| **MXZ** | **Matakaoa Point** | **1.19** | **268** | PN | Pn | 21 31 08.6 | -0.8 |
| MXZ | | | | SN | Sn | 21 31 23.7 | -0.8 |
| MXZ | | | | AML | AML | 21 31 24.4 | |
| **PUZ** | **Puketiti** | **1.34** | **245** | PN | Pn | 21 31 10.8 | -0.7 |
| PUZ | | | | SN | Sn | 21 31 26.7 | -1.6 |
| PUZ | | | | AML | AML | 21 31 29.1 | |
| **PKGZ** | **Pakihiroa** | **1.42** | **255** | PN | Pn | 21 31 11.7 | -0.9 |
| PKGZ | | | | SN | Sn | 21 31 29.2 | -0.9 |
| PKGZ | | | | AML | AML | 21 31 33.7 | |
| **TWGZ** | **Tauwhareparae** | **1.58** | **245** | PN | Pn | 21 31 14.6 | -0.2 |
| TWGZ | | | | SN | Sn | 21 31 33.9 | -0.4 |
| TWGZ | | | | AML | AML | 21 31 34.9 | |
| **HAZ** | **Te Kaha** | **1.62** | **261** | PN | Pn | 21 31 15.2 | -0.1 |
| HAZ | | | | SN | Sn | 21 31 34.1 | -0.9 |
| HAZ | | | | AML | AML | 21 31 36.4 | |
| **RUGZ** | **Raukumara Rang** | **1.74** | **255** | PN | Pn | 21 31 17.6 | +0.5 |
| **TKGZ** | **Te Karaka** | **1.79** | **239** | PN | Pn | 21 31 17.3 | -0.4 |
| TKGZ | | | | AML | AML | 21 31 40.0 | |
| TKGZ | | | | AML | AML | 21 31 40.1 | |
| **MWZ** | **Matawai** | **1.97** | **245** | PN | Pn | 21 31 19.7 | -0.5 |
| MWZ | | | | AML | AML | 21 31 49.3 | |
| **RIGZ** | **Rimuhau** | **2.00** | **233** | PN | Pn | 21 31 20.0 | -0.5 |
| RIGZ | | | | AML | AML | 21 31 45.8 | |
| RIGZ | | | | AML | AML | 21 31 45.9 | |
| **MHGZ** | **Mahia Peninsul** | **2.21** | **222** | PN | Pn | 21 31 22.4 | -1.0 |
| **KNZ** | **Kokohu** | **2.25** | **228** | ⇑PN | Pn | 21 31 22.6 | -1.3 |
| **MTHZ** | **Maungataniwha** | **2.69** | **239** | PN | Pn | 21 31 29.5 | -0.5 |
| **ARHZ** | **Aropaoanui** | **2.81** | **231** | PN | Pn | 21 31 30.0 | -1.6 |
| **KWHZ** | **Kaweka Forest** | **3.26** | **233** | PN | Pn | 21 31 36.7 | -1.3 |
| KWHZ | | | | AML | AML | 21 32 15.5 | |
| KWHZ | | | | AML | AML | 21 32 18.6 | |

---

*ISCJB **03** 21:32:13.5±0.5, 21.66S±0.07×178.87W±0.09, h500km, mb4.0/14, Error ellipse: s-maj=13.4km s-min=7.4km az=35.0*
*IDC **03** 21:32:15.2±1.8, 21.57S×178.86W, h510km±19km, mb3.5/14, mb1 3.7/16, mb1mx3.6/33, mbtmp4.4/16, Error ellipse: s-maj=17.3km s-min=12.6km az=136.0*
**ISC 03 21:32:13.8**±0.6, **21.7S**±0.1×**178.7W**±0.1, **h500km**, **n55**, σ**1.02**/59, **mb4.1**/14, **12C-9D**, **Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AFI** | **Afiamalu** | **10.20** | **41** | P | **P** | **21 34 33.6** | **+0.1** |
| | 2.9nm,0.3s,baz=255,slow=20,SNR=6.1 | | | | | | |
| AFI | | | | S | **S** | **21 36 28.4** | **0.0** |
| | 2.1nm,0.3s,baz=253,slow=20,SNR=3.7 | | | | | | |
| **DZM** | **Mont Dzumac** | **13.78** | **266** | P | **P** | **21 35 13.4** | **+2.0** |
| | 0.2nm,0.3s,baz=49,slow=20,SNR=3.7 | | | | | | |
| **URZ** | **Urewera** | **16.86** | **191** | P | **P** | **21 35 41.2** | **-2.1** |
| | 1.1nm,0.3s,baz=7.8,slow=5.8,SNR=5.6 | | | | | | |
| URZ | | | | S | **S** | **21 38 32.8** | **-2.2** |
| | 0.1nm,0.3s,baz=22,slow=19,SNR=2.6 | | | | | | |
| **RPZ** | **Rata Peaks** | **23.51** | **199** | P | **P** | **21 36 45.8** | **+1.8** |
| | 4.8nm,0.5s,baz=344,slow=7.4,SNR=2.8 | | | | | | |
| **CTA** | **Charters Tower** | **32.73** | **266** | P | **P** | **21 38 04.8** | **+0.1** |
| | 5.4nm,0.4s,baz=92,slow=9.2,SNR=16 | | | | | | |
| **PMG** | **Port Moresby** | **34.99** | **285** | P | **P** | **21 38 23.5** | **-0.4** |
| | 16nm,0.7s,baz=98,slow=6.9,SNR=7.1 | | | | | | |
| **STKA** | **Stephens Creek** | **36.66** | **245** | P | **P** | **21 38 37.9** | **+0.3** |
| | 2.8nm,0.5s,baz=93,slow=12,SNR=9.7 | | | | | | |
| **ASAR** | **Alice Springs** | **43.60** | **258** | P | **P** | **21 39 33.0** | **-0.4** |
| | 9.7nm,0.8s,baz=97,slow=8.0,SNR=83 | | | | | | |
| ASAR | | | | PcP | **PcP** | **21 41 09.7** | **-0.4** |
| | 1.9nm,0.6s,baz=103,slow=3.9,SNR=14 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.78** | **263** | P | **P** | **21 39 33.7** | **-1.2** |
| | 6.9nm,0.8s,baz=94,slow=7.9,SNR=77 | | | | | | |
| WRA | | | | PcP | **PcP** | **21 41 10.1** | **-0.7** |
| | 0.9nm,0.9s,baz=96,slow=3.1,SNR=4.0 | | | | | | |
| WRA | | | | ScP | **ScP** | **21 44 13.7** | **-0.9** |
| | 1.2nm,0.9s,baz=87,slow=4.7,SNR=3.8 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **52.21** | **263** | P | **P** | **21 40 37.4** | **-0.6** |
| | 1.8nm,0.3s,baz=64,slow=5.3,SNR=18 | | | | | | |
| **VNDA** | **Vanda** | **56.63** | **185** | P | **P** | **21 41 10.2** | **+2.0** |
| | 1.0nm,0.7s,baz=357,slow=7.5,SNR=3.7 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **70.81** | **324** | P | **P** | **21 42 39.3** | **-0.3** |
| | 1.6nm,0.5s,baz=161,slow=5.5,SNR=10 | | | | | | |
| **PETK** | **Petropavlovsk-** | **77.29** | **346** | P | **P** | **21 43 15.5** | **-0.4** |
| | 6.2nm,0.8s,baz=191,slow=3.6,SNR=11 | | | | | | |
| **TXAR** | **Lajitas Array** | **88.28** | **58** | P | **P** | **21 44 13.8** | **+1.8** |
| | 0.7nm,0.8s,baz=213,slow=6.0,SNR=5.3 | | | | | | |
| **ILAR** | **Eielson Array** | **89.66** | **13** | P | **P** | **21 44 16.8** | **-0.6** |
| | 1.6nm,1.0s,baz=218,slow=5.2,SNR=7.4 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **89.90** | **290** | P | **P** | **21 44 20.9** | **+1.2** |
| | 2.6nm,0.9s,baz=129,slow=2.9,SNR=18 | | | | | | |
| **PDAR** | **Pinedale Array** | **90.31** | **43** | P | **P** | **21 44 21.9** | **+0.6** |
| | 0.6nm,0.7s,baz=224,slow=4.1,SNR=5.0 | | | | | | |
| **ARCES** | **ARCESS Array B** | **130.00** | **349** | PKP | **PKPdf** | **21 50 24.9** | **-0.7** |
| | 3.5nm,0.9s,baz=104,slow=1.4,SNR=12 | | | | | | |
| **FINES** | **FINESS Array B** | **136.75** | **343** | PKhKP | PKPpre | 21 50 25.4 | |
| | 4.2nm,1.1s,baz=62,slow=3.3,SNR=2.6 | | | | | | |
| FINES | | | | PKP | **PKPdf** | **21 50 37.0** | **-1.4** |
| | 3.8nm,0.8s,baz=79,slow=3.0,SNR=7.1 | | | | | | |
| **AKASG** | **Malin Array Be** | **143.75** | **330** | PKP | PKPab | 21 50 48.8 | -1.4 |
| | 3.8nm,0.4s,baz=42,slow=4.5,SNR=56 | | | | | | |
| **BRTR** | **Keskin Array B** | **147.15** | **310** | PKPbc | **PKPdf** | **21 50 59.9** | **+2.2** |
| | 4.1nm,0.7s,baz=138,slow=4.6,SNR=30 | | | | | | |
| **TLCR** | | **147.50** | **323** | ⇑*i*P | **PKPbc** | **21 51 01.1** | **-0.2** |
| **BURAR** | **Bucovina Array** | **147.78** | **329** | ⇑*i*P | **PKPbc** | **21 51 03.3** | **+1.2** |
| **TESR** | **Tescani** | **147.83** | **326** | ⇑*i*P | **PKPbc** | **21 51 01.8** | **-0.3** |
| **CFR** | **Carcaliu** | **147.88** | **323** | ⇑*i*P | **PKPbc** | **21 51 02.1** | **-0.2** |
| **TIRR** | **Tirgusor** | **148.16** | **322** | ⇓*i*P | **PKPbc** | **21 51 02.0** | **-1.0** |
| **VRI** | **Vrincioaia** | **148.21** | **325** | ⇑*i*P | **PKPbc** | **21 51 02.7** | **-0.4** |
| **BMR** | **Baia Mare** | **148.55** | **331** | ⇓*i*P | **PKPdf** | **21 50 57.4** | **-2.2** |
| **DOPR** | **Dopca** | **148.84** | **327** | ⇓*i*P | **PKPbc** | **21 51 05.0** | **+0.3** |
| **MLR** | **Muntele Rosu** | **148.87** | **325** | ⇓*i*P | **PKPbc** | **21 51 05.4** | **+0.5** |
| **OKC** | **Ostrava-Krasne** | **148.94** | **339** | *e*PKPDF | **PKPbc** | **21 51 04.7** | **-0.1** |
| **UPC** | **Upice** | **149.03** | **342** | *e*PKPDF | **PKPbc** | **21 51 04.9** | **-0.1** |
| UPC | | | | *e*x | x | 21 51 11.8 | |
| **DPC** | **Dobruska-Polom** | **149.08** | **341** | *e*PKPDF | **PKPbc** | **21 51 05.5** | **+0.3** |
| DPC | | | | *e*x | x | 21 51 12.0 | |
| **SECR** | | **149.11** | **325** | ⇑*i*P | **PKPbc** | **21 51 05.2** | **-0.2** |
| **KRLC** | **Kraliky** | **149.18** | **340** | *e*PKPDF | **PKPbc** | **21 51 05.6** | **+0.2** |
| **CJR** | **Cluj-Napoca** | **149.20** | **329** | ⇓*i*P | **PKPbc** | **21 51 05.4** | **-0.2** |
| **BRG** | **Berggiesshubel** | **149.27** | **344** | *i* PKP | **PKPbc** | **21 51 05.5** | **0.0** |
| | 9.0nm,1.0s | | | | | | |
| **VOIR** | | **149.38** | **326** | ⇑*i*P | **PKPbc** | **21 51 05.8** | **-0.3** |
| **PVCC** | **Panska Ves** | **149.42** | **343** | *e*PKPDF | **PKPbc** | **21 51 06.1** | **+0.2** |
| **DRGR** | | **149.56** | **330** | ⇓*i*P | **PKPbc** | **21 51 06.1** | **-0.4** |
| **ARR** | **Arges** | **149.64** | **326** | ⇑*i*P | **PKPbc** | **21 51 07.7** | **+1.0** |
| **PSZ** | **Piszkesteto** | **149.90** | **335** | ⇑*i*P | **PKPbc** | **21 51 05.6** | **-1.6** |
| **GOPC** | **GO Pecny, Ondr** | **149.92** | **342** | *e*PKPDF | **PKPbc** | **21 51 07.2** | **0.0** |
| **PRU** | **Pruhonice** | **149.92** | **343** | *e*PKPDF | **PKPbc** | **21 51 07.0** | **-0.1** |
| **LOT** | **Lotru** | **150.02** | **327** | ⇑*i*P | **PKPbc** | **21 51 06.8** | **-0.9** |
| **NKC** | **Novy Kostel** | **150.22** | **346** | *e*PKPDF | **PKPbc** | **21 51 07.6** | **-0.3** |
| **TREC** | **Trest** | **150.27** | **341** | *e*PKPDF | **PKPbc** | **21 51 07.8** | **-0.2** |
| **SIRR** | **Siria** | **150.43** | **331** | ⇑*i*P | **PKPdf** | **21 51 00.2** | **-2.4** |
| **BZS** | **Buzias** | **150.94** | **330** | ⇓*i*P | **PKPbc** | **21 51 09.1** | **-0.5** |
| **KHC** | **Kasperske Hory** | **150.96** | **343** | *e*PKPDF | **PKPbc** | **21 51 09.5** | **-0.1** |
| KHC | | | | *e*x | x | 21 51 19.7 | |
| **HERR** | **Herculane** | **151.10** | **328** | ⇓*i*P | **PKPbc** | **21 51 09.3** | **-0.7** |
| **GERES** | **GERESS Array B** | **151.19** | **343** | PKPbc | **PKPbc** | **21 51 09.8** | **-0.4** |
| | 1.9nm,0.6s,baz=344,slow=4.3,SNR=7.3 | | | | | | |
| **MDVR** | **Moldovita** | **151.51** | **329** | ⇓*i*P | **PKPbc** | **21 51 10.3** | **-0.7** |
| **VTS** | **Vitosha** | **152.27** | **324** | ⇑*i*P | **PKPbc** | **21 51 12.5** | **-0.4** |
| **ESDC** | **Sonseca Array** | **161.56** | **13** | PKPab | **PKPab** | **21 52 04.4** | **-0.9** |
| | 0.8nm,0.9s,baz=17,slow=2.3,SNR=3.4 | | | | | | |

---

**MEX 03 21:34:59.7**±0.6, **17.50N**×**95.25W**, **h121km**±10km, **MD3.9**, **Oaxaca**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CMIG** | **Matias Romero** | **0.53** | **139** | *e*P | Pn | 21 35 16.6 | -1.4 |
| CMIG | | | | *e*S | Sn | 21 35 30.0 | -1.8 |
| **VHO** | **Vista Hermosa** | **1.48** | **254** | *e*P | Pn | 21 35 26.5 | -0.7 |
| VHO | | | | *e*S | Sn | 21 35 46.2 | -1.8 |
| **HUIG** | **Huatulco** | **1.91** | **206** | *e*P | Pn | 21 35 30.8 | -1.2 |
| HUIG | | | | *i* S | Sn | 21 35 54.8 | -2.0 |
| **PNIG** | **Pinotepa** | **2.96** | **249** | *e*P | Pn | 21 35 43.0 | -2.6 |
| PNIG | | | | *i* S | Sn | 21 36 19.2 | -1.8 |
| **TLIG** | **Tlapa** | **3.17** | **272** | *e*P | Pn | 21 35 47.6 | -0.7 |
| TLIG | | | | *i* S | Sn | 21 36 24.6 | -1.2 |

---

*ISCJB **03** 21:38:10.7±0.7, 0.42S±0.10×125.9E±0.2, h33km, mb4.4/12, Error ellipse: s-maj=24.3km s-min=12.3km az=161.7*
*NEIC **03** 21:38:12.8±0.7, 0.47S×125.98E, h35km, mb4.4/6, Error ellipse: s-maj=26.5km s-min=12.6km az=71.0*
*IDC **03** 21:38:15.1±1.1, 0.87S×127.16E, h0km, mb4.0/5, mb1 4.2/6, mb1mx3.8/33, mbtmp4.1/6, ML3.6/1, Error ellipse: s-maj=58.6km s-min=19.1km az=77.0*
**ISC 03 21:38:13.0**±0.8, **0.4S**±0.1×**126.0E**±0.2, **h35km**, **n13**, σ**1.43**/11, **mb4.2**/12, **Southern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **17.55** | **181** | P | **P** | **21 42 16.1** | **+0.2** |
| | 0.2nm,0.3s,baz=17,slow=14,SNR=5.2 | | | | | | |
| **WRAB** | **Tennant Creek** | **21.04** | **158** | *e*P | **P** | **21 42 52.0** | **-2.0** |
| | 1.2nm,0.5s | | | | | | |
| **WRA** | **Warramunga Arr** | **21.05** | **158** | P | **P** | **21 42 51.3** | **-2.8** |
| | 3.9nm,0.7s,baz=341,slow=12,SNR=18 | | | | | | |
| **ASAR** | **Alice Springs** | **24.34** | **162** | P | **P** | **21 43 27.4** | **-0.3** |
| | 3.8nm,0.8s,baz=343,slow=9.4,SNR=31 | | | | | | |
| **CHTO** | **Chiang Mai** | **32.72** | **307** | P | **P** | **21 44 41.6** | **-0.9** |
| | 0.6nm,0.6s | | | | | | |
| **STKA** | **Stephens Creek** | **34.59** | **156** | P | **P** | **21 44 59.1** | **+0.5** |
| | 3.9nm,0.7s,baz=318,slow=9.4,SNR=7.4 | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **49.44** | **15** | P | **P** | **21 47 00.6** | **+1.1** |
| | 3.6nm,0.4s | | | | | | |
| **DGAR** | **Diego Garcia** | **53.79** | **261** | P | **P** | **21 47 33.3** | **+0.6** |
| | 21nm,0.6s | | | | | | |
| **TLY** | **Talaya** | **55.25** | **343** | *e*P | **P** | **21 47 42.1** | **-0.6** |
| | 7.9nm,0.9s | | | | | | |
| **PETK** | **Petropavlovsk-** | **59.56** | **22** | P | P | 21 48 20.4 | +7.4 |
| | 1.8nm,0.8s,baz=236,slow=10,SNR=3.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **60.57** | **327** | P | P | 21 48 34.1 | +14 |
| | 0.9nm,0.8s,baz=131,slow=8.5,SNR=8.2 | | | | | | |
| **RAO** | **Raoul Island** | **60.60** | **124** | P | **P** | **21 48 21.6** | **+1.0** |
| | 267nm,0.3s | | | | | | |
| **EGAK** | **Eagle** | **91.63** | **25** | P | **P** | **21 51 15.6** | **-0.6** |
| | 0.5nm,0.5s | | | | | | |

---

*IDC **03** 21:41:41.8±0.5, 19.21N×121.31E, h0km, mb4.1/18, mb1 4.3/20, mb1mx4.2/37, mbtmp4.1/20, ML3.9/2, MS3.6/15, Ms1 3.7/15, ms1mx3.4/39, Error ellipse: s-maj=19.7km s-min=12.3km az=77.0*
*ISCJB **03** 21:41:47.0±0.4, 19.33N±0.02×121.32E±0.04, h51km±4km, mb4.5/47, MS3.7/17, Error ellipse: s-maj=5.5km s-min=3.6km az=176.6*
*NEIC **03** 21:41:47.7±0.7, 19.27N×121.32E, h40km±7km, mb4.5/23, Error ellipse: s-maj=6.4km s-min=4.9km az=88.0*
*MAN **03** 21:41:49, 19.13N×121.23E, h17km, mb5.3, ML4.3, MS4.5*
*BJI **03** 21:41:52.1, 19.91N×120.70E, h22km, mb4.3/34, mB4.6/25, ML4.2/3, Ms4.1/28, Ms7 4.0/30*
**ISC 03 21:41:48.5**±0.8, **19.35N**±0.03×**121.27E**±0.04, **h45km**±8km, **n115**, σ**1.65**/121, **mb4.4**/47, **MS3.7**/17, **1C**, **Philippine Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SGCP** | **Mt. Cagua** | **1.33** | **146** | *e*P | **Pn** | **21 42 10.4** | **-0.1** |
| SGCP | | | | *e*S | **Sn** | **21 42 27.4** | **+0.4** |
| **APYP** | **Conner** | **1.48** | **181** | *e*P | **Pn** | **21 42 11.1** | **-1.6** |
| APYP | | | | *e*S | **Sn** | **21 42 29.5** | **-1.3** |
| **CVP** | **Callao Caves** | **1.72** | **162** | *i* P | **Pn** | **21 42 15.1** | **-0.9** |
| **ABRA** | **Dolores** | **1.77** | **197** | *e*P | **Pn** | **21 42 16.9** | **+0.2** |
| **CAUP** | **Cauayan** | **2.45** | **167** | *e*P | **Pn** | **21 42 27.9** | **+2.0** |
| **BOLP** | **Bolinao** | **3.22** | **204** | *e*P | **Pn** | **21 42 36.2** | **-0.4** |
| **TWG** | **Pinlang** | **3.46** | **357** | *e*P | **Pn** | **21 42 39.2** | **-0.6** |
| TWG | | | | *e*Sn | **Sn** | **21 43 18.8** | **-0.7** |
| **BALP** | **Baler** | **3.60** | **175** | *e*P | **Pn** | **21 42 43.0** | **+1.3** |
| **TPUB** | **Ta-pu** | **3.98** | **352** | *e*Pn | **Pn** | **21 42 45.2** | **-1.7** |
| TPUB | | | | *e*Sn | **Sn** | **21 43 29.5** | **-2.9** |
| **YULB** | **Yu-li** | **4.02** | **0** | *e*Pn | **Pn** | **21 42 47.6** | **0.0** |
| YULB | | | | *e*Sn | **Sn** | **21 43 34.5** | **+1.0** |
| **SSLB** | **Suanglung** | **4.43** | **356** | *e*Pn | **Pn** | **21 42 53.0** | **-0.1** |
| SSLB | | | | *e*Sn | **Sn** | **21 43 41.2** | **-2.2** |
| **TGY** | **Tagaytay City** | **5.23** | **184** | Pn | **Pn** | **21 43 07.3** | **+3.1** |
| | 56nm,0.3s,baz=357,slow=22,SNR=3.1 | | | | | | |
| **YOJ** | **Yonaguni jima** | **5.34** | **17** | *e*Pn | **Pn** | **21 43 04.4** | **-1.3** |
| **GQP** | **Guinayangan** | **5.53** | **168** | ⇑*e*P | **Pn** | **21 43 09.0** | **+0.7** |
| **TATO** | **Taipei** | **5.60** | **2** | *e*Pn | **Pn** | **21 43 10.3** | **+1.0** |
| **QZH** | **Quanzhou** | **6.09** | **336** | Pn | Pn | 21 43 12.0 | -4.0 |
| QZH | | | | Sn | **Sn** | **21 44 17.8** | **-6.6** |
| QZH | | | | smax | smax | | |
| | comp=N,400nm,1.5s | | | | | | |
| QZH | | | | smax | smax | | |
| | comp=E,130nm,0.6s | | | | | | |
| QZH | | | | LR | LR | | |
| | comp=Z,2µm,19.4s | | | | | | |
| **MCO** | **Taipa Grande** | **7.72** | **292** | P | Pn | 21 43 34.0 | -4.4 |
| **GZH** | **Guangzhou** | **8.27** | **298** | Pn | Pn | 21 43 40.7 | -5.2 |
| GZH | | | | Sn | Sn | 21 45 01.7 | -16 |
| **JOW** | **Kunigami** | **9.85** | **40** | *e*Pn | **Pn** | **21 44 06.7** | **-0.8** |
| JOW | | | | Sn | **Sn** | **21 45 59.1** | **+2.3** |
| **QIZ** | **Qiongzhong** | **10.80** | **270** | P | **Pn** | **21 44 21.3** | **+0.7** |
| QIZ | | | | S | **Sn** | **21 46 22.8** | **+2.7** |
| QIZ | | | | pmax | pmax | | |
| | comp=Z,40nm,1.9s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=E,490nm,13.8s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=Z,640nm,14.1s | | | | | | |
| **NJ2** | **Nanjing** | **12.83** | **351** | *e*P | **Pn** | **21 44 49.5** | **+1.2** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,12nm,0.6s | | | | | | |
| **JNU** | **Nakatsue** | **16.19** | **30** | Pn | **Pn** | **21 45 33.6** | **+0.8** |
| | 0.2nm,0.3s,baz=200,slow=6.0,SNR=2.6 | | | | | | |
| **KMI** | **Kunming** | **18.08** | **292** | P | **Pn** | **21 45 58.5** | **+1.8** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,12nm,1.1s | | | | | | |
| KMI | | | | pmax | pmax | | |
| | comp=Z,83nm,4.0s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=N,250nm,15.1s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=E,440nm,15.1s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,470nm,15.1s | | | | | | |
| **XAN** | **Xi'an** | **18.30** | **326** | P | **Pn** | **21 45 59.6** | **+0.6** |
| XAN | | | | pP | pP | 21 46 08.4 | -1.0 |
| XAN | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.1s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=N,240nm,17.3s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=E,210nm,15.0s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,400nm,16.2s | | | | | | |
| **KS15** | **Wonju Array Si** | **18.93** | **16** | *e*P | **Pn** | **21 46 07.3** | **+0.7** |
| **KSAR** | **Wonju Array Be** | **18.93** | **16** | P | **P** | **21 46 05.0** | **-0.6** |
| **KSRS** | **Korea Array** | **18.95** | **16** | P | **P** | **21 46 05.0** | **-0.8** |
| | 0.8nm,0.3s,baz=198,slow=12,SNR=14 | | | | | | |
| KSRS | | | | LR | LR | 21 54 29.1 | |
| | comp=Z,216nm,19.1s,baz=198,slow=40 | | | | | | |
| **KS01** | **Wonju Array Si** | **18.97** | **16** | *e*P | **P** | **21 46 06.8** | **+0.8** |
| **CD2** | **Chengdu** | **19.56** | **309** | P | **P** | **21 46 12.9** | **+0.3** |
| CD2 | | | | pP | pP | 21 46 20.6 | -2.7 |
| CD2 | | | | PP | **PnPn** | **21 46 26.1** | **-2.5** |
| CD2 | | | | S | **S** | **21 49 45.4** | **-5.8** |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,20nm,0.8s | | | | | | |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,150nm,7.1s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=N,460nm,14.2s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,500nm,15.5s | | | | | | |
| **LUWI** | **Luwuk** | **20.32** | **176** | *e*P | **P** | **21 46 20.0** | **-0.9** |
| | 36nm,1.1s | | | | | | |
| **CBIJ** | **Chichi jima** | **20.69** | **64** | *e*P | **P** | **21 46 24.8** | **-0.1** |
| | 275nm,1.0s | | | | | | |
| **CM01** | **Chiang Mai Arr** | **21.13** | **271** | *e*P | **P** | **21 46 29.2** | **-0.4** |
| **CM31** | **Chiang Mai Arr** | **21.14** | **271** | *e*P | **P** | **21 46 29.6** | **-0.3** |
| **CMAR** | **Chiang Mai Arr** | **21.14** | **271** | P | **P** | **21 46 29.4** | **-0.4** |
| | 2.5nm,0.8s,baz=71,slow=9.8,SNR=22 | | | | | | |
| CMAR | | | | PcP | **PcP** | **21 50 35.3** | **+0.6** |
| | 1.1nm,0.5s,baz=90,slow=0.9,SNR=9.7 | | | | | | |
| CMAR | | | | LR | LR | 21 54 40.5 | |
| | comp=Z,73nm,19.0s,baz=72,slow=37 | | | | | | |
| **INU** | **Inuyama** | **21.16** | **38** | *e*P | **P** | **21 46 30.2** | **+0.3** |
| | 28nm,1.0s | | | | | | |
| **LZH** | **Lanzhou** | **22.65** | **321** | *e*P | **P** | **21 46 47.0** | **+0.9** |
| LZH | | | | pP | pP | 21 46 57.7 | +0.8 |
| LZH | | | | *e*S | **S** | **21 50 47.1** | **-4.1** |
| LZH | | | | pmax | pmax | | |
| | comp=Z,28nm,1.0s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,250nm,5.4s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=N,350nm,14.8s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=E,200nm,14.9s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,380nm,15.6s | | | | | | |
| **MJAR** | **Matsushiro Arr** | **22.68** | **37** | P | **P** | **21 46 45.9** | **-0.3** |
| | 1.5nm,0.6s,baz=200,slow=10,SNR=7.4 | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **22.98** | **341** | *e*P | **P** | **21 46 49.9** | **+0.5** |
| HHC | | | | sP | sP | 21 47 06.0 | +0.1 |
| HHC | | | | S | **S** | **21 50 55.7** | **-0.9** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.6s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,130nm,7.4s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=N,380nm,13.0s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=E,210nm,13.0s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,310nm,14.8s | | | | | | |
| **IPM** | **Ipoh** | **24.66** | **236** | *e*P | **P** | **21 47 04.4** | **-0.9** |
| | 24nm,1.5s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **26.35** | **18** | P | **P** | **21 47 21.7** | **+1.4** |
| | 2.8nm,0.7s,baz=197,slow=12,SNR=4.1 | | | | | | |

USRK LR LR 21 58 12.1
comp=Z,137nm,21.5s,baz=182,slow=37
**GTA Gaotai 27.25 322** *eP* **P 21 47 30.8 +2.2**
GTA pP pP 21 47 41.8 +1.4
**PSI Prapat 27.34 236** LR LR 21 58 11.3
comp=Z,115nm,18.1s,baz=62,slow=36
**ASAJ Asahikawa 30.46 31** *eP* **P 21 47 56.7 -0.3**
25nm,1.3s
**ULN Ulaanbaatar 30.70 341** *eP* **P 21 48 00.5 +1.3**
3.1nm,1.0s
**SONM Songino Array 30.88 340** P **P 21 48 02.2 +1.4**
1.0nm,0.8s,baz=156,slow=9.6,SNR=2.9
SONM LR LR 22 01 34.7
comp=Z,252nm,18.7s,baz=156,slow=38
**SONA1 Songino Array 30.89 340** *eP* **P 21 48 02.5 +1.7**
**WMQ Urumqi 37.19 319** P **P 21 48 56.4 +1.0**
WMQ pP pP 21 49 08.7 +1.2
WMQ sP sP 21 49 14.2 +1.4
WMQ pmax pmax
comp=Z,24nm,0.7s
WMQ pmax pmax
comp=Z,280nm,4.5s
WMQ LR LR
comp=N,310nm,17.1s
WMQ LR LR
comp=E,190nm,18.9s
WMQ LR LR
comp=Z,270nm,17.1s
**FITZ Fitzroy Crossi 37.47 173** P **P 21 48 55.6 -2.2**
2.3nm,0.8s,baz=5.7,slow=8.6,SNR=9.9
FITZ PcP **PcP 21 51 16.0 +0.2**
1.9nm,0.6s,baz=351,slow=5.8,SNR=6.5
**PMG Port Moresby 38.31 136** LR LR 22 06 33.0
comp=Z,37nm,18.1s,baz=261,slow=39
**PMG Port Moresby 38.31 136** *eP* **P 21 49 02.4 -2.6**
7.7nm,0.7s
**WRA Warramunga Arr 41.10 161** P **P 21 49 25.1 -3.0**
2.9nm,0.5s,baz=343,slow=9.1,SNR=57
WRA PcP **PcP 21 51 27.4 +0.2**
1.8nm,0.7s,baz=346,slow=3.3,SNR=8.2
**WB2 Warramunga Arr 41.10 161** *eP* **P 21 49 26.9 -1.3**
19nm,1.4s
**MK01 Makanchi Array 41.94 320** *eP* **P 21 49 35.9 +1.0**
**MK31 Makanchi Array 41.96 320** *eP* **P 21 49 36.4 +1.4**
**MKAR Makanchi Array 41.96 320** P **P 21 49 35.9 +0.9**
1.7nm,0.7s,baz=113,slow=8.2,SNR=11
MKAR PcP **PcP 21 51 29.4 -0.4**
0.4nm,0.7s,baz=99,slow=3.9,SNR=1.9
MKAR LR LR 22 08 01.0
comp=Z,115nm,18.3s,baz=130,slow=38
**MAKZ Makanchi 42.16 320** *eP* **P 21 49 37.8 +1.2**
3.4nm,0.9s
**WAKE Wake Island 42.73 82** *eP* **P 21 49 40.4 -1.3**
657nm,1.8s
**H11S3 WAKE ISLAND Hy 42.88 83** T T 22 35 21.9
baz=277,slow=74,SNR=14
**H11S1 WAKE ISLAND Hy 42.89 83** T T 22 35 22.8
baz=277,slow=74,SNR=10
**H11S2 WAKE ISLAND Hy 42.90 83** T T 22 35 27.1
baz=277,slow=74,SNR=12
**H11N1 WAKE ISLAND Hy 42.90 82** T T 22 35 25.2
baz=277,slow=75,SNR=75
**H11N2 WAKE ISLAND Hy 42.90 82** T T 22 35 26.9
baz=277,slow=75,SNR=51
**H11N3 WAKE ISLAND Hy 42.92 82** T T 22 35 30.5
baz=277,slow=75,SNR=43
**KSH Kashi 43.74 307** *eP* **P 21 49 53.7 +4.0**
KSH pP pP 21 50 06.6 +4.6
KSH PP **PcP 21 51 38.1 +2.1**
KSH PcP PP 21 51 40.9 +8.9
KSH S **S 21 56 23.3 +6.3**
KSH ScS **ScS 21 59 45.9 +0.5**
KSH pmax pmax
comp=Z,3.0nm,1.1s
KSH pmax pmax
comp=Z,91nm,4.8s
KSH LR LR
comp=N,220nm,5.6s
KSH LR LR
comp=E,140nm,5.5s
KSH LR LR
comp=Z,270nm,8.2s
**PEA0B Petropavlovsk- 43.88 31** *eP* **P 21 49 50.5 +0.1**
79nm,1.5s
**PETK Petropavlovsk- 43.88 31** P **P 21 49 50.8 +0.3**
2.6nm,0.8s,baz=220,slow=3.2,SNR=5.7
PETK LR LR 22 08 33.8
comp=Z,39nm,20.0s,baz=196,slow=37
**PETK Petropavlovsk- 43.88 31** *eP* **P 21 49 50.0 -0.4**
**ZAA0 Zalesovo Array 44.39 330** *eP* **P 21 49 55.2 +0.7**
7.5nm,1.5s
**ZALV Zalesovo Beam 44.39 330** P **P 21 49 55.0 +0.5**
1.5nm,0.8s,baz=108,slow=6.2,SNR=4.3
ZALV LR LR 22 09 11.7
comp=Z,67nm,21.0s,baz=72,slow=37
**ZALV Zalesovo Beam 44.39 330** *eP* **P 21 49 55.0 +0.5**
**AS31 Alice Springs 44.49 163** *eP* **P 21 49 54.5 -1.2**
1.9nm,0.4s
**ASAR Alice Springs 44.50 163** P **P 21 49 54.0 -1.7**
2.6nm,0.5s,baz=349,slow=6.9,SNR=50
**AS01 Alice Springs 44.51 163** *eP* **P 21 49 54.2 -1.5**
**AAK Ala-Archa 45.62 311** *eP* **P 21 50 04.5 -0.1**
18nm,1.9s
**KURK Kurchatov 45.91 323** *eP* **P 21 50 07.4 +0.8**
10nm,1.4s
**KWAJ Kwajalein Atol 46.03 96** *eP* **P 21 50 07.9 -0.1**
261nm,0.9s
**HNR Honiara 47.65 123** LR LR 22 09 56.9
comp=Z,70nm,18.1s,baz=342,slow=36
**KBL Kabul 48.44 299** *eP* **P 21 50 26.3 -0.6**
3.2nm,0.8s
**FORT Forrest 50.27 172** *eP* **P 21 50 38.9 -1.5**
431nm,1.2s
**BRVK Borovoye 51.58 323** *eP* **P 21 50 51.1 +1.0**
3.6nm,0.8s
**NWAO Narrogin (SRO) 52.12 184** *eP* **P 21 50 53.5 -0.7**
58nm,1.5s
**TIXI Tiksi 52.49 3** *eP* **P 21 50 56.5 -0.1**
3.1nm,0.8s
**SMY Shemya 52.53 38** *eP* **P 21 50 57.8 +0.7**
250nm,1.2s
**TARA Tarawa 53.60 103** *eP* **P 21 51 03.9 -1.7**
203nm,1.3s
**BBOO Buckleboo 53.76 165** *eP* **P 21 51 04.1 -2.3**
93nm,1.7s
**STKA Stephens Creek 54.54 159** P **P 21 51 10.8 -1.2**
3.3nm,0.9s,baz=328,slow=8.2,SNR=7.9
**STKA Stephens Creek 54.54 159** *eP* **P 21 51 11.1 -0.9**
3.8nm,1.6s
**DGAR Diego Garcia 54.94 246** *eP* **P 21 51 14.8 -0.6**
308nm,1.2s
**GEYT Alibeck 57.40 303** P **P 21 51 34.1 +1.5**
2.1nm,0.5s,baz=102,slow=2.1,SNR=3.4
GEYT LR LR 22 20 06.5
comp=Z,104nm,19.1s,baz=5.0,slow=40
**CAST Castle Rocks 71.40 28** *eP* **P 21 53 05.3 +1.5**
10.0nm,1.1s
**ILAR Eielson Array 73.47 27** P **P 21 53 15.2 -0.8**
0.4nm,0.6s,baz=262,slow=5.1,SNR=5.3
**ARCES ARCESS Array B 74.04 339** P **P 21 53 19.8 +0.5**
2.5nm,0.7s,baz=83,slow=3.9,SNR=7.4
**FINES FINESS Array B 75.65 330** P **P 21 53 28.1 -0.6**
10nm,1.1s,baz=51,slow=6.1,SNR=3.8
**ILGA Ilgaz 75.76 309** *eP* **P 21 53 30.4 +0.4**
7.1nm,1.1s
**BRTR Keskin Array B 76.13 307** P **P 21 53 31.7 -0.4**
0.4nm,0.5s,baz=135,slow=3.6,SNR=4.9
BRTR LR LR 22 32 10.6
comp=Z,41nm,19.4s,baz=346,slow=40
**AKASG Malin Array Be 76.54 319** P **P 21 53 33.3 -0.7**
0.6nm,0.5s,baz=63,slow=5.0,SNR=3.3
**NOA NORSAR Array B 82.52 333** LR LR 22 34 25.1
comp=Z,150nm,20.1s,baz=285,slow=38
**KMBO Kilima Mbogo 84.72 267** LR LR 22 29 54.1
comp=Z,15nm,20.5s,baz=84,slow=34
**YKA Yellowknife Ar 87.38 23** P **P 21 54 31.1 +0.5**
4.6nm,0.7s,baz=313,slow=4.7,SNR=32
**PPT Papeete 94.91 107** LR LR 22 31 59.3
comp=Z,24nm,18.2s,baz=314,slow=32
**TXAR Lajitas Array 115.03 43** PKP **PKPdf 22 00 26.0 +0.6**
0.8nm,0.6s,baz=270,slow=3.6,SNR=11
**VNA2 Neumayer--Watz 120.33 197** PKP **PKPdf 22 00 34.3 +0.2**
baz=72,slow=1.6
**VNA3 Neumayer Olymp 120.78 197** PKP **PKPdf 22 00 34.9 -0.1**
**MOTC Monteria, Cord 147.45 32** *eP* **PKPdf 22 01 26.7 +0.7**
**OCAC Ocana 149.05 29** *eP* **PKPbc 22 01 30.9 -1.9**
**SDV Santo Domingo 149.59 24** PKP **PKPdf 22 01 30.5 +0.8**
12nm,0.9s,baz=62,slow=4.4,SNR=6.0
SDV PKPbc **PKPbc 22 01 34.4 +0.1**
9.6nm,0.7s,baz=310,slow=4.2,SNR=14
**BARC Barichara 150.55 30** *eP* **PKPbc 22 01 36.3 -0.4**
**GUYC Guyana, Colomb 150.59 36** *eP* **PKPbc 22 01 37.9 +0.8**
**GRGC Isla de Gorgon 150.70 43** *eP* **PKPab 22 01 42.0 -1.7**
**RUSC La Rusia 151.21 31** *eP* **PKPbc 22 01 38.1 -0.4**
**ROSC El Rosal 151.48 34** PKPbc **PKPbc 22 01 40.6 +1.5**
6.1nm,0.5s,baz=317,slow=11,SNR=4.2
**ROSC El Rosal 151.48 34** *eP* **PKPbc 22 01 39.9 +0.8**
**CHIC Chingaza 151.97 33** *eP* **PKPbc 22 01 40.5 +0.3**
**PRAC Prado 152.11 36** *eP* **PKPbc 22 01 39.9 -0.2**
**OTAV Otavalo 152.56 47** *eP* **PKPbc 22 01 40.8 -0.8**

**KRSC 03 22:00:46.8±2.2, 53°01N×156°81E, h252km±20km, ML3.6, Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **APC** | **Apacha** | **0.23** | **112** | *eP* | Pn | 22 01 19.9 | +0.5 |
| **ASAK** | **Asacha** | **0.91** | **133** | *eP* | Pn | 22 01 23.8 | +2.0 |
| **GNL** | **Ganaly** | **0.96** | **44** | *eP* | Pn | 22 01 23.6 | +1.6 |
| **PET** | **Petropavlovsk** | **1.11** | **89** | *eP* | Pn | 22 01 23.9 | +1.2 |
| **DALK** | **Dalny** | **1.17** | **88** | *eP* | Pn | 22 01 24.0 | +1.0 |
| **RUS** | **Russkaya** | **1.19** | **119** | *eP* | Pn | 22 01 23.7 | +0.6 |
| RUS | | | | *eS* | S | 22 01 52.1 | +0.4 |
| **AVH** | **Avacha** | **1.19** | **77** | *eP* | Pn | 22 01 24.9 | +1.7 |
| **UGLR** | **Uglovaya** | **1.23** | **80** | *eP* | Pn | 22 01 25.1 | +1.6 |
| **SDLR** | **Sedlovina** | **1.28** | **77** | *eP* | Pn | 22 01 25.1 | +1.2 |
| **KDTR** | **Khodutka, Kamc** | **1.43** | **147** | *eP* | Pn | 22 01 25.2 | +0.4 |
| KDTR | | | | *eS* | S | 22 01 54.7 | 0.0 |
| **SPN** | **Mys Shipunski** | **1.94** | **86** | *eP* | Pn | 22 01 28.1 | -0.8 |
| SPN | | | | *eS* | S | 22 01 59.9 | -2.1 |
| **KBTR** | **Krutoberegovo** | **4.74** | **45** | *eP* | Pn | 22 01 59.1 | -0.2 |

*IDC* ***03*** *22:02:13.2±1.3,3.95N×126.85E,h0km,mb3.6/7, mb1 3.8/7,mb1mx3.6/35,mbtmp3.6/7,MS2.7/1,Ms1 2.7/1, ms1mx2.2/30,Error ellipse: s-maj=71.0km s-min=16.7km az=67.0*
*ISCJB* ***03*** *22:02:16.7±1.1,3.9N±0.2×126.8E±0.4,h36km,mb3.6/7, MS2.5/1,Error ellipse: s-maj=56.5km s-min=13.6km az=155.9*

**ISC 03 22:02:18.7±1.2, 3.9N±0.2×127.0E±0.4, h36km, n9, σ1$69/8, mb3.6/7,1D, Talaud Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CTBH** | **Cotabato--PC H** | **4.28** | **320** | *i* | *P* | **22 03 23.4** | **+2.1** |
| **GUMO** | **Guam** | **20.11** | **60** | LR | LR | 22 13 21.8 | |
| | comp=Z,21nm,20.8s,baz=76,slow=33 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **21.91** | **183** | P | **P** | **22 07 06.9** | **-1.9** |
| | 1.1nm,0.7s,baz=19,slow=6.3,SNR=3.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **24.77** | **163** | P | **P** | **22 07 37.8** | **+0.6** |
| | 1.4nm,0.4s,baz=340,slow=11,SNR=21 | | | | | | |
| **ASAR** | **Alice Springs** | **28.22** | **166** | P | **P** | **22 08 09.1** | **+0.7** |
| | 0.4nm,0.6s,baz=340,slow=7.1,SNR=7.2 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **31.01** | **300** | P | **P** | **22 08 32.8** | **-0.3** |
| | 0.4nm,0.4s,baz=105,slow=6.8,SNR=5.0 | | | | | | |
| **STKA** | **Stephens Creek** | **38.20** | **160** | P | **P** | **22 09 36.4** | **+1.3** |
| | 1.0nm,0.3s,baz=324,slow=14,SNR=2.9 | | | | | | |
| **SONM** | **Songino Array** | **47.22** | **341** | P | **P** | **22 10 47.1** | **-1.0** |
| | 0.3nm,0.5s,baz=161,slow=9.5,SNR=3.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **57.56** | **325** | P | **P** | **22 12 03.2** | **-1.6** |
| | 0.2nm,0.3s,baz=123,slow=7.1,SNR=12 | | | | | | |

*IDC* ***03*** *22:10:52.8±0.8, 16.38N×120.47E,h0km,mb3.8/7, mb1 4.0/7,mb1mx3.7/44,mbtmp3.8/7,MS2.7/1,Ms1 2.9/1, ms1mx2.5/26,Error ellipse: s-maj=46.5km s-min=11.9km az=70.0*
*MAN* ***03*** *22:10:55, 16.35N×119.85E,h14km,mb4.5,ML3.4,MS3.3*
*MAN INTENSITY III - BOLINAO PANGASINAN.*
*ISCJB* ***03*** *22:10:56.3±0.8, 16.32N±0.04×119.88E±0.07,h20km±7km, mb3.8/6,MS2.5/1,Error ellipse: s-maj=11.3km s-min=6.0km az=12.2*

**ISC 03 22:10:55.8±1.1, 16°27N±0°.04×120°05E±0°.06, h15km±8km, n20, σ1$90/26, mb3.8/6,1C-1D, Luzon**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **BOLP** | **Bolinao** | **0.17** | **310** | *eP* | **Pg** | **22 10 59.6** | **-0.4** |
| **SCZP** | **Santa Cruz** | **0.51** | **195** | *eP* | **Pb** | **22 11 07.4** | **+0.9** |
| SCZP | | | | *eS* | **Sb** | **22 11 14.5** | **+0.7** |
| **PCPH** | **Palayan** | **1.23** | **125** | *i* | *eP* | **Pn** | **22 11 18.2** | **-0.3** |
| PCPH | | | | *eS* | **Sn** | **22 11 31.2** | **-3.6** |
| **ABRA** | **Dolores** | **1.51** | **25** | *eP* | **Pn** | **22 11 22.6** | **+0.3** |
| ABRA | | | | *eS* | **Sg** | **22 11 43.7** | **-0.8** |
| **BALP** | **Baler** | **1.56** | **110** | *eP* | **Pn** | **22 11 24.4** | **+1.3** |
| **CAUP** | **Cauayan** | **1.83** | **68** | *eP* | **Pb** | **22 11 30.3** | **+1.3** |
| **APYP** | **Conner** | **1.95** | **36** | *eP* | **Pn** | **22 11 29.7** | **+1.4** |
| APYP | | | | *eS* | **Sn** | **22 11 54.7** | **+2.1** |
| **TGY** | **Tagaytay City** | **2.32** | **158** | Pg | **Pn** | **22 11 35.9** | **+2.3** |
| | 184nm,0.3s,baz=310,slow=2.7,SNR=18 | | | | | | |
| TGY | | | | Lg | Lg | 22 12 07.3 | |
| | 98nm,0.3s,baz=283,slow=23,SNR=3.9 | | | | | | |
| **LUBP** | **Lubang** | **2.53** | **176** | *eP* | **Pb** | **22 11 39.9** | **-1.0** |
| **GQP** | **Guinayangan** | **3.30** | **135** | *i* | *P* | **Pn** | **22 11 50.9** | **+3.9** |
| **SJMP** | **San Jose** | **3.93** | **165** | *eP* | **Pn** | **22 11 59.8** | **+4.2** |
| **BUSP** | **Coron** | **4.25** | **178** | *eP* | **Pn** | **22 12 02.0** | **+2.0** |
| **ENPP** | **El Nido** | **5.07** | **187** | *eP* | **Pn** | **22 12 12.4** | **+1.1** |
| **CMAR** | **Chiang Mai Arr** | **20.26** | **279** | P | **Pn** | 22 15 34.3 | +1.4 |
| | 1.9nm,0.9s,baz=96,slow=8.7,SNR=11 | | | | | | |
| CMAR | | | | LR | LR | 22 23 07.6 | |
| | comp=Z,22nm,18.8s,baz=100,slow=36 | | | | | | |
| **SONM** | **Songino Array** | **33.43** | **343** | P | **P** | **22 17 34.8** | **+0.7** |
| | 0.4nm,0.5s,baz=162,slow=11,SNR=2.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **38.63** | **158** | P | **P** | **22 18 16.4** | **-2.4** |
| | 1.2nm,0.6s,baz=327,slow=11,SNR=16 | | | | | | |
| WRA | | | | PcP | **PcP** | **22 20 31.1** | **0.0** |
| | 0.5nm,0.9s,baz=339,slow=3.1,SNR=2.7 | | | | | | |
| **ASAR** | **Alice Springs** | **41.94** | **161** | P | **P** | **22 18 44.5** | **-1.7** |
| | 0.6nm,0.3s,baz=336,slow=6.7,SNR=12 | | | | | | |
| ASAR | | | | PcP | **PcP** | **22 20 41.6** | **0.0** |
| | 0.1nm,0.3s,baz=338,slow=3.5,SNR=3.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.61** | **322** | P | **P** | **22 18 59.1** | **-0.4** |
| | 0.1nm,0.4s,baz=97,slow=10,SNR=4.3 | | | | | | |
| MKAR | | | | PcP | **PcP** | **22 20 47.2** | **+0.3** |
| | 0.4nm,0.8s,baz=119,slow=1.7,SNR=2.0 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **47.72** | **325** | P | **P** | **22 19 32.1** | **+0.1** |
| | 0.8nm,0.2s,baz=123,slow=8.2,SNR=3.4 | | | | | | |
| **ARCES** | **ARCESS Array B** | **76.47** | **339** | P | **P** | **22 22 44.2** | **-0.6** |
| | 5.8nm,1.1s,baz=65,slow=7.4,SNR=2.6 | | | | | | |

*NIED* ***03*** *22:57:00,35.20N×142.40E,h8km,Mw4.2 Best double couple: M₀2.17000×10¹⁵ NP1:φs11.00000°,δ26.00000°, λ-75.00000°. NP2:φs174.00000°,δ65.00000°, λ-97.00000°.*
*IDC* ***03*** *22:57:00.3±0.6,35.09N×142.38E,h0km,mb4.2/21, mb1 4.3/27,mb1mx4.2/42,mbtmp4.2/27,ML4.1/5,MS3.1/3, Ms1 3.2/3,ms1mx2.7/38,Error ellipse: s-maj=16.3km s-min=12.8km az=127.0*
*ISCJB* ***03*** *22:57:01.9±0.9,35.15N±0.03×142.32E±0.03,h19km±6km, mb4.6/68,MS3.7/8,Error ellipse: s-maj=4.9km s-min=4.3km az=162.0*
*JMA* ***03*** *22:57:03.2±0.4,35.18N×142.39E,h62km,M4.0*
*NEIC* ***03*** *22:57:03.5±1.8,35.13N×142.32E,h19km±11km,mb4.9/29, Error ellipse: s-maj=5.0km s-min=3.5km az=133.0*
*NEIC Felt at Yokohama.*
*MOS* ***03*** *22:57:04.0±1.2,35.14N×142.29E,h36km,mb4.6/30,Error ellipse: s-maj=9.1km s-min=6.4km az=108.0*
*BJI* ***03*** *22:57:05.3,34.88N×141.84E,h23km,mb4.5/36,mB4.9/25, Ms4.5/19,Ms7 4.3/17*

**ISC 03 22:57:04.2±1.6, 35°17N±0°.04×142°33E±0°.04, h23km±11km, n170, σ1$32/193, mb4.6/68, MS3.9/8, 11C-4D, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **BSO1** | **Boso 1** | **1.23** | **245** | P | **Pn** | **22 57 24.8** | **-0.6** |
| **CHOJ** | **Chosi** | **1.31** | **294** | P | **Pn** | **22 57 26.8** | **-0.3** |
| CHOJ | | | | *eS* | **Sn** | **22 57 42.8** | **-1.1** |
| **BSO3** | **Boso 3** | **1.54** | **257** | P | **Pn** | **22 57 29.7** | **-0.3** |
| **BSO4** | **Boso 4** | **1.64** | **264** | P | **Pn** | **22 57 31.6** | **+0.1** |
| **KTR** | **Katsuura** | **1.65** | **270** | P | **Pn** | **22 57 31.4** | **-0.3** |
| **JCN** | **Nagara** | **1.76** | **279** | P | **Pn** | **22 57 34.1** | **+0.9** |
| **JIM2** | **Oshima 3** | **2.42** | **260** | P | **Pn** | **22 57 41.1** | **-1.3** |
| **JFK** | **Kawauchi** | **2.48** | **332** | P | **Pn** | **22 57 41.2** | **-2.1** |

JFK *eS* **Sn 22 58 08.3 -4.6**
**JAG Ashikaga 2.65 299** P **Pn 22 57 44.9 -0.6**
JAG *eS* **Sn 22 58 16.6 -0.3**
**JOD2 Odawara 2 2.66 273** P **Pn 22 57 44.6 -1.0**
JOD2 *eS* **Sn 22 58 15.4 -1.7**
**JFT Otama 2.84 326** P **Pn 22 57 47.4 -0.7**
JFT *eS* **Sn 22 58 19.0 -2.6**
**JRY Ryogami san 2.92 288** P **Pn 22 57 49.5 +0.3**
**JHJ2 Mitsune 2.93 226** *ePn* **Pn 22 57 49.0 -0.3**
**JHJ Hachijo jima 2 2.94 227** Pn **Pn 22 57 47.4 -2.2**
36nm,0.3s,baz=72,slow=20,SNR=5.3
JHJ Sn **Sn 22 58 20.8 -3.3**
110nm,0.3s,baz=52,slow=23,SNR=7.9
**JYN Shimob 3.11 277** P **Pn 22 57 51.4 -0.5**
JYN *eS* **Sn 22 58 28.0 -0.4**
**JNS Sasagawa 3.59 318** S **Sn 22 58 39.6 -0.4**
**MJAR Matsushiro Arr 3.62 293** Pn **Pn 22 57 58.8 0.0**
9.8nm,0.3s,baz=123,slow=12,SNR=83
MJAR Sn **Sn 22 58 42.0 +1.2**
4.8nm,0.3s,baz=117,slow=25,SNR=7.3
**MAJO Matsushiro 3.62 293** *di* **P Pn 22 57 58.9 +0.1**
**MAJO Matsushiro 3.62 293** *ePn* **Pn 22 57 59.4 +0.6**
**MAT Matsushiro 3.62 293** P **Pn 22 57 58.6 -0.2**
MAT *eS* **Sn 22 58 38.4 -2.4**
**MAT Matsushiro 3.62 293** P **Pn 22 57 59.2 +0.4**
**MJB9 Matsu-Tunnel 3.62 293** *ePn* **Pn 22 57 59.1 +0.2**
**INU Inuyama 4.35 274** *ePn* **Pn 22 58 09.7 +0.8**
**ERM Erimo 6.86 5** *eP* **Pn 22 58 42.7 -0.6**
ERM *e* 23 00 01.1
**ERM Erimo 6.86 5** *ePn* **Pn 22 58 42.7 -0.6**
ERM *eSn* **Sn 23 00 01.1 +0.4**
**CBIJ Chichi jima 8.05 181** *ePn* **Pn 22 58 59.3 -0.5**
**ASAJ Asahikawa 8.94 1** Pn **Pn 22 59 09.7 -2.1**
10nm,0.3s,baz=216,slow=9.3,SNR=44
ASAJ Sn **Sn 23 00 44.9 -6.8**
0.9nm,0.3s,baz=216,slow=17,SNR=3.2
**JNU Nakatsue 9.71 261** Pn **Pn 22 59 23.1 +0.7**
1.6nm,0.3s,baz=94,slow=16,SNR=14
**JNU Nakatsue 9.71 261** *ePn* **Pn 22 59 22.2 -0.2**
**YSS Yuzh-Sakhalins 11.78 1** *eP* **Pn 22 59 50.4 -0.2**
**YSS Yuzh-Sakhalins 11.78 1** *ePn* **Pn 22 59 50.4 -0.2**
**KSRS Korea Array 11.84 285** Pn **Pn 22 59 52.0 +0.4**
0.2nm,0.3s,baz=96,slow=13,SNR=5.1
**KS01 Wonju Array Si 11.87 285** *ePn* **Pn 22 59 51.1 -0.9**
**KS15 Wonju Array Si 11.87 285** *ePn* **Pn 22 59 53.3 +1.3**
**KSAR Wonju Array Be 11.87 285** P **Pn 22 59 52.1 0.0**
**KSAR Wonju Array Be 11.87 285** Pn **Pn 22 59 52.0 0.0**
**USRK Ussuriysk Ar. 12.02 322** Pn **Pn 22 59 54.4 +0.4**
0.3nm,0.3s,baz=126,slow=15,SNR=3.9
**INCN Inchon 12.87 285** *ePn* **Pn 23 00 07.0 +1.4**
**NJ2 Nanjing 19.79 268** *eP* **P 23 01 31.1 -1.7**
NJ2 pmax pmax
comp=Z,20nm,1.3s
**YOJ Yonaguni jima 19.84 243** *eP* **P 23 01 33.2 -0.2**
YOJ pmax pmax
comp=Z,229nm,1.3s
**YOJ Yonaguni jima 19.84 243** *eP* **P 23 01 33.2 -0.2**
comp=Z,229nm,1.3s
**YHNB Yeheng 20.92 246** *eP* **P 23 01 45.2 -0.1**
comp=Z,170nm,1.6s
**PETK Petropavlovsk- 20.97 27** P **P 23 01 45.9 +0.4**
comp=Z,1.5nm,0.5s,baz=221,slow=7.5,SNR=6.0
PETK LR LR 23 13 24.9
comp=Z,30nm,18.1s,baz=270,slow=47
**GUMO Guam 21.61 173** *eP* **P 23 01 51.4 -1.2**
**GUMO Guam 21.61 173** *eP* **P 23 01 51.4 -1.2**
comp=Z,412nm,1.4s
**YULB Yu-li 21.73 243** *eP* **P 23 01 54.0 +0.2**
comp=Z,70nm,1.7s
**SSLB Suanglung 21.75 244** *eP* **P 23 01 53.5 -0.6**
comp=Z,74nm,1.7s
**HIA Hailar 21.76 317** *i* *eP* **P 23 01 55.3 +1.3**
**TWG Pinlang 22.24 242** *eP* **P 23 01 59.3 -0.1**
comp=Z,98nm,1.0s
**TPUB Ta-pu 22.27 244** *eP* **P 23 01 58.7 -1.1**
comp=Z,201nm,1.8s
**HHC Hu-ho-hao-te 24.82 292** *eP* **P 23 02 24.9 +0.2**
HHC pmax pmax
comp=Z,12nm,0.8s
HHC pmax pmax
comp=Z,160nm,6.5s
**MA2 Magadan 25.03 10** P **P 23 02 27.3 +1.0**
comp=Z,15nm,0.7s,baz=186,slow=9.1,SNR=7.9
**MA2 Magadan 25.03 10** *i* *eP* **P 23 02 24.4 -1.9**
**XAN Xi'an 27.45 277** P **P 23 02 47.4 -1.1**
XAN pP pP 23 02 55.1 -0.3
**ENH Enshi 27.98 269** *eP* **P 23 02 52.3 -0.9**
comp=Z,9.8nm,0.7s
**YAK Yakutsk 28.04 347** *eP* **P 23 02 53.2 -0.2**
YAK pmax pmax
comp=Z,10.0nm,0.6s
**YAK Yakutsk 28.04 347** *eP* **P 23 02 53.2 -0.2**
comp=Z,10nm,0.6s
**SEY Seymchan 28.48 10** P **P 23 02 57.9 +0.6**
comp=Z,4.3nm,0.9s,baz=214,slow=15,SNR=3.7
**ULN Ulaanbaatar 29.04 307** *i* *eP* **P 23 03 02.8 +0.2**
ULN pmax pmax
comp=Z,2.0nm,1.0s
**ULN Ulaanbaatar 29.04 307** *eP* **P 23 03 02.7 +0.1**
comp=Z,3.0nm,0.9s
**SONA1 Songino Array 29.46 307** *eP* **P 23 03 06.4 +0.1**
**SONM Songino Array 29.46 306** P **P 23 03 08.0 +1.6**
comp=Z,1.1nm,0.7s,baz=114,slow=9.7,SNR=6.0
**SONM Songino Array 29.46 306** P **P 23 03 08.0 +1.6**
SONM pmax pmax
comp=Z,1.0nm,0.7s
**BOD Bodaibo 29.50 329** *eP* P 23 03 00.4 -6.0
BOD pmax pmax
comp=Z,8.0nm,1.6s
**LZH Lanzhou 31.16 283** *eP* **P 23 03 22.4 +0.9**
LZH pP sP 23 03 31.4 +0.1
LZH sP pP 23 03 34.8 +6.3
LZH PP **PnPn 23 04 24.9 +1.5**
LZH pmax pmax
comp=Z,18nm,1.1s
LZH pmax pmax
comp=Z,78nm,5.0s
LZH LR LR
comp=Z,220nm,15.5s
LZH LR LR
comp=Z,240nm,15.0s
LZH LR LR
comp=Z,200nm,16.0s
**GYA Guiyang 31.70 264** *eP* **P 23 03 25.6 -0.7**
GYA pmax pmax
comp=Z,10.0nm,0.8s
**TLY Talaya 32.12 313** *eP* **P 23 03 29.8 +0.1**
TLY pmax pmax
comp=Z,12nm,1.1s
**TLY Talaya 32.12 313** *eP* **P 23 03 29.8 +0.1**
comp=Z,12nm,1.1s
**CD2 Chengdu 32.48 274** *eP* **P 23 03 33.5 +0.5**
CD2 S **S 23 08 42.2 -4.4**
CD2 pmax pmax
comp=Z,10.0nm,0.8s
CD2 LR LR
comp=Z,260nm,9.5s
CD2 LR LR
comp=Z,230nm,13.0s
**GTA Gaotai 33.86 290** *eP* **P 23 03 46.0 +0.9**
GTA pP sP 23 03 55.2 +0.3
GTA sP pP 23 03 59.2 +7.2
GTA S **S 23 09 07.5 -0.6**
GTA sS sS 23 09 22.5 +2.9
GTA SS **SnSn 23 11 10.3 -3.7**
GTA pmax pmax
comp=Z,4.0nm,1.2s
GTA pmax pmax
comp=Z,150nm,6.9s
GTA LR LR
comp=Z,110nm,11.9s
GTA LR LR
comp=Z,170nm,10.9s
GTA LR LR
comp=Z,120nm,11.9s
**MIDW Midway 34.80 90** *eP* **P 23 03 52.3 -0.9**
comp=Z,690nm,2.0s
**KMI Kunming 35.47 265** P **P 23 03 59.1 -0.1**
KMI pmax pmax
comp=Z,9.0nm,0.7s
KMI LR LR
comp=Z,220nm,11.9s
**BILL Bilibino 35.61 15** *eP* **P 23 03 58.5 -1.2**
BILL pmax pmax
comp=Z,2.0nm,0.9s

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| TIXI | Tiksi | 37.22 | 353⇑ | eP | P | 23 04 13.3 | -0.1 |
| TIXI | Tiksi | 37.22 | 353 | eP | P | 23 04 13.8 | +0.5 |
| | comp=Z,1.8nm,0.8s | | | | | | |
| CHTO | Chiang Mai | 41.60 | 259 | eP | P | 23 04 49.9 | -0.6 |
| CHTO | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.9s | | | | | | |
| CHTO | Chiang Mai | 41.60 | 259 | eP | P | 23 04 49.9 | -0.6 |
| | comp=Z,3.7nm,0.9s | | | | | | |
| CMAR | Chiang Mai Arr | 41.79 | 258 | P | P | 23 04 52.0 | -0.1 |
| | comp=Z,1.6nm,0.6s,baz=49,slow=7.1,SNR=8.2 | | | | | | |
| CMAR | | | | LR | LR | 23 23 21.1 | |
| | comp=Z,27nm,18.7s,baz=36,slow=38 | | | | | | |
| CM01 | Chiang Mai Arr | 41.80 | 258 | eP | P | 23 04 51.4 | -0.8 |
| FALS | False Pass | 41.88 | 45 | eP | P | 23 04 53.9 | +1.6 |
| | comp=Z,711nm,2.0s | | | | | | |
| WMQ | Urumqi | 42.36 | 299 | P | P | 23 04 58.7 | +2.1 |
| WMQ | | | | pP | sP | 23 05 07.1 | +0.6 |
| WMQ | | | | sP | pP | 23 05 11.3 | +7.6 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,36nm,0.6s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,170nm,5.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,83nm,15.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,98nm,15.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,67nm,14.3s | | | | | | |
| ZALV | Zalesovo Beam | 43.73 | 314 | P | P | 23 05 07.2 | -0.1 |
| | comp=Z,1.1nm,0.6s,baz=98,slow=6.9,SNR=6.5 | | | | | | |
| ZALV | | | | PcP | PcP | 23 06 53.6 | -0.3 |
| | comp=Z,0.8nm,0.5s,baz=110,slow=2.3,SNR=3.4 | | | | | | |
| ZALV | Zalesovo Beam | 43.73 | 314 | eP | P | 23 05 06.7 | -0.7 |
| ZALV | | | | | | 23 06 53.7 | |
| ZALV | Zalesovo Beam | 43.73 | 314 | eP | P | 23 05 06.7 | -0.7 |
| ZALV | | | | PcP | PcP | 23 06 53.6 | -0.3 |
| MK01 | Makanchi Array | 45.75 | 304 | eP | P | 23 05 23.1 | -0.6 |
| MK31 | Makanchi Array | 45.75 | 304 | eP | P | 23 05 23.3 | -0.4 |
| MK31 | Makanchi Array | 45.75 | 304 | eP | P | 23 05 23.2 | -0.4 |
| MKAR | Makanchi Array | 45.75 | 304 | P | P | 23 05 23.9 | +0.2 |
| | comp=Z,1.8nm,0.7s,baz=90,slow=10,SNR=16 | | | | | | |
| MKAR | Makanchi Array | 45.75 | 304 | ceP | P | 23 05 27.2 | +3.5 |
| MKAR | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | |
| MAKZ | Makanchi | 45.96 | 304 | eP | P | 23 05 25.4 | +0.1 |
| MAKZ | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.5s | | | | | | |
| MAKZ | Makanchi | 45.96 | 304 | eP | P | 23 05 25.4 | +0.1 |
| | comp=Z,7.7nm,1.5s | | | | | | |
| JOHN | Johnston Islan | 46.53 | 100 | eP | P | 23 05 30.0 | -0.1 |
| | comp=Z,198nm,1.0s | | | | | | |
| TAPN | Taplejung | 46.84 | 276 | eP | P | 23 05 33.4 | +0.6 |
| | comp=Z,4.9nm,0.5s | | | | | | |
| ODAN | Odare | 47.30 | 276 | eP | P | 23 05 37.2 | +0.8 |
| | comp=Z,6.0nm,0.6s | | | | | | |
| KURK | Kurchatov | 47.67 | 310⇑ | eP | P | 23 05 40.0 | +1.4 |
| KURK | Kurchatov | 47.67 | 310 | eP | P | 23 05 38.6 | 0.0 |
| | comp=Z,8.8nm,0.7s | | | | | | |
| SOEI | Soe | 47.84 | 204 | eP | P | 23 05 40.1 | -0.2 |
| | comp=Z,37nm,1.6s | | | | | | |
| IMAR | Indian Mountai | 47.88 | 30 | eP | P | 23 05 40.6 | +0.6 |
| RAMN | Ramite | 47.91 | 276 | eP | P | 23 05 41.3 | +0.2 |
| | comp=Z,20nm,0.6s | | | | | | |
| JIRN | Jiri | 47.96 | 277 | eP | P | 23 05 42.5 | +0.9 |
| | comp=Z,69nm,0.4s | | | | | | |
| KDAK | Kodiak Island | 48.00 | 41 | P | P | 23 05 41.0 | 0.0 |
| | comp=Z,19nm,0.7s,baz=267,slow=5.2,SNR=10.0 | | | | | | |
| GUN | Gumba | 48.11 | 278 | eP | P | 23 05 44.2 | +1.5 |
| SPU | Mount Spurr | 48.28 | 36 | eP | P | 23 05 44.0 | +0.8 |
| PPLA | Purkeypile | 48.28 | 34 | eP | P | 23 05 43.7 | +0.3 |
| | comp=Z,58nm,1.7s | | | | | | |
| HOM | Homer | 48.47 | 38 | eP | P | 23 05 44.9 | +0.3 |
| | comp=Z,2μm,1.8s | | | | | | |
| KULM | Kulim | 48.56 | 242 | eP | P | 23 05 45.6 | -0.2 |
| | comp=Z,25nm,1.3s | | | | | | |
| PKIN | Phulchoki | 48.63 | 278 | eP | P | 23 05 47.6 | +0.9 |
| | comp=Z,11nm,0.6s | | | | | | |
| KKN | Kakani | 48.65 | 278 | eP | P | 23 05 47.8 | +1.1 |
| IPM | Ipoh | 48.85 | 241 | eP | P | 23 05 47.3 | -0.8 |
| | comp=Z,27nm,1.5s | | | | | | |
| SUA | Susitna One | 48.91 | 36 | eP | P | 23 05 48.7 | +0.5 |
| | comp=Z,20nm,0.7s | | | | | | |
| MLY | Manley | 49.04 | 31 | eP | P | 23 05 49.4 | +0.3 |
| | comp=Z,28nm,1.8s | | | | | | |
| KOLN | Koldanda | 50.01 | 279 | eP | P | 23 05 57.4 | +0.2 |
| SML | Sawmill | 50.06 | 35 | eP | P | 23 05 57.8 | +1.0 |
| SML | | | | pmax | pmax | | |
| | comp=Z,57nm,1.8s | | | | | | |
| SML | Sawmill | 50.06 | 35 | eP | P | 23 05 57.8 | +1.0 |
| | comp=Z,56nm,1.8s | | | | | | |
| MDM | Murphy Dome | 50.11 | 31 | eP | P | 23 05 57.8 | +0.7 |
| | comp=Z,21nm,1.8s | | | | | | |
| PYUN | Piuthan | 50.38 | 279 | eP | P | 23 06 00.4 | +0.5 |
| | comp=Z,8.2nm,0.4s | | | | | | |
| IL1 | Eielson Array | 50.68 | 32 | eP | P | 23 06 01.1 | -0.3 |
| ILAR | Eielson Array | 50.68 | 32 | P | P | 23 06 01.2 | -0.2 |
| | comp=Z,1.5nm,0.7s,baz=260,slow=5.6,SNR=19 | | | | | | |
| ILB | Eielson Array | 50.68 | 32 | eP | P | 23 06 01.5 | +0.1 |
| PSI | Prapat | 51.52 | 241 | eP | P | 23 06 07.8 | -0.6 |
| PSI | Prapat | 51.52 | 241 | eP | P | 23 06 07.8 | -0.6 |
| KSH | Kashi | 51.86 | 296 | eP | P | 23 06 13.9 | +3.1 |
| KSH | | | | sP | sP | 23 06 28.1 | +7.3 |
| KSH | | | | PcP | PcP | 23 07 28.0 | +4.5 |
| KSH | | | | PP | PP | 23 08 11.7 | +3.1 |
| KSH | | | | S | S | 23 13 34.8 | +2.7 |
| KSH | | | | ScS | ScS | 23 15 58.6 | -1.1 |
| KSH | | | | SS | SS | 23 17 08.3 | -0.4 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.3s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,200nm,5.3s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,230nm,5.4s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,270nm,5.0s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,400nm,6.2s | | | | | | |
| DOT | Dot Lake | 51.95 | 33 | eP | P | 23 06 09.5 | -1.5 |
| | comp=Z,49nm,1.3s | | | | | | |
| BRVK | Borovoye | 52.44 | 314⇓ | eP | P | 23 06 14.3 | -0.4 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.1s | | | | | | |
| WRAB | Tennant Creek | 55.32 | 189⇑ | eP | P | 23 06 34.1 | -2.0 |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.0s | | | | | | |
| WRA | Warramunga Arr | 55.33 | 189 | P | P | 23 06 35.0 | -1.1 |
| | comp=Z,1.8nm,0.4s,baz=7.4,slow=7.4,SNR=48 | | | | | | |
| WRA | | | | PcP | PcP | 23 07 36.6 | 0.0 |
| | comp=Z,0.5nm,0.4s,baz=2.9,slow=4.3,SNR=3.5 | | | | | | |
| INK | Inuvik | 55.71 | 27 | P | P | 23 06 38.5 | +0.1 |
| | comp=Z,0.6nm,0.5s,baz=304,slow=7.6,SNR=7.6 | | | | | | |
| ARU | Arti | 58.25 | 319 | d iP | P | 23 06 56.1 | -0.4 |
| ARU | | | | S | S | 23 14 56.4 | -0.5 |
| ARU | | | | SS | SS | 23 18 51.8 | +3.5 |
| ARU | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.7s | | | | | | |
| ASAR | Alice Springs | 59.06 | 189 | P | P | 23 07 01.6 | -0.9 |
| | comp=Z,0.6nm,0.5s,baz=16,slow=15,SNR=8.9 | | | | | | |
| RES | Resolute Bay | 64.22 | 14 | P | P | 23 07 36.6 | 0.0 |
| | comp=Z,1.7nm,0.5s,baz=319,slow=10,SNR=6.2 | | | | | | |
| OBN | Obninsk | 70.03 | 324 | eP | P | 23 08 14.3 | +0.5 |
| OBN | | | | e | | 23 08 36.0 | |
| OBN | | | | e | | 23 10 48.0 | |
| OBN | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.9s | | | | | | |
| FINES | FINESS Array B | 70.80 | 333 | P | P | 23 08 18.4 | 0.0 |
| | comp=Z,2.3nm,0.6s,baz=75,slow=2.2,SNR=10 | | | | | | |
| NEW | Newport | 70.95 | 44 | P | P | 23 08 20.4 | +0.8 |
| | comp=Z,1.9nm,0.7s,baz=310,slow=6.2,SNR=4.6 | | | | | | |
| KBZ | Khabaz | 72.68 | 311 | P | P | 23 08 31.0 | +0.9 |
| | comp=Z,1.8nm,1.0s,baz=9.5,slow=6.1,SNR=3.6 | | | | | | |
| KBZ | Khabaz | 72.68 | 311 | P | P | 23 08 31.0 | +0.9 |
| KBZ | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.0s | | | | | | |
| KIV | Kislovodsk | 72.69 | 312 | eP | P | 23 08 30.8 | +0.5 |
| KIV | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.1s | | | | | | |
| CMB | Columbia Colle | 74.34 | 54 | eP | P | 23 08 41.0 | +0.9 |
| CMB | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.0s | | | | | | |
| CMB | Columbia Colle | 74.34 | 54 | eP | P | 23 08 41.0 | +0.9 |
| | comp=Z,3.7nm,1.0s | | | | | | |
| LRM | Limekiln Ridge | 74.96 | 44 | eP | P | 23 08 44.9 | +1.1 |
| BOZ | Bozeman (W) | 75.56 | 44 | eP | P | 23 08 47.3 | +0.2 |
| BOZ | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.8s | | | | | | |
| BOZ | Bozeman (W) | 75.56 | 44 | eP | P | 23 08 47.3 | +0.2 |
| | comp=Z,1.9nm,0.8s | | | | | | |
| NB2 | NORSAR Subarra | 76.19 | 338 | P | P | 23 08 49.5 | -0.7 |
| | comp=Z,2.7nm,0.6s,baz=41,slow=5.9 | | | | | | |
| NOA | NORSAR Array B | 76.19 | 338 | P | P | 23 08 50.3 | +0.1 |
| | comp=Z,2.3nm,0.7s,baz=39,slow=5.7,SNR=4.7 | | | | | | |
| AKASG | Malin Array Be | 76.22 | 323 | P | P | 23 08 50.5 | 0.0 |
| | comp=Z,2.8nm,0.5s,baz=47,slow=6.1,SNR=16 | | | | | | |
| AKASG | Malin Array Be | 76.22 | 323 | P | P | 23 08 50.5 | 0.0 |
| AKASG | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.4s | | | | | | |
| KIEV | Kiev | 76.24 | 323⇑ | eP | P | 23 08 51.0 | +0.4 |
| KIEV | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.9s | | | | | | |
| DUG | Dugway, Tooele | 78.01 | 49 | eP | P | 23 09 02.3 | +1.3 |
| DUG | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.4s | | | | | | |
| DUG | Dugway, Tooele | 78.01 | 49 | eP | P | 23 09 02.3 | +1.3 |
| | comp=Z,7.5nm,1.4s | | | | | | |
| PFO | Pinyon Flats O | 79.45 | 56 | i P | P | 23 09 11.3 | +2.3 |
| BURAR | Bucovina Array | 80.23 | 322 | ⇑P | P | 23 09 13.6 | +0.7 |
| VRI | Vrincioaia | 80.63 | 320 | ⇓P | P | 23 09 15.7 | +0.7 |
| BRTR | Keskin Array B | 80.64 | 312 | P | P | 23 09 15.5 | +0.1 |
| | comp=Z,0.7nm,0.7s,baz=104,slow=2.8,SNR=6.2 | | | | | | |
| BRTR | Keskin Array B | 80.64 | 312 | ceP | P | 23 09 16.6 | +1.2 |
| BRTR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.7s | | | | | | |
| STHS | Stebnicka Huta | 80.91 | 326 | eP | P | 23 09 15.0 | -1.4 |
| BR231 | Keskin MP Arra | 81.09 | 313 | eP | P | 23 09 16.7 | -1.0 |
| PV10 | Paradox Valley | 81.44 | 49 | eP | P | 23 09 21.6 | +1.8 |
| S22A | 4UR Ranch, Cre | 83.19 | 48 | eP | P | 23 09 30.5 | +1.5 |
| | comp=Z,7.0nm,1.4s | | | | | | |
| GERES | GERESS Array B | 84.68 | 329 | P | P | 23 09 36.0 | -0.1 |
| | comp=Z,0.9nm,0.7s,baz=29,slow=4.6,SNR=3.4 | | | | | | |
| VTS | Vitosha | 84.71 | 320 | eP | P | 23 09 36.8 | +0.3 |
| VTS | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.7s | | | | | | |
| VTS | Vitosha | 84.71 | 320 | eP | P | 23 09 36.8 | +0.3 |
| | comp=Z,3.8nm,0.7s | | | | | | |
| ANMO | Albuquerque | 85.21 | 50⇑ | eP | P | 23 09 40.1 | +0.9 |
| ANMO | | | | pmax | pmax | | |
| | comp=Z,9.0nm,2.5s | | | | | | |
| ANMO | Albuquerque | 85.21 | 50 | eP | P | 23 09 40.7 | +1.6 |
| | comp=Z,4.3nm,1.1s | | | | | | |
| EIL | Elat | 86.02 | 304 | LR | LR | 23 53 04.8 | |
| | comp=Z,15nm,18.8s,baz=214,slow=39 | | | | | | |
| TXAR | Lajitas Array | 90.66 | 53 | P | P | 23 10 05.7 | +0.4 |
| | comp=Z,0.9nm,0.9s,baz=298,slow=2.9,SNR=9.2 | | | | | | |
| TORD | Torodi Ar. Bea | 119.17 | 315 | PKP | PKPdf | 23 15 50.8 | -1.0 |
| | comp=Z,0.2nm,0.4s,baz=50,slow=1.6,SNR=4.6 | | | | | | |
| SNAA | Sanae | 139.18 | 196 | PKP | PKPdf | 23 16 26.3 | -1.8 |
| VNA2 | Neumayer--Watz | 140.73 | 195 | PKP | PKPdf | 23 16 29.4 | -1.5 |
| | baz=106,slow=3.1 | | | | | | |
| VNA3 | Neumayer Olymp | 140.95 | 194 | PKP | PKPdf | 23 16 30.8 | -0.5 |
| VNA1 | Neumayer--Stat | 141.13 | 195 | PKP | PKPdf | 23 16 30.4 | -1.1 |
| LPAZ | La Paz | 146.93 | 63 | PKPbc | PKPbc | 23 16 45.5 | -0.5 |
| | comp=Z,2.2nm,0.5s,baz=337,slow=1.8,SNR=12 | | | | | | |

*IDC **03** 22:57:41.1±2.9, 31.°05N×51.°22E, h0km, mb3.7/3, mb1 3.7/4, mb1mx3.4/31, mbtmp3.7/4, ML3.1/1, Error ellipse: s-maj=66.9km s-min=32.8km az=150.0*
*ISCJB **03** 22:57:54.4±0.9, 31.°42N±0.°07×49.°42E±0.°07, h25km, mb3.8/3, Error ellipse: s-maj=10.4km s-min=8.2km az=26.8*
*CSEM **03** 22:57:55.6±0.3, 31.°52N×49.°46E, h20km, ML3.2, Error ellipse: s-maj=8.2km s-min=4.3km az=37.0*
*TEH **03** 22:57:59.1, 31.°58N×49.°68E, h25km, ML3.2*
**ISC 03 22:57:56.0**±1.0**, 31.°52N**±0.°06×**49.°51E**±0.°07**, h25**km**, n32,** σ**1§13**/31**, mb3.7**/3**, Western Iran**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SHGR | Shooshtar-Gavs | 0.84 | 314 | ePg | Pb | 22 58 11.1 | -0.8 |
| IPIR | Pirpir | 1.65 | 45 | ePn | Pn | 22 58 24.5 | +0.8 |
| IPIR | | | | eSg | Sb | 22 58 46.7 | +0.3 |
| IPIR | | | | eAMB | AMB | 22 58 49.3 | |
| | comp=Z,5μm,0.2s | | | | | | |
| IPIR | Pirpir | 1.65 | 45 | ePn | Pn | 22 58 24.5 | +0.8 |
| IPIR | | | | eSg | Sb | 22 58 46.7 | +0.3 |
| KHMZ | Khomeyn | 2.24 | 10 | ePg | Pn | 22 58 33.5 | +1.7 |
| IGAR | Gharneh | 2.33 | 67 | ePn | Pn | 22 58 33.8 | +0.9 |
| IGAR | | | | eAMB | AMB | 22 59 07.6 | |
| | comp=Z,2μm,0.2s | | | | | | |
| IRAM | Ramesheh | 2.47 | 83 | ePn | Pn | 22 58 35.5 | +0.6 |
| IRAM | | | | eAMB | AMB | 22 59 19.4 | |
| | comp=Z,958nm,0.4s | | | | | | |
| IRAM | Ramesheh | 2.47 | 83 | ePn | Pn | 22 58 35.5 | +0.6 |
| IKLH | Kolahrood | 2.51 | 44 | ePn | Pn | 22 58 36.5 | +1.1 |
| IKLH | | | | eAMB | AMB | 22 59 18.9 | |
| | comp=Z,2μm,0.2s | | | | | | |
| IKLH | Kolahrood | 2.51 | 44 | ePn | Pn | 22 58 36.5 | +1.1 |
| IZEF | Zefreh | 2.76 | 60 | ePn | Pn | 22 58 39.5 | +0.6 |
| IZEF | | | | eAMB | AMB | 22 58 45.8 | |
| | comp=Z,1μm,0.2s | | | | | | |
| IZEF | Zefreh | 2.76 | 60 | ePn | Pn | 22 58 39.5 | +0.6 |
| QAM | Ghamsar | 2.76 | 36 | ePn | Pn | 22 58 40.6 | +1.7 |
| QAM | | | | eAMB | AMB | 22 59 25.4 | |
| | comp=Z,2μm,0.2s | | | | | | |
| ASAO | Ashtian | 3.05 | 8 | ePn | Pn | 22 58 43.5 | +0.6 |
| NASN | Na'in | 3.08 | 65 | ePn | Pn | 22 58 43.8 | +0.5 |
| IPAR | Pars | 3.48 | 118 | eAMB | AMB | 22 59 34.1 | |
| | comp=Z,562nm,0.3s | | | | | | |
| ISAD | Sadrabad | 3.58 | 83 | ePn | Pn | 22 58 51.1 | +0.8 |
| ISAD | | | | eAMB | AMB | 22 58 51.7 | |
| | comp=Z,528nm,0.1s | | | | | | |
| ISAD | Sadrabad | 3.58 | 83 | ePn | Pn | 22 58 51.1 | +0.8 |
| ISRV | Sarvestan | 3.78 | 123 | ePn | Pn | 22 58 54.3 | +1.3 |
| ISRV | | | | eAMB | AMB | 22 59 41.6 | |
| | comp=Z,326nm,0.2s | | | | | | |
| ISRV | Sarvestan | 3.78 | 123 | ePn | Pn | 22 58 54.3 | +1.3 |
| IVRN | Varamin | 3.93 | 28 | ePn | Pn | 22 58 55.6 | +0.8 |
| IVRN | | | | eAMB | AMB | 23 00 06.6 | |
| | comp=Z,357nm,0.2s | | | | | | |
| IVRN | Varamin | 3.93 | 28 | ePn | Pn | 22 58 55.6 | +0.8 |
| ICHK | Chekchek | 4.23 | 79 | ePn | Pn | 22 58 59.3 | +0.2 |
| ICHK | | | | eAMB | AMB | 22 59 49.7 | |
| | comp=Z,271nm,0.2s | | | | | | |
| ICHK | Chekchek | 4.23 | 79 | ePn | Pn | 22 58 59.3 | +0.2 |
| IMEH | Mehriz | 4.37 | 90 | eAMB | AMB | 22 59 07.0 | |
| | comp=Z,147nm,0.1s | | | | | | |
| IMEH | | | | ePn | Pn | 22 59 01.8 | +0.8 |
| IDMV | Damavand | 4.56 | 27 | eAMB | AMB | 22 59 20.7 | |
| | comp=Z,172nm,0.2s | | | | | | |
| IFIR | Firoozkooh | 4.92 | 33 | eAMB | AMB | 22 59 27.3 | |
| | comp=Z,157nm,0.2s | | | | | | |
| IFIR | | | | ePn | Pn | 22 59 08.9 | +0.3 |
| IBAF | Bafgh | 5.17 | 88 | ePn | Pn | 22 59 12.0 | 0.0 |
| IBAF | | | | eAMB | AMB | 22 59 15.6 | |
| | comp=Z,113nm,0.1s | | | | | | |
| IBAF | Bafgh | 5.17 | 88 | ePn | Pn | 22 59 12.0 | 0.0 |
| BRTR | Keskin Array B | 15.26 | 307 | Pn | P | 23 01 37.8 | +3.1 |
| | comp=Z,0.1nm,0.3s,baz=122,slow=11,SNR=4.1 | | | | | | |
| FINES | FINESS Array B | 33.61 | 340 | P | P | 23 04 31.7 | -2.4 |
| | comp=Z,2.1nm,0.7s,baz=133,slow=10,SNR=6.5 | | | | | | |
| ZALV | Zalesovo Beam | 33.74 | 38 | P | P | 23 04 19.4 | -16 |
| | comp=Z,0.3nm,0.3s,baz=229,slow=8.3,SNR=3.1 | | | | | | |
| TORD | Torodi Ar. Bea | 47.45 | 258 | P | P | 23 06 28.3 | -0.6 |
| | comp=Z,0.5nm,0.6s,baz=54,slow=8.6,SNR=4.4 | | | | | | |

*ISCJB **03** 22:58:52.8±0.2, 46.°69N±0.°02×9.°92E±0.°02, h14km±3km, Error ellipse: s-maj=3.0km s-min=2.0km az=176.3*
*CSEM **03** 22:58:53.6±0.1, 46.°69N×9.°94E, h5km, ML2.5/20, Error ellipse: s-maj=2.6km s-min=1.7km az=175.0*
*VIE **03** 22:58:53.9±0.4, 46.°66N×9.°99E, h8km, mb1.8/7, ML2.3/13, Error ellipse: s-maj=3.0km s-min=1.5km az=32.0*
*ROM **03** 22:58:53.8±0.1, 46.°66N×9.°97E, h9km±1km, Md2.3/12, Ml2.1/9, Error ellipse: s-maj=1.8km s-min=1.5km az=2.0*
*LDG **03** 22:58:53.9±0.1, 46.°67N×9.°97E, h10km, Ml2.2/8, Error ellipse: s-maj=1.6km s-min=1.2km az=30.0*
*ZUR **03** 22:58:54.0, 46.°67N×9.°96E, h10km±1km, ML2.1/17*
*GEN **03** 22:58:54.3, 46.°66N×9.°95E, h2km, ML2.0*
*PRU **03** 22:58:56.0, 46.°72N×10.°11E, h1km*
**ISC 03 22:58:54.1**±0.8**, 46.°70N**±0.°02×**9.°95E**±0.°01**, h14**km±4km**, n116,** σ**1§05**/168**, 37C-7D, Switzerland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DAVOX | Davos/Dischmat | 0.10 | 332 | Pg | Pg | 22 58 57.4 | 0.0 |
| DAVOX | | | | Sg | Sg | 22 58 59.4 | -0.3 |
| | 921nm,0.2s | | | | | | |
| DAVOX | Davos/Dischmat | 0.10 | 332⇓ | iPg | Pg | 22 58 57.4 | 0.0 |
| | 4μm,0.1s | | | | | | |
| DAVOX | | | | i Sg | Sg | 22 58 59.4 | -0.3 |
| | 4μm,0.1s | | | | | | |
| DAVOX | Davos/Dischmat | 0.10 | 332⇓ | iPg | Pg | 22 58 57.4 | 0.0 |
| | 4μm,0.1s | | | | | | |
| DAVOX | | | | Sg | Sg | 22 58 59.4 | -0.3 |
| | 921nm,0.2s | | | | | | |
| SZER | Zernez | 0.10 | 89⇑ | iPg | Pg | 22 58 56.9 | -0.5 |
| SZER | | | | i Sg | Sg | 22 58 58.5 | -1.2 |
| SZER | Zernez | 0.10 | 89⇑ | iPg | Pg | 22 58 56.9 | -0.5 |
| SZER | | | | i Sg | Sg | 22 58 58.5 | -1.2 |
| SCEL | Celerina | 0.20 | 198⇑ | iPg | Pg | 22 58 58.4 | -0.3 |
| SCEL | | | | i Sg | Sg | 22 59 01.1 | -0.8 |
| SCEL | Celerina | 0.20 | 198⇑ | iPg | Pg | 22 58 58.4 | -0.3 |
| SCEL | | | | i Sg | Sg | 22 59 01.1 | -0.8 |
| FUORN | Ofenpass-Fuorn | 0.23 | 109 | Pg | Pg | 22 58 58.9 | -0.4 |
| FUORN | | | | Sg | Sg | 22 59 02.3 | -0.6 |
| | 135nm,0.2s | | | | | | |
| FUORN | Ofenpass-Fuorn | 0.23 | 109⇑ | iPg | Pg | 22 58 58.9 | -0.4 |
| | 553nm,0.4s | | | | | | |
| FUORN | | | | eSg | Sg | 22 59 02.1 | -0.8 |
| | 553nm,0.4s | | | | | | |
| FUORN | Ofenpass-Fuorn | 0.23 | 109⇑ | iPg | Pg | 22 58 58.9 | -0.4 |
| | 553nm,0.4s | | | | | | |
| FUORN | | | | eSg | Sg | 22 59 02.1 | -0.8 |
| | 553nm,0.4s | | | | | | |
| SCUC | Scuol-Clozza | 0.27 | 67⇑ | iPg | Pg | 22 58 59.9 | +0.1 |
| SCUC | Scuol-Clozza | 0.27 | 67⇑ | iPg | Pg | 22 58 59.9 | +0.1 |
| STSP | Tschierv | 0.28 | 104⇑ | iPg | Pg | 22 58 59.7 | -0.3 |
| STSP | Tschierv | 0.28 | 104⇑ | iPg | Pg | 22 58 59.7 | -0.3 |
| BERNI | Berninapass | 0.29 | 169 | Pg | Pg | 22 58 59.9 | -0.3 |
| BERNI | | | | Sg | Sg | 22 59 03.6 | -0.8 |
| | 187nm,0.3s | | | | | | |
| BERNI | Berninapass | 0.29 | 169⇑ | iPg | Pg | 22 58 59.6 | -0.6 |
| | 709nm,0.2s | | | | | | |
| BERNI | Berninapass | 0.29 | 169⇑ | iPg | Pg | 22 58 59.6 | -0.6 |
| | 709nm,0.2s | | | | | | |
| BERNI | | | | Sg | Sg | 22 59 03.6 | -0.8 |
| | 187nm,0.3s | | | | | | |
| SVAM | Vaz, Muldain | 0.29 | 270⇑ | iPg | Pg | 22 59 00.3 | +0.1 |
| SVAM | Vaz, Muldain | 0.29 | 270⇑ | iPg | Pg | 22 59 00.3 | +0.1 |
| BRMO | Bormio | 0.37 | 127 | Pg | Pg | 22 59 01.2 | -0.4 |
| BRMO | | | | Sg | Sg | 22 59 06.0 | -0.7 |
| | 81nm,0.2s | | | | | | |
| BRMO | Bormio | 0.37 | 127 | Pg | Pg | 22 59 01.2 | -0.4 |
| BRMO | | | | Sg | Sg | 22 59 06.0 | -0.7 |
| | 81nm,0.2s | | | | | | |
| VDL | Val di Lei | 0.40 | 238⇑ | iPg | Pg | 22 59 01.5 | -0.7 |
| | 642nm,0.1s | | | | | | |
| MOSI | Grossmontoni | 0.42 | 101 | Pg | Pg | 22 59 01.8 | -0.8 |
| MOSI | | | | Sg | Sg | 22 59 07.9 | -0.5 |
| | 165nm,0.4s | | | | | | |
| MOSI | Grossmontoni | 0.42 | 101⇑ | iPg | Pg | 22 59 02.0 | -0.6 |
| | 595nm,0.4s | | | | | | |
| MOSI | Grossmontoni | 0.42 | 101⇑ | iPg | Pg | 22 59 02.0 | -0.6 |
| | 595nm,0.4s | | | | | | |
| MOSI | | | | Sg | Sg | 22 59 07.9 | -0.5 |
| | 165nm,0.4s | | | | | | |
| TUE | Stuetta | 0.47 | 242 | Pg | Pg | 22 59 03.1 | -0.4 |
| TUE | | | | Sg | Sg | 22 59 10.3 | +0.5 |
| TUE | Stuetta | 0.47 | 242⇑ | iPg | Pg | 22 59 03.2 | -0.3 |
| | 277nm,0.1s | | | | | | |
| TUE | Stuetta | 0.47 | 242 | Pg | Pg | 22 59 03.1 | -0.4 |
| TUE | | | | Sg | Sg | 22 59 10.3 | +0.5 |
| CARE | Lago del Cares | 0.58 | 117⇓ | ePg | Pg | 22 59 05.0 | -0.7 |
| CARE | | | | eSg | Sg | 22 59 13.0 | -0.4 |
| CARE | Lago del Cares | 0.58 | 117 | ePg | Pg | 22 59 04.9 | -0.7 |
| CARE | | | | eSg | Sg | 22 59 13.0 | -0.4 |
| PANIX | Pigniu (Panix) | 0.59 | 283⇑ | iPg | Pg | 22 59 05.7 | 0.0 |
| | 47nm,0.1s | | | | | | |
| PANIX | Pigniu (Panix) | 0.59 | 283⇑ | iPg | Pg | 22 59 05.7 | 0.0 |
| | 47nm,0.1s | | | | | | |
| DAVA | Damuels | 0.59 | 356⇑ | iPg | Pg | 22 59 06.3 | +0.5 |
| | 125nm,0.4s | | | | | | |
| DAVA | Damuels | 0.59 | 356⇑ | iPg | Pg | 22 59 06.3 | +0.5 |
| | 125nm,0.4s | | | | | | |
| DAVA | | | | Sg | Sb | 22 59 14.7 | 0.0 |
| | 16nm,0.1s,SNR=14 | | | | | | |
| FETA | Feichten | 0.63 | 59 | Pg | Pg | 22 59 06.0 | -0.4 |
| | 18nm,0.1s,SNR=94 | | | | | | |
| FETA | | | | Sg | Sg | 22 59 14.5 | -0.3 |
| | 14nm,0.1s | | | | | | |
| LLS | Linth-Limmern | 0.66 | 284⇑ | iPg | Pg | 22 59 07.1 | 0.0 |
| | 45nm,0.1s | | | | | | |
| MABI | Malga Bissina | 0.75 | 148 | Pg | Pg | 22 59 08.1 | -0.6 |
| MABI | Malga Bissina | 0.75 | 148 | ePg | Pg | 22 59 08.1 | -0.6 |
| | 95nm,0.1s | | | | | | |
| MABI | Malga Bissina | 0.75 | 148 | ePg | Pg | 22 59 08.1 | -0.6 |
| | 95nm,0.1s | | | | | | |
| DOETR | Doetra (Olivon | 0.76 | 258⇑ | iPg | Pg | 22 59 08.2 | -0.6 |
| | 105nm,0.1s | | | | | | |
| DOETR | Doetra (Olivon | 0.76 | 258⇑ | iPg | Pg | 22 59 08.2 | -0.6 |
| | 105nm,0.1s | | | | | | |
| OZOL | Ozolo | 0.82 | 110⇑ | ePg | Pg | 22 59 09.5 | -0.5 |
| OZOL | Ozolo | 0.82 | 110 | ePg | Pg | 22 59 09.5 | -0.4 |
| NALPS | Val Nalps | 0.83 | 263⇑ | iPg | Pg | 22 59 09.8 | -0.5 |
| | 131nm,0.1s | | | | | | |
| NALPS | Val Nalps | 0.83 | 263⇑ | iPg | Pg | 22 59 09.8 | -0.5 |
| | 131nm,0.1s | | | | | | |
| CURA | Stauanlage Cun | 0.85 | 266⇑ | iPg | Pg | 22 59 08.5 | -2.2 |
| | 192nm,0.3s | | | | | | |
| CURA | Stauanlage Cun | 0.85 | 266⇑ | iPg | Pg | 22 59 08.5 | -2.2 |
| | 192nm,0.3s | | | | | | |
| RNI | Roncone | 0.86 | 147⇑ | ePg | Pg | 22 59 10.1 | -0.6 |
| RNI | Roncone | 0.86 | 147 | ePg | Pg | 22 59 10.1 | -0.6 |
| APPI | Appiano | 0.91 | 103 | Pg | Pb | 22 59 11.2 | -0.5 |
| APPI | | | | Sg | Sg | 22 59 22.8 | -0.8 |
| | 45nm,0.2s | | | | | | |
| APPI | Appiano | 0.91 | 103 | Pg | Pb | 22 59 11.2 | -0.5 |
| APPI | | | | Sg | Sg | 22 59 22.8 | -0.8 |
| | 45nm,0.2s | | | | | | |
| FUSIO | Fusio | 0.92 | 255⇑ | iPg | Pb | 22 59 11.3 | -0.6 |
| | 89nm,0.1s | | | | | | |
| FUSIO | Fusio | 0.92 | 255⇑ | iPg | Pb | 22 59 11.3 | -0.6 |
| | 89nm,0.1s | | | | | | |
| ABSI | Aberstueckl | 0.95 | 88 | Pg | Pb | 22 59 11.7 | -0.7 |
| ABSI | | | | Sg | Sg | 22 59 24.6 | -0.2 |
| ABSI | Aberstueckl | 0.95 | 88 | Pg | Pb | 22 59 11.7 | -0.7 |
| ABSI | | | | Sg | Sg | 22 59 24.6 | -0.2 |
| RETA | Reutte | 0.97 | 35 | Pg | Pb | 22 59 12.3 | -0.4 |
| | 1.3nm,0.1s,SNR=7.9 | | | | | | |
| MUGIO | Muggio | 1.00 | 219⇑ | iPg | Pb | 22 59 12.7 | -0.5 |
| | 98nm,0.1s | | | | | | |
| MUGIO | Muggio | 1.00 | 219⇑ | iPg | Pb | 22 59 12.7 | -0.5 |
| | 98nm,0.1s | | | | | | |
| SQTA | Sankt Quirin | 1.01 | 58 | Pg | Pb | 22 59 13.2 | -0.3 |
| MOTA | Moosalm | 1.02 | 50 | Pg | Pb | 22 59 13.2 | -0.5 |
| | 6.1nm,0.3s,SNR=19 | | | | | | |
| MOTA | | | | Sg | Sn | 22 59 28.6 | +0.2 |
| | 11nm,0.2s | | | | | | |
| ROSI | Rosskopf | 1.03 | 76 | Pg | Pb | 22 59 13.6 | -0.3 |
| | 30nm,0.5s | | | | | | |
| ROSI | Rosskopf | 1.03 | 76 | Pg | Pb | 22 59 13.6 | -0.3 |
| | 30nm,0.5s | | | | | | |
| MAGA | Magasa | 1.03 | 153 | Pg | Pb | 22 59 13.4 | -0.5 |
| MAGA | | | | Sg | Sb | 22 59 26.7 | -0.6 |
| | 88nm,0.3s | | | | | | |
| MAGA | Magasa | 1.03 | 153 | Pg | Pb | 22 59 13.4 | -0.5 |
| MAGA | | | | Sg | Sb | 22 59 26.7 | -0.6 |
| | 88nm,0.3s | | | | | | |
| BNALP | Bannalp | 1.06 | 280⇓ | iPg | Pg | 22 59 14.7 | +0.1 |
| | 76nm,0.3s | | | | | | |
| BNALP | Bannalp | 1.06 | 280⇓ | iPg | Pg | 22 59 14.7 | +0.1 |
| | 76nm,0.3s | | | | | | |
| PANI | Panarotta | 1.16 | 123 | ePg | Pg | 22 59 16.3 | -0.1 |
| VARE | Varese | 1.16 | 225 | Pg | Pn | 22 59 16.1 | +0.1 |
| | 35nm,0.3s | | | | | | |
| VARE | Varese | 1.16 | 225 | Pg | Pn | 22 59 16.1 | +0.1 |
| | 35nm,0.3s | | | | | | |
| HASLI | Hasliberg/Brie | 1.24 | 273⇑ | iPg | Pb | 22 59 17.6 | +0.3 |
| | 125nm,0.5s | | | | | | |
| HASLI | Hasliberg/Brie | 1.24 | 273⇑ | iPg | Pb | 22 59 17.6 | +0.3 |
| | 125nm,0.5s | | | | | | |
| WATA | Walderalm | 1.29 | 60 | Pg | Pn | 22 59 18.1 | +0.3 |
| | 1.3nm,0.2s | | | | | | |
| WATA | | | | Sg | Sg | 22 59 37.5 | +1.9 |
| | 4.7nm,0.2s | | | | | | |
| WTTA | Wattenberg | 1.29 | 63 | Pg | Pn | 22 59 18.1 | +0.2 |
| | 1.1nm,0.1s | | | | | | |
| WTTA | | | | Sg | Sg | 22 59 37.2 | +1.5 |
| | 3.2nm,0.2s | | | | | | |
| FIESA | Fiescheralp | 1.29 | 259⇓ | iPg | Pb | 22 59 18.4 | +0.1 |
| | 37nm,1.4s | | | | | | |
| FIESA | Fiescheralp | 1.29 | 259⇓ | iPg | Pb | 22 59 18.4 | +0.1 |
| | 37nm,1.4s | | | | | | |

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CGRP | Cima Grappa | 1.52 | 122 | ePg | Pg | 22 59 23.1 | -0.3 |
| CGRP | Cima Grappa | 1.52 | 122 | ePg | Pg | 22 59 23.1 | -0.3 |
| VARN | Col Varnada, M | 1.65 | 114 | ePg | Pb | 22 59 25.1 | +0.7 |
| VARN | Col Varnada, M | 1.65 | 114 | ePg | Pb | 22 59 25.1 | +0.8 |
| SATI | Passo dei Sala | 1.66 | 241 | P | Pb | 22 59 24.3 | -0.3 |
| SATI | | | | S | Sg | 22 59 47.0 | -0.5 |
| ABTA | Abfaltersbach | 1.77 | 87 | Pg | Pb | 22 59 26.5 | +0.2 |
| | 0.5nm,0.1s | | | | | | |
| ABTA | | | | Sg | Sg | 22 59 50.0 | -0.9 |
| | 2.3nm,0.2s | | | | | | |
| HINF | Hinteralfeld | 2.39 | 299 | ePg | Pg | 22 59 38.7 | -1.1 |
| HINF | | | | eSg | Sg | 23 00 10.6 | -0.2 |
| | 3.2nm,0.3s | | | | | | |
| HINF | Hinteralfeld | 2.39 | 299 | ePg | Pg | 22 59 38.7 | -1.1 |
| HINF | | | | eSg | Sg | 23 00 10.6 | -0.2 |
| | 1.6nm,0.3s | | | | | | |
| CDF | Champ du Feu | 2.49 | 314 | eP | Pn | 22 59 35.7 | +1.4 |
| CDF | Champ du Feu | 2.49 | 314 | ePg | Pg | 22 59 40.9 | -1.0 |
| CDF | | | | eSg | Sg | 23 00 13.3 | -0.9 |
| | 5.6nm,0.4s | | | | | | |
| CDF | Champ du Feu | 2.49 | 314 | eP | Pn | 22 59 35.7 | +1.4 |
| CDF | Champ du Feu | 2.49 | 314 | ePg | Pg | 22 59 40.9 | -1.0 |
| CDF | | | | eSg | Sg | 23 00 13.3 | -0.9 |
| | 2.8nm,0.4s | | | | | | |
| LPG | La Plagne | 2.52 | 243 | ePg | Pb | 22 59 40.9 | +1.5 |
| LPG | | | | eSg | Sg | 23 00 14.1 | -1.1 |
| | 1.1nm,0.3s | | | | | | |
| LPG | La Plagne | 2.52 | 243 | ePg | Pb | 22 59 40.9 | +1.5 |
| LPG | | | | eSg | Sg | 23 00 14.1 | -1.1 |
| | 0.6nm,0.3s | | | | | | |
| LPL | La Plagne | 2.53 | 243 | ePg | Pb | 22 59 40.7 | +1.3 |
| LPL | | | | eSg | Sg | 23 00 14.1 | -1.2 |
| | 1.2nm,0.3s | | | | | | |
| LPL | La Plagne | 2.53 | 243 | ePg | Pb | 22 59 40.7 | +1.3 |
| LPL | | | | eSg | Sg | 23 00 14.1 | -1.2 |
| | 0.6nm,0.3s | | | | | | |
| CABF | La Chapelle | 2.66 | 270 | ePg | Pg | 22 59 44.9 | -0.1 |
| CABF | | | | eSg | Sg | 23 00 19.1 | -0.4 |
| | 1.3nm,0.2s | | | | | | |
| CABF | La Chapelle | 2.66 | 270 | ePg | Pg | 22 59 44.9 | -0.1 |
| CABF | | | | eSg | Sg | 23 00 19.1 | -0.4 |
| | 0.6nm,0.2s | | | | | | |
| HAU | Haudompre | 2.77 | 299 | ePn | Pn | 22 59 36.7 | -1.4 |
| HAU | Haudompre | 2.77 | 299 | ePg | Pg | 22 59 46.2 | -1.1 |
| HAU | | | | eSg | Sg | 23 00 22.2 | -1.0 |
| | 4.2nm,0.3s | | | | | | |
| HAU | Haudompre | 2.77 | 299 | ePn | Pn | 22 59 36.7 | -1.4 |
| HAU | Haudompre | 2.77 | 299 | ePg | Pg | 22 59 46.2 | -1.1 |
| HAU | | | | eSg | Sg | 23 00 22.2 | -1.0 |
| | 2.1nm,0.3s | | | | | | |
| MBDF | Montbardon | 2.97 | 230 | ePn | Pn | 22 59 40.7 | -0.2 |
| MBDF | | | | eSg | Sg | 23 00 27.6 | -1.9 |
| | 1.0nm,0.3s | | | | | | |
| MBDF | Montbardon | 2.97 | 230 | ePn | Pn | 22 59 40.7 | -0.2 |
| MBDF | | | | eSg | Sg | 23 00 27.6 | -1.9 |
| | 0.5nm,0.3s | | | | | | |
| SBF | Sospel | 3.34 | 213 | ePg | Pb | 22 59 55.4 | +2.3 |
| SBF | Sospel | 3.34 | 213 | ePg | Pb | 22 59 55.4 | +2.3 |
| PAGF | Fort de Pagny | 3.41 | 305 | ePn | Pn | 22 59 45.2 | -1.6 |
| | baz=123 | | | | | | |
| PAGF | Fort de Pagny | 3.41 | 305 | ePn | Pn | 22 59 45.2 | -1.6 |
| KHC | Kasperske Hory | 3.45 | 44 | ePN | Pn | 22 59 49.6 | +2.2 |
| KHC | | | | ePG | Pg | 22 59 59.0 | -1.2 |
| KHC | | | | eSN | Sn | 23 00 29.3 | +1.2 |
| KHC | | | | eSG | Sg | 23 00 42.3 | -2.5 |
| KHC | Kasperske Hory | 3.45 | 44 | Pn | Pn | 22 59 49.6 | +2.2 |
| KHC | Kasperske Hory | 3.45 | 44 | Pg | Pg | 22 59 59.0 | -1.2 |
| KHC | | | | Sn | Sn | 23 00 29.3 | +1.2 |
| KHC | | | | Sg | Sg | 23 00 42.3 | -2.5 |
| FRF | La Foret Royal | 3.91 | 218 | eP | Pn | 22 59 55.3 | +1.6 |
| FRF | La Foret Royal | 3.91 | 218 | eP | Pn | 22 59 55.3 | +1.6 |
| NKC | Novy Kostel | 3.91 | 24 | eSG | Sg | 23 00 58.2 | -1.4 |
| NKC | Novy Kostel | 3.91 | 24 | Sg | Sg | 23 00 58.2 | -1.4 |
| LMR | La Mourre | 4.15 | 217 | eP | Pn | 22 59 59.4 | +2.4 |
| LMR | La Mourre | 4.15 | 217 | eP | Pn | 22 59 59.4 | +2.4 |
| LOR | Lormes | 4.21 | 280 | eSg | Sg | 23 01 06.0 | -3.1 |
| | 1.7nm,0.3s | | | | | | |
| LOR | Lormes | 4.21 | 280 | eSg | Sg | 23 01 06.0 | -3.1 |
| | 0.9nm,0.3s | | | | | | |
| AVF | Avril sur Loir | 4.53 | 274 | eP | Pn | 23 00 05.1 | +2.8 |
| AVF | Avril sur Loir | 4.53 | 274 | eP | Pn | 23 00 05.1 | +2.8 |

*NIED **03** 23:16:00, 35°.20N×142°.40E, h8km, Mw4.1 Best double couple: Mo1.54000×10^15 NP1:φs26.00000°, δ27.00000°, λ-59.00000°. NP2:φs171.00000°, δ67.00000°, λ-105.00000°.*
*IDC **03** 23:16:15.7±0.7, 35°.11N×142°.42E, h0km, mb4.1/16, mb1 4.2/20, mb1mx4.1/36, mbtmp4.1/20, ML3.8/4, MS3.1/2, Ms1 3.3/2, ms1mx2.7/43, Error ellipse: s-maj=18.7km s-min=14.8km az=127.0*
*JMA **03** 23:16:18.5±0.5, 35°.17N×142°.38E, h62km, M3.6*
*ISCJB **03** 23:16:19.8±0.5, 35°.12N±0°.05×142°.29E±0°.05, h42km, mb4.1/19, MS3.3/1, Error ellipse: s-maj=6.8km s-min=5.3km az=167.2*
*NEIC **03** 23:16:21.2±0.5, 35°.21N×142°.42E, h35km, mb4.5/3, Error ellipse: s-maj=11.1km s-min=8.3km az=153.0*
**ISC 03 23:16:21.7±0.7, 35°.20N±0°.06×142°.37E±0°.07, h42km, n41, σ1s89/49, mb4.0/19, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BSO1 | Boso 1 | 1.26 | 245 | P | Pn | 23 16 39.9 | -2.4 |
| CHOJ | Chosi | 1.33 | 293 | P | Pn | 23 16 42.1 | -1.7 |
| BSO3 | Boso 3 | 1.57 | 256 | P | Pn | 23 16 45.1 | -1.8 |
| BSO4 | Boso 4 | 1.68 | 264 | P | Pn | 23 16 47.1 | -1.3 |
| JIM2 | Oshima 3 | 2.46 | 260 | P | Pn | 23 16 56.4 | -2.9 |
| JFK | Kawauchi | 2.48 | 331 | P | Pn | 23 16 56.4 | -3.2 |
| JFK | | | | eS | Sn | 23 17 24.1 | -4.5 |
| JAG | Ashikaga | 2.67 | 298 | P | Pn | 23 17 00.4 | -1.7 |
| JOD2 | Odawara 2 | 2.69 | 272 | P | Pn | 23 17 00.2 | -2.2 |
| JOD2 | | | | eS | Sn | 23 17 30.8 | -2.9 |
| JFT | Otama | 2.84 | 325 | P | Pn | 23 17 03.1 | -1.4 |
| JFT | | | | S | Sn | 23 17 35.0 | -2.4 |
| JRY | Ryogami san | 2.94 | 287 | P | Pn | 23 17 04.8 | -1.1 |
| JHJ | Hachijo jima 2 | 2.98 | 227 | Pn | Pn | 23 17 03.5 | -2.9 |
| | 20nm,0.3s,baz=73,slow=19,SNR=3.3 | | | | | | |
| JHJ | | | | Sn | Sn | 23 17 37.1 | -3.8 |
| | 36nm,0.3s,baz=96,slow=22,SNR=5.8 | | | | | | |
| JYN | Shimob | 3.14 | 277 | P | Pn | 23 17 06.6 | -2.1 |
| JYN | | | | S | Sn | 23 17 43.8 | -1.2 |
| MJAR | Matsushiro Arr | 3.63 | 293 | Pn | Pn | 23 17 14.6 | -0.8 |
| | 3.1nm,0.3s,baz=123,slow=13,SNR=41 | | | | | | |
| MJAR | | | | Sn | Sn | 23 17 57.4 | +0.3 |
| | 0.9nm,0.3s,baz=99,slow=25,SNR=3.8 | | | | | | |
| MJAR | | | | LR | LR | 23 18 50.1 | |
| | comp=Z,188nm,19.7s,baz=120,slow=42 | | | | | | |
| MAJO | Matsushiro | 3.64 | 293 | ePn | Pn | 23 17 15.0 | -0.5 |
| MAT | Matsushiro | 3.64 | 293 | P | Pn | 23 17 14.5 | -0.9 |
| MAT | | | | eS | Sn | 23 17 58.5 | +1.4 |
| MAT | Matsushiro | 3.64 | 293 | P | Pn | 23 17 14.6 | -0.9 |
| ERM | Erimo | 6.84 | 5 | ePn | Pn | 23 17 56.4 | -2.9 |
| ASAJ | Asahikawa | 8.91 | 1 | Pn | Pn | 23 18 25.5 | -2.2 |
| | 4.5nm,0.3s,baz=216,slow=13,SNR=14 | | | | | | |
| ASAJ | | | | Sn | Sn | 23 20 02.8 | -3.9 |
| | 1.4nm,0.3s,baz=212,slow=19,SNR=3.6 | | | | | | |
| JNU | Nakatsue | 9.74 | 261 | Pn | Pn | 23 18 38.3 | -1.0 |
| | 0.3nm,0.3s,baz=90,slow=5.1,SNR=3.4 | | | | | | |
| KSRS | Korea Array | 11.87 | 285 | Pn | Pn | 23 19 11.0 | +2.8 |
| | 0.1nm,0.3s,baz=91,slow=12,SNR=4.4 | | | | | | |
| KSAR | Wonju Array Be | 11.90 | 285 | Pn | Pn | 23 19 11.0 | +2.4 |
| MA2 | Magadan | 25.00 | 10 | P | P | 23 21 41.2 | 0.0 |
| | 7.0nm,0.2s,baz=175,slow=14,SNR=4.6 | | | | | | |
| ENH | Enshi | 28.02 | 269 | eP | P | 23 22 09.0 | +0.2 |
| | 2.6nm,0.5s | | | | | | |
| YAK | Yakutsk | 28.03 | 347 | P | P | 23 22 09.0 | +0.5 |
| | 3.4nm,0.3s | | | | | | |
| SONM | Songino Array | 29.47 | 306 | P | P | 23 22 23.7 | +2.0 |
| | 1.0nm,0.9s,baz=115,slow=7.3,SNR=5.2 | | | | | | |
| CMAR | Chiang Mai Arr | 41.83 | 258 | P | P | 23 24 07.7 | +0.1 |
| | 1.3nm,0.6s,baz=46,slow=7.4,SNR=6.3 | | | | | | |
| CMAR | | | | LR | LR | 23 43 10.1 | |
| | comp=Z,37nm,18.3s,baz=45,slow=39 | | | | | | |
| ZALV | Zalesovo Beam | 43.73 | 314 | P | P | 23 24 22.9 | +0.4 |
| | 1.1nm,0.8s,baz=96,slow=6.6,SNR=2.5 | | | | | | |
| MKAR | Makanchi Array | 45.76 | 304 | P | P | 23 24 39.4 | +0.5 |
| | 1.2nm,0.7s,baz=92,slow=10.0,SNR=12 | | | | | | |
| KURK | Kurchatov | 47.68 | 310 | eP | P | 23 24 54.6 | +0.8 |
| | 3.5nm,0.4s | | | | | | |
| KDAK | Kodiak Island | 47.96 | 41 | P | P | 23 24 55.9 | +0.1 |
| | 12nm,0.7s,baz=269,slow=5.6,SNR=5.1 | | | | | | |
| ILAR | Eielson Array | 50.64 | 32 | P | P | 23 25 16.4 | +0.2 |
| | 1.1nm,0.7s,baz=266,slow=6.4,SNR=14 | | | | | | |
| WRA | Warramunga Arr | 55.36 | 189 | P | P | 23 25 50.2 | -1.2 |
| | 1.7nm,0.7s,baz=7.6,slow=7.4,SNR=18 | | | | | | |
| INK | Inuvik | 55.67 | 27 | P | P | 23 25 54.0 | +0.9 |
| | 0.7nm,0.7s,baz=319,slow=9.3,SNR=4.1 | | | | | | |
| ASAR | Alice Springs | 59.09 | 189 | P | P | 23 26 17.4 | -0.3 |
| | 0.6nm,0.8s,baz=19,slow=14,SNR=7.4 | | | | | | |
| FINES | FINESS Array B | 70.80 | 333 | P | P | 23 27 34.1 | +0.7 |
| | 3.8nm,1.0s,baz=54,slow=7.1,SNR=3.5 | | | | | | |
| NOA | NORSAR Array B | 76.18 | 338 | P | P | 23 28 05.6 | +0.5 |
| | 1.4nm,0.7s,baz=40,slow=5.6,SNR=3.1 | | | | | | |
| AKASG | Malin Array Be | 76.22 | 323 | P | P | 23 28 05.6 | +0.1 |
| | 1.3nm,0.5s,baz=45,slow=6.1,SNR=10 | | | | | | |
| PDAR | Pinedale Array | 78.40 | 46 | P | P | 23 28 19.2 | +1.0 |
| | 0.5nm,0.5s,baz=237,slow=1.4,SNR=6.0 | | | | | | |
| BRTR | Keskin Array B | 80.65 | 312 | P | P | 23 28 30.9 | +0.5 |
| | 0.7nm,0.9s,baz=111,slow=2.8,SNR=5.7 | | | | | | |
| TXAR | Lajitas Array | 90.62 | 53 | P | P | 23 29 21.0 | +1.0 |
| | 0.8nm,0.9s,baz=159,slow=0.8,SNR=6.0 | | | | | | |
| LPAZ | La Paz | 146.89 | 63 | PKPbc | PKPab | 23 36 01.4 | -0.7 |
| | 1.2nm,0.6s,baz=316,slow=3.1,SNR=3.5 | | | | | | |

**MEX 03 23:25:10.4±0.3, 26°.06N×111°.67W, h21km±30km, MD3.8, Gulf of California**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SRIG | Santa Rosalia | 1.35 | 338 | eP | Pn | 23 25 31.1 | -3.0 |
| SRIG | | | | eS | Sn | 23 25 47.1 | -4.2 |
| GUYB | Guaymas | 1.96 | 21 | eP | Pn | 23 25 39.8 | -2.7 |
| GUYB | | | | i S | Sn | 23 26 02.9 | -3.5 |

**IDC 03 23:31:14.8±3.6, 5°.17S×151°.70E, h0km, mb3.4/3, mb1 3.7/3, mb1mx3.3/36, mbtmp3.5/3, Error ellipse: s-maj=139.3km s-min=47.5km az=123.0, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 22.39 | 227 | P | P | 23 36 14.7 | -0.3 |
| | 0.4nm,0.7s,baz=51,slow=9.7,SNR=3.3 | | | | | | |
| ASAR | Alice Springs | 25.15 | 221 | P | P | 23 36 41.7 | -0.2 |
| | 0.4nm,0.8s,baz=54,slow=9.3,SNR=4.8 | | | | | | |
| FITZ | Fitzroy Crossi | 28.52 | 241 | P | P | 23 37 12.7 | +0.3 |
| | 3.0nm,1.2s,baz=58,slow=9.5,SNR=3.1 | | | | | | |
| TORD | Torodi Ar. Bea | 149.37 | 287 | PKPbc | PKPbc | 23 51 06.4 | -0.5 |
| | 0.3nm,0.6s,baz=66,slow=2.1,SNR=2.7 | | | | | | |

*ISCJB **03** 23:31:58.2±0.3, 28°.99N±0°.05×64°.84E±0°.04, h80km, mb3.6/14, Error ellipse: s-maj=7.6km s-min=4.1km az=161.8*
*IDC **03** 23:31:59.7±1.1, 28°.94N×64°.59E, h80km±7km, mb3.4/14, mb1 3.6/17, mb1mx3.3/61, mbtmp3.8/17, Error ellipse: s-maj=26.1km s-min=16.0km az=158.0*
*DSN **03** 23:32:04.3±3.4, 28°.46N×64°.63E, h30km, Error ellipse: s-maj=42.2km s-min=34.9km az=6.0*
*OMAN **03** 23:32:32.5±8.4, 27°.77N×62°.46E, h96km, Error ellipse: s-maj=92.1km s-min=14.6km az=54.0*
**ISC 03 23:31:59.1±0.6, 28°.86N±0°.08×64°.74E±0°.06, h80km, n66, σ2s25/61, mb3.8/14, 2C-3D, Southwestern Pakistan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| THW | Thamme Wali | 7.19 | 55 | P | Pn | 23 33 38.8 | -2.7 |
| WSAR | Wadi Sarin | 7.84 | 226 | P | Pn | 23 33 51.3 | +0.9 |
| | 4.1nm,0.3s,baz=107,slow=3.4,SNR=54 | | | | | | |
| WSAR | | | | S | Sn | 23 35 11.3 | -6.3 |
| | 6.5nm,0.3s,baz=250,slow=18,SNR=10 | | | | | | |
| CEP | Cherat | 7.88 | 49 | P | Pn | 23 33 48.7 | -2.4 |
| CEP | | | | S | Sn | 23 35 11.0 | -7.8 |
| BANOM | Banah | 8.05 | 251 | i P | Pn | 23 33 55.8 | +2.5 |
| | SNR=99 | | | | | | |
| BANOM | Banah | 8.05 | 251 | P | Pn | 23 33 55.8 | +2.5 |
| | SNR=99 | | | | | | |
| BANOM | Banah | 8.05 | 251 | P | Pn | 23 33 55.8 | +2.5 |
| | SNR=99 | | | | | | |
| SMDO | Samad | 8.34 | 228 | P | Pn | 23 34 00.4 | +3.0 |
| | SNR=10 | | | | | | |
| SMDO | Samad | 8.34 | 228 | P | Pn | 23 34 00.4 | +3.0 |
| | SNR=10 | | | | | | |
| UOSS | Minazif | 8.55 | 245 | P | Pn | 23 34 01.5 | +1.3 |
| UOSS | Minazif | 8.55 | 245 | P | Pn | 23 34 01.5 | +1.3 |
| HATD | Hatta, Dubai | 8.67 | 244 | i P | Pn | 23 34 03.5 | +1.8 |
| | SNR=5.5 | | | | | | |
| HATD | Hatta, Dubai | 8.67 | 244 | P | Pn | 23 34 03.6 | +1.8 |
| | SNR=7.6 | | | | | | |
| HATD | Hatta, Dubai | 8.67 | 244 | P | Pn | 23 34 03.6 | +1.8 |
| | SNR=7.6 | | | | | | |
| CHCP | Chirah Chowk | 8.73 | 55 | P | Pn | 23 33 59.8 | -2.7 |
| ASHO | Ashiyiah | 8.80 | 244 | i P | Pn | 23 34 05.7 | +2.2 |
| | SNR=42 | | | | | | |
| ASHO | Ashiyiah | 8.80 | 244 | P | Pn | 23 34 05.7 | +2.2 |
| | SNR=42 | | | | | | |
| ASHO | Ashiyiah | 8.80 | 244 | P | Pn | 23 34 05.7 | +2.2 |
| | SNR=42 | | | | | | |
| JMDO | Jabal Madar | 8.80 | 224 | P | Pn | 23 34 08.0 | +4.4 |
| | SNR=10 | | | | | | |
| JMDO | Jabal Madar | 8.80 | 224 | P | Pn | 23 34 08.0 | +4.4 |
| | SNR=10 | | | | | | |
| NAZ | Nazwa, Dubai | 8.97 | 247 | i P | Pn | 23 34 09.9 | +4.0 |
| | SNR=9.7 | | | | | | |
| NAZ | Nazwa, Dubai | 8.97 | 247 | P | Pn | 23 34 11.0 | +5.1 |
| | SNR=9.7 | | | | | | |
| NAZ | Nazwa, Dubai | 8.97 | 247 | P | Pn | 23 34 11.0 | +5.1 |
| | SNR=9.7 | | | | | | |
| BSY | Bisya | 9.12 | 230 | P | Pn | 23 34 12.7 | +4.8 |
| | SNR=13 | | | | | | |
| BSY | Bisya | 9.12 | 230 | P | Pn | 23 34 12.7 | +4.8 |
| | SNR=13 | | | | | | |
| FAQ | Al Faqa, Dubai | 9.14 | 246 | i P | Pn | 23 34 12.0 | +3.9 |
| | SNR=27 | | | | | | |
| FAQ | Al Faqa, Dubai | 9.14 | 246 | P | Pn | 23 34 13.0 | +4.9 |
| | SNR=27 | | | | | | |
| FAQ | Al Faqa, Dubai | 9.14 | 246 | P | Pn | 23 34 13.0 | +4.9 |
| | SNR=27 | | | | | | |
| ARQ | Araqi | 9.20 | 235 | P | Pn | 23 34 14.6 | +5.6 |
| | SNR=6.4 | | | | | | |
| ARQ | Araqi | 9.20 | 235 | P | Pn | 23 34 14.6 | +5.6 |
| | SNR=6.4 | | | | | | |
| THN | Thein Dam | 10.11 | 67 | eP | Pn | 23 34 21.8 | +0.5 |
| KUDL | Kundal | 10.36 | 91 | eP | Pn | 23 34 20.0 | -4.8 |
| KUDL | | | | eS | Sn | 23 36 06.4 | -13 |
| KUDL | | | | AML | AML | 23 36 11.2 | |
| | comp=N,22nm,0.5s | | | | | | |
| KUDL | | | | AML | AML | 23 36 12.4 | |
| | comp=E,17nm,0.9s | | | | | | |
| GEYT | Alibeck | 10.60 | 330 | P | Pn | 23 34 28.6 | +0.5 |
| | comp=E,0.2nm,0.3s,baz=98,slow=8.9,SNR=2.6 | | | | | | |
| SDNR | Sundarnagar | 10.91 | 73 | eP | Pn | 23 34 32.5 | +0.2 |
| NDI | New Delhi | 10.95 | 88 | eP | Pn | 23 34 31.5 | -1.4 |
| NDI | | | | eS | Sn | 23 36 25.0 | -8.6 |
| KALG | Kalgarh | 12.27 | 84 | eP | Pn | 23 34 34.8 | -16 |
| KALG | | | | eS | Sn | 23 36 41.9 | -24 |
| JOSI | Joshimath | 12.99 | 79 | eP | Pn | 23 34 58.2 | -2.6 |
| JOSI | | | | eS | Sn | 23 37 13.2 | -10 |
| JOSI | | | | AML | AML | 23 37 29.9 | |
| | comp=E,46nm,0.6s | | | | | | |
| JOSI | | | | AML | AML | 23 37 37.5 | |
| | comp=N,45nm,0.5s | | | | | | |
| JBP | Jabalpur | 14.83 | 109 | eS | Sn | 23 37 54.2 | -14 |
| AAK | Ala-Archa | 15.85 | 27 | P | Pn | 23 35 36.7 | -0.9 |
| | comp=N,0.6nm,0.3s,baz=0.8,slow=0.6,SNR=8.7 | | | | | | |
| PYUN | Piuthan | 16.07 | 88 | eP | Pn | 23 35 38.1 | -2.4 |
| | comp=N,16nm,0.3s | | | | | | |
| KOLN | Koldanda | 16.65 | 89 | eP | Pn | 23 35 45.7 | -2.0 |
| | comp=N,6.2nm,0.3s | | | | | | |
| KKN | Kakani | 18.12 | 88 | eP | P | 23 36 04.9 | -0.1 |
| | comp=N,11nm,0.4s | | | | | | |
| PKIN | Phulchoki | 18.25 | 89 | eP | P | 23 36 06.1 | -0.4 |
| | comp=N,9.0nm,0.5s | | | | | | |
| PKI | Pulchoki | 18.26 | 89 | eP | P | 23 36 06.0 | -0.7 |
| | comp=N,6.5nm,0.4s | | | | | | |
| GUN | Gumba | 18.63 | 88 | eP | P | 23 36 11.3 | +0.6 |
| | comp=N,35nm,0.5s | | | | | | |
| RAMN | Ramite | 19.41 | 90 | eP | P | 23 36 20.8 | +1.6 |
| | comp=N,14nm,0.5s | | | | | | |
| ODAN | Odare | 20.12 | 90 | eP | P | 23 36 29.1 | +2.2 |
| | comp=N,24nm,0.7s | | | | | | |
| TAPN | Taplejung | 20.32 | 89 | eP | P | 23 36 31.2 | +2.1 |
| | comp=N,12nm,0.8s | | | | | | |
| MKAR | Makanchi Array | 22.56 | 33 | P | P | 23 36 51.5 | -1.2 |
| | comp=N,0.7nm,0.7s,baz=214,slow=11,SNR=6.3 | | | | | | |
| KBZ | Khabaz | 22.93 | 316 | P | P | 23 36 56.4 | -0.1 |
| | comp=N,0.9nm,0.6s,baz=184,slow=4.8,SNR=4.3 | | | | | | |
| KVAR | Kislovodsk Arr | 23.18 | 316 | P | P | 23 36 59.0 | +0.1 |
| | comp=N,2.6nm,0.8s,baz=156,slow=9.4,SNR=2.9 | | | | | | |
| KURBB | Kurchatov Arra | 24.11 | 22 | P | P | 23 37 08.1 | +0.9 |
| | comp=N,0.3nm,0.6s,baz=215,slow=8.7,SNR=4.9 | | | | | | |
| BVAR | Borovoye Array | 24.51 | 8 | P | P | 23 37 11.5 | +0.7 |
| | comp=N,2.4nm,0.6s,baz=175,slow=9.9,SNR=26 | | | | | | |
| ZALV | Zalesovo Beam | 29.04 | 25 | P | P | 23 37 52.9 | +1.4 |
| | comp=N,0.4nm,0.4s,baz=228,slow=10,SNR=2.7 | | | | | | |
| MLR | Muntele Rosu | 34.70 | 309 | ⇑iP | P | 23 38 42.4 | +1.1 |
| VOIR | | 35.29 | 309 | ⇓iP | P | 23 38 46.4 | 0.0 |
| ARR | Arges | 35.56 | 309 | ⇓iP | P | 23 38 48.8 | +0.1 |
| BURAR | Bucovina Array | 35.77 | 313 | ⇑iP | P | 23 38 50.4 | -0.1 |
| SONM | Songino Array | 37.22 | 48 | P | P | 23 39 04.6 | +1.8 |
| | comp=N,0.3nm,0.5s,baz=268,slow=8.7,SNR=2.4 | | | | | | |
| BZS | Buzias | 37.69 | 308 | ⇓iP | P | 23 39 06.7 | +0.1 |
| FINES | FINESS Array B | 41.39 | 333 | P | P | 23 39 36.2 | -1.0 |
| | comp=N,1.1nm,0.4s,baz=132,slow=7.2,SNR=12 | | | | | | |
| GERES | GERESS Array B | 43.55 | 312 | P | P | 23 39 54.0 | -1.0 |
| | comp=N,0.5nm,0.6s,baz=108,slow=12,SNR=3.4 | | | | | | |
| ARCES | ARCESS Array B | 46.50 | 342 | P | P | 23 40 15.8 | -2.1 |
| | comp=N,2.5nm,0.9s,baz=140,slow=9.6,SNR=5.1 | | | | | | |
| NOA | NORSAR Array B | 47.68 | 328 | P | P | 23 40 25.5 | -1.8 |
| | comp=N,2.0nm,1.0s,baz=114,slow=6.5,SNR=2.5 | | | | | | |
| KSRS | Korea Array | 52.72 | 63 | P | P | 23 41 05.9 | +0.2 |
| | comp=N,1.3nm,0.8s,baz=285,slow=10,SNR=6.2 | | | | | | |
| TORD | Torodi Ar. Bea | 60.27 | 269 | P | P | 23 41 59.4 | -0.3 |
| | comp=N,0.5nm,0.6s,baz=66,slow=5.8,SNR=5.7 | | | | | | |
| TORD | | | | pP | pP | 23 42 18.8 | -1.1 |
| | comp=N,0.5nm,0.6s,baz=59,slow=7.0,SNR=4.4 | | | | | | |
| TORD | | | | sP | sP | 23 42 28.8 | 0.0 |
| | comp=N,0.3nm,0.6s,baz=45,slow=6.1,SNR=3.4 | | | | | | |
| YKA | Yellowknife Ar | 88.97 | 360 | P | P | 23 44 45.6 | +1.0 |
| | comp=N,0.9nm,0.7s,baz=353,slow=5.0,SNR=9.2 | | | | | | |
| YKA | | | | pP | pP | 23 45 06.9 | +0.8 |
| | comp=N,0.4nm,0.8s,baz=358,slow=4.1,SNR=2.6 | | | | | | |

**MAN 03 23:40:23, 14°.07N×120°.34E, h76km, mb3.7, ML2.4, MS2.0, 2D, Luzon**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LUBP | Lubang | 0.35 | 195 | eP | Pn | 23 40 38.9 | +3.7 |
| LUBP | | | | eS | Sn | 23 40 47.9 | +3.8 |
| TGY | Tagaytay City | 0.58 | 87 | ⇓iP | Pn | 23 40 39.1 | +1.9 |
| TGY | | | | i S | Sn | 23 40 53.8 | +6.1 |
| PGP | Puerto Galera | 0.82 | 134 | ⇓eP | Pn | 23 40 42.6 | +2.8 |
| PGP | | | | i S | Sn | 23 40 54.8 | +2.5 |
| SJMP | San Jose | 1.77 | 155 | eP | Pn | 23 40 53.9 | +2.0 |
| BUSP | Coron | 2.06 | 184 | eP | Pn | 23 40 56.8 | +1.1 |
| ENPP | El Nido | 2.99 | 197 | eP | Pn | 23 41 09.5 | +1.4 |

*ISCJB **03** 23:52:05.2±0.5, 15°.06S±0°.08×177°.90W±0°.09, h10km, mb4.1/12, MS3.6/14, Error ellipse: s-maj=13.3km s-min=10.6km az=41.6*
*IDC **03** 23:52:05.4±1.1, 14°.95S×177°.94W, h0km, mb4.0/6, mb1 4.3/7, mb1mx4.0/38, mbtmp4.0/7, ML3.7/1, MS3.6/17, Ms1 3.6/17, ms1mx3.4/36, Error ellipse: s-maj=78.8km s-min=20.3km az=154.0*
*NEIC **03** 23:52:06.5±0.5, 15°.07S×177°.82W, h10km, mb4.3/6, Error ellipse: s-maj=11.7km s-min=9.3km az=144.0*
**ISC 03 23:52:06.5±0.6, 15°.07S±0°.10×177°.82W±0°.09, h10km, n35, σ1s00/17, mb4.2/12, MS3.6/14, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MSVF | Nonsavu | 4.77 | 236 | ePn | Pn | 23 53 19.1 | +0.5 |
| AFI | Afiamalu | 5.96 | 80 | Pn | Pn | 23 53 34.7 | -0.3 |
| | 2.0nm,0.3s,baz=254,slow=19,SNR=3.8 | | | | | | |
| AFI | | | | LR | LR | 23 55 28.1 | |
| | comp=Z,332nm,19.9s,baz=257,slow=33 | | | | | | |
| AFI | Afiamalu | 5.96 | 80 | ePn | Pn | 23 53 33.1 | -1.9 |
| FUNA | Funafuti | 7.13 | 335 | ePn | Pn | 23 53 51.4 | +0.4 |
| RAO | Raoul Island | 14.12 | 180 | Pn | Pn | 23 55 26.6 | 0.0 |
| DZM | Mont Dzumac | 16.46 | 243 | LR | LR | 00 01 13.9 | |
| | comp=Z,251nm,20.0s,baz=47,slow=33 | | | | | | |
| DZM | Mont Dzumac | 16.46 | 243 | eLR | LR | 23 59 58.1 | |
| | 416nm,25.9s | | | | | | |
| RAR | Rarotonga | 18.20 | 112 | LR | LR | 00 01 43.9 | |
| | comp=Z,203nm,19.0s,baz=262,slow=32 | | | | | | |
| HNR | Honiara | 22.43 | 282 | LR | LR | 00 04 23.6 | |
| | comp=Z,271nm,19.5s,baz=142,slow=33 | | | | | | |
| HNR | Honiara | 22.43 | 282 | P | P | 23 57 03.6 | -2.1 |
| | 54nm,0.7s | | | | | | |
| URZ | Urewera | 23.53 | 190 | LR | LR | 00 04 55.4 | |
| | comp=Z,146nm,18.4s,baz=40,slow=33 | | | | | | |
| PPT | Papeete | 27.21 | 99 | LR | LR | 00 06 40.9 | |
| | comp=Z,45nm,18.3s,baz=209,slow=32 | | | | | | |
| PPT2 | Papeete2 | 27.21 | 99 | eLR | LR | 00 04 46.5 | |
| | 155nm,25.8s | | | | | | |
| TBI | Tubuai | 27.98 | 111 | eLR | LR | 00 05 13.3 | |
| | 247nm,28.0s | | | | | | |
| PMG | Port Moresby | 34.66 | 275 | LR | LR | 00 12 32.5 | |
| | comp=Z,47nm,18.2s,baz=82,slow=36 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 36.67 | 335 | T | T | 00 38 12.7 | |
| | baz=155 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 36.68 | 335 | T | T | 00 38 16.9 | |
| | baz=155 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 36.69 | 335 | T | T | 00 38 16.1 | |
| | baz=155 | | | | | | |
| STKA | Stephens Creek | 40.54 | 238 | P | P | 23 59 46.5 | +0.3 |
| | 3.8nm,0.9s,baz=46,slow=8.6,SNR=3.0 | | | | | | |
| STKA | | | | LR | LR | 00 15 29.8 | |
| | comp=Z,77nm,18.0s,baz=30,slow=35 | | | | | | |
| WRA | Warramunga Arr | 45.77 | 257 | P | P | 00 00 28.4 | -0.3 |
| | 0.9nm,0.9s,baz=86,slow=7.8,SNR=4.8 | | | | | | |
| ASAR | Alice Springs | 46.16 | 252 | P | P | 00 00 31.1 | -0.7 |
| | 0.6nm,0.6s,baz=82,slow=8.2,SNR=9.7 | | | | | | |
| ASAR | | | | LR | LR | 00 18 15.1 | |
| | comp=Z,64nm,19.4s,baz=89,slow=34 | | | | | | |
| FITZ | Fitzroy Crossi | 54.10 | 258 | LR | LR | 00 22 58.8 | |
| | comp=Z,50nm,19.4s,slow=34 | | | | | | |
| MAJO | Matsushiro | 66.00 | 322 | P | P | 00 02 53.5 | +0.1 |
| | 0.9nm,0.4s | | | | | | |
| KSM | Kuching | 72.91 | 276 | P | P | 00 03 36.8 | +0.2 |
| | 1.9nm,0.6s | | | | | | |
| KSRS | Korea Array | 72.99 | 318 | LR | LR | 00 29 18.9 | |
| | comp=Z,30nm,19.0s,baz=343,slow=31 | | | | | | |
| QSPA | South Pole Qui | 74.97 | 180 | P | P | 00 03 48.0 | 0.0 |
| | 0.2nm,0.4s | | | | | | |
| LPIG | La Paz | 76.54 | 60 | LR | LR | 00 29 32.1 | |
| | comp=Z,52nm,18.4s,baz=225,slow=29 | | | | | | |
| ILAR | Eielson Array | 83.01 | 13 | P | P | 00 04 31.1 | -0.5 |
| | 0.9nm,1.0s,baz=224,slow=6.0,SNR=4.4 | | | | | | |
| ANMO | Albuquerque | 83.90 | 52 | LR | LR | 00 34 37.0 | |
| | comp=Z,48nm,19.2s,baz=92,slow=30 | | | | | | |
| TXAR | Lajitas Array | 84.00 | 58 | P | P | 00 04 39.2 | +1.5 |
| | 2.0nm,0.9s,baz=218,slow=7.2,SNR=13 | | | | | | |
| TXAR | | | | LR | LR | 00 34 47.4 | |
| | comp=Z,44nm,19.6s,baz=0.0,slow=30 | | | | | | |
| TPAW | Teton Pass | 84.32 | 42 | eP | P | 00 04 40.3 | +1.1 |
| | 2.1nm,0.8s | | | | | | |
| REDW | Red Top Meadow | 84.32 | 42 | eP | P | 00 04 39.5 | +0.3 |
| | 0.9nm,0.8s | | | | | | |
| PDAR | Pinedale Array | 84.91 | 43 | P | P | 00 04 43.0 | +0.8 |
| | 2.9nm,1.0s,baz=213,slow=2.6,SNR=13 | | | | | | |
| PDAR | | | | LR | LR | 00 35 42.8 | |
| | comp=Z,41nm,19.6s,baz=24,slow=31 | | | | | | |
| YKA | Yellowknife Ar | 91.53 | 24 | LR | LR | 00 39 44.1 | |
| | comp=Z,5.8nm,18.9s,baz=180,slow=31 | | | | | | |
| ATAH | Atahualpa | 97.18 | 99 | LR | LR | 00 39 09.4 | |
| | comp=Z,37nm,20.5s,baz=216,slow=29 | | | | | | |

*JMA **03** 23:59:29.9±0.1, 27°.94N×139°.59E, h568km, M4.3*
*ISCJB **03** 23:59:31.8±0.3, 28°.00N±0°.03×139°.11E±0°.03, h526km±3km, mb4.3/118, Error ellipse: s-maj=4.8km s-min=4.0km az=135.1*
*IDC **03** 23:59:33.1±1.1, 27°.96N×139°.15E, h540km±12km, mb3.6/32, mb1 3.7/37, mb1mx3.6/47, mbtmp4.5/37, Error ellipse: s-maj=10.5km s-min=7.4km az=97.0*
*NEIC **03** 23:59:33.5±0.1, 28°.04N×139°.02E, mb4.3/79, Error ellipse: s-maj=4.7km s-min=3.3km az=146.0*
**ISC 03 23:59:33.0±0.5, 28°.02N±0°.04×139°.14E±0°.05, h532km±5km, n194, σ1s59/225, mb4.3/121, 1C-1D, Bonin Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CBIJ | Chichi jima | 2.86 | 108 | P | P | 00 00 43.7 | -2.0 |
| CBIJ | | | | eS | S | 00 01 40.7 | -4.1 |
| JHHJ | Haha-jima-NKT | 3.04 | 116 | P | P | 00 00 45.3 | -1.5 |
| JHHJ | | | | S | S | 00 01 43.9 | -3.0 |
| JWZ | Kozaga | 6.23 | 333 | P | P | 00 01 14.7 | +1.9 |

**BSO1 Boso 1 6.79 13** P **P 00 01 18.1 +0.6**
BSO1 S **S 00 02 43.5 +0.2**
**BSO3 Boso 3 6.86 9** *e*S **S 00 02 44.4 -0.6**
**JOD2 Odawara 2 7.22 360** P **P 00 01 22.5 +0.2**
**JTO Tosashimizu 7.29 313** P **P 00 01 25.0 +2.0**
**JNY Yasuok 7.39 352** P **P 00 01 25.0 +0.9**
**INU Inuyama 7.52 347** *e*P **P 00 01 27.6 +2.3**
**JHU Hanno 7.81 1** P **P 00 01 27.1 -1.0**
JHU *e*S **S 00 02 59.5 -3.1**
**JRY Ryogami san 7.97 359** P **P 00 01 29.6 -0.2**
JRY *e*S **S 00 03 03.1 -2.6**
**JAG Ashikaga 8.38 2** P **P 00 01 32.7 -1.2**
JAG S **S 00 03 08.8 -4.4**
**MJAR Matsushiro Arr 8.53 355** P **P 00 01 34.3 -1.1**
2.0nm,0.3s,baz=171,slow=11,SNR=26
MJAR S **S 00 03 12.5 -3.5**
0.5nm,0.3s,baz=196,slow=24,SNR=3.8
**MAJO Matsushiro 8.53 355** *e*P **P 00 01 35.0 -0.4**
**MAT Matsushiro 8.53 355** P **P 00 01 34.5 -0.9**
MAT *e*S **S 00 03 11.8 -4.2**
**MJB9 Matsu-Tunnel 8.53 355** *e*P **P 00 01 35.1 -0.4**
**JHS Saijyo 8.64 325** P **P 00 01 38.8 +2.2**
**JHO Hitachi 8.65 8** P **P 00 01 36.3 -0.3**
JHO S **S 00 03 15.5 -2.6**
**JNU Nakatsue 8.75 308** P **P 00 01 39.1 +1.4**
6.6nm,0.3s,baz=48,slow=2.9,SNR=62
**JNU Nakatsue 8.75 308** *e*P **P 00 01 39.0 +1.2**
**JAMN Amaminishikomi 8.80 274** P **P 00 01 39.8 +1.5**
**JSJ Shimokoshiki 8.96 296** P **P 00 01 40.6 +0.8**
**JOW Kunigami 9.73 266** *e*P **P 00 01 48.5 +0.7**
**SARN Sarigan 12.83 150** *e*P **P 00 02 23.2 +2.8**
**KSRS Korea Array 13.31 318** P **P 00 02 24.9 -0.1**
0.9nm,0.3s,baz=137,slow=10,SNR=16
KSRS S **S 00 04 52.6 +5.9**
baz=139,slow=15,SNR=3.8
**KS15 Wonju Array Si 13.33 318** *e*P **P 00 02 25.8 +0.6**
**KS01 Wonju Array Si 13.35 318** *e*P **P 00 02 25.8 +0.5**
**INCN Inchon 14.12 315** *e*P **P 00 02 33.9 +0.5**
**NACB Ninganchiao 16.22 260** *e*P **P 00 02 52.6 -2.6**
31nm,0.9s
**YHNB Yeheng 16.27 262** *e*P **P 00 02 53.2 -2.6**
31nm,0.8s
**ASAJ Asahikawa 16.30 9** P **P 00 02 56.5 +0.8**
1.0nm,0.3s,baz=231,slow=6.6,SNR=5.3
**YULB Yu-li 16.72 258** *e*P **P 00 02 59.6 -0.5**
32nm,0.6s
**SSLB Suanglung 16.89 260** *e*P **P 00 03 00.8 -1.0**
94nm,0.7s
**TWG Pinlang 17.12 256** *e*P **P 00 03 02.3 -1.5**
171nm,0.7s
**USRK Ussuriysk Ar. 17.13 342** P **P 00 03 04.8 +1.3**
1.1nm,0.3s,baz=169,slow=9.7,SNR=19
**TPUB Ta-pu 17.33 258** *e*P **P 00 03 05.8 0.0**
274nm,1.9s
**YSS Yuzh-Sakhalins 19.11 8** *e*P **P 00 03 21.1 -0.4**
189nm,1.7s
**TIA Tai'an 20.32 299** ⇓P **P 00 03 32.8 0.0**
TIA pmax pmax
comp=Z,1μm,0.7s
**ENH Enshi 25.96 282** *e*P **P 00 04 23.0 -0.3**
comp=Z,56nm,0.8s
**HHC Hu-ho-hao-te 25.97 307** *e*P **P 00 04 23.1 -0.2**
HHC pmax pmax
comp=Z,11nm,0.8s
HHC pmax pmax
comp=Z,180nm,5.4s
**PETK Petropavlovsk- 28.58 24** P **P 00 04 46.0 +0.2**
comp=Z,3.0nm,0.8s,baz=181,slow=7.2,SNR=2.7
**PETK Petropavlovsk- 28.58 24** *e*P **P 00 04 46.7 +0.9**
**GYA Guiyang 28.87 275**⇑*i*P **P 00 04 48.0 -0.9**
GYA sP sP 00 07 22.4 +3.3
GYA PcP **PcP 00 07 42.0 +0.7**
GYA S **S 00 09 01.2 -0.8**
GYA ScP **ScP 00 10 31.6 -0.8**
GYA ScS **ScS 00 14 25.0 -2.7**
GYA pmax pmax
comp=Z,20nm,0.6s
**TNTI Ternate 29.35 205** *e*P **P 00 04 53.3 +0.3**
comp=Z,61nm,0.8s
**MYLDM Lahad Datu 30.01 225** *e*P **P 00 04 59.1 +0.4**
comp=Z,16nm,0.9s
**LZH Lanzhou 30.85 294** *e*P **P 00 05 06.1 +0.2**
LZH pP pP 00 06 36.9 +1.9
LZH PP **PP 00 06 37.9 -8.6**
LZH sP sP 00 07 37.8 +1.0
LZH S **S 00 09 40.0 +7.7**
LZH SS SS 00 12 26.2 -15
LZH pmax pmax
comp=Z,23nm,1.1s
LZH pmax pmax
comp=Z,100nm,6.2s
LZH LR LR
comp=N,180nm,13.6s
LZH LR LR
comp=E,240nm,13.0s
LZH LR LR
comp=Z,220nm,15.2s
**ULN Ulaanbaatar 31.80 317** *e*P **P 00 05 13.8 -0.1**
comp=Z,3.6nm,1.1s
**SONA1 Songino Array 32.18 317** *e*P **P 00 05 17.1 -0.1**
**SONM Songino Array 32.18 317** P **P 00 05 17.4 +0.3**
comp=Z,0.9nm,0.4s,baz=123,slow=7.8,SNR=9.7
**MA2 Magadan 32.54 11** P **P 00 05 20.2 +0.4**
comp=Z,32nm,0.8s,baz=198,slow=6.3,SNR=13
**YAK Yakutsk 34.58 352** P **P 00 05 36.4 -0.5**
comp=Z,9.4nm,0.4s,baz=195,slow=3.8,SNR=4.7
**YAK Yakutsk 34.58 352** *e*P **P 00 05 36.9 0.0**
comp=Z,20nm,1.0s
**SEY Seymchan 35.98 10** P **P 00 05 49.3 +0.8**
comp=Z,6.6nm,0.6s,baz=186,slow=8.0,SNR=11
**CHTO Chiang Mai 37.86 265** *e*P **P 00 06 04.4 -0.3**
comp=Z,12nm,0.7s
**CM01 Chiang Mai Arr 38.00 264** *e*P **P 00 06 05.7 -0.1**
**CMAR Chiang Mai Arr 38.00 264** P **P 00 06 06.0 +0.2**
comp=Z,3.3nm,0.5s,baz=51,slow=9.2,SNR=23
**PMG Port Moresby 38.01 167** *e*P **P 00 06 05.9 +0.1**
comp=Z,37nm,1.8s
**MIDW Midway 38.20 79** *e*P **P 00 06 10.6 +3.3**
comp=Z,907nm,1.9s
**MMRI Maumere 39.94 207** *e*P **P 00 06 22.2 +0.8**
comp=Z,117nm,1.8s
**SOEI Soe 40.22 203** *e*P **P 00 06 24.5 +0.7**
comp=Z,30nm,0.4s
**LSA Lhasa 41.83 284** *e*P **P 00 06 37.6 +0.7**
comp=Z,3.9nm,0.4s
**KULM Kulim 42.96 245** *e*P **P 00 06 45.6 +0.2**
comp=Z,19nm,0.8s
**IPM Ipoh 43.14 244** *e*P **P 00 06 46.4 -0.4**
comp=Z,27nm,1.5s
**WMQ Urumqi 43.84 305** P **P 00 06 52.2 +0.3**
WMQ pP pP 00 08 31.5 +3.0
WMQ sP sP 00 09 31.3 +3.1
WMQ pmax pmax
comp=Z,22nm,0.5s
WMQ pmax pmax
comp=Z,310nm,5.1s
WMQ LR LR
comp=N,50nm,16.9s
WMQ LR LR
comp=E,120nm,18.3s
WMQ LR LR
comp=Z,77nm,12.7s
**TIXI Tiksi 44.04 355** P **P 00 06 52.5 -0.5**
comp=Z,3.7nm,0.6s,baz=148,slow=5.7,SNR=19
**TIXI Tiksi 44.04 355** *e*P **P 00 06 52.1 -0.8**
comp=Z,4.5nm,0.8s
**TAPN Taplejung 45.26 282** *e*P **P 00 07 03.8 +0.3**
comp=Z,13nm,0.4s
**ODAN Odare 45.65 281** *e*P **P 00 07 06.6 +0.2**
comp=Z,30nm,0.5s
**PSI Prapat 45.81 244** P **P 00 07 07.1 -0.5**
comp=Z,2.6nm,0.3s,baz=68,slow=4.1,SNR=7.8
**PSI Prapat 45.81 244** *e*P **P 00 07 06.3 -1.3**
comp=Z,11nm,0.7s
**LHMI Lhok Sumawe 46.00 248** *e*P **P 00 07 08.4 -0.5**
comp=Z,77nm,1.3s
**RAMN Ramite 46.32 282** *e*P **P 00 07 11.7 +0.3**
comp=Z,32nm,0.5s
**JIRN Jiri 46.50 283** *e*P **P 00 07 13.8 +0.8**
**CISI Cisompet, Garu 46.55 225** *e*P **P 00 07 13.7 +0.6**
comp=Z,140nm,2.0s
**GUN Gumba 46.71 283** *e*P **P 00 07 15.3 +0.7**
comp=Z,35nm,0.4s
**ZAA0 Zalesovo Array 47.02 319** *e*P **P 00 07 15.3 -0.7**
comp=Z,2.0nm,0.7s
**ZALV Zalesovo Beam 47.02 319** P **P 00 07 15.5 -0.5**
comp=Z,2.2nm,0.3s,baz=108,slow=7.5,SNR=17
ZALV PcP **PcP 00 08 36.4 -1.1**
comp=Z,2.2nm,0.5s,baz=130,slow=3.1,SNR=12
ZALV ScP **ScP 00 11 38.2 -2.3**
comp=Z,1.1nm,0.6s,baz=127,slow=3.9,SNR=5.4
**PKIN Phulchoki 47.21 283** *e*P **P 00 07 18.6 +0.4**
comp=Z,8.5nm,0.4s
**KKN Kakani 47.26 283** *e*P **P 00 07 18.7 +0.2**
comp=Z,14nm,0.4s
**DMN Daman 47.45 283** *e*P **P 00 07 20.2 +0.2**
comp=Z,24nm,0.4s
**FITZ Fitzroy Crossi 47.68 197** P **P 00 07 20.8 -0.6**
comp=Z,0.7nm,0.5s,baz=18,slow=12,SNR=5.6
**GSI Gunungsitoli 47.79 244** *e*P **P 00 07 21.9 -0.4**
comp=Z,29nm,1.0s
**MK01 Makanchi Array 47.79 309** *e*P **P 00 07 21.1 -0.9**
**MK31 Makanchi Array 47.80 309** *e*P **P 00 07 22.2 +0.2**
**MKAR Makanchi Array 47.80 309** P **P 00 07 22.2 +0.2**
comp=Z,2.1nm,0.3s,baz=88,slow=10,SNR=62
MKAR PcP **PcP 00 08 39.8 -0.8**
comp=Z,0.8nm,0.6s,baz=108,slow=4.7,SNR=3.7
MKAR ScP **ScP 00 11 42.5 -1.6**
comp=Z,1.2nm,0.7s,baz=84,slow=5.1,SNR=8.5
**WRAB Tennant Creek 47.90 186** *e*P **P 00 07 23.8 +0.8**
comp=Z,25nm,1.8s
**WRA Warramunga Arr 47.91 186** P **P 00 07 21.4 -1.6**
comp=Z,1.2nm,0.3s,baz=7.0,slow=8.6,SNR=101
WRA PcP **PcP 00 08 40.4 -0.8**
comp=Z,0.6nm,0.5s,baz=359,slow=3.8,SNR=5.2
WRA pP **pP 00 08 59.6 -2.6**
comp=Z,0.9nm,0.7s,baz=5.7,slow=9.1,SNR=3.3
WRA ScP **ScP 00 11 43.1 -1.6**
comp=Z,0.7nm,0.7s,baz=357,slow=4.9,SNR=5.6
**MAKZ Makanchi 48.01 309** *e*P **P 00 07 24.0 +0.4**
comp=Z,7.1nm,1.2s
**CTAO Charters Tower 48.32 171** *e*P **P 00 07 26.5 +0.4**
comp=Z,21nm,1.2s
**JOHN Johnston Islan 48.47 92** *e*P **P 00 07 29.2 +1.8**
comp=Z,416nm,1.4s
**KOLN Koldanda 48.71 283** *e*P **P 00 07 29.7 +0.4**
**FALS False Pass 48.98 40** *e*P **P 00 07 32.5 +2.0**
comp=Z,550nm,1.9s
**PYUN Piuthan 49.15 284** *e*P **P 00 07 33.0 +0.4**
comp=Z,51nm,0.4s
**XMIS Christmas Isla 50.16 225** *e*P **P 00 07 39.6 -0.2**
comp=Z,387nm,1.8s
**KURK Kurchatov 50.40 314** *e*P **P 00 07 41.1 0.0**
comp=Z,6.7nm,0.8s
KURK *e*S **S 00 14 11.9 -2.8**
**KURBB Kurchatov Arra 50.46 314** P **P 00 07 41.5 -0.1**
comp=Z,8.7nm,0.4s,baz=91,slow=7.8,SNR=141
**SDPT Sand Point 50.72 40** *e*P **P 00 07 45.0 +1.6**
comp=Z,465nm,1.8s
**AS01 Alice Springs 51.63 186** *e*P **P 00 07 50.3 -0.1**
**AS31 Alice Springs 51.63 186** *e*P **P 00 07 50.0 -0.4**
comp=Z,0.9nm,0.7s
**ASAR Alice Springs 51.64 186** P **P 00 07 49.0 -1.4**
comp=Z,0.5nm,0.3s,baz=16,slow=11,SNR=14
ASAR PcP **PcP 00 08 55.1 0.0**
comp=Z,0.7nm,0.9s,baz=12,slow=4.8,SNR=5.5
**CHGN Chignik 51.98 39** *e*P **P 00 07 53.0 +0.6**
comp=Z,102nm,1.2s
**KSH Kashi 52.78 300** P **P 00 08 02.4 +3.7**
KSH PcP **PcP 00 09 01.4 +1.9**
KSH pP pP 00 09 44.3 +3.8
KSH PP **PP 00 10 11.8 +6.5**
KSH S **S 00 14 47.8 +0.6**
KSH ScS **ScS 00 16 53.9 +1.4**
**AAK Ala-Archa 53.50 304** *e*P **P 00 08 03.8 0.0**
comp=Z,3.9nm,0.8s
**KDAK Kodiak Island 55.25 37** P **P 00 08 15.4 -0.2**
comp=Z,5.1nm,0.5s,baz=301,slow=4.0,SNR=11
**BVAR Borovoye Array 55.53 317** P **P 00 08 17.9 +0.2**
comp=Z,9.1nm,0.3s,baz=96,slow=8.0,SNR=137
**CAST Castle Rocks 55.85 30** *e*P **P 00 08 20.8 +1.1**
comp=Z,12nm,0.7s
**DZM Mont Dzumac 56.35 149** P **P 00 08 23.2 -0.7**
comp=Z,2.8nm,0.8s,baz=308,slow=19,SNR=4.7
**BPAW Bear Paw Mtn. 56.40 30** *e*P **P 00 08 24.5 +1.1**
comp=Z,10.0nm,0.6s
**MLY Manley 56.58 29** *e*P **P 00 08 25.8 +1.0**
comp=Z,14nm,1.1s
**COLD Coldfoot 57.01 26** *e*P **P 00 08 28.9 +1.3**
comp=Z,6.9nm,1.1s
**PMR Palmer 57.11 33** *e*P **P 00 08 28.4 0.0**
comp=Z,20nm,1.0s
**MCK McKinley 57.28 30** *e*P **P 00 08 29.9 +0.4**
comp=Z,24nm,0.8s
**RND Reindeer 57.30 31** *e*P **P 00 08 29.8 +0.1**
comp=Z,16nm,0.7s
**SML Sawmill 57.50 32** *e*P **P 00 08 31.5 +0.4**
comp=Z,20nm,0.8s
**MDM Murphy Dome 57.64 29** *e*P **P 00 08 32.8 +0.8**
comp=Z,5.0nm,0.6s
**CCB Clear Creek Bu 57.81 29** *e*P **P 00 08 33.5 +0.5**
comp=Z,4.8nm,0.8s
**IL1 Eielson Array 58.21 29** *e*P **P 00 08 34.7 -1.1**
**ILAR Eielson Array 58.21 29** P **P 00 08 35.0 -0.8**
comp=Z,2.3nm,0.7s,baz=241,slow=5.5,SNR=26
**ILB Eielson Array 58.21 29** *e*P **P 00 08 35.1 -0.6**
**KLU Klutina 58.65 33** *e*P **P 00 08 39.6 +0.7**
comp=Z,58nm,1.8s
**HARP HAARP 58.99 32** *e*P **P 00 08 42.2 +1.1**
comp=Z,32nm,0.7s
**KBL Kabul 59.19 295** *e*P **P 00 08 43.3 +0.1**
comp=Z,4.7nm,0.8s
**BMRM Bremner River 59.31 33** *e*P **P 00 08 44.2 +0.9**
comp=Z,24nm,0.6s
**STKA Stephens Creek 59.62 178** P **P 00 08 44.4 -1.3**
comp=Z,1.4nm,0.4s,baz=342,slow=7.7,SNR=3.9
**MENT Mentasta 59.63 31** *e*P **P 00 08 46.2 +0.7**
comp=Z,9.8nm,0.6s
**HYT Haines Junctio 62.77 33** *e*P **P 00 09 07.6 +1.4**
comp=Z,12nm,1.0s
**INK Inuvik 63.31 25** P **P 00 09 09.2 -0.2**
comp=Z,4.7nm,0.5s,baz=293,slow=5.8,SNR=46
**INK Inuvik 63.31 25** *e*P **P 00 09 09.1 -0.2**
comp=Z,5.7nm,0.5s
**SPITS Spitsbergen Ar 68.98 349** P **P 00 09 44.2 -0.3**
comp=Z,4.2nm,0.6s,baz=60,slow=5.0,SNR=11
**ARCES ARCESS Array B 71.77 340** P **P 00 10 01.1 0.0**
comp=Z,6.5nm,0.6s,baz=66,slow=8.2,SNR=34
**RES Resolute Bay 71.78 13** P **P 00 10 01.2 +0.2**
comp=Z,9.2nm,0.7s,baz=334,slow=5.5,SNR=25
**YKA Yellowknife Ar 72.60 28** P **P 00 10 05.6 -0.3**
comp=Z,6.4nm,0.7s,baz=297,slow=6.1,SNR=52
**KBZ Khabaz 75.39 312** P **P 00 10 22.3 +0.2**
comp=Z,0.6nm,0.7s,baz=93,slow=1.9,SNR=5.0
**F04A Amboy 75.87 45** *e*P **P 00 10 25.3 +0.5**
comp=Z,19nm,1.0s
**FINES FINESS Array B 75.91 333** P **P 00 10 23.9 -0.7**
comp=Z,5.7nm,0.4s,baz=69,slow=5.0,SNR=76
**B08A Colville Reser 76.68 42** *e*P **P 00 10 29.5 +0.3**
comp=Z,5.2nm,0.8s
**NEW Newport 78.03 42** *e*P **P 00 10 37.2 +0.7**
comp=Z,6.1nm,0.9s
**E09A Wood Farm, Sta 78.25 43** *e*P **P 00 10 38.6 +0.9**
comp=Z,10nm,1.2s
**G08A Pilot Rock 78.33 45** *e*P **P 00 10 39.0 +0.7**
comp=Z,3.3nm,0.9s
**I07A Izee 78.55 46** *e*P **P 00 10 40.5 +1.0**
comp=Z,4.1nm,0.8s
**MOD Modoc Plateau 79.04 48** *e*P **P 00 10 43.0 +0.7**
comp=Z,4.7nm,0.8s
**ORV Oroville 79.32 51** *e*P **P 00 10 43.8 +0.2**
comp=Z,6.6nm,0.7s
**J08A Circle Bar Ran 79.55 46** *e*P **P 00 10 45.7 +0.8**
comp=Z,10nm,0.8s
**BMO Blue Mountains 79.56 45** *e*P **P 00 10 45.4 +0.5**
comp=Z,7.6nm,1.1s
**WVOR Wild Horse Val 79.89 47** *e*P **P 00 10 47.5 +0.8**
comp=Z,4.0nm,0.8s
**JTMT Jette 79.94 41** *e*P **P 00 10 47.8 +0.9**
comp=Z,9.3nm,1.0s
**BEKR Beckworth 79.96 50** *e*P **P 00 10 47.6 +0.5**
comp=Z,11nm,0.7s
**AKASG Malin Array Be 80.26 323** P **P 00 10 47.5 -0.7**
comp=Z,0.4nm,0.3s,baz=46,slow=6.8,SNR=4.7
**PAHR Pah Rah Range 80.69 50** *e*P **P 00 10 51.5 +0.5**
comp=Z,5.8nm,0.9s
**PNTR Pine Nut 80.84 51** *e*P **P 00 10 52.7 +0.9**
comp=Z,7.1nm,0.7s
**YERR Yerington 81.14 51** *e*P **P 00 10 54.0 +0.7**
comp=Z,19nm,1.6s
**MFID Camas Ranch 81.20 45** *e*P **P 00 10 54.2 +0.7**
comp=Z,5.2nm,0.6s
**NB2 NORSAR Subarra 81.73 337** P **P 00 10 54.4 -1.3**
comp=Z,2.4nm,0.7s,baz=51,slow=4.6
**NOA NORSAR Array B 81.73 337** P **P 00 10 54.6 -1.1**
comp=Z,2.7nm,0.6s,baz=47,slow=4.9,SNR=6.5
**MDPB Devils Postpil 81.90 52** *e*P **P 00 10 57.5 +0.2**
MDPB *e*pP **pP 00 12 52.7 +0.6**
**HRY Holter Researc 81.91 41** *e*P **P 00 10 57.6 +0.6**
**HLID Hailey 82.01 45** *e*P **P 00 10 57.7 0.0**
comp=Z,4.8nm,1.0s
**LRM Limekiln Ridge 82.02 42** *e*P **P 00 10 58.6 +0.8**
**DLMT Dillon 82.18 43** *e*P **P 00 10 59.5 +1.1**
comp=Z,12nm,1.3s
**EGMT Eagleton 82.37 39** *e*P **P 00 11 00.2 +0.9**
comp=Z,10nm,0.8s
**BOZ Bozeman (W) 82.62 42** *e*P **P 00 11 01.4 +0.6**
comp=Z,3.0nm,0.8s
**YHB Horse Butte 83.34 42** *e*P **P 00 11 05.0 +0.6**
comp=Z,11nm,0.4s
**BRTR Keskin Array B 83.38 312** P **P 00 11 03.9 -0.7**
comp=Z,0.8nm,0.7s,baz=108,slow=3.5,SNR=6.4
**YNR Norris Junctio 83.67 42** *e*P **P 00 11 07.0 +0.9**
comp=Z,8.0nm,0.8s
**BR231 Keskin MP Arra 83.89 312** *e*P **P 00 11 04.3 -2.8**
**IMW Indian Meadow 83.96 43** *e*P **P 00 11 07.9 +0.3**
comp=Z,4.2nm,0.8s
**FXWY Fox Creek 84.05 43** *e*P **P 00 11 08.0 0.0**
comp=Z,4.0nm,1.3s
**TPNV Topopah Spring 84.20 51** *e*P **P 00 11 09.2 +0.5**
comp=Z,5.4nm,0.8s
**PASC Pasadena Art C 84.23 54** *e*P **P 00 11 08.5 -0.3**
PASC *e*pP **pP 00 13 06.3 +2.0**
**RLMT Red Lodge 84.28 41** *e*P **P 00 11 09.8 +0.8**
comp=Z,5.7nm,0.6s
**GSC Goldstone, Bar 84.65 53** *e*P **P 00 11 11.2 +0.3**
comp=Z,7.3nm,1.0s
**DUG Dugway, Tooele 84.80 47** *e*P **P 00 11 12.4 +0.8**
comp=Z,4.6nm,1.0s
**PDAR Pinedale Array 85.43 43** P **P 00 11 14.6 -0.1**
comp=Z,1.2nm,0.9s,baz=264,slow=1.5,SNR=6.2
**P17A Butcher Ranch, 86.53 47** *e*P **P 00 11 20.9 +1.0**
comp=Z,25nm,0.6s
**SRU San Rafael Swe 86.87 47** *e*P **P 00 11 22.9 +1.3**
comp=Z,13nm,0.8s
**PV10 Paradox Valley 88.24 47** *e*P **P 00 11 29.2 +1.1**
**CONA Conrad Observa 88.87 326** *e*P **P 00 11 28.8 -1.8**
comp=Z,7.2nm,1.3s
**SMCO Snowmass 89.09 45** *e*P **P 00 11 32.4 +0.2**
comp=Z,7.2nm,1.5s
**GERES GERESS Array B 89.30 327** P **P 00 11 31.2 -1.3**
comp=Z,1.4nm,0.9s,baz=346,slow=4.8,SNR=4.5
**MOA Molln 89.71 326** PcP **P 00 11 34.2 -0.2**
comp=Z,8.5nm,1.5s
**SOKA Soboth 90.14 325** P **P 00 11 33.8 -2.7**
comp=Z,8.2nm,1.5s
**OBKA Obir 90.50 325** P **P 00 11 34.6 -3.6**
comp=Z,8.5nm,1.2s
**KBA Koelnbreinsper 90.70 326** P **P 00 11 36.9 -2.3**
comp=Z,1.8nm,0.5s
**SDCO Great Sand Dun 90.87 46** *e*P **P 00 11 41.0 +0.6**
comp=Z,2.7nm,0.8s
**MOTA Moosalm 91.59 328** PcP **P 00 11 44.0 +0.7**
comp=Z,5.9nm,1.2s
**MHTCO State Highway 91.76 46** *e*P **P 00 11 45.5 +1.1**
comp=Z,4.9nm,1.0s
**ANMO Albuquerque 91.92 48** *e*P **P 00 11 45.9 +0.8**
comp=Z,3.6nm,0.9s
**FETA Feichten 92.00 328** PcP **P 00 11 45.7 +0.5**
comp=Z,7.4nm,1.4s
**TXAR Lajitas Array 97.18 52** P **P 00 12 08.9 -0.1**
comp=Z,0.5nm,0.7s,baz=304,slow=2.7,SNR=6.3
**TORD Torodi Ar. Bea 121.92 309** PKP **PKPdf 00 17 26.3 -1.3**
comp=Z,0.6nm,0.5s,baz=47,slow=1.1,SNR=10
**DBIC Dimbokro 131.03 309** SKPbc **SKPbc 00 20 18.9 -1.2**
comp=Z,1.9nm,0.5s,baz=30,slow=1.5,SNR=7.1
**SNAA Sanae 131.58 195** SKPbc **SKPbc 00 20 18.3 -2.0**
comp=Z,1.7nm,1.0s,baz=189,slow=3.9,SNR=6.3
**LPAZ La Paz 152.24 71** PKPbc **PKPbc 00 18 29.7 -0.3**
comp=Z,1.2nm,0.5s,baz=351,slow=1.5,SNR=7.1
**PLCA Paso Flores 152.55 125** PKPbc **PKPbc 00 18 29.1 -0.3**
comp=Z,3.1nm,0.6s,baz=265,slow=3.8,SNR=14

---

*ISCJB **04** 00:06:26.2±0.6, 67°.18N±0°.03×20°.73E±0°.08, h0km, Error ellipse: s-maj=4.8km s-min=4.4km az=21.6*
*HEL **04** 00:06:26.6±0.6, 67°.11N×20°.31E, h0km, ML1.1, Explosion*
*UPP **04** 00:06:27.1±0.1, 67°.18N×20°.64E, h0km, ML2.7*
**ISC 04 00:06:27.4**±1.0**, 67°.17N**±0°.04×**20°.67E**±0°.04**, h0km, n12, σ0s.77**/15**, Sweden**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DUNU** | **Dundret** | **0.07** | **216** | P | **Pg** | **00 06 28.6** | **0.0** |
| DUNU | | | | S | **Sg** | **00 06 29.6** | **+0.2** |
| **MASU** | **Masugnsbyn** | **0.59** | **61** | P | **Pg** | **00 06 38.5** | **-0.2** |
| **RATU** | **Laukkuluspa** | **0.77** | **328** | P | **Pg** | **00 06 41.4** | **-0.8** |
| **ERTU** | **Ertsjaerv** | **0.87** | **135** | P | **Pg** | **00 06 43.1** | **-0.8** |
| **PAJU** | **Pajala** | **0.97** | **98** | P | **Pg** | **00 06 45.3** | **-0.7** |
| **HEF** | **Hetta** | **1.68** | **41** | MSG | | 00 07 21.0 | |
| | comp=Z,1.0nm,0.2s | | | | | | |
| HEF | | | | SG | **Sb** | **00 07 21.9** | **+1.0** |
| **SJUU** | **Sjulsmark** | **1.72** | **167** | P | **Pn** | **00 06 58.3** | **-0.2** |
| **TOF** | **Tornio** | **1.83** | **125** | PG | **Pn** | **00 07 00.6** | **+0.6** |
| TOF | | | | SG | **Sb** | **00 07 25.6** | **+0.6** |
| **KIF** | **Kilpisjarvi** | **1.84** | **2** | PG | **Pb** | **00 07 01.7** | **-0.2** |
| | baz=193 | | | | | | |
| KIF | | | | MSG | | 00 07 24.6 | |
| | comp=Z,0.8nm,0.2s | | | | | | |
| KIF | | | | SG | **Sg** | **00 07 26.7** | **+0.3** |
| **RNF** | **Rovaniemi** | **2.18** | **103** | SG | **Sg** | **00 07 38.5** | **+1.0** |
| **SGF** | **Sodankyl** | **2.29** | **81** | SB | **Sb** | **00 07 38.5** | **+0.2** |
| **KU6** | **Riekki** | **3.86** | **103** | PG | **Pg** | **00 07 39.7** | **-1.5** |

---

**IDC 04 00:13:08.6**±4.5**, 7°.86S**×**104°.27E, h0km, mb3.7**/5**, mb1 4.0**/6**, mb1mx3.6**/37**, mbtmp3.8**/6**, ML3.7**/1**, Error ellipse: s-maj=177.6km s-min=25.8km az=50.0, Southwest of Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PSI** | **Prapat** | **11.85** | **333** | Pn | Pn | 00 15 56.7 | -2.5 |
| | 0.5nm,0.3s,baz=135,slow=14,SNR=5.3 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **26.67** | **349** | P | P | 00 18 48.8 | -0.7 |
| | 1.4nm,0.5s,baz=185,slow=8.9,SNR=9.1 | | | | | | |
| **H08S2** | **Diego Garcia H** | **31.48** | **268** | T | T | 00 53 06.7 | |
| | baz=97 | | | | | | |
| **H08S3** | **Diego Garcia H** | **31.50** | **268** | T | T | 00 53 03.8 | |
| | baz=97 | | | | | | |
| **WRA** | **Warramunga Arr** | **31.50** | **116** | P | P | 00 19 31.7 | -0.8 |
| | 0.4nm,0.7s,baz=287,slow=10,SNR=5.3 | | | | | | |
| **H08S1** | **Diego Carcia H** | **31.50** | **268** | T | T | 00 53 08.4 | |
| | baz=97 | | | | | | |
| **SONM** | **Songino Array** | **55.48** | **2** | P | P | 00 22 45.9 | +0.5 |
| | 0.3nm,0.4s,baz=187,slow=8.4,SNR=2.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **57.82** | **342** | P | P | 00 23 02.0 | +0.1 |
| | 0.3nm,0.6s,baz=130,slow=8.6,SNR=4.9 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **63.72** | **347** | P | P | 00 23 41.8 | -0.2 |
| | 1.1nm,0.4s,baz=156,slow=5.4,SNR=7.4 | | | | | | |
| **TXAR** | **Lajitas Array** | **146.14** | **47** | PKPbc | PKPab | 00 32 52.1 | -0.2 |
| | 0.5nm,0.7s,baz=327,slow=3.1,SNR=3.9 | | | | | | |

---

*ISCJB **04** 00:38:11.8±0.6, 10°.43N±0°.05×63°.69W±0°.07, h10km, mb3.5/3, MS3.0/1, Error ellipse: s-maj=10.2km s-min=7.2km az=19.0*
*IDC **04** 00:38:13.0±1.2, 10°.53N×63°.73W, h0km, mb3.4/3, mb1 3.8/5, mb1mx3.5/33, mbtmp3.7/5, ML3.5/2, MS3.1/2, Ms1 3.1/2, ms1mx2.6/21, Error ellipse: s-maj=30.4km s-min=11.0km az=155.0*
**ISC 04 00:38:13.8**±0.8**, 10°.57N**±0°.07×**63°.78W**±0°.09**, h10km, n15, σ2s.18**/14**, mb3.6**/3**, Near coast of Venezuela**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PCRV** | **Puerto La Cruz** | **0.93** | **245** | Pg | **Pg** | **00 38 30.1** | **-1.5** |
| | 119nm,0.3s,baz=64,slow=5.8,SNR=555 | | | | | | |
| PCRV | | | | Lg | Lg | 00 38 43.7 | |
| | 209nm,0.3s,baz=338,slow=19,SNR=20 | | | | | | |
| **MVM** | **Montagne Vaucl** | **4.86** | **35** | *e*P | **Pn** | **00 39 27.8** | **+0.7** |
| **FDF** | **Fort de France** | **4.87** | **32** | *e*P | **Pn** | **00 39 27.8** | **+0.5** |
| **PML** | **Morne Lenard** | **4.90** | **31** | *e*P | **Pn** | **00 39 28.2** | **+0.7** |
| **PCM** | **Pelee Case Pet** | **4.91** | **30** | *e*P | **Pn** | **00 39 28.3** | **+0.5** |
| **PCM** | **Pelee Case Pet** | **4.91** | **30** | *e*P | **Pn** | **00 39 28.4** | **+0.6** |
| **BAMF** | **Morne Balai** | **4.94** | **31** | *e*P | **Pn** | **00 39 29.0** | **+0.8** |
| **SDV** | **Santo Domingo** | **6.96** | **257** | Pn | **Pn** | **00 39 58.8** | **+2.8** |
| | 1.7nm,0.3s,baz=103,slow=11,SNR=7.1 | | | | | | |
| **SJG** | **San Juan** | **7.84** | **343** | Sn | **Sn** | **00 41 31.5** | **-5.4** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| | 0.7nm,0.3s,baz=80,slow=17,SNR=3.0 | | | | | | |
| **PTGA** | **Pitinga** | **11.85** | **161** | Pn | **Pn** | **00 41 02.4** | **-0.6** |
| | 1.7nm,0.3s,baz=348,slow=19,SNR=14 | | | | | | |
| PTGA | | | | Sn | **Sn** | **00 43 12.6** | **-2.7** |
| | 0.6nm,0.3s,baz=282,slow=23,SNR=4.7 | | | | | | |
| PTGA | | | | Lg | Lg | 00 44 19.0 | |
| | 1.0nm,0.3s,baz=250,slow=22,SNR=5.6 | | | | | | |
| **ROSC** | **El Rosal** | **11.89** | **242** | LR | LR | 00 45 50.3 | |
| | comp=Z,95nm,20.6s,baz=7.5,slow=38 | | | | | | |
| **CMIG** | **Matias Romero** | **30.86** | **286** | LR | LR | 00 59 03.4 | |
| | comp=Z,30nm,18.2s,baz=49,slow=40 | | | | | | |
| **PDAR** | **Pinedale Array** | **51.08** | **317** | P | **P** | **00 47 17.2** | **+0.4** |
| | 0.2nm,0.6s,baz=108,slow=8.9,SNR=2.4 | | | | | | |
| **YKA** | **Yellowknife Ar** | **63.27** | **336** | P | **P** | **00 48 44.0** | **+1.5** |
| | 0.3nm,0.6s,baz=112,slow=7.4,SNR=3.9 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **63.98** | **80** | P | **P** | **00 48 48.7** | **+0.7** |
| | 0.3nm,0.4s,baz=287,slow=7.0,SNR=9.4 | | | | | | |

**IDC 04 00:40:27.6**±2.1**, 6°.72S**×**128°.70E, h0**km**, mb3.8**/1**, mb1 3.7**/3**, mb1mx3.4**/32**, mbtmp3.5**/3**, ML3.3**/2**, Error ellipse: s-maj=137.9km s-min=31.2km az=67.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **14.24** | **158** | Pn | Pn | 00 43 50.0 | -0.8 |
| | 0.1nm,0.3s,baz=336,slow=13,SNR=5.3 | | | | | | |
| WRA | | | | Sn | Sn | 00 46 16.4 | -13 |
| | 0.2nm,0.3s,baz=337,slow=23,SNR=5.9 | | | | | | |
| **ASAR** | **Alice Springs** | **17.58** | **164** | P | Pn | 00 44 34.8 | +0.5 |
| | 0.3nm,0.3s,baz=340,slow=9.9,SNR=15 | | | | | | |
| ASAR | | | | S | Sn | 00 47 42.0 | -8.8 |
| | 0.1nm,0.3s,baz=327,slow=15,SNR=2.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.29** | **327** | P | P | 00 51 24.3 | 0.0 |
| | 0.4nm,0.4s,baz=110,slow=7.6,SNR=6.8 | | | | | | |

**IDC 04 00:47:12.1**±2.9**, 8°.24S**×**118°.98E, h0**km**, mb3.4**/2**, mb1 3.6**/3**, mb1mx3.3**/28**, mbtmp3.4**/3**, ML3.7**/1**, Error ellipse: s-maj=258.3km s-min=27.7km az=51.0, Sumbawa region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **18.88** | **130** | P | P | 00 51 33.6 | -0.6 |
| | 0.2nm,0.3s,baz=303,slow=12,SNR=19 | | | | | | |
| **ASAR** | **Alice Springs** | **20.97** | **139** | P | P | 00 51 57.5 | +0.5 |
| | 0.8nm,0.4s,baz=313,slow=9.3,SNR=13 | | | | | | |
| **MKAR** | **Makanchi Array** | **63.78** | **333** | P | P | 00 57 46.0 | -0.1 |
| | 0.6nm,0.9s,baz=158,slow=8.0,SNR=4.1 | | | | | | |

*ISCJB **04** 00:47:50.5±0.9, 26°.44N±0°.05×111°.60W±0°.09, h10km, mb3.1/1, MS3.0/1, Error ellipse: s-maj=12.0km s-min=6.1km az=158.8*
*IDC **04** 00:47:51.6±2.1, 26°.34N×111°.50W, h0km, mb3.4/1, mb1 3.6/4, mb1mx3.4/34, mbtmp3.2/4, ML3.5/3, MS3.0/2, Ms1 3.0/2, ms1mx2.6/18, Error ellipse: s-maj=43.7km s-min=22.3km az=70.0*
*MEX **04** 00:47:52.2±0.3, 26°.34N×111°.72W, h8km±36km, MD4.0*
**ISC 04 00:47:51.9**±1.1**, 26°.46N**±0°.06×**111°.7W**±0°.1**, h10**km**, n7,** σ**2ˢ.19**/9**, Gulf of California**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SRIG** | **Santa Rosalia** | **1.00** | **328** | *e*P | **Pg** | **00 48 09.8** | **-1.5** |
| SRIG | | | | *i* S | **Sg** | **00 48 23.5** | **-0.8** |
| **GUYB** | **Guaymas** | **1.59** | **26** | *e*P | **Pn** | **00 48 18.9** | **-1.2** |
| GUYB | | | | *i* S | **Sb** | **00 48 40.0** | **-1.5** |
| **LPIG** | **La Paz** | **2.64** | **152** | Pn | **Pn** | **00 48 33.7** | **-0.9** |
| | 23nm,0.3s,baz=12,slow=3.2,SNR=5.5 | | | | | | |
| LPIG | | | | Sn | **Sn** | **00 49 05.5** | **-1.3** |
| | 30nm,0.3s,baz=316,slow=18,SNR=10 | | | | | | |
| **TXAR** | **Lajitas Array** | **7.62** | **66** | Pn | **Pn** | **00 49 43.0** | **-0.1** |
| | 0.0nm,0.3s,baz=244,slow=12,SNR=2.3 | | | | | | |
| TXAR | | | | LR | LR | 00 52 51.5 | |
| | comp=Z,97nm,21.3s,baz=0.0,slow=40 | | | | | | |
| **PDAR** | **Pinedale Array** | **16.36** | **5** | Pn | **P** | **00 51 48.9** | **+4.1** |
| | 0.0nm,0.3s,baz=163,slow=6.6,SNR=4.3 | | | | | | |
| **TKL** | **Tuckaleechee C** | **25.51** | **62** | LR | LR | 01 03 04.5 | |
| | comp=Z,43nm,20.5s,baz=350,slow=36 | | | | | | |
| **ILAR** | **Eielson Array** | **44.42** | **339** | P | **P** | **00 56 04.2** | **+1.6** |
| | 0.4nm,0.9s,baz=159,slow=7.7,SNR=4.1 | | | | | | |

**NNC 04 00:54:28.3**±7.2**, 37°.12N**×**71°.38E, h0**km**, mb3.7, mpv3.4, 6C-4D, Error ellipse: s-maj=59.6km s-min=23.3km az=168.0, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZET** | **Dzherino** | **2.63** | **311** | ⇑Pn | Pn | 00 55 11.3 | -0.8 |
| | 4.5nm,0.4s | | | | | | |
| DZET | | | | ⇑Sn | Sb | 00 55 47.4 | -1.9 |
| | 36nm,0.4s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **3.34** | **29** | ⇓Pn | Pn | 00 55 22.8 | +0.8 |
| | 2.1nm,0.2s | | | | | | |
| SFK | | | | ⇓Sn | Sn | 00 56 05.9 | +3.5 |
| | 9.4nm,0.2s | | | | | | |
| **MNAS** | **Manas** | **5.43** | **9** | ⇑Pn | Pn | 00 55 49.2 | -1.5 |
| | 2.1nm,0.4s | | | | | | |
| MNAS | | | | ⇑Sn | Sn | 00 56 52.6 | -1.4 |
| | 8.1nm,0.6s | | | | | | |
| **AAK** | **Ala-Archa** | **6.01** | **23** | ⇓Pn | Pn | 00 55 57.1 | -1.6 |
| | 1.5nm,0.3s | | | | | | |
| AAK | | | | ⇑Sn | Sn | 00 57 07.1 | -1.1 |
| | 5.6nm,1.4s | | | | | | |
| **KK31** | **Karatay Array** | **6.02** | **354** | ⇑Pn | Pn | 00 55 56.4 | -2.2 |
| | 1.7nm,0.3s,baz=176,slow=12,SNR=75 | | | | | | |
| KK31 | | | | ⇓Sn | Sn | 00 57 06.5 | -1.7 |
| | 1.5nm,0.4s,baz=185,slow=22,SNR=7.6 | | | | | | |

**WEL 04 00:59:10.8**±0.3**, 37°.41S**×**179°.78E, h12**km**, ML3.6**/9**, 1D, Error ellipse: s-maj=3.2km s-min=3.1km az=90.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WMGZ** | **Waiomatatini S** | **1.16** | **249** | P* | Pb | 00 59 32.0 | -0.8 |
| WMGZ | | | | S* | Sb | 00 59 47.7 | -0.1 |
| WMGZ | | | | AML | AML | 00 59 48.2 | |
| **MXZ** | **Matakaoa Point** | **1.19** | **262** | ⇓P* | Pn | 00 59 32.1 | -1.1 |
| MXZ | | | | S* | Sb | 00 59 47.9 | -0.6 |
| MXZ | | | | AML | AML | 00 59 49.2 | |
| **PUZ** | **Puketiti** | **1.38** | **241** | PN | Pn | 00 59 34.7 | -1.2 |
| PUZ | | | | SN | Sn | 00 59 52.2 | -1.9 |
| PUZ | | | | AML | AML | 00 59 52.5 | |
| **PKGZ** | **Pakihiroa** | **1.44** | **250** | PN | Pn | 00 59 35.4 | -1.3 |
| PKGZ | | | | SN | Sn | 00 59 54.5 | -1.1 |
| PKGZ | | | | AML | AML | 00 59 55.0 | |
| **TWGZ** | **Tauwhareparae** | **1.62** | **241** | PN | Pn | 00 59 38.6 | -0.7 |
| TWGZ | | | | SN | Sn | 00 59 58.5 | -1.6 |
| TWGZ | | | | AML | AML | 00 59 59.7 | |
| **HAZ** | **Te Kaha** | **1.63** | **257** | PN | Pn | 00 59 38.7 | -0.6 |
| HAZ | | | | SN | Sn | 00 59 59.4 | -0.8 |
| HAZ | | | | AML | AML | 01 00 01.0 | |
| **CNGZ** | **Carnagh Statio** | **1.64** | **229** | PN | Pn | 00 59 38.6 | -0.9 |
| CNGZ | | | | SN | Sn | 01 00 00.7 | +0.1 |
| **MWZ** | **Matawai** | **2.01** | **242** | PN | Pn | 00 59 43.4 | -1.2 |
| MWZ | | | | SN | Sn | 01 00 06.8 | -2.9 |
| MWZ | | | | AML | AML | 01 00 07.6 | |
| **RIGZ** | **Rimuhau** | **2.05** | **230** | PN | Pn | 00 59 43.8 | -1.4 |
| RIGZ | | | | SN | Sn | 01 00 08.3 | -2.5 |
| RIGZ | | | | AML | AML | 01 00 10.3 | |
| **MHGZ** | **Mahia Peninsul** | **2.28** | **220** | PN | Pn | 00 59 46.8 | -1.5 |
| MHGZ | | | | SN | Sn | 01 00 13.8 | -2.5 |
| **KNZ** | **Kokohu** | **2.31** | **225** | PN | Pn | 00 59 46.5 | -2.2 |
| **MTHZ** | **Maungataniwha** | **2.73** | **237** | PN | Pn | 00 59 53.2 | -1.4 |
| **ARHZ** | **Aropaoanui** | **2.87** | **229** | PN | Pn | 00 59 55.2 | -1.2 |
| **MCHZ** | **McNeill Hill** | **3.16** | **229** | PN | Pn | 00 59 59.0 | -1.4 |
| **KAHZ** | **Kahuranaki** | **3.29** | **223** | PN | Pn | 00 59 57.6 | -4.7 |
| **KWHZ** | **Kaweka Forest** | **3.32** | **232** | PN | Pn | 01 00 00.5 | -2.1 |
| KWHZ | | | | AML | AML | 01 00 39.6 | |
| KWHZ | | | | AML | AML | 01 00 43.4 | |
| **PXZ** | **Pawanui** | **3.47** | **220** | PN | Pn | 01 00 02.1 | -2.6 |
| **KRHZ** | **Kereru** | **3.48** | **229** | PN | Pn | 01 00 02.9 | -1.9 |
| **BHHZ** | **Black Hill Sta** | **3.58** | **233** | PN | Pn | 01 00 04.4 | -1.9 |
| **PRHZ** | **Porangahau** | **3.77** | **220** | PN | Pn | 01 00 05.1 | -3.6 |
| **DVHZ** | **Dannevirke** | **4.04** | **223** | PN | Pn | 01 00 09.1 | -3.3 |
| **BFZ** | **Birch Farm** | **4.27** | **219** | PN | Pn | 01 00 11.0 | -4.7 |

**MEX 04 00:59:37.8**±0.3**, 26°.26N**×**111°.80W, h5**km**, MD3.8, Gulf of California**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SRIG** | **Santa Rosalia** | **1.13** | **340** | *e*P | Pg | 00 59 56.4 | -3.1 |
| SRIG | | | | *i* S | Sg | 01 00 10.9 | -3.3 |
| **GUYB** | **Guaymas** | **1.83** | **27** | *e*P | Pn | 01 00 06.5 | -3.5 |
| GUYB | | | | *e*S | Sn | 01 00 29.0 | -4.6 |
| **HSIG** | | **2.85** | **15** | *e*P | Pn | 01 00 20.9 | -3.2 |

*IDC **04** 01:05:12.4±2.6, 37°.38N×75°.65E, h0km, mb3.3/1, mb1 3.2/4, mb1mx3.0/60, mbtmp3.2/4, ML2.9/3, Error ellipse: s-maj=55.1km s-min=25.4km az=111.0*
*NNC **04** 01:05:13.4±4.8, 36°.29N×73°.74E, h0km, mb3.7, mpv3.3, Error ellipse: s-maj=71.0km s-min=34.0km az=87.0*
**ISC 04 01:05:13.9**±1.7**, 37°.55N**±0°.10×**76°.0E**±0°.1**, h10**km**, n10,** σ**3ˢ.77**/11**, 5C-3D, Tajikistan-Xinjiang border region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KSH** | **Kashi** | **1.97** | **0** | Pg | **Pn** | **01 05 45.4** | **-2.1** |
| KSH | | | | Sg | **Sn** | **01 06 06.8** | **-5.5** |
| KSH | | | | smax | smax | | |
| | comp=N,73nm,0.4s | | | | | | |
| KSH | | | | smax | smax | | |
| | comp=E,46nm,0.3s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **3.13** | **323** | ⇑Pn | **Pg** | **01 06 12.2** | **-1.6** |
| | comp=E,5.1nm,0.6s | | | | | | |
| SFK | | | | ⇑Sn | **Sg** | **01 06 58.3** | **+3.9** |
| | comp=E,19nm,0.5s | | | | | | |
| **AAK** | **Ala-Archa** | **5.21** | **348** | Pn | Pn | 01 06 38.9 | +6.8 |
| | comp=E,0.7nm,0.3s,baz=159,slow=6.2,SNR=10 | | | | | | |
| AAK | | | | Lg | Lg | 01 07 59.8 | |
| | comp=E,0.8nm,0.3s,baz=104,slow=4.2,SNR=4.1 | | | | | | |
| **AAK** | **Ala-Archa** | **5.21** | **348** | ⇑Pn | **Pg** | **01 06 50.1** | **-3.6** |
| | comp=E,5.5nm,1.4s | | | | | | |
| AAK | | | | ⇓Sn | **Sg** | **01 08 03.3** | **+2.2** |
| | comp=E,12nm,1.2s | | | | | | |
| **MNAS** | **Manas** | **5.61** | **333** | ⇓Pn | Pb | 01 06 45.4 | -6.5 |
| | comp=E,3.3nm,1.0s | | | | | | |
| MNAS | | | | ⇑Sn | **Sb** | **01 08 01.0** | **+1.8** |
| | comp=E,3.9nm,0.9s | | | | | | |
| **KK31** | **Karatay Array** | **6.94** | **325** | ⇓Pn | Pn | 01 07 01.1 | +5.4 |
| | comp=E,0.3nm,0.3s,baz=133,slow=12,SNR=15 | | | | | | |
| KK31 | | | | ⇑Sn | Sn | 01 08 24.4 | +10 |
| | comp=E,0.9nm,0.5s,baz=142,slow=24,SNR=3.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **10.36** | **25** | Pn | **Pn** | **01 07 46.9** | **+4.3** |
| | comp=E,0.1nm,0.3s,baz=204,slow=13,SNR=4.5 | | | | | | |
| **BVAR** | **Borovoye Array** | **15.96** | **348** | Pn | **P** | **01 09 06.1** | **+4.1** |
| | comp=E,0.1nm,0.3s,baz=160,slow=10.0,SNR=6.7 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **17.51** | **18** | P | **P** | **01 09 20.7** | **+1.6** |
| | comp=E,0.1nm,0.3s,baz=202,slow=11,SNR=2.4 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **69.69** | **271** | P | **P** | **01 16 22.5** | **-1.7** |
| | comp=E,0.1nm,0.4s,baz=42,slow=6.2,SNR=4.8 | | | | | | |

*IDC **04** 01:28:45.9±1.0, 9°.31S×124°.04E, h0km, mb3.9/2, mb1 4.2/5, mb1mx3.8/42, mbtmp4.0/5, ML4.3/3, Error ellipse: s-maj=112.8km s-min=23.4km az=64.0*
*ISCJB **04** 01:28:52.5±0.7, 10°.09S±0°.06×123°.54E±0°.07, h66km, mb3.8/3, Error ellipse: s-maj=11.1km s-min=6.7km az=149.9*
*NEIC **04** 01:28:55.6±0.8, 9°.80S×123°.63E, h72km±8km, mb4.1/2, Error ellipse: s-maj=23.1km s-min=10.1km az=48.0*
**ISC 04 01:28:54.3**±0.7**, 10°.00S**±0°.08×**123°.7E**±0°.1**, h66**km**, n15,** σ**2ˢ.57**/19**, mb3.8**/3**, Timor region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SOEI** | **Soe** | **0.62** | **67** | *e*Pn | **Pn** | **01 29 10.2** | **+1.9** |
| SOEI | | | | *e*Sn | **Sn** | **01 29 19.5** | **+1.1** |
| **MMRI** | **Maumere** | **1.97** | **313** | *e*Pn | **Pn** | **01 29 24.1** | **-1.5** |
| **KAPI** | **Kappang** | **6.30** | **321** | *e*Pn | **Pn** | **01 30 25.0** | **+0.2** |
| **FITZ** | **Fitzroy Crossi** | **8.28** | **167** | Pn | **Pn** | **01 30 55.2** | **+3.5** |
| | 1.2nm,0.3s,baz=357,slow=11,SNR=10 | | | | | | |
| FITZ | | | | Sn | **Sn** | **01 32 24.1** | **+0.3** |
| | 4.9nm,0.3s,baz=288,slow=20,SNR=21 | | | | | | |
| **WRA** | **Warramunga Arr** | **14.26** | **135** | Pn | **Pn** | **01 32 12.7** | **-0.5** |
| | 1.7nm,0.3s,baz=313,slow=15,SNR=18 | | | | | | |
| WRA | | | | Sn | **Sn** | **01 34 43.8** | **-6.2** |
| | 2.6nm,0.3s,baz=317,slow=24,SNR=12 | | | | | | |
| **WRAB** | **Tennant Creek** | **14.26** | **135** | *e*Pn | **Pn** | **01 32 12.7** | **-0.5** |
| **ASAR** | **Alice Springs** | **16.73** | **146** | P | **P** | **01 32 47.1** | **+1.2** |
| | 1.4nm,0.3s,baz=318,slow=11,SNR=62 | | | | | | |
| ASAR | | | | S | **Sn** | **01 35 45.5** | **-4.3** |
| | 0.8nm,0.3s,baz=317,slow=22,SNR=10 | | | | | | |
| **COEN** | **Coen** | **19.46** | **104** | *e*P | **Pn** | **01 33 18.5** | **+0.8** |
| | 6.5nm,0.8s | | | | | | |
| **MKAR** | **Makanchi Array** | **67.52** | **331** | P | **P** | **01 39 41.7** | **-1.8** |
| | 0.7nm,0.6s,baz=129,slow=6.7,SNR=5.2 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **71.69** | **337** | P | **P** | **01 40 06.1** | **-2.9** |
| | 0.6nm,0.5s,baz=131,slow=4.4,SNR=3.4 | | | | | | |
| **RAYN** | **Ar Rayn** | **83.30** | **295** | *e*P | **P** | **01 41 13.9** | **-0.7** |
| | 4.6nm,1.2s | | | | | | |
| **SNAA** | **Sanae** | **91.25** | **195** | *e*P | **P** | **01 41 54.8** | **+2.6** |
| **TORD** | **Torodi Ar. Bea** | **123.19** | **279** | PKP | **PKPdf** | **01 47 46.0** | **+1.4** |
| | 0.8nm,0.5s,baz=71,slow=1.7,SNR=13 | | | | | | |
| **CPUP** | **Villa Florida** | **143.88** | **178** | PKP | **PKPdf** | **01 48 23.7** | **+0.7** |
| | 1.0nm,0.6s,baz=231,slow=5.2,SNR=3.6 | | | | | | |
| **LPAZ** | **La Paz** | **151.38** | **156** | PKPbc | **PKPbc** | **01 48 44.7** | **+2.3** |
| | 0.7nm,0.8s,baz=207,slow=2.3,SNR=3.1 | | | | | | |

**DJA 04 01:37:50.9**±1.1**, 8°S**±6°×**10°7E**±°**, h15**km±6km**, M3.6**/7**, MLv3.6**/7**, Jawa**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CISI** | **Cisompet, Garu** | **0.77** | **44** | P | Pb | 01 38 06.5 | +0.5 |
| CISI | | | | S | Sb | 01 38 16.7 | +0.5 |
| **CNJI** | **Cibinong** | **0.81** | **349** | P | Pb | 01 38 07.0 | +0.3 |
| CNJI | | | | S | Sb | 01 38 18.0 | +0.6 |
| **SKJI** | **Sukabumi** | **1.31** | **327** | P | Pn | 01 38 14.1 | -0.6 |
| SKJI | | | | S | Sb | 01 38 30.7 | -1.2 |
| **DBJI** | **Dramaga** | **1.63** | **341** | P | Pn | 01 38 19.4 | +0.3 |
| **KPJI** | **Karang Pucung** | **1.81** | **65** | P | Pn | 01 38 21.6 | +0.1 |
| **UGM** | **Wanagama** | **3.22** | **87** | P | Pn | 01 38 40.4 | -0.6 |

*NIED **04** 01:38:00, 33°.50N×139°.70E, h145km, Mw4.0 Best double couple: M₀1.00000×10¹⁵ NP1:ϕs273.00000°, δ20.00000°, λ61.00000°. NP2:ϕs123.00000°, δ72.00000°, λ100.00000°.*
*ISCJB **04** 01:38:20.8±0.5, 33°.46N±0°.05×139°.69E±0°.08, h150km, mb3.8/11, Error ellipse: s-maj=9.6km s-min=6.3km az=155.9*
*IDC **04** 01:38:21.4±0.4, 33°.42N×139°.57E, h138km±3km, mb3.6/11, mb1 3.8/13, mb1mx3.5/36, mbtmp4.0/13, Error ellipse: s-maj=17.9km s-min=9.5km az=70.0*
*JMA **04** 01:38:22.1±0.2, 33°.53N×139°.75E, h139km±2km, M3.5*
**ISC 04 01:38:22.4**±0.7**, 33°.47N**±0°.06×**139°.70E**±0°.07**, h150**km**, n35,** σ**1ˢ.24**/33**, mb3.8**/11**, Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JHJ** | **Hachijo jima 2** | **0.35** | **169** | P | **Pn** | **01 38 41.5** | **-1.6** |
| | 225nm,0.3s,baz=76,slow=21,SNR=20 | | | | | | |
| JHJ | | | | S | **Sn** | **01 38 56.8** | **-2.1** |
| | 150nm,0.3s,baz=30,slow=20,SNR=9.7 | | | | | | |
| **JHJ2** | **Mitsune** | **0.37** | **165** | P | **Pn** | **01 38 41.9** | **-1.3** |
| **JIM2** | **Oshima 3** | **1.27** | **350** | P | **Pn** | **01 38 48.2** | **-1.5** |
| **JIZS** | **Izushimoda** | **1.42** | **332** | P | **Pn** | **01 38 49.9** | **-1.3** |
| **BSO3** | **Boso 3** | **1.49** | **26** | P | **Pn** | **01 38 50.6** | **-1.0** |
| **BSO1** | **Boso 1** | **1.59** | **41** | P | **Pn** | **01 38 51.4** | **-0.9** |
| **TK02** | **Tokai 2** | **1.69** | **287** | P | **Pn** | **01 38 53.3** | **-0.5** |
| **TK04** | **Tokai 4** | **1.77** | **302** | P | **Pn** | **01 38 54.3** | **-0.5** |
| **JOD2** | **Odawara 2** | **1.86** | **344** | P | **Pn** | **01 38 54.7** | **-1.3** |
| JOD2 | | | | S | **Sn** | **01 39 20.7** | **-1.1** |
| **SHZ3** | **Shizuoka 3** | **2.02** | **323** | P | **Pn** | **01 38 57.2** | **-0.6** |
| SHZ3 | | | | *e*S | **Sn** | **01 39 24.6** | **-0.4** |
| **JYN** | **Shimob** | **2.24** | **335** | P | **Pn** | **01 38 59.8** | **-0.6** |
| **TTO2** | **TONANKAI O.B.S** | **2.25** | **278** | P | **Pn** | **01 38 59.7** | **-0.5** |
| **MJAR** | **Matsushiro Arr** | **3.30** | **339** | P | **Pn** | **01 39 12.4** | **-1.2** |
| | 5.1nm,0.3s,baz=163,slow=11,SNR=36 | | | | | | |
| MJAR | | | | S | **Sn** | **01 39 50.6** | **-2.8** |
| | 4.1nm,0.3s,baz=129,slow=13,SNR=4.5 | | | | | | |
| **MAT** | **Matsushiro** | **3.31** | **339** | P | **Pn** | **01 39 12.5** | **-1.2** |
| MAT | | | | *e*S | **Sn** | **01 39 51.4** | **-2.0** |
| **JNU** | **Nakatsue** | **7.40** | **270** | P | **Pn** | **01 40 07.3** | **-0.5** |
| | 0.3nm,0.3s,baz=106,slow=7.4,SNR=3.0 | | | | | | |
| **ASAJ** | **Asahikawa** | **10.87** | **11** | P | Pn | 01 40 48.4 | -5.4 |
| | 1.9nm,0.3s,baz=237,slow=12,SNR=13 | | | | | | |
| ASAJ | | | | S | Sn | 01 42 42.3 | -12 |
| | 0.5nm,0.3s,baz=162,slow=20,SNR=3.0 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **27.80** | **113** | T | T | 02 13 10.4 | |
| | baz=311,slow=74,SNR=17 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **27.80** | **113** | T | T | 02 13 03.6 | |
| | baz=311,slow=74,SNR=9.3 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **27.82** | **113** | T | T | 02 13 06.0 | |
| | baz=311 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.36** | **115** | T | T | 02 13 53.7 | |
| | baz=307 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.36** | **115** | T | T | 02 13 50.9 | |
| | baz=307 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.38** | **115** | T | T | 02 13 50.9 | |
| | baz=307 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **43.37** | **315** | PcP | **PcP** | **01 47 56.5** | **+1.1** |
| | 0.3nm,0.3s,baz=166,slow=2.6,SNR=2.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.92** | **305** | P | **P** | **01 46 21.3** | **-0.8** |
| | 0.3nm,0.6s,baz=83,slow=9.5,SNR=3.9 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **47.17** | **310** | P | **P** | **01 46 40.0** | **+0.4** |
| | 0.3nm,0.3s,baz=87,slow=7.4,SNR=6.4 | | | | | | |
| **KDAK** | **Kodiak Island** | **50.71** | **40** | P | **P** | **01 47 07.6** | **+1.3** |
| | 25nm,1.1s,baz=293,slow=7.7,SNR=4.4 | | | | | | |
| **ILAR** | **Eielson Array** | **53.26** | **31** | P | **P** | **01 47 25.9** | **+0.7** |
| | 0.5nm,0.8s,baz=286,slow=5.6,SNR=4.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **53.35** | **186** | P | **P** | **01 47 25.6** | **-0.7** |
| | 1.5nm,0.3s,baz=1.2,slow=7.8,SNR=90 | | | | | | |
| **INK** | **Inuvik** | **58.20** | **26** | P | **P** | **01 48 01.2** | **+0.9** |
| | 0.5nm,0.7s,baz=294,slow=6.1,SNR=3.2 | | | | | | |
| **STKA** | **Stephens Creek** | **65.02** | **178** | P | **P** | **01 48 45.0** | **-1.3** |
| | 1.8nm,0.6s,baz=2.2,slow=9.7,SNR=3.9 | | | | | | |
| **FINES** | **FINESS Array B** | **71.31** | **332** | P | **P** | **01 49 25.3** | **0.0** |
| | 11nm,1.1s,baz=76,slow=5.9,SNR=3.6 | | | | | | |
| **NOA** | **NORSAR Array B** | **76.92** | **337** | P | **P** | **01 49 59.0** | **+1.2** |
| | 2.0nm,1.0s,baz=42,slow=8.5,SNR=2.5 | | | | | | |
| **PDAR** | **Pinedale Array** | **81.18** | **44** | P | **P** | **01 50 22.9** | **+1.2** |
| | 0.3nm,0.7s,baz=225,slow=6.1,SNR=3.7 | | | | | | |
| **TXAR** | **Lajitas Array** | **93.42** | **51** | P | **P** | **01 51 22.2** | **+1.1** |
| | 0.7nm,0.8s,baz=316,slow=3.5,SNR=4.8 | | | | | | |
| **LPAZ** | **La Paz** | **149.64** | **63** | PKPbc | **PKPbc** | **01 57 56.5** | **+1.0** |
| | 1.3nm,0.9s,baz=338,slow=9.6,SNR=5.2 | | | | | | |

*IDC **04** 01:40:39.7±2.1, 24°.51S×179°.94W, h489km±22km, mb3.6/10, mb1 3.7/12, mb1mx3.5/26, mbtmp4.5/12, Error ellipse: s-maj=21.3km s-min=18.3km az=140.0*
**ISC 04 01:40:40.7**±0.7**, 24°.59S**±0°.09×**179°.8W**±0°.1**, h505**km**, n16,** σ**1ˢ.17**/21**, mb3.9**/9**, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **12.85** | **279** | P | **P** | **01 43 30.0** | **+1.6** |
| | 0.4nm,0.3s,baz=83,slow=16,SNR=8.5 | | | | | | |
| **AFI** | **Afiamalu** | **13.07** | **37** | P | **P** | **01 43 28.2** | **-2.6** |
| | 4.5nm,0.3s,baz=232,slow=12,SNR=4.0 | | | | | | |
| AFI | | | | S | **S** | **01 45 52.4** | **+1.5** |
| | 4.4nm,0.3s,baz=78,slow=7.7,SNR=2.8 | | | | | | |
| **URZ** | **Urewera** | **13.87** | **190** | P | **P** | **01 43 38.8** | **+0.1** |
| | 0.8nm,0.3s,baz=29,slow=13,SNR=4.7 | | | | | | |
| URZ | | | | S | **S** | **01 46 04.9** | **-0.7** |
| | 0.2nm,0.3s,baz=24,slow=20,SNR=3.0 | | | | | | |
| **RPZ** | **Rata Peaks** | **20.48** | **199** | P | **P** | **01 44 43.8** | **+0.5** |
| | 7.0nm,0.6s,baz=17,slow=3.7,SNR=2.4 | | | | | | |
| **CTA** | **Charters Tower** | **31.63** | **271** | P | **P** | **01 46 22.1** | **+0.1** |
| | 15nm,0.5s,baz=94,slow=11,SNR=21 | | | | | | |
| **STKA** | **Stephens Creek** | **34.60** | **249** | P | **P** | **01 46 47.0** | **0.0** |
| | 3.4nm,0.8s,baz=80,slow=10,SNR=5.3 | | | | | | |
| **PMG** | **Port Moresby** | **34.86** | **290** | P | **P** | **01 46 48.4** | **-0.9** |
| | 13nm,0.9s,baz=158,slow=17,SNR=3.7 | | | | | | |
| **ASAR** | **Alice Springs** | **42.07** | **261** | P | **P** | **01 47 47.4** | **-0.6** |
| | 2.5nm,0.8s,baz=99,slow=8.0,SNR=23 | | | | | | |
| ASAR | | | | PcP | **PcP** | **01 49 31.2** | **0.0** |
| | 0.7nm,0.9s,baz=101,slow=4.8,SNR=4.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **42.51** | **267** | P | **P** | **01 47 50.3** | **-1.1** |
| | 6.9nm,0.5s,baz=100,slow=8.3,SNR=48 | | | | | | |
| WRA | | | | PcP | **PcP** | **01 49 32.1** | **-0.7** |
| | 0.6nm,0.8s,baz=105,slow=6.8,SNR=3.3 | | | | | | |
| WRA | | | | ScP | **ScP** | **01 52 37.0** | **+1.7** |
| | 2.5nm,0.9s,baz=100,slow=3.8,SNR=16 | | | | | | |
| **KSRS** | **Korea Array** | **78.87** | **320** | P | **P** | **01 51 52.1** | **+0.9** |
| | 0.9nm,0.6s,baz=140,slow=6.4,SNR=3.2 | | | | | | |
| **PETK** | **Petropavlovsk-** | **79.81** | **346** | P | **P** | **01 51 55.7** | **0.0** |
| | 1.3nm,0.6s,baz=110,slow=3.5,SNR=3.7 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **89.90** | **290** | P | **P** | **01 52 44.7** | **-1.3** |
| | 1.4nm,0.3s,baz=107,slow=3.0,SNR=3.3 | | | | | | |
| **TXAR** | **Lajitas Array** | **90.68** | **58** | P | **P** | **01 52 51.5** | **+2.0** |
| | 0.2nm,0.4s,baz=216,slow=5.9,SNR=5.0 | | | | | | |
| **AKASG** | **Malin Array Be** | **145.63** | **327** | PKPbc | **PKPdf** | **01 59 20.9** | **+0.1** |
| | 0.9nm,0.4s,baz=48,slow=4.3,SNR=7.1 | | | | | | |
| **BRTR** | **Keskin Array B** | **148.11** | **306** | PKPbc | **PKPbc** | **01 59 29.2** | **-0.3** |
| | 0.9nm,0.6s,baz=152,slow=5.5,SNR=6.8 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **168.52** | **188** | PKPab | **PKPab** | **02 01 03.2** | **+0.5** |
| | 0.5nm,0.8s,baz=188,slow=4.8,SNR=4.9 | | | | | | |

*ISCJB **04** 02:29:29.7±0.8, 67°.57N±0°.03×33°.5E±0°.1, h0km, mb3.1/1, Error ellipse: s-maj=6.5km s-min=4.9km az=173.9*
*HEL **04** 02:29:30.0±0.5, 67°.63N×34°.04E, h0km, ML2.3, Explosion*
*IDC **04** 02:29:31.9±1.7, 67°.70N×34°.03E, h0km, mb2.9/1, mb1 3.5/5, mb1mx3.1/46, mbtmp3.4/5, ML2.8/4, Error ellipse: s-maj=18.9km s-min=11.0km az=75.0*
*CSEM **04** 02:29:32.6±1.1, 67°.57N×33°.32E, h1km, ML2.3, Error ellipse: s-maj=21.1km s-min=12.4km az=85.0, Mining explosion.*
*NAO **04** 02:29:34.8±2.5, 67°.68N×33°.16E, ML2.7*
**ISC 04 02:29:31.5**±1.4**, 67°.61N**±0°.04×**33°.60E**±0°.07**, h0**km**, n33,** σ**1ˢ.23**/57**, Baltic States-Belarus-Northwestern Russia**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VRF** | **Varrio** | **1.53** | **277** | PG | **Pn** | **02 30 00.2** | **+0.2** |
| | baz=94 | | | | | | |
| VRF | | | | MSG | | 02 30 20.5 | |
| | comp=Z,43nm,0.2s | | | | | | |
| VRF | | | | SG | **Sg** | **02 30 20.6** | **0.0** |
| **KU6** | **Riekki** | **2.17** | **224** | PG | **Pn** | **02 30 10.9** | **+2.1** |
| | baz=46 | | | | | | |
| KU6 | | | | MSG | | 02 30 38.1 | |
| | comp=Z,11nm,0.2s | | | | | | |
| KU6 | | | | SG | **Sg** | **02 30 41.8** | **+0.8** |
| **MSF** | **Maaselka** | **2.49** | **229** | Pg | **Pn** | **02 30 15.8** | **+2.6** |
| MSF | | | | Sg | **Sg** | **02 30 51.0** | **-0.3** |
| **MSF** | **Maaselka** | **2.49** | **229** | PG | **Pn** | **02 30 15.8** | **+2.6** |
| MSF | | | | SG | **Sg** | **02 30 51.0** | **-0.3** |
| **SGF** | **Sodankyl** | **2.72** | **270** | Pb | **Pn** | **02 30 17.7** | **+1.3** |
| SGF | | | | Sg | **Sb** | **02 30 56.4** | **+1.5** |
| **SGF** | **Sodankyl** | **2.72** | **270** | PB | **Pn** | **02 30 17.7** | **+1.3** |
| | baz=83 | | | | | | |
| SGF | | | | SG | **Sb** | **02 30 56.4** | **+1.5** |
| **RNF** | **Rovaniemi** | **3.13** | **255** | Pg | **Pb** | **02 30 26.8** | **-1.2** |
| RNF | | | | Sb | **Sb** | **02 31 05.4** | **-1.2** |
| **RNF** | **Rovaniemi** | **3.13** | **255** | PG | **Pb** | **02 30 26.8** | **-1.2** |
| | baz=67 | | | | | | |
| RNF | | | | SB | **Sb** | **02 31 05.4** | **-1.2** |
| **ARA0** | **ARCESS Array S** | **3.54** | **307** | Pn | **Pn** | **02 30 28.0** | **+0.3** |
| | baz=122,slow=14 | | | | | | |
| ARA0 | | | | Sn | **Sn** | **02 31 09.4** | **-0.8** |
| | baz=121,slow=28 | | | | | | |
| ARA0 | | | | Lg | Lg | 02 31 19.4 | |
| | baz=118,slow=37 | | | | | | |
| **ARA0** | **ARCESS Array S** | **3.54** | **307** | Pn | **Pn** | **02 30 28.0** | **+0.3** |
| | baz=122,slow=14 | | | | | | |
| ARA0 | | | | Sn | **Sn** | **02 31 09.4** | **-0.8** |
| | baz=121,slow=28 | | | | | | |
| ARA0 | | | | Lg | Lg | 02 31 19.4 | |
| | baz=118,slow=37 | | | | | | |
| **ARA0** | **ARCESS Array S** | **3.54** | **307** | Pn | **Pn** | **02 30 28.0** | **+0.3** |
| | SNR=50 | | | | | | |
| ARA0 | | | | Sn | **Sn** | **02 31 09.4** | **-0.8** |
| | SNR=50 | | | | | | |
| ARA0 | | | | Lg | Lg | 02 31 19.5 | |
| | SNR=2.6 | | | | | | |
| **ARCES** | **ARCESS Array B** | **3.54** | **307** | Pn | **Pn** | **02 30 28.4** | **+0.7** |
| | comp=Z,2.6nm,0.3s,baz=122,slow=15,SNR=120 | | | | | | |
| ARCES | | | | Pg | **Pb** | **02 30 36.8** | **+1.9** |
| | comp=Z,2.3nm,0.3s,baz=122,slow=15,SNR=14 | | | | | | |
| ARCES | | | | Sn | **Sn** | **02 31 10.0** | **-0.2** |
| | comp=Z,2.5nm,0.3s,baz=122,slow=25,SNR=10 | | | | | | |
| ARCES | | | | Lg | Lg | 02 31 20.0 | |
| | comp=Z,7.0nm,0.3s,baz=116,slow=32,SNR=16 | | | | | | |
| **ARE0** | **ARCESS Array S** | **3.54** | **307** | Pn | **Pn** | **02 30 28.0** | **+0.3** |
| ARE0 | | | | Sn | **Sn** | **02 31 09.5** | **-0.7** |
| **ARE0** | **ARCESS Array S** | **3.54** | **307** | PN | **Pn** | **02 30 28.0** | **+0.3** |
| ARE0 | | | | SN | **Sn** | **02 31 09.5** | **-0.7** |
| **HEF** | **Hetta** | **3.82** | **287** | Pn | **Pn** | **02 30 32.0** | **+0.5** |
| HEF | | | | Sn | **Sn** | **02 31 17.9** | **+0.8** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HEF** | **Hetta** | **3.82** | **287** | PN | **Pn** | **02 30 32.0** | **+0.5** |
| HEF | | | | SN | **Sn** | **02 31 17.9** | **+0.8** |
| **TOF** | **Tornio** | **3.97** | **252** | PG | **Pb** | **02 30 43.5** | **+1.2** |
| **OUL** | **Oulu** | **4.01** | **234** | Pn | **Pn** | **02 30 35.9** | **+1.9** |
| **OUL** | **Oulu** | **4.01** | **234** | PN | **Pn** | **02 30 36.0** | **+1.9** |
| **LANU** | **Lannavaara** | **4.42** | **281** | Pn | **Pn** | **02 30 39.9** | **+0.1** |
| LANU | | | | Sn | **Sn** | **02 31 31.8** | **-0.1** |
| **LANU** | **Lannavaara** | **4.42** | **281** | PN | **Pn** | **02 30 39.9** | **+0.1** |
| LANU | | | | SN | **Sn** | **02 31 31.8** | **-0.1** |
| **KALU** | **Kalix** | **4.43** | **251** | Sn | **Sn** | **02 31 32.2** | **+0.3** |
| **KALU** | **Kalix** | **4.43** | **251** | SN | **Sn** | **02 31 32.2** | **+0.3** |
| **FIA0** | **FINESS Array S** | **6.99** | **211** | Pn | **Pn** | **02 31 15.6** | **+0.7** |
| | baz=26,slow=16 | | | | | | |
| FIA0 | | | | Sn | **Sn** | **02 32 34.3** | **-0.6** |
| | baz=24,slow=28 | | | | | | |
| FIA0 | | | | Lg | Lg | 02 33 08.7 | |
| | baz=29,slow=28 | | | | | | |
| **FIA0** | **FINESS Array S** | **6.99** | **211** | Pn | **Pn** | **02 31 15.6** | **+0.7** |
| | baz=26,slow=16 | | | | | | |
| FIA0 | | | | Sn | **Sn** | **02 32 34.3** | **-0.6** |
| | baz=24,slow=28 | | | | | | |
| FIA0 | | | | Lg | Lg | 02 33 08.7 | |
| | baz=29,slow=28 | | | | | | |
| **FIA0** | **FINESS Array S** | **6.99** | **211** | Pn | **Pn** | **02 31 15.6** | **+0.7** |
| | SNR=50 | | | | | | |
| FIA0 | | | | Sn | **Sn** | **02 32 34.3** | **-0.6** |
| | SNR=50 | | | | | | |
| **FINES** | **FINESS Array B** | **6.99** | **211** | Pn | **Pn** | **02 31 14.7** | **-0.2** |
| | comp=Z,0.1nm,0.3s,baz=18,slow=15,SNR=5.1 | | | | | | |
| FINES | | | | Sn | **Sn** | **02 32 33.4** | **-1.6** |
| | comp=Z,0.2nm,0.3s,baz=22,slow=22,SNR=3.3 | | | | | | |
| FINES | | | | Lg | Lg | 02 33 05.5 | |
| | comp=Z,0.9nm,0.3s,baz=34,slow=26,SNR=8.2 | | | | | | |
| **HFS** | **Hagfors** | **11.49** | **239** | Pn | **Pn** | **02 32 14.7** | **-1.8** |
| | baz=40,slow=12 | | | | | | |
| **HFS** | **Hagfors** | **11.49** | **239** | Pn | **Pn** | **02 32 15.0** | **-1.5** |
| | comp=Z,0.1nm,0.3s,baz=42,slow=12,SNR=3.5 | | | | | | |
| HFS | | | | Sn | **Sn** | **02 34 21.8** | **-3.6** |
| | comp=Z,0.1nm,0.3s,baz=64,slow=18,SNR=2.9 | | | | | | |
| HFS | | | | Lg | Lg | 02 35 28.3 | |
| | comp=Z,0.2nm,0.3s,baz=52,slow=28,SNR=3.2 | | | | | | |
| **HFS** | **Hagfors** | **11.49** | **239** | Pn | **Pn** | **02 32 14.7** | **-1.8** |
| | baz=40,slow=12 | | | | | | |
| **HFS** | **Hagfors** | **11.49** | **239** | Pn | **Pn** | **02 32 14.7** | **-1.8** |
| | SNR=50 | | | | | | |
| **NOA** | **NORSAR Array B** | **11.67** | **246** | Pn | **Pn** | **02 32 19.6** | **+0.5** |
| | comp=Z,0.1nm,0.3s,baz=44,slow=11,SNR=2.6 | | | | | | |
| **BVAR** | **Borovoye Array** | **22.86** | **111** | P | **P** | **02 34 35.6** | **-0.4** |
| | comp=Z,0.2nm,0.3s,baz=329,slow=8.8,SNR=2.5 | | | | | | |

---

*CSEM **04** 02:40:21.4±0.2, 50.°41N×4.°71W, h8km, ML2.9/8, Error ellipse: s-maj=3.7km s-min=2.7km az=82.0*
*BGS **04** 02:40:21.6±0.8, 50.°48N×4.°87W, h3km±6km, ML2.2*
*LDG **04** 02:40:22.2±0.1, 50.°42N×4.°83W, h3km, Ml2.9/24, Error ellipse: s-maj=2.5km s-min=2.0km az=146.0*
**ISC 04 02:40:21.1**±1.0**, 50.°42N**±0.°02×**4.°76W**±0.°03**, h17**km±4km**, n81, σ1.§62**/131**, 6C, United Kingdom**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SBD** | **Saint Breward** | **0.15** | **18** | eP | **Pg** | **02 40 24.9** | **-0.4** |
| SBD | | | | eS | **Sg** | **02 40 26.9** | **-1.2** |
| | 1µm,0.2s | | | | | | |
| **CCA1** | **Carnmenellis** | **0.38** | **232** | ⇑iP | **Pg** | **02 40 29.4** | **+0.4** |
| CCA1 | | | | AML | AML | 02 40 29.5 | |
| | comp=N,283nm,0.1s | | | | | | |
| CCA1 | | | | AML | AML | 02 40 29.5 | |
| | comp=E,235nm,0.1s | | | | | | |
| CCA1 | | | | eS | **Sg** | **02 40 34.2** | **-0.1** |
| **CCA1** | **Carnmenellis** | **0.38** | **232** | ⇑iP | **Pg** | **02 40 29.4** | **+0.4** |
| CCA1 | | | | AML | AML | 02 40 29.5 | |
| | comp=N,283nm,0.1s | | | | | | |
| CCA1 | | | | AML | AML | 02 40 29.5 | |
| | comp=E,235nm,0.1s | | | | | | |
| CCA1 | | | | eS | **Sg** | **02 40 34.2** | **-0.1** |
| **CCA1** | **Carnmenellis** | **0.38** | **232** | ⇑iP | **Pg** | **02 40 29.4** | **+0.4** |
| | comp=E,235nm,0.1s | | | | | | |
| CCA1 | | | | eS | **Sg** | **02 40 34.2** | **-0.1** |
| **DYA** | **Yadsworthy** | **0.53** | **88** | eP | **Pb** | **02 40 33.6** | **+1.6** |
| DYA | | | | eS | **Sb** | **02 40 41.4** | **+2.1** |
| DYA | | | | AML | AML | 02 40 42.0 | |
| | comp=E,109nm,0.1s | | | | | | |
| DYA | | | | AML | AML | 02 40 42.2 | |
| | comp=N,140nm,0.1s | | | | | | |
| **DYA** | **Yadsworthy** | **0.53** | **88** | eP | **Pb** | **02 40 33.6** | **+1.6** |
| DYA | | | | eS | **Sb** | **02 40 41.4** | **+2.1** |
| DYA | | | | AML | AML | 02 40 42.0 | |
| | comp=E,109nm,0.1s | | | | | | |
| DYA | | | | AML | AML | 02 40 42.2 | |
| | comp=N,140nm,0.1s | | | | | | |
| **HTL** | **Hartland** | **0.60** | **17** | ⇑iP | **Pg** | **02 40 32.7** | **-0.3** |
| HTL | | | | eS | **Sg** | **02 40 40.2** | **-0.8** |
| HTL | | | | AML | AML | 02 40 40.4 | |
| | comp=E,71nm,0.4s | | | | | | |
| HTL | | | | AML | AML | 02 40 40.6 | |
| | comp=N,77nm,0.4s | | | | | | |
| **HTL** | **Hartland** | **0.60** | **17** | ⇑iP | **Pg** | **02 40 32.7** | **-0.3** |
| HTL | | | | eS | **Sg** | **02 40 40.2** | **-0.8** |
| HTL | | | | AML | AML | 02 40 40.4 | |
| | comp=E,71nm,0.4s | | | | | | |
| HTL | | | | AML | AML | 02 40 40.6 | |
| | comp=N,77nm,0.4s | | | | | | |
| **HTL** | **Hartland** | **0.60** | **17** | ⇑iP | **Pg** | **02 40 32.7** | **-0.3** |
| HTL | | | | eS | **Sg** | **02 40 40.2** | **-0.8** |
| | comp=N,77nm,0.4s | | | | | | |
| **HEX** | **Exmoor** | **0.89** | **43** | eP | **Pb** | **02 40 38.8** | **+0.8** |
| **HEX** | **Exmoor** | **0.89** | **43** | eP | **Pb** | **02 40 38.8** | **+0.8** |
| **HEX** | **Exmoor** | **0.89** | **43** | eP | **Pb** | **02 40 38.8** | **+0.8** |
| **HGH** | **Gray Hill** | **1.73** | **45** | eP | **Pn** | **02 40 51.1** | **+0.7** |
| **HGH** | **Gray Hill** | **1.73** | **45** | eP | **Pn** | **02 40 51.1** | **+0.7** |
| **HGH** | **Gray Hill** | **1.73** | **45** | eP | **Pn** | **02 40 51.1** | **+0.7** |
| **ROSF** | **Rostrenen** | **2.30** | **154** | ePn | **Pn** | **02 40 59.4** | **+1.2** |
| | SNR=1.0 | | | | | | |
| **ROSF** | **Rostrenen** | **2.30** | **154** | ePg | **Pg** | **02 41 05.1** | **-0.2** |
| ROSF | | | | eSn | **Sn** | **02 41 26.6** | **+0.5** |
| | SNR=1.0 | | | | | | |
| ROSF | | | | eSg | **Sg** | **02 41 34.8** | **-0.3** |
| | comp=N,9.1nm,0.2s,SNR=1.0 | | | | | | |
| **ROSF** | **Rostrenen** | **2.30** | **154** | ePn | **Pn** | **02 40 59.4** | **+1.2** |
| | SNR=1.0 | | | | | | |
| **ROSF** | **Rostrenen** | **2.30** | **154** | ePg | **Pg** | **02 41 05.1** | **-0.2** |
| ROSF | | | | eSn | **Sn** | **02 41 26.6** | **+0.5** |
| | SNR=1.0 | | | | | | |
| ROSF | | | | eSg | **Sg** | **02 41 34.8** | **-0.3** |
| | comp=N,4.6nm,0.2s,SNR=1.0 | | | | | | |
| **SGMF** | **Saint Gilles** | **2.60** | **146** | ePn | **Pn** | **02 41 04.0** | **+1.6** |
| | SNR=1.0 | | | | | | |
| **SGMF** | **Saint Gilles** | **2.60** | **146** | ePg | **Pg** | **02 41 11.2** | **+0.2** |
| | SNR=1.0 | | | | | | |
| SGMF | | | | eSn | **Sn** | **02 41 34.1** | **+0.5** |
| SGMF | | | | eSg | **Sg** | **02 41 45.0** | **+0.2** |
| | comp=N,6.5nm,0.3s,SNR=1.0 | | | | | | |
| **SGMF** | **Saint Gilles** | **2.60** | **146** | ePn | **Pn** | **02 41 04.0** | **+1.6** |
| | SNR=1.0 | | | | | | |
| **SGMF** | **Saint Gilles** | **2.60** | **146** | ePg | **Pg** | **02 41 11.2** | **+0.2** |
| | SNR=1.0 | | | | | | |
| SGMF | | | | eSn | **Sn** | **02 41 34.1** | **+0.5** |
| SGMF | | | | eSg | **Sg** | **02 41 45.0** | **+0.2** |
| | comp=N,3.2nm,0.3s,SNR=1.0 | | | | | | |
| **QUIF** | **Quistinic** | **2.72** | **157** | ePn | **Pn** | **02 41 05.7** | **+1.8** |
| | SNR=1.0 | | | | | | |
| **QUIF** | **Quistinic** | **2.72** | **157** | ePg | **Pg** | **02 41 13.1** | **-0.1** |
| QUIF | | | | eSn | **Sn** | **02 41 36.3** | **0.0** |
| | SNR=1.0 | | | | | | |
| QUIF | | | | eSg | **Sg** | **02 41 47.9** | **-0.5** |
| | comp=N,14nm,0.3s,SNR=1.0 | | | | | | |
| **QUIF** | **Quistinic** | **2.72** | **157** | ePn | **Pn** | **02 41 05.7** | **+1.8** |
| | SNR=1.0 | | | | | | |
| **QUIF** | **Quistinic** | **2.72** | **157** | ePg | **Pg** | **02 41 13.1** | **-0.1** |
| QUIF | | | | eSn | **Sn** | **02 41 36.3** | **0.0** |
| | SNR=1.0 | | | | | | |
| QUIF | | | | eSg | **Sg** | **02 41 47.9** | **-0.5** |
| | comp=N,6.8nm,0.3s,SNR=1.0 | | | | | | |
| **FLN** | **La Foliniere** | **3.24** | **119** | ePn | **Pn** | **02 41 12.8** | **+1.7** |
| | baz=300,SNR=1.0 | | | | | | |
| **FLN** | **La Foliniere** | **3.24** | **119** | ePg | **Pg** | **02 41 22.9** | **-0.3** |
| | baz=297 | | | | | | |
| FLN | | | | eSn | **Sn** | **02 41 49.6** | **+0.3** |
| FLN | | | | eSg | **Sg** | **02 42 05.8** | **+0.7** |
| | comp=N,10nm,0.3s | | | | | | |
| **FLN** | **La Foliniere** | **3.24** | **119** | ePn | **Pn** | **02 41 12.8** | **+1.7** |
| | SNR=1.0 | | | | | | |
| **FLN** | **La Foliniere** | **3.24** | **119** | ePg | **Pg** | **02 41 22.9** | **-0.3** |
| FLN | | | | eSn | **Sn** | **02 41 49.6** | **+0.3** |
| FLN | | | | eSg | **Sg** | **02 42 05.8** | **+0.7** |
| | comp=N,5.1nm,0.3s | | | | | | |
| **GRR** | **Gorron** | **3.26** | **127** | ePn | **Pn** | **02 41 12.7** | **+1.3** |
| | SNR=1.0 | | | | | | |
| **GRR** | **Gorron** | **3.26** | **127** | ePg | **Pg** | **02 41 23.2** | **-0.4** |
| GRR | | | | eSn | **Sn** | **02 41 49.6** | **-0.2** |
| | SNR=1.0 | | | | | | |
| GRR | | | | eSg | **Sg** | **02 42 05.9** | **+0.1** |
| | comp=N,6.2nm,0.2s,SNR=1.0 | | | | | | |
| **GRR** | **Gorron** | **3.26** | **127** | ePn | **Pn** | **02 41 12.7** | **+1.3** |
| | SNR=1.0 | | | | | | |
| **GRR** | **Gorron** | **3.26** | **127** | ePg | **Pg** | **02 41 23.2** | **-0.4** |
| GRR | | | | eSn | **Sn** | **02 41 49.6** | **-0.2** |
| | SNR=1.0 | | | | | | |
| GRR | | | | eSg | **Sg** | **02 42 05.9** | **+0.1** |
| | comp=N,3.1nm,0.2s,SNR=1.0 | | | | | | |
| **LDF** | **La Druitiere** | **3.53** | **119** | ePn | **Pn** | **02 41 17.1** | **+1.9** |
| | SNR=1.0 | | | | | | |
| **LDF** | **La Druitiere** | **3.53** | **119** | ePg | **Pg** | **02 41 27.9** | **-0.9** |
| LDF | | | | eSn | **Sn** | **02 41 57.1** | **+0.6** |
| LDF | | | | eSg | **Sg** | **02 42 14.1** | **-0.4** |
| | comp=N,3.5nm,0.3s | | | | | | |
| **LDF** | **La Druitiere** | **3.53** | **119** | ePn | **Pn** | **02 41 17.1** | **+1.9** |
| | SNR=1.0 | | | | | | |
| **LDF** | **La Druitiere** | **3.53** | **119** | ePg | **Pg** | **02 41 27.9** | **-0.9** |
| LDF | | | | eSn | **Sn** | **02 41 57.1** | **+0.6** |
| LDF | | | | eSg | **Sg** | **02 42 14.1** | **-0.4** |
| | comp=N,1.8nm,0.3s | | | | | | |
| **MFF** | **Saint Martin d** | **4.90** | **140** | ePn | **Pn** | **02 41 35.3** | **+1.4** |
| | SNR=1.0 | | | | | | |
| **MFF** | **Saint Martin d** | **4.90** | **140** | ePg | **Pg** | **02 41 53.5** | **-1.4** |
| MFF | | | | eSn | **Sn** | **02 42 27.0** | **-3.2** |
| | SNR=1.0 | | | | | | |
| MFF | | | | eSg | **Sg** | **02 42 56.4** | **-1.9** |
| | comp=N,7.2nm,0.7s,SNR=1.0 | | | | | | |
| **MFF** | **Saint Martin d** | **4.90** | **140** | ePn | **Pn** | **02 41 35.3** | **+1.4** |
| | SNR=1.0 | | | | | | |
| **MFF** | **Saint Martin d** | **4.90** | **140** | ePg | **Pg** | **02 41 53.5** | **-1.4** |
| MFF | | | | eSn | **Sn** | **02 42 27.0** | **-3.2** |
| | SNR=1.0 | | | | | | |
| MFF | | | | eSg | **Sg** | **02 42 56.4** | **-1.9** |
| | comp=N,3.6nm,0.7s,SNR=1.0 | | | | | | |
| **BAIF** | **Baives** | **5.76** | **90** | ePn | **Pn** | **02 41 47.2** | **+1.4** |
| | SNR=1.0 | | | | | | |
| BAIF | | | | eSn | **Sn** | **02 42 49.6** | **-1.9** |
| | comp=N,0.9nm,0.2s,SNR=1.0 | | | | | | |
| **BAIF** | **Baives** | **5.76** | **90** | ePn | **Pn** | **02 41 47.2** | **+1.4** |
| | SNR=1.0 | | | | | | |
| **GIVF** | **Givet** | **6.15** | **89** | eSn | **Sn** | **02 43 00.6** | **-0.5** |
| | comp=N,3.1nm,0.3s,SNR=1.0 | | | | | | |
| **GIVF** | **Givet** | **6.15** | **89** | eSn | **Sn** | **02 43 00.6** | **-0.5** |
| | comp=N,1.5nm,0.3s,SNR=1.0 | | | | | | |
| **TCF** | **Toulx Ste Croi** | **6.22** | **129** | ePn | **Pn** | **02 41 53.1** | **+1.0** |
| TCF | | | | eSn | **Sn** | **02 43 00.6** | **-2.1** |
| | comp=N,0.8nm,0.1s,SNR=1.0 | | | | | | |
| **TCF** | **Toulx Ste Croi** | **6.22** | **129** | ePn | **Pn** | **02 41 53.1** | **+1.0** |
| **BGF** | **Bois d'Agland** | **6.36** | **125** | ePn | **Pn** | **02 41 55.0** | **+1.0** |
| | SNR=1.0 | | | | | | |
| **BGF** | **Bois d'Agland** | **6.36** | **125** | ePn | **Pn** | **02 41 55.0** | **+1.0** |
| | SNR=1.0 | | | | | | |
| **SSF** | **Saint Saulge** | **6.42** | **118** | ePn | **Pn** | **02 41 55.9** | **+1.1** |
| | SNR=1.0 | | | | | | |
| SSF | | | | eSn | **Sn** | **02 43 05.1** | **-2.5** |
| | comp=N,0.7nm,0.2s,SNR=1.0 | | | | | | |
| **SSF** | **Saint Saulge** | **6.42** | **118** | ePn | **Pn** | **02 41 55.9** | **+1.1** |
| | SNR=1.0 | | | | | | |
| **AVF** | **Avril sur Loir** | **6.49** | **121** | ePn | **Pn** | **02 41 56.4** | **+0.6** |
| | SNR=1.0 | | | | | | |
| AVF | | | | eSn | **Sn** | **02 43 07.3** | **-2.1** |
| | comp=N,0.4nm,0.2s | | | | | | |
| **AVF** | **Avril sur Loir** | **6.49** | **121** | ePn | **Pn** | **02 41 56.4** | **+0.6** |
| | SNR=1.0 | | | | | | |
| **LOR** | **Lormes** | **6.50** | **116** | ePn | **Pn** | **02 41 55.9** | **-0.1** |
| | SNR=1.0 | | | | | | |
| LOR | | | | eSn | **Sn** | **02 43 07.9** | **-1.8** |
| | comp=N,1.4nm,0.3s | | | | | | |
| **LOR** | **Lormes** | **6.50** | **116** | ePn | **Pn** | **02 41 55.9** | **-0.1** |
| | SNR=1.0 | | | | | | |
| **LFF** | **La Frestale** | **6.62** | **144** | ePn | **Pn** | **02 41 58.4** | **+0.8** |
| | SNR=1.0 | | | | | | |
| LFF | | | | eSn | **Sn** | **02 43 09.7** | **-2.9** |
| **LFF** | **La Frestale** | **6.62** | **144** | ePn | **Pn** | **02 41 58.4** | **+0.8** |
| | SNR=1.0 | | | | | | |
| **RJF** | **Les Rejaudoux** | **6.63** | **138** | ePn | **Pn** | **02 41 58.9** | **+1.1** |
| | SNR=1.0 | | | | | | |
| RJF | | | | eSn | **Sn** | **02 43 09.6** | **-3.3** |
| | comp=N,0.8nm,0.2s | | | | | | |
| **RJF** | **Les Rejaudoux** | **6.63** | **138** | ePn | **Pn** | **02 41 58.9** | **+1.1** |
| | SNR=1.0 | | | | | | |
| **MEZF** | **Maizieres J'vi** | **6.68** | **103** | ePn | **Pn** | **02 41 59.9** | **+1.6** |
| | baz=287 | | | | | | |
| MEZF | | | | eSn | **Sn** | **02 43 11.8** | **-2.2** |
| | comp=N,1.0nm,0.3s | | | | | | |
| **MEZF** | **Maizieres J'vi** | **6.68** | **103** | ePn | **Pn** | **02 41 59.9** | **+1.6** |
| **SFTF** | **Sexfontaines** | **6.78** | **105** | ePn | **Pn** | **02 42 01.0** | **+1.3** |
| SFTF | | | | eSn | **Sn** | **02 43 14.3** | **-2.2** |
| | comp=N,1.5nm,0.2s | | | | | | |
| **SFTF** | **Sexfontaines** | **6.78** | **105** | ePn | **Pn** | **02 42 01.0** | **+1.3** |
| **CAF** | **Calviac** | **7.17** | **137** | ePn | **Pn** | **02 42 06.9** | **+1.7** |
| | SNR=1.0 | | | | | | |
| CAF | | | | eSn | **Sn** | **02 43 20.7** | **-5.5** |
| | comp=N,0.6nm,0.2s,SNR=1.0 | | | | | | |
| **CAF** | **Calviac** | **7.17** | **137** | ePn | **Pn** | **02 42 06.9** | **+1.7** |
| | SNR=1.0 | | | | | | |
| **HAU** | **Haudompre** | **7.67** | **104** | eSn | **Sn** | **02 43 35.6** | **-2.7** |
| | comp=N,0.8nm,0.2s | | | | | | |
| **SJPF** | **Ste Jean** | **7.70** | **160** | ePn | **Pn** | **02 42 13.1** | **+0.7** |
| | SNR=1.0 | | | | | | |
| SJPF | | | | eSn | **Sn** | **02 43 33.7** | **-5.5** |
| | comp=N,0.8nm,0.2s,SNR=1.0 | | | | | | |
| **SJPF** | **Ste Jean** | **7.70** | **160** | ePn | **Pn** | **02 42 13.1** | **+0.7** |
| | SNR=1.0 | | | | | | |
| **HINF** | **Hinteralfeld** | **8.05** | **104** | eSn | **Sn** | **02 43 45.0** | **-2.9** |
| | comp=N,0.5nm,0.2s,SNR=1.0 | | | | | | |
| **ETSF** | **Etsaut** | **8.06** | **157** | ePn | **Pn** | **02 42 17.9** | **+0.5** |
| | SNR=1.0 | | | | | | |
| ETSF | | | | eSn | **Sn** | **02 43 42.8** | **-5.3** |
| | comp=N,0.9nm,0.2s,SNR=1.0 | | | | | | |
| **ETSF** | **Etsaut** | **8.06** | **157** | ePn | **Pn** | **02 42 17.9** | **+0.5** |
| | SNR=1.0 | | | | | | |
| **CABF** | **La Chapelle** | **8.15** | **114** | ePn | **Pn** | **02 42 21.0** | **+2.4** |
| | SNR=1.0 | | | | | | |
| **CABF** | **La Chapelle** | **8.15** | **114** | ePn | **Pn** | **02 42 21.0** | **+2.4** |
| | SNR=1.0 | | | | | | |
| **EPF** | **Esparros** | **8.18** | **153** | ePn | **Pn** | **02 42 20.5** | **+1.5** |
| | SNR=1.0 | | | | | | |
| EPF | | | | eSn | **Sn** | **02 43 44.8** | **-6.2** |
| | comp=N,1.4nm,0.2s,SNR=1.0 | | | | | | |
| **EPF** | **Esparros** | **8.18** | **153** | ePn | **Pn** | **02 42 20.5** | **+1.5** |
| | SNR=1.0 | | | | | | |
| **MTLF** | **Montolieu** | **8.54** | **143** | ePn | **Pn** | **02 42 24.5** | **+0.6** |
| | SNR=1.0 | | | | | | |
| **MTLF** | **Montolieu** | **8.54** | **143** | ePn | **Pn** | **02 42 24.5** | **+0.6** |
| | SNR=1.0 | | | | | | |
| **LASF** | **Ste Croix** | **8.63** | **134** | ePn | **Pn** | **02 42 25.8** | **+0.6** |
| **LASF** | **Ste Croix** | **8.63** | **134** | ePn | **Pn** | **02 42 25.8** | **+0.6** |

---

**MEX 04 02:40:32.9**±0.4**, 14.°43N**×**93.°31W, h40**km±48km**, MD3.9, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PCIG** | | **1.27** | **4** | eP | Pn | 02 40 52.4 | -1.8 |
| PCIG | | | | i S | Sn | 02 41 07.8 | -2.2 |
| **CCIG** | **Comitan** | **2.16** | **31** | eP | Pn | 02 41 06.8 | +0.2 |
| CCIG | | | | i S | Sn | 02 41 30.2 | -2.1 |

---

**IDC 04 02:47:14.9**±6.0**, 8.°02S**×**146.°08E, h132**km±58km**, mb1 2.7**/2**, mb1mx2.6**/27**, mbtmp3.0**/2**, Error ellipse: s-maj=105.3km s-min=44.3km az=141.0, Eastern New Guinea region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **1.74** | **142** | P | Pn | 02 47 45.8 | -0.1 |
| | 1.8nm,0.3s,baz=4.1,slow=14,SNR=4.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **16.43** | **223** | P | P | 02 50 58.7 | +0.4 |
| | 0.1nm,0.3s,baz=48,slow=12,SNR=5.1 | | | | | | |
| **ASAR** | **Alice Springs** | **19.45** | **216** | P | P | 02 51 31.1 | -0.4 |
| | 0.1nm,0.3s,baz=48,slow=7.8,SNR=5.1 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **144.65** | **281** | PKP | PKPbc | 03 06 36.4 | +0.3 |
| | 0.1nm,0.3s,baz=107,slow=1.5,SNR=2.9 | | | | | | |

---

*IDC **04** 02:47:43.9±1.1, 0.°62N×124.°16E, h0km, mb3.8/5, mb1 4.0/6, mb1mx3.7/33, mbtmp3.9/6, ML4.4/1, Error ellipse: s-maj=127.0km s-min=17.0km az=66.0*
*NEIC **04** 02:47:48.6±0.6, 0.°68N×124.°49E, h35km, mb4.1/2, Error ellipse: s-maj=11.8km s-min=10.7km az=57.0*
*DJA **04** 02:48:00.9±0.6, 0°S±4°×12°4E±°, h109km±8km, M4.2/7, mb4.2/2, MLv4.2/7*
**ISC 04 02:47:46.5**±0.9**, 0.°50N**±0.°07×**124.°12E**±0.°04**, h10**km**, n20, σ2.§05**/24**, mb4.0**/7**, Minahassa Peninsula, Sulawesi**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LUWI** | **Luwuk** | **2.04** | **221** | P | **Pg** | **02 48 26.4** | **+0.7** |
| LUWI | | | | S | **Sn** | **02 48 45.4** | **-1.1** |
| **LUWI** | **Luwuk** | **2.04** | **221** | ePn | **Pg** | **02 48 26.3** | **+0.6** |
| **MRSI** | **Marisa** | **2.17** | **269** | P | **Pg** | **02 48 31.3** | **+3.0** |
| MRSI | | | | S | **Sb** | **02 48 53.5** | **+0.5** |
| **APSI** | **Ampana** | **2.84** | **240** | P | **Pb** | **02 48 36.3** | **-1.0** |
| APSI | | | | S | **Sn** | **02 49 02.2** | **-4.0** |
| **SANI** | **Sanana** | **3.15** | **144** | P | **Pg** | **02 48 47.6** | **+0.6** |
| SANI | | | | S | **Sb** | **02 49 21.3** | **+0.1** |
| **TNTI** | **Ternate** | **3.26** | **85** | ePn | Pn | 02 48 31.0 | -6.8 |
| **LBMI** | **Labuha** | **3.57** | **109** | P | Pg | 02 48 59.0 | +4.0 |
| LBMI | | | | S | **Sg** | **02 49 44.1** | **+2.8** |
| **TTSI** | **Tana Toraja** | **5.55** | **231** | P | **Pn** | **02 49 11.1** | **+1.8** |
| **SPSI** | **Sidrap Palu** | **6.21** | **224** | P | **Pn** | **02 49 19.7** | **+1.4** |
| **BNSI** | **Bone** | **6.31** | **219** | P | **Pn** | **02 49 23.0** | **+3.4** |
| **KAPI** | **Kappang** | **7.00** | **218** | ePn | **Pn** | **02 49 33.4** | **+4.1** |
| **FITZ** | **Fitzroy Crossi** | **18.55** | **175** | P | **P** | **02 52 02.2** | **-1.3** |
| | 0.8nm,0.3s,baz=357,slow=7.1,SNR=34 | | | | | | |
| **WRAB** | **Tennant Creek** | **22.65** | **154** | eP | **P** | **02 52 46.7** | **-1.4** |
| | 2.5nm,0.6s | | | | | | |
| **WRA** | **Warramunga Arr** | **22.66** | **154** | P | **P** | **02 52 47.9** | **-0.2** |
| | 1.6nm,0.4s,baz=334,slow=9.9,SNR=44 | | | | | | |
| **ASAR** | **Alice Springs** | **25.84** | **159** | P | **P** | **02 53 18.2** | **-0.1** |
| | 0.5nm,0.5s,baz=346,slow=14,SNR=9.0 | | | | | | |
| **STKA** | **Stephens Creek** | **36.21** | **154** | P | **P** | **02 54 49.3** | **-0.4** |
| | 1.8nm,0.5s,baz=325,slow=8.5,SNR=6.5 | | | | | | |
| **PALK** | **Pallekele** | **43.80** | **280** | eP | **P** | **02 55 53.6** | **+0.4** |
| | 5.2nm,0.9s | | | | | | |
| **MKAR** | **Makanchi Array** | **58.78** | **328** | P | **P** | **02 57 44.6** | **-0.3** |
| | 0.6nm,0.4s,baz=124,slow=8.8,SNR=13 | | | | | | |
| MKAR | | | | PcP | **PcP** | **02 58 31.9** | **-2.8** |
| | 0.5nm,0.7s,baz=134,slow=3.4,SNR=4.5 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **62.33** | **335** | P | **P** | **02 58 07.0** | **-2.0** |
| | 0.3nm,0.3s,baz=126,slow=7.4,SNR=2.6 | | | | | | |
| **KURK** | **Kurchatov** | **63.11** | **329** | eP | **P** | **02 58 12.9** | **-1.3** |

---

*ISCJB **04** 02:55:47.3±1.1, 32.°37S±0.°06×70.°75W±0.°08, h91km±12km, Error ellipse: s-maj=13.5km s-min=6.5km az=38.0*
*GUC **04** 02:55:47.6±0.5, 32.°26S×70.°68W, h61km±16km, ML2.7*
*SJA **04** 02:55:47.4±0.9, 32.°47S×70.°62W, h81km±11km, ML2.7, MW2.9*
**ISC 04 02:55:48.2**±1.9**, 32.°37S**±0.°06×**70.°74W**±0.°09**, h83**km±18km**, n15, σ1.§03**/27**, 2C-4D, Chile-Argentina border region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ROCH** | **El Roble** | **0.65** | **201** | ⇓iP | **Pn** | **02 56 03.4** | **-0.4** |
| ROCH | | | | i S | **Sn** | **02 56 15.6** | **+0.2** |
| ROCH | | | | IAML | | 02 56 16.0 | |
| | comp=E,700nm,0.2s | | | | | | |
| **PEL** | **Peldehue** | **0.78** | **177** | ⇓iP | **Pn** | **02 56 04.3** | **-0.6** |
| PEL | | | | i S | **Sn** | **02 56 17.3** | **-0.1** |
| PEL | | | | IAML | | 02 56 19.0 | |
| | comp=E,281nm,0.2s | | | | | | |
| **FCH** | **Farellones** | **1.03** | **159** | eP | **Pn** | **02 56 08.2** | **+0.1** |
| FCH | | | | i S | **Sn** | **02 56 24.0** | **+1.0** |
| FCH | | | | IAML | | 02 56 25.6 | |
| | comp=N,467nm,0.3s | | | | | | |
| **CLCH** | **Cerro Calan** | **1.04** | **171** | ⇑iP | **Pn** | **02 56 07.9** | **-0.1** |
| CLCH | | | | i S | **Sn** | **02 56 23.2** | **+0.4** |
| CLCH | | | | IAML | | 02 56 24.0 | |
| | comp=N,214nm,0.4s | | | | | | |
| **RCDM** | **Rinconada Maip** | **1.12** | **183** | ⇓iP | **Pn** | **02 56 07.6** | **-1.3** |
| RCDM | | | | i S | **Sn** | **02 56 23.6** | **-0.8** |
| **AUSP** | **Uspallata** | **1.16** | **83** | eP | **Pn** | **02 56 09.4** | **-0.2** |
| AUSP | | | | ⇓eS | **Sn** | **02 56 25.3** | **-0.3** |
| **ANTU** | **Antumapu** | **1.20** | **176** | IAML | | 02 56 29.5 | |
| | comp=N,211nm,0.1s | | | | | | |
| **RTLS** | **Leoncito** | **1.35** | **66** | eP | **Pn** | **02 56 12.1** | **+0.1** |
| RTLS | | | | eS | **Sn** | **02 56 30.7** | **+0.8** |
| RTLS | | | | IAML | | 02 56 31.6 | |
| | comp=Z,100nm,0.3s | | | | | | |
| **LMEL** | **Las Melosas** | **1.54** | **163** | ⇑iP | **Pn** | **02 56 15.3** | **+0.9** |
| LMEL | | | | i S | **Sn** | **02 56 36.1** | **+2.0** |
| **RTCV** | **Cerro Valdivia** | **1.93** | **75** | eP | **Pn** | **02 56 19.7** | **+0.3** |
| RTCV | | | | eS | **Sn** | **02 56 44.1** | **+1.0** |
| **RTLL** | **Cerro Villicun** | **2.19** | **62** | eP | **Pn** | **02 56 22.6** | **-0.1** |
| RTLL | | | | eS | **Sn** | **02 56 49.1** | **0.0** |
| **ACAN** | **Cantantal** | **3.01** | **89** | eP | **Pn** | **02 56 33.4** | **-0.3** |
| ACAN | | | | eS | **Sn** | **02 57 07.1** | **-1.8** |
| **AGUA** | **GUANDACOL** | **3.46** | **35** | eP | **Pn** | **02 56 41.3** | **+1.3** |
| AGUA | | | | eS | **Sn** | **02 57 21.4** | **+1.5** |
| **ACLC** | **CERRO LA CRUZ** | **4.38** | **49** | eP | **Pn** | **02 56 52.3** | **-0.2** |
| ACLC | | | | eS | **Sn** | **02 57 40.0** | **-2.5** |
| **CYA** | **Choya** | **5.79** | **49** | eS | **Pn** | **02 57 11.1** | **-0.5** |

---

**IDC 04 02:57:16.0**±10.0**, 11.°70N**×**121.°32E, h0**km**, mb3.9**/3**, mb1 4.2**/3**, mb1mx3.4**/38**, mbtmp3.9**/3**, Error ellipse: s-maj=376.6km s-min=28.6km az=42.0, Panay**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CMAR** | **Chiang Mai Arr** | **22.61** | **290** | P | P | 03 02 18.6 | 0.0 |
| | 3.2nm,0.3s,baz=99,slow=13,SNR=5.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **33.96** | **158** | P | P | 03 04 01.4 | +0.1 |
| | 0.7nm,0.7s,baz=335,slow=9.6,SNR=8.5 | | | | | | |
| **ASAR** | **Alice Springs** | **37.25** | **161** | P | P | 03 04 29.4 | -0.2 |
| | 0.7nm,0.5s,baz=338,slow=6.8,SNR=18 | | | | | | |

---

**IDC 04 03:04:11.7**±2.5**, 4.°34N**×**123.°53E, h0**km**, mb3.5**/3**, mb1 3.7**/3**, mb1mx3.4**/37**, mbtmp3.5**/3**, Error ellipse: s-maj=343.6km s-min=26.6km az=63.0, Celebes Sea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **26.37** | **157** | P | P | 03 09 50.2 | +0.3 |
| | 0.4nm,0.3s,baz=336,slow=9.5,SNR=5.0 | | | | | | |
| **ASAR** | **Alice Springs** | **29.62** | **160** | P | P | 03 10 18.7 | -0.3 |
| | 0.2nm,0.3s,baz=335,slow=6.3,SNR=3.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **55.26** | **327** | P | P | 03 13 46.8 | -0.1 |
| | 0.2nm,0.3s,baz=128,slow=7.4,SNR=5.8 | | | | | | |

---

*NNC **04** 03:25:21.9±1.0, 42.°07N×70.°26E, h0km, mb2.7, mpv2.6, Error ellipse: s-maj=6.9km s-min=4.3km az=53.0*
*SOME **04** 03:25:22.3, 42.°00N×70.°20E, h10km*
*KRNET **04** 03:25:23.4±0.1, 42.°13N×70.°42E, h13km, mb2.6*
**ISC 04 03:25:19.7**±1.3**, 42.°00N**±0.°04×**70.°26E**±0.°03**, h17**km±11km**, n19, σ1.§53**/35**, 22C-6D, Kyrgyzstan**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **IUG** | **Iuzhnay** | **0.23** | **312** | eP | **Pb** | **03 25 26.1** | **+0.6** |
| | 963nm,0.1s | | | | | | |
| IUG | | | | eS | **Sb** | **03 25 29.8** | **+0.5** |
| | 367nm,0.2s | | | | | | |
| **KK31** | **Karatay Array** | **1.12** | **9** | ⇑P | **Pg** | **03 25 42.2** | **+0.8** |
| | 0.6nm,0.2s,baz=185,slow=16,SNR=137 | | | | | | |
| KK31 | | | | ⇑S | **Sn** | **03 25 56.1** | **+0.4** |
| | 2.7nm,0.2s,baz=190,slow=30,SNR=18 | | | | | | |
| **ARK** | **Arkit** | **1.29** | **98** | ⇑iP | **Pg** | **03 25 46.0** | **+1.5** |
| | baz=106 | | | | | | |
| ARK | | | | ⇑iS | **Sg** | **03 26 03.6** | **+2.3** |
| | baz=106 | | | | | | |
| **MNAS** | **Manas** | **1.74** | **73** | ⇑iP | **Pg** | **03 25 53.3** | **+0.2** |
| | baz=76 | | | | | | |
| MNAS | | | | ⇑iS | **Sb** | **03 26 14.5** | **+1.7** |
| | baz=76 | | | | | | |
| **MNAS** | **Manas** | **1.74** | **73** | ⇑P | **Pg** | **03 25 53.5** | **+0.4** |
| | 2.5nm,0.3s | | | | | | |
| MNAS | | | | ⇓S | **Sg** | **03 26 16.1** | **+0.5** |
| | 7.7nm,0.3s | | | | | | |
| **TOKL** | **Toktogul** | **1.95** | **91** | ⇑iP | **Pg** | **03 25 57.4** | **+0.3** |
| | baz=95 | | | | | | |
| TOKL | | | | ⇑iS | **Sg** | **03 26 23.0** | **+0.6** |
| | baz=95 | | | | | | |
| **ARSB** | **Arslanbob** | **2.15** | **107** | ⇑eP | **Pg** | **03 26 00.9** | **0.0** |
| | baz=112 | | | | | | |
| ARSB | | | | ⇑eS | **Sg** | **03 26 28.6** | **-0.2** |
| | baz=112 | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| MRKS | Merke | 2.32 | 70 | eP | Pg | 03 26 04.5 | +0.3 |
| | 17nm,0.7s | | | | | | |
| MRKS | | | | eS | Sg | 03 26 34.2 | -0.1 |
| | 12nm,0.3s | | | | | | |
| AML | Almayashu | 2.56 | 86 | ⇑iP | Pb | 03 26 07.5 | +2.1 |
| | baz=89 | | | | | | |
| AML | | | | ⇑iS | Sb | 03 26 39.0 | +2.2 |
| | baz=89 | | | | | | |
| EKS2 | Erkin-Say | 2.69 | 75 | ⇑iP | Pb | 03 26 08.3 | +0.8 |
| | baz=77 | | | | | | |
| EKS2 | | | | ⇑iS | Sb | 03 26 39.9 | -0.4 |
| | baz=77 | | | | | | |
| SFK | Sufi-Kurgan | 3.15 | 128 | ⇑eP | Pb | 03 26 15.2 | -0.2 |
| | baz=131 | | | | | | |
| SFK | | | | ⇑eS | Sb | 03 26 53.4 | -0.3 |
| | baz=131 | | | | | | |
| SFK | Sufi-Kurgan | 3.15 | 128 | ⇓Pg | Pg | 03 26 20.0 | -0.1 |
| | 0.7nm,0.2s | | | | | | |
| SFK | | | | Lg | Lg | 03 27 01.3 | |
| UCH | Uchtor | 3.17 | 84 | ⇓iP | Pb | 03 26 15.7 | -0.2 |
| | baz=87 | | | | | | |
| UCH | | | | ⇓iS | Sb | 03 26 53.2 | -1.3 |
| | baz=87 | | | | | | |
| AAK | Ala-Archa | 3.21 | 77 | ⇑iP | Pb | 03 26 15.3 | -0.9 |
| | baz=79 | | | | | | |
| AAK | | | | ⇑iS | Sb | 03 26 52.1 | -3.0 |
| | baz=79 | | | | | | |
| AAK | Ala-Archa | 3.21 | 77 | ⇓Pg | Pg | 03 26 20.6 | -0.5 |
| | 3.8nm,0.9s | | | | | | |
| AAK | | | | ⇑Lg | Lg | 03 27 04.0 | |
| | 4.0nm,0.7s | | | | | | |
| DZET | Dzherino | 3.37 | 199 | Pg | Pg | 03 26 22.8 | -1.4 |
| DZET | | | | ⇓Lg | Lg | 03 27 09.2 | |
| | 6.8nm,0.6s | | | | | | |
| USP | Ospenovka | 3.38 | 66 | ⇑iP | Pb | 03 26 16.2 | -2.9 |
| | baz=68 | | | | | | |
| USP | | | | ⇑iS | Sn | 03 26 54.3 | +2.9 |
| | baz=68 | | | | | | |
| DGS | Degeres | 4.25 | 71 | eP | Pg | 03 26 38.8 | -2.3 |
| | 3.3nm,0.6s | | | | | | |
| DGS | | | | eS | Sg | 03 27 33.3 | -2.9 |
| | 4.4nm,0.4s | | | | | | |
| KUU | Kurty | 4.85 | 65 | eP | Pg | 03 26 50.9 | -1.6 |
| | 0.9nm,0.4s | | | | | | |
| KUU | | | | eS | Sg | 03 27 53.7 | -1.6 |
| | 4.1nm,0.6s | | | | | | |

*ISCJB **04** 03:29:55.8±0.3, 7°.04S±0°.03×129°.56E±0°.06, h200km, mb4.2/14, Error ellipse: s-maj=8.0km s-min=4.2km az=166.4*
*DJA **04** 03:29:55.8±0.6, 7°S±3°×13°0E±°, h224km±9km, M4.6/7, mB4.9/2, mb4.8/3, MLv4.5/7, Mw(mB)4.2/2*
*IDC **04** 03:29:55.8±4.0, 7°.12S×129°.32E, h180km±43km, mb3.8/8, mb1 3.9/10, mb1mx3.6/31, mbtmp4.3/10, Error ellipse: s-maj=30.1km s-min=16.2km az=52.0*
*NEIC **04** 03:29:56.4±0.8, 6°.98S×129°.41E, h184km±9km, mb4.3/5, Error ellipse: s-maj=12.5km s-min=8.0km az=73.0*
**ISC 04 03:29:56.5**±0.5**, 7°.10S**±0°.04×**129°.52E**±0°.06**, h200km, n42,** σ2ˢ**87**/51**, mb4.3**/14**, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SAUI | Saumlaki | 1.97 | 117 | P | Pn | 03 30 35.7 | +1.0 |
| SAUI | | | | S | Sn | 03 31 06.3 | +1.9 |
| SAUI | Saumlaki | 1.97 | 117 | ePn | Pn | 03 30 36.6 | +1.9 |
| BNDI | Bandanaira | 2.59 | 9 | P | Pn | 03 30 40.4 | -1.1 |
| AAI | Ambon | 3.64 | 339 | P | Pn | 03 30 53.4 | -0.5 |
| MSAI | Masohi | 3.78 | 351 | P | Pn | 03 30 55.5 | -0.1 |
| FAKI | Fak Fak | 4.96 | 33 | P | Pn | 03 31 08.2 | -2.3 |
| FAKI | Fak Fak | 4.96 | 33 | ePn | Pn | 03 31 07.9 | -2.7 |
| FAKI | | | | eSn | Sn | 03 31 56.6 | -12 |
| KMPI | Kaimana, Papua | 5.39 | 51 | P | Pn | 03 31 13.9 | -2.0 |
| KMPI | | | | S | Sn | 03 32 13.7 | -4.9 |
| SOEI | Soe | 5.83 | 243 | P | Pn | 03 31 22.2 | +0.5 |
| SOEI | Soe | 5.83 | 243 | ePn | Pn | 03 31 22.0 | +0.3 |
| SOEI | | | | eSn | Sn | 03 32 25.0 | -4.0 |
| MTN | Manton Dam | 5.92 | 165 | ePn | Pn | 03 31 24.3 | +1.5 |
| MTN | | | | e | | 03 32 29.0 | |
| SANI | Sanana | 6.13 | 325 | P | Pn | 03 31 13.0 | -13 |
| LBMI | Labuha | 6.73 | 343 | P | Pn | 03 31 32.1 | -1.2 |
| RKPI | Ransiki, Papua | 7.24 | 40 | S | Sn | 03 32 56.6 | -5.5 |
| FITZ | Fitzroy Crossi | 11.57 | 199 | P | Pn | 03 32 35.1 | -0.9 |
| | 3.5nm,0.3s,baz=28,slow=11,SNR=56 | | | | | | |
| FITZ | | | | S | Sn | 03 34 36.6 | -8.5 |
| | 1.7nm,0.3s,baz=319,slow=20,SNR=4.3 | | | | | | |
| WRAB | Tennant Creek | 13.59 | 160 | ePn | Pn | 03 33 01.1 | -0.3 |
| WRAB | | | | eS | S | 03 35 26.6 | -6.4 |
| WRA | Warramunga Arr | 13.59 | 160 | P | Pn | 03 33 01.1 | -0.4 |
| | 1.0nm,0.3s,baz=340,slow=12,SNR=40 | | | | | | |
| WRA | | | | S | S | 03 35 27.1 | -6.0 |
| | 2.3nm,0.3s,baz=329,slow=23,SNR=6.9 | | | | | | |
| WB2 | Warramunga Arr | 13.60 | 160 | ePn | Pn | 03 33 01.2 | -0.3 |
| WB2 | | | | eSn | S | 03 35 25.8 | -7.4 |
| AS31 | Alice Springs | 17.00 | 166 | eP | Pn | 03 33 45.6 | +2.8 |
| | 18nm,0.6s | | | | | | |
| AS31 | | | | eSn | S | 03 36 52.6 | +4.0 |
| ASAR | Alice Springs | 17.00 | 166 | P | Pn | 03 33 45.6 | +2.7 |
| | 6.7nm,0.3s,baz=338,slow=9.5,SNR=393 | | | | | | |
| ASAR | | | | S | S | 03 36 47.5 | -1.1 |
| | 0.4nm,0.3s,baz=333,slow=14,SNR=4.9 | | | | | | |
| AS01 | Alice Springs | 17.01 | 166 | eP | Pn | 03 33 45.1 | +2.1 |
| CTA | Charters Tower | 20.74 | 130 | P | P | 03 34 24.5 | +2.6 |
| | 4.5nm,0.8s,baz=329,slow=12,SNR=3.5 | | | | | | |
| CTAO | Charters Tower | 20.74 | 130 | eP | P | 03 34 25.2 | +3.4 |
| | 19nm,0.5s | | | | | | |
| FORT | Forrest | 23.59 | 183 | eP | P | 03 34 52.3 | +3.0 |
| BBOO | Buckleboo | 26.29 | 167 | eP | P | 03 35 15.7 | +2.1 |
| | 12nm,0.8s | | | | | | |
| STKA | Stephens Creek | 27.10 | 157 | P | P | 03 35 22.2 | +1.3 |
| | 3.1nm,0.5s,baz=336,slow=11,SNR=9.9 | | | | | | |
| PSI | Prapat | 32.08 | 287 | P | P | 03 36 04.5 | -0.7 |
| | 4.7nm,0.8s,baz=87,slow=6.1,SNR=5.3 | | | | | | |
| CMAR | Chiang Mai Arr | 39.43 | 311 | P | P | 03 37 07.5 | 0.0 |
| | 2.2nm,0.4s,baz=139,slow=7.4,SNR=7.4 | | | | | | |
| CHTO | Chiang Mai | 39.65 | 311 | eP | P | 03 37 09.2 | 0.0 |
| | 3.4nm,0.6s | | | | | | |
| KSAR | Wonju Array Be | 44.34 | 358 | P | P | 03 37 48.2 | +1.4 |
| KSRS | Korea Array | 44.35 | 358 | P | P | 03 37 48.2 | +1.3 |
| | 0.7nm,0.5s,baz=167,slow=8.2,SNR=3.5 | | | | | | |
| HHC | Hu-ho-hao-te | 50.49 | 342 | eP | P | 03 38 36.5 | +2.1 |
| HHC | | | | S | S | 03 45 34.3 | +1.5 |
| HHC | | | | sS | sS | 03 46 48.7 | -1.6 |
| HHC | Hu-ho-hao-te | 50.49 | 342 | SS | SS | 03 49 08.7 | -1.0 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,14nm,1.2s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,16μm,5.4s | | | | | | |
| SONM | Songino Array | 58.39 | 342 | P | P | 03 39 32.4 | +1.4 |
| | comp=Z,0.6nm,0.4s,baz=152,slow=6.5,SNR=2.3 | | | | | | |
| WMQ | Urumqi | 63.22 | 327 | P | P | 03 40 05.0 | +1.3 |
| WMQ | | | | pP | pP | 03 40 48.8 | -1.1 |
| WMQ | | | | sP | sP | 03 41 09.1 | -2.5 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,19nm,0.8s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,540nm,5.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,160nm,16.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,140nm,14.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,96nm,17.7s | | | | | | |
| MKAR | Makanchi Array | 68.05 | 327 | P | P | 03 40 35.6 | +1.1 |
| | comp=Z,3.0nm,0.4s,baz=115,slow=8.6,SNR=78 | | | | | | |
| ZALV | Zalesovo Beam | 71.46 | 334 | P | P | 03 40 55.3 | +0.2 |
| | comp=Z,2.9nm,0.5s,baz=129,slow=5.9,SNR=13 | | | | | | |
| ZALV | Zalesovo Beam | 71.46 | 334 | eP | P | 03 40 55.2 | +0.1 |
| KURK | Kurchatov | 72.36 | 329 | eP | P | 03 41 00.8 | +0.3 |
| | comp=Z,21nm,0.4s | | | | | | |
| BRVK | Borovoye | 77.97 | 328 | eP | P | 03 41 33.0 | +0.6 |
| | comp=Z,3.5nm,0.6s | | | | | | |
| RAYN | Ar Rayn | 87.35 | 294 | eP | P | 03 42 22.0 | +0.5 |
| | comp=Z,2.1nm,0.8s | | | | | | |
| TORD | Torodi Ar. Bea | 128.36 | 281 | PKP | PKPdf | 03 48 41.8 | +1.5 |
| | comp=Z,0.3nm,0.9s,baz=83,slow=3.3,SNR=2.7 | | | | | | |

**TRN 04 03:57:44.3, 11°.37N×61°.53W, h17km, MD3.6, 1C, Windward Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GRGR | Grenville | 0.77 | 351 | ⇑iP | Pb | 03 57 58.7 | -0.5 |
| GRGR | | | | eS | Sn | 03 58 10.7 | -0.8 |
| TOSP | Speyside | 0.98 | 94 | eP | Pg | 03 58 03.6 | +0.3 |
| TOSP | | | | eS | Sn | 03 58 17.0 | +0.3 |
| SVB | Belmont | 1.91 | 8 | eP | Pn | 03 58 17.3 | +1.2 |
| SVB | | | | eS | Sn | 03 58 40.0 | +0.3 |
| SVCV | St. Vincent, C | 1.93 | 11 | eP | Pn | 03 58 16.5 | +0.2 |
| SVCV | | | | eS | Sn | 03 58 39.6 | -0.5 |
| SVV | Soufriere Volc | 1.96 | 9 | eP | Pn | 03 58 16.6 | -0.1 |
| SVV | | | | eS | Sn | 03 58 42.0 | +1.1 |
| MCLT | Moule a Chique | 2.40 | 14 | eS | Sn | 03 58 51.5 | -0.2 |

*IDC **04** 04:05:48.4±0.6, 38°.96S×175°.85E, h157km±6km, mb3.6/5, mb1 3.8/7, mb1mx3.6/29, mbtmp4.2/7, Error ellipse: s-maj=20.1km s-min=12.0km az=137.0*
*ISCJB **04** 04:05:49.3±0.3, 38°.75S±0°.03×175°.61E±0°.04, h164km±2km, mb4.0/7, Error ellipse: s-maj=5.8km s-min=3.7km az=30.3*
*NEIC **04** 04:05:50.8±0.0, 38°.65S×175°.69E, h158km, mb4.4/3, After WEL.*
*NEIC Felt at Porirua.*
*WEL **04** 04:05:51.1±0.2, 38°.66S×175°.72E, h155km±1km, ML5.0/56, Mw4.2, Error ellipse: s-maj=1.2km s-min=1.0km az=90.0, MM 4.*
*WEL Felt between Waikato, Marlborough and Hawkes Bay, maximum reported intensity.*
**ISC 04 04:05:50.2**±0.6**, 38°.76S**±0°.04×**175°.63E**±0°.04**, h166km**±4km**, n248,** σ**1ˢ23**/268**, mb3.8**/7**, 49C-25D, North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WATZ | Wairara | 0.10 | 58 | Pn | Pn | 04 06 12.0 | -0.4 |
| WATZ | | | | Sn | Sn | 04 06 27.9 | -1.2 |
| WATZ | Wairara | 0.10 | 58 | ⇑PN | Pn | 04 06 12.0 | -0.4 |
| WATZ | | | | SN | Sn | 04 06 27.9 | -1.2 |
| RATZ | Rangitukua | 0.15 | 133 | Pn | Pn | 04 06 11.6 | -0.8 |
| RATZ | Rangitukua | 0.15 | 133 | PN | Pn | 04 06 11.6 | -0.8 |
| KATZ | Kakaramea | 0.22 | 166 | Pn | Pn | 04 06 12.3 | -0.3 |
| KATZ | Kakaramea | 0.22 | 166 | ⇑PN | Pn | 04 06 12.3 | -0.3 |
| RITZ | Rihia Road | 0.28 | 140 | Pn | Pn | 04 06 12.6 | -0.1 |
| RITZ | Rihia Road | 0.28 | 140 | ⇑PN | Pn | 04 06 12.6 | -0.1 |
| RITZ | | | | SN | Sn | 04 06 28.9 | -0.9 |
| KUTZ | Kaahu Road | 0.31 | 30 | Pn | Pn | 04 06 12.2 | -0.5 |
| KUTZ | | | | Sn | Sn | 04 06 28.7 | -1.2 |
| KUTZ | Kaahu Road | 0.31 | 30 | ⇑PN | Pn | 04 06 12.2 | -0.5 |
| KUTZ | | | | SN | Sn | 04 06 28.7 | -1.2 |
| KRVZ | Karewarewa | 0.33 | 178 | Pn | Pn | 04 06 12.7 | -0.2 |
| KRVZ | Karewarewa | 0.33 | 178 | ⇑PN | Pn | 04 06 12.7 | -0.2 |
| TWVZ | Taurewa | 0.34 | 205 | Pn | Pn | 04 06 12.9 | +0.1 |
| TWVZ | Taurewa | 0.34 | 205 | ⇑PN | Pn | 04 06 12.9 | +0.1 |
| WTVZ | West Tongariro | 0.36 | 185 | Pn | Pn | 04 06 12.9 | -0.1 |
| WTVZ | West Tongariro | 0.36 | 185 | PN | Pn | 04 06 12.9 | -0.1 |
| WTVZ | | | | SN | Sn | 04 06 29.6 | -0.9 |
| HATZ | Hinemaiaia | 0.39 | 110 | Pn | Pn | 04 06 12.3 | -0.6 |
| HATZ | | | | Sn | Sn | 04 06 27.9 | -2.5 |
| HATZ | Hinemaiaia | 0.39 | 110 | PN | Pn | 04 06 12.3 | -0.6 |
| HATZ | | | | SN | Sn | 04 06 27.9 | -2.5 |
| OTVZ | Oturere | 0.40 | 176 | Pn | Pn | 04 06 12.9 | -0.3 |
| OTVZ | Oturere | 0.40 | 176 | ⇓PN | Pn | 04 06 12.9 | -0.3 |
| TLZ | Tolley Road | 0.44 | 351 | Pn | Pn | 04 06 12.2 | -1.0 |
| TLZ | Tolley Road | 0.44 | 351 | PN | Pn | 04 06 12.2 | -1.0 |
| TLZ | | | | SN | Sn | 04 06 29.2 | -1.5 |
| WPRZ | Whakapapatarin | 0.48 | 60 | Pn | Pn | 04 06 12.5 | -0.8 |
| WPRZ | | | | Sn | Sn | 04 06 29.2 | -1.8 |
| WPRZ | Whakapapatarin | 0.48 | 60 | ⇑PN | Pn | 04 06 12.5 | -0.8 |
| WPRZ | | | | SN | Sn | 04 06 29.2 | -1.8 |
| FWVZ | Far West T-bar | 0.50 | 187 | Pn | Pn | 04 06 13.1 | -0.5 |
| FWVZ | Far West T-bar | 0.50 | 187 | PN | Pn | 04 06 13.1 | -0.5 |
| TUVZ | Tukino | 0.51 | 178 | Pn | Pn | 04 06 13.8 | +0.2 |
| TUVZ | Tukino | 0.51 | 178 | ⇑PN | Pn | 04 06 13.8 | +0.2 |
| DRZ | Dome Shelter | 0.52 | 185 | Pn | Pn | 04 06 13.9 | +0.1 |
| DRZ | Dome Shelter | 0.52 | 185 | PN | Pn | 04 06 13.9 | +0.1 |
| WHVZ | Whangaehu Hut | 0.52 | 183 | Pn | Pn | 04 06 13.4 | -0.3 |
| WHVZ | Whangaehu Hut | 0.52 | 183 | PN | Pn | 04 06 13.4 | -0.3 |
| TRVZ | Turoa | 0.54 | 187 | Pn | Pn | 04 06 13.9 | 0.0 |
| TRVZ | Turoa | 0.54 | 187 | PN | Pn | 04 06 13.9 | 0.0 |
| WNVZ | Wahianoa | 0.57 | 182 | Pn | Pn | 04 06 14.2 | +0.3 |
| WNVZ | Wahianoa | 0.57 | 182 | ⇑PN | Pn | 04 06 14.2 | +0.3 |
| PKVZ | Pokaka | 0.57 | 202 | Pn | Pn | 04 06 14.1 | +0.4 |
| PKVZ | Pokaka | 0.57 | 202 | PN | Pn | 04 06 14.1 | +0.4 |
| ALRZ | Allen Road | 0.59 | 71 | Pn | Pn | 04 06 13.0 | -0.8 |
| ALRZ | | | | Sn | Sn | 04 06 30.0 | -1.9 |
| ALRZ | Allen Road | 0.59 | 71 | ⇑PN | Pn | 04 06 13.0 | -0.8 |
| ALRZ | | | | SN | Sn | 04 06 29.1 | -2.8 |
| MRHZ | Matea Rd | 0.62 | 97 | ⇑PN | Pn | 04 06 13.2 | -0.8 |
| MRHZ | | | | SN | Sn | 04 06 28.9 | -3.3 |
| MRHZ | | | | AML | AML | 04 06 30.0 | |
| HRRZ | Handcock Road | 0.63 | 55 | Pn | Pn | 04 06 13.3 | -0.8 |
| HRRZ | | | | Sn | Sn | 04 06 30.7 | -1.7 |
| HRRZ | Handcock Road | 0.63 | 55 | PN | Pn | 04 06 13.3 | -0.8 |
| HRRZ | | | | SN | Sn | 04 06 30.7 | -1.7 |
| MTVZ | Mangateitei | 0.64 | 191 | Pn | Pn | 04 06 14.5 | +0.4 |
| MTVZ | Mangateitei | 0.64 | 191 | PN | Pn | 04 06 14.5 | +0.4 |
| HIZ | Hauiti | 0.65 | 292 | Pn | Pn | 04 06 13.3 | -0.8 |
| HIZ | Hauiti | 0.65 | 292 | PN | Pn | 04 06 13.3 | -0.8 |
| MOVZ | Moawhango | 0.65 | 171 | Pn | Pn | 04 06 14.3 | +0.1 |
| MOVZ | | | | Sn | Sn | 04 06 31.0 | -1.8 |
| MOVZ | Moawhango | 0.65 | 171 | ⇑PN | Pn | 04 06 14.3 | +0.1 |
| MOVZ | | | | SN | Sn | 04 06 31.0 | -1.8 |
| PRRZ | Plateau Road | 0.65 | 67 | Pn | Pn | 04 06 13.3 | -0.8 |
| PRRZ | Plateau Road | 0.65 | 67 | ⇓PN | Pn | 04 06 13.3 | -0.8 |
| PRRZ | | | | SN | Sn | 04 06 29.8 | -2.6 |
| VRZ | Vera Road | 0.77 | 242 | Pn | Pn | 04 06 15.3 | +0.5 |
| VRZ | Vera Road | 0.77 | 242 | PN | Pn | 04 06 15.3 | +0.5 |
| BKZ | Black Stump Fm | 0.79 | 121 | Pn | Pn | 04 06 14.8 | -0.3 |
| BKZ | Black Stump Fm | 0.79 | 121 | PN | Pn | 04 06 14.8 | -0.3 |
| BKZ | | | | AML | AML | 04 06 32.7 | |
| BKZ | | | | AML | AML | 04 06 32.7 | |
| BHHZ | Black Hill Sta | 0.80 | 155 | Pn | Pn | 04 06 15.2 | +0.1 |
| BHHZ | Black Hill Sta | 0.80 | 155 | ⇑PN | Pn | 04 06 15.2 | +0.1 |
| BHHZ | | | | AML | AML | 04 06 33.5 | |
| BHHZ | | | | AML | AML | 04 06 33.5 | |
| RRRZ | Republican Roa | 0.81 | 59 | Pn | Pn | 04 06 14.0 | -1.2 |
| RRRZ | Republican Roa | 0.81 | 59 | ⇓PN | Pn | 04 06 14.0 | -1.2 |
| TARZ | Mount Tarawera | 0.87 | 53 | Pn | Pn | 04 06 14.6 | -1.0 |
| TARZ | Mount Tarawera | 0.87 | 53 | ⇓PN | Pn | 04 06 14.6 | -1.0 |
| OMRZ | Omania | 0.88 | 42 | Pn | Pn | 04 06 14.6 | -1.1 |
| OMRZ | | | | Sn | Sn | 04 06 33.3 | -1.8 |
| OMRZ | Omania | 0.88 | 42 | ⇓PN | Pn | 04 06 14.5 | -1.1 |
| OMRZ | | | | SN | Sn | 04 06 33.3 | -1.8 |
| KARZ | Kaharoa | 0.88 | 33 | Pn | Pn | 04 06 14.6 | -1.0 |
| KARZ | Kaharoa | 0.88 | 33 | ⇓PN | Pn | 04 06 14.6 | -1.0 |
| KWHZ | Kaweka Forest | 0.91 | 137 | ⇑PN | Pn | 04 06 16.1 | +0.3 |
| KWHZ | | | | AML | AML | 04 06 36.4 | |
| KWHZ | | | | AML | AML | 04 06 40.7 | |
| MUGZ | Murupara | 0.94 | 73 | ⇓PN | Pn | 04 06 14.7 | -1.4 |
| MTHZ | Maungataniwha | 0.95 | 96 | ⇓PN | Pn | 04 06 15.7 | -0.5 |
| NMHZ | Naumai | 0.98 | 110 | Pn | Pn | 04 06 16.9 | +0.5 |
| NMHZ | Naumai | 0.98 | 110 | ⇑PN | Pn | 04 06 16.9 | +0.5 |
| NMHZ | | | | AML | AML | 04 06 37.0 | |
| NMHZ | | | | AML | AML | 04 06 37.0 | |
| TOZ | Tahuroa Road | 1.03 | 354 | Pn | Pn | 04 06 16.2 | -0.6 |
| TOZ | Tahuroa Road | 1.03 | 354 | ⇓PN | Pn | 04 06 16.2 | -0.6 |
| KRHZ | Kereru | 1.05 | 147 | ⇑PN | Pn | 04 06 17.4 | +0.5 |
| KRHZ | | | | SN | Sn | 04 06 36.2 | -1.4 |
| KRHZ | | | | AML | AML | 04 06 37.4 | |
| MHEZ | Mangahewa | 1.06 | 252 | Pn | Pn | 04 06 18.1 | +1.1 |
| MHEZ | Mangahewa | 1.06 | 252 | ⇑PN | Pn | 04 06 18.1 | +1.1 |
| MCHZ | McNeill Hill | 1.08 | 130 | Pn | Pn | 04 06 18.0 | +0.9 |
| MCHZ | McNeill Hill | 1.08 | 130 | ⇑PN | Pn | 04 06 18.0 | +0.9 |
| MCHZ | | | | AML | AML | 04 06 38.2 | |
| MCHZ | | | | AML | AML | 04 06 46.4 | |
| WAZ | Wanganui | 1.11 | 206 | Pn | Pn | 04 06 17.9 | +0.5 |
| WAZ | Wanganui | 1.11 | 206 | PN | Pn | 04 06 17.9 | +0.5 |
| TGRZ | Tauranga | 1.14 | 26 | Pn | Pn | 04 06 16.6 | -1.1 |
| TGRZ | Tauranga | 1.14 | 26 | ⇓PN | Pn | 04 06 16.6 | -1.1 |
| OPRZ | Ohinepanea | 1.17 | 39 | Pn | Pn | 04 06 16.6 | -1.3 |
| OPRZ | Ohinepanea | 1.17 | 39 | PN | Pn | 04 06 16.6 | -1.3 |
| ARHZ | Aropaoanui | 1.18 | 116 | Pn | Pn | 04 06 18.4 | +0.4 |
| ARHZ | Aropaoanui | 1.18 | 116 | ⇑PN | Pn | 04 06 18.4 | +0.4 |
| ARHZ | | | | AML | AML | 04 06 38.8 | |
| ARHZ | | | | AML | AML | 04 06 40.0 | |
| LREZ | Lake Rotokare | 1.18 | 233 | ⇑PN | Pn | 04 06 19.2 | +1.3 |
| DREZ | Durham Road | 1.19 | 249 | Pn | Pn | 04 06 19.0 | +0.9 |
| DREZ | Durham Road | 1.19 | 249 | PN | Pn | 04 06 19.0 | +0.9 |
| PNHZ | Pukenui | 1.23 | 159 | Pn | Pn | 04 06 19.0 | +0.5 |
| PNHZ | Pukenui | 1.23 | 159 | ⇑PN | Pn | 04 06 19.0 | +0.5 |
| PNHZ | | | | AML | AML | 04 06 41.6 | |
| PNHZ | | | | AML | AML | 04 06 42.2 | |
| URZ | Urewera | 1.27 | 67 | P | Pn | 04 06 17.2 | -1.6 |
| | 468nm,0.3s,baz=252,slow=7.8,SNR=3135 | | | | | | |
| URZ | | | | S | Sn | 04 06 36.3 | -4.3 |
| | 444nm,0.3s,baz=137,slow=22,SNR=77 | | | | | | |
| URZ | | | | LR | LR | 04 06 52.9 | |
| | comp=Z,288nm,18.8s,baz=338,slow=53 | | | | | | |
| URZ | Urewera | 1.27 | 67 | ⇓PN | Pn | 04 06 17.2 | -1.6 |
| URZ | | | | AML | AML | 04 06 36.7 | |
| URZ | | | | AML | AML | 04 06 37.8 | |
| WHHZ | Waihua | 1.29 | 105 | ⇓PN | Pn | 04 06 19.0 | 0.0 |
| WHHZ | | | | AML | AML | 04 06 40.9 | |
| WHHZ | | | | AML | AML | 04 06 48.8 | |
| NEZ | North Egmont | 1.30 | 246 | Pn | Pn | 04 06 20.2 | +1.1 |
| NEZ | North Egmont | 1.30 | 246 | ⇓PN | Pn | 04 06 20.2 | +1.1 |
| TSZ | Takapari Road | 1.32 | 169 | Pn | Pn | 04 06 19.5 | +0.2 |
| TSZ | Takapari Road | 1.32 | 169 | PN | Pn | 04 06 19.5 | +0.2 |
| TSZ | | | | AML | AML | 04 06 43.1 | |
| TSZ | | | | AML | AML | 04 06 43.6 | |
| SNGZ | Shannon Statio | 1.34 | 91 | Pn | Pn | 04 06 19.2 | -0.3 |
| SNGZ | Shannon Statio | 1.34 | 91 | ⇓PN | Pn | 04 06 19.2 | -0.3 |
| SNGZ | | | | AML | AML | 04 06 45.6 | |
| SNGZ | | | | AML | AML | 04 06 49.7 | |
| PKE | Pukeiti | 1.35 | 251 | Pn | Pn | 04 06 20.5 | +1.0 |
| PKE | Pukeiti | 1.35 | 251 | ⇑PN | Pn | 04 06 20.5 | +1.0 |
| KHEZ | Kahui Hut | 1.36 | 247 | Pn | Pn | 04 06 20.7 | +1.0 |
| KHEZ | Kahui Hut | 1.36 | 247 | ⇑PN | Pn | 04 06 20.7 | +1.0 |
| KAHZ | Kahuranaki | 1.42 | 137 | Pn | Pn | 04 06 20.9 | +0.7 |
| KAHZ | Kahuranaki | 1.42 | 137 | ⇑PN | Pn | 04 06 20.9 | +0.7 |
| KAHZ | | | | AML | AML | 04 06 45.4 | |
| KAHZ | | | | AML | AML | 04 06 47.0 | |
| RAGZ | Rawiri | 1.43 | 80 | Pn | Pn | 04 06 19.4 | -0.9 |
| RAGZ | Rawiri | 1.43 | 80 | ⇓PN | Pn | 04 06 19.4 | -0.9 |
| RAGZ | | | | AML | AML | 04 06 41.0 | |
| RAGZ | | | | AML | AML | 04 06 41.7 | |
| CKHZ | Cape Kidnapper | 1.44 | 129 | Pn | Pn | 04 06 21.0 | +0.6 |
| CKHZ | Cape Kidnapper | 1.44 | 129 | ⇑PN | Pn | 04 06 21.0 | +0.6 |
| CKHZ | | | | AML | AML | 04 06 43.2 | |
| CKHZ | | | | AML | AML | 04 06 43.2 | |
| WPHZ | Waipukurau | 1.45 | 154 | Pn | Pn | 04 06 21.0 | +0.6 |
| WPHZ | Waipukurau | 1.45 | 154 | ⇑PN | Pn | 04 06 21.0 | +0.6 |
| WPHZ | | | | AML | AML | 04 06 42.9 | |
| WPHZ | | | | AML | AML | 04 06 43.1 | |
| OHWZ | Ohakea | 1.46 | 189 | ⇑PN | Pn | 04 06 21.8 | +1.3 |
| MWZ | Matawai | 1.55 | 75 | Pn | Pn | 04 06 20.0 | -1.6 |
| MWZ | Matawai | 1.55 | 75 | ⇓PN | Pn | 04 06 20.0 | -1.6 |
| MWZ | | | | AML | AML | 04 06 42.4 | |
| MWZ | | | | AML | AML | 04 06 42.6 | |
| PXZ | Pawanui | 1.59 | 143 | Pn | Pn | 04 06 21.9 | +0.1 |
| PXZ | Pawanui | 1.59 | 143 | PN | Pn | 04 06 21.9 | +0.1 |
| PXZ | | | | AML | AML | 04 06 46.9 | |
| PXZ | | | | AML | AML | 04 06 46.9 | |
| PXZ | | | | AML | AML | 04 06 48.2 | |
| PXZ | | | | AML | AML | 04 06 48.2 | |
| DVHZ | Dannevirke | 1.59 | 165 | Pn | Pn | 04 06 22.2 | +0.3 |
| DVHZ | Dannevirke | 1.59 | 165 | ⇑PN | Pn | 04 06 22.2 | +0.3 |
| DVHZ | | | | AML | AML | 04 06 47.2 | |
| DVHZ | | | | AML | AML | 04 06 51.4 | |
| KNZ | Kokohu | 1.62 | 100 | Pn | Pn | 04 06 21.4 | -0.7 |
| KNZ | Kokohu | 1.62 | 100 | PN | Pn | 04 06 21.4 | -0.7 |
| KNZ | | | | AML | AML | 04 06 44.1 | |
| KNZ | | | | AML | AML | 04 06 46.1 | |
| POWZ | Post Office Ro | 1.63 | 176 | Pn | Pn | 04 06 22.7 | +0.4 |
| POWZ | Post Office Ro | 1.63 | 176 | ⇑PN | Pn | 04 06 22.7 | +0.4 |
| POWZ | | | | AML | AML | 04 06 54.2 | |
| POWZ | | | | AML | AML | 04 06 56.6 | |
| RIGZ | Rimuhau | 1.67 | 89 | ⇓PN | Pn | 04 06 22.2 | -0.6 |
| RIGZ | | | | AML | AML | 04 06 45.2 | |
| RIGZ | | | | AML | AML | 04 06 45.8 | |
| MKAZ | Moumakai | 1.69 | 347 | Pn | Pn | 04 06 22.0 | -1.0 |
| MKAZ | Moumakai | 1.69 | 347 | PN | Pn | 04 06 22.0 | -1.0 |
| PRHZ | Porangahau | 1.69 | 153 | Pn | Pn | 04 06 23.5 | +0.5 |
| PRHZ | Porangahau | 1.69 | 153 | ⇑PN | Pn | 04 06 23.5 | +0.5 |
| PRHZ | | | | AML | AML | 04 06 49.7 | |
| PRHZ | | | | AML | AML | 04 06 51.5 | |
| PRGZ | Paritu Road | 1.77 | 96 | Pn | Pn | 04 06 23.2 | -0.6 |
| PRGZ | Paritu Road | 1.77 | 96 | ⇓PN | Pn | 04 06 23.2 | -0.6 |
| PRGZ | | | | AML | AML | 04 06 49.7 | |
| PRGZ | | | | AML | AML | 04 06 50.0 | |
| TKGZ | Te Karaka | 1.77 | 80 | Pn | Pn | 04 06 23.2 | -0.5 |
| TKGZ | Te Karaka | 1.77 | 80 | ⇓PN | Pn | 04 06 23.2 | -0.5 |
| TKGZ | | | | AML | AML | 04 06 47.3 | |
| TKGZ | | | | AML | AML | 04 06 49.6 | |
| RUGZ | Raukumara Rang | 1.80 | 64 | PN | Pn | 04 06 22.0 | -2.2 |
| PRWZ | Pori Road | 1.81 | 172 | Pn | Pn | 04 06 24.7 | +0.5 |
| PRWZ | Pori Road | 1.81 | 172 | ⇑PN | Pn | 04 06 24.7 | +0.5 |
| PRWZ | | | | AML | AML | 04 06 52.2 | |
| PRWZ | | | | AML | AML | 04 06 52.2 | |
| ANWZ | Angora Road | 1.82 | 159 | ⇑PN | Pn | 04 06 24.9 | +0.6 |
| ANWZ | | | | AML | AML | 04 06 52.1 | |
| ANWZ | | | | AML | AML | 04 06 52.7 | |
| MHGZ | Mahia Peninsul | 1.82 | 103 | Pn | Pn | 04 06 24.2 | -0.1 |
| MHGZ | Mahia Peninsul | 1.82 | 103 | ⇓PN | Pn | 04 06 24.2 | -0.1 |
| MHGZ | | | | AML | AML | 04 06 51.0 | |
| MHGZ | | | | AML | AML | 04 06 51.1 | |
| MRZ | Mangatainoka R | 1.90 | 181 | Pn | Pn | 04 06 25.3 | +0.2 |
| MRZ | Mangatainoka R | 1.90 | 181 | PN | Pn | 04 06 25.3 | +0.2 |
| MRZ | | | | AML | AML | 04 06 53.3 | |
| MRZ | | | | AML | AML | 04 06 53.4 | |
| TWGZ | Tauwhareparae | 1.94 | 73 | Pn | Pn | 04 06 24.7 | -0.9 |
| TWGZ | Tauwhareparae | 1.94 | 73 | ⇓PN | Pn | 04 06 24.7 | -0.9 |
| TWGZ | | | | AML | AML | 04 06 55.5 | |
| TWGZ | | | | AML | AML | 04 06 56.4 | |
| HAZ | Te Kaha | 1.97 | 60 | PN | Pn | 04 06 23.5 | -2.5 |
| HAZ | | | | AML | AML | 04 06 50.9 | |
| HAZ | | | | AML | AML | 04 06 52.9 | |
| WIAZ | Waiheke Island | 2.00 | 349 | PN | Pn | 04 06 25.6 | -0.7 |
| KUZ | Kuaotunu | 2.01 | 2 | Pn | Pn | 04 06 25.5 | -1.0 |
| KUZ | Kuaotunu | 2.01 | 2 | PN | Pn | 04 06 25.5 | -1.0 |
| TIWZ | Tintock | 2.02 | 174 | Pn | Pn | 04 06 26.7 | +0.1 |
| TIWZ | Tintock | 2.02 | 174 | ⇑PN | Pn | 04 06 26.7 | +0.1 |
| TIWZ | | | | AML | AML | 04 06 55.3 | |
| TIWZ | | | | AML | AML | 04 06 59.7 | |
| CNGZ | Carnagh Statio | 2.04 | 83 | Pn | Pn | 04 06 26.2 | -0.6 |
| CNGZ | Carnagh Statio | 2.04 | 83 | ⇓PN | Pn | 04 06 26.2 | -0.6 |
| CNGZ | | | | AML | AML | 04 06 55.2 | |
| CNGZ | | | | AML | AML | 04 07 14.4 | |
| OGWZ | Otaki Gorge | 2.08 | 190 | Pn | Pn | 04 06 27.5 | +0.3 |
| OGWZ | Otaki Gorge | 2.08 | 190 | ⇑PN | Pn | 04 06 27.5 | +0.3 |
| OGWZ | | | | AML | AML | 04 06 56.8 | |
| OGWZ | | | | AML | AML | 04 06 56.9 | |
| PKGZ | Pakihiroa | 2.11 | 66 | ⇓PN | Pn | 04 06 26.3 | -1.3 |
| PKGZ | | | | AML | AML | 04 06 54.8 | |
| PKGZ | | | | AML | AML | 04 07 04.3 | |
| HOWZ | Holdsworth Sta | 2.14 | 182 | Pn | Pn | 04 06 27.7 | -0.1 |
| HOWZ | Holdsworth Sta | 2.14 | 182 | ⇑PN | Pn | 04 06 27.7 | -0.1 |
| HOWZ | | | | AML | AML | 04 06 57.5 | |
| HOWZ | | | | AML | AML | 04 06 58.9 | |
| KIW | Kapiti Island | 2.17 | 195 | Pn | Pn | 04 06 28.1 | -0.1 |
| KIW | Kapiti Island | 2.17 | 195 | ⇑PN | Pn | 04 06 28.1 | -0.1 |
| KIW | | | | AML | AML | 04 06 57.8 | |
| KIW | | | | AML | AML | 04 06 59.1 | |
| PUZ | Puketiti | 2.18 | 72 | Pn | Pn | 04 06 26.5 | -1.8 |
| PUZ | Puketiti | 2.18 | 72 | PN | Pn | 04 06 26.5 | -1.8 |
| PUZ | | | | AML | AML | 04 06 54.1 | |
| PUZ | | | | AML | AML | 04 06 54.3 | |
| CPWZ | Castlepoint | 2.19 | 169 | Pn | Pn | 04 06 29.0 | +0.6 |
| CPWZ | Castlepoint | 2.19 | 169 | ⇑PN | Pn | 04 06 29.0 | +0.6 |
| CPWZ | | | | AML | AML | 04 07 00.1 | |
| CPWZ | | | | AML | AML | 04 07 01.3 | |
| TMWZ | Te Maipa | 2.35 | 175 | Pn | Pn | 04 06 30.2 | -0.2 |
| TMWZ | Te Maipa | 2.35 | 175 | ⇑PN | Pn | 04 06 30.2 | -0.2 |
| TMWZ | | | | AML | AML | 04 07 02.4 | |
| TMWZ | | | | AML | AML | 04 07 02.4 | |
| CAW | Cannon Point | 2.38 | 190 | Pn | Pn | 04 06 30.5 | -0.2 |
| CAW | Cannon Point | 2.38 | 190 | ⇑PN | Pn | 04 06 30.5 | -0.2 |
| CAW | | | | AML | AML | 04 07 02.6 | |
| CAW | | | | AML | AML | 04 07 02.9 | |
| WMGZ | Waiomatatini S | 2.39 | 68 | Pn | Pn | 04 06 29.1 | -1.6 |
| WMGZ | Waiomatatini S | 2.39 | 68 | ⇓PN | Pn | 04 06 29.1 | -1.6 |
| WMGZ | | | | AML | AML | 04 06 58.2 | |
| WMGZ | | | | AML | AML | 04 07 00.3 | |
| MTW | Mount Morrison | 2.40 | 182 | Pn | Pn | 04 06 30.5 | -0.4 |
| MTW | Mount Morrison | 2.40 | 182 | ⇑PN | Pn | 04 06 30.5 | -0.4 |
| MTW | | | | AML | AML | 04 07 02.8 | |
| MTW | | | | AML | AML | 04 07 03.5 | |
| DUWZ | D'Urville Isla | 2.43 | 212 | Pn | Pn | 04 06 30.9 | -0.3 |
| DUWZ | D'Urville Isla | 2.43 | 212 | ⇓PN | Pn | 04 06 30.9 | -0.3 |
| MXZ | Matakaoa Point | 2.43 | 61 | Pn | Pn | 04 06 29.9 | -1.4 |
| MXZ | Matakaoa Point | 2.43 | 61 | PN | Pn | 04 06 29.9 | -1.4 |
| MXZ | | | | AML | AML | 04 07 01.6 | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MXZ | | | | AML | AML | 04 07 02.1 | |
| WEL | Wellington | 2.60 | 194 | Pn | Pn | 04 06 33.0 | -0.3 |
| WEL | Wellington | 2.60 | 194 | PN | Pn | 04 06 33.0 | -0.3 |
| WEL | | | | AML | AML | 04 07 07.0 | |
| WEL | | | | AML | AML | 04 07 07.4 | |
| WEL | | | | AML | AML | 04 07 07.4 | |
| PAWZ | Paruwai Farm | 2.62 | 183 | Pn | Pn | 04 06 33.1 | -0.5 |
| PAWZ | Paruwai Farm | 2.62 | 183 | ⇑PN | Pn | 04 06 33.1 | -0.5 |
| PAWZ | | | | AML | AML | 04 07 07.6 | |
| PAWZ | | | | AML | AML | 04 07 07.7 | |
| TRWZ | Traveller | 2.63 | 179 | Pn | Pn | 04 06 33.3 | -0.4 |
| TRWZ | Traveller | 2.63 | 179 | ⇑PN | Pn | 04 06 33.3 | -0.4 |
| TRWZ | | | | AML | AML | 04 07 08.4 | |
| TRWZ | | | | AML | AML | 04 07 08.5 | |
| SNZO | South Karori | 2.64 | 195 | *e*Pn | Pn | 04 06 33.0 | -0.8 |
| SNZO | | | | *e*Sn | Sn | 04 07 05.0 | -2.7 |
| TCW | Tory Channel | 2.66 | 203 | Pn | Pn | 04 06 33.7 | -0.3 |
| TCW | Tory Channel | 2.66 | 203 | ⇑PN | Pn | 04 06 33.7 | -0.3 |
| TCW | | | | AML | AML | 04 07 08.3 | |
| TCW | | | | AML | AML | 04 07 08.3 | |
| MSWZ | Moikau Station | 2.67 | 186 | Pn | Pn | 04 06 33.6 | -0.5 |
| MSWZ | Moikau Station | 2.67 | 186 | ⇑PN | Pn | 04 06 33.6 | -0.5 |
| MSWZ | | | | AML | AML | 04 07 06.9 | |
| MSWZ | | | | AML | AML | 04 07 08.0 | |
| BHW | Baring Head | 2.71 | 192 | Pn | Pn | 04 06 34.1 | -0.5 |
| BHW | Baring Head | 2.71 | 192 | ⇑PN | Pn | 04 06 34.1 | -0.5 |
| BHW | | | | AML | AML | 04 07 08.7 | |
| BHW | | | | AML | AML | 04 07 08.9 | |
| PLWZ | Palliser | 2.82 | 186 | Pn | Pn | 04 06 35.2 | -0.8 |
| PLWZ | Palliser | 2.82 | 186 | ⇑PN | Pn | 04 06 35.2 | -0.8 |
| PLWZ | | | | AML | AML | 04 07 11.9 | |
| PLWZ | | | | AML | AML | 04 07 12.0 | |
| TUWZ | Tuamarina | 2.96 | 205 | Pn | Pn | 04 06 37.0 | -0.7 |
| TUWZ | Tuamarina | 2.96 | 205 | PN | Pn | 04 06 37.0 | -0.7 |
| TUWZ | | | | AML | AML | 04 07 14.1 | |
| TUWZ | | | | AML | AML | 04 07 16.6 | |
| NNZ | Nelson | 3.00 | 214 | Pn | Pn | 04 06 37.5 | -0.7 |
| NNZ | Nelson | 3.00 | 214 | ⇑PN | Pn | 04 06 37.5 | -0.7 |
| QRZ | Quartz Range | 3.15 | 228 | Pn | Pn | 04 06 39.0 | -1.1 |
| QRZ | Quartz Range | 3.15 | 228 | PN | Pn | 04 06 39.0 | -1.1 |
| CMWZ | Cape Campbell | 3.17 | 199 | Pn | Pn | 04 06 35.5 | -4.8 |
| CMWZ | Cape Campbell | 3.17 | 199 | PN | Pn | 04 06 40.5 | +0.2 |
| CMWZ | | | | AML | AML | 04 07 30.0 | |
| CMWZ | | | | AML | AML | 04 07 30.7 | |
| BSWZ | Blackbirch Sta | 3.24 | 204 | Pn | Pn | 04 06 40.6 | -0.6 |
| BSWZ | Blackbirch Sta | 3.24 | 204 | PN | Pn | 04 06 40.6 | -0.6 |
| BSWZ | | | | AML | AML | 04 07 24.2 | |
| BSWZ | | | | AML | AML | 04 07 24.7 | |
| THZ | Tophouse | 3.65 | 214 | Pn | Pn | 04 06 45.4 | -1.1 |
| THZ | Tophouse | 3.65 | 214 | ⇑PN | Pn | 04 06 45.4 | -1.1 |
| KHZ | Kahutara | 3.98 | 203 | Pn | Pn | 04 06 49.6 | -1.0 |
| KHZ | Kahutara | 3.98 | 203 | PN | Pn | 04 06 49.6 | -1.0 |
| KHZ | | | | AML | AML | 04 07 37.7 | |
| KHZ | | | | AML | AML | 04 07 37.7 | |
| KHZ | | | | AML | AML | 04 07 39.4 | |
| KHZ | | | | AML | AML | 04 07 39.4 | |
| DSZ | Denniston Nort | 4.18 | 223 | Pn | Pn | 04 06 51.6 | -1.6 |
| DSZ | Denniston Nort | 4.18 | 223 | PN | Pn | 04 06 51.6 | -1.6 |
| LTZ | Lake Taylor | 4.76 | 211 | Pn | Pn | 04 06 53.1 | -7.6 |
| LTZ | Lake Taylor | 4.76 | 211 | PN | Pn | 04 06 58.6 | -2.1 |
| INZ | Inchbonnie | 5.08 | 217 | PN | Pn | 04 07 02.5 | -2.3 |
| OXZ | Oxford | 5.31 | 210 | Pn | Pn | 04 07 05.3 | -2.6 |
| OXZ | Oxford | 5.31 | 210 | PN | Pn | 04 07 05.3 | -2.6 |
| MQZ | McQueen's Vall | 5.42 | 203 | Pn | Pn | 04 07 06.8 | -2.6 |
| MQZ | McQueen's Vall | 5.42 | 203 | PN | Pn | 04 07 06.7 | -2.6 |
| WVZ | Waitaha Valley | 5.68 | 219 | Pn | Pn | 04 07 09.8 | -2.9 |
| WVZ | Waitaha Valley | 5.68 | 219 | ⇑PN | Pn | 04 07 09.8 | -2.9 |
| RPZ | Rata Peaks | 6.03 | 213 | P | Pn | 04 07 14.5 | -2.9 |
| | 19nm,0.3s,baz=236,slow=0.9,SNR=54 | | | | | | |
| RPZ | | | | S | Sn | 04 08 21.2 | -4.7 |
| | 185nm,0.3s,baz=221,slow=23,SNR=74 | | | | | | |
| RPZ | Rata Peaks | 6.03 | 213 | Pn | Pn | 04 07 15.4 | -2.0 |
| RPZ | Rata Peaks | 6.03 | 213 | PN | Pn | 04 07 15.4 | -2.0 |
| FOZ | Fox Glacier | 6.48 | 221 | Pn | Pn | 04 07 20.1 | -3.1 |
| FOZ | Fox Glacier | 6.48 | 221 | PN | Pn | 04 07 20.1 | -3.1 |
| LBZ | Lake Benmore | 6.94 | 214 | Pn | Pn | 04 07 27.4 | -2.1 |
| ODZ | Otahua Downs | 7.29 | 209 | Pn | Pn | 04 07 31.7 | -2.4 |
| JCZ | Jackson Bay | 7.39 | 222 | Pn | Pn | 04 07 31.5 | -4.0 |
| CTZ | Chatham Island | 7.67 | 133 | Pn | Pn | 04 07 44.0 | +5.0 |
| WKZ | Wanaka | 7.82 | 217 | Pn | Pn | 04 07 38.5 | -2.6 |
| EAZ | Earnscleugh | 7.99 | 214 | Pn | Pn | 04 07 40.5 | -2.9 |
| TUZ | Tuapeka | 8.45 | 210 | Pn | Pn | 04 07 47.6 | -1.8 |
| MLZ | Mavora Lakes | 8.64 | 218 | Pn | Pn | 04 07 49.5 | -2.5 |
| WHZ | Wether Hill Ro | 9.11 | 216 | Pn | Pn | 04 07 56.2 | -2.0 |
| SYZ | Scrubby Hill | 9.12 | 209 | Pn | Pn | 04 07 56.9 | -1.4 |
| DCZ | Deep Cove | 9.19 | 220 | Pn | Pn | 04 07 56.9 | -2.3 |
| DZM | Mont Dzumac | 18.41 | 332 | P | Pn | 04 09 55.0 | 0.0 |
| | 0.4nm,0.3s,baz=199,slow=9.4,SNR=9.0 | | | | | | |
| DZM | Mont Dzumac | 18.41 | 332 | *e*P | P | 04 09 53.6 | +0.7 |
| | 24nm,1.2s | | | | | | |
| STKA | Stephens Creek | 28.49 | 273 | P | P | 04 11 30.1 | +0.2 |
| | 0.7nm,0.3s,baz=137,slow=19,SNR=2.5 | | | | | | |
| ASAR | Alice Springs | 38.38 | 281 | P | P | 04 12 56.8 | +1.2 |
| | 2.8nm,0.7s,baz=114,slow=5.8,SNR=38 | | | | | | |
| ASAR | | | | PcP | PcP | 04 15 05.1 | -0.5 |
| | 0.4nm,0.4s,baz=101,slow=4.9,SNR=2.9 | | | | | | |
| WRAB | Tennant Creek | 40.17 | 286 | *e*P | P | 04 13 13.0 | +2.7 |
| | 1.5nm,0.6s | | | | | | |
| WRA | Warramunga Arr | 40.18 | 286 | P | P | 04 13 10.1 | -0.3 |
| | 0.5nm,0.3s,baz=125,slow=7.5,SNR=7.2 | | | | | | |
| WRA | | | | PcP | PcP | 04 15 10.8 | -0.5 |
| | 0.7nm,0.9s,baz=151,slow=1.9,SNR=2.6 | | | | | | |
| FITZ | Fitzroy Crossi | 47.88 | 281 | P | P | 04 14 13.0 | +1.4 |
| | 0.7nm,0.4s,baz=150,slow=8.6,SNR=2.9 | | | | | | |
| QSPA | South Pole Qui | 51.37 | 180 | *e*P | P | 04 14 41.5 | +3.9 |
| | 37nm,1.2s | | | | | | |
| SNAA | Sanae | 69.87 | 181 | P | P | 04 16 45.8 | +3.3 |
| VNA3 | Neumayer Olymp | 70.24 | 178 | P | P | 04 16 44.6 | -0.1 |
| VNA2 | Neumayer--Watz | 70.60 | 179 | P | P | 04 16 49.6 | +2.7 |
| | baz=170,slow=5.5 | | | | | | |
| KSRS | Korea Array | 87.64 | 324 | P | P | 04 18 21.1 | +1.6 |
| | 1.7nm,0.9s,baz=142,slow=5.4,SNR=4.6 | | | | | | |
| ZALV | Zalesovo Beam | 120.63 | 317 | PKP | PKPdf | 04 24 19.5 | -2.0 |
| | 0.5nm,0.5s,baz=32,slow=0.9,SNR=3.1 | | | | | | |
| KBZ | Khabaz | 144.49 | 294 | PKP | PKPab | 04 25 04.5 | -0.7 |
| | 4.6nm,0.8s,baz=113,slow=3.1,SNR=11 | | | | | | |
| ARCES | ARCESS Array B | 145.29 | 342 | PKPbc | PKPdf | 04 25 06.4 | -0.6 |
| | 5.0nm,0.6s,baz=60,slow=3.3,SNR=31 | | | | | | |
| DBIC | Dimbokro | 148.05 | 179 | PKPbc | PKPdf | 04 25 15.6 | +2.2 |
| | 1.5nm,0.5s,baz=162,slow=6.6,SNR=4.9 | | | | | | |
| FINES | FINESS Array B | 150.54 | 330 | PKPbc | PKPbc | 04 25 20.4 | -0.9 |
| | 6.0nm,0.7s,baz=23,slow=3.3,SNR=25 | | | | | | |
| FINES | | | | PKPab | PKPab | 04 25 27.1 | -1.6 |
| | 2.4nm,0.5s,baz=73,slow=4.7,SNR=8.5 | | | | | | |
| BRTR | Keskin Array B | 150.69 | 284 | PKPbc | PKPbc | 04 25 22.0 | -0.6 |
| | 1.2nm,0.8s,baz=157,slow=3.8,SNR=6.3 | | | | | | |
| BRTR | | | | PKPab | PKPab | 04 25 30.2 | 0.0 |
| | 1.0nm,0.5s,baz=136,slow=4.0,SNR=8.3 | | | | | | |
| AKASG | Malin Array Be | 153.55 | 308 | PKPbc | PKPbc | 04 25 26.2 | -2.3 |
| | 0.4nm,0.4s,baz=55,slow=2.5,SNR=2.7 | | | | | | |
| TORD | Torodi Ar. Bea | 153.93 | 194 | PKPbc | PKPbc | 04 25 29.2 | -1.1 |
| | 0.4nm,0.4s,baz=158,slow=3.1,SNR=16 | | | | | | |
| TORD | | | | PKPab | PKPab | 04 25 44.0 | -0.1 |
| | 0.3nm,0.4s,baz=157,slow=4.2,SNR=5.6 | | | | | | |

**IDC 04 04:06:53.8**±12.0**, 17°.91S×178°.14W, h531**$^{km}$±146$^{km}$**, mb3.5**/6**, mb1 3.6**/6**, mb1mx3.2**/36**, mbtmp4.3**/6**, Error ellipse: s-maj=65.1km s-min=31.3km az=13.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| URZ | Urewera | 20.69 | 191 | P | P | 04 10 56.5 | -0.4 |
| | 8.4nm,0.5s,baz=0.0,slow=9.1,SNR=4.3 | | | | | | |
| STKA | Stephens Creek | 38.85 | 241 | P | P | 04 13 34.4 | +0.9 |
| | 2.4nm,0.6s,baz=95,slow=9.0,SNR=3.2 | | | | | | |
| WRA | Warramunga Arr | 44.88 | 260 | P | P | 04 14 20.0 | -1.2 |
| | 1.6nm,0.5s,baz=95,slow=7.0,SNR=8.8 | | | | | | |
| ASAR | Alice Springs | 45.03 | 254 | P | P | 04 14 22.4 | 0.0 |
| | 14nm,0.4s,baz=89,slow=8.2,SNR=155 | | | | | | |
| SEY | Seymchan | 83.84 | 347 | P | P | 04 18 26.8 | -0.1 |
| | 1.2nm,0.4s,baz=130,slow=14,SNR=4.5 | | | | | | |
| ILAR | Eielson Array | 85.84 | 13 | P | P | 04 18 37.0 | +0.4 |
| | 0.2nm,0.4s,baz=220,slow=5.3,SNR=6.2 | | | | | | |
| GERES | GERESS Array B | 147.68 | 345 | PKPbc | PKPbc | 04 25 38.0 | -0.8 |
| | 0.4nm,0.4s,baz=40,slow=5.2,SNR=2.7 | | | | | | |

**IDC 04 04:20:32.5**±6.4**, 3°.98S×101°.91E, h0**$^{km}$**, mb3.4**/4**, mb1 3.5**/4**, mb1mx3.4**/32**, mbtmp3.4**/4**, Error ellipse: s-maj=311.8km s-min=24.5km az=52.0, Southern Sumatera**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| H08S2 | Diego Garcia H | 29.48 | 262 | T | T | 04 56 44.8 | |
| | baz=86 | | | | | | |
| H08S3 | Diego Garcia H | 29.49 | 262 | T | T | 04 56 42.8 | |
| | baz=86 | | | | | | |
| H08S1 | Diego Carcia H | 29.50 | 262 | T | T | 04 56 39.7 | |
| | baz=86 | | | | | | |
| WRA | Warramunga Arr | 35.37 | 119 | P | P | 04 27 30.5 | +0.4 |
| | 0.2nm,0.6s,baz=297,slow=8.9,SNR=3.4 | | | | | | |
| ASAR | Alice Springs | 36.56 | 125 | P | P | 04 27 40.3 | -0.1 |
| | 0.3nm,0.5s,baz=298,slow=8.0,SNR=4.6 | | | | | | |
| MKAR | Makanchi Array | 53.44 | 343 | P | P | 04 29 54.1 | -0.2 |
| | 0.2nm,0.5s,baz=157,slow=9.2,SNR=5.3 | | | | | | |
| ZALV | Zalesovo Beam | 59.46 | 348 | P | P | 04 30 37.6 | +0.5 |
| | 0.3nm,0.3s,baz=102,slow=5.9,SNR=3.2 | | | | | | |
| TXAR | Lajitas Array | 145.02 | 41 | PKPbc | PKPbc | 04 40 09.9 | -2.1 |
| | 0.4nm,0.6s,baz=318,slow=2.6,SNR=3.6 | | | | | | |

*SOME **04** 04:23:39.4, 41°.90N×72°.23E, h5$^{km}$*
*NNC **04** 04:23:39.6±0.6, 41°.89N×72°.34E, h0$^{km}$, mb3.1, mpv2.7, Error ellipse: s-maj=3.6km s-min=3.1km az=77.0*
*KRNET **04** 04:23:39.0±0.1, 41°.88N×72°.29E, h15$^{km}$, mb2.8*
**ISC 04 04:23:38.9**±1.0**, 41°.87N**±0°.03**×72°.31E**±0°.03**, h14**$^{km}$±10$^{km}$**, n32, σ1.03**/54**, 37C-9D, Kyrgyzstan**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ARK | Arkit | 0.27 | 255 | ⇑*i*P | Pg | 04 23 44.0 | -0.6 |
| | baz=247 | | | | | | |
| ARK | | | | ⇑*i*S | Sg | 04 23 48.2 | -0.3 |
| | baz=247 | | | | | | |
| TOKL | Toktogul | 0.43 | 80 | ⇑*i*P | Pg | 04 23 47.7 | +0.2 |
| | baz=82 | | | | | | |
| TOKL | | | | ⇑*i*S | Sg | 04 23 54.2 | +0.9 |
| | baz=82 | | | | | | |
| MNAS | Manas | 0.64 | 13 | ⇓*i*P | Pg | 04 23 51.7 | +0.2 |
| | baz=15 | | | | | | |
| MNAS | | | | ⇓*i*S | Sg | 04 24 00.3 | +0.4 |
| | baz=15 | | | | | | |
| MNAS | Manas | 0.64 | 13 | ⇑P | Pg | 04 23 51.6 | +0.2 |
| | 3.3nm,0.2s | | | | | | |
| MNAS | | | | ⇑S | Sb | 04 24 00.5 | -0.3 |
| | 46nm,0.4s | | | | | | |
| ARSB | Arslanbob | 0.74 | 137 | ⇑*e*P | Pg | 04 23 53.6 | +0.2 |
| | baz=137 | | | | | | |
| ARSB | | | | ⇑*i*S | Sb | 04 24 04.3 | +0.5 |
| | baz=137 | | | | | | |
| AML | Almayashu | 1.07 | 75 | ⇓*i*P | Pg | 04 23 59.3 | -0.3 |
| | baz=76 | | | | | | |
| AML | | | | ⇓*i*S | Sb | 04 24 14.0 | +0.6 |
| | baz=76 | | | | | | |
| AML | Almayashu | 1.07 | 75 | ⇑P | Pg | 04 23 59.4 | -0.2 |
| | 8.9nm,0.1s,SNR=78 | | | | | | |
| MRKS | Merke | 1.11 | 38 | *e*P | Pb | 04 24 00.4 | +0.4 |
| | 15nm,0.2s | | | | | | |
| MRKS | | | | *e*S | Sn | 04 24 15.5 | +0.1 |
| | 49nm,0.3s | | | | | | |
| EKS2 | Erkin-Say | 1.35 | 53 | ⇑*i*P | Pg | 04 24 04.8 | -0.1 |
| | baz=54 | | | | | | |
| EKS2 | | | | ⇑*i*S | Sg | 04 24 23.4 | +0.9 |
| | baz=54 | | | | | | |
| EKS2 | Erkin-Say | 1.35 | 53 | P | Pb | 04 24 04.5 | +0.4 |
| | 1.4nm,0.1s,SNR=17 | | | | | | |
| UCH | Uchtor | 1.68 | 77 | ⇑*i*P | Pb | 04 24 10.8 | +0.8 |
| | baz=77 | | | | | | |
| UCH | | | | ⇑*i*S | Sg | 04 24 33.0 | -0.2 |
| | baz=77 | | | | | | |
| UCH | Uchtor | 1.68 | 77 | ⇓P | Pb | 04 24 10.6 | +0.6 |
| | 9.6nm,0.2s,SNR=50 | | | | | | |
| AAK | Ala-Archa | 1.80 | 64 | ⇑*i*P | Pb | 04 24 12.3 | +0.6 |
| | baz=65 | | | | | | |
| AAK | | | | ⇑*i*S | Sg | 04 24 36.2 | -0.6 |
| | baz=65 | | | | | | |
| AAK | Ala-Archa | 1.80 | 64 | ⇑P | Pb | 04 24 12.7 | +0.9 |
| | 2.3nm,0.3s | | | | | | |
| AAK | | | | ⇑S | Sb | 04 24 35.0 | +0.8 |
| | 7.1nm,0.5s | | | | | | |
| AAK | Ala-Archa | 1.80 | 64 | ⇓P | Pg | 04 24 13.9 | +0.4 |
| | 5.6nm,0.2s,SNR=10 | | | | | | |
| KK31 | Karatay Array | 1.81 | 314 | ⇓P | Pb | 04 24 12.0 | +0.1 |
| | 1.4nm,0.2s,baz=130,slow=17,SNR=95 | | | | | | |
| KK31 | | | | ⇑S | Sg | 04 24 36.5 | -0.7 |
| | 6.1nm,0.3s,baz=130,slow=28,SNR=12 | | | | | | |
| SFK | Sufi-Kurgan | 2.06 | 153 | ⇑*e*P | Pb | 04 24 16.8 | +0.5 |
| | baz=153 | | | | | | |
| SFK | | | | ⇑*i*S | Sb | 04 24 43.1 | +1.2 |
| | baz=153 | | | | | | |
| SFK | Sufi-Kurgan | 2.06 | 153 | ⇑Pg | Pb | 04 24 17.1 | +0.8 |
| | 1.6nm,0.4s | | | | | | |
| SFK | | | | ⇓Lg | Lg | 04 24 46.0 | |
| | 6.7nm,0.4s | | | | | | |
| KBK | Karagaybulak | 2.12 | 67 | ⇑*i*P | Pb | 04 24 17.5 | +0.4 |
| | baz=68 | | | | | | |
| KBK | | | | ⇑*i*S | Sb | 04 24 44.4 | +1.1 |
| | baz=68 | | | | | | |
| KBK | Karagaybulak | 2.12 | 67 | ⇑P | Pg | 04 24 19.2 | -0.3 |
| | 3.9nm,0.2s,SNR=7.8 | | | | | | |
| CHMS | Chumysh | 2.13 | 57 | ⇑*i*P | Pb | 04 24 17.7 | +0.3 |
| | baz=58 | | | | | | |
| CHMS | | | | ⇑*i*S | Sb | 04 24 45.1 | +1.3 |
| | baz=58 | | | | | | |
| CHMS | Chumysh | 2.13 | 57 | ⇑P | Pb | 04 24 18.7 | +1.3 |
| | 7.2nm,0.3s,SNR=7.8 | | | | | | |
| USP | Ospenovka | 2.14 | 48 | ⇑*i*P | Pb | 04 24 17.9 | +0.4 |
| | baz=49 | | | | | | |
| USP | | | | ⇑*i*S | Sb | 04 24 45.4 | +1.4 |
| | baz=49 | | | | | | |
| USP | Ospenovka | 2.14 | 48 | ⇓P | Pb | 04 24 18.6 | +1.1 |
| | 14nm,0.3s,SNR=10 | | | | | | |
| TKM2 | Tokmak 2 | 2.66 | 66 | ⇑*i*P | Pb | 04 24 25.6 | -0.8 |
| | baz=66 | | | | | | |
| TKM2 | | | | ⇑*i*S | Sb | 04 24 58.1 | -0.8 |
| | baz=66 | | | | | | |
| TKM2 | Tokmak 2 | 2.66 | 66 | ⇑Pg | Pb | 04 24 26.8 | +0.4 |
| | 3.4nm,0.4s | | | | | | |
| TKM2 | | | | ⇑Lg | Lg | 04 25 03.7 | |
| | 3.3nm,0.3s | | | | | | |
| TKM2 | Tokmak 2 | 2.66 | 66 | P | Pb | 04 24 27.7 | +1.3 |
| | SNR=9.5 | | | | | | |
| BOOM | Boomskoye usch | 2.77 | 76 | ⇑*e*P | Pb | 04 24 26.9 | -1.5 |
| | baz=76 | | | | | | |
| BOOM | | | | ⇑*e*S | Sb | 04 25 01.8 | -0.5 |
| | baz=76 | | | | | | |
| DGS | Degeres | 2.91 | 61 | *e*P | Pg | 04 24 33.7 | -0.9 |
| | 5.3nm,0.4s | | | | | | |
| DGS | | | | *e*S | Sg | 04 25 11.2 | -1.1 |
| | 6.1nm,0.3s | | | | | | |
| ULHL | Ulahol | 2.96 | 81 | ⇑*i*P | Pb | 04 24 29.2 | -2.3 |
| | baz=82 | | | | | | |
| ULHL | | | | ⇑*i*S | Sb | 04 25 05.5 | -2.1 |
| | baz=82 | | | | | | |
| IZV | Izvestkoviy | 3.40 | 68 | *e*P | Pg | 04 24 41.9 | -2.1 |
| | 4.7nm,0.5s | | | | | | |
| IZV | | | | *e*S | Sg | 04 25 26.1 | -1.8 |
| | 10.0nm,0.5s | | | | | | |
| TNSS | Tian-Shan | 3.63 | 70 | *e*P | Pb | 04 24 46.0 | +2.9 |
| | 3.2nm,0.4s | | | | | | |
| TNSS | | | | *e*S | Sg | 04 25 34.2 | -1.2 |
| | 5.7nm,0.5s | | | | | | |

*CSEM **04** 04:36:29.4±0.3, 60°.91N×26°.62E, h5$^{km}$, ML1.1, Error ellipse: s-maj=6.0km s-min=4.8km az=83.0*
**HEL 04 04:36:30.4**±0.1**, 60°.91N×26°.67E, h2**$^{km}$**, ML1.1, Finland**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PVF | Pernaja | 0.54 | 227 | P | Pg | 04 36 40.1 | -0.6 |
| PVF | | | | S | Sg | 04 36 47.1 | -0.6 |
| PVF | Pernaja | 0.54 | 227 | *e*P | Pg | 04 36 40.2 | -0.5 |
| PVF | | | | *e*S | Sg | 04 36 47.2 | -0.5 |
| VJF | Virojoki | 0.57 | 130 | P | Pg | 04 36 40.6 | -0.8 |
| VJF | | | | S | Sg | 04 36 48.2 | -0.6 |
| VJF | Virojoki | 0.57 | 130 | *e*P | Pg | 04 36 40.7 | -0.7 |
| VJF | | | | *e*S | Sg | 04 36 48.2 | -0.6 |
| VJF | | | | MSG | | 04 36 49.0 | |
| | comp=Z,1.8nm,0.1s | | | | | | |
| FIA0 | FINESS Array S | 0.61 | 332 | P | Pg | 04 36 41.6 | -0.4 |
| FIA0 | | | | S | Sg | 04 36 49.4 | -0.4 |
| FIA0 | FINESS Array S | 0.61 | 332 | *e*P | Pg | 04 36 41.6 | -0.4 |
| FIA0 | | | | *e*S | Sg | 04 36 49.5 | -0.4 |
| FIA0 | | | | MSG | | 04 36 50.0 | |
| | comp=Z,1.1nm,0.1s | | | | | | |
| KAF | Kangasniemi | 1.22 | 352 | P | Pg | 04 36 52.1 | -1.6 |
| KAF | Kangasniemi | 1.22 | 352 | *e*P | Pg | 04 36 52.2 | -1.6 |
| MEF | Metsahovi | 1.32 | 239 | P | Pg | 04 36 53.9 | -1.7 |
| MEF | Metsahovi | 1.32 | 239 | *e*P | Pg | 04 36 53.9 | -1.7 |
| MEF | | | | MSG | | 04 37 11.4 | |
| | comp=Z,1.7nm,0.2s | | | | | | |
| RAF | Rauma | 2.39 | 275 | Sg | Sb | 04 37 43.6 | -0.4 |
| RAF | Rauma | 2.39 | 275 | *e*SG | Sb | 04 37 43.6 | -0.4 |
| RAF | | | | MSG | | 04 37 45.9 | |
| | comp=Z,1.0nm,0.2s | | | | | | |

*CSEM **04** 04:36:45.5, 60°.90N×26°.66E, h2$^{km}$, ML1.4*
**HEL 04 04:36:45.5**±0.1**, 60°.90N×26°.66E, h2**$^{km}$**, ML1.4, Finland**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PVF | Pernaja | 0.53 | 228 | P | Pg | 04 36 55.1 | -0.6 |
| PVF | | | | S | Sg | 04 37 01.7 | -0.8 |
| PVF | Pernaja | 0.53 | 228 | *e*P | Pg | 04 36 55.2 | -0.5 |
| PVF | | | | *e*S | Sg | 04 37 01.8 | -0.7 |
| VJF | Virojoki | 0.57 | 129 | P | Pg | 04 36 55.4 | -1.1 |
| VJF | | | | S | Sg | 04 37 03.1 | -0.8 |
| VJF | Virojoki | 0.57 | 129 | *e*P | Pg | 04 36 55.4 | -1.0 |
| VJF | | | | *e*S | Sg | 04 37 03.2 | -0.7 |
| VJF | | | | MSG | | 04 37 03.8 | |
| | comp=Z,5.4nm,0.2s | | | | | | |
| FIA0 | FINESS Array S | 0.61 | 333 | P | Pg | 04 36 56.8 | -0.4 |
| FIA0 | | | | S | Sg | 04 37 03.9 | -1.2 |
| FIA0 | FINESS Array S | 0.61 | 333 | *e*P | Pg | 04 36 56.8 | -0.3 |
| FIA0 | | | | *e*S | Sg | 04 37 04.0 | -1.1 |
| KAF | Kangasniemi | 1.23 | 352 | P | Pg | 04 37 07.1 | -1.8 |
| KAF | | | | S | Sg | 04 37 23.5 | -1.3 |
| KAF | Kangasniemi | 1.23 | 352 | *e*P | Pg | 04 37 07.2 | -1.8 |
| KAF | | | | *e*S | Sg | 04 37 23.6 | -1.2 |
| KAF | | | | MSG | | 04 37 23.9 | |
| | comp=Z,2.0nm,0.2s | | | | | | |
| KAF | Kangasniemi | 1.23 | 352 | S | Pg | 04 37 07.4 | -1.5 |
| KAF | Kangasniemi | 1.23 | 352 | *e*S | Pg | 04 37 07.4 | -1.5 |
| MEF | Metsahovi | 1.31 | 239 | P | Pg | 04 37 09.3 | -1.3 |
| MEF | | | | S | Sg | 04 37 25.8 | -1.8 |
| MEF | Metsahovi | 1.31 | 239 | *e*P | Pg | 04 37 09.4 | -1.2 |
| MEF | | | | *e*S | Sg | 04 37 25.8 | -1.8 |
| MEF | | | | MSG | | 04 37 32.2 | |
| | comp=Z,4.7nm,0.1s | | | | | | |
| MEF | Metsahovi | 1.31 | 239 | S | Pg | 04 37 09.3 | -1.3 |
| MEF | Metsahovi | 1.31 | 239 | *e*S | Pg | 04 37 09.3 | -1.3 |
| KEF | Keuruu | 1.53 | 327 | P | Pn | 04 37 12.8 | -1.0 |
| KEF | | | | S | Sn | 04 37 32.4 | -1.8 |
| KEF | Keuruu | 1.53 | 327 | *e*P | Pn | 04 37 12.8 | -1.0 |
| KEF | | | | *e*S | Sn | 04 37 32.5 | -1.8 |
| KEF | | | | MSG | | 04 37 34.4 | |
| | comp=Z,3.1nm,0.1s | | | | | | |
| SUF | Sumiainen | 1.84 | 353 | P | Pn | 04 37 17.4 | -0.6 |
| SUF | | | | Sg | Sn | 04 37 42.0 | +0.2 |
| SUF | Sumiainen | 1.84 | 353 | *e*P | Pn | 04 37 17.5 | -0.5 |
| SUF | | | | *e*SG | Sn | 04 37 42.0 | +0.2 |
| SUF | | | | MSG | | 04 37 46.1 | |
| | comp=Z,1.3nm,0.1s | | | | | | |
| RAF | Rauma | 2.39 | 275 | Sg | Sb | 04 37 58.4 | -0.6 |
| RAF | Rauma | 2.39 | 275 | *e*SG | Sb | 04 37 58.4 | -0.6 |
| RAF | | | | MSG | | 04 38 01.9 | |
| | comp=Z,1.8nm,0.1s | | | | | | |
| RAF | Rauma | 2.39 | 275 | *e*P | Pb | 04 37 27.6 | -1.6 |
| | SNR=46 | | | | | | |
| VSU | Vasula | 2.45 | 179 | *e*S | Sb | 04 38 00.7 | -0.1 |
| | comp=Z,15nm,0.3s,SNR=46 | | | | | | |
| VAF | Ylistaro | 2.85 | 320 | Pb | Pn | 04 37 34.3 | +2.3 |
| VAF | | | | Sb | Sb | 04 38 10.2 | -2.2 |
| VAF | Ylistaro | 2.85 | 320 | *e*PB | Pn | 04 37 34.4 | +2.4 |
| VAF | | | | *e*SB | Sb | 04 38 10.3 | -2.1 |
| JOF | Joensuu | 2.99 | 45 | P | Pn | 04 37 34.4 | +0.6 |
| JOF | Joensuu | 2.99 | 45 | *e*P | Pn | 04 37 34.4 | +0.6 |
| OUF | Merijarvi | 3.59 | 346 | S | Sn | 04 38 23.8 | -1.1 |
| OUF | Merijarvi | 3.59 | 346 | *e*S | Sn | 04 38 23.9 | -1.0 |

**DJA 04 04:43:56.4**±1.5**, 3°S**±6°**×12°7E**±°**, h20**$^{km}$±15$^{km}$**, M3.6**/7**, MLv3.6**/7**, Seram**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AAI | Ambon | 1.12 | 122 | P | Pn | 04 44 16.2 | -0.8 |
| SANI | Sanana | 1.62 | 310 | P | Pn | 04 44 24.1 | +0.2 |
| SANI | | | | S | Sn | 04 44 43.5 | -0.7 |
| MSAI | Masohi | 1.71 | 99 | P | Pn | 04 44 24.7 | -0.3 |
| MSAI | | | | S | Sb | 04 44 47.6 | -0.5 |
| LBMI | Labuha | 2.45 | 6 | P | Pn | 04 44 36.1 | +0.8 |
| LBMI | | | | S | Sn | 04 45 05.4 | +0.7 |
| BNDI | Bandanaira | 3.02 | 118 | P | Pn | 04 44 42.6 | -0.5 |
| LUWI | Luwuk | 4.91 | 294 | P | Pn | 04 45 11.0 | +1.9 |

*CSEM **04** 04:55:21.5±0.7, 51°.56N×16°.11E, h2$^{km}$, Error ellipse: s-maj=9.4km s-min=5.0km az=8.0*
*WAR **04** 04:55:22.9, 51°.54N×16°.14E, h1$^{km}$*
**PRU 04 04:55:23.0, 51°.52N×16°.12E, h0**$^{km}$**, Poland**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KSP | Ksiaz | 0.69 | 171 | *e*Pg | Pg | 04 55 36.2 | +0.1 |
| KSP | | | | *e*Sg | Sg | 04 55 45.8 | +0.8 |
| KSP | Ksiaz | 0.69 | 171 | *e*Pg | Pg | 04 55 36.2 | +0.1 |
| KSP | | | | *e*Sg | Sg | 04 55 45.8 | +0.8 |
| KSP | Ksiaz | 0.69 | 171 | *e*Pg | Pg | 04 55 36.2 | +0.1 |
| KSP | | | | *e*Sg | Sg | 04 55 45.8 | +0.8 |
| UPC | Upice | 1.02 | 184 | *e*PG | Pg | 04 55 42.4 | 0.0 |
| UPC | | | | *e*SG | Sg | 04 55 55.9 | +0.3 |
| | comp=Z,6.2nm,0.2s | | | | | | |
| UPC | Upice | 1.02 | 184 | Pg | Pg | 04 55 42.4 | 0.0 |
| UPC | | | | Sg | Sg | 04 55 55.9 | +0.3 |
| | 6.2nm,0.2s | | | | | | |
| DPC | Dobruska-Polom | 1.18 | 174 | *e*PG | Pg | 04 55 45.0 | -0.6 |
| DPC | | | | *e*SG | Sg | 04 56 00.2 | -0.6 |
| DPC | Dobruska-Polom | 1.18 | 174 | Pg | Pg | 04 55 45.0 | -0.6 |
| DPC | | | | Sg | Sg | 04 56 00.2 | -0.6 |
| PVCC | Panska Ves | 1.40 | 225 | *e*PG | Pn | 04 55 49.1 | -0.6 |
| PVCC | | | | *e*SG | Sb | 04 56 08.5 | +0.3 |
| | comp=Z,18nm,0.2s | | | | | | |
| PVCC | Panska Ves | 1.40 | 225 | Pg | Pn | 04 55 49.1 | -0.6 |
| PVCC | | | | Sg | Sb | 04 56 08.5 | +0.3 |
| | 18nm,0.2s | | | | | | |
| KRLC | Kraliky | 1.51 | 164 | *e*PG | Pn | 04 55 51.1 | -0.2 |
| KRLC | | | | *e*SG | Sg | 04 56 10.2 | -1.1 |
| KRLC | Kraliky | 1.51 | 164 | Pg | Pn | 04 55 51.1 | -0.2 |
| KRLC | | | | Sg | Sg | 04 56 10.2 | -1.1 |
| BRG | Berggiesshubel | 1.52 | 246 | PG | Pn | 04 55 51.5 | +0.1 |
| BRG | | | | SG | Sn | 04 56 12.1 | +0.4 |
| | 11nm,0.4s | | | | | | |
| GOPC | GO Pecny, Ondr | 1.82 | 208 | *e*PG | Pb | 04 55 57.1 | 0.0 |
| GOPC | | | | *e*SG | Sg | 04 56 21.3 | 0.0 |
| GOPC | GO Pecny, Ondr | 1.82 | 208 | Pg | Pb | 04 55 57.1 | 0.0 |
| GOPC | | | | Sg | Sg | 04 56 21.3 | 0.0 |
| PRU | Pruhonice | 1.83 | 214 | *e*PG | Pb | 04 55 56.9 | -0.5 |
| PRU | | | | *e*SG | Sb | 04 56 21.2 | +0.4 |
| PRU | Pruhonice | 1.83 | 214 | Pg | Pb | 04 55 56.9 | -0.5 |
| PRU | | | | Sg | Sb | 04 56 21.2 | +0.4 |
| CLL | Collm | 1.96 | 265 | *e*Pg | Pb | 04 56 00.0 | +0.4 |
| CLL | | | | *e*Sg | Sb | 04 56 25.0 | +0.4 |
| MORC | Moravsky Berou | 1.97 | 152 | *e*Pn | Pn | 04 55 56.6 | -1.0 |
| MORC | | | | *e*Sg | Sb | 04 56 25.0 | +0.3 |
| OKC | Ostrava-Krasne | 2.12 | 142 | *e*SG | Sg | 04 56 30.5 | -0.6 |
| OKC | Ostrava-Krasne | 2.12 | 142 | Sg | Sg | 04 56 30.5 | -0.6 |
| NKC | Novy Kostel | 2.66 | 242 | *e*SG | Sg | 04 56 48.6 | +0.2 |
| NKC | Novy Kostel | 2.66 | 242 | Sg | Sg | 04 56 48.6 | +0.2 |
| KHC | Kasperske Hory | 2.89 | 215 | *e*PG | Pb | 04 56 16.0 | +0.5 |
| KHC | | | | *e*SG | Sg | 04 56 54.6 | -1.3 |
| KHC | Kasperske Hory | 2.89 | 215 | Pg | Pb | 04 56 16.0 | +0.5 |
| KHC | | | | Sg | Sg | 04 56 54.6 | -1.3 |

*ISK **04** 04:55:30.7, 38°.86N×43°.77E, h5$^{km}$, MD2.8*
*CSEM **04** 04:55:31.5±0.3, 38°.86N×43°.84E, h2$^{km}$, MD2.8, Error ellipse: s-maj=7.7km s-min=4.1km az=99.0*
*DDA **04** 04:55:31.2, 38°.85N×43°.84E, h7$^{km}$, Md2.8*
*ATA **04** 04:55:31.4±0.6, 38°.90N×43°.75E, h13$^{km}$±18$^{km}$, ML2.9, MW3.4*
**ISC 04 04:55:32.1**±1.1**, 38°.87N**±0°.02**×43°.82E**±0°.04**, h12**$^{km}$±8$^{km}$**, n43, σ0.83**/52**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.23 | 302 | *i* P | Pg | 04 55 36.0 | -1.0 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | | | | *i* S | Sg | 04 55 41.5 | +1.1 |
| VMUR | Van-Muradiye | 0.23 | 302 | P | Pg | 04 55 36.0 | -1.0 |
| VMUR | | | | S | Sg | 04 55 41.5 | +1.1 |
| CLDR | Caldiran | 0.28 | 16 | *e*PG | Pg | 04 55 37.8 | -0.3 |
| CLDR | Caldiran | 0.28 | 16 | *i* P | Pg | 04 55 37.7 | -0.4 |
| CLDR | Caldiran | 0.28 | 16 | P | Pg | 04 55 37.7 | -0.4 |
| VANB | Van | 0.43 | 231 | *e*PG | Pg | 04 55 40.6 | -0.1 |
| VANB | Van | 0.43 | 231 | *e*Pg | Pg | 04 55 40.6 | -0.1 |
| TVAN | Van | 0.47 | 224 | *i* P | Pg | 04 55 40.7 | -0.7 |
| TVAN | | | | *i* S | Sb | 04 55 52.4 | +2.9 |
| TVAN | Van | 0.47 | 224 | P | Pg | 04 55 40.7 | -0.7 |
| DYDN | Diyadin | 0.68 | 351 | *e*P | Pg | 04 55 44.5 | -0.9 |
| DYDN | Diyadin | 0.68 | 351 | *i* P | Pg | 04 55 44.9 | -0.5 |
| DYDN | | | | *i* S | Sb | 04 55 55.5 | 0.0 |
| DYDN | Diyadin | 0.68 | 351 | P | Pg | 04 55 44.9 | -0.5 |
| DYDN | | | | S | Sb | 04 55 55.5 | 0.0 |
| GEVA | Gevas | 0.82 | 227 | *e*P | Pg | 04 55 47.4 | -0.5 |
| GEVA | | | | *e*S | Sb | 04 55 59.3 | -0.1 |
| GEVA | | | | IAML | | 04 56 10.9 | |
| | comp=Z,42nm,0.5s | | | | | | |
| GEVA | Gevas | 0.82 | 227 | *i* P | Pg | 04 55 47.6 | -0.4 |
| GEVA | Gevas | 0.82 | 227 | P | Pg | 04 55 47.6 | -0.4 |
| ADCV | BITLIS_Adilcev | 0.86 | 266 | *i* P | Pg | 04 55 47.2 | -1.5 |
| ADCV | BITLIS_Adilcev | 0.86 | 266 | P | Pg | 04 55 47.2 | -1.5 |
| AGRB | Hanur-Agry | 0.95 | 318 | *e*PG | Pg | 04 55 49.8 | -0.8 |
| AGRB | | | | *e*SG | Sb | 04 56 04.0 | +0.6 |
| AGRB | Hanur-Agry | 0.95 | 318 | *e*Pg | Pg | 04 55 49.8 | -0.8 |
| AGRB | | | | *e*Sg | Sb | 04 56 04.0 | +0.6 |
| TASB | TASBURUN-IGDIR | 1.16 | 16 | *e*PN | Pn | 04 55 54.5 | +0.2 |
| TASB | TASBURUN-IGDIR | 1.16 | 16 | *e*Pn | Pn | 04 55 54.5 | +0.2 |
| HAKT | HAKKARI | 1.31 | 184 | *i* P | Pn | 04 55 55.8 | -0.8 |
| HAKT | HAKKARI | 1.31 | 184 | P | Pn | 04 55 55.8 | -0.8 |
| EKAR | Karacoban | 1.42 | 286 | *i* P | Pg | 04 55 59.0 | -0.4 |
| EKAR | Karacoban | 1.42 | 286 | P | Pg | 04 55 59.0 | -0.4 |
| EATA | Eleskirt | 1.43 | 314 | *e*P | Pn | 04 55 57.8 | -0.4 |
| EATA | | | | IAML | | 04 56 14.6 | |
| | comp=Z,3.5nm,0.6s | | | | | | |
| EATA | Eleskirt | 1.43 | 314 | *i* P | Pn | 04 55 57.9 | -0.3 |
| EATA | Eleskirt | 1.43 | 314 | P | Pn | 04 55 57.9 | -0.3 |
| DIGO | Kars | 1.58 | 348 | *e*P | Pn | 04 56 00.4 | +0.1 |
| DIGO | | | | IAML | | 04 56 05.2 | |
| | comp=Z,9.1nm,0.4s | | | | | | |
| DIGO | | | | *e*S | Sg | 04 56 24.1 | +1.1 |
| DIGO | Kars | 1.58 | 348 | *i* P | Pg | 04 56 01.9 | -0.6 |
| DIGO | Kars | 1.58 | 348 | P | Pg | 04 56 01.9 | -0.6 |
| CUKT | Cukurca | 1.63 | 186 | *e*PN | Pb | 04 56 01.6 | -0.5 |
| CUKT | Cukurca | 1.63 | 186 | *e*Pn | Pb | 04 56 01.7 | -0.5 |
| SRTM | Siirt_Merkez | 1.73 | 240 | *i* P | Pb | 04 56 03.9 | 0.0 |
| SRTM | Siirt_Merkez | 1.73 | 240 | P | Pb | 04 56 03.9 | 0.0 |
| SIRT | Sirnak | 1.75 | 219 | *e*PN | Pn | 04 56 02.9 | +0.5 |
| SIRT | Sirnak | 1.75 | 219 | *e*Pn | Pn | 04 56 02.9 | +0.5 |
| VRTB | Varto-Mus | 1.86 | 280 | *e*PN | Pn | 04 56 04.7 | +0.7 |
| VRTB | Varto-Mus | 1.86 | 280 | *i* P | Pb | 04 56 06.1 | -0.2 |
| VRTB | Varto-Mus | 1.86 | 280 | *e*Pn | Pn | 04 56 04.7 | +0.7 |
| VRTB | Varto-Mus | 1.86 | 280 | P | Pb | 04 56 06.1 | -0.2 |
| BTMN | Batman | 2.23 | 245 | *i* P | Pb | 04 56 10.9 | -1.5 |
| BTMN | Batman | 2.23 | 245 | P | Pb | 04 56 10.9 | -1.5 |

**MEX 04 05:03:22.4±0.4, 26°32N×111°58W, h17km±41km, MD3.8, Gulf of California**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SRIG | Santa Rosalia | 1.16 | 330 | *e*P | Pn | 05 03 40.2 | -3.7 |
| SRIG | | | | *i* S | Sb | 05 03 54.4 | -4.4 |
| GUYB | Guaymas | 1.70 | 22 | *e*P | Pn | 05 03 48.2 | -3.1 |
| GUYB | | | | *i* S | Sn | 05 04 07.8 | -4.9 |

*ISCJB **04** 05:07:04.4±0.4, 8°58S±0°04×30°11E±0°07, h10km, mb4.2/14, MS3.2/5, Error ellipse: s-maj=10.8km s-min=6.2km az=11.7*
*IDC **04** 05:07:05.4±0.8, 8°50S×30°09E, h0km, mb4.2/12, mb1 4.3/16, mb1mx4.1/38, mbtmp4.3/16, ML2.9/2, MS3.3/8, Ms1 3.3/8, ms1mx3.1/34, Error ellipse: s-maj=25.4km s-min=13.7km az=108.0*
*NEIC **04** 05:07:06.7±0.3, 8°52S×30°06E, h10km, mb4.1/1, Error ellipse: s-maj=8.6km s-min=5.0km az=101.0*
**ISC 04 05:07:05.7±0.5, 8°65S±0°06×30°16E±0°09, h10km, n37, σ2.56/39, mb4.3/14, MS3.3/5, Lake Tanganyika region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LSZ | Lusaka | 6.86 | 196 | Pn | Pn | 05 08 50.8 | +4.2 |
| | 14nm,0.3s,baz=18,slow=12,SNR=94 | | | | | | |
| LSZ | | | | Sn | Sn | 05 10 05.6 | +0.8 |
| | 24nm,0.3s,baz=85,slow=20,SNR=8.6 | | | | | | |
| LSZ | | | | Lg | Lg | 05 10 49.6 | |
| | 22nm,0.3s,baz=306,slow=19,SNR=5.7 | | | | | | |
| KMBO | Kilima Mbogo | 10.28 | 44 | Pn | Pn | 05 09 34.3 | +0.7 |
| | 1.0nm,0.3s,baz=32,slow=20,SNR=6.6 | | | | | | |
| KMBO | | | | Sn | Sn | 05 11 21.5 | -7.7 |
| | 6.0nm,0.3s,baz=286,slow=17,SNR=5.5 | | | | | | |
| KMBO | | | | Lg | Lg | 05 12 30.5 | |
| | 3.7nm,0.3s,baz=286,slow=20,SNR=4.4 | | | | | | |
| KMBO | | | | LR | LR | 05 13 50.2 | |
| | comp=Z,122nm,19.2s,baz=290,slow=40 | | | | | | |
| MATP | Matopo | 11.82 | 188 | Pn | Pn | 05 09 57.2 | +2.7 |
| | baz=12,slow=15 | | | | | | |
| TSUM | Tsumeb | 16.08 | 228 | Pn | Pn | 05 10 52.7 | +0.5 |
| | 1.2nm,0.3s,baz=28,slow=10.0,SNR=9.5 | | | | | | |
| TSUM | | | | Sn | Sn | 05 13 44.5 | -6.2 |
| | 0.7nm,0.3s,baz=142,slow=18,SNR=4.3 | | | | | | |
| TSUM | | | | Lg | Lg | 05 15 40.1 | |
| | 0.2nm,0.3s,baz=107,slow=20,SNR=2.5 | | | | | | |
| TSUM | | | | LR | LR | 05 17 31.0 | |
| | comp=Z,295nm,18.1s,baz=18,slow=39 | | | | | | |
| LBTB | Lobatse | 16.84 | 194 | Pn | Pn | 05 11 02.8 | +0.9 |
| | 2.3nm,0.3s,baz=12,slow=14,SNR=20 | | | | | | |
| LBTB | | | | Sn | Sn | 05 14 03.0 | -6.2 |
| | 1.0nm,0.3s,baz=97,slow=22,SNR=3.6 | | | | | | |
| LBTB | | | | Lg | Lg | 05 16 06.9 | |
| | 0.9nm,0.3s,baz=274,slow=21,SNR=5.0 | | | | | | |
| LBTB | | | | LR | LR | 05 17 49.5 | |
| | comp=Z,176nm,18.5s,baz=16,slow=38 | | | | | | |
| ABPO | Ambohimpanom | 19.50 | 124 | *e*P | P | 05 11 35.6 | +2.3 |
| | 7.9nm,0.8s | | | | | | |
| BOSA | Boshof | 20.39 | 192 | P | P | 05 11 45.3 | +2.4 |
| | 7.5nm,0.8s,baz=11,slow=12,SNR=14 | | | | | | |
| BOSA | | | | S | S | 05 15 24.4 | -7.0 |
| | 2.9nm,0.5s,baz=105,slow=14,SNR=3.4 | | | | | | |
| BOSA | | | | Lg | Lg | 05 17 53.4 | |
| | 17nm,0.9s,baz=100,slow=14,SNR=3.9 | | | | | | |
| BOSA | | | | LR | LR | 05 20 05.2 | |
| | comp=Z,81nm,18.7s,baz=45,slow=38 | | | | | | |
| SUR | Sutherland | 25.15 | 199 | P | P | 05 12 40.6 | +9.2 |
| | 0.4nm,0.9s,baz=55,slow=16,SNR=3.0 | | | | | | |
| SUR | | | | LR | LR | 05 22 51.8 | |
| | comp=Z,11nm,21.9s,baz=357,slow=37 | | | | | | |
| TOA0 | Torodi Ar. Sit | 35.61 | 307 | *e*P | P | 05 14 02.9 | -1.1 |
| TORD | Torodi Ar. Bea | 35.61 | 307 | P | P | 05 14 03.9 | -0.1 |
| | 5.3nm,0.7s,baz=116,slow=8.2,SNR=43 | | | | | | |
| TORD | | | | LR | LR | 05 29 05.8 | |
| | comp=Z,75nm,18.1s,baz=60,slow=37 | | | | | | |
| TOA1 | Torodi Ar. Sit | 35.62 | 307 | *e*P | P | 05 14 03.9 | -0.1 |
| KIC | Kosan Boka | 37.86 | 292 | *e*P | P | 05 14 24.3 | +1.2 |
| | 42nm,1.5s | | | | | | |
| LIC | Lamto | 38.07 | 292 | *e*P | P | 05 14 24.7 | -0.2 |
| | 34nm,1.4s | | | | | | |
| DBIC | Dimbokro | 38.08 | 292 | P | P | 05 14 24.6 | -0.4 |
| | 2.0nm,0.5s,baz=114,slow=6.6,SNR=6.6 | | | | | | |
| TIC | Toumodi | 38.22 | 292 | *e*P | P | 05 14 26.2 | 0.0 |
| BR131 | Keskin Array S | 48.24 | 4 | *e*P | P | 05 15 47.1 | +0.2 |
| BRTR | Keskin Array B | 48.24 | 4 | P | P | 05 15 47.8 | +0.9 |
| | 2.6nm,0.8s,baz=180,slow=9.8,SNR=19 | | | | | | |
| BR101 | Keskin Array S | 48.24 | 4 | *e*P | P | 05 15 47.8 | +0.9 |
| BR231 | Keskin MP Arra | 48.31 | 3 | *e*P | P | 05 15 47.3 | -0.1 |
| PALK | Pallekele | 52.80 | 74 | LR | LR | 05 35 13.6 | |
| | comp=Z,30nm,19.8s,baz=296,slow=32 | | | | | | |
| MDT | Midelt | 52.89 | 323 | P | P | 05 16 23.4 | +1.2 |
| | 1.9nm,0.8s,baz=142,slow=8.2,SNR=4.4 | | | | | | |
| ESDC | Sonseca Array | 57.54 | 329 | P | P | 05 16 56.1 | +0.6 |
| | 1.0nm,0.9s,baz=140,slow=6.8,SNR=4.5 | | | | | | |
| GEA0 | GERESS Array S | 59.05 | 347 | *e*P | P | 05 17 05.3 | -0.6 |
| GERES | GERESS Array B | 59.05 | 347 | P | P | 05 17 06.0 | 0.0 |
| | 1.2nm,0.6s,baz=167,slow=6.6,SNR=7.7 | | | | | | |
| AKASG | Malin Array Be | 59.11 | 359 | P | P | 05 17 05.9 | -0.3 |
| | 2.0nm,0.6s,baz=180,slow=6.3,SNR=16 | | | | | | |
| AKBB | Malin Array Si | 59.11 | 359 | *e*P | P | 05 17 06.2 | 0.0 |
| KHC | Kasperske Hory | 59.35 | 347 | *e*P | P | 05 17 08.4 | +0.4 |
| KHC | | | | *e*x | x | 05 17 22.0 | |
| KHC | Kasperske Hory | 59.35 | 347 | *e*P | P | 05 17 07.7 | -0.3 |
| FIA0 | FINESS Array S | 69.95 | 358 | *e*P | P | 05 18 17.1 | +0.3 |
| FINES | FINESS Array B | 69.95 | 358 | P | P | 05 18 17.1 | +0.3 |
| | 6.4nm,1.0s,baz=90,slow=0.2,SNR=3.8 | | | | | | |
| MK32 | Makanchi Array | 72.03 | 35 | *e*P | P | 05 18 31.4 | +1.4 |
| MKAR | Makanchi Array | 72.03 | 35 | P | P | 05 18 31.4 | +1.4 |
| | 1.7nm,0.7s,baz=235,slow=6.2,SNR=13 | | | | | | |
| ZALV | Zalesovo Beam | 77.44 | 30 | P | P | 05 19 01.2 | +0.2 |
| | 0.3nm,0.3s,baz=258,slow=7.4,SNR=3.6 | | | | | | |
| ZAA1 | Zalesovo Array | 77.44 | 30 | *e*P | P | 05 19 01.2 | +0.1 |
| ARA0 | ARCESS Array S | 78.07 | 358 | *e*P | P | 05 19 03.9 | -0.4 |
| ARCES | ARCESS Array B | 78.07 | 358 | P | P | 05 19 03.9 | -0.4 |
| | 2.4nm,0.9s,baz=129,slow=4.0,SNR=3.4 | | | | | | |
| VNDA | Vanda | 89.84 | 171 | LR | LR | 06 00 20.4 | |
| | comp=Z,20nm,18.0s,baz=254,slow=36 | | | | | | |

*MOS **04** 05:41:19.6±1.1, 53°01N×107°68E, h10km, mb4.3/1, Error ellipse: s-maj=21.8km s-min=14.0km az=50.0*
*BYKL **04** 05:41:21.2±0.2, 53°06N×107°43E, h20km±3km*
**ISC 04 05:41:19.3±1.1, 53°07N±0°02×107°50E±0°02, h1km±10km, n37, σ2.11/79, 3C-1D, Lake Baykal region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| OGRR | Ongureny | 0.58 | 6 | ⇑*i*Pg | Pb | 05 41 32.9 | +0.6 |
| OGRR | | | | *e*Pb | Pn | 05 41 36.6 | +1.8 |
| OGRR | | | | *e*Sg | Sb | 05 41 40.7 | -0.4 |
| OGRR | | | | Pmax | | | |
| | 80nm,0.2s | | | | | | |
| OGRR | | | | Smax | | | |
| | 1μm,0.2s | | | | | | |
| OGRR | Ongureny | 0.58 | 6 | *e*PG | Pb | 05 41 32.8 | +0.5 |
| OGRR | | | | *e* | | 05 41 40.5 | |
| OGRR | | | | pmax | pmax | | |
| | comp=Z,82nm,0.2s | | | | | | |
| OGRR | | | | smax | smax | | |
| | comp=E,1μm,0.2s | | | | | | |
| TRG | Tyrgan | 0.76 | 247 | ⇓*i*Pg | Pg | 05 41 35.0 | +1.1 |
| TRG | | | | *e*Pb | Pn | 05 41 36.8 | -0.5 |
| TRG | | | | *e*Sg | Sg | 05 41 45.0 | +1.3 |
| TRG | | | | *e* | | 05 41 46.4 | |
| TRG | | | | *e* | | 05 41 50.0 | |
| TRG | | | | max | | | |
| | comp=E,177nm,0.1s | | | | | | |
| TRG | | | | max | | | |
| | comp=E,2μm,0.1s | | | | | | |
| TRG | Tyrgan | 0.76 | 247 | *e*PG | Pg | 05 41 35.0 | +1.1 |
| TRG | | | | *e* | | 05 41 45.0 | |
| TRG | | | | pmax | pmax | | |
| | comp=Z,123nm,0.2s | | | | | | |
| TRG | | | | smax | smax | | |
| | comp=N,2μm,0.1s | | | | | | |
| MXMB | Maximikha | 0.78 | 75 | *e*Pg | Pb | 05 41 36.3 | +0.7 |
| MXMB | | | | *e*Sg | Sn | 05 41 48.2 | -1.5 |
| TRTB | Turuntaevo | 0.84 | 174 | *i* Pg | Pb | 05 41 37.0 | +0.3 |
| TRTB | | | | *e*Pb | Pn | 05 41 38.6 | +0.3 |
| TRTB | | | | *e*Sg | Sb | 05 41 48.2 | -0.3 |
| TRTB | | | | Pmax | | | |
| | comp=N,111nm,0.2s | | | | | | |
| TRTB | | | | Smax | | | |
| | comp=N,681nm,0.2s | | | | | | |
| KAB | Kabansk | 1.14 | 207 | *e*Pg | Pb | 05 41 42.3 | +0.5 |
| KAB | | | | *e*Sg | Sb | 05 41 57.7 | +0.5 |
| KAB | | | | Pmax | | | |
| | comp=N,178nm,0.3s | | | | | | |
| KAB | | | | Smax | | | |
| | comp=N,1μm,0.4s | | | | | | |
| UUDB | Ulan-Yde | 1.21 | 175 | ⇑*i*Pg | Pb | 05 41 43.3 | +0.4 |
| UUDB | | | | *e*Sg | Sb | 05 41 59.0 | 0.0 |
| UUDB | | | | Pmax | | | |
| | comp=N,257nm,0.5s | | | | | | |
| UUDB | | | | Smax | | | |
| | comp=N,971nm,0.6s | | | | | | |
| HRMR | Khuramsha | 1.48 | 193 | *e*Pg | Pb | 05 41 47.8 | +0.2 |
| HRMR | | | | *e*Sg | Sg | 05 42 07.7 | +0.9 |
| SYVR | Suvo | 1.61 | 67 | *e*Pn | Pb | 05 41 49.8 | -0.1 |
| SYVR | | | | *e*Pg | Pg | 05 41 51.1 | +0.9 |
| SYVR | | | | *e*Sg | Sg | 05 42 13.6 | +2.5 |
| SYVR | | | | Pmax | | | |
| | comp=N,21nm,0.3s | | | | | | |
| SYVR | | | | Smax | | | |
| | comp=N,180nm,0.4s | | | | | | |
| BGT | Bolshoye Golou | 1.64 | 232 | *e*Pn | Pn | 05 41 48.9 | -0.3 |
| BGT | | | | *e*Pg | Pb | 05 41 50.7 | +0.4 |
| BGT | | | | *e* | | 05 41 52.3 | |
| BGT | | | | *e*Sg | Sb | 05 42 12.0 | +0.6 |
| BGT | | | | max | | | |
| | comp=N,24nm,0.1s | | | | | | |
| BGT | | | | Smax | | | |
| | comp=N,391nm,0.2s | | | | | | |
| BGT | Bolshoye Golou | 1.64 | 232 | *e*PN | Pb | 05 41 50.4 | +0.1 |
| BGT | | | | *e* | | 05 42 11.3 | |
| BGT | | | | pmax | pmax | | |
| | comp=Z,23nm,0.2s | | | | | | |
| BGT | | | | smax | smax | | |
| | comp=E,390nm,0.4s | | | | | | |
| LSTR | Listvyanka | 2.02 | 235 | *e*Pg | Pb | 05 41 56.9 | 0.0 |
| LSTR | | | | *e*Sg | Sb | 05 42 22.2 | -0.4 |
| LSTR | | | | Pmax | | | |
| | comp=E,32nm,0.4s | | | | | | |
| LSTR | | | | Smax | | | |
| | comp=E,198nm,0.3s | | | | | | |
| IRK | Irkutsk | 2.13 | 249 | *e*Sg | Sb | 05 42 26.5 | +0.8 |
| IRK | | | | Smax | | | |
| | comp=E,710nm,0.6s | | | | | | |
| IRK | Irkutsk | 2.13 | 249 | *e*PN | Pb | 05 41 59.6 | +0.9 |
| IRK | | | | *e* | | 05 42 26.1 | |
| IRK | | | | pmax | pmax | | |
| | comp=Z,121nm,0.1s | | | | | | |
| IRK | | | | smax | smax | | |
| | comp=N,624nm,0.2s | | | | | | |
| IVK | Ivanovka | 2.27 | 237 | *e*Pg | Pb | 05 42 01.3 | +0.1 |
| IVK | | | | *e*Sg | Sb | 05 42 30.9 | +1.1 |
| IVK | | | | Pmax | | | |
| | comp=N,10.0nm,0.1s | | | | | | |
| IVK | | | | Smax | | | |
| | comp=N,236nm,0.2s | | | | | | |
| TLY | Talaya | 2.74 | 241 | *e*Pn | Pn | 05 42 04.0 | -0.4 |
| TLY | | | | *e*Pg | Pb | 05 42 09.5 | +0.4 |
| TLY | | | | *e*Sg | Sb | 05 42 44.4 | +1.2 |
| TLY | | | | *e* | | 05 42 48.1 | |
| TLY | | | | Pmax | | | |
| | comp=N,17nm,0.4s | | | | | | |
| TLY | | | | max | | | |
| | comp=N,120nm,0.5s | | | | | | |
| TLY | Talaya | 2.74 | 241 | *e*PN | Pn | 05 42 04.7 | +0.3 |
| TLY | | | | *e* | | 05 42 10.6 | |
| TLY | | | | *e* | | 05 42 44.2 | |
| YLYR | Ulyunkhan | 2.82 | 49 | *e*Pn | Pn | 05 42 05.0 | -0.6 |
| YLYR | | | | *e* | | 05 42 07.8 | |
| YLYR | | | | *e*Pg | Pg | 05 42 12.2 | -1.2 |
| YLYR | | | | *e*Sn | Sn | 05 42 40.3 | +0.1 |
| YLYR | | | | *e*Sg | Sg | 05 42 49.2 | -0.7 |
| YLYR | | | | Pmax | | | |
| | comp=N,8.0nm,0.3s | | | | | | |
| YLYR | | | | Smax | | | |
| | comp=N,47nm,0.6s | | | | | | |
| NIZ | Nizh Angarsk | 2.96 | 23 | *e*Pn | Pn | 05 42 09.2 | +1.7 |
| NIZ | | | | *e*Pg | Pb | 05 42 13.5 | +0.6 |
| NIZ | | | | *e*Sn | Sn | 05 42 41.6 | -2.1 |
| NIZ | | | | *e*Sg | Sg | 05 42 52.5 | -2.0 |
| NIZ | | | | Pmax | | | |
| | comp=N,12nm,0.3s | | | | | | |
| NIZ | | | | Smax | | | |
| | comp=N,76nm,0.4s | | | | | | |
| ARS | Arshan | 3.31 | 252 | *e*Pn | Pn | 05 42 11.3 | -1.0 |
| ARS | | | | *e*Pg | Pb | 05 42 18.4 | -0.4 |
| ARS | | | | *e* | | 05 42 52.3 | |
| ARS | | | | *e*Sg | Sb | 05 43 00.7 | +1.1 |
| ARS | | | | Pmax | | | |
| | comp=N,31nm,0.6s | | | | | | |
| ARS | | | | Smax | | | |
| | comp=N,433nm,0.7s | | | | | | |
| ARS | Arshan | 3.31 | 252 | *e*PN | Pn | 05 42 14.4 | +2.1 |
| ARS | | | | *e* | | 05 42 19.3 | |
| ARS | | | | *e* | | 05 43 00.6 | |
| ARS | | | | pmax | pmax | | |
| | comp=Z,31nm,0.6s | | | | | | |
| ARS | | | | smax | smax | | |
| | comp=E,424nm,0.7s | | | | | | |
| KMO | Kumora | 3.56 | 36 | *e*Pn | Pn | 05 42 17.2 | +1.6 |
| KMO | | | | *e*Pg | Pb | 05 42 25.2 | +2.2 |
| KMO | | | | *e*Sg | Sg | 05 43 11.9 | -1.6 |
| KMO | | | | Pmax | | | |
| | comp=E,14nm,0.4s | | | | | | |
| KMO | | | | Smax | | | |
| | comp=E,51nm,1.1s | | | | | | |
| ZAK | Zakamensk | 3.75 | 226 | *e*Sn | Sn | 05 42 58.0 | -5.3 |
| ZAK | | | | *e*Sg | Sg | 05 43 17.2 | -2.7 |
| ZAK | | | | max | | | |
| | comp=E,8.0nm,0.3s | | | | | | |
| ZAK | | | | Smax | | | |
| | comp=E,44nm,0.5s | | | | | | |
| CIT | Chita | 3.84 | 103 | *e*Sg | Sg | 05 43 20.8 | -1.8 |
| CIT | | | | *e*SgSg | SbSb | 05 43 24.5 | +4.5 |
| CIT | | | | max | | | |
| | comp=E,219nm,0.3s | | | | | | |
| MOY | Mondy | 4.23 | 253 | *e*Pn | Pn | 05 42 25.7 | +0.8 |
| MOY | | | | *e* | | 05 42 35.7 | |
| MOY | | | | *e* | | 05 43 16.9 | |
| MOY | | | | *e*Sg | Sb | 05 43 28.7 | +2.7 |
| MOY | | | | max | | | |
| | comp=E,9.0nm,0.4s | | | | | | |
| MOY | | | | Smax | | | |
| | comp=E,112nm,0.7s | | | | | | |
| MOY | Mondy | 4.23 | 253 | *e*PN | Pn | 05 42 27.5 | +2.6 |
| MOY | | | | *e* | | 05 42 37.3 | |
| MOY | | | | pmax | pmax | | |
| | comp=Z,15nm,0.4s | | | | | | |
| UKT | Uakit | 4.33 | 54 | *e*Pn | Pn | 05 42 28.3 | +1.9 |
| UKT | | | | *e*Pg | Pg | 05 42 39.7 | -2.6 |
| UKT | | | | *e* | | 05 42 41.7 | |
| UKT | | | | *e*Sg | Sg | 05 43 37.1 | -1.4 |
| UKT | | | | max | | | |
| | comp=Z,6.0nm,1.3s | | | | | | |
| UKT | | | | Smax | | | |
| | comp=Z,38nm,1.5s | | | | | | |
| KPC | Khapcheranga | 4.55 | 136 | *e*Pn | Pn | 05 42 28.8 | -0.5 |
| KPC | | | | *e*Pg | Pb | 05 42 42.9 | +3.0 |
| KPC | | | | *e* | | 05 43 32.9 | |
| KPC | | | | *e*Sg | Sg | 05 43 42.0 | -3.3 |
| KPC | | | | Pmax | | | |
| | comp=Z,12nm,0.6s | | | | | | |
| KPC | | | | Smax | | | |
| | comp=Z,100nm,0.9s | | | | | | |
| KPC | Khapcheranga | 4.55 | 136 | *e*PN | Pn | 05 42 28.8 | -0.5 |
| KPC | | | | *e* | | 05 42 41.7 | |
| KPC | | | | *e*S | Sn | 05 43 21.9 | -0.9 |
| KPC | | | | *e* | | 05 43 41.6 | |
| KPC | | | | pmax | pmax | | |
| | comp=Z,12nm,0.6s | | | | | | |
| KPC | | | | smax | smax | | |
| | comp=E,78nm,0.5s | | | | | | |
| ORL | Orlik | 4.70 | 267 | *e*Pn | Pn | 05 42 33.1 | +1.7 |
| ORL | | | | *e* | | 05 42 34.4 | |
| ORL | | | | *e* | | 05 42 48.8 | |
| ORL | | | | *e*Sn | Sn | 05 43 23.0 | -3.5 |
| ORL | | | | *e*Sg | Sg | 05 43 45.7 | -4.4 |
| ORL | | | | max | | | |
| | comp=E,6.0nm,0.6s | | | | | | |
| ORL | | | | Smax | | | |
| | comp=E,39nm,0.7s | | | | | | |
| ULN | Ulaanbaatar | 5.21 | 183 | *e* | Pn | 05 42 39.9 | +1.3 |
| ULN | | | | ⇑*i*Pg | Pb | 05 42 55.3 | +3.9 |
| ULN | | | | *e* | | 05 43 23.4 | |
| ULN | | | | *e*Sg | Sg | 05 44 03.5 | -3.3 |
| NLYR | Nelyaty | 5.86 | 51 | *e* | Pg | 05 43 14.5 | +3.0 |
| NLYR | | | | *e* | | 05 43 32.8 | |
| NLYR | | | | *e*Sg | Sg | 05 44 24.2 | -3.1 |
| NLYR | | | | *e* | | 05 44 32.8 | |
| NLYR | | | | max | | | |
| | comp=E,3.0nm,0.8s | | | | | | |
| NLYR | | | | max | | | |
| | comp=E,40nm,1.1s | | | | | | |
| BOD | Bodaibo | 6.03 | 35 | *e*Sg | Sg | 05 44 28.3 | -4.5 |
| BOD | | | | *e* | | 05 44 37.1 | |
| BOD | | | | max | | | |
| | comp=E,17nm,1.0s | | | | | | |
| CRS | Chara | 7.29 | 54 | *e* | Pn | 05 43 10.7 | +3.8 |
| CRS | | | | *e* | | 05 43 36.8 | |
| CRS | | | | *e*Sg | Sg | 05 45 08.2 | -5.0 |
| CRS | | | | *e* | | 05 45 22.3 | |
| TUP | Tupik | 7.51 | 75 | *e*Pg | Pb | 05 43 36.6 | +6.3 |
| TUP | | | | *e*Sg | Sg | 05 45 15.1 | -5.2 |
| TUP | | | | *e* | | 05 45 33.7 | |
| TUP | | | | Smax | | | |
| | comp=E,45nm,1.5s | | | | | | |
| TUP | Tupik | 7.51 | 75 | *e*PN | Pn | 05 43 10.5 | +0.6 |
| TUP | | | | *e* | | 05 43 35.6 | |
| TUP | | | | *e* | | 05 45 14.1 | |
| TUP | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.5s | | | | | | |
| TUP | | | | smax | smax | | |
| | comp=N,45nm,1.1s | | | | | | |

*DDA **04** 06:01:23.8, 37°84N×27°19E, h7km, Ml2.5*
*ISK **04** 06:01:24.6, 37°82N×27°25E, h3km, ML2.0*
*CSEM **04** 06:01:24.6±0.2, 37°85N×27°25E, h2km, ML2.0, Error ellipse: s-maj=7.8km s-min=5.0km az=55.0*
**ISC 04 06:01:24.1±1.1, 37°86N±0°03×27°22E±0°04, h7km±8km, n20, σ0.68/24, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KUSD | Kusadasi-Aydin | 0.05 | 91 | *e*PG | Pg | 06 01 26.1 | +0.3 |
| KUSD | Kusadasi-Aydin | 0.05 | 91 | *e*Pg | Pg | 06 01 26.1 | +0.3 |
| GCAM | G?zelcaml? | 0.16 | 177 | *e*PG | Pg | 06 01 27.1 | -0.3 |
| GCAM | | | | *e*SG | Sg | 06 01 29.3 | -0.4 |
| GCAM | G?zelcaml? | 0.16 | 177 | *i* P | Pg | 06 01 27.1 | -0.3 |
| GCAM | G?zelcaml? | 0.16 | 177 | P | Pg | 06 01 27.1 | -0.3 |
| GCAM | | | | *e*Sg | Sg | 06 01 29.3 | -0.4 |
| DGB | ˜zmir | 0.33 | 305 | *i* P | Pg | 06 01 30.2 | -0.3 |
| AYDN | Tasoluk | 0.56 | 111 | *i* P | Pg | 06 01 35.0 | +0.1 |
| AYDN | Tasoluk | 0.56 | 111 | P | Pg | 06 01 35.0 | +0.1 |
| URLA | Izmir | 0.70 | 315 | *e*PG | Pn | 06 01 39.8 | -0.7 |
| URLA | Izmir | 0.70 | 315 | *i* P | Pg | 06 01 37.7 | 0.0 |
| URLA | | | | *i* S | Sg | 06 01 46.2 | -0.6 |
| URLA | Izmir | 0.70 | 315 | P | Pg | 06 01 37.7 | 0.0 |
| URLA | Izmir | 0.70 | 315 | *e*Pg | Pn | 06 01 39.8 | -0.7 |
| URLA | | | | S | Sg | 06 01 46.2 | -0.6 |
| BODT | Bodrum | 0.80 | 175 | *e*PG | Pg | 06 01 40.1 | +0.6 |
| BODT | Bodrum | 0.80 | 175 | *e*Pg | Pg | 06 01 40.1 | +0.6 |
| BDRM | Kayabasi | 0.81 | 167 | *i* P | Pg | 06 01 39.4 | -0.3 |
| BDRM | Kayabasi | 0.81 | 167 | P | Pg | 06 01 39.4 | -0.3 |
| CHOS | Chios island | 1.06 | 300 | *e*PN | Pn | 06 01 47.1 | +1.7 |
| CHOS | Chios island | 1.06 | 300 | *e*Pn | Pn | 06 01 47.1 | +1.7 |
| MANT | Manisa | 1.23 | 59 | *i* P | Pn | 06 01 47.8 | 0.0 |
| MANT | Manisa | 1.23 | 59 | P | Pn | 06 01 47.8 | 0.0 |

*BJI **04** 06:04:16.5, 8°20S×117°50E, h189km, mb4.5/27, mB4.8/20*
*ISCJB **04** 06:04:17.7±0.2, 8°27S±0°03×117°50E±0°02, h200km, mb4.3/44, Error ellipse: s-maj=4.4km s-min=2.8km az=15.8*
*NEIC **04** 06:04:17.6±0.5, 8°14S×117°49E, h191km±5km, mb4.7/15, Error ellipse: s-maj=6.5km s-min=4.5km az=213.0*
*NEIC Felt at Kuta, Bali.*
*DJA **04** 06:04:18.8±0.2, 8°S±3°×11°7E±°, h192km±3km, M5.0/35, mb5.1/35, mB5.4/24, MLv5.4/19, Mw(mB)4.8/24*
*IDC **04** 06:04:19.8±1.7, 8°16S×117°44E, h213km±15km, mb4.0/23, mb1 4.1/24, mb1mx3.9/49, mbtmp4.6/24, MS3.2/4, Ms1 3.2/4, ms1mx2.8/38, Error ellipse: s-maj=15.1km s-min=7.0km az=60.0*
**ISC 04 06:04:18.6±0.3, 8°30S±0°04×117°47E±0°04, h200km, n131, σ1.52/147, mb4.4/44, Sumbawa region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PLAI | Plampang | 0.61 | 150 | P | Pn | 06 04 46.1 | -0.1 |
| SRBI | Singaraja | 2.25 | 275 | P | Pn | 06 05 00.1 | +0.4 |
| DNP | Denpasar | 2.27 | 260 | P | Pn | 06 04 59.9 | -0.1 |
| JAGI | Jajag, Banyuwa | 3.29 | 267 | P | Pn | 06 05 11.3 | -0.5 |
| JAGI | Jajag, Banyuwa | 3.29 | 267 | *e*Pn | Pn | 06 05 11.2 | -0.5 |
| JAGI | | | | *e*Sn | Sn | 06 05 50.9 | -2.4 |
| KMMI | Kalianget | 3.69 | 289 | P | Pn | 06 05 18.8 | +2.2 |
| BLJI | Banyuglugur | 3.88 | 278 | P | Pn | 06 05 20.1 | +1.2 |
| KAPI | Kappang | 3.97 | 35 | *e*Pn | Pn | 06 05 18.5 | -1.6 |
| KAPI | | | | *e*Sn | Sn | 06 06 08.7 | +0.3 |
| GMJI | Gumukmas | 3.99 | 270 | P | Pn | 06 05 19.8 | -0.5 |
| EDFI | Ende, Flores | 4.20 | 96 | P | Pn | 06 05 21.7 | -1.3 |
| MMRI | Maumere | 4.73 | 94 | P | Pn | 06 05 28.4 | -1.2 |
| MMRI | Maumere | 4.73 | 94 | *e*Pn | Pn | 06 05 28.4 | -1.2 |
| MMRI | | | | *e*Sn | Sn | 06 06 23.6 | -1.9 |
| KBKI | Kotabaru | 5.13 | 345 | P | Pn | 06 05 35.6 | +0.8 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GRJI | Gresik | 5.14 | 285 | P | Pn | 06 05 36.1 | +1.3 |
| BWJI | Bawean | 5.36 | 297 | P | Pn | 06 05 39.5 | +1.8 |
| PWJI | Pagerwojo | 5.62 | 272 | P | Pn | 06 05 41.2 | +0.2 |
| TTSI | Tana Toraja | 5.71 | 24 | P | Pn | 06 05 44.6 | +2.3 |
| TBJI | Tambak Boyo | 5.77 | 284 | P | Pn | 06 05 42.5 | -0.4 |
| PCJI | Pacitan | 6.23 | 270 | P | Pn | 06 05 48.6 | -0.3 |
| SOEI | Soe | 6.87 | 103 | P | Pn | 06 05 56.5 | -0.8 |
| SOEI | Soe | 6.87 | 103 | ePn | Pn | 06 05 56.2 | -1.1 |
| SOEI | | | | eSn | Sn | 06 07 12.0 | -3.5 |
| UGM | Wanagama | 6.89 | 273 | P | Pn | 06 05 57.5 | 0.0 |
| UGM | Wanagama | 6.89 | 273 | ePn | Pn | 06 05 56.8 | -0.7 |
| UGM | | | | eSn | Sn | 06 07 14.7 | -1.3 |
| BKB | Balikpapan | 7.01 | 355 | P | Pn | 06 06 12.2 | +13 |
| SMRI | Semarang | 7.08 | 280 | P | Pn | 06 06 01.3 | +1.3 |
| SMRI | Semarang | 7.08 | 280 | ePn | Pn | 06 05 59.8 | -0.1 |
| MTKI | Muara Teweh, K | 7.74 | 341 | P | Pn | 06 06 10.4 | +1.8 |
| | 121nm,0.9s,6μm0.6nm | | | | | | |
| KPJI | Karang Pucung | 8.52 | 276 | P | Pn | 06 06 19.0 | +0.3 |
| MPSI | Mapaga | 8.91 | 16 | P | Pn | 06 06 26.1 | +2.3 |
| CISI | Cisompet, Garu | 9.59 | 274 | P | Pn | 06 06 31.1 | -1.6 |
| CISI | Cisompet, Garu | 9.59 | 274 | ePn | Pn | 06 06 31.3 | -1.5 |
| CISI | | | | eSn | Sn | 06 08 11.4 | -8.7 |
| STKI | Sintang | 10.23 | 324 | P | Pn | 06 06 43.2 | +2.2 |
| | 92nm,1.2s | | | | | | |
| CNJI | Cibinong | 10.29 | 275 | P | Pn | 06 06 40.5 | -1.3 |
| SANI | Sanana | 10.51 | 54 | P | Pn | 06 06 45.6 | +1.1 |
| CBJI | Citeko | 10.70 | 279 | P | Pn | 06 06 46.2 | -0.8 |
| | 264nm,0.6s,13μm | | | | | | |
| AAI | Ambon | 11.60 | 67 | P | Pn | 06 06 59.8 | +1.2 |
| XMIS | Christmas Isla | 11.86 | 259 | ePn | Pn | 06 07 01.1 | -0.8 |
| XMIS | | | | eSn | Sn | 06 08 59.6 | -15 |
| KSM | Kuching | 12.05 | 323 | Pn | Pn | 06 07 05.8 | +1.6 |
| | 81nm,1.1s | | | | | | |
| LBMI | Labuha | 12.56 | 53 | P | Pn | 06 07 12.4 | +1.7 |
| FITZ | Fitzroy Crossi | 12.57 | 142 | P | Pn | 06 07 11.6 | +0.8 |
| | 1.8nm,0.3s,baz=320,slow=7.9,SNR=53 | | | | | | |
| FITZ | | | | S | Sn | 06 09 20.8 | -10 |
| | 4.5nm,0.3s,baz=250,slow=8.0,SNR=3.9 | | | | | | |
| BNDI | Bandanaira | 12.91 | 74 | P | P | 06 07 18.1 | -0.3 |
| MBWA | Marble Bar | 12.97 | 171 | ePn | Pn | 06 07 14.9 | -0.9 |
| KLI | Kotabumi | 12.99 | 284 | P | P | 06 07 25.9 | +6.6 |
| KASI | Kota Agung | 13.17 | 281 | P | Pn | 06 07 20.3 | +1.9 |
| SAUI | Saumlaki | 13.69 | 90 | P | Pn | 06 07 24.3 | -0.6 |
| SAUI | Saumlaki | 13.69 | 90 | ePn | Pn | 06 07 22.3 | -2.6 |
| LWLI | Liwa | 13.71 | 283 | P | P | 06 07 27.1 | -0.4 |
| MTN | Manton Dam | 14.17 | 110 | ePn | Pn | 06 07 29.4 | -1.3 |
| KKM | Kota Kinabalu | 14.30 | 355 | Pn | Pn | 06 07 30.0 | -2.5 |
| | 69nm,0.8s | | | | | | |
| MNAI | Manna | 14.95 | 284 | ePn | P | 06 07 41.9 | +0.8 |
| FAKI | Fak Fak | 15.64 | 71 | P | P | 06 07 46.6 | -2.1 |
| FAKI | Fak Fak | 15.64 | 71 | ePn | P | 06 07 46.2 | -2.6 |
| | 115nm,0.6s | | | | | | |
| MASI | Maura Aman, Be | 15.99 | 288 | P | Pn | 06 07 53.7 | +0.6 |
| | 196nm,0.9s | | | | | | |
| WRA | Warramunga Arr | 20.02 | 127 | P | P | 06 08 36.4 | 0.0 |
| | 26nm,0.5s,baz=302,slow=12,SNR=321 | | | | | | |
| WRA | | | | S | S | 06 12 08.0 | -2.5 |
| | 16nm,1.0s,baz=299,slow=20,SNR=13 | | | | | | |
| WRA | | | | ScP | ScP | 06 15 59.6 | -1.6 |
| | 1.9nm,0.4s,baz=339,slow=2.1,SNR=5.3 | | | | | | |
| WRAB | Tennant Creek | 20.02 | 127 | eP | P | 06 08 36.7 | +0.3 |
| | 39nm,0.6s | | | | | | |
| WB2 | Warramunga Arr | 20.02 | 127 | eP | P | 06 08 36.5 | +0.1 |
| PSI | Prapat | 21.53 | 300 | P | P | 06 08 50.5 | -2.0 |
| | 6.4nm,0.3s,baz=30,slow=11,SNR=5.8 | | | | | | |
| PSI | Prapat | 21.53 | 300 | eP | P | 06 08 50.6 | -1.9 |
| | 30nm,1.4s | | | | | | |
| AS31 | Alice Springs | 21.94 | 136 | eP | P | 06 08 56.6 | +0.2 |
| | 7.3nm,0.6s | | | | | | |
| ASAR | Alice Springs | 21.94 | 136 | P | P | 06 08 57.1 | +0.7 |
| | 11nm,0.5s,baz=312,slow=9.5,SNR=248 | | | | | | |
| ASAR | | | | S | S | 06 12 42.5 | -1.9 |
| | 7.4nm,0.9s,baz=305,slow=13,SNR=4.2 | | | | | | |
| ASAR | | | | ScP | ScP | 06 16 04.8 | -1.1 |
| | 10nm,0.8s,baz=328,slow=1.8,SNR=8.6 | | | | | | |
| ASAR | | | | LR | LR | 06 17 40.2 | |
| | comp=Z,69nm,20.6s,baz=308,slow=36 | | | | | | |
| AS01 | Alice Springs | 21.97 | 136 | eP | P | 06 08 56.9 | +0.2 |
| KCSI | Kotacane, Aceh | 22.89 | 300 | P | P | 06 09 04.3 | -0.9 |
| GENI | Genyem | 23.28 | 77 | P | P | 06 09 10.0 | +1.2 |
| FORT | Forrest | 24.46 | 158 | eP | P | 06 09 21.6 | +2.3 |
| NWAO | Narrogin (SRO) | 24.51 | 180 | eP | P | 06 09 21.1 | +1.3 |
| COEN | Coen | 25.83 | 105 | eP | P | 06 09 31.0 | -0.8 |
| | 33nm,0.6s | | | | | | |
| CHAI | Chaiyaphum | 28.52 | 327 | P | P | 06 09 58.1 | +2.4 |
| | 12nm,0.7s,167nm | | | | | | |
| PMG | Port Moresby | 29.35 | 94 | eP | P | 06 10 02.0 | -1.2 |
| | 19nm,1.1s | | | | | | |
| PBKT | Sadao Pong | 29.61 | 327 | P | P | 06 10 07.4 | +2.0 |
| | 18nm,1.1s,1μm | | | | | | |
| UTHA | Uthaitani | 29.68 | 323 | P | P | 06 10 08.4 | +2.5 |
| | 6.9nm,0.8s,1μm | | | | | | |
| CTA | Charters Tower | 30.21 | 116 | P | P | 06 10 12.0 | +1.4 |
| | 20nm,0.9s,baz=279,slow=12,SNR=12 | | | | | | |
| CTAO | Charters Tower | 30.21 | 116 | eP | P | 06 10 12.4 | +1.8 |
| | 18nm,0.8s | | | | | | |
| UTTA | Uttaradit | 30.80 | 327 | P | P | 06 10 17.8 | +2.0 |
| | 7.9nm,0.7s,122nm | | | | | | |
| SUKH | Sukhothai | 31.09 | 326 | P | P | 06 10 20.6 | +2.2 |
| | 10nm,0.6s,639nm | | | | | | |
| CMAR | Chiang Mai Arr | 32.27 | 326 | ScP | ScP | 06 16 35.0 | -1.9 |
| | 1.5nm,0.4s,baz=189,slow=3.1,SNR=5.4 | | | | | | |
| CMAR | | | | LR | LR | 06 25 56.5 | |
| | comp=Z,21nm,18.2s,baz=325,slow=40 | | | | | | |
| STKA | Stephens Creek | 32.46 | 140 | P | P | 06 10 31.9 | +1.7 |
| | 4.2nm,0.3s,baz=320,slow=8.7,SNR=32 | | | | | | |
| STKA | | | | LR | LR | 06 24 02.4 | |
| | comp=Z,47nm,18.7s,baz=25,slow=36 | | | | | | |
| STKA | Stephens Creek | 32.46 | 140 | eP | P | 06 10 32.0 | +1.7 |
| | 3.6nm,1.2s | | | | | | |
| CHTO | Chiang Mai | 32.55 | 326 | eP | P | 06 10 30.6 | -0.5 |
| | 17nm,0.8s | | | | | | |
| KMI | Kunming | 36.19 | 337 | P | P | 06 11 04.0 | +1.5 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.5s | | | | | | |
| ARMA | Armidale | 38.77 | 129 | eP | P | 06 11 26.8 | +2.7 |
| | 38nm,1.6s | | | | | | |
| NJ2 | Nanjing | 40.14 | 2 | eP | P | 06 11 33.9 | -1.2 |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,21nm,0.5s | | | | | | |
| CD2 | Chengdu | 41.14 | 342 | eP | P | 06 11 44.8 | +1.4 |
| CD2 | | | | S | S | 06 17 42.0 | +0.5 |
| CD2 | | | | SS | SS | 06 20 43.0 | -10 |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.0s | | | | | | |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,180nm,7.1s | | | | | | |
| SHL | Shillong | 41.87 | 324 | eP | P | 06 11 50.0 | +0.4 |
| JNU | Nakatsue | 43.12 | 17 | P | P | 06 11 58.4 | -1.0 |
| | 5.3nm,0.7s,baz=132,slow=6.6,SNR=4.4 | | | | | | |
| LZH | Lanzhou | 45.97 | 345 | eP | P | 06 12 22.8 | +0.8 |
| LZH | | | | pP | pP | 06 13 04.5 | -1.0 |
| LZH | | | | sP | sP | 06 13 26.2 | -1.7 |
| LZH | | | | PP | PP | 06 14 13.1 | -0.2 |
| LZH | | | | S | S | 06 18 53.0 | +1.3 |
| LZH | | | | sS | sS | 06 20 06.0 | -2.0 |
| LZH | | | | SS | SS | 06 22 15.0 | -4.6 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,27nm,1.0s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,290nm,5.7s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=N,380nm,15.7s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=E,190nm,15.5s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,160nm,16.0s | | | | | | |
| RAMN | Ramite | 46.08 | 321 | eP | P | 06 12 23.3 | +0.1 |
| | 12nm,0.7s | | | | | | |
| KSAR | Wonju Array Be | 46.53 | 11 | P | P | 06 12 26.1 | 0.0 |
| KSRS | Korea Array | 46.55 | 11 | P | P | 06 12 26.1 | -0.2 |
| | 5.8nm,0.8s,baz=188,slow=8.3,SNR=16 | | | | | | |
| KS01 | Wonju Array Si | 46.57 | 11 | eP | P | 06 12 26.0 | -0.4 |
| JIRN | Jiri | 46.84 | 321 | eP | P | 06 12 29.0 | -0.2 |
| | 77nm,0.4s | | | | | | |
| GUN | Gumba | 47.21 | 321 | eP | P | 06 12 31.8 | -0.2 |
| | 24nm,0.8s | | | | | | |
| BJI | Beijing | 48.11 | 359 | P | P | 06 12 38.0 | -0.2 |
| BJI | | | | pmax | pmax | | |
| | comp=Z,13nm,0.7s | | | | | | |
| KOLN | Koldanda | 48.57 | 319 | eP | P | 06 12 41.5 | -0.8 |
| | 5.1nm,0.4s | | | | | | |
| MAT | Matsushiro | 48.67 | 22 | P | P | 06 12 40.9 | -1.7 |
| MJAR | Matsushiro Arr | 48.67 | 22 | P | P | 06 12 40.1 | -2.5 |
| | 6.3nm,0.8s,baz=193,slow=7.9,SNR=16 | | | | | | |
| DANN | Dangsing | 48.86 | 319 | eP | P | 06 12 44.8 | +0.2 |
| DZM | Mont Dzumac | 48.99 | 112 | P | P | 06 12 46.4 | +0.9 |
| | 9.7nm,0.9s,baz=252,slow=12,SNR=11 | | | | | | |
| PYUN | Piuthan | 49.19 | 319 | eP | P | 06 12 46.6 | -0.4 |
| | 14nm,0.5s | | | | | | |
| HHC | Hu-ho-hao-te | 49.20 | 354 | eP | P | 06 12 48.5 | +1.8 |
| HHC | | | | S | S | 06 19 38.8 | +1.8 |
| HHC | | | | sS | sS | 06 20 53.0 | -1.2 |
| HHC | | | | SS | SS | 06 23 10.2 | -1.2 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,16nm,1.2s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,130nm,5.7s | | | | | | |
| GTA | Gaotai | 50.21 | 342 | eP | P | 06 12 55.3 | +0.9 |
| GTA | | | | pP | pP | 06 13 36.7 | -1.9 |
| GTA | | | | sP | sP | 06 13 57.3 | -3.5 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.7s | | | | | | |
| USRK | Ussuriysk Ar. | 53.88 | 13 | P | P | 06 13 20.6 | -0.6 |
| | 15nm,0.6s,baz=185,slow=6.2,SNR=26 | | | | | | |
| SONM | Songino Array | 56.74 | 351 | P | P | 06 13 40.9 | -0.8 |
| | 4.1nm,0.7s,baz=169,slow=8.0,SNR=12 | | | | | | |
| SONA1 | Songino Array | 56.75 | 351 | eP | P | 06 13 40.6 | -1.1 |
| ASAJ | Asahikawa | 56.91 | 21 | P | P | 06 13 41.6 | -1.2 |
| | 5.5nm,0.6s,baz=266,slow=6.6,SNR=6.0 | | | | | | |
| RPZ | Rata Peaks | 58.35 | 137 | P | P | 06 13 54.0 | +1.1 |
| | 7.0nm,0.6s,baz=278,slow=7.1,SNR=4.0 | | | | | | |
| RPZ | Rata Peaks | 58.35 | 137 | P | P | 06 13 54.0 | +1.1 |
| WMQ | Urumqi | 58.48 | 335 | P | P | 06 13 55.2 | +1.4 |
| WMQ | | | | pP | pP | 06 14 38.2 | -1.2 |
| WMQ | | | | sP | sP | 06 14 58.5 | -2.7 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,19nm,0.7s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,390nm,5.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,150nm,25.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,160nm,17.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,83nm,19.7s | | | | | | |
| KSH | Kashi | 61.15 | 324 | P | P | 06 14 13.7 | +1.5 |
| KSH | | | | PcP | PcP | 06 14 55.0 | +2.0 |
| KSH | | | | pP | pP | 06 14 57.9 | -0.2 |
| KSH | | | | PP | PP | 06 16 32.4 | +2.9 |
| KSH | | | | S | S | 06 22 14.5 | -1.2 |
| KSH | | | | ScS | SKKSac | 06 23 40.2 | -3.5 |
| KSH | | | | SS | SS | 06 26 19.2 | -0.5 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.4s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,200nm,6.7s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,170nm,9.1s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,170nm,5.0s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,290nm,6.6s | | | | | | |
| URZ | Urewera | 61.17 | 129 | P | P | 06 14 14.0 | +1.7 |
| | 8.9nm,0.7s,baz=230,slow=6.8,SNR=6.0 | | | | | | |
| MK01 | Makanchi Array | 63.13 | 334 | eP | P | 06 14 23.8 | -1.3 |
| MK31 | Makanchi Array | 63.15 | 334 | eP | P | 06 14 25.0 | -0.2 |
| MKAR | Makanchi Array | 63.15 | 334 | P | P | 06 14 23.5 | -1.7 |
| | 1.2nm,0.3s,baz=146,slow=5.7,SNR=34 | | | | | | |
| ZALV | Zalesovo Beam | 67.86 | 340 | P | P | 06 14 52.7 | -2.4 |
| | 1.7nm,0.3s,baz=155,slow=5.0,SNR=9.3 | | | | | | |
| MAW | Mawson | 69.39 | 199 | P | P | 06 15 04.3 | -0.1 |
| | 3.3nm,0.8s,baz=53,slow=8.5,SNR=6.5 | | | | | | |
| PETK | Petropavlovsk- | 70.05 | 24 | P | P | 06 15 08.4 | -0.3 |
| | 2.4nm,0.6s,baz=269,slow=1.0,SNR=4.4 | | | | | | |
| VNDA | Vanda | 72.92 | 171 | P | P | 06 15 27.7 | +2.2 |
| | 1.2nm,0.7s,baz=312,slow=8.3,SNR=7.6 | | | | | | |
| BVAR | Borovoye Array | 72.97 | 332 | P | P | 06 15 25.1 | -1.1 |
| | 1.7nm,0.6s,baz=140,slow=7.2,SNR=9.8 | | | | | | |
| SEY | Seymchan | 75.89 | 16 | P | P | 06 15 43.3 | +0.6 |
| | 1.1nm,0.4s,baz=31,slow=22,SNR=4.0 | | | | | | |
| RAYN | Ar Rayn | 77.04 | 296 | eP | P | 06 15 48.9 | -1.2 |
| | 3.3nm,0.9s | | | | | | |
| AKTO | Aktyubinsk | 77.79 | 326 | P | P | 06 15 51.9 | -1.8 |
| | 2.2nm,0.7s,baz=202,slow=2.2,SNR=7.0 | | | | | | |
| TIXI | Tiksi | 80.13 | 4 | eP | P | 06 16 04.2 | -1.7 |
| | 1.5nm,0.6s | | | | | | |
| QSPA | South Pole Qui | 81.69 | 180 | eP | P | 06 16 16.5 | +2.0 |
| LSZ | Lusaka | 87.17 | 255 | LR | LR | 06 50 55.8 | |
| | comp=Z,17nm,20.2s,baz=200,slow=32 | | | | | | |
| LSZ | Lusaka | 87.17 | 255 | eP | P | 06 16 44.6 | +1.6 |
| | 4.4nm,0.7s | | | | | | |
| BRTR | Keskin Array B | 90.53 | 310 | P | P | 06 16 55.5 | -2.8 |
| | 0.4nm,0.6s,baz=136,slow=5.0,SNR=2.3 | | | | | | |
| SNAA | Sanae | 91.26 | 196 | P | P | 06 17 03.3 | +2.3 |
| YKA | Yellowknife Ar | 114.17 | 24 | PKP | PKPdf | 06 22 32.7 | -1.1 |
| | 0.2nm,0.4s,baz=301,slow=1.8,SNR=8.2 | | | | | | |
| TORD | Torodi Ar. Bea | 116.85 | 281 | PKP | PKPdf | 06 22 39.2 | -1.1 |
| | 0.9nm,0.7s,baz=44,slow=2.5,SNR=7.1 | | | | | | |
| ESDC | Sonseca Array | 119.31 | 311 | PKP | PKPdf | 06 22 43.5 | -1.0 |
| | 0.1nm,0.3s,baz=51,slow=2.0,SNR=2.7 | | | | | | |
| CPUP | Villa Florida | 145.21 | 188 | PKPbc | PKPdf | 06 23 34.6 | +1.4 |
| | 2.2nm,0.6s,baz=158,slow=1.6,SNR=11 | | | | | | |
| BDFB | Brasilia | 152.21 | 211 | PKPbc | PKPbc | 06 23 50.9 | -0.7 |
| | 0.9nm,0.6s,baz=315,slow=4.3,SNR=2.4 | | | | | | |

*ISCJB **04** 06:09:14.6±0.4, 39°.62N±0°.02×26°.05E±0°.04, h7km±4km, Error ellipse: s-maj=4.9km s-min=3.4km az=0.4*
*CSEM **04** 06:09:14.8±0.1, 39°.62N×26°.05E, h12km, MD2.4, Error ellipse: s-maj=2.2km s-min=1.4km az=91.0*
*ATH **04** 06:09:14.4, 39°.61N×26°.05E, h20km±3km, ML2.0/2, Error ellipse: s-maj=3.9km s-min=1.0km az=220.0*
*ISK **04** 06:09:14.4, 39°.62N×26°.06E, h11km, MD2.4*
*DDA **04** 06:09:14.4, 39°.61N×26°.10E, h6km, Ml3.0*
**ISC 04 06:09:14.6**±0.9**, 39°.62N**±0°.02×**26°.05E**±0°.03**, h15**km±7km**, n52, σ0.s21**/70**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BOZC | Bozcaada | 0.22 | 0 | ePG | Pg | 06 09 19.6 | -0.1 |
| BOZC | | | | eSG | Sg | 06 09 23.3 | +0.2 |
| BOZC | Bozcaada | 0.22 | 0 | iP | Pg | 06 09 19.4 | -0.2 |
| BOZC | | | | iS | Sg | 06 09 23.3 | +0.2 |
| BOZC | Bozcaada | 0.22 | 0 | ePg | Pg | 06 09 19.6 | -0.1 |
| BOZC | | | | eSg | Sg | 06 09 23.3 | +0.2 |
| EZN | Ezine | 0.29 | 45 | ePG | Pg | 06 09 20.8 | 0.0 |
| EZN | | | | eSG | Sg | 06 09 25.2 | +0.1 |
| EZN | Ezine | 0.29 | 45 | ePg | Pg | 06 09 20.8 | 0.0 |
| EZN | | | | eSg | Sg | 06 09 25.2 | +0.1 |
| BAYC | CANAKKALE_Bayr | 0.40 | 72 | iP | Pg | 06 09 22.6 | -0.1 |
| BAYC | | | | iS | Sg | 06 09 28.0 | -0.2 |
| BAYC | CANAKKALE_Bayr | 0.40 | 72 | P | Pg | 06 09 22.6 | -0.1 |
| BAYC | | | | S | Sg | 06 09 28.0 | -0.2 |
| PRK | Paraskevi | 0.41 | 155 | P | Pg | 06 09 22.9 | +0.1 |
| PRK | | | | S | Sg | 06 09 28.3 | -0.1 |
| PRK | | | | AML | AML | 06 09 28.8 | |
| | comp=N,1059μm,0.3s | | | | | | |
| PRK | | | | AML | AML | 06 09 29.8 | |
| | comp=E,838μm,0.4s | | | | | | |
| PRK | Paraskevi | 0.41 | 155 | P | Pg | 06 09 22.9 | +0.1 |
| PRK | | | | S | Sg | 06 09 28.3 | -0.1 |
| SIGR | SIGRI | 0.43 | 201 | ePG | Pb | 06 09 24.0 | +0.1 |
| SIGR | | | | eSG | Sg | 06 09 29.5 | +0.3 |
| SIGR | SIGRI | 0.43 | 201 | P | Pg | 06 09 22.7 | -0.6 |
| SIGR | | | | S | Sg | 06 09 29.5 | +0.3 |
| SIGR | | | | AML | AML | 06 09 29.8 | |
| | comp=E,222μm,0.2s | | | | | | |
| SIGR | | | | AML | AML | 06 09 31.3 | |
| | comp=N,341μm,0.3s | | | | | | |
| SIGR | SIGRI | 0.43 | 201 | P | Pg | 06 09 22.7 | -0.6 |
| SIGR | SIGRI | 0.43 | 201 | ePg | Pb | 06 09 24.0 | +0.1 |
| SIGR | | | | S | Sg | 06 09 29.5 | +0.3 |
| GADA | Gvkgeada | 0.58 | 348 | ePG | Pg | 06 09 26.1 | 0.0 |
| GADA | Gvkgeada | 0.58 | 348 | ePg | Pg | 06 09 26.1 | 0.0 |
| LIA | Limnos Island | 0.72 | 293 | P | Pg | 06 09 28.7 | -0.1 |
| LIA | | | | S | Sb | 06 09 38.6 | 0.0 |
| LIA | Limnos Island | 0.72 | 293 | P | Pg | 06 09 28.7 | -0.1 |
| LIA | | | | S | Sb | 06 09 38.6 | 0.0 |
| GELI | Tayfur-Gelibol | 0.84 | 22 | ePG | Pg | 06 09 30.8 | -0.2 |
| GELI | Tayfur-Gelibol | 0.84 | 22 | ePg | Pg | 06 09 30.8 | -0.2 |
| DKL | Dikili | 0.86 | 129 | ePG | Pn | 06 09 31.9 | -0.2 |
| DKL | Dikili | 0.86 | 129 | ePg | Pn | 06 09 31.9 | -0.2 |
| LPK | Lapseki | 0.93 | 36 | ePG | Pb | 06 09 32.5 | +0.1 |
| LPK | Lapseki | 0.93 | 36 | ePg | Pb | 06 09 32.5 | +0.1 |
| SMTH | Samothraki Isl | 0.94 | 335 | P | Pb | 06 09 32.7 | +0.1 |
| SMTH | Samothraki Isl | 0.94 | 335 | P | Pb | 06 09 32.7 | +0.1 |
| ERIK | Erikli-Kesan | 1.11 | 18 | ePN | Pb | 06 09 35.4 | 0.0 |
| ERIK | Erikli-Kesan | 1.11 | 18 | ePn | Pb | 06 09 35.4 | 0.0 |
| ENEZ | Enez | 1.12 | 4 | ePN | Pg | 06 09 36.1 | -0.1 |
| ENEZ | Enez | 1.12 | 4 | ePn | Pg | 06 09 36.1 | -0.1 |
| BALY | Balya | 1.22 | 84 | iP | Pb | 06 09 37.5 | +0.2 |
| BALY | Balya | 1.22 | 84 | P | Pb | 06 09 37.5 | +0.2 |
| CHOS | Chios island | 1.23 | 180 | ePN | Pg | 06 09 38.6 | +0.3 |
| CHOS | Chios island | 1.23 | 180 | P | Pb | 06 09 37.8 | +0.2 |
| CHOS | Chios island | 1.23 | 180 | P | Pb | 06 09 37.8 | +0.2 |
| CHOS | Chios island | 1.23 | 180 | ePn | Pg | 06 09 38.6 | +0.3 |
| KRBG | Karabiga-Canak | 1.23 | 51 | ePN | Pb | 06 09 37.7 | +0.2 |
| KRBG | Karabiga-Canak | 1.23 | 51 | ePn | Pb | 06 09 37.7 | +0.2 |
| ALN | Alexandroupoli | 1.28 | 360 | ePN | Pg | 06 09 38.7 | -0.5 |
| ALN | Alexandroupoli | 1.28 | 360 | P | Pb | 06 09 38.5 | +0.2 |
| ALN | Alexandroupoli | 1.28 | 360 | P | Pb | 06 09 38.5 | +0.2 |
| KESN | Edirne-Kesan | 1.30 | 22 | iP | Pg | 06 09 39.4 | -0.3 |
| KESN | | | | iS | Sg | 06 09 57.0 | +0.4 |
| KESN | Edirne-Kesan | 1.30 | 22 | P | Pg | 06 09 39.4 | -0.3 |
| KESN | | | | S | Sg | 06 09 57.0 | +0.4 |
| STEP | BALIKESIR_Sava | 1.31 | 100 | iP | Pb | 06 09 39.1 | +0.2 |
| STEP | BALIKESIR_Sava | 1.31 | 100 | P | Pb | 06 09 39.1 | +0.2 |
| URLA | Izmir | 1.33 | 161 | ePN | Pb | 06 09 39.0 | -0.1 |
| URLA | Izmir | 1.33 | 161 | iP | Pb | 06 09 39.3 | +0.2 |
| URLA | | | | iS | Sg | 06 09 57.5 | +0.1 |
| URLA | Izmir | 1.33 | 161 | ePn | Pb | 06 09 39.0 | -0.1 |
| URLA | Izmir | 1.33 | 161 | P | Pb | 06 09 39.3 | +0.2 |
| URLA | | | | S | Sg | 06 09 57.5 | +0.1 |
| RKY | Sarkoy-Tekirda | 1.37 | 39 | ePN | Pb | 06 09 40.1 | +0.1 |
| RKY | Sarkoy-Tekirda | 1.37 | 39 | ePn | Pb | 06 09 40.1 | +0.1 |
| RDO | Rodhopi | 1.58 | 346 | P | Pb | 06 09 43.4 | 0.0 |
| RDO | Rodhopi | 1.58 | 346 | P | Pb | 06 09 43.4 | 0.0 |

*ISCJB **04** 06:15:52.3±0.7, 38°.77N±0°.05×43°.41E±0°.08, h14km±7km, Error ellipse: s-maj=12.0km s-min=6.2km az=41.0*
*CSEM **04** 06:15:52.2±0.2, 38°.78N×43°.41E, h10km, ML2.8, Error ellipse: s-maj=7.6km s-min=5.1km az=120.0*
*DDA **04** 06:15:52.1, 38°.76N×43°.42E, h7km, Ml2.8*
**ISC 04 06:15:52.6**±1.2**, 38°.77N**±0°.04×**43°.42E**±0°.05**, h18**km±9km**, n18, σ0.s79**/21**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.18 | 188 | ePG | Pg | 06 15 57.8 | +0.5 |
| VANB | Van | 0.18 | 188 | ePg | Pg | 06 15 57.8 | +0.5 |
| TVAN | Van | 0.24 | 183 | iP | Pg | 06 15 57.4 | -0.9 |
| TVAN | Van | 0.24 | 183 | P | Pg | 06 15 57.4 | -0.9 |
| VMUR | Van-Muradiye | 0.25 | 28 | iP | Pg | 06 15 57.9 | -0.6 |
| VMUR | Van-Muradiye | 0.25 | 28 | P | Pg | 06 15 57.9 | -0.6 |
| CLDR | Caldiran | 0.54 | 46 | ePG | Pg | 06 16 02.8 | -0.6 |
| CLDR | | | | eSG | Sg | 06 16 10.9 | +0.2 |
| CLDR | Caldiran | 0.54 | 46 | iP | Pg | 06 16 02.5 | -0.9 |
| CLDR | | | | iS | Sg | 06 16 11.0 | +0.2 |
| CLDR | Caldiran | 0.54 | 46 | P | Pg | 06 16 02.5 | -0.9 |
| CLDR | Caldiran | 0.54 | 46 | ePg | Pg | 06 16 02.8 | -0.6 |
| CLDR | | | | eSg | Sg | 06 16 10.9 | +0.2 |
| GEVA | Gevas | 0.54 | 212 | iP | Pg | 06 16 02.4 | -1.0 |
| GEVA | Gevas | 0.54 | 212 | P | Pg | 06 16 02.4 | -1.0 |
| ADCV | BITLIS_Adilcev | 0.55 | 274 | iP | Pg | 06 16 02.9 | -0.7 |
| ADCV | BITLIS_Adilcev | 0.55 | 274 | P | Pg | 06 16 02.8 | -0.7 |
| AGRB | Hanur-Agry | 0.87 | 338 | ePG | Pg | 06 16 09.1 | -0.5 |
| AGRB | Hanur-Agry | 0.87 | 338 | ePg | Pg | 06 16 09.1 | -0.5 |
| EATA | Eleskirt | 1.31 | 327 | iP | Pn | 06 16 17.1 | +0.8 |
| EATA | Eleskirt | 1.31 | 327 | P | Pn | 06 16 17.0 | +0.8 |

**JMA 04 06:19:44.0, 36°.80N×140°.57E, h9**km±1km**, M2.5, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JHO | Hitachi | 0.19 | 180 | P | Pg | 06 19 48.0 | +0.1 |
| JSB | Shiboa | 0.55 | 288 | P | Pb | 06 19 55.3 | -0.5 |
| JYT | Yasato | 0.65 | 208 | eS | Sg | 06 20 04.7 | -0.2 |
| MAT | Matsushiro | 1.92 | 263 | P | Pn | 06 20 17.7 | +0.9 |
| MAT | | | | S | Sb | 06 20 43.3 | +0.1 |

*IDC **04** 06:30:42.6±2.6, 1°.02S×131°.39E, h0km, mb4.0/2, mb1 4.2/4, mb1mx3.7/40, mbtmp4.0/4, ML4.0/2, MS3.1/2, Ms1 3.1/2, ms1mx2.6/24, Error ellipse: s-maj=134.5km s-min=24.4km az=75.0*
*DJA **04** 06:30:43.8±0.8, 1°S±7°×13°2E±°, h10km, M4.6/6, MLv4.6/6*
*ISCJB **04** 06:30:45.5±1.2, 0°.7S±0°.1×131°.80E±0°.05, h33km, mb4.1/2, MS3.1/1, Error ellipse: s-maj=16.4km s-min=7.0km az=167.2*
**ISC 04 06:30:46.8**±1.3**, 0°.8S**±0°.1×**131°.82E**±0°.06**, h35**km**, n11, σ2.s74**/13**, Irian Jaya region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| FAKI | Fak Fak | 2.18 | 169 | P | Pn | 06 31 19.5 | -1.1 |
| FAKI | | | | S | Sn | 06 31 51.3 | +4.9 |
| RKPI | Ransiki, Papua | 2.47 | 107 | P | Pn | 06 31 25.6 | +1.0 |
| RKPI | | | | S | Sn | 06 31 55.8 | +2.2 |
| MSAI | Masohi | 3.86 | 228 | P | Pn | 06 31 44.5 | +0.8 |
| MSAI | | | | S | Sn | 06 32 30.9 | +3.0 |
| BNDI | Bandanaira | 4.19 | 207 | P | Pn | 06 31 48.2 | -0.1 |
| AAI | Ambon | 4.64 | 231 | P | Pn | 06 31 54.7 | +0.2 |
| AAI | | | | S | Sn | 06 32 49.8 | +2.7 |
| PMG | Port Moresby | 17.51 | 120 | LR | LR | 06 43 15.6 | |
| | comp=Z,51nm,18.3s,baz=314,slow=42 | | | | | | |
| FITZ | Fitzroy Crossi | 18.26 | 199 | Pn | P | 06 34 53.0 | -4.6 |
| | 0.6nm,0.3s,baz=24,slow=10.0,SNR=22 | | | | | | |
| FITZ | | | | Sn | Sn | 06 38 04.0 | -17 |
| | 0.1nm,0.3s,baz=129,slow=6.5,SNR=1.9 | | | | | | |
| WRA | Warramunga Arr | 19.21 | 173 | P | P | 06 35 06.5 | -1.6 |
| | 0.4nm,0.3s,baz=352,slow=11,SNR=29 | | | | | | |
| WRA | | | | S | Sn | 06 38 30.6 | -13 |
| | 0.2nm,0.3s,baz=353,slow=22,SNR=4.1 | | | | | | |
| ASAR | Alice Springs | 22.85 | 175 | P | P | 06 35 45.4 | -1.9 |
| | 7.3nm,0.8s,baz=350,slow=9.8,SNR=66 | | | | | | |
| STKA | Stephens Creek | 32.29 | 164 | LR | LR | 06 51 46.2 | |
| | comp=Z,43nm,21.4s,baz=24,slow=39 | | | | | | |
| MKAR | Makanchi Array | 64.14 | 324 | P | P | 06 41 18.7 | +0.9 |
| | 0.8nm,0.5s,baz=122,slow=7.8,SNR=6.7 | | | | | | |

*IDC **04** 07:11:15.2±0.9, 54°.02N×123°.83E, h0km, mb3.6/6, mb1 3.8/10, mb1mx3.6/42, mbtmp3.8/10, ML3.8/2, MS3.1/3, Ms1 3.1/3, ms1mx2.7/37, Error ellipse: s-maj=18.7km s-min=15.9km az=89.0*
*MOS **04** 07:11:15.7±1.4, 53°.95N×123°.94E, h26km, mb4.1/4, Error ellipse: s-maj=11.4km s-min=9.6km az=105.3*
*SKHL **04** 07:11:16.6±0.3, 54°.25N×123°.92E, h10km, mb5.0/6*
*BJI **04** 07:11:18.3, 53°.69N×124°.10E, h9km, mb4.3/1, ML4.5/2*
**ISC 04 07:11:15.2**±1.4**, 54°.07N**±0°.04×**123°.99E**±0°.03**, h1**km±11km**, n45, σ1.s53**/60**, mb3.9**/6**, 1D, Southeastern Siberia**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KROS | Kirovskiy | 1.79 | 77 | ⇓iPn | Pn | 07 11 48.4 | +1.2 |
| ZEA | Zeya | 1.96 | 98 | eP | Pb | 07 11 51.6 | 0.0 |
| ZEA | | | | eS | Sn | 07 12 15.0 | +0.3 |
| ZEA | | | | pmax | pmax | | |
| | comp=Z,410nm,0.3s | | | | | | |
| ZEA | Zeya | 1.96 | 98 | ePn | Pb | 07 11 51.6 | 0.0 |
| ZEA | | | | ePg | Pg | 07 11 53.8 | +1.2 |
| ZEA | | | | AMB | AMB | 07 11 54.5 | |
| | comp=Z,300nm,0.5s | | | | | | |
| ZEA | | | | AMB | AMB | 07 11 54.5 | |
| | comp=Z,400nm,0.5s | | | | | | |
| ZEA | | | | AMB | AMB | 07 11 54.5 | |
| | comp=Z,700nm,0.5s | | | | | | |
| ZEA | | | | AMB | AMB | 07 11 54.8 | |
| | comp=Z,410nm,0.3s | | | | | | |
| ZEA | | | | eSg | Sg | 07 12 20.3 | +2.3 |
| ZEA | | | | A | A | 07 12 22.0 | |
| | comp=Z,3μm,0.8s | | | | | | |
| ZEA | | | | A | A | 07 12 24.0 | |
| | comp=Z,7μm,0.5s | | | | | | |
| TUP | Tupik | 2.40 | 280 | eP | Pn | 07 11 55.3 | -0.3 |
| TUP | | | | eS | Sn | 07 12 24.5 | -1.1 |
| TUP | Tupik | 2.40 | 280 | ePn | Pn | 07 11 55.3 | -0.3 |
| TUP | | | | ePg | Pb | 07 11 59.2 | +0.1 |
| TUP | | | | AMB | AMB | 07 12 03.7 | |
| | comp=Z,375nm,0.4s | | | | | | |
| TUP | | | | eSn | Sn | 07 12 24.5 | -1.1 |
| TUP | | | | eSg | Sb | 07 12 28.7 | -0.5 |
| TUP | | | | A | A | 07 12 30.2 | |
| | comp=Z,3μm,0.7s | | | | | | |
| CLNS | Chul'man | 2.82 | 10 | eP | Pn | 07 12 02.2 | +0.8 |

CLNS eS Sn 07 12 35.8 -0.4
CLNS pmax pmax
comp=Z,10.0nm,0.1s
CLNS pmax pmax
comp=E,6.0nm,0.2s
CLNS pmax pmax
comp=N,9.0nm,0.3s
CLNS pmax pmax
comp=Z,102nm,0.2s
CLNS pmax pmax
comp=E,99nm,0.3s
CLNS pmax pmax
comp=N,44nm,0.2s
CLNS smax smax
comp=E,62nm,0.2s
CLNS smax smax
comp=N,126nm,0.3s
CLNS smax smax
comp=Z,80nm,0.3s
CLNS smax smax
comp=E,2μm,0.4s
CLNS smax smax
comp=Z,2μm,0.6s
CLNS smax smax
comp=N,8μm,0.8s
**CLNS Chul'man 2.82 10** ePn **Pn 07 12 02.3 +0.8**
CLNS ePg **Pb 07 12 06.1 -0.3**
CLNS AMB AMB 07 12 08.6
comp=N,102nm,0.2s
CLNS eSn **Sn 07 12 35.9 -0.3**
CLNS eSg **Sb 07 12 41.3 -0.2**
CLNS A A 07 12 47.9
comp=N,8μm,0.8s
**BMKR Bomnak 2.91 75** eP **Pn 07 12 02.9 +0.3**
BMKR eS **Sn 07 12 38.0 -0.2**
BMKR pmax pmax
comp=Z,180nm,0.4s
**BMKR Bomnak 2.91 75** ePn **Pn 07 12 02.9 +0.3**
BMKR ePg **Pg 07 12 10.1 -0.8**
BMKR AMB AMB 07 12 10.8
comp=Z,32nm,0.4s
BMKR AMB AMB 07 12 10.8
comp=Z,194nm,0.4s
BMKR AMB AMB 07 12 10.8
comp=Z,175nm,0.4s
BMKR eSn **Sn 07 12 38.0 -0.2**
BMKR eSg **Sg 07 12 48.0 -0.6**
BMKR A A 07 12 52.4
comp=Z,1μm,0.4s
**CRS Chara 4.32 313** eP **Pb 07 12 33.2 +1.3**
**CRS Chara 4.32 313** ePn **Pn 07 12 22.5 +0.5**
CRS ePg **Pb 07 12 33.2 +1.3**
CRS eSg **Sb 07 13 27.7 +3.2**
**NLYR Nelyaty 5.32 300** eP **Pn 07 12 35.5 -0.3**
NLYR eS **Sb 07 13 47.8 -5.5**
**NLYR Nelyaty 5.32 300** ePn **Pn 07 12 35.5 -0.3**
**EKMR Ekimchan 5.43 97** ePn **Pn 07 12 38.6 +1.3**
EKMR eSg **Sg 07 14 06.9 -2.6**
EKMR A A 07 14 23.9
comp=Z,330nm,0.6s
EKMR A A 07 14 23.9
comp=Z,190nm,0.6s
EKMR A A 07 14 23.9
comp=Z,220nm,0.6s
**HIA Hailar 5.49 211** i P **Pn 07 12 37.1 -0.9**
**GRNR Gornyy 8.29 108** erx rx 07 13 15.0
GRNR eSg **Sg 07 15 39.8 -1.2**
GRNR A A 07 15 40.8
comp=Z,110nm,1.0s
**YAK Yakutsk 8.53 18** Pn **Pn 07 13 18.0 -1.8**
comp=Z,0.0nm,0.3s,baz=10,slow=0.7,SNR=2.1
YAK Sn Sn 07 14 41.0 -16
comp=Z,0.0nm,0.3s,baz=302,slow=9.5,SNR=3.7
YAK Lg Lg 07 15 34.5
comp=Z,0.0nm,0.3s,baz=108,slow=20,SNR=6.1
**YAK Yakutsk 8.53 18** eP **Pn 07 13 23.0 +3.3**
YAK e 07 14 51.4
YAK pmax pmax
comp=Z,7.0nm,0.7s
YAK pmax pmax
comp=N,2.0nm,0.9s
YAK pmax pmax
comp=E,1.0nm,0.9s
YAK smax smax
comp=E,17nm,0.9s
YAK smax smax
comp=N,10.0nm,1.0s
YAK smax smax
comp=N,235nm,0.9s
YAK smax smax
comp=E,455nm,0.9s
YAK smax smax
comp=Z,168nm,0.8s
**YAK Yakutsk 8.53 18** ePn **Pn 07 13 22.0 +2.3**
YAK AMB AMB 07 13 27.6
comp=Z,26nm,0.7s
**HABR Khabarovsk 8.91 124** eP **Pn 07 13 23.2 -1.7**
HABR e 07 15 04.6
HABR pmax pmax
comp=E,32nm,1.4s
HABR pmax pmax
comp=N,34nm,1.4s
HABR pmax pmax
comp=Z,24nm,1.4s
HABR MLR MLR
comp=Z,47nm,10.0s
**NKL Nikolayevsk 9.96 89** eSg 07 16 33.0
**USRK Ussuriysk Ar. 11.17 149** Pn **Pn 07 13 56.9 +1.0**
comp=Z,0.1nm,0.3s,baz=351,slow=14,SNR=2.7
USRK Lg Lg 07 17 10.0
comp=Z,0.5nm,0.3s,baz=329,slow=27,SNR=4.3
**UGL Uglegorsk 12.29 107** eP **Pn 07 14 10.0 -1.2**
**ULN Ulaanbaatar 12.34 247** i P **Pn 07 14 11.3 -0.7**
ULN pmax pmax
comp=Z,2.0nm,1.1s
**TLY Talaya 12.52 267** i P **Pn 07 14 12.8 -1.5**
TLY pmax pmax
comp=Z,10.0nm,1.0s
**TLY Talaya 12.52 267** i P **Pn 07 14 12.8 -1.5**
**SONM Songino Array 12.71 248** Pn **Pn 07 14 16.3 -0.8**
comp=Z,0.9nm,0.3s,baz=50,slow=12,SNR=4.9
SONM Lg Lg 07 17 48.9
comp=Z,1.0nm,0.3s,baz=52,slow=26,SNR=5.1
**ZAK Zakamensk 13.21 262** eP **P 07 14 36.4 +2.3**
ZAK e 07 16 55.4
ZAK pmax pmax
comp=Z,2.0nm,1.4s
**MA2 Magadan 15.60 59** LR LR 07 21 20.3
comp=Z,25nm,21.0s,baz=28,slow=38
**KSRS Korea Array 16.84 169** Lg Lg 07 20 09.8
comp=Z,0.2nm,0.3s,baz=359,slow=26,SNR=3.4
**TIXI Tiksi 17.78 5** P **P 07 15 24.7 +0.3**
comp=Z,0.3nm,0.3s,baz=216,slow=12,SNR=6.9
TIXI LR LR 07 21 54.5
comp=Z,40nm,18.1s,baz=300,slow=36
**TIXI Tiksi 17.78 5** eP **Pn 07 15 21.7 -1.8**
TIXI pmax pmax
comp=Z,3.0nm,0.9s
**TIXI Tiksi 17.78 5** eP **Pn 07 15 21.7 -1.8**
**PETK Petropavlovsk- 19.93 79** P **Pn 07 15 50.5 +0.7**
comp=Z,1.1nm,0.5s,baz=285,slow=15,SNR=2.7
**MJAR Matsushiro Arr 20.11 145** P **P 07 15 50.2 0.0**
comp=Z,2.1nm,1.0s,baz=358,slow=12,SNR=2.7
**LZH Lanzhou 22.79 226** eP **P 07 16 18.7 -0.5**
LZH pP 07 16 23.8
LZH sP 07 16 26.1
LZH pmax pmax
comp=Z,12nm,1.0s
**WMQ Urumqi 25.68 261** eP **P 07 16 50.4 +3.9**
**MKAR Makanchi Array 27.21 272** P **P 07 16 59.9 -0.4**
comp=Z,0.3nm,0.7s,baz=65,slow=8.1,SNR=3.1
**KURK Kurchatov 27.52 282** P **P 07 17 02.9 -0.1**
**KURBB Kurchatov Arra 27.61 282** P **P 07 17 02.9 -1.0**
comp=Z,0.1nm,0.4s,baz=71,slow=8.7,SNR=3.0
**BRVK Borovoye 31.28 290** eP **P 07 17 35.5 -0.8**
BRVK pmax pmax
comp=Z,2.0nm,0.9s
**BRVK Borovoye 31.28 290** P **P 07 17 35.5 -0.8**
**ARCES ARCESS Array B 43.48 330** LR LR 07 42 24.6
comp=Z,80nm,18.2s,baz=265,slow=43
**FINES FINESS Array B 47.98 320** P **P 07 19 55.2 +0.3**
comp=Z,7.5nm,1.1s,baz=51,slow=11,SNR=2.4
**WRA Warramunga Arr 74.24 170** P **P 07 22 53.4 -0.3**
comp=Z,0.8nm,1.0s,baz=352,slow=6.8,SNR=4.5

---

**IDC 04 07:12:36.5**±3.2**, 9°.39S×150°.78E, h0km, mb3.6**/2**, mb1 3.8**/4**, mb1mx3.5**/31**, mbtmp3.6**/4**, ML3.3**/1**, MS3.2**/4**, Ms1 3.2**/4**, ms1mx2.8**/24**, Error ellipse: s-maj=76.0km s-min=50.2km az=141.0, Eastern New Guinea region**

Code Station Name Δ° AZ° Phase ID Op ISC Time h m s Res ISC
**PMG Port Moresby 3.58 269** Pn Pn 07 13 32.3 -1.0
1.4nm,0.3s,baz=96,slow=18,SNR=3.1
PMG Sn Sb 07 14 26.4 +1.7
4.7nm,0.3s,baz=27,slow=20,SNR=8.2
PMG LR LR 07 15 00.1
comp=Z,136nm,19.4s,baz=64,slow=40
**WRA Warramunga Arr 19.04 235** P Pn 07 17 01.0 -0.1
0.1nm,0.3s,baz=60,slow=12,SNR=8.8
**DZM Mont Dzumac 19.63 132** LR LR 07 24 04.9
comp=Z,46nm,18.1s,baz=97,slow=35
**ASAR Alice Springs 21.49 227** P P 07 17 27.5 +0.4
1.4nm,1.0s,baz=60,slow=11,SNR=9.4
**FITZ Fitzroy Crossi 25.89 248** P P 07 18 10.1 -0.3
1.3nm,0.6s,baz=75,slow=10,SNR=7.3
**TGY Tagaytay City 37.70 308** LR LR 07 35 26.8
comp=Z,58nm,20.5s,baz=108,slow=36
**AAK Ala-Archa 86.38 314** LR LR 08 07 24.7
comp=Z,34nm,18.2s,baz=250,slow=38
**TORD Torodi Ar. Bea 149.47 280** PKPbc PKPbc 07 32 28.4 -0.4
0.7nm,0.7s,baz=69,slow=3.2,SNR=4.5

---

**MEX 04 07:23:15.1**±0.3**, 14°.64N×92°.54W, h57km**±9km**, MD3.7, Near coast of Chiapas**

Code Station Name Δ° AZ° Phase ID Op ISC Time h m s Res ISC
**PCIG 1.25 329** eP Pn 07 23 34.7 -1.6
PCIG eS Sn 07 23 50.4 -1.7
**CCIG Comitan 1.68 13** eP Pn 07 23 39.4 -3.0
CCIG i S Sn 07 24 01.1 -1.8

---

**MAN 04 07:54:54, 13°.62N×120°.64E, h46km, mb4.0, ML2.7, MS2.4, 1C-1D, Mindoro**

Code Station Name Δ° AZ° Phase ID Op ISC Time h m s Res ISC
**PGP Puerto Galera 0.33 111**⇓eP Pn 07 55 05.4 +2.3
PGP eS Sn 07 55 12.9 +3.4
**LUBP Lubang 0.40 286** eP Pn 07 55 05.8 +1.9
**TGY Tagaytay City 0.56 31**⇑iP Pn 07 55 07.1 +1.2
TGY i S Sn 07 55 20.7 +6.4
**SJMP San Jose 1.25 158** eP Pn 07 55 16.2 +1.2
SJMP eS Sn 07 55 31.5 +0.9

---

**IDC 04 08:07:53.7**±1.0**, 19°.02N×121°.24E, h0km, mb3.5**/5**, mb1 3.7**/6**, mb1mx3.5**/37**, mbtmp3.5**/6**, ML3.4**/1**, MS2.7**/2**, Ms1 2.8**/2**, ms1mx2.4**/32**, Error ellipse: s-maj=55.8km s-min=19.9km az=73.0, Philippine Islands region**

Code Station Name Δ° AZ° Phase ID Op ISC Time h m s Res ISC
**KSRS Korea Array 19.28 16** P P 08 12 20.4 +0.4
0.1nm,0.3s,baz=190,slow=10,SNR=3.0
KSRS LR LR 08 20 59.7
comp=Z,20nm,19.3s,baz=350,slow=41
**CMAR Chiang Mai Arr 21.12 272** LR LR 08 21 30.0
comp=Z,18nm,18.7s,baz=80,slow=39
**WRA Warramunga Arr 40.79 161** P P 08 15 35.5 -1.5
0.4nm,0.9s,baz=333,slow=10,SNR=5.5
WRA PcP PcP 08 17 38.5 +0.1
0.3nm,0.5s,baz=342,slow=3.1,SNR=5.5
**MKAR Makanchi Array 42.19 320** P P 08 15 48.5 +0.2
0.3nm,0.6s,baz=118,slow=10,SNR=4.1
**ASAR Alice Springs 44.19 163** P P 08 16 05.6 +1.0
0.3nm,0.5s,baz=342,slow=7.3,SNR=7.7
**ZALV Zalesovo Beam 44.66 330** P P 08 16 07.5 -0.6
0.2nm,0.3s,baz=104,slow=6.1,SNR=2.1
**YKA Yellowknife Ar 87.69 23** P P 08 20 43.7 -0.3
0.4nm,0.5s,baz=310,slow=4.3,SNR=7.9

---

*DDA **04** 08:09:20.5, 38°.86N×26°.22E, h27km, Ml3.5*
*ATH **04** 08:09:21.6, 38°.85N×26°.29E, h28km±1km, ML2.9/7, Error ellipse: s-maj=2.2km s-min=0.9km az=268.0*
*ISK **04** 08:09:21.4, 38°.83N×26°.36E, h8km, ML3.1*
*ISCJB **04** 08:09:21.6±0.4, 38°.84N±0°.02×26°.30E±0°.03, h11km±3km, Error ellipse: s-maj=3.6km s-min=2.5km az=171.2*
*CSEM **04** 08:09:22.0±0.1, 38°.83N×26°.33E, h10km, ML3.0, Error ellipse: s-maj=2.2km s-min=1.7km az=82.0*
*THE **04** 08:09:22.7, 38°.86N×26°.28E, h9km±1km, ML3.0/5, Error ellipse: s-maj=1.5km s-min=0.6km az=268.0*
**ISC 04 08:09:21.6**±1.0**, 38°.85N**±0°.01×**26°.31E**±0°.02**, h10**km±9km**, n163, σ0s.79**/189**, 3C-3D, Aegean Sea**

Code Station Name Δ° AZ° Phase ID Op ISC Time h m s Res ISC
**PRK Paraskevi 0.40 355** P **Pg 08 09 29.6 +0.1**
PRK S **Sb 08 09 35.9 -1.0**
PRK AML AML 08 09 39.0
comp=E,3886μm,0.3s
PRK AML AML 08 09 40.9
comp=N,5540μm,0.3s
**PRK Paraskevi 0.40 355** P **Pg 08 09 30.0 +0.5**
PRK S **Sb 08 09 35.9 -1.0**
**PRK Paraskevi 0.40 355** P **Pg 08 09 30.0 +0.5**
PRK S **Sb 08 09 36.2 -0.7**
**CHOS Chios island 0.50 204** ePG **Pg 08 09 31.7 +0.2**
**CHOS Chios island 0.50 204** P **Pb 08 09 32.8 +0.2**
CHOS S **Sb 08 09 40.0 -0.1**
CHOS AML AML 08 09 44.0
comp=E,8687μm,0.2s
CHOS AML AML 08 09 44.7
comp=N,5334μm,0.2s
**CHOS Chios island 0.50 204** ePg **Pg 08 09 31.7 +0.2**
**CHOS Chios island 0.50 204** P **Pb 08 09 32.4 -0.2**
CHOS S **Sb 08 09 39.9 -0.1**
**CHOS Chios island 0.50 204** P **Pb 08 09 32.4 -0.2**
CHOS S **Sb 08 09 39.9 -0.1**
**SIGR SIGRI 0.51 316** ePG **Pb 08 09 32.6 -0.1**
SIGR eSG **Sb 08 09 40.7 +0.6**
**SIGR SIGRI 0.51 316** P **Pb 08 09 33.1 +0.5**
SIGR S **Sb 08 09 39.3 -0.8**
SIGR AML AML 08 09 40.7
comp=E,3123μm,0.4s
SIGR AML AML 08 09 44.3
comp=N,2442μm,0.3s
**SIGR SIGRI 0.51 316** P **Pb 08 09 32.5 -0.1**
SIGR S **Sb 08 09 39.3 -0.8**
SIGR eSg **Sb 08 09 40.7 +0.6**
**SIGR SIGRI 0.51 316** P **Pb 08 09 32.5 -0.1**
SIGR S **Sb 08 09 39.6 -0.5**
**DKL Dikili 0.51 64** ePG **Pg 08 09 31.4 -0.2**
DKL eSG **Sg 08 09 38.6 +0.2**
**DKL Dikili 0.51 64** ePg **Pg 08 09 31.4 -0.2**
DKL eSg **Sg 08 09 38.6 +0.2**
**URLA Izmir 0.54 156** ePG **Pg 08 09 32.1 +0.1**
URLA eSG **Sg 08 09 39.0 -0.1**
**URLA Izmir 0.54 156** i P **Pg 08 09 32.3 +0.2**
**URLA Izmir 0.54 156** P **Pg 08 09 32.3 +0.2**
URLA eSg **Sg 08 09 39.0 -0.1**
**ZEY ˜zmir 0.63 166** i P **Pg 08 09 34.0 +0.2**
**BAYC CANAKKALE_Bayr 0.91 11** i P **Pg 08 09 38.6 -0.6**
**BAYC CANAKKALE_Bayr 0.91 11** P **Pg 08 09 38.6 -0.6**
**DGB ˜zmir 0.91 150** i P **Pg 08 09 38.7 -0.5**
**EZN Ezine 0.98 1** ePG **Pg 08 09 40.3 -0.1**
**EZN Ezine 0.98 1** P **Pg 08 09 40.4 0.0**
EZN S **Sn 08 09 54.8 -0.4**
**EZN Ezine 0.98 1** P **Pg 08 09 40.4 0.0**
EZN S **Sn 08 09 54.8 -0.4**
**BOZC Bozcaada 1.01 349** ePG **Pn 08 09 41.7 -0.2**
**BOZC Bozcaada 1.01 349** i P **Pb 08 09 41.3 0.0**
**BOZC Bozcaada 1.01 349** ePg **Pn 08 09 41.7 -0.2**
**AKS Akhisar 1.17 88** ePN **Pb 08 09 43.3 -0.6**
**AKS Akhisar 1.17 88** ePn **Pb 08 09 43.3 -0.6**
**AKHS Akhisar 1.17 88** i P **Pb 08 09 44.2 +0.2**
**AKHS Akhisar 1.17 88** P **Pb 08 09 44.2 +0.2**
**SMG Samos 1.21 160** P **Pg 08 09 45.1 +0.1**
SMG AML AML 08 10 04.2
comp=N,1620μm,0.3s
SMG AML AML 08 10 06.7
comp=E,1554μm,0.6s
**SMG Samos 1.21 160** P **Pg 08 09 45.0 +0.1**
**SMG Samos 1.21 160** P **Pg 08 09 45.0 +0.1**
**STEP BALIKESIR_Sava 1.21 64** i P **Pn 08 09 44.7 0.0**
**STEP BALIKESIR_Sava 1.21 64** P **Pn 08 09 44.7 0.0**
**KUSD Kusadasi-Aydin 1.25 142** ePN **Pn 08 09 44.8 -0.3**
**KUSD Kusadasi-Aydin 1.25 142** ePn **Pn 08 09 44.8 -0.3**
**BALY Balya 1.35 48** i P **Pn 08 09 46.4 -0.2**
**BALY Balya 1.35 48** P **Pn 08 09 46.4 -0.2**
**GCAM G?zelcaml? 1.36 147** ePN **Pn 08 09 46.9 +0.4**
**GCAM G?zelcaml? 1.36 147** i P **Pn 08 09 47.0 +0.4**
**GCAM G?zelcaml? 1.36 147** ePn **Pn 08 09 46.9 +0.4**
**LIA Limnos Island 1.37 320** P **Pb 08 09 47.2 -0.1**
LIA AML AML 08 10 10.2
comp=N,672μm,0.5s
LIA AML AML 08 10 10.3
comp=E,775μm,0.4s
**LIA Limnos Island 1.37 320** P **Pb 08 09 47.2 -0.1**
LIA S **Sb 08 10 04.1 -0.7**
**LIA Limnos Island 1.37 320** P **Pb 08 09 46.9 -0.4**
LIA S **Sb 08 10 04.1 -0.7**
**GADA Gvkgeada 1.38 347** ePN **Pg 08 09 47.7 -0.4**
**GADA Gvkgeada 1.38 347** P **Pb 08 09 47.5 0.0**
GADA S **Sg 08 10 05.5 -0.5**
**GADA Gvkgeada 1.38 347** P **Pb 08 09 47.5 0.0**
GADA S **Sg 08 10 05.5 -0.5**
**BALB Balikesir 1.45 57** ePN **Pn 08 09 48.1 +0.3**
**BALB Balikesir 1.45 57** ePn **Pn 08 09 48.2 +0.3**
**GELI Tayfur-Gelibol 1.55 5** ePN **Pb 08 09 50.2 -0.2**
**GELI Tayfur-Gelibol 1.55 5** ePn **Pb 08 09 50.2 -0.2**
**LPK Lapseki 1.56 13** ePN **Pb 08 09 50.8 +0.2**
**LPK Lapseki 1.56 13** ePn **Pb 08 09 50.8 +0.2**
**GONE Gonen-Balikesi 1.60 41** ePN **Pn 08 09 50.0 0.0**
**GONE Gonen-Balikesi 1.60 41** ePn **Pn 08 09 50.0 0.0**
**KNL Bal˜–kesir 1.70 33** i P **Pn 08 09 51.0 -0.3**
**AYDN Tasoluk 1.71 133** i P **Pn 08 09 51.6 +0.1**
**AYDN Tasoluk 1.71 133** P **Pn 08 09 51.6 +0.1**
**KRBG Karabiga-Canak 1.72 26** ePN **Pn 08 09 52.3 +0.7**
**KRBG Karabiga-Canak 1.72 26** ePn **Pn 08 09 52.3 +0.7**
**SMTH Samothraki Isl 1.73 340** P **Pn 08 09 51.6 -0.1**
SMTH AML AML 08 10 20.8
comp=N,318μm,0.4s
SMTH AML AML 08 10 23.6
comp=E,250μm,0.4s
**SMTH Samothraki Isl 1.73 340** P **Pn 08 09 51.9 +0.1**
**SMTH Samothraki Isl 1.73 340** P **Pn 08 09 51.9 +0.1**
**MANT Manisa 1.79 101** i P **Pn 08 09 53.1 +0.3**
**MANT Manisa 1.79 101** P **Pn 08 09 53.1 +0.3**
**ERIK Erikli-Kesan 1.83 5** ePN **Pb 08 09 54.2 -0.9**
**ERIK Erikli-Kesan 1.83 5** ePn **Pb 08 09 54.2 -0.9**
**KULA Kula-Manisa 1.87 100** ePN **Pn 08 09 53.8 +0.1**
**KULA Kula-Manisa 1.87 100** ePn **Pn 08 09 53.8 +0.1**
**APE Apeiranthos 1.88 199** ePN **Pn 08 09 53.7 -0.2**
**APE Apeiranthos 1.88 199**⇓iP **Pn 08 09 53.0 -0.9**
APE S **Sb 08 10 18.6 -1.1**
**APE Apeiranthos 1.88 199** P **Pn 08 09 52.9 -1.0**
**APE Apeiranthos 1.88 199** ePn **Pn 08 09 53.7 -0.2**
**APE Apeiranthos 1.88 199** P **Pn 08 09 53.5 -0.4**
**DEMI Demirci 1.88 83** i P **Pb 08 09 56.5 +0.4**
**DEMI Demirci 1.88 83** P **Pb 08 09 56.5 +0.4**
**ENEZ Enez 1.89 356** ePN **Pb 08 09 55.2 -1.0**
**ENEZ Enez 1.89 356** P **Pn 08 09 54.4 +0.5**
**ENEZ Enez 1.89 356** ePn **Pb 08 09 55.2 -1.0**
ENEZ S **Sn 08 10 18.6 +0.8**
**ENEZ Enez 1.89 356** P **Pn 08 09 54.4 +0.5**
ENEZ S **Sn 08 10 18.6 +0.8**
**EDC Edincik 1.92 38** ePN **Pn 08 09 54.0 -0.2**
**EDC Edincik 1.92 38** ePn **Pn 08 09 54.1 -0.2**
**DST Dursunbey 1.94 66** ePN **Pn 08 09 55.3 +0.6**
**DST Dursunbey 1.94 66** ePn **Pn 08 09 55.3 +0.6**
**BODT Bodrum 1.95 156** ePN **Pn 08 09 54.7 0.0**
**BODT Bodrum 1.95 156** P **Pn 08 09 54.8 0.0**
**BODT Bodrum 1.95 156** P **Pn 08 09 54.8 0.0**
**RKY Sarkoy-Tekirda 1.95 20** ePN **Pn 08 09 55.9 +1.0**
**RKY Sarkoy-Tekirda 1.95 20** ePn **Pn 08 09 55.9 +1.0**
**SART Tekirdag 1.96 20** i P **Pb 08 09 56.3 -1.1**
**SART Tekirdag 1.96 20** P **Pb 08 09 56.3 -1.1**
**KESN Edirne-Kesan 2.00 8** i P **Pn 08 09 55.5 -0.2**
**KESN Edirne-Kesan 2.00 8** P **Pn 08 09 55.5 -0.2**
**ALN Alexandroupoli 2.06 354** ePN **Pb 08 09 57.6 -1.4**
**ALN Alexandroupoli 2.06 354** P **Pn 08 09 56.8 +0.6**
ALN AML AML 08 10 28.0
comp=N,404μm,0.5s
ALN AML AML 08 10 30.2
comp=E,172μm,0.6s
**ALN Alexandroupoli 2.06 354** P **Pn 08 09 56.8 +0.6**
**ALN Alexandroupoli 2.06 354** ePn **Pb 08 09 57.6 -1.4**
ALN S **Sn 08 10 22.5 +0.6**
**ALN Alexandroupoli 2.06 354** P **Pn 08 09 56.3 +0.1**
ALN S **Sn 08 10 22.5 +0.6**
**PTL Penteli 2.08 248** P **Pn 08 09 55.8 -0.8**
**PTL Penteli 2.08 248** P **Pn 08 09 55.8 -0.8**
**KCTX Karacabey (Bur 2.12 48** ePN **Pn 08 09 57.5 +0.4**
**KCTX Karacabey (Bur 2.12 48** ePn **Pn 08 09 57.5 +0.4**
**VLY Voula,Athens 2.22 244** P **Pn 08 09 58.0 -0.4**
**VLY Voula,Athens 2.22 244** P **Pn 08 09 58.0 -0.4**
**SERI Serifos 2.22 221** P **Pn 08 09 57.8 -0.7**
**SERI Serifos 2.22 221** P **Pn 08 09 57.8 -0.7**
**PAIG Paliouri 2.31 299** P **Pn 08 09 59.3 -0.4**
**PAIG Paliouri 2.31 299** P **Pn 08 09 59.3 -0.4**
**OUR Ouranopolis 2.33 310** ePN **Pn 08 10 01.5 +1.5**
**OUR Ouranopolis 2.33 310** P **Pn 08 10 00.6 +0.6**
**OUR Ouranopolis 2.33 310** P **Pn 08 10 00.6 +0.6**
**OUR Ouranopolis 2.33 310** ePn **Pn 08 10 01.5 +1.5**
**TKR Tekirdag 2.34 23** ePN **Pn 08 10 01.3 +1.2**
**TKR Tekirdag 2.34 23** ePn **Pn 08 10 01.3 +1.2**
**NIS1 Nisyros Isl. 2.34 163** ePN **Pn 08 10 00.9 +0.7**
**NIS1 Nisyros Isl. 2.34 163** ePn **Pn 08 10 00.9 +0.7**
**RDO Rodhopi 2.37 346** P **Pn 08 10 01.2 +0.7**
**RDO Rodhopi 2.37 346** P **Pn 08 10 01.2 +0.7**
**VILL Villia 2.45 255** P **Pn 08 10 01.6 -0.1**
**VIL2 Platees 2.47 256** P **Pn 08 10 01.6 -0.4**
**GDZ Gediz 2.48 83** i P **Pg 08 10 08.4 -0.8**
**XOR Xorichti 2.48 283** P **Pn 08 10 02.1 0.0**
**XOR Xorichti 2.48 283** P **Pn 08 10 02.1 0.0**
**KAVA Kavala 2.55 328** P **Pn 08 10 03.2 +0.2**
**KAVA Kavala 2.55 328** P **Pn 08 10 03.2 +0.2**
**MHLA Plaka, Milos I 2.58 216** P **Pn 08 10 03.8 +0.4**
**MHLA Plaka, Milos I 2.58 216** P **Pn 08 10 03.8 +0.4**
**MHLO Agia Marina, M 2.63 216** P **Pn 08 10 05.9 +1.7**
**MHLO Agia Marina, M 2.63 216** P **Pn 08 10 05.9 +1.7**
**IGD Bursa 2.64 57** i P **Pg 08 10 11.2 -1.1**
**SBT2 Guzelce-Avcila 2.64 39** ePN **Pn 08 10 05.2 +1.0**
**SBT2 Guzelce-Avcila 2.64 39** ePn **Pn 08 10 05.2 +1.0**
**DALY Dalyan (Mu˜la 2.75 137** ePN **Pn 08 10 06.3 +0.6**
**DALY Dalyan (Mu˜la 2.75 137** ePn **Pn 08 10 06.3 +0.6**
**SLVT Silivri 2.79 31** ePN **Pn 08 10 07.2 +0.9**
**SLVT Silivri 2.79 31** ePn **Pn 08 10 07.2 +0.9**
**CTKS Kestanelik-??a 2.92 35** ePN **Pn 08 10 09.3 +1.2**
**CTKS Kestanelik-??a 2.92 35** ePn **Pn 08 10 09.3 +1.2**
**BUY Buyukada 2.94 46** i P **Pb 08 10 14.9 +0.8**
**CTYL Yalikoy Yolu 3.03 29** ePN **Pn 08 10 10.9 +1.3**
**CTYL Yalikoy Yolu 3.03 29** ePn **Pn 08 10 10.9 +1.3**
**HORT Hortiatis 3.03 306** P **Pn 08 10 11.2 +1.5**
**HORT Hortiatis 3.03 306** P **Pn 08 10 11.2 +1.5**
**SRS Serrai 3.08 318** P **Pn 08 10 11.0 +0.6**
**SRS Serrai 3.08 318** P **Pn 08 10 11.0 +0.6**
**NVR Nevrokopi 3.13 324** P **Pn 08 10 11.5 +0.5**
**NVR Nevrokopi 3.13 324** P **Pn 08 10 11.5 +0.5**
**KARP Karpathos 3.36 168** ePN **Pn 08 10 15.2 +0.9**
**KARP Karpathos 3.36 168** P **Pn 08 10 14.1 -0.1**
**KARP Karpathos 3.36 168** P **Pn 08 10 14.1 -0.1**
**KARP Karpathos 3.36 168** ePn **Pn 08 10 15.2 +0.9**
**KNT Kendrikon 3.50 312** P **Pn 08 10 17.1 +1.0**
**KNT Kendrikon 3.50 312** P **Pn 08 10 17.0 +1.0**
**VTS Vitosha 4.42 329**⇑iP **Pn 08 10 30.1 +1.2**
**BARS Barje 5.23 321** ePn **Pn 08 10 41.4 +1.6**
**TIRR Tirgusor 5.82 15**⇓iP **Pn 08 10 48.3 +0.4**
**ZAGS Zajecar 5.83 330** ePn **Pn 08 10 48.6 +0.5**
**BOVS Bovan 5.91 325** ePn **Pn 08 10 50.2 +1.0**
**MLR Muntele Rosu 6.64 358**⇑iP **Pn 08 11 03.6 +4.2**
**VOIR 6.65 352**⇑iP **Pn 08 11 02.4 +3.0**
**VRI Vrincioaia 7.02 2**⇓iP **Pn 08 11 07.5 +3.1**

---

*IDC **04** 08:19:30.7±1.5, 7°.34N×82°.54W, h0km, mb3.6/6, mb1 4.0/7, mb1mx3.7/32, mbtmp3.7/7, ML3.1/1, MS3.2/10, Ms1 3.2/10, ms1mx3.0/28, Error ellipse: s-maj=89.4km s-min=26.3km az=68.0*
*CASC **04** 08:19:33.3±2.0, 7°.29N×82°.30W, h9km±11km, MD3.5*
**ISC 04 08:19:32.2**±2.6**, 7°.21N**±0°.07×**82°.38W**±0°.05**, h14**km±16km**, n42, σ1s.48**/41**, mb3.7**/6**, MS3.2**/5**, 3C-1D, South of Panama**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TBS2 | | 1.60 | 350 | eP | Pn | 08 20 00.3 | +0.1 |
| TBS2 | | | | eS | Sn | 08 20 21.4 | +0.7 |
| BRU2 | Volcan | 1.60 | 349 | eP | Pn | 08 20 00.3 | 0.0 |
| BRU2 | | | | eS | Sb | 08 20 22.2 | +0.3 |
| PTJ1 | Puerto Jimˆ'ne | 1.60 | 325 | eP | Pn | 08 20 00.1 | 0.0 |
| PTJ1 | | | | eS | Sg | 08 20 23.8 | -0.2 |
| ACR | Cerro Adams | 1.64 | 331 | eP | Pn | 08 19 59.9 | -0.7 |
| PSVT | Puntarenas | 1.71 | 340 | eP | Pn | 08 19 49.8 | -12 |
| AZU | Azuero | 2.16 | 74 | ⇓iP | Pn | 08 20 07.6 | -0.2 |
| AZU | | | | eS | Sn | 08 20 34.8 | +0.4 |
| PNME | Penonome | 2.40 | 58 | eP | Pn | 08 20 12.5 | +1.5 |
| PNME | | | | eS | Sn | 08 20 40.5 | +0.3 |
| QCR1 | Quepos | 2.83 | 321 | ⇑eP | Pn | 08 20 17.0 | 0.0 |
| URSC | Urasca | 2.95 | 332 | eP | Pn | 08 20 20.4 | +1.5 |
| LCR2 | La Lucha 2 | 2.99 | 328 | ⇑iP | Pn | 08 20 20.2 | +0.9 |
| LCR2 | | | | eS | Sn | 08 20 57.8 | +2.7 |
| ZANG | Zanguenga, Cho | 3.03 | 55 | eP | Pn | 08 20 20.1 | +0.3 |
| CVTR | Volcan Turrial | 3.11 | 334 | eP | Pn | 08 20 23.1 | +1.8 |
| BCIP | Isla Barro Col | 3.18 | 52 | eP | Pn | 08 20 22.8 | +1.0 |
| BCIP | | | | eS | Sn | 08 20 59.1 | -0.4 |
| SJS | Escuela Geolog | 3.18 | 329 | eP | Pn | 08 20 23.4 | +1.5 |
| SJS | | | | eS | Sb | 08 21 05.4 | -1.9 |
| HDC | Heredia | 3.26 | 328 | ⇑iP | Pn | 08 20 24.8 | +1.7 |
| HDC | | | | eS | Sn | 08 21 04.3 | +2.5 |
| FLAM | Flamenco Islan | 3.28 | 59 | eS | Sn | 08 21 02.0 | -0.1 |
| SRA1 | San Ramˆ‡n | 3.53 | 324 | eP | Pn | 08 20 27.3 | +0.5 |
| UPD2 | Meteti | 4.52 | 73 | eP | Pn | 08 20 41.4 | +1.1 |
| UPD2 | | | | eS | Sn | 08 21 30.9 | -1.8 |
| MOTC | Monteria, Cord | 6.83 | 76 | eP | Pn | 08 21 13.0 | +1.0 |
| POPC | Popayan, Colom | 7.33 | 129 | eP | Pn | 08 21 20.0 | +0.9 |
| CMBC | Cumbal | 7.71 | 144 | eP | Pn | 08 21 26.4 | +1.9 |
| CRUC | La Cruz | 7.79 | 136 | eP | Pn | 08 21 25.6 | +0.1 |
| PRAC | Prado | 8.22 | 115 | eP | Pn | 08 21 31.3 | 0.0 |
| ROSC | El Rosal | 8.35 | 106 | LR | LR | 08 24 33.4 | |
| | comp=Z,104nm,21.5s,baz=309,slow=36 | | | | | | |
| CHIC | Chingaza | 8.97 | 106 | eP | Pn | 08 21 44.6 | +2.8 |
| VILC | Villavicencio, | 9.17 | 109 | eP | Pn | 08 21 48.8 | +4.5 |
| RUSC | La Rusia | 9.33 | 98 | eP | Pn | 08 21 35.5 | -11 |
| SDV | Santo Domingo | 11.75 | 81 | LR | LR | 08 28 18.5 | |
| | comp=Z,131nm,18.4s,baz=285,slow=44 | | | | | | |
| ATAH | Atahualpa | 14.79 | 164 | LR | LR | 08 28 02.8 | |
| | comp=Z,106nm,18.3s,baz=358,slow=34 | | | | | | |
| CMIG | Matias Romero | 15.67 | 310 | Pn | Pn | 08 23 11.7 | -1.1 |
| | 0.1nm,0.3s,baz=58,slow=19,SNR=2.3 | | | | | | |
| PCRV | Puerto La Cruz | 17.78 | 79 | LR | LR | 08 32 31.9 | |
| | comp=Z,101nm,20.4s,baz=274,slow=44 | | | | | | |
| SJG | San Juan | 19.16 | 54 | LR | LR | 08 31 14.0 | |
| | comp=Z,42nm,21.1s,baz=244,slow=37 | | | | | | |
| PTGA | Pitinga | 23.71 | 109 | LR | LR | 08 33 41.7 | |
| | comp=Z,33nm,19.4s,baz=292,slow=36 | | | | | | |
| LPAZ | La Paz | 27.27 | 149 | LR | LR | 08 36 16.2 | |
| | comp=Z,72nm,20.0s,baz=335,slow=37 | | | | | | |
| TXAR | Lajitas Array | 29.77 | 320 | P | P | 08 25 37.1 | -1.6 |
| | 0.6nm,1.0s,baz=106,slow=8.6,SNR=2.5 | | | | | | |
| CPUP | Villa Florida | 41.26 | 145 | LR | LR | 08 46 54.2 | |
| | comp=Z,29nm,19.4s,baz=344,slow=40 | | | | | | |
| PDAR | Pinedale Array | 42.75 | 330 | P | P | 08 27 28.4 | -1.1 |
| | 0.3nm,0.4s,baz=127,slow=11,SNR=3.3 | | | | | | |
| PDAR | | | | LR | LR | 08 46 47.8 | |
| | comp=Z,33nm,18.2s,baz=94,slow=38 | | | | | | |
| ULM | Lac du Bonnet | 44.36 | 348 | P | P | 08 27 41.1 | -0.8 |
| | 3.0nm,0.8s,baz=138,slow=12,SNR=4.2 | | | | | | |
| PLCA | Paso Flores | 48.93 | 168 | P | P | 08 28 19.9 | +1.9 |
| | 1.0nm,0.8s,baz=347,slow=8.2,SNR=4.2 | | | | | | |
| YKA | Yellowknife Ar | 59.99 | 343 | P | P | 08 29 38.1 | +0.1 |
| | 0.7nm,0.9s,baz=135,slow=6.8,SNR=4.3 | | | | | | |
| ILAR | Eielson Array | 72.80 | 336 | P | P | 08 30 59.8 | -0.3 |
| | 0.5nm,0.8s,baz=96,slow=6.6,SNR=4.6 | | | | | | |
| TORD | Torodi Ar. Bea | 82.65 | 78 | LR | LR | 09 10 29.5 | |
| | comp=Z,16nm,18.1s,baz=0.0,slow=37 | | | | | | |

*ISCJB **04** 08:48:38.9±0.2, 37.°56N±0.°03×55.°21E±0.°03, h10km, mb3.5/7, Error ellipse: s-maj=4.2km s-min=2.7km az=24.0*
*IDC **04** 08:48:38.3±1.3, 37.°31N×55.°20E, h0km, mb3.6/7, mb1 3.8/14, mb1mx3.7/45, mbtmp3.7/14, ML3.5/7, MS3.1/1, Ms1 3.1/1, ms1mx2.3/35, Error ellipse: s-maj=22.4km s-min=12.8km az=165.0*
*THR **04** 08:48:39.0±0.9, 37.°41N×55.°28E, h16km±11km, ML3.5*
*CSEM **04** 08:48:40.1±0.2, 37.°47N×55.°32E, h10km, ML3.5, Error ellipse: s-maj=6.1km s-min=3.9km az=33.0*
*TEH **04** 08:48:41.8, 37.°32N×55.°35E, h7km, ML4.0*
*AZER **04** 08:48:47.8±1.0, 37.°37N×54.°43E, h10km, Error ellipse: s-maj=16.8km s-min=8.2km az=44.0*
**ISC 04 08:48:40.3**±0.6, **37.°48N**±0.°05×**55.°22E**±0.°04, **h10**km, **n107**, σ**1s29**/127, **mb3.5**/7, **23C-16D**, **Iran-Turkmenistan border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MRVT | Maraveh tapeh | 0.71 | 76 | ePg | Pg | 08 48 52.2 | -1.9 |
| MRVT | | | | AML | AML | 08 49 04.5 | |
| | comp=N,3µm,0.4s | | | | | | |
| IGLO | Ghaloghah | 1.48 | 229 | eAMB | AMB | 08 49 37.3 | |
| | comp=Z,59µm,0.3s | | | | | | |
| IGLO | | | | ePn | Pn | 08 49 07.1 | -0.1 |
| SHRO | Shahrood | 1.62 | 157 | ePg | Pn | 08 49 06.7 | -2.4 |
| SHRO | | | | AML | AML | 08 49 30.4 | |
| | comp=E,562nm,0.3s | | | | | | |
| SHRO | | | | AML | AML | 08 49 30.6 | |
| | comp=N,480nm,0.2s | | | | | | |
| SHRO | Shahrood | 1.62 | 157 | ePg | Pn | 08 49 06.7 | -2.4 |
| BJRD | Bojnurd | 1.75 | 82 | ePg | Pn | 08 49 10.7 | -0.3 |
| BJRD | | | | AML | AML | 08 49 42.0 | |
| | comp=N,463nm,0.5s | | | | | | |
| BJRD | | | | AML | AML | 08 49 45.0 | |
| | comp=E,423nm,0.5s | | | | | | |
| BJRD | Bojnurd | 1.75 | 82 | ePg | Pn | 08 49 10.6 | -0.3 |
| SBZV | Sabzevar | 2.21 | 119 | ePn | Pn | 08 49 15.8 | -1.4 |
| SBZV | Sabzevar | 2.21 | 119 | ePn | Pn | 08 49 15.8 | -1.4 |
| ISFR | Sfrayin | 2.26 | 100 | ePn | Pn | 08 49 17.7 | -0.3 |
| ISFR | | | | eAMB | AMB | 08 49 26.5 | |
| | comp=Z,14µm,0.3s | | | | | | |
| ISFR | | | | eSg | Sb | 08 49 48.5 | -1.0 |
| ISFR | Sfrayin | 2.26 | 100 | ePn | Pn | 08 49 17.7 | -0.3 |
| ISFR | | | | eSg | Sb | 08 49 48.5 | -1.0 |
| IANJ | Anjilo | 2.27 | 208 | ePn | Pn | 08 49 18.9 | +0.8 |
| IANJ | | | | eAMB | AMB | 08 49 53.6 | |
| | comp=Z,9µm,0.2s | | | | | | |
| IANJ | Anjilo | 2.27 | 208 | ePn | Pn | 08 49 18.9 | +0.8 |
| ISHM | Shahmirzad | 2.28 | 223 | ePn | Pn | 08 49 19.5 | +1.2 |
| ISHM | | | | eAMB | AMB | 08 50 01.0 | |
| | comp=Z,23µm,0.2s | | | | | | |
| GEYT | Alibeck | 2.34 | 78 | Pn | Pn | 08 49 18.7 | -0.2 |
| | comp=Z,16nm,0.3s,baz=248,slow=16,SNR=65 | | | | | | |
| GEYT | | | | Sn | Sn | 08 49 48.9 | +1.2 |
| | comp=Z,38nm,0.3s,baz=255,slow=16,SNR=4.5 | | | | | | |
| IALA | Alasht | 2.38 | 235 | ePn | Pn | 08 49 20.8 | +1.1 |
| IALA | | | | eAMB | AMB | 08 50 02.5 | |
| | comp=Z,25µm,0.2s | | | | | | |
| IALA | Alasht | 2.38 | 235 | ePn | Pn | 08 49 20.8 | +1.1 |
| IPRN | Peran | 2.62 | 243 | ePn | Pn | 08 49 24.2 | +1.4 |
| IPRN | | | | eAMB | AMB | 08 50 15.2 | |
| | comp=Z,18µm,0.2s | | | | | | |
| IFIR | Firoozkooh | 2.70 | 228 | ePn | Pn | 08 49 25.6 | +1.5 |
| IFIR | | | | eAMB | AMB | 08 49 33.1 | |
| | comp=Z,11µm,0.1s | | | | | | |
| IFIR | Firoozkooh | 2.70 | 228 | ePn | Pn | 08 49 25.6 | +1.5 |
| IKRD | Kardeh | 2.73 | 104 | ePn | Pg | 08 49 35.5 | +2.9 |
| IKRD | | | | eAMB | AMB | 08 49 45.8 | |
| | comp=Z,2µm,0.1s | | | | | | |
| IEMG | Emamgholi | 2.73 | 90 | ePn | Pn | 08 49 24.4 | -0.1 |
| IEMG | | | | eAMB | AMB | 08 50 20.4 | |
| | comp=Z,5µm,0.3s | | | | | | |
| IEMG | Emamgholi | 2.73 | 90 | ePn | Pn | 08 49 24.4 | -0.1 |
| ILAS | Lasjerd | 2.78 | 222 | ePn | Pn | 08 49 26.4 | +1.3 |
| ILAS | | | | eAMB | AMB | 08 50 13.2 | |
| | comp=E,10µm,0.2s | | | | | | |
| ILAS | Lasjerd | 2.78 | 222 | ePn | Pn | 08 49 26.4 | +1.3 |
| IAKL | Akhelmad | 2.96 | 106 | ePn | Pn | 08 49 26.5 | -1.2 |
| IAKL | | | | eAMB | AMB | 08 50 27.7 | |
| | comp=Z,3µm,0.2s | | | | | | |
| IDMV | Damavand | 3.19 | 234 | ePn | Pn | 08 49 33.6 | +2.8 |
| IDMV | | | | eAMB | AMB | 08 49 42.7 | |
| | comp=Z,4µm,0.1s | | | | | | |
| IDMV | Damavand | 3.19 | 234 | ePn | Pn | 08 49 33.6 | +2.8 |
| IPAY | Payeh | 3.20 | 108 | ePn | Pn | 08 49 30.5 | -0.3 |
| IPAY | | | | eAMB | AMB | 08 49 56.3 | |
| | comp=Z,2µm,0.2s | | | | | | |
| IMOG | Moghan | 3.58 | 111 | ePn | Pn | 08 49 35.6 | -0.6 |
| IMOG | | | | eAMB | AMB | 08 49 50.0 | |
| | comp=Z,2µm,0.1s | | | | | | |
| ISRO | Mashad | 3.60 | 108 | ePn | Pn | 08 49 36.0 | -0.3 |
| ISRO | | | | eAMB | AMB | 08 49 47.2 | |
| | comp=Z,3µm,0.3s | | | | | | |
| IVRN | Varamin | 3.76 | 230 | ePn | Pn | 08 49 40.2 | +1.8 |
| IVRN | | | | eAMB | AMB | 08 50 49.8 | |
| | comp=Z,3µm,0.2s | | | | | | |
| IVRN | Varamin | 3.76 | 230 | ePn | Pn | 08 49 40.2 | +1.8 |
| IMYA | Miami | 4.08 | 105 | ePn | Pn | 08 49 42.5 | -0.4 |
| IMYA | | | | eAMB | AMB | 08 51 08.8 | |
| | comp=Z,2µm,0.5s | | | | | | |
| TABS | Tabas | 4.13 | 157 | ePn | Pn | 08 49 42.6 | -0.9 |
| TABS | Tabas | 4.13 | 157 | ePn | Pn | 08 49 42.7 | -0.9 |
| IGZV | Ghazvin | 4.15 | 256 | ePn | Pn | 08 49 44.3 | +0.3 |
| IGZV | | | | eAMB | AMB | 08 50 02.1 | |
| | comp=Z,2µm,0.2s | | | | | | |
| IGZV | Ghazvin | 4.15 | 256 | ePn | Pn | 08 49 44.3 | +0.3 |
| ANAR | Anarak | 4.45 | 196 | ePn | Pn | 08 49 47.0 | -1.0 |
| ANAR | Anarak | 4.45 | 196 | ePn | Pn | 08 49 47.0 | -1.0 |
| NASN | Na'in | 5.07 | 204 | ePn | Pn | 08 49 56.3 | -0.4 |
| NASN | Na'in | 5.07 | 204 | ePn | Pn | 08 49 56.3 | -0.4 |
| IKLH | Kolahrood | 5.11 | 217 | ePn | Pn | 08 49 56.9 | -0.2 |
| IKLH | | | | eAMB | AMB | 08 51 37.7 | |
| | comp=Z,912nm,0.4s | | | | | | |
| IKLH | Kolahrood | 5.11 | 217 | ePn | Pn | 08 49 56.9 | -0.2 |
| IZEF | Zefreh | 5.15 | 208 | ePn | Pn | 08 49 57.3 | -0.4 |
| IZEF | | | | eAMB | AMB | 08 51 44.3 | |
| | comp=Z,407nm,0.2s | | | | | | |
| IZEF | Zefreh | 5.15 | 208 | ePn | Pn | 08 49 57.3 | -0.4 |
| GOBA | Gobu | 5.17 | 306 | ⇑P | Pn | 08 49 59.2 | +1.5 |
| GOBA | Gobu | 5.17 | 306 | P | Pn | 08 49 59.2 | +1.5 |
| ASTR | Astara | 5.19 | 284 | ⇑P | Pn | 08 49 57.5 | -0.5 |
| ASTR | | | | ⇑S | Sn | 08 50 53.7 | -4.1 |
| ASTR | Astara | 5.19 | 284 | P | Pn | 08 49 57.5 | -0.5 |
| ASTR | | | | S | Sn | 08 50 53.7 | -4.1 |
| LKRN | Lenkeran, Azer | 5.22 | 286 | ⇑P | Pn | 08 49 58.2 | -0.2 |
| | SNR=2.9 | | | | | | |
| LKRN | | | | ⇑S | Sn | 08 50 54.8 | -4.0 |
| LKRN | Lenkeran, Azer | 5.22 | 286 | P | Pn | 08 49 58.2 | -0.2 |
| | SNR=2.9 | | | | | | |
| LKRN | | | | S | Sn | 08 50 54.8 | -3.9 |
| ZNJK | Zanjan | 5.29 | 263 | ePn | Pn | 08 50 00.8 | +1.2 |
| ZNJK | Zanjan | 5.29 | 263 | ePn | Pn | 08 50 00.8 | +1.2 |
| ALIB | Äli-Bayra | 5.45 | 299 | ⇑P | Pn | 08 50 02.8 | +1.3 |
| ALIB | | | | ⇓S | Sn | 08 50 59.9 | -4.4 |
| ALIB | Äli-Bayra | 5.45 | 299 | P | Pn | 08 50 02.8 | +1.3 |
| LRK | Lerik | 5.55 | 284 | P | Pn | 08 50 02.9 | -0.2 |
| | SNR=10 | | | | | | |
| LRK | | | | ⇓S | Sn | 08 51 02.7 | -4.3 |
| LRK | Lerik | 5.55 | 284 | P | Pn | 08 50 02.9 | -0.2 |
| | SNR=10 | | | | | | |
| SHRT | Shahrakht | 5.63 | 131 | ePn | Pn | 08 50 02.6 | -1.6 |
| SHRT | Shahrakht | 5.63 | 131 | ePn | Pn | 08 50 02.6 | -1.6 |
| GLBA | Clilabad | 5.64 | 290 | ⇓P | Pn | 08 50 04.8 | +0.6 |
| | SNR=3.5 | | | | | | |
| GLBA | | | | ⇑S | Sn | 08 51 05.4 | -3.7 |
| GLBA | Clilabad | 5.64 | 290 | P | Pn | 08 50 04.8 | +0.6 |
| | SNR=3.5 | | | | | | |
| ISAD | Sadrabad | 5.70 | 193 | eAMB | AMB | 08 50 07.3 | |
| | comp=Z,2µm,0.1s | | | | | | |
| ISAD | | | | ePn | Pn | 08 50 04.6 | -0.7 |
| GBS | Qobustan | 5.76 | 304 | ⇓P | Pn | 08 50 08.0 | +2.1 |
| GBS | | | | ⇑S | Sn | 08 51 07.9 | -4.2 |
| GBS | Qobustan | 5.76 | 304 | P | Pn | 08 50 08.0 | +2.1 |
| GRMI | Germi | 5.92 | 285 | ePn | Pn | 08 50 08.9 | +0.7 |
| GRMI | Germi | 5.92 | 285 | ePn | Pn | 08 50 08.9 | +0.7 |
| ATGJ | Altiaghaj | 5.93 | 307 | ⇓P | Pn | 08 50 10.2 | +1.9 |
| ATGJ | | | | ⇑S | Sn | 08 51 16.2 | -0.1 |
| ATGJ | Altiaghaj | 5.93 | 307 | P | Pn | 08 50 10.2 | +1.9 |
| ATGJ | | | | S | Sn | 08 51 16.2 | -0.1 |
| SIZA | Siyzn | 6.07 | 308 | ⇑P | Pn | 08 50 13.2 | +3.0 |
| | SNR=3.6 | | | | | | |
| SIZA | | | | ⇓S | Sn | 08 51 19.8 | 0.0 |
| SIZA | Siyzn | 6.07 | 308 | P | Pn | 08 50 13.2 | +3.0 |
| | SNR=3.6 | | | | | | |
| SIZA | | | | S | Sn | 08 51 19.8 | 0.0 |
| PQL | Pirkuli | 6.12 | 305 | ⇓P | Pn | 08 50 13.1 | +2.3 |
| | SNR=5.6 | | | | | | |
| PQL | | | | ⇑S | Sn | 08 51 20.1 | -0.9 |
| PQL | Pirkuli | 6.12 | 305 | P | Pn | 08 50 13.1 | +2.3 |
| | SNR=5.6 | | | | | | |
| PQL | | | | S | Sn | 08 51 20.1 | -0.9 |
| IML | Ismayilli | 6.39 | 303 | ⇑P | Pn | 08 50 15.3 | +0.8 |
| IML | | | | ⇓S | Sn | 08 51 24.7 | -2.8 |
| IML | Ismayilli | 6.39 | 303 | P | Pn | 08 50 15.3 | +0.8 |
| QUBA | Quba, Azerbaij | 6.48 | 309 | ⇑P | Pn | 08 50 16.8 | +1.0 |
| QUBA | | | | ⇑S | Sn | 08 51 27.7 | -2.2 |
| QUBA | Quba, Azerbaij | 6.48 | 309 | P | Pn | 08 50 16.8 | +1.0 |
| QUBA | | | | S | Sn | 08 51 27.7 | -2.2 |
| XNQ | Khinaliq | 6.61 | 306 | ⇓P | Pn | 08 50 19.1 | +1.4 |
| XNQ | | | | ⇑S | Sn | 08 51 32.4 | -0.7 |
| XNQ | Khinaliq | 6.61 | 306 | P | Pn | 08 50 19.1 | +1.4 |
| XNQ | | | | S | Sn | 08 51 32.4 | -0.7 |
| QSAR | Qusar | 6.72 | 309 | ⇓P | Pn | 08 50 21.0 | +2.0 |
| | SNR=8.7 | | | | | | |
| QSAR | | | | ⇓S | Sn | 08 51 34.9 | -0.7 |
| QSAR | Qusar | 6.72 | 309 | P | Pn | 08 50 21.0 | +2.0 |
| | SNR=8.7 | | | | | | |
| QSAR | | | | S | Sn | 08 51 34.9 | -0.7 |
| BRDA | Brd | 6.86 | 296 | ⇑P | Pn | 08 50 21.2 | +0.3 |
| BRDA | Brd | 6.86 | 296 | P | Pn | 08 50 21.2 | +0.3 |
| SEKA | Sheki | 7.24 | 303 | ⇑P | Pn | 08 50 27.0 | +0.7 |
| | SNR=5.0 | | | | | | |
| SEKA | | | | ⇓S | Sn | 08 51 46.1 | -2.4 |
| SEKA | Sheki | 7.24 | 303 | P | Pn | 08 50 27.0 | +0.7 |
| | SNR=5.0 | | | | | | |
| ORD | Ordubad | 7.40 | 284 | P | Pn | 08 50 28.1 | -0.4 |
| GANJ | Ganja | 7.61 | 297 | ⇑P | Pn | 08 50 31.5 | +0.3 |
| GANJ | Ganja | 7.61 | 297 | P | Pn | 08 50 31.5 | +0.3 |
| ZKTA | Zakatala | 7.83 | 305 | ⇓P | Pn | 08 50 34.9 | +0.6 |
| | SNR=5.4 | | | | | | |
| ZKTA | | | | ⇑S | Sn | 08 52 02.3 | -0.6 |
| GDB | GEDABAY | 8.04 | 297 | ⇓P | Pn | 08 50 37.9 | +0.7 |
| | SNR=12 | | | | | | |
| GDB | | | | ⇑S | Sn | 08 51 59.9 | -8.3 |
| GDB | GEDABAY | 8.04 | 297 | P | Pn | 08 50 37.9 | +0.7 |
| | SNR=12 | | | | | | |
| QZX | Qazax, Azerbai | 8.43 | 298 | ⇓P | Pn | 08 50 42.7 | +0.2 |
| QZX | | | | ⇑S | Sn | 08 52 15.4 | -2.3 |
| QZX | Qazax, Azerbai | 8.43 | 298 | P | Pn | 08 50 42.7 | +0.2 |
| QZX | | | | S | Sn | 08 52 15.4 | -2.3 |
| KBZ | Khabaz | 11.25 | 308 | Pn | Pn | 08 51 21.5 | +0.5 |
| | comp=Z,0.4nm,0.3s,baz=224,slow=1.0,SNR=12 | | | | | | |
| KBZ | | | | Sn | Sn | 08 53 21.5 | -5.2 |
| | comp=Z,0.1nm,0.3s,baz=120,slow=16,SNR=2.0 | | | | | | |
| KVAR | Kislovodsk Arr | 11.49 | 308 | Pn | Pn | 08 51 25.6 | +1.2 |
| | baz=145,slow=2.3,SNR=7.1 | | | | | | |
| KVAR | | | | Sn | Sn | 08 53 27.6 | -5.2 |
| | baz=14,slow=12,SNR=2.6 | | | | | | |
| AB31 | Akbulak array | 12.26 | 15 | Pn | Pn | 08 51 35.4 | +0.5 |
| | comp=Z,1.2nm,0.4s,baz=194,slow=13,SNR=33 | | | | | | |
| AB31 | | | | ⇑Sn | Sn | 08 53 44.3 | -7.1 |
| | comp=Z,6.5nm,0.7s,baz=202,slow=22,SNR=19 | | | | | | |
| AKTO | Aktyubinsk | 13.10 | 8 | Pn | Pn | 08 51 46.3 | -0.1 |
| | comp=Z,0.5nm,0.3s,baz=179,slow=9.1,SNR=7.3 | | | | | | |
| AKTO | | | | Sn | Sn | 08 54 06.5 | -5.6 |
| | comp=Z,0.5nm,0.3s,baz=68,slow=19,SNR=6.1 | | | | | | |
| AKTO | | | | LR | LR | 08 57 10.8 | |
| | comp=Z,78nm,20.9s,baz=201,slow=39 | | | | | | |
| AKTO | Aktyubinsk | 13.10 | 8 | ⇑Pn | Pn | 08 51 46.6 | +0.2 |
| | comp=Z,6.9nm,1.2s | | | | | | |
| AKTO | | | | ⇓Sn | Sn | 08 54 06.0 | -6.1 |
| | comp=Z,10.0nm,1.0s | | | | | | |
| BRTR | Keskin Array B | 17.01 | 284 | P | Pn | 08 52 39.0 | +0.6 |
| | comp=Z,0.1nm,0.3s,baz=52,slow=9.3,SNR=2.4 | | | | | | |
| BVAR | Borovoye Array | 18.79 | 29 | P | P | 08 53 00.8 | +1.1 |
| | comp=Z,0.6nm,0.3s,baz=217,slow=9.4,SNR=17 | | | | | | |
| ARU | Arti | 19.09 | 6 | P | P | 08 53 04.2 | +1.4 |
| | comp=Z,0.0nm,0.3s,baz=197,slow=4.9,SNR=4.7 | | | | | | |
| KURBB | Kurchatov Arra | 21.18 | 44 | P | P | 08 53 25.0 | -0.6 |
| | comp=Z,0.7nm,0.6s,baz=240,slow=10,SNR=3.2 | | | | | | |
| MKAR | Makanchi Array | 22.04 | 56 | P | P | 08 53 34.5 | -0.5 |
| | comp=Z,0.8nm,0.6s,baz=247,slow=12,SNR=11 | | | | | | |
| AKASG | Malin Array Be | 22.73 | 314 | P | P | 08 53 43.3 | +1.0 |
| | comp=Z,0.8nm,0.4s,baz=119,slow=9.8,SNR=11 | | | | | | |
| IDI | Anoyia | 24.46 | 274 | P | P | 08 54 00.2 | +0.7 |
| | comp=Z,1.9nm,0.5s,baz=60,slow=11,SNR=4.3 | | | | | | |
| ZALV | Zalesovo Beam | 26.15 | 41 | P | P | 08 54 16.9 | +2.4 |
| | comp=Z,0.4nm,0.3s,baz=256,slow=12,SNR=4.1 | | | | | | |
| ESDC | Sonseca Array | 45.58 | 292 | P | P | 08 56 59.7 | -0.8 |
| | comp=Z,0.2nm,0.4s,baz=62,slow=7.2,SNR=4.1 | | | | | | |
| TORD | Torodi Ar. Bea | 53.30 | 258 | P | P | 08 57 59.0 | -0.7 |
| | comp=Z,0.6nm,0.5s,baz=49,slow=6.2,SNR=6.6 | | | | | | |

*IDC **04** 09:44:48.9±1.4, 13.°09N×49.°61E, h0km, mb3.7/5, mb1 3.9/6, mb1mx3.5/50, mbtmp3.8/6, ML4.1/1, MS3.2/7, Ms1 3.2/7, ms1mx2.9/41, Error ellipse: s-maj=37.9km s-min=25.3km az=156.0*
*ISCJB **04** 09:44:49.5±1.1, 13.°2N±0.°2×49.°43E±0.°06, h10km, mb3.6/5, MS3.2/6, Error ellipse: s-maj=24.1km s-min=8.6km az=172.6*
**ISC 04 09:44:51.0**±1.2, **13.°2N**±0.°2×**49.°45E**±0.°09, **h10**km, **n12**, σ**1s67**/10, **mb3.5**/5, **MS3.1**/6, **1C**, **Eastern Gulf of Aden**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BDHA | Al Bayda' | 3.86 | 282 | ⇑iP | Pn | 09 45 51.8 | +1.1 |
| BDHA | | | | e | | 09 45 52.1 | |
| | baz=108,slow=16 | | | | | | |
| BDHA | | | | AML | AML | 09 45 52.5 | |
| | comp=E,2µm,0.3s | | | | | | |
| BDHA | | | | iS | Sn | 09 46 34.9 | -1.3 |
| TRBA | At Turbah | 5.20 | 271 | iP | Pn | 09 46 08.7 | -0.4 |
| TRBA | | | | iS | Sn | 09 47 07.4 | -1.9 |
| ATD | Arta Tunnel | 6.67 | 256 | Pn | Pn | 09 46 31.6 | +2.5 |
| | comp=E,3.4nm,0.3s,baz=228,slow=23,SNR=9.0 | | | | | | |
| ATD | | | | LR | LR | 09 48 35.5 | |
| | comp=E,157nm,18.8s,baz=343,slow=33 | | | | | | |
| GEYT | Alibeck | 25.80 | 16 | P | P | 09 50 22.7 | +0.3 |
| | comp=E,6.4nm,0.6s,baz=216,slow=4.6,SNR=3.1 | | | | | | |
| GEYT | | | | LR | LR | 10 01 47.3 | |
| | comp=E,50nm,18.2s,baz=340,slow=39 | | | | | | |
| GNI | Garni | 27.16 | 352 | LR | LR | 10 03 20.2 | |
| | comp=E,51nm,19.2s,baz=180,slow=41 | | | | | | |
| BRTR | Keskin Array B | 29.87 | 335 | P | P | 09 51 01.0 | +2.1 |
| | comp=E,0.6nm,0.7s,baz=138,slow=10.0,SNR=3.8 | | | | | | |
| BRTR | | | | LR | LR | 10 03 50.2 | |
| | comp=E,34nm,18.3s,baz=116,slow=38 | | | | | | |
| KBZ | Khabaz | 30.93 | 351 | LR | LR | 10 07 22.1 | |
| | comp=E,64nm,19.5s,baz=192,slow=44 | | | | | | |
| PALK | Pallekele | 31.29 | 98 | LR | LR | 10 00 07.2 | |
| | comp=E,22nm,19.1s,baz=115,slow=30 | | | | | | |
| MKAR | Makanchi Array | 43.35 | 33 | P | P | 09 52 52.4 | -1.1 |
| | comp=E,0.1nm,0.5s,baz=235,slow=6.5,SNR=2.1 | | | | | | |
| GERES | GERESS Array B | 46.17 | 328 | LR | LR | 10 16 32.5 | |
| | comp=E,81nm,19.9s,baz=266,slow=41 | | | | | | |
| TORD | Torodi Ar. Bea | 46.44 | 276 | P | P | 09 53 18.0 | -0.5 |
| | comp=E,0.3nm,0.7s,baz=87,slow=6.5,SNR=2.7 | | | | | | |
| WRA | Warramunga Arr | 89.73 | 110 | P | P | 09 57 49.3 | -0.9 |
| | comp=E,0.5nm,0.6s,baz=296,slow=3.6,SNR=2.8 | | | | | | |

*ISCJB **04** 09:46:19.7±0.5, 37.°89S±0.°03×179.°95W±0.°05, h33km, mb4.7/18, MS3.9/6, Error ellipse: s-maj=5.9km s-min=4.7km az=10.4*
*NEIC **04** 09:46:19.9±0.0, 37.°28S×179.°98E, h33km, mb4.7/8, ML4.8(WEL), After WEL.*
*WEL **04** 09:46:20.1±0.3, 37.°29S×179.°98E, h33km, ML4.9/77, Mw4.8, Error ellipse: s-maj=3.6km s-min=2.8km az=0.0*
*WEL Felt from Bay of Plenty to Marlborough, maximum reported intensity MM 4.*
*IDC **04** 09:46:20.5±0.7, 37.°34S×179.°48E, h0km, mb4.5/9, mb1 4.7/11, mb1mx4.4/31, mbtmp4.5/11, ML4.1/2, MS3.8/6, Ms1 3.8/6, ms1mx3.3/27, Error ellipse: s-maj=24.4km s-min=19.5km az=3.0*
**ISC 04 09:46:24.9**±0.7, **37.°70S**±0.°08×**179.°7E**±0.°1, **h37**km±3km, **n225**, σ**2s03**/218, **mb4.7**/18, **MS4.0**/6, **8C-4D**, **Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WMGZ | Waiomatatini S | 1.01 | 263 | Pn | Pn | 09 46 42.2 | -0.2 |
| WMGZ | | | | Sn | Sn | 09 46 58.3 | +3.0 |
| WMGZ | Waiomatatini S | 1.01 | 263 | ⇑PN | Pn | 09 46 42.2 | -0.2 |
| WMGZ | | | | SN | Sn | 09 46 58.3 | +3.0 |
| WMGZ | | | | AML | AML | 09 47 00.7 | |
| MXZ | Matakaoa Point | 1.10 | 277 | ePn | Pn | 09 46 42.9 | -0.7 |
| MXZ | | | | eSn | Sn | 09 46 59.4 | +1.9 |
| MXZ | Matakaoa Point | 1.10 | 277 | PN | Pn | 09 46 41.9 | -1.7 |
| MXZ | | | | SN | Sn | 09 46 59.0 | +1.5 |
| MXZ | | | | AML | AML | 09 46 59.9 | |
| PUZ | Puketiti | 1.18 | 251 | ⇑Pn | Pn | 09 46 44.9 | +0.1 |
| PUZ | | | | Sn | Sn | 09 47 03.1 | +3.4 |
| PUZ | Puketiti | 1.18 | 251 | ⇑PN | Pn | 09 46 44.9 | +0.1 |
| PUZ | | | | SN | Sn | 09 47 03.4 | +3.6 |
| PUZ | | | | SN | | 09 47 04.1 | |
| PKGZ | Pakihiroa | 1.28 | 261 | ⇑PN | Pn | 09 46 45.8 | -0.4 |
| PKGZ | | | | SN | Sn | 09 47 04.5 | +2.3 |
| PKGZ | | | | AML | AML | 09 47 07.0 | |
| CNGZ | Carnagh Statio | 1.40 | 236 | PN | Pn | 09 46 48.9 | +1.1 |
| CNGZ | | | | AML | AML | 09 47 15.9 | |
| CNGZ | | | | AML | AML | 09 47 24.1 | |
| TWGZ | Tauwhareparae | 1.42 | 250 | Pn | Pn | 09 46 48.5 | +0.3 |
| TWGZ | | | | Sn | Sn | 09 47 10.2 | +4.5 |
| TWGZ | Tauwhareparae | 1.42 | 250 | PN | Pn | 09 46 48.5 | +0.3 |
| TWGZ | | | | SN | Sn | 09 47 10.2 | +4.5 |
| TWGZ | | | | AML | AML | 09 47 18.6 | |
| HAZ | Te Kaha | 1.50 | 267 | ⇑PN | Pn | 09 46 48.9 | -0.3 |
| HAZ | | | | AML | AML | 09 47 11.5 | |
| HAZ | | | | AML | AML | 09 47 11.6 | |
| HAZ | | | | AML | AML | 09 47 13.4 | |
| HAZ | | | | AML | AML | 09 47 13.4 | |
| RUGZ | Raukumara Rang | 1.61 | 260 | PN | Pn | 09 46 50.6 | -0.1 |
| TKGZ | Te Karaka | 1.62 | 242 | Pn | Pn | 09 46 51.3 | +0.4 |
| TKGZ | Te Karaka | 1.62 | 242 | PN | Pn | 09 46 51.3 | +0.4 |
| TKGZ | | | | AML | AML | 09 47 16.2 | |
| TKGZ | | | | AML | AML | 09 47 16.4 | |
| MWZ | Matawai | 1.81 | 249 | Pn | Pn | 09 46 53.1 | -0.4 |
| MWZ | Matawai | 1.81 | 249 | PN | Pn | 09 46 53.1 | -0.4 |
| MWZ | | | | SN | Sn | 09 47 18.2 | +3.0 |
| MWZ | | | | AML | AML | 09 47 20.0 | |
| RIGZ | Rimuhau | 1.81 | 236 | PN | Pn | 09 46 54.2 | +0.6 |
| RIGZ | | | | AML | AML | 09 47 21.0 | |
| RIGZ | | | | AML | AML | 09 47 23.9 | |
| PRGZ | Paritu Road | 1.87 | 229 | Pn | Pn | 09 46 54.9 | +0.7 |
| PRGZ | Paritu Road | 1.87 | 229 | PN | Pn | 09 46 54.9 | +0.7 |
| PRGZ | | | | AML | AML | 09 47 27.3 | |
| PRGZ | | | | AML | AML | 09 47 31.3 | |
| RAGZ | Rawiri | 1.95 | 245 | Pn | Pn | 09 46 55.7 | +0.2 |
| RAGZ | Rawiri | 1.95 | 245 | PN | Pn | 09 46 55.3 | -0.2 |
| RAGZ | | | | AML | AML | 09 47 30.5 | |
| RAGZ | | | | AML | AML | 09 47 30.9 | |
| MHGZ | Mahia Peninsul | 2.01 | 223 | Pn | Pn | 09 46 56.8 | +0.6 |
| MHGZ | Mahia Peninsul | 2.01 | 223 | PN | Pn | 09 46 56.8 | +0.6 |
| MHGZ | | | | AML | AML | 09 47 36.9 | |
| MHGZ | | | | AML | AML | 09 48 06.5 | |
| KNZ | Kokohu | 2.06 | 229 | Pn | Pn | 09 46 56.9 | 0.0 |
| KNZ | Kokohu | 2.06 | 229 | ⇓PN | Pn | 09 46 56.8 | 0.0 |
| KNZ | | | | AML | AML | 09 47 26.6 | |
| KNZ | | | | AML | AML | 09 47 59.2 | |
| URZ | Urewera | 2.10 | 254 | Pn | Pn | 09 46 57.8 | +0.3 |
| | 120nm,0.3s,baz=59,slow=3.3,SNR=425 | | | | | | |
| URZ | | | | Sn | Sn | 09 47 25.1 | +2.7 |
| | 172nm,0.3s,baz=335,slow=22,SNR=28 | | | | | | |
| URZ | Urewera | 2.10 | 254 | ePn | Pn | 09 46 58.2 | +0.8 |
| URZ | | | | eSn | Sn | 09 47 26.4 | +4.0 |
| URZ | Urewera | 2.10 | 254 | PN | Pn | 09 46 57.4 | 0.0 |
| URZ | | | | AML | AML | 09 47 27.0 | |
| URZ | | | | AML | AML | 09 47 28.1 | |
| SNGZ | Shannon Statio | 2.13 | 239 | Pn | Pn | 09 46 58.3 | +0.3 |
| SNGZ | Shannon Statio | 2.13 | 239 | PN | Pn | 09 46 58.3 | +0.3 |
| SNGZ | | | | AML | AML | 09 47 28.0 | |
| SNGZ | | | | AML | AML | 09 47 34.4 | |
| WHHZ | Waihua | 2.36 | 234 | PN | Pn | 09 47 01.1 | 0.0 |
| WHHZ | | | | AML | AML | 09 47 34.8 | |
| WHHZ | | | | AML | AML | 09 47 38.6 | |
| MUGZ | Murupara | 2.42 | 250 | PN | Pn | 09 47 02.1 | +0.2 |
| OPRZ | Ohinepanea | 2.48 | 266 | Pn | Pn | 09 47 01.6 | -1.0 |
| OPRZ | Ohinepanea | 2.48 | 266 | PN | Pn | 09 47 01.6 | -1.0 |
| OPRZ | | | | AML | AML | 09 47 39.5 | |
| OPRZ | | | | AML | AML | 09 47 42.0 | |
| MTHZ | Maungataniwha | 2.51 | 242 | ⇑PN | Pn | 09 47 03.7 | +0.5 |
| TARZ | Mount Tarawera | 2.56 | 257 | Pn | Pn | 09 47 04.2 | +0.3 |
| TARZ | Mount Tarawera | 2.56 | 257 | PN | Pn | 09 47 04.2 | +0.3 |
| TARZ | | | | AML | AML | 09 47 53.8 | |
| TARZ | | | | AML | AML | 09 48 06.5 | |
| RRRZ | Republican Roa | 2.58 | 255 | Pn | Pn | 09 47 04.1 | +0.1 |
| RRRZ | Republican Roa | 2.58 | 255 | PN | Pn | 09 47 03.9 | -0.1 |
| RRRZ | | | | AML | AML | 09 47 37.8 | |
| RRRZ | | | | AML | AML | 09 47 47.3 | |
| ARHZ | Aropaoanui | 2.62 | 233 | Pn | Pn | 09 47 05.3 | +0.7 |
| ARHZ | Aropaoanui | 2.62 | 233 | PN | Pn | 09 47 05.3 | +0.7 |
| ARHZ | | | | AML | AML | 09 47 42.5 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ARHZ | | | | AML | AML | 09 47 50.8 | |
| OMRZ | Omania | 2.65 | 260 | Pn | Pn | 09 47 04.0 | -1.0 |
| OMRZ | Omania | 2.65 | 260 | PN | Pn | 09 47 04.0 | -1.0 |
| OMRZ | | | | AML | AML | 09 47 56.6 | |
| OMRZ | | | | AML | AML | 09 48 00.6 | |
| NMHZ | Naumai | 2.65 | 237 | Pn | Pn | 09 47 05.7 | +0.5 |
| NMHZ | Naumai | 2.65 | 237 | ⇑PN | Pn | 09 47 05.6 | +0.5 |
| NMHZ | | | | AML | AML | 09 47 42.4 | |
| NMHZ | | | | AML | AML | 09 47 46.5 | |
| PRRZ | Plateau Road | 2.71 | 252 | Pn | Pn | 09 47 05.7 | -0.1 |
| PRRZ | Plateau Road | 2.71 | 252 | PN | Pn | 09 47 05.7 | -0.1 |
| PRRZ | | | | AML | AML | 09 47 49.8 | |
| PRRZ | | | | AML | AML | 09 47 56.7 | |
| ALRZ | Allen Road | 2.77 | 251 | Pn | Pn | 09 47 07.1 | +0.4 |
| ALRZ | Allen Road | 2.77 | 251 | PN | Pn | 09 47 07.1 | +0.4 |
| ALRZ | | | | AML | AML | 09 47 55.7 | |
| ALRZ | | | | AML | AML | 09 48 12.1 | |
| HRRZ | Handcock Road | 2.77 | 255 | Pn | Pn | 09 47 06.6 | 0.0 |
| HRRZ | Handcock Road | 2.77 | 255 | PN | Pn | 09 47 06.6 | 0.0 |
| HRRZ | | | | AML | AML | 09 47 44.8 | |
| HRRZ | | | | AML | AML | 09 47 50.3 | |
| HSRZ | Hossack Road | 2.78 | 256 | ePN | Pn | 09 47 06.7 | -0.1 |
| HSRZ | | | | AML | AML | 09 47 49.9 | |
| HSRZ | | | | AML | AML | 09 47 58.6 | |
| MRHZ | Matea Rd | 2.81 | 245 | ⇓PN | Pn | 09 47 07.3 | +0.2 |
| MRHZ | | | | AML | AML | 09 47 43.8 | |
| MRHZ | | | | AML | AML | 09 47 45.8 | |
| CKHZ | Cape Kidnapper | 2.82 | 225 | Pn | Pn | 09 47 05.3 | -2.1 |
| CKHZ | Cape Kidnapper | 2.82 | 225 | AML | AML | 09 47 53.7 | |
| CKHZ | | | | AML | AML | 09 48 25.5 | |
| BKZ | Black Stump Fm | 2.90 | 239 | ePn | Pn | 09 47 08.7 | +0.3 |
| BKZ | | | | eSn | Sn | 09 47 46.8 | +4.8 |
| BKZ | Black Stump Fm | 2.90 | 239 | PN | Pn | 09 47 08.4 | 0.0 |
| BKZ | | | | AML | AML | 09 47 46.1 | |
| BKZ | | | | AML | AML | 09 47 50.4 | |
| MCHZ | McNeill Hill | 2.92 | 232 | PN | Pn | 09 47 08.9 | +0.2 |
| MCHZ | | | | AML | AML | 09 47 52.9 | |
| MCHZ | | | | AML | AML | 09 47 56.6 | |
| KAHZ | Kahuranaki | 3.03 | 225 | Pn | Pn | 09 47 10.1 | -0.1 |
| KAHZ | Kahuranaki | 3.03 | 225 | PN | Pn | 09 47 10.1 | -0.1 |
| KAHZ | | | | AML | AML | 09 47 50.4 | |
| KAHZ | | | | AML | AML | 09 47 58.3 | |
| KWHZ | Kaweka Forest | 3.08 | 235 | PN | Pn | 09 47 10.8 | -0.2 |
| KWHZ | | | | AML | AML | 09 47 57.0 | |
| KWHZ | | | | AML | AML | 09 48 00.3 | |
| PXZ | Pawanui | 3.20 | 222 | Pn | Pn | 09 47 11.5 | -1.1 |
| PXZ | Pawanui | 3.20 | 222 | PN | Pn | 09 47 11.5 | -1.1 |
| PXZ | | | | AML | AML | 09 48 18.8 | |
| PXZ | | | | AML | AML | 09 48 18.8 | |
| PXZ | | | | AML | AML | 09 48 25.5 | |
| PXZ | | | | AML | AML | 09 48 25.5 | |
| KRHZ | Kereru | 3.24 | 232 | AML | AML | 09 47 54.1 | |
| KRHZ | | | | AML | AML | 09 47 54.4 | |
| RATZ | Rangitukua | 3.29 | 248 | Pn | Pn | 09 47 14.6 | +0.8 |
| RATZ | Rangitukua | 3.29 | 248 | PN | Pn | 09 47 13.7 | -0.1 |
| RATZ | | | | AML | AML | 09 48 07.9 | |
| RATZ | | | | AML | AML | 09 48 11.9 | |
| KUZ | Kuaotunu | 3.30 | 286 | Pn | Pn | 09 47 12.1 | -1.8 |
| KUZ | Kuaotunu | 3.30 | 286 | ⇑PN | Pn | 09 47 12.1 | -1.8 |
| KUZ | | | | AML | AML | 09 48 01.2 | |
| KUZ | | | | AML | AML | 09 48 05.4 | |
| TOZ | Tahuroa Road | 3.31 | 268 | Pn | Pn | 09 47 13.2 | -0.9 |
| TOZ | Tahuroa Road | 3.31 | 268 | PN | Pn | 09 47 13.0 | -1.1 |
| TOZ | | | | AML | AML | 09 47 56.4 | |
| TOZ | | | | AML | AML | 09 48 02.5 | |
| BHHZ | Black Hill Sta | 3.35 | 237 | Pn | Pn | 09 47 14.7 | +0.1 |
| BHHZ | Black Hill Sta | 3.35 | 237 | ⇓PN | Pn | 09 47 14.7 | +0.1 |
| BHHZ | | | | AML | AML | 09 47 56.7 | |
| BHHZ | | | | AML | AML | 09 48 07.2 | |
| WPHZ | Waipukurau | 3.46 | 226 | Pn | Pn | 09 47 15.3 | -0.9 |
| WPHZ | Waipukurau | 3.46 | 226 | PN | Pn | 09 47 15.0 | -1.2 |
| WPHZ | | | | AML | AML | 09 48 26.5 | |
| WPHZ | | | | AML | AML | 09 48 39.2 | |
| OTVZ | Oturere | 3.47 | 244 | Pn | Pn | 09 47 16.1 | -0.3 |
| OTVZ | Oturere | 3.47 | 244 | PN | Pn | 09 47 16.1 | -0.3 |
| OTVZ | | | | AML | AML | 09 48 02.6 | |
| OTVZ | | | | AML | AML | 09 48 04.7 | |
| PRHZ | Porangahau | 3.49 | 222 | Pn | Pn | 09 47 15.2 | -1.4 |
| PRHZ | Porangahau | 3.49 | 222 | PN | Pn | 09 47 15.2 | -1.4 |
| PRHZ | | | | AML | AML | 09 48 03.8 | |
| PRHZ | | | | AML | AML | 09 48 07.4 | |
| PNHZ | Pukenui | 3.50 | 230 | Pn | Pn | 09 47 16.0 | -0.8 |
| PNHZ | Pukenui | 3.50 | 230 | PN | Pn | 09 47 16.0 | -0.8 |
| PNHZ | | | | AML | AML | 09 48 00.8 | |
| PNHZ | | | | AML | AML | 09 48 13.8 | |
| WNVZ | Wahianoa | 3.59 | 242 | Pn | Pn | 09 47 17.8 | -0.3 |
| WNVZ | Wahianoa | 3.59 | 242 | PN | Pn | 09 47 17.6 | -0.5 |
| MKAZ | Moumakai | 3.65 | 278 | PN | Pn | 09 47 17.6 | -1.1 |
| MKAZ | | | | AML | AML | 09 48 00.4 | |
| MKAZ | | | | AML | AML | 09 48 02.6 | |
| ANWZ | Angora Road | 3.72 | 221 | PN | Pn | 09 47 18.3 | -1.3 |
| ANWZ | | | | AML | AML | 09 48 10.8 | |
| ANWZ | | | | AML | AML | 09 48 15.8 | |
| TSZ | Takapari Road | 3.74 | 230 | Pn | Pn | 09 47 18.9 | -1.1 |
| TSZ | Takapari Road | 3.74 | 230 | PN | Pn | 09 47 18.9 | -1.1 |
| TSZ | | | | AML | AML | 09 48 07.4 | |
| TSZ | | | | AML | AML | 09 48 28.1 | |
| DVHZ | Dannevirke | 3.77 | 225 | Pn | Pn | 09 47 19.1 | -1.3 |
| DVHZ | Dannevirke | 3.77 | 225 | PN | Pn | 09 47 19.1 | -1.3 |
| DVHZ | | | | AML | AML | 09 48 07.8 | |
| DVHZ | | | | AML | AML | 09 48 15.1 | |
| ETAZ | East Tamaki Re | 3.86 | 280 | Pn | Pn | 09 47 20.8 | -0.8 |
| ETAZ | East Tamaki Re | 3.86 | 280 | PN | Pn | 09 47 20.7 | -0.8 |
| HIZ | Hauiti | 3.89 | 256 | ePn | Pn | 09 47 22.8 | +0.8 |
| HIZ | Hauiti | 3.89 | 256 | PN | Pn | 09 47 22.2 | +0.1 |
| HIZ | | | | AML | AML | 09 48 10.9 | |
| HIZ | | | | AML | AML | 09 48 11.6 | |
| BFZ | Birch Farm | 4.00 | 221 | ePn | Pn | 09 47 22.5 | -1.0 |
| BFZ | | | | eSn | Sn | 09 48 11.6 | +2.6 |
| BFZ | Birch Farm | 4.00 | 221 | PN | Pn | 09 47 21.5 | -2.0 |
| BFZ | | | | AML | AML | 09 48 13.6 | |
| BFZ | | | | AML | AML | 09 48 13.6 | |
| BFZ | | | | AML | AML | 09 48 13.8 | |
| BFZ | | | | AML | AML | 09 48 13.8 | |
| PRWZ | Pori Road | 4.05 | 224 | Pn | Pn | 09 47 23.1 | -1.3 |
| PRWZ | Pori Road | 4.05 | 224 | PN | Pn | 09 47 23.0 | -1.3 |
| PRWZ | | | | AML | AML | 09 48 17.1 | |
| PRWZ | | | | AML | AML | 09 48 19.2 | |
| AWAZ | Awhitu Peninsu | 4.06 | 277 | PN | Pn | 09 47 23.7 | -0.7 |
| POWZ | Post Office Ro | 4.06 | 227 | Pn | Pn | 09 47 23.8 | -0.6 |
| POWZ | Post Office Ro | 4.06 | 227 | PN | Pn | 09 47 23.7 | -0.6 |
| POWZ | | | | AML | AML | 09 48 14.3 | |
| POWZ | | | | AML | AML | 09 48 18.2 | |
| VRZ | Vera Road | 4.12 | 248 | Pn | Pn | 09 47 25.6 | +0.4 |
| VRZ | Vera Road | 4.12 | 248 | PN | Pn | 09 47 25.5 | +0.4 |
| VRZ | | | | AML | AML | 09 48 27.7 | |
| VRZ | | | | AML | AML | 09 48 52.7 | |
| RVAZ | Riverhead Bore | 4.17 | 281 | Pn | Pn | 09 47 25.4 | -0.5 |
| RVAZ | Riverhead Bore | 4.17 | 281 | PN | Pn | 09 47 25.4 | -0.5 |
| WAZ | Wanganui | 4.20 | 239 | Pn | Pn | 09 47 26.3 | -0.1 |
| WAZ | Wanganui | 4.20 | 239 | PN | Pn | 09 47 26.3 | -0.1 |
| WAZ | | | | AML | AML | 09 48 16.5 | |
| WAZ | | | | AML | AML | 09 48 27.2 | |
| TIWZ | Tintock | 4.25 | 223 | Pn | Pn | 09 47 25.3 | -1.8 |
| TIWZ | Tintock | 4.25 | 223 | PN | Pn | 09 47 25.3 | -1.8 |
| TIWZ | | | | AML | AML | 09 48 21.9 | |
| TIWZ | | | | AML | AML | 09 48 26.3 | |
| MRZ | Mangatainoka R | 4.35 | 226 | Pn | Pn | 09 47 26.6 | -1.7 |
| MRZ | Mangatainoka R | 4.35 | 226 | PN | Pn | 09 47 26.5 | -1.7 |
| MRZ | | | | AML | AML | 09 48 21.0 | |
| MRZ | | | | AML | AML | 09 48 21.1 | |
| LREZ | Lake Rotokare | 4.49 | 245 | PN | Pn | 09 47 31.1 | +0.8 |
| LREZ | | | | AML | AML | 09 47 47.2 | |
| LREZ | | | | AML | AML | 09 47 52.9 | |
| TMWZ | Te Maipa | 4.49 | 220 | Pn | Pn | 09 47 28.1 | -2.2 |
| TMWZ | Te Maipa | 4.49 | 220 | AML | AML | 09 48 22.2 | |
| TMWZ | | | | AML | AML | 09 48 25.5 | |
| HOWZ | Holdsworth Sta | 4.54 | 224 | Pn | Pn | 09 47 28.7 | -2.4 |
| HOWZ | Holdsworth Sta | 4.54 | 224 | AML | AML | 09 48 23.7 | |
| HOWZ | | | | AML | AML | 09 48 25.4 | |
| WCZ | Waipu Caves | 4.62 | 291 | Pn | Pn | 09 47 30.5 | -1.6 |
| WCZ | Waipu Caves | 4.62 | 291 | PN | Pn | 09 47 30.7 | -1.4 |
| WCZ | | | | AML | AML | 09 47 32.5 | |
| WCZ | | | | AML | AML | 09 47 49.8 | |
| OGWZ | Otaki Gorge | 4.68 | 227 | Pn | Pn | 09 47 31.1 | -1.9 |
| OGWZ | Otaki Gorge | 4.68 | 227 | AML | AML | 09 48 28.4 | |
| OGWZ | | | | AML | AML | 09 48 32.9 | |
| MTW | Mount Morrison | 4.73 | 222 | Pn | Pn | 09 47 30.9 | -2.7 |
| MTW | Mount Morrison | 4.73 | 222 | AML | AML | 09 48 29.6 | |
| MTW | | | | AML | AML | 09 48 30.4 | |
| TRWZ | Traveller | 4.81 | 219 | Pn | Pn | 09 47 31.8 | -2.9 |
| KIW | Kapiti Island | 4.86 | 228 | Pn | Pn | 09 47 34.1 | -1.3 |
| KIW | Kapiti Island | 4.86 | 228 | AML | AML | 09 48 33.8 | |
| KIW | | | | AML | AML | 09 48 38.3 | |
| PAWZ | Paruwai Farm | 4.93 | 220 | Pn | Pn | 09 47 33.7 | -2.7 |
| PAWZ | Paruwai Farm | 4.93 | 220 | AML | AML | 09 48 33.8 | |
| PAWZ | | | | AML | AML | 09 48 35.9 | |
| CAW | Cannon Point | 4.93 | 225 | Pn | Pn | 09 47 34.2 | -2.2 |
| CAW | Cannon Point | 4.93 | 225 | AML | AML | 09 48 33.7 | |
| CAW | | | | AML | AML | 09 48 33.9 | |
| MSWZ | Moikau Station | 5.05 | 221 | Pn | Pn | 09 47 34.7 | -3.3 |
| MSWZ | Moikau Station | 5.05 | 221 | AML | AML | 09 48 36.6 | |
| MSWZ | | | | AML | AML | 09 48 41.1 | |
| PLWZ | Palliser | 5.16 | 220 | Pn | Pn | 09 47 36.4 | -3.1 |
| PLWZ | Palliser | 5.16 | 220 | AML | AML | 09 48 37.1 | |
| PLWZ | | | | AML | AML | 09 48 40.2 | |
| BHW | Baring Head | 5.25 | 224 | Pn | Pn | 09 47 38.4 | -2.3 |
| SNZO | South Karori | 5.27 | 225 | ePn | Pn | 09 47 38.5 | -2.5 |
| SNZO | | | | eSn | Sn | 09 48 40.3 | -0.1 |
| DUWZ | D'Urville Isla | 5.44 | 233 | Pn | Pn | 09 47 41.2 | -2.1 |
| DUWZ | D'Urville Isla | 5.44 | 233 | AML | AML | 09 49 16.9 | |
| DUWZ | | | | AML | AML | 09 49 20.9 | |
| TCW | Tory Channel | 5.46 | 228 | Pn | Pn | 09 47 41.4 | -2.2 |
| TCW | Tory Channel | 5.46 | 228 | AML | AML | 09 48 48.2 | |
| TCW | | | | AML | AML | 09 48 50.3 | |
| TUWZ | Tuamarina | 5.79 | 228 | Pn | Pn | 09 47 45.4 | -2.7 |
| TUWZ | Tuamarina | 5.79 | 228 | AML | AML | 09 48 58.3 | |
| TUWZ | | | | AML | AML | 09 49 00.1 | |
| BSWZ | Blackbirch Sta | 6.01 | 226 | Pn | Pn | 09 47 47.9 | -3.2 |
| NNZ | Nelson | 6.01 | 232 | Pn | Pn | 09 47 48.9 | -2.2 |
| NNZ | Nelson | 6.01 | 232 | AML | AML | 09 49 04.0 | |
| NNZ | | | | AML | AML | 09 49 14.8 | |
| THZ | Tophouse | 6.61 | 230 | ePn | Pn | 09 47 57.2 | -2.3 |
| THZ | | | | eSn | Sn | 09 49 14.1 | +0.5 |
| THZ | Tophouse | 6.61 | 230 | AML | AML | 09 49 17.6 | |
| THZ | | | | AML | AML | 09 49 18.3 | |
| CTZ | Chatham Island | 6.65 | 156 | Pn | Pn | 09 48 00.8 | +0.8 |
| KHZ | Kahutara | 6.66 | 223 | ePn | Pn | 09 47 56.9 | -3.2 |
| KHZ | | | | eSn | Sn | 09 49 11.5 | -3.1 |
| KHZ | Kahutara | 6.66 | 223 | AML | AML | 09 49 16.6 | |
| KHZ | | | | AML | AML | 09 49 17.0 | |
| LTZ | Lake Taylor | 7.61 | 226 | ePn | Pn | 09 48 11.2 | -1.9 |
| LTZ | | | | eSn | Sn | 09 49 36.8 | -1.2 |
| LTZ | Lake Taylor | 7.61 | 226 | AML | AML | 09 49 44.8 | |
| CRLZ | Canterbury Las | 7.95 | 220 | ePn | Pn | 09 48 15.4 | -2.3 |
| CRLZ | | | | eSn | Sn | 09 49 43.5 | -2.8 |
| MQZ | McQueen's Vall | 8.03 | 219 | ePn | Pn | 09 48 15.3 | -3.5 |
| MQZ | | | | eSn | Sn | 09 49 43.7 | -4.5 |
| MQZ | McQueen's Vall | 8.03 | 219 | ePN | Pn | 09 48 14.9 | -3.8 |
| MQZ | | | | AML | AML | 09 49 45.5 | |
| INZ | Inchbonnie | 8.05 | 229 | ePN | Pn | 09 48 14.9 | -4.3 |
| OXZ | Oxford | 8.09 | 224 | ePn | Pn | 09 48 17.3 | -2.4 |
| OXZ | | | | eSn | Sn | 09 49 48.5 | -1.2 |
| OXZ | Oxford | 8.09 | 224 | AML | AML | 09 49 46.9 | |
| OXZ | | | | AML | AML | 09 49 51.2 | |
| RPZ | Rata Peaks | 8.88 | 225 | Pn | Pn | 09 48 28.8 | -1.8 |
| | 1.8nm,0.3s,baz=67,slow=1.7,SNR=11 | | | | | | |
| RPZ | | | | Sn | Sn | 09 50 03.2 | -6.2 |
| | 6.3nm,0.3s,baz=39,slow=22,SNR=14 | | | | | | |
| RPZ | Rata Peaks | 8.88 | 225 | ePn | Pn | 09 48 28.8 | -1.8 |
| RPZ | | | | Sn | Sn | 09 50 03.2 | -6.2 |
| RPZ | | | | eSn | Sn | 09 50 05.4 | -4.0 |
| FOZ | Fox Glacier | 9.49 | 229 | ePn | Pn | 09 48 37.6 | -1.3 |
| FOZ | | | | eSn | Sn | 09 50 20.1 | -4.1 |
| LBZ | Lake Benmore | 9.79 | 224 | ePn | Pn | 09 48 41.8 | -1.2 |
| LBZ | | | | eSn | Sn | 09 50 27.4 | -4.3 |
| ODZ | Otahua Downs | 9.99 | 220 | ePn | Pn | 09 48 44.1 | -1.7 |
| ODZ | | | | eSn | Sn | 09 50 32.8 | -3.7 |
| ODZ | Otahua Downs | 9.99 | 220 | AML | AML | 09 51 12.9 | |
| ODZ | | | | AML | AML | 09 53 56.5 | |
| WKZ | Wanaka | 10.72 | 225 | ePn | Pn | 09 48 54.9 | -0.9 |
| WKZ | | | | eSn | Sn | 09 50 51.4 | -3.0 |
| MLZ | Mavora Lakes | 11.55 | 225 | ePn | Pn | 09 49 08.0 | +0.8 |
| MLZ | | | | eSn | Sn | 09 51 14.1 | -0.7 |
| SYZ | Scrubby Hill | 11.79 | 218 | AML | AML | 09 48 14.4 | |
| SYZ | | | | AML | AML | 09 53 41.7 | |
| WHZ | Wether Hill Ro | 11.97 | 223 | ePn | Pn | 09 49 14.1 | +1.3 |
| WHZ | | | | eSn | Sn | 09 51 20.5 | -4.6 |
| DCZ | Deep Cove | 12.16 | 226 | ePn | Pn | 09 49 14.4 | -1.0 |
| DCZ | | | | eSn | Sn | 09 51 25.0 | -4.6 |
| DZM | Mont Dzumac | 19.31 | 320 | P | P | 09 50 44.3 | -2.6 |
| | 0.3nm,0.3s,baz=126,slow=14,SNR=6.5 | | | | | | |
| DZM | | | | LR | LR | 09 57 18.5 | |
| | comp=Z,269nm,19.1s,baz=132,slow=35 | | | | | | |
| DZM | Mont Dzumac | 19.31 | 320 | eP | P | 09 50 46.2 | -0.6 |
| | 51nm,1.3s | | | | | | |
| DZM | | | | eLR | LR | 09 55 30.2 | |
| | 382nm,21.9s | | | | | | |
| DZM | Mont Dzumac | 19.31 | 320 | eP | P | 09 50 46.0 | -0.8 |
| | 79nm,1.8s | | | | | | |
| TBI | Tubuai | 30.03 | 70 | eLR | LR | 10 00 07.6 | |
| | 138nm,27.8s | | | | | | |
| TBI | Tubuai | 30.03 | 70 | eT | T | 10 23 44.7 | |
| | 35nm,0.3s | | | | | | |
| STKA | Stephens Creek | 31.66 | 269 | P | P | 09 52 44.5 | -0.1 |
| | 6.3nm,1.1s,baz=129,slow=12,SNR=4.8 | | | | | | |
| STKA | | | | LR | LR | 10 06 14.7 | |
| | comp=Z,266nm,18.3s,baz=49,slow=38 | | | | | | |
| STKA | Stephens Creek | 31.66 | 269 | eP | P | 09 52 45.2 | +0.6 |
| | 2.2nm,0.9s | | | | | | |
| PAE | Paea | 33.52 | 62 | eT | T | 10 28 05.7 | |
| | 4.1nm,0.3s | | | | | | |
| PPT2 | Papeete2 | 33.58 | 62 | eLR | LR | 10 01 38.0 | |
| | 143nm,27.2s | | | | | | |
| PPT2 | Papeete2 | 33.58 | 62 | eT | T | 10 28 10.3 | |
| | 4.0nm,0.3s | | | | | | |
| PPT | Papeete | 33.59 | 62 | LR | LR | 10 03 33.0 | |
| | comp=Z,45nm,20.5s,baz=253,slow=31 | | | | | | |
| TVO | Taravao | 33.67 | 62 | eT | T | 10 28 17.2 | |
| | 1.6nm,0.3s | | | | | | |
| PMOR | Pomariorio Ree | 36.52 | 61 | eT | T | 10 31 50.0 | |
| | 6.2nm,0.3s | | | | | | |
| VAH | Vaihoa | 36.54 | 61 | eT | T | 10 31 51.5 | |
| | 7.1nm,0.2s | | | | | | |
| COEN | Coen | 40.09 | 296 | eP | P | 09 53 56.0 | -0.9 |
| | 14nm,0.9s | | | | | | |
| PMG | Port Moresby | 40.64 | 305 | LR | LR | 10 09 54.9 | |
| | comp=Z,177nm,18.7s,baz=7.0,slow=35 | | | | | | |
| RKT | Rikitea | 41.33 | 83 | eLR | LR | 10 05 17.7 | |
| | 141nm,25.2s | | | | | | |
| RKT | Rikitea | 41.33 | 83 | eT | T | 10 37 53.7 | |
| | 1.1nm,0.3s | | | | | | |
| AS01 | Alice Springs | 41.34 | 276 | eP | P | 09 54 06.2 | -1.1 |
| AS31 | Alice Springs | 41.38 | 276 | eP | P | 09 54 06.8 | -0.7 |
| | 4.4nm,0.8s | | | | | | |
| ASAR | Alice Springs | 41.38 | 276 | P | P | 09 54 06.4 | -1.1 |
| | 13nm,0.8s,baz=116,slow=7.3,SNR=101 | | | | | | |
| ASAR | | | | LR | LR | 10 12 26.9 | |
| | comp=Z,99nm,20.2s,baz=126,slow=38 | | | | | | |
| WC3 | Warramunga Arr | 42.99 | 281 | eP | P | 09 54 19.2 | -1.5 |
| | 18nm,1.2s | | | | | | |
| WB2 | Warramunga Arr | 43.02 | 281 | eP | P | 09 54 19.4 | -1.5 |
| | 35nm,1.6s | | | | | | |
| WRAB | Tennant Creek | 43.03 | 281 | eP | P | 09 54 19.4 | -1.6 |
| | 36nm,1.6s | | | | | | |
| WRA | Warramunga Arr | 43.03 | 281 | P | P | 09 54 19.0 | -2.0 |
| | 4.7nm,0.5s,baz=123,slow=7.0,SNR=86 | | | | | | |
| FITZ | Fitzroy Crossi | 50.87 | 277 | P | P | 09 55 21.4 | -0.7 |
| | 9.6nm,0.9s,baz=164,slow=7.7,SNR=13 | | | | | | |
| SARN | Sarigan | 62.80 | 323 | eP | P | 09 56 44.0 | -2.7 |
| MAW | Mawson | 64.83 | 202 | P | P | 09 57 03.0 | +3.6 |
| | 2.3nm,1.0s,baz=116,slow=16,SNR=3.4 | | | | | | |
| SYO | Syowa Base | 69.58 | 194 | ⇓eX | P | 09 57 31.0 | +1.5 |
| SNAA | Sanae | 70.92 | 179 | P | P | 09 57 40.6 | +2.8 |
| SNAA | Sanae | 70.92 | 179 | eP | P | 09 57 34.2 | -3.6 |
| VNA3 | Neumayer Olymp | 71.16 | 177 | P | P | 09 57 41.7 | +2.6 |
| VNA2 | Neumayer--Watz | 71.56 | 178 | P | P | 09 57 44.7 | +3.2 |
| | baz=176,slow=5.1 | | | | | | |
| VNA1 | Neumayer--Stat | 71.80 | 177 | P | P | 09 57 47.0 | +4.1 |
| PLCA | Paso Flores | 78.94 | 133 | P | P | 09 58 28.1 | +3.5 |
| | 2.8nm,0.9s,baz=258,slow=5.3,SNR=5.6 | | | | | | |
| JHJ2 | Mitsune | 79.63 | 327 | eP | P | 09 58 21.7 | -6.5 |
| | 461nm,1.2s | | | | | | |
| PSI | Prapat | 84.39 | 278 | LR | LR | 10 40 48.2 | |
| | comp=Z,104nm,18.0s,baz=124,slow=39 | | | | | | |
| KSRS | Korea Array | 88.74 | 321 | P | P | 09 59 14.4 | +0.2 |
| | 1.1nm,0.8s,baz=133,slow=5.2,SNR=3.0 | | | | | | |
| KSAR | Wonju Array Be | 88.75 | 321 | P | P | 09 59 14.4 | +0.1 |
| NJ2 | Nanjing | 89.61 | 312 | eP | P | 09 59 15.5 | -3.0 |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,13nm,0.6s | | | | | | |
| CMAR | Chiang Mai Arr | 94.04 | 290 | P | P | 09 59 40.1 | +0.7 |
| | comp=Z,1.2nm,0.6s,baz=153,slow=5.6,SNR=7.1 | | | | | | |
| BEKR | Beckworth | 94.77 | 42 | eP | P | 09 59 35.4 | -7.1 |
| | comp=Z,2.3nm,0.7s | | | | | | |
| KMI | Kunming | 95.43 | 298 | P | P | 09 59 44.6 | -1.3 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,12nm,0.5s | | | | | | |
| TXAR | Lajitas Array | 97.87 | 59 | P | Pdif | 09 59 58.0 | +1.3 |
| | comp=Z,0.6nm,1.1s,baz=165,slow=10,SNR=3.4 | | | | | | |
| HHC | Hu-ho-hao-te | 99.93 | 314 | eP | Pdif | 10 00 04.8 | -0.8 |
| HHC | | | | pP | pP | 10 00 15.4 | -2.0 |
| HHC | | | | PP | PP | 10 04 14.8 | +3.4 |
| HHC | Hu-ho-hao-te | 99.93 | 314 | S | S | 10 11 35.5 | -1.7 |
| HHC | Hu-ho-hao-te | 99.93 | 314 | sS | sS | 10 11 53.3 | -3.4 |
| HHC | Hu-ho-hao-te | 99.93 | 314 | SS | SS | 10 18 36.4 | +5.1 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,13nm,1.2s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,41nm,5.9s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=N,140nm,17.3s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=E,200nm,17.1s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,120nm,16.9s | | | | | | |
| LZH | Lanzhou | 101.53 | 307 | eP | Pdif | 10 00 12.0 | -0.9 |
| LZH | | | | pP | pPdif | 10 00 20.9 | -3.7 |
| LZH | | | | sP | pP | 10 00 26.0 | +1.2 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,12nm,1.0s | | | | | | |
| IP01 | Cuckoo | 120.51 | 64 | ePKPdf | PKPdf | 10 05 06.3 | -5.9 |
| MKAR | Makanchi Array | 120.83 | 307 | PKP | PKPdf | 10 05 13.1 | +0.6 |
| | comp=Z,0.4nm,0.7s,baz=116,slow=2.8,SNR=4.3 | | | | | | |
| KSH | Kashi | 122.09 | 297 | SS | SS | 10 23 34.8 | +7.3 |
| KSH | | | | AMB | AMB | | |
| | comp=Z,230nm,6.2s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,32nm,4.1s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,57nm,3.9s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,240nm,5.2s | | | | | | |
| ARCES | ARCESS Array B | 145.20 | 344 | PKP | PKPbc | 10 05 56.6 | -0.4 |
| | comp=Z,5.5nm,1.0s,baz=5.7,slow=4.9,SNR=9.4 | | | | | | |
| FIA1 | FINESS Array S | 151.09 | 334 | ePKPbc | PKPbc | 10 06 14.4 | +1.5 |
| FINES | FINESS Array B | 151.10 | 334 | PKPbc | PKPbc | 10 06 14.4 | +1.5 |
| | comp=Z,4.5nm,0.9s,baz=46,slow=5.5,SNR=12 | | | | | | |
| FINES | | | | PKPab | PKPab | 10 06 20.7 | -0.1 |
| | comp=Z,7.1nm,1.0s,baz=42,slow=3.4,SNR=8.6 | | | | | | |
| BRTR | Keskin Array B | 153.51 | 285 | PKPbc | PKPbc | 10 06 20.3 | +1.0 |
| | comp=Z,0.5nm,0.8s,baz=134,slow=2.0,SNR=2.9 | | | | | | |
| AKASG | Malin Array Be | 155.34 | 311 | PKPab | PKPab | 10 06 36.9 | -2.2 |
| | comp=Z,0.8nm,0.6s,baz=49,slow=2.7,SNR=4.2 | | | | | | |
| NC405 | NORSAR Array S | 155.37 | 346 | ePKPdif | PKPdf | 10 06 19.9 | +6.6 |
| TORD | Torodi Ar. Bea | 155.48 | 185 | PKP | PKPdf | 10 06 15.6 | +0.8 |
| | comp=Z,0.5nm,1.0s,baz=171,slow=2.8,SNR=3.6 | | | | | | |
| TORD | | | | PKPab | PKPab | 10 06 42.2 | +1.8 |
| | comp=Z,1.7nm,1.0s,baz=170,slow=2.3,SNR=5.7 | | | | | | |

---

*CSEM* ***04*** *10:02:18.1±0.3, 36°.39N×25°.40E, h10km, ML1.2, Error ellipse: s-maj=43.1km s-min=35.4km az=58.0*

*THE* ***04*** *10:02:19.1, 36°.39N×25°.37E, h5km±2km, ML0.3/1, Error ellipse: s-maj=2.0km s-min=0.6km az=181.0*

**ATH 04 10:02:18.6, 36°.39N×25°.38E, h10km±5km, ML1.2/1, Error ellipse: s-maj=5.2km s-min=3.0km az=156.0, Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| THR3 | Thira Island, | 0.03 | 36 | P | Pg | 10 02 20.6 | +0.2 |
| THR3 | Thira Island, | 0.03 | 36 | P | Pg | 10 02 20.4 | 0.0 |
| THR3 | Thira Island, | 0.03 | 36 | P | Pg | 10 02 20.4 | 0.0 |
| THT1 | Athinios (Pele | 0.04 | 90 | P | Pg | 10 02 20.9 | +0.4 |
| THT1 | | | | S | Sg | 10 02 21.6 | -0.1 |
| THT1 | Athinios (Pele | 0.04 | 90 | P | Pg | 10 02 20.6 | +0.1 |
| THT1 | | | | S | Sg | 10 02 21.7 | -0.1 |
| THT1 | Athinios (Pele | 0.04 | 90 | P | Pg | 10 02 20.6 | +0.1 |
| THT1 | | | | S | Sg | 10 02 21.7 | -0.1 |
| THR5 | Thira Island, | 0.04 | 320 | P | Pg | 10 02 20.1 | -0.4 |
| THR5 | Thira Island, | 0.04 | 320 | P | Pg | 10 02 20.2 | -0.3 |
| THR5 | Thira Island, | 0.04 | 320 | P | Pg | 10 02 20.2 | -0.3 |
| THR2 | Thira island, | 0.07 | 36 | P | Pg | 10 02 21.4 | +0.5 |
| THR2 | Thira island, | 0.07 | 36 | P | Pg | 10 02 21.4 | +0.5 |
| THR2 | Thira island, | 0.07 | 36 | P | Pg | 10 02 21.1 | +0.2 |
| THR8 | Santorini-Mono | 0.08 | 75 | P | Pg | 10 02 20.3 | -0.6 |
| THR8 | Santorini-Mono | 0.08 | 75 | P | Pg | 10 02 20.3 | -0.6 |
| CMBO | Columbo, Santo | 0.09 | 14 | P | Pg | 10 02 21.0 | 0.0 |
| CMBO | | | | S | Sg | 10 02 22.6 | -0.2 |
| CMBO | | | | AML | AML | 10 02 22.9 | |
| | comp=E,376μm,0.3s | | | | | | |
| CMBO | | | | AML | AML | 10 02 23.5 | |
| | comp=N,532μm,0.2s | | | | | | |
| CMBO | Columbo, Santo | 0.09 | 14 | P | Pg | 10 02 21.0 | 0.0 |
| CMBO | | | | S | Sg | 10 02 22.7 | 0.0 |
| CMBO | Columbo, Santo | 0.09 | 14 | P | Pg | 10 02 21.0 | 0.0 |
| CMBO | | | | S | Sg | 10 02 22.7 | 0.0 |

---

*ISCJB* ***04*** *10:07:35.7±0.6, 37°.17N±0°.05×27°.92E±0°.04, h0km, Error ellipse: s-maj=7.1km s-min=3.9km az=14.1*

*CSEM* ***04*** *10:07:35.9±0.2, 37°.15N×27°.90E, h1km, MD2.5, Error ellipse: s-maj=5.1km s-min=3.0km az=21.0, Suspected Mining explosion.*

*ISK* ***04*** *10:07:35.4, 37°.15N×27°.88E, h11km, MD2.5*

*DDA* ***04*** *10:07:36.2, 37°.17N×27°.90E, h7km, Ml2.4, Suspected Mining explosion.*

**ISC 04 10:07:34.7**±0.9**, 37°.07N**±0°.06×**27°.86E**±0°.03**, h0km, n18, σ0s.45**/25**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BDRM | Kayabasi | 0.33 | 270 | i P | Pb | 10 07 42.9 | -0.6 |
| BDRM | | | | i S | Sb | 10 07 49.6 | +0.3 |
| BDRM | Kayabasi | 0.33 | 270 | P | Pb | 10 07 42.9 | -0.6 |
| BODT | Bodrum | 0.44 | 270 | ePG | Pb | 10 07 45.0 | -0.3 |
| BODT | | | | eSG | Sb | 10 07 52.1 | -0.3 |
| BODT | Bodrum | 0.44 | 270 | ePg | Pb | 10 07 45.0 | -0.3 |
| BODT | | | | eSg | Sb | 10 07 52.1 | -0.3 |
| AYDN | Tasoluk | 0.59 | 2 | i P | Pg | 10 07 45.8 | -0.3 |
| AYDN | Tasoluk | 0.59 | 2 | P | Pg | 10 07 45.8 | -0.3 |
| DALY | Dalyan (Mu˜la | 0.68 | 111 | ePG | Pb | 10 07 49.5 | +0.1 |
| DALY | | | | eSG | Sb | 10 07 59.6 | +0.1 |
| DALY | Dalyan (Mu˜la | 0.68 | 111 | ePg | Pb | 10 07 49.5 | +0.1 |
| DALY | | | | eSg | Sb | 10 07 59.6 | +0.1 |
| GCAM | G?zelcaml? | 0.81 | 322 | ePG | Pg | 10 07 50.6 | +0.4 |
| GCAM | | | | eSG | Sg | 10 08 01.5 | +0.9 |
| GCAM | G?zelcaml? | 0.81 | 322 | i P | Pb | 10 07 51.0 | -0.6 |
| GCAM | G?zelcaml? | 0.81 | 322 | ePg | Pg | 10 07 50.6 | +0.4 |
| GCAM | G?zelcaml? | 0.81 | 322 | P | Pb | 10 07 51.0 | -0.6 |
| GCAM | | | | eSg | Sg | 10 08 01.5 | +0.9 |
| FETY | Fethiye | 1.07 | 113 | ePG | Pn | 10 07 56.9 | -0.1 |
| FETY | Fethiye | 1.07 | 113 | ePg | Pn | 10 07 56.9 | -0.1 |
| DNZL | Cakiroluk | 1.13 | 56 | i P | Pg | 10 07 56.2 | -0.2 |
| DNZL | Cakiroluk | 1.13 | 56 | P | Pg | 10 07 56.2 | -0.2 |
| AKAS | Kas | 1.63 | 120 | ePN | Pb | 10 08 05.3 | -0.4 |
| AKAS | Kas | 1.63 | 120 | ePn | Pb | 10 08 05.3 | -0.4 |

---

*NIED* ***04*** *10:13:00, 24°.70N×122°.00E, h71km, Mw4.3 Best double couple: M0 2.88000×10^15 NP1:φs72.00000°, δ68.00000°, λ-163.00000°. NP2:φs336.00000°, δ75.00000°, λ-23.00000°.*

*BJI* ***04*** *10:13:01.0, 24°.66N×122°.17E, h56km, mb4.2/35, mB4.6/15, ML4.4/4, Ms4.2/12, Ms7 4.2/12*

*JMA* ***04*** *10:13:03.1±0.2, 24°.65N×122°.04E, h75km±3km, M4.1*

*MOS* ***04*** *10:13:03.1±0.9, 24°.71N×122°.16E, h76km, mb4.7/13, Error ellipse: s-maj=12.5km s-min=7.7km az=106.8*

*ISCJB* ***04*** *10:13:03.6±0.1, 24°.70N±0°.02×122°.08E±0°.01, h74km±1km, mb4.5/52, Error ellipse: s-maj=2.7km s-min=1.8km az=157.7*

*TAP* ***04*** *10:13:04.4, 24°.66N×122°.05E, h63km, ML4.9, B*

*NEIC* ***04*** *10:13:04.3±0.3, 24°.63N×122°.09E, h72km±3km, mb4.8/34, MW4.3, Error ellipse: s-maj=5.5km s-min=5.0km az=111.0, Moment Tensor Solution. s14 Moment tensor: Scale 10^15 Nm; Mrr1.63; Mθθ-0.29; Mφφ-1.34; Mrθ0.39; Mθφ-1.98; Mφr-2.41; Best double couple: M0 3.50000×10^15 NP1: φs71.00000°, δ38.00000°, λ151.00000°. NP2: φs184.00000°, δ73.00000°, λ56.00000°. Principal axes: T 3.4800, Plg50.0000°, Azm56.0000°; N 0.0200,*

*Plg32.0000°, Azm196.0000°; P -3.4900, Plg20.0000°, Azm300.0000°;*

*NEIC Felt [III] at Taipei. Also felt at Danshui, Hsinchu, Luodong and Yuli. Recorded [3 TAP] in Hualien and Yilan; [2 TAP] in Hsinchu, Miaoli and Taoyuan.*

*IDC **04** 10:13:06.5±2.6, 24.°75N×122.°21E, h93km±23km, mb3.8/17, mb1 3.8/19, mb1mx3.7/37, mbtmp4.1/19, MS3.0/5, Ms1 3.0/5, ms1mx2.9/53 Error ellipse: s-maj=16.8km s-min=11.5km az=64.0*

**ISC 04 10:13:03.8**±0.5**, 24.°68N**±0.°03×**122.°08E**±0.°02**, h65**km±4km**, n225, σ1.s56**/304**, mb4.6**/52**, 10C-36D, Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TWC** | **Suao** | **0.22** | **251** | ⇓*i*P | **Pn** | **10 13 14.4** | **+0.4** |
| | baz=252 | | | | | | |
| **ILA** | **Ilan** | **0.31** | **286** | ⇓*i*P | **Pn** | **10 13 15.4** | **+0.9** |
| | baz=294 | | | | | | |
| ILA | | | | *e*S | **Sn** | **10 13 23.4** | **+1.1** |
| | baz=294 | | | | | | |
| **TWB1** | **Santiao Chiao** | **0.34** | **346** | ⇓*i*P | **Pn** | **10 13 15.2** | **+0.5** |
| | baz=348 | | | | | | |
| TWB1 | | | | *i* S | **Sn** | **10 13 22.7** | **0.0** |
| | baz=348 | | | | | | |
| **TWE** | **Neicheng** | **0.38** | **276** | ⇓*i*P | **Pn** | **10 13 15.9** | **+0.8** |
| | baz=287 | | | | | | |
| **ENA** | **Nanau** | **0.40** | **231** | ⇓*i*P | **Pn** | **10 13 16.1** | **+0.9** |
| | baz=225 | | | | | | |
| **ENTT** | **Nioudou** | **0.47** | **265** | ⇓*i*P | **Pn** | **10 13 16.9** | **+1.0** |
| | baz=273 | | | | | | |
| **NWF** | **Wu-fen Shan** | **0.47** | **325** | ⇓P | **Pn** | **10 13 16.8** | **+0.7** |
| | baz=320 | | | | | | |
| NWF | | | | *i* S | **Sn** | **10 13 25.0** | **+0.1** |
| | baz=320 | | | | | | |
| **EHP** | **Heping Village** | **0.48** | **220** | *e*P | **Pn** | **10 13 17.3** | **+1.3** |
| | baz=218 | | | | | | |
| **TWA** | **Mucha** | **0.54** | **304** | ⇓*i*P | **Pn** | **10 13 17.2** | **+0.6** |
| | baz=314 | | | | | | |
| TWA | | | | S | **Sn** | **10 13 26.0** | **0.0** |
| | baz=314 | | | | | | |
| **TATO** | **Taipei** | **0.61** | **299** | *e*Pn | **Pn** | **10 13 17.7** | **+0.3** |
| **TAP1** | **Taipei** | **0.62** | **305** | ⇓*i*P | **Pn** | **10 13 18.0** | **+0.6** |
| | baz=307 | | | | | | |
| TAP1 | | | | S | **Sn** | **10 13 27.2** | **-0.2** |
| | baz=307 | | | | | | |
| **TAP** | **Taipei** | **0.63** | **305** | ⇓*i*P | **Pn** | **10 13 18.0** | **+0.4** |
| | baz=307 | | | | | | |
| TAP | | | | S | **Sn** | **10 13 27.6** | **-0.1** |
| | baz=307 | | | | | | |
| **YHNB** | **Yeheng** | **0.64** | **269** | *e*Pn | **Pn** | **10 13 18.6** | **+0.9** |
| YHNB | | | | *e*Sn | **Sn** | **10 13 29.2** | **+1.2** |
| **NACB** | **Ninganchiao** | **0.67** | **221** | *e*Pn | **Pn** | **10 13 17.8** | **-0.2** |
| **NNS** | **Nan Shan** | **0.69** | **250** | ⇓*i*P | **Pn** | **10 13 19.2** | **+0.9** |
| | baz=243 | | | | | | |
| NNS | | | | *e*S | **Sn** | **10 13 29.6** | **+0.6** |
| | baz=243 | | | | | | |
| **TWS1** | **Kuangyinshan** | **0.73** | **305** | ⇑*i*P | **Pn** | **10 13 19.6** | **+0.8** |
| | baz=312 | | | | | | |
| TWS1 | | | | S | **Sn** | **10 13 30.1** | **+0.4** |
| | baz=312 | | | | | | |
| **TWY** | **Chenhua** | **0.73** | **324** | ⇑*i*P | **Pn** | **10 13 19.5** | **+0.7** |
| | baz=326 | | | | | | |
| TWY | | | | *e*S | **Sn** | **10 13 29.7** | **-0.1** |
| | baz=326 | | | | | | |
| **TWD** | **Chiawan** | **0.74** | **216** | ⇓*i*P | **Pn** | **10 13 19.0** | **+0.1** |
| | baz=228 | | | | | | |
| TWD | | | | *e*S | **Sn** | **10 13 30.1** | **+0.1** |
| | baz=228 | | | | | | |
| **JYNG** | **Yonagunijimaku** | **0.82** | **106** | P | **Pn** | **10 13 20.4** | **+0.6** |
| JYNG | | | | S | **Sn** | **10 13 32.1** | **+0.5** |
| **HWA** | **Hwalien** | **0.82** | **212** | ⇓*e*P | **Pn** | **10 13 20.3** | **+0.4** |
| | baz=199 | | | | | | |
| HWA | | | | *e*S | **Sn** | **10 13 31.8** | **+0.1** |
| | baz=199 | | | | | | |
| **NCU** | **National Centr** | **0.86** | **290** | ⇑*e*P | **Pn** | **10 13 21.3** | **+1.0** |
| | baz=291 | | | | | | |
| NCU | | | | *e*S | **Sn** | **10 13 33.4** | **+0.9** |
| | baz=291 | | | | | | |
| **YOJ** | **Yonaguni jima** | **0.88** | **104** | ⇓*i*P | **Pn** | **10 13 21.1** | **+0.5** |
| | baz=103 | | | | | | |
| YOJ | | | | *e*S | **Sn** | **10 13 32.7** | **-0.1** |
| | baz=103 | | | | | | |
| **YOJ** | **Yonaguni jima** | **0.88** | **104** | *e*P | **Pn** | **10 13 20.9** | **+0.4** |
| **YOJ** | **Yonaguni jima** | **0.88** | **104** | P | **Pn** | **10 13 20.9** | **+0.4** |
| YOJ | | | | S | **Sn** | **10 13 33.3** | **+0.5** |
| **YOJ** | **Yonaguni jima** | **0.88** | **104** | *e*Pn | **Pn** | **10 13 20.9** | **+0.4** |
| **TWT** | **Tachien** | **0.93** | **243** | ⇓*i*P | **Pn** | **10 13 22.6** | **+1.3** |
| | baz=234 | | | | | | |
| TWT | | | | *e*S | **Sn** | **10 13 35.4** | **+1.2** |
| | baz=234 | | | | | | |
| **PCYT** | **Pengchaiyu** | **0.94** | **360** | ⇑P | **Pn** | **10 13 22.4** | **+1.0** |
| | baz=353 | | | | | | |
| PCYT | | | | *e*S | **Sn** | **10 13 35.8** | **+1.4** |
| | baz=353 | | | | | | |
| **ESF** | **Shoufeng Towns** | **0.96** | **213** | *e*P | **Pn** | **10 13 21.9** | **+0.4** |
| | baz=223 | | | | | | |
| **NSTT** | **Nanjuang** | **0.98** | **267** | ⇓*i*P | **Pn** | **10 13 22.9** | **+1.0** |
| | baz=267 | | | | | | |
| NSTT | | | | *e*S | **Sn** | **10 13 36.0** | **+0.8** |
| | baz=267 | | | | | | |
| **HSN** | **Hsinchu** | **1.01** | **277** | ⇓P | **Pn** | **10 13 22.9** | **+0.7** |
| | baz=288 | | | | | | |
| HSN | | | | *e*S | **Sn** | **10 13 36.6** | **+0.6** |
| | baz=288 | | | | | | |
| **ESL** | **Shilin** | **1.04** | **214** | ⇓*i*P | **Pn** | **10 13 22.2** | **-0.5** |
| | baz=222 | | | | | | |
| **TEGC** | **Jichi Village** | **1.08** | **207** | *e*P | **Pn** | **10 13 24.2** | **+1.0** |
| | baz=206 | | | | | | |
| **NSY** | **Sanyi** | **1.23** | **258** | ⇓*i*P | **Pn** | **10 13 26.5** | **+1.4** |
| | baz=257 | | | | | | |
| NSY | | | | *e*S | **Sn** | **10 13 42.5** | **+1.5** |
| | baz=257 | | | | | | |
| **TWQ1** | **Liyutan** | **1.23** | **255** | ⇓*e*P | **Pn** | **10 13 26.3** | **+1.1** |
| | baz=254 | | | | | | |
| TWQ1 | | | | *e*S | **Sn** | **10 13 42.5** | **+1.4** |
| | baz=254 | | | | | | |
| **WDT** | **Danda** | **1.26** | **223** | ⇓*i*P | **Pn** | **10 13 26.2** | **+0.4** |
| | baz=213 | | | | | | |
| WDT | | | | *e*S | **Sn** | **10 13 41.2** | **-1.0** |
| | baz=213 | | | | | | |
| **SMLT** | **Sun Moon Lake** | **1.34** | **234** | ⇓P | **Pn** | **10 13 27.8** | **+1.2** |
| | baz=232 | | | | | | |
| SMLT | | | | *e*S | **Sn** | **10 13 45.8** | **+2.1** |
| | baz=232 | | | | | | |
| **TYC** | **Yuchr** | **1.36** | **235** | ⇓*i*P | **Pn** | **10 13 28.1** | **+1.4** |
| | baz=234 | | | | | | |
| TYC | | | | *e*S | **Sn** | **10 13 45.6** | **+1.7** |
| | baz=234 | | | | | | |
| **SSLB** | **Suanglung** | **1.36** | **229** | *e*Pn | **Pn** | **10 13 27.5** | **+0.7** |
| SSLB | | | | *e*Sn | **Sn** | **10 13 47.0** | **+2.9** |
| **EHY** | **Hungye** | **1.36** | **211** | ⇓P | **Pn** | **10 13 25.8** | **-1.0** |
| | baz=210 | | | | | | |
| **TCU** | **Taichung** | **1.38** | **248** | *e*P | **Pn** | **10 13 28.1** | **+1.0** |
| | baz=248 | | | | | | |
| **YULB** | **Yu-li** | **1.47** | **209** | *e*Pn | **Pn** | **10 13 27.4** | **-0.9** |
| **TWF1** | **Yuli** | **1.50** | **209** | *e*P | **Pn** | **10 13 27.7** | **-1.0** |
| | baz=207 | | | | | | |
| **WNT** | **Mingjian** | **1.50** | **238** | *e*P | **Pn** | **10 13 30.1** | **+1.4** |
| | baz=250 | | | | | | |
| WNT | | | | *e*S | **Sn** | **10 13 48.5** | **+1.1** |
| | baz=250 | | | | | | |
| **IRIF** | **Iriomote-Funau** | **1.54** | **103** | P | **Pn** | **10 13 29.6** | **+0.4** |
| IRIF | | | | S | **Sn** | **10 13 48.7** | **+0.4** |
| **YUS** | **Yu-Shan** | **1.57** | **221** | ⇓*i*P | **Pn** | **10 13 30.9** | **+0.8** |
| | baz=214 | | | | | | |
| **ALS** | **Alishan** | **1.65** | **225** | ⇓P | **Pn** | **10 13 32.4** | **+1.5** |
| | baz=215 | | | | | | |
| ALS | | | | *e*S | **Sn** | **10 13 53.2** | **+1.9** |
| | baz=215 | | | | | | |
| **CHN5** | **Tsauling** | **1.67** | **230** | ⇓*e*P | **Pn** | **10 13 32.5** | **+1.4** |
| | baz=240 | | | | | | |
| CHN5 | | | | *e*S | **Sn** | **10 13 53.8** | **+2.2** |
| | baz=240 | | | | | | |
| **HATJ** | **Hateruma jima** | **1.69** | **111** | P | **Pn** | **10 13 31.8** | **+0.6** |
| HATJ | | | | S | **Sn** | **10 13 53.6** | **+1.7** |
| **WGK** | **Gukeng** | **1.70** | **235** | *e*P | **Pn** | **10 13 33.0** | **+1.6** |
| | baz=246 | | | | | | |
| WGK | | | | *e*S | **Sn** | **10 13 54.5** | **+2.3** |
| | baz=246 | | | | | | |
| **CHKT** | **Chengkung** | **1.70** | **203** | ⇓*e*P | **Pn** | **10 13 30.6** | **-0.8** |
| | baz=192 | | | | | | |
| **ELDTW** | **Lidau** | **1.77** | **213** | *e*P | **Pn** | **10 13 32.1** | **-0.4** |
| | baz=206 | | | | | | |
| **JKRS** | **Kuro-shima** | **1.81** | **104** | P | **Pn** | **10 13 33.7** | **+0.9** |
| JKRS | | | | S | **Sn** | **10 13 55.5** | **+0.6** |
| **WTCT** | **Ta-ch'eng** | **1.83** | **244** | *e*P | **Pn** | **10 13 33.0** | **-0.1** |
| | baz=242 | | | | | | |
| WTCT | | | | *e*S | **Sn** | **10 13 55.8** | **+0.5** |
| | baz=242 | | | | | | |
| **CHN2** | **Minshiung** | **1.86** | **232** | *e*P | **Pn** | **10 13 34.7** | **+1.2** |
| | baz=243 | | | | | | |
| CHN2 | | | | *e*S | **Sn** | **10 13 57.5** | **+1.6** |
| | baz=243 | | | | | | |
| **CHN4** | **Tsaushan** | **1.90** | **226** | *e*P | **Pn** | **10 13 35.7** | **+1.7** |
| | baz=238 | | | | | | |
| CHN4 | | | | *e*S | **Sn** | **10 13 59.6** | **+2.7** |
| | baz=238 | | | | | | |
| **JIJ** | **Ishigaki jima** | **1.91** | **99** | P | **Pn** | **10 13 34.4** | **+0.3** |
| JIJ | | | | S | **Sn** | **10 13 57.3** | **+0.2** |
| **TPUB** | **Ta-pu** | **1.91** | **224** | *e*Pn | **Pn** | **10 13 35.5** | **+1.3** |
| **CHY** | **Chiayi** | **1.92** | **232** | *e*P | **Pn** | **10 13 35.3** | **+1.0** |
| | baz=242 | | | | | | |
| CHY | | | | *e*S | **Sn** | **10 13 58.3** | **+0.9** |
| | baz=242 | | | | | | |
| **STYT** | **Tauyuan** | **1.94** | **219** | ⇓*e*P | **Pn** | **10 13 35.7** | **+1.1** |
| | baz=208 | | | | | | |
| STYT | | | | *e*S | **Sn** | **10 13 59.5** | **+1.6** |
| | baz=208 | | | | | | |
| **WTP** | **Ta-pu** | **1.96** | **223** | ⇓*i*P | **Pn** | **10 13 36.3** | **+1.4** |
| | baz=234 | | | | | | |
| WTP | | | | *e*S | **Sn** | **10 14 00.4** | **+1.9** |
| | baz=234 | | | | | | |
| **WSF** | **Szhu** | **1.99** | **239** | ⇑*e*P | **Pn** | **10 13 36.1** | **+0.9** |
| | baz=237 | | | | | | |
| WSF | | | | *e*S | **Sn** | **10 13 59.6** | **+0.5** |
| | baz=237 | | | | | | |
| **TWK** | **Hsinying** | **2.02** | **226** | ⇓P | **Pn** | **10 13 37.1** | **+1.3** |
| | baz=212 | | | | | | |
| TWK | | | | *e*S | **Sn** | **10 14 02.3** | **+2.3** |
| | baz=212 | | | | | | |
| **JISG** | **Ishigakijimahi** | **2.03** | **92** | P | **Pn** | **10 13 36.4** | **+0.6** |
| JISG | | | | *e*S | **Sn** | **10 14 01.3** | **+1.1** |
| **CHN1** | **Nanshi** | **2.06** | **224** | ⇓*e*P | **Pn** | **10 13 37.4** | **+1.2** |
| | baz=235 | | | | | | |
| CHN1 | | | | *e*S | **Sn** | **10 14 02.4** | **+1.5** |
| | baz=235 | | | | | | |
| **TWG** | **Pinlang** | **2.07** | **207** | *e*P | **Pn** | **10 13 35.1** | **-1.2** |
| | baz=198 | | | | | | |
| TWG | | | | *e*S | **Sn** | **10 13 58.1** | **-3.0** |
| | baz=198 | | | | | | |
| **TWG** | **Pinlang** | **2.07** | **207** | *e*Pn | **Pn** | **10 13 34.9** | **-1.5** |
| TWG | | | | *e*Sn | **Sn** | **10 14 00.6** | **-0.5** |
| **SGST** | **Jiashian** | **2.10** | **221** | ⇓P | **Pn** | **10 13 38.4** | **+1.7** |
| | baz=219 | | | | | | |
| SGST | | | | *e*S | **Sn** | **10 14 03.5** | **+1.7** |
| | baz=219 | | | | | | |
| **TTN** | **Taitung** | **2.10** | **204** | *e*P | **Pn** | **10 13 35.8** | **-0.9** |
| | baz=203 | | | | | | |
| **CHN8** | **Yiju** | **2.16** | **232** | *e*P | **Pn** | **10 13 38.5** | **+1.0** |
| | baz=243 | | | | | | |
| **CHN3** | **Shinhua** | **2.24** | **225** | *e*P | **Pn** | **10 13 39.8** | **+1.2** |
| | baz=236 | | | | | | |
| **SCLT** | **Jiali** | **2.29** | **229** | *e*P | **Pn** | **10 13 40.1** | **+0.9** |
| | baz=228 | | | | | | |
| SCLT | | | | *e*S | **Sn** | **10 14 07.5** | **+1.2** |
| | baz=228 | | | | | | |
| **ECL** | **Taimali** | **2.32** | **207** | *e*P | **Pn** | **10 13 39.0** | **-0.7** |
| | baz=200 | | | | | | |
| **SSD** | **Sandimen** | **2.34** | **215** | *e*P | **Pn** | **10 13 40.9** | **+0.9** |
| | baz=205 | | | | | | |
| SSD | | | | *e*S | **Sn** | **10 14 09.9** | **+2.3** |
| | baz=205 | | | | | | |
| **TAI1** | **Yung-k'ang** | **2.35** | **226** | *e*P | **Pn** | **10 13 41.1** | **+1.0** |
| | baz=238 | | | | | | |
| **JTJ** | **Tarama** | **2.39** | **90** | P | **Pn** | **10 13 41.8** | **+1.2** |
| JTJ | | | | *e*S | **Sn** | **10 14 11.0** | **+2.2** |
| **TWM1** | **Shoushan** | **2.39** | **220** | *e*P | **Pn** | **10 13 43.0** | **+2.3** |
| | baz=219 | | | | | | |
| **SGLT** | **Jiouru** | **2.43** | **217** | *e*P | **Pn** | **10 13 43.7** | **+2.5** |
| | baz=217 | | | | | | |
| **EAST** | **Anshuo** | **2.55** | **207** | *e*P | **Pn** | **10 13 42.0** | **-0.9** |
| | baz=201 | | | | | | |
| **TAW** | **Tawu** | **2.56** | **205** | *e*P | **Pn** | **10 13 42.4** | **-0.5** |
| | baz=199 | | | | | | |
| **PNG** | **Penghu** | **2.56** | **245** | ⇓*e*P | **Pn** | **10 13 42.5** | **-0.4** |
| | baz=244 | | | | | | |
| **WDGT** | **Dungji** | **2.63** | **238** | *e*P | **Pn** | **10 13 43.9** | **0.0** |
| | baz=237 | | | | | | |
| **SCZT** | **Fangliau** | **2.66** | **211** | *e*P | **Pn** | **10 13 45.6** | **+1.2** |
| | baz=210 | | | | | | |
| **LAY** | **Lan-yu** | **2.67** | **191** | *e*P | **Pn** | **10 13 43.5** | **-1.1** |
| | baz=181 | | | | | | |
| **TWP** | **Hsiaoliuchiu** | **2.81** | **214** | *e*P | **Pn** | **10 13 49.4** | **+3.0** |
| | baz=214 | | | | | | |
| **JIRB** | **Irabujima** | **2.82** | **86** | P | **Pn** | **10 13 47.9** | **+1.4** |
| JIRB | | | | *e*S | **Sn** | **10 14 21.6** | **+2.3** |
| **JIKM** | **Ikemajima** | **2.89** | **85** | P | **Pn** | **10 13 49.8** | **+2.3** |
| JIKM | | | | *e*S | **Sn** | **10 14 23.5** | **+2.4** |
| **JMJ** | **Miyako jima 2** | **2.93** | **87** | *e*P | **Pn** | **10 13 50.2** | **+2.3** |
| | baz=88 | | | | | | |
| **JMJ** | **Miyako jima 2** | **2.93** | **87** | P | **Pn** | **10 13 50.1** | **+2.1** |
| JMJ | | | | *e*S | **Sn** | **10 14 22.9** | **+0.9** |
| **HEN** | **Hengchun** | **2.93** | **205** | *e*P | **Pn** | **10 13 49.3** | **+1.2** |
| | baz=216 | | | | | | |
| **TWK1** | **Hengchun** | **2.97** | **203** | *e*P | **Pn** | **10 13 47.9** | **-0.6** |
| | baz=215 | | | | | | |
| **TSEB** | **Hengchuen, Pin** | **2.97** | **202** | *e*P | **Pn** | **10 13 50.7** | **+2.1** |
| | baz=194 | | | | | | |
| **JOGS** | **Gusukube** | **3.03** | **88** | P | **Pn** | **10 13 52.1** | **+2.8** |
| JOGS | | | | *e*S | **Sn** | **10 14 27.0** | **+2.6** |
| **QZH** | **Quanzhou** | **3.18** | **275** | ⇓*i*P | **Pn** | **10 13 50.3** | **-1.1** |
| QZH | | | | S | **Sn** | **10 14 24.2** | **-3.9** |
| QZH | | | | smax | smax | | |
| | comp=N,2μm,0.8s | | | | | | |
| QZH | | | | smax | smax | | |
| | comp=E,1μm,0.6s | | | | | | |
| **KNM** | **Kinmen** | **3.33** | **266** | ⇑*e*P | **Pn** | **10 13 54.9** | **+1.4** |
| | baz=264 | | | | | | |
| **JKE** | **Kume jima 2** | **4.56** | **68** | P | **Pn** | **10 14 13.0** | **+2.7** |
| JKE | | | | *e*S | **Sn** | **10 15 05.3** | **+3.3** |
| **JAGN** | **Aguni-jima** | **5.03** | **67** | P | **Pn** | **10 14 19.1** | **+2.3** |
| JAGN | | | | *e*S | **Sn** | **10 15 16.5** | **+2.9** |
| **JJT2** | **Tamagusuku 2** | **5.33** | **73** | P | **Pn** | **10 14 22.8** | **+2.0** |
| JJT2 | | | | S | **Sn** | **10 15 23.1** | **+2.2** |
| **JNTH** | **Nagotoyohara** | **5.67** | **70** | P | **Pn** | **10 14 26.7** | **+1.2** |
| JNTH | | | | *e*S | **Sn** | **10 15 30.0** | **+0.8** |
| **JIH** | **Iheya** | **5.80** | **65** | P | **Pn** | **10 14 28.8** | **+1.5** |
| JIH | | | | *e*S | **Sn** | **10 15 34.7** | **+2.3** |
| **JOW** | **Kunigami** | **5.98** | **68** | *e*P | **Pn** | **10 14 30.6** | **+0.8** |
| | baz=71 | | | | | | |
| **JOW** | **Kunigami** | **5.98** | **68** | P | **Pn** | **10 14 30.6** | **+0.8** |
| JOW | | | | *e*S | **Sn** | **10 15 37.3** | **+0.4** |
| **JOW** | **Kunigami** | **5.98** | **68** | *e*Pn | **Pn** | **10 14 30.8** | **+1.0** |
| **JOKE** | **Okinoerabujima** | **6.42** | **64** | P | **Pn** | **10 14 36.1** | **+0.3** |
| **JTK** | **Tokunoshima** | **6.90** | **62** | P | **Pn** | **10 14 42.8** | **+0.4** |
| **JAMN** | **Amaminishikomi** | **7.28** | **59** | P | **Pn** | **10 14 47.5** | **0.0** |
| **JAM** | **Amami Oshima** | **7.70** | **60** | P | **Pn** | **10 14 53.3** | **+0.1** |
| **NJ2** | **Nanjing** | **7.87** | **340** | *e*P | **Pn** | **10 14 55.3** | **-0.3** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,19nm,0.7s | | | | | | |
| **JMZ** | **Minamidaito 2** | **8.35** | **80** | P | **Pn** | **10 14 59.6** | **-2.6** |
| JMZ | | | | S | **Sn** | **10 16 26.8** | **-8.3** |
| **WHN** | **Wuhan** | **9.00** | **312** | P | **Pn** | **10 15 11.1** | **0.0** |
| WHN | | | | S | **Sn** | **10 16 54.5** | **+3.6** |
| WHN | | | | LR | LR | | |
| | comp=E,410nm,3.5s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=Z,1μm,4.7s | | | | | | |
| **JNU** | **Nakatsue** | **11.40** | **40** | P | **Pn** | **10 15 44.2** | **+0.3** |
| | 0.2nm,0.3s,baz=185,slow=12,SNR=2.2 | | | | | | |
| **ENH** | **Enshi** | **12.48** | **299** | *e*Pn | **Pn** | **10 16 01.7** | **+3.0** |
| **TJN** | **Taejon** | **12.51** | **20** | *e*P | **Pn** | **10 16 00.0** | **+1.0** |
| **QIZ** | **Qiongzhong** | **12.67** | **246** | P | **Pn** | **10 16 01.1** | **-0.2** |
| QIZ | | | | S | **Sn** | **10 18 21.7** | **+1.0** |
| QIZ | | | | pmax | pmax | | |
| | comp=Z,29nm,1.8s | | | | | | |
| **KS15** | **Wonju Array Si** | **13.65** | **20** | *e*Pn | **P** | **10 16 23.0** | **+2.0** |
| **KSAR** | **Wonju Array Be** | **13.65** | **20** | P | **Pn** | **10 16 17.5** | **+3.1** |
| **KSAR** | **Wonju Array Be** | **13.65** | **20** | P | **Pn** | **10 16 17.5** | **+3.1** |
| **KSRS** | **Korea Array** | **13.68** | **20** | P | **Pn** | **10 16 17.5** | **+2.8** |
| | 1.5nm,0.3s,baz=201,slow=11,SNR=43 | | | | | | |
| KSRS | | | | LR | LR | 10 21 37.0 | |
| | comp=Z,46nm,19.8s,baz=174,slow=38 | | | | | | |
| **KS01** | **Wonju Array Si** | **13.69** | **20** | *e*Pn | **Pn** | **10 16 17.8** | **+3.0** |
| **GYA** | **Guiyang** | **14.03** | **281** | *e*P | **Pn** | **10 16 20.9** | **+1.4** |
| GYA | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| **XAN** | **Xi'an** | **14.77** | **312** | P | **P** | **10 16 32.3** | **-1.3** |
| XAN | | | | pP | Pn | 10 16 40.9 | +12 |
| XAN | | | | pmax | pmax | | |
| | comp=Z,14nm,1.2s | | | | | | |
| **BJI** | **Beijing** | **16.10** | **343** | P | **Pn** | **10 16 42.2** | **-3.8** |
| BJI | | | | pmax | pmax | | |
| | comp=Z,10.0nm,2.1s | | | | | | |
| **CD2** | **Chengdu** | **17.35** | **295** | *e*P | **P** | **10 17 03.0** | **+0.8** |
| CD2 | | | | sP | sP | 10 17 23.0 | -1.0 |
| CD2 | | | | SS | S | 10 20 35.7 | +17 |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,20nm,1.2s | | | | | | |
| **KMI** | **Kunming** | **17.55** | **276** | P | **P** | **10 17 04.9** | **+0.3** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.5s | | | | | | |
| **MJAR** | **Matsushiro Arr** | **18.20** | **46** | P | **P** | **10 17 10.6** | **-0.9** |
| | 0.3nm,0.3s,baz=205,slow=9.2,SNR=4.0 | | | | | | |
| MJAR | | | | LR | LR | 10 24 38.0 | |
| | comp=Z,33nm,20.4s,baz=215,slow=38 | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **18.36** | **334** | *e*P | **Pn** | **10 17 15.2** | **+1.2** |
| HHC | | | | S | **Sn** | **10 20 34.5** | **-4.0** |
| HHC | | | | sS | sS | 10 20 55.0 | -6.9 |
| HHC | | | | SS | **SnSn** | **10 21 01.4** | **+7.9** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,22nm,1.1s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,200nm,5.3s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=N,150nm,12.4s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=E,270nm,10.6s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,120nm,10.7s | | | | | | |
| **CN2** | **Changchun** | **19.27** | **7** | *e*P | **Pn** | **10 17 24.3** | **-0.4** |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.1s | | | | | | |
| **LZH** | **Lanzhou** | **19.37** | **310** | *e*P | **Pn** | **10 17 26.8** | **+0.6** |
| LZH | | | | pP | pP | 10 17 40.1 | +1.9 |
| LZH | | | | PP | **sP** | **10 17 46.9** | **+0.5** |
| LZH | | | | S | **S** | **10 20 56.0** | **-4.4** |
| LZH | | | | sS | sS | 10 21 17.1 | -5.5 |
| LZH | | | | SS | **SnSn** | **10 21 26.3** | **+8.1** |
| LZH | | | | pmax | pmax | | |
| | comp=Z,22nm,0.9s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,180nm,5.8s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=N,230nm,12.7s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=E,190nm,13.8s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,200nm,15.7s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **21.09** | **20** | P | **P** | **10 17 42.1** | **-0.6** |
| | 1.3nm,0.5s,baz=188,slow=5.8,SNR=3.4 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **22.37** | **258** | P | **P** | **10 17 58.4** | **+1.5** |
| | 1.1nm,0.7s,baz=65,slow=8.4,SNR=7.5 | | | | | | |
| CMAR | | | | pP | **sP** | **10 18 16.2** | **-2.6** |
| | 2.1nm,0.7s,baz=58,slow=8.1,SNR=9.5 | | | | | | |
| CMAR | | | | LR | LR | 10 27 38.2 | |
| | comp=Z,21nm,19.1s,baz=90,slow=39 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **22.37** | **258** | *ce*P | **P** | **10 17 58.0** | **+1.2** |
| CMAR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.5s | | | | | | |
| **HIA** | **Hailar** | **24.61** | **356** | *e*P | **P** | **10 18 17.5** | **-0.4** |
| HIA | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.0s | | | | | | |
| **ASAJ** | **Asahikawa** | **25.61** | **36** | P | **P** | **10 18 25.7** | **-1.3** |
| | comp=Z,5.3nm,0.9s,baz=225,slow=10,SNR=5.1 | | | | | | |
| **ASAJ** | **Asahikawa** | **25.61** | **36** | *e*P | **P** | **10 18 26.2** | **-0.8** |
| | comp=Z,33nm,1.2s | | | | | | |
| **ULN** | **Ulaanbaatar** | **26.02** | **337** | *ce*P | **P** | **10 18 32.0** | **+1.1** |
| ULN | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | |
| **ULN** | **Ulaanbaatar** | **26.02** | **337** | *e*P | **P** | **10 18 32.1** | **+1.1** |
| | comp=Z,3.4nm,0.7s | | | | | | |
| **SONM** | **Songino Array** | **26.24** | **336** | P | **P** | **10 18 33.5** | **+0.7** |
| | comp=Z,3.7nm,0.7s,baz=153,slow=10,SNR=14 | | | | | | |
| SONM | | | | LR | LR | 10 30 08.4 | |
| | comp=Z,64nm,19.2s,baz=350,slow=39 | | | | | | |
| **SONA1** | **Songino Array** | **26.25** | **336** | *e*P | **P** | **10 18 34.2** | **+1.3** |
| **WMQ** | **Urumqi** | **33.91** | **313** | P | **P** | **10 19 44.0** | **+3.4** |
| WMQ | | | | LR | LR | | |
| | comp=Z,120nm,20.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,140nm,20.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,110nm,15.1s | | | | | | |
| **YAK** | **Yakutsk** | **37.69** | **6** | *i* P | **P** | **10 20 12.3** | **-0.3** |
| YAK | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.8s | | | | | | |
| **MK01** | **Makanchi Array** | **38.54** | **315** | *e*P | **P** | **10 20 20.3** | **+0.3** |
| **MK31** | **Makanchi Array** | **38.56** | **315** | *e*P | **P** | **10 20 20.3** | **+0.1** |
| **MK31** | **Makanchi Array** | **38.56** | **315** | *e*P | **P** | **10 20 20.3** | **+0.1** |
| **MKAR** | **Makanchi Array** | **38.56** | **315** | P | **P** | **10 20 20.4** | **+0.1** |
| | comp=Z,1.4nm,0.4s,baz=100,slow=9.4,SNR=37 | | | | | | |
| MKAR | | | | PcP | **PcP** | **10 22 31.6** | **0.0** |
| | comp=Z,0.4nm,0.6s,baz=164,slow=2.9,SNR=4.3 | | | | | | |
| MKAR | | | | ScP | **S** | **10 26 10.0** | **-1.5** |
| | comp=Z,0.6nm,0.8s,baz=103,slow=4.2,SNR=4.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **38.56** | **315** | *ce*P | **P** | **10 20 20.3** | **+0.1** |
| MKAR | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.4s | | | | | | |
| **MAKZ** | **Makanchi** | **38.76** | **315** | *e*P | **P** | **10 20 22.3** | **+0.4** |
| MAKZ | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.4s | | | | | | |
| **MAKZ** | **Makanchi** | **38.76** | **315** | *e*P | **P** | **10 20 22.3** | **+0.4** |
| | comp=Z,3.1nm,0.4s | | | | | | |
| **PDGK** | **Podgornoye** | **39.41** | **309** | *i* P | **P** | **10 20 28.2** | **+0.7** |
| **ZAA0** | **Zalesovo Array** | **40.28** | **326** | *e*P | **P** | **10 20 33.8** | **-0.5** |
| | comp=Z,2.1nm,0.8s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **40.28** | **326** | P | **P** | **10 20 33.7** | **-0.6** |
| | comp=Z,1.4nm,0.3s,baz=118,slow=7.1,SNR=10 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **40.28** | **326** | *e*P | **P** | **10 20 34.1** | **-0.2** |
| **ZALV** | **Zalesovo Beam** | **40.28** | **326** | *e*P | **P** | **10 20 34.1** | **-0.2** |
| **KSH** | **Kashi** | **41.32** | **302** | *e*P | **P** | **10 20 45.6** | **+2.3** |
| KSH | | | | pP | sP | 10 21 03.7 | -3.4 |
| KSH | | | | PP | **PnPn** | **10 22 24.6** | **-0.1** |
| KSH | | | | PcP | **PcP** | **10 22 41.8** | **+1.0** |
| KSH | | | | S | **S** | **10 26 55.4** | **+2.3** |
| KSH | | | | SS | **SS** | **10 29 58.6** | **-0.1** |
| KSH | | | | ScS | **ScS** | **10 30 41.0** | **-0.3** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.3s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,150nm,6.4s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,140nm,4.5s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,290nm,7.2s | | | | | | |
| **KURK** | **Kurchatov** | **42.24** | **319** | *e*P | **P** | **10 20 50.3** | **-0.2** |
| KURK | | | | pmax | pmax | | |
| | comp=Z,7.0nm,2.1s | | | | | | |
| **KURK** | **Kurchatov** | **42.24** | **319** | *e*P | **P** | **10 20 50.8** | **+0.3** |
| | comp=Z,9.2nm,1.7s | | | | | | |
| **AAK** | **Ala-Archa** | **42.86** | **307** | *e*P | **P** | **10 20 56.2** | **+0.3** |
| AAK | | | | pmax | pmax | | |
| | comp=Z,7.0nm,4.1s | | | | | | |
| **PALK** | **Pallekele** | **43.16** | **253** | LR | LR | 10 39 17.7 | |
| | comp=Z,34nm,20.9s,baz=116,slow=36 | | | | | | |
| **COEN** | **Coen** | **43.58** | **150** | *e*P | **P** | **10 21 01.9** | **+0.2** |
| | comp=Z,25nm,1.7s | | | | | | |
| **WRAB** | **Tennant Creek** | **45.93** | **164** | *e*P | **P** | **10 21 20.0** | **-0.3** |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.1s | | | | | | |
| **WRAB** | **Tennant Creek** | **45.93** | **164** | *e*P | **P** | **10 21 20.0** | **-0.3** |
| | comp=Z,8.4nm,1.1s | | | | | | |
| **WRA** | **Warramunga Arr** | **45.93** | **164** | P | **P** | **10 21 19.9** | **-0.4** |
| | comp=Z,5.0nm,0.5s,baz=347,slow=8.5,SNR=93 | | | | | | |
| **WRA** | **Warramunga Arr** | **45.93** | **164** | P | **P** | **10 21 20.0** | **-0.4** |
| **DZET** | **Dzherino** | **46.81** | **301** | *i* P | **P** | **10 21 28.3** | **+1.0** |
| **TIXI** | **Tiksi** | **47.16** | **3** | *e*P | **P** | **10 21 28.0** | **-1.3** |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.9s | | | | | | |
| **TIXI** | **Tiksi** | **47.16** | **3** | *e*P | **P** | **10 21 28.7** | **-0.6** |
| | comp=Z,5.7nm,0.9s | | | | | | |
| **BRVK** | **Borovoye** | **47.88** | **320** | *ce*P | **P** | **10 21 36.1** | **+0.9** |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.8s | | | | | | |
| **BRVK** | **Borovoye** | **47.88** | **320** | *e*P | **P** | **10 21 35.4** | **+0.2** |
| | comp=Z,16nm,1.9s | | | | | | |
| **AS31** | **Alice Springs** | **49.41** | **166** | *e*P | **P** | **10 21 47.3** | **0.0** |
| | comp=Z,1.0nm,0.8s | | | | | | |
| **ASAR** | **Alice Springs** | **49.41** | **166** | P | **P** | **10 21 47.2** | **0.0** |
| | comp=Z,0.5nm,0.3s,baz=345,slow=6.7,SNR=23 | | | | | | |
| **AS01** | **Alice Springs** | **49.42** | **166** | *e*P | **P** | **10 21 47.5** | **+0.2** |
| **AKTO** | **Aktyubinsk** | **54.99** | **315** | P | **P** | **10 22 28.3** | **-0.1** |
| | baz=59,slow=5.9 | | | | | | |
| **ARU** | **Arti** | **55.20** | **323** | *d i*P | **P** | **10 22 28.4** | **-1.4** |
| ARU | | | | | | 10 24 29.1 | |
| ARU | | | | S | **S** | **10 30 07.3** | **-0.9** |

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ARU | | | | SS | SS | 10 33 50.0 | -2.8 |
| ARU | | | | pmax | pmax | | |
| | comp=Z,20nm,2.5s | | | | | | |
| ARU | Arti | 55.20 | 323 | eP | P | 10 22 29.4 | -0.4 |
| | comp=Z,5.7nm,0.7s | | | | | | |
| GEYT | Alibeck | 55.25 | 300 | P | P | 10 22 31.6 | +1.1 |
| | comp=Z,1.9nm,0.6s,baz=0.0,slow=1.5,SNR=4.1 | | | | | | |
| STKA | Stephens Creek | 59.25 | 161 | P | P | 10 22 57.5 | -1.1 |
| | comp=Z,2.0nm,0.6s,baz=311,slow=5.9,SNR=5.3 | | | | | | |
| STKA | Stephens Creek | 59.25 | 161 | eP | P | 10 22 58.5 | -0.1 |
| STKA | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.6s | | | | | | |
| STKA | Stephens Creek | 59.25 | 161 | eP | P | 10 22 58.5 | -0.1 |
| | comp=Z,3.5nm,1.6s | | | | | | |
| DZM | Mont Dzumac | 63.38 | 133 | P | P | 10 23 27.3 | +0.6 |
| | comp=Z,3.6nm,0.8s,baz=315,slow=14,SNR=3.7 | | | | | | |
| TTA | Tatalina | 64.67 | 30 | eP | P | 10 23 34.7 | 0.0 |
| TTA | Tatalina | 64.67 | 30 | eP | P | 10 23 34.7 | 0.0 |
| IMAR | Indian Mountai | 65.38 | 27 | ePcP | PcP | 10 24 10.7 | 0.0 |
| KIV | Kislovodsk | 65.91 | 309 | eP | P | 10 23 42.6 | -0.5 |
| KIV | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.1s | | | | | | |
| SUA | Susitna One | 67.31 | 31 | eP | P | 10 23 50.7 | -1.0 |
| | comp=Z,55nm,0.6s | | | | | | |
| MDM | Murphy Dome | 67.80 | 27 | eP | P | 10 23 54.8 | +0.2 |
| | comp=Z,24nm,1.7s | | | | | | |
| RND | Reindeer | 67.82 | 29 | eP | P | 10 23 55.0 | +0.1 |
| RND | | | | pmax | pmax | | |
| | comp=Z,34nm,1.8s | | | | | | |
| RND | Reindeer | 67.82 | 29 | eP | P | 10 23 55.0 | +0.1 |
| | comp=Z,34nm,1.8s | | | | | | |
| ILAR | Eielson Array | 68.40 | 27 | P | P | 10 23 57.4 | -0.9 |
| | comp=Z,0.6nm,0.7s,baz=299,slow=7.4,SNR=8.1 | | | | | | |
| FYU | Fort Yukon | 68.68 | 25 | eP | P | 10 24 00.3 | +0.3 |
| | comp=Z,28nm,1.5s | | | | | | |
| SCM | Sheep Creek Mo | 68.83 | 31 | eP | P | 10 24 00.2 | -1.0 |
| SCM | | | | pmax | pmax | | |
| | comp=Z,76nm,1.8s | | | | | | |
| SCM | Sheep Creek Mo | 68.83 | 31 | eP | P | 10 24 00.2 | -1.0 |
| | comp=Z,76nm,1.8s | | | | | | |
| ARCES | ARCESS Array B | 69.38 | 338 | P | P | 10 24 03.6 | -0.8 |
| | comp=Z,1.6nm,0.7s,baz=54,slow=6.2,SNR=4.8 | | | | | | |
| FIA1 | FINESS Array S | 71.43 | 330 | eP | P | 10 24 15.9 | -1.0 |
| FINES | FINESS Array B | 71.43 | 330 | P | P | 10 24 16.5 | -0.4 |
| | comp=Z,2.3nm,0.7s,baz=72,slow=6.2,SNR=9.3 | | | | | | |
| INK | Inuvik | 72.46 | 22 | eP | P | 10 24 22.1 | -0.9 |
| INK | Inuvik | 72.46 | 22 | eP | P | 10 24 22.1 | -0.9 |
| INK | | | | ePcP | P | 10 24 22.2 | -0.7 |
| AKASG | Malin Array Be | 73.04 | 318 | P | P | 10 24 25.6 | -1.1 |
| | comp=Z,0.2nm,0.3s,baz=58,slow=6.0,SNR=3.0 | | | | | | |
| BRTR | Keskin Array B | 73.53 | 306 | P | P | 10 24 29.9 | -0.1 |
| | comp=Z,1.1nm,0.5s,baz=93,slow=5.4,SNR=8.4 | | | | | | |
| BRTR | Keskin Array B | 73.53 | 306 | P | P | 10 24 30.0 | -0.1 |
| KARP | Karpathos | 79.82 | 304 | eP | P | 10 25 04.7 | -0.8 |
| | comp=Z,2.0nm,1.1s | | | | | | |
| YKA | Yellowknife Ar | 82.20 | 23 | P | P | 10 25 16.5 | -1.0 |
| | comp=Z,1.3nm,0.5s,baz=311,slow=5.0,SNR=39 | | | | | | |
| F04A | Amboy | 88.62 | 39 | eP | P | 10 25 50.0 | +0.2 |
| | comp=Z,63nm,1.9s | | | | | | |
| LTY | Liberty | 88.84 | 37 | eP | P | 10 25 50.6 | -0.3 |
| | comp=Z,19nm,1.8s | | | | | | |
| KHMM | Horse Mountain | 90.69 | 44 | eP | P | 10 25 58.5 | -1.3 |
| | comp=Z,100nm,1.8s | | | | | | |
| JTMT | Jette | 91.93 | 34 | eP | P | 10 26 05.3 | -0.1 |
| | comp=Z,5.9nm,1.0s | | | | | | |
| BMO | Blue Mountains | 92.16 | 38 | eP | P | 10 26 06.8 | +0.3 |
| BMO | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.8s | | | | | | |
| BMO | Blue Mountains | 92.16 | 38 | eP | P | 10 26 06.8 | +0.3 |
| | comp=Z,8.2nm,1.8s | | | | | | |
| MOD | Modoc Plateau | 92.21 | 41 | eP | P | 10 26 07.2 | +0.3 |
| | comp=Z,3.3nm,0.8s | | | | | | |
| FFC | Flin Flon | 92.35 | 24 | eP | P | 10 26 06.3 | -0.7 |
| FFC | | | | pmax | pmax | | |
| | comp=Z,36nm,1.8s | | | | | | |
| FFC | Flin Flon | 92.35 | 24 | eP | P | 10 26 06.3 | -0.7 |
| | comp=Z,36nm,1.8s | | | | | | |
| J08A | Circle Bar Ran | 92.41 | 39 | eP | P | 10 26 08.3 | +0.7 |
| | comp=Z,3.0nm,0.6s | | | | | | |
| BEKR | Beckworth | 93.37 | 43 | eP | P | 10 26 12.0 | -0.3 |
| | comp=Z,2.9nm,0.6s | | | | | | |
| AFDM | Forest Hills D | 93.53 | 44 | eP | P | 10 26 12.8 | 0.0 |
| | comp=Z,8.4nm,1.6s | | | | | | |
| PAHR | Pah Rah Range | 94.07 | 43 | eP | P | 10 26 15.3 | -0.1 |
| | comp=Z,16nm,1.9s | | | | | | |
| PNTR | Pine Nut | 94.31 | 43 | eP | P | 10 26 16.6 | -0.1 |
| | comp=Z,4.1nm,1.0s | | | | | | |
| DLMT | Dillon | 94.38 | 35 | eP | P | 10 26 17.5 | +0.7 |
| | comp=Z,14nm,1.8s | | | | | | |
| CMB | Columbia Colle | 94.43 | 45 | eP | P | 10 26 16.6 | -0.4 |
| CMB | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.1s | | | | | | |
| CMB | Columbia Colle | 94.43 | 45 | eP | P | 10 26 16.6 | -0.4 |
| | comp=Z,4.3nm,1.1s | | | | | | |
| HLID | Hailey | 94.58 | 37 | eP | P | 10 26 18.4 | +0.6 |
| | comp=Z,7.5nm,1.8s | | | | | | |
| WAKR | Walker | 94.76 | 44 | eP | P | 10 26 18.8 | +0.1 |
| | comp=Z,16nm,1.8s | | | | | | |
| SDV | Santo Domingo | 144.41 | 22 | PKP | PKPab | 10 32 31.0 | -1.0 |
| | comp=Z,5.8nm,0.5s,baz=45,slow=5.7,SNR=4.1 | | | | | | |
| SDV | Santo Domingo | 144.41 | 22 | eP | PKPab | 10 32 28.9 | -3.1 |
| SDV | Santo Domingo | 144.41 | 22 | ePKPdf | PKPab | 10 32 31.2 | -0.7 |
| PCRV | Puerto La Cruz | 144.74 | 12 | PKP | PKPab | 10 32 31.0 | -2.0 |
| | comp=Z,8.0nm,0.5s,baz=352,slow=1.7,SNR=11 | | | | | | |
| HELC | Santa Helena | 144.85 | 31 | ePKPdf | PKPab | 10 32 33.5 | -0.4 |
| RUSC | La Rusia | 146.21 | 28 | ePKPdf | PKPdf | 10 32 37.4 | +0.1 |
| PRAC | Prado | 147.31 | 33 | ePKPdf | PKPdf | 10 32 39.4 | +0.8 |

*NEIC **04** 10:15:24.1±0.0,37°.90S×176°.39E,h167km,MG4.1(WEL), After WEL.*

**WEL 04 10:15:24.0**±0.3**,37°.90S**×**176°.40E,h170**km±2km**,ML4.1**/55**, 23C-2D,Error ellipse: s-maj=1.7km s-min=1.6km az=90.0,North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| OPRZ | Ohinepanea | 0.13 | 66 | Pn | Pn | 10 15 46.4 | -0.1 |
| OPRZ | | | | Sn | Sn | 10 16 03.8 | +0.1 |
| OPRZ | Ohinepanea | 0.13 | 66 | ⇑PN | Pn | 10 15 46.4 | -0.1 |
| OPRZ | | | | SN | Sn | 10 16 03.8 | +0.1 |
| PRRZ | Plateau Road | 0.60 | 181 | Pn | Pn | 10 15 48.1 | +0.1 |
| PRRZ | Plateau Road | 0.60 | 181 | ⇑PN | Pn | 10 15 48.1 | +0.1 |
| PRRZ | | | | SN | Sn | 10 16 07.0 | +0.3 |
| MUGZ | Murupara | 0.65 | 153 | ⇑PN | Pn | 10 15 48.1 | -0.2 |
| MUGZ | | | | SN | Sn | 10 16 06.5 | -0.6 |
| WPRZ | Whakapapatarin | 0.65 | 197 | Pn | Pn | 10 15 48.6 | +0.3 |
| WPRZ | Whakapapatarin | 0.65 | 197 | ⇑PN | Pn | 10 15 48.6 | +0.3 |
| ALRZ | Allen Road | 0.66 | 184 | Pn | Pn | 10 15 48.4 | 0.0 |
| ALRZ | Allen Road | 0.66 | 184 | PN | Pn | 10 15 48.4 | 0.0 |
| ALRZ | | | | SN | Sn | 10 16 08.2 | +0.8 |
| URZ | Urewera | 0.67 | 123 | Pn | Pn | 10 15 48.0 | -0.4 |
| URZ | | | | Sn | Sn | 10 16 05.8 | -1.3 |
| URZ | Urewera | 0.67 | 123 | ⇑PN | Pn | 10 15 48.0 | -0.4 |
| URZ | | | | SN | Sn | 10 16 05.8 | -1.3 |
| URZ | | | | AML | AML | 10 16 07.1 | |
| TOZ | Tahuroa Road | 0.73 | 283 | Pn | Pn | 10 15 48.9 | +0.2 |
| TOZ | | | | Sn | Sn | 10 16 08.6 | +0.8 |
| TOZ | Tahuroa Road | 0.73 | 283 | PN | Pn | 10 15 48.9 | +0.2 |
| TOZ | | | | SN | Sn | 10 16 08.6 | +0.8 |
| MRHZ | Matea Rd | 0.93 | 179 | ⇑PN | Pn | 10 15 50.1 | -0.1 |
| MRHZ | | | | SN | Sn | 10 16 09.5 | -1.0 |
| MRHZ | | | | AML | AML | 10 16 10.1 | |
| MWZ | Matawai | 0.99 | 116 | Pn | Pn | 10 15 50.5 | -0.1 |
| MWZ | | | | Sn | Sn | 10 16 10.2 | -1.0 |
| MWZ | Matawai | 0.99 | 116 | ⇑PN | Pn | 10 15 50.5 | -0.1 |
| MWZ | | | | SN | Sn | 10 16 10.1 | -1.0 |
| MWZ | | | | AML | AML | 10 16 12.9 | |
| RAGZ | Rawiri | 1.00 | 127 | Pn | Pn | 10 15 50.8 | +0.1 |
| RAGZ | | | | Sn | Sn | 10 16 11.0 | -0.4 |
| RAGZ | Rawiri | 1.00 | 127 | PN | Pn | 10 15 50.8 | +0.1 |
| RAGZ | | | | SN | Sn | 10 16 11.0 | -0.4 |
| RAGZ | | | | AML | AML | 10 16 13.3 | |
| RUGZ | Raukumara Rang | 1.01 | 94 | PN | Pn | 10 15 49.7 | -1.1 |
| MTHZ | Maungataniwha | 1.01 | 160 | ⇑PN | Pn | 10 15 50.7 | -0.1 |
| MTHZ | | | | SN | Sn | 10 16 11.1 | -0.5 |
| RATZ | Rangitukua | 1.09 | 207 | Pn | Pn | 10 15 51.2 | -0.1 |
| RATZ | | | | Sn | Pn | 10 15 52.9 | +1.6 |
| RATZ | Rangitukua | 1.09 | 207 | PN | Pn | 10 15 51.2 | -0.1 |
| HAZ | Te Kaha | 1.10 | 83 | PN | Pn | 10 15 50.5 | -0.9 |
| HAZ | | | | SN | Sn | 10 16 10.9 | -1.7 |
| HAZ | | | | AML | AML | 10 16 11.6 | |
| HAZ | | | | AML | AML | 10 16 11.6 | |
| HAZ | | | | AML | AML | 10 16 11.6 | |
| SNGZ | Shannon Statio | 1.15 | 140 | Pn | Pn | 10 15 52.2 | +0.3 |
| SNGZ | | | | Sn | Sn | 10 16 13.1 | -0.4 |
| SNGZ | Shannon Statio | 1.15 | 140 | ⇑PN | Pn | 10 15 52.2 | +0.3 |
| SNGZ | | | | SN | Sn | 10 16 13.0 | -0.4 |
| SNGZ | | | | AML | AML | 10 16 15.1 | |
| RITZ | Rihia Road | 1.16 | 201 | Pn | Pn | 10 15 52.2 | +0.3 |
| RITZ | Rihia Road | 1.16 | 201 | PN | Pn | 10 15 52.2 | +0.3 |
| NMHZ | Naumai | 1.24 | 165 | Pn | Pn | 10 15 53.2 | +0.6 |
| NMHZ | Naumai | 1.24 | 165 | ⇑PN | Pn | 10 15 53.2 | +0.6 |
| NMHZ | | | | SN | Sn | 10 16 15.2 | +0.3 |
| NMHZ | | | | AML | AML | 10 16 17.4 | |
| TKGZ | Te Karaka | 1.26 | 116 | Pn | Pn | 10 15 53.0 | +0.3 |
| TKGZ | Te Karaka | 1.26 | 116 | PN | Pn | 10 15 53.0 | +0.3 |
| TKGZ | | | | AML | AML | 10 16 16.7 | |
| TKGZ | | | | AML | AML | 10 16 18.1 | |
| BKZ | Black Stump Fm | 1.27 | 177 | Pn | Pn | 10 15 52.6 | -0.4 |
| BKZ | Black Stump Fm | 1.27 | 177 | ⇑PN | Pn | 10 15 52.6 | -0.4 |
| BKZ | | | | SN | Sn | 10 16 13.9 | -1.5 |
| BKZ | | | | AML | AML | 10 16 15.9 | |
| MKAZ | Moumakai | 1.27 | 308 | Pn | Pn | 10 15 53.0 | +0.1 |
| MKAZ | Moumakai | 1.27 | 308 | PN | Pn | 10 15 53.0 | +0.1 |
| MKAZ | | | | SN | Sn | 10 16 15.8 | +0.7 |
| KUZ | Kuaotunu | 1.27 | 335 | Pn | Pn | 10 15 52.7 | -0.3 |
| KUZ | Kuaotunu | 1.27 | 335 | PN | Pn | 10 15 52.7 | -0.3 |
| KUZ | | | | SN | Sn | 10 16 15.1 | -0.1 |
| TWGZ | Tauwhareparae | 1.28 | 103 | Pn | Pn | 10 15 53.3 | +0.3 |
| TWGZ | Tauwhareparae | 1.28 | 103 | PN | Pn | 10 15 53.3 | +0.3 |
| TWGZ | | | | AML | AML | 10 16 16.3 | |
| TWGZ | | | | AML | AML | 10 16 18.0 | |
| PKGZ | Pakihiroa | 1.32 | 90 | PN | Pn | 10 15 53.3 | -0.1 |
| PKGZ | | | | AML | AML | 10 16 16.5 | |
| PKGZ | | | | AML | AML | 10 16 17.4 | |
| RIGZ | Rimuhau | 1.34 | 127 | PN | Pn | 10 15 53.8 | +0.3 |
| RIGZ | | | | AML | AML | 10 16 18.1 | |
| RIGZ | | | | AML | AML | 10 16 20.6 | |
| WHHZ | Waihua | 1.34 | 151 | PN | Pn | 10 15 53.8 | +0.3 |
| WHHZ | | | | AML | AML | 10 16 17.2 | |
| WHHZ | | | | AML | AML | 10 16 22.5 | |
| HIZ | Hauiti | 1.36 | 243 | Pn | Pn | 10 15 53.5 | -0.2 |
| HIZ | Hauiti | 1.36 | 243 | PN | Pn | 10 15 53.5 | -0.2 |
| WTVZ | West Tongariro | 1.37 | 207 | Pn | Pn | 10 15 53.9 | -0.1 |
| WTVZ | West Tongariro | 1.37 | 207 | PN | Pn | 10 15 53.9 | -0.1 |
| OTVZ | Oturere | 1.39 | 204 | Pn | Pn | 10 15 54.2 | +0.1 |
| OTVZ | Oturere | 1.39 | 204 | PN | Pn | 10 15 54.2 | +0.1 |
| TWVZ | Taurewa | 1.39 | 213 | Pn | Pn | 10 15 54.0 | -0.1 |
| TWVZ | Taurewa | 1.39 | 213 | PN | Pn | 10 15 54.0 | -0.1 |
| ARHZ | Aropaoanui | 1.44 | 161 | Pn | Pn | 10 15 54.7 | +0.3 |
| ARHZ | Aropaoanui | 1.44 | 161 | PN | Pn | 10 15 54.7 | +0.3 |
| ARHZ | | | | AML | AML | 10 16 19.1 | |
| ARHZ | | | | AML | AML | 10 16 19.1 | |
| PUZ | Puketiti | 1.48 | 97 | Pn | Pn | 10 15 54.3 | -0.6 |
| PUZ | Puketiti | 1.48 | 97 | PN | Pn | 10 15 54.3 | -0.6 |
| PUZ | | | | AML | AML | 10 16 23.5 | |
| PUZ | | | | AML | AML | 10 16 23.9 | |
| KNZ | Kokohu | 1.50 | 139 | Pn | Pn | 10 15 55.0 | 0.0 |
| KNZ | Kokohu | 1.50 | 139 | PN | Pn | 10 15 55.0 | 0.0 |
| KNZ | | | | AML | AML | 10 16 19.1 | |
| KNZ | | | | AML | AML | 10 16 22.0 | |
| KWHZ | Kaweka Forest | 1.52 | 179 | PN | Pn | 10 15 55.2 | -0.2 |
| KWHZ | | | | AML | AML | 10 16 23.3 | |
| KWHZ | | | | AML | AML | 10 16 27.5 | |
| CNGZ | Carnagh Statio | 1.54 | 113 | Pn | Pn | 10 15 56.4 | +1.0 |
| CNGZ | Carnagh Statio | 1.54 | 113 | ⇑PN | Pn | 10 15 56.4 | +1.0 |
| CNGZ | | | | AML | AML | 10 16 22.9 | |
| CNGZ | | | | AML | AML | 10 16 23.3 | |
| MXZ | Matakaoa Point | 1.55 | 78 | Pn | Pn | 10 15 55.3 | -0.2 |
| MXZ | Matakaoa Point | 1.55 | 78 | PN | Pn | 10 15 55.3 | -0.2 |
| MXZ | | | | AML | AML | 10 16 22.4 | |
| MXZ | | | | AML | AML | 10 16 23.1 | |
| PRGZ | Paritu Road | 1.55 | 132 | Pn | Pn | 10 15 55.7 | +0.2 |
| PRGZ | Paritu Road | 1.55 | 132 | PN | Pn | 10 15 55.7 | +0.2 |
| PRGZ | | | | AML | AML | 10 16 21.6 | |
| PRGZ | | | | AML | AML | 10 16 25.8 | |
| WNVZ | Wahianoa | 1.56 | 204 | Pn | Pn | 10 15 55.6 | -0.3 |
| WNVZ | Wahianoa | 1.56 | 204 | ⇑PN | Pn | 10 15 55.6 | -0.3 |
| MCHZ | McNeill Hill | 1.56 | 172 | Pn | Pn | 10 15 56.0 | +0.4 |
| MCHZ | McNeill Hill | 1.56 | 172 | ⇑PN | Pn | 10 15 56.0 | +0.4 |
| MCHZ | | | | AML | AML | 10 16 33.3 | |
| MCHZ | | | | AML | AML | 10 16 33.6 | |
| MOVZ | Moawhango | 1.59 | 198 | Pn | Pn | 10 15 55.3 | -0.7 |
| MOVZ | Moawhango | 1.59 | 198 | PN | Pn | 10 15 55.3 | -0.7 |
| WMGZ | Waiomatatini S | 1.59 | 88 | Pn | Pn | 10 15 55.8 | -0.2 |
| WMGZ | Waiomatatini S | 1.59 | 88 | ⇓PN | Pn | 10 15 55.8 | -0.2 |
| WMGZ | | | | AML | AML | 10 16 21.5 | |
| WMGZ | | | | AML | AML | 10 16 22.4 | |
| BHHZ | Black Hill Sta | 1.61 | 189 | Pn | Pn | 10 15 55.7 | -0.5 |
| BHHZ | Black Hill Sta | 1.61 | 189 | ⇑PN | Pn | 10 15 55.7 | -0.5 |
| BHHZ | | | | AML | AML | 10 16 21.8 | |
| BHHZ | | | | AML | AML | 10 16 30.2 | |
| MTVZ | Mangateitei | 1.65 | 206 | Pn | Pn | 10 15 55.1 | -1.5 |
| MTVZ | Mangateitei | 1.65 | 206 | PN | Pn | 10 15 55.1 | -1.5 |
| MHGZ | Mahia Peninsul | 1.72 | 137 | Pn | Pn | 10 15 57.6 | +0.3 |
| MHGZ | Mahia Peninsul | 1.72 | 137 | ⇑PN | Pn | 10 15 57.6 | +0.3 |
| MHGZ | | | | AML | AML | 10 16 27.7 | |
| MHGZ | | | | AML | AML | 10 16 31.5 | |
| KRHZ | Kereru | 1.74 | 181 | PN | Pn | 10 15 57.1 | -0.5 |
| KRHZ | | | | AML | AML | 10 16 27.3 | |
| KRHZ | | | | AML | AML | 10 16 27.4 | |
| VRZ | Vera Road | 1.78 | 226 | Pn | Pn | 10 15 57.9 | +0.1 |
| VRZ | Vera Road | 1.78 | 226 | PN | Pn | 10 15 57.9 | +0.1 |
| CKHZ | Cape Kidnapper | 1.83 | 163 | Pn | Pn | 10 15 58.6 | +0.1 |
| CKHZ | Cape Kidnapper | 1.83 | 163 | ⇑PN | Pn | 10 15 58.6 | +0.1 |
| CKHZ | | | | AML | AML | 10 16 24.5 | |
| CKHZ | | | | AML | AML | 10 16 26.5 | |
| KAHZ | Kahuranaki | 1.93 | 169 | Pn | Pn | 10 15 59.5 | 0.0 |
| KAHZ | Kahuranaki | 1.93 | 169 | ⇑PN | Pn | 10 15 59.5 | 0.0 |
| KAHZ | | | | AML | AML | 10 16 29.2 | |
| KAHZ | | | | AML | AML | 10 16 29.3 | |
| PNHZ | Pukenui | 2.02 | 184 | Pn | Pn | 10 15 59.7 | -0.9 |
| PNHZ | Pukenui | 2.02 | 184 | PN | Pn | 10 15 59.7 | -0.9 |
| PNHZ | | | | AML | AML | 10 16 29.6 | |
| PNHZ | | | | AML | AML | 10 16 34.6 | |
| PXZ | Pawanui | 2.16 | 171 | Pn | Pn | 10 16 01.5 | -0.6 |
| PXZ | Pawanui | 2.16 | 171 | PN | Pn | 10 16 01.5 | -0.6 |
| PXZ | | | | AML | AML | 10 16 33.3 | |
| PXZ | | | | AML | AML | 10 16 33.9 | |
| WAZ | Wanganui | 2.16 | 210 | Pn | Pn | 10 16 01.5 | -0.6 |
| WAZ | Wanganui | 2.16 | 210 | ⇑PN | Pn | 10 16 01.5 | -0.6 |
| WPHZ | Waipukurau | 2.16 | 179 | Pn | Pn | 10 16 01.3 | -0.8 |
| WPHZ | Waipukurau | 2.16 | 179 | PN | Pn | 10 16 01.3 | -0.8 |
| WPHZ | | | | AML | AML | 10 16 33.5 | |
| WPHZ | | | | AML | AML | 10 16 38.9 | |
| TSZ | Takapari Road | 2.18 | 189 | Pn | Pn | 10 16 01.1 | -1.3 |
| TSZ | Takapari Road | 2.18 | 189 | PN | Pn | 10 16 01.1 | -1.3 |
| TSZ | | | | AML | AML | 10 16 32.4 | |
| TSZ | | | | AML | AML | 10 16 33.0 | |
| LREZ | Lake Rotokare | 2.21 | 224 | PN | Pn | 10 16 02.9 | +0.3 |
| PRHZ | Porangahau | 2.37 | 176 | Pn | Pn | 10 16 03.6 | -0.9 |
| PRHZ | Porangahau | 2.37 | 176 | ⇑PN | Pn | 10 16 03.6 | -0.9 |
| PRHZ | | | | AML | AML | 10 16 36.9 | |
| PRHZ | | | | AML | AML | 10 16 37.4 | |
| DVHZ | Dannevirke | 2.40 | 184 | Pn | Pn | 10 16 03.6 | -1.3 |
| DVHZ | Dannevirke | 2.40 | 184 | PN | Pn | 10 16 03.6 | -1.3 |
| DVHZ | | | | AML | AML | 10 16 36.0 | |
| DVHZ | | | | AML | AML | 10 16 37.8 | |
| OHWZ | Ohakea | 2.45 | 200 | PN | Pn | 10 16 04.7 | -0.7 |
| POWZ | Post Office Ro | 2.54 | 191 | Pn | Pn | 10 16 05.0 | -1.5 |
| POWZ | Post Office Ro | 2.54 | 191 | PN | Pn | 10 16 05.0 | -1.5 |
| POWZ | | | | AML | AML | 10 16 39.1 | |
| POWZ | | | | AML | AML | 10 16 43.0 | |
| ANWZ | Angora Road | 2.56 | 179 | ⇑PN | Pn | 10 16 05.7 | -1.0 |
| ANWZ | | | | AML | AML | 10 16 41.9 | |
| ANWZ | | | | AML | AML | 10 16 42.5 | |
| PRWZ | Pori Road | 2.67 | 187 | Pn | Pn | 10 16 06.9 | -1.2 |
| PRWZ | Pori Road | 2.67 | 187 | PN | Pn | 10 16 06.9 | -1.2 |
| PRWZ | | | | AML | AML | 10 16 41.5 | |
| PRWZ | | | | AML | AML | 10 16 43.2 | |
| BFZ | Birch Farm | 2.78 | 182 | Pn | Pn | 10 16 07.8 | -1.6 |
| BFZ | Birch Farm | 2.78 | 182 | ⇓PN | Pn | 10 16 07.8 | -1.6 |
| BFZ | | | | AML | AML | 10 16 43.0 | |
| BFZ | | | | AML | AML | 10 16 43.4 | |
| MRZ | Mangatainoka R | 2.83 | 193 | Pn | Pn | 10 16 08.1 | -1.9 |
| MRZ | Mangatainoka R | 2.83 | 193 | ⇑PN | Pn | 10 16 08.1 | -1.9 |
| MRZ | | | | AML | AML | 10 16 44.0 | |
| MRZ | | | | AML | AML | 10 16 44.1 | |
| TIWZ | Tintock | 2.90 | 188 | Pn | Pn | 10 16 09.1 | -1.8 |
| TIWZ | Tintock | 2.90 | 188 | PN | Pn | 10 16 09.1 | -1.8 |
| TIWZ | | | | AML | AML | 10 16 45.7 | |
| TIWZ | | | | AML | AML | 10 16 46.5 | |
| CPWZ | Castlepoint | 3.01 | 183 | Pn | Pn | 10 16 11.1 | -1.1 |
| CPWZ | Castlepoint | 3.01 | 183 | PN | Pn | 10 16 11.1 | -1.1 |
| CPWZ | | | | AML | AML | 10 16 50.3 | |
| CPWZ | | | | AML | AML | 10 16 51.4 | |
| OGWZ | Otaki Gorge | 3.07 | 198 | Pn | Pn | 10 16 10.9 | -2.0 |
| OGWZ | Otaki Gorge | 3.07 | 198 | PN | Pn | 10 16 10.9 | -2.0 |
| OGWZ | | | | AML | AML | 10 16 49.7 | |
| OGWZ | | | | AML | AML | 10 16 50.4 | |
| HOWZ | Holdsworth Sta | 3.07 | 193 | Pn | Pn | 10 16 10.7 | -2.3 |
| HOWZ | Holdsworth Sta | 3.07 | 193 | PN | Pn | 10 16 10.7 | -2.3 |
| HOWZ | | | | AML | AML | 10 16 48.5 | |
| HOWZ | | | | AML | AML | 10 16 48.6 | |
| KIW | Kapiti Island | 3.18 | 201 | Pn | Pn | 10 16 11.9 | -2.4 |
| KIW | Kapiti Island | 3.18 | 201 | PN | Pn | 10 16 11.9 | -2.4 |
| KIW | | | | AML | AML | 10 16 51.0 | |
| KIW | | | | AML | AML | 10 16 51.3 | |
| TMWZ | Te Maipa | 3.23 | 187 | Pn | Pn | 10 16 12.7 | -2.2 |
| TMWZ | Te Maipa | 3.23 | 187 | PN | Pn | 10 16 12.7 | -2.2 |
| TMWZ | | | | AML | AML | 10 16 52.7 | |
| TMWZ | | | | AML | AML | 10 16 52.8 | |
| MTW | Mount Morrison | 3.33 | 192 | Pn | Pn | 10 16 13.4 | -2.7 |
| MTW | Mount Morrison | 3.33 | 192 | PN | Pn | 10 16 13.4 | -2.7 |
| MTW | | | | AML | AML | 10 16 53.0 | |
| MTW | | | | AML | AML | 10 16 53.4 | |
| CAW | Cannon Point | 3.37 | 197 | Pn | Pn | 10 16 14.0 | -2.7 |
| CAW | Cannon Point | 3.37 | 197 | PN | Pn | 10 16 14.0 | -2.7 |
| CAW | | | | AML | AML | 10 16 55.4 | |
| CAW | | | | AML | AML | 10 16 56.3 | |
| TRWZ | Traveller | 3.54 | 189 | Pn | Pn | 10 16 16.2 | -2.6 |
| TRWZ | Traveller | 3.54 | 189 | PN | Pn | 10 16 16.2 | -2.6 |
| TRWZ | | | | AML | AML | 10 16 58.6 | |
| TRWZ | | | | AML | AML | 10 17 00.1 | |
| PAWZ | Paruwai Farm | 3.56 | 192 | Pn | Pn | 10 16 16.2 | -2.9 |
| PAWZ | Paruwai Farm | 3.56 | 192 | ⇑PN | Pn | 10 16 16.2 | -2.9 |
| PAWZ | | | | AML | AML | 10 16 59.1 | |
| PAWZ | | | | AML | AML | 10 17 00.9 | |
| WEL | Wellington | 3.61 | 200 | Pn | Pn | 10 16 16.8 | -2.8 |
| WEL | Wellington | 3.61 | 200 | PN | Pn | 10 16 16.8 | -2.9 |
| WEL | | | | AML | AML | 10 16 60.0 | |
| WEL | | | | AML | AML | 10 17 00.0 | |
| WEL | | | | AML | AML | 10 17 01.3 | |
| MSWZ | Moikau Station | 3.62 | 194 | Pn | Pn | 10 16 16.8 | -3.1 |
| MSWZ | Moikau Station | 3.62 | 194 | PN | Pn | 10 16 16.8 | -3.1 |
| MSWZ | | | | AML | AML | 10 16 58.7 | |
| MSWZ | | | | AML | AML | 10 17 01.6 | |
| TCW | Tory Channel | 3.69 | 206 | Pn | Pn | 10 16 18.1 | -2.7 |
| TCW | Tory Channel | 3.69 | 206 | PN | Pn | 10 16 18.1 | -2.7 |
| TCW | | | | AML | AML | 10 17 01.1 | |
| TCW | | | | AML | AML | 10 17 02.3 | |
| BHW | Baring Head | 3.70 | 198 | Pn | Pn | 10 16 17.7 | -3.1 |
| BHW | Baring Head | 3.70 | 198 | PN | Pn | 10 16 17.7 | -3.1 |
| BHW | | | | AML | AML | 10 17 02.3 | |
| BHW | | | | AML | AML | 10 17 04.0 | |
| PLWZ | Palliser | 3.77 | 193 | Pn | Pn | 10 16 18.5 | -3.3 |
| PLWZ | Palliser | 3.77 | 193 | PN | Pn | 10 16 18.5 | -3.3 |
| PLWZ | | | | AML | AML | 10 17 05.1 | |
| PLWZ | | | | AML | AML | 10 17 06.8 | |
| TUWZ | Tuamarina | 4.00 | 208 | Pn | Pn | 10 16 21.5 | -3.2 |
| TUWZ | Tuamarina | 4.00 | 208 | PN | Pn | 10 16 21.5 | -3.2 |
| TUWZ | | | | AML | AML | 10 17 08.9 | |
| TUWZ | | | | AML | AML | 10 17 10.6 | |
| NNZ | Nelson | 4.05 | 214 | Pn | Pn | 10 16 22.2 | -3.1 |
| NNZ | Nelson | 4.05 | 214 | PN | Pn | 10 16 22.2 | -3.1 |
| QRZ | Quartz Range | 4.19 | 225 | Pn | Pn | 10 16 23.4 | -3.8 |
| QRZ | Quartz Range | 4.19 | 225 | PN | Pn | 10 16 23.4 | -3.8 |
| BSWZ | Blackbirch Sta | 4.28 | 206 | Pn | Pn | 10 16 25.3 | -3.0 |
| BSWZ | Blackbirch Sta | 4.28 | 206 | PN | Pn | 10 16 25.3 | -3.0 |
| THZ | Tophouse | 4.71 | 214 | Pn | Pn | 10 16 30.8 | -3.1 |
| THZ | Tophouse | 4.71 | 214 | PN | Pn | 10 16 30.8 | -3.1 |
| KHZ | Kahutara | 5.02 | 205 | Pn | Pn | 10 16 34.2 | -3.6 |
| KHZ | Kahutara | 5.02 | 205 | PN | Pn | 10 16 34.2 | -3.6 |
| KHZ | | | | AML | AML | 10 17 32.0 | |
| KHZ | | | | AML | AML | 10 17 32.0 | |
| KHZ | | | | AML | AML | 10 17 32.2 | |
| KHZ | | | | AML | AML | 10 17 33.6 | |
| DSZ | Denniston Nort | 5.22 | 221 | Pn | Pn | 10 16 37.6 | -3.0 |
| LTZ | Lake Taylor | 5.81 | 212 | Pn | Pn | 10 16 42.7 | -5.6 |
| LTZ | Lake Taylor | 5.81 | 212 | PN | Pn | 10 16 42.7 | -5.6 |
| INZ | Inchbonnie | 6.13 | 217 | PN | Pn | 10 16 47.6 | -4.9 |
| OXZ | Oxford | 6.36 | 210 | Pn | Pn | 10 16 50.3 | -5.2 |
| OXZ | Oxford | 6.36 | 210 | PN | Pn | 10 16 50.3 | -5.2 |
| MQZ | McQueen's Vall | 6.46 | 205 | Pn | Pn | 10 16 51.5 | -5.3 |
| FOZ | Fox Glacier | 7.53 | 220 | Pn | Pn | 10 17 06.5 | -4.4 |
| JCZ | Jackson Bay | 8.44 | 221 | Pn | Pn | 10 17 18.4 | -4.6 |

*MOS **04** 10:23:52.7±1.0,19°.92N×45°.73W,h10km,mb5.3/74, MS4.5/6,Error ellipse: s-maj=6.2km s-min=5.7km az=165.4*

*IDC **04** 10:23:52.2±0.4,19°.89N×45°.76W,h0km,mb4.5/28, mb1 4.6/29,mb1mx4.6/35,mbtmp4.5/29,ML4.0/1,MS4.7/49, Ms1 4.7/49,ms1mx4.6/58,Error ellipse: s-maj=14.0km s-min=10.5km az=146.0*

*BJI **04** 10:23:52.1,19°.80N×45°.70W,h10km,mb5.6/2,mB5.6/9, Ms5.4/8,Ms7 5.0/8*

*ISCJB **04** 10:23:52.2±0.2,19°.83N±0°.03×45°.75W±0°.02,h9km, mb5.1/286,MS4.7/55,Error ellipse: s-maj=4.6km s-min=2.2km az=0.9*

*GCMT **04** 10:23:54.1±0.1,20°.03N×45°.71W,h12km,MW5.4/136, Moment Tensor Solution. s77,c100; s136,c252; Duration: 1$^s$2 Moment tensor: Scale $10^{17}$Nm; $M_{rr}$-1.41±.02; $M_{\theta\theta}$0.24±.02; $M_{\phi\phi}$1.17±.02; $M_{r\theta}$-0.12±.06; $M_{\theta\phi}$0.43±.01; $M_{\phi r}$-0.43±.05; Best double couple: $M_0$1.44400×$10^{17}$ NP1:$\phi_s$20.00000°,δ54.00000°, λ-92.00000°. NP2:$\phi_s$203.00000°,δ36.00000°, λ-88.00000°. Principal axes: T 1.4080, Plg9.0000°, Azm111.0000°; N 0.0750, Plg1.0000°, Azm21.0000°; P -1.4800, Plg81.0000°, Azm282.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **04** 10:23:54.1±0.1,19°.79N×45°.71W,h10km,mb5.2/225 Error ellipse: s-maj=3.6km s-min=2.4km az=184.0*

**ISC 04 10:23:54.0**±0.3**,19°.85N**±0°.06×**45°.72W**±0°.05**,h9**km**,n942,** σ**0$^s$91**/909**,mb5.2**/287**,MS4.7**/55**,25C-5D,Northern Mid-Atlantic Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| H05N1 | Guadeloupe/Mar | 15.00 | 259 | T | T | 10 42 34.9 | |
| | SNR=8.6 | | | | | | |
| H05S1 | Guadeloupe/Mar | 15.42 | 252 | T | T | 10 43 07.3 | |
| | SNR=27 | | | | | | |
| BAMF | Morne Balai | 15.55 | 254 | eP | P | 10 27 39.9 | +1.8 |
| FDF | Fort de France | 15.58 | 253 | P | Pn | 10 27 34.8 | +0.7 |
| FDF | Fort de France | 15.58 | 253 | eP | Pn | 10 27 36.0 | +1.9 |
| GDHS | Morne Mazeau, | 15.66 | 259 | ePn | Pn | 10 27 35.6 | +0.4 |
| | 89nm,1.0s | | | | | | |
| SJG | San Juan | 19.39 | 268 | P | P | 10 28 19.8 | -0.6 |
| | 0.4nm,0.3s,baz=58,slow=11,SNR=5.4 | | | | | | |
| SJG | | | | LR | LR | 10 34 23.5 | |
| | comp=Z,3μm,21.7s,baz=96,slow=33 | | | | | | |
| SJG | San Juan | 19.39 | 268 | eP | P | 10 28 20.2 | -0.3 |
| SJG | | | | pmax | pmax | | |
| | comp=Z,99nm,1.4s | | | | | | |
| SJG | San Juan | 19.39 | 268 | eP | P | 10 28 20.1 | -0.3 |
| | comp=Z,99nm,1.4s | | | | | | |
| PCRV | Puerto La Cruz | 20.62 | 245 | P | P | 10 28 34.0 | 0.0 |
| | comp=Z,15nm,0.9s,baz=37,slow=5.1,SNR=3.7 | | | | | | |
| SDD | Santo Domingo | 22.89 | 271 | eP | P | 10 28 59.0 | +0.8 |
| | comp=Z,96nm,1.0s | | | | | | |
| SDDR | Presa de Saban | 24.12 | 272 | eP | P | 10 29 10.9 | +0.4 |
| | comp=Z,68nm,1.0s | | | | | | |
| PTGA | Pitinga | 24.77 | 216 | P | P | 10 29 15.5 | -0.9 |
| | comp=Z,9.8nm,1.1s,baz=7.6,slow=15,SNR=5.1 | | | | | | |
| PTGA | | | | LR | LR | 10 37 52.2 | |
| | comp=Z,2μm,20.8s,baz=26,slow=34 | | | | | | |
| PTGA | Pitinga | 24.77 | 216 | eP | P | 10 29 15.3 | -1.1 |
| | comp=Z,24nm,1.1s | | | | | | |
| LGNH | LØogne | 25.42 | 272 | eP | P | 10 29 25.9 | +3.7 |
| | comp=Z,302nm,1.2s | | | | | | |
| SDV | Santo Domingo | 26.44 | 249 | P | P | 10 29 32.3 | +0.6 |
| | comp=Z,11nm,0.8s,baz=64,slow=7.5,SNR=12 | | | | | | |
| SDV | | | | LR | LR | 10 39 02.9 | |
| | comp=Z,1μm,21.8s,baz=56,slow=34 | | | | | | |
| SDV | Santo Domingo | 26.44 | 249 | eP | P | 10 29 32.5 | +0.7 |
| | comp=Z,98nm,1.6s | | | | | | |
| RCBR | Riachuelo | 27.29 | 158 | LR | LR | 10 37 33.2 | |
| | comp=Z,2μm,21.4s,baz=335,slow=30 | | | | | | |
| RCBR | Riachuelo | 27.29 | 158 | eP | P | 10 29 39.4 | +0.3 |

comp=Z,67nm,1.5s
**BBTS Babate** 28.33 96 LR LR 10 38 09.1
comp=Z,4µm,20.8s,baz=279,slow=30
**PMOZ Porto Moniz, M** 28.54 57 *e*S S 10 34 54.9 +16
**PMOZ Porto Moniz, M** 28.54 57 *e*T T 10 59 06.9
**FUL Funchal** 28.73 58 *e*T T 10 59 24.2
**PMAR Madeira** 28.73 58 *e*T T 10 59 20.7
**RUSC La Rusia** 30.00 246 *e*P **P** **10 30 03.4 -0.5**
comp=Z,40nm,1.3s
**BRYW Bryant College** 31.01 321 *e*P **P** **10 30 12.9 +0.9**
comp=Z,34nm,1.3s
**ROSC El Rosal** 31.59 246 P **P** **10 30 18.8 +1.0**
comp=Z,2.1nm,0.4s,baz=49,slow=19,SNR=2.6
ROSC LR LR 10 44 56.3
comp=Z,786nm,19.1s,baz=48,slow=40
**WVL Waterville** 31.67 326 *e*P **P** **10 30 18.5 +0.8**
comp=Z,30nm,1.4s
**PAL Palisades** 31.94 317 *e*P **P** **10 30 20.6 +0.5**
PAL pmax pmax
comp=Z,18nm,0.9s
**PAL Palisades** 31.94 317 *e*P **P** **10 30 20.6 +0.5**
comp=Z,18nm,0.9s
**PKME Peaks-Kenny Pk** 31.97 328 *e*P **P** **10 30 20.9 +0.6**
comp=Z,66nm,1.6s
**PQI Presque Isle** 32.38 331 *e*P **P** **10 30 24.9 +1.0**
comp=Z,83nm,1.6s
**PSUB Penn St. - Bra** 32.39 315 *e*P **P** **10 30 24.9 +0.7**
comp=Z,12nm,0.9s
**ODNJ Ogdensburg** 32.43 317 *e*P **P** **10 30 25.9 +1.4**
comp=Z,32nm,1.4s
**HNH Hanover** 32.54 323 *e*P **P** **10 30 26.4 +1.1**
comp=Z,90nm,1.4s
**PRAC Prado** 32.65 244 *e*P **P** **10 30 26.2 -0.5**
comp=Z,17nm,0.8s
**LBNH Lisbon** 32.67 324 *e*P **P** **10 30 28.4 +1.8**
LBNH pmax pmax
comp=Z,40nm,1.2s
**LBNH Lisbon** 32.67 324 *e*P **P** **10 30 28.4 +1.8**
comp=Z,40nm,1.2s
**LUPA Lehigh Univers** 32.67 316 *e*P **P** **10 30 27.6 +1.0**
comp=Z,4.9nm,1.5s
**URVA University of** 32.80 309 *e*P **P** **10 30 28.6 +0.9**
**MVL Millersville** 33.03 314 *e*P **P** **10 30 30.7 +1.0**
comp=Z,36nm,1.3s
**IP05 Hopewell Churc** 33.06 310 *e*P **P** **10 30 31.0 +1.0**
comp=Z,42nm,1.3s
**SDMD Soldier's Deli** 33.09 313 *e*P **P** **10 30 31.2 +0.9**
comp=Z,35nm,1.7s
**N59A State Game Lan** 33.10 316 P **P** **10 30 30.7 +0.4**
baz=120
**JSRW J. Sargeant Re** 33.10 309 *e*P **P** **10 30 30.7 +0.4**
**CVRD Centerville Ro** 33.20 310 *e*P **P** **10 30 31.6 +0.4**
comp=Z,30nm,1.4s
**SPRD Spring Road, M** 33.23 310 *e*P **P** **10 30 31.9 +0.4**
comp=Z,57nm,1.5s
**IP06 Yanceyville** 33.27 310 *e*P **P** **10 30 32.5 +0.7**
comp=Z,39nm,1.3s
**IP07 Quail** 33.30 310 *e*P **P** **10 30 33.1 +1.0**
comp=Z,43nm,1.3s
**IP03 Louisa** 33.33 310 *e*P **P** **10 30 33.3 +1.0**
comp=Z,57nm,1.4s
**SAML Samuel** 33.39 213 *e*P **P** **10 30 32.0 -1.1**
comp=Z,30nm,1.3s
**IP04 Greensprings** 33.41 310 *e*P **P** **10 30 32.9 -0.2**
comp=Z,38nm,1.5s
**NCB Newcomb** 33.81 322 *e*P **P** **10 30 37.5 +0.9**
comp=Z,80nm,1.8s
**FRNY Flat Rock** 33.97 323 *e*P **P** **10 30 38.8 +1.0**
comp=Z,51nm,1.3s
**SSPA Standing Stone** 34.37 314 *e*P **P** **10 30 42.3 +0.9**
comp=Z,47nm,1.4s
**O56A Blue Knob Stat** 34.67 313 P **P** **10 30 44.6 +0.5**
baz=116
**BLA Blacksburg** 34.80 307 *e*P **P** **10 30 45.9 +0.7**
BLA pmax pmax
comp=Z,35nm,1.1s
**BLA Blacksburg** 34.80 307 *e*P **P** **10 30 45.9 +0.7**
comp=Z,35nm,1.1s
**BDFB Brasilia** 35.34 184 P **P** **10 30 49.9 -0.2**
comp=Z,11nm,1.0s,baz=128,slow=12,SNR=5.9
BDFB LR LR 10 44 38.8
comp=Z,1µm,18.8s,baz=150,slow=35
**BDFB Brasilia** 35.34 184 *e*P **P** **10 30 50.5 +0.4**
BDFB pmax pmax
comp=Z,34nm,1.0s
**BDFB Brasilia** 35.34 184 *e*P **P** **10 30 50.5 +0.4**
comp=Z,34nm,1.0s
**N54A Moraine State** 35.94 313 P **P** **10 30 55.4 +0.5**
baz=116
**BG3 Lake Jocassee** 36.08 303 *e*P **P** **10 30 58.1 +1.9**
comp=Z,117nm,1.9s
**PTEO Sao Teotonio** 36.64 53 *e*P **P** **10 31 02.4 +1.4**
comp=Z,89nm,1.1s
**PNCL Nicolau / Gran** 36.97 52 *e*P **P** **10 31 04.9 +1.2**
comp=Z,64nm,1.4s
**PBDV Barranco-do-Ve** 37.15 54 *e*P **P** **10 31 05.7 +0.4**
comp=Z,90nm,2.0s
**PCVE Castro Verde** 37.19 53 *e*P **P** **10 31 07.2 +1.6**
comp=Z,79nm,1.6s
**PVAQ Vaqueiros** 37.36 54 *e*P **P** **10 31 08.0 +0.9**
comp=Z,77nm,1.7s
PVAQ *e*S **S** **10 36 53.3 -1.9**
**PMTG Montargil** 37.51 51 *e*P **P** **10 31 09.0 +0.7**
comp=Z,73nm,1.4s
**OTAV Otavalo** 37.51 243 *e*P **P** **10 31 08.6 -0.6**
comp=Z,42nm,1.4s
**PTOM Tomar** 37.56 50 *e*P **P** **10 31 09.3 +0.5**
comp=Z,50nm,1.6s
**PCAS Casmilo, Conde** 37.66 49 *e*P **P** **10 31 10.2 +0.6**
comp=Z,58nm,1.7s
**ACSO Alum Creek Sta** 37.74 311 *e*P **P** **10 31 10.8 +0.5**
comp=Z,42nm,1.2s
**PESTR Estremoz** 37.91 52 *e*P **P** **10 31 12.4 +0.7**
comp=Z,28nm,1.5s
**VLDQ Val d'Or** 38.08 325 *e*P **P** **10 31 14.6 +1.5**
comp=Z,23nm,1.0s
**PBAR Barrancos** 38.10 53 *e*P **P** **10 31 14.1 +0.7**
comp=Z,94nm,1.4s
**PMRV Marv??o** 38.24 51 *e*P **P** **10 31 15.0 +0.5**
comp=Z,55nm,1.5s
**PMRV Marv??o** 38.24 51 *e*LR LR 10 41 17.6
comp=Z,1µm,20.0s
**PCBR Castelo Branco** 38.31 50 *e*P **P** **10 31 15.4 +0.3**
comp=Z,34nm,2.7s
**SCHQ Schefferville** 38.43 340 P **P** **10 31 16.2 +0.4**
SCHQ LR LR 10 45 16.9
comp=Z,2µm,20.3s,baz=166,slow=34
**SCHQ Schefferville** 38.43 340 *e*P **P** **10 31 16.2 +0.4**
comp=Z,54nm,1.3s
**MTE Manteigas** 38.46 49 *e*P **P** **10 31 16.4 0.0**
comp=Z,44nm,1.1s
**MTE Manteigas** 38.46 49 *e*P **P** **10 31 16.9 +0.5**
comp=Z,72nm,1.3s
MTE *e*S **S** **10 37 17.0 +5.1**
MTE *e*LR LR 10 41 28.1
comp=Z,904nm,22.0s
**PGAV Gavieira, Arco** 38.54 47 *e*LR LR 10 41 28.5
comp=Z,600nm,22.0s
**POLO Lamas de Olo** 38.64 48 *e*P **P** **10 31 18.3 +0.3**
comp=Z,30nm,1.8s
**PVRL Vila Real** 38.66 48 *e*P **P** **10 31 18.6 +0.5**
**SIV San Ignacio** 38.69 204 LR LR 10 46 32.4
comp=Z,476nm,19.8s,baz=28,slow=35
**JTS JuntasAbangare** 38.97 262 ||*i*P **P** **10 31 21.6 +0.7**
**LRAL Lakeview Retre** 38.97 298 *e*P **P** **10 31 21.6 +0.8**
comp=Z,52nm,1.6s
**AAM Ann Arbor** 39.00 314 *e*P **P** **10 31 22.1 +1.3**
AAM pmax pmax
comp=Z,100nm,1.4s
**AAM Ann Arbor** 39.00 314 *e*P **P** **10 31 22.1 +1.3**
comp=Z,100nm,1.4s
**MVO Moncorvo** 39.10 48 *e*P **P** **10 31 22.0 +0.2**
comp=Z,44nm,1.7s
**MVO Moncorvo** 39.10 48 *e*LR LR 10 41 45.5
comp=Z,721nm,20.0s
**248A Dixon Mills** 39.46 297 P **P** **10 31 23.8 -1.0**
baz=98
**Z48A Northport** 39.49 299 P **P** **10 31 25.0 -0.1**
baz=99
**348A Jackson** 39.51 296 P **P** **10 31 25.2 0.0**
baz=97
**WCI Wyandotte Cave** 39.54 306 *e*P **P** **10 31 26.3 +0.8**
comp=Z,29nm,1.0s
**R47A Wooly Knot Far** 39.74 306 P **P** **10 31 27.6 +0.5**
baz=106
**Y47A UCPARC, Winfie** 39.82 299 P **P** **10 31 27.9 +0.1**
baz=100
**Q47A Bedord North L** 39.84 307 P **P** **10 31 28.3 +0.4**
baz=107
**T47A Sharon Grove** 39.85 304 P **P** **10 31 28.0 0.0**
baz=104
**Z47A Carrollton** 39.89 298 P **P** **10 31 28.3 -0.1**
baz=99
**BLO Bloomington** 39.98 308 *e*P **P** **10 31 29.8 +0.8**
comp=Z,22nm,0.9s
**147A Livingston** 39.98 297 P **P** **10 31 28.8 -0.3**
baz=98
**O47A Sheridan** 40.04 309 P **P** **10 31 29.6 0.0**
baz=108,SNR=7.0
**347A Saraland** 40.05 295 P **P** **10 31 29.4 -0.4**
baz=96
**KOWA Kowa** 40.13 91 *e*P **P** **10 31 31.7 +1.1**
comp=Z,33nm,1.5s
**247A Quitman** 40.19 296 P **P** **10 31 30.5 -0.3**
baz=97
**PLAL Pickwick Lake** 40.19 301 *e*P **P** **10 31 31.7 +0.8**
comp=Z,32nm,1.0s
**WVT Waverly** 40.22 303 *e*P **P** **10 31 31.6 +0.5**
comp=Z,115nm,1.9s
**R46A Gibon Southern** 40.46 306 P **P** **10 31 32.9 -0.1**
baz=105,SNR=7.1
**S46A Don Dixon Farm** 40.49 305 P **P** **10 31 33.3 0.0**
baz=104
**PAB San Pablo** 40.51 52 *e*P **P** **10 31 33.9 +0.3**
PAB pmax pmax
comp=Z,23nm,1.1s
**PAB San Pablo** 40.51 52 *e*P **P** **10 31 33.9 +0.3**
comp=Z,23nm,1.1s
**USIN University of** 40.52 306 *e*P **P** **10 31 34.2 +0.7**
comp=Z,69nm,1.3s
**M46A Old House Fiel** 40.55 311 P **P** **10 31 33.9 +0.1**
baz=110
**Q46A CEJHS Indians,** 40.56 307 P **P** **10 31 34.1 +0.2**
baz=106
**Z46A Louisville** 40.61 298 P **P** **10 31 34.0 -0.4**
baz=98
**P46A Rosedale** 40.62 308 P **P** **10 31 34.3 -0.1**
baz=107,SNR=6.5
**146A Union** 40.63 297 P **P** **10 31 34.3 -0.2**
baz=97
**Y46A Houston** 40.64 299 P **P** **10 31 34.4 -0.3**
baz=99
**N46A Monticello** 40.66 310 P **P** **10 31 34.7 0.0**
baz=109
**SFIN Lafayette** 40.76 309 P **P** **10 31 35.5 +0.1**
baz=108,SNR=6.4
**SFIN Lafayette** 40.76 309 *e*P **P** **10 31 35.7 +0.2**
comp=Z,28nm,0.8s
**ESDC Sonseca Array** 40.84 52 P **P** **10 31 35.5 -0.7**
comp=Z,2.7nm,0.7s,baz=253,slow=8.6,SNR=14
ESDC PcP **PcP** **10 33 38.0 +0.9**
comp=Z,0.8nm,0.3s,baz=276,slow=3.9,SNR=8.8
ESDC LR LR 10 46 07.4
comp=Z,922nm,18.8s,baz=260,slow=33
**346A Big Creek Wild** 40.84 295 P **P** **10 31 37.4 +1.1**
baz=96
**ES19 SONSECA Array** 40.89 52 *e*P **P** **10 31 36.5 -0.2**
**P45A Graceland, Par** 40.99 308 P **P** **10 31 37.1 -0.3**
baz=106
**U45A Rockin P Farm,** 41.01 303 P **P** **10 31 37.3 -0.3**
baz=102
**OLIL Olney** 41.04 307 *e*P **P** **10 31 38.7 +0.8**
comp=Z,88nm,1.3s
**V45A Humboldt** 41.04 302 P **P** **10 31 37.7 -0.2**
baz=101
**R45A Skylar, Fairfi** 41.07 306 P **P** **10 31 38.3 +0.2**
baz=104,SNR=16
**W45A Hickory Valley** 41.12 301 P **P** **10 31 38.5 0.0**
baz=100
**Q45A Warren Harvey,** 41.13 307 P **P** **10 31 38.7 +0.1**
baz=105,SNR=7.7
**S45A Carrier Mills** 41.15 305 P **P** **10 31 38.9 +0.1**
baz=104
**F46A Macinaw City C** 41.16 318 P **P** **10 31 38.5 -0.2**
baz=116
**O45A Potomac** 41.18 309 P **P** **10 31 38.3 -0.6**
baz=107
**M45A Boilermakers S** 41.18 311 P **P** **10 31 38.7 -0.3**
baz=109
**N45A Kenland** 41.20 310 P **P** **10 31 39.3 +0.2**
baz=108
**H10N3 ASCENSION HYDR** 41.26 129 T T 11 15 30.7
baz=312,slow=75,SNR=1876
**H10N2 ASCENSION HYDR** 41.26 129 T T 11 15 39.1
baz=312,slow=75,SNR=1841
**Z45A Winona** 41.26 298 P **P** **10 31 39.9 +0.2**
baz=98
**245A Little AP, Sta** 41.27 296 P **P** **10 31 39.9 +0.1**
baz=96
**H10N1 ASCENSION HYDR** 41.27 129 T T 11 15 32.1
baz=312,slow=75,SNR=2778
**TIC Toumodi** 41.61 103 *e*PKIKP **P** **10 31 45.0 +2.1**
**P44A Sand Creek, Wi** 41.62 308 P **P** **10 31 42.8 +0.1**
baz=105,SNR=7.1
**N44A Piper City** 41.64 310 P **P** **10 31 42.9 +0.2**
baz=107
**SIUC Southern Illin** 41.65 305 *e*P **P** **10 31 44.0 +1.1**
comp=Z,90nm,1.4s
**R44A Watonville** 41.67 306 P **P** **10 31 43.1 +0.1**
baz=104,SNR=6.9
**S44A Carbondale** 41.68 305 P **P** **10 31 43.2 +0.1**
baz=103
**O44A Mansfield** 41.70 309 P **P** **10 31 43.5 +0.3**
baz=106,SNR=7.4
**DBIC Dimbokro** 41.75 103 P **P** **10 31 43.0 -0.9**
comp=Z,3.4nm,0.6s,baz=296,slow=7.9,SNR=4.5
DBIC PcP **PcP** **10 33 41.1 +0.7**
comp=Z,2.5nm,0.7s,baz=315,slow=4.3,SNR=3.2
DBIC LR LR 10 45 46.3
comp=Z,3µm,21.5s,baz=264,slow=31
**DBIC Dimbokro** 41.75 103 *e*P **P** **10 31 44.8 +0.8**
comp=Z,18nm,1.0s
DBIC PcP **PcP** **10 33 41.1 +0.7**
**LIC Lamto** 41.77 103 *e*PKIKP **P** **10 31 45.1 +1.0**
comp=Z,74nm,1.6s
**Y44A Strider, Charl** 41.77 299 P **P** **10 31 43.9 0.0**
baz=98
**144A Alexander Plac** 41.78 297 P **P** **10 31 44.1 +0.1**
baz=96
**Q44A Meyer Farm, Va** 41.78 307 P **P** **10 31 44.4 +0.5**
baz=104
**T44A Benton** 41.81 304 P **P** **10 31 44.3 +0.1**
baz=102
**Z44A Pea Ridge, Bel** 41.86 298 P **P** **10 31 44.9 +0.2**
baz=97
**H10S3 ASCENSION HYDR** 41.89 130 T T 11 16 26.4
baz=313,slow=75,SNR=501
**H10S1 ASCENSION HYDR** 41.89 130 T T 11 16 23.2
baz=313,slow=75,SNR=701
**L44A Lake County Fo** 41.91 312 P **P** **10 31 45.0 +0.1**
baz=109
**H10S2 ASCENSION HYDR** 41.91 130 T T 11 16 24.5
baz=313,slow=75,SNR=506
**344A Westbrook Farm** 41.92 295 P **P** **10 31 44.9 -0.3**
baz=95
**244A Avery, Jackson** 41.94 296 P **P** **10 31 45.1 -0.2**
baz=96
**KIC Kosan Boka** 41.98 103 *e*PKIKP **P** **10 31 45.0 -0.8**
comp=Z,90nm,1.6s
**LPAZ La Paz** 42.13 213 P **P** **10 31 47.0 -0.7**
comp=Z,3.2nm,0.6s,baz=26,slow=6.1,SNR=15
LPAZ LR LR 10 48 43.3
comp=Z,460nm,21.1s,baz=14,slow=35
**LPAZ La Paz** 42.13 213 *e*P **P** **10 31 47.0 -0.7**
LPAZ pmax pmax
comp=Z,65nm,1.4s
**LPAZ La Paz** 42.13 213 *e*P **P** **10 31 47.0 -0.7**
comp=Z,65nm,1.4s
**S43A Fulton Ridge,** 42.29 304 P **P** **10 31 47.5 -0.6**
baz=102,SNR=7.4
**Q43A New Douglas** 42.30 306 P **P** **10 31 48.1 -0.1**
baz=104
**U43A Rector** 42.31 303 P **P** **10 31 48.2 -0.1**
baz=101
**R43A Red Bud** 42.33 305 P **P** **10 31 48.2 -0.2**
baz=103,SNR=6.1
**W43A Forest City** 42.34 301 P **P** **10 31 48.3 -0.2**
baz=99
**P43A Skaggs, Pawnee** 42.34 307 P **P** **10 31 48.1 -0.4**
baz=105
**Y43A Makayla and Ka** 42.35 299 P **P** **10 31 48.7 0.0**
baz=98
**T43A Greenville** 42.35 304 P **P** **10 31 48.6 0.0**
baz=102
**O43A Sugar Creek Fa** 42.35 308 P **P** **10 31 48.8 +0.2**
baz=106
**K43A Burlington** 42.37 312 P **P** **10 31 49.1 +0.4**
baz=109
**X43A Marvell** 42.40 300 P **P** **10 31 49.2 +0.2**
baz=98
**PBMO Poplar Bluff** 42.41 303 *e*P **P** **10 31 48.9 -0.2**
comp=Z,25nm,1.4s
**HDIL Hopedale** 42.41 309 P **P** **10 31 49.4 +0.4**
baz=106
**HDIL Hopedale** 42.41 309 *e*P **P** **10 31 49.7 +0.6**
comp=Z,102nm,1.5s
**M43A Waltham Townsh** 42.42 310 P **P** **10 31 48.6 -0.5**
baz=107
**N43A Stutzman Famil** 42.43 309 P **P** **10 31 49.5 +0.3**
baz=106
**Z43A Armstrong Fami** 42.53 298 P **P** **10 31 49.3 -0.8**
baz=97
**243A Waterproof** 42.60 296 P **P** **10 31 50.3 -0.4**
baz=95
**143A Socs Landing,** 42.61 297 P **P** **10 31 50.6 -0.1**
baz=96
**SLM Saint Louis** 42.64 306 *e*P **P** **10 31 51.3 +0.3**
SLM pmax pmax
comp=Z,112nm,1.5s
**SLM Saint Louis** 42.64 306 *e*P **P** **10 31 51.2 +0.3**
comp=Z,112nm,1.5s
**FVM French Village** 42.64 305 *e*P **P** **10 31 51.1 +0.1**
FVM pmax pmax
comp=Z,100nm,1.6s
**FVM French Village** 42.64 305 *e*P **P** **10 31 51.1 +0.1**
comp=Z,100nm,1.6s
**E43A Lone Tree Farm** 42.83 318 P **P** **10 31 52.7 +0.4**
baz=114
**S42A Caledonia** 42.88 304 P **P** **10 31 53.1 +0.1**
baz=102,SNR=7.7
**O42A Bath** 42.90 308 P **P** **10 31 53.4 +0.3**
baz=105
**Q42A Golden Eagle** 42.93 306 P **P** **10 31 53.6 +0.3**
baz=103
**P42A Winchester** 42.94 307 P **P** **10 31 53.4 0.0**
baz=104
**U42A Revenden** 42.97 302 P **P** **10 31 53.3 -0.3**
baz=100
**T42A Van Buren** 42.98 303 P **P** **10 31 52.8 -0.8**
baz=101
**R42A Luebbering** 42.99 305 P **P** **10 31 54.1 +0.3**
baz=102,SNR=9.4
**V42A Cord** 43.00 302 P **P** **10 31 53.8 -0.1**
baz=99
**M42A Sheffield** 43.00 310 P **P** **10 31 54.1 +0.3**
baz=106
**X42A Stuttgart** 43.01 300 P **P** **10 31 53.5 -0.5**
baz=98
**W42A Bald Knob** 43.02 301 P **P** **10 31 54.1 0.0**
baz=99
**N42A Yates City** 43.03 309 P **P** **10 31 54.3 +0.2**
baz=106,SNR=8.5
**142A Monroe** 43.05 297 P **P** **10 31 54.2 -0.1**
baz=96
**Y42A Garnett, Star** 43.05 299 P **P** **10 31 54.3 0.0**
baz=97
**L42A Oliver, Polo** 43.09 311 P **P** **10 31 55.1 +0.5**
baz=107
**K42A Prairie Point,** 43.10 312 P **P** **10 31 54.9 +0.3**
baz=108
**H42A Shiocton** 43.12 315 P **P** **10 31 54.4 -0.3**
baz=111
**J42A Columbus** 43.12 313 P **P** **10 31 55.0 +0.3**
baz=109
**Z42A Norrel Spur, H** 43.12 298 P **P** **10 31 55.2 +0.3**
baz=96
**242A Grayson** 43.18 296 P **P** **10 31 55.1 -0.2**
baz=95
**CCM Cathedral Cave** 43.29 305 *e*P **P** **10 31 56.6 +0.3**
CCM pmax pmax
comp=Z,94nm,1.4s
**CCM Cathedral Cave** 43.29 305 *e*P **P** **10 31 56.6 +0.3**
comp=Z,94nm,1.4s
**G42A Mountain** 43.31 316 P **P** **10 31 56.8 +0.5**
baz=112
**R41A Rosebud** 43.45 305 P **P** **10 31 57.6 +0.2**
baz=102,SNR=8.3
**Q41A Passleys Farm,** 43.47 306 P **P** **10 31 57.8 +0.1**
baz=103,SNR=9.8
**O41A Passleys Farm,** 43.47 308 P **P** **10 31 57.7 0.0**
baz=104,SNR=8.1
**P41A Barry, Barry** 43.50 307 P **P** **10 31 58.2 +0.2**
baz=104,SNR=9.5
**T41A Mountain View** 43.51 303 P **P** **10 31 57.9 -0.1**
baz=100,SNR=8.8
**U41A Viola** 43.51 302 P **P** **10 31 57.8 -0.2**
baz=100,SNR=7.6
**M41A Milan** 43.55 310 P **P** **10 31 58.3 +0.1**
baz=106,SNR=7.2
**S41A Jillco Farms,** 43.59 304 P **P** **10 31 58.7 0.0**
baz=101,SNR=9.8
**W41B Gary Mavity, V** 43.60 300 P **P** **10 31 58.5 -0.2**
baz=98
**N41A Harden Midland** 43.60 309 P **P** **10 31 58.4 -0.3**
baz=105
**V41A Mountainview** 43.61 301 P **P** **10 31 58.1 -0.8**
baz=99,SNR=5.7
**UALR University of** 43.62 300 *e*P **P** **10 31 59.6 +0.7**
comp=Z,54nm,1.6s
**WHAR Wooly Hollow** 43.65 301 *e*P **P** **10 31 59.0 -0.1**
comp=Z,56nm,1.4s
**L41A Preston** 43.71 311 P **P** **10 31 59.9 +0.4**
baz=106
**K41A Shullsburg** 43.72 311 P **P** **10 31 59.9 +0.3**
baz=107
**X41A Kaden, Bauxite** 43.73 299 P **P** **10 31 59.6 -0.2**
baz=97
**X301 Greenbrier Sit** 43.73 301 *e*P **P** **10 32 00.1 +0.3**
comp=Z,73nm,1.7s
**Y41A Eaglette Beard** 43.74 299 P **P** **10 32 00.0 +0.1**
baz=96
**J41A Loganville** 43.75 313 P **P** **10 31 60.0 +0.1**
baz=108,SNR=5.7
**JFWS Jewell Farm** 43.77 312 *e*P **P** **10 32 00.7 +0.6**
JFWS pmax pmax
comp=Z,32nm,0.8s
**JFWS Jewell Farm** 43.77 312 *e*P **P** **10 32 00.7 +0.6**
comp=Z,32nm,0.8s
**241A Mo Tay, Goldon** 43.83 296 P **P** **10 32 00.5 -0.1**
baz=94
**Z41A Richland Creek** 43.83 298 P **P** **10 32 00.4 -0.2**
baz=96
**141A Papa Simpson,** 43.86 297 P **P** **10 32 00.6 -0.3**
baz=95
**I41A Arkdale** 43.87 314 P **P** **10 32 01.0 +0.2**
baz=109
**H41A Junction City** 43.91 314 P **P** **10 32 00.7 -0.4**
baz=110
**F41A Three Lakes** 43.94 316 P **P** **10 32 01.0 -0.4**
baz=111
**X40A Basin Creek Fa** 43.99 299 P **P** **10 32 01.4 -0.5**
baz=97
**341A Kurthwood** 43.99 295 P **P** **10 32 01.0 -0.9**
baz=93
**NNA Nana** 44.04 227 *c*eP P 10 32 09.2 +6.7
**D41A Chassel** 44.09 318 P **P** **10 32 02.8 +0.2**
baz=113
**E41A Kenton** 44.11 317 P **P** **10 32 02.9 +0.1**
baz=112
**T40A Mansfield** 44.12 303 P **P** **10 32 02.3 -0.6**
baz=100
**Q40A Laux Farm, Aux** 44.12 306 P **P** **10 32 02.3 -0.6**
baz=102,SNR=7.8
**R40A Maddies Statio** 44.13 305 P **P** **10 32 02.0 -0.9**
baz=101,SNR=9.8
**WLAR White Oak Lake** 44.13 298 *e*P **P** **10 32 04.0 +0.9**
comp=Z,92nm,1.5s
**V40A Witts Springs** 44.15 301 P **P** **10 32 02.5 -0.8**
baz=98
**CCIG Comitan** 44.16 273 *e*P **P** **10 32 03.3 -0.4**
comp=Z,52nm,1.4s
**N40A Mertquake, Sal** 44.18 309 P **P** **10 32 03.2 -0.1**
baz=104,SNR=6.9
**S40A Lebanon** 44.18 304 P **P** **10 32 03.1 -0.4**
baz=100,SNR=8.0
**O40A La Belle** 44.21 308 P **P** **10 32 03.1 -0.6**
baz=103,SNR=6.5
**P40A Paris** 44.21 307 P **P** **10 32 03.4 -0.2**
baz=103
**L40A Anamosa** 44.22 310 P **P** **10 32 03.6 0.0**
baz=106
**U40A Yellville** 44.26 302 P **P** **10 32 03.5 -0.6**
baz=99,SNR=6.4

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| M40A | Post Highland<br>baz=105,SNR=6.3 | 44.26 309 | P | P | 10 32 03.7 | -0.3 |
| J40A | Soldiers Grove<br>baz=108 | 44.26 312 | P | P | 10 32 04.3 | +0.3 |
| W40A | Ferguson Farm,<br>baz=98 | 44.27 300 | P | P | 10 32 04.0 | -0.1 |
| Y40A | Okolona<br>baz=96 | 44.30 299 | P | P | 10 32 04.3 | -0.2 |
| I40A | Norwalk<br>baz=108 | 44.33 313 | P | P | 10 32 04.6 | 0.0 |
| Z40A | Long Farm, Mag<br>baz=95 | 44.33 298 | P | P | 10 32 04.4 | -0.2 |
| K40A | Colesburg<br>baz=106,SNR=7.7 | 44.34 311 | P | P | 10 32 04.6 | 0.0 |
| H40A | Chili<br>baz=109 | 44.41 314 | P | P | 10 32 05.0 | -0.1 |
| 140A | Cam and Jess,<br>baz=94 | 44.42 297 | P | P | 10 32 05.0 | -0.4 |
| G40A | Rib Lake<br>baz=110 | 44.49 315 | P | P | 10 32 05.6 | -0.2 |
| MIAR | Mount Ida<br>baz=96 | 44.60 299 | eP | P | 10 32 06.0 | -0.8 |
| MIAR<br>MIAR | Mount Ida<br>comp=Z,26nm,1.3s | 44.60 299 | eP<br>pmax | P<br>pmax | 10 32 07.2 | +0.3 |
| MIAR | Mount Ida<br>comp=Z,26nm,1.3s | 44.60 299 | eP | P | 10 32 07.2 | +0.3 |
| 340A | Bronson<br>baz=93 | 44.61 295 | P | P | 10 32 07.5 | +0.6 |
| F40A | Park Falls<br>baz=111 | 44.66 316 | P | P | 10 32 06.7 | -0.5 |
| E40A | Wakefield<br>baz=111 | 44.71 317 | P | P | 10 32 08.1 | +0.5 |
| R39A | Chumby, Stover<br>baz=101,SNR=7.6 | 44.73 305 | P | P | 10 32 07.0 | -0.8 |
| P39B | Salisbury<br>baz=102 | 44.74 306 | P | P | 10 32 07.2 | -0.7 |
| O39A | Kirksville<br>baz=103 | 44.74 308 | P | P | 10 32 07.7 | -0.2 |
| M39A | Webster<br>baz=104 | 44.76 309 | P | P | 10 32 07.9 | 0.0 |
| U39A | Green Forest<br>baz=98,SNR=9.1 | 44.76 302 | P | P | 10 32 07.8 | -0.3 |
| T39A | Clever<br>baz=99,SNR=7.9 | 44.77 303 | P | P | 10 32 08.2 | 0.0 |
| L39A | Vinton<br>baz=105,SNR=6.6 | 44.80 310 | P | P | 10 32 08.3 | 0.0 |
| Q39A | Willow Grove F<br>baz=101 | 44.82 306 | P | P | 10 32 08.2 | -0.2 |
| V39A | Pettigrew<br>baz=98 | 44.82 301 | P | P | 10 32 08.4 | -0.2 |
| S39A | Bolivar<br>baz=100 | 44.84 304 | P | P | 10 32 08.5 | -0.2 |
| W39A | Magazine<br>baz=97 | 44.85 300 | P | P | 10 32 08.7 | 0.0 |
| N39A | Derby Farms, D<br>baz=104,SNR=9.2 | 44.85 308 | P | P | 10 32 08.4 | -0.4 |
| K39A | Oelwein<br>baz=106 | 44.87 311 | P | P | 10 32 08.8 | 0.0 |
| J39A | Decorah<br>baz=107,SNR=5.7 | 44.92 312 | P | P | 10 32 09.1 | -0.2 |
| I39A | Houston<br>baz=107,SNR=5.3 | 44.94 313 | P | P | 10 32 09.6 | +0.2 |
| Y39A | Lockesburg<br>baz=96 | 44.97 298 | P | P | 10 32 09.5 | -0.2 |
| Z39A | Irene McRaven,<br>baz=95 | 44.98 297 | P | P | 10 32 10.3 | +0.4 |
| H39A | Augusta<br>baz=108 | 45.03 314 | P | P | 10 32 10.3 | +0.2 |
| X39A | Fountain Ranch<br>baz=96,SNR=9.6 | 45.04 299 | P | P | 10 32 10.3 | 0.0 |
| E39A | Mellen<br>baz=111 | 45.11 316 | P | P | 10 32 11.0 | +0.3 |
| 139A | Bunkhouse Ranc<br>baz=94 | 45.12 297 | P | P | 10 32 10.9 | 0.0 |
| 239A | Gary<br>baz=93 | 45.14 296 | P | P | 10 32 11.0 | -0.1 |
| G39A | Holcombe<br>baz=109 | 45.15 315 | P | P | 10 32 11.4 | +0.4 |
| 339A | Huntington<br>baz=93 | 45.18 295 | P | P | 10 32 11.3 | -0.1 |
| F39A | Loretta<br>baz=110,SNR=6.2 | 45.19 316 | P | P | 10 32 11.7 | +0.3 |
| MNMC | Minye Minye<br>comp=Z,34nm,1.6s | 45.27 213 | eP | P | 10 32 11.8 | -0.6 |
| NATX | Nacogdoches<br>baz=93 | 45.29 295 | P | P | 10 32 12.4 | 0.0 |
| NATX | Nacogdoches<br>comp=Z,43nm,1.1s | 45.29 295 | eP | P | 10 32 13.2 | +0.9 |
| S38A | Stockton<br>baz=99 | 45.29 304 | P | P | 10 32 11.4 | -0.9 |
| Q38A | Cooks Store, C<br>baz=101 | 45.29 306 | P | P | 10 32 12.1 | -0.2 |
| 439A | Center Grove,<br>baz=92 | 45.34 294 | P | P | 10 32 12.6 | -0.1 |
| P38A | Dawn<br>baz=102 | 45.35 306 | P | P | 10 32 12.9 | +0.1 |
| N38A | Joes South For<br>baz=103 | 45.38 308 | P | P | 10 32 12.5 | -0.4 |
| R38A | Fenwick Farm,<br>baz=100,SNR=8.5 | 45.38 304 | P | P | 10 32 12.3 | -0.7 |
| O38A | Galt<br>baz=102 | 45.41 307 | P | P | 10 32 13.2 | 0.0 |
| W38A | Poteau<br>baz=96 | 45.43 300 | P | P | 10 32 13.4 | 0.0 |
| V38A | Canehill<br>baz=97 | 45.44 301 | P | P | 10 32 13.1 | -0.4 |
| J38A | Wedel Dairy, R<br>baz=106 | 45.45 312 | P | P | 10 32 13.5 | +0.1 |
| K38A | Parkersburg<br>baz=105 | 45.48 311 | P | P | 10 32 13.7 | 0.0 |
| M38A | Pleasantville<br>baz=104,SNR=7.5 | 45.49 309 | P | P | 10 32 13.7 | -0.1 |
| L38A | Oak Wood Farm,<br>baz=104 | 45.49 310 | P | P | 10 32 14.0 | +0.2 |
| U38A | Gravette<br>baz=98 | 45.49 302 | P | P | 10 32 13.6 | -0.3 |
| Y38A | Idabel<br>baz=95,SNR=7.5 | 45.50 298 | P | P | 10 32 14.0 | +0.1 |
| T38A | Diamond<br>baz=98 | 45.50 303 | P | P | 10 32 13.7 | -0.3 |
| I38A | Scanlan Farm,<br>baz=107,SNR=8.7 | 45.55 313 | P | P | 10 32 14.4 | +0.2 |
| G38A | Ridgeland<br>baz=108 | 45.57 314 | P | P | 10 32 14.3 | 0.0 |
| SCIA | State Center<br>comp=Z,70nm,1.2s | 45.62 310 | eP | P | 10 32 15.3 | +0.5 |
| X38A | Whitesboro<br>baz=96 | 45.65 299 | P | P | 10 32 14.9 | -0.2 |
| Z38A | Mt. Pleasant<br>baz=94 | 45.65 297 | P | P | 10 32 14.8 | -0.4 |
| 238A | Jacksonville<br>baz=93 | 45.69 296 | P | P | 10 32 15.1 | -0.4 |
| 138A | Matatall Enter<br>baz=94 | 45.70 297 | P | P | 10 32 15.0 | -0.6 |
| H38A | Maiden Rock<br>baz=107 | 45.71 314 | P | P | 10 32 15.4 | 0.0 |
| 338A | Crockett<br>baz=92 | 45.82 295 | P | P | 10 32 16.3 | -0.2 |
| PB11 | IPOC Station P<br>comp=Z,133nm,1.2s | 45.83 212 | eP | P | 10 32 13.8 | -3.0 |
| F38A | Pierce - Schro<br>baz=109 | 45.83 315 | P | P | 10 32 16.6 | +0.1 |
| E38A | The Farm, Brul<br>baz=110 | 45.83 316 | P | P | 10 32 16.4 | 0.0 |
| TOA0 | Torodi Ar. Sit | 45.83 91 | eP | P | 10 32 15.6 | -1.2 |
| TORD | Torodi Ar. Bea<br>comp=Z,12nm,1.0s,baz=293,slow=7.0,SNR=23 | 45.83 91 | P | P | 10 32 15.0 | -1.8 |
| TORD | | | LR | LR | 10 49 29.8 | |
| | comp=Z,3µm,19.2s,baz=275,slow=34 | | | | | |
| Q37A | Longview Farm,<br>baz=100 | 45.92 305 | P | P | 10 32 17.0 | -0.2 |
| O37A | Wolven Farm, M<br>baz=102 | 45.92 307 | P | P | 10 32 17.2 | -0.1 |
| 438A | Sam Houston St<br>baz=92 | 45.95 294 | P | P | 10 32 17.0 | -0.5 |
| P37A | Lathrop<br>baz=101 | 45.97 306 | P | P | 10 32 17.3 | -0.3 |
| S37A | Fort Scott<br>baz=99 | 46.03 304 | P | P | 10 32 17.9 | -0.2 |
| V37A | Hulbert<br>baz=97 | 46.03 301 | P | P | 10 32 17.9 | -0.2 |
| C38A | Sawbill Land.<br>baz=111 | 46.04 318 | P | P | 10 32 17.8 | -0.3 |
| L37A | Phoenix Point,<br>baz=104,SNR=6.6 | 46.06 310 | P | P | 10 32 18.1 | -0.2 |
| U37A | Salina<br>baz=97,SNR=8.8 | 46.07 302 | P | P | 10 32 18.0 | -0.5 |
| X37A | Clayton<br>baz=95 | 46.08 299 | P | P | 10 32 17.9 | -0.7 |
| N37A | Lee Faris, Mou<br>baz=102,SNR=6.0 | 46.09 308 | P | P | 10 32 18.2 | -0.4 |
| H37A | Dierke Farm, C<br>baz=107 | 46.11 313 | P | P | 10 32 18.7 | +0.1 |
| R37A | Teagarden Farm<br>baz=99 | 46.12 304 | P | P | 10 32 18.5 | -0.3 |
| M37A | Trindle Farm,<br>baz=103 | 46.12 309 | P | P | 10 32 18.6 | -0.2 |
| K37A | Belmond<br>baz=104,SNR=6.7 | 46.13 311 | P | P | 10 32 18.8 | -0.1 |
| W37B | Quinton<br>baz=96 | 46.19 300 | P | P | 10 32 19.0 | -0.4 |
| J37A | Redenius Farm,<br>baz=105 | 46.21 311 | P | P | 10 32 19.4 | -0.1 |
| SPMN | Marine on St.<br>baz=107,SNR=6.8 | 46.22 314 | P | P | 10 32 19.4 | -0.1 |
| SPMN | Marine on St.<br>comp=Z,80nm,1.4s | 46.22 314 | eP | P | 10 32 19.6 | +0.1 |
| Y37A | Hugo<br>baz=95 | 46.24 298 | P | P | 10 32 19.3 | -0.5 |
| F37A | Hinrichs Farm,<br>baz=108 | 46.26 315 | P | P | 10 32 20.1 | +0.4 |
| 237A | Washetta, Mont<br>baz=93 | 46.27 296 | P | P | 10 32 19.4 | -0.7 |
| I37A | Lemond, Waseca<br>baz=106,SNR=10 | 46.29 312 | P | P | 10 32 20.3 | +0.3 |
| 337A | Centerville<br>baz=92 | 46.31 295 | P | P | 10 32 19.7 | -0.8 |
| O36A | Bolckow<br>baz=101 | 46.53 307 | P | P | 10 32 21.9 | -0.2 |
| TUL1 | Leonard<br>baz=96 | 46.56 301 | P | P | 10 32 22.0 | -0.3 |
| U36A | Oologah<br>baz=97 | 46.56 302 | P | P | 10 32 21.8 | -0.5 |
| D37A | Cotton<br>baz=110 | 46.58 317 | P | P | 10 32 22.6 | +0.2 |
| C37A | Embarrass<br>baz=110 | 46.62 318 | P | P | 10 32 22.4 | -0.2 |
| P36A | Good Intent, A<br>baz=100 | 46.62 306 | P | P | 10 32 22.3 | -0.5 |
| S36A | Lake Cedric, C<br>baz=98 | 46.62 303 | P | P | 10 32 22.4 | -0.4 |
| R36A | Gordon, Harris<br>baz=99 | 46.64 304 | P | P | 10 32 22.6 | -0.4 |
| N36A | Muff Farm, Cla<br>baz=102 | 46.66 308 | P | P | 10 32 22.9 | -0.1 |
| V36A | Jenks<br>baz=96 | 46.67 301 | P | P | 10 32 22.6 | -0.5 |
| M36A | Felix, Anita<br>baz=102 | 46.68 309 | P | P | 10 32 23.0 | -0.1 |
| K36A | Gilmore City<br>baz=104 | 46.68 310 | P | P | 10 32 23.4 | +0.2 |
| Q36A | Arnold C. Orve<br>baz=99 | 46.71 305 | P | P | 10 32 23.1 | -0.3 |
| I36A | Fitzsimmons Fa<br>baz=105 | 46.72 312 | P | P | 10 32 23.2 | -0.3 |
| L36A | Harm Buss Farm<br>baz=103 | 46.72 310 | P | P | 10 32 23.2 | -0.2 |
| T36A | Boggs Farm, Ca<br>baz=97 | 46.76 303 | P | P | 10 32 23.4 | -0.4 |
| J36A | Seneca 1, Swea<br>baz=104 | 46.77 311 | P | P | 10 32 23.4 | -0.4 |
| Y36A | Durant<br>baz=94 | 46.78 298 | P | P | 10 32 23.7 | -0.3 |
| H36A | Jessenland, He<br>baz=106 | 46.80 313 | P | P | 10 32 24.2 | +0.1 |
| PB01 | IPOC Station P<br>comp=Z,137nm,1.8s | 46.83 211 | eP | P | 10 32 25.0 | +0.4 |
| W36A | Wetumka<br>baz=95 | 46.83 300 | P | P | 10 32 24.0 | -0.4 |
| G36A | St. Michael<br>baz=107 | 46.87 314 | P | P | 10 32 24.8 | +0.3 |
| Z36A | Blue Ridge<br>baz=93 | 46.87 297 | P | P | 10 32 24.4 | -0.3 |
| 236A | Katherine and<br>baz=92 | 46.89 296 | P | P | 10 32 24.2 | -0.7 |
| X36A | Centrahoma<br>baz=95 | 46.89 299 | P | P | 10 32 24.7 | -0.2 |
| F36A | Milaca<br>baz=107,SNR=6.2 | 46.90 315 | P | P | 10 32 24.8 | 0.0 |
| 136A | Ennis<br>baz=93 | 46.91 296 | P | P | 10 32 24.7 | -0.4 |
| E36A | McGregor<br>baz=108,SNR=5.9 | 46.92 316 | P | P | 10 32 25.1 | +0.1 |
| C36A | Pine Crest Far<br>baz=110 | 47.05 318 | P | P | 10 32 26.0 | 0.0 |
| D36A | Goodland<br>baz=109,SNR=17 | 47.06 317 | P | P | 10 32 26.4 | +0.3 |
| 336A | Riesel<br>baz=92,SNR=6.7 | 47.14 295 | P | P | 10 32 26.8 | -0.1 |
| Q35A | Mercer Eighty,<br>baz=99 | 47.14 305 | P | P | 10 32 26.1 | -0.7 |
| N35A | Tabor<br>baz=101 | 47.18 308 | P | P | 10 32 27.0 | -0.1 |
| R35A | Emporia Munici<br>baz=98 | 47.18 304 | P | P | 10 32 26.9 | -0.3 |
| S35A | Otter Creek Ra<br>baz=98 | 47.19 303 | P | P | 10 32 26.7 | -0.6 |
| P35A | Duane Minner,<br>baz=100 | 47.23 306 | P | P | 10 32 27.0 | -0.5 |
| T35A | Sooner Cattle<br>baz=97 | 47.25 302 | P | P | 10 32 27.4 | -0.3 |
| K35A | Storm Lake<br>baz=103 | 47.26 310 | P | P | 10 32 27.6 | -0.1 |
| O35A | Humboldt<br>baz=100 | 47.27 307 | P | P | 10 32 27.2 | -0.6 |
| CPUP | Villa Verida<br>comp=Z,11nm,1.2s,baz=18,slow=9.1,SNR=8.0 | 47.27 194 | P | P | 10 32 26.7 | -1.1 |
| CPUP | | | LR | LR | 10 52 51.0 | |
| | comp=Z,509nm,19.2s,baz=11,slow=37 | | | | | |
| OK021 | N3530 Road, Sp<br>comp=Z,46nm,1.4s | 47.28 300 | eP | P | 10 32 27.8 | -0.1 |
| M35A | Neola<br>baz=102 | 47.34 308 | P | P | 10 32 28.0 | -0.3 |
| I35A | Creekview Farm<br>baz=104 | 47.35 312 | P | P | 10 32 28.2 | -0.2 |
| L35A | Bielow Farm, R<br>baz=102 | 47.36 309 | P | P | 10 32 27.9 | -0.5 |
| G35A | Watkins<br>baz=106,SNR=9.2 | 47.36 314 | P | P | 10 32 28.5 | +0.1 |
| U35A | Pawnee<br>baz=96 | 47.36 301 | P | P | 10 32 28.0 | -0.6 |
| W35A | Tecumseh<br>baz=95 | 47.36 300 | P | P | 10 32 28.3 | -0.3 |
| X35A | Drake<br>baz=94 | 47.39 299 | P | P | 10 32 28.4 | -0.4 |
| V35A | Meyer Ranch, C<br>baz=96 | 47.39 301 | P | P | 10 32 28.5 | -0.2 |
| J35A | Milford<br>baz=104 | 47.39 311 | P | P | 10 32 28.3 | -0.4 |
| OK020 | N3440 Road, Me<br>comp=Z,79nm,1.7s | 47.40 300 | eP | P | 10 32 28.9 | 0.0 |
| Y35A | Marietta<br>baz=94 | 47.41 298 | P | P | 10 32 28.6 | -0.4 |
| H35A | Sunnyside Ranc<br>baz=105,SNR=18 | 47.46 313 | P | P | 10 32 29.3 | +0.1 |
| F35A | Swanville<br>baz=106 | 47.60 315 | P | P | 10 32 30.2 | 0.0 |
| D35A | Remer<br>baz=108,SNR=5.8 | 47.61 316 | P | P | 10 32 30.5 | +0.1 |
| TAM<br>TAM | Tamanrasset<br>comp=Z,18nm,1.3s | 47.64 77 | eP<br>pmax | P<br>pmax | 10 32 31.8 | +0.7 |
| TAM | Tamanrasset<br>comp=Z,18nm,1.3s | 47.64 77 | eP | P | 10 32 31.8 | +0.7 |
| WHTX | Lake Whitney,<br>baz=92 | 47.67 296 | P | P | 10 32 30.5 | -0.6 |
| WHTX | Lake Whitney,<br>comp=Z,95nm,1.6s | 47.67 296 | eP | P | 10 32 31.2 | +0.2 |
| E35A | Pequot Lakes<br>baz=107 | 47.68 316 | P | P | 10 32 30.5 | -0.4 |
| C35A | Jirik Farms, M<br>baz=108,SNR=8.8 | 47.76 317 | P | P | 10 32 31.3 | -0.2 |
| 435B | Jarrell<br>baz=90 | 47.76 294 | P | P | 10 32 31.4 | -0.4 |
| T34A | McClaskey Farm<br>baz=96 | 47.80 302 | P | P | 10 32 31.7 | -0.2 |
| B35A | Bob, Littlefor<br>baz=109 | 47.81 318 | P | P | 10 32 31.6 | -0.3 |
| N34A | Lincoln<br>baz=100,SNR=8.0 | 47.81 308 | P | P | 10 32 31.7 | -0.3 |
| S34A | Willow Spring<br>baz=97 | 47.81 303 | P | P | 10 32 31.7 | -0.4 |
| Q34A | Chapman<br>baz=98 | 47.84 305 | P | P | 10 32 31.7 | -0.6 |
| O34A | Beatrice<br>baz=100 | 47.85 307 | P | P | 10 32 31.0 | -1.3 |
| P34A | Walnut Farm, R<br>baz=99 | 47.85 306 | P | P | 10 32 31.6 | -0.7 |
| K34A | Le Mars<br>baz=102,SNR=6.8 | 47.88 310 | P | P | 10 32 32.1 | -0.4 |
| LVC | Limon Verde<br>comp=Z,133nm,1.4s | 47.90 209 | eP | P | 10 32 31.6 | -1.6 |
| J34A | George<br>baz=103 | 47.91 311 | P | P | 10 32 32.3 | -0.4 |
| L34A | Svendsen Farm,<br>baz=101 | 47.93 309 | P | P | 10 32 32.5 | -0.5 |
| M34A | Aspy Farms, Fr<br>baz=101 | 48.00 308 | P | P | 10 32 33.2 | -0.2 |
| R34A | Isabella, Hill<br>baz=98 | 48.00 304 | P | P | 10 32 32.8 | -0.7 |
| I34A | Hadley<br>baz=104,SNR=5.8 | 48.01 312 | P | P | 10 32 33.2 | -0.3 |
| F34A | Alexandria<br>baz=106 | 48.04 314 | P | P | 10 32 33.4 | -0.3 |
| H34A | Spellman Lake,<br>baz=104,SNR=7.8 | 48.10 313 | P | P | 10 32 34.2 | 0.0 |
| G34A | Benson<br>baz=105 | 48.15 313 | P | P | 10 32 34.4 | -0.2 |
| E34A | Wadena<br>baz=106 | 48.18 315 | P | P | 10 32 34.4 | -0.4 |
| C34A | RKJ Ranch, Bem<br>baz=108,SNR=7.6 | 48.34 317 | P | P | 10 32 35.7 | -0.3 |
| D34A | Park Rapids<br>baz=107 | 48.36 316 | P | P | 10 32 35.7 | -0.5 |
| SSB<br>SSB | Saint Sauveur<br>comp=Z,30nm,1.3s | 48.40 47 | eP<br>pmax | P<br>pmax | 10 32 37.0 | +0.5 |
| SSB | Saint Sauveur<br>comp=Z,30nm,1.3s | 48.40 47 | eP | P | 10 32 37.0 | +0.5 |
| B34A | Aery, Baudette<br>baz=109,SNR=5.9 | 48.43 318 | P | P | 10 32 36.4 | -0.3 |
| M33A | Taylor Creek F<br>baz=100 | 48.46 308 | P | P | 10 32 36.6 | -0.4 |
| ECSD | EROS Data Cent<br>baz=103 | 48.47 311 | P | P | 10 32 36.5 | -0.6 |
| ECSD | EROS Data Cent<br>comp=Z,28nm,1.4s | 48.47 311 | eP | P | 10 32 36.7 | -0.4 |
| O33A | Hebron<br>baz=99 | 48.51 306 | P | P | 10 32 36.5 | -1.0 |
| N33A | J Bar K, Exete<br>baz=100 | 48.51 307 | P | P | 10 32 36.8 | -0.6 |
| K33A | Hardington<br>baz=102 | 48.51 310 | P | P | 10 32 37.2 | -0.2 |
| L33A | Hoskins<br>baz=101 | 48.63 309 | P | P | 10 32 37.7 | -0.6 |
| J33A | Davis<br>baz=102 | 48.63 311 | P | P | 10 32 37.8 | -0.5 |
| I33A | Coleman<br>baz=103 | 48.67 312 | P | P | 10 32 38.5 | -0.1 |
| G33A | Ortonville<br>baz=104,SNR=6.6 | 48.69 313 | P | P | 10 32 38.7 | 0.0 |
| F33A | 5 Mile Ranch,<br>baz=105,SNR=5.2 | 48.75 314 | P | P | 10 32 39.2 | +0.1 |
| H33A | Prehn Over Nor<br>baz=104,SNR=17 | 48.78 312 | P | P | 10 32 39.3 | -0.1 |
| D33A | AnnSam, Waubun<br>baz=106 | 48.80 316 | P | P | 10 32 39.0 | -0.5 |
| WMOK | Wichita Mounta<br>baz=93,SNR=8.5 | 48.90 299 | P | P | 10 32 40.1 | -0.4 |
| WMOK<br>WMOK | Wichita Mounta<br>comp=Z,18nm,1.1s | 48.90 299 | eP<br>pmax | P<br>pmax | 10 32 40.1 | -0.4 |
| WMOK | Wichita Mounta<br>comp=Z,18nm,1.1s | 48.90 299 | eP | P | 10 32 40.1 | -0.4 |
| C33A | Trail<br>baz=107 | 48.93 317 | P | P | 10 32 39.8 | -0.7 |
| B33A | Robert and Kas<br>baz=108 | 48.96 317 | P | P | 10 32 40.2 | -0.5 |
| A33A | Warroad<br>baz=108 | 49.04 318 | P | P | 10 32 41.0 | -0.3 |
| I32A | Karley and Nic<br>baz=102 | 49.14 312 | P | P | 10 32 42.0 | -0.2 |
| L32A | Elgin<br>baz=100 | 49.14 309 | P | P | 10 32 41.7 | -0.5 |
| BGNE | Belgrade<br>baz=100 | 49.14 308 | P | P | 10 32 41.6 | -0.7 |
| BGNE | Belgrade<br>comp=Z,77nm,1.2s | 49.14 308 | eP | P | 10 32 41.5 | -0.7 |
| AGMN | Agassiz Nation<br>baz=107,SNR=13 | 49.14 317 | P | P | 10 32 41.8 | -0.3 |
| AGMN | Agassiz Nation<br>comp=Z,21nm,0.8s | 49.14 317 | eP | P | 10 32 42.0 | -0.2 |
| U32A | Winter Ranch,<br>baz=95 | 49.19 301 | P | P | 10 32 42.4 | -0.4 |
| H32A | Carlson Farm,<br>baz=103,SNR=8.6 | 49.22 312 | P | P | 10 32 42.8 | 0.0 |
| K32A | Verdigre<br>baz=101 | 49.23 310 | P | P | 10 32 42.2 | -0.7 |
| J32A | Parkston<br>baz=102 | 49.27 311 | P | P | 10 32 42.9 | -0.4 |
| F32A | Veblen<br>baz=104 | 49.32 314 | P | P | 10 32 43.2 | -0.4 |
| 833A | Chaparral WMA,<br>baz=88,SNR=6.6 | 49.38 291 | P | P | 10 32 43.3 | -1.0 |
| G32A | Webster<br>baz=103,SNR=10 | 49.43 313 | P | P | 10 32 43.9 | -0.6 |
| C32A | Crookston<br>baz=106 | 49.44 317 | P | P | 10 32 43.9 | -0.4 |
| E32A | Braaten, Kindr<br>baz=105 | 49.46 315 | P | P | 10 32 44.4 | -0.3 |
| ABTX | Abilene, Hawle<br>baz=91 | 49.54 296 | P | P | 10 32 44.4 | -1.1 |
| D32A | Dogwood Acres,<br>baz=105 | 49.57 316 | P | P | 10 32 44.7 | -0.7 |
| B32A | Ashes, Strandq<br>baz=107,SNR=8.6 | 49.60 317 | P | P | 10 32 45.3 | -0.4 |
| JCT | Junction City<br>baz=89 | 49.67 294 | P | P | 10 32 45.7 | -0.9 |
| JCT<br>JCT | Junction City<br>comp=Z,18nm,1.2s | 49.67 294 | eP<br>pmax | P<br>pmax | 10 32 46.0 | -0.5 |
| JCT | Junction City<br>comp=Z,18nm,1.2s | 49.67 294 | eP | P | 10 32 46.0 | -0.5 |
| A32A | Rocking H Ranc<br>baz=107,SNR=12 | 49.73 318 | P | P | 10 32 46.3 | -0.2 |
| ULM | Lac du Bonnet<br>comp=Z,8.7nm,0.9s,baz=111,slow=7.1,SNR=9.2 | 49.76 320 | P | P | 10 32 45.7 | -1.1 |
| ULM | | | LR | LR | 10 50 46.4 | |
| | comp=Z,2µm,21.3s,baz=108,slow=32 | | | | | |
| ULM<br>ULM | Lac du Bonnet<br>comp=Z,19nm,1.1s | 49.76 320 | eP<br>pmax | P<br>pmax | 10 32 45.7 | -1.1 |
| ULM | Lac du Bonnet<br>comp=Z,19nm,1.1s | 49.76 320 | eP | P | 10 32 45.7 | -1.1 |
| K31A | O'Neill<br>baz=100 | 49.79 309 | P | P | 10 32 47.0 | -0.2 |
| BNI<br>BNI | Bardonecchia<br>comp=Z,65nm,1.4s | 49.82 47 | eP<br>pmax | P<br>pmax | 10 32 49.1 | +1.5 |
| BNI | Bardonecchia<br>comp=Z,65nm,1.4s | 49.82 47 | eP | P | 10 32 49.0 | +1.5 |
| I31A | Royce, Wessing<br>baz=101 | 49.89 311 | P | P | 10 32 47.6 | -0.4 |
| J31A | Geddes<br>baz=101 | 49.90 310 | P | P | 10 32 47.4 | -0.7 |
| G31A | Conde<br>baz=103,SNR=5.8 | 49.91 313 | P | P | 10 32 47.5 | -0.6 |
| TLIG | Tlapa<br>comp=Z,32nm,1.1s | 49.94 277 | eP | P | 10 32 47.3 | -1.5 |
| H31A | Wolsey<br>baz=102,SNR=7.7 | 49.94 312 | P | P | 10 32 47.7 | -0.6 |
| CBKS | Cedar Bluff<br>baz=96 | 50.00 304 | P | P | 10 32 47.9 | -1.0 |
| CBKS<br>CBKS | Cedar Bluff<br>comp=Z,64nm,1.3s | 50.00 304 | eP<br>pmax | P<br>pmax | 10 32 49.2 | +0.3 |
| CBKS | Cedar Bluff<br>comp=Z,64nm,1.3s | 50.00 304 | eP | P | 10 32 49.2 | +0.3 |
| E31A | Nome<br>baz=104 | 50.00 315 | P | P | 10 32 48.1 | -0.6 |
| D31A | Mcclaflin, Tow<br>baz=105,SNR=6.4 | 50.01 315 | P | P | 10 32 48.2 | -0.6 |
| F31A | Hecla<br>baz=103 | 50.08 314 | P | P | 10 32 48.6 | -0.8 |
| A31A | Linda, St. Vin<br>baz=107 | 50.17 318 | P | P | 10 32 49.4 | -0.6 |
| C31A | Landman Farms,<br>baz=105,SNR=8.9 | 50.21 316 | P | P | 10 32 49.7 | -0.6 |
| SUSD | Miller<br>baz=101,SNR=6.9 | 50.27 312 | P | P | 10 32 50.0 | -0.9 |
| B31A | Greenbush Farm<br>baz=106 | 50.32 317 | P | P | 10 32 50.4 | -0.7 |
| KEST | Kesra | 50.59 60 | P | P | 10 32 53.6 | +0.1 |

comp=Z,16nm,0.9s,baz=235,slow=4.4,SNR=13
KEST LR LR 10 52 46.3
comp=Z,1µm,19.7s,baz=217,slow=34
**KEST Kesra 50.59 60** *e*P **P 10 32 55.0 +1.5**
comp=Z,50nm,1.3s
**VSL Villasalto 50.91 55** *e*P **P 10 32 56.6 +0.9**
comp=Z,92nm,1.3s
**AMTX Amarillo 51.29 299** P **P 10 32 57.8 -1.0**
baz=92
**AMTX Amarillo 51.29 299** *e*P **P 10 32 58.6 -0.1**
comp=Z,34nm,1.0s
**MDND Maddock 51.44 316** P **P 10 32 57.9 -1.7**
baz=104
**TUE Stuetta 51.94 46** *e*P **P 10 33 04.5 +0.9**
comp=Z,24nm,1.1s
**OGNE Ogallala 51.98 307** P **P 10 33 03.6 -0.2**
baz=96
**OGNE Ogallala 51.98 307** *e*P **P 10 33 03.8 0.0**
comp=Z,66nm,1.2s
**MSTX Muleshoe 52.17 298** P **P 10 33 04.8 -0.6**
baz=90
**KSCO Kaye Shedlock' 52.26 304** P **P 10 33 05.8 -0.2**
baz=94
**KSCO Kaye Shedlock' 52.26 304** *e*P **P 10 33 06.5 +0.5**
comp=Z,48nm,1.4s
**DAVA Damuels 52.46 45** *i* P **P 10 33 07.4 0.0**
comp=Z,36nm,1.4s
**FUORN Ofenpass-Fuorn 52.59 46** *e*P **P 10 33 09.5 +1.1**
comp=Z,28nm,1.3s
**ZAIG Zacatecas 52.77 284** *e*P **P 10 33 10.2 +0.1**
comp=Z,32nm,1.4s
**FETA Feichten 52.98 46** *i* P **P 10 33 12.1 +0.8**
comp=Z,50nm,1.2s
**TX31 Lajitas Ar. Si 53.07 292** *e*P **P 10 33 11.9 -0.2**
**TXAR Lajitas Array 53.07 292** P **P 10 33 10.9 -1.3**
comp=Z,1.5nm,0.9s,baz=94,slow=7.0,SNR=11
TXAR PcP **PcP 10 34 21.2 +0.6**
comp=Z,1.3nm,1.0s,baz=106,slow=6.7,SNR=2.5
TXAR LR LR 10 55 45.9
comp=Z,1µm,19.5s,baz=0.0,slow=36
**RETA Reutte 53.09 45** *i* P **P 10 33 11.3 -0.6**
comp=Z,22nm,2.3s
**MOTA Moosalm 53.29 45** *i* P **P 10 33 14.0 +0.5**
comp=Z,32nm,1.2s
**T25A Trinidad 53.57 302** P **P 10 33 14.9 -0.9**
baz=92
**WATA Walderalm 53.60 45** *i* P **P 10 33 16.4 +0.6**
comp=Z,43nm,1.3s
**WTTA Wattenberg 53.63 45** *i* P **P 10 33 16.8 +0.7**
comp=Z,12nm,1.1s
**RSSD Black Hills 53.82 311** P **P 10 33 16.9 -0.6**
baz=97
**RSSD Black Hills 53.82 311** *e*P **P 10 33 17.2 -0.3**
RSSD pmax pmax
comp=Z,15nm,1.4s
**RSSD Black Hills 53.82 311** *e*P **P 10 33 17.2 -0.3**
comp=Z,15nm,1.4s
**ABTA Abfaltersbach 54.14 46** *i* P **P 10 33 19.2 -0.4**
comp=Z,25nm,1.5s
**Q24A Divide 54.22 304** P **P 10 33 20.1 -0.5**
baz=93
**AQU L'Aquila 54.22 52** *e*P **P 10 33 21.2 +0.9**
AQU pmax pmax
comp=Z,97nm,1.2s
**AQU L'Aquila 54.22 52** *e*P **P 10 33 21.2 +0.9**
comp=Z,98nm,1.2s
**MNTX Cornudas Mount 54.42 295** P **P 10 33 21.2 -0.6**
baz=87,SNR=7.1
**MNTX Cornudas Mount 54.42 295** *e*P **P 10 33 21.3 -0.6**
comp=Z,27nm,1.6s
**SDCO Great Sand Dun 54.45 303** P **P 10 33 21.6 -0.7**
baz=92
**SDCO Great Sand Dun 54.45 303** *e*P **P 10 33 22.4 +0.1**
comp=Z,9.1nm,1.4s
**DGMT Dagmar 54.58 316** P **P 10 33 22.8 0.0**
baz=100
**DGMT Dagmar 54.58 316** *e*P **P 10 33 22.4 -0.4**
comp=Z,39nm,1.2s
**PHWY Pilot Hill 54.59 307** *e*P **P 10 33 23.5 +0.2**
comp=Z,33nm,1.4s
**ISCO Idaho Springs 54.62 305** P **P 10 33 23.0 -0.5**
baz=93,SNR=8.1
**ISCO Idaho Springs 54.62 305** *e*P **P 10 33 23.9 +0.3**
ISCO pmax pmax
comp=Z,29nm,1.3s
**ISCO Idaho Springs 54.62 305** *e*P **P 10 33 23.9 +0.3**
comp=Z,29nm,1.3s
**FFC Flin Flon 54.67 324** *e*P **P 10 33 22.5 -0.8**
FFC pmax pmax
comp=Z,13nm,0.8s
**FFC Flin Flon 54.67 324** *e*P **P 10 33 22.5 -0.8**
comp=Z,13nm,0.8s
**NKC Novy Kostel 54.72 42** *e*P **P 10 33 24.0 +0.3**
NKC *ex* x 10 33 31.7
**NKC Novy Kostel 54.72 42** *e*P **P 10 33 24.0 +0.3**
NKC *e* 10 33 31.7
**KBA Koelnbreinsper 54.75 46** *i* P **P 10 33 23.6 -0.6**
comp=Z,21nm,1.3s
**MYKA Terra Mystica 54.89 46** *i* P **P 10 33 25.2 +0.2**
comp=Z,34nm,1.1s
**N23A Red Feather La 54.93 306** P **P 10 33 25.2 -0.6**
baz=94
**HPIG 55.04 289** *e*P **P 10 33 26.7 +0.1**
comp=Z,35nm,1.5s
**JAVS Javornik 55.08 47** *i* P **P 10 33 26.1 -0.4**
**ANMO Albuquerque 55.21 299** P **P 10 33 27.3 -0.4**
baz=89
**ANMO Albuquerque 55.21 299** *ce*P **P 10 33 28.5 +0.7**
ANMO pmax pmax
comp=Z,28nm,2.5s
**ANMO Albuquerque 55.21 299** *e*P **P 10 33 26.8 -1.0**
comp=Z,12nm,1.2s
**KHC Kasperske Hory 55.23 43** *e*P **P 10 33 26.9 -0.6**
KHC *ex* x 10 33 33.7
KHC *ex* x 10 33 40.9
KHC AMS AMS 10 55 10.0
comp=Z,800nm,22.0s
**KHC Kasperske Hory 55.23 43** *e*P **P 10 33 26.9 -0.6**
KHC *e* 10 33 33.7
KHC MLR MLR
comp=Z,800nm,22.0s
**KHC Kasperske Hory 55.23 43** *e*P **P 10 33 27.2 -0.3**
comp=Z,10nm,1.5s
**GEA0 GERESS Array S 55.27 44** *e*P **P 10 33 27.4 -0.3**
**GEC2 GERESS Array S 55.27 44** *e*P **P 10 33 27.6 -0.2**
GEC2 pmax pmax
comp=Z,34nm,1.5s
**GEC2 GERESS Array S 55.27 44** *e*P **P 10 33 27.6 -0.2**
comp=Z,34nm,1.5s
**GERES GERESS Array B 55.27 44** P **P 10 33 27.4 -0.5**
comp=Z,2.2nm,0.9s,baz=262,slow=6.1,SNR=7.0
**CLL Collm 55.28 41** *e*P **P 10 33 25.0 -2.7**
CLL *e*S **S 10 41 11.0 -0.6**
CLL MLR MLR
comp=Z,500nm,20.4s
**CLL Collm 55.28 41** *e*P **P 10 33 25.0 -2.7**
CLL *e* 10 33 36.0
CLL *e*S **S 10 41 11.0 -0.6**
CLL *e*SS **SS 10 44 54.0 -1.7**
CLL Lm MLR 10 54 00.0
comp=N,300nm,19.0s
CLL Lm MLR 10 54 00.0
comp=E,600nm,21.0s
CLL Lm MLR 10 54 00.0
comp=Z,500nm,20.4s
**LPM Los Pinos Moun 55.37 298** *e*P **P 10 33 29.7 +0.7**
**BNM Barren Site 55.37 298** *e*P **P 10 33 29.7 +0.7**
**EPT El Paso 55.37 295** *e*P **P 10 33 29.2 +0.4**
comp=Z,57nm,1.6s
**K22A Casper 55.48 309** P **P 10 33 29.0 -0.5**
baz=94
**K22A Casper 55.48 309** *e*P **P 10 33 28.4 -1.1**
comp=Z,28nm,1.4s
**MOA Molln 55.48 45** *i* pP **P 10 33 31.4 +2.1**
comp=Z,21nm,1.4s
**OBKA Obir 55.49 47** *i* P **P 10 33 29.2 -0.3**
comp=Z,23nm,1.7s
**S22A 4UR Ranch, Cre 55.50 303** P **P 10 33 29.2 -0.7**
baz=91,SNR=12
**VISS Visnje 55.61 48** *i* P **P 10 33 30.2 0.0**
**JMIC Jan Mayen 55.62 14** LR LR 10 51 10.3
comp=Z,542nm,19.4s,baz=256,slow=30
**SMCO Snowmass 55.65 304** *e*P **P 10 33 31.7 +0.6**
comp=Z,13nm,1.1s
**LAO LASA Array 55.67 313** P **P 10 33 30.9 +0.2**
baz=97
**BRG Berggiesshubel 55.78 41** *e*P P 10 33 39.1 +7.8
comp=Z,28nm,1.8s
**BRG Berggiesshubel 55.78 41** *e*P P 10 33 39.1 +7.8
BRG pmax pmax
comp=Z,29nm,1.8s
**LAZ Ladron 55.79 299** *e*P **P 10 33 31.0 -0.9**
**SOKA Soboth 55.84 47** *i* P **P 10 33 31.8 -0.2**
comp=Z,10.0nm,1.2s
**BOJS Bojanci 55.86 48** *i* P **P 10 33 32.9 +0.9**
**PERS Pernice 55.90 47** *e*P **P 10 33 33.5 +1.2**
**RWWY Rawlins 55.93 307** *e*P **P 10 33 33.3 +0.4**
comp=Z,47nm,1.1s
**PRU Pruhonice 56.00 43** *e*P **P 10 33 33.6 +0.7**
PRU *ex* x 10 33 39.9
PRU *ex* x 10 33 46.1
PRU AMS AMS 10 56 10.0
comp=Z,900nm,20.6s
**PRU Pruhonice 56.00 43** *e*P **P 10 33 33.6 +0.7**
PRU *e* 10 33 39.9
PRU MLR MLR
comp=Z,900nm,20.6s
**GOPC GO Pecny, Ondr 56.14 43** *e*P **P 10 33 34.3 +0.3**
GOPC *ex* x 10 33 40.8
**GOPC GO Pecny, Ondr 56.14 43** *e*P **P 10 33 34.3 +0.3**
GOPC *e* 10 33 40.8
**ARSA Arzberg 56.25 46** *i* P **P 10 33 33.9 -0.8**
comp=Z,15nm,1.2s
**121A Cookes Peak, D 56.41 296** P **P 10 33 35.2 -1.2**
baz=87
**CONA Conrad Observa 56.56 45** *i* P **P 10 33 36.6 -0.5**
comp=Z,22nm,1.6s
**O20A White River Ci 56.65 305** P **P 10 33 37.2 -0.7**
baz=91
**MVCO Mesa Verde 56.83 302** P **P 10 33 38.6 -0.8**
baz=89
**MVCO Mesa Verde 56.83 302** *e*P **P 10 33 39.0 -0.4**
comp=Z,42nm,1.6s
**PV01 Paradox Valley 56.88 303** *e*P **P 10 33 40.4 +0.7**
**NOA NORSAR Array B 56.98 29** LR LR 10 54 23.8
comp=Z,582nm,18.7s,baz=250,slow=32
**DPC Dobruska-Polom 57.19 42** *e*P **P 10 33 40.5 -0.9**
DPC *ex* x 10 33 47.6
**DPC Dobruska-Polom 57.19 42** *e*P **P 10 33 40.5 -0.9**
DPC *e* 10 33 47.6
**VRAC Vranov 57.22 44** ||*i*P **P 10 33 41.7 +0.1**
**VRAC Vranov 57.22 44** ||P **P 10 33 41.7 +0.1**
**PV09 Paradox Valley 57.32 304** *e*P **P 10 33 43.5 +0.6**
**KRLC Kraliky 57.44 43** *e*P **P 10 33 45.5 +2.3**
**KRLC Kraliky 57.44 43** *e*P **P 10 33 45.5 +2.3**
**MODS Modra-Piesok 57.55 45** *e*P **P 10 33 44.8 +0.8**
**MODS Modra-Piesok 57.55 45** *e*P **P 10 33 44.8 +0.8**
**RLMT Red Lodge 57.63 311** P **P 10 33 44.4 -0.5**
baz=94,SNR=6.5
**RLMT Red Lodge 57.63 311** *e*P **P 10 33 45.2 +0.3**
comp=Z,28nm,1.3s
**BW06 Boulder Array 57.72 309** P **P 10 33 45.0 -0.5**
baz=92,SNR=31
**BW06 Boulder Array 57.72 309** *e*P **P 10 33 45.0 -0.5**
comp=Z,31nm,1.1s
**PD31 Pinedale Array 57.72 309** *e*P **P 10 33 44.9 -0.7**
**PDAR Pinedale Array 57.72 309** P **P 10 33 43.6 -1.9**
comp=Z,12nm,1.0s,baz=90,slow=4.7,SNR=50
PDAR LR LR 10 55 41.2
comp=Z,2µm,21.6s,baz=119,slow=33
**PDAR Pinedale Array 57.72 309** *e*P **P 10 33 45.1 -0.5**
**W18A Petrified Fore 57.90 300** P **P 10 33 46.2 -0.7**
baz=87
**TULEG Thule 57.92 354** *e*P **P 10 33 46.1 0.0**
comp=Z,53nm,1.2s
**GCMT Greycliff 57.96 312** *e*P **P 10 33 47.4 +0.3**
**P18A Preston Nutter 58.19 305** *e*P **P 10 33 49.5 +0.5**
comp=Z,22nm,1.2s
**OKC Ostrava-Krasne 58.28 43** *e*P **P 10 33 48.8 -0.3**
OKC *ex* x 10 33 56.8
**OKC Ostrava-Krasne 58.28 43** *e*P **P 10 33 48.8 -0.3**
OKC *e* 10 33 56.8
**SRU San Rafael Swe 58.41 304** *e*P **P 10 33 50.8 +0.4**
SRU pmax pmax
comp=Z,26nm,1.3s
**SRU San Rafael Swe 58.41 304** *e*P **P 10 33 50.8 +0.4**
comp=Z,26nm,1.3s
**LKWY Lake 58.41 311** *e*P **P 10 33 50.3 -0.1**
LKWY pmax pmax
comp=Z,23nm,1.2s
**LKWY Lake 58.41 311** *e*P **P 10 33 50.3 -0.1**
comp=Z,23nm,1.2s
**LOHW Long Hollow 58.51 310** *e*P **P 10 33 50.8 -0.3**
comp=Z,21nm,1.0s
**H17A Grant Village 58.52 310** P **P 10 33 50.9 -0.3**
baz=92
**VYHS Vyhne 58.60 45** *e*P **P 10 33 50.7 -0.6**
VYHS pmax pmax
comp=Z,33nm,2.0s
**VYHS Vyhne 58.60 45** *e*P **P 10 33 50.7 -0.6**
**SNOW Snow King Moun 58.62 309** *e*P **P 10 33 51.9 0.0**
comp=Z,31nm,1.4s
**MOOW Moose Ponds 58.62 310** *e*P **P 10 33 51.5 -0.4**
comp=Z,21nm,1.4s
**YPP Pitchstone Pla 58.68 310** *e*P **P 10 33 53.6 +1.2**
comp=Z,20nm,1.5s
**REDW Red Top Meadow 58.69 309** *e*P **P 10 33 52.0 -0.3**
comp=Z,51nm,1.6s
**YFT Old Faithful 58.71 311** *e*P **P 10 33 54.0 +1.5**
comp=Z,20nm,1.3s
**YHH Holmes Hill 58.74 311** *e*P **P 10 33 53.0 +0.2**
comp=Z,13nm,1.3s
**TPAW Teton Pass 58.76 309** *e*P **P 10 33 52.9 -0.1**
comp=Z,33nm,1.1s
**IMW Indian Meadow 58.77 310** *e*P **P 10 33 53.0 0.0**
comp=Z,34nm,1.2s
**YMR Madison River 58.81 311** *e*P **P 10 33 53.9 +0.7**
comp=Z,69nm,1.7s
**FXWY Fox Creek 58.82 310** *e*P **P 10 33 53.0 -0.3**
comp=Z,10nm,0.9s
**AHID Auburn Hatcher 58.85 309** *e*P **P 10 33 53.1 -0.4**
comp=Z,45nm,1.6s
**Q16A Castle Valley 58.91 304** *e*P **P 10 33 54.3 +0.4**
comp=Z,24nm,1.4s
**TMUT Trail Mountain 58.93 304** *e*P **P 10 33 54.6 +0.3**
comp=Z,26nm,1.5s
**TUC Tucson 58.96 296** P **P 10 33 53.8 -0.4**
baz=85
**TUC Tucson 58.96 296** *e*P **P 10 33 55.0 +0.8**
TUC pmax pmax
comp=Z,20nm,1.4s
**TUC Tucson 58.96 296** *e*P **P 10 33 55.0 +0.8**
comp=Z,20nm,1.4s
**YHB Hoe Butte 58.98 311** *e*P **P 10 33 55.0 +0.6**
comp=Z,17nm,1.0s
**TCUT Toone Canyon 59.07 307** *e*P **P 10 33 54.8 -0.2**
comp=Z,50nm,1.3s
**JLU Jordanelle 59.10 306** *e*P **P 10 33 55.3 0.0**
comp=Z,33nm,1.3s
**QLMT Earthquake Lak 59.15 311** *e*P **P 10 33 57.0 +1.5**
**WUAZ Wupatki 59.21 300** P **P 10 33 55.5 -0.5**
baz=87,SNR=15
**WUAZ Wupatki 59.21 300** *e*P **P 10 33 57.4 +1.3**
comp=Z,33nm,1.1s
**MPU Maple Canyon 59.25 305** *e*P **P 10 33 56.6 +0.3**
comp=Z,32nm,1.4s
**BOZ Bozeman (W) 59.32 312** P **P 10 33 56.4 -0.3**
baz=92,SNR=11
**BOZ Bozeman (W) 59.32 312** *e*P **P 10 33 56.3 -0.3**
BOZ pmax pmax
comp=Z,33nm,1.8s
**BOZ Bozeman (W) 59.32 312** *e*P **P 10 33 56.3 -0.3**
comp=Z,33nm,1.8s
**CTU Camp Tracy 59.33 306** *e*P **P 10 33 56.9 +0.1**
comp=Z,14nm,1.2s
**HRY Holter Researc 59.52 313** *e*P **P 10 33 58.0 +0.1**
**NLU North Lily Min 59.59 305** *e*P **P 10 33 59.0 +0.3**
comp=Z,31nm,1.4s
**KECS Kecovo 59.69 45** *e*P **P 10 33 59.4 +0.5**
KECS pmax pmax
comp=Z,5.0nm,1.3s
**KECS Kecovo 59.69 45** *e*P **P 10 33 59.4 +0.5**
**OHR Ohrid 59.70 53** *i* P **P 10 34 02.1 +3.0**
**MTPU Mount Pierson 59.73 303** *e*P **P 10 33 58.9 -0.9**
comp=Z,18nm,1.4s
**SPUT South Promonto 59.85 307** *e*P **P 10 34 00.4 +0.1**
comp=Z,71nm,1.2s
**LRM Limekiln Ridge 59.91 312** *e*P **P 10 34 00.4 -0.3**
**TCRU Three Creeks R 59.92 304** *e*P **P 10 34 01.0 0.0**
comp=Z,16nm,0.4s
**DLMT Dillon 59.99 312** *e*P **P 10 34 01.6 +0.3**
comp=Z,18nm,1.4s
**KRUS Krusevo 60.04 53** *i* P **P 10 34 02.2 +0.7**
**HVU Hansel Valley 60.09 307** *e*P **P 10 34 01.5 -0.5**
HVU pmax pmax
comp=Z,8.0nm,0.9s
**HVU Hansel Valley 60.09 307** *e*P **P 10 34 01.5 -0.5**
comp=Z,7.7nm,0.9s
**BIA Bitola 60.10 53** *i* P **P 10 34 03.2 +1.3**
**DUG Dugway, Tooele 60.15 306** P **P 10 34 02.1 -0.3**
baz=88,SNR=14
**DUG Dugway, Tooele 60.15 306** *e*P **P 10 34 02.5 +0.1**
DUG pmax pmax
comp=Z,33nm,1.4s
**DUG Dugway, Tooele 60.15 306** *e*P **P 10 34 02.5 +0.1**
comp=Z,33nm,1.4s
**MCMT McKenzie Canyo 60.16 311** *e*P **P 10 34 03.0 +0.4**
**SKO Skopje 60.17 52** *i* P **P 10 34 02.9 +0.5**
**STHS Stebnicka Huta 60.25 44** *e*P **P 10 34 06.1 +3.3**
**STHS Stebnicka Huta 60.25 44** *e* **P 10 34 06.1 +3.3**
**BGU Big Grassy Mou 60.30 306** *e*P **P 10 34 03.4 0.0**
comp=Z,32nm,1.1s
**BZS Buzias 60.33 48** ⇑*i*P **P 10 34 04.6 +1.3**
**BZS Buzias 60.33 48** ⇑P **P 10 34 04.6 +1.3**
**CRVS Cervenica-Dubn 60.36 44** *e*P **P 10 34 04.0 +0.5**
**CRVS Cervenica-Dubn 60.36 44** *e*P **P 10 34 04.0 +0.5**
**MDVR Moldovita 60.38 49** ⇑*i*P **P 10 34 04.1 +0.3**
**SZCU Shurtz Canyon 60.47 303** *e*P **P 10 34 05.2 +0.5**
comp=Z,56nm,2.0s
**LCMT Little Creek M 60.63 302** *e*P **P 10 34 05.9 +0.2**
comp=Z,5.4nm,1.2s
**CCUT Cedar City 60.69 303** *e*P **P 10 34 06.7 +0.5**
comp=Z,35nm,1.5s
**214A Organ Pipe Nat 60.70 296** P **P 10 34 05.8 -0.4**
baz=84,SNR=8.7
**RES Resolute Bay 60.73 347** LR LR 10 59 56.6
comp=Z,652nm,18.2s,baz=112,slow=36
**UZH Uzhgorod 60.90 45** *e*P P 10 34 01.8 -5.3
UZH *e* 10 36 20.6
UZH *e*S S 10 42 16.2 -8.9
UZH *e*SSS SSS 10 48 58.4
**MSO Missoula 60.97 313** P **P 10 34 06.4 -1.5**
baz=92,SNR=6.7
**MSO Missoula 60.97 313** *e*P **P 10 34 07.6 -0.3**
comp=Z,19nm,1.2s
**PSUT Pine Spring 61.02 304** *e*P **P 10 34 06.5 -2.0**
comp=Z,21nm,1.2s
**WALA Waterton Lakes 61.03 316** *e*P **P 10 34 07.6 -0.7**
comp=Z,40nm,1.5s
**VAY Valandovo 61.03 53** *i* P **P 10 34 15.3 +7.2**
**DRGR 61.12 47** ⇑*i*P **P 10 34 09.5 +0.7**
**DRGR 61.12 47** ⇑P **P 10 34 09.5 +0.7**
**JTMT Jette 61.23 314** *e*P **P 10 34 09.4 -0.1**
comp=Z,56nm,1.8s
**HLID Hailey 61.28 309** P **P 10 34 10.0 -0.1**
baz=89,SNR=16
**HLID Hailey 61.28 309** *e*P **P 10 34 09.7 -0.4**
comp=Z,8.4nm,0.8s
**VTS Vitosha 61.48 52** ⇑*i*P **P 10 34 08.2 -3.2**
**VTS Vitosha 61.48 52** *e*P **P 10 34 12.4 +1.0**
VTS pmax pmax
comp=Z,23nm,1.4s
**VTS Vitosha 61.48 52** *e*P **P 10 34 12.4 +1.0**
comp=Z,23nm,1.4s
**PDMCI Parker Dam,Lak 61.57 299** P **P 10 34 11.9 -0.1**
baz=84
**NEE2 Needles Airpor 61.92 299** P **P 10 34 14.1 -0.2**
baz=84
**Y12C Blythe 61.95 298** P **P 10 34 14.1 -0.4**
baz=84
**LVV L'vov 62.08 43** *e*P **P 10 34 15.2 +0.1**
**SHPR Sheep Range 62.20 301** *e*P **P 10 34 17.7 +1.3**
comp=Z,27nm,1.7s
**ARCR ARCALIA 62.25 47** ⇑*i*P **P 10 34 16.9 +0.6**
**GLA Glamis 62.27 298** P **P 10 34 16.2 -0.6**
baz=84
**GLA Glamis 62.27 298** *e*P **P 10 34 17.9 +1.1**
GLA pmax pmax
comp=Z,61nm,1.8s
**GLA Glamis 62.27 298** *e*P **P 10 34 17.9 +1.1**
comp=Z,61nm,1.8s
**MFID Camas Ranch 62.31 309** *e*P **P 10 34 16.7 -0.3**
comp=Z,26nm,1.1s
**R11A Troy Canyon, C 62.39 304** P **P 10 34 17.4 -0.2**
baz=86,SNR=12
**IRM Iron Mountain 62.42 299** P **P 10 34 17.2 -0.5**
baz=84,SNR=5.9
**BC3 Big Chuckawall 62.73 298** P **P 10 34 19.2 -0.7**
baz=84
**VOIR 62.74 48** ⇑*i*P **P 10 34 20.2 +0.5**
**VOIR 62.74 48** ⇑P **P 10 34 20.2 +0.5**
**GMRC Granite Mounta 62.77 300** P **P 10 34 19.0 -1.2**
baz=84,SNR=8.8
**BUR08 Bucovina Ar. S 62.82 46** *e*P **P 10 34 21.3 +1.0**
**BUR04 Bucovina Ar. S 62.83 46** *e*P **P 10 34 20.6 +0.2**
**BURAR Bucovina Array 62.83 46** ⇑*i*P **P 10 34 21.0 +0.7**
**BURAR Bucovina Array 62.83 46** ⇑P **P 10 34 21.0 +0.7**
**YKA Yellowknife Ar 62.84 331** P **P 10 34 18.6 -1.4**
comp=Z,4.0nm,0.9s,baz=98,slow=7.5,SNR=24
YKA LR LR 11 00 55.2
comp=Z,104nm,18.1s,baz=180,slow=35
**TUQ Turquoise Moun 62.92 300** P **P 10 34 20.6 -0.6**
baz=84
**DOPR Dopca 62.97 48** ⇑*i*P **P 10 34 22.0 +0.8**
**TPNV Topopah Spring 63.03 302** P **P 10 34 21.5 -0.5**
baz=85
**TPNV Topopah Spring 63.03 302** *e*P **P 10 34 23.1 +1.1**
TPNV pmax pmax
comp=Z,24nm,1.4s
**TPNV Topopah Spring 63.03 302** *e*P **P 10 34 23.1 +1.1**
comp=Z,24nm,1.4s
**SWSC Sam W. Stewart 63.10 298** P **P 10 34 20.5 -1.7**
baz=83
**BELC Belle Mtn. Jos 63.14 299** P **P 10 34 22.2 -0.5**
baz=83
**NEW Newport 63.14 315** LR LR 10 59 03.2
comp=Z,2µm,21.3s,baz=92,slow=34
**NEW Newport 63.14 315** P **P 10 34 21.0 -1.3**
baz=90,SNR=32
**NEW Newport 63.14 315** *e*P **P 10 34 22.1 -0.2**
NEW pmax pmax
comp=Z,46nm,1.1s
**NEW Newport 63.14 315** *e*P **P 10 34 22.1 -0.2**
comp=Z,46nm,1.1s
**F10A Beach Ranch, E 63.24 312** *e*P **P 10 34 22.1 -1.0**
comp=Z,14nm,1.1s
**IDI Anoyia 63.27 60** LR LR 11 00 12.2
comp=Z,264nm,21.6s,baz=274,slow=34
**HEC Hector,Ludlow 63.32 300** P **P 10 34 22.9 -0.8**
baz=84
**BMO Blue Mountains 63.33 311** *e*P **P 10 34 22.8 -0.9**
BMO pmax pmax
comp=Z,9.0nm,1.2s
**BMO Blue Mountains 63.33 311** *e*P **P 10 34 22.8 -0.9**
comp=Z,8.9nm,1.2s
**MLR Muntele Rosu 63.37 48** ⇑*i*P **P 10 34 23.9 -0.1**
**MLR Muntele Rosu 63.37 48** ⇑P **P 10 34 23.9 -0.1**
**MLR Muntele Rosu 63.37 48** *e*P **P 10 34 23.2 -0.8**
comp=Z,90nm,1.4s
**IKP In-Ko-Pah, Jac 63.40 297** P **P 10 34 23.8 -0.5**
baz=83
**TPFO Pinon Flats 63.56 298** P **P 10 34 25.3 -0.2**
baz=83
**XPFO Piæon Flat 63.56 298** *e*P **P 10 34 26.4 +0.9**
comp=Z,27nm,1.5s
**PFO Pinyon Flats O 63.56 298** P **P 10 34 24.9 -0.5**
baz=83
**PFO Pinyon Flats O 63.56 298** *e*P **P 10 34 26.3 +0.8**
PFO pmax pmax
comp=Z,26nm,1.5s
**PFO Pinyon Flats O 63.56 298** *e*P **P 10 34 26.3 +0.8**
comp=Z,26nm,1.5s
**FURC Furnace Creek, 63.57 302** P **P 10 34 25.1 -0.2**
baz=84
**MONP2 Monument Peak 63.62 298** P **P 10 34 25.6 -0.4**
baz=83
**GSC Goldstone, Bar 63.65 300** P **P 10 34 25.5 -0.5**
baz=84
**GSC Goldstone, Bar 63.65 300** *e*P **P 10 34 26.9 +0.9**
GSC pmax pmax
comp=Z,15nm,1.3s
**GSC Goldstone, Bar 63.65 300** *e*P **P 10 34 26.9 +0.9**
comp=Z,15nm,1.3s
**PLOR Plostina 63.85 48** ⇑*i*P **P 10 34 27.0 0.0**
**PLOR Plostina 63.85 48** ⇑P **P 10 34 27.1 0.0**
**BAR Barrett 63.86 297** *e*P **P 10 34 28.4 +1.0**
comp=Z,20nm,1.1s
**E09A Wood Farm, Sta 63.87 313** *e*P **P 10 34 27.0 -0.1**
comp=Z,39nm,1.0s

VRI Vrincioaia 63.91 48⇑iP P 10 34 27.3 -0.1
VRI Vrincioaia 63.91 48 ⇑P P 10 34 27.3 -0.1
C09A Chrisman Ranch 63.92 314 eP P 10 34 26.5 -0.9
comp=Z,95nm,1.9s
FINES FINESS Array B 64.06 31 LR LR 10 57 59.7
comp=Z,446nm,19.8s,baz=258,slow=32
FINES FINESS Array B 64.06 31 i P P 10 34 25.6 -2.5
FINES pmax pmax
comp=Z,12nm,1.1s
MPMC Manual Prospec 64.12 301 P P 10 34 28.6 -0.6
baz=84,SNR=5.3
MURC Murrieta 64.18 298 P P 10 34 28.8 -0.6
baz=82
109C Camp Elliot, M 64.19 298 P P 10 34 28.3 -1.1
baz=82
J08A Circle Bar Ran 64.24 309 eP P 10 34 29.6 -0.2
comp=Z,11nm,1.0s
LRMC Laurel Mtn Rad 64.34 301 P P 10 34 30.5 0.0
baz=83,SNR=5.9
D08A Wollman Farm, 64.38 313 eP P 10 34 30.3 -0.2
comp=Z,71nm,1.5s
WVOR Wild Horse Val 64.42 308 eP P 10 34 30.6 -0.4
WVOR pmax pmax
comp=Z,8.0nm,1.2s
WVOR Wild Horse Val 64.42 308 eP P 10 34 30.6 -0.4
comp=Z,8.2nm,1.2s
BFSC Mount Baldy Ra 64.47 299 P P 10 34 30.9 -0.6
baz=83
G08A Pilot Rock 64.48 312 eP P 10 34 30.4 -0.9
comp=Z,22nm,1.4s
E08A Dider Farm, El 64.50 313 eP P 10 34 31.1 -0.1
comp=Z,28nm,1.1s
PLCA Paso Flores 64.55 201 P P 10 34 30.2 -1.3
comp=Z,2.3nm,0.7s,baz=46,slow=8.7,SNR=13
PLCA LR LR 11 02 56.2
comp=Z,299nm,21.6s,baz=56,slow=36
PLCA Paso Flores 64.55 201 eP P 10 34 32.7 +1.1
PLCA pmax pmax
comp=Z,36nm,1.4s
PLCA Paso Flores 64.55 201 eP P 10 34 32.7 +1.1
comp=Z,36nm,1.4s
CWC Cottonwood Cre 64.55 302 P P 10 34 30.8 -1.1
baz=83
B08A Colville Reser 64.61 315 eP P 10 34 32.6 +0.6
comp=Z,45nm,1.9s
EDW2 Edwards Air Fo 64.67 300 P P 10 34 32.0 -0.7
baz=83
H09N1 TRISTAN DA CUN 64.80 151 T T 11 45 06.4
SNR=4.8
H09W1 TRISTAN DA CUN 64.81 151 T T 11 45 00.6
SNR=25
HAWA Hanford 64.83 313 eP P 10 34 33.3 -0.1
comp=Z,35nm,1.3s
I07A Izee 64.94 310 eP P 10 34 34.2 -0.2
comp=Z,9.3nm,1.2s
ISA Isabella, Lake 64.96 301 P P 10 34 35.7 +1.2
baz=83
ISA Isabella, Lake 64.96 301 eP P 10 34 36.1 +1.6
ISA pmax pmax
comp=Z,20nm,1.1s
ISA Isabella, Lake 64.96 301 eP P 10 34 36.1 +1.6
comp=Z,20nm,1.1s
MLAC Mammoth, Mammo 65.02 303 P P 10 34 35.4 +0.3
baz=84
E07A Sunnyside 65.04 313 eP P 10 34 34.9 +0.1
comp=Z,40nm,1.3s
FMP Fort Macarthur 65.07 299 P P 10 34 34.0 -1.1
baz=82
KARP Karpathos 65.08 59 eP P 10 34 35.2 0.0
comp=Z,12nm,1.0s
F07A Phinny Hill Vi 65.13 312 eP P 10 34 35.4 +0.1
comp=Z,59nm,1.8s
TIRR Tirgusor 65.17 49 eP P 10 34 35.8 +0.2
TIRR pmax pmax
comp=Z,16nm,1.2s
TIRR Tirgusor 65.17 49 eP P 10 34 35.8 +0.2
comp=Z,16nm,1.2s
MDPB Devils Postpil 65.21 303 eP P 10 34 36.9 +0.5
comp=Z,14nm,1.1s
PAHR Pah Rah Range 65.22 305 eP P 10 34 36.4 +0.1
comp=Z,15nm,1.3s
ARVC Arvin 65.32 300 P P 10 34 36.4 -0.3
baz=82
AK11 Malin Array Si 65.38 43 eP P 10 34 36.4 -0.5
WAKR Walker 65.39 304 eP P 10 34 38.2 +0.8
comp=Z,26nm,1.5s
KIEV Kiev 65.41 42 eP P 10 34 36.6 -0.4
KIEV pmax pmax
comp=Z,5.0nm,1.1s
AKASG Malin Array Be 65.42 42 P P 10 34 36.7 -0.4
comp=Z,3.5nm,0.7s,baz=271,slow=5.8,SNR=17
AKASG LR LR 11 01 10.0
comp=Z,227nm,18.2s,baz=275,slow=34
AKASG Malin Array Be 65.42 42 i P P 10 34 35.7 -1.4
AKASG pmax pmax
comp=Z,4.0nm,0.7s
RCTC Rector, Farmer 65.50 302 P P 10 34 37.4 -0.5
baz=83
LTY Liberty 65.56 314 eP P 10 34 37.6 -0.7
comp=Z,51nm,1.5s
G06A Carlson Farm, 65.67 312 eP P 10 34 37.9 -1.0
comp=Z,38nm,1.4s
C06D Leavenworth 65.68 314 P P 10 34 36.8 -2.1
baz=87
MOD Modoc Plateau 65.70 308 eP P 10 34 39.4 +0.1
comp=Z,54nm,2.0s
MANT Manisa 65.83 56 eP P 10 34 40.8 +0.5
comp=Z,107nm,1.2s
BEKR Beckworth 65.95 306 eP P 10 34 40.7 -0.3
comp=Z,20nm,1.9s
G05D Wamic, OR 66.15 312 P P 10 34 40.7 -1.3
baz=86
CMB Columbia Colle 66.19 304 eP P 10 34 42.9 +0.5
CMB pmax pmax
comp=Z,10.0nm,1.3s
CMB Columbia Colle 66.19 304 eP P 10 34 42.9 +0.5
comp=Z,10nm,1.3s
LLLB Lillooet 66.19 317 eP P 10 34 41.7 -0.4
comp=Z,50nm,1.3s
I05D Terrebonne, OR 66.24 311 P P 10 34 42.5 -0.1
baz=85,SNR=5.7
J05D Fort Rock, OR 66.26 309 P P 10 34 42.5 -0.4
baz=85,SNR=9.3
AFDM Forest Hills D 66.53 305 eP P 10 34 44.8 +0.3
comp=Z,22nm,1.8s
K04D Chiloquin, OR 66.70 309 P P 10 34 44.9 -0.8
baz=84
H04A Detroit Lake 66.81 311 eP P 10 34 45.7 -0.5
comp=Z,27nm,1.1s
A04D Lummi Island 66.83 315 P P 10 34 44.5 -1.7
baz=86
M04C Macdoel 66.86 308 P P 10 34 46.4 -0.3
baz=84
ORV Oroville 66.86 305 eP P 10 34 46.6 0.0
ORV pmax pmax
comp=Z,20nm,1.5s
ORV Oroville 66.86 305 eP P 10 34 46.6 0.0
comp=Z,20nm,1.5s
J04D Umpqua Nationa 66.90 309 P P 10 34 46.6 -0.5
baz=84,SNR=10
AKAS Kas 66.96 58 eP P 10 34 47.7 +0.2
comp=Z,18nm,1.2s
O03D Paynes Creek 67.00 306 P P 10 34 47.2 -0.4
baz=83
I04A Tendick Farm, 67.06 310 P P 10 34 47.4 -0.5
baz=84,SNR=5.4
G03D McMinnville, O 67.52 312 P P 10 34 49.7 -0.9
baz=84
N02D Trinity Center 67.60 307 P P 10 34 49.8 -1.5
baz=83
SEC Stevens Creek 67.66 303 eP P 10 34 52.9 +1.2
BOLV Bolvadin 67.66 55 eP P 10 34 52.8 +0.9
comp=Z,18nm,0.9s
I03D Drain, OR 67.75 310 P P 10 34 51.9 -0.2
baz=84
ANTO Ankara 68.91 54 eP P 10 34 59.7 0.0
ANTO pmax pmax
comp=Z,44nm,1.5s
ANTO Ankara 68.91 54 eP P 10 34 59.7 0.0
comp=Z,44nm,1.5s
BR131 Keskin Array S 69.58 54 eP P 10 35 04.7 +0.8
BRTR Keskin Array B 69.58 54 P P 10 35 04.2 +0.4
comp=Z,7.0nm,0.9s,baz=261,slow=4.9,SNR=27
BRTR LR LR 11 02 47.0
comp=Z,158nm,20.9s,baz=274,slow=34
OBN Obninsk 69.58 37 LR LR 11 03 10.7
comp=Z,327nm,19.0s,baz=276,slow=34
OBN Obninsk 69.58 37 i P P 10 35 02.9 -0.4
OBN i 10 35 08.6
OBN i 10 35 29.8
OBN i 10 37 35.5
OBN pmax pmax
comp=Z,14nm,1.2s
OBN MLR MLR
comp=Z,238nm,16.0s
MOS Moscow 70.12 37 eP P 10 35 05.9 -0.7
MOS e 10 35 13.4
MOS pmax pmax
comp=Z,65nm,1.6s
DLBC Dease Lake 70.35 326 eP P 10 35 08.7 +0.5
comp=Z,63nm,1.8s
KLMR Klimovskoe 70.57 31 eP P 10 35 12.7 +3.4
KLMR pmax pmax
comp=Z,25nm,1.3s
INK Inuvik 70.92 337 eP P 10 35 10.0 -1.3
INK pmax pmax
comp=Z,35nm,1.4s
INK Inuvik 70.92 337 eP P 10 35 10.0 -1.3
comp=Z,35nm,1.4s
LPSR Galich'ya Gora 71.27 40 eP P 10 35 13.6 -0.1
LPSR pmax pmax
comp=Z,10.0nm,1.0s
VSR Storozhevoye 71.63 41 eP P 10 35 14.7 -1.2
VSR pmax pmax
comp=Z,20nm,1.2s
EFI East Falkland 72.04 188 eP P 10 35 20.9 +2.8
EFI pmax pmax
comp=Z,16nm,0.9s
MMAI Mount Meron Ar 72.24 61 LR LR 11 08 43.6
comp=Z,95nm,19.3s,baz=260,slow=37
EIL Elat 72.60 64 LR LR 11 08 14.6
comp=Z,729nm,19.7s,baz=256,slow=37
TSUM Tsumeb 73.19 118 LR LR 11 02 29.9
comp=Z,1µm,19.0s,baz=308,slow=32
VRH Novokhopyorsk 73.21 41 eP P 10 35 25.0 -0.4
VRH pmax pmax
comp=Z,10.0nm,0.8s
HYT Haines Junctio 73.74 329 eP P 10 35 28.9 +0.4
comp=Z,51nm,1.8s
DAWY Dawson 73.93 333 eP P 10 35 29.0 -0.5
comp=Z,66nm,1.9s
GOF Gofitskoye 75.37 47⇑eP P 10 35 37.9 -0.2
GOF pmax pmax
comp=Z,37nm,1.1s
KIV Kislovodsk 75.38 48 eP P 10 35 39.4 +1.1
KIV pmax pmax
comp=Z,36nm,1.1s
KIV MLR MLR
comp=Z,180nm,18.0s
KIV Kislovodsk 75.38 48 eP P 10 35 39.8 +1.5
comp=Z,38nm,1.1s
KVAR Kislovodsk Arr 75.39 48 LR LR 11 10 34.3
comp=Z,145nm,18.1s,baz=272,slow=37
MARD Mardin 75.55 55 eP P 10 35 39.4 0.0
comp=Z,26nm,1.3s
NEY Neytrino 75.57 49 eP P 10 35 42.5 +3.0
NEY pmax pmax
comp=Z,1.0nm,0.9s
KBZ Khabaz 75.58 48 P P 10 35 37.5 -1.8
comp=Z,5.9nm,0.9s,baz=301,slow=3.7,SNR=12
KBZ LR LR 11 10 43.5
comp=Z,107nm,18.1s,baz=284,slow=37
NCK Nalchik 76.13 49 eP P 10 35 44.0 +1.5
NCK pmax pmax
comp=Z,9.0nm,0.8s
ZEI Tsey 76.52 49 eP P 10 35 45.0 0.0
ZEI pmax pmax
comp=Z,12nm,1.5s
IL1 Eielson Array 76.88 334 eP P 10 35 46.1 -0.2
ILAR Eielson Array 76.88 334 P P 10 35 44.5 -1.8
comp=Z,9.8nm,0.8s,baz=69,slow=4.8,SNR=65
ILAR LR LR 11 09 09.5
comp=Z,961nm,19.2s,baz=80,slow=35
ILB Eielson Array 76.88 334 eP P 10 35 46.0 -0.4
COLA College 77.24 335 eP P 10 35 48.5 +0.2
COLA pmax pmax
comp=Z,77nm,1.8s
COLA College 77.24 335 eP P 10 35 48.5 +0.2
comp=Z,77nm,1.8s
CCB Clear Creek Bu 77.30 334 eP P 10 35 48.0 -0.7
comp=Z,72nm,1.8s
RPN Rapa Nui 77.31 235 LR LR 11 05 51.5
comp=Z,358nm,18.6s,baz=54,slow=33
COLD Coldfoot 77.33 337 eP P 10 35 49.4 +0.6
comp=Z,41nm,1.9s
MDM Murphy Dome 77.36 335 eP P 10 35 48.9 -0.2
comp=Z,18nm,0.8s
WRH Wood River Hil 77.47 334 eP P 10 35 49.4 -0.2
comp=Z,38nm,1.4s
GNI Garni 77.82 52 LR LR 11 08 00.5
comp=Z,72nm,21.3s,baz=282,slow=34
GNI Garni 77.82 52deP P 10 35 53.5 +1.2
GNI pmax pmax
comp=Z,49nm,1.0s
GNI Garni 77.82 52 eP P 10 35 52.7 +0.4
comp=Z,32nm,0.9s
MCK McKinley 78.08 334 eP P 10 35 52.8 -0.2
MCK pmax pmax
comp=Z,20nm,1.2s
MCK McKinley 78.08 334 eP P 10 35 52.8 -0.2
comp=Z,20nm,1.2s
MLY Manley 78.34 335 eP P 10 35 54.5 0.0
comp=Z,50nm,1.8s
BPAW Bear Paw Mtn. 78.78 334 eP P 10 35 56.0 -0.9
comp=Z,87nm,2.0s
KTH Kantishna Hill 78.97 334 eP P 10 35 57.9 -0.1
comp=Z,73nm,1.6s
MAK Makhachkala 79.03 48 eP P 10 35 54.2 -4.4
MAK e 10 38 56.4
MAK eS S 10 45 53.2 -4.7
MAK pmax pmax
comp=Z,86nm,0.9s
MAK MLR MLR
comp=Z,166nm,16.0s
IMAR Indian Mountai 79.12 337 eP P 10 35 59.0 +0.3
LSZ Lusaka 80.60 110 LR LR 11 08 53.5
comp=Z,597nm,18.1s,baz=325,slow=34
LSZ Lusaka 80.60 110 eP P 10 36 06.3 -1.4
LSZ pmax pmax
comp=Z,20nm,1.3s
LSZ Lusaka 80.60 110 eP P 10 36 06.3 -1.4
comp=Z,20nm,1.3s
ARU Arti 81.28 33c iP P 10 36 12.4 +1.9
ARU 10 39 11.0
ARU S S 10 46 25.1 +4.0
ARU SS SS 10 51 36.0 +0.1
ARU pmax pmax
comp=Z,23nm,1.7s
ARU Arti 81.28 33 eP P 10 36 11.2 +0.6
comp=Z,62nm,1.8s
KDAK Kodiak Island 82.02 329 LR LR 11 12 16.0
comp=Z,845nm,18.3s,baz=95,slow=35
SUR Sutherland 82.11 128 LR LR 11 04 41.0
comp=Z,95nm,20.8s,baz=311,slow=30
SVE Sverdlovsk 82.17 32⇑eP P 10 36 15.6 +0.4
SVE pmax pmax
comp=Z,27nm,1.4s
LBTB Lobatse 82.44 120 LR LR 11 08 12.4
comp=Z,1µm,18.9s,baz=296,slow=32
RAYN Ar Rayn 83.37 67 eP P 10 36 22.6 +0.4
comp=Z,27nm,1.7s
BOSA Boshof 83.75 123 P P 10 36 24.8 +0.7
comp=Z,7.7nm,1.1s,baz=283,slow=5.2,SNR=4.4
BOSA LR LR 11 06 31.1
comp=Z,825nm,20.5s,baz=296,slow=30
KMBO Kilima Mbogo 83.77 93 P P 10 36 26.5 +1.8
comp=Z,3.9nm,0.7s,baz=255,slow=4.7,SNR=8.2
KMBO LR LR 11 10 55.8
comp=Z,1µm,21.7s,baz=275,slow=34
KMBO Kilima Mbogo 83.77 93 i P P 10 36 27.7 +3.0
KMBO pmax pmax
comp=Z,4.0nm,0.7s
KMBO Kilima Mbogo 83.77 93 eP P 10 36 28.2 +3.6
comp=Z,16nm,1.3s
GEYT Alibeck 88.36 50 P P 10 36 47.8 +1.1
comp=Z,2.0nm,0.7s,baz=275,slow=7.0,SNR=4.5
TIXI Tiksi 88.66 2 LR LR 11 12 18.4
comp=Z,153nm,20.4s,baz=19,slow=33
TIXI Tiksi 88.66 2⇓eP P 10 36 46.9 -0.4
TIXI pmax pmax
comp=Z,17nm,2.5s
TIXI Tiksi 88.66 2 eP P 10 36 46.9 -0.4
comp=Z,13nm,1.2s
BRVK Borovoye 88.85 33ceP P 10 36 49.5 +0.9
BRVK pmax pmax
comp=Z,47nm,2.5s
BRVK Borovoye 88.85 33 eP P 10 36 49.0 +0.4
comp=Z,30nm,1.6s
BVAR Borovoye Array 88.92 33 LR LR 11 13 00.5
comp=Z,365nm,21.4s,baz=286,slow=33
VNA1 Neumayer--Stat 93.97 168 P P 10 37 12.6 +0.9
VNA3 Neumayer Olymp 94.20 169 P P 10 37 11.5 -1.3
VNA2 Neumayer--Watz 94.36 168 P P 10 37 10.3 -3.3
baz=356,slow=1.9
KURK Kurchatov 94.42 32 eP P 10 37 15.9 +1.5
KURK pmax pmax
comp=Z,2.0nm,1.0s
KURK Kurchatov 94.42 32 P P 10 37 14.5 +0.1
KURBB Kurchatov Arra 94.43 32 P P 10 37 14.5 0.0
comp=Z,1.0nm,0.9s,baz=314,slow=5.3,SNR=5.5
ZALV Zalesovo Beam 95.13 27 P P 10 37 17.4 -0.2
comp=Z,0.4nm,0.4s,baz=310,slow=7.2,SNR=4.9
ZALV LR LR 11 18 11.2
comp=Z,166nm,20.0s,baz=255,slow=34
ZALV Zalesovo Beam 95.13 27 eP P 10 37 17.1 -0.5
ZALV Zalesovo Beam 95.13 27 eP P 10 37 17.1 -0.5
SNAA Sanae 95.86 168 P P 10 37 20.6 +0.1
RKT Rikitea 96.92 248 eLR LR 11 08 50.1
comp=Z,414nm,31.5s
AAK Ala-Archa 96.99 40 P P 10 37 26.7 +0.1
comp=Z,0.4nm,0.3s,baz=139,slow=2.1,SNR=3.8
AAK Ala-Archa 96.99 40 eP P 10 37 27.1 +0.5
AAK pmax pmax
comp=Z,3.0nm,1.2s
AAK Ala-Archa 96.99 40 eP P 10 37 26.4 -0.2
comp=Z,10nm,1.5s
TAOE Nuku Hiva Isla 97.09 263 eLR LR 11 08 31.9
comp=Z,485nm,31.5s
YAK Yakutsk 98.31 2 LR LR 11 18 32.0
comp=Z,211nm,19.2s,baz=78,slow=33
MKAR Makanchi Array 98.80 33 LR LR 11 19 25.1
comp=Z,410nm,20.9s,baz=308,slow=34
KSH Kashi 99.71 42 eP Pdif 10 37 38.2 -0.6
KSH pP sP 10 37 42.9 0.0
KSH PP PP 10 41 44.7 +2.3
KSH SKS SKSac 10 48 15.5 -2.6
KSH S ScS 10 49 08.2 -4.7
KSH SS SS 10 56 01.0 -2.1
KSH pmax pmax
comp=Z,8.0nm,1.2s
KSH pmax pmax
comp=Z,120nm,4.7s
KSH LR LR
comp=Z,200nm,6.3s
KSH LR LR
comp=Z,220nm,6.7s
KSH LR LR
comp=Z,360nm,5.8s
MA2 Magadan 99.71 352 LR LR 11 24 15.5
comp=Z,159nm,18.0s,baz=38,slow=36
SYO Syowa Base 106.69 158⇑epPdiff pPdif 10 38 12.4 +0.6
PPT2 Papeete2 108.44 257 ePS PS 10 52 15.2 +1.6
comp=Z,155nm,29.0s
PPT2 eSS SS 10 58 06.7 +1.4
comp=Z,266nm,27.0s
PPT2 Papeete2 108.44 257 eLR LR 11 14 10.3
comp=Z,257nm,23.2s
TBI Tubuai 109.78 252 ePS PS 10 52 28.0 +1.1
comp=Z,109nm,27.8s
TBI eSS SS 10 58 23.5 +0.5
comp=Z,193nm,31.5s
TBI Tubuai 109.78 252 eLR LR 11 14 50.6
comp=Z,623nm,34.8s
HHC Hu-ho-hao-te 116.02 19 ePKP PKPdf 10 42 38.6 +0.7
HHC PP PP 10 43 46.6 +5.6
HHC SKS SKSdf 10 49 49.7 -0.9
HHC SS SS 10 59 44.4 +1.8
HHC AMB AMB
comp=Z,34nm,5.4s
HHC LR LR
comp=Z,190nm,18.8s
HHC LR LR
comp=Z,160nm,18.8s
HHC LR LR
comp=Z,190nm,19.2s
CN2 Changchun 116.14 7 ePKP PKPdf 10 42 36.9 -1.0
LZH Lanzhou 117.35 28 ePKP PKPdf 10 42 35.0 -5.7
BJI Beijing 118.07 16 PKP PKPdf 10 42 39.8 -1.9
BJI LR LR
comp=Z,410nm,19.2s
BJI LR LR
comp=Z,250nm,12.5s
BJI LR LR
comp=Z,290nm,21.0s
VNDA Vanda 120.73 187 PKP PKPdf 10 42 44.4 -1.3
comp=Z,2.0nm,0.9s,baz=117,slow=2.3,SNR=3.0
KMI Kunming 125.78 36 PKP PKPdf 10 42 54.9 -2.3
NJ2 Nanjing 126.31 16 ePKP PKPdf 10 42 56.2 -1.6
GYA Guiyang 126.73 31 ePdif Pdif 10 39 37.0 -2.3
GYA PKP PKPdf 10 42 56.8 -2.1
GYA PP PP 10 44 57.5 +3.1
GYA AMB AMB
comp=Z,130nm,7.9s
CMAR Chiang Mai Arr 128.51 45 PKP PKPdf 10 43 02.0 -0.3
comp=Z,0.4nm,0.3s,baz=296,slow=4.0,SNR=4.4
CM01 Chiang Mai Arr 128.55 45 ePKPdf PKPdf 10 43 01.9 -0.4
QIZ Qiongzhong 134.53 33 PKP PKPdf 10 43 11.9 -1.8
QIZ PP PP 10 45 43.7 -1.3
QIZ SS SS 11 03 36.2 +0.3
DZM Mont Dzumac 149.91 260 ePKIKP PKPdf 10 43 42.7 +1.9
comp=Z,70nm,1.4s
DZM Mont Dzumac 149.91 260 eSS SS 11 06 43.3 +5.9
comp=Z,223nm,29.6s
DZM Mont Dzumac 149.91 260 eLR LR 11 33 29.4
comp=Z,401nm,27.9s
DZM Mont Dzumac 149.91 260 ePKPbc PKPbc 10 43 46.9 +1.2
CISI Cisompet, Garu 151.59 68 ePKPbc PKPbc 10 43 49.0 -0.8
STKA Stephens Creek 166.34 207 PKP PKPdf 10 44 00.2 0.0
comp=Z,2.5nm,0.7s,baz=317,slow=4.6,SNR=4.5
ASAR Alice Springs 176.19 175 PKP PKPdf 10 44 04.8 -0.7
comp=Z,1.1nm,0.9s,baz=33,slow=0.9,SNR=7.8
ASAR PKPab PKPab 10 45 45.0 -0.1
comp=Z,0.6nm,0.9s,baz=182,slow=5.6,SNR=3.8
AS01 Alice Springs 176.20 175 ePKPdf PKPdf 10 44 04.9 -0.6
WRA Warramunga Arr 179.89 214 PKP PKPdf 10 44 05.3 -0.7
comp=Z,0.9nm,1.0s,baz=269,slow=0.2,SNR=5.3
WRA PKPab PKPab 10 46 00.3
comp=Z,1.8nm,0.9s,baz=14,slow=4.7,SNR=8.5

---

**IDC 04 10:29:13.4±1.1, 15°.68N×119°.77E, h0km, mb3.8/7, mb1 4.0/7, mb1mx3.7/35, mbtmp3.8/7, MS3.8/4, Ms1 3.8/4, ms1mx3.0/52, Error ellipse: s-maj=58.4km s-min=18.5km az=62.0, Luzon**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CMAR | Chiang Mai Arr | 20.09 | 281 | P | P | 10 33 49.3 | +0.5 |
| | 1.3nm,0.8s,baz=92,slow=7.7,SNR=8.4 | | | | | | |
| KSRS | Korea Array | 22.86 | 17 | LR | LR | 10 43 06.4 | |
| | comp=Z,34nm,18.0s,baz=251,slow=36 | | | | | | |
| SONM | Songino Array | 33.91 | 344 | P | P | 10 35 59.4 | +1.2 |
| | 0.4nm,0.5s,baz=165,slow=10,SNR=4.5 | | | | | | |
| WRA | Warramunga Arr | 38.19 | 157 | P | P | 10 36 34.5 | -0.5 |
| | 0.4nm,0.6s,baz=333,slow=9.7,SNR=7.7 | | | | | | |
| ASAR | Alice Springs | 41.48 | 160 | P | P | 10 37 02.7 | +0.3 |
| | 0.4nm,0.5s,baz=337,slow=7.1,SNR=9.8 | | | | | | |
| MKAR | Makanchi Array | 43.91 | 323 | P | P | 10 37 21.4 | -0.5 |
| | 0.6nm,0.6s,baz=104,slow=12,SNR=4.2 | | | | | | |
| KURBB | Kurchatov Arra | 48.05 | 326 | P | P | 10 37 54.2 | -0.2 |
| | 1.3nm,0.8s,baz=120,slow=8.4,SNR=6.6 | | | | | | |
| AKTO | Aktyubinsk | 60.13 | 319 | LR | LR | 11 06 55.0 | |
| | comp=Z,134nm,20.8s,baz=302,slow=38 | | | | | | |
| ARU | Arti | 61.24 | 326 | LR | LR | 11 07 07.7 | |
| | comp=Z,89nm,19.8s,baz=290,slow=37 | | | | | | |
| FINES | FINESS Array B | 78.12 | 331 | P | P | 10 41 13.3 | -0.9 |
| | 8.3nm,1.1s,baz=132,slow=2.8,SNR=4.1 | | | | | | |
| PPT | Papeete | 95.23 | 107 | LR | LR | 11 18 43.5 | |
| | comp=Z,100nm,20.7s,baz=48,slow=31 | | | | | | |

---

**JMA 04 10:30:33.5±0.1, 38°.78N×142°.13E, h45km±1km, M3.6, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| OFUJ | Ofunato | 0.47 | 310 | P | Pn | 10 30 44.1 | 0.0 |
| OFUJ | | | | eS | Sn | 10 30 51.5 | -0.1 |
| JIO | Ouri | 0.69 | 242 | P | Pn | 10 30 46.8 | -0.1 |
| JIO | | | | eS | Sn | 10 30 55.9 | -0.7 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **JMK** | **Ichinoseki** | **0.73** | **284** | P | Pn | 10 30 47.5 | 0.0 |
| JMK | | | | *e*S | Sn | 10 30 57.4 | -0.2 |
| **JOM** | **Ohasama** | **0.95** | **317** | P | Pn | 10 30 50.6 | +0.2 |
| JOM | | | | *e*S | Sn | 10 31 03.0 | +0.1 |
| **JOU** | **Okura** | **1.22** | **251** | P | Pn | 10 30 54.3 | +0.1 |
| JOU | | | | *e*S | Sn | 10 31 10.0 | +0.5 |
| **JRG** | **Rokugo** | **1.32** | **298** | P | Pn | 10 30 55.8 | +0.4 |
| **JYK** | **Kaneyama** | **1.39** | **276** | P | Pn | 10 30 56.7 | +0.3 |
| **JMM** | **Marumori** | **1.39** | **229** | P | Pn | 10 30 56.2 | -0.3 |
| JMM | | | | *e*S | Sn | 10 31 13.5 | -0.1 |

*ISCJB **04** 10:41:18.8±0.7, 20°0N±0°1×45°8W±0°2, h10km, mb3.7/10, Error ellipse: s-maj=20.8km s-min=17.3km az=2.7*

*IDC **04** 10:41:19.1±0.8, 19°95N×45°84W, h0km, mb3.7/10, mb1 4.0/10, mb1mx3.7/63, mbtmp3.7/10, Error ellipse: s-maj=25.4km s-min=20.7km az=92.0*

**ISC 04 10:41:20.7**±0.8**, 19°9N**±0°1×**45°8W**±0°2**, h10**km**, n16,** σ**0s69**/10**, mb3.9**/10**, Northern Mid-Atlantic Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **H10N3** | **ASCENSION HYDR** | **41.38** | **129** | T | T | 11 33 07.2 | |
| | baz=312,slow=75,SNR=38 | | | | | | |
| **H10N2** | **ASCENSION HYDR** | **41.38** | **129** | T | T | 11 33 07.7 | |
| | baz=312,slow=75,SNR=34 | | | | | | |
| **H10N1** | **ASCENSION HYDR** | **41.40** | **129** | T | T | 11 33 09.0 | |
| | baz=312,slow=75,SNR=27 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **42.01** | **130** | T | T | 11 33 49.9 | |
| | baz=313,slow=75,SNR=11 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **42.01** | **130** | T | T | 11 33 49.3 | |
| | baz=313,slow=75,SNR=12 | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **42.03** | **130** | T | T | 11 33 45.7 | |
| | baz=313,slow=75,SNR=12 | | | | | | |
| **LPAZ** | **La Paz** | **42.14** | **213** | P | **P** | **10 49 14.7** | **+0.5** |
| | 1.7nm,0.7s,baz=12,slow=11,SNR=6.8 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **45.93** | **91** | P | **P** | **10 49 43.6** | **-0.4** |
| | 1.0nm,0.9s,baz=293,slow=6.6,SNR=4.8 | | | | | | |
| **CPUP** | **Villa Florida** | **47.32** | **194** | P | **P** | **10 49 53.9** | **-0.8** |
| | 1.3nm,0.6s,baz=54,slow=7.0,SNR=3.8 | | | | | | |
| **TXAR** | **Lajitas Array** | **52.96** | **292** | P | **P** | **10 50 38.3** | **+0.5** |
| | 0.4nm,0.8s,baz=84,slow=9.2,SNR=4.4 | | | | | | |
| **PDAR** | **Pinedale Array** | **57.60** | **309** | P | **P** | **10 51 11.2** | **0.0** |
| | 0.7nm,0.8s,baz=99,slow=9.3,SNR=6.8 | | | | | | |
| **YKA** | **Yellowknife Ar** | **62.73** | **331** | P | **P** | **10 51 44.8** | **-0.9** |
| | 0.3nm,0.8s,baz=108,slow=7.3,SNR=3.4 | | | | | | |
| **MLR** | **Muntele Rosu** | **63.39** | **48** | P | **P** | **10 51 51.6** | **+1.0** |
| | 0.6nm,0.8s,baz=137,slow=19,SNR=5.1 | | | | | | |
| **PLCA** | **Paso Flores** | **64.59** | **201** | P | **P** | **10 51 58.5** | **+0.3** |
| | 0.9nm,0.8s,baz=53,slow=9.6,SNR=4.5 | | | | | | |
| **INK** | **Inuvik** | **70.81** | **337** | P | **P** | **10 52 36.7** | **-0.4** |
| | 0.9nm,0.9s,baz=72,slow=3.0,SNR=3.6 | | | | | | |
| **ILAR** | **Eielson Array** | **76.77** | **334** | P | **P** | **10 53 12.2** | **+0.1** |
| | 0.9nm,0.8s,baz=68,slow=4.1,SNR=6.2 | | | | | | |

*BJI **04** 10:44:33.8, 19°90N×45°80W, h10km, mb5.3/2, mB5.6/4, Ms5.3/5, Ms7 5.0/5*

*IDC **04** 10:44:34.2±0.4, 19°96N×45°87W, h0km, mb4.4/44, mb1 4.5/45, mb1mx4.4/68, mbtmp4.4/45, ML3.9/1, MS3.9/27, Ms1 3.9/27, ms1mx3.8/53, Error ellipse: s-maj=12.3km s-min=9.7km az=140.0*

*MOS **04** 10:44:34.1±1.0, 19°96N×45°83W, h10km, mb4.9/45, Error ellipse: s-maj=8.3km s-min=6.4km az=46.0*

*ISCJB **04** 10:44:34.0±0.2, 19°93N±0°04×45°82W±0°02, h10km, mb4.7/179, MS3.9/27, Error ellipse: s-maj=5.2km s-min=2.6km az=1.0*

*NEIC **04** 10:44:35.8±0.1, 19°90N×45°80W, h10km, mb4.9/105, Error ellipse: s-maj=4.0km s-min=2.8km az=175.0*

*GCMT **04** 10:44:35.8±0.4, 20°08N×45°71W, h15km±1km, MW4.8/74, Moment Tensor Solution. s15,c15; s74,c91; Duration: 0 Moment tensor: Scale $10^{16}$Nm; $M_{rr}$-1.86±.14; $M_{\theta\theta}$0.23±.09; $M_{\phi\phi}$1.63±.10; $M_{r\theta}$-0.25±.30; $M_{\theta\phi}$0.16±.06; $M_{\phi r}$-0.25±.22; Best double couple: $M_0$1.78700×$10^{16}$ NP1:$\phi_s$13.00000°,δ50.00000°,λ-82.00000°. NP2: $\phi_s$181.00000°,δ41.00000°,λ-99.00000°. Principal axes: T 1.6700, Plg5.0000°, Azm97.0000°; N 0.2300, Plg6.0000°, Azm188.0000°; P -1.9040, Plg83.0000°, Azm330.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

**ISC 04 10:44:35.7**±0.3**, 19°94N**±0°06×**45°77W**±0°05**, h10**km**, n566,** σ**0s91**/556**, mb4.8**/180**, MS3.9**/27**, 17C-6D, Northern Mid-Atlantic Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SJG** | **San Juan** | **19.36** | **268** | P | **P** | **10 49 01.4** | **-0.2** |
| | 0.3nm,0.3s,baz=51,slow=6.5,SNR=3.9 | | | | | | |
| SJG | | | | LR | LR | 10 55 05.0 | |
| | comp=Z,372nm,21.4s,baz=106,slow=33 | | | | | | |
| **CELP** | **Cerrillos** | **19.77** | **268** | *e*P | **Pn** | **10 49 07.0** | **-0.6** |
| **PCRV** | **Puerto La Cruz** | **20.62** | **245** | LR | LR | 10 57 03.9 | |
| | comp=Z,132nm,21.4s,baz=18,slow=36 | | | | | | |
| **SDDR** | **Presa de Saban** | **24.08** | **272** | *e*P | **P** | **10 49 53.1** | **+1.5** |
| | 26nm,0.8s | | | | | | |
| **PTGA** | **Pitinga** | **24.82** | **216** | P | **P** | **10 49 57.9** | **-0.4** |
| | 4.3nm,0.8s,baz=38,slow=13,SNR=7.2 | | | | | | |
| PTGA | | | | LR | LR | 10 58 22.6 | |
| | comp=Z,371nm,21.0s,baz=15,slow=33 | | | | | | |
| **PTGA** | **Pitinga** | **24.82** | **216** | *e*P | **P** | **10 49 58.2** | **-0.1** |
| | 12nm,1.2s | | | | | | |
| **SDV** | **Santo Domingo** | **26.43** | **249** | P | **P** | **10 50 13.4** | **+0.2** |
| | 8.9nm,0.8s,baz=19,slow=2.3,SNR=11 | | | | | | |
| SDV | | | | LR | LR | 10 59 32.9 | |
| | comp=Z,217nm,21.7s,baz=58,slow=34 | | | | | | |
| **SDV** | **Santo Domingo** | **26.43** | **249** | *e*P | **P** | **10 50 13.9** | **+0.7** |
| | 13nm,0.9s | | | | | | |
| **RCBR** | **Riachuelo** | **27.38** | **158** | LR | LR | 10 58 13.6 | |
| | comp=Z,250nm,20.4s,baz=314,slow=30 | | | | | | |
| **BBTS** | **Babate** | **28.38** | **96** | LR | LR | 10 58 50.6 | |
| | comp=Z,387nm,19.6s,baz=280,slow=30 | | | | | | |
| **RUSC** | **La Rusia** | **29.99** | **246** | *e*P | **P** | **10 50 46.3** | **+0.9** |
| | 13nm,1.1s | | | | | | |
| **ROSC** | **El Rosal** | **31.59** | **245** | LR | LR | 11 05 19.7 | |
| | comp=Z,97nm,18.2s,baz=82,slow=40 | | | | | | |
| **PRAC** | **Prado** | **32.65** | **244** | *e*P | **P** | **10 51 07.5** | **-0.7** |
| | 13nm,0.8s | | | | | | |
| **N59A** | **State Game Lan** | **33.01** | **316** | P | **P** | **10 51 11.7** | **+0.5** |
| | baz=120 | | | | | | |
| **SAML** | **Samuel** | **33.44** | **212** | *e*P | **P** | **10 51 14.8** | **-0.3** |
| | 7.1nm,0.8s | | | | | | |
| **FRNY** | **Flat Rock** | **33.88** | **323** | *e*P | **P** | **10 51 19.3** | **+0.7** |
| | 35nm,1.4s | | | | | | |
| **O56A** | **Blue Knob Stat** | **34.58** | **313** | P | **P** | **10 51 24.6** | **-0.2** |
| | baz=116 | | | | | | |
| **HODGE** | **Hodges** | **35.27** | **301** | *e*P | **P** | **10 51 32.9** | **+2.1** |
| | 53nm,1.9s | | | | | | |
| **BDFB** | **Brasilia** | **35.43** | **184** | P | **P** | **10 51 32.1** | **-0.3** |
| | 7.3nm,0.8s,baz=157,slow=9.0,SNR=13 | | | | | | |
| **BDFB** | **Brasilia** | **35.43** | **184** | *e*P | **P** | **10 51 32.7** | **+0.3** |
| BDFB | | | | pmax | pmax | | |
| | comp=Z,22nm,1.0s | | | | | | |
| **BDFB** | **Brasilia** | **35.43** | **184** | *e*P | **P** | **10 51 32.7** | **+0.3** |
| | comp=Z,22nm,1.0s | | | | | | |
| **N54A** | **Moraine State** | **35.85** | **313** | P | **P** | **10 51 36.1** | **+0.3** |
| | baz=116 | | | | | | |
| **M54A** | **Oil Creek Stat** | **35.87** | **314** | P | **P** | **10 51 36.3** | **+0.4** |
| | baz=117 | | | | | | |
| **TKL** | **Tuckaleechee C** | **36.83** | **303** | LR | LR | 11 04 37.7 | |
| | comp=Z,238nm,19.6s,baz=159,slow=33 | | | | | | |
| **PNCL** | **Nicolau / Gran** | **36.95** | **53** | *e*P | **P** | **10 51 45.7** | **+0.6** |
| | comp=Z,35nm,1.7s | | | | | | |
| **PBDV** | **Barranco-do-Ve** | **37.13** | **54** | *e*P | **P** | **10 51 48.1** | **+1.3** |
| | comp=Z,55nm,1.9s | | | | | | |
| **PCVE** | **Castro Verde** | **37.17** | **54** | *e*P | **P** | **10 51 48.2** | **+1.2** |
| | comp=Z,42nm,1.3s | | | | | | |
| **PVAQ** | **Vaqueiros** | **37.34** | **54** | *e*P | **P** | **10 51 50.2** | **+1.7** |
| | comp=Z,44nm,1.9s | | | | | | |
| **PMTG** | **Montargil** | **37.49** | **51** | *e*P | **P** | **10 51 49.9** | **+0.2** |
| | comp=Z,36nm,1.5s | | | | | | |
| **OTAV** | **Otavalo** | **37.51** | **242** | *e*P | **P** | **10 51 51.4** | **+0.7** |
| | comp=Z,18nm,1.4s | | | | | | |
| **PTOM** | **Tomar** | **37.54** | **50** | *e*P | **P** | **10 51 50.5** | **+0.4** |
| | comp=Z,30nm,1.1s | | | | | | |
| **PESTR** | **Estremoz** | **37.89** | **52** | *e*P | **P** | **10 51 53.5** | **+0.4** |
| | comp=Z,22nm,2.2s | | | | | | |
| **PBAR** | **Barrancos** | **38.09** | **53** | *e*P | **P** | **10 51 55.3** | **+0.5** |
| | comp=Z,50nm,1.5s | | | | | | |
| **PMRV** | **Marv??o** | **38.22** | **51** | *e*P | **P** | **10 51 56.4** | **+0.5** |
| | comp=Z,28nm,1.5s | | | | | | |
| **PCBR** | **Castelo Branco** | **38.29** | **50** | *e*P | **P** | **10 51 57.0** | **+0.5** |
| | comp=Z,27nm,1.5s | | | | | | |
| **SCHQ** | **Schefferville** | **38.33** | **340** | P | **P** | **10 51 55.4** | **-1.2** |
| | comp=Z,8.4nm,1.0s,baz=96,slow=11,SNR=3.9 | | | | | | |
| SCHQ | | | | LR | LR | 11 05 17.5 | |
| | comp=Z,180nm,20.9s,baz=222,slow=32 | | | | | | |
| **SCHQ** | **Schefferville** | **38.33** | **340** | *e*P | **P** | **10 51 57.3** | **+0.7** |
| | comp=Z,82nm,1.9s | | | | | | |
| **MTE** | **Manteigas** | **38.44** | **49** | *e*P | **P** | **10 51 58.5** | **+0.7** |
| **MTE** | **Manteigas** | **38.44** | **49** | *e*P | **P** | **10 51 58.3** | **+0.5** |
| | comp=Z,40nm,1.4s | | | | | | |
| **POLO** | **Lamas de Olo** | **38.61** | **48** | *e*P | **P** | **10 51 58.5** | **-0.8** |
| | comp=Z,22nm,2.0s | | | | | | |
| **SIV** | **San Ignacio** | **38.75** | **204** | P | **P** | **10 52 00.8** | **+0.3** |
| | comp=Z,2.3nm,0.8s,baz=20,slow=7.8,SNR=4.2 | | | | | | |
| SIV | | | | LR | LR | 11 07 32.8 | |
| | comp=Z,94nm,19.4s,baz=348,slow=36 | | | | | | |
| **MDT** | **Midelt** | **38.80** | **62** | P | **P** | **10 52 02.0** | **+1.0** |
| | comp=Z,6.4nm,0.9s,baz=262,slow=9.7,SNR=9.9 | | | | | | |
| MDT | | | | LR | LR | 11 05 32.7 | |
| | comp=Z,192nm,19.0s,baz=219,slow=32 | | | | | | |
| **JTS** | **JuntasAbangare** | **38.94** | **262** | *e*P | **P** | **10 52 06.5** | **+4.2** |
| **MVO** | **Moncorvo** | **39.07** | **49** | *e*P | **P** | **10 52 03.9** | **+0.8** |
| | comp=Z,38nm,1.6s | | | | | | |
| **Z48A** | **Northport** | **39.41** | **299** | P | **P** | **10 52 05.9** | **0.0** |
| | baz=99 | | | | | | |
| **Y47A** | **UCPARC, Winfie** | **39.74** | **299** | P | **P** | **10 52 08.8** | **+0.1** |
| | baz=100 | | | | | | |
| **Z47A** | **Carrollton** | **39.81** | **298** | P | **P** | **10 52 08.7** | **-0.6** |
| | baz=99 | | | | | | |
| **BLO** | **Bloomington** | **39.89** | **308** | *e*P | **P** | **10 52 11.1** | **+1.2** |
| BLO | | | | pmax | pmax | | |
| | comp=Z,12nm,0.9s | | | | | | |
| **BLO** | **Bloomington** | **39.89** | **308** | *e*P | **P** | **10 52 11.1** | **+1.2** |
| | comp=Z,12nm,0.9s | | | | | | |
| **O47A** | **Sheridan** | **39.96** | **309** | P | **P** | **10 52 10.5** | **+0.1** |
| | baz=108 | | | | | | |
| **R46A** | **Gibon Southern** | **40.38** | **306** | P | **P** | **10 52 13.8** | **-0.1** |
| | baz=105 | | | | | | |
| **S46A** | **Don Dixon Farm** | **40.40** | **305** | P | **P** | **10 52 14.4** | **+0.2** |
| | baz=104 | | | | | | |
| **M46A** | **Old House Fiel** | **40.46** | **311** | P | **P** | **10 52 14.4** | **-0.2** |
| | baz=110 | | | | | | |
| **PAB** | **San Pablo** | **40.49** | **52** | *e*P | **P** | **10 52 15.1** | **+0.1** |
| PAB | | | | pmax | pmax | | |
| | comp=Z,15nm,1.2s | | | | | | |
| **PAB** | **San Pablo** | **40.49** | **52** | *e*P | **P** | **10 52 15.1** | **+0.1** |
| | comp=Z,15nm,1.2s | | | | | | |
| **P46A** | **Rosedale** | **40.53** | **308** | P | **P** | **10 52 15.4** | **+0.3** |
| | baz=107 | | | | | | |
| **SFIN** | **Lafayette** | **40.67** | **309** | P | **P** | **10 52 16.9** | **+0.6** |
| | baz=108 | | | | | | |
| **ESDC** | **Sonseca Array** | **40.82** | **52** | P | **P** | **10 52 18.1** | **+0.5** |
| | comp=Z,2.1nm,0.8s,baz=250,slow=8.4,SNR=10 | | | | | | |
| ESDC | | | | PcP | **PcP** | **10 54 19.0** | **+0.4** |
| | comp=Z,1.0nm,0.8s,baz=272,slow=3.2,SNR=6.8 | | | | | | |
| ESDC | | | | LR | LR | 11 05 14.2 | |
| | comp=Z,144nm,21.4s,baz=250,slow=30 | | | | | | |
| **ESLA** | **Sonseca Array** | **40.82** | **52** | *e*P | **P** | **10 52 18.4** | **+0.8** |
| | comp=Z,29nm,1.6s | | | | | | |
| **ES19** | **SONSECA Array** | **40.87** | **52** | *e*P | **P** | **10 52 18.2** | **+0.1** |
| **R45A** | **Skylar, Fairfi** | **40.98** | **306** | P | **P** | **10 52 19.5** | **+0.5** |
| | baz=104 | | | | | | |
| **Q45A** | **Warren Harvey,** | **41.04** | **307** | P | **P** | **10 52 20.0** | **+0.6** |
| | baz=105 | | | | | | |
| **O45A** | **Potomac** | **41.09** | **309** | P | **P** | **10 52 20.0** | **+0.2** |
| | baz=107 | | | | | | |
| **245A** | **Little AP, Sta** | **41.19** | **296** | P | **P** | **10 52 20.9** | **+0.2** |
| | baz=96 | | | | | | |
| **H10N3** | **ASCENSION HYDR** | **41.34** | **129** | T | T | 11 36 15.7 | |
| | baz=312,slow=75,SNR=90 | | | | | | |
| **H10N2** | **ASCENSION HYDR** | **41.34** | **129** | T | T | 11 36 15.8 | |
| | baz=312,slow=75,SNR=88 | | | | | | |
| **H10N1** | **ASCENSION HYDR** | **41.36** | **129** | T | T | 11 36 17.1 | |
| | baz=312,slow=75,SNR=78 | | | | | | |
| **S44A** | **Carbondale** | **41.59** | **305** | P | **P** | **10 52 23.2** | **-0.8** |
| | baz=103 | | | | | | |
| **O44A** | **Mansfield** | **41.61** | **308** | P | **P** | **10 52 23.8** | **-0.3** |
| | baz=106 | | | | | | |
| **DBIC** | **Dimbokro** | **41.81** | **103** | P | **P** | **10 52 25.3** | **-0.7** |
| | comp=Z,7.6nm,0.9s,baz=274,slow=11,SNR=6.5 | | | | | | |
| DBIC | | | | LR | LR | 11 06 58.2 | |
| | comp=Z,425nm,19.4s,baz=280,slow=32 | | | | | | |
| **ATAH** | **Atahualpa** | **41.89** | **233** | LR | LR | 11 10 14.5 | |
| | comp=Z,142nm,21.2s,baz=24,slow=37 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **41.98** | **130** | T | T | 11 36 52.0 | |
| | baz=313,slow=75,SNR=52 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **41.98** | **130** | T | T | 11 36 52.3 | |
| | baz=313,slow=75,SNR=57 | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **41.99** | **130** | T | T | 11 37 02.0 | |
| | baz=313,slow=75,SNR=49 | | | | | | |
| **LPAZ** | **La Paz** | **42.18** | **213** | P | **P** | **10 52 29.9** | **+0.3** |
| | comp=Z,8.4nm,0.8s,baz=22,slow=7.7,SNR=27 | | | | | | |
| **LPAZ** | **La Paz** | **42.18** | **213** | *e*P | **P** | **10 52 29.4** | **-0.2** |
| LPAZ | | | | pmax | pmax | | |
| | comp=Z,16nm,1.0s | | | | | | |
| **LPAZ** | **La Paz** | **42.18** | **213** | *e*P | **P** | **10 52 29.4** | **-0.2** |
| | comp=Z,16nm,1.0s | | | | | | |
| **S43A** | **Fulton Ridge,** | **42.20** | **304** | P | **P** | **10 52 28.2** | **-0.8** |
| | baz=102 | | | | | | |
| **R43A** | **Red Bud** | **42.24** | **305** | P | **P** | **10 52 29.5** | **+0.3** |
| | baz=103 | | | | | | |
| **T43A** | **Greenville** | **42.27** | **304** | P | **P** | **10 52 29.4** | **-0.1** |
| | baz=101 | | | | | | |
| **HDIL** | **Hopedale** | **42.33** | **309** | P | **P** | **10 52 29.8** | **-0.1** |
| | baz=106 | | | | | | |
| **M43A** | **Waltham Townsh** | **42.33** | **310** | P | **P** | **10 52 29.6** | **-0.3** |
| | baz=107 | | | | | | |
| **Z43A** | **Armstrong Fami** | **42.45** | **298** | P | **P** | **10 52 30.9** | **-0.1** |
| | baz=96 | | | | | | |
| **FVM** | **French Village** | **42.56** | **305** | *e*P | **P** | **10 52 32.7** | **+0.8** |
| FVM | | | | pmax | pmax | | |
| | comp=Z,13nm,1.0s | | | | | | |
| **FVM** | **French Village** | **42.56** | **305** | *e*P | **P** | **10 52 32.6** | **+0.8** |
| | comp=Z,13nm,1.0s | | | | | | |
| **S42A** | **Caledonia** | **42.80** | **304** | P | **P** | **10 52 33.8** | **0.0** |
| | baz=102 | | | | | | |
| **O42A** | **Bath** | **42.81** | **308** | P | **P** | **10 52 34.0** | **+0.1** |
| | baz=105 | | | | | | |
| **Q42A** | **Golden Eagle** | **42.84** | **306** | P | **P** | **10 52 34.3** | **+0.1** |
| | baz=103 | | | | | | |
| **P42A** | **Winchester** | **42.86** | **307** | P | **P** | **10 52 34.4** | **+0.1** |
| | baz=104 | | | | | | |
| **U42A** | **Revenden** | **42.89** | **302** | P | **P** | **10 52 33.9** | **-0.6** |
| | baz=100 | | | | | | |
| **T42A** | **Van Buren** | **42.89** | **303** | P | **P** | **10 52 34.7** | **+0.1** |
| | baz=101 | | | | | | |
| **R42A** | **Luebbering** | **42.91** | **305** | P | **P** | **10 52 34.7** | **+0.1** |
| | baz=102 | | | | | | |
| **M42A** | **Sheffield** | **42.91** | **310** | P | **P** | **10 52 35.1** | **+0.4** |
| | baz=106 | | | | | | |
| **V42A** | **Cord** | **42.92** | **301** | P | **P** | **10 52 34.8** | **0.0** |
| | baz=99 | | | | | | |
| **N42A** | **Yates City** | **42.95** | **309** | P | **P** | **10 52 34.4** | **-0.6** |
| | baz=106 | | | | | | |
| **L42A** | **Oliver, Polo** | **43.01** | **311** | P | **P** | **10 52 36.0** | **+0.6** |
| | baz=107 | | | | | | |
| **K42A** | **Prairie Point,** | **43.01** | **312** | P | **P** | **10 52 35.6** | **+0.1** |
| | baz=108 | | | | | | |
| **CCM** | **Cathedral Cave** | **43.21** | **305** | *e*P | **P** | **10 52 37.7** | **+0.6** |
| CCM | | | | pmax | pmax | | |
| | comp=Z,29nm,1.4s | | | | | | |
| **CCM** | **Cathedral Cave** | **43.21** | **305** | *e*P | **P** | **10 52 37.7** | **+0.6** |
| | comp=Z,29nm,1.4s | | | | | | |
| **R41A** | **Rosebud** | **43.36** | **305** | P | **P** | **10 52 38.3** | **-0.1** |
| | baz=102 | | | | | | |
| **Q41A** | **Truxton** | **43.39** | **306** | P | **P** | **10 52 37.7** | **-0.8** |
| | baz=103 | | | | | | |
| **O41A** | **Passleys Farm,** | **43.39** | **308** | P | **P** | **10 52 37.9** | **-0.6** |
| | baz=104 | | | | | | |
| **P41A** | **Barry, Barry** | **43.42** | **307** | P | **P** | **10 52 39.1** | **+0.3** |
| | baz=104 | | | | | | |
| **T41A** | **Mountain View** | **43.42** | **303** | P | **P** | **10 52 39.0** | **+0.1** |
| | baz=100 | | | | | | |
| **U41A** | **Viola** | **43.43** | **302** | P | **P** | **10 52 38.2** | **-0.8** |
| | baz=99 | | | | | | |
| **M41A** | **Milan** | **43.46** | **310** | P | **P** | **10 52 38.9** | **-0.2** |
| | baz=106 | | | | | | |
| **S41A** | **Jillco Farms,** | **43.51** | **304** | P | **P** | **10 52 38.9** | **-0.7** |
| | baz=101 | | | | | | |
| **W41B** | **Gary Mavity, V** | **43.52** | **300** | P | **P** | **10 52 39.5** | **-0.2** |
| | baz=98 | | | | | | |
| **V41A** | **Mountainview** | **43.53** | **301** | P | **P** | **10 52 39.2** | **-0.6** |
| | baz=99 | | | | | | |
| **K41A** | **Shullsburg** | **43.64** | **311** | P | **P** | **10 52 39.8** | **-0.7** |
| | baz=107 | | | | | | |
| **X41A** | **Kaden, Bauxite** | **43.65** | **299** | P | **P** | **10 52 40.4** | **-0.3** |
| | baz=97 | | | | | | |
| **J41A** | **Loganville** | **43.66** | **313** | P | **P** | **10 52 40.0** | **-0.7** |
| | baz=108 | | | | | | |
| **Y41A** | **Eaglette Beard** | **43.66** | **298** | P | **P** | **10 52 39.9** | **-0.9** |
| | baz=96 | | | | | | |
| **JFWS** | **Jewell Farm** | **43.69** | **312** | *e*P | **P** | **10 52 42.0** | **+1.1** |
| JFWS | | | | pmax | pmax | | |
| | comp=Z,15nm,0.9s | | | | | | |
| **JFWS** | **Jewell Farm** | **43.69** | **312** | *e*P | **P** | **10 52 42.0** | **+1.1** |
| | comp=Z,15nm,0.9s | | | | | | |
| **X40A** | **Basin Creek Fa** | **43.91** | **299** | P | **P** | **10 52 42.6** | **-0.2** |
| | baz=97 | | | | | | |
| **341A** | **Kurthwood** | **43.92** | **295** | P | **P** | **10 52 42.8** | **-0.1** |
| | baz=93 | | | | | | |
| **D41A** | **Chassel** | **44.00** | **318** | P | **P** | **10 52 42.8** | **-0.6** |
| | baz=113 | | | | | | |
| **Q40A** | **Laux Farm, Aux** | **44.04** | **306** | P | **P** | **10 52 43.0** | **-0.7** |
| | baz=102 | | | | | | |
| **T40A** | **Mansfield** | **44.04** | **303** | P | **P** | **10 52 43.9** | **+0.1** |
| | baz=100 | | | | | | |
| **R40A** | **Maddies Statio** | **44.05** | **305** | P | **P** | **10 52 43.2** | **-0.7** |
| | baz=101 | | | | | | |
| **NNA** | **Nana** | **44.07** | **227** | LR | LR | 11 10 09.4 | |
| | comp=Z,169nm,21.1s,baz=8.0,slow=35 | | | | | | |
| **V40A** | **Witts Springs** | **44.07** | **301** | P | **P** | **10 52 44.0** | **-0.2** |
| | baz=98 | | | | | | |
| **N40A** | **Mertquake, Sal** | **44.09** | **309** | P | **P** | **10 52 44.3** | **0.0** |
| | baz=104 | | | | | | |
| **S40A** | **Lebanon** | **44.10** | **304** | P | **P** | **10 52 44.0** | **-0.3** |
| | baz=100 | | | | | | |
| **O40A** | **La Belle** | **44.13** | **307** | P | **P** | **10 52 44.5** | **0.0** |
| | baz=103 | | | | | | |
| **P40A** | **Paris** | **44.13** | **307** | P | **P** | **10 52 43.9** | **-0.6** |
| | baz=103 | | | | | | |
| **L40A** | **Anamosa** | **44.13** | **310** | P | **P** | **10 52 44.4** | **-0.1** |
| | baz=106 | | | | | | |
| **M40A** | **Post Highland** | **44.17** | **309** | P | **P** | **10 52 44.3** | **-0.5** |
| | baz=105 | | | | | | |
| **J40A** | **Soldiers Grove** | **44.17** | **312** | P | **P** | **10 52 44.2** | **-0.6** |
| | baz=108 | | | | | | |
| **U40A** | **Yellville** | **44.18** | **302** | P | **P** | **10 52 44.6** | **-0.4** |
| | baz=99 | | | | | | |
| **W40A** | **Ferguson Farm,** | **44.19** | **300** | P | **P** | **10 52 44.2** | **-0.9** |
| | baz=97 | | | | | | |
| **I40A** | **Norwalk** | **44.24** | **313** | P | **P** | **10 52 44.8** | **-0.6** |
| | baz=108 | | | | | | |
| **K40A** | **Colesburg** | **44.25** | **311** | P | **P** | **10 52 45.8** | **+0.4** |
| | baz=106 | | | | | | |
| **H40A** | **Chili** | **44.32** | **314** | P | **P** | **10 52 45.9** | **0.0** |
| | baz=109 | | | | | | |
| **G40A** | **Rib Lake** | **44.40** | **315** | P | **P** | **10 52 46.5** | **-0.1** |
| | baz=110 | | | | | | |
| **MIAR** | **Mount Ida** | **44.53** | **299** | P | **P** | **10 52 47.8** | **0.0** |
| | baz=96 | | | | | | |
| **F40A** | **Park Falls** | **44.58** | **316** | P | **P** | **10 52 48.2** | **+0.2** |
| | baz=111 | | | | | | |
| **R39A** | **Chumby, Stover** | **44.65** | **305** | P | **P** | **10 52 48.1** | **-0.6** |
| | baz=101 | | | | | | |
| **P39B** | **Salisbury** | **44.65** | **306** | P | **P** | **10 52 48.0** | **-0.7** |
| | baz=102 | | | | | | |
| **M39A** | **Webster** | **44.67** | **309** | P | **P** | **10 52 48.1** | **-0.7** |
| | baz=104 | | | | | | |
| **U39A** | **Green Forest** | **44.68** | **302** | P | **P** | **10 52 48.1** | **-0.9** |
| | baz=98 | | | | | | |
| **T39A** | **Clever** | **44.69** | **303** | P | **P** | **10 52 48.2** | **-0.8** |
| | baz=99 | | | | | | |
| **L39A** | **Vinton** | **44.71** | **310** | P | **P** | **10 52 48.5** | **-0.6** |
| | baz=105 | | | | | | |
| **V39A** | **Pettigrew** | **44.74** | **301** | P | **P** | **10 52 49.2** | **-0.3** |
| | baz=98 | | | | | | |
| **S39A** | **Bolivar** | **44.76** | **304** | P | **P** | **10 52 48.9** | **-0.7** |
| | baz=100 | | | | | | |
| **N39A** | **Derby Farms, D** | **44.77** | **308** | P | **P** | **10 52 49.7** | **0.0** |
| | baz=104 | | | | | | |
| **W39A** | **Magazine** | **44.77** | **300** | P | **P** | **10 52 49.6** | **-0.1** |
| | baz=97 | | | | | | |
| **K39A** | **Oelwein** | **44.78** | **311** | P | **P** | **10 52 49.7** | **0.0** |
| | baz=106 | | | | | | |
| **J39A** | **Decorah** | **44.83** | **312** | P | **P** | **10 52 49.8** | **-0.3** |
| | baz=107 | | | | | | |
| **I39A** | **Houston** | **44.85** | **313** | P | **P** | **10 52 49.7** | **-0.5** |
| | baz=107 | | | | | | |
| **H39A** | **Augusta** | **44.94** | **314** | P | **P** | **10 52 51.0** | **+0.1** |
| | baz=108 | | | | | | |
| **X39A** | **Fountain Ranch** | **44.97** | **299** | P | **P** | **10 52 50.9** | **-0.3** |
| | baz=96 | | | | | | |
| **E39A** | **Mellen** | **45.02** | **316** | P | **P** | **10 52 51.6** | **+0.1** |
| | baz=111 | | | | | | |
| **239A** | **Gary** | **45.07** | **296** | P | **P** | **10 52 51.7** | **-0.4** |
| | baz=93 | | | | | | |
| **F39A** | **Loretta** | **45.10** | **316** | P | **P** | **10 52 52.3** | **+0.1** |
| | baz=110 | | | | | | |
| **Q38A** | **Cooks Store, C** | **45.21** | **305** | P | **P** | **10 52 53.3** | **+0.2** |
| | baz=101 | | | | | | |
| **P38A** | **Dawn** | **45.27** | **306** | P | **P** | **10 52 53.5** | **-0.1** |
| | baz=102 | | | | | | |
| **R38A** | **Fenwick Farm,** | **45.30** | **304** | P | **P** | **10 52 53.1** | **-0.7** |
| | baz=100 | | | | | | |
| **MNMC** | **Minye Minye** | **45.32** | **212** | *e*P | **P** | **10 52 52.1** | **-2.3** |
| | comp=Z,8.9nm,0.9s | | | | | | |
| **W38A** | **Poteau** | **45.35** | **300** | P | **P** | **10 52 53.5** | **-0.8** |
| | baz=96 | | | | | | |
| **V38A** | **Canehill** | **45.36** | **301** | P | **P** | **10 52 54.1** | **-0.2** |
| | baz=97 | | | | | | |
| **K38A** | **Parkersburg** | **45.40** | **311** | P | **P** | **10 52 54.8** | **+0.2** |
| | baz=105 | | | | | | |
| **M38A** | **Pleasantville** | **45.40** | **309** | P | **P** | **10 52 54.0** | **-0.7** |
| | baz=104 | | | | | | |
| **L38A** | **Oak Wood Farm,** | **45.41** | **310** | P | **P** | **10 52 54.5** | **-0.2** |
| | baz=104 | | | | | | |
| **U38A** | **Gravette** | **45.41** | **302** | P | **P** | **10 52 53.9** | **-1.0** |
| | baz=98 | | | | | | |
| **Y38A** | **Idabel** | **45.42** | **298** | P | **P** | **10 52 54.1** | **-0.8** |
| | baz=95 | | | | | | |
| **T38A** | **Diamond** | **45.42** | **303** | P | **P** | **10 52 54.8** | **-0.1** |
| | baz=98 | | | | | | |
| **I38A** | **Scanlan Farm,** | **45.47** | **313** | P | **P** | **10 52 55.5** | **+0.4** |
| | baz=107 | | | | | | |
| **H38A** | **Maiden Rock** | **45.62** | **314** | P | **P** | **10 52 56.5** | **+0.2** |
| | baz=107 | | | | | | |
| **338A** | **Crockett** | **45.75** | **295** | P | **P** | **10 52 57.0** | **-0.6** |
| | baz=92 | | | | | | |
| **Q37A** | **Longview Farm,** | **45.84** | **305** | P | **P** | **10 52 58.1** | **0.0** |
| | baz=100 | | | | | | |
| **PB11** | **IPOC Station P** | **45.88** | **212** | *e*P | **P** | **10 52 57.2** | **-1.5** |
| | comp=Z,39nm,0.9s | | | | | | |
| **TOA0** | **Torodi Ar. Sit** | **45.88** | **91** | *e*P | **P** | **10 52 58.4** | **-0.4** |
| | comp=Z,19nm,1.0s | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **45.88** | **91** | P | **P** | **10 52 57.8** | **-0.9** |
| | comp=Z,13nm,0.9s,baz=294,slow=7.4,SNR=52 | | | | | | |
| TORD | | | | LR | LR | 11 10 01.1 | |
| | comp=Z,386nm,19.3s,baz=265,slow=33 | | | | | | |
| **P37A** | **Lathrop** | **45.88** | **306** | P | **P** | **10 52 58.4** | **-0.1** |
| | baz=101 | | | | | | |
| **S37A** | **Fort Scott** | **45.95** | **304** | P | **P** | **10 52 59.1** | **0.0** |
| | baz=99 | | | | | | |
| **C38A** | **Sawbill Land.** | **45.95** | **318** | P | **P** | **10 52 58.5** | **-0.4** |
| | baz=111 | | | | | | |
| **U37A** | **Salina** | **45.99** | **302** | P | **P** | **10 52 59.0** | **-0.4** |
| | baz=97 | | | | | | |
| **X37A** | **Clayton** | **46.01** | **299** | P | **P** | **10 52 59.0** | **-0.5** |
| | baz=95 | | | | | | |
| **N37A** | **Lee Faris, Mou** | **46.01** | **308** | P | **P** | **10 52 59.5** | **0.0** |
| | baz=102 | | | | | | |
| **H37A** | **Dierke Farm, C** | **46.02** | **313** | P | **P** | **10 52 59.5** | **0.0** |
| | baz=107 | | | | | | |
| **M37A** | **Trindle Farm,** | **46.03** | **309** | P | **P** | **10 52 59.6** | **0.0** |
| | baz=103 | | | | | | |
| **K37A** | **Belmond** | **46.05** | **311** | P | **P** | **10 52 59.3** | **-0.5** |
| | baz=104 | | | | | | |
| **W37B** | **Quinton** | **46.11** | **300** | P | **P** | **10 52 59.6** | **-0.7** |
| | baz=96 | | | | | | |
| **J37A** | **Redenius Farm,** | **46.12** | **311** | P | **P** | **10 53 00.3** | **0.0** |
| | baz=105 | | | | | | |
| **SPMN** | **Marine on St.** | **46.13** | **314** | P | **P** | **10 53 00.5** | **+0.2** |
| | baz=107 | | | | | | |
| **Y37A** | **Hugo** | **46.16** | **298** | P | **P** | **10 53 00.3** | **-0.4** |
| | baz=94 | | | | | | |
| **F37A** | **Hinrichs Farm,** | **46.16** | **315** | P | **P** | **10 53 00.8** | **+0.2** |
| | baz=108 | | | | | | |
| **I37A** | **Lemond, Waseca** | **46.20** | **312** | P | **P** | **10 53 01.3** | **+0.4** |
| | baz=106 | | | | | | |
| **FRB** | **Frobisher Bay** | **46.42** | **346** | LR | LR | 11 10 22.4 | |
| | comp=Z,90nm,19.4s,baz=354,slow=33 | | | | | | |
| **O36A** | **Bolckow** | **46.45** | **307** | P | **P** | **10 53 02.5** | **-0.4** |
| | baz=101 | | | | | | |
| **U36A** | **Oologah** | **46.48** | **302** | P | **P** | **10 53 02.7** | **-0.5** |
| | baz=97 | | | | | | |
| **D37A** | **Cotton** | **46.49** | **317** | P | **P** | **10 53 03.4** | **+0.2** |
| | baz=110 | | | | | | |
| **CMIG** | **Matias Romero** | **46.53** | **275** | LR | LR | 11 10 31.5 | |
| | comp=Z,129nm,20.9s,baz=358,slow=34 | | | | | | |

V36A **Jenks** 46.59 301 P P 10 53 03.7 -0.4
baz=96
K36A **Gilmore City** 46.60 310 P P 10 53 03.8 -0.2
baz=104
I36A **Fitzsimmons Fa** 46.63 312 P P 10 53 04.1 -0.2
baz=105
Y36A **Durant** 46.70 298 P P 10 53 04.5 -0.6
baz=94
H36A **Jessenland, He** 46.72 313 P P 10 53 04.7 -0.2
baz=106
W36A **Wetumka** 46.76 300 P P 10 53 04.8 -0.6
baz=95
G36A **St. Michael** 46.78 314 P P 10 53 05.4 0.0
baz=106
F36A **Milaca** 46.81 315 P P 10 53 05.5 -0.1
baz=107
X36A **Centrahoma** 46.81 299 P P 10 53 05.5 -0.4
baz=95
236A **Katherine and** 46.81 296 P P 10 53 05.4 -0.5
baz=92
E36A **McGregor** 46.83 316 P P 10 53 05.7 -0.1
baz=108
PB01 **IPOC Station P** 46.88 211 *eP* P 10 53 05.3 -1.2
comp=Z,13nm,0.9s
C36A **Pine Crest Far** 46.96 317 P P 10 53 06.8 0.0
baz=110
D36A **Goodland** 46.98 317 P P 10 53 07.0 0.0
baz=109,SNR=5.2
Q35A **Mercer Eighty,** 47.05 305 P P 10 53 07.4 -0.3
baz=99
336A **Riesel** 47.06 295 P P 10 53 07.4 -0.4
baz=91
N35A **Tabor** 47.09 308 P P 10 53 07.7 -0.3
baz=101
P35A **Duane Minner,** 47.14 306 P P 10 53 08.2 -0.2
baz=100
G35A **Watkins** 47.27 314 P P 10 53 09.5 +0.2
baz=106
W35A **Tecumseh** 47.29 300 P P 10 53 09.0 -0.6
baz=95
X35A **Drake** 47.31 299 P P 10 53 09.3 -0.4
baz=94
CPUP **Villa Florida** 47.34 194 P P 10 53 09.3 -0.6
comp=Z,8.2nm,0.9s,baz=24,slow=8.8,SNR=16
CPUP **Villa Florida** 47.34 194 *eP* P 10 53 09.0 -0.9
CPUP **Villa Florida** 47.34 194 *eP* P 10 53 09.0 -0.9
H35A **Sunnyside Ranc** 47.37 313 P P 10 53 10.2 +0.1
baz=105,SNR=6.9
F35A **Swanville** 47.51 315 P P 10 53 10.7 -0.4
baz=106
D35A **Remer** 47.52 316 P P 10 53 10.9 -0.3
baz=108
WHTX **Lake Whitney,** 47.60 295 P P 10 53 11.3 -0.7
baz=92
TAM **Tamanrasset** 47.66 77 *eP* P 10 53 14.2 +1.4
TAM pmax pmax
comp=Z,34nm,2.0s
TAM **Tamanrasset** 47.66 77 *eP* P 10 53 14.2 +1.4
comp=Z,34nm,2.0s
C35A **Jirik Farms, M** 47.66 317 P P 10 53 12.0 -0.3
baz=108
435B **Jarrell** 47.69 294 P P 10 53 12.8 +0.1
baz=90
T34A **McClaskey Farm** 47.72 302 P P 10 53 12.5 -0.4
baz=96
B35A **Bob, Littlefor** 47.72 318 P P 10 53 12.4 -0.3
baz=109
N34A **Lincoln** 47.73 307 P P 10 53 12.3 -0.6
baz=100
S34A **Willow Spring** 47.73 303 P P 10 53 12.8 -0.2
baz=97
P34A **Walnut Farm, R** 47.76 306 P P 10 53 12.9 -0.3
baz=99
L34A **Svendsen Farm,** 47.85 309 P P 10 53 13.5 -0.4
baz=101
R34A **Isabella, Hill** 47.91 304 P P 10 53 13.6 -0.8
baz=98
I34A **Hadley** 47.92 312 P P 10 53 14.0 -0.4
baz=104
LVC **Limon Verde** 47.95 209 *eP* P 10 53 14.1 -1.0
comp=Z,24nm,0.9s
H34A **Spellman Lake,** 48.02 313 P P 10 53 14.7 -0.4
baz=104
C34A **RKJ Ranch, Bem** 48.25 317 P P 10 53 16.6 -0.3
baz=108
D34A **Park Rapids** 48.27 316 P P 10 53 16.6 -0.4
baz=107
B34A **Aery, Baudette** 48.34 318 P P 10 53 17.3 -0.2
baz=109
L33A **Hoskins** 48.54 309 P P 10 53 18.5 -0.7
baz=101
I33A **Coleman** 48.58 312 P P 10 53 18.9 -0.6
baz=103
G33A **Ortonville** 48.60 313 P P 10 53 19.1 -0.5
baz=104
H33A **Prehn Over Nor** 48.69 312 P P 10 53 20.1 -0.2
baz=104,SNR=10.0
D33A **AnnSam, Waubun** 48.71 316 P P 10 53 19.9 -0.5
baz=106
WMOK **Wichita Mounta** 48.82 299 P P 10 53 20.9 -0.6
baz=93
WMOK **Wichita Mounta** 48.82 299 *eP* P 10 53 21.1 -0.4
WMOK pmax pmax
comp=Z,30nm,1.9s
WMOK **Wichita Mounta** 48.82 299 *eP* P 10 53 21.1 -0.4
comp=Z,30nm,1.9s
C33A **Trail** 48.84 317 P P 10 53 21.0 -0.4
baz=107
B33A **Robert and Kas** 48.87 317 P P 10 53 21.3 -0.3
baz=108
A33A **Warroad** 48.95 318 P P 10 53 21.9 -0.3
baz=108
I32A **Karley and Nic** 49.05 311 P P 10 53 22.4 -0.7
baz=102
L32A **Elgin** 49.05 309 P P 10 53 22.4 -0.7
baz=100
AGMN **Agassiz Nation** 49.05 317 P P 10 53 22.7 -0.3
baz=107
AGMN **Agassiz Nation** 49.05 317 *eP* P 10 53 22.9 -0.1
comp=Z,9.9nm,0.8s
BGNE **Belgrade** 49.05 308 P P 10 53 22.5 -0.7
baz=100
H32A **Carlson Farm,** 49.13 312 P P 10 53 23.2 -0.5
baz=103
K32A **Verdigre** 49.14 310 P P 10 53 23.4 -0.4
baz=101
J32A **Parkston** 49.19 311 P P 10 53 23.6 -0.5
baz=101
F32A **Veblen** 49.23 314 P P 10 53 23.9 -0.5
baz=104
833A **Chaparral WMA,** 49.32 291 P P 10 53 24.4 -0.9
baz=87
G32A **Webster** 49.34 313 P P 10 53 24.8 -0.5
baz=103
B32A **Ashes, Strandq** 49.51 317 P P 10 53 26.2 -0.3
baz=107
JCT **Junction City** 49.60 293 P P 10 53 26.5 -1.0
baz=89
A32A **Rocking H Ranc** 49.64 318 P P 10 53 27.2 -0.3
baz=107,SNR=5.7
ULM **Lac du Bonnet** 49.66 320 P P 10 53 26.8 -0.8
comp=Z,3.7nm,0.9s,baz=150,slow=7.6,SNR=4.7
ULM LR LR 11 13 01.0
comp=Z,217nm,19.9s,baz=138,slow=34
K31A **O'Neill** 49.70 309 P P 10 53 27.6 -0.6
baz=100
BNI **Bardonecchia** 49.79 47 *eP* P 10 53 30.6 +1.7
BNI pmax pmax
comp=Z,16nm,1.1s
BNI **Bardonecchia** 49.79 47 *eP* P 10 53 30.6 +1.7
comp=Z,16nm,1.1s
I31A **Royce, Wessing** 49.80 311 P P 10 53 28.8 -0.1
baz=101
G31A **Conde** 49.82 313 P P 10 53 28.7 -0.3
baz=103
H31A **Wolsey** 49.85 312 P P 10 53 28.7 -0.5
baz=102
TLIG **Tlapa** 49.89 277 *eP* P 10 53 30.9 +0.9
comp=Z,8.8nm,0.9s
CBKS **Cedar Bluff** 49.91 304 P P 10 53 29.0 -0.8
baz=96
D31A **Mcclaflin, Tow** 49.92 315 P P 10 53 29.1 -0.6
baz=105
C31A **Landman Farms,** 50.12 316 P P 10 53 30.5 -0.6
baz=105
SUSD **Miller** 50.18 312 P P 10 53 31.2 -0.5
baz=101,SNR=5.3
B31A **Greenbush Farm** 50.23 317 P P 10 53 31.6 -0.4
baz=106
KEST **Kesra** 50.59 60 P P 10 53 35.8 +0.8
comp=Z,11nm,1.0s,baz=249,slow=3.2,SNR=7.5
KEST LR LR 11 14 06.3
comp=Z,222nm,18.8s,baz=222,slow=35
KEST **Kesra** 50.59 60 *eP* P 10 53 35.9 +0.9
comp=Z,40nm,1.4s
VSL **Villasalto** 50.89 55 *eP* P 10 53 37.5 +0.3
comp=Z,31nm,1.0s
AMTX **Amarillo** 51.21 299 P P 10 53 39.0 -0.7
baz=92
AMTX **Amarillo** 51.21 299 *eP* P 10 53 39.6 -0.1
comp=Z,16nm,1.0s
OGNE **Ogallala** 51.90 307 P P 10 53 43.8 -0.9
baz=96
TUE **Stuetta** 51.91 46 *eP* P 10 53 45.7 +0.8
comp=Z,9.9nm,0.9s
MSTX **Muleshoe** 52.10 298 P P 10 53 45.4 -1.0
baz=90
KSCO **Kaye Shedlock'** 52.18 304 P P 10 53 46.1 -0.8
baz=94
DAVOX **Davos/Dischmat** 52.33 46 P P 10 53 48.7 +0.7
comp=Z,4.3nm,0.9s,baz=239,slow=9.5,SNR=4.4
DAVA **Damuels** 52.43 45 *i* P P 10 53 48.4 -0.3
comp=Z,12nm,1.1s
FUORN **Ofenpass-Fuorn** 52.56 46 *eP* P 10 53 50.0 +0.2
comp=Z,18nm,1.2s
ZAIG **Zacatecas** 52.70 284 *eP* P 10 53 49.8 -1.5
comp=Z,22nm,1.7s
FETA **Feichten** 52.95 46 *i* P P 10 53 52.8 +0.3
comp=Z,20nm,1.0s
TXAR **Lajitas Array** 53.00 292 P P 10 53 53.4 +0.2
comp=Z,1.6nm,1.0s,baz=101,slow=6.5,SNR=7.8
TXAR LR LR 11 16 17.8
comp=Z,107nm,19.7s,baz=0.0,slow=36
TX31 **Lajitas Ar. Si** 53.00 292 *eP* P 10 53 52.3 -0.9
RETA **Reutte** 53.06 45 *i* P P 10 53 53.9 +0.7
comp=Z,12nm,1.2s
MOTA **Moosalm** 53.26 45 *i* P P 10 53 54.9 0.0
comp=Z,21nm,1.0s
WATA **Walderalm** 53.57 45 *i* P P 10 53 57.6 +0.5
comp=Z,12nm,0.9s
WTTA **Wattenberg** 53.60 45 *i* P P 10 53 58.2 +0.8
comp=Z,16nm,1.1s
RSSD **Black Hills** 53.73 311 P P 10 53 57.9 -0.5
baz=97
ABTA **Abfaltersbach** 54.11 46 *i* P P 10 54 01.3 +0.4
comp=Z,13nm,1.1s
AQU **L'Aquila** 54.20 52 *eP* P 10 54 01.9 +0.2
AQU pmax pmax
comp=Z,47nm,1.1s
AQU **L'Aquila** 54.20 52 *eP* P 10 54 01.9 +0.2
comp=Z,47nm,1.1s
MNTX **Cornudas Mount** 54.35 295 P P 10 54 02.5 -0.3
baz=87
MNTX **Cornudas Mount** 54.35 295 *eP* P 10 54 02.2 -0.6
comp=Z,10nm,1.6s
SDCO **Great Sand Dun** 54.37 303 P P 10 54 02.9 -0.4
baz=92
DGMT **Dagmar** 54.49 316 P P 10 54 03.8 +0.2
baz=100
ISCO **Idaho Springs** 54.53 305 P P 10 54 04.0 -0.4
baz=93
ISCO **Idaho Springs** 54.53 305 *eP* P 10 54 04.1 -0.4
ISCO pmax pmax
comp=Z,9.0nm,1.3s
ISCO **Idaho Springs** 54.53 305 *eP* P 10 54 04.1 -0.4
comp=Z,9.0nm,1.3s
FFC **Flin Flon** 54.57 324 *eP* P 10 54 04.6 +0.5
FFC pmax pmax
comp=Z,52nm,1.9s
FFC **Flin Flon** 54.57 324 *eP* P 10 54 04.6 +0.5
comp=Z,52nm,1.9s
NKC **Novy Kostel** 54.68 42 *eP* P 10 54 06.1 +1.1
NKC *ex* x 10 54 12.1
NKC **Novy Kostel** 54.68 42 *eP* P 10 54 06.1 +1.1
NKC *e* 10 54 12.1
VAE **Valguarnera** 54.72 58 P P 10 54 07.1 +1.6
comp=Z,6.5nm,0.5s,baz=300,slow=4.2,SNR=3.1
KBA **Koelnbreinsper** 54.72 46 *i* P P 10 54 05.4 -0.2
comp=Z,13nm,1.1s
N23A **Red Feather La** 54.84 306 P P 10 54 06.1 -0.6
baz=94
MYKA **Terra Mystica** 54.86 47 *i* P P 10 54 06.0 -0.4
comp=Z,14nm,1.0s
HPIG 54.97 289 *eP* P 10 54 08.2 +0.5
comp=Z,25nm,1.6s
JAVS **Javornik** 55.05 47 *i* P P 10 54 08.2 +0.4
ANMO **Albuquerque** 55.13 299 P P 10 54 08.4 -0.4
baz=89
ANMO **Albuquerque** 55.13 299‖ *eP* P 10 54 08.7 -0.1
ANMO pmax pmax
comp=Z,10.0nm,2.3s
ANMO **Albuquerque** 55.13 299 *eP* P 10 54 09.4 +0.7
comp=Z,9.8nm,1.7s
KHC **Kasperske Hory** 55.20 43 *eP* P 10 54 07.8 -1.0
KHC *ex* x 10 54 15.5
KHC **Kasperske Hory** 55.20 43 *eP* P 10 54 07.8 -1.0
KHC *e* 10 54 15.5
GEA0 **GERESS Array S** 55.23 44 *eP* P 10 54 09.8 +0.7
GEC2 **GERESS Array S** 55.23 44 *eP* P 10 54 09.5 +0.4
GEC2 pmax pmax
comp=Z,15nm,1.4s
GEC2 **GERESS Array S** 55.23 44 *eP* P 10 54 09.5 +0.4
comp=Z,15nm,1.4s
GERES **GERESS Array B** 55.23 44 P P 10 54 09.5 +0.4
comp=Z,0.9nm,0.9s,baz=251,slow=4.1,SNR=4.5
CLL **Collm** 55.24 41 *eP* P 10 54 12.0 +3.0
CLL **Collm** 55.24 41 *e*(P) P 10 54 12.0 +3.0
K22A **Casper** 55.39 309 P P 10 54 10.4 -0.1
baz=94
S22A **4UR Ranch, Cre** 55.42 303 P P 10 54 10.4 -0.5
baz=91
MOA **Molln** 55.45 45 *eP* P 10 54 10.7 +0.1
comp=Z,8.9nm,1.1s
OBKA **Obir** 55.46 47 *i* pP P 10 54 12.1 +1.3
comp=Z,14nm,1.1s
VISS **Visnje** 55.58 48 *i* P P 10 54 11.9 +0.4
LENM **Lemitar** 55.58 298 *eP* P 10 54 12.0 0.0
BRG **Berggiesshubel** 55.74 41 *eP* P 10 54 19.7 +7.1
comp=Z,12nm,1.5s
BRG **Berggiesshubel** 55.74 41 *eP* P 10 54 19.7 +7.1
BRG pmax pmax
comp=Z,12nm,1.5s
SOKA **Soboth** 55.81 47 *eP* P 10 54 13.3 0.0
comp=Z,7.3nm,1.1s
RWWY **Rawlins** 55.84 307 *eP* P 10 54 14.4 +0.6
comp=Z,24nm,1.1s
PERS **Pernice** 55.87 47 *i* P P 10 54 19.6 +6.0
PRU **Pruhonice** 55.96 43 *eP* P 10 54 14.1 -0.1
PRU *ex* x 10 54 21.6
PRU **Pruhonice** 55.96 43 *eP* P 10 54 14.1 -0.1
PRU *e* 10 54 21.6
GOPC **GO Pecny, Ondr** 56.11 43 *eP* P 10 54 15.1 -0.2
GOPC *ex* x 10 54 22.2
GOPC **GO Pecny, Ondr** 56.11 43 *eP* P 10 54 15.1 -0.2
GOPC *e* 10 54 22.2
ARSA **Arzberg** 56.22 46 *i* P P 10 54 15.7 -0.5
comp=Z,11nm,1.0s
121A **Cookes Peak, D** 56.34 296 P P 10 54 17.1 -0.4
baz=87
CONA **Conrad Observa** 56.53 45 *i* P P 10 54 17.4 -1.0
comp=Z,8.3nm,1.1s
O20A **White River Ci** 56.56 305 P P 10 54 18.9 -0.1
baz=91
MVCO **Mesa Verde** 56.75 302 P P 10 54 20.2 -0.2
baz=89
MVCO **Mesa Verde** 56.75 302 *eP* P 10 54 21.8 +1.4
comp=Z,18nm,1.6s
NOA **NORSAR Array B** 56.93 29 LR LR 11 14 47.1
comp=Z,128nm,18.3s,baz=170,slow=32
UPC **Upice** 56.98 42 *eP* P 10 54 21.3 -0.1
UPC *ex* x 10 54 27.5
UPC **Upice** 56.98 42 *eP* P 10 54 21.3 -0.1
UPC *e* 10 54 27.5
DPC **Dobruska-Polom** 57.15 42 *eP* P 10 54 22.8 +0.1
DPC *ex* x 10 54 29.8
DPC **Dobruska-Polom** 57.15 42 *eP* P 10 54 22.8 +0.1
DPC *e* 10 54 29.8
VRAC **Vranov** 57.18 44 P P 10 54 23.4 +0.5
comp=Z,1.8nm,0.7s,baz=270,slow=5.8,SNR=4.8
RLMT **Red Lodge** 57.55 311 P P 10 54 25.8 0.0
baz=94
RLMT **Red Lodge** 57.55 311 *eP* P 10 54 26.3 +0.5
comp=Z,9.2nm,1.0s
PD31 **Pinedale Array** 57.63 309 *eP* P 10 54 26.0 -0.6
PDAR **Pinedale Array** 57.63 309 P P 10 54 25.9 -0.6
comp=Z,4.5nm,0.9s,baz=92,slow=7.4,SNR=26
BW06 **Boulder Array** 57.63 309 P P 10 54 25.6 -0.9
baz=92,SNR=21
BW06 **Boulder Array** 57.63 309 *eP* P 10 54 26.1 -0.4
comp=Z,14nm,1.0s
HFS **Hagfors** 57.81 31 LR LR 11 13 44.4
comp=Z,185nm,18.5s,baz=269,slow=30
TULEG **Thule** 57.83 354 *eP* P 10 54 27.6 +0.6
comp=Z,19nm,1.2s
P18A **Preston Nutter** 58.10 305 *eP* P 10 54 30.4 +0.4
comp=Z,15nm,1.5s
SRU **San Rafael Swe** 58.32 304 *eP* P 10 54 31.9 +0.5
SRU pmax pmax
comp=Z,6.0nm,1.1s
SRU **San Rafael Swe** 58.32 304 *eP* P 10 54 31.9 +0.5
comp=Z,6.1nm,1.1s
SNOW **Snow King Moun** 58.53 309 *eP* P 10 54 32.9 0.0
comp=Z,19nm,1.3s
MOOW **Moose Ponds** 58.53 310 *eP* P 10 54 32.4 -0.5
comp=Z,5.0nm,1.0s
VYHS **Vyhne** 58.56 45 *eP* P 10 54 32.7 0.0
VYHS pmax pmax
comp=Z,17nm,2.1s
VYHS **Vyhne** 58.56 45 *eP* P 10 54 32.7 0.0
REDW **Red Top Meadow** 58.60 309 *eP* P 10 54 33.0 -0.3
comp=Z,24nm,1.7s
YHH **Holmes Hill** 58.65 311 *eP* P 10 54 34.1 +0.4
comp=Z,5.2nm,1.2s
TPAW **Teton Pass** 58.68 309 *eP* P 10 54 33.9 0.0
comp=Z,16nm,1.2s
IMW **Indian Meadow** 58.68 310 *eP* P 10 54 33.6 -0.3
comp=Z,12nm,1.0s
YMR **Madison River** 58.73 311 *eP* P 10 54 34.5 +0.3
comp=Z,11nm,1.2s
FXWY **Fox Creek** 58.74 310 *eP* P 10 54 34.1 -0.2
comp=Z,6.9nm,1.0s
TUC **Tucson** 58.88 296 P P 10 54 34.8 -0.4
baz=85
YHB **Horse Butte** 58.89 311 *eP* P 10 54 36.1 +0.9
comp=Z,35nm,0.3s
TCUT **Toone Canyon** 58.98 307 *eP* P 10 54 35.9 -0.2
comp=Z,29nm,1.4s
JLU **Jordanelle** 59.02 306 *eP* P 10 54 36.6 +0.4
comp=Z,15nm,1.4s
WUAZ **Wupatki** 59.13 300 P P 10 54 36.9 -0.1
baz=87,SNR=6.1
WUAZ **Wupatki** 59.13 300 *eP* P 10 54 38.0 +1.0
comp=Z,14nm,1.1s
BOZ **Bozeman (W)** 59.23 312 P P 10 54 37.3 -0.2
baz=92,SNR=7.5
BOZ **Bozeman (W)** 59.23 312 *eP* P 10 54 37.0 -0.6
BOZ pmax pmax
comp=Z,5.0nm,1.0s
BOZ **Bozeman (W)** 59.23 312 *eP* P 10 54 37.0 -0.6
comp=Z,4.8nm,1.0s
HRY **Holter Researc** 59.43 313 *eP* P 10 54 39.1 +0.3
NLU **North Lily Min** 59.51 305 *eP* P 10 54 40.0 +0.4
comp=Z,10nm,1.3s
MTPU **Mount Pierson** 59.65 303 *eP* P 10 54 40.0 -0.9
comp=Z,5.9nm,1.3s
SPUT **South Promonto** 59.77 307 *eP* P 10 54 41.4 +0.1
comp=Z,26nm,1.2s
HVU **Hansel Valley** 60.01 307 *eP* P 10 54 42.6 -0.3
HVU pmax pmax
comp=Z,5.0nm,0.9s
HVU **Hansel Valley** 60.01 307 *eP* P 10 54 42.6 -0.3
comp=Z,4.9nm,0.9s
DUG **Dugway, Tooele** 60.07 306 P P 10 54 43.4 0.0
baz=88,SNR=5.9
DUG **Dugway, Tooele** 60.07 306 *eP* P 10 54 43.1 -0.3
DUG pmax pmax
comp=Z,12nm,1.3s
DUG **Dugway, Tooele** 60.07 306 *eP* P 10 54 43.1 -0.3
comp=Z,12nm,1.3s
MCMT **McKenzie Canyo** 60.07 311 *eP* P 10 54 43.4 -0.1
BGU **Big Grassy Mou** 60.21 306 *eP* P 10 54 44.6 +0.2
comp=Z,16nm,1.1s
BZS **Buzias** 60.30 48⇑ *i*P P 10 54 45.8 +1.1
BZS **Buzias** 60.30 48 ⇑P P 10 54 45.8 +1.1
CRVS **Cervenica-Dubn** 60.33 44 *eP* P 10 54 46.0 +1.2
CRVS **Cervenica-Dubn** 60.33 44 *eP* P 10 54 46.0 +1.2
CRVS *e* 10 54 59.0
MDVR **Moldovita** 60.36 49⇑ *i*P P 10 54 45.9 +0.8
CCUT **Cedar City** 60.61 303 *eP* P 10 54 48.1 +0.8
comp=Z,6.7nm,1.1s
214A **Organ Pipe Nat** 60.63 296 P P 10 54 46.2 -1.0
baz=84
RES **Resolute Bay** 60.63 347 P P 10 54 46.1 -0.3
comp=Z,3.1nm,0.9s,baz=85,slow=3.8,SNR=4.3
UZH **Uzhgorod** 60.87 45 *eP* P 10 54 41.8 -6.7
MSO **Missoula** 60.88 313 P P 10 54 48.6 -0.1
baz=92
61.09 47⇑ *i*P P 10 54 50.8 +0.7
61.09 47 ⇑P P 10 54 50.8 +0.7
HLID **Hailey** 61.20 309 P P 10 54 50.8 -0.3
baz=89,SNR=8.2
HLID **Hailey** 61.20 309 *eP* P 10 54 50.8 -0.3
comp=Z,6.3nm,1.0s
VTS **Vitosha** 61.45 52‖ *i*P P 10 54 53.7 +0.9
VTS **Vitosha** 61.45 52 ‖P P 10 54 53.7 +0.9
VTS **Vitosha** 61.45 52 *eP* P 10 54 53.6 +0.8
comp=Z,22nm,1.6s
PDMCI **Parker Dam,Lak** 61.50 299 P P 10 54 52.9 -0.1
baz=84
Y12C **Blythe** 61.87 298 P P 10 54 55.2 -0.4
baz=84
MFID **Camas Ranch** 62.23 309 *eP* P 10 54 58.0 0.0
comp=Z,12nm,1.0s
R11A **Troy Canyon, C** 62.31 304 P P 10 54 58.5 -0.1
baz=86,SNR=5.6
IRM **Iron Mountain** 62.34 299 P P 10 54 58.5 -0.3
baz=84
BC3 **Big Chuckawall** 62.65 298 P P 10 55 00.6 -0.4
baz=83
GMRC **Granite Mounta** 62.69 300 P P 10 55 00.8 -0.5
baz=84
YKA **Yellowknife Ar** 62.74 331 P P 10 54 59.5 -1.4
comp=Z,1.7nm,0.9s,baz=95,slow=7.9,SNR=13
YKA PcP PcP 10 55 38.2 -1.2
comp=Z,1.2nm,0.9s,baz=101,slow=5.1,SNR=5.5
YKA LR LR 11 19 13.1
comp=Z,13nm,21.5s,baz=180,slow=33
BUR04 **Bucovina Ar. S** 62.80 46 *eP* P 10 55 01.9 +0.2
BURAR **Bucovina Array** 62.80 46⇑ *i*P P 10 55 00.7 -1.0
BURAR **Bucovina Array** 62.80 46 ⇑P P 10 55 00.7 -1.0
TUQ **Turquoise Moun** 62.84 300 P P 10 55 02.0 -0.2
baz=84
DOPR **Dopca** 62.94 48⇑ *i*P P 10 55 01.0 -1.5
SWSC **Sam W. Stewart** 63.02 298 P P 10 55 03.3 0.0
baz=83
NEW **Newport** 63.05 315 P P 10 55 03.2 0.0
baz=90,SNR=15
NEW **Newport** 63.05 315 *eP* P 10 55 03.3 0.0
NEW pmax pmax
comp=Z,23nm,1.0s
NEW **Newport** 63.05 315 *eP* P 10 55 03.3 0.0
comp=Z,23nm,1.0s
BELC **Belle Mtn. Jos** 63.06 299 P P 10 55 03.5 -0.2
baz=83
F10A **Beach Ranch, E** 63.16 312 *eP* P 10 55 03.7 -0.3
comp=Z,6.4nm,1.1s
BMO **Blue Mountains** 63.24 311 *eP* P 10 55 03.8 -0.9
BMO pmax pmax
comp=Z,4.0nm,1.0s
BMO **Blue Mountains** 63.24 311 *eP* P 10 55 03.8 -0.9
comp=Z,4.1nm,1.0s
IDI **Anoyia** 63.26 60 P P 10 55 04.7 -0.2
comp=Z,5.9nm,1.0s,baz=292,slow=8.7,SNR=5.0
IKP **In-Ko-Pah, Jac** 63.32 297 P P 10 55 05.3 -0.1
baz=83
MLR **Muntele Rosu** 63.34 48 P P 10 55 06.4 +1.0
comp=Z,3.9nm,0.9s,baz=205,slow=4.0,SNR=22
MLR **Muntele Rosu** 63.34 48⇑ *i*P P 10 55 06.0 +0.6
MLR **Muntele Rosu** 63.34 48 ⇑P P 10 55 06.0 +0.6
MLR **Muntele Rosu** 63.34 48 *eP* P 10 55 05.8 +0.5
comp=Z,38nm,1.0s
TPFO **Pinon Flats** 63.48 298 P P 10 55 06.5 0.0
baz=83
FURC **Furnace Creek,** 63.49 302 P P 10 55 06.2 -0.1
baz=84
PRAR **RASCA** 63.49 46‖ *i*P P 10 55 14.1 +8.0
MONP2 **Monument Peak** 63.55 298 P P 10 55 06.8 -0.2
baz=82
GSC **Goldstone, Bar** 63.57 300 P P 10 55 06.6 -0.4
baz=84
GSC **Goldstone, Bar** 63.57 300 *eP* P 10 55 06.8 -0.2

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GSC | | | | pmax | pmax | | |
| | comp=Z,24nm,1.9s | | | | | | |
| GSC | Goldstone, Bar | 63.57 | 300 | eP | P | 10 55 06.8 | -0.2 |
| | comp=Z,24nm,1.9s | | | | | | |
| E09A | Wood Farm, Sta | 63.78 | 313 | eP | P | 10 55 07.7 | -0.3 |
| | comp=Z,26nm,1.1s | | | | | | |
| C09A | Chrisman Ranch | 63.83 | 314 | eP | P | 10 55 08.0 | -0.4 |
| | comp=Z,26nm,1.5s | | | | | | |
| VRI | Vrincioaia | 63.88 | 48 | ⇓iP | P | 10 55 09.8 | +1.1 |
| VRI | Vrincioaia | 63.88 | 48 | ⇓P | P | 10 55 09.8 | +1.1 |
| MPMC | Manual Prospec | 64.04 | 301 | P | P | 10 55 09.9 | -0.3 |
| | baz=84 | | | | | | |
| J08A | Circle Bar Ran | 64.16 | 309 | eP | P | 10 55 10.7 | 0.0 |
| | comp=Z,8.1nm,1.2s | | | | | | |
| LRMC | Laurel Mtn Rad | 64.26 | 301 | P | P | 10 55 11.1 | -0.5 |
| | baz=83 | | | | | | |
| D08A | Wollman Farm, | 64.29 | 313 | eP | P | 10 55 11.4 | 0.0 |
| | comp=Z,25nm,1.4s | | | | | | |
| G08A | Pilot Rock | 64.39 | 311 | eP | P | 10 55 11.5 | -0.8 |
| | comp=Z,6.6nm,1.1s | | | | | | |
| CWC | Cottonwood Cre | 64.47 | 302 | P | P | 10 55 12.5 | -0.5 |
| | baz=83 | | | | | | |
| EDW2 | Edwards Air Fo | 64.59 | 300 | P | P | 10 55 13.4 | -0.3 |
| | baz=83 | | | | | | |
| PLCA | Paso Flores | 64.61 | 201 | P | P | 10 55 13.6 | 0.0 |
| | comp=Z,4.7nm,0.8s,baz=50,slow=7.1,SNR=15 | | | | | | |
| PLCA | Paso Flores | 64.61 | 201 | eP | P | 10 55 13.7 | +0.2 |
| PLCA | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.9s | | | | | | |
| PLCA | Paso Flores | 64.61 | 201 | eP | P | 10 55 13.7 | +0.2 |
| | comp=Z,10nm,0.9s | | | | | | |
| HAWA | Hanford | 64.74 | 313 | eP | P | 10 55 14.2 | -0.1 |
| | comp=Z,24nm,1.4s | | | | | | |
| TLB | Topalu | 64.87 | 49 | ⇑iP | P | 10 55 14.5 | -0.7 |
| TLB | Topalu | 64.87 | 49 | ⇑P | P | 10 55 14.5 | -0.7 |
| ISA | Isabella, Lake | 64.88 | 301 | P | P | 10 55 14.9 | -0.7 |
| | baz=83 | | | | | | |
| H09W1 | TRISTAN DA CUN | 64.90 | 151 | T | T | 12 05 50.4 | |
| | SNR=3.9 | | | | | | |
| MLAC | Mammoth, Mammo | 64.94 | 303 | P | P | 10 55 15.8 | -0.3 |
| | baz=84 | | | | | | |
| E07A | Sunnyside | 64.95 | 313 | eP | P | 10 55 15.8 | +0.1 |
| | comp=Z,15nm,1.1s | | | | | | |
| KARP | Karpathos | 65.08 | 59 | eP | P | 10 55 16.9 | +0.1 |
| | comp=Z,5.2nm,0.9s | | | | | | |
| PAHR | Pah Rah Range | 65.14 | 305 | eP | P | 10 55 16.9 | -0.3 |
| | comp=Z,15nm,1.8s | | | | | | |
| AK11 | Malin Array Si | 65.35 | 43 | eP | P | 10 55 17.8 | -0.4 |
| KIEV | Kiev | 65.37 | 43 | eP | P | 10 55 20.2 | +1.9 |
| KIEV | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.0s | | | | | | |
| AKASG | Malin Array Be | 65.38 | 43 | P | P | 10 55 18.5 | +0.1 |
| | comp=Z,2.4nm,0.8s,baz=270,slow=6.3,SNR=12 | | | | | | |
| AKASG | Malin Array Be | 65.38 | 43c | eP | P | 10 55 18.2 | -0.2 |
| AKASG | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.8s | | | | | | |
| RCTC | Rector, Farmer | 65.42 | 302 | P | P | 10 55 18.7 | -0.2 |
| | baz=83 | | | | | | |
| LTY | Liberty | 65.47 | 314 | eP | P | 10 55 18.5 | -0.7 |
| | comp=Z,17nm,1.2s | | | | | | |
| G06A | Carlson Farm, | 65.58 | 311 | eP | P | 10 55 20.5 | +0.6 |
| | comp=Z,19nm,1.4s | | | | | | |
| MOD | Modoc Plateau | 65.62 | 308 | eP | P | 10 55 21.0 | +0.6 |
| | comp=Z,9.9nm,1.4s | | | | | | |
| MANT | Manisa | 65.82 | 56 | eP | P | 10 55 22.1 | +0.3 |
| | comp=Z,38nm,1.0s | | | | | | |
| LLLB | Lillooet | 66.10 | 317 | eP | P | 10 55 22.8 | -0.3 |
| | comp=Z,21nm,1.1s | | | | | | |
| I05D | Terrebonne, OR | 66.15 | 311 | P | P | 10 55 23.2 | -0.4 |
| | baz=85 | | | | | | |
| J05D | Fort Rock, OR | 66.17 | 309 | P | P | 10 55 23.5 | -0.4 |
| | baz=85,SNR=6.6 | | | | | | |
| B05A | Bryant | 66.37 | 315 | P | P | 10 55 24.1 | -0.7 |
| | baz=86 | | | | | | |
| H04A | Detroit Lake | 66.72 | 311 | eP | P | 10 55 27.0 | -0.2 |
| | comp=Z,13nm,1.0s | | | | | | |
| M04C | Macdoel | 66.77 | 308 | P | P | 10 55 27.2 | -0.5 |
| | baz=84 | | | | | | |
| ORV | Oroville | 66.78 | 305 | eP | P | 10 55 27.7 | +0.1 |
| ORV | | | | pmax | pmax | | |
| | comp=Z,12nm,1.5s | | | | | | |
| ORV | Oroville | 66.78 | 305 | eP | P | 10 55 27.7 | +0.1 |
| | comp=Z,12nm,1.5s | | | | | | |
| J04D | Umpqua Nationa | 66.81 | 309 | P | P | 10 55 27.4 | -0.6 |
| | baz=84 | | | | | | |
| AKAS | Kas | 66.95 | 58 | eP | P | 10 55 29.8 | +0.9 |
| | comp=Z,11nm,1.2s | | | | | | |
| I04A | Tendick Farm, | 66.97 | 310 | P | P | 10 55 28.5 | -0.4 |
| | baz=84 | | | | | | |
| G03D | McMinnville, O | 67.43 | 312 | P | P | 10 55 30.5 | -1.1 |
| | baz=84 | | | | | | |
| BR231 | Keskin MP Arra | 68.89 | 54 | eP | P | 10 55 44.6 | +3.5 |
| OBN | Obninsk | 69.54 | 37 | iP | P | 10 55 44.9 | +0.3 |
| OBN | | | | i | | 10 55 51.2 | |
| OBN | | | | i | | 10 56 08.6 | |
| OBN | | | | i | | 10 58 16.6 | |
| OBN | | | | pmax | pmax | | |
| | comp=Z,11nm,1.0s | | | | | | |
| BR131 | Keskin Array S | 69.56 | 54 | eP | P | 10 55 45.9 | +0.6 |
| BRTR | Keskin Array B | 69.56 | 54 | P | P | 10 55 45.9 | +0.6 |
| | comp=Z,6.2nm,1.1s,baz=260,slow=4.9,SNR=17 | | | | | | |
| MOS | Moscow | 70.07 | 37 | eP | P | 10 55 48.6 | +0.7 |
| MOS | | | | e | | 10 55 54.1 | |
| DLBC | Dease Lake | 70.25 | 326 | eP | P | 10 55 48.5 | -0.6 |
| | comp=Z,27nm,1.6s | | | | | | |
| KLMR | Klimovskoe | 70.52 | 31 | eP | P | 10 55 47.6 | -2.9 |
| KLMR | | | | pmax | pmax | | |
| | comp=Z,25nm,1.5s | | | | | | |
| INK | Inuvik | 70.83 | 337 | P | P | 10 55 50.6 | -1.7 |
| | comp=Z,3.3nm,0.9s,baz=78,slow=8.9,SNR=9.0 | | | | | | |
| INK | Inuvik | 70.83 | 337 | eP | P | 10 55 52.6 | +0.3 |
| INK | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.2s | | | | | | |
| INK | Inuvik | 70.83 | 337 | eP | P | 10 55 52.6 | +0.3 |
| | comp=Z,8.9nm,1.2s | | | | | | |
| CHRN | Cochrane | 71.11 | 199 | eP | P | 10 55 54.7 | +0.6 |
| | comp=Z,6.8nm,0.8s | | | | | | |
| LPSR | Galich'ya Gora | 71.23 | 40 | eP | P | 10 55 53.6 | -1.4 |
| LPSR | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.5s | | | | | | |
| VSR | Storozhevoye | 71.59 | 41 | eP | P | 10 55 55.4 | -1.8 |
| VSR | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.0s | | | | | | |
| MMAI | Mount Meron Ar | 72.23 | 61 | P | P | 10 56 02.9 | +1.4 |
| | comp=Z,0.5nm,0.3s,baz=28,slow=3.8,SNR=3.6 | | | | | | |
| VRH | Novokhopyorsk | 73.17 | 41 | eP | P | 10 56 06.9 | +0.2 |
| VRH | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.2s | | | | | | |
| TSUM | Tsumeb | 73.27 | 118 | P | P | 10 56 08.0 | +0.1 |
| | comp=Z,3.8nm,0.9s,baz=350,slow=6.1,SNR=5.0 | | | | | | |
| ASF | Jabal al Asfar | 73.65 | 61 | P | P | 10 56 11.6 | +1.6 |
| | comp=Z,1.0nm,0.5s,baz=232,slow=4.6,SNR=4.9 | | | | | | |
| GOF | Gofitskoye | 75.34 | 47 | ⇑eP | P | 10 56 19.7 | +0.2 |
| GOF | | | | pmax | pmax | | |
| | comp=Z,22nm,0.7s | | | | | | |
| KIV | Kislovodsk | 75.36 | 48 | eP | P | 10 56 20.9 | +1.2 |
| KIV | | | | pmax | pmax | | |
| | comp=Z,16nm,1.0s | | | | | | |
| KIV | Kislovodsk | 75.36 | 48 | eP | P | 10 56 20.6 | +0.9 |
| | comp=Z,16nm,1.0s | | | | | | |
| KVAR | Kislovodsk Arr | 75.36 | 48 | P | P | 10 56 20.9 | +1.2 |
| | comp=Z,4.8nm,0.6s,baz=272,slow=6.9,SNR=6.4 | | | | | | |
| NEY | Neytrino | 75.55 | 49 | eP | P | 10 56 22.7 | +1.8 |
| NEY | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.8s | | | | | | |
| KBZ | Khabaz | 75.56 | 48 | P | P | 10 56 22.2 | +1.5 |
| | comp=Z,4.6nm,1.0s,baz=265,slow=6.4,SNR=7.4 | | | | | | |
| NCK | Nalchik | 76.11 | 49 | eP | P | 10 56 25.0 | +1.1 |
| NCK | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.8s | | | | | | |
| ZEI | Tsey | 76.50 | 49 | eP | P | 10 56 26.4 | 0.0 |
| ZEI | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.0s | | | | | | |
| IL1 | Eielson Array | 76.79 | 334 | eP | P | 10 56 27.2 | -0.1 |
| ILAR | Eielson Array | 76.79 | 334 | P | P | 10 56 27.2 | -0.1 |
| | comp=Z,4.8nm,0.8s,baz=73,slow=4.8,SNR=32 | | | | | | |
| ILAR | | | | LR | LR | 11 28 33.6 | |
| | comp=Z,141nm,21.0s,baz=108,slow=34 | | | | | | |
| ILB | Eielson Array | 76.79 | 334 | eP | P | 10 56 27.2 | -0.1 |
| COLA | College | 77.14 | 335 | eP | P | 10 56 29.4 | +0.1 |
| COLA | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.9s | | | | | | |
| CCB | Clear Creek Bu | 77.20 | 334 | eP | P | 10 56 29.4 | -0.2 |
| | comp=Z,13nm,1.3s | | | | | | |
| COLD | Coldfoot | 77.23 | 337 | eP | P | 10 56 30.5 | +0.7 |
| | comp=Z,9.5nm,1.3s | | | | | | |
| WRH | Wood River Hil | 77.38 | 334 | eP | P | 10 56 30.3 | -0.3 |
| | comp=Z,11nm,1.1s | | | | | | |
| GNI | Garni | 77.80 | 52 | P | P | 10 56 34.1 | +0.4 |
| | comp=Z,5.1nm,0.3s,baz=77,slow=1.4,SNR=6.5 | | | | | | |
| GNI | Garni | 77.80 | 52 | eP | P | 10 56 34.8 | +1.1 |
| GNI | | | | pmax | pmax | | |
| | comp=Z,34nm,1.3s | | | | | | |
| GNI | Garni | 77.80 | 52 | eP | P | 10 56 34.8 | +1.1 |
| | comp=Z,34nm,1.3s | | | | | | |
| IMAR | Indian Mountai | 79.02 | 337 | eP | P | 10 56 40.2 | +0.5 |
| LSZ | Lusaka | 80.67 | 110 | P | P | 10 56 50.7 | +1.0 |
| | comp=Z,4.8nm,0.9s,baz=287,slow=6.2,SNR=5.7 | | | | | | |
| LSZ | Lusaka | 80.67 | 110 | eP | P | 10 56 50.8 | +1.2 |
| LSZ | | | | pmax | pmax | | |
| | comp=Z,14nm,1.2s | | | | | | |
| LSZ | Lusaka | 80.67 | 110 | eP | P | 10 56 50.8 | +1.2 |
| | comp=Z,14nm,1.2s | | | | | | |
| ARU | Arti | 81.23 | 33 | P | P | 10 56 52.3 | +0.5 |
| | comp=Z,0.7nm,0.3s,baz=324,slow=5.1,SNR=4.2 | | | | | | |
| ARU | Arti | 81.23 | 33c | iP | P | 10 56 53.6 | +1.8 |
| ARU | | | | | | 10 59 57.6 | |
| ARU | | | | S | S | 11 07 06.2 | +4.2 |
| ARU | | | | SS | SS | 11 12 15.2 | -1.4 |
| ARU | | | | pmax | pmax | | |
| | comp=Z,30nm,3.0s | | | | | | |
| LBTB | Lobatse | 82.52 | 120 | P | P | 10 56 59.4 | +0.1 |
| | comp=Z,3.7nm,0.8s,baz=300,slow=3.3,SNR=3.9 | | | | | | |
| AKTO | Aktyubinsk | 83.26 | 39 | P | P | 10 57 03.4 | +0.8 |
| | comp=Z,3.9nm,0.8s,baz=286,slow=5.6,SNR=10 | | | | | | |
| KMBO | Kilima Mbogo | 83.82 | 93 | P | P | 10 57 08.7 | +2.2 |
| | comp=Z,4.8nm,1.0s,baz=277,slow=3.8,SNR=8.1 | | | | | | |
| KMBO | | | | LR | LR | 11 34 43.9 | |
| | comp=Z,115nm,18.1s,baz=321,slow=36 | | | | | | |
| KMBO | Kilima Mbogo | 83.82 | 93c | eP | P | 10 57 09.3 | +2.9 |
| KMBO | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.0s | | | | | | |
| KMBO | Kilima Mbogo | 83.82 | 93 | eP | P | 10 57 07.4 | +0.9 |
| | comp=Z,12nm,1.3s | | | | | | |
| BOSA | Boshof | 83.83 | 123 | P | P | 10 57 05.9 | -0.1 |
| | comp=Z,5.9nm,0.9s,baz=273,slow=4.3,SNR=5.2 | | | | | | |
| BOSA | | | | LR | LR | 11 31 32.1 | |
| | comp=Z,100nm,18.2s,baz=354,slow=34 | | | | | | |
| GEYT | Alibeck | 88.34 | 50 | P | P | 10 57 28.2 | +0.1 |
| | comp=Z,1.9nm,0.8s,baz=232,slow=7.3,SNR=4.2 | | | | | | |
| TIXI | Tiksi | 88.57 | 2 | eP | P | 10 57 28.8 | +0.4 |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.0s | | | | | | |
| TIXI | Tiksi | 88.57 | 2 | eP | P | 10 57 28.4 | 0.0 |
| | comp=Z,13nm,1.6s | | | | | | |
| BRVK | Borovoye | 88.80 | 33c | eP | P | 10 57 31.1 | +1.2 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,11nm,1.2s | | | | | | |
| BRVK | Borovoye | 88.80 | 33 | eP | P | 10 57 30.8 | +0.9 |
| | comp=Z,9.8nm,1.3s | | | | | | |
| BVAR | Borovoye Array | 88.87 | 33 | P | P | 10 57 30.8 | +0.5 |
| | comp=Z,1.4nm,0.8s,baz=282,slow=2.9,SNR=6.9 | | | | | | |
| VNA1 | Neumayer--Stat | 94.06 | 168 | P | P | 10 57 53.5 | -0.2 |
| VNA3 | Neumayer Olymp | 94.29 | 169 | P | P | 10 57 54.3 | -0.5 |
| KURK | Kurchatov | 94.36 | 32 | eP | P | 10 57 56.2 | +0.5 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.9s | | | | | | |
| KURK | Kurchatov | 94.36 | 32 | P | P | 10 57 55.6 | -0.1 |
| KURBB | Kurchatov Arra | 94.38 | 32 | P | P | 10 57 55.6 | -0.2 |
| | comp=Z,0.8nm,0.8s,baz=301,slow=4.6,SNR=4.8 | | | | | | |
| VNA2 | Neumayer--Watz | 94.46 | 168 | P | P | 10 57 54.8 | -0.7 |
| | baz=33,slow=3.3 | | | | | | |
| ZALV | Zalesovo Beam | 95.07 | 27 | P | P | 10 57 58.4 | -0.5 |
| | comp=Z,0.2nm,0.3s,baz=337,slow=9.6,SNR=3.7 | | | | | | |
| AAK | Ala-Archa | 96.95 | 40 | eP | P | 10 58 08.9 | +0.9 |
| AAK | | | | pmax | pmax | | |
| | comp=Z,1.0nm,1.0s | | | | | | |
| KSH | Kashi | 99.67 | 42 | eP | Pdif | 10 58 19.8 | -0.4 |
| KSH | | | | pP | pP | 10 58 23.3 | -0.2 |
| KSH | | | | PP | PP | 11 02 24.1 | +0.4 |
| KSH | | | | SKS | SKSac | 11 08 56.4 | -2.9 |
| KSH | | | | S | ScS | 11 09 46.8 | -7.2 |
| KSH | | | | SS | SS | 11 16 40.3 | -3.7 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.7s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,140nm,4.9s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,260nm,6.0s | | | | | | |
| HHC | Hu-ho-hao-te | 115.95 | 19 | ePKP | PKPdf | 11 03 19.4 | +0.1 |
| HHC | | | | PP | PP | 11 04 26.9 | +4.8 |
| HHC | | | | SKS | SKSdf | 11 10 30.4 | -1.4 |
| HHC | | | | SKKS | SKKSac | 11 11 20.0 | -5.0 |
| HHC | | | | SS | SS | 11 20 23.5 | +0.4 |
| HHC | | | | AMB | AMB | | |
| | comp=Z,40nm,5.5s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,140nm,18.6s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,120nm,18.6s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,100nm,19.4s | | | | | | |
| LZH | Lanzhou | 117.29 | 27 | ePKP | PKPdf | 11 03 17.1 | -5.0 |
| BJI | Beijing | 118.00 | 16 | PKP | PKPdf | 11 03 22.7 | -0.4 |
| KMI | Kunming | 125.74 | 36 | PKP | PKPdf | 11 03 38.3 | -0.4 |
| NJ2 | Nanjing | 126.24 | 16 | ePKP | PKPdf | 11 03 40.5 | +1.3 |
| CMAR | Chiang Mai Arr | 128.48 | 44 | PKP | PKPdf | 11 03 44.0 | +0.2 |
| | comp=Z,0.8nm,0.8s,baz=285,slow=4.1,SNR=4.8 | | | | | | |
| CMAR | Chiang Mai Arr | 128.48 | 44 | PKIKP | PKPdf | 11 03 44.0 | +0.2 |
| CISI | Cisompet, Garu | 151.59 | 68 | ePKPbc | PKPbc | 11 04 29.7 | -1.6 |
| ASAR | Alice Springs | 176.28 | 175 | PKP | PKPdf | 11 04 45.5 | -1.5 |
| | comp=Z,0.9nm,0.9s,baz=160,slow=3.0,SNR=6.2 | | | | | | |
| ASAR | | | | PKPab | PKPab | 11 06 25.8 | -1.3 |
| | comp=Z,0.5nm,1.0s,baz=202,slow=4.8,SNR=4.0 | | | | | | |
| AS01 | Alice Springs | 176.28 | 176 | ePKPdf | PKPdf | 11 04 45.6 | -1.5 |
| WRA | Warramunga Arr | 179.90 | 269 | PKP | PKPdf | 11 04 46.1 | -1.4 |
| | comp=Z,0.4nm,0.9s,baz=28,slow=1.1,SNR=4.9 | | | | | | |
| WRA | | | | PKPab | PKPab | 11 06 41.0 | |
| | comp=Z,1.5nm,1.0s,baz=160,slow=2.8,SNR=6.3 | | | | | | |

*ISCJB **04** 10:59:48.0±0.7, 19.°9N±0.°1×45.°4W±0.°2, h9km, mb3.9/9, Error ellipse: s-maj=21.4km s-min=16.9km az=20.8*

*IDC **04** 10:59:48.0±0.8, 20.°00N×45.°50W, h0km, mb3.9/8, mb1 4.1/8, mb1mx3.7/71, mbtmp3.9/8, Error ellipse: s-maj=28.2km s-min=20.4km az=115.0*

**ISC 04 10:59:49.6**±0.8, **19.°9N**±0.°1×**45.°4W**±0.°2, **h9**km, **n16**, σ**1.s49**/9, **mb3.9**/9, **Northern Mid-Atlantic Ridge**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BDFB | Brasilia | 35.45 | 184 | P | P | 11 06 47.7 | +1.1 |
| | 1.8nm,0.7s,baz=306,slow=14,SNR=2.0 | | | | | | |
| H10N3 | ASCENSION HYDR | 41.07 | 129 | T | T | 11 51 27.0 | |
| | baz=312,slow=75,SNR=29 | | | | | | |
| H10N2 | ASCENSION HYDR | 41.08 | 129 | T | T | 11 51 15.9 | |
| | baz=312,slow=75,SNR=31 | | | | | | |
| H10N1 | ASCENSION HYDR | 41.09 | 129 | T | T | 11 51 17.0 | |
| | baz=312,slow=75,SNR=30 | | | | | | |
| H10S3 | ASCENSION HYDR | 41.71 | 131 | T | T | 11 52 03.8 | |
| | baz=313,slow=75,SNR=17 | | | | | | |
| H10S1 | ASCENSION HYDR | 41.72 | 131 | T | T | 11 52 03.8 | |
| | baz=313,slow=75,SNR=16 | | | | | | |
| H10S2 | ASCENSION HYDR | 41.73 | 131 | T | T | 11 52 06.3 | |
| | baz=313,slow=75,SNR=16 | | | | | | |
| LPAZ | La Paz | 42.37 | 213 | P | P | 11 07 43.5 | -1.7 |
| | 2.2nm,1.1s,baz=26,slow=8.2,SNR=3.7 | | | | | | |
| TORD | Torodi Ar. Bea | 45.53 | 91 | P | P | 11 08 09.4 | -0.6 |
| | 2.2nm,1.0s,baz=292,slow=7.4,SNR=8.7 | | | | | | |
| CPUP | Villa Florida | 47.43 | 195 | P | P | 11 08 25.1 | +0.4 |
| | 2.1nm,0.8s,baz=356,slow=6.1,SNR=4.5 | | | | | | |
| PDAR | Pinedale Array | 57.90 | 309 | P | P | 11 09 44.5 | +2.0 |
| | 0.6nm,0.8s,baz=74,slow=12,SNR=6.5 | | | | | | |
| MLR | Muntele Rosu | 63.09 | 48 | P | P | 11 10 18.5 | +0.8 |
| | 0.5nm,0.7s,baz=192,slow=4.1,SNR=3.9 | | | | | | |
| NEW | Newport | 63.30 | 315 | P | P | 11 10 19.4 | +0.5 |
| | 1.7nm,0.8s,baz=101,slow=14,SNR=4.3 | | | | | | |
| H09N1 | TRISTAN DA CUN | 64.72 | 151 | T | T | 12 20 30.9 | |
| | SNR=13 | | | | | | |
| BRTR | Keskin Array B | 69.28 | 54 | P | P | 11 10 58.1 | +0.5 |
| | 0.7nm,0.8s,baz=260,slow=8.6,SNR=4.8 | | | | | | |
| ILAR | Eielson Array | 76.94 | 334 | P | P | 11 11 40.4 | -1.9 |
| | 0.8nm,1.0s,baz=72,slow=4.2,SNR=3.5 | | | | | | |

**TRN 04 11:04:16.4, 17.°44N×62.°05W, h66km, MD3.5, 2C, Leeward Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ANWB | Willy Bob | 0.34 | 47 | eP | Pn | 11 04 29.0 | +1.5 |
| ANWB | | | | eS | Sn | 11 04 37.5 | +1.9 |
| BPA | Boggy Peak | 0.43 | 155 | eP | Pn | 11 04 30.4 | +2.1 |
| BPA | | | | eS | Sn | 11 04 39.6 | +2.6 |
| NEV | Hard Times | 0.58 | 239 | eP | Pn | 11 04 31.8 | +2.0 |
| NEV | | | | eS | Sn | 11 04 41.8 | +2.3 |
| MLYT | Lee's Yard | 0.72 | 191 | eP | Pn | 11 04 32.8 | +1.4 |
| MLYT | | | | eS | Sn | 11 04 44.3 | +1.9 |
| SEUS | St. Eustatius | 0.89 | 274 | eP | Pn | 11 04 34.4 | +1.0 |
| SEUS | | | | eS | Sn | 11 04 47.5 | +1.5 |
| SEG | Port Louis | 1.15 | 153 | ⇑iP | Pn | 11 04 38.2 | +1.5 |
| SABA | Saba | 1.16 | 279 | eP | Pn | 11 04 38.0 | +1.2 |
| SABA | Saba | 1.16 | 279 | eP | Pn | 11 04 39.1 | +2.3 |
| SABA | | | | eS | Sn | 11 04 54.9 | +3.0 |
| SSG | Sans Toucher | 1.38 | 165 | ⇑iP | Pn | 11 04 41.2 | +1.3 |
| DEG | La Desirade | 1.46 | 140 | eP | Pn | 11 04 42.1 | +1.3 |
| DEG | | | | eS | Sn | 11 05 01.0 | +1.8 |
| TBG | Guadaloupe-3 | 1.62 | 166 | eP | Pn | 11 04 44.4 | +1.5 |
| TBG | | | | eS | Sn | 11 05 04.7 | +1.8 |
| MGG | Marie-Galante | 1.66 | 155 | eP | Pn | 11 04 45.3 | +1.8 |
| MGG | | | | eS | Sn | 11 05 06.6 | +2.7 |
| MDPV | Dominica, Penn | 1.90 | 161 | eP | Pn | 11 04 48.1 | +1.5 |
| MDPV | | | | eS | Sn | 11 05 11.6 | +2.0 |
| MDVC | Dominica, Viel | 1.91 | 161 | eP | Pn | 11 04 48.8 | +1.9 |
| MDVC | | | | eS | Sn | 11 05 12.2 | +2.2 |
| MDMP | Dominica, Moor | 1.93 | 161 | eP | Pn | 11 04 48.4 | +1.3 |
| MDMP | | | | eS | Sn | 11 05 11.9 | +1.6 |
| BBL | Barber's Block | 1.98 | 164 | eP | Pn | 11 04 49.5 | +1.8 |
| PCM | Pelee Case Pet | 2.73 | 163 | eP | Pn | 11 04 59.6 | +1.7 |

**IDC 04 11:04:55.0**±4.0, **18.°94N**×**45.°95W**, **h0**km, **mb3.7**/4, **mb1 3.9**/4, **mb1mx3.5**/60, **mbtmp3.7**/4, **Error ellipse: s-maj=151.4km s-min=30.3km az=17.0, Northern Mid-Atlantic Ridge**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| H10N3 | ASCENSION HYDR | 40.86 | 128 | T | T | 11 56 45.1 | |
| | baz=312,slow=75,SNR=12 | | | | | | |
| H10N2 | ASCENSION HYDR | 40.86 | 128 | T | T | 11 56 41.4 | |
| | baz=312,slow=75,SNR=11 | | | | | | |
| H10N1 | ASCENSION HYDR | 40.88 | 128 | T | T | 11 56 40.2 | |
| | baz=312,slow=75,SNR=8.8 | | | | | | |
| H10S3 | ASCENSION HYDR | 41.47 | 129 | T | T | 11 57 35.4 | |
| | baz=313,slow=75,SNR=11 | | | | | | |
| H10S1 | ASCENSION HYDR | 41.48 | 129 | T | T | 11 57 22.7 | |
| | baz=313,slow=75,SNR=12 | | | | | | |
| H10S2 | ASCENSION HYDR | 41.49 | 129 | T | T | 11 57 33.8 | |
| | baz=313,slow=75,SNR=8.7 | | | | | | |
| TORD | Torodi Ar. Bea | 46.04 | 90 | P | P | 11 13 20.5 | -0.4 |
| | 1.5nm,1.0s,baz=284,slow=7.0,SNR=7.0 | | | | | | |
| PDAR | Pinedale Array | 58.12 | 309 | P | P | 11 14 51.3 | +0.5 |
| | 0.4nm,0.7s,baz=52,slow=5.8,SNR=3.7 | | | | | | |
| BRTR | Keskin Array B | 70.29 | 54 | P | P | 11 16 11.0 | +0.4 |
| | 0.4nm,0.5s,baz=279,slow=3.6,SNR=2.6 | | | | | | |
| ILAR | Eielson Array | 77.61 | 334 | P | P | 11 16 52.1 | -0.7 |
| | 0.5nm,0.7s,baz=70,slow=4.7,SNR=5.3 | | | | | | |

**IDC 04 11:08:02.1**±3.9, **20.°09N**×**45.°81W**, **h0**km, **mb3.7**/4, **mb1 3.9**/4, **mb1mx3.5**/53, **mbtmp3.7**/4, **MS3.7**/1, **Ms1 3.7**/1, **ms1mx2.8**/48, **Error ellipse: s-maj=146.0km s-min=30.3km az=16.0, Northern Mid-Atlantic Ridge**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| H10N3 | ASCENSION HYDR | 41.47 | 129 | T | T | 11 59 45.1 | |
| | baz=312,slow=75,SNR=14 | | | | | | |
| H10N2 | ASCENSION HYDR | 41.47 | 129 | T | T | 11 59 45.2 | |
| | baz=312,slow=75,SNR=14 | | | | | | |
| H10N1 | ASCENSION HYDR | 41.48 | 129 | T | T | 11 59 46.6 | |
| | baz=312,slow=75,SNR=14 | | | | | | |
| H10S3 | ASCENSION HYDR | 42.10 | 130 | T | T | 12 00 33.2 | |
| | baz=313,slow=75,SNR=8.8 | | | | | | |
| H10S1 | ASCENSION HYDR | 42.10 | 130 | T | T | 12 00 34.9 | |
| | baz=313,slow=75,SNR=8.7 | | | | | | |
| H10S2 | ASCENSION HYDR | 42.12 | 130 | T | T | 12 00 36.4 | |
| | baz=313,slow=75,SNR=6.7 | | | | | | |
| TORD | Torodi Ar. Bea | 45.91 | 91 | P | P | 11 16 27.0 | +0.1 |
| | 1.0nm,1.0s,baz=302,slow=9.1,SNR=4.1 | | | | | | |
| DAVOX | Davos/Dischmat | 52.25 | 46 | LR | LR | 11 36 21.3 | |
| | comp=Z,80nm,19.7s,baz=264,slow=32 | | | | | | |
| PDAR | Pinedale Array | 57.51 | 308 | P | P | 11 17 53.0 | -0.5 |
| | 1.8nm,1.2s,baz=68,slow=12,SNR=5.5 | | | | | | |
| BRTR | Keskin Array B | 69.50 | 54 | P | P | 11 19 12.6 | -0.3 |
| | 0.9nm,0.9s,baz=316,slow=6.0,SNR=3.4 | | | | | | |
| ILAR | Eielson Array | 76.64 | 334 | P | P | 11 19 55.1 | +0.7 |
| | 0.6nm,0.8s,baz=76,slow=5.6,SNR=5.1 | | | | | | |

**IDC 04 11:09:51.3**±3.0, **47.°56N**×**152.°79E**, **h144**km±27km, **mb3.2**/4, **mb1 3.4**/6, **mb1mx3.0**/47, **mbtmp3.7**/6, **Error ellipse: s-maj=56.2km s-min=24.5km az=151.0, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PETK | Petropavlovsk- | 6.38 | 28 | P | Pn | 11 11 22.4 | -0.4 |
| | 0.4nm,0.3s,baz=191,slow=12,SNR=7.6 | | | | | | |
| ASAJ | Asahikawa | 7.91 | 248 | P | Pn | 11 11 43.7 | +0.4 |
| | 1.0nm,0.3s,baz=63,slow=14,SNR=8.7 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 30.04 | 153 | T | T | 11 47 42.8 | |
| | baz=341,slow=76,SNR=6.0 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 30.06 | 153 | T | T | 11 47 44.0 | |
| | baz=341,slow=76,SNR=6.4 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 30.06 | 153 | T | T | 11 47 42.0 | |
| | baz=341,slow=76,SNR=4.9 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 31.13 | 154 | T | T | 11 49 09.3 | |
| | baz=342,slow=76,SNR=7.1 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 31.14 | 154 | T | T | 11 49 04.5 | |
| | baz=342,slow=76,SNR=8.3 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 31.15 | 154 | T | T | 11 49 05.4 | |
| | baz=342,slow=76,SNR=9.3 | | | | | | |
| ILAR | Eielson Array | 36.05 | 39 | P | P | 11 16 38.5 | +0.1 |
| | 0.3nm,0.5s,baz=270,slow=6.1,SNR=4.2 | | | | | | |
| YKA | Yellowknife Ar | 50.41 | 37 | P | P | 11 18 33.8 | +0.4 |
| | 0.3nm,0.7s,baz=296,slow=7.0,SNR=4.1 | | | | | | |
| FINES | FINESS Array B | 63.21 | 334 | P | P | 11 20 03.0 | -0.6 |
| | 4.4nm,1.0s,baz=69,slow=10,SNR=4.5 | | | | | | |
| PDAR | Pinedale Array | 64.45 | 54 | P | P | 11 20 12.4 | 0.0 |
| | 0.4nm,0.7s,baz=328,slow=3.2,SNR=3.2 | | | | | | |

*ISK **04** 11:11:52.0, 38.°75N×43.°17E, h6km, ML2.3*

*CSEM **04** 11:11:53.3±0.4, 38.°73N×43.°26E, h20km, ML2.3, Error ellipse: s-maj=10.4km s-min=8.0km az=54.0*

*DDA **04** 11:11:53.8, 38.°72N×43.°25E, h7km, Ml2.6*

**ISC 04 11:11:53.9**±1.1, **38.°79N**±0.°04×**43.°24E**±0.°04, **h13**km±13km, **n16**, σ**0.s68**/22, **Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.23 | 149 | ePG | Pg | 11 11 58.4 | -0.4 |
| VANB | | | | eSG | Sg | 11 12 03.0 | +0.8 |
| VANB | Van | 0.23 | 149 | ePg | Pg | 11 11 58.4 | -0.4 |
| VANB | | | | eSg | Sg | 11 12 03.0 | +0.8 |
| TVAN | Van | 0.29 | 153 | iP | Pg | 11 11 58.8 | -1.2 |
| TVAN | Van | 0.29 | 153 | P | Pg | 11 11 58.8 | -1.2 |
| VMUR | Van-Muradiye | 0.33 | 52 | iP | Pb | 11 12 02.0 | +0.2 |
| VMUR | Van-Muradiye | 0.33 | 52 | P | Pb | 11 12 02.0 | +0.2 |
| CLDR | Caldiran | 0.64 | 56 | ePG | Pg | 11 12 06.1 | -0.3 |
| CLDR | | | | eSG | Sb | 11 12 16.2 | +0.2 |
| CLDR | Caldiran | 0.64 | 56 | iP | Pb | 11 12 06.9 | -0.1 |
| CLDR | Caldiran | 0.64 | 56 | ePg | Pg | 11 12 06.1 | -0.3 |
| CLDR | Caldiran | 0.64 | 56 | P | Pb | 11 12 06.9 | -0.1 |
| CLDR | | | | eSg | Sb | 11 12 16.2 | +0.2 |
| TUTA | Tutak | 0.70 | 332 | iP | Pb | 11 12 08.6 | +0.5 |
| TUTA | Tutak | 0.70 | 332 | P | Pb | 11 12 08.6 | +0.5 |
| AGRB | Hanur-Agry | 0.81 | 346 | ePG | Pg | 11 12 08.6 | -1.0 |
| AGRB | | | | eSG | Sg | 11 12 20.6 | +0.3 |
| AGRB | Hanur-Agry | 0.81 | 346 | ePg | Pg | 11 12 08.6 | -1.0 |
| AGRB | | | | eSg | Sg | 11 12 20.6 | +0.3 |
| EKAR | Karacoban | 1.03 | 297 | iP | Pb | 11 12 14.2 | +0.4 |
| EKAR | Karacoban | 1.03 | 297 | P | Pb | 11 12 14.2 | +0.4 |

*CSEM **04** 11:12:30.3±0.3, 38.°65N×43.°16E, h15km, ML2.7, Error ellipse: s-maj=6.9km s-min=6.1km az=89.0*

*DDA **04** 11:12:30.4, 38.°68N×43.°18E, h7km, Ml2.7*

*ISK **04** 11:12:30.2, 38.°46N×43.°41E, h29km, MD2.4*

**ISC 04 11:12:30.5**±1.2, **38.°65N**±0.°03×**43.°18E**±0.°04, **h16**km±10km, **n22**, σ**0.s78**/28, **Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.17 | 110 | ePG | Pb | 11 12 35.4 | 0.0 |
| VANB | | | | eSG | Sb | 11 12 39.4 | +0.8 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.17** | **110** | eP g | **Pb** | **11 12 35.4** | **0.0** |
| VANB | | | | eSg | **Sb** | **11 12 39.4** | **+0.8** |
| **TVAN** | **Van** | **0.21** | **126** | i P | **Pg** | **11 12 35.4** | **-0.2** |
| **TVAN** | **Van** | **0.21** | **126** | P | **Pg** | **11 12 35.4** | **-0.2** |
| **GEVA** | **Gevas** | **0.35** | **196** | i P | **Pg** | **11 12 37.6** | **-0.3** |
| GEVA | | | | i S | **Sb** | **11 12 45.0** | **+1.0** |
| **GEVA** | **Gevas** | **0.35** | **196** | P | **Pg** | **11 12 37.6** | **-0.3** |
| GEVA | | | | S | **Sb** | **11 12 45.0** | **+1.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.39** | **293** | i P | **Pg** | **11 12 38.6** | **+0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.39** | **293** | P | **Pg** | **11 12 38.6** | **+0.1** |
| **VMUR** | **Van-Muradiye** | **0.45** | **42** | i P | **Pb** | **11 12 40.0** | **-0.2** |
| **VMUR** | **Van-Muradiye** | **0.45** | **42** | P | **Pb** | **11 12 40.0** | **-0.2** |
| **CLDR** | **Caldiran** | **0.75** | **49** | ePG | **Pb** | **11 12 45.6** | **+0.2** |
| CLDR | | | | eSG | **Sn** | **11 12 56.8** | **-1.1** |
| **CLDR** | **Caldiran** | **0.75** | **49** | i P | **Pg** | **11 12 45.0** | **-0.2** |
| **CLDR** | **Caldiran** | **0.75** | **49** | P | **Pg** | **11 12 45.0** | **-0.2** |
| **CLDR** | **Caldiran** | **0.75** | **49** | ePg | **Pb** | **11 12 45.6** | **+0.2** |
| CLDR | | | | eSg | **Sn** | **11 12 56.8** | **-1.1** |
| **TUTA** | **Tutak** | **0.80** | **339** | i P | **Pg** | **11 12 45.7** | **-0.4** |
| **TUTA** | **Tutak** | **0.80** | **339** | P | **Pg** | **11 12 45.7** | **-0.4** |
| **AGRB** | **Hanur-Agry** | **0.93** | **351** | ePN | **Pn** | **11 12 50.8** | **+1.7** |
| **AGRB** | **Hanur-Agry** | **0.93** | **351** | ePn | **Pn** | **11 12 50.8** | **+1.7** |
| **HAKT** | **HAKKARI** | **1.17** | **159** | i P | **Pb** | **11 12 51.9** | **-0.6** |
| **HAKT** | **HAKKARI** | **1.17** | **159** | P | **Pb** | **11 12 51.9** | **-0.6** |
| **EATA** | **Eleskirt** | **1.32** | **336** | i P | **Pn** | **11 12 53.7** | **-0.9** |
| **EATA** | **Eleskirt** | **1.32** | **336** | P | **Pn** | **11 12 53.7** | **-0.9** |

*ISCJB **04** 11:55:22.3±0.6, 21.°91S±0.°09×67.°28W±0.°08, h178km, Error ellipse: s-maj=15.4km s-min=5.8km az=35.1*
*GUC **04** 11:55:22.9±0.5, 21.°80S×67.°80W, h230km±12km, ML3.1*
*SJA **04** 11:55:22.3±0.3, 21.°97S×67.°07W, h200km±17km, ML2.2, MW2.8*
**ISC 04 11:55:22.0±1.3, 21.°91S±0.°10×67.°24W±0.°07, h178km, n11, σ1.s40/17, 2C-1D, Chile-Bolivia border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **YJA** | **Yavi** | **1.62** | **100** | eP | **Pn** | **11 55 57.1** | **+1.6** |
| YJA | | | | IAML | | 11 56 25.4 | |
| | comp=Z,14nm,0.4s | | | | | | |
| **PB09** | **IPOC Station P** | **1.86** | **273** | eP | **Pn** | **11 55 59.1** | **+1.4** |
| PB09 | | | | IAML | | 11 56 33.3 | |
| | comp=N,101nm,0.3s | | | | | | |
| **HJA** | **Humahuaca** | **2.13** | **128** | eP | **Pn** | **11 56 01.9** | **+1.1** |
| **PB01** | **IPOC Station P** | **2.26** | **292** | eP | **Pn** | **11 56 02.8** | **+0.8** |
| PB01 | | | | i S | **Sn** | **11 56 32.9** | **-0.1** |
| PB01 | | | | IAML | | 11 56 35.0 | |
| | comp=E,217nm,0.3s | | | | | | |
| **PB06** | **IPOC Station P** | **2.30** | **249** | IAML | | 11 56 35.1 | |
| | comp=E,24nm,0.0s | | | | | | |
| **PB07** | **IPOC Station P** | **2.46** | **274** | ⇑iP | **Pn** | **11 56 05.1** | **+0.7** |
| PB07 | | | | i S | **Sn** | **11 56 36.5** | **-0.7** |
| PB07 | | | | IAML | | 11 56 37.9 | |
| | comp=N,104nm,0.1s | | | | | | |
| **PB08** | **IPOC Station P** | **2.51** | **314** | i P | **Pn** | **11 56 06.8** | **+1.7** |
| PB08 | | | | eS | **Sn** | **11 56 40.0** | **+1.4** |
| PB08 | | | | IAML | | 11 56 45.0 | |
| | comp=E,65nm,0.2s | | | | | | |
| **PB11** | **IPOC Station P** | **3.11** | **313** | ⇑iP | **Pn** | **11 56 12.1** | **0.0** |
| PB11 | | | | i S | **Sn** | **11 56 50.1** | **-1.0** |
| **ASTB** | **Santa Barbara** | **3.27** | **129** | eP | **Pn** | **11 56 14.2** | **+0.1** |
| ASTB | | | | eS | **Sn** | **11 56 52.6** | **-2.1** |
| **MNMC** | **Minye Minye** | **3.54** | **321** | ⇓iP | **Pn** | **11 56 18.0** | **+0.4** |
| MNMC | | | | eS | **Sn** | **11 57 00.3** | **-0.6** |
| **PSGC** | **Pisagua** | **3.55** | **310** | eP | **Pn** | **11 56 16.7** | **-0.8** |
| PSGC | | | | i S | **Sn** | **11 56 57.9** | **-2.9** |

*SJA **04** 11:58:41.9±1.1, 22.°75S×66.°14W, h268km±10km, ML2.9, MW3.2*
*ISCJB **04** 11:58:44.3±0.5, 22.°91S±0.°04×66.°26W±0.°08, h242km, mb3.3/2, Error ellipse: s-maj=9.8km s-min=5.9km az=169.7*
*IDC **04** 11:58:46.2±8.8, 22.°47S×65.°77W, h262km±62km, mb3.1/2, mb1 3.4/3, mb1mx3.2/16, mbtmp3.7/3, Error ellipse: s-maj=113.1km s-min=48.6km az=27.0*
**ISC 04 11:58:42.8±0.9, 22.°89S±0.°06×66.°22W±0.°08, h242km, n15, σ1.s90/20, 7D, Jujuy Province**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HJA** | **Humahuaca** | **0.81** | **113** | ⇓eP | **Pn** | **11 59 19.2** | **+2.8** |
| **YJA** | **Yavi** | **0.96** | **43** | ⇓eP | **Pn** | **11 59 19.5** | **+2.1** |
| YJA | | | | IAML | | 11 59 20.2 | |
| | comp=Z,131nm,0.5s | | | | | | |
| **AZAP** | **Zapla** | **1.70** | **142** | ⇓eP | **Pn** | **11 59 24.2** | **+2.0** |
| AZAP | | | | eS | **S** | **11 59 55.9** | **+2.7** |
| **ASTB** | **Santa Barbara** | **1.94** | **123** | ⇓eP | **Pn** | **11 59 26.1** | **+2.0** |
| **ALOL** | **LOMAS DE OLMED** | **2.25** | **115** | eP | **Pn** | **11 59 28.3** | **+1.3** |
| **LVC** | **Limon Verde** | **2.50** | **276** | eP | **Pn** | **11 59 31.8** | **+1.9** |
| LVC | | | | eS | **S** | **12 00 08.4** | **+1.6** |
| **FSA** | **Cafayete** | **3.22** | **176** | eP | **Pn** | **11 59 39.4** | **+2.1** |
| FSA | | | | IAML | | 11 59 42.2 | |
| | comp=Z,2.2nm,0.5s | | | | | | |
| **VCA** | **Vinchina** | **6.09** | **197** | ⇓eP | **Pn** | **12 00 14.4** | **+2.4** |
| VCA | | | | IAML | | 12 00 14.7 | |
| | comp=Z,9.2nm,0.5s | | | | | | |
| VCA | | | | ⇓eS | **S** | **12 01 23.7** | **+0.3** |
| **ACLC** | **CERRO LA CRUZ** | **6.54** | **186** | eP | **Pn** | **12 00 18.7** | **+1.0** |
| ACLC | | | | eS | **S** | **12 01 32.1** | **-1.6** |
| **LPAZ** | **La Paz** | **6.81** | **344** | P | **Pn** | **12 00 21.6** | **0.0** |
| | comp=Z,1.4nm,0.3s,baz=153,slow=7.3,SNR=35 | | | | | | |
| LPAZ | | | | S | **S** | **12 01 39.8** | **-0.7** |
| | baz=332,slow=16,SNR=3.7 | | | | | | |
| **AGUA** | **GUANDACOL** | **6.88** | **197** | ⇓eS | **Pn** | **12 00 22.5** | **+0.6** |
| **APLL** | **PUNTA DE LOS L** | **7.48** | **182** | eS | **S** | **12 01 52.2** | **-3.0** |
| **TORD** | **Torodi Ar. Bea** | **75.50** | **69** | P | **P** | **12 09 59.3** | **-1.7** |
| | comp=Z,0.2nm,0.3s,baz=253,slow=4.4,SNR=4.7 | | | | | | |
| **YKA** | **Yellowknife Ar** | **93.33** | **340** | P | **P** | **12 11 29.3** | **-0.4** |
| | comp=Z,0.2nm,0.6s,baz=128,slow=4.6,SNR=3.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **145.21** | **39** | PKP | **PKPab** | **12 17 51.8** | **-0.2** |
| | comp=Z,0.4nm,0.7s,baz=317,slow=3.5,SNR=3.3 | | | | | | |

**IDC 04 11:59:08.9±2.1, 1.°31N×126.°68E, h0km, mb3.6/3, mb1 3.8/3, mb1mx3.5/27, mbtmp3.6/3, Error ellipse: s-maj=175.4km s-min=25.5km az=66.0, Northern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **22.41** | **161** | P | P | 12 04 08.5 | -0.9 |
| | 2.1nm,0.9s,baz=339,slow=11,SNR=11 | | | | | | |
| **ASAR** | **Alice Springs** | **25.80** | **165** | P | P | 12 04 42.5 | +0.6 |
| | 2.1nm,1.2s,baz=346,slow=12,SNR=17 | | | | | | |
| **MKAR** | **Makanchi Array** | **59.52** | **326** | P | P | 12 09 14.1 | -0.1 |
| | 0.2nm,0.6s,baz=127,slow=6.4,SNR=5.5 | | | | | | |

*IDC **04** 12:07:13.5±1.9, 3.°78S×141.°71E, h0km, mb3.3/3, mb1 3.9/5, mb1mx3.6/30, mbtmp3.7/5, ML4.2/1, Error ellipse: s-maj=46.6km s-min=27.6km az=82.0*
*ISCJB **04** 12:07:23.3±1.1, 4.°14S±0.°10×142.°1E±0.°1, h109km, mb3.3/2, Error ellipse: s-maj=23.1km s-min=7.7km az=147.9*
*DJA **04** 12:07:25.4±1.8, 4°S±24°×14°2E±2°0, h10km, M3.7/2, MLv3.7/2*
**ISC 04 12:07:24.4±1.2, 4.°1S±0.°1×142.°1E±0.°2, h109km, n7, σ0.s79/9, mb3.3/3, New Guinea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JAY** | **Jayapura** | **2.08** | **318** | P | **Pn** | **12 07 58.3** | **-0.1** |
| JAY | | | | S | **Sn** | **12 08 23.5** | **-0.9** |
| **GENI** | **Genyem** | **2.42** | **308** | P | **Pn** | **12 08 03.5** | **+0.7** |
| GENI | | | | S | **Sn** | **12 08 32.9** | **+0.7** |
| **PMG** | **Port Moresby** | **7.30** | **137** | Pn | **Pn** | **12 09 08.9** | **+0.4** |
| | 1.3nm,0.3s,baz=317,slow=10,SNR=6.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **17.48** | **205** | P | **P** | **12 11 19.9** | **-1.2** |
| | 0.8nm,0.3s,baz=21,slow=12,SNR=29 | | | | | | |
| **ASAR** | **Alice Springs** | **21.01** | **201** | P | **P** | **12 11 59.1** | **-0.4** |
| | 1.0nm,0.6s,baz=31,slow=12,SNR=23 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **21.29** | **228** | P | **P** | **12 12 02.8** | **+0.4** |
| | 2.8nm,1.2s,baz=31,slow=12,SNR=3.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **72.94** | **322** | P | **P** | **12 18 41.9** | **-0.1** |
| | 0.2nm,0.6s,baz=132,slow=8.0,SNR=3.9 | | | | | | |

*INMG **04** 12:37:17.1±1.2, 36.°61N×7.°75W, h26km±6km, ML1.3, Error ellipse: s-maj=7.2km s-min=5.0km az=175.0*
*IGIL **04** 12:37:17.5, 36.°61N×7.°75W, h26km, ML1.3*
*MDD **04** 12:37:18.1±2.9, 36.°64N×7.°66W, h49km±60km, mb2.6/4, Error ellipse: s-maj=31.2km s-min=15.6km az=12.0, PRXIMO SIN SOLUCIN*
**ISC 04 12:37:15.2±2.6, 36.°6N±0.°2×7.°69W±0.°05, h27km±16km, n21, σ0.s86/33, Strait of Gibraltar**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PBDV** | **Barranco-do-Ve** | **0.66** | **343** | ePg | **Pn** | **12 37 29.1** | **+0.2** |
| PBDV | | | | eSg | **Sn** | **12 37 38.4** | **0.0** |
| PBDV | | | | A | A | 12 37 40.8 | |
| | 2.2nm,0.1s | | | | | | |
| **PVAQ** | **Vaqueiros** | **0.79** | **358** | eP | **Pn** | **12 37 31.2** | **+0.6** |
| PVAQ | | | | eS | **Sn** | **12 37 41.7** | **+0.1** |
| PVAQ | | | | A | A | 12 37 44.3 | |
| | 5.9nm,0.1s | | | | | | |
| **EGRO** | **El Granado** | **0.93** | **10** | P | **Pn** | **12 37 33.2** | **+0.6** |
| | 0.1nm,0.1s,SNR=7.9 | | | | | | |
| EGRO | | | | S | **Sn** | **12 37 45.8** | **+0.7** |
| | 3.3nm,0.1s,SNR=11 | | | | | | |
| **MORF** | **Marmelete** | **1.04** | **312** | eS | **Sb** | **12 37 47.5** | **-0.4** |
| MORF | | | | A | A | 12 37 48.9 | |
| | 4.1nm,0.2s | | | | | | |
| **PFVI** | **Vila Bisbo** | **1.05** | **300** | eS | **Sb** | **12 37 46.5** | **-1.7** |
| **PCVE** | **Castro Verde** | **1.06** | **345** | eP | **Pn** | **12 37 35.0** | **+0.7** |
| PCVE | | | | eS | **Sn** | **12 37 48.1** | **0.0** |
| PCVE | | | | A | A | 12 37 49.4 | |
| | 4.4nm,0.1s | | | | | | |
| **PTEO** | **Sao Teotonio** | **1.25** | **319** | eS | **Sn** | **12 37 52.4** | **-0.4** |
| PTEO | | | | A | A | 12 37 53.0 | |
| | 1.4nm,0.1s | | | | | | |
| **MESJ** | **Messejana** | **1.30** | **341** | eP | **Pn** | **12 37 38.2** | **+0.6** |
| MESJ | | | | eS | **Sn** | **12 37 53.5** | **-0.5** |
| MESJ | | | | AML | AML | 12 37 54.5 | |
| | comp=N,3.9nm,0.1s | | | | | | |
| **MESJ** | **Messejana** | **1.30** | **341** | P | **Pn** | **12 37 38.2** | **+0.6** |
| MESJ | | | | S | **Sn** | **12 37 53.5** | **-0.5** |
| | comp=N,3.9nm,0.1s | | | | | | |
| **EMIN** | **Mina Concepcio** | **1.41** | **35** | P | **Pb** | **12 37 41.5** | **+0.6** |
| | comp=N,0.0nm,0.0s,SNR=7.9 | | | | | | |
| EMIN | | | | S | **Sn** | **12 37 56.2** | **-0.6** |
| | comp=N,0.4nm,0.1s,SNR=7.5 | | | | | | |
| **PBEJ** | **Beja** | **1.42** | **354** | eS | **Sn** | **12 37 56.9** | **-0.2** |
| **PNCL** | **Nicolau / Gran** | **1.64** | **336** | eP | **Pn** | **12 37 42.5** | **+0.2** |
| PNCL | | | | eS | **Sn** | **12 38 01.8** | **-0.7** |
| PNCL | | | | A | A | 12 38 11.9 | |
| | comp=N,0.8nm,0.1s | | | | | | |
| **PBAR** | **Barrancos** | **1.64** | **18** | eS | **Sn** | **12 38 02.6** | **0.0** |
| **EBAD** | **Badajoz** | **2.21** | **14** | P | **Pn** | **12 37 50.2** | **+0.1** |
| | comp=N,0.0nm,0.0s,SNR=7.9 | | | | | | |
| EBAD | | | | S | **Sn** | **12 38 15.8** | **-0.7** |
| | comp=N,0.8nm,0.1s,SNR=7.9 | | | | | | |
| **PESTR** | **Estremoz** | **2.25** | **2** | eSn | **Sn** | **12 38 16.9** | **-0.8** |
| PESTR | | | | A | A | 12 38 17.8 | |
| | comp=N,1.2nm,0.6s | | | | | | |
| **ECAB** | **El Cabril** | **2.32** | **50** | S | **Sn** | **12 38 17.0** | **-2.4** |
| | comp=N,0.1nm,0.1s,SNR=7.9 | | | | | | |
| **PMTG** | **Montargil** | **2.49** | **350** | ePn | **Pn** | **12 37 55.1** | **+1.1** |
| PMTG | | | | eSn | **Sn** | **12 38 22.9** | **-0.6** |
| PMTG | | | | A | A | 12 38 25.3 | |
| | comp=N,1.0nm,0.1s | | | | | | |
| **PMAFR** | **Mafra** | **2.66** | **332** | S | **Sn** | **12 38 27.8** | **+0.1** |
| | comp=N,1.2nm,0.1s,SNR=7.9 | | | | | | |
| **PMAFR** | **Mafra** | **2.66** | **332** | eSn | **Sn** | **12 38 27.6** | **-0.1** |
| PMAFR | | | | A | A | 12 38 27.6 | |
| | comp=N,6.6nm,0.5s | | | | | | |
| **PMRV** | **Marv??o** | **2.82** | **5** | ePn | **Pn** | **12 37 59.4** | **+0.8** |
| PMRV | | | | eSn | **Sn** | **12 38 29.9** | **-1.8** |
| PMRV | | | | A | A | 12 38 33.4 | |
| | comp=N,1.1nm,0.4s | | | | | | |
| **EADA** | **Adamuz** | **2.92** | **57** | P | **Pn** | **12 38 00.9** | **+1.0** |
| | comp=N,0.1nm,0.0s,SNR=7.9 | | | | | | |
| EADA | | | | S | **Sn** | **12 38 33.5** | **-0.7** |
| | comp=N,0.3nm,0.1s,SNR=7.9 | | | | | | |

*DDA **04** 12:37:18.8, 38.°78N×43.°33E, h7km, Ml2.8*
*ISK **04** 12:37:18.4, 38.°75N×43.°46E, h5km, MD2.2, ML2.1*
*CSEM **04** 12:37:19.1±0.2, 38.°78N×43.°35E, h5km, ML2.8, Error ellipse: s-maj=6.4km s-min=5.0km az=106.0*
**ISC 04 12:37:17.5±1.3, 38.°82N±0.°03×43.°20E±0.°06, h10km±12km, n18, σ0.s70/29, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.27** | **146** | ePG | **Pb** | **12 37 23.9** | **-0.6** |
| VANB | | | | eSG | **Sb** | **12 37 29.2** | **+0.1** |
| **VANB** | **Van** | **0.27** | **146** | ePg | **Pb** | **12 37 23.9** | **-0.6** |
| VANB | | | | eSg | **Sb** | **12 37 29.3** | **+0.1** |
| **TVAN** | **Van** | **0.33** | **151** | i P | **Pg** | **12 37 24.3** | **+0.1** |
| TVAN | | | | i S | **Sg** | **12 37 28.9** | **+0.2** |
| **TVAN** | **Van** | **0.33** | **151** | P | **Pg** | **12 37 24.3** | **+0.1** |
| TVAN | | | | S | **Sg** | **12 37 28.9** | **+0.2** |
| **VMUR** | **Van-Muradiye** | **0.34** | **60** | i P | **Pb** | **12 37 25.0** | **-0.7** |
| VMUR | | | | i S | **Sb** | **12 37 30.6** | **-0.6** |
| **VMUR** | **Van-Muradiye** | **0.34** | **60** | P | **Pb** | **12 37 25.0** | **-0.7** |
| VMUR | | | | S | **Sb** | **12 37 30.6** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.37** | **269** | i P | **Pn** | **12 37 28.8** | **-0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.37** | **269** | P | **Pn** | **12 37 28.8** | **-0.2** |
| **GEVA** | **Gevas** | **0.52** | **192** | i P | **Pb** | **12 37 28.5** | **-0.3** |
| **GEVA** | **Gevas** | **0.52** | **192** | P | **Pb** | **12 37 28.5** | **-0.3** |
| **CLDR** | **Caldiran** | **0.65** | **60** | ePG | **Pg** | **12 37 29.4** | **-0.7** |
| CLDR | | | | eSG | **Sg** | **12 37 39.0** | **+0.4** |
| **CLDR** | **Caldiran** | **0.65** | **60** | i P | **Pg** | **12 37 30.0** | **-0.1** |
| CLDR | | | | i S | **Sg** | **12 37 39.0** | **+0.4** |
| **CLDR** | **Caldiran** | **0.65** | **60** | ePg | **Pg** | **12 37 29.4** | **-0.7** |
| **CLDR** | **Caldiran** | **0.65** | **60** | P | **Pg** | **12 37 30.0** | **-0.1** |
| CLDR | | | | S | **Sg** | **12 37 39.0** | **+0.4** |
| **TUTA** | **Tutak** | **0.66** | **333** | i P | **Pn** | **12 37 33.4** | **+0.4** |
| TUTA | | | | i S | **Sn** | **12 37 43.5** | **0.0** |
| **TUTA** | **Tutak** | **0.66** | **333** | P | **Pn** | **12 37 33.4** | **+0.4** |
| TUTA | | | | S | **Sn** | **12 37 43.5** | **0.0** |
| **AGRB** | **Hanur-Agry** | **0.77** | **348** | ePG | **Pn** | **12 37 36.6** | **+2.0** |
| **AGRB** | **Hanur-Agry** | **0.77** | **348** | ePg | **Pn** | **12 37 36.6** | **+2.0** |

**IDC 04 12:39:31.6±2.0, 5.°40N×126.°81E, h0km, mb3.5/4, mb1 3.7/4, mb1mx3.4/33, mbtmp3.5/4, Error ellipse: s-maj=111.6km s-min=25.2km az=69.0, Mindanao**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **23.38** | **183** | P | P | 12 44 43.2 | +1.1 |
| | 2.8nm,1.1s,baz=14,slow=11,SNR=4.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **26.25** | **164** | P | P | 12 45 08.4 | -0.3 |
| | 0.7nm,0.5s,baz=343,slow=10,SNR=10 | | | | | | |
| **ASAR** | **Alice Springs** | **29.71** | **167** | P | P | 12 45 38.9 | -0.7 |
| | 0.2nm,0.8s,baz=341,slow=7.0,SNR=4.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **56.24** | **325** | P | P | 12 49 13.7 | 0.0 |
| | 0.3nm,0.4s,baz=121,slow=9.1,SNR=5.5 | | | | | | |

*NEIC **04** 12:41:02.3±0.0, 39.°42S×174.°87E, h253km, MG4.0(WEL), After WEL.*
**WEL 04 12:41:01.6±0.4, 39.°35S×174.°61E, h250km±3km, ML3.0/3, 1C, Error ellipse: s-maj=8.0km s-min=5.4km az=90.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WAZ** | **Wanganui** | **0.50** | **145** | Sn | S | 12 42 00.6 | +0.2 |
| **WAZ** | **Wanganui** | **0.50** | **145** | PN | Pn | 12 41 34.1 | -0.4 |
| WAZ | | | | SN | S | 12 41 59.5 | -0.9 |
| **WNVZ** | **Wahianoa** | **0.76** | **89** | Pn | Pn | 12 41 35.5 | -0.2 |
| WNVZ | | | | Sn | S | 12 42 01.7 | -0.8 |
| **WNVZ** | **Wahianoa** | **0.76** | **89** | ⇑PN | Pn | 12 41 35.5 | -0.2 |
| WNVZ | | | | SN | S | 12 42 01.7 | -0.8 |
| **OTVZ** | **Oturere** | **0.84** | **78** | Pn | Pn | 12 41 36.0 | 0.0 |
| OTVZ | | | | Sn | S | 12 42 00.4 | -2.7 |
| **OTVZ** | **Oturere** | **0.84** | **78** | PN | Pn | 12 41 36.0 | 0.0 |
| OTVZ | | | | SN | S | 12 42 01.3 | -1.7 |
| **OHWZ** | **Ohakea** | **1.01** | **148** | PN | Pn | 12 41 36.6 | -0.1 |
| OHWZ | | | | SN | S | 12 42 03.7 | -0.6 |
| **BHHZ** | **Black Hill Sta** | **1.13** | **98** | Pn | Pn | 12 41 37.1 | -0.4 |
| **BHHZ** | **Black Hill Sta** | **1.13** | **98** | PN | Pn | 12 41 37.1 | -0.4 |
| **BKZ** | **Black Stump Fm** | **1.47** | **83** | Pn | Pn | 12 41 39.7 | -0.1 |
| **BKZ** | **Black Stump Fm** | **1.47** | **83** | PN | Pn | 12 41 39.7 | -0.1 |
| BKZ | | | | SN | S | 12 42 08.6 | -1.2 |
| **MCHZ** | **McNeill Hill** | **1.62** | **94** | AML | AML | 12 42 16.2 | |
| **NNZ** | **Nelson** | **2.09** | **206** | Pn | Pn | 12 41 42.2 | -2.6 |
| **SNGZ** | **Shannon Statio** | **2.20** | **76** | Pn | Pn | 12 41 40.7 | -5.2 |
| **SNGZ** | **Shannon Statio** | **2.20** | **76** | PN | Pn | 12 41 40.8 | -5.2 |
| SNGZ | | | | AML | AML | 12 42 08.0 | |
| SNGZ | | | | AML | AML | 12 42 15.6 | |
| **THZ** | **Tophouse** | **2.74** | **208** | Pn | Pn | 12 41 48.1 | -3.2 |
| **KHZ** | **Kahutara** | **3.17** | **195** | Pn | Pn | 12 41 52.8 | -3.0 |
| **LTZ** | **Lake Taylor** | **3.86** | **207** | Pn | Pn | 12 41 59.4 | -4.4 |
| **OXZ** | **Oxford** | **4.42** | **205** | Pn | Pn | 12 42 05.4 | -4.9 |
| **CTZ** | **Chatham Island** | **7.90** | **127** | Pn | Pn | 12 42 45.3 | -8.2 |

**WEL 04 12:41:03.6±0.3, 37.°36S×179.°90E, h33km, ML3.4/13, 3C-2D, Error ellipse: s-maj=3.7km s-min=3.4km az=90.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WMGZ** | **Waiomatatini S** | **1.27** | **248** | ⇑PN | Pn | 12 41 24.4 | -0.6 |
| WMGZ | | | | SN | Sn | 12 41 39.4 | -1.5 |
| WMGZ | | | | AML | AML | 12 41 41.2 | |
| **MXZ** | **Matakaoa Point** | **1.29** | **260** | ⇑PN | Pn | 12 41 24.9 | -0.3 |
| MXZ | | | | SN | Sn | 12 41 40.8 | -0.5 |
| MXZ | | | | AML | AML | 12 41 41.1 | |
| **PUZ** | **Puketiti** | **1.49** | **241** | PN | Pn | 12 41 26.9 | -1.2 |
| PUZ | | | | SN | Sn | 12 41 43.9 | -2.5 |
| PUZ | | | | AML | AML | 12 41 46.7 | |
| **PKGZ** | **Pakihiroa** | **1.54** | **249** | ⇑PN | Pn | 12 41 28.0 | -0.8 |
| PKGZ | | | | SN | Sn | 12 41 46.1 | -1.8 |
| PKGZ | | | | AML | AML | 12 41 47.3 | |
| **TWGZ** | **Tauwhareparae** | **1.73** | **241** | PN | Pn | 12 41 30.8 | -0.7 |
| TWGZ | | | | SN | Sn | 12 41 50.4 | -2.0 |
| TWGZ | | | | AML | AML | 12 42 03.8 | |
| **CNGZ** | **Carnagh Statio** | **1.75** | **229** | PN | Pn | 12 41 31.0 | -0.7 |
| CNGZ | | | | SN | Sn | 12 41 52.9 | 0.0 |
| **TKGZ** | **Te Karaka** | **1.95** | **236** | ⇓PN | Pn | 12 41 33.7 | -0.7 |
| TKGZ | | | | SN | Sn | 12 41 55.6 | -2.2 |
| TKGZ | | | | AML | AML | 12 41 56.8 | |
| **MWZ** | **Matawai** | **2.12** | **242** | PN | Pn | 12 41 35.5 | -1.3 |
| MWZ | | | | SN | Sn | 12 41 58.5 | -3.4 |
| **RIGZ** | **Rimuhau** | **2.16** | **231** | PN | Pn | 12 41 36.4 | -1.0 |
| RIGZ | | | | SN | Sn | 12 42 00.3 | -2.8 |
| RIGZ | | | | AML | AML | 12 42 01.6 | |
| **RAGZ** | **Rawiri** | **2.27** | **239** | PN | Pn | 12 41 38.5 | -0.4 |
| RAGZ | | | | AML | AML | 12 42 03.6 | |
| RAGZ | | | | AML | AML | 12 42 08.8 | |
| **URZ** | **Urewera** | **2.39** | **247** | ⇓PN | Pn | 12 41 40.5 | +0.1 |
| **KNZ** | **Kokohu** | **2.42** | **226** | PN | Pn | 12 41 39.0 | -1.9 |
| **WHHZ** | **Waihua** | **2.71** | **230** | PN | Pn | 12 41 41.8 | -3.1 |
| WHHZ | | | | AML | AML | 12 42 15.2 | |
| **MTHZ** | **Maungataniwha** | **2.84** | **237** | PN | Pn | 12 41 45.8 | -0.9 |
| **ARHZ** | **Aropaoanui** | **2.98** | **229** | PN | Pn | 12 41 46.2 | -2.3 |
| **NMHZ** | **Naumai** | **2.99** | **234** | PN | Pn | 12 41 47.8 | -1.0 |
| NMHZ | | | | AML | AML | 12 42 21.3 | |
| NMHZ | | | | AML | AML | 12 42 25.0 | |
| **BKZ** | **Black Stump Fm** | **3.24** | **235** | PN | Pn | 12 41 50.8 | -1.3 |
| **MCHZ** | **McNeill Hill** | **3.27** | **229** | PN | Pn | 12 41 51.0 | -1.6 |
| **KWHZ** | **Kaweka Forest** | **3.43** | **232** | PN | Pn | 12 41 53.1 | -1.7 |
| KWHZ | | | | AML | AML | 12 42 34.0 | |
| KWHZ | | | | AML | AML | 12 42 35.4 | |
| **BHHZ** | **Black Hill Sta** | **3.69** | **234** | PN | Pn | 12 41 57.1 | -1.3 |
| **MKAZ** | **Moumakai** | **3.79** | **272** | PN | Pn | 12 41 59.8 | +0.1 |
| **OTVZ** | **Oturere** | **3.79** | **240** | PN | Pn | 12 41 58.4 | -1.5 |

*AZER **04** 12:48:38.9±0.9, 38.°67N×43.°28E, h5km, Error ellipse: s-maj=7.4km s-min=5.2km az=114.0*
*ATA **04** 12:48:39.9±1.6, 38.°74N×43.°50E, h12km±15km, ML4.1, MW3.9*
*DDA **04** 12:48:39.4, 38.°69N×43.°56E, h19km, Ml3.5*
*ISK **04** 12:48:39.1, 38.°72N×43.°49E, h5km, ML3.3*
*CSEM **04** 12:48:40.5±0.2, 38.°68N×43.°48E, h2km, ML3.3, Error ellipse: s-maj=4.0km s-min=3.5km az=122.0*
**ISC 04 12:48:40.9±0.8, 38.°70N±0.°01×43.°51E±0.°02, h12km±7km, n97, σ1.s27/144, 8C-6D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.14** | **223** | PG | **Pg** | **12 48 44.1** | **-0.2** |
| **VANB** | **Van** | **0.14** | **223** | i Pg | **Pg** | **12 48 44.2** | **-0.2** |
| **TVAN** | **Van** | **0.19** | **206** | i P | **Pg** | **12 48 44.8** | **-0.4** |
| **TVAN** | **Van** | **0.19** | **206** | P | **Pg** | **12 48 44.8** | **-0.4** |
| **VMUR** | **Van-Muradiye** | **0.30** | **9** | i P | **Pg** | **12 48 46.0** | **-1.1** |
| VMUR | | | | i S | **Sg** | **12 48 51.8** | **+0.5** |
| **VMUR** | **Van-Muradiye** | **0.30** | **9** | P | **Pg** | **12 48 46.0** | **-1.1** |
| VMUR | | | | S | **Sg** | **12 48 51.8** | **+0.5** |
| **ERCV** | **ERCIS-VAN** | **0.35** | **337** | ePG | **Pg** | **12 48 46.9** | **-1.2** |
| **ERCV** | **ERCIS-VAN** | **0.35** | **337** | ePg | **Pg** | **12 48 46.9** | **-1.2** |
| **GEVA** | **Gevas** | **0.52** | **223** | eP | **Pg** | **12 48 50.1** | **-1.2** |
| GEVA | | | | eS | **Sb** | **12 49 00.4** | **+0.7** |
| GEVA | | | | IAML | | 12 49 00.9 | |
| | comp=Z,877nm,0.4s | | | | | | |
| **GEVA** | **Gevas** | **0.52** | **223** | i P | **Pg** | **12 48 50.0** | **-1.2** |
| GEVA | | | | i S | **Sb** | **12 49 00.1** | **+0.4** |
| **GEVA** | **Gevas** | **0.52** | **223** | P | **Pg** | **12 48 50.0** | **-1.2** |
| GEVA | | | | S | **Sb** | **12 49 00.1** | **+0.4** |
| **CLDR** | **Caldiran** | **0.55** | **35** | ePG | **Pg** | **12 48 50.3** | **-1.4** |
| CLDR | | | | eSG | **Sg** | **12 48 59.8** | **+0.7** |
| **CLDR** | **Caldiran** | **0.55** | **35** | i P | **Pg** | **12 48 50.3** | **-1.4** |
| CLDR | | | | i S | **Sb** | **12 49 00.3** | **-0.3** |
| **CLDR** | **Caldiran** | **0.55** | **35** | P | **Pg** | **12 48 50.3** | **-1.4** |
| CLDR | | | | eSg | **Sg** | **12 48 59.8** | **+0.7** |
| CLDR | | | | S | **Sb** | **12 49 00.3** | **-0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.62** | **281** | i P | **Pg** | **12 48 52.5** | **-0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.62** | **281** | P | **Pg** | **12 48 52.5** | **-0.7** |
| **BASK** | **Baskale_VAN** | **0.75** | **149** | eP | **Pn** | **12 48 56.6** | **-0.9** |
| BASK | | | | eS | **Sn** | **12 49 07.3** | **-1.6** |
| BASK | | | | IAML | | 12 49 15.2 | |
| | comp=Z,436nm,0.4s | | | | | | |
| **BASK** | **Baskale_VAN** | **0.75** | **149** | i P | **Pg** | **12 48 53.6** | **-1.9** |
| BASK | | | | i S | **Sg** | **12 49 05.3** | **-0.1** |
| **BASK** | **Baskale_VAN** | **0.75** | **149** | P | **Pg** | **12 48 53.6** | **-1.9** |
| BASK | | | | S | **Sg** | **12 49 05.3** | **-0.1** |
| **DYDN** | **Diyadin** | **0.86** | **9** | eP | **Pg** | **12 48 55.5** | **-2.0** |
| DYDN | | | | eS | **Sb** | **12 49 09.3** | **-0.2** |
| DYDN | | | | IAML | | 12 49 13.7 | |
| | comp=Z,317nm,0.4s | | | | | | |
| **DYDN** | **Diyadin** | **0.86** | **9** | i P | **Pg** | **12 48 55.6** | **-2.0** |
| DYDN | | | | i S | **Sg** | **12 49 09.1** | **+0.3** |
| **DYDN** | **Diyadin** | **0.86** | **9** | P | **Pg** | **12 48 55.6** | **-2.0** |
| DYDN | | | | S | **Sg** | **12 49 09.1** | **+0.3** |
| **TUTA** | **Tutak** | **0.89** | **323** | eP | **Pg** | **12 48 56.5** | **-1.6** |
| TUTA | | | | eS | **Sb** | **12 49 10.0** | **-0.4** |
| TUTA | | | | IAML | | 12 49 11.9 | |
| | comp=Z,1μm,0.3s | | | | | | |
| **TUTA** | **Tutak** | **0.89** | **323** | i P | **Pg** | **12 48 56.7** | **-1.5** |
| TUTA | | | | i S | **Sb** | **12 49 10.0** | **-0.4** |
| **TUTA** | **Tutak** | **0.89** | **323** | P | **Pg** | **12 48 56.7** | **-1.5** |
| TUTA | | | | S | **Sb** | **12 49 10.0** | **-0.4** |
| **AGRB** | **Hanur-Agry** | **0.97** | **336** | ePG | **Pb** | **12 48 57.5** | **-2.3** |
| AGRB | | | | eSG | **Sb** | **12 49 11.9** | **-0.7** |
| **AGRB** | **Hanur-Agry** | **0.97** | **336** | ePg | **Pb** | **12 48 57.5** | **-2.3** |
| AGRB | | | | eSg | **Sb** | **12 49 11.9** | **-0.7** |
| **HAKT** | **HAKKARI** | **1.15** | **172** | i P | **Pb** | **12 49 00.9** | **-1.9** |
| **HAKT** | **HAKKARI** | **1.15** | **172** | P | **Pb** | **12 49 00.9** | **-1.9** |
| **EKAR** | **Karacoban** | **1.26** | **297** | eP | **Pg** | **12 49 05.1** | **0.0** |
| **EKAR** | **Karacoban** | **1.26** | **297** | i P | **Pn** | **12 49 03.9** | **-0.8** |
| **EKAR** | **Karacoban** | **1.26** | **297** | P | **Pn** | **12 49 03.8** | **-0.8** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.27** | **151** | i P | **Pn** | **12 49 03.3** | **-1.3** |
| YOVA | | | | i S | **Sg** | **12 49 24.0** | **+2.2** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.27** | **151** | P | **Pn** | **12 49 03.3** | **-1.3** |
| YOVA | | | | S | **Sg** | **12 49 24.0** | **+2.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.41** | **23** | ePN | **Pn** | **12 49 06.6** | **+0.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.41** | **23** | ePn | **Pn** | **12 49 06.6** | **+0.1** |
| **EATA** | **Eleskirt** | **1.41** | **326** | eP | **Pn** | **12 49 06.4** | **-0.4** |
| EATA | | | | eS | **Sg** | **12 49 26.8** | **+0.5** |
| EATA | | | | IAML | | 12 49 30.0 | |
| | comp=Z,80nm,0.4s | | | | | | |
| **EATA** | **Eleskirt** | **1.41** | **326** | i P | **Pn** | **12 49 06.0** | **-0.7** |
| EATA | | | | i S | **Sg** | **12 49 27.3** | **+0.9** |
| **EATA** | **Eleskirt** | **1.41** | **326** | P | **Pn** | **12 49 06.0** | **-0.7** |
| EATA | | | | S | **Sg** | **12 49 27.3** | **+0.9** |
| **SRTM** | **Siirt_Merkez** | **1.43** | **241** | i P | **Pg** | **12 49 07.7** | **-0.8** |
| SRTM | | | | i S | **Sg** | **12 49 27.7** | **+0.6** |
| **SRTM** | **Siirt_Merkez** | **1.43** | **241** | P | **Pg** | **12 49 07.7** | **-0.8** |
| SRTM | | | | S | **Sg** | **12 49 27.7** | **+0.6** |
| **CUKT** | **Cukurca** | **1.45** | **177** | ePN | **Pb** | **12 49 07.7** | **-0.2** |
| **CUKT** | **Cukurca** | **1.45** | **177** | i P | **Pn** | **12 49 06.0** | **-1.1** |
| **CUKT** | **Cukurca** | **1.45** | **177** | P | **Pn** | **12 49 06.0** | **-1.1** |
| **CUKT** | **Cukurca** | **1.45** | **177** | ePn | **Pb** | **12 49 07.7** | **-0.2** |
| **HYR** | **Heyderabad** | **1.46** | **45** | ⇑P | **Pb** | **12 49 08.2** | **+0.1** |
| HYR | | | | ⇓S | **Sg** | **12 49 30.4** | **+2.4** |
| **HYR** | **Heyderabad** | **1.46** | **45** | P | **Pb** | **12 49 08.2** | **+0.1** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| HYR | | | | S | Sg | 12 49 30.4 | +2.4 |
| **SIRT** | **Sirnak** | **1.46** | **216** | *e*PN | **Pb** | **12 49 07.7** | **-0.4** |
| **SIRT** | **Sirnak** | **1.46** | **216** | *e*Pn | **Pb** | **12 49 07.7** | **-0.4** |
| **NAX** | **Nakhchivan** | **1.62** | **72** | ⇑P | **Pb** | **12 49 10.9** | **+0.1** |
| NAX | | | | ⇑S | **Sg** | **12 49 35.0** | **+1.9** |
| **NAX** | **Nakhchivan** | **1.62** | **72** | P | **Pb** | **12 49 10.9** | **+0.1** |
| NAX | | | | S | **Sg** | **12 49 35.0** | **+1.9** |
| **VRTB** | **Varto-Mus** | **1.67** | **287** | *e*PN | **Pb** | **12 49 10.7** | **-1.0** |
| **VRTB** | **Varto-Mus** | **1.67** | **287** | *i* P | **Pn** | **12 49 10.2** | **+0.1** |
| **VRTB** | **Varto-Mus** | **1.67** | **287** | P | **Pn** | **12 49 10.2** | **+0.1** |
| **VRTB** | **Varto-Mus** | **1.67** | **287** | *e*Pn | **Pb** | **12 49 10.7** | **-1.0** |
| **DIGO** | **Kars** | **1.72** | **357** | *e*P | **Pb** | **12 49 11.9** | **-0.7** |
| DIGO | | | | *e*S | **Sg** | **12 49 37.1** | **+0.8** |
| DIGO | | | | IAML | | 12 49 45.6 | |
| | comp=Z,39nm,0.5s | | | | | | |
| **DIGO** | **Kars** | **1.72** | **357** | *i* P | **Pb** | **12 49 12.5** | **-0.1** |
| **DIGO** | **Kars** | **1.72** | **357** | P | **Pb** | **12 49 12.5** | **-0.1** |
| **SBZ** | **Shahbuz** | **1.74** | **66** | ⇑P | **Pb** | **12 49 12.3** | **-0.5** |
| SBZ | | | | ⇓S | **Sg** | **12 49 37.7** | **+0.8** |
| **SBZ** | **Shahbuz** | **1.74** | **66** | P | **Pb** | **12 49 12.3** | **-0.5** |
| SBZ | | | | S | **Sg** | **12 49 37.7** | **+0.8** |
| **HOMI** | **Horasan** | **1.83** | **318** | *e*P | **Pb** | **12 49 13.7** | **-0.8** |
| HOMI | | | | *e*S | **Sg** | **12 49 39.4** | **-0.6** |
| HOMI | | | | IAML | | 12 49 55.6 | |
| | comp=Z,77nm,0.7s | | | | | | |
| **HOMI** | **Horasan** | **1.83** | **318** | *i* P | **Pb** | **12 49 13.9** | **-0.7** |
| **BNGL** | **BINGOL** | **1.86** | **279** | *i* P | **Pb** | **12 49 13.6** | **-1.4** |
| **BTMN** | **Batman** | **1.94** | **246** | *i* P | **Pn** | **12 49 14.3** | **+0.5** |
| BTMN | | | | *i* S | **Sb** | **12 49 40.8** | **+0.4** |
| **BTMN** | **Batman** | **1.94** | **246** | P | **Pn** | **12 49 14.3** | **+0.5** |
| BTMN | | | | S | **Sb** | **12 49 40.8** | **+0.4** |
| **ORD** | **Ordubad** | **1.95** | **82** | P | **Pb** | **12 49 15.5** | **-1.0** |
| ORD | | | | S | **Sg** | **12 49 43.2** | **-0.6** |
| **KARS** | **Kars** | **1.96** | **350** | *e*PN | **Pn** | **12 49 14.5** | **+0.4** |
| **KARS** | **Kars** | **1.96** | **350** | *e*Pn | **Pn** | **12 49 14.5** | **+0.4** |
| **EAK** | **Akyaka** | **1.99** | **2** | *e*P | **Pb** | **12 49 17.4** | **+0.2** |
| EAK | | | | IAML | | 12 49 41.2 | |
| | comp=Z,53nm,0.6s | | | | | | |
| EAK | | | | *e*S | **Sg** | **12 49 46.6** | **+1.6** |
| **EAK** | **Akyaka** | **1.99** | **2** | *i* P | **Pg** | **12 49 18.2** | **-0.9** |
| **EAK** | **Akyaka** | **1.99** | **2** | P | **Pg** | **12 49 18.2** | **-0.9** |
| **ERZM** | **Erzurum** | **2.06** | **307** | *i* P | **Pb** | **12 49 18.7** | **+0.3** |
| **ERZM** | **Erzurum** | **2.06** | **307** | P | **Pb** | **12 49 18.7** | **+0.3** |
| **SENK** | **Senkaya-Erzuru** | **2.07** | **335** | *e*PN | **Pn** | **12 49 16.5** | **+0.8** |
| **SENK** | **Senkaya-Erzuru** | **2.07** | **335** | *e*Pn | **Pn** | **12 49 16.5** | **+0.8** |
| **BNGB** | **Bingˆ¶l** | **2.23** | **278** | *e*PN | **Pb** | **12 49 19.4** | **-1.9** |
| **BINT** | **Bingol** | **2.37** | **275** | *e*Pn | **Pn** | **12 49 19.4** | **-0.3** |
| **HANI** | **Diyarbakir_Han** | **2.46** | **264** | *i* P | **Pn** | **12 49 22.3** | **+1.4** |
| **HANI** | **Diyarbakir_Han** | **2.46** | **264** | P | **Pn** | **12 49 22.3** | **+1.4** |
| **MARD** | **Mardin** | **2.56** | **238** | *i* P | **Pn** | **12 49 22.9** | **+0.5** |
| **GDB** | **GEDABAY** | **2.66** | **40** | ⇑P | **Pn** | **12 49 24.7** | **+0.9** |
| GDB | | | | ⇓S | **Sb** | **12 49 59.9** | **-1.4** |
| **GDB** | **GEDABAY** | **2.66** | **40** | P | **Pn** | **12 49 24.7** | **+0.9** |
| GDB | | | | S | **Sb** | **12 49 59.9** | **-1.4** |
| **DAGI** | **Agillar** | **2.68** | **333** | *i* P | **Pb** | **12 49 29.2** | **+0.3** |
| **DIY** | **Diyarbakir** | **2.70** | **254** | *e*Pn | **Pb** | **12 49 26.3** | **-3.0** |
| **MAZI** | **Mazidag** | **2.71** | **244** | *e*PN | **Pn** | **12 49 24.0** | **-0.5** |
| **MAZI** | **Mazidag** | **2.71** | **244** | *e*Pn | **Pn** | **12 49 24.0** | **-0.5** |
| **DYBB** | **Diyarbakir** | **2.75** | **255** | *e*PN | **Pn** | **12 49 26.3** | **+1.3** |
| **QZX** | **Qazax, Azerbai** | **2.76** | **31** | ⇓P | **Pn** | **12 49 25.4** | **+0.4** |
| QZX | | | | ⇑S | **Sb** | **12 50 01.4** | **-2.6** |
| **QZX** | **Qazax, Azerbai** | **2.76** | **31** | P | **Pn** | **12 49 25.4** | **+0.4** |
| QZX | | | | S | **Sb** | **12 50 01.4** | **-2.6** |
| **GANJ** | **Ganja** | **2.92** | **47** | ⇓P | **Pn** | **12 49 28.3** | **+1.1** |
| GANJ | | | | ⇓S | **Sb** | **12 50 06.7** | **-1.8** |
| **GANJ** | **Ganja** | **2.92** | **47** | P | **Pn** | **12 49 28.3** | **+1.1** |
| GANJ | | | | S | **Sb** | **12 50 06.7** | **-1.8** |
| **PTK** | **Pertek** | **3.22** | **275** | *e*PN | **Pn** | **12 49 33.0** | **+1.4** |
| **PTK** | **Pertek** | **3.22** | **275** | *e*Pn | **Pn** | **12 49 33.0** | **+1.4** |
| **SVRC** | **Sivrice-ELAZID** | **3.31** | **266** | *e*PN | **Pn** | **12 49 34.1** | **+1.3** |
| **SVRC** | **Sivrice-ELAZID** | **3.31** | **266** | *e*Pn | **Pn** | **12 49 34.1** | **+1.3** |
| **LRK** | **Lerik** | **3.78** | **89** | ⇑P | **Pn** | **12 49 40.3** | **+1.1** |
| LRK | | | | ⇑S | **Sn** | **12 50 28.1** | **+4.4** |
| **LRK** | **Lerik** | **3.78** | **89** | P | **Pn** | **12 49 40.3** | **+1.1** |
| LRK | | | | S | **Sn** | **12 50 28.1** | **+4.4** |

**JMA 04 13:13:48.3, 36°.65N×140°.59E, h7km±1km, M2.7, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JHO** | **Hitachi** | **0.04** | **203** | P | Pg | 13 13 49.7 | -0.1 |
| JHO | | | | S | Sg | 13 13 50.8 | 0.0 |
| **ONAJ** | **Iwakimizuishiy** | **0.48** | **20** | P | Pg | 13 13 57.7 | +0.1 |
| ONAJ | | | | S | Sg | 13 14 04.1 | +0.2 |
| **JYT** | **Yasato** | **0.53** | **217** | P | Pg | 13 13 58.5 | 0.0 |
| JYT | | | | S | Sg | 13 14 05.5 | +0.1 |
| **MAT** | **Matsushiro** | **1.92** | **268** | P | Pn | 13 14 21.6 | +0.2 |
| MAT | | | | S | Sb | 13 14 48.0 | +0.1 |

*IDC **04** 13:23:48.5±0.8, 35°.02N×142°.44E, h0km, mb3.6/8, mb1 3.9/10, mb1mx3.7/33, mbtmp3.6/10, ML3.3/2, MS2.7/3, Ms1 2.8/3, ms1mx2.5/24, Error ellipse: s-maj=23.9km s-min=21.0km az=113.0*

*ISCJB **04** 13:23:50.3±1.9, 35°.22N±0°.04×142°.36E±0°.06, h22km±15km, mb3.6/8, MS2.5/1, Error ellipse: s-maj=8.1km s-min=7.1km az=32.8*

*JMA **04** 13:23:50.9±0.4, 35°.17N×142°.43E, h62km, M3.3*

**ISC 04 13:23:49.9**±2.0**, 35°.20N**±0°.05×**142°.35E**±0°.07**, h12**km±11km**, n24,** σ1s**95**/33**, mb3.6**/8**, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BSO1** | **Boso 1** | **1.25** | **244** | P | **Pb** | **13 24 12.8** | **-0.3** |
| BSO1 | | | | *e*S | **Sg** | **13 24 29.9** | **-0.3** |
| **CHOJ** | **Chosi** | **1.31** | **293** | P | **Pg** | **13 24 14.9** | **-0.3** |
| CHOJ | | | | *e*S | **Sg** | **13 24 32.0** | **-0.3** |
| **BSO2** | **Boso 2** | **1.39** | **251** | *e*S | **Sg** | **13 24 34.2** | **-0.3** |
| **BSO3** | **Boso 3** | **1.56** | **256** | P | **Pb** | **13 24 18.0** | **-0.6** |
| **BSO4** | **Boso 4** | **1.66** | **263** | P | **Pb** | **13 24 20.1** | **-0.3** |
| BSO4 | | | | *e*S | **Sn** | **13 24 38.4** | **-1.5** |
| **JIM2** | **Oshima 3** | **2.44** | **259** | P | **Pn** | **13 24 29.0** | **-0.6** |
| **JFK** | **Kawauchi** | **2.46** | **332** | P | **Pn** | **13 24 29.7** | **-0.2** |
| JFK | | | | *e*S | **Sn** | **13 24 57.5** | **-2.5** |
| **JAG** | **Ashikaga** | **2.65** | **298** | P | **Pn** | **13 24 33.1** | **+0.7** |
| JAG | | | | *e*S | **Sn** | **13 25 04.9** | **+0.4** |
| **JOD2** | **Odawara 2** | **2.67** | **272** | P | **Pn** | **13 24 32.8** | **+0.1** |
| JOD2 | | | | *e*S | **Sn** | **13 25 03.4** | **-1.6** |
| **JFT** | **Otama** | **2.82** | **325** | P | **Pn** | **13 24 35.1** | **+0.3** |
| JFT | | | | *e*S | **Sn** | **13 25 07.4** | **-1.4** |
| **JHJ** | **Hachijo jima 2** | **2.98** | **226** | Pn | **Pn** | **13 24 35.5** | **-1.4** |
| | 11nm,0.3s,baz=75,slow=20,SNR=4.1 | | | | | | |
| JHJ | | | | Sn | **Sn** | **13 25 09.6** | **-2.9** |
| | 58nm,0.3s,baz=53,slow=22,SNR=6.6 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **3.62** | **293** | Pn | **Pn** | **13 24 47.2** | **+1.4** |
| | 2.1nm,0.3s,baz=96,slow=10.0,SNR=26 | | | | | | |
| MJAR | | | | LR | LR | 13 26 22.2 | |
| | comp=Z,98nm,20.4s,baz=115,slow=41 | | | | | | |
| **MAT** | **Matsushiro** | **3.62** | **293** | P | **Pn** | **13 24 47.5** | **+1.7** |
| MAT | | | | *e*S | **Sn** | **13 25 25.8** | **-2.6** |
| **ASAJ** | **Asahikawa** | **8.90** | **1** | Pn | **Pn** | **13 25 57.8** | **-0.5** |
| | 1.9nm,0.3s,baz=210,slow=10,SNR=16 | | | | | | |
| ASAJ | | | | Sn | **Sn** | **13 27 30.8** | **-7.7** |
| | 0.3nm,0.3s,baz=135,slow=17,SNR=1.9 | | | | | | |
| **KSRS** | **Korea Array** | **11.85** | **285** | LR | LR | 13 30 53.3 | |
| | comp=Z,46nm,18.6s,baz=122,slow=35 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **41.81** | **258** | P | **P** | **13 31 40.5** | **+0.9** |
| | 0.4nm,0.7s,baz=55,slow=7.9,SNR=4.0 | | | | | | |
| CMAR | | | | LR | LR | 13 49 48.3 | |
| | comp=Z,6.7nm,18.7s,baz=200,slow=37 | | | | | | |
| **MKAR** | **Makanchi Array** | **45.75** | **304** | P | **P** | **13 32 12.7** | **+1.7** |
| | 0.4nm,0.8s,baz=90,slow=5.9,SNR=3.2 | | | | | | |
| **ILAR** | **Eielson Array** | **50.64** | **32** | P | **P** | **13 32 49.5** | **+0.9** |
| | 0.5nm,0.8s,baz=268,slow=5.8,SNR=4.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **55.37** | **189** | P | **P** | **13 33 23.5** | **-0.3** |
| | 1.0nm,0.7s,baz=8.7,slow=7.7,SNR=8.4 | | | | | | |
| **ASAR** | **Alice Springs** | **59.09** | **189** | P | **P** | **13 33 49.0** | **-1.1** |
| | 0.3nm,0.6s,baz=1.3,slow=5.3,SNR=8.1 | | | | | | |
| **KBZ** | **Khabaz** | **72.67** | **311** | P | **P** | **13 35 19.3** | **+1.9** |
| | 1.4nm,0.8s,baz=212,slow=7.9,SNR=3.6 | | | | | | |
| **BRTR** | **Keskin Array B** | **80.63** | **312** | P | **P** | **13 36 04.7** | **+1.9** |
| | 0.6nm,0.8s,baz=77,slow=7.6,SNR=3.3 | | | | | | |
| **TXAR** | **Lajitas Array** | **90.63** | **53** | P | **P** | **13 36 53.8** | **+1.2** |
| | 0.2nm,0.6s,baz=318,slow=5.3,SNR=2.8 | | | | | | |
| **LPAZ** | **La Paz** | **146.90** | **63** | PKPbc | **PKPbc** | **13 43 33.5** | **0.0** |
| | 0.8nm,0.8s,baz=326,slow=3.6,SNR=3.2 | | | | | | |

**MEX 04 13:41:32.4**±0.4**, 19°.00N×95°.52W, h16**km±7km**, MD3.9, Veracruz**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LVIG** | **Laguna Verde** | **1.11** | **310** | *e*P | Pb | 13 41 49.4 | -3.8 |
| LVIG | | | | *e*S | Sb | 13 42 02.3 | -5.2 |
| **TPIG** | **Tehuac#an** | **1.84** | **252** | *e*P | Pn | 13 42 00.3 | -3.2 |
| TPIG | | | | *e*S | Sn | 13 42 21.9 | -4.7 |
| **VHO** | **Vista Hermosa** | **2.24** | **211** | *e*P | Pn | 13 42 05.8 | -3.3 |
| VHO | | | | *i* S | Sn | 13 42 31.4 | -5.1 |
| **TLIG** | **Tlapa** | **3.23** | **244** | *e*P | Pn | 13 42 20.2 | -2.4 |
| TLIG | | | | *i* S | Sn | 13 42 56.6 | -4.3 |
| **HUIG** | **Huatulco** | **3.27** | **190** | *e*P | Pn | 13 42 20.1 | -2.9 |
| HUIG | | | | *e*S | Sn | 13 42 57.5 | -4.1 |
| **PNIG** | **Pinotepa** | **3.59** | **224** | *e*P | Pn | 13 42 24.9 | -2.6 |
| PNIG | | | | *i* S | Sn | 13 43 05.8 | -3.9 |

**IDC 04 13:52:58.0**±1.3**, 20°.04N×45°.78W, h0**km**, mb3.6**/4**, mb1 3.9**/4**, mb1mx3.5**/32**, mbtmp3.6**/4**, MS3.0**/5**, Ms1 3.0**/5**, ms1mx2.8**/29**, Error ellipse: s-maj=38.7km s-min=33.2km az=17.0, Northern Mid-Atlantic Ridge**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SJG** | **San Juan** | **19.35** | **268** | LR | LR | 14 03 05.1 | |
| | comp=Z,39nm,20.3s,baz=79,slow=31 | | | | | | |
| **PTGA** | **Pitinga** | **24.89** | **216** | LR | LR | 14 07 34.4 | |
| | comp=Z,36nm,19.3s,baz=96,slow=35 | | | | | | |
| **RCBR** | **Riachuelo** | **27.48** | **158** | LR | LR | 14 07 05.1 | |
| | comp=Z,26nm,18.9s,baz=334,slow=31 | | | | | | |
| **H10N3** | **ASCENSION HYDR** | **41.41** | **129** | T | T | 14 44 38.5 | |
| | baz=312,slow=75,SNR=52 | | | | | | |
| **H10N2** | **ASCENSION HYDR** | **41.41** | **129** | T | T | 14 44 38.7 | |
| | baz=312,slow=75,SNR=59 | | | | | | |
| **H10N1** | **ASCENSION HYDR** | **41.43** | **129** | T | T | 14 44 40.0 | |
| | baz=312,slow=75,SNR=53 | | | | | | |
| **DBIC** | **Dimbokro** | **41.84** | **103** | LR | LR | 14 14 17.0 | |
| | comp=Z,32nm,21.0s,baz=306,slow=31 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **42.05** | **130** | T | T | 14 45 27.3 | |
| | baz=313,slow=75,SNR=19 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **42.05** | **130** | T | T | 14 45 27.5 | |
| | baz=313,slow=75,SNR=18 | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **42.06** | **130** | T | T | 14 45 29.4 | |
| | baz=313,slow=75,SNR=19 | | | | | | |
| **LPAZ** | **La Paz** | **42.26** | **213** | P | P | 14 00 54.0 | 0.0 |
| | 0.7nm,0.6s,baz=27,slow=6.8,SNR=3.9 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **45.88** | **91** | P | P | 14 01 22.4 | -0.2 |
| | 1.1nm,0.8s,baz=289,slow=8.7,SNR=5.9 | | | | | | |
| TORD | | | | LR | LR | 14 17 22.5 | |
| | comp=Z,18nm,21.2s,baz=215,slow=32 | | | | | | |
| **PDAR** | **Pinedale Array** | **57.56** | **308** | P | P | 14 02 49.5 | -0.4 |
| | 0.3nm,0.7s,baz=114,slow=3.7,SNR=3.6 | | | | | | |
| **ILAR** | **Eielson Array** | **76.69** | **334** | P | P | 14 04 51.0 | +0.3 |
| | 0.5nm,0.7s,baz=76,slow=4.5,SNR=5.6 | | | | | | |

*ISCJB **04** 13:59:22.8±0.8, 2°.02S±0°.06×128°.13E±0°.10, h10km, mb3.7/2, Error ellipse: s-maj=15.6km s-min=5.6km az=155.0*

*DJA **04** 13:59:22.3±0.8, 2°S±3°×12°8E±°, h113km±11km, M3.4/6, MLv3.4/6*

*IDC **04** 13:59:26.3±2.3, 2°.72S×128°.31E, h0km, mb3.6/2, mb1 4.0/3, mb1mx3.5/22, mbtmp3.7/3, ML4.0/1, Error ellipse: s-maj=194.7km s-min=25.8km az=68.0*

**ISC 04 13:59:21.1**±0.9**, 2°.00S**±0°.05×**128°.17E**±0°.06**, h10**km**, n8,** σ1s**93**/12**, Halmahera**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LBMI** | **Labuha** | **1.50** | **334** | P | **Pb** | **13 59 50.7** | **+1.5** |
| LBMI | | | | S | **Sg** | **14 00 10.6** | **+1.0** |
| **MSAI** | **Masohi** | **1.54** | **150** | P | **Pg** | **13 59 51.7** | **+0.9** |
| MSAI | | | | S | **Sg** | **14 00 11.5** | **+0.7** |
| **AAI** | **Ambon** | **1.68** | **179** | P | **Pb** | **13 59 53.1** | **+0.9** |
| AAI | | | | S | **Sn** | **14 00 13.3** | **+1.1** |
| **SANI** | **Sanana** | **2.18** | **269** | P | **Pn** | **13 59 57.4** | **-0.1** |
| SANI | | | | S | **Sn** | **14 00 21.5** | **-3.0** |
| **FAKI** | **Fak Fak** | **4.18** | **103** | P | **Pn** | **14 00 25.4** | **+0.4** |
| FAKI | | | | S | **Sn** | **14 01 10.8** | **-3.2** |
| **WRA** | **Warramunga Arr** | **18.83** | **162** | P | **P** | **14 03 38.6** | **-2.7** |
| | 0.5nm,0.3s,baz=344,slow=13,SNR=18 | | | | | | |
| **ASAR** | **Alice Springs** | **22.25** | **166** | P | **P** | **14 04 17.8** | **-0.6** |
| | 3.5nm,0.3s,baz=346,slow=12,SNR=132 | | | | | | |
| **MKAR** | **Makanchi Array** | **63.07** | **326** | P | P | 14 09 59.9 | +11 |
| | 0.1nm,0.5s,baz=145,slow=6.0,SNR=2.3 | | | | | | |

*CSEM **04** 14:09:47.1±0.1, 43°.35N×19°.20E, h1km, ML1.7, Error ellipse: s-maj=3.1km s-min=1.7km az=126.0, Mining explosion.*

**BEO 04 14:09:48.4**±0.3**, 43°.34N×19°.25E, h0**km**, M1.7**/7**, Mining explosion., Northwestern Balkan Peninsula**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **UPM** | **Unac-Piva** | **0.29** | **242** | *e*Pg | Pg | 14 09 53.1 | -0.8 |
| UPM | | | | *e*Sg | Sg | 14 09 57.1 | -0.5 |
| **SJES** | **Sjenica** | **0.53** | **98** | *e*Pg | Pg | 14 09 58.0 | -0.6 |
| SJES | | | | *e*Sg | Sg | 14 10 04.9 | -0.6 |
| **BBLS** | **Lazići** | **0.54** | **12** | *e*Pg | Pg | 14 09 58.3 | -0.4 |
| BBLS | | | | *e*Sg | Sg | 14 10 05.2 | -0.5 |
| **BBLS** | **Lazići** | **0.54** | **12** | *e*Pg | Pg | 14 09 58.0 | -0.7 |
| BBLS | | | | *e*Sg | Sg | 14 10 05.2 | -0.5 |
| **BRY** | **Bratogost** | **0.68** | **230** | *e*Pg | Pg | 14 09 59.4 | -2.0 |
| BRY | | | | *e*Sg | Sg | 14 10 09.1 | -1.1 |
| **IVAS** | **Ivanjica** | **0.70** | **70** | *e*Pg | Pg | 14 10 00.6 | -1.2 |
| IVAS | | | | *e*Sg | Sg | 14 10 09.0 | -1.8 |
| **IVAS** | **Ivanjica** | **0.70** | **70** | *e*Pg | Pg | 14 10 00.6 | -1.2 |
| **HAPS** | **Han Pijesak,Bl** | **0.78** | **344** | *e*Pg | Pg | 14 10 01.7 | -1.6 |
| HAPS | | | | *e*Sg | Sg | 14 10 11.8 | -1.6 |
| **HAPS** | **Han Pijesak,Bl** | **0.78** | **344** | *e*Pg | Pg | 14 10 01.7 | -1.6 |
| HAPS | | | | *e*Sg | Sg | 14 10 11.8 | -1.6 |
| **TREB** | **Trebinje** | **0.91** | **227** | *e*Pg | Pg | 14 10 04.0 | -1.8 |
| TREB | | | | *e*Sg | Sg | 14 10 17.1 | -0.4 |
| **TREB** | **Trebinje** | **0.91** | **227** | *e*Pg | Pg | 14 10 04.0 | -1.8 |
| TREB | | | | *e*Sg | Sg | 14 10 16.1 | -1.4 |
| **PDG** | **Podgorica** | **0.91** | **180** | *e*Sg | Sg | 14 10 18.3 | +0.7 |
| **PDG** | **Podgorica** | **0.91** | **180** | *e*Sg | Sg | 14 10 17.4 | -0.2 |
| **DIVS** | **Divibare** | **0.93** | **35** | *e*Pg | Pg | 14 10 05.0 | -1.2 |
| DIVS | | | | *e*Sg | Sg | 14 10 17.8 | -0.5 |
| **DIVS** | **Divibare** | **0.93** | **35** | *e*Pg | Pg | 14 10 05.3 | -0.9 |
| DIVS | | | | *e*Sg | Sg | 14 10 17.8 | -0.5 |
| **DRME** | **Dracevica, Mon** | **1.15** | **182** | *e*Pg | Pg | 14 10 09.4 | -1.1 |
| DRME | | | | *e*Sg | Sg | 14 10 25.3 | -0.1 |
| **GRUS** | **Gruza** | **1.20** | **62** | *e*Pg | Pg | 14 10 10.5 | -0.8 |
| GRUS | | | | *e*Sg | Sg | 14 10 26.5 | -0.4 |
| **GRUS** | **Gruza** | **1.20** | **62** | *e*Pg | Pg | 14 10 10.5 | -0.8 |
| GRUS | | | | *e*Sg | Sg | 14 10 26.5 | -0.4 |
| **TRUS** | **Trudelj** | **1.22** | **43** | *e*Pg | Pg | 14 10 10.8 | -0.9 |
| **TRUS** | **Trudelj** | **1.22** | **43** | *e*Pg | Pg | 14 10 10.8 | -0.9 |
| **TEKS** | **Tekeris** | **1.23** | **9** | *e*Pg | Pg | 14 10 11.4 | -0.5 |
| TEKS | | | | *e*Sg | Sb | 14 10 28.4 | -0.5 |
| **TEKS** | **Tekeris** | **1.23** | **9** | *e*Pg | Pg | 14 10 10.1 | -1.8 |
| TEKS | | | | *e*Sg | Sg | 14 10 26.9 | -0.9 |
| **STON** | **Ston** | **1.23** | **248** | *e*Pn | Pg | 14 10 10.1 | -1.8 |
| STON | | | | Sn | Sb | 14 10 28.4 | -0.4 |
| **STON** | **Ston** | **1.23** | **248** | *e*Pn | Pg | 14 10 10.1 | -1.8 |
| STON | | | | Sn | Sb | 14 10 28.4 | -0.4 |

*IDC **04** 14:16:20.5±1.1, 50°.68N×171°.85W, h0km, mb3.9/10, mb1 4.1/11, mb1mx3.8/43, mbtmp3.8/11, ML3.5/1, Error ellipse: s-maj=34.9km s-min=18.3km az=170.0*

*NEIC **04** 14:16:22.2±0.7, 50°.76N×171°.78W, h10km, mb4.0/2, Error ellipse: s-maj=14.8km s-min=7.0km az=179.0*

*ISCJB **04** 14:16:24.0±0.7, 50°.8N±0°.1×171°.84W±0°.07, h33km, mb3.8/11, Error ellipse: s-maj=15.0km s-min=5.8km az=12.6*

**ISC 04 14:16:26.0**±0.9**, 50°.9N**±0°.1×**171°.81W**±0°.06**, h35**km**, n20,** σ1s**15**/23**, mb3.9**/11**, South of Aleutian Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ATKA** | **Atka Island** | **2.00** | **313** | P | **Pn** | **14 16 56.7** | **-0.6** |
| ATKA | | | | S | **Sn** | **14 17 21.3** | **+0.2** |
| **KOFP** | **Korovin Flat P** | **2.01** | **316** | P | **Pn** | **14 16 57.4** | **0.0** |
| **GSTD** | **Great Sitkin T** | **2.96** | **295** | P | **Pn** | **14 17 10.2** | **-0.4** |
| GSTD | | | | S | **Sn** | **14 17 44.2** | **-0.7** |
| **ADK** | **Adak** | **3.22** | **290** | P | **Pn** | **14 17 13.8** | **-0.2** |
| ADK | | | | S | **Sn** | **14 17 49.1** | **-2.0** |
| **OKTU** | **Okmok Mt. Tuli** | **3.43** | **41** | P | **Pn** | **14 17 16.2** | **-0.7** |
| **KDAK** | **Kodiak Island** | **13.16** | **51** | Pn | **Pn** | **14 19 27.5** | **-2.6** |
| | 0.4nm,0.3s,baz=11,slow=5.2,SNR=3.2 | | | | | | |
| **ILAR** | **Eielson Array** | **19.05** | **34** | P | **P** | **14 20 44.5** | **-0.3** |
| | 0.2nm,0.3s,baz=234,slow=8.6,SNR=7.0 | | | | | | |
| **EGAK** | **Eagle** | **21.16** | **37** | *e*P | **P** | **14 21 09.2** | **+1.5** |
| | 3.1nm,0.6s | | | | | | |
| **INK** | **Inuvik** | **25.44** | **32** | P | **P** | **14 21 51.3** | **+1.4** |
| | 3.3nm,0.6s,baz=243,slow=8.1,SNR=29 | | | | | | |
| **INK** | **Inuvik** | **25.44** | **32** | *e*P | **P** | **14 21 51.4** | **+1.4** |
| | 3.8nm,0.6s | | | | | | |
| **YKA** | **Yellowknife Ar** | **32.38** | **47** | P | **P** | **14 22 53.6** | **+1.9** |
| | 0.8nm,0.9s,baz=265,slow=7.7,SNR=6.6 | | | | | | |
| **PDAR** | **Pinedale Array** | **42.21** | **76** | P | **P** | **14 24 15.9** | **+0.4** |
| | 1.4nm,0.8s,baz=294,slow=4.0,SNR=8.6 | | | | | | |
| **PV01** | **Paradox Valley** | **45.52** | **81** | *e*P | **P** | **14 24 41.9** | **-0.2** |
| **ULM** | **Lac du Bonnet** | **46.21** | **60** | P | **P** | **14 24 46.7** | **-0.5** |
| | 1.6nm,0.6s,baz=309,slow=6.5,SNR=2.2 | | | | | | |
| **SONM** | **Songino Array** | **50.76** | **301** | P | **P** | **14 25 22.4** | **0.0** |
| | 0.5nm,0.3s,baz=60,slow=8.5,SNR=3.0 | | | | | | |
| **TXAR** | **Lajitas Array** | **54.33** | **86** | P | **P** | **14 25 49.0** | **0.0** |
| | 1.1nm,0.8s,baz=290,slow=4.5,SNR=7.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **63.72** | **313** | P | **P** | **14 26 53.9** | **+0.1** |
| | 0.7nm,0.8s,baz=31,slow=5.7,SNR=5.9 | | | | | | |
| **NOA** | **NORSAR Array B** | **68.42** | **358** | P | **P** | **14 27 25.0** | **+1.3** |
| | 2.9nm,0.9s,baz=14,slow=2.3,SNR=4.0 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **75.44** | **281** | P | **P** | **14 28 07.5** | **+1.1** |
| | 0.3nm,0.4s,baz=38,slow=5.4,SNR=4.2 | | | | | | |
| **ASAR** | **Alice Springs** | **88.26** | **228** | P | **P** | **14 29 12.2** | **-1.2** |
| | 0.4nm,0.8s,baz=35,slow=5.7,SNR=4.4 | | | | | | |

*IDC **04** 14:23:48.5±0.9, 11°.15S×165°.68E, h0km, mb4.3/11, mb1 4.5/13, mb1mx4.2/29, mbtmp4.3/13, ML4.6/2, MS3.7/6, Ms1 3.7/6, ms1mx3.3/23, Error ellipse: s-maj=27.8km s-min=18.9km az=136.0*

*ISCJB **04** 14:23:50.7±0.6, 11°.28S±0°.09×165°.63E±0°.07, h24km, mb4.3/12, MS3.7/4, Error ellipse: s-maj=12.7km s-min=8.7km az=21.0*

*NEIC **04** 14:23:53.9±3.3, 11°.23S×165°.69E, h35km±24km, mb4.8/3, Error ellipse: s-maj=13.8km s-min=9.7km az=191.0*

**ISC 04 14:23:52.4**±0.7**, 11°.29S**±0°.08×**165°.62E**±0°.07**, h24**km**, n26,** σ1s**69**/28**, mb4.3**/12**, MS3.7**/4**, 1D, Santa Cruz Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HNR** | **Honiara** | **5.88** | **288** | *e*P | **Pn** | **14 25 17.0** | **-1.1** |
| HNR | | | | *e*S | **Sb** | **14 26 40.0** | **-4.3** |
| **HNR** | **Honiara** | **5.88** | **288** | Pn | **Pn** | **14 25 18.1** | **0.0** |
| | 12nm,0.3s,baz=157,slow=7.2,SNR=6.2 | | | | | | |
| HNR | | | | Sn | **Sn** | **14 26 25.8** | **+1.0** |
| | 3.6nm,0.3s,baz=202,slow=18,SNR=2.9 | | | | | | |
| HNR | | | | LR | LR | 14 27 52.4 | |
| | comp=Z,664nm,19.3s,baz=112,slow=41 | | | | | | |
| **HNR** | **Honiara** | **5.88** | **288** | *e*Pn | **Pn** | **14 25 19.1** | **+1.0** |
| HNR | | | | Sn | **Sn** | **14 26 25.8** | **+1.0** |
| **DZM** | **Mont Dzumac** | **10.75** | **176** | Pn | **Pn** | **14 26 26.0** | **+1.0** |
| | 5.2nm,0.3s,baz=14,slow=9.0,SNR=60 | | | | | | |
| DZM | | | | Sn | **Sn** | **14 28 21.4** | **-3.3** |
| | baz=137,slow=19,SNR=1.5 | | | | | | |
| DZM | | | | LR | LR | 14 30 09.4 | |
| | comp=Z,198nm,18.4s,baz=10,slow=35 | | | | | | |
| **DZM** | **Mont Dzumac** | **10.75** | **176** | *e*LR | LR | 14 29 30.7 | |
| | 270nm,23.1s | | | | | | |
| **DZM** | **Mont Dzumac** | **10.75** | **176** | *e*Pn | **Pn** | **14 26 25.5** | **+0.5** |
| | 14nm,0.4s | | | | | | |
| DZM | | | | Sn | **Sn** | **14 28 21.4** | **-3.3** |
| **MSVF** | **Nonsavu** | **13.63** | **119** | Pn | **Pn** | **14 27 05.0** | **+0.6** |
| **PMG** | **Port Moresby** | **18.26** | **274** | P | **P** | **14 28 07.3** | **+2.9** |
| | baz=225,slow=1.4,SNR=3.3 | | | | | | |
| **EIDS** | **Eidsvold** | **19.63** | **223** | *e*P | **P** | **14 28 20.2** | **+0.7** |
| **CTA** | **Charters Tower** | **20.58** | **242** | P | **P** | **14 28 30.3** | **+0.5** |
| | 16nm,1.0s,baz=70,slow=14,SNR=8.3 | | | | | | |
| **CTAO** | **Charters Tower** | **20.58** | **242** | *e*P | Pn | 14 28 31.4 | -0.7 |
| | 147nm,1.2s | | | | | | |
| **COEN** | **Coen** | **22.06** | **261** | *e*P | **P** | **14 28 46.7** | **+0.9** |
| | 23nm,1.1s | | | | | | |
| **STKA** | **Stephens Creek** | **30.18** | **224** | P | **P** | **14 30 02.2** | **+1.3** |
| | 2.4nm,0.5s,baz=42,slow=8.4,SNR=5.3 | | | | | | |
| STKA | | | | LR | LR | 14 42 40.2 | |
| | comp=Z,116nm,18.4s,baz=26,slow=37 | | | | | | |
| **WRAB** | **Tennant Creek** | **31.27** | **250** | *e*P | **P** | **14 30 10.7** | **0.0** |
| | 9.3nm,0.8s | | | | | | |
| **WRA** | **Warramunga Arr** | **31.28** | **250** | P | **P** | **14 30 10.6** | **-0.3** |
| | 10nm,0.7s,baz=81,slow=9.2,SNR=44 | | | | | | |
| WRA | | | | LR | LR | 14 42 55.7 | |
| | comp=Z,200nm,18.1s,baz=75,slow=37 | | | | | | |
| **ASAR** | **Alice Springs** | **32.57** | **244** | P | **P** | **14 30 21.6** | **-0.6** |
| | 2.4nm,0.7s,baz=62,slow=10,SNR=26 | | | | | | |
| ASAR | | | | LR | LR | 14 42 58.3 | |
| | comp=Z,138nm,18.2s,baz=78,slow=35 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **72.10** | **294** | P | **P** | **14 35 16.4** | **+1.0** |
| | 2.1nm,0.9s,baz=121,slow=4.7,SNR=12 | | | | | | |
| **QSPA** | **South Pole Qui** | **78.71** | **180** | *e*P | **P** | **14 35 53.5** | **+0.8** |
| **ILAR** | **Eielson Array** | **83.78** | **19** | P | **P** | **14 36 18.0** | **-1.3** |
| | 1.5nm,0.6s,baz=224,slow=5.2,SNR=17 | | | | | | |
| **MAW** | **Mawson** | **84.45** | **202** | P | **P** | **14 36 24.5** | **+1.8** |
| | 4.2nm,0.9s,baz=229,slow=2.4,SNR=5.2 | | | | | | |
| **SYO** | **Syowa Base** | **91.51** | **197** | ⇓*e*P | **P** | **14 36 56.5** | **-0.1** |
| **MKAR** | **Makanchi Array** | **93.62** | **317** | P | **P** | **14 37 07.3** | **+0.5** |
| | 0.8nm,0.7s,baz=90,slow=6.4,SNR=8.3 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **93.68** | **324** | P | **P** | **14 37 06.2** | **-0.6** |
| | 0.3nm,0.4s,baz=113,slow=3.3,SNR=2.2 | | | | | | |
| **PDAR** | **Pinedale Array** | **93.81** | **47** | P | **P** | **14 37 08.1** | **0.0** |
| | 0.2nm,0.5s,baz=348,slow=3.9,SNR=3.3 | | | | | | |
| **YKA** | **Yellowknife Ar** | **95.25** | **27** | P | **P** | **14 37 11.4** | **-2.4** |
| | 0.2nm,0.5s,baz=253,slow=4.5,SNR=5.5 | | | | | | |
| **AAK** | **Ala-Archa** | **98.37** | **312** | LR | LR | 15 17 39.4 | |
| | comp=Z,30nm,21.6s,baz=318,slow=33 | | | | | | |

*ISCJB **04** 14:45:19.0±0.5, 30°.96S±0°.03×177°.09W±0°.07, h33km, mb5.0/26, MS4.4/19, Error ellipse: s-maj=9.0km s-min=3.7km az=12.8*

*GCMT **04** 14:45:20.7±0.2, 30°.55S×177°.72W, h48km, MW5.2/98, Moment Tensor Solution. s94,c134; s98,c146; Duration: 1s0 Moment tensor: Scale $10^{17}$Nm; $M_{rr}$0.75±.02; $M_{\theta\theta}$-0.04±.01; $M_{\phi\phi}$-0.71±.01; $M_{r\theta}$0.05±.01; $M_{\theta\phi}$-0.20±.01; $M_{\phi r}$0.39±.01; Best double couple: $M_0$0.85800×$10^{17}$ NP1:$\phi_s$12.00000°, δ58.00000°, λ86.00000°. NP2:$\phi_s$199.00000°, δ32.00000°, λ96.00000°. Principal axes: T 0.8480, Plg76.0000°, Azm270.0000°; N 0.0190, Plg3.0000°, Azm14.0000°; P -0.8670, Plg13.0000°, Azm105.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **04** 14:45:20.7±3.7, 30°.72S×177°.85W, h4km±22km, mb4.9/14 Error ellipse: s-maj=12.3km s-min=9.7km az=125.0*

*IDC **04** 14:45:20.6±0.5, 30°.60S×177°.86W, h0km, mb4.8/11, mb1 4.9/15, mb1mx4.6/31, mbtmp4.8/15, ML4.1/4, MS4.3/20, Ms1 4.4/20, ms1mx4.3/28, Error ellipse: s-maj=18.5km s-min=15.5km az=123.0*

*BJI **04** 14:45:36.3, 31°.97S×178°.77W, h100km, mb5.1/11, mB5.5/8*

**ISC 04 14:45:26.0**±0.4**, 30°.76S**±0°.03×**177°.78W**±0°.06**, h46**km**, n181,** σ2s**53**/157**, mb5.3**/25**, MS4.4**/19**, 1C, Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **1.50** | **355** | Pn | **Pn** | **14 45 47.3** | **-3.2** |
| | 951nm,0.3s,baz=175,slow=22,SNR=19 | | | | | | |
| RAO | | | | Sn | **Sn** | **14 46 02.9** | **-6.0** |
| | 4μm,0.3s,baz=90,slow=20,SNR=34 | | | | | | |
| RAO | | | | LR | LR | 14 46 13.2 | |
| | comp=Z,4μm,19.4s,baz=329,slow=39 | | | | | | |
| **WMGZ** | **Waiomatatini S** | **7.72** | **203** | PN | **Pn** | **14 47 14.3** | **-1.4** |
| WMGZ | | | | SN | **Sn** | **14 48 43.4** | **+1.6** |
| **HAZ** | **Te Kaha** | **7.89** | **207** | PN | **Pn** | **14 47 17.2** | **-0.8** |
| HAZ | | | | SN | **Sn** | **14 48 50.1** | **+4.1** |
| **PKGZ** | **Pakihiroa** | **7.90** | **205** | PN | **Pn** | **14 47 16.7** | **-1.6** |
| PKGZ | | | | SN | **Sn** | **14 48 48.6** | **+2.3** |
| **PUZ** | **Puketiti** | **8.00** | **203** | PN | **Pn** | **14 47 17.6** | **-2.0** |
| PUZ | | | | SN | **Sn** | **14 48 49.6** | **+0.9** |
| **RUGZ** | **Raukumara Rang** | **8.11** | **206** | PN | **Pn** | **14 47 21.0** | **-0.2** |
| RUGZ | | | | SN | **Sn** | **14 48 55.1** | **+3.5** |
| **TWGZ** | **Tauwhareparae** | **8.19** | **204** | PN | **Pn** | **14 47 20.6** | **-1.6** |
| TWGZ | | | | SN | **Sn** | **14 48 54.6** | **+1.2** |
| **WCZ** | **Waipu Caves** | **8.38** | **230** | PN | Pn | 14 47 32.1 | +7.4 |
| **CNGZ** | **Carnagh Statio** | **8.39** | **202** | PN | **Pn** | **14 47 23.1** | **-1.8** |
| CNGZ | | | | SN | **Sn** | **14 48 59.6** | **+1.3** |
| **TKGZ** | **Te Karaka** | **8.47** | **204** | PN | **Pn** | **14 47 23.2** | **-2.8** |
| TKGZ | | | | SN | **Sn** | **14 49 00.7** | **+0.5** |
| **MWZ** | **Matawai** | **8.49** | **206** | PN | **Pn** | **14 47 23.8** | **-2.6** |

MWZ SN **Sn** **14 49 01.4 +0.5**
**OUZ** **Omahuta** **8.50 236** PN Pn 14 47 33.3 +6.9
**URZ** **Urewera** **8.59 208** Pn **Pn** **14 47 25.8 -1.9**
2.4nm,0.3s,baz=268,slow=5.3,SNR=36
URZ Sn **Sn** **14 49 02.6 -0.6**
22nm,0.3s,baz=222,slow=20,SNR=18
**URZ** **Urewera** **8.59 208** *e*Pn **Pn** **14 47 25.4 -2.2**
URZ Sn **Sn** **14 49 02.6 -0.6**
**URZ** **Urewera** **8.59 208** PN **Pn** **14 47 25.8 -1.9**
**RAGZ** **Rawiri** **8.68 206** PN **Pn** **14 47 26.6 -2.4**
**RIGZ** **Rimuhau** **8.74 204** PN **Pn** **14 47 28.0 -1.7**
**MUGZ** **Murupara** **8.92 209** PN **Pn** **14 47 30.0 -2.1**
**SNGZ** **Shannon Statio** **8.96 205** PN **Pn** **14 47 30.7 -2.0**
**MHGZ** **Mahia Peninsul** **9.09 202** PN **Pn** **14 47 31.4 -3.1**
**MTHZ** **Maungataniwha** **9.21 207** PN **Pn** **14 47 34.2 -2.0**
**WHHZ** **Waihua** **9.26 205** PN **Pn** **14 47 35.3 -1.4**
**NMHZ** **Naumai** **9.43 207** PN **Pn** **14 47 36.8 -2.5**
**ARHZ** **Aropaoanui** **9.51 205** PN **Pn** **14 47 38.0 -2.3**
**BKZ** **Black Stump Fm** **9.62 208** *e*Pn **Pn** **14 47 38.5 -3.3**
**BKZ** **Black Stump Fm** **9.62 208** PN **Pn** **14 47 38.4 -3.3**
**MCHZ** **McNeill Hill** **9.78 206** PN **Pn** **14 47 40.5 -3.4**
**KWHZ** **Kaweka Forest** **9.87 207** PN Pn 14 47 41.3 -3.9
**OTVZ** **Oturere** **9.96 211** PN **Pn** **14 47 44.1 -2.5**
**KAHZ** **Kahuranaki** **10.02 204** PN Pn 14 47 43.0 -4.2
**BHHZ** **Black Hill Sta** **10.07 208** PN **Pn** **14 47 47.7 -0.2**
**KRHZ** **Kereru** **10.07 207** PN Pn 14 47 44.3 -3.7
**PXZ** **Pawanui** **10.23 204** PN Pn 14 47 45.6 -4.6
**PNHZ** **Pukenui** **10.37 207** PN **Pn** **14 47 49.1 -3.0**
**PRHZ** **Porangahau** **10.52 204** PN Pn 14 47 49.4 -4.7
**ANWZ** **Angora Road** **10.75 204** PN Pn 14 47 52.9 -4.3
**BFZ** **Birch Farm** **11.03 204** *e*Pn Pn 14 47 56.4 -4.6
BFZ *e*Sn Sn 14 49 55.0 -8.0
**TIWZ** **Tintock** **11.24 205** PN Pn 14 47 59.9 -4.1
**MRZ** **Mangatainoka R** **11.26 207** PN Pn 14 47 59.0 -5.2
**OGWZ** **Otaki Gorge** **11.55 208** PN Pn 14 48 03.4 -4.8
**KIW** **Kapiti Island** **11.70 208** PN Pn 14 48 05.2 -5.0
**CAW** **Cannon Point** **11.84 207** PN Pn 14 48 06.4 -5.7
**SNZO** **South Karori** **12.16 208** *e*Pn Pn 14 48 10.3 -6.1
SNZO *e*Sn Sn 14 50 14.1 -16
**TCW** **Tory Channel** **12.25 209** PN Pn 14 48 12.3 -5.4
**TUWZ** **Tuamarina** **12.57 210** PN Pn 14 48 17.5 -4.6
**THZ** **Tophouse** **13.30 212** *e*Pn **Pn** **14 48 29.4 -2.8**
**THZ** **Tophouse** **13.30 212** PN **Pn** **14 48 30.6 -1.5**
**KHZ** **Kahutara** **13.56 208** *e*Pn **Pn** **14 48 32.2 -3.3**
**KHZ** **Kahutara** **13.56 208** PN Pn 14 48 29.4 -6.2
**LTZ** **Lake Taylor** **14.40 211** *e*Pn Pn 14 48 42.3 -4.7
**LTZ** **Lake Taylor** **14.40 211** PN Pn 14 48 40.1 -6.8
**OXZ** **Oxford** **14.94 210** *e*Pn Pn 14 48 49.2 -4.8
OXZ *e*Sn Sn 14 51 23.8 -14
**MQZ** **McQueen's Vall** **14.99 208** *e*Pn Pn 14 48 47.7 -7.0
MQZ *e*Sn Sn 14 51 23.6 -16
**RPZ** **Rata Peaks** **15.68 211** Pn **Pn** **14 49 02.8 -0.8**
2.6nm,0.3s,baz=56,slow=5.7,SNR=13
RPZ Sn Sn 14 51 43.3 -13
2.6nm,0.3s,baz=126,slow=24,SNR=9.6
RPZ LR LR 14 55 44.7
comp=Z,554nm,19.1s,baz=48,slow=40
**RPZ** **Rata Peaks** **15.68 211** *e*Pn **Pn** **14 48 59.6 -4.1**
RPZ Sn Sn 14 51 43.3 -13
**DZM** **Mont Dzumac** **16.56 298** Pn **P** **14 49 19.1 +2.1**
0.2nm,0.3s,baz=107,slow=11,SNR=2.9
DZM LR LR 14 54 21.8
comp=Z,4μm,19.0s,baz=128,slow=33
**DZM** **Mont Dzumac** **16.56 298** *e*P **P** **14 49 19.6 +2.6**
119nm,1.5s
DZM *e*LR LR 14 53 19.0
7μm,25.2s
**DZM** **Mont Dzumac** **16.56 298** *e*Pn **P** **14 49 19.3 +2.3**
137nm,1.6s
**ODZ** **Otahua Downs** **16.91 209** *e*Pn **Pn** **14 49 16.1 -3.2**
131nm,1.8s
**ODZ** **Otahua Downs** **16.91 209** PN **Pn** **14 49 13.8 -5.5**
**JCZ** **Jackson Bay** **17.02 215** PN **Pn** **14 49 15.7 -4.9**
**AFI** **Afiamalu** **17.65 20** Pn **Pn** **14 49 25.9 -2.8**
1.3nm,0.3s,baz=237,slow=17,SNR=3.3
AFI S Sn 14 52 24.5 -20
1.2nm,0.3s,baz=38,slow=19,SNR=3.2
**AFI** **Afiamalu** **17.65 20** P **Pn** **14 49 25.4 -3.3**
AFI S Sn 14 52 24.5 -20
**RAR** **Rarotonga** **18.75 64** P **Pn** **14 49 41.5 -0.4**
1.0nm,0.3s,baz=77,slow=17,SNR=4.0
RAR S Sn 14 52 53.5 -17
0.7nm,0.3s,baz=73,slow=19,SNR=2.6
RAR LR LR 14 55 23.6
comp=Z,782nm,19.8s,baz=242,slow=32
**RAR** **Rarotonga** **18.75 64** P **Pn** **14 49 42.0 +0.2**
RAR S Sn 14 52 53.5 -17
**TBI** **Tubuai** **26.23 81** *e*S S 14 55 04.9 -21
632nm,32.0s
TBI *e*LQ LQ 14 56 10.7
1μm,26.2s
TBI *e*LR LR 14 57 15.0
3μm,27.2s,baz=245
**TBI** **Tubuai** **26.23 81** *e*T T 15 18 45.7
46nm,0.3s
**ARMA** **Armidale** **26.30 263** P **P** **14 51 01.3 +3.9**
baz=26,SNR=4.8
**MGCD** **Mangrove Creek** **26.46 256** P **P** **14 51 01.8 +3.1**
baz=26,SNR=15
**CNB** **Canberra Magne** **27.85 252** P **P** **14 51 14.0 +2.8**
baz=28,SNR=9.3
**EIDS** **Eidsvold** **27.95 273** P **P** **14 51 14.1 +2.0**
baz=28,SNR=3.6
**MILA** **Mila** **28.06 248** P **P** **14 51 16.4 +3.3**
baz=28,SNR=6.1
**YNG** **Young** **28.66 254** P **P** **14 51 21.0 +2.5**
baz=29,SNR=5.4
**PAE** **Paea** **28.74 70** *e*T T 15 21 59.0
24nm,0.3s
**PPT2** **Papeete2** **28.78 69** *e*S S 14 55 48.4 -18
498nm,27.2s
PPT2 *e*LQ LQ 14 57 06.8
1μm,26.0s
PPT2 *e*LR LR 14 58 31.8
3μm,26.5s,baz=234
**PPT2** **Papeete2** **28.78 69** *e*T T 15 21 59.8
15nm,0.2s
**PPT** **Papeete** **28.79 69** LR LR 15 01 23.0
comp=Z,336nm,18.5s,baz=238,slow=33
**TVO** **Taravao** **28.94 70** *e*T T 15 22 10.7
4.6nm,0.3s
**TIAR** **Tiarei** **28.98 70** *e*T T 15 22 01.8
3.1nm,0.2s
**RMQ** **Roma** **29.62 270** P **P** **14 51 29.5 +2.5**
baz=30,SNR=10
**HNR** **Honiara** **29.68 311** LR LR 15 01 32.4
comp=Z,533nm,21.5s,baz=146,slow=33
**TOO** **Toolangi** **31.00 247** P **P** **14 51 41.4 +2.2**
baz=31,SNR=14
**CMSA** **Cobar Meteorol** **31.19 259** P **P** **14 51 43.0 +2.2**
baz=31,SNR=30
**VAH** **Vaihoa** **31.63 68** *e*T T 15 25 50.5
100nm,0.2s
**QLP** **Quilpie** **33.48 268** P **P** **14 52 02.1 +1.1**
baz=33,SNR=18
**ARPS** **Mount Arapiles** **33.92 249** P **P** **14 52 06.6 +1.9**
baz=34,SNR=7.4
**CTA** **Charters Tower** **34.05 280** P **P** **14 52 07.6 +1.7**
37nm,0.5s,baz=104,slow=11,SNR=101
CTA LR LR 15 04 35.3
comp=Z,1μm,18.2s,baz=116,slow=34
**CTAO** **Charters Tower** **34.05 280** *e*P **P** **14 52 07.4 +1.5**
39nm,0.6s
**STKA** **Stephens Creek** **34.59 257** P **P** **14 52 12.7 +2.2**
58nm,0.6s,baz=101,slow=11,SNR=211
STKA LR LR 15 05 32.9
comp=Z,1μm,18.0s,baz=91,slow=35
**STKA** **Stephens Creek** **34.59 257** P **P** **14 52 12.6 +2.1**
baz=34,SNR=191
**STKA** **Stephens Creek** **34.59 257** *e*P **P** **14 52 12.3 +1.8**
12nm,0.8s
**MTSU** **Mount Surprise** **36.55 281** P **P** **14 52 28.8 +1.3**
baz=36,SNR=54
**RKT** **Rikitea** **38.73 89** *e*S S 14 58 18.5 -21
498nm,30.8s
RKT *e*LR LR 15 03 00.6
2μm,26.8s,baz=253
**RKT** **Rikitea** **38.73 89** *e*T T 15 34 36.2
2.5nm,0.2s
**PMG** **Port Moresby** **38.93 296** LR LR 15 06 33.8
comp=Z,639nm,19.7s,baz=128,slow=33
**BBOO** **Buckleboo** **39.06 255** P **P** **14 52 49.4 +0.9**
baz=39,SNR=14
**BBOO** **Buckleboo** **39.06 255** *e*P **P** **14 52 48.9 +0.4**
28nm,0.8s

**QIS** **Mount Isa** **39.53 275** P **P** **14 52 53.3 +0.7**
baz=39,SNR=15
**COEN** **Coen** **39.55 286** P **P** **14 52 53.9 +1.1**
baz=39,SNR=27
**COEN** **Coen** **39.55 286** *e*P **P** **14 52 53.5 +0.7**
10nm,0.6s
**TAOE** **Nuku Hiva Isla** **41.27 66** *e*S S 14 59 02.6 -16
328nm,30.3s
TAOE *e*LR LR 15 04 16.6
2μm,26.9s
**AS01** **Alice Springs** **43.24 267** *e*P **P** **14 53 22.8 -0.3**
**AS31** **Alice Springs** **43.28 267** *e*P **P** **14 53 23.2 -0.1**
5.8nm,0.4s
**ASAR** **Alice Springs** **43.28 267** P **P** **14 53 22.9 -0.5**
11nm,0.4s,baz=105,slow=7.2,SNR=575
ASAR ScP **ScP** **14 59 05.3 +5.9**
2.2nm,0.7s,baz=110,slow=4.3,SNR=6.8
ASAR LR LR 15 11 17.1
comp=Z,1μm,18.1s,baz=114,slow=36
**WB2** **Warramunga Arr** **44.29 272** *e*P **P** **14 53 30.9 -0.5**
37nm,0.5s
**WRAB** **Tennant Creek** **44.30 272** *e*P **P** **14 53 31.4 -0.2**
31nm,0.6s
**WRA** **Warramunga Arr** **44.30 272** P **P** **14 53 31.0 -0.6**
33nm,0.6s,baz=110,slow=8.1,SNR=270
WRA ScP **ScP** **14 59 12.2 +8.6**
1.1nm,0.6s,baz=106,slow=3.8,SNR=4.8
WRA LR LR 15 11 18.7
comp=Z,897nm,18.2s,baz=105,slow=35
**FORT** **Forrest** **46.14 255** P **P** **14 53 46.0 0.0**
baz=46,SNR=12
**FORT** **Forrest** **46.14 255** *e*P **P** **14 53 44.3 -1.7**
360nm,0.9s
**WRKA** **Warakurna** **47.63 263** P **P** **14 53 57.2 -0.5**
baz=48,SNR=30
**VNDA** **Vanda** **47.76 186** LR LR 15 10 45.0
comp=Z,165nm,21.7s,baz=29,slow=32
**MTN** **Manton Dam** **50.23 279** P **P** **14 54 17.8 +0.1**
baz=50,SNR=13
**MTN** **Manton Dam** **50.23 279** *e*P **P** **14 54 17.7 0.0**
11nm,0.5s
**KNRA** **Kununurra** **50.92 274** P **P** **14 54 23.9 +1.0**
baz=51,SNR=6.0
**FITZ** **Fitzroy Crossi** **52.55 270** P **P** **14 54 35.0 0.0**
6.8nm,0.6s,baz=146,slow=7.4,SNR=25
**FITZ** **Fitzroy Crossi** **52.55 270** P **P** **14 54 35.5 +0.5**
baz=52,SNR=15
**MAW** **Mawson** **72.04 201** P **P** **14 56 47.1 +2.4**
4.9nm,0.7s,baz=146,slow=9.0,SNR=12
MAW LR LR 15 27 15.1
comp=Z,415nm,20.6s,baz=67,slow=35
**MAW** **Mawson** **72.04 201** P **P** **14 56 46.9 +2.2**
baz=72,SNR=7.1
**MAW** **Mawson** **72.04 201** *e*P **P** **14 56 45.9 +1.2**
1.9nm,1.0s
**TGY** **Tagaytay City** **73.86 298** LR LR 15 27 48.4
comp=Z,88nm,20.7s,baz=86,slow=35
**SYO** **Syowa Base** **76.81 193** *e*P **P** **14 57 13.8 +1.4**
**SNAA** **Sanae** **77.80 178** P **P** **14 57 20.6 +2.6**
**SNAA** **Sanae** **77.80 178** *e*P **P** **14 57 20.4 +2.4**
7.7nm,0.9s
**VNA3** **Neumayer Olymp** **77.94 176** P **P** **14 57 21.5 +2.8**
**VNA2** **Neumayer--Watz** **78.38 177** P **P** **14 57 24.3 +3.1**
baz=180,slow=2.9
**VNA1** **Neumayer--Stat** **78.60 176** P **P** **14 57 25.9 +3.6**
**MJAR** **Matsushiro Arr** **78.64 325** LR LR 15 26 21.4
comp=Z,85nm,21.6s,baz=180,slow=31
**PLCA** **Paso Flores** **82.12 133** P **P** **14 57 45.8 +3.9**
2.6nm,0.7s,baz=264,slow=5.0,SNR=13
PLCA LR LR 15 25 32.6
comp=Z,316nm,21.6s,baz=320,slow=29
**PLCA** **Paso Flores** **82.12 133** *e*P P 14 57 46.2 +4.2
14nm,1.0s
**KSRS** **Korea Array** **84.74 320** P **P** **14 57 57.1 +2.1**
0.7nm,0.6s,baz=150,slow=5.9,SNR=4.7
KSRS LR LR 15 31 32.1
comp=Z,82nm,20.8s,baz=140,slow=33
**KSAR** **Wonju Array Be** **84.75 320** P **P** **14 57 57.1 +2.0**
**QIZ** **Qiongzhong** **85.32 295** P P 14 58 03.0 +4.6
QIZ pP sP 14 58 28.8 +12
QIZ PP **PP** **15 01 21.5 +4.5**
QIZ S **S** **15 08 25.2 -0.7**
QIZ sS sS 15 09 07.3 +19
QIZ SS **SS** **15 14 01.0 -0.7**
QIZ pmax pmax
comp=Z,38nm,1.7s
**GSI** **Gununguitoli** **86.06 274** *e*P **P** **14 58 02.0 -0.3**
**PETK** **Petropavlovsk-** **86.20 345** P **P** **14 58 03.4 +1.4**
5.5nm,0.6s,baz=109,slow=8.3,SNR=15
**NJ2** **Nanjing** **86.62 310** *e*P P 14 58 11.1 +6.6
NJ2 pmax pmax
comp=Z,13nm,0.6s
**USRK** **Ussuriysk Ar.** **87.56 326** LR LR 15 33 24.6
comp=Z,112nm,20.2s,baz=186,slow=33
**CN2** **Changchun** **90.54 323** *e*P P 14 58 31.2 +8.4
**GYA** **Guiyang** **91.89 300** *e*P P 14 59 34.0 +4.3
GYA pP sP 14 59 02.4 +14
GYA PP PP 15 02 17.6 +7.8
GYA SKS **SKSac** **15 08 57.2 -1.9**
GYA S **S** **15 09 24.0 -3.9**
GYA pmax pmax
comp=Z,20nm,1.0s
GYA pmax pmax
comp=Z,120nm,6.8s
**BJI** **Beijing** **93.31 315** P P 14 58 42.7 +7.0
BJI SS SS 15 16 05.7 +8.5
**CMAR** **Chiang Mai Arr** **93.70 289** P **P** **14 58 40.4 +2.3**
0.2nm,0.4s,baz=116,slow=6.1,SNR=4.0
CMAR LR LR 15 43 42.5
comp=Z,99nm,19.1s,baz=151,slow=37
**KMI** **Kunming** **94.15 297** P P 14 58 46.2 +5.9
KMI pmax pmax
comp=Z,16nm,0.7s
**HHC** **Hu-ho-hao-te** **96.62 314** *e*P P 14 59 00.0 +9.0
HHC S **S** **15 10 15.3 +6.7**
HHC SS **SS** **15 16 52.4 +7.9**
HHC pmax pmax
comp=Z,20nm,1.1s
HHC pmax pmax
comp=Z,100nm,5.3s
HHC LR LR
comp=N,120nm,17.5s
HHC LR LR
comp=E,250nm,16.5s
HHC LR LR
comp=Z,210nm,18.4s
**LPAZ** **La Paz** **97.82 114** LR LR 15 34 53.5
comp=Z,96nm,21.0s,baz=300,slow=30
**ILAR** **Eielson Array** **98.23 13** P Pdif 14 59 00.2 +2.6
0.6nm,0.9s,baz=234,slow=6.2,SNR=3.6
**LZH** **Lanzhou** **99.09 307** *e*P **Pdif** **14 59 09.3 +7.0**
LZH pP sP 14 59 35.8 +15
LZH sP pP 14 59 45.7 +30
LZH pmax pmax
comp=Z,14nm,1.0s
**CPUP** **Villa Florida** **99.61 128** LR LR 15 36 26.6
comp=Z,132nm,21.5s,baz=275,slow=31
**YKA** **Yellowknife Ar** **105.68 25** PKKPbc PKKPbc 15 15 06.8 -2.6
0.2nm,0.5s,baz=35,slow=3.3,SNR=5.9
**WMQ** **Urumqi** **113.60 308** PKP **PKiKP** **15 04 03.1 +4.0**
WMQ LR LR
comp=N,140nm,15.3s
WMQ LR LR
comp=E,180nm,18.3s
WMQ LR LR
comp=Z,150nm,25.9s
**BOSA** **Boshof** **117.01 203** PKP **PKPdf** **15 04 08.1 +1.8**
4.2nm,1.1s,baz=56,slow=3.6,SNR=4.4
**MKAR** **Makanchi Array** **118.15 310** PKP **PKPdf** **15 04 07.1 -0.6**
0.6nm,0.4s,baz=99,slow=2.0,SNR=13
MKAR PKKPab **PKKPab** **15 14 30.6 +2.6**
0.3nm,0.6s,baz=289,slow=3.1,SNR=3.8
**ZALV** **Zalesovo Beam** **118.42 318** PKP **PKPdf** **15 04 07.5 -0.4**
0.6nm,0.5s,baz=154,slow=4.3,SNR=4.1
**KSH** **Kashi** **120.59 300** *e*PKP PKPdf 15 04 20.0 +7.3
KSH sPKP 15 04 55.7
KSH PP PP 15 05 51.6 +11
KSH PKS **PKSdf** **15 07 54.7 +5.2**
KSH SKS **SKSdf** **15 11 19.9 -1.2**
KSH SKKS **SKKSac** **15 12 34.1 -2.3**
KSH SS **SS** **15 22 11.4 +3.5**
KSH AMB AMB
comp=Z,220nm,6.9s
KSH LR LR
comp=N,55nm,5.4s
KSH LR LR
comp=E,67nm,4.8s
**AAK** **Ala-Archa** **122.47 304** PKP **PKPdf** **15 04 16.1 -0.2**
1.4nm,0.6s,baz=190,slow=4.9,SNR=5.3
**BVAR** **Borovoye Array** **126.79 316** PKP **PKPdf** **15 04 23.6 -0.4**
1.2nm,0.5s,baz=75,slow=1.6,SNR=2.7
**ARU** **Arti** **133.49 320** PKP **PKPdf** **15 04 37.6 +1.0**
2.7nm,0.5s,baz=135,slow=4.3,SNR=7.6
**ARU** **Arti** **133.49 320** *e*PKPpre **PKPdf** **15 04 37.4 +0.8**
**AKTO** **Aktyubinsk** **134.48 312** PKP **PKPdf** **15 04 39.4 +0.7**
0.7nm,0.5s,baz=68,slow=5.4,SNR=3.4
**ARCES** **ARCESS Array B** **138.98 348** PKhKP PKPpre 15 04 43.4
2.1nm,0.6s,baz=35,slow=2.2,SNR=7.6
ARCES PKP **PKiKP** **15 04 49.5 +0.8**
1.7nm,0.5s,baz=120,slow=1.1,SNR=7.9
**KBZ** **Khabaz** **145.47 304** PKPbc **PKPab** **15 04 59.0 -0.1**
2.7nm,0.6s,baz=217,slow=5.1,SNR=14
**FINES** **FINESS Array B** **145.54 340** PKPbc **PKPab** **15 04 58.1 -0.7**
11nm,0.4s,baz=52,slow=3.8,SNR=73
**MARD** **Mardin** **147.55 292** *e*PKPdf **PKPab** **15 05 06.0 -1.6**
**KOPT** **Kop Dagi** **147.66 297** *e*PKPdf **PKPab** **15 05 09.0 +0.8**
**NC303** **NORSAR Array S** **148.93 351** *e*PKPdf **PKPbc** **15 05 08.3 +0.3**
**NB2** **NORSAR Subarra** **149.13 351** PKP **PKPbc** **15 05 08.7 +0.1**
comp=Z,3.0nm,0.6s,baz=17,slow=2.7
**NOA** **NORSAR Array B** **149.13 351** PKPbc **PKPbc** **15 05 08.7 +0.1**
comp=Z,2.9nm,0.6s,baz=11,slow=4.0,SNR=12
**HFS** **Hagfors** **149.63 349** PKPbc **PKPbc** **15 05 10.0 +0.2**
comp=Z,4.8nm,0.5s,baz=69,slow=4.8,SNR=22
**AKASG** **Malin Array Be** **151.70 322** PKPbc **PKPbc** **15 05 14.8 -0.2**
comp=Z,3.2nm,0.5s,baz=49,slow=2.8,SNR=23
**AKBB** **Malin Array Si** **151.70 322** *e*PKPdf **PKPbc** **15 05 14.5 -0.4**
**KIEV** **Kiev** **151.71 322** *e*PKPbc **PKPbc** **15 05 14.7 -0.3**
**AK11** **Malin Array Si** **151.74 322** *e*PKPdf **PKPbc** **15 05 14.7 -0.4**
AK11 *e*PKPbc **pPKPdf** **15 05 20.1 -2.8**
**EIL** **Elat** **151.75 276** PKPbc **PKPbc** **15 05 17.2 +1.4**
comp=Z,4.9nm,0.6s,baz=281,slow=5.5,SNR=5.4
**MMAI** **Mount Meron Ar** **151.80 283** PKPbc **PKPbc** **15 05 17.1 +1.2**
comp=Z,2.8nm,0.4s,baz=58,slow=7.9,SNR=7.1
**BR131** **Keskin Array S** **152.94 298** *e*PKPdf **PKPbc** **15 05 15.9 -2.4**
**BRTR** **Keskin Array B** **152.94 298** PKPbc **PKPbc** **15 05 18.6 +0.2**
comp=Z,2.2nm,0.5s,baz=147,slow=5.4,SNR=14
BRTR PKPab **pPKPbc** **15 05 31.1 -1.4**
comp=Z,2.6nm,0.5s,baz=146,slow=5.6,SNR=8.6
**CSS** **Mathiatis** **153.59 287** *e*PKPdf **PKPdf** **15 05 12.6 +0.7**
CSS *e*PKPbc **PKiKP** **15 05 19.9 0.0**
**DBIC** **Dimbokro** **155.13 163** PKPab **PKPab** **15 05 42.5 +3.3**
comp=Z,3.1nm,0.6s,baz=158,slow=2.1,SNR=3.2
**CRVS** **Cervenica-Dubn** **156.73 327** *e*PKP PKPdf 15 05 24.2 +8.4
CRVS *e* 15 05 57.9
**CLL** **Collm** **157.96 342** *e*PKPab **PKPab** **15 05 54.0 +3.5**
**TOAO** **Torodi Ar. Sit** **162.47 178** *e*PKPab **PKPab** **15 06 12.9 +2.0**
**TORD** **Torodi Ar. Bea** **162.47 178** PKP **PKPdf** **15 05 24.4 +1.1**
comp=Z,0.7nm,1.0s,baz=0.0,slow=1.5,SNR=3.6
TORD PKPab **PKPab** **15 06 13.1 +2.1**
comp=Z,3.5nm,0.7s,baz=168,slow=2.8,SNR=13
**DAVOX** **Davos/Dischmat** **162.94 342** PKPab **PKPab** **15 06 12.8 +0.3**
comp=Z,2.0nm,0.6s,baz=169,slow=3.9,SNR=3.1

---

*IDC **04** 15:19:33.8±0.8, 30.36N×140.32E, h0km, mb3.9/7, mb1 4.2/8, mb1mx3.8/30, mbtmp3.9/8, ML3.2/1, Error ellipse: s-maj=27.5km s-min=20.5km az=92.0*
*ISCJB **04** 15:19:36.8±0.8, 30.4N±0.1×140.3E±0.2, h33km, mb3.9/8, Error ellipse: s-maj=22.9km s-min=14.8km az=2.6*
*NEIC **04** 15:19:39.8±2.6, 30.38N×140.27E, h42km±23km, mb4.2/1, Error ellipse: s-maj=21.7km s-min=16.2km az=117.0*

**ISC 04 15:19:39.1±0.8, 30.4N±0.1×140.3E±0.2, h35km, n18, σ1s 05/12, mb4.0/8, Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **MJAR** | **Matsushiro Arr** | **6.39** | **345** | Pn | | **Pn** | | **15 21 11.3** | **+0.5** |
| | 0.5nm,0.3s,baz=163,slow=12,SNR=6.3 | | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **26.30** | **108** | T | | T | | 15 52 33.0 | |
| | baz=300,slow=75,SNR=49 | | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **26.30** | **108** | T | | T | | 15 52 33.3 | |
| | baz=300,slow=75,SNR=32 | | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **26.31** | **108** | T | | T | | 15 52 35.4 | |
| | baz=300,slow=75,SNR=41 | | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **26.74** | **110** | T | | T | | 15 53 06.9 | |
| | baz=302,slow=76,SNR=41 | | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **26.75** | **110** | T | | T | | 15 53 07.3 | |
| | baz=302,slow=76,SNR=43 | | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **26.76** | **110** | T | | T | | 15 53 07.6 | |
| | baz=302,slow=76,SNR=65 | | | | | | | | |
| **CHTO** | **Chiang Mai** | **39.09** | **263** | *e*P | | **P** | | **15 27 03.7** | **+0.6** |
| | 3.7nm,0.8s | | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **39.24** | **262** | P | | **P** | | **15 27 06.4** | **+2.0** |
| | 1.4nm,0.8s,baz=54,slow=6.8,SNR=14 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **45.93** | **317** | PcP | | **PcP** | | **15 29 34.1** | **-0.7** |
| | 0.4nm,0.4s,baz=113,slow=1.9,SNR=4.9 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **47.12** | **307** | P | | **P** | | **15 28 06.2** | **-1.6** |
| | 0.3nm,0.8s,baz=93,slow=10,SNR=3.7 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **50.34** | **187** | P | | **P** | | **15 28 31.6** | **-1.0** |
| | 1.8nm,0.9s,baz=5.9,slow=8.0,SNR=10.0 | | | | | | | | |
| **ASAR** | **Alice Springs** | **54.06** | **187** | P | | **P** | | **15 29 00.2** | **-0.1** |
| | 0.4nm,0.7s,baz=13,slow=14,SNR=7.6 | | | | | | | | |
| **ILAR** | **Eielson Array** | **55.70** | **30** | P | | **P** | | **15 29 11.6** | **0.0** |
| | 1.5nm,1.0s,baz=288,slow=5.9,SNR=7.3 | | | | | | | | |
| **FINES** | **FINESS Array B** | **74.28** | **333** | P | | **P** | | **15 31 11.9** | **-0.5** |
| | 6.0nm,1.1s,baz=76,slow=5.9,SNR=3.3 | | | | | | | | |
| **TXAR** | **Lajitas Array** | **94.97** | **52** | P | | **P** | | **15 32 58.9** | **+0.5** |
| | 1.0nm,0.9s,baz=270,slow=3.3,SNR=6.3 | | | | | | | | |
| **LPAZ** | **La Paz** | **150.51** | **68** | PKPbc | | **PKPbc** | | **15 39 28.9** | **+0.3** |
| | 0.7nm,0.8s,baz=252,slow=3.2,SNR=3.9 | | | | | | | | |
| **PLCA** | **Paso Flores** | **153.01** | **121** | PKPbc | | **PKPbc** | | **15 39 33.5** | **+0.7** |
| | 2.7nm,1.2s,baz=315,slow=2.9,SNR=3.0 | | | | | | | | |

---

**IDC 04 15:32:32.1±1.3, 30.22N×140.34E, h0km, mb3.7/3, mb1 3.9/4, mb1mx3.6/38, mbtmp3.6/4, ML3.2/1, Error ellipse: s-maj=41.0km s-min=30.0km az=81.0, Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **MJAR** | **Matsushiro Arr** | **6.55** | **345** | Pn | | Pn | | 15 34 09.2 | -0.5 |
| | 0.5nm,0.3s,baz=156,slow=12,SNR=6.3 | | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **39.29** | **262** | P | | P | | 15 40 02.9 | -0.1 |
| | 1.0nm,0.7s,baz=53,slow=6.7,SNR=7.7 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **46.09** | **317** | PcP | | PcP | | 15 42 31.7 | -2.2 |
| | 1.2nm,0.8s,baz=129,slow=3.9,SNR=5.1 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **47.27** | **307** | PcP | | PcP | | 15 42 36.4 | -1.8 |
| | 0.4nm,0.8s,baz=74,slow=5.1,SNR=3.1 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **50.20** | **187** | P | | P | | 15 41 29.9 | 0.0 |
| | 1.0nm,0.8s,baz=6.4,slow=8.2,SNR=6.5 | | | | | | | | |
| **ASAR** | **Alice Springs** | **53.93** | **187** | P | | P | | 15 41 57.3 | -0.3 |
| | 0.7nm,0.8s,baz=15,slow=12,SNR=5.9 | | | | | | | | |
| **LPAZ** | **La Paz** | **150.50** | **68** | PKPbc | | PKPbc | | 15 52 27.3 | +0.1 |
| | 0.4nm,0.5s,baz=243,slow=2.3,SNR=3.8 | | | | | | | | |
| **PLCA** | **Paso Flores** | **152.87** | **121** | PKPbc | | PKPbc | | 15 52 30.7 | -0.5 |
| | 1.9nm,1.2s,baz=297,slow=2.3,SNR=3.6 | | | | | | | | |

---

*BJI **04** 15:35:35.0, 26.29N×111.15W, h12km, mb5.5/13, mB5.9/16, Ms5.6/10, Ms7 5.2/10*
*ISCJB **04** 15:35:36.9±0.2, 26.08N±0.02×111.83W±0.01, h10km, mb5.2/236, MS4.8/28, Error ellipse: s-maj=2.7km s-min=1.5km az=26.7*
*MOS **04** 15:35:37.0±1.0, 26.16N×111.80W, h10km, mb5.5/57, Error ellipse: s-maj=6.0km s-min=3.7km az=89.5*
*NEIC **04** 15:35:37.9±0.2, 26.01N×111.81W, h10km, mb5.2/251, MS4.5/3, MD5.0(MEX), Error ellipse: s-maj=3.0km s-min=2.0km az=36.0*
*NEIC Felt [III] at Loreto. Also felt at Constitucion, Insurgentes and Mulege.*
*IDC **04** 15:35:37.2±0.5, 26.19N×111.78W, h0km, mb5.0/25, mb1 5.1/31, mb1mx5.0/41, mbtmp4.9/31, ML4.4/5, MS4.6/22, Ms1 4.6/22, ms1mx4.3/44, Error ellipse: s-maj=17.3km s-min=10.3km az=59.0*
*GCMT **04** 15:35:37.9±0.2, 26.24N×111.78W, h12km, MW5.2/117, Moment Tensor Solution. s67,c91; s117,c202; Duration: 1s0 Moment tensor: Scale 1017Nm; Mrr-0.71±.01; Mθθ0.07±.01; Mϕϕ0.64±.01; Mrθ0.03±.04; Mθϕ-0.28±.01; Mϕr-0.23±.04; Best double couple: M0 0.77200×1017 NP1:ϕs342.00000°, δ54.00000°, λ-84.00000°. NP2:ϕs153.00000°, δ37.00000°, λ-98.00000°. Principal axes: T 0.7930, Plg9.0000°, Azm68.0000°; N -0.0420, Plg5.0000°, Azm159.0000°; P -0.7510, Plg80.0000°, Azm277.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves,*

cutoff=50s.
ECX **04** 15:35:38.5±0.7,26.°28N×111.°69W,h13km±10km,MD5.2, ML5.4,Fault plane solution: NP1:φs138.33000°, δ90.00000°,λ30.00000°.
MEX **04** 15:35:41.4±1.0,26.°29N×111.°78W,h16km±20km,MD5.0
**ISC 04 15:35:39.2**±1.1,**26.°23N**±0.°03×**111.°79W**±0.°04,**h14**km±6km, **n1155**,σ**1.°63**/1111,**mb5.3**/232,**MS4.8**/28,**8C-11D,Gulf of California**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SRIG | Santa Rosalia | 1.16 | 339 | eP | Pg | 15 35 58.1 | -3.4 |
| SRIG | | | | eS | Sg | 15 36 11.2 | -5.4 |
| SRIG | Santa Rosalia | 1.16 | 339⇓ | eP | Pg | 15 35 58.2 | -3.4 |
| SRIG | | | | eS | Sg | 15 36 14.4 | -2.3 |
| SRIG | Santa Rosalia | 1.16 | 339 | ePn | Pg | 15 35 58.2 | -3.4 |
| SRIG | | | | eS | Sg | 15 36 11.2 | -5.4 |
| GUYB | Guaymas | 1.85 | 26⇓ | eP | Pn | 15 36 07.7 | -2.8 |
| GUYB | | | | eS | Sn | 15 36 31.8 | -1.8 |
| LPIG | La Paz | 2.51 | 147 | Pn | Pn | 15 36 18.6 | -0.9 |
| | 194nm,0.3s,baz=332,slow=1.6,SNR=78 | | | | | | |
| LPIG | | | | Sn | Sb | 15 36 52.3 | -2.5 |
| | 102nm,0.3s,baz=57,slow=5.3,SNR=3.6 | | | | | | |
| LPIG | | | | LR | LR | 15 36 54.1 | |
| | comp=Z,1μm,20.4s,baz=344,slow=31 | | | | | | |
| LPIG | La Paz | 2.51 | 147 | eP | Pn | 15 36 18.8 | -0.7 |
| LPIG | | | | eS | Sn | 15 36 48.8 | -1.2 |
| HSIG | | 2.87 | 15 | eP | Pn | 15 36 22.7 | -1.9 |
| HSIG | | | | i S | Sn | 15 36 55.4 | -3.6 |
| HSIG | | 2.87 | 15⇓ | eP | Pn | 15 36 23.2 | -1.4 |
| HSIG | | | | eS | Sn | 15 36 57.8 | -1.2 |
| HSIG | | 2.87 | 15 | ePn | Pn | 15 36 22.9 | -1.7 |
| HSIG | | | | i S | Sn | 15 36 55.4 | -3.6 |
| SLBS | Sierra La Lagu | 3.04 | 146 | eP | Pn | 15 36 26.9 | -0.1 |
| SLBS | Sierra La Lagu | 3.04 | 146 | ePn | Pn | 15 36 26.9 | -0.1 |
| HPIG | | 5.52 | 81 | ePN | Pn | 15 37 01.2 | 0.0 |
| HPIG | | 5.52 | 81 | ePn | Pn | 15 37 01.2 | 0.0 |
| 214A | Organ Pipe Nat | 5.77 | 351 | P | Pn | 15 37 04.8 | +0.3 |
| | baz=171 | | | | | | |
| 214A | Organ Pipe Nat | 5.77 | 351 | ePn | Pn | 15 37 04.3 | -0.2 |
| | 344nm,0.7s | | | | | | |
| SPX | San Pedro Mart | 5.78 | 327 | eP | Pn | 15 37 05.2 | +0.3 |
| SPX | | | | eS | Sn | 15 38 12.7 | +1.5 |
| SPX | | | | IAML | | 15 38 44.4 | |
| | comp=N,1μm,1.3s | | | | | | |
| SPX | | | | e | | 15 38 44.4 | |
| SPX | | | | IAML | | 15 38 44.8 | |
| | comp=E,1μm,1.2s | | | | | | |
| SPX | | | | e | | 15 38 44.8 | |
| SPX | San Pedro Mart | 5.78 | 327 | eP | Pn | 15 37 05.7 | +0.8 |
| SPIG | San Pedro Mart | 5.78 | 327 | eP | Pn | 15 37 05.6 | +0.7 |
| SPIG | San Pedro Mart | 5.78 | 327 | eP | Pn | 15 37 04.8 | -0.2 |
| SPIG | San Pedro Mart | 5.78 | 327 | eP | Pn | 15 37 05.6 | +0.7 |
| ECBX | El Chinero | 5.95 | 332 | eP | Pn | 15 37 08.3 | +1.4 |
| TUC | Tucson | 6.12 | 8 | P | Pn | 15 37 09.8 | +0.5 |
| | baz=188 | | | | | | |
| TUC | Tucson | 6.12 | 8 | eP | Pn | 15 37 09.1 | -0.2 |
| TUC | Tucson | 6.12 | 8 | ePn | Pn | 15 37 09.1 | -0.2 |
| MBIG | Mexicali | 6.84 | 335 | eP | Pn | 15 37 19.4 | +0.3 |
| MBIG | | | | eS | Sn | 15 38 35.8 | -0.9 |
| 121A | Cookes Peak, D | 7.18 | 28 | P | Pn | 15 37 24.4 | +0.4 |
| | baz=209 | | | | | | |
| 121A | Cookes Peak, D | 7.18 | 28 | ePn | Pn | 15 37 23.9 | -0.1 |
| | comp=E,175nm,1.0s | | | | | | |
| GLA | Glamis | 7.29 | 339 | P | Pn | 15 37 26.6 | +1.2 |
| | baz=159 | | | | | | |
| GLA | Glamis | 7.29 | 339 | eP | Pn | 15 37 25.7 | +0.3 |
| GLA | Glamis | 7.29 | 339 | ePn | Pn | 15 37 25.7 | +0.3 |
| YUH | Yuha Desert | 7.34 | 332 | ePn | Pn | 15 37 28.3 | +2.3 |
| WESC | Westside Schoo | 7.36 | 333⇓ | eP | Pn | 15 37 27.8 | +1.6 |
| CBX | Cerro Bola | 7.41 | 326 | eP | Pn | 15 37 29.0 | +2.0 |
| CBX | Cerro Bola | 7.41 | 326 | eP | Pn | 15 37 29.0 | +2.0 |
| IKP | In-Ko-Pah, Jac | 7.42 | 331 | P | Pn | 15 37 29.3 | +2.1 |
| | baz=150 | | | | | | |
| SWSC | Sam W. Stewart | 7.55 | 333 | P | Pn | 15 37 31.0 | +2.2 |
| | baz=152 | | | | | | |
| CRR | Carrizo Plain | 7.56 | 332 | ePn | Pn | 15 37 31.5 | +2.4 |
| BAR | Barrett | 7.71 | 328 | ePn | Pn | 15 37 31.2 | +0.1 |
| MONP2 | Monument Peak | 7.77 | 330 | P | Pn | 15 37 34.3 | +2.2 |
| | baz=149 | | | | | | |
| MNTX | Cornudas Mount | 7.82 | 44 | P | Pn | 15 37 33.6 | +1.0 |
| | baz=226 | | | | | | |
| MNTX | Cornudas Mount | 7.82 | 44 | ePn | Pn | 15 37 32.5 | -0.1 |
| TX31 | Lajitas Ar. Si | 7.83 | 65 | ePn | Pn | 15 37 33.3 | +0.5 |
| TXAR | Lajitas Array | 7.83 | 65 | Pn | Pn | 15 37 33.3 | +0.5 |
| | comp=E,2.2nm,0.3s,baz=237,slow=13,SNR=73 | | | | | | |
| TXAR | | | | Lg | Lg | 15 39 38.6 | |
| | comp=E,0.8nm,0.3s,baz=233,slow=35,SNR=2.8 | | | | | | |
| TXAR | | | | LR | LR | 15 40 40.5 | |
| | comp=E,12μm,20.4s,baz=0.0,slow=39 | | | | | | |
| Y12C | Blythe | 7.86 | 343 | P | Pn | 15 37 34.6 | +1.5 |
| | baz=162 | | | | | | |
| Y12C | Blythe | 7.86 | 343 | ePn | Pn | 15 37 32.1 | -1.1 |
| BC3 | Big Chuckawall | 8.05 | 338 | P | Pn | 15 37 38.5 | +2.6 |
| | baz=157 | | | | | | |
| 109C | Camp Elliot, M | 8.09 | 326 | P | Pn | 15 37 38.5 | +2.2 |
| | baz=145 | | | | | | |
| PDMCI | Parker Dam,Lak | 8.30 | 346 | P | Pn | 15 37 40.8 | +1.7 |
| | baz=166 | | | | | | |
| TPFO | Pinon Flats | 8.39 | 332 | P | Pn | 15 37 42.8 | +2.3 |
| | baz=151 | | | | | | |
| XPFO | Piæon Flat | 8.39 | 332 | ePn | Pn | 15 37 41.7 | +1.1 |
| PFO | Pinyon Flats O | 8.40 | 332 | Pn | Pn | 15 37 43.3 | +2.7 |
| | baz=145,slow=14 | | | | | | |
| PFO | Pinyon Flats O | 8.40 | 332 | P | Pn | 15 37 43.0 | +2.4 |
| | baz=151 | | | | | | |
| PFO | Pinyon Flats O | 8.40 | 332 | eP | Pn | 15 37 41.4 | +0.8 |
| PFO | Pinyon Flats O | 8.40 | 332 | ePn | Pn | 15 37 41.4 | +0.8 |
| IRM | Iron Mountain | 8.42 | 341 | P | Pn | 15 37 43.3 | +2.5 |
| | baz=160 | | | | | | |
| BELC | Belle Mtn. Jos | 8.56 | 336 | P | Pn | 15 37 45.8 | +3.0 |
| | baz=154 | | | | | | |
| MURC | Murrieta | 8.71 | 329 | P | Pn | 15 37 47.2 | +2.3 |
| | baz=147 | | | | | | |
| DEVC | Devers | 8.73 | 333 | ePn | Pn | 15 37 50.2 | +5.1 |
| DEVC | | | | eSn | Sn | 15 39 08.4 | -15 |
| NEE2 | Needles Airpor | 8.85 | 345 | P | Pn | 15 37 48.6 | +1.9 |
| | baz=164 | | | | | | |
| Y22D | IRIS PASSCAL I | 8.88 | 27 | P | Pn | 15 37 51.6 | +4.4 |
| | baz=209 | | | | | | |
| Y22D | IRIS PASSCAL I | 8.88 | 27 | ePn | Pn | 15 37 48.8 | +1.6 |
| Y22E | IRIS PASSCAL I | 8.88 | 27 | P | Pn | 15 37 51.6 | +4.4 |
| | baz=209 | | | | | | |
| SCI2 | San Clemente I | 8.93 | 320 | P | Pn | 15 37 50.1 | +2.3 |
| | baz=138 | | | | | | |
| W18A | Petrified Fore | 9.03 | 11 | P | Pn | 15 37 52.5 | +3.1 |
| | baz=192 | | | | | | |
| W18A | Petrified Fore | 9.03 | 11 | ePn | Pn | 15 37 51.6 | +2.2 |
| BNM | Barren Site | 9.06 | 28 | ePn | Pn | 15 37 50.5 | +0.6 |
| ZAIG | Zacatecas | 9.07 | 110 | ePn | Pn | 15 37 48.4 | -1.7 |
| LAZ | Ladron | 9.08 | 25 | ePn | Pn | 15 37 51.9 | +1.9 |
| BBRC | Big Bear Solar | 9.15 | 332 | P | Pn | 15 37 54.7 | +3.7 |
| | baz=150 | | | | | | |
| GMRC | Granite Mounta | 9.15 | 340 | P | Pn | 15 37 54.5 | +3.4 |
| | baz=158 | | | | | | |
| CIS | Catalina Islan | 9.17 | 323 | P | Pn | 15 37 54.6 | +3.4 |
| | baz=140 | | | | | | |
| LPM | Los Pinos Moun | 9.20 | 28 | ePn | Pn | 15 37 52.5 | +0.8 |
| WUAZ | Wupatki | 9.26 | 2 | P | Pn | 15 37 56.7 | +4.2 |
| | baz=182 | | | | | | |
| WUAZ | Wupatki | 9.26 | 2 | ePn | Pn | 15 37 53.7 | +1.2 |
| LDFC | Landfair | 9.27 | 343 | ePn | Pn | 15 37 54.6 | +2.1 |
| FMP | Fort Macarthur | 9.35 | 324 | P | Pn | 15 37 56.3 | +2.8 |
| | baz=142 | | | | | | |
| HEC | Hector,Ludlow | 9.42 | 337 | P | Pn | 15 37 57.6 | +2.9 |
| | baz=155 | | | | | | |
| BFSC | Mount Baldy Ra | 9.46 | 329 | P | Pn | 15 37 58.0 | +2.9 |
| | baz=147 | | | | | | |
| MWC | Mount Wilson | 9.63 | 327 | eP | Pn | 15 37 58.8 | +1.2 |
| MWC | Mount Wilson | 9.63 | 327 | ePn | Pn | 15 37 58.8 | +1.2 |
| PASC | Pasadena Art C | 9.65 | 327 | ePn | Pn | 15 37 57.5 | -0.3 |
| SNCC | San Nicolas Is | 9.70 | 318 | P | Pn | 15 38 01.5 | +3.2 |
| | baz=135 | | | | | | |
| SNCC | San Nicolas Is | 9.70 | 318 | ePn | Pn | 15 37 59.7 | +1.3 |
| RRX | Edison Barstow | 9.71 | 334 | P | Pn | 15 38 02.4 | +3.8 |
| | baz=152 | | | | | | |
| DECC | Green Verdugo | 9.79 | 326 | P | Pn | 15 38 02.5 | +2.8 |
| | baz=144 | | | | | | |
| ANMO | Albuquerque | 9.82 | 27 | Pn | Pn | 15 38 04.0 | +3.8 |
| | comp=E,0.2nm,0.3s,baz=31,slow=14,SNR=56 | | | | | | |
| ANMO | | | | Lg | Lg | 15 40 40.3 | |
| | comp=E,0.1nm,0.3s,baz=127,slow=18,SNR=2.6 | | | | | | |
| ANMO | | | | LR | LR | 15 42 01.2 | |
| | comp=E,4μm,21.4s,baz=30,slow=39 | | | | | | |
| ANMO | Albuquerque | 9.82 | 27 | P | Pn | 15 38 04.0 | +3.8 |
| | baz=209 | | | | | | |
| ANMO | Albuquerque | 9.82 | 27 | eP | Pn | 15 38 03.2 | +3.0 |
| ANMO | Albuquerque | 9.82 | 27 | ePn | Pn | 15 38 03.2 | +3.0 |
| ANMO | | | | Lg | Lg | 15 40 40.3 | |
| TUQ | Turquoise Moun | 9.84 | 340 | P | Pn | 15 38 04.7 | +4.3 |
| | baz=158 | | | | | | |
| GSC | Goldstone, Bar | 10.02 | 336 | P | Pn | 15 38 06.8 | +4.0 |
| | baz=154 | | | | | | |
| GSC | Goldstone, Bar | 10.02 | 336 | eP | Pn | 15 38 05.9 | +3.1 |
| GSC | Goldstone, Bar | 10.02 | 336 | ePn | Pn | 15 38 05.9 | +3.1 |
| BLG | Laguna Peak, P | 10.06 | 323 | P | Pn | 15 38 07.2 | +3.8 |
| | baz=140 | | | | | | |
| EDW2 | Edwards Air Fo | 10.14 | 330 | P | Pn | 15 38 07.9 | +3.4 |
| | baz=147 | | | | | | |
| OSI | Osito Audit: C | 10.28 | 326 | P | Pn | 15 38 09.5 | +3.2 |
| | baz=144 | | | | | | |
| OSI | Osito Audit: C | 10.28 | 326 | ePn | Pn | 15 38 08.4 | +2.1 |
| STTC | Scott Ranch | 10.29 | 328 | ePn | Pn | 15 38 10.7 | +4.3 |
| SCZ2 | Santa Cruz Isl | 10.29 | 321 | P | Pn | 15 38 09.5 | +3.0 |
| | baz=138 | | | | | | |
| SHOC | Shoshone, Teco | 10.38 | 339 | P | Pn | 15 38 12.6 | +5.0 |
| | baz=158 | | | | | | |
| LRMC | Laurel Mtn Rad | 10.52 | 333 | P | Pn | 15 38 13.7 | +4.1 |
| | baz=150 | | | | | | |
| SHPR | Sheep Range | 10.64 | 345 | ePn | Pn | 15 38 13.6 | +2.2 |
| SBC | Santa Barbara | 10.66 | 322 | P | Pn | 15 38 15.5 | +3.9 |
| | baz=139 | | | | | | |
| ARVC | Arvin | 10.74 | 327 | P | Pn | 15 38 16.4 | +3.8 |
| | baz=145 | | | | | | |
| LCMT | Little Creek M | 10.82 | 354 | ePn | Pn | 15 38 16.7 | +2.9 |
| MPMC | Manual Prospec | 10.94 | 335 | P | Pn | 15 38 19.4 | +3.9 |
| | baz=153 | | | | | | |
| MSTX | Muleshoe | 10.97 | 43 | P | Pn | 15 38 19.3 | +3.5 |
| | baz=227 | | | | | | |
| MSTX | Muleshoe | 10.97 | 43 | ePn | Pn | 15 38 18.9 | +3.1 |
| ISA | Isabella, Lake | 11.01 | 330 | P | Pn | 15 38 20.0 | +3.6 |
| | baz=148 | | | | | | |
| ISA | Isabella, Lake | 11.01 | 330 | eP | Pn | 15 38 19.1 | +2.7 |
| ISA | Isabella, Lake | 11.01 | 330 | ePn | Pn | 15 38 19.1 | +2.7 |
| PKM | Mcpherson Peak | 11.05 | 323 | P | Pn | 15 38 20.4 | +3.3 |
| | baz=140 | | | | | | |
| FURC | Furnace Creek, | 11.09 | 338 | P | Pn | 15 38 21.8 | +4.5 |
| | baz=156 | | | | | | |
| LNIG | Linares | 11.20 | 94 | ePn | Pn | 15 38 21.4 | +2.4 |
| 833A | Chaparral WMA, | 11.22 | 77 | P | Pn | 15 38 21.6 | +2.4 |
| | baz=261 | | | | | | |
| MVCO | Mesa Verde | 11.30 | 14 | P | Pn | 15 38 24.2 | +3.7 |
| | baz=195 | | | | | | |
| MVCO | Mesa Verde | 11.30 | 14 | ePn | Pn | 15 38 23.5 | +3.0 |
| TPNV | Topopah Spring | 11.34 | 342 | P | Pn | 15 38 26.0 | +5.0 |
| | baz=160 | | | | | | |
| TPNV | Topopah Spring | 11.34 | 342 | eP | Pn | 15 38 25.0 | +4.0 |
| TPNV | Topopah Spring | 11.34 | 342 | ePn | Pn | 15 38 25.0 | +4.0 |
| CCUT | Cedar City | 11.36 | 354 | ePn | Pn | 15 38 25.5 | +4.1 |
| JCT | Junction City | 11.37 | 65 | P | Pn | 15 38 24.2 | +2.9 |
| | baz=250 | | | | | | |
| JCT | Junction City | 11.37 | 65 | eP | Pn | 15 38 24.0 | +2.7 |
| JCT | Junction City | 11.37 | 65 | ePn | Pn | 15 38 24.0 | +2.7 |
| SZCU | Shurtz Canyon | 11.38 | 355 | ePn | Pn | 15 38 25.6 | +4.0 |
| VES | Vestal, Richgr | 11.44 | 329 | P | Pn | 15 38 25.7 | +3.6 |
| | baz=146 | | | | | | |
| SMMC | Simmler | 11.47 | 324 | P | Pn | 15 38 25.9 | +3.2 |
| | baz=141 | | | | | | |
| CWC | Cottonwood Cre | 11.51 | 334 | P | Pn | 15 38 27.6 | +4.3 |
| | baz=151 | | | | | | |
| ARUT | Antelope Range | 11.61 | 353 | eP | Pn | 15 38 30.3 | +5.7 |
| ARUT | Antelope Range | 11.61 | 353 | ePn | Pn | 15 38 30.2 | +5.6 |
| GRAC | Grapevine Rang | 11.73 | 337 | P | Pn | 15 38 31.1 | +4.9 |
| | baz=155 | | | | | | |
| MTPU | Mount Pierson | 11.78 | 358 | ePn | Pn | 15 38 32.7 | +5.5 |
| RCTC | Rector, Farmer | 11.89 | 329 | P | Pn | 15 38 31.9 | +3.6 |
| | baz=146 | | | | | | |
| PAGB | Antelope Grade | 11.93 | 325 | ePn | Pn | 15 38 30.8 | +1.9 |
| MMU | Miners Mountai | 11.94 | 2 | ePn | Pn | 15 38 34.2 | +5.0 |
| PV05 | Paradox Valley | 12.03 | 10 | ePn | Pn | 15 38 32.0 | +1.6 |
| TIN | Tinemaha, Big | 12.10 | 335 | P | Pn | 15 38 35.8 | +4.4 |
| | baz=152 | | | | | | |
| PV01 | Paradox Valley | 12.17 | 12 | ePn | Pn | 15 38 35.2 | +2.8 |
| S22A | 4UR Ranch, Cre | 12.22 | 19 | P | Pn | 15 38 37.4 | +4.2 |
| | baz=201 | | | | | | |
| S22A | 4UR Ranch, Cre | 12.22 | 19 | ePn | Pn | 15 38 35.9 | +2.7 |
| AMTX | Amarillo | 12.25 | 43 | P | Pn | 15 38 36.5 | +3.1 |
| | baz=227 | | | | | | |
| AMTX | Amarillo | 12.25 | 43 | ePn | Pn | 15 38 35.1 | +1.7 |
| PV10 | Paradox Valley | 12.33 | 10 | ePn | Pn | 15 38 36.9 | +2.3 |
| ABTX | Abilene, Hawle | 12.35 | 56 | P | Pn | 15 38 37.0 | +2.3 |
| | baz=241 | | | | | | |
| ABTX | Abilene, Hawle | 12.35 | 56 | ePn | Pn | 15 38 36.7 | +2.0 |
| PV04 | Paradox Valley | 12.37 | 11 | ePn | Pn | 15 38 38.8 | +3.7 |
| PV09 | Paradox Valley | 12.43 | 10 | ePn | Pn | 15 38 39.3 | +3.3 |
| R11A | Troy Canyon, C | 12.50 | 346 | P | Pn | 15 38 40.5 | +3.6 |
| | baz=164 | | | | | | |
| R11A | Troy Canyon, C | 12.50 | 346 | ePn | Pn | 15 38 38.5 | +1.6 |
| T25A | Trinidad | 12.55 | 28 | P | Pn | 15 38 42.0 | +4.5 |
| | baz=212 | | | | | | |
| T25A | Trinidad | 12.55 | 28 | ePn | Pn | 15 38 42.6 | +5.0 |
| PMPB | Monarch Peak | 12.58 | 324 | ePn | Pn | 15 38 39.6 | +1.7 |
| SDCO | Great Sand Dun | 12.65 | 23 | P | Pn | 15 38 43.5 | +4.5 |
| | baz=206 | | | | | | |
| SDCO | Great Sand Dun | 12.65 | 23 | ePn | Pn | 15 38 41.4 | +2.3 |
| Q16A | Castle Valley | 12.66 | 2 | ePn | Pn | 15 38 43.3 | +4.3 |
| MLAC | Mammoth, Mammo | 12.84 | 334 | P | Pn | 15 38 46.3 | +4.8 |
| | baz=151 | | | | | | |
| SRU | San Rafael Swe | 12.89 | 4 | eP | Pn | 15 38 44.9 | +2.7 |
| SRU | San Rafael Swe | 12.89 | 4 | ePn | Pn | 15 38 44.9 | +2.7 |
| MDPB | Devils Postpil | 12.94 | 333 | ePn | Pn | 15 38 46.1 | +3.2 |
| TMUT | Trail Mountain | 13.04 | 2 | ePn | Pn | 15 38 47.9 | +3.6 |
| P17A | Butcher Ranch, | 13.23 | 4 | ePn | Pn | 15 38 50.4 | +3.6 |
| 435B | Jarrell | 13.28 | 67 | P | Pn | 15 38 50.7 | +3.3 |
| | baz=253 | | | | | | |
| SAO | San Andreas Ge | 13.34 | 324 | eP | Pn | 15 38 49.7 | +1.6 |
| SAO | San Andreas Ge | 13.34 | 324 | ePn | Pn | 15 38 49.7 | +1.6 |
| P18A | Preston Nutter | 13.42 | 5 | ePn | Pn | 15 38 52.2 | +2.6 |
| SMCO | Snowmass | 13.53 | 16 | ePn | Pn | 15 38 54.6 | +3.6 |
| NLU | North Lily Min | 13.69 | 359 | ePn | Pn | 15 38 57.4 | +4.3 |
| MPU | Maple Canyon | 13.75 | 0 | ePn | Pn | 15 38 58.0 | +4.1 |
| WHTX | Lake Whitney, | 13.77 | 62 | P | Pn | 15 38 55.7 | +1.6 |
| | baz=248 | | | | | | |
| WHTX | Lake Whitney, | 13.77 | 62 | ePn | Pn | 15 38 53.8 | -0.2 |
| CMB | Columbia Colle | 13.83 | 330 | eP | Pn | 15 38 56.9 | +2.0 |
| CMB | Columbia Colle | 13.83 | 330 | ePn | Pn | 15 38 56.9 | +2.0 |
| WAKR | Walker | 13.83 | 334 | ePn | Pn | 15 38 57.9 | +2.8 |
| Q24A | Divide | 13.87 | 22 | P | Pn | 15 38 59.6 | +4.0 |
| | baz=205 | | | | | | |
| Q24A | Divide | 13.87 | 22 | ePn | Pn | 15 38 58.5 | +2.9 |
| DUG | Dugway, Tooele | 13.95 | 357 | P | P | 15 39 01.2 | -3.5 |
| | baz=176 | | | | | | |
| DUG | Dugway, Tooele | 13.95 | 357 | eP | Pn | 15 38 57.7 | +1.1 |
| DUG | Dugway, Tooele | 13.95 | 357 | ePn | Pn | 15 38 57.7 | +1.1 |
| WMOK | Wichita Mounta | 14.05 | 50 | P | Pn | 15 39 00.1 | +2.2 |
| | baz=236 | | | | | | |
| WMOK | Wichita Mounta | 14.05 | 50 | eP | Pn | 15 38 59.1 | +1.3 |
| WMOK | Wichita Mounta | 14.05 | 50 | ePn | Pn | 15 38 59.1 | +1.3 |
| 336A | Riesel | 14.07 | 65 | P | Pn | 15 39 00.0 | +1.9 |
| | baz=251 | | | | | | |
| YERR | Yerington | 14.18 | 336 | ePn | Pn | 15 39 02.8 | +3.0 |
| O20A | White River Ci | 14.18 | 11 | P | Pn | 15 39 03.5 | +3.7 |
| | baz=193 | | | | | | |
| O20A | White River Ci | 14.18 | 11 | ePn | Pn | 15 39 02.4 | +2.6 |
| JLU | Jordanelle | 14.34 | 1 | ePn | Pn | 15 39 04.5 | +2.5 |
| PNTR | Pine Nut | 14.40 | 335 | ePn | Pn | 15 39 06.4 | +3.5 |
| CTU | Camp Tracy | 14.42 | 0 | ePn | Pn | 15 39 06.2 | +3.0 |
| AASM | Arroyo Seco | 14.48 | 329 | ePn | Pn | 15 38 59.3 | -4.5 |
| ISCO | Idaho Springs | 14.48 | 19 | P | P | 15 39 08.2 | -2.6 |
| | baz=202 | | | | | | |
| ISCO | Idaho Springs | 14.48 | 19 | eP | Pn | 15 39 07.3 | +3.2 |
| ISCO | Idaho Springs | 14.48 | 19 | ePn | Pn | 15 39 07.2 | +3.2 |
| 236A | Katherine and | 14.51 | 63 | P | Pn | 15 39 05.5 | +1.3 |
| | baz=250 | | | | | | |
| HKT | Hockley | 14.56 | 72 | eP | Pn | 15 39 06.3 | +1.5 |
| HKT | Hockley | 14.56 | 72 | ePn | Pn | 15 39 06.3 | +1.5 |
| N16A | Rees Ranch, Co | 14.62 | 1 | ePn | Pn | 15 39 00.9 | -5.0 |
| 136A | Ennis | 14.68 | 61 | P | Pn | 15 39 08.3 | +1.8 |
| | baz=248 | | | | | | |
| BGU | Big Grassy Mou | 14.69 | 356 | ePn | Pn | 15 39 09.7 | +3.0 |
| 337A | Centerville | 14.83 | 66 | P | Pn | 15 39 09.3 | +0.7 |
| | baz=253 | | | | | | |
| AFDM | Forest Hills D | 14.84 | 331 | ePn | Pn | 15 39 10.7 | +2.0 |
| TCUT | Toone Canyon | 14.85 | 1 | ePn | P | 15 39 12.4 | -2.4 |
| PAHR | Pah Rah Range | 14.86 | 337 | ePn | Pn | 15 39 11.9 | +2.8 |
| Y35A | Marietta | 14.87 | 56 | P | Pn | 15 39 10.2 | +1.1 |
| | baz=242 | | | | | | |
| U32A | Winter Ranch, | 14.88 | 44 | P | Pn | 15 39 11.8 | +2.7 |
| | baz=230 | | | | | | |
| KSCO | Kaye Shedlock' | 14.88 | 29 | P | P | 15 39 12.6 | -2.5 |
| | baz=213 | | | | | | |
| KSCO | Kaye Shedlock' | 14.88 | 29 | ePn | Pn | 15 39 10.6 | +1.2 |
| | comp=E,204nm,1.4s | | | | | | |
| TLIG | Tlapa | 14.99 | 122 | ePn | Pn | 15 39 10.7 | -0.2 |
| 438A | Sam Houston St | 15.03 | 69 | P | P | 15 39 14.0 | -2.6 |
| | baz=256 | | | | | | |
| SPUT | South Promonto | 15.05 | 358 | ePn | P | 15 39 14.8 | -2.1 |
| | comp=E,254nm,1.6s | | | | | | |
| Z36A | Blue Ridge | 15.06 | 59 | P | Pn | 15 39 13.1 | +1.5 |
| | baz=246 | | | | | | |
| 237A | Washetta, Mont | 15.10 | 64 | P | Pn | 15 39 13.2 | +1.1 |
| | baz=251 | | | | | | |
| MCCM | Marconi Confer | 15.13 | 324 | ePn | P | 15 39 16.0 | -1.6 |
| | comp=E,151nm,1.0s | | | | | | |
| X35A | Drake | 15.15 | 54 | P | Pn | 15 39 14.4 | +1.5 |
| | baz=241 | | | | | | |
| X35A | Drake | 15.15 | 54 | ePn | Pn | 15 39 13.3 | +0.5 |
| | comp=E,314nm,1.7s | | | | | | |
| 338A | Crockett | 15.32 | 67 | P | Pn | 15 39 15.8 | +0.8 |
| | baz=254 | | | | | | |
| LTU | Little Mountai | 15.33 | 359 | ePn | P | 15 39 18.6 | -1.4 |
| 137A | Heron Place, G | 15.33 | 62 | P | Pn | 15 39 16.9 | +1.6 |
| | baz=249 | | | | | | |
| BEKR | Beckworth | 15.37 | 334 | ePn | Pn | 15 39 18.4 | +2.6 |
| | comp=E,126nm,1.2s | | | | | | |
| N23A | Red Feather La | 15.41 | 17 | P | P | 15 39 20.5 | -0.5 |
| | baz=200 | | | | | | |
| N23A | Red Feather La | 15.41 | 17 | ePn | Pn | 15 39 18.9 | +2.5 |
| | comp=E,94nm,1.1s | | | | | | |
| Y36A | Durant | 15.43 | 57 | P | Pn | 15 39 18.3 | +1.7 |
| | baz=244 | | | | | | |
| MTUT | Morton Thiokol | 15.45 | 358 | ePn | P | 15 39 19.9 | -1.4 |
| HVU | Hansel Valley | 15.53 | 357 | eP | P | 15 39 20.9 | -1.3 |
| HVU | | | | pmax | pmax | | |
| | comp=Z,127nm,1.1s | | | | | | |
| HVU | Hansel Valley | 15.53 | 357 | ePn | P | 15 39 20.9 | -1.3 |
| | comp=Z,127nm,1.1s | | | | | | |
| ORV | Oroville | 15.57 | 331 | eP | Pn | 15 39 20.5 | +2.1 |
| ORV | | | | pmax | pmax | | |
| | comp=Z,95nm,1.1s | | | | | | |
| ORV | Oroville | 15.57 | 331 | ePn | Pn | 15 39 20.5 | +2.1 |
| | comp=Z,95nm,1.1s | | | | | | |
| W35A | Tecumseh | 15.59 | 52 | P | Pn | 15 39 20.0 | +1.4 |
| | baz=239 | | | | | | |
| W35A | Tecumseh | 15.59 | 52 | ePn | Pn | 15 39 19.5 | +0.9 |
| | comp=Z,288nm,1.3s | | | | | | |
| 439A | Center Grove, | 15.63 | 69 | P | Pn | 15 39 20.6 | +1.5 |
| | baz=256 | | | | | | |
| 238A | Jacksonville | 15.65 | 65 | P | Pn | 15 39 20.5 | +1.1 |
| | baz=252 | | | | | | |
| Z37A | Pogue Cattle C | 15.65 | 60 | P | Pn | 15 39 20.6 | +1.1 |
| | baz=247 | | | | | | |
| X36A | Centrahoma | 15.68 | 54 | P | Pn | 15 39 21.5 | +1.7 |
| | baz=241 | | | | | | |
| OK020 | N3440 Road, Me | 15.79 | 50 | ePn | Pn | 15 39 21.8 | +0.6 |
| | comp=Z,377nm,1.4s | | | | | | |
| RWWY | Rawlins | 15.87 | 13 | ePn | P | 15 39 24.8 | -1.4 |
| | comp=Z,108nm,1.4s | | | | | | |
| 138A | Matatall Enter | 15.88 | 62 | P | Pn | 15 39 23.9 | +1.5 |
| | baz=250 | | | | | | |
| PHWY | Pilot Hill | 15.92 | 18 | ePn | P | 15 39 25.3 | -1.4 |
| | comp=Z,80nm,1.4s | | | | | | |
| 339A | Huntington | 15.93 | 67 | P | Pn | 15 39 24.3 | +1.3 |
| | baz=255 | | | | | | |
| OK021 | N3530 Road, Sp | 15.93 | 51 | ePn | Pn | 15 39 23.2 | +0.1 |
| | comp=Z,548nm,1.5s | | | | | | |
| V35A | Meyer Ranch, C | 15.94 | 50 | P | Pn | 15 39 24.7 | +1.7 |
| | baz=237 | | | | | | |
| V35A | Meyer Ranch, C | 15.94 | 50 | ePn | Pn | 15 39 23.4 | +0.3 |
| | comp=Z,819nm,1.7s | | | | | | |
| NATX | Nacogdoches | 15.96 | 66 | P | Pn | 15 39 24.3 | +1.0 |
| | baz=253 | | | | | | |
| NATX | Nacogdoches | 15.96 | 66 | ePn | Pn | 15 39 23.0 | -0.3 |
| | comp=Z,68nm,1.0s | | | | | | |
| Y37A | Hugo | 15.96 | 57 | P | Pn | 15 39 24.4 | +0.9 |
| | baz=245 | | | | | | |
| W36A | Wetumka | 16.05 | 53 | P | Pn | 15 39 26.0 | +1.5 |
| | baz=240 | | | | | | |
| W36A | Wetumka | 16.05 | 53 | ePn | Pn | 15 39 25.3 | +0.8 |
| | comp=Z,45nm,0.9s | | | | | | |
| CBKS | Cedar Bluff | 16.12 | 36 | P | P | 15 39 28.5 | -0.3 |
| | baz=222 | | | | | | |
| CBKS | Cedar Bluff | 16.12 | 36 | eP | P | 15 39 27.5 | -1.2 |
| CBKS | | | | pmax | pmax | | |
| | comp=Z,303nm,1.3s | | | | | | |
| CBKS | Cedar Bluff | 16.12 | 36 | ePn | P | 15 39 27.5 | -1.2 |
| | comp=Z,302nm,1.3s | | | | | | |
| Z38A | Mt. Pleasant | 16.18 | 60 | P | Pn | 15 39 27.7 | +1.6 |
| | baz=248 | | | | | | |
| 239A | Gary | 16.18 | 65 | P | P | 15 39 29.8 | +0.4 |
| | baz=253 | | | | | | |
| 540A | Vidor | 16.18 | 72 | P | Pn | 15 39 27.5 | +1.2 |
| | baz=259 | | | | | | |
| 440A | Kirbyville | 16.30 | 70 | P | Pn | 15 39 28.7 | +0.9 |
| | baz=258 | | | | | | |
| O03D | Paynes Creek | 16.32 | 332 | P | P | 15 39 31.2 | +0.3 |
| | baz=147 | | | | | | |
| O03D | Paynes Creek | 16.32 | 332 | ePn | P | 15 39 31.3 | +0.3 |
| U35A | Pawnee | 16.34 | 48 | P | P | 15 39 29.9 | -1.2 |
| | baz=235 | | | | | | |
| U35A | Pawnee | 16.34 | 48 | ePn | Pn | 15 39 29.2 | +0.9 |
| | comp=Z,312nm,1.5s | | | | | | |
| X37A | Clayton | 16.41 | 56 | P | P | 15 39 31.0 | -0.9 |
| | baz=243 | | | | | | |
| X37A | Clayton | 16.41 | 56 | ePn | Pn | 15 39 30.6 | +1.4 |
| | comp=Z,270nm,1.4s | | | | | | |
| T34A | McClaskey Farm | 16.42 | 46 | P | P | 15 39 31.5 | -0.5 |
| | baz=233 | | | | | | |
| 139A | Bunkhouse Ranc | 16.45 | 63 | P | P | 15 39 31.3 | -1.0 |
| | baz=251 | | | | | | |
| AHID | Auburn Hatcher | 16.50 | 2 | ePn | P | 15 39 32.4 | -0.7 |
| | comp=Z,168nm,1.5s | | | | | | |
| 340A | Bronson | 16.51 | 68 | P | P | 15 39 33.3 | +0.4 |
| | baz=256 | | | | | | |
| V36A | Jenks | 16.57 | 51 | P | Pn | 15 39 32.6 | +1.4 |
| | baz=239 | | | | | | |
| V36A | Jenks | 16.57 | 51 | ePn | Pn | 15 39 31.6 | +0.4 |
| | comp=Z,269nm,1.2s | | | | | | |
| BW06 | Boulder Array | 16.60 | 6 | P | P | 15 39 34.7 | +0.6 |
| | baz=187 | | | | | | |
| BW06 | Boulder Array | 16.60 | 6 | ePn | P | 15 39 34.0 | -0.2 |
| | comp=Z,217nm,1.5s | | | | | | |
| PD31 | Pinedale Array | 16.60 | 6 | ePn | P | 15 39 35.2 | +1.0 |
| PDAR | Pinedale Array | 16.60 | 6 | Pn | P | 15 39 33.6 | -0.6 |
| | comp=Z,0.4nm,0.3s,baz=182,slow=7.1,SNR=77 | | | | | | |
| PDAR | | | | PcP | PcP | 15 44 21.5 | -0.4 |
| | comp=Z,0.1nm,0.3s,baz=160,slow=4.2,SNR=4.8 | | | | | | |
| PDAR | | | | LR | LR | 15 46 16.1 | |
| | comp=Z,1μm,20.2s,baz=194,slow=38 | | | | | | |
| PDAR | Pinedale Array | 16.60 | 6 | ePn | Pn | 15 39 33.0 | +1.3 |
| PDAR | | | | PcP | PcP | 15 44 21.5 | -0.4 |
| W37B | Quinton | 16.62 | 54 | P | P | 15 39 33.6 | -0.6 |
| | baz=242 | | | | | | |
| W37B | Quinton | 16.62 | 54 | ePn | Pn | 15 39 32.5 | +0.7 |
| | comp=Z,146nm,1.2s | | | | | | |
| Y38A | Idabel | 16.62 | 58 | P | Pn | 15 39 32.6 | +0.8 |
| | baz=246 | | | | | | |
| KCPM | Cahto Peak | 16.65 | 327 | ePn | P | 15 39 34.8 | +0.1 |
| | comp=Z,254nm,1.3s | | | | | | |
| TUL1 | Leonard | 16.74 | 51 | P | P | 15 39 34.6 | -0.9 |
| | baz=239 | | | | | | |
| TUL1 | Leonard | 16.74 | 51 | ePn | Pn | 15 39 33.2 | -0.1 |
| | comp=Z,180nm,1.3s | | | | | | |
| 240A | Hunter Patters | 16.77 | 66 | P | P | 15 39 36.9 | +1.0 |
| | baz=254 | | | | | | |
| T35A | Sooner Cattle | 16.80 | 47 | P | P | 15 39 35.9 | -0.3 |
| | baz=234 | | | | | | |
| Z39A | Irene McRaven, | 16.80 | 61 | P | P | 15 39 36.0 | -0.1 |
| | baz=249 | | | | | | |
| 541A | Lake Charles | 16.84 | 73 | P | P | 15 39 36.8 | +0.1 |
| | baz=261 | | | | | | |
| X38A | Whitesboro | 16.85 | 56 | P | P | 15 39 36.7 | -0.1 |
| | baz=244 | | | | | | |
| WDC | Whiskeytown Da | 16.87 | 331 | eP | P | 15 39 36.6 | -0.4 |
| WDC | | | | pmax | pmax | | |
| | comp=Z,37nm,1.1s | | | | | | |
| WDC | Whiskeytown Da | 16.87 | 331 | ePn | P | 15 39 36.6 | -0.4 |
| | comp=Z,37nm,1.1s | | | | | | |
| S34A | Willow Spring | 16.88 | 44 | P | P | 15 39 37.3 | +0.2 |
| | baz=231 | | | | | | |
| K22A | Casper | 16.94 | 13 | P | P | 15 39 38.8 | +1.0 |
| | baz=196 | | | | | | |
| K22A | Casper | 16.94 | 13 | ePn | Pn | 15 39 37.2 | +1.3 |
| | comp=Z,328nm,1.4s | | | | | | |
| 441A | DeRidder | 16.95 | 70 | P | P | 15 39 39.4 | +1.5 |
| | baz=258 | | | | | | |

U36A **Oologah** 17.03 50 P P 15 39 38.8 +0.1
baz=237
341A **Kurthwood** 17.09 68 P P 15 39 38.8 -0.6
baz=257
140A **Cam and Jess,** 17.09 64 P P 15 39 39.2 -0.3
baz=252
REDW **Red Top Meadow** 17.11 2 *e*Pn P 15 39 40.1 +0.3
comp=Z,275nm,1.7s
WVOR **Wild Horse Val** 17.11 343 *e*P P 15 39 40.4 +0.7
WVOR pmax pmax
comp=Z,95nm,1.2s
WVOR **Wild Horse Val** 17.11 343 *e*Pn P 15 39 40.4 +0.7
comp=Z,95nm,1.2s
Y39A **Lockesburg** 17.11 59 P P 15 39 39.6 0.0
baz=247
KMRM **Mail Ridge** 17.13 328 *e*Pn P 15 39 39.7 -0.1
comp=Z,209nm,1.0s
MOD **Modoc Plateau** 17.13 338 *e*Pn P 15 39 40.1 0.0
comp=Z,258nm,1.8s
MOD *e*PcP PcP 15 44 23.4 +0.8
R34A **Isabella, Hill** 17.18 42 P P 15 39 41.3 +0.9
baz=229
V37A **Hulbert** 17.18 52 P P 15 39 40.6 +0.1
baz=240
SNOW **Snow King Moun** 17.21 3 *e*Pn P 15 39 41.3 +0.3
comp=Z,74nm,1.1s
TPAW **Teton Pass** 17.23 2 *e*Pn P 15 39 42.0 +0.8
comp=Z,154nm,1.3s
W38A **Poteau** 17.25 55 P P 15 39 41.7 +0.5
baz=243
N02D **Trinity Center** 17.27 331 P P 15 39 42.1 +0.7
baz=146
T36A **Boggs Farm, Ca** 17.29 48 P P 15 39 42.3 +0.7
baz=235
X39A **Fountain Ranch** 17.32 57 P P 15 39 42.5 +0.5
baz=246
LOHW **Long Hollow** 17.37 3 *e*Pn P 15 39 43.2 +0.5
comp=Z,53nm,1.0s
S35A **Otter Creek Ra** 17.37 45 P P 15 39 43.5 +1.0
baz=233
FXWY **Fox Creek** 17.38 2 *e*P P 15 39 44.4 +1.6
comp=Z,224nm,1.4s
HLID **Hailey** 17.42 354 P P 15 39 45.5 +2.3
baz=172
HLID **Hailey** 17.42 354 *e*P P 15 39 44.9 +1.7
comp=Z,128nm,1.8s
Z40A **Long Farm, Mag** 17.42 62 P P 15 39 43.2 +0.1
baz=250
241A **Mo Tay, Goldon** 17.46 66 P P 15 39 44.2 +0.7
baz=255
MFID **Camas Ranch** 17.46 350 *e*P P 15 39 45.5 +1.9
comp=Z,125nm,1.3s
U37A **Salina** 17.46 50 P P 15 39 44.1 +0.6
baz=238
MOOW **Moose Ponds** 17.50 3 *e*Pn P 15 39 45.5 +1.4
comp=Z,124nm,1.1s
M04C **Macdoel** 17.59 334 P P 15 39 47.0 +2.0
baz=149,SNR=22
442A **Mamou** 17.59 71 P P 15 39 48.5 +3.6
baz=259
141A **Papa Simpson,** 17.62 64 P P 15 39 46.1 +0.8
baz=253
IMW **Indian Meadow** 17.64 2 *e*P P 15 39 47.3 +1.5
comp=Z,372nm,1.2s
IMW *e*PcP PcP 15 44 24.4 +0.9
KHMM **Horse Mountain** 17.65 329 *e*Pn P 15 39 47.1 +1.4
comp=Z,75nm,1.1s
M02C **Callahan** 17.67 332 P P 15 39 46.8 +0.9
baz=146
V38A **Canehill** 17.69 53 P P 15 39 46.9 +0.8
baz=241
MIAR **Mount Ida** 17.74 58 P P 15 39 47.6 +0.9
baz=246
MIAR **Mount Ida** 17.74 58 *e*P P 15 39 47.4 +0.8
MIAR pmax pmax
comp=Z,72nm,1.4s
MIAR **Mount Ida** 17.74 58 *e*Pn P 15 39 47.4 +0.8
comp=Z,72nm,1.4s
Q34A **Chapman** 17.76 41 P P 15 39 48.7 +1.8
baz=228
Y40A **Okolona** 17.77 60 P P 15 39 47.8 +0.9
baz=248
WLAR **White Oak Lake** 17.79 61 *e*Pn P 15 39 47.4 +0.3
comp=Z,390nm,1.5s
342A **Flagon Creek P** 17.80 69 P P 15 39 48.3 +1.0
baz=257
R35A **Emporia Munici** 17.83 44 P P 15 39 50.7 +3.1
baz=231
W39A **Magazine** 17.85 56 P P 15 39 49.7 +1.8
baz=244
S36A **Lake Cedric, C** 17.86 46 P P 15 39 49.9 +2.0
baz=234
YBH **Yreka Blue Hor** 17.89 333 P P 15 39 48.6 +0.2
comp=Z,0.3nm,0.3s,baz=108,slow=7.6,SNR=15
YBH LR LR 15 46 55.8
comp=Z,1µm,18.9s,baz=158,slow=38
YBH **Yreka Blue Hor** 17.89 333 *e*P P 15 39 48.8 +0.4
YBH pmax pmax
comp=Z,21nm,1.1s
YBH **Yreka Blue Hor** 17.89 333 *e*Pn P 15 39 48.8 +0.4
comp=Z,21nm,1.1s
Z41A **Richland Creek** 17.90 62 P P 15 39 49.2 +0.8
baz=251
MCID **Moose Creek** 17.93 1 *e*Pn P 15 39 51.4 +2.6
J08A **Circle Bar Ran** 17.93 344 *e*Pn P 15 39 50.6 +1.8
comp=Z,140nm,1.3s
U38A **Gravette** 17.99 51 P P 15 39 51.1 +1.7
baz=240
YPP **Pitchstone Pla** 18.02 2 *e*Pn P 15 39 51.6 +1.7
comp=Z,95nm,1.2s
242A **Grayson** 18.10 67 P P 15 39 53.3 +2.8
baz=256
CMIG **Matias Romero** 18.14 117 P P 15 39 51.8 +0.7
comp=Z,0.2nm,0.3s,baz=292,slow=10,SNR=11
CMIG PcP PcP 15 44 24.4 0.0
comp=Z,0.2nm,0.3s,baz=315,slow=5.7,SNR=3.4
CMIG LR LR 15 46 44.3
comp=Z,3µm,18.5s,baz=283,slow=37
H17A **Grant Village** 18.15 3 P P 15 39 54.3 +3.0
baz=184
H17A **Grant Village** 18.15 3 *e*Pn P 15 39 53.6 +2.2
comp=Z,109nm,1.6s
O33A **Hebron** 18.19 37 P P 15 39 53.4 +1.9
baz=224
YFT **Old Faithful** 18.20 2 *e*Pn P 15 39 54.2 +2.3
comp=Z,282nm,1.9s
HHAR **Hobbs** 18.23 52 *e*Pn P 15 39 53.1 +1.1
comp=Z,133nm,1.2s
V39A **Pettigrew** 18.23 54 P P 15 39 53.6 +1.5
baz=243
KRMB **Red Mountain** 18.24 330 *e*Pn P 15 39 54.2 +1.9
comp=Z,118nm,1.3s
P34A **Walnut Farm, R** 18.24 40 P P 15 39 54.4 +2.2
baz=227
Y41A **Eaglette Beard** 18.25 61 P P 15 39 53.9 +1.7
baz=250
Q35A **Mercer Eighty,** 18.26 43 P P 15 39 54.2 +1.9
baz=230
R36A **Gordon, Harris** 18.27 45 P P 15 39 54.0 +1.6
baz=233
K04D **Chiloquin, OR** 18.28 336 P P 15 39 55.0 +2.4
baz=151,SNR=7.2
X40A **Basin Creek Fa** 18.29 59 P P 15 39 54.4 +1.7
baz=248
LKWY **Lake** 18.33 3 *e*P P 15 39 54.8 +1.5
LKWY pmax pmax
comp=Z,59nm,1.0s
LKWY **Lake** 18.33 3 *e*P P 15 39 54.8 +1.5
comp=Z,59nm,1.0s
T38A **Diamond** 18.35 50 P P 15 39 55.1 +1.7
baz=238
S37A **Fort Scott** 18.38 47 P P 15 39 55.7 +2.1
baz=236
W40A **Ferguson Farm,** 18.38 56 P P 15 39 56.1 +2.5
baz=245
W40A **Ferguson Farm,** 18.38 56 *e*P P 15 39 55.7 +2.1
comp=Z,336nm,1.4s
142A **Monroe** 18.39 65 P P 15 39 55.3 +1.6
baz=254
YMR **Madison River** 18.41 2 *e*P P 15 39 56.3 +2.1
comp=Z,196nm,1.4s
YNR **Norris Junctio** 18.46 2 *e*P Pn 15 39 56.5 +1.6
comp=Z,63nm,1.1s
YHB **Horse Butte** 18.48 1 *e*P Pn 15 39 57.4 +2.2
comp=Z,262nm,1.7s
YHH **Holmes Hill** 18.53 2 *e*P Pn 15 39 57.6 +1.9
comp=Z,149nm,1.4s
X41A **Kaden, Bauxite** 18.54 59 P Pn 15 39 57.3 +1.7
baz=248
QLMT **Earthquake Lak** 18.56 1 *e*P Pn 15 39 58.2 +2.2
MCMT **McKenzie Canyo** 18.57 358 *e*P Pn 15 39 57.8 +1.6
Z42A **Norrel Spur, H** 18.58 63 P Pn 15 39 57.7 +1.5
baz=252
U39A **Green Forest** 18.60 53 P Pn 15 39 57.9 +1.5
baz=242
243A **Waterproof** 18.61 68 P Pn 15 39 58.3 +1.9
baz=257
L02D **Cave Junction,** 18.62 332 P Pn 15 39 58.5 +1.9
baz=145
J05D **Fort Rock, OR** 18.68 338 P Pn 15 39 59.6 +2.2
baz=153
Q36A **Arnold C. Orve** 18.68 43 P Pn 15 39 58.9 +1.6
baz=232
R37A **Teagarden Farm** 18.69 46 P Pn 15 39 59.1 +1.7
baz=234
P35A **Duane Minner,** 18.70 41 P Pn 15 39 58.9 +1.4
baz=229
HUMO **Hull Mountain** 18.73 334 *e*P Pn 15 39 58.3 +0.5
comp=Z,41nm,1.4s
HUMO *e*PcP PcP 15 44 25.9 +0.9
N33A **J Bar K, Exete** 18.73 36 P Pn 15 40 00.7 +2.8
baz=223
O34A **Beatrice** 18.75 38 P Pn 15 39 59.7 +1.5
baz=226
UALR **University of** 18.77 58 *e*P Pn 15 39 58.8 +0.4
comp=Z,203nm,1.8s
V40A **Witts Springs** 18.82 55 P Pn 15 40 00.2 +1.1
baz=244
143A **Socs Landing,** 18.87 65 P Pn 15 40 01.1 +1.5
baz=255
BGNE **Belgrade** 18.87 33 P Pn 15 40 01.5 +1.9
baz=220
BGNE **Belgrade** 18.87 33 *e*P Pn 15 40 00.6 +1.0
comp=Z,437nm,1.3s
I07A **Izee** 18.88 343 *e*P Pn 15 40 01.0 +1.2
comp=Z,189nm,1.4s
Y42A **Garnett, Star** 18.88 62 P Pn 15 40 02.6 +2.8
baz=251
X301 **Greenbrier Sit** 18.90 57 *e*P Pn 15 40 00.6 +0.6
comp=Z,232nm,1.4s
RSSD **Black Hills** 18.92 17 P Pn 15 40 02.0 +1.6
baz=202
RSSD **Black Hills** 18.92 17 *e*P Pn 15 40 01.1 +0.6
RSSD pmax pmax
comp=Z,60nm,1.1s
RSSD **Black Hills** 18.92 17 *e*P Pn 15 40 01.1 +0.6
comp=Z,60nm,1.1s
S38A **Stockton** 18.92 49 P Pn 15 40 01.5 +1.2
baz=238
J04D **Umpqua Nationa** 18.94 336 P Pn 15 40 02.3 +1.7
baz=151,SNR=10
RLMT **Red Lodge** 18.96 5 P Pn 15 40 02.9 +2.1
baz=187
RLMT **Red Lodge** 18.96 5 *e*P Pn 15 40 01.8 +0.9
comp=Z,196nm,1.5s
T39A **Clever** 18.98 51 P Pn 15 40 02.2 +1.2
baz=240
W41B **Gary Mavity, V** 18.99 57 P Pn 15 40 02.2 +1.1
baz=247
WHAR **Wooly Hollow** 19.01 57 *e*P Pn 15 40 01.8 +0.5
comp=Z,219nm,1.4s
444A **Pine Grove** 19.02 72 P Pn 15 40 02.8 +1.3
baz=261
U40A **Yellville** 19.04 53 P Pn 15 40 02.4 +0.7
baz=243
DLMT **Dillon** 19.10 358 *e*P Pn 15 40 03.6 +1.1
comp=Z,110nm,1.4s
BMO **Blue Mountains** 19.11 348 *e*P Pn 15 40 03.2 +0.7
BMO pmax pmax
comp=Z,75nm,1.2s
BMO **Blue Mountains** 19.11 348 *e*P Pn 15 40 03.2 +0.7
comp=Z,75nm,1.2s
344A **Westbrook Farm** 19.15 69 P Pn 15 40 04.5 +1.4
baz=259
R38A **Fenwick Farm,** 19.22 47 P Pn 15 40 05.2 +1.4
baz=236
P36A **Good Intent, A** 19.24 42 P Pn 15 40 04.8 +0.7
baz=230
X42A **Stuttgart** 19.24 60 P Pn 15 40 06.0 +1.8
baz=249
O35A **Humboldt** 19.25 39 P Pn 15 40 05.2 +1.0
baz=228
Q37A **Longview Farm,** 19.26 45 P Pn 15 40 05.4 +1.2
baz=234
V41A **Mountainview** 19.30 56 P Pn 15 40 05.1 +0.2
baz=245
244A **Avery, Jackson** 19.31 68 P Pn 15 40 07.1 +2.2
baz=257
N34A **Lincoln** 19.31 37 P Pn 15 40 05.6 +0.7
baz=225
BOZ **Bozeman (W)** 19.32 0 P Pn 15 40 07.3 +2.1
baz=180
BOZ **Bozeman (W)** 19.32 0 *e*P Pn 15 40 06.5 +1.3
BOZ pmax pmax
comp=Z,119nm,1.0s
BOZ **Bozeman (W)** 19.32 0 *e*P Pn 15 40 06.5 +1.3
comp=Z,119nm,1.0s
S39A **Bolivar** 19.35 49 P Pn 15 40 06.3 +0.9
baz=239
445A **Amite** 19.37 72 P Pn 15 40 07.2 +1.5
baz=261
L32A **Elgin** 19.39 32 P Pn 15 40 07.2 +1.3
baz=220
M33A **Taylor Creek F** 19.47 35 P Pn 15 40 07.8 +0.9
baz=222
VBMS **Vicksburg** 19.48 67 P Pn 15 40 07.2 +0.2
baz=257
VBMS **Vicksburg** 19.48 67 *e*P P 15 40 06.3 +0.6
comp=Z,267nm,1.4s
KEBM **Edon Butte** 19.52 331 *e*P Pn 15 40 07.3 -0.1
comp=Z,195nm,1.2s
K31A **O'Neill** 19.53 30 P Pn 15 40 08.5 +1.0
baz=217
I04A **Tendick Farm,** 19.53 336 P Pn 15 40 09.0 +1.4
baz=151,SNR=11
LRM **Limekiln Ridge** 19.56 359 *e*P Pn 15 40 08.7 +0.6
W42A **Bald Knob** 19.58 58 P Pn 15 40 09.4 +1.2
baz=248
Y43A **Makayla and Ka** 19.59 62 P Pn 15 40 08.9 +0.7
baz=252
GCMT **Greycliff** 19.59 4 *e*P Pn 15 40 09.1 +0.7
T40A **Mansfield** 19.64 52 P Pn 15 40 09.5 +0.6
baz=241
I05D **Terrebonne, OR** 19.65 339 P Pn 15 40 09.8 +0.8
baz=154,SNR=29
O36A **Bolckow** 19.71 41 P Pn 15 40 10.3 +0.6
baz=230
U41A **Viola** 19.71 54 P Pn 15 40 09.6 -0.1
baz=244
345A **Thompson Farm,** 19.72 70 P Pn 15 40 10.6 +0.7
baz=260
P37A **Lathrop** 19.74 43 P Pn 15 40 10.9 +0.8
baz=232
I03D **Drain, OR** 19.80 335 P Pn 15 40 12.3 +1.6
baz=148,SNR=9.7
N35A **Tabor** 19.80 39 P Pn 15 40 11.5 +0.8
baz=227
Z44A **Pea Ridge, Bel** 19.80 64 P Pn 15 40 12.2 +1.4
baz=254
X43A **Marvell** 19.81 60 P Pn 15 40 11.7 +0.7
baz=250
Q38A **Cooks Store, C** 19.84 46 P Pn 15 40 11.5 +0.3
baz=235
R39A **Chumby, Stover** 19.87 48 P Pn 15 40 11.5 0.0
baz=238
S40A **Lebanon** 19.87 51 P Pn 15 40 12.0 +0.4
baz=240
L33A **Hoskins** 19.87 33 P Pn 15 40 11.9 +0.3
baz=221
G08A **Pilot Rock** 19.87 345 *e*P Pn 15 40 11.5 -0.2
comp=Z,66nm,1.1s
V42A **Cord** 19.88 56 P Pn 15 40 11.9 +0.2
baz=246
K32A **Verdigre** 19.91 31 P Pn 15 40 12.8 +0.7
baz=219
245A **Little AP, Sta** 19.96 68 P Pn 15 40 13.1 +0.4
baz=258
145A **Houston Renfro** 20.05 66 P Pn 15 40 14.3 +0.5
baz=257
J31A **Geddes** 20.07 29 P Pn 15 40 14.8 +0.9
baz=216
T41A **Mountain View** 20.13 53 P Pn 15 40 14.9 +0.3
baz=243
W43A **Forest City** 20.14 59 P Pn 15 40 15.2 +0.4
baz=249
N36A **Muff Farm, Cla** 20.15 40 P Pn 15 40 15.1 +0.2
baz=228
Y44A **Strider, Charl** 20.17 62 P Pn 15 40 16.2 +1.1
baz=253
F10A **Beach Ranch, E** 20.18 349 *e*P Pn 15 40 14.7 -0.5
comp=Z,62nm,0.9s
L34A **Svendsen Farm,** 20.18 35 P Pn 15 40 15.0 -0.2
baz=223
M35A **Neola** 20.18 37 P Pn 15 40 15.3 0.0
baz=226
346A **Big Creek Wild** 20.21 70 P Pn 15 40 15.9 +0.2
baz=260
446A **Poplarville** 20.21 72 P Pn 15 40 15.8 +0.2
baz=262
U42A **Revenden** 20.21 55 P Pn 15 40 15.5 -0.2
baz=245
O37A **Wolven Farm, M** 20.22 42 P Pn 15 40 15.6 -0.1
baz=231
H04A **Detroit Lake** 20.23 338 *e*P P 15 40 14.7 +0.8
comp=Z,120nm,1.4s
G06A **Carlson Farm,** 20.25 342 *e*P P 15 40 15.5 +1.4
comp=Z,121nm,1.4s
P38A **Dawn** 20.27 44 P P 15 40 15.5 +1.1
baz=234
Q39A **Willow Grove F** 20.30 46 P Pn 15 40 16.5 -0.2
baz=236
K33A **Hardington** 20.33 33 P Pn 15 40 17.1 0.0
baz=221
HBAR **Harrisburg** 20.34 58 *e*P P 15 40 16.3 +1.2
comp=Z,116nm,1.1s
R40A **Maddies Statio** 20.37 49 P Pn 15 40 17.1 -0.4
baz=239
X44A **Crenshaw** 20.38 61 P Pn 15 40 17.2 -0.5
baz=251
S41A **Jillco Farms,** 20.39 51 P Pn 15 40 17.5 -0.2
baz=242
Z45A **Winona** 20.43 64 P Pn 15 40 18.7 +0.5
baz=255
HRY **Holter Researc** 20.44 360 *e*P Pn 15 40 18.2 -0.2
G05D **Wamic, OR** 20.46 340 P Pn 15 40 18.1 -0.4
baz=155,SNR=13
V43A **Jonesboro** 20.51 57 P Pn 15 40 18.7 -0.4
baz=248
J32A **Parkston** 20.53 30 P Pn 15 40 18.8 -0.5
baz=218
COR **Corvallis** 20.54 336 *e*P Pn 15 40 19.3 -0.1
COR pmax pmax
comp=Z,188nm,1.4s
COR **Corvallis** 20.54 336 *e*P Pn 15 40 19.2 -0.1
comp=Z,188nm,1.4s
N37A **Lee Faris, Mou** 20.55 41 P Pn 15 40 19.1 -0.5
baz=230
246A **Jackson Lee, B** 20.60 68 P Pn 15 40 20.6 +0.3
baz=259
O38A **Galt** 20.60 43 P Pn 15 40 19.5 -0.8
baz=233
T42A **Van Buren** 20.61 53 P Pn 15 40 19.5 -0.8
baz=244
MSO **Missoula** 20.63 356 P Pn 15 40 20.6 0.0
baz=175
MSO **Missoula** 20.63 356 *e*P P 15 40 19.8 +1.5
comp=Z,66nm,1.0s
M36A **Felix, Anita** 20.67 38 P Pn 15 40 21.2 +0.2
baz=228
F07A **Phinney Hill Vi** 20.68 344 *e*P P 15 40 19.9 +1.3
comp=Z,58nm,1.0s
Y45A **Yeager Farm, C** 20.68 63 P Pn 15 40 21.3 +0.2
baz=254
P39B **Salisbury** 20.69 46 P Pn 15 40 20.6 -0.6
baz=236
L35A **Bielow Farm, R** 20.71 36 P P 15 40 20.6 +1.4
baz=225
I31A **Royce, Wessing** 20.75 28 P Pn 15 40 21.9 -0.1
baz=215
146A **Union** 20.78 67 P P 15 40 21.0 +1.1
baz=257
CCIG **Comitan** 20.79 115 *e*P P 15 40 20.8 +0.5
447A **Lucedale** 20.82 72 P P 15 40 21.1 +0.8
baz=262
U43A **Rector** 20.84 56 P Pn 15 40 22.5 -0.4
baz=246
K34A **Le Mars** 20.84 34 P Pn 15 40 22.9 -0.1
baz=223
W44A **Shelby Farms P** 20.84 60 P Pn 15 40 22.2 -0.8
baz=250
E09A **Wood Farm, Sta** 20.86 348 *e*P P 15 40 21.1 +0.4
comp=Z,102nm,1.3s
Q40A **Laux Farm, Aux** 20.86 48 P Pn 15 40 22.5 -0.8
baz=238
LAO **LASA Array** 20.89 11 P Pn 15 40 23.1 -0.4
baz=194
LAO **LASA Array** 20.89 11 *e*P Pn 15 40 22.7 -0.8
comp=Z,493nm,1.3s
J33A **Davis** 20.89 32 P Pn 15 40 23.0 -0.5
baz=220
SUSD **Miller** 20.92 26 P Pn 15 40 23.3 -0.7
baz=214
X45A **UM Field Stati** 20.95 62 P Pn 15 40 23.4 -0.9
baz=252
CCM **Cathedral Cave** 20.96 51 *e*P P 15 40 23.1 +1.3
CCM pmax pmax
comp=Z,110nm,1.1s
CCM **Cathedral Cave** 20.96 51 *e*P P 15 40 23.1 +1.3
comp=Z,110nm,1.1s
OXF **Oxford** 20.96 61 *e*P P 15 40 23.2 +1.3
OXF pmax pmax
comp=Z,168nm,1.3s
OXF **Oxford** 20.96 61 *e*P P 15 40 23.1 +1.3
comp=Z,168nm,1.3s
GNAR **Gosnell** 20.97 57 *e*P P 15 40 22.9 +0.9
comp=Z,193nm,1.1s
PBMO **Poplar Bluff** 20.98 55 *e*P P 15 40 23.3 +1.2
comp=Z,73nm,1.3s
R41A **Rosebud** 20.98 50 P P 15 40 23.5 +1.4
baz=240
347A **Saraland** 20.99 70 P P 15 40 23.2 +1.0
baz=261
Z46A **Louisville** 21.00 65 P P 15 40 24.1 +1.9
baz=256
E08A **Dider Farm, El** 21.03 346 *e*P P 15 40 22.8 +0.3
comp=Z,22nm,0.9s
247A **Quitman** 21.04 69 P P 15 40 25.0 +2.3
baz=259
HAWA **Hanford** 21.05 345 *e*P P 15 40 22.4 -0.2
comp=Z,57nm,1.0s
M37A **Trindle Farm,** 21.05 40 P P 15 40 24.8 +2.0
baz=229
G03D **McMinnville, O** 21.07 337 P P 15 40 24.1 +1.2
baz=151,SNR=7.6
S42A **Caledonia** 21.14 52 P P 15 40 25.2 +1.4
baz=243
H31A **Wolsey** 21.15 27 P P 15 40 26.1 +2.3
baz=215
N38A **Joes South For** 21.15 42 P P 15 40 25.6 +1.7
baz=232
P40A **Paris** 21.17 46 P P 15 40 25.8 +1.7
baz=237
L36A **Harm Buss Farm** 21.18 37 P P 15 40 26.1 +2.0
baz=227
T43A **Greenville** 21.21 54 P P 15 40 26.1 +1.6
baz=245
I32A **Karley and Nic** 21.21 30 P P 15 40 26.2 +1.7
baz=218
Y46A **Houston** 21.23 64 P P 15 40 26.7 +2.0
baz=254
O39A **Kirksville** 21.26 44 P P 15 40 26.5 +1.5
baz=234
E07A **Sunnyside** 21.28 345 *e*P P 15 40 25.6 +0.4
comp=Z,199nm,1.5s
K35A **Storm Lake** 21.31 35 P P 15 40 27.4 +1.8
baz=224
W45A **Hickory Valley** 21.34 60 P P 15 40 28.0 +2.1
baz=251
J34A **George** 21.35 33 P P 15 40 27.9 +1.9
baz=222
ECSD **EROS Data Cent** 21.37 31 P P 15 40 27.9 +1.7
baz=220
ECSD **EROS Data Cent** 21.37 31 *e*P P 15 40 27.2 +1.0
comp=Z,215nm,1.4s
R42A **Luebbering** 21.38 51 P P 15 40 27.7 +1.4
baz=241
Q41A **Truxton** 21.41 49 P P 15 40 28.5 +1.9
baz=239
F04A **Amboy** 21.42 339 *e*P P 15 40 27.4 +0.7
comp=Z,116nm,1.2s
U44A **Portageville** 21.42 56 P P 15 40 28.6 +1.8
baz=247
147A **Livingston** 21.44 67 P P 15 40 28.9 +1.9
baz=258

FVM **French Village** 21.50 52 *e*P P 15 40 28.0 +0.4
FVM pmax pmax
comp=Z,118nm,1.3s
FVM **French Village** 21.50 52 *e*P P 15 40 28.0 +0.4
comp=Z,118nm,1.3s
448A **Bay Minette** 21.51 72 P P 15 40 30.1 +2.3
baz=263
I33A **Coleman** 21.53 31 P P 15 40 29.6 +1.7
baz=219
348A **Jackson** 21.54 71 P P 15 40 29.6 +1.6
baz=262
D08A **Wollman Farm,** 21.54 347 *e*P P 15 40 28.0 0.0
comp=Z,61nm,1.0s
M38A **Pleasantville** 21.56 41 P P 15 40 30.3 +2.1
baz=231
JTMT **Jette** 21.57 355 *e*P P 15 40 29.2 +0.8
comp=Z,45nm,1.1s
S43A **Fulton Ridge,** 21.57 53 P P 15 40 29.7 +1.3
baz=244
H32A **Carlson Farm,** 21.60 29 P P 15 40 30.4 +1.7
baz=217
O40A **La Belle** 21.61 45 P P 15 40 30.6 +1.9
baz=236
U44B **Burton Farm, H** 21.61 57 P P 15 40 31.4 +2.5
baz=248
GLAT **Glass** 21.64 57 *e*P P 15 40 30.7 +1.6
comp=Z,464nm,1.3s
N39A **Derby Farms, D** 21.65 43 P P 15 40 30.5 +1.3
baz=233
K36A **Gilmore City** 21.66 37 P P 15 40 31.4 +2.1
baz=226
L37A **Phoenix Point,** 21.70 39 P P 15 40 32.0 +2.3
baz=228
V45A **Humboldt** 21.70 59 P P 15 40 31.8 +2.0
baz=250
Z47A **Carrollton** 21.71 66 P P 15 40 31.8 +1.9
baz=257
T44A **Benton** 21.72 55 P P 15 40 31.1 +1.1
baz=246
F04D **Rainier, OR** 21.74 339 P P 15 40 32.8 +2.7
baz=152,SNR=8.9
248A **Dixon Mills** 21.77 69 P P 15 40 32.8 +2.2
baz=260
J35A **Milford** 21.78 34 P P 15 40 32.1 +1.5
baz=223
EGMT **Eagleton** 21.81 4 P P 15 40 32.5 +1.6
baz=185
EGMT **Eagleton** 21.81 4 *e*P P 15 40 32.1 +1.2
comp=Z,110nm,1.0s
Q42A **Golden Eagle** 21.86 49 P P 15 40 33.7 +2.2
baz=240
SCIA **State Center** 21.86 40 *e*P P 15 40 34.6 +3.2
comp=Z,221nm,1.1s
G31A **Conde** 21.87 26 P P 15 40 32.8 +1.3
baz=214
P41A **Barry, Barry** 21.89 47 P P 15 40 33.5 +1.7
baz=238
SLM **Saint Louis** 21.93 50 *e*P P 15 40 33.3 +1.1
SLM pmax pmax
comp=Z,93nm,1.4s
SLM **Saint Louis** 21.93 50 *e*P P 15 40 33.3 +1.1
comp=Z,93nm,1.4s
I34A **Hadley** 21.96 32 P P 15 40 34.4 +1.8
baz=221
LON **Longmire** 21.97 341 *e*P P 15 40 33.8 +1.1
LON pmax pmax
comp=Z,95nm,1.0s
LON **Longmire** 21.97 341 *e*P P 15 40 33.8 +1.1
comp=Z,95nm,1.0s
R43A **Red Bud** 21.98 52 P P 15 40 35.1 +2.3
baz=243
UTMT **University of** 21.98 57 *e*P P 15 40 33.9 +1.2
comp=Z,472nm,1.3s
H33A **Prehn Over Nor** 22.05 30 P P 15 40 35.2 +1.7
baz=218
Y47A **UCPARC, Winfie** 22.05 64 P P 15 40 34.7 +1.2
baz=256
U45A **Rockin P Farm,** 22.06 57 P P 15 40 35.8 +2.2
baz=249
C09A **Chrisman Ranch** 22.13 348 *e*P P 15 40 34.2 0.0
comp=Z,35nm,1.2s
LTY **Liberty** 22.13 344 *e*P P 15 40 35.1 +0.8
comp=Z,92nm,1.3s
PLAL **Pickwick Lake** 22.15 61 *e*P P 15 40 35.5 +0.8
comp=Z,74nm,1.0s
L38A **Oak Wood Farm,** 22.16 40 P P 15 40 36.3 +1.6
baz=230
Z48A **Northport** 22.17 66 P P 15 40 36.3 +1.5
baz=257
G32A **Webster** 22.18 27 P P 15 40 35.9 +1.0
baz=216
K37A **Belmond** 22.19 37 P P 15 40 36.3 +1.3
baz=227
J36A **Seneca 1, Swea** 22.20 35 P P 15 40 36.7 +1.5
baz=225
M39A **Webster** 22.21 42 P P 15 40 36.9 +1.7
baz=232
S44A **Carbondale** 22.21 54 P P 15 40 36.6 +1.3
baz=245
N40A **Mertquake, Sal** 22.22 44 P P 15 40 36.7 +1.4
baz=235
O41A **Passleys Farm,** 22.24 46 P P 15 40 36.9 +1.4
baz=237
I35A **Creekview Farm** 22.25 34 P P 15 40 37.2 +1.5
baz=223
P42A **Winchester** 22.32 48 P P 15 40 38.3 +1.9
baz=239
E03A **Lebam** 22.33 338 *e*P P 15 40 38.0 +1.6
comp=Z,373nm,1.1s
ETW **Entiat** 22.37 345 *e*P P 15 40 38.2 +1.2
F31A **Hecla** 22.38 25 P P 15 40 37.8 +0.8
baz=213
NEW **Newport** 22.39 351 P P 15 40 37.6 +0.5
comp=Z,35nm,1.1s,baz=170,slow=11,SNR=19
NEW PcP PcP 15 44 32.0 +0.2
comp=Z,3.2nm,0.6s,baz=186,slow=2.2,SNR=6.8
NEW **Newport** 22.39 351 P P 15 40 38.4 +1.3
baz=168
NEW **Newport** 22.39 351 *e*P P 15 40 37.0 -0.1
NEW 15 44 32.0
NEW pmax pmax
comp=Z,39nm,0.9s
NEW **Newport** 22.39 351 *e*P P 15 40 37.0 -0.1
comp=Z,39nm,0.9s
NEW PcP PcP 15 44 32.0 +0.2
Q43A **New Douglas** 22.45 50 P P 15 40 40.2 +2.4
baz=242
H34A **Spellman Lake,** 22.47 31 P P 15 40 39.3 +1.3
baz=220
LRAL **Lakeview Retre** 22.56 67 *e*P P 15 40 39.4 +0.4
comp=Z,75nm,1.3s
M40A **Post Highland** 22.56 43 P P 15 40 39.1 +0.1
baz=234
R44A **Waltonville** 22.57 52 P P 15 40 40.6 +1.5
baz=244
N41A **Harden Midland** 22.58 45 P P 15 40 41.0 +1.9
baz=236
G33A **Ortonville** 22.59 29 P P 15 40 40.3 +1.1
baz=218
K38A **Parkersburg** 22.59 39 P P 15 40 41.3 +2.1
baz=229
J37A **Redenius Farm,** 22.60 36 P P 15 40 41.2 +1.8
baz=227
S45A **Carrier Mills** 22.69 54 P P 15 40 42.0 +1.6
baz=246
WVT **Waverly** 22.70 58 *e*P P 15 40 41.7 +1.2
WVT pmax pmax
comp=Z,106nm,1.2s
WVT **Waverly** 22.70 58 *e*P P 15 40 41.7 +1.2
comp=Z,106nm,1.2s
L39A **Vinton** 22.70 41 P P 15 40 41.7 +1.2
baz=232
C06D **Leavenworth** 22.80 344 P P 15 40 43.2 +1.7
baz=159
O42A **Bath** 22.80 47 P P 15 40 42.6 +1.1
baz=238
F32A **Veblen** 22.83 27 P P 15 40 42.5 +0.7
baz=216
WALA **Waterton Lakes** 22.85 356 *e*P P 15 40 42.5 +0.4
comp=Z,46nm,1.3s
I36A **Fitzsimmons Fa** 22.86 35 P P 15 40 43.6 +1.5
baz=224
B08A **Colville Reser** 22.86 347 *e*P P 15 40 42.2 0.0
comp=Z,25nm,1.0s
P43A **Skaggs, Pawnee** 22.90 49 P P 15 40 43.6 +1.0
baz=240
Q44A **Meyer Farm, Va** 22.90 51 P P 15 40 43.5 +0.9
baz=243
H35A **Sunnyside Ranc** 22.94 32 P P 15 40 44.1 +1.1
baz=222
T46A **Princeton** 22.96 56 P P 15 40 45.1 +1.9
baz=248
G34A **Benson** 22.98 30 P P 15 40 44.2 +0.8
baz=219
DGMT **Dagmar** 22.98 13 P P 15 40 44.7 +1.4
baz=198
DGMT **Dagmar** 22.98 13 *e*P P 15 40 44.1 +0.8
comp=Z,347nm,1.1s
E31A **Nome** 23.10 25 P P 15 40 45.5 +0.9
baz=213
L40A **Anamosa** 23.13 42 P P 15 40 45.7 +0.9
baz=233
K39A **Oelwein** 23.13 40 P P 15 40 45.8 +0.9
baz=231
M41A **Milan** 23.14 44 P P 15 40 45.9 +0.8
baz=235
F33A **5 Mile Ranch,** 23.16 28 P P 15 40 45.7 +0.6
baz=217
R45A **Skylar, Fairfi** 23.16 53 P P 15 40 46.4 +1.2
baz=245
N42A **Yates City** 23.17 46 P P 15 40 46.0 +0.7
baz=237
I37A **Lemond, Waseca** 23.17 35 P P 15 40 46.4 +1.1
baz=226
J38A **Wedel Dairy, R** 23.19 38 P P 15 40 46.6 +1.0
baz=229
H36A **Jessenland, He** 23.30 34 P P 15 40 47.9 +1.4
baz=224
S46A **Don Dixon Farm** 23.33 55 P P 15 40 48.0 +1.1
baz=247
O43A **Sugar Creek Fa** 23.36 48 P P 15 40 48.1 +0.9
baz=240
B05A **Bryant** 23.43 342 P P 15 40 48.6 +0.8
baz=156
P44A **Sand Creek, Wi** 23.43 50 P P 15 40 48.5 +0.5
baz=242
E32A **Braaten, Kindr** 23.44 26 P P 15 40 49.0 +1.0
baz=215
OLIL **Olney** 23.47 52 *e*P P 15 40 47.7 -0.7
comp=Z,154nm,1.5s
USIN **University of** 23.47 54 *e*P P 15 40 48.6 +0.3
comp=Z,123nm,1.2s
G35A **Watkins** 23.50 32 P P 15 40 49.2 +0.7
baz=222
Q45A **Warren Harvey,** 23.50 52 P P 15 40 49.6 +1.0
baz=244
HDIL **Hopedale** 23.50 47 P P 15 40 49.4 +0.7
baz=239
HDIL **Hopedale** 23.50 47 *e*P P 15 40 49.0 +0.3
comp=Z,143nm,1.3s
B06A **Marblemount** 23.51 344 *e*P P 15 40 49.2 +0.6
comp=Z,47nm,0.9s
T47A **Sharon Grove** 23.53 57 P P 15 40 50.5 +1.5
baz=249
K40A **Colesburg** 23.56 41 P P 15 40 50.2 +1.0
baz=232
L41A **Preston** 23.57 43 P P 15 40 49.9 +0.6
baz=234
D31A **Mcclaflin, Tow** 23.57 25 P P 15 40 50.4 +1.1
baz=213
F34A **Alexandria** 23.57 30 P P 15 40 50.1 +0.8
baz=219
MDND **Maddock** 23.61 21 P P 15 40 50.8 +1.1
baz=208
MDND **Maddock** 23.61 21 *e*P P 15 40 50.1 +0.4
comp=Z,632nm,1.6s
J39A **Decorah** 23.63 39 P P 15 40 50.6 +0.7
baz=230
M42A **Sheffield** 23.68 45 P P 15 40 51.3 +0.9
baz=237
R46A **Gibson Southern** 23.68 54 P P 15 40 51.1 +0.7
baz=246
I38A **Scanlan Farm,** 23.75 37 P P 15 40 52.0 +0.9
baz=228
N43A **Stutzman Famil** 23.78 46 P P 15 40 52.4 +1.1
baz=238
E33A **Westby DABS, E** 23.80 28 P P 15 40 52.0 +0.5
baz=217
H37A **Dierke Farm, C** 23.81 35 P P 15 40 53.0 +1.4
baz=226
O44A **Mansfield** 23.86 49 P P 15 40 52.6 +0.5
baz=241
G36A **St. Michael** 23.86 33 P P 15 40 53.2 +1.2
baz=223
SWET **Sewanee** 23.91 62 *e*P P 15 40 52.8 +0.1
comp=Z,148nm,1.4s
F35A **Swanville** 23.93 31 P P 15 40 53.7 +0.9
baz=221
K41A **Shisburg** 24.00 42 P P 15 40 54.8 +1.4
baz=234
A04D **Lummi Island** 24.01 342 P P 15 40 54.7 +1.2
baz=156
L42A **Oliver, Polo** 24.04 44 P P 15 40 54.3 +0.5
baz=236
P45A **Graceland, Par** 24.07 51 P P 15 40 54.7 +0.6
baz=243
I39A **Houston** 24.07 38 P P 15 40 55.2 +1.1
baz=229
Q46A **CEJHS Indians,** 24.12 52 P P 15 40 55.4 +0.8
baz=245
PGC **Sidney** 24.16 341 *e*P P 15 40 54.8 0.0
comp=Z,60nm,1.0s
E34A **Wadena** 24.17 29 P P 15 40 56.0 +1.0
baz=219
M43A **Waltham Townsh** 24.18 45 P P 15 40 55.4 +0.3
baz=238
C31A **Landman Farms,** 24.20 24 P P 15 40 56.0 +0.8
baz=212
H38A **Maiden Rock** 24.20 36 P P 15 40 56.2 +0.8
baz=227
JFWS **Jewell Farm** 24.21 41 *e*P P 15 40 55.8 +0.4
JFWS pmax pmax
comp=Z,97nm,1.2s
JFWS **Jewell Farm** 24.21 41 *e*P P 15 40 55.8 +0.4
comp=Z,97nm,1.2s
J40A **Soldiers Grove** 24.22 40 P P 15 40 56.8 +1.4
baz=231
SPMN **Marine on St.** 24.32 34 P P 15 40 57.7 +1.3
baz=225
SPMN **Marine on St.** 24.32 34 *e*P P 15 40 57.4 +1.0
comp=Z,156nm,1.1s
D33A **AnnSam, Waubun** 24.38 27 P P 15 40 57.8 +0.8
baz=216
N44A **Piper City** 24.39 48 P P 15 40 57.9 +0.9
baz=240
O45A **Potomac** 24.40 49 P P 15 40 58.1 +0.9
baz=242
F36A **Milaca** 24.42 32 P P 15 40 58.3 +0.9
baz=223
R47A **Wooly Knot Far** 24.43 54 P P 15 40 58.5 +1.1
baz=247
P46A **Rosedale** 24.48 51 P P 15 40 58.8 +0.9
baz=244
E35A **Pequot Lakes** 24.54 30 P P 15 40 59.6 +1.2
baz=220
WCI **Wyandotte Cave** 24.57 55 *e*P P 15 40 58.7 -0.1
WCI pmax pmax
comp=Z,117nm,1.3s
WCI **Wyandotte Cave** 24.57 55 *e*P P 15 40 58.7 -0.1
comp=Z,117nm,1.3s
I40A **Norwalk** 24.59 39 P P 15 40 59.7 +0.8
baz=231
D34A **Park Rapids** 24.61 28 P P 15 40 59.8 +0.8
baz=218
J41A **Loganville** 24.62 40 P P 15 40 59.5 +0.3
baz=233
C32A **Crookston** 24.67 25 P P 15 41 00.9 +1.4
baz=214
K42A **Prairie Point,** 24.67 42 P P 15 41 00.7 +1.1
baz=235
L43A **Garden Prairie** 24.71 44 P P 15 41 00.5 +0.6
baz=237
H39A **Augusta** 24.74 37 P P 15 41 01.5 +1.3
baz=228
M44A **Midewin, Midew** 24.74 46 P P 15 41 00.4 +0.2
baz=239
Q47A **Bedord North L** 24.75 53 P P 15 41 01.7 +1.4
baz=246
F37A **Hinrichs Farm,** 24.76 33 P P 15 41 01.9 +1.5
baz=224
B31A **Greenbush Farm** 24.76 23 P P 15 41 01.4 +1.1
baz=211
G38A **Ridgeland** 24.76 35 P P 15 41 01.1 +0.7
baz=227
BLO **Bloomington** 24.77 52 *e*P P 15 41 00.8 +0.2
BLO pmax pmax
comp=Z,100nm,1.2s
BLO **Bloomington** 24.77 52 *e*P P 15 41 00.8 +0.2
comp=Z,100nm,1.2s
N45A **Kentland** 24.83 48 P P 15 41 01.6 +0.6
baz=241
SFIN **Lafayette** 24.89 49 P P 15 41 02.1 +0.5
baz=243
SFIN **Lafayette** 24.89 49 *e*P P 15 41 01.8 +0.3
comp=Z,184nm,1.2s
C33A **Trail** 24.91 26 P P 15 41 02.3 +0.6
baz=216
E36A **McGregor** 25.03 31 P P 15 41 03.9 +1.0
baz=222
CPCT **Cooper Cave** 25.08 62 *e*P P 15 41 04.0 +0.6
comp=Z,106nm,1.1s
D35A **Remer** 25.09 29 P P 15 41 04.3 +0.9
baz=220
J42A **Columbus** 25.11 41 P P 15 41 04.4 +0.8
baz=234
I41A **Arkdale** 25.12 39 P P 15 41 05.0 +1.4
baz=232
B32A **Ashes, Strandq** 25.14 24 P P 15 41 04.5 +0.8
baz=214
C34A **RKJ Ranch, Bem** 25.17 27 P P 15 41 04.9 +0.8
baz=218
H40A **Chili** 25.18 38 P P 15 41 05.1 +0.9
baz=230
G39A **Holcombe** 25.20 36 P P 15 41 05.1 +0.8
baz=228
TIGA **Tifton** 25.20 72 P P 15 41 06.2 +1.7
baz=265
TIGA **Tifton** 25.20 72 *e*P P 15 41 06.0 +1.5
comp=Z,117nm,1.3s
L44A **Lake County Fo** 25.23 45 P P 15 41 05.7 +1.0
baz=238
K43A **Burlington** 25.25 43 P P 15 41 05.2 +0.3
baz=236
M45A **Boilermakers S** 25.26 47 P P 15 41 06.1 +1.2
baz=240
F38A **Pierce - Schro** 25.30 34 P P 15 41 06.2 +1.0
baz=225
AGMN **Agassiz Nation** 25.31 25 P P 15 41 06.3 +0.9
baz=215
AGMN **Agassiz Nation** 25.31 25 *e*P P 15 41 05.7 +0.3
comp=Z,92nm,1.1s
A31A **Linda, St. Vin** 25.35 23 P P 15 41 07.0 +1.3
baz=212
N46A **Monticello** 25.37 49 P P 15 41 06.7 +0.8
baz=242
B33A **Robert and Kas** 25.40 26 P P 15 41 07.6 +1.5
baz=216
O47A **Sheridan** 25.46 50 P P 15 41 07.2 +0.5
baz=244
E37A **Wrenshall** 25.47 32 P P 15 41 08.5 +1.7
baz=224
GOGA **Godfrey** 25.54 67 *e*P P 15 41 07.9 +0.4
GOGA pmax pmax
comp=Z,42nm,1.0s
GOGA **Godfrey** 25.54 67 *e*P P 15 41 07.9 +0.4
comp=Z,42nm,1.0s
LLLB **Lillooet** 25.54 345 *e*P P 15 41 07.9 +0.5
comp=Z,107nm,1.5s
D36A **Goodland** 25.57 30 P P 15 41 08.5 +0.8
baz=221
A32A **Rocking H Ranc** 25.59 24 P P 15 41 08.4 +0.6
baz=213
H41A **Junction City** 25.59 39 P P 15 41 08.6 +0.7
baz=231
C35A **Jirik Farms, M** 25.61 29 P P 15 41 08.9 +0.9
baz=219
G40A **Rib Lake** 25.70 37 P P 15 41 10.1 +1.2
baz=229
TKL **Tuckaleechee C** 25.72 62 P P 15 41 10.2 +1.0
comp=Z,46nm,1.0s,baz=228,slow=7.9,SNR=14
TKL LR LR 15 51 42.4
comp=Z,2µm,18.5s,baz=242,slow=38
TKL **Tuckaleechee C** 25.72 62 *e*P P 15 41 09.8 +0.6
TKL pmax pmax
comp=Z,81nm,1.1s
TKL **Tuckaleechee C** 25.72 62 *e*P P 15 41 09.8 +0.6
comp=Z,81nm,1.1s
F39A **Loretta** 25.75 35 P P 15 41 10.0 +0.7
baz=227
M46A **Old House Fiel** 25.86 48 P P 15 41 11.6 +1.2
baz=242
D37A **Cotton** 25.89 31 P P 15 41 11.6 +1.0
baz=223
E38A **The Farm, Brul** 25.91 33 P P 15 41 11.6 +0.8
baz=225
B34A **Aery, Baudette** 25.94 27 P P 15 41 12.1 +1.0
baz=217
A33A **Warroad** 26.02 25 P P 15 41 12.3 +0.6
baz=215
I43A **Langenfeld Bro** 26.02 41 P P 15 41 12.9 +1.1
baz=235
C36A **Pine Crest Far** 26.15 30 P P 15 41 13.9 +1.0
baz=221
H42A **Shiocton** 26.16 40 P P 15 41 13.7 +0.7
baz=233
F40A **Park Falls** 26.17 36 P P 15 41 13.7 +0.5
baz=228
B35A **Bob, Littlefor** 26.22 28 P P 15 41 14.3 +0.8
baz=219
G41A **Antigo** 26.22 38 P P 15 41 14.2 +0.6
baz=231
BG3 **Lake Jocassee** 26.25 64 *e*P P 15 41 14.9 +0.8
comp=Z,42nm,1.0s
E39A **Mellen** 26.25 35 P P 15 41 14.6 +0.8
baz=227
C37A **Embarrass** 26.42 31 P P 15 41 16.1 +0.7
baz=222
F41A **Three Lakes** 26.59 37 P P 15 41 18.1 +1.1
baz=230
E40A **Wakefield** 26.63 35 P P 15 41 18.2 +0.9
baz=228
G42A **Mountain** 26.66 39 P P 15 41 18.2 +0.6
baz=232
HODGE **Hodges** 26.66 66 *e*P P 15 41 18.1 +0.4
comp=Z,62nm,1.3s
C38A **Sawbill Land.** 26.84 32 P P 15 41 20.1 +1.0
baz=224
EYMN **Ely** 26.90 31 P P 15 41 20.5 +0.8
baz=223
EYMN **Ely** 26.90 31 *e*P P 15 41 20.4 +0.7
comp=Z,225nm,1.7s
ULM **Lac du Bonnet** 26.93 23 P P 15 41 19.7 -0.1
comp=Z,28nm,1.0s,baz=215,slow=10,SNR=22
ULM PcP PcP 15 44 40.9 -0.8
comp=Z,5.9nm,0.8s,baz=211,slow=3.0,SNR=4.5
ULM LR LR 15 51 50.1
comp=Z,2µm,21.0s,baz=211,slow=36
ULM **Lac du Bonnet** 26.93 23 *e*P P 15 41 19.8 -0.1
ULM 15 44 40.9
ULM pmax pmax
comp=Z,53nm,1.1s
ULM **Lac du Bonnet** 26.93 23 *e*P P 15 41 19.8 -0.1
comp=Z,53nm,1.1s
ULM PcP PcP 15 44 40.9 -0.8
G43A **Wallace** 27.09 39 P P 15 41 21.9 +0.5
baz=233
E41A **Kenton** 27.14 36 P P 15 41 22.5 +0.7
baz=230
F42A **Maple Grove Fa** 27.14 38 P P 15 41 22.4 +0.5
baz=232
C39A **Grand Marais** 27.45 33 P P 15 41 25.4 +0.7
baz=226
KMSC **Kings Mountain** 27.57 64 P P 15 41 26.5 +0.7
baz=259
KMSC **Kings Mountain** 27.57 64 *e*P P 15 41 26.2 +0.3
comp=Z,19nm,0.8s
E42A **Champion** 27.67 37 P P 15 41 27.9 +1.2
baz=231
ACSO **Alum Creek Sta** 27.70 53 *e*P P 15 41 27.9 +0.9
comp=Z,108nm,1.3s
F43A **Flat Rock, Esc** 27.72 39 P P 15 41 28.2 +1.1
baz=233
D41A **Chassel** 27.73 35 P P 15 41 28.2 +1.0
baz=229
AAM **Ann Arbor** 28.06 48 *e*P P 15 41 30.9 +0.7
AAM pmax pmax
comp=Z,86nm,1.2s
AAM **Ann Arbor** 28.06 48 *e*P P 15 41 30.9 +0.7
comp=Z,86nm,1.2s
E43A **Lone Tree Farm** 28.14 38 P P 15 41 31.6 +0.8
baz=233
F44A **Big Bay de Noc** 28.23 39 P P 15 41 32.7 +1.1
baz=234
F45A **CMU Biological** 28.58 40 P P 15 41 36.1 +1.4

baz=236
**BLA Blacksburg 28.71 60** *e*P **P 15 41 36.6 +0.5**
BLA pmax pmax
comp=Z,41nm,1.2s
**BLA Blacksburg 28.71 60** *e*P **P 15 41 36.6 +0.5**
comp=Z,41nm,1.2s
**E44A Grand Marais A 28.89 38** P **P 15 41 38.7 +1.3**
baz=234
**F46A Macinaw City C 29.07 41** P **P 15 41 40.2 +1.1**
baz=237
**E45A Wooded Hills, 29.16 40** P **P 15 41 40.9 +1.1**
baz=235
**FFC Flin Flon 29.37 12** *e*P **P 15 41 42.2 +0.6**
FFC pmax pmax
comp=Z,132nm,1.5s
**FFC Flin Flon 29.37 12** *e*P **P 15 41 42.2 +0.6**
comp=Z,132nm,1.5s
**MCWV Mont Chateau 29.79 55** *e*P **P 15 41 46.0 +0.4**
comp=Z,53nm,1.1s
**JTS JuntasAbangare 29.91 117** *i*P **P 15 41 48.6 +1.7**
**N54A Moraine State 30.09 53** P **P 15 41 48.9 +0.7**
baz=250
**CNNC Cliffs of the 30.37 65** *e*P **P 15 41 51.1 +0.4**
comp=Z,59nm,1.1s
**M54A Oil Creek Stat 30.50 52** P **P 15 41 52.8 +0.9**
baz=250
**IP04 Greensprings 30.71 59** *e*P **P 15 41 54.2 +0.5**
comp=Z,34nm,1.0s
**IP07 Quail 30.72 59** *e*P **P 15 41 53.9 +0.1**
comp=Z,28nm,1.0s
**IP03 Louisa 30.76 59** *e*P **P 15 41 54.5 +0.3**
comp=Z,24nm,1.0s
**IP06 Yanceyville 30.77 59** *e*P **P 15 41 54.4 +0.2**
comp=Z,34nm,1.0s
**JSRW J. Sargeant Re 30.79 60** *e*P **P 15 41 54.4 0.0**
**IP01 Cuckoo 30.82 59** *e*P **P 15 41 55.1 +0.4**
comp=Z,27nm,1.0s
**SPRD Spring Road, M 30.86 59** *e*P **P 15 41 55.5 +0.4**
comp=Z,108nm,1.8s
**O56A Blue Knob Stat 30.91 55** P **P 15 41 56.0 +0.5**
baz=253
**IP05 Hopewell Churc 30.92 60** *e*P **P 15 41 55.4 -0.2**
comp=Z,26nm,1.0s
**SPFD Spotsylvania F 31.16 59** *e*P **P 15 41 58.6 +0.9**
comp=Z,42nm,0.9s
**CBN Corbin Frederi 31.29 59** *e*P **P 15 41 59.0 +0.2**
comp=Z,62nm,1.1s
**SSPA Standing Stone 31.51 54** *e*P **P 15 42 00.9 +0.1**
comp=Z,46nm,1.1s
**SDMD Soldier's Deli 31.97 57** *e*P **P 15 42 05.1 +0.3**
comp=Z,23nm,1.3s
**SADO Sadowa 32.08 46** *e*P **P 15 42 06.8 +1.1**
comp=Z,80nm,1.4s
**MMNY Mt. Morris Dam 32.15 51** *e*P **P 15 42 06.0 -0.4**
**MVL Millersville 32.48 56** *e*P **P 15 42 08.7 -0.5**
comp=Z,61nm,1.5s
**CRAG Craig 33.09 338** *e*P **P 15 42 15.5 +1.1**
comp=Z,63nm,1.1s
**PSUB Penn St. - Bra 33.13 56** *e*P **P 15 42 15.0 0.0**
comp=Z,33nm,1.2s
**N59A State Game Lan 33.13 55** P **P 15 42 15.9 +0.9**
baz=255
**BINY Binghamton 33.33 52** *e*P **P 15 42 17.1 +0.4**
comp=Z,90nm,1.4s
**LUPA Lehigh Univers 33.35 55** *e*P **P 15 42 17.3 +0.4**
comp=Z,4.7nm,1.3s
**PLVO Plevna 33.54 47** *e*P **P 15 42 18.8 +0.3**
comp=Z,70nm,1.1s
**WRAK Wrangell Islan 33.61 339** *e*P **P 15 42 19.5 +0.6**
comp=Z,35nm,0.9s
**BRNJ Basking Ridge 33.96 55** *e*P **P 15 42 22.8 +0.6**
comp=Z,45nm,1.2s
**ODNJ Ogdensburg 34.03 55** *e*P **P 15 42 23.3 +0.6**
comp=Z,75nm,1.7s
**CPNY Central Park 34.44 55** *e*P **P 15 42 26.7 +0.5**
comp=Z,30nm,1.1s
**PAL Palisades 34.52 55** *e*P **P 15 42 27.0 -0.1**
PAL pmax pmax
comp=Z,61nm,1.4s
**PAL Palisades 34.52 55** *e*P **P 15 42 27.0 -0.1**
comp=Z,61nm,1.4s
**VLDQ Val d'Or 34.58 42** *e*P **P 15 42 27.1 -0.3**
comp=Z,73nm,1.3s
**DLBC Dease Lake 34.66 343** *e*P **P 15 42 29.4 +1.4**
comp=Z,43nm,1.0s
**LONY Lake Ozonia 35.05 49** *e*P **P 15 42 32.2 +0.6**
comp=Z,26nm,1.1s
**NCB Newcomb 35.09 50** *e*P **P 15 42 32.5 +0.5**
comp=Z,29nm,0.9s
**SIT Sitka 35.10 338** *e*P **P 15 42 32.8 +1.0**
SIT pmax pmax
comp=Z,87nm,1.5s
**SIT Sitka 35.10 338** *e*P **P 15 42 32.8 +1.0**
comp=Z,87nm,1.5s
**TRQ Mont Tremblant 35.62 46** *e*P **P 15 42 37.3 +0.7**
**FRNY Flat Rock 35.79 49** *e*P **P 15 42 37.6 -0.4**
comp=Z,26nm,1.0s
**QUA2 Belchertown 35.95 53** *e*P **P 15 42 39.7 +0.3**
comp=Z,52nm,1.0s
**BESE Bessie Mountai 36.16 340** *e*P **P 15 42 42.0 +1.0**
comp=Z,27nm,0.8s
**VT1 Waterbury 36.21 50** *e*P **P 15 42 42.1 +0.6**
comp=Z,31nm,0.9s
**YKA Yellowknife Ar 36.30 358** P **P 15 42 42.1 0.0**
comp=Z,3.6nm,0.7s,baz=179,slow=8.6,SNR=30
YKA PcP **PcP 15 45 06.6 0.0**
comp=Z,3.0nm,0.7s,baz=162,slow=3.0,SNR=16
YKA LR LR 15 59 50.3
comp=Z,161nm,18.1s,baz=180,slow=40
**YKW3 Yellowknife Ar 36.37 358** *e*P **P 15 42 42.9 +0.2**
comp=Z,61nm,1.8s
**BRYW Bryant College 36.46 54** *e*P **P 15 42 43.6 -0.2**
comp=Z,19nm,0.9s
**HRV Adam Dziewonsk 36.58 53** *e*P **P 15 42 45.2 +0.5**
HRV pmax pmax
comp=Z,44nm,1.0s
**HRV Adam Dziewonsk 36.58 53** *e*P **P 15 42 45.2 +0.5**
comp=Z,44nm,1.0s
**WES Weston 36.72 54** *e*P **P 15 42 46.4 +0.5**
WES pmax pmax
comp=Z,39nm,1.3s
**WES Weston 36.72 54** *e*P **P 15 42 46.4 +0.5**
comp=Z,39nm,1.3s
**FFD Franklin Falls 36.74 52** *e*P **P 15 42 46.7 +0.6**
comp=Z,43nm,1.3s
**LBNH Lisbon 36.75 50** *e*P **P 15 42 46.7 +0.5**
LBNH pmax pmax
comp=Z,33nm,1.1s
**LBNH Lisbon 36.75 50** *e*P **P 15 42 46.7 +0.5**
comp=Z,33nm,1.1s
**BCX Boston College 36.82 54** *e*P **P 15 42 47.3 +0.5**
comp=Z,27nm,1.2s
**WHY Whitehorse 37.86 342** *e*P **P 15 42 52.9 -2.6**
comp=Z,118nm,2.0s
**WVL Waterville 38.41 51** *e*P **P 15 43 01.1 +0.9**
comp=Z,34nm,1.1s
**HYT Haines Junctio 38.76 340** *e*P **P 15 43 04.1 +1.0**
comp=Z,29nm,1.3s
**EMMW East Machias 39.97 51** *e*P **P 15 43 14.7 +1.5**
comp=Z,56nm,1.2s
**PQI Presque Isle 40.05 48** *e*P **P 15 43 14.8 +0.8**
comp=Z,102nm,1.5s
**GUYC Guyana, Colomb 40.55 115** *e*P P 15 43 23.9 +5.0
**OTAV Otavalo 41.22 123** *e*P **P 15 43 24.6 +0.2**
**OTAV Otavalo 41.22 123** *e*P **P 15 43 26.5 +2.1**
comp=Z,20nm,1.1s
**BMRM Bremner River 41.24 336** *e*P **P 15 43 24.8 +1.2**
comp=Z,150nm,1.8s
**PAMC Pamplona, Colo 41.64 110** *e*P **P 15 43 28.8 +0.8**
**ROSC El Rosal 41.65 114** P **P 15 43 30.4 +2.6**
comp=Z,2.2nm,0.4s,baz=293,slow=15,SNR=4.0
ROSC LR LR 16 02 31.4
comp=Z,271nm,18.4s,baz=322,slow=39
**DIV Divide 41.77 336** *e*P **P 15 43 30.9 +2.9**
comp=Z,52nm,1.4s
**DAWY Dawson 41.86 342** *e*P **P 15 43 29.9 +1.3**
comp=Z,113nm,1.7s
**LMN Caledonia Moun 42.04 50** *e*P **P 15 43 31.3 +1.0**
comp=Z,47nm,1.1s
**KLU Klutina 42.06 336** *e*P **P 15 43 31.7 +1.3**
comp=Z,41nm,1.2s
**RUSC La Rusia 42.09 112** *e*P **P 15 43 31.5 -0.1**
**RUSC La Rusia 42.09 112** *e*P **P 15 43 30.8 -0.8**
comp=Z,14nm,1.2s
**CHIC Chingaza 42.25 114** *e*P **P 15 43 32.9 +0.1**
**MENT Mentasta 42.30 339** *e*P **P 15 43 33.6 +1.4**
comp=Z,30nm,1.0s
**HARP HAARP 42.41 338** *e*P **P 15 43 35.0 +1.9**
comp=Z,178nm,1.3s
**SDV Santo Domingo 42.63 106** *e*P **P 15 43 35.4 -0.3**
comp=Z,13nm,0.7s
**KDAK Kodiak Island 42.65 329** *e*P **P 15 43 37.1 +2.0**
KDAK pmax pmax
comp=Z,90nm,1.2s
**KDAK Kodiak Island 42.65 329** *e*P **P 15 43 37.1 +2.0**
comp=Z,90nm,1.2s
**OHAK Old Harbor 42.71 328** *e*P **P 15 43 36.9 +1.4**
comp=Z,319nm,1.7s
**SCM Sheep Creek Mo 42.80 336** *e*P **P 15 43 37.1 +0.8**
SCM pmax pmax
comp=Z,75nm,1.2s
**SCM Sheep Creek Mo 42.80 336** *e*P **P 15 43 37.1 +0.8**
comp=Z,75nm,1.2s
**SJG San Juan 42.85 91** *e*P **P 15 43 37.0 -0.2**
SJG pmax pmax
comp=Z,93nm,1.2s
**SJG San Juan 42.85 91** *e*P **P 15 43 34.2 -3.0**
**SJG San Juan 42.85 91** *e*P **P 15 43 37.0 -0.2**
comp=Z,93nm,1.2s
**EGAK Eagle 42.90 342** *e*P **P 15 43 37.6 +0.6**
comp=Z,26nm,1.1s
**DOT Dot Lake 42.92 340** *e*P **P 15 43 38.7 +1.5**
comp=Z,51nm,0.9s
**BRLK Bradley Lake 42.95 332** *e*P **P 15 43 39.1 +1.5**
comp=Z,126nm,1.0s
**SML Sawmill 43.15 336** *e*P **P 15 43 40.4 +1.3**
SML pmax pmax
comp=Z,41nm,0.9s
**SML Sawmill 43.15 336** *e*P **P 15 43 40.4 +1.3**
comp=Z,41nm,0.9s
**PMR Palmer 43.32 335** *e*P **P 15 43 41.6 +1.2**
PMR pmax pmax
comp=Z,146nm,1.5s
**PMR Palmer 43.32 335** *e*P **P 15 43 41.6 +1.2**
comp=Z,146nm,1.5s
**SCHQ Schefferville 43.42 36** P **P 15 43 42.3 +0.9**
comp=Z,53nm,0.9s,baz=259,slow=7.0,SNR=16
SCHQ PcP **PcP 15 45 28.3 -1.3**
comp=Z,9.7nm,0.8s,baz=37,slow=5.1,SNR=3.2
SCHQ LR LR 16 02 29.9
comp=Z,3μm,19.1s,baz=226,slow=37
**SCHQ Schefferville 43.42 36** *e*P **P 15 43 41.7 +0.3**
comp=Z,103nm,1.1s
SCHQ PcP **PcP 15 45 28.3 -1.3**
**INK Inuvik 44.09 349** P **P 15 43 47.7 +1.2**
comp=Z,22nm,1.0s,baz=140,slow=9.0,SNR=26
INK PcP **PcP 15 45 31.4 -0.1**
comp=Z,13nm,1.0s,baz=106,slow=3.0,SNR=5.3
INK LR LR 16 04 03.8
comp=Z,859nm,21.3s,baz=150,slow=39
**INK Inuvik 44.09 349** *e*P **P 15 43 47.4 +0.9**
INK 15 45 31.4
INK pmax pmax
comp=Z,107nm,1.6s
**INK Inuvik 44.09 349** *e*P **P 15 43 47.4 +0.9**
comp=Z,107nm,1.6s
INK PcP **PcP 15 45 31.4 -0.1**
**RSO Redoubt South 44.12 332** *e*P **P 15 43 47.8 +0.7**
**SPU Mount Spurr 44.22 333** *e*P **P 15 43 48.8 +1.0**
**RND Reindeer 44.35 337** *e*P **P 15 43 49.9 +1.1**
RND pmax pmax
comp=Z,19nm,1.0s
**RND Reindeer 44.35 337** *e*P **P 15 43 49.9 +1.1**
comp=Z,19nm,1.0s
**TAOE Nuku Hiva Isla 44.45 222** *e*LR LR 15 56 06.9
comp=Z,3μm,26.3s
**TAOE Nuku Hiva Isla 44.45 222** *e*T T 16 29 48.0
comp=Z,25nm,0.2s
**MCK McKinley 44.58 337** *e*P **P 15 43 51.3 +0.7**
MCK pmax pmax
comp=Z,41nm,1.0s
**MCK McKinley 44.58 337** *e*P **P 15 43 51.3 +0.7**
comp=Z,41nm,1.0s
**IL1 Eielson Array 44.59 339** *e*P **P 15 43 51.2 +0.6**
**ILAR Eielson Array 44.59 339** P **P 15 43 51.8 +1.1**
comp=Z,24nm,1.0s,baz=151,slow=6.9,SNR=64
ILAR PcP **PP 15 45 35.0 +0.4**
comp=Z,4.0nm,0.8s,baz=184,slow=2.2,SNR=7.6
**ILB Eielson Array 44.59 339** *e*P **P 15 43 51.4 +0.8**
**WRH Wood River Hil 44.78 339** *e*P **P 15 43 53.0 +0.9**
comp=Z,22nm,0.9s
**CCB Clear Creek Bu 44.80 339** *e*P **P 15 43 53.1 +0.8**
comp=Z,23nm,1.1s
**TRF Thorofare Moun 44.88 337** *e*P **P 15 43 53.8 +0.7**
comp=Z,124nm,1.3s
**COLA College 44.97 339** *e*P **P 15 43 54.3 +0.8**
COLA pmax pmax
comp=Z,17nm,1.0s
COLA MLR MLR
comp=Z,589nm,20.0s
**COLA College 44.97 339** *e*P **P 15 43 54.3 +0.8**
comp=Z,17nm,1.0s
COLA LR LR
comp=Z,589nm,20.0s
**MDM Murphy Dome 45.14 339** *e*P **P 15 43 54.6 -0.5**
comp=Z,26nm,1.2s
**KTH Kanishna Hill 45.17 337** *e*P **P 15 43 55.8 +0.5**
comp=Z,59nm,1.0s
**PPLA Purkeypile 45.24 335** *e*P **P 15 43 56.3 +0.3**
comp=Z,292nm,1.4s
**FYU Fort Yukon 45.36 342** *e*P **P 15 43 57.4 +0.7**
comp=Z,162nm,1.7s
**CAST Castle Rocks 45.51 336** *e*P **P 15 43 58.5 +0.5**
comp=Z,100nm,1.6s
**BPAW Bear Paw Mtn. 45.52 337** *e*P **P 15 43 58.7 +0.6**
comp=Z,50nm,1.1s
BPAW *e*PcP **PcP 15 45 37.0 +0.4**
**SDPT Sand Point 45.61 323** *e*P **P 15 43 59.8 +1.0**
comp=Z,324nm,1.4s
**MLY Manley 46.01 338** *e*P **P 15 44 02.8 +0.9**
comp=Z,124nm,1.7s
**COLD Coldfoot 47.24 341** *e*P **P 15 44 12.6 +1.1**
comp=Z,31nm,1.2s
**GDHS Morne Mazeau, 47.41 92** *e*P **P 15 44 12.8 -0.8**
comp=Z,118nm,1.0s
**IMAR Indian Mountai 47.59 338** *e*P **P 15 44 14.7 +0.5**
**GRGR Grenville 49.09 97** *e*P **P 15 44 25.9 -0.6**
comp=Z,231nm,1.1s
**RES Resolute Bay 49.29 6** P **P 15 44 27.9 +0.8**
comp=Z,28nm,1.0s,baz=191,slow=9.9,SNR=22
RES PcP **PcP 15 45 49.4 -0.4**
comp=Z,18nm,0.7s,baz=203,slow=6.6,SNR=7.9
**NIKH Nikolski High 49.80 318** *e*P **P 15 44 31.4 +0.1**
comp=Z,288nm,1.0s
**NNA Nana 50.97 134** *ce*P **P 15 44 43.1 +2.3**
**NNA Nana 50.97 134** *e*P **P 15 44 39.3 -1.5**
comp=Z,71nm,1.5s
**RKT Rikitea 53.95 207** *e*S **S 15 52 36.1 -1.8**
comp=Z,537nm,30.0s
RKT *e*LR LR 16 00 35.0
comp=Z,2μm,27.0s,baz=22
**RKT Rikitea 53.95 207** *e*T T 16 41 39.4
comp=Z,2.9nm,0.3s
**PMOR Pomariorio Ree 53.98 225** *e*T T 16 41 42.6
comp=Z,13nm,0.3s
**VAH Vaihoa 53.98 224** *e*T T 16 41 42.7
comp=Z,19nm,0.4s
**TULEG Thule 54.45 11** *e*P **P 15 45 05.9 +0.3**
comp=Z,71nm,1.6s
**ADK Adak 54.47 316** *e*P **P 15 45 05.1 -1.0**
ADK pmax pmax
comp=Z,106nm,0.9s
**ADK Adak 54.47 316** *e*P **P 15 45 05.1 -1.0**
comp=Z,106nm,0.9s
**SFJD Kangerlussuaq 54.94 25** PcP **PcP 15 46 09.8 -1.2**
comp=Z,8.0nm,0.8s,baz=202,slow=2.9,SNR=2.3
**SFJD Kangerlussuaq 54.94 25** *e*P **P 15 45 08.6 -0.7**
SFJD 15 46 09.8
SFJD pmax pmax
comp=Z,82nm,1.3s
**SFJD Kangerlussuaq 54.94 25** *i*P **P 15 45 07.2 -2.1**
comp=Z,68nm,1.2s
**SFJD Kangerlussuaq 54.94 25** *e*P **P 15 45 08.6 -0.7**
comp=Z,82nm,1.3s
SFJD PcP **PcP 15 46 09.8 -1.2**
**PTGA Pitinga 56.66 110** *e*P **P 15 45 21.6 -0.8**
comp=Z,49nm,1.1s
**PPT Papeete 56.96 224** LR LR 16 03 51.3
comp=Z,827nm,18.6s,baz=42,slow=30
**PPT2 Papeete2 56.98 224** *e*S **S 15 53 16.8 -1.9**
comp=Z,798nm,26.2s
PPT2 *e*LR LR 16 01 55.6
comp=Z,2μm,24.5s,baz=29
**SAML Samuel 58.74 120** *e*P **P 15 45 34.5 -2.6**
comp=Z,39nm,1.6s
SAML LR LR
comp=Z,305nm,19.0s
**LPAZ La Paz 59.90 130** P **P 15 45 45.3 -0.4**
comp=Z,4.0nm,0.8s,baz=339,slow=6.5,SNR=17
**LPAZ La Paz 59.90 130** *e*P **P 15 45 43.1 -2.6**
LPAZ pmax pmax
comp=Z,53nm,1.9s
**LPAZ La Paz 59.90 130** *e*P **P 15 45 43.1 -2.6**
comp=Z,53nm,1.9s
**SUMG Summit 60.21 19** *i*P **P 15 45 47.2 +0.4**
SUMG pmax pmax
comp=Z,45nm,1.1s
**SUMG Summit 60.21 19** *i*P **P 15 45 47.2 +0.4**
comp=Z,45nm,1.1s
**SUMG Summit 60.21 19** *e*P **P 15 45 45.6 -1.2**
comp=Z,36nm,1.0s
**MNMC Minye Minye 60.92 133** *e*P **P 15 45 50.6 -1.7**
comp=Z,30nm,1.1s
**TBI Tubuai 61.31 220** *e*S **S 15 54 15.7 +1.2**
comp=Z,589nm,31.2s
TBI *e*LQ LQ 16 01 27.7
comp=Z,469nm,33.2s
TBI *e*LR LR 16 03 59.1
comp=Z,1μm,27.5s,baz=34
**PB11 IPOC Station P 61.34 134** *e*P **P 15 45 53.5 -1.4**
comp=Z,58nm,1.0s
**PB01 IPOC Station P 62.38 135** *e*P **P 15 46 01.8 0.0**
comp=Z,50nm,1.1s
**PB10 IPOC Station P 63.53 137** *e*P **P 15 46 07.5 -1.9**
comp=Z,129nm,1.8s
**DAG Danmarks Havn 65.39 15** *i*P **P 15 46 19.7 -1.0**
DAG pmax pmax
comp=Z,33nm,1.0s
**DAG Danmarks Havn 65.39 15** *i*P **P 15 46 19.7 -1.0**
comp=Z,33nm,1.0s
**SCO Scoresbysund 65.49 22** *i*P **P 15 46 21.8 +0.3**
SCO pmax pmax
comp=Z,24nm,1.0s
**SCO Scoresbysund 65.49 22** *i*P **P 15 46 21.8 +0.3**
comp=Z,24nm,1.0s
**RAR Rarotonga 66.25 229** LR LR 16 07 33.8
comp=Z,1μm,21.9s,baz=81,slow=29
**AZAP Zapla 67.49 134**‖ *e*P **P 15 46 35.7 +0.5**
**LCO Las Campanas 67.61 141** *e*P **P 15 46 35.4 -0.6**
comp=Z,44nm,1.2s
**ALOL LOMAS DE OLMED 67.91 133**‖ *e*P **P 15 46 38.4 +0.7**
**FSA Cafayete 68.25 136** *e*P **P 15 46 40.5 +0.6**
**VCA Vinchina 68.83 140**‖ *e*P **P 15 46 44.8 +1.3**
**AHML Horco Molle 69.14 136** *e*P **P 15 46 46.0 +0.8**
**AGUA GUANDACOL 69.23 140**‖ *e*P **P 15 46 47.7 +1.9**
**PET Petropavlovsk 69.24 320** *e*P **P 15 46 44.6 -0.9**
PET pmax pmax
comp=Z,164nm,1.3s
**PET Petropavlovsk 69.24 320** *e*P **P 15 46 45.2 -0.3**
comp=Z,211nm,1.4s
**SEY Seymchan 69.56 331** P **P 15 46 48.4 +1.0**
comp=Z,13nm,0.8s,baz=114,slow=6.0,SNR=19
**SEY Seymchan 69.56 331** *ce*P **P 15 46 47.4 0.0**
**PEA0B Petropavlovsk- 69.77 320** *e*P **P 15 46 48.9 0.0**
comp=Z,178nm,1.3s
**PETK Petropavlovsk- 69.77 320** P **P 15 46 49.1 +0.3**
comp=Z,43nm,1.0s,baz=80,slow=11,SNR=28
PETK LR LR 16 10 35.8
comp=Z,535nm,20.6s,baz=78,slow=30
**PETK Petropavlovsk- 69.77 320** *e*P **P 15 46 48.6 -0.3**
**PETK Petropavlovsk- 69.77 320** *e*P **P 15 46 48.6 -0.3**
**CYA Choya 70.04 138** *e*P **P 15 46 51.4 +0.6**
**ACLC CERRO LA CRUZ 70.08 139** *e*P **P 15 46 50.8 -0.4**
**ROC1 El Roble 70.51 144** *e*P **P 15 46 53.9 0.0**
comp=Z,42nm,0.8s
**AFI Afiamalu 70.66 243** LR LR 16 10 15.2
comp=Z,812nm,20.0s,baz=72,slow=29
**AUSP Uspallata 70.80 143** *e*P **P 15 46 57.2 +1.5**
**PEL Peldehue 70.81 144** *e*P **P 15 46 56.0 +0.5**
PEL pmax pmax
comp=Z,82nm,1.4s
**PEL Peldehue 70.81 144** *e*P **P 15 46 56.0 +0.5**
comp=Z,82nm,1.4s
**RTCV Cerro Valdivia 70.99 142** *e*P **P 15 46 57.4 +0.9**
**APLL PUNTA DE LOS L 71.04 140**‖ *e*P **P 15 46 56.9 0.0**
**GO05 HualaæØ 71.64 146** *e*P **P 15 47 01.0 +0.6**
comp=Z,39nm,1.0s
**ACAN Cantantal 72.05 141** *e*P **P 15 47 03.7 +0.7**
**TIXI Tiksi 73.89 343** *d*/*i*P **P 15 47 12.4 -0.8**
TIXI pmax pmax
comp=Z,23nm,1.1s
**TIXI Tiksi 73.89 343** *e*P **P 15 47 12.2 -1.0**
comp=Z,36nm,1.2s
**CPUP Villa Florida 74.06 131** P **P 15 47 14.8 -0.1**
comp=Z,15nm,0.7s,baz=326,slow=6.7,SNR=35
CPUP LR LR 16 18 52.9
comp=Z,87nm,20.4s,baz=340,slow=35
**CPUP Villa Florida 74.06 131** *e*P **P 15 47 14.5 -0.4**
**CPUP Villa Florida 74.06 131** *e*P **P 15 47 14.5 -0.4**
**BDFB Brasilia 74.65 116** P **P 15 47 19.6 +0.9**
comp=Z,12nm,1.1s,baz=102,slow=9.3,SNR=9.3
BDFB LR LR 16 21 13.5
comp=Z,326nm,19.8s,baz=101,slow=37
**BDFB Brasilia 74.65 116** *e*P **P 15 47 18.9 +0.2**
BDFB pmax pmax
comp=Z,32nm,1.2s
**BDFB Brasilia 74.65 116** *e*P **P 15 47 18.9 +0.2**
comp=Z,32nm,1.2s
**PLCA Paso Flores 76.85 149** P **P 15 47 32.0 +1.3**
comp=Z,27nm,1.0s,baz=353,slow=6.6,SNR=35
PLCA LR LR 16 14 51.8
comp=Z,291nm,19.0s,baz=346,slow=31
**PLCA Paso Flores 76.85 149** *e*P **P 15 47 31.7 +1.0**
PLCA pmax pmax
comp=Z,69nm,1.2s
**PLCA Paso Flores 76.85 149** *e*P **P 15 47 31.7 +1.0**
comp=Z,69nm,1.2s
**TRQA Tornquist 79.18 142** *e*P **P 15 47 43.8 +0.2**
comp=Z,52nm,1.4s
**TYV Tymovskoe 79.20 322** *e*P P 15 47 36.7 -7.0
TYV pmax pmax
comp=Z,42nm,1.5s
**YAK Yakutsk 79.31 335** *e*P **P 15 47 42.0 -2.1**
YAK pmax pmax
comp=E,20nm,1.4s
YAK pmax pmax
comp=N,7.0nm,1.3s
YAK pmax pmax
comp=Z,54nm,1.1s
**YAK Yakutsk 79.31 335** *e*P **P 15 47 44.2 +0.1**
comp=Z,48nm,0.9s
**ARCES ARCESS Array B 79.66 14** P **P 15 47 46.2 +0.3**
comp=Z,14nm,0.8s,baz=330,slow=7.0,SNR=14
**ARCES ARCESS Array B 79.66 14** *e*P **P 15 47 45.8 -0.1**
**ARCES ARCESS Array B 79.66 14** *e*P **P 15 47 45.8 -0.1**
**YUK Yuzh-Kuril'sk 80.45 314** *e*P **P 15 47 50.2 -0.4**
YUK *e* 15 50 51.5
YUK *e*PPP PPP 15 52 46.6
**YSS Yuzh-Sakhalins 81.01 318** *e*P **P 15 47 53.0 -0.5**
YSS pmax pmax
comp=Z,70nm,1.2s
**NBO02 NORSAR Array S 81.47 24** *e*P **P 15 47 56.0 +0.2**
**NB2 NORSAR Subarra 81.61 24** P **P 15 47 57.4 +0.9**
comp=Z,4.2nm,0.7s,baz=309,slow=5.3
**NOA NORSAR Array B 81.61 24** P **P 15 47 57.5 +0.9**
comp=Z,7.3nm,0.8s,baz=309,slow=4.9,SNR=11
NOA LR LR 16 23 56.5
comp=Z,279nm,19.1s,baz=315,slow=36
**KONO Kongsberg 81.88 26** *e*P **P 15 47 59.0 +1.1**
KONO pmax pmax
comp=Z,218nm,1.8s
**KONO Kongsberg 81.88 26** *e*P **P 15 47 59.0 +1.1**
comp=Z,218nm,1.8s
**PGAV Gavieira, Arco 82.17 47** *e*LR LR 16 21 32.7
comp=Z,2μm,18.0s
**PCAB Cabril 82.44 47** *e*P **P 15 48 03.1 +1.8**
comp=Z,64nm,1.4s
**ASAJ Asahikawa 82.48 316** P **P 15 48 01.9 +0.4**
comp=Z,29nm,0.8s,baz=235,slow=1.2,SNR=11
**ASAJ Asahikawa 82.48 316** *e*P **P 15 48 00.9 -0.5**
comp=Z,31nm,0.8s
**POLO Lamas de Olo 82.76 47** *e*P **P 15 48 05.5 +2.5**
comp=Z,22nm,1.6s
**PVRL Vila Real 82.86 47** *e*P **P 15 48 05.4 +1.9**
comp=Z,47nm,1.6s
**PCAS Casmilo, Conde 82.92 49** *e*P **P 15 48 05.8 +2.0**
comp=Z,83nm,1.7s
**PVIS Viseu 83.01 48** *e*P **P 15 48 06.0 +1.7**
comp=Z,54nm,1.7s
**ERM Erimo 83.15 314** *e*P **P 15 48 04.0 -0.9**
ERM pmax pmax

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| | comp=Z,126nm,1.0s | | | | | | |
| ERM | Erimo | 83.15 | 314 | eP | P | 15 48 04.0 | -0.9 |
| | comp=Z,126nm,1.0s | | | | | | |
| MVO | Moncorvo | 83.36 | 47 | eP | P | 15 48 07.8 | +1.7 |
| | comp=Z,68nm,1.5s | | | | | | |
| MVO | Moncorvo | 83.36 | 47 | eLR | LR | 16 19 32.3 | |
| | comp=Z,1µm,18.0s | | | | | | |
| MTE | Manteigas | 83.39 | 48 | eP | P | 15 48 05.8 | -0.5 |
| | comp=Z,78nm,1.5s | | | | | | |
| MTE | Manteigas | 83.39 | 48 | eP | P | 15 48 07.0 | +0.7 |
| | comp=Z,73nm,1.6s | | | | | | |
| MTE | Manteigas | 83.39 | 48 | eLR | LR | 16 22 13.3 | |
| | comp=Z,775nm,20.0s | | | | | | |
| PMTG | Montargil | 83.57 | 50 | eP | P | 15 48 08.0 | +0.9 |
| | comp=Z,54nm,1.7s | | | | | | |
| PCBR | Castelo Branco | 83.71 | 49 | eP | P | 15 48 08.8 | +1.0 |
| | comp=Z,44nm,1.6s | | | | | | |
| PNCL | Nicolau / Gran | 83.81 | 51 | eP | P | 15 48 09.6 | +1.2 |
| | comp=Z,55nm,1.5s | | | | | | |
| PTEO | Sao Teotonio | 83.95 | 51 | eP | P | 15 48 10.2 | +1.1 |
| | comp=Z,132nm,1.6s | | | | | | |
| PMRV | Marv??o | 83.96 | 49 | eP | P | 15 48 09.8 | +0.6 |
| | comp=Z,65nm,1.6s | | | | | | |
| PMRV | Marv??o | 83.96 | 49 | eLR | LR | 16 18 32.1 | |
| | comp=Z,472nm,22.0s | | | | | | |
| PESTR | Estremoz | 84.10 | 50 | eP | P | 15 48 10.9 | +1.0 |
| | comp=Z,39nm,1.5s | | | | | | |
| MORF | Marmelete | 84.11 | 51 | eP | P | 15 48 10.1 | 0.0 |
| MORF | | | | AMb | AMB | 15 48 14.1 | |
| | comp=Z,62nm,2.6s | | | | | | |
| MORF | Marmelete | 84.11 | 51 | eP | P | 15 48 10.0 | 0.0 |
| MORF | | | | pmax | pmax | | |
| | comp=Z,62nm,2.6s | | | | | | |
| MORF | Marmelete | 84.11 | 51 | eP | P | 15 48 11.7 | +1.7 |
| | comp=Z,63nm,1.6s | | | | | | |
| MESJ | Messejana | 84.16 | 51 | eP | P | 15 48 10.4 | +0.2 |
| MESJ | | | | AMb | AMB | 15 48 12.9 | |
| | comp=Z,50nm,1.6s | | | | | | |
| MESJ | Messejana | 84.16 | 51 | eP | P | 15 48 10.4 | +0.2 |
| MESJ | | | | pmax | pmax | | |
| | comp=Z,50nm,1.6s | | | | | | |
| PCVE | Castro Verde | 84.39 | 51 | eP | P | 15 48 12.5 | +1.2 |
| | comp=Z,61nm,1.6s | | | | | | |
| HABR | Khabarovsk | 84.66 | 322 | deP | P | 15 48 11.4 | -1.1 |
| HABR | | | | e | | 15 48 14.7 | |
| HABR | | | | e*SP | PcP | 15 48 16.0 | 0.0 |
| HABR | | | | e | | 15 51 26.7 | |
| HABR | | | | e | | 15 53 24.4 | |
| HABR | | | | pmax | pmax | | |
| | comp=N,49nm,1.7s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=Z,44nm,1.7s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=E,80nm,1.7s | | | | | | |
| HABR | | | | MLR | MLR | | |
| | comp=Z,91nm,21.0s | | | | | | |
| PVAQ | Vaqueiros | 84.72 | 51 | eP | P | 15 48 14.6 | +1.6 |
| | comp=Z,38nm,1.5s | | | | | | |
| PVAQ | Vaqueiros | 84.72 | 51 | eLR | LR | 16 20 59.6 | |
| | comp=Z,888nm,18.0s | | | | | | |
| PBAR | Barrancos | 84.81 | 50 | eP | P | 15 48 14.8 | +1.3 |
| | comp=Z,76nm,1.7s | | | | | | |
| WTSB | Winterswijk | 85.44 | 33 | eP | P | 15 48 17.2 | +0.9 |
| | comp=Z,35nm,1.0s | | | | | | |
| DOU | Dourbes | 85.45 | 35 | P | P | 15 48 17.2 | +0.8 |
| | comp=Z,19nm,1.7s | | | | | | |
| BCLA | Clavier | 85.63 | 35 | P | P | 15 48 17.4 | +0.1 |
| | comp=Z,21nm,1.7s | | | | | | |
| HGN | Heimansgroeve | 85.74 | 34 | eP | P | 15 48 17.9 | 0.0 |
| | comp=Z,59nm,1.4s | | | | | | |
| MEM | Membach | 85.87 | 34 | P | P | 15 48 18.4 | -0.1 |
| ESDC | Sonseca Array | 86.14 | 47 | P | P | 15 48 20.1 | -0.1 |
| | comp=Z,1.3nm,0.7s,baz=316,slow=5.2,SNR=7.4 | | | | | | |
| ESDC | | | | LR | LR | 16 25 55.0 | |
| | comp=Z,920nm,19.3s,baz=315,slow=35 | | | | | | |
| ES19 | SONSECA Array | 86.17 | 47 | eP | P | 15 48 17.6 | -2.7 |
| FIA1 | FINESS Array S | 86.24 | 19 | eP | P | 15 48 19.4 | -0.7 |
| FINES | FINESS Array B | 86.24 | 19 | P | P | 15 48 20.4 | +0.2 |
| | comp=Z,11nm,0.7s,baz=334,slow=3.8,SNR=18 | | | | | | |
| WLF | Walferdange | 86.52 | 35 | P | P | 15 48 21.8 | 0.0 |
| WLF | Walferdange | 86.52 | 35 | eP | P | 15 48 22.0 | +0.3 |
| WLF | | | | pmax | pmax | | |
| | comp=Z,24nm,0.9s | | | | | | |
| WLF | Walferdange | 86.52 | 35 | eP | P | 15 48 21.9 | +0.3 |
| | comp=Z,24nm,0.9s | | | | | | |
| TMCR | Tamitsa | 86.85 | 13 | eP | P | 15 48 22.2 | -0.8 |
| TMCR | | | | pmax | pmax | | |
| | comp=Z,37nm,0.6s | | | | | | |
| BOD | Bodaibo | 87.92 | 337 | eP | P | 15 48 26.8 | -1.6 |
| BOD | | | | pmax | pmax | | |
| | comp=Z,27nm,1.5s | | | | | | |
| CLL | Collm | 88.82 | 31 | eP | P | 15 48 34.0 | +1.3 |
| CLL | | | | MLR | MLR | | |
| | comp=Z,900nm,18.3s | | | | | | |
| CLL | Collm | 88.82 | 31 | eP | P | 15 48 34.0 | +1.3 |
| CLL | | | | Lm | MLR | 16 32 00.0 | |
| | comp=N,200nm,21.8s | | | | | | |
| CLL | | | | Lm | MLR | 16 32 00.0 | |
| | comp=E,700nm,20.6s | | | | | | |
| CLL | | | | Lm | MLR | 16 32 00.0 | |
| | comp=Z,900nm,18.3s | | | | | | |
| VSU | Vasula | 88.84 | 20 | eP | P | 15 48 33.0 | +0.4 |
| VSU | | | | pmax | pmax | | |
| | comp=Z,92nm,1.2s | | | | | | |
| USRK | Ussuriysk Ar. | 88.86 | 320 | P | P | 15 48 32.7 | -0.3 |
| | comp=Z,12nm,1.1s,baz=49,slow=8.8,SNR=6.5 | | | | | | |
| MJAR | Matsushiro Arr | 89.25 | 311 | P | P | 15 48 34.7 | -0.3 |
| | comp=Z,4.8nm,0.9s,baz=38,slow=3.7,SNR=12 | | | | | | |
| MAJO | Matsushiro | 89.25 | 311 | eP | P | 15 48 35.5 | +0.4 |
| MAJO | | | | pmax | pmax | | |
| | comp=Z,15nm,1.2s | | | | | | |
| MAJO | Matsushiro | 89.25 | 311 | eP | P | 15 48 34.1 | -1.0 |
| MAT | Matsushiro | 89.25 | 311 | P | P | 15 48 33.9 | -1.2 |
| MJB9 | Matsu-Tunnel | 89.25 | 311 | eP | P | 15 48 34.3 | -0.8 |
| | comp=Z,23nm,1.0s | | | | | | |
| NKC | Novy Kostel | 89.28 | 32 | AMS | AMS | 16 28 00.0 | |
| | comp=Z,1µm,20.8s | | | | | | |
| BRG | Berggiesshubel | 89.55 | 31 | eP | P | 15 48 32.5 | -3.6 |
| | comp=Z,22nm,1.7s | | | | | | |
| | comp=N,890nm,16.9s | | | | | | |
| | comp=E,490nm,16.6s | | | | | | |
| | comp=Z,1µm,17.3s | | | | | | |
| BRG | Berggiesshubel | 89.55 | 31 | eP | P | 15 48 32.5 | -3.7 |
| BRG | | | | pmax | pmax | | |
| | comp=Z,22nm,1.7s | | | | | | |
| BRG | | | | MLR | MLR | | |
| | comp=N,890nm,16.9s | | | | | | |
| BRG | | | | MLR | MLR | | |
| | comp=E,490nm,16.6s | | | | | | |
| BRG | | | | MLR | MLR | | |
| | comp=Z,1µm,17.3s | | | | | | |
| DAVA | Damuels | 89.94 | 35 | i P | P | 15 48 35.3 | -3.0 |
| | comp=Z,5.4nm,1.2s | | | | | | |
| KLMR | Klimovskoe | 90.13 | 14 | eP | P | 15 48 35.9 | -2.8 |
| KLMR | | | | e | | 15 52 07.7 | |
| KLMR | | | | pmax | pmax | | |
| | comp=Z,30nm,1.0s | | | | | | |
| PRU | Pruhonice | 90.44 | 31 | AMS | AMS | 16 30 20.0 | |
| | comp=Z,1µm,23.4s | | | | | | |
| MOTA | Moosalm | 90.54 | 35 | i PcP | P | 15 48 41.1 | 0.0 |
| | comp=Z,7.3nm,1.1s | | | | | | |
| FETA | Feichten | 90.56 | 35 | i P | P | 15 48 40.2 | -0.9 |
| | comp=Z,7.8nm,1.2s | | | | | | |
| KHC | Kasperske Hory | 90.57 | 32 | eP | P | 15 48 38.8 | -2.2 |
| KHC | | | | AMS | AMS | 16 31 00.0 | |
| | comp=Z,1µm,19.9s | | | | | | |
| KHC | Kasperske Hory | 90.57 | 32 | eP | P | 15 48 38.8 | -2.2 |
| KHC | | | | MLR | MLR | | |
| | comp=Z,1µm,19.9s | | | | | | |
| UPC | Upice | 90.75 | 30 | eP | P | 15 48 42.6 | +0.8 |
| UPC | Upice | 90.75 | 30 | eP | P | 15 48 42.6 | +0.8 |
| WATA | Walderalm | 90.78 | 35 | i PcP | P | 15 48 41.8 | -0.4 |
| | comp=Z,4.7nm,1.1s | | | | | | |
| DPC | Dobruska-Polom | 91.00 | 30 | eP | P | 15 48 42.5 | -0.5 |
| DPC | Dobruska-Polom | 91.00 | 30 | eP | P | 15 48 42.5 | -0.5 |
| TREC | Trest | 91.36 | 31 | AMS | AMS | 16 30 50.0 | |
| | comp=Z,1µm,21.9s | | | | | | |
| ABTA | Abfaltersbach | 91.65 | 35 | i P | P | 15 48 41.4 | -4.7 |
| | comp=Z,8.5nm,1.5s | | | | | | |
| MOA | Molln | 91.78 | 33 | i P | P | 15 48 45.5 | -1.1 |
| | comp=Z,6.8nm,1.5s | | | | | | |
| KBA | Koelnbreinsper | 91.85 | 34 | eP | P | 15 48 45.9 | -1.3 |
| | comp=Z,4.3nm,1.2s | | | | | | |
| MYKA | Terra Mystica | 92.31 | 34 | i P | P | 15 48 44.7 | -4.5 |
| | comp=Z,4.5nm,1.4s | | | | | | |
| CONA | Conrad Observa | 92.50 | 32 | P | P | 15 48 49.0 | -1.1 |
| | comp=Z,4.8nm,1.4s | | | | | | |
| DZM | Mont Dzumac | 92.58 | 247 | ePS | PS | 16 01 04.8 | -3.3 |
| | comp=Z,155nm,28.1s | | | | | | |
| DZM | Mont Dzumac | 92.58 | 247 | eLR | LR | 16 18 30.7 | |
| | comp=Z,851nm,26.0s | | | | | | |
| CN2 | Changchun | 92.79 | 322 | eP | P | 15 48 50.7 | -0.7 |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.4s | | | | | | |
| OBKA | Obir | 92.84 | 34 | PcP | P | 15 48 52.0 | +0.3 |
| | comp=Z,6.9nm,1.0s | | | | | | |
| SOKA | Soboth | 92.97 | 34 | eP | P | 15 48 49.8 | -2.4 |
| | comp=Z,6.3nm,0.9s | | | | | | |
| STHS | Stebnicka Huta | 93.86 | 29 | eP | P | 15 48 54.4 | -1.8 |
| STHS | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.1s | | | | | | |
| STHS | Stebnicka Huta | 93.86 | 29 | eP | P | 15 48 54.4 | -1.8 |
| MOS | Moscow | 94.28 | 17 | eP | P | 15 48 56.8 | -1.2 |
| OBN | Obninsk | 94.56 | 18 | i P | P | 15 49 00.9 | +1.7 |
| OBN | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.8s | | | | | | |
| KSRS | Korea Array | 95.41 | 316 | P | P | 15 49 04.6 | +1.1 |
| | comp=Z,21nm,1.1s,baz=53,slow=5.3,SNR=21 | | | | | | |
| KS01 | Wonju Array Si | 95.42 | 316 | eP | P | 15 49 03.0 | -0.6 |
| KS15 | Wonju Array Si | 95.44 | 316 | eP | P | 15 49 03.5 | -0.1 |
| KSAR | Wonju Array Be | 95.44 | 316 | P | P | 15 49 04.6 | +0.9 |
| KSAR | Wonju Array Be | 95.44 | 316 | P | P | 15 49 04.6 | +0.9 |
| AK11 | Malin Array Si | 96.00 | 24 | eP | P | 15 49 04.1 | -1.8 |
| AKASG | Malin Array Be | 96.01 | 24 | P | P | 15 49 04.8 | -1.1 |
| | comp=Z,3.9nm,0.9s,baz=322,slow=3.7,SNR=17 | | | | | | |
| AKASG | Malin Array Be | 96.01 | 24 | i P | P | 15 49 04.8 | -1.1 |
| AKASG | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.9s | | | | | | |
| AKBB | Malin Array Si | 96.01 | 24 | eP | P | 15 49 03.9 | -2.1 |
| AKBB | | | | pmax | pmax | | |
| | comp=Z,15nm,1.3s | | | | | | |
| AKBB | Malin Array Si | 96.01 | 24 | eP | P | 15 49 03.9 | -2.1 |
| | comp=Z,15nm,1.3s | | | | | | |
| KIEV | Kiev | 96.01 | 24 | eP | P | 15 49 04.8 | -1.1 |
| KIEV | | | | pmax | pmax | | |
| | comp=Z,19nm,1.6s | | | | | | |
| KIEV | Kiev | 96.01 | 24 | eP | P | 15 49 03.9 | -2.0 |
| | comp=Z,13nm,1.2s | | | | | | |
| BUR04 | Bucovina Ar. S | 96.93 | 28 | eP | P | 15 49 08.6 | -1.8 |
| KEST | Kesra | 97.02 | 45 | LR | LR | 16 32 39.3 | |
| | comp=Z,532nm,20.0s,baz=270,slow=35 | | | | | | |
| ARU | Arti | 97.26 | 5 | c iP | P | 15 49 09.9 | -1.6 |
| ARU | | | | | | 15 53 06.1 | |
| ARU | | | | S | SKSac | 15 59 47.0 | -1.3 |
| ARU | | | | SS | SS | 16 07 11.2 | +0.7 |
| ARU | | | | pmax | pmax | | |
| | comp=Z,19nm,1.2s | | | | | | |
| ARU | Arti | 97.26 | 5 | eP | P | 15 49 10.1 | -1.4 |
| | comp=Z,15nm,1.1s | | | | | | |
| ULN | Ulaanbaatar | 98.40 | 335 | ceP | Pdif | 15 49 18.3 | +1.2 |
| ULN | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.2s | | | | | | |
| ULN | Ulaanbaatar | 98.40 | 335 | eP | P | 15 49 16.1 | -1.0 |
| | comp=Z,8.0nm,1.1s | | | | | | |
| ULN | | | | LR | LR | | |
| | comp=Z,265nm,21.0s | | | | | | |
| SONA1 | Songino Array | 98.66 | 335 | eP | P | 15 49 18.0 | -0.2 |
| SONM | Songino Array | 98.67 | 335 | P | Pdif | 15 49 19.5 | +1.2 |
| | comp=Z,5.4nm,0.9s,baz=33,slow=3.2,SNR=14 | | | | | | |
| SONM | | | | PP | PP | 15 53 18.9 | +0.6 |
| | comp=Z,1.3nm,0.8s,baz=3.8,slow=4.3,SNR=4.2 | | | | | | |
| ZAA0 | Zalesovo Array | 98.87 | 350 | eP | P | 15 49 18.5 | -0.3 |
| | comp=Z,19nm,1.8s | | | | | | |
| ZALV | Zalesovo Beam | 98.87 | 350 | P | P | 15 49 18.8 | 0.0 |
| | comp=Z,1.6nm,0.7s,baz=0.0,slow=5.0,SNR=8.8 | | | | | | |
| ZALV | Zalesovo Beam | 98.87 | 350 | eP | P | 15 49 18.0 | -0.8 |
| ZALV | Zalesovo Beam | 98.87 | 350 | eP | P | 15 49 18.0 | -0.8 |
| BJI | Beijing | 100.37 | 325 | P | Pdif | 15 49 22.1 | -3.7 |
| BJI | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.8s | | | | | | |
| BRVK | Borovoye | 101.03 | 359 | ⇑iP | Pdif | 15 49 28.9 | +0.5 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.0s | | | | | | |
| HHC | Hu-ho-hao-te | 102.07 | 328 | eP | Pdif | 15 49 33.1 | -0.4 |
| HHC | | | | PP | PP | 15 53 45.3 | +1.1 |
| HHC | | | | SKS | SKSac | 16 00 10.6 | -2.4 |
| HHC | | | | S | Sdif | 16 01 10.5 | -5.5 |
| HHC | | | | SS | SS | 16 08 17.6 | -1.3 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,15nm,1.0s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,130nm,5.6s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,260nm,17.5s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,220nm,19.0s | | | | | | |
| KURK | Kurchatov | 102.84 | 353 | eP | Pdif | 15 49 36.5 | 0.0 |
| TORD | Torodi Ar. Bea | 104.43 | 67 | PKKPbc | PKKPbc | 16 05 30.7 | +0.9 |
| | comp=Z,1.3nm,0.8s,baz=106,slow=3.5,SNR=5.3 | | | | | | |
| MKAR | Makanchi Array | 106.21 | 350 | Pdiff | Pdif | 15 49 52.3 | +0.6 |
| | comp=Z,1.1nm,0.9s,baz=359,slow=4.9,SNR=4.9 | | | | | | |
| MKAR | | | | PKiKP | PKiKP | 15 54 04.5 | +1.2 |
| | comp=Z,0.8nm,0.9s,baz=2.9,slow=2.9,SNR=3.0 | | | | | | |
| MKAR | | | | PP | PP | 15 54 19.9 | +5.4 |
| | comp=Z,1.4nm,0.9s,baz=354,slow=5.1,SNR=5.6 | | | | | | |
| BRTR | Keskin Array B | 106.89 | 27 | PKiKP | PKiKP | 15 54 03.8 | -1.1 |
| | comp=Z,0.7nm,0.8s,baz=178,slow=2.1,SNR=3.8 | | | | | | |
| LZH | Lanzhou | 109.48 | 330 | ePdif | Pdif | 15 50 02.6 | -4.0 |
| LZH | | | | PP | PP | 15 54 40.5 | +1.5 |
| LZH | | | | SKS | SKSdf | 16 01 11.3 | -11 |
| LZH | | | | S | Sdif | 16 02 07.0 | -11 |
| LZH | | | | AMB | AMB | | |
| | comp=Z,87nm,5.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,110nm,17.6s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,760nm,18.3s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,450nm,20.3s | | | | | | |
| KSH | Kashi | 114.19 | 353 | ePKP | PKPdf | 15 54 20.2 | +1.6 |
| KSH | | | | PP | PP | 15 55 22.1 | +10 |
| KSH | | | | SS | SS | 16 11 10.8 | +8.8 |
| KSH | | | | AMB | AMB | | |
| | comp=Z,130nm,3.6s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,290nm,7.7s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,260nm,5.9s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,610nm,9.0s | | | | | | |
| GEYT | Alibeck | 115.48 | 9 | PKP | PKPdf | 15 54 20.9 | -0.1 |
| | comp=Z,10nm,0.6s,baz=321,slow=2.1,SNR=6.0 | | | | | | |
| GYA | Guiyang | 115.83 | 322 | ePdif | Pdif | 15 50 33.8 | -1.2 |
| GYA | | | | PKP | PKiKP | 15 54 20.6 | -1.5 |
| GYA | | | | PP | PP | 15 55 28.7 | +4.2 |
| GYA | | | | AMB | AMB | | |
| | comp=Z,130nm,7.8s | | | | | | |
| STKA | Stephens Creek | 116.72 | 246 | PKP | PKPdf | 15 54 23.0 | -0.4 |
| | comp=Z,3.7nm,0.6s,baz=101,slow=3.8,SNR=7.4 | | | | | | |
| VNA3 | Neumayer Olymp | 118.49 | 159 | PKP | PKPdf | 15 54 24.7 | -0.9 |
| VNA1 | Neumayer--Stat | 118.98 | 158 | PKP | PKPdf | 15 54 25.4 | -1.1 |
| KMI | Kunming | 119.02 | 324 | PKP | PKPdf | 15 54 26.8 | -1.6 |
| VNA2 | Neumayer--Watz | 119.25 | 159 | PKP | PKPdf | 15 54 24.8 | -2.3 |
| | baz=312,slow=5.0 | | | | | | |
| WRAB | Tennant Creek | 119.40 | 261 | c iPKIKP | PKPdf | 15 54 28.9 | 0.0 |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,35nm,0.8s | | | | | | |
| WRAB | Tennant Creek | 119.40 | 261 | ePKPdf | PKPdf | 15 54 26.9 | -2.0 |
| WB2 | Warramunga Arr | 119.40 | 261 | ePKPdf | PKPdf | 15 54 27.8 | -1.1 |
| WRA | Warramunga Arr | 119.41 | 261 | PKP | PKPdf | 15 54 28.5 | -0.4 |
| | comp=Z,14nm,0.9s,baz=66,slow=2.2,SNR=66 | | | | | | |
| MTN | Manton Dam | 119.73 | 270 | ePKPdf | PKPdf | 15 54 28.3 | -1.3 |
| SNAA | Sanae | 120.62 | 160 | PKP | PKPdf | 15 54 26.9 | -2.9 |
| SNAA | Sanae | 120.62 | 160 | ePKIKP | PKPdf | 15 54 28.9 | -0.9 |
| SNAA | Sanae | 120.62 | 160 | ePKPdf | PKPdf | 15 54 28.9 | -0.9 |
| AS01 | Alice Springs | 120.92 | 257 | ePKPdf | PKPdf | 15 54 29.5 | -2.2 |
| AS31 | Alice Springs | 120.96 | 257 | ePKPdf | PKPdf | 15 54 30.5 | -1.3 |
| ASAR | Alice Springs | 120.97 | 257 | PKP | PKPdf | 15 54 30.9 | -1.0 |
| | comp=Z,7.3nm,0.8s,baz=77,slow=2.0,SNR=50 | | | | | | |
| ASAR | | | | PKKPbc | PKKPbc | 16 04 34.8 | +0.2 |
| | comp=Z,1.1nm,0.8s,baz=259,slow=2.3,SNR=11 | | | | | | |
| TAPN | Taplejung | 123.52 | 339 | eP | PKPdf | 15 54 36.8 | -0.3 |
| | comp=Z,64nm,1.2s | | | | | | |
| GUN | Gumba | 123.55 | 341 | eP | PKPdf | 15 54 37.1 | -0.1 |
| | comp=Z,19nm,0.8s | | | | | | |
| KKN | Kakani | 123.84 | 342 | eP | PKPdf | 15 54 37.3 | -0.3 |
| | comp=Z,25nm,0.8s | | | | | | |
| PKIN | Phulchoki | 124.00 | 342 | eP | PKPdf | 15 54 37.7 | -0.3 |
| DMN | Daman | 124.06 | 342 | eP | PKPdf | 15 54 37.4 | -0.7 |
| ODAN | Odare | 124.08 | 339 | eP | PKPdf | 15 54 37.6 | -0.5 |
| | comp=Z,17nm,0.8s | | | | | | |
| PYUN | Piuthan | 124.14 | 344 | eP | PKPdf | 15 54 38.0 | -0.2 |
| RAMN | Ramite | 124.24 | 340 | eP | PKPdf | 15 54 38.1 | -0.3 |
| | comp=Z,24nm,0.8s | | | | | | |
| KOLN | Koldanda | 124.31 | 343 | eP | PKPdf | 15 54 37.7 | -0.8 |
| | comp=Z,15nm,1.0s | | | | | | |
| CMMT | Chiang Mai | 126.18 | 323 | P | PKPdf | 15 54 42.3 | +0.3 |
| | comp=Z,17nm,1.7s | | | | | | |
| CHTO | Chiang Mai | 126.19 | 323 | P | PKPdf | 15 54 42.3 | +0.3 |
| | comp=Z,48nm,1.1s | | | | | | |
| CHTO | Chiang Mai | 126.19 | 323 | ePKIKP | PKPdf | 15 54 40.9 | -1.1 |
| CHTO | Chiang Mai | 126.19 | 323 | ePKPdf | PKPdf | 15 54 40.9 | -1.1 |
| CM31 | Chiang Mai Arr | 126.48 | 323 | ePKPdf | PKPdf | 15 54 41.8 | -0.8 |
| CMAR | Chiang Mai Arr | 126.48 | 323 | PKP | PKPdf | 15 54 43.1 | +0.5 |
| | comp=Z,5.7nm,0.9s,baz=337,slow=1.7,SNR=38 | | | | | | |
| CMAR | | | | PP | PP | 15 56 42.6 | +5.5 |
| | comp=Z,1.5nm,1.1s,baz=15,slow=7.5,SNR=4.2 | | | | | | |
| CM01 | Chiang Mai Arr | 126.50 | 323 | ePKPdf | PKPdf | 15 54 41.6 | -1.0 |
| SUKH | Sukhothai | 126.89 | 322 | P | PKPdf | 15 54 44.4 | +1.0 |
| | comp=Z,4.4nm,1.1s | | | | | | |
| UTHA | Uthaitani | 128.54 | 320 | P | PKPdf | 15 54 48.3 | +1.8 |
| SYO | Syowa Base | 133.96 | 166 | ⇑ePKPdf | PKPdf | 15 54 53.2 | -2.0 |
| SYO | Syowa Base | 133.96 | 166 | ⇑eP | PKPdf | 15 55 03.5 | +8.3 |
| KRAB | Krabi | 134.41 | 314 | P | PKPdf | 15 55 02.4 | +4.7 |
| | comp=Z,28µm,1.0s,comp=Z,376µm | | | | | | |
| CISI | Cisompet, Garu | 138.03 | 289 | ePKPdf | PKPdf | 15 55 03.3 | -1.2 |
| MAW | Mawson | 138.48 | 177 | PKhKP | PKPpre | 15 54 54.9 | |
| | comp=Z,1.4nm,0.7s,baz=72,slow=3.2,SNR=3.7 | | | | | | |
| MAW | | | | PKP | PKPdf | 15 55 04.1 | +0.5 |
| | comp=Z,5.8nm,0.9s,baz=298,slow=2.6,SNR=6.2 | | | | | | |
| MAW | Mawson | 138.48 | 177 | PKHKP | PKPpre | 15 54 54.9 | |
| MAW | | | | e | | 15 55 03.1 | |
| MAW | Mawson | 138.48 | 177 | PKPpre | PKPpre | 15 54 54.9 | |
| MAW | | | | ePKPdf | PKPdf | 15 55 03.1 | -0.5 |
| KMBO | Kilima Mbogo | 141.14 | 55 | PKP | PKPdf | 15 55 11.8 | +1.4 |
| | comp=Z,1.8nm,0.4s,baz=336,slow=2.2,SNR=8.5 | | | | | | |
| BOSA | Boshof | 141.94 | 104 | PKP | PKPdf | 15 55 12.0 | +0.8 |
| | comp=Z,9.9nm,0.9s,baz=259,slow=0.6,SNR=8.7 | | | | | | |
| PALK | Pallekele | 144.56 | 338 | ePKIKP | PKPab | 15 55 14.7 | +0.1 |
| PALK | Pallekele | 144.56 | 338 | ePKPdf | PKPab | 15 55 14.7 | +0.1 |

**ROM 04 15:35:50.2±0.2, 39°.94N×16°.00E, h7km±1km, Md1.5/3, Ml0.9/1, Error ellipse: s-maj=1.1km s-min=0.9km az=30.0, Southern Italy**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| T0711 | Rotonda (PZ) | 0.04 | 89 | Pg | Pg | 15 35 52.0 | +0.1 |
| T0711 | | | | Sg | Sg | 15 35 53.3 | +0.3 |
| | 307nm,0.2s | | | | | | |
| MMN | Mormanno | 0.05 | 192 | Pg | Pg | 15 35 52.1 | +0.4 |
| MMN | | | | Sg | Sg | 15 35 53.3 | +0.5 |
| | 139nm,0.1s | | | | | | |
| CUC | Castrocucco | 0.15 | 292 | Pg | Pg | 15 35 53.9 | +0.4 |
| CUC | | | | Sg | Sg | 15 35 56.8 | +1.1 |
| | 27nm,0.5s | | | | | | |

*ISK 04 15:37:16.8, 39°.09N×29°.18E, h5km, MD2.6*
*ISCJB 04 15:37:17.8±0.5, 39°.12N±0°.03×29°.13E±0°.04, h3km±8km, Error ellipse: s-maj=5.8km s-min=4.2km az=150.8*
*CSEM 04 15:37:17.9±0.1, 39°.13N×29°.12E, h5km, MD2.6, Error ellipse: s-maj=3.0km s-min=2.3km az=123.0*
*DDA 04 15:37:17.8, 39°.10N×29°.12E, h7km, Ml2.4*
**ISC 04 15:37:17.9±0.9, 39°.12N±0°.03×29°.13E±0°.03, h10km±7km, n22, σ0s.54/36, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SIMA | Simav-Kutahya | 0.12 | 251 | ePG | Pg | 15 37 20.8 | -0.1 |
| SIMA | | | | eSG | Sg | 15 37 23.1 | +0.1 |
| SIMA | Simav-Kutahya | 0.12 | 251 | ePg | Pg | 15 37 20.8 | -0.1 |
| SIMA | | | | eSg | Sg | 15 37 23.1 | +0.1 |
| GDZ | Gediz | 0.28 | 97 | i P | Pg | 15 37 23.4 | -0.1 |
| GDZ | | | | i S | Sg | 15 37 27.6 | +0.2 |
| GDZ | Gediz | 0.28 | 97 | P | Pg | 15 37 23.4 | -0.1 |
| GDZ | | | | S | Sg | 15 37 27.5 | +0.2 |
| DEMI | Demirci | 0.33 | 256 | i P | Pg | 15 37 24.6 | 0.0 |
| DEMI | | | | i S | Sg | 15 37 29.1 | +0.1 |
| DEMI | Demirci | 0.33 | 256 | P | Pg | 15 37 24.6 | 0.0 |
| DEMI | | | | S | Sg | 15 37 29.1 | +0.1 |
| TVSB | Tavsanli | 0.42 | 38 | ePG | Pg | 15 37 25.8 | -0.4 |
| TVSB | | | | eSG | Sg | 15 37 31.2 | -0.5 |
| TVSB | Tavsanli | 0.42 | 38 | ePg | Pg | 15 37 25.8 | -0.4 |
| TVSB | | | | eSg | Sg | 15 37 31.2 | -0.5 |
| KULA | Kula-Manisa | 0.71 | 211 | ePG | Pg | 15 37 31.1 | -0.5 |
| KULA | | | | eSG | Sg | 15 37 40.6 | -0.2 |
| KULA | Kula-Manisa | 0.71 | 211 | ePg | Pg | 15 37 31.1 | -0.5 |
| KULA | | | | eSg | Sg | 15 37 40.7 | -0.2 |
| MANT | Manisa | 0.77 | 216 | i P | Pg | 15 37 32.6 | -0.2 |
| MANT | | | | i S | Sg | 15 37 42.7 | -0.3 |
| MANT | Manisa | 0.77 | 216 | P | Pg | 15 37 32.6 | -0.2 |
| MANT | | | | S | Sg | 15 37 42.7 | -0.3 |
| KHAL | Karahalli | 0.80 | 159 | i P | Pb | 15 37 33.7 | -0.3 |
| KHAL | | | | i S | Sb | 15 37 44.2 | -0.7 |
| KHAL | Karahalli | 0.80 | 159 | P | Pb | 15 37 33.7 | -0.3 |
| KHAL | | | | S | Sb | 15 37 44.2 | -0.7 |
| KZIL | AFYON_Kizioren | 1.17 | 137 | i P | Pn | 15 37 41.6 | +1.2 |
| KZIL | AFYON_Kizioren | 1.17 | 137 | P | Pn | 15 37 41.7 | +1.2 |
| KCTX | Karacabey (Bur | 1.29 | 333 | ePN | Pn | 15 37 42.6 | +0.6 |
| KCTX | Karacabey (Bur | 1.29 | 333 | ePn | Pn | 15 37 42.6 | +0.6 |
| YLV | Yalova | 1.46 | 7 | ePN | Pn | 15 37 45.3 | +1.0 |
| YLV | Yalova | 1.46 | 7 | ePn | Pn | 15 37 45.3 | +1.0 |
| ARMT | Armutlu | 1.46 | 352 | ePN | Pn | 15 37 44.8 | +0.5 |
| ARMT | Armutlu | 1.46 | 352 | ePn | Pn | 15 37 44.8 | +0.5 |

**ROM 04 15:45:46.3±0.1, 42°.38N×13°.12E, h8km, Md1.7/3, Ml1.1/3, Error ellipse: s-maj=0.5km s-min=0.2km az=95.0, Central Italy**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| FIAM | Fiamignano | 0.11 | 181 | Pg | Pg | 15 45 49.3 | +0.4 |
| FIAM | | | | Sg | Sg | 15 45 51.5 | +0.7 |
| | 69nm,0.4s | | | | | | |
| LNSS | Leonessa | 0.23 | 345 | Pg | Pg | 15 45 51.8 | +0.7 |
| LNSS | | | | Sg | Sg | 15 45 55.9 | +1.6 |
| | 30nm,0.8s | | | | | | |
| SMA1 | SAN MARTINO | 0.30 | 32 | Pg | Pb | 15 45 53.2 | -0.8 |
| SMA1 | | | | Sg | Sb | 15 45 58.2 | -0.9 |
| | 68nm,1.4s | | | | | | |

*ISCJB 04 15:47:45.0±1.9, 17°.4N±0°.2×121°.9W±0°.3, h10km, mb3.8/7, MS3.4/1, Error ellipse: s-maj=38.1km s-min=26.0km az=144.2*
*IDC 04 15:47:45.3±2.1, 17°.38N×121°.88W, h0km, mb3.8/8, mb1 4.1/8, mb1mx3.9/46, mbtmp3.8/8, MS3.6/1, Ms1 3.6/1, ms1mx3.0/37, Error ellipse: s-maj=48.8km s-min=28.8km az=60.0*
**ISC 04 15:47:46.6±2.1, 17°.4N±0°.2×122°.0W±0°.3, h10km, n9, σ1s.14/8, mb4.0/7, North Pacific Ocean**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TXAR | Lajitas Array | 20.55 | 51 | P | P | 15 52 26.4 | +0.9 |
| | 1.5nm,0.9s,baz=220,slow=12,SNR=6.2 | | | | | | |
| ANMO | Albuquerque | 22.31 | 35 | P | P | 15 52 44.9 | +0.4 |
| | 2.1nm,1.0s,baz=25,slow=7.1,SNR=4.1 | | | | | | |
| YBH | Yreka Blue Hor | 24.29 | 359 | LR | LR | 16 00 48.2 | |
| | comp=Z,132nm,19.4s,baz=99,slow=32 | | | | | | |
| PDAR | Pinedale Array | 27.43 | 20 | P | P | 15 53 32.0 | -0.8 |
| | 0.6nm,0.8s,baz=204,slow=11,SNR=3.5 | | | | | | |
| ULM | Lac du Bonnet | 38.91 | 27 | P | P | 15 55 10.6 | -1.8 |
| | 3.8nm,0.9s,baz=213,slow=13,SNR=2.5 | | | | | | |
| YKA | Yellowknife Ar | 45.37 | 5 | P | P | 15 56 05.6 | +0.8 |
| | 1.7nm,0.8s,baz=182,slow=8.6,SNR=18 | | | | | | |
| ILAR | Eielson Array | 50.27 | 346 | P | P | 15 56 42.8 | -0.1 |
| | 0.8nm,0.9s,baz=163,slow=9.4,SNR=5.2 | | | | | | |
| INK | Inuvik | 51.45 | 355 | P | P | 15 56 52.6 | +1.0 |
| | 1.5nm,0.7s,baz=165,slow=10,SNR=7.8 | | | | | | |
| LPAZ | La Paz | 62.70 | 119 | P | P | 15 58 12.8 | 0.0 |
| | 1.4nm,0.8s,baz=304,slow=3.6,SNR=5.9 | | | | | | |

**NNC 04 15:48:09.0±8.2, 37°.38N×71°.04E, h0km, mb3.5, mpv3.1, 5C-3D, Error ellipse: s-maj=70.5km s-min=25.1km az=171.0, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DZET | Dzherino | 2.25 | 310 | ⇑Pn | Pn | 15 48 47.6 | 0.0 |
| | 9.6nm,0.4s | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| DZET | | | | ⇓Sn | Sb | 15 49 17.9 | -1.2 |
| | 15nm,0.3s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **3.27** | **35** | ⇓Pn | Pn | 15 49 01.2 | -0.5 |
| | 0.7nm,0.2s | | | | | | |
| SFK | | | | ⇓Sn | Sn | 15 49 42.9 | +1.6 |
| | 2.3nm,0.2s | | | | | | |
| **MNAS** | **Manas** | **5.23** | **12** | ⇑Pn | Pn | 15 49 27.7 | -0.9 |
| MNAS | | | | ⇑Sn | Sn | 15 50 29.0 | -0.7 |
| | 1.2nm,0.5s | | | | | | |
| **KK31** | **Karatay Array** | **5.74** | **356** | ⇑Pn | Pn | 15 49 34.9 | -0.5 |
| | 1.0nm,0.3s,baz=180,slow=13,SNR=29 | | | | | | |
| KK31 | | | | ⇑Sn | Sn | 15 50 43.2 | +1.3 |
| | 0.5nm,0.3s,baz=190,slow=26,SNR=6.0 | | | | | | |

---

*IDC **04** 15:55:24.9±0.3, 56.°13N×163.°24E, h0km, mb4.9/35, mb1 5.1/38, mb1mx5.0/49, mbtmp4.9/38, ML4.6/3, MS4.6/22, Ms1 4.5/22, ms1mx4.3/43, Error ellipse: s-maj=10.6km s-min=7.6km az=0.0*

*BJI **04** 15:55:25.7, 56.°20N×163.°20E, h22km, mb4.9/55, mB5.2/48, Ms5.3/57, Ms7 5.1/53*

*KRSC **04** 15:55:25.2±1.2, 56.°14N×163.°56E, h26km±13km, ML5.5, FELT [III-IV] at Krutoberegovo, Ust-Kamchatsk, cape Afrika.*

*ISCJB **04** 15:55:27.8±0.5, 56.°22N±0.°02×163.°37E±0.°02, h30km±3km, mb5.2/399, MS5.0/48, Error ellipse: s-maj=2.8km s-min=1.6km az=159.8*

*NEIC **04** 15:55:28.9±1.0, 56.°24N×163.°22E, h26km±7km, mb5.2/293, Error ellipse: s-maj=3.5km s-min=1.8km az=169.0*

*GCMT **04** 15:55:28.9±0.2, 56.°22N×163.°49E, h18km, MW5.3/111, Moment Tensor Solution. s72,c104; s111,c187; Duration: 1.s0 Moment tensor: Scale $10^{17}$Nm; $M_{rr}$0.78±.03; $M_{\theta\theta}$-0.56±.02; $M_{\phi\phi}$-0.22±.02; $M_{r\theta}$0.54±.04; $M_{\theta\phi}$-0.43±.01; $M_{\phi r}$-0.03±.04; Best double couple: $M_0$0.97800×$10^{17}$ NP1:$\phi_s$75.00000°,$\delta$62.00000°, $\lambda$110.00000°. NP2:$\phi_s$217.00000°,$\delta$34.00000°,$\lambda$58.00000°. Principal axes: T 0.9960, Plg67.0000°, Azm23.0000°; N -0.0370, Plg17.0000°, Azm245.0000°; P -0.9590, Plg15.0000°, Azm150.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*MOS **04** 15:55:29.3±0.9, 56.°21N×163.°33E, h45km, mb5.3/115, MS4.8/31 Error ellipse: s-maj=5.5km s-min=3.6km az=71.4*

*MOS Felt (III-IV) at Krutoberegovo, Ust'-Kamchatsk.*

**ISC 04 15:55:28.3**±0.6**, 56.°20N**±0.°03×**163.°27E**±0.°02**, h24**km±3km**, n1354,** σ**1.s26**/1429**, mb5.2**/409**, MS5.0**/49**, 78C-28D, Near east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KBTR** | **Krutoberegovo** | **0.25** | **271** | PN | **Pb** | **15 55 33.7** | **-0.8** |
| **KBTR** | **Krutoberegovo** | **0.25** | **271** | eP | **Pb** | **15 55 33.7** | **-0.8** |
| **KBG** | **Krutoberegovo** | **0.32** | **280** | PN | **Pb** | **15 55 33.8** | **-1.7** |
| **KBG** | **Krutoberegovo** | **0.32** | **280** | eP | **Pb** | **15 55 33.8** | **-1.7** |
| KBG | | | | eS | **Sb** | **15 55 40.1** | **-0.3** |
| **SMKR** | **Semkarok** | **1.07** | **292** | PN | **Pn** | **15 55 47.9** | **+0.1** |
| **SMKR** | **Semkarok** | **1.07** | **292** | eP | **Pn** | **15 55 48.0** | **+0.1** |
| **BDR** | **Baidarnaya** | **1.20** | **289** | PN | **Pb** | **15 55 50.5** | **+0.1** |
| **BDR** | **Baidarnaya** | **1.20** | **289** | eP | **Pb** | **15 55 50.8** | **+0.4** |
| **SRKR** | **Sorokina** | **1.25** | **292** | PN | **Pb** | **15 55 51.0** | **-0.2** |
| **SRKR** | **Sorokina** | **1.25** | **292** | eP | **Pb** | **15 55 51.2** | **0.0** |
| **ZLN** | **Zelenaya** | **1.39** | **263** | PN | **Pb** | **15 55 54.1** | **+0.4** |
| **ZLN** | **Zelenaya** | **1.39** | **263** | eP | **Pb** | **15 55 54.1** | **+0.4** |
| **CIRR** | **Tsirk** | **1.41** | **267** | PN | **Pb** | **15 55 54.1** | **+0.1** |
| **CIRR** | **Tsirk** | **1.41** | **267** | eP | **Pb** | **15 55 54.2** | **+0.2** |
| **KLY** | **Klyuchi** | **1.47** | **275** | PN | **Pn** | **15 55 52.7** | **-0.5** |
| **KLY** | **Klyuchi** | **1.47** | **275** | eP | **Pn** | **15 55 52.9** | **-0.3** |
| KLY | | | | eS | **Sb** | **15 56 12.4** | **-0.6** |
| **KRSR** | **Krestovskiy** | **1.51** | **272** | PN | **Pb** | **15 55 55.0** | **-0.7** |
| **KRSR** | **Krestovskiy** | **1.51** | **272** | eP | **Pb** | **15 55 55.3** | **-0.4** |
| **BZWR** | **Bezymyannyi-We** | **1.57** | **262** | PN | **Pb** | **15 55 56.8** | **0.0** |
| **BZWR** | **Bezymyannyi-We** | **1.57** | **262** | eP | **Pb** | **15 55 56.8** | **0.0** |
| **BZMR** | **Bezymyannaya** | **1.58** | **261** | PN | **Pb** | **15 55 57.1** | **+0.2** |
| **KIRR** | **Kirishev** | **1.66** | **263** | PN | **Pb** | **15 55 57.9** | **-0.3** |
| **KIRR** | **Kirishev** | **1.66** | **263** | eP | **Pb** | **15 55 58.0** | **-0.3** |
| **KPT** | **Kopyto** | **1.73** | **263** | PN | **Pb** | **15 55 59.6** | **+0.3** |
| **KPT** | **Kopyto** | **1.73** | **263** | eP | **Pb** | **15 55 59.3** | **0.0** |
| **KMNR** | **Kamenistaya** | **1.76** | **257** | PN | **Pb** | **15 55 59.8** | **-0.1** |
| **KMNR** | **Kamenistaya** | **1.76** | **257** | eP | **Pb** | **15 55 59.8** | **-0.1** |
| **BKI** | **Bering** | **1.83** | **122** | PN | **Pn** | **15 55 54.8** | **-3.4** |
| BKI | | | | S | **Sn** | **15 56 15.5** | **-5.0** |
| **BKI** | **Bering** | **1.83** | **122** | eP | **Pn** | **15 55 54.7** | **-3.4** |
| BKI | | | | eS | **Sn** | **15 56 16.8** | **-3.7** |
| **MKZ** | **Mys Kozlova** | **1.87** | **209** | PN | **Pn** | **15 55 58.5** | **-0.2** |
| MKZ | | | | S | **Sn** | **15 56 21.9** | **+0.3** |
| **MKZ** | **Mys Kozlova** | **1.87** | **209** | eP | **Pn** | **15 55 58.6** | **-0.2** |
| **KOZ** | **Kozyrevsk** | **1.91** | **267** | PN | **Pb** | **15 56 02.3** | **-0.1** |
| **KOZ** | **Kozyrevsk** | **1.91** | **267** | eP | **Pb** | **15 56 02.0** | **-0.4** |
| **TUMR** | **Tumrok** | **1.99** | **244** | PN | **Pb** | **15 56 02.9** | **-1.0** |
| **TUMR** | **Tumrok** | **1.99** | **244** | iP | **Pb** | **15 56 02.9** | **-1.0** |
| **KZV** | **Kizimen** | **2.01** | **238** | PN | **Pn** | **15 56 02.4** | **+1.6** |
| **KZV** | **Kizimen** | **2.01** | **238** | eP | **Pn** | **15 56 02.3** | **+1.5** |
| **ESO** | **Esso** | **2.58** | **266** | PN | **Pn** | **15 56 11.0** | **+2.5** |
| ESO | | | | S | **Sb** | **15 56 44.7** | **-0.3** |
| **ESO** | **Esso** | **2.58** | **266** | eP | **Pn** | **15 56 10.5** | **+2.0** |
| **OSSR** | **Ossora** | **3.06** | **358** | PN | **Pn** | **15 56 15.3** | **+0.2** |
| OSSR | | | | S | **Sn** | **15 56 52.0** | **+1.1** |
| **OSSR** | **Ossora** | **3.06** | **358** | eP | **Pn** | **15 56 15.5** | **+0.4** |
| **KII** | **Karymskiy** | **3.09** | **227** | PN | **Pn** | **15 56 17.7** | **+2.1** |
| **KII** | **Karymskiy** | **3.09** | **227** | eP | **Pn** | **15 56 17.9** | **+2.3** |
| **PALN** | **Palana** | **3.40** | **330** | PN | **Pn** | **15 56 21.3** | **+1.6** |
| PALN | | | | S | **Sn** | **15 56 58.0** | **-1.2** |
| **PALN** | **Palana** | **3.40** | **330** | eP | **Pn** | **15 56 21.1** | **+1.4** |
| **SPN** | **Mys Shipunski** | **3.64** | **213** | PN | **Pn** | **15 56 22.8** | **-0.3** |
| SPN | | | | S | **Sn** | **15 57 05.0** | **-0.2** |
| **SPN** | **Mys Shipunski** | **3.64** | **213** | eP | **Pn** | **15 56 22.7** | **-0.3** |
| SPN | | | | eS | **Sn** | **15 57 04.8** | **-0.4** |
| **NLC** | **Nalytchevo** | **3.80** | **218** | PN | **Pn** | **15 56 26.2** | **+1.0** |
| NLC | | | | S | **Sn** | **15 57 11.4** | **+2.3** |
| **NLC** | **Nalytchevo** | **3.80** | **218** | eP | **Pn** | **15 56 26.4** | **+1.2** |
| NLC | | | | eS | **Sn** | **15 57 10.2** | **+1.1** |
| **SDLR** | **Sedlovina** | **3.88** | **223** | PN | **Pn** | **15 56 28.3** | **+1.8** |
| **SDLR** | **Sedlovina** | **3.88** | **223** | iP | **Pn** | **15 56 28.5** | **+2.0** |
| **KRX** | **Arik** | **3.91** | **225** | PN | **Pn** | **15 56 29.9** | **+3.0** |
| **KRX** | **Arik** | **3.91** | **225** | eP | **Pn** | **15 56 29.3** | **+2.4** |
| **KRER** | **Koryakskii** | **3.91** | **224** | PN | **Pn** | **15 56 29.5** | **+2.5** |
| KRER | | | | S | **Sn** | **15 57 17.1** | **+4.9** |
| **AVH** | **Avacha** | **3.94** | **224** | PN | **Pn** | **15 56 29.9** | **+2.5** |
| AVH | | | | S | **Sn** | **15 57 16.8** | **+3.9** |
| **AVH** | **Avacha** | **3.94** | **224** | iP | **Pn** | **15 56 29.9** | **+2.5** |
| **UGLR** | **Uglovaya** | **3.96** | **223** | PN | **Pn** | **15 56 29.5** | **+2.0** |
| UGLR | | | | S | **Sn** | **15 57 16.8** | **+3.6** |
| **UGLR** | **Uglovaya** | **3.96** | **223** | iP | **Pn** | **15 56 29.6** | **+2.0** |
| **KOK** | **Koryaka** | **3.96** | **225** | PN | **Pn** | **15 56 30.8** | **+3.1** |
| **GNL** | **Ganaly** | **3.97** | **233** | PN | **Pn** | **15 56 30.1** | **+2.4** |
| **GNL** | **Ganaly** | **3.97** | **233** | iP | **Pn** | **15 56 30.2** | **+2.5** |
| **DALK** | **Dalny** | **4.12** | **221** | PN | **Pn** | **15 56 31.3** | **+1.6** |
| DALK | | | | S | **Sn** | **15 57 19.1** | **+2.0** |
| **DALK** | **Dalny** | **4.12** | **221** | eP | **Pn** | **15 56 31.3** | **+1.6** |
| DALK | | | | eS | **Sn** | **15 57 19.4** | **+2.3** |
| **PET** | **Petropavlovsk** | **4.17** | **222** | ePN | **Pn** | **15 56 32.4** | **+2.1** |
| PET | | | | eS | **Sn** | **15 57 20.1** | **+1.9** |
| PET | | | | pmax | pmax | | |
| | comp=Z,2μm,6.0s | | | | | | |
| PET | | | | pmax | pmax | | |
| | comp=Z,1μm,6.0s | | | | | | |
| PET | | | | pmax | pmax | | |
| | comp=Z,929nm,0.5s | | | | | | |
| PET | | | | smax | smax | | |
| | comp=N,2μm,0.7s | | | | | | |
| PET | | | | smax | smax | | |
| | comp=E,3μm,0.9s | | | | | | |
| PET | | | | MLR | MLR | | |
| | comp=Z,11μm,10.0s | | | | | | |
| PET | | | | MLR | MLR | | |
| | comp=Z,15μm,10.0s | | | | | | |
| **PET** | **Petropavlovsk** | **4.17** | **222** | ePn | **Pn** | **15 56 32.2** | **+1.9** |
| **PET** | **Petropavlovsk** | **4.17** | **222** | eP | **Pn** | **15 56 32.2** | **+1.9** |
| PET | | | | eS | **Sn** | **15 57 21.3** | **+3.1** |
| **PEA0B** | **Petropavlovsk-** | **4.48** | **229** | ePn | **Pn** | **15 56 37.4** | **+2.8** |
| **PETK** | **Petropavlovsk-** | **4.48** | **229** | Pn | **Pn** | **15 56 37.4** | **+2.7** |
| | comp=Z,20nm,0.3s,baz=63,slow=16,SNR=213 | | | | | | |
| PETK | | | | Sn | **Sb** | **15 57 35.5** | **-4.2** |
| | comp=Z,19nm,0.3s,baz=74,slow=28,SNR=3.7 | | | | | | |
| **PETK** | **Petropavlovsk-** | **4.48** | **229** | ePn | **Pn** | **15 56 36.7** | **+2.0** |
| PETK | | | | Sn | **Sb** | **15 57 35.5** | **-4.2** |
| **KRMR** | **Karymshinskiy** | **4.51** | **224** | PN | **Pn** | **15 56 37.8** | **+2.7** |
| KRMR | | | | S | **Sn** | **15 57 30.5** | **+3.7** |
| **KRMR** | **Karymshinskiy** | **4.51** | **224** | eP | **Pn** | **15 56 38.1** | **+3.0** |
| KRMR | | | | eS | **Sn** | **15 57 32.2** | **+5.4** |
| **TILK** | **Tilichiki** | **4.52** | **18** | PN | **Pn** | **15 56 31.4** | **-3.7** |
| **RUS** | **Russkaya** | **4.69** | **218** | PN | **Pn** | **15 56 38.4** | **+0.9** |
| **RUS** | **Russkaya** | **4.69** | **218** | iP | **Pn** | **15 56 38.5** | **+0.9** |
| **GRL** | **Gorelyy** | **4.75** | **222** | PN | **Pn** | **15 56 41.9** | **+3.4** |
| GRL | | | | S | **Sn** | **15 57 37.5** | **+4.6** |
| **MTVR** | **Mutnovka** | **4.77** | **221** | PN | **Pn** | **15 56 40.9** | **+2.2** |
| MTVR | | | | S | **Sn** | **15 57 35.9** | **+2.6** |
| **MTVR** | **Mutnovka** | **4.77** | **221** | eP | **Pn** | **15 56 40.8** | **+2.1** |
| **APC** | **Apacha** | **4.84** | **230** | PN | **Pn** | **15 56 41.4** | **+1.8** |
| APC | | | | S | **Sn** | **15 57 37.2** | **+2.4** |
| **APC** | **Apacha** | **4.84** | **230** | eP | **Pn** | **15 56 42.8** | **+3.2** |
| **ASAK** | **Asacha** | **4.95** | **222** | PN | **Pn** | **15 56 44.1** | **+2.9** |
| **ASAK** | **Asacha** | **4.95** | **222** | iP | **Pn** | **15 56 44.2** | **+3.0** |
| **KDTR** | **Khodutka, Kamc** | **5.36** | **217** | eP | **Pn** | **15 56 47.3** | **+0.6** |
| KDTR | | | | eS | **Sn** | **15 57 47.9** | **+0.3** |
| **KMSK** | **Kamenskaya** | **6.46** | **12** | PN | **Pn** | **15 57 03.2** | **+1.5** |
| **KMSK** | **Kamenskaya** | **6.46** | **12** | eP | **Pn** | **15 57 03.3** | **+1.5** |
| KMSK | | | | eS | **Sn** | **15 58 14.9** | **+0.3** |
| **SKR** | **Severo-Kuril's** | **6.99** | **221** | ePN | **Pn** | **15 57 10.7** | **+1.7** |
| SKR | | | | pmax | pmax | | |
| | comp=Z,175nm,0.5s | | | | | | |
| SKR | | | | pmax | pmax | | |
| | comp=Z,900nm,5.5s | | | | | | |
| SKR | | | | pmax | pmax | | |
| | comp=Z,2μm,5.0s | | | | | | |
| SKR | | | | MLR | MLR | | |
| | comp=Z,8μm,16.0s | | | | | | |
| SKR | | | | MLR | MLR | | |
| | comp=Z,8μm,15.0s | | | | | | |
| **SKR** | **Severo-Kuril's** | **6.99** | **221** | eP | **Pn** | **15 57 10.3** | **+1.3** |
| **MA2** | **Magadan** | **7.47** | **302** | Pn | **Pn** | **15 57 17.6** | **+2.0** |
| | comp=Z,0.9nm,0.3s,baz=118,slow=18,SNR=5.6 | | | | | | |
| MA2 | | | | Lg | Lg | 15 59 16.5 | |
| | comp=Z,1.1nm,0.3s,baz=120,slow=18,SNR=2.0 | | | | | | |
| MA2 | | | | LR | LR | 16 00 18.2 | |
| | comp=Z,3μm,20.4s,baz=51,slow=39 | | | | | | |
| **MA2** | **Magadan** | **7.47** | **302** | ePN | **Pn** | **15 57 17.8** | **+2.2** |
| **SEY** | **Seymchan** | **8.71** | **325** | Pn | **Pn** | **15 57 35.8** | **+3.1** |
| | comp=Z,0.6nm,0.3s,baz=132,slow=22,SNR=12 | | | | | | |
| SEY | | | | Lg | Lg | 15 59 48.9 | |
| | comp=Z,0.3nm,0.3s,baz=58,slow=17,SNR=2.7 | | | | | | |
| SEY | | | | LR | LR | 16 01 06.8 | |
| | comp=Z,4μm,18.7s,baz=140,slow=39 | | | | | | |
| **SEY** | **Seymchan** | **8.71** | **325** | ePN | **Pn** | **15 57 32.5** | **-0.1** |
| **OKH** | **Okha** | **12.00** | **266** | ⇑iPN | **Pn** | **15 58 21.0** | **+3.3** |
| OKH | | | | eS | Sn | 16 00 40.7 | +10 |
| OKH | | | | pmax | pmax | | |
| | comp=Z,600nm,8.4s | | | | | | |
| OKH | | | | smax | smax | | |
| | comp=N,800nm,14.0s | | | | | | |
| OKH | | | | MLR | MLR | | |
| | comp=Z,3μm,14.0s | | | | | | |
| **ADK** | **Adak** | **12.54** | **102** | ePN | **Pn** | **15 58 26.1** | **+1.1** |
| **ADK** | **Adak** | **12.54** | **102** | ePn | **Pn** | **15 58 26.1** | **+1.1** |
| **TYV** | **Tymovskoe** | **13.35** | **255** | ePN | **Pn** | **15 58 40.8** | **+4.7** |
| TYV | | | | pmax | pmax | | |
| | comp=Z,81nm,2.2s | | | | | | |
| **NKL** | **Nikolayevsk** | **13.41** | **266** | ePN | **Pn** | **15 58 41.0** | **+4.2** |
| NKL | | | | e | | 16 01 19.0 | |
| NKL | | | | pmax | pmax | | |
| | comp=E,1μm,10.0s | | | | | | |
| NKL | | | | pmax | pmax | | |
| | comp=Z,2μm,10.0s | | | | | | |
| NKL | | | | pmax | pmax | | |
| | comp=Z,650nm,1.9s | | | | | | |
| NKL | | | | MLR | MLR | | |
| | comp=N,2μm,13.0s | | | | | | |
| NKL | | | | MLR | MLR | | |
| | comp=E,3μm,13.0s | | | | | | |
| NKL | | | | MLR | MLR | | |
| | comp=Z,5μm,13.0s | | | | | | |
| **ATKA** | **Atka Island** | **13.76** | **97** | ePn | **Pn** | **15 58 40.3** | **-1.4** |
| **GAMB** | **Gambell** | **14.56** | **48** | ePn | **Pn** | **15 58 51.9** | **-0.5** |
| **YSS** | **Yuzh-Sakhalins** | **15.70** | **243** | eP | **P** | **15 59 12.8** | **+1.2** |
| YSS | | | | pmax | pmax | | |
| | comp=Z,70nm,1.2s | | | | | | |
| YSS | | | | MLR | MLR | | |
| | comp=Z,8μm,14.0s | | | | | | |
| YSS | | | | MLR | MLR | | |
| | comp=N,3μm,15.0s | | | | | | |
| YSS | | | | MLR | MLR | | |
| | comp=E,6μm,13.0s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **15.70** | **243** | ePn | **Pn** | **15 59 06.3** | **-1.5** |
| | comp=E,236nm,1.5s | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **16.46** | **230** | eP | **Pn** | **15 59 18.6** | **+1.2** |
| YUK | | | | eS | **Sn** | **16 02 19.9** | **+0.7** |
| YUK | | | | MLR | MLR | | |
| | comp=Z,2μm,17.0s | | | | | | |
| YUK | | | | MLR | MLR | | |
| | comp=E,383nm,13.0s | | | | | | |
| YUK | | | | MLR | MLR | | |
| | comp=N,2μm,18.0s | | | | | | |
| **AKUT** | **Akutan** | **17.73** | **84** | ePn | **P** | **15 59 34.3** | **+0.3** |
| **ASAJ** | **Asahikawa** | **17.85** | **236** | P | **P** | **15 59 35.8** | **+0.4** |
| | comp=N,4.1nm,0.3s,baz=70,slow=9.5,SNR=32 | | | | | | |
| **ASAJ** | **Asahikawa** | **17.85** | **236** | ePn | **P** | **15 59 35.6** | **+0.2** |
| | comp=N,79nm,0.9s | | | | | | |
| **YAK** | **Yakutsk** | **18.05** | **303** | P | **P** | **15 59 37.5** | **+0.2** |
| | comp=N,0.0nm,0.3s,baz=89,slow=6.3,SNR=60 | | | | | | |
| YAK | | | | S | **S** | **16 03 02.0** | **-1.0** |
| | comp=N,0.0nm,0.3s,baz=197,slow=19,SNR=1.4 | | | | | | |
| YAK | | | | LR | LR | 16 06 36.6 | |
| | comp=N,1μm,18.7s,baz=92,slow=37 | | | | | | |
| **YAK** | **Yakutsk** | **18.05** | **303** | c iP | **P** | **15 59 37.6** | **+0.2** |
| YAK | | | | eS | **Sn** | **16 02 57.5** | **+0.1** |
| YAK | | | | pmax | pmax | | |
| | comp=Z,142nm,1.0s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,97nm,1.2s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,26nm,1.3s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=Z,388nm,1.7s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,185nm,1.6s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,391nm,1.6s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=E,224nm,3.0s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=N,289nm,3.9s | | | | | | |
| YAK | | | | MLR | MLR | | |
| | comp=E,1μm,13.0s | | | | | | |
| YAK | | | | MLR | MLR | | |
| | comp=Z,2μm,14.0s | | | | | | |
| YAK | | | | MLR | MLR | | |
| | comp=N,3μm,18.0s | | | | | | |
| **YAK** | **Yakutsk** | **18.05** | **303** | ePn | **Pn** | **15 59 37.0** | **-0.1** |
| | comp=N,146nm,0.9s | | | | | | |
| YAK | | | | S | **S** | **16 03 02.0** | **-1.0** |
| **HABR** | **Khabarovsk** | **18.79** | **258** | eP | **P** | **15 59 43.9** | **-1.8** |
| HABR | | | | eS | **Sn** | **16 03 13.3** | **-2.4** |
| HABR | | | | pmax | pmax | | |
| | comp=N,35nm,1.2s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=E,24nm,1.2s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=Z,72nm,1.2s | | | | | | |
| HABR | | | | MLR | MLR | | |
| | comp=Z,2μm,15.0s | | | | | | |
| **SDPT** | **Sand Point** | **20.27** | **77** | ePn | **P** | **16 00 01.9** | **+0.2** |
| **CLNS** | **Chul'man** | **21.00** | **288** | eP | Pn | 16 00 11.5 | -0.9 |
| CLNS | | | | e | | 16 00 28.7 | |
| CLNS | | | | eS | Sn | 16 04 06.6 | -2.2 |
| CLNS | | | | e | | 16 04 15.4 | |
| CLNS | | | | pmax | pmax | | |
| | comp=Z,57nm,0.9s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=E,61nm,0.9s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=N,30nm,0.8s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=Z,39nm,0.9s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=E,65nm,1.0s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=N,62nm,1.0s | | | | | | |
| CLNS | | | | smax | smax | | |
| | comp=N,820nm,15.9s | | | | | | |
| CLNS | | | | smax | smax | | |
| | comp=E,305nm,11.7s | | | | | | |
| CLNS | | | | MLR | MLR | | |
| | comp=Z,2μm,14.0s | | | | | | |
| CLNS | | | | MLR | MLR | | |
| | comp=E,2μm,11.0s | | | | | | |
| CLNS | | | | MLR | MLR | | |
| | comp=N,2μm,13.0s | | | | | | |
| **CHGN** | **Chignik** | **21.11** | **74** | eP | **P** | **16 00 12.5** | **+1.7** |
| | comp=N,363nm,1.4s | | | | | | |
| **TIXI** | **Tiksi** | **21.15** | **330** | P | **P** | **16 00 13.1** | **+1.9** |
| | comp=N,110nm,0.7s,baz=117,slow=13,SNR=96 | | | | | | |
| TIXI | | | | PcP | **PcP** | **16 04 16.4** | **+0.5** |
| | comp=N,3.8nm,0.5s,baz=190,slow=1.7,SNR=5.8 | | | | | | |
| TIXI | | | | LR | LR | 16 09 03.0 | |
| | comp=N,1μm,21.5s,baz=118,slow=39 | | | | | | |
| **TIXI** | **Tiksi** | **21.15** | **330** | c eP | **P** | **16 00 12.9** | **+1.7** |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,356nm,1.7s | | | | | | |
| TIXI | | | | MLR | MLR | | |
| | comp=Z,6μm,14.0s | | | | | | |
| **TIXI** | **Tiksi** | **21.15** | **330** | eP | **P** | **16 00 12.6** | **+1.4** |
| | comp=Z,151nm,0.8s | | | | | | |
| TIXI | | | | PcP | **PcP** | **16 04 16.4** | **+0.5** |
| **IMAR** | **Indian Mountai** | **22.49** | **47** | eP | **P** | **16 00 25.9** | **+0.4** |
| IMAR | | | | ePcP | **PcP** | **16 04 20.0** | **+1.3** |
| **USRK** | **Ussuriysk Ar.** | **23.12** | **252** | P | **P** | **16 00 30.7** | **-1.7** |
| | comp=Z,3.2nm,0.7s,baz=54,slow=9.7,SNR=5.1 | | | | | | |
| USRK | | | | LR | LR | 16 10 19.7 | |
| | comp=Z,2μm,18.7s,baz=45,slow=39 | | | | | | |
| **PPLA** | **Purkeypile** | **23.13** | **55** | eP | **P** | **16 00 33.0** | **+0.6** |
| | comp=Z,323nm,1.6s | | | | | | |
| **RSO** | **Redoubt South** | **23.14** | **61** | eP | **P** | **16 00 33.0** | **+0.4** |
| **CAST** | **Castle Rocks** | **23.15** | **54** | eP | **P** | **16 00 32.9** | **+0.4** |
| | comp=Z,71nm,1.1s | | | | | | |
| **SPU** | **Mount Spurr** | **23.37** | **59** | eP | **P** | **16 00 35.0** | **+0.3** |
| **BPAW** | **Bear Paw Mtn.** | **23.61** | **52** | eP | **P** | **16 00 37.3** | **+0.3** |
| | comp=Z,177nm,1.2s | | | | | | |
| **KTH** | **Kantishna Hill** | **23.66** | **53** | eP | **P** | **16 00 38.0** | **+0.4** |
| | comp=Z,506nm,1.8s | | | | | | |
| **MLY** | **Manley** | **23.70** | **49** | eP | **P** | **16 00 38.3** | **+0.3** |
| | comp=Z,330nm,1.8s | | | | | | |
| MLY | | | | ePcP | **PcP** | **16 04 22.1** | **+0.8** |
| **KDAK** | **Kodiak Island** | **23.79** | **68** | P | **P** | **16 00 38.1** | **-0.6** |
| | comp=Z,31nm,0.6s,baz=309,slow=2.6,SNR=27 | | | | | | |
| **KDAK** | **Kodiak Island** | **23.79** | **68** | iP | **P** | **16 00 38.4** | **-0.3** |
| **TRF** | **Thorofare Moun** | **23.95** | **53** | eP | **P** | **16 00 40.3** | **-0.2** |
| | comp=Z,167nm,0.9s | | | | | | |
| **SUA** | **Susitna One** | **23.95** | **58** | eP | **P** | **16 00 40.8** | **+0.3** |
| | comp=Z,168nm,0.9s | | | | | | |
| **COLD** | **Coldfoot** | **24.00** | **44** | eP | **P** | **16 00 40.9** | **+0.2** |
| | comp=Z,97nm,0.8s | | | | | | |
| **CNPM** | **China Poot** | **24.06** | **63** | eP | **P** | **16 00 40.8** | **-0.6** |
| | comp=Z,148nm,0.9s | | | | | | |
| **BRLK** | **Bradley Lake** | **24.18** | **62** | eP | **P** | **16 00 41.7** | **-0.8** |
| | comp=Z,75nm,0.8s | | | | | | |
| **MCK** | **McKinley** | **24.54** | **53** | eP | **P** | **16 00 44.2** | **-1.5** |
| MCK | | | | pmax | pmax | | |
| | comp=Z,91nm,1.0s | | | | | | |
| **MCK** | **McKinley** | **24.54** | **53** | eP | **P** | **16 00 44.2** | **-1.5** |
| | comp=Z,91nm,1.0s | | | | | | |
| **RND** | **Reindeer** | **24.60** | **53** | eP | **P** | **16 00 45.3** | **-1.0** |
| RND | | | | pmax | pmax | | |
| | comp=Z,73nm,1.0s | | | | | | |
| **RND** | **Reindeer** | **24.60** | **53** | eP | **P** | **16 00 45.3** | **-1.0** |
| | comp=Z,73nm,1.0s | | | | | | |
| **PMR** | **Palmer** | **24.70** | **58** | eP | **P** | **16 00 45.9** | **-1.2** |
| PMR | | | | pmax | pmax | | |
| | comp=Z,26nm,0.9s | | | | | | |
| **PMR** | **Palmer** | **24.70** | **58** | eP | **P** | **16 00 45.9** | **-1.2** |
| | comp=Z,26nm,0.9s | | | | | | |
| **MDM** | **Murphy Dome** | **24.77** | **50** | eP | **P** | **16 00 47.4** | **-0.4** |
| | comp=Z,34nm,0.8s | | | | | | |
| **SEW** | **Seward** | **24.82** | **61** | eP | **P** | **16 00 48.0** | **-0.2** |
| | comp=Z,86nm,0.9s | | | | | | |
| **WRH** | **Wood River Hil** | **24.85** | **51** | eP | **P** | **16 00 48.6** | **+0.1** |
| | comp=Z,88nm,0.7s | | | | | | |
| **COLA** | **College** | **24.93** | **50** | eP | **P** | **16 00 49.1** | **0.0** |
| COLA | | | | pmax | pmax | | |
| | comp=Z,49nm,0.8s | | | | | | |
| **COLA** | **College** | **24.93** | **50** | eP | **P** | **16 00 49.1** | **0.0** |
| | comp=Z,49nm,0.8s | | | | | | |
| **CCB** | **Clear Creek Bu** | **24.96** | **50** | eP | **P** | **16 00 49.4** | **-0.1** |
| | comp=Z,176nm,1.4s | | | | | | |
| **SML** | **Sawmill** | **25.04** | **57** | eP | **P** | **16 00 50.0** | **-0.3** |
| SML | | | | pmax | pmax | | |
| | comp=Z,100nm,0.8s | | | | | | |
| **SML** | **Sawmill** | **25.04** | **57** | eP | **P** | **16 00 50.0** | **-0.3** |
| | comp=Z,100nm,0.8s | | | | | | |
| **DHY** | **Denali Highway** | **25.30** | **54** | eP | **P** | **16 00 52.8** | **0.0** |
| | comp=Z,208nm,1.6s | | | | | | |
| **ILAR** | **Eielson Array** | **25.35** | **50** | P | **P** | **16 00 52.9** | **-0.1** |
| | comp=Z,22nm,0.6s,baz=273,slow=10,SNR=189 | | | | | | |
| ILAR | | | | LR | LR | 16 11 28.1 | |
| | comp=Z,789nm,18.9s,baz=274,slow=38 | | | | | | |
| **ILAR** | **Eielson Array** | **25.35** | **50** | P | **P** | **16 00 52.9** | **-0.1** |
| ILAR | | | | pmax | pmax | | |
| | comp=Z,21nm,0.6s | | | | | | |
| ILAR | | | | MLR | MLR | | |
| | comp=Z,789nm,18.9s | | | | | | |
| **ILB** | **Eielson Array** | **25.35** | **50** | eP | **P** | **16 00 52.5** | **-0.5** |
| **IL1** | **Eielson Array** | **25.35** | **50** | eP | **P** | **16 00 52.4** | **-0.6** |
| **SCM** | **Sheep Creek Mo** | **25.51** | **57** | eP | **P** | **16 00 54.2** | **-0.3** |
| SCM | | | | pmax | pmax | | |
| | comp=Z,270nm,0.8s | | | | | | |
| **SCM** | **Sheep Creek Mo** | **25.51** | **57** | eP | **P** | **16 00 54.2** | **-0.3** |
| | comp=Z,266nm,0.8s | | | | | | |
| **MJB9** | **Matsu-Tunnel** | **25.93** | **231** | eP | **P** | **16 00 58.2** | **-0.4** |
| | comp=Z,53nm,0.8s | | | | | | |
| **MAJO** | **Matsushiro** | **25.93** | **231** | d iP | **P** | **16 00 58.6** | **+0.1** |
| MAJO | | | | pmax | pmax | | |
| | comp=Z,44nm,0.9s | | | | | | |
| **MAJO** | **Matsushiro** | **25.93** | **231** | eP | **P** | **16 00 57.9** | **-0.6** |
| | comp=Z,52nm,0.8s | | | | | | |
| **MAT** | **Matsushiro** | **25.93** | **231** | P | **P** | **16 00 58.2** | **-0.3** |
| MAT | | | | eS | **S** | **16 05 33.2** | **+5.9** |
| **MJAR** | **Matsushiro Arr** | **25.93** | **231** | P | **P** | **16 00 58.4** | **-0.1** |
| | comp=Z,22nm,0.9s,baz=26,slow=8.4,SNR=55 | | | | | | |
| MJAR | | | | LR | LR | 16 12 36.0 | |
| | comp=Z,2μm,19.7s,baz=35,slow=40 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **25.93** | **231** | P | **P** | **16 00 58.4** | **-0.1** |
| MJAR | | | | pmax | pmax | | |
| | comp=Z,23nm,0.9s | | | | | | |
| MJAR | | | | MLR | MLR | | |
| | comp=Z,2μm,19.7s | | | | | | |
| **FYU** | **Fort Yukon** | **25.95** | **46** | eP | **P** | **16 00 59.2** | **+0.8** |
| | comp=Z,72nm,0.7s | | | | | | |
| **KLU** | **Klutina** | **26.23** | **57** | eP | **P** | **16 01 00.9** | **-0.2** |
| | comp=Z,96nm,0.9s | | | | | | |
| **DIV** | **Divide** | **26.38** | **58** | eP | **P** | **16 01 01.4** | **-1.0** |
| | comp=Z,70nm,1.0s | | | | | | |
| **BOD** | **Bodaibo** | **26.40** | **294** | eP | **P** | **16 01 01.4** | **-1.2** |
| BOD | | | | pmax | pmax | | |
| | comp=Z,47nm,1.6s | | | | | | |
| **HARP** | **HAARP** | **26.41** | **55** | eP | **P** | **16 01 02.2** | **-0.5** |
| | comp=Z,324nm,1.7s | | | | | | |
| **DOT** | **Dot Lake** | **26.70** | **52** | eP | **P** | **16 01 03.7** | **-1.5** |
| | comp=Z,76nm,1.0s | | | | | | |
| **HIA** | **Hailar** | **26.87** | **274** | eP | **P** | **16 01 05.0** | **-2.0** |
| HIA | | | | pmax | pmax | | |
| | comp=Z,14nm,0.7s | | | | | | |
| **HIA** | **Hailar** | **26.87** | **274** | eP | **P** | **16 01 05.0** | **-2.0** |
| | comp=Z,14nm,0.7s | | | | | | |
| **CN2** | **Changchun** | **26.92** | **259** | eP | **P** | **16 01 08.1** | **+0.7** |
| CN2 | | | | eS | **S** | **16 05 42.5** | **-0.3** |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.4s | | | | | | |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,60nm,3.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,2μm,14.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,2μm,14.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,1μm,13.0s | | | | | | |
| **BMRM** | **Bremner River** | **26.97** | **58** | eP | **P** | **16 01 07.8** | **+0.1** |
| | comp=Z,92nm,0.9s | | | | | | |
| **MENT** | **Mentasta** | **26.97** | **54** | eP | **P** | **16 01 07.4** | **-0.3** |
| | comp=Z,22nm,0.8s | | | | | | |
| **INU** | **Inuyama** | **27.46** | **232** | eP | **P** | **16 01 11.2** | **-1.1** |
| | comp=Z,96nm,1.6s | | | | | | |
| **EGAK** | **Eagle** | **27.79** | **49** | eP | **P** | **16 01 14.0** | **-0.9** |
| | comp=Z,40nm,0.7s | | | | | | |
| **DAWY** | **Dawson** | **28.67** | **51** | eP | **P** | **16 01 22.4** | **-0.5** |
| | comp=Z,26nm,1.0s | | | | | | |
| **KSRS** | **Korea Array** | **30.13** | **247** | P | **P** | **16 01 34.4** | **-1.5** |
| | comp=Z,2.3nm,0.7s,baz=39,slow=8.8,SNR=8.5 | | | | | | |
| KSRS | | | | LR | LR | 16 14 18.9 | |
| | comp=Z,1μm,18.3s,baz=56,slow=38 | | | | | | |
| **KSAR** | **Wonju Array Be** | **30.16** | **247** | P | **P** | **16 01 34.4** | **-1.8** |
| **KSAR** | **Wonju Array Be** | **30.16** | **247** | P | **P** | **16 01 34.4** | **-1.8** |
| **INK** | **Inuvik** | **30.29** | **41** | P | **P** | **16 01 38.2** | **+1.1** |

comp=Z,26nm,0.6s,baz=295,slow=7.7,SNR=246
INK PcP **PcP** **16 04 37.4 +0.7**
comp=Z,5.9nm,0.9s,baz=239,slow=2.3,SNR=5.5
**INK Inuvik 30.29 41** *eP* **P** **16 01 37.9 +0.8**
comp=Z,246nm,1.8s
INK PcP **PcP** **16 04 37.4 +0.7**
**HYT Haines Junctio 30.34 56** *eP* **P** **16 01 38.4 +0.5**
comp=Z,34nm,1.1s
**TJN Taejon 31.24 246** *eP* **P** **16 01 46.7 +0.9**
**WHY Whitehorse 31.62 56** *eP* **P** **16 01 50.0 +1.0**
comp=Z,34nm,1.1s
**JNU Nakatsue 32.11 238** P **P** **16 01 54.8 +1.3**
comp=Z,3.3nm,0.8s,baz=121,slow=5.9,SNR=4.4
**IRK Irkutsk 33.80 289** *eP* **P** **16 02 08.1 0.0**
IRK pmax pmax
comp=Z,63nm,3.6s
**TLY Talaya 34.42 288** *eP* **P** **16 02 13.9 +0.4**
TLY pmax pmax
comp=Z,11nm,0.9s
**BJI Beijing 34.57 262** P **P** **16 02 14.9 +0.1**
BJI S **S** **16 07 48.3 +6.0**
BJI pmax pmax
comp=Z,10.0nm,1.3s
BJI pmax pmax
comp=Z,200nm,5.4s
BJI LR LR
comp=Z,3µm,19.8s
BJI LR LR
comp=Z,3µm,18.8s
BJI LR LR
comp=Z,2µm,16.2s
**ULN Ulaanbaatar 34.68 280** *eP* **P** **16 02 15.2 -0.7**
ULN *eS* **S** **16 07 46.5 +2.2**
ULN pmax pmax
comp=Z,23nm,1.1s
**ULN Ulaanbaatar 34.68 280** *eP* **P** **16 02 15.2 -0.7**
comp=Z,23nm,1.1s
**ULN Ulaanbaatar 34.68 280** P **P** **16 02 15.9 -0.1**
SNR=10
**ULN Ulaanbaatar 34.68 280** P **P** **16 02 15.9 -0.1**
SNR=10
**DLBC Dease Lake 34.76 58** *eP* **P** **16 02 18.1 +1.7**
comp=Z,40nm,1.2s
**SONA1 Songino Array 35.05 281** *eP* **P** **16 02 18.4 -0.7**
**SONM Songino Array 35.06 281** P **P** **16 02 18.9 -0.3**
comp=Z,11nm,0.7s,bao=60,slow=7.1,SNR=31
SONM PcP **PcP** **16 04 51.2 +0.7**
comp=Z,1.4nm,0.6s,bao=149,slow=2.1,SNR=3.7
SONM LR LR 16 15 41.5
comp=Z,522nm,20.4s,bao=50,slow=35
**ZAK Zakamensk 35.31 286** *eP* **P** **16 02 20.7 -0.6**
ZAK pmax pmax
comp=Z,6.0nm,1.3s
**H11N2 WAKE ISLAND Hy 36.52 174** T T 16 41 17.6
baz=357,slow=76
**H11N3 WAKE ISLAND Hy 36.53 174** T T 16 41 18.7
baz=357,slow=76
**H11N1 WAKE ISLAND Hy 36.53 174** T T 16 41 18.9
baz=357,slow=76
**HHC Hu-ho-hao-te 36.58 268** *eP* **P** **16 02 31.8 -0.4**
HHC PP **PP** **16 03 55.4 -0.1**
HHC S **S** **16 08 12.2 -1.2**
HHC SS **SnSn** **16 10 37.2 -6.1**
HHC ScS **ScS** **16 12 45.9 -0.6**
HHC pmax pmax
comp=Z,11nm,1.1s
HHC pmax pmax
comp=Z,210nm,5.7s
HHC LR LR
comp=Z,2µm,12.2s
HHC LR LR
comp=Z,2µm,12.4s
HHC LR LR
comp=Z,3µm,12.4s
**BTO Baotou 37.61 269** *eP* **P** **16 02 40.7 -0.3**
**H11S1 WAKE ISLAND Hy 37.72 175** T T 16 42 48.3
baz=38,slow=74,SNR=590
**H11S3 WAKE ISLAND Hy 37.73 175** T T 16 42 46.5
baz=38,slow=74,SNR=504
**H11S2 WAKE ISLAND Hy 37.74 175** T T 16 42 44.7
baz=38,slow=74,SNR=612
**NJ2 Nanjing 39.02 251** *eP* **P** **16 02 53.3 +0.5**
NJ2 pmax pmax
comp=Z,13nm,0.5s
NJ2 pmax pmax
comp=Z,180nm,5.2s
NJ2 LR LR
comp=Z,2µm,15.5s
NJ2 LR LR
comp=Z,2µm,14.9s
NJ2 LR LR
comp=Z,2µm,13.6s
**YKW3 Yellowknife Ar 39.61 46** *eP* **P** **16 02 57.5 +0.2**
comp=Z,33nm,1.4s
**YKA Yellowknife Ar 39.64 46** P **P** **16 02 58.3 +0.7**
comp=Z,11nm,0.6s,baz=300,slow=8.3,SNR=70
YKA PcP **PcP** **16 05 04.8 +0.8**
comp=Z,3.0nm,0.7s,baz=304,slow=3.6,SNR=8.8
YKA PKiKP **PKiKP** **16 12 14.3 -0.7**
comp=Z,0.3nm,0.7s,baz=284,slow=0.8,SNR=4.9
**WHN Wuhan 42.60 254** P P 16 03 28.8 +6.5
WHN S **S** **16 09 41.3 -2.2**
WHN LR LR
comp=N,5µm,16.0s
WHN LR LR
comp=E,3µm,13.2s
WHN LR LR
comp=Z,4µm,13.4s
**ZALV Zalesovo Beam 42.69 301** P **P** **16 03 22.1 -0.6**
comp=Z,1.1nm,0.6s,baz=38,slow=5.2,SNR=5.1
ZALV PP **PP** **16 04 59.8 -1.9**
comp=Z,4.0nm,0.9s,baz=38,slow=7.5,SNR=4.6
ZALV PcP **PcP** **16 05 14.7 +0.6**
comp=Z,10nm,0.8s,baz=22,slow=3.2,SNR=14
ZALV LR LR 16 22 58.0
comp=Z,586nm,21.6s,baz=44,slow=39
**ZALV Zalesovo Beam 42.69 301** *eP* **P** **16 03 21.6 -1.2**
ZALV 16 04 59.8
ZALV 16 05 14.7
**ZALV Zalesovo Beam 42.69 301** *eP* **P** **16 03 21.6 -1.2**
ZALV PP **PP** **16 04 59.8 -1.9**
ZALV PcP **PcP** **16 05 14.7 +0.6**
**NVS Novosibirsk 42.91 303** *eP* **P** **16 03 25.1 +0.6**
NVS *e* 16 05 02.4
NVS pmax pmax
comp=Z,15nm,0.7s
NVS pmax pmax
comp=N,4.0nm,0.4s
NVS pmax pmax
comp=E,15nm,0.9s
**LLLB Lillooet 42.93 65** *eP* **P** **16 03 25.9 +1.1**
comp=E,36nm,1.4s
**TULEG Thule 43.47 16** *eP* **P** **16 03 29.0 +0.2**
comp=E,22nm,0.7s
**GTA Gaotai 44.12 275** P **P** **16 03 35.2 +0.5**
GTA pP pP 16 03 42.8 +0.9
GTA sP sP 16 03 45.6 +0.8
GTA S **S** **16 10 04.5 -1.5**
GTA sS pS 16 10 14.7 +0.3
GTA SS **SS** **16 13 13.6 -10**
GTA ScS **ScS** **16 13 30.9 -0.7**
GTA pmax pmax
comp=E,70nm,0.9s
GTA pmax pmax
comp=E,300nm,6.4s
GTA LR LR
comp=E,2µm,19.2s
GTA LR LR
comp=E,2µm,19.2s
GTA LR LR
comp=E,3µm,13.8s
**LZH Lanzhou 44.23 269** ⇓P **P** **16 03 36.7 +1.1**
LZH pP pP 16 03 42.7 -0.1
LZH sP sP 16 03 46.9 +1.2
LZH PP **PcP** **16 05 23.1 +3.2**
LZH S **S** **16 10 08.4 +0.7**
LZH sS sS 16 10 21.0 +1.4
LZH SS **SS** **16 13 17.4 -8.3**
LZH pmax pmax
comp=E,55nm,0.9s
LZH pmax pmax
comp=E,240nm,8.2s
LZH LR LR
comp=E,3µm,16.7s
LZH LR LR
comp=E,3µm,16.7s
LZH LR LR
comp=E,850nm,16.3s
**B05A Bryant 44.28 67** P **P** **16 03 36.3 +0.6**
baz=310,SNR=7.2
**SPA0 Spitsbergen Ar 44.36 351** *eP* **P** **16 03 36.8 +0.8**
**SPITS Spitsbergen Ar 44.36 351** P **P** **16 03 37.2 +1.2**
baz=16,slow=6.3
**B06A Marblemount 44.43 67** *eP* **P** **16 03 37.6 +0.8**
comp=E,35nm,1.4s
**C06D Leavenworth 45.12 67** P **P** **16 03 43.0 +0.6**
baz=310
**LON Longmire 45.41 69** *eP* **P** **16 03 45.3 +0.6**
LON pmax pmax
comp=Z,28nm,1.7s
**LON Longmire 45.41 69** *eP* **P** **16 03 45.3 +0.6**
comp=Z,28nm,1.8s
**B08A Colville Reser 45.64 66** *eP* **P** **16 03 47.0 +0.5**
comp=Z,14nm,0.8s
**C09A Chrisman Ranch 46.54 66** *eP* **P** **16 03 53.6 0.0**
comp=Z,30nm,1.4s
**E07A Sunnyside 46.55 68** *eP* **P** **16 03 54.0 +0.3**
comp=Z,39nm,1.6s
**I03D Drain, OR 46.62 73** P **P** **16 03 55.2 +0.9**
baz=313
**G05D Wamic, OR 46.66 70** P **P** **16 03 55.0 +0.4**
baz=312
**D08A Wollman Farm, 46.70 67** *eP* **P** **16 03 54.7 -0.1**
comp=Z,14nm,1.2s
**KULLO Kullorsuaq 46.74 14**⇑ *iP* **P** **16 03 55.7 +0.9**
KULLO pmax pmax
comp=E,65nm,0.8s
**KULLO Kullorsuaq 46.74 14**⇑ *iP* **P** **16 03 55.7 +0.9**
comp=E,65nm,0.8s
**NEW Newport 46.82 64** P **P** **16 03 56.1 +0.3**
comp=Z,3.8nm,0.6s,baz=332,slow=6.1,SNR=11
**NEW Newport 46.82 64** P **P** **16 03 55.7 -0.1**
baz=311
**NEW Newport 46.82 64** *eP* **P** **16 03 56.1 +0.3**
comp=Z,9.9nm,0.9s
**HAWA Hanford 46.82 68** *eP* **P** **16 03 55.7 -0.1**
comp=Z,21nm,1.4s
**F07A Phinny Hill Vi 46.95 69** *eP* **P** **16 03 57.3 +0.5**
comp=Z,25nm,0.6s
**E08A Dider Farm, El 47.00 67** *eP* **P** **16 03 57.2 0.0**
comp=Z,31nm,1.6s
**I04A Tendick Farm, 47.06 72** P **P** **16 03 57.8 +0.1**
baz=313
**I05D Terrebonne, OR 47.26 71** P **P** **16 03 59.7 +0.4**
baz=313
**DAG Danmarks Havn 47.28 1**⇑ *iP* **P** **16 03 59.6 +0.6**
DAG pmax pmax
comp=E,21nm,0.8s
**DAG Danmarks Havn 47.28 1**⇑ *iP* **P** **16 03 59.6 +0.6**
comp=Z,21nm,0.8s
**E09A Wood Farm, Sta 47.46 67** *eP* **P** **16 04 00.4 -0.4**
comp=Z,15nm,0.8s
**HUMO Hull Mountain 47.57 74** P **P** **16 04 01.5 -0.3**
**J04D Umpqua Nationa 47.59 73** P **P** **16 04 03.0 +0.9**
baz=313,SNR=11
**KURK Kurchatov 47.68 301** *eP* **P** **16 04 01.2 -1.2**
KURK pmax pmax
comp=Z,39nm,1.1s
**KURK Kurchatov 47.68 301** *eP* **P** **16 04 01.0 -1.4**
comp=Z,39nm,1.1s
**KURK Kurchatov 47.68 301** P **P** **16 04 01.7 -0.7**
SNR=16
**KURK Kurchatov 47.68 301** P **P** **16 04 01.7 -0.7**
SNR=16
**WMQ Urumqi 47.70 289** P **P** **16 04 02.9 +0.1**
WMQ pP pP 16 04 11.1 +1.0
WMQ sP sP 16 04 15.9 +3.0
WMQ PP **PP** **16 05 50.8 -3.5**
WMQ S **S** **16 10 57.9 +0.6**
WMQ SS **SS** **16 14 22.9 -2.2**
WMQ pmax pmax
comp=Z,170nm,1.1s
WMQ pmax pmax
comp=Z,1µm,3.7s
WMQ LR LR
comp=Z,10µm,20.9s
WMQ LR LR
comp=Z,5µm,24.5s
WMQ LR LR
comp=Z,3µm,15.5s
**G08A Pilot Rock 47.86 68** *eP* **P** **16 04 04.0 0.0**
comp=Z,3.7nm,0.6s
**WALA Waterton Lakes 47.89 62** *eP* **P** **16 04 04.6 +0.4**
comp=Z,25nm,0.8s
**J05D Fort Rock, OR 48.03 72** P **P** **16 04 05.5 +0.1**
baz=314,SNR=12
**CD2 Chengdu 48.12 264** *eP* **P** **16 04 07.2 +1.1**
CD2 sP sP 16 04 16.1 -0.2
CD2 S **S** **16 10 58.9 -4.5**
CD2 sS sS 16 11 19.1 +3.7
CD2 SS **SS** **16 14 27.7 -4.6**
CD2 pmax pmax
comp=Z,10.0nm,1.2s
CD2 pmax pmax
comp=Z,220nm,9.5s
CD2 LR LR
comp=Z,2µm,19.0s
CD2 LR LR
comp=Z,2µm,17.8s
CD2 LR LR
comp=Z,2µm,16.7s
**F10A Beach Ranch, E 48.29 67** *eP* **P** **16 04 07.5 +0.2**
comp=Z,8.8nm,0.8s
**YBH Yreka Blue Hor 48.31 74** P **P** **16 04 09.0 +1.4**
comp=Z,5.2nm,0.6s,baz=340,slow=5.7,SNR=28
**YBH Yreka Blue Hor 48.31 74** *eP* **P** **16 04 08.8 +1.3**
YBH pmax pmax
comp=Z,21nm,1.4s
**YBH Yreka Blue Hor 48.31 74** *eP* **P** **16 04 08.8 +1.3**
comp=Z,21nm,1.4s
**M02C Callahan 48.47 75** P **P** **16 04 09.9 +1.1**
baz=314
**MK31 Makanchi Array 48.49 295** *iP* **P** **16 04 07.1 -1.7**
MK31 pmax pmax
comp=Z,9.0nm,0.5s
**MK31 Makanchi Array 48.49 295** *eP* **P** **16 04 07.2 -1.7**
**MKAR Makanchi Array 48.49 295** P **P** **16 04 07.3 -1.5**
comp=Z,26nm,0.8s,baz=59,slow=6.3,SNR=197
MKAR LR LR 16 26 35.3
comp=Z,416nm,18.4s,baz=34,slow=39
**MK01 Makanchi Array 48.50 295** *eP* **P** **16 04 06.9 -2.0**
**JTMT Jette 48.59 63** *eP* **P** **16 04 10.2 +0.6**
comp=Z,34nm,0.8s
**MAKZ Makanchi 48.64 295** *iP* **P** **16 04 07.8 -2.1**
MAKZ pmax pmax
comp=Z,27nm,1.0s
**MAKZ Makanchi 48.64 295** *eP* **P** **16 04 07.8 -2.1**
comp=Z,20nm,1.0s
**M04C Macdoel 48.74 74** P **P** **16 04 11.9 +0.9**
baz=314
**N02D Trinity Center 48.84 75** P **P** **16 04 12.8 +1.2**
baz=315
**BMO Blue Mountains 49.02 68** *eP* **P** **16 04 13.2 +0.2**
BMO pmax pmax
comp=Z,8.0nm,0.8s
**BMO Blue Mountains 49.02 68** *eP* **P** **16 04 13.2 +0.2**
comp=Z,8.2nm,0.8s
**MSO Missoula 49.38 64** P **P** **16 04 16.0 +0.3**
baz=313,SNR=7.6
**MSO Missoula 49.38 64** *eP* **P** **16 04 15.8 +0.1**
comp=Z,55nm,1.8s
**J08A Circle Bar Ran 49.44 70** *eP* **P** **16 04 15.5 -0.7**
comp=Z,12nm,1.0s
**MOD Modoc Plateau 49.48 73** *eP* **P** **16 04 17.5 +0.9**
comp=Z,17nm,1.1s
**FFC Flin Flon 49.56 49** *eP* **P** **16 04 17.0 +0.2**
FFC pmax pmax
comp=Z,19nm,1.3s
**FFC Flin Flon 49.56 49** *eP* **P** **16 04 17.0 +0.2**
comp=Z,19nm,1.3s
**O03D Paynes Creek 49.81 75** P **P** **16 04 19.4 +0.4**
baz=315
**BVA0 Borovoye Array 49.91 308** *iP* **P** **16 04 19.0 -0.6**
BVA0 pmax pmax
comp=Z,6.0nm,0.6s
**BRVK Borovoye 49.94 308** *ceP* **P** **16 04 19.1 -0.6**
BRVK pmax pmax
comp=Z,11nm,0.6s
**BRVK Borovoye 49.94 308** *eP* **P** **16 04 18.8 -0.9**
comp=Z,14nm,0.6s
**BRVK Borovoye 49.94 308** P **P** **16 04 19.6 -0.1**
SNR=5.4
**BRVK Borovoye 49.94 308** P **P** **16 04 19.6 -0.1**
SNR=5.4
**WVOR Wild Horse Val 49.99 71** *eP* **P** **16 04 20.9 +0.4**
WVOR pmax pmax
comp=Z,7.0nm,0.9s
**WVOR Wild Horse Val 49.99 71** *eP* **P** **16 04 20.9 +0.4**
comp=Z,7.4nm,0.9s
**ORV Oroville 50.50 76** *eP* **P** **16 04 24.3 +0.2**
ORV pmax pmax
comp=Z,8.0nm,1.2s
**ORV Oroville 50.50 76** *eP* **P** **16 04 24.3 +0.2**
comp=Z,8.3nm,1.2s
**HRY Holter Researc 50.51 63** *eP* **P** **16 04 24.8 +0.5**
**EGMT Eagleton 50.62 60** P **P** **16 04 25.2 +0.1**
baz=314
**EGMT Eagleton 50.62 60** *eP* **P** **16 04 25.4 +0.4**
comp=Z,18nm,0.8s
**SUMG Summit 50.63 8** *eP* **P** **16 04 25.3 +0.1**
SUMG pmax pmax
comp=Z,44nm,1.0s
**SUMG Summit 50.63 8** *i* P **P** **16 04 26.1 +0.9**
comp=Z,41nm,0.9s
**SUMG Summit 50.63 8** *eP* **P** **16 04 25.2 +0.1**
comp=Z,44nm,1.0s
**SOKR Solikamsk 50.70 321** *d iP* **P** **16 04 24.7 -0.6**
SOKR pmax pmax
comp=Z,73nm,0.7s
SOKR MLR MLR
comp=Z,1µm,14.0s
**MFID Camas Ranch 50.78 68** *eP* **P** **16 04 26.6 +0.2**
comp=Z,9.3nm,1.0s
**LRM Limekiln Ridge 50.82 64** *eP* **P** **16 04 26.9 +0.1**
**BEKR Beckworth 50.89 75** *eP* **P** **16 04 27.8 +0.4**
comp=Z,6.6nm,0.9s
**ARCES ARCESS Array B 50.89 342** P **P** **16 04 27.0 +0.3**
comp=Z,21nm,0.8s,baz=19,slow=9.9,SNR=22
ARCES PcP **PcP** **16 05 42.9 +0.1**
comp=Z,5.7nm,0.7s,baz=19,slow=5.8,SNR=4.9
**ARCES ARCESS Array B 50.89 342** *eP* **P** **16 04 26.3 -0.4**
**ARCES ARCESS Array B 50.89 342** *eP* **P** **16 04 26.6 -0.1**
ARCES PcP **PcP** **16 05 42.9 +0.1**
**ARE0 ARCESS Array S 50.89 342** *eP* **P** **16 04 26.8 +0.1**
comp=Z,49nm,1.0s
**DLMT Dillon 51.07 64** *eP* **P** **16 04 29.1 +0.6**
comp=Z,11nm,0.9s
**AFDM Forest Hills D 51.22 76** *eP* **P** 16 04 34.9 +5.3
comp=Z,7.2nm,1.1s
**SVE Sverdlovsk 51.28 317**⇓ *eP* **P** **16 04 30.5 +0.7**
SVE pmax pmax
comp=Z,36nm,0.9s
SVE MLR MLR
comp=Z,3µm,15.0s
**CYBM Yerba Buena Is 51.28 78** *eP* **P** **16 04 27.3 -2.7**
**MCMT McKenzie Canyo 51.32 65** *eP* **P** **16 04 30.3 -0.2**
**BOZ Bozeman (W) 51.39 64** P **P** **16 04 30.8 -0.2**
baz=315,SNR=9.0
**BOZ Bozeman (W) 51.39 64** *eP* **P** **16 04 31.2 +0.3**
BOZ pmax pmax
comp=Z,6.0nm,0.8s
**BOZ Bozeman (W) 51.39 64** *eP* **P** **16 04 31.2 +0.3**
comp=Z,6.5nm,0.8s
**HLID Hailey 51.41 67** P **P** **16 04 31.6 +0.5**
baz=315,SNR=9.3
**HLID Hailey 51.41 67** *eP* **P** **16 04 31.5 +0.3**
comp=Z,9.0nm,1.1s
**PAHR Pah Rah Range 51.53 74** *eP* **P** **16 04 32.6 +0.6**
comp=Z,6.1nm,0.9s
**PNTR Pine Nut 51.86 75** *eP* **P** **16 04 35.8 +1.1**
comp=Z,18nm,0.7s
**YERR Yerington 52.12 75** *eP* **P** **16 04 37.5 +0.9**
comp=Z,40nm,1.7s
**CMB Columbia Colle 52.19 76** *eP* **P** **16 04 37.6 +0.7**
CMB pmax pmax
comp=Z,37nm,1.9s
**CMB Columbia Colle 52.19 76** *eP* **P** **16 04 37.6 +0.7**
comp=Z,37nm,1.9s
**YHB Horse Butte 52.20 64** *eP* **P** **16 04 37.8 +0.6**
comp=Z,15nm,0.7s
**GCMT Greycliff 52.23 62** *eP* **P** **16 04 34.2 -3.0**
**PDGK Podgornoye 52.32 294** *i* P **P** **16 04 35.7 -2.2**
PDGK pmax pmax
comp=Z,26nm,0.8s
**YHH Holmes Hill 52.35 64** *eP* **P** **16 04 38.4 +0.1**
comp=Z,13nm,1.0s
**ARU Arti 52.36 317** *c iP* **P** **16 04 38.0 +0.2**
ARU 16 05 44.8
ARU 16 06 33.0
ARU S **S** **16 12 03.1 +1.4**
ARU SS **SS** **16 15 38.6 -0.1**
ARU pmax pmax
comp=Z,64nm,1.2s
ARU MLR MLR
comp=Z,2µm,15.0s
**ARU Arti 52.36 317** *eP* **P** **16 04 37.3 -0.6**
comp=Z,39nm,0.9s
**WAKR Walker 52.37 75** *eP* **P** **16 04 39.3 +0.9**
comp=Z,7.9nm,0.8s
**YMR Madison River 52.38 64** *eP* **P** **16 04 38.9 +0.5**
comp=Z,14nm,0.8s
**YNR Norris Junctio 52.49 64** *eP* **P** **16 04 40.3 +1.0**
comp=Z,34nm,1.5s
**YFT Old Faithful 52.60 64** *eP* **P** **16 04 42.1 +2.0**
comp=Z,16nm,0.8s
**MCID Moose Creek 52.61 65** *eP* **P** **16 04 41.8 +1.6**
**LKWY Lake 52.73 64** *eP* **P** **16 04 42.8 +1.7**
LKWY pmax pmax
comp=Z,14nm,1.0s
**LKWY Lake 52.73 64** *eP* **P** **16 04 42.8 +1.7**
comp=Z,14nm,1.0s
**YPP Pitchstone Pla 52.74 64** *eP* **P** **16 04 42.3 +1.1**
comp=Z,8.9nm,0.8s
**H17A Grant Village 52.77 64** P **P** **16 04 43.3 +1.9**
baz=316,SNR=9.4
**H17A Grant Village 52.77 64** *eP* **P** **16 04 43.1 +1.8**
comp=Z,12nm,0.8s
**TMCR Tamitsa 52.83 333** *eP* **P** **16 04 39.6 -1.6**
TMCR pmax pmax
comp=Z,64nm,0.7s
**RLMT Red Lodge 52.90 62** P **P** **16 04 43.3 +1.0**
baz=316,SNR=8.9
**RLMT Red Lodge 52.90 62** *eP* **P** **16 04 43.2 +1.0**
comp=Z,26nm,0.8s
**IMW Indian Meadow 52.94 65** *eP* **P** **16 04 43.6 +0.9**
comp=Z,37nm,1.5s
**FXWY Fox Creek 53.08 65** *eP* **P** **16 04 44.6 +0.9**
comp=Z,7.1nm,0.7s
**MOOW Moose Ponds 53.15 65** *eP* **P** **16 04 45.0 +0.8**
comp=Z,17nm,1.5s
**KMI Kunming 53.17 260** P **P** **16 04 46.8 +2.3**
KMI PP **PP** **16 06 44.9 +0.5**
KMI S **S** **16 12 12.7 -1.3**
KMI SS **SS** **16 15 50.1 -3.2**
KMI pmax pmax
comp=Z,18nm,1.0s
KMI LR LR
comp=Z,2µm,18.7s
KMI LR LR
comp=Z,2µm,19.1s
KMI LR LR
comp=Z,790nm,17.1s
**MDPB Devils Postpil 53.19 76** *eP* **P** **16 04 45.6 +1.0**
comp=Z,15nm,1.2s
**TPAW Teton Pass 53.23 65** *eP* **P** **16 04 45.8 +1.1**
comp=Z,9.7nm,0.8s
**REDW Red Top Meadow 53.37 65** *eP* **P** **16 04 46.6 +0.8**
comp=Z,11nm,1.0s
**HVU Hansel Valley 53.52 68** *eP* **P** **16 04 48.0 +1.1**
HVU pmax pmax
comp=Z,7.0nm,1.0s
**HVU Hansel Valley 53.52 68** *eP* **P** **16 04 48.0 +1.1**
comp=Z,6.9nm,1.0s
**SCO Scoresbysund 53.56 2** *i* P **P** **16 04 47.6 +1.2**
**SCO Scoresbysund 53.56 2** *i* P **P** **16 04 47.6 +1.2**
**BGU Big Grassy Mou 54.01 69** *eP* **P** **16 04 50.9 +0.5**
comp=Z,20nm,1.8s
**QIZ Qiongzhong 54.28 249** P **P** **16 04 53.2 +0.8**
QIZ S **S** **16 12 30.4 +1.8**
QIZ pmax pmax
comp=Z,260nm,5.8s
QIZ LR LR
comp=Z,870nm,15.4s
QIZ LR LR
comp=Z,810nm,13.7s
QIZ LR LR
comp=Z,1µm,14.9s
**SMMC Simmler 54.40 78** P **P** **16 04 55.1 +1.9**
baz=318
**BW06 Boulder Array 54.45 65** P **P** **16 04 54.3 +0.6**

baz=317,SNR=17
**BW06 Boulder Array 54.45 65** *e*P **P 16 04 53.9 +0.2**
comp=Z,10nm,0.9s
**PD31 Pinedale Array 54.45 65** *e*P **P 16 04 53.7 0.0**
**PDAR Pinedale Array 54.45 65** P **P 16 04 54.5 +0.8**
comp=Z,5.6nm,0.7s,baz=324,slow=2.8,SNR=41
PDAR LR LR 16 28 50.3
comp=Z,342nm,19.3s,baz=332,slow=37
**PDAR Pinedale Array 54.45 65** *e*P **P 16 04 53.7 0.0**
**VES Vestal, Richgr 54.51 77** P **P 16 04 54.7 +0.8**
baz=318
**SFJD Kangerlussuaq 54.53 16** *e*P **P 16 04 53.6 0.0**
**SFJD Kangerlussuaq 54.53 16** *i* P **P 16 04 53.6 0.0**
**R11A Troy Canyon, C 54.55 73** P **P 16 04 55.4 +1.0**
baz=318,SNR=7.7
**R11A Troy Canyon, C 54.55 73** *e*P **P 16 04 54.6 +0.2**
comp=Z,14nm,1.4s
**TKM2 Tokmak 2 54.59 296** P **P 16 04 54.0 -0.7**
SNR=22
**CWC Cottonwood Cre 54.61 76** P **P 16 04 56.0 +1.2**
baz=318
**DUG Dugway, Tooele 54.66 69** P **P 16 04 56.0 +0.9**
baz=317,SNR=7.0
**DUG Dugway, Tooele 54.66 69** *e*P **P 16 04 55.7 +0.6**
DUG pmax pmax
comp=Z,9.0nm,0.8s
**DUG Dugway, Tooele 54.66 69** *e*P **P 16 04 55.7 +0.6**
comp=Z,9.5nm,0.8s
**ULHL Ulahol 54.76 295** P **P 16 04 55.4 -0.5**
SNR=7.0
**PKM Mcpherson Peak 54.82 78** P **P 16 04 57.5 +1.1**
baz=318
**USP Ospenovka 54.89 297** P **P 16 04 56.4 -0.3**
SNR=51
**CHMS Chumysh 54.96 296** P **P 16 04 56.7 -0.4**
SNR=17
**ISA Isabella, Lake 54.97 77** P **P 16 04 58.0 +0.6**
baz=318
**ISA Isabella, Lake 54.97 77** *e*P **P 16 04 57.5 +0.1**
ISA pmax pmax
comp=Z,27nm,1.7s
**ISA Isabella, Lake 54.97 77** *e*P **P 16 04 57.5 +0.1**
comp=Z,27nm,1.7s
**KBK Karagaybulak 55.11 296** P **P 16 04 57.9 -0.5**
SNR=47
**FRU Bishkek 55.15 296** *e*P **P 16 04 58.0 -0.5**
**KLMR Klimovskoe 55.17 330** *e*P **P 16 04 56.6 -1.7**
KLMR *e* 16 05 56.2
KLMR pmax pmax
comp=Z,102nm,1.2s
**MPMC Manual Prospec 55.22 76** P **P 16 05 00.4 +1.1**
baz=318,SNR=5.4
**NLU North Lily Min 55.22 69** *e*P **P 16 04 59.8 +0.6**
comp=Z,11nm,1.1s
**TPNV Topopah Spring 55.22 74** P **P 16 05 00.5 +1.2**
baz=318
**TPNV Topopah Spring 55.22 74** *e*P **P 16 04 59.5 +0.2**
TPNV pmax pmax
comp=Z,25nm,1.2s
**TPNV Topopah Spring 55.22 74** *e*P **P 16 04 59.5 +0.2**
comp=Z,24nm,1.2s
**FURC Furnace Creek, 55.25 75** P **P 16 05 00.7 +1.5**
baz=318,SNR=7.6
**AAK Ala-Archa 55.35 296** *e*P **P 16 04 59.3 -0.9**
AAK pmax pmax
comp=Z,59nm,1.0s
**AAK Ala-Archa 55.35 296** P **P 16 04 59.7 -0.4**
SNR=60
**AAK Ala-Archa 55.35 296** *e*P **P 16 04 59.2 -0.9**
comp=Z,59nm,1.0s
**AAK Ala-Archa 55.35 296** P **P 16 05 00.0 -0.1**
SNR=15
**AAK Ala-Archa 55.35 296** P **P 16 05 00.0 -0.1**
SNR=15
**ULM Lac du Bonnet 55.37 50** P **P 16 05 00.7 +0.8**
comp=Z,13nm,0.8s,baz=322,slow=6.8,SNR=25
ULM PcP **PcP 16 06 00.2 +0.1**
comp=Z,4.1nm,0.5s,baz=314,slow=6.3,SNR=5.3
ULM LR LR 16 29 43.1
comp=Z,392nm,18.7s,baz=347,slow=37
**ULM Lac du Bonnet 55.37 50** *e*P **P 16 05 00.5 +0.6**
ULM 16 06 00.2
ULM pmax pmax
comp=Z,17nm,0.8s
**ULM Lac du Bonnet 55.37 50** *e*P **P 16 05 00.5 +0.6**
comp=Z,17nm,0.8s
ULM PcP **PcP 16 06 00.2 +0.1**
**MPU Maple Canyon 55.40 68** *e*P **P 16 05 01.2 +0.6**
comp=Z,10nm,0.9s
**MDND Maddock 55.51 54** P **P 16 05 02.0 +1.0**
baz=318
**MDND Maddock 55.51 54** *e*P **P 16 04 59.9 -1.1**
comp=Z,16nm,0.8s
**LRMC Laurel Mtn Rad 55.54 76** P **P 16 05 02.6 +1.1**
baz=318,SNR=8.3
**SCZ2 Santa Cruz Isl 55.58 79** P **P 16 05 02.6 +0.9**
baz=319
**UCH Uchtor 55.65 296** P **P 16 05 02.2 -0.4**
SNR=13
**EKS2 Erkin-Say 55.70 297** P **P 16 05 02.3 -0.2**
SNR=40
**EDW2 Edwards Air Fo 55.82 77** P **P 16 05 04.4 +1.0**
baz=319,SNR=6.2
**B31A Greenbush Farm 55.96 53** P **P 16 05 05.2 +1.1**
baz=318,SNR=12
**K22A Casper 56.06 63** P **P 16 05 05.9 +0.7**
baz=318
**K22A Casper 56.06 63** *e*P **P 16 05 05.7 +0.5**
comp=Z,17nm,1.0s
**LSA Lhasa 56.08 274** *e*P **P 16 05 05.7 -0.1**
LSA pmax pmax
comp=Z,17nm,0.8s
**LSA Lhasa 56.08 274** *e*P **P 16 05 05.7 -0.1**
comp=Z,17nm,0.8s
**A32A Rocking H Ranc 56.10 51** P **P 16 05 06.0 +0.9**
baz=319,SNR=5.8
**DECC Green Verdugo 56.10 78** P **P 16 05 06.7 +1.2**
baz=319
**AML Almayashu 56.13 296** P **P 16 05 05.6 -0.4**
SNR=8.3
**SHPR Sheep Range 56.14 74** *e*P **P 16 05 06.3 +0.4**
comp=Z,12nm,1.4s
**GSC Goldstone, Bar 56.15 76** P **P 16 05 07.0 +1.1**
baz=319,SNR=5.8
**GSC Goldstone, Bar 56.15 76** *e*P **P 16 05 06.9 +1.1**
GSC pmax pmax
comp=Z,19nm,1.1s
**GSC Goldstone, Bar 56.15 76** *e*P **P 16 05 06.9 +1.1**
comp=Z,19nm,1.1s
**TMUT Trail Mountain 56.16 69** *e*P **P 16 05 07.1 +1.0**
comp=Z,14nm,0.9s
**RSSD Black Hills 56.19 60** P **P 16 05 06.7 +0.5**
baz=318
**RSSD Black Hills 56.19 60** *e*P **P 16 05 06.2 0.0**
RSSD pmax pmax
comp=Z,13nm,0.9s
**RSSD Black Hills 56.19 60** *e*P **P 16 05 06.2 0.0**
comp=Z,13nm,0.9s
**P17A Butcher Ranch, 56.27 68** *e*P **P 16 05 07.2 +0.4**
comp=Z,10nm,0.9s
**MWC Mount Wilson 56.27 78** *e*P **P 16 05 07.7 +0.8**
MWC pmax pmax
comp=Z,60nm,1.7s
**MWC Mount Wilson 56.27 78** *e*P **P 16 05 07.7 +0.8**
comp=Z,60nm,1.7s
**CCUT Cedar City 56.32 72** *e*P **P 16 05 08.2 +1.0**
comp=Z,8.6nm,1.0s
**C31A Landman Farms, 56.40 53** P **P 16 05 08.0 +0.7**
baz=319,SNR=9.8
**P18A Preston Nutter 56.41 68** *e*P **P 16 05 08.9 +1.0**
comp=Z,11nm,0.9s
P18A *e*S **S 16 12 58.6 +1.3**
**Q16A Castle Valley 56.45 69** *e*P **P 16 05 08.9 +0.8**
comp=Z,12nm,0.9s
**MNAS Manas 56.46 297** *i* P **P 16 05 07.2 -0.8**
MNAS pmax pmax
comp=Z,17nm,0.6s
**B32A Ashes, Strandq 56.47 52** P **P 16 05 08.5 +0.6**
baz=319,SNR=5.2
**BFSC Mount Baldy Ra 56.48 77** P **P 16 05 09.2 +0.9**
baz=319
**TUQ Turquoise Moun 56.52 75** P **P 16 05 09.7 +1.1**
baz=319,SNR=5.1
**A33A Warroad 56.56 51** P **P 16 05 09.1 +0.6**
baz=319,SNR=5.7
**MTPU Mount Pierson 56.58 70** *e*P **P 16 05 10.2 +1.0**
comp=Z,15nm,1.3s
**SRU San Rafael Swe 56.65 68** *e*P **P 16 05 10.7 +1.2**
SRU pmax pmax
comp=Z,25nm,0.9s
**SRU San Rafael Swe 56.65 68** *e*P **P 16 05 10.7 +1.2**
comp=Z,25nm,0.9s
**HEC Hector,Ludlow 56.76 76** P **P 16 05 10.9 +0.7**
baz=319
**LCMT Little Creek M 56.78 72** *e*P **P 16 05 11.7 +1.3**
comp=Z,16nm,1.3s
**AGMN Agassiz Nation 56.84 52** P **P 16 05 10.9 +0.4**
baz=319,SNR=5.9
**AGMN Agassiz Nation 56.84 52** *e*P **P 16 05 10.9 +0.4**
comp=Z,12nm,0.8s
**KSH Kashi 56.91 293** P **P 16 05 14.5 +3.3**
KSH pP sP 16 05 22.6 +1.1
KSH PcP **PcP 16 06 09.7 +3.2**
KSH PP **PP 16 07 21.8 +4.3**
KSH S **S 16 13 05.3 +1.7**
KSH ScS **ScS 16 14 57.8 -1.1**
KSH pmax pmax
comp=Z,17nm,0.9s
KSH LR LR
comp=Z,540nm,11.3s
KSH LR LR
comp=Z,550nm,8.1s
KSH LR LR
comp=Z,750nm,8.9s
**D31A Mcclaflin, Tow 56.96 54** P **P 16 05 12.2 +0.9**
baz=319,SNR=7.1
**KK31 Karatay Array 56.98 299** *ce*P **P 16 05 10.5 -1.1**
KK31 pmax pmax
comp=Z,49nm,0.9s
**B33A Robert and Kas 56.98 51** P **P 16 05 11.2 -0.2**
baz=319
**O20A White River Ci 57.06 66** P **P 16 05 13.5 +1.1**
baz=318,SNR=23
**O20A White River Ci 57.06 66** *e*P **P 16 05 12.9 +0.5**
comp=Z,23nm,0.7s
**GMRC Granite Mounta 57.16 75** P **P 16 05 13.6 +0.5**
baz=319,SNR=11
**AB31 Akbulak array 57.17 311** *ce*P **P 16 05 12.6 -0.2**
AB31 pmax pmax
comp=Z,14nm,0.7s
**D32A Dogwood Acres, 57.21 53** P **P 16 05 13.7 +0.6**
baz=319
**B34A Aery, Baudette 57.23 51** P **P 16 05 13.0 -0.2**
baz=320
**C33A Trail 57.29 52** P **P 16 05 14.2 +0.6**
baz=319
**BELC Belle Mtn. Jos 57.56 76** P **P 16 05 16.9 +0.9**
baz=319
**E32A Braaten, Kindr 57.60 54** P **P 16 05 16.3 +0.4**
baz=319
**PFO Pinyon Flats O 57.61 77** P **P 16 05 17.2 +0.9**
comp=Z,3.0nm,0.6s,baz=312,slow=4.7,SNR=6.7
**PFO Pinyon Flats O 57.61 77** P **P 16 05 17.0 +0.7**
baz=320
**TPFO Pinon Flats 57.61 77** P **P 16 05 16.5 +0.2**
baz=320
**F31A Hecla 57.62 55** P **P 16 05 16.3 +0.3**
baz=319
**N23A Red Feather La 57.66 64** P **P 16 05 17.8 +1.1**
baz=319,SNR=7.1
**N23A Red Feather La 57.66 64** *e*P **P 16 05 17.3 +0.6**
comp=Z,12nm,0.9s
**B35A Bob, Littlefor 57.72 50** P **P 16 05 17.2 +0.5**
baz=320,SNR=5.4
**D33A Sam, Wakubun 57.73 52** P **P 16 05 16.8 +0.1**
baz=320,SNR=5.0
**C34A RKJ Ranch, Bem 57.75 51** P **P 16 05 17.6 +0.7**
baz=320
**SFK Sufi-Kurgan 57.80 295** *i* P **P 16 05 15.3 -2.4**
SFK pmax pmax
comp=Z,7.0nm,0.8s
**PV09 Paradox Valley 57.83 68** *e*P **P 16 05 18.4 +0.4**
**IRM Iron Mountain 57.91 76** P **P 16 05 19.3 +1.1**
baz=319
**PV10 Paradox Valley 57.97 68** *e*P **P 16 05 17.9 -1.0**
**FIA1 FINESS Array S 57.98 337** *e*P **P 16 05 18.2 0.0**
**FINES FINESS Array B 57.98 337** P **P 16 05 18.3 0.0**
comp=Z,26nm,0.7s,baz=38,slow=9.6,SNR=42
FINES PcP **PcP 16 06 09.7 -0.4**
comp=Z,8.6nm,0.7s,baz=35,slow=5.1,SNR=2.8
FINES LR LR 16 34 06.1
comp=Z,575nm,18.4s,baz=358,slow=40
**PV04 Paradox Valley 58.02 68** *e*P **P 16 05 19.9 +0.7**
**D34A Park Rapids 58.06 52** P **P 16 05 19.5 +0.5**
baz=320,SNR=8.8
**C35A Jirik Farms, M 58.12 51** P **P 16 05 20.0 +0.5**
baz=320
**BC3 Big Chuckawall 58.12 76** P **P 16 05 20.7 +0.9**
baz=320
**F32A Veblen 58.12 54** P **P 16 05 19.5 0.0**
baz=320
**E33A Westby DABS, E 58.14 53** P **P 16 05 20.2 +0.6**
baz=320
**PV05 Paradox Valley 58.16 68** *e*P **P 16 05 21.1 +0.9**
**PDMCI Parker Dam,Lak 58.34 75** P **P 16 05 20.9 -0.3**
baz=320
**PV01 Paradox Valley 58.39 68** *e*P **P 16 05 22.7 +0.9**
**G32A Webster 58.42 55** P **P 16 05 21.1 -0.5**
baz=320
**SMCO Snowmass 58.43 66** *e*P **P 16 05 22.8 +0.5**
comp=Z,9.4nm,0.9s
**PUL Pulkovo 58.50 334** *de*P **P 16 05 23.6 +1.7**
PUL pmax pmax
comp=Z,103nm,0.6s
**F33A 5 Mile Ranch, 58.52 54** P **P 16 05 23.0 +0.7**
baz=320,SNR=5.3
**IKP In-Ko-Pah, Jac 58.53 77** P **P 16 05 23.0 +0.4**
baz=320
**Y12C Blythe 58.55 75** P **P 16 05 23.9 +1.2**
baz=320
**Y12C Blythe 58.55 75** *e*P **P 16 05 23.6 +0.9**
comp=Z,8.0nm,0.7s
**H31A Wolsey 58.56 56** P **P 16 05 22.9 +0.3**
baz=320
**D35A Remer 58.56 51** P **P 16 05 22.9 +0.3**
baz=320
**C36A Pine Crest Far 58.57 50** P **P 16 05 23.1 +0.5**
baz=321
**ISCO Idaho Springs 58.65 64** P **P 16 05 24.2 +0.5**
baz=319,SNR=11
**ISCO Idaho Springs 58.65 64** *e*P **P 16 05 24.4 +0.8**
ISCO pmax pmax
comp=Z,14nm,1.0s
**ISCO Idaho Springs 58.65 64** *e*P **P 16 05 24.4 +0.8**
comp=Z,14nm,1.0s
**E35A Pequot Lakes 58.81 52** P **P 16 05 24.8 +0.4**
baz=320
**SHL Shillong 58.87 270** *e*P **P 16 05 27.0 +1.8**
**C37A Embarrass 58.87 50** P **P 16 05 25.2 +0.5**
baz=321
**D36A Goodland 58.87 51** P **P 16 05 24.8 +0.1**
baz=321
**I31A Royce, Wessing 58.88 57** P **P 16 05 24.9 +0.1**
baz=320
**WUAZ Wupatki 58.90 72** P **P 16 05 25.3 0.0**
baz=320
**WUAZ Wupatki 58.90 72** *e*P **P 16 05 25.2 0.0**
comp=Z,24nm,1.5s
**GLA Glamis 58.92 76** P **P 16 05 26.5 +1.2**
baz=320
**GLA Glamis 58.92 76** *e*P **P 16 05 26.3 +1.0**
GLA pmax pmax
comp=Z,11nm,0.8s
**GLA Glamis 58.92 76** *e*P **P 16 05 26.3 +1.0**
comp=Z,11nm,0.8s
**G33A Ortonville 58.95 54** P **P 16 05 25.9 +0.6**
baz=320,SNR=6.7
**EYMN Ely 58.99 49** P **P 16 05 26.1 +0.5**
baz=321,SNR=7.3
**EYMN Ely 58.99 49** *e*P **P 16 05 25.9 +0.3**
comp=Z,26nm,0.8s
**F34A Alexandria 59.02 53** P **P 16 05 26.4 +0.7**
baz=320
**H32A Carlson Farm, 59.02 55** P **P 16 05 26.0 +0.1**
baz=320
**MVCO Mesa Verde 59.13 68** P **P 16 05 27.6 +0.7**
baz=320
**MVCO Mesa Verde 59.13 68** *e*P **P 16 05 27.9 +0.9**
comp=Z,54nm,2.0s
**H33A Prehn Over Nor 59.20 55** P **P 16 05 27.1 0.0**
baz=320
**D37A Cotton 59.21 50** P **P 16 05 27.1 +0.1**
baz=321
**C38A Sawbill Land. 59.26 49** P **P 16 05 27.7 +0.3**
baz=321
**G34A Benson 59.27 54** P **P 16 05 28.0 +0.5**
baz=320
**F35A Swanville 59.27 53** P **P 16 05 28.1 +0.6**
baz=321
**E36A McGregor 59.34 51** P **P 16 05 28.7 +0.6**
baz=321,SNR=6.1
**Q24A Divide 59.51 65** P **P 16 05 30.4 +0.7**
baz=320
**Q24A Divide 59.51 65** *e*P **P 16 05 31.0 +1.3**
comp=Z,16nm,1.4s
**S22A 4UR Ranch, Cre 59.58 67** P **P 16 05 31.4 +1.2**
baz=320,SNR=13
**S22A 4UR Ranch, Cre 59.58 67** *e*P **P 16 05 31.7 +1.5**
comp=Z,10.0nm,0.9s
**H34A Spellman Lake, 59.65 54** P **P 16 05 30.8 +0.6**
baz=321,SNR=7.8
**I33A Coleman 59.66 55** P **P 16 05 30.9 +0.6**
baz=320
**J32A Parkston 59.70 57** P **P 16 05 30.4 -0.1**
baz=320
**F36A Milaca 59.74 52** P **P 16 05 31.0 +0.2**
baz=321
**TAPN Taplejung 59.81 275** *e*P **P 16 05 30.6 -1.2**
comp=Z,29nm,0.5s
**G35A Watkins 59.81 53** P **P 16 05 31.8 +0.6**
baz=321
**ECSD EROS Data Cent 59.99 55** P **P 16 05 33.3 +0.7**
baz=321
**ECSD EROS Data Cent 59.99 55** *e*P **P 16 05 32.6 +0.1**
comp=Z,52nm,1.8s
**E38A The Farm, Brul 60.01 50** P **P 16 05 32.8 +0.2**
baz=322
**MOS Moscow 60.02 328** *e*P **P 16 05 32.7 +0.2**
MOS *e* 16 06 22.6
MOS pmax pmax
comp=Z,231nm,1.0s
MOS pmax pmax
comp=N,128nm,0.9s
MOS MLR MLR
comp=Z,1μm,20.0s
**H35A Sunnyside Ranc 60.06 54** P **P 16 05 33.7 +0.7**
baz=321,SNR=8.6
**W18A Petrified Fore 60.07 71** P **P 16 05 34.9 +1.5**
baz=320
**W18A Petrified Fore 60.07 71** *e*P **P 16 05 33.6 +0.2**
comp=Z,7.1nm,0.8s
**G36A St. Michael 60.12 53** P **P 16 05 34.1 +0.7**
baz=321
**J33A Davis 60.15 56** P **P 16 05 33.8 +0.2**
baz=321
**F37A Hinrichs Farm, 60.24 52** P **P 16 05 34.7 +0.5**
baz=322
**SDCO Great Sand Dun 60.26 66** P **P 16 05 36.0 +1.1**
baz=320,SNR=9.9
**SDCO Great Sand Dun 60.26 66** *e*P **P 16 05 35.8 +0.9**
comp=Z,7.9nm,1.1s
**CMMT Chiang Mai 60.32 259** P **P 16 05 35.1 +0.1**
comp=Z,10.0nm,1.0s
**CHTO Chiang Mai 60.32 259** P **P 16 05 35.1 +0.1**
comp=Z,45nm,1.2s
**CHTO Chiang Mai 60.32 259** *e*P **P 16 05 33.9 -1.1**
CHTO pmax pmax
comp=Z,6.0nm,0.8s
**CHTO Chiang Mai 60.32 259** *e*P **P 16 05 33.9 -1.1**
comp=Z,6.5nm,0.8s
**ODAN Odare 60.37 275** *e*P **P 16 05 34.6 -1.0**
comp=Z,58nm,0.8s
**F38A Pierce - Schro 60.38 51** P **P 16 05 36.1 +1.0**
baz=322,SNR=7.2
**GUN Gumba 60.39 277** *e*P **P 16 05 34.8 -1.1**
comp=Z,92nm,0.6s
**JIRN Jiri 60.41 276** *e*P **P 16 05 34.7 -1.3**
**VSU Vasula 60.51 335** *de*P **P 16 05 37.1 +1.3**
**SPMN Marine on St. 60.55 52** P **P 16 05 37.2 +0.9**
baz=322
**SPMN Marine on St. 60.55 52** *e*P **P 16 05 36.6 +0.3**
comp=Z,99nm,1.8s
**H36A Jessenland, He 60.56 53** P **P 16 05 37.5 +1.1**
baz=321
**CM31 Chiang Mai Arr 60.61 259** *e*P **P 16 05 37.8 +0.8**
**CMAR Chiang Mai Arr 60.61 259** P **P 16 05 36.5 -0.6**
comp=Z,4.9nm,0.8s,baz=19,slow=6.9,SNR=36
CMAR PcP **PcP 16 06 21.6 +0.4**
comp=Z,4.7nm,0.8s,baz=18,slow=3.9,SNR=9.2
CMAR LR LR 16 34 34.5
comp=Z,507nm,18.4s,baz=40,slow=39
**E39A Mellen 60.62 50** P **P 16 05 36.9 +0.2**
baz=322
**CM01 Chiang Mai Arr 60.63 259** *e*P **P 16 05 36.4 -0.8**
**J34A George 60.64 55** P **P 16 05 37.4 +0.4**
baz=321
**I35A Creekview Farm 60.64 54** P **P 16 05 37.4 +0.5**
baz=321,SNR=5.8
**K33A Hardington 60.69 57** P **P 16 05 37.5 +0.2**
baz=321
**RAMN Ramite 60.73 275** *e*P **P 16 05 36.8 -1.3**
comp=Z,79nm,0.4s
**KSCO Kaye Shedlock' 60.74 63** P **P 16 05 38.6 +0.7**
baz=320
**KKN Kakani 60.81 277** *e*P **P 16 05 37.7 -0.9**
comp=Z,77nm,0.7s
**F39A Loretta 60.83 50** P **P 16 05 38.6 +0.4**
baz=322
**E40A Wakefield 60.84 49** P **P 16 05 38.9 +0.6**
baz=322,SNR=7.7
**OBN Obninsk 60.87 328** *ci* P **P 16 05 38.8 +0.6**
OBN *i* 16 06 22.0
OBN pmax pmax
comp=Z,119nm,1.0s
OBN MLR MLR
comp=Z,712nm,18.0s
**OBN Obninsk 60.87 328** *e*P **P 16 05 38.1 -0.1**
comp=Z,133nm,1.0s
**NC204 NORSAR Array S 60.88 345** *e*P **P 16 05 38.6 +0.2**
**NC405 NORSAR Array S 60.90 345** *e*P **P 16 05 38.4 -0.1**
**PKI Pulchoki 60.91 277** *e*P **P 16 05 38.3 -1.1**
comp=Z,106nm,0.9s
**D41A Chassel 60.92 48** P **P 16 05 39.1 +0.4**
baz=323
**PKIN Phulchoki 60.92 277** *e*P **P 16 05 38.5 -0.9**
comp=Z,120nm,0.7s
**J35A Milford 60.92 55** P **P 16 05 39.4 +0.5**
baz=321
**G38A Ridgeland 61.01 51** P **P 16 05 39.4 -0.1**
baz=322
**NB201 NORSAR Array S 61.02 345** *e*P **P 16 05 39.6 +0.3**
**NB2 NORSAR Subarra 61.04 345** P **P 16 05 39.6 +0.1**
comp=Z,21nm,0.8s,baz=18,slow=6.9
**NB2 NORSAR Subarra 61.04 345** P **P 16 05 39.6 +0.1**
baz=18,slow=6.9
**NOA NORSAR Array B 61.04 345** P **P 16 05 39.9 +0.4**
comp=Z,15nm,0.7s,baz=18,slow=6.8,SNR=30
NOA PcP **PcP 16 06 22.6 +0.3**
comp=Z,2.9nm,0.8s,baz=19,slow=2.8,SNR=4.0
**K34A Le Mars 61.04 56** P **P 16 05 40.1 +0.3**
baz=321
**DMN Daman 61.05 277** *e*P **P 16 05 39.4 -0.9**
comp=Z,70nm,0.8s
**BGNE Belgrade 61.07 58** P **P 16 05 40.3 +0.3**
baz=321
**BGNE Belgrade 61.07 58** *e*P **P 16 05 40.0 +0.1**
comp=Z,53nm,1.2s
**F40A Park Falls 61.17 50** P **P 16 05 40.6 +0.1**
baz=322
**G39A Holcombe 61.22 51** P **P 16 05 41.0 +0.2**
baz=322
**DANN Dangsing 61.22 279** *e*P **P 16 05 40.9 -0.6**
comp=Z,9.5nm,0.8s
**E41A Kenton 61.22 49** P **P 16 05 41.2 +0.3**
baz=323
**I37A Lemond, Waseca 61.23 53** P **P 16 05 41.7 +0.8**
baz=322
**T25A Trinidad 61.28 66** P **P 16 05 42.5 +0.8**
baz=321
**T25A Trinidad 61.28 66** *e*P **P 16 05 41.7 0.0**
comp=Z,49nm,1.8s
**J36A Seneca 1, Swea 61.35 54** P **P 16 05 42.1 +0.3**
baz=322
**K35A Storm Lake 61.41 55** P **P 16 05 42.2 0.0**
baz=322
**L34A Svendsen Farm, 61.47 57** P **P 16 05 42.7 +0.1**
baz=321
**TUC Tucson 61.67 74** P **P 16 05 44.8 +0.7**
baz=321
**TUC Tucson 61.67 74** *e*P **P 16 05 44.7 +0.5**
TUC pmax pmax
comp=Z,8.0nm,1.3s

**TUC Tucson** 61.67 74 *e*P P 16 05 44.7 +0.5
comp=Z,8.2nm,1.3s
**J37A Redenius Farm,** 61.72 54 P P 16 05 43.6 -0.6
baz=322
**F41A Three Lakes** 61.74 49 P P 16 05 43.9 -0.5
baz=323
**L35A Bielow Farm, R** 61.75 56 P P 16 05 44.2 -0.3
baz=322
**KOLN Koldanda** 61.76 278 *e*P P 16 05 43.9 -1.1
comp=Z,116nm,0.8s
**K36A Gilmore City** 61.84 55 P P 16 05 45.3 +0.3
baz=322
**PYUN Piuthan** 61.84 279 *e*P P 16 05 44.6 -0.9
comp=Z,231nm,1.0s
**ANMO Albuquerque** 61.92 69 P P 16 05 47.2 +1.3
comp=Z,4.7nm,0.6s,baz=160,slow=6.5,SNR=20
**ANMO Albuquerque** 61.92 69 P P 16 05 46.9 +0.9
baz=321
**ANMO Albuquerque** 61.92 69 *e*P P 16 05 46.5 +0.5
ANMO pmax pmax
comp=Z,7.0nm,0.8s
**ANMO Albuquerque** 61.92 69 *e*P P 16 05 46.5 +0.5
comp=Z,7.2nm,0.8s
**SCHQ Schefferville** 62.03 30 P P 16 05 46.4 +0.2
comp=Z,28nm,0.7s,baz=340,slow=6.2,SNR=17
SCHQ LR LR 16 34 23.8
comp=Z,243nm,21.6s,baz=34,slow=38
**SCHQ Schefferville** 62.03 30 *e*P P 16 05 46.1 -0.1
comp=Z,34nm,0.8s
**M35A Neola** 62.18 57 P P 16 05 47.5 0.0
baz=322
**I39A Houston** 62.19 52 P P 16 05 47.4 -0.1
baz=323
**N34A Lincoln** 62.30 57 P P 16 05 48.0 -0.2
baz=322
**LPSR Galich'ya Gora** 62.30 325 *e*P P 16 05 48.5 +0.5
**O33A Hebron** 62.38 59 P P 16 05 48.7 0.0
baz=322,SNR=5.4
**H41A Junction City** 62.40 50 P P 16 05 48.6 -0.2
baz=323
**BNM Barren Site** 62.45 69 *e*P P 16 05 48.7 -0.9
**L37A Phoenix Point,** 62.56 55 P P 16 05 50.1 +0.2
baz=322
**VRH Novokhopyorsk** 62.57 323 *e*P P 16 05 50.0 +0.2
VRH pmax pmax
comp=Z,140nm,0.7s
**SRAK Srakaew** 62.57 253 P P 16 05 53.9 +3.6
comp=Z,51nm,0.9s
**KONO Kongsberg** 62.61 345 *ce*P P 16 05 51.5 +1.6
**N35A Tabor** 62.68 57 P P 16 05 51.1 +0.4
baz=322,SNR=8.2
**UTHA Uthaitani** 62.70 257 P P 16 06 05.1 +14
**O34A Beatrice** 62.72 58 P P 16 05 50.7 -0.3
baz=322
**E45A Wooded Hills,** 62.87 46 P P 16 05 51.5 -0.4
baz=324
**L38A Oak Wood Farm,** 62.91 54 P P 16 05 51.5 -0.7
baz=323
**SCIA State Center** 62.98 55 *e*P P 16 05 52.4 -0.3
comp=Z,47nm,1.0s
**VORR Voronezh** 63.00 325 P P 16 05 51.0 -1.7
**IZAR Zarasai** 63.07 334 *e*P P 16 05 53.8 +0.8
IZAR IAmb IAmb 16 05 54.6
comp=Z,12nm,0.9s
**121A Cookes Peak, D** 63.09 71 P P 16 05 54.4 +0.6
baz=321
**121A Cookes Peak, D** 63.09 71 *e*P P 16 05 55.0 +1.2
comp=Z,26nm,1.3s
**P34A Walnut Farm, R** 63.16 59 P P 16 05 53.7 -0.2
baz=322,SNR=8.3
**J41A Loganville** 63.24 51 P P 16 05 54.1 -0.4
baz=323
**ISAL Salakas** 63.27 334 *e*P P 16 05 55.1 +0.7
ISAL IAmb IAmb 16 05 57.4
comp=Z,14nm,0.8s
**F45A CMU Biological** 63.28 47 P P 16 05 54.4 -0.3
baz=324
**K40A Colesburg** 63.28 53 P P 16 05 54.5 -0.2
baz=323
**H43A Windswept, Lux** 63.32 49 P P 16 05 55.1 +0.1
baz=324
**IDID Didziasalis** 63.35 334 *e*P P 16 05 55.6 +0.8
IDID IAmb IAmb 16 05 56.5
comp=Z,16nm,0.9s
**L39A Vinton** 63.35 54 P P 16 05 55.4 +0.2
baz=323
**M38A Pleasantville** 63.37 55 P P 16 05 55.5 +0.2
baz=323
**VSR Storozhevoye** 63.41 324 *e*P P 16 05 55.7 +0.3
VSR pmax pmax
comp=Z,170nm,0.9s
**N37A Lee Faris, Mou** 63.43 56 P P 16 05 56.4 +0.7
baz=323,SNR=15
**IIGN Ignalina** 63.44 334 *e*P P 16 05 56.3 +0.8
IIGN IAmb IAmb 16 05 57.3
comp=Z,22nm,0.7s
**F46A Macinaw City C** 63.52 46 P P 16 05 56.1 -0.1
baz=325
**P35A Duane Minner,** 63.55 58 P P 16 05 56.5 -0.1
baz=322
**O36A Bolckow** 63.57 57 P P 16 05 56.9 +0.2
baz=322
**Q34A Chapman** 63.59 59 P P 16 05 57.1 +0.3
baz=322,SNR=5.2
**J42A Columbus** 63.67 51 P P 16 05 56.6 -0.6
baz=324
**K41A Shullsburg** 63.73 52 P P 16 05 57.2 -0.5
baz=323
**L40A Anamosa** 63.75 53 P P 16 05 57.5 -0.3
baz=323
**M39A Webster** 63.79 54 P P 16 05 58.0 0.0
baz=323,SNR=5.8
**MICGM Minsk** 63.80 333⇑ *e*P P 16 05 58.0 +0.1
MICGM PM 16 05 59.0
comp=Z,0.5nm,2.0s
**MNK Minsk** 63.80 333⇑ *e*P P 16 05 58.0 +0.1
**N38A Joes South For** 63.85 55 P P 16 05 58.3 -0.2
baz=323
**P36A Good Intent, A** 63.87 57 P P 16 05 58.6 0.0
baz=323
**O37A Wolven Farm, M** 63.93 56 P P 16 05 59.1 +0.1
baz=323
**R34A Isabella, Hill** 63.93 60 P P 16 05 59.1 0.0
baz=322
**K42A Prairie Point,** 64.01 51 P P 16 05 59.0 -0.5
baz=324
**L41A Preston** 64.07 53 P P 16 05 59.3 -0.6
baz=324
**Q35A Mercer Eighty,** 64.07 59 P P 16 05 59.4 -0.6
baz=322,SNR=5.4
**N39A Derby Farms, D** 64.12 55 P P 16 06 00.3 0.0
baz=323
**M40A Post Highland** 64.15 54 P P 16 06 00.3 -0.1
baz=323
**Q36A Arnold C. Orve** 64.27 58 P P 16 06 01.2 0.0
baz=323
**KBL Kabul** 64.28 294 *e*P P 16 05 59.2 -2.4
KBL pmax pmax
comp=Z,10.0nm,0.9s
**KBL Kabul** 64.28 294 *e*P P 16 05 59.2 -2.4
comp=Z,10nm,0.9s
**O38A Galt** 64.28 56 P P 16 06 01.4 +0.1
baz=323
**P37A Lathrop** 64.29 57 P P 16 06 01.5 +0.1
baz=323,SNR=9.4
**GLMI Grayling** 64.35 47 *e*P P 16 06 01.1 -0.6
comp=Z,87nm,0.9s
**VLDQ Val d'Or** 64.38 40 *e*P P 16 06 00.3 -1.5
comp=Z,80nm,0.8s
**R35A Emporia Munici** 64.42 59 P P 16 06 02.2 -0.1
baz=323
**AMTX Amarillo** 64.42 65 P P 16 06 02.7 +0.2
baz=322
**AMTX Amarillo** 64.42 65 *e*P P 16 06 02.1 -0.4
comp=Z,9.5nm,0.8s
**L42A Oliver, Polo** 64.49 52 P P 16 06 01.9 -0.7
baz=324
**N40A Mertquake, Sal** 64.53 54 P P 16 06 02.9 -0.1
baz=324
**MSTX Muleshoe** 64.59 67 P P 16 06 03.9 +0.3
baz=322
**MSTX Muleshoe** 64.59 67 *e*P P 16 06 03.8 +0.3
comp=Z,19nm,1.0s
**U32A Winter Ranch,** 64.59 62 P P 16 06 03.6 +0.1
baz=322
**M41A Milan** 64.61 53 P P 16 06 03.0 -0.4
baz=324
**P38A Dawn** 64.64 56 P P 16 06 03.8 +0.1
baz=323,SNR=6.1
**R36A Gordon, Harris** 64.75 59 P P 16 06 04.1 -0.4
baz=323
**Q37A Longview Farm,** 64.81 57 P P 16 06 04.1 -0.7
baz=323
**S35A Otter Creek Ra** 64.87 60 P P 16 06 05.2 0.0
baz=323,SNR=6.0
**T34A McCluskey Farm** 64.97 61 P P 16 06 05.9 0.0
baz=323
**N41A Harden Midland** 65.00 54 P P 16 06 05.8 -0.2
baz=324
**MNTX Cornudas Mount** 65.01 70 P P 16 06 07.0 +0.8
baz=322,SNR=23
**MNTX Cornudas Mount** 65.01 70 *e*P P 16 06 07.2 +1.0
comp=Z,25nm,1.1s
**O40A La Belle** 65.01 55 P P 16 06 06.3 +0.2
baz=324,SNR=7.0
**P39B Salisbury** 65.12 56 P P 16 06 06.8 0.0
baz=323
**Q38A Cooks Store, C** 65.14 57 P P 16 06 06.9 0.0
baz=323,SNR=10.0
**S36A Lake Cedric, C** 65.19 59 P P 16 06 06.7 -0.5
baz=323
**N42A Yates City** 65.28 53 P P 16 06 07.6 -0.2
baz=324
**Q39A Willow Grove F** 65.37 56 P P 16 06 08.4 0.0
baz=324,SNR=19
**T35A Sooner Cattle** 65.39 60 P P 16 06 08.7 +0.1
baz=323
**SUW Suwalki** 65.39 335 *e*P P 16 06 08.9 +0.6
**SUW Suwalki** 65.39 335 *e*P P 16 06 08.9 +0.6
**P40A Paris** 65.41 55 P P 16 06 08.6 -0.1
baz=324,SNR=7.5
**O41A Passleys Farm,** 65.47 54 P P 16 06 09.1 +0.1
baz=324,SNR=9.8
**S37A Fort Scott** 65.52 58 P P 16 06 09.3 -0.1
baz=323
**N43A Stutzman Famil** 65.57 52 P P 16 06 09.5 -0.2
baz=324
**T36A Boggs Farm, Ca** 65.58 60 P P 16 06 09.3 -0.5
baz=323
**R38A Fenwick Farm,** 65.62 58 P P 16 06 09.7 -0.3
baz=323,SNR=7.7
**M44A Midewin, Midew** 65.70 51 P P 16 06 10.2 -0.3
baz=325
**U35A Pawnee** 65.71 61 P P 16 06 10.9 +0.2
baz=323
**P41A Barry, Barry** 65.74 55 P P 16 06 10.9 +0.1
baz=324,SNR=14
**O42A Bath** 65.77 54 P P 16 06 10.8 -0.1
baz=324
**Q40A Laux Farm, Aux** 65.83 56 P P 16 06 11.3 0.0
baz=324
**HDIL Hopedale** 65.83 53 P P 16 06 11.3 -0.1
baz=324,SNR=8.7
**HDIL Hopedale** 65.83 53 *e*P P 16 06 10.9 -0.4
comp=Z,53nm,0.8s
**R39A Chumby, Stover** 65.92 57 P P 16 06 11.8 -0.2
baz=324,SNR=13
**WMOK Wichita Mounta** 66.00 63 P P 16 06 13.0 +0.4
baz=323,SNR=34
**WMOK Wichita Mounta** 66.00 63 *e*P P 16 06 12.6 0.0
WMOK pmax pmax
comp=Z,29nm,0.9s
**WMOK Wichita Mounta** 66.00 63 *e*P P 16 06 12.6 0.0
comp=Z,29nm,0.9s
**O43A Sugar Creek Fa** 66.04 53 P P 16 06 12.7 0.0
baz=324
**MCD Coleburn Disti** 66.05 352 *e*P P 16 06 13.4 +0.9
**S38A Stockton** 66.06 58 P P 16 06 12.3 -0.7
baz=324,SNR=6.4
**P42A Winchester** 66.14 54 P P 16 06 13.2 -0.2
baz=324,SNR=9.4
**N44A Piper City** 66.14 52 P P 16 06 13.0 -0.3
baz=325
**Q41A Truxton** 66.25 55 P P 16 06 14.3 +0.2
baz=324,SNR=9.5
**MDO Dochfour** 66.27 353 *e*P P 16 06 14.6 +0.7
**S39A Bolivar** 66.29 57 P P 16 06 14.0 -0.4
baz=324,SNR=6.3
**R40A Maddies Statio** 66.30 56 P P 16 06 14.4 -0.1
baz=324,SNR=18
**T38A Diamond** 66.36 59 P P 16 06 14.4 -0.4
baz=324,SNR=8.3
**N45A Kentland** 66.38 51 P P 16 06 14.6 -0.2
baz=325
**M46A Old House Fiel** 66.42 50 P P 16 06 14.9 -0.3
baz=325
**P43A Skaggs, Pawnee** 66.47 54 P P 16 06 15.4 0.0
baz=325,SNR=7.9
**U37A Salina** 66.47 60 P P 16 06 14.9 -0.7
baz=324
**O44A Mansfield** 66.52 53 P P 16 06 15.5 -0.3
baz=325,SNR=5.2
**TUL1 Leonard** 66.54 60 P P 16 06 15.9 -0.1
baz=323
**TUL1 Leonard** 66.54 60 *e*P P 16 06 15.8 -0.1
comp=Z,24nm,1.1s
**V36A Jenks** 66.56 61 P P 16 06 16.2 +0.1
baz=323
**V36A Jenks** 66.56 61 *e*P P 16 06 15.2 -0.9
comp=Z,17nm,0.9s
**Q42A Golden Eagle** 66.60 55 P P 16 06 16.7 +0.4
baz=324,SNR=12
**W35A Tecumseh** 66.61 62 P P 16 06 16.6 +0.1
baz=323,SNR=7.7
**W35A Tecumseh** 66.61 62 *e*P P 16 06 15.3 -1.2
comp=Z,26nm,0.9s
**DRUM Mains of Drumt** 66.65 352 *e*P P 16 06 17.0 +0.6
**R41A Rosebud** 66.71 56 P P 16 06 17.1 0.0
baz=324,SNR=15
**PMG Port Moresby** 66.73 197 P P 16 06 17.7 +0.5
comp=Z,9.6nm,0.9s,baz=19,slow=17,SNR=5.3
**S40A Lebanon** 66.75 57 P P 16 06 17.1 -0.2
baz=324,SNR=9.0
**O45A Potomac** 66.77 52 P P 16 06 17.4 0.0
baz=325
**U38A Gravette** 66.79 59 P P 16 06 17.3 -0.3
baz=324,SNR=7.4
**T39A Clever** 66.80 58 P P 16 06 17.5 -0.2
baz=324,SNR=6.7
**AAM Ann Arbor** 66.82 48 *e*P P 16 06 17.1 -0.6
AAM pmax pmax
comp=Z,88nm,1.2s
**AAM Ann Arbor** 66.82 48 *e*P P 16 06 17.1 -0.6
comp=Z,88nm,1.2s
**AKASG Malin Array Be** 66.86 330 P P 16 06 18.1 +0.3
comp=Z,7.9nm,0.4s,baz=28,slow=6.5,SNR=70
AKASG LR LR 16 39 33.7
comp=Z,1µm,18.1s,baz=25,slow=40
**AKBB Malin Array Si** 66.86 330 *e*P P 16 06 17.5 -0.3
AKBB pmax pmax
comp=Z,73nm,1.2s
**AKBB Malin Array Si** 66.86 330 *e*P P 16 06 17.5 -0.3
comp=Z,73nm,1.2s
**KIEV Kiev** 66.87 330 *c i*P P 16 06 18.0 +0.1
KIEV pmax pmax
comp=Z,70nm,1.2s
**KIEV Kiev** 66.87 330 *e*P P 16 06 17.5 -0.3
comp=Z,73nm,1.2s
**V37A Hulbert** 66.87 60 P P 16 06 18.0 -0.1
baz=324,SNR=6.5
**AK11 Malin Array Si** 66.90 330 *e*P P 16 06 17.6 -0.5
**GEYT Alibeck** 66.91 304 P P 16 06 18.3 -0.1
comp=Z,9.1nm,0.8s,baz=358,slow=4.5,SNR=24
GEYT PP PP 16 08 38.4 -7.0
comp=Z,2.0nm,0.8s,baz=54,slow=9.7,SNR=2.8
**SFIN Lafayette** 66.94 51 P P 16 06 18.2 -0.3
baz=325
**W36A Wetumka** 66.94 61 P P 16 06 18.9 +0.4
baz=324,SNR=6.4
**W36A Wetumka** 66.94 61 *e*P P 16 06 17.4 -1.2
comp=Z,8.4nm,0.8s
**Q43A New Douglas** 66.95 54 P P 16 06 18.7 +0.1
baz=325
**SLM Saint Louis** 66.96 55 *e*P P 16 06 18.3 -0.3
SLM pmax pmax
comp=Z,38nm,0.8s
**SLM Saint Louis** 66.96 55 *e*P P 16 06 18.3 -0.3
comp=Z,38nm,0.8s
**CCM Cathedral Cave** 66.97 56 *e*P P 16 06 18.2 -0.5
CCM pmax pmax
comp=Z,49nm,1.3s
**CCM Cathedral Cave** 66.97 56 *e*P P 16 06 18.2 -0.5
comp=Z,49nm,1.3s
**R42A Luebbering** 66.99 55 P P 16 06 19.1 +0.2
baz=324,SNR=19
**P44A Sand Creek, Wi** 67.01 53 P P 16 06 18.9 0.0
baz=325,SNR=9.3
**TRQ Mont Tremblant** 67.03 40 *e*P P 16 06 18.5 -0.5
**EDU Dundee** 67.06 352 *e*P P 16 06 19.9 +0.9
**T40A Mansfield** 67.10 57 P P 16 06 19.5 0.0
baz=324
**S41A Jillco Farms,** 67.11 56 P P 16 06 19.6 0.0
baz=324,SNR=16
**HHAR Hobbs** 67.13 59 *e*P P 16 06 19.1 -0.6
comp=Z,24nm,0.8s
**X35A Drake** 67.17 62 P P 16 06 20.2 +0.2
baz=324
**V38A Canehill** 67.24 59 P P 16 06 20.6 +0.1
baz=324,SNR=25
**ABTX Abilene, Hawle** 67.25 65 P P 16 06 21.0 +0.5
baz=323,SNR=7.8
**ABTX Abilene, Hawle** 67.25 65 *e*P P 16 06 20.5 -0.1
comp=Z,25nm,0.9s
**U39A Green Forest** 67.27 58 P P 16 06 20.5 -0.1
baz=324,SNR=28
**Q44A Meyer Farm, Va** 67.29 54 P P 16 06 20.7 0.0
baz=325
**GOF Gofitskoye** 67.32 318⇑ *i*P P 16 06 21.4 +0.6
GOF pmax pmax
comp=Z,135nm,0.9s
**W37B Quinton** 67.33 61 P P 16 06 21.3 +0.3
baz=324,SNR=9.0
**W37B Quinton** 67.33 61 *e*P P 16 06 21.3 +0.3
comp=Z,36nm,0.8s
**LMQ La Malbaie** 67.34 36 *e*P P 16 06 20.4 -0.5
**X36A Centrahoma** 67.34 62 P P 16 06 21.2 +0.1
baz=324,SNR=6.2
**P45A Graceland, Par** 67.35 52 P P 16 06 20.9 -0.2
baz=325
**MAK Makhachkala** 67.37 314 *e*P P 16 06 23.8 +2.7
MAK *e* 16 08 53.8
MAK *e*S S 16 15 19.2 +4.2
MAK pmax pmax
comp=Z,127nm,1.0s
**JBP Jabalpur** 67.39 278⇑ *e*P P 16 06 20.4 -1.1
JBP *e*S S 16 15 06.8 -8.8
**R43A Red Bud** 67.39 55 P P 16 06 21.2 -0.1
baz=325,SNR=11
**FVM French Village** 67.40 55 *e*P P 16 06 21.2 -0.3
FVM pmax pmax
comp=Z,49nm,0.8s
**FVM French Village** 67.40 55 *e*P P 16 06 21.2 -0.3
comp=Z,49nm,0.8s
**S42A Caledonia** 67.41 56 P P 16 06 21.6 +0.1
baz=325,SNR=17
**EAB Aberfoyle** 67.52 353 *e*P P 16 06 22.6 +0.8
**P46A Rosedale** 67.52 52 P P 16 06 21.3 -0.8
baz=325,SNR=12
**Y35A Marietta** 67.53 63 P P 16 06 21.9 -0.4
baz=324
**T41A Mountain View** 67.55 57 P P 16 06 21.9 -0.5
baz=324,SNR=18
**U40A Yellville** 67.59 58 P P 16 06 22.2 -0.4
baz=324,SNR=10
**V39A Pettigrew** 67.63 59 P P 16 06 22.8 -0.2
baz=324,SNR=38
**ESY Stoneypath** 67.65 351 *e*P P 16 06 23.2 +0.5
**Q45A Warren Harvey,** 67.69 53 P P 16 06 23.2 0.0
baz=325,SNR=11
**TX31 Lajitas Ar. Si** 67.78 70 *e*P P 16 06 24.9 +0.8
**TXAR Lajitas Array** 67.78 70 P P 16 06 25.3 +1.2
comp=Z,15nm,0.7s,baz=300,slow=4.2,SNR=122
TXAR LR LR 16 36 09.1
comp=Z,186nm,18.1s,baz=0.0,slow=36
**R44A Waltonville** 67.80 54 P P 16 06 24.1 +0.1
baz=325,SNR=10
**X37A Clayton** 67.80 61 P P 16 06 24.2 +0.2
baz=324
**X37A Clayton** 67.80 61 *e*P P 16 06 25.4 +1.4
comp=Z,15nm,0.9s
**W38A Poteau** 67.83 60 P P 16 06 24.5 +0.4
baz=324,SNR=13
**GROC Groznyy** 67.84 316 *e*P P 16 06 24.2 +0.1
GROC *e* 16 06 49.6
GROC *e* 16 08 52.7
GROC pmax pmax
comp=Z,39nm,1.2s
**OLIL Olney** 67.84 53 *e*P P 16 06 24.6 +0.4
comp=Z,30nm,0.9s
**T42A Van Buren** 67.87 56 P P 16 06 24.1 -0.2
baz=325,SNR=12
**S43A Fulton Ridge,** 67.90 55 P P 16 06 24.6 0.0
baz=325,SNR=15
**PGBU Glenifferbraes** 67.90 353 *e*P P 16 06 25.1 +0.9
PGBU IAmb IAmb 16 06 26.1
comp=Z,89nm,0.8s
**BEL Belsk** 67.96 336 *e*P P 16 06 26.3 +1.6
**BEL Belsk** 67.96 336 *e*P P 16 06 26.3 +1.6
**X38A Whitesboro** 68.00 60 P P 16 06 25.7 +0.4
baz=324,SNR=8.8
**U41A Viola** 68.04 57 P P 16 06 25.3 -0.2
baz=324,SNR=11
**V40A Witts Springs** 68.05 58 P P 16 06 25.2 -0.4
baz=324,SNR=16
**W39A Magazine** 68.08 59 P P 16 06 25.3 -0.5
baz=324,SNR=5.7
**R45A Skylar, Fairfi** 68.12 54 P P 16 06 25.8 -0.2
baz=325
**S44A Carbondale** 68.17 55 P P 16 06 25.7 -0.6
baz=325,SNR=9.3
**BLO Bloomington** 68.18 52 *e*P P 16 06 26.2 -0.1
BLO pmax pmax
comp=Z,22nm,0.8s
**BLO Bloomington** 68.18 52 *e*P P 16 06 26.2 -0.1
comp=Z,22nm,0.8s
**T43A Greenville** 68.20 56 P P 16 06 26.5 0.0
baz=325,SNR=8.9
**ESK Eskdalemuir** 68.29 352 *e*P P 16 06 27.6 +0.9
**ESK Eskdalemuir** 68.29 352 *e*P P 16 06 26.9 +0.1
ESK pmax pmax
comp=Z,54nm,0.8s
**ESK Eskdalemuir** 68.29 352 *e*P P 16 06 27.1 +0.3
comp=Z,54nm,0.8s
**Z36A Blue Ridge** 68.34 62 P P 16 06 27.5 +0.1
baz=324
**U42A Revenden** 68.35 57 P P 16 06 27.0 -0.4
baz=325
**PBMO Poplar Bluff** 68.38 56 *e*P P 16 06 27.8 +0.2
comp=Z,40nm,0.8s
**V41A Mountainview** 68.38 58 P P 16 06 27.4 -0.3
baz=325,SNR=16
**KIV Kislovodsk** 68.39 318 *i* P P 16 06 28.8 +1.0
SNR=7.5
**KIV Kislovodsk** 68.39 318 *e*P P 16 06 28.6 +0.9
KIV pmax pmax
KIV comp=Z,28nm,1.0s MLR MLR
comp=Z,756nm,17.0s
**KIV Kislovodsk** 68.39 318 *e*P P 16 06 28.1 +0.4
comp=Z,62nm,1.4s
**KIV Kislovodsk** 68.39 318 P P 16 06 29.1 +1.4
SNR=10.0
**KIV Kislovodsk** 68.39 318 P P 16 06 29.1 +1.4
SNR=10.0
**LONY Lake Ozonia** 68.40 41 *e*P P 16 06 26.8 -0.9
comp=Z,22nm,0.7s
**Q47A Bedord North L** 68.42 52 P P 16 06 27.8 0.0
baz=326,SNR=11
**W40A Ferguson Farm,** 68.43 59 P P 16 06 28.0 +0.1
baz=324,SNR=12
**W40A Ferguson Farm,** 68.43 59 *e*P P 16 06 28.1 +0.2
comp=Z,60nm,0.8s
**NCK Nalchik** 68.44 317⇓ *i*P P 16 06 29.2 +1.3
NCK pmax pmax
comp=Z,32nm,1.0s
**ERPA Erie** 68.47 46 *e*P P 16 06 27.8 -0.3
comp=Z,96nm,0.8s
**X39A Fountain Ranch** 68.48 60 P P 16 06 28.5 +0.2
baz=324,SNR=12
**S45A Carrier Mills** 68.49 54 P P 16 06 28.4 +0.1
baz=325
**KBZ Khabaz** 68.51 318 P P 16 06 29.4 +1.1
comp=Z,36nm,0.9s,baz=44,slow=2.9,SNR=75
KBZ LR LR 16 40 46.7
comp=Z,916nm,18.5s,baz=16,slow=40
**T44A Benton** 68.52 55 P P 16 06 28.8 +0.4
baz=325,SNR=5.9
**R46A Gibon Southern** 68.53 53 P P 16 06 27.6 -1.0
baz=326
**FRNY Flat Rock** 68.57 40 *e*P P 16 06 27.7 -1.0
comp=Z,13nm,0.8s
**HPIG** 68.63 73 *e*P P 16 06 30.8 +1.2
comp=Z,80nm,2.0s

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| USIN | University of | 68.67 | 53 | eP | P | 16 06 29.7 | +0.3 |
| | comp=Z,54nm,0.8s | | | | | | |
| EDMD | Edmundbyers | 68.67 | 351 | eP | P | 16 06 27.8 | -1.4 |
| EDMD | | | | IAmb | IAmb | 16 06 32.5 | |
| | comp=Z,336nm,2.1s | | | | | | |
| MIAR | Mount Ida | 68.71 | 60 | P | P | 16 06 30.1 | +0.4 |
| | baz=324,SNR=13 | | | | | | |
| MIAR | Mount Ida | 68.71 | 60 | eP | P | 16 06 29.8 | +0.1 |
| MIAR | | | | pmax | pmax | | |
| | comp=Z,24nm,0.8s | | | | | | |
| MIAR | Mount Ida | 68.71 | 60 | eP | P | 16 06 29.8 | +0.1 |
| | comp=Z,24nm,0.8s | | | | | | |
| X301 | Greenbrier Sit | 68.71 | 58 | eP | P | 16 06 29.5 | -0.1 |
| | comp=Z,21nm,0.7s | | | | | | |
| WHAR | Wooly Hollow | 68.72 | 58 | eP | P | 16 06 29.5 | -0.3 |
| | comp=Z,40nm,1.0s | | | | | | |
| V42A | Cord | 68.72 | 57 | P | P | 16 06 29.3 | -0.4 |
| | baz=325 | | | | | | |
| U43A | Rector | 68.73 | 56 | P | P | 16 06 30.1 | +0.3 |
| | baz=325,SNR=9.7 | | | | | | |
| MMNY | Mt. Morris Dam | 68.77 | 44 | eP | P | 16 06 29.3 | -0.6 |
| Z37A | Pogue Cattle C | 68.80 | 62 | P | P | 16 06 30.1 | -0.1 |
| | baz=324 | | | | | | |
| ALLY | Alegheny Colle | 68.80 | 46 | eP | P | 16 06 30.0 | -0.2 |
| | comp=Z,105nm,1.1s | | | | | | |
| ACSO | Alum Creek Sta | 68.83 | 49 | eP | P | 16 06 29.9 | -0.4 |
| | comp=Z,54nm,0.8s | | | | | | |
| W41B | Gary Mavity, V | 68.83 | 58 | P | P | 16 06 30.5 | +0.1 |
| | baz=325,SNR=13 | | | | | | |
| GAL1 | Galloway | 68.86 | 353 | eP | P | 16 06 30.4 | +0.2 |
| WHTX | Lake Whitney, | 68.86 | 64 | P | P | 16 06 30.9 | +0.3 |
| | baz=324 | | | | | | |
| PQI | Presque Isle | 68.86 | 35 | eP | P | 16 06 30.1 | -0.4 |
| | comp=Z,14nm,0.8s | | | | | | |
| S46A | Don Dixon Farm | 68.88 | 54 | P | P | 16 06 30.6 | -0.1 |
| | baz=326 | | | | | | |
| JCT | Junction City | 68.88 | 67 | P | P | 16 06 31.2 | +0.4 |
| | baz=324,SNR=11 | | | | | | |
| JCT | Junction City | 68.88 | 67 | eP | P | 16 06 30.8 | -0.1 |
| JCT | | | | pmax | pmax | | |
| | comp=Z,28nm,0.8s | | | | | | |
| JCT | Junction City | 68.88 | 67 | eP | P | 16 06 30.8 | -0.1 |
| | comp=Z,28nm,0.8s | | | | | | |
| R47A | Wooly Knot Far | 68.90 | 52 | P | P | 16 06 30.8 | -0.1 |
| | baz=326 | | | | | | |
| ZEI | Tsey | 68.93 | 317 | eP | P | 16 06 27.7 | -3.5 |
| ZEI | | | | pmax | pmax | | |
| | comp=Z,20nm,0.9s | | | | | | |
| 136A | Ennis | 68.93 | 63 | P | P | 16 06 31.8 | +0.7 |
| | baz=324 | | | | | | |
| U44A | Portageville | 68.95 | 56 | P | P | 16 06 32.2 | +1.0 |
| | baz=325 | | | | | | |
| Y39A | Lockesburg | 68.95 | 60 | P | P | 16 06 31.9 | +0.7 |
| | baz=324,SNR=11 | | | | | | |
| GUDG | Gudauri | 68.98 | 316 | P | P | 16 06 32.8 | +1.2 |
| NEY | Neytrino | 68.98 | 318 | d iP | P | 16 06 33.2 | +1.7 |
| NEY | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.9s | | | | | | |
| KESW | Keswick, Cumbr | 69.01 | 352 | eP | P | 16 06 30.8 | -0.5 |
| KESW | | | | IAmb | IAmb | 16 06 33.5 | |
| | comp=Z,78nm,0.8s | | | | | | |
| KSM | Kuching | 69.04 | 239 | eP | P | 16 06 32.1 | +0.1 |
| | comp=Z,16nm,0.9s | | | | | | |
| LVV | L'vov | 69.05 | 333 | eP | P | 16 06 30.4 | -1.1 |
| LVV | | | | MLR | MLR | | |
| | comp=Z,1µm,17.0s | | | | | | |
| WCI | Wyandotte Cave | 69.06 | 52 | eP | P | 16 06 32.0 | +0.1 |
| WCI | | | | pmax | pmax | | |
| | comp=Z,40nm,0.9s | | | | | | |
| WCI | Wyandotte Cave | 69.06 | 52 | eP | P | 16 06 32.0 | +0.1 |
| | comp=Z,40nm,0.8s | | | | | | |
| Z38A | Mt. Pleasant | 69.06 | 61 | P | P | 16 06 32.1 | +0.2 |
| | baz=324 | | | | | | |
| NCB | Newcomb | 69.09 | 41 | eP | P | 16 06 31.4 | -0.6 |
| | comp=Z,16nm,0.9s | | | | | | |
| W42A | Bald Knob | 69.10 | 58 | P | P | 16 06 32.5 | +0.5 |
| | baz=325 | | | | | | |
| X40A | Basin Creek Fa | 69.11 | 59 | P | P | 16 06 32.6 | +0.4 |
| | baz=325,SNR=9.3 | | | | | | |
| M54A | Oil Creek Stat | 69.11 | 46 | P | P | 16 06 32.0 | -0.1 |
| | baz=328,SNR=16 | | | | | | |
| DDFL | Dedoflistskaro | 69.20 | 314 | P | P | 16 06 34.3 | +1.6 |
| U44B | Burton Farm, H | 69.24 | 55 | P | P | 16 06 33.7 | +0.7 |
| | baz=325,SNR=5.1 | | | | | | |
| X41A | Kaden, Bauxite | 69.26 | 59 | P | P | 16 06 33.4 | +0.3 |
| | baz=325,SNR=5.9 | | | | | | |
| ONI | Oni | 69.27 | 317 | P | P | 16 06 34.3 | +1.2 |
| ONI | Oni | 69.27 | 317 | P | P | 16 06 34.3 | +1.2 |
| Y40A | Okolona | 69.28 | 60 | P | P | 16 06 33.5 | +0.2 |
| | baz=325 | | | | | | |
| VT1 | Waterbury | 69.31 | 40 | eP | P | 16 06 33.4 | +0.1 |
| | comp=Z,159nm,2.0s | | | | | | |
| 236A | Katherine and | 69.31 | 63 | P | P | 16 06 34.5 | +1.0 |
| | baz=324 | | | | | | |
| T46A | Princeton | 69.33 | 54 | P | P | 16 06 33.2 | -0.3 |
| | baz=326 | | | | | | |
| V44A | Blytheville | 69.41 | 56 | P | P | 16 06 35.3 | +1.3 |
| | baz=325 | | | | | | |
| N54A | Moraine State | 69.44 | 46 | P | P | 16 06 34.1 | -0.1 |
| | baz=328,SNR=7.6 | | | | | | |
| 138A | Matatall Enter | 69.50 | 62 | P | P | 16 06 35.5 | +1.0 |
| | baz=324 | | | | | | |
| U45A | Rockin P Farm, | 69.50 | 55 | P | P | 16 06 34.9 | +0.4 |
| | baz=326 | | | | | | |
| HPK | Haverah Park | 69.50 | 351 | eP | P | 16 06 35.1 | +0.8 |
| HPK | | | | IAmb | IAmb | 16 06 36.1 | |
| | comp=Z,41nm,0.8s | | | | | | |
| TBLG | Delisi | 69.50 | 315 | P | P | 16 06 35.1 | +0.6 |
| TBLG | Delisi | 69.50 | 315 | P | P | 16 06 35.1 | +0.6 |
| KWP | Kalwaria Pacla | 69.55 | 334 | eP | P | 16 06 36.4 | +1.7 |
| KWP | Kalwaria Pacla | 69.55 | 334 | eP | P | 16 06 36.4 | +1.7 |
| GMM | Mts of Mourne | 69.57 | 353 | eP | P | 16 06 35.2 | +0.5 |
| WLAR | White Oak Lake | 69.63 | 60 | eP | P | 16 06 35.6 | +0.3 |
| | comp=Z,63nm,1.3s | | | | | | |
| X42A | Stuttgart | 69.63 | 58 | P | P | 16 06 35.7 | +0.3 |
| | baz=325 | | | | | | |
| LBNH | Lisbon | 69.68 | 39 | eP | P | 16 06 35.7 | +0.1 |
| LBNH | | | | pmax | pmax | | |
| | comp=Z,27nm,0.8s | | | | | | |
| LBNH | Lisbon | 69.68 | 39 | eP | P | 16 06 35.7 | +0.1 |
| | comp=Z,26nm,0.8s | | | | | | |
| CHVG | Ch'k'valeri | 69.68 | 318 | P | P | 16 06 36.3 | +0.7 |
| PKME | Peaks-Kenny Pk | 69.68 | 37 | eP | P | 16 06 35.5 | -0.1 |
| | comp=Z,129nm,1.8s | | | | | | |
| OJC | Ojcow | 69.69 | 336 | eP | P | 16 06 37.0 | +1.4 |
| OJC | Ojcow | 69.69 | 336 | eP | P | 16 06 35.8 | +0.3 |
| OJC | | | | pmax | pmax | | |
| | comp=Z,41nm,0.9s | | | | | | |
| OJC | Ojcow | 69.69 | 336 | eP | P | 16 06 35.8 | +0.3 |
| | comp=Z,41nm,0.9s | | | | | | |
| Y41A | Eaglette Beard | 69.71 | 59 | P | P | 16 06 36.6 | +0.7 |
| | baz=325,SNR=5.7 | | | | | | |
| T47A | Sharon Grove | 69.73 | 54 | P | P | 16 06 36.0 | +0.1 |
| | baz=326 | | | | | | |
| 435B | Jarrell | 69.77 | 65 | P | P | 16 06 37.0 | +0.7 |
| | baz=324 | | | | | | |
| ACCN | Adirondack Com | 69.80 | 41 | eP | P | 16 06 35.8 | -0.5 |
| | comp=Z,28nm,0.8s | | | | | | |
| Z40A | Long Farm, Mag | 69.84 | 60 | P | P | 16 06 37.2 | +0.5 |
| | baz=325,SNR=7.4 | | | | | | |
| KSP | Ksiaz | 69.86 | 338 | eP | P | 16 06 37.7 | +1.1 |
| KSP | Ksiaz | 69.86 | 338 | eP | P | 16 06 37.7 | +1.1 |
| V45A | Humboldt | 69.91 | 56 | P | P | 16 06 37.8 | +0.7 |
| | baz=326 | | | | | | |
| LHO | Holmfirth | 69.93 | 351 | eP | P | 16 06 37.3 | +0.3 |
| BINY | Binghamton | 69.96 | 43 | eP | P | 16 06 36.5 | -0.8 |
| | comp=Z,18nm,0.8s | | | | | | |
| 238A | Jacksonville | 70.01 | 62 | P | P | 16 06 38.7 | +0.9 |
| | baz=325 | | | | | | |
| X43A | Marvell | 70.02 | 58 | P | P | 16 06 38.3 | +0.6 |
| | baz=325 | | | | | | |
| HNH | Hanover | 70.02 | 40 | eP | P | 16 06 37.4 | -0.2 |
| | comp=Z,19nm,0.9s | | | | | | |
| CLL | Collm | 70.06 | 341 | ⇑iP | P | 16 06 38.2 | +0.4 |
| CLL | | | | pmax | pmax | | |
| | comp=Z,117nm,2.1s | | | | | | |
| CLL | Collm | 70.06 | 341 | ⇑iP | P | 16 06 38.2 | +0.4 |
| | comp=Z,117nm,2.1s | | | | | | |
| CLL | Collm | 70.06 | 341 | eP | P | 16 06 37.3 | -0.5 |
| | comp=Z,18nm,1.0s | | | | | | |
| STHS | Stebnicka Huta | 70.10 | 335 | eP | P | 16 06 40.1 | +2.0 |
| STHS | | | | pmax | pmax | | |
| | comp=Z,21nm,0.8s | | | | | | |
| STHS | Stebnicka Huta | 70.10 | 335 | eP | P | 16 06 40.1 | +2.0 |
| WVT | Waverly | 70.11 | 55 | eP | P | 16 06 38.6 | +0.3 |
| WVT | | | | pmax | pmax | | |
| | comp=Z,44nm,0.8s | | | | | | |
| WVT | Waverly | 70.11 | 55 | eP | P | 16 06 38.6 | +0.3 |
| | comp=Z,44nm,0.8s | | | | | | |
| Y42A | Garnett, Star | 70.14 | 59 | P | P | 16 06 39.2 | +0.6 |
| | baz=325 | | | | | | |
| UPC | Upice | 70.24 | 338 | ⇑iP | P | 16 06 40.0 | +1.1 |
| UPC | | | | epP | pP | 16 06 45.3 | -1.2 |
| UPC | | | | AMS | AMS | 16 42 10.0 | |
| | comp=Z,1µm,21.5s | | | | | | |
| UPC | Upice | 70.24 | 338 | ⇑iP | P | 16 06 40.0 | +1.1 |
| UPC | | | | MLR | MLR | | |
| | comp=Z,1µm,21.5s | | | | | | |
| 140A | Cam and Jess, | 70.25 | 61 | P | P | 16 06 39.7 | +0.5 |
| | baz=325 | | | | | | |
| AKH | Akhalkalaki | 70.26 | 316 | P | P | 16 06 40.4 | +1.0 |
| AKH | Akhalkalaki | 70.26 | 316 | ⇑iP | P | 16 06 40.5 | +1.0 |
| AKH | Akhalkalaki | 70.26 | 316 | P | P | 16 06 40.4 | +1.0 |
| W45A | Hickory Valley | 70.29 | 56 | P | P | 16 06 39.9 | +0.5 |
| | baz=326,SNR=5.5 | | | | | | |
| 239A | Gary | 70.32 | 62 | P | P | 16 06 40.0 | +0.3 |
| | baz=325 | | | | | | |
| KIS | Kishinev | 70.32 | 329 | eP | P | 16 06 39.0 | -0.5 |
| KIS | Kishinev | 70.32 | 329 | i PcP | P | 16 06 45.0 | +5.5 |
| KIS | Kishinev | 70.32 | 329 | ePP | PP | 16 09 22.0 | +7.4 |
| KIS | | | | LRM | MLR | 16 41 32.0 | |
| | comp=Z,2µm,14.0s | | | | | | |
| KIS | Kishinev | 70.32 | 329 | eP | P | 16 06 39.0 | -0.5 |
| KIS | | | | e | | 16 09 22.0 | |
| KIS | | | | e | | 16 15 37.0 | |
| KIS | | | | e | | 16 16 10.0 | |
| KIS | | | | e | | 16 20 28.0 | |
| KIS | | | | MLR | MLR | | |
| | comp=Z,2µm,14.0s | | | | | | |
| KIS | | | | MLR | MLR | | |
| | comp=Z,2µm,16.0s | | | | | | |
| DPC | Dobruska-Polom | 70.33 | 338 | ⇑iP | P | 16 06 40.9 | +1.4 |
| DPC | | | | epP | pP | 16 06 46.6 | -0.4 |
| DPC | | | | ePCP | PcP | 16 06 57.0 | -4.0 |
| DPC | | | | AMS | AMS | 16 42 30.0 | |
| | comp=Z,1µm,18.0s | | | | | | |
| DPC | Dobruska-Polom | 70.33 | 338 | ⇑iP | P | 16 06 40.9 | +1.4 |
| DPC | | | | e | | 16 06 57.0 | |
| DPC | | | | MLR | MLR | | |
| | comp=Z,1µm,18.0s | | | | | | |
| NIE | Niedzica | 70.33 | 335 | eP | P | 16 06 41.1 | +1.6 |
| NIE | Niedzica | 70.33 | 335 | eP | P | 16 06 41.1 | +1.6 |
| BGD | Bogdanovka | 70.35 | 316 | P | P | 16 06 41.4 | +1.4 |
| TRY | Troy | 70.36 | 41 | eP | P | 16 06 39.2 | -0.6 |
| | comp=Z,17nm,0.9s | | | | | | |
| X44A | Crenshaw | 70.38 | 57 | P | P | 16 06 40.7 | +0.7 |
| | baz=326,SNR=12 | | | | | | |
| OKC | Ostrava-Krasne | 70.42 | 337 | ⇑iP | P | 16 06 41.4 | +1.4 |
| OKC | | | | epP | pP | 16 06 47.3 | -0.3 |
| OKC | Ostrava-Krasne | 70.42 | 337 | ⇑iP | P | 16 06 41.4 | +1.4 |
| NATX | Nacogdoches | 70.44 | 62 | P | P | 16 06 41.0 | +0.6 |
| | baz=325 | | | | | | |
| NATX | Nacogdoches | 70.44 | 62 | eP | P | 16 06 40.6 | +0.2 |
| | comp=Z,27nm,0.7s | | | | | | |
| KRLC | Kraliky | 70.49 | 338 | ⇑eP | P | 16 06 42.0 | +1.5 |
| KRLC | Kraliky | 70.49 | 338 | eP | P | 16 06 42.0 | +1.5 |
| PVCC | Panska Ves | 70.51 | 339 | ⇑eP | P | 16 06 41.4 | +0.9 |
| PVCC | | | | AMS | AMS | 16 44 10.0 | |
| | comp=Z,1µm,11.0s | | | | | | |
| PVCC | Panska Ves | 70.51 | 339 | eP | P | 16 06 41.4 | +0.9 |
| PVCC | | | | MLR | MLR | | |
| | comp=Z,1µm,11.0s | | | | | | |
| Z42A | Norrel Spur, H | 70.53 | 59 | P | P | 16 06 41.3 | +0.5 |
| | baz=325 | | | | | | |
| SIM | Simferopol' | 70.53 | 324 | eP | P | 16 06 41.7 | +0.9 |
| SIM | | | | pmax | pmax | | |
| | comp=Z,35nm,0.9s | | | | | | |
| SIM | | | | MLR | MLR | | |
| | comp=Z,1µm,14.7s | | | | | | |
| CRVS | Cervenica-Dubn | 70.53 | 334 | eP | P | 16 06 41.8 | +1.1 |
| CRVS | Cervenica-Dubn | 70.53 | 334 | eP | P | 16 06 41.8 | +1.1 |
| SSPA | Standing Stone | 70.56 | 45 | eP | P | 16 06 40.9 | -0.2 |
| | comp=Z,30nm,0.8s | | | | | | |
| UZH | Uzhgorod | 70.58 | 334 | eP | P | 16 06 41.0 | 0.0 |
| UZH | | | | eS | S | 16 15 50.0 | -2.8 |
| UZH | | | | MLR | MLR | | |
| | comp=N,1µm,14.0s | | | | | | |
| UZH | | | | MLR | MLR | | |
| | comp=E,450nm,14.0s | | | | | | |
| UZH | | | | MLR | MLR | | |
| | comp=Z,450nm,14.0s | | | | | | |
| DSB | Dublin | 70.58 | 353 | eP | P | 16 06 41.4 | +0.5 |
| | comp=Z,57nm,0.8s | | | | | | |
| O56A | Blue Knob Stat | 70.60 | 46 | P | P | 16 06 41.2 | -0.2 |
| | baz=329,SNR=8.2 | | | | | | |
| MCWV | Mont Chateau | 70.61 | 47 | eP | P | 16 06 41.2 | -0.1 |
| | comp=Z,37nm,0.9s | | | | | | |
| 141A | Papa Simpson, | 70.61 | 60 | P | P | 16 06 42.5 | +1.1 |
| | baz=325 | | | | | | |
| GGN | Saint George | 70.62 | 35 | eP | P | 16 06 41.2 | 0.0 |
| | comp=Z,210nm,1.7s | | | | | | |
| 240A | Hunter Patters | 70.65 | 61 | P | P | 16 06 42.3 | +0.6 |
| | baz=325 | | | | | | |
| CWF | Charnwood Fore | 70.68 | 350 | eP | P | 16 06 41.9 | +0.4 |
| CWF | | | | IAmb | IAmb | 16 06 43.7 | |
| | comp=Z,30nm,0.8s | | | | | | |
| FOEL | Foel Wylfa | 70.70 | 351 | eP | P | 16 06 41.5 | -0.2 |
| OXF | Oxford | 70.71 | 57 | eP | P | 16 06 42.5 | +0.5 |
| OXF | | | | pmax | pmax | | |
| | comp=Z,123nm,0.9s | | | | | | |
| OXF | Oxford | 70.71 | 57 | eP | P | 16 06 42.5 | +0.5 |
| | comp=Z,123nm,0.9s | | | | | | |
| BUR08 | Bucovina Ar. S | 70.74 | 331 | eP | P | 16 06 42.2 | 0.0 |
| BUR04 | Bucovina Ar. S | 70.76 | 331 | eP | P | 16 06 42.6 | +0.3 |
| BURAR | Bucovina Array | 70.77 | 331 | ⇑iP | P | 16 06 43.1 | +0.8 |
| BURAR | Bucovina Array | 70.77 | 331 | ⇑P | P | 16 06 43.1 | +0.8 |
| LANS | Liptovska Anna | 70.77 | 336 | eP | P | 16 06 44.6 | +2.3 |
| LANS | Liptovska Anna | 70.77 | 336 | eP | P | 16 06 44.5 | +2.3 |
| EMMW | East Machias | 70.78 | 36 | eP | P | 16 06 42.4 | +0.2 |
| | comp=Z,233nm,1.9s | | | | | | |
| Y44A | Strider, Charl | 70.79 | 58 | P | P | 16 06 43.8 | +1.3 |
| | baz=326 | | | | | | |
| X45A | UM Field Stati | 70.79 | 57 | P | P | 16 06 43.2 | +0.7 |
| | baz=326 | | | | | | |
| 833A | Chaparral WMA, | 70.82 | 68 | P | P | 16 06 43.9 | +1.1 |
| | baz=324 | | | | | | |
| 339A | Huntington | 70.84 | 62 | P | P | 16 06 43.8 | +0.9 |
| | baz=325 | | | | | | |
| GNI | Garni | 70.85 | 315 | i P | P | 16 06 44.6 | +1.6 |
| | SNR=12 | | | | | | |
| GNI | Garni | 70.85 | 315 | ceP | P | 16 06 44.7 | +1.6 |
| GNI | | | | pmax | pmax | | |
| | comp=Z,308nm,1.5s | | | | | | |
| GNI | Garni | 70.85 | 315 | eP | P | 16 06 44.1 | +1.1 |
| | comp=Z,137nm,1.5s | | | | | | |
| GNI | Garni | 70.85 | 315 | P | P | 16 06 45.1 | +2.1 |
| | SNR=21 | | | | | | |
| GNI | | | | P | P | 16 06 45.1 | +2.1 |
| | SNR=21 | | | | | | |
| GNI | Garni | 70.85 | 315 | pP | P | 16 06 45.1 | +2.1 |
| | SNR=21 | | | | | | |
| 438A | Sam Houston St | 70.85 | 63 | P | P | 16 06 44.0 | +1.0 |
| | baz=325 | | | | | | |
| PLAL | Pickwick Lake | 70.94 | 55 | eP | P | 16 06 43.3 | -0.2 |
| | comp=Z,68nm,0.8s | | | | | | |
| LEOM | Leova | 70.97 | 329 | ⇓iP | P | 16 06 44.5 | +1.2 |
| LEOM | Leova | 70.97 | 329 | ⇓P | P | 16 06 44.5 | +1.2 |
| TRPA | Tarpa | 70.98 | 333 | ⇑eP | P | 16 06 44.9 | +1.5 |
| PRU | Pruhonice | 71.03 | 339 | ⇑iP | P | 16 06 44.9 | +1.2 |
| PRU | | | | epP | pP | 16 06 50.2 | -1.1 |
| PRU | | | | AMS | AMS | 16 44 20.0 | |
| | comp=Z,1µm,13.1s | | | | | | |
| PRU | Pruhonice | 71.03 | 339 | ⇑iP | P | 16 06 44.9 | +1.2 |
| PRU | | | | MLR | MLR | | |
| | comp=Z,1µm,13.1s | | | | | | |
| HLM1 | Long Mynd | 71.04 | 351 | eP | P | 16 06 44.1 | +0.3 |
| GOPC | GO Pecny, Ondr | 71.05 | 339 | ⇑iP | P | 16 06 45.1 | +1.2 |
| GOPC | | | | epP | pP | 16 06 50.0 | -1.5 |
| GOPC | | | | AMS | AMS | 16 42 30.0 | |
| | comp=Z,900nm,18.6s | | | | | | |
| GOPC | GO Pecny, Ondr | 71.05 | 339 | ⇑iP | P | 16 06 45.1 | +1.2 |
| GOPC | | | | MLR | MLR | | |
| | comp=Z,900nm,18.6s | | | | | | |
| ARTV | Artvin | 71.06 | 317 | eP | P | 16 06 44.4 | +0.1 |
| | comp=Z,15nm,0.8s | | | | | | |
| 241A | Mo Tay, Goldon | 71.08 | 61 | P | P | 16 06 45.2 | +1.0 |
| | baz=325 | | | | | | |
| N59A | State Game Lan | 71.14 | 43 | P | P | 16 06 43.8 | -0.8 |
| | baz=330,SNR=14 | | | | | | |
| KECS | Kecovo | 71.16 | 335 | eP | P | 16 06 46.1 | +1.6 |
| KECS | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.8s | | | | | | |
| KECS | Kecovo | 71.16 | 335 | eP | P | 16 06 46.1 | +1.6 |
| BMR | Baia Mare | 71.16 | 333 | ⇑iP | P | 16 06 46.0 | +1.4 |
| BMR | Baia Mare | 71.16 | 333 | ⇑P | P | 16 06 46.0 | +1.4 |
| 439A | Center Grove, | 71.17 | 63 | P | P | 16 06 45.9 | +1.0 |
| | baz=325 | | | | | | |
| Y45A | Yeager Farm, C | 71.18 | 57 | P | P | 16 06 45.6 | +0.7 |
| | baz=326,SNR=9.6 | | | | | | |
| NKC | Novy Kostel | 71.20 | 341 | ⇑iP | P | 16 06 45.7 | +0.9 |
| NKC | Novy Kostel | 71.20 | 341 | ⇑iP | P | 16 06 45.7 | +0.9 |
| Z44A | Pea Ridge, Bel | 71.25 | 58 | P | P | 16 06 45.4 | +0.1 |
| | baz=326 | | | | | | |
| 143A | Socs Landing, | 71.25 | 59 | P | P | 16 06 46.4 | +1.1 |
| | baz=326 | | | | | | |
| VRAC | Vranov | 71.25 | 338 | ⇑iP | P | 16 06 46.7 | +1.6 |
| VRAC | Vranov | 71.25 | 338 | ⇑P | P | 16 06 46.7 | +1.6 |
| HKT | Hockley | 71.32 | 64 | eP | P | 16 06 46.0 | +0.3 |
| HKT | | | | pmax | pmax | | |
| | comp=Z,67nm,1.8s | | | | | | |
| HKT | Hockley | 71.32 | 64 | eP | P | 16 06 46.0 | +0.3 |
| | comp=Z,67nm,1.8s | | | | | | |
| HRV | Adam Dziewonsk | 71.32 | 40 | eP | P | 16 06 45.6 | 0.0 |
| HRV | | | | pmax | pmax | | |
| | comp=Z,29nm,0.8s | | | | | | |
| HRV | Adam Dziewonsk | 71.32 | 40 | eP | P | 16 06 45.5 | 0.0 |
| | comp=Z,30nm,0.8s | | | | | | |
| TESR | Tescani | 71.39 | 330 | ⇓iP | P | 16 06 46.9 | +1.0 |
| 242A | Grayson | 71.42 | 60 | P | P | 16 06 47.3 | +0.9 |
| | baz=325 | | | | | | |
| ODNJ | Ogdensburg | 71.44 | 42 | eP | P | 16 06 45.4 | -0.9 |
| | comp=Z,16nm,0.8s | | | | | | |
| ARCR | ARCALIA | 71.48 | 332 | ⇑iP | P | 16 06 47.6 | +1.1 |
| Y46A | Houston | 71.49 | 57 | P | P | 16 06 47.4 | +0.7 |
| | baz=326,SNR=22 | | | | | | |
| TREC | Trest | 71.50 | 338 | ⇑eP | P | 16 06 48.0 | +1.4 |
| TREC | | | | AMS | AMS | 16 43 20.0 | |
| | comp=Z,2µm,17.3s | | | | | | |
| TREC | Trest | 71.50 | 338 | eP | P | 16 06 48.0 | +1.4 |
| TREC | | | | MLR | MLR | | |
| | comp=Z,2µm,17.3s | | | | | | |
| WES | Weston | 71.51 | 40 | eP | P | 16 06 46.0 | -0.7 |
| WES | | | | pmax | pmax | | |
| | comp=Z,35nm,0.7s | | | | | | |
| WES | Weston | 71.51 | 40 | eP | P | 16 06 46.0 | -0.7 |
| | comp=Z,35nm,0.7s | | | | | | |
| 341A | Kurthwood | 71.52 | 61 | P | P | 16 06 47.6 | +0.7 |
| | baz=325 | | | | | | |
| Z45A | Winona | 71.52 | 58 | P | P | 16 06 47.7 | +0.8 |
| | baz=326 | | | | | | |
| VYHS | Vyhne | 71.53 | 336 | eP | P | 16 06 48.3 | +1.5 |
| VYHS | | | | pmax | pmax | | |
| | comp=Z,141nm,2.9s | | | | | | |
| VYHS | Vyhne | 71.53 | 336 | eP | P | 16 06 48.3 | +1.5 |
| LUPA | Lehigh Univers | 71.57 | 43 | eP | P | 16 06 46.2 | -0.9 |
| | comp=Z,2.4nm,0.8s | | | | | | |
| MONM | Monmouth | 71.71 | 351 | eP | P | 16 06 48.5 | +0.7 |
| MONM | | | | IAmb | IAmb | 16 06 49.5 | |
| | comp=Z,63nm,0.8s | | | | | | |
| MVL | Millersville | 71.71 | 44 | eP | P | 16 06 47.4 | -0.6 |
| | comp=Z,18nm,0.9s | | | | | | |
| SWET | Sewanee | 71.72 | 54 | eP | P | 16 06 48.0 | -0.2 |
| | comp=Z,76nm,0.7s | | | | | | |
| PAL | Palisades | 71.77 | 42 | eP | P | 16 06 47.7 | -0.6 |
| PAL | | | | pmax | pmax | | |
| | comp=Z,57nm,0.6s | | | | | | |
| PAL | Palisades | 71.77 | 42 | eP | P | 16 06 47.7 | -0.6 |
| | comp=Z,57nm,0.6s | | | | | | |
| BRNJ | Basking Ridge | 71.81 | 43 | eP | P | 16 06 47.7 | -0.8 |
| | comp=Z,20nm,0.7s | | | | | | |
| PSZ | Piszkesteto | 71.82 | 335 | ⇑iP | P | 16 06 50.5 | +1.8 |
| PSZ | Piszkesteto | 71.82 | 335 | ⇑P | P | 16 06 50.5 | +1.8 |
| PSZ | Piszkesteto | 71.82 | 335 | ⇑eP | P | 16 06 50.3 | +1.6 |
| PSZ | Piszkesteto | 71.82 | 335 | eP | P | 16 06 49.3 | +0.6 |
| | comp=Z,28nm,1.2s | | | | | | |
| SMOL | Smolenice | 71.83 | 337 | eP | P | 16 06 50.7 | +2.1 |
| SMOL | Smolenice | 71.83 | 337 | eP | P | 16 06 50.7 | +2.1 |
| BRYW | Bryant College | 71.85 | 40 | eP | P | 16 06 48.5 | -0.3 |
| | comp=Z,35nm,0.8s | | | | | | |
| 243A | Waterproof | 71.89 | 60 | P | P | 16 06 49.9 | +0.7 |
| | baz=326 | | | | | | |
| COEN | Coen | 71.89 | 201 | eP | P | 16 06 49.7 | +0.5 |
| | comp=Z,57nm,1.7s | | | | | | |
| MEM | Membach | 71.89 | 345 | P | P | 16 06 49.8 | +0.9 |
| | comp=Z,27nm,1.1s | | | | | | |
| 342A | Flagon Creek P | 71.90 | 61 | P | P | 16 06 49.8 | +0.6 |
| | baz=326 | | | | | | |
| HGH | Gray Hill | 71.91 | 351 | eP | P | 16 06 49.7 | +0.8 |
| CPNY | Central Park | 71.94 | 42 | eP | P | 16 06 48.8 | -0.5 |
| | comp=Z,53nm,0.6s | | | | | | |
| Y47A | UCPARC, Winfie | 71.94 | 56 | P | P | 16 06 49.7 | +0.2 |
| | baz=326,SNR=10 | | | | | | |
| GRFO | Grafenberg | 71.94 | 341 | eP | P | 16 06 50.0 | +0.8 |
| GRFO | | | | pmax | pmax | | |
| | comp=Z,19nm,0.9s | | | | | | |
| GRFO | Grafenberg | 71.94 | 341 | eP | P | 16 06 50.0 | +0.8 |
| | comp=Z,19nm,0.9s | | | | | | |
| PETR | Petresti | 71.94 | 329 | ⇑iP | P | 16 06 51.6 | +2.4 |
| VRI | Vrincioaia | 71.95 | 330 | ⇓iP | P | 16 06 50.5 | +1.1 |
| VRI | Vrincioaia | 71.95 | 330 | ⇓P | P | 16 06 50.5 | +1.1 |
| ODBI | Odobesti | 71.95 | 329 | ⇓iP | P | 16 06 51.9 | +2.6 |
| TLCR | | 71.97 | 328 | ⇓iP | P | 16 06 50.5 | +1.1 |
| TLCR | | 71.97 | 328 | ⇓P | P | 16 06 50.5 | +1.1 |
| 441A | DeRidder | 71.99 | 62 | P | P | 16 06 50.4 | +0.7 |
| | baz=325 | | | | | | |
| PLOR | Plostina | 71.99 | 330 | ⇓iP | P | 16 06 50.6 | +1.0 |
| PLOR | Plostina | 71.99 | 330 | ⇓P | P | 16 06 50.6 | +1.0 |
| MODS | Modra-Piesok | 71.99 | 337 | eP | P | 16 06 51.4 | +1.8 |
| MODS | Modra-Piesok | 71.99 | 337 | eP | P | 16 06 51.4 | +1.8 |
| Z46A | Louisville | 72.02 | 57 | P | P | 16 06 49.9 | -0.1 |
| | baz=326 | | | | | | |
| SDMD | Soldier's Deli | 72.02 | 45 | eP | P | 16 06 49.3 | -0.6 |
| | comp=Z,91nm,1.9s | | | | | | |
| CJR | Cluj-Napoca | 72.03 | 332 | ⇑iP | P | 16 06 51.7 | +1.9 |
| CJR | Cluj-Napoca | 72.03 | 332 | ⇑P | P | 16 06 51.7 | +1.9 |
| KHC | Kasperske Hory | 72.04 | 340 | ⇑iP | P | 16 06 51.1 | +1.2 |
| KHC | | | | AMS | AMS | 16 44 10.0 | |
| | comp=Z,900nm,13.3s | | | | | | |
| KHC | Kasperske Hory | 72.04 | 340 | ⇑iP | P | 16 06 51.1 | +1.2 |
| KHC | | | | MLR | MLR | | |
| | comp=Z,900nm,13.3s | | | | | | |
| KHC | Kasperske Hory | 72.04 | 340 | eP | P | 16 06 50.6 | +0.8 |
| | comp=Z,7.7nm,1.0s | | | | | | |
| 145A | Houston Renfro | 72.04 | 58 | P | P | 16 06 51.0 | +1.0 |
| | baz=326 | | | | | | |
| VBMS | Vicksburg | 72.08 | 59 | P | P | 16 06 51.2 | +0.9 |
| | baz=326 | | | | | | |
| WOL | Wolverton | 72.08 | 350 | eP | P | 16 06 49.4 | -0.6 |
| WOL | | | | IAmb | IAmb | 16 06 51.3 | |
| | comp=Z,106nm,1.1s | | | | | | |
| PSUB | Penn St. - Bra | 72.12 | 44 | eP | P | 16 06 48.9 | -1.5 |
| | comp=Z,18nm,0.9s | | | | | | |
| 244A | Avery, Jackson | 72.14 | 59 | P | P | 16 06 51.1 | +0.5 |
| | baz=326,SNR=5.7 | | | | | | |
| CPCT | Cooper Cave | 72.16 | 53 | eP | P | 16 06 50.7 | -0.1 |
| | comp=Z,40nm,0.8s | | | | | | |
| CFR | Carcaliu | 72.18 | 328 | ⇑iP | P | 16 06 51.5 | +0.8 |
| CFR | Carcaliu | 72.18 | 328 | ⇑P | P | 16 06 51.5 | +0.8 |
| BCLA | Clavier | 72.18 | 345 | P | P | 16 06 51.5 | +0.9 |
| DRGR | | 72.18 | 333 | ⇑iP | P | 16 06 51.9 | +1.1 |
| DRGR | | 72.18 | 333 | ⇑P | P | 16 06 51.9 | +1.1 |
| DOPR | Dopca | 72.23 | 331 | ⇓iP | P | 16 06 53.0 | +1.9 |
| GEC2 | GERESS Array S | 72.29 | 339 | eP | P | 16 06 52.0 | +0.5 |
| GEC2 | | | | pmax | pmax | | |
| | comp=Z,14nm,0.8s | | | | | | |
| GEC2 | GERESS Array S | 72.29 | 339 | eP | P | 16 06 52.0 | +0.5 |
| | comp=Z,14nm,0.8s | | | | | | |
| GERES | GERESS Array B | 72.29 | 339 | P | P | 16 06 52.2 | +0.8 |
| | comp=Z,7.9nm,0.7s,baz=28,slow=4.7,SNR=27 | | | | | | |
| GEA0 | GERESS Array S | 72.29 | 339 | eP | P | 16 06 52.0 | +0.5 |
| TKL | Tuckaleechee C | 72.31 | 52 | eP | P | 16 06 51.9 | +0.2 |
| TKL | | | | pmax | pmax | | |
| | comp=Z,25nm,0.9s | | | | | | |
| TKL | Tuckaleechee C | 72.31 | 52 | eP | P | 16 06 51.9 | +0.2 |
| | comp=Z,25nm,0.9s | | | | | | |
| GRER | | 72.33 | 329 | ⇑iP | P | 16 06 53.7 | +2.1 |
| Z47A | Carrollton | 72.42 | 56 | P | P | 16 06 52.9 | +0.5 |
| | baz=326,SNR=20 | | | | | | |
| 146A | Union | 72.42 | 57 | P | P | 16 06 53.7 | +1.3 |
| | baz=326,SNR=16 | | | | | | |
| BUD | Budapest | 72.44 | 335 | ⇑eP | P | 16 06 54.2 | +2.0 |
| BLA | Blacksburg | 72.44 | 49 | eP | P | 16 06 52.4 | -0.1 |
| BLA | | | | pmax | pmax | | |
| | comp=Z,32nm,0.8s | | | | | | |
| BLA | Blacksburg | 72.44 | 49 | eP | P | 16 06 52.4 | -0.1 |
| | comp=Z,32nm,0.8s | | | | | | |
| Z48A | Northport | 72.51 | 56 | P | P | 16 06 52.9 | 0.0 |

baz=327,SNR=15
**MLR Muntele Rosu 72.52 330 ⇓ *i* P P 16 06 55.3 +2.4**
**MLR Muntele Rosu 72.52 330 *e*P P 16 06 53.0 +0.1**
MLR pmax pmax
comp=Z,43nm,1.0s
**MLR Muntele Rosu 72.52 330 *e*P P 16 06 53.0 +0.1**
comp=Z,43nm,1.0s
**245A Little AP, Sta 72.53 58** P P 16 06 53.1 +0.1
baz=326
**DOU Dourbes 72.59 346** P P 16 06 53.7 +0.6
**VWCC Virginia Weste 72.60 48** *e*P P 16 06 53.0 -0.4
**KOPT Kop Dagi 72.61 317** *e*P P 16 06 54.9 +1.2
comp=Z,51nm,0.8s
**IP04 Greensprings 72.65 47** *e*P P 16 06 54.1 +0.4
comp=Z,34nm,0.9s
**HARR Harsova 72.68 328 ⇓** *i* P P 16 06 54.9 +1.2
**HARR Harsova 72.68 328 ⇓** P P 16 06 54.9 +1.2
**ISR Istrita 72.69 329 ⇓** *i* P P 16 06 55.6 +1.8
**ISR Istrita 72.69 329 ⇓** P P 16 06 55.6 +1.8
**CONA Conrad Observa 72.72 338** *i* P P 16 06 55.9 +1.9
comp=Z,16nm,0.8s,SNR=7.8
**CSKK Cs˘ˇkako 72.73 336 ⇑** *e*P P 16 06 55.7 +1.8
**TLB Topalu 72.74 328 ⇑** *i* P P 16 06 55.3 +1.2
**TLB Topalu 72.74 328 ⇑** P P 16 06 55.3 +1.2
**IP03 Louisa 72.75 46** *e*P P 16 06 54.4 +0.2
comp=Z,35nm,0.9s
**TIRR Tirgusor 72.75 328 ⇑** *i* P P 16 06 55.1 +1.0
**TIRR Tirgusor 72.75 328** *e*P P 16 06 54.7 +0.6
TIRR pmax pmax
comp=Z,47nm,0.9s
**TIRR Tirgusor 72.75 328** *e*P P 16 06 54.7 +0.6
comp=Z,47nm,0.9s
**147A Livingston 72.76 57** P P 16 06 54.9 +0.5
baz=326,SNR=14
**CVRD Centerville Ro 72.79 46** *e*P P 16 06 54.5 +0.1
comp=Z,39nm,0.8s
**HYB Hyderabad 72.79 276** *i* P P 16 06 53.5 -1.3
comp=Z,40nm,1.0s
**SPRD Spring Road, M 72.80 46** *e*P P 16 06 54.4 -0.1
comp=Z,29nm,0.9s
**SOP Sopron 72.80 337 ⇑** *e*P P 16 06 56.3 +1.9
**VOIR 72.81 331 ⇑** *i* P P 16 06 56.2 +1.6
**VOIR 72.81 331 ⇑** P P 16 06 56.2 +1.6
**PTRD Partlow Road 72.82 46** *e*P P 16 06 54.3 -0.3
comp=Z,179nm,0.2s
**IP07 Quail 72.83 47** *e*P P 16 06 54.7 0.0
comp=Z,43nm,0.7s
**IP06 Yanceyville 72.83 47** *e*P P 16 06 54.7 0.0
comp=Z,28nm,0.9s
**IP01 Cuckoo 72.84 46** *e*P P 16 06 55.1 +0.3
comp=Z,21nm,0.9s
**CBN Corbin Frederi 72.85 46** *e*P P 16 06 54.6 -0.2
comp=Z,36nm,0.8s
**SPFD Spotsylvania F 72.85 46** *e*P P 16 06 54.6 -0.2
comp=Z,126nm,1.8s
**246A Jackson Lee, B 72.91 58** P P 16 06 55.9 +0.6
baz=326
**AMRR Amara 72.93 329 ⇓** *i* P P 16 06 56.5 +1.4
**AMRR Amara 72.93 329 ⇓** P P 16 06 56.5 +1.4
**IP05 Hopewell Churc 73.02 46** *e*P P 16 06 55.8 0.0
comp=Z,43nm,0.8s
**LRAL Lakeview Retre 73.06 56** *e*P P 16 06 56.1 0.0
comp=Z,45nm,0.8s
**345A Thompson Farm, 73.06 59** P P 16 06 57.4 +1.3
baz=326
**JSRW J. Sargeant Re 73.08 47** *e*P P 16 06 55.9 -0.3
**247A Quitman 73.12 57** P P 16 06 57.9 +1.4
baz=326,SNR=7.2
**MOA Molln 73.12 339** *i* P P 16 06 57.7 +1.3
comp=Z,17nm,1.2s,SNR=6.0
**LOT Lotru 73.15 331 ⇑** *i* P P 16 06 57.2 +0.6
**SULR 73.17 329 ⇑** *i* P P 16 06 57.6 +1.0
**ICOR Ion Corvin 73.24 328 ⇑** *i* P P 16 06 58.6 +1.6
**BG3 Lake Jocassee 73.25 52** *e*P P 16 06 57.5 +0.3
comp=Z,55nm,0.7s
**346A Big Creek Wild 73.27 59** P P 16 06 58.4 +1.1
baz=326
**445A Amite 73.39 60** P P 16 06 58.5 +0.4
baz=326
**ARSA Arzberg 73.44 338** *i* P P 16 06 59.6 +1.4
comp=Z,13nm,0.8s,SNR=8.0
**248A Dixon Mills 73.49 57** P P 16 06 59.4 +0.7
baz=327,SNR=7.5
**BZS Buzias 73.55 333 ⇑** *i* P P 16 06 59.5 +0.6
**BZS Buzias 73.55 333 ⇑** P P 16 06 59.5 +0.6
**PSI Prapat 73.63 250** *e*P P 16 06 59.1 -0.7
PSI pmax pmax
comp=Z,17nm,0.9s
**PSI Prapat 73.63 250** *e*P P 16 06 59.1 -0.7
comp=Z,17nm,0.9s
**ZAIG Zacatecas 73.64 74** *e*P P 16 07 00.6 +0.5
comp=Z,21nm,1.1s
**347A Saraland 73.69 58** P P 16 07 00.1 +0.2
baz=327
**BFO Black Forest 73.75 343** *c e*P P 16 07 01.4 +1.4
**BFO Black Forest 73.75 343** *e*P P 16 06 59.4 -0.7
comp=Z,18nm,1.0s
**446A Poplarville 73.81 59** P P 16 07 01.1 +0.5
baz=326
**KMSC Kings Mountain 73.81 50** P P 16 07 00.8 +0.2
baz=328,SNR=19
**KMSC Kings Mountain 73.81 50** *e*P P 16 07 00.5 -0.1
comp=Z,57nm,0.7s
**MTN Manton Dam 73.84 213** *e*P P 16 07 00.8 +0.1
comp=Z,22nm,0.8s
**348A Jackson 73.98 57** P P 16 07 02.3 +0.7
baz=327
**HERR Herculane 74.03 332 ⇓** *i* P P 16 07 02.5 +0.8
**KBA Koelnbreinsper 74.05 339** *i* P P 16 07 04.1 +2.1
comp=Z,60nm,1.3s,SNR=18
**ECH Echery 74.05 344** *e*P P 16 07 02.4 +0.6
**ECH Echery 74.05 344** *e*P P 16 07 01.8 0.0
ECH pmax pmax
comp=Z,15nm,1.0s
**ECH Echery 74.05 344** *e*P P 16 07 01.8 0.0
comp=Z,15nm,1.0s
**SOKA Soboth 74.08 338** *i* P P 16 07 03.6 +1.5
comp=Z,18nm,0.8s,SNR=12
**PERS Pernice 74.11 338** *i* P P 16 07 03.6 +1.5
**ILGA Ilgaz 74.13 323** *e*P P 16 07 02.9 +0.3
comp=Z,79nm,0.9s
**WATA Walderalm 74.14 340** *i* P P 16 07 03.9 +1.4
comp=Z,7.3nm,0.7s,SNR=6.2
**RETA Reutte 74.15 341** *i* P P 16 07 03.8 +1.4
comp=Z,12nm,0.8s,SNR=5.0
**HODGE Hodges 74.18 52** *e*P P 16 07 02.9 +0.2
comp=Z,51nm,0.7s
**WTTA Wattenberg 74.20 340** *i* P P 16 07 04.5 +1.6
comp=Z,14nm,0.8s,SNR=9.6
**MOTA Moosalm 74.22 341** *i* P P 16 07 04.1 +1.1
comp=Z,13nm,0.8s,SNR=9.5
**THEF They Montfort 74.22 344** *e*P P 16 07 03.7 +1.0
**MDVR Moldovita 74.31 333 ⇑** *i* P P 16 07 04.0 +0.6
**GOGA Godfrey 74.34 53** *e*P P 16 07 03.5 -0.1
GOGA pmax pmax
comp=Z,75nm,1.9s
**GOGA Godfrey 74.34 53** *e*P P 16 07 03.5 -0.1
comp=Z,75nm,1.9s
**OBKA Obir 74.34 338** *i* P P 16 07 05.3 +1.6
comp=Z,36nm,0.7s,SNR=23
**448A Bay Minette 74.41 58** P P 16 07 05.1 +1.1
baz=327
**MOF Molkenrain 74.41 344** *e*P P 16 07 04.5 +0.5
**MYKA Terra Mystica 74.42 339** *i* P P 16 07 05.1 +1.1
comp=Z,13nm,0.8s,SNR=6.5
**DAVA Damuels 74.50 342** *i* P P 16 07 04.9 +0.3
comp=Z,19nm,1.4s
**ABTA Abfaltersbach 74.53 340** *i* P P 16 07 06.0 +1.4
comp=Z,27nm,0.8s,SNR=13
**JSC Jenkinsville 74.58 51** *e*P P 16 07 05.0 0.0
JSC pmax pmax
comp=Z,32nm,0.7s
**JSC Jenkinsville 74.58 51** *e*P P 16 07 05.0 0.0
comp=Z,32nm,0.7s
**FETA Feichten 74.60 341** *i* P P 16 07 06.7 +1.5
comp=Z,22nm,0.8s,SNR=6.8
**MARD Mardin 74.86 316** *e*P P 16 07 07.3 +0.5
comp=Z,290nm,1.9s
**VISS Visnje 74.96 338** *i* P P 16 07 07.7 +0.6
**JAVS Javornik 75.03 338** *i* P P 16 07 08.0 +0.4
**FUORN Ofenpass-Fuorn 75.07 341** *e*P P 16 07 09.0 +1.0
comp=Z,13nm,0.8s
**BOJS Bojanci 75.15 337** *i* P P 16 07 09.2 +1.0
**CNNC Cliffs of the 75.19 48** *e*P P 16 07 09.0 +0.5
comp=Z,78nm,0.8s
**TRI Trieste 75.27 338** *e*P P 16 07 08.8 0.0
TRI pmax pmax
comp=Z,9.0nm,0.7s
**TRI Trieste 75.27 338** *e*P P 16 07 08.8 0.0
comp=Z,8.7nm,0.7s
**BR131 Keskin Array S 75.35 322** *e*P P 16 07 10.2 +0.6
**BRTR Keskin Array B 75.35 322** P P 16 07 10.4 +0.9
comp=Z,22nm,0.7s,baz=59,slow=3.4,SNR=79
BRTR PP PP 16 09 46.0 -12
comp=Z,2.1nm,1.0s,baz=24,slow=8.7,SNR=3.8
BRTR LR LR 16 45 44.3
comp=Z,424nm,18.0s,baz=318,slow=40
**TUE Stuetta 75.38 342** *e*P P 16 07 10.0 +0.3
comp=Z,107nm,2.0s
**ANTO Ankara 75.50 323** *e*P P 16 07 10.8 +0.4
ANTO pmax pmax
comp=Z,61nm,1.0s
**ANTO Ankara 75.50 323** *e*P P 16 07 10.8 +0.4
comp=Z,61nm,1.0s
**ANTO Ankara 75.50 323** P P 16 07 11.8 +1.5
SNR=9.3
ANTO P P 16 07 11.8 +1.5
SNR=9.3
**ANTO Ankara 75.50 323** P P 16 07 11.8 +1.5
SNR=9.3
**BR231 Keskin MP Arra 75.53 323** *e*P P 16 07 10.8 +0.2
**GSI Gunungsitoli 75.60 250** *e*P P 16 07 10.3 -0.8
comp=Z,223nm,2.0s
**SENIN Lac Senin/Sane 75.83 343** *e*P P 16 07 14.0 +1.7
comp=Z,14nm,1.1s
**VTS Vitosha 75.95 331 ⇑** *i* P P 16 07 13.6 +0.6
**VTS Vitosha 75.95 331** *e*P P 16 07 13.0 0.0
VTS pmax pmax
comp=Z,16nm,0.9s
**VTS Vitosha 75.95 331** *e*P P 16 07 13.0 0.0
comp=Z,16nm,0.9s
**TIGA Tifton 75.95 54** P P 16 07 13.6 +0.6
baz=328,SNR=10.0
**TIGA Tifton 75.95 54** *e*P P 16 07 13.3 +0.3
comp=Z,96nm,0.8s
**NHSC New Hope 76.05 51** *e*P P 16 07 14.2 +0.8
**RDO Rodhopi 76.63 329** P P 16 07 17.6 +1.0
**RDO Rodhopi 76.63 329** P P 16 07 17.6 +1.0
**AGO Saint Agoulin 76.76 346** *e*P P 16 07 18.9 +1.6
**PLDF La Plantade 76.77 346** *e*P P 16 07 18.4 +0.9
**NVR Nevrokopi 76.92 330** P P 16 07 19.4 +1.0
**NVR Nevrokopi 76.92 330** P P 16 07 19.4 +1.0
**SKO Skopje 77.00 332** *i* P P 16 07 19.9 +1.2
**PYM Petit Puy Mans 77.07 346** *e*P P 16 07 20.5 +1.3
**PDG Podgorica 77.13 333 ⇑** *i* P P 16 07 20.3 +0.8
**BOLV Bolvadin 77.16 324** *e*P P 16 07 20.0 +0.1
comp=Z,42nm,0.9s
**BNI Bardonecchia 77.21 343** *e*P P 16 07 20.6 +0.6
BNI pmax pmax
comp=Z,27nm,1.1s
**BNI Bardonecchia 77.21 343** *e*P P 16 07 20.6 +0.6
comp=Z,27nm,1.1s
**SRS Serrai 77.21 330** P P 16 07 20.4 +0.4
**SRS Serrai 77.21 330** P P 16 07 20.4 +0.4
**SRS Serrai 77.21 330** P P 16 07 20.4 +0.4
**VAY Valandovo 77.31 331** P P 16 07 21.7 +1.2
**VAY Valandovo 77.31 331** P P 16 07 21.7 +1.2
**VAY Valandovo 77.31 331** P P 16 07 21.7 +1.2
**VAY Valandovo 77.31 331** *i* P P 16 07 21.6 +1.2
**SSB Saint Sauveur 77.31 345** *e*P P 16 07 21.1 +0.6
SSB pmax pmax
comp=Z,16nm,0.9s
**SSB Saint Sauveur 77.31 345** *e*P P 16 07 21.1 +0.6
comp=Z,16nm,0.9s
**CTA Charters Tower 77.34 196** P P 16 07 21.3 +0.6
comp=Z,6.0nm,0.5s,baz=34,slow=8.9,SNR=5.5
**KNT Kendrikon 77.36 330** P P 16 07 20.7 -0.1
**KNT Kendrikon 77.36 330** P P 16 07 20.7 -0.1
**KNT Kendrikon 77.36 330** P P 16 07 20.7 -0.1
**LBL Lubilhac 77.55 346** *e*P P 16 07 23.8 +2.0
**KRUS Krusevo 77.62 332** *i* P P 16 07 23.2 +0.8
**GRG Griva 77.69 331** P P 16 07 23.8 +1.1
**GRG Griva 77.69 331** P P 16 07 23.8 +1.1
**GRG Griva 77.69 331** P P 16 07 23.8 +1.1
**OUR Ouranopolis 77.83 329** P P 16 07 23.7 +0.3
**OUR Ouranopolis 77.83 329** P P 16 07 23.7 +0.3
**OUR Ouranopolis 77.83 329** P P 16 07 23.7 +0.3
**LIA Limnos Island 77.88 328** P P 16 07 24.5 +0.8
**LIA Limnos Island 77.88 328** P P 16 07 24.5 +0.8
**BIA Bitola 77.92 332** *i* P P 16 07 25.2 +1.2
**PLG Polygyros 77.94 330** P P 16 07 24.5 +0.4
**PLG Polygyros 77.94 330** P P 16 07 24.5 +0.4
**PLG Polygyros 77.94 330** P P 16 07 24.5 +0.4
**OHR Ohrid 77.98 332** *i* P P 16 07 24.6 +0.3
**DZM Mont Dzumac 78.01 177** P P 16 07 27.4 +2.9
comp=Z,13nm,1.1s,baz=337,slow=9.9,SNR=3.0
**DZM Mont Dzumac 78.01 177** *e*LR LR 16 31 30.8
comp=Z,463nm,29.3s
**MANT Maisa 78.14 325** *e*P P 16 07 25.2 -0.3
comp=Z,90nm,0.9s
**PAIG Paliouri 78.29 329** P P 16 07 26.1 +0.1
**PAIG Paliouri 78.29 329** P P 16 07 26.1 +0.1
**PAIG Paliouri 78.29 329** P P 16 07 26.1 +0.1
**LIT Litokhoron 78.46 330** P P 16 07 26.8 -0.2
**LIT Litokhoron 78.46 330** P P 16 07 26.8 -0.2
**LIT Litokhoron 78.46 330** P P 16 07 26.8 -0.2
**AQU L'Aquila 78.56 338** *e*P P 16 07 27.4 -0.1
AQU pmax pmax
comp=Z,194nm,1.9s
**AQU L'Aquila 78.56 338** *e*P P 16 07 27.4 -0.1
comp=Z,194nm,1.9s
**XOR Xorichti 78.95 330** P P 16 07 29.6 -0.1
**XOR Xorichti 78.95 330** P P 16 07 29.6 -0.1
**FYTO Fytoko, Volos 78.98 330** P P 16 07 30.0 +0.2
**FYTO Fytoko, Volos 78.98 330** P P 16 07 30.0 +0.2
**SMIA Simia 79.40 329** P P 16 07 31.9 -0.2
**AGG Agios Georgios 79.51 330** *e*P P 16 07 28.9 -3.8
AGG pmax pmax
comp=Z,45nm,1.0s
**AGG Agios Georgios 79.51 330** *e*P P 16 07 32.0 -0.8
comp=Z,45nm,1.0s
**EREA Eretria 79.62 329** P P 16 07 33.4 +0.1
**FETY Fethiye 79.67 324** P P 16 07 33.4 -0.2
**LKR Lokris 79.67 329** P P 16 07 33.0 -0.6
**LKR Lokris 79.67 329** P P 16 07 33.0 -0.6
**WRAB Tennant Creek 79.68 208** *c e*P P 16 07 33.9 +0.3
WRAB pmax pmax
comp=Z,87nm,1.7s
**WRAB Tennant Creek 79.68 208** *e*P P 16 07 33.8 +0.1
comp=Z,29nm,1.3s
**WB2 Warramunga Arr 79.69 208** *e*P P 16 07 32.9 -0.8
comp=Z,16nm,0.9s
**WRA Warramunga Arr 79.69 208** P P 16 07 34.0 +0.3
comp=Z,11nm,0.9s,baz=16,slow=5.9,SNR=51
WRA PKKPbc **PKKPbc** 16 26 20.6 +1.0
comp=Z,0.3nm,0.9s,baz=206,slow=1.6,SNR=5.3
**WRA Warramunga Arr 79.69 208** P P 16 07 34.0 +0.3
WRA pmax pmax
comp=Z,11nm,0.9s
**CSS Mathiatis 79.72 320** P P 16 07 33.9 0.0
**DSL Palaion Diasel 79.75 331** P P 16 07 34.7 +0.7
**DSL Palaion Diasel 79.75 331** P P 16 07 34.7 +0.7
**TAOE Nuku Hiva Isla 79.78 123** *e*LR LR 16 32 14.2
comp=Z,748nm,32.8s
**ALFC Alefka 79.81 321** P P 16 07 34.6 +0.2
**PALK Pallekele 79.86 268** *i* P P 16 07 33.6 -1.4
SNR=6.3
**PALK Pallekele 79.86 268** *c e*P P 16 07 34.5 -0.5
**PALK Pallekele 79.86 268** *e*P P 16 07 33.4 -1.6
comp=Z,21nm,1.0s
**PTL Penteli 79.98 329** P P 16 07 35.0 -0.3
**PTL Penteli 79.98 329** P P 16 07 35.0 -0.3
**AKMC Akamas 80.02 321** P P 16 07 34.8 -0.7
**ANX Ano Chora 80.03 330** P P 16 07 35.0 -0.6
**VILL Villia 80.03 329** P P 16 07 36.6 +1.0
**TLIG Tlapa 80.04 73** *e*P P 16 07 38.3 +2.4
comp=Z,19nm,1.0s
**SZAC Souni 80.07 320** P P 16 07 36.3 +0.5
**EFP Efpalio 80.19 330** P P 16 07 36.8 +0.5
**PDO Prodromos 80.23 331** P P 16 07 37.0 +0.4
**APE Apeiranthos 80.39 327** *e*P P 16 07 36.4 -1.1
APE pmax pmax
comp=Z,14nm,0.9s
**KLV Kalavryta, Ach 80.48 330** P P 16 07 37.7 -0.3
**KLV Kalavryta, Ach 80.48 330** P P 16 07 37.7 -0.3
**FITZ Fitzroy Crossi 80.51 216** LR LR 16 41 12.6
comp=Z,439nm,21.8s,baz=62,slow=34
**GUR Goura 80.52 330** P P 16 07 37.2 -1.1
**GUR Goura 80.52 330** P P 16 07 37.2 -1.1
**RLS Riolos of Patr 80.65 330** P P 16 07 39.6 +0.8
**RLS Riolos of Patr 80.65 330** P P 16 07 39.6 +0.8
**DID Didima 80.67 329** P P 16 07 37.1 -1.9
**DRO Drossia 80.69 330** P P 16 07 39.5 +0.4
**AMT Artemida-Makis 81.08 330** P P 16 07 40.7 -0.5
**KARP Karpathos 81.28 325** *e*P P 16 07 40.7 -1.6
comp=Z,21nm,0.8s
**KARP Karpathos 81.28 325** P P 16 07 41.1 -1.2
**PMOR Pomariorio Ree 81.83 133** *e*T T 17 37 50.4
comp=Z,31nm,0.2s
**ZKR Zakros 81.98 326** P P 16 07 45.5 -0.5
**PBRG Braganca 82.00 352** *e*P P 16 07 47.1 +1.1
comp=Z,47nm,1.7s
**CMIG Matias Romero 82.39 71** P P 16 07 49.4 +1.1
comp=Z,11nm,0.8s,baz=288,slow=4.1,SNR=16
**POLO Lamas de Olo 82.50 353** *e*P P 16 07 49.8 +1.1
comp=Z,20nm,2.0s
**PVRL Vila Real 82.59 353** *e*P P 16 07 50.5 +1.4
**MVO Moncorvo 82.65 353** *e*P P 16 07 50.6 +1.1
comp=Z,36nm,2.5s
**PTO Porto 82.78 354** *e*P P 16 07 51.5 +1.5
**PVIS Viseu 83.16 353** *e*P P 16 07 52.9 +0.8
comp=Z,53nm,1.6s
**AS01 Alice Springs 83.35 207** *e*P P 16 07 53.4 +0.4
**AS31 Alice Springs 83.36 207** *e*P P 16 07 53.5 +0.4
comp=Z,4.5nm,0.9s
**ASAR Alice Springs 83.36 207** P P 16 07 54.0 +0.9
comp=Z,14nm,0.9s,baz=13,slow=5.1,SNR=75
ASAR PKKPbc **PKKPbc** 16 26 10.9 -0.4
comp=Z,0.5nm,0.7s,baz=199,slow=2.3,SNR=6.4
**ASAR Alice Springs 83.36 207** P P 16 07 54.0 +0.9
ASAR pmax pmax
comp=Z,14nm,0.9s
**MTE Manteigas 83.45 353** *e*P P 16 07 54.5 +0.9
comp=Z,208nm,2.0s
**MTE Manteigas 83.45 353** *e*P P 16 07 54.9 +1.3
comp=Z,66nm,1.7s
**PPT Papeete 83.47 135** LR LR 16 39 50.0
comp=Z,154nm,18.6s,baz=306,slow=32
**PPT2 Papeete2 83.49 135** *e*LR LR 16 33 46.9
comp=Z,1um,32.0s,baz=335
**PPT2 Papeete2 83.49 135** *e*T T 17 39 54.6
comp=Z,7.6nm,0.2s
**PAE Paea 83.55 135** *e*T T 17 39 57.9
comp=Z,1.7nm,0.2s
**ES19 SONSECA Array 83.84 350** *e*P P 16 07 56.5 +0.8
**PCAS Casmilo, Conde 83.86 354** *e*P P 16 07 56.9 +1.3
comp=Z,83nm,1.8s
**ESDC Sonseca Array 83.88 350** P P 16 07 57.0 +1.2
comp=Z,11nm,0.6s,baz=0.6,slow=5.5,SNR=111
**ESLA Sonseca Array 83.88 350** *e*P P 16 07 56.7 +0.9
comp=Z,15nm,0.8s
**PCBR Castelo Branco 84.00 353** *e*P P 16 07 57.5 +1.2
comp=Z,51nm,1.9s
**PAB San Pablo 84.04 350** *e*P P 16 07 57.5 +0.8
PAB pmax pmax
comp=Z,15nm,0.9s
**PAB San Pablo 84.04 350** *e*P P 16 07 57.5 +0.8
comp=Z,16nm,0.9s
**PTOM Tomar 84.28 354** *e*P P 16 07 59.0 +1.2
comp=Z,66nm,2.2s
**PMRV Marv??o 84.41 353** *e*P P 16 07 59.3 +0.9
comp=Z,41nm,1.5s
**CCIG Comitan 84.50 69** *e*P P 16 08 00.7 +1.3
comp=Z,36nm,0.9s
**PMTG Montargil 84.82 353** *e*P P 16 08 01.4 +0.9
comp=Z,50nm,1.3s
**RAYN Ar Rayn 84.83 305** *e*P P 16 08 00.2 -0.6
comp=Z,42nm,1.4s
**PESTR Estremoz 84.98 353** *e*P P 16 08 02.2 +0.9
comp=Z,53nm,1.6s
**PBAR Barrancos 85.63 352** *e*P P 16 08 05.8 +1.3
comp=Z,178nm,1.5s
**KEST Kesra 85.77 339** P P 16 08 06.4 +1.0
comp=Z,5.7nm,0.7s,baz=43,slow=0.4,SNR=8.3
**KEST Kesra 85.77 339** *e*P P 16 08 05.9 +0.4
comp=Z,60nm,1.9s
**PNCL Nicolau / Gran 85.79 354** *e*P P 16 08 06.2 +0.9
comp=Z,40nm,2.0s
**PBEJ Beja 85.83 353** *e*P P 16 08 06.9 +1.3
comp=Z,52nm,1.7s
**MESJ Messejana 86.04 353** *e*P P 16 08 06.8 +0.2
MESJ AMb AMB 16 08 10.8
comp=Z,39nm,1.8s
**MESJ Messejana 86.04 353** *e*P P 16 08 06.8 +0.2
MESJ pmax pmax
comp=Z,39nm,1.8s
**PCVE Castro Verde 86.24 353** *e*P P 16 08 09.2 +1.6
comp=Z,55nm,1.6s
**PTEO Sao Teotonio 86.37 354** *e*P P 16 08 09.4 +1.2
comp=Z,66nm,1.9s
**PVAQ Vaqueiros 86.44 353** *e*P P 16 08 09.5 +0.9
comp=Z,58nm,1.8s
**MORF Marmelete 86.60 354** *e*P P 16 08 09.7 +0.2
MORF AMb AMB 16 08 20.5
comp=Z,58nm,1.6s
**MORF Marmelete 86.60 354** *e*P P 16 08 09.6 +0.2
MORF pmax pmax
comp=Z,58nm,1.6s
**MORF Marmelete 86.60 354** *e*P P 16 08 11.4 +2.0
comp=Z,58nm,1.8s
**PBDV Barranco-do-Ve 86.62 353** *e*P P 16 08 11.6 +2.1
comp=Z,57nm,1.5s
**TBI Tubuai 88.76 138** *e*LR LR 16 36 19.4
comp=Z,371nm,33.5s,baz=336
**TBI Tubuai 88.76 138** *e*T T 17 46 29.4
comp=Z,7.0nm,0.2s
**STKA Stephens Creek 89.66 198** P P 16 08 23.2 -0.4
comp=Z,6.9nm,0.8s,baz=324,slow=8.5,SNR=6.8
**STKA Stephens Creek 89.66 198** *e*P P 16 08 23.1 -0.5
STKA pmax pmax
comp=Z,21nm,2.0s
**STKA Stephens Creek 89.66 198** *e*P P 16 08 23.1 -0.5
comp=Z,21nm,2.0s
**RKT Rikitea 94.61 126** *e*LR LR 16 39 09.9
comp=Z,320nm,34.8s
**RKT Rikitea 94.61 126** *e*T T 17 54 00.8
comp=Z,1.6nm,0.2s
**TORD Torodi Ar. Bea 109.21 341** Pdiff **Pdif** 16 09 56.3 +3.9
comp=Z,0.4nm,0.8s,baz=356,slow=6.9,SNR=2.4
TORD PKiKP **PKiKP** 16 13 56.4 +0.2
comp=Z,0.5nm,0.7s,baz=17,slow=3.2,SNR=3.1
TORD PP **PP** 16 14 16.9 -7.2
comp=Z,1.1nm,0.8s,baz=18,slow=7.7,SNR=4.4
TORD PKKPbc **PKKPbc** 16 25 00.5 +0.6
comp=Z,0.9nm,0.9s,baz=159,slow=1.6,SNR=3.9
**LPAZ La Paz 124.47 66** PKP **PKPdf** 16 14 26.2 +0.2
comp=Z,1.6nm,0.8s,baz=32,slow=9.7,SNR=6.7
LPAZ PP **PP** 16 16 06.8 -5.3
comp=Z,1.7nm,0.8s,baz=354,slow=10,SNR=4.2
**LPAZ La Paz 124.47 66** *e*PKiKP **PKPdf** 16 14 26.0 0.0
**PB11 IPOC Station P 126.58 69** *e*PKPdf **PKPdf** 16 14 28.4 -1.0
**SIV San Ignacio 127.69 58** PKP **PKPdf** 16 14 32.1 +0.6
comp=Z,3.4nm,0.7s,baz=343,slow=1.2,SNR=6.2
**BDFB Brasilia 133.03 43** PKP **PKPdf** 16 14 42.6 +0.9
comp=Z,4.0nm,0.7s,baz=334,slow=3.4,SNR=5.6
**VNDA Vanda 133.46 180** PKP **PKPdf** 16 14 40.7 +0.1
comp=Z,2.1nm,0.8s,baz=286,slow=2.1,SNR=5.0
**CPUP Villa Florida 138.30 61** PKP **PKPdf** 16 14 52.0 +0.9
comp=Z,3.2nm,0.9s,baz=338,slow=0.2,SNR=6.1
**BOSA Boshof 139.49 295** PKP **PKPdf** 16 14 51.7 -1.7
comp=Z,3.9nm,0.8s,baz=58,slow=5.8,SNR=3.7
**PLCA Paso Flores 142.16 89** PKP **PKPdf** 16 14 58.8 +1.0
comp=Z,8.5nm,0.9s,baz=284,slow=2.4,SNR=19
**PLCA Paso Flores 142.16 89** *e*PKiKP **PKPdf** 16 14 57.9 +0.1
**PLCA Paso Flores 142.16 89** *e*PKPdf **PKPdf** 16 14 57.9 +0.1
**MAW Mawson 143.57 219** PKP PKPbc 16 14 57.8 +1.1
comp=Z,7.4nm,0.9s,baz=5.6,slow=3.0,SNR=10
**MAW Mawson 143.57 219** *e*PKiKP PKPbc 16 14 57.5 +0.8
**MAW Mawson 143.57 219** *e*PKPpre PKPbc 16 14 57.5 +0.7
**TRQA Tornquist 145.05 78** *e*PKPbc **PKPab** 16 15 02.7 +0.3
**CHRN Cochrane 145.16 99** *e*PKPbc **PKPdf** 16 15 03.5 +0.8
**QSPA South Pole Qui 145.96 180** *e*PKPdf **PKPdf** 16 15 03.8 +0.2
**SYO Syowa Base 152.28 220 ⇑** *e*P **PKPdf** 16 15 07.8 -5.7
**SYO Syowa Base 152.28 220 ⇓** *e*P **PKPdf** 16 15 13.0 -0.5
**SNAA Sanae 163.40 195** PKP **PKPdf** 16 15 25.3 -1.9
**VNA3 Neumayer Olymp 164.60 189** PKP **PKPdf** 16 15 28.0 -0.3
**VNA2 Neumayer--Watz 164.68 192** PKP **PKPdf** 16 15 27.5 -0.8
baz=33,slow=1.2
**VNA1 Neumayer--Stat 165.04 191** PKP **PKPdf** 16 15 28.6 0.0

*NEIC **04** 15:56:45.5± 1.2, 42°.78N × 127°.84W, h10^km, ML3.5, Error ellipse: s-maj=13.6km s-min=5.9km az=73.0*
*IDC **04** 15:56:58.5± 3.5, 43°.41N × 126°.39W, h0^km, mb3.4/3, mb1 3.8/7, mb1mx3.6/51, mbtmp3.5/7, ML3.6/4, Error*

*ellipse: s-maj=46.5km s-min=16.8km az=70.0*

**ISC 04 15:56:57.0**±2.0**, 43°.20N**±0°.07×**126°.9W**±0°.1**, h10km, n86, σ1s.39**/80**, Off coast of Oregon**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KEBM** | **Edson Butte** | **1.90** | **99** | ePn | **Pn** | **15 57 26.6** | **-2.8** |
| **I03D** | **Drain, OR** | **2.62** | **78** | P | **Pn** | **15 57 37.2** | **-2.1** |
| | baz=259,SNR=368 | | | | | | |
| I03D | | | | S | **Sn** | **15 58 08.5** | **-2.7** |
| | baz=259 | | | | | | |
| **L02D** | **Cave Junction,** | **2.63** | **112** | P | **Pn** | **15 57 37.6** | **-1.9** |
| | baz=297,SNR=74 | | | | | | |
| L02D | | | | S | **Sn** | **15 58 09.2** | **-2.2** |
| | baz=297 | | | | | | |
| **DBO** | **Dodson Butte** | **2.66** | **90** | ePn | **Pn** | **15 57 38.1** | **-1.9** |
| **HSO** | **Harness Mounta** | **2.78** | **82** | ePn | **Pn** | **15 57 39.7** | **-2.0** |
| **COR** | **Corvallis** | **2.94** | **61** | ePn | **Pn** | **15 57 42.0** | **-1.7** |
| **HUMO** | **Hull Mountain** | **2.94** | **100** | ePn | **Pn** | **15 57 41.7** | **-2.1** |
| **G03D** | **McMinnville, O** | **3.29** | **51** | P | **Pn** | **15 57 46.9** | **-1.6** |
| | baz=231,SNR=69 | | | | | | |
| G03D | | | | S | **Sn** | **15 58 25.3** | **-2.4** |
| | baz=231 | | | | | | |
| **I04A** | **Tendick Farm,** | **3.31** | **78** | P | **Pn** | **15 57 47.6** | **-1.3** |
| | baz=260,SNR=63 | | | | | | |
| **YBH** | **Yreka Blue Hor** | **3.41** | **114** | Pn | **Pn** | **15 57 49.8** | **-0.5** |
| | 1.4nm,0.3s,baz=288,slow=13,SNR=68 | | | | | | |
| YBH | | | | Sn | **Sn** | **15 58 30.7** | **-0.2** |
| | 0.7nm,0.3s,baz=110,slow=20,SNR=5.7 | | | | | | |
| **KMOR** | **Kings Mountain** | **3.44** | **44** | ePn | **Pn** | **15 57 48.7** | **-2.0** |
| **IRO** | **Indian Ridge** | **3.46** | **75** | ePn | **Pn** | **15 57 49.9** | **-1.1** |
| **J04D** | **Umpqua Nationa** | **3.49** | **88** | P | **Pn** | **15 57 50.4** | **-1.0** |
| | baz=271,SNR=40 | | | | | | |
| **M02C** | **Callahan** | **3.49** | **120** | P | **Pn** | **15 57 50.1** | **-1.3** |
| | baz=304,SNR=9.9 | | | | | | |
| **H04A** | **Detroit Lake** | **3.70** | **65** | ePn | **Pn** | **15 57 53.2** | **-1.0** |
| **PRLK** | **Prince Lake** | **3.71** | **72** | ePn | **Pn** | **15 57 53.6** | **-0.8** |
| **G04A** | **Mulino** | **3.75** | **56** | ePn | **Pn** | **15 57 54.3** | **-0.5** |
| **B023** | **Clatskanie** | **3.98** | **42** | ePn | **Pn** | **15 57 56.5** | **-1.5** |
| **E03A** | **Lebam** | **4.10** | **34** | ePn | **Pn** | **15 57 58.1** | **-1.5** |
| **J05D** | **Fort Rock, OR** | **4.13** | **87** | P | **Pn** | **15 57 58.9** | **-1.3** |
| | baz=271,SNR=7.3 | | | | | | |
| **I05D** | **Terrebonne, OR** | **4.17** | **72** | P | **Pn** | **15 57 59.4** | **-1.3** |
| | baz=255 | | | | | | |
| **F04A** | **Amboy** | **4.20** | **48** | ePn | **Pn** | **15 58 00.2** | **-0.8** |
| **TDH** | **Tom, Dick, Har** | **4.21** | **58** | ePn | **Pn** | **15 58 01.1** | **-0.3** |
| **LVP** | **Lakeview Peak** | **4.29** | **46** | ePn | **Pn** | **15 58 01.9** | **-0.6** |
| LVP | | | | eSn | **Sn** | **15 58 52.7** | **+0.1** |
| **HOOD** | **Mount Hood Mea** | **4.32** | **59** | ePn | **Pn** | **15 58 02.7** | **0.0** |
| **MTMW** | **Mount Mitchell** | **4.37** | **48** | ePn | **Pn** | **15 58 03.0** | **-0.5** |
| **B203** | **Quarry, Mount** | **4.40** | **46** | ePn | **Pn** | **15 58 03.4** | **-0.4** |
| **FL2** | **Flat Top 2** | **4.41** | **46** | ePn | **Pn** | **15 58 03.6** | **-0.4** |
| **SHW** | **Mount Saint He** | **4.46** | **46** | ePn | **Pn** | **15 58 04.9** | **0.0** |
| **SWFL** | **Southwest Flan** | **4.48** | **46** | ePn | **Pn** | **15 58 04.9** | **-0.3** |
| **ERK** | **Elk Rock** | **4.49** | **45** | ePn | **Pn** | **15 58 04.5** | **-0.6** |
| **G05D** | **Wamic, OR** | **4.49** | **61** | P | **Pn** | **15 58 04.4** | **-0.7** |
| | baz=244 | | | | | | |
| **VALT** | **Mount Saint He** | **4.50** | **46** | ePn | **Pn** | **15 58 05.4** | **0.0** |
| **B201** | **Coldwater, Mou** | **4.52** | **45** | ePn | **Pn** | **15 58 04.9** | **-0.7** |
| **TDL** | **Tradedollar La** | **4.58** | **45** | ePn | **Pn** | **15 58 05.8** | **-0.6** |
| **G06A** | **Carlson Farm,** | **4.93** | **63** | ePn | **Pn** | **15 58 10.0** | **-1.2** |
| **LON** | **Longmire** | **5.06** | **44** | ePn | **Pn** | **15 58 12.4** | **-0.5** |
| **GSGM** | **Seigler Mounta** | **5.35** | **142** | ePn | Pn | 15 58 06.9 | -10 |
| **B04A** | **Port Angeles** | **5.41** | **25** | ePn | **Pn** | **15 58 16.7** | **-0.9** |
| **GCRM** | **Castle Rock Sp** | **5.43** | **143** | ePn | Pn | 15 58 05.0 | -13 |
| GCRM | | | | ePg | Pb | 15 58 24.9 | -7.0 |
| **I07A** | **Izee** | **5.43** | **78** | ePn | **Pn** | **15 58 17.0** | **-1.0** |
| **F07A** | **Phinny Hill Vi** | **5.65** | **59** | ePn | **Pn** | **15 58 20.2** | **-0.8** |
| **C05A** | **Tolt Reservoir** | **5.79** | **37** | ePn | **Pn** | **15 58 22.3** | **-0.7** |
| **HTW** | **Haystack Looko** | **5.84** | **36** | ePn | **Pn** | **15 58 22.7** | **-1.0** |
| **PGC** | **Sidney** | **5.96** | **22** | ePn | **Pn** | **15 58 23.7** | **-1.4** |
| **LTY** | **Liberty** | **5.98** | **45** | ePn | **Pn** | **15 58 25.3** | **-0.2** |
| **E07A** | **Sunnyside** | **6.02** | **54** | ePn | **Pn** | **15 58 25.6** | **-0.5** |
| **G08A** | **Pilot Rock** | **6.06** | **67** | ePn | **Pn** | **15 58 25.8** | **-1.0** |
| **JCW** | **Jim Creek** | **6.08** | **33** | ePn | **Pn** | **15 58 26.7** | **-0.2** |
| **HAWA** | **Hanford** | **6.13** | **56** | ePn | **Pn** | **15 58 26.7** | **-0.9** |
| **J08A** | **Circle Bar Ran** | **6.14** | **86** | ePn | **Pn** | **15 58 27.4** | **-0.4** |
| **E08A** | **Dider Farm, El** | **6.46** | **57** | ePn | **Pn** | **15 58 31.1** | **-1.0** |
| **D08A** | **Wollman Farm,** | **6.83** | **53** | ePn | **Pn** | **15 58 36.6** | **-0.5** |
| **E09A** | **Wood Farm, Sta** | **7.04** | **59** | ePn | **Pn** | **15 58 38.1** | **-1.9** |
| **BMO** | **Blue Mountains** | **7.10** | **73** | ePn | **Pn** | **15 58 39.7** | **-1.3** |
| **B08A** | **Colville Reser** | **7.38** | **43** | ePn | **Pn** | **15 58 44.3** | **-0.5** |
| **F10A** | **Beach Ranch, E** | **7.43** | **65** | ePn | **Pn** | **15 58 44.0** | **-1.5** |
| **C09A** | **Chrisman Ranch** | **7.60** | **50** | ePn | **Pn** | **15 58 46.6** | **-1.1** |
| **BPIM** | **Pinnacles** | **8.01** | **145** | ePn | Pn | 15 58 44.0 | -9.4 |
| **LLLB** | **Lillooet** | **8.17** | **23** | ePn | **Pn** | **15 58 55.0** | **-0.6** |
| **NEW** | **Newport** | **8.50** | **50** | Pn | **Pn** | **15 58 58.8** | **-1.3** |
| | 0.5nm,0.3s,baz=222,slow=9.9,SNR=7.0 | | | | | | |
| **MSO** | **Missoula** | **9.86** | **64** | ePn | **Pn** | **15 59 17.6** | **-1.2** |
| **MCMT** | **McKenzie Canyo** | **10.24** | **76** | ePn | **Pn** | **15 59 23.4** | **-0.8** |
| **LRM** | **Limekiln Ridge** | **10.64** | **71** | ePn | **Pn** | **15 59 28.8** | **-0.8** |
| **WALA** | **Waterton Lakes** | **10.74** | **52** | ePn | **Pn** | **15 59 30.8** | **-0.1** |
| **BOZ** | **Bozeman (W)** | **11.18** | **72** | ePn | **Pn** | **15 59 36.4** | **-0.5** |
| **YHB** | **Horse Butte** | **11.41** | **77** | ePn | **Pn** | **15 59 41.3** | **+1.1** |
| **TPAW** | **Teton Pass** | **11.61** | **83** | ePn | **Pn** | **15 59 44.1** | **+1.2** |
| **YHH** | **Holmes Hill** | **11.66** | **77** | ePn | **Pn** | **15 59 45.1** | **+1.4** |
| **YPP** | **Pitchstone Pla** | **11.68** | **79** | ePn | Pn | 15 59 39.0 | -5.0 |
| **REDW** | **Red Top Meadow** | **11.69** | **84** | ePn | **Pn** | **15 59 45.7** | **+1.7** |
| **MOOW** | **Moose Ponds** | **11.74** | **82** | ePn | **Pn** | **15 59 45.8** | **+1.1** |
| **JLU** | **Jordanelle** | **11.79** | **97** | eSn | **Sn** | **16 02 03.0** | **+5.9** |
| **CRY** | **Cary Ranch** | **12.47** | **137** | ePn | Pn | 15 59 44.7 | -10 |
| **PD31** | **Pinedale Array** | **12.70** | **86** | ePn | **Pn** | **15 59 58.8** | **+1.1** |
| **PDAR** | **Pinedale Array** | **12.70** | **86** | Pn | **Pn** | **15 59 59.1** | **+1.4** |
| | 0.1nm,0.3s,baz=266,slow=15,SNR=8.8 | | | | | | |
| **ANMO** | **Albuquerque** | **17.84** | **111** | P | **P** | **16 01 06.9** | **+0.7** |
| | 0.1nm,0.3s,baz=175,slow=8.1,SNR=4.2 | | | | | | |
| **YKA** | **Yellowknife Ar** | **20.63** | **16** | P | **P** | **16 01 36.6** | **+0.3** |
| | 1.5nm,0.7s,baz=200,slow=9.9,SNR=15 | | | | | | |
| **ULM** | **Lac du Bonnet** | **22.28** | **61** | P | **P** | **16 01 53.2** | **-0.9** |
| | 2.5nm,0.6s,baz=266,slow=9.1,SNR=5.6 | | | | | | |
| **TXAR** | **Lajitas Array** | **23.18** | **119** | P | **P** | **16 02 05.1** | **+1.3** |
| | 0.3nm,0.7s,baz=327,slow=9.8,SNR=3.1 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **59.56** | **269** | T | T | 17 11 20.7 | |
| | baz=51,slow=75,SNR=38 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **59.56** | **269** | T | T | 17 11 23.3 | |
| | baz=51,slow=75,SNR=31 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **59.57** | **269** | T | T | 17 11 22.7 | |
| | baz=51,slow=75,SNR=30 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **60.47** | **268** | T | T | 17 12 29.9 | |
| | baz=50,slow=75,SNR=144 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **60.48** | **268** | T | T | 17 12 29.5 | |
| | baz=50,slow=75,SNR=139 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **60.49** | **268** | T | T | 17 12 30.8 | |
| | baz=50,slow=75,SNR=132 | | | | | | |

---

*NIED **04** 16:02:00, 33°.30N×132°.20E, h53km, Mw4.2 Best double couple: $M_0$2.13000×$10^{15}$ NP1:$\phi_s$276.00000°, δ26.00000°, λ168.00000°. NP2:$\phi_s$17.00000°, δ85.00000°, λ65.00000°.*

*ISCJB **04** 16:02:36.9±0.3, 33°.30N±0°.04×132°.17E±0°.04, h64km±3km, mb4.0/15, Error ellipse: s-maj=6.6km s-min=4.9km az=150.1*

*JMA **04** 16:02:38.3, 33°.29N×132°.16E, h50km, M4.0 Broadband fault plane solution: P waves. NP1:$\phi_s$137.00000°, δ88.00000°, λ-114.00000°. NP2:$\phi_s$42.00000°, δ25.00000°, λ-5.00000°. Principal axes: T Plg38.0000°, Azm249.0000°; N Plg24.0000°, Azm138.0000°; P Plg42.0000°, Azm24.0000°;*

*JMA Felt III J1.*

*IDC **04** 16:02:40.2±1.4, 33°.36N×131°.96E, h74km±10km, mb3.7/14, mb1 3.9/16, mb1mx3.7/46, mbtmp4.0/16, MS4.0/1, Ms1 4.0/1, ms1mx3.1/41 Error ellipse: s-maj=19.2km s-min=11.5km az=77.0*

**ISC 04 16:02:38.0**±0.7**, 33°.29N**±0°.04×**132°.17E**±0°.04**, h57km**±6km**, n29, σ1s.85**/46**, mb4.0**/15**, 5C-2D, Shikoku**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JNA** | **Nagahama** | **0.38** | **44** | ⇑P | **Pn** | **16 02 48.1** | **-0.4** |
| JNA | | | | S | **Sn** | **16 02 55.1** | **-1.0** |
| **UWA2** | **Uwa jima 2** | **0.39** | **100** | ⇑P | **Pn** | **16 02 48.3** | **-0.3** |
| UWA2 | | | | S | **Sn** | **16 02 55.6** | **-0.7** |
| **JUS** | **Usuki** | **0.41** | **238** | ⇓P | **Pn** | **16 02 48.4** | **-0.4** |
| JUS | | | | S | **Sn** | **16 02 55.8** | **-0.8** |
| **JTO** | **Tosashimizu** | **0.68** | **128** | ⇑P | **Pn** | **16 02 51.9** | **+0.1** |
| JTO | | | | eS | **Sn** | **16 03 01.4** | **-0.5** |
| **JKU** | **Kubokawa** | **0.75** | **88** | P | **Pn** | **16 02 52.6** | **-0.1** |
| JKU | | | | S | **Sn** | **16 03 03.5** | **0.0** |
| **JET** | **Tanbara** | **0.89** | **56** | ⇑P | **Pn** | **16 02 54.4** | **-0.1** |
| JET | | | | eS | **Sn** | **16 03 05.9** | **-0.7** |
| **JHM** | **Kurahashi** | **0.91** | **19** | P | **Pn** | **16 02 54.8** | **+0.2** |
| JHM | | | | eS | **Sn** | **16 03 06.8** | **-0.1** |
| **JNU** | **Nakatsue** | **1.09** | **262** | P | **Pn** | **16 02 57.6** | **+0.5** |
| | 829nm,0.3s,baz=45,slow=4.9,SNR=8825 | | | | | | |
| JNU | | | | LR | LR | 16 03 10.0 | |
| | comp=Z,14nm,18.4s,baz=150,slow=32 | | | | | | |
| JNU | | | | S | **Sn** | **16 03 12.3** | **+0.9** |
| | 433nm,0.3s,baz=293,slow=22,SNR=27 | | | | | | |
| **JIU2** | **Izumi 2** | **1.35** | **237** | ⇑P | **Pn** | **16 03 01.0** | **+0.4** |
| JIU2 | | | | S | **Sn** | **16 03 18.4** | **+0.8** |
| **JHT** | **Toyohira** | **1.39** | **9** | ⇓P | **Pn** | **16 03 01.8** | **+0.6** |
| JHT | | | | eS | **Sn** | **16 03 19.4** | **+0.9** |
| **KSRS** | **Korea Array** | **5.41** | **321** | P | **Pn** | **16 03 57.0** | **+0.9** |
| | 3.8nm,0.3s,baz=142,slow=14,SNR=50 | | | | | | |
| KSRS | | | | S | **Sn** | **16 04 56.3** | **-0.7** |
| | 4.6nm,0.3s,baz=140,slow=22,SNR=6.4 | | | | | | |
| **MAT** | **Matsushiro** | **5.93** | **55** | P | **Pn** | **16 04 05.1** | **+1.9** |
| MAT | | | | eS | **Sn** | **16 05 08.9** | **-0.9** |
| **MJAR** | **Matsushiro Arr** | **5.93** | **55** | P | **Pn** | **16 04 05.5** | **+2.3** |
| | 3.6nm,0.3s,baz=237,slow=14,SNR=30 | | | | | | |
| **SONM** | **Songino Array** | **24.23** | **314** | P | **P** | **16 07 49.7** | **+0.2** |
| | 4.6nm,0.6s,baz=134,slow=9.9,SNR=11 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **39.10** | **316** | P | **P** | **16 09 58.2** | **-1.2** |
| | 1.0nm,0.7s,baz=99,slow=8.9,SNR=3.4 | | | | | | |
| ZALV | | | | PcP | **PcP** | **16 12 07.8** | **-0.4** |
| | 0.9nm,0.7s,baz=98,slow=3.0,SNR=3.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **39.84** | **305** | P | **P** | **16 10 04.4** | **-1.4** |
| | 1.0nm,0.9s,baz=85,slow=11,SNR=4.2 | | | | | | |
| MKAR | | | | PcP | **PcP** | **16 12 10.5** | **-0.2** |
| | 0.9nm,0.9s,baz=95,slow=2.7,SNR=4.4 | | | | | | |
| **KSH** | **Kashi** | **45.03** | **295** | eP | **P** | **16 10 51.2** | **+3.1** |
| KSH | | | | pP | sP | 16 11 29.2 | +20 |
| KSH | | | | PcP | **PcP** | **16 12 29.2** | **+0.9** |
| KSH | | | | PP | **PP** | **16 12 39.6** | **+5.5** |
| KSH | | | | S | **S** | **16 17 14.6** | **-8.3** |
| KSH | | | | ScS | ScS | 16 20 23.4 | -17 |
| KSH | | | | SS | SS | 16 20 32.0 | -14 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.9s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,230nm,5.3s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,330nm,6.3s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,340nm,7.3s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,510nm,10.1s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **51.48** | **188** | P | **P** | **16 11 38.8** | **+1.1** |
| | comp=Z,3.5nm,0.7s,baz=358,slow=7.4,SNR=9.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **52.97** | **177** | P | **P** | **16 11 49.2** | **+0.5** |
| | comp=Z,1.2nm,0.6s,baz=356,slow=8.2,SNR=9.2 | | | | | | |
| **ASAR** | **Alice Springs** | **56.66** | **178** | P | **P** | **16 12 16.6** | **+1.2** |
| | comp=Z,0.9nm,0.6s,baz=9.3,slow=13,SNR=15 | | | | | | |
| ASAR | | | | LR | LR | 16 36 33.8 | |
| | comp=Z,150nm,21.8s,baz=51,slow=36 | | | | | | |
| **ARCES** | **ARCESS Array B** | **64.73** | **338** | P | **P** | **16 13 09.6** | **-0.2** |
| | comp=Z,1.1nm,0.5s,baz=62,slow=8.4,SNR=9.0 | | | | | | |
| **KBZ** | **Khabaz** | **67.42** | **308** | P | **P** | **16 13 26.1** | **-1.3** |
| | comp=Z,2.7nm,0.9s,baz=72,slow=3.5,SNR=5.0 | | | | | | |
| **FINES** | **FINESS Array B** | **68.44** | **330** | P | **P** | **16 13 32.8** | **-0.7** |
| | comp=Z,2.7nm,0.5s,baz=65,slow=6.0,SNR=25 | | | | | | |
| **YKA** | **Yellowknife Ar** | **70.71** | **27** | P | **P** | **16 13 49.2** | **+1.7** |
| | comp=Z,0.6nm,0.9s,baz=305,slow=6.1,SNR=2.9 | | | | | | |
| **AKASG** | **Malin Array Be** | **72.41** | **319** | P | **P** | **16 13 56.2** | **-1.7** |
| | comp=Z,0.4nm,0.4s,baz=56,slow=6.5,SNR=4.1 | | | | | | |
| **NOA** | **NORSAR Array B** | **74.48** | **334** | P | **P** | **16 14 09.1** | **-0.9** |
| | comp=Z,0.9nm,0.6s,baz=50,slow=5.8,SNR=3.6 | | | | | | |
| **BRTR** | **Keskin Array B** | **75.41** | **308** | P | **P** | **16 14 15.2** | **-0.7** |
| | comp=Z,1.1nm,0.7s,baz=86,slow=6.3,SNR=5.9 | | | | | | |
| **GERES** | **GERESS Array B** | **81.58** | **324** | P | **P** | **16 14 48.5** | **-1.2** |
| | comp=Z,0.7nm,0.8s,baz=101,slow=4.2,SNR=3.9 | | | | | | |
| **PTGA** | **Pitinga** | **145.67** | **22** | PKPbc | **PKPdf** | **16 22 11.2** | **+0.6** |
| | comp=Z,1.2nm,0.6s,baz=330,slow=5.6,SNR=9.0 | | | | | | |

---

**GUC 04 16:03:05.6**±0.5**, 37°.62S**×**74°.02W, h32km**±3km**, ML3.5, Off coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TMU** | **Temuco** | **1.58** | **135** | eP | Pn | 16 03 32.3 | +0.9 |
| TMU | | | | eS | Sb | 16 03 52.4 | -1.4 |
| **COCH** | **Cobquecura** | **1.78** | **34** | eP | Pn | 16 03 34.8 | +0.7 |
| COCH | | | | eS | Sn | 16 03 57.4 | +1.7 |
| **CCHI** | **Chillan** | **1.86** | **57** | eS | Sn | 16 03 58.9 | +1.5 |
| CCHI | | | | IAML | | 16 04 04.7 | |
| | comp=N,710nm,1.0s | | | | | | |
| **GO05** | **HualaæØ** | **3.10** | **34** | eP | Pn | 16 03 53.0 | +0.6 |
| GO05 | | | | eS | Sn | 16 04 30.5 | +2.2 |
| GO05 | | | | IAML | | 16 04 47.6 | |
| | comp=E,134nm,0.7s | | | | | | |

---

**IDC 04 16:31:21.4**±6.7**, 2°.57S**×**117°.41E, h0km, mb3.6**/3**, mb1 3.7**/4**, mb1mx3.4**/34**, mbtmp3.6**/4**, ML3.1**/1**, Error ellipse: s-maj=187.5km s-min=102.8km az=57.0, Borneo**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **17.42** | **153** | P | P | 16 35 27.2 | -0.2 |
| | 0.1nm,0.3s,baz=331,slow=13,SNR=3.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **23.91** | **137** | P | P | 16 36 36.9 | -0.3 |
| | 0.6nm,0.5s,baz=314,slow=11,SNR=10 | | | | | | |
| **ASAR** | **Alice Springs** | **26.36** | **144** | P | P | 16 36 59.9 | +0.3 |
| | 0.4nm,0.5s,baz=320,slow=8.5,SNR=18 | | | | | | |
| **STKA** | **Stephens Creek** | **36.99** | **145** | P | P | 16 38 32.3 | -0.5 |
| | 2.6nm,1.0s,baz=297,slow=9.0,SNR=3.6 | | | | | | |

---

**IDC 04 16:33:57.4**±8.2**, 2°.39N**×**126°.68E, h0km, mb3.5**/3**, mb1 3.7**/3**, mb1mx3.3**/35**, mbtmp3.6**/3**, Error ellipse: s-maj=170.8km s-min=127.8km az=75.0, Northern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **23.43** | **162** | P | P | 16 39 08.0 | -0.4 |
| | 0.7nm,0.4s,baz=340,slow=10,SNR=12 | | | | | | |
| **ASAR** | **Alice Springs** | **26.84** | **165** | P | P | 16 39 39.9 | +0.1 |
| | 0.2nm,0.6s,baz=350,slow=7.4,SNR=6.6 | | | | | | |
| **STKA** | **Stephens Creek** | **36.91** | **159** | P | P | 16 41 08.2 | +0.1 |
| | 2.1nm,0.9s,baz=0.0,slow=10,SNR=3.2 | | | | | | |

---

**IDC 04 16:48:58.2**±2.2**, 6°.51S**×**130°.01E, h0km, mb3.6**/1**, mb1 3.7**/4**, mb1mx3.4**/26**, mbtmp3.5**/4**, ML3.6**/3**, Error ellipse: s-maj=88.9km s-min=28.0km az=77.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **12.29** | **200** | Pn | Pn | 16 51 54.0 | -0.6 |
| | 0.2nm,0.3s,baz=22,slow=8.3,SNR=27 | | | | | | |
| FITZ | | | | Sn | Sn | 16 53 56.4 | -16 |
| | 0.3nm,0.3s,baz=336,slow=22,SNR=6.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **14.00** | **163** | Pn | Pn | 16 52 18.4 | +0.3 |
| | 0.4nm,0.3s,baz=347,slow=13,SNR=15 | | | | | | |
| WRA | | | | Sn | Sn | 16 54 40.5 | -14 |
| | 0.5nm,0.3s,baz=335,slow=23,SNR=12 | | | | | | |
| **ASAR** | **Alice Springs** | **17.47** | **168** | P | Pn | 16 53 03.6 | +0.2 |
| | 0.2nm,0.3s,baz=344,slow=9.4,SNR=14 | | | | | | |
| ASAR | | | | S | Sn | 16 56 03.1 | -16 |
| | 0.1nm,0.3s,baz=354,slow=26,SNR=5.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.82** | **327** | P | P | 16 59 58.2 | 0.0 |
| | 0.3nm,0.5s,baz=117,slow=7.8,SNR=6.6 | | | | | | |

---

*IDC **04** 17:03:49.7±1.6, 37°.51N×142°.25E, h0km, mb3.6/3, mb1 3.7/7, mb1mx3.4/43, mbtmp3.7/7, ML3.4/4, Error ellipse: s-maj=32.0km s-min=23.4km az=74.0*

*ISCJB **04** 17:03:54.4±0.9, 37°.56N±0°.03×141°.89E±0°.07, h46km±11km, mb3.6/3, Error ellipse: s-maj=10.1km s-min=5.5km az=11.8*

*JMA **04** 17:03:56.5, 37°.63N×141°.74E, h46km±2km, M3.8*

*JMA Felt I J1.*

**ISC 04 17:03:54.9**±2.8**, 37°.60N**±0°.05×**141°.84E**±0°.09**, h26km**±18km**, n26, σ1s.46**/35**, mb3.7**/3**, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JFK** | **Kawauchi** | **0.80** | **253** | P | **Pn** | **17 04 10.6** | **-0.1** |
| JFK | | | | eS | **Sb** | **17 04 20.8** | **0.0** |
| **JMM** | **Marumori** | **0.87** | **288** | P | **Pn** | **17 04 11.4** | **-0.2** |
| JMM | | | | eS | **Sb** | **17 04 22.0** | **-0.7** |
| **JIO** | **Ouri** | **0.94** | **336** | P | **Pn** | **17 04 12.7** | **+0.3** |
| JIO | | | | S | **Sn** | **17 04 24.0** | **-1.0** |
| **ONAJ** | **Iwakimizuishiy** | **0.97** | **239** | P | **Pn** | **17 04 13.0** | **+0.1** |
| ONAJ | | | | eS | **Sn** | **17 04 24.8** | **-1.1** |
| **JFT** | **Otama** | **1.20** | **267** | P | **Pn** | **17 04 16.6** | **+0.5** |
| JFT | | | | eS | **Sn** | **17 04 31.0** | **-0.5** |
| **JOU** | **Okura** | **1.20** | **310** | P | **Pn** | **17 04 16.2** | **+0.1** |
| JOU | | | | eS | **Sn** | **17 04 31.0** | **-0.7** |
| **JMK** | **Ichinoseki** | **1.44** | **340** | P | **Pn** | **17 04 19.9** | **+0.6** |
| **JYS** | **Shirataka** | **1.54** | **294** | P | **Pn** | **17 04 21.0** | **+0.3** |
| JYS | | | | eS | **Sn** | **17 04 39.7** | **-0.1** |
| **JFY** | **Yanaizu** | **1.71** | **264** | P | **Pn** | **17 04 23.4** | **+0.3** |
| JFY | | | | eS | **Sn** | **17 04 43.5** | **-0.7** |
| **JYK** | **Kaneyama** | **1.76** | **319** | P | **Pn** | **17 04 23.9** | **+0.1** |
| JYK | | | | eS | **Sn** | **17 04 44.3** | **-1.0** |
| **JOM** | **Ohasama** | **1.92** | **347** | P | **Pn** | **17 04 27.0** | **+1.0** |
| JOM | | | | eS | **Sn** | **17 04 49.9** | **+0.6** |
| **JYA** | **Atsumi** | **1.95** | **301** | P | **Pn** | **17 04 27.2** | **+0.8** |
| JYA | | | | eS | **Sn** | **17 04 50.3** | **+0.3** |
| **MJAR** | **Matsushiro Arr** | **3.09** | **251** | Pn | **Pn** | **17 04 43.5** | **+1.4** |
| | 4.9nm,0.3s,baz=75,slow=15,SNR=49 | | | | | | |
| MJAR | | | | Sn | **Sb** | **17 05 24.4** | **-2.1** |
| | 1.4nm,0.3s,baz=112,slow=16,SNR=3.3 | | | | | | |
| **MAT** | **Matsushiro** | **3.09** | **251** | P | **Pn** | **17 04 43.6** | **+1.5** |
| MAT | | | | eS | **Sn** | **17 05 22.3** | **+4.0** |
| **JHJ** | **Hachijo jima 2** | **4.78** | **201** | Pn | **Pn** | **17 05 03.5** | **-1.8** |
| | 15nm,0.3s,baz=25,slow=19,SNR=2.8 | | | | | | |
| JHJ | | | | Sn | **Sn** | **17 05 58.1** | **-1.6** |
| | 23nm,0.3s,baz=69,slow=23,SNR=5.8 | | | | | | |
| **ASAJ** | **Asahikawa** | **6.54** | **5** | Pn | **Pn** | **17 05 28.4** | **-0.9** |
| | 0.5nm,0.3s,baz=192,slow=14,SNR=9.1 | | | | | | |
| ASAJ | | | | Sn | **Sn** | **17 06 40.4** | **-2.6** |
| | 0.1nm,0.3s,baz=234,slow=19,SNR=2.1 | | | | | | |
| **KSRS** | **Korea Array** | **11.06** | **273** | Pn | **Pn** | **17 06 35.1** | **+3.7** |
| | 0.1nm,0.3s,baz=84,slow=14,SNR=3.0 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.15** | **122** | T | T | 17 39 22.8 | |
| | baz=315 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.16** | **122** | T | T | 17 39 23.7 | |
| | baz=315,slow=74 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.17** | **122** | T | T | 17 39 21.6 | |
| | baz=315,slow=74 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.89** | **124** | T | T | 17 40 17.9 | |
| | baz=316,slow=76,SNR=8.3 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.89** | **124** | T | T | 17 40 18.4 | |
| | baz=316,slow=76,SNR=9.8 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.90** | **124** | T | T | 17 40 18.6 | |
| | baz=316,slow=76,SNR=10 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.11** | **302** | P | **P** | **17 12 01.8** | **+0.8** |
| | 0.4nm,0.8s,baz=78,slow=6.6,SNR=2.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **57.67** | **188** | P | **P** | **17 13 41.5** | **-1.7** |
| | 0.8nm,0.6s,baz=6.1,slow=6.9,SNR=19 | | | | | | |
| **ASAR** | **Alice Springs** | **61.40** | **188** | P | **P** | **17 14 07.5** | **-1.4** |
| | 0.4nm,0.7s,baz=9.7,slow=5.1,SNR=5.6 | | | | | | |

---

*CSEM **04** 17:30:33.5, 36°.46N×26°.44E, h67km, ML2.0/4*

**ATH 04 17:30:33.5, 36°.46N**×**26°.44E, h67km**±17km**, ML2.0**/4**, Error ellipse: s-maj=17.3km s-min=1.7km az=128.0, Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KARP** | **Karpathos** | **1.08** | **147** | P | Pn | 17 30 53.2 | +0.3 |
| KARP | | | | S | Sn | 17 31 09.2 | +1.9 |
| KARP | | | | AML | AML | 17 31 11.0 | |
| | comp=E,115μm,0.1s | | | | | | |
| KARP | | | | AML | AML | 17 31 11.8 | |
| | comp=N,140μm,0.2s | | | | | | |
| **KARP** | **Karpathos** | **1.08** | **147** | P | Pn | 17 30 53.2 | +0.3 |
| KARP | | | | S | Sn | 17 31 09.2 | +1.9 |
| **SMG** | **Samos** | **1.29** | **14** | P | Pn | 17 30 56.6 | +1.0 |
| **SMG** | **Samos** | **1.29** | **14** | P | Pn | 17 30 56.6 | +1.0 |
| **ZKR** | **Zakros** | **1.35** | **188** | P | Pn | 17 30 58.0 | +1.7 |
| ZKR | | | | S | Sn | 17 31 16.1 | +2.6 |
| ZKR | | | | AML | AML | 17 31 18.5 | |
| | comp=E,86μm,0.3s | | | | | | |
| ZKR | | | | AML | AML | 17 31 18.6 | |
| | comp=N,30μm,0.3s | | | | | | |
| **ZKR** | **Zakros** | **1.35** | **188** | P | Pn | 17 30 58.0 | +1.6 |
| ZKR | | | | S | Sn | 17 31 16.1 | +2.6 |
| **NPS** | **Neapolis** | **1.36** | **210** | P | Pn | 17 30 57.0 | +0.4 |
| NPS | | | | S | Sn | 17 31 14.7 | +0.8 |
| NPS | | | | AML | AML | 17 31 16.2 | |
| | comp=N,128μm,0.5s | | | | | | |
| NPS | | | | AML | AML | 17 31 17.2 | |
| | comp=E,105μm,0.3s | | | | | | |
| **NPS** | **Neapolis** | **1.36** | **210** | P | Pn | 17 30 57.0 | +0.4 |
| NPS | | | | S | Sn | 17 31 14.7 | +0.8 |
| **LAST** | **Lasithi** | **1.51** | **211** | P | Pn | 17 30 59.6 | +1.1 |
| LAST | | | | S | Sn | 17 31 18.8 | +1.5 |
| **LAST** | **Lasithi** | **1.51** | **211** | P | Pn | 17 30 59.7 | +1.2 |
| LAST | | | | S | Sn | 17 31 18.8 | +1.4 |
| **IDI** | **Anoyia** | **1.71** | **228** | P | Pn | 17 31 01.7 | +0.4 |
| IDI | | | | S | Sn | 17 31 23.3 | +1.0 |
| IDI | | | | AML | AML | 17 31 23.9 | |
| | comp=N,48μm,0.3s | | | | | | |
| IDI | | | | AML | AML | 17 31 24.2 | |
| | comp=E,41μm,0.1s | | | | | | |
| **IDI** | **Anoyia** | **1.71** | **228** | P | Pn | 17 31 01.7 | +0.4 |
| IDI | | | | S | Sn | 17 31 23.3 | +1.0 |
| **IMMV** | **Iera Moni Meta** | **2.22** | **244** | P | Pn | 17 31 10.8 | +2.7 |
| IMMV | | | | S | Sn | 17 31 36.4 | +1.8 |
| **IMMV** | **Iera Moni Meta** | **2.22** | **244** | P | Pn | 17 31 10.8 | +2.7 |
| IMMV | | | | S | Sn | 17 31 36.3 | +1.8 |
| **GVD** | **Gavdhos** | **2.50** | **231** | P | Pn | 17 31 13.0 | +1.2 |
| **GVD** | **Gavdhos** | **2.50** | **231** | P | Pn | 17 31 13.0 | +1.1 |

---

*ISK **04** 17:42:25.7, 39°.05N×35°.95E, h4km, MD2.6*

*ISCJB **04** 17:42:26.6±0.7, 39°.04N±0°.03×35°.93E±0°.05, h2km±9km, Error ellipse: s-maj=7.2km s-min=4.4km az=18.9*

*CSEM **04** 17:42:26.5±0.2, 39°.05N×35°.91E, h2km, MD2.6, Error ellipse: s-maj=5.4km s-min=4.9km az=115.0*

*DDA **04** 17:42:26.2, 39°.05N×35°.90E, h7km, Md2.6*

**ISC 04 17:42:26.4**±1.1**, 39°.06N**±0°.02×**35°.91E**±0°.03**, h3km**±11km**, n17, σ0s.67**/30**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BNN** | **Bunyan** | **0.21** | **193** | ePG | **Pg** | **17 42 30.6** | **+0.1** |
| BNN | | | | eSG | **Sg** | **17 42 34.3** | **+1.0** |
| **BNN** | **Bunyan** | **0.21** | **193** | ePg | **Pg** | **17 42 30.6** | **+0.1** |
| BNN | | | | eSg | **Sg** | **17 42 34.3** | **+1.0** |
| **CUSAR** | **Sarkisla-SIVAS** | **0.45** | **36** | i P | **Pg** | **17 42 34.6** | **-0.5** |
| CUSAR | | | | i S | **Sg** | **17 42 41.2** | **+0.3** |
| **CUSAR** | **Sarkisla-SIVAS** | **0.45** | **36** | P | **Pg** | **17 42 34.6** | **-0.5** |
| CUSAR | | | | S | **Sg** | **17 42 41.2** | **+0.3** |
| **CUALT** | **Altinyayla-SIV** | **0.70** | **72** | i P | **Pg** | **17 42 40.2** | **+0.4** |
| CUALT | | | | i S | **Sb** | **17 42 50.7** | **-0.7** |
| **CUALT** | **Altinyayla-SIV** | **0.70** | **72** | P | **Pg** | **17 42 40.2** | **+0.4** |
| CUALT | | | | S | **Sb** | **17 42 50.7** | **-0.7** |
| **SARI** | **SarD1z-Kayseri** | **0.76** | **148** | ePG | **Pg** | **17 42 40.6** | **-0.5** |
| SARI | | | | eSG | **Sg** | **17 42 51.4** | **+0.4** |
| **YAHY** | **KAYSERI_Yahyal** | **1.05** | **204** | i P | **Pg** | **17 42 45.6** | **-1.0** |
| YAHY | | | | i S | **Sb** | **17 43 00.8** | **-0.7** |
| **YAHY** | **KAYSERI_Yahyal** | **1.05** | **204** | P | **Pg** | **17 42 45.6** | **-1.0** |
| YAHY | | | | S | **Sb** | **17 43 00.8** | **-0.7** |
| **SVSK** | **Karacayir** | **1.21** | **44** | ePN | **Pg** | **17 42 49.0** | **-0.5** |
| **SVSK** | **Karacayir** | **1.21** | **44** | ePn | **Pg** | **17 42 49.0** | **-0.5** |
| **CDAG** | **Cicekdag** | **1.32** | **296** | i P | **Pb** | **17 42 51.6** | **-0.3** |
| CDAG | | | | i S | **Sn** | **17 43 10.8** | **+0.8** |
| **CDAG** | **Cicekdag** | **1.32** | **296** | P | **Pb** | **17 42 51.6** | **-0.3** |
| CDAG | | | | S | **Sn** | **17 43 10.8** | **+0.8** |
| **COAL** | **Corum-Alaca** | **1.39** | **330** | i P | **Pg** | **17 42 53.0** | **-0.1** |
| COAL | | | | i S | **Sn** | **17 43 12.8** | **+1.0** |
| **COAL** | **Corum-Alaca** | **1.39** | **330** | P | **Pg** | **17 42 53.0** | **-0.1** |
| COAL | | | | S | **Sn** | **17 43 12.8** | **+1.0** |
| **AKCD** | **Akcadag** | **1.75** | **115** | i P | **Pb** | **17 42 59.2** | **-0.1** |
| **AKCD** | **Akcadag** | **1.75** | **115** | P | **Pb** | **17 42 59.2** | **-0.1** |

---

*GUC **04** 17:43:17.3±0.6, 31°.70S×72°.17W, h21km±6km, ML3.1*

*SJA **04** 17:43:17.7±1.0, 31°.88S×72°.30W, h16km±18km, ML3.2, MW3.3*

**ISC 04 17:43:19.9**±2.1**, 31°.90S**±0°.04×**72°.1W**±0°.1**, h10km, n16, σ2s.65**/29**, 2D, Off coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ROC1** | **El Roble** | **1.42** | **139** | eP | **Pg** | **17 43 46.9** | **-0.3** |
| ROC1 | | | | eS | **Sn** | **17 44 08.2** | **+3.2** |
| **ROCH** | **El Roble** | **1.42** | **139** | eP | **Pn** | **17 43 45.4** | **-0.6** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ROCH | | | | eS | Sn | 17 44 07.3 | +2.4 |
| ROCH | | | | IAML | | 17 44 18.1 | |
| | comp=N,369nm,0.3s | | | | | | |
| PEL | Peldehue | 1.73 | 136 | eP | Pn | 17 43 49.9 | -0.3 |
| PEL | | | | eS | Sg | 17 44 14.9 | -0.9 |
| PEL | | | | IAML | | 17 44 20.6 | |
| | comp=E,233nm,0.3s | | | | | | |
| CLCH | Cerro Calan | 2.00 | 139 | eP | Pn | 17 43 54.6 | +0.7 |
| CLCH | | | | eS | Sg | 17 44 23.8 | -0.5 |
| CLCH | | | | IAML | | 17 44 29.4 | |
| | comp=N,242nm,0.5s | | | | | | |
| TLL | Tololo Astrono | 2.07 | 34 | eP | Pn | 17 43 51.1 | -3.9 |
| TLL | | | | eS | Sn | 17 44 15.7 | -5.2 |
| TLL | | | | IAML | | 17 44 23.1 | |
| | comp=E,262nm,0.4s | | | | | | |
| AUSP | Uspallata | 2.34 | 99 | eP | Pb | 17 44 00.9 | -1.6 |
| AUSP | | | | ⇓eS | Sg | 17 44 32.3 | -3.1 |
| RTLS | Leoncito | 2.41 | 88 | eP | Pn | 17 44 01.0 | +1.3 |
| RTLS | | | | eS | Sb | 17 44 32.5 | -0.9 |
| RTLS | | | | IAML | | 17 44 33.5 | |
| | comp=Z,96nm,0.5s | | | | | | |
| LMEL | Las Melosas | 2.52 | 141 | eP | Pn | 17 44 01.9 | +0.7 |
| LMEL | | | | eS | Sb | 17 44 36.1 | -0.5 |
| RTCV | Cerro Valdivia | 3.05 | 90 | eP | Pn | 17 44 10.7 | +2.5 |
| RTCV | | | | ⇓eS | Sg | 17 44 53.1 | -4.8 |
| AMOG | MOGNA | 3.25 | 74 | eP | Pn | 17 44 13.0 | +2.0 |
| AMOG | | | | eS | Sb | 17 44 56.8 | -0.6 |
| AGUA | GUANDACOL | 3.95 | 53 | eP | Pn | 17 44 22.4 | +1.8 |
| AGUA | | | | eS | Sb | 17 45 18.2 | +0.7 |
| ACAN | Cantantal | 4.20 | 96 | eP | Pn | 17 44 26.6 | +2.5 |
| VCA | Vinchina | 4.63 | 48 | eP | Pn | 17 44 31.7 | +1.6 |
| VCA | | | | eS | Sn | 17 45 30.5 | +6.5 |
| VCA | | | | IAML | | 17 45 39.8 | |
| | comp=Z,26nm,0.3s | | | | | | |
| APLL | PUNTA DE LOS L | 5.03 | 74 | eP | Pn | 17 44 36.4 | +0.9 |
| APLL | | | | eS | Sn | 17 45 38.4 | +4.8 |
| ACLC | CERRO LA CRUZ | 5.09 | 62 | eP | Pn | 17 44 36.5 | 0.0 |
| ACLC | | | | eS | Sn | 17 45 38.9 | +3.4 |
| CYA | Choya | 6.47 | 59 | eS | Pn | 17 44 54.7 | -0.5 |

---

*NEIC **04** 17:51:18.1±0.0, 18°.99N×66°.71W, h8$^{km}$, MD3.4(RSPR), After RSPR.*

**RSPR 04 17:51:18.1, 18°.99N×66°.71W, h8$^{km}$±2$^{km}$, MD3.4/11, 6C-15D, Puerto Rico region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AOPR | Arecibo Observ | 0.64 | 184 | ⇓eP | Pg | 17 51 29.4 | -0.9 |
| AOPR | Arecibo Observ | 0.64 | 184 | eS | Sg | 17 51 39.2 | +0.6 |
| AOPR | Arecibo Observ | 0.64 | 184 | ⇓eP | Pg | 17 51 29.4 | -0.9 |
| AOPR | | | | eS | Sg | 17 51 39.2 | +0.6 |
| LSP | Las Mesas | 0.88 | 204 | ⇓eP | Pg | 17 51 32.7 | -2.3 |
| LSP | Las Mesas | 0.88 | 204 | ⇓eP | Pg | 17 51 32.7 | -2.3 |
| CELP | Cerrillos | 0.91 | 172 | ⇑eP | Pg | 17 51 34.1 | -1.5 |
| CELP | | | | eS | Sg | 17 51 45.9 | -1.6 |
| CELP | Cerrillos | 0.91 | 172 | ⇑eP | Pg | 17 51 34.1 | -1.5 |
| IDE | Isla Desecheo | 0.94 | 231 | ⇑eP | Pg | 17 51 32.4 | -3.8 |
| IDE | Isla Desecheo | 0.94 | 231 | eS | Sg | 17 51 47.4 | -1.0 |
| IDE | Isla Desecheo | 0.94 | 231 | ⇑eP | Pg | 17 51 32.4 | -3.8 |
| IDE | | | | eS | Sg | 17 51 47.4 | -1.0 |
| OBIP | Obispado Ponce | 0.94 | 174 | ⇑eP | Pg | 17 51 34.4 | -1.8 |
| OBIP | Obispado Ponce | 0.94 | 174 | eS | Sg | 17 51 47.7 | -0.8 |
| OBIP | Obispado Ponce | 0.94 | 174 | ⇑eP | Pg | 17 51 34.4 | -1.8 |
| OBIP | | | | eS | Sg | 17 51 47.7 | -0.8 |
| SJG | San Juan | 1.02 | 149 | ⇓eP | Pg | 17 51 35.4 | -2.2 |
| SJG | San Juan | 1.02 | 149 | eS | Sg | 17 51 49.2 | -1.6 |
| SJG | San Juan | 1.02 | 149 | ⇓eP | Pg | 17 51 35.4 | -2.2 |
| SJG | | | | eS | Sg | 17 51 49.2 | -1.6 |
| CRPR | Cabo Rojo, PR | 1.05 | 201 | ⇓eP | Pg | 17 51 34.8 | -3.4 |
| CRPR | Cabo Rojo, PR | 1.05 | 201 | eS | Sg | 17 51 49.5 | -2.2 |
| CRPR | Cabo Rojo, PR | 1.05 | 201 | ⇓eP | Pg | 17 51 34.8 | -3.4 |
| CRPR | | | | eS | Sg | 17 51 49.5 | -2.2 |
| ICMP | Isla Caja de M | 1.11 | 171 | ⇓eP | Pg | 17 51 37.4 | -2.0 |
| ICMP | Isla Caja de M | 1.11 | 171 | eS | Sg | 17 51 50.6 | -3.1 |
| ICMP | Isla Caja de M | 1.11 | 171 | ⇓eP | Pg | 17 51 37.4 | -2.0 |
| ICMP | | | | eS | Sg | 17 51 50.6 | -3.1 |
| IMPR | Mona Island, P | 1.47 | 232 | ⇓eP | Pn | 17 51 42.5 | -2.4 |
| IMPR | Mona Island, P | 1.47 | 232 | eS | Sn | 17 51 60.0 | -4.4 |
| STVI | Saint Thomas | 1.78 | 111 | ⇓eP | Pn | 17 51 45.8 | -3.3 |
| STVI | Saint Thomas | 1.78 | 111 | eS | Sn | 17 52 07.5 | -4.4 |
| STVI | Saint Thomas | 1.78 | 111 | ⇓eP | Pn | 17 51 45.8 | -3.3 |
| STVI | | | | eS | Sn | 17 52 07.5 | -4.4 |
| ABV | Anegada | 2.26 | 96 | ⇓eP | Pn | 17 51 53.4 | -2.4 |
| ABVI | Anegada Island | 2.26 | 96 | ⇓eP | Pn | 17 51 53.4 | -2.4 |
| SDDR | Presa de Saban | 4.33 | 271 | ePn | Pn | 17 52 26.9 | +2.6 |

---

*ISCJB **04** 17:56:11.1±0.4, 60°.71N±0°.03×143°.77W±0°.04, h7$^{km}$±4$^{km}$, Error ellipse: s-maj=5.1km s-min=2.3km az=25.2*
*PGC **04** 17:56:11.2±1.9, 60°.66N×143°.87W, h1$^{km}$, ML3.0/6, 143km east of Valdez, Ak Southern Alaska*
*NEIC **04** 17:56:11.2±0.0, 60°.66N×143°.80W, h1$^{km}$, ML2.9(AEIC), After AEIC.*

**ISC 04 17:56:11.0±1.0, 60°.70N±0°.03×143°.81W±0°.02, h9$^{km}$±9$^{km}$, n55, $\sigma 1^{s}38$/78, Southern Alaska**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BERG | Berg Lake | 0.31 | 170 | P | Pg | 17 56 17.0 | -0.2 |
| BERG | | | | S | Sg | 17 56 21.4 | +0.1 |
| KHIT | Khitrov Hills | 0.38 | 133 | P | Pg | 17 56 18.5 | +0.1 |
| KHIT | | | | S | Sg | 17 56 23.7 | +0.3 |
| HMT | Hamilton | 0.43 | 212 | P | Pg | 17 56 19.5 | +0.2 |
| HMT | | | | S | Sb | 17 56 26.2 | -1.0 |
| GOAT | Goat Mountain | 0.47 | 256 | P | Pg | 17 56 20.3 | +0.2 |
| GOAT | | | | S | Sg | 17 56 27.4 | +1.1 |
| NICHA | Nichawak Mount | 0.47 | 190 | P | Pb | 17 56 20.4 | -1.0 |
| NICHA | | | | S | Sb | 17 56 27.4 | -1.0 |
| BMRM | Bremner River | 0.47 | 305 | ePg | Pg | 17 56 20.3 | +0.1 |
| BMRM | | | | eSg | Sg | 17 56 27.1 | +0.7 |
| GRIN | Grindle Hills | 0.48 | 150 | P | Pg | 17 56 20.6 | +0.2 |
| GRIN | | | | S | Sb | 17 56 27.5 | -1.4 |
| WAX | Waxell Ridge | 0.53 | 118 | P | Pg | 17 56 21.3 | -0.1 |
| WAX | | | | S | Sb | 17 56 30.1 | -0.2 |
| SUCK | Suckling Hills | 0.63 | 179 | P | Pb | 17 56 24.4 | +0.3 |
| BARK | Barkley Ridge | 0.71 | 114 | P | Pb | 17 56 25.4 | -0.3 |
| BARK | | | | S | Sb | 17 56 35.8 | +0.2 |
| SGAM | Sherman Glacie | 0.72 | 255 | P | Pb | 17 56 25.5 | -0.1 |
| SGAM | | | | S | Sn | 17 56 37.2 | -1.2 |
| BAGL | Bagley Icefiel | 0.87 | 103 | P | Pg | 17 56 27.1 | -0.6 |
| EYAK | Cordova Ski Ar | 0.97 | 262 | P | Pb | 17 56 30.1 | +0.2 |
| DIV | Divide | 1.05 | 295 | P | Pg | 17 56 30.1 | -1.0 |
| DIV | | | | S | Sg | 17 56 44.6 | -0.3 |
| DIV | Divide | 1.05 | 295 | ePg | Pg | 17 56 30.4 | -0.8 |
| MESA | MESA | 1.06 | 119 | P | Pg | 17 56 31.1 | -0.3 |
| MESA | | | | S | Sn | 17 56 45.9 | -1.2 |
| RKAV | Rock Avalanche | 1.28 | 107 | P | Pn | 17 56 35.1 | -0.1 |
| RKAV | | | | S | Sn | 17 56 52.9 | +0.4 |
| KLU | Klutina | 1.30 | 309 | P | Pn | 17 56 35.0 | -0.3 |
| VLZ | Valdez | 1.31 | 290 | P | Pn | 17 56 35.1 | -0.2 |
| VLZ | | | | S | Sg | 17 56 54.1 | +1.2 |
| FID | Port Fidalgo | 1.31 | 273 | P | Pg | 17 56 36.8 | +0.6 |
| TABL | Table Mountain | 1.34 | 100 | P | Pn | 17 56 34.8 | -1.3 |
| SAMH | Samovar Hills | 1.61 | 110 | P | Pb | 17 56 40.2 | -0.7 |
| YUK2 | White River | 1.80 | 51 | Pn | Pn | 17 56 42.9 | +0.6 |
| HARP | HAARP | 1.83 | 340 | Pn | Pn | 17 56 43.3 | +0.6 |
| HARP | HAARP | 1.83 | 340 | P | Pn | 17 56 43.4 | +0.8 |
| PCA | Pinnacle | 1.86 | 107 | Pn | Pn | 17 56 43.6 | +0.5 |
| PCA | | | | Sn | Sb | 17 57 07.7 | -0.9 |
| PCA | Pinnacle | 1.86 | 107 | P | Pn | 17 56 43.9 | +0.8 |
| YUK3 | Moose Creek | 1.95 | 55 | Pn | Pn | 17 56 45.7 | +1.3 |
| YUK3 | | | | Sn | Sb | 17 57 11.0 | -0.1 |
| SCM | Sheep Creek Mo | 2.05 | 305 | P | Pn | 17 56 47.0 | +1.4 |
| BCPM | Bancas Point | 2.21 | 108 | P | Pn | 17 56 48.1 | +0.4 |
| BVCY | Beaver Creek | 2.23 | 38 | Pn | Pn | 17 56 48.7 | +0.7 |
| BVCY | | | | Sn | Sn | 17 57 17.2 | +1.5 |
| PAX | Paxson | 2.41 | 342 | Pn | Pn | 17 56 51.2 | +0.6 |
| PAX | Paxson | 2.41 | 342 | ePn | Pn | 17 56 52.7 | +2.0 |
| PNL | Peninsula | 2.43 | 113 | Pn | Pn | 17 56 50.5 | -0.4 |
| PNL | | | | Sn | Sn | 17 57 21.4 | +0.6 |
| SML | Sawmill | 2.45 | 299 | ePn | Pn | 17 56 53.6 | +2.5 |
| PMR | Palmer | 2.73 | 291 | ePn | Pb | 17 56 58.0 | -1.9 |
| YUK7 | Dusty Glacier | 2.80 | 91 | Pn | Pn | 17 56 56.9 | +0.8 |
| YUK7 | | | | Sn | Sn | 17 57 30.8 | +0.8 |
| DOT | Dot Lake | 2.96 | 358 | Pn | Pn | 17 57 00.2 | +2.0 |
| DOT | Dot Lake | 2.96 | 358 | ePn | Pn | 17 56 54.5 | -3.7 |
| HYT | Haines Junctio | 3.10 | 85 | Pn | Pn | 17 57 00.9 | +0.8 |
| HYT | | | | Sn | Sn | 17 57 39.0 | +1.8 |
| HYT | | | | Sg | Sb | 17 57 46.7 | +2.6 |
| HYT | Haines Junctio | 3.10 | 85 | P | Pn | 17 57 01.6 | +1.5 |
| MCK | McKinley | 3.88 | 324 | ePn | Pn | 17 57 14.1 | +3.4 |
| PLBC | Pleasant Camp | 3.93 | 105 | Pn | Pn | 17 57 12.0 | +0.6 |
| PLBC | | | | Sn | Sn | 17 57 58.2 | +0.6 |
| DAWY | Dawson | 3.95 | 29 | Pn | Pn | 17 57 12.8 | +1.0 |
| DAWY | Dawson | 3.95 | 29 | ePn | Pn | 17 57 09.1 | -2.7 |
| TRF | Thorofare Moun | 4.11 | 315 | ePn | Pb | 17 57 19.6 | -3.9 |
| EGAK | Eagle | 4.27 | 15 | ePn | Pn | 17 57 17.7 | +1.6 |
| WHY | Whitehorse | 4.39 | 87 | Pn | Pn | 17 57 18.6 | +0.7 |
| WHY | | | | Sn | Sn | 17 58 08.6 | -0.5 |
| WHY | Whitehorse | 4.39 | 87 | P | Pn | 17 57 18.6 | +0.7 |
| KTH | Kantishna Hill | 4.40 | 314 | ePn | Pn | 17 57 20.5 | +2.6 |
| COLA | College | 4.58 | 338 | Pn | Pn | 17 57 18.7 | -1.6 |
| BPAW | Bear Paw Mtn. | 4.77 | 319 | ePn | Pn | 17 57 25.8 | +2.8 |
| BESE | Bessie Mountai | 5.01 | 111 | Sn | Sn | 17 58 23.3 | -1.1 |
| COLD | Coldfoot | 7.13 | 340 | Pn | Pn | 17 57 56.4 | +1.1 |
| COLD | Coldfoot | 7.13 | 340 | ePn | Pn | 17 57 58.2 | +2.9 |
| | 3.4nm,0.6s | | | | | | |

---

*SJA **04** 17:57:14.7±1.3, 33°.62S×68°.85W, h5$^{km}$±6$^{km}$, ML3.1, MW3.4*
*GUC **04** 17:57:18.0±0.4, 33°.76S×68°.85W, h30$^{km}$±3$^{km}$, ML2.8*

**ISC 04 17:57:16.1±1.4, 33°.63S±0°.04×68°.85W±0°.03, h3$^{km}$±15$^{km}$, n18, $\sigma 0^{s}69$/30, 1D, Mendoza Province**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LMEL | Las Melosas | 1.15 | 259 | eP | Pg | 17 57 38.1 | 0.0 |
| LMEL | | | | eS | Sb | 17 57 53.7 | -0.3 |
| RFA | San Rafael | 1.18 | 164 | eP | Pg | 17 57 38.8 | 0.0 |
| RFA | | | | eS | Sg | 17 57 54.8 | +0.6 |
| FCH | Farellones | 1.24 | 284 | eP | Pg | 17 57 40.0 | +0.1 |
| FCH | | | | eS | Sb | 17 57 56.5 | -0.3 |
| FCH | | | | IAML | | 17 58 01.7 | |
| | comp=E,199nm,0.7s | | | | | | |
| CLCH | Cerro Calan | 1.43 | 279 | eP | Pb | 17 57 43.1 | -0.3 |
| CLCH | | | | eS | Sg | 17 58 02.3 | +0.3 |
| CLCH | | | | IAML | | 17 58 08.2 | |
| | comp=E,312nm,0.7s | | | | | | |
| AUSP | Uspallata | 1.47 | 342 | eP | Pn | 17 57 43.7 | -0.1 |
| AUSP | | | | eS | Sb | 17 58 02.9 | -0.7 |
| ANTU | Antumapu | 1.49 | 272 | eP | Pb | 17 57 44.1 | -0.3 |
| PEL | Peldehue | 1.61 | 287 | eP | Pb | 17 57 46.2 | -0.3 |
| PEL | | | | eS | Sg | 17 58 08.0 | +0.2 |
| PEL | | | | IAML | | 17 58 10.3 | |
| | comp=N,153nm,0.6s | | | | | | |
| RTCV | Cerro Valdivia | 1.78 | 9 | eP | Pn | 17 57 47.1 | -0.8 |
| RTCV | | | | eS | Sb | 17 58 13.1 | +0.8 |
| RTLS | Leoncito | 1.86 | 348 | eP | Pn | 17 57 49.9 | +0.7 |
| RTLS | | | | eS | Sg | 17 58 16.5 | +0.4 |
| RTLS | | | | IAML | | 17 58 27.4 | |
| | comp=Z,53nm,0.4s | | | | | | |
| ROCH | El Roble | 1.92 | 289 | eP | Pb | 17 57 52.0 | 0.0 |
| ROCH | | | | eS | Sg | 17 58 17.6 | -0.3 |
| ROCH | | | | IAML | | 17 58 23.9 | |
| | comp=E,120nm,0.5s | | | | | | |
| ROC1 | El Roble | 1.93 | 289 | eP | Pb | 17 57 52.2 | +0.2 |
| ROC1 | | | | eS | Sg | 17 58 17.4 | -0.6 |
| ACAN | Cantantal | 1.95 | 46 | eP | Pn | 17 57 50.6 | +0.4 |
| ACAN | | | | ⇓eS | Sb | 17 58 17.4 | +0.5 |
| RTLL | Cerro Villicun | 2.32 | 8 | eP | Pn | 17 57 55.0 | -0.2 |
| RTLL | | | | eS | Sb | 17 58 28.4 | +0.7 |
| AMOG | MOGNA | 2.70 | 7 | eP | Pn | 17 58 00.7 | +0.1 |
| APLL | PUNTA DE LOS L | 3.78 | 32 | eP | Pn | 17 58 15.5 | +0.1 |
| AGUA | GUANDACOL | 4.14 | 4 | eP | Pn | 17 58 22.5 | +2.2 |
| TCA | Tanti | 4.26 | 59 | eP | Pn | 17 58 21.2 | -0.9 |
| TCA | | | | IAML | | 17 59 32.5 | |
| | comp=Z,28nm,0.6s | | | | | | |
| VCA | Vinchina | 4.91 | 7 | eP | Pb | 17 58 41.5 | -1.4 |
| VCA | | | | IAML | | 18 00 20.2 | |
| | comp=Z,24nm,0.6s | | | | | | |

---

*NIED **04** 17:58:00, 37°.40N×144°.10E, h8$^{km}$, Mw3.6 Best double couple: $M_0$2.65000×10$^{14}$ NP1:$\phi_s$82.00000°, δ31.00000°, λ-50.00000°. NP2:$\phi_s$217.00000°, δ67.00000°, λ-111.00000°.*
*IDC **04** 17:58:53.6±1.4, 37°.25N×144°.36E, h0$^{km}$, mb3.7/4, mb1 3.9/7, mb1mx3.5/35, mbtmp3.8/7, ML3.6/3, Error ellipse: s-maj=35.2km s-min=22.0km az=82.0*
*ISCJB **04** 17:58:55.5±0.7, 37°.41N±0°.04×144°.32E±0°.06, h33$^{km}$, mb3.7/4, Error ellipse: s-maj=6.7km s-min=5.5km az=31.1*
*JMA **04** 17:58:58.7±0.3, 37°.41N×144°.09E, h48$^{km}$, M3.9*

**ISC 04 17:58:58.7±1.3, 37°.41N±0°.06×144°.2E±0°.1, h35$^{km}$, n27, $\sigma 2^{s}25$/32, mb3.8/4, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JIO | Ouri | 2.49 | 296 | P | Pn | 17 59 37.0 | +0.3 |
| JIO | | | | eS | Sn | 18 00 05.5 | -0.3 |
| OFUJ | Ofunato | 2.60 | 311 | eS | Sn | 18 00 07.8 | -0.9 |
| JFK | Kawauchi | 2.66 | 270 | P | Pn | 17 59 39.1 | +0.1 |
| JFK | | | | eS | Sn | 18 00 09.0 | -1.0 |
| JMK | Ichinoseki | 2.81 | 304 | P | Pn | 17 59 41.7 | +0.6 |
| JMK | | | | eS | Sn | 18 00 13.7 | -0.1 |
| JOM | Ohasama | 3.08 | 313 | eS | Sn | 18 00 20.2 | -0.2 |
| JFT | Otama | 3.08 | 273 | P | Pn | 17 59 46.0 | +1.1 |
| JFT | | | | eS | Sn | 18 00 20.7 | +0.2 |
| JYK | Kaneyama | 3.39 | 298 | P | Pn | 17 59 50.3 | +1.3 |
| BSO1 | Boso 1 | 3.80 | 225 | P | Pn | 17 59 53.2 | -1.0 |
| JRY | Ryogami san | 4.48 | 254 | P | Pn | 18 00 03.9 | -0.3 |
| JRY | | | | eS | Sn | 18 00 52.3 | -2.8 |
| MJAR | Matsushiro Arr | 4.88 | 262 | Pn | Pn | 18 00 11.0 | +1.4 |
| | 2.8nm,0.3s,baz=87,slow=16,SNR=40 | | | | | | |
| MJAR | | | | Sn | Sn | 18 01 06.7 | +1.8 |
| | 1.3nm,0.3s,baz=95,slow=28,SNR=4.7 | | | | | | |
| MAT | Matsushiro | 4.88 | 262 | P | Pn | 18 00 11.4 | +1.8 |
| MAT | | | | eS | Sn | 18 01 06.5 | +1.6 |
| JCH | Churui | 5.24 | 353 | P | Pn | 18 00 13.0 | -1.5 |
| JCH | | | | eS | Sn | 18 01 08.8 | -4.8 |
| JHJ | Hachijo jima 2 | 5.61 | 222 | Pn | Pn | 18 00 18.0 | -1.5 |
| | 6.8nm,0.3s,baz=113,slow=21,SNR=2.5 | | | | | | |
| JHJ | | | | Sn | Sn | 18 01 16.1 | -6.6 |
| | 18nm,0.3s,baz=73,slow=19,SNR=5.1 | | | | | | |
| NEM2 | Nemuro 2 | 6.06 | 11 | P | Pn | 18 00 22.6 | -3.2 |
| JTKR | Abashiri--Toko | 6.56 | 358 | P | Pn | 18 00 31.2 | -1.4 |
| JTKR | | | | eS | Sn | 18 01 40.8 | -5.3 |
| JHR | Hokuryu | 6.60 | 344 | P | Pn | 18 00 34.1 | +0.9 |
| ASAJ | Asahikawa | 6.81 | 350 | Pn | Pn | 18 00 36.1 | +0.1 |
| | 0.9nm,0.3s,baz=202,slow=17,SNR=19 | | | | | | |
| ASAJ | | | | Sn | Sn | 18 01 53.2 | +0.9 |
| | 0.5nm,0.3s,baz=139,slow=20,SNR=3.4 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 26.48 | 125 | T | T | 18 31 59.7 | |
| | baz=317 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 26.49 | 125 | T | T | 18 32 03.6 | |
| | baz=317 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 26.50 | 125 | T | T | 18 32 03.5 | |
| | baz=317 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 27.25 | 128 | T | T | 18 32 58.1 | |
| | baz=318 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 27.25 | 128 | T | T | 18 33 01.4 | |
| | baz=318 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 27.27 | 128 | T | T | 18 32 59.9 | |
| | baz=318 | | | | | | |
| MKAR | Makanchi Array | 45.81 | 302 | P | P | 18 07 17.4 | +0.4 |
| | 0.3nm,0.7s,baz=92,slow=9.2,SNR=4.2 | | | | | | |
| WRA | Warramunga Arr | 57.80 | 191 | P | P | 18 08 45.5 | -1.0 |
| | 0.9nm,0.6s,baz=10.0,slow=7.1,SNR=15 | | | | | | |
| ASAR | Alice Springs | 61.52 | 191 | P | P | 18 09 11.6 | -0.6 |
| | 0.4nm,0.8s,baz=5.1,slow=6.7,SNR=6.7 | | | | | | |
| NOA | NORSAR Array B | 74.68 | 338 | P | P | 18 10 37.1 | +2.8 |
| | 1.6nm,0.9s,baz=39,slow=5.1,SNR=3.7 | | | | | | |

---

*ISK **04** 18:02:02.4, 39°.46N×31°.73E, h6$^{km}$, MD2.7*
*DDA **04** 18:02:03.0, 39°.59N×31°.73E, h7$^{km}$, Md2.9*
*CSEM **04** 18:02:02.4±0.2, 39°.54N×31°.72E, h2$^{km}$, MD2.7, Error ellipse: s-maj=5.2km s-min=4.1km az=179.0*

**ISC 04 18:02:01.8±1.5, 39°.52N±0°.03×31°.76E±0°.02, h0$^{km}$±13$^{km}$, n32, $\sigma 0^{s}74$/40, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SVRH | Sivrihisar-ESK | 0.20 | 249 | ePG | Pg | 18 02 06.1 | +0.5 |
| SVRH | Sivrihisar-ESK | 0.20 | 249 | ePg | Pg | 18 02 06.1 | +0.5 |
| KIZT | Kizilcal | 0.64 | 172 | ePG | Pg | 18 02 14.3 | +0.2 |
| KIZT | Kizilcal | 0.64 | 172 | ePg | Pg | 18 02 14.3 | +0.2 |
| ESKT | Eskisehir | 0.70 | 271 | iP | Pg | 18 02 15.0 | -0.3 |
| SEYT | Eskypehyr | 0.70 | 271 | P | Pg | 18 02 15.0 | -0.3 |
| KKUL | Konya-Kulu | 0.96 | 111 | iP | Pn | 18 02 22.3 | -0.4 |
| KKUL | | | | iS | Sn | 18 02 37.7 | +0.6 |
| KKUL | Konya-Kulu | 0.96 | 111 | P | Pn | 18 02 22.3 | -0.4 |
| KKUL | | | | S | Sn | 18 02 37.7 | +0.6 |
| AFSR | Af¯ar-Bala (A | 1.02 | 93 | ePG | Pn | 18 02 22.8 | -0.6 |
| AFSR | | | | eSG | Sn | 18 02 37.4 | -1.0 |
| AFSR | Af¯ar-Bala (A | 1.02 | 93 | ePg | Pn | 18 02 22.8 | -0.6 |
| AFSR | | | | eSg | Sn | 18 02 37.4 | -1.0 |
| BOLV | Bolvadin | 1.02 | 219 | iP | Pn | 18 02 23.5 | 0.0 |
| BOLV | | | | iS | Sn | 18 02 39.8 | +1.3 |
| BOLV | Bolvadin | 1.02 | 219 | P | Pn | 18 02 23.5 | 0.0 |
| BOLV | | | | S | Sn | 18 02 39.8 | +1.3 |
| KDHN | Kadinhani | 1.03 | 164 | iP | Pn | 18 02 23.2 | -0.4 |
| KDHN | | | | iS | Sn | 18 02 40.1 | +1.3 |
| KDHN | Kadinhani | 1.03 | 164 | P | Pn | 18 02 23.2 | -0.4 |
| KDHN | | | | S | Sn | 18 02 40.1 | +1.3 |
| MDUB | Mudurnu | 1.05 | 336 | ePN | Pn | 18 02 23.6 | -0.3 |
| MDUB | Mudurnu | 1.05 | 336 | ePn | Pn | 18 02 23.6 | -0.3 |
| BBAL | Bala | 1.05 | 88 | iP | Pg | 18 02 22.5 | +0.4 |
| BBAL | Bala | 1.05 | 88 | P | Pg | 18 02 22.5 | +0.4 |
| KULU | Kulu | 1.07 | 116 | ePG | Pn | 18 02 23.4 | -0.7 |
| KULU | Kulu | 1.07 | 116 | ePg | Pn | 18 02 23.5 | -0.7 |
| CMDR | Camlidere-ANKA | 1.12 | 29 | iP | Pg | 18 02 23.8 | +0.5 |
| CMDR | Camlidere-ANKA | 1.12 | 29 | P | Pg | 18 02 23.8 | +0.5 |
| BCAM | Yenicaga | 1.32 | 10 | iP | Pg | 18 02 27.7 | +0.6 |
| BCAM | Yenicaga | 1.32 | 10 | P | Pg | 18 02 27.7 | +0.6 |
| GULT | Gulveren | 1.32 | 314 | ePN | Pg | 18 02 28.2 | +1.0 |
| GULT | Gulveren | 1.32 | 314 | ePn | Pg | 18 02 28.2 | +1.0 |
| SHUT | Suhut-Afyon | 1.35 | 225 | ePN | Pb | 18 02 27.4 | -0.6 |
| SHUT | Suhut-Afyon | 1.35 | 225 | ePn | Pb | 18 02 27.4 | -0.6 |
| KAMT | Kaman | 1.52 | 95 | ePN | Pb | 18 02 31.1 | +0.2 |
| KAMT | Kaman | 1.52 | 95 | ePn | Pb | 18 02 31.1 | +0.2 |
| TVSB | Tavsanli | 1.78 | 269 | ePN | Pb | 18 02 34.2 | -1.1 |
| TVSB | Tavsanli | 1.78 | 269 | ePn | Pb | 18 02 34.3 | -1.1 |

---

*SJA **04** 18:08:02.7±0.9, 31°.90S×72°.42W, h16$^{km}$±11$^{km}$, ML4.2, MW4.0*
*IDC **04** 18:08:02.6±1.5, 31°.64S×72°.24W, h0$^{km}$, mb3.7/1, mb1 3.6/3, mb1mx3.5/19, mbtmp3.5/3, ML3.7/2, MS3.4/4, Ms1 3.4/4, ms1mx3.0/28, Error ellipse: s-maj=42.3km s-min=30.9km az=119.0*
*GUC **04** 18:08:07.7±0.7, 31°.67S×71°.75W, h33$^{km}$±5$^{km}$, ML3.8*

**ISC 04 18:08:04.5±1.0, 31°.65S±0°.03×72°.10W±0°.06, h10$^{km}$, n27, $\sigma 2^{s}26$/39, MS3.4/3, 9D, Off coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ROCH | El Roble | 1.61 | 145 | eP | Pb | 18 08 32.9 | -1.6 |
| ROCH | | | | eS | Sg | 18 08 54.8 | -1.6 |
| ROC1 | El Roble | 1.61 | 146 | eP | Pb | 18 08 32.9 | -1.7 |
| ROC1 | | | | ⇓eS | Sg | 18 08 55.0 | -1.4 |
| TLL | Tololo Astrono | 1.85 | 37 | eP | Pb | 18 08 37.6 | -1.0 |
| TLL | | | | eS | Sn | 18 08 59.7 | -0.4 |
| TLL | | | | IAML | | 18 09 10.3 | |
| | comp=E,2μm,0.5s | | | | | | |
| PEL | Peldehue | 1.91 | 142 | eP | Pn | 18 08 37.1 | -0.2 |
| PEL | | | | eS | Sn | 18 08 59.9 | -1.5 |
| PEL | | | | IAML | | 18 09 07.9 | |
| | comp=E,1μm,0.6s | | | | | | |
| CLCH | Cerro Calan | 2.19 | 143 | eP | Pn | 18 08 41.3 | +0.3 |
| CLCH | | | | eS | Sn | 18 09 06.6 | -1.6 |
| CLCH | | | | IAML | | 18 09 37.2 | |
| | comp=N,1μm,0.5s | | | | | | |
| AUSP | Uspallata | 2.37 | 105 | ⇓eP | Pb | 18 08 46.9 | -0.7 |
| AUSP | | | | ⇓eS | Sg | 18 09 20.0 | -0.9 |
| RTLS | Leoncito | 2.39 | 94 | eP | Pb | 18 08 47.7 | -0.1 |
| RTLS | | | | eS | Sg | 18 09 18.5 | -2.9 |
| RTLS | | | | IAML | | 18 09 20.5 | |
| | comp=Z,452nm,0.4s | | | | | | |
| LMEL | Las Melosas | 2.71 | 144 | eP | Pn | 18 08 49.2 | +0.9 |
| LCO | Las Campanas | 2.89 | 25 | ⇓eP | Pb | 18 08 53.7 | -2.7 |
| LCO | | | | eS | Sg | 18 09 35.3 | -2.2 |
| SJA | San Juan | 3.02 | 89 | ⇓eP | Pb | 18 08 58.5 | +0.1 |
| SJA | | | | ⇓eS | Sg | 18 09 39.8 | -1.8 |
| RTCV | Cerro Valdivia | 3.04 | 95 | eP | Pb | 18 08 57.4 | -1.3 |
| RTLL | Cerro Villicun | 3.11 | 85 | eP | Pb | 18 08 59.3 | -0.7 |
| RTLL | | | | eS | Sg | 18 09 39.8 | -4.7 |
| AMOG | MOGNA | 3.17 | 78 | ⇓eP | Pb | 18 08 59.1 | -1.8 |
| AGUA | GUANDACOL | 3.78 | 56 | eP | Pb | 18 09 09.3 | -2.2 |
| AGUA | | | | eS | Sg | 18 10 05.6 | -0.4 |
| VCA | Vinchina | 4.45 | 50 | eP | Pb | 18 09 18.5 | -4.3 |
| VCA | | | | eS | Sb | 18 10 18.8 | +2.2 |
| VCA | | | | IAML | | 18 10 26.9 | |
| | comp=Z,294nm,0.4s | | | | | | |
| APLL | PUNTA DE LOS L | 4.94 | 77 | ⇓eP | Pn | 18 09 22.2 | +3.3 |
| ACLC | CERRO LA CRUZ | 4.96 | 65 | ⇓eP | Pn | 18 09 23.6 | +4.3 |
| ACLC | | | | eS | Sb | 18 10 26.6 | -4.8 |
| CYA | Choya | 6.32 | 61 | eP | Pn | 18 09 41.2 | +3.3 |
| CYA | | | | IAML | | 18 10 06.8 | |
| | comp=Z,57nm,0.5s | | | | | | |
| CYA | | | | eS | Sn | 18 10 53.2 | +3.0 |
| PLCA | Paso Flores | 9.15 | 173 | Pn | Pn | 18 10 16.4 | -0.3 |
| | comp=Z,0.2nm,0.3s,baz=360,slow=12,SNR=7.4 | | | | | | |
| PLCA | | | | Sn | Sn | 18 12 02.1 | +2.3 |
| | comp=Z,0.1nm,0.3s,baz=351,slow=12,SNR=2.0 | | | | | | |
| CPUP | Villa Florida | 13.96 | 71 | Pn | Pn | 18 11 25.1 | +2.6 |
| | comp=Z,0.1nm,0.3s,baz=246,slow=12,SNR=2.6 | | | | | | |
| CPUP | | | | Sn | Sn | 18 14 02.2 | +4.6 |
| | comp=Z,0.2nm,0.3s,baz=209,slow=8.9,SNR=3.1 | | | | | | |
| CPUP | | | | Lg | Lg | 18 15 28.9 | |
| | comp=Z,0.1nm,0.3s,baz=324,slow=19,SNR=3.0 | | | | | | |
| CPUP | | | | LR | LR | 18 17 32.4 | |
| | comp=Z,250nm,21.1s,baz=247,slow=40 | | | | | | |
| NNA | Nana | 20.05 | 346 | LR | LR | 18 18 10.8 | |
| | comp=Z,36nm,18.1s,baz=176,slow=30 | | | | | | |
| PTGA | Pitinga | 32.82 | 23 | LR | LR | 18 30 33.4 | |
| | comp=Z,70nm,18.4s,baz=173,slow=41 | | | | | | |
| PMSA | Palmer Station | 33.52 | 174 | LR | LR | 18 27 02.0 | |
| | comp=Z,71nm,18.1s,baz=293,slow=34 | | | | | | |
| TORD | Torodi Ar. Bea | 83.46 | 70 | P | P | 18 20 31.9 | -0.9 |
| | comp=Z,0.6nm,0.9s,baz=252,slow=4.5,SNR=3.0 | | | | | | |
| BVAR | Borovoye Array | 145.56 | 41 | PKPbc | PKPab | 18 27 43.0 | 0.0 |
| | comp=Z,0.7nm,0.7s,baz=280,slow=4.2,SNR=4.4 | | | | | | |
| KURBB | Kurchatov Arra | 151.15 | 40 | PKPbc | PKPbc | 18 27 57.0 | -0.6 |
| | comp=Z,0.3nm,0.5s,baz=290,slow=2.8,SNR=4.3 | | | | | | |
| ZALV | Zalesovo Beam | 152.24 | 30 | PKPbc | PKPbc | 18 27 59.7 | -0.3 |
| | comp=Z,0.6nm,0.7s,baz=336,slow=3.5,SNR=4.3 | | | | | | |

---

*IDC **04** 18:09:41.8±0.5, 1°.41N×95°.14E, h0$^{km}$, mb4.6/27, mb1 4.6/29, mb1mx4.5/49, mbtmp4.5/29, ML3.7/2, MS3.5/12, Ms1 3.5/12, ms1mx3.2/51, Error ellipse: s-maj=17.4km s-min=12.2km az=35.0*
*ISCJB **04** 18:09:42.7±1.0, 1°.49N±0°.03×95°.23E±0°.03, h15$^{km}$±7$^{km}$, mb4.7/105, MS3.7/14, Error ellipse: s-maj=4.6km s-min=4.0km az=39.1*
*DJA **04** 18:09:44.6±0.3, 2°N±2°×9°5E±°, h10$^{km}$, M5.0/16, mb5.1/16, mB5.6/9, MLv4.9/12, Mw(mB)5.1/9*
*MOS **04** 18:09:45.7±1.0, 1°.57N×95°.26E, h33$^{km}$, mb5.1/37, Error ellipse: s-maj=8.9km s-min=5.4km az=117.1*
*KLM **04** 18:09:45.4, 1°.46N×95°.06E, h35$^{km}$, mb4.8*
*BJI **04** 18:09:46.1, 1°.50N×95°.30E, h35$^{km}$, mb4.6/48, mB5.1/30, Ms4.6/26, Ms7 4.3/22*
*NEIC **04** 18:09:47.0±0.2, 1°.47N×95°.26E, h35$^{km}$, mb4.9/33, Error ellipse: s-maj=6.0km s-min=4.2km az=204.0*

**ISC 04 18:09:47.2±0.6, 1°.45N±0°.04×95°.19E±0°.04, h35$^{km}$±2$^{km}$, h36$^{km}$:pP-P, n302, $\sigma 1^{s}51$/327, mb4.8/105, MS3.7/14, 32C-14D, Off west coast of northern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SNSI | Sinabang, Aceh | 1.48 | 50 | P | Pn | 18 10 08.8 | -2.6 |
| SNSI | | | | S | Sn | 18 10 25.6 | -4.0 |
| GSI | Gunungsitoli | 2.39 | 93 | P | Pn | 18 10 21.7 | -2.2 |
| GSI | | | | S | Sn | 18 10 46.7 | -5.3 |
| GSI | Gunungsitoli | 2.39 | 93 | ePn | Pn | 18 10 22.6 | -1.3 |
| GSI | | | | eSn | Sn | 18 10 49.9 | -2.1 |
| KCSI | Kotacane, Aceh | 3.30 | 51 | P | Pn | 18 10 34.6 | -1.8 |
| KCSI | | | | S | Sn | 18 11 12.6 | -1.9 |
| PBSI | Pulau Batu | 3.43 | 116 | P | Pn | 18 10 37.4 | -0.8 |
| PBSI | | | | S | Sn | 18 11 13.8 | -4.0 |
| TSI | Tuntungan | 3.94 | 59 | P | Pn | 18 10 44.5 | -0.7 |
| TSI | | | | S | Sn | 18 11 28.3 | -1.9 |
| PSI | Prapat | 3.97 | 70 | Pn | Pn | 18 10 43.7 | -2.0 |
| | 5.7nm,0.3s,baz=270,slow=10,SNR=17 | | | | | | |
| PSI | | | | Sn | Sn | 18 11 28.2 | -2.9 |
| | 17nm,0.3s,baz=266,slow=9.0,SNR=7.7 | | | | | | |
| PSI | | | | LR | LR | 18 12 44.4 | |
| | comp=Z,1μm,18.0s,baz=282,slow=46 | | | | | | |
| LHMI | Lhok Sumawe | 4.14 | 25 | P | Pn | 18 10 47.4 | -0.6 |
| LHMI | | | | S | Sn | 18 11 33.6 | -1.7 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| LHMI | Lhok Sumawe | 4.14 | 25 | *e*Pn | Pn | 18 10 46.3 | -1.7 |
| LHMI | | | | *e*Sn | Sn | 18 11 33.0 | -2.3 |
| SISI | Saibi | 4.78 | 125 | P | Pn | 18 10 56.2 | -0.5 |
| SISI | | | | S | Sn | 18 11 45.6 | -5.3 |
| PDSI | Padang | 5.77 | 114 | P | Pn | 18 11 09.8 | -0.6 |
| | 58nm,1.0s,2µm0.4nm | | | | | | |
| BKNI | Bangkinang | 5.96 | 101 | P | Pn | 18 11 12.0 | -0.9 |
| | 300nm,0.8s,3µm1.2nm | | | | | | |
| BKNI | Bangkinang | 5.96 | 101 | *e*Pn | Pn | 18 11 10.3 | -2.7 |
| PPSI | Pulau Pagai | 6.38 | 131 | P | Pn | 18 11 17.9 | -0.9 |
| | 225nm,0.8s,0.8nm | | | | | | |
| IPM | Ipoh | 6.56 | 63 | ⇑P | Pn | 18 11 20.3 | -0.9 |
| IPM | Ipoh | 6.56 | 63 | *e*Pn | Pn | 18 11 20.1 | -1.2 |
| KULM | Kulim | 6.65 | 55 | ⇑P | Pn | 18 11 21.2 | -1.3 |
| KULM | Kulim | 6.65 | 55 | *e*Pn | Pn | 18 11 20.2 | -2.3 |
| FRIM | Kepong | 6.67 | 74 | ⇓P | Pn | 18 11 22.2 | -0.6 |
| PKDT | Phuket | 7.12 | 26 | P | Pn | 18 11 35.7 | +6.7 |
| RGRI | Rengat | 7.37 | 104 | P | Pn | 18 11 33.0 | +0.7 |
| | 182nm,0.9s,22µm3.6nm | | | | | | |
| TRTT | Trang | 7.77 | 35 | P | Pn | 18 11 37.0 | -0.9 |
| | 34nm,0.7s,626nm0.2nm | | | | | | |
| KRAB | Krabi | 7.82 | 31 | P | Pn | 18 11 37.7 | -0.9 |
| | 91nm,0.5s,2µm0.3nm | | | | | | |
| KGM | Kluang | 8.15 | 86 | ⇓P | Pn | 18 11 41.9 | -1.1 |
| SURT | Suratani | 8.28 | 26 | P | Pn | 18 11 52.2 | +7.4 |
| MASI | Maura Aman, Be | 8.40 | 123 | P | Pn | 18 11 46.6 | +0.1 |
| | 369nm,1.2s,3µm | | | | | | |
| MYKOM | Kota Tinggi | 8.66 | 88 | ⇓P | Pn | 18 11 49.3 | -0.8 |
| MYKOM | Kota Tinggi | 8.66 | 88 | *e*Pn | Pn | 18 11 49.1 | -1.1 |
| KTGM | Kuala Trenggan | 8.81 | 64 | ⇓P | Pn | 18 11 53.2 | +1.0 |
| TPRI | Tanjung Pinang | 9.35 | 93 | P | Pn | 18 11 59.0 | -0.6 |
| MNAI | Manna | 9.67 | 127 | P | Pn | 18 12 03.1 | -0.9 |
| | 305nm,0.7s,8µm | | | | | | |
| MNAI | Manna | 9.67 | 127 | *e*Pn | Pn | 18 12 03.3 | -0.8 |
| PBA | Port Blair | 10.42 | 347 | *e*P | Pn | 18 12 10.9 | -3.4 |
| PBA | | | | *e*S | Sn | 18 14 01.9 | -8.1 |
| LWLI | Liwa | 10.95 | 126 | P | Pn | 18 12 21.1 | -0.5 |
| | 289nm,0.8s,4µm | | | | | | |
| KASI | Kota Agung | 11.59 | 127 | P | Pn | 18 12 28.4 | -1.9 |
| | 92nm,0.9s,1µm | | | | | | |
| DGPR | DIGLIPUR | 11.86 | 349 | *e*P | Pn | 18 12 27.7 | -6.3 |
| DGPR | | | | *e*S | Sn | 18 14 34.3 | -11 |
| SRAK | Srakaew | 14.20 | 28 | P | P | 18 13 14.1 | +1.2 |
| UTHA | Uthaitani | 14.63 | 16 | P | P | 18 13 19.9 | +2.2 |
| KSM | Kuching | 15.12 | 90 | *e*Pn | Pn | 18 13 16.1 | -2.2 |
| | 31nm,1.1s | | | | | | |
| PALK | Pallekele | 15.55 | 292 | Pn | Pn | 18 13 22.0 | -2.1 |
| | 0.2nm,0.3s,baz=118,slow=12,SNR=3.9 | | | | | | |
| PALK | | | | Sn | Sn | 18 16 01.4 | -14 |
| | 2.7nm,0.3s,baz=116,slow=4.1,SNR=7.7 | | | | | | |
| PALK | | | | LR | LR | 18 18 24.6 | |
| | comp=Z,151nm,20.3s,baz=116,slow=34 | | | | | | |
| PALK | Pallekele | 15.55 | 292 | *e*P | Pn | 18 13 23.9 | -0.2 |
| PALK | | | | pmax | pmax | | |
| | comp=Z,32nm,0.9s | | | | | | |
| PALK | Pallekele | 15.55 | 292 | *e*Pn | Pn | 18 13 23.9 | -0.2 |
| | comp=Z,32nm,0.9s | | | | | | |
| PALK | | | | Sn | Sn | 18 16 01.4 | -14 |
| CHAI | Chaiyaphum | 15.85 | 25 | P | P | 18 13 31.6 | +0.4 |
| | comp=Z,6.2nm,0.9s | | | | | | |
| PBKT | Sadao Pong | 16.07 | 20 | P | P | 18 13 33.5 | -0.1 |
| | comp=Z,53nm,0.8s,comp=Z,1µm | | | | | | |
| KPJI | Karang Pucung | 16.25 | 123 | P | Pn | 18 13 32.3 | -0.7 |
| STKI | Sintang | 16.34 | 95 | P | Pn | 18 13 34.0 | -0.2 |
| SUKH | Sukhothai | 16.52 | 15 | P | P | 18 13 38.9 | +0.3 |
| | comp=Z,9.1nm,0.8s,comp=Z,71nm | | | | | | |
| KHON | Khomkaen | 16.59 | 27 | P | P | 18 13 39.6 | +0.1 |
| | comp=Z,52nm,0.8s,comp=Z,864nm | | | | | | |
| PBKI | Pangkalan Bun | 16.99 | 104 | P | P | 18 13 46.0 | +2.1 |
| UTTA | Uttaradit | 17.03 | 18 | P | P | 18 13 45.1 | +0.8 |
| | comp=Z,6.1nm,1.0s,comp=Z,56nm | | | | | | |
| UBPT | Khong Chiam | 17.08 | 36 | P | P | 18 13 56.7 | +12 |
| CM01 | Chiang Mai Arr | 17.26 | 12 | *e*Pn | P | 18 13 46.9 | 0.0 |
| CM31 | Chiang Mai Arr | 17.30 | 12 | *e*Pn | Pn | 18 13 45.0 | -1.1 |
| CMAR | Chiang Mai Arr | 17.30 | 12 | P | Pn | 18 13 43.5 | -2.7 |
| | comp=Z,0.2nm,0.3s,baz=195,slow=9.0,SNR=32 | | | | | | |
| CMAR | | | | PcP | PcP | 18 18 28.1 | +0.2 |
| | comp=Z,0.1nm,0.3s,baz=232,slow=2.5,SNR=8.4 | | | | | | |
| CMAR | | | | LR | LR | 18 20 59.9 | |
| | comp=Z,86nm,18.6s,baz=198,slow=39 | | | | | | |
| CHTO | Chiang Mai | 17.64 | 12 | P | Pn | 18 13 50.3 | -0.1 |
| | comp=Z,63nm,1.2s | | | | | | |
| CHTO | Chiang Mai | 17.64 | 12 | *e*P | Pn | 18 13 48.7 | -1.7 |
| CHTO | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.8s | | | | | | |
| CHTO | Chiang Mai | 17.64 | 12 | *e*Pn | Pn | 18 13 48.7 | -1.7 |
| | comp=Z,9.2nm,0.8s | | | | | | |
| CMMT | Chiang Mai | 17.64 | 12 | P | Pn | 18 13 50.3 | -0.1 |
| | comp=Z,14nm,1.6s | | | | | | |
| BTM | Bintulu | 17.96 | 84 | ⇑P | P | 18 13 54.8 | +0.1 |
| NONG | Nongkai | 18.26 | 25 | P | Pn | 18 14 02.8 | +4.8 |
| | comp=Z,184nm,0.8s,comp=Z,22µm | | | | | | |
| PCJI | Pacitan | 18.60 | 121 | P | Pn | 18 14 02.8 | +0.7 |
| MDRS | Chennai | 18.77 | 309 | *e*x | P | 18 13 53.4 | -10 |
| PWJI | Pagerwojo | 19.05 | 120 | P | Pn | 18 14 13.2 | +5.6 |
| VIS | Vishakhapatnam | 19.93 | 325 | *e*P | P | 18 14 14.8 | -1.4 |
| VIS | | | | *e*x | x | 18 17 43.7 | |
| SDKM | Sandakan | 22.35 | 79 | ⇑P | P | 18 14 44.2 | +1.7 |
| QIZ | Qiongzhong | 22.61 | 38 | P | P | 18 14 45.1 | 0.0 |
| QIZ | | | | S | S | 18 18 49.9 | -0.9 |
| QIZ | | | | pmax | pmax | | |
| | comp=Z,44nm,1.6s | | | | | | |
| HYB | Hyderabad | 22.79 | 315 | *i* P | P | 18 14 48.0 | +1.0 |
| HYB | Hyderabad | 22.79 | 315 | *e*P | P | 18 14 48.4 | +1.4 |
| TSM | Tawau | 22.83 | 82 | ⇑P | P | 18 14 48.1 | +0.6 |
| MNCY | Minicoy | 23.08 | 288 | *e*P | P | 18 14 50.2 | +0.2 |
| MYLDM | Lahad Datu | 23.56 | 80 | *e*P | P | 18 14 56.5 | +1.7 |
| | comp=Z,32nm,0.9s | | | | | | |
| BOK | Bokaro | 23.97 | 339 | *e*P | P | 18 14 57.3 | -1.2 |
| SHL | Shillong | 24.19 | 353 | *e*P | P | 18 14 58.5 | -2.2 |
| SHL | | | | AMB | AMB | 18 15 11.6 | |
| | comp=Z,72nm,0.6s | | | | | | |
| DGAR | Diego Garcia | 24.33 | 248 | *e*P | P | 18 15 04.0 | +2.0 |
| H08S2 | Diego Garcia H | 24.38 | 248 | T | T | 18 41 08.0 | |
| | baz=67,slow=75,SNR=55 | | | | | | |
| H08S3 | Diego Garcia H | 24.38 | 248 | T | T | 18 41 08.0 | |
| | baz=67,slow=75,SNR=56 | | | | | | |
| H08S1 | Diego Carcia H | 24.39 | 248 | T | T | 18 41 08.0 | |
| | baz=67,slow=75,SNR=49 | | | | | | |
| KMI | Kunming | 24.64 | 17 | P | P | 18 15 08.9 | +4.0 |
| KMI | | | | pP | pP | 18 15 15.8 | +1.0 |
| KMI | | | | sP | sP | 18 15 19.4 | +0.4 |
| KMI | | | | S | S | 18 19 27.0 | +2.7 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,17nm,1.1s | | | | | | |
| KMI | | | | pmax | pmax | | |
| | comp=Z,140nm,3.5s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,330nm,13.6s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,230nm,11.5s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,280nm,12.2s | | | | | | |
| MPSI | Mapaga | 24.73 | 92 | P | P | 18 15 04.6 | -1.0 |
| GOA | Goa | 25.27 | 305 | *e*P | P | 18 15 11.8 | +1.3 |
| BNSI | Bone | 25.57 | 103 | P | P | 18 15 14.8 | +1.6 |
| MRSI | Marisa | 26.77 | 92 | P | P | 18 15 25.6 | +1.5 |
| | comp=Z,13nm,0.5s | | | | | | |
| GYA | Guiyang | 27.20 | 23 | P | P | 18 15 30.2 | +2.2 |
| GYA | | | | pP | pP | 18 15 38.4 | +0.5 |
| GYA | | | | PP | PnPn | 18 16 17.2 | +5.0 |
| GYA | | | | S | S | 18 20 05.0 | +0.2 |
| GYA | | | | sS | sS | 18 20 21.6 | +0.4 |
| GYA | | | | SS | SnSn | 18 21 21.8 | +7.5 |
| GYA | | | | pmax | pmax | | |
| | comp=Z,20nm,1.0s | | | | | | |
| GYA | | | | pmax | pmax | | |
| | comp=Z,120nm,5.0s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,520nm,17.1s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,470nm,17.0s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,490nm,17.6s | | | | | | |
| LSA | Lhasa | 28.35 | 353 | *e*P | P | 18 15 37.8 | -0.8 |
| LSA | | | | pmax | pmax | | |
| | comp=Z,31nm,0.6s | | | | | | |
| LSA | Lhasa | 28.35 | 353 | *e*P | P | 18 15 37.8 | -0.8 |
| | comp=Z,31nm,0.6s | | | | | | |
| TGY | Tagaytay City | 28.39 | 62 | LR | LR | 18 27 17.4 | |
| | comp=Z,33nm,18.6s,baz=128,slow=37 | | | | | | |
| CD2 | Chengdu | 30.40 | 15 | P | P | 18 15 57.5 | +1.2 |
| CD2 | | | | pP | pP | 18 16 05.4 | -0.9 |
| CD2 | | | | sP | sP | 18 16 11.6 | +1.1 |
| CD2 | | | | S | S | 18 20 53.8 | -1.1 |
| CD2 | | | | SS | SnSn | 18 22 29.0 | -3.1 |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.1s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,250nm,13.1s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,350nm,13.1s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,330nm,15.5s | | | | | | |
| MBWA | Marble Bar | 32.88 | 134 | *e*P | P | 18 16 17.8 | -0.4 |
| | comp=Z,18nm,1.1s | | | | | | |
| DDI | Dehra Dun | 33.00 | 332 | *e*x | P | 18 16 12.2 | -7.0 |
| SMLA | Simla | 34.09 | 332 | *e*P | P | 18 16 27.5 | -1.1 |
| SMLA | | | | AMB | AMB | 18 16 38.6 | |
| | comp=Z,16nm,0.9s | | | | | | |
| XAN | Xi'an | 34.87 | 20 | P | P | 18 16 35.5 | +0.1 |
| XAN | | | | pP | pP | 18 16 43.8 | -1.6 |
| XAN | | | | pmax | pmax | | |
| | comp=Z,12nm,1.0s | | | | | | |
| LZH | Lanzhou | 35.38 | 12 | *e*P | P | 18 16 42.9 | +3.0 |
| LZH | | | | pP | pP | 18 16 52.0 | +2.0 |
| LZH | | | | sP | sP | 18 16 55.2 | +1.1 |
| LZH | | | | PP | PP | 18 18 02.2 | +1.5 |
| LZH | | | | S | S | 18 22 14.3 | +1.9 |
| LZH | | | | sS | sS | 18 22 30.2 | +1.2 |
| LZH | | | | SS | SnSn | 18 24 33.0 | -0.1 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.1s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,100nm,5.4s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,310nm,14.5s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,430nm,15.4s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,170nm,17.7s | | | | | | |
| DHRM | DHARAMSHALA | 35.43 | 332 | *e*P | P | 18 16 39.1 | -1.3 |
| DHRM | | | | AMB | AMB | 18 16 49.8 | |
| | comp=Z,17nm,1.2s | | | | | | |
| FITZ | Fitzroy Crossi | 35.72 | 124 | P | P | 18 16 42.2 | -0.6 |
| | baz=36,SNR=8.9 | | | | | | |
| GTA | Gaotai | 38.02 | 6 | *e*P | P | 18 17 00.4 | -1.8 |
| GTA | | | | pP | pP | 18 17 09.4 | -2.9 |
| GTA | | | | sP | sP | 18 17 13.7 | -2.8 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.1s | | | | | | |
| MUN | Mundaring | 38.76 | 151 | P | P | 18 17 09.8 | +1.3 |
| | baz=39,SNR=3.5 | | | | | | |
| TIA | Tai'an | 40.12 | 28 | ⇓P | P | 18 17 29.3 | +10 |
| TIA | | | | pmax | pmax | | |
| | comp=Z,20nm,0.8s | | | | | | |
| H01W3 | Cape Leeuwin H | 40.27 | 156 | T | T | 19 01 19.4 | |
| | baz=332,slow=76,SNR=7.2 | | | | | | |
| H01W2 | Cape Leeuwin H | 40.28 | 156 | T | T | 19 01 24.5 | |
| | baz=332,slow=76,SNR=8.9 | | | | | | |
| H01W1 | Cape Leeuwin H | 40.29 | 156 | T | T | 19 01 24.0 | |
| | baz=332,slow=76,SNR=6.0 | | | | | | |
| WRKA | Warakurna | 41.49 | 132 | P | P | 18 17 32.0 | +0.7 |
| | baz=42,SNR=9.4 | | | | | | |
| KSH | Kashi | 41.74 | 338 | *e*P | P | 18 17 34.3 | +1.1 |
| KSH | | | | pP | pP | 18 17 43.6 | +0.2 |
| KSH | | | | PP | PnPn | 18 19 14.8 | -0.4 |
| KSH | | | | PcP | PcP | 18 19 30.5 | +1.2 |
| KSH | | | | S | S | 18 23 48.0 | -0.2 |
| KSH | | | | SS | SS | 18 26 48.7 | -6.2 |
| KSH | | | | ScS | ScS | 18 27 31.9 | -2.1 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.6s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,140nm,4.1s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,160nm,5.6s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,180nm,5.3s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,310nm,6.2s | | | | | | |
| WMQ | Urumqi | 42.71 | 352 | P | P | 18 17 42.3 | +1.3 |
| WMQ | | | | pP | pP | 18 17 52.3 | +1.1 |
| WMQ | | | | sP | sP | 18 17 56.7 | +1.4 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,22nm,0.9s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,210nm,4.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,100nm,16.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,130nm,31.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,100nm,14.7s | | | | | | |
| BJT | Baijiatuau | 42.87 | 24 | P | P | 18 17 43.0 | +0.8 |
| BJT | | | | pmax | pmax | | |
| | comp=Z,19nm,0.8s | | | | | | |
| BJT | Baijiatuau | 42.87 | 24 | P | P | 18 17 43.0 | +0.8 |
| | comp=Z,19nm,0.8s | | | | | | |
| BJI | Beijing | 42.89 | 24 | P | P | 18 17 43.0 | +0.7 |
| BJI | | | | pP | pP | 18 17 53.1 | +0.6 |
| BJI | | | | S | S | 18 24 06.5 | +1.7 |
| BJI | | | | sS | sS | 18 24 22.7 | +1.1 |
| BJI | | | | SS | SS | 18 27 13.9 | -3.3 |
| BJI | | | | pmax | pmax | | |
| | comp=Z,13nm,1.2s | | | | | | |
| BJI | | | | pmax | pmax | | |
| | comp=Z,120nm,3.3s | | | | | | |
| WRA | Warramunga Arr | 43.88 | 121 | P | P | 18 17 50.4 | -0.3 |
| | comp=Z,11nm,0.9s,baz=299,slow=9.0,SNR=45 | | | | | | |
| WRA | | | | PcP | PcP | 18 19 36.1 | -0.5 |
| | comp=Z,2.3nm,0.8s,baz=304,slow=2.9,SNR=5.7 | | | | | | |
| WRAB | Tennant Creek | 43.89 | 121 | *de*P | P | 18 17 50.1 | -0.6 |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,67nm,1.7s | | | | | | |
| WRAB | Tennant Creek | 43.89 | 121 | *e*P | P | 18 17 49.4 | -1.3 |
| | comp=Z,19nm,1.0s | | | | | | |
| WB2 | Warramunga Arr | 43.89 | 121 | *e*P | P | 18 17 50.4 | -0.4 |
| | comp=Z,19nm,1.0s | | | | | | |
| PDGK | Podgornoye | 43.99 | 343 | *i* P | P | 18 17 51.8 | +0.5 |
| PDGK | | | | pmax | pmax | | |
| | comp=Z,15nm,1.1s | | | | | | |
| AAK | Ala-Archa | 45.00 | 338 | *e*P | P | 18 17 59.7 | +0.2 |
| AAK | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.1s | | | | | | |
| AAK | Ala-Archa | 45.00 | 338 | *e*P | P | 18 18 00.8 | +1.3 |
| | comp=Z,15nm,1.4s | | | | | | |
| ASAR | Alice Springs | 45.16 | 126 | P | P | 18 18 00.9 | 0.0 |
| | comp=Z,4.7nm,0.8s,baz=297,slow=7.6,SNR=49 | | | | | | |
| ASAR | | | | PcP | PcP | 18 19 40.5 | -0.5 |
| | comp=Z,2.5nm,0.8s,baz=298,slow=3.4,SNR=9.9 | | | | | | |
| AS31 | Alice Springs | 45.16 | 126 | *e*P | P | 18 18 00.1 | -0.8 |
| | comp=Z,2.4nm,1.0s | | | | | | |
| AS01 | Alice Springs | 45.20 | 126 | *e*P | P | 18 18 00.6 | -0.6 |
| MNAS | Manas | 45.64 | 336 | *i* P | P | 18 18 05.1 | +0.6 |
| MNAS | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.0s | | | | | | |
| MK01 | Makanchi Array | 46.52 | 348 | *e*P | P | 18 18 11.5 | +0.2 |
| MK31 | Makanchi Array | 46.54 | 348 | *i* P | P | 18 18 11.3 | -0.1 |
| MK31 | | | | pmax | pmax | | |
| | comp=Z,12nm,0.7s | | | | | | |
| MK31 | Makanchi Array | 46.54 | 348 | *e*P | P | 18 18 12.1 | +0.7 |
| MKAR | Makanchi Array | 46.54 | 348 | P | P | 18 18 12.1 | +0.6 |
| | comp=Z,12nm,0.7s,baz=162,slow=8.2,SNR=127 | | | | | | |
| MKAR | | | | LR | LR | 18 42 02.7 | |
| | comp=Z,36nm,18.2s,baz=134,slow=42 | | | | | | |
| MAKZ | Makanchi | 46.62 | 348 | *i* P | P | 18 18 11.6 | -0.5 |
| MAKZ | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.8s | | | | | | |
| MAKZ | Makanchi | 46.62 | 348 | *e*P | P | 18 18 12.3 | +0.3 |
| | comp=Z,18nm,0.8s | | | | | | |
| KSAR | Wonju Array Be | 46.78 | 36 | P | P | 18 18 14.7 | +1.3 |
| KSAR | Wonju Array Be | 46.78 | 36 | P | P | 18 18 14.7 | +1.3 |
| KSRS | Korea Array | 46.81 | 36 | P | P | 18 18 14.7 | +1.1 |
| | comp=Z,1.7nm,1.1s,baz=232,slow=7.8,SNR=3.7 | | | | | | |
| KSRS | | | | LR | LR | 18 39 38.7 | |
| | comp=Z,79nm,19.3s,baz=224,slow=38 | | | | | | |
| SONM | Songino Array | 47.21 | 10 | P | P | 18 18 17.2 | +0.5 |
| | comp=Z,9.0nm,0.9s,baz=188,slow=9.0,SNR=31 | | | | | | |
| SONM | | | | PcP | PcP | 18 19 48.6 | +0.8 |
| | comp=Z,2.4nm,0.7s,baz=190,slow=4.8,SNR=3.2 | | | | | | |
| SONM | | | | LR | LR | 18 40 13.3 | |
| | comp=Z,77nm,18.7s,baz=188,slow=39 | | | | | | |
| SONA1 | Songino Array | 47.23 | 10 | *e*P | P | 18 18 17.0 | +0.1 |
| ULN | Ulaanbaatar | 47.36 | 11 | *ce*P | P | 18 18 18.5 | +0.5 |
| ULN | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.0s | | | | | | |
| ULN | Ulaanbaatar | 47.36 | 11 | *e*P | P | 18 18 17.5 | -0.4 |
| | comp=Z,11nm,1.0s | | | | | | |
| ZAK | Zakamensk | 49.23 | 7 | *e*P | P | 18 18 31.1 | -1.2 |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.3s | | | | | | |
| GEYT | Alibeck | 49.75 | 321 | P | P | 18 18 36.8 | +0.4 |
| | comp=Z,7.7nm,0.8s,baz=147,slow=8.5,SNR=20 | | | | | | |
| CN2 | Changchun | 50.02 | 28 | *e*P | P | 18 18 39.8 | +1.6 |
| KURK | Kurchatov | 51.06 | 347 | *de*P | P | 18 18 46.0 | +0.1 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.8s | | | | | | |
| KURK | Kurchatov | 51.06 | 347 | *e*P | P | 18 18 46.3 | +0.3 |
| | comp=Z,16nm,0.9s | | | | | | |
| MTSU | Mount Surprise | 52.10 | 114 | P | P | 18 18 53.7 | -0.7 |
| | baz=52,SNR=7.4 | | | | | | |
| RAYN | Ar Rayn | 52.87 | 299 | *e*P | P | 18 19 01.3 | +1.2 |
| | comp=Z,9.8nm,1.0s | | | | | | |
| PMG | Port Moresby | 52.87 | 103 | P | P | 18 19 00.2 | +0.1 |
| | comp=Z,13nm,0.8s,baz=260,slow=6.1,SNR=7.7 | | | | | | |
| PMG | Port Moresby | 52.87 | 103 | *de*P | P | 18 19 00.0 | -0.1 |
| PMG | | | | pmax | pmax | | |
| | comp=Z,27nm,0.8s | | | | | | |
| PMG | Port Moresby | 52.87 | 103 | *e*P | P | 18 19 00.3 | +0.1 |
| | comp=Z,16nm,0.8s | | | | | | |
| MJAR | Matsushiro Arr | 52.88 | 44 | P | P | 18 18 60.0 | +0.1 |
| | comp=Z,1.2nm,0.8s,baz=245,slow=5.9,SNR=3.7 | | | | | | |
| MJAR | | | | LR | LR | 18 44 25.1 | |
| | comp=Z,36nm,18.3s,baz=250,slow=39 | | | | | | |
| MJAR | Matsushiro Arr | 52.88 | 44 | P | P | 18 19 00.0 | +0.1 |
| ZAA0 | Zalesovo Array | 53.02 | 352 | *e*P | P | 18 19 01.2 | +0.7 |
| | comp=Z,29nm,0.6s | | | | | | |
| ZALV | Zalesovo Beam | 53.02 | 352 | P | P | 18 19 00.7 | +0.2 |
| | comp=Z,12nm,0.5s,baz=184,slow=6.3,SNR=68 | | | | | | |
| ZALV | | | | LR | LR | 18 45 21.6 | |
| | comp=Z,28nm,19.2s,baz=82,slow=40 | | | | | | |
| ZALV | Zalesovo Beam | 53.02 | 352 | *e*P | P | 18 19 01.1 | +0.6 |
| ZALV | Zalesovo Beam | 53.02 | 352 | *e*P | P | 18 19 01.1 | +0.6 |
| USRK | Ussuriysk Ar. | 53.61 | 32 | P | P | 18 19 06.9 | +1.8 |
| | comp=Z,3.3nm,0.8s,baz=212,slow=5.1,SNR=3.8 | | | | | | |
| USRK | | | | LR | LR | 18 41 33.7 | |
| | comp=Z,62nm,22.0s,baz=191,slow=36 | | | | | | |
| NVS | Novosibirsk | 54.11 | 351 | ⇑*i*P | P | 18 19 08.5 | 0.0 |
| NVS | | | | pmax | pmax | | |
| | comp=Z,21nm,0.8s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=N,15nm,0.7s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=E,5.0nm,0.5s | | | | | | |
| QLP | Quilpie | 54.86 | 124 | P | P | 18 19 15.8 | +1.3 |
| | baz=55,SNR=9.5 | | | | | | |
| STKA | Stephens Creek | 55.02 | 131 | P | P | 18 19 16.1 | +0.5 |
| | comp=E,6.4nm,0.7s,baz=303,slow=6.4,SNR=13 | | | | | | |
| STKA | Stephens Creek | 55.02 | 131 | P | P | 18 19 16.4 | +0.8 |
| | baz=55,SNR=8.1 | | | | | | |
| STKA | Stephens Creek | 55.02 | 131 | *e*P | P | 18 19 16.4 | +0.8 |
| STKA | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.9s | | | | | | |
| STKA | Stephens Creek | 55.02 | 131 | *e*P | P | 18 19 16.4 | +0.8 |
| | comp=Z,2.2nm,0.9s | | | | | | |
| BRVK | Borovoye | 55.44 | 342 | *ce*P | P | 18 19 17.8 | -0.3 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,11nm,1.0s | | | | | | |
| BRVK | Borovoye | 55.44 | 342 | *e*P | P | 18 19 17.5 | -0.7 |
| | comp=Z,8.8nm,0.7s | | | | | | |
| AB31 | Akbulak array | 56.36 | 333 | *i* P | P | 18 19 24.1 | -0.7 |
| AB31 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| KMBO | Kilima Mbogo | 57.99 | 268 | P | P | 18 19 37.7 | +0.4 |
| | comp=Z,4.7nm,0.7s,baz=57,slow=8.8,SNR=8.7 | | | | | | |
| KMBO | | | | LR | LR | 18 41 07.0 | |
| | comp=Z,50nm,19.2s,baz=92,slow=32 | | | | | | |
| KMBO | Kilima Mbogo | 57.99 | 268 | *i* P | P | 18 19 37.0 | -0.3 |
| KMBO | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.7s | | | | | | |
| CMSA | Cobar Meteorol | 58.01 | 129 | P | P | 18 19 37.8 | +1.0 |
| | baz=58,SNR=11 | | | | | | |
| BOD | Bodaibo | 58.15 | 12 | *e*P | P | 18 19 36.8 | -0.5 |
| BOD | | | | pmax | pmax | | |
| | comp=Z,13nm,1.4s | | | | | | |
| RMQ | Roma | 58.61 | 122 | P | P | 18 19 43.0 | +1.8 |
| | baz=59,SNR=8.4 | | | | | | |
| GNI | Garni | 59.73 | 317 | *ce*P | P | 18 19 49.9 | +1.1 |
| GNI | | | | pmax | pmax | | |
| | comp=Z,58nm,1.2s | | | | | | |
| GNI | Garni | 59.73 | 317 | *e*P | P | 18 19 45.1 | -3.7 |
| | comp=Z,112nm,1.3s | | | | | | |
| MARD | Mardin | 61.38 | 312 | *e*P | P | 18 20 00.9 | +0.8 |
| | comp=Z,19nm,0.8s | | | | | | |
| ZEI | Tsey | 61.49 | 319 | *e*P | P | 18 20 00.1 | -0.8 |
| ZEI | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.6s | | | | | | |
| SVE | Sverdlovsk | 61.73 | 339 | *e*P | P | 18 20 01.8 | -0.1 |
| SVE | | | | pmax | pmax | | |
| | comp=Z,35nm,0.9s | | | | | | |
| ARU | Arti | 62.18 | 338 | *c i*P | P | 18 20 04.2 | -0.8 |
| ARU | | | | S | S | 18 28 28.4 | +0.4 |
| ARU | | | | pmax | pmax | | |
| | comp=Z,11nm,1.0s | | | | | | |
| ARU | Arti | 62.18 | 338 | *e*P | P | 18 20 03.1 | -1.8 |
| KBZ | Khabaz | 62.57 | 320 | P | P | 18 20 07.8 | 0.0 |
| | comp=Z,4.9nm,1.0s,baz=111,slow=8.3,SNR=11 | | | | | | |
| KIV | Kislovodsk | 62.81 | 320 | *e*P | P | 18 20 09.7 | +0.1 |
| KIV | | | | pmax | pmax | | |
| | comp=Z,14nm,1.0s | | | | | | |
| KIV | Kislovodsk | 62.81 | 320 | *e*P | P | 18 20 08.4 | -1.1 |
| | comp=Z,10nm,0.8s | | | | | | |
| YAK | Yakutsk | 65.75 | 17 | *e*P | P | 18 20 26.7 | -1.6 |
| YAK | | | | *e* | | 18 20 34.9 | |
| YAK | | | | pmax | pmax | | |
| | comp=Z,17nm,1.0s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,6.0nm,1.3s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,7.0nm,1.5s | | | | | | |
| YAK | Yakutsk | 65.75 | 17 | *e*P | P | 18 20 27.8 | -0.5 |
| | comp=E,44nm,0.9s | | | | | | |
| CSS | Mathiatis | 66.32 | 308 | *e*P | P | 18 20 33.3 | +0.7 |
| | comp=E,7.4nm,1.4s | | | | | | |
| VRH | Novokhopyorsk | 66.80 | 327 | *e*P | P | 18 20 33.9 | -1.3 |
| VRH | | | | *e**PP | pP | 18 20 43.4 | -2.5 |
| VRH | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.0s | | | | | | |
| BR131 | Keskin Array S | 67.46 | 313 | *e*P | P | 18 20 39.0 | -0.9 |
| BRTR | Keskin Array B | 67.46 | 313 | P | P | 18 20 39.8 | -0.1 |
| | comp=Z,4.3nm,0.8s,baz=134,slow=7.2,SNR=29 | | | | | | |
| ANTO | Ankara | 68.12 | 313 | *e*P | P | 18 20 44.3 | +0.3 |
| ANTO | | | | pmax | pmax | | |
| | comp=Z,12nm,0.8s | | | | | | |
| ANTO | Ankara | 68.12 | 313 | *e*P | P | 18 20 44.3 | +0.3 |
| | comp=Z,12nm,0.8s | | | | | | |
| BR231 | Keskin MP Arra | 68.13 | 313 | *e*P | P | 18 20 40.0 | -4.0 |
| VSR | Storozhevoye | 68.23 | 326 | *e*P | P | 18 20 41.9 | -2.4 |
| VSR | | | | *e**PP | pP | 18 20 51.6 | -3.4 |
| VSR | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.7s | | | | | | |
| LSZ | Lusaka | 68.26 | 253 | *e*P | P | 18 20 46.7 | +1.4 |
| LSZ | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.8s | | | | | | |
| LSZ | Lusaka | 68.26 | 253 | *e*P | P | 18 20 46.7 | +1.4 |
| | comp=Z,5.2nm,0.8s | | | | | | |
| LPSR | Galich'ya Gora | 68.99 | 327 | *e*P | P | 18 20 47.6 | -1.4 |
| LPSR | | | | *e**PP | pP | 18 20 57.6 | -2.1 |
| LPSR | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| OBN | Obninsk | 71.36 | 329 | *i* P | P | 18 21 03.1 | -0.3 |
| OBN | | | | *i* | | 18 23 45.3 | |
| OBN | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.1s | | | | | | |
| KARP | Karpathos | 71.36 | 307 | *e*P | P | 18 21 04.6 | +0.7 |
| | comp=Z,24nm,0.9s | | | | | | |
| MA2 | Magadan | 71.99 | 26 | P | P | 18 21 07.4 | +0.3 |
| | comp=Z,7.4nm,0.8s,baz=254,slow=7.4,SNR=2.4 | | | | | | |
| MA2 | Magadan | 71.99 | 26 | *ce*P | P | 18 21 08.1 | +0.9 |
| MAW | Mawson | 72.51 | 192 | LR | LR | 18 45 54.4 | |
| | comp=Z,40nm,18.7s,baz=62,slow=30 | | | | | | |
| TIRR | Tirgusor | 72.55 | 316 | ⇑*i*P | P | 18 21 10.2 | -0.6 |
| TIRR | Tirgusor | 72.55 | 316 | *e*P | P | 18 21 10.2 | -0.6 |
| TIRR | | | | pmax | pmax | | |
| | comp=Z,14nm,0.8s | | | | | | |
| TIRR | Tirgusor | 72.55 | 316 | *e*P | P | 18 21 10.2 | -0.6 |
| | comp=Z,14nm,0.8s | | | | | | |
| KLMR | Klimovskoe | 72.67 | 335 | *e*P | P | 18 21 10.0 | -1.2 |
| KLMR | | | | *e**PP | pP | 18 21 19.3 | -2.6 |
| KLMR | | | | pmax | pmax | | |
| | comp=Z,16nm,1.2s | | | | | | |
| TLB | Topalu | 72.84 | 316 | ⇑*i*P | P | 18 21 12.4 | -0.1 |
| TLB | Topalu | 72.84 | 316 | ⇑P | P | 18 21 12.4 | -0.1 |
| ICOR | Ion Corvin | 72.88 | 316 | ⇑*i*P | P | 18 21 13.6 | +0.8 |
| CFR | Carcaliu | 72.94 | 317 | ⇑*i*P | P | 18 21 13.2 | +0.1 |
| CFR | Carcaliu | 72.94 | 317 | ⇑P | P | 18 21 13.2 | +0.1 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **BOSA** | **Boshof** | **73.17** | **240** | P | **P** | **18 21 14.6** | **-0.4** |
| | comp=Z,3.3nm,0.7s,baz=99,slow=3.6,SNR=6.5 | | | | | | |
| **TIXI** | **Tiksi** | **73.30** | **11** | P | **P** | **18 21 14.1** | **-0.6** |
| | comp=Z,4.9nm,0.7s,baz=224,slow=2.7,SNR=15 | | | | | | |
| **TIXI** | **Tiksi** | **73.30** | **11** | *e*P | **P** | **18 21 14.1** | **-0.6** |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,24nm,2.5s | | | | | | |
| **TIXI** | **Tiksi** | **73.30** | **11** | *e*P | **P** | **18 21 13.7** | **-1.0** |
| | comp=Z,13nm,0.7s | | | | | | |
| **AKASG** | **Malin Array Be** | **73.84** | **323** | P | **P** | **18 21 17.6** | **-0.8** |
| | comp=Z,3.1nm,0.8s,baz=90,slow=5.1,SNR=10 | | | | | | |
| **KIEV** | **Kiev** | **73.85** | **323** | *e*P | **P** | **18 21 16.7** | **-1.6** |
| KIEV | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.0s | | | | | | |
| **VRI** | **Vrincioaia** | **74.07** | **317** | ⇑*i*P | **P** | **18 21 20.6** | **+0.8** |
| **VRI** | **Vrincioaia** | **74.07** | **317** | ⇑P | **P** | **18 21 20.6** | **+0.8** |
| **PLOR** | **Plostina** | **74.12** | **317** | ⇓*i*P | **P** | **18 21 21.3** | **+1.2** |
| **PLOR** | **Plostina** | **74.12** | **317** | ⇓P | **P** | **18 21 21.3** | **+1.2** |
| **TESR** | **Tescani** | **74.29** | **318** | ⇑*i*P | **P** | **18 21 21.4** | **+0.3** |
| **SEY** | **Seymchan** | **74.33** | **24** | P | **P** | **18 21 20.6** | **-0.3** |
| | comp=Z,4.2nm,0.9s,baz=55,slow=2.4,SNR=5.7 | | | | | | |
| **SEY** | **Seymchan** | **74.33** | **24** | *e*P | **P** | **18 21 19.8** | **-1.1** |
| **MLR** | **Muntele Rosu** | **74.51** | **317** | ⇑*i*P | **P** | **18 21 23.2** | **+0.7** |
| **MLR** | **Muntele Rosu** | **74.51** | **317** | *e*P | **P** | **18 21 23.2** | **+0.7** |
| MLR | | | | pmax | pmax | | |
| | comp=Z,21nm,0.8s | | | | | | |
| **MLR** | **Muntele Rosu** | **74.51** | **317** | *e*P | **P** | **18 21 23.2** | **+0.7** |
| | comp=Z,21nm,0.8s | | | | | | |
| **PRAR** | **RASCA** | **74.78** | **319** | ⇑*i*P | **P** | **18 21 24.9** | **+1.0** |
| **DOPR** | **Dopca** | **75.00** | **317** | ⇑*i*P | **P** | **18 21 24.8** | **-0.4** |
| **VOIR** | | **75.11** | **317** | ⇑*i*P | **P** | **18 21 25.1** | **-0.8** |
| **VOIR** | | **75.11** | **317** | ⇑P | **P** | **18 21 25.1** | **-0.8** |
| **BURAR** | **Bucovina Array** | **75.51** | **319** | ⇑*i*P | **P** | **18 21 27.9** | **-0.3** |
| **BURAR** | **Bucovina Array** | **75.51** | **319** | ⇑P | **P** | **18 21 27.9** | **-0.3** |
| **BUR04** | **Bucovina Ar. S** | **75.52** | **319** | *e*P | **P** | **18 21 28.8** | **+0.5** |
| **BUR08** | **Bucovina Ar. S** | **75.53** | **319** | *e*P | **P** | **18 21 25.6** | **-2.7** |
| **VTS** | **Vitosha** | **75.80** | **314** | ⇑*i*P | **P** | **18 21 29.9** | **-0.1** |
| **VTS** | **Vitosha** | **75.80** | **314** | *e*P | **P** | **18 21 28.7** | **-1.4** |
| VTS | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.8s | | | | | | |
| **VTS** | **Vitosha** | **75.80** | **314** | *e*P | **P** | **18 21 28.7** | **-1.4** |
| | comp=Z,9.3nm,0.8s | | | | | | |
| **LOT** | **Lotru** | **75.99** | **317** | ⇓*i*P | **P** | **18 21 28.2** | **-2.8** |
| **DRGR** | | **76.99** | **318** | ⇑*i*P | **P** | **18 21 37.1** | **+0.5** |
| **DRGR** | | **76.99** | **318** | ⇑P | **P** | **18 21 37.1** | **+0.5** |
| **MDVR** | **Moldovita** | **77.28** | **316** | ⇓*i*P | **P** | **18 21 38.1** | **-0.2** |
| **BZS** | **Buzias** | **77.50** | **316** | ⇓*i*P | **P** | **18 21 39.2** | **-0.2** |
| **BZS** | **Buzias** | **77.50** | **316** | ⇓P | **P** | **18 21 39.2** | **-0.2** |
| **CRVS** | **Cervenica-Dubn** | **78.24** | **320** | *e*P | **P** | **18 21 45.9** | **+2.4** |
| **CRVS** | **Cervenica-Dubn** | **78.24** | **320** | *e*P | **P** | **18 21 45.9** | **+2.4** |
| **STHS** | **Stebnicka Huta** | **78.49** | **320** | *e*P | **P** | **18 21 46.7** | **+1.9** |
| STHS | | | | *e* | | 18 21 56.2 | |
| STHS | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.9s | | | | | | |
| **STHS** | **Stebnicka Huta** | **78.49** | **320** | *e*P | **P** | **18 21 46.7** | **+1.9** |
| STHS | | | | *e* | | 18 21 56.2 | |
| **KECS** | **Kecovo** | **78.80** | **319** | *e*P | **P** | **18 21 47.2** | **+0.7** |
| KECS | | | | *e* | | 18 21 57.1 | |
| KECS | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.8s | | | | | | |
| **KECS** | **Kecovo** | **78.80** | **319** | *e*P | **P** | **18 21 47.2** | **+0.7** |
| KECS | | | | *e* | | 18 21 57.1 | |
| **FINES** | **FINESS Array B** | **78.85** | **333** | P | **P** | **18 21 46.5** | **0.0** |
| | comp=Z,3.8nm,0.7s,baz=113,slow=4.4,SNR=8.7 | | | | | | |
| **PSZ** | **Piszkesteto** | **79.09** | **318** | ⇑*i*P | **P** | **18 21 48.6** | **+0.4** |
| **PSZ** | **Piszkesteto** | **79.09** | **318** | ⇑P | **P** | **18 21 48.6** | **+0.4** |
| **PSZ** | **Piszkesteto** | **79.09** | **318** | *e*P | **P** | **18 21 48.3** | **+0.1** |
| | comp=Z,7.9nm,0.8s | | | | | | |
| **OJC** | **Ojcow** | **79.56** | **321** | *e*P | **P** | **18 21 50.6** | **-0.1** |
| OJC | | | | pmax | pmax | | |
| | comp=Z,16nm,1.0s | | | | | | |
| **OJC** | **Ojcow** | **79.56** | **321** | *e*P | **P** | **18 21 50.6** | **-0.1** |
| | comp=Z,16nm,1.0s | | | | | | |
| **VYHS** | **Vyhne** | **79.88** | **319** | *e*P | **P** | **18 21 52.9** | **+0.4** |
| **VYHS** | **Vyhne** | **79.88** | **319** | *e*P | **P** | **18 21 52.9** | **+0.4** |
| **OKC** | **Ostrava-Krasne** | **80.54** | **320** | *e*P | **P** | **18 21 56.9** | **+0.9** |
| OKC | | | | *e*pP | **pP** | **18 22 06.7** | **-0.2** |
| **OKC** | **Ostrava-Krasne** | **80.54** | **320** | *e*P | **P** | **18 21 56.9** | **+0.9** |
| OKC | | | | *e* | | 18 22 06.7 | |
| **MODS** | **Modra-Piesok** | **80.89** | **319** | *e*P | **P** | **18 21 58.5** | **+0.6** |
| **MODS** | **Modra-Piesok** | **80.89** | **319** | *e*P | **P** | **18 21 58.5** | **+0.6** |
| **OXZ** | **Oxford** | **81.44** | **134** | *e*P | **P** | **18 21 56.7** | **-4.2** |
| | comp=Z,44nm,0.3s | | | | | | |
| **ARCES** | **ARCESS Array B** | **81.63** | **341** | P | **P** | **18 22 01.8** | **+0.4** |
| | comp=Z,6.3nm,0.9s,baz=94,slow=5.3,SNR=14 | | | | | | |
| **CONA** | **Conrad Observa** | **81.77** | **318** | *i*P | **P** | **18 22 02.2** | **-0.5** |
| | comp=Z,3.4nm,0.9s | | | | | | |
| **DPC** | **Dobruska-Polom** | **81.78** | **321** | *e*P | **P** | **18 22 03.5** | **+0.9** |
| DPC | | | | *e*pP | **pP** | **18 22 13.1** | **-0.4** |
| **DPC** | **Dobruska-Polom** | **81.78** | **321** | *e*P | **P** | **18 22 03.5** | **+0.9** |
| DPC | | | | *e* | | 18 22 13.1 | |
| **ARSA** | **Arzberg** | **81.92** | **317** | *i*P | **P** | **18 22 03.5** | **+0.1** |
| | comp=Z,5.9nm,0.8s | | | | | | |
| **UPC** | **Upice** | **82.00** | **321** | *e*P | **P** | **18 22 04.6** | **+0.9** |
| UPC | | | | *e*pP | **pP** | **18 22 14.5** | **-0.1** |
| **UPC** | **Upice** | **82.00** | **321** | *e*P | **P** | **18 22 04.6** | **+0.9** |
| UPC | | | | *e* | | 18 22 14.5 | |
| **SOKA** | **Soboth** | **82.19** | **317** | *i*P | **P** | **18 22 05.6** | **+0.7** |
| | comp=Z,13nm,1.4s | | | | | | |
| **OBKA** | **Obir** | **82.50** | **317** | *i*P | **P** | **18 22 06.7** | **+0.2** |
| | comp=Z,15nm,1.5s | | | | | | |
| **MOA** | **Molln** | **82.83** | **318** | *e*P | **P** | **18 22 07.6** | **-0.5** |
| | comp=Z,4.9nm,1.3s | | | | | | |
| **PRU** | **Pruhonice** | **82.87** | **320** | *e*P | **P** | **18 22 09.2** | **+0.9** |
| PRU | | | | *e*pP | **pP** | **18 22 18.6** | **-0.6** |
| **PRU** | **Pruhonice** | **82.87** | **320** | *e*P | **P** | **18 22 09.2** | **+0.9** |
| PRU | | | | *e* | | 18 22 18.6 | |
| **PVCC** | **Panska Ves** | **82.91** | **321** | *e*P | **P** | **18 22 09.3** | **+0.8** |
| PVCC | | | | *e*pP | **pP** | **18 22 19.0** | **-0.4** |
| **PVCC** | **Panska Ves** | **82.91** | **321** | *e*P | **P** | **18 22 09.3** | **+0.8** |
| PVCC | | | | *e* | | 18 22 19.0 | |
| **MYKA** | **Terra Mystica** | **83.14** | **317** | *i*P | **P** | **18 22 10.1** | **+0.3** |
| | comp=Z,6.0nm,1.0s | | | | | | |
| **GEA0** | **GERESS Array S** | **83.30** | **319** | *e*P | **P** | **18 22 10.4** | **-0.2** |
| **GEC2** | **GERESS Array S** | **83.30** | **319** | *e*P | **P** | **18 22 10.5** | **-0.2** |
| GEC2 | | | | pmax | pmax | | |
| | comp=Z,12nm,0.9s | | | | | | |
| **GEC2** | **GERESS Array S** | **83.30** | **319** | *e*P | **P** | **18 22 10.4** | **-0.2** |
| | comp=Z,12nm,0.9s | | | | | | |
| **GERES** | **GERESS Array B** | **83.30** | **319** | P | **P** | **18 22 11.2** | **+0.5** |
| | comp=Z,4.6nm,0.9s,baz=98,slow=5.5,SNR=16 | | | | | | |
| **BRG** | **Berggiesshubel** | **83.35** | **321** | *e*P | **P** | **18 22 11.2** | **+0.5** |
| | comp=Z,11nm,1.2s | | | | | | |
| **BRG** | **Berggiesshubel** | **83.35** | **321** | *e*P | **P** | **18 22 11.2** | **+0.5** |
| BRG | | | | pmax | pmax | | |
| | comp=Z,11nm,1.2s | | | | | | |
| **KBA** | **Koelnbreinsper** | **83.38** | **317** | *i*P | **P** | **18 22 11.2** | **0.0** |
| | comp=Z,6.2nm,1.2s | | | | | | |
| **KHC** | **Kasperske Hory** | **83.41** | **319** | *e*P | **P** | **18 22 12.7** | **+1.6** |
| KHC | | | | *e*pP | **pP** | **18 22 22.5** | **+0.4** |
| **KHC** | **Kasperske Hory** | **83.41** | **319** | *e*P | **P** | **18 22 12.7** | **+1.6** |
| KHC | | | | *e* | | 18 22 22.5 | |
| **ABTA** | **Abfaltersbach** | **83.92** | **317** | *i*P | **P** | **18 22 14.3** | **+0.4** |
| | comp=Z,7.7nm,1.4s | | | | | | |
| **CLL** | **Collm** | **83.98** | **321** | *e*P | **P** | **18 22 14.0** | **+0.1** |
| **CLL** | **Collm** | **83.98** | **321** | *e*P | **P** | **18 22 14.0** | **+0.1** |
| **NKC** | **Novy Kostel** | **84.24** | **320** | *e*P | **P** | **18 22 16.7** | **+1.4** |
| NKC | | | | *e*pP | **pP** | **18 22 26.1** | **-0.2** |
| **NKC** | **Novy Kostel** | **84.24** | **320** | *e*P | **P** | **18 22 16.7** | **+1.4** |
| NKC | | | | *e* | | 18 22 26.1 | |
| **HFS** | **Hagfors** | **84.50** | **330** | P | **P** | **18 22 16.3** | **-0.1** |
| | comp=Z,7.4nm,0.9s,baz=129,slow=5.7,SNR=6.0 | | | | | | |
| **WTTA** | **Wattenberg** | **84.56** | **317** | *e*P | **P** | **18 22 17.6** | **+0.4** |
| | comp=Z,7.2nm,1.0s | | | | | | |
| **WATA** | **Walderalm** | **84.60** | **317** | *i*P | **P** | **18 22 16.8** | **-0.5** |
| | comp=Z,2.3nm,0.6s | | | | | | |
| **MOTA** | **Moosalm** | **84.92** | **317** | *i*P | **P** | **18 22 18.7** | **-0.3** |
| | comp=Z,6.2nm,0.8s | | | | | | |
| **FETA** | **Feichten** | **85.16** | **317** | *i*P | **P** | **18 22 20.7** | **+0.5** |
| | comp=Z,8.6nm,1.8s | | | | | | |
| **RETA** | **Reutte** | **85.16** | **317** | *i*P | **P** | **18 22 19.7** | **-0.4** |
| | comp=Z,12nm,1.7s | | | | | | |
| **FUORN** | **Ofenpass-Fuorn** | **85.46** | **316** | *e*P | **P** | **18 22 21.5** | **-0.3** |
| | comp=Z,14nm,1.0s | | | | | | |
| **DAVOX** | **Davos/Dischmat** | **85.73** | **317** | P | **P** | **18 22 22.9** | **-0.2** |
| | comp=Z,7.6nm,0.8s,baz=116,slow=6.2,SNR=12 | | | | | | |
| **DAVA** | **Damuels** | **85.75** | **317** | *i*P | **P** | **18 22 22.5** | **-0.6** |
| | comp=Z,12nm,1.3s | | | | | | |
| **KEST** | **Kesra** | **85.78** | **306** | P | **P** | **18 22 23.2** | **-0.2** |
| | comp=Z,5.6nm,0.9s,baz=45,slow=1.4,SNR=7.0 | | | | | | |
| **NB2** | **NORSAR Subarra** | **85.81** | **331** | P | **P** | **18 22 22.3** | **-0.7** |
| | comp=Z,6.0nm,0.9s,baz=94,slow=5.3 | | | | | | |
| **NOA** | **NORSAR Array B** | **85.81** | **331** | P | **P** | **18 22 22.9** | **-0.1** |
| | comp=Z,3.4nm,0.9s,baz=91,slow=5.7,SNR=3.7 | | | | | | |
| **TOA0** | **Torodi Ar. Sit** | **93.08** | **283** | *e*P | **P** | **18 22 57.5** | **-0.7** |
| **TORD** | **Torodi Ar. Bea** | **93.08** | **283** | P | **P** | **18 22 58.5** | **+0.3** |
| | comp=Z,2.9nm,1.1s,baz=73,slow=3.6,SNR=10 | | | | | | |
| **SNAA** | **Sanae** | **93.90** | **198** | *e*P | **P** | **18 23 02.8** | **+1.9** |
| **DAG** | **Danmarks Havn** | **93.93** | **348** | *i*P | P | 18 23 10.0 | +9.1 |
| DAG | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.8s | | | | | | |
| **DAG** | **Danmarks Havn** | **93.93** | **348** | *i*P | P | 18 23 10.0 | +9.1 |
| | comp=Z,4.1nm,0.8s | | | | | | |
| **ULM** | **Lac du Bonnet** | **127.63** | **9** | PKP | **PKPdf** | **18 28 48.0** | **-0.9** |
| | comp=Z,4.4nm,0.9s,baz=307,slow=5.1,SNR=4.6 | | | | | | |
| **PDAR** | **Pinedale Array** | **130.66** | **24** | PKP | **PKPdf** | **18 28 54.3** | **-0.9** |
| | comp=Z,0.9nm,0.9s,baz=143,slow=0.5,SNR=6.5 | | | | | | |
| **CPUP** | **Villa Florida** | **143.81** | **225** | PKP | PKPbc | 18 29 17.7 | +0.5 |
| | comp=Z,7.8nm,0.8s,baz=128,slow=2.9,SNR=16 | | | | | | |
| **TXAR** | **Lajitas Array** | **144.47** | **29** | PKP | PKPbc | 18 29 19.6 | +0.3 |
| | comp=Z,2.6nm,1.0s,baz=290,slow=3.6,SNR=14 | | | | | | |
| **RPN** | **Rapa Nui** | **145.29** | **139** | *i*PKIKP | **PKPdf** | **18 29 25.3** | **+3.2** |
| **LPAZ** | **La Paz** | **157.92** | **227** | PKP | **PKPdf** | **18 29 42.1** | **0.0** |
| | comp=Z,1.5nm,0.9s,baz=38,slow=4.0,SNR=5.1 | | | | | | |

---

*SJA **04** 18:18:03.4±0.8, 31.°92S×72.°76W, h60km, ML4.1, MW3.9*
*GUC **04** 18:18:05.0±0.4, 31.°67S×72.°28W, h26km±2km, ML3.8*
**ISC 04 18:18:04.1**±2.4, **31.°81S**±0.°05×**72.°8W**±0.°1, **h35**km, **n19,** σ**2.s04**/32, **Off coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ROC1** | **El Roble** | **1.94** | **127** | *e*P | **Pn** | **18 18 34.5** | **-0.2** |
| ROC1 | | | | *e*S | **Sn** | **18 18 57.2** | **-0.8** |
| **ROCH** | **El Roble** | **1.94** | **127** | *e*P | **Pn** | **18 18 34.5** | **-0.3** |
| ROCH | | | | *e*S | **Sn** | **18 18 56.7** | **-1.3** |
| ROCH | | | | IAML | | 18 18 59.6 | |
| | comp=N,1μm,0.4s | | | | | | |
| **PEL** | **Peldehue** | **2.26** | **127** | *e*P | **Pn** | **18 18 38.9** | **-0.1** |
| PEL | | | | *e*S | **Sn** | **18 19 04.8** | **-0.9** |
| PEL | | | | IAML | | 18 19 09.4 | |
| | comp=E,900nm,0.8s | | | | | | |
| **TLL** | **Tololo Astrono** | **2.40** | **48** | *e*P | **Pn** | **18 18 38.8** | **-2.3** |
| TLL | | | | *e*S | **Sn** | **18 19 04.3** | **-5.0** |
| TLL | | | | IAML | | 18 19 08.4 | |
| | comp=N,2μm,0.4s | | | | | | |
| **FCH** | **Farellones** | **2.64** | **126** | *e*P | **Pn** | **18 18 44.6** | **+0.2** |
| **AUSP** | **Uspallata** | **2.97** | **99** | *e*P | **Pn** | **18 18 48.3** | **-0.6** |
| AUSP | | | | *e*S | **Sn** | **18 19 21.3** | **-2.2** |
| **LMEL** | **Las Melosas** | **3.01** | **133** | *e*P | **Pn** | **18 18 50.3** | **+0.8** |
| LMEL | | | | *e*S | **Sn** | **18 19 24.9** | **+0.4** |
| **RTLS** | **Leoncito** | **3.02** | **91** | *e*P | **Pn** | **18 18 49.5** | **-0.2** |
| RTLS | | | | *e*S | **Sn** | **18 19 21.3** | **-3.6** |
| RTLS | | | | IAML | | 18 19 23.1 | |
| | comp=Z,596nm,0.6s | | | | | | |
| **LCO** | **Las Campanas** | **3.35** | **34** | *e*P | **Pn** | **18 18 56.8** | **+2.6** |
| LCO | | | | *e*S | **Sn** | **18 19 36.7** | **+3.9** |
| **LCO** | **Las Campanas** | **3.35** | **34** | *e*P | **Pn** | **18 18 52.9** | **-1.3** |
| **SJA** | **San Juan** | **3.66** | **87** | *e*P | **Pn** | **18 18 59.9** | **+1.6** |
| SJA | | | | *e*S | **Sn** | **18 19 41.2** | **+0.9** |
| **RTLL** | **Cerro Villicun** | **3.76** | **84** | *e*P | **Pn** | **18 19 00.1** | **+0.4** |
| RTLL | | | | *e*S | **Sn** | **18 19 42.8** | **0.0** |
| **AMOG** | **MOGNA** | **3.82** | **78** | *e*P | **Pn** | **18 19 00.2** | **-0.3** |
| AMOG | | | | *e*S | **Sn** | **18 19 47.5** | **+3.2** |
| **AGUA** | **GUANDACOL** | **4.41** | **59** | *e*P | **Pn** | **18 19 09.9** | **+1.3** |
| **GO03** | **Copiap** | **4.77** | **29** | *e*P | **Pn** | **18 19 12.4** | **-1.2** |
| **ACAN** | **Cantantal** | **4.83** | **97** | *e*P | **Pn** | **18 19 14.8** | **+0.5** |
| ACAN | | | | *e*S | **Sn** | **18 20 13.5** | **+4.5** |
| **VCA** | **Vinchina** | **5.05** | **54** | *e*P | **Pn** | **18 19 19.7** | **+2.3** |
| VCA | | | | IAML | | 18 20 27.2 | |
| | comp=Z,104nm,0.6s | | | | | | |
| **APLL** | **PUNTA DE LOS L** | **5.60** | **77** | *e*P | **Pn** | **18 19 24.3** | **-0.6** |
| **ACLC** | **CERRO LA CRUZ** | **5.61** | **66** | *e*P | **Pn** | **18 19 24.5** | **-0.7** |
| ACLC | | | | *e*S | **Sn** | **18 20 27.5** | **-0.9** |

---

*CSEM **04** 18:23:53.9±0.2, 38.°79N×43.°24E, h18km±2km, MD2.3,*
*Error ellipse: s-maj=5.5km s-min=4.4km az=92.0*
*ISK **04** 18:23:53.6, 38.°77N×43.°24E, h17km, MD2.3*
*ISCJB **04** 18:23:54.4±0.8, 38.°77N±0.°04×43.°22E±0.°06, h23km±10km,*
*Error ellipse: s-maj=8.0km s-min=5.9km az=175.8*
*DDA **04** 18:23:54.1, 38.°78N×43.°22E, h7km, Ml2.6*
**ISC 04 18:23:54.2**±1.4, **38.°77N**±0.°03×**43.°24E**±0.°04, **h25**km±11km, **n20,** σ**0.s60**/31, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.21** | **147** | *e*PG | **Pb** | **18 24 00.1** | **0.0** |
| VANB | | | | *e*SG | **Sb** | **18 24 05.1** | **+1.1** |
| **VANB** | **Van** | **0.21** | **147** | *e*Pg | **Pb** | **18 24 00.1** | **0.0** |
| VANB | | | | *e*Sg | **Sb** | **18 24 05.1** | **+1.1** |
| **TVAN** | **Van** | **0.27** | **152** | *i*P | **Pb** | **18 24 00.1** | **-0.9** |
| TVAN | | | | *i*S | **Sb** | **18 24 05.3** | **-0.3** |
| **TVAN** | **Van** | **0.27** | **152** | P | **Pb** | **18 24 00.1** | **-0.9** |
| TVAN | | | | S | **Sb** | **18 24 05.3** | **-0.3** |
| **VMUR** | **Van-Muradiye** | **0.34** | **49** | *i*P | **Pb** | **18 24 01.4** | **-0.6** |
| VMUR | | | | *i*S | **Sb** | **18 24 07.4** | **+0.2** |
| **VMUR** | **Van-Muradiye** | **0.34** | **49** | P | **Pb** | **18 24 01.4** | **-0.6** |
| VMUR | | | | S | **Sb** | **18 24 07.4** | **+0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.41** | **276** | *i*P | **Pb** | **18 24 02.9** | **-0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.41** | **276** | P | **Pb** | **18 24 02.9** | **-0.1** |
| **GEVA** | **Gevas** | **0.48** | **198** | *i*P | **Pb** | **18 24 03.3** | **-0.9** |
| **GEVA** | **Gevas** | **0.48** | **198** | P | **Pb** | **18 24 03.3** | **-0.9** |
| **CLDR** | **Caldiran** | **0.65** | **54** | *e*PG | **Pb** | **18 24 06.8** | **-0.2** |
| CLDR | | | | *e*SG | **Sb** | **18 24 16.4** | **+0.7** |
| **CLDR** | **Caldiran** | **0.65** | **54** | *i*P | **Pb** | **18 24 06.1** | **-0.9** |
| CLDR | | | | *i*S | **Sb** | **18 24 16.2** | **+0.5** |
| **CLDR** | **Caldiran** | **0.65** | **54** | P | **Pb** | **18 24 06.1** | **-0.9** |
| **CLDR** | **Caldiran** | **0.65** | **54** | *e*Pg | **Pb** | **18 24 06.8** | **-0.2** |
| CLDR | | | | *e*Sg | **Sb** | **18 24 16.4** | **+0.7** |
| **TUTA** | **Tutak** | **0.71** | **332** | *i*P | **Pb** | **18 24 07.8** | **-0.4** |
| TUTA | | | | *i*S | **Sb** | **18 24 17.7** | **0.0** |
| **TUTA** | **Tutak** | **0.71** | **332** | P | **Pb** | **18 24 07.8** | **-0.4** |
| TUTA | | | | S | **Sb** | **18 24 17.7** | **0.0** |
| **AGRB** | **Hanur-Agry** | **0.83** | **346** | *e*PG | **Pb** | **18 24 10.1** | **0.0** |
| **AGRB** | **Hanur-Agry** | **0.83** | **346** | *e*Pg | **Pb** | **18 24 10.1** | **0.0** |
| **HAKT** | **HAKKARI** | **1.26** | **163** | *i*P | **Pb** | **18 24 17.9** | **+0.4** |
| **HAKT** | **HAKKARI** | **1.26** | **163** | P | **Pb** | **18 24 17.9** | **+0.4** |

---

**DJA 04 18:28:21.8**±0.4, **2°S**±2°×**12°0E**±°, **h10**km, **M3.1**/5, **MLv3.1**/5, **Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **APSI** | **Ampana** | **1.51** | **67** | P | Pn | 18 28 48.9 | 0.0 |
| APSI | | | | S | Sg | 18 29 11.1 | +0.8 |
| **TTSI** | **Tana Toraja** | **1.60** | **196** | P | Pn | 18 28 48.9 | -1.2 |
| TTSI | | | | S | Sn | 18 29 11.1 | +0.3 |
| **MPSI** | **Mapaga** | **1.86** | **349** | P | Pn | 18 28 53.7 | -0.1 |
| MPSI | | | | S | Sn | 18 29 17.9 | +0.6 |
| **SPSI** | **Sidrap Palu** | **2.50** | **191** | P | Pn | 18 29 03.1 | +0.6 |
| SPSI | | | | S | Sn | 18 29 34.5 | +1.4 |
| **LUWI** | **Luwuk** | **2.55** | **80** | P | Pn | 18 29 02.9 | -0.4 |
| LUWI | | | | S | Sb | 18 29 38.2 | -1.0 |

---

*TIF **04** 18:29:46.3, 43.°34N×45.°79E, h25km±3km*
*ISCJB **04** 18:29:48.3±0.5, 43.°18N±0.°03×45.°79E±0.°03, h96km±5km,*
*Error ellipse: s-maj=5.9km s-min=2.6km az=21.9*
*CSEM **04** 18:29:48.6±0.2, 43.°18N×45.°80E, h95km±2km, mb3.9,*
*Error ellipse: s-maj=4.5km s-min=2.1km az=22.0*
*MOS **04** 18:29:48.7±0.5, 43.°12N×45.°76E, h84km, mb3.9/1, Error ellipse: s-maj=8.6km s-min=5.9km az=40.2*
**ISC 04 18:29:48.9**±1.1, **43.°19N**±0.°03×**45.°80E**±0.°02, **h93**km±6km, **n86,** σ**1.s03**/154, **5C-13D, Eastern Caucasus**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DVE** | **Vedeno** | **0.34** | **135** | *e*P | **Pn** | **18 30 02.0** | **-1.0** |
| DVE | | | | *e*S | **Sn** | **18 30 11.8** | **-1.6** |
| **DVE** | **Vedeno** | **0.34** | **135** | *e*P | **Pn** | **18 30 02.0** | **-1.0** |
| DVE | | | | *e*S | **Sn** | **18 30 11.8** | **-1.6** |
| **BTLR** | **Botlikh** | **0.61** | **150** | ⇓*i*P | **Pn** | **18 30 04.4** | **-0.6** |
| BTLR | | | | *i*S | **Sn** | **18 30 15.9** | **-1.1** |
| **BTLR** | **Botlikh** | **0.61** | **150** | *i*P | **Pn** | **18 30 04.4** | **-0.6** |
| BTLR | | | | *i*S | **Sn** | **18 30 15.9** | **-1.1** |
| **KMGR** | **Komgaron** | **0.70** | **259** | ⇓*i*P | **Pn** | **18 30 06.0** | **+0.3** |
| KMGR | | | | *e*S | **Sn** | **18 30 19.7** | **+1.4** |
| **KMGR** | **Komgaron** | **0.70** | **259** | *i*P | **Pn** | **18 30 06.0** | **+0.3** |
| KMGR | | | | *e*S | **Sn** | **18 30 19.7** | **+1.4** |
| **DBC** | **Dubki** | **0.77** | **103** | *e*P | **Pn** | **18 30 06.4** | **-0.1** |
| DBC | | | | *e*S | **Sn** | **18 30 18.8** | **-0.8** |
| **DBC** | **Dubki** | **0.77** | **103** | *e*P | **Pn** | **18 30 06.4** | **-0.1** |
| DBC | | | | *e*S | **Sn** | **18 30 18.8** | **-0.8** |
| **VLKR** | **Vladikavkaz** | **0.84** | **260** | ⇓*i*P | **Pn** | **18 30 07.2** | **+0.1** |
| VLKR | | | | *e*S | **Sn** | **18 30 21.5** | **+0.8** |
| **VLKR** | **Vladikavkaz** | **0.84** | **260** | *i*P | **Pn** | **18 30 07.2** | **+0.1** |
| VLKR | | | | *e*S | **Sn** | **18 30 21.5** | **+0.8** |
| **UNCR** | **Uncukul** | **0.87** | **123** | ⇑*i*P | **Pn** | **18 30 07.0** | **-0.5** |
| UNCR | | | | *e*S | **Sn** | **18 30 21.0** | **-0.4** |
| UNCR | | | | pmax | pmax | | |
| | comp=Z,50nm,0.2s | | | | | | |
| **UNCR** | **Uncukul** | **0.87** | **123** | *i*P | **Pn** | **18 30 07.0** | **-0.5** |
| | comp=Z,50nm,0.2s | | | | | | |
| UNCR | | | | *e*S | **Sn** | **18 30 21.0** | **-0.4** |
| **KRNR** | **Karanay** | **0.89** | **114** | ⇓*i*P | **Pn** | **18 30 07.2** | **-0.5** |
| KRNR | | | | *i*S | **Sn** | **18 30 21.2** | **-0.6** |
| KRNR | | | | pmax | pmax | | |
| | comp=Z,26nm,0.2s | | | | | | |
| **KRNR** | **Karanay** | **0.89** | **114** | *i*P | **Pn** | **18 30 07.2** | **-0.5** |
| | comp=Z,26nm,0.2s | | | | | | |
| KRNR | | | | *i*S | **Sn** | **18 30 21.2** | **-0.6** |
| **XNZR** | **Khunzakh** | **0.93** | **134** | *e*P | **Pn** | **18 30 08.1** | **-0.1** |
| XNZR | | | | *e*S | **Sn** | **18 30 22.5** | **-0.2** |
| **XNZR** | **Khunzakh** | **0.93** | **134** | *e*P | **Pn** | **18 30 08.1** | **-0.1** |
| XNZR | | | | *e*S | **Sn** | **18 30 22.5** | **-0.2** |
| **BTKR** | **Batakoyurt** | **0.94** | **281** | *e*P | **Pn** | **18 30 08.2** | **+0.1** |
| BTKR | | | | *e*S | **Sn** | **18 30 23.6** | **+1.0** |
| **BTKR** | **Batakoyurt** | **0.94** | **281** | *e*P | **Pn** | **18 30 08.2** | **+0.1** |
| BTKR | | | | *e*S | **Sn** | **18 30 23.6** | **+1.0** |
| **TRKR** | **Terskaya** | **0.94** | **305** | ⇑*i*P | **Pn** | **18 30 08.7** | **+0.6** |
| TRKR | | | | *i*S | **Sn** | **18 30 24.4** | **+1.8** |
| **TRKR** | **Terskaya** | **0.94** | **305** | *i*P | **Pn** | **18 30 08.7** | **+0.6** |
| TRKR | | | | *i*S | **Sn** | **18 30 24.4** | **+1.8** |
| **BUJR** | **Buynaksk** | **1.03** | **111** | *e*P | **Pn** | **18 30 09.5** | **+0.4** |
| BUJR | | | | *e*S | **Sn** | **18 30 26.0** | **+1.7** |
| **BUJR** | **Buynaksk** | **1.03** | **111** | *e*P | **Pn** | **18 30 09.5** | **+0.4** |
| BUJR | | | | *e*S | **Sn** | **18 30 26.0** | **+1.7** |
| **ARKR** | **Arakani** | **1.06** | **124** | *i*P | **Pn** | **18 30 09.4** | **-0.1** |
| ARKR | | | | *i*S | **Sn** | **18 30 25.0** | **0.0** |
| **ARKR** | **Arakani** | **1.06** | **124** | *i*P | **Pn** | **18 30 09.4** | **-0.1** |
| ARKR | | | | *i*S | **Sn** | **18 30 25.0** | **0.0** |
| **ARNR** | **Ardon** | **1.11** | **270** | ⇑*i*P | **Pn** | **18 30 10.4** | **+0.3** |
| ARNR | | | | *e*S | **Sn** | **18 30 25.9** | **-0.1** |
| **ARNR** | **Ardon** | **1.11** | **270** | *i*P | **Pn** | **18 30 10.4** | **+0.3** |
| ARNR | | | | *e*S | **Sn** | **18 30 25.9** | **-0.1** |
| **LACR** | **Lac** | **1.16** | **252** | ⇓*i*P | **Pn** | **18 30 09.8** | **-1.0** |
| LACR | | | | *i*S | **Sn** | **18 30 25.7** | **-1.6** |
| **LACR** | **Lac** | **1.16** | **252** | *i*P | **Pn** | **18 30 09.8** | **-1.0** |
| LACR | | | | *i*S | **Sn** | **18 30 25.7** | **-1.6** |
| **GNBR** | **Gunib** | **1.18** | **133** | ⇓*i*P | **Pn** | **18 30 10.3** | **-0.6** |
| GNBR | | | | *e*S | **Sn** | **18 30 27.4** | **0.0** |
| **GNBR** | **Gunib** | **1.18** | **133** | *i*P | **Pn** | **18 30 10.3** | **-0.6** |
| GNBR | | | | *e*S | **Sn** | **18 30 27.4** | **0.0** |
| **GUDG** | **Gudauri** | **1.22** | **234** | P | **Pn** | **18 30 11.3** | **-0.2** |
| GUDG | | | | S | **Sn** | **18 30 28.5** | **-0.1** |
| **GUDG** | **Gudauri** | **1.22** | **234** | P | **Pn** | **18 30 11.3** | **-0.2** |
| GUDG | | | | S | **Sn** | **18 30 28.5** | **-0.1** |
| **PRTR** | **Priterechnaya** | **1.24** | **297** | ⇑*i*P | **Pn** | **18 30 12.2** | **+0.7** |
| PRTR | | | | *i*S | **Sn** | **18 30 30.5** | **+1.9** |
| **PRTR** | **Priterechnaya** | **1.24** | **297** | *i*P | **Pn** | **18 30 12.2** | **+0.7** |
| PRTR | | | | *i*S | **Sn** | **18 30 30.5** | **+1.9** |
| **MAK** | **Makhachkala** | **1.27** | **100** | *e*P | Pn | 18 30 24.6 | +13 |
| MAK | | | | *e* | | 18 30 32.8 | |
| MAK | | | | pmax | pmax | | |
| | comp=Z,37nm,0.3s | | | | | | |
| MAK | | | | smax | smax | | |
| | comp=E,217nm,0.4s | | | | | | |
| MAK | | | | smax | smax | | |
| | comp=E,235nm,0.6s | | | | | | |
| **KORR** | **Kora** | **1.27** | **266** | *e*P | **Pn** | **18 30 11.8** | **-0.2** |
| KORR | | | | *e*S | **Sn** | **18 30 29.5** | **0.0** |
| **KORR** | **Kora** | **1.27** | **266** | *e*P | **Pn** | **18 30 11.8** | **-0.2** |
| KORR | | | | *e*S | **Sn** | **18 30 29.5** | **0.0** |
| **STDR** | **Stavd-Durt** | **1.28** | **278** | ⇓*i*P | **Pn** | **18 30 12.5** | **+0.4** |
| STDR | | | | *e*S | **Sn** | **18 30 30.3** | **+0.7** |
| **STDR** | **Stavd-Durt** | **1.28** | **278** | *i*P | **Pn** | **18 30 12.5** | **+0.4** |
| STDR | | | | *e*S | **Sn** | **18 30 30.3** | **+0.7** |
| **DUS** | **Dusheti** | **1.37** | **217** | P | **Pn** | **18 30 13.5** | **+0.2** |
| DUS | | | | S | **Sn** | **18 30 33.8** | **+2.2** |
| **DUS** | **Dusheti** | **1.37** | **217** | P | **Pn** | **18 30 13.4** | **+0.2** |
| DUS | | | | S | **Sn** | **18 30 33.8** | **+2.2** |
| **DUS** | **Dusheti** | **1.37** | **217** | P | **Pn** | **18 30 13.4** | **+0.2** |
| DUS | | | | S | **Sn** | **18 30 33.8** | **+2.2** |
| **KMKR** | **Kumukh** | **1.43** | **138** | *e*P | **Pn** | **18 30 14.0** | **-0.1** |
| KMKR | | | | *e*S | **Sn** | **18 30 33.0** | **-0.2** |
| KMKR | | | | pmax | pmax | | |
| | comp=Z,50nm,0.3s | | | | | | |
| **KMKR** | **Kumukh** | **1.43** | **138** | *e*P | **Pn** | **18 30 14.0** | **-0.1** |
| | comp=Z,50nm,0.3s | | | | | | |
| KMKR | | | | *e*S | **Sn** | **18 30 33.0** | **-0.2** |
| **LSNR** | **Lesken** | **1.45** | **274** | ⇓*i*P | **Pn** | **18 30 14.1** | **0.0** |
| LSNR | | | | *e*S | **Sn** | **18 30 33.5** | **+0.2** |
| **LSNR** | **Lesken** | **1.45** | **274** | *i*P | **Pn** | **18 30 14.1** | **0.0** |
| LSNR | | | | *e*S | **Sn** | **18 30 33.5** | **+0.2** |
| **ZEI** | **Tsey** | **1.45** | **254** | ⇓*i*P | **Pn** | **18 30 13.0** | **-1.4** |
| ZEI | | | | *e*S | **Sn** | **18 30 31.8** | **-1.9** |
| **ZEI** | **Tsey** | **1.45** | **254** | *i*P | **Pn** | **18 30 13.0** | **-1.4** |
| ZEI | | | | *e*S | **Sn** | **18 30 31.8** | **-1.9** |
| **SEAG** | **Tbilisi Sea** | **1.61** | **208** | P | **Pn** | **18 30 16.3** | **+0.1** |
| SEAG | | | | S | **Sn** | **18 30 37.0** | **+0.1** |
| **SEAG** | **Tbilisi Sea** | **1.61** | **208** | P | **Pn** | **18 30 16.3** | **+0.1** |
| **NCK** | **Nalchik** | **1.64** | **281** | ⇓*i*P | **Pn** | **18 30 16.8** | **+0.3** |
| NCK | | | | *e*S | **Sn** | **18 30 37.6** | **+0.1** |
| **NCK** | **Nalchik** | **1.64** | **281** | *i*P | **Pn** | **18 30 16.8** | **+0.3** |
| NCK | | | | *e*S | **Sn** | **18 30 37.6** | **+0.1** |
| **DIGR** | **Digorskoe uzhe** | **1.65** | **260** | ⇓*i*P | **Pn** | **18 30 15.7** | **-1.2** |
| DIGR | | | | *e*S | **Sn** | **18 30 36.6** | **-1.6** |
| **DIGR** | **Digorskoe uzhe** | **1.65** | **260** | *i*P | **Pn** | **18 30 15.7** | **-1.2** |
| DIGR | | | | *e*S | **Sn** | **18 30 36.6** | **-1.6** |
| **TBLG** | **Delisi** | **1.66** | **209** | P | **Pn** | **18 30 16.5** | **-0.4** |
| TBLG | | | | S | **Sn** | **18 30 37.4** | **-0.7** |
| **TBLG** | **Delisi** | **1.66** | **209** | P | **Pn** | **18 30 16.4** | **-0.4** |
| TBLG | | | | S | **Sn** | **18 30 37.4** | **-0.7** |
| **TBLG** | **Delisi** | **1.66** | **209** | P | **Pn** | **18 30 16.5** | **-0.4** |
| TBLG | | | | S | **Sn** | **18 30 37.4** | **-0.7** |
| **ZKTA** | **Zakatala** | **1.67** | **158** | P | **Pn** | **18 30 16.2** | **-0.8** |
| **ZKTA** | **Zakatala** | **1.67** | **158** | P | **Pn** | **18 30 16.2** | **-0.8** |
| **URKR** | **Urkarakh** | **1.70** | **127** | *e*P | **Pn** | **18 30 18.0** | **+0.6** |
| URKR | | | | *i*S | **Sn** | **18 30 40.5** | **+1.4** |
| **URKR** | **Urkarakh** | **1.70** | **127** | *e*P | **Pn** | **18 30 18.0** | **+0.6** |
| URKR | | | | *i*S | **Sn** | **18 30 40.5** | **+1.4** |
| **DDFL** | **Dedoflistskaro** | **1.76** | **172** | P | **Pn** | **18 30 19.7** | **+1.5** |
| DDFL | | | | S | **Sn** | **18 30 45.2** | **+4.8** |
| **ONI** | **Oni** | **1.83** | **252** | P | **Pn** | **18 30 19.3** | **+0.2** |
| ONI | | | | S | **Sn** | **18 30 43.5** | **+1.6** |
| **ONI** | **Oni** | **1.83** | **252** | P | **Pn** | **18 30 19.2** | **+0.2** |
| ONI | | | | S | **Sn** | **18 30 43.5** | **+1.6** |
| **ONI** | **Oni** | **1.83** | **252** | P | **Pn** | **18 30 19.2** | **+0.2** |
| ONI | | | | S | **Sn** | **18 30 43.5** | **+1.6** |
| **AKT** | **Akhty** | **2.23** | **139** | ⇓*i*P | **Pn** | **18 30 24.2** | **-0.1** |
| AKT | | | | *e* | | 18 30 50.1 | |
| AKT | | | | pmax | pmax | | |
| | comp=Z,18nm,0.2s | | | | | | |
| AKT | | | | smax | smax | | |
| | comp=E,78nm,0.3s | | | | | | |
| AKT | | | | smax | smax | | |
| | comp=E,69nm,0.2s | | | | | | |
| AKT | | | | smax | smax | | |
| | comp=N,77nm,0.4s | | | | | | |
| **AKT** | **Akhty** | **2.23** | **139** | *i*P | **Pn** | **18 30 24.2** | **-0.1** |
| | comp=N,18nm,0.2s | | | | | | |
| AKT | | | | *e*S | **Sn** | **18 30 50.1** | **-1.3** |
| | comp=N,77nm,0.4s | | | | | | |
| **SEKA** | **Sheki** | **2.24** | **152** | P | **Pn** | **18 30 23.4** | **-1.0** |
| **SEKA** | **Sheki** | **2.24** | **152** | P | **Pn** | **18 30 23.4** | **-1.0** |
| **NEY** | **Neytrino** | **2.25** | **272** | *e*P | **Pn** | **18 30 24.1** | **-0.5** |
| NEY | | | | *e*S | **Sn** | **18 30 50.5** | **-1.5** |
| **NEY** | **Neytrino** | **2.25** | **272** | *e*P | **Pn** | **18 30 24.1** | **-0.5** |
| NEY | | | | *e*S | **Sn** | **18 30 50.5** | **-1.5** |
| **BEYR** | **Belyy Ugol+** | **2.32** | **292** | *e*P | **Pn** | **18 30 24.8** | **-0.6** |
| BEYR | | | | *e*S | **Sn** | **18 30 51.4** | **-1.9** |
| **BEYR** | **Belyy Ugol+** | **2.32** | **292** | *e*P | **Pn** | **18 30 24.8** | **-0.6** |
| BEYR | | | | *e*S | **Sn** | **18 30 51.4** | **-1.9** |
| **SHA1** | **Shidzhatmaz** | **2.35** | **284** | ⇓*i*P | **Pn** | **18 30 25.3** | **-0.7** |
| SHA1 | | | | *e*S | **Sn** | **18 30 52.3** | **-2.2** |
| **SHA1** | **Shidzhatmaz** | **2.35** | **284** | *i*P | **Pn** | **18 30 25.3** | **-0.7** |
| SHA1 | | | | *e*S | **Sn** | **18 30 52.3** | **-2.2** |
| **KIV** | **Kislovodsk** | **2.39** | **290** | *i*P | **Pn** | **18 30 25.9** | **-0.5** |
| **KIV** | **Kislovodsk** | **2.39** | **290** | *i*P | **Pn** | **18 30 25.9** | **-0.5** |
| **GANJ** | **Ganja** | **2.58** | **171** | P | **Pn** | **18 30 27.5** | **-1.3** |
| **GANJ** | **Ganja** | **2.58** | **171** | P | **Pn** | **18 30 27.5** | **-1.3** |
| **GOF** | **Gofitskoye** | **2.72** | **314** | ⇑*i*P | **Pn** | **18 30 30.7** | **0.0** |
| GOF | | | | *e*S | **Sn** | **18 31 02.5** | **-0.4** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| GOF | | | | pmax | pmax | | |
| | comp=Z,23nm,0.3s | | | | | | |
| GOF | | | | smax | smax | | |
| | comp=N,95nm,0.4s | | | | | | |
| GOF | | | | smax | smax | | |
| | comp=E,96nm,0.4s | | | | | | |
| **GOF** | **Gofitskoye** | **2.72** | **314** | iP | **Pn** | **18 30 30.7** | **0.0** |
| | comp=E,23nm,0.3s | | | | | | |
| GOF | | | | eS | **Sn** | **18 31 02.5** | **-0.4** |
| | comp=E,95nm,0.4s | | | | | | |
| **GNI** | **Garni** | **3.14** | **195** | eP | **Pn** | **18 30 37.3** | **+0.7** |
| **GNI** | **Garni** | **3.14** | **195** | eP | **Pn** | **18 30 37.3** | **+0.7** |
| **ARU** | **Arti** | **15.56** | **27** | iP | **P** | **18 33 25.4** | **+0.4** |
| ARU | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.5s | | | | | | |
| **ARU** | **Arti** | **15.56** | **27** | iP | **P** | **18 33 25.4** | **+0.4** |
| | comp=Z,3.0nm,1.5s | | | | | | |
| **ESK** | **Eskdalemuir** | **33.51** | **309** | iP | P | 18 36 24.2 | +5.1 |

*DJA **04** 18:40:12.7±0.7, 5°S±8°×14°2E±°, h323km±9km, M4.9/5, mB4.6/1, mb4.5/5, MLv5.0/2, Mw(mB)3.8/1*
*IDC **04** 18:40:18.4±0.8, 5°.21S×140°.37E, h0km, mb4.2/8, mb1 4.3/13, mb1mx4.1/32, mbtmp4.2/13, ML4.0/4, MS3.1/1, Ms1 3.1/1, ms1mx2.7/29, Error ellipse: s-maj=29.0km s-min=16.7km az=62.0*
*BJI **04** 18:40:20.8, 5°.70S×140°.48E, h42km, mb4.6/31, mB5.1/19, Ms4.9/11, Ms7 4.5/11*
*ISCJB **04** 18:40:21.8±0.4, 5°.44S±0°.03×140°.27E±0°.06, h33km, mb4.5/20, MS4.3/3, Error ellipse: s-maj=8.1km s-min=4.4km az=2.1*
*NEIC **04** 18:40:25.2±1.1, 5°.43S×140°.24E, h49km±11km, mb4.6/8, Error ellipse: s-maj=10.6km s-min=7.9km az=50.0*
**ISC 04 18:40:23.6**±0.4**, 5°.49S**±0°.05×**140°.32E**±0°.06**, h35**km**, n66,** σ**2ˢ.06**/80**, mb4.6**/20**, MS4.3**/3**, 1C-1D, Irian Jaya**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GENI** | **Genyem** | **2.88** | **357** | P | **Pn** | **18 41 06.9** | **-0.2** |
| **MMPI** | **Merauke** | **2.96** | **179** | P | Pn | 18 41 20.2 | +12 |
| **JAY** | **Jayapura** | **2.98** | **7** | P | **Pn** | **18 41 05.3** | **-3.2** |
| **PMG** | **Port Moresby** | **7.82** | **120** | Pn | **Pn** | **18 42 15.7** | **+0.7** |
| | 0.7nm,0.3s,baz=311,slow=11,SNR=6.5 | | | | | | |
| PMG | | | | Sn | **Sn** | **18 43 41.8** | **-0.5** |
| | 0.9nm,0.3s,baz=316,slow=14,SNR=3.1 | | | | | | |
| PMG | | | | Lg | Lg | 18 44 29.9 | |
| | 0.4nm,0.3s,baz=164,slow=22,SNR=2.6 | | | | | | |
| PMG | | | | LR | LR | 18 45 43.5 | |
| | comp=Z,117nm,18.4s,baz=327,slow=41 | | | | | | |
| **PMG** | **Port Moresby** | **7.82** | **120** | ePn | **Pn** | **18 42 17.4** | **+2.4** |
| PMG | | | | Sn | **Sn** | **18 43 41.8** | **-0.5** |
| **FAKI** | **Fak Fak** | **8.44** | **287** | P | **Pn** | **18 42 24.5** | **+0.9** |
| **FAKI** | **Fak Fak** | **8.44** | **287** | ePn | **Pn** | **18 42 23.9** | **+0.3** |
| **COEN** | **Coen** | **8.87** | **162** | ePn | **Pn** | **18 42 31.1** | **+1.6** |
| **SAUI** | **Saumlaki** | **9.29** | **254** | P | **Pn** | **18 42 39.8** | **+4.6** |
| **SAUI** | **Saumlaki** | **9.29** | **254** | ePn | **Pn** | **18 42 35.9** | **+0.7** |
| **BNDI** | **Bandanaira** | **10.42** | **275** | P | **Pn** | **18 42 54.0** | **+3.3** |
| **MTN** | **Manton Dam** | **11.64** | **230** | ePn | **Pn** | **18 43 08.0** | **+0.5** |
| **SANI** | **Sanana** | **14.70** | **283** | P | **Pn** | **18 43 47.3** | **-1.9** |
| **WRAB** | **Tennant Creek** | **15.49** | **201** | ePn | **Pn** | **18 43 59.2** | **-0.4** |
| | 22nm,0.6s | | | | | | |
| **WB2** | **Warramunga Arr** | **15.50** | **201** | ePn | **Pn** | **18 43 59.1** | **-0.6** |
| | 24nm,0.5s | | | | | | |
| **WRA** | **Warramunga Arr** | **15.50** | **202** | Pn | **Pn** | **18 44 00.5** | **+0.7** |
| | 1.0nm,0.3s,baz=24,slow=13,SNR=31 | | | | | | |
| WRA | | | | Sn | **Sn** | **18 46 52.6** | **+2.1** |
| | 0.5nm,0.3s,baz=24,slow=22,SNR=5.0 | | | | | | |
| WRA | | | | Lg | Lg | 18 48 35.8 | |
| | 0.6nm,0.3s,baz=32,slow=30,SNR=5.5 | | | | | | |
| **CTA** | **Charters Tower** | **15.62** | **159** | Pn | **P** | **18 44 04.9** | **-0.2** |
| | 0.1nm,0.3s,baz=315,slow=17,SNR=2.7 | | | | | | |
| CTA | | | | Lg | Lg | 18 48 38.2 | |
| | 0.3nm,0.3s,baz=76,slow=18,SNR=3.4 | | | | | | |
| **SOEI** | **Soe** | **16.46** | **254** | P | **P** | **18 44 15.8** | **+1.2** |
| **SOEI** | **Soe** | **16.46** | **254** | ePn | **P** | **18 44 13.7** | **-1.0** |
| | 60nm,1.0s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **19.05** | **228** | Pn | **Pn** | **18 44 44.6** | **+0.6** |
| | 0.6nm,0.3s,baz=52,slow=10,SNR=18 | | | | | | |
| FITZ | | | | Sn | **Sn** | **18 48 08.6** | **-7.8** |
| | 0.8nm,0.3s,baz=137,slow=12,SNR=4.0 | | | | | | |
| **AS01** | **Alice Springs** | **19.08** | **198** | eP | **Pn** | **18 44 44.3** | **-0.1** |
| **AS31** | **Alice Springs** | **19.10** | **198** | eP | **Pn** | **18 44 46.1** | **+1.5** |
| | 4.0nm,0.6s | | | | | | |
| **ASAR** | **Alice Springs** | **19.10** | **198** | Pn | **Pn** | **18 44 45.8** | **+1.1** |
| | 0.6nm,0.3s,baz=26,slow=7.9,SNR=38 | | | | | | |
| ASAR | | | | Sn | **Sn** | **18 48 11.9** | **-5.8** |
| | 0.1nm,0.3s,baz=13,slow=29,SNR=4.0 | | | | | | |
| ASAR | | | | Lg | Lg | 18 50 32.7 | |
| | 0.1nm,0.3s,baz=20,slow=31,SNR=4.0 | | | | | | |
| **CTBH** | **Cotabato--PC H** | **20.41** | **308** | ⇓iP | **P** | **18 44 56.4** | **-1.5** |
| **MYLDM** | **Lahad Datu** | **24.23** | **296** | eP | **P** | **18 45 37.6** | **+0.2** |
| | 32nm,1.3s | | | | | | |
| **STKA** | **Stephens Creek** | **26.28** | **178** | P | **P** | **18 45 59.2** | **+3.3** |
| | 3.6nm,0.8s,baz=13,slow=8.2,SNR=5.5 | | | | | | |
| **MAJO** | **Matsushiro** | **41.86** | **357** | eP | **P** | **18 48 11.7** | **+1.3** |
| | 76nm,1.4s | | | | | | |
| **MJB9** | **Matsu-Tunnel** | **41.86** | **357** | eP | **P** | **18 48 11.7** | **+1.2** |
| | 80nm,1.4s | | | | | | |
| **NJ2** | **Nanjing** | **42.56** | **333** | eP | **P** | **18 48 15.3** | **-0.9** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,24nm,0.5s | | | | | | |
| **CHAI** | **Chaiyaphum** | **43.49** | **300** | P | **P** | **18 48 23.3** | **-0.7** |
| **WHN** | **Wuhan** | **43.61** | **327** | P | **P** | **18 48 26.6** | **+1.9** |
| **UTTA** | **Uttaradit** | **45.53** | **301** | P | **P** | **18 48 40.2** | **-0.1** |
| **CM01** | **Chiang Mai Arr** | **47.19** | **301** | eP | **P** | **18 48 52.2** | **-1.1** |
| **CM31** | **Chiang Mai Arr** | **47.22** | **301** | eP | **P** | **18 48 52.0** | **-1.6** |
| **CMAR** | **Chiang Mai Arr** | **47.22** | **301** | P | **P** | **18 48 53.0** | **-0.6** |
| | 4.2nm,0.7s,baz=122,slow=6.1,SNR=52 | | | | | | |
| **CMMT** | **Chiang Mai** | **47.38** | **302** | P | **P** | **18 48 54.1** | **-0.7** |
| **CHTO** | **Chiang Mai** | **47.38** | **302** | P | **P** | **18 48 54.2** | **-0.6** |
| **CHTO** | **Chiang Mai** | **47.38** | **302** | eP | **P** | **18 48 53.3** | **-1.5** |
| | 5.4nm,0.8s | | | | | | |
| **KMI** | **Kunming** | **47.54** | **311** | P | **P** | **18 48 58.9** | **+2.7** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.5s | | | | | | |
| **CD2** | **Chengdu** | **50.31** | **318** | eP | **P** | **18 49 16.8** | **-0.3** |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.2s | | | | | | |
| **BJI** | **Beijing** | **50.47** | **336** | P | **P** | **18 49 18.9** | **+0.8** |
| BJI | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.8s | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **53.12** | **333** | eP | **P** | **18 49 39.9** | **+1.9** |
| HHC | | | | S | **S** | **18 57 06.0** | **-0.3** |
| HHC | | | | sS | sS | 18 57 27.2 | +3.6 |
| HHC | | | | ScS | **ScS** | **18 59 22.1** | **-3.1** |
| HHC | | | | SS | **SS** | **19 00 45.1** | **-1.1** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,15nm,1.1s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,120nm,5.6s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=N,140nm,14.9s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=E,150nm,15.3s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,150nm,15.3s | | | | | | |
| **LZH** | **Lanzhou** | **53.65** | **323** | eP | **P** | **18 49 42.7** | **+0.6** |
| LZH | | | | pP | pP | 18 49 54.8 | +2.1 |
| LZH | | | | sP | sP | 18 49 59.3 | +2.5 |
| LZH | | | | PP | **PP** | **18 51 50.0** | **+6.7** |
| LZH | | | | S | **S** | **18 57 12.0** | **-1.8** |
| LZH | | | | sS | sS | 18 57 35.1 | +3.9 |
| LZH | | | | SS | **SKiKP** | **19 00 54.0** | **-0.7** |
| LZH | | | | pmax | pmax | | |
| | comp=Z,23nm,1.1s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,140nm,6.3s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=N,250nm,16.8s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=E,280nm,16.9s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,210nm,18.9s | | | | | | |
| **ODAN** | **Odare** | **60.44** | **305** | eP | **P** | **18 50 29.7** | **-0.7** |
| | 6.1nm,0.8s | | | | | | |
| **SONM** | **Songino Array** | **60.90** | **335** | P | **P** | **18 50 32.4** | **-0.6** |
| | 0.4nm,0.7s,baz=155,slow=7.8,SNR=2.9 | | | | | | |
| **RAMN** | **Ramite** | **61.12** | **305** | eP | **P** | **18 50 34.4** | **-0.7** |
| **JIRN** | **Jiri** | **61.74** | **305** | eP | **P** | **18 50 38.5** | **-0.9** |
| | 7.5nm,0.6s | | | | | | |
| **KOLN** | **Koldanda** | **63.90** | **304** | eP | **P** | **18 50 53.1** | **-0.5** |
| | 12nm,0.8s | | | | | | |
| **PYUN** | **Piuthan** | **64.52** | **305** | eP | **P** | **18 50 57.1** | **-0.6** |
| | 28nm,0.8s | | | | | | |
| **WMQ** | **Urumqi** | **68.17** | **322** | P | **P** | **18 51 20.7** | **+0.1** |
| WMQ | | | | pP | sP | 18 51 33.8 | -1.7 |
| WMQ | | | | sP | pP | 18 51 38.4 | +7.0 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,16nm,0.9s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,410nm,5.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,190nm,15.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,90nm,19.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,140nm,19.1s | | | | | | |
| **MK01** | **Makanchi Array** | **72.94** | **322** | eP | **P** | **18 51 49.3** | **-0.3** |
| **MK31** | **Makanchi Array** | **72.95** | **322** | eP | **P** | **18 51 48.9** | **-0.7** |
| **MKAR** | **Makanchi Array** | **72.95** | **322** | P | **P** | **18 51 49.6** | **-0.1** |
| | 5.8nm,0.9s,baz=120,slow=7.2,SNR=44 | | | | | | |
| **MAKZ** | **Makanchi** | **73.15** | **322** | eP | **P** | **18 51 49.2** | **-1.6** |
| **KSH** | **Kashi** | **74.15** | **314** | P | **P** | **18 51 58.5** | **+1.6** |
| KSH | | | | pP | PcP | 18 52 11.6 | -0.3 |
| KSH | | | | PcP | **sP** | **18 52 14.4** | **+2.5** |
| KSH | | | | PP | **PP** | **18 54 46.2** | **+3.3** |
| KSH | | | | S | **SKiKP** | **19 01 25.4** | **+3.0** |
| KSH | | | | ScS | **SKSac** | **19 01 59.7** | **-2.5** |
| KSH | | | | SS | **SS** | **19 06 15.4** | **+1.5** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.6s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,140nm,5.1s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,140nm,6.9s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,210nm,5.4s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,250nm,6.1s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **75.13** | **330** | P | **P** | **18 52 00.6** | **-1.5** |
| | 0.7nm,0.6s,baz=114,slow=6.6,SNR=4.0 | | | | | | |
| **KURK** | **Kurchatov** | **76.90** | **325** | P | **P** | **18 52 11.3** | **-1.0** |
| **KURBB** | **Kurchatov Arra** | **76.91** | **325** | P | **P** | **18 52 11.3** | **-1.0** |
| | 1.1nm,0.5s,baz=115,slow=4.6,SNR=12 | | | | | | |
| **BVAR** | **Borovoye Array** | **82.49** | **325** | P | **P** | **18 52 42.2** | **-0.4** |
| | 1.9nm,0.6s,baz=116,slow=6.8,SNR=9.7 | | | | | | |
| **ILAR** | **Eielson Array** | **87.69** | **24** | P | **P** | **18 53 05.9** | **-2.5** |
| | 0.9nm,0.7s,baz=245,slow=5.5,SNR=5.2 | | | | | | |
| **SYO** | **Syowa Base** | **88.75** | **201** | ⇑eX | **P** | **18 53 10.5** | **-2.8** |
| **EGAK** | **Eagle** | **90.06** | **25** | eP | **P** | **18 53 19.5** | **0.0** |
| **CLL** | **Collm** | **116.92** | **326** | ePKiKP | **PKiKP** | **18 59 05.0** | **+0.3** |
| **TORD** | **Torodi Ar. Bea** | **138.52** | **284** | PKP | **PKPdf** | **18 59 46.6** | **-0.1** |
| | 0.6nm,0.8s,baz=64,slow=0.5,SNR=3.6 | | | | | | |
| **LPAZ** | **La Paz** | **144.50** | **128** | PKP | PKPbc | 18 59 56.9 | +0.2 |
| | 1.6nm,0.9s,baz=245,slow=2.2,SNR=5.4 | | | | | | |
| **DBIC** | **Dimbokro** | **145.35** | **274** | PKPbc | **PKPbc** | **18 59 57.7** | **-1.1** |
| | 6.9nm,0.9s,baz=88,slow=5.4,SNR=5.7 | | | | | | |

**JMA 04 18:44:59.0**±0.1**, 38°.35N**×**142°.27E, h32**km±2km**, M3.9, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JIO** | **Ouri** | **0.73** | **278** | P | Pn | 18 45 13.0 | -0.1 |
| JIO | | | | S | Sb | 18 45 22.2 | -0.8 |
| **OFUJ** | **Ofunato** | **0.87** | **327** | P | Pn | 18 45 14.9 | -0.1 |
| OFUJ | | | | S | Sn | 18 45 26.1 | -0.4 |
| **JMK** | **Ichinoseki** | **1.02** | **306** | P | Pn | 18 45 17.4 | +0.4 |
| JMK | | | | eS | Sb | 18 45 30.8 | -0.4 |
| **JMM** | **Marumori** | **1.26** | **248** | P | Pn | 18 45 20.1 | -0.3 |
| JMM | | | | eS | Sn | 18 45 35.0 | -1.2 |
| **JOU** | **Okura** | **1.26** | **271** | P | Pn | 18 45 21.2 | +0.8 |
| JOU | | | | eS | Sb | 18 45 37.4 | -0.8 |
| **JOM** | **Ohasama** | **1.36** | **326** | P | Pn | 18 45 22.6 | +0.9 |
| JOM | | | | eS | Sb | 18 45 39.8 | -1.0 |
| **JFK** | **Kawauchi** | **1.48** | **229** | P | Pn | 18 45 22.8 | -0.6 |
| JFK | | | | eS | Sn | 18 45 39.5 | -2.1 |
| **JYK** | **Kaneyama** | **1.60** | **291** | P | Pn | 18 45 26.1 | +1.0 |
| JYK | | | | eS | Sb | 18 45 46.5 | -1.3 |
| **JRG** | **Rokugo** | **1.65** | **310** | P | Pb | 18 45 27.3 | -1.5 |
| JRG | | | | eS | Sb | 18 45 49.3 | +0.1 |
| **JFT** | **Otama** | **1.74** | **242** | P | Pn | 18 45 27.8 | +0.8 |
| JFT | | | | eS | Sn | 18 45 48.5 | +0.4 |
| **JYS** | **Shirataka** | **1.74** | **266** | P | Pn | 18 45 28.1 | +1.1 |
| JYS | | | | eS | Sn | 18 45 49.9 | +1.8 |

**JMA 04 18:47:50.4, 35°.30N**×**137°.52E, h48**km**, M2.5, 1C-2D Broadband fault plane solution: P waves. NP1:** ϕs292.00000°, δ68.00000°, λ-131.00000°. **NP2:** ϕs178.00000°, δ46.00000°, λ-32.00000°. **Principal axes:** T Plg13.0000°, Azm50.0000°**;** N Plg37.0000°, Azm310.0000°**;** P Plg50.0000°, Azm156.0000°; **Eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JAO** | **Obara** | **0.22** | **261** | ⇓P | Pn | 18 47 58.8 | +0.1 |
| JAO | | | | S | Sn | 18 48 04.9 | +0.3 |
| **JNY** | **Yasuok** | **0.28** | **78** | ⇓P | Pn | 18 47 59.2 | -0.1 |
| JNY | | | | S | Sn | 18 48 05.3 | -0.3 |
| **SHZ3** | **Shizuoka 3** | **0.61** | **112** | P | Pn | 18 48 02.8 | -0.2 |
| **JYN** | **Shimob** | **0.86** | **76** | P | Pn | 18 48 06.9 | +0.6 |
| **TK04** | **Tokai 4** | **0.96** | **162** | S | Sn | 18 48 20.2 | +0.3 |
| **TSUJ** | **Tsu 2** | **1.08** | **237** | P | Pn | 18 48 09.8 | +0.7 |
| **JIE** | **Ise** | **1.13** | **217** | ⇑P | Pn | 18 48 09.5 | -0.3 |
| **MAT** | **Matsushiro** | **1.36** | **24** | P | Pn | 18 48 14.0 | +1.0 |
| MAT | | | | S | Sn | 18 48 31.7 | +1.8 |

*JMA **04** 18:52:51.1±0.2, 23°.97N×121°.10E, h6km, M2.8*
*TAP **04** 18:52:51.7, 23°.99N×121°.10E, h6km, ML3.5, C*
*ISCJB **04** 18:52:52.3±0.2, 23°.98N±0°.01×121°.15E±0°.01, h6km±2km, Error ellipse: s-maj=2.6km s-min=1.8km az=135.0*
**ISC 04 18:52:51.9**±0.9**, 23°.98N**±0°.02×**121°.11E**±0°.02**, h9**km±8km**, n58,** σ**0ˢ.73**/96**, 6C-7D, Taiwan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SMLT** | **Sun Moon Lake** | **0.22** | **244** | ⇓iP | **Pg** | **18 52 56.5** | **+0.2** |
| | baz=238 | | | | | | |
| SMLT | | | | eS | **Sg** | **18 52 59.8** | **+0.4** |
| | baz=238 | | | | | | |
| **TYC** | **Yuchr** | **0.24** | **252** | ⇓iP | **Pg** | **18 52 56.9** | **+0.1** |
| | baz=248 | | | | | | |
| TYC | | | | eS | **Sg** | **18 53 00.0** | **-0.1** |
| | baz=248 | | | | | | |
| **TWT** | **Tachien** | **0.28** | **12** | ⇑iP | **Pg** | **18 52 57.5** | **-0.1** |
| | baz=12 | | | | | | |
| TWT | | | | S | **Sg** | **18 53 00.8** | **-0.5** |
| | baz=12 | | | | | | |
| **ESL** | **Shilin** | **0.34** | **119** | ⇑iP | **Pb** | **18 52 59.5** | **-0.6** |
| | baz=120 | | | | | | |
| ESL | | | | eS | **Sg** | **18 53 03.9** | **+0.9** |
| | baz=120 | | | | | | |
| **ESF** | **Shoufeng Towns** | **0.38** | **106** | eP | **Pb** | **18 53 00.8** | **0.0** |
| | baz=108 | | | | | | |
| **WNT** | **Mingjian** | **0.40** | **256** | eP | **Pb** | **18 53 01.0** | **-0.2** |
| | baz=249 | | | | | | |
| WNT | | | | eS | **Sb** | **18 53 07.9** | **+0.4** |
| | baz=249 | | | | | | |
| **TCU** | **Taichung** | **0.43** | **293** | eP | **Pb** | **18 53 02.1** | **+0.3** |
| | baz=292 | | | | | | |
| TCU | | | | eS | **Sb** | **18 53 09.3** | **+0.9** |
| | baz=292 | | | | | | |
| **HWA** | **Hwalien** | **0.45** | **90** | eP | **Pb** | **18 53 01.8** | **-0.2** |
| | baz=92 | | | | | | |
| HWA | | | | eS | **Sb** | **18 53 07.9** | **-1.0** |
| | baz=92 | | | | | | |
| **TWD** | **Chiawan** | **0.45** | **77** | eP | **Pb** | **18 53 01.4** | **-0.7** |
| | baz=80 | | | | | | |
| TWD | | | | S | **Sg** | **18 53 07.3** | **+0.6** |
| | baz=80 | | | | | | |
| **TWQ1** | **Liyutan** | **0.48** | **320** | eP | **Pb** | **18 53 02.2** | **-0.4** |
| | baz=333 | | | | | | |
| TWQ1 | | | | eS | **Sb** | **18 53 09.6** | **-0.2** |
| | baz=333 | | | | | | |
| **EHY** | **Hungye** | **0.51** | **158** | ⇑iP | **Pb** | **18 53 02.3** | **-0.8** |
| | baz=156 | | | | | | |
| EHY | | | | eS | **Sg** | **18 53 08.6** | **+0.2** |
| | baz=156 | | | | | | |
| **YUS** | **Yu-Shan** | **0.51** | **197** | eP | **Pg** | **18 53 01.6** | **-0.3** |
| | baz=206 | | | | | | |
| **NNS** | **Nan Shan** | **0.52** | **27** | eP | **Pg** | **18 53 02.2** | **+0.2** |
| | baz=31 | | | | | | |
| NNS | | | | eS | **Sg** | **18 53 08.1** | **-0.7** |
| | baz=31 | | | | | | |
| **NSY** | **Sanyi** | **0.54** | **324** | ⇑eP | **Pb** | **18 53 03.7** | **+0.1** |
| | baz=325 | | | | | | |
| NSY | | | | eS | **Sb** | **18 53 12.2** | **+0.6** |
| | baz=325 | | | | | | |
| **ALS** | **Alishan** | **0.54** | **211** | ⇓eP | **Pb** | **18 53 02.8** | **-1.0** |
| | baz=207 | | | | | | |
| ALS | | | | eS | **Sg** | **18 53 09.9** | **+0.2** |
| | baz=207 | | | | | | |
| **CHN5** | **Tsauling** | **0.55** | **226** | eP | **Pb** | **18 53 03.6** | **-0.2** |
| | baz=213 | | | | | | |
| CHN5 | | | | eS | **Sb** | **18 53 12.1** | **+0.3** |
| | baz=213 | | | | | | |
| **WGK** | **Gukeng** | **0.58** | **240** | eP | **Pb** | **18 53 04.2** | **-0.1** |
| | baz=236 | | | | | | |
| WGK | | | | eS | **Sb** | **18 53 13.6** | **+0.9** |
| | baz=236 | | | | | | |
| **TWF1** | **Yuli** | **0.65** | **165** | ⇑iP | **Pb** | **18 53 04.6** | **-0.8** |
| | baz=156 | | | | | | |
| TWF1 | | | | eS | **Sb** | **18 53 13.7** | **-0.8** |
| | baz=156 | | | | | | |
| **NSTT** | **Nanjuang** | **0.66** | **351** | ⇑iP | **Pb** | **18 53 05.1** | **-0.5** |
| | baz=353 | | | | | | |
| NSTT | | | | S | **Sg** | **18 53 13.5** | **+0.3** |
| | baz=353 | | | | | | |
| **ENA** | **Nanau** | **0.73** | **52** | eP | **Pg** | **18 53 06.0** | **0.0** |
| | baz=46 | | | | | | |
| ENA | | | | eS | **Sg** | **18 53 15.2** | **-0.3** |
| | baz=46 | | | | | | |
| **CHN2** | **Minshiung** | **0.73** | **233** | eP | **Pn** | **18 53 07.3** | **-1.2** |
| | baz=230 | | | | | | |
| CHN2 | | | | eS | **Sn** | **18 53 18.5** | **-1.3** |
| | baz=230 | | | | | | |
| **ENTT** | **Nioudou** | **0.78** | **32** | eP | **Pg** | **18 53 06.4** | **-0.5** |
| | baz=22 | | | | | | |
| **CHN4** | **Tsaushan** | **0.79** | **217** | ⇓iP | **Pn** | **18 53 08.1** | **-1.1** |
| | baz=215 | | | | | | |
| CHN4 | | | | eS | **Sn** | **18 53 19.8** | **-1.3** |
| | baz=215 | | | | | | |
| **ELDTW** | **Lidau** | **0.79** | **186** | ⇓eP | **Pg** | **18 53 06.3** | **-0.9** |
| | baz=193 | | | | | | |
| **CHY** | **Chiayi** | **0.79** | **233** | ⇓P | **Pb** | **18 53 08.1** | **+0.2** |
| | baz=230 | | | | | | |
| CHY | | | | eS | **Sn** | **18 53 19.8** | **-1.5** |
| | baz=230 | | | | | | |
| **HSN** | **Hsinchu** | **0.83** | **351** | eP | **Pn** | **18 53 09.5** | **-0.3** |
| | baz=5.0 | | | | | | |
| HSN | | | | eS | **Sn** | **18 53 21.7** | **-0.5** |
| | baz=5.0 | | | | | | |
| **WTP** | **Ta-pu** | **0.86** | **212** | ⇓eP | **Pb** | **18 53 09.1** | **0.0** |
| | baz=209 | | | | | | |
| WTP | | | | eS | **Sb** | **18 53 21.1** | **+0.3** |
| | baz=209 | | | | | | |
| **STYT** | **Tauyuan** | **0.88** | **202** | eP | **Pb** | **18 53 09.0** | **-0.4** |
| | baz=194 | | | | | | |
| STYT | | | | eS | **Sb** | **18 53 21.8** | **+0.6** |
| | baz=194 | | | | | | |
| **WSF** | **Szhu** | **0.88** | **248** | eP | **Pb** | **18 53 09.4** | **0.0** |
| | baz=246 | | | | | | |
| **TWE** | **Neicheng** | **0.90** | **34** | eP | **Pg** | **18 53 09.0** | **-0.2** |
| | baz=27 | | | | | | |
| **CHKT** | **Chengkung** | **0.91** | **165** | eP | **Pb** | **18 53 10.0** | **+0.2** |
| | baz=146 | | | | | | |
| **TWK** | **Hsinying** | **0.91** | **219** | eP | **Pb** | **18 53 10.0** | **0.0** |
| | baz=216 | | | | | | |
| TWK | | | | eS | **Sn** | **18 53 23.0** | **-1.3** |
| | baz=216 | | | | | | |
| **TWC** | **Suao** | **0.92** | **47** | eP | **Pb** | **18 53 09.9** | **-0.2** |
| | baz=42 | | | | | | |
| TWC | | | | eS | **Sg** | **18 53 21.2** | **-0.4** |
| | baz=42 | | | | | | |
| **CHN1** | **Nanshi** | **0.95** | **214** | eP | **Pn** | **18 53 10.8** | **-0.7** |
| | baz=225 | | | | | | |
| CHN1 | | | | eS | **Sn** | **18 53 24.5** | **-0.8** |
| | baz=225 | | | | | | |
| **NCU** | **National Centr** | **0.99** | **4** | eP | **Pn** | **18 53 12.2** | **+0.2** |
| | baz=3.0 | | | | | | |
| **SGST** | **Jiashian** | **1.02** | **209** | eP | **Pn** | **18 53 11.9** | **-0.5** |
| | baz=218 | | | | | | |
| SGST | | | | eS | **Sn** | **18 53 26.4** | **-0.4** |
| | baz=218 | | | | | | |
| **CHN8** | **Yiju** | **1.04** | **233** | eP | **Pn** | **18 53 12.1** | **-0.6** |
| | baz=244 | | | | | | |
| CHN8 | | | | eS | **Sn** | **18 53 28.4** | **+1.1** |
| | baz=244 | | | | | | |
| **TWA** | **Mucha** | **1.09** | **23** | eP | **Pn** | **18 53 13.7** | **+0.3** |
| | baz=22 | | | | | | |
| **CHN3** | **Shinhua** | **1.13** | **218** | eP | **Pn** | **18 53 14.9** | **+0.9** |
| | baz=217 | | | | | | |
| **TWS1** | **Kuangyinshan** | **1.15** | **14** | eP | **Pn** | **18 53 15.3** | **+1.0** |
| | baz=14 | | | | | | |
| **TWG** | **Pinlang** | **1.15** | **182** | eP | **Pb** | **18 53 13.8** | **-0.3** |
| | baz=173 | | | | | | |
| **SCLT** | **Jiali** | **1.16** | **227** | eP | **Pn** | **18 53 14.9** | **+0.6** |
| | baz=224 | | | | | | |
| SCLT | | | | eS | **Sn** | **18 53 32.0** | **+1.6** |
| | baz=224 | | | | | | |
| **TAI1** | **Yung-k'ang** | **1.24** | **221** | eP | **Pn** | **18 53 16.5** | **+1.1** |
| | baz=220 | | | | | | |
| **NWF** | **Wu-fen Shan** | **1.25** | **29** | eP | **Pn** | **18 53 17.2** | **+1.6** |
| | baz=28 | | | | | | |
| **TWB1** | **Santiao Chiao** | **1.30** | **38** | eP | **Pg** | **18 53 17.7** | **+0.9** |
| | baz=27 | | | | | | |
| **SSD** | **Sandimen** | **1.30** | **200** | eP | **Pg** | **18 53 17.4** | **+0.4** |
| | baz=197 | | | | | | |
| SSD | | | | eS | **Sn** | **18 53 35.1** | **+1.2** |
| | baz=197 | | | | | | |
| **TWM1** | **Shoushan** | **1.31** | **209** | eP | **Pg** | **18 53 18.8** | **+1.7** |
| | baz=208 | | | | | | |
| **ECL** | **Taimali** | **1.38** | **186** | eP | **Pb** | **18 53 17.5** | **-0.4** |
| | baz=177 | | | | | | |
| ECL | | | | eS | **Sg** | **18 53 38.0** | **+1.6** |
| | baz=177 | | | | | | |
| **PNG** | **Penghu** | **1.48** | **254** | eP | **Pn** | **18 53 18.1** | **-0.7** |
| | baz=253 | | | | | | |
| **WDGT** | **Dungji** | **1.51** | **242** | eP | **Pn** | **18 53 18.9** | **-0.3** |
| | baz=239 | | | | | | |
| WDGT | | | | eS | **Sb** | **18 53 39.3** | **-0.1** |
| | baz=239 | | | | | | |
| **EAST** | **Anshuo** | **1.61** | **189** | eP | **Pg** | **18 53 22.3** | **-0.5** |
| | baz=209 | | | | | | |
| **SCZT** | **Fangliau** | **1.66** | **196** | eP | **Pb** | **18 53 22.7** | **0.0** |
| | baz=205 | | | | | | |
| SCZT | | | | eS | **Sg** | **18 53 45.7** | **+0.3** |
| | baz=205 | | | | | | |
| **JYNG** | **Yonagunijimaku** | **1.74** | **74** | eS | **Sb** | **18 53 45.5** | **-0.5** |
| **IRIF** | **Iriomote-Funau** | **2.42** | **81** | P | **Pn** | **18 53 32.5** | **+0.8** |
| IRIF | | | | eS | **Sn** | **18 54 02.4** | **+1.0** |
| **KNM** | **Kinmen** | **2.48** | **281** | eP | **Pb** | **18 53 35.0** | **-1.7** |
| | baz=280 | | | | | | |
| **JKRS** | **Kuro-shima** | **2.66** | **84** | P | **Pn** | **18 53 35.9** | **+0.9** |
| JKRS | | | | S | **Sn** | **18 54 07.7** | **+0.3** |
| **JIJ** | **Ishigaki jima** | **2.79** | **82** | P | **Pn** | **18 53 36.9** | **+0.1** |
| JIJ | | | | S | **Sn** | **18 54 10.2** | **-0.5** |
| **JISG** | **Ishigakijimahi** | **2.98** | **78** | P | **Pn** | **18 53 39.8** | **+0.4** |
| JISG | | | | eS | **Sn** | **18 54 14.7** | **-0.6** |

*IDC **04** 18:52:58.1±0.3, 5°.35S×140°.32E, h0km, mb5.1/31, mb1 5.1/37, mb1mx5.1/42, mbtmp5.1/37, ML5.0/5, MS4.3/18, Ms1 4.3/18, ms1mx4.2/30, Error ellipse: s-maj=14.6km s-min=9.3km az=65.0*
*BJI **04** 18:53:00.8, 5°.46S×140°.71E, h42km, mb5.4/73, mB5.5/51, Ms4.9/49, Ms7 4.6/41*
*ISCJB **04** 18:53:00.6±0.9, 5°.46S±0°.02×140°.35E±0°.02, h32km±6km, mb5.4/145, MS4.5/105, Error ellipse: s-maj=4.2km s-min=3.5km az=154.0*
*MOS **04** 18:53:01.7±1.3, 5°.37S×140°.34E, h36km, mb5.5/47, MS4.3/12, Error ellipse: s-maj=9.9km s-min=5.4km az=113.3*
*GCMT **04** 18:53:03.0±0.1, 5°.37S×140°.40E, h16km, MW5.1/108, Moment Tensor Solution. s87,c122; s108,c170; Duration: 0 Moment tensor: Scale $10^{16}$Nm; $M_{rr}$5.82±.14; $M_{\theta\theta}$-4.10±.10; $M_{\phi\phi}$-1.72±.11; $M_{r\theta}$0.85±.26; $M_{\theta\phi}$3.52±.07; $M_{\phi r}$0.93±.29; Best double couple: $M_0$6.37200×$10^{16}$ NP1:ϕs113.00000°, δ47.00000°, λ72.00000°. NP2: ϕs319.00000°, δ46.00000°, λ109.00000°. Principal axes: T 6.1170, Plg77.0000°, Azm308.0000°; N 0.5100, Plg13.0000°, Azm125.0000°; P -6.6280, Plg1.0000°, Azm216.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*NEIC **04** 18:53:03.0±1.1, 5°.40S×140°.28E, h42km±10km, mb5.4/49, MS4.7/75 Error ellipse: s-maj=7.8km s-min=6.4km az=210.0*

*NEIC Felt [IV] at Tanahmerah. Also felt at Merauke. Felt at Tari, Papua New Guinea.*

*DJA **04** 18:53:03.9±0.3, 5°S±2°×14°0E±°, h43km±3km, M5.3/54, mb5.4/54, mB5.7/39, MLv6.0/5, Mw(mB)5.2/39*

**ISC 04 18:53:03.1**±0.3, **5°.48S**±0°.03×**140°.32E**±0°.04, **h36**km±1km, **h37km:pP-P, n501**, σ1s.**59**/489, **mb5.4**/154, **MS4.6**/105, **29C-11D, Irian Jaya**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GENI | Genyem | 2.87 | 357 | P | Pn | 18 53 46.7 | +0.3 |
| GENI | | | | S | Sn | 18 54 22.4 | +2.7 |
| JAY | Jayapura | 2.97 | 7 | P | Pn | 18 53 45.9 | -1.8 |
| JAY | | | | S | Sn | 18 54 21.8 | -0.3 |
| KMPI | Kaimana, Papua | 6.84 | 285 | P | Pn | 18 54 42.5 | +1.6 |
| | 780nm,0.6s,13μm7.0nm | | | | | | |
| KMPI | | | | S | Sn | 18 56 01.5 | +3.9 |
| | 780nm,0.6s,13μm7.0nm | | | | | | |
| RKPI | Ransiki, Papua | 7.29 | 303 | P | Pn | 18 54 50.2 | +3.1 |
| | 194nm,0.8s,4μm2.2nm | | | | | | |
| PMG | Port Moresby | 7.82 | 120 | Pn | Pn | 18 54 55.3 | +0.9 |
| | 4.6nm,0.3s,baz=319,slow=13,SNR=21 | | | | | | |
| PMG | | | | Sn | Sn | 18 56 21.2 | -0.5 |
| | 9.0nm,0.3s,baz=248,slow=10,SNR=3.6 | | | | | | |
| PMG | | | | LR | LR | 18 58 24.2 | |
| | comp=Z,2μm,19.9s,baz=329,slow=41 | | | | | | |
| PMG | Port Moresby | 7.82 | 120 | deP | Pn | 18 54 54.1 | -0.3 |
| PMG | | | | pmax | pmax | | |
| | comp=Z,335nm,0.8s | | | | | | |
| PMG | Port Moresby | 7.82 | 120 | ePn | Pn | 18 54 54.0 | -0.5 |
| PMG | | | | eSn | Sn | 18 56 22.4 | +0.7 |
| FAKI | Fak Fak | 8.44 | 287 | P | Pn | 18 55 02.9 | -0.1 |
| | comp=Z,214nm,0.8s,comp=Z,3μm | | | | | | |
| FAKI | Fak Fak | 8.44 | 287 | Pn | Pn | 18 54 56.2 | -6.8 |
| COEN | Coen | 8.88 | 162 | P | Pn | 18 55 09.7 | +0.7 |
| | baz=8.9,SNR=56 | | | | | | |
| COEN | Coen | 8.88 | 162 | ePn | Pn | 18 55 10.0 | +1.0 |
| SAUI | Saumlaki | 9.30 | 254 | P | Pn | 18 55 18.1 | +3.4 |
| SAUI | Saumlaki | 9.30 | 254 | ePn | Pn | 18 55 16.3 | +1.6 |
| BNDI | Bandanaira | 10.42 | 275 | P | Pn | 18 55 32.0 | +1.9 |
| | comp=Z,800nm,1.3s,comp=Z,10μm | | | | | | |
| KDU | Kakadu | 10.55 | 227 | P | Pn | 18 55 31.9 | 0.0 |
| | baz=11,SNR=51 | | | | | | |
| MSAI | Masohi | 11.56 | 280 | P | Pn | 18 55 45.7 | 0.0 |
| MTN | Manton Dam | 11.65 | 230 | P | Pn | 18 55 47.6 | +0.7 |
| | baz=12,SNR=19 | | | | | | |
| MTN | Manton Dam | 11.65 | 230 | ePn | Pn | 18 55 45.8 | -1.2 |
| RABL | Rabaul | 11.87 | 84 | ePn | Pn | 18 55 50.4 | +0.5 |
| AAI | Ambon | 12.22 | 278 | P | Pn | 18 55 55.5 | +0.8 |
| | comp=Z,216nm,0.9s,comp=Z,3μm | | | | | | |
| MTSU | Mount Surprise | 13.17 | 163 | P | Pn | 18 56 09.3 | +1.6 |
| | baz=13,SNR=22 | | | | | | |
| LBMI | Labuha | 13.67 | 290 | P | Pn | 18 56 14.7 | +0.1 |
| PALU | Palau | 14.01 | 335 | P | Pn | 18 56 20.5 | +1.3 |
| | baz=14,SNR=14 | | | | | | |
| SANI | Sanana | 14.70 | 283 | P | Pn | 18 56 26.7 | -1.9 |
| | comp=Z,266nm,0.9s,comp=Z,2μm | | | | | | |
| WRAB | Tennant Creek | 15.50 | 201 | deP | Pn | 18 56 37.8 | -1.3 |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,38nm,0.9s | | | | | | |
| WRAB | Tennant Creek | 15.50 | 201 | ePn | Pn | 18 56 37.9 | -1.3 |
| | comp=Z,249nm,0.6s | | | | | | |
| WRAB | | | | eSn | Sn | 18 59 26.2 | -3.6 |
| WB2 | Warramunga Arr | 15.51 | 201 | ePn | Pn | 18 56 38.0 | -1.2 |
| | comp=Z,331nm,0.6s | | | | | | |
| WRA | Warramunga Arr | 15.51 | 202 | Pn | Pn | 18 56 38.1 | -1.2 |
| | comp=Z,4.2nm,0.3s,baz=18,slow=14,SNR=54 | | | | | | |
| WRA | | | | Sn | Sn | 18 59 26.6 | -3.5 |
| | comp=Z,9.9nm,0.3s,baz=24,slow=23,SNR=7.6 | | | | | | |
| WRA | | | | Lg | Lg | 19 01 12.9 | |
| | comp=Z,9.2nm,0.3s,baz=23,slow=26,SNR=6.6 | | | | | | |
| CTA | Charters Tower | 15.63 | 159 | Pn | P | 18 56 43.2 | -1.3 |
| | comp=Z,2.6nm,0.3s,baz=334,slow=12,SNR=51 | | | | | | |
| CTA | | | | Lg | Lg | 19 01 16.8 | |
| | comp=Z,3.0nm,0.3s,baz=97,slow=23,SNR=6.0 | | | | | | |
| CTAO | Charters Tower | 15.63 | 159 | eP | P | 18 56 43.8 | -0.7 |
| CTAO | | | | pmax | pmax | | |
| | comp=Z,200nm,0.9s | | | | | | |
| CTAO | Charters Tower | 15.63 | 159 | ePn | P | 18 56 43.8 | -0.7 |
| | comp=Z,200nm,0.9s | | | | | | |
| SOEI | Soe | 16.47 | 254 | P | Pn | 18 56 51.9 | +0.2 |
| SOEI | Soe | 16.47 | 254 | ePn | Pn | 18 56 51.1 | -0.5 |
| | comp=Z,1μm,0.9s | | | | | | |
| KMSI | Cibinong | 17.39 | 290 | P | Pn | 18 57 02.6 | -0.5 |
| LUWI | Luwuk | 18.07 | 284 | P | Pn | 18 57 10.8 | -0.6 |
| LUWI | Luwuk | 18.07 | 284 | ePn | Pn | 18 57 10.7 | -0.7 |
| | comp=Z,216nm,1.0s | | | | | | |
| MMRI | Maumere | 18.22 | 259 | P | Pn | 18 57 14.2 | +0.9 |
| MMRI | Maumere | 18.22 | 259 | eP | P | 18 57 11.9 | -1.3 |
| | comp=Z,188nm,0.8s | | | | | | |
| EDFI | Ende, Flores | 18.77 | 259 | P | Pn | 18 57 20.0 | -0.1 |
| FITZ | Fitzroy Crossi | 19.06 | 228 | P | P | 18 57 22.1 | -0.3 |
| | comp=Z,1.5nm,0.3s,baz=52,slow=10,SNR=30 | | | | | | |
| FITZ | | | | S | Sn | 19 00 50.3 | -5.7 |
| | comp=Z,13nm,0.3s,baz=104,slow=9.9,SNR=6.4 | | | | | | |
| FITZ | | | | Lg | Lg | 19 03 09.0 | |
| | baz=152,slow=14,SNR=4.0 | | | | | | |
| FITZ | | | | LR | LR | 19 05 03.1 | |
| | comp=Z,2μm,19.5s,baz=50,slow=38 | | | | | | |
| FITZ | Fitzroy Crossi | 19.06 | 228 | P | P | 18 57 22.2 | -0.3 |
| | baz=19,SNR=54 | | | | | | |
| AS01 | Alice Springs | 19.09 | 198 | eP | P | 18 57 22.8 | -0.1 |
| AS31 | Alice Springs | 19.11 | 198 | eP | Pn | 18 57 25.1 | +1.1 |
| | comp=Z,52nm,0.8s | | | | | | |
| ASAR | Alice Springs | 19.11 | 198 | P | Pn | 18 57 25.5 | +1.4 |
| | comp=Z,10nm,0.3s,baz=29,slow=8.5,SNR=453 | | | | | | |
| ASAR | | | | S | Sn | 19 00 50.6 | -6.7 |
| | comp=Z,3.9nm,0.3s,baz=19,slow=26,SNR=5.0 | | | | | | |
| ASAR | | | | Lg | Lg | 19 03 13.9 | |
| | comp=Z,3.2nm,0.3s,baz=17,slow=31,SNR=4.7 | | | | | | |
| ASAR | | | | LR | LR | 19 05 23.5 | |
| | comp=Z,1μm,21.0s,baz=26,slow=39 | | | | | | |
| APSI | Ampana | 19.18 | 283 | P | Pn | 18 57 25.3 | +0.3 |
| MRSI | Marisa | 19.29 | 287 | P | Pn | 18 57 25.8 | -0.4 |
| GUMO | Guam | 19.47 | 13 | LR | LR | 19 04 46.3 | |
| | comp=Z,959nm,18.4s,baz=205,slow=37 | | | | | | |
| BSSI | Bau Bau, Buton | 19.74 | 267 | P | Pn | 18 57 35.1 | +3.4 |
| HNR | Honiara | 19.85 | 103 | eP | Pn | 18 57 34.0 | +1.1 |
| HNR | Honiara | 19.85 | 103 | P | Pn | 18 57 32.8 | -0.1 |
| | comp=Z,13nm,0.3s,baz=191,slow=6.0,SNR=12 | | | | | | |
| HNR | Honiara | 19.85 | 103 | eP | Pn | 18 57 33.0 | +0.1 |
| HNR | | | | pmax | pmax | | |
| | comp=Z,323nm,0.9s | | | | | | |
| HNR | Honiara | 19.85 | 103 | eP | Pn | 18 57 33.0 | +0.1 |
| | comp=Z,323nm,0.9s | | | | | | |
| BNSI | Bone | 20.17 | 272 | P | Pn | 18 57 37.9 | +1.2 |
| CTBH | Cotabato--PC H | 20.41 | 308 | ⇑iP | P | 18 57 36.5 | -0.7 |
| KAPI | Kappang | 20.49 | 270 | eP | P | 18 57 36.8 | -1.4 |
| | comp=Z,86nm,0.9s | | | | | | |
| KAPI | | | | LR | LR | | |
| | comp=Z,478nm,19.0s | | | | | | |
| KAPI | Kappang | 20.49 | 270 | P | Pn | 18 57 41.2 | +0.7 |
| | SNR=5.4 | | | | | | |
| KAPI | Kappang | 20.49 | 270 | P | Pn | 18 57 41.2 | +0.7 |
| | SNR=5.4 | | | | | | |
| SPSI | Sidrap Palu | 20.54 | 273 | P | P | 18 57 39.8 | +1.2 |
| TTSI | Tana Toraja | 20.59 | 276 | P | Pn | 18 57 41.7 | +0.1 |
| MPSI | Mapaga | 21.20 | 285 | P | P | 18 57 45.6 | -0.2 |
| QLP | Quilpie | 21.32 | 170 | P | P | 18 57 49.0 | +2.2 |
| | baz=21,SNR=74 | | | | | | |
| PAGZ | Pagadian | 21.47 | 308 | eP | P | 18 57 48.5 | -0.1 |
| MSLP | Maasin | 21.86 | 315 | eP | P | 18 57 51.3 | -1.5 |
| EIDS | Eidsvold | 22.30 | 154 | P | P | 18 57 58.2 | +0.7 |
| | baz=22,SNR=18 | | | | | | |
| EIDS | Eidsvold | 22.30 | 154 | eP | P | 18 57 58.1 | +0.6 |
| | comp=Z,102nm,1.2s | | | | | | |
| RMQ | Roma | 22.39 | 160 | P | P | 18 58 00.2 | +1.7 |
| | baz=22,SNR=6.2 | | | | | | |
| SNPH | Sibulan | 22.51 | 311 | eP | P | 18 57 59.4 | -0.5 |
| WRKA | Warakurna | 22.61 | 209 | P | P | 18 58 02.3 | +1.4 |
| | baz=23,SNR=743 | | | | | | |
| PLAI | Plampang | 22.61 | 260 | P | P | 18 58 01.1 | +0.1 |
| LLP | Lapu-Lapu | 22.62 | 314 | eP | P | 18 57 59.2 | -1.8 |
| OCLP | Ormoc | 22.68 | 316 | eP | P | 18 58 01.4 | -0.2 |
| KBKI | Kotabaru | 24.18 | 274 | P | P | 18 58 15.1 | -1.2 |
| MYLDM | Lahad Datu | 24.23 | 296 | eP | P | 18 58 18.9 | +2.1 |
| | comp=Z,907nm,1.5s | | | | | | |
| RCP | Roxas | 24.34 | 314 | ⇑eP | P | 18 58 18.3 | +0.5 |
| TSM | Tawau | 24.43 | 293 | ⇑P | P | 18 58 19.7 | +1.1 |
| SRBI | Singaraja | 25.07 | 263 | P | P | 18 58 24.3 | -0.1 |
| DNP | Denpasar | 25.12 | 261 | P | P | 18 58 24.3 | -0.6 |
| MBWA | Marble Bar | 25.33 | 230 | eP | P | 18 58 26.9 | +0.2 |
| | comp=Z,75nm,0.9s | | | | | | |
| MBWA | | | | LR | LR | | |
| | comp=Z,1μm,22.0s | | | | | | |
| MBWA | Marble Bar | 25.33 | 230 | P | P | 18 58 28.0 | +1.3 |
| | SNR=6.6 | | | | | | |
| MBWA | Marble Bar | 25.33 | 230 | P | P | 18 58 28.0 | +1.3 |
| | SNR=6.6 | | | | | | |
| SDKM | Sandakan | 25.60 | 295 | ⇑P | P | 18 58 30.0 | +0.7 |
| MTKI | Muara Teweh, K | 25.78 | 279 | P | P | 18 58 33.8 | +2.9 |
| | comp=Z,36nm,0.9s | | | | | | |
| SJMP | San Jose | 26.12 | 313 | eP | P | 18 58 33.8 | -0.1 |
| JAGI | Jajag, Banyuwa | 26.14 | 262 | P | P | 18 58 31.6 | -2.6 |
| JAGI | Jajag, Banyuwa | 26.14 | 262 | eP | P | 18 58 31.1 | -3.0 |
| | comp=Z,118nm,0.7s | | | | | | |
| KMMI | Kalianget | 26.24 | 265 | P | P | 18 58 37.4 | +2.3 |
| BOAC | Boac | 26.28 | 316 | eP | P | 18 58 36.9 | +1.6 |
| STKA | Stephens Creek | 26.29 | 178 | P | P | 18 58 35.3 | +0.1 |
| | comp=Z,14nm,0.7s,baz=356,slow=11,SNR=22 | | | | | | |
| STKA | | | | PP | PnPn | 18 59 18.1 | +2.6 |
| | comp=Z,32nm,0.8s,baz=336,slow=13,SNR=3.9 | | | | | | |
| STKA | | | | LR | LR | 19 10 56.5 | |
| | comp=Z,888nm,20.6s,baz=348,slow=41 | | | | | | |
| STKA | Stephens Creek | 26.29 | 178 | P | P | 18 58 35.4 | +0.1 |
| | baz=26,SNR=20 | | | | | | |
| STKA | Stephens Creek | 26.29 | 178 | eP | P | 18 58 35.4 | +0.1 |
| | comp=Z,8.2nm,0.9s | | | | | | |
| STKA | | | | PP | PnPn | 18 59 18.1 | +2.6 |
| CMSA | Cobar Meteorol | 26.41 | 170 | P | P | 18 58 37.5 | +1.1 |
| | baz=26,SNR=10 | | | | | | |
| BLJI | Banyuglugur | 26.64 | 264 | P | P | 18 58 41.0 | +2.3 |
| | comp=Z,76nm,0.8s | | | | | | |
| KKM | Kota Kinabalu | 26.65 | 295 | eP | P | 18 58 37.7 | -1.1 |
| | comp=Z,86nm,1.0s | | | | | | |
| KKM | | | | LR | LR | | |
| | comp=Z,489nm,21.0s | | | | | | |
| GMJI | Gumukmas | 26.83 | 263 | P | P | 18 58 37.8 | -2.5 |
| TGY | Tagaytay City | 27.36 | 316 | P | P | 18 58 46.4 | +1.3 |
| | comp=Z,130nm,0.3s,baz=277,slow=7.3,SNR=5.6 | | | | | | |
| TGY | | | | LR | LR | 19 10 43.5 | |
| | comp=Z,226nm,21.8s,baz=140,slow=39 | | | | | | |
| BBOO | Buckleboo | 27.48 | 188 | P | P | 18 58 47.3 | +1.3 |
| | baz=28,SNR=24 | | | | | | |
| BBOO | Buckleboo | 27.48 | 188 | eP | P | 18 58 44.8 | -1.2 |
| | comp=Z,78nm,1.1s | | | | | | |
| FORT | Forrest | 27.69 | 203 | P | P | 18 58 49.2 | +1.4 |
| | baz=28,SNR=18 | | | | | | |
| FORT | Forrest | 27.69 | 203 | eP | P | 18 58 48.2 | +0.3 |
| | comp=Z,2μm,0.7s | | | | | | |
| PWJI | Pagerwojo | 28.43 | 263 | P | P | 18 58 53.3 | -1.4 |
| BTM | Bintulu | 28.54 | 287 | ⇓P | P | 18 58 57.0 | +1.3 |
| PBKI | Pangkalan Bun | 28.71 | 274 | P | P | 18 59 00.5 | +3.3 |
| | comp=Z,55nm,1.1s,comp=Z,941nm | | | | | | |
| PCJI | Pacitan | 29.06 | 263 | P | P | 18 59 00.1 | -0.2 |
| UGM | Wanagama | 29.69 | 264 | P | P | 18 59 05.9 | 0.0 |
| UGM | Wanagama | 29.69 | 264 | eP | P | 18 59 04.2 | -1.8 |
| | comp=Z,119nm,1.2s | | | | | | |
| APYP | Conner | 29.88 | 321 | eP | P | 18 59 05.3 | -2.1 |
| DZM | Mont Dzumac | 30.17 | 126 | P | P | 18 59 10.7 | +0.5 |
| | comp=Z,15nm,0.8s,baz=300,slow=8.8,SNR=6.6 | | | | | | |
| DZM | | | | LR | LR | 19 11 09.8 | |
| | comp=Z,1μm,21.2s,baz=310,slow=36 | | | | | | |
| DZM | Mont Dzumac | 30.17 | 126 | eP | P | 18 59 11.0 | +0.8 |
| | comp=Z,74nm,1.2s | | | | | | |
| DZM | | | | eLR | LR | 19 07 10.2 | |
| | comp=Z,2μm,22.9s | | | | | | |
| DZM | Mont Dzumac | 30.17 | 126 | eP | P | 18 59 10.7 | +0.5 |
| | comp=Z,41nm,1.2s | | | | | | |
| KSM | Kuching | 30.76 | 282 | ⇓P | P | 18 59 16.8 | +1.4 |
| KSM | Kuching | 30.76 | 282 | PFAKE | | 18 59 30.0 | +15 |
| KSM | | | | LR | LR | | |
| | comp=Z,399nm,19.0s | | | | | | |
| KMBL | Kambalda | 31.03 | 212 | P | P | 18 59 18.2 | +0.7 |
| | baz=31,SNR=4.5 | | | | | | |
| KPJI | Karang Pucung | 31.25 | 265 | P | P | 18 59 21.4 | +1.8 |
| CISI | Cisompet, Garu | 32.36 | 265 | P | P | 18 59 28.4 | -1.1 |
| | comp=Z,86nm,1.5s,comp=Z,887nm | | | | | | |
| CISI | Cisompet, Garu | 32.36 | 265 | eP | P | 18 59 28.0 | -1.5 |
| | comp=Z,91nm,1.1s | | | | | | |
| MORW | Morawa | 32.84 | 222 | P | P | 18 59 34.4 | +1.0 |
| | baz=33,SNR=4.6 | | | | | | |
| CNJI | Cibinong | 33.03 | 265 | P | P | 18 59 33.4 | -1.9 |
| BLDU | Ballidu | 33.45 | 219 | P | P | 18 59 39.4 | +0.7 |
| | baz=34,SNR=12 | | | | | | |
| KLBR | Kellerberrin | 33.50 | 216 | P | P | 18 59 39.7 | +0.5 |
| | baz=34,SNR=6.6 | | | | | | |
| YULB | Yu-li | 34.19 | 328 | eP | P | 18 59 44.5 | -0.7 |
| | comp=Z,50nm,1.3s | | | | | | |
| SSLB | Suanglung | 34.69 | 328 | eP | P | 18 59 49.4 | -0.2 |
| | comp=Z,48nm,1.0s | | | | | | |
| NWAO | Narrogin (SRO) | 34.77 | 215 | LR | LR | 19 15 26.0 | |
| | comp=Z,630nm,19.9s,slow=39 | | | | | | |
| NWAO | Narrogin (SRO) | 34.77 | 215 | P | P | 18 59 51.0 | +0.8 |
| | baz=35,SNR=5.7 | | | | | | |
| NWAO | | | | P | P | 18 59 51.0 | +0.8 |
| | baz=35,SNR=5.7 | | | | | | |
| YHNB | Yeheng | 35.19 | 329 | PFAKE | | 19 00 00.0 | +6.0 |
| YHNB | | | | LR | LR | | |
| | comp=Z,675nm,19.0s | | | | | | |
| LWLI | Liwa | 36.11 | 269 | P | P | 19 00 03.2 | +1.1 |
| | comp=Z,36nm,0.9s,comp=Z,5μm | | | | | | |
| KGM | Kluang | 37.70 | 280 | ⇑P | P | 19 00 16.9 | +1.3 |
| TAU | Tasmania Unive | 37.79 | 172 | PFAKE | | 19 00 30.0 | +14 |
| TAU | | | | LR | LR | | |
| | comp=Z,3μm,19.0s | | | | | | |
| KTGM | Kuala Trenggan | 38.66 | 286 | ⇑P | P | 19 00 24.3 | +0.8 |
| QIZ | Qiongzhong | 38.66 | 310 | P | P | 19 00 23.1 | -0.4 |
| QIZ | | | | PP | PnPn | 19 01 55.1 | +0.4 |
| QIZ | | | | S | S | 19 06 15.4 | -2.5 |
| QIZ | | | | ScS | ScS | 19 10 28.0 | -3.5 |
| QIZ | | | | pmax | pmax | | |
| | comp=Z,46nm,1.1s | | | | | | |
| QIZ | Qiongzhong | 38.66 | 310 | PFAKE | | 19 00 30.0 | +6.5 |
| QIZ | | | | LR | LR | | |
| | comp=Z,364nm,19.0s | | | | | | |
| FUNA | Funafuti | 38.69 | 97 | PFAKE | | 19 00 40.0 | +16 |
| FUNA | | | | LR | LR | | |
| | comp=Z,4μm,19.0s | | | | | | |
| MSVF | Nonsavu | 38.82 | 112 | eP | P | 19 00 24.4 | -0.6 |
| MSVF | | | | pmax | pmax | | |
| | comp=Z,52nm,1.0s | | | | | | |
| MSVF | Nonsavu | 38.82 | 112 | eP | P | 19 00 24.4 | -0.6 |
| | comp=Z,52nm,1.0s | | | | | | |
| JNU | Nakatsue | 39.42 | 347 | P | P | 19 00 27.9 | -1.8 |
| | comp=Z,15nm,0.9s,baz=160,slow=5.2,SNR=3.4 | | | | | | |
| BKNI | Bangkinang | 39.65 | 277 | P | P | 19 00 33.2 | +1.3 |
| | comp=Z,92nm,1.1s,comp=Z,1μm | | | | | | |
| BKNI | Bangkinang | 39.65 | 277 | eP | P | 19 00 30.0 | -1.9 |
| | comp=Z,137nm,1.2s | | | | | | |
| PDSI | Padang | 40.05 | 275 | P | P | 19 00 36.3 | +1.1 |
| | comp=Z,12nm,0.6s,comp=Z,1μm | | | | | | |
| UBPT | Khong Chiam | 40.22 | 301 | P | P | 19 00 36.5 | 0.0 |
| | comp=Z,119nm,1.2s | | | | | | |
| IPM | Ipoh | 40.48 | 283 | ⇑P | P | 19 00 39.9 | +1.1 |
| IPM | Ipoh | 40.48 | 283 | eP | P | 19 00 35.9 | -2.9 |
| | comp=Z,102nm,1.9s | | | | | | |
| SSE | Sheshan | 40.71 | 334 | ⇑P | P | 19 00 40.6 | +0.3 |
| SSE | | | | pP | pP | 19 00 52.4 | +1.4 |
| SSE | | | | sP | sP | 19 00 57.8 | +2.5 |
| SSE | | | | S | S | 19 06 48.7 | +0.4 |
| SSE | | | | sS | sS | 19 07 08.9 | +3.1 |
| SSE | | | | pmax | pmax | | |
| | comp=Z,61nm,0.8s | | | | | | |
| SSE | | | | pmax | pmax | | |
| | comp=Z,280nm,4.8s | | | | | | |
| SSE | | | | LR | LR | | |
| | comp=Z,420nm,20.6s | | | | | | |
| SSE | | | | LR | LR | | |
| | comp=Z,220nm,20.6s | | | | | | |
| SSE | | | | LR | LR | | |
| | comp=Z,550nm,22.3s | | | | | | |
| KULM | Kulim | 41.03 | 284 | PFAKE | | 19 00 50.0 | +6.7 |
| KULM | | | | LR | LR | | |
| | comp=Z,336nm,19.0s | | | | | | |
| MJAR | Matsushiro Arr | 41.85 | 357 | P | P | 19 00 47.8 | -1.8 |
| | comp=Z,4.2nm,0.9s,baz=178,slow=8.7,SNR=6.2 | | | | | | |
| MJAR | | | | PcP | PcP | 19 02 45.0 | -0.1 |
| | comp=Z,5.8nm,1.0s,baz=208,slow=5.1,SNR=5.6 | | | | | | |
| MAT | Matsushiro | 41.85 | 357 | P | P | 19 00 47.7 | -1.9 |
| MAT | | | | S | S | 19 07 00.4 | -4.7 |
| PSI | Prapat | 42.16 | 280 | P | P | 19 00 52.0 | -0.7 |
| | comp=Z,45nm,1.1s,baz=93,slow=12,SNR=23 | | | | | | |
| PSI | Prapat | 42.16 | 280 | eP | P | 19 00 51.9 | -0.8 |
| PSI | | | | pmax | pmax | | |
| | comp=Z,87nm,1.2s | | | | | | |
| PSI | Prapat | 42.16 | 280 | eP | P | 19 00 51.9 | -0.8 |
| | comp=Z,87nm,1.2s | | | | | | |
| SKNT | Sakolnakorn | 42.28 | 303 | P | P | 19 00 53.2 | -0.3 |
| | comp=Z,216nm,1.1s | | | | | | |
| NJ2 | Nanjing | 42.56 | 333 | eP | P | 19 00 53.3 | -2.2 |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,38nm,1.1s | | | | | | |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,400nm,4.6s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,430nm,13.9s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,800nm,17.1s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,680nm,19.5s | | | | | | |
| SRAK | Srakaew | 42.64 | 297 | P | P | 19 00 51.8 | -4.6 |
| TRTT | Trang | 42.64 | 288 | P | P | 19 00 57.4 | +1.0 |
| | comp=Z,41nm,1.6s,comp=Z,661nm | | | | | | |
| GSI | Gunungsitoli | 43.22 | 278 | P | P | 19 01 00.5 | -0.7 |
| GSI | Gunungsitoli | 43.22 | 278 | eP | P | 19 00 58.0 | -3.2 |
| | comp=Z,44nm,1.2s | | | | | | |
| TJN | Taejon | 43.37 | 345 | ceP | P | 19 01 02.7 | +0.7 |
| NAYO | Nakonayok | 43.40 | 297 | P | P | 19 01 02.8 | +0.3 |
| | comp=Z,126nm,0.9s | | | | | | |
| KCSI | Kotacane, Aceh | 43.43 | 281 | P | P | 19 01 02.5 | -0.4 |
| | comp=Z,21nm,0.9s,comp=Z,416nm | | | | | | |
| CHAI | Chaiyaphum | 43.49 | 300 | P | P | 19 01 02.7 | -0.6 |
| | comp=Z,51nm,0.8s,comp=Z,375nm | | | | | | |
| NONG | Nongkai | 43.50 | 303 | P | P | 19 01 02.7 | -0.7 |
| | comp=Z,135nm,1.1s,comp=Z,5μm | | | | | | |
| WHN | Wuhan | 43.60 | 327 | ⇑P | P | 19 01 05.3 | +1.4 |
| WHN | | | | S | S | 19 07 25.0 | -6.0 |
| WHN | | | | pmax | pmax | | |
| | comp=Z,96nm,1.1s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=Z,660nm,13.7s | | | | | | |
| PKDT | Phuket | 43.94 | 287 | P | P | 19 01 07.6 | +0.7 |
| | comp=Z,44nm,1.0s | | | | | | |
| KSAR | Wonju Array Be | 44.25 | 346 | P | P | 19 01 08.9 | -0.1 |
| KSAR | | | | | | 19 02 53.3 | |
| KSAR | Wonju Array Be | 44.25 | 346 | P | P | 19 01 08.9 | -0.1 |
| KSAR | | | | PcP | PcP | 19 02 53.3 | +0.2 |
| KSRS | Korea Array | 44.25 | 346 | P | P | 19 01 08.9 | -0.1 |
| | comp=Z,6.2nm,0.9s,baz=160,slow=7.4,SNR=13 | | | | | | |
| KSRS | | | | PcP | PcP | 19 02 53.3 | +0.2 |
| | comp=Z,4.5nm,0.8s,baz=164,slow=5.3,SNR=5.5 | | | | | | |
| KSRS | | | | LR | LR | 19 17 03.8 | |
| | comp=Z,240nm,20.9s,baz=168,slow=33 | | | | | | |
| KS01 | Wonju Array Si | 44.28 | 346 | eP | P | 19 01 08.7 | -0.6 |
| PHET | Kaeng Krachan | 44.37 | 295 | P | P | 19 01 10.9 | +0.6 |
| | comp=Z,35nm,1.1s,comp=Z,293nm | | | | | | |
| LHMI | Lhok Sumawe | 44.60 | 283 | P | P | 19 01 12.6 | +0.4 |
| LHMI | Lhok Sumawe | 44.60 | 283 | P | P | 19 01 11.7 | -0.6 |
| | comp=Z,40nm,0.6s | | | | | | |
| INCN | Inchon | 44.61 | 344 | PFAKE | | 19 01 20.0 | +8.1 |
| INCN | | | | LR | LR | | |
| | comp=Z,449nm,20.0s | | | | | | |
| PBKT | Sadao Pong | 44.66 | 300 | P | P | 19 01 12.5 | -0.1 |
| | comp=Z,39nm,1.4s,comp=Z,2μm | | | | | | |
| SRDT | SRDT | 45.37 | 296 | P | P | 19 01 18.9 | +0.6 |
| | comp=Z,241nm,1.3s,comp=Z,4μm | | | | | | |
| GYA | Guiyang | 45.51 | 316 | ⇑iP | P | 19 01 19.8 | +0.4 |
| GYA | | | | pP | sP | 19 01 32.4 | -2.1 |
| GYA | | | | PcP | PcP | 19 02 59.0 | +1.1 |
| GYA | | | | PP | PP | 19 03 07.8 | +1.3 |
| GYA | | | | S | S | 19 07 59.2 | 0.0 |
| GYA | | | | sS | sS | 19 08 19.0 | +2.1 |
| GYA | | | | SS | ScS | 19 11 15.5 | +1.9 |
| GYA | | | | pmax | pmax | | |
| | comp=Z,30nm,0.9s | | | | | | |
| GYA | | | | pmax | pmax | | |
| | comp=Z,140nm,5.0s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,720nm,18.1s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,670nm,19.0s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,690nm,18.6s | | | | | | |
| UTTA | Uttaradit | 45.53 | 301 | P | P | 19 01 19.4 | -0.2 |
| | comp=Z,37nm,0.9s,comp=Z,269nm | | | | | | |
| UTHA | Uthaitani | 45.56 | 298 | P | P | 19 01 19.8 | 0.0 |
| | comp=Z,32nm,1.0s | | | | | | |
| NANT | Nan | 45.89 | 303 | P | P | 19 01 22.5 | +0.1 |
| | comp=Z,48nm,0.9s,comp=Z,357nm | | | | | | |
| DCZ | Deep Cove | 46.17 | 154 | eP | P | 19 01 26.8 | +2.6 |
| | comp=Z,148nm,1.2s | | | | | | |
| SUKH | Sukhothai | 46.21 | 300 | P | P | 19 01 25.1 | +0.2 |
| | comp=Z,16nm,1.1s,comp=Z,157nm | | | | | | |
| ENH | Enshi | 46.22 | 322 | eP | P | 19 01 23.0 | -1.8 |
| | comp=Z,118nm,0.9s | | | | | | |
| ENH | | | | LR | LR | | |
| | comp=Z,355nm,20.0s | | | | | | |
| MLZ | Mavora Lakes | 46.52 | 153 | eP | P | 19 01 29.7 | +2.6 |
| | comp=Z,105nm,1.0s | | | | | | |
| URZ | Urewera | 46.68 | 140 | P | P | 19 01 29.9 | +1.6 |
| | comp=Z,19nm,0.9s,baz=278,slow=7.1,SNR=3.6 | | | | | | |
| RPZ | Rata Peaks | 46.70 | 149 | P | P | 19 01 30.4 | +1.9 |
| | comp=Z,67nm,0.9s,baz=15,slow=2.6,SNR=24 | | | | | | |
| RPZ | Rata Peaks | 46.70 | 149 | eP | P | 19 01 27.2 | -1.3 |
| | comp=Z,86nm,1.0s | | | | | | |
| BKZ | Black Stump Fm | 46.81 | 141 | eP | P | 19 01 27.6 | -1.9 |
| | comp=Z,37nm,0.9s | | | | | | |
| TIA | Tai'an | 46.83 | 334 | ⇑P | P | 19 01 28.9 | -0.6 |
| TIA | | | | pmax | pmax | | |
| | comp=Z,30nm,1.1s | | | | | | |
| SNZO | South Karori | 47.05 | 144 | PFAKE | | 19 01 40.0 | +8.8 |
| SNZO | | | | LR | LR | | |
| | comp=Z,1μm,19.0s | | | | | | |
| CM31 | Chiang Mai Arr | 47.22 | 301 | eP | P | 19 01 33.3 | +0.4 |
| CMAR | Chiang Mai Arr | 47.22 | 301 | P | P | 19 01 33.2 | +0.4 |
| | comp=Z,62nm,0.8s,baz=123,slow=6.1,SNR=421 | | | | | | |
| CMAR | | | | PcP | PcP | 19 03 05.0 | +1.1 |
| | comp=Z,8.9nm,0.9s,baz=136,slow=3.3,SNR=5.0 | | | | | | |
| CMMT | Chiang Mai | 47.38 | 302 | P | P | 19 01 33.8 | -0.3 |
| | comp=Z,106nm,1.0s,comp=Z,1μm | | | | | | |
| CHTO | Chiang Mai | 47.38 | 302 | P | P | 19 01 33.9 | -0.2 |
| | comp=Z,471nm,1.0s,comp=Z,4μm | | | | | | |
| CHTO | Chiang Mai | 47.38 | 302 | eP | P | 19 01 34.1 | 0.0 |
| CHTO | | | | pmax | pmax | | |
| | comp=Z,81nm,0.9s | | | | | | |
| CHTO | | | | MLR | MLR | | |
| | comp=Z,208nm,19.0s | | | | | | |
| CHTO | Chiang Mai | 47.38 | 302 | eP | P | 19 01 34.1 | 0.0 |
| | comp=Z,81nm,0.9s | | | | | | |
| CHTO | | | | LR | LR | | |
| | comp=Z,208nm,19.0s | | | | | | |
| KMI | Kunming | 47.54 | 311 | P | P | 19 01 36.2 | +0.7 |
| KMI | | | | pP | pP | 19 01 45.0 | -1.3 |
| KMI | | | | sP | sP | 19 01 51.3 | +0.7 |
| KMI | | | | PP | PP | 19 03 28.1 | +0.8 |
| KMI | | | | S | S | 19 08 33.0 | +4.5 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,30nm,1.4s | | | | | | |
| KMI | | | | pmax | pmax | | |
| | comp=Z,220nm,4.7s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,180nm,21.0s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,310nm,19.1s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,430nm,24.9s | | | | | | |
| AFI | Afiamalu | 47.88 | 104 | P | P | 19 01 39.1 | +1.0 |
| | comp=Z,35nm,0.9s,baz=254,slow=13,SNR=4.6 | | | | | | |
| XAN | Xi'an | 49.25 | 325 | P | P | 19 01 48.0 | -0.3 |
| XAN | | | | pP | pP | 19 01 58.9 | -0.3 |
| XAN | | | | pmax | pmax | | |
| | comp=Z,130nm,1.5s | | | | | | |
| USRK | Ussuriysk Ar. | 50.02 | 352 | P | P | 19 01 54.3 | +0.4 |
| | comp=Z,10nm,0.9s,baz=174,slow=7.7,SNR=11 | | | | | | |
| USRK | | | | LR | LR | 19 20 07.7 | |
| | comp=Z,308nm,21.0s,baz=159,slow=33 | | | | | | |
| CD2 | Chengdu | 50.30 | 318 | ⇑iP | P | 19 01 56.8 | +0.4 |
| CD2 | | | | PP | PP | 19 03 50.7 | -1.5 |
| CD2 | | | | S | S | 19 09 07.1 | +0.2 |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,120nm,1.0s | | | | | | |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,340nm,5.4s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,280nm,11.9s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,320nm,15.5s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,210nm,14.3s | | | | | | |
| BJT | Baijiatuau | 50.45 | 336 | eP | P | 19 01 54.8 | -2.4 |
| BJT | | | | pmax | pmax | | |
| | comp=Z,11nm,0.6s | | | | | | |
| BJT | | | | MLR | MLR | | |
| | comp=Z,768nm,20.0s | | | | | | |
| BJT | Baijiatuau | 50.45 | 336 | eP | P | 19 01 54.8 | -2.4 |
| | comp=Z,11nm,0.6s | | | | | | |

BJT LR LR
comp=Z,768nm,20.0s
**BJI Beijing 50.46 336** P **P** **19 01 57.0 -0.3**
BJI sP **sP** **19 02 16.3 +3.8**
BJI S **S** **19 09 14.9 +6.3**
BJI pmax pmax
comp=Z,31nm,1.3s
BJI LR LR
comp=Z,610nm,17.2s
BJI LR LR
comp=Z,370nm,18.0s
BJI LR LR
comp=Z,530nm,19.8s
**MDJ Mudanjiang 50.79 350** PFAKE 19 02 10.0 +10
MDJ LR LR
comp=Z,143nm,20.0s
**CN2 Changchun 50.86 346** *e*P **P** **19 02 00.1 -0.2**
CN2 *e*S **S** **19 09 14.0 0.0**
CN2 pmax pmax
comp=Z,20nm,0.9s
CN2 pmax pmax
comp=Z,100nm,3.0s
CN2 LR LR
comp=Z,200nm,22.0s
CN2 LR LR
comp=Z,300nm,22.0s
CN2 LR LR
comp=Z,400nm,24.0s
**YSS Yuzh-Sakhalins 52.25 2** *i* P **P** **19 02 09.8 -0.8**
YSS pmax pmax
comp=Z,24nm,0.7s
**HHC Hu-ho-hao-te 53.11 333** *e*P **P** **19 02 18.3 +1.0**
HHC PP **PP** **19 04 19.5 +2.0**
HHC S **S** **19 09 44.4 -0.9**
HHC sS sS 19 10 05.6 +2.3
HHC ScS **ScS** **19 12 00.6 -3.7**
HHC SS **SS** **19 13 23.6 -1.7**
HHC pmax pmax
comp=Z,24nm,1.1s
HHC pmax pmax
comp=Z,200nm,5.1s
HHC LR LR
comp=Z,370nm,16.7s
HHC LR LR
comp=Z,250nm,16.5s
HHC LR LR
comp=Z,270nm,15.7s
**BTO Baotou 53.64 332** *e*P **P** **19 02 20.7 -0.4**
**LZH Lanzhou 53.65 323** ⇑P **P** **19 02 22.7 +1.3**
LZH pP sP 19 02 35.0 -1.6
LZH sP pP 19 02 40.2 +7.9
LZH PP **PP** **19 04 23.2 +0.7**
LZH S **S** **19 09 52.0 -0.9**
LZH sS sS 19 10 14.0 +3.1
LZH SS **SS** **19 13 34.0 0.0**
LZH pmax pmax
comp=Z,30nm,1.1s
LZH pmax pmax
comp=Z,79nm,5.1s
LZH LR LR
comp=Z,220nm,14.8s
LZH LR LR
comp=Z,310nm,15.7s
LZH LR LR
comp=Z,310nm,17.3s
**HABR Khabarovsk 53.92 356** *e*P **P** **19 02 21.5 -1.4**
HABR *e**PP **pP** **19 02 31.5 -2.3**
HABR *e**SP **sP** **19 02 35.7 -2.4**
HABR *e* 19 03 26.6
HABR *e* 19 04 22.6
HABR *e*PPP PPP 19 05 31.5
HABR *e*S **S** **19 09 55.2 -0.5**
HABR *e**SS **sS** **19 10 12.1 -1.6**
HABR *e* 19 12 08.4
HABR *e*SS **SS** **19 13 37.6 +0.1**
HABR pmax pmax
comp=N,26nm,1.4s
HABR pmax pmax
comp=Z,55nm,1.4s
HABR pmax pmax
comp=E,5.0nm,0.7s
HABR MLR MLR
comp=Z,186nm,21.0s
**TYV Tymovskoe 56.15 2** *e*P **P** **19 02 37.7 -1.3**
TYV pmax pmax
comp=Z,61nm,2.8s
**SHL Shillong 56.23 306** *e*P **P** **19 02 39.6 -0.7**
**HIA Hailar 57.40 344** PFAKE 19 03 00.0 +12
HIA LR LR
comp=Z,321nm,19.0s
**GTA Gaotai 58.24 324** P **P** **19 02 55.1 +1.0**
GTA pP sP 19 03 07.4 -2.0
GTA sP pP 19 03 13.3 +8.1
GTA S **S** **19 10 50.1 -3.7**
GTA sS sS 19 11 15.3 +3.4
GTA SS **SS** **19 14 48.6 +2.4**
GTA pmax pmax
comp=Z,80nm,1.4s
GTA pmax pmax
comp=Z,410nm,6.4s
GTA LR LR
comp=Z,100nm,15.2s
GTA LR LR
comp=Z,160nm,11.9s
**LSA Lhasa 58.70 310** P **P** **19 02 54.1 -3.9**
LSA pmax pmax
comp=Z,27nm,0.8s
LSA MLR MLR
comp=Z,195nm,20.0s
**LSA Lhasa 58.70 310** P **P** **19 02 54.0 -3.9**
comp=Z,27nm,0.8s
LSA LR LR
comp=Z,195nm,20.0s
**BWNR Bhubaneshwar 59.36 297** *ex* P 19 02 56.3 -5.7
BWNR AMB AMB 19 02 56.8
comp=Z,84nm,0.4s
**PETK Petropavlovsk- 60.19 12** P **P** **19 03 07.4 +0.2**
comp=Z,9.6nm,0.6s,baz=167,slow=7.1,SNR=37
PETK LR LR 19 26 02.0
comp=Z,115nm,21.5s,baz=200,slow=33
**PETK Petropavlovsk- 60.19 12** *e*P **P** **19 03 06.9 -0.3**
**PETK Petropavlovsk- 60.19 12** *e*P **P** **19 03 06.9 -0.3**
**CHLP Challavanipeta 60.35 295** *e*P **P** **19 03 09.0 +0.1**
CHLP IAmb IAmb 19 03 11.1
comp=Z,100nm,1.0s
**TAPN Taplejung 60.38 306** *e*P **P** **19 03 09.8 +0.4**
comp=Z,161nm,1.2s
**ODAN Odare 60.44 305** *e*P **P** **19 03 10.0 +0.3**
comp=Z,90nm,0.9s
**BOK Bokaro 60.51 301** *e*P **P** **19 03 10.4 +0.5**
BOK AMB AMB 19 03 11.3
comp=Z,32nm,1.5s
**ULN Ulaanbaatar 60.64 335***ce*P **P** **19 03 11.6 +1.0**
ULN pmax pmax
comp=Z,34nm,1.7s
**ULN Ulaanbaatar 60.64 335** *e*P **P** **19 03 10.8 +0.2**
ULN LR LR
comp=Z,491nm,20.0s
**ULN Ulaanbaatar 60.64 335** P **P** **19 03 11.7 +1.2**
SNR=8.4
ULN P **P** **19 03 11.7 +1.2**
SNR=8.4
**ULN Ulaanbaatar 60.64 335** P **P** **19 03 11.7 +1.2**
SNR=8.4
**VIS Vishakhapatnam 60.78 294** *e*P **P** **19 03 12.6 +0.7**
VIS AMB AMB 19 03 13.4
comp=Z,74nm,1.1s
**PALK Pallekele 60.82 281** P **P** **19 03 12.8 +0.5**
comp=Z,25nm,0.8s,baz=116,slow=5.6,SNR=28
PALK LR LR 19 31 55.0
comp=Z,320nm,20.2s,baz=113,slow=38
**PALK Pallekele 60.82 281** *i* P **P** **19 03 13.1 +0.7**
SNR=13
**PALK Pallekele 60.82 281** *e*P **P** **19 03 12.2 -0.1**
**PALK Pallekele 60.82 281** *e*P **P** **19 03 12.2 -0.1**
**PALK Pallekele 60.82 281** P **P** **19 03 13.3 +1.0**
SNR=5.3
PALK P **P** **19 03 13.3 +1.0**
SNR=5.3
**PALK Pallekele 60.82 281** P **P** **19 03 13.3 +1.0**
SNR=5.3
**SONM Songino Array 60.89 335** P **P** **19 03 12.6 +0.3**
comp=Z,6.7nm,1.1s,baz=154,slow=6.4,SNR=20
SONM LR LR 19 29 19.0
comp=Z,578nm,19.8s,baz=146,slow=36
**SONA1 Songino Array 60.90 335** *e*P **P** **19 03 12.2 -0.1**
**RAMN Ramite 61.12 305** *e*P **P** **19 03 14.9 +0.5**
comp=Z,128nm,1.0s
**CIT Chita 61.66 342** *e*P **P** **19 03 18.4 +1.1**
CIT *e* 19 03 32.3
CIT *e* 19 03 57.8
CIT pmax pmax
comp=Z,100nm,1.5s
**JIRN Jiri 61.73 305** *e*P **P** **19 03 19.2 +0.5**
comp=Z,87nm,0.7s
**GUN Gumba 62.09 305** *e*P **P** **19 03 21.4 +0.4**
comp=Z,119nm,0.8s
**PVM Polavaram 62.21 293** *e*P **P** **19 03 21.7 +0.1**
PVM IAmb IAmb 19 03 22.6
comp=Z,38nm,1.0s
**PKI Pulchoki 62.34 305** *e*P **P** **19 03 22.8 +0.1**
**PKIN Phulchoki 62.35 305** *e*P **P** **19 03 22.8 +0.1**
comp=Z,29nm,0.8s
**MDRS Chennai 62.45 288** *e*P **P** **19 03 24.2 +1.0**
MDRS AMB AMB 19 03 24.6
comp=Z,37nm,0.8s
**KKN Kakani 62.53 305** *e*P **P** **19 03 24.2 +0.4**
comp=Z,162nm,1.0s
**DMN Daman 62.60 305** *e*P **P** **19 03 24.8 +0.5**
comp=Z,216nm,1.0s
**XMAS Kiritimati 62.60 85** PFAKE
XMAS LR LR 19 03 40.0 +16
comp=Z,5.0nm,19.0s
**SKHT Srikalahasti 63.11 288** *e*P **P** **19 03 27.3 -0.3**
SKHT IAmb IAmb 19 03 28.6
comp=Z,32nm,0.9s
**GKN Gorkha 63.13 305** *e*P **P** **19 03 28.2 +0.4**
comp=Z,5.1nm,0.8s
**CLNS Chul'man 63.37 351** *e*P **P** **19 03 26.2 -2.4**
CLNS pmax pmax
comp=Z,27nm,1.0s
CLNS pmax pmax
comp=N,18nm,1.0s
CLNS pmax pmax
comp=E,10.0nm,1.3s
**KOLN Koldanda 63.89 304** *e*P **P** **19 03 33.4 +0.6**
comp=E,206nm,0.9s
**DANN Dangsing 63.98 305** *e*P **P** **19 03 34.0 +0.5**
comp=E,7.8nm,0.9s
**ZAK Zakamensk 64.16 335** *e*P **P** **19 03 34.1 +0.1**
ZAK pmax pmax
comp=Z,34nm,1.3s
**NJS Nagarjunasagar 64.17 291** *e*P **P** **19 03 34.7 +0.1**
NJS IAmb IAmb 19 03 35.5
comp=Z,62nm,1.4s
**SRLM Srisailam 64.44 291** *e*P **P** **19 03 35.3 -1.1**
SRLM IAmb IAmb 19 03 37.2
comp=Z,97nm,1.5s
**PYUN Piuthan 64.52 305** *e*P **P** **19 03 37.4 +0.5**
comp=Z,460nm,0.9s
**RPR Rampur 64.78 294** *e*P **P** **19 03 38.4 -0.1**
RPR IAmb IAmb 19 03 39.1
comp=Z,41nm,1.1s
**TLY Talaya 64.98 336** *e*P **P** **19 03 40.1 +0.8**
TLY *e*S **S** **19 12 20.0 +1.4**
TLY pmax pmax
comp=Z,37nm,1.1s
TLY MLR MLR
comp=Z,340nm,20.0s
**TLY Talaya 64.98 336** PFAKE 19 03 50.0 +11
TLY LR LR
comp=Z,406nm,21.0s
**HYB Hyderabad 65.08 292** *i* P **P** **19 03 41.0 +0.4**
comp=Z,50nm,1.0s
**HYB Hyderabad 65.08 292** *e*P **P** **19 03 40.5 -0.1**
HYB AMB AMB 19 03 40.9
comp=Z,36nm,1.1s
**HYBB Hyderabad (bro 65.08 292** *e*P **P** **19 03 39.7 -0.9**
HYBB IAmb IAmb 19 03 40.8
comp=Z,24nm,0.7s
**MA2 Magadan 65.38 6** P **P** **19 03 41.4 -0.2**
comp=Z,28nm,0.9s,baz=196,slow=12,SNR=5.5
**MA2 Magadan 65.38 6***ce*P **P** **19 03 42.3 +0.7**
**SRSP Sriramsagar 65.66 293** *e*P **P** **19 03 43.1 -1.2**
SRSP IAmb IAmb 19 03 44.9
comp=Z,40nm,1.0s
**URV Uravakonda 65.70 289** *e*P **P** **19 03 43.9 -0.7**
URV IAmb IAmb 19 03 45.0
comp=Z,21nm,1.0s
**KIP Kipapa 66.06 64** *e*P **P** **19 03 47.2 +0.5**
**MOY Mondy 66.09 334** *e*P **P** **19 03 48.1 +1.6**
**BOD Bodaibo 66.58 345**⇓ *i*P **P** **19 03 49.1 -0.3**
BOD pmax pmax
comp=Z,45nm,1.5s
**KLRI Killari 67.05 292** *e*P **P** **19 03 52.0 -1.2**
KLRI IAmb IAmb 19 03 53.1
comp=Z,29nm,0.8s
**MNGI Mangalore 67.58 286** *ex* P 19 04 03.7 +7.1
MNGI AMB AMB 19 04 04.1
comp=Z,44nm,1.3s
**BHPL Bhopal 67.67 298** *e*P **P** **19 03 57.2 +0.2**
BHPL AMB AMB 19 03 57.4
comp=Z,47nm,1.6s
**YAK Yakutsk 67.81 355** P **P** **19 03 56.9 -0.1**
comp=Z,40nm,0.9s,baz=37,slow=0.5,SNR=22
**YAK Yakutsk 67.81 355** *e*P **P** **19 03 56.0 -1.1**
YAK *e**PP **pP** **19 04 09.0 +0.7**
YAK *e* 19 04 21.3
YAK *e* 19 06 25.5
YAK *e*S **S** **19 12 53.4 +1.0**
YAK pmax pmax
comp=Z,46nm,1.0s
YAK pmax pmax
comp=N,18nm,1.3s
YAK pmax pmax
comp=E,3.0nm,1.0s
YAK pmax pmax
comp=Z,61nm,2.5s
YAK pmax pmax
comp=N,62nm,3.5s
YAK pmax pmax
comp=E,222nm,4.3s
YAK smax smax
comp=E,83nm,15.7s
YAK smax smax
comp=N,169nm,20.6s
**YAK Yakutsk 67.81 355** *e*P **P** **19 03 57.1 0.0**
YAK LR LR
comp=Z,171nm,20.0s
**WMQ Urumqi 68.17 322** P **P** **19 04 00.9 +1.1**
WMQ pP sP 19 04 13.2 -2.0
WMQ sP pP 19 04 17.6 +6.6
WMQ pmax pmax
comp=Z,250nm,1.3s
WMQ pmax pmax
comp=Z,870nm,3.8s
WMQ LR LR
comp=Z,130nm,22.7s
WMQ LR LR
comp=Z,170nm,20.3s
**SEY Seymchan 68.84 6** P **P** **19 04 03.3 -0.2**
comp=Z,17nm,1.0s,baz=182,slow=5.4,SNR=13
**SEY Seymchan 68.84 6***ce*P **P** **19 04 04.0 +0.5**
**GOA Goa 69.05 289** *e*P **P** **19 04 05.8 +0.1**
GOA AMB AMB 19 04 07.2
comp=Z,56nm,1.0s
**HVS Khovu-Aksy 69.08 331** *i* P **P** **19 04 06.1 +0.7**
HVS pmax pmax
comp=Z,73nm,1.1s
**DDI Dehra Dun 69.33 305** *e*P **P** **19 04 08.1 +0.8**
DDI AMB AMB 19 04 08.9
comp=Z,195nm,1.4s
**PPT Papeete 69.41 107** LR LR 19 32 23.7
comp=Z,57nm,18.6s,baz=209,slow=34
**PPT2 Papeete2 69.41 107** *e*S **S** **19 13 19.0 +5.8**
comp=Z,92nm,26.2s
**PPT2 Papeete2 69.41 107** *e*LR LR 19 25 28.2
comp=Z,189nm,24.0s
**NDI New Delhi 69.49 303** *e*P **P** **19 04 06.0 -2.3**
**POO Poona 69.69 292**⇑ *i*P **P** **19 04 08.0 -1.8**
comp=Z,130nm,1.0s
**TBI Tubuai 69.69 113** *e*LR LR 19 25 35.6
comp=Z,150nm,29.0s
**SMLA Simla 70.33 306** *e*P **P** **19 04 14.0 +0.6**
SMLA AMB AMB 19 04 14.6
comp=Z,112nm,0.8s
**SDNR Sundarnagar 70.61 306** *e*P **P** **19 04 15.0 -0.1**
**DHRM DHARAMSHALA 71.39 307** *e*P **P** **19 04 20.3 +0.1**
DHRM AMB AMB 19 04 20.7
comp=Z,100nm,1.0s
**THN Thein Dam 71.92 307** *e*P **P** **19 04 22.0 -1.0**
**VNDA Vanda 72.90 175** P **P** **19 04 29.1 +1.0**
comp=Z,4.6nm,1.0s,baz=325,slow=7.7,SNR=6.3
VNDA LR LR 19 36 33.8
comp=Z,682nm,18.5s,baz=350,slow=36
**MK31 Makanchi Array 72.95 322***ce*P **P** **19 04 29.3 +0.4**
MK31 pmax pmax
comp=Z,159nm,1.0s
**MKAR Makanchi Array 72.95 322** P **P** **19 04 29.8 +0.9**
comp=Z,107nm,0.9s,baz=116,slow=6.9,SNR=495
**MKAR Makanchi Array 72.95 322** *i* P **P** **19 04 29.7 +0.8**
MKAR pmax pmax
comp=Z,108nm,0.9s
**MAKZ Makanchi 73.15 322** *i* P **P** **19 04 30.5 +0.5**
MAKZ pmax pmax
comp=Z,217nm,1.1s
**PDGK Podgornoye 73.19 318** *i* P **P** **19 04 31.2 +0.7**
PDGK pmax pmax
comp=Z,100nm,0.9s
**SBA Scott Base 73.65 174** PFAKE 19 04 40.0 +7.6
SBA LR LR
comp=Z,458nm,21.0s
**KSH Kashi 74.14 314** P **P** **19 04 38.2 +2.0**
KSH pP PcP 19 04 50.8 -0.3
KSH PcP **sP** **19 04 53.2 +1.5**
KSH PP **PP** **19 07 24.7 +2.5**
KSH S **S** **19 14 06.8 -0.3**
KSH ScS **SKSac** **19 14 39.4 -1.9**
KSH SS **SS** **19 18 55.0 +1.9**
KSH pmax pmax
comp=Z,72nm,1.1s
KSH LR LR
comp=Z,200nm,5.2s
KSH LR LR
comp=Z,220nm,6.0s
KSH LR LR
comp=Z,210nm,6.0s
**BHJ Bhuj 74.58 296** *e*P **P** **19 04 38.4 -0.5**
BHJ AMB AMB 19 04 40.8
comp=Z,106nm,0.5s
**ULHL Ulahol 74.96 316** P **P** **19 04 42.6 +1.6**
SNR=5.0
**ZALV Zalesovo Beam 75.12 330** P **P** **19 04 40.8 -0.5**
comp=Z,18nm,1.0s,baz=108,slow=4.8,SNR=52
ZALV LR LR 19 38 04.0
comp=Z,221nm,20.4s,baz=77,slow=36
**TKM2 Tokmak 2 75.65 317** P **P** **19 04 45.9 +0.9**
SNR=25
**KBK Karagaybulak 76.00 316** P **P** **19 04 47.8 +0.9**
SNR=13
**SFK Sufi-Kurgan 76.10 313** *i* P **P** **19 04 47.9 +0.3**
SFK pmax pmax
comp=Z,54nm,0.9s
**UCH Uchtor 76.14 316** P **P** **19 04 49.6 +1.5**
SNR=38
**CHMS Chumysh 76.26 317** P **P** **19 04 48.8 +0.6**
SNR=28
**FRU Bishkek 76.29 316** *e*P **P** **19 04 49.0 +0.6**
FRU pmax pmax
comp=Z,80nm,1.6s
**AAK Ala-Archa 76.30 316** P **P** **19 04 49.7 +1.1**
comp=Z,22nm,1.0s,baz=97,slow=4.5,SNR=33
**AAK Ala-Archa 76.30 316***c i*P **P** **19 04 49.5 +0.9**
AAK pmax pmax
comp=Z,56nm,1.3s
**AAK Ala-Archa 76.30 316** P **P** **19 04 49.6 +1.1**
SNR=25
**AAK Ala-Archa 76.30 316** *e*P **P** **19 04 44.9 -3.7**
comp=Z,40nm,1.1s
AAK LR LR
comp=Z,203nm,22.0s
**AAK Ala-Archa 76.30 316** P **P** **19 04 49.9 +1.3**
SNR=14
AAK P **P** **19 04 49.9 +1.3**
SNR=14
**AAK Ala-Archa 76.30 316** P **P** **19 04 49.9 +1.3**
SNR=14
**NVS Novosibirsk 76.38 330**⇓ *i*P **P** **19 04 48.8 +0.3**
NVS pmax pmax
comp=Z,55nm,1.3s
NVS pmax pmax
comp=N,13nm,1.4s
NVS pmax pmax
comp=E,37nm,1.3s
**USP Ospenovka 76.52 317** P **P** **19 04 50.6 +0.9**
SNR=42
**AML Almayashu 76.68 315** P **P** **19 04 52.3 +1.3**
SNR=57
**EKS2 Erkin-Say 76.81 316** P **P** **19 04 52.7 +1.3**
SNR=21
**KURK Kurchatov 76.89 325***ce*P **P** **19 04 51.9 +0.3**
**KURK Kurchatov 76.89 325** *e*P **P** **19 04 50.5 -0.9**
comp=E,1µm,1.4s
**KURK Kurchatov 76.89 325** P **P** **19 04 51.8 +0.3**
SNR=35
**KURK Kurchatov 76.89 325** P **P** **19 04 51.8 +0.3**
SNR=35
**KURBB Kurchatov Arra 76.90 325** P **P** **19 04 52.0 +0.4**
comp=E,61nm,1.1s,baz=116,slow=5.0,SNR=183
**TIXI Tiksi 77.34 356** P **P** **19 04 52.1 -1.5**
comp=E,3.3nm,0.5s,baz=173,slow=7.0,SNR=6.4
**TIXI Tiksi 77.34 356***c i*P **P** **19 04 52.3 -1.3**
TIXI pmax pmax
comp=Z,19nm,1.5s
**TIXI Tiksi 77.34 356** *e*P **P** **19 04 51.0 -2.6**
comp=Z,19nm,1.2s
TIXI LR LR
comp=Z,163nm,21.0s
**MNAS Manas 77.63 315** *i* P **P** **19 04 57.0 +0.9**
MNAS pmax pmax
comp=Z,84nm,1.1s
**DZET Dzherino 79.18 311** P **P** **19 05 05.3 +0.6**
DZET pmax pmax
comp=Z,95nm,1.2s
**KK31 Karatay Array 79.22 316***ce*P **P** **19 05 04.7 0.0**
KK31 pmax pmax
comp=Z,16nm,0.7s
**MAW Mawson 80.19 202** P **P** **19 05 10.6 +1.2**
comp=Z,27nm,0.9s,baz=74,slow=6.4,SNR=36
MAW LR LR 19 38 01.8
comp=Z,203nm,19.8s,baz=62,slow=34
**MAW Mawson 80.19 202** P **P** **19 05 11.3 +1.9**
baz=80,SNR=25
**MRIV Mauritius Mete 81.41 250** *e*P **P** **19 05 14.9 -2.1**
**BVA0 Borovoye Array 82.49 325** P **P** **19 05 22.2 +0.3**
BVA0 pmax pmax
comp=Z,73nm,1.1s
**BVAR Borovoye Array 82.49 325** P **P** **19 05 22.5 +0.6**
comp=Z,20nm,0.7s,baz=114,slow=7.2,SNR=82
**BRVK Borovoye 82.56 325***ce*P **P** **19 05 22.9 +0.7**
BRVK pmax pmax
comp=Z,327nm,1.7s
**BRVK Borovoye 82.56 325** P **P** **19 05 18.2 -4.0**
comp=Z,371nm,1.4s
**BRVK Borovoye 82.56 325** P **P** **19 05 23.2 +1.0**
SNR=29
**BRVK Borovoye 82.56 325** P **P** **19 05 23.2 +1.0**
SNR=29
**KDAK Kodiak Island 82.67 30***ce*P **P** **19 05 23.4 +0.7**
**QSPA South Pole Qui 84.49 180** *e*P **P** **19 05 29.4 -2.7**
comp=Z,152nm,1.2s
QSPA LR LR
comp=Z,551nm,19.0s
**WSAR Wadi Sarin 84.54 294** P **P** **19 05 33.9 +0.8**
comp=Z,26nm,0.9s,baz=117,slow=5.0,SNR=7.6
**PPLA Purkeypile 84.82 25** *e*P **P** **19 05 33.0 -0.8**
**KTH Kantishna Hill 85.60 25** P **P** **19 05 32.9 -4.7**
comp=Z,20nm,0.8s
**TRF Thorofare Moun 85.83 25** *e*P **P** **19 05 37.2 -1.7**
**SML Sawmill 86.11 27** *e*P **P** **19 05 38.0 -2.1**
SML pmax pmax
comp=Z,7.0nm,0.8s
**SML Sawmill 86.11 27** *e*P **P** **19 05 38.0 -2.1**
comp=Z,7.5nm,0.8s
**MCK McKinley 86.49 25** *e*P **P** **19 05 38.9 -3.0**
MCK pmax pmax
comp=Z,30nm,0.9s
**MCK McKinley 86.49 25** *e*P **P** **19 05 38.9 -3.0**
comp=Z,30nm,0.9s
**BANOM Banah 87.01 296** P **P** **19 05 45.5 +0.2**
**HATD Hatta, Dubai 87.02 295** P **P** **19 05 45.6 +0.2**
**DIV Divide 87.08 28** *e*P **P** **19 05 41.4 -3.5**
comp=Z,111nm,1.4s
**GEYT Alibeck 87.21 308** P **P** **19 05 46.0 0.0**
comp=Z,6.9nm,0.8s,baz=128,slow=2.4,SNR=22
**COLD Coldfoot 87.22 21** *e*P **P** **19 05 43.6 -1.8**
comp=Z,61nm,1.6s
**COLA College 87.32 24** *e*P **P** **19 05 41.5 -4.3**

COLA pmax pmax
comp=Z,37nm,1.4s
**COLA College 87.32 24** *e*P **P** **19 05 41.5 -4.3**
comp=Z,37nm,1.4s
**ILAR Eielson Array 87.68 24** P **P** **19 05 45.8 -1.8**
comp=Z,18nm,1.0s,baz=259,slow=4.8,SNR=68
ILAR LR LR 19 40 24.1
comp=Z,78nm,20.2s,baz=226,slow=32
**AB31 Akbulak array 87.86 320** *c*e P **P** **19 05 47.8 -1.0**
AB31 pmax pmax
comp=Z,18nm,0.8s
**DOT Dot Lake 88.54 26** *e*P **P** **19 05 48.1 -3.7**
comp=Z,156nm,1.1s
**SYO Syowa Base 88.76 201**‖ *e*P **P** **19 05 52.9 +0.2**
**SYO Syowa Base 88.76 201**‖ *i*PcP **P** **19 05 53.6 +0.9**
**SVE Sverdlovsk 88.92 327**‖ *e*P **P** **19 05 53.1 -0.6**
SVE pmax pmax
comp=Z,62nm,1.5s
**AKTO Aktyubinsk 89.30 321** P **P** **19 05 54.6 -1.0**
comp=Z,11nm,0.9s,baz=98,slow=5.3,SNR=29
**AKTO Aktyubinsk 89.30 321** *i* P **P** **19 05 53.8 -1.8**
AKTO pmax pmax
comp=Z,31nm,1.3s
**ARU Arti 89.98 327** P **P** **19 05 57.7 -0.9**
comp=Z,24nm,0.9s,baz=101,slow=2.9,SNR=36
**ARU Arti 89.98 327** *c i*P **P** **19 05 58.1 -0.5**
ARU 19 09 30.6
ARU S **SKSac** **19 16 25.6 -1.0**
ARU SS **SS** **19 22 49.8 +2.5**
ARU pmax pmax
comp=Z,73nm,1.2s
**ARU Arti 89.98 327** *e*P **P** **19 05 56.2 -2.4**
comp=Z,69nm,1.3s
**EGAK Eagle 90.05 25** P **P** **19 05 55.4 -3.3**
comp=Z,26nm,1.1s
EGAK LR LR
comp=Z,223nm,22.0s
**DAWY Dawson 90.65 26** *e*P **P** **19 05 59.0 -2.7**
comp=Z,40nm,1.1s
**ABPO Ambohimpanom 91.16 251** *i* P P 19 05 56.0 -9.2
**RAYN Ar Rayn 96.57 293** *e*P **P** **19 06 26.9 -2.9**
comp=Z,16nm,1.2s
RAYN LR LR
comp=Z,159nm,20.0s
**NVL N'lazarevskaya 96.65 195** *e*P **P** **19 06 29.4 +0.3**
**GNI Garni 97.77 310** *c e*P Pdif 19 06 36.0 +0.9
GNI pmax pmax
comp=Z,23nm,1.2s
**ZEI Tsey 98.40 312** *e*P **P** **19 06 35.9 -2.0**
ZEI pmax pmax
comp=Z,6.0nm,0.9s
**NCK Nalchik 98.62 313** *i* P **P** **19 06 36.5 -2.1**
NCK pmax pmax
comp=Z,11nm,1.0s
**KBZ Khabaz 99.12 313** P **Pdif** **19 06 39.3 -1.4**
comp=Z,2.9nm,0.8s,baz=88,slow=5.9,SNR=7.1
**NEY Neytrino 99.26 313** *i* P **Pdif** **19 06 41.6 -0.1**
NEY pmax pmax
comp=Z,2.0nm,0.8s
**KIV Kislovodsk 99.27 314** *e*P **Pdif** **19 06 39.9 -1.7**
KIV pmax pmax
comp=Z,6.0nm,1.1s
**SNAA Sanae 99.33 191** *i* P **Pdif** **19 06 41.7 +0.5**
**VRH Novokhopyorsk 99.64 321** *e*P **Pdif** **19 06 40.3 -2.5**
VRH pmax pmax
comp=Z,30nm,0.9s
**KLMR Klimovskoe 100.02 331** *e*P **Pdif** **19 06 41.7 -2.6**
KLMR *e* 19 10 46.4
KLMR pmax pmax
comp=Z,29nm,1.4s
**TMCR Tamitsa 100.26 334** P **Pdif** **19 06 44.8 -0.5**
TMCR pmax pmax
comp=Z,17nm,0.8s
**VSR Storozhevoye 101.24 321** *e*P **Pdif** **19 06 48.2 -1.8**
VSR pmax pmax
comp=Z,10.0nm,0.9s
**LPSR Galich'ya Gora 101.25 322** *e*P **Pdif** **19 06 48.6 -1.4**
LPSR pmax pmax
comp=Z,10.0nm,1.0s
**YKA Yellowknife Ar 101.78 27** P **Pdif** **19 06 51.1 -1.0**
comp=Z,2.2nm,0.8s,baz=282,slow=4.7,SNR=15
**YKA Yellowknife Ar 101.78 27** *i* P **Pdif** **19 06 51.0 -1.1**
YKA pmax pmax
comp=Z,2.0nm,0.8s
**WVOR Wild Horse Val 101.82 48** PFAKE 19 07 00.0 +7.0
WVOR LR LR
comp=Z,226nm,19.0s
**BMO Blue Mountains 102.61 45** PFAKE 19 07 10.0 +14
BMO LR LR
comp=Z,204nm,20.0s
**KMBO Kilima Mbogo 102.90 268** PFAKE 19 07 10.0 +11
KMBO LR LR
comp=Z,118nm,20.0s
**ARCES ARCESS Array B 103.64 341** Pdiff **Pdif** **19 06 59.4 -0.9**
comp=Z,8.4nm,0.9s,baz=64,slow=6.1,SNR=7.0
**PFO Pinyon Flats O 104.02 57** PFAKE 19 07 10.0 +7.0
PFO LR LR
comp=Z,201nm,19.0s
**HLID Hailey 104.81 47** PFAKE 19 07 20.0 +14
HLID LR LR
comp=Z,144nm,19.0s
**BRTR Keskin Array B 106.31 310** Pdiff **Pdif** **19 07 11.2 -1.8**
comp=Z,1.0nm,0.8s,baz=100,slow=3.0,SNR=7.1
**CSS Mathiatis 107.04 305** PFAKE 19 11 40.0
CSS LR LR
comp=Z,24nm,21.0s
**EGMT Eagleton 107.34 41** PFAKE 19 11 40.0
EGMT LR LR
comp=Z,211nm,19.0s
**AKASG Malin Array Be 107.52 322** Pdiff **Pdif** **19 07 16.7 -1.2**
comp=Z,1.3nm,0.7s,baz=68,slow=4.0,SNR=5.0
AKASG PKiKP **PKiKP** **19 11 25.6 -0.5**
comp=Z,1.3nm,0.6s,baz=73,slow=1.9,SNR=4.9
**LKWY Lake 107.53 45** PFAKE 19 11 40.0
LKWY LR LR
comp=Z,259nm,19.0s
**WUAZ Wupatki 108.05 55** PFAKE 19 11 40.0
WUAZ LR LR
comp=Z,253nm,20.0s
**BW06 Boulder Array 108.44 47** PFAKE 19 11 40.0
BW06 LR LR
comp=Z,190nm,22.0s
**PDAR Pinedale Array 108.44 47** PKiKP **PKiKP** **19 11 28.5 +0.1**
comp=Z,0.7nm,0.9s,baz=176,slow=2.2,SNR=3.7
**LSZ Lusaka 109.70 252** PFAKE 19 11 40.0
LSZ LR LR
comp=Z,178nm,21.0s
**LAO LASA Array 109.97 42** PFAKE 19 11 40.0
LAO LR LR
comp=Z,252nm,19.0s
**MVCO Mesa Verde 110.14 52** PFAKE 19 11 40.0
MVCO LR LR
comp=Z,207nm,20.0s
**ISCO Idaho Springs 111.91 49** PFAKE 19 11 50.0
ISCO LR LR
comp=Z,147nm,20.0s
**ANMO Albuquerque 112.12 55** *c i*PKiKP **PKiKP** **19 11 35.4 -0.1**
ANMO pmax pmax
comp=Z,10.0nm,2.5s
**ANMO Albuquerque 112.12 55** PFAKE 19 11 50.0
ANMO LR LR
comp=Z,210nm,21.0s
**SDCO Great Sand Dun 112.39 51** PFAKE 19 11 50.0
SDCO LR LR
comp=Z,323nm,21.0s
**SANT Santorini 113.19 307** PFAKE 19 11 50.0
SANT LR LR
comp=Z,48nm,21.0s
**MNTX Cornudas Mount 113.50 58** PFAKE 19 11 50.0
MNTX LR LR
comp=Z,211nm,19.0s
**OGNE Ogallala 114.32 47** PFAKE 19 11 50.0 +11
OGNE LR LR
comp=Z,293nm,19.0s
**TXAR Lajitas Array 115.30 60** PKP **PKPdf** **19 11 41.7 +0.1**
comp=Z,0.8nm,0.9s,baz=336,slow=5.9,SNR=4.6
TXAR PKKPab **PKKPab** **19 22 23.8 +2.2**
comp=Z,3.4nm,1.0s,baz=127,slow=7.7,SNR=16
**ULM Lac du Bonnet 115.36 36** PKP **PKPdf** **19 11 39.7 -1.3**
comp=Z,2.8nm,0.9s,baz=310,slow=5.0,SNR=3.4
**DPC Dobruska-Polom 115.43 324** *e*PKP **PKPdf** **19 11 42.5 +1.3**
**DPC Dobruska-Polom 115.43 324** *e*PKiKP **PKPdf** **19 11 42.5 +1.3**
**AGMN Agassiz Nation 116.14 38** PFAKE 19 11 50.0 +7.4
AGMN LR LR
comp=Z,218nm,21.0s
**TREC Trest 116.36 323** *e*PKP **PKPdf** **19 11 43.9 +0.9**
comp=Z,369nm,1.3s
**CTAB Cerro Tablazo, 145.62 89** *e*P **PKPdf** **19 12 38.8 -0.5**
**GRTK Grand Turk 145.62 59** PFAKE 19 12 50.0 +11
GRTK LR LR
comp=Z,472nm,20.0s
**CVER Cruz Verde, Cu 145.72 90** *e*P **PKPdf** **19 12 38.8 -0.7**
**SJAC San Juan de Ar 145.76 92** *e*P **PKPbc** **19 12 39.5 -0.1**
**CTAU Tausa, Cundina 145.78 89** *e*P **PKPdf** **19 12 38.2 -1.5**
**CHIC Chingaza 146.07 90** *e*P **PKPab** **19 12 41.5 0.0**
**GIRC Giron, Santand 146.65 85** *e*P **PKPdf** **19 12 40.2 -0.5**
**BARC Barichara 146.66 86** *e*P **PKPdf** **19 12 40.2 -0.6**
**RUSC La Rusia 146.76 88** *e*P **PKPdf** **19 12 40.8 -0.5**
**PAMC Pamplona, Colo 147.14 85** *e*P **PKPdf** **19 12 42.8 +0.9**
**SDV Santo Domingo 149.11 82** *e*P **PKPdf** **19 12 44.8 0.0**
**SDV Santo Domingo 149.11 82** PFAKE 19 13 00.0 +6.7
SDV LR LR
comp=Z,179nm,20.0s
**ASCN Ascension 151.45 242** PFAKE 19 13 00.0 -2.6
ASCN LR LR
comp=Z,372nm,20.0s
**SAML Samuel 152.53 121** PFAKE 19 13 00.0 +3.2
SAML LR LR
comp=Z,149nm,19.0s
**BDFB Brasilia 157.45 159** PKP **PKPdf** **19 12 58.2 +1.6**
comp=Z,4.1nm,0.9s,baz=174,slow=3.0,SNR=5.3
BDFB PKPab **PKPab** **19 13 28.5 +0.5**
comp=Z,7.1nm,0.8s,baz=32,slow=2.5,SNR=8.2
**RCBR Riachuelo 168.15 199** PFAKE 19 13 20.0 +13
RCBR LR LR
comp=Z,262nm,20.0s

*NIED* ***04*** *18:56:00,29.30N×130.50E,h26km,Mw4.2 Best double couple: M₀2.40000×10¹⁵ NP1:φₛ344.00000°,δ6.00000°, λ-131.00000°. NP2:φₛ205.00000°,δ85.00000°, λ-86.00000°.*

*IDC* ***04*** *18:56:51.7±3.8,29.11N×130.52E,h0km,mb4.1/2, mb1 3.9/5,mb1mx3.7/51,mbtmp3.8/5,ML3.2/3,MS3.9/6, Ms1 3.9/6,ms1mx3.3/45,Error ellipse: s-maj=65.2km s-min=40.6km az=134.0*

*NEIC* ***04*** *18:56:54.5±1.5,29.02N×130.62E,h35km,mb4.0/2,Error ellipse: s-maj=31.0km s-min=12.4km az=122.0*

*JMA* ***04*** *18:56:55.7±0.3,29.32N×130.53E,h22km±4km,M3.7*

**ISC 04 18:56:52.4±2.0,29.20N±0.05×130.62E±0.09,h2km±12km, n30,σ1s43/39,mb4.1/4,MS4.1/5,Ryukyu Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **JNN** | **Nakanoshima** | **0.91** | **315** | P | | **Pg** | **18 57 10.2** | **+0.3** |
| JNN | | | | S | | **Sg** | **18 57 21.7** | **0.0** |
| **JYAK** | **Yakushimahirau** | **1.04** | **355** | P | | **Pg** | **18 57 12.8** | **+0.5** |
| JYAK | | | | *e*S | | **Sg** | **18 57 25.6** | **-0.2** |
| **JZK** | **Kikaishima** | **1.05** | **213** | P | | **Pn** | **18 57 16.3** | **+2.1** |
| **JAM** | **Amami Oshima** | **1.19** | **229** | P | | **Pn** | **18 57 17.3** | **+1.2** |
| JAM | | | | *e*S | | **Sn** | **18 57 34.0** | **+1.2** |
| **JTAJ** | **Takarajima** | **1.24** | **268** | P | | **Pn** | **18 57 16.8** | **0.0** |
| JTAJ | | | | *e*S | | **Sg** | **18 57 31.7** | **-0.6** |
| **JKC** | **Kuchinoerabu** | **1.31** | **344** | P | | **Pn** | **18 57 16.3** | **-1.4** |
| JKC | | | | *e*S | | **Sg** | **18 57 32.4** | **-2.1** |
| **JTN** | **Tanegashima 3** | **1.48** | **12** | P | | **Pn** | **18 57 19.5** | **-0.6** |
| JTN | | | | *e*S | | **Sn** | **18 57 37.9** | **-2.2** |
| **JAMN** | **Amaminishikomi** | **1.59** | **233** | P | | **Pb** | **18 57 22.6** | **+0.1** |
| JAMN | | | | *e*S | | **Sg** | **18 57 43.3** | **-0.2** |
| **JTSR** | **Tashiro 2** | **1.98** | **8** | P | | **Pn** | **18 57 27.2** | **+0.2** |
| JTSR | | | | *e*S | | **Sn** | **18 57 51.2** | **-1.1** |
| **JTK** | **Tokunoshima** | **2.04** | **227** | P | | **Pn** | **18 57 29.4** | **+1.6** |
| JTK | | | | *e*S | | **Sn** | **18 57 53.8** | **0.0** |
| **JOKE** | **Okinoerabujima** | **2.57** | **225** | P | | **Pn** | **18 57 36.2** | **+1.0** |
| JOKE | | | | *e*S | | **Sn** | **18 58 08.3** | **+1.2** |
| **JOW** | **Kunigami** | **3.14** | **222** | P | | **Pn** | **18 57 41.9** | **-1.1** |
| **JOW** | **Kunigami** | **3.14** | **222** | *e*Pn | | **Pn** | **18 57 40.5** | **-2.4** |
| JOW | | | | *e*Sn | | **Sn** | **18 58 17.5** | **-3.6** |
| **JIH** | **Iheya** | **3.19** | **228** | P | | **Pn** | **18 57 44.2** | **+0.7** |
| **JNTH** | **Nagotoyohara** | **3.53** | **221** | P | | **Pn** | **18 57 49.4** | **+1.2** |
| JNTH | | | | *e*S | | **Sn** | **18 58 30.5** | **0.0** |
| **JNU** | **Nakatsue** | **3.91** | **3** | Pn | | **Pn** | **18 57 54.0** | **+0.4** |
| | 2.6nm,0.3s,baz=186,slow=19,SNR=30 | | | | | | | |
| JNU | | | | Sn | | **Sn** | **18 58 43.6** | **+3.5** |
| | 2.5nm,0.3s,baz=170,slow=13,SNR=3.9 | | | | | | | |
| **JNU** | **Nakatsue** | **3.91** | **3** | *e*Pn | | **Pn** | **18 57 53.2** | **-0.4** |
| JNU | | | | *e*Sn | | **Sn** | **18 58 40.9** | **+0.7** |
| **JKE** | **Kume jima 2** | **4.44** | **231** | P | | **Pn** | **18 58 01.4** | **+0.5** |
| JKE | | | | *e*S | | **Sn** | **18 58 51.7** | **-1.5** |
| **KSAR** | **Wonju Array Be** | **8.53** | **345** | Pn | | **Pn** | **18 58 58.7** | **+1.7** |
| **KSRS** | **Korea Array** | **8.53** | **345** | Pn | | **Pn** | **18 58 58.7** | **+1.7** |
| | 0.1nm,0.3s,baz=162,slow=13,SNR=6.4 | | | | | | | |
| KSRS | | | | LR | | LR | 19 02 29.9 | |
| | comp=Z,188nm,19.5s,baz=182,slow=39 | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **9.71** | **39** | Pn | | **Pn** | **18 59 13.8** | **+0.7** |
| | 0.4nm,0.3s,baz=251,slow=14,SNR=4.3 | | | | | | | |
| **ULN** | **Ulaanbastar** | **26.04** | **322** | P | | **P** | **19 02 26.8** | **-0.4** |
| | 0.8nm,0.4s | | | | | | | |
| **SONM** | **Songino Array** | **26.38** | **322** | P | | **P** | **19 02 29.0** | **-1.2** |
| | 1.3nm,0.7s,baz=139,slow=10.0,SNR=9.6 | | | | | | | |
| **CHTO** | **Chiang Mai** | **30.64** | **257** | *e*P | | P | 19 03 03.5 | -4.9 |
| | 5.0nm,0.8s | | | | | | | |
| **TIXI** | **Tiksi** | **42.51** | **359** | LR | | LR | 19 21 33.4 | |
| | comp=Z,51nm,18.9s,baz=14,slow=35 | | | | | | | |
| **FINES** | **FINESS Array B** | **71.33** | **331** | P | | **P** | **19 08 13.7** | **+0.4** |
| | 2.3nm,1.0s,baz=56,slow=5.4,SNR=3.0 | | | | | | | |
| **RAR** | **Rarotonga** | **83.70** | **118** | LR | | LR | 19 42 37.2 | |
| | comp=Z,53nm,18.0s,baz=264,slow=33 | | | | | | | |
| **PDAR** | **Pinedale Array** | **89.53** | **40** | LR | | LR | 19 54 59.9 | |
| | comp=Z,105nm,18.0s,baz=292,slow=39 | | | | | | | |
| **ULM** | **Lac du Bonnet** | **90.82** | **28** | LR | | LR | 19 54 31.9 | |
| | comp=Z,144nm,18.6s,baz=280,slow=38 | | | | | | | |
| **KMBO** | **Kilima Mbogo** | **93.49** | **271** | LR | | LR | 19 51 53.2 | |
| | comp=Z,74nm,21.6s,baz=90,slow=35 | | | | | | | |

*ISN* ***04*** *18:58:26.8±1.0,38.93N×43.54E,h0km±85km,ML3.9*

*IDC* ***04*** *18:58:28.3±1.7,38.37N×43.19E,h0km,mb3.4/4, mb1 3.4/7,mb1mx3.3/43,mbtmp3.3/7,ML3.0/3,Error ellipse: s-maj=31.2km s-min=18.8km az=137.0*

*AZER* ***04*** *18:58:29.4±0.2,38.24N×43.21E,h12km±6km,Error ellipse: s-maj=6.7km s-min=1.5km az=62.0*

*DDA* ***04*** *18:58:30.7,38.73N×43.20E,h22km,Ml3.9*

*ATA* ***04*** *18:58:30.3±1.9,38.79N×43.18E,h3km±14km,ML4.3, MW4.0*

*CSEM* ***04*** *18:58:31.2±0.1,38.72N×43.21E,h2km,ML3.6,Error ellipse: s-maj=3.7km s-min=3.1km az=162.0*

*ISK* ***04*** *18:58:31.3,38.77N×43.24E,h7km,ML3.6*

**ISC 04 18:58:31.5±0.8,38.74N±0.01×43.22E±0.01,h16km±6km, n163,σ1s80/231,mb3.2/3,23C-22D,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.20** | **138** | *e*PG | | **Pb** | **18 58 37.2** | **+0.3** |
| VANB | | | | *e*SG | | **Sg** | **18 58 42.4** | **+2.8** |
| **VANB** | **Van** | **0.20** | **138** | *e*Pg | | **Pb** | **18 58 37.2** | **+0.3** |
| **TVAN** | **Van** | **0.26** | **146** | *i* P | | **Pg** | **18 58 37.1** | **-0.2** |
| TVAN | | | | *i* S | | **Sb** | **18 58 42.7** | **+0.4** |
| **TVAN** | **Van** | **0.26** | **146** | P | | **Pg** | **18 58 37.1** | **-0.2** |
| TVAN | | | | S | | **Sb** | **18 58 42.7** | **+0.4** |
| **ERCV** | **ERCIS-VAN** | **0.29** | **18** | *e*PG | | **Pg** | **18 58 37.4** | **-0.5** |
| **ERCV** | **ERCIS-VAN** | **0.29** | **18** | *e*Pg | | **Pg** | **18 58 37.4** | **-0.5** |
| **VMUR** | **Van-Muradiye** | **0.37** | **48** | *i* P | | **Pg** | **18 58 39.2** | **0.0** |
| VMUR | | | | *i* S | | **Sb** | **18 58 45.8** | **+0.4** |
| **VMUR** | **Van-Muradiye** | **0.37** | **48** | P | | **Pg** | **18 58 39.2** | **0.0** |
| VMUR | | | | S | | **Sb** | **18 58 45.8** | **+0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.39** | **280** | *i* P | | **Pg** | **18 58 39.0** | **-0.6** |
| ADCV | | | | *i* S | | **Sg** | **18 58 45.1** | **-0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.39** | **280** | P | | **Pg** | **18 58 39.0** | **-0.6** |
| ADCV | | | | S | | **Sg** | **18 58 45.1** | **-0.1** |
| **GEVA** | **Gevas** | **0.45** | **197** | *e*P | | **Pg** | **18 58 39.6** | **-1.1** |
| GEVA | | | | *e*S | | **Sb** | **18 58 48.9** | **+1.2** |
| GEVA | | | | IAML | | | 18 58 53.8 | |
| | comp=Z,3μm,0.6s | | | | | | | |
| **GEVA** | **Gevas** | **0.45** | **197** | *i* P | | **Pg** | **18 58 39.5** | **-1.1** |
| GEVA | | | | *i* S | | **Sb** | **18 58 48.6** | **+0.9** |
| **GEVA** | **Gevas** | **0.45** | **197** | P | | **Pg** | **18 58 39.5** | **-1.1** |
| GEVA | | | | S | | **Sb** | **18 58 48.6** | **+0.9** |
| **CLDR** | **Caldiran** | **0.67** | **53** | *e*PG | | **Pg** | **18 58 44.3** | **-0.5** |
| CLDR | | | | *e*SG | | **Sg** | **18 58 54.1** | **+0.3** |
| **CLDR** | **Caldiran** | **0.67** | **53** | *i* P | | **Pg** | **18 58 44.0** | **-0.8** |
| CLDR | | | | *i* S | | **Sg** | **18 58 54.2** | **+0.5** |
| **CLDR** | **Caldiran** | **0.67** | **53** | P | | **Pg** | **18 58 44.0** | **-0.8** |
| **CLDR** | **Caldiran** | **0.67** | **53** | *e*Pg | | **Pg** | **18 58 44.3** | **-0.5** |
| CLDR | | | | *e*Sg | | **Sg** | **18 58 54.1** | **+0.3** |
| **TUTA** | **Tutak** | **0.73** | **334** | *e*P | | **Pb** | **18 58 44.8** | **-1.2** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TUTA | | | | eS | Sb | 18 58 55.0 | -0.9 |
| TUTA | | | | IAML | | 18 58 57.0 | |
| | comp=Z,2μm,0.4s | | | | | | |
| TUTA | Tutak | 0.73 | 334 | i P | Pb | 18 58 44.9 | -1.2 |
| TUTA | | | | i S | Sb | 18 58 54.8 | -1.1 |
| TUTA | Tutak | 0.73 | 334 | P | Pb | 18 58 44.9 | -1.2 |
| TUTA | | | | S | Sb | 18 58 54.8 | -1.1 |
| AGRB | Hanur-Agry | 0.85 | 348 | ePG | Pb | 18 58 47.0 | -1.1 |
| AGRB | | | | eSG | Sb | 18 58 58.9 | -0.4 |
| AGRB | Hanur-Agry | 0.85 | 348 | ePg | Pb | 18 58 47.0 | -1.1 |
| AGRB | | | | eSg | Sb | 18 58 58.9 | -0.4 |
| DYDN | Diyadin | 0.88 | 24 | eP | Pb | 18 58 47.3 | -1.2 |
| DYDN | | | | eS | Sb | 18 59 00.5 | +0.3 |
| DYDN | | | | IAML | | 18 59 06.3 | |
| | comp=Z,462nm,0.5s | | | | | | |
| DYDN | Diyadin | 0.88 | 24 | i P | Pb | 18 58 47.4 | -1.2 |
| DYDN | Diyadin | 0.88 | 24 | P | Pb | 18 58 47.4 | -1.2 |
| BASK | Baskale_VAN | 0.92 | 138 | eP | Pn | 18 58 50.2 | +0.1 |
| BASK | | | | eS | Sn | 18 59 04.6 | +1.5 |
| BASK | | | | IAML | | 18 59 13.8 | |
| | comp=Z,438nm,0.5s | | | | | | |
| BASK | Baskale_VAN | 0.92 | 138 | i P | Pb | 18 58 48.2 | -1.2 |
| BASK | Baskale_VAN | 0.92 | 138 | P | Pb | 18 58 48.2 | -1.2 |
| EKAR | Karacoban | 1.04 | 300 | eP | Pb | 18 58 50.4 | -0.9 |
| EKAR | | | | eS | Sg | 18 59 05.7 | +0.4 |
| EKAR | | | | IAML | | 18 59 22.3 | |
| | comp=Z,493nm,0.6s | | | | | | |
| EKAR | Karacoban | 1.04 | 300 | i P | Pb | 18 58 50.7 | -0.6 |
| EKAR | Karacoban | 1.04 | 300 | P | Pb | 18 58 50.7 | -0.6 |
| HAKT | HAKKARI | 1.24 | 162 | i P | Pn | 18 58 53.6 | -0.9 |
| HAKT | | | | i S | Sg | 18 59 14.4 | +2.6 |
| HAKT | HAKKARI | 1.24 | 162 | P | Pn | 18 58 53.6 | -0.9 |
| HAKT | | | | S | Sg | 18 59 14.4 | +2.6 |
| EATA | Eleskirt | 1.25 | 333 | eP | Pn | 18 58 54.0 | -0.7 |
| EATA | | | | eS | Sg | 18 59 12.7 | +0.5 |
| EATA | | | | IAML | | 18 59 18.6 | |
| | comp=Z,211nm,0.6s | | | | | | |
| EATA | Eleskirt | 1.25 | 333 | i P | Pn | 18 58 54.3 | -0.4 |
| EATA | Eleskirt | 1.25 | 333 | P | Pn | 18 58 54.3 | -0.4 |
| SRTM | Siirt_Merkez | 1.27 | 234 | i P | Pn | 18 58 54.7 | 0.0 |
| SRTM | Siirt_Merkez | 1.27 | 234 | P | Pn | 18 58 54.7 | 0.0 |
| SIRT | Sirnak | 1.39 | 207 | ePN | Pb | 18 58 57.8 | +0.7 |
| SIRT | Sirnak | 1.39 | 207 | ePn | Pb | 18 58 57.8 | +0.7 |
| YOVA | Hakkari_Yˆ…kse | 1.43 | 144 | i P | Pn | 18 58 57.7 | +0.7 |
| YOVA | | | | i S | Sg | 18 59 18.3 | +0.6 |
| YOVA | Hakkari_Yˆ…kse | 1.43 | 144 | P | Pn | 18 58 57.7 | +0.7 |
| YOVA | | | | S | Sg | 18 59 18.3 | +0.6 |
| VRTB | Varto-Mus | 1.44 | 287 | ePN | Pb | 18 58 58.0 | -0.1 |
| VRTB | Varto-Mus | 1.44 | 287 | i P | Pn | 18 58 57.3 | +0.2 |
| VRTB | | | | i S | Sg | 18 59 18.5 | +0.5 |
| VRTB | Varto-Mus | 1.44 | 287 | P | Pn | 18 58 57.3 | +0.2 |
| VRTB | Varto-Mus | 1.44 | 287 | ePn | Pb | 18 58 58.0 | -0.1 |
| VRTB | | | | S | Sg | 18 59 18.5 | +0.5 |
| TASB | TASBURUN-IGDIR | 1.47 | 32 | ePN | Pb | 18 58 58.4 | -0.1 |
| TASB | TASBURUN-IGDIR | 1.47 | 32 | ePn | Pb | 18 58 58.4 | -0.1 |
| CUKT | Cukurca | 1.52 | 168 | ePN | Pn | 18 58 59.1 | +0.9 |
| CUKT | Cukurca | 1.52 | 168 | i P | Pn | 18 58 59.2 | +0.9 |
| CUKT | Cukurca | 1.52 | 168 | P | Pn | 18 58 59.2 | +0.9 |
| HYR | Heyderabad | 1.60 | 52 | ⇑P | Pb | 18 59 01.8 | +1.1 |
| HYR | | | | ⇓S | Sg | 18 59 28.1 | +5.0 |
| HYR | Heyderabad | 1.60 | 52 | P | Pb | 18 59 01.8 | +1.1 |
| BNGL | BINGOL | 1.63 | 278 | eP | Pb | 18 59 00.9 | -0.5 |
| BNGL | | | | eS | Sg | 18 59 25.0 | +0.8 |
| BNGL | | | | IAML | | 18 59 25.6 | |
| | comp=Z,941nm,0.4s | | | | | | |
| HOMI | Horasan | 1.65 | 322 | eP | Pb | 18 59 01.3 | -0.5 |
| HOMI | | | | eS | Sg | 18 59 25.2 | +0.3 |
| HOMI | | | | IAML | | 18 59 29.9 | |
| | comp=Z,141nm,0.6s | | | | | | |
| HOMI | Horasan | 1.65 | 322 | i P | Pb | 18 59 01.4 | -0.5 |
| DIGO | Kars | 1.67 | 4 | eP | Pb | 18 59 01.7 | -0.5 |
| DIGO | Kars | 1.67 | 4 | i P | Pb | 18 59 01.9 | -0.2 |
| DIGO | Kars | 1.67 | 4 | P | Pb | 18 59 01.9 | -0.2 |
| BTMN | Batman | 1.75 | 242 | i P | Pn | 18 59 02.1 | +0.7 |
| BTMN | | | | i S | Sg | 18 59 28.2 | +0.1 |
| BTMN | Batman | 1.75 | 242 | P | Pn | 18 59 02.1 | +0.7 |
| BTMN | | | | S | Sg | 18 59 28.2 | +0.1 |
| NAX | Nakhchivan | 1.82 | 76 | ⇑P | Pb | 18 59 03.9 | -0.7 |
| NAX | | | | ⇓S | Sg | 18 59 30.8 | +0.5 |
| NAX | Nakhchivan | 1.82 | 76 | P | Pb | 18 59 03.9 | -0.7 |
| NAX | | | | S | Sg | 18 59 30.8 | +0.5 |
| ERZM | Erzurum | 1.85 | 309 | eP | Pb | 18 59 04.3 | -0.8 |
| ERZM | | | | eS | Sb | 18 59 28.1 | -0.1 |
| ERZM | Erzurum | 1.85 | 309 | i P | Pb | 18 59 04.5 | -0.7 |
| ERZM | Erzurum | 1.85 | 309 | P | Pb | 18 59 04.4 | -0.7 |
| KARS | Kars | 1.89 | 357 | ePN | Pn | 18 59 04.2 | +0.9 |
| KARS | Kars | 1.89 | 357 | ePn | Pn | 18 59 04.2 | +0.9 |
| SBZ | Shahbuz | 1.93 | 69 | ⇑P | Pn | 18 59 05.1 | +1.3 |
| SBZ | | | | ⇓S | Sg | 18 59 32.9 | -0.7 |
| SBZ | Shahbuz | 1.93 | 69 | P | Pn | 18 59 05.1 | +1.3 |
| SBZ | | | | S | Sg | 18 59 32.9 | -0.7 |
| SENK | Senkaya-Erzuru | 1.94 | 340 | ePN | Pn | 18 59 05.2 | +1.2 |
| SENK | Senkaya-Erzuru | 1.94 | 340 | ePn | Pn | 18 59 05.2 | +1.2 |
| ECAT | Cat-ERZURUM | 1.95 | 297 | eP | Pn | 18 59 05.4 | +1.2 |
| ECAT | | | | eS | Sg | 18 59 34.9 | +0.6 |
| ECAT | | | | IAML | | 18 59 43.0 | |
| | comp=Z,69nm,0.5s | | | | | | |
| ECAT | Cat-ERZURUM | 1.95 | 297 | i P | Pn | 18 59 05.4 | +1.2 |
| ECAT | Cat-ERZURUM | 1.95 | 297 | P | Pn | 18 59 05.4 | +1.2 |
| EAK | Akyaka | 1.96 | 9 | eP | Pb | 18 59 06.9 | -0.1 |
| EAK | | | | IAML | | 18 59 35.5 | |
| | comp=Z,96nm,0.8s | | | | | | |
| EAK | | | | eS | Sg | 18 59 35.6 | +0.9 |
| EAK | Akyaka | 1.96 | 9 | i P | Pb | 18 59 07.1 | +0.1 |
| EAK | Akyaka | 1.96 | 9 | P | Pb | 18 59 07.1 | +0.1 |
| BNGB | Bingˆ¶l | 2.00 | 278 | ePN | Pb | 18 59 06.9 | -0.8 |
| BINT | Bingol | 2.14 | 274 | ePn | Pn | 18 59 06.9 | +0.2 |
| ORD | Ordubad | 2.17 | 84 | P | Pn | 18 59 07.9 | +0.7 |
| ORD | | | | S | Sn | 18 59 35.6 | +1.8 |
| YEDI | Yedisu-Bingol | 2.20 | 289 | ePN | Pb | 18 59 09.7 | -1.3 |
| YEDI | Yedisu-Bingol | 2.20 | 289 | ePn | Pb | 18 59 09.7 | -1.3 |
| HANI | Diyarbakir_Han | 2.24 | 262 | i P | Pn | 18 59 08.8 | +0.8 |
| HANI | Diyarbakir_Han | 2.24 | 262 | P | Pn | 18 59 08.8 | +0.8 |
| DDEM | Demirkent | 2.43 | 333 | i P | Pb | 18 59 15.4 | +0.5 |
| DDEM | Demirkent | 2.43 | 333 | P | Pb | 18 59 15.4 | +0.5 |
| KOPT | Kop Dagi | 2.46 | 302 | i P | Pb | 18 59 15.2 | -0.4 |
| KOPT | Kop Dagi | 2.46 | 302 | P | Pb | 18 59 15.2 | -0.4 |
| BGD | Bogdanovka | 2.54 | 6 | P | Pb | 18 59 18.1 | +1.3 |
| MAZI | Mazidag | 2.54 | 241 | ePN | Pb | 18 59 15.0 | -1.8 |
| MAZI | Mazidag | 2.54 | 241 | ePn | Pb | 18 59 15.0 | -1.8 |
| DAGI | Agillar | 2.54 | 337 | i P | Pn | 18 59 14.3 | +2.0 |
| DYBB | Diyarbakir | 2.55 | 253 | ePN | Pb | 18 59 15.1 | -1.8 |
| ARTV | Artvin | 2.63 | 338 | eP | Pb | 18 59 19.4 | +0.9 |
| ARTV | | | | eS | Pg | 18 59 25.5 | +3.4 |
| ARTV | | | | IAML | | 18 59 31.9 | |
| | comp=Z,17nm,0.6s | | | | | | |
| AKH | Akhalkalaki | 2.67 | 4 | ePN | Pn | 18 59 15.6 | +1.5 |
| AKH | Akhalkalaki | 2.67 | 4 | P | Pb | 18 59 20.9 | +1.8 |
| AKH | Akhalkalaki | 2.67 | 4 | ePn | Pn | 18 59 15.6 | +1.5 |
| GDB | GEDABAY | 2.78 | 44 | ⇑P | Pn | 18 59 18.0 | +2.4 |
| GDB | | | | ⇑S | Sg | 18 59 59.9 | -1.0 |
| GDB | GEDABAY | 2.78 | 44 | P | Pn | 18 59 18.0 | +2.4 |
| QZX | Qazax, Azerbai | 2.84 | 35 | ⇓P | Pb | 18 59 20.8 | -1.1 |
| QZX | | | | ⇓S | Sg | 19 00 00.2 | -2.7 |
| QZX | Qazax, Azerbai | 2.84 | 35 | P | Pb | 18 59 20.8 | -1.1 |
| PTK | Pertek | 3.00 | 274 | ePN | Pn | 18 59 21.4 | +2.8 |
| PTK | Pertek | 3.00 | 274 | ePn | Pn | 18 59 21.4 | +2.8 |
| GANJ | Ganja | 3.06 | 51 | ⇓P | Pn | 18 59 21.8 | +2.6 |
| GANJ | | | | ⇑S | Sb | 19 00 03.3 | +0.6 |
| GANJ | Ganja | 3.06 | 51 | P | Pn | 18 59 21.8 | +2.6 |
| SVRC | Sivrice-ELAZID | 3.09 | 264 | ePN | Pn | 18 59 22.6 | +2.8 |
| SVRC | Sivrice-ELAZID | 3.09 | 264 | ePn | Pn | 18 59 22.7 | +2.8 |
| TBLG | Delisi | 3.20 | 21 | P | Pb | 18 59 29.1 | +1.1 |
| SEAG | Tbilisi Sea | 3.25 | 21 | P | Pb | 18 59 30.5 | +1.6 |
| BRDA | Brd | 3.42 | 62 | ⇓P | Pn | 18 59 26.1 | +2.0 |
| BRDA | | | | ⇓S | Sb | 19 00 10.3 | -2.7 |
| BRDA | Brd | 3.42 | 62 | P | Pn | 18 59 26.1 | +2.0 |
| BRDA | | | | S | Sb | 19 00 10.3 | -2.7 |
| DDFL | Dedoflistskaro | 3.50 | 39 | P | Pn | 18 59 20.7 | -4.6 |
| MNGR | Mingechevir, A | 3.60 | 55 | ⇑P | Pn | 18 59 29.5 | +2.8 |
| MNGR | | | | ⇑S | Sb | 19 00 16.4 | -1.9 |
| MNGR | Mingechevir, A | 3.60 | 55 | P | Pn | 18 59 29.5 | +2.8 |
| MNGR | | | | S | Sb | 19 00 16.4 | -1.9 |
| URFA | Urfa | 3.71 | 251 | ePN | Pn | 18 59 31.5 | +3.3 |
| ZRD | Zardab | 3.78 | 65 | ⇓P | Pn | 18 59 30.8 | +1.7 |
| ZRD | | | | ⇑S | Sb | 19 00 18.6 | -4.7 |
| ZRD | Zardab | 3.78 | 65 | P | Pn | 18 59 30.8 | +1.7 |
| ZRD | | | | S | Sb | 19 00 18.6 | -4.7 |
| GUDG | Gudauri | 3.84 | 14 | P | Pb | 18 59 37.5 | -1.5 |
| ONI | Oni | 3.85 | 3 | P | Pn | 18 59 32.3 | +2.2 |
| ZKTA | Zakatala | 3.89 | 41 | ⇓P | Pn | 18 59 34.8 | +4.1 |
| ZKTA | | | | ⇓S | Sb | 19 00 25.4 | -1.3 |
| SEKA | Sheki | 3.92 | 50 | ⇑P | Pn | 18 59 35.0 | +3.8 |
| SEKA | | | | ⇑S | Sb | 19 00 26.6 | -1.1 |
| SEKA | Sheki | 3.92 | 50 | P | Pn | 18 59 35.0 | +3.8 |
| LRK | Lerik | 4.01 | 90 | ⇓P | Pn | 18 59 31.0 | -1.4 |
| LRK | | | | ⇑S | Sn | 19 00 19.1 | -0.1 |
| LRK | Lerik | 4.01 | 90 | P | Pn | 18 59 31.0 | -1.4 |
| LRK | | | | S | Sn | 19 00 19.1 | -0.1 |
| GLBA | Clilabad | 4.06 | 81 | ⇓P | Pn | 18 59 32.7 | -0.3 |
| GLBA | | | | ⇓S | Sn | 19 00 22.6 | +2.4 |
| GLBA | Clilabad | 4.06 | 81 | P | Pn | 18 59 32.7 | -0.3 |
| GLBA | | | | S | Sn | 19 00 22.6 | +2.4 |
| CHVG | Ch'k'valeri | 4.06 | 348 | P | Pb | 18 59 39.9 | -2.9 |
| KDMR | Kurdemir | 4.17 | 65 | ⇑P | Pn | 18 59 36.0 | +1.5 |
| KDMR | | | | ⇓S | Sn | 19 00 28.1 | +5.3 |
| KDMR | Kurdemir | 4.17 | 65 | P | Pn | 18 59 36.0 | +1.5 |
| KDMR | | | | S | Sn | 19 00 28.1 | +5.3 |
| QBL | Gabala | 4.18 | 57 | ⇑P | Pn | 18 59 37.1 | +2.4 |
| QBL | | | | ⇓S | Sb | 19 00 29.9 | -5.1 |
| QBL | Gabala | 4.18 | 57 | P | Pn | 18 59 37.1 | +2.4 |
| QBL | | | | S | Sb | 19 00 29.9 | -5.1 |
| SAAT | Saatly | 4.19 | 73 | ⇓P | Pn | 18 59 35.1 | +0.4 |
| SAAT | | | | ⇑S | Sn | 19 00 26.6 | +3.3 |
| SAAT | Saatly | 4.19 | 73 | P | Pn | 18 59 35.1 | +0.4 |
| SAAT | | | | S | Sn | 19 00 26.6 | +3.3 |
| IML | Ismayilli | 4.34 | 60 | ⇓P | Pn | 18 59 38.6 | +1.8 |
| IML | | | | ⇓S | Sn | 19 00 33.3 | +6.2 |
| IML | Ismayilli | 4.34 | 60 | P | Pn | 18 59 38.6 | +1.8 |
| IML | | | | S | Sn | 19 00 33.3 | +6.2 |
| LKRN | Lenkeran, Azer | 4.35 | 89 | ⇓P | Pn | 18 59 35.8 | -1.1 |
| LKRN | | | | ⇑S | Sn | 19 00 27.6 | +0.4 |
| LKRN | Lenkeran, Azer | 4.35 | 89 | P | Pn | 18 59 35.8 | -1.1 |
| LKRN | | | | S | Sn | 19 00 27.6 | +0.4 |
| ASTR | Astara | 4.36 | 91 | ⇑P | Pn | 18 59 35.9 | -1.3 |
| ASTR | | | | ⇑S | Sn | 19 00 27.9 | +0.2 |
| ASTR | Astara | 4.36 | 91 | P | Pn | 18 59 35.9 | -1.3 |
| ASTR | | | | S | Sn | 19 00 27.9 | +0.2 |
| XNQ | Khinaliq | 4.49 | 56 | ⇑P | Pn | 18 59 41.6 | +2.5 |
| XNQ | Khinaliq | 4.49 | 56 | P | Pn | 18 59 41.6 | +2.5 |
| PQL | Pirkuli | 4.62 | 62 | ⇓P | Pn | 18 59 42.5 | +1.7 |
| PQL | Pirkuli | 4.62 | 62 | P | Pn | 18 59 42.5 | +1.7 |
| ALIB | Äli-Bayra | 4.64 | 73 | ⇑P | Pn | 18 59 41.7 | +0.7 |
| ALIB | Äli-Bayra | 4.64 | 73 | P | Pn | 18 59 41.7 | +0.7 |
| QSAR | Qusar | 4.75 | 53 | ⇓P | Pn | 18 59 45.2 | +2.6 |
| QSAR | Qusar | 4.75 | 53 | P | Pn | 18 59 45.2 | +2.6 |
| GBS | Qobustan | 4.76 | 66 | ⇑P | Pn | 18 59 44.1 | +1.3 |
| GBS | Qobustan | 4.76 | 66 | P | Pn | 18 59 44.1 | +1.3 |
| QUBA | Quba, Azerbaij | 4.81 | 56 | ⇑P | Pn | 18 59 45.9 | +2.5 |
| QUBA | Quba, Azerbaij | 4.81 | 56 | P | Pn | 18 59 45.9 | +2.5 |
| ATGJ | Altiaghaj | 4.88 | 63 | ⇑P | Pn | 18 59 46.1 | +1.7 |
| ATGJ | Altiaghaj | 4.88 | 63 | P | Pn | 18 59 46.1 | +1.7 |
| KBZ | Khabaz | 4.99 | 357 | Pn | Pn | 18 59 51.5 | +5.8 |
| | comp=Z,0.1nm,0.3s,baz=180,slow=13,SNR=2.6 | | | | | | |
| BHD | Baghdad | 5.54 | 170 | ePn | Pn | 18 59 54.0 | +0.6 |
| | SNR=3.0 | | | | | | |
| RTB | Rutbah | 6.17 | 203 | ePn | Pn | 19 00 04.0 | +1.9 |
| | SNR=3.0 | | | | | | |
| RTB | | | | i Sn | Sn | 19 01 13.5 | +1.1 |
| | SNR=3.0 | | | | | | |
| AKASG | Malin Array Be | 15.52 | 325 | Pn | P | 19 02 12.4 | -1.5 |
| | comp=Z,0.2nm,0.3s,baz=130,slow=11,SNR=3.0 | | | | | | |
| AKTO | Aktyubinsk | 15.70 | 37 | Pn | P | 19 02 14.6 | -1.4 |
| | comp=Z,0.1nm,0.3s,baz=232,slow=9.3,SNR=4.8 | | | | | | |
| ARU | Arti | 20.41 | 25 | P | Pn | 19 03 09.1 | -0.8 |
| | comp=Z,2.1nm,0.4s,baz=234,slow=9.9,SNR=8.5 | | | | | | |
| KURBB | Kurchatov Arra | 27.51 | 53 | P | P | 19 04 18.2 | +1.1 |
| | comp=Z,0.3nm,0.5s,baz=261,slow=8.9,SNR=4.1 | | | | | | |
| ESDC | Sonseca Array | 36.24 | 287 | P | P | 19 05 33.2 | -0.7 |
| | comp=Z,0.1nm,0.4s,baz=82,slow=10,SNR=2.9 | | | | | | |
| TORD | Torodi Ar. Bea | 44.67 | 247 | P | P | 19 06 41.8 | -1.9 |
| | comp=Z,0.2nm,0.6s,baz=44,slow=8.8,SNR=3.0 | | | | | | |

---

**KRSC 04 19:04:01.3±1.1, 52°.72N×159°.72E, h65km±11km, ML3.7, Off east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SPN | Mys Shipunski | 0.42 | 26 | eP | Pn | 19 04 15.0 | +2.1 |
| SPN | | | | i S | Sn | 19 04 23.2 | +1.9 |
| NLC | Nalytchevo | 0.51 | 333 | eP | Pn | 19 04 15.4 | +1.7 |
| NLC | | | | eS | Sn | 19 04 24.3 | +1.6 |
| DALK | Dalny | 0.66 | 298 | eP | Pn | 19 04 16.5 | +1.1 |
| DALK | | | | eS | Sn | 19 04 25.5 | -0.3 |
| PET | Petropavlovsk | 0.72 | 296 | eP | Pn | 19 04 17.2 | +1.2 |
| PET | | | | eS | Sn | 19 04 27.0 | +0.2 |
| UGLR | Uglovaya | 0.73 | 312 | eP | Pn | 19 04 18.1 | +1.8 |
| UGLR | | | | eS | Sn | 19 04 28.6 | +1.2 |
| SDLR | Sedlovina | 0.76 | 318 | eP | Pn | 19 04 18.2 | +1.6 |
| SDLR | | | | eS | Sn | 19 04 28.9 | +1.0 |
| RUS | Russkaya | 0.79 | 249 | eP | Pn | 19 04 18.3 | +1.4 |
| RUS | | | | eS | Sn | 19 04 28.9 | +0.5 |
| AVH | Avacha | 0.81 | 313 | eP | Pn | 19 04 19.1 | +1.9 |
| AVH | | | | eS | Sn | 19 04 30.5 | +1.6 |
| KRER | Koryakskii | 0.83 | 315 | eP | Pn | 19 04 19.5 | +1.9 |
| KRER | | | | eS | Sn | 19 04 31.3 | +1.7 |
| KOK | Koryaka | 0.87 | 312 | eP | Pn | 19 04 20.0 | +2.0 |
| KOK | | | | eS | Sn | 19 04 31.5 | +1.1 |
| KRX | Arik | 0.91 | 315 | eP | Pn | 19 04 20.3 | +1.7 |
| KRX | | | | eS | Sn | 19 04 32.1 | +0.8 |
| MTVR | Mutnovka | 0.97 | 256 | eP | Pn | 19 04 21.0 | +1.7 |
| MTVR | | | | eS | Sn | 19 04 33.8 | +1.3 |
| KRMR | Karymshinskiy | 0.97 | 277 | eP | Pn | 19 04 20.2 | +1.0 |
| KRMR | | | | eS | Sn | 19 04 32.7 | +0.3 |
| ASAK | Asacha | 1.16 | 254 | eP | Pn | 19 04 23.9 | +2.2 |
| ASAK | | | | eS | Sn | 19 04 39.3 | +2.4 |
| KII | Karymskiy | 1.33 | 353 | eP | Pn | 19 04 26.2 | +2.3 |
| KII | | | | eS | Sn | 19 04 43.0 | +2.2 |
| KDTR | Khodutka, Kamc | 1.36 | 229 | eP | Pn | 19 04 26.5 | +2.3 |
| KDTR | | | | eS | Sn | 19 04 43.6 | +2.2 |
| GNL | Ganaly | 1.45 | 313 | eP | Pn | 19 04 27.9 | +2.4 |
| GNL | | | | eS | Sn | 19 04 46.4 | +2.7 |
| APC | Apacha | 1.57 | 279 | eP | Pn | 19 04 29.3 | +2.3 |
| APC | | | | eS | Sn | 19 04 48.3 | +1.9 |
| MKZ | Mys Kozlova | 2.19 | 32 | eP | Pn | 19 04 37.7 | +2.3 |
| MKZ | | | | eS | Sn | 19 05 03.4 | +1.9 |
| TUMR | Tumrok | 2.58 | 5 | eP | Pn | 19 04 45.2 | +4.4 |
| KBTR | Krutoberegovo | 3.94 | 26 | eP | Pn | 19 05 03.1 | +3.9 |
| KBTR | | | | eS | Sn | 19 05 47.0 | +3.0 |
| BKI | Bering | 4.45 | 54 | eP | Pn | 19 05 08.3 | +2.1 |
| BKI | | | | eS | Sn | 19 05 55.5 | -1.2 |

---

*ISCJB **04** 19:12:37.9±1.0, 5°.48S±0°.07×139°.8E±0°.2, h10km, mb3.5/2, Error ellipse: s-maj=27.0km s-min=6.4km az=16.5*
*IDC **04** 19:12:37.5±3.1, 5°.41S×140°.10E, h0km, mb3.6/2, mb1 3.7/5, mb1mx3.5/34, mbtmp3.5/5, ML3.3/3, Error ellipse: s-maj=81.1km s-min=28.1km az=91.0*
*DJA **04** 19:12:41.1±1.7, 5°S±3°×14°1E±2°9, h13km±15km, M4.2/3, MLv4.2/3*
**ISC 04 19:12:37.2**±0.8**, 5°.43S**±0°.05×**139°.9E**±0°.1**, h10km, n8, σ3ˢ.74**/14**, Irian Jaya**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GENI | Genyem | 2.83 | 5 | P | Pn | 19 13 24.5 | +2.0 |
| GENI | | | | S | Sb | 19 13 59.5 | -3.1 |
| JAY | Jayapura | 3.00 | 15 | P | Pn | 19 13 23.6 | -1.2 |
| JAY | | | | S | Sn | 19 13 56.9 | -3.9 |
| MMPI | Merauke | 3.05 | 172 | P | Pg | 19 13 35.7 | 0.0 |
| MMPI | | | | S | Sg | 19 14 16.5 | +1.3 |
| WRA | Warramunga Arr | 15.42 | 200 | Pn | Pn | 19 16 15.7 | +0.7 |
| | 0.1nm,0.3s,baz=23,slow=12,SNR=7.9 | | | | | | |
| WRA | | | | Sn | Sn | 19 19 00.9 | -5.2 |
| | 0.1nm,0.3s,baz=16,slow=22,SNR=2.8 | | | | | | |
| FITZ | Fitzroy Crossi | 18.81 | 227 | P | Pn | 19 17 00.1 | +2.4 |
| | 0.0nm,0.3s,baz=58,slow=9.5,SNR=4.5 | | | | | | |
| FITZ | | | | S | Sn | 19 20 21.7 | -6.6 |
| | 0.1nm,0.3s,baz=159,slow=17,SNR=2.3 | | | | | | |
| ASAR | Alice Springs | 19.04 | 197 | P | Pn | 19 17 02.4 | +2.0 |
| | 0.2nm,0.3s,baz=30,slow=8.6,SNR=9.1 | | | | | | |
| ASAR | | | | S | Sn | 19 20 28.6 | -5.2 |
| | baz=9.9,slow=27,SNR=2.7 | | | | | | |
| CMAR | Chiang Mai Arr | 46.87 | 301 | P | P | 19 21 10.6 | +2.6 |
| | 0.3nm,0.6s,baz=103,slow=6.5,SNR=5.2 | | | | | | |
| MKAR | Makanchi Array | 72.68 | 323 | P | P | 19 24 08.2 | +2.8 |
| | 0.7nm,0.9s,baz=106,slow=7.5,SNR=3.3 | | | | | | |

---

*ISK **04** 19:16:39.3, 38°.82N×43°.79E, h14km, MD2.5*
*ISCJB **04** 19:16:40.4±0.8, 38°.84N±0°.04×43°.78E±0°.08, h8km, Error ellipse: s-maj=8.9km s-min=5.7km az=19.7*
*CSEM **04** 19:16:40.0±0.3, 38°.88N×43°.79E, h2km, ML2.4, Error ellipse: s-maj=8.8km s-min=5.5km az=114.0*
*DDA **04** 19:16:40.5, 38°.83N×43°.77E, h7km, Ml2.4*
**ISC 04 19:16:40.2**±1.1**, 38°.84N**±0°.05×**43°.79E**±0°.05**, h8km, n22, σ1ˢ.24**/26**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.22 | 310 | i P | Pg | 19 16 44.2 | -0.6 |
| VMUR | | | | i S | Sg | 19 16 50.0 | +2.1 |
| VMUR | Van-Muradiye | 0.22 | 310 | P | Pg | 19 16 44.2 | -0.6 |
| CLDR | Caldiran | 0.31 | 18 | ePG | Pg | 19 16 45.9 | -0.6 |
| CLDR | | | | eSG | Sg | 19 16 52.6 | +1.9 |
| CLDR | Caldiran | 0.31 | 18 | i P | Pg | 19 16 46.2 | -0.3 |
| CLDR | | | | i S | Sg | 19 16 53.7 | +3.0 |
| CLDR | Caldiran | 0.31 | 18 | ePg | Pg | 19 16 45.9 | -0.6 |
| CLDR | Caldiran | 0.31 | 18 | P | Pg | 19 16 46.2 | -0.3 |
| CLDR | | | | eSg | Sg | 19 16 52.6 | +1.9 |
| VANB | Van | 0.40 | 232 | ePG | Pb | 19 16 48.6 | -1.0 |
| VANB | Van | 0.40 | 232 | ePg | Pb | 19 16 48.6 | -1.0 |
| TVAN | Van | 0.44 | 224 | i P | Pb | 19 16 48.7 | -1.6 |
| TVAN | Van | 0.44 | 224 | P | Pb | 19 16 48.7 | -1.6 |
| ADCV | BITLIS_Adilcev | 0.83 | 268 | i P | Pg | 19 16 55.7 | -0.6 |
| ADCV | BITLIS_Adilcev | 0.83 | 268 | P | Pg | 19 16 55.7 | -0.6 |
| TUTA | Tutak | 0.94 | 307 | i P | Pg | 19 16 57.8 | -0.6 |
| TUTA | Tutak | 0.94 | 307 | P | Pg | 19 16 57.8 | -0.6 |
| AGRB | Hanur-Agry | 0.96 | 320 | ePG | Pg | 19 16 57.8 | -0.9 |
| AGRB | Hanur-Agry | 0.96 | 320 | ePg | Pg | 19 16 57.8 | -0.9 |
| TASB | TASBURUN-IGDIR | 1.19 | 17 | ePN | Pn | 19 17 02.6 | -0.6 |
| TASB | TASBURUN-IGDIR | 1.19 | 17 | ePn | Pn | 19 17 02.6 | -0.6 |
| HAKT | HAKKARI | 1.29 | 183 | i P | Pn | 19 17 05.5 | +0.8 |
| HAKT | HAKKARI | 1.29 | 183 | P | Pn | 19 17 05.5 | +0.8 |
| EKAR | Karacoban | 1.41 | 288 | i P | Pg | 19 17 08.1 | +0.9 |
| EKAR | Karacoban | 1.41 | 288 | P | Pg | 19 17 08.1 | +0.9 |

---

*ISK **04** 19:17:53.4, 38°.77N×43°.20E, h5km, MD2.3*
*ISCJB **04** 19:17:54.0±0.6, 38°.78N±0°.03×43°.16E±0°.05, h12km, Error ellipse: s-maj=5.6km s-min=4.1km az=5.5*
*CSEM **04** 19:17:54.2±0.2, 38°.78N×43°.17E, h5km, MD2.3, Error ellipse: s-maj=6.0km s-min=4.7km az=84.0*
*DDA **04** 19:17:54.0, 38°.75N×43°.19E, h7km, Ml2.5*
**ISC 04 19:17:54.5**±1.3**, 38°.77N**±0°.02×**43°.19E**±0°.03**, h12km, n17, σ0ˢ.82**/27**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.24 | 138 | ePG | Pg | 19 17 60.0 | +0.4 |
| VANB | | | | eSG | Sg | 19 18 04.6 | +1.5 |
| VANB | Van | 0.24 | 138 | ePg | Pg | 19 18 00.0 | +0.4 |
| VANB | | | | eSg | Sg | 19 18 04.6 | +1.5 |
| TVAN | Van | 0.30 | 145 | i P | Pg | 19 17 59.9 | -0.8 |
| TVAN | Van | 0.30 | 145 | P | Pg | 19 17 59.9 | -0.8 |
| ADCV | BITLIS_Adilcev | 0.36 | 276 | i P | Pg | 19 18 02.1 | +0.2 |
| ADCV | BITLIS_Adilcev | 0.36 | 276 | P | Pg | 19 18 02.1 | +0.2 |
| VMUR | Van-Muradiye | 0.37 | 54 | i P | Pg | 19 18 01.8 | -0.2 |
| VMUR | | | | i S | Sg | 19 18 08.2 | +1.1 |
| VMUR | Van-Muradiye | 0.37 | 54 | P | Pg | 19 18 01.8 | -0.2 |
| VMUR | | | | S | Sg | 19 18 08.1 | +1.1 |
| GEVA | Gevas | 0.47 | 192 | i P | Pg | 19 18 02.7 | -1.2 |
| GEVA | | | | i S | Sg | 19 18 10.2 | 0.0 |
| GEVA | Gevas | 0.47 | 192 | P | Pg | 19 18 02.7 | -1.2 |
| GEVA | | | | S | Sg | 19 18 10.2 | 0.0 |
| CLDR | Caldiran | 0.68 | 57 | ePG | Pg | 19 18 06.8 | -1.0 |
| CLDR | | | | eSG | Sg | 19 18 16.7 | -0.1 |
| CLDR | Caldiran | 0.68 | 57 | i P | Pg | 19 18 06.8 | -1.0 |
| CLDR | Caldiran | 0.68 | 57 | P | Pg | 19 18 06.8 | -1.0 |
| CLDR | | | | eSg | Sg | 19 18 16.7 | -0.1 |
| TUTA | Tutak | 0.69 | 335 | i P | Pg | 19 18 07.5 | -0.5 |
| TUTA | Tutak | 0.69 | 335 | P | Pg | 19 18 07.6 | -0.5 |
| AGRB | Hanur-Agry | 0.82 | 349 | ePG | Pg | 19 18 09.7 | -0.7 |
| AGRB | | | | eSG | Sg | 19 18 21.6 | +0.5 |
| AGRB | Hanur-Agry | 0.82 | 349 | ePg | Pg | 19 18 09.7 | -0.7 |
| AGRB | | | | eSg | Sg | 19 18 21.6 | +0.5 |

---

*ISCJB **04** 19:19:56.7±0.7, 40°.39N±0°.03×33°.00E±0°.05, h1km±9km, Error ellipse: s-maj=7.1km s-min=5.1km az=143.9*
*DDA **04** 19:19:56.7, 40°.38N×32°.99E, h7km, Md2.6*
*CSEM **04** 19:19:57.0±0.2, 40°.39N×32°.99E, h10km, MD2.6, Error ellipse: s-maj=3.9km s-min=3.1km az=52.0*
*ISK **04** 19:19:57.1, 40°.36N×33°.02E, h5km, MD2.6*
**ISC 04 19:19:56.8**±1.1**, 40°.40N**±0°.03×**33°.01E**±0°.04**, h11km**±10km**, n19, σ0ˢ.31**/30**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CMDR | Camlidere-ANKA | 0.42 | 283 | i P | Pg | 19 20 04.7 | -0.5 |
| CMDR | | | | i S | Sg | 19 20 10.9 | +0.2 |
| CMDR | Camlidere-ANKA | 0.42 | 283 | P | Pg | 19 20 04.7 | -0.5 |
| CMDR | | | | S | Sg | 19 20 10.9 | +0.2 |
| CANT | Cankiri | 0.51 | 66 | ePG | Pb | 19 20 07.7 | -0.1 |
| BCAM | Yenicaga | 0.83 | 300 | i P | Pg | 19 20 13.1 | +0.2 |
| BCAM | | | | i S | Sb | 19 20 24.8 | +0.3 |
| BCAM | Yenicaga | 0.83 | 300 | P | Pg | 19 20 13.1 | +0.2 |
| BCAM | | | | S | Sb | 19 20 24.8 | +0.3 |
| ILGA | Ilgaz | 0.84 | 39 | i P | Pb | 19 20 13.7 | +0.1 |
| ILGA | Ilgaz | 0.84 | 39 | P | Pb | 19 20 13.7 | +0.1 |
| BBAL | Bala | 0.86 | 174 | i P | Pb | 19 20 14.1 | +0.3 |
| BBAL | | | | i S | Sg | 19 20 25.1 | +0.4 |
| BBAL | Bala | 0.86 | 174 | P | Pb | 19 20 14.1 | +0.3 |
| BBAL | | | | S | Sg | 19 20 25.1 | +0.4 |
| AFSR | Af¯ar-Bala (A | 0.95 | 177 | ePG | Pg | 19 20 15.0 | -0.2 |
| AFSR | | | | eSG | Sb | 19 20 28.2 | +0.1 |
| AFSR | Af¯ar-Bala (A | 0.95 | 177 | ePg | Pg | 19 20 15.0 | -0.2 |
| KAMT | Kaman | 1.16 | 152 | ePN | Pg | 19 20 19.1 | -0.1 |
| KAMT | Kaman | 1.16 | 152 | ePn | Pg | 19 20 19.1 | -0.1 |
| KKUL | Konya-Kulu | 1.23 | 183 | i P | Pn | 19 20 19.4 | -0.6 |
| KKUL | | | | i S | Sn | 19 20 37.0 | +0.3 |
| KKUL | Konya-Kulu | 1.23 | 183 | P | Pn | 19 20 19.4 | -0.6 |
| KKUL | | | | S | Sn | 19 20 37.0 | +0.3 |
| CDAG | Cicekdag | 1.30 | 126 | i P | Pb | 19 20 21.3 | -0.1 |
| CDAG | | | | i S | Sg | 19 20 39.1 | +0.4 |
| CDAG | Cicekdag | 1.30 | 126 | P | Pb | 19 20 21.3 | -0.1 |
| CDAG | | | | S | Sg | 19 20 39.1 | +0.4 |
| KULU | Kulu | 1.36 | 180 | ePN | Pg | 19 20 22.8 | -0.1 |
| KULU | Kulu | 1.36 | 180 | ePn | Pg | 19 20 22.8 | -0.1 |

---

*NIED **04** 19:20:00, 38°.20N×141°.80E, h53km, Mw4.3 Best double couple: M₀3.25000×10^15 NP1:φs19.00000°, δ14.00000°, λ96.00000°. NP2:φs193.00000°, δ76.00000°, λ88.00000°.*
*MOS **04** 19:20:02.3±1.4, 38°.25N×141°.87E, h46km, mb4.6/27, Error ellipse: s-maj=9.7km s-min=6.6km az=78.6*
*ISCJB **04** 19:20:03.9±0.5, 38°.18N±0°.03×141°.81E±0°.05, h63km±3km, mb4.4/45, Error ellipse: s-maj=7.0km s-min=4.1km az=26.0*
*IDC **04** 19:20:04.8±0.6, 38°.19N×141°.80E, h54km±5km, mb4.1/27, mb1 4.2/33, mb1mx4.2/50, mbtmp4.4/33, MS3.4/2, Ms1 3.4/2, ms1mx2.6/32, Error ellipse: s-maj=11.8km s-min=8.0km az=127.0*
*JMA **04** 19:20:04.9±0.1, 38°.18N×141°.77E, h56km±1km, M4.4*
*JMA Felt III J1.*
*NEIC **04** 19:20:05.6±0.7, 38°.18N×141°.79E, h64km±6km, mb4.6/8, Error ellipse: s-maj=7.9km s-min=5.4km az=115.0*
*NEIC Recorded [3 JMA] in Fukushima and Miyagi.*
**ISC 04 19:20:04.2**±0.5**, 38°.22N**±0°.04×**141°.87E**±0°.05**, h54km**±4km**, h54km:pP-P, n139, σ1ˢ.86**/156**, mb4.4**/49**, 10C-1D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JIO | Ouri | 0.47 | 300 | P | Pn | 19 20 15.9 | +0.6 |
| JIO | | | | S | Sn | 19 20 23.5 | +0.1 |
| OFUJ | Ofunato | 0.88 | 350 | P | Pn | 19 20 21.5 | +1.1 |
| OFUJ | | | | eS | Sn | 19 20 33.4 | +1.2 |
| JMK | Ichinoseki | 0.89 | 326 | P | Pn | 19 20 21.5 | +1.0 |
| JMK | | | | eS | Sn | 19 20 33.3 | +0.7 |
| JMM | Marumori | 0.92 | 248 | P | Pn | 19 20 20.4 | -0.5 |
| JMM | | | | eS | Sn | 19 20 31.6 | -1.5 |
| JOU | Okura | 0.96 | 279 | P | Pn | 19 20 21.6 | +0.2 |
| JOU | | | | eS | Sn | 19 20 33.5 | -0.7 |
| JFK | Kawauchi | 1.16 | 223 | P | Pn | 19 20 23.8 | -0.3 |
| JFK | | | | eS | Sn | 19 20 37.7 | -1.2 |
| JOM | Ohasama | 1.33 | 341 | P | Pn | 19 20 27.7 | +1.2 |
| JOM | | | | eS | Sn | 19 20 44.6 | +1.5 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| **JYK** | **Kaneyama** | **1.37** | **301** | P | **Pn** | **19 20 27.4** | **+0.4** |
| JYK | | | | *e*S | **Sn** | **19 20 44.6** | **+0.5** |
| **JFT** | **Otama** | **1.40** | **241** | P | **Pn** | **19 20 27.6** | **+0.3** |
| JFT | | | | *e*S | **Sn** | **19 20 44.0** | **-0.7** |
| **JYS** | **Shirataka** | **1.42** | **271** | P | **Pn** | **19 20 27.8** | **+0.2** |
| JYS | | | | *e*S | **Sn** | **19 20 44.9** | **-0.3** |
| **JRG** | **Rokugo** | **1.52** | **321** | P | **Pn** | **19 20 30.3** | **+1.3** |
| **JYA** | **Atsumi** | **1.73** | **283** | P | **Pn** | **19 20 32.2** | **+0.3** |
| JYA | | | | *e*S | **Sn** | **19 20 52.9** | **0.0** |
| **JFY** | **Yanaizu** | **1.89** | **245** | P | **Pn** | **19 20 34.5** | **+0.4** |
| JFY | | | | *e*S | **Sn** | **19 20 56.5** | **-0.3** |
| **MJAR** | **Matsushiro Arr** | **3.36** | **241** | P | **Pn** | **19 20 55.4** | **+1.2** |
| | 20nm,0.3s,baz=32,slow=14,SNR=157 | | | | | | |
| MJAR | | | | S | **Sn** | **19 21 34.0** | **+1.2** |
| | 16nm,0.3s,baz=344,slow=29,SNR=4.9 | | | | | | |
| MJAR | | | | LR | LR | 19 22 30.4 | |
| | comp=Z,673nm,20.8s,baz=180,slow=44 | | | | | | |
| **MAJO** | **Matsushiro** | **3.36** | **241** | *e*P | **Pn** | **19 20 55.3** | **+1.1** |
| **MAJO** | **Matsushiro** | **3.36** | **241** | *e*Pn | **Pn** | **19 20 55.2** | **+1.1** |
| **MAT** | **Matsushiro** | **3.36** | **241** | P | **Pn** | **19 20 55.8** | **+1.6** |
| MAT | | | | *e*S | **Sn** | **19 21 37.7** | **+4.9** |
| **JHJ2** | **Mitsune** | **5.36** | **199** | *e*Pn | **Pn** | **19 21 21.5** | **-0.1** |
| **JHJ** | **Hachijo jima 2** | **5.36** | **199** | P | **Pn** | **19 21 21.1** | **-0.5** |
| | 47nm,0.3s,baz=157,slow=24,SNR=14 | | | | | | |
| JHJ | | | | S | **Sn** | **19 22 17.4** | **-4.6** |
| | 54nm,0.3s,baz=256,slow=23,SNR=6.5 | | | | | | |
| **ASAJ** | **Asahikawa** | **5.92** | **5** | P | **Pn** | **19 21 29.4** | **+0.2** |
| | 3.4nm,0.3s,baz=216,slow=14,SNR=8.4 | | | | | | |
| ASAJ | | | | S | **Sn** | **19 22 31.9** | **-3.8** |
| | 2.9nm,0.3s,baz=7.1,slow=8.1,SNR=1.9 | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **6.55** | **26** | *e*P | **Pn** | **19 21 35.9** | **-1.9** |
| YUK | | | | *e*S | **Sn** | **19 22 45.7** | **-5.3** |
| YUK | | | | pmax | pmax | | |
| | comp=Z,185nm,0.3s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=E,57nm,0.1s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=E,701nm,0.4s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,582nm,0.5s | | | | | | |
| **SHO** | **Shikotan** | **6.78** | **32** | *e*P | **Pn** | **19 21 39.1** | **-1.9** |
| SHO | | | | *e*S | **Sn** | **19 22 51.7** | **-5.0** |
| SHO | | | | smax | smax | | |
| | comp=N,398nm,0.5s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=E,336nm,0.5s | | | | | | |
| **KUR** | **Kuril'sk** | **8.32** | **31** | *e*P | **Pn** | **19 22 01.3** | **-0.8** |
| KUR | | | | *e*S | **Sn** | **19 23 31.3** | **-3.2** |
| KUR | | | | pmax | pmax | | |
| | comp=Z,48nm,0.9s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=N,34nm,0.7s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,163nm,0.4s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=N,73nm,0.3s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **9.54** | **312** | P | **Pn** | **19 22 20.4** | **+1.6** |
| | comp=N,3.1nm,0.3s,baz=122,slow=12,SNR=24 | | | | | | |
| **JNU** | **Nakatsue** | **10.28** | **244** | P | **Pn** | **19 22 29.6** | **+0.6** |
| | comp=N,0.5nm,0.3s,baz=56,slow=2.5,SNR=6.9 | | | | | | |
| **KSRS** | **Korea Array** | **11.05** | **270** | P | **Pn** | **19 22 42.5** | **+3.0** |
| | comp=N,0.7nm,0.3s,baz=79,slow=14,SNR=9.3 | | | | | | |
| KSRS | | | | LR | LR | 19 26 59.5 | |
| | comp=N,184nm,18.9s,baz=128,slow=38 | | | | | | |
| **KSAR** | **Wonju Array Be** | **11.09** | **270** | P | **Pn** | **19 22 42.5** | **+2.6** |
| **KSAR** | **Wonju Array Be** | **11.09** | **270** | P | **Pn** | **19 22 42.5** | **+2.6** |
| **MDJ** | **Mudanjiang** | **11.21** | **309** | *e*Pn | **Pn** | **19 22 41.9** | **+0.3** |
| | comp=N,26nm,1.0s | | | | | | |
| **TJN** | **Taejon** | **11.70** | **265** | *ce*P | **Pn** | **19 22 52.9** | **+4.6** |
| **PETK** | **Petropavlovsk-** | **18.49** | **31** | P | **Pn** | **19 24 18.1** | **+1.8** |
| | comp=N,0.2nm,0.3s,baz=244,slow=19,SNR=4.3 | | | | | | |
| **TIA** | **Tai'an** | **19.80** | **272** | *e*P | **P** | **19 24 28.8** | **-1.2** |
| TIA | | | | pmax | pmax | | |
| | comp=Z,30nm,0.8s | | | | | | |
| **BJI** | **Beijing** | **20.00** | **283** | P | **P** | **19 24 29.7** | **-2.5** |
| BJI | | | | pmax | pmax | | |
| | comp=Z,18nm,0.8s | | | | | | |
| BJI | | | | pmax | pmax | | |
| | comp=Z,270nm,5.3s | | | | | | |
| **BJT** | **Baijiatuau** | **20.00** | **283** | *e*P | **P** | **19 24 26.7** | **-5.6** |
| BJT | | | | pmax | pmax | | |
| | comp=Z,20nm,0.6s | | | | | | |
| **BJT** | **Baijiatuau** | **20.00** | **283** | *e*P | **P** | **19 24 26.6** | **-5.6** |
| | comp=Z,20nm,0.6s | | | | | | |
| **MA2** | **Magadan** | **22.12** | **12** | P | **P** | **19 24 56.1** | **+1.2** |
| | comp=Z,13nm,0.7s,baz=190,slow=8.8,SNR=8.5 | | | | | | |
| **YAK** | **Yakutsk** | **25.00** | **346** | P | **P** | **19 25 22.5** | **-0.1** |
| | comp=Z,6.7nm,0.4s,baz=323,slow=0.8,SNR=4.9 | | | | | | |
| **YAK** | **Yakutsk** | **25.00** | **346** | *e*P | **P** | **19 25 23.1** | **+0.5** |
| YAK | | | | *e**PP | **sP** | **19 25 41.5** | **-1.0** |
| YAK | | | | *e*S | **S** | **19 29 33.8** | **-8.7** |
| YAK | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.9s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,2.0nm,1.0s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,2.0nm,1.3s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=N,164nm,3.3s | | | | | | |
| **YAK** | **Yakutsk** | **25.00** | **346** | P | **P** | **19 25 22.5** | **-0.1** |
| | comp=N,0.9nm,0.9s | | | | | | |
| **SEY** | **Seymchan** | **25.56** | **11** | P | **P** | **19 25 29.6** | **+1.9** |
| | comp=N,8.4nm,1.1s,baz=206,slow=10.0,SNR=11 | | | | | | |
| **SEY** | **Seymchan** | **25.56** | **11** | *e*P | **P** | **19 25 23.4** | **-4.3** |
| **BOD** | **Bodaibo** | **26.73** | **326** | *e*P | **P** | **19 25 37.8** | **-0.5** |
| BOD | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.4s | | | | | | |
| **XAN** | **Xi'an** | **26.85** | **271** | P | **P** | **19 25 38.5** | **-1.2** |
| XAN | | | | pP | pP | 19 25 45.4 | -7.8 |
| XAN | | | | pmax | pmax | | |
| | comp=Z,11nm,0.8s | | | | | | |
| **ULN** | **Ulaanbaatar** | **27.01** | **302** | *i* P | **P** | **19 25 40.8** | **-0.3** |
| ULN | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.7s | | | | | | |
| **ULN** | **Ulaanbaatar** | **27.01** | **302** | *e*P | **P** | **19 25 37.4** | **-3.8** |
| | comp=Z,4.9nm,0.8s | | | | | | |
| **SONM** | **Songino Array** | **27.44** | **302** | P | **P** | **19 25 44.9** | **-0.1** |
| | comp=Z,2.9nm,0.7s,baz=106,slow=9.2,SNR=21 | | | | | | |
| **ENH** | **Enshi** | **27.81** | **263** | *e*P | **P** | **19 25 46.2** | **-2.2** |
| | comp=Z,36nm,0.8s | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.47** | **123** | T | T | 19 56 08.8 | |
| | baz=316,slow=75,SNR=689 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.48** | **123** | T | T | 19 56 18.3 | |
| | baz=316,slow=75,SNR=884 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.49** | **123** | T | T | 19 56 10.1 | |
| | baz=316,slow=75,SNR=740 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.22** | **125** | T | T | 19 57 04.2 | |
| | baz=317,slow=76,SNR=185 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.23** | **125** | T | T | 19 57 04.0 | |
| | baz=317,slow=76,SNR=296 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.24** | **125** | T | T | 19 57 12.8 | |
| | baz=317,slow=76,SNR=240 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.39** | **311** | P | **P** | **19 27 45.1** | **+0.2** |
| | comp=Z,2.8nm,0.4s,baz=85,slow=7.3,SNR=20 | | | | | | |
| ZALV | | | | PcP | **PcP** | **19 29 42.3** | **+0.2** |
| | comp=Z,0.8nm,0.4s,baz=116,slow=3.4,SNR=3.4 | | | | | | |
| **CHTO** | **Chiang Mai** | **41.94** | **255** | *e*P | **P** | **19 27 48.8** | **-1.0** |
| CHTO | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.6s | | | | | | |
| **CHTO** | **Chiang Mai** | **41.94** | **255** | *e*P | **P** | **19 27 48.8** | **-1.0** |
| | comp=Z,4.7nm,0.6s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **42.15** | **254** | P | **P** | **19 27 51.6** | **+0.1** |
| | comp=Z,0.9nm,0.5s,baz=50,slow=7.0,SNR=6.3 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **42.15** | **254** | *ce*P | P | 19 27 59.7 | +8.2 |
| CMAR | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.5s | | | | | | |
| **NVS** | **Novosibirsk** | **42.29** | **313** | *e*P | **P** | **19 27 52.6** | **+0.4** |
| **LSA** | **Lhasa** | **42.47** | **274** | *e*P | **P** | **19 27 55.2** | **+0.6** |
| LSA | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.5s | | | | | | |
| **LSA** | **Lhasa** | **42.47** | **274** | *e*P | **P** | **19 27 55.2** | **+0.6** |
| | comp=Z,6.8nm,0.5s | | | | | | |
| **MKAR** | **Makanchi Array** | **43.81** | **301** | P | **P** | **19 28 04.8** | **+0.2** |
| | comp=Z,5.5nm,0.7s,baz=83,slow=9.0,SNR=51 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.81** | **301** | *ce*P | **P** | **19 28 05.3** | **+0.7** |
| MKAR | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.6s | | | | | | |
| **KURK** | **Kurchatov** | **45.49** | **307** | *ce*P | **P** | **19 28 15.1** | **-2.8** |
| KURK | | | | pmax | pmax | | |
| | comp=Z,54nm,1.2s | | | | | | |
| **KURK** | **Kurchatov** | **45.49** | **307** | *e*P | **P** | **19 28 14.5** | **-3.5** |
| | comp=Z,217nm,1.0s | | | | | | |
| **KDAK** | **Kodiak Island** | **45.98** | **43** | P | **P** | **19 28 22.9** | **+1.3** |
| | comp=Z,15nm,0.9s,baz=289,slow=7.7,SNR=9.0 | | | | | | |
| **KDAK** | **Kodiak Island** | **45.98** | **43** | *ce*P | **P** | **19 28 23.1** | **+1.4** |
| **TAPN** | **Taplejung** | **46.23** | **273** | *e*P | **P** | **19 28 24.5** | **+0.1** |
| | comp=Z,11nm,0.5s | | | | | | |
| **ODAN** | **Odare** | **46.71** | **273** | *e*P | **P** | **19 28 28.3** | **+0.2** |
| | comp=Z,9.0nm,0.4s | | | | | | |
| **JIRN** | **Jiri** | **47.28** | **274** | *e*P | **P** | **19 28 32.8** | **+0.1** |
| | comp=Z,24nm,0.5s | | | | | | |
| **RAMN** | **Ramite** | **47.29** | **273** | *e*P | **P** | **19 28 32.5** | **-0.1** |
| | comp=Z,20nm,0.6s | | | | | | |
| **GUN** | **Gumba** | **47.41** | **275** | *e*P | **P** | **19 28 33.6** | **-0.1** |
| | comp=Z,35nm,0.5s | | | | | | |
| **KKN** | **Kakani** | **47.93** | **275** | *e*P | **P** | **19 28 37.4** | **-0.2** |
| | comp=Z,27nm,0.5s | | | | | | |
| **PKIN** | **Phulchoki** | **47.94** | **275** | *e*P | **P** | **19 28 37.7** | **0.0** |
| | comp=Z,26nm,0.6s | | | | | | |
| **DMN** | **Daman** | **48.15** | **275** | *e*P | **P** | **19 28 39.1** | **-0.2** |
| | comp=Z,10nm,0.5s | | | | | | |
| **ILAR** | **Eielson Array** | **48.31** | **33** | P | **P** | **19 28 41.1** | **+1.4** |
| | comp=Z,3.5nm,0.7s,baz=269,slow=6.5,SNR=37 | | | | | | |
| ILAR | | | | pP | **pP** | **19 28 55.6** | **+1.6** |
| | comp=Z,1.6nm,0.8s,baz=268,slow=6.2,SNR=5.4 | | | | | | |
| **KOLN** | **Koldanda** | **49.26** | **276** | *e*P | **P** | **19 28 47.7** | **-0.1** |
| | comp=Z,11nm,0.6s | | | | | | |
| **PYUN** | **Piuthan** | **49.58** | **277** | *e*P | **P** | **19 28 50.3** | **+0.1** |
| | comp=Z,31nm,0.5s | | | | | | |
| **BRVK** | **Borovoye** | **50.10** | **312** | *i* P | **P** | **19 28 53.1** | **-0.5** |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,8.0nm,2.4s | | | | | | |
| **AAK** | **Ala-Archa** | **50.25** | **298** | *e*P | **P** | **19 28 55.5** | **+0.4** |
| AAK | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.5s | | | | | | |
| **AAK** | **Ala-Archa** | **50.25** | **298** | *e*P | **P** | **19 28 55.5** | **+0.4** |
| | comp=Z,4.0nm,0.5s | | | | | | |
| **INK** | **Inuvik** | **53.17** | **28** | P | **P** | **19 29 18.1** | **+1.9** |
| | comp=Z,4.5nm,0.6s,baz=298,slow=6.4,SNR=22 | | | | | | |
| **SVE** | **Sverdlovsk** | **54.50** | **318** | *e*P | P | 19 29 33.3 | +7.2 |
| SVE | | | | pmax | pmax | | |
| | comp=Z,22nm,0.9s | | | | | | |
| **ARU** | **Arti** | **55.72** | **318** | *d i*P | **P** | **19 29 34.0** | **-0.9** |
| ARU | | | | *PP | **pP** | **19 29 47.0** | **-2.4** |
| ARU | | | | S | **S** | **19 37 13.9** | **-3.3** |
| ARU | | | | pmax | pmax | | |
| | comp=Z,13nm,1.7s | | | | | | |
| **ARU** | **Arti** | **55.72** | **318** | *e*P | **P** | **19 29 34.4** | **-0.5** |
| | comp=Z,11nm,0.9s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **58.06** | **198** | P | **P** | **19 29 52.5** | **+0.7** |
| | comp=Z,2.1nm,0.6s,baz=26,slow=5.7,SNR=9.5 | | | | | | |
| **WRAB** | **Tennant Creek** | **58.27** | **188** | *e*P | **P** | **19 29 53.0** | **-0.2** |
| **WRAB** | **Tennant Creek** | **58.27** | **188** | *e*P | **P** | **19 29 53.0** | **-0.2** |
| **WRA** | **Warramunga Arr** | **58.28** | **188** | P | **P** | **19 29 52.9** | **-0.4** |
| | comp=Z,5.9nm,0.5s,baz=5.9,slow=7.2,SNR=208 | | | | | | |
| **ASAR** | **Alice Springs** | **62.01** | **188** | P | **P** | **19 30 18.8** | **0.0** |
| | comp=Z,4.0nm,0.7s,baz=7.4,slow=5.8,SNR=53 | | | | | | |
| **YKA** | **Yellowknife Ar** | **62.61** | **31** | P | **P** | **19 30 23.5** | **+1.2** |
| | comp=Z,1.7nm,0.7s,baz=300,slow=6.5,SNR=13 | | | | | | |
| YKA | | | | pP | **pP** | **19 30 38.4** | **+1.3** |
| | comp=Z,0.5nm,0.6s,baz=302,slow=6.5,SNR=3.6 | | | | | | |
| YKA | | | | PcP | **PcP** | **19 31 02.1** | **+1.2** |
| | comp=Z,0.6nm,0.6s,baz=297,slow=4.1,SNR=6.9 | | | | | | |
| **YKA** | **Yellowknife Ar** | **62.61** | **31** | *ce*P | **P** | **19 30 23.3** | **+0.9** |
| YKA | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | |
| **ARCES** | **ARCESS Array B** | **63.02** | **339** | P | **P** | **19 30 25.2** | **+0.1** |
| | comp=Z,2.9nm,0.8s,baz=45,slow=6.5,SNR=8.5 | | | | | | |
| **ARCES** | **ARCESS Array B** | **63.02** | **339** | *e*P | **P** | **19 30 25.7** | **+0.6** |
| **GEYT** | **Alibeck** | **63.58** | **299** | P | **P** | **19 30 28.8** | **-0.6** |
| | comp=Z,11nm,0.8s,baz=46,slow=4.2,SNR=2.8 | | | | | | |
| GEYT | | | | pP | **pP** | **19 30 43.5** | **-0.6** |
| | comp=Z,3.0nm,0.8s,baz=63,slow=3.9,SNR=5.0 | | | | | | |
| **DZM** | **Mont Dzumac** | **64.26** | **155** | P | **P** | **19 30 33.2** | **-0.7** |
| | comp=Z,7.1nm,0.9s,baz=71,slow=7.6,SNR=4.8 | | | | | | |
| **DAG** | **Danmarks Havn** | **64.63** | **355** | *i* P | **P** | **19 30 36.0** | **+0.5** |
| DAG | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.8s | | | | | | |
| **DAG** | **Danmarks Havn** | **64.63** | **355** | *i* P | **P** | **19 30 36.0** | **+0.5** |
| | comp=Z,4.4nm,0.8s | | | | | | |
| **FINES** | **FINESS Array B** | **67.94** | **332** | P | **P** | **19 30 56.9** | **0.0** |
| | comp=Z,3.5nm,0.8s,baz=28,slow=8.6,SNR=6.2 | | | | | | |
| **FINES** | **FINESS Array B** | **67.94** | **332** | *ce*P | **P** | **19 30 56.2** | **-0.7** |
| FINES | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.8s | | | | | | |
| **SUMG** | **Summit** | **69.50** | **0** | *i* P | **P** | **19 31 08.2** | **+1.2** |
| SUMG | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.7s | | | | | | |
| **SUMG** | **Summit** | **69.50** | **0** | *i* P | **P** | **19 31 08.2** | **+1.2** |
| | comp=Z,5.3nm,0.7s | | | | | | |
| **STKA** | **Stephens Creek** | **69.73** | **180** | P | **P** | **19 31 08.4** | **+0.2** |
| | comp=Z,1.2nm,0.4s,baz=0.5,slow=7.3,SNR=7.9 | | | | | | |
| **KIV** | **Kislovodsk** | **70.41** | **311** | *e*P | **P** | **19 31 13.2** | **+0.6** |
| KIV | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.0s | | | | | | |
| **KBZ** | **Khabaz** | **70.41** | **311** | P | **P** | **19 31 13.2** | **+0.8** |
| | comp=Z,0.6nm,0.6s,baz=86,slow=13,SNR=2.8 | | | | | | |
| **FFC** | **Flin Flon** | **72.52** | **33** | ⇑*e*P | **P** | **19 31 27.2** | **+2.2** |
| **NB2** | **NORSAR Subarra** | **73.24** | **337** | P | **P** | **19 31 29.7** | **+0.5** |
| | comp=Z,1.6nm,0.8s,baz=38,slow=6.2 | | | | | | |
| **NOA** | **NORSAR Array B** | **73.24** | **337** | P | **P** | **19 31 29.4** | **+0.2** |
| | comp=Z,2.5nm,0.9s,baz=52,slow=7.2,SNR=5.0 | | | | | | |
| **NOA** | **NORSAR Array B** | **73.24** | **337** | P | **P** | **19 31 29.4** | **+0.2** |
| NOA | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.7s | | | | | | |
| **AKASG** | **Malin Array Be** | **73.58** | **322** | P | **P** | **19 31 31.3** | **-0.1** |
| | comp=Z,0.8nm,0.4s,baz=45,slow=6.0,SNR=13 | | | | | | |
| AKASG | | | | pP | **pP** | **19 31 45.8** | **-0.7** |
| | comp=Z,1.7nm,0.4s,baz=46,slow=5.9,SNR=7.8 | | | | | | |
| **AKASG** | **Malin Array Be** | **73.58** | **322** | *i* P | **P** | **19 31 32.2** | **+0.8** |
| AKASG | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.3s | | | | | | |
| **R11A** | **Troy Canyon, C** | **75.75** | **52** | *e*P | **P** | **19 31 43.3** | **-1.2** |
| | comp=Z,10nm,1.4s | | | | | | |
| **PDAR** | **Pinedale Array** | **76.58** | **46** | P | **P** | **19 31 50.5** | **+1.4** |
| | comp=Z,3.3nm,0.6s,baz=266,slow=2.0,SNR=40 | | | | | | |
| **PFO** | **Pinyon Flats O** | **78.09** | **57** | ⇑*e*P | **P** | **19 31 59.9** | **+2.3** |
| **ULM** | **Lac du Bonnet** | **78.32** | **34** | P | **P** | **19 31 58.3** | **-0.1** |
| | comp=Z,2.4nm,0.7s,baz=290,slow=14,SNR=3.1 | | | | | | |
| **BRTR** | **Keskin Array B** | **78.34** | **312** | P | **P** | **19 31 59.5** | **+0.6** |
| | comp=Z,0.5nm,0.6s,baz=53,slow=3.2,SNR=5.1 | | | | | | |
| **BRTR** | **Keskin Array B** | **78.34** | **312** | *i* P | **P** | **19 32 01.6** | **+2.7** |
| BRTR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.6s | | | | | | |
| **DPC** | **Dobruska-Polom** | **79.65** | **328** | *e*P | **P** | **19 32 07.9** | **+2.2** |
| **DPC** | **Dobruska-Polom** | **79.65** | **328** | *e*P | **P** | **19 32 07.9** | **+2.2** |
| **CLL** | **Collm** | **80.25** | **330** | *e*P | pP | 19 32 23.0 | -1.1 |
| **CLL** | **Collm** | **80.25** | **330** | *e*pP | **pP** | **19 32 24.0** | **-0.1** |
| CLL | | | | *e*sP | sP | 19 32 31.0 | +0.9 |
| **CONA** | **Conrad Observa** | **81.69** | **327** | *i* pP | **P** | **19 32 18.3** | **+1.6** |
| | comp=Z,3.4nm,1.1s | | | | | | |
| **KHC** | **Kasperske Hory** | **81.72** | **329** | *e*P | **P** | **19 32 18.0** | **+1.2** |
| **KHC** | **Kasperske Hory** | **81.72** | **329** | *e*P | **P** | **19 32 18.0** | **+1.2** |
| **GERES** | **GERESS Array B** | **81.90** | **328** | P | **P** | **19 32 18.0** | **+0.2** |
| | comp=Z,0.4nm,0.5s,baz=47,slow=7.8,SNR=4.5 | | | | | | |
| **SOKA** | **Soboth** | **83.01** | **326** | *i* P | **P** | **19 32 22.7** | **-1.0** |
| **OBKA** | **Obir** | **83.36** | **326** | *i* pP | **P** | **19 32 26.6** | **+1.1** |
| | comp=Z,7.7nm,1.5s | | | | | | |
| **KBA** | **Koelnbreinsper** | **83.43** | **327** | *i* pP | **P** | **19 32 27.9** | **+2.0** |
| | comp=Z,5.1nm,0.9s | | | | | | |
| **ANMO** | **Albuquerque** | **83.55** | **50** | *ce*P | **P** | **19 32 29.3** | **+2.5** |
| ANMO | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.8s | | | | | | |
| **WTTA** | **Wattenberg** | **84.00** | **328** | *i* P | **P** | **19 32 28.7** | **-0.2** |
| | comp=Z,0.6nm,0.4s | | | | | | |
| **RETA** | **Reutte** | **84.17** | **329** | *i* P | **P** | **19 32 28.8** | **-0.8** |
| | comp=Z,6.0nm,1.5s | | | | | | |
| **FETA** | **Feichten** | **84.56** | **329** | *i* P | **P** | **19 32 32.0** | **+0.3** |
| | comp=Z,3.4nm,1.1s | | | | | | |
| **DAVA** | **Damuels** | **84.69** | **329** | *i* PcP | **P** | **19 32 35.6** | **+3.3** |
| | comp=Z,12nm,1.2s | | | | | | |
| **TXAR** | **Lajitas Array** | **89.12** | **53** | P | **P** | **19 32 55.6** | **+1.5** |
| | comp=Z,2.5nm,0.5s,baz=292,slow=3.0,SNR=33 | | | | | | |
| **VNA2** | **Neumayer--Watz** | **143.55** | **196** | P | PKPbc | 19 39 29.4 | +0.2 |
| | baz=89,slow=1.4 | | | | | | |
| **VNA3** | **Neumayer Olymp** | **143.80** | **195** | P | PKPab | 19 39 28.8 | -0.4 |
| **VNA1** | **Neumayer--Stat** | **143.95** | **196** | P | PKPbc | 19 39 30.8 | +0.5 |
| **LPAZ** | **La Paz** | **145.78** | **59** | PKPbc | **PKPab** | **19 39 39.0** | **+0.2** |
| | comp=Z,5.5nm,0.5s,baz=332,slow=3.1,SNR=26 | | | | | | |
| **BDFB** | **Brasilia** | **155.88** | **24** | PKPab | **PKPab** | **19 40 20.6** | **+1.0** |
| | comp=Z,0.9nm,0.5s,baz=342,slow=6.4,SNR=3.1 | | | | | | |

*IDC* ***04*** *19:28:48.6±2.4, 20°.29S×70°.53W, h0km, mb3.8/1, mb1 3.7/3, mb1mx3.5/30, mbtmp3.7/3, ML3.4/2, Error ellipse: s-maj=72.1km s-min=39.4km az=132.0*
*ISCJB* ***04*** *19:28:53.4±2.2, 19°.56S±0°.05×70°.75W±0°.10, h12km±18km, mb3.6/1, Error ellipse: s-maj=15.6km s-min=7.9km az=0.2*
*GUC* ***04*** *19:28:54.3±0.5, 19°.53S×70°.69W, h40km±2km, ML3.5*
**ISC 04 19:28:52.3**±3.0**, 19°.59S**±0°.05×**70°.77W**±0°.09**, h14**km±16km**, n11,** σ**1s.65**/18**, 5D, Near coast of northern Chile**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PSGC** | **Pisagua** | **0.61** | **91** | ⇓*i*P | **Pb** | **19 29 05.4** | **+0.5** |
| **PB12** | **IPOC Station P** | **1.05** | **23** | ⇓*i*P | **Pb** | **19 29 12.0** | **-0.4** |
| PB12 | | | | *e*S | **Sb** | **19 29 25.5** | **-0.7** |
| **PB11** | **IPOC Station P** | **1.06** | **100** | ⇓*i*P | **Pb** | **19 29 12.8** | **+0.2** |
| PB11 | | | | *e*S | **Sb** | **19 29 26.5** | **0.0** |
| **MNMC** | **Minye Minye** | **1.20** | **68** | ⇓*i*P | **Pb** | **19 29 14.8** | **-0.2** |
| MNMC | | | | *e*S | **Sg** | **19 29 30.4** | **-0.8** |
| MNMC | | | | IAML | | 19 29 36.0 | |
| | comp=N,3μm,0.2s | | | | | | |
| **PB08** | **IPOC Station P** | **1.62** | **110** | ⇓*i*P | **Pb** | **19 29 22.1** | **-0.1** |
| PB08 | | | | *e*S | **Sb** | **19 29 42.6** | **0.0** |
| PB08 | | | | IAML | | 19 29 50.4 | |
| | comp=N,782nm,0.2s | | | | | | |
| **PB01** | **IPOC Station P** | **1.88** | **140** | *e*P | **Pn** | **19 29 25.6** | **+1.4** |
| PB01 | | | | *e*S | **Sn** | **19 29 49.6** | **+1.8** |
| PB01 | | | | IAML | | 19 29 54.5 | |
| | comp=E,581nm,0.3s | | | | | | |
| **PB09** | **IPOC Station P** | **2.62** | **147** | *e*P | **Pn** | **19 29 36.8** | **+2.4** |
| **LPAZ** | **La Paz** | **4.13** | **38** | Pn | **Pn** | **19 30 00.1** | **+4.5** |
| | comp=E,1.1nm,0.3s,baz=216,slow=7.9,SNR=16 | | | | | | |
| LPAZ | | | | Sn | **Sb** | **19 30 54.3** | **-1.0** |
| | comp=E,0.3nm,0.3s,baz=319,slow=11,SNR=1.7 | | | | | | |
| **SIV** | **San Ignacio** | **9.90** | **70** | Pn | **Pn** | **19 31 14.9** | **+0.5** |
| | comp=E,0.3nm,0.3s,baz=254,slow=8.3,SNR=3.3 | | | | | | |
| SIV | | | | Sn | **Sn** | **19 33 04.8** | **-0.7** |
| | comp=E,0.0nm,0.3s,baz=221,slow=9.3,SNR=2.3 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **78.38** | **71** | P | **P** | **19 40 51.3** | **-1.7** |
| | comp=E,0.4nm,0.5s,baz=253,slow=5.5,SNR=6.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **145.05** | **33** | PKPbc | **PKPbc** | **19 48 28.1** | **-0.6** |
| | comp=E,0.3nm,0.6s,baz=325,slow=3.3,SNR=5.5 | | | | | | |

*ISCJB* ***04*** *19:29:40.7±0.5, 32°.89S±0°.04×70°.41W±0°.06, h112km±4km, mb3.7/3, Error ellipse: s-maj=9.2km s-min=4.9km az=32.8*
*SJA* ***04*** *19:29:40.5±0.4, 33°.16S×70°.18W, h50km, ML3.7, MW3.7*
*IDC* ***04*** *19:29:40.9±3.8, 32°.90S×70°.29W, h85km±33km, mb3.4/3, mb1 3.6/5, mb1mx3.4/28, mbtmp3.6/5, Error ellipse: s-maj=36.8km s-min=26.4km az=90.0*
*GUC* ***04*** *19:29:41.9±0.5, 32°.80S×70°.31W, h97km±4km, ML4.1*
**ISC 04 19:29:42.0**±0.8**, 32°.89S**±0°.05×**70°.36W**±0°.05**, h103**km±6km**, n32,** σ**1s.79**/49**, mb3.6**/3**, Chile-Argentina border region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PEL** | **Peldehue** | **0.37** | **228** | *e*P | **Pn** | **19 29 56.6** | **-0.7** |
| PEL | | | | *e*S | **Sn** | **19 30 08.3** | **-0.5** |
| PEL | | | | IAML | | 19 30 08.9 | |
| | comp=E,13μm,0.5s | | | | | | |
| **FCH** | **Farellones** | **0.44** | **173** | *e*P | **Pn** | **19 29 58.0** | **-0.1** |
| FCH | | | | *e*S | **Sn** | **19 30 10.1** | **0.0** |
| FCH | | | | IAML | | 19 30 11.3 | |
| | comp=N,8μm,0.6s | | | | | | |
| **ROCH** | **El Roble** | **0.56** | **262** | *e*P | **Pn** | **19 29 58.6** | **-0.2** |
| ROCH | | | | *e*S | **Sn** | **19 30 11.0** | **-0.3** |
| ROCH | | | | IAML | | 19 30 11.6 | |
| | comp=N,9μm,0.5s | | | | | | |
| **ROC1** | **El Roble** | **0.56** | **261** | *i* P | **Pn** | **19 29 58.6** | **-0.2** |
| ROC1 | | | | *i* S | **Sn** | **19 30 07.2** | **-4.3** |
| **FSR** | **Penalolen** | **0.60** | **194** | *e*P | **Pn** | **19 29 59.1** | **+0.1** |
| FSR | | | | *e*S | **Sn** | **19 30 11.8** | **+0.2** |
| **RCDM** | **Rinconada Maip** | **0.70** | **212** | *e*P | **Pn** | **19 29 58.3** | **-1.5** |
| RCDM | | | | *e*S | **Sn** | **19 30 11.8** | **-1.3** |
| **ANTU** | **Antumapu** | **0.71** | **199** | *e*P | **Pn** | **19 29 59.9** | **0.0** |
| ANTU | | | | *e*S | **Sn** | **19 30 13.6** | **+0.4** |
| **LMEL** | **Las Melosas** | **0.96** | **172** | *e*P | **Pn** | **19 30 02.7** | **+0.3** |
| LMEL | | | | *e*S | **Sn** | **19 30 18.6** | **+0.9** |
| **AUSP** | **Uspallata** | **1.06** | **51** | *i* P | **Pn** | **19 30 04.2** | **+0.7** |
| **RTLS** | **Leoncito** | **1.41** | **40** | *i* P | **Pn** | **19 30 09.0** | **+1.4** |
| RTLS | | | | *i* S | **Sn** | **19 30 29.2** | **+2.2** |
| RTLS | | | | IAML | | 19 30 29.8 | |
| | comp=Z,867nm,0.4s | | | | | | |
| **RTCV** | **Cerro Valdivia** | **1.85** | **57** | *i* P | **Pn** | **19 30 13.5** | **+0.7** |
| RTCV | | | | *i* S | **Sn** | **19 30 37.3** | **+1.0** |
| **SJA** | **San Juan** | **2.04** | **49** | *i* P | **Pn** | **19 30 15.7** | **+0.4** |
| SJA | | | | *i* S | **Sn** | **19 30 42.3** | **+1.6** |
| SJA | | | | IAML | | 19 30 48.4 | |
| | comp=Z,538nm,0.4s | | | | | | |
| **RTLL** | **Cerro Villicun** | **2.23** | **46** | *i* P | **Pn** | **19 30 18.3** | **+0.6** |
| RTLL | | | | *i* S | **Sn** | **19 30 46.1** | **+1.0** |
| RTLL | | | | *i* S | **Sn** | **19 30 46.8** | **+1.7** |
| | comp=Z,740nm,0.3s | | | | | | |
| **RFA** | **San Rafael** | **2.45** | **140** | IAML | | 19 30 20.6 | |
| | comp=Z,141nm,0.3s | | | | | | |
| **ACAN** | **Cantantal** | **2.74** | **78** | *i* P | **Pn** | **19 30 24.7** | **+0.2** |
| ACAN | | | | *i* S | **Sn** | **19 30 54.7** | **-2.4** |
| **AGUA** | **GUANDACOL** | **3.75** | **26** | *i* P | **Pn** | **19 30 38.9** | **+0.9** |
| **LCO** | **Las Campanas** | **3.88** | **356** | *i* P | **Pn** | **19 30 39.3** | **-0.6** |
| LCO | | | | *i* S | **Sn** | **19 31 22.8** | **-1.9** |
| **APLL** | **PUNTA DE LOS L** | **4.11** | **54** | *i* P | **Pn** | **19 30 41.9** | **-0.8** |
| | comp=Z,91nm,0.4s | | | | | | |
| APLL | | | | *i* S | **Sn** | **19 31 26.3** | **-3.5** |
| | comp=Z,91nm,0.4s | | | | | | |
| APLL | | | | IAML | | 19 31 29.3 | |
| | comp=Z,91nm,0.4s | | | | | | |
| **ACLC** | **CERRO LA CRUZ** | **4.52** | **41** | *i* P | **Pn** | **19 30 48.0** | **-0.4** |
| **VCA** | **Vinchina** | **4.54** | **25** | *i* P | **Pn** | **19 30 49.8** | **+1.1** |
| VCA | | | | IAML | | 19 31 46.9 | |
| | comp=Z,111nm,0.2s | | | | | | |
| **TCA** | **Tanti** | **5.13** | **74** | *i* P | **Pn** | **19 30 55.2** | **-1.4** |
| TCA | | | | *i* S | **Sn** | **19 31 49.0** | **-5.6** |
| TCA | | | | IAML | | 19 32 12.2 | |
| | comp=Z,88nm,0.5s | | | | | | |
| **CYA** | **Choya** | **5.92** | **43** | *i* P | **Pn** | **19 31 05.0** | **-2.3** |
| CYA | | | | *i* S | **Sn** | **19 32 08.5** | **-5.4** |
| CYA | | | | IAML | | 19 32 53.6 | |
| | comp=Z,22nm,0.4s | | | | | | |
| **AHML** | **Horco Molle** | **7.49** | **37** | *i* P | **Pn** | **19 31 27.1** | **-1.5** |
| AHML | | | | IAML | | 19 33 55.9 | |
| | comp=Z,8.6nm,0.6s | | | | | | |
| **FSA** | **Cafayete** | **7.76** | **31** | *i* P | **Pn** | **19 31 31.4** | **-0.9** |
| FSA | | | | IAML | | 19 33 52.0 | |
| | comp=Z,5.1nm,0.6s | | | | | | |
| **PLCA** | **Paso Flores** | **7.83** | **181** | P | **Pn** | **19 31 31.6** | **-1.6** |
| | comp=Z,0.1nm,0.3s,baz=18,slow=12,SNR=3.6 | | | | | | |
| **AZAP** | **Zapla** | **9.81** | **30** | IAML | | 19 32 39.8 | |
| | comp=Z,2.9nm,0.7s | | | | | | |
| **CPUP** | **Villa Florida** | **13.08** | **63** | P | **Pn** | **19 32 42.3** | **-1.5** |
| | comp=Z,0.1nm,0.3s,baz=315,slow=5.7,SNR=2.7 | | | | | | |
| **SNAA** | **Sanae** | **52.08** | **158** | P | **P** | **19 38 42.2** | **+1.2** |
| | comp=Z,0.7nm,0.5s,baz=262,slow=7.1,SNR=5.3 | | | | | | |
| **TXAR** | **Lajitas Array** | **69.48** | **329** | P | **P** | **19 40 41.0** | **+1.5** |
| | comp=Z,0.7nm,0.6s,baz=156,slow=8.4,SNR=8.0 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **82.51** | **69** | P | **P** | **19 41 54.3** | **+0.7** |
| | comp=Z,0.4nm,0.7s,baz=289,slow=6.0,SNR=2.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **122.40** | **208** | PKP | **PKPdf** | **19 48 25.3** | **-0.4** |
| | comp=Z,0.2nm,0.3s,baz=154,slow=1.8,SNR=7.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **152.54** | **33** | PKPbc | **PKPbc** | **19 49 26.5** | **+0.7** |
| | comp=Z,2.1nm,0.4s,baz=313,slow=3.1,SNR=13 | | | | | | |
| ZALV | | | | pPKPbc | **pPKPbc** | **19 49 54.5** | **+0.6** |
| | comp=Z,0.9nm,0.6s,baz=314,slow=4.5,SNR=2.7 | | | | | | |

*ISK* ***04*** *19:32:06.5, 38°.77N×43°.21E, h19km, ML2.1*
*ISCJB* ***04*** *19:32:07.2±0.9, 38°.76N±0°.04×43°.21E±0°.07, h29km±10km, Error ellipse: s-maj=9.5km s-min=6.1km az=8.9*
*CSEM* ***04*** *19:32:07.0±0.2, 38°.78N×43°.19E, h19km±1km, ML2.1, Error ellipse: s-maj=5.5km s-min=5.1km az=143.0*
*DDA* ***04*** *19:32:07.2, 38°.78N×43°.16E, h7km, Ml2.7*
**ISC 04 19:32:07.3**±1.0**, 38°.77N**±0°.03×**43°.21E**±0°.04**, h27**km±9km**,**
**n18,** σ**0s.64**/28**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.22** | **141** | *e*PG | **Pb** | **19 32 13.6** | **0.0** |
| VANB | | | | *e*SG | **Sb** | **19 32 18.8** | **+1.0** |
| **VANB** | **Van** | **0.22** | **141** | *e*Pg | **Pb** | **19 32 13.6** | **0.0** |
| VANB | | | | *e*Sg | **Sb** | **19 32 18.8** | **+1.0** |
| **TVAN** | **Van** | **0.28** | **148** | *i* P | **Pb** | **19 32 13.6** | **-0.9** |
| TVAN | | | | *i* S | **Sb** | **19 32 18.9** | **-0.5** |
| **TVAN** | **Van** | **0.28** | **148** | P | **Pb** | **19 32 13.6** | **-0.9** |
| TVAN | | | | S | **Sb** | **19 32 18.9** | **-0.5** |
| **VMUR** | **Van-Muradiye** | **0.36** | **51** | *i* P | **Pb** | **19 32 14.8** | **-0.7** |
| VMUR | | | | *i* S | **Sb** | **19 32 20.9** | **-0.2** |
| **VMUR** | **Van-Muradiye** | **0.36** | **51** | P | **Pb** | **19 32 14.8** | **-0.7** |
| VMUR | | | | S | **Sb** | **19 32 20.9** | **-0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.39** | **276** | *i* P | **Pb** | **19 32 15.6** | **-0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.39** | **276** | P | **Pb** | **19 32 15.6** | **-0.4** |
| **GEVA** | **Gevas** | **0.47** | **195** | *i* P | **Pb** | **19 32 16.4** | **-0.9** |
| **GEVA** | **Gevas** | **0.47** | **195** | P | **Pb** | **19 32 16.4** | **-0.9** |
| **CLDR** | **Caldiran** | **0.66** | **55** | *e*PG | **Pb** | **19 32 20.1** | **-0.4** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CLDR | | | | eSG | Sb | 19 32 29.9 | +0.4 |
| CLDR | Caldiran | 0.66 | 55 | ePg | Pb | 19 32 20.1 | -0.4 |
| CLDR | | | | eSg | Sb | 19 32 29.9 | +0.4 |
| TUTA | Tutak | 0.71 | 334 | i P | Pb | 19 32 20.6 | -0.6 |
| TUTA | Tutak | 0.71 | 334 | P | Pb | 19 32 20.6 | -0.6 |
| AGRB | Hanur-Agry | 0.82 | 348 | ePG | Pb | 19 32 22.7 | -0.5 |
| AGRB | | | | eSG | Sn | 19 32 34.9 | +0.1 |
| AGRB | Hanur-Agry | 0.82 | 348 | ePg | Pb | 19 32 22.7 | -0.5 |
| AGRB | | | | eSg | Sn | 19 32 34.9 | +0.1 |
| SIRT | Sirnak | 1.40 | 206 | ePN | Pn | 19 32 31.8 | +0.6 |
| SIRT | Sirnak | 1.40 | 206 | ePn | Pn | 19 32 31.8 | +0.6 |

**MAN 04 19:32:47,12°.40N×120°.82E,h23$^{km}$,mb3.9,ML2.6,MS2.3, 1C,Mindoro**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SJMP | San Jose | 0.30 | 79 | eP | Pb | 19 32 53.9 | 0.0 |
| SJMP | | | | eS | Sb | 19 32 58.6 | 0.0 |
| BUSP | Coron | 0.72 | 237 | eP | Pn | 19 33 02.4 | +0.6 |
| BUSP | | | | eS | Sn | 19 33 13.2 | +1.1 |
| PGP | Puerto Galera | 1.10 | 7 | ⇑eP | Pn | 19 33 07.2 | +0.2 |
| PGP | | | | eS | Sn | 19 33 21.6 | 0.0 |
| OTRP | Odiongan | 1.18 | 92 | eP | Pb | 19 33 08.8 | +0.1 |
| LUBP | Lubang | 1.44 | 337 | eP | Pb | 19 33 13.1 | 0.0 |
| BOAC | Boac | 1.45 | 44 | eP | Pb | 19 33 12.8 | -0.6 |
| BOAC | | | | eS | Sb | 19 33 32.1 | +0.7 |

*ISK **04** 19:36:18.2,38°.63N×42°.97E,h5$^{km}$,MD2.5*
*ISCJB **04** 19:36:19.6±0.5,38°.63N±0°.04×43°.00E±0°.04,h12$^{km}$±5$^{km}$, Error ellipse: s-maj=6.2km s-min=4.9km az=17.8*
*CSEM **04** 19:36:19.1±0.2,38°.63N×43°.00E,h12$^{km}$,ML2.6,Error ellipse: s-maj=4.4km s-min=4.2km az=33.0*
*DDA **04** 19:36:19.5,38°.62N×43°.01E,h7$^{km}$,Ml2.6*
**ISC 04 19:36:19.5**±1.2**,38°.62N**±0°.03×**43°.00E**±0°.03**,h16$^{km}$**±10$^{km}$**, n26,**σ**0$^s$67**/36**,Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ADCV | BITLIS_Adilcev | 0.29 | 312 | i P | Pg | 19 36 25.5 | -0.2 |
| ADCV | | | | i S | Sb | 19 36 30.9 | -0.1 |
| ADCV | BITLIS_Adilcev | 0.29 | 312 | P | Pg | 19 36 25.5 | -0.2 |
| ADCV | | | | S | Sb | 19 36 30.9 | -0.1 |
| GEVA | Gevas | 0.31 | 171 | i P | Pg | 19 36 25.4 | -0.7 |
| GEVA | Gevas | 0.31 | 171 | P | Pg | 19 36 25.4 | -0.7 |
| VANB | Van | 0.31 | 94 | ePG | Pg | 19 36 26.0 | 0.0 |
| VANB | | | | eSG | Sb | 19 36 31.6 | 0.0 |
| VANB | Van | 0.31 | 94 | ePg | Pg | 19 36 26.0 | 0.0 |
| VANB | | | | eSg | Sb | 19 36 31.6 | 0.0 |
| TVAN | Van | 0.33 | 105 | i P | Pg | 19 36 26.0 | -0.5 |
| TVAN | | | | i S | Sb | 19 36 31.9 | -0.5 |
| TVAN | Van | 0.33 | 105 | P | Pg | 19 36 26.0 | -0.5 |
| TVAN | | | | S | Sb | 19 36 31.9 | -0.5 |
| VMUR | Van-Muradiye | 0.58 | 50 | i P | Pg | 19 36 30.5 | -0.6 |
| VMUR | | | | i S | Sb | 19 36 40.1 | +0.5 |
| VMUR | Van-Muradiye | 0.58 | 50 | P | Pg | 19 36 30.5 | -0.6 |
| VMUR | | | | S | Sb | 19 36 40.1 | +0.5 |
| TUTA | Tutak | 0.80 | 350 | i P | Pg | 19 36 34.2 | -0.8 |
| TUTA | Tutak | 0.80 | 350 | P | Pg | 19 36 34.2 | -0.8 |
| CLDR | Caldiran | 0.89 | 54 | ePG | Pg | 19 36 36.2 | -0.6 |
| CLDR | | | | eSG | Sb | 19 36 49.2 | +0.7 |
| CLDR | Caldiran | 0.89 | 54 | ePg | Pg | 19 36 36.2 | -0.6 |
| CLDR | | | | eSg | Sb | 19 36 49.2 | +0.7 |
| AGRB | Hanur-Agry | 0.96 | 360 | ePG | Pg | 19 36 36.9 | -1.2 |
| AGRB | Hanur-Agry | 0.96 | 360 | ePg | Pg | 19 36 36.9 | -1.2 |
| EKAR | Karacoban | 0.97 | 312 | i P | Pb | 19 36 38.3 | +0.3 |
| EKAR | Karacoban | 0.97 | 312 | P | Pb | 19 36 38.3 | +0.3 |
| SRTM | Siirt_Merkez | 1.05 | 234 | i P | Pn | 19 36 40.7 | +1.0 |
| SRTM | Siirt_Merkez | 1.05 | 234 | P | Pn | 19 36 40.7 | +1.0 |
| HAKT | HAKKARI | 1.20 | 152 | i P | Pg | 19 36 41.6 | -0.9 |
| HAKT | HAKKARI | 1.20 | 152 | P | Pg | 19 36 41.7 | -0.9 |
| SIRT | Sirnak | 1.20 | 202 | ePN | Pg | 19 36 41.8 | -0.8 |
| SIRT | Sirnak | 1.20 | 202 | ePn | Pg | 19 36 41.8 | -0.8 |
| EATA | Eleskirt | 1.30 | 343 | i P | Pn | 19 36 43.4 | 0.0 |
| EATA | Eleskirt | 1.30 | 343 | P | Pn | 19 36 43.4 | 0.0 |

**MEX 04 19:48:24.1**±0.3**,26°.32N×111°.77W,h8$^{km}$**±5$^{km}$**,MD3.7, Gulf of California**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SRIG | Santa Rosalia | 1.08 | 337 | eP | Pg | 19 48 41.6 | -3.2 |
| SRIG | | | | eS | Sg | 19 48 55.5 | -3.4 |
| GUYB | Guaymas | 1.76 | 27 | eP | Pn | 19 48 51.5 | -3.5 |
| GUYB | | | | eS | Sn | 19 49 13.0 | -4.6 |
| LPIG | La Paz | 2.58 | 149 | eP | Pn | 19 49 03.4 | -2.7 |
| LPIG | | | | eS | Sn | 19 49 33.6 | -4.2 |
| SLBS | Sierra La Lagu | 3.10 | 147 | eP | Pn | 19 49 10.5 | -3.0 |
| SLBS | | | | eS | Sn | 19 49 46.9 | -4.0 |

*KRSC **04** 19:53:44.0±1.3,56°.08N×163°.58E,h5$^{km}$±20$^{km}$,ML4.0*
*MOS **04** 19:53:45.2±0.6,56°.22N×163°.56E,h14$^{km}$,mb4.3/1,Error ellipse: s-maj=11.3km s-min=7.7km az=150.4*
*IDC **04** 19:53:45.4±1.7,56°.55N×163°.07E,h0$^{km}$,mb3.1/3, mb1 3.4/4,mb1mx3.2/28,mbtmp3.1/4,ML2.5/1,Error ellipse: s-maj=62.1km s-min=22.6km az=145.0*
**ISC 04 19:53:44.0**±1.5**,56°.28N**±0°.06×**163°.62E**±0°.03**,h1$^{km}$**±10$^{km}$**, n57,**σ**1$^s$27**/76**,mb3.2**/3**,Near east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KBTR | Krutoberegovo | 0.45 | 261 | PN | Pg | 19 53 52.8 | +0.2 |
| KBTR | Krutoberegovo | 0.45 | 261 | eP | Pg | 19 53 52.8 | +0.2 |
| KBG | Krutoberegovo | 0.51 | 268 | PN | Pg | 19 53 52.9 | -0.8 |
| KBG | | | | S | Sg | 19 53 59.5 | -0.8 |
| KBG | Krutoberegovo | 0.51 | 268 | eP | Pg | 19 53 52.9 | -0.8 |
| KBG | | | | eS | Sg | 19 53 59.5 | -0.8 |
| SMKR | Semkarok | 1.23 | 285 | PN | Pg | 19 54 07.3 | -0.3 |
| SMKR | | | | S | Sg | 19 54 24.3 | +0.8 |
| SMKR | Semkarok | 1.23 | 285 | eP | Pg | 19 54 07.3 | -0.3 |
| SMKR | | | | eS | Sg | 19 54 24.3 | +0.8 |
| BDR | Baidarnaya | 1.37 | 283 | PN | Pn | 19 54 09.8 | -0.5 |
| BDR | | | | S | Sg | 19 54 28.7 | +0.7 |
| BDR | Baidarnaya | 1.37 | 283 | eP | Pn | 19 54 09.8 | -0.5 |
| BDR | | | | eS | Sg | 19 54 28.7 | +0.7 |
| SRKR | Sorokina | 1.41 | 286 | PN | Pn | 19 54 10.3 | -0.5 |
| SRKR | Sorokina | 1.41 | 286 | eP | Pn | 19 54 10.3 | -0.5 |
| ZLN | Zelenaya | 1.60 | 262 | PN | Pn | 19 54 13.4 | 0.0 |
| ZLN | | | | S | Sb | 19 54 34.4 | -0.6 |
| ZLN | Zelenaya | 1.60 | 262 | eP | Pn | 19 54 13.4 | 0.0 |
| ZLN | | | | eS | Sb | 19 54 34.4 | -0.6 |
| CIRR | Tsirk | 1.61 | 265 | PN | Pn | 19 54 13.4 | -0.3 |
| CIRR | Tsirk | 1.61 | 265 | eP | Pn | 19 54 13.4 | -0.3 |
| KLY | Klyuchi | 1.65 | 272 | PN | Pn | 19 54 11.9 | -2.2 |
| KLY | | | | S | Sn | 19 54 32.0 | -3.9 |
| KLY | Klyuchi | 1.65 | 272 | eP | Pn | 19 54 11.9 | -2.2 |
| KLY | | | | eS | Sn | 19 54 32.0 | -3.9 |
| KRSR | Krestovskiy | 1.71 | 269 | PN | Pn | 19 54 14.6 | -0.3 |
| KRSR | | | | S | Sn | 19 54 36.7 | -0.7 |
| KRSR | Krestovskiy | 1.71 | 269 | eP | Pn | 19 54 14.6 | -0.3 |
| KRSR | | | | eS | Sn | 19 54 36.7 | -0.7 |
| BKI | Bering | 1.71 | 128 | PN | Pn | 19 54 14.1 | -0.8 |
| BKI | | | | S | Sn | 19 54 36.1 | -1.3 |
| BKI | Bering | 1.71 | 128 | eP | Pn | 19 54 14.1 | -0.8 |
| BKI | | | | eS | Sn | 19 54 36.1 | -1.3 |
| BZMR | Bezymyannaya | 1.79 | 260 | PN | Pn | 19 54 15.9 | -0.2 |
| BZMR | | | | S | Sn | 19 54 39.1 | -0.3 |
| BZMR | Bezymyannaya | 1.79 | 260 | eP | Pn | 19 54 15.9 | -0.2 |
| BZMR | | | | eS | Sn | 19 54 39.1 | -0.3 |
| KIRR | Kirishev | 1.86 | 261 | PN | Pn | 19 54 17.3 | +0.2 |
| KIRR | | | | S | Sn | 19 54 41.2 | -0.2 |
| KIRR | Kirishev | 1.86 | 261 | eP | Pn | 19 54 17.3 | +0.2 |
| KIRR | | | | eS | Sn | 19 54 41.2 | -0.2 |
| KPT | Kopyto | 1.93 | 262 | PN | Pn | 19 54 18.1 | +0.1 |
| KPT | Kopyto | 1.93 | 262 | eP | Pn | 19 54 18.1 | +0.1 |
| KMNR | Kamenistaya | 1.97 | 256 | PN | Pn | 19 54 19.4 | +0.8 |
| KMNR | Kamenistaya | 1.97 | 256 | eP | Pn | 19 54 19.4 | +0.8 |
| KOZ | Kozyrevsk | 2.11 | 265 | PN | Pn | 19 54 21.4 | +1.1 |
| KOZ | | | | S | Sb | 19 54 48.8 | -0.8 |
| KOZ | Kozyrevsk | 2.11 | 265 | eP | Pn | 19 54 21.4 | +1.1 |
| KOZ | | | | eS | Sb | 19 54 48.8 | -0.8 |
| TUMR | Tumrok | 2.20 | 244 | PN | Pn | 19 54 22.3 | +0.6 |
| TUMR | | | | S | Sn | 19 54 50.0 | +0.4 |
| TUMR | Tumrok | 2.20 | 244 | eP | Pn | 19 54 22.3 | +0.6 |
| TUMR | | | | eS | Sn | 19 54 50.0 | +0.4 |
| ESO | Esso | 2.78 | 265 | PN | Pn | 19 54 32.0 | +2.4 |
| ESO | Esso | 2.78 | 265 | eP | Pn | 19 54 32.0 | +2.4 |
| SPN | Mys Shipunski | 3.81 | 215 | PN | Pn | 19 54 43.4 | -0.3 |
| SPN | Mys Shipunski | 3.81 | 215 | eP | Pn | 19 54 43.4 | -0.3 |
| SPN | | | | eS | Sn | 19 55 26.7 | -2.4 |
| NLC | Nalytchevo | 3.98 | 220 | PN | Pn | 19 54 45.6 | -0.4 |
| NLC | Nalytchevo | 3.98 | 220 | eP | Pn | 19 54 45.6 | -0.4 |
| NLC | | | | eS | Sn | 19 55 30.8 | -2.5 |
| SDLR | Sedlovina | 4.07 | 224 | PN | Pn | 19 54 47.6 | +0.2 |
| SDLR | Sedlovina | 4.07 | 224 | eP | Pn | 19 54 47.6 | +0.2 |
| UGLR | Uglovaya | 4.15 | 224 | PN | Pn | 19 54 48.8 | +0.4 |
| UGLR | Uglovaya | 4.15 | 224 | eP | Pn | 19 54 48.8 | +0.4 |
| GNL | Ganaly | 4.17 | 234 | PN | Pn | 19 54 49.6 | +0.8 |
| GNL | Ganaly | 4.17 | 234 | eP | Pn | 19 54 49.6 | +0.8 |
| PETK | Petropavlovsk- | 4.68 | 230 | Pn | Pn | 19 54 56.9 | +1.2 |
| | 1.1nm,0.3s,baz=60,slow=16,SNR=14 | | | | | | |
| PETK | | | | Sn | Sn | 19 55 52.6 | +2.0 |
| | baz=31,slow=26,SNR=2.7 | | | | | | |
| KRMR | Karymshinskiy | 4.71 | 225 | PN | Pn | 19 54 58.5 | +2.5 |
| KRMR | Karymshinskiy | 4.71 | 225 | eP | Pn | 19 54 58.5 | +2.5 |
| ILAR | Eielson Array | 25.15 | 50 | P | P | 19 59 12.0 | +1.8 |
| | 0.3nm,0.6s,baz=277,slow=9.9,SNR=4.4 | | | | | | |
| ILAR | Eielson Array | 25.15 | 50 | P | P | 19 59 12.0 | +1.8 |
| H11N2 | WAKE ISLAND Hy | 36.58 | 175 | T | T | 20 39 34.2 | |
| | baz=357,slow=76,SNR=578 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 36.59 | 175 | T | T | 20 39 37.7 | |
| | baz=357,slow=76,SNR=523 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 36.59 | 175 | T | T | 20 39 35.7 | |
| | baz=357,slow=76,SNR=443 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 37.78 | 175 | T | T | 20 41 09.3 | |
| | baz=359,slow=76,SNR=22 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 37.79 | 175 | T | T | 20 41 06.4 | |
| | baz=359,slow=76,SNR=17 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 37.80 | 175 | T | T | 20 41 07.3 | |
| | baz=359,slow=76,SNR=19 | | | | | | |
| YKA | Yellowknife Ar | 39.45 | 46 | P | P | 20 01 17.2 | +2.0 |
| | 0.2nm,0.5s,baz=298,slow=8.0,SNR=2.8 | | | | | | |
| MKAR | Makanchi Array | 48.63 | 295 | P | P | 20 02 27.4 | -1.7 |
| | 0.1nm,0.4s,baz=65,slow=7.3,SNR=4.2 | | | | | | |

**TAP 04 19:57:43.5,21°.06N×122°.44E,h68$^{km}$,ML3.6,D,Taiwan region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LAY | Lan-yu | 1.28 | 320 | eS | Sn | 19 58 22.9 | +0.8 |
| | baz=319 | | | | | | |
| TSEB | Hengchuen, Pin | 1.66 | 301 | P | Pn | 19 58 11.8 | +1.2 |
| | baz=299 | | | | | | |
| TWK1 | Hengchun | 1.76 | 300 | eP | Pn | 19 58 12.7 | +0.8 |
| | baz=300 | | | | | | |
| TWK1 | | | | eS | Sn | 19 58 33.6 | +0.1 |
| | baz=300 | | | | | | |
| TAW | Tawu | 1.94 | 312 | eP | Pn | 19 58 17.1 | +2.9 |
| | baz=312 | | | | | | |
| TAW | | | | eS | Sn | 19 58 39.5 | +1.9 |
| | baz=312 | | | | | | |
| EAST | Anshuo | 1.98 | 312 | eP | Pn | 19 58 15.7 | +0.7 |
| | baz=311 | | | | | | |
| EAST | | | | eS | Sn | 19 58 39.6 | +0.8 |
| | baz=311 | | | | | | |
| ECL | Taimali | 2.06 | 318 | P | Pn | 19 58 16.8 | +0.8 |
| | baz=318 | | | | | | |
| ECL | | | | S | Sn | 19 58 41.3 | +0.6 |
| | baz=318 | | | | | | |
| TTN | Taitung | 2.07 | 325 | eP | Pn | 19 58 21.6 | +5.5 |
| | baz=324 | | | | | | |
| TTN | | | | eS | Sn | 19 58 41.1 | +0.1 |
| | baz=324 | | | | | | |
| SCZT | Fangliau | 2.14 | 308 | P | Pn | 19 58 18.0 | +1.0 |
| | baz=307 | | | | | | |
| SCZT | | | | eS | Sn | 19 58 43.4 | +0.8 |
| | baz=307 | | | | | | |
| TWG | Pinlang | 2.17 | 324 | eS | Sn | 19 58 44.1 | +0.8 |
| | baz=324 | | | | | | |
| SSD | Sandimen | 2.38 | 315 | P | Pn | 19 58 21.0 | +0.8 |
| | baz=315 | | | | | | |
| SSD | | | | S | Sn | 19 58 48.7 | +0.3 |
| | baz=315 | | | | | | |
| ELDTW | Lidau | 2.50 | 328 | eP | Pn | 19 58 18.7 | -3.3 |
| | baz=328 | | | | | | |
| ELDTW | | | | eS | Sn | 19 58 52.0 | +0.5 |
| | baz=328 | | | | | | |
| TWF1 | Yuli | 2.52 | 335 | eS | Sn | 19 58 56.6 | +4.7 |
| | baz=335 | | | | | | |
| STYT | Tauyuan | 2.62 | 324 | eP | Pn | 19 58 24.4 | +0.9 |
| | baz=323 | | | | | | |
| STYT | | | | eS | Sn | 19 58 54.4 | +0.2 |
| | baz=323 | | | | | | |
| SGST | Jiashian | 2.65 | 320 | eS | Sn | 19 58 55.1 | 0.0 |
| | baz=319 | | | | | | |
| WTP | Ta-pu | 2.76 | 322 | eP | Pn | 19 58 26.2 | +0.7 |
| | baz=322 | | | | | | |
| WTP | | | | eS | Sn | 19 58 57.9 | +0.1 |
| | baz=322 | | | | | | |
| CHN1 | Nanshi | 2.76 | 320 | eP | Pn | 19 58 26.6 | +1.1 |
| | baz=320 | | | | | | |
| CHN1 | | | | eS | Sn | 19 58 57.4 | -0.4 |
| | baz=320 | | | | | | |
| TWK | Hsinying | 2.85 | 321 | eS | Sn | 19 58 59.9 | -0.1 |
| | baz=320 | | | | | | |
| CHN4 | Tsaushan | 2.85 | 323 | eP | Pn | 19 58 29.2 | +2.5 |
| | baz=323 | | | | | | |
| CHN4 | | | | eS | Sn | 19 59 00.1 | +0.1 |
| | baz=323 | | | | | | |
| ALS | Alishan | 2.88 | 328 | eS | Sn | 19 59 01.1 | +0.2 |
| | baz=328 | | | | | | |
| SCLT | Jiali | 2.96 | 316 | eS | Sn | 19 59 02.8 | +0.1 |
| | baz=315 | | | | | | |
| CHN5 | Tsauling | 3.01 | 327 | eP | Pn | 19 58 30.8 | +1.8 |
| | baz=327 | | | | | | |
| CHN5 | | | | eS | Sn | 19 59 03.9 | 0.0 |
| | baz=327 | | | | | | |
| TYC | Yuchr | 3.19 | 333 | eS | Sn | 19 59 09.2 | +1.1 |
| | baz=332 | | | | | | |
| WNT | Mingjian | 3.25 | 330 | eS | Sn | 19 59 10.3 | +0.8 |
| | baz=330 | | | | | | |
| WSF | Szhu | 3.29 | 322 | eS | Sn | 19 59 09.0 | -1.6 |
| | baz=321 | | | | | | |

*DDA **04** 20:05:28.8,37°.17N×28°.29E,h7$^{km}$,Ml2.5*
*ISK **04** 20:05:28.9,37°.13N×28°.32E,h12$^{km}$,MD2.4*
*CSEM **04** 20:05:29.2±0.1,37°.18N×28°.31E,h10$^{km}$,MD2.4,Error ellipse: s-maj=3.6km s-min=2.7km az=24.0*
**ISC 04 20:05:29.0**±1.0**,37°.16N**±0°.03×**28°.30E**±0°.03**,h13$^{km}$**±11$^{km}$**, n21,**σ**0$^s$30**/32**,Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TURN | Turunc | 0.38 | 139 | ePG | Pg | 20 05 36.4 | -0.1 |
| TURN | | | | eSG | Sb | 20 05 42.5 | -0.7 |
| TURN | Turunc | 0.38 | 139 | i P | Pg | 20 05 36.4 | -0.1 |
| TURN | | | | i S | Sb | 20 05 42.6 | -0.5 |
| TURN | Turunc | 0.38 | 139 | P | Pg | 20 05 36.4 | -0.1 |
| TURN | | | | S | Sb | 20 05 42.7 | -0.5 |
| DALY | Dalyan (Mu˜la | 0.44 | 140 | ePG | Pg | 20 05 38.0 | +0.3 |
| DALY | | | | eSG | Sg | 20 05 43.3 | -0.4 |
| DALY | Dalyan (Mu˜la | 0.44 | 140 | i P | Pg | 20 05 38.1 | +0.4 |
| DALY | Dalyan (Mu˜la | 0.44 | 140 | ePg | Pg | 20 05 38.0 | +0.3 |
| DALY | | | | eSg | Sg | 20 05 43.3 | -0.4 |
| TAVA | DENIZLI_Tavas | 0.58 | 58 | i P | Pg | 20 05 40.1 | -0.2 |
| TAVA | | | | i S | Sg | 20 05 48.4 | +0.3 |
| TAVA | DENIZLI_Tavas | 0.58 | 58 | P | Pg | 20 05 40.1 | -0.2 |
| TAVA | | | | S | Sg | 20 05 48.3 | +0.3 |
| AYDN | Tasoluk | 0.60 | 327 | i P | Pg | 20 05 40.7 | -0.1 |
| AYDN | | | | i S | Sg | 20 05 48.7 | -0.1 |
| AYDN | Tasoluk | 0.60 | 327 | P | Pg | 20 05 40.7 | -0.1 |
| AYDN | | | | S | Sg | 20 05 48.7 | -0.1 |
| BDRM | Kayabasi | 0.69 | 263 | i P | Pb | 20 05 43.3 | +0.5 |
| BDRM | Kayabasi | 0.69 | 263 | P | Pb | 20 05 43.3 | +0.5 |
| BODT | Bodrum | 0.80 | 263 | ePG | Pb | 20 05 44.9 | +0.2 |
| BODT | Bodrum | 0.80 | 263 | ePg | Pb | 20 05 44.9 | +0.2 |
| DNZL | Cakiroluk | 0.80 | 48 | i P | Pg | 20 05 44.4 | -0.1 |
| DNZL | Cakiroluk | 0.80 | 48 | P | Pg | 20 05 44.4 | -0.1 |
| FETY | Fethiye | 0.82 | 129 | ePG | Pg | 20 05 44.9 | +0.1 |
| FETY | | | | eSG | Sb | 20 05 55.9 | -0.1 |
| FETY | Fethiye | 0.82 | 129 | ePg | Pg | 20 05 44.9 | +0.1 |
| FETY | Fethiye | 0.82 | 129 | P | Pn | 20 05 46.3 | +0.1 |
| FETY | | | | eSg | Sb | 20 05 55.9 | -0.1 |
| NIS1 | Nisyros Isl. | 1.05 | 239 | ePG | Pg | 20 05 49.2 | -0.1 |
| NIS1 | Nisyros Isl. | 1.05 | 239 | ePg | Pg | 20 05 49.2 | -0.1 |

**MEX 04 20:12:52.7**±0.4**,26°.44N×111°.57W,h10$^{km}$**±6$^{km}$**,MD3.6, Gulf of California**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SRIG | Santa Rosalia | 1.07 | 326 | eP | Pb | 20 13 09.7 | -3.5 |
| SRIG | | | | eS | Sg | 20 13 23.4 | -3.7 |
| GUYB | Guaymas | 1.58 | 23 | eP | Pn | 20 13 17.5 | -3.2 |
| GUYB | | | | eS | Sn | 20 13 36.1 | -5.2 |
| LPIG | La Paz | 2.59 | 154 | eP | Pn | 20 13 31.9 | -2.7 |
| LPIG | | | | eS | Sn | 20 14 02.0 | -4.1 |
| HSIG | | 2.63 | 12 | eP | Pn | 20 13 34.4 | -0.8 |
| SLBS | Sierra La Lagu | 3.11 | 151 | eP | Pn | 20 13 38.9 | -2.9 |
| SLBS | | | | eS | Sn | 20 14 15.1 | -3.9 |

**KRSC 04 20:20:31.0**±1.0**,48°.82N×157°.70E,h16$^{km}$**±20$^{km}$**,ML3.9, East of Kuril Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SKR | Severo-Kuril's | 2.13 | 332 | eP | Pn | 20 21 07.1 | +1.3 |
| SKR | | | | eS | Sb | 20 21 34.1 | -1.1 |
| KDTR | Khodutka, Kamc | 3.00 | 4 | eP | Pn | 20 21 20.8 | +3.0 |
| KDTR | | | | eS | Sn | 20 21 56.0 | +2.7 |
| ASAK | Asacha | 3.57 | 2 | eP | Pn | 20 21 29.4 | +3.7 |
| RUS | Russkaya | 3.65 | 8 | eP | Pn | 20 21 29.6 | +2.9 |
| RUS | | | | eS | Sn | 20 22 13.7 | +4.3 |
| MTVR | Mutnovka | 3.68 | 5 | eP | Pn | 20 21 30.9 | +3.6 |
| MTVR | | | | eS | Sn | 20 22 14.2 | +3.9 |
| KRMR | Karymshinskiy | 4.02 | 4 | eP | Pn | 20 21 36.2 | +4.4 |
| KRMR | | | | eS | Sb | 20 22 24.2 | -5.5 |
| APC | Apacha | 4.12 | 355 | eP | Pn | 20 21 37.1 | +3.9 |
| DALK | Dalny | 4.27 | 9 | eP | Pn | 20 21 38.8 | +3.6 |
| DALK | | | | eS | Sn | 20 22 29.1 | +4.5 |
| UGLR | Uglovaya | 4.45 | 9 | eP | Pn | 20 21 41.9 | +4.1 |
| AVH | Avacha | 4.50 | 8 | eP | Pn | 20 21 42.9 | +4.5 |
| KOK | Koryaka | 4.51 | 7 | eP | Pn | 20 21 43.3 | +4.6 |
| SDLR | Sedlovina | 4.52 | 9 | eP | Pn | 20 21 42.3 | +3.5 |
| SPN | Mys Shipunski | 4.53 | 18 | eP | Pn | 20 21 43.7 | +5.0 |
| KRER | Koryakskii | 4.54 | 8 | eP | Pn | 20 21 43.3 | +4.2 |
| KRX | Arik | 4.58 | 7 | eP | Pn | 20 21 44.0 | +4.3 |
| GNL | Ganaly | 4.88 | 2 | eP | Pn | 20 21 48.2 | +4.4 |

**DJA 04 20:20:56.0**±1.2**,6°S**±15°×**10°3E**±1°5**,h64$^{km}$**±60$^{km}$**,M3.6**/5**, MLv3.6**/5**,Southwest of Sumatera**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LWLI | Liwa | 1.36 | 35 | P | Pn | 20 21 19.5 | +0.5 |
| LWLI | | | | S | Sn | 20 21 36.6 | +0.4 |
| KASI | Kota Agung | 1.36 | 64 | P | Pn | 20 21 19.2 | +0.3 |
| KASI | | | | S | Sn | 20 21 36.6 | +0.4 |
| MNAI | Manna | 1.79 | 350 | P | Pn | 20 21 24.2 | -0.5 |
| MNAI | | | | S | Sn | 20 21 47.2 | +0.8 |
| MASI | Maura Aman, Be | 3.14 | 341 | P | Pn | 20 21 43.4 | +0.2 |
| MASI | | | | S | Sn | 20 22 20.2 | +0.7 |

**JMA 04 20:21:54.3**±0.2**,37°.78N×144°.60E,h36$^{km}$,M3.6,Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| OFUJ | Ofunato | 2.64 | 300 | P | Pn | 20 22 35.1 | +0.7 |
| OFUJ | | | | eS | Sn | 20 23 06.6 | +1.5 |
| JIO | Ouri | 2.65 | 286 | P | Pn | 20 22 36.2 | +1.7 |
| JIO | | | | eS | Sn | 20 23 07.5 | +2.2 |
| MIYJ | Miyakonagasawa | 2.82 | 310 | P | Pn | 20 22 38.2 | +1.4 |
| MIYJ | | | | eS | Sn | 20 23 10.9 | +1.4 |
| JMK | Ichinoseki | 2.90 | 295 | P | Pn | 20 22 39.8 | +1.9 |
| JMK | | | | eS | Sn | 20 23 14.4 | +2.9 |
| JOM | Ohasama | 3.09 | 304 | P | Pn | 20 22 42.8 | +2.2 |
| JOM | | | | eS | Sn | 20 23 18.5 | +2.2 |
| JOU | Okura | 3.16 | 282 | P | Pn | 20 22 43.7 | +2.2 |
| JOU | | | | eS | Sn | 20 23 20.4 | +2.4 |
| JFT | Otama | 3.39 | 267 | P | Pn | 20 22 47.1 | +2.4 |
| JFT | | | | eS | Sn | 20 23 26.4 | +2.7 |
| JRG | Rokugo | 3.50 | 299 | P | Pn | 20 22 49.1 | +2.9 |
| JRG | | | | eS | Sn | 20 23 28.8 | +2.5 |
| JYK | Kaneyama | 3.52 | 290 | P | Pn | 20 22 49.3 | +2.9 |
| JANG | Nango | 3.53 | 318 | P | Pn | 20 22 48.7 | +2.1 |
| JANG | | | | eS | Sn | 20 23 29.3 | +2.2 |

*ISCJB **04** 20:29:22.6±1.5,42°.18N±0°.07×69°.9E±0°.1,h9$^{km}$±5$^{km}$, Error ellipse: s-maj=17.4km s-min=7.6km az=144.0*
*SOME **04** 20:29:22.5,42°.08N×70°.08E,h5$^{km}$*
*NNC **04** 20:29:23.4±1.2,42°.16N×70°.07E,h0$^{km}$,mb2.9,mpv2.2, Error ellipse: s-maj=7.9km s-min=4.1km az=55.0*
*KRNET **04** 20:29:23.2±0.1,42°.15N×70°.17E,mb2.2*
**ISC 04 20:29:20.2**±2.0**,42°.09N**±0°.06×**69°.87E**±0°.09**,h12$^{km}$**±7$^{km}$**, n12,**σ**2$^s$02**/23**,14C-4D,Central Kazakhstan**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| IUG | Iuzhnay | 0.13 | 64 | eP | Pg | 20 29 24.6 | +0.9 |
| | 907nm,0.1s | | | | | | |
| IUG | | | | eS | Sg | 20 29 26.7 | +0.5 |
| | 3μm,0.1s | | | | | | |
| BRLS | Borolday | 0.94 | 359 | eP | Pg | 20 29 36.8 | -1.7 |
| | 0.8nm,0.2s | | | | | | |
| BRLS | | | | eS | Sg | 20 29 46.8 | -3.9 |
| | 5.0nm,0.2s | | | | | | |
| KK31 | Karatay Array | 1.12 | 25 | ⇑P | Pg | 20 29 42.3 | +0.5 |
| | 0.1nm,0.2s,baz=200,slow=17,SNR=13 | | | | | | |
| KK31 | | | | ⇑S | Sg | 20 29 56.6 | +0.2 |
| | 2.3nm,0.3s,baz=198,slow=29,SNR=37 | | | | | | |
| ARK | Arkit | 1.59 | 100 | ⇑eP | Pg | 20 29 50.2 | -0.6 |
| | baz=105 | | | | | | |
| ARK | | | | ⇑iS | Sn | 20 30 10.4 | +1.6 |
| | baz=105 | | | | | | |
| MNAS | Manas | 2.00 | 78 | ⇓iP | Pb | 20 29 56.9 | +0.4 |
| | baz=78 | | | | | | |
| MNAS | | | | ⇓iS | Sb | 20 30 20.7 | -0.7 |
| | baz=78 | | | | | | |
| MNAS | Manas | 2.00 | 78 | ⇑P | Pb | 20 29 56.9 | +0.4 |
| | 2.3nm,0.7s | | | | | | |
| MNAS | | | | ⇑S | Sg | 20 30 20.9 | -3.5 |
| | 7.5nm,0.9s | | | | | | |
| TOKL | Toktogul | 2.24 | 93 | ⇓iP | Pb | 20 30 00.6 | -0.1 |
| | baz=95 | | | | | | |
| TOKL | | | | ⇓iS | Sb | 20 30 27.7 | -0.7 |
| | baz=95 | | | | | | |
| ARSB | Arslanbob | 2.45 | 107 | ⇑eP | Pb | 20 30 04.0 | -0.3 |
| | baz=110 | | | | | | |
| ARSB | | | | ⇑iS | Sb | 20 30 34.2 | -0.3 |
| | baz=110 | | | | | | |
| MRKS | Merke | 2.57 | 74 | eP | Pb | 20 30 07.4 | +1.1 |
| | 1.4nm,0.2s | | | | | | |
| MRKS | | | | eS | Sg | 20 30 39.6 | -3.3 |
| | 6.4nm,0.5s | | | | | | |
| AML | Almayashu | 2.85 | 88 | ⇑iP | Pb | 20 30 09.8 | -1.4 |
| | baz=89 | | | | | | |
| AML | | | | ⇑iS | Sb | 20 30 42.7 | -3.4 |
| | baz=89 | | | | | | |
| EKS2 | Erkin-Say | 2.95 | 78 | ⇑eP | Pn | 20 30 10.5 | +3.5 |
| | baz=78 | | | | | | |
| EKS2 | | | | ⇑iS | Sn | 20 30 44.0 | +1.6 |
| | baz=78 | | | | | | |
| SFK | Sufi-Kurgan | 3.44 | 126 | ⇑Pg | Pg | 20 30 24.8 | -1.5 |
| | 5.4nm,1.4s | | | | | | |
| SFK | | | | ⇑Lg | Lg | 20 31 08.8 | |
| | 0.8nm,0.3s | | | | | | |

*GII **04** 20:55:21.2±0.0,33°.16N×35°.58E,h11$^{km}$,mb4.1/2, MD3.9/3*
*HLW **04** 20:55:21.4,33°.07N×35°.52E,h10$^{km}$±15$^{km}$,Md3.5,Ml3.4*
*CSEM **04** 20:55:21.3±0.1,33°.19N×35°.51E,h10$^{km}$,ML3.8,Error ellipse: s-maj=3.9km s-min=2.4km az=93.0*
*ISCJB **04** 20:55:21.2±0.2,33°.22N±0°.01×35°.54E±0°.03,h18$^{km}$±3$^{km}$, Error ellipse: s-maj=4.2km s-min=2.1km az=9.2*
*GRAL **04** 20:55:22.2±0.3,33°.19N×35°.60E,h7$^{km}$±1$^{km}$,MD3.8*
*NIC **04** 20:55:23.1±0.2,33°.24N×35°.70E,h25$^{km}$,mb4.4,ML4.1*
*ISK **04** 20:55:32.0,33°.83N×35°.04E,h43$^{km}$,ML3.5*
*DDA **04** 20:55:41.9,34°.14N×35°.18E,h24$^{km}$,Ml3.8*
**ISC 04 20:55:20.9**±0.7**,33°.18N**±0°.02×**35°.57E**±0°.03**,h16$^{km}$**±5$^{km}$**, n176,**σ**1$^s$44**/225**,Jordan-Syria region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| **KSDI** | **Kefar Szold** | **0.07** | **81** | Pg | **Pg** | **20 55 24.1** | **0.0** |
| KSDI | | | | Sg | **Sg** | **20 55 26.1** | **-0.1** |
| **MMA0B** | **Mount Meron ar** | **0.22** | **220** | Pg | **Pb** | **20 55 26.6** | **+0.1** |
| MMA0B | | | | Sg | **Sg** | **20 55 30.2** | **+0.8** |
| **MMC7** | **Mount Meron ar** | **0.22** | **223** | Pg | **Pb** | **20 55 26.5** | **0.0** |
| **MMC7** | **Mount Meron ar** | **0.22** | **223** | Pg | **Pb** | **20 55 26.5** | **0.0** |
| **SHBL** | **Chebaa** | **0.22** | **41** | *e*P | **Pg** | **20 55 26.1** | **0.0** |
| SHBL | | | | *e*S | **Sg** | **20 55 29.0** | **-0.7** |
| **SHBL** | **Chebaa** | **0.22** | **41** | *e*P | **Pg** | **20 55 26.1** | **0.0** |
| SHBL | | | | *e*S | **Sg** | **20 55 29.0** | **-0.7** |
| **KSHT** | **Keshet** | **0.28** | **134** | Pg | **Pg** | **20 55 27.4** | **+0.3** |
| **KSHT** | **Keshet** | **0.28** | **134** | Pg | **Pg** | **20 55 27.4** | **+0.3** |
| **HNTI** | **Hanita** | **0.35** | **254** | Pg | **Pb** | **20 55 29.2** | **+0.5** |
| HNTI | | | | Sg | **Sb** | **20 55 34.6** | **+0.7** |
| **QRWL** | **Qaraoun** | **0.38** | **14** | *e*P | **Pg** | **20 55 28.9** | **+0.2** |
| QRWL | | | | *e*S | **Sg** | **20 55 34.0** | **-0.1** |
| **QRWL** | **Qaraoun** | **0.38** | **14** | *e*P | **Pg** | **20 55 28.9** | **+0.2** |
| QRWL | | | | *e*S | **Sg** | **20 55 34.0** | **-0.1** |
| **RCY** | **Rachaya** | **0.39** | **35** | *e*P | **Pg** | **20 55 28.7** | **-0.1** |
| RCY | | | | *e*S | **Sg** | **20 55 34.0** | **-0.4** |
| **DQRL** | **Deir Qamar** | **0.52** | **360** | *e*P | **Pb** | **20 55 31.6** | **-0.2** |
| DQRL | | | | *e*S | **Sg** | **20 55 38.6** | **+0.2** |
| **DQRL** | **Deir Qamar** | **0.52** | **360** | *e*P | **Pb** | **20 55 31.6** | **-0.2** |
| DQRL | | | | *e*S | **Sg** | **20 55 38.6** | **+0.2** |
| **BLGI** | **Bet Lehem HaGe** | **0.55** | **216** | Pg | **Pb** | **20 55 32.1** | **0.0** |
| **BEYL** | **Beirut** | **0.69** | **355** | *e*P | **Pb** | **20 55 34.7** | **+0.2** |
| **BEYL** | **Beirut** | **0.69** | **355** | *e*P | **Pb** | **20 55 34.7** | **+0.2** |
| **BHL** | **Bhannes** | **0.72** | **6** | *e*P | **Pg** | **20 55 35.0** | **-0.1** |
| BHL | | | | *e*S | **Sg** | **20 55 44.8** | **0.0** |
| **BHL** | **Bhannes** | **0.72** | **6** | *e*P | **Pg** | **20 55 35.0** | **-0.1** |
| BHL | | | | *e*S | **Sg** | **20 55 44.8** | **0.0** |
| **OFRI** | **'Ofer** | **0.74** | **222** | Pg | **Pb** | **20 55 35.5** | **0.0** |
| **MMLI** | **Mount Malkishu** | **0.75** | **190** | Pg | **Pg** | **20 55 35.2** | **-0.4** |
| MMLI | | | | Sg | **Sg** | **20 55 45.9** | **+0.4** |
| **HMDT** | **Nahal Hemdat** | **0.93** | **182** | Pg | **Pg** | **20 55 38.1** | **-0.8** |
| HMDT | | | | Sg | **Sg** | **20 55 51.1** | **+0.1** |
| **SLTI** | **Sal'it** | **1.04** | **206** | Pg | **Pg** | **20 55 40.4** | **-0.6** |
| SLTI | | | | Sg | **Sn** | **20 55 55.9** | **+1.0** |
| **HWQ** | **Hawqa** | **1.14** | **16** | *e*P | **Pb** | **20 55 42.1** | **-0.1** |
| HWQ | | | | *e*S | **Sb** | **20 55 57.1** | **+0.2** |
| **HWQ** | **Hawqa** | **1.14** | **16** | *e*P | **Pb** | **20 55 42.1** | **-0.1** |
| HWQ | | | | *e*S | **Sb** | **20 55 57.1** | **+0.2** |
| **FKH** | **Fakeheh** | **1.27** | **33** | *e*P | **Pn** | **20 55 44.2** | **+0.1** |
| **DSI** | **Dead Sea** | **1.61** | **186** | Pn | **Pn** | **20 55 48.9** | **+0.2** |
| DSI | | | | Sn | **Sb** | **20 56 11.2** | **+0.8** |
| **DSI** | **Dead Sea** | **1.61** | **186** | Pn | **Pn** | **20 55 48.9** | **+0.2** |
| DSI | | | | Sn | **Sb** | **20 56 11.2** | **+0.8** |
| **AMAZ** | **Amatzia** | **1.73** | **199** | Pn | **Pn** | **20 55 51.8** | **+1.4** |
| AMAZ | | | | Sn | **Sb** | **20 56 15.2** | **+1.3** |
| **YTIR** | **Yattir** | **1.85** | **192** | Pn | **Pn** | **20 55 53.5** | **+1.4** |
| **YTIR** | **Yattir** | **1.85** | **192** | Pn | **Pn** | **20 55 53.5** | **+1.4** |
| **MZDA** | **Masada** | **1.87** | **185** | Pn | **Pn** | **20 55 53.3** | **+1.1** |
| MZDA | | | | Sn | **Sb** | **20 56 17.9** | **+0.1** |
| **MZDA** | **Masada** | **1.87** | **185** | Pn | **Pn** | **20 55 53.3** | **+1.1** |
| MZDA | | | | Sn | **Sb** | **20 56 17.9** | **+0.1** |
| **PHNC** | **Paralimni** | **2.22** | **325** | P | **Pn** | **20 55 57.3** | **+0.3** |
| PHNC | | | | S | **Sn** | **20 56 23.4** | **-0.7** |
| **PHNC** | **Paralimni** | **2.22** | **325** | P | **Pn** | **20 55 57.3** | **+0.3** |
| | baz=141 | | | | | | |
| PHNC | | | | S | **Sn** | **20 56 23.4** | **-0.7** |
| **KZIT** | **Kziot** | **2.48** | **204** | Pn | **Pn** | **20 56 02.1** | **+1.5** |
| **KZIT** | **Kziot** | **2.48** | **204** | Pn | **Pn** | **20 56 02.1** | **+1.5** |
| **CSS** | **Mathiatis** | **2.57** | **314** | *e*PN | **Pn** | **20 56 02.0** | **+0.1** |
| CSS | | | | *e*SN | Sn | 20 56 23.6 | -9.2 |
| **CSS** | **Mathiatis** | **2.57** | **314** | Pn | **Pn** | **20 56 01.6** | **-0.3** |
| **CSS** | **Mathiatis** | **2.57** | **314** | *e*Pn | **Pn** | **20 56 02.0** | **+0.1** |
| **CSS** | **Mathiatis** | **2.57** | **314** | P | **Pn** | **20 56 02.4** | **+0.5** |
| **CSS** | **Mathiatis** | **2.57** | **314** | P | **Pn** | **20 56 02.4** | **+0.5** |
| | baz=130 | | | | | | |
| **ZFRI** | **Zfri** | **2.64** | **187** | Pn | **Pn** | **20 56 04.0** | **+1.2** |
| **ZFRI** | **Zfri** | **2.64** | **187** | Pn | **Pn** | **20 56 04.0** | **+1.2** |
| **RMNI** | **Mount Ramon** | **2.67** | **195** | Pn | **Pn** | **20 56 05.2** | **+2.0** |
| **RMNI** | **Mount Ramon** | **2.67** | **195** | Pn | **Pn** | **20 56 05.2** | **+2.0** |
| **LFK** | **Lefkose** | **2.69** | **322** | *e*PN | **Pn** | **20 56 03.1** | **-0.4** |
| LFK | | | | *e*SN | Sn | 20 56 26.0 | -10 |
| **LFK** | **Lefkose** | **2.69** | **322** | *e*Pn | **Pn** | **20 56 03.1** | **-0.4** |
| **SZAC** | **Souni** | **2.73** | **306** | P | **Pn** | **20 56 04.7** | **+0.6** |
| SZAC | | | | S | **Sn** | **20 56 37.4** | **+0.6** |
| **SZAC** | **Souni** | **2.73** | **306** | P | **Pn** | **20 56 04.7** | **+0.6** |
| | baz=122 | | | | | | |
| SZAC | | | | S | **Sn** | **20 56 37.4** | **+0.6** |
| **MAMC** | **Mammari** | **2.78** | **316** | P | **Pn** | **20 56 05.8** | **+1.0** |
| **MAMC** | **Mammari** | **2.78** | **316** | P | **Pn** | **20 56 05.8** | **+1.0** |
| | baz=132 | | | | | | |
| **PRNI** | **Paran** | **2.86** | **190** | Pn | **Pn** | **20 56 06.9** | **+1.0** |
| PRNI | | | | Sn | **Sb** | **20 56 44.6** | **-1.8** |
| **PRNI** | **Paran** | **2.86** | **190** | Pn | **Pn** | **20 56 06.9** | **+1.0** |
| PRNI | | | | Sn | **Sb** | **20 56 44.6** | **-1.8** |
| **YAYL** | **Yayladag** | **2.88** | **9** | *i* P | **Pn** | **20 56 06.5** | **+0.3** |
| YAYL | | | | *i* S | **Sb** | **20 56 47.7** | **+0.7** |
| **YAYL** | **Yayladag** | **2.88** | **9** | P | **Pn** | **20 56 06.5** | **+0.3** |
| **LEF** | **Lefka** | **2.95** | **312** | *e*PN | **Pn** | **20 56 07.2** | **+0.2** |
| **LEF** | **Lefka** | **2.95** | **312** | *e*Pn | **Pn** | **20 56 07.2** | **+0.2** |
| **LEF** | **Lefka** | **2.95** | **312** | P | **Pn** | **20 56 08.4** | **+1.4** |
| LEF | | | | S | **Sn** | **20 56 43.5** | **+1.5** |
| **AKDN** | **Akdeniz- K˜–br** | **3.02** | **315** | *e*PN | **Pn** | **20 56 08.1** | **+0.1** |
| **AKDN** | **Akdeniz- K˜–br** | **3.02** | **315** | *e*Pn | **Pn** | **20 56 08.1** | **+0.1** |
| **ALFC** | **Alefka** | **3.15** | **309** | P | **Pn** | **20 56 10.9** | **+1.0** |
| ALFC | | | | S | **Sn** | **20 56 48.4** | **+1.2** |
| **ALFC** | **Alefka** | **3.15** | **309** | P | **Pn** | **20 56 10.9** | **+1.0** |
| | baz=125 | | | | | | |
| ALFC | | | | S | **Sn** | **20 56 48.4** | **+1.2** |
| **HRFI** | **Mount Harif** | **3.17** | **188** | Pn | **Pn** | **20 56 11.1** | **+1.0** |
| **HRFI** | **Mount Harif** | **3.17** | **188** | Pn | **Pn** | **20 56 11.1** | **+1.0** |
| **PPCY** | **Paphos** | **3.17** | **303** | P | **Pn** | **20 56 10.6** | **+0.5** |
| **PPCY** | **Paphos** | **3.17** | **303** | P | **Pn** | **20 56 10.6** | **+0.5** |
| | baz=119 | | | | | | |
| **AKMC** | **Akamas** | **3.26** | **305** | P | **Pn** | **20 56 12.2** | **+0.9** |
| **AKMC** | **Akamas** | **3.26** | **305** | P | **Pn** | **20 56 12.2** | **+0.9** |
| | baz=121 | | | | | | |
| **AKK2** | **Akkuyu-Mersin** | **3.39** | **331** | *e*PN | **Pn** | **20 56 13.0** | **-0.1** |
| **AKK2** | **Akkuyu-Mersin** | **3.39** | **331** | *e*Pn | **Pn** | **20 56 13.0** | **-0.1** |
| **KRTS** | **Karatas** | **3.39** | **357** | *e*PN | **Pn** | **20 56 15.1** | **+2.0** |
| **KRTS** | **Karatas** | **3.39** | **357** | *e*Pn | **Pn** | **20 56 15.1** | **+2.0** |
| **AKK1** | **Akkuyu-Mersin** | **3.40** | **331** | *e*PN | **Pn** | **20 56 13.3** | **+0.1** |
| **AKK1** | **Akkuyu-Mersin** | **3.40** | **331** | *e*Pn | **Pn** | **20 56 13.3** | **+0.1** |
| **YESI** | **Yesilovacik-Me** | **3.40** | **333** | *e*PN | **Pn** | **20 56 13.3** | **+0.1** |
| **YESI** | **Yesilovacik-Me** | **3.40** | **333** | *e*Pn | **Pn** | **20 56 13.3** | **+0.1** |
| **AKKU** | **Akkuyu-Mersin** | **3.41** | **331** | *e*PN | **Pn** | **20 56 13.2** | **-0.1** |
| **AKKU** | **Akkuyu-Mersin** | **3.41** | **331** | *e*Pn | **Pn** | **20 56 13.2** | **-0.1** |
| **IKL** | **Isikli** | **3.42** | **334** | *e*PN | **Pn** | **20 56 13.7** | **+0.1** |
| **IKL** | **Isikli** | **3.42** | **334** | *e*Pn | **Pn** | **20 56 13.7** | **+0.1** |
| **MBRI** | **Mt Berech** | **3.42** | **190** | Pn | **Pn** | **20 56 15.4** | **+1.8** |
| **MBRI** | **Mt Berech** | **3.42** | **190** | Pn | **Pn** | **20 56 15.4** | **+1.8** |
| **GULN** | **MERSIN_Gulnar** | **3.43** | **331** | *i* P | **Pn** | **20 56 13.8** | **+0.1** |
| GULN | | | | *i* S | **Sn** | **20 56 52.8** | **-1.2** |
| **GULN** | **MERSIN_Gulnar** | **3.43** | **331** | P | **Pn** | **20 56 13.8** | **+0.1** |
| GULN | | | | S | **Sn** | **20 56 52.8** | **-1.2** |
| **TEPE** | **Tepekoy-Mersin** | **3.45** | **332** | *e*PN | **Pn** | **20 56 13.8** | **-0.2** |
| **TEPE** | **Tepekoy-Mersin** | **3.45** | **332** | *e*Pn | **Pn** | **20 56 13.8** | **-0.2** |
| **SILI** | **Silifke-Mersin** | **3.46** | **337** | *e*PN | **Pn** | **20 56 14.1** | **+0.1** |
| **SILI** | **Silifke-Mersin** | **3.46** | **337** | *e*Pn | **Pn** | **20 56 14.1** | **+0.1** |
| **YORU** | **Yoruktepe-Mers** | **3.46** | **330** | *e*PN | **Pn** | **20 56 13.9** | **-0.2** |
| **YORU** | **Yoruktepe-Mers** | **3.46** | **330** | *e*Pn | **Pn** | **20 56 13.9** | **-0.2** |
| **OREN** | **Orenkoy-Mersin** | **3.48** | **331** | *e*PN | **Pn** | **20 56 14.5** | **+0.1** |
| **OREN** | **Orenkoy-Mersin** | **3.48** | **331** | *e*Pn | **Pn** | **20 56 14.5** | **+0.1** |
| **KIZK** | **Mersin** | **3.50** | **341** | *e*PN | **Pn** | **20 56 14.9** | **+0.4** |
| **KIZK** | **Mersin** | **3.50** | **341** | *i* P | **Pn** | **20 56 15.3** | **+0.7** |
| KIZK | | | | *i* S | **Sn** | **20 56 54.0** | **-1.5** |
| **KIZK** | **Mersin** | **3.50** | **341** | P | **Pn** | **20 56 15.3** | **+0.7** |
| KIZK | | | | S | **Sn** | **20 56 54.0** | **-1.5** |
| **HNKL** | **Nakhl** | **3.51** | **203** | P | **Pn** | **20 56 14.8** | **0.0** |
| | baz=204 | | | | | | |
| **HNKL** | **Nakhl** | **3.51** | **203** | P | **Pn** | **20 56 14.8** | **0.0** |
| **KEBE** | **Keben-Mersin** | **3.60** | **335** | *e*PN | **Pn** | **20 56 16.2** | **+0.2** |
| **KEBE** | **Keben-Mersin** | **3.60** | **335** | *e*Pn | **Pn** | **20 56 16.2** | **+0.2** |
| **TEVE** | **Tevekalti-Mers** | **3.69** | **332** | *e*PN | **Pn** | **20 56 17.4** | **+0.1** |
| **TEVE** | **Tevekalti-Mers** | **3.69** | **332** | *e*Pn | **Pn** | **20 56 17.4** | **+0.1** |
| **MERS** | **Mersin** | **3.78** | **347** | *e*PN | **Pn** | **20 56 19.4** | **+0.9** |
| **MERS** | **Mersin** | **3.78** | **347** | *e*Pn | **Pn** | **20 56 19.4** | **+0.9** |
| **KUZU** | **Kuzuini** | **3.79** | **19** | *i* P | **Pn** | **20 56 22.8** | **+4.1** |
| KUZU | | | | *i* S | **Sg** | **20 57 20.7** | **-1.9** |
| **KUZU** | **Kuzuini** | **3.79** | **19** | P | **Pn** | **20 56 22.8** | **+4.1** |
| **DED** | **Mersin** | **3.83** | **351** | *i* P | **Pn** | **20 56 20.0** | **+0.9** |
| DED | | | | *i* S | **Sn** | **20 57 02.7** | **-1.0** |
| **ERMK** | **Ermenek** | **4.08** | **328** | *i* P | **Pn** | **20 56 24.5** | **+1.6** |
| ERMK | | | | *i* S | **Sn** | **20 57 12.5** | **+2.1** |
| **ERMK** | **Ermenek** | **4.08** | **328** | P | **Pn** | **20 56 24.5** | **+1.6** |
| ERMK | | | | S | **Sn** | **20 57 12.5** | **+2.1** |
| **KARA** | **Karaisali** | **4.09** | **354** | *e*PN | **Pn** | **20 56 23.9** | **+1.1** |
| **KARA** | **Karaisali** | **4.09** | **354** | *e*Pn | **Pn** | **20 56 23.9** | **+1.1** |
| **KAMA** | **Osmaniye** | **4.10** | **12** | *i* P | **Pn** | **20 56 27.1** | **+4.2** |
| KAMA | | | | *i* S | **Sb** | **20 57 24.6** | **+2.7** |
| **GAZ** | **Gaziantep** | **4.20** | **18** | *e*PN | **Pb** | **20 56 30.3** | **-4.2** |
| **GAZ** | **Gaziantep** | **4.20** | **18** | *e*Pn | **Pb** | **20 56 30.3** | **-4.2** |
| **AKO** | **Adana** | **4.27** | **359** | *i* P | **Pn** | **20 56 26.5** | **+1.2** |
| AKO | | | | *i* S | **Sn** | **20 57 14.9** | **+0.1** |
| **HCB** | **Kahramanmara¯** | **4.29** | **14** | *i* P | **Pn** | **20 56 27.5** | **+1.9** |
| **KOZT** | **Kozan** | **4.29** | **3** | *e*PN | **Pn** | **20 56 28.7** | **+3.1** |
| **KOZT** | **Kozan** | **4.29** | **3** | *e*Pn | **Pn** | **20 56 28.7** | **+3.1** |
| **KERG** | **Konya-Eregli** | **4.39** | **345** | *i* P | **Pn** | **20 56 28.7** | **+1.8** |
| KERG | | | | *i* S | **Sn** | **20 57 18.7** | **+1.0** |
| **KERG** | **Konya-Eregli** | **4.39** | **345** | P | **Pn** | **20 56 28.7** | **+1.8** |
| KERG | | | | S | **Sn** | **20 57 18.7** | **+1.0** |
| **ANDN** | **Andirin** | **4.43** | **8** | *i* P | **Pn** | **20 56 29.6** | **+2.0** |
| **ANDN** | **Andirin** | **4.43** | **8** | P | **Pn** | **20 56 29.6** | **+2.0** |
| **KMRS** | **Kahramanmaras** | **4.45** | **14** | *e*PN | Pn | 20 56 32.9 | +5.2 |
| **KMRS** | **Kahramanmaras** | **4.45** | **14** | *e*Pn | Pn | 20 56 32.9 | +5.2 |
| **SURC** | **SANLIURFA_SURC** | **4.45** | **33** | *i* P | Pn | 20 56 33.8 | +6.0 |
| **SURC** | **SANLIURFA_SURC** | **4.45** | **33** | P | Pn | 20 56 33.8 | +6.0 |
| **KOT** | **Kottamia** | **4.55** | **226** | P | **Pn** | **20 56 29.4** | **+0.3** |
| | baz=227 | | | | | | |
| KOT | | | | AMP | | 20 57 00.0 | |
| | comp=N,100μm,0.5s,logA/T=5.3,baz=227 | | | | | | |
| KOT | | | | S | **Sn** | **20 57 18.9** | **-2.8** |
| | baz=227 | | | | | | |
| **KOT** | **Kottamia** | **4.55** | **226** | P | **Pn** | **20 56 29.4** | **+0.3** |
| KOT | | | | S | **Sn** | **20 57 18.9** | **-2.8** |
| **GLL** | **Jalalah** | **4.88** | **224** | P | **Pn** | **20 56 33.5** | **-0.2** |
| | baz=225 | | | | | | |
| **GLL** | **Jalalah** | **4.88** | **224** | P | **Pn** | **20 56 33.5** | **-0.2** |
| **YAHY** | **KAYSERI_Yahyal** | **4.91** | **358** | *i* P | **Pn** | **20 56 36.7** | **+2.7** |
| YAHY | | | | *i* S | **Sn** | **20 57 32.6** | **+2.1** |
| **YAHY** | **KAYSERI_Yahyal** | **4.91** | **358** | P | **Pn** | **20 56 36.7** | **+2.7** |
| YAHY | | | | S | **Sn** | **20 57 32.6** | **+2.1** |
| **URFA** | **Urfa** | **5.01** | **31** | *e*PN | **Pb** | **20 56 44.2** | **-4.1** |
| **HMYD** | **Mayadein** | **5.29** | **232** | P | **Pn** | **20 56 39.9** | **+0.7** |
| | baz=233 | | | | | | |
| **HMYD** | **Mayadein** | **5.29** | **232** | P | **Pn** | **20 56 39.9** | **+0.7** |
| **KONT** | **Konya--Tatoy** | **5.43** | **332** | *e*PN | **Pn** | **20 56 42.3** | **+1.2** |
| **KONT** | **Konya--Tatoy** | **5.43** | **332** | *e*Pn | **Pn** | **20 56 42.3** | **+1.2** |
| **AKCD** | **Akcadag** | **5.45** | **20** | *i* P | **Pn** | **20 56 44.1** | **+2.6** |
| **AKCD** | **Akcadag** | **5.45** | **20** | P | **Pn** | **20 56 44.1** | **+2.6** |
| **GRB** | **Gharib** | **5.45** | **207** | P | **Pn** | **20 56 41.6** | **+0.1** |
| | baz=207 | | | | | | |
| **GRB** | **Gharib** | **5.45** | **207** | P | **Pn** | **20 56 41.6** | **+0.1** |
| **AKSY** | **AKSARAY - Alti** | **5.65** | **345** | *i* P | **Pg** | **20 57 09.3** | **+0.2** |
| **SUTC** | **Sutluce-Ispart** | **5.69** | **320** | *e*PN | **Pn** | **20 56 45.9** | **+1.1** |
| **SUTC** | **Sutluce-Ispart** | **5.69** | **320** | *e*Pn | **Pn** | **20 56 45.9** | **+1.1** |
| **KORT** | **Korkueli** | **5.73** | **313** | *e*PN | **Pn** | **20 56 46.9** | **+1.5** |
| **KORT** | **Korkueli** | **5.73** | **313** | *e*Pn | **Pn** | **20 56 46.9** | **+1.5** |
| **AKAS** | **Kas** | **5.78** | **303** | *i* P | **Pn** | **20 56 46.3** | **+0.2** |
| AKAS | | | | *i* S | **Sn** | **20 57 50.2** | **-1.9** |
| **AKAS** | **Kas** | **5.78** | **303** | P | **Pn** | **20 56 46.3** | **+0.2** |
| AKAS | | | | S | **Sn** | **20 57 50.2** | **-1.9** |
| **DOGA** | **KONYA_Doganhis** | **5.85** | **328** | *i* P | **Pn** | **20 56 48.7** | **+1.6** |
| **DOGA** | **KONYA_Doganhis** | **5.85** | **328** | P | **Pn** | **20 56 48.7** | **+1.6** |
| **ELL** | **Elmali** | **5.85** | **309** | *e*PN | **Pn** | **20 56 48.8** | **+1.7** |
| **ELL** | **Elmali** | **5.85** | **309** | *e*Pn | **Pn** | **20 56 48.8** | **+1.7** |
| **BCK** | **Bucak** | **5.90** | **318** | *e*PN | **Pn** | **20 56 48.8** | **+1.2** |
| **BCK** | **Bucak** | **5.90** | **318** | *e*Pn | **Pn** | **20 56 48.8** | **+1.2** |
| **MARD** | **Mardin** | **5.93** | **44** | *i* P | **Pn** | **20 56 50.9** | **+2.8** |
| **KDHN** | **Kadinhani** | **6.02** | **333** | *i* P | **Pn** | **20 56 52.0** | **+2.6** |
| KDHN | | | | *i* S | **Sn** | **20 57 57.0** | **-1.0** |
| **KDHN** | **Kadinhani** | **6.02** | **333** | P | **Pn** | **20 56 52.0** | **+2.6** |
| KDHN | | | | S | **Sn** | **20 57 57.0** | **-1.0** |
| **CUALT** | **Altinyayla-SIV** | **6.16** | **9** | *i* P | Pn | 20 56 57.2 | +5.9 |
| **BAGO** | **Egridir - ISPA** | **6.18** | **322** | *i* P | **Pn** | **20 56 54.1** | **+2.6** |
| **KKUL** | **Konya-Kulu** | **6.35** | **341** | *i* P | **Pn** | **20 56 57.5** | **+3.6** |
| **GLHS** | **Glhisar (BURDU** | **6.36** | **310** | *e*PN | **Pn** | **20 56 55.9** | **+1.9** |
| **GLHS** | **Glhisar (BURDU** | **6.36** | **310** | *e*Pn | **Pn** | **20 56 55.9** | **+1.9** |
| **GOLH** | **Golhisar** | **6.37** | **311** | *i* P | **Pn** | **20 56 56.8** | **+2.6** |
| GOLH | | | | *i* S | **Sn** | **20 58 05.0** | **-1.6** |
| **GOLH** | **Golhisar** | **6.37** | **311** | P | **Pn** | **20 56 56.8** | **+2.6** |
| GOLH | | | | S | **Sn** | **20 58 05.0** | **-1.6** |
| **CDAG** | **Cicekdag** | **6.50** | **352** | *i* P | **Pn** | **20 56 58.4** | **+2.4** |
| **CDAG** | **Cicekdag** | **6.50** | **352** | P | **Pn** | **20 56 58.4** | **+2.4** |
| **HANI** | **Diyarbakir_Han** | **6.53** | **36** | *i* P | **Pn** | **20 56 58.2** | **+1.9** |
| **HANI** | **Diyarbakir_Han** | **6.53** | **36** | P | **Pn** | **20 56 58.2** | **+1.9** |
| **BTMN** | **Batman** | **6.61** | **43** | *i* P | **Pn** | **20 57 00.0** | **+2.6** |
| **BTMN** | **Batman** | **6.61** | **43** | P | **Pn** | **20 57 00.0** | **+2.6** |
| **KZIL** | **AFYON_Kizioren** | **6.72** | **320** | *i* P | **Pn** | **20 57 00.3** | **+1.4** |
| **KZIL** | **AFYON_Kizioren** | **6.72** | **320** | P | **Pn** | **20 57 00.3** | **+1.4** |
| **KHAL** | **Karahalli** | **7.16** | **318** | *i* P | **Pn** | **20 57 05.9** | **+1.0** |
| **KHAL** | **Karahalli** | **7.16** | **318** | P | **Pn** | **20 57 05.9** | **+1.0** |
| **HAKT** | **HAKKARI** | **7.95** | **54** | *i* P | **Pn** | **20 57 18.0** | **+2.0** |
| **HAKT** | **HAKKARI** | **7.95** | **54** | P | **Pn** | **20 57 18.0** | **+2.0** |

---

**MEX 04 21:02:34.4**±0.6**, 16°20N**×**98°01W, h3**km**, MD3.5, Near coast of Guerrero**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PNIG** | **Pinotepa** | **0.22** | **331** | *e*P | Pg | 21 02 38.1 | -0.6 |
| PNIG | | | | *e*S | Sg | 21 02 42.0 | +0.3 |
| **TLIG** | **Tlapa** | **1.46** | **339** | *e*P | Pn | 21 02 58.6 | -3.2 |
| TLIG | | | | *e*S | Sb | 21 03 16.5 | -4.9 |
| **VHO** | **Vista Hermosa** | **1.51** | **54** | *e*P | Pn | 21 02 58.7 | -3.8 |
| VHO | | | | *e*S | Sb | 21 03 17.7 | -5.0 |

---

*ISCJB **04** 21:07:02.6±0.3, 43°74N±0°02×105°26W±0°03, h0km, mb4.4/1, Error ellipse: s-maj=3.5km s-min=3.1km az=3.0*
*IDC **04** 21:07:02.3±1.9, 43°61N×105°43W, h0km, mb4.2/1, mb1 3.9/4, mb1mx3.5/41, mbtmp3.7/4, ML3.5/3, Error ellipse: s-maj=47.7km s-min=8.7km az=151.0*
*NEIC **04** 21:07:04.2±0.3, 43°72N×105°24W, h0km, ML3.5, Error ellipse: s-maj=4.6km s-min=4.2km az=77.0, Suspected Mining explosion.*
*NEIC 69 km [43 miles] SSE of Gillette.*
**ISC 04 21:07:03.6**±0.7**, 43°71N**±0°03×**105°27W**±0°03**, h0**km**, n69, σ1§33**/81**, Wyoming**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RSSD** | **Black Hills** | **0.98** | **65** | *e*Pg | **Pg** | **21 07 22.8** | **+0.5** |
| RSSD | | | | *e*Sg | **Sg** | **21 07 35.1** | **+0.1** |
| **K22A** | **Casper** | **1.40** | **221** | P | **Pg** | **21 07 29.0** | **-1.5** |
| | baz=41 | | | | | | |
| **K22A** | **Casper** | **1.40** | **221** | *e*Pn | **Pg** | **21 07 28.9** | **-1.6** |
| K22A | | | | *e*Sg | **Sg** | **21 07 49.6** | **+0.9** |
| **PHWY** | **Pilot Hill** | **2.41** | **183** | *e*Pn | **Pn** | **21 07 45.0** | **+0.4** |
| PHWY | | | | *e*Sn | **Sn** | **21 08 16.0** | **+1.0** |
| **RWWY** | **Rawlins** | **2.48** | **216** | *e*Pn | **Pn** | **21 07 46.6** | **+1.1** |
| RWWY | | | | *e*Sn | **Sn** | **21 08 17.4** | **+0.8** |
| **N23A** | **Red Feather La** | **2.86** | **190** | P | **Pn** | **21 07 51.3** | **+0.6** |
| | baz=10 | | | | | | |
| **N23A** | **Red Feather La** | **2.86** | **190** | *e*Pn | **Pn** | **21 07 51.6** | **+0.9** |
| N23A | | | | *e*Sn | **Sn** | **21 08 25.9** | **-0.1** |
| **LAO** | **LASA Array** | **3.05** | **348** | *e*Pn | **Pn** | **21 07 55.7** | **+2.5** |
| LAO | | | | *e*Sn | **Sn** | **21 08 28.4** | **-2.0** |
| **RLMT** | **Red Lodge** | **3.19** | **298** | *e*Pn | **Pn** | **21 07 55.2** | **-0.1** |
| RLMT | | | | *e*Sn | **Sn** | **21 08 35.1** | **+0.9** |
| **BW06** | **Boulder Array** | **3.27** | **255** | *e*Pn | **Pn** | **21 07 56.6** | **+0.1** |
| BW06 | | | | *e*Sn | **Sn** | **21 08 33.9** | **-2.3** |
| **PD31** | **Pinedale Array** | **3.27** | **255** | *e*Pn | **Pn** | **21 07 56.8** | **+0.4** |
| PD31 | | | | *e*Lg | Lg | 21 08 40.0 | |
| **PDAR** | **Pinedale Array** | **3.27** | **255** | Pn | **Pn** | **21 07 56.6** | **+0.2** |
| | 7.6nm,0.3s,baz=82,slow=16,SNR=74 | | | | | | |
| PDAR | | | | Lg | Lg | 21 08 40.0 | |
| | 17nm,0.3s,baz=73,slow=35,SNR=6.8 | | | | | | |
| **PDAR** | **Pinedale Array** | **3.27** | **255** | *e*Pn | **Pn** | **21 07 56.3** | **-0.1** |
| PDAR | | | | *e*Sn | **Sn** | **21 08 36.4** | **+0.2** |
| **OGNE** | **Ogallala** | **3.66** | **138** | *e*Pn | **Pn** | **21 08 03.3** | **+1.8** |
| OGNE | | | | *e*Sn | **Sn** | **21 08 43.0** | **-2.5** |
| **YTP** | **The Promontory** | **3.68** | **282** | *e*Pn | **Pn** | **21 08 02.8** | **+0.7** |
| **GCMT** | **Greycliff** | **3.76** | **305** | *e*Pn | **Pn** | **21 08 03.9** | **+0.9** |
| GCMT | | | | *e*Sn | **Sn** | **21 08 47.1** | **-1.0** |
| **LKWY** | **Lake** | **3.79** | **285** | *e*Pn | **Pn** | **21 08 05.8** | **+2.3** |
| **LOHW** | **Long Hollow** | **3.88** | **270** | *e*Pn | **Pn** | **21 08 06.0** | **+1.3** |
| **H17A** | **Grant Village** | **3.89** | **282** | *e*Pn | **Pn** | **21 08 08.1** | **+3.2** |
| **ISCO** | **Idaho Springs** | **3.92** | **184** | *e*Pn | **Pn** | **21 08 06.6** | **+1.3** |
| **MOOW** | **Moose Ponds** | **3.97** | **272** | *e*Pn | **Pn** | **21 08 07.7** | **+1.8** |
| **SNOW** | **Snow King Moun** | **4.00** | **268** | *e*Pn | Pn | 21 08 11.5 | +5.1 |
| **YNR** | **Norris Junctio** | **4.02** | **286** | *e*Pb | **Pb** | **21 08 17.5** | **+2.0** |
| **YPP** | **Pitchstone Pla** | **4.04** | **280** | *e*Pn | **Pn** | **21 08 07.3** | **+0.4** |
| **REDW** | **Red Top Meadow** | **4.08** | **267** | *e*Pn | **Pn** | **21 08 08.4** | **+1.0** |
| **YFT** | **Old Faithful** | **4.08** | **282** | *e*Pn | **Pn** | **21 08 09.2** | **+1.7** |
| **IMW** | **Indian Meadow** | **4.11** | **275** | *e*Pn | **Pn** | **21 08 08.9** | **+0.9** |
| IMW | | | | *e*Pb | **Pb** | **21 08 19.3** | **+2.2** |
| **TPAW** | **Teton Pass** | **4.13** | **269** | *e*Pn | **Pn** | **21 08 09.2** | **+1.0** |
| **YHH** | **Holmes Hill** | **4.15** | **287** | *e*Pn | **Pn** | **21 08 11.3** | **+2.7** |
| **FXWY** | **Fox Creek** | **4.18** | **271** | *e*Pn | **Pn** | **21 08 10.0** | **+1.1** |
| **O20A** | **White River Ci** | **4.21** | **213** | P | **Pn** | **21 08 10.1** | **+1.0** |
| | baz=31 | | | | | | |
| **O20A** | **White River Ci** | **4.21** | **213** | *e*Pn | **Pn** | **21 08 10.2** | **+1.0** |
| **YMR** | **Madison River** | **4.21** | **285** | *e*Pn | **Pn** | **21 08 10.7** | **+1.5** |
| **AHID** | **Auburn Hatcher** | **4.37** | **260** | *e*Pn | **Pn** | **21 08 13.2** | **+1.8** |
| **YHB** | **Horse Butte** | **4.39** | **286** | *e*Pn | **Pn** | **21 08 10.1** | **-1.6** |
| **QLMT** | **Earthquake Lak** | **4.57** | **286** | *e*Pb | **Pb** | **21 08 26.0** | **+1.2** |
| **SMCO** | **Snowmass** | **4.71** | **196** | *e*Pn | **Pn** | **21 08 18.1** | **+1.8** |
| **Q24A** | **Divide** | **4.74** | **179** | *e*Pn | **Pn** | **21 08 16.3** | **-0.4** |
| **DGMT** | **Dagmar** | **4.82** | **9** | *e*Pn | **Pn** | **21 08 16.9** | **-0.5** |
| **BOZ** | **Bozeman (W)** | **4.92** | **295** | *e*Pn | **Pn** | **21 08 19.6** | **+0.7** |
| **KSCO** | **Kaye Shedlock'** | **5.10** | **156** | *e*Pn | **Pn** | **21 08 22.0** | **+0.6** |
| **HWUT** | **Hardware Ranch** | **5.10** | **248** | *e*Pn | **Pn** | **21 08 21.6** | **+0.1** |
| **MCU** | **Monte Cristo P** | **5.13** | **246** | *e*Pn | **Pn** | **21 08 22.2** | **+0.3** |
| **TCUT** | **Toone Canyon** | **5.23** | **242** | *e*Pn | **Pn** | **21 08 24.7** | **+1.4** |
| **HRY** | **Holter Researc** | **5.52** | **305** | *e*Pn | **Pn** | **21 08 27.7** | **+0.5** |
| **P18A** | **Preston Nutter** | **5.53** | **224** | *e*Pn | **Pn** | **21 08 28.2** | **+0.8** |
| **LRM** | **Limekiln Ridge** | **5.53** | **295** | *e*Pn | **Pn** | **21 08 27.4** | **-0.1** |
| LRM | | | | *e*Sn | **Sn** | **21 09 31.3** | **-0.6** |
| **JLU** | **Jordanelle** | **5.55** | **238** | *e*Pn | **Pn** | **21 08 27.6** | **0.0** |
| **MCMT** | **McKenzie Canyo** | **5.56** | **284** | *e*Pn | **Pn** | **21 08 25.6** | **-2.2** |
| **CTU** | **Camp Tracy** | **5.68** | **240** | *e*Pn | **Pn** | **21 08 29.4** | **0.0** |
| **HVU** | **Hansel Valley** | **5.86** | **253** | *e*Pn | **Pn** | **21 08 32.5** | **+0.7** |
| **P17A** | **Butcher Ranch,** | **5.90** | **226** | *e*Pn | **Pn** | **21 08 34.2** | **+1.8** |
| **SDCO** | **Great Sand Dun** | **5.96** | **182** | *e*Pn | **Pn** | **21 08 31.4** | **-2.0** |
| **PV09** | **Paradox Valley** | **5.97** | **211** | *e*Pn | **Pn** | **21 08 34.5** | **+1.0** |
| **PV04** | **Paradox Valley** | **5.98** | **209** | *e*Pn | **Pn** | **21 08 33.8** | **+0.2** |
| **PV10** | **Paradox Valley** | **6.04** | **209** | *e*Pn | **Pn** | **21 08 34.4** | **-0.1** |
| **SRU** | **San Rafael Swe** | **6.06** | **222** | *e*Pn | **Pn** | **21 08 35.7** | **+1.0** |
| **S22A** | **4UR Ranch, Cre** | **6.08** | **192** | *e*Pn | **Pn** | **21 08 37.2** | **+2.3** |
| **PV01** | **Paradox Valley** | **6.11** | **205** | *e*Pn | **Pn** | **21 08 36.9** | **+1.6** |
| **ECSD** | **EROS Data Cent** | **6.27** | **87** | *e*Pn | **Pn** | **21 08 39.6** | **+2.2** |
| **TMUT** | **Trail Mountain** | **6.27** | **227** | *e*Pn | **Pn** | **21 08 38.8** | **+1.1** |
| **Q16A** | **Castle Valley** | **6.53** | **225** | *e*Pn | **Pn** | **21 08 41.6** | **+0.5** |
| **DUG** | **Dugway, Tooele** | **6.63** | **241** | *e*Pn | **Pn** | **21 08 42.9** | **+0.4** |
| **MMU** | **Miners Mountai** | **7.15** | **222** | *e*Pn | **Pn** | **21 08 49.2** | **-0.4** |
| **ULM** | **Lac du Bonnet** | **9.16** | **41** | Pn | **Pn** | **21 09 15.4** | **-1.5** |
| | 3.0nm,0.3s,baz=228,slow=12,SNR=20 | | | | | | |
| ULM | | | | Lg | Lg | 21 11 49.5 | |
| | 0.3nm,0.3s,baz=317,slow=19,SNR=3.4 | | | | | | |
| **YKA** | **Yellowknife Ar** | **19.59** | **347** | P | **P** | **21 11 33.5** | **+0.4** |
| | 0.1nm,0.3s,baz=154,slow=11,SNR=3.7 | | | | | | |
| **YKB5** | **Yellowknife Ar** | **19.59** | **347** | *e*P | **P** | **21 11 33.5** | **+0.4** |
| **ARA0** | **ARCESS Array S** | **61.44** | **18** | *e*P | **P** | **21 17 20.1** | **-1.1** |
| **ARCES** | **ARCESS Array B** | **61.44** | **18** | P | **P** | **21 17 20.1** | **-1.1** |
| | 2.4nm,0.8s,baz=337,slow=6.7,SNR=8.1 | | | | | | |

---

*CSEM **04** 21:34:04.9±0.3, 37°34N×43°86E, h10km, ML2.6, Error ellipse: s-maj=11.2km s-min=5.0km az=130.0*
*ISN **04** 21:34:08.4±0.3, 37°00N×43°85E, h0km, ML0.7*
**DDA 04 21:34:04.6, 37°29N×43°89E, h7km, Ml2.6, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CUKT** | **Cukurca** | **0.23** | **259** | *i* P | Pg | 21 34 09.5 | +0.3 |
| CUKT | | | | *i* S | Sg | 21 34 13.8 | +1.6 |
| **CUKT** | **Cukurca** | **0.23** | **259** | P | Pg | 21 34 09.5 | +0.3 |
| CUKT | | | | S | Sg | 21 34 13.9 | +1.6 |
| **HAKT** | **HAKKARI** | **0.30** | **331** | *i* P | Pg | 21 34 10.8 | +0.1 |
| HAKT | | | | *i* S | Sg | 21 34 15.6 | +1.0 |
| **HAKT** | **HAKKARI** | **0.30** | **331** | P | Pg | 21 34 10.8 | +0.2 |
| HAKT | | | | S | Sg | 21 34 15.6 | +0.9 |
| **YOVA** | **Hakkari_Yˆ…kse** | **0.43** | **47** | *i* P | Pg | 21 34 13.4 | +0.4 |
| YOVA | | | | *i* S | Sg | 21 34 19.8 | +1.0 |
| **YOVA** | **Hakkari_Yˆ…kse** | **0.43** | **47** | P | Pg | 21 34 13.4 | +0.3 |
| YOVA | | | | S | Sg | 21 34 19.8 | +1.0 |
| **MSL** | **Mosul** | **1.09** | **215** | *e*Pg | Pn | 21 34 27.0 | +0.7 |
| | SNR=90 | | | | | | |
| MSL | | | | *e*Sg | Sb | 21 34 40.0 | -0.1 |
| | SNR=9.0 | | | | | | |

---

*CSEM **04** 21:35:01.9±0.2, 38°54N×43°04E, h5km, ML2.9, Error ellipse: s-maj=3.5km s-min=3.4km az=108.0*
*DDA **04** 21:35:01.7, 38°56N×43°11E, h7km, Ml2.9*
*ISK **04** 21:35:01.0, 38°56N×43°05E, h5km, MD2.8*
*ISCJB **04** 21:35:02.1±0.6, 38°55N±0°03×43°01E±0°05, h3km±9km, Error ellipse: s-maj=6.5km s-min=4.5km az=177.4*
**ISC 04 21:35:02.1**±0.9**, 38°54N**±0°03×**43°06E**±0°03**, h12**km±9km**, n36, σ0§64**/44**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GEVA** | **Gevas** | **0.22** | **179** | *i* P | **Pg** | **21 35 06.3** | **-0.7** |
| GEVA | | | | *i* S | **Sg** | **21 35 10.7** | **+0.5** |
| **GEVA** | **Gevas** | **0.22** | **179** | P | **Pg** | **21 35 06.3** | **-0.7** |
| GEVA | | | | S | **Sg** | **21 35 10.7** | **+0.5** |
| **VANB** | **Van** | **0.27** | **77** | *e*PG | **Pg** | **21 35 07.7** | **0.0** |
| VANB | | | | *e*SG | **Sb** | **21 35 13.1** | **-0.5** |
| **VANB** | **Van** | **0.27** | **77** | *e*Pg | **Pg** | **21 35 07.7** | **0.0** |
| VANB | | | | *e*Sg | **Sb** | **21 35 13.1** | **-0.5** |
| **TVAN** | **Van** | **0.28** | **91** | *i* S | **Sb** | **21 35 13.7** | **-0.2** |
| **TVAN** | **Van** | **0.28** | **91** | S | **Sb** | **21 35 13.7** | **-0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.38** | **317** | *i* P | **Pg** | **21 35 09.5** | **-0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.38** | **317** | P | **Pg** | **21 35 09.5** | **-0.2** |
| **ERCV** | **ERCIS-VAN** | **0.53** | **25** | *e*PG | **Pg** | **21 35 12.3** | **-0.3** |
| ERCV | | | | *e*SG | **Sb** | **21 35 20.3** | **-1.0** |
| **ERCV** | **ERCIS-VAN** | **0.53** | **25** | *e*Pg | **Pg** | **21 35 12.3** | **-0.3** |
| **VMUR** | **Van-Muradiye** | **0.61** | **42** | *i* P | **Pb** | **21 35 14.3** | **-0.5** |
| **VMUR** | **Van-Muradiye** | **0.61** | **42** | P | **Pb** | **21 35 14.3** | **-0.5** |
| **TUTA** | **Tutak** | **0.89** | **348** | *i* P | **Pg** | **21 35 18.7** | **-0.5** |
| TUTA | | | | *i* S | **Sb** | **21 35 30.9** | **-0.6** |
| **TUTA** | **Tutak** | **0.89** | **348** | P | **Pg** | **21 35 18.7** | **-0.5** |
| TUTA | | | | S | **Sb** | **21 35 30.9** | **-0.6** |
| **CLDR** | **Caldiran** | **0.91** | **48** | *e*PG | **Pg** | **21 35 19.2** | **-0.4** |
| CLDR | | | | *e*SG | **Sb** | **21 35 32.9** | **+0.8** |
| **CLDR** | **Caldiran** | **0.91** | **48** | *e*Pg | **Pg** | **21 35 19.2** | **-0.4** |
| **AGRB** | **Hanur-Agry** | **1.04** | **357** | *e*PG | **Pg** | **21 35 21.5** | **-0.7** |
| **AGRB** | **Hanur-Agry** | **1.04** | **357** | *e*Pg | **Pg** | **21 35 21.5** | **-0.7** |
| **SRTM** | **Siirt_Merkez** | **1.04** | **239** | *i* P | **Pb** | **21 35 22.6** | **+0.4** |
| **SRTM** | **Siirt_Merkez** | **1.04** | **239** | P | **Pb** | **21 35 22.6** | **+0.4** |
| **EKAR** | **Karacoban** | **1.06** | **313** | *i* P | **Pb** | **21 35 22.4** | **0.0** |
| **EKAR** | **Karacoban** | **1.06** | **313** | P | **Pb** | **21 35 22.5** | **0.0** |
| **HAKT** | **HAKKARI** | **1.10** | **152** | *i* P | **Pg** | **21 35 22.8** | **-0.6** |
| **HAKT** | **HAKKARI** | **1.10** | **152** | P | **Pg** | **21 35 22.8** | **-0.6** |
| **SIRT** | **Sirnak** | **1.14** | **205** | *e*PN | **Pn** | **21 35 24.5** | **+0.5** |
| **SIRT** | **Sirnak** | **1.14** | **205** | *e*Pn | **Pn** | **21 35 24.5** | **+0.5** |
| **EATA** | **Eleskirt** | **1.40** | **342** | *i* P | **Pb** | **21 35 28.1** | **-0.2** |
| **EATA** | **Eleskirt** | **1.40** | **342** | P | **Pb** | **21 35 28.1** | **-0.2** |
| **VRTB** | **Varto-Mus** | **1.40** | **297** | *e*PN | **Pg** | **21 35 28.4** | **-0.5** |
| **VRTB** | **Varto-Mus** | **1.40** | **297** | *e*Pn | **Pg** | **21 35 28.4** | **-0.5** |
| **BNGB** | **Bingˆ¶l** | **1.91** | **284** | *e*PN | **Pb** | **21 35 36.0** | **-1.0** |
| **BINT** | **Bingol** | **2.04** | **280** | *e*Pn | **Pn** | **21 35 36.0** | **-0.4** |
| **SENK** | **Senkaya-Erzuru** | **2.10** | **345** | *e*PN | **Pn** | **21 35 38.4** | **+1.1** |
| **SENK** | **Senkaya-Erzuru** | **2.10** | **345** | *e*Pn | **Pn** | **21 35 38.4** | **+1.1** |
| **YEDI** | **Yedisu-Bingol** | **2.15** | **295** | *e*PN | **Pn** | **21 35 39.4** | **+1.4** |
| **YEDI** | **Yedisu-Bingol** | **2.15** | **295** | *e*Pn | **Pn** | **21 35 39.4** | **+1.4** |

---

*DDA **04** 21:35:31.5, 37°84N×29°20E, h3km, Ml2.5*
*CSEM **04** 21:35:32.0±0.2, 37°87N×29°21E, h2km, MD2.6, Error ellipse: s-maj=6.1km s-min=4.8km az=108.0*
*ISK **04** 21:35:32.2, 37°88N×29°14E, h21km, MD2.6*
**ISC 04 21:35:32.3**±1.0**, 37°87N**±0°02×**29°21E**±0°03**, h8**km±12km**, n28, σ1§53**/37**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DENT** | **Denizli** | **0.18** | **232** | *e*PG | **Pg** | **21 35 37.1** | **+1.1** |
| **DENT** | **Denizli** | **0.18** | **232** | *e*Pg | **Pg** | **21 35 37.1** | **+1.1** |
| **DNZL** | **Cakiroluk** | **0.22** | **217** | *i* P | **Pg** | **21 35 35.5** | **-1.3** |
| DNZL | | | | *i* S | **Sg** | **21 35 39.1** | **-0.7** |
| **DNZL** | **Cakiroluk** | **0.22** | **217** | P | **Pg** | **21 35 35.5** | **-1.3** |
| DNZL | | | | S | **Sg** | **21 35 39.1** | **-0.7** |
| **TAVA** | **DENIZLI_Tavas** | **0.47** | **211** | *i* P | **Pg** | **21 35 39.6** | **-1.7** |
| **TAVA** | **DENIZLI_Tavas** | **0.47** | **211** | P | **Pg** | **21 35 39.6** | **-1.7** |
| **KHAL** | **Karahalli** | **0.55** | **23** | *i* P | **Pg** | **21 35 42.7** | **-0.2** |
| KHAL | | | | *i* S | **Sg** | **21 35 51.5** | **+1.4** |
| **KHAL** | **Karahalli** | **0.55** | **23** | P | **Pg** | **21 35 42.7** | **-0.2** |
| KHAL | | | | S | **Sg** | **21 35 51.5** | **+1.4** |
| **GOLH** | **Golhisar** | **0.69** | **156** | *i* P | **Pb** | **21 35 44.9** | **-1.7** |
| GOLH | | | | *i* S | **Sg** | **21 35 55.9** | **+1.5** |
| **GOLH** | **Golhisar** | **0.69** | **156** | P | **Pb** | **21 35 44.9** | **-1.7** |
| GOLH | | | | S | **Sg** | **21 35 55.9** | **+1.5** |
| **BRDR** | **BURDUR-Merkez** | **0.69** | **104** | *i* P | **Pb** | **21 35 45.8** | **-0.9** |

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BRDR | BURDUR-Merkez | 0.69 | 104 | P | Pb | 21 35 45.8 | -0.9 |
| KULA | Kula-Manisa | 0.78 | 326 | *e*PG | Pb | 21 35 47.1 | -1.1 |
| KULA | | | | *e*SG | Sg | 21 35 57.9 | +0.4 |
| KULA | Kula-Manisa | 0.78 | 326 | *e*Pg | Pb | 21 35 47.1 | -1.1 |
| KULA | | | | *e*Sg | Sg | 21 35 57.9 | +0.4 |
| MANT | Manisa | 0.81 | 321 | *i* P | Pb | 21 35 48.1 | -0.7 |
| MANT | Manisa | 0.81 | 321 | P | Pb | 21 35 48.1 | -0.7 |
| KZIL | AFYON_Kizioren | 0.83 | 62 | *i* P | Pb | 21 35 48.5 | -0.5 |
| KZIL | AFYON_Kizioren | 0.83 | 62 | P | Pb | 21 35 48.5 | -0.5 |
| AYDN | Tasoluk | 1.08 | 259 | *i* P | Pb | 21 35 52.2 | -1.0 |
| AYDN | Tasoluk | 1.08 | 259 | P | Pb | 21 35 52.2 | -1.0 |
| TURN | Turunc | 1.10 | 206 | *e*PN | Pg | 21 35 56.0 | +2.5 |
| TURN | | | | *e*SN | Sg | 21 36 13.2 | +5.4 |
| TURN | Turunc | 1.10 | 206 | *e*Pn | Pg | 21 35 56.0 | +2.5 |
| GDZ | Gediz | 1.24 | 10 | *i* P | Pb | 21 35 56.1 | +0.1 |
| GDZ | Gediz | 1.24 | 10 | P | Pb | 21 35 56.1 | +0.1 |
| SHUT | Suhut-Afyon | 1.26 | 57 | *e*PN | Pn | 21 35 55.6 | -0.6 |
| SHUT | Suhut-Afyon | 1.26 | 57 | *e*Pn | Pn | 21 35 55.7 | -0.6 |
| TVSB | Tavsanli | 1.59 | 7 | *e*PN | Pn | 21 36 00.5 | -0.4 |
| TVSB | Tavsanli | 1.59 | 7 | *e*Pn | Pn | 21 36 00.5 | -0.4 |

*ISK **04** 21:37:53.9, 39°.47N×33°.28E, h7km, MD2.4*
*ISCJB **04** 21:37:54.8±0.6, 39°.40N±0°.04×33°.27E±0°.04, h6km±7km, Error ellipse: s-maj=7.3km s-min=5.1km az=173.0*
*CSEM **04** 21:37:54.5±0.2, 39°.45N×33°.26E, h10km, MD2.4, Error ellipse: s-maj=4.8km s-min=2.3km az=169.0*
*DDA **04** 21:37:54.4, 39°.40N×33°.26E, h7km, Ml2.5*
**ISC 04 21:37:54.8**±1.0**, 39°.43N**±0°.04×**33°.26E**±0°.03**, h9**km±9km**, n16, σ0s.42**/24**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AFSR | Afˉar-Bala (A | 0.15 | 276 | *e*PG | Pg | 21 37 57.7 | -0.4 |
| AFSR | | | | *e*SG | Sg | 21 38 00.5 | 0.0 |
| AFSR | Afˉar-Bala (A | 0.15 | 276 | *e*Pg | Pg | 21 37 57.7 | -0.4 |
| AFSR | | | | *e*Sg | Sg | 21 38 00.5 | 0.0 |
| BBAL | Bala | 0.15 | 316 | *i* P | Pg | 21 37 58.5 | +0.2 |
| BBAL | | | | *i* S | Sg | 21 38 01.7 | +1.0 |
| KAMT | Kaman | 0.35 | 100 | *e*PG | Pg | 21 38 01.3 | -0.5 |
| KAMT | | | | *e*SG | Sg | 21 38 06.7 | +0.1 |
| KAMT | Kaman | 0.35 | 100 | *e*Pg | Pg | 21 38 01.3 | -0.5 |
| KAMT | | | | *e*Sg | Sg | 21 38 06.7 | +0.1 |
| KKUL | Konya-Kulu | 0.37 | 226 | *i* P | Pg | 21 38 01.3 | -0.9 |
| KKUL | | | | *i* S | Sg | 21 38 07.0 | -0.1 |
| KULU | Kulu | 0.44 | 208 | *e*PG | Pg | 21 38 03.6 | +0.2 |
| KULU | Kulu | 0.44 | 208 | *e*Pg | Pg | 21 38 03.6 | +0.2 |
| SERE | Sereflikochisa | 0.54 | 154 | *e*PG | Pg | 21 38 05.5 | +0.2 |
| SERE | Sereflikochisa | 0.54 | 154 | *e*Pg | Pg | 21 38 05.5 | +0.2 |
| CDAG | Cicekdag | 0.88 | 77 | *i* P | Pg | 21 38 11.4 | -0.3 |
| CDAG | | | | *i* S | Sb | 21 38 24.5 | +0.3 |
| CDAG | Cicekdag | 0.88 | 77 | P | Pg | 21 38 11.4 | -0.3 |
| CDAG | | | | S | Sb | 21 38 24.5 | +0.3 |
| KIZT | Kizilcal | 1.21 | 243 | *e*PN | Pn | 21 38 17.9 | 0.0 |
| KIZT | Kizilcal | 1.21 | 243 | *e*Pn | Pn | 21 38 17.9 | 0.0 |
| KDHN | Kadinhani | 1.27 | 225 | *i* P | Pn | 21 38 18.7 | -0.2 |
| KDHN | Kadinhani | 1.27 | 225 | P | Pn | 21 38 18.7 | -0.2 |

*MOS **04** 21:45:24.9±0.9, 4°.00S×127°.63E, h176km, mb4.7/27, Error ellipse: s-maj=10.7km s-min=5.9km az=117.4*
*BJI **04** 21:45:26.2, 4°.00S×127°.70E, h182km, mb4.6/43, mB4.9/32*
*ISCJB **04** 21:45:26.5±0.3, 3°.98S±0°.02×127°.75E±0°.02, h192km±2km, mb4.7/106, Error ellipse: s-maj=3.8km s-min=2.8km az=42.3*
*DJA **04** 21:45:27.5±0.1, 4°S±2°×12°8E±°, h176km±2km, M5.0/54, mb5.2/54, mB5.5/35, MLv5.6/19, Mw(mB)4.9/35*
*IDC **04** 21:45:27.5±1.2, 4°.03S×127°.63E, h188km±10km, mb4.4/23, mb1 4.5/25, mb1mx4.5/31, mbtmp4.9/25, MS3.5/5, Ms1 3.5/5, ms1mx3.1/32, Error ellipse: s-maj=12.7km s-min=7.4km az=73.0*
*NEIC **04** 21:45:27.9±0.4, 3°.99S×127°.68E, h192km±4km, mb5.2/61, Error ellipse: s-maj=4.4km s-min=3.0km az=51.0*
*GCMT **04** 21:45:28.0±0.2, 3°.90S×127°.67E, h191km±2km, MW5.1/94, Moment Tensor Solution. s46,c54; s94,c124; Duration: 0 Moment tensor: Scale $10^{16}$Nm; $M_{rr}$3.91±.12; $M_{\theta\theta}$1.69±.14; $M_{\phi\phi}$-5.60±.16; $M_{r\theta}$-1.65±.11; $M_{\theta\phi}$0.44±.16; $M_{\phi r}$-1.34±.13; Best double couple: $M_0$5.38100×$10^{16}$ NP1:$\phi_s$201.00000°,δ58.00000°,λ123.00000°. NP2: $\phi_s$330.00000°,δ44.00000°,λ49.00000°. Principal axes: T 4.9710, Plg61.0000°, Azm164.0000°; N 0.8200, Plg27.0000°, Azm2.0000°; P -5.7910, Plg8.0000°, Azm268.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*KLM **04** 21:45:29.8, 3°.68S×127°.84E, h206km, mb5.2*
**ISC 04 21:45:27.4**±0.4**, 4°.03S**±0°.04×**127°.72E**±0°.04**, h190**km±3km**, h190**km**:pP-P, n349, σ1s.52**/419**, mb4.8**/106**, 15C-9D, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AAI | Ambon | 0.59 | 54 | P | Pn | 21 45 52.2 | -1.5 |
| MSAI | Masohi | 1.39 | 61 | P | Pn | 21 45 57.9 | -1.3 |
| MSAI | | | | S | Sn | 21 46 20.1 | -3.7 |
| BNDI | Bandanaira | 2.24 | 103 | P | Pn | 21 46 07.8 | +0.1 |
| SANI | Sanana | 2.62 | 319 | P | Pn | 21 46 09.6 | -2.4 |
| LBMI | Labuha | 3.38 | 356 | P | Pn | 21 46 20.3 | -0.8 |
| FAKI | Fak Fak | 4.66 | 76 | P | Pn | 21 46 35.5 | -1.7 |
| FAKI | Fak Fak | 4.66 | 76 | *e*Pn | Pn | 21 46 36.0 | -1.1 |
| TNTI | Ternate | 4.78 | 356 | *e*Pn | Pn | 21 46 36.0 | -2.8 |
| SAUI | Saumlaki | 5.30 | 138 | P | Pn | 21 46 47.7 | +2.2 |
| | 2µm,0.6s,15µm5.7nm | | | | | | |
| SAUI | Saumlaki | 5.30 | 138 | *e*Pn | Pn | 21 46 47.3 | +1.8 |
| BBSI | Bau Bau | 5.33 | 254 | P | Pn | 21 46 48.2 | +2.4 |
| | 454nm,1.2s,5µm1.4nm | | | | | | |
| LUWI | Luwuk | 5.76 | 301 | P | Pn | 21 46 50.4 | -1.1 |
| | 556nm,0.6s,9µm6.5nm | | | | | | |
| LUWI | Luwuk | 5.76 | 301 | *e*Pn | Pn | 21 46 50.8 | -0.7 |
| KMSI | Cibinong | 5.90 | 321 | P | Pn | 21 46 52.5 | -0.8 |
| KMPI | Kaimana, Papua | 5.99 | 87 | P | Pn | 21 46 52.6 | -1.7 |
| | 1µm,0.6s,49µm7.4nm | | | | | | |
| SOEI | Soe | 6.64 | 211 | P | Pn | 21 47 05.7 | +2.7 |
| SOEI | Soe | 6.64 | 211 | *e*Pn | Pn | 21 47 05.7 | +2.7 |
| APSI | Ampana | 6.81 | 297 | P | Pn | 21 47 04.9 | -0.2 |
| | 760nm,1.1s,9µm3.1nm | | | | | | |
| RKPI | Ransiki, Papua | 6.92 | 69 | P | Pn | 21 47 05.1 | -1.5 |
| MMRI | Maumere | 7.11 | 230 | P | Pn | 21 47 10.8 | +1.7 |
| MMRI | Maumere | 7.11 | 230 | *e*Pn | Pn | 21 47 11.0 | +1.9 |
| MRSI | Marisa | 7.30 | 308 | P | Pn | 21 47 11.0 | -0.6 |
| BSSI | Bau Bau, Buton | 7.50 | 253 | P | Pn | 21 47 15.1 | +1.0 |
| BNSI | Bone | 7.60 | 267 | P | Pn | 21 47 15.9 | +0.5 |
| EDFI | Ende, Flores | 7.61 | 232 | P | Pn | 21 47 17.1 | +1.5 |
| SPSI | Sidrap Palu | 7.93 | 270 | P | Pn | 21 47 20.5 | +0.7 |
| TTSI | Tana Toraja | 7.94 | 277 | P | Pn | 21 47 21.0 | +1.0 |
| SGSI | Sangihe | 7.97 | 344 | P | Pn | 21 47 19.4 | -0.9 |
| KAPI | Kappang | 8.00 | 263 | *e*Pn | Pn | 21 47 21.9 | +1.2 |
| MPSI | Mapaga | 8.94 | 299 | P | Pn | 21 47 33.2 | +0.2 |
| MTN | Manton Dam | 9.38 | 159 | *e*Pn | Pn | 21 47 39.5 | +0.7 |
| KDU | Kakadu | 9.80 | 152 | P | Pn | 21 47 44.7 | +0.4 |
| | baz=9.9,SNR=15 | | | | | | |
| PLAI | Plampang | 10.96 | 244 | P | Pn | 21 48 00.2 | +0.9 |
| KBKI | Kotabaru | 11.55 | 273 | P | Pn | 21 48 08.0 | +1.1 |
| KNRA | Kununurra | 11.62 | 175 | P | Pn | 21 48 08.0 | +0.3 |
| | baz=12,SNR=60 | | | | | | |
| GENI | Genyem | 12.51 | 84 | P | Pn | 21 48 19.4 | +0.3 |
| TSM | Tawau | 12.85 | 310 | ⇓P | Pn | 21 48 23.6 | +0.2 |
| MYLDM | Lahad Datu | 12.98 | 315 | *e*Pn | Pn | 21 48 25.9 | +0.9 |
| JAY | Jayapura | 13.05 | 84 | P | Pn | 21 48 26.7 | +0.7 |
| SRBI | Singaraja | 13.07 | 251 | P | P | 21 48 28.0 | -1.6 |
| MTKI | Muara Teweh, K | 13.17 | 283 | P | Pn | 21 48 28.6 | +1.1 |
| KMMI | Kalianget | 14.01 | 257 | P | P | 21 48 40.3 | +0.3 |
| FITZ | Fitzroy Crossi | 14.13 | 188 | P | Pn | 21 48 38.9 | -0.6 |
| | 3.1nm,0.3s,baz=19,slow=9.2,SNR=31 | | | | | | |
| FITZ | | | | S | Sn | 21 51 07.3 | -10 |
| | baz=150,slow=20,SNR=1.2 | | | | | | |
| FITZ | Fitzroy Crossi | 14.13 | 188 | P | Pn | 21 48 38.8 | -0.6 |
| | baz=14,SNR=42 | | | | | | |
| JAGI | Jajag, Banyuwa | 14.19 | 251 | P | P | 21 48 41.7 | -0.3 |
| JAGI | Jajag, Banyuwa | 14.19 | 251 | *e*Pn | Pn | 21 48 40.9 | +0.8 |
| SDKM | Sandakan | 14.24 | 312 | ⇓P | P | 21 48 41.7 | -0.9 |
| BLJI | Banyuglugur | 14.52 | 255 | P | P | 21 48 49.3 | +3.6 |
| GMJI | Gumukmas | 14.80 | 253 | P | P | 21 48 49.5 | +0.7 |
| KKM | Kota Kinabalu | 15.23 | 311 | ⇓P | P | 21 48 53.9 | +0.2 |
| KKM | Kota Kinabalu | 15.23 | 311 | *e*Pn | Pn | 21 48 52.7 | -0.4 |
| | 194nm,1.2s | | | | | | |
| GRJI | Gresik | 15.44 | 259 | P | P | 21 48 58.0 | +2.2 |
| TBJI | Tambak Boyo | 16.04 | 259 | P | Pn | 21 49 05.5 | +2.7 |
| | 184nm,1.3s,3µm | | | | | | |
| PBKI | Pangkalan Bun | 16.07 | 274 | P | Pn | 21 49 04.0 | +0.8 |
| PWJI | Pagerwojo | 16.31 | 255 | P | Pn | 21 49 05.9 | -0.2 |
| STKI | Sintang | 16.73 | 284 | P | Pn | 21 49 11.3 | +0.2 |
| | 98nm,1.1s,10µm | | | | | | |
| UWJI | Ujung Watu | 16.87 | 261 | P | Pn | 21 49 12.6 | -0.1 |
| PCJI | Pacitan | 16.95 | 255 | P | P | 21 49 12.4 | -0.2 |
| WRAB | Tennant Creek | 17.08 | 158 | *ce*P | P | 21 49 14.5 | +0.6 |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,342nm,0.8s | | | | | | |
| WRAB | Tennant Creek | 17.08 | 158 | *e*P | P | 21 49 14.6 | +0.6 |
| | comp=Z,122nm,0.7s | | | | | | |
| WRA | Warramunga Arr | 17.08 | 158 | P | P | 21 49 14.2 | +0.2 |
| | comp=Z,22nm,0.3s,baz=335,slow=12,SNR=255 | | | | | | |
| WRA | | | | S | S | 21 52 13.0 | -9.3 |
| | baz=359,slow=16,SNR=4.1 | | | | | | |
| WRA | | | | ScP | ScP | 21 57 04.7 | -1.0 |
| | comp=Z,0.0nm,0.3s,baz=330,slow=2.3,SNR=4.3 | | | | | | |
| WB2 | Warramunga Arr | 17.09 | 158 | *e*P | P | 21 49 14.4 | +0.4 |
| SMRI | Semarang | 17.45 | 259 | P | Pn | 21 49 19.9 | +0.2 |
| | comp=Z,279nm,1.2s | | | | | | |
| SMRI | Semarang | 17.45 | 259 | *e*P | P | 21 49 17.6 | -0.4 |
| | comp=Z,192nm,0.8s | | | | | | |
| UGM | Wanagama | 17.53 | 256 | P | Pn | 21 49 21.3 | +0.7 |
| UGM | Wanagama | 17.53 | 256 | *e*P | P | 21 49 19.5 | +0.6 |
| | comp=Z,306nm,1.5s | | | | | | |
| COEN | Coen | 18.16 | 124 | P | P | 21 49 26.9 | +1.1 |
| | baz=18,SNR=572 | | | | | | |
| COEN | Coen | 18.16 | 124 | *e*P | P | 21 49 26.9 | +1.1 |
| | comp=Z,160nm,0.6s | | | | | | |
| KSM | Kuching | 18.24 | 287 | *e*P | P | 21 49 27.4 | +0.8 |
| | comp=Z,266nm,1.2s | | | | | | |
| MBWA | Marble Bar | 18.71 | 204 | *e*P | P | 21 49 31.8 | +0.1 |
| | comp=Z,50nm,0.9s | | | | | | |
| KPJI | Karang Pucung | 18.98 | 259 | P | P | 21 49 34.1 | -0.5 |
| PMG | Port Moresby | 20.03 | 106 | P | P | 21 49 46.6 | +0.7 |
| | comp=Z,32nm,0.5s,baz=258,slow=4.7,SNR=17 | | | | | | |
| PMG | | | | S | S | 21 53 16.7 | -4.0 |
| | comp=Z,2.4nm,0.3s,baz=261,slow=19,SNR=1.7 | | | | | | |
| PMG | Port Moresby | 20.03 | 106 | *ce*P | Pn | 21 49 48.3 | -1.9 |
| PMG | | | | pmax | pmax | | |
| | comp=Z,148nm,0.7s | | | | | | |
| PMG | Port Moresby | 20.03 | 106 | *e*P | P | 21 49 47.4 | +1.4 |
| | comp=Z,39nm,0.6s | | | | | | |
| PMG | | | | S | S | 21 53 16.8 | -4.0 |
| QIS | Mount Isa | 20.09 | 146 | P | P | 21 49 47.8 | +1.2 |
| | baz=20,SNR=240 | | | | | | |
| CISI | Cisompet, Garu | 20.11 | 259 | P | P | 21 49 45.3 | -1.5 |
| CISI | Cisompet, Garu | 20.11 | 259 | *e*P | P | 21 49 44.7 | -2.1 |
| | comp=Z,264nm,1.5s | | | | | | |
| AS31 | Alice Springs | 20.41 | 164 | *e*P | P | 21 49 50.3 | +0.3 |
| | comp=Z,52nm,0.9s | | | | | | |
| ASAR | Alice Springs | 20.42 | 164 | P | P | 21 49 50.2 | +0.2 |
| | comp=Z,65nm,0.8s,baz=343,slow=10,SNR=225 | | | | | | |
| ASAR | | | | S | S | 21 53 24.4 | -3.9 |
| | comp=Z,45nm,1.0s,baz=346,slow=20,SNR=18 | | | | | | |
| ASAR | | | | PcP | PcP | 21 53 54.9 | +0.5 |
| | comp=Z,6.8nm,0.7s,baz=343,slow=2.6,SNR=4.5 | | | | | | |
| ASAR | | | | ScP | ScP | 21 57 12.7 | -0.4 |
| | comp=Z,2.6nm,0.7s,baz=333,slow=1.5,SNR=4.4 | | | | | | |
| ASAR | | | | ScS | ScS | 22 00 54.1 | -2.4 |
| | comp=Z,2.4nm,0.9s,baz=357,slow=3.8,SNR=6.9 | | | | | | |
| AS01 | Alice Springs | 20.43 | 163 | *e*P | P | 21 49 49.3 | -0.8 |
| CNJI | Cibinong | 20.74 | 260 | P | P | 21 49 50.7 | -2.8 |
| WRKA | Warakurna | 20.89 | 179 | P | P | 21 49 55.5 | +0.4 |
| | baz=21,SNR=179 | | | | | | |
| CBJI | Citeko | 20.91 | 263 | P | P | 21 49 56.8 | +1.4 |
| MTSU | Mount Surprise | 21.46 | 132 | P | P | 21 50 01.8 | +0.7 |
| | baz=22,SNR=50 | | | | | | |
| GIRL | Giralia | 22.64 | 214 | P | P | 21 50 13.0 | +0.5 |
| | baz=23,SNR=14 | | | | | | |
| XMIS | Christmas Isla | 22.80 | 252 | *e*P | P | 21 50 13.6 | -0.4 |
| | comp=Z,83nm,1.3s | | | | | | |
| KASI | Kota Agung | 23.19 | 265 | P | P | 21 50 13.7 | -3.8 |
| DSRI | Dabo | 23.39 | 278 | P | P | 21 50 20.1 | +0.8 |
| LWLI | Liwa | 23.60 | 267 | P | P | 21 50 25.0 | +3.6 |
| | comp=Z,40nm,0.7s | | | | | | |
| TPRI | Tanjung Pinang | 23.69 | 281 | P | P | 21 50 22.8 | +0.7 |
| CTA | Charters Tower | 24.10 | 133 | P | P | 21 50 27.4 | +1.5 |
| | comp=Z,42nm,0.9s,baz=316,slow=12,SNR=18 | | | | | | |
| CTA | | | | S | S | 21 54 25.4 | -4.3 |
| | comp=Z,8.9nm,1.1s,baz=319,slow=20,SNR=2.1 | | | | | | |
| CTAO | Charters Tower | 24.10 | 133 | *e*P | P | 21 50 28.3 | +2.5 |
| CTAO | | | | pmax | pmax | | |
| | comp=Z,64nm,1.1s | | | | | | |
| CTAO | Charters Tower | 24.10 | 133 | *e*P | P | 21 50 28.3 | +2.5 |
| | comp=Z,64nm,1.1s | | | | | | |
| RABL | Rabaul | 24.38 | 91 | *e*P | P | 21 50 30.6 | +2.1 |
| | comp=Z,131nm,0.6s | | | | | | |
| MYKOM | Kota Tinggi | 24.54 | 283 | ⇑P | P | 21 50 31.0 | +1.2 |
| MYKOM | Kota Tinggi | 24.54 | 283 | *e*P | P | 21 50 31.1 | +1.2 |
| | comp=Z,86nm,1.1s | | | | | | |
| KGM | Kluang | 25.11 | 283 | ⇑P | P | 21 50 36.8 | +1.8 |
| MASI | Maura Aman, Be | 25.44 | 271 | P | P | 21 50 50.2 | +12 |
| KTGM | Kuala Trenggan | 26.25 | 291 | ⇓P | P | 21 50 47.0 | +1.8 |
| FORT | Forrest | 26.61 | 179 | P | P | 21 50 48.6 | +0.4 |
| | baz=27,SNR=42 | | | | | | |
| FORT | Forrest | 26.61 | 179 | *e*P | P | 21 50 48.5 | +0.4 |
| | comp=Z,709nm,0.5s | | | | | | |
| FRIM | Kepong | 27.05 | 285 | ⇑P | P | 21 50 53.1 | +0.7 |
| MORW | Morawa | 27.26 | 203 | P | P | 21 50 56.1 | +2.1 |
| | baz=27,SNR=9.4 | | | | | | |
| PDSI | Padang | 27.40 | 276 | P | P | 21 50 57.5 | +1.9 |
| | comp=Z,17nm,0.9s | | | | | | |
| QLP | Quilpie | 27.44 | 146 | P | P | 21 50 56.7 | +1.0 |
| | baz=28,SNR=7.3 | | | | | | |
| KMBL | Kambalda | 27.74 | 191 | P | P | 21 50 58.0 | -0.3 |
| | baz=28,SNR=37 | | | | | | |
| IPM | Ipoh | 27.98 | 287 | ⇓P | P | 21 51 01.8 | +1.2 |
| IPM | Ipoh | 27.98 | 287 | *e*P | P | 21 51 00.2 | -0.4 |
| | comp=Z,64nm,0.7s | | | | | | |
| BLDU | Ballidu | 28.41 | 200 | P | P | 21 51 04.0 | -0.3 |
| | baz=28,SNR=8.2 | | | | | | |
| KULM | Kulim | 28.58 | 289 | ⇑P | P | 21 51 06.9 | +1.0 |
| KULM | Kulim | 28.58 | 289 | *e*P | P | 21 51 05.5 | -0.5 |
| | comp=Z,41nm,0.8s | | | | | | |
| NACB | Ninganchiao | 28.66 | 348 | *e*P | P | 21 51 06.7 | +0.1 |
| | comp=Z,36nm,1.1s | | | | | | |
| QIZ | Qiongzhong | 28.89 | 323 | P | P | 21 51 09.4 | +0.8 |
| QIZ | | | | S | S | 21 55 47.2 | +2.1 |
| QIZ | | | | LR | LR | | |
| | comp=Z,75nm,23.5s | | | | | | |
| KLBR | Kellerberrin | 28.97 | 198 | P | P | 21 51 08.8 | -0.4 |
| | baz=29,SNR=25 | | | | | | |
| PSI | Prapat | 29.56 | 283 | P | P | 21 51 14.2 | -0.7 |
| | comp=Z,14nm,0.8s,baz=114,slow=3.2,SNR=18 | | | | | | |
| PSI | | | | S | S | 21 55 53.6 | -2.4 |
| | comp=Z,1.9nm,0.3s,baz=259,slow=19,SNR=3.8 | | | | | | |
| PSI | | | | ScP | ScP | 21 57 37.8 | -1.5 |
| | comp=Z,1.9nm,0.3s,baz=149,slow=5.9,SNR=3.7 | | | | | | |
| PSI | Prapat | 29.56 | 283 | *e*P | P | 21 51 14.0 | -0.8 |
| PSI | | | | S | S | 21 55 53.6 | -2.4 |
| PSI | | | | | | 21 57 37.8 | |
| PSI | | | | pmax | pmax | | |
| | comp=Z,19nm,0.9s | | | | | | |
| PSI | Prapat | 29.56 | 283 | *e*P | P | 21 51 14.0 | -0.8 |
| | comp=Z,19nm,0.9s | | | | | | |
| PSI | | | | S | S | 21 55 53.6 | -2.4 |
| PSI | | | | ScP | ScP | 21 57 37.8 | -1.5 |
| BBOO | Buckleboo | 29.68 | 166 | P | P | 21 51 15.6 | +0.2 |
| | baz=30,SNR=60 | | | | | | |
| BBOO | Buckleboo | 29.68 | 166 | *e*P | P | 21 51 16.1 | +0.6 |
| | comp=Z,43nm,0.6s | | | | | | |
| MUN | Mundaring | 29.83 | 200 | P | P | 21 51 16.6 | -0.2 |
| | baz=30,SNR=6.0 | | | | | | |
| RMQ | Roma | 30.07 | 140 | P | P | 21 51 20.5 | +1.5 |
| | baz=30,SNR=5.7 | | | | | | |
| TRTT | Trang | 30.34 | 293 | P | P | 21 51 22.5 | +1.0 |
| | comp=Z,32nm,1.1s | | | | | | |
| NWAO | Narrogin (SRO) | 30.37 | 198 | P | P | 21 51 21.5 | -0.1 |
| | comp=Z,20nm,0.5s,baz=254,slow=8.8,SNR=21 | | | | | | |
| NWAO | Narrogin (SRO) | 30.37 | 198 | P | P | 21 51 21.3 | -0.3 |
| | baz=30,SNR=19 | | | | | | |
| NWAO | | | | P | P | 21 51 21.3 | -0.3 |
| | baz=30,SNR=19 | | | | | | |
| NWAO | Narrogin (SRO) | 30.37 | 198 | *e*P | P | 21 51 21.7 | +0.1 |
| NWAO | | | | pmax | pmax | | |
| | comp=Z,28nm,0.7s | | | | | | |
| NWAO | Narrogin (SRO) | 30.37 | 198 | *e*P | P | 21 51 21.7 | +0.1 |
| | comp=Z,28nm,0.7s | | | | | | |
| GSI | Gunungsitoli | 30.58 | 279 | *e*P | P | 21 51 23.2 | -0.5 |
| | comp=Z,14nm,0.7s | | | | | | |
| STKA | Stephens Creek | 30.61 | 156 | P | P | 21 51 24.2 | +0.5 |
| | comp=Z,18nm,0.5s,baz=332,slow=8.6,SNR=57 | | | | | | |
| STKA | | | | LR | LR | 22 05 00.3 | |
| | comp=Z,119nm,20.9s,baz=341,slow=38 | | | | | | |
| STKA | Stephens Creek | 30.61 | 156 | P | P | 21 51 24.2 | +0.5 |
| | baz=31,SNR=29 | | | | | | |
| STKA | Stephens Creek | 30.61 | 156 | *e*P | P | 21 51 24.2 | +0.5 |
| STKA | | | | pmax | pmax | | |
| | comp=Z,16nm,1.3s | | | | | | |
| STKA | Stephens Creek | 30.61 | 156 | *e*P | P | 21 51 24.2 | +0.5 |
| | comp=Z,16nm,1.3s | | | | | | |
| JOW | Kunigami | 30.69 | 1 | *e*P | P | 21 51 24.5 | +0.1 |
| | comp=Z,74nm,1.3s | | | | | | |
| EIDS | Eidsvold | 30.88 | 136 | P | P | 21 51 26.4 | +0.3 |
| | baz=31,SNR=7.5 | | | | | | |
| EIDS | Eidsvold | 30.88 | 136 | *e*P | P | 21 51 27.0 | +0.9 |
| | comp=Z,27nm,1.1s | | | | | | |
| SRAK | Srakaew | 31.14 | 306 | P | P | 21 51 27.6 | -0.9 |
| | comp=Z,37nm,0.9s | | | | | | |
| SKNT | Sakolnakorn | 31.39 | 312 | P | P | 21 51 31.7 | +1.0 |
| | comp=Z,68nm,0.9s,comp=Z,6µm | | | | | | |
| KHON | Khomkaen | 31.87 | 310 | P | P | 21 51 35.9 | +1.0 |
| | comp=Z,28nm,0.8s | | | | | | |
| NAYO | Nakonayok | 31.90 | 305 | P | P | 21 51 36.1 | +1.0 |
| | comp=Z,54nm,1.2s,comp=Z,15µm | | | | | | |
| RKGY | Rocky Gully | 32.02 | 197 | P | P | 21 51 37.1 | +1.1 |
| | baz=32,SNR=7.2 | | | | | | |
| LHMI | Lhok Sumawe | 32.08 | 286 | *e*P | P | 21 51 36.7 | -0.1 |
| | comp=Z,360nm,1.7s | | | | | | |
| CMSA | Cobar Meteorol | 32.16 | 150 | P | P | 21 51 38.6 | +1.3 |
| | baz=32,SNR=16 | | | | | | |
| CHAI | Chaiyaphum | 32.26 | 308 | P | P | 21 51 38.8 | +0.5 |
| | comp=Z,19nm,0.7s,comp=Z,147nm | | | | | | |
| HNR | Honiara | 32.44 | 101 | P | P | 21 51 41.2 | +1.2 |
| | comp=Z,63nm,0.5s,baz=150,slow=4.1,SNR=4.7 | | | | | | |
| HNR | Honiara | 32.44 | 101 | *e*P | P | 21 51 41.9 | +2.0 |
| HNR | | | | pmax | pmax | | |
| | comp=Z,80nm,0.8s | | | | | | |
| HNR | Honiara | 32.44 | 101 | *e*P | P | 21 51 41.9 | +2.0 |
| | comp=Z,80nm,0.8s | | | | | | |
| PHET | Kaeng Krachan | 32.58 | 302 | P | P | 21 51 42.7 | +1.6 |
| | comp=Z,12nm,0.8s | | | | | | |
| NONG | Nongkai | 32.70 | 313 | P | P | 21 51 42.7 | +0.6 |
| | comp=Z,28nm,1.2s | | | | | | |
| PBKT | Sadao Pong | 33.44 | 308 | P | P | 21 51 49.4 | +0.9 |
| | comp=Z,12nm,1.1s,comp=Z,1µm | | | | | | |
| UTHA | Uthaitani | 34.09 | 305 | P | P | 21 51 54.9 | +0.8 |
| | comp=Z,12nm,0.7s,comp=Z,142nm | | | | | | |
| UTTA | Uttaradit | 34.44 | 310 | P | P | 21 51 58.3 | +1.1 |
| | comp=Z,13nm,0.8s,comp=Z,102nm | | | | | | |
| ARMA | Armidale | 34.62 | 142 | P | P | 21 52 00.5 | +1.8 |
| | baz=35,SNR=42 | | | | | | |
| ARMA | Armidale | 34.62 | 142 | *e*P | P | 21 52 00.5 | +1.8 |
| | comp=Z,50nm,0.6s | | | | | | |
| SUKH | Sukhothai | 35.01 | 308 | P | P | 21 52 03.3 | +1.3 |
| | comp=Z,14nm,0.8s,comp=Z,142nm | | | | | | |
| ARPS | Mount Arapiles | 35.07 | 160 | P | P | 21 52 03.9 | +1.6 |
| | baz=35,SNR=18 | | | | | | |
| YNG | Young | 35.73 | 150 | P | P | 21 52 10.0 | +2.0 |
| | baz=36,SNR=10 | | | | | | |
| CM01 | Chiang Mai Arr | 36.07 | 309 | *e*P | P | 21 52 11.9 | +0.8 |
| CM01 | | | | *e*PcP | PcP | 21 54 34.5 | +1.4 |
| CM31 | Chiang Mai Arr | 36.10 | 309 | *e*P | P | 21 52 12.8 | +1.5 |
| CMAR | Chiang Mai Arr | 36.10 | 309 | P | P | 21 52 12.7 | +1.4 |
| | comp=Z,14nm,0.6s,baz=135,slow=7.1,SNR=151 | | | | | | |
| CMAR | | | | PcP | PcP | 21 54 34.4 | +1.2 |
| | comp=Z,3.8nm,0.9s,baz=170,slow=2.4,SNR=9.6 | | | | | | |
| CMAR | | | | S | S | 21 57 22.3 | -14 |
| | comp=Z,0.2nm,0.4s,baz=102,slow=6.7,SNR=3.1 | | | | | | |
| CMAR | | | | ScP | ScP | 21 58 02.4 | +0.7 |
| | comp=Z,6.9nm,0.8s,baz=160,slow=3.2,SNR=31 | | | | | | |
| CMAR | | | | LR | LR | 22 07 39.7 | |
| | comp=Z,74nm,21.1s,baz=125,slow=37 | | | | | | |
| CMMT | Chiang Mai | 36.30 | 310 | P | P | 21 52 14.0 | +0.9 |
| | comp=Z,53nm,0.9s | | | | | | |
| CHTO | Chiang Mai | 36.31 | 310 | P | P | 21 52 14.1 | +1.0 |
| | comp=Z,230nm,0.9s | | | | | | |
| CHTO | Chiang Mai | 36.31 | 310 | *e*P | P | 21 52 14.3 | +1.2 |
| CHTO | | | | pmax | pmax | | |
| | comp=Z,36nm,0.7s | | | | | | |
| CHTO | Chiang Mai | 36.31 | 310 | *e*P | P | 21 52 14.3 | +1.2 |
| | comp=Z,36nm,0.7s | | | | | | |
| CHTO | | | | *e*ScP | ScP | 21 58 03.2 | +0.8 |
| MGCD | Mangrove Creek | 36.33 | 146 | P | P | 21 52 13.4 | +0.4 |
| | baz=36,SNR=9.0 | | | | | | |
| GYA | Guiyang | 36.52 | 327 | ⇑*i*P | P | 21 52 15.7 | +0.8 |
| GYA | | | | pP | pP | 21 52 56.0 | +1.1 |
| GYA | | | | sP | sP | 21 53 17.4 | +0.9 |
| GYA | | | | PP | PnPn | 21 53 46.7 | +2.0 |
| GYA | | | | PcP | PcP | 21 54 35.6 | +1.1 |
| GYA | | | | S | S | 21 57 45.2 | +2.0 |
| GYA | | | | ScP | ScP | 21 58 04.3 | +1.1 |
| GYA | | | | ScS | ScS | 22 02 10.0 | -0.4 |
| GYA | | | | pmax | pmax | | |
| | comp=Z,20nm,1.0s | | | | | | |
| GYA | | | | pmax | pmax | | |
| | comp=Z,130nm,5.0s | | | | | | |
| CAN | Canberra | 36.84 | 150 | *e*P | P | 21 52 18.5 | +1.1 |
| CAN | | | | pmax | pmax | | |
| | comp=Z,79nm,1.0s | | | | | | |
| CAN | Canberra | 36.84 | 150 | *e*P | P | 21 52 18.5 | +1.1 |
| | comp=Z,79nm,1.0s | | | | | | |
| NJ2 | Nanjing | 36.86 | 347 | *e*P | P | 21 52 16.8 | -0.7 |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,13nm,0.6s | | | | | | |
| CNB | Canberra Magne | 37.02 | 150 | P | P | 21 52 22.1 | +3.2 |
| | baz=37,SNR=6.3 | | | | | | |
| TOO | Toolangi | 37.14 | 156 | P | P | 21 52 21.9 | +2.0 |
| | baz=37,SNR=6.2 | | | | | | |
| KMI | Kunming | 37.79 | 321 | P | P | 21 52 27.8 | +2.0 |
| KMI | | | | pP | pP | 21 53 06.7 | +0.8 |
| KMI | | | | sP | sP | 21 53 30.2 | +2.7 |
| KMI | | | | S | S | 21 58 04.6 | +2.0 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,11nm,1.2s | | | | | | |
| JHJ2 | Mitsune | 38.68 | 16 | *e*P | P | 21 52 32.4 | -0.4 |
| | comp=Z,206nm,0.9s | | | | | | |
| INU | Inuyama | 40.13 | 12 | *e*P | P | 21 52 45.7 | +1.0 |
| | comp=Z,67nm,1.8s | | | | | | |
| TJN | Taejon | 40.20 | 360 | *i* P | P | 21 52 44.7 | -0.6 |
| KS15 | Wonju Array Si | 41.26 | 0 | *e*P | P | 21 52 54.3 | +0.4 |
| KSAR | Wonju Array Be | 41.26 | 0 | P | P | 21 52 55.0 | +1.0 |
| KSAR | | | | *PP | pP | 21 53 34.8 | +0.1 |
| KSAR | | | | | | 21 54 49.7 | |
| KSAR | Wonju Array Be | 41.26 | 0 | P | P | 21 52 55.0 | +1.0 |
| KSAR | | | | pP | pP | 21 53 34.8 | +0.1 |
| KSAR | | | | PcP | PcP | 21 54 49.7 | +0.7 |
| KSRS | Korea Array | 41.27 | 0 | P | P | 21 52 55.0 | +0.9 |
| | comp=Z,9.0nm,0.4s,baz=177,slow=9.4,SNR=42 | | | | | | |
| KSRS | | | | pP | pP | 21 53 34.8 | +0.1 |
| | comp=Z,2.8nm,0.8s,baz=175,slow=9.9,SNR=3.0 | | | | | | |
| KSRS | | | | PcP | PcP | 21 54 49.7 | +0.7 |
| | comp=Z,3.4nm,0.8s,baz=171,slow=4.2,SNR=5.9 | | | | | | |
| KSRS | | | | LR | LR | 22 15 03.8 | |
| | comp=Z,22nm,18.9s,baz=170,slow=43 | | | | | | |
| KS01 | Wonju Array Si | 41.30 | 0 | *e*P | P | 21 52 54.9 | +0.7 |
| KS01 | | | | *e*PcP | PcP | 21 54 49.8 | +0.7 |
| MAJO | Matsushiro | 41.54 | 13 | *i* P | P | 21 52 57.3 | +1.1 |
| MAJO | | | | pmax | pmax | | |
| | comp=Z,15nm,1.3s | | | | | | |
| MAJO | Matsushiro | 41.54 | 13 | *e*P | P | 21 52 56.0 | -0.2 |
| | comp=Z,32nm,1.4s | | | | | | |
| MAT | Matsushiro | 41.54 | 13 | P | P | 21 52 55.4 | -0.8 |
| MAT | | | | *e*S | S | 21 58 54.6 | -3.1 |
| MJAR | Matsushiro Arr | 41.54 | 13 | P | P | 21 52 55.7 | -0.6 |
| | comp=Z,3.7nm,0.5s,baz=185,slow=6.5,SNR=17 | | | | | | |
| MJAR | | | | LR | LR | 22 09 02.6 | |
| | comp=Z,44nm,21.8s,baz=190,slow=34 | | | | | | |
| DZM | Mont Dzumac | 41.59 | 119 | *e*P | P | 21 52 57.8 | +0.8 |
| | comp=Z,17nm,0.7s | | | | | | |
| CD2 | Chengdu | 41.60 | 328 | *e*P | P | 21 52 59.2 | +2.3 |
| CD2 | | | | pP | pP | 21 53 36.8 | -0.9 |
| CD2 | | | | sP | sP | 21 53 54.8 | -4.3 |
| CD2 | | | | S | S | 21 59 01.7 | +2.9 |
| CD2 | | | | SS | SS | 22 02 10.8 | -1.2 |
| CD2 | | | | ScS | ScS | 22 02 34.6 | -5.3 |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| KWAJ | Kwajalein Atol | 41.77 | 72 | *e*P | P | 21 52 58.5 | +0.1 |
| KWAJ | Kwajalein Atol | 41.77 | 72 | *e*P | P | 21 52 58.5 | +0.1 |
| | comp=Z,243nm,0.9s | | | | | | |
| MOO | Moorlands | 42.00 | 158 | P | P | 21 53 02.5 | +2.5 |
| | baz=42,SNR=3.9 | | | | | | |
| TAU | Tasmania Unive | 42.46 | 159 | *e*P | P | 21 53 04.9 | +1.3 |
| TAU | | | | pmax | pmax | | |
| | comp=Z,62nm,1.1s | | | | | | |
| TAU | Tasmania Unive | 42.46 | 159 | *e*P | P | 21 53 04.9 | +1.3 |
| | comp=Z,62nm,1.1s | | | | | | |
| BJI | Beijing | 45.12 | 347 | P | P | 21 53 23.8 | -1.0 |
| BJI | | | | pmax | pmax | | |
| | comp=Z,17nm,0.9s | | | | | | |
| TARA | Tarawa | 45.49 | 84 | *e*P | P | 21 53 28.6 | +0.4 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | comp=Z,612nm,1.9s | | | | | | |
| **LZH** | **Lanzhou** | **45.74** | **333** | *e*P | **P** | **21 53 30.7** | **+0.8** |
| LZH | | | | pP | pP | 21 54 13.5 | +2.1 |
| LZH | | | | sP | sP | 21 54 30.2 | -2.5 |
| LZH | | | | PP | **PP** | **21 55 22.3** | **+1.6** |
| LZH | | | | pmax | pmax | | |
| | comp=Z,15nm,1.2s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,64nm,5.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,200nm,15.7s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,210nm,15.6s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,260nm,16.5s | | | | | | |
| **MSHR** | **Mys Shultsa** | **46.50** | **4** | *i* P | **P** | **21 53 36.6** | **+1.1** |
| **HHC** | **Hu-ho-hao-te** | **47.05** | **343** | *e*P | **P** | **21 53 43.7** | **+3.7** |
| HHC | | | | S | **S** | **22 00 22.0** | **+4.7** |
| HHC | | | | sS | sS | 22 01 30.4 | 0.0 |
| HHC | | | | ScS | **ScS** | **22 03 16.5** | **+2.2** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.0s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,120nm,5.6s | | | | | | |
| **CN2** | **Changchun** | **47.66** | **358** | *e*P | **P** | **21 53 44.1** | **-0.4** |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.0s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **48.16** | **4** | P | **P** | **21 53 49.3** | **+0.9** |
| | comp=Z,14nm,0.5s,baz=181,slow=7.3,SNR=52 | | | | | | |
| **PALK** | **Pallekele** | **48.24** | **283** | *e*P | **P** | **21 53 49.2** | **-0.4** |
| PALK | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.9s | | | | | | |
| **PALK** | **Pallekele** | **48.24** | **283** | *e*P | **P** | **21 53 49.2** | **-0.4** |
| | comp=Z,6.8nm,0.9s | | | | | | |
| **LSA** | **Lhasa** | **48.50** | **316** | *e*P | **P** | **21 53 52.3** | **+0.5** |
| LSA | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.6s | | | | | | |
| **LSA** | **Lhasa** | **48.50** | **316** | *e*P | **P** | **21 53 52.3** | **+0.5** |
| | comp=Z,6.8nm,0.6s | | | | | | |
| **ODAN** | **Odare** | **49.61** | **311** | *e*P | **P** | **21 54 00.2** | **+0.2** |
| | comp=Z,37nm,0.7s | | | | | | |
| **TAPN** | **Taplejung** | **49.63** | **311** | *e*P | **P** | **21 54 00.1** | **-0.1** |
| | comp=Z,20nm,0.4s | | | | | | |
| **ASAJ** | **Asahikawa** | **49.76** | **14** | *e*P | **P** | **21 54 01.4** | **+0.9** |
| | comp=Z,46nm,1.4s | | | | | | |
| **RAMN** | **Ramite** | **50.26** | **310** | *e*P | **P** | **21 54 05.4** | **+0.5** |
| | comp=Z,88nm,0.6s | | | | | | |
| **GTA** | **Gaotai** | **50.30** | **332** | *e*P | **P** | **21 54 05.3** | **+0.5** |
| GTA | | | | pP | pP | 21 54 44.3 | -2.8 |
| GTA | | | | sP | sP | 21 55 04.1 | -4.0 |
| GTA | | | | PcP | **PcP** | **21 55 22.4** | **+1.6** |
| GTA | | | | ScP | **ScP** | **21 59 00.4** | **+1.7** |
| GTA | | | | S | **S** | **22 01 04.8** | **+1.9** |
| GTA | | | | sS | sS | 22 02 13.2 | -3.5 |
| GTA | | | | ScS | **ScS** | **22 03 35.6** | **-0.7** |
| GTA | | | | SS | **SS** | **22 04 38.6** | **-0.6** |
| GTA | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.1s | | | | | | |
| GTA | | | | pmax | pmax | | |
| | comp=Z,91nm,5.9s | | | | | | |
| **JIRN** | **Jiri** | **50.94** | **311** | *e*P | **P** | **21 54 10.0** | **-0.1** |
| | comp=Z,38nm,0.6s | | | | | | |
| **MSVF** | **Nonsavu** | **51.10** | **109** | *e*P | **P** | **21 54 10.8** | **-0.3** |
| MSVF | | | | pmax | pmax | | |
| | comp=Z,20nm,0.9s | | | | | | |
| **MSVF** | **Nonsavu** | **51.10** | **109** | *e*P | **P** | **21 54 10.8** | **-0.3** |
| | comp=Z,20nm,0.9s | | | | | | |
| **GUN** | **Gumba** | **51.30** | **311** | *e*P | **P** | **21 54 12.7** | **-0.1** |
| | comp=Z,56nm,0.7s | | | | | | |
| **FUNA** | **Funafuti** | **51.33** | **98** | *e*P | **P** | **21 54 11.9** | **-0.9** |
| | comp=Z,120nm,1.4s | | | | | | |
| **PKI** | **Pulchoki** | **51.48** | **310** | *e*P | **P** | **21 54 13.7** | **-0.4** |
| **PKIN** | **Phulchoki** | **51.50** | **310** | *e*P | **P** | **21 54 13.8** | **-0.3** |
| | comp=Z,16nm,0.6s | | | | | | |
| **KKN** | **Kakani** | **51.69** | **310** | *e*P | **P** | **21 54 15.6** | **+0.1** |
| | comp=Z,31nm,0.7s | | | | | | |
| **DMN** | **Daman** | **51.73** | **310** | *e*P | **P** | **21 54 15.8** | **-0.1** |
| | comp=Z,34nm,0.7s | | | | | | |
| **GKN** | **Gorkha** | **52.29** | **310** | *e*P | **P** | **21 54 20.0** | **+0.1** |
| | comp=Z,1.2nm,0.2s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **52.48** | **13** | *i* P | **P** | **21 54 22.0** | **+1.4** |
| YSS | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.4s | | | | | | |
| **KOLN** | **Koldanda** | **52.97** | **309** | *e*P | **P** | **21 54 24.9** | **0.0** |
| | comp=Z,50nm,0.6s | | | | | | |
| **HYB** | **Hyderabad** | **52.99** | **295** | *i* P | **P** | **21 54 24.0** | **-1.0** |
| **DANN** | **Dangsing** | **53.13** | **310** | *e*P | **P** | **21 54 26.4** | **+0.2** |
| | comp=Z,4.7nm,0.9s | | | | | | |
| **PYUN** | **Piuthan** | **53.60** | **309** | *e*P | **P** | **21 54 29.6** | **+0.1** |
| | comp=Z,62nm,0.8s | | | | | | |
| **DCZ** | **Deep Cove** | **53.72** | **146** | *e*P | **P** | **21 54 31.9** | **+2.2** |
| | comp=Z,102nm,1.4s | | | | | | |
| **FOZ** | **Fox Glacier** | **54.11** | **143** | *e*P | **P** | **21 54 34.7** | **+2.0** |
| | comp=Z,42nm,0.8s | | | | | | |
| **MLZ** | **Mavora Lakes** | **54.19** | **146** | *e*P | **P** | **21 54 34.7** | **+1.4** |
| | comp=Z,93nm,2.0s | | | | | | |
| **WHZ** | **Wether Hill Ro** | **54.42** | **146** | *e*P | **P** | **21 54 36.2** | **+1.4** |
| | comp=Z,52nm,0.7s | | | | | | |
| **ULN** | **Ulaanbaatar** | **54.77** | **343** | *ce*P | **P** | **21 54 38.0** | **+0.5** |
| ULN | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.0s | | | | | | |
| **ULN** | **Ulaanbaatar** | **54.77** | **343** | *e*P | **P** | **21 54 37.6** | **+0.1** |
| | comp=Z,8.4nm,1.0s | | | | | | |
| **LBZ** | **Lake Benmore** | **54.81** | **144** | *e*P | **P** | **21 54 39.0** | **+1.3** |
| | comp=Z,46nm,1.0s | | | | | | |
| **HIZ** | **Hauiti** | **54.86** | **135** | *e*P | **P** | **21 54 39.5** | **+1.4** |
| | comp=Z,63nm,1.0s | | | | | | |
| **SONM** | **Songino Array** | **54.94** | **343** | P | **P** | **21 54 38.9** | **+0.2** |
| | comp=Z,2.9nm,0.8s,baz=170,slow=6.3,SNR=18 | | | | | | |
| SONM | | | | pP | **pP** | **21 55 21.0** | **-0.6** |
| | comp=Z,3.1nm,1.0s,baz=162,slow=9.3,SNR=4.7 | | | | | | |
| SONM | | | | ScP | **ScP** | **21 59 19.8** | **+1.1** |
| | comp=Z,1.1nm,1.0s,baz=151,slow=3.3,SNR=3.6 | | | | | | |
| **SONA1** | **Songino Array** | **54.94** | **343** | *e*P | **P** | **21 54 38.9** | **+0.2** |
| SONA1 | | | | *e*pP | **pP** | **21 55 21.6** | **-0.1** |
| **RPZ** | **Rata Peaks** | **54.96** | **143** | *e*P | **P** | **21 54 40.5** | **+1.7** |
| | comp=Z,77nm,0.9s | | | | | | |
| **LTZ** | **Lake Taylor** | **55.21** | **141** | *e*P | **P** | **21 54 41.9** | **+1.3** |
| | comp=Z,136nm,1.9s | | | | | | |
| **OXZ** | **Oxford** | **55.35** | **142** | *e*P | **P** | **21 54 42.7** | **+1.1** |
| | comp=Z,104nm,1.6s | | | | | | |
| **KHZ** | **Kahutara** | **55.83** | **140** | *e*P | **P** | **21 54 46.4** | **+1.4** |
| | comp=Z,40nm,0.7s | | | | | | |
| **BKZ** | **Black Stump Fm** | **56.29** | **135** | *e*P | **P** | **21 54 49.6** | **+1.1** |
| | comp=Z,48nm,0.7s | | | | | | |
| **URZ** | **Urewera** | **56.35** | **134** | *e*P | **P** | **21 54 49.9** | **+1.1** |
| | comp=Z,37nm,0.8s | | | | | | |
| **WMQ** | **Urumqi** | **59.68** | **327** | P | **P** | **21 55 12.9** | **+1.0** |
| WMQ | | | | pP | PcP | 21 55 56.2 | -0.7 |
| WMQ | | | | sP | sP | 21 56 16.3 | 0.0 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,36nm,1.3s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,470nm,5.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,340nm,21.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,210nm,24.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,160nm,19.5s | | | | | | |
| **PETK** | **Petropavlovsk-** | **62.27** | **20** | P | **P** | **21 55 30.6** | **+1.5** |
| | comp=Z,13nm,0.7s,baz=173,slow=3.9,SNR=19 | | | | | | |
| PETK | | | | PcP | **PcP** | **21 56 06.9** | **-0.1** |
| | comp=Z,4.6nm,0.6s,baz=177,slow=1.4,SNR=7.1 | | | | | | |
| **PET** | **Petropavlovsk** | **62.53** | **20** | *i* P | **P** | **21 55 32.4** | **+1.7** |
| PET | | | | pmax | pmax | | |
| | comp=Z,65nm,1.3s | | | | | | |
| **BOD** | **Bodaibo** | **62.63** | **352** | *e*P | **P** | **21 55 30.3** | **-1.0** |
| BOD | | | | pmax | pmax | | |
| | comp=Z,18nm,1.7s | | | | | | |
| **KSH** | **Kashi** | **64.31** | **318** | P | **P** | **21 55 43.1** | **+0.2** |
| KSH | | | | PcP | **PcP** | **21 56 18.6** | **+2.7** |
| KSH | | | | pP | pP | 21 56 27.4 | +0.2 |
| KSH | | | | PP | **PP** | **21 58 11.4** | **+4.5** |
| KSH | | | | S | **S** | **22 04 02.7** | **-3.1** |
| KSH | | | | ScS | **SKSac** | **22 05 16.6** | **-2.1** |
| KSH | | | | SS | **SS** | **22 08 19.9** | **+0.5** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.9s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,240nm,5.7s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,130nm,7.9s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,170nm,5.6s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,240nm,9.8s | | | | | | |
| **MK01** | **Makanchi Array** | **64.49** | **327** | *e*P | **P** | **21 55 43.5** | **-0.3** |
| **MK31** | **Makanchi Array** | **64.51** | **327** | *e*P | **P** | **21 55 43.7** | **-0.2** |
| **MK31** | **Makanchi Array** | **64.51** | **327** | *e*P | **P** | **21 55 43.7** | **-0.2** |
| **MKAR** | **Makanchi Array** | **64.51** | **327** | P | **P** | **21 55 43.7** | **-0.2** |
| | comp=Z,2.3nm,0.5s,baz=112,slow=8.6,SNR=36 | | | | | | |
| MKAR | | | | PcP | **PcP** | **21 56 16.4** | **0.0** |
| | comp=Z,3.5nm,0.5s,baz=132,slow=3.9,SNR=14 | | | | | | |
| MKAR | | | | S | **S** | **22 04 03.9** | **-4.0** |
| | comp=Z,0.9nm,1.1s,baz=123,slow=5.3,SNR=3.8 | | | | | | |
| **MAKZ** | **Makanchi** | **64.69** | **327** | *e*P | **P** | **21 55 44.7** | **-0.4** |
| MAKZ | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.8s | | | | | | |
| **MAKZ** | **Makanchi** | **64.69** | **327** | *e*P | **P** | **21 55 44.7** | **-0.4** |
| | comp=Z,4.8nm,0.8s | | | | | | |
| **YAK** | **Yakutsk** | **65.89** | **1** | *e*P | **P** | **21 55 52.3** | **-0.1** |
| YAK | | | | pmax | pmax | | |
| | comp=Z,64nm,1.1s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,13nm,1.0s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,4.0nm,1.0s | | | | | | |
| **YAK** | **Yakutsk** | **65.89** | **1** | *e*P | **P** | **21 55 52.9** | **+0.5** |
| | comp=E,75nm,0.8s | | | | | | |
| **MA2** | **Magadan** | **65.98** | **13** | *ce*P | **P** | **21 55 55.2** | **+2.2** |
| **AAK** | **Ala-Archa** | **66.82** | **320** | *e*P | **P** | **21 55 59.6** | **+0.6** |
| AAK | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.0s | | | | | | |
| **AAK** | **Ala-Archa** | **66.82** | **320** | *e*P | **P** | **21 55 59.6** | **+0.6** |
| | comp=Z,5.4nm,1.0s | | | | | | |
| **KBL** | **Kabul** | **67.12** | **310** | *e*P | **P** | **21 56 01.0** | **-0.1** |
| KBL | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.8s | | | | | | |
| **KBL** | **Kabul** | **67.12** | **310** | *e*P | **P** | **21 56 01.0** | **-0.1** |
| | comp=Z,3.6nm,0.8s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **67.94** | **334** | P | **P** | **21 56 04.3** | **-1.1** |
| | comp=Z,4.7nm,0.8s,baz=108,slow=4.8,SNR=22 | | | | | | |
| ZALV | | | | PcP | **PcP** | **21 56 29.3** | **-1.1** |
| | comp=Z,1.4nm,0.5s,baz=131,slow=4.8,SNR=4.4 | | | | | | |
| ZALV | | | | PKP2bc | | 22 24 25.4 | |
| | comp=Z,0.8nm,0.4s,baz=258,slow=7.3,SNR=3.6 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **68.81** | **329** | S | **S** | **22 04 54.9** | **-4.3** |
| | comp=Z,0.3nm,0.8s,baz=133,slow=10,SNR=4.1 | | | | | | |
| **KURK** | **Kurchatov** | **68.82** | **329** | *ce*P | **P** | **21 56 10.4** | **-0.6** |
| KURK | | | | pmax | pmax | | |
| | comp=Z,12nm,0.9s | | | | | | |
| **KURK** | **Kurchatov** | **68.82** | **329** | *e*P | **P** | **21 56 10.7** | **-0.3** |
| | comp=Z,9.2nm,0.8s | | | | | | |
| KURK | | | | S | **S** | **22 04 54.9** | **-4.4** |
| **NVS** | **Novosibirsk** | **69.22** | **334** | *e*P | **P** | **21 56 13.6** | **+0.2** |
| NVS | | | | *i* *PP | **pP** | **21 56 51.9** | **-6.4** |
| NVS | | | | *i* S | **S** | **22 04 59.9** | **-3.9** |
| NVS | | | | *i* | | 22 05 33.9 | |
| NVS | | | | *i* *SS | **SKSac** | **22 05 53.5** | **-1.4** |
| NVS | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.5s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=N,2.0nm,0.7s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=E,2.0nm,0.4s | | | | | | |
| NVS | | | | smax | smax | | |
| | comp=N,5.0nm,0.7s | | | | | | |
| NVS | | | | smax | smax | | |
| | comp=E,18nm,1.2s | | | | | | |
| **SEY** | **Seymchan** | **69.35** | **12** | *ce*P | **P** | **21 56 15.9** | **+1.9** |
| **BVAR** | **Borovoye Array** | **74.36** | **328** | S | **S** | **22 05 58.3** | **-4.3** |
| | comp=E,1.2nm,1.0s,baz=165,slow=6.0,SNR=3.9 | | | | | | |
| **BRVK** | **Borovoye** | **74.43** | **328** | *ce*P | **P** | **21 56 44.5** | **0.0** |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.2s | | | | | | |
| **BRVK** | **Borovoye** | **74.43** | **328** | *e*P | **P** | **21 56 44.5** | **0.0** |
| | comp=Z,8.6nm,1.1s | | | | | | |
| **TIXI** | **Tiksi** | **75.54** | **0** | *de*P | **P** | **21 56 51.2** | **+0.8** |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,24nm,1.1s | | | | | | |
| **TIXI** | **Tiksi** | **75.54** | **0** | *e*P | **P** | **21 56 50.4** | **0.0** |
| | comp=Z,25nm,1.1s | | | | | | |
| **VNDA** | **Vanda** | **75.66** | **173** | P | **P** | **21 56 51.3** | **+0.2** |
| | comp=Z,14nm,0.8s,baz=298,slow=6.5,SNR=26 | | | | | | |
| VNDA | | | | LR | LR | 22 29 53.8 | |
| | comp=Z,63nm,18.9s,baz=340,slow=35 | | | | | | |
| **VNDA** | **Vanda** | **75.66** | **173** | *e*P | **P** | **21 56 51.5** | **+0.4** |
| VNDA | | | | pmax | pmax | | |
| | comp=Z,18nm,0.9s | | | | | | |
| **VNDA** | **Vanda** | **75.66** | **173** | *e*P | **P** | **21 56 51.5** | **+0.4** |
| | comp=Z,18nm,0.9s | | | | | | |
| **GEYT** | **Alibeck** | **76.57** | **310** | P | **P** | **21 56 57.4** | **+0.3** |
| | comp=Z,1.4nm,0.4s,baz=147,slow=3.5,SNR=5.0 | | | | | | |
| GEYT | | | | S | **S** | **22 06 25.8** | **-1.9** |
| | comp=Z,0.6nm,0.7s,baz=304,slow=8.5,SNR=2.7 | | | | | | |
| **MAW** | **Mawson** | **76.88** | **201** | P | **P** | **21 56 58.4** | **+0.3** |
| | comp=Z,18nm,1.0s,baz=68,slow=6.8,SNR=19 | | | | | | |
| **MAW** | **Mawson** | **76.88** | **201** | P | **P** | **21 56 58.4** | **+0.3** |
| | baz=77,SNR=11 | | | | | | |
| **MAW** | **Mawson** | **76.88** | **201** | *e*P | **P** | **21 56 58.7** | **+0.6** |
| MAW | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.0s | | | | | | |
| **MAW** | **Mawson** | **76.88** | **201** | *e*P | **P** | **21 56 58.7** | **+0.6** |
| | comp=Z,4.6nm,1.0s | | | | | | |
| **AKTO** | **Aktyubinsk** | **80.35** | **323** | S | **S** | **22 07 03.4** | **-3.9** |
| | comp=Z,0.6nm,0.6s,baz=60,slow=15,SNR=2.4 | | | | | | |
| **SVE** | **Sverdlovsk** | **81.07** | **329** | ⇓*i*P | **P** | **21 57 20.8** | **-0.3** |
| SVE | | | | pmax | pmax | | |
| | comp=Z,30nm,1.4s | | | | | | |
| **ARU** | **Arti** | **82.00** | **328** | PKKPbc | PKKPbc | 22 15 55.4 | -1.9 |
| | comp=Z,1.4nm,0.4s,baz=352,slow=1.8,SNR=4.5 | | | | | | |
| **ARU** | **Arti** | **82.00** | **328** | *d i*P | **P** | **21 57 25.8** | **-0.2** |
| ARU | | | | | | 22 00 35.2 | |
| ARU | | | | S | **S** | **22 07 25.3** | **+1.3** |
| ARU | | | | SS | **SS** | **22 12 45.0** | **-2.5** |
| ARU | | | | pmax | pmax | | |
| | comp=Z,26nm,1.2s | | | | | | |
| **ARU** | **Arti** | **82.00** | **328** | *e*P | **P** | **21 57 25.2** | **-0.8** |
| ARU | | | | PKKPbc | **PKKPbc** | **22 15 55.4** | **-1.9** |
| **LKRN** | **Lenkeran, Azer** | **83.90** | **309** | P | **P** | **21 57 36.4** | **+0.3** |
| **RAYN** | **Ar Rayn** | **84.47** | **294** | *e*P | **P** | **21 57 39.5** | **+0.1** |
| **SEKA** | **Sheki** | **85.52** | **312** | P | **P** | **21 57 44.1** | **-0.2** |
| **MNGR** | **Mingechevir, A** | **85.53** | **311** | P | **P** | **21 57 44.5** | **+0.3** |
| **SYO** | **Syowa Base** | **85.59** | **201** | ⇑*e*X | **P** | **21 57 42.4** | **-1.5** |
| **QSPA** | **South Pole Qui** | **85.93** | **180** | *e*P | **P** | **21 57 45.6** | **-0.3** |
| **ZKTA** | **Zakatala** | **86.01** | **312** | P | **P** | **21 57 46.8** | **+0.2** |
| **GANJ** | **Ganja** | **86.08** | **311** | P | **P** | **21 57 47.2** | **+0.2** |
| **NAX** | **Nakhchivan** | **86.50** | **310** | P | **P** | **21 57 49.2** | **0.0** |
| **GNI** | **Garni** | **87.21** | **310** | *ce*P | **P** | **21 57 53.4** | **+0.7** |
| GNI | | | | pmax | pmax | | |
| | comp=Z,35nm,1.4s | | | | | | |
| **GNI** | **Garni** | **87.21** | **310** | *e*P | **P** | **21 57 52.5** | **-0.2** |
| **TBLG** | **Delisi** | **87.42** | **312** | P | **P** | **21 57 54.1** | **+0.6** |
| **TBLG** | **Delisi** | **87.42** | **312** | P | **P** | **21 57 54.1** | **+0.6** |
| **GUDG** | **Gudauri** | **87.71** | **313** | P | **P** | **21 57 56.4** | **+1.3** |
| **KDAK** | **Kodiak Island** | **87.90** | **32** | *ce*P | **P** | **21 57 56.7** | **+1.4** |
| **ZEI** | **Tsey** | **88.17** | **313** | *e*P | **P** | **21 57 57.0** | **-0.2** |
| ZEI | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.9s | | | | | | |
| **BGD** | **Bogdanovka** | **88.21** | **311** | P | **P** | **21 57 58.3** | **+0.9** |
| **AKH** | **Akhalkalaki** | **88.31** | **312** | P | **P** | **21 57 58.4** | **+0.5** |
| **AKH** | **Akhalkalaki** | **88.31** | **312** | P | **P** | **21 57 58.3** | **+0.5** |
| **ONI** | **Oni** | **88.48** | **313** | P | **P** | **21 57 58.8** | **+0.3** |
| **ONI** | **Oni** | **88.48** | **313** | P | **P** | **21 57 58.8** | **+0.3** |
| **NCK** | **Nalchik** | **88.48** | **314** | ⇓*i*P | **P** | **21 57 59.1** | **+0.7** |
| NCK | | | | pmax | pmax | | |
| | comp=Z,22nm,1.0s | | | | | | |
| **IMAR** | **Indian Mountai** | **89.00** | **24** | *e*P | **P** | **21 58 00.5** | **+0.2** |
| **KBZ** | **Khabaz** | **89.01** | **314** | P | **P** | **21 58 01.0** | **+0.2** |
| | comp=Z,3.3nm,0.9s,baz=135,slow=5.3,SNR=6.3 | | | | | | |
| **NEY** | **Neytrino** | **89.09** | **313** | *i* P | **P** | **21 58 01.4** | **-0.1** |
| NEY | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.5s | | | | | | |
| **KIV** | **Kislovodsk** | **89.19** | **314** | *e*P | **P** | **21 58 02.9** | **+1.1** |
| KIV | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.1s | | | | | | |
| **CHVG** | **Ch'k'valeri** | **89.50** | **313** | P | **P** | **21 58 02.1** | **-1.1** |
| **MLY** | **Manley** | **90.06** | **25** | *e*P | **P** | **21 58 06.2** | **+0.9** |
| **KMBO** | **Kilima Mbogo** | **90.39** | **269** | *i* P | **P** | **21 58 09.3** | **+1.1** |
| KMBO | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.4s | | | | | | |
| **COLA** | **College** | **91.25** | **25** | *i* P | P | 21 58 17.9 | +7.2 |
| COLA | | | | pmax | pmax | | |
| | comp=Z,30nm,2.2s | | | | | | |
| **ILAR** | **Eielson Array** | **91.65** | **25** | P | **P** | **21 58 11.2** | **-1.4** |
| | comp=Z,1.6nm,0.6s,baz=240,slow=4.8,SNR=33 | | | | | | |
| ILAR | | | | PKKPbc | **PKKPdf** | **22 15 31.6** | **+0.9** |
| | comp=Z,0.8nm,0.9s,baz=66,slow=1.0,SNR=6.1 | | | | | | |
| **ILB** | **Eielson Array** | **91.65** | **25** | *e*P | **P** | **21 58 12.0** | **-0.6** |
| **DOT** | **Dot Lake** | **92.79** | **27** | *e*P | **P** | **21 58 18.6** | **+0.7** |
| **OBN** | **Obninsk** | **93.94** | **325** | *i* P | **P** | **21 58 24.4** | **+1.1** |
| OBN | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.9s | | | | | | |
| **BRTR** | **Keskin Array B** | **95.69** | **309** | P | **P** | **21 58 30.9** | **-1.0** |
| | comp=Z,1.8nm,1.1s,baz=45,slow=0.2,SNR=4.3 | | | | | | |
| **BRTR** | **Keskin Array B** | **95.69** | **309** | *i* P | **P** | **21 58 31.5** | **-0.5** |
| BRTR | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.1s | | | | | | |
| **INK** | **Inuvik** | **96.97** | **22** | PKKPbc | PKKPbc | 22 15 16.8 | -3.5 |
| | comp=Z,1.1nm,0.5s,baz=124,slow=1.8,SNR=7.5 | | | | | | |
| **INK** | **Inuvik** | **96.97** | **22** | *e*P | **P** | **21 58 36.9** | **0.0** |
| **INK** | **Inuvik** | **96.97** | **22** | *e*P | **P** | **21 58 36.9** | **0.0** |
| INK | | | | PKKPbc | **PKKPbc** | **22 15 16.8** | **-3.5** |
| **SNAA** | **Sanae** | **97.99** | **194** | *e*P | **P** | **21 58 41.7** | **+0.1** |
| **SNAA** | **Sanae** | **97.99** | **194** | *e*P | **P** | **21 58 41.6** | **+0.1** |
| **ARCES** | **ARCESS Array B** | **98.02** | **340** | P | **P** | **21 58 40.7** | **-0.9** |
| | comp=Z,2.4nm,0.6s,baz=69,slow=6.6,SNR=13 | | | | | | |
| **BOSA** | **Boshof** | **98.97** | **240** | P | **P** | **21 58 46.0** | **-1.0** |
| | comp=Z,5.4nm,0.9s,baz=151,slow=3.1,SNR=5.9 | | | | | | |
| **BUR04** | **Bucovina Ar. S** | **101.39** | **318** | *e*Pdif | **Pdif** | **21 58 57.9** | **+0.6** |
| **RES** | **Resolute Bay** | **105.21** | **11** | PKKPbc | PKKPbc | 22 14 54.5 | -2.0 |
| | comp=Z,0.8nm,0.5s,baz=341,slow=6.4,SNR=7.1 | | | | | | |
| **YKA** | **Yellowknife Ar** | **106.08** | **25** | PKiKP | **PKiKP** | **22 03 28.6** | **+0.1** |
| | comp=Z,1.1nm,0.6s,baz=305,slow=1.7,SNR=11 | | | | | | |
| YKA | | | | PKKPbc | **PKKPbc** | **22 14 50.6** | **-3.0** |
| | comp=Z,0.8nm,0.7s,baz=104,slow=2.6,SNR=5.7 | | | | | | |
| **GERES** | **GERESS Array B** | **108.70** | **320** | PKiKP | **PKiKP** | **22 03 33.9** | **-0.1** |
| | comp=Z,0.7nm,0.6s,baz=32,slow=5.8,SNR=3.5 | | | | | | |
| **GMRC** | **Granite Mounta** | **114.05** | **54** | P | PKPdf | 22 03 46.6 | +2.0 |
| | baz=282 | | | | | | |
| **IKP** | **In-Ko-Pah, Jac** | **114.12** | **56** | P | PKPdf | 22 03 46.7 | +2.0 |
| | baz=281 | | | | | | |
| **PDAR** | **Pinedale Array** | **116.38** | **44** | PKP | **PKPdf** | **22 03 49.7** | **+0.7** |
| | comp=Z,0.7nm,0.4s,baz=211,slow=1.1,SNR=2.0 | | | | | | |
| PDAR | | | | PKKPbc | **PKKPbc** | **22 14 17.9** | **-1.6** |
| | comp=Z,0.8nm,0.6s,baz=121,slow=5.5,SNR=4.7 | | | | | | |
| PDAR | | | | PKKPab | **PKKPab** | **22 14 22.1** | **-1.2** |
| | comp=Z,0.8nm,0.6s,baz=104,slow=7.5,SNR=6.8 | | | | | | |
| **O20A** | **White River Ci** | **118.23** | **46** | P | **PKPdf** | **22 03 54.5** | **+1.9** |
| | baz=290 | | | | | | |
| **MVCO** | **Mesa Verde** | **119.01** | **49** | *e*PKPdf | **PKPdf** | **22 03 54.1** | **-0.1** |
| **ULM** | **Lac du Bonnet** | **121.16** | **31** | PKP | **PKPdf** | **22 03 57.0** | **-0.6** |
| | comp=Z,4.0nm,0.5s,baz=327,slow=0.9,SNR=11 | | | | | | |
| **ESDC** | **Sonseca Array** | **123.80** | **316** | PKP | **PKPdf** | **22 04 02.9** | **-0.2** |
| | comp=Z,0.4nm,0.7s,baz=114,slow=1.8,SNR=4.2 | | | | | | |
| **ECSD** | **EROS Data Cent** | **124.43** | **38** | *e*PKPdf | **PKPdf** | **22 04 04.0** | **-0.2** |
| **MSTX** | **Muleshoe** | **124.49** | **51** | *e*PKPdf | **PKPdf** | **22 04 04.5** | **-0.2** |
| **TXAR** | **Lajitas Array** | **125.28** | **57** | PKP | **PKPdf** | **22 04 05.9** | **-0.4** |
| | comp=Z,1.1nm,0.6s,baz=207,slow=1.6,SNR=9.8 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **125.96** | **283** | PKP | **PKPdf** | **22 04 07.5** | **-0.3** |
| | comp=Z,2.8nm,0.7s,baz=112,slow=2.1,SNR=22 | | | | | | |
| TORD | | | | PKKPbc | **PKKPbc** | **22 13 43.3** | **+0.6** |
| | comp=Z,0.9nm,0.9s,baz=296,slow=3.2,SNR=4.6 | | | | | | |
| **JCT** | **Junction City** | **128.09** | **54** | *e*PKIKP | **PKPdf** | **22 04 11.7** | **+0.1** |
| **JCT** | **Junction City** | **128.09** | **54** | *e*PKPdf | **PKPdf** | **22 04 11.7** | **+0.1** |
| **PLCA** | **Paso Flores** | **132.41** | **161** | PKP | **PKPdf** | **22 04 19.2** | **-0.4** |
| | comp=Z,5.8nm,0.8s,baz=236,slow=2.8,SNR=15 | | | | | | |
| PLCA | | | | SKPbc | **SKPbc** | **22 07 28.6** | **-0.1** |
| | comp=Z,5.8nm,1.0s,baz=219,slow=5.2,SNR=6.5 | | | | | | |
| **KIC** | **Kosan Boka** | **132.61** | **275** | *e*PKP1 | **SKPbc** | **22 07 30.1** | **+0.1** |
| | comp=Z,42nm,1.1s | | | | | | |
| **DBIC** | **Dimbokro** | **132.72** | **275** | PKP | **PKPdf** | **22 04 19.3** | **-1.4** |
| | comp=Z,2.2nm,0.5s,baz=304,slow=0.6,SNR=5.1 | | | | | | |
| DBIC | | | | SKPbc | **SKPbc** | **22 07 30.2** | **-0.1** |
| | comp=Z,7.2nm,0.9s,baz=104,slow=6.3,SNR=5.8 | | | | | | |
| **TIC** | **Toumodi** | **132.88** | **275** | *e*PKP1 | **SKPbc** | **22 07 30.9** | **-0.1** |
| **LIC** | **Lamto** | **132.90** | **275** | *e*PKP1 | **SKPbc** | **22 07 30.8** | **-0.2** |
| | comp=Z,72nm,1.5s | | | | | | |
| **WCI** | **Wyandotte Cave** | **133.97** | **38** | *e*PKIKP | **PKPdf** | **22 04 22.4** | **0.0** |
| **WCI** | **Wyandotte Cave** | **133.97** | **38** | *e*PKPdf | **PKPdf** | **22 04 22.4** | **0.0** |
| **CPUP** | **Villa Florida** | **149.43** | **171** | PKP | **PKPdf** | **22 04 48.6** | **-1.5** |
| | comp=Z,12nm,1.0s,baz=135,slow=2.6,SNR=4.2 | | | | | | |
| CPUP | | | | PKPbc | **PKPbc** | **22 04 55.0** | **+0.3** |
| | comp=Z,33nm,0.9s,baz=193,slow=2.8,SNR=38 | | | | | | |
| CPUP | | | | PKPab | **PKPab** | **22 05 00.9** | **+1.0** |
| | comp=Z,2.8nm,0.5s,baz=218,slow=3.2,SNR=7.3 | | | | | | |
| **LPAZ** | **La Paz** | **154.44** | **143** | PKP | **PKPdf** | **22 04 59.1** | **+0.5** |
| | comp=Z,3.8nm,0.9s,baz=49,slow=1.1,SNR=11 | | | | | | |
| LPAZ | | | | PKPbc | **PKiKP** | **22 05 08.4** | **+1.2** |
| | comp=Z,5.3nm,0.4s,baz=114,slow=1.5,SNR=9.7 | | | | | | |
| LPAZ | | | | PKPab | **PKPab** | **22 05 24.1** | **+2.0** |
| | comp=Z,12nm,0.7s,baz=180,slow=2.6,SNR=18 | | | | | | |
| **BDFB** | **Brasilia** | **160.00** | **192** | PKP | **PKPdf** | **22 05 04.7** | **-0.2** |
| | comp=Z,3.9nm,1.1s,baz=222,slow=5.8,SNR=3.8 | | | | | | |
| BDFB | | | | PKPab | **PKPab** | **22 05 45.5** | **+0.2** |
| | comp=Z,7.8nm,0.8s,baz=324,slow=4.8,SNR=12 | | | | | | |
| **SAML** | **Samuel** | **163.14** | **140** | *e*PKPdf | **PKPdf** | **22 05 08.3** | **+0.1** |

*ISK **04** 21:56:32.9, 37°.14N×42°.36E, h7km, MD3.2*
*DDA **04** 21:56:32.9, 37°.09N×42°.34E, h19km, Ml3.2*
*CSEM **04** 21:56:32.8±0.2, 37°.07N×42°.36E, h2km, MD3.2, Error ellipse: s-maj=4.5km s-min=3.7km az=27.0*
*ISN **04** 21:56:33.0±0.8, 37°.04N×42°.51E, h0km±3km, ML3.2*
**ISC 04 21:56:33.0**±1.3**, 37°.10N**±0°.03×**42°.34E**±0°.02**, h3**km±10km**, n44, σ0.68**/67**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SIRT** | **Sirnak** | **0.41** | **11** | *e*PG | **Pg** | **21 56 40.6** | **-0.3** |
| SIRT | | | | *e*SG | **Sg** | **21 56 46.1** | **-0.1** |
| **SIRT** | **Sirnak** | **0.41** | **11** | *e*Pg | **Pg** | **21 56 40.6** | **-0.3** |
| SIRT | | | | *e*Sg | **Sg** | **21 56 46.1** | **-0.1** |
| **SRTM** | **Siirt_Merkez** | **0.95** | **340** | *i* P | **Pg** | **21 56 51.0** | **-0.2** |
| SRTM | | | | *i* S | **Sg** | **21 57 04.4** | **+0.9** |
| **SRTM** | **Siirt_Merkez** | **0.95** | **340** | P | **Pg** | **21 56 51.0** | **-0.2** |
| SRTM | | | | S | **Sg** | **21 57 04.4** | **+0.9** |
| **CUKT** | **Cukurca** | **1.02** | **81** | *e*PG | **Pg** | **21 56 52.6** | **0.0** |
| CUKT | | | | *e*SG | **Sb** | **21 57 06.7** | **-0.6** |
| **CUKT** | **Cukurca** | **1.02** | **81** | *i* P | **Pg** | **21 56 52.6** | **0.0** |
| CUKT | | | | *i* S | **Sn** | **21 57 10.5** | **+1.2** |
| **CUKT** | **Cukurca** | **1.02** | **81** | P | **Pg** | **21 56 52.6** | **0.0** |
| CUKT | | | | *e*Sg | **Sb** | **21 57 06.7** | **-0.6** |
| CUKT | | | | S | **Sn** | **21 57 10.5** | **+1.2** |
| **BTMN** | **Batman** | **1.16** | **313** | *i* P | **Pg** | **21 56 55.3** | **+0.1** |
| BTMN | | | | *i* S | **Sg** | **21 57 10.8** | **+0.5** |
| **BTMN** | **Batman** | **1.16** | **313** | P | **Pg** | **21 56 55.3** | **+0.1** |
| BTMN | | | | S | **Sg** | **21 57 10.8** | **+0.5** |
| **HAKT** | **HAKKARI** | **1.18** | **67** | *i* P | **Pg** | **21 56 55.6** | **-0.1** |
| HAKT | | | | *i* S | **Sn** | **21 57 13.3** | **0.0** |
| **HAKT** | **HAKKARI** | **1.18** | **67** | P | **Pg** | **21 56 55.6** | **-0.1** |
| HAKT | | | | S | **Sn** | **21 57 13.4** | **0.0** |
| **MARD** | **Mardin** | **1.26** | **280** | *i* P | **Pg** | **21 56 56.8** | **-0.4** |
| MARD | | | | *i* S | **Sb** | **21 57 14.3** | **+0.1** |
| **GEVA** | **Gevas** | **1.34** | **25** | *i* P | **Pg** | **21 56 58.6** | **0.0** |
| GEVA | | | | *i* S | **Sn** | **21 57 17.5** | **+0.3** |
| **GEVA** | **Gevas** | **1.34** | **25** | P | **Pg** | **21 56 58.6** | **0.0** |
| GEVA | | | | S | **Sn** | **21 57 17.5** | **+0.3** |
| **MAZI** | **Mazidag** | **1.55** | **284** | *e*PN | **Pn** | **21 57 01.1** | **-0.5** |
| **MAZI** | **Mazidag** | **1.55** | **284** | *e*Pn | **Pn** | **21 57 01.1** | **-0.5** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.63** | **72** | *i* P | **Pn** | **21 57 02.7** | **-0.1** |
| YOVA | | | | *i* S | **Sg** | **21 57 26.1** | **+0.8** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.63** | **72** | P | **Pn** | **21 57 02.7** | **-0.1** |
| YOVA | | | | S | **Sg** | **21 57 26.1** | **+0.8** |
| **ADCV** | **BITLIS_Adilcev** | **1.73** | **10** | *i* P | **Pn** | **21 57 04.9** | **+0.7** |
| ADCV | | | | *i* S | **Sg** | **21 57 29.5** | **+0.8** |
| **ADCV** | **BITLIS_Adilcev** | **1.73** | **10** | P | **Pn** | **21 57 04.9** | **+0.7** |
| ADCV | | | | S | **Sg** | **21 57 29.5** | **+0.8** |
| **DIY** | **Diyarbakir** | **1.86** | **296** | *e*Pn | **Pb** | **21 57 07.4** | **-0.2** |
| **DYBB** | **Diyarbakir** | **1.94** | **297** | *e*PN | **Pn** | **21 57 07.4** | **+0.4** |
| **DIYA** | **Diyarbakir** | **1.95** | **296** | *i* P | **Pb** | **21 57 08.4** | **-0.7** |
| **DIYA** | **Diyarbakir** | **1.95** | **296** | P | **Pb** | **21 57 08.4** | **-0.7** |
| **HANI** | **Diyarbakir_Han** | **2.02** | **311** | *i* P | **Pn** | **21 57 08.4** | **+0.4** |
| HANI | | | | *i* S | **Sb** | **21 57 36.4** | **+0.3** |
| **HANI** | **Diyarbakir_Han** | **2.02** | **311** | P | **Pn** | **21 57 08.4** | **+0.4** |
| HANI | | | | S | **Sb** | **21 57 36.3** | **+0.3** |
| **BNGL** | **BINGOL** | **2.08** | **333** | *i* P | **Pb** | **21 57 10.4** | **-1.0** |
| BNGL | | | | *i* S | **Sb** | **21 57 37.9** | **+0.2** |
| **EKAR** | **Karacoban** | **2.17** | **354** | *i* P | **Pb** | **21 57 11.7** | **-1.3** |
| **EKAR** | **Karacoban** | **2.17** | **354** | P | **Pb** | **21 57 11.7** | **-1.3** |
| **VRTB** | **Varto-Mus** | **2.17** | **342** | *e*PN | **Pn** | **21 57 09.9** | **-0.3** |
| **VRTB** | **Varto-Mus** | **2.17** | **342** | *i* P | **Pn** | **21 57 10.4** | **+0.2** |
| **VRTB** | **Varto-Mus** | **2.17** | **342** | *e*Pn | **Pn** | **21 57 09.9** | **-0.3** |
| **VRTB** | **Varto-Mus** | **2.17** | **342** | P | **Pn** | **21 57 10.4** | **+0.2** |
| **BINT** | **Bingol** | **2.30** | **321** | *e*Pn | **Pn** | **21 57 12.4** | **+0.5** |
| **BNGB** | **Bingˆ¶l** | **2.30** | **326** | *e*PN | **Pn** | **21 57 12.4** | **+0.5** |
| **AGRB** | **Hanur-Agry** | **2.53** | **12** | *e*PN | **Pn** | **21 57 15.3** | **+0.2** |
| **AGRB** | **Hanur-Agry** | **2.53** | **12** | *e*Pn | **Pn** | **21 57 15.3** | **+0.2** |
| **SVRC** | **Sivrice-ELAZID** | **2.72** | **299** | *e*PN | **Pn** | **21 57 18.7** | **+0.9** |
| **SVRC** | **Sivrice-ELAZID** | **2.72** | **299** | *e*Pn | **Pn** | **21 57 18.7** | **+0.9** |
| **URFA** | **Urfa** | **2.83** | **278** | *e*PN | **Pn** | **21 57 20.3** | **+1.2** |
| **URFA** | **Urfa** | **2.83** | **278** | *e*Pn | **Pn** | **21 57 20.3** | **+1.2** |
| **PTK** | **Pertek** | **2.94** | **308** | *e*PN | **Pn** | **21 57 20.5** | **-0.2** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **PTK** | **Pertek** | **2.94** | **308** | *e*Pn | **Pn** | **21 57 20.5** | **-0.2** |
| **RTB** | **Rutbah** | **4.39** | **203** | *e*Pn | **Pn** | **21 57 42.0** | **+1.5** |
| | SNR=3.0 | | | | | | |
| RTB | | | | *e*Sn | **Sn** | **21 58 30.0** | **-2.2** |
| | SNR=3.0 | | | | | | |

**IDC 04 21:56:45.5**±1.4**, 13°.60N×92°.81E, h0km, mb3.5**/4**, mb1 3.5**/5**, mb1mx3.3**/45**, mbtmp3.4**/5**, ML3.2**/1**, Error ellipse: s-maj=47.0km s-min=23.8km az=51.0, Andaman Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CMAR** | **Chiang Mai Arr** | **7.62** | **50** | Pn | Pn | 21 58 36.9 | -0.9 |
| | 0.1nm,0.3s,baz=243,slow=15,SNR=3.2 | | | | | | |
| CMAR | | | | Sn | Sn | 21 59 56.2 | -8.7 |
| | 0.1nm,0.3s,baz=240,slow=27,SNR=4.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **34.25** | **347** | P | P | 22 03 33.8 | +0.7 |
| | 0.4nm,0.8s,baz=155,slow=8.4,SNR=2.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **52.73** | **128** | P | P | 22 06 02.3 | -0.1 |
| | 0.3nm,0.6s,baz=307,slow=7.8,SNR=4.5 | | | | | | |
| **ASAR** | **Alice Springs** | **54.65** | **132** | P | P | 22 06 16.3 | -0.1 |
| | 0.3nm,0.4s,baz=307,slow=7.5,SNR=4.1 | | | | | | |
| **BRTR** | **Keskin Array B** | **57.79** | **308** | P | P | 22 06 38.4 | -0.6 |
| | 0.6nm,0.8s,baz=89,slow=6.1,SNR=4.2 | | | | | | |

*ISN **04** 22:14:54.1±1.4, 38°.81N×43°.45E, h4km±77km, ML4.7*
*ISK **04** 22:15:02.3, 38°.46N×43°.29E, h4km, ML4.9*
*IDC **04** 22:15:02.6±0.5, 38°.49N×43°.23E, h0km, mb4.3/27, mb1 4.4/36, mb1mx4.3/50, mbtmp4.3/36, ML3.9/8, MS3.9/36, Ms1 3.9/36, ms1mx3.8/46, Error ellipse: s-maj=10.5km s-min=8.3km az=151.0*
*ATA **04** 22:15:02.3±1.7, 38°.45N×43°.33E, h23km±8km, ML5.1, MW4.8*
*GCMT **04** 22:15:02.3±0.4, 38°.49N×43°.31E, h24km±1km, MW4.8/71, Moment Tensor Solution. s13,c16; s71,c105; Duration: 0 Moment tensor: Scale $10^{16}$Nm; $M_{rr}$-0.45±.12; $M_{\theta\theta}$-1.19±.09; $M_{\phi\phi}$1.64±.10; $M_{r\theta}$-0.12±.11; $M_{\theta\phi}$-1.47±.07; $M_{\phi r}$-0.15±.12; Best double couple: $M_0$2.05200×$10^{16}$ NP1:$\phi_s$22.00000°, δ87.00000°, λ-6.00000°. NP2: $\phi_s$112.00000°, δ84.00000°, λ-177.00000°. Principal axes: T 2.2690, Plg2.0000°, Azm67.0000°; N -0.4280, Plg83.0000°, Azm173.0000°; P -1.8350, Plg7.0000°, Azm337.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*NEIC **04** 22:15:02.3±0.0, 38°.46N×43°.30E, h4km, mb4.7/45, ML4.9(ISK), After ISK.*
*ISCJB **04** 22:15:02.9±0.3, 38°.44N±0°.01×43°.36E±0°.01, h6km±2km, mb4.5/95, MS3.9/32, Error ellipse: s-maj=2.3km s-min=1.5km az=164.4*
*MOS **04** 22:15:03.4±1.4, 38°.49N×43°.38E, h11km, mb4.7/41, Error ellipse: s-maj=4.8km s-min=3.5km az=103.5*
*DDA **04** 22:15:03.0, 38°.48N×43°.30E, h12km, Ml4.9*
*CSEM **04** 22:15:04.5±0.1, 38°.44N×43°.34E, h10km, mb4.7/32, Error ellipse: s-maj=3.1km s-min=2.2km az=166.0*
*AZER **04** 22:15:05.0±0.5, 38°.41N×43°.32E, h16km±5km, Error ellipse: s-maj=5.4km s-min=1.3km az=59.0*
*BJI **04** 22:15:05.0, 38°.40N×43°.30E, h15km, mb4.6/30, mB5.1/22, Ms4.6/15, Ms7 4.3/12*
*JSO **04** 22:15:06, 38°.63N×43°.97E*
*TEH **04** 22:15:06.0, 38°.41N×43°.33E, h15km, ML4.7*
*DSN **04** 22:15:07.8±1.7, 38°.49N×43°.76E, h15km, Error ellipse: s-maj=46.2km s-min=7.5km az=73.0*

**ISC 04 22:15:04.5**±0.7**, 38°.46N**±0°.01×**43°.33E**±0°.01**, h10km**±4km**, n652, σ1§62**/758**, mb4.6**/95**, MS3.9**/33**, 70C-55D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TVAN** | **Van** | **0.09** | **40** | ⇑*i*P | **Pg** | **22 15 05.3** | **-2.0** |
| TVAN | | | | *i* S | **Sg** | **22 15 07.3** | **-2.0** |
| **TVAN** | **Van** | **0.09** | **40** | P | **Pg** | **22 15 05.3** | **-2.0** |
| TVAN | | | | S | **Sg** | **22 15 07.3** | **-2.0** |
| **VANB** | **Van** | **0.15** | **19** | *e*PG | **Pg** | **22 15 05.2** | **-2.7** |
| **VANB** | **Van** | **0.15** | **19** | *e*Pg | **Pg** | **22 15 05.2** | **-2.7** |
| **VANB** | **Van** | **0.15** | **19** | Pg | **Pg** | **22 15 05.2** | **-2.7** |
| **GEVA** | **Gevas** | **0.26** | **236** | *e*P | **Pg** | **22 15 08.4** | **-1.4** |
| GEVA | | | | *e*S | **Sb** | **22 15 15.0** | **-0.9** |
| **GEVA** | **Gevas** | **0.26** | **236** | ⇑*i*P | **Pg** | **22 15 08.6** | **-1.2** |
| GEVA | | | | *i* S | **Sg** | **22 15 13.1** | **-0.3** |
| **GEVA** | **Gevas** | **0.26** | **236** | P | **Pg** | **22 15 08.6** | **-1.2** |
| GEVA | | | | S | **Sg** | **22 15 13.1** | **-0.3** |
| **ERCV** | **ERCIS-VAN** | **0.56** | **1** | *e*PG | **Pg** | **22 15 13.3** | **-2.2** |
| ERCV | | | | *e*SG | **Sg** | **22 15 22.1** | **-0.9** |
| **ERCV** | **ERCIS-VAN** | **0.56** | **1** | *e*Pg | **Pg** | **22 15 13.3** | **-2.2** |
| ERCV | | | | *e*Sg | **Sg** | **22 15 22.1** | **-0.9** |
| **VMUR** | **Van-Muradiye** | **0.56** | **20** | ⇓*i*P | **Pg** | **22 15 14.2** | **-1.4** |
| VMUR | | | | *i* S | **Sg** | **22 15 22.6** | **-0.5** |
| **VMUR** | **Van-Muradiye** | **0.56** | **20** | P | **Pg** | **22 15 14.2** | **-1.4** |
| VMUR | | | | S | **Sg** | **22 15 22.6** | **-0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.59** | **307** | ⇓*i*P | **Pg** | **22 15 14.4** | **-1.6** |
| ADCV | | | | *i* S | **Sg** | **22 15 23.5** | **-0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.59** | **307** | P | **Pg** | **22 15 14.4** | **-1.6** |
| ADCV | | | | S | **Sg** | **22 15 23.5** | **-0.4** |
| **BASK** | **Baskale_VAN** | **0.67** | **127** | *e*P | **Pg** | **22 15 15.8** | **-1.7** |
| BASK | | | | *e*S | **Sg** | **22 15 26.8** | **+0.5** |
| BASK | | | | IAML | | 22 15 30.0 | |
| | comp=Z,5µm,0.6s | | | | | | |
| **BASK** | **Baskale_VAN** | **0.67** | **127** | ⇓*i*P | **Pg** | **22 15 15.7** | **-1.7** |
| BASK | | | | *i* S | **Sg** | **22 15 26.6** | **+0.3** |
| **BASK** | **Baskale_VAN** | **0.67** | **127** | P | **Pg** | **22 15 15.7** | **-1.7** |
| BASK | | | | S | **Sg** | **22 15 26.6** | **+0.3** |
| **CLDR** | **Caldiran** | **0.82** | **34** | *e*PG | **Pg** | **22 15 18.6** | **-1.9** |
| CLDR | | | | *e*SG | **Sg** | **22 15 31.2** | **-0.1** |
| **CLDR** | **Caldiran** | **0.82** | **34** | ⇑*i*P | **Pg** | **22 15 18.6** | **-1.9** |
| CLDR | | | | *i* S | **Sg** | **22 15 30.9** | **-0.4** |
| **CLDR** | **Caldiran** | **0.82** | **34** | P | **Pg** | **22 15 18.6** | **-1.9** |
| CLDR | | | | S | **Sg** | **22 15 30.9** | **-0.4** |
| CLDR | | | | *e*Sg | **Sg** | **22 15 31.2** | **-0.1** |
| **CLDR** | **Caldiran** | **0.82** | **34** | Pg | **Pg** | **22 15 18.6** | **-1.9** |
| **HAKT** | **HAKKARI** | **0.94** | **161** | ⇓*i*P | **Pg** | **22 15 21.0** | **-1.7** |
| HAKT | | | | *i* S | **Sn** | **22 15 37.8** | **0.0** |
| **HAKT** | **HAKKARI** | **0.94** | **161** | P | **Pg** | **22 15 21.0** | **-1.7** |
| **TUTA** | **Tutak** | **1.03** | **337** | *e*P | **Pg** | **22 15 21.2** | **-3.1** |
| TUTA | | | | *e*S | **Sb** | **22 15 37.4** | **-0.8** |
| TUTA | | | | IAML | | 22 15 41.6 | |
| | comp=Z,13µm,0.3s | | | | | | |
| **TUTA** | **Tutak** | **1.03** | **337** | ⇓*i*P | **Pg** | **22 15 21.5** | **-2.8** |
| TUTA | | | | *i* S | **Sb** | **22 15 37.5** | **-0.8** |
| **DYDN** | **Diyadin** | **1.12** | **14** | *e*P | **Pg** | **22 15 23.3** | **-2.9** |
| DYDN | | | | *e*S | **Sn** | **22 15 42.6** | **+0.5** |
| **DYDN** | **Diyadin** | **1.12** | **14** | ⇓*i*P | **Pg** | **22 15 23.2** | **-2.9** |
| DYDN | | | | *i* S | **Sn** | **22 15 41.2** | **-0.9** |
| **AGRB** | **Hanur-Agry** | **1.15** | **347** | *e*PN | **Pg** | **22 15 23.7** | **-3.0** |
| **AGRB** | **Hanur-Agry** | **1.15** | **347** | *e*Pn | **Pg** | **22 15 23.7** | **-3.0** |
| **AGRB** | **Hanur-Agry** | **1.15** | **347** | Pn | **Pg** | **22 15 23.7** | **-3.0** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.15** | **139** | ⇓*i*P | **Pb** | **22 15 24.9** | **-1.8** |
| YOVA | | | | *i* S | **Sn** | **22 15 44.8** | **+2.0** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.15** | **139** | P | **Pb** | **22 15 24.9** | **-1.8** |
| **SIRT** | **Sirnak** | **1.19** | **217** | *e*PN | **Pb** | **22 15 25.4** | **-1.8** |
| **SIRT** | **Sirnak** | **1.19** | **217** | *e*Pn | **Pb** | **22 15 25.4** | **-1.8** |
| **SRTM** | **Siirt_Merkez** | **1.20** | **248** | ⇑*i*P | **Pb** | **22 15 25.0** | **-2.4** |
| SRTM | | | | *i* S | **Sg** | **22 15 43.0** | **-0.3** |
| **SRTM** | **Siirt_Merkez** | **1.20** | **248** | P | **Pb** | **22 15 25.0** | **-2.4** |
| SRTM | | | | S | **Sg** | **22 15 43.0** | **-0.3** |
| **CUKT** | **Cukurca** | **1.23** | **170** | *e*PN | **Pn** | **22 15 26.3** | **-1.6** |
| **CUKT** | **Cukurca** | **1.23** | **170** | ⇓*i*P | **Pn** | **22 15 26.2** | **-1.6** |
| CUKT | | | | *i* S | **Sn** | **22 15 46.1** | **+1.6** |
| **CUKT** | **Cukurca** | **1.23** | **170** | P | **Pn** | **22 15 26.2** | **-1.6** |
| **CUKT** | **Cukurca** | **1.23** | **170** | Pn | **Pn** | **22 15 26.3** | **-1.6** |
| **EKAR** | **Karacoban** | **1.27** | **309** | *e*P | **Pn** | **22 15 27.1** | **-1.5** |
| EKAR | | | | *e*S | **Sn** | **22 15 46.4** | **+0.5** |
| **EKAR** | **Karacoban** | **1.27** | **309** | ⇓*i*P | **Pn** | **22 15 26.7** | **-1.9** |
| EKAR | | | | *i* S | **Sn** | **22 15 48.4** | **+2.6** |
| **EKAR** | **Karacoban** | **1.27** | **309** | P | **Pn** | **22 15 26.7** | **-1.9** |
| **EATA** | **Eleskirt** | **1.55** | **335** | ⇓*i*P | **Pn** | **22 15 31.1** | **-1.4** |
| EATA | | | | *i* S | **Sg** | **22 15 53.7** | **-0.7** |
| **EATA** | **Eleskirt** | **1.55** | **335** | P | **Pn** | **22 15 31.1** | **-1.4** |
| EATA | | | | S | **Sg** | **22 15 53.7** | **-0.7** |
| **VRTB** | **Varto-Mus** | **1.62** | **296** | *e*PN | **Pn** | **22 15 31.7** | **-1.7** |
| **VRTB** | **Varto-Mus** | **1.62** | **296** | ⇑*i*P | **Pn** | **22 15 31.7** | **-1.7** |
| VRTB | | | | *i* S | **Sb** | **22 15 55.3** | **0.0** |
| **VRTB** | **Varto-Mus** | **1.62** | **296** | P | **Pn** | **22 15 31.7** | **-1.7** |
| VRTB | | | | S | **Sb** | **22 15 55.3** | **0.0** |
| **VRTB** | **Varto-Mus** | **1.62** | **296** | Pn | **Pn** | **22 15 31.7** | **-1.7** |
| **TASB** | **TASBURUN-IGDIR** | **1.68** | **25** | *e*PN | **Pn** | **22 15 33.9** | **-0.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.68** | **25** | *e*Pn | **Pn** | **22 15 33.9** | **-0.2** |
| **BTMN** | **Batman** | **1.72** | **251** | ⇑*i*P | **Pn** | **22 15 34.2** | **-0.4** |
| BTMN | | | | *i* S | **Sg** | **22 15 58.7** | **-1.1** |
| **BTMN** | **Batman** | **1.72** | **251** | P | **Pn** | **22 15 34.2** | **-0.4** |
| BTMN | | | | S | **Sg** | **22 15 58.7** | **-1.1** |
| **HYR** | **Heyderabad** | **1.73** | **43** | ⇑P | **Pn** | **22 15 35.0** | **+0.2** |
| HYR | | | | ⇓S | **Sb** | **22 15 58.0** | **-0.3** |
| **HYR** | **Heyderabad** | **1.73** | **43** | P | **Pn** | **22 15 35.0** | **+0.2** |
| HYR | | | | S | **Sb** | **22 15 58.0** | **-0.3** |
| **BNGL** | **BINGOL** | **1.78** | **287** | *e*P | **Pn** | **22 15 35.2** | **-0.3** |
| BNGL | | | | *e*S | **Sg** | **22 16 00.4** | **-1.3** |
| **BNGL** | **BINGOL** | **1.78** | **287** | ⇑*i*P | **Pn** | **22 15 34.4** | **-1.2** |
| BNGL | | | | *i* S | **Sg** | **22 16 00.4** | **-1.3** |
| **NAX** | **Nakhchivan** | **1.84** | **66** | ⇓P | **Pn** | **22 15 36.2** | **0.0** |
| NAX | | | | ⇓S | **Sn** | **22 16 00.1** | **+0.5** |
| **NAX** | **Nakhchivan** | **1.84** | **66** | P | **Pn** | **22 15 36.2** | **0.0** |
| **NAX** | **Nakhchivan** | **1.84** | **66** | P | **Pn** | **22 15 36.2** | **0.0** |
| NAX | | | | S | **Sn** | **22 16 00.1** | **+0.5** |
| **HOMI** | **Horasan** | **1.93** | **326** | ⇓*i*P | **Pn** | **22 15 37.5** | **-0.2** |
| HOMI | | | | *i* S | **Sg** | **22 16 06.9** | **+0.1** |
| **DIGO** | **Kars** | **1.96** | **1** | *e*P | **Pn** | **22 15 37.9** | **-0.1** |
| DIGO | | | | *e*S | **Sg** | **22 16 05.8** | **-1.6** |
| DIGO | | | | IAML | | 22 16 18.2 | |
| | comp=Z,450nm,0.6s | | | | | | |
| **DIGO** | **Kars** | **1.96** | **1** | ⇓*i*P | **Pn** | **22 15 37.9** | **-0.1** |
| DIGO | | | | *i* S | **Sg** | **22 16 10.9** | **+3.4** |
| **DIGO** | **Kars** | **1.96** | **1** | P | **Pn** | **22 15 37.9** | **-0.1** |
| **SBZ** | **Shahbuz** | **1.97** | **61** | ⇑P | **Pn** | **22 15 38.2** | **0.0** |
| SBZ | | | | ⇓S | **Sb** | **22 16 04.0** | **-1.3** |
| **SBZ** | **Shahbuz** | **1.97** | **61** | P | **Pn** | **22 15 38.2** | **0.0** |
| SBZ | | | | S | **Sb** | **22 16 04.0** | **-1.3** |
| **GNI** | **Garni** | **2.02** | **32** | Pn | **Pn** | **22 15 38.8** | **0.0** |
| | comp=Z,109nm,0.3s,baz=250,slow=3.3,SNR=286 | | | | | | |
| GNI | | | | LR | LR | 22 16 46.9 | |
| | comp=Z,3µm,21.4s,baz=210,slow=51 | | | | | | |
| **GNI** | **Garni** | **2.02** | **32** | *e*P | **Pn** | **22 15 38.9** | **0.0** |
| | SNR=1133 | | | | | | |
| **GNI** | **Garni** | **2.02** | **32** | *de*P | **Pn** | **22 15 38.7** | **0.0** |
| GNI | | | | pmax | pmax | | |
| | comp=Z,3µm,0.8s | | | | | | |
| **GNI** | **Garni** | **2.02** | **32** | P | **Pn** | **22 15 39.4** | **+0.6** |
| | SNR=448 | | | | | | |
| **GNI** | **Garni** | **2.02** | **32** | Pn | **Pn** | **22 15 39.4** | **+0.6** |
| | SNR=448 | | | | | | |
| **GNI** | **Garni** | **2.02** | **32** | P | **Pn** | **22 15 39.4** | **+0.6** |
| | SNR=448 | | | | | | |
| **ERZM** | **Erzurum** | **2.10** | **314** | *e*P | **Pn** | **22 15 40.2** | **+0.1** |
| **ERZM** | **Erzurum** | **2.10** | **314** | ⇑*i*P | **Pn** | **22 15 40.1** | **+0.1** |
| **ERZM** | **Erzurum** | **2.10** | **314** | P | **Pn** | **22 15 40.1** | **0.0** |
| **ORD** | **Ordubad** | **2.14** | **76** | P | **Pn** | **22 15 40.2** | **-0.2** |
| ORD | | | | S | **Sn** | **22 16 07.4** | **+0.4** |
| **BNGB** | **Bingˆ¶l** | **2.14** | **285** | *e*PN | **Pn** | **22 15 39.8** | **-0.6** |
| **BNGB** | **Bingˆ¶l** | **2.14** | **285** | Pn | **Pn** | **22 15 39.5** | **-0.9** |
| **BNGB** | **Bingˆ¶l** | **2.14** | **285** | Pn | **Pn** | **22 15 39.5** | **-0.9** |
| **ECAT** | **Cat-ERZURUM** | **2.16** | **303** | ⇑*i*P | **Pn** | **22 15 40.4** | **-0.4** |
| ECAT | | | | *i* S | **Sb** | **22 16 11.2** | **+0.2** |
| **ECAT** | **Cat-ERZURUM** | **2.16** | **303** | P | **Pn** | **22 15 40.4** | **-0.4** |
| ECAT | | | | S | **Sb** | **22 16 11.1** | **+0.2** |
| **KARS** | **Kars** | **2.18** | **355** | *e*PN | **Pn** | **22 15 40.0** | **-0.9** |
| **KARS** | **Kars** | **2.18** | **355** | P | **Pn** | **22 15 40.2** | **-0.8** |
| **KARS** | **Kars** | **2.18** | **355** | P | **Pn** | **22 15 40.2** | **-0.8** |
| **KARS** | **Kars** | **2.18** | **355** | Pn | **Pn** | **22 15 40.1** | **-0.8** |
| **SENK** | **Senkaya-Erzuru** | **2.23** | **340** | *e*PN | **Pn** | **22 15 41.1** | **-0.7** |
| **SENK** | **Senkaya-Erzuru** | **2.23** | **340** | *e*Pn | **Pn** | **22 15 41.1** | **-0.7** |
| **EAK** | **Akyaka** | **2.24** | **5** | *e*P | **Pn** | **22 15 42.9** | **+1.0** |
| EAK | | | | *e*S | **Sg** | **22 16 15.9** | **-0.5** |
| **EAK** | **Akyaka** | **2.24** | **5** | ⇓*i*P | **Pn** | **22 15 42.5** | **+0.7** |
| EAK | | | | *i* S | **Sg** | **22 16 21.9** | **+5.5** |
| **EAK** | **Akyaka** | **2.24** | **5** | P | **Pn** | **22 15 42.5** | **+0.7** |
| **BINT** | **Bingol** | **2.26** | **282** | P | **Pn** | **22 15 39.8** | **-2.3** |
| **BINT** | **Bingol** | **2.26** | **282** | *e*Pn | **Pn** | **22 15 39.8** | **-2.3** |
| **HANI** | **Diyarbakir_Han** | **2.30** | **270** | ⇑*i*P | **Pn** | **22 15 41.8** | **-0.8** |
| HANI | | | | *i* S | **Sg** | **22 16 17.8** | **-0.7** |
| **HANI** | **Diyarbakir_Han** | **2.30** | **270** | P | **Pn** | **22 15 41.8** | **-0.8** |
| **MARD** | **Mardin** | **2.32** | **241** | ⇑*i*P | **Pn** | **22 15 42.5** | **-0.4** |
| MARD | | | | *i* S | **Sb** | **22 16 16.7** | **+1.5** |
| **MARD** | **Mardin** | **2.32** | **241** | *e*Pn | **Pn** | **22 15 42.6** | **-0.3** |
| **MARD** | **Mardin** | **2.32** | **241** | *e*Pn | **Pn** | **22 15 42.6** | **-0.3** |
| **YEDI** | **Yedisu-Bingol** | **2.38** | **295** | *e*PN | **Pn** | **22 15 43.2** | **-0.6** |
| **YEDI** | **Yedisu-Bingol** | **2.38** | **295** | *e*Pn | **Pn** | **22 15 43.2** | **-0.6** |
| **YEDI** | **Yedisu-Bingol** | **2.38** | **295** | Pn | **Pn** | **22 15 43.0** | **-0.8** |
| **MAZI** | **Mazidag** | **2.49** | **247** | *e*PN | **Pn** | **22 15 44.0** | **-1.2** |
| **MAZI** | **Mazidag** | **2.49** | **247** | Pn | **Pn** | **22 15 44.6** | **-0.6** |
| **MAZI** | **Mazidag** | **2.49** | **247** | Pn | **Pn** | **22 15 44.6** | **-0.6** |
| **DIY** | **Diyarbakir** | **2.51** | **258** | *e*Pn | **Pn** | **22 15 45.4** | **-0.1** |
| **DYBB** | **Diyarbakir** | **2.56** | **260** | *e*PN | **Pn** | **22 15 45.4** | **-0.8** |
| **DIYA** | **Diyarbakir** | **2.58** | **259** | ⇑*i*P | **Pn** | **22 15 45.7** | **-0.8** |
| DIYA | | | | *i* S | **Sg** | **22 16 27.3** | **-0.3** |
| **DIYA** | **Diyarbakir** | **2.58** | **259** | P | **Pn** | **22 15 45.7** | **-0.8** |
| **KOPT** | **Kop Dagi** | **2.70** | **306** | ⇓*i*P | **Pn** | **22 15 48.5** | **+0.3** |
| **KOPT** | **Kop Dagi** | **2.70** | **306** | P | **Pn** | **22 15 48.5** | **+0.3** |
| **KOPT** | **Kop Dagi** | **2.70** | **306** | *e*Pn | **Pn** | **22 15 50.0** | **+1.8** |
| **KOPT** | **Kop Dagi** | **2.70** | **306** | *e*Pn | **Pn** | **22 15 50.0** | **+1.8** |
| **DDEM** | **Demirkent** | **2.72** | **334** | ⇓*i*P | **Pn** | **22 15 48.3** | **-0.1** |
| **DDEM** | **Demirkent** | **2.72** | **334** | P | **Pn** | **22 15 48.3** | **-0.1** |
| **BGD** | **Bogdanovka** | **2.81** | **4** | P | **Pb** | **22 15 54.9** | **-0.1** |
| **DAGI** | **Agillar** | **2.84** | **338** | ⇓*i*P | **Pn** | **22 15 49.9** | **-0.1** |
| **ARTV** | **Artvin** | **2.93** | **339** | *e*P | **Pn** | **22 15 50.9** | **-0.5** |
| ARTV | | | | *e*S | **Sb** | **22 16 32.4** | **-0.6** |
| ARTV | | | | IAML | | 22 16 34.5 | |
| | comp=Z,120nm,0.6s | | | | | | |
| **ARTV** | **Artvin** | **2.93** | **339** | ⇓*i*P | **Pn** | **22 15 51.2** | **-0.2** |
| **ARTV** | **Artvin** | **2.93** | **339** | *e*Pn | **Pn** | **22 15 51.4** | **0.0** |
| **ARTV** | **Artvin** | **2.93** | **339** | *e*Pn | **Pn** | **22 15 51.4** | **0.0** |
| **GDB** | **GEDABAY** | **2.94** | **39** | ⇑P | **Pn** | **22 15 51.8** | **+0.4** |
| GDB | | | | ⇑S | **Sn** | **22 16 28.1** | **+1.2** |
| **GDB** | **GEDABAY** | **2.94** | **39** | P | **Pn** | **22 15 51.8** | **+0.4** |
| GDB | | | | S | **Sn** | **22 16 28.1** | **+1.2** |
| **AKH** | **Akhalkalaki** | **2.95** | **2** | *e*PN | **Pn** | **22 15 51.6** | **0.0** |
| **AKH** | **Akhalkalaki** | **2.95** | **2** | P | **Pb** | **22 15 57.9** | **+0.5** |
| **AKH** | **Akhalkalaki** | **2.95** | **2** | P | **Pb** | **22 15 57.8** | **+0.5** |
| **AKH** | **Akhalkalaki** | **2.95** | **2** | *e*Pn | **Pn** | **22 15 51.7** | **0.0** |
| **ERZN** | **Erzincan** | **3.03** | **293** | *e*PN | **Pn** | **22 15 52.0** | **-0.6** |
| **ERZN** | **Erzincan** | **3.03** | **293** | Pn | **Pn** | **22 15 52.7** | **0.0** |
| **ERZN** | **Erzincan** | **3.03** | **293** | Pn | **Pn** | **22 15 52.7** | **0.0** |
| **TNCL** | **Tunceli-Merkez** | **3.03** | **284** | *e*P | **Pb** | **22 15 57.8** | **-0.9** |
| TNCL | | | | *e*S | **Sb** | **22 16 34.2** | **-1.6** |
| TNCL | | | | IAML | | 22 17 13.2 | |
| | comp=Z,212nm,0.6s | | | | | | |
| **QZX** | **Qazax, Azerbai** | **3.04** | **31** | ⇑P | **Pn** | **22 15 53.0** | **+0.3** |
| QZX | | | | ⇑S | **Sn** | **22 16 30.8** | **+1.6** |
| **QZX** | **Qazax, Azerbai** | **3.04** | **31** | P | **Pn** | **22 15 53.0** | **+0.3** |
| QZX | | | | S | **Sn** | **22 16 30.8** | **+1.6** |
| **EPOS** | **Posof** | **3.08** | **352** | ⇓*i*P | **Pn** | **22 15 53.7** | **+0.3** |
| **EPOS** | **Posof** | **3.08** | **352** | P | **Pn** | **22 15 53.7** | **+0.3** |
| **PTK** | **Pertek** | **3.11** | **279** | *e*PN | **Pn** | **22 15 53.2** | **-0.7** |
| **PTK** | **Pertek** | **3.11** | **279** | *e*Pn | **Pn** | **22 15 53.2** | **-0.7** |
| **PTK** | **Pertek** | **3.11** | **279** | Pn | **Pn** | **22 15 53.1** | **-0.8** |
| **SVRC** | **Sivrice-ELAZID** | **3.16** | **270** | *e*PN | **Pn** | **22 15 53.8** | **-0.7** |
| **SVRC** | **Sivrice-ELAZID** | **3.16** | **270** | *e*Pn | **Pn** | **22 15 53.8** | **-0.7** |
| **SVRC** | **Sivrice-ELAZID** | **3.16** | **270** | Pn | **Pn** | **22 15 53.8** | **-0.7** |
| **GANJ** | **Ganja** | **3.18** | **46** | ⇑P | **Pn** | **22 15 55.1** | **+0.3** |
| GANJ | | | | ⇓S | **Sn** | **22 16 34.2** | **+1.5** |
| **GANJ** | **Ganja** | **3.18** | **46** | P | **Pn** | **22 15 55.0** | **+0.3** |
| **GANJ** | **Ganja** | **3.18** | **46** | P | **Pn** | **22 15 55.0** | **+0.3** |
| GANJ | | | | S | **Sn** | **22 16 34.2** | **+1.5** |
| **TBLG** | **Delisi** | **3.44** | **18** | *e*PN | **Pn** | **22 15 58.4** | **+0.1** |
| **TBLG** | **Delisi** | **3.44** | **18** | P | **Pb** | **22 16 06.9** | **+1.2** |
| **TBLG** | **Delisi** | **3.44** | **18** | *e*P | **Pb** | **22 16 03.1** | **-2.5** |
| TBLG | | | | *e*S | Sg | 22 17 06.3 | +11 |
| **TBLG** | **Delisi** | **3.44** | **18** | P | **Pb** | **22 16 06.9** | **+1.2** |
| **TBLG** | **Delisi** | **3.44** | **18** | *e*Pn | **Pn** | **22 15 58.4** | **+0.1** |
| **BRDA** | **Brd** | **3.49** | **58** | ⇑P | **Pn** | **22 15 59.0** | **+0.2** |
| BRDA | | | | ⇓S | **Sn** | **22 16 40.8** | **+0.7** |
| **BRDA** | **Brd** | **3.49** | **58** | P | **Pn** | **22 15 59.0** | **+0.2** |
| BRDA | | | | S | **Sn** | **22 16 40.8** | **+0.7** |
| **SEAG** | **Tbilisi Sea** | **3.49** | **18** | P | **Pb** | **22 16 06.4** | **-0.1** |
| **KELT** | **Kelkit** | **3.58** | **299** | *e*P | **Pb** | **22 16 07.8** | **-0.3** |
| KELT | | | | IAML | | 22 16 41.4 | |
| | comp=Z,89nm,0.6s | | | | | | |
| KELT | | | | *e*S | **Sg** | **22 16 59.5** | **-0.2** |
| **DDFL** | **Dedoflistskaro** | **3.67** | **35** | P | **Pb** | **22 16 09.9** | **+0.3** |
| **URFA** | **Urfa** | **3.71** | **256** | *e*PN | **Pn** | **22 16 02.2** | **+0.3** |
| **URFA** | **Urfa** | **3.71** | **256** | Pn | **Pn** | **22 16 01.9** | **0.0** |
| **URFA** | **Urfa** | **3.71** | **256** | Pn | **Pn** | **22 16 01.9** | **0.0** |
| **MNGR** | **Mingechevir, A** | **3.71** | **50** | ⇑P | **Pn** | **22 16 02.1** | **+0.2** |
| MNGR | | | | ⇑S | **Sn** | **22 16 46.7** | **+1.1** |
| **MNGR** | **Mingechevir, A** | **3.71** | **50** | P | **Pn** | **22 16 02.1** | **+0.2** |
| **MNGR** | **Mingechevir, A** | **3.71** | **50** | P | **Pn** | **22 16 02.1** | **+0.2** |
| MNGR | | | | S | **Sn** | **22 16 46.7** | **+1.1** |
| **KTUT** | **Trabzon** | **3.73** | **314** | *e*PN | **Pn** | **22 16 02.5** | **+0.3** |
| **KTUT** | **Trabzon** | **3.73** | **314** | *e*Pn | **Pn** | **22 16 02.5** | **+0.3** |
| **KTUT** | **Trabzon** | **3.73** | **314** | Pn | **Pn** | **22 16 02.3** | **+0.1** |
| **DUS** | **Dusheti** | **3.78** | **16** | P | **Pb** | **22 16 10.5** | **-0.9** |
| **DUS** | **Dusheti** | **3.78** | **16** | P | **Pb** | **22 16 10.5** | **-0.9** |
| **ZRD** | **Zardab** | **3.83** | **60** | ⇓P | **Pn** | **22 16 03.7** | **+0.1** |
| ZRD | | | | ⇑S | **Sn** | **22 16 49.4** | **+0.7** |
| **ZRD** | **Zardab** | **3.83** | **60** | P | **Pn** | **22 16 03.7** | **+0.1** |
| ZRD | | | | S | **Sn** | **22 16 49.4** | **+0.7** |
| **ILIC** | **ilic-Erzincan** | **3.84** | **286** | *e*PN | **Pn** | **22 16 03.9** | **0.0** |
| **ILIC** | **ilic-Erzincan** | **3.84** | **286** | *e*Pn | **Pn** | **22 16 03.9** | **0.0** |
| **ILIC** | **ilic-Erzincan** | **3.84** | **286** | Pn | **Pn** | **22 16 03.8** | **0.0** |
| **LRK** | **Lerik** | **3.93** | **86** | ⇓P | **Pn** | **22 16 04.7** | **-0.4** |
| LRK | | | | ⇓S | **Sn** | **22 16 51.4** | **0.0** |
| **LRK** | **Lerik** | **3.93** | **86** | P | **Pn** | **22 16 04.7** | **-0.4** |
| LRK | | | | S | **Sn** | **22 16 51.4** | **0.0** |
| **GLBA** | **Clilabad** | **4.03** | **77** | ⇓P | **Pn** | **22 16 06.2** | **-0.1** |
| GLBA | | | | ⇑S | **Sn** | **22 16 54.2** | **+0.6** |
| **GLBA** | **Clilabad** | **4.03** | **77** | P | **Pn** | **22 16 06.2** | **-0.1** |
| GLBA | | | | S | **Sn** | **22 16 54.2** | **+0.6** |
| **SEKA** | **Sheki** | **4.05** | **46** | ⇑P | **Pn** | **22 16 07.6** | **+0.9** |
| SEKA | | | | ⇓S | **Sn** | **22 16 56.8** | **+2.6** |
| **SEKA** | **Sheki** | **4.05** | **46** | P | **Pn** | **22 16 07.6** | **+0.9** |
| **SEKA** | **Sheki** | **4.05** | **46** | P | **Pn** | **22 16 07.6** | **+0.9** |
| SEKA | | | | S | **Sn** | **22 16 56.8** | **+2.6** |
| **ZKTA** | **Zakatala** | **4.06** | **37** | ⇑P | **Pn** | **22 16 07.1** | **+0.4** |
| ZKTA | | | | ⇓S | **Sn** | **22 16 56.0** | **+1.7** |
| **ZKTA** | **Zakatala** | **4.06** | **37** | P | **Pn** | **22 16 07.1** | **+0.4** |
| **ZKTA** | **Zakatala** | **4.06** | **37** | P | **Pn** | **22 16 07.1** | **+0.4** |
| **GUDG** | **Gudauri** | **4.10** | **12** | P | **Pn** | **22 16 09.3** | **+1.8** |
| **ONI** | **Oni** | **4.13** | **1** | P | **Pn** | **22 16 09.2** | **+1.4** |
| **ONI** | **Oni** | **4.13** | **1** | P | **Pn** | **22 16 09.1** | **+1.4** |
| **ONI** | **Oni** | **4.13** | **1** | P | **Pn** | **22 16 09.1** | **+1.4** |
| **SAAT** | **Saatly** | **4.20** | **69** | ⇑P | **Pn** | **22 16 08.3** | **-0.3** |
| SAAT | | | | ⇓S | **Sn** | **22 16 58.0** | **+0.3** |
| **SAAT** | **Saatly** | **4.20** | **69** | P | **Pn** | **22 16 08.3** | **-0.3** |
| SAAT | | | | S | **Sn** | **22 16 58.0** | **+0.3** |
| **KDMR** | **Kurdemir** | **4.22** | **61** | ⇑P | **Pn** | **22 16 09.0** | **+0.1** |
| KDMR | | | | ⇑S | **Sn** | **22 16 59.3** | **+1.1** |
| **KDMR** | **Kurdemir** | **4.22** | **61** | P | **Pn** | **22 16 09.0** | **+0.1** |
| KDMR | | | | S | **Sn** | **22 16 59.3** | **+1.1** |
| **QBL** | **Gabala** | **4.27** | **53** | ⇑P | **Pn** | **22 16 09.8** | **+0.1** |
| QBL | | | | ⇑S | **Sn** | **22 17 00.9** | **+1.3** |
| **QBL** | **Gabala** | **4.27** | **53** | P | **Pn** | **22 16 09.8** | **+0.1** |
| QBL | | | | S | **Sn** | **22 17 00.9** | **+1.3** |
| **LKRN** | **Lenkeran, Azer** | **4.28** | **85** | ⇑P | **Pn** | **22 16 09.5** | **-0.2** |
| LKRN | | | | ⇓S | **Sn** | **22 17 00.1** | **+0.5** |
| **LKRN** | **Lenkeran, Azer** | **4.28** | **85** | P | **Pn** | **22 16 09.4** | **-0.2** |
| **LKRN** | **Lenkeran, Azer** | **4.28** | **85** | P | **Pn** | **22 16 09.5** | **-0.2** |
| LKRN | | | | S | **Sn** | **22 17 00.1** | **+0.5** |
| **ASTR** | **Astara** | **4.29** | **87** | ⇓P | **Pn** | **22 16 09.6** | **-0.2** |
| ASTR | | | | ⇑S | **Sn** | **22 17 00.4** | **+0.6** |
| **ASTR** | **Astara** | **4.29** | **87** | P | **Pn** | **22 16 09.6** | **-0.2** |
| ASTR | | | | S | **Sn** | **22 17 00.4** | **+0.6** |
| **ESPY** | **Espiye-Giresun** | **4.32** | **306** | *e*PN | **Pn** | **22 16 10.1** | **-0.2** |
| **ESPY** | **Espiye-Giresun** | **4.32** | **306** | *e*Pn | **Pn** | **22 16 10.1** | **-0.2** |
| **ZEI** | **Tsey** | **4.35** | **6** | *e*P | **Pn** | **22 16 10.2** | **-0.7** |
| ZEI | | | | pmax | pmax | | |
| | comp=Z,108nm,0.8s | | | | | | |
| **CHVG** | **Ch'k'valeri** | **4.36** | **348** | *e*PN | **Pn** | **22 16 12.0** | **+1.1** |
| **CHVG** | **Ch'k'valeri** | **4.36** | **348** | P | **Pb** | **22 16 18.1** | **-3.2** |
| **CHVG** | **Ch'k'valeri** | **4.36** | **348** | *e*Pn | **Pn** | **22 16 12.0** | **+1.1** |
| **IML** | **Ismayilli** | **4.41** | **57** | ⇓P | **Pn** | **22 16 11.7** | **+0.1** |
| IML | | | | ⇓S | **Sn** | **22 17 04.2** | **+1.1** |
| **IML** | **Ismayilli** | **4.41** | **57** | P | **Pn** | **22 16 11.7** | **+0.1** |
| IML | | | | S | **Sn** | **22 17 04.2** | **+1.1** |
| **XNQ** | **Khinaliq** | **4.59** | **52** | ⇓P | **Pn** | **22 16 14.3** | **+0.1** |
| XNQ | | | | ⇑S | **Sn** | **22 17 08.7** | **+1.0** |
| **XNQ** | **Khinaliq** | **4.59** | **52** | P | **Pn** | **22 16 14.3** | **+0.1** |
| XNQ | | | | S | **Sn** | **22 17 08.7** | **+1.0** |
| **ALIB** | **Äli-Bayra** | **4.66** | **69** | ⇓P | **Pn** | **22 16 14.9** | **0.0** |
| ALIB | | | | ⇑S | **Sn** | **22 17 09.6** | **+0.6** |
| **ALIB** | **Äli-Bayra** | **4.66** | **69** | P | **Pn** | **22 16 14.9** | **0.0** |
| ALIB | | | | S | **Sn** | **22 17 09.6** | **+0.6** |
| **PQL** | **Pirkuli** | **4.68** | **59** | ⇓P | **Pn** | **22 16 15.4** | **0.0** |
| PQL | | | | ⇑S | **Sn** | **22 17 10.9** | **+1.0** |
| **PQL** | **Pirkuli** | **4.68** | **59** | P | **Pn** | **22 16 15.4** | **0.0** |
| PQL | | | | S | **Sn** | **22 17 10.9** | **+1.0** |
| **NEY** | **Neytrino** | **4.81** | **355** | *ce*P | **Pn** | **22 16 18.9** | **+1.7** |
| **NEY** | **Neytrino** | **4.81** | **355** | *e*P | **Pn** | **22 16 18.9** | **+1.7** |
| **GBS** | **Qobustan** | **4.81** | **63** | ⇑P | **Pn** | **22 16 17.1** | **0.0** |
| GBS | | | | ⇑S | **Sn** | **22 17 14.0** | **+1.0** |
| **GBS** | **Qobustan** | **4.81** | **63** | P | **Pn** | **22 16 17.1** | **0.0** |
| GBS | | | | S | **Sn** | **22 17 14.0** | **+1.0** |
| **QSAR** | **Qusar** | **4.87** | **50** | ⇓P | **Pn** | **22 16 18.0** | **+0.1** |
| QSAR | | | | ⇑S | **Sn** | **22 17 15.7** | **+1.4** |
| **QSAR** | **Qusar** | **4.87** | **50** | P | **Pn** | **22 16 18.0** | **+0.1** |
| QSAR | | | | S | **Sn** | **22 17 15.7** | **+1.4** |
| **QUBA** | **Quba, Azerbaij** | **4.91** | **52** | ⇑P | **Pn** | **22 16 18.6** | **+0.1** |
| QUBA | | | | ⇓S | **Sn** | **22 17 16.9** | **+1.5** |
| **QUBA** | **Quba, Azerbaij** | **4.91** | **52** | P | **Pn** | **22 16 18.6** | **+0.1** |
| QUBA | | | | S | **Sn** | **22 17 16.9** | **+1.5** |
| **ATGJ** | **Altiaghaj** | **4.95** | **59** | ⇑P | **Pn** | **22 16 19.0** | **0.0** |
| ATGJ | | | | ⇑S | **Sn** | **22 17 17.2** | **+0.8** |
| **ATGJ** | **Altiaghaj** | **4.95** | **59** | P | **Pn** | **22 16 19.0** | **0.0** |
| ATGJ | | | | S | **Sn** | **22 17 17.2** | **+0.8** |
| **SIZA** | **Siyzn** | **5.03** | **57** | ⇓P | **Pn** | **22 16 20.1** | **0.0** |
| SIZA | | | | ⇓S | **Sn** | **22 17 19.2** | **+1.0** |
| **SIZA** | **Siyzn** | **5.03** | **57** | P | **Pn** | **22 16 20.1** | **0.0** |
| SIZA | | | | S | **Sn** | **22 17 19.2** | **+1.0** |
| **NCK** | **Nalchik** | **5.04** | **2** | *i* P | **Pn** | **22 16 21.0** | **+0.8** |
| **NCK** | **Nalchik** | **5.04** | **2** | *i* P | **Pn** | **22 16 21.0** | **+0.8** |
| **BHD** | **Baghdad** | **5.25** | **170** | *e*Pn | **Pn** | **22 16 19.0** | **-4.0** |
| | SNR=3.0 | | | | | | |
| BHD | | | | *i* Sn | **Sn** | **22 17 19.0** | **-4.5** |
| | SNR=3.0 | | | | | | |
| **KBZ** | **Khabaz** | **5.28** | **357** | Pn | **Pn** | **22 16 25.1** | **+1.7** |
| | comp=Z,0.5nm,0.3s,baz=171,slow=5.7,SNR=20 | | | | | | |
| **GOBA** | **Gobu** | **5.33** | **67** | ⇓P | **Pn** | **22 16 24.1** | **0.0** |
| GOBA | | | | ⇓S | **Sn** | **22 17 25.9** | **+0.5** |
| **GOBA** | **Gobu** | **5.33** | **67** | P | **Pn** | **22 16 24.1** | **0.0** |
| GOBA | | | | S | **Sn** | **22 17 25.9** | **+0.5** |
| **MAK** | **Makhachkala** | **5.50** | **34** | *e*P | **Pn** | **22 16 23.5** | **-3.0** |
| MAK | | | | *e*S | **Sn** | **22 17 26.8** | **-3.1** |
| MAK | | | | pmax | pmax | | |
| | comp=Z,177nm,1.4s | | | | | | |
| MAK | | | | MLR | MLR | | |
| | comp=Z,655nm,9.0s | | | | | | |
| **KIV** | **Kislovodsk** | **5.51** | **355** | *i* P | **Pn** | **22 16 29.6** | **+2.8** |
| | SNR=7.2 | | | | | | |
| **KIV** | **Kislovodsk** | **5.51** | **355** | *e*P | **Pn** | **22 16 27.3** | **+0.5** |
| KIV | | | | pmax | pmax | | |
| | comp=Z,72nm,1.1s | | | | | | |
| KIV | | | | MLR | MLR | | |
| | comp=Z,219nm,7.0s | | | | | | |
| **KIV** | **Kislovodsk** | **5.51** | **355** | *e*P | **Pn** | **22 16 27.3** | **+0.5** |
| | comp=Z,219nm,7.0s | | | | | | |
| **KIV** | **Kislovodsk** | **5.51** | **355** | *e*Pn | **Pn** | **22 16 28.4** | **+1.6** |
| **KIV** | **Kislovodsk** | **5.51** | **355** | *e*Pn | **Pn** | **22 16 28.4** | **+1.6** |
| **KVAR** | **Kislovodsk Arr** | **5.51** | **355** | Pn | **Pn** | **22 16 28.4** | **+1.6** |
| | baz=171,slow=12,SNR=18 | | | | | | |
| **NDR** | **Nardaran** | **5.57** | **66** | ⇓P | **Pn** | **22 16 27.4** | **0.0** |
| NDR | | | | ⇓S | **Sn** | **22 17 32.1** | **+0.7** |
| **NDR** | **Nardaran** | **5.57** | **66** | P | **Pn** | **22 16 27.4** | **0.0** |
| NDR | | | | S | **Sn** | **22 17 32.1** | **+0.7** |
| **TOKA** | **Tokat** | **5.62** | **291** | *e*Pn | Pn | 22 16 34.6 | +6.3 |
| **GALA** | **Gala** | **5.63** | **68** | ⇓P | **Pn** | **22 16 28.3** | **0.0** |
| GALA | | | | ⇓S | **Sn** | **22 17 34.2** | **+1.2** |
| **GALA** | **Gala** | **5.63** | **68** | P | **Pn** | **22 16 28.3** | **0.0** |
| GALA | | | | S | **Sn** | **22 17 34.2** | **+1.2** |
| **SOC** | **Sochi** | **5.80** | **333** | *e*P | **Pn** | **22 16 28.2** | **-2.5** |
| SOC | | | | *e* | | 22 17 38.9 | |
| SOC | | | | pmax | pmax | | |
| | comp=Z,24nm,0.6s | | | | | | |
| SOC | | | | MLR | MLR | | |
| | comp=Z,600nm,9.0s | | | | | | |
| **SOC** | **Sochi** | **5.80** | **333** | *e*S | **Sn** | **22 17 38.9** | **+1.6** |
| | comp=Z,600nm,9.0s | | | | | | |
| **GOF** | **Gofitskoye** | **6.60** | **358** | ⇑*e*P | **Pn** | **22 16 44.8** | **+3.2** |
| GOF | | | | pmax | pmax | | |
| | comp=Z,50nm,0.9s | | | | | | |
| **HWQ** | **Hawqa** | **7.27** | **237** | *e*P | **Pn** | **22 16 51.1** | **+0.2** |
| **HWQ** | **Hawqa** | **7.27** | **237** | *e*P | **Pn** | **22 16 51.1** | **+0.2** |
| **BR131** | **Keskin Array S** | **7.64** | **283** | *e*Pn | **Pn** | **22 16 57.2** | **+1.1** |
| **BR131** | **Keskin Array S** | **7.64** | **283** | *e*Pn | **Pn** | **22 16 57.2** | **+1.1** |
| **BRTR** | **Keskin Array B** | **7.64** | **283** | Pn | **Pn** | **22 16 56.4** | **+0.3** |
| | comp=Z,0.3nm,0.3s,baz=102,slow=13,SNR=19 | | | | | | |
| BRTR | | | | LR | LR | 22 19 52.7 | |
| | comp=Z,552nm,19.6s,baz=94,slow=38 | | | | | | |
| **BHL** | **Bhannes** | **7.69** | **236** | *e*P | **Pn** | **22 16 59.9** | **+3.2** |
| **ANN** | **Anapa** | **7.72** | **327** | *e*P | **Pn** | **22 16 55.0** | **-2.0** |

ANN eS Sn 22 18 20.3 -4.2
ANN pmax pmax
comp=Z,138nm,1.1s
ANN MLR MLR
comp=Z,754nm,11.0s
**ANN Anapa 7.72 327** eP Pn 22 16 55.0 -2.0
comp=Z,754nm,11.0s
**RCY Rachaya 7.83 233** eP Pn 22 16 59.3 +0.6
**DQRL Deir Qamar 7.87 235** eP Pn 22 17 01.5 +2.4
**QRWL Qaraoun 7.90 234** eP Pn 22 17 01.0 +1.5
**QRWL Qaraoun 7.90 234** eP Pn 22 17 01.0 +1.5
**SHBL Chebaa 7.99 233** eP Pn 22 17 02.6 +1.8
**SHBL Chebaa 7.99 233** eP Pn 22 17 02.6 +1.8
**ASF Jabal al Asfar 8.18 222** Pn Pn 22 17 03.2 -0.2
comp=Z,1.2nm,0.3s,baz=1.3,slow=9.0,SNR=21
ASF Lg Lg 22 19 33.1
comp=Z,1.8nm,0.3s,baz=131,slow=21,SNR=6.5
**ANTO Ankara 8.31 283** Pb Pb 22 17 30.3 +1.8
SNR=7.4
**ANTO Ankara 8.31 283** P Pb 22 17 30.3 +1.8
SNR=7.4
**BR231 Keskin MP Arra 8.32 283** ePn Pn 22 17 03.0 -2.3
**MMAI Mount Meron Ar 8.42 232** Pn Pn 22 17 08.2 +1.5
comp=Z,4.9nm,0.3s,baz=70,slow=15,SNR=38
MMAI Lg Lg 22 19 47.5
comp=Z,3.0nm,0.3s,baz=17,slow=20,SNR=4.2
**CSS Mathiatis 8.75 250** ePn Pn 22 17 12.3 +1.1
**CSS Mathiatis 8.75 250** ePn Pn 22 17 12.3 +1.1
**IANJ Anjilo 8.98 106** eP Pn 22 17 20.7 +6.2
**IANJ Anjilo 8.98 106** eP Pn 22 17 20.7 +6.2
**BOLV Bolvadin 9.70 275** ePn Pn 22 17 26.6 +2.4
**BOLV Bolvadin 9.70 275** ePn Pn 22 17 26.6 +2.4
**EIL Elat 11.18 221** Pn Pn 22 17 48.5 +4.1
comp=Z,0.3nm,0.3s,baz=46,slow=6.1,SNR=5.6
EIL Lg Lg 22 21 11.4
comp=Z,0.6nm,0.3s,baz=107,slow=20,SNR=4.2
EIL LR LR 22 22 38.7
comp=Z,938nm,20.0s,baz=40,slow=41
**MANT Manisa 11.58 275** ePn Pn 22 17 52.4 +2.3
**MANT Manisa 11.58 275** ePn Pn 22 17 52.4 +2.3
**GEYT Alibeck 11.65 88** Pn Pn 22 17 53.9 +3.0
comp=Z,0.4nm,0.3s,baz=276,slow=14,SNR=10
GEYT LR LR 22 23 45.7
comp=Z,349nm,21.3s,baz=275,slow=45
**TIRR Tirgusor 12.69 303** eP Pn 22 18 07.7 +2.8
**TIRR Tirgusor 12.69 303** eP Pn 22 18 07.7 +2.8
**TIRR Tirgusor 12.69 303** ePn Pn 22 18 07.7 +2.8
**VRH Novokhopyorsk 12.80 355** eP Pn 22 18 07.5 +1.1
VRH pmax pmax
comp=Z,20nm,0.8s
**VRH Novokhopyorsk 12.80 355** eP Pn 22 18 07.5 +1.1
comp=Z,20nm,0.8s
**VSR Storozhevoye 13.09 348** eP Pn 22 18 10.4 -0.1
VSR pmax pmax
comp=Z,50nm,1.2s
**VSR Storozhevoye 13.09 348** eP Pn 22 18 10.4 -0.1
comp=Z,50nm,1.2s
**CFR Carcaliu 13.16 306**⇑ iP P 22 18 16.2 -5.4
**KARP Karpathos 13.25 262** ePn Pn 22 18 14.7 +2.0
**KARP Karpathos 13.25 262** ePn Pn 22 18 14.7 +2.0
**KDZ Kurdzhali 14.09 289** P P 22 18 35.9 +4.0
**APE Apeiranthos 14.15 270** *i* P Pn 22 18 26.7 +1.6
**APE Apeiranthos 14.15 270** *i* P Pn 22 18 26.7 +1.6
**VRI Vrincioaia 14.35 306**⇓ iP Pn 22 18 27.2 -0.5
**PLOR Plostina 14.39 306**⇓ iP P 22 18 33.0 -2.3
**LPSR Galich'ya Gora 14.47 349** eP Pn 22 18 28.4 -0.9
LPSR pmax pmax
comp=Z,90nm,1.0s
**RZN Rozhen 14.61 289** P P 22 18 42.2 +4.3
**TESR Tescani 14.69 309**⇑ iP P 22 18 35.0 -3.5
**MLR Muntele Rosu 14.70 304** Pn P 22 18 35.6 -3.3
comp=Z,0.0nm,0.3s,baz=136,slow=5.0,SNR=5.0
MLR LR LR 22 25 06.3
comp=Z,90nm,18.3s,baz=154,slow=41
**MLR Muntele Rosu 14.70 304**⇑ iP P 22 18 37.3 -1.6
**MLR Muntele Rosu 14.70 304** eP Pn 22 18 35.1 +2.5
**MLR Muntele Rosu 14.70 304** ePn Pn 22 18 35.1 +2.5
**MLR Muntele Rosu 14.70 304** ePn Pn 22 18 35.1 +2.5
**RAYN Ar Rayn 15.00 172** ePn Pn 22 18 32.8 -3.9
**HUMR Humele 15.02 300**⇑ iP P 22 18 42.5 +0.3
**IDI Anoyia 15.09 264** Pn Pn 22 18 37.3 -0.6
comp=Z,1.9nm,0.3s,baz=74,slow=15,SNR=14
**PGB Panagyurishte 15.14 292** P P 22 18 44.9 +1.3
**DOPR Dopca 15.25 305**⇑ iP P 22 18 44.0 -0.8
**VOIR 15.27 303**⇑ iP P 22 18 42.5 -2.6
**MMB Musomiste 15.34 288** P P 22 18 48.1 +2.3
**PRAR RASCA 15.34 311**⇑ iP P 22 18 46.3 +0.5
**ARR Arges 15.52 302**⇑ iP P 22 18 46.6 -1.3
**MPEP Malo Peshtene 15.59 295** P P 22 18 50.5 +1.9
**AKASG Malin Array Be 15.80 325** Pn Pn 22 18 45.4 -1.7
comp=Z,1.2nm,0.3s,baz=133,slow=12,SNR=34
AKASG LR LR 22 25 53.9
comp=Z,294nm,20.1s,baz=145,slow=41
**AKBB Malin Array Si 15.80 325** eP Pn 22 18 43.9 -3.1
AKBB pmax pmax
comp=Z,31nm,1.0s
**AKBB Malin Array Si 15.80 325** ePn Pn 22 18 43.9 -3.1
comp=Z,31nm,1.0s
**KIEV Kiev 15.81 325** *ce*P Pn 22 18 45.2 -1.8
KIEV pmax pmax
comp=Z,21nm,1.3s
**KIEV Kiev 15.81 325** ePn Pn 22 18 43.9 -3.1
comp=Z,27nm,1.0s
**AK11 Malin Array Si 15.81 325** ePn Pn 22 18 45.2 -1.9
**AK11 Malin Array Si 15.81 325** ePn Pn 22 18 45.2 -1.9
**VTS Vitosha 15.84 291**⇓ iP P 22 18 49.7 -1.8
**VTS Vitosha 15.84 291** eP P 22 18 50.1 -1.4
VTS pmax pmax
comp=Z,27nm,1.2s
**VTS Vitosha 15.84 291** P P 22 18 54.7 +3.2
**VTS Vitosha 15.84 291** eP P 22 18 50.1 -1.4
comp=Z,27nm,1.2s
**VTS Vitosha 15.84 291** ePn P 22 18 50.1 -1.4
comp=Z,27nm,1.2s
**KKB Krupnik 15.85 289** P P 22 18 55.5 +4.1
**AKTO Aktyubinsk 15.88 36** Pn Pn 22 18 46.9 -1.1
comp=Z,0.4nm,0.3s,baz=239,slow=11,SNR=18
AKTO LR LR 22 26 33.3
comp=Z,639nm,18.9s,baz=222,slow=43
**BURAR Bucovina Array 16.07 311**⇑ iP P 22 18 51.9 -2.0
**BUR04 Bucovina Ar. S 16.07 311** ePn Pn 22 18 51.7 +1.1
**BUR04 Bucovina Ar. S 16.07 311** ePn Pn 22 18 51.6 +1.1
**BUR08 Bucovina Ar. S 16.09 311** ePn P 22 18 52.6 -1.6
**BUR08 Bucovina Ar. S 16.09 311** ePn P 22 18 52.6 -1.6
**AB31 Akbulak array 16.09 43** *i* P Pn 22 18 48.9 -1.8
AB31 pmax pmax
comp=Z,7.0nm,0.8s
**LOT Lotru 16.12 302**⇑ iP Pn 22 18 47.4 -3.9
**ARCR ARCALIA 16.36 308**⇑ iP P 22 18 57.0 0.0
**AGG Agios Georgios 16.40 279** eP P 22 18 57.3 -0.3
AGG pmax pmax
comp=Z,78nm,1.1s
**AGG Agios Georgios 16.40 279** eP P 22 18 57.3 -0.3
comp=Z,78nm,1.1s
**AGG Agios Georgios 16.40 279** ePn P 22 18 57.3 -0.3
comp=Z,78nm,1.1s
**CJR Cluj-Napoca 16.68 306**⇑ iP P 22 19 03.3 +2.6
**ZAGS Zajecar 16.75 295** ePn P 22 19 02.0 +0.5
**NAZ Nazwa, Dubai 17.02 139** P Pn 22 19 02.6 -0.1
**FAQ Al Faqa, Dubai 17.18 139** P P 22 19 06.1 -0.2
**DRGR 17.27 305**⇑ iP P 22 19 09.0 +1.7
**OBN Obninsk 17.28 347** P Pn 22 19 04.4 -1.3
comp=Z,6.8nm,0.3s,baz=58,slow=1.3,SNR=18
OBN LR LR 22 26 06.5
comp=Z,366nm,19.4s,baz=122,slow=38
**OBN Obninsk 17.28 347** *i* P Pn 22 19 03.4 -2.3
OBN pmax pmax
comp=Z,83nm,0.8s
OBN MLR MLR
comp=Z,405nm,17.0s
**OBN Obninsk 17.28 347** ePn Pn 22 19 04.8 -0.9
comp=Z,78nm,0.8s
**OBN Obninsk 17.28 347** ePn Pn 22 19 04.8 -0.9
comp=Z,78nm,0.8s
**MDVR Moldovita 17.33 298**⇑ iP P 22 19 09.4 +1.5
**UOSS Minazif 17.34 137** ePn Pn 22 19 05.7 -1.0
comp=Z,32nm,0.8s
**UOSS Minazif 17.34 137** ePn Pn 22 19 05.7 -1.0
comp=Z,32nm,0.8s
**HATD Hatta, Dubai 17.39 138** P P 22 19 08.6 -0.1
**SELS Selova 17.45 293**⇑ iPn P 22 19 09.7 +0.5
**ASHO Ashiyiah 17.47 138** *i* P Pn 22 19 07.5 -0.9
SNR=6.3
**BZS Buzias 17.61 301**⇑ iP Pn 22 19 09.8 -0.2

**MOS Moscow 17.71 349** eP Pn 22 19 08.0 -3.0
MOS eS Sn 22 22 21.7 -6.5
MOS pmax pmax
comp=N,122nm,1.3s
MOS pmax pmax
comp=Z,121nm,1.3s
**BEO Beograd 18.20 298** eP P 22 19 18.5 +1.1
**BEO Beograd 18.20 298** eP P 22 19 18.5 +1.1
**IVAS Ivanjica 18.20 294**⇓ iPn P 22 19 19.5 +2.0
**UZH Uzhgorod 18.27 311** eP Pn 22 19 16.9 -1.2
UZH eS Sn 22 22 30.6 -11
UZH MLR MLR
comp=N,350nm,12.0s
UZH MLR MLR
comp=E,350nm,12.0s
**UZH Uzhgorod 18.27 311** eP Pn 22 19 16.9 -1.2
**KWP Kalwaria Pacla 18.50 314** eP Pn 22 19 21.1 +0.3
**KWP Kalwaria Pacla 18.50 314** eP Pn 22 19 21.1 +0.3
**KWP Kalwaria Pacla 18.50 314** eP Pn 22 19 21.1 +0.3
**ARQ Araqi 18.82 139** pP P 22 19 28.2 +3.8
SNR=5.6
**ARQ Araqi 18.82 139** P P 22 19 28.2 +3.8
SNR=5.6
**CRVS Cervenica-Dubn 18.89 311** eP Pn 22 19 25.5 -0.1
**CRVS Cervenica-Dubn 18.89 311** eP Pn 22 19 25.5 -0.1
**CRVS Cervenica-Dubn 18.89 311** eP Pn 22 19 25.5 -0.1
**MICGM Minsk 19.18 332** eP P 22 19 24.0 -4.1
**MNK Minsk 19.18 332** eP P 22 19 24.0 -4.1
**STHS Stebnicka Huta 19.24 312** eP Pn 22 19 30.5 +0.7
STHS pmax pmax
comp=Z,9.0nm,1.1s
**STHS Stebnicka Huta 19.24 312** eP Pn 22 19 30.5 +0.7
comp=Z,9.0nm,1.1s
**STHS Stebnicka Huta 19.24 312** eP Pn 22 19 30.5 +0.7
**KECS Kecovo 19.31 309** eP Pn 22 19 31.8 +1.2
KECS pmax pmax
comp=Z,8.0nm,1.5s
**KECS Kecovo 19.31 309** eP Pn 22 19 31.8 +1.2
comp=Z,8.0nm,1.5s
**KECS Kecovo 19.31 309** eP Pn 22 19 31.8 +1.2
**PSZ Piszkesteto 19.46 307**⇑ iP Pn 22 19 34.9 +2.4
**PSZ Piszkesteto 19.46 307** eP Pn 22 19 33.2 +0.6
PSZ pmax pmax
comp=Z,30nm,1.1s
**PSZ Piszkesteto 19.46 307**⇑ eP Pn 22 19 35.0 +2.4
**PSZ Piszkesteto 19.46 307** eP Pn 22 19 33.2 +0.6
comp=Z,30nm,1.1s
**PSZ Piszkesteto 19.46 307** eP Pn 22 19 33.2 +0.6
comp=Z,30nm,1.1s
**BSY Bisya 19.65 139** Pn Pn 22 19 35.9 +0.9
SNR=8.8
**BSY Bisya 19.65 139** P Pn 22 19 35.9 +0.9
SNR=8.8
**BSYO Bisya 19.69 139** P Pn 22 19 35.9 +0.6
SNR=8.8
**NIE Niedzica 19.80 311** eP Pn 22 19 36.3 -0.2
**NIE Niedzica 19.80 311** eP Pn 22 19 36.3 -0.2
**NIE Niedzica 19.80 311** eP Pn 22 19 36.3 -0.2
**SMDO Samad 19.85 136** Pn Pn 22 19 38.7 +1.4
SNR=8.7
**SMDO Samad 19.85 136** Pn Pn 22 19 38.7 +1.4
SNR=8.7
**SMDO Samad 19.85 136** P Pn 22 19 38.7 +1.4
SNR=8.7
**NACGM Naroch 19.90 331** *e* P 22 19 35.0 -1.0
**WSAR Wadi Sarin 20.02 135** P P 22 19 38.2 +0.6
comp=Z,27nm,1.0s,baz=311,slow=5.1,SNR=9.4
WSAR LR LR 22 27 08.4
comp=Z,216nm,21.8s,baz=325,slow=36
**LANS Liptovska Anna 20.19 310** eP Pn 22 19 43.5 +2.4
**LANS Liptovska Anna 20.19 310** eP Pn 22 19 43.5 +2.4
**IDID Didziasalis 20.23 332** eP P 22 19 38.7 -0.9
IDID IAmb IAmb 22 19 44.6
comp=Z,15nm,1.0s
**IDID Didziasalis 20.23 332** eP P 22 19 38.7 -0.9
SNR=34
**VYHS Vyhne 20.33 307** eP Pn 22 19 42.1 -0.7
VYHS pmax pmax
comp=Z,24nm,1.1s
**VYHS Vyhne 20.33 307** eP Pn 22 19 42.1 -0.7
comp=Z,24nm,1.1s
**VYHS Vyhne 20.33 307** eP Pn 22 19 42.1 -0.7
**CSKK Cs˘tkako 20.34 304**⇑ eP Pn 22 19 42.4 -0.4
**CSKK Cs˘tkako 20.34 304**⇑ eP Pn 22 19 42.4 -0.4
**JMDO Jabal Madar 20.43 137** P P 22 19 42.5 +0.5
SNR=5.1
**JMDO Jabal Madar 20.43 137** P P 22 19 42.5 +0.5
SNR=5.1
**JMDO Jabal Madar 20.43 137** P P 22 19 42.5 +0.5
SNR=5.1
**OJC Ojcow 20.43 313** eP Pn 22 19 42.9 -1.1
OJC pmax pmax
comp=Z,20nm,1.2s
**OJC Ojcow 20.43 313** eP Pn 22 19 42.9 -1.1
comp=Z,20nm,1.2s
**OJC Ojcow 20.43 313** eP Pn 22 19 42.9 -1.1
comp=Z,20nm,1.2s
**BLY Banja Luka 20.49 296** eP Pn 22 19 44.2 -0.4
comp=Z,18nm,1.0s
**BLY Banja Luka 20.49 296** eP Pn 22 19 44.2 -0.5
comp=Z,18nm,1.0s
**ARU Arti 20.64 24** P P 22 19 43.7 -0.2
comp=Z,28nm,0.6s,baz=228,slow=7.1,SNR=39
ARU LR LR 22 29 58.6
comp=Z,339nm,19.4s,baz=220,slow=43
**ARU Arti 20.64 24***d* iP P 22 19 43.3 -0.7
ARU S S 22 23 34.7 +0.3
ARU SS PcP 22 23 53.6 -0.4
ARU pmax pmax
comp=Z,35nm,1.2s
**ARU Arti 20.64 24** *i* P P 22 19 43.3 -0.7
comp=Z,35nm,1.2s
ARU S S 22 23 34.7 +0.3
**ARU Arti 20.64 24** PcP PcP 22 23 53.6 -0.4
**ARU Arti 20.64 24** eP P 22 19 43.1 -0.8
comp=Z,30nm,0.7s
**ISAL Salakas 20.65 332** eP P 22 19 43.2 -0.9
ISAL IAmb IAmb 22 19 48.0
comp=Z,11nm,0.6s
**ISAL Salakas 20.65 332** eP P 22 19 43.2 -0.9
SNR=34
**IZAR Zarasai 20.75 332** eP P 22 19 44.2 -1.0
IZAR IAmb IAmb 22 19 53.7
comp=Z,22nm,0.9s
**IZAR Zarasai 20.75 332** eP P 22 19 44.2 -1.0
SNR=33
**SUW Suwalki 20.77 325** eP Pn 22 19 46.9 -1.0
**SUW Suwalki 20.77 325** eP Pn 22 19 46.9 -1.0
**SUW Suwalki 20.77 325** eP Pn 22 19 46.9 -1.0
**KBL Kabul 21.01 93** eP P 22 19 48.9 +0.4
KBL *e* 22 19 51.1
**KBL Kabul 21.01 93** eP P 22 19 48.9 +0.4
**KBL Kabul 21.01 93** eP P 22 19 48.9 +0.4
KBL ePn P 22 19 51.1 +2.6
**KK31 Karatay Array 21.06 69** *i* P P 22 19 48.9 +0.2
KK31 pmax pmax
comp=Z,24nm,0.8s
**KK31 Karatay Array 21.06 69** *i* P P 22 19 48.9 +0.2
comp=Z,24nm,0.8s
**SMOL Smolenice 21.22 307** eP P 22 19 52.3 +1.9
**SMOL Smolenice 21.22 307** eP P 22 19 52.3 +1.9
**OKC Ostrava-Krasne 21.25 311** eP P 22 20 03.4 +13
OKC *e* 22 20 13.9
**MODS Modra-Piesok 21.27 306** eP P 22 19 53.6 +2.7
**MODS Modra-Piesok 21.27 306** eP P 22 19 53.6 +2.7
**CUC Castrocucco 21.34 283** eP P 22 19 52.4 +0.6
comp=Z,15nm,0.9s
**CEL Celeste 21.49 278** eP P 22 19 54.8 +1.4
comp=Z,28nm,1.0s
**SOP Sopron 21.53 304**⇑ eP P 22 19 54.7 +1.0
**SVE Sverdlovsk 21.65 26**⇑ eP P 22 19 55.4 +0.5
SVE pmax pmax
comp=Z,55nm,1.4s
**BOJS Bojanci 21.95 298** *i* P P 22 19 59.2 +0.9
**BOJS Bojanci 21.95 298** P P 22 19 59.2 +0.9
**VRAC Vranov 22.00 308** P P 22 20 00.8 +2.0
comp=Z,5.3nm,0.9s,baz=92,slow=14,SNR=5.9
VRAC LR LR 22 31 20.3
comp=Z,232nm,18.6s,baz=128,slow=45
**VRAC Vranov 22.00 308** eP P 22 20 00.9 +2.2
**CONA Conrad Observa 22.05 304** *i* pP P 22 20 00.9 +1.5
comp=Z,27nm,1.1s
**CONA Conrad Observa 22.05 304** P P 22 20 00.9 +1.5
comp=Z,27nm,1.1s
**ARSA Arzberg 22.11 302** *i* pP P 22 20 01.4 +1.5
comp=Z,12nm,0.9s
**ARSA Arzberg 22.11 302** P P 22 20 01.4 +1.5
comp=Z,12nm,0.9s
**KRLC Kraliky 22.15 310** eP P 22 20 05.5 +5.1
**KRLC Kraliky 22.15 310** eP P 22 20 05.5 +5.1
**PERS Pernice 22.25 301** *i* P P 22 20 11.4 +10
**VISS Visnje 22.29 298** *i* P P 22 20 05.8 +4.0
**MNAS Manas 22.50 70** *i* P P 22 20 02.4 -2.0
MNAS pmax pmax
comp=Z,10.0nm,1.3s
**DPC Dobruska-Polom 22.53 311** eP P 22 20 06.3 +1.9
DPC *ex* x 22 20 21.5
**DPC Dobruska-Polom 22.53 311** eP P 22 20 06.3 +1.9
**DPC Dobruska-Polom 22.53 311** P P 22 20 06.3 +1.9
**KLMR Klimovskoe 22.55 355** eP P 22 19 59.9 -4.6
KLMR pmax pmax
comp=Z,90nm,1.0s
**OBKA Obir 22.61 300** eP P 22 19 60.0 -5.4
comp=Z,1.2nm,0.4s
**TREC Trest 22.68 308** eP P 22 20 06.4 +0.4
**TREC Trest 22.68 308** eP P 22 20 06.4 +0.4
**TREC Trest 22.68 308** P P 22 20 06.4 +0.4
**VSU Vasula 22.72 337** eP P 22 20 07.2 +0.9
VSU pmax pmax
comp=Z,132nm,0.7s
**KSP Ksiaz 22.73 312** eP P 22 20 11.4 +4.9
**KSP Ksiaz 22.73 312** eP P 22 20 11.4 +4.9
**UPC Upice 22.77 311** eP P 22 20 08.5 +1.5
**UPC Upice 22.77 311** eP P 22 20 08.5 +1.5
**UPC Upice 22.77 311** P P 22 20 08.5 +1.5
**VAE Valguarnera 22.78 277** LR LR 22 29 32.0
comp=Z,210nm,21.3s,baz=160,slow=38
**JAVS Javornik 22.84 298** *i* P P 22 20 09.8 +2.0
**JAVS Javornik 22.84 298** *i* P P 22 20 09.8 +2.0
**SOKR Solikamsk 22.84 18***d* iP P 22 20 07.1 -0.4
SOKR pmax pmax
comp=Z,36nm,0.9s
SOKR MLR MLR
comp=Z,283nm,16.0s
**AQU L'Aquila 23.06 289** eP P 22 20 12.1 +2.0
AQU pmax pmax
comp=Z,35nm,1.0s
**AQU L'Aquila 23.06 289** eP P 22 20 12.1 +2.0
comp=Z,35nm,1.0s
**MOA Molln 23.07 303** eP P 22 20 06.1 -4.0
comp=Z,17nm,1.0s
**MYKA Terra Mystica 23.24 300** eP P 22 20 08.3 -3.7
comp=Z,3.4nm,0.6s
**GOPC GO Pecny, Ondr 23.31 309** eP P 22 20 17.5 +5.0
**GOPC GO Pecny, Ondr 23.31 309** eP P 22 20 17.5 +5.0
**SFK Sufi-Kurgan 23.37 77** *i* P P 22 20 15.7 +2.2
SFK pmax pmax
comp=Z,15nm,0.9s
**PRU Pruhonice 23.48 309** eP P 22 20 14.9 +0.7
PRU *ex* x 22 20 24.5
**PRU Pruhonice 23.48 309** eP P 22 20 14.9 +0.7
**PRU Pruhonice 23.48 309** P P 22 20 14.9 +0.7
**KBA Koelnbreinsper 23.52 301** *i* P P 22 20 10.8 -4.1
comp=Z,18nm,1.3s
**BRVK Borovoye 23.62 43***ce*P P 22 20 15.8 +0.3
BRVK pmax pmax
comp=Z,41nm,1.2s
**BRVK Borovoye 23.62 43** eP P 22 20 15.9 +0.3
comp=Z,18nm,0.9s
**BRVK Borovoye 23.62 43** P P 22 20 16.0 +0.5
SNR=8.2
**BRVK Borovoye 23.62 43** P P 22 20 16.0 +0.5
SNR=8.2
BRVK P P 22 20 16.0 +0.5
SNR=8.2
**BVAR Borovoye Array 23.66 43** P P 22 20 16.1 +0.2
comp=Z,3.6nm,0.8s,baz=241,slow=7.2,SNR=18
**GEA0 GERESS Array S 23.68 306** eP P 22 20 16.1 -0.2
**GEC2 GERESS Array S 23.68 306** eP P 22 20 17.6 +1.3
GEC2 pmax pmax
comp=Z,18nm,1.3s
**GEC2 GERESS Array S 23.68 306** eP P 22 20 17.6 +1.3
comp=Z,18nm,1.3s
**GERES GERESS Array B 23.68 306** P P 22 20 15.6 -0.7
comp=Z,2.0nm,0.8s,baz=112,slow=9.0,SNR=8.3
GERES LR LR 22 30 48.7
comp=Z,326nm,18.2s,baz=114,slow=40
**KHC Kasperske Hory 23.83 306** eP P 22 20 18.0 +0.3
KHC *ex* x 22 20 27.6
**KHC Kasperske Hory 23.83 306** eP P 22 20 18.0 +0.3
**KHC Kasperske Hory 23.83 306** P P 22 20 18.0 +0.3
**KHC Kasperske Hory 23.83 306** eP P 22 20 19.2 +1.5
comp=Z,24nm,2.0s
**AAK Ala-Archa 23.97 70** P P 22 20 21.4 +2.2
comp=Z,3.9nm,0.7s,baz=229,slow=8.4,SNR=11
AAK LR LR 22 31 45.8
comp=Z,243nm,21.5s,baz=266,slow=42
**AAK Ala-Archa 23.97 70** eP P 22 20 21.2 +1.9
AAK pmax pmax
comp=Z,8.0nm,1.2s
**AAK Ala-Archa 23.97 70** eP P 22 20 20.1 +0.9
comp=Z,32nm,1.3s
**ABTA Abfaltersbach 24.03 300** *i* P P 22 20 15.6 -4.0
comp=Z,6.2nm,0.9s
**FRU Bishkek 24.06 70** eP P 22 20 22.0 +2.0
**BRG Berggiesshubel 24.13 310** eP P 22 20 20.5 +0.1
comp=Z,9.4nm,1.1s
**BRG Berggiesshubel 24.13 310** eP P 22 20 20.5 +0.1
BRG pmax pmax
comp=Z,9.0nm,1.1s
**WTTA Wattenberg 24.70 301** *i* P P 22 20 21.5 -4.4
comp=Z,12nm,1.0s
**WATA Walderalm 24.76 301** *i* P P 22 20 23.6 -2.8
comp=Z,3.4nm,0.4s
**CLL Collm 24.84 311** eP P 22 20 27.0 +0.2
CLL *i* 22 20 29.7
CLL eS S 22 24 44.0 -5.4
**CLL Collm 24.84 311** *e*(P) P 22 20 27.0 +0.2
CLL *i* 22 20 29.7
comp=Z,13nm,1.0s
CLL eS S 22 24 44.0 -5.4
CLL LmH 22 30 00.0
comp=Z,200nm,20.0s
**CLL Collm 24.84 311** eP P 22 20 27.7 +0.9
comp=Z,13nm,1.0s
**NKC Novy Kostel 24.84 308** eP P 22 20 27.6 +0.6
**NKC Novy Kostel 24.84 308** eP P 22 20 27.6 +0.6
**NKC Novy Kostel 24.84 308** P P 22 20 27.6 +0.6
**MOTA Moosalm 25.07 301** *i* P P 22 20 27.3 -2.0
comp=Z,9.6nm,0.6s
**MOTA Moosalm 25.07 301** P P 22 20 27.3 -2.0
comp=Z,9.6nm,0.6s
**FETA Feichten 25.28 300** *i* pP P 22 20 32.0 +0.9
comp=Z,14nm,0.9s
**FETA Feichten 25.28 300** P P 22 20 32.0 +0.9
comp=Z,14nm,0.9s
**KSH Kashi 25.32 77** P P 22 20 33.1 +1.6
KSH pP sP 22 20 36.0 +0.2
KSH PP PnPn 22 21 08.7 +2.7
KSH PcP PcP 22 24 08.0 +3.8
KSH S S 22 24 55.2 -2.5
KSH SS SnSn 22 25 51.5 +2.7
KSH pmax pmax
comp=Z,6.0nm,0.7s
KSH pmax pmax
comp=Z,130nm,4.4s
KSH LR LR
comp=Z,240nm,7.4s
KSH LR LR
comp=Z,320nm,6.3s
KSH LR LR
comp=Z,300nm,7.6s
**RETA Reutte 25.33 301** *i* pP P 22 20 33.4 +2.0
comp=Z,8.2nm,0.8s
**RETA Reutte 25.33 301** P P 22 20 33.4 +2.0
comp=Z,8.2nm,0.8s
**FINES FINESS Array B 25.39 341** P P 22 20 31.3 -0.4
comp=Z,8.3nm,0.5s,baz=146,slow=10,SNR=37
FINES LR LR 22 31 01.2
comp=Z,251nm,21.3s,baz=183,slow=38
**FIA1 FINESS Array S 25.39 341** eP P 22 20 32.6 +0.9
**GRFO Grafenberg 25.46 307** eP P 22 20 34.7 +2.1
GRFO pmax pmax
comp=Z,84nm,1.4s
**GRFO Grafenberg 25.46 307** eP P 22 20 34.6 +2.1
comp=Z,84nm,1.4s
**DAVOX Davos/Dischmat 25.83 300** P P 22 20 36.1 0.0
comp=Z,4.4nm,0.5s,baz=135,slow=12,SNR=14
DAVOX LR LR 22 31 50.9
comp=Z,300nm,18.5s,baz=85,slow=39

**DAVA Damuels 25.89 301** *i* P **P 22 20 35.0 -1.7**
comp=Z,5.0nm,0.7s
**DAVA Damuels 25.89 301** P **P 22 20 35.0 -1.7**
comp=Z,5.0nm,0.7s
**RGN Rugen 25.91 318** *eP* **P 22 20 38.1 +1.6**
comp=Z,130nm,1.0s
**TMCR Tamitsa 25.94 355** *eP* **P 22 20 34.3 -2.3**
TMCR pmax pmax
comp=Z,43nm,1.1s
**TUE Stuetta 26.16 299** *eP* **P 22 20 40.5 +1.3**
comp=Z,22nm,1.4s
**VSL Villasalto 26.33 283** *eP* **P 22 20 41.6 +1.0**
comp=Z,23nm,1.1s
**ATD Arta Tunnel 26.82 181** *eP* **P 22 20 44.9 -0.3**
comp=Z,12nm,1.1s
**THN Thein Dam 26.97 93** *eP* **P 22 20 48.2 +1.9**
**SENIN Lac Senin/Sane 27.56 298** *eP* **P 22 20 52.8 +0.9**
comp=Z,75nm,1.9s
**KURBB Kurchatov Arra 27.61 52** P **P 22 20 52.8 +0.9**
comp=Z,7.6nm,0.6s,baz=264,slow=9.0,SNR=50
**PDGK Podgornoye 27.62 68** *i* P **P 22 20 49.7 -2.6**
PDGK pmax pmax
comp=Z,8.0nm,1.1s
**KURK Kurchatov 27.69 52** *ceP* **P 22 20 54.0 +1.4**
KURK pmax pmax
comp=Z,87nm,1.2s
**KURK Kurchatov 27.69 52** *eP* **P 22 20 53.9 +1.4**
comp=Z,19nm,1.0s
**ECH Echery 27.83 302** *eP* **P 22 20 55.3 +1.3**
ECH pmax pmax
comp=Z,41nm,1.9s
**ECH Echery 27.83 302** *eP* **P 22 20 55.3 +1.3**
comp=Z,41nm,1.9s
**BNI Bardonecchia 27.95 295** *eP* **P 22 20 57.1 +1.9**
BNI pmax pmax
comp=Z,17nm,1.1s
**BNI Bardonecchia 27.95 295** *eP* **P 22 20 57.0 +1.9**
comp=Z,17nm,1.1s
**HFS Hagfors 28.63 329** P **P 22 21 00.4 -0.5**
comp=Z,8.0nm,0.7s,baz=140,slow=11,SNR=12
HFS LR LR 22 33 11.1
comp=Z,309nm,18.7s,baz=112,slow=38
**WLF Walferdange 28.69 305** *eP* **P 22 21 03.5 +1.9**
WLF pmax pmax
comp=Z,48nm,1.7s
**WLF Walferdange 28.69 305** *eP* **P 22 21 03.5 +1.9**
comp=Z,48nm,1.7s
**MAKZ Makanchi 29.39 61** *eP* **P 22 21 09.2 +1.4**
MAKZ pmax pmax
comp=Z,4.0nm,0.7s
**MAKZ Makanchi 29.39 61** *eP* **P 22 21 09.2 +1.4**
comp=Z,4.4nm,0.7s
**SSB Saint Sauveur 29.46 296** *eP* **P 22 21 11.9 +3.4**
SSB pmax pmax
comp=Z,53nm,1.9s
**SSB Saint Sauveur 29.46 296** *eP* **P 22 21 11.8 +3.4**
comp=Z,53nm,1.9s
**MK31 Makanchi Array 29.60 61** *eP* **P 22 21 10.8 +1.0**
MK31 *eS* **S 22 26 02.9 -2.0**
**MK31 Makanchi Array 29.60 61** *eP* **P 22 21 10.8 +1.0**
MK31 *eS* **S 22 26 02.9 -2.0**
**MKAR Makanchi Array 29.60 61** P **P 22 21 09.9 +0.2**
comp=Z,3.6nm,0.9s,baz=270,slow=7.7,SNR=18
MKAR LR LR 22 35 08.1
comp=Z,355nm,19.4s,baz=250,slow=41
**MKAR Makanchi Array 29.60 61** P **P 22 21 10.0 +0.2**
MKAR pmax pmax
comp=Z,4.0nm,0.9s
MKAR MLR MLR
comp=Z,355nm,19.4s
**MK01 Makanchi Array 29.61 61** *eP* **P 22 21 10.2 +0.4**
MK01 *eS* **S 22 26 02.7 -2.3**
**NB2 NORSAR Subarra 30.15 329** P **P 22 21 13.2 -1.3**
comp=Z,3.5nm,0.8s,baz=124,slow=9.3
**NB2 NORSAR Subarra 30.15 329** P **P 22 21 13.2 -1.3**
comp=Z,3.5nm,0.8s,SNR=4.6
**NOA NORSAR Array B 30.15 329** P **P 22 21 12.3 -2.2**
comp=Z,1.5nm,0.6s,baz=126,slow=8.9,SNR=5.2
NOA LR LR 22 33 56.7
comp=Z,241nm,19.3s,baz=125,slow=38
**NVS Novosibirsk 31.39 45** *i* P **P 22 21 26.4 +1.0**
**NVS Novosibirsk 31.39 45** *i* P **P 22 21 26.4 +1.0**
**ZAA0 Zalesovo Array 32.09 47** *eP* **P 22 21 31.7 +0.2**
comp=Z,3.7nm,0.8s
**ZAA0 Zalesovo Array 32.09 47** *eP* **P 22 21 31.7 +0.2**
comp=Z,3.7nm,0.8s
**ZALV Zalesovo Beam 32.09 47** P **P 22 21 31.4 -0.1**
comp=Z,3.2nm,0.7s,baz=256,slow=9.8,SNR=12
ZALV LR LR 22 36 40.4
comp=Z,286nm,18.7s,baz=254,slow=40
**ZALV Zalesovo Beam 32.09 47** *eP* **P 22 21 31.6 0.0**
**ZALV Zalesovo Beam 32.09 47** *eP* **P 22 21 31.6 0.0**
**ZALV Zalesovo Beam 32.09 47** *eP* **P 22 21 31.6 0.0**
**ARCES ARCESS Array B 32.58 348** P **P 22 21 34.3 -1.3**
comp=Z,7.0nm,1.0s,baz=160,slow=7.8,SNR=7.5
ARCES LR LR 22 35 40.2
comp=Z,235nm,18.1s,baz=156,slow=38
**WMQ Urumqi 33.53 66** P **P 22 21 45.7 +1.3**
WMQ pP sP 22 21 50.7 +2.0
WMQ sP pP 22 21 54.1 +6.7
WMQ pmax pmax
comp=Z,22nm,0.9s
WMQ pmax pmax
comp=Z,250nm,4.3s
WMQ LR LR
comp=Z,540nm,27.3s
WMQ LR LR
comp=Z,340nm,24.5s
**KOLN Koldanda 35.13 95** *eP* **P 22 22 00.8 +2.3**
comp=Z,8.6nm,0.7s
**EKA Eskdalemuir Ar 35.20 314** P **P 22 21 57.6 -1.0**
comp=Z,3.2nm,0.5s,baz=106,slow=8.1,SNR=21
**ESK Eskdalemuir 35.22 314** *eP* **P 22 21 59.7 +0.9**
ESK pmax pmax
comp=Z,83nm,1.4s
**ESK Eskdalemuir 35.22 314** *eP* **P 22 21 59.7 +0.9**
comp=Z,82nm,1.4s
**ESK Eskdalemuir 35.22 314** *eP* **P 22 21 59.7 +0.9**
comp=Z,82nm,1.4s
**TAM Tamanrasset 35.80 255** *eP* **P 22 22 04.8 +0.5**
TAM pmax pmax
comp=Z,24nm,1.7s
**TAM Tamanrasset 35.80 255** *eP* **P 22 22 04.8 +0.5**
comp=Z,24nm,1.7s
**TAM Tamanrasset 35.80 255** *eP* **P 22 22 04.8 +0.5**
comp=Z,24nm,1.7s
**ES19 SONSECA Array 36.35 287** *eP* **P 22 22 10.3 +1.6**
**ES19 SONSECA Array 36.35 287** *eP* **P 22 22 10.3 +1.6**
**DMN Daman 36.38 95** *eP* **P 22 22 10.8 +1.5**
comp=Z,14nm,0.7s
**ESDC Sonseca Array 36.41 287** P **P 22 22 07.2 -2.0**
comp=Z,0.9nm,0.5s,baz=66,slow=8.6,SNR=13
ESDC LR LR 22 38 10.4
comp=Z,138nm,18.0s,baz=85,slow=38
**ESLA Sonseca Array 36.41 287** *eP* **P 22 22 10.2 +1.0**
comp=Z,48nm,2.0s
**ESLA Sonseca Array 36.41 287** *eP* **P 22 22 10.2 +1.0**
comp=Z,48nm,2.0s
**PAB San Pablo 36.73 287** *eP* **P 22 22 12.7 +0.7**
PAB pmax pmax
comp=Z,24nm,1.6s
**PAB San Pablo 36.73 287** *eP* **P 22 22 12.6 +0.7**
comp=Z,24nm,1.6s
**PAB San Pablo 36.73 287** *eP* **P 22 22 12.7 +0.7**
comp=Z,24nm,1.6s
**GUN Gumba 36.85 94** *eP* **P 22 22 14.8 +1.4**
comp=Z,58nm,1.1s
**JIRN Jiri 37.21 94** *eP* **P 22 22 17.9 +1.4**
comp=Z,34nm,0.9s
**RAMN Ramite 37.86 95** *eP* **P 22 22 22.7 +0.8**
comp=Z,21nm,0.7s
**ODAN Odare 38.52 94** *eP* **P 22 22 28.1 +0.6**
comp=Z,31nm,1.0s
**TAPN Taplejung 38.54 93** *eP* **P 22 22 28.5 +0.8**
comp=Z,26nm,0.9s
**MTE Manteigas 38.90 289** *eP* **P 22 22 31.4 +1.0**
comp=Z,16nm,0.9s
**MTE Manteigas 38.90 289** *eP* **P 22 22 31.4 +1.0**
comp=Z,16nm,0.9s
**MTE Manteigas 38.90 289** *eP* **P 22 22 32.0 +1.7**
comp=Z,41nm,1.6s
**PCBR Castelo Branco 38.99 288** *eP* **P 22 22 34.4 +3.4**
**MDT Midelt 39.02 277** P **P 22 22 30.6 -0.8**
comp=Z,1.4nm,0.9s,baz=62,slow=13,SNR=3.3
**PESTR Estremoz 39.34 287** *eP* **P 22 22 34.9 +1.0**
comp=Z,26nm,2.1s
**KMBO Kilima Mbogo 39.78 190** LR LR 22 38 06.6
comp=Z,437nm,19.0s,baz=276,slow=35
**LSA Lhasa 40.18 88** *eP* **P 22 22 41.9 +0.3**
LSA pmax pmax
comp=Z,8.0nm,0.8s
**LSA Lhasa 40.18 88** *eP* **P 22 22 41.9 +0.3**
comp=Z,7.8nm,0.8s
**LSA Lhasa 40.18 88** *eP* **P 22 22 41.9 +0.3**
comp=Z,7.8nm,0.8s
**SPA0 Spitsbergen Ar 41.38 352** *eP* **P 22 22 52.3 +2.0**
**SPA0 Spitsbergen Ar 41.38 352** *eP* **P 22 22 52.3 +2.0**
**KBS Kingsbay 42.50 351** *eP* **P 22 23 00.9 +1.4**
KBS pmax pmax
comp=Z,51nm,1.0s
**KBS Kingsbay 42.50 351** *eP* **P 22 23 00.9 +1.4**
comp=Z,51nm,1.0s
**KBS Kingsbay 42.50 351** *eP* **P 22 23 00.9 +1.4**
comp=Z,51nm,1.0s
**GTA Gaotai 43.33 70** *eP* **P 22 23 08.4 +1.6**
GTA pP sP 22 23 12.8 +1.6
GTA sP pP 22 23 15.6 +5.7
**TOA0 Torodi Ar. Sit 44.64 247** *eP* **P 22 23 15.4 -2.0**
**TOA0 Torodi Ar. Sit 44.64 247** *eP* **P 22 23 15.4 -2.0**
**TORD Torodi Ar. Bea 44.64 247** P **P 22 23 15.1 -2.4**
comp=Z,2.3nm,0.8s,baz=64,slow=6.8,SNR=16
TORD LR LR 22 44 26.2
comp=Z,94nm,18.1s,baz=270,slow=40
**SONM Songino Array 45.79 57** P **P 22 23 24.7 -1.7**
comp=Z,0.5nm,0.9s,baz=261,slow=8.3,SNR=3.0
SONM LR LR 22 44 52.8
comp=Z,313nm,18.2s,baz=266,slow=39
**ULN Ulaanbaatar 46.22 57** *ceP* **P 22 23 31.1 +1.3**
ULN pmax pmax
comp=Z,5.0nm,1.2s
**ULN Ulaanbaatar 46.22 57** *eP* **P 22 23 30.5 +0.7**
comp=Z,6.0nm,0.9s
**ULN Ulaanbaatar 46.22 57** *eP* **P 22 23 30.5 +0.7**
comp=Z,6.0nm,0.9s
**DAG Danmarks Havn 46.56 344** *i* P **P 22 23 30.5 -1.4**
DAG pmax pmax
comp=Z,7.0nm,1.1s
**DAG Danmarks Havn 46.56 344** *i* P **P 22 23 30.5 -1.4**
comp=Z,7.0nm,1.1s
**LZH Lanzhou 47.45 73** *eP* **P 22 23 39.8 +0.2**
LZH pP sP 22 23 44.6 +0.6
LZH sP pP 22 23 47.3 +4.5
LZH PP **PP 22 25 28.1 -2.7**
LZH pmax pmax
comp=Z,12nm,1.0s
LZH pmax pmax
comp=Z,170nm,7.0s
LZH LR LR
comp=Z,360nm,13.8s
LZH LR LR
comp=Z,340nm,15.2s
LZH LR LR
comp=Z,310nm,15.8s
**KOWA Kowa 47.99 253** *eP* **P 22 23 42.9 -0.9**
comp=Z,8.6nm,0.7s
**KOWA Kowa 47.99 253** *eP* **P 22 23 42.9 -0.9**
comp=Z,8.6nm,0.7s
**BOD Bodaibo 48.53 42** *eP* **P 22 23 44.9 -2.5**
BOD pmax pmax
comp=Z,8.0nm,1.2s
**HHC Hu-ho-hao-te 51.36 64** *eP* **P 22 24 09.1 -0.3**
HHC PP **PP 22 26 06.7 +0.5**
HHC S **S 22 31 25.6 -3.2**
HHC ScS **ScS 22 33 56.1 -3.9**
HHC SS **SS 22 34 58.8 -5.3**
HHC pmax pmax
comp=Z,8.0nm,1.0s
HHC pmax pmax
comp=Z,68nm,5.0s
HHC LR LR
comp=Z,200nm,16.9s
HHC LR LR
comp=Z,180nm,16.3s
**SUMG Summit 51.36 338** *i* P **P 22 24 08.6 -0.7**
SUMG pmax pmax
comp=Z,8.0nm,1.0s
**SUMG Summit 51.36 338** *i* P **P 22 24 08.6 -0.7**
comp=Z,8.0nm,1.0s
**SUMG Summit 51.36 338** *i* P **P 22 24 08.6 -0.7**
comp=Z,8.0nm,1.0s
**KMI Kunming 51.41 87** P **P 22 24 11.6 +1.5**
KMI pP sP 22 24 15.5 +1.0
KMI sP pP 22 24 17.9 +4.6
KMI pmax pmax
comp=Z,5.0nm,0.9s
**CHTO Chiang Mai 51.79 96** *eP* **P 22 24 12.9 +0.2**
CHTO pmax pmax
comp=Z,3.0nm,0.7s
**CHTO Chiang Mai 51.79 96** *eP* **P 22 24 12.9 +0.2**
comp=Z,3.3nm,0.7s
**CHTO Chiang Mai 51.79 96** *eP* **P 22 24 12.9 +0.2**
comp=Z,3.3nm,0.7s
**CM31 Chiang Mai Arr 51.99 96** *eP* **P 22 24 14.7 +0.5**
**CM31 Chiang Mai Arr 51.99 96** *eP* **P 22 24 14.7 +0.5**
**CMAR Chiang Mai Arr 51.99 96** P **P 22 24 14.2 0.0**
comp=Z,2.0nm,0.6s,baz=299,slow=8.5,SNR=15
CMAR LR LR 22 50 14.9
comp=Z,74nm,20.3s,baz=294,slow=41
**CM01 Chiang Mai Arr 52.02 96** *eP* **P 22 24 14.3 -0.1**
**CM01 Chiang Mai Arr 52.02 96** *eP* **P 22 24 14.3 -0.1**
**TIXI Tiksi 52.64 23** *eP* **P 22 24 20.0 +1.7**
TIXI pmax pmax
comp=Z,4.0nm,0.9s
**TIXI Tiksi 52.64 23** *eP* **P 22 24 20.0 +1.7**
comp=Z,4.1nm,0.9s
**TIXI Tiksi 52.64 23** *eP* **P 22 24 20.0 +1.7**
comp=Z,4.1nm,0.9s
**CMLA Cha da Macela 52.98 292** *eP* **P 22 24 22.6 +1.3**
**CMLA Cha da Macela 52.98 292** *eP* **P 22 24 22.6 +1.3**
comp=Z,199nm,1.8s
**CMLA Cha da Macela 52.98 292** *eP* **P 22 24 22.6 +1.3**
comp=Z,199nm,1.8s
**DBIC Dimbokro 53.74 247** P **P 22 24 25.0 -2.1**
comp=Z,4.4nm,0.7s,baz=37,slow=1.4,SNR=4.7
DBIC LR LR 22 50 45.2
comp=Z,57nm,18.8s,baz=38,slow=40
**DBIC Dimbokro 53.74 247** *eP* **P 22 24 27.4 +0.3**
comp=Z,25nm,1.5s
**DBIC Dimbokro 53.74 247** *eP* **P 22 24 27.4 +0.3**
comp=Z,25nm,1.5s
**KIC Kosan Boka 53.87 246** *ePKIKP* **P 22 24 26.1 -2.0**
comp=Z,21nm,0.8s
**TIC Toumodi 53.88 247** *ePKIKP* **P 22 24 26.1 -2.1**
**LIC Lamto 54.17 246** *ePKIKP* **P 22 24 26.7 -3.6**
comp=Z,49nm,1.1s
**BJI Beijing 54.92 64** P **P 22 24 36.1 +0.6**
BJI pmax pmax
comp=Z,5.0nm,0.7s
**LSZ Lusaka 55.30 198** P **P 22 24 39.0 +0.6**
comp=Z,4.0nm,0.6s,baz=21,slow=7.6,SNR=16
**LSZ Lusaka 55.30 198** *eP* **P 22 24 39.8 +1.3**
LSZ pmax pmax
comp=Z,13nm,1.1s
**LSZ Lusaka 55.30 198** *eP* **P 22 24 39.8 +1.3**
comp=Z,12nm,1.1s
**LSZ Lusaka 55.30 198** *eP* **P 22 24 39.8 +1.3**
comp=Z,12nm,1.1s
**NJ2 Nanjing 60.41 71** *eP* **P 22 25 15.2 +1.0**
NJ2 pmax pmax
comp=Z,10.0nm,0.5s
**KSAR Wonju Array Be 64.26 62** P **P 22 25 40.2 +0.3**
**KSAR Wonju Array Be 64.26 62** P **P 22 25 40.2 +0.3**
**KSAR Wonju Array Be 64.26 62** P **P 22 25 40.1 +0.3**
**KSRS Korea Array 64.28 62** P **P 22 25 40.1 +0.1**
comp=Z,5.2nm,0.7s,baz=285,slow=7.1,SNR=13
KSRS LR LR 22 57 13.2
comp=Z,71nm,18.2s,baz=304,slow=39
**MA2 Magadan 65.58 32** LR LR 22 59 04.4
comp=Z,199nm,18.4s,baz=300,slow=40
**BOSA Boshof 68.83 197** P **P 22 26 09.2 +0.1**
comp=Z,6.4nm,0.6s,baz=2.1,slow=5.4,SNR=11
BOSA LR LR 22 56 32.0
comp=Z,178nm,18.2s,baz=11,slow=36
**SCHQ Schefferville 69.60 325** LR LR 22 57 10.9
comp=Z,30nm,19.0s,baz=342,slow=36
**MJAR Matsushiro Arr 71.74 58** P P 22 26 32.4 +5.4
comp=Z,1.0nm,0.3s,baz=340,slow=3.2,SNR=3.8
MJAR LR LR 23 00 46.3
comp=Z,178nm,19.0s,baz=45,slow=38
**PETK Petropavlovsk- 72.61 35** LR LR 23 02 17.5
comp=Z,156nm,19.3s,baz=304,slow=39
**IMAR Indian Mountai 75.05 7** *eP* **P 22 26 45.8 -0.2**
**IMAR Indian Mountai 75.05 7** *eP* **P 22 26 45.8 -0.2**
**COLA College 76.63 5** *eP* **P 22 26 54.8 -0.2**
COLA pmax pmax
comp=Z,6.0nm,0.9s
**COLA College 76.63 5** *eP* **P 22 26 54.8 -0.2**
comp=Z,5.8nm,0.9s
**COLA College 76.63 5** *eP* **P 22 26 54.8 -0.2**
comp=Z,5.8nm,0.9s
**ILAR Eielson Array 76.80 4** P **P 22 26 55.3 -0.6**
comp=Z,0.7nm,0.8s,baz=320,slow=3.2,SNR=6.7
ILAR LR LR 23 05 56.9
comp=Z,57nm,18.1s,baz=313,slow=40
**YKA Yellowknife Ar 77.83 350** P **P 22 27 00.9 -0.8**
comp=Z,0.7nm,0.6s,baz=8.5,slow=5.1,SNR=8.6
YKA LR LR 23 01 59.6
comp=Z,6.3nm,18.8s,baz=0.0,slow=36
**YKA Yellowknife Ar 77.83 350** P **P 22 27 01.0 -0.8**
**YKA Yellowknife Ar 77.83 350** P **P 22 27 01.0 -0.8**
**KDAK Kodiak Island 83.19 9** *i* P **P 22 27 31.1 +0.5**
**KDAK Kodiak Island 83.19 9** *i* P **P 22 27 31.1 +0.5**
**ULM Lac du Bonnet 84.65 335** P **P 22 27 37.5 -0.7**
comp=Z,4.7nm,1.0s,baz=45,slow=2.9,SNR=2.9
ULM LR LR 23 05 46.4
comp=Z,54nm,18.1s,baz=10.0,slow=36
**PDAR Pinedale Array 95.49 340** P **P 22 28 28.5 -1.3**
comp=Z,0.1nm,0.4s,baz=76,slow=3.8,SNR=3.5
PDAR LR LR 23 13 39.9
comp=Z,65nm,18.9s,baz=46,slow=37

*NIED* ***04*** *22:18:00,28˙.60N×128˙.60E,h125km,Mw4.1 Best double couple: M0 1.40000×10^15 NP1:ϕ=254.00000°, δ=30.00000°,λ=135.00000°. NP2:ϕ=25.00000°,δ=69.00000°, λ=68.00000°.*

*ISCJB* ***04*** *22:18:37.5±0.2,28˙.61N±0˙.04×128˙.69E±0˙.07, h142km±3km,mb3.9/23,Error ellipse: s-maj=11.3km s-min=3.6km az=30.6*

*JMA* ***04*** *22:18:39.0±0.2,28˙.64N×128˙.59E,h130km±3km,M3.8*

*IDC* ***04*** *22:18:39.0±2.3,28˙.65N×128˙.56E,h144km±20km, mb3.7/19,mb1 3.8/21,mb1mx3.7/45,mbtmp4.1/21,Error ellipse: s-maj=17.9km s-min=14.1km az=57.0*

**ISC 04 22:18:38.4±0.6, 28˙.60N±0˙.05×128˙.68E±0˙.07, h139km±6km, n58, σ0°92/78, mb4.0/25, 6C, Ryukyu Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | | h m s | ISC |
| **JAMN** | **Amaminishikomi** | **0.57** | **129** | P | | **Pn 22 18 59.1** | **+0.2** |
| JAMN | | | | *eS* | | **Sn 22 19 13.9** | **-0.5** |
| **JTAJ** | **Takarajima** | **0.72** | **40** | P | | **Pn 22 19 00.1** | **+0.3** |
| JTAJ | | | | *eS* | | **Sn 22 19 15.7** | **-0.5** |
| **JAM** | **Amami Oshima** | **0.84** | **103** | P | | **Pn 22 19 01.0** | **+0.2** |
| JAM | | | | *eS* | | **Sn 22 19 17.0** | **-0.7** |
| **JTK** | **Tokunoshima** | **0.85** | **163** | P | | **Pn 22 19 01.5** | **+0.6** |
| JTK | | | | *eS* | | **Sn 22 19 17.9** | **-0.1** |
| **JZK** | **Kikaishima** | **1.18** | **104** | P | | **Pn 22 19 05.3** | **+1.5** |
| JZK | | | | *eS* | | **Sn 22 19 25.2** | **+2.1** |
| **JOKE** | **Okinoerabujima** | **1.24** | **184** | P | | **Pn 22 19 04.9** | **+0.4** |
| JOKE | | | | *eS* | | **Sn 22 19 23.9** | **-0.4** |
| **JNN** | **Nakanoshima** | **1.62** | **40** | P | | **Pn 22 19 08.3** | **+0.2** |
| JNN | | | | *eS* | | **Sn 22 19 32.4** | **+0.9** |
| **JIH** | **Iheya** | **1.69** | **202** | P | | **Pn 22 19 09.9** | **+0.7** |
| JIH | | | | *eS* | | **Sn 22 19 32.3** | **-0.5** |
| **JOW** | **Kunigami** | **1.80** | **192** | P | | **Pn 22 19 10.8** | **+0.2** |
| JOW | | | | *eS* | | **Sn 22 19 34.6** | **-0.6** |
| **JNTH** | **Nagotoyohara** | **2.16** | **196** | P | | **Pn 22 19 14.9** | **+0.1** |
| JNTH | | | | *eS* | | **Sn 22 19 41.2** | **-1.5** |
| **JKC** | **Kuchinoerabu** | **2.28** | **35** | P | | **Pn 22 19 16.5** | **+0.3** |
| JKC | | | | *eS* | | **Sn 22 19 44.8** | **-0.5** |
| **JYAK** | **Yakushimahirau** | **2.28** | **44** | P | | **Pn 22 19 15.6** | **-0.7** |
| JYAK | | | | *eS* | | **Sn 22 19 44.2** | **-1.2** |
| **JAGN** | **Aguni-jima** | **2.38** | **213** | P | | **Pn 22 19 18.3** | **+0.8** |
| JAGN | | | | *eS* | | **Sn 22 19 48.2** | **+0.7** |
| **JJT2** | **Tamagusuku 2** | **2.59** | **199** | P | | **Pn 22 19 20.9** | **+0.8** |
| JJT2 | | | | *eS* | | **Sn 22 19 52.1** | **-0.2** |
| **JKE** | **Kume jima 2** | **2.82** | **217** | P | | **Pn 22 19 23.2** | **+0.1** |
| JKE | | | | *eS* | | **Sn 22 19 58.2** | **+0.6** |
| **JTN** | **Tanegashima 3** | **2.86** | **44** | P | | **Pn 22 19 23.0** | **-0.6** |
| JTN | | | | *eS* | | **Sn 22 19 56.9** | **-1.6** |
| **JNU** | **Nakatsue** | **4.88** | **22** | P | | **Pn 22 19 51.9** | **+1.8** |
| | 5.7nm,0.3s,baz=260,slow=4.6,SNR=20 | | | | | | |
| JNU | | | | S | | **Sn 22 20 46.9** | **+0.9** |
| | 1.2nm,0.3s,baz=184,slow=23,SNR=3.4 | | | | | | |
| **KSRS** | **Korea Array** | **8.85** | **356** | P | | **Pn 22 20 44.0** | **+0.9** |
| | 0.2nm,0.3s,baz=178,slow=15,SNR=9.1 | | | | | | |
| **SONM** | **Songino Array** | **25.82** | **324** | P | | **P 22 23 56.5** | **-0.2** |
| | 0.4nm,0.4s,baz=137,slow=11,SNR=5.9 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **29.00** | **256** | PcP | | **PcP 22 27 31.2** | **+0.8** |
| | 0.8nm,0.8s,baz=76,slow=0.9,SNR=5.2 | | | | | | |
| **ODAN** | **Odare** | **36.46** | **277** | *eP* | | **P 22 25 30.2** | **-0.1** |
| | 13nm,0.4s | | | | | | |
| **RAMN** | **Ramite** | **37.13** | **278** | *eP* | | **P 22 25 36.4** | **+0.4** |
| | 3.6nm,0.4s | | | | | | |
| **GUN** | **Gumba** | **37.56** | **279** | *eP* | | **P 22 25 41.2** | **+1.5** |
| | 15nm,0.3s | | | | | | |
| **PKI** | **Pulchoki** | **38.03** | **279** | *eP* | | **P 22 25 44.4** | **+0.7** |
| **PKIN** | **Phulchoki** | **38.04** | **279** | *eP* | | **P 22 25 44.3** | **+0.6** |
| **KKN** | **Kakani** | **38.10** | **279** | *eP* | | **P 22 25 45.2** | **+1.1** |
| | 5.0nm,0.3s | | | | | | |
| **KOLN** | **Koldanda** | **39.56** | **280** | *eP* | | **P 22 25 57.3** | **+1.0** |
| | 3.2nm,0.3s | | | | | | |
| **PYUN** | **Piuthan** | **40.02** | **281** | *eP* | | **P 22 26 01.9** | **+1.8** |
| **MKAR** | **Makanchi Array** | **40.29** | **310** | P | | **P 22 26 00.5** | **-1.3** |
| | 3.2nm,0.6s,baz=91,slow=11,SNR=37 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **40.63** | **321** | P | | **P 22 26 02.7** | **-1.7** |
| | 2.1nm,0.5s,baz=113,slow=9.0,SNR=9.7 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **43.44** | **315** | P | | **P 22 26 25.8** | **-1.5** |
| | 3.1nm,0.5s,baz=101,slow=9.0,SNR=34 | | | | | | |
| KURBB | | | | PcP | | **PcP 22 28 12.9** | **-0.1** |
| | 0.5nm,0.7s,baz=102,slow=3.7,SNR=4.2 | | | | | | |
| **AAK** | **Ala-Archa** | **45.48** | **303** | P | | **P 22 26 42.1** | **-1.8** |
| | 2.8nm,0.5s,baz=102,slow=7.3,SNR=9.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **48.57** | **173** | P | | **P 22 27 07.8** | **0.0** |
| | 0.8nm,0.9s,baz=351,slow=8.2,SNR=4.9 | | | | | | |
| **BVAR** | **Borovoye Array** | **48.80** | **317** | P | | **P 22 27 07.9** | **-1.2** |
| | 2.9nm,0.4s,baz=110,slow=10,SNR=30 | | | | | | |
| BVAR | | | | PcP | | **PcP 22 28 31.7** | **-0.1** |
| | 1.7nm,0.5s,baz=101,slow=3.8,SNR=10 | | | | | | |
| **ASAR** | **Alice Springs** | **52.21** | **174** | P | | **P 22 27 35.4** | **+0.3** |
| | 0.2nm,0.3s,baz=0.0,slow=15,SNR=3.9 | | | | | | |
| ASAR | | | | PcP | | **PcP 22 28 45.0** | **+0.3** |
| | 0.3nm,0.3s,baz=3.7,slow=2.0,SNR=4.1 | | | | | | |
| **GEYT** | **Alibeck** | **58.47** | **299** | P | | **P 22 28 21.0** | **+1.1** |
| | 5.7nm,0.7s,baz=90,slow=8.9,SNR=4.0 | | | | | | |
| **ILAR** | **Eielson Array** | **62.17** | **29** | P | | **P 22 28 44.0** | **-0.6** |
| | 0.9nm,0.6s,baz=277,slow=7.4,SNR=21 | | | | | | |
| **KBZ** | **Khabaz** | **67.98** | **309** | P | | **P 22 29 22.1** | **-0.2** |
| | 1.9nm,0.7s,baz=46,slow=4.5,SNR=6.3 | | | | | | |
| **FINES** | **FINESS Array B** | **71.00** | **330** | P | | **P 22 29 40.5** | **-0.1** |
| | 2.0nm,0.6s,baz=51,slow=4.3,SNR=14 | | | | | | |
| **AKASG** | **Malin Array Be** | **74.00** | **319** | P | | **P 22 29 58.7** | **+0.1** |
| | 0.6nm,0.3s,baz=65,slow=6.2,SNR=2.9 | | | | | | |
| **BRTR** | **Keskin Array B** | **75.90** | **308** | P | | **P 22 30 09.5** | **-0.4** |
| | 0.9nm,0.6s,baz=92,slow=3.9,SNR=5.3 | | | | | | |
| **YKA** | **Yellowknife Ar** | **76.22** | **25** | P | | **P 22 30 11.5** | **+0.5** |
| | 1.5nm,0.6s,baz=302,slow=5.9,SNR=14 | | | | | | |
| **NOA** | **NORSAR Array B** | **77.37** | **334** | P | | **P 22 30 17.0** | **-0.6** |
| | 1.0nm,0.7s,baz=52,slow=5.4,SNR=2.9 | | | | | | |
| **VRI** | **Vrincioaia** | **77.67** | **316** | *i*P | | **P 22 30 20.4** | **+0.8** |
| **BURAR** | **Bucovina Array** | **77.75** | **318** | *i*P | | **P 22 30 20.6** | **+0.6** |
| **DOPR** | **Dopca** | **78.44** | **316** | *i*P | | **P 22 30 25.0** | **+1.2** |
| **ARR** | **Arges** | **79.20** | **316** | *i*P | | **P 22 30 29.5** | **+1.5** |
| **LOT** | **Lotru** | **79.69** | **316** | *i*P | | **P 22 30 31.7** | **+1.0** |
| **VTS** | **Vitosha** | **81.49** | **314** | *i*P | | **P 22 30 38.4** | **-2.0** |
| **CONA** | **Conrad Observa** | **82.93** | **321** | *i* P | | **P 22 30 48.5** | **+0.7** |
| | 1.1nm,0.6s | | | | | | |
| **GERES** | **GERESS Array B** | **83.55** | **323** | P | | **P 22 30 51.3** | **+0.4** |
| | 1.2nm,0.7s,baz=48,slow=4.2,SNR=5.8 | | | | | | |
| **MOA** | **Molln** | **83.84** | **322** | *i* PcP | | **P 22 30 53.5** | **+1.2** |
| | 0.6nm,0.4s | | | | | | |
| **KBA** | **Koelnbreinsper** | **84.81** | **322** | *i* PcP | | **P 22 30 57.6** | **+0.3** |
| | 1.6nm,0.6s | | | | | | |
| **ABTA** | **Abfaltersbach** | **85.46** | **322** | *i* P | | **P 22 31 00.2** | **-0.3** |
| | 1.5nm,0.5s | | | | | | |
| **MOTA** | **Moosalm** | **85.85** | **323** | *i* P | | **P 22 31 02.0** | **-0.5** |
| | 2.0nm,0.6s | | | | | | |
| **DAVA** | **Damuels** | **86.53** | **323** | *i* P | | **P 22 31 04.9** | **-1.0** |
| | 1.8nm,0.5s | | | | | | |
| **DAVOX** | **Davos/Dischmat** | **86.85** | **323** | P | | **P 22 31 07.4** | **-0.2** |
| | 2.1nm,0.5s,baz=59,slow=5.9,SNR=3.4 | | | | | | |
| **PDAR** | **Pinedale Array** | **91.07** | **39** | P | | **P 22 31 27.4** | **-0.1** |
| | 0.4nm,0.7s,baz=101,slow=0.9,SNR=3.4 | | | | | | |

**DDA 04 22:20:57.0, 38˙.19N×32˙.00E, h7km, MI1.8, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DOGA | KONYA_Doganhis | 0.28 | 253 | *i* P | Pg | 22 21 02.6 | 0.0 |
| DOGA | | | | *i* S | Sg | 22 21 07.3 | +1.1 |
| KDHN | Kadinhani | 0.35 | 15 | *i* P | Pg | 22 21 04.3 | +0.4 |
| KDHN | | | | *i* S | Sg | 22 21 09.3 | +0.9 |
| KONT | Konya--Tatoy | 0.37 | 130 | *i* P | Pg | 22 21 04.8 | +0.5 |
| KONT | | | | *i* S | Sg | 22 21 10.1 | +1.0 |

*CSEM **04** 22:22:30.5±0.2, 38°.49N×43°.38E, h8km, ML3.4, Error ellipse: s-maj=4.5km s-min=3.6km az=98.0*
*ISK **04** 22:22:30.3, 38°.50N×43°.31E, h5km, ML3.0*
**DDA 04 22:22:30.4, 38°.49N×43°.36E, h14km, Ml3.4, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TVAN | Van | 0.06 | 46 | *i* P | Pg | 22 22 33.0 | -0.4 |
| TVAN | | | | *i* S | Sg | 22 22 35.1 | -0.3 |
| TVAN | Van | 0.06 | 46 | P | Pg | 22 22 33.0 | -0.4 |
| TVAN | | | | S | Sg | 22 22 35.1 | -0.3 |
| VANB | Van | 0.11 | 14 | *e*PG | Pg | 22 22 32.9 | -0.9 |
| VANB | Van | 0.11 | 14 | *e*Pg | Pg | 22 22 32.9 | -0.9 |
| GEVA | Gevas | 0.29 | 233 | *i* P | Pg | 22 22 36.1 | -0.5 |
| GEVA | | | | *i* S | Sb | 22 22 41.7 | -0.7 |
| GEVA | Gevas | 0.29 | 233 | P | Pg | 22 22 36.1 | -0.5 |
| GEVA | | | | S | Sb | 22 22 41.7 | -0.7 |
| VMUR | Van-Muradiye | 0.53 | 19 | *i* P | Pb | 22 22 41.5 | -0.1 |
| VMUR | Van-Muradiye | 0.53 | 19 | P | Pb | 22 22 41.5 | -0.1 |
| ERCV | ERCIS-VAN | 0.53 | 359 | *e*PG | Pg | 22 22 40.7 | -0.2 |
| ERCV | | | | *e*SG | Sb | 22 22 48.9 | -0.4 |
| ERCV | ERCIS-VAN | 0.53 | 359 | *e*Pg | Pg | 22 22 40.7 | -0.2 |
| ERCV | | | | *e*Sg | Sb | 22 22 48.9 | -0.3 |
| ADCV | BITLIS_Adilcev | 0.59 | 303 | *i* P | Pg | 22 22 41.9 | -0.1 |
| ADCV | | | | *i* S | Sb | 22 22 51.2 | +0.3 |
| ADCV | BITLIS_Adilcev | 0.59 | 303 | P | Pg | 22 22 41.9 | -0.1 |
| ADCV | | | | S | Sb | 22 22 51.2 | +0.3 |
| BASK | Baskale_VAN | 0.67 | 130 | *i* P | Pg | 22 22 43.8 | +0.2 |
| BASK | Baskale_VAN | 0.67 | 130 | P | Pg | 22 22 43.8 | +0.2 |
| CLDR | Caldiran | 0.79 | 34 | *e*PG | Pb | 22 22 46.2 | +0.1 |
| CLDR | | | | *e*SG | Sn | 22 22 58.0 | -1.1 |
| CLDR | Caldiran | 0.79 | 34 | *i* P | Pb | 22 22 46.1 | +0.1 |
| CLDR | Caldiran | 0.79 | 34 | P | Pb | 22 22 46.1 | +0.1 |
| CLDR | | | | *e*Sg | Sn | 22 22 58.0 | -1.0 |
| HAKT | HAKKARI | 0.97 | 163 | *i* P | Pb | 22 22 48.6 | -0.6 |
| HAKT | HAKKARI | 0.97 | 163 | P | Pb | 22 22 48.6 | -0.6 |
| TUTA | Tutak | 1.00 | 335 | *i* P | Pb | 22 22 48.9 | -0.8 |
| TUTA | Tutak | 1.00 | 335 | P | Pb | 22 22 48.9 | -0.9 |
| DYDN | Diyadin | 1.08 | 14 | *i* P | Pb | 22 22 51.1 | -0.1 |
| DYDN | Diyadin | 1.08 | 14 | P | Pb | 22 22 51.1 | 0.0 |
| AGRB | Hanur-Agry | 1.12 | 345 | *e*PN | Pb | 22 22 50.7 | -1.0 |
| AGRB | Hanur-Agry | 1.12 | 345 | *e*Pn | Pb | 22 22 50.7 | -1.0 |
| YOVA | Hakkari_Yˆ…kse | 1.17 | 140 | *i* P | Pb | 22 22 52.3 | -0.1 |
| YOVA | Hakkari_Yˆ…kse | 1.17 | 140 | P | Pb | 22 22 52.3 | -0.2 |
| SIRT | Sirnak | 1.22 | 217 | *e*PN | Pg | 22 22 53.8 | -0.2 |
| SIRT | Sirnak | 1.22 | 217 | *e*Pn | Pg | 22 22 53.8 | -0.2 |
| SRTM | Siirt_Merkez | 1.23 | 247 | *i* P | Pg | 22 22 54.5 | +0.3 |
| SRTM | Siirt_Merkez | 1.23 | 247 | P | Pg | 22 22 54.5 | +0.3 |
| CUKT | Cukurca | 1.26 | 171 | *e*PN | Pg | 22 22 54.8 | +0.1 |
| CUKT | Cukurca | 1.26 | 171 | *i* P | Pg | 22 22 54.7 | +0.1 |
| CUKT | Cukurca | 1.26 | 171 | *e*Pn | Pg | 22 22 54.8 | +0.2 |
| EKAR | Karacoban | 1.27 | 308 | *i* P | Pg | 22 22 55.4 | +0.5 |
| EKAR | Karacoban | 1.27 | 308 | P | Pg | 22 22 55.4 | +0.6 |
| EATA | Eleskirt | 1.53 | 334 | *i* P | Pb | 22 22 58.5 | -0.2 |
| EATA | Eleskirt | 1.53 | 334 | P | Pb | 22 22 58.5 | -0.2 |
| VRTB | Varto-Mus | 1.63 | 295 | *e*PN | Pn | 22 22 59.4 | +0.6 |
| VRTB | Varto-Mus | 1.63 | 295 | *e*Pn | Pn | 22 22 59.4 | +0.6 |
| TASB | TASBURUN-IGDIR | 1.64 | 24 | *e*PN | Pb | 22 23 00.8 | +0.3 |
| TASB | TASBURUN-IGDIR | 1.64 | 24 | *e*Pn | Pb | 22 23 00.8 | +0.3 |
| BTMN | Batman | 1.75 | 251 | *i* P | Pb | 22 23 02.5 | +0.2 |
| BTMN | Batman | 1.75 | 251 | P | Pb | 22 23 02.5 | +0.1 |
| BNGL | BINGOL | 1.79 | 286 | *i* P | Pb | 22 23 03.3 | +0.2 |
| HOMI | Horasan | 1.92 | 325 | *i* P | Pb | 22 23 05.7 | +0.3 |
| KARS | Kars | 2.15 | 354 | *e*PN | Pn | 22 23 07.4 | +1.4 |
| KARS | Kars | 2.15 | 354 | *e*Pn | Pn | 22 23 07.4 | +1.4 |
| BNGB | Bingˆ¶l | 2.15 | 284 | *e*PN | Pb | 22 23 08.0 | -1.2 |
| SENK | Senkaya-Erzuru | 2.21 | 340 | *e*PN | Pn | 22 23 08.5 | +1.6 |
| SENK | Senkaya-Erzuru | 2.21 | 340 | *e*Pn | Pn | 22 23 08.5 | +1.6 |
| BINT | Bingol | 2.28 | 281 | *e*Pn | Pn | 22 23 08.0 | +0.3 |
| YEDI | Yedisu-Bingol | 2.39 | 294 | *e*PN | Pn | 22 23 11.0 | +1.7 |
| YEDI | Yedisu-Bingol | 2.39 | 294 | *e*Pn | Pn | 22 23 11.0 | +1.7 |
| MAZI | Mazidag | 2.52 | 247 | *e*PN | Pn | 22 23 13.2 | +2.2 |
| MAZI | Mazidag | 2.52 | 247 | *e*Pn | Pn | 22 23 13.2 | +2.1 |
| DIY | Diyarbakir | 2.54 | 257 | *e*Pn | Pb | 22 23 13.7 | -2.1 |
| DYBB | Diyarbakir | 2.59 | 259 | *e*PN | Pn | 22 23 13.7 | +1.7 |
| PTK | Pertek | 3.13 | 279 | *e*PN | Pn | 22 23 21.4 | +1.9 |
| PTK | Pertek | 3.13 | 279 | *e*Pn | Pn | 22 23 21.4 | +1.9 |
| SVRC | Sivrice-ELAZID | 3.18 | 269 | *e*PN | Pn | 22 23 21.9 | +1.7 |
| SVRC | Sivrice-ELAZID | 3.18 | 269 | *e*Pn | Pn | 22 23 21.9 | +1.7 |

*ISCJB **04** 22:49:21.3±0.5, 34°.73N±0°.05×139°.31E±0°.08, h146km±3km, mb3.5/7, Error ellipse: s-maj=10.8km s-min=6.9km az=161.0*
*JMA **04** 22:49:22.4±0.2, 34°.73N×139°.33E, h140km±2km, M3.1*
*IDC **04** 22:49:22.2±0.6, 34°.71N×139°.17E, h138km±5km, mb3.3/7, mb1 3.5/7, mb1mx3.2/33, mbtmp3.7/7, Error ellipse: s-maj=32.3km s-min=6.4km az=70.0*
**ISC 04 22:49:22.4**±0.8**, 34°.74N**±0°.05×**139°.30E**±0°.06**, h142**km±6km**, n20,** σ**0s.61**/29**, mb3.7**/7**, Near south coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JIM2 | Oshima 3 | 0.11 | 102 | P | Pn | 22 49 41.2 | -0.3 |
| JIM2 | | | | *e*S | Sn | 22 49 56.0 | 0.0 |
| JIZS | Izushimoda | 0.35 | 266 | P | Pn | 22 49 42.1 | 0.0 |
| JIZS | | | | *e*S | Sn | 22 49 57.1 | +0.1 |
| JOD2 | Odawara 2 | 0.55 | 342 | P | Pn | 22 49 42.9 | -0.2 |
| JOD2 | | | | S | Sn | 22 49 58.1 | -0.8 |
| TATJ | Tateyama 2 | 0.56 | 59 | P | Pn | 22 49 43.4 | +0.3 |
| TATJ | | | | S | Sn | 22 49 59.4 | +0.5 |
| SHZ3 | Shizuoka 3 | 0.95 | 290 | P | Pn | 22 49 46.0 | 0.0 |
| JYN | Shimob | 0.98 | 321 | P | Pn | 22 49 46.5 | +0.3 |
| BSO3 | Boso 3 | 1.00 | 86 | P | Pn | 22 49 46.4 | +0.4 |
| JRY | Ryogami san | 1.31 | 346 | P | Pn | 22 49 50.1 | +0.7 |
| JRY | | | | S | Sn | 22 50 10.5 | +0.4 |
| BSO1 | Boso 1 | 1.38 | 93 | P | Pn | 22 49 49.5 | 0.0 |
| TK02 | Tokai 2 | 1.50 | 239 | P | Pn | 22 49 51.7 | +0.6 |
| TK02 | | | | S | Sn | 22 50 13.8 | +0.8 |
| JHJ | Hachijo jima 2 | 1.67 | 166 | P | Pn | 22 49 53.5 | +0.3 |
| | 43nm,0.3s,baz=135,slow=24,SNR=7.5 | | | | | | |
| JHJ | | | | S | Sn | 22 50 16.4 | -0.3 |
| | 26nm,0.3s,baz=66,slow=20,SNR=4.7 | | | | | | |
| MJAR | Matsushiro Arr | 2.01 | 334 | P | Pn | 22 49 57.2 | +0.1 |
| | 4.1nm,0.3s,baz=162,slow=11,SNR=35 | | | | | | |
| MJAR | | | | S | Sn | 22 50 22.5 | -1.3 |
| | 2.1nm,0.3s,baz=168,slow=19,SNR=8.3 | | | | | | |
| MAT | Matsushiro | 2.01 | 334 | P | Pn | 22 49 57.3 | +0.2 |
| MAT | | | | *e*S | Sn | 22 50 24.4 | +0.6 |
| ZALV | Zalesovo Beam | 42.24 | 314 | P | P | 22 57 01.5 | +0.3 |
| | 0.7nm,0.4s,baz=93,slow=7.9,SNR=4.0 | | | | | | |
| MKAR | Makanchi Array | 43.92 | 304 | P | P | 22 57 13.8 | -1.2 |
| | 0.4nm,0.5s,baz=85,slow=9.6,SNR=6.0 | | | | | | |
| ILAR | Eielson Array | 52.34 | 31 | P | P | 22 58 19.5 | +0.2 |
| | 0.2nm,0.9s,baz=280,slow=5.0,SNR=3.2 | | | | | | |
| WRA | Warramunga Arr | 54.58 | 186 | P | P | 22 58 35.3 | -0.8 |
| | 0.4nm,0.4s,baz=2.3,slow=7.6,SNR=4.7 | | | | | | |
| FINES | FINESS Array B | 70.03 | 332 | P | P | 23 00 18.4 | 0.0 |
| | 2.2nm,0.8s,baz=61,slow=6.5,SNR=5.7 | | | | | | |
| AKASG | Malin Array Be | 75.05 | 322 | P | P | 23 00 48.2 | -0.1 |
| | 0.4nm,0.3s,baz=54,slow=6.4,SNR=4.0 | | | | | | |
| NOA | NORSAR Array B | 75.62 | 337 | P | P | 23 00 52.8 | +1.4 |
| | 1.3nm,0.9s,baz=61,slow=5.7,SNR=2.3 | | | | | | |

*ISCJB **04** 22:49:26.6±1.3, 34°.23S±0°.03×73°.51W±0°.03, h25km±9km, mb4.7/42, MS3.3/3, Error ellipse: s-maj=4.7km s-min=4.6km az=173.0*
*NEIC **04** 22:49:27.0±0.0, 34°.26S×73°.47W, h26km, mb4.7/34, ML4.3(GUC), After GUC.*
*GUC **04** 22:49:27.9±0.5, 34°.24S×73°.45W, h32km±2km, ML4.1*
*IDC **04** 22:49:30.0±4.3, 34°.16S×73°.65W, h38km±37km, mb4.0/9, mb1 4.2/11, mb1mx3.9/30, mbtmp4.2/11, ML4.4/2, MS3.3/4, Ms1 3.3/4, ms1mx2.9/23, Error ellipse: s-maj=32.4km s-min=17.1km az=83.0*
**ISC 04 22:49:29.9**±1.2**, 34°.23S**±0°.04×**73°.46W**±0°.07**, h40**km±10km**, n103,** σ**1s.67**/119**, mb4.6**/42**, MS3.4**/3**, 1C-5D, Off coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CHPI | Pichilemu | 1.21 | 98 | *e*P | Pn | 22 49 48.2 | -2.2 |
| CHPI | | | | *e*S | Sn | 22 50 03.8 | -1.8 |
| GO05 | HualaæØ | 1.48 | 122 | *e*Pn | Pn | 22 49 52.9 | -1.3 |
| GO05 | HualaæØ | 1.48 | 122 | *e*P | Pn | 22 49 52.8 | -1.3 |
| GO05 | | | | *e*S | Sn | 22 50 11.2 | -1.1 |
| GO05 | HualaæØ | 1.48 | 122 | *e*P | Pn | 22 49 52.5 | -1.6 |
| GO05 | | | | *e*S | Sn | 22 50 11.1 | -1.2 |
| GO05 | | | | IAML | | 22 50 12.3 | |
| | comp=N,8µm,0.2s | | | | | | |
| NICH | Los Niches | 1.99 | 113 | *e*P | Pn | 22 50 00.6 | -0.5 |
| NICH | | | | *e*S | Sn | 22 50 25.4 | +0.6 |
| ROC1 | El Roble | 2.39 | 59 | *e*Pn | Pn | 22 50 05.5 | -1.3 |
| ROC1 | El Roble | 2.39 | 59 | *e*P | Pn | 22 50 05.0 | -1.8 |
| ROC1 | | | | *e*S | Sn | 22 50 33.4 | -1.6 |
| ROCH | El Roble | 2.39 | 59 | *e*P | Pn | 22 50 04.9 | -1.9 |
| ROCH | | | | *e*S | Sn | 22 50 33.6 | -1.5 |
| ROCH | | | | IAML | | 22 50 39.6 | |
| | comp=N,696nm,0.5s | | | | | | |
| ANTU | Antumapu | 2.44 | 75 | *i* S | Sn | 22 50 35.5 | -0.4 |
| ANTU | | | | IAML | | 22 50 36.8 | |
| | comp=N,1µm,0.4s | | | | | | |
| PEL | Peldehue | 2.55 | 66 | *e*Pn | Pn | 22 50 07.9 | -0.9 |
| PEL | Peldehue | 2.55 | 66 | *e*P | Pn | 22 50 07.8 | -0.9 |
| PEL | | | | *i* S | Sn | 22 50 38.9 | +0.3 |
| PEL | | | | IAML | | 22 50 41.2 | |
| | comp=N,981nm,0.5s | | | | | | |
| CLCH | Cerro Calan | 2.57 | 72⇑ | *i*P | Pn | 22 50 08.5 | -0.6 |
| CLCH | | | | *i* S | Sn | 22 50 38.7 | -0.4 |
| CLCH | | | | IAML | | 22 50 40.9 | |
| | comp=N,557nm,0.5s | | | | | | |
| CCHI | Chillan | 2.62 | 155 | *e*P | Pn | 22 50 08.9 | -0.9 |
| CCHI | | | | ⇓*e*S | Sn | 22 50 39.7 | -0.8 |
| CCHI | Chillan | 2.62 | 155 | *e*P | Pn | 22 50 08.9 | -0.9 |
| CCHI | | | | *e*S | Sn | 22 50 39.6 | -0.8 |
| CCHI | | | | IAML | | 22 50 40.7 | |
| | comp=N,1µm,0.2s | | | | | | |
| LMEL | Las Melosas | 2.73 | 83 | *e*P | Pn | 22 50 10.9 | -0.5 |
| LMEL | | | | *i* S | Sn | 22 50 44.1 | +0.9 |
| LMEL | | | | IAML | | 22 50 45.6 | |
| | comp=N,1µm,0.2s | | | | | | |
| FCH | Farellones | 2.79 | 72⇓ | *i*P | Pn | 22 50 11.4 | -0.9 |
| FCH | | | | *i* S | Sn | 22 50 45.0 | +0.1 |
| FCH | | | | IAML | | 22 50 46.0 | |
| | comp=N,876nm,0.2s | | | | | | |
| AUSP | Uspallata | 3.95 | 61 | *e*P | Pn | 22 50 29.2 | +0.9 |
| AUSP | | | | ⇓*e*S | Sn | 22 51 17.9 | +4.3 |
| ARCO | CERRO ARCO | 4.02 | 71 | *e*P | Pn | 22 50 30.9 | +1.7 |
| ARCO | | | | IAML | | 22 51 25.0 | |
| | comp=Z,42nm,0.3s | | | | | | |
| AAGR | Agrelo | 4.02 | 75 | *e*P | Pn | 22 50 31.2 | +2.1 |
| CANA | Caviahue | 4.14 | 153⇓ | *e*P | Pn | 22 50 31.8 | +1.0 |
| ASAL | Salagasta | 4.20 | 68 | *e*P | Pn | 22 50 33.1 | +1.6 |
| RTLS | Leoncito | 4.25 | 56 | *e*P | Pn | 22 50 33.0 | +0.6 |
| RTLS | | | | *e*S | Sn | 22 51 24.4 | +3.4 |
| RTLS | | | | IAML | | 22 51 26.1 | |
| | comp=Z,66nm,0.4s | | | | | | |
| TMU | Temuco | 4.55 | 172 | *e*P | Pn | 22 50 34.8 | -1.5 |
| ACAN | Cantantal | 5.60 | 71⇓ | *e*P | Pn | 22 50 51.0 | +0.3 |
| LCO | Las Campanas | 5.71 | 25 | *e*Pn | Pn | 22 50 49.0 | -3.4 |
| LCO | | | | *e*Sn | Sn | 22 51 52.3 | -4.4 |
| AGUA | GUANDACOL | 6.34 | 43 | *e*P | Pn | 22 51 00.8 | -0.1 |
| PLCA | Paso Flores | 6.89 | 161 | Pn | Pn | 22 51 08.3 | -0.2 |
| | comp=Z,2.8nm,0.3s,baz=350,slow=11,SNR=97 | | | | | | |
| PLCA | | | | Sn | Sn | 22 52 32.2 | +6.6 |
| | baz=202,slow=16,SNR=1.8 | | | | | | |
| PLCA | | | | LR | LR | 22 53 56.0 | |
| | comp=Z,217nm,18.5s,baz=355,slow=38 | | | | | | |
| PLCA | Paso Flores | 6.89 | 161 | *e*Pn | Pn | 22 51 07.3 | -1.2 |
| PLCA | | | | Sn | Sn | 22 52 32.2 | +6.6 |
| APLL | PUNTA DE LOS L | 7.00 | 59 | *e*P | Pn | 22 51 08.2 | -1.7 |
| VCA | Vinchina | 7.07 | 41 | *e*P | Pn | 22 51 10.6 | -0.5 |
| VCA | | | | IAML | | 22 51 28.9 | |
| | comp=Z,29nm,0.4s | | | | | | |
| ACLC | CERRO LA CRUZ | 7.32 | 51 | *e*P | Pn | 22 51 11.8 | -2.6 |
| TRQA | Tornquist | 10.04 | 116 | *e*Pn | Pn | 22 51 49.5 | -2.0 |
| PB10 | IPOC Station P | 10.97 | 14 | *e*Pn | Pn | 22 52 04.7 | +0.3 |
| CHRN | Cochrane | 13.03 | 177 | *e*Pn | Pn | 22 52 30.2 | -2.1 |
| MNMC | Minye Minye | 15.42 | 14 | *e*Pn | Pn | 22 53 04.9 | -0.1 |
| | comp=Z,7.0nm,0.8s | | | | | | |
| CPUP | Villa Florida | 15.99 | 65 | *e*Pn | Pn | 22 53 12.0 | +0.1 |
| LPAZ | La Paz | 18.49 | 16 | P | P | 22 53 44.0 | +0.6 |
| | comp=Z,0.2nm,0.3s,baz=186,slow=6.0,SNR=11 | | | | | | |
| LPAZ | La Paz | 18.49 | 16 | *e*P | Pn | 22 53 44.9 | +1.1 |
| | comp=Z,5.5nm,1.0s | | | | | | |
| USHA | Ushuaia | 20.90 | 172 | P | Pn | 22 54 11.4 | +0.1 |
| | comp=Z,43nm,0.7s,baz=328,slow=8.7,SNR=6.4 | | | | | | |
| SIV | San Ignacio | 21.30 | 35 | P | P | 22 54 13.5 | +0.2 |
| | comp=Z,0.7nm,0.3s,baz=217,slow=6.1,SNR=3.8 | | | | | | |
| NNA | Nana | 22.35 | 351 | LR | LR | 23 00 55.6 | |
| | comp=Z,58nm,22.0s,baz=196,slow=31 | | | | | | |
| NNA | Nana | 22.35 | 351 | *e*P | P | 22 54 24.8 | +0.3 |
| | comp=Z,25nm,1.4s | | | | | | |
| SAML | Samuel | 26.87 | 23 | *e*P | P | 22 55 07.3 | +0.3 |
| | comp=Z,4.7nm,1.4s | | | | | | |
| BDFB | Brasilia | 29.44 | 57 | *e*P | P | 22 55 30.5 | +0.5 |
| | comp=Z,51nm,2.0s | | | | | | |
| RPN | Rapa Nui | 31.54 | 273 | *e*P | P | 22 55 48.2 | -0.2 |
| | comp=Z,107nm,1.3s | | | | | | |
| OTAV | Otavalo | 34.60 | 351 | *e*P | P | 22 56 15.1 | -0.6 |
| | comp=Z,11nm,1.6s | | | | | | |
| PTGA | Pitinga | 35.63 | 24 | *e*P | P | 22 56 24.7 | +0.7 |
| | comp=Z,12nm,1.8s | | | | | | |
| TUMC | Tumaco | 36.20 | 351 | *e*P | P | 22 56 29.1 | +0.2 |
| | comp=Z,228nm,1.0s | | | | | | |
| PRAC | Prado | 37.76 | 358 | *e*P | P | 22 56 42.0 | -0.2 |
| | comp=Z,21nm,1.3s | | | | | | |
| ROSC | El Rosal | 38.86 | 359 | *e*P | P | 22 56 52.7 | +0.9 |
| | comp=Z,3.6nm,0.6s | | | | | | |
| RUSC | La Rusia | 39.90 | 1 | *e*P | P | 22 57 02.0 | +1.3 |
| | comp=Z,5.6nm,0.9s | | | | | | |
| HELC | Santa Helena | 40.24 | 357 | *e*P | P | 22 57 04.7 | +1.3 |
| | comp=Z,18nm,1.0s | | | | | | |
| SDV | Santo Domingo | 42.96 | 4 | P | P | 22 57 25.2 | -0.2 |
| | comp=Z,2.4nm,0.4s,baz=230,slow=11,SNR=4.5 | | | | | | |
| SDV | Santo Domingo | 42.96 | 4 | *e*P | P | 22 57 25.6 | +0.3 |
| | comp=Z,6.9nm,1.1s | | | | | | |
| GRGR | Grenville | 47.45 | 16 | *e*P | P | 22 58 00.6 | -0.1 |
| | comp=Z,58nm,1.0s | | | | | | |
| SVB | Belmont | 48.64 | 16 | *e*P | P | 22 58 09.9 | -0.1 |
| | comp=Z,166nm,1.7s | | | | | | |
| BBGH | Gun Hill | 48.93 | 18 | *e*P | P | 22 58 12.2 | +0.1 |
| | comp=Z,832nm,1.4s | | | | | | |
| TRIS | Tristan da Cun | 49.01 | 112 | *e*P | P | 22 58 13.2 | +0.5 |
| | comp=Z,602nm,1.8s | | | | | | |
| VNA3 | Neumayer Olymp | 49.60 | 158 | P | P | 22 58 18.2 | +1.5 |
| VNA1 | Neumayer--Stat | 49.93 | 157 | P | P | 22 58 20.1 | +0.9 |
| VNA2 | Neumayer--Watz | 50.26 | 157 | P | P | 22 58 23.2 | +1.5 |
| | baz=284,slow=8.6 | | | | | | |
| SNAA | Sanae | 51.82 | 158 | P | P | 22 58 34.8 | +1.3 |
| SNAA | Sanae | 51.82 | 158 | P | P | 22 58 34.8 | +1.3 |
| | comp=Z,4.5nm,0.7s,baz=264,slow=9.1,SNR=45 | | | | | | |
| SNAA | Sanae | 51.82 | 158 | *e*P | P | 22 58 34.4 | +0.8 |
| | comp=Z,6.5nm,0.9s | | | | | | |
| CDVI | St. Croix | 52.35 | 10 | *e*P | P | 22 58 38.4 | +0.6 |
| | comp=Z,56nm,0.6s | | | | | | |
| CELP | Cerrillos | 52.42 | 8 | *e*P | P | 22 58 37.9 | -0.5 |
| SDD | Santo Domingo | 52.50 | 4 | *e*P | P | 22 58 38.0 | -1.0 |
| | comp=Z,116nm,1.3s | | | | | | |
| ANWB | Willy Bob | 52.79 | 14 | *e*P | P | 22 58 42.1 | +1.0 |
| | comp=Z,46nm,0.8s | | | | | | |
| VNDA | Vanda | 63.65 | 192 | *e*P | P | 22 59 55.1 | -1.2 |
| | comp=Z,28nm,1.8s | | | | | | |
| TXAR | Lajitas Array | 69.37 | 332 | P | P | 23 00 32.7 | -0.8 |
| | comp=Z,1.4nm,0.7s,baz=151,slow=8.0,SNR=8.7 | | | | | | |
| TX31 | Lajitas Ar. Si | 69.37 | 332 | *e*P | P | 23 00 34.5 | +0.9 |
| ABTX | Abilene, Hawle | 70.91 | 337 | *e*P | P | 23 00 43.6 | +0.8 |
| | comp=Z,6.5nm,0.8s | | | | | | |
| WVT | Waverly | 71.27 | 348 | *e*P | P | 23 00 45.1 | +0.2 |
| | comp=Z,9.3nm,0.8s | | | | | | |
| X301 | Greenbrier Sit | 71.34 | 344 | *e*P | P | 23 00 45.9 | +0.6 |
| | comp=Z,34nm,1.7s | | | | | | |
| MNTX | Cornudas Mount | 72.14 | 332 | *e*P | P | 23 00 50.1 | -0.2 |
| | comp=Z,4.0nm,1.5s | | | | | | |
| MSTX | Muleshoe | 73.20 | 335 | *e*P | P | 23 00 57.0 | +0.3 |
| | comp=Z,6.0nm,0.8s | | | | | | |
| MAW | Mawson | 73.29 | 164 | LR | LR | 23 31 26.0 | |
| | comp=Z,29nm,21.5s,baz=242,slow=34 | | | | | | |
| TUC | Tucson | 74.92 | 328 | *e*P | P | 23 01 06.5 | -0.2 |
| | comp=Z,8.9nm,1.5s | | | | | | |
| ANMO | Albuquerque | 75.43 | 332 | P | P | 23 01 10.5 | +0.8 |
| | comp=Z,1.7nm,1.0s,baz=324,slow=7.3,SNR=3.8 | | | | | | |
| ANMO | Albuquerque | 75.43 | 332 | *e*P | P | 23 01 11.7 | +2.0 |
| | comp=Z,14nm,2.0s | | | | | | |
| DBIC | Dimbokro | 76.37 | 72 | P | P | 23 01 16.5 | +1.2 |
| | comp=Z,1.5nm,0.5s,baz=212,slow=9.5,SNR=3.8 | | | | | | |
| T25A | Trinidad | 76.63 | 335 | *e*P | P | 23 01 18.2 | +1.7 |
| | comp=Z,11nm,1.0s | | | | | | |
| ECSD | EROS Data Cent | 80.41 | 343 | *e*P | P | 23 01 37.4 | +0.4 |
| | comp=Z,12nm,1.5s | | | | | | |
| CCUT | Cedar City | 80.48 | 329 | *e*P | P | 23 01 40.0 | +2.2 |
| | comp=Z,3.9nm,1.0s | | | | | | |
| PHWY | Pilot Hill | 80.72 | 336 | *e*P | P | 23 01 41.1 | +2.1 |
| | comp=Z,5.8nm,0.8s | | | | | | |
| P18A | Preston Nutter | 80.98 | 332 | *e*P | P | 23 01 42.3 | +1.8 |
| | comp=Z,8.2nm,1.2s | | | | | | |
| BOSA | Boshof | 81.00 | 118 | LR | LR | 23 32 03.5 | |
| | comp=Z,20nm,21.7s,baz=204,slow=32 | | | | | | |
| RWWY | Rawlins | 81.66 | 335 | *e*P | P | 23 01 42.4 | -1.5 |
| | comp=Z,11nm,0.6s | | | | | | |
| KOWA | Kowa | 81.80 | 66 | *e*P | P | 23 01 46.3 | +1.3 |
| | comp=Z,6.7nm,1.1s | | | | | | |
| DUG | Dugway, Tooele | 82.48 | 331 | *e*P | P | 23 01 49.6 | +1.4 |
| | comp=Z,3.6nm,1.1s | | | | | | |
| PDAR | Pinedale Array | 83.44 | 334 | P | P | 23 01 52.3 | -0.9 |
| | comp=Z,0.9nm,0.8s,baz=126,slow=9.0,SNR=3.1 | | | | | | |
| HVU | Hansel Valley | 83.81 | 332 | *e*P | P | 23 01 55.8 | +0.8 |
| | comp=Z,3.6nm,0.9s | | | | | | |
| TOA0 | Torodi Ar. Sit | 85.39 | 71 | *e*P | P | 23 02 04.5 | +1.1 |
| TORD | Torodi Ar. Bea | 85.39 | 71 | P | P | 23 02 03.6 | +0.2 |
| | comp=Z,1.5nm,0.8s,baz=225,slow=5.9,SNR=12 | | | | | | |
| WRA | Warramunga Arr | 119.98 | 210 | PKP | PKPdf | 23 08 15.2 | -1.4 |
| | comp=Z,0.2nm,0.4s,baz=171,slow=1.7,SNR=5.5 | | | | | | |
| ZALV | Zalesovo Beam | 155.04 | 31 | PKPbc | PKPbc | 23 09 26.9 | |
| | comp=Z,1.8nm,0.8s,baz=309,slow=4.2,SNR=6.7 | | | | | | |
| ZALV | | | | PKPab | PKPab | 23 09 43.2 | +0.8 |
| | comp=Z,1.6nm,0.8s,baz=316,slow=6.2,SNR=5.6 | | | | | | |
| KSH | Kashi | 155.05 | 69 | *e*PKPbc | PKPdf | 23 09 15.3 | -3.3 |
| KSH | | | | pPKP | pPKPdf | 23 09 26.5 | -4.8 |
| KSH | | | | PP | PP | 23 13 20.4 | +0.5 |
| KSH | | | | SKS | SKSdf | 23 16 19.9 | -2.1 |
| MKAR | Makanchi Array | 157.80 | 48 | PKPab | PKPab | 23 09 55.6 | +0.9 |
| | comp=Z,1.5nm,0.7s,baz=292,slow=2.4,SNR=13 | | | | | | |
| WMQ | Urumqi | 162.53 | 51 | P | PKPdf | 23 09 27.8 | +0.6 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,10.0nm,3.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,140nm,20.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,71nm,22.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,68nm,15.3s | | | | | | |
| NJ2 | Nanjing | 169.45 | 262 | *e*P | PKPdf | 23 09 33.6 | +0.6 |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.5s | | | | | | |
| KMI | Kunming | 170.35 | 159 | P | PKPdf | 23 09 34.2 | +0.2 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.5s | | | | | | |
| HHC | Hu-ho-hao-te | 172.28 | 330 | *e*PKP | PKPdf | 23 09 32.1 | -2.3 |
| HHC | | | | PP | PP | 23 14 50.5 | +1.1 |
| HHC | | | | SKS | SKSdf | 23 16 30.1 | -4.4 |
| LZH | Lanzhou | 177.11 | 49 | *e*PKP | PKPdf | 23 09 32.6 | -3.5 |
| LZH | | | | pPKP | pPKPdf | 23 09 41.7 | -7.2 |
| LZH | | | | sPKP | | 23 09 46.4 | |

**GUC 04 22:55:12.3**±0.7**, 25°.46S**×**69°.71W, h72**km±42km**, ML3.5, 1C, Northern Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PB14 | IPOC Station P | 1.04 | 323⇑ | *i*P | Pn | 22 55 34.4 | +2.6 |
| PB14 | | | | *e*S | Sn | 22 55 49.6 | +3.5 |
| PB14 | | | | IAML | | 22 55 50.7 | |
| | comp=N,1µm,0.6s | | | | | | |
| CDCH | Caldera | 1.89 | 212 | *e*S | Sn | 22 56 07.6 | +2.3 |
| CPCH | Copiapo | 1.98 | 197 | *e*P | Pn | 22 55 43.8 | +0.1 |
| PB10 | IPOC Station P | 2.09 | 338 | *e*P | Pn | 22 55 46.7 | +1.5 |
| PB10 | | | | *e*S | Sn | 22 56 12.0 | +1.8 |
| PB10 | | | | IAML | | 22 56 20.7 | |
| | comp=E,839nm,0.4s | | | | | | |
| GO03 | Copiap | 2.18 | 192 | *e*P | Pn | 22 55 48.1 | +1.7 |
| GO03 | | | | *i* S | Sn | 22 56 14.7 | +2.2 |
| GO03 | | | | IAML | | 22 56 19.3 | |
| | comp=E,224nm,0.2s | | | | | | |
| PB06 | IPOC Station P | 2.75 | 3 | *e*P | Pn | 22 55 55.9 | +1.6 |
| LCO | Las Campanas | 3.65 | 194 | *e*P | Pn | 22 56 08.1 | +1.5 |

*ISCJB **04** 23:23:17.0±0.5, 19°.8N±0°.1×46°.0W±0°.1, h10km, mb3.9/14, MS3.4/5, Error ellipse: s-maj=18.2km s-min=15.1km az=33.7*
*IDC **04** 23:23:17.1±0.7, 19°.77N×45°.93W, h0km, mb3.9/12, mb1 4.1/12, mb1mx3.8/56, mbtmp3.9/12, MS3.3/6, Ms1 3.3/6, ms1mx2.9/48, Error ellipse: s-maj=24.3km s-min=18.4km az=126.0*
*NEIC **04** 23:23:18.8±0.4, 19°.78N×45°.93W, h10km, mb4.0/2, Error ellipse: s-maj=14.8km s-min=12.5km az=124.0*
**ISC 04 23:23:18.8**±0.7**, 19°.8N**±0°.1×**45°.9W**±0°.2**, h10**km**, n26,** σ**0s.83**/14**, mb4.0**/14**, MS3.4**/5**, Northern Mid-Atlantic Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SJG | San Juan | 19.20 | 268 | LR | LR | 23 33 50.5 | |
| | comp=Z,73nm,22.0s,baz=105,slow=33 | | | | | | |
| PTGA | Pitinga | 24.59 | 216 | LR | LR | 23 37 18.3 | |
| | comp=Z,42nm,21.0s,baz=310,slow=34 | | | | | | |
| MDT | Midelt | 39.01 | 62 | LR | LR | 23 44 55.9 | |
| | comp=Z,42nm,18.3s,baz=279,slow=33 | | | | | | |
| H10N3 | ASCENSION HYDR | 41.36 | 129 | T | T | 00 14 48.8 | |
| | baz=312,slow=75,SNR=57 | | | | | | |
| H10N2 | ASCENSION HYDR | 41.36 | 129 | T | T | 00 14 48.9 | |
| | baz=312,slow=75,SNR=51 | | | | | | |
| H10N1 | ASCENSION HYDR | 41.38 | 129 | T | T | 00 14 50.2 | |
| | baz=312,slow=75,SNR=40 | | | | | | |
| LPAZ | La Paz | 41.96 | 213 | P | P | 23 31 09.0 | -1.8 |
| | 0.6nm,0.7s,baz=45,slow=7.9,SNR=3.1 | | | | | | |
| H10S3 | ASCENSION HYDR | 41.98 | 130 | T | T | 00 15 37.0 | |
| | baz=313,slow=75,SNR=27 | | | | | | |
| H10S1 | ASCENSION HYDR | 41.99 | 130 | T | T | 00 15 37.1 | |
| | baz=313,slow=75,SNR=25 | | | | | | |
| H10S2 | ASCENSION HYDR | 42.00 | 130 | T | T | 00 15 38.3 | |
| | baz=313,slow=75,SNR=34 | | | | | | |
| TORD | Torodi Ar. Bea | 46.02 | 91 | P | P | 23 31 41.9 | -1.0 |
| | 1.9nm,0.8s,baz=300,slow=7.6,SNR=5.9 | | | | | | |
| CMIG | Matias Romero | 46.40 | 275 | LR | LR | 23 47 53.0 | |
| | comp=Z,43nm,20.2s,baz=58,slow=32 | | | | | | |
| CPUP | Villa Florida | 47.15 | 194 | P | P | 23 31 52.6 | +1.2 |
| | 1.5nm,0.8s,baz=31,slow=11,SNR=3.5 | | | | | | |
| ANMO | Albuquerque | 55.08 | 299 | LR | LR | 23 53 27.6 | |
| | comp=Z,38nm,21.0s,baz=290,slow=33 | | | | | | |
| PDAR | Pinedale Array | 57.62 | 309 | P | P | 23 33 09.2 | -0.3 |
| | 1.6nm,1.0s,baz=79,slow=7.9,SNR=6.3 | | | | | | |
| YKA | Yellowknife Ar | 62.82 | 331 | P | P | 23 33 43.9 | -0.5 |
| | 0.5nm,0.8s,baz=103,slow=5.2,SNR=3.6 | | | | | | |
| NEW | Newport | 63.06 | 315 | LR | LR | 23 57 42.7 | |
| | comp=Z,57nm,21.6s,baz=76,slow=33 | | | | | | |
| NEW | Newport | 63.06 | 315 | *e*P | P | 23 33 46.6 | +0.2 |
| | 2.4nm,0.9s | | | | | | |
| MLR | Muntele Rosu | 63.57 | 48 | P | P | 23 33 50.1 | +0.3 |
| | 0.9nm,0.8s,baz=214,slow=6.7,SNR=6.2 | | | | | | |
| PLCA | Paso Flores | 64.41 | 201 | P | P | 23 33 56.0 | +0.8 |
| | 1.8nm,0.8s,baz=52,slow=7.5,SNR=4.3 | | | | | | |
| AKASG | Malin Array Be | 65.60 | 42 | P | P | 23 34 02.9 | 0.0 |
| | 0.2nm,0.2s,baz=276,slow=5.5,SNR=3.3 | | | | | | |
| BRTR | Keskin Array B | 69.78 | 54 | P | P | 23 34 29.6 | 0.0 |
| | 0.9nm,0.7s,baz=266,slow=5.4,SNR=6.5 | | | | | | |
| KBZ | Khabaz | 75.78 | 48 | P | P | 23 35 05.4 | +0.4 |
| | 1.7nm,0.9s,baz=16,slow=3.9,SNR=3.8 | | | | | | |
| ILAR | Eielson Array | 76.87 | 334 | P | P | 23 35 11.5 | +0.7 |
| | 1.7nm,0.7s,baz=77,slow=4.7,SNR=17 | | | | | | |
| LSZ | Lusaka | 80.75 | 110 | P | P | 23 35 33.5 | +0.4 |
| | 0.4nm,0.6s | | | | | | |
| BVAR | Borovoye Array | 89.09 | 33 | P | P | 23 36 14.2 | -0.1 |
| | 0.3nm,0.5s,baz=328,slow=5.2,SNR=3.3 | | | | | | |

*ISK **04** 23:24:33.6, 38°.71N×43°.68E, h5km, MD2.9*
*CSEM **04** 23:24:34.7±0.2, 38°.71N×43°.70E, h2km, MD2.9, Error ellipse: s-maj=5.6km s-min=3.5km az=98.0*
*DDA **04** 23:24:34.7, 38°.70N×43°.71E, h7km, Ml3.0*
**ISC 04 23:24:35.0**±1.2**, 38°.71N**±0°.02×**43°.70E**±0°.03**, h4**km±10km**, n51,** σ**1s.10**/72**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.27 | 245 | *e*PG | Pg | 23 24 40.5 | +0.3 |
| VANB | Van | 0.27 | 245 | *e*Pg | Pg | 23 24 40.6 | +0.3 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TVAN | Van | 0.29 | 232 | *i* P | Pg | 23 24 40.9 | +0.1 |
| TVAN | | | | *i* S | Sb | 23 24 46.6 | -1.8 |
| TVAN | Van | 0.29 | 232 | P | Pg | 23 24 40.9 | +0.1 |
| TVAN | | | | S | Sb | 23 24 46.6 | -1.8 |
| VMUR | Van-Muradiye | 0.30 | 340 | *i* P | Pg | 23 24 40.4 | -0.4 |
| VMUR | | | | *i* S | Sb | 23 24 46.8 | -1.6 |
| VMUR | Van-Muradiye | 0.30 | 340 | P | Pg | 23 24 40.4 | -0.4 |
| VMUR | | | | S | Sb | 23 24 46.8 | -1.6 |
| ERCV | ERCIS-VAN | 0.42 | 318 | *e*PG | Pg | 23 24 42.8 | -0.4 |
| ERCV | | | | *e*SG | Sg | 23 24 49.7 | +1.0 |
| ERCV | ERCIS-VAN | 0.42 | 318 | *e*Pg | Pg | 23 24 42.8 | -0.4 |
| ERCV | | | | *e*Sg | Sg | 23 24 49.7 | +1.0 |
| CLDR | Caldiran | 0.46 | 21 | *e*PG | Pg | 23 24 44.0 | 0.0 |
| CLDR | | | | *e*SG | Sb | 23 24 51.7 | -1.6 |
| CLDR | Caldiran | 0.46 | 21 | *i* P | Pg | 23 24 44.0 | 0.0 |
| CLDR | | | | *i* S | Sb | 23 24 52.0 | -1.3 |
| CLDR | Caldiran | 0.46 | 21 | P | Pg | 23 24 44.0 | 0.0 |
| CLDR | | | | *e*Sg | Sb | 23 24 51.7 | -1.6 |
| CLDR | | | | S | Sb | 23 24 52.0 | -1.3 |
| GEVA | Gevas | 0.64 | 232 | *i* P | Pg | 23 24 46.7 | -0.7 |
| GEVA | Gevas | 0.64 | 232 | P | Pg | 23 24 46.7 | -0.7 |
| ADCV | BITLIS_Adilcev | 0.77 | 278 | *i* P | Pg | 23 24 49.0 | -0.8 |
| ADCV | | | | *i* S | Sb | 23 25 01.2 | -0.8 |
| ADCV | BITLIS_Adilcev | 0.77 | 278 | P | Pg | 23 24 49.0 | -0.8 |
| ADCV | | | | S | Sb | 23 25 01.2 | -0.8 |
| DYDN | Diyadin | 0.83 | 359 | *i* P | Pg | 23 24 50.4 | -0.6 |
| DYDN | | | | *i* S | Sb | 23 25 02.9 | -1.0 |
| DYDN | Diyadin | 0.83 | 359 | P | Pg | 23 24 50.4 | -0.6 |
| DYDN | | | | S | Sb | 23 25 02.9 | -1.0 |
| TUTA | Tutak | 0.98 | 315 | *i* P | Pg | 23 24 51.9 | -1.9 |
| TUTA | Tutak | 0.98 | 315 | P | Pg | 23 24 51.9 | -1.9 |
| AGRB | Hanur-Agry | 1.02 | 328 | *e*PG | Pg | 23 24 53.8 | -0.9 |
| AGRB | Hanur-Agry | 1.02 | 328 | *e*Pg | Pg | 23 24 53.8 | -0.9 |
| HAKT | HAKKARI | 1.15 | 180 | *i* P | Pg | 23 24 56.1 | -1.0 |
| HAKT | HAKKARI | 1.15 | 180 | P | Pg | 23 24 56.1 | -1.0 |
| YOVA | Hakkari_Yˆ…kse | 1.21 | 157 | *i* P | Pn | 23 24 58.5 | -0.5 |
| YOVA | | | | *i* S | Sn | 23 25 19.4 | +3.4 |
| YOVA | Hakkari_Yˆ…kse | 1.21 | 157 | P | Pn | 23 24 58.5 | -0.5 |
| TASB | TASBURUN-IGDIR | 1.34 | 18 | *e*PN | Pn | 23 25 00.3 | -0.3 |
| TASB | TASBURUN-IGDIR | 1.34 | 18 | *e*Pn | Pn | 23 25 00.3 | -0.3 |
| EKAR | Karacoban | 1.39 | 294 | *i* P | Pg | 23 25 01.5 | -0.2 |
| EKAR | | | | *i* S | Sn | 23 25 22.7 | +2.3 |
| EKAR | Karacoban | 1.39 | 294 | P | Pg | 23 25 01.5 | -0.2 |
| EKAR | | | | S | Sn | 23 25 22.7 | +2.3 |
| CUKT | Cukurca | 1.46 | 183 | *e*PN | Pn | 23 25 02.0 | -0.4 |
| CUKT | Cukurca | 1.46 | 183 | *i* P | Pn | 23 25 02.0 | -0.4 |
| CUKT | Cukurca | 1.46 | 183 | P | Pn | 23 25 02.0 | -0.4 |
| EATA | Eleskirt | 1.48 | 321 | *i* P | Pn | 23 25 01.9 | -1.0 |
| EATA | | | | *i* S | Sg | 23 25 24.7 | +1.9 |
| EATA | Eleskirt | 1.48 | 321 | P | Pn | 23 25 01.9 | -1.0 |
| EATA | | | | S | Sg | 23 25 24.7 | +1.9 |
| SIRT | Sirnak | 1.56 | 220 | *e*PN | Pb | 23 25 03.9 | -0.8 |
| SIRT | Sirnak | 1.56 | 220 | *e*Pn | Pb | 23 25 03.9 | -0.8 |
| SRTM | Siirt_Merkez | 1.57 | 243 | *i* P | Pb | 23 25 04.2 | -0.6 |
| SRTM | | | | *i* S | Sg | 23 25 26.8 | +1.2 |
| SRTM | Siirt_Merkez | 1.57 | 243 | P | Pb | 23 25 04.2 | -0.6 |
| SRTM | | | | S | Sg | 23 25 26.8 | +1.2 |
| DIGO | Kars | 1.72 | 352 | *i* P | Pb | 23 25 07.3 | -0.1 |
| DIGO | Kars | 1.72 | 352 | P | Pb | 23 25 07.3 | -0.1 |
| VRTB | Varto-Mus | 1.81 | 285 | *e*PN | Pn | 23 25 06.8 | -0.3 |
| VRTB | Varto-Mus | 1.81 | 285 | *e*Pn | Pn | 23 25 06.8 | -0.3 |
| HOMI | Horasan | 1.93 | 314 | *i* P | Pb | 23 25 10.1 | -0.8 |
| KARS | Kars | 1.97 | 346 | *e*PN | Pn | 23 25 09.2 | -0.2 |
| KARS | Kars | 1.97 | 346 | *e*Pn | Pn | 23 25 09.2 | -0.2 |
| SENK | Senkaya-Erzuru | 2.12 | 331 | *e*PN | Pn | 23 25 11.6 | +0.1 |
| SENK | Senkaya-Erzuru | 2.12 | 331 | *e*Pn | Pn | 23 25 11.6 | +0.1 |
| BNGB | Bingˆ¶l | 2.38 | 278 | *e*PN | Pn | 23 25 15.1 | +0.1 |
| BINT | Bingol | 2.52 | 275 | *e*Pn | Pn | 23 25 15.1 | -1.8 |
| YEDI | Yedisu-Bingol | 2.56 | 287 | *e*PN | Pn | 23 25 17.7 | +0.2 |
| YEDI | Yedisu-Bingol | 2.56 | 287 | *e*Pn | Pn | 23 25 17.7 | +0.2 |

*ISCJB **04** 23:37:33.9±0.4, 19.96N±0.08×45.80W±0.08, h10km, mb4.0/25, MS3.9/28, Error ellipse: s-maj=12.6km s-min=8.6km az=141.8*
*IDC **04** 23:37:33.9±0.5, 19.93N×45.86W, h0km, mb4.0/18, mb1 4.2/18, mb1mx4.0/55, mbtmp4.0/18, MS3.9/29, Ms1 3.9/29, ms1mx3.8/37, Error ellipse: s-maj=16.4km s-min=14.4km az=132.0*
*NEIC **04** 23:37:35.6±0.3, 19.95N×45.78W, h10km, mb4.1/5, Error ellipse: s-maj=11.4km s-min=8.3km az=140.0*
*GCMT **04** 23:37:35.6±0.3, 20.12N×45.70W, h12km, MW4.9/85, Moment Tensor Solution. s19,c20; s85,c115; Duration: 0 Moment tensor: Scale $10^{16}$Nm; $M_{rr}$-2.14±.07; $M_{\theta\theta}$0.15±.08; $M_{\phi\phi}$1.98±.05; $M_{r\theta}$-1.19±.29; $M_{\theta\phi}$0.55±.05; $M_{\phi r}$-0.02±.23; Best double couple: $M_0$2.41000×$10^{16}$ NP1:$\phi_s$38.00000°, δ54.00000°, λ-61.00000°. NP2: $\phi_s$175.00000°, δ45.00000°, λ-124.00000°. Principal axes: T 2.1650, Plg5.0000°, Azm108.0000°; N 0.4810, Plg23.0000°, Azm201.0000°; P -2.6550, Plg66.0000°, Azm6.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
**ISC 04 23:37:35.6**±0.5**, 20.0N**±0.1×**45.80W**±0.10**, h10**km**, n50, σ0.96**/30**, mb4.2**/25**, MS4.0**/28**, 4C, Northern Mid-Atlantic Ridge**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SJG | San Juan | 19.33 | 268 | LR | LR | 23 48 06.0 | |
| | comp=Z,495nm,21.3s,baz=95,slow=33 | | | | | | |
| PTGA | Pitinga | 24.81 | 216 | P | P | 23 42 55.7 | -2.5 |
| | 2.6nm,0.8s,baz=40,slow=3.4,SNR=2.9 | | | | | | |
| PTGA | | | | LR | LR | 23 51 24.6 | |
| | comp=Z,277nm,21.9s,baz=34,slow=34 | | | | | | |
| SDV | Santo Domingo | 26.41 | 249 | P | P | 23 43 14.6 | +1.7 |
| | 1.8nm,0.3s,baz=39,slow=8.4,SNR=4.3 | | | | | | |
| SDV | | | | LR | LR | 23 52 45.5 | |
| | comp=Z,204nm,21.7s,baz=64,slow=35 | | | | | | |
| RCBR | Riachuelo | 27.41 | 158 | LR | LR | 23 51 16.0 | |
| | comp=Z,305nm,21.1s,baz=336,slow=30 | | | | | | |
| BBTS | Babate | 28.41 | 96 | LR | LR | 23 51 50.9 | |
| | comp=Z,630nm,21.0s,baz=264,slow=30 | | | | | | |
| ROSC | El Rosal | 31.57 | 245 | LR | LR | 23 58 38.9 | |
| | comp=Z,112nm,18.9s,baz=54,slow=40 | | | | | | |
| SAML | Samuel | 33.44 | 212 | *e*P | P | 23 44 15.2 | +0.3 |
| | 2.0nm,0.7s | | | | | | |
| BDFB | Brasilia | 35.45 | 184 | P | P | 23 44 32.1 | -0.3 |
| | 3.1nm,0.7s,baz=207,slow=2.8,SNR=5.3 | | | | | | |
| BDFB | | | | LR | LR | 23 57 53.8 | |
| | comp=Z,150nm,20.3s,baz=250,slow=34 | | | | | | |
| TKL | Tuckaleechee C | 36.79 | 303 | LR | LR | 23 57 05.9 | |
| | comp=Z,314nm,20.4s,baz=97,slow=32 | | | | | | |
| OTAV | Otavalo | 37.49 | 242 | P | P | 23 44 50.5 | +0.1 |
| | 0.4nm,0.4s | | | | | | |
| SCHQ | Schefferville | 38.30 | 340 | LR | LR | 23 58 37.8 | |
| | comp=Z,259nm,20.8s,baz=120,slow=33 | | | | | | |
| SIV | San Ignacio | 38.75 | 204 | LR | LR | 00 00 04.8 | |
| | comp=Z,90nm,19.4s,baz=4.5,slow=35 | | | | | | |
| JTS | JuntasAbangare | 38.91 | 262 | P | P | 23 45 01.7 | -0.2 |
| | 1.2nm,0.5s | | | | | | |
| ESDC | Sonseca Array | 40.83 | 52 | P | P | 23 45 19.3 | +1.7 |
| | 0.4nm,0.6s,baz=254,slow=8.1,SNR=3.1 | | | | | | |
| ESDC | | | | LR | LR | 23 58 53.1 | |
| | comp=Z,146nm,20.0s,baz=275,slow=31 | | | | | | |
| H10N3 | ASCENSION HYDR | 41.38 | 129 | T | T | 00 29 18.9 | |
| | baz=312,slow=75,SNR=84 | | | | | | |
| H10N2 | ASCENSION HYDR | 41.38 | 129 | T | T | 00 29 19.1 | |
| | baz=312,slow=75,SNR=67 | | | | | | |
| H10N1 | ASCENSION HYDR | 41.40 | 129 | T | T | 00 29 29.2 | |
| | baz=312,slow=75,SNR=76 | | | | | | |
| DBIC | Dimbokro | 41.85 | 103 | P | P | 23 45 26.3 | +0.2 |
| | 3.8nm,0.9s,baz=214,slow=13,SNR=3.3 | | | | | | |
| DBIC | | | | LR | LR | 23 59 28.1 | |
| | comp=Z,467nm,21.2s,baz=268,slow=31 | | | | | | |
| ATAH | Atahualpa | 41.88 | 233 | P | P | 23 45 28.4 | +1.5 |
| | 6.5nm,0.9s,baz=92,slow=4.3,SNR=4.0 | | | | | | |
| H10S3 | ASCENSION HYDR | 42.01 | 130 | T | T | 00 30 05.4 | |
| | baz=313,slow=75,SNR=68 | | | | | | |
| H10S1 | ASCENSION HYDR | 42.02 | 130 | T | T | 00 30 05.5 | |
| | baz=313,slow=75,SNR=71 | | | | | | |
| H10S2 | ASCENSION HYDR | 42.03 | 130 | T | T | 00 30 06.5 | |
| | baz=313,slow=75,SNR=82 | | | | | | |
| LPAZ | La Paz | 42.18 | 213 | P | P | 23 45 29.8 | +0.3 |
| | 4.6nm,1.1s,baz=27,slow=10.0,SNR=9.9 | | | | | | |
| LPAZ | | | | LR | LR | 00 02 15.4 | |
| | comp=Z,137nm,22.0s,baz=14,slow=35 | | | | | | |
| TORD | Torodi Ar. Bea | 45.91 | 91 | P | P | 23 45 58.5 | -0.4 |
| | 2.4nm,0.9s,baz=291,slow=4.5,SNR=10.0 | | | | | | |
| TORD | | | | LR | LR | 00 03 11.4 | |
| | comp=Z,421nm,19.2s,baz=270,slow=34 | | | | | | |
| CPUP | Villa Florida | 47.36 | 194 | P | P | 23 46 09.0 | -0.9 |
| | 5.1nm,0.9s,baz=17,slow=9.2,SNR=7.7 | | | | | | |
| CPUP | | | | LR | LR | 00 06 34.1 | |
| | comp=Z,78nm,18.8s,baz=7.5,slow=37 | | | | | | |
| ULM | Lac du Bonnet | 49.63 | 320 | LR | LR | 00 06 10.4 | |
| | comp=Z,214nm,18.4s,baz=92,slow=35 | | | | | | |
| KEST | Kesra | 50.60 | 60 | LR | LR | 00 06 37.1 | |
| | comp=Z,162nm,19.4s,baz=272,slow=34 | | | | | | |
| TXAR | Lajitas Array | 52.97 | 292 | P | P | 23 46 52.2 | -0.5 |
| | 0.5nm,0.9s,baz=98,slow=6.6,SNR=3.2 | | | | | | |
| TXAR | | | | LR | LR | 00 09 18.1 | |
| | comp=Z,144nm,19.7s,baz=0.0,slow=36 | | | | | | |
| NOA | NORSAR Array B | 56.93 | 29 | LR | LR | 00 08 15.0 | |
| | comp=Z,92nm,18.5s,baz=240,slow=32 | | | | | | |
| PDAR | Pinedale Array | 57.60 | 309 | P | P | 23 47 25.6 | -0.5 |
| | 2.6nm,1.0s,baz=81,slow=9.2,SNR=13 | | | | | | |
| PDAR | | | | LR | LR | 00 09 22.9 | |
| | comp=Z,213nm,21.6s,baz=98,slow=33 | | | | | | |
| TPAW | Teton Pass | 58.64 | 309 | P | P | 23 47 34.0 | +0.5 |
| | 0.7nm,0.4s | | | | | | |
| BZS | Buzias | 60.31 | 48 | ⇑*i*P | P | 23 47 45.4 | +0.8 |
| MDVR | Moldovita | 60.37 | 49 | ⇑*i*P | P | 23 47 45.2 | +0.1 |
| ELK | Elko | 61.86 | 306 | P | P | 23 47 56.7 | +1.2 |
| | 1.5nm,0.9s,baz=118,slow=3.3,SNR=7.8 | | | | | | |
| ARR | Arges | 62.43 | 49 | ⇑*i*P | P | 23 48 00.3 | +1.2 |
| YKA | Yellowknife Ar | 62.71 | 331 | P | P | 23 47 59.8 | -0.7 |
| | 0.6nm,0.9s,baz=95,slow=6.9,SNR=5.1 | | | | | | |
| YKA | | | | LR | LR | 00 14 37.0 | |
| | comp=Z,13nm,18.1s,baz=180,slow=35 | | | | | | |
| NEW | Newport | 63.01 | 315 | P | P | 23 48 02.5 | -0.4 |
| | 2.0nm,0.6s,baz=108,slow=6.3,SNR=8.0 | | | | | | |
| MLR | Muntele Rosu | 63.35 | 48 | P | P | 23 48 05.8 | +0.5 |
| | 0.9nm,0.9s,baz=268,slow=11,SNR=5.5 | | | | | | |
| MLR | Muntele Rosu | 63.35 | 48 | ⇑*i*P | P | 23 48 05.4 | +0.1 |
| FINES | FINESS Array B | 64.01 | 31 | LR | LR | 00 11 40.7 | |
| | comp=Z,99nm,18.7s,baz=254,slow=32 | | | | | | |
| PLCA | Paso Flores | 64.62 | 201 | P | P | 23 48 14.1 | +0.6 |
| | 1.7nm,0.8s,baz=60,slow=7.8,SNR=3.3 | | | | | | |
| PLCA | | | | LR | LR | 00 16 49.5 | |
| | comp=Z,46nm,20.1s,baz=0.5,slow=36 | | | | | | |
| AKASG | Malin Array Be | 65.39 | 43 | P | P | 23 48 18.1 | -0.3 |
| | 0.1nm,0.3s,baz=266,slow=7.3,SNR=3.7 | | | | | | |
| AKASG | | | | LR | LR | 00 14 52.1 | |
| | comp=Z,33nm,18.1s,baz=325,slow=34 | | | | | | |
| BRTR | Keskin Array B | 69.58 | 54 | P | P | 23 48 45.4 | +0.1 |
| | 1.0nm,0.7s,baz=244,slow=5.6,SNR=6.4 | | | | | | |
| BRTR | | | | LR | LR | 00 16 48.3 | |
| | comp=Z,20nm,19.9s,baz=280,slow=34 | | | | | | |
| ILAR | Eielson Array | 76.76 | 334 | P | P | 23 49 26.9 | -0.2 |
| | 1.1nm,0.9s,baz=75,slow=4.3,SNR=8.8 | | | | | | |
| ILAR | | | | LR | LR | 00 22 50.8 | |
| | comp=Z,114nm,19.4s,baz=94,slow=35 | | | | | | |
| GNI | Garni | 77.81 | 52 | P | P | 23 49 31.7 | -1.9 |
| | 12nm,0.9s | | | | | | |
| AKTO | Aktyubinsk | 83.27 | 39 | P | P | 23 50 02.9 | +0.3 |
| | 0.5nm,0.2s,baz=291,slow=4.9,SNR=3.5 | | | | | | |
| KMBO | Kilima Mbogo | 83.85 | 93 | LR | LR | 00 24 37.4 | |
| | comp=Z,153nm,21.9s,baz=280,slow=34 | | | | | | |
| BOSA | Boshof | 83.87 | 123 | LR | LR | 00 20 14.0 | |
| | comp=Z,125nm,19.6s,baz=284,slow=30 | | | | | | |
| ZALV | Zalesovo Beam | 95.06 | 27 | LR | LR | 00 31 53.1 | |
| | comp=Z,48nm,18.4s,baz=58,slow=34 | | | | | | |
| CMAR | Chiang Mai Arr | 128.48 | 44 | PKP | PKPdf | 23 56 43.4 | -0.3 |
| | 0.5nm,0.3s,baz=205,slow=1.9,SNR=4.3 | | | | | | |

*ISCJB **04** 23:45:25.9±0.4, 24.06S±0.03×66.94W±0.03, h208km±5km, mb3.2/2, Error ellipse: s-maj=5.8km s-min=3.9km az=136.7*
*IDC **04** 23:45:26.2±2.6, 24.14S×66.70W, h183km±23km, mb3.2/2, mb1 3.2/7, mb1mx3.1/40, mbtmp3.7/7, Error ellipse: s-maj=30.6km s-min=21.2km az=94.0*
*SJA **04** 23:45:26.4±0.8, 24.03S×66.89W, h207km±11km, ML2.8, MW3.4*
*GUC **04** 23:45:28.2±0.5, 23.75S×67.43W, h254km±13km, ML4.2*
**ISC 04 23:45:26.4**±0.8**, 24.04S**±0.04×**66.86W**±0.04**, h196**km±8km**, n30, σ1.83**/49**, 5C-3D, Salta Province**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SLA | San Lorenzo | 1.41 | 119 | *e*P | Pn | 23 46 01.4 | +2.3 |
| SLA | | | | *e*S | Sn | 23 46 26.7 | +2.2 |
| SLA | | | | IAML | | 23 46 29.6 | |
| | comp=Z,39nm,0.5s | | | | | | |
| HJA | Humahuaca | 1.56 | 58 | *e*P | Pn | 23 46 02.7 | +1.9 |
| AZAP | Zapla | 1.65 | 97 | *e*P | Pn | 23 46 03.0 | +1.7 |
| AZAP | | | | *e*S | Sn | 23 46 30.2 | +1.8 |
| ASTB | Santa Barbara | 2.20 | 88 | *e*P | Pn | 23 46 08.6 | +1.7 |
| ASTB | | | | *e*S | Sn | 23 46 31.3 | -7.0 |
| FSA | Cafayete | 2.21 | 159 | *e*P | Pn | 23 46 08.4 | +1.4 |
| FSA | | | | *e*S | Sn | 23 46 34.6 | -4.2 |
| YJA | Yavi | 2.23 | 34 | *e*P | Pn | 23 46 09.4 | +1.9 |
| YJA | | | | *e*P | Pn | 23 46 09.6 | +2.0 |
| ALOL | LOMAS DE OLMED | 2.64 | 86 | *e*P | Pn | 23 46 13.1 | +1.5 |
| PB06 | IPOC Station P | 2.83 | 297 | ⇑*i*P | Pn | 23 46 15.1 | +1.1 |
| PB06 | | | | *e*S | Sn | 23 46 50.5 | -0.5 |
| PB06 | | | | IAML | | 23 46 52.7 | |
| | comp=N,234nm,0.4s | | | | | | |
| AHML | Horco Molle | 3.06 | 154 | *e*P | Pn | 23 46 17.8 | +1.2 |
| AHML | | | | *e*S | Sn | 23 46 56.3 | +0.3 |
| PB09 | IPOC Station P | 3.13 | 315 | ⇑*i*P | Pn | 23 46 19.0 | +1.4 |
| PB09 | | | | *e*S | Sn | 23 46 57.6 | 0.0 |
| PB09 | | | | IAML | | 23 47 00.0 | |
| | comp=E,615nm,0.6s | | | | | | |
| ANCH | Antofagasta | 3.27 | 276 | ⇑*i*P | Pn | 23 46 20.0 | +0.9 |
| ANCH | | | | *e*S | Sn | 23 46 58.4 | -1.8 |
| PB14 | IPOC Station P | 3.29 | 259 | *e*P | Pn | 23 46 19.8 | +0.2 |
| PB14 | | | | *e*S | Sn | 23 46 59.4 | -1.7 |
| PB10 | IPOC Station P | 3.43 | 278 | *e*P | Pn | 23 46 21.5 | +0.5 |
| PB10 | | | | *e*S | Sn | 23 47 02.3 | -1.4 |
| PB10 | IPOC Station P | 3.43 | 278 | ⇑*i*P | Pn | 23 46 21.6 | +0.7 |
| PB10 | | | | *e*S | Sn | 23 47 02.6 | -1.0 |
| PB10 | | | | IAML | | 23 47 06.0 | |
| | comp=E,381nm,0.3s | | | | | | |
| PB04 | IPOC Station P | 3.47 | 299 | ⇓*i*P | Pn | 23 46 22.2 | +0.5 |
| PB04 | | | | *i* S | Sn | 23 47 03.2 | -1.8 |
| PB04 | | | | IAML | | 23 47 04.9 | |
| | comp=N,276nm,0.3s | | | | | | |
| PB07 | IPOC Station P | 3.62 | 309 | ⇑*i*P | Pn | 23 46 23.9 | +0.4 |
| PB07 | | | | *i* S | Sn | 23 47 06.0 | -2.2 |
| PB07 | | | | IAML | | 23 47 08.0 | |
| | comp=E,280nm,0.4s | | | | | | |
| PB01 | IPOC Station P | 3.85 | 320 | ⇓*i*P | Pn | 23 46 26.6 | +0.4 |
| PB01 | | | | *i* S | Sn | 23 47 11.2 | -2.0 |
| PB01 | | | | IAML | | 23 47 11.9 | |
| | comp=E,114nm,0.4s | | | | | | |
| PB08 | IPOC Station P | 4.42 | 331 | ⇓*i*P | Pn | 23 46 34.9 | +1.1 |
| PB08 | | | | *i* S | Sn | 23 47 26.0 | -0.7 |
| PB08 | | | | IAML | | 23 47 28.4 | |
| | comp=E,76nm,0.3s | | | | | | |
| CYA | Choya | 4.49 | 168 | *e*P | Pn | 23 46 36.2 | +2.1 |
| CYA | | | | IAML | | 23 46 36.9 | |
| | comp=Z,9.4nm,0.4s | | | | | | |
| ACLC | CERRO LA CRUZ | 5.37 | 181 | *e*P | Pn | 23 46 46.0 | +0.4 |
| ACLC | | | | *e*S | Sn | 23 47 45.8 | -2.2 |
| AGUA | GUANDACOL | 5.62 | 195 | *e*P | Pn | 23 46 49.7 | +1.0 |
| AGUA | | | | *e*S | Sn | 23 47 53.1 | -0.8 |
| LPAZ | La Paz | 7.80 | 351 | P | Pn | 23 47 19.3 | +1.6 |
| | comp=Z,0.3nm,0.3s,baz=192,slow=9.3,SNR=7.1 | | | | | | |
| LPAZ | | | | S | Sn | 23 48 44.9 | -1.3 |
| | comp=Z,0.5nm,0.3s,baz=262,slow=15,SNR=8.0 | | | | | | |
| CPUP | Villa Florida | 8.93 | 107 | P | Pn | 23 47 30.4 | -1.3 |
| | comp=Z,0.1nm,0.3s,baz=260,slow=9.9,SNR=3.8 | | | | | | |
| SIV | San Ignacio | 9.68 | 35 | P | Pn | 23 47 40.7 | -0.9 |
| | comp=Z,0.9nm,0.3s,baz=231,slow=13,SNR=8.1 | | | | | | |
| PLCA | Paso Flores | 16.93 | 190 | P | P | 23 49 10.5 | -0.3 |
| | comp=Z,0.1nm,0.3s,baz=17,slow=12,SNR=2.8 | | | | | | |
| BDFB | Brasilia | 19.58 | 68 | P | P | 23 49 39.5 | -0.3 |
| | comp=Z,0.5nm,0.3s,baz=42,slow=10,SNR=8.1 | | | | | | |
| SNAA | Sanae | 59.27 | 161 | P | P | 23 55 07.0 | -0.1 |
| | comp=Z,1.1nm,1.1s,baz=277,slow=7.7,SNR=7.9 | | | | | | |
| TORD | Torodi Ar. Bea | 76.46 | 69 | P | P | 23 56 55.3 | +0.3 |
| | comp=Z,0.2nm,0.4s,baz=269,slow=7.3,SNR=7.5 | | | | | | |
| WRA | Warramunga Arr | 131.65 | 207 | PKP | PKPdf | 00 04 17.4 | +0.7 |
| | comp=Z,0.2nm,0.3s,baz=155,slow=1.9,SNR=4.5 | | | | | | |
| MKAR | Makanchi Array | 146.47 | 40 | PKPbc | PKPab | 00 04 45.6 | -0.1 |
| | comp=Z,0.5nm,0.5s,baz=302,slow=3.1,SNR=8.6 | | | | | | |

*ISCJB **04** 23:45:35.3±0.8, 17.3S±0.1×174.0W±0.1, h124km, mb4.6/10, Error ellipse: s-maj=18.8km s-min=12.0km az=138.4*
*IDC **04** 23:45:35.2±5.2, 17.23S×174.21W, h97km±47km, mb4.1/3, mb1 4.2/4, mb1mx3.5/45, mbtmp4.4/4, Error ellipse: s-maj=173.6km s-min=38.2km az=138.0*
*NEIC **04** 23:45:36.8±1.2, 17.27S×173.98W, h123km±10km, mb4.5/6, Error ellipse: s-maj=17.7km s-min=9.9km az=146.0*
**ISC 04 23:45:36.8**±0.9**, 17.2S**±0.1×**173.9W**±0.1**, h124**km**, n14, σ1.53**/15**, mb4.3**/10**, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AFI | Afiamalu | 3.84 | 33 | P | Pn | 23 46 35.2 | +0.9 |
| | 15nm,0.3s,baz=225,slow=7.1,SNR=11 | | | | | | |
| AFI | | | | S | Sn | 23 47 15.1 | -3.8 |
| | 48nm,0.3s,baz=39,slow=22,SNR=23 | | | | | | |
| MSVF | Nonsavu | 7.68 | 265 | Pn | Pn | 23 47 26.9 | +0.9 |
| | 9.9nm,0.8s | | | | | | |
| FUNA | Funafuti | 10.88 | 321 | Pn | Pn | 23 48 09.2 | +0.1 |
| SNZO | South Karori | 25.98 | 200 | P | P | 23 50 56.5 | -1.4 |
| | 47nm,0.8s | | | | | | |
| HNR | Honiara | 26.53 | 283 | P | P | 23 51 02.7 | -0.4 |
| | 34nm,0.5s | | | | | | |
| STKA | Stephens Creek | 42.74 | 241 | P | P | 23 53 20.5 | -1.4 |
| | 4.1nm,0.9s,baz=83,slow=11,SNR=5.7 | | | | | | |
| WRA | Warramunga Arr | 48.97 | 258 | P | P | 23 54 09.8 | -1.2 |
| | 1.0nm,0.5s,baz=96,slow=7.1,SNR=25 | | | | | | |
| ASAR | Alice Springs | 49.10 | 253 | P | P | 23 54 11.4 | -0.6 |
| | 16nm,0.6s,baz=87,slow=8.5,SNR=172 | | | | | | |
| MAJO | Matsushiro | 69.96 | 321 | P | P | 23 56 35.5 | +0.6 |
| | 1.9nm,0.4s | | | | | | |
| KKM | Kota Kinabalu | 72.74 | 282 | P | P | 23 56 52.2 | +0.1 |
| | 2.0nm,0.3s | | | | | | |
| CMB | Columbia Colle | 74.41 | 41 | P | P | 23 57 03.2 | +1.8 |
| | 5.0nm,0.9s | | | | | | |
| ANMO | Albuquerque | 82.31 | 50 | P | P | 23 57 46.4 | +1.3 |
| | 0.3nm,0.4s | | | | | | |
| COCO | West Island | 85.76 | 259 | P | P | 23 58 02.6 | -0.1 |
| | 112nm,0.5s | | | | | | |
| BRTR | Keskin Array B | 147.16 | 319 | PKPbc | PKPbc | 00 05 06.5 | +0.6 |
| | 0.7nm,0.8s,baz=45,slow=3.7,SNR=4.2 | | | | | | |

**MEX 05 00:08:36.0**±0.5**, 26.38N**×**111.71W, h7**km±6km**, MD4.0, Gulf of California**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SRIG | Santa Rosalia | 1.05 | 333 | *e*P | Pg | 00 08 53.0 | -3.1 |
| SRIG | | | | *e*S | Sg | 00 09 06.8 | -3.0 |
| GUYB | Guaymas | 1.68 | 26 | *e*P | Pn | 00 09 02.7 | -3.1 |
| GUYB | | | | *e*S | Sn | 00 09 22.3 | -5.3 |
| LPIG | La Paz | 2.60 | 151 | *e*P | Pn | 00 09 15.2 | -3.3 |
| LPIG | | | | *e*S | Sn | 00 09 46.2 | -4.1 |
| SLBS | Sierra La Lagu | 3.12 | 149 | *e*P | Pn | 00 09 22.9 | -2.8 |
| SLBS | | | | *e*S | Sn | 00 09 59.8 | -3.6 |

*ISCJB **05** 00:11:28.5±1.1, 35.24N±0.06×33.53E±0.06, h36km±19km, Error ellipse: s-maj=10.9km s-min=8.1km az=13.2*
*CSEM **05** 00:11:28.6±0.2, 35.26N×33.54E, h30km, ML2.8, Error ellipse: s-maj=4.8km s-min=4.3km az=171.0*
*NIC **05** 00:11:29.0±0.3, 35.14N×33.52E, h36km, ML2.8*
**ISC 05 00:11:27.8**±1.3**, 35.23N**±0.05×**33.56E**±0.04**, h28**km±14km**, n11, σ0.60**/20**, Cyprus region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MAMC | Mammari | 0.28 | 258 | P | Pn | 00 11 36.9 | +0.7 |
| MAMC | | | | S | Sn | 00 11 41.7 | +0.1 |
| MAMC | Mammari | 0.28 | 258 | P | Pn | 00 11 36.9 | +0.7 |
| | baz=97 | | | | | | |
| MAMC | | | | S | Sn | 00 11 41.7 | +0.1 |
| CSS | Mathiatis | 0.33 | 215 | P | Pn | 00 11 36.7 | -0.1 |
| CSS | | | | S | Sn | 00 11 41.5 | -1.2 |
| CSS | Mathiatis | 0.33 | 215 | P | Pn | 00 11 36.7 | -0.1 |
| | baz=41 | | | | | | |
| CSS | | | | S | Sn | 00 11 41.5 | -1.2 |
| PHNC | Paralimni | 0.45 | 120 | P | Pn | 00 11 38.7 | +0.2 |
| PHNC | | | | S | Sn | 00 11 46.1 | +0.5 |
| PHNC | Paralimni | 0.45 | 120 | P | Pn | 00 11 38.7 | +0.2 |
| | baz=287 | | | | | | |
| PHNC | | | | S | Sn | 00 11 46.1 | +0.5 |
| LEF | Lefka | 0.56 | 259 | P | Pn | 00 11 40.3 | +0.3 |
| LEF | | | | S | Sb | 00 11 47.0 | +0.2 |
| ALFC | Alefka | 0.79 | 265 | P | Pb | 00 11 43.2 | +0.2 |
| ALFC | Alefka | 0.79 | 265 | P | Pb | 00 11 43.2 | +0.2 |
| | baz=91 | | | | | | |
| GULN | MERSIN_Gulnar | 0.95 | 359 | *i* P | Pn | 00 11 45.5 | +0.1 |
| GULN | | | | *i* S | Sb | 00 11 57.1 | -0.8 |
| GULN | MERSIN_Gulnar | 0.95 | 359 | P | Pn | 00 11 45.5 | +0.1 |
| GULN | | | | S | Sb | 00 11 57.1 | -0.8 |

*IDC **05** 00:13:55.7±0.6, 6.00S×146.50E, h0km, mb4.3/16, mb1 4.5/17, mb1mx4.4/31, mbtmp4.4/17, ML4.6/1, MS3.5/11, Ms1 3.5/11, ms1mx3.2/28, Error ellipse: s-maj=20.6km s-min=11.4km az=99.0*
*ISCJB **05** 00:14:01.2±0.3, 6.12S±0.03×146.61E±0.04, h52km, mb5.0/61, MS3.6/8, Error ellipse: s-maj=6.1km s-min=4.5km az=175.0*
*BJI **05** 00:14:01.0, 6.52S×147.05E, h82km, mb4.7/30, mB5.1/16, Ms5.3/7, Ms7 5.1/4*
*NEIC **05** 00:14:05.7±0.7, 6.18S×146.56E, h79km±7km, mb5.3/38, Error ellipse: s-maj=5.0km s-min=4.8km az=92.0*
**ISC 05 00:14:03.3**±0.3**, 6.12S**±0.05×**146.58E**±0.05**, h52**km**, n106, σ1.46**/106**, mb5.0**/61**, MS3.5**/8**, Eastern New Guinea region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PMG | Port Moresby | 3.31 | 170 | Pn | Pn | 00 14 53.9 | +1.2 |
| | 34nm,0.3s,baz=7.7,slow=5.1,SNR=50 | | | | | | |
| PMG | | | | Sn | Sn | 00 15 32.0 | +1.2 |
| | 45nm,0.3s,baz=117,slow=23,SNR=10 | | | | | | |
| PMG | | | | LR | LR | 00 16 42.4 | |
| | comp=Z,1μm,18.4s,baz=354,slow=48 | | | | | | |
| RABL | Rabaul | 5.88 | 71 | *e*Pn | Pn | 00 15 31.1 | +3.2 |
| COEN | Coen | 8.48 | 203 | *e*Pn | Pn | 00 16 04.5 | +0.9 |
| HNR | Honiara | 13.64 | 105 | LR | LR | 00 22 08.8 | |
| | comp=Z,61nm,18.3s,baz=54,slow=36 | | | | | | |
| CTA | Charters Tower | 13.89 | 181 | Pn | Pn | 00 17 19.9 | +2.4 |
| | 1.7nm,0.3s,baz=5.3,slow=14,SNR=13 | | | | | | |
| CTAO | Charters Tower | 13.89 | 181 | *e*Pn | Pn | 00 17 18.4 | +0.9 |
| FAKI | Fak Fak | 14.64 | 282 | *e*Pn | Pn | 00 17 29.2 | +1.7 |
| SAUI | Saumlaki | 15.28 | 262 | *e*Pn | Pn | 00 17 37.1 | +1.3 |
| | 90nm,1.0s | | | | | | |
| MTN | Manton Dam | 16.63 | 245 | *e*Pn | Pn | 00 17 52.4 | -0.6 |
| | 20nm,0.6s | | | | | | |
| WRAB | Tennant Creek | 18.16 | 220 | *e*P | P | 00 18 11.2 | -0.4 |
| | 16nm,0.8s | | | | | | |
| WB2 | Warramunga Arr | 18.17 | 220 | *e*P | P | 00 18 10.9 | -0.8 |
| WRA | Warramunga Arr | 18.18 | 220 | P | P | 00 18 11.0 | -0.8 |
| | 1.9nm,0.3s,baz=41,slow=12,SNR=57 | | | | | | |
| WRA | | | | PcP | PcP | 00 22 43.9 | +0.5 |
| | 0.1nm,0.3s,baz=28,slow=2.1,SNR=4.5 | | | | | | |
| WRA | | | | LR | LR | 00 25 59.9 | |
| | comp=Z,162nm,18.9s,baz=35,slow=40 | | | | | | |
| EIDS | Eidsvold | 19.62 | 168 | *e*P | P | 00 18 27.8 | +0.3 |
| | 9.5nm,0.8s | | | | | | |
| GUMO | Guam | 19.66 | 355 | LR | LR | 00 24 27.7 | |
| | comp=Z,76nm,21.3s,baz=100,slow=32 | | | | | | |
| AS01 | Alice Springs | 21.26 | 214 | *e*P | P | 00 18 45.7 | +0.4 |
| AS31 | Alice Springs | 21.29 | 214 | *e*P | P | 00 18 46.0 | +0.4 |
| | 7.2nm,0.4s | | | | | | |
| ASAR | Alice Springs | 21.29 | 214 | P | P | 00 18 45.1 | -0.6 |
| | 15nm,0.5s,baz=55,slow=8.4,SNR=70 | | | | | | |
| ASAR | | | | S | S | 00 22 43.9 | +4.4 |
| | 2.2nm,1.0s,baz=25,slow=22,SNR=4.4 | | | | | | |
| ASAR | | | | LR | LR | 00 28 08.8 | |
| | comp=Z,258nm,18.4s,baz=44,slow=40 | | | | | | |
| SOEI | Soe | 22.39 | 259 | *e*P | P | 00 18 57.3 | -0.3 |
| | 28nm,0.7s | | | | | | |
| SARN | Sarigan | 22.69 | 358 | *e*P | P | 00 19 03.0 | +2.4 |
| FITZ | Fitzroy Crossi | 23.65 | 238 | P | P | 00 19 08.3 | -1.8 |
| | 15nm,0.4s,baz=52,slow=13,SNR=63 | | | | | | |
| FITZ | | | | LR | LR | 00 29 12.4 | |
| | comp=Z,103nm,19.2s,baz=58,slow=39 | | | | | | |
| MMRI | Maumere | 24.27 | 263 | *e*P | P | 00 19 15.0 | -0.9 |
| | 72nm,1.2s | | | | | | |
| LUWI | Luwuk | 24.29 | 281 | *e*P | P | 00 19 17.2 | +1.2 |
| | 252nm,1.7s | | | | | | |
| ARMA | Armidale | 24.63 | 169 | *e*P | P | 00 19 17.7 | -1.4 |
| | 54nm,1.6s | | | | | | |
| DZM | Mont Dzumac | 24.90 | 132 | P | P | 00 19 23.5 | +1.9 |
| | 6.1nm,0.9s,baz=295,slow=14,SNR=3.5 | | | | | | |
| DZM | | | | LR | LR | 00 27 53.8 | |
| | comp=Z,99nm,19.9s,baz=14,slow=34 | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| DZM | Mont Dzumac | 24.90 | 132 | eP | P | 00 19 22.2 | +0.7 |
| | 69nm,2.0s | | | | | | |
| STKA | Stephens Creek | 26.05 | 190 | P | P | 00 19 31.5 | -0.3 |
| | 8.6nm,0.7s,baz=351,slow=8.0,SNR=13 | | | | | | |
| STKA | | | | LR | LR | 00 30 49.1 | |
| | comp=Z,148nm,19.0s,baz=26,slow=39 | | | | | | |
| STKA | Stephens Creek | 26.05 | 190 | eP | P | 00 19 31.7 | -0.1 |
| | 2.0nm,0.8s | | | | | | |
| KAPI | Kappang | 26.73 | 271 | eP | P | 00 19 37.4 | -0.8 |
| | 599nm,0.7s | | | | | | |
| TARA | Tarawa | 27.33 | 75 | eP | P | 00 19 42.7 | -0.9 |
| | 185nm,1.2s | | | | | | |
| BBOO | Buckleboo | 28.31 | 199 | eP | P | 00 19 51.9 | -0.2 |
| | 98nm,2.0s | | | | | | |
| MBWA | Marble Bar | 29.99 | 237 | eP | P | 00 20 06.8 | -0.4 |
| | 14nm,1.3s | | | | | | |
| FORT | Forrest | 30.07 | 213 | eP | P | 00 20 07.8 | 0.0 |
| | 195nm,1.0s | | | | | | |
| H11S3 | WAKE ISLAND Hy | 31.49 | 39 | T | T | 00 53 14.9 | |
| | SNR=5.2 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 31.50 | 39 | T | T | 00 53 11.4 | |
| H11S1 | WAKE ISLAND Hy | 31.50 | 39 | T | T | 00 53 11.4 | |
| JAGI | Jajag, Banyuwa | 32.25 | 264 | eP | P | 00 20 26.9 | -0.2 |
| | 54nm,1.7s | | | | | | |
| FUNA | Funafuti | 32.43 | 96 | eP | P | 00 20 28.5 | -0.2 |
| | 46nm,0.9s | | | | | | |
| H11N1 | WAKE ISLAND Hy | 32.53 | 37 | T | T | 00 54 23.8 | |
| | baz=219,slow=76,SNR=5.4 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 32.55 | 37 | T | T | 00 54 26.8 | |
| | baz=219,slow=76,SNR=5.2 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 32.55 | 37 | T | T | 00 54 25.2 | |
| | baz=219,slow=76,SNR=9.7 | | | | | | |
| MSVF | Nonsavu | 32.82 | 113 | eP | P | 00 20 30.5 | -1.6 |
| | 16nm,1.3s | | | | | | |
| CBIJ | Chichi jima | 33.29 | 353 | eP | P | 00 20 37.2 | +1.1 |
| | 146nm,1.0s | | | | | | |
| SMRI | Semarang | 35.91 | 266 | eP | P | 00 20 58.6 | -0.3 |
| | 212nm,1.7s | | | | | | |
| TWG | Pinlang | 38.08 | 320 | eP | P | 00 21 18.2 | +1.1 |
| | 472nm,1.8s | | | | | | |
| YOJ | Yonaguni jima | 38.10 | 324 | eP | P | 00 21 17.7 | +0.4 |
| | 454nm,1.7s | | | | | | |
| NWAO | Narrogin (SRO) | 38.16 | 222 | eP | P | 00 21 16.9 | -0.9 |
| | 73nm,1.6s | | | | | | |
| CISI | Cisompet, Garu | 38.51 | 266 | eP | P | 00 21 20.1 | -0.9 |
| | 42nm,0.7s | | | | | | |
| NACB | Ninganchiao | 38.73 | 322 | eP | P | 00 21 23.1 | +0.5 |
| | 25nm,0.9s | | | | | | |
| SSLB | Suanglung | 38.85 | 321 | eP | P | 00 21 22.9 | -0.8 |
| | 125nm,2.0s | | | | | | |
| JHJ2 | Mitsune | 39.54 | 351 | eP | P | 00 21 28.4 | -0.8 |
| | 251nm,1.1s | | | | | | |
| XMIS | Christmas Isla | 40.71 | 261 | eP | P | 00 21 38.8 | -0.5 |
| | 131nm,1.6s | | | | | | |
| AFI | Afiamalu | 41.68 | 104 | eP | P | 00 21 46.5 | -0.8 |
| | 25nm,0.8s | | | | | | |
| JNU | Nakatsue | 41.78 | 340 | eP | P | 00 21 48.5 | +0.7 |
| | 12nm,1.1s | | | | | | |
| INU | Inuyama | 42.22 | 348 | eP | P | 00 21 53.4 | +2.1 |
| | 46nm,1.4s | | | | | | |
| URZ | Urewera | 42.30 | 144 | eP | P | 00 21 50.2 | -1.8 |
| | 75nm,1.5s | | | | | | |
| NJ2 | Nanjing | 46.25 | 327 | eP | P | 00 22 23.2 | -0.4 |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,14nm,0.5s | | | | | | |
| KSRS | Korea Array | 46.72 | 340 | P | P | 00 22 26.8 | -0.3 |
| | 4.0nm,0.9s,baz=155,slow=8.8,SNR=7.1 | | | | | | |
| KSRS | | | | LR | LR | 00 37 46.7 | |
| | comp=Z,49nm,21.4s,baz=84,slow=31 | | | | | | |
| KSAR | Wonju Array Be | 46.72 | 339 | P | P | 00 22 26.8 | -0.4 |
| KS01 | Wonju Array Si | 46.75 | 340 | eP | P | 00 22 30.1 | +2.7 |
| INCN | Inchon | 47.20 | 338 | eP | P | 00 22 31.2 | +0.2 |
| | 102nm,1.7s | | | | | | |
| PSI | Prapat | 48.41 | 279 | eP | P | 00 22 40.0 | -0.9 |
| PSI | | | | epP | pP | 00 22 55.6 | +0.7 |
| MIDW | Midway | 48.72 | 44 | eP | P | 00 22 43.0 | +0.1 |
| | 298nm,1.4s | | | | | | |
| JOHN | Johnston Islan | 48.98 | 62 | eP | P | 00 22 43.6 | -1.3 |
| | 1µm,1.8s | | | | | | |
| COCO | West Island | 49.42 | 259 | eP | P | 00 22 46.9 | -1.6 |
| | 110nm,0.6s | | | | | | |
| GSI | Gunungsitoli | 49.48 | 277 | eP | P | 00 22 47.0 | -1.9 |
| | 16nm,0.5s | | | | | | |
| GYA | Guiyang | 50.45 | 312 | eP | P | 00 22 58.4 | +2.2 |
| GYA | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.0s | | | | | | |
| USRK | Ussuriysk Ar. | 51.79 | 347 | P | P | 00 23 05.3 | -0.4 |
| | 2.4nm,0.5s,baz=173,slow=6.3,SNR=6.5 | | | | | | |
| KMI | Kunming | 52.74 | 308 | P | P | 00 23 15.3 | +1.8 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.5s | | | | | | |
| CM01 | Chiang Mai Arr | 52.91 | 298 | eP | P | 00 23 14.5 | -0.1 |
| CM31 | Chiang Mai Arr | 52.94 | 298 | eP | P | 00 23 13.9 | -0.9 |
| CMAR | Chiang Mai Arr | 52.94 | 298 | P | P | 00 23 14.7 | -0.1 |
| | 5.1nm,0.8s,baz=123,slow=6.2,SNR=16 | | | | | | |
| YSS | Yuzh-Sakhalins | 52.95 | 357 | eP | P | 00 23 14.7 | +0.4 |
| | 112nm,1.5s | | | | | | |
| CHTO | Chiang Mai | 53.08 | 299 | eP | P | 00 23 15.2 | -0.6 |
| | 3.2nm,0.8s | | | | | | |
| XAN | Xi'an | 53.51 | 321 | P | P | 00 23 19.7 | +0.9 |
| XAN | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.1s | | | | | | |
| CD2 | Chengdu | 55.06 | 315 | eP | P | 00 23 31.7 | +1.6 |
| CD2 | | | | pP | sP | 00 23 53.3 | +3.0 |
| CD2 | | | | sP | pP | 00 24 03.0 | +19 |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.2s | | | | | | |
| HHC | Hu-ho-hao-te | 56.72 | 329 | eP | P | 00 23 46.2 | +4.3 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,16nm,0.9s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,160nm,8.6s | | | | | | |
| LZH | Lanzhou | 58.03 | 320 | eP | P | 00 23 54.2 | +2.9 |
| LZH | | | | pP | sP | 00 24 15.7 | +4.2 |
| LZH | | | | sP | pP | 00 24 24.2 | +19 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,22nm,1.3s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,110nm,5.7s | | | | | | |
| PETK | Petropavlovsk- | 59.75 | 8 | P | P | 00 24 01.9 | -0.8 |
| | 2.9nm,0.8s,baz=167,slow=5.3,SNR=2.1 | | | | | | |
| GTA | Gaotai | 62.57 | 321 | eP | P | 00 24 24.8 | +2.6 |
| GTA | | | | pP | sP | 00 24 43.9 | +1.4 |
| GTA | | | | sP | PcP | 00 24 52.9 | -8.0 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | |
| SONM | Songino Array | 64.31 | 331 | P | P | 00 24 33.3 | -0.2 |
| | 1.5nm,0.8s,baz=150,slow=4.4,SNR=6.5 | | | | | | |
| SONA1 | Songino Array | 64.31 | 331 | eP | P | 00 24 34.4 | +0.8 |
| HYB | Hyderabad | 71.11 | 291 | i P | P | 00 25 16.0 | -0.9 |
| VNDA | Vanda | 71.82 | 177 | P | P | 00 25 20.4 | +0.4 |
| | 2.8nm,0.6s,baz=333,slow=6.5,SNR=15 | | | | | | |
| VNDA | | | | LR | LR | 00 55 12.1 | |
| | comp=Z,27nm,18.4s,baz=316,slow=34 | | | | | | |
| WMQ | Urumqi | 72.61 | 320 | P | P | 00 25 26.0 | +0.6 |
| WMQ | | | | pP | sP | 00 25 49.1 | +3.1 |
| WMQ | | | | sP | PcP | 00 25 57.9 | +15 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,11nm,0.7s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,320nm,4.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,81nm,14.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,44nm,14.7s | | | | | | |
| MK01 | Makanchi Array | 77.31 | 321 | eP | P | 00 25 50.9 | -1.5 |
| MK31 | Makanchi Array | 77.33 | 321 | eP | P | 00 25 51.3 | -1.2 |
| MKAR | Makanchi Array | 77.33 | 321 | P | P | 00 25 51.0 | -1.5 |
| | 0.7nm,0.5s,baz=97,slow=8.9,SNR=22 | | | | | | |
| ZALV | Zalesovo Beam | 78.89 | 328 | P | P | 00 25 58.5 | -2.5 |
| | 1.7nm,0.6s,baz=104,slow=6.1,SNR=10 | | | | | | |
| KSH | Kashi | 79.15 | 312 | P | P | 00 26 03.3 | +0.4 |
| KSH | | | | PcP | PcP | 00 26 13.7 | +2.6 |
| KSH | | | | pP | sP | 00 26 25.2 | +1.6 |
| KSH | | | | PP | PP | 00 29 05.0 | +2.1 |
| KSH | | | | S | S | 00 35 53.3 | -5.6 |
| KSH | | | | ScS | SKSac | 00 36 14.6 | -0.2 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,12nm,1.7s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,80nm,4.5s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,130nm,4.9s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,130nm,4.5s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,250nm,5.5s | | | | | | |
| KURK | Kurchatov | 81.06 | 323 | P | P | 00 26 11.5 | -1.2 |
| KURBB | Kurchatov Arra | 81.08 | 323 | P | P | 00 26 11.5 | -1.4 |
| | 0.6nm,0.7s,baz=122,slow=4.2,SNR=4.2 | | | | | | |
| MAW | Mawson | 81.98 | 203 | P | P | 00 26 17.7 | +0.4 |
| | 2.3nm,0.7s,baz=82,slow=12,SNR=3.7 | | | | | | |
| MAW | | | | LR | LR | 01 01 21.3 | |
| | comp=Z,32nm,19.0s,baz=56,slow=35 | | | | | | |
| QSPA | South Pole Qui | 83.85 | 180 | eP | P | 00 26 26.5 | -0.7 |
| | 12nm,0.5s | | | | | | |
| ILAR | Eielson Array | 85.75 | 23 | P | P | 00 26 34.6 | -2.0 |
| | 3.1nm,0.6s,baz=253,slow=5.0,SNR=48 | | | | | | |
| BVAR | Borovoye Array | 86.62 | 324 | P | P | 00 26 39.2 | -1.9 |
| | 0.7nm,0.5s,baz=119,slow=6.5,SNR=8.9 | | | | | | |
| GERES | GERESS Array B | 121.77 | 325 | PKP | PKPdf | 00 32 51.5 | -0.3 |
| | 0.4nm,0.4s,baz=93,slow=4.9,SNR=5.0 | | | | | | |
| PLCA | Paso Flores | 122.25 | 147 | PKP | PKPdf | 00 32 53.5 | +0.6 |
| | 1.3nm,0.5s,baz=222,slow=2.5,SNR=8.8 | | | | | | |
| LPAZ | La Paz | 139.07 | 123 | PKP | PKPdf | 00 33 26.7 | +0.7 |
| | 0.8nm,0.5s,baz=314,slow=7.7,SNR=4.6 | | | | | | |
| CPUP | Villa Florida | 140.27 | 145 | PKP | PKPdf | 00 33 27.7 | +0.5 |
| | 1.9nm,0.9s,baz=186,slow=7.3,SNR=3.2 | | | | | | |
| TORD | Torodi Ar. Bea | 144.72 | 284 | PKP | PKPab | 00 33 33.7 | -0.5 |
| | 12nm,0.6s,baz=61,slow=3.2,SNR=133 | | | | | | |
| SAML | Samuel | 146.77 | 116 | ePKPbc | PKPbc | 00 33 39.9 | -0.8 |
| KIC | Kosan Boka | 151.49 | 272 | ePKIKP | PKPbc | 00 33 52.5 | -0.2 |
| | 24nm,0.7s | | | | | | |
| DBIC | Dimbokro | 151.61 | 273 | PKPbc | PKPbc | 00 33 52.6 | -0.4 |
| | 13nm,0.6s,baz=62,slow=2.4,SNR=32 | | | | | | |
| TIC | Toumodi | 151.78 | 273 | ePKIKP | PKPbc | 00 33 52.9 | -0.5 |
| LIC | Lamto | 151.78 | 272 | ePKIKP | PKPbc | 00 33 53.0 | -0.3 |
| | 50nm,0.7s | | | | | | |
| BDFB | Brasilia | 153.99 | 146 | PKPbc | PKPbc | 00 33 57.9 | -0.4 |
| | 1.6nm,0.5s,baz=337,slow=1.1,SNR=4.4 | | | | | | |

**WEL 05 00:18:18.0±0.6, 39°.55S×174°.30E, h205km±4km, ML3.5/16, 3C, Error ellipse: s-maj=3.8km s-min=2.7km az=90.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WAZ | Wanganui | 0.57 | 112 | PN | Pn | 00 18 46.3 | +0.4 |
| WAZ | | | | SN | S | 00 19 06.8 | -0.8 |
| WNVZ | Wahianoa | 1.03 | 78 | PN | Pn | 00 18 48.2 | -0.5 |
| OTVZ | Oturere | 1.12 | 71 | PN | Pn | 00 18 48.9 | -0.4 |
| DUWZ | D'Urville Isla | 1.29 | 193 | ⇑PN | Pn | 00 18 50.1 | -0.3 |
| DUWZ | | | | SN | S | 00 19 13.7 | -1.7 |
| BHHZ | Black Hill Sta | 1.36 | 88 | PN | Pn | 00 18 50.4 | -0.7 |
| KIW | Kapiti Island | 1.39 | 161 | PN | Pn | 00 18 51.2 | 0.0 |
| POWZ | Post Office Ro | 1.41 | 127 | PN | Pn | 00 18 51.4 | +0.1 |
| OGWZ | Otaki Gorge | 1.43 | 153 | ⇑PN | Pn | 00 18 51.7 | +0.2 |
| OGWZ | | | | AML | AML | 00 19 17.1 | |
| OGWZ | | | | AML | AML | 00 19 17.1 | |
| MRZ | Mangatainoka R | 1.48 | 139 | ⇑PN | Pn | 00 18 51.9 | 0.0 |
| DVHZ | Dannevirke | 1.62 | 118 | AML | AML | 00 19 19.7 | |
| HOWZ | Holdsworth Sta | 1.64 | 146 | PN | Pn | 00 18 53.2 | -0.1 |
| HOWZ | | | | AML | AML | 00 19 19.0 | |
| TCW | Tory Channel | 1.66 | 181 | PN | Pn | 00 18 53.8 | +0.3 |
| CAW | Cannon Point | 1.67 | 160 | PN | Pn | 00 18 53.5 | -0.1 |
| TIWZ | Tintock | 1.73 | 136 | PN | Pn | 00 18 54.2 | 0.0 |
| NNZ | Nelson | 1.81 | 203 | PN | Pn | 00 18 54.4 | -0.6 |
| MTW | Mount Morrison | 1.85 | 151 | PN | Pn | 00 18 55.2 | -0.1 |
| QRZ | Quartz Range | 1.86 | 226 | PN | Pn | 00 18 54.2 | -1.3 |
| BFZ | Birch Farm | 1.87 | 128 | PN | Pn | 00 18 55.6 | 0.0 |
| TUWZ | Tuamarina | 1.90 | 188 | PN | Pn | 00 18 55.6 | -0.2 |
| TUWZ | | | | AML | AML | 00 18 56.4 | |
| PRHZ | Porangahau | 1.93 | 113 | PN | Pn | 00 18 56.4 | +0.3 |
| TMWZ | Te Maipa | 1.98 | 143 | PN | Pn | 00 18 56.5 | -0.1 |
| KAHZ | Kahuranaki | 2.00 | 98 | PN | Pn | 00 18 57.2 | +0.3 |
| PLWZ | Palliser | 2.15 | 161 | PN | Pn | 00 18 58.0 | -0.3 |

*ISN 05 00:28:46.7±1.1, 38°.96N×43°.40E, h3km±87km, ML3.8*
*ISK 05 00:28:55.5, 38°.60N×43°.16E, h2km, ML3.6*
*ATA 05 00:28:55.9±0.7, 38°.64N×43°.17E, h8km±8km, ML4.4, MW4.1*
*DDA 05 00:28:56.5, 38°.59N×43°.20E, h16km, Ml3.8*
*CSEM 05 00:28:56.5±0.1, 38°.58N×43°.18E, h2km, ML3.6, Error ellipse: s-maj=3.5km s-min=3.2km az=86.0*
**ISC 05 00:28:57.2±0.8, 38°.59N±0°.01×43°.20E±0°.02, h16km±6km, n133, $\sigma 1^{s}16$/186, 10D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.15 | 87 | ePG | Pg | 00 29 01.1 | -0.3 |
| VANB | | | | eSG | Sb | 00 29 04.9 | +0.2 |
| VANB | Van | 0.15 | 87 | ePg | Pg | 00 29 01.1 | -0.3 |
| TVAN | Van | 0.17 | 109 | i P | Pg | 00 29 01.0 | -0.8 |
| TVAN | | | | i S | Sg | 00 29 05.1 | +0.3 |
| TVAN | Van | 0.17 | 109 | P | Pg | 00 29 01.0 | -0.8 |
| TVAN | | | | S | Sg | 00 29 05.1 | +0.3 |
| GEVA | Gevas | 0.29 | 202 | ⇓iP | Pg | 00 29 02.9 | -0.6 |
| GEVA | | | | eS | Sb | 00 29 08.9 | 0.0 |
| GEVA | | | | IAML | | 00 29 09.0 | |
| | comp=Z,5µm,0.4s | | | | | | |
| GEVA | Gevas | 0.29 | 202 | ⇓iP | Pg | 00 29 03.0 | -0.6 |
| GEVA | | | | eS | Sb | 00 29 09.2 | +0.3 |
| GEVA | | | | IAML | | 00 29 10.4 | |
| | comp=Z,5µm,0.4s | | | | | | |
| GEVA | Gevas | 0.29 | 202 | ⇓iP | Pg | 00 29 03.1 | -0.6 |
| GEVA | | | | eS | Sb | 00 29 08.5 | -0.4 |
| GEVA | | | | IAML | | 00 29 10.6 | |
| | comp=Z,5µm,0.4s | | | | | | |
| GEVA | Gevas | 0.29 | 202 | i P | Pg | 00 29 03.0 | -0.6 |
| GEVA | | | | i S | Sb | 00 29 09.4 | +0.5 |
| GEVA | Gevas | 0.29 | 202 | P | Pg | 00 29 03.0 | -0.6 |
| GEVA | | | | S | Sb | 00 29 09.4 | +0.5 |
| ADCV | BITLIS_Adilcev | 0.43 | 301 | i P | Pg | 00 29 05.1 | -0.9 |
| ADCV | | | | i S | Sb | 00 29 12.6 | -0.3 |
| ADCV | BITLIS_Adilcev | 0.43 | 301 | P | Pg | 00 29 05.1 | -0.9 |
| ADCV | | | | S | Sb | 00 29 12.6 | -0.3 |
| ERCV | ERCIS-VAN | 0.45 | 14 | ePG | Pg | 00 29 05.0 | -1.3 |
| ERCV | ERCIS-VAN | 0.45 | 14 | ePg | Pg | 00 29 05.0 | -1.3 |
| VMUR | Van-Muradiye | 0.50 | 36 | i P | Pg | 00 29 06.6 | -0.6 |
| VMUR | | | | i S | Sb | 00 29 15.1 | +0.3 |
| VMUR | Van-Muradiye | 0.50 | 36 | P | Pg | 00 29 06.6 | -0.6 |
| VMUR | | | | S | Sb | 00 29 15.1 | +0.3 |
| CLDR | Caldiran | 0.79 | 45 | ePG | Pg | 00 29 11.6 | -1.1 |
| CLDR | | | | eSG | Sb | 00 29 23.8 | +0.5 |
| CLDR | Caldiran | 0.79 | 45 | i P | Pg | 00 29 11.5 | -1.1 |
| CLDR | | | | i S | Sb | 00 29 24.0 | +0.7 |
| CLDR | Caldiran | 0.79 | 45 | ePg | Pg | 00 29 11.6 | -1.1 |
| CLDR | | | | eSg | Sb | 00 29 23.8 | +0.5 |
| BASK | Baskale_VAN | 0.83 | 130 | eP | Pb | 00 29 13.5 | +0.1 |
| BASK | | | | eS | Sn | 00 29 27.2 | +0.7 |
| BASK | | | | IAML | | 00 29 37.8 | |
| | comp=Z,451nm,0.6s | | | | | | |
| BASK | Baskale_VAN | 0.83 | 130 | eP | Pb | 00 29 13.1 | -0.2 |
| BASK | | | | eS | Sn | 00 29 27.0 | +0.5 |
| BASK | | | | IAML | | 00 29 33.6 | |
| | comp=Z,541nm,0.6s | | | | | | |
| BASK | Baskale_VAN | 0.83 | 130 | eP | Pb | 00 29 13.4 | +0.1 |
| BASK | | | | eS | Sn | 00 29 26.5 | +0.1 |
| BASK | | | | IAML | | 00 29 37.8 | |
| | comp=Z,451nm,0.6s | | | | | | |
| BASK | Baskale_VAN | 0.83 | 130 | i P | Pb | 00 29 12.2 | -1.2 |
| BASK | | | | i S | Sn | 00 29 26.2 | -0.3 |
| BASK | Baskale_VAN | 0.83 | 130 | P | Pb | 00 29 12.2 | -1.2 |
| BASK | | | | S | Sn | 00 29 26.2 | -0.3 |
| TUTA | Tutak | 0.87 | 340 | ⇓iP | Pb | 00 29 12.5 | -1.6 |
| TUTA | | | | eS | Sb | 00 29 24.4 | -1.1 |
| TUTA | | | | IAML | | 00 29 25.8 | |
| | comp=Z,2µm,0.4s | | | | | | |
| TUTA | Tutak | 0.87 | 340 | ⇓iP | Pb | 00 29 12.4 | -1.6 |
| TUTA | | | | eS | Sb | 00 29 24.6 | -0.8 |
| TUTA | | | | IAML | | 00 29 25.6 | |
| | comp=Z,2µm,0.4s | | | | | | |
| TUTA | Tutak | 0.87 | 340 | ⇓iP | Pb | 00 29 12.5 | -1.6 |
| TUTA | | | | eS | Sb | 00 29 24.7 | -0.8 |
| TUTA | | | | IAML | | 00 29 25.8 | |
| | comp=Z,2µm,0.4s | | | | | | |
| TUTA | Tutak | 0.87 | 340 | i P | Pb | 00 29 12.4 | -1.6 |
| TUTA | | | | i S | Sb | 00 29 24.8 | -0.7 |
| TUTA | Tutak | 0.87 | 340 | P | Pb | 00 29 12.4 | -1.6 |
| TUTA | | | | S | Sb | 00 29 24.8 | -0.7 |
| AGRB | Hanur-Agry | 1.00 | 351 | ePG | Pb | 00 29 14.9 | -1.4 |
| AGRB | Hanur-Agry | 1.00 | 351 | ePg | Pb | 00 29 14.9 | -1.4 |
| DYDN | Diyadin | 1.03 | 22 | eP | Pb | 00 29 14.9 | -2.0 |
| DYDN | | | | IAML | | 00 29 20.1 | |
| | comp=Z,315nm,0.3s | | | | | | |
| DYDN | | | | eS | Sb | 00 29 29.9 | -0.3 |
| DYDN | Diyadin | 1.03 | 22 | eP | Pb | 00 29 15.2 | -1.6 |
| DYDN | | | | IAML | | 00 29 20.2 | |
| | comp=Z,315nm,0.3s | | | | | | |
| DYDN | | | | eS | Sb | 00 29 30.0 | -0.2 |
| DYDN | Diyadin | 1.03 | 22 | eP | Pb | 00 29 14.8 | -2.0 |
| DYDN | | | | IAML | | 00 29 20.1 | |
| | comp=Z,315nm,0.3s | | | | | | |
| DYDN | Diyadin | 1.03 | 22 | i P | Pb | 00 29 15.6 | -1.2 |
| DYDN | Diyadin | 1.03 | 22 | P | Pb | 00 29 15.6 | -1.2 |
| HAKT | HAKKARI | 1.10 | 158 | i P | Pb | 00 29 17.0 | -1.0 |
| HAKT | HAKKARI | 1.10 | 158 | P | Pb | 00 29 17.0 | -1.0 |
| EKAR | Karacoban | 1.11 | 307 | eP | Pb | 00 29 17.1 | -1.1 |
| EKAR | | | | eS | Sb | 00 29 32.4 | -0.1 |
| EKAR | | | | IAML | | 00 29 46.3 | |
| | comp=Z,418nm,0.4s | | | | | | |
| EKAR | Karacoban | 1.11 | 307 | eP | Pb | 00 29 16.9 | -1.3 |
| EKAR | | | | eS | Sn | 00 29 33.0 | -0.4 |
| EKAR | | | | IAML | | 00 29 46.3 | |
| | comp=Z,418nm,0.4s | | | | | | |
| EKAR | Karacoban | 1.11 | 307 | eP | Pb | 00 29 16.1 | -2.0 |
| EKAR | | | | IAML | | 00 29 46.4 | |
| | comp=Z,418nm,0.4s | | | | | | |
| EKAR | Karacoban | 1.11 | 307 | i P | Pb | 00 29 17.5 | -0.7 |
| EKAR | | | | i S | Sn | 00 29 39.8 | +6.4 |
| EKAR | Karacoban | 1.11 | 307 | P | Pb | 00 29 17.5 | -0.7 |
| SRTM | Siirt_Merkez | 1.17 | 240 | i P | Pb | 00 29 18.9 | -0.2 |
| SRTM | Siirt_Merkez | 1.17 | 240 | P | Pb | 00 29 18.9 | -0.2 |
| SIRT | Sirnak | 1.24 | 209 | ePN | Pb | 00 29 20.4 | +0.1 |
| SIRT | Sirnak | 1.24 | 209 | ePn | Pb | 00 29 20.4 | +0.1 |
| YOVA | Hakkari_Yˆ…kse | 1.32 | 139 | i P | Pn | 00 29 21.6 | +0.4 |
| YOVA | Hakkari_Yˆ…kse | 1.32 | 139 | P | Pn | 00 29 21.6 | +0.4 |
| CUKT | Cukurca | 1.38 | 166 | ePN | Pn | 00 29 22.2 | +0.3 |
| CUKT | Cukurca | 1.38 | 166 | i P | Pb | 00 29 22.7 | 0.0 |
| CUKT | Cukurca | 1.38 | 166 | ePn | Pn | 00 29 22.2 | +0.3 |
| CUKT | Cukurca | 1.38 | 166 | P | Pb | 00 29 22.7 | 0.0 |
| EATA | Eleskirt | 1.39 | 337 | i P | Pn | 00 29 21.7 | -0.5 |
| EATA | | | | eS | Sg | 00 29 41.8 | -0.3 |
| EATA | | | | IAML | | 00 29 43.7 | |
| | comp=Z,201nm,0.5s | | | | | | |
| EATA | Eleskirt | 1.39 | 337 | i P | Pn | 00 29 21.9 | -0.3 |
| EATA | | | | eS | Sg | 00 29 41.4 | -0.7 |
| EATA | | | | IAML | | 00 29 43.7 | |
| | comp=Z,201nm,0.5s | | | | | | |
| EATA | Eleskirt | 1.39 | 337 | ⇓iP | Pn | 00 29 21.9 | -0.3 |
| EATA | | | | eS | Sb | 00 29 41.1 | +0.6 |
| EATA | | | | IAML | | 00 29 43.7 | |
| | comp=Z,201nm,0.5s | | | | | | |
| EATA | Eleskirt | 1.39 | 337 | i P | Pn | 00 29 21.9 | -0.3 |
| EATA | | | | i S | Sg | 00 29 42.3 | +0.2 |
| EATA | Eleskirt | 1.39 | 337 | P | Pn | 00 29 21.9 | -0.3 |
| EATA | | | | S | Sg | 00 29 42.3 | +0.2 |
| VRTB | Varto-Mus | 1.48 | 293 | ePN | Pn | 00 29 23.1 | -0.2 |
| VRTB | Varto-Mus | 1.48 | 293 | ePn | Pn | 00 29 23.1 | -0.2 |
| TASB | TASBURUN-IGDIR | 1.61 | 30 | ePN | Pb | 00 29 26.2 | -0.5 |
| TASB | TASBURUN-IGDIR | 1.61 | 30 | ePn | Pb | 00 29 26.2 | -0.5 |
| BNGL | BINGOL | 1.64 | 283 | eP | Pb | 00 29 26.7 | -0.5 |
| BNGL | | | | eS | Sg | 00 29 49.9 | -0.2 |
| BNGL | | | | IAML | | 00 29 55.0 | |
| | comp=Z,731nm,0.4s | | | | | | |
| BNGL | BINGOL | 1.64 | 283 | eP | Pb | 00 29 26.8 | -0.5 |
| BNGL | | | | eS | Sg | 00 29 49.9 | -0.2 |
| BNGL | | | | IAML | | 00 29 54.9 | |
| | comp=Z,731nm,0.4s | | | | | | |
| BNGL | BINGOL | 1.64 | 283 | eP | Pb | 00 29 26.8 | -0.5 |
| BNGL | | | | eS | Sg | 00 29 50.4 | +0.2 |
| BNGL | | | | IAML | | 00 29 55.0 | |
| | comp=Z,731nm,0.4s | | | | | | |
| BNGL | BINGOL | 1.64 | 283 | i P | Pb | 00 29 27.1 | -0.2 |
| BNGL | | | | i S | Sg | 00 29 51.2 | +1.0 |
| BTMN | Batman | 1.67 | 246 | i P | Pb | 00 29 27.1 | -0.5 |
| BTMN | | | | i S | Sg | 00 29 51.4 | +0.4 |
| BTMN | Batman | 1.67 | 246 | P | Pb | 00 29 27.1 | -0.5 |
| BTMN | | | | S | Sg | 00 29 51.4 | +0.4 |
| HOMI | Horasan | 1.77 | 326 | ⇓iP | Pb | 00 29 28.6 | -0.8 |
| HOMI | | | | eS | Sg | 00 29 54.3 | +0.1 |
| HOMI | | | | IAML | | 00 29 57.2 | |
| | comp=Z,193nm,0.6s | | | | | | |
| HOMI | Horasan | 1.77 | 326 | eP | Pb | 00 29 28.5 | -1.0 |
| HOMI | | | | eS | Sg | 00 29 54.5 | +0.3 |
| HOMI | Horasan | 1.77 | 326 | eP | Pb | 00 29 28.4 | -1.0 |
| HOMI | | | | eS | Sg | 00 29 54.0 | -0.2 |
| HOMI | | | | IAML | | 00 29 57.2 | |
| | comp=Z,193nm,0.6s | | | | | | |
| HOMI | Horasan | 1.77 | 326 | i P | Pb | 00 29 28.9 | -0.5 |
| DIGO | Kars | 1.83 | 4 | ⇓eP | Pb | 00 29 29.7 | -0.8 |
| DIGO | | | | IAML | | 00 29 35.0 | |
| | comp=Z,128nm,0.8s | | | | | | |
| DIGO | Kars | 1.83 | 4 | ⇓eP | Pn | 00 29 29.4 | +1.2 |
| DIGO | | | | IAML | | 00 29 34.9 | |
| | comp=Z,128nm,0.8s | | | | | | |
| DIGO | | | | eS | Sg | 00 29 55.5 | -0.8 |
| DIGO | Kars | 1.83 | 4 | eP | Pn | 00 29 29.4 | +1.2 |
| DIGO | | | | IAML | | 00 29 35.0 | |
| | comp=Z,128nm,0.8s | | | | | | |
| DIGO | Kars | 1.83 | 4 | i P | Pb | 00 29 29.8 | -0.7 |
| DIGO | Kars | 1.83 | 4 | P | Pb | 00 29 29.8 | -0.7 |
| ERZM | Erzurum | 1.94 | 313 | eP | Pb | 00 29 31.6 | -0.8 |
| ERZM | Erzurum | 1.94 | 313 | eP | Pb | 00 29 31.0 | -1.3 |
| ERZM | Erzurum | 1.94 | 313 | eP | Pb | 00 29 31.1 | -1.3 |
| ERZM | Erzurum | 1.94 | 313 | i P | Pb | 00 29 31.9 | -0.4 |
| ERZM | Erzurum | 1.94 | 313 | P | Pb | 00 29 31.9 | -0.4 |
| ECAT | Cat-ERZURUM | 2.01 | 301 | eP | Pb | 00 29 33.1 | -0.4 |
| ECAT | | | | IAML | | 00 29 40.7 | |
| | comp=Z,62nm,0.4s | | | | | | |
| ECAT | | | | eS | Sg | 00 30 02.1 | +0.2 |
| ECAT | Cat-ERZURUM | 2.01 | 301 | eP | Pn | 00 29 31.7 | +1.1 |
| ECAT | | | | IAML | | 00 29 40.6 | |
| | comp=Z,62nm,0.4s | | | | | | |
| ECAT | | | | eS | Sg | 00 29 59.7 | -2.1 |
| ECAT | Cat-ERZURUM | 2.01 | 301 | i P | Pb | 00 29 32.4 | -1.1 |
| ECAT | Cat-ERZURUM | 2.01 | 301 | P | Pb | 00 29 32.4 | -1.1 |
| BNGB | Bingˆ¶l | 2.01 | 282 | ePN | Pn | 00 29 31.6 | +1.0 |
| KARS | Kars | 2.04 | 357 | ePN | Pn | 00 29 32.2 | +1.2 |
| KARS | Kars | 2.04 | 357 | ePn | Pn | 00 29 32.2 | +1.2 |
| SENK | Senkaya-Erzuru | 2.08 | 342 | ePN | Pn | 00 29 32.9 | +1.3 |
| SENK | Senkaya-Erzuru | 2.08 | 342 | ePn | Pn | 00 29 32.9 | +1.3 |
| EAK | Akyaka | 2.12 | 8 | eP | Pb | 00 29 34.4 | -0.9 |
| EAK | | | | IAML | | 00 29 44.4 | |
| | comp=Z,133nm,0.5s | | | | | | |
| EAK | | | | eS | Sg | 00 30 04.5 | -1.0 |
| EAK | Akyaka | 2.12 | 8 | eP | Pn | 00 29 33.4 | +1.3 |
| EAK | | | | IAML | | 00 29 44.3 | |
| | comp=Z,133nm,0.5s | | | | | | |
| EAK | | | | eS | Sb | 00 30 02.6 | +1.1 |
| EAK | Akyaka | 2.12 | 8 | i P | Pb | 00 29 35.0 | -0.4 |
| EAK | Akyaka | 2.12 | 8 | P | Pb | 00 29 35.0 | -0.4 |
| BINT | Bingol | 2.14 | 279 | ePn | Pn | 00 29 31.6 | -0.8 |
| HANI | Diyarbakir_Han | 2.20 | 266 | i P | Pb | 00 29 35.1 | -1.6 |
| HANI | Diyarbakir_Han | 2.20 | 266 | P | Pb | 00 29 35.1 | -1.6 |
| YEDI | Yedisu-Bingol | 2.23 | 293 | ePN | Pn | 00 29 34.6 | +0.9 |
| YEDI | Yedisu-Bingol | 2.23 | 293 | ePn | Pn | 00 29 34.6 | +0.9 |
| MARD | Mardin | 2.29 | 237 | i P | Pn | 00 29 35.1 | +0.5 |
| DIY | Diyarbakir | 2.44 | 254 | ePn | Pn | 00 29 37.8 | +1.4 |
| MAZI | Mazidag | 2.45 | 243 | ePN | Pn | 00 29 37.0 | +0.4 |
| MAZI | Mazidag | 2.45 | 243 | ePn | Pn | 00 29 37.0 | +0.4 |
| DYBB | Diyarbakir | 2.49 | 256 | ePN | Pn | 00 29 37.8 | +0.7 |
| KOPT | Kop Dagi | 2.54 | 305 | eP | Pn | 00 29 39.8 | +1.8 |
| KOPT | | | | eS | Sb | 00 30 14.6 | +1.0 |
| KOPT | Kop Dagi | 2.54 | 305 | i P | Pb | 00 29 43.7 | +1.2 |
| KOPT | Kop Dagi | 2.54 | 305 | P | Pb | 00 29 43.7 | +1.2 |
| DDEM | Demirkent | 2.56 | 335 | i P | Pb | 00 29 43.5 | +0.7 |
| DDEM | Demirkent | 2.56 | 335 | P | Pb | 00 29 43.5 | +0.7 |
| DAGI | Agillar | 2.68 | 339 | i P | Pb | 00 29 44.8 | 0.0 |
| BGD | Bogdanovka | 2.69 | 6 | P | Pb | 00 29 46.7 | +1.6 |
| ARTV | Artvin | 2.77 | 340 | eP | Pb | 00 29 44.0 | -2.5 |
| ARTV | | | | IAML | | 00 29 55.6 | |
| | comp=Z,20nm,0.6s | | | | | | |
| ARTV | | | | eS | Sb | 00 30 20.1 | -0.3 |
| ARTV | Artvin | 2.77 | 340 | eP | Pn | 00 29 42.8 | +1.6 |
| ARTV | | | | IAML | | 00 29 55.6 | |
| | comp=Z,20nm,0.6s | | | | | | |
| ARTV | Artvin | 2.77 | 340 | eP | Pn | 00 29 42.6 | +1.5 |
| ARTV | | | | eS | Sb | 00 30 20.3 | 0.0 |
| AKH | Akhalkalaki | 2.83 | 5 | ePN | Pn | 00 29 43.3 | +1.4 |
| AKH | Akhalkalaki | 2.83 | 5 | P | Pb | 00 29 48.2 | +0.7 |
| AKH | Akhalkalaki | 2.83 | 5 | ePn | Pn | 00 29 43.3 | +1.4 |
| EPOS | Posof | 2.94 | 353 | eP | Pn | 00 29 45.2 | +1.8 |
| EPOS | | | | IAML | | 00 30 08.5 | |
| | comp=Z,13nm,0.6s | | | | | | |
| EPOS | Posof | 2.94 | 353 | eP | Pn | 00 29 45.0 | +1.7 |
| EPOS | | | | IAML | | 00 30 08.4 | |
| | comp=Z,13nm,0.6s | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| EUZM | Uzumlu | 2.94 | 293 | eP | Pn | 00 29 45.9 | +2.5 |
| EUZM | | | | IAML | | 00 30 03.4 | |
| | comp=Z,15nm,0.5s | | | | | | |
| EUZM | Uzumlu | 2.94 | 293 | eP | Pn | 00 29 44.6 | +1.2 |
| EUZM | | | | IAML | | 00 30 03.3 | |
| | comp=Z,15nm,0.5s | | | | | | |
| PTK | Pertek | 2.99 | 277 | ePN | Pn | 00 29 45.2 | +1.1 |
| PTK | Pertek | 2.99 | 277 | ePn | Pn | 00 29 45.2 | +1.1 |
| TBLG | Delisi | 3.35 | 20 | P | Pb | 00 29 56.9 | +0.5 |
| DDFL | Dedoflistskaro | 3.63 | 37 | P | Pb | 00 30 02.7 | +1.6 |
| URFA | Urfa | 3.64 | 253 | ePN | Pn | 00 29 54.4 | +1.4 |
| URFA | Urfa | 3.64 | 253 | ePn | Pn | 00 29 54.4 | +1.4 |
| ILIC | ilic-Erzincan | 3.71 | 285 | ePN | Pn | 00 29 55.3 | +1.4 |
| ILIC | ilic-Erzincan | 3.71 | 285 | ePn | Pn | 00 29 55.3 | +1.4 |
| GUDG | Gudauri | 4.00 | 14 | P | Pn | 00 30 00.9 | +3.0 |
| ONI | Oni | 4.00 | 3 | P | Pb | 00 30 09.6 | +2.2 |
| CHVG | Ch'k'valeri | 4.21 | 349 | P | Pg | 00 30 16.0 | -2.0 |
| BHD | Baghdad | 5.39 | 169 | ePn | Pn | 00 30 14.0 | -3.0 |
| | SNR=3.0 | | | | | | |
| BHD | | | | eSn | Sn | 00 31 15.0 | -3.7 |
| | SNR=3.0 | | | | | | |

---

*ISK* ***05*** *00:34:01.8, 38°.85N×43°.55E, h5km, MD2.6*
*CSEM* ***05*** *00:34:03.2±0.2, 38°.88N×43°.54E, h10km, ML2.4, Error ellipse: s-maj=7.3km s-min=5.0km az=105.0*
*DDA* ***05*** *00:34:03.1, 38°.89N×43°.55E, h7km, Ml2.4*
**ISC 05 00:34:03.4**±0.9**, 38°.86N**±0°.03×**43°.57E**±0°.04**, h13**km±7km**,** **n19,** σ**0s75**/27**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.13 | 1 | i P | Pg | 00 34 06.0 | -0.9 |
| VMUR | | | | i S | Sg | 00 34 10.6 | +1.1 |
| VMUR | Van-Muradiye | 0.13 | 1 | P | Pg | 00 34 06.0 | -0.9 |
| VMUR | | | | S | Sg | 00 34 10.6 | +1.1 |
| VANB | Van | 0.29 | 208 | ePG | Pb | 00 34 10.1 | -0.5 |
| VANB | Van | 0.29 | 208 | ePg | Pb | 00 34 10.1 | -0.5 |
| TVAN | Van | 0.35 | 201 | i P | Pg | 00 34 09.7 | -0.8 |
| TVAN | | | | i S | Sb | 00 34 17.3 | +0.1 |
| TVAN | Van | 0.35 | 201 | P | Pg | 00 34 09.7 | -0.8 |
| TVAN | | | | S | Sb | 00 34 17.3 | +0.1 |
| CLDR | Caldiran | 0.40 | 43 | ePG | Pg | 00 34 11.0 | -0.4 |
| CLDR | | | | eSG | Sb | 00 34 17.8 | -0.7 |
| CLDR | Caldiran | 0.40 | 43 | i P | Pg | 00 34 10.9 | -0.4 |
| CLDR | Caldiran | 0.40 | 43 | ePg | Pg | 00 34 11.0 | -0.4 |
| CLDR | | | | eSg | Sb | 00 34 17.8 | -0.7 |
| ADCV | BITLIS_Adilcev | 0.66 | 266 | i P | Pg | 00 34 15.8 | -0.5 |
| ADCV | BITLIS_Adilcev | 0.66 | 266 | P | Pg | 00 34 15.8 | -0.5 |
| TUTA | Tutak | 0.80 | 313 | i P | Pg | 00 34 17.9 | -1.0 |
| TUTA | Tutak | 0.80 | 313 | P | Pg | 00 34 17.9 | -1.0 |
| AGRB | Hanur-Agry | 0.85 | 328 | ePG | Pg | 00 34 19.2 | -0.6 |
| AGRB | | | | eSG | Sb | 00 34 31.9 | +0.5 |
| AGRB | Hanur-Agry | 0.85 | 328 | ePg | Pg | 00 34 19.2 | -0.6 |
| AGRB | | | | eSg | Sb | 00 34 32.0 | +0.5 |
| TASB | TASBURUN-IGDIR | 1.24 | 25 | ePN | Pn | 00 34 26.9 | +0.4 |
| TASB | TASBURUN-IGDIR | 1.24 | 25 | ePn | Pn | 00 34 26.9 | +0.4 |
| CUKT | Cukurca | 1.60 | 179 | ePN | Pn | 00 34 32.4 | +0.8 |
| CUKT | Cukurca | 1.60 | 179 | ePn | Pn | 00 34 32.4 | +0.8 |

---

*DDA* ***05*** *00:40:17.0, 39°.15N×29°.00E, h7km, Ml2.7*
*ISK* ***05*** *00:40:16.9, 39°.13N×29°.07E, h6km, MD2.6*
*ISCJB* ***05*** *00:40:17.3±0.4, 39°.14N±0°.03×29°.03E±0°.03, h7km±4km, Error ellipse: s-maj=5.0km s-min=4.0km az=157.1*
*CSEM* ***05*** *00:40:17.4±0.1, 39°.14N×29°.02E, h5km, MD2.6, Error ellipse: s-maj=2.4km s-min=2.3km az=119.0*
**ISC 05 00:40:17.3**±0.8**, 39°.14N**±0°.02×**29°.01E**±0°.02**, h10**km±6km**,** **n46,** σ**0s43**/58**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SIMA | Simav-Kutahya | 0.06 | 202 | ePG | Pg | 00 40 19.5 | -0.1 |
| SIMA | | | | eSG | Sg | 00 40 21.0 | -0.2 |
| SIMA | Simav-Kutahya | 0.06 | 202 | ePg | Pg | 00 40 19.5 | -0.1 |
| SIMA | | | | eSg | Sg | 00 40 21.0 | -0.2 |
| DEMI | Demirci | 0.25 | 247 | i P | Pg | 00 40 22.5 | 0.0 |
| DEMI | | | | i S | Sg | 00 40 26.1 | +0.1 |
| DEMI | Demirci | 0.25 | 247 | P | Pg | 00 40 22.5 | 0.0 |
| DEMI | | | | S | Sg | 00 40 26.0 | +0.1 |
| GDZ | Gediz | 0.37 | 98 | i P | Pg | 00 40 24.4 | -0.2 |
| GDZ | | | | i S | Sg | 00 40 29.7 | +0.2 |
| GDZ | Gediz | 0.37 | 98 | P | Pg | 00 40 24.4 | -0.2 |
| GDZ | | | | S | Sg | 00 40 29.7 | +0.2 |
| TVSB | Tavsanli | 0.46 | 48 | ePG | Pg | 00 40 26.2 | -0.2 |
| TVSB | | | | eSG | Sg | 00 40 32.5 | 0.0 |
| TVSB | Tavsanli | 0.46 | 48 | ePg | Pg | 00 40 26.2 | -0.2 |
| TVSB | | | | eSg | Sg | 00 40 32.5 | 0.0 |
| KULA | Kula-Manisa | 0.69 | 204 | ePG | Pg | 00 40 30.1 | -0.5 |
| KULA | Kula-Manisa | 0.69 | 204 | ePg | Pg | 00 40 30.1 | -0.5 |
| MANT | Manisa | 0.74 | 209 | i P | Pg | 00 40 31.3 | -0.4 |
| MANT | Manisa | 0.74 | 209 | P | Pg | 00 40 31.3 | -0.4 |
| KHAL | Karahalli | 0.86 | 154 | i P | Pb | 00 40 33.9 | -0.5 |
| KHAL | | | | i S | Sg | 00 40 44.5 | -0.5 |
| KHAL | Karahalli | 0.86 | 154 | P | Pb | 00 40 33.9 | -0.5 |
| KHAL | | | | S | Sg | 00 40 44.5 | -0.5 |
| AKHS | Akhisar | 0.97 | 255 | i P | Pg | 00 40 36.0 | 0.0 |
| AKHS | | | | i S | Sb | 00 40 49.1 | 0.0 |
| AKHS | Akhisar | 0.97 | 255 | P | Pg | 00 40 36.0 | 0.0 |
| AKHS | | | | S | Sb | 00 40 49.1 | 0.0 |
| BALB | Balikesir | 1.01 | 300 | ePG | Pn | 00 40 37.8 | +0.3 |
| BALB | Balikesir | 1.01 | 300 | ePg | Pn | 00 40 37.8 | +0.3 |
| IGD | Bursa | 1.13 | 7 | i P | Pg | 00 40 38.1 | -0.9 |
| MDNY | Mudanya-Bursa | 1.23 | 355 | ePN | Pn | 00 40 41.3 | +0.8 |
| MDNY | Mudanya-Bursa | 1.23 | 355 | ePn | Pn | 00 40 41.3 | +0.8 |
| KCTX | Karacabey (Bur | 1.23 | 336 | ePN | Pn | 00 40 41.4 | +0.8 |
| KCTX | Karacabey (Bur | 1.23 | 336 | ePn | Pn | 00 40 41.4 | +0.8 |
| BALY | Balya | 1.23 | 299 | i P | Pg | 00 40 40.0 | -1.0 |
| BALY | Balya | 1.23 | 299 | P | Pg | 00 40 40.0 | -1.0 |
| CAVI | Cavuskoy | 1.24 | 31 | ePN | Pb | 00 40 40.8 | 0.0 |
| CAVI | Cavuskoy | 1.24 | 31 | ePn | Pb | 00 40 40.8 | 0.0 |
| KZIL | AFYON_Kizioren | 1.25 | 135 | i P | Pn | 00 40 41.4 | +0.5 |
| KZIL | AFYON_Kizioren | 1.25 | 135 | P | Pn | 00 40 41.4 | +0.5 |
| SHUT | Suhut-Afyon | 1.34 | 116 | ePN | Pg | 00 40 42.6 | -0.4 |
| SHUT | Suhut-Afyon | 1.34 | 116 | ePn | Pg | 00 40 42.6 | -0.4 |
| ADVT | Abdulvahap | 1.40 | 23 | ePN | Pb | 00 40 43.7 | +0.1 |
| ADVT | Abdulvahap | 1.40 | 23 | ePn | Pb | 00 40 43.7 | +0.1 |
| ARMT | Armutlu | 1.43 | 355 | ePN | Pg | 00 40 44.4 | -0.3 |
| ARMT | Armutlu | 1.43 | 355 | ePn | Pg | 00 40 44.4 | -0.3 |
| YLV | Yalova | 1.45 | 11 | ePN | Pg | 00 40 44.7 | -0.4 |
| YLV | Yalova | 1.45 | 11 | ePn | Pg | 00 40 44.7 | -0.4 |
| DNZL | Cakiroluk | 1.45 | 179 | i P | Pg | 00 40 45.4 | +0.2 |
| DNZL | Cakiroluk | 1.45 | 179 | P | Pg | 00 40 45.4 | +0.2 |
| EDC | Edincik | 1.49 | 324 | ePN | Pg | 00 40 45.6 | -0.4 |
| EDC | Edincik | 1.49 | 324 | ePn | Pg | 00 40 45.6 | -0.4 |
| KNL | Bal˜–kesir | 1.61 | 315 | i P | Pb | 00 40 47.2 | +0.1 |
| GULT | Gulveren | 1.73 | 41 | ePN | Pn | 00 40 47.8 | +0.2 |
| GULT | Gulveren | 1.73 | 41 | ePn | Pn | 00 40 47.8 | +0.2 |
| SVRH | Sivrihisar-ESK | 1.97 | 80 | ePN | Pn | 00 40 51.4 | +0.5 |
| SVRH | Sivrihisar-ESK | 1.97 | 80 | ePn | Pn | 00 40 51.4 | +0.5 |

---

*NIED* ***05*** *01:01:00, 36°.30N×141°.90E, h14km, Mw5.1 Best double couple: M0 5.68000×10^16 NP1: φs 174.00000°, δ20.00000°, λ60.00000°. NP2: φs 26.00000°, δ73.00000°, λ101.00000°.*
*BJI* ***05*** *01:01:10.7, 36°.22N×141°.47E, h6km, mb4.9/73, mB5.1/60, Ms5.2/80, Ms7 5.0/73*
*ISCJB* ***05*** *01:01:11.4±0.7, 36°.14N±0°.02×141°.90E±0°.02, h21km±4km, mb5.0/151, MS5.0/64, Error ellipse: s-maj=3.8km s-min=2.6km az=162.5*
*JMA* ***05*** *01:01:12.1±0.2, 36°.25N×141°.97E, h48km, M5.2*
*JMA Felt II J1.*
*GCMT* ***05*** *01:01:12.6±0.2, 36°.18N×141°.98E, h24km, MW5.2/114, Moment Tensor Solution. s66,c98; s114,c170; Duration: 0 Moment tensor: Scale 10^16 Nm; Mrr 5.88±.19; Mθθ -0.57±.12; Mφφ -5.30±.13; Mrθ 1.43±.18; Mθφ -1.58±.08; Mφr 3.87±.17; Best double couple: M0 7.14200×10^16 NP1: φs 19.00000°, δ63.00000°, λ92.00000°. NP2: φs 195.00000°, δ27.00000°, λ87.00000°. Principal axes: T 7.1950, Plg72.0000°, Azm293.0000°; N -0.1020, Plg2.0000°, Azm198.0000°; P -7.0880, Plg18.0000°, Azm108.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*NEIC* ***05*** *01:01:12.6±1.9, 36°.16N×141°.81E, h17km±11km, mb5.1/62 Error ellipse: s-maj=4.8km s-min=3.3km az=131.0*
*NEIC Felt at Chiba. Recorded [2 JMA] in Fukushima, Ibaraki and Tochigi.*
*IDC* ***05*** *01:01:13.5±3.5, 36°.15N×141°.90E, h25km±23km, mb4.7/30, mb1 4.8/35, mb1mx4.7/43, mbtmp4.8/35, ML4.2/3, MS4.8/28, Ms1 4.8/28, ms1mx4.6/42, Error ellipse: s-maj=13.3km s-min=10.7km az=120.0*
*MOS* ***05*** *01:01:13.3±1.1, 36°.24N×141°.82E, h32km, mb5.3/66, MS5.2/28, Error ellipse: s-maj=7.0km s-min=4.2km az=117.9*
**ISC 05 01:01:11.8**±0.6**, 36°.16N**±0°.03×**141°.94E**±0°.03**, h16**km±3km**,** **n682,** σ**1s45**/725**, mb5.1**/157**, MS5.1**/66**, 42C-15D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CHOJ | Chosi | 0.99 | 243 | ⇓P | Pb | 01 01 30.8 | +0.3 |
| CHOJ | | | | eS | Sn | 01 01 45.4 | +0.9 |
| JHO | Hitachi | 1.19 | 293 | ⇓P | Pn | 01 01 32.3 | -1.5 |
| ONAJ | Iwakimizuishiy | 1.31 | 316 | ⇓P | Pn | 01 01 33.9 | -1.6 |
| JFK | Kawauchi | 1.48 | 325 | P | Pn | 01 01 36.5 | -1.3 |
| BSO1 | Boso 1 | 1.69 | 208 | P | Pn | 01 01 41.2 | +1.0 |
| BSO3 | Boso 3 | 1.78 | 221 | P | Pn | 01 01 42.9 | +1.2 |
| JSB | Shiboa | 1.81 | 297 | P | Pn | 01 01 42.0 | -0.4 |
| JFT | Otama | 1.87 | 317 | P | Pn | 01 01 43.0 | -0.1 |
| JFT | | | | eS | Sn | 01 02 06.2 | -0.2 |
| JMM | Marumori | 1.94 | 332 | ⇑P | Pn | 01 01 42.8 | -1.2 |
| JAG | Ashikaga | 2.02 | 278 | P | Pn | 01 01 44.7 | -0.5 |
| JAG | | | | eS | Sn | 01 02 09.1 | -1.1 |
| JFY | Yanaizu | 2.18 | 306 | ⇑P | Pn | 01 01 47.5 | 0.0 |
| JKT | Katashina | 2.25 | 286 | ⇑P | Pn | 01 01 48.6 | +0.2 |
| JRY | Ryogami san | 2.46 | 268 | P | Pn | 01 01 51.0 | -0.3 |
| JHK | Hiroka | 2.59 | 296 | ⇑P | Pn | 01 01 53.5 | +0.5 |
| JGK | Kuni | 2.69 | 280 | P | Pn | 01 01 54.7 | +0.2 |
| JYN | Shimob | 2.83 | 258 | P | Pn | 01 01 57.2 | +0.8 |
| JMK | Ichinoseki | 2.85 | 349 | ⇑P | Pn | 01 01 55.5 | -1.0 |
| JYK | Kaneyama | 3.03 | 336 | P | Pn | 01 01 58.6 | -0.4 |
| MJAR | Matsushiro Arr | 3.03 | 278 | Pn | Pn | 01 01 59.8 | +0.7 |
| | 70nm,0.3s,baz=103,slow=8.1,SNR=587 | | | | | | |
| MJAR | | | | Sn | Sb | 01 02 38.4 | -3.9 |
| | 86nm,0.3s,baz=92,slow=14,SNR=6.2 | | | | | | |
| MJAR | | | | LR | LR | 01 03 15.4 | |
| | comp=Z,11μm,20.1s,baz=100,slow=41 | | | | | | |
| MAJO | Matsushiro | 3.04 | 278c | iP | Pn | 01 02 00.2 | +1.0 |
| MAJO | Matsushiro | 3.04 | 278 | ePn | Pn | 01 02 00.2 | +1.0 |
| MAJO | | | | eS | Sn | 01 02 23.3 | -12 |
| MAT | Matsushiro | 3.04 | 278 | P | Pn | 01 01 59.8 | +0.6 |
| MAT | | | | S | Sn | 01 02 37.1 | +1.9 |
| MAT | Matsushiro | 3.04 | 278 | P | Pn | 01 02 00.2 | +1.0 |
| MJB9 | Matsu-Tunnel | 3.04 | 278 | ePn | Pn | 01 02 00.2 | +1.0 |
| MJB9 | | | | eSn | Sn | 01 02 26.6 | -8.7 |
| JNT | Takato | 3.09 | 266 | P | Pn | 01 02 01.5 | +1.5 |
| JNG | Nsakai | 3.11 | 276 | P | Pn | 01 02 01.1 | +0.8 |
| JJN | Nakama | 3.18 | 288 | P | Pn | 01 02 02.5 | +1.4 |
| JNY | Yasuok | 3.41 | 258 | ⇑P | Pn | 01 02 06.1 | +1.7 |
| JHJ2 | Mitsune | 3.50 | 211 | ePn | Pn | 01 02 06.2 | +0.6 |
| JHJ2 | | | | eS | Sn | 01 02 46.1 | -0.6 |
| JHJ | Hachijo jima 2 | 3.51 | 211 | Pn | Pn | 01 02 05.7 | 0.0 |
| | 516nm,0.3s,baz=80,slow=2.8,SNR=49 | | | | | | |
| JHJ | | | | Sn | Sn | 01 02 46.1 | -0.8 |
| | 439nm,0.3s,baz=277,slow=22,SNR=10 | | | | | | |
| JHJ | | | | LR | LR | 01 03 06.0 | |
| | comp=Z,25nm,18.2s,baz=316,slow=32 | | | | | | |
| JGN | Niukaw | 3.74 | 272 | P | Pn | 01 02 10.5 | +1.6 |
| JGF | Kuroka | 3.76 | 263 | P | Pn | 01 02 11.0 | +1.8 |
| JSZ | Suzu | 3.89 | 291 | P | Pn | 01 02 11.8 | +0.9 |
| INU | Inuyama | 4.08 | 260 | ePn | Pn | 01 02 14.4 | +0.9 |
| INU | | | | eSn | Sn | 01 03 00.2 | -0.8 |
| JAA | Atsumi | 4.20 | 250 | P | Pn | 01 02 18.1 | +2.9 |
| JHG | Hegura jima | 4.36 | 294 | P | Pn | 01 02 18.1 | +0.8 |
| ERM | Erimo | 5.93 | 9 | eP | Pn | 01 02 36.8 | -2.0 |
| ERM | | | | eS | Sn | 01 03 43.1 | -3.3 |
| ERM | Erimo | 5.93 | 9 | ePn | Pn | 01 02 36.8 | -2.0 |
| ERM | | | | eS | Sn | 01 03 43.1 | -3.3 |
| ASAJ | Asahikawa | 7.97 | 3 | Pn | Pn | 01 03 06.1 | -0.8 |
| | 6.1nm,0.3s,baz=210,slow=11,SNR=17 | | | | | | |
| ASAJ | | | | Sn | Sn | 01 04 33.0 | -3.6 |
| | 4.2nm,0.3s,baz=53,slow=25,SNR=5.2 | | | | | | |
| ASAJ | | | | Lg | Lg | 01 05 10.8 | |
| | 4.6nm,0.3s,baz=127,slow=32,SNR=5.8 | | | | | | |
| ASAJ | Asahikawa | 7.97 | 3 | ePn | Pn | 01 03 05.7 | -1.2 |
| ASAJ | | | | Sn | Sn | 01 04 33.0 | -3.6 |
| ASAJ | | | | eS | Sn | 01 04 34.5 | -2.0 |
| ASAJ | | | | Lg | Lg | 01 05 10.8 | |
| YUK | Yuzh-Kuril'sk | 8.42 | 20 | eP | Pn | 01 03 07.8 | -5.3 |
| YUK | | | | pmax | pmax | | |
| | comp=Z,191nm,0.5s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=N,87nm,0.3s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=E,74nm,0.4s | | | | | | |
| YUK | | | | MLR | MLR | | |
| | comp=N,4μm,12.0s | | | | | | |
| YUK | | | | MLR | MLR | | |
| | comp=Z,4μm,12.0s | | | | | | |
| YUK | | | | MLR | MLR | | |
| | comp=E,5μm,11.0s | | | | | | |
| SHO | Shikotan | 8.57 | 24 | eP | Pn | 01 03 09.3 | -5.8 |
| CBIJ | Chichi jima | 9.04 | 179 | ePn | Pn | 01 03 20.6 | -1.0 |
| CBIJ | | | | eS | Sn | 01 04 55.4 | -7.6 |
| JNU | Nakatsue | 9.60 | 255 | Pn | Pn | 01 03 30.7 | +1.3 |
| | comp=E,0.9nm,0.3s,baz=100,slow=6.9,SNR=12 | | | | | | |
| JNU | Nakatsue | 9.60 | 255 | ePn | Pn | 01 03 30.2 | +0.9 |
| KUR | Kuril'sk | 10.12 | 25 | P | Pn | 01 03 32.8 | -3.5 |
| KUR | | | | eS | Sn | 01 05 22.1 | -7.3 |
| KUR | | | | MLR | MLR | | |
| | comp=E,56μm,16.0s | | | | | | |
| KUR | | | | MLR | MLR | | |
| | comp=Z,37μm,16.0s | | | | | | |
| KUR | | | | MLR | MLR | | |
| | comp=N,43μm,15.0s | | | | | | |
| VLA | Vladivostok | 10.41 | 315 | i P | Pn | 01 03 42.6 | +2.3 |
| MSHR | Mys Shultsa | 10.52 | 311 | ⇑eP | Pn | 01 03 42.9 | +1.1 |
| YSS | Yuzh-Sakhalins | 10.81 | 3 | ⇑eP | Pn | 01 03 45.8 | +0.1 |
| YSS | | | | e | | 01 05 40.8 | |
| YSS | | | | pmax | pmax | | |
| | comp=Z,70nm,1.0s | | | | | | |
| YSS | Yuzh-Sakhalins | 10.81 | 3 | ePn | Pn | 01 03 45.4 | -0.3 |
| USRK | Ussuriysk Ar. | 11.06 | 320 | Pn | Pn | 01 03 50.1 | +0.9 |
| | comp=Z,0.5nm,0.3s,baz=134,slow=14,SNR=9.7 | | | | | | |
| USRK | | | | LR | LR | 01 07 55.3 | |
| | comp=Z,8μm,18.6s,baz=124,slow=36 | | | | | | |
| KSRS | Korea Array | 11.31 | 281 | Pn | Pn | 01 03 56.3 | +3.6 |
| | comp=Z,0.4nm,0.3s,baz=93,slow=13,SNR=36 | | | | | | |
| KSRS | | | | LR | LR | 01 08 19.2 | |
| | comp=Z,5μm,18.3s,baz=72,slow=38 | | | | | | |
| KS01 | Wonju Array Si | 11.34 | 281 | ePn | Pn | 01 03 55.8 | +2.8 |
| KS15 | Wonju Array Si | 11.34 | 281 | ePn | Pn | 01 03 56.8 | +3.7 |
| KSAR | Wonju Array Be | 11.34 | 281 | P | Pn | 01 03 56.3 | +3.2 |
| KSAR | Wonju Array Be | 11.34 | 281 | Pn | Pn | 01 03 56.3 | +3.2 |
| TJN | Taejon | 11.77 | 275 | ceP | Pn | 01 04 01.6 | +2.6 |
| MDJ | Mudanjiang | 12.64 | 316 | ePn | Pn | 01 04 11.6 | +0.8 |
| | comp=Z,82nm,1.3s | | | | | | |
| HABR | Khabarovsk | 13.31 | 340 | deP | Pn | 01 04 18.4 | -1.6 |
| HABR | | | | eS | Sn | 01 06 45.2 | -2.4 |
| HABR | | | | pmax | pmax | | |
| | comp=Z,54nm,1.4s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=E,40nm,1.4s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=N,20nm,1.4s | | | | | | |
| HABR | | | | MLR | MLR | | |
| | comp=Z,4μm,14.0s | | | | | | |
| CN2 | Changchun | 14.75 | 306 | eP | Pn | 01 04 37.8 | -1.9 |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.6s | | | | | | |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,420nm,6.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,4μm,15.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,5μm,15.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,3μm,16.0s | | | | | | |
| JOW | Kunigami | 14.89 | 235 | ePn | Pn | 01 04 35.6 | -6.1 |
| SNY | Shenyang | 15.35 | 297 | ⇑P | Pn | 01 04 46.6 | -1.0 |
| SNY | | | | S | Sn | 01 07 39.8 | +2.5 |
| SNY | | | | pmax | pmax | | |
| | comp=Z,31nm,1.2s | | | | | | |
| SNY | | | | LR | LR | | |
| | comp=Z,5μm,16.1s | | | | | | |
| SNY | | | | LR | LR | | |
| | comp=Z,8μm,15.9s | | | | | | |
| SNY | | | | LR | LR | | |
| | comp=Z,10μm,17.7s | | | | | | |
| DL2 | Dalian | 16.34 | 286 | P | Pn | 01 04 59.7 | -0.8 |
| DL2 | | | | S | Sn | 01 08 02.5 | +1.1 |
| DL2 | | | | pmax | pmax | | |
| | comp=Z,38nm,1.4s | | | | | | |
| DL2 | | | | pmax | pmax | | |
| | comp=Z,730nm,9.0s | | | | | | |
| DL2 | | | | LR | LR | | |
| | comp=Z,4μm,12.2s | | | | | | |
| DL2 | | | | LR | LR | | |
| | comp=Z,8μm,13.9s | | | | | | |
| DL2 | | | | LR | LR | | |
| | comp=Z,10μm,14.8s | | | | | | |
| OKH | Okha | 17.41 | 2 | ⇓eP | P | 01 05 16.2 | +1.2 |
| OKH | | | | eS | Sn | 01 08 28.7 | +1.7 |
| OKH | | | | pmax | pmax | | |
| | comp=Z,200nm,17.0s | | | | | | |
| OKH | | | | smax | smax | | |
| | comp=E,400nm,12.0s | | | | | | |
| OKH | | | | smax | smax | | |
| | comp=Z,3μm,16.0s | | | | | | |
| SKR | Severo-Kuril's | 17.75 | 31 | i P | Pn | 01 05 18.2 | +0.1 |
| NJ2 | Nanjing | 19.54 | 265 | eP | P | 01 05 38.0 | -0.6 |
| NJ2 | | | | S | S | 01 09 16.0 | -2.7 |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,23nm,0.5s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,4μm,15.2s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,3μm,13.0s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,2μm,15.2s | | | | | | |
| TIA | Tai'an | 20.02 | 278 | ⇑P | P | 01 05 42.0 | -1.9 |
| TIA | | | | pmax | pmax | | |
| | comp=Z,30nm,1.4s | | | | | | |
| TIA | | | | pmax | pmax | | |
| | comp=Z,620nm,11.6s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,2μm,10.9s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,4μm,14.0s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,3μm,13.7s | | | | | | |
| PETK | Petropavlovsk- | 20.25 | 28 | P | P | 01 05 46.8 | +0.6 |
| | comp=Z,12nm,0.9s,baz=191,slow=15,SNR=5.2 | | | | | | |
| PETK | Petropavlovsk- | 20.25 | 28 | eP | Pn | 01 05 47.7 | -0.5 |
| PETK | Petropavlovsk- | 20.25 | 28 | eP | Pn | 01 05 47.6 | -0.5 |
| PET | Petropavlovsk | 20.56 | 30 | eP | Pn | 01 05 57.9 | +6.2 |
| PET | | | | eS | S | 01 09 38.5 | -0.2 |
| PET | | | | pmax | pmax | | |
| | comp=Z,400nm,12.1s | | | | | | |
| PET | | | | pmax | pmax | | |
| | comp=Z,77nm,1.3s | | | | | | |
| PET | | | | MLR | MLR | | |
| | comp=Z,2μm,20.0s | | | | | | |
| BJI | Beijing | 20.62 | 289 | P | P | 01 05 47.3 | -3.0 |
| BJI | | | | S | S | 01 09 38.2 | -1.9 |
| BJI | | | | PcP | PcP | 01 09 59.7 | -0.8 |
| BJI | | | | ScP | ScP | 01 13 37.1 | +0.7 |
| BJI | | | | PcS | PcS | 01 13 38.1 | -0.1 |
| BJI | | | | ScS | ScS | 01 17 20.5 | +1.0 |
| BJI | | | | pmax | pmax | | |
| | comp=Z,23nm,1.5s | | | | | | |
| BJI | | | | pmax | pmax | | |
| | comp=Z,310nm,3.6s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,2μm,13.9s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,2μm,14.3s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,2μm,17.3s | | | | | | |
| BJT | Baijiatuau | 20.62 | 289 | eP | P | 01 05 48.3 | -2.1 |
| BJT | | | | pmax | pmax | | |
| | comp=Z,36nm,0.8s | | | | | | |
| BJT | Baijiatuau | 20.62 | 289 | eP | P | 01 05 48.3 | -2.1 |
| | comp=Z,36nm,0.8s | | | | | | |
| HIA | Hailar | 20.82 | 316 | eP | P | 01 05 51.9 | -0.6 |
| HIA | | | | pmax | pmax | | |
| | comp=Z,28nm,0.8s | | | | | | |
| HIA | Hailar | 20.82 | 316 | eP | P | 01 05 51.9 | -0.6 |
| | comp=Z,28nm,0.8s | | | | | | |
| NACB | Ninganchiao | 21.21 | 241 | eP | P | 01 05 53.2 | -3.6 |
| | comp=Z,46nm,1.1s | | | | | | |
| SSLB | Suanglung | 21.91 | 242 | eP | P | 01 06 01.7 | -2.7 |
| | comp=Z,36nm,1.0s | | | | | | |
| YULB | Yu-li | 21.92 | 240 | eP | P | 01 06 02.6 | -1.8 |
| | comp=Z,22nm,0.8s | | | | | | |
| TPUB | Ta-pu | 22.45 | 241 | eP | P | 01 06 07.6 | -2.5 |
| | comp=Z,62nm,1.2s | | | | | | |
| QZH | Quanzhou | 22.94 | 247 | P | P | 01 06 26.1 | +11 |
| QZH | | | | S | S | 01 10 24.2 | -0.7 |
| QZH | | | | LR | LR | | |
| | comp=N,4μm,16.2s | | | | | | |
| QZH | | | | LR | LR | | |
| | comp=E,3μm,14.7s | | | | | | |
| QZH | | | | LR | LR | | |
| | comp=Z,6μm,20.2s | | | | | | |
| CLNS | Chul'man | 23.65 | 336 | eP | P | 01 06 21.1 | -1.1 |
| CLNS | | | | e*PP | pP | 01 06 27.0 | -0.1 |
| CLNS | | | | e | | 01 06 59.0 | |
| CLNS | | | | eSS | Sn | 01 11 22.6 | +25 |
| CLNS | | | | e | | 01 17 31.6 | |
| CLNS | | | | pmax | pmax | | |
| | comp=Z,54nm,1.2s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=N,71nm,1.0s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=E,19nm,1.3s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=N,15nm,1.1s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=Z,29nm,1.0s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=E,26nm,0.9s | | | | | | |
| CLNS | | | | MLR | MLR | | |
| | comp=Z,3μm,14.0s | | | | | | |
| CLNS | | | | MLR | MLR | | |
| | comp=N,2μm,12.0s | | | | | | |
| CLNS | | | | MLR | MLR | | |
| | comp=E,1μm,14.0s | | | | | | |
| WHN | Wuhan | 23.67 | 264 | ⇑P | P | 01 06 14.5 | -8.1 |
| WHN | | | | S | S | 01 10 30.9 | -5.9 |
| WHN | | | | pmax | pmax | | |
| | comp=Z,36nm,0.6s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=N,6μm,15.6s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=E,9μm,15.2s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=Z,11μm,14.4s | | | | | | |
| MA2 | Magadan | 24.13 | 11 | P | P | 01 06 26.8 | +0.1 |
| | comp=Z,19nm,0.9s,baz=196,slow=9.1,SNR=6.4 | | | | | | |
| HHC | Hu-ho-hao-te | 24.16 | 290 | eP | P | 01 06 27.2 | -0.1 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,13nm,1.2s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,240nm,9.2s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,2μm,13.9s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,3μm,14.7s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,3μm,14.6s | | | | | | |
| YAK | Yakutsk | 27.02 | 347 | P | P | 01 06 53.0 | +0.3 |
| | comp=Z,33nm,0.6s,baz=200,slow=21,SNR=21 | | | | | | |
| YAK | Yakutsk | 27.02 | 347c | iP | P | 01 06 52.3 | -0.5 |
| YAK | | | | e | | 01 07 33.7 | |
| YAK | | | | eS | S | 01 11 29.4 | 0.0 |
| YAK | | | | e*SS | sS | 01 11 49.4 | +12 |
| YAK | | | | pmax | pmax | | |
| | comp=Z,190nm,1.4s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,103nm,1.5s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,37nm,1.5s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=Z,39nm,0.9s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,76nm,1.4s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,49nm,1.4s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=N,256nm,3.0s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=E,344nm,4.3s | | | | | | |
| YAK | | | | MLR | MLR | | |
| | comp=Z,5μm,17.0s | | | | | | |
| YAK | | | | MLR | MLR | | |
| | comp=N,5μm,15.0s | | | | | | |

YAK MLR MLR
comp=E,2µm,21.0s
**YAK Yakutsk 27.02 347** *e*P **P 01 06 52.6 -0.2**
comp=E,164nm,1.0s
**XAN Xi'an 27.03 275** P **P 01 06 51.1 -2.1**
XAN pP sP 01 07 00.5 +0.3
XAN PP **PnPn 01 07 41.1 +5.3**
XAN pmax pmax
comp=E,45nm,2.0s
XAN pmax pmax
comp=E,410nm,9.9s
XAN LR LR
comp=E,870nm,17.6s
XAN LR LR
comp=E,2µm,15.5s
XAN LR LR
comp=E,3µm,14.7s
**H11N2 WAKE ISLAND Hy 27.34 120** T T 01 36 15.9
baz=320,slow=74,SNR=46
**H11N1 WAKE ISLAND Hy 27.35 120** T T 01 36 32.5
SNR=70
**H11N3 WAKE ISLAND Hy 27.36 120** T T 01 36 23.7
baz=314,slow=74,SNR=51
**SEY Seymchan 27.57 10** P **P 01 06 58.8 +1.1**
comp=E,22nm,1.3s,baz=193,slow=7.1,SNR=7.3
**SEY Seymchan 27.57 10** *i*P **P 01 06 59.3 +1.6**
**ENH Enshi 27.70 267** *e*P **P 01 06 58.2 -1.1**
comp=E,92nm,0.8s
**H11S1 WAKE ISLAND Hy 28.03 122** T T 01 37 11.3
baz=314,slow=75,SNR=132
**H11S3 WAKE ISLAND Hy 28.03 122** T T 01 37 21.9
baz=314,slow=75,SNR=107
**H11S2 WAKE ISLAND Hy 28.05 122** T T 01 37 09.0
baz=314,slow=75,SNR=118
**ULN Ulaanbaatar 28.20 305***ce*P **P 01 07 03.6 -0.1**
ULN pmax pmax
comp=E,58nm,1.2s
**ULN Ulaanbaatar 28.20 305** *e*P **P 01 07 03.7 -0.1**
comp=Z,48nm,1.1s
**BOD Bodaibo 28.50 328** *e*P **P 01 07 04.7 -1.3**
BOD pmax pmax
comp=E,60nm,1.4s
**SONA1 Songino Array 28.63 305** *e*P **P 01 07 07.1 -0.4**
SONA1 *e*pP **pP 01 07 07.7 -4.8**
**SONM Songino Array 28.63 305** P **P 01 07 07.5 -0.1**
comp=Z,38nm,0.9s,baz=104,slow=7.3,SNR=123
SONM LR LR 01 19 03.3
comp=Z,2µm,18.4s,baz=92,slow=37
**LZH Lanzhou 30.64 281** *e*P **P 01 07 25.4 -0.1**
LZH pP pP 01 07 30.5 0.0
LZH sP sP 01 07 33.2 +0.7
LZH S **S 01 12 26.0 -1.4**
LZH sS sS 01 12 37.1 +1.6
LZH pmax pmax
comp=E,64nm,1.4s
LZH pmax pmax
comp=E,300nm,4.6s
LZH LR LR
comp=E,3µm,12.9s
LZH LR LR
comp=E,4µm,14.6s
LZH LR LR
comp=E,5µm,16.3s
**ZAK Zakamensk 31.15 309** *e*P **P 01 07 29.0 -0.8**
ZAK pmax pmax
comp=E,24nm,1.2s
**TLY Talaya 31.23 312** P **P 01 07 31.1 +0.8**
comp=E,24nm,0.9s,baz=152,slow=2.7,SNR=12
**TLY Talaya 31.23 312** *e*P **P 01 07 30.1 -0.2**
TLY *e* 01 08 45.1
TLY *e*SS SS 01 14 19.6 -30
TLY *e*SSS SSS 01 14 33.8
TLY pmax pmax
comp=Z,58nm,1.1s
TLY MLR MLR
comp=Z,4µm,18.0s
**GYA Guiyang 31.50 262**⇑ *i*P **P 01 07 31.8 -1.4**
GYA PP **PnPn 01 08 37.0 +0.7**
GYA PcP **PcP 01 10 28.2 +2.2**
GYA S **S 01 12 43.1 +2.2**
GYA ScP **ScP 01 14 10.8 +2.4**
GYA SS **SnSn 01 14 26.6 +0.7**
GYA ScS **ScS 01 18 05.4 -1.0**
GYA pmax pmax
comp=Z,40nm,0.9s
GYA pmax pmax
comp=Z,170nm,6.5s
GYA LR LR
comp=Z,1µm,13.6s
GYA LR LR
comp=Z,2µm,14.6s
GYA LR LR
comp=Z,3µm,15.8s
**CD2 Chengdu 32.11 272**⇓ *i*P **P 01 07 37.6 -0.8**
CD2 pP pP 01 07 43.4 +0.1
CD2 sP sP 01 07 46.8 +1.5
CD2 PP **PnPn 01 08 37.9 -6.1**
CD2 PcP **PcP 01 10 26.6 -0.8**
CD2 S **S 01 12 48.4 -1.8**
CD2 pmax pmax
comp=Z,50nm,1.1s
CD2 pmax pmax
comp=Z,370nm,11.8s
CD2 LR LR
comp=Z,3µm,13.1s
CD2 LR LR
comp=Z,2µm,14.3s
CD2 LR LR
comp=Z,3µm,16.7s
**QIZ Qiongzhong 32.97 247** P **P 01 07 45.3 -0.6**
QIZ S **S 01 13 04.9 +1.3**
QIZ pmax pmax
comp=Z,280nm,4.8s
QIZ LR LR
comp=Z,1µm,17.6s
QIZ LR LR
comp=Z,1µm,17.2s
QIZ LR LR
comp=Z,1µm,18.1s
**GTA Gaotai 33.23 289** *e*P **P 01 07 48.4 +0.2**
GTA pP pP 01 07 53.2 0.0
GTA sP sP 01 07 56.3 +1.1
GTA PcP **PcP 01 10 32.1 +1.6**
GTA S **S 01 13 09.1 +1.4**
GTA sS sS 01 13 17.9 +2.1
GTA pmax pmax
comp=Z,35nm,1.3s
GTA pmax pmax
comp=Z,310nm,6.7s
GTA LR LR
comp=Z,1µm,14.7s
GTA LR LR
comp=Z,3µm,16.6s
GTA LR LR
comp=Z,3µm,16.6s
**KMI Kunming 35.26 263** P **P 01 08 05.4 -0.6**
KMI pP pP 01 08 07.8 -3.2
KMI sP sP 01 08 08.9 -4.1
KMI PP **PnPn 01 09 20.8 -3.2**
KMI S **S 01 13 41.3 +1.9**
KMI SS **SnSn 01 15 50.3 -6.9**
KMI pmax pmax
comp=Z,31nm,1.2s
KMI LR LR
comp=Z,2µm,15.6s
KMI LR LR
comp=Z,2µm,16.0s
KMI LR LR
comp=Z,2µm,16.0s
**TIXI Tiksi 36.21 353** P **P 01 08 13.2 -0.2**
comp=Z,7.1nm,0.8s,baz=138,slow=8.5,SNR=6.3
**TIXI Tiksi 36.21 353***ce*P **P 01 08 13.4 +0.1**
TIXI pmax pmax
comp=Z,11nm,1.0s
**TIXI Tiksi 36.21 353** *e*P **P 01 08 12.9 -0.4**
comp=Z,12nm,1.1s
**HVS Khovu-Aksy 37.27 309** *e*P **P 01 08 22.1 -0.7**
HVS pmax pmax
comp=Z,38nm,1.0s
**NONG Nongkai 38.64 253** P **P 01 08 36.5 +2.0**
comp=Z,65nm,0.8s,comp=Z,10µm
**CHAI Chaiyaphum 40.81 251** P **P 01 08 53.2 +0.6**
comp=Z,9.7nm,0.9s,comp=Z,101nm
**UTTA Uttaradit 40.83 254** P **P 01 08 53.2 +0.4**
comp=Z,13nm,0.9s,comp=Z,86nm
**PBKT Sadao Pong 41.19 253** P **P 01 08 56.1 +0.3**
comp=Z,40nm,1.2s,comp=Z,3µm
**DGZ Jazzator, Alta 41.25 307** *i*P **P 01 08 56.6 +0.5**
**CMMT Chiang Mai 41.49 257** P **P 01 08 58.3 0.0**
comp=Z,29nm,1.1s,comp=Z,600nm
**CHTO Chiang Mai 41.50 257** P **P 01 08 58.4 +0.1**
comp=Z,129nm,1.1s,comp=Z,2µm
**CHTO Chiang Mai 41.50 257** *e*P **P 01 08 58.3 0.0**
CHTO pmax pmax
comp=Z,25nm,1.0s
**CHTO Chiang Mai 41.50 257** *e*P **P 01 08 58.3 0.0**
comp=Z,25nm,1.0s
**WMQ Urumqi 41.62 298** P **P 01 08 59.9 +0.8**
WMQ pP pP 01 09 03.3 -0.8
WMQ sP sP 01 09 06.8 +0.7
WMQ PP **PP 01 10 34.6 -0.6**
WMQ PcP **PcP 01 10 55.5 -0.4**
WMQ S **S 01 15 18.7 +3.9**
WMQ sS sS 01 15 23.2 +0.2
WMQ SS **SS 01 18 14.4 -5.3**
WMQ pmax pmax
comp=Z,130nm,1.3s
WMQ pmax pmax
comp=Z,1µm,4.5s
WMQ LR LR
comp=Z,3µm,15.1s
WMQ LR LR
comp=Z,4µm,17.3s
WMQ LR LR
comp=Z,3µm,19.5s
**CM31 Chiang Mai Arr 41.69 257** *e*P **P 01 09 00.6 +0.7**
**CMAR Chiang Mai Arr 41.69 257** P **P 01 09 00.2 +0.3**
comp=Z,6.3nm,0.7s,baz=48,slow=5.5,SNR=31
CMAR LR LR 01 27 53.0
comp=Z,589nm,18.5s,baz=53,slow=38
**CMAR Chiang Mai Arr 41.69 257** P **P 01 09 00.3 +0.3**
CMAR pmax pmax
comp=Z,5.0nm,0.5s
CMAR MLR MLR
comp=Z,589nm,18.5s
**CM01 Chiang Mai Arr 41.70 257** *e*P **P 01 08 59.7 -0.2**
**SUKH Sukhothai 41.70 255** P **P 01 09 00.5 +0.5**
comp=Z,10nm,0.9s,comp=Z,101nm
**LSA Lhasa 42.72 276** P **P 01 09 10.0 +1.3**
LSA LR LR
comp=Z,470nm,14.3s
LSA LR LR
comp=Z,2µm,14.3s
LSA LR LR
comp=Z,2µm,15.4s
**LSA Lhasa 42.72 276** *e*P **P 01 09 09.7 +1.0**
LSA pmax pmax
comp=Z,23nm,0.8s
**LSA Lhasa 42.72 276** *e*P **P 01 09 09.7 +1.0**
comp=Z,23nm,0.8s
**ZALV Zalesovo Beam 42.82 313** P **P 01 09 08.8 +0.1**
comp=Z,32nm,0.9s,baz=93,slow=6.4,SNR=117
ZALV PcP **PcP 01 10 58.3 -1.3**
comp=Z,6.6nm,0.7s,baz=109,slow=2.6,SNR=4.1
ZALV ScP **ScP 01 14 49.1 -0.8**
comp=Z,1.4nm,0.9s,baz=117,slow=5.4,SNR=5.0
ZALV LR LR 01 27 44.0
comp=Z,2µm,18.4s,baz=81,slow=37
**UTHA Uthaitani 42.97 253** P **P 01 09 11.7 +1.4**
comp=Z,4.5nm,1.1s
**NVS Novosibirsk 43.75 314**⇓ *i*P **P 01 09 16.5 +0.3**
NVS pmax pmax
comp=Z,53nm,1.1s
NVS pmax pmax
comp=N,7.0nm,1.0s
NVS pmax pmax
comp=E,35nm,1.0s
**PHET Kaeng Krachan 44.44 250** P **P 01 09 24.3 +2.1**
comp=E,12nm,0.9s
**MK01 Makanchi Array 44.94 303** *e*P **P 01 09 25.0 -0.9**
**MK31 Makanchi Array 44.95 303** *e*P **P 01 09 26.0 +0.1**
**MK31 Makanchi Array 44.95 303** *e*P **P 01 09 26.0 +0.1**
**MKAR Makanchi Array 44.95 303** P **P 01 09 25.9 0.0**
comp=E,22nm,0.8s,baz=90,slow=9.7,SNR=114
MKAR LR LR 01 29 00.8
comp=E,2µm,18.3s,baz=81,slow=37
**MKAR Makanchi Array 44.95 303** *i*P **P 01 09 25.8 -0.1**
MKAR pmax pmax
comp=Z,22nm,0.8s
**MAKZ Makanchi 45.16 303** *e*P **P 01 09 27.7 +0.1**
MAKZ pmax pmax
comp=Z,37nm,1.0s
**MAKZ Makanchi 45.16 303** *e*P **P 01 09 27.7 +0.1**
comp=Z,37nm,1.0s
**KSM Kuching 45.26 228** *e*P **P 01 09 29.8 +1.1**
comp=Z,19nm,0.7s
**KAPI Kappang 45.93 212** *e*P **P 01 09 35.3 +1.4**
comp=Z,77nm,1.2s
**TAPN Taplejung 46.43 275** *e*P **P 01 09 38.6 +0.4**
**KURK Kurchatov 46.81 309***ce*P **P 01 09 40.1 -0.4**
KURK pmax pmax
comp=Z,221nm,1.0s
**KURK Kurchatov 46.81 309** *e*P **P 01 09 40.0 -0.4**
comp=Z,53nm,0.9s
**KURBB Kurchatov Arra 46.88 309** P **P 01 09 40.8 -0.3**
comp=Z,33nm,0.7s,baz=83,slow=8.6,SNR=65
**ODAN Odare 46.90 275** *e*P **P 01 09 41.9 +0.1**
**IMAR Indian Mountai 47.19 30** *e*P **P 01 09 44.4 +1.1**
**KDAK Kodiak Island 47.47 41** P **P 01 09 45.8 +0.3**
comp=Z,15nm,0.8s,baz=239,slow=4.5,SNR=5.5
**KDAK Kodiak Island 47.47 41***ce*P **P 01 09 46.7 +1.2**
**RAMN Ramite 47.49 275** *e*P **P 01 09 46.8 +0.3**
comp=Z,253nm,1.0s
**JIRN Jiri 47.52 276** *e*P **P 01 09 47.3 +0.5**
comp=Z,230nm,1.1s
**PDGK Podgornoye 47.56 299** *i*P **P 01 09 46.0 -0.7**
PDGK pmax pmax
comp=Z,60nm,0.8s
**GUN Gumba 47.67 277** *e*P **P 01 09 48.3 +0.4**
comp=Z,108nm,1.0s
**KRAB Krabi 47.80 245** P **P 01 09 49.8 +1.2**
comp=Z,53nm,0.8s
**PKI Pulchoki 48.19 277** *e*P **P 01 09 52.0 0.0**
**PKIN Phulchoki 48.20 277** *e*P **P 01 09 52.4 +0.5**
**KKN Kakani 48.20 277** *e*P **P 01 09 52.3 +0.4**
**MLY Manley 48.37 32** *e*P **P 01 09 54.4 +1.9**
comp=Z,21nm,1.4s
**DMN Daman 48.42 277** *e*P **P 01 09 53.8 +0.2**
**SOEI Soe 48.61 204** *e*P **P 01 09 54.8 -0.1**
comp=Z,124nm,0.9s
**IPM Ipoh 49.06 240** *e*P **P 01 09 58.2 -0.1**
comp=Z,38nm,1.0s
**MDM Murphy Dome 49.44 32** *e*P **P 01 10 02.7 +2.0**
comp=Z,17nm,0.9s
**KOLN Koldanda 49.56 278** *e*P **P 01 10 02.6 +0.3**
comp=Z,160nm,1.5s
**COLA College 49.60 32** *e*P **P 01 10 03.2 +1.4**
COLA pmax pmax
comp=Z,10.0nm,0.9s
**COLA College 49.60 32** *e*P **P 01 10 03.2 +1.4**
comp=Z,9.6nm,0.9s
**MTN Manton Dam 49.79 194** *e*P **P 01 10 04.6 +0.8**
comp=Z,62nm,0.6s
**COEN Coen 49.85 178** *e*P **P 01 10 04.2 -0.1**
comp=Z,13nm,0.8s
**PYUN Piuthan 49.91 278** *e*P **P 01 10 05.3 +0.3**
comp=Z,201nm,1.1s
**IL1 Eielson Array 50.01 32** *e*P **P 01 10 05.2 +0.2**
**ILAR Eielson Array 50.01 32** P **P 01 10 05.5 +0.5**
comp=Z,7.9nm,0.8s,baz=266,slow=6.3,SNR=74
ILAR LR LR 01 33 07.7
comp=Z,335nm,19.1s,baz=282,slow=38
**ILB Eielson Array 50.01 32** *e*P **P 01 10 05.8 +0.8**
**TKM2 Tokmak 2 50.42 299** P **P 01 10 09.7 +1.0**
SNR=28
**KBK Karagaybulak 50.95 299** P **P 01 10 13.4 +0.7**
SNR=24
**CHMS Chumysh 51.00 300** P **P 01 10 13.2 +0.4**
SNR=8.2
**USP Ospenovka 51.10 300** P **P 01 10 13.8 +0.3**
SNR=18
**FRU Bishkek 51.14 299** *e*P **P 01 10 14.0 +0.1**
FRU *e* 01 10 28.0
FRU pmax pmax
comp=Z,80nm,2.0s
FRU MLR MLR
comp=E,4µm,18.0s
**KSH Kashi 51.15 295** P **P 01 10 18.0 +3.9**
KSH pP sP 01 10 22.3 +1.1
KSH PcP **PcP 01 11 33.8 +4.2**
KSH PP **PP 01 12 15.8 +5.1**
KSH S **S 01 17 36.2 +4.5**
KSH ScS **ScS 01 20 06.9 +2.6**
KSH SS **SS 01 21 11.1 +4.4**
KSH pmax pmax
comp=E,13nm,1.1s
KSH pmax pmax
comp=E,300nm,4.0s
KSH LR LR
comp=E,1µm,13.4s
KSH LR LR
comp=E,2µm,14.1s
KSH LR LR
comp=E,2µm,15.8s
**AAK Ala-Archa 51.28 299** P **P 01 10 15.3 +0.2**
comp=E,8.2nm,0.7s,baz=6.0,slow=4.9,SNR=17
**AAK Ala-Archa 51.28 299** *e*P **P 01 10 15.2 +0.1**
AAK pmax pmax
comp=Z,14nm,1.0s
**AAK Ala-Archa 51.28 299** P **P 01 10 15.6 +0.5**
SNR=8.7
**AAK Ala-Archa 51.28 299** *e*P **P 01 10 14.9 -0.2**
comp=Z,13nm,0.8s
**JAGI Jajag, Banyuwa 51.52 216** *e*P **P 01 10 16.3 -0.6**
comp=Z,55nm,1.3s
**BRVK Borovoye 51.53 313***ce*P **P 01 10 16.7 +0.1**
BRVK pmax pmax
comp=Z,70nm,1.0s
**BRVK Borovoye 51.53 313** *e*P **P 01 10 16.6 0.0**
comp=Z,25nm,0.9s
**PSI Prapat 51.72 240** LR LR 01 34 03.1
comp=Z,415nm,18.1s,slow=38
**PSI Prapat 51.72 240** *e*P **P 01 10 18.6 0.0**
PSI pmax pmax
comp=Z,26nm,0.9s
**PSI Prapat 51.72 240** *e*P **P 01 10 18.6 0.0**
comp=Z,26nm,0.9s
**EKS2 Erkin-Say 51.78 299** P **P 01 10 19.7 +0.9**
SNR=5.9
**AML Almayashu 51.99 299** P **P 01 10 21.9 +1.2**
SNR=25
**BKNI Bangkinang 52.05 236** *e*P **P 01 10 21.9 +1.0**
comp=Z,120nm,0.7s
**MNAS Manas 52.73 300** *i*P **P 01 10 26.3 +0.4**
MNAS pmax pmax
comp=Z,33nm,1.0s
**SFK Sufi-Kurgan 52.80 296** *i*P **P 01 10 26.6 +0.1**
SFK pmax pmax
comp=Z,47nm,1.3s
**UGM Wanagama 52.85 220** *e*P **P 01 10 26.5 -0.4**
comp=Z,111nm,1.0s
**GSI Gunungsitoli 53.72 240** *e*P **P 01 10 33.8 +0.5**
comp=Z,112nm,1.1s
**THN Thein Dam 53.88 287** *e*P **P 01 10 31.9 -2.4**
**KK31 Karatay Array 53.93 301** *i*P **P 01 10 34.3 -0.3**
KK31 pmax pmax
comp=Z,28nm,1.1s
**JBP Jabalpur 54.55 274**⇑ *e*P **P 01 10 39.4 +0.1**
**HYT Haines Junctio 54.75 36** *e*P **P 01 10 44.1 +3.7**
**INK Inuvik 54.98 27** P **P 01 10 43.0 +1.3**
comp=Z,9.9nm,0.8s,baz=290,slow=6.5,SNR=35
**INK Inuvik 54.98 27** P **P 01 10 43.0 +1.3**
INK pmax pmax
comp=Z,10.0nm,0.8s
**INK Inuvik 54.98 27** *e*P **P 01 10 42.8 +1.1**
comp=Z,9.2nm,0.8s
**SVE Sverdlovsk 56.08 319***de*P **P 01 10 50.2 +0.4**
SVE pmax pmax
comp=Z,58nm,1.2s
SVE MLR MLR
comp=Z,3µm,16.0s
**WRAB Tennant Creek 56.24 189***ce*P **P 01 10 51.9 +0.6**
WRAB pmax pmax
comp=Z,26nm,1.0s
**WRAB Tennant Creek 56.24 189** *e*P **P 01 10 51.0 -0.4**
comp=Z,29nm,1.1s
**WB2 Warramunga Arr 56.25 189** *e*P **P 01 10 51.5 0.0**
**WRA Warramunga Arr 56.26 189** P **P 01 10 51.5 0.0**
comp=Z,8.5nm,0.8s,baz=6.3,slow=7.3,SNR=46
WRA LR LR 01 33 52.7
comp=Z,264nm,21.6s,baz=355,slow=35
**SOKR Solikamsk 57.28 323**⇑ *i*P **P 01 10 56.1 -2.1**
SOKR pmax pmax
comp=Z,30nm,1.4s
SOKR MLR MLR
comp=Z,1µm,15.0s
**ARU Arti 57.30 319***c i*P **P 01 10 58.3 -0.2**
ARU 01 11 47.6
ARU 01 13 02.2
ARU S **S 01 18 54.2 +0.4**
ARU SS **SS 01 22 44.4 +1.8**
ARU pmax pmax
comp=Z,97nm,1.7s
ARU MLR MLR
comp=Z,2µm,17.0s
**ARU Arti 57.30 319** *e*P **P 01 10 58.3 -0.2**
**KBL Kabul 58.13 292** *e*P **P 01 11 04.5 -0.4**
**KBL Kabul 58.13 292** *e*P **P 01 11 04.5 -0.4**
**HYB Hyderabad 58.61 269** *i*P **P 01 11 08.5 +0.2**
**AB31 Akbulak array 58.83 311** *i*P **P 01 11 08.2 -1.1**
AB31 pmax pmax
comp=Z,16nm,0.9s
**AS31 Alice Springs 59.98 189** *e*P **P 01 11 18.6 +1.1**
**ASAR Alice Springs 59.98 189** P **P 01 11 17.7 +0.2**
comp=Z,3.0nm,0.8s,baz=6.3,slow=6.5,SNR=26
**MBWA Marble Bar 60.75 204** *e*P **P 01 11 22.2 -0.5**
comp=Z,20nm,0.9s
**POO Poona 61.83 273** *e*P P 01 11 24.0 -6.4
**DZM Mont Dzumac 62.38 154** *e*P **P 01 11 35.7 +1.9**
comp=Z,81nm,1.4s
DZM *e*S **S 01 19 56.3 -3.7**
comp=Z,289nm,23.8s
**DZM Mont Dzumac 62.38 154** *e*LR LR 01 30 01.9
comp=Z,1µm,21.1s
**PALK Pallekele 62.60 258** P **P 01 11 36.5 +1.0**
**PALK Pallekele 62.60 258** *i*P **P 01 11 37.2 +1.7**
**TMCR Tamitsa 63.72 332** *e*P **P 01 11 41.0 -1.1**
TMCR pmax pmax
comp=Z,64nm,1.3s
**YKA Yellowknife Ar 64.35 30** P **P 01 11 46.9 +0.6**
comp=Z,5.0nm,0.8s,baz=300,slow=6.8,SNR=23
YKA LR LR 01 44 41.5
comp=Z,10nm,18.1s,baz=0.0,slow=40
**YKA Yellowknife Ar 64.35 30** P **P 01 11 47.0 +0.6**
**GEYT Alibeck 64.63 300** P **P 01 11 48.9 +0.2**
comp=Z,8.9nm,1.0s,baz=38,slow=2.6,SNR=25
GEYT LR LR 01 41 52.7
comp=Z,682nm,20.8s,baz=70,slow=38
**KLMR Klimovskoe 64.72 328** *e*P P 01 11 43.6 -5.2
KLMR pmax pmax
comp=Z,36nm,1.1s
**ARCES ARCESS Array B 64.96 340** P **P 01 11 51.0 +0.8**
comp=Z,15nm,0.9s,baz=56,slow=7.9,SNR=16
ARCES LR LR 01 46 43.9
comp=Z,1µm,18.4s,baz=32,slow=42
**TULEG Thule 65.91 8** *e*P **P 01 11 56.4 +0.2**
**DAG Danmarks Havn 66.68 355** *i*P **P 01 12 01.3 +0.1**
DAG pmax pmax
comp=Z,14nm,0.9s
**DAG Danmarks Havn 66.68 355** *i*P **P 01 12 01.3 +0.1**
comp=Z,14nm,0.9s
**B05A Bryant 67.61 46** P **P 01 12 07.8 +0.2**
baz=300
**STKA Stephens Creek 67.68 180** P **P 01 12 08.1 +0.1**
comp=Z,4.1nm,0.9s,baz=355,slow=11,SNR=6.5
STKA LR LR 01 40 50.1
comp=Z,206nm,21.4s,baz=8.7,slow=35
**MOS Moscow 68.20 324** *e*P **P 01 12 10.3 -0.9**
MOS *e* 01 12 25.1
MOS *e* 01 14 40.1
MOS *e*S **S 01 21 13.2 +2.6**
MOS pmax pmax
comp=Z,73nm,1.4s
MOS MLR MLR
comp=E,1µm,16.0s
MOS MLR MLR
comp=Z,1µm,16.0s
**C06D Leavenworth 68.48 46** P **P 01 12 14.3 +1.1**
baz=300
**VRH Novokhopyorsk 68.51 318** *e*P **P 01 12 12.1 -1.1**
VRH pmax pmax
comp=Z,30nm,1.1s
**OBN Obninsk 69.05 324***ce*P **P 01 12 16.4 0.0**
OBN *PP **sP 01 12 28.0 +4.4**
OBN *e*SP **PcP 01 12 34.2 -6.3**
OBN 01 12 42.0
OBN *e* 01 14 54.4
OBN *e*S **S 01 21 20.4 -0.2**

OBN pmax pmax
comp=Z,49nm,1.1s
OBN MLR MLR
comp=Z,1µm,15.0s
**OBN Obninsk 69.05 324** *eP* **P 01 12 16.6 +0.1**
comp=Z,20nm,0.8s
**B08A Colville Reser 69.16 45** *eP* **P 01 12 18.6 +1.3**
**LPSR Galich'ya Gora 69.25 321** *eP* **P 01 12 17.6 -0.1**
LPSR pmax pmax
comp=Z,40nm,0.9s
**MAK Makhachkala 69.33 309** *eP* **P 01 12 17.4 -1.0**
MAK *e* 01 14 49.1
MAK *e*PPP PPP 01 16 32.1
MAK *e*S **S 01 21 22.3 -2.1**
MAK *e*SS **SS 01 25 49.3 -1.4**
MAK pmax pmax
comp=Z,79nm,1.3s
MAK MLR MLR
comp=Z,2µm,18.0s
**H04A Detroit Lake 69.36 49** *eP* **P 01 12 20.4 +1.7**
**I04A Tendick Farm, 69.67 50** P **P 01 12 21.6 +1.0**
baz=301
**FIA1 FINESS Array S 69.78 333** *eP* **P 01 12 21.5 +0.6**
**FINES FINESS Array B 69.78 333** P **P 01 12 20.9 +0.1**
comp=Z,26nm,0.9s,baz=67,slow=6.4,SNR=31
FINES LR LR 01 45 17.8
comp=Z,997nm,18.4s,baz=30,slow=38
**FINES FINESS Array B 69.78 333** *i* P **P 01 12 21.2 +0.3**
FINES pmax pmax
comp=Z,26nm,0.9s
**E07A Sunnyside 69.79 47** *eP* **P 01 12 23.4 +2.2**
**VSR Storozhevoye 69.87 319** *eP* **P 01 12 20.7 -0.9**
VSR pmax pmax
comp=Z,30nm,0.9s
**G06A Carlson Farm, 70.02 48** *eP* **P 01 12 24.5 +1.8**
**C09A Chrisman Ranch 70.06 45** *eP* **P 01 12 24.3 +1.4**
**HAWA Hanford 70.07 47** *eP* **P 01 12 25.0 +2.0**
**D08A Wollman Farm, 70.08 46** *eP* **P 01 12 24.3 +1.3**
**F07A Phinny Hill Vi 70.10 47** *eP* **P 01 12 25.4 +2.3**
**E08A Dider Farm, El 70.30 46** *eP* **P 01 12 26.2 +1.9**
**SEKA Sheki 70.42 307** P **P 01 12 23.0 -2.3**
**NEW Newport 70.46 44** P **P 01 12 26.5 +1.1**
baz=303,SNR=9.9
**NEW Newport 70.46 44** *eP* **P 01 12 26.2 +0.8**
NEW pmax pmax
comp=Z,5.0nm,0.9s
**NEW Newport 70.46 44** *eP* **P 01 12 26.2 +0.8**
comp=Z,4.6nm,0.9s
**ZKTA Zakatala 70.57 308** P **P 01 12 24.2 -1.9**
**J05D Fort Rock, OR 70.67 50** P **P 01 12 27.8 +0.9**
baz=302
**LKRN Lenkeran, Azer 70.67 304** P **P 01 12 25.0 -1.7**
**MNGR Mingechevir, A 70.72 307** P **P 01 12 25.3 -1.7**
**E09A Wood Farm, Sta 70.82 46** *eP* **P 01 12 29.1 +1.6**
**N02D Trinity Center 70.94 53** P **P 01 12 27.7 -0.7**
baz=302
**GOF Gofitskoye 70.99 312**⇑ *i*P **P 01 12 28.8 +0.2**
GOF pmax pmax
comp=Z,39nm,0.9s
**G08A Pilot Rock 70.99 47** *eP* **P 01 12 30.7 +1.9**
**M04C Macdoel 71.08 52** P **P 01 12 29.7 +0.3**
baz=302
**GANJ Ganja 71.28 307** P **P 01 12 28.4 -2.1**
**VSU Vasula 71.42 330** *ce*P **P 01 12 31.5 +0.6**
VSU pmax pmax
comp=Z,97nm,1.0s
**NCK Nalchik 71.49 311** *i* P **P 01 12 32.1 +0.4**
NCK pmax pmax
comp=Z,22nm,1.4s
**SUMG Summit 71.56 0** *i* P **P 01 12 33.2 +1.2**
SUMG pmax pmax
comp=Z,17nm,1.0s
**SUMG Summit 71.56 0** *i* P **P 01 12 33.2 +1.2**
comp=Z,17nm,1.0s
**F10A Beach Ranch, E 71.65 46** *eP* **P 01 12 34.4 +1.7**
**ZEI Tsey 71.68 310** *eP* **P 01 12 29.1 -4.0**
ZEI pmax pmax
comp=Z,5.0nm,1.0s
**KBZ Khabaz 71.79 311** P **P 01 12 33.9 +0.5**
comp=Z,15nm,0.9s,baz=65,slow=2.3,SNR=26
KBZ LR LR 01 48 54.4
comp=Z,820nm,18.3s,baz=60,slow=40
**KIV Kislovodsk 71.80 311** *i* P **P 01 12 33.9 +0.3**
SNR=16
**KIV Kislovodsk 71.80 311** *eP* **P 01 12 34.1 +0.5**
KIV pmax pmax
comp=Z,37nm,1.0s
**KIV Kislovodsk 71.80 311** *eP* **P 01 12 33.9 +0.3**
comp=Z,48nm,1.1s
**O03D Paynes Creek 71.89 53** P **P 01 12 34.7 +0.5**
baz=302
**BANOM Banah 71.89 289** P **P 01 12 34.9 +0.5**
**NEY Neytrino 72.16 311** *i* P **P 01 12 36.9 +1.0**
NEY pmax pmax
comp=Z,2.0nm,1.0s
**BMO Blue Mountains 72.21 47** *eP* **P 01 12 35.9 -0.2**
**BMO Blue Mountains 72.21 47** *eP* **P 01 12 35.9 -0.2**
**J08A Circle Bar Ran 72.33 49** *eP* **P 01 12 38.4 +1.6**
**JTMT Jette 72.34 43** *eP* **P 01 12 38.8 +1.9**
**ORV Oroville 72.48 54** *eP* **P 01 12 38.7 +1.1**
**ORV Oroville 72.48 54** *eP* **P 01 12 38.7 +1.1**
**GNI Garni 72.57 307** *ce*P **P 01 12 39.1 +0.7**
GNI pmax pmax
comp=Z,51nm,1.2s
**HATD Hatta, Dubai 72.60 288** P **P 01 12 39.0 +0.4**
**NAX Nakhchivan 72.60 306** P **P 01 12 36.4 -2.1**
**AKH Akhalkalaki 72.68 309**⇑ *i*P **P 01 12 39.8 +0.8**
**SCO Scoresbysund 73.03 354** *i* P **P 01 12 41.4 +1.1**
SCO pmax pmax
comp=Z,39nm,1.3s
**SCO Scoresbysund 73.03 354** *i* P **P 01 12 41.4 +1.1**
comp=Z,39nm,1.3s
**MSO Missoula 73.05 44** P **P 01 12 41.6 +0.5**
baz=305
**MSO Missoula 73.05 44** *eP* **P 01 12 42.5 +1.5**
**IZAR Zarasai 73.37 328** *eP* **P 01 12 43.2 +0.6**
IZAR IAmb IAmb 01 12 44.6
comp=Z,18nm,1.0s
**IDID Didziasalis 73.44 327** *eP* **P 01 12 43.6 +0.6**
IDID IAmb IAmb 01 12 45.1
comp=Z,12nm,0.9s
**ISAL Salakas 73.54 328** *eP* **P 01 12 44.2 +0.6**
ISAL IAmb IAmb 01 12 45.8
comp=Z,34nm,1.2s
**IIGN Ignalina 73.64 328** *eP* **P 01 12 44.8 +0.5**
IIGN IAmb IAmb 01 12 46.4
comp=Z,24nm,1.1s
**NACGM Naroch 73.69 327** *e* **P 01 12 44.0 -0.5**
**ARTV Artvin 73.79 309** *eP* **P 01 12 46.7 +1.1**
**MFID Camas Ranch 73.90 48** *eP* **P 01 12 47.5 +1.4**
comp=Z,4.4nm,1.3s
**CMB Columbia Colle 74.03 54** *eP* **P 01 12 48.1 +1.2**
CMB pmax pmax
comp=Z,167nm,1.6s
**CMB Columbia Colle 74.03 54** *eP* **P 01 12 48.1 +1.2**
comp=Z,167nm,1.6s
**FFC Flin Flon 74.21 33** *eP* **P 01 12 48.5 +0.9**
FFC pmax pmax
comp=Z,7.0nm,0.8s
**FFC Flin Flon 74.21 33** *eP* **P 01 12 48.5 +0.9**
comp=Z,6.8nm,0.8s
**HRY Holter Researc 74.30 43** *eP* **P 01 12 49.9 +1.5**
**ANN Anapa 74.44 314** *eP* **P 01 12 46.2 -2.9**
ANN *e*S **SKiKP 01 22 16.0 +1.2**
ANN pmax pmax
comp=Z,169nm,1.4s
ANN MLR MLR
comp=Z,2µm,18.0s
**LRM Limekiln Ridge 74.48 44** *eP* **P 01 12 51.0 +1.4**
**EGMT Eagleton 74.65 41** P **P 01 12 50.9 +0.5**
baz=307
**EGMT Eagleton 74.65 41** *eP* **P 01 12 51.3 +1.0**
comp=Z,18nm,1.1s
**HLID Hailey 74.66 47** P **P 01 12 51.9 +1.3**
baz=306
**HLID Hailey 74.66 47** *eP* **P 01 12 52.6 +2.0**
**DLMT Dillon 74.67 45** *eP* **P 01 12 52.2 +1.6**
comp=Z,22nm,1.2s
**BOZ Bozeman (W) 75.08 44** P **P 01 12 54.1 +1.1**
baz=307,SNR=11
**BOZ Bozeman (W) 75.08 44** *eP* **P 01 12 54.4 +1.4**
**BOZ Bozeman (W) 75.08 44** *eP* **P 01 12 54.4 +1.4**
**NB2 NORSAR Subarra 75.16 338** P **P 01 12 53.2 +0.2**
comp=Z,7.6nm,0.7s,baz=38,slow=5.9
**NOA NORSAR Array B 75.16 338** P **P 01 12 53.1 +0.2**
comp=Z,22nm,0.9s,baz=38,slow=5.7,SNR=26
NOA LR LR 01 49 23.3
comp=Z,994nm,18.9s,baz=40,slow=38
**AKASG Malin Array Be 75.25 323** P **P 01 12 53.4 -0.3**
comp=Z,17nm,0.8s,baz=46,slow=6.0,SNR=61
AKASG LR LR 01 48 57.0
comp=Z,2µm,18.6s,baz=65,slow=38
**KIEV Kiev 75.26 323**⇑ *i*P **P 01 12 53.1 -0.6**
KIEV pmax pmax
comp=Z,35nm,1.0s
**KIEV Kiev 75.26 323** *eP* **P 01 12 53.3 -0.4**
comp=Z,29nm,0.9s
**SUW Suwalki 75.85 328** *eP* **P 01 12 57.4 +0.4**
**SUW Suwalki 75.85 328** *eP* **P 01 12 57.4 +0.4**
**VES Vestal, Richgr 76.12 56** P **P 01 13 00.3 +1.4**
baz=305
**PKM Mcpherson Peak 76.17 57** P **P 01 13 01.0 +1.6**
baz=305
**SIM Simferopol' 76.25 316** *eP* **P 01 12 59.6 +0.1**
SIM *e*S **S 01 22 41.0 -2.2**
SIM pmax pmax
comp=Z,22nm,0.9s
SIM MLR MLR
comp=Z,1µm,18.0s
**IMW Indian Meadow 76.49 45** *eP* **P 01 13 03.5 +2.2**
comp=Z,18nm,1.3s
**GRAC Grapevine Rang 76.60 54** P **P 01 13 02.3 +0.6**
baz=305
**RLMT Red Lodge 76.69 44** P **P 01 13 02.5 +0.2**
baz=308
**RLMT Red Lodge 76.69 44** *eP* **P 01 13 03.2 +1.0**
comp=Z,28nm,1.5s
**MOOW Moose Ponds 76.69 45** *eP* **P 01 13 03.0 +0.7**
comp=Z,78nm,2.3s
**SFJD Kangerlussuaq 76.72 5** *i* P **P 01 13 02.6 +0.9**
SFJD pmax pmax
comp=Z,12nm,0.8s
**SFJD Kangerlussuaq 76.72 5** *i* P **P 01 13 02.6 +0.9**
comp=Z,12nm,0.8s
**TPAW Teton Pass 76.73 46** *eP* **P 01 13 04.1 +1.5**
comp=Z,12nm,1.2s
**REDW Red Top Meadow 76.86 46** *eP* **P 01 13 04.6 +1.3**
comp=Z,25nm,1.5s
**R11A Troy Canyon, C 76.97 52** P **P 01 13 05.0 +1.1**
baz=306
**MPMC Manual Prospec 77.06 55** P **P 01 13 05.6 +1.1**
baz=306
**AHID Auburn Hatcher 77.08 46** *eP* **P 01 13 05.3 +0.8**
comp=Z,3.7nm,0.8s
**FURC Furnace Creek, 77.24 54** P **P 01 13 05.1 -0.1**
baz=306
**DGMT Dagmar 77.26 39** P **P 01 13 05.4 +0.2**
baz=311
**TPNV Topopah Spring 77.36 53** P **P 01 13 06.2 +0.1**
baz=306
**LAO LASA Array 77.36 41** P **P 01 13 06.9 +1.1**
baz=310,SNR=5.2
**LAO LASA Array 77.36 41** *eP* **P 01 13 06.6 +0.8**
comp=Z,62nm,1.7s
**EDW2 Edwards Air Fo 77.40 56** P **P 01 13 07.3 +1.0**
baz=305
**DUG Dugway, Tooele 77.61 49** P **P 01 13 08.7 +1.3**
baz=307
**DUG Dugway, Tooele 77.61 49** *eP* **P 01 13 08.7 +1.3**
DUG pmax pmax
comp=Z,44nm,1.6s
**DUG Dugway, Tooele 77.61 49** *eP* **P 01 13 08.7 +1.3**
comp=Z,44nm,1.6s
**KIS Kishinev 77.83 320** *eP* **P 01 13 08.0 -0.3**
KIS LRM MLR 01 41 20.0
comp=Z,3µm,18.0s
**KIS Kishinev 77.83 320** *eP* **P 01 13 08.0 -0.3**
**GSC Goldstone, Bar 77.95 55** P **P 01 13 09.4 0.0**
baz=306
**BW06 Boulder Array 77.98 46** P **P 01 13 09.8 +0.2**
baz=308
**PDAR Pinedale Array 77.98 46** P **P 01 13 10.4 +0.8**
comp=Z,3.1nm,0.9s,baz=255,slow=2.7,SNR=18
**BFSC Mount Baldy Ra 78.00 56** P **P 01 13 10.1 +0.4**
baz=306
**LVV L'vov 78.33 324** *eP* **P 01 13 09.0 -2.1**
LVV *e* 01 22 56.3
LVV MLR MLR
comp=Z,1µm,15.0s
**BEL Belsk 78.41 327** *eP* **P 01 13 12.3 +0.9**
**BEL Belsk 78.41 327** *eP* **P 01 13 12.3 +0.9**
**TUQ Turquoise Moun 78.46 55** P **P 01 13 12.6 +0.4**
baz=306
**LEOM Leova 78.47 320**⇓ *i*P **P 01 13 12.5 +0.6**
**LEOM Leova 78.47 320** P **P 01 13 12.4 +0.6**
**GMRC Granite Mounta 79.02 55** P **P 01 13 15.4 +0.1**
baz=307
**KWP Kalwaria Pacla 79.09 325** *eP* **P 01 13 16.7 +1.5**
**KWP Kalwaria Pacla 79.09 325** *eP* **P 01 13 16.7 +1.5**
**PFO Pinyon Flats O 79.17 56** LR LR 01 46 43.7
comp=Z,477nm,18.0s,baz=204,slow=34
**PFO Pinyon Flats O 79.17 56** P **P 01 13 16.4 +0.2**
baz=306
**BELC Belle Mtn. Jos 79.25 56** P **P 01 13 16.8 +0.2**
baz=306
**BURAR Bucovina Array 79.26 322**⇑ *i*P **P 01 13 16.9 +0.6**
**BURAR Bucovina Array 79.26 322** P **P 01 13 16.8 +0.5**
**TESR Tescani 79.28 321**⇓ *i*P **P 01 13 16.4 +0.1**
**CFR Carcaliu 79.38 319**⇓ *i*P **P 01 13 17.1 +0.2**
**MONP2 Monument Peak 79.62 57** P **P 01 13 18.0 -0.8**
baz=306
**VRI Vrincioaia 79.67 320**⇑ *i*P **P 01 13 20.1 +1.6**
**PLOR Plostina 79.72 320**⇓ *i*P **P 01 13 19.5 +0.7**
**IRM Iron Mountain 79.73 55** P **P 01 13 20.4 +1.3**
baz=307
**BRTR Keskin Array B 79.75 312** P **P 01 13 19.4 +0.1**
comp=Z,13nm,1.0s,baz=111,slow=3.5,SNR=49
BRTR LR LR 01 54 49.5
comp=Z,418nm,18.0s,baz=32,slow=40
**K22A Casper 79.78 44** P **P 01 13 19.6 +0.2**
baz=310
**BC3 Big Chuckawall 79.82 56** P **P 01 13 20.6 +0.9**
baz=307
**STHS Stebnicka Huta 79.92 325** *eP* **P 01 13 21.3 +1.5**
STHS pmax pmax
comp=Z,8.0nm,1.0s
**STHS Stebnicka Huta 79.92 325** *eP* **P 01 13 21.3 +1.5**
**MDND Maddock 79.96 37** P **P 01 13 20.3 +0.3**
baz=314
**UZH Uzhgorod 79.98 324** *eP* **P 01 13 20.0 -0.1**
UZH *e* 01 13 32.6
UZH *e*S **S 01 23 22.0 -1.2**
UZH *e*PS **PnS 01 24 19.4 +12**
UZH MLR MLR
comp=N,400nm,17.0s
UZH MLR MLR
comp=E,800nm,17.0s
UZH MLR MLR
comp=Z,230nm,17.0s
**OJC Ojcow 80.00 326** *eP* **P 01 13 20.5 +0.3**
**OJC Ojcow 80.00 326** *eP* **P 01 13 20.5 +0.3**
**ULM Lac du Bonnet 80.00 33** P **P 01 13 20.3 +0.1**
comp=Z,4.4nm,0.8s,baz=285,slow=5.5,SNR=6.0
ULM LR LR 01 51 23.5
comp=Z,102nm,19.8s,baz=18,slow=38
**ULM Lac du Bonnet 80.00 33** P **P 01 13 20.3 +0.1**
ULM pmax pmax
comp=Z,1.0nm,0.3s
ULM MLR MLR
comp=Z,102nm,19.8s
**SWSC Sam W. Stewart 80.01 57** P **P 01 13 21.2 +0.7**
baz=307
**ANTO Ankara 80.17 312** *eP* **P 01 13 21.3 -0.1**
ANTO pmax pmax
comp=Z,63nm,1.0s
**ANTO Ankara 80.17 312** *eP* **P 01 13 21.3 -0.1**
comp=Z,63nm,1.0s
**CRVS Cervenica-Dubn 80.18 325** *eP* **P 01 13 22.1 +0.9**
**CRVS Cervenica-Dubn 80.18 325** *eP* **P 01 13 22.1 +0.9**
**RSSD Black Hills 80.20 42** P **P 01 13 21.8 +0.2**
baz=312
**RSSD Black Hills 80.20 42** *eP* **P 01 13 22.4 +0.7**
RSSD pmax pmax
comp=Z,2.0nm,0.7s
**RSSD Black Hills 80.20 42** *eP* **P 01 13 22.4 +0.7**
comp=Z,1.6nm,0.7s
**DOPR Dopca 80.29 321**⇑ *i*P **P 01 13 22.9 +1.0**
**PDMCI Parker Dam,Lak 80.31 55** P **P 01 13 22.5 +0.4**
baz=307
**MLR Muntele Rosu 80.33 320**⇑ *i*P **P 01 13 23.4 +1.2**
**NIE Niedzica 80.35 326** *eP* **P 01 13 23.0 +0.8**
**NIE Niedzica 80.35 326** *eP* **P 01 13 23.0 +0.8**
**O20A White River Ci 80.40 47** P **P 01 13 23.3 +0.5**
baz=310
**O20A White River Ci 80.40 47** *eP* **P 01 13 24.2 +1.4**
comp=Z,24nm,1.4s
**A32A Rocking H Ranc 80.68 35** P **P 01 13 24.2 +0.3**
baz=316
**CJR Cluj-Napoca 80.68 322**⇑ *i*P **P 01 13 25.0 +1.0**
**C31A Landman Farms, 80.90 36** P **P 01 13 24.2 -0.8**
baz=315
**LANS Liptovska Anna 80.92 326** *eP* **P 01 13 26.2 +1.0**
**LANS Liptovska Anna 80.92 326** *eP* **P 01 13 26.2 +1.0**
**KECS Kecovo 80.93 325** *eP* **P 01 13 25.3 +0.1**
KECS pmax pmax
comp=Z,3.0nm,0.9s
**KECS Kecovo 80.93 325** *eP* **P 01 13 25.3 +0.1**
**OKC Ostrava-Krasne 81.01 327** *eP* **P 01 13 25.8 +0.2**
OKC AMS AMS 01 52 30.0
comp=Z,1µm,18.3s
**OKC Ostrava-Krasne 81.01 327** *eP* **P 01 13 25.8 +0.2**
OKC MLR MLR
comp=Z,1µm,18.3s
**B32A Ashes, Strandq 81.03 35** P **P 01 13 25.6 -0.1**
baz=316
**DRGR 81.07 323**⇑ *i*P **P 01 13 26.8 +0.7**
**KSP Ksiaz 81.07 329** *eP* **P 01 13 26.7 +0.8**
**KSP Ksiaz 81.07 329** *eP* **P 01 13 26.7 +0.8**
**ARR Arges 81.09 321**⇓ *i*P **P 01 13 27.8 +1.6**
**PV04 Paradox Valley 81.11 49** *eP* **P 01 13 27.8 +1.3**
**A33A Warroad 81.17 34** P **P 01 13 26.5 0.0**
baz=317
**N23A Red Feather La 81.25 45** P **P 01 13 29.0 +1.5**
baz=311
**WUAZ Wupatki 81.36 52** P **P 01 13 28.8 +0.8**
baz=309
**WUAZ Wupatki 81.36 52** *eP* **P 01 13 29.1 +1.1**
comp=Z,18nm,1.3s
**RAYN Ar Rayn 81.38 293** *eP* **P 01 13 28.1 0.0**
comp=Z,40nm,1.5s
**AGMN Agassiz Nation 81.41 35** P **P 01 13 28.1 +0.3**
baz=316
**DPC Dobruska-Polom 81.42 328** *eP* **P 01 13 28.6 +0.7**
DPC AMS AMS 01 55 50.0
comp=Z,1µm,16.8s
**DPC Dobruska-Polom 81.42 328** *eP* **P 01 13 28.6 +0.7**
DPC MLR MLR
comp=Z,1µm,16.8s
**D31A Mcclaflin, Tow 81.43 37** P **P 01 13 28.1 +0.2**
baz=315
**KRLC Kraliky 81.43 328** *eP* **P 01 13 28.0 +0.1**
**KRLC Kraliky 81.43 328** *eP* **P 01 13 28.0 +0.1**
**UPC Upice 81.44 328** *eP* **P 01 13 28.4 +0.5**
UPC AMS AMS 01 58 00.0
comp=Z,1µm,17.5s
**UPC Upice 81.44 328** *eP* **P 01 13 28.4 +0.5**
UPC MLR MLR
comp=Z,1µm,17.5s
**LOT Lotru 81.47 321**⇑ *i*P **P 01 13 29.0 +0.7**
**PV01 Paradox Valley 81.47 49** *eP* **P 01 13 30.1 +1.4**
comp=Z,3µm,0.8s
**PSZ Piszkesteto 81.61 325**⇓ *i*P **P 01 13 30.1 +1.1**
**PSZ Piszkesteto 81.61 325** *eP* **P 01 13 29.4 +0.4**
PSZ pmax pmax
comp=Z,17nm,1.0s
**PSZ Piszkesteto 81.61 325** *eP* **P 01 13 29.7 +0.7**
**PSZ Piszkesteto 81.61 325** *eP* **P 01 13 29.4 +0.4**
comp=Z,17nm,1.0s
**VYHS Vyhne 81.69 326** *eP* **P 01 13 29.8 +0.6**
VYHS pmax pmax
comp=Z,8.0nm,1.1s
**VYHS Vyhne 81.69 326** *eP* **P 01 13 29.8 +0.6**
**E31A Nome 81.69 37** P **P 01 13 29.6 +0.3**
baz=315
**SMCO Snowmass 81.76 47** *eP* **P 01 13 31.7 +1.4**
comp=Z,8.6nm,1.2s
**B34A Aery, Baudette 81.83 34** P **P 01 13 29.8 -0.2**
baz=317
**C33A Trail 81.84 35** P **P 01 13 30.1 0.0**
baz=316
**F31A Hecla 82.01 38** P **P 01 13 31.4 +0.5**
baz=315
**BRG Berggiesshubel 82.02 330** *i* P **P 01 13 31.1 +0.2**
comp=Z,16nm,1.1s
BRG *e* 01 13 48.0
comp=Z,12nm,1.1s
comp=N,656nm,14.2s
comp=E,622nm,17.3s
comp=Z,1µm,14.9s
**BRG Berggiesshubel 82.02 330** *i* P **P 01 13 31.1 +0.2**
BRG *e* 01 13 48.0
BRG pmax pmax
comp=Z,16nm,1.2s
BRG pmax pmax
comp=Z,12nm,1.2s
BRG MLR MLR
comp=N,656nm,14.2s
BRG MLR MLR
comp=E,622nm,17.3s
BRG MLR MLR
comp=Z,1µm,14.9s
**PVCC Panska Ves 82.03 329** *eP* **P 01 13 31.9 +0.9**
PVCC AMS AMS 01 54 50.0
comp=Z,2µm,15.8s
**PVCC Panska Ves 82.03 329** *eP* **P 01 13 31.9 +0.9**
PVCC MLR MLR
comp=Z,2µm,15.8s
**CLL Collm 82.07 330**⇑ *i*P **P 01 13 31.0 -0.1**
CLL *i* 01 13 47.6
CLL pmax pmax
comp=Z,19nm,1.0s
**CLL Collm 82.07 330**⇑ *i*P **P 01 13 31.0 -0.1**
comp=Z,19nm,1.0s
CLL *i* 01 13 47.6
**VRAC Vranov 82.08 327**⇑ *i*P **P 01 13 32.2 +0.9**
**MVCO Mesa Verde 82.11 49** P **P 01 13 32.7 +0.8**
baz=310
**MVCO Mesa Verde 82.11 49** *eP* **P 01 13 33.2 +1.2**
comp=Z,2.7nm,0.9s
**ISCO Idaho Springs 82.16 46** P **P 01 13 33.2 +0.9**
baz=311
**SMOL Smolenice 82.31 326** *eP* **P 01 13 34.0 +1.5**
**SMOL Smolenice 82.31 326** *eP* **P 01 13 34.0 +1.5**
**B35A Bob, Littlefor 82.34 34** P **P 01 13 31.6 -1.0**
baz=318
**GOPC GO Pecny, Ondr 82.40 329** *eP* **P 01 13 33.7 +0.7**
GOPC AMS AMS 01 53 20.0
comp=Z,1µm,18.7s
**GOPC GO Pecny, Ondr 82.40 329** *eP* **P 01 13 33.7 +0.7**
GOPC MLR MLR
comp=Z,1µm,18.7s
**BZS Buzias 82.43 322**⇑ *i*P **P 01 13 33.5 +0.3**
**PRU Pruhonice 82.45 329** *eP* **P 01 13 33.8 +0.6**
PRU *ep*P **sP 01 13 40.4 -0.1**
PRU AMS AMS 01 53 10.0
comp=Z,1µm,18.1s
**PRU Pruhonice 82.45 329** *eP* **P 01 13 33.8 +0.6**
PRU *e* 01 13 40.4
PRU MLR MLR
comp=Z,1µm,18.1s
**G31A Conde 82.48 38** P **P 01 13 33.6 +0.2**
baz=315
**MODS Modra-Piesok 82.48 326** *eP* **P 01 13 34.2 +0.8**
**MODS Modra-Piesok 82.48 326** *eP* **P 01 13 34.2 +0.8**
**F32A Veblen 82.56 37** P **P 01 13 34.1 +0.3**
baz=316
**TREC Trest 82.57 328** *eP* **P 01 13 34.7 +0.8**
TREC AMS AMS 01 54 40.0
comp=Z,2µm,17.0s
**TREC Trest 82.57 328** *eP* **P 01 13 34.7 +0.8**
TREC MLR MLR
comp=Z,2µm,17.0s
**D34A Park Rapids 82.60 35** P **P 01 13 34.5 +0.4**
baz=317
**E33A Westby DABS, E 82.64 36** P **P 01 13 34.6 +0.3**
baz=316
**C35A Jirik Farms, M 82.72 34** P **P 01 13 34.0 -0.6**
baz=318
**S22A 4UR Ranch, Cre 82.78 48** P **P 01 13 35.5 -0.1**
baz=311
**H31A Wolsey 82.87 39** P **P 01 13 35.8 +0.3**
baz=315
**MDVR Moldovita 82.98 322**⇑ *i*P **P 01 13 36.1 0.0**
**F33A 5 Mile Ranch, 82.98 37** P **P 01 13 36.3 +0.2**
baz=316
**NKC Novy Kostel 83.12 330** *eP* **P 01 13 37.5 +0.8**
NKC AMS AMS 01 54 20.0

comp=Z,1μm,17.4s
**NKC Novy Kostel 83.12 330** *e*P **P 01 13 37.5 +0.8**
NKC MLR MLR
comp=Z,1μm,17.4s
**C36A Pine Crest Far 83.19 34** P **P 01 13 37.2 +0.1**
baz=318
**SOP Sopron 83.31 326** *e*P **P 01 13 38.7 +1.0**
**G33A Ortonville 83.38 37** P **P 01 13 38.6 +0.4**
baz=316,SNR=6.0
**H32A Carlson Farm, 83.38 38** P **P 01 13 38.4 +0.3**
baz=316
**CONA Conrad Observa 83.44 327** *e*PcP **P 01 13 39.5 +1.0**
comp=Z,14nm,1.1s
**PMOR Pomariorio Ree 83.44 114** *e*T T 02 45 25.0
comp=Z,4.4nm,0.2s
**D36A Goodland 83.47 34** P **P 01 13 37.7 -0.9**
baz=318
**RDO Rodhopi 83.50 317** P **P 01 13 38.0 -0.8**
**RDO Rodhopi 83.50 317** P **P 01 13 38.0 -0.8**
**C37A Embarrass 83.50 33** P **P 01 13 38.7 -0.1**
baz=319
**KHC Kasperske Hory 83.51 329** *e*P **P 01 13 39.1 +0.3**
KHC *ex* x 01 13 49.9
KHC AMS AMS 01 54 00.0
comp=Z,2μm,18.8s
**KHC Kasperske Hory 83.51 329** *e*P **P 01 13 39.1 +0.3**
KHC *e* 01 13 49.9
KHC MLR MLR
comp=Z,2μm,18.8s
**KHC Kasperske Hory 83.51 329** *e*P **P 01 13 39.0 +0.2**
comp=Z,4.2nm,0.8s
**F34A Alexandria 83.51 36** P **P 01 13 37.9 -0.9**
baz=317
**SDCO Great Sand Dun 83.57 47** P **P 01 13 39.4 -0.2**
baz=311
**H33A Prehn Over Nor 83.60 38** P **P 01 13 39.3 0.0**
baz=316,SNR=6.4
**EYMN Ely 83.64 33** P **P 01 13 39.3 -0.2**
baz=319
**GERES GERESS Array B 83.68 329** P **P 01 13 40.0 +0.3**
comp=Z,4.7nm,0.8s,baz=35,slow=4.9,SNR=18
GERES LR LR 01 54 26.3
comp=Z,989nm,18.5s,baz=7.5,slow=38
**GERES GERESS Array B 83.68 329** P **P 01 13 40.0 +0.3**
GERES pmax pmax
comp=Z,5.0nm,0.8s
GERES MLR MLR
comp=Z,989nm,18.5s
**I32A Karley and Nic 83.70 39** P **P 01 13 38.5 -1.3**
baz=316
**G34A Benson 83.73 37** P **P 01 13 40.3 +0.3**
baz=317
**TUC Tucson 83.75 54** P **P 01 13 40.1 -0.2**
baz=309
**TUC Tucson 83.75 54** *e*P **P 01 13 43.2 +2.8**
TUC pmax pmax
comp=Z,25nm,1.6s
**TUC Tucson 83.75 54** *e*P **P 01 13 43.2 +2.8**
comp=Z,25nm,1.6s
**VTS Vitosha 83.75 319** *i*P **P 01 13 41.4 +1.1**
**VTS Vitosha 83.75 319** P **P 01 13 40.6 +0.3**
**VTS Vitosha 83.75 319** P **P 01 13 40.6 +0.3**
**VTS Vitosha 83.75 319** P **P 01 13 40.6 +0.3**
**PPT Papeete 83.86 117** LR LR 01 44 20.2
comp=Z,438nm,20.4s,baz=352,slow=31
**PPT2 Papeete2 83.88 117** *e*LR LR 01 39 56.7
comp=Z,764nm,21.8s,baz=309
**J32A Parkston 83.97 39** P **P 01 13 41.4 +0.2**
baz=316
**I33A Coleman 84.02 38** P **P 01 13 41.6 +0.1**
baz=316
**H34A Spellman Lake, 84.08 37** P **P 01 13 42.0 +0.3**
baz=317
**ARSA Arzberg 84.10 327** *e*P **P 01 13 42.1 +0.3**
comp=Z,5.2nm,1.1s
**MOA Molln 84.20 328** *e*P **P 01 13 42.7 +0.4**
comp=Z,6.4nm,1.4s
**NVR Nevrokopi 84.27 318** P **P 01 13 40.6 -2.2**
**NVR Nevrokopi 84.27 318** P **P 01 13 40.6 -2.2**
**C39A Grand Marais 84.34 32** P **P 01 13 43.8 +0.8**
baz=320
**ECSD EROS Data Cent 84.34 38** P **P 01 13 43.1 0.0**
baz=316
**H35A Sunnyside Ranc 84.52 37** P **P 01 13 44.9 +0.9**
baz=317,SNR=14
**SRS Serrai 84.58 318** P **P 01 13 43.3 -1.0**
**SRS Serrai 84.58 318** P **P 01 13 43.3 -1.0**
**SRS Serrai 84.58 318** P **P 01 13 43.3 -1.0**
**T25A Trinidad 84.62 47** P **P 01 13 45.6 +0.7**
baz=312
**SOKA Soboth 84.76 326** *i*P **P 01 13 45.4 +0.2**
comp=Z,13nm,1.1s
**ANMO Albuquerque 84.83 50** P **P 01 13 47.2 +1.2**
baz=311
**ANMO Albuquerque 84.83 50** *i*P **P 01 13 45.6 -0.4**
ANMO pmax pmax
comp=Z,3.0nm,0.9s
**F38A Pierce - Schro 84.98 34** P **P 01 13 47.0 +0.8**
baz=319
**VAY Valandovo 84.98 319** *i*P **P 01 13 46.8 +0.4**
**J34A George 85.00 38** P **P 01 13 46.7 +0.3**
baz=317
**H36A Jessenland, He 85.05 36** P **P 01 13 47.0 +0.4**
baz=318,SNR=7.1
**I35A Creekview Farm 85.06 37** P **P 01 13 46.6 -0.1**
baz=317
**OBKA Obir 85.10 327** *e*P **P 01 13 47.0 0.0**
comp=Z,6.6nm,0.9s
**SKO Skopje 85.12 320** *i*P **P 01 13 48.0 +1.0**
**PLG Polygyros 85.18 318** P **P 01 13 46.7 -0.7**
**PLG Polygyros 85.18 318** P **P 01 13 46.7 -0.7**
**PLG Polygyros 85.18 318** P **P 01 13 46.7 -0.7**
**KBA Koelnbreinsper 85.19 328** *e*PcP **P 01 13 48.0 +0.5**
comp=Z,7.3nm,1.0s
**MEM Membach 85.28 334** P **P 01 13 47.3 -0.4**
comp=Z,8.2nm,1.1s
**J35A Milford 85.31 38** P **P 01 13 48.5 +0.5**
baz=317
**K34A Le Mars 85.36 39** P **P 01 13 48.4 +0.1**
baz=317
**I36A Fitzsimmons Fa 85.42 37** P **P 01 13 47.6 -0.9**
baz=318
**E40A Wakefield 85.50 33** P **P 01 13 49.6 +0.8**
baz=320
**H37A Dierke Farm, C 85.53 36** P **P 01 13 50.3 +1.3**
baz=319
**TAOE Nuku Hiva Isla 85.55 104** *e*LR LR 01 40 46.1
comp=Z,646nm,22.9s
**121A Cookes Peak, D 85.56 53** P **P 01 13 48.8 -0.8**
baz=311
**G38A Ridgeland 85.58 35** P **P 01 13 48.9 -0.4**
baz=319
**KRUS Krusevo 85.65 320** *i*P **P 01 13 49.8 0.0**
**I37A Lemond, Waseca 85.72 37** P **P 01 13 50.2 +0.2**
baz=318,SNR=6.5
**J36A Seneca 1, Swea 85.77 37** P **P 01 13 49.9 -0.3**
baz=318,SNR=5.4
**G39A Holcombe 85.81 34** P **P 01 13 49.9 -0.5**
baz=320
**ABTA Abfaltersbach 85.81 328** *e*P **P 01 13 49.7 -0.8**
comp=Z,7.1nm,1.3s
**BIA Bitola 85.86 319** *i*P **P 01 13 52.6 +1.8**
**MOTA Moosalm 85.94 329** *e*P **P 01 13 50.6 -0.6**
comp=Z,7.8nm,1.2s
**RETA Reutte 85.97 329** *e*P **P 01 13 50.9 -0.3**
comp=Z,18nm,1.2s
**SQTA Sankt Quirin 85.99 329** *i*P **P 01 13 51.2 -0.2**
**SCHQ Schefferville 86.06 16** LR LR 01 53 02.5
comp=Z,397nm,21.8s,baz=330,slow=36
**J37A Redenius Farm, 86.17 37** P **P 01 13 51.3 -0.9**
baz=318
**CBKS Cedar Bluff 86.18 44** P **P 01 13 52.4 0.0**
baz=315
**I38A Scanlan Farm, 86.21 36** P **P 01 13 51.8 -0.6**
baz=319
**H39A Augusta 86.22 35** P **P 01 13 51.9 -0.5**
baz=320
**K36A Gilmore City 86.22 38** P **P 01 13 52.4 -0.1**
baz=318
**G40A Rib Lake 86.26 34** P **P 01 13 52.6 -0.1**
baz=320
**BFO Black Forest 86.27 331** *i*P **P 01 13 53.0 +0.3**
**BFO Black Forest 86.27 331** *e*P **P 01 13 52.5 -0.1**
comp=Z,12nm,0.9s
**E42A Champion 86.37 32** P **P 01 13 53.5 +0.3**
baz=322
**F41A Three Lakes 86.39 33** P **P 01 13 53.3 0.0**
baz=321
**O33A Hebron 86.46 41** P **P 01 13 53.7 0.0**
baz=316
**K37A Belmond 86.53 37** P **P 01 13 54.4 +0.3**
baz=318,SNR=6.1
**H40A Chili 86.67 34** P **P 01 13 54.9 +0.2**
baz=320
**J38A Wedel Dairy, R 86.68 36** P **P 01 13 54.6 -0.2**
baz=319
**I39A Houston 86.73 36** P **P 01 13 54.6 -0.4**
baz=320
**O34A Beatrice 86.86 41** P **P 01 13 55.7 0.0**
baz=316
**DAVOX Davos/Dischmat 86.90 329** LR LR 01 56 20.9
comp=Z,886nm,19.6s,baz=30,slow=38
**M36A Felix, Anita 86.92 39** P **P 01 13 56.1 +0.1**
baz=318
**N35A Tabor 86.92 40** P **P 01 13 55.7 -0.3**
baz=317
**H41A Junction City 87.01 34** P **P 01 13 56.5 +0.2**
baz=321
**J39A Decorah 87.04 36** P **P 01 13 56.1 -0.4**
baz=319,SNR=5.7
**I40A Norwalk 87.13 35** P **P 01 13 56.7 -0.2**
baz=320
**O35A Humboldt 87.21 40** P **P 01 13 57.4 0.0**
baz=317
**P34A Walnut Farm, R 87.25 41** P **P 01 13 57.4 -0.2**
baz=316
**N36A Muff Farm, Cla 87.31 40** P **P 01 13 58.4 +0.6**
baz=317
**L38A Oak Wood Farm, 87.33 38** P **P 01 13 57.8 -0.1**
baz=319
**M37A Trindle Farm, 87.33 39** P **P 01 13 58.4 +0.4**
baz=318
**G43A Wallace 87.39 33** P **P 01 13 58.5 +0.3**
baz=322
**K39A Oelwein 87.43 37** P **P 01 13 58.0 -0.4**
baz=319
**H42A Shiocton 87.60 34** P **P 01 13 59.4 +0.2**
baz=322
**Q34A Chapman 87.64 42** P **P 01 14 00.1 +0.6**
baz=316
**TBI Tubuai 87.71 121** *e*LR LR 01 41 35.0
comp=Z,802nm,23.8s,baz=312
**TBI Tubuai 87.71 121** *e*T T 02 50 50.9
comp=Z,6.2nm,0.3s
**N37A Lee Faris, Mou 87.73 39** P **P 01 14 00.1 +0.3**
baz=318
**M38A Pleasantville 87.75 38** P **P 01 14 00.1 +0.1**
baz=319
**AMTX Amarillo 87.78 47** P **P 01 14 01.3 +1.0**
baz=314
**K40A Colesburg 87.79 36** P **P 01 13 59.8 -0.4**
baz=320
**O36A Bolckow 87.81 40** P **P 01 13 59.9 -0.3**
baz=318
**J41A Loganville 87.81 35** P **P 01 13 59.0 -1.3**
baz=321
**L39A Vinton 87.81 37** P **P 01 13 59.6 -0.7**
baz=319
**I42A Draeger Farm, 87.91 34** P **P 01 14 00.9 +0.2**
baz=321
**P36A Good Intent, A 88.05 40** P **P 01 14 01.5 +0.1**
baz=317
**Q35A Mercer Eighty, 88.17 41** P **P 01 14 02.7 +0.7**
baz=317
**M39A Webster 88.22 38** P **P 01 14 01.7 -0.5**
baz=319
**F46A Macinaw City C 88.22 31** P **P 01 14 02.3 +0.2**
baz=324
**L40A Anamosa 88.24 37** P **P 01 14 01.9 -0.4**
baz=320
**K41A Shullsburg 88.26 36** P **P 01 14 02.1 -0.2**
baz=320
**Q36A Arnold C. Orve 88.40 41** P **P 01 14 02.9 -0.2**
baz=317
**S34A Willow Spring 88.42 43** P **P 01 14 03.8 +0.5**
baz=316
**R35A Emporia Munici 88.47 42** P **P 01 14 04.6 +1.1**
baz=317
**N39A Derby Farms, D 88.51 38** P **P 01 14 04.5 +1.0**
baz=319
**P37A Lathrop 88.53 40** P **P 01 14 04.4 +0.7**
baz=318
**J43A Natural Harves 88.53 34** P **P 01 14 03.9 +0.2**
baz=322
**K42A Prairie Point, 88.58 35** P **P 01 14 03.5 -0.3**
baz=321
**L41A Preston 88.58 36** P **P 01 14 03.2 -0.6**
baz=320
**M40A Post Highland 88.60 37** P **P 01 14 04.1 +0.2**
baz=320
**T34A McClaskey Farm 88.86 43** P **P 01 14 06.3 +1.0**
baz=316
**S35A Otter Creek Ra 88.87 42** P **P 01 14 05.6 +0.2**
baz=317
**P38A Dawn 88.92 40** P **P 01 14 05.8 +0.3**
baz=318
**N40A Mertquake, Sal 88.96 38** P **P 01 14 06.3 +0.6**
baz=320
**L42A Oliver, Polo 89.03 36** P **P 01 14 06.3 +0.3**
baz=321
**M41A Milan 89.09 37** P **P 01 14 06.8 +0.5**
baz=320
**LPIG La Paz 89.25 61** LR LR 01 53 45.1
comp=Z,185nm,18.3s,baz=273,slow=35
**O40A La Belle 89.39 38** P **P 01 14 07.9 +0.2**
baz=319
**P39B Salisbury 89.42 39** P **P 01 14 08.2 +0.3**
baz=319
**T36A Boggs Farm, Ca 89.56 43** P **P 01 14 09.0 +0.4**
baz=317
**WMOK Wichita Mounta 89.59 46** P **P 01 14 08.7 -0.1**
baz=315
**Q39A Willow Grove F 89.64 40** P **P 01 14 09.2 +0.2**
baz=319
**P40A Paris 89.75 39** P **P 01 14 09.8 +0.4**
baz=319
**M43A Waltham Townsh 89.80 36** P **P 01 14 10.2 +0.6**
baz=321
**O41A Passleys Farm, 89.89 38** P **P 01 14 10.3 +0.2**
baz=320
**N43A Stutzman Famil 90.08 36** P **P 01 14 11.0 0.0**
baz=321
**P41A Barry, Barry 90.14 38** P **P 01 14 11.7 +0.5**
baz=320
**Q40A Lax Farm, Aux 90.14 39** P **P 01 14 11.3 +0.1**
baz=319
**R39A Chumby, Stover 90.16 40** P **P 01 14 11.6 +0.2**
baz=319
**S38A Stockton 90.21 41** P **P 01 14 11.4 -0.2**
baz=318
**TXAR Lajitas Array 90.32 53** P **P 01 14 13.3 +0.9**
comp=Z,2.1nm,0.8s,baz=266,slow=3.4,SNR=11
TXAR LR LR 01 55 14.6
comp=Z,276nm,18.0s,baz=0.0,slow=36
**HDIL Hopedale 90.33 36** P **P 01 14 12.3 +0.2**
baz=321
**T38A Diamond 90.44 42** P **P 01 14 12.8 +0.1**
baz=318
**V36A Jenks 90.45 44** P **P 01 14 13.6 +0.9**
baz=317
**U37A Salina 90.46 43** P **P 01 14 12.9 +0.1**
baz=317
**S39A Bolivar 90.47 41** P **P 01 14 12.8 -0.1**
baz=318
**P42A Winchester 90.56 38** P **P 01 14 13.4 +0.2**
baz=320
**R40A Maddies Statio 90.57 40** P **P 01 14 13.6 +0.4**
baz=319
**Q41A Truxton 90.60 39** P **P 01 14 14.2 +0.8**
baz=320
**N44A Piper City 90.69 36** P **P 01 14 13.2 -0.6**
baz=322
**W36A Wetumka 90.76 44** P **P 01 14 13.8 -0.4**
baz=317
**V37A Hulbert 90.83 43** P **P 01 14 14.8 +0.3**
baz=317
**U38A Gravette 90.83 42** P **P 01 14 14.2 -0.3**
baz=318
**X35A Drake 90.87 45** P **P 01 14 14.0 -0.7**
baz=316
**T39A Clever 90.94 41** P **P 01 14 14.8 -0.2**
baz=318
**S40A Lebanon 90.97 40** P **P 01 14 14.5 -0.7**
baz=319
**R41A Rosebud 91.02 39** P **P 01 14 15.3 -0.1**
baz=320
**X36A Centrahoma 91.10 45** P **P 01 14 16.4 +0.6**
baz=317
**V38A Canehill 91.24 43** P **P 01 14 16.3 -0.2**
baz=318
**CCM Cathedral Cave 91.28 39** *e*P **P 01 14 16.9 +0.3**
CCM pmax pmax
comp=Z,66nm,1.3s
**CCM Cathedral Cave 91.28 39** *e*P **P 01 14 16.9 +0.3**
comp=Z,66nm,1.3s
**T40A Mansfield 91.30 41** P **P 01 14 16.8 +0.1**
baz=319
**U39A Green Forest 91.36 42** P **P 01 14 16.2 -0.8**
baz=318
**S41A Jillco Farms, 91.37 40** P **P 01 14 17.2 +0.2**
baz=320
**Y36A Durant 91.63 45** P **P 01 14 18.7 +0.4**
baz=317
**V39A Pettigrew 91.68 42** P **P 01 14 18.4 -0.1**
baz=318
**U40A Yellville 91.72 41** P **P 01 14 18.4 -0.2**
baz=319
**S42A Caledonia 91.72 39** P **P 01 14 19.0 +0.3**
baz=320
**R43A Red Bud 91.77 38** P **P 01 14 18.6 -0.2**
baz=321
**T41A Mountain View 91.78 40** P **P 01 14 19.1 +0.2**
baz=320
**T42A Van Buren 92.13 40** P **P 01 14 20.4 -0.2**
baz=320
**V40A Witts Springs 92.15 42** P **P 01 14 20.7 0.0**
baz=319
**Q45A Warren Harvey, 92.17 37** P **P 01 14 20.7 +0.1**
baz=322
**R44A Waltonville 92.22 38** P **P 01 14 21.1 +0.2**
baz=321
**U41A Viola 92.22 41** P **P 01 14 20.2 -0.8**
baz=319
**WHTX Lake Whitney, 92.32 47** P **P 01 14 21.1 -0.4**
baz=316
**X39A Fountain Ranch 92.40 43** P **P 01 14 22.1 +0.2**
baz=318
**W40A Ferguson Farm, 92.47 42** P **P 01 14 22.6 +0.5**
baz=319
**T43A Greenville 92.51 39** P **P 01 14 22.2 -0.1**
baz=320
**V41A Mountainview 92.52 41** P **P 01 14 21.7 -0.7**
baz=319
**MIAR Mount Ida 92.67 43** P **P 01 14 23.6 +0.6**
baz=318
**MIAR Mount Ida 92.67 43** *e*P **P 01 14 23.7 +0.6**
**MIAR Mount Ida 92.67 43** *e*P **P 01 14 23.7 +0.6**
**V42A Cord 92.91 41** P **P 01 14 23.8 -0.4**
baz=320
**KEST Kesra 95.97 323** LR LR 02 03 10.6
comp=Z,796nm,18.3s,baz=357,slow=39
**RKT Rikitea 98.03 113** *e*LR LR 01 46 27.9
comp=Z,546nm,24.8s
**ESDC Sonseca Array 98.26 334** LR LR 02 03 59.6
comp=Z,633nm,20.6s,baz=5.0,slow=38
**TORD Torodi Ar. Bea 118.25 315** PKP **PKPdf 01 19 58.4 -0.5**
comp=Z,0.6nm,0.9s,baz=22,slow=2.1,SNR=3.5
**BOSA Boshof 126.82 259** PKP **PKPdf 01 20 15.3 +0.3**
comp=Z,5.2nm,0.9s,baz=270,slow=2.3,SNR=4.4
**LPAZ La Paz 146.76 61** PKPbc **PKPdf 01 20 53.4 +0.9**
comp=Z,6.5nm,0.8s,baz=356,slow=3.5,SNR=29

*ISK **05** 01:08:16.3,38˚.82N×43˚.68E,h5km,MD2.7*
*ATA **05** 01:08:16.2±0.6,38˚.85N×43˚.63E,h0km±2km,ML2.8, MW3.0*
*ISCJB **05** 01:08:17.8±0.7,38˚.82N±0˚.03×43˚.69E±0˚.05,h10km±5km, Error ellipse: s-maj=7.2km s-min=4.2km az=17.0*
*DDA **05** 01:08:17.1,38˚.79N×43˚.66E,h7km,Ml2.7*
*CSEM **05** 01:08:17.3±0.2,38˚.81N×43˚.67E,h2km,ML2.7, Error ellipse: s-maj=4.8km s-min=3.4km az=110.0*
**ISC 05 01:08:17.8±0.9,38˚.83N±0˚.02×43˚.66E±0˚.03,h13km±7km, n43,σ0°69/58,1D,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VMUR** | **Van-Muradiye** | **0.18** | **337** | *i* P | **Pg** | **01 08 21.4** | **-0.6** |
| VMUR | | | | *i* S | **Sg** | **01 08 25.4** | **+0.5** |
| **VMUR** | **Van-Muradiye** | **0.18** | **337** | P | **Pg** | **01 08 21.4** | **-0.6** |
| VMUR | | | | S | **Sg** | **01 08 25.5** | **+0.5** |
| **VANB** | **Van** | **0.31** | **223** | *e*PG | **Pg** | **01 08 24.0** | **-0.2** |
| VANB | | | | *e*SG | **Sb** | **01 08 31.6** | **+1.2** |
| **VANB** | **Van** | **0.31** | **223** | *e*Pg | **Pg** | **01 08 24.0** | **-0.2** |
| VANB | | | | *e*Sg | **Sb** | **01 08 31.6** | **+1.2** |
| **ERCV** | **ERCIS-VAN** | **0.32** | **308** | *e*PG | **Pg** | **01 08 23.8** | **-0.6** |
| ERCV | | | | *e*SG | **Sb** | **01 08 30.3** | **-0.4** |
| **ERCV** | **ERCIS-VAN** | **0.32** | **308** | *e*Pg | **Pg** | **01 08 23.8** | **-0.6** |
| ERCV | | | | *e*Sg | **Sb** | **01 08 30.3** | **-0.4** |
| **CLDR** | **Caldiran** | **0.38** | **32** | *e*PG | **Pg** | **01 08 24.9** | **-0.5** |
| CLDR | | | | *e*SG | **Sg** | **01 08 31.1** | **+0.6** |
| **CLDR** | **Caldiran** | **0.38** | **32** | *i* P | **Pg** | **01 08 25.1** | **-0.3** |
| CLDR | | | | *i* S | **Sb** | **01 08 32.3** | **-0.1** |
| **CLDR** | **Caldiran** | **0.38** | **32** | *e*Pg | **Pg** | **01 08 24.9** | **-0.5** |
| **CLDR** | **Caldiran** | **0.38** | **32** | P | **Pg** | **01 08 25.1** | **-0.3** |
| CLDR | | | | *e*Sg | **Sg** | **01 08 31.2** | **+0.6** |
| CLDR | | | | S | **Sb** | **01 08 32.3** | **-0.1** |
| **GEVA** | **Gevas** | **0.70** | **223** | *e*P | **Pg** | **01 08 31.1** | **-0.2** |
| GEVA | | | | *e*S | **Sb** | **01 08 42.3** | **+0.8** |
| GEVA | | | | IAML | | 01 08 49.0 | |
| | comp=Z,47nm,0.4s | | | | | | |
| **GEVA** | **Gevas** | **0.70** | **223** | *e*P | **Pg** | **01 08 30.9** | **-0.5** |
| GEVA | | | | *e*S | **Sb** | **01 08 42.5** | **+1.0** |
| GEVA | | | | IAML | | 01 08 49.0 | |
| | comp=Z,47nm,0.4s | | | | | | |
| **DYDN** | **Diyadin** | **0.72** | **2** | *e*P | **Pg** | **01 08 31.0** | **-0.8** |
| DYDN | | | | *e*S | **Sb** | **01 08 42.0** | **-0.2** |
| DYDN | | | | IAML | | 01 08 44.4 | |
| | comp=Z,27nm,0.2s | | | | | | |
| **DYDN** | **Diyadin** | **0.72** | **2** | *e*P | **Pg** | **01 08 30.6** | **-1.2** |
| DYDN | | | | *e*S | **Sb** | **01 08 42.4** | **+0.2** |
| DYDN | | | | IAML | | 01 08 44.3 | |
| | comp=Z,27nm,0.2s | | | | | | |
| **DYDN** | **Diyadin** | **0.72** | **2** | *i* P | **Pg** | **01 08 31.4** | **-0.3** |
| **DYDN** | **Diyadin** | **0.72** | **2** | P | **Pg** | **01 08 31.5** | **-0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.73** | **269** | *i* P | **Pg** | **01 08 31.6** | **-0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.73** | **269** | P | **Pg** | **01 08 31.6** | **-0.4** |
| **TUTA** | **Tutak** | **0.88** | **311** | *e*P | **Pg** | **01 08 33.2** | **-1.5** |
| TUTA | | | | IAML | | 01 08 37.8 | |
| | comp=Z,40nm,0.2s | | | | | | |
| **TUTA** | **Tutak** | **0.88** | **311** | *e*P | **Pg** | **01 08 33.4** | **-1.4** |
| TUTA | | | | IAML | | 01 08 37.7 | |
| | comp=Z,40nm,0.2s | | | | | | |
| TUTA | | | | *e*S | **Sb** | **01 08 47.2** | **+0.5** |
| **TUTA** | **Tutak** | **0.88** | **311** | *i* P | **Pg** | **01 08 33.6** | **-1.2** |
| **TUTA** | **Tutak** | **0.88** | **311** | P | **Pg** | **01 08 33.6** | **-1.2** |
| **AGRB** | **Hanur-Agry** | **0.91** | **325** | *e*PG | **Pg** | **01 08 34.7** | **-0.8** |
| **AGRB** | **Hanur-Agry** | **0.91** | **325** | *e*Pg | **Pg** | **01 08 34.7** | **-0.8** |
| **TASB** | **TASBURUN-IGDIR** | **1.24** | **21** | *e*PN | **Pg** | **01 08 41.6** | **-0.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.24** | **21** | *e*Pn | **Pg** | **01 08 41.6** | **-0.1** |
| **HAKT** | **HAKKARI** | **1.27** | **178** | *i* P | **Pn** | **01 08 40.5** | **-0.9** |
| **HAKT** | **HAKKARI** | **1.27** | **178** | P | **Pn** | **01 08 40.5** | **-0.9** |
| **EKAR** | **Karacoban** | **1.32** | **290** | *i* P | **Pb** | **01 08 42.6** | **+0.1** |
| **EKAR** | **Karacoban** | **1.32** | **290** | P | **Pb** | **01 08 42.6** | **+0.1** |
| **EATA** | **Eleskirt** | **1.38** | **319** | *e*P | **Pn** | **01 08 43.2** | **+0.2** |
| EATA | | | | IAML | | 01 08 51.2 | |
| | comp=Z,3.3nm,0.4s | | | | | | |
| **EATA** | **Eleskirt** | **1.38** | **319** | *i* P | **Pb** | **01 08 43.5** | **-0.1** |
| **EATA** | **Eleskirt** | **1.38** | **319** | P | **Pb** | **01 08 43.5** | **-0.1** |
| **CUKT** | **Cukurca** | **1.57** | **182** | *e*PN | **Pb** | **01 08 46.5** | **-0.4** |
| **CUKT** | **Cukurca** | **1.57** | **182** | *e*Pn | **Pb** | **01 08 46.5** | **-0.4** |
| **DIGO** | **Kars** | **1.60** | **352** | *e*P | **Pb** | **01 08 47.6** | **+0.1** |
| DIGO | | | | IAML | | 01 08 52.4 | |
| | comp=Z,4.6nm,0.4s | | | | | | |
| **DIGO** | **Kars** | **1.60** | **352** | *e*P | **Pb** | **01 08 47.6** | **+0.1** |
| DIGO | | | | IAML | | 01 08 52.4 | |
| | comp=Z,4.6nm,0.4s | | | | | | |
| **SIRT** | **Sirnak** | **1.64** | **216** | *e*PN | **Pb** | **01 08 47.5** | **-0.4** |
| **SIRT** | **Sirnak** | **1.64** | **216** | *e*Pn | **Pb** | **01 08 47.5** | **-0.4** |
| **VRTB** | **Varto-Mus** | **1.75** | **282** | *e*PN | **Pb** | **01 08 49.6** | **-0.3** |
| **VRTB** | **Varto-Mus** | **1.75** | **282** | *e*Pn | **Pb** | **01 08 49.6** | **-0.3** |
| **SENK** | **Senkaya-Erzuru** | **2.01** | **330** | *e*PN | **Pn** | **01 08 52.9** | **+1.2** |
| **SENK** | **Senkaya-Erzuru** | **2.01** | **330** | *e*Pn | **Pn** | **01 08 52.9** | **+1.2** |

*ISCJB **05** 01:14:55.7±1.6,36˚.18N±0˚.05×141˚.9E±0˚.2,h26km, mb3.6/3, Error ellipse: s-maj=19.6km s-min=7.5km az=174.5*
*JMA **05** 01:14:56.6±0.2,36˚.21N×141˚.87E,h65km±5km,M3.5*

*IDC* ***05*** *01:15:03.6±6.0, 36°.07N×141°.36E, h60km±47km, mb3.4/3, mb1 3.5/5, mb1mx3.2/33, mbtmp3.7/5, ML3.5/2, Error ellipse: s-maj=54.0km s-min=13.6km az=65.0*
**ISC 05 01:14:58.2**±1.5**, 36°.21N**±0°.05×**141°.7E**±0°.1**, h26**km**, n12, σ1s.07**/16**, mb3.5**/3**, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CHOJ** | **Chosi** | **0.86** | **234** | P | **Pb** | **01 15 14.5** | **0.0** |
| **JHO** | **Hitachi** | **1.01** | **294** | P | **Pn** | **01 15 16.3** | **-0.4** |
| **ONAJ** | **Iwakimizuishiy** | **1.16** | **321** | P | **Pn** | **01 15 18.2** | **-0.6** |
| ONAJ | | | | *e*S | **Sn** | **01 15 34.3** | **+0.5** |
| **JFK** | **Kawauchi** | **1.34** | **330** | P | **Pn** | **01 15 20.4** | **-0.9** |
| **BSO1** | **Boso 1** | **1.66** | **201** | P | **Pn** | **01 15 24.8** | **-0.4** |
| **JAG** | **Ashikaga** | **1.84** | **277** | P | **Pn** | **01 15 28.8** | **+0.7** |
| **MJAR** | **Matsushiro Arr** | **2.85** | **278** | P | **Pn** | **01 15 43.0** | **+1.0** |
| | 8.7nm,0.3s,baz=102,slow=8.9,SNR=50 | | | | | | |
| MJAR | | | | S | **Sn** | **01 16 13.3** | **-2.2** |
| | 4.0nm,0.3s,baz=87,slow=28,SNR=4.4 | | | | | | |
| **MAT** | **Matsushiro** | **2.85** | **278** | P | **Pn** | **01 15 43.8** | **+1.7** |
| MAT | | | | *e*S | **Sb** | **01 16 22.1** | **-0.8** |
| **JHJ** | **Hachijo jima 2** | **3.47** | **208** | P | **Pn** | **01 15 51.0** | **+0.5** |
| | 18nm,0.3s,baz=253,slow=19,SNR=1.7 | | | | | | |
| JHJ | | | | S | **Sn** | **01 16 29.3** | **-1.4** |
| | 35nm,0.3s,baz=264,slow=23,SNR=6.4 | | | | | | |
| **SONM** | **Songino Array** | **28.45** | **305** | P | **P** | **01 20 51.8** | **+0.8** |
| | 0.7nm,0.7s,baz=106,slow=8.3,SNR=5.2 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.65** | **313** | P | **P** | **01 22 52.8** | **+0.5** |
| | 0.6nm,0.6s,baz=93,slow=6.3,SNR=2.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.77** | **303** | P | **P** | **01 23 09.6** | **0.0** |
| | 0.8nm,0.6s,baz=84,slow=9.7,SNR=9.8 | | | | | | |

*ISK* ***05*** *01:19:12.5, 38°.71N×43°.49E, h5km, MD2.5*
*ISCJB* ***05*** *01:19:13.6±0.7, 38°.70N±0°.04×43°.51E±0°.07, h15km±6km, Error ellipse: s-maj=9.7km s-min=5.7km az=16.1*
*CSEM* ***05*** *01:19:13.1±0.3, 38°.70N×43°.52E, h15km, ML2.5, Error ellipse: s-maj=8.4km s-min=5.2km az=104.0*
*DDA* ***05*** *01:19:13.3, 38°.71N×43°.53E, h7km, Ml2.5*
**ISC 05 01:19:13.4**±1.2**, 38°.71N**±0°.03×**43°.52E**±0°.04**, h14**km±10km**, n21, σ0s.41**/27**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.15** | **221** | *e*PG | **Pb** | **01 19 18.0** | **-0.1** |
| **VANB** | **Van** | **0.15** | **221** | *e*Pg | **Pb** | **01 19 18.0** | **-0.1** |
| **TVAN** | **Van** | **0.20** | **205** | *i* P | **Pg** | **01 19 18.0** | **-0.1** |
| **TVAN** | **Van** | **0.20** | **205** | P | **Pg** | **01 19 18.0** | **-0.1** |
| **VMUR** | **Van-Muradiye** | **0.28** | **9** | *i* P | **Pg** | **01 19 19.6** | **0.0** |
| VMUR | | | | *i* S | **Sb** | **01 19 25.4** | **+0.2** |
| **VMUR** | **Van-Muradiye** | **0.28** | **9** | P | **Pg** | **01 19 19.5** | **0.0** |
| VMUR | | | | S | **Sb** | **01 19 25.4** | **+0.2** |
| **GEVA** | **Gevas** | **0.53** | **222** | *i* P | **Pg** | **01 19 24.1** | **+0.1** |
| **GEVA** | **Gevas** | **0.53** | **222** | P | **Pg** | **01 19 24.1** | **+0.1** |
| **CLDR** | **Caldiran** | **0.54** | **36** | *e*PG | **Pg** | **01 19 23.8** | **-0.3** |
| CLDR | | | | *e*SG | **Sb** | **01 19 33.1** | **+0.7** |
| **CLDR** | **Caldiran** | **0.54** | **36** | *i* P | **Pg** | **01 19 23.9** | **-0.2** |
| **CLDR** | **Caldiran** | **0.54** | **36** | *e*Pg | **Pg** | **01 19 23.8** | **-0.3** |
| CLDR | | | | *e*Sg | **Sb** | **01 19 33.1** | **+0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.62** | **279** | *i* P | **Pg** | **01 19 25.7** | **0.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.62** | **279** | P | **Pg** | **01 19 25.7** | **0.0** |
| **TUTA** | **Tutak** | **0.88** | **322** | *i* P | **Pg** | **01 19 29.9** | **-0.6** |
| **TUTA** | **Tutak** | **0.88** | **322** | P | **Pg** | **01 19 29.9** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **0.95** | **335** | *e*PG | **Pg** | **01 19 31.2** | **-0.8** |
| AGRB | | | | *e*SG | **Sn** | **01 19 46.2** | **0.0** |
| **AGRB** | **Hanur-Agry** | **0.95** | **335** | *e*Pg | **Pg** | **01 19 31.2** | **-0.8** |
| AGRB | | | | *e*Sg | **Sn** | **01 19 46.2** | **0.0** |
| **HAKT** | **HAKKARI** | **1.16** | **172** | *i* P | **Pb** | **01 19 35.0** | **-0.4** |
| **HAKT** | **HAKKARI** | **1.16** | **172** | P | **Pb** | **01 19 35.0** | **-0.4** |
| **EATA** | **Eleskirt** | **1.40** | **326** | *i* P | **Pb** | **01 19 39.8** | **+0.3** |
| **EATA** | **Eleskirt** | **1.40** | **326** | P | **Pb** | **01 19 39.8** | **+0.3** |

**IDC 05 01:20:09.3**±2.0**, 1°.81N**×**125°.84E, h0**km**, mb3.5**/3**, mb1 3.7**/3**, mb1mx3.4**/26**, mbtmp3.5**/3**, Error ellipse: s-maj=192.7km s-min=25.0km az=65.0, Northern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **23.17** | **159** | P | P | 01 25 15.7 | -2.0 |
| | 0.9nm,0.6s,baz=337,slow=11,SNR=6.5 | | | | | | |
| **ASAR** | **Alice Springs** | **26.51** | **163** | P | P | 01 25 50.6 | +1.9 |
| | 0.7nm,0.8s,baz=339,slow=9.9,SNR=4.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **58.64** | **326** | P | P | 01 30 08.3 | -0.1 |
| | 0.4nm,0.6s,baz=120,slow=7.7,SNR=9.2 | | | | | | |

**WEL 05 01:28:38.9**±0.2**, 45°.42S**×**167°.03E, h56**km±2km**, ML3.7**/14**, 5D, Error ellipse: s-maj=1.7km s-min=0.9km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DCZ** | **Deep Cove** | **0.10** | **119** | PN | Pn | 01 28 46.9 | -0.4 |
| DCZ | | | | SN | Sn | 01 28 53.5 | +0.1 |
| DCZ | | | | AML | AML | 01 28 53.5 | |
| DCZ | | | | AML | AML | 01 28 53.5 | |
| DCZ | | | | AML | AML | 01 28 53.7 | |
| **MLZ** | **Mavora Lakes** | **0.77** | **87** | PN | Pn | 01 28 53.4 | -0.4 |
| MLZ | | | | SN | Sn | 01 29 05.1 | +0.4 |
| MLZ | | | | AML | AML | 01 29 05.7 | |
| **PYZ** | **Puysegur Point** | **0.79** | **198** | ⇓PN | Pn | 01 28 53.8 | -0.2 |
| PYZ | | | | SN | Sn | 01 29 05.2 | +0.2 |
| PYZ | | | | AML | AML | 01 29 08.7 | |
| PYZ | | | | AML | AML | 01 29 08.8 | |
| PYZ | | | | AML | AML | 01 29 08.9 | |
| **WHZ** | **Wether Hill Ro** | **0.80** | **127** | PN | Pn | 01 28 53.9 | -0.3 |
| WHZ | | | | SN | Sn | 01 29 05.4 | +0.1 |
| WHZ | | | | AML | AML | 01 29 08.0 | |
| **MSZ** | **Milford Sound** | **0.98** | **41** | PN | Pn | 01 28 56.4 | 0.0 |
| MSZ | | | | AML | AML | 01 29 10.7 | |
| MSZ | | | | AML | AML | 01 29 10.8 | |
| MSZ | | | | AML | AML | 01 29 14.1 | |
| MSZ | | | | AML | AML | 01 29 14.1 | |
| **WKZ** | **Wanaka** | **1.53** | **68** | PN | Pn | 01 29 03.6 | -0.2 |
| WKZ | | | | SN | Sn | 01 29 22.7 | +0.1 |
| WKZ | | | | AML | AML | 01 29 23.3 | |
| WKZ | | | | AML | AML | 01 29 23.3 | |
| WKZ | | | | AML | AML | 01 29 23.8 | |
| **APZ** | **The Paps** | **1.57** | **155** | PN | Pn | 01 29 04.4 | 0.0 |
| APZ | | | | AML | AML | 01 29 24.3 | |
| APZ | | | | AML | AML | 01 29 28.5 | |
| **EAZ** | **Earnscleugh** | **1.62** | **84** | ⇓PN | Pn | 01 29 04.9 | -0.1 |
| EAZ | | | | SN | Sn | 01 29 24.0 | -0.8 |
| EAZ | | | | AML | AML | 01 29 25.7 | |
| EAZ | | | | AML | AML | 01 29 25.9 | |
| **JCZ** | **Jackson Bay** | **1.84** | **44** | PN | Pn | 01 29 07.2 | -0.9 |
| JCZ | | | | AML | AML | 01 29 39.8 | |
| JCZ | | | | AML | AML | 01 29 41.2 | |
| **SYZ** | **Scrubby Hill** | **1.85** | **128** | PN | Pn | 01 29 07.7 | -0.5 |
| SYZ | | | | AML | AML | 01 29 30.0 | |
| SYZ | | | | AML | AML | 01 29 30.1 | |
| SYZ | | | | AML | AML | 01 29 30.1 | |
| SYZ | | | | AML | AML | 01 29 30.1 | |
| **TUZ** | **Tuapeka** | **1.90** | **107** | PN | Pn | 01 29 08.5 | -0.4 |
| TUZ | | | | AML | AML | 01 29 30.5 | |
| TUZ | | | | AML | AML | 01 29 30.5 | |
| TUZ | | | | AML | AML | 01 29 34.8 | |
| TUZ | | | | AML | AML | 01 29 34.8 | |
| **LBZ** | **Lake Benmore** | **2.47** | **66** | PN | Pn | 01 29 15.1 | -1.6 |
| LBZ | | | | AML | AML | 01 29 45.4 | |
| LBZ | | | | AML | AML | 01 30 01.5 | |
| **HHSZ** | **Highcliff Hill** | **2.55** | **102** | PN | Pn | 01 29 17.1 | -0.7 |
| **ODZ** | **Otahua Downs** | **2.58** | **83** | ⇓PN | Pn | 01 29 16.8 | -1.4 |
| ODZ | | | | SN | Sn | 01 29 45.8 | -2.6 |
| ODZ | | | | AML | AML | 01 29 46.6 | |
| ODZ | | | | AML | AML | 01 29 46.6 | |
| ODZ | | | | AML | AML | 01 29 46.9 | |
| **FOZ** | **Fox Glacier** | **2.74** | **48** | PN | Pn | 01 29 18.9 | -1.5 |
| **RPZ** | **Rata Peaks** | **3.34** | **61** | ⇓PN | Pn | 01 29 26.3 | -2.3 |
| RPZ | | | | AML | AML | 01 30 06.2 | |
| RPZ | | | | AML | AML | 01 31 35.9 | |
| **WVZ** | **Waitaha Valley** | **3.55** | **50** | PN | Pn | 01 29 29.0 | -2.3 |
| **OXZ** | **Oxford** | **4.16** | **62** | PN | Pn | 01 29 36.6 | -3.1 |
| **INZ** | **Inchbonnie** | **4.17** | **51** | PN | Pn | 01 29 37.4 | -2.5 |
| **MQZ** | **McQueen's Vall** | **4.37** | **69** | ⇓PN | Pn | 01 29 39.8 | -2.8 |

**CASC 05 01:31:52.1**±2.4**, 11°.08N**×**86°.77W, h23**km±10km**, MD4.1, ML3.7, 2C, Near coast of Nicaragua**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MASN** | **Masaya** | **1.09** | **34** | *e*P | Pn | 01 32 11.2 | -0.9 |
| **COPN** | **Copaltepe** | **1.11** | **9** | *e*P | Pn | 01 32 12.5 | +0.2 |
| COPN | | | | *i* S | Sn | 01 32 28.1 | +1.2 |
| **CRZ1** | **La Cruz** | **1.11** | **90** | ⇑*e*P | Pn | 01 32 11.4 | -0.9 |
| CRZ1 | | | | *e*S | Sb | 01 32 26.6 | -0.2 |
| **XAVN** | **Gruta Xavier** | **1.15** | **22** | *e*P | Pn | 01 32 13.1 | +0.2 |
| XAVN | | | | *e*S | Sn | 01 32 28.4 | +0.4 |
| **MGAN** | **Managua** | **1.18** | **26** | *e*P | Pn | 01 32 13.0 | -0.2 |
| MGAN | | | | *e*S | Sb | 01 32 29.2 | +0.5 |
| **CONN** | **Concepcion** | **1.22** | **66** | *e*P | Pn | 01 32 13.3 | -0.6 |
| **MOMN** | **Momotombo** | **1.34** | **10** | *e*P | Pn | 01 32 15.5 | -0.1 |
| **VCR** | **Vista de Mar** | **1.46** | **130** | *e*P | Pn | 01 32 16.1 | -1.2 |
| **CRIN** | **San Cristobal** | **1.64** | **350** | *e*P | Pn | 01 32 20.1 | +0.5 |
| CRIN | | | | *e*S | Sb | 01 32 41.1 | -0.8 |
| CRIN | | | | AML | AML | 01 32 48.0 | |
| | comp=E,1μm,0.4s | | | | | | |
| **ACON** | **Acoyapa** | **1.80** | **60** | *e*P | Pn | 01 32 20.7 | -1.1 |
| **ESTN** | **Estel** | **2.05** | **11** | *e*P | Pn | 01 32 25.4 | 0.0 |
| **CNCH** | **Conchagua** | **2.42** | **335** | *e*P | Pn | 01 32 30.3 | -0.2 |
| **CGA2** | **Cerro Gallo 2** | **2.50** | **115** | *e*P | Pn | 01 32 32.4 | +0.9 |
| **ESPN** | **Las Esperanzas** | **2.66** | **65** | *e*P | Pn | 01 32 33.6 | -0.1 |
| **VSM** | **San Miguel** | **2.76** | **328** | *e*S | Sn | 01 33 09.4 | +1.4 |
| **PACA** | **Pacayal** | **2.82** | **328** | *e*P | Pn | 01 32 35.7 | -0.3 |
| **TGUH** | **Tegucigalpa,Un** | **3.00** | **351** | *e*P | Pn | 01 32 39.1 | +0.8 |
| **TRT1** | **Tortuguero** | **3.06** | **99** | *e*P | Pn | 01 32 38.5 | -0.6 |
| TRT1 | | | | *e*S | Sn | 01 33 14.0 | -0.9 |
| **URSC** | **Urasca** | **3.19** | **112** | ⇑*e*P | Pn | 01 32 44.1 | +3.0 |
| URSC | | | | *e*S | Sn | 01 33 22.1 | +3.5 |
| **LFRS** | **El Faro** | **3.38** | **319** | *e*P | Pn | 01 32 44.3 | +0.7 |
| LFRS | | | | *e*S | Sn | 01 33 23.0 | -0.1 |
| **IXG** | **Ixpaco** | **4.73** | **311** | *e*P | Pn | 01 33 01.6 | -0.7 |

*ISK* ***05*** *01:40:42.7, 38°.75N×38°.18E, h5km, MD2.7*
*ISCJB* ***05*** *01:40:43.2±0.4, 38°.74N±0°.03×38°.19E±0°.03, h9km, Error ellipse: s-maj=4.7km s-min=3.7km az=3.1*
*DDA* ***05*** *01:40:43.1, 38°.75N×38°.16E, h7km, Ml2.4*
*CSEM* ***05*** *01:40:43.1±0.2, 38°.74N×38°.18E, h2km, ML2.4*
**ISC 05 01:40:43.5**±0.8**, 38°.75N**±0°.03×**38°.18E**±0°.02**, h9**km**, n35, σ0s.61**/43**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HEKM** | **Malatya_Hekimh** | **0.21** | **307** | *i* P | **Pg** | **01 40 47.7** | **-0.3** |
| HEKM | | | | *i* S | **Sg** | **01 40 51.5** | **+0.5** |
| **HEKM** | **Malatya_Hekimh** | **0.21** | **307** | P | **Pg** | **01 40 47.7** | **-0.3** |
| HEKM | | | | S | **Sg** | **01 40 51.5** | **+0.5** |
| **AKCD** | **Akcadag** | **0.50** | **204** | *i* P | **Pg** | **01 40 53.1** | **0.0** |
| **AKCD** | **Akcadag** | **0.50** | **204** | P | **Pg** | **01 40 53.1** | **0.0** |
| **DARE** | **Darende-Malaty** | **0.57** | **252** | *e*PG | **Pg** | **01 40 54.5** | **0.0** |
| DARE | | | | *e*SG | **Sg** | **01 41 02.3** | **+0.2** |
| **DARE** | **Darende-Malaty** | **0.57** | **252** | *e*Pg | **Pg** | **01 40 54.6** | **0.0** |
| DARE | | | | *e*Sg | **Sg** | **01 41 02.3** | **+0.2** |
| **KEMA** | **Kemaliye** | **0.57** | **25** | *i* P | **Pg** | **01 40 54.4** | **-0.3** |
| **KEMA** | **Kemaliye** | **0.57** | **25** | P | **Pg** | **01 40 54.3** | **-0.3** |
| **ELZG** | **Elazig** | **0.68** | **111** | *i* P | **Pg** | **01 40 57.0** | **+0.4** |
| **ELZG** | **Elazig** | **0.68** | **111** | P | **Pg** | **01 40 57.0** | **+0.4** |
| **CUGUR** | **Gurin_S˜VAS** | **0.71** | **268** | *i* P | **Pg** | **01 40 56.8** | **-0.4** |
| **CUGUR** | **Gurin_S˜VAS** | **0.71** | **268** | P | **Pg** | **01 40 56.8** | **-0.4** |
| **ILIC** | **ilic-Erzincan** | **0.76** | **23** | *e*PG | **Pg** | **01 40 57.9** | **-0.3** |
| ILIC | | | | *e*SG | **Sg** | **01 41 08.8** | **+0.6** |
| **ILIC** | **ilic-Erzincan** | **0.76** | **23** | *e*Pg | **Pg** | **01 40 57.9** | **-0.3** |
| ILIC | | | | *e*Sg | **Sg** | **01 41 08.8** | **+0.6** |
| **CUKAN** | **kangal_SIVAS** | **0.79** | **316** | *i* P | **Pg** | **01 40 57.7** | **-1.1** |
| **CUKAN** | **kangal_SIVAS** | **0.79** | **316** | P | **Pg** | **01 40 57.7** | **-1.1** |
| **PTK** | **Pertek** | **0.96** | **81** | *e*PG | **Pg** | **01 41 01.3** | **-0.6** |
| **PTK** | **Pertek** | **0.96** | **81** | *e*Pg | **Pg** | **01 41 01.3** | **-0.6** |
| **SVRC** | **Sivrice-ELAZID** | **0.96** | **112** | *e*PG | **Pg** | **01 41 01.2** | **-0.7** |
| SVRC | | | | *e*SG | **Sb** | **01 41 15.2** | **0.0** |
| **SVRC** | **Sivrice-ELAZID** | **0.96** | **112** | *e*Pg | **Pg** | **01 41 01.2** | **-0.7** |
| SVRC | | | | *e*Sg | **Sb** | **01 41 15.2** | **0.0** |
| **TNCL** | **Tunceli-Merkez** | **1.12** | **71** | *i* P | **Pg** | **01 41 04.2** | **-0.9** |
| **TNCL** | **Tunceli-Merkez** | **1.12** | **71** | P | **Pg** | **01 41 04.2** | **-0.9** |
| **CUZAR** | **Zara_SIVAS** | **1.18** | **345** | *i* P | **Pn** | **01 41 07.3** | **+1.0** |
| **CUZAR** | **Zara_SIVAS** | **1.18** | **345** | P | **Pn** | **01 41 07.3** | **+1.0** |
| **CUALT** | **Altinyayla-SIV** | **1.22** | **296** | *i* P | **Pb** | **01 41 05.4** | **-1.5** |
| **CUALT** | **Altinyayla-SIV** | **1.22** | **296** | P | **Pb** | **01 41 05.4** | **-1.5** |
| **URFA** | **Urfa** | **1.40** | **159** | *e*PN | **Pn** | **01 41 09.4** | **+0.1** |
| **URFA** | **Urfa** | **1.40** | **159** | *e*Pn | **Pn** | **01 41 09.4** | **+0.1** |
| **SARI** | **SarD1z-Kayseri** | **1.42** | **257** | *e*PN | **Pb** | **01 41 10.1** | **-0.1** |
| **SUSE** | **Susehri** | **1.46** | **1** | *i* P | **Pg** | **01 41 11.3** | **-0.1** |
| **SUSE** | **Susehri** | **1.46** | **1** | P | **Pg** | **01 41 11.4** | **-0.1** |
| **SVSK** | **Karacayir** | **1.48** | **322** | *e*PN | **Pb** | **01 41 11.4** | **+0.2** |
| **SVSK** | **Karacayir** | **1.48** | **322** | *e*Pn | **Pb** | **01 41 11.4** | **+0.2** |
| **KMRS** | **Kahramanmaras** | **1.60** | **219** | *e*PN | **Pn** | **01 41 12.5** | **+0.5** |
| **KMRS** | **Kahramanmaras** | **1.60** | **219** | *e*Pn | **Pn** | **01 41 12.5** | **+0.5** |

**IDC 05 01:58:07.7**±2.8**, 28°.29N**×**141°.95E, h0**km**, mb3.7**/3**, mb1 3.9**/3**, mb1mx3.4**/33**, mbtmp3.7**/3**, Error ellipse: s-maj=124.7km s-min=31.5km az=77.0, Bonin Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **48.51** | **190** | P | P | 02 06 52.3 | -0.2 |
| | 0.1nm,0.3s,baz=7.0,slow=7.7,SNR=8.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **49.56** | **309** | P | P | 02 07 00.6 | +0.2 |
| | 0.2nm,0.4s,baz=92,slow=8.8,SNR=5.5 | | | | | | |
| **FINES** | **FINESS Array B** | **76.79** | **334** | P | P | 02 10 00.7 | -0.1 |
| | 2.4nm,0.8s,baz=64,slow=4.4,SNR=7.0 | | | | | | |

**CSEM 05 02:09:32.2**±0.4**, 41°.66N**×**43°.22E, h10**km**, ML1.0, Error ellipse: s-maj=17.4km s-min=3.4km az=79.0, Turkey-Georgia-Armenia border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AKH** | **Akhalkalaki** | **0.32** | **140** | P | Pb | 02 09 39.4 | -0.7 |
| AKH | | | | S | Sg | 02 09 44.2 | +1.2 |
| **AKH** | **Akhalkalaki** | **0.32** | **140** | P | Pb | 02 09 39.4 | -0.7 |
| AKH | | | | S | Sb | 02 09 44.2 | -1.2 |
| **BGD** | **Bogdanovka** | **0.48** | **144** | P | Pg | 02 09 41.7 | +0.1 |
| BGD | | | | S | Sg | 02 09 47.9 | -0.1 |
| **BGD** | **Bogdanovka** | **0.48** | **144** | P | Pg | 02 09 41.7 | 0.0 |
| BGD | | | | S | Sg | 02 09 47.9 | -0.2 |
| **ONI** | **Oni** | **0.95** | **10** | P | Pg | 02 09 50.1 | -0.4 |
| ONI | | | | S | Sb | 02 10 03.3 | -0.2 |

*ISK* ***05*** *02:10:50.3, 38°.70N×43°.28E, h5km, ML2.1*
*ISCJB* ***05*** *02:10:51.5±0.6, 38°.71N±0°.03×43°.26E±0°.08, h15km±6km, Error ellipse: s-maj=10.5km s-min=5.4km az=172.1*
*DDA* ***05*** *02:10:51.5, 38°.70N×43°.27E, h7km, Ml2.5*
*CSEM* ***05*** *02:10:51.5±0.2, 38°.72N×43°.26E, h10km, ML2.1, Error ellipse: s-maj=7.3km s-min=4.9km az=85.0*
**ISC 05 02:10:51.8**±1.1**, 38°.70N**±0°.03×**43°.28E**±0°.04**, h15**km±8km**, n22, σ0s.61**/27**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.14** | **140** | *e*PG | **Pg** | **02 10 55.6** | **0.0** |
| VANB | | | | *e*SG | **Sb** | **02 10 59.5** | **+0.5** |
| **VANB** | **Van** | **0.14** | **140** | *e*Pg | **Pg** | **02 10 55.6** | **0.0** |
| VANB | | | | *e*Sg | **Sb** | **02 10 59.5** | **+0.5** |
| **TVAN** | **Van** | **0.20** | **149** | *i* P | **Pg** | **02 10 55.7** | **-0.9** |
| TVAN | | | | *i* S | **Sg** | **02 10 59.5** | **-0.2** |
| **TVAN** | **Van** | **0.20** | **149** | P | **Pg** | **02 10 55.7** | **-0.9** |
| **TVAN** | **Van** | **0.20** | **149** | S | **Sg** | **02 10 59.5** | **-0.2** |
| **ERCV** | **ERCIS-VAN** | **0.33** | **8** | *e*PG | **Pg** | **02 10 58.1** | **-0.6** |
| ERCV | | | | *e*SG | **Sg** | **02 11 03.7** | **+0.4** |
| **ERCV** | **ERCIS-VAN** | **0.33** | **8** | *e*Pg | **Pg** | **02 10 58.1** | **-0.6** |
| ERCV | | | | *e*Sg | **Sg** | **02 11 03.7** | **+0.4** |
| **VMUR** | **Van-Muradiye** | **0.37** | **38** | *i* P | **Pg** | **02 10 59.4** | **-0.1** |
| **VMUR** | **Van-Muradiye** | **0.37** | **38** | P | **Pg** | **02 10 59.4** | **-0.1** |
| **GEVA** | **Gevas** | **0.42** | **204** | *i* P | **Pg** | **02 10 59.6** | **-0.7** |
| **GEVA** | **Gevas** | **0.42** | **204** | P | **Pg** | **02 10 59.6** | **-0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.45** | **284** | *i* P | **Pg** | **02 11 00.9** | **+0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.45** | **284** | P | **Pg** | **02 11 00.9** | **+0.1** |
| **CLDR** | **Caldiran** | **0.67** | **48** | *e*PG | **Pg** | **02 11 04.2** | **-0.7** |
| **CLDR** | **Caldiran** | **0.67** | **48** | *i* P | **Pg** | **02 11 04.5** | **-0.5** |
| **CLDR** | **Caldiran** | **0.67** | **48** | P | **Pg** | **02 11 04.4** | **-0.5** |
| **TUTA** | **Tutak** | **0.79** | **333** | *i* P | **Pg** | **02 11 06.5** | **-0.8** |
| **TUTA** | **Tutak** | **0.79** | **333** | P | **Pg** | **02 11 06.4** | **-0.8** |
| **AGRB** | **Hanur-Agry** | **0.90** | **346** | *e*PG | **Pg** | **02 11 08.4** | **-1.0** |
| **AGRB** | **Hanur-Agry** | **0.90** | **346** | *e*Pg | **Pg** | **02 11 08.4** | **-1.0** |
| **CUKT** | **Cukurca** | **1.47** | **170** | *e*PN | **Pb** | **02 11 19.3** | **+0.4** |
| **CUKT** | **Cukurca** | **1.47** | **170** | *e*Pn | **Pb** | **02 11 19.3** | **+0.4** |

*ISK* ***05*** *02:12:19.4, 38°.70N×43°.27E, h5km, MD2.6*
*ISCJB* ***05*** *02:12:20.8±0.5, 38°.69N±0°.03×43°.25E±0°.06, h10km±6km, Error ellipse: s-maj=8.2km s-min=5.0km az=177.2*
*CSEM* ***05*** *02:12:20.6±0.2, 38°.70N×43°.26E, h5km, MD2.6, Error ellipse: s-maj=5.3km s-min=3.7km az=84.0*
*DDA* ***05*** *02:12:20.5, 38°.69N×43°.25E, h7km, Ml2.6*
**ISC 05 02:12:20.6**±1.0**, 38°.69N**±0°.02×**43°.26E**±0°.04**, h17**km±7km**, n29, σ0s.63**/35**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.14** | **133** | *e*PG | **Pg** | **02 12 24.7** | **0.0** |
| **VANB** | **Van** | **0.14** | **133** | *e*Pg | **Pg** | **02 12 24.7** | **0.0** |
| **TVAN** | **Van** | **0.20** | **144** | *i* P | **Pg** | **02 12 24.7** | **-0.9** |
| TVAN | | | | *i* S | **Sg** | **02 12 28.7** | **-0.3** |
| **TVAN** | **Van** | **0.20** | **144** | P | **Pg** | **02 12 24.7** | **-0.9** |
| TVAN | | | | S | **Sg** | **02 12 28.7** | **-0.3** |
| **ERCV** | **ERCIS-VAN** | **0.33** | **11** | *e*PG | **Pg** | **02 12 27.1** | **-0.6** |
| ERCV | | | | *e*SG | **Sg** | **02 12 32.9** | **+0.3** |
| **ERCV** | **ERCIS-VAN** | **0.33** | **11** | *e*Pg | **Pg** | **02 12 27.1** | **-0.6** |
| ERCV | | | | *e*Sg | **Sg** | **02 12 32.9** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.39** | **40** | *i* P | **Pg** | **02 12 28.3** | **-0.3** |
| VMUR | | | | *i* S | **Sb** | **02 12 35.1** | **+0.2** |
| **VMUR** | **Van-Muradiye** | **0.39** | **40** | P | **Pg** | **02 12 28.3** | **-0.3** |
| VMUR | | | | S | **Sb** | **02 12 35.2** | **+0.2** |
| **GEVA** | **Gevas** | **0.41** | **202** | *i* P | **Pg** | **02 12 28.8** | **-0.3** |
| **GEVA** | **Gevas** | **0.41** | **202** | P | **Pg** | **02 12 28.8** | **-0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.43** | **286** | *i* P | **Pb** | **02 12 29.9** | **0.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.43** | **286** | P | **Pb** | **02 12 30.0** | **0.0** |
| **CLDR** | **Caldiran** | **0.69** | **49** | *e*PG | **Pg** | **02 12 33.4** | **-0.7** |
| **CLDR** | **Caldiran** | **0.69** | **49** | *i* P | **Pg** | **02 12 33.4** | **-0.7** |
| **CLDR** | **Caldiran** | **0.69** | **49** | P | **Pg** | **02 12 33.4** | **-0.7** |
| **TUTA** | **Tutak** | **0.79** | **334** | *i* P | **Pg** | **02 12 35.5** | **-0.6** |
| **TUTA** | **Tutak** | **0.79** | **334** | P | **Pg** | **02 12 35.5** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **0.91** | **347** | *e*PG | **Pg** | **02 12 37.6** | **-0.7** |
| **AGRB** | **Hanur-Agry** | **0.91** | **347** | *e*Pg | **Pg** | **02 12 37.6** | **-0.7** |
| **HAKT** | **HAKKARI** | **1.19** | **162** | *i* P | **Pg** | **02 12 42.5** | **-1.1** |
| **HAKT** | **HAKKARI** | **1.19** | **162** | P | **Pg** | **02 12 42.5** | **-1.1** |
| **EATA** | **Eleskirt** | **1.31** | **333** | *i* P | **Pg** | **02 12 45.3** | **-0.7** |
| **EATA** | **Eleskirt** | **1.31** | **333** | P | **Pg** | **02 12 45.3** | **-0.7** |
| **CUKT** | **Cukurca** | **1.47** | **169** | *e*PN | **Pb** | **02 12 48.4** | **+0.8** |
| **CUKT** | **Cukurca** | **1.47** | **169** | *e*Pn | **Pb** | **02 12 48.4** | **+0.8** |
| **VRTB** | **Varto-Mus** | **1.48** | **289** | *e*PN | **Pb** | **02 12 48.5** | **+0.7** |
| **VRTB** | **Varto-Mus** | **1.48** | **289** | *e*Pn | **Pb** | **02 12 48.5** | **+0.7** |
| **TASB** | **TASBURUN-IGDIR** | **1.50** | **30** | *e*PN | **Pb** | **02 12 48.5** | **+0.4** |
| **TASB** | **TASBURUN-IGDIR** | **1.50** | **30** | *e*Pn | **Pb** | **02 12 48.5** | **+0.4** |

*IDC* ***05*** *02:22:22.2±2.3, 21°.96N×120°.72E, h0km, mb3.8/5, mb1 3.9/5, mb1mx3.6/25, mbtmp3.8/5, MS2.6/2, Ms1 2.7/2, ms1mx2.5/26, Error ellipse: s-maj=229.5km s-min=21.5km az=62.0*
*TAP* ***05*** *02:22:25.6, 21°.87N×120°.53E, h48km, ML4.0, C*
*JMA* ***05*** *02:22:25.1±0.2, 21°.85N×120°.48E, h57km±3km, M4.5*
*ISCJB* ***05*** *02:22:26.4±0.5, 21°.88N±0°.03×120°.55E±0°.03, h49km±3km, mb3.7/5, MS2.1/1, Error ellipse: s-maj=5.4km s-min=4.5km az=179.5*
**ISC 05 02:22:26.5**±1.4**, 21°.84N**±0°.06×**120°.47E**±0°.05**, h36**km±2km**, n63, σ0s.80**/95**, mb3.8**/5**, 1C-9D, Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HEN** | **Hengchun** | **0.30** | **56** | ⇓*i*P | **Pn** | **02 22 34.5** | **-0.1** |
| | baz=66 | | | | | | |
| HEN | | | | S | **Sn** | **02 22 40.5** | **-0.3** |
| | baz=66 | | | | | | |
| **TWK1** | **Hengchun** | **0.33** | **71** | ⇓*i*P | **Pn** | **02 22 34.6** | **-0.2** |
| | baz=76 | | | | | | |
| TWK1 | | | | *i* S | **Sn** | **02 22 41.2** | **+0.1** |
| | baz=76 | | | | | | |
| **TSEB** | **Hengchuen, Pin** | **0.41** | **81** | ⇓*i*P | **Pn** | **02 22 35.3** | **-0.4** |
| | baz=84 | | | | | | |
| TSEB | | | | *i* S | **Sn** | **02 22 42.5** | **+0.3** |
| | baz=84 | | | | | | |
| **TWP** | **Hsiaoliuchiu** | **0.52** | **349** | *e*P | **Pn** | **02 22 37.4** | **0.0** |
| | baz=335 | | | | | | |
| **SCZT** | **Fangliau** | **0.55** | **15** | ⇓*i*P | **Pn** | **02 22 37.5** | **-0.5** |
| | baz=16 | | | | | | |
| SCZT | | | | S | **Sn** | **02 22 45.5** | **-0.4** |
| | baz=16 | | | | | | |
| **EAST** | **Anshuo** | **0.65** | **33** | ⇓*i*P | **Pn** | **02 22 38.9** | **-0.4** |
| | baz=40 | | | | | | |
| EAST | | | | *e*S | **Sn** | **02 22 48.3** | **0.0** |
| | baz=40 | | | | | | |
| **TAW** | **Tawu** | **0.65** | **37** | ⇓*i*P | **Pn** | **02 22 39.0** | **-0.3** |
| | baz=36 | | | | | | |
| TAW | | | | S | **Sn** | **02 22 47.9** | **-0.4** |
| | baz=36 | | | | | | |
| **ECL** | **Taimali** | **0.88** | **31** | P | **Pn** | **02 22 42.0** | **-0.4** |
| | baz=24 | | | | | | |
| ECL | | | | *e*S | **Sn** | **02 22 52.7** | **-1.3** |
| | baz=24 | | | | | | |
| **SGLT** | **Jiouru** | **0.88** | **1** | *e*P | **Pn** | **02 22 45.4** | **+3.0** |
| | baz=358 | | | | | | |
| **SSD** | **Sandimen** | **0.92** | **9** | ⇓*i*P | **Pn** | **02 22 42.4** | **-0.5** |
| | baz=16 | | | | | | |
| SSD | | | | *e*S | **Sn** | **02 22 53.7** | **-1.2** |
| | baz=16 | | | | | | |
| **TWM1** | **Shoushan** | **0.98** | **358** | *e*P | **Pn** | **02 22 43.8** | **0.0** |
| | baz=355 | | | | | | |
| **LAY** | **Lan-yu** | **1.02** | **79** | ⇓P | **Pn** | **02 22 43.0** | **-1.4** |
| | baz=70 | | | | | | |
| **TWG** | **Pinlang** | **1.13** | **30** | ⇓P | **Pn** | **02 22 45.5** | **-0.3** |
| | baz=38 | | | | | | |
| TWG | | | | *e*S | **Sn** | **02 22 59.5** | **-0.5** |
| | baz=38 | | | | | | |
| **SGST** | **Jiashian** | **1.24** | **5** | *e*P | **Pn** | **02 22 47.2** | **-0.2** |
| | baz=3.0 | | | | | | |
| **CHN1** | **Nanshi** | **1.34** | **2** | *e*P | **Pn** | **02 22 48.4** | **-0.4** |
| CHN1 | | | | *e*S | **Sn** | **02 23 05.7** | **+0.3** |
| **STYT** | **Tauyuan** | **1.35** | **11** | P | **Pn** | **02 22 48.6** | **-0.2** |
| | baz=1.0 | | | | | | |
| STYT | | | | *e*S | **Sn** | **02 23 04.8** | **-0.7** |
| | baz=1.0 | | | | | | |
| **WTP** | **Ta-pu** | **1.41** | **5** | *e*P | **Pn** | **02 22 49.2** | **-0.5** |
| | baz=352 | | | | | | |
| **TWK** | **Hsinying** | **1.42** | **1** | *e*P | **Pn** | **02 22 48.8** | **-1.1** |
| | baz=359 | | | | | | |
| **ELDTW** | **Lidau** | **1.44** | **21** | *e*P | **Pn** | **02 22 50.4** | **+0.2** |
| | baz=8.0 | | | | | | |
| **CHKT** | **Chengkung** | **1.50** | **33** | P | **Pn** | **02 22 51.0** | **0.0** |
| | baz=33 | | | | | | |
| CHKT | | | | *e*S | **Sn** | **02 23 09.6** | **+0.3** |
| | baz=33 | | | | | | |
| **CHN4** | **Tsaushan** | **1.51** | **4** | *e*P | **Pn** | **02 22 50.7** | **-0.4** |
| | baz=351 | | | | | | |
| **WDGT** | **Dungji** | **1.60** | **332** | *e*P | **Pn** | **02 22 51.5** | **-0.8** |
| | baz=330 | | | | | | |
| WDGT | | | | *e*S | **Sn** | **02 23 09.1** | **-2.7** |
| | baz=330 | | | | | | |
| **CHY** | **Chiayi** | **1.65** | **359** | *e*P | **Pn** | **02 22 52.5** | **-0.5** |
| | baz=357 | | | | | | |
| CHY | | | | *e*S | **Sn** | **02 23 12.0** | **-1.0** |
| | baz=357 | | | | | | |
| **TWF1** | **Yuli** | **1.69** | **27** | P | **Pn** | **02 22 53.5** | **-0.1** |
| | baz=15 | | | | | | |
| TWF1 | | | | *e*S | **Sn** | **02 23 14.1** | **+0.1** |
| | baz=15 | | | | | | |
| **ALS** | **Alishan** | **1.69** | **11** | P | **Pn** | **02 22 53.6** | **-0.3** |
| | baz=359 | | | | | | |
| ALS | | | | *e*S | **Sn** | **02 23 13.5** | **-1.0** |
| | baz=359 | | | | | | |
| **YUS** | **Yu-Shan** | **1.70** | **15** | *e*P | **Pn** | **02 22 53.7** | **-0.4** |
| | baz=4.0 | | | | | | |
| **CHN5** | **Tsauling** | **1.76** | **6** | *e*P | **Pn** | **02 22 54.1** | **-0.5** |
| | baz=354 | | | | | | |
| CHN5 | | | | S | **Sn** | **02 23 15.6** | **-0.3** |
| | baz=354 | | | | | | |
| **EHY** | **Hungye** | **1.84** | **25** | P | **Pn** | **02 22 55.5** | **0.0** |
| | baz=37 | | | | | | |
| EHY | | | | S | **Sn** | **02 23 17.4** | **-0.2** |
| | baz=37 | | | | | | |
| **WGK** | **Gukeng** | **1.84** | **3** | *e*P | **Pn** | **02 22 55.5** | **-0.1** |
| | baz=1.0 | | | | | | |
| **PNG** | **Penghu** | **1.92** | **334** | *e*P | **Pn** | **02 22 55.8** | **-0.8** |
| | baz=333 | | | | | | |
| **WDT** | **Danda** | **2.01** | **18** | ⇑*i*P | **Pn** | **02 22 58.4** | **+0.2** |
| | baz=5.0 | | | | | | |
| WDT | | | | *e*S | **Sn** | **02 23 22.6** | **+0.4** |
| | baz=5.0 | | | | | | |
| **WNT** | **Mingjian** | **2.04** | **6** | *e*P | **Pn** | **02 22 58.8** | **+0.4** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | baz=5.0 | | | | | | |
| SMLT | Sun Moon Lake | 2.08 | 11 | P | Pn | 02 22 58.9 | -0.1 |
| | baz=359 | | | | | | |
| SMLT | | | | eS | Sn | 02 23 23.2 | -0.4 |
| | baz=359 | | | | | | |
| TYC | Yuchr | 2.09 | 10 | eP | Pn | 02 22 59.0 | 0.0 |
| | baz=358 | | | | | | |
| TYC | | | | eS | Sn | 02 23 23.6 | -0.2 |
| | baz=358 | | | | | | |
| ESL | Shilin | 2.16 | 24 | eP | Pn | 02 23 00.3 | +0.4 |
| | baz=36 | | | | | | |
| ESL | | | | eS | Sn | 02 23 24.1 | -1.5 |
| | baz=36 | | | | | | |
| TCU | Taichung | 2.31 | 5 | eP | Pn | 02 23 01.3 | -0.7 |
| | baz=4.0 | | | | | | |
| TWD | Chiawan | 2.46 | 25 | eP | Pn | 02 23 03.7 | -0.4 |
| | baz=24 | | | | | | |
| TWD | | | | eS | Sn | 02 23 30.5 | -2.5 |
| | baz=24 | | | | | | |
| TWT | Tachien | 2.49 | 15 | eP | Pn | 02 23 04.6 | -0.2 |
| | baz=5.0 | | | | | | |
| TWT | | | | eS | Sn | 02 23 32.8 | -1.1 |
| | baz=5.0 | | | | | | |
| TWQ1 | Liyutan | 2.52 | 6 | eP | Pn | 02 23 04.8 | -0.1 |
| | baz=6.0 | | | | | | |
| TWQ1 | | | | eS | Sn | 02 23 33.8 | -0.5 |
| | baz=6.0 | | | | | | |
| NNS | Nan Shan | 2.72 | 18 | eP | Pn | 02 23 08.6 | +0.8 |
| | baz=17 | | | | | | |
| NNS | | | | eS | Sn | 02 23 39.2 | -0.3 |
| | baz=17 | | | | | | |
| NSTT | Nanjuang | 2.82 | 10 | P | Pn | 02 23 09.1 | 0.0 |
| | baz=9.0 | | | | | | |
| NSTT | | | | S | Sn | 02 23 40.9 | -1.0 |
| | baz=9.0 | | | | | | |
| ENA | Nanau | 2.83 | 24 | eP | Pn | 02 23 09.7 | +0.4 |
| | baz=24 | | | | | | |
| ENTT | Nioudou | 2.97 | 20 | eP | Pn | 02 23 11.7 | +0.6 |
| | baz=31 | | | | | | |
| ENTT | | | | eS | Sn | 02 23 45.0 | -0.4 |
| | baz=31 | | | | | | |
| TWC | Suao | 3.04 | 24 | eP | Pn | 02 23 12.6 | +0.5 |
| | baz=24 | | | | | | |
| TWE | Neicheng | 3.08 | 21 | eP | Pn | 02 23 12.6 | +0.1 |
| | baz=32 | | | | | | |
| TWE | | | | eS | Sn | 02 23 47.7 | -0.4 |
| | baz=32 | | | | | | |
| KNM | Kinmen | 3.18 | 324 | eP | Pn | 02 23 14.0 | 0.0 |
| | baz=321 | | | | | | |
| NWF | Wu-fen Shan | 3.44 | 20 | eP | Pn | 02 23 18.6 | +0.9 |
| | baz=7.0 | | | | | | |
| NWF | | | | eS | Sn | 02 23 57.7 | +0.6 |
| | baz=7.0 | | | | | | |
| JYNG | Yonagunijimaku | 3.46 | 41 | P | Pn | 02 23 18.7 | +0.9 |
| JYNG | | | | eS | Sn | 02 23 57.8 | +0.2 |
| YOJ | Yonaguni jima | 3.51 | 41 | eP | Pn | 02 23 19.1 | +0.6 |
| | baz=41 | | | | | | |
| YOJ | Yonaguni jima | 3.51 | 41 | P | Pn | 02 23 19.3 | +0.8 |
| YOJ | | | | S | Sn | 02 23 59.3 | +0.5 |
| HATJ | Hateruma jima | 3.79 | 54 | P | Pn | 02 23 21.8 | -0.5 |
| HATJ | | | | eS | Sn | 02 24 04.0 | -1.7 |
| IRIF | Iriomote-Funau | 3.90 | 50 | P | Pn | 02 23 24.4 | +0.5 |
| JKRS | Kuro-shima | 4.04 | 53 | P | Pn | 02 23 25.9 | 0.0 |
| JKRS | | | | eS | Sn | 02 24 11.5 | -0.5 |
| JIJ | Ishigaki jima | 4.21 | 53 | P | Pn | 02 23 28.1 | -0.1 |
| JIJ | | | | S | Sn | 02 24 14.6 | -1.6 |
| JISG | Ishigakijimahi | 4.47 | 52 | P | Pn | 02 23 31.4 | -0.3 |
| JISG | | | | eS | Sn | 02 24 20.9 | -1.6 |
| JTJ | Tarama | 4.79 | 54 | P | Pn | 02 23 36.1 | 0.0 |
| JTJ | | | | S | Sn | 02 24 29.5 | -0.9 |
| KSRS | Korea Array | 16.85 | 21 | LR | LR | 02 34 05.0 | |
| | comp=Z,33nm,19.9s,baz=310,slow=42 | | | | | | |
| CMAR | Chiang Mai Arr | 20.48 | 264 | LR | LR | 02 34 19.0 | |
| | comp=Z,9.6nm,21.6s,baz=147,slow=35 | | | | | | |
| MKAR | Makanchi Array | 39.60 | 318 | P | P | 02 29 55.9 | +1.4 |
| | 0.4nm,0.6s,baz=109,slow=9.7,SNR=4.4 | | | | | | |
| ZALV | Zalesovo Beam | 41.88 | 329 | P | P | 02 30 14.0 | +0.9 |
| | 1.2nm,0.7s,baz=104,slow=9.5,SNR=4.4 | | | | | | |
| WRA | Warramunga Arr | 43.68 | 161 | P | P | 02 30 28.4 | +0.3 |
| | 1.1nm,0.6s,baz=343,slow=8.7,SNR=4.4 | | | | | | |
| ASAR | Alice Springs | 47.08 | 163 | P | P | 02 30 56.4 | +1.3 |
| | 0.5nm,0.7s,baz=339,slow=6.4,SNR=5.7 | | | | | | |
| STKA | Stephens Creek | 57.11 | 159 | P | P | 02 32 11.6 | +2.1 |
| | 1.3nm,0.8s,baz=321,slow=13,SNR=3.9 | | | | | | |

---

*IDC **05** 03:24:43.1±11.0, 14°.96N×91°.28W, h0km, mb3.4/2, mb1 3.7/4, mb1mx3.5/35, mbtmp3.4/4, ML3.7/2, MS3.2/6, Ms1 3.2/6, ms1mx2.9/26, Error ellipse: s-maj=234.2km s-min=65.9km az=7.0*
*MEX **05** 03:24:53.6±0.7, 16°.09N×91°.20W, h29km±14km, MD3.8*
**ISC 05 03:24:56.3**±1.9**, 16°.1N**±0°.2×**91°.4W**±0°.1**, h35km, n14, σ1s41**/13**, MS3.0**/5**, Mexico-Guatemala border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CCIG | Comitan | 0.70 | 286 | eP | Pn | 03 25 07.9 | -2.0 |
| CCIG | | | | eS | Sn | 03 25 20.4 | +0.8 |
| TGBT | Tuxtla Gutierr | 1.73 | 293 | eP | Pn | 03 25 22.2 | -1.7 |
| TGBT | | | | eS | Sn | 03 25 45.8 | +1.1 |
| PCIG | | 1.76 | 258 | eP | Pn | 03 25 23.8 | -0.6 |
| PCIG | | | | eS | Sn | 03 25 45.9 | +0.4 |
| CMIG | Matias Romero | 3.45 | 287 | Pn | Pn | 03 25 46.1 | -1.6 |
| | 3.3nm,0.3s,baz=89,slow=10,SNR=30 | | | | | | |
| CMIG | | | | Sn | Sn | 03 26 27.8 | +0.4 |
| | 14nm,0.3s,baz=142,slow=18,SNR=6.7 | | | | | | |
| CMIG | | | | Lg | Lg | 03 26 41.6 | |
| | 42nm,0.3s,baz=41,slow=20,SNR=13 | | | | | | |
| CMIG | Matias Romero | 3.45 | 287 | eP | Pn | 03 25 46.3 | -1.4 |
| CMIG | | | | eS | Sn | 03 26 28.0 | +0.6 |
| TXAR | Lajitas Array | 17.33 | 322 | P | P | 03 28 59.1 | +2.3 |
| | 0.1nm,0.3s,baz=146,slow=12,SNR=2.6 | | | | | | |
| LPIG | La Paz | 19.42 | 297 | LR | LR | 03 37 03.3 | |
| | comp=Z,98nm,20.3s,baz=195,slow=37 | | | | | | |
| TKL | Tuckaleechee C | 20.65 | 18 | LR | LR | 03 38 09.7 | |
| | comp=Z,72nm,20.7s,baz=219,slow=37 | | | | | | |
| SDV | Santo Domingo | 21.52 | 107 | LR | LR | 03 38 25.4 | |
| | comp=Z,48nm,19.3s,baz=260,slow=39 | | | | | | |
| SJG | San Juan | 24.25 | 82 | LR | LR | 03 39 25.1 | |
| | comp=Z,28nm,18.3s,baz=273,slow=36 | | | | | | |
| SCHQ | Schefferville | 43.08 | 21 | LR | LR | 03 50 55.7 | |
| | comp=Z,51nm,21.8s,baz=300,slow=36 | | | | | | |
| YKA | Yellowknife Ar | 49.13 | 346 | P | P | 03 33 40.4 | +0.1 |
| | 0.3nm,0.5s,baz=148,slow=7.3,SNR=5.4 | | | | | | |
| ILAR | Eielson Array | 61.15 | 336 | P | P | 03 35 06.8 | -0.2 |
| | 0.4nm,0.9s,baz=101,slow=4.7,SNR=2.8 | | | | | | |
| TORD | Torodi Ar. Bea | 89.36 | 77 | LR | LR | 04 19 25.6 | |
| | comp=Z,11nm,18.0s,baz=300,slow=37 | | | | | | |

---

**NNC 05 03:29:27.4**±3.3**, 36°.93N×69°.81E, h0km, mb3.5, mpv3.1, 10C-1D, Error ellipse: s-maj=25.3km s-min=12.3km az=13.0, Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DZET | Dzherino | 2.03 | 338 | ⇑Pn | Pn | 03 30 03.3 | +0.3 |
| | 25nm,0.4s | | | | | | |
| DZET | | | | ⇑Sn | Sb | 03 30 30.4 | -0.7 |
| | 43nm,0.5s | | | | | | |
| SFK | Sufi-Kurgan | 4.23 | 42 | ⇑Pn | Pn | 03 30 33.6 | +0.2 |
| | 0.7nm,0.3s | | | | | | |
| SFK | | | | ⇑Pg | Pb | 03 30 43.3 | +0.5 |
| | 4.0nm,0.7s | | | | | | |
| SFK | | | | ⇑Sn | Sn | 03 31 25.4 | +1.8 |
| | 1.2nm,0.3s | | | | | | |
| SFK | | | | ⇑Lg | Lg | 03 31 41.5 | |
| | 5.9nm,0.5s | | | | | | |
| MNAS | Manas | 5.93 | 20 | ⇓Pn | Pn | 03 30 55.8 | -0.8 |
| | 1.1nm,0.8s | | | | | | |
| MNAS | | | | ⇑Sn | Sn | 03 32 04.8 | -0.5 |
| | 2.1nm,0.7s | | | | | | |
| KK31 | Karatay Array | 6.19 | 5 | ⇑Pn | Pn | 03 30 59.6 | -0.5 |
| | 0.2nm,0.3s,baz=194,slow=13,SNR=11 | | | | | | |
| KK31 | | | | ⇑Sn | Sn | 03 32 12.7 | +1.1 |
| | 0.4nm,0.4s,baz=190,slow=29 | | | | | | |
| KK31 | | | | ⇑Lg | Lg | 03 32 43.0 | |
| | 2.0nm,0.7s,baz=185,slow=29 | | | | | | |

---

**MEX 05 03:32:53.0**±0.6**, 14°.74N×92°.86W, h44km±65km, MD3.5, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PCIG | | 1.02 | 340 | eP | Pn | 03 33 09.2 | -1.7 |
| PCIG | | | | eS | Sn | 03 33 21.9 | -2.2 |

---

*ISCJB **05** 03:38:39.4±0.4, 24°.29S±0°.06×67°.14W±0°.05, h178km, mb2.9/1, Error ellipse: s-maj=9.2km s-min=4.2km az=35.4*
*SJA **05** 03:38:39.5±1.1, 24°.31S×67°.29W, h159km±19km, ML2.4, MW2.9*
*GUC **05** 03:38:42.1±0.5, 23°.98S×67°.63W, h236km±16km, ML4.1*
*IDC **05** 03:38:48.6±4.7, 23°.53S×66°.71W, h227km±29km, mb2.7/1, mb1 2.9/4, mb1mx2.8/30, mbtmp3.4/4, Error ellipse: s-maj=66.5km s-min=22.8km az=46.0*
**ISC 05 03:38:39.7**±0.9**, 24°.23S**±0°.07×**67°.09W**±0°.05**, h178km, n16, σ1s50**/25**, 2C-3D, Chile-Argentina border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SLA | San Lorenzo | 1.53 | 109 | eP | Pn | 03 39 13.2 | +1.3 |
| SLA | | | | IAML | | 03 39 15.4 | |
| | comp=Z,36nm,0.5s | | | | | | |
| SLA | | | | eS | Sn | 03 39 37.3 | +0.5 |
| AZAP | Zapla | 1.85 | 90 | eP | Pn | 03 39 16.1 | +0.9 |
| AZAP | | | | eS | Sn | 03 39 44.1 | +1.4 |
| PB06 | IPOC Station P | 2.73 | 303 | ⇑iP | Pn | 03 39 26.9 | +1.7 |
| PB06 | | | | eS | Sn | 03 40 01.4 | +0.8 |
| PB06 | | | | IAML | | 03 40 03.3 | |
| | comp=N,261nm,0.2s | | | | | | |
| AHML | Horco Molle | 3.00 | 148 | eP | Pn | 03 39 28.8 | +0.5 |
| AHML | | | | IAML | | 03 39 29.8 | |
| | comp=Z,4.9nm,0.4s | | | | | | |
| AHML | | | | eS | Sn | 03 40 04.7 | -1.6 |
| PB10 | IPOC Station P | 3.25 | 282 | eP | Pn | 03 39 33.2 | +1.9 |
| PB10 | | | | eS | Sn | 03 40 11.2 | -0.3 |
| PB10 | IPOC Station P | 3.25 | 282 | ⇑iP | Pn | 03 39 32.6 | +1.3 |
| PB10 | | | | eS | Sn | 03 40 10.6 | -0.9 |
| PB10 | | | | IAML | | 03 40 16.9 | |
| | comp=E,371nm,0.3s | | | | | | |
| PB04 | IPOC Station P | 3.38 | 303 | ⇓iP | Pn | 03 39 34.5 | +1.3 |
| PB04 | | | | iS | Sn | 03 40 14.5 | -0.3 |
| PB04 | | | | IAML | | 03 40 16.6 | |
| | comp=E,206nm,0.2s | | | | | | |
| PB07 | IPOC Station P | 3.58 | 313 | ⇓iP | Pn | 03 39 36.8 | +1.1 |
| PB07 | | | | eS | Sn | 03 40 18.1 | -1.2 |
| PB07 | | | | IAML | | 03 40 20.0 | |
| | comp=N,195nm,0.5s | | | | | | |
| PB02 | IPOC Station P | 3.88 | 318 | ⇓iP | Pn | 03 39 40.0 | +0.7 |
| PB02 | | | | iS | Sn | 03 40 24.3 | -1.7 |
| PB02 | | | | IAML | | 03 40 32.2 | |
| | comp=E,188nm,0.3s | | | | | | |
| ACLC | CERRO LA CRUZ | 5.18 | 179 | eP | Pn | 03 39 55.2 | -0.9 |
| AGUA | GUANDACOL | 5.39 | 193 | eP | Pn | 03 39 57.2 | -1.5 |
| LPAZ | La Paz | 7.96 | 353 | P | Pn | 03 40 34.0 | +1.0 |
| | comp=E,0.3nm,0.3s,baz=174,slow=7.4,SNR=12 | | | | | | |
| LPAZ | | | | S | Sn | 03 41 58.2 | -4.4 |
| | comp=E,0.0nm,0.3s,baz=225,slow=19,SNR=2.0 | | | | | | |
| CPUP | Villa Florida | 9.08 | 105 | P | Pn | 03 40 54.0 | +6.8 |
| | comp=E,0.2nm,0.3s,baz=283,slow=11,SNR=4.1 | | | | | | |
| BDFB | Brasilia | 19.85 | 68 | P | P | 03 42 57.1 | -0.1 |
| | comp=E,0.2nm,0.3s,baz=41,slow=9.3,SNR=4.0 | | | | | | |
| TORD | Torodi Ar. Bea | 76.73 | 69 | P | P | 03 50 11.6 | -0.2 |
| | comp=E,0.2nm,0.6s,baz=254,slow=6.0,SNR=5.4 | | | | | | |
| MKAR | Makanchi Array | 146.75 | 40 | PKPbc | PKPbc | 03 58 01.4 | +0.8 |
| | comp=E,0.5nm,0.5s,baz=299,slow=2.9,SNR=3.8 | | | | | | |

---

*AZER **05** 03:39:30.9±2.8, 37°.06N×43°.14E, h5km, Error ellipse: s-maj=42.1km s-min=19.4km az=122.0*
*ATA **05** 03:39:42.5±1.3, 38°.51N×43°.28E, h0km±4km, ML3.7, MW3.7*
*ISK **05** 03:39:43.2, 38°.48N×43°.30E, h5km, ML2.9*
*DDA **05** 03:39:43.6, 38°.48N×43°.32E, h10km, Ml3.2*
*CSEM **05** 03:39:43.5±0.2, 38°.47N×43°.32E, h2km, ML3.2, Error ellipse: s-maj=5.1km s-min=4.3km az=86.0*
**ISC 05 03:39:43.8**±0.9**, 38°.48N**±0°.02×**43°.30E**±0°.02**, h6km**±7km**, n87, σ1s10**/102**, 8C-6D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TVAN | Van | 0.10 | 60 | iP | Pg | 03 39 46.1 | 0.0 |
| TVAN | | | | iS | Sg | 03 39 48.2 | +0.4 |
| TVAN | Van | 0.10 | 60 | P | Pg | 03 39 46.1 | 0.0 |
| TVAN | | | | S | Sg | 03 39 48.2 | +0.4 |
| VANB | Van | 0.14 | 32 | ePG | Pg | 03 39 45.9 | -0.8 |
| VANB | Van | 0.14 | 32 | ePg | Pg | 03 39 45.9 | -0.8 |
| GEVA | Gevas | 0.25 | 229 | ⇑iP | Pg | 03 39 49.2 | +0.4 |
| GEVA | | | | eS | Sb | 03 39 54.0 | -1.5 |
| GEVA | | | | IAML | | 03 39 54.4 | |
| | comp=Z,987nm,0.6s | | | | | | |
| GEVA | Gevas | 0.25 | 229 | iP | Pg | 03 39 49.2 | +0.4 |
| GEVA | | | | iS | Sb | 03 39 54.6 | -0.9 |
| GEVA | Gevas | 0.25 | 229 | P | Pg | 03 39 49.2 | +0.4 |
| ERCV | ERCIS-VAN | 0.54 | 3 | ePG | Pg | 03 39 54.0 | -0.3 |
| ERCV | | | | eSG | Sb | 03 40 02.4 | -1.5 |
| ERCV | ERCIS-VAN | 0.54 | 3 | ePg | Pg | 03 39 54.0 | -0.3 |
| ERCV | | | | eSg | Sb | 03 40 02.4 | -1.5 |
| VMUR | Van-Muradiye | 0.55 | 23 | iP | Pb | 03 39 54.7 | -1.3 |
| VMUR | Van-Muradiye | 0.55 | 23 | P | Pb | 03 39 54.7 | -1.3 |
| ADCV | BITLIS_Adilcev | 0.56 | 306 | iP | Pb | 03 39 54.9 | -1.1 |
| ADCV | BITLIS_Adilcev | 0.56 | 306 | P | Pb | 03 39 54.9 | -1.1 |
| BASK | Baskale_VAN | 0.70 | 127 | eP | Pg | 03 39 56.9 | -0.4 |
| BASK | | | | eS | Sn | 03 40 10.0 | -1.6 |
| BASK | | | | IAML | | 03 40 12.7 | |
| | comp=Z,307nm,0.5s | | | | | | |
| BASK | Baskale_VAN | 0.70 | 127 | iP | Pg | 03 39 56.9 | -0.4 |
| BASK | Baskale_VAN | 0.70 | 127 | P | Pg | 03 39 56.9 | -0.4 |
| CLDR | Caldiran | 0.82 | 36 | ePG | Pg | 03 39 59.2 | -0.4 |
| CLDR | Caldiran | 0.82 | 36 | iP | Pg | 03 39 59.2 | -0.4 |
| CLDR | Caldiran | 0.82 | 36 | P | Pg | 03 39 59.2 | -0.4 |
| HAKT | HAKKARI | 0.97 | 161 | iP | Pg | 03 40 01.7 | -0.8 |
| HAKT | HAKKARI | 0.97 | 161 | P | Pg | 03 40 01.7 | -0.8 |
| TUTA | Tutak | 1.00 | 338 | ⇓eP | Pg | 03 40 01.9 | -1.0 |
| TUTA | | | | eS | Sb | 03 40 16.4 | -0.6 |
| TUTA | | | | IAML | | 03 40 19.9 | |
| | comp=Z,198nm,0.4s | | | | | | |
| TUTA | Tutak | 1.00 | 338 | iP | Pg | 03 40 01.9 | -1.0 |
| TUTA | Tutak | 1.00 | 338 | P | Pg | 03 40 01.9 | -1.0 |
| DYDN | Diyadin | 1.11 | 16 | eP | Pg | 03 40 04.4 | -0.7 |
| DYDN | | | | IAML | | 03 40 14.5 | |
| | comp=Z,31nm,0.3s | | | | | | |
| DYDN | | | | eS | Sn | 03 40 21.8 | +0.1 |
| DYDN | Diyadin | 1.11 | 16 | iP | Pb | 03 40 04.7 | -0.7 |
| DYDN | Diyadin | 1.11 | 16 | P | Pb | 03 40 04.7 | -0.7 |
| AGRB | Hanur-Agry | 1.12 | 348 | ePN | Pg | 03 40 04.5 | -0.8 |
| AGRB | Hanur-Agry | 1.12 | 348 | ePn | Pg | 03 40 04.5 | -0.8 |
| YOVA | Hakkari_Yˆ…kse | 1.19 | 138 | iP | Pg | 03 40 05.8 | -0.7 |
| YOVA | Hakkari_Yˆ…kse | 1.19 | 138 | P | Pg | 03 40 05.8 | -0.7 |
| SRTM | Siirt_Merkez | 1.19 | 246 | iP | Pn | 03 40 07.0 | -0.1 |
| SRTM | Siirt_Merkez | 1.19 | 246 | P | Pn | 03 40 06.9 | -0.1 |
| SIRT | Sirnak | 1.19 | 215 | ePN | Pn | 03 40 06.7 | -0.3 |
| SIRT | Sirnak | 1.19 | 215 | ePn | Pn | 03 40 06.7 | -0.3 |
| EKAR | Karacoban | 1.24 | 309 | eP | Pn | 03 40 07.5 | -0.3 |
| EKAR | | | | eS | Sn | 03 40 26.0 | +1.1 |
| EKAR | | | | IAML | | 03 40 39.7 | |
| | comp=Z,78nm,0.6s | | | | | | |
| EKAR | Karacoban | 1.24 | 309 | iP | Pn | 03 40 07.5 | -0.3 |
| EKAR | Karacoban | 1.24 | 309 | P | Pn | 03 40 07.5 | -0.3 |
| CUKT | Cukurca | 1.25 | 169 | ePN | Pb | 03 40 07.5 | -0.4 |
| CUKT | Cukurca | 1.25 | 169 | iP | Pn | 03 40 07.8 | -0.1 |
| CUKT | Cukurca | 1.25 | 169 | ePn | Pb | 03 40 07.5 | -0.4 |
| CUKT | Cukurca | 1.25 | 169 | P | Pn | 03 40 07.8 | -0.1 |
| EATA | Eleskirt | 1.52 | 336 | eP | Pn | 03 40 11.4 | -0.4 |
| EATA | | | | eS | Sg | 03 40 34.1 | +1.6 |
| EATA | | | | IAML | | 03 40 36.7 | |
| | comp=Z,17nm,0.4s | | | | | | |
| EATA | Eleskirt | 1.52 | 336 | iP | Pn | 03 40 11.6 | -0.2 |
| EATA | | | | iS | Sg | 03 40 33.6 | +1.1 |
| EATA | Eleskirt | 1.52 | 336 | P | Pn | 03 40 11.6 | -0.2 |
| EATA | | | | S | Sg | 03 40 33.7 | +1.1 |
| VRTB | Varto-Mus | 1.59 | 296 | ePN | Pn | 03 40 12.6 | 0.0 |
| VRTB | Varto-Mus | 1.59 | 296 | iP | Pn | 03 40 12.6 | 0.0 |
| VRTB | Varto-Mus | 1.59 | 296 | P | Pn | 03 40 12.6 | 0.0 |
| TASB | TASBURUN-IGDIR | 1.67 | 26 | ePN | Pb | 03 40 14.1 | -0.9 |
| TASB | TASBURUN-IGDIR | 1.67 | 26 | ePn | Pb | 03 40 14.1 | -0.9 |
| BTMN | Batman | 1.70 | 250 | iP | Pg | 03 40 15.8 | -0.6 |
| BTMN | Batman | 1.70 | 250 | P | Pg | 03 40 15.8 | -0.6 |
| HYR | Heyderabad | 1.73 | 44 | ⇑P | Pg | 03 40 16.8 | -0.2 |
| HYR | Heyderabad | 1.73 | 44 | P | Pg | 03 40 16.8 | -0.2 |
| BNGL | BINGOL | 1.75 | 286 | eP | Pg | 03 40 16.4 | -0.8 |
| BNGL | | | | eS | Sg | 03 40 42.0 | +2.1 |
| BNGL | | | | IAML | | 03 40 52.5 | |
| | comp=Z,144nm,0.4s | | | | | | |
| BNGL | BINGOL | 1.75 | 286 | iP | Pg | 03 40 16.4 | -0.8 |
| NAX | Nakhchivan | 1.85 | 67 | ⇓P | Pn | 03 40 16.6 | +0.5 |
| | SNR=8.4 | | | | | | |
| NAX | | | | ⇑S | Sg | 03 40 51.8 | +8.5 |
| NAX | Nakhchivan | 1.85 | 67 | P | Pn | 03 40 16.6 | +0.5 |
| | SNR=8.4 | | | | | | |
| HOMI | Horasan | 1.90 | 326 | iP | Pb | 03 40 18.8 | -0.2 |
| DIGO | Kars | 1.93 | 2 | eP | Pb | 03 40 19.2 | -0.3 |
| DIGO | | | | IAML | | 03 40 30.8 | |
| | comp=Z,8.5nm,0.5s | | | | | | |
| DIGO | Kars | 1.93 | 2 | iP | Pg | 03 40 19.8 | -1.1 |
| DIGO | Kars | 1.93 | 2 | P | Pg | 03 40 19.8 | -1.1 |
| SBZ | Shahbuz | 1.98 | 62 | ⇑P | Pb | 03 40 19.7 | -0.6 |
| SBZ | | | | ⇑S | Sg | 03 40 56.9 | +9.4 |
| SBZ | Shahbuz | 1.98 | 62 | P | Pb | 03 40 19.7 | -0.6 |
| ERZM | Erzurum | 2.07 | 314 | ⇓eP | Pg | 03 40 22.2 | -1.3 |
| BNGB | Bingˆ¶l | 2.11 | 285 | ePN | Pn | 03 40 20.4 | +0.7 |
| ECAT | Cat-ERZURUM | 2.13 | 303 | iP | Pb | 03 40 23.1 | +0.2 |
| KARS | Kars | 2.15 | 356 | ePN | Pn | 03 40 20.6 | +0.4 |
| KARS | Kars | 2.15 | 356 | ePn | Pn | 03 40 20.7 | +0.4 |
| ORD | Ordubad | 2.16 | 77 | P | Pn | 03 40 18.6 | -1.7 |
| SENK | Senkaya-Erzuru | 2.21 | 341 | ePN | Pn | 03 40 21.8 | +0.7 |
| SENK | Senkaya-Erzuru | 2.21 | 341 | ePn | Pn | 03 40 21.8 | +0.7 |
| EAK | Akyaka | 2.22 | 6 | eP | Pb | 03 40 24.1 | -0.2 |
| EAK | | | | IAML | | 03 41 01.7 | |
| | comp=Z,11nm,0.6s | | | | | | |
| BINT | Bingol | 2.23 | 281 | ePn | Pn | 03 40 20.4 | -1.0 |
| HANI | Diyarbakir_Han | 2.28 | 269 | iP | Pb | 03 40 24.4 | -0.9 |
| HANI | Diyarbakir_Han | 2.28 | 269 | P | Pb | 03 40 24.4 | -0.9 |
| MARD | Mardin | 2.31 | 241 | iP | Pb | 03 40 24.3 | -1.6 |
| YEDI | Yedisu-Bingol | 2.35 | 295 | ePN | Pn | 03 40 23.7 | +0.7 |
| YEDI | Yedisu-Bingol | 2.35 | 295 | ePn | Pn | 03 40 23.7 | +0.7 |
| GDB | GEDABAY | 2.94 | 40 | ⇑P | Pb | 03 40 36.2 | -0.3 |
| | SNR=7.0 | | | | | | |
| GDB | | | | ⇓S | Sg | 03 41 26.4 | +8.3 |
| QZX | Qazax, Azerbai | 3.03 | 31 | ⇓P | Pb | 03 40 38.2 | +0.1 |
| | SNR=4.8 | | | | | | |
| PTK | Pertek | 3.08 | 279 | ePN | Pn | 03 40 34.0 | +0.9 |
| SVRC | Sivrice-ELAZID | 3.14 | 269 | ePN | Pn | 03 40 35.3 | +1.4 |
| GANJ | Ganja | 3.19 | 46 | ⇑P | Pb | 03 40 38.3 | -2.5 |
| | SNR=6.9 | | | | | | |
| GANJ | | | | ⇑S | Sg | 03 41 30.5 | +4.4 |
| GANJ | Ganja | 3.19 | 46 | P | Pb | 03 40 38.3 | -2.5 |
| | SNR=6.9 | | | | | | |
| GLBA | Clilabad | 4.05 | 78 | ⇓S | Sn | 03 41 37.4 | +3.5 |
| GLBA | Clilabad | 4.05 | 78 | S | Sn | 03 41 37.4 | +3.5 |

---

*ISCJB **05** 03:40:18.7±0.9, 52°.7N±0°.2×31°.8W±0°.2, h12km, mb3.8/12, MS3.1/5, Error ellipse: s-maj=24.9km s-min=13.3km az=16.6*
*IDC **05** 03:40:18.6±1.1, 52°.60N×31°.77W, h0km, mb3.8/12, mb1 4.0/13, mb1mx3.8/52, mbtmp3.9/13, ML4.2/1, MS3.2/7, Ms1 3.2/7, ms1mx2.8/39, Error ellipse: s-maj=31.8km s-min=16.7km az=20.0*
**ISC 05 03:40:20.4**±1.1**, 52°.6N**±0°.2×**31°.7W**±0°.1**, h12km, n17, σ0s80**/14**, mb3.9**/12**, MS3.1**/5**, Northern Mid-Atlantic Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| EKA | Eskdalemuir Ar | 16.97 | 69 | Pn | P | 03 44 18.3 | -0.9 |
| | baz=268,slow=12,SNR=11 | | | | | | |
| SFJD | Kangerlussuaq | 17.14 | 334 | LR | LR | 03 49 38.1 | |
| | comp=Z,70nm,20.2s,baz=157,slow=33 | | | | | | |
| ESDC | Sonseca Array | 23.02 | 113 | P | P | 03 45 26.4 | +1.3 |
| | 0.5nm,0.8s,baz=319,slow=12,SNR=3.2 | | | | | | |
| NOA | NORSAR Array B | 24.54 | 53 | LR | LR | 03 52 48.2 | |
| | comp=Z,66nm,20.3s,baz=275,slow=30 | | | | | | |
| GERES | GERESS Array B | 28.63 | 79 | P | P | 03 46 16.3 | -0.3 |
| | 1.1nm,0.8s,baz=313,slow=7.8,SNR=2.3 | | | | | | |
| FINES | FINESS Array B | 31.65 | 51 | P | P | 03 46 42.2 | -0.8 |
| | 2.0nm,0.8s,baz=283,slow=8.4,SNR=3.4 | | | | | | |
| FINES | | | | LR | LR | 03 57 28.2 | |
| | comp=Z,90nm,20.2s,baz=248,slow=32 | | | | | | |
| AKASG | Malin Array Be | 36.87 | 68 | P | P | 03 47 27.6 | -0.7 |
| | 1.1nm,0.6s,baz=294,slow=8.9,SNR=4.8 | | | | | | |
| AKASG | | | | LR | LR | 04 03 01.9 | |
| | comp=Z,23nm,18.9s,baz=295,slow=37 | | | | | | |
| YKA | Yellowknife Ar | 42.51 | 317 | P | P | 03 48 14.8 | -0.2 |
| | 0.9nm,0.9s,baz=62,slow=8.9,SNR=3.6 | | | | | | |
| BRTR | Keskin Array B | 45.53 | 79 | P | P | 03 48 41.0 | +1.2 |
| | 3.6nm,0.8s,baz=312,slow=6.2,SNR=19 | | | | | | |
| BRTR | | | | LR | LR | 04 07 18.5 | |
| | comp=Z,9.0nm,18.9s,baz=280,slow=36 | | | | | | |
| TORD | Torodi Ar. Bea | 47.56 | 133 | P | P | 03 48 54.9 | -0.9 |
| | 1.2nm,0.8s,baz=331,slow=8.1,SNR=7.4 | | | | | | |
| DBIC | Dimbokro | 50.83 | 145 | LR | LR | 04 08 23.1 | |
| | comp=Z,32nm,19.8s,baz=333,slow=33 | | | | | | |
| PDAR | Pinedale Array | 50.88 | 292 | P | P | 03 49 21.0 | -0.2 |
| | 0.5nm,0.8s,baz=50,slow=9.8,SNR=2.7 | | | | | | |
| AKTO | Aktyubinsk | 52.32 | 54 | P | P | 03 49 31.9 | +0.3 |
| | 2.3nm,0.8s,baz=316,slow=7.5,SNR=7.4 | | | | | | |
| ILAR | Eielson Array | 52.76 | 331 | P | P | 03 49 35.0 | +0.3 |
| | 0.4nm,0.9s,baz=29,slow=11,SNR=3.6 | | | | | | |
| ZALV | Zalesovo Beam | 61.42 | 37 | P | P | 03 50 36.8 | +0.8 |
| | 0.6nm,0.5s,baz=316,slow=8.1,SNR=3.6 | | | | | | |
| MKAR | Makanchi Array | 66.08 | 43 | P | P | 03 51 07.4 | +0.6 |
| | 1.4nm,0.8s,baz=328,slow=6.0,SNR=11 | | | | | | |
| WRA | Warramunga Arr | 145.62 | 24 | PKPbc | PKPab | 03 59 59.1 | +0.1 |
| | 0.7nm,0.3s,baz=344,slow=3.6,SNR=7.6 | | | | | | |

---

**MEX 05 03:52:19.9**±1.1**, 17°.53N×101°.98W, h13km**±14km**, MD3.7, Near coast of Guerrero**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ZIIG | Zihuatanejo | 0.49 | 81 | iP | Pg | 03 52 27.7 | -1.9 |
| ZIIG | | | | eS | Sg | 03 52 34.6 | -1.6 |
| MMIG | Aquila | 1.51 | 300 | eP | Pn | 03 52 42.7 | -3.9 |
| MMIG | | | | eS | Sn | 03 53 01.5 | -4.6 |
| CAIG | El Cayaco | 1.70 | 106 | eP | Pn | 03 52 46.4 | -2.8 |
| CAIG | | | | eS | Sn | 03 53 06.2 | -4.7 |
| ARIG | Puente Sto Nin | 1.72 | 64 | eP | Pn | 03 52 46.7 | -2.9 |
| ARIG | | | | eS | Sn | 03 53 06.8 | -4.6 |
| MEIG | Mezcala | 2.28 | 80 | eP | Pn | 03 52 54.6 | -2.7 |
| MEIG | | | | eS | Sn | 03 53 21.5 | -3.8 |

---

*ISCJB **05** 03:54:58.6±0.5, 36°.45N±0°.04×140°.57E±0°.05, h86km±3km, mb3.8/7, Error ellipse: s-maj=7.7km s-min=5.5km az=33.0*
*NIED **05** 03:55:00, 36°.50N×140°.50E, h74km, Mw3.8 Best double couple: M0 6.39000×10^14 NP1:φs316.00000°, δ25.00000°, λ47.00000°. NP2:φs182.00000°, δ72.00000°, λ108.00000°.*
*JMA **05** 03:55:00.4±0.1, 36°.48N×140°.46E, h77km±1km, M3.9 Broadband fault plane solution: P waves. NP1: φs191.00000°, δ79.00000°, λ99.00000°. NP2: φs332.00000°, δ14.00000°, λ51.00000°. Principal axes: T Plg55.0000°, Azm112.0000°; N Plg8.0000°, Azm10.0000°; P Plg34.0000°, Azm274.0000°;*
*JMA Felt II J1.*
*IDC **05** 03:55:01.3±1.9, 36°.39N×140°.48E, h94km±17km, mb3.5/7, mb1 3.6/10, mb1mx3.4/35, mbtmp3.9/10, MS2.4/1, Ms1 2.4/1, ms1mx2.2/19 Error ellipse: s-maj=21.1km s-min=9.7km az=63.0*
**ISC 05 03:54:59.7**±0.9**, 36°.49N**±0°.05×**140°.57E**±0°.06**, h80km**±7km**, n29, σ1s17**/36**, mb3.9**/7**, 9C-1D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JHO | Hitachi | 0.13 | 358 | ⇑P | Pn | 03 55 11.3 | -0.1 |
| JHO | | | | S | Sn | 03 55 19.8 | -0.1 |
| JYT | Yasato | 0.40 | 230 | ⇑P | Pn | 03 55 12.7 | 0.0 |
| JYT | | | | S | Sn | 03 55 21.6 | -0.7 |
| JAG | Ashikaga | 0.91 | 267 | ⇑P | Pn | 03 55 17.4 | -0.3 |
| JAG | | | | S | Sn | 03 55 29.9 | -1.2 |
| JFK | Kawauchi | 0.91 | 15 | ⇓P | Pn | 03 55 18.5 | +0.7 |
| JFK | | | | S | Sn | 03 55 31.8 | +0.5 |
| JFT | Otama | 1.05 | 350 | ⇑P | Pn | 03 55 19.9 | +0.5 |
| JFT | | | | S | Sn | 03 55 34.7 | +0.6 |
| JKT | Katashina | 1.10 | 285 | ⇑P | Pn | 03 55 19.8 | -0.3 |
| JFY | Yanaizu | 1.15 | 323 | ⇑P | Pn | 03 55 20.8 | +0.1 |
| JFY | | | | S | Sn | 03 55 36.2 | -0.2 |
| JMM | Marumori | 1.39 | 7 | ⇑P | Pn | 03 55 24.2 | +0.6 |
| JRY | Ryogami san | 1.43 | 251 | ⇑P | Pn | 03 55 24.2 | 0.0 |
| JRY | | | | S | Sn | 03 55 41.9 | -0.7 |
| JHK | Hiroka | 1.46 | 302 | ⇑P | Pn | 03 55 24.6 | 0.0 |
| JHK | | | | S | Sn | 03 55 42.1 | -1.2 |
| MJAR | Matsushiro Arr | 1.91 | 272 | P | Pn | 03 55 30.7 | +0.3 |
| | 41nm,0.3s,baz=91,slow=15,SNR=255 | | | | | | |
| MJAR | | | | S | Sn | 03 55 54.2 | +0.4 |
| | 48nm,0.3s,baz=71,slow=23,SNR=16 | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| **MAT** | **Matsushiro** | **1.91** | **272** | P | **Pn** | **03 55 31.0** | **+0.6** |
| MAT | | | | S | **Sn** | **03 55 54.5** | **+0.7** |
| **JHJ** | **Hachijo jima 2** | **3.42** | **191** | P | **Pn** | **03 55 51.0** | **+0.3** |
| | 29nm,0.3s,baz=314,slow=21,SNR=9.4 | | | | | | |
| JHJ | | | | S | **Sn** | **03 56 29.6** | **-0.7** |
| | 50nm,0.3s,baz=62,slow=23,SNR=9.6 | | | | | | |
| **ASAJ** | **Asahikawa** | **7.78** | **11** | P | **Pn** | **03 56 48.8** | **-1.3** |
| | 0.9nm,0.3s,baz=179,slow=30,SNR=3.9 | | | | | | |
| ASAJ | | | | S | **Sn** | **03 58 11.8** | **-4.8** |
| | 0.5nm,0.3s,baz=187,slow=18,SNR=3.6 | | | | | | |
| **JNU** | **Nakatsue** | **8.65** | **250** | P | **Pn** | **03 57 03.0** | **+0.9** |
| | 0.8nm,0.3s,baz=0.2,slow=3.3,SNR=6.3 | | | | | | |
| JNU | | | | S | **Sn** | **03 58 37.4** | **-0.6** |
| | 0.9nm,0.3s,baz=73,slow=17,SNR=2.3 | | | | | | |
| **KSRS** | **Korea Array** | **10.17** | **279** | P | **Pn** | **03 57 25.4** | **+2.6** |
| | 0.3nm,0.3s,baz=95,slow=14,SNR=6.8 | | | | | | |
| KSRS | | | | LR | LR | 04 00 32.4 | |
| | comp=Z,24nm,20.6s,baz=96,slow=33 | | | | | | |
| **SONM** | **Songino Array** | **27.54** | **305** | P | **P** | **04 00 38.1** | **-0.9** |
| | 1.2nm,0.5s,baz=107,slow=9.3,SNR=4.7 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.46** | **119** | T | T | 04 30 57.4 | |
| | baz=312,slow=75,SNR=10 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.47** | **119** | T | T | 04 30 58.1 | |
| | baz=312,slow=75,SNR=11 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.48** | **119** | T | T | 04 31 00.1 | |
| | baz=312,slow=75,SNR=12 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.14** | **121** | T | T | 04 31 49.7 | |
| | baz=314,slow=76,SNR=31 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.14** | **121** | T | T | 04 31 47.2 | |
| | baz=314,slow=76,SNR=14 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.16** | **121** | T | T | 04 31 48.1 | |
| | baz=314,slow=76,SNR=26 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.79** | **313** | P | **P** | **04 02 40.7** | **-0.4** |
| | 1.0nm,0.5s,baz=104,slow=6.1,SNR=5.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.84** | **302** | P | **P** | **04 02 57.9** | **0.0** |
| | 1.3nm,0.7s,baz=90,slow=9.8,SNR=11 | | | | | | |
| **ILAR** | **Eielson Array** | **50.32** | **32** | P | **P** | **04 03 48.8** | **+0.9** |
| | 0.8nm,0.7s,baz=270,slow=6.1,SNR=16 | | | | | | |
| **INK** | **Inuvik** | **55.18** | **27** | P | **P** | **04 04 24.8** | **+1.2** |
| | 2.6nm,1.3s,baz=311,slow=6.1,SNR=4.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **56.43** | **187** | P | **P** | **04 04 32.6** | **-0.5** |
| | 0.5nm,0.4s,baz=2.7,slow=7.3,SNR=5.0 | | | | | | |
| **ASAR** | **Alice Springs** | **60.16** | **187** | P | **P** | **04 04 58.8** | **-0.3** |
| | 0.4nm,0.7s,baz=8.7,slow=9.1,SNR=4.9 | | | | | | |

---

**WEL 05 04:20:51.2**±0.4**, 40°.49S×173°.28E, h175**km±3km**, ML3.5**/9**, 7C-6D, Error ellipse: s-maj=2.1km s-min=1.3km az=90.0, Cook Strait**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **QRZ** | **Quartz Range** | **0.67** | **239** | PN | Pn | 04 21 16.1 | -0.1 |
| QRZ | | | | SN | Sn | 04 21 34.0 | -1.5 |
| **NNZ** | **Nelson** | **0.73** | **174** | PN | Pn | 04 21 16.7 | +0.1 |
| **TCW** | **Tory Channel** | **1.04** | **134** | PN | Pn | 04 21 19.2 | +0.4 |
| TCW | | | | SN | Sn | 04 21 38.5 | -1.6 |
| TCW | | | | AML | AML | 04 21 39.7 | |
| **TUWZ** | **Tuamarina** | **1.07** | **152** | PN | Pn | 04 21 19.2 | +0.3 |
| TUWZ | | | | AML | AML | 04 21 39.7 | |
| TUWZ | | | | AML | AML | 04 21 39.9 | |
| **KIW** | **Kapiti Island** | **1.29** | **107** | PN | Pn | 04 21 20.8 | 0.0 |
| **THZ** | **Tophouse** | **1.31** | **192** | ⇓PN | Pn | 04 21 20.9 | -0.1 |
| THZ | | | | SN | Sn | 04 21 42.5 | -1.7 |
| **BSWZ** | **Blackbirch Sta** | **1.31** | **160** | PN | Pn | 04 21 21.2 | +0.3 |
| **KHEZ** | **Kahui Hut** | **1.32** | **26** | PN | Pn | 04 21 20.9 | -0.3 |
| **LREZ** | **Lake Rotokare** | **1.34** | **40** | PN | Pn | 04 21 21.7 | +0.4 |
| **NEZ** | **North Egmont** | **1.37** | **28** | PN | Pn | 04 21 21.4 | -0.3 |
| **OGWZ** | **Otaki Gorge** | **1.47** | **104** | PN | Pn | 04 21 22.5 | 0.0 |
| OGWZ | | | | AML | AML | 04 21 46.3 | |
| OGWZ | | | | AML | AML | 04 21 47.3 | |
| **CAW** | **Cannon Point** | **1.49** | **115** | PN | Pn | 04 21 22.7 | +0.1 |
| **WAZ** | **Wanganui** | **1.50** | **61** | PN | Pn | 04 21 22.5 | -0.3 |
| **BHW** | **Baring Head** | **1.52** | **128** | PN | Pn | 04 21 22.6 | -0.2 |
| **OHWZ** | **Ohakea** | **1.58** | **80** | PN | Pn | 04 21 23.7 | +0.2 |
| OHWZ | | | | SN | Sn | 04 21 47.8 | -0.7 |
| **DSZ** | **Denniston Nort** | **1.68** | **221** | PN | Pn | 04 21 24.0 | -0.6 |
| **HOWZ** | **Holdsworth Sta** | **1.75** | **104** | ⇑PN | Pn | 04 21 25.0 | -0.2 |
| **MSWZ** | **Moikau Station** | **1.76** | **123** | PN | Pn | 04 21 25.0 | -0.3 |
| MSWZ | | | | AML | AML | 04 21 49.8 | |
| MSWZ | | | | AML | AML | 04 21 50.1 | |
| **MRZ** | **Mangatainoka R** | **1.76** | **96** | ⇑PN | Pn | 04 21 25.0 | -0.3 |
| **MTW** | **Mount Morrison** | **1.81** | **112** | ⇑PN | Pn | 04 21 25.7 | -0.2 |
| **PLWZ** | **Palliser** | **1.84** | **127** | ⇑PN | Pn | 04 21 25.9 | -0.4 |
| PLWZ | | | | AML | AML | 04 21 51.4 | |
| **PAWZ** | **Paruwai Farm** | **1.85** | **120** | PN | Pn | 04 21 26.0 | -0.4 |
| **KHZ** | **Kahutara** | **1.94** | **174** | ⇓PN | Pn | 04 21 26.9 | -0.3 |
| **PKVZ** | **Pokaka** | **1.99** | **54** | PN | Pn | 04 21 27.3 | -0.6 |
| **TIWZ** | **Tintock** | **2.00** | **99** | PN | Pn | 04 21 27.7 | -0.2 |
| **TRWZ** | **Traveller** | **2.04** | **117** | ⇓PN | Pn | 04 21 28.2 | -0.2 |
| **PRWZ** | **Pori Road** | **2.05** | **93** | ⇓PN | Pn | 04 21 28.5 | 0.0 |
| PRWZ | | | | AML | AML | 04 21 57.4 | |
| **TMWZ** | **Te Maipa** | **2.08** | **108** | PN | Pn | 04 21 28.5 | -0.3 |
| TMWZ | | | | AML | AML | 04 21 29.0 | |
| TMWZ | | | | AML | AML | 04 21 29.1 | |
| **TSZ** | **Takapari Road** | **2.09** | **79** | PN | Pn | 04 21 28.5 | -0.5 |
| **WNVZ** | **Wahianoa** | **2.12** | **58** | ⇓PN | Pn | 04 21 28.6 | -0.9 |
| **DVHZ** | **Dannevirke** | **2.21** | **86** | PN | Pn | 04 21 29.6 | -0.7 |
| **WTVZ** | **West Tongariro** | **2.24** | **53** | PN | Pn | 04 21 29.6 | -1.2 |
| **OTVZ** | **Oturere** | **2.26** | **55** | ⇑PN | Pn | 04 21 29.9 | -1.2 |
| **PNHZ** | **Pukenui** | **2.31** | **77** | PN | Pn | 04 21 30.5 | -0.9 |
| **BHHZ** | **Black Hill Sta** | **2.36** | **66** | PN | Pn | 04 21 30.5 | -1.5 |
| **LTZ** | **Lake Taylor** | **2.42** | **198** | PN | Pn | 04 21 31.9 | -0.8 |
| **KRHZ** | **Kereru** | **2.52** | **71** | PN | Pn | 04 21 32.9 | -0.9 |
| KRHZ | | | | AML | AML | 04 22 10.1 | |
| **INZ** | **Inchbonnie** | **2.63** | **211** | PN | Pn | 04 21 33.9 | -1.2 |
| **KWHZ** | **Kaweka Forest** | **2.64** | **67** | PN | Pn | 04 21 34.7 | -0.6 |
| KWHZ | | | | AML | AML | 04 22 15.0 | |
| **KAHZ** | **Kahuranaki** | **2.84** | **77** | PN | Pn | 04 21 37.5 | -0.2 |
| **OXZ** | **Oxford** | **2.98** | **198** | ⇑PN | Pn | 04 21 37.7 | -1.7 |
| **WVZ** | **Waitaha Valley** | **3.21** | **216** | ⇓PN | Pn | 04 21 40.6 | -1.6 |
| **MQZ** | **McQueen's Vall** | **3.25** | **188** | PN | Pn | 04 21 40.4 | -2.2 |
| **RPZ** | **Rata Peaks** | **3.63** | **206** | PN | Pn | 04 21 44.9 | -2.5 |
| **FOZ** | **Fox Glacier** | **3.99** | **219** | ⇑PN | Pn | 04 21 49.8 | -2.2 |

---

*IDC **05** 04:22:24.1±1.7, 38°.10N×21°.32E, h0km, mb3.8/3, mb1 3.6/4, mb1mx3.4/27, mbtmp3.6/4, ML2.6/1, MS3.3/1, Ms1 3.2/1, ms1mx2.3/37, Error ellipse: s-maj=107.3km s-min=25.0km az=141.0*
*ATH **05** 04:22:26.9, 37°.90N×21°.45E, h22km, ML2.9/21, Error ellipse: s-maj=0.8km s-min=0.5km az=247.0*
*ISCJB **05** 04:22:27.8±0.3, 37°.90N±0°.01×21°.45E±0°.02, h17km±3km, mb3.7/3, MS3.4/1, Error ellipse: s-maj=3.1km s-min=2.2km az=148.7*
*CSEM **05** 04:22:27.7±0.1, 37°.91N×21°.46E, h10km, ML2.9, Error ellipse: s-maj=3.6km s-min=2.5km az=64.0*
*THE **05** 04:22:27.4, 37°.89N×21°.46E, h20km±1km, ML3.2/9, Error ellipse: s-maj=1.3km s-min=0.6km az=355.0*
**ISC 05 04:22:28.0**±0.7**, 37°.90N**±0°.02×**21°.44E**±0°.02**, h20**km±1km**, n158, σ1°.18**/227**, mb3.9**/3**, Southern Greece**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RLS** | **Riolos of Patr** | **0.16** | **6** | P | **Pb** | **04 22 32.3** | **-0.6** |
| RLS | | | | AML | AML | 04 22 36.4 | |
| | comp=N,26964µm,0.3s | | | | | | |
| RLS | | | | AML | AML | 04 22 36.5 | |
| | comp=E,14859µm,0.2s | | | | | | |
| RLS | | | | S | **Sb** | **04 22 36.5** | **+0.2** |
| **RLS** | **Riolos of Patr** | **0.16** | **6** | P | **Pb** | **04 22 32.1** | **-0.8** |
| RLS | | | | S | **Sb** | **04 22 36.0** | **-0.3** |
| **RLS** | **Riolos of Patr** | **0.16** | **6** | P | **Pb** | **04 22 32.1** | **-0.8** |
| RLS | | | | S | **Sb** | **04 22 36.0** | **-0.3** |
| **VTN** | **Vitineika** | **0.20** | **275** | P | **Pb** | **04 22 33.6** | **+0.3** |
| VTN | | | | S | **Sb** | **04 22 37.1** | **+0.1** |
| **VTN** | **Vitineika** | **0.20** | **275** | P | **Pb** | **04 22 33.4** | **0.0** |
| VTN | | | | S | **Sb** | **04 22 37.1** | **+0.1** |
| **DRO** | **Drossia** | **0.22** | **75** | P | **Pb** | **04 22 32.5** | **-1.1** |
| DRO | | | | S | **Sb** | **04 22 37.2** | **-0.1** |
| DRO | | | | AML | AML | 04 22 39.9 | |
| | comp=N,16466µm,0.4s | | | | | | |
| DRO | | | | AML | AML | 04 22 40.6 | |
| | comp=E,16601µm,0.3s | | | | | | |
| **DRO** | **Drossia** | **0.22** | **75** | P | **Pb** | **04 22 32.5** | **-1.1** |
| DRO | | | | S | **Sb** | **04 22 37.1** | **-0.3** |
| **DRO** | **Drossia** | **0.22** | **75** | P | **Pb** | **04 22 32.5** | **-1.1** |
| DRO | | | | S | **Sb** | **04 22 37.1** | **-0.3** |
| **AXS** | **Araxos** | **0.30** | **350** | P | **Pb** | **04 22 34.3** | **-0.5** |
| AXS | | | | S | **Sb** | **04 22 39.4** | **0.0** |
| **AXS** | **Araxos** | **0.30** | **350** | P | **Pb** | **04 22 33.9** | **-0.9** |
| AXS | | | | S | **Sb** | **04 22 39.4** | **0.0** |
| **AXS** | **Araxos** | **0.30** | **350** | P | **Pb** | **04 22 33.9** | **-0.9** |
| **AMT** | **Artemida-Makis** | **0.42** | **150** | P | **Pb** | **04 22 35.6** | **-1.2** |
| AMT | | | | S | **Sb** | **04 22 42.7** | **0.0** |
| AMT | | | | AML | AML | 04 22 46.8 | |
| | comp=E,4589µm,0.3s | | | | | | |
| AMT | | | | AML | AML | 04 22 47.2 | |
| | comp=N,5026µm,0.3s | | | | | | |
| **AMT** | **Artemida-Makis** | **0.42** | **150** | P | **Pb** | **04 22 35.8** | **-1.0** |
| AMT | | | | S | **Sb** | **04 22 41.8** | **-0.9** |
| **AMT** | **Artemida-Makis** | **0.42** | **150** | P | **Pb** | **04 22 35.8** | **-1.0** |
| AMT | | | | S | **Sb** | **04 22 41.8** | **-0.9** |
| **UPR** | **University Cam** | **0.47** | **35** | P | **Pb** | **04 22 37.8** | **+0.1** |
| UPR | | | | S | **Sb** | **04 22 44.0** | **-0.2** |
| **UPR** | **University Cam** | **0.47** | **35** | P | **Pb** | **04 22 36.4** | **-1.2** |
| UPR | | | | S | **Sb** | **04 22 44.0** | **-0.2** |
| **UPR** | **University Cam** | **0.47** | **35** | P | **Pb** | **04 22 36.4** | **-1.2** |
| UPR | | | | S | **Sb** | **04 22 44.2** | **+0.1** |
| **LAKA** | **Lakka** | **0.54** | **51** | P | **Pb** | **04 22 37.8** | **-1.1** |
| LAKA | | | | S | **Sb** | **04 22 46.1** | **-0.2** |
| **LAKA** | **Lakka** | **0.54** | **51** | P | **Pb** | **04 22 37.9** | **-1.0** |
| LAKA | | | | S | **Sb** | **04 22 46.1** | **-0.2** |
| **KFL** | **Anninata** | **0.56** | **292** | P | **Pb** | **04 22 38.0** | **-1.2** |
| KFL | | | | S | **Sb** | **04 22 46.8** | **0.0** |
| **KFL** | **Anninata** | **0.56** | **292** | P | **Pb** | **04 22 38.3** | **-0.9** |
| KFL | | | | S | **Sb** | **04 22 46.8** | **0.0** |
| **KFL** | **Anninata** | **0.56** | **292** | P | **Pb** | **04 22 38.3** | **-0.9** |
| KFL | | | | S | **Sb** | **04 22 47.5** | **+0.7** |
| **KLV** | **Kalavryta, Ach** | **0.58** | **75** | P | **Pb** | **04 22 37.9** | **-1.6** |
| KLV | | | | S | **Sb** | **04 22 46.5** | **-0.9** |
| KLV | | | | AML | AML | 04 22 50.3 | |
| | comp=E,890µm,0.2s | | | | | | |
| KLV | | | | AML | AML | 04 22 51.0 | |
| | comp=N,1450µm,0.6s | | | | | | |
| **KLV** | **Kalavryta, Ach** | **0.58** | **75** | P | **Pb** | **04 22 38.1** | **-1.4** |
| KLV | | | | S | **Sb** | **04 22 46.5** | **-0.9** |
| **KLV** | **Kalavryta, Ach** | **0.58** | **75** | P | **Pb** | **04 22 38.1** | **-1.4** |
| KLV | | | | S | **Sb** | **04 22 47.0** | **-0.4** |
| **VVK** | **Vomvokou** | **0.60** | **29** | P | **Pb** | **04 22 38.7** | **-1.2** |
| **EFP** | **Efpalio** | **0.64** | **34** | P | **Pb** | **04 22 39.1** | **-1.4** |
| EFP | | | | AML | AML | 04 22 49.7 | |
| | comp=E,1927µm,0.4s | | | | | | |
| EFP | | | | S | **Sb** | **04 22 50.0** | **+0.9** |
| EFP | | | | AML | AML | 04 22 51.4 | |
| | comp=N,1740µm,0.4s | | | | | | |
| **EFP** | **Efpalio** | **0.64** | **34** | P | **Pb** | **04 22 39.2** | **-1.4** |
| EFP | | | | S | **Sb** | **04 22 49.1** | **0.0** |
| **EFP** | **Efpalio** | **0.64** | **34** | P | **Pb** | **04 22 39.2** | **-1.4** |
| EFP | | | | S | **Sb** | **04 22 49.1** | **0.0** |
| **MES3** | **Kyparissia** | **0.67** | **164** | P | **Pb** | **04 22 41.1** | **0.0** |
| MES3 | | | | S | **Sb** | **04 22 50.9** | **+0.9** |
| **MES3** | **Kyparissia** | **0.67** | **164** | P | **Pb** | **04 22 41.1** | **0.0** |
| MES3 | | | | S | **Sb** | **04 22 50.9** | **+0.9** |
| **SERG** | **Sergoula** | **0.71** | **43** | P | **Pb** | **04 22 40.1** | **-1.6** |
| SERG | | | | S | **Sb** | **04 22 51.1** | **+0.1** |
| SERG | | | | AML | AML | 04 22 52.2 | |
| | comp=E,2205µm,0.4s | | | | | | |
| SERG | | | | AML | AML | 04 22 55.1 | |
| | comp=N,3508µm,0.5s | | | | | | |
| **SERG** | **Sergoula** | **0.71** | **43** | P | **Pb** | **04 22 40.4** | **-1.3** |
| SERG | | | | S | **Sb** | **04 22 50.7** | **-0.3** |
| **SERG** | **Sergoula** | **0.71** | **43** | P | **Pb** | **04 22 40.4** | **-1.3** |
| SERG | | | | S | **Sb** | **04 22 50.8** | **-0.3** |
| **GUR** | **Goura** | **0.71** | **87** | P | **Pb** | **04 22 39.6** | **-2.2** |
| GUR | | | | S | **Sb** | **04 22 50.9** | **-0.3** |
| GUR | | | | AML | AML | 04 22 52.6 | |
| | comp=N,3242µm,0.4s | | | | | | |
| GUR | | | | AML | AML | 04 22 52.6 | |
| | comp=E,3640µm,0.6s | | | | | | |
| **GUR** | **Goura** | **0.71** | **87** | P | **Pb** | **04 22 40.2** | **-1.6** |
| GUR | | | | S | **Sb** | **04 22 50.9** | **-0.3** |
| **GUR** | **Goura** | **0.71** | **87** | P | **Pb** | **04 22 40.1** | **-1.7** |
| **PVO** | **Paravola** | **0.72** | **5** | P | **Pb** | **04 22 41.3** | **-0.6** |
| PVO | | | | S | **Sb** | **04 22 50.4** | **-1.0** |
| **PVO** | **Paravola** | **0.72** | **5** | P | **Pb** | **04 22 41.3** | **-0.6** |
| PVO | | | | S | **Sb** | **04 22 50.4** | **-1.0** |
| **PVO** | **Paravola** | **0.72** | **5** | P | **Pb** | **04 22 41.0** | **-0.9** |
| **PDO** | **Prodromos** | **0.73** | **344** | P | **Pb** | **04 22 41.4** | **-0.7** |
| PDO | | | | S | **Sb** | **04 22 51.4** | **-0.3** |
| PDO | | | | AML | AML | 04 22 58.0 | |
| | comp=E,2996µm,0.5s | | | | | | |
| PDO | | | | AML | AML | 04 22 58.1 | |
| | comp=N,4639µm,0.3s | | | | | | |
| **PDO** | **Prodromos** | **0.73** | **344** | P | **Pb** | **04 22 41.4** | **-0.7** |
| PDO | | | | S | **Sb** | **04 22 51.3** | **-0.3** |
| **PDO** | **Prodromos** | **0.73** | **344** | P | **Pb** | **04 22 41.2** | **-0.9** |
| **VLS** | **Valsamata** | **0.73** | **293** | P | **Pb** | **04 22 40.0** | **-2.0** |
| VLS | | | | S | **Sb** | **04 22 51.9** | **+0.2** |
| VLS | | | | AML | AML | 04 22 54.0 | |
| | comp=E,1786µm,0.2s | | | | | | |
| VLS | | | | AML | AML | 04 23 00.2 | |
| | comp=N,2354µm,0.4s | | | | | | |
| **VLS** | **Valsamata** | **0.73** | **293** | P | **Pb** | **04 22 40.6** | **-1.5** |
| VLS | | | | S | **Sb** | **04 22 51.9** | **+0.2** |
| **VLS** | **Valsamata** | **0.73** | **293** | P | **Pb** | **04 22 40.6** | **-1.5** |
| VLS | | | | S | **Sb** | **04 22 52.6** | **+0.9** |
| **KALE** | **Kalithea** | **0.74** | **48** | P | **Pb** | **04 22 40.9** | **-1.3** |
| KALE | | | | S | **Sb** | **04 22 51.2** | **-0.7** |
| **KALE** | **Kalithea** | **0.74** | **48** | P | **Pb** | **04 22 40.9** | **-1.3** |
| KALE | | | | S | **Sb** | **04 22 52.6** | **+0.7** |
| **ANX** | **Ano Chora** | **0.79** | **28** | P | **Pn** | **04 22 43.7** | **-0.5** |
| ANX | | | | S | **Sb** | **04 22 53.0** | **-0.5** |
| ANX | | | | AML | AML | 04 22 57.0 | |
| | comp=N,2687µm,0.6s | | | | | | |
| ANX | | | | AML | AML | 04 22 57.7 | |
| | comp=E,2475µm,0.5s | | | | | | |
| **ANX** | **Ano Chora** | **0.79** | **28** | P | **Pb** | **04 22 41.8** | **-1.4** |
| ANX | | | | S | **Sb** | **04 22 53.0** | **-0.5** |
| **ANX** | **Ano Chora** | **0.79** | **28** | P | **Pb** | **04 22 41.8** | **-1.4** |
| **ITM** | **Ithomi** | **0.81** | **152** | P | **Pb** | **04 22 42.6** | **-0.9** |
| ITM | | | | S | **Sb** | **04 22 54.6** | **+0.6** |
| ITM | | | | AML | AML | 04 23 02.4 | |
| | comp=N,1480µm,0.7s | | | | | | |
| ITM | | | | AML | AML | 04 23 02.7 | |
| | comp=E,1552µm,0.3s | | | | | | |
| **ITM** | **Ithomi** | **0.81** | **152** | P | **Pb** | **04 22 42.6** | **-0.9** |
| ITM | | | | S | **Sb** | **04 22 54.6** | **+0.6** |
| **ITM** | **Ithomi** | **0.81** | **152** | P | **Pb** | **04 22 42.6** | **-0.9** |
| **VLX** | **Vlachokerasia** | **0.91** | **125** | P | **Pb** | **04 22 45.0** | **-0.2** |
| VLX | | | | S | **Sn** | **04 22 57.6** | **-0.8** |
| VLX | | | | AML | AML | 04 23 03.9 | |
| | comp=N,2958µm,0.5s | | | | | | |
| VLX | | | | AML | AML | 04 23 06.8 | |
| | comp=E,1664µm,0.5s | | | | | | |
| **VLX** | **Vlachokerasia** | **0.91** | **125** | P | **Pb** | **04 22 45.0** | **-0.2** |
| VLX | | | | S | **Sn** | **04 22 57.6** | **-0.8** |
| **VLX** | **Vlachokerasia** | **0.91** | **125** | P | **Pb** | **04 22 44.4** | **-0.8** |
| **THAL** | **Thalero** | **0.97** | **81** | P | **Pb** | **04 22 45.1** | **-1.1** |
| **THAL** | **Thalero** | **0.97** | **81** | P | **Pb** | **04 22 45.1** | **-1.1** |
| **DSF** | **Desfina** | **1.00** | **59** | P | **Pb** | **04 22 44.8** | **-1.8** |
| **DSF** | **Desfina** | **1.00** | **59** | P | **Pb** | **04 22 44.8** | **-1.8** |
| **PYL** | **PYLOS** | **1.03** | **167** | P | **Pn** | **04 22 45.5** | **-1.9** |
| PYL | | | | S | **Sn** | **04 23 01.4** | **+0.3** |
| PYL | | | | AML | AML | 04 23 09.3 | |
| | comp=N,724µm,0.9s | | | | | | |
| PYL | | | | AML | AML | 04 23 09.5 | |
| | comp=E,724µm,0.4s | | | | | | |
| **PYL** | **PYLOS** | **1.03** | **167** | P | **Pn** | **04 22 45.8** | **-1.5** |
| PYL | | | | S | **Sn** | **04 23 01.4** | **+0.3** |
| **EVR** | **Evrytania** | **1.06** | **16** | P | **Pn** | **04 22 46.0** | **-1.8** |
| EVR | | | | S | **Sb** | **04 23 01.1** | **-0.1** |
| EVR | | | | AML | AML | 04 23 11.1 | |
| | comp=E,1162µm,1.2s | | | | | | |
| EVR | | | | AML | AML | 04 23 13.6 | |
| | comp=N,1141µm,0.6s | | | | | | |
| **EVR** | **Evrytania** | **1.06** | **16** | P | **Pn** | **04 22 46.0** | **-1.8** |
| EVR | | | | S | **Sb** | **04 23 01.1** | **-0.1** |
| **LKD2** | **Lefkada island** | **1.08** | **325** | P | **Pn** | **04 22 46.2** | **-1.9** |
| LKD2 | | | | S | **Sb** | **04 23 01.0** | **-0.9** |
| LKD2 | | | | AML | AML | 04 23 08.1 | |
| | comp=E,4817µm,0.5s | | | | | | |
| LKD2 | | | | AML | AML | 04 23 09.7 | |
| | comp=N,4218µm,0.6s | | | | | | |
| **LKD2** | **Lefkada island** | **1.08** | **325** | P | **Pn** | **04 22 46.2** | **-1.9** |
| LKD2 | | | | S | **Sb** | **04 23 01.0** | **-0.9** |
| **MES2** | **Methoni** | **1.09** | **169** | P | **Pn** | **04 22 46.5** | **-1.7** |
| **MES2** | **Methoni** | **1.09** | **169** | P | **Pn** | **04 22 46.5** | **-1.7** |
| **LTK** | **Loutraki** | **1.21** | **84** | P | **Pn** | **04 22 48.1** | **-1.7** |
| **LTK** | **Loutraki** | **1.21** | **84** | P | **Pn** | **04 22 48.6** | **-1.2** |
| **LTK** | **Loutraki** | **1.21** | **84** | P | **Pn** | **04 22 48.6** | **-1.2** |
| **LOUT** | **Loutraki** | **1.21** | **85** | P | **Pn** | **04 22 49.0** | **-0.9** |
| **LOUT** | **Loutraki** | **1.21** | **85** | P | **Pn** | **04 22 49.0** | **-0.9** |
| **DSL** | **Palaion Diasel** | **1.26** | **348** | P | **Pn** | **04 22 49.4** | **-1.2** |
| **DSL** | **Palaion Diasel** | **1.26** | **348** | P | **Pn** | **04 22 49.4** | **-1.2** |
| **AGG** | **Agios Georgios** | **1.32** | **32** | P | **Pn** | **04 22 50.6** | **-0.8** |
| **AGG** | **Agios Georgios** | **1.32** | **32** | P | **Pn** | **04 22 50.9** | **-0.5** |
| **AGG** | **Agios Georgios** | **1.32** | **32** | P | **Pn** | **04 22 50.9** | **-0.5** |
| **LKR** | **Lokris** | **1.44** | **58** | P | **Pn** | **04 22 53.0** | **+0.1** |
| **LKR** | **Lokris** | **1.44** | **58** | P | **Pn** | **04 22 53.0** | **+0.1** |
| **KRND** | **KRANIDI** | **1.45** | **110** | P | **Pb** | **04 22 54.2** | **-0.1** |
| KRND | | | | S | **Sb** | **04 23 13.5** | **+1.2** |
| KRND | | | | AML | AML | 04 23 18.3 | |
| | comp=N,1272µm,0.6s | | | | | | |
| KRND | | | | AML | AML | 04 23 19.2 | |
| | comp=E,848µm,0.7s | | | | | | |
| **KRND** | **KRANIDI** | **1.45** | **110** | P | **Pb** | **04 22 54.2** | **-0.1** |
| KRND | | | | S | **Sb** | **04 23 13.5** | **+1.2** |
| **DID** | **Didima** | **1.48** | **105** | P | **Pb** | **04 22 55.0** | **+0.2** |
| DID | | | | S | **Sb** | **04 23 14.1** | **+1.0** |
| DID | | | | AML | AML | 04 23 18.6 | |
| | comp=N,1013µm,0.6s | | | | | | |
| DID | | | | AML | AML | 04 23 19.6 | |
| | comp=E,685µm,0.4s | | | | | | |
| **DID** | **Didima** | **1.48** | **105** | P | **Pb** | **04 22 55.0** | **+0.2** |
| DID | | | | S | **Sb** | **04 23 14.1** | **+1.0** |
| **VLI** | **Veliai** | **1.67** | **134** | P | **Pn** | **04 22 55.2** | **-1.0** |
| **VLI** | **Veliai** | **1.67** | **134** | P | **Pn** | **04 22 55.2** | **-1.0** |
| **THL** | **Klokotos Trika** | **1.72** | **15** | P | **Pb** | **04 22 59.0** | **0.0** |
| THL | | | | S | **Sb** | **04 23 20.3** | **+0.1** |
| THL | | | | AML | AML | 04 23 29.2 | |
| | comp=E,262µm,0.7s | | | | | | |
| THL | | | | AML | AML | 04 23 35.2 | |
| | comp=N,157µm,1.1s | | | | | | |
| **THL** | **Klokotos Trika** | **1.72** | **15** | P | **Pb** | **04 22 59.0** | **0.0** |
| THL | | | | S | **Sb** | **04 23 20.3** | **+0.1** |
| **ATH** | **Athens Observa** | **1.80** | **87** | P | **Pn** | **04 22 57.9** | **0.0** |
| **ATH** | **Athens Observa** | **1.80** | **87** | P | **Pn** | **04 22 57.9** | **0.0** |
| **IGT** | **Igoumenitsa** | **1.85** | **332** | P | **Pb** | **04 22 60.0** | **-1.2** |
| **IGT** | **Igoumenitsa** | **1.85** | **332** | P | **Pb** | **04 23 00.0** | **-1.2** |
| **VLY** | **Voula,Athens** | **1.86** | **91** | P | **Pb** | **04 23 00.5** | **-0.8** |
| **VLY** | **Voula,Athens** | **1.86** | **91** | P | **Pb** | **04 23 00.5** | **-0.8** |
| **PTL** | **Penteli** | **1.92** | **85** | P | **Pn** | **04 23 00.4** | **+0.8** |
| PTL | | | | S | **Sb** | **04 23 25.6** | **-0.3** |
| PTL | | | | AML | AML | 04 23 29.8 | |
| | comp=N,354µm,0.6s | | | | | | |
| PTL | | | | AML | AML | 04 23 30.3 | |
| | comp=E,350µm,0.4s | | | | | | |
| **PTL** | **Penteli** | **1.92** | **85** | P | **Pn** | **04 23 00.4** | **+0.8** |
| PTL | | | | S | **Sb** | **04 23 25.6** | **-0.3** |
| **SGD** | **Sagiada** | **1.96** | **331** | P | **Pb** | **04 23 02.8** | **-0.2** |
| SGD | | | | S | **Sb** | **04 23 26.7** | **-0.2** |
| **SGD** | **Sagiada** | **1.96** | **331** | P | **Pb** | **04 23 02.8** | **-0.2** |
| SGD | | | | S | **Sb** | **04 23 26.7** | **-0.2** |
| **NEO** | **Neokhori** | **1.98** | **44** | P | **Pn** | **04 23 01.2** | **+0.7** |
| **NEO** | **Neokhori** | **1.98** | **44** | P | **Pn** | **04 23 01.2** | **+0.7** |
| **XOR** | **Xorichti** | **2.01** | **42** | P | **Pn** | **04 23 01.2** | **+0.4** |
| **XOR** | **Xorichti** | **2.01** | **42** | P | **Pn** | **04 23 01.2** | **+0.4** |
| **KPRO** | **Kipourio** | **2.06** | **358** | P | **Pn** | **04 23 01.8** | **+0.3** |
| **KPRO** | **Kipourio** | **2.06** | **358** | P | **Pn** | **04 23 01.8** | **+0.3** |
| **KYTH** | **Kithira** | **2.07** | **141** | P | **Pn** | **04 23 02.9** | **+1.2** |
| **KEK** | **Kerkira** | **2.22** | **325** | P | **Pn** | **04 23 04.7** | **+0.9** |
| KEK | | | | S | **Sn** | **04 23 32.3** | **+1.7** |
| KEK | | | | AML | AML | 04 23 43.1 | |
| | comp=N,265µm,0.7s | | | | | | |
| KEK | | | | AML | AML | 04 23 43.2 | |
| | comp=E,238µm,0.5s | | | | | | |
| **KEK** | **Kerkira** | **2.22** | **325** | P | **Pn** | **04 23 04.7** | **+0.9** |
| KEK | | | | S | **Sn** | **04 23 32.3** | **+1.7** |
| **PENT** | **Pentalofos** | **2.31** | **354** | P | **Pn** | **04 23 04.9** | **-0.1** |
| **PENT** | **Pentalofos** | **2.31** | **354** | P | **Pn** | **04 23 04.9** | **-0.1** |
| **LIT** | **Litokhoron** | **2.35** | **20** | P | **Pn** | **04 23 05.9** | **+0.4** |
| **LIT** | **Litokhoron** | **2.35** | **20** | P | **Pn** | **04 23 05.9** | **+0.4** |
| **KZN** | **Kozani** | **2.42** | **6** | P | **Pn** | **04 23 08.4** | **+1.9** |
| **KZN** | **Kozani** | **2.42** | **6** | P | **Pn** | **04 23 08.4** | **+1.9** |
| **ANKY** | **Antikythira Is** | **2.52** | **143** | P | **Pb** | **04 23 10.2** | **-2.3** |
| **ANKY** | **Antikythira Is** | **2.52** | **143** | P | **Pb** | **04 23 10.2** | **-2.3** |
| **NEST** | **Nestorio** | **2.53** | **353** | P | **Pn** | **04 23 10.3** | **+2.2** |
| **NEST** | **Nestorio** | **2.53** | **353** | P | **Pn** | **04 23 10.3** | **+2.2** |
| **FNA** | **Florina** | **2.88** | **359** | P | **Pn** | **04 23 15.6** | **+2.7** |
| **FNA** | **Florina** | **2.88** | **359** | P | **Pn** | **04 23 15.6** | **+2.7** |
| **OUR** | **Ouranopolis** | **3.13** | **38** | P | **Pn** | **04 23 18.0** | **+1.8** |
| **OUR** | **Ouranopolis** | **3.13** | **38** | P | **Pn** | **04 23 18.0** | **+1.8** |
| **GRG** | **Griva** | **3.14** | **13** | P | **Pn** | **04 23 17.4** | **+0.9** |
| **GRG** | **Griva** | **3.14** | **13** | P | **Pn** | **04 23 17.4** | **+0.9** |
| **IMMV** | **Iera Moni Meta** | **3.17** | **139** | P | **Pn** | **04 23 18.4** | **+1.6** |
| **IMMV** | **Iera Moni Meta** | **3.17** | **139** | P | **Pn** | **04 23 18.4** | **+1.6** |
| **SOH** | **Sokhos** | **3.27** | **26** | P | **Pn** | **04 23 20.4** | **+2.2** |
| **SOH** | **Sokhos** | **3.27** | **26** | P | **Pn** | **04 23 20.4** | **+2.2** |
| **VAM** | **Vamos** | **3.33** | **137** | P | **Pn** | **04 23 21.0** | **+2.0** |
| **VAM** | **Vamos** | **3.33** | **137** | P | **Pn** | **04 23 21.0** | **+2.0** |
| **APE** | **Apeiranthos** | **3.35** | **103** | P | **Pn** | **04 23 20.2** | **+0.8** |
| **APE** | **Apeiranthos** | **3.35** | **103** | P | **Pn** | **04 23 20.2** | **+0.8** |
| **KNT** | **Kendrikon** | **3.45** | **19** | P | **Pn** | **04 23 21.3** | **+0.7** |
| **KNT** | **Kendrikon** | **3.45** | **19** | P | **Pn** | **04 23 21.3** | **+0.7** |
| **LIA** | **Limnos Island** | **3.54** | **54** | P | **Pn** | **04 23 22.6** | **+0.8** |
| **LIA** | **Limnos Island** | **3.54** | **54** | P | **Pn** | **04 23 22.6** | **+0.8** |
| **SRS** | **Serrai** | **3.62** | **27** | P | **Pn** | **04 23 24.8** | **+1.8** |
| **SRS** | **Serrai** | **3.62** | **27** | P | **Pn** | **04 23 24.8** | **+1.8** |
| **CHOS** | **Chios island** | **3.67** | **81** | P | **Pn** | **04 23 24.8** | **+1.1** |
| **CHOS** | **Chios island** | **3.67** | **81** | P | **Pn** | **04 23 24.8** | **+1.1** |
| **GVD** | **Gavdhos** | **3.72** | **144** | P | **Pn** | **04 23 24.4** | **0.0** |
| **GVD** | **Gavdhos** | **3.72** | **144** | P | **Pn** | **04 23 24.4** | **0.0** |
| **IDI** | **Anoyia** | **3.80** | **132** | P | **Pn** | **04 23 27.9** | **+2.3** |
| IDI | | | | S | **Sn** | **04 24 10.5** | **+0.8** |
| IDI | | | | AML | AML | 04 24 17.7 | |
| | comp=E,47µm,0.3s | | | | | | |
| IDI | | | | AML | AML | 04 24 18.0 | |
| | comp=N,56µm,0.6s | | | | | | |
| **IDI** | **Anoyia** | **3.80** | **132** | P | **Pn** | **04 23 27.9** | **+2.3** |
| IDI | | | | S | **Sn** | **04 24 10.5** | **+0.8** |
| **LAST** | **Lasithi** | **4.24** | **129** | P | **Pn** | **04 23 31.4** | **-0.2** |
| **LAST** | **Lasithi** | **4.24** | **129** | P | **Pn** | **04 23 31.4** | **-0.2** |
| **SMG** | **Samos** | **4.28** | **91** | P | **Pn** | **04 23 32.6** | **+0.6** |
| **SMG** | **Samos** | **4.28** | **91** | P | **Pn** | **04 23 32.6** | **+0.6** |
| **ZKR** | **Zakros** | **4.74** | **124** | P | **Pn** | **04 23 41.1** | **+2.7** |
| **ZKR** | **Zakros** | **4.74** | **124** | P | **Pn** | **04 23 41.1** | **+2.7** |
| **KARP** | **Karpathos** | **5.16** | **115** | P | **Pn** | **04 23 46.8** | **+2.7** |
| **KARP** | **Karpathos** | **5.16** | **115** | P | **Pn** | **04 23 46.8** | **+2.7** |
| **STON** | **Ston** | **5.73** | **331** | *e*Pn | **Pn** | **04 23 49.5** | **-2.5** |
| STON | | | | Sn | **Sn** | **04 24 53.9** | **-3.1** |
| **BRTR** | **Keskin Array B** | **9.69** | **75** | Pn | **Pn** | **04 24 49.2** | **+2.8** |
| | comp=N,0.1nm,0.3s,baz=261,slow=13,SNR=3.1 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **30.28** | **221** | P | **P** | **04 28 37.9** | **-0.1** |
| | comp=N,0.4nm,0.6s,baz=35,slow=9.5,SNR=5.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.83** | **58** | P | **P** | **04 30 39.3** | **-1.3** |
| | comp=N,0.8nm,0.5s,baz=274,slow=6.8,SNR=16 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **45.34** | **48** | P | **P** | **04 30 43.2** | **-1.3** |
| | comp=N,0.7nm,0.3s,baz=274,slow=6.8,SNR=3.2 | | | | | | |
| **SCHQ** | **Schefferville** | **59.16** | **318** | LR | LR | 04 57 11.6 | |
| | comp=N,26nm,20.0s,baz=292,slow=35 | | | | | | |

---

*SOME **05** 04:28:59.6, 41°.20N×76°.82E, h5km*
*NNC **05** 04:28:60.0±0.7, 41°.17N×76°.91E, h0km, mb4.0, mpv3.6, Error ellipse: s-maj=6.0km s-min=3.7km az=135.0*
*BJI **05** 04:29:01.5, 41°.21N×77°.00E, h5km, ML3.2/6*
*KRNET **05** 04:29:02.6±0.1, 41°.39N×76°.75E, h21km, mb3.4*
*KNET **05** 04:29:03.4±0.6, 41°.37N×76°.63E, h0km, ml3.1, Error ellipse: s-maj=5.4km s-min=3.3km az=84.0*
**ISC 05 04:28:58.8**±1.3**, 41°.17N**±0°.04×**76°.72E**±0°.03**, h5**km±12km**, n56, σ1°.05**/93**, 47C-26D, Kyrgyzstan-Xinjiang border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ULHL** | **Ulahol** | **1.13** | **342** | ⇑*i*P | **Pg** | **04 29 20.5** | **0.0** |
| | baz=335 | | | | | | |
| ULHL | | | | ⇑*i*S | **Sg** | **04 29 35.1** | **-0.1** |
| | baz=335 | | | | | | |
| **ULHL** | **Ulahol** | **1.13** | **342** | ⇑P | **Pg** | **04 29 20.5** | **0.0** |
| | 26nm,0.2s,SNR=139 | | | | | | |
| ULHL | | | | ⇓S | **Sb** | **04 29 35.7** | **-0.4** |
| | 174nm,0.3s | | | | | | |
| **BOOM** | **Boomskoye usch** | **1.44** | **336** | ⇓*e*P | **Pg** | **04 29 26.8** | **+0.4** |
| | baz=332 | | | | | | |
| BOOM | | | | ⇓*i*S | **Sn** | **04 29 44.4** | **-0.7** |
| | baz=332 | | | | | | |
| **KSH** | **Kashi** | **1.75** | **199** | Pn | Pg | 04 29 41.4 | +9.0 |
| KSH | | | | Sn | Sg | 04 30 13.1 | +18 |
| KSH | | | | smax | smax | | |
| | comp=N,190nm,0.6s | | | | | | |
| KSH | | | | smax | smax | | |
| | comp=E,250nm,0.3s | | | | | | |
| **PRZ** | **Przheval'sk** | **1.82** | **43** | ⇑*e*P | **Pg** | **04 29 33.9** | **+0.3** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| | baz=48 | | | | | | |
| PRZ | | | | ⇑iS | Sg | 04 29 56.7 | -0.5 |
| | baz=48 | | | | | | |
| TNSS | Tian-Shan | 1.87 | 5 | eP | Pg | 04 29 34.3 | -0.4 |
| | 128nm,0.3s | | | | | | |
| TNSS | | | | eS | Sg | 04 29 58.8 | -0.2 |
| | 125nm,0.6s | | | | | | |
| TKM2 | Tokmak 2 | 1.94 | 335 | ⇑iP | Pg | 04 29 35.6 | -0.3 |
| | baz=331 | | | | | | |
| TKM2 | | | | ⇑iS | Sg | 04 30 00.1 | -0.9 |
| | baz=331 | | | | | | |
| TKM2 | Tokmak 2 | 1.94 | 335 | ⇓Pn | Pg | 04 29 35.7 | -0.3 |
| | 29nm,0.3s | | | | | | |
| TKM2 | | | | ⇓Sn | Sg | 04 30 02.1 | +1.0 |
| | 54nm,0.4s | | | | | | |
| TKM2 | Tokmak 2 | 1.94 | 335 | P | Pg | 04 29 35.6 | -0.3 |
| | 34nm,0.2s,SNR=72 | | | | | | |
| TKM2 | | | | ⇓S | Sg | 04 30 02.0 | +1.0 |
| | 153nm,0.4s | | | | | | |
| KST | Kastek | 1.95 | 344 | ⇓iP | Pb | 04 29 35.5 | +0.5 |
| | 9.8nm,0.4s | | | | | | |
| KST | | | | eS | Sg | 04 30 01.0 | -0.6 |
| | 106nm,0.7s | | | | | | |
| UCH | Uchtor | 1.96 | 303 | ⇓iP | Pg | 04 29 36.9 | +0.6 |
| | baz=297 | | | | | | |
| UCH | | | | ⇓iS | Sg | 04 30 02.9 | +1.1 |
| | baz=297 | | | | | | |
| UCH | Uchtor | 1.96 | 303 | ⇓P | Pg | 04 29 37.0 | +0.6 |
| | 21nm,0.3s,SNR=30 | | | | | | |
| UCH | | | | ⇑S | Sg | 04 30 04.0 | +2.3 |
| | 96nm,0.3s | | | | | | |
| MTBS | Maitube | 1.97 | 354 | ⇑iP | Pb | 04 29 35.5 | +0.3 |
| | 56nm,0.5s | | | | | | |
| MTBS | | | | ⇓iS | Sb | 04 30 00.9 | +0.9 |
| | 150nm,0.4s | | | | | | |
| KBK | Karagaybulak | 1.98 | 319 | ⇓iP | Pg | 04 29 36.7 | -0.2 |
| | baz=314 | | | | | | |
| KBK | | | | ⇓iS | Sg | 04 30 02.3 | -0.3 |
| | baz=314 | | | | | | |
| KBK | Karagaybulak | 1.98 | 319 | P | Pg | 04 29 36.9 | 0.0 |
| | 21nm,0.1s,SNR=32 | | | | | | |
| KBK | | | | ⇓S | Sg | 04 30 03.7 | +1.1 |
| | 223nm,0.2s | | | | | | |
| MDOK | Medeo | 2.00 | 7 | ⇑Pn | Pb | 04 29 35.6 | -0.3 |
| MDOK | | | | ⇓Sn | Sb | 04 30 01.7 | +0.6 |
| MDOK | Medeo | 2.00 | 7 | ⇑iP | Pb | 04 29 35.7 | -0.1 |
| | 74nm,0.8s | | | | | | |
| MDOK | | | | eS | Sb | 04 30 01.3 | +0.1 |
| | 181nm,0.5s | | | | | | |
| AAA | Alma-Ata | 2.04 | 4 | ⇑iP | Pb | 04 29 37.1 | +0.7 |
| | 230nm,0.4s | | | | | | |
| AAA | | | | eS | Sg | 04 30 03.6 | -0.7 |
| | 496nm,0.5s | | | | | | |
| KNDC | Almaty | 2.05 | 5 | ⇑Pn | Pb | 04 29 36.7 | +0.1 |
| KNDC | | | | ⇑Sn | Sg | 04 30 04.0 | -0.7 |
| KOTS | Kotyrbulak | 2.08 | 8 | eP | Pb | 04 29 37.8 | +0.7 |
| KOTS | | | | eS | Sg | 04 30 04.9 | -0.8 |
| DGS | Degeres | 2.18 | 342 | eP | Pg | 04 29 40.4 | -0.3 |
| DGS | | | | eS | Sg | 04 30 09.2 | +0.3 |
| AAK | Ala-Archa | 2.21 | 312 | ⇑eP | Pg | 04 29 40.6 | -0.6 |
| | baz=307 | | | | | | |
| AAK | | | | ⇑iS | Sg | 04 30 08.8 | -1.1 |
| | baz=307 | | | | | | |
| AAK | Ala-Archa | 2.21 | 312 | ⇑Pn | Pb | 04 29 39.7 | +0.3 |
| | 20nm,0.3s | | | | | | |
| AAK | | | | ⇑Lg | Lg | 04 30 14.5 | |
| | 81nm,0.5s | | | | | | |
| AAK | Ala-Archa | 2.21 | 312 | P | Pg | 04 29 41.0 | -0.2 |
| | 48nm,0.3s,SNR=81 | | | | | | |
| AAK | | | | ⇓S | Sg | 04 30 10.5 | +0.6 |
| | 47nm,0.2s | | | | | | |
| FRU1 | Bishkek | 2.26 | 317 | ⇑eP | Pg | 04 29 41.4 | -0.7 |
| | baz=313 | | | | | | |
| FRU1 | | | | ⇑iS | Sb | 04 30 09.5 | +1.1 |
| | baz=313 | | | | | | |
| SATY | Saty | 2.27 | 33 | ⇑iP | Pb | 04 29 39.7 | -0.6 |
| | 142nm,0.7s | | | | | | |
| SATY | | | | eS | Sb | 04 30 08.0 | -0.7 |
| | 273nm,0.5s | | | | | | |
| CHMS | Chumysh | 2.34 | 322 | ⇑eP | Pb | 04 29 42.2 | +0.7 |
| | baz=318 | | | | | | |
| CHMS | | | | ⇑iS | Sb | 04 30 11.9 | +1.2 |
| | baz=318 | | | | | | |
| CHMS | Chumysh | 2.34 | 322 | ⇑P | Pg | 04 29 43.5 | -0.1 |
| | 2.4nm,0.1s,SNR=12 | | | | | | |
| AML | Almayashu | 2.46 | 294 | ⇑eP | Pg | 04 29 44.8 | -1.2 |
| | baz=289 | | | | | | |
| AML | | | | ⇑iS | Sg | 04 30 16.6 | -1.3 |
| | baz=289 | | | | | | |
| AML | Almayashu | 2.46 | 294 | P | Pg | 04 29 46.3 | +0.3 |
| | 55nm,0.2s,SNR=78 | | | | | | |
| KTBS | Karatobe | 2.54 | 359 | eP | Pb | 04 29 45.6 | +0.8 |
| KTBS | | | | eS | Sb | 04 30 18.3 | +1.9 |
| KURS | Kuram | 2.55 | 24 | eP | Pb | 04 29 45.8 | +0.7 |
| KURS | | | | eS | Sb | 04 30 18.5 | +1.7 |
| EKS2 | Erkin-Say | 2.65 | 305 | ⇑eP | Pb | 04 29 47.5 | +0.6 |
| | baz=301 | | | | | | |
| EKS2 | | | | ⇑eS | Sb | 04 30 20.1 | +0.4 |
| | baz=301 | | | | | | |
| EKS2 | Erkin-Say | 2.65 | 305 | ⇑P | Pg | 04 29 48.3 | -1.3 |
| | 8.3nm,0.2s,SNR=22 | | | | | | |
| USP | Ospenovka | 2.66 | 323 | ⇑iP | Pb | 04 29 47.1 | +0.1 |
| | baz=319 | | | | | | |
| USP | | | | ⇑iS | Sb | 04 30 19.1 | -0.9 |
| | baz=319 | | | | | | |
| USP | Ospenovka | 2.66 | 323 | ⇑P | Pb | 04 29 48.1 | +1.1 |
| | 38nm,0.2s,SNR=96 | | | | | | |
| CHKK | Chushkaly | 2.69 | 4 | eP | Pb | 04 29 46.0 | -1.4 |
| | 18nm,0.6s | | | | | | |
| CHKK | | | | eS | Sb | 04 30 18.9 | -1.8 |
| | 115nm,0.4s | | | | | | |
| SFK | Sufi-Kurgan | 2.71 | 246 | ⇑eP | Pg | 04 29 51.9 | +1.2 |
| | baz=242 | | | | | | |
| SFK | | | | ⇑iS | Sg | 04 30 27.4 | +1.6 |
| | baz=242 | | | | | | |
| SFK | Sufi-Kurgan | 2.71 | 246 | ⇓Pg | Pg | 04 29 51.3 | +0.6 |
| | 8.5nm,0.5s | | | | | | |
| SFK | | | | ⇓Lg | Lg | 04 30 29.8 | |
| | 24nm,0.4s | | | | | | |
| ARSB | Arslanbob | 2.82 | 274 | ⇓eP | Pg | 04 29 51.9 | -1.0 |
| | baz=270 | | | | | | |
| ARSB | | | | ⇓iS | Sg | 04 30 27.4 | -2.0 |
| | baz=270 | | | | | | |
| PDGK | Podgornoye | 2.98 | 43 | ⇑eP | Pb | 04 29 51.1 | -1.4 |
| | baz=45 | | | | | | |
| PDGK | | | | ⇑iS | Sb | 04 30 25.9 | -3.3 |
| | baz=45 | | | | | | |
| PDGK | Podgornoye | 2.98 | 43 | ⇓Pg | Pb | 04 29 51.4 | -1.1 |
| | 30nm,0.5s | | | | | | |
| PDGK | | | | ⇑Lg | Lg | 04 30 30.5 | |
| | 138nm,0.6s | | | | | | |
| MRKS | Merke | 3.04 | 302 | ⇑iP | Pg | 04 29 56.5 | -0.6 |
| | 48nm,0.3s | | | | | | |
| MRKS | | | | eS | Sg | 04 30 37.0 | +0.5 |
| | 56nm,0.5s | | | | | | |
| ARXS | Arharly | 3.15 | 15 | eP | Pb | 04 29 55.2 | -0.1 |
| | 37nm,0.7s | | | | | | |
| ARXS | | | | eS | Sb | 04 30 34.6 | +0.6 |
| | 61nm,0.5s | | | | | | |
| MNAS | Manas | 3.41 | 294 | ⇑Pg | Pg | 04 30 03.2 | -1.0 |
| | 15nm,0.6s | | | | | | |
| MNAS | | | | ⇑Lg | Lg | 04 30 52.0 | |
| | 41nm,0.7s | | | | | | |
| KTMS | Ketmen | 3.52 | 49 | eP | Pb | 04 30 02.4 | +0.6 |
| | 13nm,0.2s | | | | | | |
| KTMS | | | | eS | Sb | 04 30 47.0 | +2.1 |
| | 63nm,0.6s | | | | | | |
| ARK | Arkit | 3.62 | 281 | ⇑iP | Pb | 04 30 02.0 | -1.5 |
| | baz=278 | | | | | | |
| ARK | | | | ⇑iS | Sb | 04 30 45.2 | -2.6 |
| | baz=278 | | | | | | |
| DJR | Jarkent | 3.88 | 35 | eP | Pb | 04 30 08.0 | +0.2 |
| | 26nm,0.5s | | | | | | |
| DJR | | | | ⇑iS | Sb | 04 30 56.7 | +1.5 |
| | 42nm,0.4s | | | | | | |
| KAPS | Kapalarasan | 4.54 | 24 | eP | Pb | 04 30 19.2 | +0.2 |
| | 11nm,0.7s | | | | | | |
| KAPS | | | | ⇑iS | Sb | 04 31 15.9 | +1.9 |
| | 25nm,0.6s | | | | | | |
| KK31 | Karatay Array | 5.00 | 295 | ⇓Pg | Pg | 04 30 32.7 | -1.9 |
| | 4.6nm,0.6s,baz=117,slow=16,SNR=37 | | | | | | |
| KK31 | | | | ⇑Lg | Lg | 04 31 42.5 | |
| | 3.2nm,0.4s,baz=108,slow=27,SNR=7.2 | | | | | | |
| BRLS | Borolday | 5.45 | 292 | eP | Pg | 04 30 42.4 | -0.7 |
| | 1.1nm,0.5s | | | | | | |
| BRLS | | | | eS | Sg | 04 31 55.9 | +2.2 |
| | 5.0nm,0.5s | | | | | | |
| DZET | Dzherino | 6.50 | 251 | ⇓Pn | Pn | 04 30 40.0 | +4.7 |
| | 3.1nm,0.5s | | | | | | |
| DZET | | | | ⇓Sn | Sn | 04 31 57.8 | +7.9 |
| | 4.0nm,0.6s | | | | | | |
| DZET | | | | ⇑Lg | Lg | 04 32 32.2 | |
| | 6.3nm,0.7s | | | | | | |
| MK31 | Makanchi Array | 6.91 | 34 | ⇑Pn | Pn | 04 30 41.4 | +0.7 |
| | 0.6nm,0.5s,baz=279,slow=6.4,SNR=13 | | | | | | |
| MK31 | | | | ⇓Lg | Lg | 04 32 35.4 | |
| | 1.2nm,0.5s,baz=214,slow=27,SNR=4.2 | | | | | | |
| WMQ | Urumqi | 8.53 | 68 | eP | Pn | 04 31 03.0 | 0.0 |
| WMQ | | | | smax | smax | | |
| | comp=N,12nm,0.7s | | | | | | |
| WMQ | | | | smax | smax | | |
| | comp=E,13nm,0.5s | | | | | | |
| KURBB | Kurchatov Arra | 9.54 | 7 | ⇓Lg | Lg | 04 34 02.1 | |
| | 11nm,0.7s | | | | | | |
| BVA0 | Borovoye Array | 12.61 | 342 | Lg | Lg | 04 35 37.8 | |
| | 5.7nm,1.1s,baz=148,slow=27,SNR=5.7 | | | | | | |

*ISCJB 05 04:52:04.6±0.8, 43°.83N±0°.06×146°.61E±0°.07, h73$^{km}$±6$^{km}$, Error ellipse: s-maj=11.7km s-min=5.6km az=143.8*
*JMA 05 04:52:04.4±0.2, 43°.78N×146°.67E, h75$^{km}$±3$^{km}$, M3.3*
*SKHL 05 04:52:05.1±0.4, 43°.80N×146°.58E, h79$^{km}$±8$^{km}$, mb4.7/3*
*MOS 05 04:52:05.7±0.2, 43°.94N×146°.53E, h50$^{km}$, mb4.2/1, Error ellipse: s-maj=39.2km s-min=26.5km az=173.7*
**ISC 05 04:52:05.7±1.5, 43°.82N±0°.06×146°.61E±0°.05, h67$^{km}$±8$^{km}$, n23, σ0s.61/40, 4D, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SHO | Shikotan | 0.17 | 71 | d iPN | Pn | 04 52 15.7 | -0.1 |
| SHO | | | | iS | Sn | 04 52 23.7 | +0.6 |
| SHO | | | | smax | smax | | |
| | comp=N,1µm,0.1s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=E,2µm,0.2s | | | | | | |
| SHO | Shikotan | 0.17 | 71 | iP | Pn | 04 52 15.7 | -0.1 |
| SHO | | | | AMB | AMB | 04 52 15.9 | |
| | comp=E,520nm,0.1s | | | | | | |
| SHO | | | | iS | Sn | 04 52 23.7 | +0.6 |
| SHO | | | | A | A | 04 52 23.9 | |
| | comp=E,1µm,0.1s | | | | | | |
| SHO | | | | A | A | 04 52 23.9 | |
| | comp=E,2µm,0.1s | | | | | | |
| YUK | Yuzh-Kuril'sk | 0.58 | 292 | ePN | Pn | 04 52 18.4 | -0.7 |
| YUK | | | | eS | Sn | 04 52 28.6 | -0.3 |
| YUK | | | | pmax | pmax | | |
| | comp=Z,416nm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=N,141nm,0.1s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=E,184nm,0.2s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=E,3µm,0.4s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,1µm,0.1s | | | | | | |
| YUK | Yuzh-Kuril'sk | 0.58 | 292 | eP | Pn | 04 52 18.4 | -0.7 |
| YUK | | | | AMB | AMB | 04 52 19.0 | |
| | comp=N,141nm,0.2s | | | | | | |
| YUK | | | | AMB | AMB | 04 52 19.0 | |
| | comp=N,184nm,0.2s | | | | | | |
| YUK | | | | AMB | AMB | 04 52 19.0 | |
| | comp=N,420nm,0.2s | | | | | | |
| YUK | | | | eS | Sn | 04 52 28.6 | -0.3 |
| YUK | | | | A | A | 04 52 30.7 | |
| | comp=N,1µm,0.3s | | | | | | |
| YUK | | | | A | A | 04 52 30.7 | |
| | comp=N,3µm,0.3s | | | | | | |
| GRPR | Tuman | 0.63 | 286 | ⇓iPN | Pn | 04 52 19.0 | -0.6 |
| GRPR | | | | iS | Sn | 04 52 29.4 | -0.4 |
| GRPR | Tuman | 0.63 | 286 | eP | Pn | 04 52 19.0 | -0.6 |
| GRPR | | | | eS | Sn | 04 52 29.4 | -0.4 |
| LAGR | Lagunnoye | 0.64 | 292 | ⇓iPN | Pn | 04 52 19.5 | -0.2 |
| LAGR | | | | iS | Sn | 04 52 29.7 | -0.3 |
| LAGR | Lagunnoye | 0.64 | 292 | eP | Pn | 04 52 19.5 | -0.2 |
| LAGR | | | | eS | Sn | 04 52 29.7 | -0.3 |
| NEM2 | Nemuro 2 | 0.78 | 235 | P | Pn | 04 52 20.9 | -0.3 |
| NEM2 | | | | eS | Sn | 04 52 32.8 | +0.1 |
| GLVR | Golovnino | 0.80 | 265 | ⇓iPN | Pn | 04 52 21.5 | 0.0 |
| GLVR | | | | iS | Sn | 04 52 34.1 | +1.0 |
| GLVR | Golovnino | 0.80 | 265 | eP | Pn | 04 52 21.5 | 0.0 |
| GLVR | | | | eS | Sn | 04 52 34.1 | +1.0 |
| JRA | Rausu | 1.08 | 277 | P | Pn | 04 52 24.9 | -0.2 |
| JRA | | | | eS | Sn | 04 52 40.3 | +0.8 |
| JNK | Nakash | 1.39 | 261 | P | Pn | 04 52 28.7 | -0.4 |
| JAK | Akkeshi | 1.62 | 240 | P | Pn | 04 52 31.6 | -0.5 |
| JAK | | | | eS | Sn | 04 52 51.4 | -0.7 |
| KUR | Kuril'sk | 1.68 | 32 | ePN | Pn | 04 52 32.5 | -0.4 |
| KUR | | | | iS | Sn | 04 52 53.2 | -0.3 |
| KUR | | | | pmax | pmax | | |
| | comp=Z,21nm,0.1s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=N,19nm,0.2s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=E,4.0nm,0.1s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,121nm,0.2s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=N,203nm,0.3s | | | | | | |
| KUR | Kuril'sk | 1.68 | 32 | eP | Pn | 04 52 32.5 | -0.4 |
| KUR | | | | AMB | AMB | 04 52 32.8 | |
| | comp=N,21nm,0.1s | | | | | | |
| KUR | | | | iS | Sn | 04 52 53.2 | -0.3 |
| KUR | | | | A | A | 04 52 54.2 | |
| | comp=N,350nm,0.3s | | | | | | |
| KUR | | | | A | A | 04 52 54.2 | |
| | comp=N,220nm,0.3s | | | | | | |
| JTKR | Abashiri--Toko | 1.96 | 275 | P | Pn | 04 52 36.6 | -0.1 |
| JAR | Ashorobuto | 2.13 | 257 | P | Pn | 04 52 39.8 | +0.8 |
| JAR | | | | eS | Sn | 04 53 05.5 | +1.0 |
| JOB | Onbets | 2.22 | 247 | eS | Sn | 04 53 07.0 | +0.4 |
| JMP | Maruseppu | 2.36 | 276 | P | Pn | 04 52 42.1 | 0.0 |
| JCH | Churui | 2.66 | 244 | P | Pn | 04 52 46.0 | -0.2 |
| JCH | | | | eS | Sn | 04 53 16.0 | -1.4 |
| YSS | Yuzh-Sakhalins | 4.15 | 320 | eP | Pn | 04 53 05.8 | -0.7 |
| TYV | Tymovskoe | 7.54 | 341 | eP | Pn | 04 53 54.2 | +1.3 |

**JMA 05 04:56:52.7±0.3, 37°.23N×144°.31E, h50$^{km}$, M3.5, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JIO | Ouri | 2.64 | 298 | P | Pn | 04 57 34.3 | +1.5 |
| JFK | Kawauchi | 2.74 | 274 | P | Pn | 04 57 35.9 | +1.7 |
| OFUJ | Ofunato | 2.78 | 312 | P | Pn | 04 57 35.9 | +1.1 |
| ONAJ | Iwakimizuishiy | 2.81 | 268 | P | Pn | 04 57 36.4 | +1.2 |
| ONAJ | | | | S | Sn | 04 58 09.5 | +1.7 |
| JMK | Ichinoseki | 2.98 | 306 | P | Pn | 04 57 39.6 | +2.1 |
| JMK | | | | S | Sn | 04 58 13.9 | +1.9 |
| JFT | Otama | 3.18 | 276 | P | Pn | 04 57 42.0 | +1.8 |
| JRY | Ryogami san | 4.52 | 256 | P | Pn | 04 57 59.5 | +0.9 |

*SJA 05 05:00:24.9±1.1, 30°.64S×72°.18W, h16$^{km}$±18$^{km}$, ML3.5, MW3.6*
*ISCJB 05 05:00:25.5±1.6, 30°.61S±0°.04×72°.1W±0°.1, h1$^{km}$±13$^{km}$, Error ellipse: s-maj=16.7km s-min=5.8km az=5.7*
*GUC 05 05:00:30.1±0.6, 30°.70S×71°.58W, h47$^{km}$±6$^{km}$, ML3.5*
**ISC 05 05:00:25.6±2.2, 30°.64S±0°.04×72°.04W±0°.10, h0$^{km}$±16$^{km}$, n21, σ2s.21/26, 1D, Off coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LSCH | La Serena | 1.00 | 44 | iP | Pg | 05 00 46.7 | +1.8 |
| LSCH | | | | iS | Sb | 05 00 58.7 | -0.9 |
| TLL | Tololo Astrono | 1.17 | 66 | iP | Pn | 05 00 47.8 | -1.6 |
| TLL | | | | iS | Sb | 05 01 00.6 | -4.0 |
| TLL | | | | IAML | | 05 01 02.8 | |
| | comp=N,4µm,0.8s | | | | | | |
| LCO | Las Campanas | 2.00 | 36 | eP | Pb | 05 01 01.7 | -1.3 |
| LCO | Las Campanas | 2.00 | 36 | eP | Pb | 05 01 01.7 | -1.3 |
| LCO | | | | iS | Sb | 05 01 26.7 | -1.9 |
| LCO | | | | IAML | | 05 01 31.3 | |
| | comp=N,278nm,0.3s | | | | | | |
| VACH | Vallenar | 2.34 | 29 | eP | Pb | 05 01 07.2 | -1.6 |
| VACH | | | | iS | Sn | 05 01 34.5 | -0.4 |
| ROCH | El Roble | 2.48 | 160 | IAML | | 05 01 45.2 | |
| | comp=N,306nm,0.4s | | | | | | |
| ROC1 | El Roble | 2.49 | 160 | eP | Pn | 05 01 07.6 | 0.0 |
| ROC1 | | | | eS | Sb | 05 01 40.4 | -2.2 |
| RTLS | Leoncito | 2.62 | 117 | eP | Pn | 05 01 10.5 | +1.1 |
| PEL | Peldehue | 2.75 | 156 | eP | Pn | 05 01 11.1 | +0.1 |
| PEL | | | | IAML | | 05 01 51.9 | |
| | comp=E,238nm,0.3s | | | | | | |
| PEL | | | | IAML | | 05 01 52.2 | |
| | comp=N,196nm,0.3s | | | | | | |
| AUSP | Uspallata | 2.76 | 125 | eP | Pn | 05 01 12.9 | +1.5 |
| CLCH | Cerro Calan | 3.03 | 155 | IAML | | 05 02 00.1 | |
| | comp=E,292nm,0.5s | | | | | | |
| AMOG | MOGNA | 3.07 | 96 | eP | Pn | 05 01 16.5 | +1.0 |
| AMOG | | | | eS | Sn | 05 01 55.8 | +2.9 |
| RTCV | Cerro Valdivia | 3.24 | 113 | eP | Pn | 05 01 19.3 | +1.5 |
| AGUA | GUANDACOL | 3.29 | 70 | eP | Pb | 05 01 21.7 | -3.1 |
| AGUA | | | | eS | Sn | 05 02 01.4 | +3.1 |
| GO03 | Copiap | 3.42 | 28 | ⇓iP | Pn | 05 01 21.7 | +1.4 |
| GO03 | | | | IAML | | 05 02 19.0 | |
| | comp=N,118nm,0.2s | | | | | | |
| ARCO | CERRO ARCO | 3.44 | 130 | eP | Pn | 05 01 23.0 | +2.4 |
| ARCO | | | | eS | Sb | 05 02 07.8 | -2.2 |
| ARCO | | | | IAML | | 05 02 15.7 | |
| | comp=Z,78nm,0.5s | | | | | | |
| LMEL | Las Melosas | 3.56 | 154 | IAML | | 05 02 20.3 | |
| | comp=N,94nm,0.2s | | | | | | |
| VCA | Vinchina | 3.84 | 61 | eP | Pn | 05 01 29.5 | +3.3 |
| VCA | | | | IAML | | 05 01 35.0 | |
| | comp=Z,94nm,0.2s | | | | | | |
| ACAN | Cantantal | 4.46 | 113 | eP | Pn | 05 01 37.8 | +3.3 |
| ACLC | CERRO LA CRUZ | 4.58 | 76 | eP | Pn | 05 01 37.1 | +0.8 |
| APLL | PUNTA DE LOS L | 4.76 | 88 | eP | Pn | 05 01 38.4 | -0.4 |

*IDC 05 05:19:20.6±0.9, 23°.35S×68°.36W, h24$^{km}$±5$^{km}$, mb4.0/2, mb1 4.0/4, mb1mx3.6/25, mbtmp4.0/4, ML3.8/2, MS2.8/6, Ms1 2.8/6, ms1mx2.7/24, Error ellipse: s-maj=46.6km s-min=32.0km az=118.0*
*GUC 05 05:19:21.3±0.6, 23°.13S×68°.50W, h19$^{km}$±5$^{km}$, ML4.3*
*NEIC 05 05:19:21.0±0.0, 23°.13S×68°.50W, h19$^{km}$, ML4.3(GUC), After GUC.*
**ISC 05 05:19:20.1±0.9, 23°.17S±0°.04×68°.49W±0°.06, h24$^{km}$±6$^{km}$, h24$^{km}$:pP-P, n37, σ1s.21/41, MS3.0/3, 1C-8D, Northern Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PB06 | IPOC Station P | 1.10 | 295 | ⇓iP | Pn | 05 19 39.4 | -0.8 |
| PB09 | IPOC Station P | 1.54 | 333 | ⇓iP | Pb | 05 19 47.4 | -0.7 |
| PB09 | | | | iS | Sb | 05 20 06.8 | -0.3 |
| PB09 | | | | IAML | | 05 20 13.3 | |
| | comp=E,5µm,0.6s | | | | | | |
| PB04 | IPOC Station P | 1.75 | 298 | ⇓iP | Pb | 05 19 50.4 | -1.2 |
| PB04 | | | | iS | Sb | 05 20 12.7 | -0.5 |
| PB04 | | | | IAML | | 05 20 15.9 | |
| | comp=N,5µm,0.3s | | | | | | |
| ANCH | Antofagasta | 1.84 | 254 | ⇓iP | Pb | 05 19 52.7 | -0.3 |
| ANCH | | | | eS | Sb | 05 20 16.5 | +0.8 |
| PB10 | IPOC Station P | 1.93 | 259 | ePn | Pb | 05 19 53.7 | -0.9 |
| PB10 | | | | eSn | Sb | 05 20 19.1 | +0.7 |
| PB10 | IPOC Station P | 1.93 | 259 | ⇓iP | Pb | 05 19 53.8 | -0.9 |
| PB10 | | | | iS | Sb | 05 20 19.0 | +0.7 |
| PB10 | | | | IAML | | 05 20 22.0 | |
| | comp=N,6µm,0.5s | | | | | | |
| PB07 | IPOC Station P | 1.94 | 318 | ⇓iP | Pb | 05 19 53.7 | -1.1 |
| PB07 | | | | iS | Sb | 05 20 18.2 | -0.4 |
| PB07 | | | | IAML | | 05 20 20.3 | |
| | comp=E,3µm,0.3s | | | | | | |
| PB02 | IPOC Station P | 2.26 | 324 | ⇓iP | Pb | 05 19 59.0 | -1.3 |
| PB02 | | | | iS | Sb | 05 20 27.9 | 0.0 |
| PB02 | | | | IAML | | 05 20 28.7 | |
| | comp=E,4µm,0.3s | | | | | | |
| PB14 | IPOC Station P | 2.27 | 230 | eP | Pb | 05 19 59.4 | -1.3 |
| PB01 | IPOC Station P | 2.31 | 336 | ePn | Pb | 05 19 59.8 | -1.4 |
| PB01 | IPOC Station P | 2.31 | 336 | ⇑iP | Pb | 05 19 59.8 | -1.4 |
| PB01 | | | | eS | Sb | 05 20 29.3 | -0.1 |
| PB01 | | | | IAML | | 05 20 31.4 | |
| | comp=N,2µm,0.3s | | | | | | |
| PB11 | IPOC Station P | 3.57 | 342 | ePn | Pn | 05 20 16.6 | +2.5 |
| MNMC | Minye Minye | 4.15 | 345 | ePn | Pn | 05 20 24.8 | +2.5 |
| MNMC | Minye Minye | 4.15 | 345 | ⇓iP | Pn | 05 20 25.0 | +2.7 |
| LCO | Las Campanas | 6.14 | 198 | ePn | Pn | 05 20 56.1 | +6.5 |
| LPAZ | La Paz | 6.86 | 3 | Pn | Pn | 05 21 04.7 | +5.0 |
| | comp=N,0.5nm,0.3s,baz=140,slow=3.1,SNR=17 | | | | | | |
| LPAZ | | | | LR | LR | 05 24 49.6 | |
| | comp=N,15nm,19.6s,baz=225,slow=47 | | | | | | |
| SIV | San Ignacio | 9.99 | 46 | Pn | Pn | 05 21 44.1 | +1.9 |
| | comp=N,1.6nm,0.3s,baz=252,slow=13,SNR=20 | | | | | | |
| CPUP | Villa Florida | 10.61 | 109 | LR | LR | 05 26 34.3 | |
| | comp=N,37nm,19.6s,baz=342,slow=42 | | | | | | |
| NNA | Nana | 13.68 | 323 | LR | LR | 05 26 49.4 | |
| | comp=N,30nm,19.3s,baz=166,slow=32 | | | | | | |
| PTGA | Pitinga | 23.79 | 22 | LR | LR | 05 34 34.7 | |
| | comp=N,31nm,18.6s,baz=242,slow=38 | | | | | | |
| SDV | Santo Domingo | 31.93 | 356 | LR | LR | 05 39 17.5 | |
| | comp=N,28nm,19.3s,baz=336,slow=37 | | | | | | |
| RVR | Riverside | 73.44 | 319 | eP | P | 05 30 56.5 | +6.0 |
| PASC | Pasadena Art C | 74.05 | 319 | eP | P | 05 30 53.0 | -1.1 |
| SBI | Santa Barbara | 74.10 | 318 | eP | P | 05 30 57.1 | +2.7 |
| TOA0 | Torodi Ar. Sit | 77.55 | 70 | eP | P | 05 31 13.9 | -0.6 |
| TOA1 | Torodi Ar. Sit | 77.55 | 70 | eP | P | 05 31 14.1 | -0.4 |
| TORD | Torodi Ar. Bea | 77.55 | 70 | P | P | 05 31 14.1 | -0.4 |
| | comp=N,1.3nm,0.6s,baz=255,slow=5.5,SNR=19 | | | | | | |
| SCHQ | Schefferville | 77.70 | 1 | LR | LR | 06 06 58.0 | |
| | comp=N,20nm,20.8s,baz=300,slow=37 | | | | | | |
| YKA | Yellowknife Ar | 92.89 | 340 | P | P | 05 32 30.6 | +0.2 |
| | comp=N,0.4nm,0.7s,baz=135,slow=4.2,SNR=4.5 | | | | | | |
| YKA | | | | pP | pP | 05 32 38.3 | 0.0 |
| | comp=N,0.4nm,0.7s,baz=134,slow=4.8,SNR=3.3 | | | | | | |
| YKB5 | Yellowknife Ar | 92.89 | 340 | eP | P | 05 32 30.6 | +0.2 |
| YKB5 | | | | epP | pP | 05 32 38.3 | 0.0 |
| ASAR | Alice Springs | 128.61 | 207 | PKP | PKPdf | 05 38 26.4 | +0.5 |
| | comp=N,0.5nm,0.7s,baz=169,slow=1.9,SNR=5.9 | | | | | | |
| ASAR | | | | pPKP | pPKPdf | 05 38 34.1 | +0.2 |
| | comp=N,0.5nm,0.6s,baz=156,slow=2.3,SNR=3.0 | | | | | | |
| WR1 | Warramunga Arr | 131.71 | 209 | ePKPdf | PKPdf | 05 38 32.5 | +0.7 |
| WR1 | | | | epPKPdf | pPKPdf | 05 38 40.8 | +0.8 |
| WRA | Warramunga Arr | 131.71 | 209 | PKP | PKPdf | 05 38 32.5 | +0.6 |
| | comp=N,0.5nm,0.3s,baz=156,slow=1.6,SNR=8.6 | | | | | | |
| WRA | | | | pPKP | pPKPdf | 05 38 40.7 | +0.8 |
| | comp=N,0.7nm,0.3s,baz=158,slow=1.5,SNR=5.7 | | | | | | |
| ZAA1 | Zalesovo Array | 143.28 | 26 | ePKPpre | PKPpre | 05 38 50.3 | |
| ZALV | Zalesovo Beam | 143.28 | 26 | PKP | PKPdf | 05 38 50.3 | -1.7 |
| | comp=N,0.7nm,0.6s,baz=294,slow=4.6,SNR=3.7 | | | | | | |
| MK32 | Makanchi Array | 146.73 | 38 | ePKPdf | PKPab | 05 39 00.5 | -0.7 |
| MKAR | Makanchi Array | 146.73 | 38 | PKPbc | PKPab | 05 39 00.5 | -0.7 |
| | comp=N,1.4nm,0.7s,baz=311,slow=2.9,SNR=14 | | | | | | |
| MKAR | | | | pPKPbc | pPKPab | 05 39 08.4 | -0.7 |
| | comp=N,1.1nm,0.7s,baz=304,slow=2.3,SNR=6.7 | | | | | | |

**DJA 05 05:36:50.4±0.6, 7°S±3°×11°5E±°, h14$^{km}$±5$^{km}$, M3.6/7, MLv3.6/7, Bali Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KMMI | Kalianget | 0.69 | 283 | P | Pb | 05 37 04.9 | +0.7 |
| KMMI | | | | Pg | Pb | 05 37 04.9 | +0.7 |
| SRBI | Singaraja | 1.04 | 147 | P | Pb | 05 37 09.5 | -0.7 |
| SRBI | | | | S | Sg | 05 37 24.1 | 0.0 |
| BLJI | Banyuglugur | 1.17 | 243 | P | Pn | 05 37 11.8 | -0.5 |
| BLJI | | | | S | Sn | 05 37 27.9 | -0.1 |
| JAGI | Jajag, Banyuwa | 1.34 | 201 | P | Pn | 05 37 14.0 | -0.8 |
| JAGI | | | | S | Sn | 05 37 31.9 | -0.5 |
| GMJI | Gumukmas | 1.59 | 228 | P | Pn | 05 37 17.9 | -0.2 |
| GMJI | | | | S | Sb | 05 37 39.0 | -0.5 |
| GRJI | Gresik | 2.17 | 278 | P | Pn | 05 37 26.2 | +0.1 |
| GRJI | | | | S | Sn | 05 37 53.0 | +0.3 |
| PLAI | Plampang | 3.50 | 118 | P | Pn | 05 37 44.5 | +0.1 |

*ISCJB 05 05:47:54.1±1.5, 24°.7S±0°.2×179°.9W±0°.2, h500$^{km}$, mb4.0/6, Error ellipse: s-maj=30.7km s-min=17.2km az=152.8*
*IDC 05 05:47:57.1±5.1, 24°.60S×179°.91E, h516$^{km}$±51$^{km}$, mb3.5/7, mb1 3.7/8, mb1mx3.4/31, mbtmp4.5/8, Error ellipse: s-maj=37.2km s-min=18.2km az=62.0*
**ISC 05 05:47:55.4±1.1, 24°.7S±0°.1×179°.9W±0°.2, h500$^{km}$, n13, σ1s.30/14, mb4.1/6, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DZM | Mont Dzumac | 12.78 | 279 | P | P | 05 50 43.4 | +1.0 |
| | 1.1nm,0.3s,baz=89,slow=16,SNR=20 | | | | | | |
| URZ | Urewera | 13.77 | 190 | P | P | 05 50 51.0 | -1.5 |
| | 2.7nm,0.3s,baz=7.1,slow=0.4,SNR=12 | | | | | | |
| RPZ | Rata Peaks | 20.37 | 199 | P | P | 05 51 57.0 | -0.3 |
| | 9.0nm,0.5s,baz=38,slow=2.0,SNR=8.5 | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| CTA | Charters Tower | 31.55 | 271 | P | P | 05 53 36.3 | 0.0 |
| | 8.6nm,0.4s,baz=90,slow=10,SNR=12 | | | | | | |
| STKA | Stephens Creek | 34.50 | 249 | P | P | 05 54 01.2 | +0.1 |
| | 3.3nm,0.4s,baz=100,slow=11,SNR=14 | | | | | | |
| ASAR | Alice Springs | 41.98 | 261 | P | P | 05 55 01.6 | -0.7 |
| | 2.4nm,0.5s,baz=89,slow=6.7,SNR=34 | | | | | | |
| WRA | Warramunga Arr | 42.42 | 267 | P | P | 05 55 04.5 | -1.3 |
| | 6.0nm,0.5s,baz=104,slow=8.0,SNR=46 | | | | | | |
| VNDA | Vanda | 53.61 | 185 | P | P | 05 56 30.7 | +2.1 |
| | 0.6nm,0.5s,baz=31,slow=6.6,SNR=3.9 | | | | | | |
| PETK | Petropavlovsk- | 79.87 | 347 | P | P | 05 59 10.7 | -0.6 |
| | 3.8nm,0.8s,baz=148,slow=8.5,SNR=2.6 | | | | | | |
| BVAR | Borovoye Array | 121.06 | 318 | PKP | PKPdf | 06 05 49.8 | -0.8 |
| | 0.5nm,0.3s,baz=103,slow=3.2,SNR=4.1 | | | | | | |
| ARCES | ARCESS Array B | 132.66 | 348 | PKP | PKPdf | 06 06 11.6 | -0.5 |
| | 2.2nm,0.8s,baz=46,slow=3.9,SNR=3.6 | | | | | | |
| BRTR | Keskin Array B | 148.09 | 306 | PKPbc | PKPbc | 06 06 44.0 | -0.7 |
| | 0.8nm,0.6s,baz=125,slow=3.5,SNR=5.8 | | | | | | |
| BRTR | | | | PKPab | PKiKP | 06 06 48.7 | +2.6 |
| | 1.1nm,0.5s,baz=127,slow=3.1,SNR=6.2 | | | | | | |
| TORD | Torodi Ar. Bea | 168.42 | 188 | PKPab | PKPab | 06 08 17.0 | -0.5 |
| | 0.4nm,0.6s,baz=180,slow=3.9,SNR=3.9 | | | | | | |

---

*ISCJB **05** 05:59:08.5±0.4, 12°.57N±0°.03×93°.33E±0°.03, h84km±4km, mb4.4/28, Error ellipse: s-maj=5.3km s-min=4.2km az=43.2*
*BKK **05** 05:59:08.9±1.3, 13°N±3°×9°3E±1°3, h10km, M4.5/26, mB4.9/10, mb4.8/26, MLv4.8/15, Mw(mB)4.2/10*
*IDC **05** 05:59:08.8±0.7, 12°.47N×93°.37E, h73km±4km, mb3.9/16, mb1 4.1/17, mb1mx3.8/48, mbtmp4.2/17, MS3.1/12, Ms1 3.1/12, ms1mx3.0/41, Error ellipse: s-maj=24.4km s-min=11.4km az=55.0*
*NEIC **05** 05:59:09.3±0.8, 12°.48N×93°.26E, h81km±7km, mb4.6/5, Error ellipse: s-maj=9.4km s-min=5.5km az=71.0*
*DJA **05** 05:59:10.5±0.5, 13°N±4°×9°3E±°, h57km±29km, M4.7/12, mB4.8/2, mb4.8/12, MLv4.7/1, Mw(mB)4.0/2*
**ISC 05 05:59:09.3**±0.6**, 12°.53N**±0°.06×**93°.25E**±0°.05**, h75**km±4km**, h75**km**:pP-P, n103, σ1§37**/110**, mb4.4**/29**, Andaman Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DGPR | DIGLIPUR | 0.71 | 334 | eP | Pn | 05 59 23.5 | -1.3 |
| DGPR | | | | eS | Sn | 05 59 35.7 | -0.4 |
| DGPR | | | | AML | AML | 05 59 38.6 | |
| | comp=N,15μm,0.5s | | | | | | |
| DGPR | | | | AML | AML | 05 59 38.6 | |
| | comp=E,16μm,0.3s | | | | | | |
| PBA | Port Blair | 1.00 | 210 | eP | Pn | 05 59 29.1 | +0.9 |
| PBA | | | | eS | Sn | 05 59 44.0 | +1.9 |
| PBA | | | | AML | AML | 05 59 50.1 | |
| | comp=E,7μm,0.1s | | | | | | |
| PBA | | | | AML | AML | 05 59 50.1 | |
| | comp=N,11μm,1.2s | | | | | | |
| SRDT | SRDT | 5.99 | 72 | P | Pn | 06 00 34.9 | -0.5 |
| | comp=N,324nm,0.8s,comp=N,4μmcomp=N,1.3nm | | | | | | |
| PHET | Kaeng Krachan | 6.24 | 86 | P | Pn | 06 00 39.0 | +0.2 |
| | comp=N,33nm,0.6s,comp=N,686nmcomp=N,0.3nm | | | | | | |
| SURT | Suratani | 6.50 | 123 | P | Pn | 06 00 43.1 | +0.6 |
| | comp=N,98nm,0.5s,comp=N,1μmcomp=N,0.4nm | | | | | | |
| UTHA | Uthaitani | 6.72 | 63 | P | Pn | 06 00 45.0 | -0.4 |
| | comp=N,81nm,0.7s,comp=N,900nmcomp=N,0.3nm | | | | | | |
| PKDT | Phuket | 6.80 | 132 | P | Pn | 06 00 47.9 | +1.3 |
| | comp=N,190nm,0.9s,comp=N,0.8nm | | | | | | |
| KRAB | Krabi | 7.25 | 126 | P | Pn | 06 01 03.5 | +11 |
| TRTT | Trang | 7.87 | 126 | P | Pn | 06 01 03.1 | +1.9 |
| | comp=N,30nm,0.8s,comp=N,0.1nm | | | | | | |
| SUKH | Sukhothai | 7.89 | 51 | P | Pn | 06 01 00.8 | -0.5 |
| | comp=N,28nm,0.6s,comp=N,365nmcomp=N,0.1nm | | | | | | |
| CM01 | Chiang Mai Arr | 8.03 | 43 | ePn | Pn | 06 01 02.9 | -0.5 |
| CM01 | | | | eSn | Sn | 06 02 31.8 | -0.9 |
| CM31 | Chiang Mai Arr | 8.05 | 42 | ePn | Pn | 06 01 04.2 | +0.6 |
| CMAR | Chiang Mai Arr | 8.05 | 42 | P | Pn | 06 01 03.6 | 0.0 |
| | comp=N,4.1nm,0.3s,baz=232,slow=15,SNR=79 | | | | | | |
| CMAR | | | | LR | LR | 06 04 02.7 | |
| | comp=N,112nm,20.8s,baz=238,slow=37 | | | | | | |
| NAYO | Nakonayok | 8.05 | 76 | P | Pn | 06 01 03.7 | +0.1 |
| | comp=N,30nm,0.7s,comp=N,1μmcomp=N,0.4nm | | | | | | |
| CHTO | Chiang Mai | 8.31 | 41 | P | Pn | 06 01 06.9 | -0.2 |
| | comp=N,151nm,0.6s,comp=N,0.6nm | | | | | | |
| CHTO | Chiang Mai | 8.31 | 41 | ePn | Pn | 06 01 07.0 | -0.1 |
| CHTO | | | | eSn | Sn | 06 02 37.9 | -1.5 |
| CMMT | Chiang Mai | 8.31 | 41 | P | Pn | 06 01 06.8 | -0.4 |
| | comp=N,36nm,0.5s,comp=N,612nmcomp=N,0.2nm | | | | | | |
| PBKT | Sadao Pong | 8.48 | 61 | P | Pn | 06 01 09.5 | 0.0 |
| | comp=N,87nm,1.0s,comp=N,0.3nm | | | | | | |
| UTTA | Uttaradit | 8.75 | 53 | P | Pn | 06 01 12.9 | -0.2 |
| | comp=N,9.4nm,0.5s,comp=N,142nmcomp=N,0.0nm | | | | | | |
| MLSI | Meulaboh, Aceh | 8.79 | 159 | P | Pn | 06 01 18.3 | +4.6 |
| CHBT | CHBT | 8.86 | 88 | P | Pn | 06 01 26.3 | +12 |
| CHAI | Chaiyaphum | 9.11 | 67 | P | Pn | 06 01 19.5 | +1.4 |
| | comp=N,22nm,0.8s,comp=N,213nmcomp=N,0.1nm | | | | | | |
| KCSI | Kotacane, Aceh | 10.01 | 153 | P | Pn | 06 01 31.8 | +1.4 |
| KHON | Khomkaen | 10.01 | 67 | P | Pn | 06 01 32.5 | +2.1 |
| | comp=N,18nm,0.8s | | | | | | |
| KULM | Kulim | 10.26 | 134 | ePn | Pn | 06 01 34.9 | +1.2 |
| BWNR | Bhubaneshwar | 10.51 | 318 | eP | Pn | 06 01 27.9 | -9.3 |
| BWNR | | | | eS | Sn | 06 03 14.5 | -19 |
| VIS | Vishakhapatnam | 10.88 | 300 | i P | Pn | 06 01 40.7 | -1.5 |
| VIS | | | | AMB | AMB | 06 01 42.0 | |
| | comp=Z,12nm,0.6s | | | | | | |
| VIS | | | | i S | Sn | 06 03 29.9 | -12 |
| IPM | Ipoh | 11.09 | 135 | ePn | Pn | 06 01 45.3 | +0.1 |
| PSI | Prapat | 11.18 | 149 | ePn | Pn | 06 01 48.9 | +2.4 |
| SHL | Shillong | 13.03 | 355 | eP | Pn | 06 02 09.6 | -2.0 |
| SHL | | | | AMB | AMB | 06 02 13.7 | |
| | comp=Z,11nm,0.9s | | | | | | |
| SHL | | | | eS | Sn | 06 04 22.5 | -12 |
| BOK | Bokaro | 13.20 | 329 | eP | Pn | 06 02 12.3 | -1.5 |
| BOK | | | | AMB | AMB | 06 02 13.3 | |
| | comp=Z,14nm,1.5s | | | | | | |
| PALK | Pallekele | 13.42 | 248 | LR | LR | 06 07 15.0 | |
| | comp=Z,86nm,20.5s,baz=116,slow=36 | | | | | | |
| PALK | Pallekele | 13.42 | 248 | ePn | Pn | 06 02 13.8 | -2.9 |
| MYKOM | Kota Tinggi | 14.97 | 135 | ePn | Pn | 06 02 35.4 | -1.5 |
| MYKOM | | | | eSn | Sn | 06 05 09.2 | -13 |
| HYB | Hyderabad | 15.00 | 291 | i P | P | 06 02 44.0 | +2.9 |
| HYB | | | | eS | Sn | 06 05 22.0 | -0.7 |
| HYB | Hyderabad | 15.00 | 291 | eP | Pn | 06 02 38.7 | +1.3 |
| ODAN | Odare | 15.28 | 340 | eP | Pn | 06 02 40.2 | -0.8 |
| | comp=Z,73nm,0.4s | | | | | | |
| KMI | Kunming | 15.40 | 34 | P | P | 06 02 49.4 | +3.8 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.5s | | | | | | |
| TAPN | Taplejung | 15.63 | 341 | eP | Pn | 06 02 44.7 | -0.8 |
| | comp=Z,63nm,0.4s | | | | | | |
| RAMN | Ramite | 15.64 | 337 | eP | Pn | 06 02 45.4 | -0.2 |
| | comp=Z,68nm,0.5s | | | | | | |
| JIRN | Jiri | 16.44 | 337 | eP | Pn | 06 02 55.4 | -0.3 |
| | comp=Z,39nm,0.3s | | | | | | |
| JBP | Jabalpur | 16.46 | 312 | eP | Pn | 06 02 55.9 | +0.2 |
| JBP | | | | ex | x | 06 05 49.6 | |
| PKI | Pulchoki | 16.67 | 335 | eP | Pn | 06 02 58.5 | 0.0 |
| | comp=Z,25nm,0.3s | | | | | | |
| PKIN | Phulchoki | 16.68 | 335 | eP | Pn | 06 02 58.7 | +0.1 |
| | comp=Z,39nm,0.3s | | | | | | |
| GUN | Gumba | 16.78 | 337 | eP | Pn | 06 03 00.6 | +0.6 |
| | comp=Z,31nm,0.5s | | | | | | |
| DMN | Daman | 16.83 | 334 | eP | Pn | 06 03 00.6 | +0.1 |
| | comp=Z,45nm,0.4s | | | | | | |
| KKN | Kakani | 16.91 | 335 | eP | P | 06 03 02.1 | -0.3 |
| GKN | Gorkha | 17.37 | 334 | eP | P | 06 03 08.5 | +1.1 |
| KOLN | Koldanda | 17.64 | 331 | eP | Pn | 06 03 11.9 | +1.4 |
| | comp=Z,34nm,0.4s | | | | | | |
| PYUN | Piuthan | 18.21 | 330 | eP | Pn | 06 03 19.9 | +2.5 |
| | comp=Z,14nm,0.2s | | | | | | |
| BHPL | Bhopal | 18.43 | 307 | eP | Pn | 06 03 22.8 | +3.0 |
| BHPL | | | | AMB | AMB | 06 03 35.5 | |
| | comp=Z,19nm,0.7s | | | | | | |
| BOM | Bombay | 20.66 | 290 | ex | S | 06 07 29.4 | -0.5 |
| DDI | Dehra Dun | 22.61 | 324 | eP | P | 06 04 05.6 | +1.5 |
| DDI | | | | AMB | AMB | 06 04 22.4 | |
| | comp=Z,29nm,0.2s | | | | | | |
| SMLA | Simla | 23.72 | 324 | eP | P | 06 04 17.2 | +2.5 |
| SMLA | | | | AMB | AMB | 06 04 35.1 | |
| | comp=Z,15nm,0.8s | | | | | | |
| DHRM | DHARAMSHALA | 25.05 | 324 | eP | P | 06 04 30.5 | +3.5 |
| DHRM | | | | AMB | AMB | 06 04 45.8 | |
| | comp=Z,14nm,1.1s | | | | | | |
| LZH | Lanzhou | 25.32 | 20 | eP | P | 06 04 33.6 | +4.3 |
| LZH | | | | pP | pP | 06 04 40.3 | -6.4 |
| LZH | | | | sP | sP | 06 04 44.5 | -11 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,27nm,1.0s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,89nm,4.5s | | | | | | |
| XAN | Xi'an | 25.73 | 31 | P | P | 06 04 30.8 | -2.1 |
| XAN | | | | pP | pP | 06 04 41.0 | -9.3 |
| XAN | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.6s | | | | | | |
| MYLDM | Lahad Datu | 25.98 | 104 | eP | P | 06 04 38.8 | +3.5 |
| | comp=Z,22nm,0.8s | | | | | | |
| GTA | Gaotai | 27.39 | 11 | eP | P | 06 04 45.2 | -2.7 |
| GTA | | | | pP | pP | 06 04 49.6 | -16 |
| GTA | | | | sP | sP | 06 04 53.0 | -21 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.9s | | | | | | |
| H08S3 | Diego Garcia H | 28.76 | 227 | T | T | 06 33 58.2 | |
| | baz=46 | | | | | | |
| H08S2 | Diego Garcia H | 28.77 | 227 | T | T | 06 33 58.5 | |
| | baz=46 | | | | | | |
| H08S1 | Diego Carcia H | 28.78 | 227 | T | T | 06 34 18.3 | |
| | baz=46 | | | | | | |
| KAPI | Kappang | 31.59 | 122 | eP | P | 06 05 31.9 | +6.7 |
| | comp=Z,598nm,0.6s | | | | | | |
| KAPI | | | | eS | S | 06 10 27.8 | -1.1 |
| AAK | Ala-Archa | 34.12 | 335 | LR | LR | 06 21 53.1 | |
| | comp=Z,21nm,18.4s,baz=138,slow=40 | | | | | | |
| WSAR | Wadi Sarin | 34.54 | 293 | LR | LR | 06 20 13.6 | |
| | comp=Z,33nm,18.8s,baz=127,slow=36 | | | | | | |
| MK01 | Makanchi Array | 35.35 | 347 | eP | P | 06 05 57.4 | -0.2 |
| MK32 | Makanchi Array | 35.38 | 347 | eP | P | 06 05 57.7 | -0.1 |
| MK32 | | | | epP | pP | 06 06 16.8 | +1.1 |
| MKAR | Makanchi Array | 35.38 | 347 | P | P | 06 05 57.7 | -0.1 |
| | comp=Z,1.2nm,0.7s,baz=165,slow=7.6,SNR=11 | | | | | | |
| MKAR | | | | pP | pP | 06 06 16.8 | +1.1 |
| | comp=Z,3.5nm,0.8s,baz=163,slow=8.5,SNR=15 | | | | | | |
| MKAR | | | | ScP | ScP | 06 12 06.0 | +0.3 |
| | comp=Z,0.7nm,0.9s,baz=166,slow=6.7,SNR=3.9 | | | | | | |
| SONA0 | Songino Array | 36.87 | 15 | eP | P | 06 06 10.4 | -0.3 |
| SONM | Songino Array | 36.87 | 15 | P | P | 06 06 10.4 | -0.3 |
| | comp=Z,0.8nm,0.4s,baz=203,slow=7.8,SNR=5.8 | | | | | | |
| SONM | | | | ScP | ScP | 06 12 10.9 | -0.4 |
| | comp=Z,0.4nm,0.6s,baz=204,slow=4.9,SNR=3.7 | | | | | | |
| KSRS | Korea Array | 39.68 | 45 | LR | LR | 06 24 58.2 | |
| | comp=Z,20nm,21.2s,baz=245,slow=39 | | | | | | |
| KURBB | Kurchatov Arra | 39.84 | 345 | P | P | 06 06 35.2 | -0.2 |
| | comp=Z,2.7nm,0.2s,baz=168,slow=7.6,SNR=5.6 | | | | | | |
| KURBB | | | | pP | pP | 06 06 53.8 | +0.3 |
| | comp=Z,1.1nm,0.3s,baz=159,slow=7.8,SNR=3.9 | | | | | | |
| KURK | Kurchatov | 39.91 | 346 | P | P | 06 06 35.2 | -0.7 |
| KURK | | | | pP | pP | 06 06 53.8 | -0.3 |
| GEYT | Alibeck | 40.23 | 315 | P | P | 06 06 39.9 | +1.0 |
| | comp=Z,1.9nm,0.5s,baz=120,slow=10,SNR=3.9 | | | | | | |
| GEYT | | | | pP | pP | 06 06 58.0 | +1.0 |
| | comp=Z,6.2nm,0.8s,baz=141,slow=9.6,SNR=3.2 | | | | | | |
| GEYT | | | | LR | LR | 06 23 44.8 | |
| | comp=Z,47nm,21.6s,baz=315,slow=37 | | | | | | |
| ZAA0 | Zalesovo Array | 41.85 | 353 | eP | P | 06 06 52.0 | +0.2 |
| | comp=Z,3.3nm,0.7s | | | | | | |
| ZALV | Zalesovo Beam | 41.85 | 353 | P | P | 06 06 51.8 | 0.0 |
| | comp=Z,3.8nm,0.6s,baz=177,slow=8.7,SNR=14 | | | | | | |
| ZALV | | | | pP | pP | 06 07 09.9 | -0.2 |
| | comp=Z,2.9nm,0.6s,baz=175,slow=8.2,SNR=5.3 | | | | | | |
| ZAA1 | Zalesovo Array | 41.86 | 353 | eP | P | 06 06 51.8 | -0.1 |
| ZAA1 | | | | epP | pP | 06 07 09.9 | -0.2 |
| FITZ | Fitzroy Crossi | 44.14 | 133 | P | P | 06 07 09.0 | -1.8 |
| | comp=Z,10.0nm,0.5s,baz=329,slow=5.9,SNR=41 | | | | | | |
| BVAR | Borovoye Array | 44.33 | 340 | P | P | 06 07 11.7 | -0.2 |
| | comp=Z,0.4nm,0.4s,baz=153,slow=11,SNR=4.7 | | | | | | |
| BVAR | | | | pP | pP | 06 07 30.7 | +0.4 |
| | comp=Z,0.7nm,0.5s,baz=128,slow=9.6,SNR=3.3 | | | | | | |
| BVAR | | | | ScP | ScP | 06 12 40.9 | +0.6 |
| | comp=Z,0.4nm,0.7s,baz=165,slow=6.0,SNR=3.5 | | | | | | |
| MJAR | Matsushiro Arr | 46.82 | 51 | LR | LR | 06 27 38.4 | |
| | comp=Z,7.8nm,19.2s,baz=60,slow=36 | | | | | | |
| AKTO | Aktyubinsk | 47.48 | 330 | P | P | 06 07 37.0 | +0.3 |
| | comp=Z,1.2nm,0.5s,baz=93,slow=9.2,SNR=3.8 | | | | | | |
| AKTO | | | | LR | LR | 06 28 55.2 | |
| | comp=Z,17nm,21.5s,baz=113,slow=38 | | | | | | |
| WR1 | Warramunga Arr | 51.74 | 128 | eP | P | 06 08 07.4 | -2.1 |
| | comp=Z,5.1nm,0.6s | | | | | | |
| WR1 | | | | ePcP | PcP | 06 09 21.0 | -1.0 |
| WRA | Warramunga Arr | 51.74 | 128 | P | P | 06 08 07.4 | -2.1 |
| | comp=Z,1.8nm,0.4s,baz=316,slow=8.0,SNR=40 | | | | | | |
| WRA | | | | PcP | PcP | 06 09 21.0 | -1.0 |
| | comp=Z,1.7nm,0.5s,baz=315,slow=3.1,SNR=17 | | | | | | |
| WRAB | Tennant Creek | 51.74 | 128 | eP | P | 06 08 07.8 | -1.7 |
| | comp=Z,35nm,2.0s | | | | | | |
| AS31 | Alice Springs | 53.62 | 132 | eP | P | 06 08 21.8 | -1.5 |
| | comp=Z,1.8nm,0.5s | | | | | | |
| ASAR | Alice Springs | 53.62 | 132 | P | P | 06 08 21.5 | -1.8 |
| | comp=Z,4.4nm,0.4s,baz=309,slow=6.7,SNR=84 | | | | | | |
| ASAR | | | | PcP | PcP | 06 09 28.7 | -0.4 |
| | comp=Z,1.1nm,0.6s,baz=320,slow=3.7,SNR=4.9 | | | | | | |
| ASAR | | | | ScP | ScP | 06 13 18.7 | -1.7 |
| | comp=Z,0.6nm,0.7s,baz=318,slow=4.9,SNR=6.0 | | | | | | |
| AS01 | Alice Springs | 53.65 | 132 | eP | P | 06 08 21.4 | -2.2 |
| KMBO | Kilima Mbogo | 57.20 | 260 | LR | LR | 06 30 34.1 | |
| | comp=Z,15nm,21.6s,baz=81,slow=33 | | | | | | |
| BR101 | Keskin Array S | 58.79 | 309 | eP | P | 06 09 00.0 | -0.2 |
| BRTR | Keskin Array B | 58.79 | 309 | P | P | 06 09 00.0 | -0.2 |
| | comp=Z,0.7nm,0.5s,baz=115,slow=8.2,SNR=5.3 | | | | | | |
| BRTR | | | | pP | pP | 06 09 18.4 | -1.0 |
| | comp=Z,2.8nm,0.7s,baz=117,slow=7.8,SNR=11 | | | | | | |
| BRTR | | | | LR | LR | 06 35 21.7 | |
| | comp=Z,18nm,20.3s,baz=338,slow=37 | | | | | | |
| AKASG | Malin Array Be | 64.00 | 321 | pP | pP | 06 09 53.4 | -1.0 |
| | comp=Z,1.3nm,0.6s,baz=81,slow=6.1,SNR=4.8 | | | | | | |
| FIA0 | FINESS Array S | 68.22 | 332 | eP | P | 06 10 01.4 | -0.3 |
| FINES | FINESS Array B | 68.22 | 332 | P | P | 06 10 01.4 | -0.3 |
| | comp=Z,1.0nm,0.3s,baz=113,slow=7.3,SNR=5.3 | | | | | | |
| ARA0 | ARCESS Array S | 70.61 | 340 | eP | P | 06 10 16.5 | +0.1 |
| ARCES | ARCESS Array B | 70.61 | 340 | P | P | 06 10 16.5 | +0.1 |
| | comp=Z,2.7nm,0.8s,baz=107,slow=8.9,SNR=3.2 | | | | | | |
| ARCES | | | | LR | LR | 06 43 57.6 | |
| | comp=Z,33nm,18.8s,baz=194,slow=38 | | | | | | |
| GERES | GERESS Array B | 73.81 | 317 | P | P | 06 10 36.6 | +0.6 |
| | comp=Z,0.9nm,0.7s,baz=104,slow=7.2,SNR=1.6 | | | | | | |
| GERES | | | | pP | pP | 06 10 56.0 | +0.2 |
| | comp=Z,3.2nm,0.8s,baz=84,slow=5.5,SNR=5.2 | | | | | | |
| NOA | NORSAR Array B | 75.27 | 330 | LR | LR | 06 46 32.6 | |
| | comp=Z,19nm,18.8s,baz=280,slow=38 | | | | | | |
| ILAR | Eielson Array | 90.78 | 22 | P | P | 06 12 03.4 | -0.6 |
| | comp=Z,0.3nm,0.8s,baz=301,slow=5.2,SNR=3.5 | | | | | | |
| ILAR | | | | pP | pP | 06 12 24.0 | -0.5 |
| | comp=Z,0.5nm,0.7s,baz=300,slow=4.4,SNR=4.2 | | | | | | |
| INK | Inuvik | 92.78 | 16 | P | P | 06 12 12.8 | -0.3 |
| | comp=Z,0.5nm,0.3s,baz=326,slow=2.9,SNR=8.2 | | | | | | |
| PDAR | Pinedale Array | 121.13 | 19 | PKP | PKPdf | 06 17 53.2 | -1.0 |
| | comp=Z,0.2nm,0.4s,baz=53,slow=4.0,SNR=5.0 | | | | | | |
| LTX | Lajitas | 135.29 | 21 | ePKPdf | PKPdf | 06 18 21.7 | +0.4 |
| TXAR | Lajitas Array | 135.29 | 21 | PKP | PKPdf | 06 18 21.7 | +0.4 |
| | comp=Z,0.3nm,0.5s,baz=151,slow=0.8,SNR=8.2 | | | | | | |
| TXAR | | | | SKPbc | SKPbc | 06 21 45.6 | -0.2 |
| | comp=Z,0.5nm,0.6s,baz=329,slow=1.6,SNR=8.3 | | | | | | |
| PLCA | Paso Flores | 148.51 | 204 | PKPbc | PKPbc | 06 18 48.7 | +0.8 |
| | comp=Z,3.5nm,0.9s,baz=158,slow=3.4,SNR=7.0 | | | | | | |

---

*SJA **05** 06:06:24.6±1.2, 32°.16S×72°.10W, h16km±11km, ML4.6, MW4.3*
*GUC **05** 06:06:29.8±0.7, 32°.10S×71°.54W, h31km±9km, ML4.3*
*NEIC **05** 06:06:29.0±0.0, 32°.09S×71°.54W, h31km, mb4.6/11, ML4.3(GUC), After GUC.*
*NEIC Felt [III] at Los Vilos and [II] at Quillota, Quilpue, Rancagua, Valparaiso and Vina del Mar.*
*IDC **05** 06:06:31.5±3.1, 32°.13S×71°.55W, h43km±26km, mb4.2/7, mb1 4.2/11, mb1mx4.0/23, mbtmp4.3/11, ML4.4/4, MS3.2/4, Ms1 3.2/4, ms1mx3.0/20, Error ellipse: s-maj=27.6km s-min=21.7km az=90.0*
**ISC 05 06:06:27.8**±0.8**, 32°.10S**±0°.02×**71°.62W**±0°.04**, h15**km±5km**, n97, σ1§67**/111**, mb4.5**/15**, 1C-7D, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ROCH | El Roble | 1.01 | 150⇓ | iP | Pn | 06 06 48.1 | +0.5 |
| ROCH | | | | eS | Sn | 06 07 01.5 | -0.2 |
| ROCH | | | | IAML | | 06 07 06.4 | |
| | comp=N,10μm,0.3s | | | | | | |
| ROC1 | El Roble | 1.01 | 150 | ePn | Pn | 06 06 48.3 | +0.6 |
| ROC1 | | | | eSn | Sb | 06 06 57.0 | -3.5 |
| ROC1 | El Roble | 1.01 | 150 | eP | Pn | 06 06 48.2 | +0.6 |
| PEL | Peldehue | 1.31 | 143 | ePn | Pg | 06 06 52.6 | -0.3 |
| PEL | | | | eSn | Sb | 06 07 07.1 | -1.6 |
| PEL | Peldehue | 1.31 | 143⇓ | iP | Pb | 06 06 52.0 | -0.1 |
| PEL | | | | eS | Sg | 06 07 09.2 | -0.8 |
| PEL | | | | IAML | | 06 07 10.8 | |
| | comp=E,16μm,0.4s | | | | | | |
| CLCH | Cerro Calan | 1.58 | 145⇓ | iP | Pb | 06 06 56.9 | +0.1 |
| CLCH | | | | i S | Sb | 06 07 16.9 | +0.3 |
| CLCH | | | | IAML | | 06 07 18.7 | |
| | comp=E,18μm,0.7s | | | | | | |
| FCH | Farellones | 1.66 | 138⇓ | iP | Pb | 06 06 58.1 | -0.1 |
| FCH | | | | i S | Sb | 06 07 19.3 | +0.2 |
| FCH | | | | IAML | | 06 07 20.4 | |
| | comp=E,5μm,0.2s | | | | | | |
| ANTU | Antumapu | 1.69 | 151 | eP | Pb | 06 06 58.5 | 0.0 |
| ANTU | | | | IAML | | 06 07 29.2 | |
| | comp=E,5μm,0.3s | | | | | | |
| AUSP | Uspallata | 1.90 | 94 | eP | Pg | 06 07 03.9 | -0.3 |
| AUSP | | | | eS | Sg | 06 07 28.9 | 0.0 |
| RTLS | Leoncito | 2.00 | 82 | eP | Pg | 06 07 05.3 | -0.8 |
| RTLS | | | | IAML | | 06 07 16.8 | |
| | comp=Z,3μm,0.8s | | | | | | |
| TLL | Tololo Astrono | 2.05 | 20⇓ | iP | Pb | 06 07 04.2 | -0.6 |
| TLL | | | | eS | Sb | 06 07 30.9 | +0.7 |
| LMEL | Las Melosas | 2.11 | 146⇓ | iP | Pb | 06 07 04.7 | -1.1 |
| LSCH | La Serena | 2.21 | 9⇑ | iP | Pb | 06 07 06.3 | -1.0 |
| LSCH | | | | i S | Sb | 06 07 33.4 | -1.1 |
| ARCO | CERRO ARCO | 2.39 | 109 | eP | Pb | 06 07 11.6 | +1.0 |
| ARCO | | | | IAML | | 06 07 28.0 | |
| | comp=Z,2μm,0.4s | | | | | | |
| ASAL | Salagasta | 2.41 | 103 | eP | Pb | 06 07 12.0 | +1.1 |
| AAGR | Agrelo | 2.56 | 113 | eP | Pb | 06 07 13.7 | +0.4 |
| RTCV | Cerro Valdivia | 2.63 | 86 | eP | Pb | 06 07 14.2 | -0.4 |
| SJA | San Juan | 2.67 | 78 | eP | Pb | 06 07 15.1 | -0.2 |
| RTLL | Cerro Villicun | 2.79 | 75 | eP | Pb | 06 07 16.0 | -1.3 |
| AMOG | MOGNA | 2.91 | 67 | eP | Pb | 06 07 17.8 | -1.6 |
| AMOG | | | | eS | Sg | 06 07 58.8 | -2.6 |
| GO05 | HualaæØ | 2.92 | 185 | ePn | Pn | 06 07 13.9 | +0.3 |
| GO05 | HualaæØ | 2.92 | 185 | eP | Pn | 06 07 13.9 | +0.3 |
| GO05 | | | | eS | Sb | 06 07 57.3 | +2.4 |
| AVIZ | Vizcacheras | 2.95 | 118 | eP | Pb | 06 07 18.6 | -1.5 |
| LCO | Las Campanas | 3.18 | 15 | ePn | Pn | 06 07 18.6 | +1.2 |
| LCO | | | | eSn | Sb | 06 08 00.8 | -1.9 |
| LCO | Las Campanas | 3.18 | 15 | eP | Pn | 06 07 19.4 | +2.0 |
| LCO | | | | eS | Sb | 06 08 01.1 | -1.7 |
| LCO | Las Campanas | 3.18 | 15⇓ | iP | Pn | 06 07 19.6 | +2.2 |
| LCO | | | | eS | Sn | 06 07 58.6 | +3.4 |
| AGUA | GUANDACOL | 3.75 | 47 | eP | Pb | 06 07 30.5 | -3.1 |
| RFA | San Rafael | 3.75 | 136 | eP | Pn | 06 07 28.8 | +3.6 |
| RFA | | | | eS | Sg | 06 08 27.6 | -0.6 |
| ACAN | Cantantal | 3.76 | 94 | eP | Pn | 06 07 28.5 | +3.2 |
| COCH | Cobquecura | 4.14 | 193 | eP | Pn | 06 07 30.6 | +0.2 |
| COCH | | | | eS | Sn | 06 08 16.2 | -2.3 |
| VCA | Vinchina | 4.46 | 42 | eP | Pn | 06 07 39.8 | +4.8 |
| VCA | | | | eS | Sb | 06 08 42.1 | +2.5 |
| CCHI | Chillan | 4.51 | 185 | eP | Pn | 06 07 35.6 | +0.1 |
| APLL | PUNTA DE LOS L | 4.68 | 70 | eP | Pn | 06 07 40.9 | +3.0 |
| APLL | | | | eS | Sb | 06 08 40.6 | -5.2 |
| ACLC | CERRO LA CRUZ | 4.82 | 58 | eP | Pn | 06 07 43.2 | +3.3 |
| CANA | Caviahue | 5.79 | 176 | eP | Pn | 06 07 55.7 | +2.4 |
| TCA | Tanti | 6.03 | 85 | eP | Pn | 06 07 58.2 | +1.7 |
| TCA | | | | eS | Sn | 06 09 06.7 | +1.3 |
| CYA | Choya | 6.21 | 56 | i P | Pn | 06 08 00.2 | +1.3 |
| PB14 | IPOC Station P | 7.52 | 8 | eS | Sb | 06 10 03.3 | -4.4 |
| AHML | Horco Molle | 7.62 | 48 | eP | Pn | 06 08 18.0 | -0.3 |
| AHML | | | | eS | Sn | 06 09 50.0 | +5.5 |
| FSA | Cafayete | 7.74 | 41 | eP | Pn | 06 08 21.0 | +0.9 |
| PB10 | IPOC Station P | 8.60 | 7 | ePn | Pn | 06 08 31.5 | -0.3 |
| PLCA | Paso Flores | 8.66 | 175 | P | Pn | 06 08 34.0 | +1.5 |
| | comp=Z,1.8nm,0.3s,baz=358,slow=10,SNR=92 | | | | | | |
| PLCA | | | | LR | LR | 06 12 27.7 | |
| | comp=Z,70nm,19.8s,baz=356,slow=41 | | | | | | |
| AZAP | Zapla | 9.74 | 38 | eP | Pn | 06 08 53.5 | +5.9 |
| PB04 | IPOC Station P | 9.81 | 8 | ePn | Pn | 06 08 47.4 | -1.2 |
| TRQA | Tornquist | 9.88 | 130 | ePn | Pn | 06 08 50.9 | +1.6 |
| HJA | Humahuaca | 10.43 | 33 | eP | Pn | 06 09 02.1 | +5.0 |
| CPUP | Villa Florida | 13.74 | 69 | P | Pn | 06 09 44.1 | +2.1 |
| | comp=Z,0.6nm,0.3s,baz=246,slow=12,SNR=13 | | | | | | |
| CPUP | | | | LR | LR | 06 14 46.0 | |
| | comp=Z,76nm,20.5s,baz=254,slow=36 | | | | | | |
| CPUP | Villa Florida | 13.74 | 69 | ePn | Pn | 06 09 41.5 | -0.5 |
| LPAZ | La Paz | 16.06 | 12 | P | Pn | 06 10 15.0 | +1.4 |
| | comp=Z,0.4nm,0.3s,baz=186,slow=6.6,SNR=16 | | | | | | |
| LPAZ | La Paz | 16.06 | 12 | ePn | Pn | 06 10 14.8 | +1.2 |
| | comp=Z,7.3nm,0.8s | | | | | | |
| LPAZ | | | | eSn | Sn | 06 12 59.9 | -12 |
| SIV | San Ignacio | 18.68 | 33 | P | Pn | 06 10 45.8 | -0.1 |
| | comp=Z,0.5nm,0.3s,baz=221,slow=10,SNR=7.5 | | | | | | |
| SAML | Samuel | 24.33 | 21 | eP | P | 06 11 45.8 | +0.8 |
| | comp=Z,6.0nm,1.1s | | | | | | |
| BDFB | Brasilia | 27.01 | 58 | P | P | 06 12 08.7 | -0.7 |
| | comp=Z,18nm,1.2s,baz=19,slow=8.3,SNR=11 | | | | | | |
| BDFB | Brasilia | 27.01 | 58 | eP | P | 06 12 08.7 | -0.7 |
| | comp=Z,38nm,1.3s | | | | | | |
| PTGA | Pitinga | 33.08 | 22 | eP | P | 06 13 02.7 | -0.4 |
| | comp=Z,3.3nm,0.9s | | | | | | |
| POPC | Popayan, Colom | 34.78 | 351 | eP | P | 06 13 22.5 | +4.5 |
| CHIC | Chingaza | 36.58 | 356 | eP | P | 06 13 34.6 | +1.0 |
| ROSC | El Rosal | 36.82 | 356 | eP | P | 06 13 39.4 | +3.6 |
| RUSC | La Rusia | 37.80 | 358 | eP | P | 06 13 45.2 | +1.0 |
| RUSC | La Rusia | 37.80 | 358 | eP | P | 06 13 45.2 | +1.0 |
| | comp=Z,5.2nm,1.1s | | | | | | |
| HELC | Santa Helena | 38.26 | 354 | eP | P | 06 13 46.8 | -1.0 |
| HELC | Santa Helena | 38.26 | 354 | eP | P | 06 13 49.0 | +1.1 |
| | comp=Z,10nm,0.7s | | | | | | |
| SDV | Santo Domingo | 40.76 | 1 | P | P | 06 14 08.3 | -0.3 |
| | comp=Z,3.2nm,0.5s,baz=235,slow=3.7,SNR=4.2 | | | | | | |
| SNAA | Sanae | 53.21 | 158 | eP | P | 06 15 45.4 | +0.3 |
| | comp=Z,13nm,1.0s | | | | | | |
| QSPA | South Pole Qui | 58.13 | 180 | eP | P | 06 16 21.2 | +0.7 |
| | comp=Z,7.3nm,0.8s | | | | | | |
| LTX | Lajitas | 68.26 | 330 | eP | P | 06 17 28.8 | +0.8 |
| TXAR | Lajitas Array | 68.26 | 330 | P | P | 06 17 28.8 | +0.8 |
| | comp=Z,0.1nm,0.5s,baz=143,slow=7.7,SNR=4.7 | | | | | | |
| DBIC | Dimbokro | 74.24 | 72 | P | P | 06 18 04.0 | -0.5 |
| | comp=Z,4.8nm,0.6s,baz=223,slow=6.1,SNR=6.9 | | | | | | |
| DBIC | Dimbokro | 74.24 | 72 | eP | P | 06 18 03.9 | -0.6 |
| | comp=Z,27nm,1.5s | | | | | | |
| MAW | Mawson | 74.90 | 164 | LR | LR | 06 50 50.7 | |
| | comp=Z,31nm,18.4s,baz=242,slow=36 | | | | | | |
| MAW | Mawson | 74.90 | 164 | eP | P | 06 18 07.8 | +0.4 |
| | comp=Z,9.4nm,1.9s | | | | | | |
| PLM | Palomar | 77.83 | 323 | eP | P | 06 18 25.1 | +0.4 |
| PASC | Pasadena Art C | 79.15 | 322 | eP | P | 06 18 32.6 | +0.8 |
| KOWA | Kowa | 79.53 | 66 | eP | P | 06 18 33.7 | -0.6 |
| | comp=Z,43nm,2.0s | | | | | | |
| BOSA | Boshof | 80.64 | 118 | P | P | 06 18 40.1 | -0.2 |
| | comp=Z,2.3nm,0.6s,baz=246,slow=5.0,SNR=6.2 | | | | | | |
| BOSA | | | | LR | LR | 06 49 52.3 | |
| | comp=Z,24nm,18.5s,baz=242,slow=32 | | | | | | |
| TOA0 | Torodi Ar. Sit | 83.23 | 70 | eP | P | 06 18 53.5 | -0.5 |
| TOA1 | Torodi Ar. Sit | 83.23 | 70 | eP | P | 06 18 53.1 | -0.8 |
| TORD | Torodi Ar. Bea | 83.23 | 70 | P | P | 06 18 53.1 | -0.8 |
| | comp=Z,5.7nm,0.7s,baz=258,slow=4.6,SNR=34 | | | | | | |
| ULM | Lac du Bonnet | 84.76 | 345 | P | P | 06 19 00.6 | -0.3 |
| | comp=Z,2.3nm,0.8s,baz=183,slow=5.7,SNR=3.7 | | | | | | |
| YKA | Yellowknife Ar | 100.38 | 341 | P | Pdif | 06 20 12.5 | -0.7 |
| | comp=Z,0.3nm,0.5s,baz=144,slow=5.4,SNR=5.1 | | | | | | |
| YKB5 | Yellowknife Ar | 100.38 | 341 | ePdif | Pdif | 06 20 12.5 | -0.7 |
| ASAR | Alice Springs | 119.42 | 207 | PKP | PKPdf | 06 25 15.7 | -1.6 |
| | comp=Z,0.4nm,0.7s,baz=128,slow=1.5,SNR=4.5 | | | | | | |
| BR101 | Keskin Array S | 120.59 | 60 | ePKPdf | PKPdf | 06 25 18.1 | -0.9 |
| BRTR | Keskin Array B | 120.59 | 60 | PKP | PKPdf | 06 25 18.1 | -0.9 |
| | comp=Z,0.7nm,0.7s,baz=260,slow=3.4,SNR=4.2 | | | | | | |
| WR1 | Warramunga Arr | 122.59 | 209 | ePKPdf | PKPdf | 06 25 21.9 | -1.4 |
| WRA | Warramunga Arr | 122.59 | 209 | PKP | PKPdf | 06 25 21.9 | -1.4 |
| | comp=Z,1.2nm,0.6s,baz=165,slow=1.6,SNR=7.3 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 126.13 | 270 | T | T | 08 44 29.0 | |
| | baz=118,slow=75,SNR=184 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 126.14 | 270 | T | T | 08 44 34.4 | |
| | baz=118,slow=75,SNR=176 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 126.15 | 270 | T | T | 08 44 30.4 | |
| | baz=118,slow=75,SNR=198 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 126.50 | 272 | T | T | 08 44 58.5 | |
| | baz=116,slow=75,SNR=56 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 126.51 | 272 | T | T | 08 45 00.1 | |
| | baz=116,slow=75,SNR=18 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 126.51 | 272 | T | T | 08 44 59.5 | |
| | baz=116,slow=75,SNR=94 | | | | | | |
| BVAR | Borovoye Array | 145.64 | 41 | PKPbc | PKPab | 06 26 05.6 | 0.0 |
| | comp=Z,7.3nm,0.5s,baz=297,slow=3.6,SNR=42 | | | | | | |
| ZAA1 | Zalesovo Array | 152.42 | 31 | ePKPbc | PKPbc | 06 26 22.4 | -0.3 |
| ZALV | Zalesovo Beam | 152.43 | 31 | PKPbc | PKPbc | 06 26 22.4 | -0.3 |
| | comp=Z,11nm,0.5s,baz=297,slow=3.4,SNR=45 | | | | | | |
| MK32 | Makanchi Array | 155.22 | 46 | ePKPdf | PKPdf | 06 26 19.6 | -0.5 |
| MK32 | | | | ePKPbc | sPKPdf | 06 26 28.4 | +1.3 |
| MK32 | | | | ePKPab | PKPab | 06 26 44.8 | -0.3 |
| MKAR | Makanchi Array | 155.22 | 46 | PKP | PKPdf | 06 26 19.6 | -0.5 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| | comp=Z,0.6nm,0.8s,baz=63,slow=0.5,SNR=4.2 | | | | | | |
| MKAR | | | | PKPbc | sPKPdf | 06 26 28.4 | +1.3 |
| | comp=Z,1.3nm,0.8s,baz=307,slow=3.0,SNR=9.7 | | | | | | |
| MKAR | | | | PKPab | PKPab | 06 26 44.8 | -0.4 |
| | comp=Z,1.6nm,0.6s,baz=274,slow=3.2,SNR=13 | | | | | | |

**MEX 05 06:06:46.2±0.8, 16°.70N×99°.46W, h16km±14km, MD3.6, Near coast of Guerrero**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ACX | Acapulco | 0.42 | 294 | eP | Pn | 06 06 57.0 | -0.7 |
| ACX | | | | i S | Sb | 06 07 03.3 | +1.8 |
| CAIG | El Cayaco | 0.85 | 294 | eP | Pb | 06 06 59.5 | -3.2 |
| CAIG | | | | eS | Sb | 06 07 10.5 | -3.3 |
| TLIG | Tlapa | 1.21 | 45 | eP | Pn | 06 07 04.4 | -4.2 |
| TLIG | | | | eS | Sb | 06 07 19.8 | -4.5 |
| MEIG | Mezcala | 1.23 | 353 | eP | Pn | 06 07 04.9 | -3.9 |
| MEIG | | | | eS | Sb | 06 07 20.3 | -4.5 |
| ARIG | Puente Sto Nin | 1.79 | 332 | eP | Pn | 06 07 14.0 | -2.5 |
| ARIG | | | | eS | Sn | 06 07 33.2 | -5.7 |

*NEIC **05** 06:10:26.5±0.0, 37°.30S×179°.95W, h33km, ML4.0(WEL), After WEL.*

**WEL 05 06:10:26.5±0.3, 37°.29S×179°.96W, h33km, ML4.0/14, 1D, Error ellipse: s-maj=4.6km s-min=3.4km az=0.0, East of North Island**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WMGZ | Waiomatatini S | 1.40 | 247 | Pn | Pn | 06 10 49.1 | -0.6 |
| WMGZ | | | | Sn | Sn | 06 11 06.1 | -0.9 |
| WMGZ | Waiomatatini S | 1.40 | 247 | PN | Pn | 06 10 49.1 | -0.6 |
| WMGZ | | | | SN | Sn | 06 11 06.1 | -0.9 |
| WMGZ | | | | AML | AML | 06 11 07.8 | |
| MXZ | Matakaoa Point | 1.41 | 258 | Pn | Pn | 06 10 49.3 | -0.6 |
| MXZ | | | | Sn | Sn | 06 11 06.5 | -0.8 |
| MXZ | Matakaoa Point | 1.41 | 258 | PN | Pn | 06 10 49.3 | -0.6 |
| MXZ | | | | SN | Sn | 06 11 06.5 | -0.8 |
| MXZ | | | | AML | AML | 06 11 07.8 | |
| PUZ | Puketiti | 1.62 | 240 | Pn | Pn | 06 10 52.0 | -0.8 |
| PUZ | Puketiti | 1.62 | 240 | PN | Pn | 06 10 52.0 | -0.8 |
| PUZ | | | | AML | AML | 06 11 13.3 | |
| PUZ | | | | AML | AML | 06 11 14.9 | |
| PKGZ | Pakihiroa | 1.67 | 248 | ⇓PN | Pn | 06 10 53.2 | -0.4 |
| PKGZ | | | | SN | Sn | 06 11 12.4 | -1.5 |
| PKGZ | | | | AML | AML | 06 11 14.1 | |
| HAZ | Te Kaha | 1.86 | 255 | PN | Pn | 06 10 56.1 | +0.1 |
| HAZ | | | | AML | AML | 06 11 19.0 | |
| HAZ | | | | AML | AML | 06 11 22.9 | |
| CNGZ | Carnagh Statio | 1.88 | 230 | Pn | Pn | 06 10 56.1 | -0.2 |
| CNGZ | Carnagh Statio | 1.88 | 230 | PN | Pn | 06 10 56.1 | -0.2 |
| CNGZ | | | | AML | AML | 06 11 21.4 | |
| CNGZ | | | | AML | AML | 06 11 31.0 | |
| RUGZ | Raukumara Rang | 2.00 | 249 | PN | Pn | 06 10 57.8 | -0.2 |
| MWZ | Matawai | 2.25 | 242 | Pn | Pn | 06 11 00.6 | -0.9 |
| MWZ | Matawai | 2.25 | 242 | PN | Pn | 06 11 00.6 | -0.9 |
| MWZ | | | | AML | AML | 06 11 26.5 | |
| MWZ | | | | AML | AML | 06 11 26.8 | |
| RIGZ | Rimuhau | 2.29 | 231 | PN | Pn | 06 11 01.4 | -0.7 |
| RIGZ | | | | AML | AML | 06 11 28.9 | |
| RIGZ | | | | AML | AML | 06 11 29.1 | |
| MHGZ | Mahia Peninsul | 2.51 | 221 | Pn | Pn | 06 11 04.2 | -0.8 |
| MHGZ | Mahia Peninsul | 2.51 | 221 | PN | Pn | 06 11 04.2 | -0.8 |
| URZ | Urewera | 2.52 | 246 | Pn | Pn | 06 11 04.9 | -0.2 |
| URZ | Urewera | 2.52 | 246 | PN | Pn | 06 11 04.9 | -0.2 |
| URZ | | | | AML | AML | 06 11 34.1 | |
| URZ | | | | AML | AML | 06 11 34.6 | |
| KNZ | Kokohu | 2.55 | 226 | Pn | Pn | 06 11 03.9 | -1.6 |
| KNZ | Kokohu | 2.55 | 226 | PN | Pn | 06 11 03.9 | -1.6 |
| WHHZ | Waihua | 2.85 | 230 | PN | Pn | 06 11 09.3 | -0.3 |
| WHHZ | | | | AML | AML | 06 11 42.2 | |
| WHHZ | | | | AML | AML | 06 11 46.6 | |
| MTHZ | Maungataniwha | 2.97 | 237 | PN | Pn | 06 11 09.9 | -1.5 |
| ARHZ | Aropaoanui | 3.11 | 230 | Pn | Pn | 06 11 13.0 | -0.2 |
| ARHZ | Aropaoanui | 3.11 | 230 | PN | Pn | 06 11 13.0 | -0.2 |
| ARHZ | | | | AML | AML | 06 11 48.7 | |
| ARHZ | | | | AML | AML | 06 11 50.3 | |
| BKZ | Black Stump Fm | 3.37 | 235 | Pn | Pn | 06 11 15.7 | -1.1 |
| BKZ | Black Stump Fm | 3.37 | 235 | PN | Pn | 06 11 15.7 | -1.1 |
| BKZ | | | | AML | AML | 06 11 53.3 | |
| BKZ | | | | AML | AML | 06 11 53.7 | |
| KAHZ | Kahuranaki | 3.53 | 224 | Pn | Pn | 06 11 17.1 | -1.9 |
| KAHZ | Kahuranaki | 3.53 | 224 | PN | Pn | 06 11 17.1 | -1.9 |
| KWHZ | Kaweka Forest | 3.56 | 232 | PN | Pn | 06 11 18.0 | -1.5 |
| KWHZ | | | | SN | Sn | 06 11 57.2 | -3.2 |
| KWHZ | | | | AML | AML | 06 12 01.9 | |
| BHHZ | Black Hill Sta | 3.82 | 234 | Pn | Pn | 06 11 21.9 | -1.2 |
| BHHZ | Black Hill Sta | 3.82 | 234 | PN | Pn | 06 11 21.9 | -1.2 |
| OTVZ | Oturere | 3.92 | 240 | Pn | Pn | 06 11 23.4 | -1.2 |
| OTVZ | Oturere | 3.92 | 240 | PN | Pn | 06 11 23.4 | -1.2 |
| MRZ | Mangatainoka R | 4.84 | 225 | Pn | Pn | 06 11 33.3 | -3.8 |
| MRZ | Mangatainoka R | 4.84 | 225 | PN | Pn | 06 11 33.3 | -3.8 |
| MRZ | | | | SN | Sn | 06 12 25.4 | -6.6 |
| MRZ | | | | AML | AML | 06 12 27.3 | |

*ISCJB **05** 06:12:45.5±0.5, 29°.13N±0°.04×51°.09E±0°.04, h16km, mb3.9/13, MS2.6/1, Error ellipse: s-maj=6.8km s-min=4.2km az=39.0*
*TEH **05** 06:12:45.2, 29°.21N×51°.27E, h13km, ML3.7*
*CSEM **05** 06:12:46.9±0.2, 29°.15N×51°.27E, h10km, ML3.5, Error ellipse: s-maj=4.5km s-min=3.5km az=49.0*
*THR **05** 06:12:46.0±1.3, 29°.20N×51°.27E, h15km, ML3.6*
*IDC **05** 06:12:48.2±5.9, 29°.09N×51°.33E, h33km±47km, mb3.7/11, mb1 3.8/14, mb1mx3.6/38, mbtmp3.9/14, ML3.3/3, MS2.8/1, Ms1 2.8/1, ms1mx2.2/41, Error ellipse: s-maj=23.3km s-min=18.4km az=40.0*

**ISC 05 06:12:46.1±0.6, 29°.10N±0°.04×51°.22E±0°.04, h16km, n62, σ1s.33/69, mb3.9/13, 2C-1D, Southern Iran**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AHBU | AHRAM | 0.24 | 163 | ePg | Pb | 06 12 52.3 | +0.3 |
| AHBU | | | | eSg | Sb | 06 12 58.3 | +2.3 |
| SHI | Shiraz | 1.26 | 64 | eAMB | AMB | 06 13 10.5 | |
| | comp=Z,12µm,0.1s | | | | | | |
| SHI | | | | ePg | Pn | 06 13 09.2 | +0.1 |
| ISRV | Sarvestan | 1.68 | 80 | ePn | Pb | 06 13 16.4 | -0.5 |
| ISRV | | | | eSg | Sg | 06 13 40.1 | -0.3 |
| ISRV | | | | eAMB | AMB | 06 13 44.2 | |
| | comp=Z,11µm,0.2s | | | | | | |
| ISRV | Sarvestan | 1.68 | 80 | ePn | Pb | 06 13 16.4 | -0.5 |
| ISRV | | | | eSg | Sg | 06 13 40.1 | -0.3 |
| GHIR | Ghir-Karzin | 1.75 | 117 | ePn | Pb | 06 13 18.7 | +0.8 |
| GHIR | | | | eSg | Sg | 06 13 42.0 | -0.5 |
| GHIR | | | | AML | AML | 06 13 49.4 | |
| | comp=N,757nm,0.4s | | | | | | |
| GHIR | | | | AML | AML | 06 13 49.4 | |
| | comp=E,579nm,0.4s | | | | | | |
| GHIR | Ghir-Karzin | 1.75 | 117 | ePn | Pn | 06 13 16.9 | +1.0 |
| IPAR | Pars | 1.76 | 65 | ePn | Pb | 06 13 17.6 | -0.6 |
| IPAR | | | | eSg | Sg | 06 13 42.4 | -0.5 |
| IPAR | | | | eAMB | AMB | 06 13 44.9 | |
| | comp=Z,7µm,0.4s | | | | | | |
| IPAR | Pars | 1.76 | 65 | ePn | Pb | 06 13 17.6 | -0.6 |
| IPAR | | | | eSg | Sg | 06 13 42.4 | -0.5 |
| IRAM | Ramesheh | 2.89 | 20 | ePn | Pn | 06 13 32.3 | +0.7 |
| IRAM | | | | eAMB | AMB | 06 14 18.9 | |
| | comp=Z,2µm,0.2s | | | | | | |
| IRAM | Ramesheh | 2.89 | 20 | ePn | Pn | 06 13 32.3 | +0.7 |
| AHWZ | Ahwaz | 3.15 | 316 | ePn | Pn | 06 13 32.0 | -3.0 |
| AHWZ | Ahwaz | 3.15 | 316 | ePn | Pn | 06 13 32.0 | -3.0 |
| IGAR | Gharneh | 3.37 | 12 | ePn | Pn | 06 13 39.5 | +1.2 |
| IGAR | | | | eAMB | AMB | 06 14 23.9 | |
| | comp=Z,803nm,0.1s | | | | | | |
| ISAD | Sadrabad | 3.53 | 37 | ePn | Pn | 06 13 41.7 | +1.2 |
| ISAD | | | | eAMB | AMB | 06 13 42.6 | |
| | comp=Z,2µm,0.1s | | | | | | |
| ISAD | Sadrabad | 3.53 | 37 | ePn | Pn | 06 13 41.7 | +1.2 |
| IPIR | Pirpir | 3.59 | 356 | ePn | Pn | 06 13 42.6 | +1.3 |
| IPIR | | | | eAMB | AMB | 06 13 43.3 | |
| | comp=Z,831nm,0.2s | | | | | | |
| IPIR | Pirpir | 3.59 | 356 | ePn | Pn | 06 13 42.6 | +1.3 |
| IMEH | Mehriz | 3.73 | 51 | ePn | Pn | 06 13 44.6 | +1.4 |
| IMEH | | | | eAMB | AMB | 06 13 47.6 | |
| | comp=Z,1µm,0.2s | | | | | | |
| IMEH | Mehriz | 3.73 | 51 | ePn | Pn | 06 13 44.6 | +1.4 |
| IZEF | Zefreh | 3.91 | 14 | ePn | Pn | 06 13 46.1 | +0.4 |
| IZEF | | | | eAMB | AMB | 06 14 07.2 | |
| | comp=Z,409nm,0.3s | | | | | | |
| IZEF | Zefreh | 3.91 | 14 | ePn | Pn | 06 13 46.1 | +0.4 |
| NASN | Na'in | 3.94 | 20 | ePn | Pn | 06 13 46.1 | -0.1 |
| NASN | Na'in | 3.94 | 20 | ePn | Pn | 06 13 46.1 | -0.1 |
| ICHK | Chekchek | 4.17 | 40 | ePn | Pn | 06 13 49.8 | +0.5 |
| ICHK | | | | eAMB | AMB | 06 13 50.8 | |
| | comp=Z,766nm,0.1s | | | | | | |
| ICHK | Chekchek | 4.17 | 40 | ePn | Pn | 06 13 49.8 | +0.5 |
| IKLH | Kolahrood | 4.22 | 4 | ePn | Pn | 06 13 50.7 | +0.7 |
| IKLH | | | | eAMB | AMB | 06 13 52.8 | |
| | comp=Z,1µm,0.1s | | | | | | |
| IKLH | Kolahrood | 4.22 | 4 | ePn | Pn | 06 13 50.7 | +0.7 |
| KHMZ | Khomeyn | 4.75 | 347 | ePn | Pn | 06 13 58.8 | +1.5 |
| KHMZ | Khomeyn | 4.75 | 347 | ePn | Pn | 06 13 58.8 | +1.5 |
| KRBR | Kerman | 4.91 | 78 | ePn | Pn | 06 14 00.2 | +0.7 |
| KRBR | Kerman | 4.91 | 78 | ePn | Pn | 06 14 00.2 | +0.7 |
| GHVR | GHOM | 5.37 | 1 | ePn | Pn | 06 14 07.1 | +1.5 |
| GHVR | GHOM | 5.37 | 1 | ePn | Pn | 06 14 07.1 | +1.5 |
| ASAO | Ashtian | 5.53 | 350 | ePn | Pn | 06 14 09.1 | +1.1 |
| ASAO | | | | AML | AML | 06 15 18.8 | |
| | comp=N,23nm,0.5s | | | | | | |
| ASAO | Ashtian | 5.53 | 350 | ePn | Pn | 06 14 09.1 | +1.1 |
| IVIS | Veis | 6.57 | 327 | ePn | Pn | 06 14 23.5 | +1.4 |
| IVIS | | | | eAMB | AMB | 06 15 42.7 | |
| | comp=Z,438nm,0.2s | | | | | | |
| IVIS | Veis | 6.57 | 327 | ePn | Pn | 06 14 23.5 | +1.4 |
| TABS | Tabas | 6.79 | 47 | ePn | Pn | 06 14 25.0 | -0.1 |
| TABS | Tabas | 6.79 | 47 | ePn | Pn | 06 14 25.0 | -0.1 |
| ILIN | Lien | 6.84 | 329 | ePn | Pn | 06 14 26.8 | +0.9 |
| ILIN | | | | eAMB | AMB | 06 14 28.1 | |
| | comp=Z,652nm,0.1s | | | | | | |
| ILIN | Lien | 6.84 | 329 | ePn | Pn | 06 14 26.8 | +0.9 |
| IDHR | Dehrash | 6.93 | 325 | ePn | Pn | 06 14 28.5 | +1.3 |
| IDHR | | | | eAMB | AMB | 06 14 29.0 | |
| | comp=Z,811nm,0.1s | | | | | | |
| IDHR | Dehrash | 6.93 | 325 | ePn | Pn | 06 14 28.5 | +1.3 |
| WSAR | Wadi Sarin | 8.85 | 130 | Pn | Pn | 06 14 52.7 | -0.6 |
| | comp=Z,0.4nm,0.3s,baz=318,slow=14,SNR=4.3 | | | | | | |
| WSAR | | | | Sn | Sn | 06 16 29.4 | -3.4 |
| | comp=Z,1.0nm,0.3s,baz=166,slow=23,SNR=4.5 | | | | | | |
| KBZ | Khabaz | 16.05 | 338 | Pn | P | 06 16 33.5 | -0.9 |
| | comp=Z,0.2nm,0.3s,baz=147,slow=11,SNR=5.0 | | | | | | |
| BRTR | Keskin Array B | 17.93 | 311 | P | P | 06 16 56.5 | +1.1 |
| | comp=Z,0.1nm,0.3s,baz=140,slow=12,SNR=3.5 | | | | | | |
| AKTO | Aktyubinsk | 21.93 | 12 | P | P | 06 17 38.5 | -0.2 |
| | comp=Z,2.0nm,0.4s,baz=197,slow=12,SNR=8.8 | | | | | | |
| AKTO | | | | LR | LR | 06 28 29.4 | |
| | comp=Z,25nm,21.3s,baz=117,slow=43 | | | | | | |
| AAK | Ala-Archa | 23.11 | 48 | P | P | 06 17 53.5 | +2.0 |
| | comp=Z,2.0nm,0.6s,baz=196,slow=7.7,SNR=5.0 | | | | | | |
| MLR | Muntele Rosu | 25.77 | 316 | P | P | 06 18 19.8 | +3.6 |
| | comp=Z,0.9nm,0.7s,baz=160,slow=2.2,SNR=6.9 | | | | | | |
| MLR | Muntele Rosu | 25.77 | 316 | ⇑iP | P | 06 18 20.0 | +3.8 |
| TESR | Tescani | 25.90 | 319 | ⇓iP | P | 06 18 18.3 | +1.1 |
| VOIR | | 26.29 | 315 | ⇑iP | P | 06 18 22.2 | +1.4 |
| AKASG | Malin Array Be | 27.20 | 329 | P | P | 06 18 28.3 | -0.6 |
| | comp=Z,0.4nm,0.4s,baz=117,slow=6.9,SNR=5.0 | | | | | | |
| BVAR | Borovoye Array | 27.76 | 25 | P | P | 06 18 34.1 | +0.1 |
| | comp=Z,0.9nm,0.4s,baz=220,slow=6.5,SNR=7.3 | | | | | | |
| MKAR | Makanchi Array | 29.94 | 45 | P | P | 06 18 52.8 | -0.7 |
| | comp=Z,0.4nm,0.5s,baz=235,slow=7.9,SNR=5.5 | | | | | | |
| ZALV | Zalesovo Beam | 34.81 | 35 | P | P | 06 19 35.4 | -0.4 |
| | comp=Z,1.1nm,0.4s,baz=241,slow=9.3,SNR=5.7 | | | | | | |
| FINES | FINESS Array B | 36.39 | 340 | P | P | 06 19 48.9 | -0.5 |
| | comp=Z,4.7nm,0.9s,baz=142,slow=9.6,SNR=5.6 | | | | | | |
| ARCES | ARCESS Array B | 43.10 | 347 | P | P | 06 20 45.1 | 0.0 |
| | comp=Z,1.7nm,0.7s,baz=165,slow=7.5,SNR=15 | | | | | | |
| TORD | Torodi Ar. Bea | 48.49 | 262 | P | P | 06 21 29.3 | +0.9 |
| | comp=Z,0.9nm,0.5s,baz=57,slow=7.9,SNR=8.9 | | | | | | |
| ILAR | Eielson Array | 85.38 | 8 | P | P | 06 25 21.8 | -0.5 |
| | comp=Z,0.5nm,0.6s,baz=323,slow=4.2,SNR=9.4 | | | | | | |
| WRA | Warramunga Arr | 93.75 | 111 | P | P | 06 26 01.5 | -1.2 |
| | comp=Z,1.2nm,0.3s,baz=312,slow=4.1,SNR=6.7 | | | | | | |
| ASAR | Alice Springs | 95.22 | 114 | P | P | 06 26 07.8 | -1.5 |
| | comp=Z,0.3nm,0.6s,baz=313,slow=4.5,SNR=4.1 | | | | | | |

*ISCJB **05** 06:16:16.1±0.7, 51°.45N±0°.04×16°.15E±0°.03, h0km, Error ellipse: s-maj=5.2km s-min=2.8km az=13.1*
*CSEM **05** 06:16:17.9±0.5, 51°.44N×16°.10E, h2km, ML3.0/8, Error ellipse: s-maj=7.4km s-min=4.0km az=2.0*
*WAR **05** 06:16:19.0, 51°.44N×16°.16E, h1km, Mw2.6*
*VIE **05** 06:16:21.9±1.0, 51°.22N×15°.91E, h0km, mb2.3/2, ML2.5/2, Error ellipse: s-maj=10.7km s-min=3.6km az=23.0, Suspected Mining induced.*

**ISC 05 06:16:19.0±1.0, 51°.39N±0°.05×16°.12E±0°.02, h0km, n35, σ0s.88/70, Poland**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KSP | Ksiaz | 0.56 | 169 | i Pg | Pg | 06 16 30.3 | +0.6 |
| KSP | | | | eSg | Sg | 06 16 38.4 | +1.5 |
| KSP | Ksiaz | 0.56 | 169 | i Pg | Pg | 06 16 30.3 | +0.6 |
| KSP | | | | eSg | Sg | 06 16 38.4 | +1.5 |
| KSP | Ksiaz | 0.56 | 169 | i Pg | Pg | 06 16 30.3 | +0.6 |
| KSP | | | | eSg | Sg | 06 16 38.4 | +1.5 |
| UPC | Upice | 0.89 | 185 | ePG | Pg | 06 16 36.4 | +0.4 |
| UPC | | | | eSG | Sb | 06 16 49.4 | -0.3 |
| | comp=Z,42nm,0.5s | | | | | | |
| UPC | Upice | 0.89 | 185 | Pg | Pg | 06 16 36.4 | +0.4 |
| UPC | | | | Sg | Sb | 06 16 49.4 | -0.3 |
| | 42nm,0.5s | | | | | | |
| DPC | Dobruska-Polom | 1.05 | 173 | ePG | Pg | 06 16 39.2 | +0.1 |
| DPC | | | | eSG | Sb | 06 16 53.7 | -0.7 |
| | comp=Z,14nm,0.3s | | | | | | |
| DPC | Dobruska-Polom | 1.05 | 173 | Pg | Pg | 06 16 39.2 | +0.1 |
| DPC | | | | Sg | Sb | 06 16 53.7 | -0.7 |
| | 14nm,0.3s | | | | | | |
| PVCC | Panska Ves | 1.31 | 229 | ePG | Pg | 06 16 44.2 | +0.1 |
| PVCC | | | | eSG | Sn | 06 17 02.9 | +0.2 |
| | comp=Z,76nm,0.4s | | | | | | |
| PVCC | Panska Ves | 1.31 | 229 | Pg | Pg | 06 16 44.2 | +0.1 |
| PVCC | | | | Sg | Sn | 06 17 02.9 | +0.2 |
| | 76nm,0.4s | | | | | | |
| KRLC | Kraliky | 1.38 | 162 | ePG | Pg | 06 16 45.3 | -0.2 |
| KRLC | | | | eSG | Sn | 06 17 04.3 | -0.3 |
| KRLC | Kraliky | 1.38 | 162 | Pg | Pg | 06 16 45.3 | -0.2 |
| KRLC | | | | Sg | Sn | 06 17 04.3 | -0.3 |
| BRG | Berggiesshubel | 1.47 | 250 | PN | Pn | 06 16 45.6 | -1.2 |
| BRG | | | | PG | Pg | 06 16 47.2 | 0.0 |
| BRG | | | | SG | Sn | 06 17 07.3 | +0.7 |
| | 30nm,0.5s | | | | | | |
| GOPC | GO Pecny, Ondr | 1.71 | 210 | ePG | Pb | 06 16 51.4 | +0.2 |
| GOPC | | | | eSG | Sg | 06 17 14.6 | +0.9 |
| | comp=Z,13nm,0.5s | | | | | | |
| GOPC | GO Pecny, Ondr | 1.71 | 210 | Pg | Pb | 06 16 51.4 | +0.2 |
| GOPC | | | | Sg | Sg | 06 17 14.6 | +0.9 |
| | 13nm,0.5s | | | | | | |
| PRU | Pruhonice | 1.73 | 216 | ePG | Pb | 06 16 51.3 | -0.3 |
| PRU | | | | eSG | Sg | 06 17 15.5 | +1.1 |
| | comp=Z,13nm,0.4s | | | | | | |
| PRU | Pruhonice | 1.73 | 216 | Pg | Pb | 06 16 51.3 | -0.3 |
| PRU | | | | Sg | Sg | 06 17 15.5 | +1.1 |
| | 13nm,0.4s | | | | | | |
| MORC | Moravsky Berou | 1.85 | 150 | ePn | Pn | 06 16 51.0 | -1.1 |
| MORC | | | | eSg | Sb | 06 17 17.3 | -0.2 |
| CLL | Collm | 1.96 | 269 | ePg | Pn | 06 16 54.0 | +0.5 |
| CLL | | | | eSg | Sb | 06 17 21.0 | +0.5 |
| | comp=Z,10.0nm,0.6s | | | | | | |
| OKC | Ostrava-Krasne | 2.02 | 140 | ePG | Pb | 06 16 56.4 | -0.2 |
| OKC | | | | eSG | Sb | 06 17 22.1 | -0.2 |
| | comp=Z,13nm,0.6s | | | | | | |
| OKC | Ostrava-Krasne | 2.02 | 140 | Pg | Pb | 06 16 56.4 | -0.2 |
| OKC | | | | Sg | Sb | 06 17 22.1 | -0.2 |
| | comp=Z,13nm,0.6s | | | | | | |
| VRAC | Vranov | 2.11 | 172 | ePn | Pn | 06 16 55.9 | +0.4 |
| VRAC | | | | eSg | Sg | 06 17 27.4 | +0.8 |
| TREC | Trest | 2.14 | 191 | ePG | Pb | 06 16 59.0 | +0.4 |
| TREC | Trest | 2.14 | 191 | Pg | Pb | 06 16 59.0 | +0.4 |
| NKC | Novy Kostel | 2.60 | 245 | ePN | Pn | 06 17 00.8 | -1.6 |
| NKC | | | | ePG | Pb | 06 17 06.6 | +0.1 |
| NKC | | | | eSG | Sg | 06 17 43.5 | +0.9 |
| | comp=Z,18nm,0.3s | | | | | | |
| NKC | Novy Kostel | 2.60 | 245 | Pn | Pn | 06 17 00.8 | -1.6 |
| OJC | Ojcow | 2.61 | 115 | ePg | Pg | 06 17 08.0 | -1.0 |
| OJC | | | | eSg | Sg | 06 17 43.1 | +0.2 |
| OJC | Ojcow | 2.61 | 115 | ePg | Pg | 06 17 08.0 | -1.0 |
| OJC | | | | eSg | Sg | 06 17 43.1 | +0.2 |
| OJC | Ojcow | 2.61 | 115 | ePg | Pg | 06 17 08.0 | -1.0 |
| OJC | | | | eSg | Sg | 06 17 43.1 | +0.2 |
| KHC | Kasperske Hory | 2.79 | 217 | ePN | Pn | 06 17 05.0 | +0.1 |
| KHC | | | | ePG | Pb | 06 17 10.8 | +1.1 |
| KHC | | | | eSN | Sn | 06 17 37.5 | -1.8 |
| KHC | | | | eSG | Sg | 06 17 47.7 | -0.9 |
| KHC | Kasperske Hory | 2.79 | 217 | Pn | Pn | 06 17 05.0 | +0.1 |
| MODS | Modra-Piesok | 3.11 | 166 | ePg | Pg | 06 17 17.8 | -0.8 |
| MODS | | | | eSg | Sg | 06 17 59.0 | +0.1 |
| MODS | Modra-Piesok | 3.11 | 166 | ePG | Pg | 06 17 17.8 | -0.8 |
| MODS | | | | eSG | Sg | 06 17 59.0 | +0.1 |
| MOA | Molln | 3.74 | 200 | Pn | Pn | 06 17 18.4 | +0.3 |
| | comp=Z,1.2nm,0.3s | | | | | | |
| MOA | | | | Sg | Sg | 06 18 17.2 | -2.0 |
| | comp=Z,4.7nm,0.4s | | | | | | |
| STHS | Stebnicka Huta | 3.83 | 119 | ePg | Pg | 06 17 32.8 | +0.5 |
| STHS | | | | eSg | Sg | 06 18 24.5 | +2.6 |
| STHS | Stebnicka Huta | 3.83 | 119 | ePG | Pg | 06 17 32.8 | +0.5 |
| STHS | | | | eSG | Sg | 06 18 24.5 | +2.6 |
| STHS | | | | eLG | Lg | 06 18 37.8 | |

**MEX 05 06:18:35.7±0.6, 14°.03N×93°.31W, h16km±93km, MD3.6, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PCIG | | 1.67 | 3 | eP | Pn | 06 19 01.0 | -3.3 |
| PCIG | | | | eS | Sn | 06 19 20.0 | -5.5 |
| CCIG | Comitan | 2.51 | 27 | eP | Pn | 06 19 12.9 | -3.2 |
| CCIG | | | | eS | Sn | 06 19 42.5 | -4.0 |

**IDC 05 06:33:49.6±2.0, 22°.23S×180°.00W, h0km, mb3.9/4, mb1 4.2/4, mb1mx3.9/26, mbtmp3.9/4, Error ellipse: s-maj=168.3km s-min=31.9km az=160.0, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| STKA | Stephens Creek | 35.37 | 246 | P | P | 06 40 46.4 | -0.8 |
| | 0.9nm,0.5s,baz=98,slow=7.1,SNR=4.1 | | | | | | |
| ASAR | Alice Springs | 42.33 | 259 | P | P | 06 41 45.5 | -0.2 |
| | 0.7nm,0.6s,baz=95,slow=7.2,SNR=9.0 | | | | | | |
| WRA | Warramunga Arr | 42.55 | 264 | P | P | 06 41 47.9 | +0.4 |
| | 1.7nm,0.3s,baz=97,slow=8.4,SNR=6.3 | | | | | | |
| TXAR | Lajitas Array | 89.55 | 58 | P | P | 06 46 49.4 | 0.0 |
| | 0.5nm,0.8s,baz=209,slow=6.9,SNR=5.7 | | | | | | |

*ISCJB **05** 06:36:57.3±1.1, 32°.84S±0°.05×69°.97W±0°.05, h110km±9km, Error ellipse: s-maj=9.4km s-min=4.8km az=147.3*
*SJA **05** 06:36:57.0±0.7, 32°.85S×69°.96W, h103km±4km, ML2.6, MW3.0*
*GUC **05** 06:36:57.1±0.6, 32°.69S×69°.93W, h97km±10km, ML2.9*

**ISC 05 06:36:58.1±2.0, 32°.84S±0°.06×69°.98W±0°.05, h103km±15km, n16, σ0s.53/31, 5D, Mendoza Province**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| FCH | Farellones | 0.55 | 208 | ⇓iP | Pn | 06 37 14.6 | -0.4 |
| FCH | | | | i S | Sn | 06 37 27.9 | +0.2 |
| FCH | | | | IAML | | 06 37 28.5 | |
| | comp=E,482nm,0.2s | | | | | | |
| PEL | Peldehue | 0.67 | 243 | ⇓iP | Pn | 06 37 14.9 | -0.7 |
| PEL | | | | eS | Sn | 06 37 28.4 | -0.4 |
| CLCH | Cerro Calan | 0.73 | 220 | ⇓iP | Pn | 06 37 16.1 | -0.1 |
| CLCH | | | | i S | Sn | 06 37 30.3 | +0.6 |
| CLCH | | | | IAML | | 06 37 31.0 | |
| | comp=E,538nm,0.5s | | | | | | |
| AUSP | Uspallata | 0.79 | 39 | eP | Pn | 06 37 16.9 | -0.1 |
| AUSP | | | | eS | Sn | 06 37 31.5 | +0.4 |
| ROCH | El Roble | 0.88 | 261 | ⇓iP | Pn | 06 37 17.2 | -0.6 |
| ROCH | | | | i S | Sn | 06 37 32.4 | -0.1 |
| ROCH | | | | IAML | | 06 37 33.5 | |
| | comp=N,382nm,0.3s | | | | | | |
| ARCO | CERRO ARCO | 0.88 | 90 | eP | Pn | 06 37 17.5 | -0.2 |
| ARCO | | | | eS | Sn | 06 37 32.1 | -0.4 |
| ARCO | | | | IAML | | 06 37 35.0 | |
| | comp=Z,104nm,0.5s | | | | | | |
| ROC1 | El Roble | 0.88 | 261 | eP | Pn | 06 37 17.6 | -0.3 |
| ROC1 | | | | eS | Sn | 06 37 32.7 | +0.1 |
| ANTU | Antumapu | 0.91 | 217 | ⇓iP | Pn | 06 37 17.5 | -0.4 |
| ANTU | | | | i S | Sn | 06 37 33.2 | +0.4 |
| ANTU | | | | IAML | | 06 37 33.7 | |
| | comp=E,492nm,0.2s | | | | | | |
| ASAL | Salagasta | 0.99 | 76 | eP | Pn | 06 37 18.6 | -0.2 |
| ASAL | | | | eS | Sn | 06 37 34.2 | -0.2 |
| AAGR | Agrelo | 1.00 | 105 | eP | Pn | 06 37 18.9 | 0.0 |
| AAGR | | | | eS | Sn | 06 37 34.5 | +0.1 |
| LMEL | Las Melosas | 1.02 | 191 | eP | Pn | 06 37 19.5 | +0.2 |
| LMEL | | | | i S | Sn | 06 37 36.7 | +1.6 |
| RTLS | Leoncito | 1.19 | 29 | eP | Pn | 06 37 21.7 | +0.5 |
| RTLS | | | | eS | Sn | 06 37 39.6 | +1.1 |
| RTCV | Cerro Valdivia | 1.56 | 52 | eP | Pn | 06 37 25.1 | -0.2 |
| RTCV | | | | eS | Sn | 06 37 45.9 | 0.0 |
| AMOG | MOGNA | 2.28 | 34 | eP | Pn | 06 37 34.7 | +0.2 |
| AMOG | | | | eS | Sn | 06 38 02.2 | -0.1 |
| ACAN | Cantantal | 2.42 | 77 | eP | Pn | 06 37 36.0 | -0.3 |
| ACAN | | | | eS | Sn | 06 38 04.7 | -1.0 |
| APLL | PUNTA DE LOS L | 3.82 | 51 | eP | Pn | 06 37 55.1 | +0.1 |

*ISCJB **05** 06:50:29.9±0.7, 47°.5N±0°.1×152°.2E±0°.2, h124km, mb3.6/10, Error ellipse: s-maj=22.3km s-min=10.7km az=142.4*
*IDC **05** 06:50:34.6±2.3, 47°.54N×152°.03E, h156km±21km, mb3.2/11, mb1 3.4/14, mb1mx3.3/43, mbtmp3.8/14, MS2.5/1, Ms1 2.5/1, ms1mx2.2/14, Error ellipse: s-maj=21.3km s-min=12.6km az=132.0*

**ISC 05 06:50:31.8±0.9, 47°.6N±0°.2×152°.1E±0°.1, h124km, n21, σ1s.52/14, mb3.5/10, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PETK | Petropavlovsk- | 6.62 | 31 | P | Pn | 06 52 08.6 | +2.0 |
| | 1.0nm,0.3s,baz=210,slow=12,SNR=16 | | | | | | |
| ASAJ | Asahikawa | 7.46 | 246 | P | Pn | 06 52 21.0 | +3.1 |
| | 1.6nm,0.3s,baz=75,slow=15,SNR=9.8 | | | | | | |
| MA2 | Magadan | 12.07 | 357 | LR | LR | 06 58 04.0 | |
| | comp=Z,24nm,19.6s,baz=62,slow=37 | | | | | | |
| USRK | Ussuriysk Ar. | 14.39 | 264 | P | P | 06 53 51.2 | -1.6 |
| | 0.9nm,0.3s,baz=67,slow=12,SNR=9.6 | | | | | | |
| KSRS | Korea Array | 20.39 | 249 | P | P | 06 54 59.5 | +0.8 |
| | 1.3nm,0.5s,baz=50,slow=11,SNR=5.2 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 30.26 | 151 | T | T | 07 28 03.8 | |
| | baz=340,slow=76,SNR=40 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 30.27 | 151 | T | T | 07 28 03.6 | |
| | baz=340,slow=76,SNR=16 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 30.27 | 151 | T | T | 07 28 03.8 | |
| | baz=340,slow=76,SNR=18 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 31.34 | 153 | T | T | 07 29 32.9 | |
| | baz=341,slow=76,SNR=45 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 31.35 | 153 | T | T | 07 29 26.4 | |
| | baz=341,slow=76,SNR=27 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 31.36 | 153 | T | T | 07 29 27.2 | |
| | baz=341,slow=76,SNR=58 | | | | | | |
| ILAR | Eielson Array | 36.37 | 39 | P | P | 06 57 23.0 | -0.5 |
| | 0.9nm,1.0s,baz=279,slow=6.3,SNR=6.6 | | | | | | |
| INK | Inuvik | 41.36 | 33 | P | P | 06 58 06.0 | +1.0 |
| | 0.9nm,0.5s,baz=285,slow=7.6,SNR=10 | | | | | | |
| MKAR | Makanchi Array | 45.95 | 296 | P | P | 06 58 41.4 | -0.7 |
| | 0.4nm,0.6s,baz=68,slow=8.1,SNR=7.4 | | | | | | |
| YKA | Yellowknife Ar | 50.70 | 37 | P | P | 06 59 18.0 | -0.2 |
| | 0.3nm,0.5s,baz=300,slow=6.9,SNR=5.5 | | | | | | |
| FINES | FINESS Array B | 63.01 | 334 | P | P | 07 00 44.0 | -1.0 |
| | 1.1nm,0.4s,baz=36,slow=6.4,SNR=13 | | | | | | |
| NOA | NORSAR Array B | 67.24 | 341 | P | P | 07 01 12.4 | +0.1 |
| | 0.6nm,0.4s,baz=30,slow=6.5,SNR=3.8 | | | | | | |
| WRA | Warramunga Arr | 69.05 | 198 | P | P | 07 01 22.2 | -1.8 |
| | 0.2nm,0.6s,baz=17,slow=6.8,SNR=3.1 | | | | | | |
| AKASG | Malin Array Be | 70.49 | 325 | P | P | 07 01 31.1 | -1.4 |
| | 0.7nm,0.4s,baz=35,slow=6.5,SNR=4.3 | | | | | | |
| ASAR | Alice Springs | 72.75 | 197 | P | P | 07 01 46.2 | -0.2 |
| | 0.2nm,0.4s,baz=10,slow=5.9,SNR=3.5 | | | | | | |
| TXAR | Lajitas Array | 77.71 | 60 | P | P | 07 02 14.7 | -0.3 |
| | 0.4nm,0.8s,baz=282,slow=4.2,SNR=4.3 | | | | | | |

*ISCJB **05** 06:58:47.4±0.5, 45°.26N±0°.02×13°.54E±0°.02, h4km±5km, Error ellipse: s-maj=3.8km s-min=2.3km az=7.5*
*LJU **05** 06:58:48.9, 45°.32N×13°.58E, h20km, ML2.1*
*VIE **05** 06:58:48.1±0.5, 45°.28N×13°.55E, h5km±3km, mb2.2/7, ML3.0/12, Error ellipse: s-maj=4.1km s-min=2.0km az=176.0*
*CSEM **05** 06:58:48.2±0.2, 45°.26N×13°.54E, h2km, ML3.3/23, Error*

*ellipse: s-maj=2.8km s-min=1.7km az=11.0*
*ROM **05** 06:58:48.7±0.1, 45°.26N×13°.65E, h11$^{km}$, Md2.7/11, Ml2.6/10, Error ellipse: s-maj=0.0km s-min=0.0km az=180.0*
**ISC 05 06:58:48.8**±1.1**, 45°.28N**±0°.03×**13°.58E**±0°.02**, h12**$^{km}$±8$^{km}$**, n98, σ0$^{s}$42**/177**, 10C-5D, Northern Italy**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SKDS | Skadanscina | 0.41 | 49 | *i* Pg | Pb | 06 58 57.4 | -0.6 |
| SKDS | | | | *i* Sg | Sg | 06 59 03.0 | +0.6 |
| SKDS | Skadanscina | 0.41 | 49 | *i* Pg | Pb | 06 58 57.4 | -0.6 |
| SKDS | | | | *i* Sg | Sg | 06 59 03.0 | +0.6 |
| TRI | Trieste | 0.45 | 17 | Pg | Pg | 06 58 57.9 | +0.2 |
| TRI | | | | Sg | Sg | 06 59 04.1 | +0.4 |
| | 154nm,0.5s | | | | | | |
| TRI | Trieste | 0.45 | 17 | Pg | Pg | 06 58 57.9 | +0.2 |
| TRI | | | | Sg | Sg | 06 59 04.1 | +0.4 |
| | 154nm,0.5s | | | | | | |
| KNDS | Knezji Dol | 0.62 | 66 | *i* Pg | Pb | 06 59 01.3 | -0.3 |
| KNDS | | | | *i* Sg | Sb | 06 59 10.2 | 0.0 |
| | comp=Z,33nm,0.2s | | | | | | |
| KNDS | Knezji Dol | 0.62 | 66 | *i* Pg | Pb | 06 59 01.3 | -0.3 |
| KNDS | | | | *i* Sg | Sb | 06 59 10.2 | 0.0 |
| | comp=Z,33nm,0.2s | | | | | | |
| SABO | M.te Sabotino | 0.70 | 1 | Pg | Pb | 06 59 02.7 | -0.3 |
| SABO | | | | Sg | Sb | 06 59 12.4 | -0.2 |
| | comp=Z,239nm,0.2s | | | | | | |
| SABO | M.te Sabotino | 0.70 | 1 | ⇓*e*Pg | Pb | 06 59 02.7 | -0.3 |
| SABO | | | | *e*Sg | Sb | 06 59 12.4 | -0.2 |
| SABO | M.te Sabotino | 0.70 | 1 | Pg | Pb | 06 59 02.7 | -0.3 |
| SABO | | | | Sg | Sb | 06 59 12.4 | -0.2 |
| | comp=Z,239nm,0.2s | | | | | | |
| JAVS | Javornik | 0.70 | 29 | *i* Pg | Pg | 06 59 02.4 | -0.1 |
| JAVS | | | | *e*Sg | Sb | 06 59 12.2 | -0.5 |
| | comp=Z,31nm,0.2s | | | | | | |
| JAVS | Javornik | 0.70 | 29 | *i* Pg | Pg | 06 59 02.4 | -0.1 |
| JAVS | | | | *e*Sg | Sb | 06 59 12.2 | -0.5 |
| | comp=Z,31nm,0.2s | | | | | | |
| TLI | Talmassons | 0.72 | 333 | ⇑*e*Pg | Pb | 06 59 03.4 | +0.1 |
| TLI | Talmassons | 0.72 | 333 | *e*Pg | Pb | 06 59 03.4 | +0.1 |
| CEY | Cerknica | 0.75 | 52 | *i* Sg | Sb | 06 59 13.9 | -0.2 |
| | comp=Z,50nm,0.2s | | | | | | |
| CEY | Cerknica | 0.75 | 52 | *i* Sg | Sb | 06 59 13.9 | -0.2 |
| | comp=Z,50nm,0.2s | | | | | | |
| VOJS | Vojsko | 0.78 | 16 | *i* Pg | Pg | 06 59 03.7 | -0.3 |
| VOJS | | | | *e*Sg | Sg | 06 59 14.3 | 0.0 |
| | comp=Z,17nm,0.1s | | | | | | |
| VOJS | Vojsko | 0.78 | 16 | *i* Pg | Pg | 06 59 03.7 | -0.3 |
| VOJS | | | | *e*Sg | Sg | 06 59 14.3 | 0.0 |
| | comp=Z,17nm,0.1s | | | | | | |
| GBAS | Gorenja Brezov | 0.89 | 42 | *i* Pg | Pg | 06 59 05.6 | -0.5 |
| GBAS | | | | *i* Sg | Sb | 06 59 17.8 | -0.3 |
| GBAS | Gorenja Brezov | 0.89 | 42 | *i* Pg | Pg | 06 59 05.6 | -0.5 |
| GBAS | | | | *i* Sg | Sb | 06 59 17.8 | -0.3 |
| DRE | Drenchia | 0.90 | 3 | *e*Pg | Pg | 06 59 05.9 | -0.2 |
| DRE | | | | *e*Sg | Sb | 06 59 18.0 | -0.2 |
| DRE | Drenchia | 0.90 | 3 | *e*Pg | Pg | 06 59 05.9 | -0.2 |
| DRE | | | | *e*Sg | Sb | 06 59 18.0 | -0.2 |
| GBRS | Gornja Briga | 0.91 | 73 | *i* Pg | Pb | 06 59 06.7 | +0.3 |
| GBRS | | | | *i* Sg | Sb | 06 59 19.3 | +0.9 |
| CADS | Cadrg | 0.96 | 7 | *i* Sg | Sg | 06 59 19.5 | -0.3 |
| | comp=Z,26nm,0.2s | | | | | | |
| CADS | Cadrg | 0.96 | 7 | *i* Sg | Sg | 06 59 19.5 | -0.3 |
| | comp=Z,26nm,0.2s | | | | | | |
| ROBS | Robic | 0.97 | 357 | *i* Pg | Pg | 06 59 07.3 | -0.2 |
| ROBS | | | | *e*Sg | Sb | 06 59 20.0 | -0.2 |
| | comp=Z,34nm,0.2s | | | | | | |
| ROBS | Robic | 0.97 | 357 | *i* Pg | Pg | 06 59 07.3 | -0.2 |
| ROBS | | | | *e*Sg | Sb | 06 59 20.0 | -0.2 |
| | comp=Z,34nm,0.2s | | | | | | |
| BAD | Bernadia | 0.99 | 346 | ⇑*e*Pg | Pb | 06 59 07.7 | -0.1 |
| BAD | | | | *e*Sg | Sb | 06 59 21.4 | +0.6 |
| BAD | Bernadia | 0.99 | 346 | *e*Pg | Pb | 06 59 07.7 | -0.1 |
| BAD | | | | *e*Sg | Sb | 06 59 21.4 | +0.6 |
| BUA | Buia | 0.99 | 341 | ⇑*e*Pg | Pn | 06 59 08.2 | -0.3 |
| BUA | | | | *e*Sg | Sn | 06 59 22.3 | -0.1 |
| BUA | Buia | 0.99 | 341 | *e*Pg | Pn | 06 59 08.2 | -0.3 |
| BUA | | | | *e*Sg | Sn | 06 59 22.3 | -0.1 |
| VINO | Villanova | 1.00 | 348 | Pg | Pg | 06 59 07.5 | -0.6 |
| VINO | | | | Sg | Sn | 06 59 22.0 | -0.7 |
| | comp=Z,100nm,0.3s | | | | | | |
| VINO | Villanova | 1.00 | 348 | ⇑*e*Pg | Pg | 06 59 07.5 | -0.6 |
| VINO | | | | *e*Sg | Sb | 06 59 21.7 | +0.5 |
| VINO | Villanova | 1.00 | 348 | Pg | Pg | 06 59 07.5 | -0.6 |
| VINO | | | | Sg | Sn | 06 59 22.0 | -0.7 |
| | comp=Z,100nm,0.3s | | | | | | |
| VISS | Visnje | 1.03 | 59 | *i* Sg | Sn | 06 59 22.8 | -0.6 |
| | comp=Z,26nm,0.1s | | | | | | |
| VISS | Visnje | 1.03 | 59 | *i* Sg | Sn | 06 59 22.8 | -0.6 |
| | comp=Z,26nm,0.1s | | | | | | |
| GEPF | Gemona | 1.04 | 343 | Pg | Pb | 06 59 08.7 | 0.0 |
| GEPF | | | | Sg | Sb | 06 59 22.9 | +0.6 |
| | comp=Z,67nm,0.2s | | | | | | |
| GEPF | Gemona | 1.04 | 343 | Pg | Pb | 06 59 08.7 | 0.0 |
| GEPF | | | | Sg | Sb | 06 59 22.9 | +0.6 |
| | comp=Z,67nm,0.2s | | | | | | |
| MPRI | Monte Prat | 1.05 | 337 | ⇓*e*Pg | Pb | 06 59 09.1 | +0.2 |
| MPRI | Monte Prat | 1.05 | 337 | *e*Pg | Pb | 06 59 09.1 | +0.2 |
| POLC | Polcenigo | 1.06 | 315 | Pg | Pn | 06 59 09.8 | +0.3 |
| POLC | | | | Sg | Sn | 06 59 24.9 | +0.8 |
| | comp=Z,263nm,0.3s | | | | | | |
| POLC | Polcenigo | 1.06 | 315 | Pg | Pn | 06 59 09.8 | +0.3 |
| POLC | | | | Sg | Sn | 06 59 24.9 | +0.8 |
| | comp=Z,263nm,0.3s | | | | | | |
| GORS | Gorjuse | 1.08 | 16 | *e*Pg | Pb | 06 59 09.0 | -0.4 |
| GORS | | | | *e*Sg | Sb | 06 59 23.7 | +0.2 |
| | comp=Z,38nm,0.2s | | | | | | |
| GORS | Gorjuse | 1.08 | 16 | *e*Pg | Pb | 06 59 09.0 | -0.4 |
| GORS | | | | *e*Sg | Sb | 06 59 23.7 | +0.2 |
| | comp=Z,38nm,0.2s | | | | | | |
| CAE | Caneva | 1.08 | 313 | ⇑*e*Pg | Pn | 06 59 09.8 | 0.0 |
| CAE | | | | *e*Sg | Sn | 06 59 24.5 | -0.2 |
| CAE | Caneva | 1.08 | 313 | *e*Pg | Pn | 06 59 09.8 | 0.0 |
| CAE | | | | *e*Sg | Sn | 06 59 24.5 | -0.2 |
| BOO | Bordano | 1.09 | 342 | *e*Pg | Pb | 06 59 09.4 | -0.2 |
| BOO | Bordano | 1.09 | 342 | *e*Pg | Pb | 06 59 09.4 | -0.2 |
| MLNI | Malnisio | 1.10 | 322 | ⇓*e*Pg | Pg | 06 59 10.0 | -0.1 |
| MLNI | | | | *e*Sg | Sn | 06 59 25.6 | +0.3 |
| MLNI | Malnisio | 1.10 | 322 | *e*Pg | Pg | 06 59 10.0 | -0.1 |
| MLNI | | | | *e*Sg | Sn | 06 59 25.6 | +0.3 |
| PTCC | Patocco-Chiusa | 1.14 | 352 | Pg | Pb | 06 59 09.6 | -0.8 |
| PTCC | | | | Sg | Sg | 06 59 25.6 | +0.1 |
| | comp=Z,91nm,0.5s | | | | | | |
| PTCC | Patocco-Chiusa | 1.14 | 352 | Pg | Pb | 06 59 09.6 | -0.8 |
| PTCC | | | | Sg | Sg | 06 59 25.6 | +0.1 |
| | comp=Z,91nm,0.5s | | | | | | |
| STAL | STALIGIAL | 1.15 | 329 | Pg | Pb | 06 59 10.6 | -0.1 |
| STAL | | | | Sg | Sn | 06 59 26.7 | +0.2 |
| | comp=Z,200nm,0.2s | | | | | | |
| STAL | STALIGIAL | 1.15 | 329 | Pg | Pb | 06 59 10.6 | -0.1 |
| STAL | | | | Sg | Sn | 06 59 26.7 | +0.2 |
| | comp=Z,200nm,0.2s | | | | | | |
| MTLO | Montello | 1.17 | 298 | *e*Pg | Pb | 06 59 10.7 | -0.2 |
| MTLO | | | | *e*Sg | Sn | 06 59 27.9 | +1.1 |
| MTLO | Montello | 1.17 | 298 | *e*Pg | Pb | 06 59 10.7 | -0.2 |
| MTLO | | | | *e*Sg | Sn | 06 59 27.9 | +1.1 |
| MOZS | Mozjanca | 1.18 | 31 | *i* Pg | Pg | 06 59 11.7 | +0.1 |
| MOZS | | | | *i* Sg | Sn | 06 59 28.1 | +0.9 |
| MOZS | Mozjanca | 1.18 | 31 | *i* Pg | Pg | 06 59 11.7 | +0.1 |
| MOZS | | | | *i* Sg | Sn | 06 59 28.1 | +0.9 |
| LSR | Lussari | 1.20 | 358 | ⇑*e*Pg | Pb | 06 59 11.3 | -0.2 |
| LSR | | | | *e*Sg | Sn | 06 59 28.1 | +0.3 |
| LSR | Lussari | 1.20 | 358 | *e*Pg | Pb | 06 59 11.3 | -0.2 |
| LSR | | | | *e*Sg | Sn | 06 59 28.1 | +0.3 |
| FUSE | Fusea | 1.21 | 341 | ⇑*e*Pg | Pn | 06 59 11.2 | -0.3 |
| FUSE | | | | *e*Sg | Sg | 06 59 27.6 | -0.1 |
| FUSE | Fusea | 1.21 | 341 | *e*Pg | Pn | 06 59 11.1 | -0.3 |
| FUSE | | | | *e*Sg | Sg | 06 59 27.6 | -0.1 |
| VARN | Col Varnada, M | 1.26 | 305 | ⇑*e*Pg | Pn | 06 59 12.3 | +0.1 |
| VARN | | | | *e*Sg | Sn | 06 59 30.0 | +1.0 |
| VARN | Col Varnada, M | 1.26 | 305 | *e*Pg | Pn | 06 59 12.3 | +0.1 |
| VARN | | | | *e*Sg | Sn | 06 59 30.0 | +1.0 |
| PDKS | Podkum | 1.27 | 51 | *i* Pg | Pg | 06 59 13.3 | +0.2 |
| PDKS | | | | *i* Sg | Sg | 06 59 30.5 | +0.8 |
| | comp=Z,22nm,0.1s | | | | | | |
| PDKS | Podkum | 1.27 | 51 | *i* Pg | Pg | 06 59 13.4 | +0.2 |
| PDKS | | | | *i* Sg | Sg | 06 59 30.5 | +0.8 |
| | comp=Z,22nm,0.1s | | | | | | |
| ACOM | Acomizza, Ital | 1.27 | 358 | Pg | Pn | 06 59 12.6 | +0.1 |
| | comp=Z,78nm,0.3s | | | | | | |
| ACOM | Acomizza, Ital | 1.27 | 358 | *e*Pg | Pn | 06 59 12.5 | +0.1 |
| ACOM | Acomizza, Ital | 1.27 | 358 | Pg | Pn | 06 59 12.6 | +0.1 |
| | comp=Z,78nm,0.3s | | | | | | |
| CIMO | Cimolais | 1.30 | 323 | *e*Pg | Pn | 06 59 12.9 | +0.1 |
| CIMO | | | | *e*Sg | Sn | 06 59 30.3 | +0.2 |
| CIMO | Cimolais | 1.30 | 323 | *e*Pg | Pn | 06 59 12.9 | +0.1 |
| CIMO | | | | *e*Sg | Sn | 06 59 30.3 | +0.2 |
| PLRO | Paularo | 1.31 | 347 | ⇑*e*Pg | Pn | 06 59 13.1 | +0.2 |
| PLRO | | | | *e*Sg | Sg | 06 59 31.1 | +0.2 |
| PLRO | Paularo | 1.31 | 347 | *e*Pg | Pn | 06 59 13.1 | +0.2 |
| PLRO | | | | *e*Sg | Sg | 06 59 31.1 | +0.2 |
| CSO | Casso | 1.33 | 319 | *e*Pg | Pn | 06 59 13.2 | 0.0 |
| CSO | Casso | 1.33 | 319 | *e*Pg | Pn | 06 59 13.2 | 0.0 |
| CSO | | | | *e*Sg | Sg | 06 59 32.0 | +0.5 |
| ZOU | Zoufplan | 1.35 | 342 | ⇓*e*Pg | Pn | 06 59 13.7 | +0.1 |
| ZOU | | | | *e*Sg | Sg | 06 59 32.0 | -0.2 |
| ZOU | Zoufplan | 1.35 | 342 | ⇓*e*Pg | Pn | 06 59 13.6 | +0.1 |
| ZOU | | | | *e*Sg | Sg | 06 59 32.2 | 0.0 |
| ZOU | Zoufplan | 1.35 | 342 | *e*Pg | Pn | 06 59 13.6 | +0.1 |
| ZOU | | | | *e*Sg | Sg | 06 59 32.2 | 0.0 |
| TEOL | Teolo | 1.35 | 274 | Pg | Pn | 06 59 13.1 | -0.3 |
| TEOL | | | | Sg | Sg | 06 59 32.4 | +0.2 |
| | comp=Z,192nm,0.4s | | | | | | |
| TEOL | Teolo | 1.35 | 274 | Pg | Pn | 06 59 13.1 | -0.3 |
| TEOL | | | | Sg | Sg | 06 59 32.4 | +0.2 |
| | comp=Z,192nm,0.4s | | | | | | |
| MYKA | Terra Mystica | 1.35 | 2 | Pg | Pg | 06 59 14.7 | -0.1 |
| | comp=Z,11nm,0.2s,SNR=12 | | | | | | |
| MYKA | | | | Sg | Sg | 06 59 33.2 | +0.8 |
| | comp=Z,15nm,0.2s | | | | | | |
| OZLJ | Ozalj | 1.37 | 75 | *e*Pg | Pg | 06 59 15.1 | -0.1 |
| OZLJ | | | | Sg | Sg | 06 59 33.6 | +0.6 |
| OZLJ | Ozalj | 1.37 | 75 | *e*Pg | Pg | 06 59 15.1 | -0.1 |
| OZLJ | | | | Sg | Sg | 06 59 33.6 | +0.6 |
| CGRP | Cima Grappa | 1.39 | 296 | Pg | Pn | 06 59 13.6 | -0.5 |
| CGRP | Cima Grappa | 1.39 | 296 | Pg | Pn | 06 59 13.6 | -0.5 |
| CSMI | Casera Mimoias | 1.39 | 333 | ⇑*e*Pg | Pb | 06 59 14.6 | -0.2 |
| CSMI | | | | *e*Sg | Sg | 06 59 33.5 | -0.2 |
| CSMI | Casera Mimoias | 1.39 | 333 | *e*Pg | Pb | 06 59 14.6 | -0.2 |
| CSMI | | | | *e*Sg | Sg | 06 59 33.5 | -0.2 |
| OBKA | Obir | 1.41 | 29 | Pg | Pb | 06 59 15.2 | +0.2 |
| | comp=Z,4.1nm,0.2s,SNR=7.5 | | | | | | |
| OBKA | | | | Sg | Sg | 06 59 33.9 | -0.2 |
| | comp=Z,43nm,0.2s | | | | | | |
| FVI | Forni Avoltri | 1.43 | 337 | Pg | Pb | 06 59 15.2 | -0.2 |
| FVI | | | | Sg | Sg | 06 59 34.6 | -0.3 |
| | comp=Z,101nm,0.6s | | | | | | |
| FVI | Forni Avoltri | 1.43 | 337 | Pg | Pb | 06 59 15.2 | -0.2 |
| FVI | | | | Sg | Sg | 06 59 34.6 | -0.3 |
| | comp=Z,101nm,0.6s | | | | | | |
| ABTA | Abfaltersbach | 1.65 | 334 | Pg | Pb | 06 59 18.7 | -0.4 |
| | comp=Z,2.3nm,0.2s | | | | | | |
| ABTA | | | | Sn | Sb | 06 59 39.9 | +0.1 |
| | comp=Z,10nm,0.2s,SNR=4.9 | | | | | | |
| UDBI | Udbina | 1.73 | 115 | *e*Pn | Pg | 06 59 21.1 | -0.8 |
| UDBI | | | | Sn | Sg | 06 59 44.5 | +0.1 |
| UDBI | Udbina | 1.73 | 115 | *e*Pn | Pg | 06 59 21.1 | -0.8 |
| UDBI | | | | Sn | Sg | 06 59 44.4 | +0.1 |
| SOKA | Soboth | 1.73 | 35 | Pg | Pg | 06 59 21.2 | -0.8 |
| | comp=Z,1.5nm,0.2s | | | | | | |
| SOKA | | | | Sn | Sb | 06 59 42.1 | -0.1 |
| | comp=Z,8.3nm,0.3s,SNR=6.4 | | | | | | |
| WTTA | Wattenberg | 2.40 | 327 | Pg | Pg | 06 59 34.7 | -0.1 |
| | comp=Z,2.5nm,0.1s | | | | | | |
| FETA | Feichten | 2.64 | 312 | Pg | Pg | 06 59 38.7 | -0.6 |
| | comp=Z,0.6nm,0.1s | | | | | | |
| FETA | | | | Sg | Sg | 07 00 12.6 | -0.9 |
| | comp=Z,4.6nm,0.3s | | | | | | |
| MOTA | Moosalm | 2.69 | 321 | Pn | Pn | 06 59 32.6 | +0.7 |
| | comp=Z,0.3nm,0.1s | | | | | | |
| MOTA | | | | Sg | Sg | 07 00 16.0 | +1.0 |
| | comp=Z,4.8nm,0.3s | | | | | | |
| STON | Ston | 3.82 | 128 | *e*Pn | Pn | 06 59 47.3 | -0.1 |
| STON | | | | Sn | Sn | 07 00 32.9 | +0.7 |
| STON | Ston | 3.82 | 128 | *e*Pn | Pn | 06 59 47.2 | -0.1 |
| STON | | | | Sn | Sn | 07 00 32.9 | +0.7 |

---

*CSEM **05** 07:04:31.8, 60°.91N×26°.66E, h0$^{km}$, ML0.6, Mining explosion.*
*HEL **05** 07:04:32.0±0.1, 60°.89N×26°.67E, h2$^{km}$, ML0.6*
**HEL 05 07:04:31.8**±0.1**, 60°.91N×26°.66E, h0**$^{km}$**, ML0.6, Explosion, Finland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PVF | Pernaja | 0.53 | 228 | P | Pg | 07 04 41.5 | -0.5 |
| PVF | Pernaja | 0.53 | 228 | P | Pg | 07 04 41.5 | -0.5 |
| PVF | | | | S | Sg | 07 04 48.2 | -0.7 |
| PVF | Pernaja | 0.53 | 228 | *e*P | Pg | 07 04 41.5 | -0.5 |
| PVF | | | | *e*S | Sg | 07 04 48.2 | -0.7 |
| PVF | Pernaja | 0.53 | 228 | *e*P | Pg | 07 04 41.5 | -0.5 |
| PVF | | | | *e*S | Sg | 07 04 48.5 | -0.4 |
| PVF | | | | MSG | | 07 04 49.2 | |
| | comp=Z,0.5nm,0.2s | | | | | | |
| VJF | Virojoki | 0.57 | 130 | P | Pg | 07 04 41.8 | -0.9 |
| VJF | Virojoki | 0.57 | 130 | P | Pg | 07 04 41.8 | -0.9 |
| VJF | | | | S | Sg | 07 04 49.5 | -0.6 |
| VJF | Virojoki | 0.57 | 130 | *e*P | Pg | 07 04 41.8 | -0.9 |
| VJF | | | | *e*S | Sg | 07 04 49.6 | -0.6 |
| VJF | Virojoki | 0.57 | 130 | *e*P | Pg | 07 04 41.8 | -0.9 |
| VJF | | | | *e*S | Sg | 07 04 49.6 | -0.6 |
| VJF | | | | MSG | | 07 04 50.6 | |
| | comp=Z,0.7nm,0.1s | | | | | | |
| FIA0 | FINESS Array S | 0.61 | 333 | P | Pg | 07 04 42.8 | -0.7 |
| FIA0 | FINESS Array S | 0.61 | 333 | P | Pg | 07 04 42.8 | -0.7 |
| FIA0 | | | | S | Sg | 07 04 50.3 | -1.1 |
| FIA0 | FINESS Array S | 0.61 | 333 | *e*P | Pg | 07 04 42.8 | -0.7 |
| FIA0 | | | | *e*S | Sg | 07 04 50.3 | -1.1 |
| FIA0 | FINESS Array S | 0.61 | 333 | *e*P | Pg | 07 04 42.8 | -0.7 |
| FIA0 | | | | *e*S | Sg | 07 04 50.8 | -0.6 |
| FIA0 | | | | MSG | | 07 04 52.0 | |
| | comp=Z,0.5nm,0.1s | | | | | | |
| KAF | Kangasniemi | 1.22 | 352 | S | Sg | 07 05 10.5 | -0.6 |
| KAF | Kangasniemi | 1.22 | 352 | *e*S | Sg | 07 05 10.5 | -0.6 |
| KAF | | | | MSG | | 07 05 12.2 | |
| | comp=Z,0.4nm,0.2s | | | | | | |
| MEF | Metsahovi | 1.31 | 239 | S | Sg | 07 05 12.0 | -2.0 |
| MEF | Metsahovi | 1.31 | 239 | *e*S | Sg | 07 05 12.0 | -2.0 |
| MEF | Metsahovi | 1.31 | 239 | *e*S | Sg | 07 05 12.0 | -2.0 |
| KEF | Keuruu | 1.53 | 327 | S | Sg | 07 05 19.6 | -1.3 |
| KEF | Keuruu | 1.53 | 327 | *e*S | Sg | 07 05 19.8 | -1.1 |
| KEF | Keuruu | 1.53 | 327 | *e*S | Sg | 07 05 19.6 | -1.3 |
| SUF | Sumiainen | 1.84 | 353 | Sg | Sn | 07 05 28.9 | +0.4 |
| SUF | Sumiainen | 1.84 | 353 | *e*SN | Sn | 07 05 28.9 | +0.4 |
| SUF | | | | MSG | | 07 05 32.3 | |
| | comp=Z,0.2nm,0.1s | | | | | | |
| SUF | Sumiainen | 1.84 | 353 | *e*SG | Sn | 07 05 28.9 | +0.4 |
| SUF | | | | MSG | | 07 05 32.3 | |
| | comp=Z,0.2nm,0.1s | | | | | | |

---

*SJA **05** 07:08:49.3±0.9, 32°.23S×71°.72W, h59$^{km}$±11$^{km}$, ML2.9, MW3.1*
*GUC **05** 07:08:49.9±0.6, 32°.12S×71°.51W, h40$^{km}$±5$^{km}$, ML3.0*
**ISC 05 07:08:49.0**±2.6**, 32°.26S**±0°.06×**71°.6W**±0°.1**, h0**$^{km}$±13$^{km}$**, n15, σ0$^{s}$42**/24**, 1D, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ROCH | El Roble | 0.88 | 144 | ⇓*i*P | Pb | 07 09 07.4 | +0.1 |
| ROCH | | | | *e*S | Sb | 07 09 20.9 | +1.2 |
| ROCH | | | | IAML | | 07 09 22.8 | |
| | comp=E,479nm,0.2s | | | | | | |
| ROCH | | | | IAML | | 07 09 23.4 | |
| | comp=N,449nm,0.3s | | | | | | |
| ROC1 | El Roble | 0.88 | 145 | *e*P | Pb | 07 09 07.5 | +0.2 |
| ROC1 | | | | *e*S | Sn | 07 09 22.4 | -0.1 |
| PEL | Peldehue | 1.18 | 139 | *e*P | Pg | 07 09 11.9 | +0.2 |
| PEL | | | | *i* S | Sb | 07 09 28.7 | +0.5 |
| PEL | | | | IAML | | 07 09 29.1 | |
| | comp=N,690nm,0.2s | | | | | | |
| RCDM | Rinconada Maip | 1.41 | 151 | *e*P | Pg | 07 09 15.6 | -0.4 |
| RCDM | | | | *i* S | Sn | 07 09 35.3 | +0.1 |
| CLCH | Cerro Calan | 1.46 | 142 | *i* P | Pn | 07 09 16.3 | -0.4 |
| CLCH | | | | *i* S | Sg | 07 09 35.9 | +0.1 |
| CLCH | | | | IAML | | 07 09 37.9 | |
| | comp=E,703nm,0.5s | | | | | | |
| FCH | Farellones | 1.55 | 134 | *e*P | Pn | 07 09 17.6 | -0.5 |
| FCH | | | | *i* S | Sg | 07 09 38.5 | -0.3 |
| FCH | | | | IAML | | 07 09 40.0 | |
| | comp=E,327nm,0.2s | | | | | | |
| ANTU | Antumapu | 1.55 | 148 | *e*P | Pn | 07 09 17.6 | -0.3 |
| ANTU | | | | *i* S | Sb | 07 09 38.7 | -0.1 |
| ANTU | | | | IAML | | 07 09 40.0 | |
| | comp=N,214nm,0.2s | | | | | | |
| AUSP | Uspallata | 1.89 | 90 | *e*P | Pn | 07 09 22.6 | -0.2 |
| AUSP | | | | *e*S | Sn | 07 09 47.5 | -0.1 |
| RTLS | Leoncito | 2.02 | 78 | *e*P | Pn | 07 09 24.4 | -0.3 |
| ARCO | CERRO ARCO | 2.34 | 105 | *e*P | Pn | 07 09 29.1 | +0.2 |
| ARCO | | | | IAML | | 07 09 43.8 | |
| | comp=Z,63nm,0.4s | | | | | | |
| AMOG | MOGNA | 2.98 | 65 | *e*P | Pn | 07 09 37.5 | -0.1 |
| ACAN | Cantantal | 3.75 | 91 | *e*P | Pn | 07 09 47.9 | -0.3 |
| ACAN | | | | *e*S | Sn | 07 10 32.2 | -0.9 |
| AGUA | GUANDACOL | 3.85 | 45 | *e*P | Pn | 07 09 49.7 | 0.0 |
| APLL | PUNTA DE LOS L | 4.74 | 68 | *e*P | Pn | 07 10 01.6 | -0.1 |
| ACLC | CERRO LA CRUZ | 4.91 | 56 | *e*P | Pn | 07 10 04.4 | +0.2 |

---

*IDC **05** 07:15:16.4±1.2, 17°.68S×172°.60W, h0$^{km}$, mb4.2/8, mb1 4.4/9, mb1mx4.1/40, mbtmp4.3/9, ML3.9/1, MS3.2/11, Ms1 3.2/11, ms1mx3.0/28, Error ellipse: s-maj=40.5km s-min=18.3km az=131.0*
*ISCJB **05** 07:15:17.3±0.5, 17°.71S±0°.07×172°.57W±0°.08, h21$^{km}$, mb4.7/20, MS3.2/9, Error ellipse: s-maj=13.5km s-min=7.1km az=36.9*
*NEIC **05** 07:15:18.7±1.0, 17°.85S×172°.46W, h21$^{km}$±7$^{km}$, mb4.8/12, Error ellipse: s-maj=15.0km s-min=9.0km az=153.0*
**ISC 05 07:15:18.4**±0.5**, 17°.78S**±0°.08×**172°.45W**±0°.08**, h21**$^{km}$**, n44, σ1$^{s}$41**/35**, mb4.7**/20**, MS3.2**/9**, Tonga Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AFI | Afiamalu | 3.91 | 10 | Pn | Pn | 07 16 16.1 | -1.2 |
| | 9.1nm,0.3s,baz=273,slow=0.9,SNR=15 | | | | | | |
| AFI | | | | Sn | Sn | 07 17 02.0 | -0.6 |
| | 11nm,0.3s,baz=169,slow=20,SNR=3.5 | | | | | | |
| AFI | | | | LR | LR | 07 17 38.8 | |
| | comp=Z,159nm,21.2s,baz=232,slow=37 | | | | | | |
| AFI | | | | T | T | 07 20 48.2 | |
| | 10nm,0.3s,baz=195,slow=22,SNR=7.3 | | | | | | |
| AFI | Afiamalu | 3.91 | 10 | *e*Pn | Pn | 07 16 17.4 | +0.1 |
| AFI | | | | *e*Sn | Sn | 07 17 02.0 | -0.6 |
| AFI | | | | TT | | 07 20 48.2 | |
| MSVF | Nonsavu | 9.05 | 269 | *e*Pn | Pn | 07 17 27.2 | -0.9 |
| RAR | Rarotonga | 12.43 | 108 | Pn | Pn | 07 18 05.7 | -8.6 |
| | 1.5nm,0.3s,baz=309,slow=13,SNR=3.9 | | | | | | |
| RAR | | | | LR | LR | 07 21 40.8 | |
| | comp=Z,140nm,21.9s,baz=270,slow=30 | | | | | | |
| RAR | Rarotonga | 12.43 | 108 | *e*Pn | Pn | 07 18 12.3 | -1.9 |
| DZM | Mont Dzumac | 20.29 | 254 | P | Pn | 07 19 54.5 | -0.7 |
| | 3.7nm,0.6s,baz=68,slow=18,SNR=4.9 | | | | | | |
| DZM | | | | LR | LR | 07 25 16.1 | |
| | comp=Z,38nm,21.6s,baz=128,slow=30 | | | | | | |
| DZM | Mont Dzumac | 20.29 | 254 | *e*LR | LR | 07 24 32.8 | |
| | 170nm,25.1s | | | | | | |
| DZM | Mont Dzumac | 20.29 | 254 | *e*P | P | 07 19 50.1 | -3.0 |
| | 70nm,2.0s | | | | | | |
| PPT2 | Papeete2 | 21.79 | 93 | *e*LQ | LQ | 07 24 11.5 | |
| | 212nm,25.5s | | | | | | |
| PPT2 | | | | *e*LR | LR | 07 25 05.4 | |
| | 248nm,26.0s | | | | | | |
| PPT | Papeete | 21.79 | 93 | LR | LR | 07 25 59.5 | |
| | comp=Z,69nm,20.5s,baz=264,slow=29 | | | | | | |
| TBI | Tubuai | 22.21 | 108 | *e*LR | LR | 07 25 05.4 | |
| | 279nm,30.5s | | | | | | |
| URZ | Urewera | 22.35 | 202 | P | P | 07 20 15.6 | +0.6 |
| | 6.8nm,0.5s,baz=27,slow=4.5,SNR=7.0 | | | | | | |
| URZ | | | | LR | LR | 07 27 18.2 | |
| | comp=Z,74nm,20.4s,baz=30,slow=32 | | | | | | |
| CTA | Charters Tower | 39.06 | 260 | P | P | 07 22 44.5 | +0.3 |
| | 6.0nm,0.6s,baz=92,slow=12,SNR=8.1 | | | | | | |
| STKA | Stephens Creek | 43.69 | 242 | P | P | 07 23 22.2 | +0.1 |
| | 2.3nm,0.7s,baz=88,slow=11,SNR=4.5 | | | | | | |
| STKA | | | | LR | LR | 07 38 46.1 | |
| | comp=Z,31nm,20.8s,baz=20,slow=32 | | | | | | |
| STKA | Stephens Creek | 43.69 | 242 | *e*P | P | 07 23 22.2 | +0.1 |
| | 3.4nm,1.4s | | | | | | |
| WB2 | Warramunga Arr | 50.22 | 259 | *e*P | P | 07 24 13.5 | +0.2 |
| | 6.9nm,0.8s | | | | | | |
| WRAB | Tennant Creek | 50.22 | 259 | *e*P | P | 07 24 13.3 | -0.1 |
| | 31nm,1.6s | | | | | | |
| WR1 | Warramunga Arr | 50.23 | 259 | *e*P | P | 07 24 13.2 | -0.3 |
| | 8.2nm,0.8s | | | | | | |
| WRA | Warramunga Arr | 50.23 | 259 | P | P | 07 24 13.2 | -0.3 |
| | 3.0nm,0.5s,baz=96,slow=6.9,SNR=58 | | | | | | |
| AS01 | Alice Springs | 50.24 | 254 | *e*P | P | 07 24 13.6 | +0.2 |
| AS31 | Alice Springs | 50.28 | 254 | *e*P | P | 07 24 14.6 | +0.8 |
| | 5.7nm,0.9s | | | | | | |
| ASAR | Alice Springs | 50.28 | 254 | P | P | 07 24 14.5 | +0.7 |
| | 8.7nm,0.7s,baz=92,slow=9.0,SNR=72 | | | | | | |
| RPN | Rapa Nui | 58.55 | 111 | LR | LR | 07 42 02.9 | |
| | comp=Z,23nm,20.4s,baz=261,slow=27 | | | | | | |
| SOEI | Soe | 61.75 | 268 | *e*P | P | 07 25 36.6 | +0.5 |
| | 40nm,1.2s | | | | | | |
| QSPA | South Pole Qui | 72.28 | 180 | *e*P | P | 07 26 42.5 | +0.3 |
| | 12nm,1.4s | | | | | | |
| MDPB | Devils Postpil | 74.53 | 41 | *e*P | P | 07 26 55.8 | -0.2 |
| | 43nm,1.1s | | | | | | |
| R11A | Troy Canyon, C | 77.17 | 42 | *e*P | P | 07 27 07.8 | -3.3 |
| | 13nm,1.9s | | | | | | |
| CCUT | Cedar City | 78.18 | 44 | *e*P | P | 07 27 15.1 | -1.6 |
| | 4.0nm,0.5s | | | | | | |
| KSRS | Korea Array | 78.49 | 316 | LR | LR | 07 56 33.3 | |
| | comp=Z,11nm,20.3s,baz=57,slow=32 | | | | | | |
| LTX | Lajitas | 81.19 | 55 | *e*P | P | 07 27 35.8 | +2.7 |
| TXAR | Lajitas Array | 81.19 | 55 | P | P | 07 27 35.8 | +2.7 |
| | 1.1nm,1.2s,baz=204,slow=2.7,SNR=4.3 | | | | | | |
| P18A | Preston Nutter | 81.35 | 44 | *e*P | P | 07 27 34.4 | +0.4 |
| | 20nm,1.2s | | | | | | |
| WRH | Wood River Hil | 84.11 | 10 | *e*P | P | 07 27 49.2 | +1.8 |
| | 55nm,2.0s | | | | | | |
| CCB | Clear Creek Bu | 84.32 | 10 | *e*pP | pP | 07 27 56.9 | +1.5 |
| IL1 | Eielson Array | 84.60 | 11 | *e*P | P | 07 27 49.3 | -0.5 |
| ILAR | Eielson Array | 84.60 | 11 | P | P | 07 27 50.6 | +0.8 |
| | 0.6nm,0.8s,baz=221,slow=5.3,SNR=6.9 | | | | | | |
| ILB | Eielson Array | 84.60 | 11 | *e*P | P | 07 27 49.9 | +0.1 |
| IMAR | Indian Mountai | 84.70 | 8 | *e*P | P | 07 27 53.2 | +2.9 |
| PLCA | Paso Flores | 87.25 | 132 | LR | LR | 07 58 35.4 | |
| | comp=Z,19nm,19.2s,baz=97,slow=30 | | | | | | |
| PLCA | Paso Flores | 87.25 | 132 | *e*P | P | 07 28 03.9 | +0.1 |
| | 24nm,1.8s | | | | | | |
| WLAR | White Oak Lake | 91.18 | 55 | *e*P | P | 07 28 21.2 | -1.0 |
| | 54nm,0.9s | | | | | | |
| CMAR | Chiang Mai Arr | 94.22 | 288 | LR | LR | 08 06 09.2 | |
| | comp=Z,8.7nm,22.0s,baz=95,slow=32 | | | | | | |
| LPAZ | La Paz | 98.14 | 110 | LR | LR | 08 03 06.6 | |
| | comp=Z,24nm,21.6s,baz=310,slow=29 | | | | | | |
| CLL | Collm | 146.27 | 354 | *e*PKPbc | PKPab | 07 35 00.0 | +1.9 |
| CLL | | | | *e*pPKPbc | sPKPdf | 07 35 06.0 | +0.1 |

---

*CASC **05** 07:34:47.8±1.5, 13°.60N×92°.10W, h35$^{km}$±999$^{km}$, ML4.0, mb4.3(NEIC)*
*IDC **05** 07:34:50.9±1.7, 13°.66N×91°.32W, h0$^{km}$, mb4.1/7, mb1 4.3/9, mb1mx4.0/37, mbtmp4.1/9, ML4.1/2, MS3.5/5, Ms1 3.5/5, ms1mx3.0/34, Error ellipse: s-maj=43.5km s-min=25.2km az=35.0*
*NEIC **05** 07:34:59.8±1.2, 13°.92N×91°.18W, h44$^{km}$±11$^{km}$, mb4.3/24, Error ellipse: s-maj=18.2km s-min=8.9km az=211.0*
*ISCJB **05** 07:35:00.4±0.7, 13°.93N±0°.06×91°.11W±0°.06, h72$^{km}$±6$^{km}$, mb4.2/25, Error ellipse: s-maj=12.7km s-min=5.6km az=37.6*
**ISC 05 07:35:00.4**±1.1**, 14°.06N**±0°.07×**91°.17W**±0°.06**, h57**$^{km}$±10$^{km}$**, n165, σ1$^{s}$67**/159**, mb4.3**/25**, MS3.7**/7**, Guatemala**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| IXG | Ixpaco | 0.70 | 81 | *e*P | Pn | 07 35 15.3 | +0.7 |
| CUS1 | Cusmapa | 1.19 | 97 | *e*P | Pn | 07 35 20.2 | -0.8 |
| RBDL | Robledal | 1.44 | 88 | *e*P | Pn | 07 35 25.4 | +1.1 |
| RBDL | | | | *e*S | Sn | 07 35 52.8 | +11 |
| RTR | El Retiro | 1.48 | 96 | *e*P | Pn | 07 35 25.3 | +0.3 |
| MONT | Ecomontaæa | 1.49 | 98 | *e*P | Pn | 07 35 24.9 | -0.2 |
| MONT | | | | *e*S | Sn | 07 35 54.2 | +11 |
| SBLS | San Blas | 1.51 | 98 | *e*P | Pn | 07 35 25.3 | -0.2 |
| SNJE | San Jose | 1.53 | 97 | *e*P | Pn | 07 35 24.9 | -0.7 |
| SNJE | | | | *e*S | Sn | 07 35 55.4 | +11 |
| UNIC | Santa Ana | 1.56 | 92 | *e*P | Pn | 07 35 26.8 | +0.8 |
| COLS | Colinas | 1.85 | 102 | *e*P | Pn | 07 35 29.0 | -1.0 |
| BOQS | Boqueron | 1.86 | 100 | *e*P | Pn | 07 35 29.6 | -0.5 |
| BOQS | | | | *e*S | Sn | 07 36 03.6 | +11 |
| SNET | Serv Nac Est T | 1.91 | 101 | *e*Pn | Pn | 07 35 30.1 | -0.6 |
| SNET | | | | *e*Sn | Sn | 07 35 58.9 | +5.0 |
| SNET | Serv Nac Est T | 1.91 | 101 | *e*P | Pn | 07 35 30.2 | -0.6 |
| SNET | | | | AML | AML | 07 36 05.3 | |
| | comp=Z,2μm,0.3s | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| OPAM | San Salvador | 1.94 | 100 | eP | Pn | 07 35 30.2 | -0.9 |
| OPAM | | | | AML | AML | 07 36 03.7 | |
| | comp=Z,991nm,0.3s | | | | | | |
| UESS | San Salvador | 1.94 | 100 | eP | Pn | 07 35 31.3 | +0.2 |
| UESS | | | | AML | AML | 07 35 35.7 | |
| | comp=Z,696nm,0.2s | | | | | | |
| UDBS | Soyapango | 1.98 | 100 | eP | Pn | 07 35 31.8 | +0.1 |
| UDBS | | | | AML | AML | 07 36 04.9 | |
| | comp=Z,1μm,0.3s | | | | | | |
| LBRS | Las Brisas | 2.08 | 99 | eP | Pn | 07 35 33.2 | +0.1 |
| LFRS | El Faro | 2.09 | 102 | eP | Pn | 07 35 33.0 | -0.2 |
| LFRS | | | | eS | Sn | 07 36 07.6 | +9.4 |
| SNVI | San Vicente | 2.30 | 101 | eP | Pn | 07 35 36.4 | +0.3 |
| CCIG | Comitan | 2.40 | 337 | ePn | Pn | 07 35 40.9 | +3.4 |
| CAHU | Cacacuatique | 2.88 | 95 | eP | Pn | 07 35 45.9 | +1.8 |
| CNCH | Conchagua | 3.33 | 103 | eP | Pn | 07 35 49.5 | -0.7 |
| TGUH | Tegucigalpa,Un | 3.78 | 90 | ePn | Pn | 07 35 57.0 | +0.9 |
| TGUH | | | | eSn | Sn | 07 36 35.8 | -3.6 |
| CRIN | San Cristobal | 4.23 | 108 | eP | Pn | 07 36 00.6 | -1.9 |
| CRIN | | | | AML | AML | 07 37 01.5 | |
| | comp=N,289nm,0.7s | | | | | | |
| CMIG | Matias Romero | 4.68 | 311 | Pn | Pn | 07 36 05.9 | -2.7 |
| | comp=N,3.1nm,0.3s,baz=153,slow=12,SNR=34 | | | | | | |
| CMIG | | | | Sn | Sn | 07 37 01.8 | +0.2 |
| | comp=N,7.0nm,0.3s,baz=62,slow=16,SNR=4.0 | | | | | | |
| ESTN | Estel | 4.76 | 101 | eP | Pn | 07 36 08.6 | -1.2 |
| COPN | Copaltepe | 4.83 | 112 | eP | Pn | 07 36 07.1 | -3.5 |
| COPN | | | | AML | AML | 07 37 05.2 | |
| | comp=Z,117nm,0.3s | | | | | | |
| TEIG | Tepich | 6.72 | 24 | ePn | Pn | 07 36 35.2 | -1.3 |
| TEIG | | | | eSn | Sn | 07 37 47.6 | -4.1 |
| MYIG | MØrida | 6.99 | 11 | ePn | Pn | 07 36 39.0 | -1.2 |
| MYIG | | | | eSn | Sn | 07 37 56.2 | -2.2 |
| JTS | JuntasAbangare | 7.14 | 121 | eP | Pn | 07 36 38.8 | -3.4 |
| TLIG | Tlapa | 7.93 | 297 | ePn | Pn | 07 36 51.6 | -1.6 |
| TLIG | | | | eSn | Sn | 07 38 19.5 | -2.1 |
| HDC | Heredia | 7.99 | 120 | ePn | Pn | 07 36 54.1 | +0.1 |
| HDC | | | | eSn | Sn | 07 38 24.4 | +1.2 |
| UNM | Universidad Na | 9.29 | 305 | ePn | Pn | 07 37 14.5 | +2.5 |
| 833A | Chaparral WMA, | 16.12 | 333 | P | P | 07 38 46.9 | +1.1 |
| | baz=150 | | | | | | |
| LTX | Lajitas | 19.10 | 325 | eP | Pn | 07 39 20.9 | +0.9 |
| TXAR | Lajitas Array | 19.10 | 325 | Pn | Pn | 07 39 20.9 | +0.9 |
| | comp=Z,0.2nm,0.3s,baz=156,slow=13,SNR=40 | | | | | | |
| TX31 | Lajitas Ar. Si | 19.10 | 325 | eP | Pn | 07 39 20.9 | +0.9 |
| PAMC | Pamplona, Colo | 19.33 | 108 | eP | P | 07 39 22.9 | +1.2 |
| H06E1 | SOCORRO T-PHAS | 19.52 | 287 | T | T | 07 59 09.3 | |
| | SNR=17 | | | | | | |
| RUSC | La Rusia | 19.56 | 113 | eP | P | 07 39 23.9 | -0.3 |
| RUSC | La Rusia | 19.56 | 113 | eP | P | 07 39 24.2 | 0.0 |
| | comp=Z,2.9nm,1.0s | | | | | | |
| CHIC | Chingaza | 19.57 | 117 | eP | P | 07 39 25.3 | +1.0 |
| ABTX | Abilene, Hawle | 20.03 | 339 | P | Pn | 07 39 30.6 | -0.3 |
| | baz=156 | | | | | | |
| ABTX | Abilene, Hawle | 20.03 | 339 | eP | Pn | 07 39 30.6 | -0.3 |
| | comp=Z,8.2nm,0.9s | | | | | | |
| Y37A | Hugo | 20.24 | 349 | P | P | 07 39 32.7 | +1.8 |
| | baz=168 | | | | | | |
| Y35A | Marietta | 20.46 | 346 | P | Pn | 07 39 36.2 | +0.3 |
| | baz=164 | | | | | | |
| MIAR | Mount Ida | 20.51 | 354 | P | Pn | 07 39 36.1 | -0.4 |
| | baz=173 | | | | | | |
| X39A | Fountain Ranch | 20.53 | 353 | P | Pn | 07 39 36.7 | -0.1 |
| | baz=172 | | | | | | |
| UALR | University of | 20.65 | 357 | eP | Pn | 07 39 40.3 | +2.1 |
| | comp=Z,13nm,0.8s | | | | | | |
| SDV | Santo Domingo | 20.76 | 102 | P | P | 07 39 34.8 | -2.2 |
| | comp=Z,3.0nm,0.6s,baz=288,slow=7.3,SNR=3.7 | | | | | | |
| X38A | Whitesboro | 20.78 | 351 | P | Pn | 07 39 39.4 | -0.3 |
| | baz=170 | | | | | | |
| X37A | Clayton | 20.79 | 350 | P | Pn | 07 39 40.5 | +0.7 |
| | baz=169 | | | | | | |
| X36A | Centrahoma | 20.95 | 348 | P | P | 07 39 40.8 | +2.2 |
| | baz=166 | | | | | | |
| W41B | Gary Mavity, V | 21.04 | 358 | P | P | 07 39 41.4 | +1.8 |
| | baz=177 | | | | | | |
| WHAR | Wooly Hollow | 21.16 | 357 | eP | P | 07 39 44.7 | +3.8 |
| | comp=Z,7.4nm,0.7s | | | | | | |
| W39A | Magazine | 21.17 | 354 | P | P | 07 39 43.2 | +2.3 |
| | baz=173 | | | | | | |
| W37B | Quinton | 21.34 | 350 | P | P | 07 39 45.7 | +3.0 |
| | baz=169 | | | | | | |
| W36A | Wetumka | 21.48 | 349 | P | P | 07 39 47.6 | +3.4 |
| | baz=167 | | | | | | |
| W35A | Tecumseh | 21.62 | 347 | P | P | 07 39 47.7 | +1.9 |
| | baz=165 | | | | | | |
| V41A | Mountainview | 21.65 | 358 | P | P | 07 39 47.3 | +1.2 |
| | baz=178 | | | | | | |
| V42A | Cord | 21.65 | 360 | P | P | 07 39 46.9 | +0.8 |
| | baz=180,SNR=6.5 | | | | | | |
| WMOK | Wichita Mounta | 21.70 | 343 | eP | P | 07 39 49.0 | +2.3 |
| | comp=Z,8.8nm,0.8s | | | | | | |
| V39A | Pettigrew | 21.80 | 355 | P | P | 07 39 48.4 | +0.7 |
| | baz=174 | | | | | | |
| MNTX | Cornudas Mount | 21.86 | 326 | P | P | 07 39 49.7 | +1.3 |
| | baz=141,SNR=17 | | | | | | |
| MNTX | Cornudas Mount | 21.86 | 326 | eP | P | 07 39 49.4 | +1.0 |
| | comp=Z,10nm,0.8s | | | | | | |
| V38A | Canehill | 21.90 | 353 | P | P | 07 39 50.5 | +1.7 |
| | baz=172 | | | | | | |
| V37A | Hulbert | 22.02 | 351 | P | P | 07 39 50.9 | +0.8 |
| | baz=170 | | | | | | |
| U42A | Revenden | 22.20 | 360 | P | P | 07 39 53.1 | +1.1 |
| | baz=180,SNR=6.4 | | | | | | |
| U41A | Viola | 22.20 | 358 | P | P | 07 39 53.1 | +1.1 |
| | baz=178 | | | | | | |
| U40A | Yellville | 22.25 | 356 | P | P | 07 39 54.0 | +1.5 |
| | baz=176 | | | | | | |
| U39A | Green Forest | 22.32 | 355 | P | P | 07 39 54.6 | +1.2 |
| | baz=174 | | | | | | |
| MSTX | Muleshoe | 22.44 | 334 | P | P | 07 39 56.0 | +1.2 |
| | baz=150 | | | | | | |
| MSTX | Muleshoe | 22.44 | 334 | eP | P | 07 39 56.4 | +1.6 |
| | comp=Z,9.4nm,0.9s | | | | | | |
| TKL | Tuckaleechee C | 22.51 | 16 | P | P | 07 39 58.5 | +3.2 |
| | comp=Z,8.7nm,0.6s,baz=179,slow=11,SNR=23 | | | | | | |
| TKL | | | | LR | LR | 07 49 36.1 | |
| | comp=Z,133nm,22.0s,baz=210,slow=39 | | | | | | |
| TKL | Tuckaleechee C | 22.51 | 16 | eP | P | 07 39 58.3 | +2.9 |
| | comp=Z,20nm,1.3s | | | | | | |
| U37A | Salina | 22.53 | 352 | P | P | 07 39 57.8 | +2.2 |
| | baz=170 | | | | | | |
| PBMO | Poplar Bluff | 22.63 | 2 | eP | P | 07 39 57.7 | +1.1 |
| | comp=Z,6.8nm,0.8s | | | | | | |
| KMSC | Kings Mountain | 22.78 | 21 | P | P | 07 39 59.7 | +1.4 |
| | baz=205 | | | | | | |
| AMTX | Amarillo | 22.80 | 337 | P | P | 07 39 59.4 | +0.8 |
| | baz=153 | | | | | | |
| AMTX | Amarillo | 22.80 | 337 | eP | P | 07 39 59.0 | +0.5 |
| | comp=Z,13nm,0.9s | | | | | | |
| T41A | Mountain View | 22.89 | 359 | P | P | 07 40 00.1 | +0.8 |
| | baz=179 | | | | | | |
| T39A | Clever | 22.95 | 355 | P | P | 07 40 01.2 | +1.3 |
| | baz=175,SNR=5.0 | | | | | | |
| T40A | Mansfield | 23.02 | 357 | P | P | 07 40 01.6 | +0.9 |
| | baz=177,SNR=8.7 | | | | | | |
| T38A | Diamond | 23.05 | 354 | P | P | 07 40 02.5 | +1.6 |
| | baz=172 | | | | | | |
| S43A | Fulton Ridge, | 23.43 | 2 | P | P | 07 40 05.7 | +1.1 |
| | baz=183 | | | | | | |
| S41A | Jillco Farms, | 23.43 | 359 | P | P | 07 40 05.6 | +1.0 |
| | baz=179,SNR=6.1 | | | | | | |
| S40A | Lebanon | 23.47 | 357 | P | P | 07 40 06.5 | +1.6 |
| | baz=177 | | | | | | |
| S44A | Carbondale | 23.60 | 4 | P | P | 07 40 07.7 | +1.6 |
| | baz=185 | | | | | | |
| S38A | Stockton | 23.60 | 355 | P | P | 07 40 06.9 | +0.8 |
| | baz=173 | | | | | | |
| S39A | Bolivar | 23.61 | 356 | P | P | 07 40 06.8 | +0.5 |
| | baz=175,SNR=7.2 | | | | | | |
| S42A | Caledonia | 23.61 | 1 | P | P | 07 40 06.2 | -0.1 |
| | baz=181 | | | | | | |
| S37A | Fort Scott | 23.82 | 353 | P | P | 07 40 09.0 | +0.8 |
| | baz=171 | | | | | | |
| 121A | Cookes Peak, D | 23.84 | 323 | P | P | 07 40 11.4 | +2.8 |
| | baz=137 | | | | | | |
| S36A | Lake Cedric, C | 23.89 | 351 | P | P | 07 40 09.8 | +1.0 |
| | baz=170,SNR=5.1 | | | | | | |
| CCM | Cathedral Cave | 23.90 | 360 | eP | P | 07 40 09.6 | +0.8 |
| | comp=Z,12nm,0.6s | | | | | | |
| S35A | Otter Creek Ra | 23.97 | 350 | P | P | 07 40 10.7 | +1.2 |
| | baz=168 | | | | | | |
| R42A | Luebbering | 24.12 | 1 | P | P | 07 40 12.3 | +1.4 |
| | baz=181 | | | | | | |
| R41A | Rosebud | 24.14 | 360 | P | P | 07 40 11.0 | 0.0 |
| | baz=180,SNR=9.2 | | | | | | |
| R43A | Red Bud | 24.14 | 2 | P | P | 07 40 11.8 | +0.8 |
| | baz=183 | | | | | | |
| R38A | Fenwick Farm, | 24.15 | 355 | P | P | 07 40 11.9 | +0.8 |
| | baz=174 | | | | | | |
| R40A | Maddies Statio | 24.15 | 358 | P | P | 07 40 11.7 | +0.6 |
| | baz=177,SNR=5.4 | | | | | | |
| R44A | Waltonville | 24.16 | 4 | P | P | 07 40 13.1 | +1.9 |
| | baz=185 | | | | | | |
| R39A | Chumby, Stover | 24.21 | 356 | P | P | 07 40 12.6 | +0.9 |
| | baz=176,SNR=7.2 | | | | | | |
| WCI | Wyandotte Cave | 24.45 | 9 | eP | P | 07 40 15.7 | +1.7 |
| | comp=Z,9.6nm,0.8s | | | | | | |
| Q41A | Truxton | 24.79 | 360 | P | P | 07 40 18.2 | +1.2 |
| | baz=180 | | | | | | |
| LAZ | Ladron | 24.88 | 327 | eP | P | 07 40 18.0 | 0.0 |
| Q38A | Cooks Store, C | 24.89 | 355 | P | P | 07 40 19.0 | +1.1 |
| | baz=174 | | | | | | |
| Q39A | Willow Grove F | 24.94 | 357 | P | P | 07 40 19.9 | +1.6 |
| | baz=176 | | | | | | |
| ANMO | Albuquerque | 24.95 | 329 | P | P | 07 40 20.3 | +1.5 |
| | baz=143 | | | | | | |
| P40A | Paris | 25.38 | 358 | P | P | 07 40 23.0 | +0.7 |
| | baz=178 | | | | | | |
| P41A | Barry, Barry | 25.51 | 0 | P | P | 07 40 24.7 | +1.2 |
| | baz=180 | | | | | | |
| TUC | Tucson | 25.52 | 319 | P | P | 07 40 26.5 | +2.7 |
| | baz=131 | | | | | | |
| TUC | Tucson | 25.52 | 319 | eP | P | 07 40 27.8 | +4.1 |
| | comp=Z,2.9nm,0.9s | | | | | | |
| P38A | Dawn | 25.55 | 356 | P | P | 07 40 25.2 | +1.4 |
| | baz=175 | | | | | | |
| T25A | Trinidad | 25.84 | 335 | P | P | 07 40 28.5 | +1.7 |
| | baz=150 | | | | | | |
| O41A | Passleys Farm, | 25.95 | 0 | P | P | 07 40 28.7 | +1.2 |
| | baz=181 | | | | | | |
| O45A | Potomac | 26.26 | 6 | P | P | 07 40 30.3 | +0.1 |
| | baz=188 | | | | | | |
| O47A | Sheridan | 26.44 | 9 | P | P | 07 40 32.1 | +0.2 |
| | baz=191 | | | | | | |
| N38A | Joes South For | 26.69 | 356 | P | P | 07 40 35.8 | +1.6 |
| | baz=176 | | | | | | |
| S22A | 4UR Ranch, Cre | 27.39 | 332 | P | P | 07 40 42.5 | +1.6 |
| | baz=146 | | | | | | |
| MVCO | Mesa Verde | 27.75 | 329 | P | P | 07 40 44.9 | +0.8 |
| | baz=142 | | | | | | |
| MVCO | Mesa Verde | 27.75 | 329 | eP | P | 07 40 45.0 | +1.0 |
| | comp=Z,23nm,1.9s | | | | | | |
| WUAZ | Wupatki | 28.05 | 323 | P | P | 07 40 48.2 | +1.6 |
| | baz=135 | | | | | | |
| K41A | Shullsburg | 28.45 | 1 | P | P | 07 40 50.8 | +0.9 |
| | baz=182 | | | | | | |
| ISCO | Idaho Springs | 28.61 | 336 | P | P | 07 40 53.5 | +1.8 |
| | baz=150 | | | | | | |
| IRM | Iron Mountain | 29.52 | 317 | P | P | 07 41 00.5 | +0.9 |
| | baz=127 | | | | | | |
| NNA | Nana | 29.52 | 151 | LR | LR | 07 50 13.4 | |
| | comp=Z,30nm,22.0s,baz=339,slow=32 | | | | | | |
| I41A | Arkdale | 29.91 | 2 | P | P | 07 41 04.0 | +1.1 |
| | baz=182 | | | | | | |
| KNB | Kanab | 29.93 | 324 | eP | P | 07 41 04.7 | +1.4 |
| | comp=Z,7.6nm,1.4s | | | | | | |
| DANC | Danby, Needles | 29.96 | 317 | eP | P | 07 41 06.9 | +3.5 |
| LCMT | Little Creek M | 30.17 | 323 | eP | P | 07 41 07.9 | +2.5 |
| | comp=Z,2.7nm,0.9s | | | | | | |
| MTPU | Mount Pierson | 30.30 | 326 | eP | P | 07 41 09.6 | +2.8 |
| | comp=Z,3.6nm,0.8s | | | | | | |
| SZCU | Shurtz Canyon | 30.48 | 324 | eP | P | 07 41 11.2 | +2.9 |
| | comp=Z,6.6nm,1.4s | | | | | | |
| SBI | Santa Barbara | 31.83 | 312 | eP | P | 07 41 21.9 | +2.0 |
| E40A | Wakefield | 32.30 | 2 | P | P | 07 41 23.7 | -0.1 |
| | baz=182 | | | | | | |
| R11A | Troy Canyon, C | 32.44 | 323 | P | P | 07 41 27.5 | +2.1 |
| | baz=132 | | | | | | |
| SCZ2 | Santa Cruz Isl | 32.53 | 313 | P | P | 07 41 28.2 | +2.1 |
| | baz=121 | | | | | | |
| PD31 | Pinedale Array | 32.71 | 335 | eP | P | 07 41 28.9 | +1.2 |
| PDAR | Pinedale Array | 32.71 | 335 | P | P | 07 41 28.8 | +1.1 |
| | comp=Z,0.7nm,0.8s,baz=106,slow=11,SNR=4.4 | | | | | | |
| BAKC | Calstate | 32.87 | 315 | eP | P | 07 41 27.4 | -1.5 |
| C35A | Jirik Farms, M | 33.62 | 357 | P | P | 07 41 35.1 | -0.2 |
| | baz=175 | | | | | | |
| C34A | RKJ Ranch, Bem | 33.63 | 355 | P | P | 07 41 35.3 | -0.2 |
| | baz=174 | | | | | | |
| SNOW | Snow King Moun | 33.78 | 334 | eP | P | 07 41 38.8 | +1.7 |
| | comp=Z,6.3nm,0.8s | | | | | | |
| PTGA | Pitinga | 34.21 | 113 | eP | P | 07 41 40.3 | -0.6 |
| | comp=Z,3.4nm,0.7s | | | | | | |
| B35A | Bob, Littlefor | 34.26 | 357 | P | P | 07 41 41.6 | +0.6 |
| | baz=176 | | | | | | |
| B34A | Aery, Baudette | 34.44 | 356 | P | P | 07 41 42.9 | +0.4 |
| | baz=174 | | | | | | |
| A33A | Warroad | 34.95 | 355 | P | P | 07 41 46.9 | +0.1 |
| | baz=173 | | | | | | |
| ULM | Lac du Bonnet | 36.29 | 355 | P | P | 07 41 57.8 | -0.6 |
| | comp=Z,2.2nm,0.7s,baz=194,slow=9.7,SNR=3.2 | | | | | | |
| WVOR | Wild Horse Val | 36.90 | 325 | eP | P | 07 42 06.0 | +2.2 |
| | comp=Z,10nm,1.6s | | | | | | |
| J08A | Circle Bar Ran | 37.43 | 327 | eP | P | 07 42 10.7 | +2.5 |
| | comp=Z,11nm,0.7s | | | | | | |
| N02D | Trinity Center | 38.38 | 320 | P | P | 07 42 18.9 | +2.7 |
| | baz=125 | | | | | | |
| F10A | Beach Ranch, E | 38.65 | 331 | eP | P | 07 42 19.6 | +1.2 |
| | comp=Z,7.0nm,0.8s | | | | | | |
| H04A | Detroit Lake | 40.32 | 325 | eP | P | 07 42 34.2 | +1.9 |
| SCHQ | Schefferville | 44.89 | 20 | P | P | 07 43 09.3 | +0.1 |
| | comp=Z,3.9nm,0.6s,baz=240,slow=8.6,SNR=4.5 | | | | | | |
| SCHQ | | | | LR | LR | 08 02 39.1 | |
| | comp=Z,118nm,20.6s,baz=296,slow=37 | | | | | | |
| SCHQ | Schefferville | 44.89 | 20 | eP | P | 07 43 09.3 | +0.1 |
| | comp=Z,37nm,1.5s | | | | | | |
| YKA | Yellowknife Ar | 51.15 | 346 | P | P | 07 43 57.3 | -0.1 |
| | comp=Z,2.0nm,0.7s,baz=150,slow=7.6,SNR=12 | | | | | | |
| YKA | | | | PcP | PcP | 07 45 11.8 | -0.4 |
| | comp=Z,0.9nm,0.8s,baz=143,slow=2.3,SNR=4.9 | | | | | | |
| CPUP | Villa Florida | 51.91 | 141 | LR | LR | 08 04 56.3 | |
| | comp=Z,39nm,18.2s,baz=324,slow=35 | | | | | | |
| ILAR | Eielson Array | 63.10 | 337 | P | P | 07 45 22.2 | +0.4 |
| | comp=Z,1.9nm,0.9s,baz=172,slow=4.7,SNR=24 | | | | | | |
| ILAR | | | | LR | LR | 08 18 36.5 | |
| | comp=Z,47nm,18.2s,baz=133,slow=41 | | | | | | |
| ILB | Eielson Array | 63.10 | 337 | eP | P | 07 45 21.6 | -0.1 |
| OBN | Obninsk | 98.25 | 27 | LR | LR | 08 32 03.1 | |
| | comp=Z,911nm,21.4s,baz=168,slow=35 | | | | | | |
| HHC | Hu-ho-hao-te | 121.44 | 340 | eP | PKPdf | 07 53 44.7 | -3.2 |
| WMQ | Urumqi | 122.39 | 1 | eP | PKPdf | 07 53 49.8 | +0.2 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,450nm,5.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,270nm,32.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,100nm,27.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,330nm,23.9s | | | | | | |
| WR1 | Warramunga Arr | 136.19 | 256 | ePKPdf | PKPdf | 07 54 14.1 | -2.2 |
| WRA | Warramunga Arr | 136.20 | 256 | PKP | PKPdf | 07 54 14.1 | -2.2 |
| | comp=Z,0.2nm,0.7s,baz=86,slow=3.4,SNR=4.2 | | | | | | |
| KMI | Kunming | 138.76 | 341 | P | PKPdf | 07 54 19.9 | -1.3 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,13nm,0.5s | | | | | | |
| CMAR | Chiang Mai Arr | 146.18 | 343 | PKPbc | PKPdf | 07 54 35.0 | +0.8 |
| | comp=Z,1.8nm,0.4s,baz=342,slow=4.4,SNR=12 | | | | | | |

*MOS **05** 07:38:24.2±1.8, 50°.08N×159°.09E, h61km, mb4.3/1, Error ellipse: s-maj=25.8km s-min=5.7km az=94.8*

**KRSC 05 07:38:24.2**±1.4**, 50°.08N×159°.09E, h61**km±25km**, ML4.2, East of Kuril Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time (h m s) | Res ISC |
|---|---|---|---|---|---|---|---|
| KDTR | Khodutka, Kamc | 1.85 | 340 | eP | Pn | 07 38 56.1 | +2.5 |
| KDTR | | | | eS | Sn | 07 39 18.9 | +3.0 |
| SKR | Severo-Kuril's | 2.00 | 289 | ePN | Pn | 07 38 56.8 | +1.2 |
| SKR | | | | eS | Sn | 07 39 20.4 | +1.0 |
| SKR | | | | pmax | pmax | | |
| | comp=Z,61nm,0.3s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=E,394nm,0.2s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=N,461nm,0.4s | | | | | | |
| SKR | Severo-Kuril's | 2.00 | 289 | eP | Pn | 07 38 56.6 | +1.0 |
| SKR | | | | eS | Sn | 07 39 20.4 | +1.0 |
| RUS | Russkaya | 2.39 | 352 | PN | Pn | 07 39 03.3 | +2.4 |
| RUS | | | | S | Sn | 07 39 31.0 | +2.0 |
| RUS | Russkaya | 2.39 | 352 | eP | Pn | 07 39 03.3 | +2.4 |
| RUS | | | | eS | Sn | 07 39 31.0 | +2.0 |
| ASAK | Asacha | 2.43 | 343 | PN | Pn | 07 39 04.5 | +3.0 |
| ASAK | | | | S | Sn | 07 39 33.6 | +3.5 |
| ASAK | Asacha | 2.43 | 343 | eP | Pn | 07 39 04.5 | +3.0 |
| ASAK | | | | eS | Sn | 07 39 33.6 | +3.5 |
| MTVR | Mutnovka | 2.48 | 347 | PN | Pn | 07 39 05.2 | +2.9 |
| MTVR | | | | S | Sn | 07 39 34.7 | +3.3 |
| MTVR | Mutnovka | 2.48 | 347 | eP | Pn | 07 39 05.2 | +2.9 |
| MTVR | | | | eS | Sn | 07 39 34.7 | +3.3 |
| KRMR | Karymshinskiy | 2.82 | 348 | PN | Pn | 07 39 10.1 | +3.3 |
| KRMR | | | | S | Sn | 07 39 43.6 | +4.0 |
| KRMR | Karymshinskiy | 2.82 | 348 | eP | Pn | 07 39 10.1 | +3.3 |
| KRMR | | | | eS | Sn | 07 39 43.6 | +4.0 |
| PET | Petropavlovsk | 2.96 | 355 | ePN | Pn | 07 39 11.1 | +2.3 |
| PET | | | | eS | Sn | 07 39 45.7 | +2.6 |
| PET | | | | smax | smax | | |
| | comp=N,97nm,0.6s | | | | | | |
| PET | Petropavlovsk | 2.96 | 355 | eP | Pn | 07 39 11.5 | +2.7 |
| PET | | | | eS | Sn | 07 39 45.8 | +2.7 |
| DALK | Dalny | 2.97 | 356 | PN | Pn | 07 39 11.3 | +2.5 |
| DALK | | | | S | Sn | 07 39 45.1 | +2.0 |
| DALK | Dalny | 2.97 | 356 | eP | Pn | 07 39 11.3 | +2.5 |
| DALK | | | | eS | Sn | 07 39 45.1 | +2.0 |
| SPN | Mys Shipunski | 3.08 | 11 | PN | Pn | 07 39 13.4 | +3.0 |
| SPN | | | | S | Sn | 07 39 48.8 | +2.8 |
| SPN | Mys Shipunski | 3.08 | 11 | eP | Pn | 07 39 13.4 | +3.0 |
| SPN | | | | eS | Sn | 07 39 48.8 | +2.8 |
| APC | Apacha | 3.10 | 338 | PN | Pn | 07 39 13.9 | +3.3 |
| APC | | | | S | Sn | 07 39 50.4 | +4.1 |
| APC | Apacha | 3.10 | 338 | eP | Pn | 07 39 13.9 | +3.3 |
| APC | | | | eS | Sn | 07 39 50.4 | +4.1 |
| NLC | Nalytchevo | 3.10 | 3 | PN | Pn | 07 39 12.7 | +2.0 |
| NLC | | | | S | Sn | 07 39 47.5 | +1.0 |
| NLC | Nalytchevo | 3.10 | 3 | eP | Pn | 07 39 12.7 | +2.0 |
| NLC | | | | eS | Sn | 07 39 47.5 | +1.0 |
| UGLR | Uglovaya | 3.14 | 357 | PN | Pn | 07 39 14.2 | +2.9 |
| UGLR | Uglovaya | 3.14 | 357 | eP | Pn | 07 39 14.2 | +2.9 |
| AVH | Avacha | 3.20 | 356 | PN | Pn | 07 39 15.3 | +3.2 |
| AVH | | | | S | Sn | 07 39 52.8 | +3.8 |
| AVH | Avacha | 3.20 | 356 | eP | Pn | 07 39 15.3 | +3.2 |
| AVH | | | | eS | Sn | 07 39 52.8 | +3.8 |
| SDLR | Sedlovina | 3.21 | 358 | PN | Pn | 07 39 14.5 | +2.3 |
| SDLR | Sedlovina | 3.21 | 358 | eP | Pn | 07 39 14.5 | +2.3 |
| KOK | Koryaka | 3.23 | 355 | PN | Pn | 07 39 16.7 | +4.2 |
| KOK | | | | S | Sn | 07 39 54.2 | +4.4 |
| KOK | Koryaka | 3.23 | 355 | eP | Pn | 07 39 16.7 | +4.2 |
| KOK | | | | eS | Sn | 07 39 54.2 | +4.4 |
| KRER | Koryakskii | 3.24 | 356 | PN | Pn | 07 39 16.6 | +3.9 |
| KRER | | | | S | Sn | 07 39 54.2 | +4.1 |
| KRER | Koryakskii | 3.24 | 356 | eP | Pn | 07 39 16.6 | +3.9 |
| KRER | | | | eS | Sn | 07 39 54.2 | +4.1 |
| KRX | Arik | 3.30 | 355 | PN | Pn | 07 39 15.8 | +2.3 |
| KRX | Arik | 3.30 | 355 | eP | Pn | 07 39 15.8 | +2.3 |
| GNL | Ganaly | 3.69 | 349 | PN | Pn | 07 39 22.4 | +3.6 |
| GNL | | | | S | Sn | 07 40 04.7 | +3.6 |
| GNL | Ganaly | 3.69 | 349 | eP | Pn | 07 39 22.4 | +3.6 |
| GNL | | | | eS | Sn | 07 40 04.7 | +3.6 |
| TUMR | Tumrok | 5.25 | 7 | PN | Pn | 07 39 44.3 | +4.1 |
| TUMR | Tumrok | 5.25 | 7 | eP | Pn | 07 39 44.3 | +4.1 |
| TYV | Tymovskoe | 10.51 | 281 | ePN | Pn | 07 40 45.5 | -6.4 |
| TYV | | | | pmax | pmax | | |
| | comp=Z,13nm,1.7s | | | | | | |

*ISK **05** 07:53:02.6, 38°.76N×43°.44E, h23km, MD2.4*

*CSEM **05** 07:53:03.5±0.1, 38°.76N×43°.41E, h15km, MD2.4, Error ellipse: s-maj=4.1km s-min=2.9km az=114.0*

*DDA **05** 07:53:03.9, 38°.78N×43°.37E, h7km, Md2.7*

*ATA **05** 07:53:03.7±1.4, 38°.80N×43°.29E, h8km±476km, ML2.7, MW2.9*

*ISCJB **05** 07:53:04.3±0.5, 38°.76N±0°.03×43°.40E±0°.05, h10km±6km, Error ellipse: s-maj=6.3km s-min=4.0km az=18.2*

**ISC 05 07:53:03.9**±1.0**, 38°.77N**±0°.02×**43°.41E**±0°.03**, h14**km±8km**, n28, σ0s.70**/47**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time (h m s) | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.17 | 186 | ePG | Pb | 07 53 09.0 | 0.0 |
| VANB | Van | 0.17 | 186 | ePg | Pb | 07 53 09.0 | 0.0 |
| TVAN | Van | 0.24 | 181 | i P | Pg | 07 53 09.3 | +0.2 |
| TVAN | | | | i S | Sb | 07 53 13.9 | -0.4 |
| TVAN | Van | 0.24 | 181 | P | Pg | 07 53 09.4 | +0.2 |
| TVAN | | | | S | Sb | 07 53 13.9 | -0.4 |
| VMUR | Van-Muradiye | 0.25 | 29 | i P | Pb | 07 53 09.7 | -0.7 |
| VMUR | | | | i S | Sb | 07 53 15.0 | +0.3 |
| VMUR | Van-Muradiye | 0.25 | 29 | P | Pb | 07 53 09.7 | -0.7 |
| VMUR | | | | S | Sb | 07 53 15.0 | +0.3 |
| ERCV | ERCIS-VAN | 0.26 | 347 | ePG | Pg | 07 53 09.6 | +0.1 |
| ERCV | | | | eSG | Sb | 07 53 14.4 | -0.5 |
| ERCV | ERCIS-VAN | 0.26 | 347 | ePg | Pg | 07 53 09.6 | +0.1 |
| ERCV | | | | eSg | Sb | 07 53 14.4 | -0.5 |
| GEVA | Gevas | 0.53 | 211 | eP | Pg | 07 53 14.0 | -0.4 |
| GEVA | | | | IAML | | 07 53 22.9 | |
| | comp=Z,57nm,0.8s | | | | | | |
| GEVA | Gevas | 0.53 | 211 | i P | Pg | 07 53 13.7 | -0.7 |
| GEVA | | | | i S | Sg | 07 53 21.9 | +0.4 |
| GEVA | Gevas | 0.53 | 211 | P | Pg | 07 53 13.7 | -0.7 |
| GEVA | | | | S | Sg | 07 53 21.9 | +0.4 |
| ADCV | BITLIS_Adilcev | 0.54 | 274 | i P | Pg | 07 53 14.0 | -0.5 |
| ADCV | | | | i S | Sb | 07 53 22.2 | -0.8 |
| ADCV | BITLIS_Adilcev | 0.54 | 274 | P | Pg | 07 53 14.0 | -0.5 |
| ADCV | | | | S | Sb | 07 53 22.2 | -0.8 |
| CLDR | Caldiran | 0.54 | 46 | ePG | Pg | 07 53 14.1 | -0.5 |
| CLDR | | | | eSG | Sb | 07 53 22.2 | -0.9 |
| CLDR | Caldiran | 0.54 | 46 | i P | Pg | 07 53 14.4 | -0.2 |
| CLDR | | | | i S | Sb | 07 53 23.4 | +0.3 |
| CLDR | Caldiran | 0.54 | 46 | ePg | Pg | 07 53 14.1 | -0.5 |
| CLDR | Caldiran | 0.54 | 46 | P | Pg | 07 53 14.4 | -0.2 |
| CLDR | | | | eSg | Sb | 07 53 22.2 | -0.9 |
| CLDR | | | | S | Sb | 07 53 23.4 | +0.3 |
| AGRB | Hanur-Agry | 0.87 | 338 | ePG | Pg | 07 53 20.2 | -0.5 |
| AGRB | Hanur-Agry | 0.87 | 338 | ePg | Pg | 07 53 20.2 | -0.5 |
| EKAR | Karacoban | 1.16 | 295 | eP | Pb | 07 53 25.4 | -0.4 |
| EKAR | | | | IAML | | 07 53 48.6 | |
| | comp=Z,16nm,0.4s | | | | | | |
| EKAR | Karacoban | 1.16 | 295 | i P | Pb | 07 53 25.4 | -0.4 |
| EKAR | | | | i S | Sn | 07 53 44.0 | +2.3 |
| EKAR | Karacoban | 1.16 | 295 | P | Pb | 07 53 25.4 | -0.4 |
| EKAR | | | | S | Sn | 07 53 44.0 | +2.3 |
| HAKT | HAKKARI | 1.23 | 169 | i P | Pn | 07 53 26.4 | -0.5 |
| HAKT | HAKKARI | 1.23 | 169 | P | Pn | 07 53 26.4 | -0.5 |
| EATA | Eleskirt | 1.30 | 327 | eP | Pn | 07 53 27.4 | -0.6 |
| EATA | | | | eS | Sg | 07 53 46.1 | 0.0 |
| EATA | | | | IAML | | 07 53 50.6 | |
| | comp=Z,6.4nm,0.5s | | | | | | |
| EATA | Eleskirt | 1.30 | 327 | i P | Pn | 07 53 27.7 | -0.3 |
| EATA | | | | i S | Sg | 07 53 46.6 | +0.6 |
| EATA | Eleskirt | 1.30 | 327 | P | Pn | 07 53 27.7 | -0.3 |
| EATA | | | | S | Sg | 07 53 46.6 | +0.6 |
| DIGO | Kars | 1.64 | 359 | eP | Pg | 07 53 35.5 | 0.0 |
| DIGO | | | | IAML | | 07 53 45.7 | |
| | comp=Z,2.6nm,0.5s | | | | | | |

*ISCJB **05** 07:55:33.8±0.4, 21°.46S±0°.04×66°.76W±0°.03, h219km, mb3.4/2, Error ellipse: s-maj=5.2km s-min=3.9km az=29.4*

*SJA **05** 07:55:35.2±0.7, 21°.47S×66°.48W, h223km±8km, ML3.0, MW3.1*

*GUC **05** 07:55:35.4±0.5, 21°.41S×67°.24W, h249km±13km, ML4.0*

*IDC **05** 07:55:35.6±1.7, 21°.27S×66°.60W, h236km±18km, mb3.3/2, mb1 3.2/5, mb1mx3.0/21, mbtmp3.6/5, Error ellipse: s-maj=24.0km s-min=17.0km az=106.0*

**ISC 05 07:55:33.5**±0.8**, 21°.44S**±0°.05×**66°.72W**±0°.05**, h219**km**, n22, σ1s.22**/37**, 6C, Southern Bolivia**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time (h m s) | Res ISC |
|---|---|---|---|---|---|---|---|
| YJA | Yavi | 1.34 | 123 | eP | Pn | 07 56 10.0 | +1.9 |
| YJA | | | | eS | S | 07 56 34.8 | -0.1 |
| YJA | | | | IAML | | 07 56 37.2 | |
| | comp=Z,81nm,0.6s | | | | | | |
| HJA | Humahuaca | 2.14 | 146 | eP | Pn | 07 56 17.2 | +2.0 |
| HJA | | | | eS | S | 07 56 47.7 | +0.1 |
| HJA | | | | IAML | | 07 56 51.2 | |
| | comp=Z,71nm,0.6s | | | | | | |
| PB09 | IPOC Station P | 2.37 | 261 | eP | Pn | 07 56 19.1 | +1.8 |
| PB09 | | | | IAML | | 07 56 57.9 | |
| | comp=N,366nm,0.5s | | | | | | |
| PB01 | IPOC Station P | 2.61 | 278 | eP | Pn | 07 56 20.8 | +0.9 |
| PB01 | | | | i S | S | 07 56 55.2 | -0.6 |
| PB01 | | | | IAML | | 07 56 57.6 | |
| | comp=N,421nm,0.2s | | | | | | |
| PB08 | IPOC Station P | 2.62 | 299 | ⇑i P | Pn | 07 56 21.9 | +1.7 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PB08 | | | | i S | S | 07 56 57.4 | +0.9 |
| PB08 | | | | IAML | | 07 57 01.5 | |
| | comp=E,181nm,0.2s | | | | | | |
| PB06 | IPOC Station P | 2.92 | 244 | eP | Pn | 07 56 24.6 | +1.2 |
| PB06 | | | | i S | S | 07 57 02.5 | +0.1 |
| PB06 | | | | IAML | | 07 57 04.4 | |
| | comp=E,173nm,0.4s | | | | | | |
| PB07 | IPOC Station P | 2.96 | 264 | ⇑iP | Pn | 07 56 24.8 | +1.0 |
| PB07 | | | | i S | S | 07 57 02.2 | -0.8 |
| PB07 | | | | IAML | | 07 57 03.7 | |
| | comp=N,327nm,0.2s | | | | | | |
| PB02 | IPOC Station P | 2.96 | 272 | ⇑iP | Pn | 07 56 24.7 | +0.9 |
| PB02 | | | | i S | S | 07 57 01.9 | -1.0 |
| PB02 | | | | IAML | | 07 57 02.5 | |
| | comp=N,917nm,0.5s | | | | | | |
| AZAP | Zapla | 3.16 | 151 | eP | Pn | 07 56 27.3 | +1.0 |
| AZAP | | | | eS | S | 07 57 06.5 | -1.0 |
| AZAP | | | | IAML | | 07 57 18.8 | |
| | comp=Z,18nm,0.4s | | | | | | |
| ASTB | Santa Barbara | 3.26 | 140 | eP | Pn | 07 56 27.9 | +0.6 |
| ASTB | | | | eS | S | 07 57 07.3 | -2.0 |
| PB04 | IPOC Station P | 3.30 | 254 | ⇑iP | Pn | 07 56 28.6 | +0.8 |
| PB04 | | | | i S | S | 07 57 08.8 | -1.4 |
| MNMC | Minye Minye | 3.54 | 310 | ⇑iP | Pn | 07 56 31.9 | +1.1 |
| MNMC | | | | i S | S | 07 57 15.4 | -0.1 |
| PSGC | Pisagua | 3.68 | 299 | ⇑iP | Pn | 07 56 31.7 | -0.5 |
| PSGC | | | | i S | S | 07 57 15.5 | -2.6 |
| ANCH | Antofagasta | 4.07 | 236 | eP | Pn | 07 56 37.6 | +0.8 |
| ANCH | | | | i S | S | 07 57 24.7 | -1.8 |
| FSA | Cafayete | 4.70 | 172 | eP | Pn | 07 56 46.5 | +1.8 |
| LPAZ | La Paz | 5.30 | 345 | P | Pn | 07 56 54.2 | +1.5 |
| | comp=Z,0.9nm,0.3s,baz=158,slow=9.2,SNR=32 | | | | | | |
| LPAZ | | | | S | S | 07 57 55.6 | +0.2 |
| | comp=Z,0.2nm,0.3s,baz=312,slow=17,SNR=7.2 | | | | | | |
| SIV | San Ignacio | 7.62 | 46 | P | Pn | 07 57 21.0 | -1.0 |
| | comp=Z,0.5nm,0.3s,baz=230,slow=8.1,SNR=8.2 | | | | | | |
| SIV | | | | S | S | 07 58 48.4 | -0.1 |
| | comp=Z,0.5nm,0.3s,baz=164,slow=23,SNR=3.7 | | | | | | |
| PLCA | Paso Flores | 19.50 | 189 | P | Pn | 07 59 47.3 | -0.9 |
| | comp=Z,0.1nm,0.3s,baz=18,slow=11,SNR=6.9 | | | | | | |
| TORD | Torodi Ar. Bea | 75.42 | 69 | P | P | 08 06 52.7 | -1.0 |
| | comp=Z,0.4nm,0.3s,baz=260,slow=5.3,SNR=6.9 | | | | | | |
| YKA | Yellowknife Ar | 91.82 | 340 | P | P | 08 08 16.3 | +0.2 |
| | comp=Z,0.3nm,0.7s,baz=131,slow=4.9,SNR=3.8 | | | | | | |
| WRA | Warramunga Arr | 134.00 | 208 | PKP | PKPdf | 08 14 25.6 | +0.1 |
| | comp=Z,0.1nm,0.3s,baz=152,slow=1.9,SNR=6.0 | | | | | | |
| MKAR | Makanchi Array | 144.37 | 37 | PKP | PKPab | 08 14 42.8 | +0.5 |
| | comp=Z,0.6nm,0.7s,baz=3.4,slow=3.0,SNR=5.6 | | | | | | |

**MEX 05 08:13:36.0±0.4, 14°.50N×92°.81W, h16km±29km, MD3.7, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PCIG | | 1.27 | 342 | eP | Pn | 08 13 55.5 | -3.5 |
| PCIG | | | | eS | Sb | 08 14 09.9 | -5.6 |
| CCIG | Comitan | 1.89 | 20 | eP | Pn | 08 14 04.5 | -3.3 |
| CCIG | | | | eS | Sn | 08 14 26.7 | -4.8 |

*ATH **05** 08:15:56.6, 37°.85N×20°.10E, h6km±2km, ML3.6/16, Error ellipse: s-maj=2.9km s-min=1.1km az=65.0*
*ISCJB **05** 08:16:00.7±0.8, 38°.05N±0°.03×20°.27E±0°.04, h17km±5km, mb3.7/6, Error ellipse: s-maj=6.9km s-min=3.6km az=42.6*
*CSEM **05** 08:16:01.9±0.3, 38°.11N×20°.43E, h5km, ML3.3, Error ellipse: s-maj=7.3km s-min=3.0km az=30.0*
*IDC **05** 08:16:03.1±2.8, 38°.41N×20°.96E, h0km, mb3.7/6, mb1 3.7/8, mb1mx3.5/42, mbtmp3.6/8, ML2.5/2, MS3.9/21, Ms1 3.9/21, ms1mx3.6/54, Error ellipse: s-maj=52.4km s-min=21.9km az=57.0*
*THE **05** 08:16:05.1, 38°.16N×20°.64E, h8km±1km, ML3.3/6, Error ellipse: s-maj=1.6km s-min=1.1km az=218.0*
**ISC 05 08:16:01.6**±1.1, **38°.05N**±0°.03×**20°.40E**±0°.03, **h15**km±6km, **n126**, σ**1s.75**/169, **mb3.8**/6, **2C, Greece**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VLS | Valsamata | 0.20 | 50 | P | Pg | 08 16 06.2 | +0.1 |
| VLS | | | | AML | AML | 08 16 09.3 | |
| VLS | | | | AML | AML | 08 16 09.5 | |
| | comp=E,74546µm,0.1s | | | | | | |
| VLS | Valsamata | 0.20 | 50 | P | Pg | 08 16 06.2 | +0.1 |
| VLS | | | | S | Sg | 08 16 08.8 | -0.4 |
| VLS | Valsamata | 0.20 | 50 | P | Pg | 08 16 06.2 | +0.1 |
| VLS | | | | S | Sg | 08 16 08.9 | -0.3 |
| VTN | Vitineika | 0.64 | 102 | P | Pg | 08 16 13.3 | -0.7 |
| VTN | | | | S | Sb | 08 16 24.4 | +1.3 |
| VTN | Vitineika | 0.64 | 102 | P | Pg | 08 16 13.3 | -0.7 |
| VTN | | | | S | Sb | 08 16 24.4 | +1.3 |
| AXS | Araxos | 0.78 | 79 | P | Pg | 08 16 15.9 | -0.9 |
| AXS | | | | S | Sn | 08 16 32.7 | +3.2 |
| AXS | Araxos | 0.78 | 79 | P | Pg | 08 16 16.1 | -0.7 |
| AXS | Araxos | 0.78 | 79 | P | Pg | 08 16 16.1 | -0.7 |
| PDO | Prodromos | 0.82 | 48 | P | Pn | 08 16 19.4 | +0.7 |
| PDO | | | | S | Sn | 08 16 34.2 | +3.7 |
| PDO | | | | AML | AML | 08 16 36.2 | |
| | comp=E,12551µm,0.6s | | | | | | |
| PDO | | | | AML | AML | 08 16 37.5 | |
| | comp=N,19436µm,0.4s | | | | | | |
| PDO | Prodromos | 0.82 | 48 | P | Pg | 08 16 16.6 | -1.0 |
| PDO | | | | S | Sg | 08 16 25.1 | -3.3 |
| PDO | Prodromos | 0.82 | 48 | P | Pg | 08 16 16.6 | -1.0 |
| PDO | | | | S | Sg | 08 16 25.1 | -3.3 |
| RLS | Riolos of Patr | 0.84 | 89 | P | Pg | 08 16 17.8 | -0.1 |
| RLS | | | | S | Sn | 08 16 32.0 | +1.1 |
| RLS | | | | AML | AML | 08 16 36.8 | |
| | comp=E,2644µm,0.4s | | | | | | |
| RLS | | | | AML | AML | 08 16 37.1 | |
| | comp=N,2315µm,0.4s | | | | | | |
| RLS | Riolos of Patr | 0.84 | 89 | P | Pg | 08 16 17.4 | -0.5 |
| RLS | | | | S | Sg | 08 16 27.8 | -1.2 |
| RLS | Riolos of Patr | 0.84 | 89 | P | Pg | 08 16 17.4 | -0.5 |
| RLS | | | | S | Sg | 08 16 27.8 | -1.2 |
| DRO | Drossia | 1.04 | 95 | P | Pb | 08 16 21.7 | +0.4 |
| DRO | | | | S | Sn | 08 16 38.4 | +2.5 |
| DRO | | | | AML | AML | 08 16 46.9 | |
| | comp=N,3998µm,0.6s | | | | | | |
| DRO | | | | AML | AML | 08 16 47.0 | |
| | comp=E,4546µm,0.4s | | | | | | |
| DRO | Drossia | 1.04 | 95 | P | Pb | 08 16 21.1 | -0.2 |
| DRO | | | | S | Sb | 08 16 34.3 | -0.5 |
| DRO | Drossia | 1.04 | 95 | P | Pb | 08 16 20.9 | -0.4 |
| DRO | | | | S | Sb | 08 16 34.3 | -0.5 |
| PVO | Paravola | 1.05 | 57 | P | Pb | 08 16 21.8 | +0.3 |
| PVO | | | | S | Sn | 08 16 40.7 | +4.6 |
| PVO | | | | AML | AML | 08 16 41.0 | |
| | comp=E,8003µm,0.7s | | | | | | |
| PVO | | | | AML | AML | 08 16 42.1 | |
| | comp=N,12311µm,0.5s | | | | | | |
| PVO | Paravola | 1.05 | 57 | P | Pb | 08 16 21.0 | -0.4 |
| PVO | Paravola | 1.05 | 57 | P | Pb | 08 16 21.0 | -0.4 |
| UPR | University Cam | 1.12 | 78 | P | Pg | 08 16 24.1 | +1.0 |
| UPR | | | | S | Sn | 08 16 43.1 | +5.4 |
| UPR | University Cam | 1.12 | 78 | P | Pg | 08 16 24.1 | +1.0 |
| AMT | Artemida-Makis | 1.16 | 116 | P | Pb | 08 16 20.0 | -3.3 |
| AMT | Artemida-Makis | 1.16 | 116 | P | Pg | 08 16 25.3 | +1.4 |
| AMT | Artemida-Makis | 1.16 | 116 | P | Pg | 08 16 25.3 | +1.4 |
| DSL | Palaion Diasel | 1.21 | 27 | P | Pg | 08 16 25.2 | +0.3 |
| DSL | | | | AML | AML | 08 16 44.1 | |
| | comp=E,5986µm,0.5s | | | | | | |
| DSL | | | | AML | AML | 08 16 46.3 | |
| | comp=N,6035µm,0.4s | | | | | | |
| DSL | Palaion Diasel | 1.21 | 27 | P | Pn | 08 16 23.8 | -0.2 |
| DSL | | | | S | Sb | 08 16 40.2 | +0.5 |
| DSL | Palaion Diasel | 1.21 | 27 | P | Pn | 08 16 23.7 | -0.2 |
| DSL | | | | S | Sb | 08 16 40.2 | +0.5 |
| EFP | Efpalio | 1.24 | 72 | P | Pn | 08 16 24.6 | +0.2 |
| EFP | | | | AML | AML | 08 16 49.3 | |
| | comp=N,2300µm,0.4s | | | | | | |
| EFP | | | | AML | AML | 08 16 49.7 | |
| | comp=E,2043µm,0.8s | | | | | | |
| EFP | Efpalio | 1.24 | 72 | P | Pn | 08 16 24.6 | +0.2 |
| EFP | | | | S | Sb | 08 16 39.8 | -0.8 |
| EFP | Efpalio | 1.24 | 72 | P | Pn | 08 16 23.9 | -0.5 |
| EFP | | | | S | Sb | 08 16 39.8 | -0.8 |
| LAKA | Lakka | 1.26 | 81 | P | Pn | 08 16 24.5 | -0.2 |
| LAKA | Lakka | 1.26 | 81 | P | Pn | 08 16 24.5 | -0.2 |
| ANX | Ano Chora | 1.31 | 65 | P | Pb | 08 16 26.2 | +0.2 |
| ANX | | | | AML | AML | 08 16 49.2 | |
| | comp=N,10033µm,0.5s | | | | | | |
| ANX | | | | AML | AML | 08 16 51.7 | |
| | comp=E,5783µm,0.5s | | | | | | |
| ANX | Ano Chora | 1.31 | 65 | P | Pb | 08 16 26.2 | +0.2 |
| ANX | Ano Chora | 1.31 | 65 | P | Pn | 08 16 25.3 | -0.2 |
| TRIZ | Trizonia | 1.35 | 76 | P | Pn | 08 16 25.9 | 0.0 |
| TRIZ | | | | S | Sb | 08 16 44.8 | +1.1 |
| KLV | Kalavryta, Ach | 1.38 | 90 | P | Pn | 08 16 26.4 | 0.0 |
| KLV | | | | S | Sg | 08 16 47.5 | +1.3 |
| KLV | | | | AML | AML | 08 16 55.7 | |
| | comp=N,1027µm,0.6s | | | | | | |
| KLV | | | | AML | AML | 08 16 58.5 | |
| | comp=E,992µm,0.7s | | | | | | |
| KLV | Kalavryta, Ach | 1.38 | 90 | P | Pn | 08 16 26.7 | +0.3 |
| KLV | | | | S | Sg | 08 16 47.5 | +1.3 |
| KLV | Kalavryta, Ach | 1.38 | 90 | P | Pn | 08 16 26.7 | +0.3 |
| EVR | Evrytania | 1.40 | 52 | P | Pb | 08 16 27.6 | +0.1 |
| EVR | | | | S | Sg | 08 16 50.2 | +3.4 |
| EVR | | | | AML | AML | 08 16 51.3 | |
| | comp=N,1732µm,0.8s | | | | | | |
| EVR | | | | AML | AML | 08 16 52.9 | |
| | comp=E,1195µm,0.5s | | | | | | |
| EVR | Evrytania | 1.40 | 52 | P | Pn | 08 16 27.0 | +0.3 |
| EVR | Evrytania | 1.40 | 52 | P | Pn | 08 16 27.0 | +0.3 |
| KALE | Kalithea | 1.41 | 76 | P | Pn | 08 16 26.8 | 0.0 |
| KALE | Kalithea | 1.41 | 76 | P | Pn | 08 16 26.8 | 0.0 |
| IGT | Igoumenitsa | 1.48 | 358 | P | Pn | 08 16 27.4 | -0.2 |
| IGT | | | | S | Sg | 08 16 50.8 | +1.5 |
| IGT | | | | AML | AML | 08 16 57.2 | |
| | comp=N,1979µm,0.4s | | | | | | |
| IGT | | | | AML | AML | 08 16 57.7 | |
| | comp=E,2131µm,0.7s | | | | | | |
| IGT | Igoumenitsa | 1.48 | 358 | P | Pb | 08 16 29.5 | +0.7 |
| IGT | | | | S | Sg | 08 16 50.8 | +1.5 |
| IGT | Igoumenitsa | 1.48 | 358 | P | Pb | 08 16 29.5 | +0.7 |
| ITM | Ithomi | 1.49 | 125 | P | Pn | 08 16 27.0 | -0.9 |
| ITM | | | | S | Sn | 08 16 47.7 | +0.6 |
| ITM | | | | AML | AML | 08 16 58.6 | |
| | comp=N,771µm,0.6s | | | | | | |
| ITM | | | | AML | AML | 08 17 01.1 | |
| | comp=E,603µm,0.4s | | | | | | |
| ITM | Ithomi | 1.49 | 125 | P | Pb | 08 16 29.7 | +0.7 |
| ITM | | | | S | Sn | 08 16 47.7 | +0.6 |
| ITM | Ithomi | 1.49 | 125 | P | Pb | 08 16 29.7 | +0.7 |
| GUR | Goura | 1.54 | 94 | P | Pn | 08 16 29.1 | +0.5 |
| GUR | Goura | 1.54 | 94 | P | Pn | 08 16 29.4 | +0.8 |
| GUR | Goura | 1.54 | 94 | P | Pn | 08 16 29.4 | +0.8 |
| SGD | Sagiada | 1.56 | 355 | P | Pb | 08 16 29.9 | -0.3 |
| SGD | | | | S | Sg | 08 16 53.3 | +1.4 |
| SGD | Sagiada | 1.56 | 355 | P | Pb | 08 16 29.9 | -0.3 |
| SGD | | | | S | Sg | 08 16 53.3 | +1.4 |
| SGD | Sagiada | 1.56 | 355 | P | Pb | 08 16 30.1 | -0.1 |
| DSF | Desfina | 1.71 | 77 | P | Pn | 08 16 31.6 | +0.7 |
| DSF | Desfina | 1.71 | 77 | P | Pn | 08 16 31.6 | +0.7 |
| KEK | Kerkira | 1.72 | 344 | P | Pn | 08 16 32.0 | +1.0 |
| KEK | | | | S | Sb | 08 16 55.1 | +0.7 |
| KEK | | | | AML | AML | 08 17 06.6 | |
| | comp=E,2030µm,0.7s | | | | | | |
| KEK | | | | AML | AML | 08 17 07.1 | |
| | comp=N,1232µm,0.6s | | | | | | |
| KEK | Kerkira | 1.72 | 344 | P | Pn | 08 16 32.0 | +1.0 |
| KEK | | | | S | Sb | 08 16 55.1 | +0.7 |
| AGG | Agios Georgios | 1.80 | 57 | P | Pb | 08 16 35.0 | +0.7 |
| AGG | | | | AML | AML | 08 17 07.2 | |
| | comp=N,2765µm,0.5s | | | | | | |
| AGG | | | | AML | AML | 08 17 09.7 | |
| | comp=E,4240µm,0.8s | | | | | | |
| AGG | Agios Georgios | 1.80 | 57 | P | Pb | 08 16 34.9 | +0.7 |
| AGG | Agios Georgios | 1.80 | 57 | P | Pb | 08 16 34.9 | +0.7 |
| THL | Klokotos Trika | 1.97 | 39 | P | Pb | 08 16 36.5 | -0.6 |
| THL | | | | AML | AML | 08 17 07.5 | |
| | comp=N,627µm,0.6s | | | | | | |
| THL | | | | AML | AML | 08 17 08.9 | |
| | comp=E,531µm,0.7s | | | | | | |
| THL | Klokotos Trika | 1.97 | 39 | P | Pb | 08 16 36.3 | -0.8 |
| THL | Klokotos Trika | 1.97 | 39 | P | Pb | 08 16 36.3 | -0.8 |
| LTK | Loutraki | 2.03 | 90 | P | Pn | 08 16 37.0 | +1.8 |
| LTK | Loutraki | 2.03 | 90 | P | Pn | 08 16 37.0 | +1.8 |
| KPRO | Kipourio | 2.04 | 21 | P | Pb | 08 16 38.1 | -0.3 |
| KPRO | | | | AML | AML | 08 17 20.3 | |
| | comp=N,936µm,0.5s | | | | | | |
| KPRO | | | | AML | AML | 08 17 23.5 | |
| | comp=E,1171µm,0.9s | | | | | | |
| KPRO | Kipourio | 2.04 | 21 | P | Pb | 08 16 38.0 | -0.4 |
| KPRO | Kipourio | 2.04 | 21 | P | Pb | 08 16 38.0 | -0.4 |
| LKR | Lokris | 2.13 | 73 | P | Pb | 08 16 39.2 | -0.6 |
| LKR | Lokris | 2.13 | 73 | P | Pb | 08 16 38.8 | -1.0 |
| LKR | Lokris | 2.13 | 73 | P | Pb | 08 16 38.8 | -1.0 |
| FYTO | Fytoko, Volos | 2.40 | 55 | P | Pn | 08 16 42.3 | +1.9 |
| FYTO | Fytoko, Volos | 2.40 | 55 | P | Pn | 08 16 42.3 | +1.9 |
| NEST | Nestorio | 2.41 | 12 | P | Pb | 08 16 43.7 | -1.0 |
| NEST | Nestorio | 2.41 | 12 | P | Pb | 08 16 43.7 | -1.0 |
| XOR | Xorichti | 2.55 | 58 | P | Pn | 08 16 43.7 | +1.3 |
| XOR | Xorichti | 2.55 | 58 | P | Pn | 08 16 43.7 | +1.3 |
| BIA | Bitola | 3.05 | 13 | ePn | Pn | 08 16 52.3 | +3.1 |
| BIA | | | | i Sn | Sn | 08 17 27.8 | +2.3 |
| OHR | Ohrid | 3.07 | 6 | i Pn | Pn | 08 16 51.7 | +2.1 |
| OHR | | | | i Sn | Sn | 08 17 27.9 | +1.8 |
| KRUS | Krusevo | 3.38 | 11 | i Pn | Pn | 08 16 55.2 | +1.4 |
| KRUS | | | | i Sn | Sn | 08 17 34.8 | +1.1 |
| VAY | Valandovo | 3.67 | 26 | ePn | Pn | 08 17 02.0 | +4.2 |
| VAY | | | | i Sn | Sn | 08 17 40.4 | -0.3 |
| SKO | Skopje | 4.00 | 11 | ePn | Pn | 08 17 03.7 | +1.4 |
| SKO | | | | i Sn | Sn | 08 17 48.8 | 0.0 |
| SG1 | Sgolgore (BA) | 4.00 | 315 | eP | Pn | 08 17 04.3 | +1.9 |
| CDT | Castel del Mon | 4.39 | 315 | eP | Pn | 08 17 09.1 | +1.3 |
| IDI | Anoyia | 4.54 | 126 | Pn | Pn | 08 17 12.0 | +2.1 |
| | comp=E,0.3nm,0.3s,baz=300,slow=14,SNR=3.0 | | | | | | |
| IDI | | | | Sn | Sn | 08 18 03.9 | +1.4 |
| | comp=E,4.1nm,0.3s,baz=298,slow=15,SNR=19 | | | | | | |
| BARS | Barje | 4.88 | 12 | ePn | Pn | 08 17 14.8 | +0.4 |
| MS1 | Monte Sant'Ang | 5.01 | 318 | eP | Pn | 08 17 18.2 | +2.0 |
| SJES | Sjenica | 5.21 | 357 | ePn | Pn | 08 17 20.0 | +0.9 |
| STON | Ston | 5.24 | 338 | ePn | Pn | 08 17 19.1 | -0.2 |
| STON | | | | Sn | Sn | 08 18 16.1 | -3.1 |
| STON | Ston | 5.24 | 338 | ePn | Pn | 08 17 19.0 | -0.2 |
| IVAS | Ivanjica | 5.52 | 358 | ⇑iPn | Pn | 08 17 23.5 | +0.2 |
| BOVS | Bovan | 5.66 | 10 | ePn | Pn | 08 17 24.7 | -0.5 |
| GRUS | Gruza | 5.83 | 2 | ePn | Pn | 08 17 28.1 | +0.6 |
| BBLS | Lazići | 5.86 | 353 | ePn | Pn | 08 17 28.4 | +0.5 |
| ZAGS | Zajecar | 5.92 | 13 | ePn | Pn | 08 17 28.6 | -0.1 |
| DIVS | Divibare | 6.05 | 357 | ePn | Pn | 08 17 30.1 | -0.4 |
| TRUS | Trudelj | 6.17 | 0 | ePn | Pn | 08 17 31.6 | -0.4 |
| TEKS | Tekeris | 6.52 | 355 | ⇑iPn | Pn | 08 17 36.6 | -0.4 |
| UDBI | Udbina | 7.35 | 333 | ePn | Pn | 08 17 49.9 | +1.6 |
| UDBI | | | | Sn | Sn | 08 19 09.1 | -2.4 |
| UDBI | Udbina | 7.35 | 333 | ePn | Pn | 08 17 49.9 | +1.6 |
| MLR | Muntele Rosu | 8.51 | 27 | Pn | Pn | 08 18 02.1 | -2.2 |
| | comp=E,0.0nm,0.3s,baz=148,slow=19,SNR=1.9 | | | | | | |
| GBRS | Gornja Briga | 8.56 | 333 | i Pn | Pn | 08 18 05.4 | +0.5 |
| SOKA | Soboth | 9.49 | 337 | ePn | Pn | 08 18 17.3 | -0.4 |
| | comp=E,2.7nm,0.3s | | | | | | |
| SOKA | | | | i Sn | Sn | 08 19 58.7 | -5.4 |
| | comp=E,2.9nm,0.5s | | | | | | |
| SOKA | Soboth | 9.49 | 337 | Pn | Pn | 08 18 17.3 | -0.4 |
| | comp=E,2.7nm,0.3s | | | | | | |
| OBKA | Obir | 9.49 | 335 | i Pn | Pn | 08 18 19.3 | +1.5 |
| | comp=E,1.0nm,0.1s | | | | | | |
| OBKA | | | | eSn | Sn | 08 19 58.1 | -6.2 |
| | comp=E,7.4nm,0.4s | | | | | | |
| OBKA | Obir | 9.49 | 335 | Pn | Pn | 08 18 19.3 | +1.5 |
| | comp=E,1.0nm,0.1s | | | | | | |
| ARSA | Arzberg | 9.87 | 340 | eSn | Sn | 08 20 10.3 | -3.0 |
| | comp=E,5.8nm,0.5s | | | | | | |
| KBA | Koelnbreinsper | 10.41 | 332 | Sn | Sn | 08 20 24.0 | -2.7 |
| | comp=E,1.5nm,0.2s | | | | | | |
| ABTA | Abfaltersbach | 10.46 | 329 | eSn | Sn | 08 20 23.5 | -4.4 |
| | comp=E,7.5nm,0.9s | | | | | | |
| MOA | Molln | 10.77 | 337 | ePn | Pn | 08 18 36.9 | +1.7 |
| | comp=E,1.8nm,0.3s | | | | | | |
| MOA | | | | eSn | Sn | 08 20 29.0 | -6.4 |
| | comp=E,3.0nm,0.5s | | | | | | |
| MOA | Molln | 10.77 | 337 | Pn | Pn | 08 18 36.9 | +1.7 |
| | comp=E,1.8nm,0.3s | | | | | | |
| WTTA | Wattenberg | 11.23 | 328 | eSn | Sn | 08 20 45.5 | -1.5 |
| | comp=E,14nm,0.4s | | | | | | |
| WATA | Walderalm | 11.31 | 328 | eSn | Sn | 08 20 45.5 | -3.4 |
| | comp=E,8.2nm,0.5s | | | | | | |
| FETA | Feichten | 11.45 | 325 | eSn | Sn | 08 20 50.3 | -1.9 |
| | comp=E,14nm,1.0s | | | | | | |
| MOTA | Moosalm | 11.52 | 327 | eSn | Sn | 08 20 50.1 | -4.0 |
| | comp=E,2.4nm,0.3s | | | | | | |
| DAVA | Damuels | 12.03 | 323 | eSn | Sn | 08 21 01.3 | -5.3 |
| | comp=E,18nm,0.8s | | | | | | |
| HFS | Hagfors | 22.51 | 351 | P | P | 08 21 00.6 | +0.3 |
| | comp=E,3.1nm,0.7s,baz=150,slow=15,SNR=8.5 | | | | | | |
| FINES | FINESS Array B | 23.68 | 7 | P | P | 08 21 13.2 | +0.8 |
| | comp=E,5.3nm,1.0s,baz=172,slow=11,SNR=3.4 | | | | | | |
| NOA | NORSAR Array B | 23.72 | 349 | P | P | 08 21 13.4 | +0.6 |
| | comp=E,0.7nm,0.6s,baz=152,slow=10,SNR=3.3 | | | | | | |
| KURBB | Kurchatov Arra | 42.38 | 53 | P | P | 08 23 55.0 | -0.1 |
| | comp=E,0.2nm,0.4s,baz=278,slow=8.5,SNR=3.7 | | | | | | |
| MKAR | Makanchi Array | 45.45 | 58 | P | P | 08 24 18.7 | -1.1 |
| | comp=E,0.4nm,0.4s,baz=273,slow=7.4,SNR=17 | | | | | | |
| ZALV | Zalesovo Beam | 45.85 | 48 | P | P | 08 24 22.0 | -0.8 |
| | comp=E,1.5nm,0.5s,baz=267,slow=8.1,SNR=6.5 | | | | | | |

*BJI **05** 08:17:25.8, 39°.25N×26°.00E, h12km, mb4.7/24, mB5.1/19, Ms4.8/10, Ms7 4.4/9*
*IDC **05** 08:17:25.9±0.4, 38°.79N×26°.38E, h0km, mb4.4/30, mb1 4.4/43, mb1mx4.4/52, mbtmp4.3/43, ML4.0/13, MS3.7/36, Ms1 3.7/36, ms1mx3.6/58, Error ellipse: s-maj=9.7km s-min=8.6km az=162.0*
*GCMT **05** 08:17:26.6±0.4, 38°.81N×26°.35E, h14km±1km, MW4.8/71, Moment Tensor Solution. s14,c15; s71,c103; Duration: 0 Moment tensor: Scale $10^{16}$Nm; $M_{rr}$-1.64±.14; $M_{\theta\theta}$1.78±.10; $M_{\phi\phi}$-0.14±.08; $M_{r\theta}$-0.30±.15; $M_{\theta\phi}$-0.41±.05; $M_{\phi r}$-0.03±.22; Best double couple: $M_0$1.77900×$10^{16}$ NP1:$\phi_s$98.00000°, δ50.00000°, λ-95.00000°. NP2: $\phi_s$285.00000°, δ40.00000°, λ-85.00000°. Principal axes: T 1.8880, Plg5.0000°, Azm191.0000°; N -0.2220, Plg3.0000°, Azm101.0000°; P -1.6690, Plg84.0000°, Azm335.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*NEIC **05** 08:17:26.6±0.0, 38°.81N×26°.23E, h6km, mb4.9/45, ML4.7(THE), ML4.6(ATH), ML5.1(ISK), After ISK.*
*ISK **05** 08:17:27.3, 38°.85N×26°.35E, h10km, ML5.0*
*ATH **05** 08:17:27.0, 38°.83N×26°.33E, h28km, ML4.6/9, Error ellipse: s-maj=1.2km s-min=0.5km az=80.0*
*DDA **05** 08:17:27.1, 38°.84N×26°.33E, h34km, Ml5.0*
*MOS **05** 08:17:28.4±1.0, 38°.90N×26°.39E, h26km, mb4.7/32, Error ellipse: s-maj=5.4km s-min=3.7km az=91.7*
*CSEM **05** 08:17:28.3±0.1, 38°.83N×26°.31E, h15km, mb4.9/50, Error ellipse: s-maj=1.6km s-min=1.6km az=70.0*
*THE **05** 08:17:28.2, 38°.85N×26°.29E, h10km, ML4.7/10, Error ellipse: s-maj=0.9km s-min=0.4km az=271.0*
*ISCJB **05** 08:17:28.2±0.2, 38°.838N±0°.010×26°.32E±0°.01, h24km±2km, mb4.7/96, MS3.7/29, Error ellipse: s-maj=1.7km s-min=1.6km az=180.0*
**ISC 05 08:17:28.7**±0.7, **38°.85N**±0°.01×**26°.35E**±0°.02, **h19**km±2km, **n1038**, σ**1s.17**/1118, **mb4.9**/96, **MS3.9**/29, **47C-19D, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PRK | Paraskevi | 0.40 | 352 | P | Pg | 08 17 35.8 | -1.3 |
| PRK | Paraskevi | 0.40 | 352 | P | Pg | 08 17 35.9 | -1.3 |
| PRK | | | | S | Sg | 08 17 41.0 | -1.8 |
| PRK | | | | AML | AML | 08 17 42.6 | |
| PRK | | | | AML | AML | 08 17 43.6 | |
| PRK | Paraskevi | 0.40 | 352 | P | Pg | 08 17 35.8 | -1.3 |
| PRK | | | | S | Sg | 08 17 41.0 | -1.8 |
| PRK | Paraskevi | 0.40 | 352 | P | Pg | 08 17 35.8 | -1.3 |
| PRK | Paraskevi | 0.40 | 352 | P | Pg | 08 17 35.8 | -1.3 |
| PRK | | | | S | Sg | 08 17 41.7 | -1.1 |
| DKL | Dikili | 0.49 | 63 | ePG | Pg | 08 17 37.4 | -1.3 |
| DKL | | | | eSG | Sg | 08 17 44.2 | -1.2 |
| DKL | Dikili | 0.49 | 63 | ePg | Pg | 08 17 37.4 | -1.3 |
| DKL | | | | eSg | Sg | 08 17 44.2 | -1.2 |
| CHOS | Chios island | 0.51 | 207 | ePG | Pg | 08 17 38.3 | -0.9 |
| CHOS | Chios island | 0.51 | 207 | P | Pg | 08 17 38.8 | -0.4 |
| CHOS | | | | S | Sg | 08 17 45.2 | -0.9 |
| CHOS | | | | AML | AML | 08 17 51.0 | |
| CHOS | | | | AML | AML | 08 17 53.2 | |
| CHOS | Chios island | 0.51 | 207 | P | Pg | 08 17 38.2 | -0.9 |
| CHOS | | | | S | Sg | 08 17 45.0 | -1.1 |
| CHOS | Chios island | 0.51 | 207 | P | Pg | 08 17 38.2 | -0.9 |
| CHOS | Chios island | 0.51 | 207 | P | Pg | 08 17 38.2 | -0.9 |
| CHOS | | | | S | Sg | 08 17 45.0 | -1.1 |
| URLA | Izmir | 0.52 | 158 | ePG | Pg | 08 17 38.0 | -1.3 |
| URLA | | | | eSG | Sg | 08 17 45.8 | -0.6 |
| URLA | Izmir | 0.52 | 158 | ⇑iP | Pg | 08 17 38.1 | -1.2 |
| URLA | | | | i S | Sg | 08 17 46.1 | -0.3 |
| URLA | Izmir | 0.52 | 158 | P | Pg | 08 17 38.1 | -1.2 |
| URLA | | | | eSg | Sg | 08 17 45.8 | -0.6 |
| URLA | | | | S | Sg | 08 17 46.1 | -0.3 |
| SIGR | SIGRI | 0.53 | 314 | ePG | Pg | 08 17 38.4 | -1.0 |
| SIGR | | | | eSG | Sg | 08 17 46.1 | -0.4 |
| SIGR | SIGRI | 0.53 | 314 | P | Pg | 08 17 38.6 | -0.7 |
| SIGR | | | | S | Sg | 08 17 44.7 | -1.8 |
| SIGR | | | | AML | AML | 08 17 48.6 | |
| SIGR | | | | AML | AML | 08 17 54.7 | |
| SIGR | SIGRI | 0.53 | 314 | ePg | Pg | 08 17 38.4 | -1.0 |
| SIGR | | | | S | Sg | 08 17 44.7 | -1.8 |
| SIGR | | | | eSg | Sg | 08 17 46.1 | -0.4 |
| SIGR | SIGRI | 0.53 | 314 | ePg | Pg | 08 17 38.3 | -1.1 |
| SIGR | | | | eSg | Sg | 08 17 45.2 | -1.3 |
| SIGR | SIGRI | 0.53 | 314 | P | Pg | 08 17 38.3 | -1.1 |
| SIGR | | | | S | Sg | 08 17 45.2 | -1.3 |
| ZEY | ˜zmir | 0.62 | 168 | ⇑iP | Pg | 08 17 39.8 | -1.2 |
| ZEY | | | | i S | Sn | 08 17 51.4 | -0.5 |
| DGB | ˜zmir | 0.90 | 152 | ⇑iP | Pb | 08 17 44.6 | -1.1 |
| DGB | | | | i S | Sb | 08 17 57.3 | 0.0 |
| BAYC | CANAKKALE_Bayr | 0.91 | 10 | ⇑iP | Pb | 08 17 44.5 | -1.4 |
| BAYC | | | | i S | Sg | 08 17 58.5 | +0.1 |
| BAYC | CANAKKALE_Bayr | 0.91 | 10 | P | Pb | 08 17 44.5 | -1.4 |
| BAYC | | | | S | Sg | 08 17 58.5 | +0.1 |
| EZN | Ezine | 0.98 | 359 | ePG | Pb | 08 17 46.1 | -1.1 |
| EZN | Ezine | 0.98 | 359 | eP | Pb | 08 17 46.0 | -1.1 |
| EZN | | | | e | | 08 18 00.0 | |
| EZN | Ezine | 0.98 | 359 | P | Pb | 08 17 46.0 | -1.1 |
| EZN | | | | S | Sg | 08 18 00.0 | -0.7 |
| EZN | Ezine | 0.98 | 359 | ePg | Pb | 08 17 46.0 | -1.1 |
| EZN | | | | eSn | Sg | 08 18 00.0 | -0.7 |
| EZN | Ezine | 0.98 | 359 | P | Pb | 08 17 46.0 | -1.1 |
| EZN | | | | S | Sg | 08 18 00.0 | -0.7 |
| BOZC | Bozcaada | 1.02 | 347 | ePG | Pb | 08 17 47.1 | -0.7 |
| BOZC | Bozcaada | 1.02 | 347 | ⇑iP | Pb | 08 17 46.9 | -0.9 |
| BOZC | | | | i S | Sb | 08 18 00.6 | -0.2 |
| BOZC | Bozcaada | 1.02 | 347 | ePg | Pb | 08 17 47.1 | -0.7 |
| AKHS | Akhisar | 1.15 | 88 | ⇓iP | Pn | 08 17 49.4 | -0.4 |
| AKHS | | | | i S | Sg | 08 18 05.5 | -0.5 |
| AKHS | Akhisar | 1.15 | 88 | P | Pn | 08 17 49.4 | -0.4 |
| AKHS | | | | S | Sg | 08 18 05.5 | -0.5 |
| AKS | Akhisar | 1.15 | 88 | ePN | Pn | 08 17 49.6 | -0.2 |
| AKS | Akhisar | 1.15 | 88 | ePn | Pn | 08 17 49.6 | -0.2 |
| SMG | Samos | 1.20 | 161 | P | Pn | 08 17 50.1 | -0.4 |
| SMG | | | | S | Sb | 08 18 05.2 | -0.8 |
| SMG | | | | AML | AML | 08 18 09.7 | |
| SMG | | | | AML | AML | 08 18 10.9 | |
| SMG | Samos | 1.20 | 161 | P | Pn | 08 17 49.8 | -0.7 |
| SMG | | | | S | Sb | 08 18 05.2 | -0.8 |
| SMG | Samos | 1.20 | 161 | P | Pn | 08 17 49.8 | -0.7 |
| SMG | Samos | 1.20 | 161 | P | Pn | 08 17 49.8 | -0.7 |
| SMG | | | | S | Sg | 08 18 07.0 | -0.7 |
| BALY | Balya | 1.33 | 47 | ⇑iP | Pn | 08 17 51.9 | -0.5 |
| BALY | | | | i S | Sg | 08 18 11.5 | -0.4 |
| BALY | Balya | 1.33 | 47 | P | Pn | 08 17 51.8 | -0.5 |
| BALY | | | | S | Sg | 08 18 11.5 | -0.4 |
| GCAM | G?zelcaml? | 1.34 | 148 | ePN | Pn | 08 17 52.3 | -0.1 |
| GCAM | G?zelcaml? | 1.34 | 148 | ⇑iP | Pn | 08 17 52.0 | -0.4 |
| GCAM | | | | i S | Sg | 08 18 11.2 | -0.9 |
| GCAM | G?zelcaml? | 1.34 | 148 | P | Pn | 08 17 52.0 | -0.4 |
| GCAM | G?zelcaml? | 1.34 | 148 | ePn | Pn | 08 17 52.3 | -0.1 |
| GCAM | | | | S | Sg | 08 18 11.2 | -0.9 |
| LIA | Limnos Island | 1.38 | 320 | P | Pn | 08 17 53.4 | +0.4 |
| LIA | | | | S | Sn | 08 18 10.6 | -0.2 |
| LIA | | | | AML | AML | 08 18 12.9 | |
| | comp=E,55924µm,0.8s | | | | | | |
| LIA | | | | AML | AML | 08 18 16.0 | |
| | comp=N,39798µm,0.6s | | | | | | |
| LIA | Limnos Island | 1.38 | 320 | P | Pn | 08 17 52.5 | -0.5 |
| LIA | | | | S | Sn | 08 18 09.9 | -0.9 |
| LIA | Limnos Island | 1.38 | 320 | P | Pn | 08 17 52.5 | -0.5 |
| LIA | Limnos Island | 1.38 | 320 | P | Pn | 08 17 52.5 | -0.5 |
| LIA | | | | S | Sn | 08 18 09.9 | -0.9 |
| GADA | Gvkgeada | 1.39 | 346 | ePN | Pn | 08 17 53.1 | 0.0 |
| GADA | Gvkgeada | 1.39 | 346 | P | Pn | 08 17 52.6 | -0.5 |
| GADA | Gvkgeada | 1.39 | 346 | ePn | Pn | 08 17 53.1 | 0.0 |
| GADA | | | | S | Sn | 08 18 10.3 | -0.6 |
| GADA | Gvkgeada | 1.39 | 346 | ePn | Pn | 08 17 52.6 | -0.5 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| GADA | | | | eSn | Sn | 08 18 10.3 | -0.6 |
| GADA | Gvkgeada | 1.39 | 346 | P | Pn | 08 17 52.6 | -0.5 |
| GADA | | | | S | Sn | 08 18 10.3 | -0.6 |
| SKY | Skiros Island | 1.40 | 272 | P | Pn | 08 17 53.3 | 0.0 |
| SKY | Skiros Island | 1.40 | 272 | P | Pn | 08 17 53.0 | -0.3 |
| SKY | Skiros Island | 1.40 | 272 | ePn | Pn | 08 17 53.0 | -0.3 |
| SKY | Skiros Island | 1.40 | 272 | P | Pn | 08 17 53.0 | -0.3 |
| BALB | Balikesir | 1.43 | 56 | ePN | Pn | 08 17 54.0 | +0.4 |
| BALB | Balikesir | 1.43 | 56 | ePn | Pn | 08 17 54.1 | +0.4 |
| GELI | Tayfur-Gelibol | 1.55 | 4 | ePN | Pn | 08 17 55.4 | +0.1 |
| GELI | Tayfur-Gelibol | 1.55 | 4 | ePn | Pn | 08 17 55.4 | +0.1 |
| LPK | Lapseki | 1.56 | 12 | ePN | Pn | 08 17 55.5 | +0.1 |
| LPK | Lapseki | 1.56 | 12 | ePn | Pn | 08 17 55.5 | +0.1 |
| AYDN | Tasoluk | 1.69 | 134 | ⇓iP | Pn | 08 17 57.2 | -0.1 |
| AYDN | | | | iS | Sg | 08 18 22.9 | -0.4 |
| AYDN | Tasoluk | 1.69 | 134 | P | Pn | 08 17 57.2 | -0.1 |
| AYDN | | | | S | Sg | 08 18 22.9 | -0.4 |
| KNL | Bal˜–kesir | 1.69 | 32 | ⇑iP | Pn | 08 17 56.9 | -0.4 |
| KNL | | | | iS | Sb | 08 18 20.3 | +0.2 |
| KARY | Karystos | 1.71 | 242 | P | Pn | 08 17 56.5 | -1.0 |
| KARY | | | | S | Sn | 08 18 17.2 | -1.5 |
| KARY | Karystos | 1.71 | 242 | P | Pn | 08 17 56.5 | -1.0 |
| KARY | | | | S | Sn | 08 18 17.2 | -1.5 |
| KRBG | Karabiga-Canak | 1.71 | 25 | ePN | Pn | 08 17 57.8 | +0.3 |
| KRBG | Karabiga-Canak | 1.71 | 25 | ePn | Pn | 08 17 57.8 | +0.3 |
| SMTH | Samothraki Isl | 1.74 | 339 | P | Pn | 08 17 57.7 | -0.3 |
| SMTH | | | | S | Sb | 08 18 21.0 | -0.5 |
| SMTH | | | | AML | AML | 08 18 27.1 | |
| | comp=N,17090μm,0.7s | | | | | | |
| SMTH | | | | AML | AML | 08 18 29.8 | |
| | comp=E,18144μm,0.6s | | | | | | |
| SMTH | Samothraki Isl | 1.74 | 339 | P | Pn | 08 17 57.5 | -0.5 |
| SMTH | | | | S | Sn | 08 18 20.0 | +0.3 |
| SMTH | Samothraki Isl | 1.74 | 339 | ePn | Pn | 08 17 57.5 | -0.5 |
| SMTH | | | | eSn | Sn | 08 18 20.0 | +0.3 |
| SMTH | | | | eSg | Sb | 08 18 22.1 | +0.5 |
| SMTH | Samothraki Isl | 1.74 | 339 | P | Pn | 08 17 57.5 | -0.5 |
| SMTH | | | | S | Sn | 08 18 20.0 | +0.3 |
| MANT | Manisa | 1.77 | 101 | ⇓iP | Pn | 08 17 58.5 | 0.0 |
| MANT | | | | iS | Sb | 08 18 23.2 | +0.6 |
| MANT | Manisa | 1.77 | 101 | P | Pn | 08 17 58.5 | 0.0 |
| MANT | | | | S | Sb | 08 18 23.2 | +0.6 |
| MANT | Manisa | 1.77 | 101 | ePn | Pn | 08 17 58.4 | 0.0 |
| MANT | | | | eSn | Sb | 08 18 23.7 | +1.1 |
| ERIK | Erikli-Kesan | 1.83 | 4 | ePN | Pn | 08 17 59.4 | +0.3 |
| ERIK | Erikli-Kesan | 1.83 | 4 | ePn | Pn | 08 17 59.4 | +0.3 |
| KULA | Kula-Manisa | 1.84 | 100 | ePN | Pn | 08 17 59.8 | +0.4 |
| KULA | Kula-Manisa | 1.84 | 100 | ePn | Pn | 08 17 59.8 | +0.4 |
| DEMI | Demirci | 1.86 | 83 | ⇓iP | Pn | 08 17 59.6 | 0.0 |
| DEMI | | | | iS | Sb | 08 18 25.8 | +0.8 |
| DEMI | Demirci | 1.86 | 83 | P | Pn | 08 17 59.6 | 0.0 |
| DEMI | | | | S | Sb | 08 18 25.8 | +0.8 |
| APE | Apeiranthos | 1.89 | 200 | ePN | Pn | 08 17 59.8 | -0.2 |
| APE | Apeiranthos | 1.89 | 200 | ⇓iP | Pn | 08 17 59.2 | -0.8 |
| APE | Apeiranthos | 1.89 | 200 | c iP | Pn | 08 17 59.3 | -0.8 |
| APE | Apeiranthos | 1.89 | 200 | P | Pn | 08 17 58.9 | -1.2 |
| APE | | | | S | Sn | 08 18 22.2 | -1.1 |
| APE | | | | AML | AML | 08 18 32.9 | |
| | comp=N,17311μm,1.0s | | | | | | |
| APE | | | | AML | AML | 08 18 33.6 | |
| | comp=E,14962μm,0.7s | | | | | | |
| APE | Apeiranthos | 1.89 | 200 | ⇓iP | Pn | 08 17 59.2 | -0.8 |
| APE | Apeiranthos | 1.89 | 200 | ePn | Pn | 08 17 59.8 | -0.2 |
| APE | | | | S | Sn | 08 18 22.2 | -1.1 |
| APE | Apeiranthos | 1.89 | 200 | ePn | Pn | 08 17 59.1 | -0.9 |
| APE | | | | eSn | Sn | 08 18 23.1 | -0.2 |
| APE | Apeiranthos | 1.89 | 200 | P | Pn | 08 17 59.1 | -0.9 |
| APE | | | | S | Sn | 08 18 23.1 | -0.2 |
| ENEZ | Enez | 1.89 | 356 | ePN | Pn | 08 18 00.3 | +0.2 |
| ENEZ | Enez | 1.89 | 356 | P | Pn | 08 18 00.4 | +0.4 |
| ENEZ | Enez | 1.89 | 356 | P | Pn | 08 18 00.4 | +0.4 |
| EDC | Edincik | 1.90 | 38 | ePN | Pn | 08 17 60.0 | -0.2 |
| EDC | Edincik | 1.90 | 38 | ePn | Pn | 08 18 00.0 | -0.2 |
| DST | Dursunbey | 1.92 | 66 | ePN | Pn | 08 18 01.2 | +0.7 |
| DST | Dursunbey | 1.92 | 66 | ePn | Pn | 08 18 01.2 | +0.7 |
| BODT | Bodrum | 1.94 | 157 | ePN | Pn | 08 18 01.0 | +0.3 |
| BODT | Bodrum | 1.94 | 157 | P | Pn | 08 18 00.3 | -0.4 |
| BODT | Bodrum | 1.94 | 157 | ePn | Pn | 08 18 01.0 | +0.3 |
| BODT | Bodrum | 1.94 | 157 | ePn | Pn | 08 18 00.3 | -0.4 |
| BODT | Bodrum | 1.94 | 157 | P | Pn | 08 18 00.3 | -0.4 |
| EREA | Eretria | 1.94 | 258 | P | Pn | 08 18 00.3 | -0.4 |
| EREA | Eretria | 1.94 | 258 | P | Pn | 08 17 59.8 | -0.9 |
| EREA | Eretria | 1.94 | 258 | P | Pn | 08 17 59.8 | -0.9 |
| RKY | Sarkoy-Tekirda | 1.95 | 19 | ePN | Pn | 08 18 01.1 | +0.2 |
| RKY | Sarkoy-Tekirda | 1.95 | 19 | ePn | Pn | 08 18 01.1 | +0.2 |
| BDRM | Kayabasi | 1.98 | 154 | ⇑iP | Pn | 08 18 01.0 | -0.2 |
| BDRM | | | | iS | Sb | 08 18 30.0 | +1.6 |
| BDRM | Kayabasi | 1.98 | 154 | P | Pn | 08 18 01.0 | -0.2 |
| BDRM | Kayabasi | 1.98 | 154 | S | Sb | 08 18 30.0 | +1.6 |
| KESN | Edirne-Kesan | 1.99 | 7 | ⇑iP | Pn | 08 18 01.6 | -0.2 |
| KESN | | | | iS | Sn | 08 18 26.4 | 0.0 |
| KESN | Edirne-Kesan | 1.99 | 7 | P | Pn | 08 18 01.6 | -0.2 |
| KESN | | | | S | Sn | 08 18 26.4 | 0.0 |
| ALN | Alexandroupoli | 2.06 | 354 | ePN | Pn | 08 18 02.5 | +0.1 |
| ALN | Alexandroupoli | 2.06 | 354 | P | Pn | 08 18 02.2 | -0.1 |
| ALN | Alexandroupoli | 2.06 | 354 | P | Pn | 08 18 02.2 | -0.1 |
| ALN | | | | S | Sn | 08 18 27.3 | -0.2 |
| ALN | | | | AML | AML | 08 18 33.9 | |
| | comp=N,35648μm,0.6s | | | | | | |
| ALN | | | | AML | AML | 08 18 36.4 | |
| | comp=E,14864μm,0.5s | | | | | | |
| ALN | Alexandroupoli | 2.06 | 354 | P | Pn | 08 18 02.2 | -0.1 |
| ALN | Alexandroupoli | 2.06 | 354 | ePn | Pn | 08 18 02.5 | +0.1 |
| ALN | | | | S | Sn | 08 18 27.3 | -0.2 |
| ALN | Alexandroupoli | 2.06 | 354 | P | Pn | 08 18 02.2 | -0.1 |
| ALN | Alexandroupoli | 2.06 | 354 | P | Pn | 08 18 02.2 | -0.1 |
| ALN | | | | S | Sn | 08 18 29.0 | +1.5 |
| SIMA | Simav-Kutahya | 2.07 | 83 | ePN | Pn | 08 18 03.0 | +0.4 |
| SIMA | Simav-Kutahya | 2.07 | 83 | ePn | Pn | 08 18 03.0 | +0.4 |
| KCTX | Karacabey (Bur | 2.10 | 47 | ePN | Pn | 08 18 03.2 | +0.3 |
| KCTX | Karacabey (Bur | 2.10 | 47 | ePn | Pn | 08 18 03.2 | +0.3 |
| PTL | Penteli | 2.10 | 249 | P | Pn | 08 18 02.4 | -0.6 |
| PTL | | | | S | Sn | 08 18 28.2 | -0.5 |
| PTL | Penteli | 2.10 | 249 | P | Pn | 08 18 02.4 | -0.6 |
| PTL | | | | S | Sn | 08 18 28.2 | -0.5 |
| PTL | Penteli | 2.10 | 249 | ePn | Pn | 08 18 02.4 | -0.6 |
| PTL | Penteli | 2.10 | 249 | P | Pn | 08 18 02.4 | -0.6 |
| ATHU | Athens Univers | 2.20 | 247 | P | Pn | 08 18 03.0 | -1.1 |
| ATHU | Athens Univers | 2.20 | 247 | P | Pn | 08 18 03.0 | -1.1 |
| ATHU | Athens Univers | 2.20 | 247 | ePn | Pn | 08 18 03.1 | -1.1 |
| ATHU | Athens Univers | 2.20 | 247 | P | Pn | 08 18 03.1 | -1.1 |
| VLY | Voula,Athens | 2.24 | 244 | P | Pn | 08 18 03.8 | -1.0 |
| VLY | Voula,Athens | 2.24 | 244 | P | Pn | 08 18 03.8 | -1.0 |
| VLY | Voula,Athens | 2.24 | 244 | ePn | Pn | 08 18 04.0 | -0.8 |
| VLY | Voula,Athens | 2.24 | 244 | P | Pn | 08 18 04.0 | -0.8 |
| ATH | Athens Observa | 2.24 | 248 | P | Pn | 08 18 04.4 | -0.4 |
| ATH | Athens Observa | 2.24 | 248 | P | Pn | 08 18 04.7 | -0.1 |
| ATH | Athens Observa | 2.24 | 248 | P | Pn | 08 18 04.4 | -0.4 |
| ATH | Athens Observa | 2.24 | 248 | P | Pn | 08 18 04.4 | -0.4 |
| ATH | Athens Observa | 2.24 | 248 | P | Pn | 08 18 04.4 | -0.4 |
| ORLT | Orhaneli | 2.31 | 58 | ePN | Pn | 08 18 07.1 | +1.3 |
| ORLT | Orhaneli | 2.31 | 58 | ePn | Pn | 08 18 07.1 | +1.3 |
| NISR | Nisiros | 2.31 | 164 | P | Pn | 08 18 07.3 | +1.4 |
| NISR | Nisiros | 2.31 | 164 | P | Pn | 08 18 06.5 | +0.7 |
| NISR | Nisiros | 2.31 | 164 | ePn | Pn | 08 18 06.5 | +0.7 |
| NISR | Nisiros | 2.31 | 164 | P | Pn | 08 18 06.5 | +0.7 |
| TKR | Tekirdag | 2.33 | 23 | ePN | Pn | 08 18 07.4 | +1.4 |
| TKR | Tekirdag | 2.33 | 23 | ePn | Pn | 08 18 07.4 | +1.4 |
| PAIG | Paliouri | 2.33 | 298 | eP | Pn | 08 18 05.8 | -0.3 |
| PAIG | Paliouri | 2.33 | 298 | P | Pn | 08 18 05.5 | -0.5 |
| PAIG | Paliouri | 2.33 | 298 | P | Pn | 08 18 05.5 | -0.5 |
| PAIG | Paliouri | 2.33 | 298 | ePn | Pn | 08 18 05.8 | -0.3 |
| PAIG | Paliouri | 2.33 | 298 | P | Pn | 08 18 05.8 | -0.3 |
| NIS1 | Nisyros Isl. | 2.33 | 163 | ePN | Pn | 08 18 06.8 | +0.6 |
| NIS1 | Nisyros Isl. | 2.33 | 163 | P | Pn | 08 18 06.5 | +0.4 |
| NIS1 | Nisyros Isl. | 2.33 | 163 | P | Pn | 08 18 05.7 | -0.4 |
| NIS1 | Nisyros Isl. | 2.33 | 163 | ePn | Pn | 08 18 06.8 | +0.6 |
| NIS1 | Nisyros Isl. | 2.33 | 163 | ePn | Pn | 08 18 05.7 | -0.4 |
| NIS1 | Nisyros Isl. | 2.33 | 163 | P | Pn | 08 18 05.7 | -0.4 |
| OUR | Ouranopolis | 2.35 | 310 | ePN | Pn | 08 18 06.8 | +0.4 |
| OUR | Ouranopolis | 2.35 | 310 | eP | Pn | 08 18 06.0 | -0.4 |
| OUR | | | | e | | 08 18 41.4 | |
| OUR | Ouranopolis | 2.35 | 310 | P | Pn | 08 18 06.8 | +0.4 |
| OUR | Ouranopolis | 2.35 | 310 | P | Pn | 08 18 06.0 | -0.4 |
| OUR | Ouranopolis | 2.35 | 310 | ePn | Pn | 08 18 06.8 | +0.4 |
| OUR | Ouranopolis | 2.35 | 310 | ePn | Pn | 08 18 06.0 | -0.4 |
| OUR | | | | eSn | Sb | 08 18 41.4 | +2.2 |
| OUR | Ouranopolis | 2.35 | 310 | P | Pn | 08 18 06.0 | -0.4 |
| OUR | | | | S | Sb | 08 18 41.4 | +2.2 |
| DENT | Denizli | 2.38 | 116 | ePN | Pn | 08 18 07.5 | +0.8 |
| DENT | Denizli | 2.38 | 116 | ePn | Pn | 08 18 07.6 | +0.8 |
| RDO | Rodhopi | 2.38 | 345 | P | Pn | 08 18 07.2 | +0.5 |
| RDO | Rodhopi | 2.38 | 345 | P | Pn | 08 18 06.8 | +0.1 |
| RDO | Rodhopi | 2.38 | 345 | ePn | Pn | 08 18 06.8 | +0.1 |
| RDO | Rodhopi | 2.38 | 345 | P | Pn | 08 18 06.8 | +0.1 |
| SBT3 | Marmara-Eregli | 2.39 | 31 | ePN | Pn | 08 18 08.3 | +1.6 |
| SBT3 | Marmara-Eregli | 2.39 | 31 | ePn | Pn | 08 18 08.3 | +1.6 |
| DNZL | Cakiroluk | 2.42 | 118 | ⇓iP | Pn | 08 18 07.9 | +0.5 |
| DNZL | | | | iS | Sg | 08 18 44.8 | -1.8 |
| DNZL | Cakiroluk | 2.42 | 118 | P | Pn | 08 18 07.9 | +0.5 |
| TAVA | DENIZLI_Tavas | 2.45 | 123 | ⇓iP | Pn | 08 18 08.0 | +0.2 |
| TAVA | | | | iS | Sg | 08 18 46.6 | -0.9 |
| TAVA | DENIZLI_Tavas | 2.45 | 123 | P | Pn | 08 18 08.0 | +0.2 |
| SMIA | Simia | 2.45 | 272 | P | Pn | 08 18 07.7 | 0.0 |
| SMIA | Simia | 2.45 | 272 | P | Pn | 08 18 07.7 | 0.0 |
| GDZ | Gediz | 2.46 | 83 | ⇑iP | Pn | 08 18 09.2 | +1.3 |
| GDZ | | | | iS | Sg | 08 18 45.7 | -2.0 |
| GDZ | Gediz | 2.46 | 83 | P | Pn | 08 18 09.2 | +1.3 |
| NEO | Neokhori | 2.47 | 282 | P | Pn | 08 18 07.8 | -0.3 |
| NEO | Neokhori | 2.47 | 282 | P | Pn | 08 18 07.6 | -0.5 |
| NEO | Neokhori | 2.47 | 282 | P | Pn | 08 18 07.6 | -0.5 |
| NEO | Neokhori | 2.47 | 282 | P | Pn | 08 18 07.6 | -0.5 |
| VILL | Villia | 2.48 | 255 | P | Pn | 08 18 07.7 | -0.4 |
| VILL | Villia | 2.48 | 255 | P | Pn | 08 18 07.7 | -0.4 |
| MDNY | Mudanya-Bursa | 2.48 | 51 | ePN | Pn | 08 18 08.8 | +0.7 |
| MDNY | Mudanya-Bursa | 2.48 | 51 | ePn | Pn | 08 18 08.8 | +0.7 |
| CMBO | Columbo, Santo | 2.49 | 198 | P | Pn | 08 18 07.4 | -0.8 |
| CMBO | Columbo, Santo | 2.49 | 198 | P | Pn | 08 18 07.4 | -0.8 |
| TVSB | Tavsanli | 2.50 | 75 | ePN | Pn | 08 18 08.9 | +0.5 |
| TVSB | Tavsanli | 2.50 | 75 | ePn | Pn | 08 18 09.0 | +0.5 |
| VIL2 | Platees | 2.50 | 256 | P | Pn | 08 18 08.1 | -0.3 |
| THR2 | Thira island, | 2.50 | 197 | P | Pn | 08 18 08.0 | -0.4 |
| THR2 | Thira island, | 2.50 | 197 | P | Pn | 08 18 07.8 | -0.6 |
| THR2 | Thira island, | 2.50 | 197 | ePn | Pn | 08 18 07.8 | -0.6 |
| THR2 | Thira island, | 2.50 | 197 | P | Pn | 08 18 07.8 | -0.6 |
| XOR | Xorichti | 2.51 | 283 | P | Pn | 08 18 07.5 | -1.1 |
| XOR | Xorichti | 2.51 | 283 | P | Pn | 08 18 07.4 | -1.1 |
| KHAL | Karahalli | 2.51 | 100 | ⇓iP | Pn | 08 18 09.1 | +0.5 |
| KHAL | | | | iS | Sg | 08 18 47.5 | -1.9 |
| KHAL | Karahalli | 2.51 | 100 | P | Pn | 08 18 09.1 | +0.5 |
| CRLT | Corlu | 2.52 | 25 | ePN | Pn | 08 18 09.1 | +0.5 |
| CRLT | Corlu | 2.52 | 25 | ePn | Pn | 08 18 09.1 | +0.5 |
| THR7 | Fira-Santorini | 2.53 | 197 | P | Pn | 08 18 08.9 | +0.1 |
| THR7 | Fira-Santorini | 2.53 | 197 | P | Pn | 08 18 08.3 | -0.5 |
| THR7 | Fira-Santorini | 2.53 | 197 | P | Pn | 08 18 08.3 | -0.5 |
| KHL | Karahalli | 2.54 | 101 | ePN | Pn | 08 18 10.6 | +1.5 |
| KHL | Karahalli | 2.54 | 101 | ePn | Pn | 08 18 10.6 | +1.5 |
| THR3 | Thira Island, | 2.55 | 197 | P | Pn | 08 18 08.4 | -0.6 |
| THR3 | Thira Island, | 2.55 | 197 | P | Pn | 08 18 07.7 | -1.3 |
| THR3 | Thira Island, | 2.55 | 197 | ePn | Pn | 08 18 07.7 | -1.3 |
| THR3 | Thira Island, | 2.55 | 197 | P | Pn | 08 18 07.7 | -1.3 |
| THR5 | Thira Island, | 2.55 | 198 | P | Pn | 08 18 08.4 | -0.7 |
| THR5 | Thira Island, | 2.55 | 198 | P | Pn | 08 18 08.3 | -0.8 |
| THR5 | Thira Island, | 2.55 | 198 | P | Pn | 08 18 08.3 | -0.8 |
| THT1 | Athinios (Pele | 2.56 | 197 | P | Pn | 08 18 08.3 | -0.9 |
| THT1 | Athinios (Pele | 2.56 | 197 | P | Pn | 08 18 07.8 | -1.4 |
| THT1 | Athinios (Pele | 2.56 | 197 | P | Pn | 08 18 07.8 | -1.4 |
| KAVA | Kavala | 2.57 | 327 | P | Pn | 08 18 09.2 | -0.1 |
| KAVA | | | | S | Sn | 08 18 40.9 | +0.9 |
| KAVA | | | | AML | AML | 08 18 53.6 | |
| | comp=N,5196μm,0.7s | | | | | | |
| KAVA | | | | AML | AML | 08 18 59.0 | |
| | comp=E,3382μm,0.5s | | | | | | |
| KAVA | Kavala | 2.57 | 327 | P | Pn | 08 18 09.1 | -0.2 |
| KAVA | | | | S | Sn | 08 18 40.9 | +0.9 |
| KAVA | Kavala | 2.57 | 327 | ePn | Pn | 08 18 09.1 | -0.2 |
| KAVA | Kavala | 2.57 | 327 | P | Pn | 08 18 09.1 | -0.2 |
| SANT | Santorini | 2.57 | 196 | P | Pn | 08 18 08.2 | -1.2 |
| SANT | Santorini | 2.57 | 196 | ePn | Pn | 08 18 08.3 | -1.1 |
| SANT | Santorini | 2.57 | 196 | ePn | Pn | 08 18 08.3 | -1.1 |
| SANT | Santorini | 2.57 | 196 | P | Pn | 08 18 08.1 | -1.2 |
| MRSB | Marmaris-Mugla | 2.58 | 145 | ePN | Pn | 08 18 10.3 | +0.8 |
| MRSB | Marmaris-Mugla | 2.58 | 145 | ePn | Pn | 08 18 10.3 | +0.8 |
| ARMT | Armutlu | 2.59 | 48 | ePN | Pn | 08 18 10.4 | +0.8 |
| ARMT | Armutlu | 2.59 | 48 | ePn | Pn | 08 18 10.4 | +0.8 |
| MHLA | Plaka, Milos I | 2.59 | 217 | P | Pn | 08 18 08.0 | -1.6 |
| MHLA | Plaka, Milos I | 2.59 | 217 | P | Pn | 08 18 08.0 | -1.6 |
| THR6 | Thira Island, | 2.60 | 197 | P | Pn | 08 18 09.3 | -0.4 |
| THR6 | Thira Island, | 2.60 | 197 | P | Pn | 08 18 08.8 | -0.9 |
| THR6 | Thira Island, | 2.60 | 197 | ePn | Pn | 08 18 08.8 | -0.9 |
| THR6 | Thira Island, | 2.60 | 197 | P | Pn | 08 18 08.8 | -0.9 |
| IGD | Bursa | 2.62 | 56 | ⇑iP | Pn | 08 18 09.6 | -0.5 |
| IGD | | | | iS | Sb | 08 18 49.0 | +2.1 |
| LKR | Lokris | 2.62 | 267 | P | Pn | 08 18 09.5 | -0.6 |
| LKR | Lokris | 2.62 | 267 | P | Pn | 08 18 09.5 | -0.6 |
| SBT2 | Guzelce-Avcila | 2.63 | 39 | ePN | Pn | 08 18 10.1 | +0.1 |
| SBT2 | Guzelce-Avcila | 2.63 | 39 | ePn | Pn | 08 18 10.1 | +0.1 |
| SBT5 | Esenkoy-Cinarc | 2.65 | 47 | ePN | Pn | 08 18 11.3 | +1.0 |
| SBT5 | Esenkoy-Cinarc | 2.65 | 47 | ePn | Pn | 08 18 11.3 | +1.0 |
| MHLO | Agia Marina, M | 2.65 | 216 | P | Pn | 08 18 08.9 | -1.5 |
| MHLO | Agia Marina, M | 2.65 | 216 | P | Pn | 08 18 08.9 | -1.5 |
| TURN | Turunc | 2.66 | 137 | ePN | Pn | 08 18 10.1 | -0.4 |
| TURN | Turunc | 2.66 | 137 | ⇑iP | Pn | 08 18 08.8 | -1.7 |
| TURN | | | | iS | Sb | 08 18 50.2 | +2.3 |
| TURN | Turunc | 2.66 | 137 | P | Pn | 08 18 08.8 | -1.7 |
| TURN | Turunc | 2.66 | 137 | ePn | Pn | 08 18 10.1 | -0.4 |
| FYTO | Fytoko, Volos | 2.71 | 283 | P | Pn | 08 18 10.8 | -0.4 |
| FYTO | Fytoko, Volos | 2.71 | 283 | ePn | Pn | 08 18 10.8 | -0.4 |
| FYTO | Fytoko, Volos | 2.71 | 283 | P | Pn | 08 18 10.8 | -0.4 |
| GEMT | Gemlik | 2.71 | 53 | ePN | Pn | 08 18 11.9 | +0.6 |
| GEMT | Gemlik | 2.71 | 53 | ePn | Pn | 08 18 11.9 | +0.6 |
| PLG | Polygyros | 2.71 | 305 | P | Pn | 08 18 11.3 | 0.0 |
| PLG | Polygyros | 2.71 | 305 | P | Pn | 08 18 12.0 | +0.6 |
| PLG | Polygyros | 2.71 | 305 | P | Pn | 08 18 11.3 | 0.0 |
| PLG | Polygyros | 2.71 | 305 | P | Pn | 08 18 11.3 | 0.0 |
| PLG | Polygyros | 2.71 | 305 | P | Pn | 08 18 11.3 | 0.0 |
| DALY | Dalyan (Mu˜la | 2.73 | 137 | ePN | Pn | 08 18 11.9 | +0.4 |
| DALY | Dalyan (Mu˜la | 2.73 | 137 | ⇑iP | Pn | 08 18 11.9 | +0.4 |
| DALY | | | | iS | Sg | 08 18 57.6 | +1.2 |
| DALY | Dalyan (Mu˜la | 2.73 | 137 | P | Pn | 08 18 11.9 | +0.4 |
| DALY | Dalyan (Mu˜la | 2.73 | 137 | S | Sg | 08 18 57.6 | +1.2 |
| PROD | Prodromos | 2.76 | 259 | P | Pn | 08 18 11.7 | -0.3 |
| PROD | Prodromos | 2.76 | 259 | P | Pn | 08 18 11.7 | -0.3 |
| LTK | Loutraki | 2.78 | 254 | P | Pn | 08 18 12.0 | -0.2 |
| LTK | Loutraki | 2.78 | 254 | P | Pn | 08 18 11.7 | -0.5 |
| LTK | Loutraki | 2.78 | 254 | ePn | Pn | 08 18 11.7 | -0.5 |
| LTK | Loutraki | 2.78 | 254 | P | Pn | 08 18 11.7 | -0.5 |
| SLVT | Silivri | 2.78 | 30 | ePN | Pn | 08 18 13.1 | +0.9 |
| SLVT | Silivri | 2.78 | 30 | ePn | Pn | 08 18 13.1 | +0.9 |
| DID | Didima | 2.79 | 242 | P | Pn | 08 18 11.7 | -0.7 |
| DID | Didima | 2.79 | 242 | P | Pn | 08 18 11.7 | -0.7 |
| YLV | Yalova | 2.90 | 53 | ePN | Pn | 08 18 14.9 | +1.0 |
| YLV | Yalova | 2.90 | 53 | ePn | Pn | 08 18 14.9 | +1.0 |
| CTKS | Kestanelik-??a | 2.91 | 34 | ePN | Pn | 08 18 14.5 | +0.5 |
| CTKS | Kestanelik-??a | 2.91 | 34 | ePn | Pn | 08 18 14.5 | +0.5 |
| KRND | KRANIDI | 2.91 | 241 | P | Pn | 08 18 14.1 | 0.0 |
| KRND | KRANIDI | 2.91 | 241 | P | Pn | 08 18 14.1 | 0.0 |
| PHSR | Pinarhisar | 2.92 | 18 | ePN | Pn | 08 18 15.2 | +1.0 |
| PHSR | Pinarhisar | 2.92 | 18 | ePn | Pn | 08 18 15.2 | +1.0 |
| BUY | Buyukada | 2.93 | 46 | ePN | Pn | 08 18 15.1 | +0.9 |
| BUY | Buyukada | 2.93 | 46 | ePn | Pn | 08 18 15.1 | +0.9 |
| ARG | Arkhangelos | 2.98 | 151 | P | Pn | 08 18 15.1 | +0.1 |
| ARG | Arkhangelos | 2.98 | 151 | P | Pn | 08 18 15.6 | +0.6 |
| ARG | Arkhangelos | 2.98 | 151 | P | Pn | 08 18 15.1 | +0.1 |
| ARG | Arkhangelos | 2.98 | 151 | P | Pn | 08 18 15.1 | +0.1 |
| ARG | Arkhangelos | 2.98 | 151 | P | Pn | 08 18 15.1 | +0.1 |
| THAL | Thalero | 3.00 | 256 | P | Pn | 08 18 13.7 | -1.7 |
| THAL | Thalero | 3.00 | 256 | P | Pn | 08 18 13.6 | -1.7 |
| GLHS | Glhisar (BURDU | 3.01 | 123 | ePN | Pn | 08 18 16.4 | +0.9 |
| GLHS | Glhisar (BURDU | 3.01 | 123 | ePn | Pn | 08 18 16.4 | +0.9 |
| EDRB | Edirne | 3.01 | 6 | ePN | Pn | 08 18 15.9 | +0.5 |
| EDRB | Edirne | 3.01 | 6 | ePn | Pn | 08 18 15.9 | +0.5 |
| CTYL | Yalikoy Yolu | 3.02 | 29 | ePN | Pn | 08 18 16.5 | +1.0 |
| CTYL | Yalikoy Yolu | 3.02 | 29 | ePn | Pn | 08 18 16.5 | +1.0 |
| DSF | Desfina | 3.02 | 263 | P | Pn | 08 18 15.1 | -0.5 |
| DSF | Desfina | 3.02 | 263 | P | Pn | 08 18 15.1 | -0.5 |
| CAVI | Cavuskoy | 3.02 | 62 | ePN | Pn | 08 18 16.6 | +1.1 |
| CAVI | Cavuskoy | 3.02 | 62 | ePn | Pn | 08 18 16.7 | +1.1 |
| SOH | Sokhos | 3.03 | 312 | eP | Pn | 08 18 16.1 | +0.3 |
| SOH | Sokhos | 3.03 | 312 | P | Pn | 08 18 17.0 | +1.2 |
| SOH | Sokhos | 3.03 | 312 | P | Pn | 08 18 16.1 | +0.3 |
| SOH | Sokhos | 3.03 | 312 | ePn | Pn | 08 18 16.1 | +0.3 |
| SOH | Sokhos | 3.03 | 312 | P | Pn | 08 18 16.1 | +0.3 |
| KAVV | Kandilli-Istan | 3.04 | 42 | ePN | Pn | 08 18 16.7 | +0.9 |
| KAVV | Kandilli-Istan | 3.04 | 42 | ePn | Pn | 08 18 16.7 | +0.9 |
| ISK | Istanbul-Kandi | 3.04 | 42 | ePN | Pn | 08 18 16.9 | +1.1 |
| ISK | Istanbul-Kandi | 3.04 | 42 | ePn | Pn | 08 18 16.9 | +1.1 |
| HORT | Hortiatis | 3.05 | 306 | ePN | Pn | 08 18 17.0 | +0.9 |
| HORT | Hortiatis | 3.05 | 306 | P | Pn | 08 18 16.3 | +0.2 |
| HORT | Hortiatis | 3.05 | 306 | P | Pn | 08 18 16.3 | +0.2 |
| HORT | Hortiatis | 3.05 | 306 | ePn | Pn | 08 18 17.0 | +0.9 |
| HORT | Hortiatis | 3.05 | 306 | P | Pn | 08 18 16.4 | +0.3 |
| HORT | Hortiatis | 3.05 | 306 | P | Pn | 08 18 16.4 | +0.3 |
| ADVT | Abdulvahap | 3.06 | 58 | ePN | Pn | 08 18 17.8 | +1.7 |
| ADVT | Abdulvahap | 3.06 | 58 | ePn | Pn | 08 18 17.8 | +1.7 |
| FETY | Fethiye | 3.10 | 135 | ePN | Pn | 08 18 17.8 | +1.2 |
| FETY | Fethiye | 3.10 | 135 | P | Pn | 08 18 17.8 | +1.2 |
| FETY | Fethiye | 3.10 | 135 | ePn | Pn | 08 18 17.8 | +1.2 |
| FETY | Fethiye | 3.10 | 135 | P | Pn | 08 18 17.8 | +1.2 |
| SRS | Serrai | 3.10 | 318 | eP | Pn | 08 18 16.7 | 0.0 |
| SRS | Serrai | 3.10 | 318 | P | Pn | 08 18 16.9 | +0.2 |
| SRS | Serrai | 3.10 | 318 | P | Pn | 08 18 16.7 | 0.0 |
| SRS | Serrai | 3.10 | 318 | ePn | Pn | 08 18 16.7 | 0.0 |
| SRS | Serrai | 3.10 | 318 | P | Pn | 08 18 16.7 | 0.0 |
| AGG | Agios Georgios | 3.14 | 274 | ePN | Pn | 08 18 17.9 | +0.8 |
| AGG | Agios Georgios | 3.14 | 274 | eP | Pn | 08 18 16.6 | -0.6 |
| AGG | Agios Georgios | 3.14 | 274 | ePn | Pn | 08 18 16.5 | -0.6 |
| AGG | Agios Georgios | 3.14 | 274 | ePn | Pn | 08 18 16.6 | -0.6 |
| NVR | Nevrokopi | 3.14 | 323 | P | Pn | 08 18 17.8 | +0.5 |
| NVR | Nevrokopi | 3.14 | 323 | P | Pn | 08 18 17.4 | +0.1 |
| NVR | Nevrokopi | 3.14 | 323 | P | Pn | 08 18 17.4 | +0.1 |
| NVR | Nevrokopi | 3.14 | 323 | P | Pn | 08 18 17.4 | +0.1 |
| THE | Thessaloniki | 3.16 | 305 | P | Pn | 08 18 18.7 | +1.3 |
| THE | Thessaloniki | 3.16 | 305 | P | Pn | 08 18 18.7 | +1.3 |
| KLYT | Kilyos | 3.17 | 40 | ePN | Pn | 08 18 18.5 | +0.9 |
| KLYT | Kilyos | 3.17 | 40 | ePn | Pn | 08 18 18.5 | +0.9 |
| HRT | Hereke | 3.23 | 51 | ePN | Pn | 08 18 19.6 | +1.2 |
| HRT | Hereke | 3.23 | 51 | ePn | Pn | 08 18 19.6 | +1.2 |
| LIT | Litokhoron | 3.24 | 294 | P | Pn | 08 18 19.4 | +0.8 |
| LIT | Litokhoron | 3.24 | 294 | P | Pn | 08 18 19.4 | +0.8 |
| GUR | Goura | 3.27 | 255 | P | Pn | 08 18 19.2 | 0.0 |
| GUR | Goura | 3.27 | 255 | P | Pn | 08 18 19.2 | 0.0 |
| SHUT | Suhut-Afyon | 3.30 | 94 | ePN | Pn | 08 18 20.4 | +0.9 |
| SHUT | Suhut-Afyon | 3.30 | 94 | ePn | Pn | 08 18 20.5 | +0.9 |
| KARP | Karpathos | 3.36 | 169 | ePN | Pn | 08 18 21.4 | +1.2 |
| KARP | Karpathos | 3.36 | 169 | P | Pn | 08 18 18.5 | -1.7 |
| KARP | Karpathos | 3.36 | 169 | P | Pn | 08 18 18.5 | -1.7 |
| KARP | Karpathos | 3.36 | 169 | ePn | Pn | 08 18 21.4 | +1.2 |
| KARP | | | | eSn | Sn | 08 18 57.7 | -1.9 |
| KARP | Karpathos | 3.36 | 169 | ePn | Pn | 08 18 19.4 | -0.8 |
| KARP | | | | eSn | Sn | 08 18 57.6 | -1.9 |
| KARP | Karpathos | 3.36 | 169 | P | Pn | 08 18 19.4 | -0.8 |
| GPA | Golpazari | 3.38 | 64 | ePN | Pn | 08 18 21.9 | +1.3 |
| GPA | Golpazari | 3.38 | 64 | ePn | Pn | 08 18 21.9 | +1.3 |
| KLV | Kalavryta, Ach | 3.39 | 258 | P | Pn | 08 18 20.7 | 0.0 |
| KLV | Kalavryta, Ach | 3.39 | 258 | P | Pn | 08 18 20.7 | 0.0 |
| SILT | Sile | 3.42 | 47 | ePN | Pn | 08 18 22.3 | +1.3 |
| SILT | Sile | 3.42 | 47 | ePn | Pn | 08 18 22.3 | +1.3 |
| VLI | Veliai | 3.44 | 233 | P | Pn | 08 18 20.0 | -1.3 |
| VLI | Veliai | 3.44 | 233 | P | Pn | 08 18 20.0 | -1.3 |
| VLI | Veliai | 3.44 | 233 | ePn | Pn | 08 18 20.9 | -0.4 |
| VLI | Veliai | 3.44 | 233 | P | Pn | 08 18 20.9 | -0.4 |
| THL | Klokotos Trika | 3.44 | 283 | P | Pn | 08 18 22.1 | +0.8 |
| THL | Klokotos Trika | 3.44 | 283 | P | Pn | 08 18 22.1 | +0.8 |
| VLX | Vlachokerasia | 3.46 | 246 | P | Pn | 08 18 22.0 | +0.4 |
| VLX | Vlachokerasia | 3.46 | 246 | P | Pn | 08 18 22.0 | +0.4 |
| EFP | Efpalio | 3.50 | 265 | P | Pn | 08 18 23.3 | +1.1 |
| EFP | Efpalio | 3.50 | 265 | P | Pn | 08 18 23.3 | +1.1 |
| ELL | Elmali | 3.51 | 125 | ePN | Pn | 08 18 23.8 | +1.4 |
| ELL | Elmali | 3.51 | 125 | ePn | Pn | 08 18 23.8 | +1.4 |
| KNT | Kendrikon | 3.52 | 312 | P | Pn | 08 18 23.4 | +1.0 |
| KNT | Kendrikon | 3.52 | 312 | P | Pn | 08 18 23.4 | +1.0 |
| KNT | Kendrikon | 3.52 | 312 | P | Pn | 08 18 23.4 | +1.0 |
| KNT | Kendrikon | 3.52 | 312 | P | Pn | 08 18 23.4 | +1.0 |
| EVR | Evrytania | 3.54 | 273 | P | Pn | 08 18 24.5 | +1.7 |
| EVR | Evrytania | 3.54 | 273 | P | Pn | 08 18 24.5 | +1.7 |
| SPNC | Sapanca-Adapaz | 3.56 | 58 | ePN | Pn | 08 18 24.3 | +1.3 |
| SPNC | Sapanca-Adapaz | 3.56 | 58 | ePn | Pn | 08 18 24.3 | +1.3 |
| ESKT | Eskisehir | 3.56 | 78 | ePN | Pn | 08 18 24.4 | +1.3 |
| ESKT | Eskisehir | 3.56 | 78 | ePn | Pn | 08 18 24.4 | +1.3 |
| GULT | Gulveren | 3.59 | 62 | ePN | Pn | 08 18 24.8 | +1.4 |
| GULT | Gulveren | 3.59 | 62 | ePn | Pn | 08 18 24.8 | +1.4 |
| BOLV | Bolvadin | 3.60 | 91 | ePn | Pn | 08 18 24.9 | +1.2 |
| BOLV | Bolvadin | 3.60 | 91 | ePn | Pn | 08 18 24.9 | +1.2 |
| BCK | Bucak | 3.62 | 111 | ePN | Pn | 08 18 25.2 | +1.3 |
| BCK | Bucak | 3.62 | 111 | ePn | Pn | 08 18 25.2 | +1.3 |
| NPS | Neapolis | 3.62 | 190 | P | Pn | 08 18 21.8 | -2.1 |
| NPS | Neapolis | 3.62 | 190 | P | Pn | 08 18 21.8 | -2.1 |
| KORT | Korkueli | 3.66 | 119 | ePN | Pn | 08 18 25.7 | +1.2 |
| KORT | Korkueli | 3.66 | 119 | ePn | Pn | 08 18 25.7 | +1.2 |
| AKAS | Kas | 3.68 | 134 | ePN | Pn | 08 18 26.1 | +1.4 |
| AKAS | Kas | 3.68 | 134 | ePn | Pn | 08 18 26.1 | +1.4 |
| AKAS | Kas | 3.68 | 134 | ePn | Pn | 08 18 26.8 | +2.2 |
| KYTH | Kithira | 3.68 | 227 | P | Pn | 08 18 23.4 | -1.3 |
| KYTH | Kithira | 3.68 | 227 | P | Pn | 08 18 23.3 | -1.3 |
| KYTH | Kithira | 3.68 | 227 | ePn | Pn | 08 18 23.3 | -1.3 |
| KYTH | Kithira | 3.68 | 227 | P | Pn | 08 18 23.3 | -1.3 |
| GRG | Griva | 3.69 | 306 | eP | Pn | 08 18 25.5 | +0.7 |
| GRG | Griva | 3.69 | 306 | P | Pn | 08 18 25.5 | +0.7 |
| GRG | Griva | 3.69 | 306 | ePn | Pn | 08 18 25.5 | +0.7 |
| GRG | Griva | 3.69 | 306 | P | Pn | 08 18 25.5 | +0.7 |
| KSL | Kastellorizon | 3.72 | 135 | P | Pn | 08 18 28.0 | +2.8 |
| KSL | Kastellorizon | 3.72 | 135 | ePn | Pn | 08 18 26.2 | +1.0 |
| KSL | Kastellorizon | 3.72 | 135 | P | Pn | 08 18 26.2 | +1.0 |
| ZKR | Zakros | 3.73 | 182 | P | Pn | 08 18 24.9 | -0.3 |
| ZKR | Zakros | 3.73 | 182 | P | Pn | 08 18 24.9 | -0.3 |
| ZKR | Zakros | 3.73 | 182 | ePn | Pn | 08 18 24.9 | -0.3 |
| ZKR | Zakros | 3.73 | 182 | P | Pn | 08 18 24.9 | -0.3 |
| IDI | Anoyia | 3.74 | 199 | Pn | Pn | 08 18 25.0 | -0.5 |
| | comp=E,13nm,0.3s,baz=26,slow=16,SNR=17 | | | | | | |
| IDI | | | | Lg | Lg | 08 19 25.8 | |
| | comp=E,25nm,0.3s,baz=315,slow=20,SNR=3.7 | | | | | | |
| IDI | Anoyia | 3.74 | 199 | P | Pn | 08 18 24.5 | -1.0 |
| IDI | Anoyia | 3.74 | 199 | P | Pn | 08 18 24.5 | -1.0 |
| IDI | Anoyia | 3.74 | 199 | P | Pn | 08 18 24.8 | -0.7 |
| LAST | Lasithi | 3.74 | 191 | P | Pn | 08 18 23.5 | -2.1 |
| LAST | Lasithi | 3.74 | 191 | P | Pn | 08 18 23.5 | -2.1 |
| LAST | Lasithi | 3.74 | 191 | P | Pn | 08 18 24.4 | -1.2 |
| LAST | Lasithi | 3.74 | 191 | P | Pn | 08 18 24.4 | -1.2 |
| VAY | Valandovo | 3.81 | 312 | i Pn | Pn | 08 18 27.8 | +1.4 |
| VAY | | | | i Sg | Sg | 08 19 28.8 | -2.2 |
| ANKY | Antikythira Is | 3.84 | 220 | P | Pn | 08 18 26.9 | +0.1 |
| ANKY | Antikythira Is | 3.84 | 220 | ePn | Pn | 08 18 26.9 | +0.1 |
| ANKY | Antikythira Is | 3.84 | 220 | P | Pn | 08 18 26.9 | +0.1 |
| VAM | Vamos | 3.84 | 207 | P | Pn | 08 18 28.1 | +1.3 |
| VAM | Vamos | 3.84 | 207 | P | Pn | 08 18 28.1 | +1.3 |
| IMMV | Iera Moni Meta | 3.87 | 210 | P | Pn | 08 18 29.9 | +2.7 |
| IMMV | Iera Moni Meta | 3.87 | 210 | P | Pn | 08 18 29.9 | +2.7 |
| SUTC | Sutluce-Ispart | 3.91 | 109 | ePN | Pn | 08 18 29.8 | +1.9 |
| SUTC | Sutluce-Ispart | 3.91 | 109 | ePn | Pn | 08 18 29.8 | +1.9 |
| SIVA | Sivas | 4.01 | 198 | P | Pn | 08 18 28.6 | -0.6 |
| SIVA | Sivas | 4.01 | 198 | P | Pn | 08 18 28.6 | -0.6 |
| SIVA | Sivas | 4.01 | 198 | P | Pn | 08 18 28.6 | -0.6 |
| KPRO | Kipourio | 4.02 | 288 | P | Pn | 08 18 31.2 | +1.9 |
| KPRO | Kipourio | 4.02 | 288 | P | Pn | 08 18 31.2 | +1.9 |
| SVRH | Sivrihisar-ESK | 4.07 | 80 | ePN | Pn | 08 18 31.7 | +1.7 |
| SVRH | Sivrihisar-ESK | 4.07 | 80 | ePn | Pn | 08 18 31.7 | +1.7 |
| MDUB | Mudurnu | 4.08 | 65 | ePN | Pn | 08 18 32.2 | +2.0 |
| MDUB | Mudurnu | 4.08 | 65 | ePn | Pn | 08 18 32.2 | +2.0 |
| NEST | Nestorio | 4.38 | 293 | P | Pn | 08 18 37.2 | +2.9 |
| NEST | Nestorio | 4.38 | 293 | P | Pn | 08 18 37.2 | +2.9 |
| GVD | Gavdhos | 4.39 | 205 | P | Pn | 08 18 36.2 | +1.8 |
| GVD | Gavdhos | 4.39 | 205 | ePn | Pn | 08 18 36.2 | +1.8 |
| GVD | Gavdhos | 4.39 | 205 | P | Pn | 08 18 36.2 | +1.8 |
| BIA | Bitola | 4.43 | 301 | i Pn | Pn | 08 18 37.0 | +2.0 |
| VTS | Vitosha | 4.44 | 328 | ⇑iP | Pn | 08 18 36.0 | +0.9 |
| VTS | Vitosha | 4.44 | 328 | eP | Pn | 08 18 36.4 | +1.3 |
| VTS | | | | e | | 08 19 24.9 | |
| VTS | Vitosha | 4.44 | 328 | ⇑iP | Pn | 08 18 36.0 | +0.9 |
| VTS | Vitosha | 4.44 | 328 | ePn | Pn | 08 18 36.4 | +1.3 |
| VTS | | | | eSn | Sn | 08 19 24.9 | -1.4 |
| VTS | Vitosha | 4.44 | 328 | ePn | Pn | 08 18 36.4 | +1.3 |
| VTS | | | | eSn | Sn | 08 19 24.9 | -1.4 |
| VTS | Vitosha | 4.44 | 328 | P | Pn | 08 18 36.5 | +1.3 |
| KRUS | Krusevo | 4.65 | 304 | i Pn | Pn | 08 18 39.5 | +1.5 |
| OHR | Ohrid | 4.82 | 300 | i Pn | Pn | 08 18 43.8 | +3.4 |
| ZIMR | | 4.86 | 352 | ⇑iP | Pn | 08 18 41.3 | +0.5 |
| SKO | Skopje | 4.88 | 311 | i Pn | Pn | 08 18 42.6 | +1.5 |
| ANTO | Ankara | 5.10 | 76 | eP | Pn | 08 18 45.9 | +1.7 |
| ANTO | Ankara | 5.10 | 76 | ePn | Pn | 08 18 45.9 | +1.7 |
| ANTO | Ankara | 5.10 | 76 | ePn | Pn | 08 18 45.9 | +1.7 |
| BARS | Barje | 5.25 | 321 | ⇑iPn | Pn | 08 18 47.4 | +1.3 |
| ICOR | Ion Corvin | 5.38 | 11 | ⇑iP | Pn | 08 18 48.1 | +0.2 |
| ICOR | Ion Corvin | 5.38 | 11 | ⇑iP | Pn | 08 18 48.1 | +0.2 |
| EFOR | EFORIE | 5.50 | 17 | ⇑iP | Pn | 08 18 50.1 | +0.5 |
| TIR | Tirane | 5.56 | 299 | eP | Pn | 08 18 55.6 | +5.1 |
| TIR | Tirane | 5.56 | 299 | ePn | Pn | 08 18 55.6 | +5.2 |
| BR101 | Keskin Array S | 5.73 | 79 | ePn | Pn | 08 18 54.1 | +1.3 |

BR101 eLg Lg 08 20 30.4
**BR131 Keskin Array S 5.73 79** *e*Pn **Pn 08 18 54.0 +1.2**
**BRTR Keskin Array B 5.73 79** Pn **Pn 08 18 54.1 +1.3**
comp=E,6.5nm,0.3s,baz=257,slow=13,SNR=53
BRTR Pg **Pg 08 19 16.2 -2.1**
comp=E,8.6nm,0.3s,baz=256,slow=16,SNR=15
BRTR Lg Lg 08 20 30.4
comp=E,1.3nm,0.3s,baz=271,slow=19,SNR=2.4
BRTR LR LR 08 21 36.2
comp=E,1μm,18.4s,baz=255,slow=44
**AMRR Amara 5.81 7**⇑ *i*P **Pn 08 18 54.8 +1.0**
**TIRR Tirgusor 5.82 15**⇑ *i*P **Pn 08 18 54.0 +0.1**
**TIRR Tirgusor 5.82 15** *e*P **Pn 08 18 52.5 -1.5**
TIRR *e* 08 19 58.5
**TIRR Tirgusor 5.82 15**⇑ *i*P **Pn 08 18 54.0 +0.1**
**TIRR Tirgusor 5.82 15** *e*Pn **Pn 08 18 52.5 -1.5**
TIRR *e*Sn **Sn 08 19 58.5 -1.5**
**HARR Harsova 5.96 11**⇑ *i*P **Pn 08 18 56.1 +0.2**
**AKMC Akamas 6.12 127** P **Pn 08 18 59.5 +1.3**
**SECR 6.19 358**⇑ *i*P **Pn 08 18 59.3 +0.2**
**ALFC Alefka 6.21 124** P **Pn 08 19 00.8 +1.4**
**PPCY Paphos 6.22 128** P **Pn 08 18 59.6 0.0**
**SRE Strehaia 6.27 339**⇑ *i*P **Pn 08 19 00.6 +0.5**
**MTUR Matau 6.45 352**⇑ *i*P **Pn 08 19 03.9 +1.2**
**CFR Carcaliu 6.47 11**⇑ *i*P **Pn 08 19 02.9 +0.1**
**GRER 6.55 4**⇓ *i*P **Pn 08 19 04.8 +0.8**
**TLCR 6.60 15**⇑ *i*P **Pn 08 19 05.4 +0.8**
**ARR Arges 6.64 350**⇓ *i*P **Pn 08 19 06.9 +1.6**
**MLR Muntele Rosu 6.65 358** Pn **Pn 08 19 07.1 +1.7**
comp=E,1.5nm,0.3s,baz=170,slow=2.0,SNR=26
MLR Lg Lg 08 21 04.6
comp=E,2.0nm,0.3s,baz=246,slow=20,SNR=3.4
**MLR Muntele Rosu 6.65 358**⇓ *i*P **Pn 08 19 07.2 +1.7**
**MLR Muntele Rosu 6.65 358** *e*P **Pn 08 19 06.5 +1.0**
**MLR Muntele Rosu 6.65 358** *e*Pn **Pn 08 19 06.5 +1.0**
**VOIR 6.66 352**⇑ *i*P **Pn 08 19 05.9 +0.3**
**CSS Mathiatis 6.81 123** *e*Pn **Pn 08 19 09.7 +2.1**
**MDVR Moldovita 6.87 331**⇑ *i*P **Pn 08 19 09.0 +0.6**
**LOT Lotru 6.87 345**⇓ *i*P **Pn 08 19 09.2 +0.7**
**ODBI Odobesti 6.93 4**⇑ *i*P **Pn 08 19 10.3 +1.1**
**PLOR Plostina 7.00 2**⇑ *i*P **Pn 08 19 11.5 +1.2**
**VRI Vrincioaia 7.02 2**⇑ *i*P **Pn 08 19 12.2 +1.7**
**DIVS Divibare 7.09 320**⇑ *i*Pn **Pn 08 19 12.3 +0.8**
**DIVS Divibare 7.09 320** *e*Pn **Pn 08 19 12.3 +0.8**
**DOPR Dopca 7.15 355**⇓ *i*P **Pn 08 19 13.5 +1.2**
**DEV Deva 7.48 341**⇓ *i*P **Pn 08 19 17.6 +0.8**
**BZS Buzias 7.62 334**⇑ *i*P **Pn 08 19 19.0 +0.3**
**TESR Tescani 7.66 2**⇑ *i*P **Pn 08 19 20.0 +0.7**
**SEV Sevastopol' 7.90 42** *e*P **Pn 08 19 20.3 -2.2**
SEV *e*S **Sn 08 20 44.4 -6.9**
**CJR Cluj-Napoca 8.12 346**⇓ *i*P **Pn 08 19 27.0 +1.4**
**YAL Yalta 8.12 44** *e*P **Pn 08 19 27.1 +1.6**
YAL *e*S **Sn 08 20 55.5 -1.2**
**CEL Celeste 8.21 269** *e*Pn **Pn 08 19 26.9 0.0**
**CUC Castrocucco 8.23 281** *e*Pn **Pn 08 19 28.4 +1.3**
**KIS Kishinev 8.35 12** *e*P **Pn 08 19 29.0 +0.4**
KIS LRM MLR 08 23 00.0
comp=E,3μm,8.0s
**KIS Kishinev 8.35 12** *e*P **Pn 08 19 29.0 +0.4**
KIS MLR MLR
comp=Z,2μm,7.0s
KIS MLR MLR
comp=N,2μm,10.0s
KIS MLR MLR
comp=E,3μm,8.0s
KIS MLR MLR
comp=Z,3μm,8.0s
**KIS Kishinev 8.35 12** *e*P **Pn 08 19 29.0 +0.4**
**ARCR ARCALIA 8.36 351**⇑ *i*P **Pn 08 19 30.0 +1.1**
**ALU Alushta 8.38 43** *e*P **Pn 08 19 30.1 +1.0**
ALU *e*S **Sn 08 20 59.8 -3.3**
**SIM Simferopol' 8.41 41** *e*P **Pn 08 19 31.5 +2.0**
SIM *e*S **Sn 08 21 02.0 -1.9**
SIM pmax pmax
comp=Z,74nm,0.8s
SIM MLR MLR
comp=Z,2μm,21.0s
**PRAR RASCA 8.51 359**⇑ *i*P **Pn 08 19 32.5 +1.6**
**BURAR Bucovina Array 8.80 355**⇑ *i*P **Pn 08 19 36.8 +1.8**
**BUR04 Bucovina Ar. S 8.81 355** *e*Pn **Pn 08 19 35.8 +0.8**
**BUR08 Bucovina Ar. S 8.83 355** *e*Pn **Pn 08 19 37.2 +1.8**
**SUDU Sudak 8.84 44** *e*P **Pn 08 19 35.3 -0.1**
SUDU *e*S **Sn 08 21 10.5 -3.9**
**BLY Banja Luka 9.03 314** *e*Pn **Pn 08 19 40.0 +1.9**
**MMAI Mount Meron Ar 9.37 126** LR LR 08 24 59.8
comp=Z,320nm,19.8s,baz=345,slow=42
**MMAI Mount Meron Ar 9.37 126** Pn **Pn 08 19 42.5 -0.3**
comp=Z,8.1nm,0.3s,baz=316,slow=13,SNR=21
MMAI Sn **Sn 08 21 21.4 -6.2**
comp=Z,3.1nm,0.3s,baz=305,slow=22,SNR=4.2
MMAI LR LR 08 23 58.6
comp=Z,599nm,18.9s,baz=335,slow=42
**SORM Soroca 9.40 8**⇑ *i*P **Pn 08 19 42.6 -0.4**
**ANN Anapa 10.19 51** *e*P **Pn 08 19 50.4 -3.4**
ANN *e*S **Sn 08 21 46.7 -0.8**
ANN pmax pmax
comp=Z,121nm,1.8s
**PSZ Piszkesteto 10.21 335**⇓ *i*P **Pn 08 19 53.0 -1.2**
**PSZ Piszkesteto 10.21 335** *e*P **Pn 08 19 54.2 0.0**
**PSZ Piszkesteto 10.21 335**⇓ *e*Pn **Pn 08 19 57.1 +2.9**
**PSZ Piszkesteto 10.21 335** *e*P **Pn 08 19 54.2 0.0**
**PSZ Piszkesteto 10.21 335** *e*Pn **Pn 08 19 54.2 0.0**
**UZH Uzhgorod 10.21 345** *e*P **Pn 08 19 56.1 +1.9**
**UZH Uzhgorod 10.21 345** *e*P **Pn 08 19 56.1 +1.9**
**KECS Kecovo 10.52 338** *e*P **Pn 08 19 58.3 -0.2**
**KECS Kecovo 10.52 338** *e*P **Pn 08 19 58.3 -0.2**
**KECS Kecovo 10.52 338** *e*PN **Pn 08 19 58.2 -0.2**
**ASF Jabal al Asfar 10.87 125** Pn **Pn 08 20 03.8 +0.5**
comp=Z,0.3nm,0.3s,baz=276,slow=10,SNR=2.8
ASF Sn **Sn 08 21 60.0 -4.6**
baz=40,slow=7.9,SNR=1.6
ASF LR LR 08 25 07.7
comp=Z,390nm,20.0s,baz=262,slow=43
**KOPT Kop Dagi 11.01 79** *e*Pn **Pn 08 20 05.6 +0.1**
**VYHS Vyhne 11.06 333** *e*P **Pn 08 20 06.0 +0.1**
**VYHS Vyhne 11.06 333** *e*P **Pn 08 20 06.0 +0.1**
**VYHS Vyhne 11.06 333** *e*PN **Pn 08 20 06.0 +0.1**
**LVI L'vov 11.09 352** *e*P **Pn** 08 19 58.2 -8.1
**SOP Sopron 11.35 324** *e*Pn **Pn 08 20 12.0 +2.3**
**MODS Modra-Piesok 11.56 328** *e*P **Pn 08 20 15.2 +2.5**
**MODS Modra-Piesok 11.56 328** *e*P **Pn 08 20 15.2 +2.5**
**MODS Modra-Piesok 11.56 328** *e*PN **Pn 08 20 15.2 +2.5**
**EIL Elat 11.59 140** LR LR 08 26 37.5
comp=Z,314nm,21.5s,baz=334,slow=44
**EIL Elat 11.59 140** Pn **Pn 08 20 13.1 -0.1**
comp=Z,0.8nm,0.3s,baz=270,slow=1.0,SNR=4.2
EIL Sn **Sn 08 22 14.0 -8.0**
comp=Z,1.4nm,0.3s,baz=347,slow=13,SNR=4.0
EIL LR LR 08 26 37.5
comp=Z,312nm,21.2s,baz=336,slow=48
**KIEV Kiev 12.02 9** *e*P **Pn 08 20 18.9 0.0**
**KIEV Kiev 12.02 9** *e*P **Pn 08 20 18.9 0.0**
**AKASG Malin Array Be 12.03 9** LR LR 08 25 39.9
comp=Z,300nm,20.8s,baz=195,slow=42
**AKASG Malin Array Be 12.03 9** Pn **Pn 08 20 18.6 -0.4**
comp=Z,2.6nm,0.3s,baz=199,slow=12,SNR=11
AKASG LR LR 08 25 39.5
comp=Z,313nm,20.7s,baz=195,slow=41
**OKC Ostrava-Krasne 12.45 335** AMS AMS 08 25 50.0
comp=Z,1μm,11.2s
**VRAC Vranov 12.58 329** Pn **Pn 08 20 29.4 +2.8**
comp=Z,0.7nm,0.3s,baz=121,slow=5.9,SNR=2.5
VRAC LR LR 08 25 07.4
comp=Z,427nm,19.3s,baz=140,slow=36
**TREC Trest 13.03 327** AMS AMS 08 25 50.0
comp=Z,1μm,13.6s
**NEY Neytrino 13.12 65** *e*P **Pn 08 20 34.3 +0.2**
**NEY Neytrino 13.12 65** *e*P **Pn 08 20 34.3 +0.2**
**KIV Kislovodsk 13.28 62** *e*P **Pn 08 20 36.8 +0.5**
KIV *e*S **Sn 08 23 05.3 +1.9**
KIV pmax pmax
comp=Z,6.0nm,1.1s
KIV MLR MLR
comp=Z,174nm,11.0s
**KIV Kislovodsk 13.28 62** *e*P **Pn 08 20 36.8 +0.5**
comp=Z,6.0nm,1.1s
KIV *e*S **Sn 08 23 05.3 +1.9**
comp=Z,174nm,11.0s
**KVAR Kislovodsk Arr 13.29 62** Pn **Pn 08 20 39.2 +2.8**
baz=270,slow=20,SNR=2.2
**KBZ Khabaz 13.36 63** Pn **Pn 08 20 39.7 +2.4**
comp=Z,0.1nm,0.3s,baz=282,slow=16,SNR=1.9
**GEA0 GERESS Array S 13.51 322** *e*Pn **Pn 08 20 39.6 +0.3**
**GEC2 GERESS Array S 13.52 322** *e*P **Pn 08 20 40.9 +1.5**
**GEC2 GERESS Array S 13.52 322** *e*P **Pn 08 20 40.9 +1.5**
**GEC2 GERESS Array S 13.52 322** *e*Pn **Pn 08 20 40.9 +1.5**
**GERES GERESS Array B 13.52 322** Pn **Pn 08 20 42.6 +3.2**
comp=Z,0.3nm,0.3s,baz=138,slow=11,SNR=3.0
GERES LR LR 08 25 26.7
comp=Z,95nm,18.7s,baz=130,slow=35
**DPC Dobruska-Polom 13.52 332** *e*P **P 08 20 45.7 -2.9**
DPC AMS AMS 08 26 40.0
comp=Z,1μm,8.7s
**DPC Dobruska-Polom 13.52 332** *e*P **P 08 20 45.7 -2.9**
DPC MLR MLR
comp=Z,1μm,8.7s
**UPC Upice 13.77 331** AMS AMS 08 26 50.0
comp=Z,1μm,11.0s
**KHC Kasperske Hory 13.77 322** *e*P **P 08 20 48.3 -3.0**
KHC *ex* x 08 20 53.7
KHC *ex* x 08 21 20.6
KHC AMS AMS 08 26 50.0
comp=Z,1μm,9.2s
**KHC Kasperske Hory 13.77 322** *e*P **P 08 20 48.3 -3.0**
KHC MLR MLR
comp=Z,1μm,9.2s
**KHC Kasperske Hory 13.77 322** *e*Pn **Pn 08 20 42.4 -0.5**
**KHC Kasperske Hory 13.77 322** *e*Pn **Pn 08 20 42.4 -0.5**
**GOPC GO Pecny, Ondr 13.79 327** AMS AMS 08 26 10.0
comp=Z,1μm,7.3s
**KEST Kesra 13.89 262** Pn **Pn 08 20 44.7 +0.1**
comp=Z,0.1nm,0.3s,baz=26,slow=8.2,SNR=4.5
**KEST Kesra 13.89 262** *e*Pn **Pn 08 20 44.3 -0.3**
**KEST Kesra 13.89 262** *e*Pn **Pn 08 20 44.3 -0.3**
**PRU Pruhonice 13.95 327** AMS AMS 08 26 20.0
comp=Z,1μm,13.7s
**GNI Garni 14.27 79** LR LR 08 26 18.7
comp=Z,403nm,21.5s,baz=285,slow=37
**GNI Garni 14.27 79** *e*P **Pn 08 20 49.8 0.0**
**PVCC Panska Ves 14.35 328** *e*P **P 08 20 59.7 +2.0**
**PVCC Panska Ves 14.35 328** *e*P **P 08 20 59.7 +2.0**
**PVCC Panska Ves 14.35 328** *e*P **P 08 20 59.7 +2.0**
**DAVOX Davos/Dischmat 14.44 309** Pn **Pn 08 20 53.4 +1.2**
comp=Z,0.3nm,0.3s,baz=164,slow=18,SNR=3.4
DAVOX LR LR 08 26 01.9
comp=Z,249nm,21.7s,baz=114,slow=36
**TUE Stuetta 14.63 307** *e*Pn **Pn 08 20 56.8 +2.0**
**TUE Stuetta 14.63 307** *e*Pn **Pn 08 20 56.8 +2.0**
**BRG Berggiesshubel 14.87 328** *e*P **P 08 21 05.2 +1.7**
comp=Z,28nm,1.7s
comp=N,1μm,12.8s
comp=E,1μm,16.5s
comp=Z,860nm,14.6s
**BRG Berggiesshubel 14.87 328** *e*P **P 08 21 05.2 +1.7**
BRG pmax pmax
comp=Z,28nm,1.7s
BRG MLR MLR
comp=N,1μm,12.8s
BRG MLR MLR
comp=E,1μm,16.5s
BRG MLR MLR
comp=Z,860nm,14.6s
**BRG Berggiesshubel 14.87 328** *e*P **P 08 21 05.2 +1.7**
comp=Z,860nm,14.6s
**NKC Novy Kostel 15.06 324** *e*P **P 08 21 07.6 +2.0**
NKC AMS AMS 08 27 40.0
comp=Z,1μm,13.0s
**NKC Novy Kostel 15.06 324** *e*P **P 08 21 07.6 +2.0**
NKC MLR MLR
comp=Z,1μm,13.0s
**NKC Novy Kostel 15.06 324** *e*P **P 08 21 07.6 +2.0**
comp=Z,1μm,13.0s
**VSR Storozhevoye 15.30 32** *e*P **Pn 08 21 02.1 -1.5**
VSR pmax pmax
comp=Z,20nm,1.2s
**CLL Collm 15.59 327** *e*P **P 08 21 12.0 +0.6**
**CLL Collm 15.59 327** *e*(sP) **P 08 21 12.0 +0.6**
CLL *e*PP **pP 08 21 16.0 -0.7**
CLL *e* 08 21 22.0
CLL LmH 08 26 00.0
comp=N,700nm,21.3s
CLL LmH 08 26 00.0
comp=E,1μm,21.6s
CLL Lmax 08 27 00.0
**CLL Collm 15.59 327** *e*P **P 08 21 12.0 +0.6**
**SPAK Spaichingen-Ko 15.72 312** *e*P **P 08 21 11.6 -1.4**
**BNI Bardonecchia 15.88 299** *e*P **Pn 08 21 12.8 +1.6**
BNI pmax pmax
comp=Z,111nm,1.7s
**BNI Bardonecchia 15.88 299** *e*P **Pn 08 21 12.8 +1.6**
comp=Z,111nm,1.7s
**BNI Bardonecchia 15.88 299** *e*Pn **Pn 08 21 12.8 +1.6**
comp=Z,111nm,1.7s
**SENIN Lac Senin/Sane 15.89 304** *e*Pn **Pn 08 21 12.7 +1.3**
comp=Z,67nm,1.5s
**SENIN Lac Senin/Sane 15.89 304** *e*Pn **Pn 08 21 12.7 +1.3**
comp=Z,67nm,1.5s
**NACGM Naroch 16.07 1** *e*P **Pn 08 21 12.0 -1.4**
NACGM *e*S **Sn 08 24 05.0 -5.9**
**FELD Feldberg im Sc 16.07 310** *e*P **P 08 21 18.3 +1.3**
**BFO Black Forest 16.10 312** *e*P **P 08 21 17.1 -0.1**
BFO pmax pmax
comp=Z,31nm,1.4s
**BFO Black Forest 16.10 312** *e*P **P 08 21 17.1 -0.1**
comp=Z,31nm,1.4s
**BFO Black Forest 16.10 312** *e*Pn **P 08 21 17.1 -0.1**
comp=Z,31nm,1.4s
**LPSR Galich'ya Gora 16.29 28** *e*P **Pn 08 21 17.4 +1.2**
LPSR pmax pmax
comp=Z,80nm,1.7s
**LPSR Galich'ya Gora 16.29 28** *e*P **Pn 08 21 17.4 +1.2**
comp=Z,80nm,1.7s
**VRH Novokhopyorsk 16.41 36** *e*P **P 08 21 20.8 +0.3**
VRH pmax pmax
comp=Z,60nm,1.0s
**VRH Novokhopyorsk 16.41 36** *e*P **P 08 21 20.8 +0.3**
comp=Z,60nm,1.0s
**IDID Didziasalis 16.48 1** *e*P **P 08 21 21.2 0.0**
IDID IAmb IAmb 08 21 26.7
comp=Z,14nm,0.9s
**IDID Didziasalis 16.48 1** *e*P **P 08 21 21.2 0.0**
SNR=40
**TOD Tromm 16.50 316** *e*P **P 08 21 23.6 +2.0**
**MAK Makhachkala 16.51 69** *e*P **P 08 21 20.6 -1.1**
MAK *e*S **Sn 08 24 25.9 +4.1**
MAK pmax pmax
comp=Z,104nm,1.0s
**MAK Makhachkala 16.51 69** *e*P **P 08 21 20.6 -1.1**
comp=Z,104nm,1.0s
**IIGN Ignalina 16.51 360** *e*P **P 08 21 21.6 0.0**
IIGN IAmb IAmb 08 21 26.3
comp=Z,14nm,0.9s
**IIGN Ignalina 16.51 360** *e*P **P 08 21 21.6 0.0**
SNR=35
**MOF Molkenrain 16.59 309** *e*P **P 08 21 21.9 -0.7**
**MOF Molkenrain 16.59 309** *e*P **P 08 21 21.9 -0.7**
**LANF Langenberg 16.72 313** *e*P **P 08 21 29.2 +5.1**
**ECH Echery 16.73 310** *e*P **P 08 21 25.2 +1.0**
**ECH Echery 16.73 310** *e*P **P 08 21 25.2 +1.0**
**ISAL Salakas 16.73 360** *e*P **P 08 21 24.1 0.0**
ISAL IAmb IAmb 08 21 29.6
comp=Z,8.8nm,0.8s
**ISAL Salakas 16.73 360** *e*P **P 08 21 24.1 0.0**
SNR=35
**IZAR Zarasai 16.91 360** *e*P **P 08 21 26.0 0.0**
IZAR IAmb IAmb 08 21 30.7
comp=Z,19nm,0.7s
**IZAR Zarasai 16.91 360** *e*P **P 08 21 26.0 0.0**
SNR=35
**THEF They Montfort 17.44 309** *e*P **P 08 21 34.5 +2.5**
**THEF They Montfort 17.44 309** *e*P **P 08 21 34.5 +2.5**
**RUP Ruppelstein 17.51 315** *e*P **P 08 21 33.3 +0.5**
**OBN Obninsk 17.67 20**⇑ *e*P **Pn 08 21 32.9 -0.7**
OBN S **Sn 08 24 50.0 +0.2**
OBN pmax pmax
comp=Z,7.0nm,0.4s
OBN MLR MLR
comp=Z,381nm,16.0s
**OBN Obninsk 17.67 20** *e*P **Pn 08 21 32.9 -0.7**
comp=Z,7.0nm,0.4s
**MOS Moscow 18.51 20** *e*P **Pn 08 21 48.1 +4.3**
MOS pmax pmax
comp=Z,70nm,1.1s
MOS MLR MLR
comp=Z,900nm,20.0s
**VSU Vasula 19.63 1** *i*P **Pn 08 21 56.8 -0.6**
VSU pmax pmax
comp=Z,122nm,1.0s
**VSU Vasula 19.63 1** *i*P **Pn 08 21 56.8 -0.6**
comp=Z,122nm,1.0s
**RAYN Ar Rayn 22.34 128** *e*P **P 08 22 26.3 +0.8**
comp=Z,15nm,1.1s
**RAYN Ar Rayn 22.34 128** *e*P **P 08 22 26.3 +0.8**
comp=Z,15nm,1.1s
**FIA0 FINESS Array S 22.62 360** *e*P **P 08 22 27.6 -0.6**
**FIA0 FINESS Array S 22.62 360** *e*P **P 08 22 27.6 -0.6**
**FIA0 FINESS Array S 22.62 360** *e*P **P 08 22 27.6 -0.6**
**FINES FINESS Array B 22.62 360** P **P 08 22 27.6 -0.6**
comp=Z,2.1nm,0.5s,baz=165,slow=15,SNR=11
FINES LR LR 08 31 33.7
comp=Z,385nm,18.5s,baz=176,slow=37
**FIA1 FINESS Array S 22.62 360** *e*P **P 08 22 28.4 +0.2**
**FIA1 FINESS Array S 22.62 360** *e*P **P 08 22 28.4 +0.2**
**HFS Hagfors 22.76 344** P **P 08 22 28.7 -0.9**
comp=Z,3.7nm,0.5s,baz=150,slow=12,SNR=23
HFS LR LR 08 32 08.5
comp=Z,400nm,19.1s,baz=162,slow=39
**ES19 SONSECA Array 23.38 282** *e*P **P 08 22 37.1 +0.8**
**ES19 SONSECA Array 23.38 282** *e*P **P 08 22 37.1 +0.8**
**KONO Kongsberg 23.38 338** *i*P **P 08 22 36.1 +0.1**
**KONO Kongsberg 23.38 338** *i*P **P 08 22 36.1 +0.1**
**ESDC Sonseca Array 23.43 282** P **P 08 22 37.4 +0.6**
comp=Z,14nm,0.8s,baz=76,slow=10,SNR=66
ESDC LR LR 08 32 13.2
comp=Z,100nm,18.9s,baz=75,slow=38
**ESLA Sonseca Array 23.43 282** *e*P **P 08 22 38.0 +1.2**
comp=Z,52nm,1.1s
**ESLA Sonseca Array 23.43 282** *e*P **P 08 22 38.0 +1.2**
comp=Z,52nm,1.1s
**KLMR Klimovskoe 23.52 16** *e*P **P 08 22 35.9 -1.4**
KLMR pmax pmax
comp=Z,93nm,1.2s
**KLMR Klimovskoe 23.52 16** *e*P **P 08 22 35.9 -1.4**
comp=Z,93nm,1.2s
**PAB San Pablo 23.75 281** *e*P **P 08 22 40.7 +0.8**
PAB pmax pmax
comp=Z,105nm,1.4s
**PAB San Pablo 23.75 281** *e*P **P 08 22 40.7 +0.8**
comp=Z,105nm,1.4s
**PAB San Pablo 23.75 281** *e*P **P 08 22 40.7 +0.8**
comp=Z,105nm,1.4s
**NC602 NORSAR Array S 23.79 342** *e*P **P 08 22 39.2 -0.8**
**NC602 NORSAR Array S 23.79 342** *e*P **P 08 22 39.2 -0.8**
**TAM Tamanrasset 23.91 234** *e*P **P 08 22 39.9 -1.7**
TAM pmax pmax
comp=Z,19nm,1.3s
**TAM Tamanrasset 23.91 234** *e*P **P 08 22 39.9 -1.7**
comp=Z,20nm,1.3s
**TAM Tamanrasset 23.91 234** *e*P **P 08 22 39.9 -1.7**
comp=Z,20nm,1.3s
**NAO01 NORSAR Array S 24.05 341** *e*P **P 08 22 42.3 -0.1**
**NAO01 NORSAR Array S 24.05 341** *e*P **P 08 22 42.3 -0.1**
**NB2 NORSAR Subarra 24.14 342** P **P 08 22 42.2 -1.1**
comp=Z,16nm,1.0s,baz=150,slow=9.3
**NB2 NORSAR Subarra 24.14 342** P **P 08 22 42.2 -1.1**
comp=Z,16nm,1.0s,SNR=1.6
**NB200 NORSAR Array S 24.14 342** *e*P **P 08 22 43.1 -0.2**
**NB200 NORSAR Array S 24.14 342** *e*P **P 08 22 43.1 -0.2**
**NOA NORSAR Array B 24.14 342** P **P 08 22 43.1 -0.2**
comp=Z,2.0nm,0.6s,baz=204,slow=8.7,SNR=15
NOA LR LR 08 33 18.5
comp=Z,462nm,18.1s,baz=155,slow=39
**NBO02 NORSAR Array S 24.23 342** *e*P **P 08 22 44.2 0.0**
**NBO02 NORSAR Array S 24.23 342** *e*P **P 08 22 44.2 0.0**
**GEYT Alibeck 24.86 82** LR LR 08 34 10.7
comp=Z,154nm,21.6s,baz=265,slow=37
**GEYT Alibeck 24.86 82** P **P 08 22 50.8 +0.7**
comp=Z,27nm,0.9s,baz=283,slow=10,SNR=19
GEYT LR LR 08 34 10.6
comp=Z,156nm,21.4s,baz=265,slow=40
**AKTK Aktyubinsk 25.14 52** P **P 08 22 52.8 +0.3**
comp=Z,154nm,19.4s
**AKTO Aktyubinsk 25.14 52** LR LR 08 37 07.3
comp=Z,151nm,18.7s,baz=263,slow=44
**AKTO Aktyubinsk 25.14 52** P **P 08 22 52.8 +0.4**
comp=Z,2.3nm,0.7s,baz=256,slow=15,SNR=3.6
AKTO LR LR 08 35 11.6
comp=Z,154nm,19.4s,baz=264,slow=42
**PBRG Bragança 25.31 287** *e*P **P 08 22 55.0 +0.9**
comp=Z,75nm,1.8s
**MVO Moncorvo 25.58 286** *e*P **P 08 22 57.5 +0.8**
comp=Z,57nm,1.2s
**EKA Eskdalemuir Ar 25.71 320** P **P 08 22 58.3 +0.7**
comp=Z,3.8nm,0.5s,baz=114,slow=10,SNR=18
**MDT Midelt 25.74 266** P **P 08 22 59.4 +1.3**
comp=Z,18nm,1.0s,baz=86,slow=11,SNR=19
MDT LR LR 08 34 20.3
comp=Z,93nm,18.7s,baz=81,slow=39
**PBAR Barrancos 26.05 279** *e*P **P 08 23 01.6 +0.7**
comp=Z,62nm,1.4s
**MTE Manteigas 26.06 284** *e*P **P 08 23 02.1 +1.1**
**PVRL Vila Real 26.09 286** *e*P **P 08 23 02.4 +1.2**
**PCBR Castelo Branco 26.09 283** *e*P **P 08 23 02.2 +1.0**
comp=Z,46nm,1.5s
**PMRV Marv??o 26.09 282** *e*P **P 08 23 01.9 +0.7**
comp=Z,51nm,1.3s
**POLO Lamas de Olo 26.14 286** *e*P **P 08 23 02.5 +0.8**
**PCAB Cabril 26.28 287** *e*P **P 08 23 03.6 +0.7**
**PVIS Viseu 26.29 285** *e*P **P 08 23 03.8 +0.8**
**PESTR Estremoz 26.34 281** *e*P **P 08 23 03.8 +0.3**
comp=Z,28nm,1.3s
**PGAV Gavieira, Arco 26.44 288** *e*P **P 08 23 05.8 +1.4**
**PBEJ Beja 26.72 279** *e*P **P 08 23 07.6 +0.7**
comp=Z,34nm,1.4s
**PMTG Montargil 26.79 281** *e*P **P 08 23 07.9 +0.4**
comp=Z,42nm,1.5s
**PCVE Castro Verde 26.95 278** *e*P **P 08 23 09.8 +0.9**
comp=Z,37nm,1.7s
**PBDV Barranco-do-Ve 26.95 277** *e*P **P 08 23 10.0 +1.0**
comp=Z,89nm,1.3s
**MESJ Messejana 27.04 279** *e*P **P 08 23 10.3 +0.6**
MESJ AMb AMB 08 23 14.2
comp=Z,68nm,1.8s
**MESJ Messejana 27.04 279** *e*P **P 08 23 10.3 +0.6**
MESJ pmax pmax
comp=Z,69nm,1.8s
**MESJ Messejana 27.04 279** *e*P **P 08 23 10.3 +0.6**
comp=Z,69nm,1.8s
**PNCL Nicolau / Gran 27.22 280** *e*P **P 08 23 12.3 +1.0**
comp=Z,45nm,1.4s
**ARU Arti 27.57 40** LR LR 08 36 06.7
comp=Z,101nm,19.0s,baz=222,slow=39
**ARU Arti 27.57 40** P **P 08 23 14.6 +0.4**
comp=Z,2.7nm,0.3s,baz=224,slow=7.2,SNR=6.0
ARU LR LR 08 35 08.7
comp=Z,185nm,18.4s,baz=218,slow=38
**ARU Arti 27.57 40** *d i*P **P 08 23 14.7 +0.4**
ARU S **S 08 27 58.5 +4.0**
ARU SS **SnSn 08 29 07.5 +1.9**
ARU pmax pmax
comp=Z,16nm,1.7s
**ARU Arti 27.57 40** *i*P **P 08 23 14.7 +0.4**
comp=Z,16nm,1.7s
**ARU Arti 27.57 40** *e*P **P 08 23 14.8 +0.4**
comp=Z,12nm,1.0s
**ARCES ARCESS Array B 30.75 359** LR LR 08 36 39.2
comp=Z,262nm,18.5s,baz=172,slow=40
**ARCES ARCESS Array B 30.75 359** LR LR 08 35 50.3
comp=Z,294nm,18.3s,baz=172,slow=36
**ATD Arta Tunnel 30.92 147** LR LR 08 36 56.1
comp=Z,15nm,19.2s,baz=62,slow=38
**ATD Arta Tunnel 30.92 147** LR LR 08 37 06.0
comp=Z,21nm,20.7s,baz=82,slow=38
**BRVK Borovoye 33.13 50** *e*P **P 08 24 04.3 +0.8**
BRVK pmax pmax
comp=Z,2.0nm,0.8s
**BVAR Borovoye Array 33.19 50** P **P 08 24 04.7 +0.7**
comp=Z,2.1nm,0.8s,baz=285,slow=5.8,SNR=6.8
**TOA1 Torodi Ar. Sit 33.64 227** *e*P **P 08 24 08.7 +0.5**
**TOA1 Torodi Ar. Sit 33.64 227** *e*P **P 08 24 08.7 +0.5**
TOA1 *e*PcP **PcP 08 26 48.4 +0.2**
**TOA0 Torodi Ar. Sit 33.64 227** *e*P **P 08 24 08.1 -0.2**
comp=Z,8.8nm,0.9s
**TOA0 Torodi Ar. Sit 33.64 227** *e*P **P 08 24 08.1 -0.2**
comp=Z,8.8nm,0.9s
**TORD Torodi Ar. Bea 33.64 227** P **P 08 24 08.7 +0.4**
comp=Z,5.0nm,0.9s,baz=35,slow=9.2,SNR=24
TORD PcP **PcP 08 26 48.4 +0.1**
comp=Z,2.3nm,0.8s,baz=21,slow=2.2,SNR=4.9
TORD LR LR 08 40 26.5
comp=Z,138nm,18.3s,baz=50,slow=41
**AAK Ala-Archa 36.29 68** P **P 08 24 31.8 +0.7**
comp=Z,2.7nm,0.8s,baz=252,slow=4.9,SNR=5.3

**AAK Ala-Archa 36.29 68** *e*P P 08 24 30.9 -0.2
AAK pmax pmax
comp=Z,3.0nm,1.0s
**KSH Kashi 38.08 73** *e*P P 08 24 46.5 +0.2
KSH pP pP 08 24 49.8 -2.3
KSH PP **PnPn 08 26 16.7 +1.9**
KSH PcP **PcP 08 27 02.5 +1.3**
KSH S **S 08 30 37.8 -0.4**
KSH SS **SnSn 08 33 12.5 -8.7**
KSH ScS **ScS 08 34 57.6 +0.2**
KSH pmax pmax
comp=Z,5.0nm,0.4s
KSH pmax pmax
comp=Z,96nm,5.2s
KSH LR LR
comp=Z,150nm,6.0s
KSH LR LR
comp=Z,130nm,4.8s
KSH LR LR
comp=Z,300nm,6.2s
**KURBB Kurchatov Arra 38.14 55** P P 08 24 47.0 +0.6
comp=Z,6.8nm,0.6s,baz=280,slow=8.7,SNR=40
KURBB PP **PnPn 08 26 18.7 +3.5**
comp=Z,1.1nm,0.9s,baz=277,slow=12,SNR=4.0
KURBB PcP **PcP 08 27 01.3 +0.3**
comp=Z,3.1nm,0.8s,baz=270,slow=3.7,SNR=7.3
**KURK Kurchatov 38.19 54** P P 08 24 47.1 +0.2
KURK 08 26 18.7
KURK 08 27 01.3
KURK pmax pmax
comp=Z,6.0nm,0.6s
KURK pmax pmax
comp=Z,1.0nm,0.9s
KURK pmax pmax
comp=Z,3.0nm,0.8s
**KURK Kurchatov 38.19 54** *e*P P 08 24 47.4 +0.5
**KURK Kurchatov 38.19 54** *e*PcP **PcP 08 27 01.3 +0.1**
**KURK Kurchatov 38.19 54** *e*P P 08 24 47.4 +0.5
KURK *e*PcP **PcP 08 27 01.3 +0.1**
**SPITS Spitsbergen Ar 39.66 357** P P 08 25 00.2 +1.3
comp=Z,22nm,1.0s,baz=156,slow=2.3,SNR=4.5
**MAKZ Makanchi 40.82 60** *e*P P 08 25 09.3 +0.4
MAKZ pmax pmax
comp=Z,8.0nm,1.3s
**MAKZ Makanchi 40.82 60** *e*P P 08 25 09.3 +0.4
comp=Z,7.6nm,1.3s
**MAKZ Makanchi 40.82 60** *e*P P 08 25 09.3 +0.4
comp=Z,7.6nm,1.3s
**NVS Novosibirsk 40.86 48** *i* P P 08 25 10.6 +1.5
**KMBO Kilima Mbogo 41.02 163** LR LR 08 43 31.3
comp=Z,65nm,18.2s,baz=54,slow=38
**MKAR Makanchi Array 41.03 60** P P 08 25 11.2 +0.5
comp=Z,2.3nm,0.4s,baz=268,slow=8.6,SNR=20
MKAR PcP **PcP 08 27 10.3 0.0**
comp=Z,5.4nm,1.1s,baz=308,slow=6.0,SNR=4.4
MKAR LR LR 08 44 14.0
comp=Z,128nm,21.2s,baz=270,slow=39
**MKAR Makanchi Array 41.03 60***ce*P P 08 25 11.1 +0.4
MKAR pmax pmax
comp=Z,2.0nm,0.4s
**MK31 Makanchi Array 41.03 60** *e*P P 08 25 11.4 +0.7
**MK31 Makanchi Array 41.03 60** *e*P P 08 25 11.4 +0.7
**MK31 Makanchi Array 41.03 60** *e*P P 08 25 11.4 +0.7
**MK32 Makanchi Array 41.03 60** *e*P P 08 25 11.2 +0.5
**MK32 Makanchi Array 41.03 60** *e*P P 08 25 11.2 +0.5
MK32 *e*PcP **PcP 08 27 10.3 0.0**
**MK01 Makanchi Array 41.04 60** *e*P P 08 25 10.6 -0.2
**MK01 Makanchi Array 41.04 60** *e*P P 08 25 10.6 -0.2
**ZAA0 Zalesovo Array 41.82 49** *e*P P 08 25 17.3 +0.3
comp=Z,4.4nm,0.8s
**ZAA0 Zalesovo Array 41.82 49** *e*P P 08 25 17.3 +0.3
comp=Z,4.4nm,0.8s
**ZAA1 Zalesovo Array 41.82 49** *e*P P 08 25 17.3 +0.3
**ZAA1 Zalesovo Array 41.82 49** *e*P P 08 25 17.3 +0.3
**ZALV Zalesovo Beam 41.82 49** P P 08 25 17.3 +0.3
comp=Z,2.5nm,0.4s,baz=269,slow=9.8,SNR=14
ZALV LR LR 08 45 10.1
comp=Z,71nm,20.4s,baz=250,slow=40
**ZALV Zalesovo Beam 41.82 49** *e*P P 08 25 17.0 0.0
**ZALV Zalesovo Beam 41.82 49** *e*P P 08 25 17.0 0.0
**DBIC Dimbokro 42.65 229** P P 08 25 23.6 -0.5
comp=Z,4.6nm,0.7s,baz=23,slow=16,SNR=4.7
DBIC LR LR 08 45 26.0
comp=Z,76nm,18.5s,baz=9.5,slow=39
**DBIC Dimbokro 42.65 229** *e*P P 08 25 23.8 -0.3
DBIC pmax pmax
comp=Z,16nm,1.1s
**DBIC Dimbokro 42.65 229** *e*P P 08 25 23.8 -0.3
comp=Z,16nm,1.1s
**DBIC Dimbokro 42.65 229** *e*P P 08 25 23.8 -0.3
comp=Z,16nm,1.1s
**TIC Toumodi 42.77 230** *e*P P 08 25 25.6 +0.5
**KIC Kosan Boka 42.83 229** *e*P P 08 25 25.5 -0.1
comp=Z,44nm,1.4s
**LIC Lamto 43.10 229** *e*P P 08 25 26.9 -1.0
comp=Z,43nm,1.2s
**WMQ Urumqi 45.41 63** P P 08 25 48.1 +1.9
WMQ pP pP 08 25 51.9 -0.2
WMQ sP sP 08 25 55.3 +0.9
WMQ pmax pmax
comp=Z,12nm,0.7s
WMQ pmax pmax
comp=Z,110nm,3.7s
WMQ LR LR
comp=Z,270nm,25.5s
WMQ LR LR
comp=Z,250nm,25.5s
WMQ LR LR
comp=Z,280nm,25.5s
**SFJD Kangerlussuaq 49.94 330** LR LR 08 49 31.6
comp=Z,94nm,18.7s,baz=90,slow=38
**HYB Hyderabad 50.01 100** *i* P P 08 26 22.0 -0.1
**SONA0 Songino Array 56.46 53** *e*P P 08 27 10.1 +0.8
**SONA0 Songino Array 56.46 53** *e*P P 08 27 10.1 +0.8
SONA0 *e*PcP **PcP 08 28 06.8 +0.7**
**SONM Songino Array 56.46 53** LR LR 08 54 09.9
comp=Z,116nm,19.1s,baz=353,slow=38
**SONM Songino Array 56.46 53** P P 08 27 10.1 +0.8
comp=Z,2.0nm,0.8s,baz=289,slow=7.7,SNR=11
SONM PcP **PcP 08 28 06.8 +0.7**
comp=Z,1.3nm,0.8s,baz=270,slow=6.1,SNR=3.9
SONM LR LR 08 54 09.8
comp=Z,123nm,18.8s,baz=352,slow=39
**SONA1 Songino Array 56.46 53** *e*P P 08 27 09.3 0.0
**SONA1 Songino Array 56.46 53** *e*P P 08 27 09.3 0.0
**ULN Ulaanbaatar 56.86 53** *e*P P 08 27 12.5 +0.3
ULN pmax pmax
comp=Z,4.0nm,1.0s
**ULN Ulaanbaatar 56.86 53** *e*P P 08 27 12.5 +0.3
comp=Z,4.1nm,1.0s
**ULN Ulaanbaatar 56.86 53** *e*P P 08 27 12.5 +0.3
comp=Z,4.1nm,1.0s
**TIXI Tiksi 57.39 22** *e*P P 08 27 14.6 -0.8
TIXI pmax pmax
comp=Z,3.0nm,1.0s
**PALK Pallekele 57.99 108** *e*P P 08 27 21.3 +0.8
PALK pmax pmax
comp=Z,18nm,1.2s
**PALK Pallekele 57.99 108** *e*P P 08 27 21.3 +0.8
comp=Z,18nm,1.2s
**PALK Pallekele 57.99 108** *e*P P 08 27 21.3 +0.8
comp=Z,18nm,1.2s
**FRB Frobisher Bay 58.00 328** LR LR 08 53 08.1
comp=Z,79nm,18.8s,baz=210,slow=37
**LZH Lanzhou 59.78 66** *e*P P 08 27 35.5 +2.7
LZH pP sP 08 27 41.3 +0.1
LZH sP pP 08 27 44.3 +5.4
LZH pmax pmax
comp=Z,19nm,1.0s
LZH pmax pmax
comp=Z,98nm,4.2s
**RES Resolute Bay 60.36 345** LR LR 08 52 46.2
comp=Z,100nm,20.4s,baz=25,slow=37
**RES Resolute Bay 60.36 345** LR LR 08 53 38.8
comp=Z,94nm,18.5s,baz=22,slow=36
**SCHQ Schefferville 61.02 319** P P 08 27 40.5 -0.3
comp=Z,6.4nm,0.8s,baz=70,slow=4.4,SNR=9.4
**SCHQ Schefferville 61.02 319** *e*P P 08 27 40.8 0.0
comp=Z,38nm,1.4s
**SCHQ Schefferville 61.02 319** *e*P P 08 27 40.8 0.0
comp=Z,38nm,1.4s
**HHC Hu-ho-hao-te 62.84 58** *e*P P 08 27 54.6 +1.2
HHC pmax pmax
comp=Z,29nm,1.0s
HHC pmax pmax
comp=Z,110nm,6.1s

**KMI Kunming 64.52 77** P P 08 28 04.9 +0.1
KMI pmax pmax
comp=Z,25nm,0.5s
**CM31 Chiang Mai Arr 65.27 86** *e*P P 08 28 09.1 -0.4
**CM31 Chiang Mai Arr 65.27 86** *e*P P 08 28 09.2 -0.4
**CMAR Chiang Mai Arr 65.27 86** P P 08 28 09.9 +0.4
comp=Z,1.3nm,0.3s,baz=298,slow=6.6,SNR=7.6
**CMAR Chiang Mai Arr 65.27 86***ce*P P 08 28 09.0 -0.5
CMAR pmax pmax
comp=Z,1.0nm,0.3s
**GYA Guiyang 66.76 74** *e*P P 08 28 20.4 +1.3
GYA pmax pmax
comp=Z,10.0nm,1.0s
**BOSA Boshof 67.12 181** LR LR 09 00 15.6
comp=Z,58nm,20.2s,baz=22,slow=40
**BOSA Boshof 67.12 181** P P 08 28 19.1 -2.0
comp=Z,2.7nm,0.7s,baz=359,slow=6.8,SNR=5.1
BOSA LR LR 09 00 41.6
comp=Z,51nm,18.8s,baz=22,slow=39
**WHN Wuhan 70.16 66** P P 08 28 46.1 +5.9
**MA2 Magadan 71.76 26** LR LR 09 03 02.2
comp=Z,46nm,19.9s,baz=292,slow=38
**MA2 Magadan 71.76 26** LR LR 09 02 37.2
comp=Z,86nm,19.5s,baz=292,slow=38
**INK Inuvik 72.10 352** *e*P P 08 28 51.3 0.0
INK pmax pmax
comp=Z,6.0nm,1.2s
**INK Inuvik 72.10 352** *e*P P 08 28 51.3 0.0
comp=Z,6.0nm,1.2s
**INK Inuvik 72.10 352** *e*P P 08 28 51.3 0.0
comp=Z,6.0nm,1.2s
**NJ2 Nanjing 72.49 63** *e*P P 08 28 54.6 +0.4
NJ2 pmax pmax
comp=Z,14nm,0.7s
**QIZ Qiongzhong 73.37 79** P P 08 28 59.1 -0.6
QIZ S S 08 38 20.9 -7.1
QIZ pmax pmax
comp=Z,66nm,1.8s
QIZ pmax pmax
comp=Z,390nm,7.0s
**USRK Ussuriysk Ar. 73.59 46** P P 08 28 59.2 -1.3
comp=Z,4.6nm,0.9s,baz=316,slow=14,SNR=4.9
**YKW3 Yellowknife Ar 74.18 342** *e*P P 08 29 03.9 +0.3
comp=Z,16nm,1.3s
**YKW3 Yellowknife Ar 74.18 342** *e*P P 08 29 03.9 +0.3
comp=Z,16nm,1.3s
**COLD Coldfoot 74.22 359** *e*P P 08 29 02.5 -1.3
comp=Z,12nm,1.3s
**COLD Coldfoot 74.22 359** *e*P P 08 29 02.5 -1.3
comp=Z,12nm,1.3s
**YKA Yellowknife Ar 74.23 342** LR LR 09 01 09.9
comp=Z,5.3nm,20.2s,baz=0.0,slow=37
**YKA Yellowknife Ar 74.23 342** P P 08 29 04.4 +0.4
comp=Z,4.8nm,0.6s,baz=28,slow=5.3,SNR=76
YKA LR LR 09 03 34.1
comp=Z,5.8nm,18.1s,baz=0.0,slow=37
**YKA Yellowknife Ar 74.23 342***ce*P P 08 29 04.0 0.0
YKA pmax pmax
comp=Z,5.0nm,0.6s
**KS01 Wonju Array Si 75.28 54** *e*P P 08 29 10.7 +0.2
**KS01 Wonju Array Si 75.28 54** *e*P P 08 29 10.7 +0.2
**KSRS Korea Array 75.31 54** LR LR 09 06 03.1
comp=Z,87nm,18.1s,baz=325,slow=38
**KSRS Korea Array 75.31 54** P P 08 29 10.8 +0.1
comp=Z,2.7nm,0.8s,baz=300,slow=4.7,SNR=7.4
KSRS LR LR 09 06 12.2
comp=Z,77nm,18.5s,baz=325,slow=39
**IMAR Indian Mountai 75.50 0** *e*P P 08 29 12.4 +1.1
**IMAR Indian Mountai 75.50 0** *e*P P 08 29 12.4 +1.1
**COLA College 76.52 357** *e*P P 08 29 16.3 -0.7
COLA pmax pmax
comp=Z,2.0nm,0.9s
**IL1 Eielson Array 76.58 357** *e*P P 08 29 17.5 +0.1
**IL1 Eielson Array 76.58 357** *e*P P 08 29 17.5 +0.1
**ILAR Eielson Array 76.58 357** P P 08 29 18.1 +0.7
comp=Z,1.3nm,1.0s,baz=347,slow=2.1,SNR=9.3
**ILB Eielson Array 76.58 357** *e*P P 08 29 18.5 +1.1
**ILB Eielson Array 76.58 357** *e*P P 08 29 18.5 +1.1
**ULM Lac du Bonnet 77.78 326** LR LR 09 04 02.2
comp=Z,106nm,18.5s,baz=49,slow=38
**ULM Lac du Bonnet 77.78 326** P P 08 29 24.2 -0.2
comp=Z,3.9nm,0.6s,baz=57,slow=6.9,SNR=5.6
ULM LR LR 09 04 02.3
comp=Z,83nm,18.3s,baz=50,slow=36
**B34A Aery, Baudette 78.53 324** P P 08 29 27.8 -0.8
baz=43
**A33A Warroad 78.53 325** P P 08 29 27.5 -1.1
baz=43
**A32A Rocking H Ranc 79.04 326** P P 08 29 30.6 -0.8
baz=42
**PETK Petropavlovsk- 79.20 27** LR LR 09 09 31.4
comp=Z,66nm,19.5s,baz=310,slow=39
**I41A Arkdale 79.39 319** P P 08 29 32.9 -0.5
baz=46
**K43A Burlington 79.53 317** P P 08 29 33.7 -0.5
baz=46
**F37A Hinrichs Farm, 79.58 321** P P 08 29 34.8 +0.4
baz=44
**G38A Ridgeland 79.60 321** P P 08 29 34.6 +0.1
baz=44
**E35A Pequot Lakes 79.83 323** P P 08 29 35.5 -0.2
baz=43
**I40A Norwalk 79.89 319** P P 08 29 35.6 -0.5
baz=45
**B31A Greenbush Farm 79.92 326** P P 08 29 35.7 -0.5
baz=41
**F36A Milaca 79.92 322** P P 08 29 36.0 -0.2
baz=44
**J41A Loganville 79.95 318** P P 08 29 36.5 +0.1
baz=45
**SPMN Marine on St. 80.03 321** P P 08 29 36.3 -0.5
baz=44
**O47A Sheridan 80.04 314** P P 08 29 37.4 +0.4
baz=47
**L43A Garden Prairie 80.11 317** P P 08 29 36.8 -0.5
baz=46
**C31A Landman Farms, 80.43 326** P P 08 29 37.2 -1.8
baz=41
**M43A Waltham Townsh 80.74 316** P P 08 29 40.9 +0.1
baz=46
**J39A Decorah 80.84 319** P P 08 29 41.0 -0.2
baz=44
**BLO Bloomington 80.96 314** *e*P P 08 29 42.3 +0.3
BLO pmax pmax
comp=Z,19nm,1.2s
**BLO Bloomington 80.96 314** *e*P P 08 29 42.3 +0.3
comp=Z,19nm,1.2s
**BLO Bloomington 80.96 314** *e*P P 08 29 42.3 +0.3
comp=Z,19nm,1.2s
**D31A Mcclaflin, Tow 80.99 325** P P 08 29 40.5 -1.4
baz=41
**L41A Preston 81.11 318** P P 08 29 41.3 -1.4
baz=45
**N43A Stutzman Famil 81.21 316** P P 08 29 43.3 +0.1
baz=46
**O44A Mansfield 81.37 315** P P 08 29 44.8 +0.7
baz=46
**K39A Oelwein 81.38 319** P P 08 29 45.1 +1.0
baz=44
**H35A Sunnyside Ranc 81.40 322** P P 08 29 44.0 -0.2
baz=42
**P45A Graceland, Par 81.40 314** P P 08 29 43.8 -0.5
baz=46
**L40A Anamosa 81.50 318** P P 08 29 43.4 -1.4
baz=44
**HDIL Hopedale 81.54 316** P P 08 29 41.8 -3.2
baz=45
**J37A Redenius Farm, 81.79 320** P P 08 29 45.2 -1.1
baz=43
**G33A Ortonville 81.79 323** P P 08 29 45.1 -1.1
baz=42
**L39A Vinton 81.86 319** P P 08 29 45.9 -0.8
baz=44
**P44A Sand Creek, Wi 81.93 315** P P 08 29 46.9 -0.2
baz=46
**J36A Seneca 1, Swea 82.17 321** P P 08 29 46.8 -1.4
baz=43
**MJAR Matsushiro Arr 82.17 49** LR LR 09 11 29.1
comp=Z,60nm,19.1s,baz=270,slow=39
**MJAR Matsushiro Arr 82.17 49** P P 08 29 48.5 0.0
comp=Z,3.5nm,0.8s,baz=309,slow=4.9,SNR=5.5
MJAR LR LR 09 10 46.4
comp=Z,62nm,18.0s,baz=270,slow=39
**K37A Belmond 82.23 320** P P 08 29 47.2 -1.4
baz=43
**G32A Webster 82.24 324** P P 08 29 49.0 +0.3
baz=41

**H33A Prehn Over Nor 82.32 323** P P 08 29 49.1 0.0
baz=41
**L38A Oak Wood Farm, 82.34 319** P P 08 29 48.1 -1.1
baz=43
**M39A Webster 82.41 318** P P 08 29 49.1 -0.5
baz=44
**Q44A Meyer Farm, Va 82.55 315** P P 08 29 48.7 -1.7
baz=45
**R45A Skylar, Fairfi 82.56 314** P P 08 29 49.1 -1.4
baz=46
**H32A Carlson Farm, 82.78 323** P P 08 29 50.3 -1.2
baz=41
**Q43A New Douglas 82.90 315** P P 08 29 52.6 +0.4
baz=45
**ECSD EROS Data Cent 82.97 322** P P 08 29 51.9 -0.6
baz=41
**M37A Trindle Farm, 83.44 319** P P 08 29 54.1 -0.8
baz=43
**R43A Red Bud 83.50 315** P P 08 29 54.8 -0.5
baz=45
**S44A Carbondale 83.53 314** P P 08 29 54.7 -0.8
baz=45
**SUSD Miller 83.53 324** P P 08 29 55.1 -0.3
baz=40
**L35A Bielow Farm, R 83.66 321** P P 08 29 54.6 -1.5
baz=42
**KDAK Kodiak Island 83.73 359** *i* P P 08 29 57.0 +1.0
**P40A Paris 83.75 317** P P 08 29 54.9 -1.7
baz=44
**M36A Felix, Anita 83.78 320** P P 08 29 56.1 -0.6
baz=42
**N37A Lee Fairs, Mou 83.99 319** P P 08 29 56.3 -1.4
baz=42
**O38A Galt 84.08 318** P P 08 29 57.1 -1.1
baz=43
**S43A Fulton Ridge, 84.08 314** P P 08 29 57.5 -0.8
baz=45
**Q40A Laux Farm, Aux 84.15 316** P P 08 29 57.5 -1.1
baz=44
**P39B Salisbury 84.16 317** P P 08 29 58.4 -0.2
baz=43
**R41A Rosebud 84.28 316** P P 08 29 58.5 -0.8
baz=44
**S42A Caledonia 84.33 315** P P 08 29 59.7 +0.1
baz=44
**O37A Wolven Farm, M 84.39 318** P P 08 29 59.9 +0.1
baz=42
**K32A Verdigre 84.43 322** P P 08 29 59.7 -0.3
baz=40
**T43A Greenville 84.54 314** P P 08 29 59.5 -1.1
baz=44
**Q39A Willow Grove F 84.60 317** P P 08 30 00.1 -0.8
baz=43
**N35A Tabor 84.64 320** P P 08 30 01.4 +0.3
baz=42
**R40A Maddies Statio 84.77 316** P P 08 30 01.9 +0.2
baz=44,SNR=7.5
**PBMO Poplar Bluff 84.84 314** *e*P P 08 30 03.2 +1.1
comp=Z,9.1nm,1.1s
**PBMO Poplar Bluff 84.84 314** *e*P P 08 30 03.2 +1.1
comp=Z,9.1nm,1.1s
**O36A Bolckow 84.84 319** P P 08 30 01.9 -0.2
baz=42
**LAO LASA Array 84.87 329** P P 08 30 02.7 +0.5
baz=35
**LAO LASA Array 84.87 329** *e*P P 08 30 03.3 +1.1
comp=Z,34nm,1.1s
**LAO LASA Array 84.87 329** *e*P P 08 30 03.3 +1.1
comp=Z,34nm,1.1s
**M33A Taylor Creek F 84.88 321** P P 08 30 02.0 -0.3
baz=41
**P37A Lathrop 84.92 318** P P 08 30 02.3 -0.2
baz=42
**S41A Jillco Farms, 84.99 315** P P 08 30 03.3 +0.4
baz=44,SNR=6.8
**Q38A Cooks Store, C 85.00 317** P P 08 30 02.8 -0.1
baz=43,SNR=5.5
**T42A Van Buren 85.03 315** P P 08 30 03.2 +0.1
baz=44
**N34A Lincoln 85.09 320** P P 08 30 03.1 -0.3
baz=41
**EGMT Eagleton 85.11 332** P P 08 30 03.3 -0.1
baz=33
**EGMT Eagleton 85.11 332** *e*P P 08 30 04.1 +0.7
comp=Z,44nm,1.5s
**EGMT Eagleton 85.11 332** *e*P P 08 30 04.1 +0.7
comp=Z,44nm,1.5s
**R39A Chumby, Stover 85.17 317** P P 08 30 04.1 +0.3
baz=43,SNR=5.6
**T41A Mountain View 85.39 315** P P 08 30 05.2 +0.3
baz=44,SNR=14
**S40A Lebanon 85.40 316** P P 08 30 05.1 +0.2
baz=43,SNR=7.8
**LRAL Lakeview Retre 85.47 309** *e*P P 08 30 05.6 +0.2
comp=Z,10.0nm,0.6s
**LRAL Lakeview Retre 85.47 309** *e*P P 08 30 05.5 +0.2
comp=Z,10.0nm,0.6s
**BGNE Belgrade 85.47 322** P P 08 30 05.6 +0.3
baz=40
**Q37A Longview Farm, 85.50 318** P P 08 30 05.5 +0.1
baz=42
**U42A Revenden 85.60 314** P P 08 30 06.3 +0.4
baz=44,SNR=5.1
**WALA Waterton Lakes 85.67 335** *e*P P 08 30 06.1 -0.2
comp=Z,5.4nm,0.6s
**WALA Waterton Lakes 85.67 335** *e*P P 08 30 06.0 -0.2
comp=Z,5.4nm,0.6s
**O34A Beatrice 85.68 320** P P 08 30 06.1 -0.3
baz=41
**R38A Fenwick Farm, 85.72 317** P P 08 30 05.7 -0.8
baz=42
**T40A Mansfield 85.73 315** P P 08 30 06.9 +0.3
baz=43,SNR=8.2
**S39A Bolivar 85.77 316** P P 08 30 06.6 -0.2
baz=43
**P35A Duane Minner, 85.83 319** P P 08 30 07.4 +0.3
baz=41
**U41A Viola 85.98 315** P P 08 30 08.0 +0.1
baz=44
**Y46A Houston 85.99 311** P P 08 30 06.9 -1.0
baz=45,SNR=5.0
**Z47A Carrollton 86.00 310** P P 08 30 08.1 +0.2
baz=45
**RSSD Black Hills 86.04 327** P P 08 30 08.6 +0.3
baz=37
**V42A Cord 86.08 314** P P 08 30 08.1 -0.2
baz=44
**R37A Teagarden Farm 86.12 318** P P 08 30 06.8 -1.7
baz=42
**S38A Stockton 86.13 317** P P 08 30 08.4 -0.2
baz=42
**P34A Walnut Farm, R 86.23 320** P P 08 30 09.4 +0.3
baz=41
**Q35A Mercer Eighty, 86.34 319** P P 08 30 09.4 -0.3
baz=41
**R36A Gordon, Harris 86.47 318** P P 08 30 10.3 +0.1
baz=42
**U40A Yellville 86.49 315** P P 08 30 10.2 -0.2
baz=43
**V41A Mountainview 86.52 314** P P 08 30 10.6 +0.1
baz=43
**S37A Fort Scott 86.53 317** P P 08 30 10.6 +0.1
baz=42
**Q34A Chapman 86.76 319** P P 08 30 12.0 +0.3
baz=41
**T38A Diamond 86.78 316** P P 08 30 11.8 +0.1
baz=42
**U39A Green Forest 86.82 315** P P 08 30 11.8 -0.2
baz=43
**V40A Witts Springs 86.88 315** P P 08 30 12.4 0.0
baz=43
**JTMT Jette 86.93 335** *e*P P 08 30 12.3 -0.2
comp=Z,14nm,1.0s
**JTMT Jette 86.93 335** *e*P P 08 30 12.3 -0.2
comp=Z,14nm,1.0s
**WHAR Wooly Hollow 86.95 314** *e*P P 08 30 12.9 +0.2
comp=Z,66nm,2.0s
**WHAR Wooly Hollow 86.95 314** *e*P P 08 30 12.8 +0.2
comp=Z,66nm,2.0s
**S36A Lake Cedric, C 86.96 318** P P 08 30 12.1 -0.5
baz=42
**W41B Gary Mavity, V 87.02 314** P P 08 30 13.4 +0.4
baz=43
**V39A Pettigrew 87.31 315** P P 08 30 13.8 -0.6
baz=43
**RLMT Red Lodge 87.36 330** P P 08 30 14.4 -0.3
baz=33
**R34A Isabella, Hill 87.39 319** P P 08 30 14.1 -0.6

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| | baz=41 | | | | | | |
| NEW | Newport | 87.39 | 337 | P | P | 08 30 14.8 | +0.2 |
| | baz=28 | | | | | | |
| NEW | Newport | 87.39 | 337 | eP | P | 08 30 15.1 | +0.5 |
| NEW | | | | pmax | pmax | | |
| | comp=Z,18nm,1.6s | | | | | | |
| NEW | Newport | 87.39 | 337 | eP | P | 08 30 15.1 | +0.5 |
| | comp=Z,18nm,1.6s | | | | | | |
| NEW | Newport | 87.39 | 337 | eP | P | 08 30 15.1 | +0.5 |
| | comp=Z,18nm,1.6s | | | | | | |
| W40A | Ferguson Farm, | 87.46 | 314 | P | P | 08 30 14.6 | -0.5 |
| | baz=43 | | | | | | |
| PTGA | Pitinga | 87.58 | 267 | eP | P | 08 30 17.3 | +1.4 |
| | comp=Z,17nm,1.3s | | | | | | |
| PTGA | Pitinga | 87.58 | 267 | eP | P | 08 30 17.3 | +1.4 |
| | comp=Z,17nm,1.3s | | | | | | |
| MSO | Missoula | 87.61 | 334 | P | P | 08 30 15.0 | -0.7 |
| | baz=30 | | | | | | |
| V38A | Canehill | 87.71 | 316 | P | P | 08 30 15.8 | -0.5 |
| | baz=42 | | | | | | |
| X40A | Basin Creek Fa | 87.84 | 314 | P | P | 08 30 15.3 | -1.7 |
| | baz=43 | | | | | | |
| BOZ | Bozeman (W) | 87.85 | 332 | P | P | 08 30 17.2 | +0.2 |
| | baz=32 | | | | | | |
| BOZ | Bozeman (W) | 87.85 | 332 | eP | P | 08 30 17.8 | +0.8 |
| BOZ | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.8s | | | | | | |
| BOZ | Bozeman (W) | 87.85 | 332 | eP | P | 08 30 17.8 | +0.8 |
| | comp=Z,4.9nm,0.8s | | | | | | |
| BOZ | Bozeman (W) | 87.85 | 332 | eP | P | 08 30 17.8 | +0.8 |
| | comp=Z,4.9nm,0.8s | | | | | | |
| BDFB | Brasilia | 87.97 | 248 | P | P | 08 30 19.6 | +1.8 |
| | comp=Z,12nm,0.8s,baz=0.0,slow=7.1,SNR=17 | | | | | | |
| MIAR | Mount Ida | 88.22 | 314 | P | P | 08 30 18.5 | -0.2 |
| | baz=43 | | | | | | |
| MIAR | Mount Ida | 88.22 | 314 | eP | P | 08 30 19.4 | +0.7 |
| MIAR | | | | pmax | pmax | | |
| | comp=Z,11nm,1.1s | | | | | | |
| MIAR | Mount Ida | 88.22 | 314 | eP | P | 08 30 19.4 | +0.7 |
| | comp=Z,11nm,1.1s | | | | | | |
| MIAR | Mount Ida | 88.22 | 314 | eP | P | 08 30 19.4 | +0.7 |
| | comp=Z,11nm,1.1s | | | | | | |
| YHH | Holmes Hill | 88.25 | 331 | eP | P | 08 30 20.1 | +1.0 |
| | comp=Z,3.0nm,1.1s | | | | | | |
| YHH | Holmes Hill | 88.25 | 331 | eP | P | 08 30 20.1 | +1.0 |
| | comp=Z,3.0nm,1.1s | | | | | | |
| T34A | McClaskey Farm | 88.32 | 318 | P | P | 08 30 19.3 | +0.1 |
| | baz=41 | | | | | | |
| W38A | Poteau | 88.35 | 315 | P | P | 08 30 19.2 | -0.2 |
| | baz=42 | | | | | | |
| DLMT | Dillon | 88.40 | 332 | eP | P | 08 30 20.3 | +0.7 |
| | comp=Z,13nm,1.4s | | | | | | |
| DLMT | Dillon | 88.40 | 332 | eP | P | 08 30 20.3 | +0.7 |
| | comp=Z,13nm,1.4s | | | | | | |
| TUL1 | Leonard | 88.42 | 317 | P | P | 08 30 19.2 | -0.5 |
| | baz=41 | | | | | | |
| Y40A | Okolona | 88.44 | 314 | P | P | 08 30 19.6 | -0.2 |
| | baz=43 | | | | | | |
| X39A | Fountain Ranch | 88.54 | 315 | P | P | 08 30 20.4 | +0.1 |
| | baz=42 | | | | | | |
| U35A | Pawnee | 88.58 | 317 | P | P | 08 30 20.2 | -0.2 |
| | baz=41 | | | | | | |
| X38A | Whitesboro | 88.82 | 315 | P | P | 08 30 22.6 | +1.0 |
| | baz=42 | | | | | | |
| PHWY | Pilot Hill | 88.94 | 326 | eP | P | 08 30 22.2 | -0.2 |
| | comp=Z,12nm,1.1s | | | | | | |
| PHWY | Pilot Hill | 88.94 | 326 | eP | P | 08 30 22.2 | -0.2 |
| | comp=Z,12nm,1.1s | | | | | | |
| Y39A | Lockesburg | 88.95 | 314 | P | P | 08 30 22.3 | +0.1 |
| | baz=42 | | | | | | |
| X37A | Clayton | 89.18 | 315 | P | P | 08 30 23.1 | -0.2 |
| | baz=42 | | | | | | |
| E09A | Wood Farm, Sta | 89.27 | 336 | eP | P | 08 30 23.8 | +0.3 |
| | comp=Z,7.4nm,1.3s | | | | | | |
| E09A | Wood Farm, Sta | 89.27 | 336 | eP | P | 08 30 23.8 | +0.3 |
| | comp=Z,7.4nm,1.3s | | | | | | |
| FXWY | Fox Creek | 89.29 | 331 | eP | P | 08 30 24.2 | +0.3 |
| | comp=Z,4.1nm,1.3s | | | | | | |
| FXWY | Fox Creek | 89.29 | 331 | eP | P | 08 30 24.2 | +0.3 |
| | comp=Z,4.1nm,1.3s | | | | | | |
| BW06 | Boulder Array | 89.45 | 329 | P | P | 08 30 23.5 | -1.2 |
| | baz=33 | | | | | | |
| PD31 | Pinedale Array | 89.45 | 329 | eP | P | 08 30 23.4 | -1.3 |
| PD31 | Pinedale Array | 89.45 | 329 | eP | P | 08 30 23.4 | -1.3 |
| PDAR | Pinedale Array | 89.45 | 329 | LR | LR | 09 09 00.7 | |
| | comp=Z,58nm,19.6s,baz=38,slow=36 | | | | | | |
| PDAR | Pinedale Array | 89.45 | 329 | P | P | 08 30 23.9 | -0.7 |
| | comp=Z,0.6nm,0.8s,baz=62,slow=3.5,SNR=6.1 | | | | | | |
| PDAR | | | | LR | LR | 09 14 36.4 | |
| | comp=Z,54nm,18.1s,baz=39,slow=38 | | | | | | |
| N23A | Red Feather La | 89.48 | 326 | P | P | 08 30 24.0 | -0.9 |
| | baz=35 | | | | | | |
| N23A | Red Feather La | 89.48 | 326 | eP | P | 08 30 25.2 | +0.3 |
| | comp=Z,9.0nm,1.3s | | | | | | |
| N23A | Red Feather La | 89.48 | 326 | eP | P | 08 30 25.2 | +0.3 |
| | comp=Z,9.0nm,1.3s | | | | | | |
| KSCO | Kaye Shedlock' | 89.49 | 323 | P | P | 08 30 24.6 | -0.2 |
| | baz=37 | | | | | | |
| KSCO | Kaye Shedlock' | 89.49 | 323 | eP | P | 08 30 24.6 | -0.2 |
| | comp=Z,17nm,1.0s | | | | | | |
| KSCO | Kaye Shedlock' | 89.49 | 323 | eP | P | 08 30 24.6 | -0.2 |
| | comp=Z,17nm,1.0s | | | | | | |
| W35A | Tecumseh | 89.57 | 317 | P | P | 08 30 24.6 | -0.5 |
| | baz=41 | | | | | | |
| W35A | Tecumseh | 89.57 | 317 | eP | P | 08 30 25.4 | +0.3 |
| | comp=Z,13nm,1.0s | | | | | | |
| W35A | Tecumseh | 89.57 | 317 | eP | P | 08 30 25.4 | +0.3 |
| | comp=Z,13nm,1.0s | | | | | | |
| 545A | Edgard | 89.68 | 309 | P | P | 08 30 24.9 | -0.7 |
| | baz=44 | | | | | | |
| X36A | Centrahoma | 89.73 | 316 | P | P | 08 30 25.9 | +0.1 |
| | baz=41 | | | | | | |
| X35A | Drake | 90.19 | 316 | P | P | 08 30 28.1 | +0.1 |
| | baz=41 | | | | | | |
| X35A | Drake | 90.19 | 316 | eP | P | 08 30 27.7 | -0.3 |
| | comp=Z,11nm,0.9s | | | | | | |
| X35A | Drake | 90.19 | 316 | eP | P | 08 30 27.7 | -0.3 |
| | comp=Z,11nm,0.9s | | | | | | |
| ISCO | Idaho Springs | 90.23 | 325 | P | P | 08 30 27.8 | -0.7 |
| | baz=36 | | | | | | |
| ISCO | Idaho Springs | 90.23 | 325 | eP | P | 08 30 28.7 | +0.2 |
| ISCO | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.2s | | | | | | |
| ISCO | Idaho Springs | 90.23 | 325 | eP | P | 08 30 28.6 | +0.2 |
| | comp=Z,6.2nm,1.2s | | | | | | |
| ISCO | Idaho Springs | 90.23 | 325 | eP | P | 08 30 28.6 | +0.2 |
| | comp=Z,6.2nm,1.2s | | | | | | |
| HLID | Hailey | 90.61 | 333 | P | P | 08 30 29.2 | -0.9 |
| | baz=30 | | | | | | |
| Q24A | Divide | 90.69 | 324 | P | P | 08 30 29.4 | -1.3 |
| | baz=36 | | | | | | |
| Q24A | Divide | 90.69 | 324 | eP | P | 08 30 30.5 | -0.2 |
| | comp=Z,29nm,1.8s | | | | | | |
| Q24A | Divide | 90.69 | 324 | eP | P | 08 30 30.5 | -0.2 |
| | comp=Z,29nm,1.8s | | | | | | |
| 340A | Bronson | 90.70 | 312 | P | P | 08 30 30.8 | +0.4 |
| | baz=42 | | | | | | |
| WMOK | Wichita Mounta | 90.90 | 318 | P | P | 08 30 30.1 | -1.2 |
| | baz=40 | | | | | | |
| WMOK | Wichita Mounta | 90.90 | 318 | eP | P | 08 30 30.9 | -0.4 |
| WMOK | | | | pmax | pmax | | |
| | comp=Z,13nm,1.2s | | | | | | |
| WMOK | Wichita Mounta | 90.90 | 318 | eP | P | 08 30 30.9 | -0.4 |
| | comp=Z,13nm,1.2s | | | | | | |
| WMOK | Wichita Mounta | 90.90 | 318 | eP | P | 08 30 30.9 | -0.4 |
| | comp=Z,13nm,1.2s | | | | | | |
| O20A | White River Ci | 91.10 | 327 | P | P | 08 30 31.5 | -0.9 |
| | baz=34 | | | | | | |
| MFID | Camas Ranch | 91.24 | 333 | eP | P | 08 30 33.0 | +0.1 |
| | comp=Z,13nm,1.4s | | | | | | |
| MFID | Camas Ranch | 91.24 | 333 | eP | P | 08 30 33.0 | +0.1 |
| | comp=Z,13nm,1.4s | | | | | | |
| T25A | Trinidad | 91.83 | 323 | P | P | 08 30 34.9 | -0.9 |
| | baz=36 | | | | | | |
| T25A | Trinidad | 91.83 | 323 | eP | P | 08 30 35.8 | 0.0 |
| | comp=Z,6.7nm,0.9s | | | | | | |
| T25A | Trinidad | 91.83 | 323 | eP | P | 08 30 35.8 | 0.0 |
| | comp=Z,6.7nm,0.9s | | | | | | |
| S22A | 4UR Ranch, Cre | 92.45 | 325 | P | P | 08 30 37.2 | -1.6 |
| | baz=35 | | | | | | |
| J05D | Fort Rock, OR | 93.13 | 337 | P | P | 08 30 40.2 | -1.5 |
| | baz=25 | | | | | | |
| ANMO | Albuquerque | 94.57 | 323 | LR | LR | 09 09 54.2 | |
| | comp=Z,55nm,21.1s,baz=237,slow=35 | | | | | | |
| M02C | Callahan | 95.35 | 337 | P | P | 08 30 50.9 | -0.9 |
| | baz=24 | | | | | | |
| ICU | Indian Springs | 95.98 | 329 | eP | P | 08 30 55.1 | +0.3 |
| ICU | Indian Springs | 95.98 | 329 | eP | P | 08 30 55.1 | +0.3 |
| MNTX | Cornudas Mount | 96.68 | 320 | P | P | 08 30 57.2 | -0.7 |
| | baz=36 | | | | | | |
| MNTX | Cornudas Mount | 96.68 | 320 | eP | P | 08 30 57.4 | -0.5 |
| | comp=Z,6.6nm,1.4s | | | | | | |
| MNTX | Cornudas Mount | 96.68 | 320 | eP | P | 08 30 57.4 | -0.5 |
| | comp=Z,6.6nm,1.4s | | | | | | |
| LTX | Lajitas | 97.70 | 318 | eP | P | 08 31 02.7 | 0.0 |
| LTX | Lajitas | 97.70 | 318 | eP | P | 08 31 02.7 | 0.0 |
| LTX | Lajitas | 97.70 | 318 | eP | P | 08 31 02.7 | 0.0 |
| TX31 | Lajitas Ar. Si | 97.70 | 318 | eP | P | 08 31 02.4 | -0.3 |
| TX31 | Lajitas Ar. Si | 97.70 | 318 | eP | P | 08 31 02.4 | -0.3 |
| TXAR | Lajitas Array | 97.70 | 318 | P | P | 08 31 02.7 | 0.0 |
| | comp=Z,1.2nm,0.9s,baz=62,slow=3.3,SNR=11 | | | | | | |
| SRTC | Snort | 98.75 | 331 | eP | P | 08 31 06.0 | -1.2 |
| SRTC | Snort | 98.75 | 331 | eP | P | 08 31 06.0 | -1.2 |
| CSR | Chase Ranch | 98.98 | 334 | eP | Pdif | 08 31 10.4 | +2.3 |
| CSR | Chase Ranch | 98.98 | 334 | eP | Pdif | 08 31 10.4 | +2.3 |
| MWC | Mount Wilson | 100.16 | 331 | eP | Pdif | 08 31 13.7 | 0.0 |
| MWC | Mount Wilson | 100.16 | 331 | ePdif | Pdif | 08 31 13.7 | 0.0 |
| WR1 | Warramunga Arr | 116.02 | 95 | ePKPdf | PKPdf | 08 36 09.4 | -1.3 |
| WRA | Warramunga Arr | 116.02 | 95 | PKP | PKPdf | 08 36 09.4 | -1.3 |
| | comp=Z,1.1nm,0.8s,baz=303,slow=1.7,SNR=6.6 | | | | | | |
| WB2 | Warramunga Arr | 116.03 | 95 | ePKPdf | PKPdf | 08 36 09.8 | -0.9 |
| AS31 | Alice Springs | 117.73 | 99 | ePKPdf | PKPdf | 08 36 13.2 | -0.7 |
| ASAR | Alice Springs | 117.73 | 99 | PKP | PKPdf | 08 36 13.2 | -0.7 |
| | comp=Z,1.9nm,0.9s,baz=335,slow=1.4,SNR=16 | | | | | | |
| AS01 | Alice Springs | 117.77 | 99 | ePKPdf | PKPdf | 08 36 13.0 | -1.0 |
| STKA | Stephens Creek | 127.71 | 103 | PKP | PKPdf | 08 36 32.8 | -0.1 |
| | comp=Z,2.6nm,0.9s,baz=311,slow=16,SNR=3.5 | | | | | | |

*CSEM **05** 08:30:03.1, 34°.35N×25°.19E, h12km, ML2.3/6*
**ATH 05 08:30:03.1, 34°.35N×25°.19E, h12km±4km, ML2.3/6, Error ellipse: s-maj=5.1km s-min=1.2km az=342.0, Crete**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SIVA | Sivas | 0.74 | 335 | P | Pg | 08 30 17.0 | -0.5 |
| SIVA | | | | S | Sb | 08 30 27.7 | -0.3 |
| SIVA | | | | AML | AML | 08 30 35.0 | |
| | comp=N,1483µm,0.7s | | | | | | |
| SIVA | | | | AML | AML | 08 30 36.8 | |
| | comp=E,1176µm,0.4s | | | | | | |
| SIVA | Sivas | 0.74 | 335 | P | Pg | 08 30 17.0 | -0.4 |
| SIVA | | | | S | Sb | 08 30 27.7 | -0.3 |
| LAST | Lasithi | 0.85 | 16 | P | Pg | 08 30 19.1 | -0.4 |
| LAST | | | | S | Sb | 08 30 31.5 | +0.3 |
| LAST | | | | AML | AML | 08 30 37.9 | |
| | comp=N,170µm,0.5s | | | | | | |
| LAST | | | | AML | AML | 08 30 42.8 | |
| | comp=E,178µm,0.7s | | | | | | |
| LAST | Lasithi | 0.85 | 16 | P | Pg | 08 30 19.1 | -0.4 |
| LAST | | | | S | Sb | 08 30 31.5 | +0.3 |
| IDI | Anoyia | 0.97 | 345 | P | Pg | 08 30 21.6 | -0.2 |
| IDI | | | | S | Sg | 08 30 34.2 | -0.4 |
| IDI | | | | AML | AML | 08 30 42.0 | |
| | comp=E,252µm,0.4s | | | | | | |
| IDI | | | | AML | AML | 08 30 44.1 | |
| | comp=N,187µm,0.5s | | | | | | |
| IDI | Anoyia | 0.97 | 345 | P | Pg | 08 30 21.6 | -0.3 |
| IDI | | | | S | Sg | 08 30 34.2 | -0.4 |
| NPS | Neapolis | 0.98 | 21 | P | Pg | 08 30 21.0 | -0.9 |
| NPS | Neapolis | 0.98 | 21 | P | Pg | 08 30 21.0 | -1.0 |
| GVD | Gavdhos | 1.04 | 299 | P | Pb | 08 30 22.9 | -0.1 |
| GVD | | | | S | Sg | 08 30 36.9 | +0.3 |
| GVD | | | | AML | AML | 08 30 42.7 | |
| | comp=N,695µm,0.4s | | | | | | |
| GVD | | | | AML | AML | 08 30 44.7 | |
| | comp=E,627µm,0.4s | | | | | | |
| GVD | Gavdhos | 1.04 | 299 | P | Pb | 08 30 22.9 | -0.1 |
| GVD | | | | S | Sg | 08 30 36.9 | +0.4 |
| ZKR | Zakros | 1.14 | 47 | P | Pb | 08 30 24.6 | -0.2 |
| ZKR | | | | S | Sn | 08 30 40.6 | +0.1 |
| ZKR | | | | AML | AML | 08 30 47.8 | |
| | comp=N,89µm,0.4s | | | | | | |
| ZKR | | | | AML | AML | 08 30 50.3 | |
| | comp=E,226µm,0.5s | | | | | | |
| ZKR | Zakros | 1.14 | 47 | P | Pb | 08 30 24.6 | -0.2 |
| ZKR | | | | S | Sn | 08 30 40.6 | +0.1 |
| VAM | Vamos | 1.34 | 323 | P | Pb | 08 30 28.3 | +0.2 |
| VAM | | | | S | Sg | 08 30 47.0 | +0.9 |
| VAM | | | | AML | AML | 08 30 53.4 | |
| | comp=E,180µm,0.4s | | | | | | |
| VAM | | | | AML | AML | 08 30 55.1 | |
| | comp=N,191µm,0.4s | | | | | | |
| VAM | Vamos | 1.34 | 323 | P | Pb | 08 30 28.3 | +0.2 |
| VAM | | | | S | Sg | 08 30 47.0 | +0.8 |
| IMMV | Iera Moni Meta | 1.49 | 319 | P | Pb | 08 30 30.9 | +0.1 |
| IMMV | Iera Moni Meta | 1.49 | 319 | P | Pb | 08 30 30.9 | +0.1 |
| KARP | Karpathos | 2.01 | 53 | P | Pb | 08 30 39.1 | -0.5 |
| KARP | Karpathos | 2.01 | 53 | P | Pb | 08 30 39.1 | -0.6 |

*DDA **05** 08:30:24.9, 38°.85N×26°.34E, h28km, Ml4.2*
*IDC **05** 08:30:24.4±0.7, 38°.89N×26°.37E, h0km, mb3.8/13, mb1 3.9/18, mb1mx3.8/42, mbtmp3.8/18, ML3.6/5, Error ellipse: s-maj=14.8km s-min=11.9km az=124.0*
*CSEM **05** 08:30:25.8±0.1, 38°.84N×26°.32E, h10km, ML3.9, Error ellipse: s-maj=1.7km s-min=1.6km az=82.0*
*ISCJB **05** 08:30:25.2±0.4, 38°.85N±0°.01×26°.30E±0°.02, h13km±3km, mb3.9/14, Error ellipse: s-maj=2.1km s-min=1.9km az=164.4*
*NEIC **05** 08:30:25.0±0.0, 38°.83N×26°.28E, h5km, ML3.9(ATH), ML4.2(ISK), After ISK.*
*ATH **05** 08:30:25.0, 38°.85N×26°.32E, h28km, ML3.9/10, Error ellipse: s-maj=1.2km s-min=0.6km az=80.0*
*ISK **05** 08:30:25.0, 38°.87N×26°.35E, h8km, ML4.1*
*THE **05** 08:30:26.3, 38°.85N×26°.27E, h13km±1km, ML3.9/7, Error ellipse: s-maj=2.1km s-min=0.8km az=274.0*
**ISC 05 08:30:26.0**±0.9**, 38°.84N**±0°.01×**26°.31E**±0°.02**, h14**km±6km**, n396, σ0s.99**/457**, mb3.8**/14**, 22C-12D, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PRK | Paraskevi | 0.40 | 356 | P | Pg | 08 30 33.3 | -0.8 |
| PRK | | | | S | Sg | 08 30 38.7 | -0.9 |
| PRK | | | | AML | AML | 08 30 41.2 | |
| | comp=N,77679µm,0.5s | | | | | | |
| PRK | | | | AML | AML | 08 30 44.7 | |
| | comp=E,97541µm,0.4s | | | | | | |
| PRK | Paraskevi | 0.40 | 356 | P | Pg | 08 30 33.7 | -0.4 |
| PRK | | | | S | Sg | 08 30 39.6 | 0.0 |
| PRK | Paraskevi | 0.40 | 356 | P | Pg | 08 30 33.7 | -0.4 |
| PRK | | | | S | Sg | 08 30 39.6 | 0.0 |
| CHOS | Chios island | 0.50 | 204 | ePG | Pg | 08 30 35.8 | -0.1 |
| CHOS | Chios island | 0.50 | 204 | P | Pb | 08 30 36.5 | -0.1 |
| CHOS | | | | S | Sb | 08 30 44.0 | +0.2 |
| CHOS | | | | AML | AML | 08 30 47.4 | |
| | comp=E,49504µm,0.5s | | | | | | |
| CHOS | | | | AML | AML | 08 30 48.6 | |
| | comp=N,23767µm,0.3s | | | | | | |
| CHOS | Chios island | 0.50 | 204 | ePg | Pg | 08 30 35.8 | -0.1 |
| CHOS | Chios island | 0.50 | 204 | P | Pb | 08 30 36.5 | -0.1 |
| CHOS | | | | S | Sb | 08 30 43.6 | -0.2 |
| CHOS | Chios island | 0.50 | 204 | P | Pb | 08 30 36.1 | -0.5 |
| CHOS | | | | S | Sb | 08 30 43.6 | -0.2 |
| SIGR | SIGRI | 0.51 | 316 | ePG | Pg | 08 30 36.1 | 0.0 |
| SIGR | SIGRI | 0.51 | 316 | P | Pb | 08 30 36.6 | -0.2 |
| SIGR | | | | S | Sg | 08 30 43.2 | +0.3 |
| SIGR | | | | AML | AML | 08 30 43.9 | |
| | comp=E,31747µm,0.4s | | | | | | |
| SIGR | | | | AML | AML | 08 30 48.6 | |
| | comp=N,28314µm,0.6s | | | | | | |
| SIGR | SIGRI | 0.51 | 316 | ePg | Pg | 08 30 36.1 | 0.0 |
| SIGR | SIGRI | 0.51 | 316 | P | Pb | 08 30 36.6 | -0.2 |
| SIGR | | | | S | Sg | 08 30 43.4 | +0.5 |
| SIGR | SIGRI | 0.51 | 316 | P | Pg | 08 30 36.3 | +0.2 |
| SIGR | | | | S | Sg | 08 30 43.4 | +0.5 |
| DKL | Dikili | 0.52 | 64 | ePG | Pg | 08 30 35.1 | -1.0 |
| DKL | | | | eSG | Sg | 08 30 41.7 | -1.4 |
| DKL | Dikili | 0.52 | 64 | ePg | Pg | 08 30 35.2 | -1.0 |
| DKL | | | | eSg | Sg | 08 30 41.7 | -1.4 |
| URLA | Izmir | 0.53 | 155 | ePG | Pg | 08 30 35.9 | -0.6 |
| URLA | Izmir | 0.53 | 155 | ⇑iP | Pg | 08 30 35.8 | -0.7 |
| URLA | | | | iS | Sg | 08 30 43.0 | -0.5 |
| URLA | Izmir | 0.53 | 155 | ePg | Pg | 08 30 35.9 | -0.6 |
| URLA | | | | S | Sg | 08 30 43.0 | -0.5 |
| ZEY | ˜zmir | 0.62 | 166 | ⇑iP | Pg | 08 30 37.6 | -0.6 |
| ZEY | | | | iS | Sb | 08 30 48.6 | +1.3 |
| DGB | ˜zmir | 0.91 | 150 | ⇑iP | Pg | 08 30 42.3 | -1.3 |
| DGB | | | | iS | Sb | 08 30 55.4 | -0.1 |
| BAYC | CANAKKALE_Bayr | 0.92 | 11 | iP | Pg | 08 30 42.3 | -1.5 |
| BAYC | | | | iS | Sg | 08 30 55.4 | -0.3 |
| BAYC | CANAKKALE_Bayr | 0.92 | 11 | P | Pg | 08 30 42.3 | -1.5 |
| BAYC | | | | S | Sg | 08 30 55.4 | -0.3 |
| EZN | Ezine | 0.98 | 1 | ePG | Pb | 08 30 43.9 | -0.9 |
| EZN | Ezine | 0.98 | 1 | P | Pb | 08 30 43.7 | -1.1 |
| EZN | | | | S | Sg | 08 30 58.0 | +0.2 |
| EZN | Ezine | 0.98 | 1 | P | Pb | 08 30 43.7 | -1.1 |
| EZN | | | | S | Sg | 08 30 58.0 | +0.2 |
| BOZC | Bozcaada | 1.02 | 349 | ePG | Pb | 08 30 44.7 | -0.7 |
| BOZC | Bozcaada | 1.02 | 349 | ⇑iP | Pb | 08 30 44.7 | -0.7 |
| BOZC | | | | iS | Sg | 08 30 59.1 | +0.1 |
| BOZC | Bozcaada | 1.02 | 349 | ePg | Pb | 08 30 44.7 | -0.7 |
| AKHS | Akhisar | 1.17 | 88 | ⇓iP | Pn | 08 30 46.9 | -1.2 |
| AKHS | | | | iS | Sb | 08 31 03.0 | -0.2 |
| AKHS | | | | iS | Sn | 08 31 05.7 | +1.9 |
| AKHS | Akhisar | 1.17 | 88 | P | Pn | 08 30 46.8 | -1.2 |
| AKHS | | | | S | Sb | 08 31 03.0 | -0.2 |
| AKS | Akhisar | 1.17 | 88 | ePN | Pn | 08 30 47.0 | -1.0 |
| AKS | Akhisar | 1.17 | 88 | ePn | Pn | 08 30 47.0 | -1.0 |
| SMG | Samos | 1.21 | 160 | P | Pn | 08 30 47.1 | -1.4 |
| SMG | | | | S | Sg | 08 31 05.4 | +0.5 |
| SMG | | | | AML | AML | 08 31 07.7 | |
| | comp=E,21717µm,0.7s | | | | | | |
| SMG | | | | AML | AML | 08 31 09.0 | |
| | comp=N,25757µm,0.5s | | | | | | |
| SMG | Samos | 1.21 | 160 | P | Pn | 08 30 47.8 | -0.7 |
| SMG | | | | S | Sg | 08 31 05.4 | +0.5 |
| SMG | Samos | 1.21 | 160 | P | Pn | 08 30 47.8 | -0.7 |
| KUSD | Kusadasi-Aydin | 1.25 | 142 | ePN | Pn | 08 30 49.0 | 0.0 |
| KUSD | Kusadasi-Aydin | 1.25 | 142 | ePn | Pn | 08 30 49.0 | 0.0 |
| GCAM | G?zelcaml? | 1.35 | 147 | ePN | Pn | 08 30 50.0 | -0.5 |
| GCAM | G?zelcaml? | 1.35 | 147 | ⇑iP | Pn | 08 30 50.3 | -0.2 |
| GCAM | | | | iS | Sg | 08 31 09.2 | -0.4 |
| GCAM | G?zelcaml? | 1.35 | 147 | ePn | Pn | 08 30 50.0 | -0.5 |
| GCAM | G?zelcaml? | 1.35 | 147 | P | Pn | 08 30 50.3 | -0.2 |
| GCAM | | | | S | Sg | 08 31 09.2 | -0.4 |
| BALY | Balya | 1.35 | 48 | ⇓iP | Pn | 08 30 49.2 | -1.4 |
| BALY | | | | iS | Sb | 08 31 06.9 | -1.5 |
| BALY | | | | iS | Sg | 08 31 09.5 | -0.2 |
| BALY | Balya | 1.35 | 48 | P | Pn | 08 30 49.2 | -1.4 |
| BALY | | | | S | Sg | 08 31 09.5 | -0.2 |
| LIA | Limnos Island | 1.37 | 321 | P | Pn | 08 30 50.5 | -0.2 |
| LIA | | | | S | Sn | 08 31 08.3 | -0.4 |
| LIA | | | | AML | AML | 08 31 10.5 | |
| | comp=E,9408µm,0.8s | | | | | | |
| LIA | | | | AML | AML | 08 31 13.3 | |
| | comp=N,7735µm,0.4s | | | | | | |
| LIA | Limnos Island | 1.37 | 321 | P | Pn | 08 30 50.5 | -0.2 |
| LIA | | | | S | Sn | 08 31 08.3 | -0.4 |
| LIA | Limnos Island | 1.37 | 321 | P | Pn | 08 30 50.4 | -0.3 |
| SKY | Skiros Island | 1.38 | 272 | P | Pn | 08 30 50.0 | -0.8 |
| SKY | Skiros Island | 1.38 | 272 | P | Pn | 08 30 50.0 | -0.8 |
| GADA | Gvkgeada | 1.38 | 347 | ePN | Pn | 08 30 50.3 | -0.6 |
| GADA | Gvkgeada | 1.38 | 347 | ePn | Pn | 08 30 50.3 | -0.6 |
| GADA | | | | S | Sb | 08 31 09.5 | +0.3 |
| GADA | Gvkgeada | 1.38 | 347 | P | Pn | 08 30 50.2 | -0.7 |
| GADA | | | | S | Sb | 08 31 09.5 | +0.3 |
| BALB | Balikesir | 1.46 | 56 | ePN | Pn | 08 30 50.7 | -1.2 |
| BALB | Balikesir | 1.46 | 56 | ePn | Pn | 08 30 50.7 | -1.2 |
| GELI | Tayfur-Gelibol | 1.56 | 5 | ePN | Pn | 08 30 53.4 | +0.1 |
| GELI | Tayfur-Gelibol | 1.56 | 5 | ePn | Pn | 08 30 53.4 | +0.1 |
| LPK | Lapseki | 1.57 | 13 | ePN | Pn | 08 30 53.2 | -0.3 |
| LPK | Lapseki | 1.57 | 13 | ePn | Pn | 08 30 53.2 | -0.3 |
| GONE | Gonen-Balikesi | 1.60 | 41 | ePN | Pn | 08 30 53.2 | -0.8 |
| GONE | Gonen-Balikesi | 1.60 | 41 | ePn | Pn | 08 30 53.2 | -0.8 |
| KARY | Karystos | 1.68 | 242 | P | Pn | 08 30 54.1 | -0.9 |
| KARY | | | | S | Sn | 08 31 13.8 | -2.5 |
| KARY | Karystos | 1.68 | 242 | P | Pn | 08 30 54.1 | -0.9 |
| KARY | | | | S | Sn | 08 31 13.8 | -2.5 |
| AYDN | Tasoluk | 1.71 | 133 | iP | Pn | 08 30 54.7 | -0.7 |
| AYDN | Tasoluk | 1.71 | 133 | P | Pn | 08 30 54.7 | -0.7 |
| KRBG | Karabiga-Canak | 1.73 | 26 | ePN | Pn | 08 30 54.8 | -0.8 |
| KRBG | Karabiga-Canak | 1.73 | 26 | ePn | Pn | 08 30 54.8 | -0.8 |
| SMTH | Samothraki Isl | 1.73 | 340 | P | Pn | 08 30 55.2 | -0.6 |
| SMTH | | | | S | Sn | 08 31 18.2 | +0.5 |
| SMTH | | | | AML | AML | 08 31 22.8 | |
| | comp=N,2371µm,0.2s | | | | | | |
| SMTH | | | | AML | AML | 08 31 24.7 | |
| | comp=E,3312µm,0.4s | | | | | | |
| SMTH | Samothraki Isl | 1.73 | 340 | P | Pn | 08 30 55.2 | -0.6 |
| SMTH | | | | S | Sn | 08 31 18.2 | +0.5 |
| SMTH | Samothraki Isl | 1.73 | 340 | P | Pn | 08 30 54.5 | -1.3 |
| ERIK | Erikli-Kesan | 1.83 | 5 | ePN | Pn | 08 30 57.1 | 0.0 |
| ERIK | Erikli-Kesan | 1.83 | 5 | ePn | Pn | 08 30 57.1 | 0.0 |
| KULA | Kula-Manisa | 1.87 | 99 | ePN | Pn | 08 30 56.7 | -1.0 |
| KULA | Kula-Manisa | 1.87 | 99 | ePn | Pn | 08 30 56.7 | -1.0 |
| APE | Apeiranthos | 1.88 | 199 | ePN | Pn | 08 30 58.3 | +0.6 |
| APE | Apeiranthos | 1.88 | 199 | ⇑iP | Pn | 08 30 57.0 | -0.7 |
| APE | Apeiranthos | 1.88 | 199 | P | Pn | 08 30 56.9 | -0.9 |
| APE | | | | S | Sn | 08 31 20.3 | -0.9 |
| APE | | | | AML | AML | 08 31 30.9 | |
| | comp=E,1920µm,0.4s | | | | | | |
| APE | | | | AML | AML | 08 31 32.7 | |
| | comp=N,2324µm,0.5s | | | | | | |
| APE | Apeiranthos | 1.88 | 199 | P | Pn | 08 30 57.0 | -0.7 |
| APE | Apeiranthos | 1.88 | 199 | ePn | Pn | 08 30 58.3 | +0.6 |
| APE | | | | S | Sn | 08 31 20.3 | -0.9 |
| APE | Apeiranthos | 1.88 | 199 | P | Pn | 08 30 57.0 | -0.7 |
| DEMI | Demirci | 1.89 | 83 | iP | Pn | 08 30 57.2 | -0.7 |
| DEMI | | | | iS | Sb | 08 31 22.8 | -1.0 |
| DEMI | Demirci | 1.89 | 83 | P | Pn | 08 30 57.2 | -0.7 |
| DEMI | | | | S | Sb | 08 31 22.8 | -1.0 |
| ENEZ | Enez | 1.90 | 356 | ePN | Pn | 08 30 58.1 | +0.1 |
| ENEZ | Enez | 1.90 | 356 | P | Pn | 08 30 58.1 | +0.1 |
| ENEZ | | | | S | Sn | 08 31 22.8 | +1.2 |
| ENEZ | Enez | 1.90 | 356 | P | Pn | 08 30 58.1 | +0.1 |
| ENEZ | | | | S | Sn | 08 31 22.8 | +1.2 |
| EDC | Edincik | 1.92 | 38 | ePN | Pn | 08 30 57.7 | -0.6 |
| EDC | Edincik | 1.92 | 38 | ePn | Pn | 08 30 57.7 | -0.6 |
| BODT | Bodrum | 1.95 | 156 | ePN | Pn | 08 30 59.1 | +0.4 |
| BODT | Bodrum | 1.95 | 156 | P | Pn | 08 30 58.0 | -0.7 |
| BODT | Bodrum | 1.95 | 156 | ePn | Pn | 08 30 59.1 | +0.4 |
| BODT | Bodrum | 1.95 | 156 | P | Pn | 08 30 58.0 | -0.7 |
| DST | Dursunbey | 1.95 | 66 | ePN | Pn | 08 30 58.5 | -0.2 |
| DST | Dursunbey | 1.95 | 66 | ePn | Pn | 08 30 58.5 | -0.2 |
| RKY | Sarkoy-Tekirda | 1.96 | 20 | ePN | Pn | 08 30 59.1 | +0.2 |
| RKY | Sarkoy-Tekirda | 1.96 | 20 | ePn | Pn | 08 30 59.1 | +0.2 |
| SART | Tekirdag | 1.96 | 20 | iP | Pn | 08 31 00.0 | +1.1 |
| SART | Tekirdag | 1.96 | 20 | P | Pn | 08 31 00.0 | +1.1 |
| KESN | Edirne-Kesan | 2.00 | 8 | iP | Pn | 08 30 59.1 | -0.7 |
| KESN | Edirne-Kesan | 2.00 | 8 | P | Pn | 08 30 59.1 | -0.7 |
| ALN | Alexandroupoli | 2.06 | 354 | ePN | Pn | 08 31 00.6 | +0.3 |
| ALN | Alexandroupoli | 2.06 | 354 | P | Pn | 08 31 00.9 | +0.7 |
| ALN | | | | S | Sn | 08 31 25.8 | +0.1 |
| ALN | | | | AML | AML | 08 31 31.7 | |
| | comp=N,4551µm,0.5s | | | | | | |
| ALN | | | | AML | AML | 08 31 33.0 | |
| | comp=E,2394µm,0.6s | | | | | | |
| ALN | Alexandroupoli | 2.06 | 354 | ePn | Pn | 08 31 00.6 | +0.3 |
| ALN | Alexandroupoli | 2.06 | 354 | P | Pn | 08 31 00.9 | +0.7 |
| ALN | | | | S | Sn | 08 31 25.8 | +0.1 |
| ALN | Alexandroupoli | 2.06 | 354 | P | Pn | 08 31 00.0 | -0.2 |
| ALN | | | | S | Sn | 08 31 24.4 | -1.4 |
| PTL | Penteli | 2.08 | 248 | P | Pn | 08 31 00.1 | -0.4 |
| PTL | Penteli | 2.08 | 248 | P | Pn | 08 31 00.1 | -0.4 |
| SIMA | Simav-Kutahya | 2.10 | 83 | ePN | Pn | 08 31 01.0 | +0.2 |
| SIMA | Simav-Kutahya | 2.10 | 83 | ePn | Pn | 08 31 01.0 | +0.2 |
| KCTX | Karacabey (Bur | 2.12 | 47 | ePN | Pn | 08 31 00.1 | -1.0 |
| KCTX | Karacabey (Bur | 2.12 | 47 | ePn | Pn | 08 31 00.1 | -1.0 |
| VLY | Voula,Athens | 2.21 | 244 | P | Pn | 08 31 01.6 | -0.7 |
| VLY | Voula,Athens | 2.21 | 244 | P | Pn | 08 31 01.6 | -0.7 |
| ATH | Athens Observa | 2.22 | 248 | P | Pn | 08 31 01.6 | -0.8 |
| ATH | Athens Observa | 2.22 | 248 | P | Pn | 08 31 01.6 | -0.8 |
| PAIG | Paliouri | 2.31 | 299 | P | Pn | 08 31 02.3 | -1.3 |
| PAIG | Paliouri | 2.31 | 299 | P | Pn | 08 31 02.3 | -1.3 |
| NISR | Nisiros | 2.32 | 164 | P | Pn | 08 31 04.5 | +0.7 |
| NISR | Nisiros | 2.32 | 164 | P | Pn | 08 31 04.5 | +0.7 |
| ORLT | Orhaneli | 2.33 | 58 | ePN | Pn | 08 31 03.9 | -0.1 |
| ORLT | Orhaneli | 2.33 | 58 | ePn | Pn | 08 31 03.9 | -0.1 |
| OUR | Ouranopolis | 2.34 | 310 | ePN | Pn | 08 31 04.9 | +0.9 |
| OUR | Ouranopolis | 2.34 | 310 | P | Pn | 08 31 04.3 | +0.3 |
| OUR | Ouranopolis | 2.34 | 310 | P | Pn | 08 31 04.3 | +0.3 |
| OUR | Ouranopolis | 2.34 | 310 | ePn | Pn | 08 31 04.9 | +0.9 |
| OUR | Ouranopolis | 2.34 | 310 | P | Pn | 08 31 04.0 | 0.0 |
| NIS1 | Nisyros Isl. | 2.34 | 163 | ePN | Pn | 08 31 05.0 | +0.9 |
| NIS1 | Nisyros Isl. | 2.34 | 163 | P | Pn | 08 31 03.6 | -0.5 |
| NIS1 | Nisyros Isl. | 2.34 | 163 | P | Pn | 08 31 03.6 | -0.5 |
| NIS1 | Nisyros Isl. | 2.34 | 163 | ePn | Pn | 08 31 05.0 | +0.9 |
| RDO | Rodhopi | 2.38 | 346 | P | Pn | 08 31 05.0 | +0.4 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| RDO | Rodhopi | 2.38 | 346 | P | Pn | 08 31 05.0 | +0.4 |
| RDO | Rodhopi | 2.38 | 346 | P | Pn | 08 31 04.5 | -0.1 |
| DENT | Denizli | 2.40 | 116 | ePN | Pn | 08 31 05.5 | +0.6 |
| DENT | Denizli | 2.40 | 116 | ePn | Pn | 08 31 05.5 | +0.6 |
| SBT3 | Marmara-Eregli | 2.41 | 32 | ePN | Pn | 08 31 05.4 | +0.6 |
| SBT3 | Marmara-Eregli | 2.41 | 32 | ePn | Pn | 08 31 05.4 | +0.6 |
| NEO | Neokhori | 2.45 | 282 | P | Pn | 08 31 04.9 | -0.7 |
| NEO | Neokhori | 2.45 | 282 | P | Pn | 08 31 04.9 | -0.7 |
| CMBO | Columbo, Santo | 2.48 | 197 | P | Pn | 08 31 05.0 | -0.8 |
| CMBO | Columbo, Santo | 2.48 | 197 | P | Pn | 08 31 05.1 | -0.8 |
| XOR | Xorichti | 2.48 | 283 | P | Pn | 08 31 05.3 | -0.8 |
| XOR | Xorichti | 2.48 | 283 | P | Pn | 08 31 05.7 | -0.4 |
| XOR | Xorichti | 2.48 | 283 | P | Pn | 08 31 05.7 | -0.4 |
| MDNY | Mudanya-Bursa | 2.50 | 52 | ePN | Pn | 08 31 06.9 | +0.6 |
| MDNY | Mudanya-Bursa | 2.50 | 52 | ePn | Pn | 08 31 06.9 | +0.6 |
| TVSB | Tavsanli | 2.52 | 75 | ePN | Pn | 08 31 07.1 | +0.4 |
| TVSB | Tavsanli | 2.52 | 75 | ePn | Pn | 08 31 07.1 | +0.4 |
| CRLT | Corlu | 2.53 | 25 | ePN | Pn | 08 31 07.1 | +0.4 |
| CRLT | Corlu | 2.53 | 25 | ePn | Pn | 08 31 07.1 | +0.4 |
| KAVA | Kavala | 2.56 | 328 | P | Pn | 08 31 06.4 | -0.7 |
| KAVA | | | | S | Sn | 08 31 38.5 | +0.5 |
| KAVA | | | | AML | AML | 08 31 50.2 | |
| | comp=N,1118µm,0.3s | | | | | | |
| KAVA | | | | AML | AML | 08 31 52.8 | |
| | comp=E,519µm,0.5s | | | | | | |
| KAVA | Kavala | 2.56 | 328 | P | Pn | 08 31 06.8 | -0.3 |
| KAVA | | | | S | Sn | 08 31 38.5 | +0.5 |
| KAVA | Kavala | 2.56 | 328 | P | Pn | 08 31 06.8 | -0.3 |
| KAVA | | | | S | Sn | 08 31 35.2 | -2.8 |
| SANT | Santorini | 2.56 | 196 | P | Pn | 08 31 07.8 | +0.7 |
| SANT | Santorini | 2.56 | 196 | ePn | Pn | 08 31 06.3 | -0.8 |
| SANT | Santorini | 2.56 | 196 | P | Pn | 08 31 07.8 | +0.7 |
| SANT | Santorini | 2.56 | 196 | ePn | Pn | 08 31 06.3 | -0.8 |
| MHLA | Plaka, Milos I | 2.58 | 216 | P | Pn | 08 31 09.0 | +1.7 |
| MHLA | Plaka, Milos I | 2.58 | 216 | P | Pn | 08 31 09.0 | +1.7 |
| MRSB | Marmaris-Mugla | 2.60 | 144 | ePN | Pn | 08 31 08.8 | +1.2 |
| MRSB | Marmaris-Mugla | 2.60 | 144 | ePn | Pn | 08 31 08.8 | +1.2 |
| LKR | Lokris | 2.60 | 267 | P | Pn | 08 31 07.1 | -0.5 |
| LKR | Lokris | 2.60 | 267 | P | Pn | 08 31 07.1 | -0.5 |
| ARMT | Armutlu | 2.61 | 48 | ePN | Pn | 08 31 08.5 | +0.6 |
| ARMT | Armutlu | 2.61 | 48 | ePn | Pn | 08 31 08.5 | +0.6 |
| MHLO | Agia Marina, M | 2.63 | 216 | P | Pn | 08 31 06.6 | -1.4 |
| MHLO | Agia Marina, M | 2.63 | 216 | P | Pn | 08 31 06.6 | -1.4 |
| SBT2 | Guzelce-Avcila | 2.65 | 39 | ePN | Pn | 08 31 09.2 | +1.0 |
| SBT2 | Guzelce-Avcila | 2.65 | 39 | ePn | Pn | 08 31 09.2 | +1.0 |
| SBT5 | Esenkoy-Cinarc | 2.67 | 47 | ePN | Pn | 08 31 09.5 | +1.0 |
| SBT5 | Esenkoy-Cinarc | 2.67 | 47 | ePn | Pn | 08 31 09.5 | +1.0 |
| TURN | Turunc | 2.67 | 137 | ePN | Pn | 08 31 08.3 | -0.4 |
| TURN | Turunc | 2.67 | 137 | ePn | Pn | 08 31 08.3 | -0.4 |
| PLG | Polygyros | 2.69 | 306 | P | Pn | 08 31 09.0 | +0.1 |
| PLG | Polygyros | 2.69 | 306 | P | Pn | 08 31 09.0 | +0.1 |
| GEMT | Gemlik | 2.73 | 54 | ePN | Pn | 08 31 09.9 | +0.5 |
| GEMT | Gemlik | 2.73 | 54 | ePn | Pn | 08 31 09.9 | +0.5 |
| DALY | Dalyan (Mu˜la | 2.74 | 137 | ePN | Pn | 08 31 11.2 | +1.6 |
| DALY | Dalyan (Mu˜la | 2.74 | 137 | ePn | Pn | 08 31 11.2 | +1.6 |
| LTK | Loutraki | 2.75 | 254 | P | Pn | 08 31 10.0 | +0.2 |
| LTK | | | | S | Sn | 08 31 41.8 | -1.0 |
| LTK | | | | AML | AML | 08 32 05.9 | |
| | comp=N,804µm,0.9s | | | | | | |
| LTK | | | | AML | AML | 08 32 07.2 | |
| | comp=E,1354µm,0.6s | | | | | | |
| LTK | Loutraki | 2.75 | 254 | P | Pn | 08 31 10.0 | +0.2 |
| LTK | | | | S | Sn | 08 31 41.8 | -1.0 |
| DID | Didima | 2.77 | 242 | P | Pn | 08 31 09.0 | -1.0 |
| DID | Didima | 2.77 | 242 | P | Pn | 08 31 09.0 | -1.0 |
| SLVT | Silivri | 2.79 | 31 | ePN | Pn | 08 31 10.2 | 0.0 |
| SLVT | Silivri | 2.79 | 31 | ePn | Pn | 08 31 10.3 | 0.0 |
| YLV | Yalova | 2.92 | 53 | ePN | Pn | 08 31 12.7 | +0.5 |
| YLV | Yalova | 2.92 | 53 | ePn | Pn | 08 31 12.7 | +0.5 |
| CTKS | Kestanelik-??a | 2.92 | 34 | ePN | Pn | 08 31 12.7 | +0.6 |
| CTKS | Kestanelik-??a | 2.92 | 34 | ePn | Pn | 08 31 12.7 | +0.6 |
| PHSR | Pinarhisar | 2.94 | 18 | ePN | Pn | 08 31 13.3 | +1.1 |
| PHSR | Pinarhisar | 2.94 | 18 | ePn | Pn | 08 31 13.3 | +1.1 |
| BUY | Buyukada | 2.95 | 46 | ePN | Pn | 08 31 13.3 | +0.9 |
| BUY | Buyukada | 2.95 | 46 | ePn | Pn | 08 31 13.3 | +0.9 |
| ARG | Arkhangelos | 2.99 | 151 | P | Pn | 08 31 12.0 | -1.1 |
| ARG | Arkhangelos | 2.99 | 151 | P | Pn | 08 31 12.0 | -1.1 |
| DSF | Desfina | 3.00 | 263 | P | Pn | 08 31 12.6 | -0.5 |
| DSF | Desfina | 3.00 | 263 | P | Pn | 08 31 12.6 | -0.5 |
| SOH | Sokhos | 3.02 | 312 | P | Pn | 08 31 14.3 | +0.9 |
| SOH | Sokhos | 3.02 | 312 | P | Pn | 08 31 14.3 | +0.9 |
| EDRB | Edirne | 3.02 | 6 | ePN | Pn | 08 31 13.9 | +0.5 |
| EDRB | Edirne | 3.02 | 6 | ePn | Pn | 08 31 13.9 | +0.5 |
| CTYL | Yalikoy Yolu | 3.03 | 29 | ePN | Pn | 08 31 14.4 | +0.8 |
| CTYL | Yalikoy Yolu | 3.03 | 29 | ePn | Pn | 08 31 14.4 | +0.8 |
| HORT | Hortiatis | 3.03 | 306 | ePN | Pn | 08 31 14.7 | +1.0 |
| HORT | Hortiatis | 3.03 | 306 | P | Pn | 08 31 14.6 | +1.0 |
| HORT | Hortiatis | 3.03 | 306 | P | Pn | 08 31 14.6 | +0.9 |
| CAVI | Cavuskoy | 3.05 | 62 | ePN | Pn | 08 31 14.4 | +0.5 |
| CAVI | Cavuskoy | 3.05 | 62 | ePn | Pn | 08 31 14.4 | +0.5 |
| KAVV | Kandilli-Istan | 3.06 | 43 | ePN | Pn | 08 31 14.5 | +0.5 |
| KAVV | Kandilli-Istan | 3.06 | 43 | ePn | Pn | 08 31 14.5 | +0.5 |
| ISK | Istanbul-Kandi | 3.06 | 43 | ePN | Pn | 08 31 14.9 | +0.9 |
| ISK | Istanbul-Kandi | 3.06 | 43 | ePn | Pn | 08 31 14.9 | +0.9 |
| ADVT | Abdulvahap | 3.09 | 58 | ePN | Pn | 08 31 14.9 | +0.6 |
| ADVT | Abdulvahap | 3.09 | 58 | ePn | Pn | 08 31 14.9 | +0.6 |
| SRS | Serrai | 3.09 | 318 | P | Pn | 08 31 14.4 | 0.0 |
| SRS | Serrai | 3.09 | 318 | P | Pn | 08 31 14.4 | 0.0 |
| AGG | Agios Georgios | 3.11 | 275 | ePN | Pn | 08 31 16.2 | +1.5 |
| AGG | Agios Georgios | 3.11 | 275 | P | Pn | 08 31 15.2 | +0.5 |
| AGG | Agios Georgios | 3.11 | 275 | P | Pn | 08 31 15.2 | +0.5 |
| AGG | | | | eSn | Sn | 08 31 47.5 | -4.2 |
| AGG | Agios Georgios | 3.11 | 275 | ePn | Pn | 08 31 15.4 | +0.7 |
| AGG | | | | eSn | Sn | 08 31 47.5 | -4.2 |
| FETY | Fethiye | 3.11 | 134 | ePN | Pn | 08 31 15.2 | +0.5 |
| FETY | Fethiye | 3.11 | 134 | ePn | Pn | 08 31 15.2 | +0.5 |
| NVR | Nevrokopi | 3.13 | 324 | P | Pn | 08 31 15.1 | +0.1 |
| NVR | Nevrokopi | 3.13 | 324 | P | Pn | 08 31 15.1 | +0.1 |
| THE | Thessaloniki | 3.14 | 306 | P | Pn | 08 31 15.8 | +0.8 |
| THE | Thessaloniki | 3.14 | 306 | P | Pn | 08 31 15.8 | +0.8 |
| KLYT | Kilyos | 3.19 | 40 | ePN | Pn | 08 31 15.9 | +0.2 |
| KLYT | Kilyos | 3.19 | 40 | ePn | Pn | 08 31 15.9 | +0.2 |
| LIT | Litokhoron | 3.21 | 294 | P | Pn | 08 31 17.4 | +1.3 |
| LIT | Litokhoron | 3.21 | 294 | P | Pn | 08 31 17.4 | +1.3 |
| GUR | Goura | 3.25 | 255 | P | Pn | 08 31 16.9 | +0.2 |
| GUR | Goura | 3.25 | 255 | P | Pn | 08 31 16.9 | +0.2 |
| HRT | Hereke | 3.25 | 52 | ePN | Pn | 08 31 17.8 | +1.1 |
| HRT | Hereke | 3.25 | 52 | ePn | Pn | 08 31 17.8 | +1.1 |
| SHUT | Suhut-Afyon | 3.33 | 94 | ePN | Pn | 08 31 17.8 | 0.0 |
| SHUT | Suhut-Afyon | 3.33 | 94 | ePn | Pn | 08 31 17.8 | 0.0 |
| KARP | Karpathos | 3.36 | 168 | ePN | Pn | 08 31 19.9 | +1.8 |
| KARP | Karpathos | 3.36 | 168 | ePn | Pn | 08 31 17.9 | -0.3 |
| KARP | Karpathos | 3.36 | 168 | ePn | Pn | 08 31 17.9 | -0.3 |
| SERG | Sergoula | 3.36 | 264 | P | Pn | 08 31 18.7 | +0.6 |
| SERG | Sergoula | 3.36 | 264 | P | Pn | 08 31 18.7 | +0.6 |
| KLV | Kalavryta, Ach | 3.36 | 258 | P | Pn | 08 31 18.0 | -0.2 |
| KLV | Kalavryta, Ach | 3.36 | 258 | P | Pn | 08 31 18.0 | -0.2 |
| VLI | Veliai | 3.41 | 233 | P | Pn | 08 31 18.1 | -0.7 |
| VLI | Veliai | 3.41 | 233 | P | Pn | 08 31 18.1 | -0.7 |
| THL | Klokotos Trika | 3.42 | 284 | P | Pn | 08 31 20.1 | +1.3 |
| THL | Klokotos Trika | 3.42 | 284 | P | Pn | 08 31 20.1 | +1.3 |
| ANX | Ano Chora | 3.44 | 267 | P | Pn | 08 31 20.4 | +1.0 |
| ANX | Ano Chora | 3.44 | 267 | P | Pn | 08 31 20.4 | +1.0 |
| SILT | Sile | 3.44 | 47 | ePN | Pn | 08 31 20.3 | +1.0 |
| SILT | Sile | 3.44 | 47 | ePn | Pn | 08 31 20.3 | +1.0 |
| EFP | Efpalio | 3.48 | 265 | P | Pn | 08 31 20.5 | +0.8 |
| EFP | Efpalio | 3.48 | 265 | P | Pn | 08 31 20.5 | +0.8 |
| KNT | Kendrikon | 3.50 | 313 | P | Pn | 08 31 20.8 | +0.8 |
| KNT | Kendrikon | 3.50 | 313 | P | Pn | 08 31 20.8 | +0.8 |
| ELL | Elmali | 3.53 | 125 | ePN | Pn | 08 31 21.7 | +1.1 |
| ELL | Elmali | 3.53 | 125 | ePn | Pn | 08 31 21.7 | +1.1 |
| SPNC | Sapanca-Adapaz | 3.59 | 58 | ePN | Pn | 08 31 22.3 | +1.1 |
| SPNC | Sapanca-Adapaz | 3.59 | 58 | ePn | Pn | 08 31 22.3 | +1.1 |
| GULT | Gulveren | 3.61 | 63 | ePN | Pn | 08 31 23.4 | +1.7 |
| GULT | Gulveren | 3.61 | 63 | ePn | Pn | 08 31 23.4 | +1.7 |
| BOLV | Bolvadin | 3.63 | 91 | ePn | Pn | 08 31 22.2 | +0.3 |
| BOLV | | | | eSn | Sn | 08 32 00.8 | -3.8 |
| BOLV | Bolvadin | 3.63 | 91 | ePn | Pn | 08 31 22.2 | +0.3 |
| BOLV | | | | eSn | Sn | 08 32 00.8 | -3.8 |
| KYTH | Kithira | 3.65 | 226 | P | Pn | 08 31 21.9 | -0.2 |
| KYTH | Kithira | 3.65 | 226 | P | Pn | 08 31 22.0 | -0.2 |
| GRG | Griva | 3.67 | 306 | P | Pn | 08 31 23.4 | +1.0 |
| GRG | Griva | 3.67 | 306 | P | Pn | 08 31 23.4 | +1.0 |
| KORT | Korkueli | 3.69 | 119 | ePN | Pn | 08 31 23.7 | +1.0 |
| KORT | Korkueli | 3.69 | 119 | ePn | Pn | 08 31 23.7 | +1.0 |
| AKAS | Kas | 3.69 | 134 | ePN | Pn | 08 31 24.3 | +1.5 |
| AKAS | Kas | 3.69 | 134 | ePn | Pn | 08 31 23.9 | +1.1 |
| AKAS | Kas | 3.69 | 134 | ePn | Pn | 08 31 23.9 | +1.1 |
| ZKR | Zakros | 3.72 | 181 | P | Pn | 08 31 23.9 | +0.8 |
| ZKR | Zakros | 3.72 | 181 | P | Pn | 08 31 23.9 | +0.8 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| DRO | Drossia | 3.72 | 258 | P | Pn | 08 31 25.1 | +1.9 |
| DRO | Drossia | 3.72 | 258 | P | Pn | 08 31 25.0 | +1.9 |
| IDI | Anoyia | 3.73 | 198 | Pn | Pn | 08 31 25.4 | +2.1 |
| | comp=E,2.0nm,0.3s,baz=24,slow=12,SNR=2.1 | | | | | | |
| IDI | | | | Lg | Lg | 08 32 26.4 | |
| | comp=E,5.2nm,0.3s,baz=315,slow=18,SNR=2.5 | | | | | | |
| KSL | Kastellorizon | 3.74 | 135 | P | Pn | 08 31 25.4 | +2.1 |
| VAY | Valandovo | 3.79 | 312 | i Pn | Pn | 08 31 25.3 | +1.3 |
| ANKY | Antikythira Is | 3.82 | 220 | P | Pn | 08 31 25.5 | +1.1 |
| ANKY | Antikythira Is | 3.82 | 220 | P | Pn | 08 31 25.5 | +1.1 |
| ITM | Ithomi | 3.84 | 246 | P | Pn | 08 31 26.4 | +1.7 |
| ITM | Ithomi | 3.84 | 246 | P | Pn | 08 31 26.4 | +1.7 |
| AMT | Artemida-Makis | 3.85 | 252 | P | Pn | 08 31 25.1 | +0.2 |
| AMT | Artemida-Makis | 3.85 | 252 | P | Pn | 08 31 25.1 | +0.2 |
| AXS | Araxos | 3.92 | 262 | P | Pn | 08 31 27.7 | +1.8 |
| AXS | Araxos | 3.92 | 262 | P | Pn | 08 31 27.7 | +1.8 |
| SUTC | Sutluce-Ispart | 3.94 | 109 | ePN | Pn | 08 31 27.5 | +1.3 |
| SUTC | Sutluce-Ispart | 3.94 | 109 | ePn | Pn | 08 31 27.5 | +1.3 |
| PDO | Prodromos | 4.02 | 268 | P | Pn | 08 31 27.5 | +0.4 |
| PDO | Prodromos | 4.02 | 268 | P | Pn | 08 31 27.5 | +0.4 |
| DSL | Palaion Diasel | 4.07 | 276 | P | Pn | 08 31 29.3 | +1.4 |
| DSL | Palaion Diasel | 4.07 | 276 | P | Pn | 08 31 29.3 | +1.4 |
| SVRH | Sivrihisar-ESK | 4.10 | 80 | ePN | Pn | 08 31 29.6 | +1.3 |
| SVRH | Sivrihisar-ESK | 4.10 | 80 | ePn | Pn | 08 31 29.6 | +1.3 |
| PYL | PYLOS | 4.11 | 243 | P | Pn | 08 31 28.3 | -0.1 |
| PYL | PYLOS | 4.11 | 243 | P | Pn | 08 31 28.3 | -0.1 |
| MDUB | Mudurnu | 4.11 | 65 | ePN | Pn | 08 31 29.7 | +1.2 |
| MDUB | Mudurnu | 4.11 | 65 | ePn | Pn | 08 31 29.7 | +1.2 |
| MES2 | Methoni | 4.17 | 242 | P | Pn | 08 31 30.4 | +1.3 |
| MES2 | Methoni | 4.17 | 242 | P | Pn | 08 31 30.4 | +1.3 |
| PENT | Pentalofos | 4.22 | 290 | P | Pn | 08 31 30.0 | -0.1 |
| PENT | Pentalofos | 4.22 | 290 | P | Pn | 08 31 30.0 | -0.1 |
| FNA | Florina | 4.27 | 299 | P | Pn | 08 31 30.0 | -0.6 |
| FNA | Florina | 4.27 | 299 | P | Pn | 08 31 30.0 | -0.6 |
| NEST | Nestorio | 4.36 | 293 | P | Pn | 08 31 32.5 | +0.6 |
| NEST | Nestorio | 4.36 | 293 | P | Pn | 08 31 32.5 | +0.6 |
| VTS | Vitosha | 4.42 | 329 | ePn | Pn | 08 31 33.6 | +0.7 |
| VTS | | | | eSn | Sn | 08 32 23.0 | -1.3 |
| VTS | Vitosha | 4.42 | 329 | ePn | Pn | 08 31 33.6 | +0.7 |
| VTS | | | | eSn | Sn | 08 32 22.9 | -1.3 |
| KRUS | Krusevo | 4.63 | 305 | i Pn | Pn | 08 31 37.0 | +1.4 |
| SGD | Sagiada | 4.78 | 281 | P | Pn | 08 31 38.6 | +1.0 |
| SGD | Sagiada | 4.78 | 281 | P | Pn | 08 31 38.6 | +1.0 |
| SKO | Skopje | 4.86 | 312 | i Pn | Pn | 08 31 40.3 | +1.6 |
| BARS | Barje | 5.23 | 321 | ePn | Pn | 08 31 44.9 | +1.1 |
| ICOR | Ion Corvin | 5.39 | 12 | ⇑iP | Pn | 08 31 46.0 | +0.1 |
| ICOR | Ion Corvin | 5.39 | 12 | ⇑iP | Pn | 08 31 46.0 | +0.1 |
| TIR | Tirane | 5.54 | 299 | ePn | Pn | 08 31 48.3 | +0.3 |
| TIR | Tirane | 5.54 | 299 | ePn | Pn | 08 31 48.4 | +0.3 |
| BR101 | Keskin Array S | 5.75 | 79 | ePn | Pn | 08 31 51.5 | +0.4 |
| BR101 | Keskin Array S | 5.75 | 79 | ePn | Pn | 08 31 51.5 | +0.4 |
| BR101 | | | | ePg | Pb | 08 32 10.1 | +3.9 |
| BR131 | Keskin Array S | 5.75 | 79 | ePn | Pn | 08 31 51.4 | +0.3 |
| BR131 | Keskin Array S | 5.75 | 79 | ePn | Pn | 08 31 51.4 | +0.3 |
| BRTR | Keskin Array B | 5.75 | 79 | Pn | Pn | 08 31 51.5 | +0.4 |
| | comp=E,1.0nm,0.3s,baz=254,slow=14,SNR=27 | | | | | | |
| BRTR | | | | Pg | Pb | 08 32 10.1 | +3.9 |
| | comp=E,0.8nm,0.3s,baz=251,slow=12,SNR=6.3 | | | | | | |
| TIRR | Tirgusor | 5.83 | 15 | ⇑iP | Pn | 08 31 51.7 | -0.3 |
| TIRR | Tirgusor | 5.83 | 15 | ⇑iP | Pn | 08 31 51.7 | -0.3 |
| TIRR | Tirgusor | 5.83 | 15 | ePn | Pn | 08 31 51.5 | -0.5 |
| TIRR | | | | eSn | Sn | 08 32 55.5 | -3.0 |
| ZAGS | Zajecar | 5.84 | 330 | ePn | Pn | 08 31 52.2 | +0.1 |
| BOVS | Bovan | 5.91 | 326 | ePn | Pn | 08 31 53.9 | +0.7 |
| HARR | Harsova | 5.97 | 11 | ⇑iP | Pn | 08 31 54.1 | +0.2 |
| HARR | Harsova | 5.97 | 11 | ⇑iP | Pn | 08 31 54.1 | +0.2 |
| CFR | Carcaliu | 6.47 | 12 | ⇓iP | Pn | 08 32 00.6 | -0.2 |
| CFR | Carcaliu | 6.47 | 12 | ⇓iP | Pn | 08 32 00.6 | -0.2 |
| GRUS | Gruza | 6.57 | 322 | ePn | Pn | 08 32 02.9 | +0.8 |
| IVAS | Ivanjica | 6.63 | 317 | ePn | Pn | 08 32 03.6 | +0.6 |
| ARR | Arges | 6.64 | 350 | ⇓iP | Pn | 08 32 04.4 | +1.2 |
| ARR | Arges | 6.64 | 350 | ⇓iP | Pn | 08 32 04.4 | +1.2 |
| MLR | Muntele Rosu | 6.65 | 358 | Pn | Pn | 08 32 04.9 | +1.5 |
| | comp=E,0.4nm,0.3s,baz=195,slow=5.9,SNR=15 | | | | | | |
| MLR | Muntele Rosu | 6.65 | 358 | ⇓iP | Pn | 08 32 04.7 | +1.3 |
| MLR | Muntele Rosu | 6.65 | 358 | ePn | Pn | 08 32 04.3 | +0.9 |
| MLR | Muntele Rosu | 6.65 | 358 | ⇓iP | Pn | 08 32 04.7 | +1.3 |
| MLR | Muntele Rosu | 6.65 | 358 | ePn | Pn | 08 32 04.3 | +0.9 |
| VOIR | | 6.66 | 352 | ⇑iP | Pn | 08 32 03.8 | +0.4 |
| VOIR | | 6.66 | 352 | ⇑iP | Pn | 08 32 03.8 | +0.4 |
| CSS | Mathiatis | 6.83 | 122 | ePn | Pn | 08 32 06.0 | +0.2 |
| CSS | Mathiatis | 6.83 | 122 | ePn | Pn | 08 32 06.0 | +0.2 |
| MDVR | Moldovita | 6.86 | 331 | ⇑iP | Pn | 08 32 06.5 | +0.3 |
| MDVR | Moldovita | 6.86 | 331 | ⇑iP | Pn | 08 32 06.5 | +0.3 |
| TRUS | Trudelj | 6.96 | 322 | ePn | Pn | 08 32 10.4 | +2.8 |
| VRI | Vrincioaia | 7.03 | 2 | ⇓iP | Pn | 08 32 09.9 | +1.4 |
| VRI | Vrincioaia | 7.03 | 2 | ⇓iP | Pn | 08 32 09.9 | +1.4 |
| DIVS | Divibare | 7.08 | 320 | ePn | Pn | 08 32 10.2 | +1.0 |
| DIVS | Divibare | 7.08 | 320 | ePn | Pn | 08 32 10.2 | +1.0 |
| DOPR | Dopca | 7.15 | 355 | ⇑iP | Pn | 08 32 11.4 | +1.2 |
| DOPR | Dopca | 7.15 | 355 | ⇑iP | Pn | 08 32 11.4 | +1.2 |
| BZS | Buzias | 7.61 | 334 | ⇑iP | Pn | 08 32 16.4 | -0.1 |
| BZS | Buzias | 7.61 | 334 | ⇑iP | Pn | 08 32 16.4 | -0.1 |
| TEKS | Tekeris | 7.63 | 321 | ePn | Pn | 08 32 17.4 | +0.6 |
| TESR | Tescani | 7.67 | 2 | ⇓iP | Pn | 08 32 18.0 | +0.7 |
| TESR | Tescani | 7.67 | 2 | ⇓iP | Pn | 08 32 18.0 | +0.7 |
| DRGR | | 8.37 | 343 | ⇑iP | Pn | 08 32 28.2 | +1.2 |
| DRGR | | 8.37 | 343 | ⇑iP | Pn | 08 32 28.2 | +1.2 |
| BUR04 | Bucovina Ar. S | 8.81 | 355 | ePn | Pn | 08 32 35.0 | +2.0 |
| BUR04 | Bucovina Ar. S | 8.81 | 355 | ePn | Pn | 08 32 35.0 | +2.0 |
| BUR08 | Bucovina Ar. S | 8.83 | 355 | ePn | Pn | 08 32 34.8 | +1.5 |
| BUR08 | Bucovina Ar. S | 8.83 | 355 | ePn | Pn | 08 32 34.8 | +1.5 |
| MMAI | Mount Meron Ar | 9.39 | 126 | Pn | Pn | 08 32 41.2 | +0.3 |
| | comp=E,1.4nm,0.3s,baz=293,slow=13,SNR=4.0 | | | | | | |
| VYHS | Vyhne | 11.05 | 333 | ePn | Pn | 08 33 05.1 | +1.4 |
| VYHS | Vyhne | 11.05 | 333 | ePN | Pn | 08 33 05.1 | +1.4 |
| AKASG | Malin Array Be | 12.04 | 9 | Pn | Pn | 08 33 16.0 | -1.0 |
| | comp=E,0.7nm,0.3s,baz=199,slow=10,SNR=2.8 | | | | | | |
| FIA0 | FINESS Array S | 22.63 | 360 | eP | P | 08 35 26.2 | 0.0 |
| FIA0 | FINESS Array S | 22.63 | 360 | eP | P | 08 35 26.2 | 0.0 |
| FINES | FINESS Array B | 22.63 | 360 | P | P | 08 35 26.2 | 0.0 |
| | comp=E,2.8nm,0.9s,baz=164,slow=16,SNR=2.7 | | | | | | |
| HFS | Hagfors | 22.75 | 344 | P | P | 08 35 26.1 | -1.5 |
| | comp=E,2.3nm,0.7s,baz=144,slow=12,SNR=4.2 | | | | | | |
| ESDC | Sonseca Array | 23.41 | 282 | P | P | 08 35 35.2 | +0.6 |
| | comp=E,1.3nm,0.6s,baz=71,slow=11,SNR=8.2 | | | | | | |
| NB2 | NORSAR Subarra | 24.13 | 342 | P | P | 08 35 40.9 | -0.4 |
| | comp=Z,18nm,1.4s,baz=150,slow=9.3 | | | | | | |
| NB2 | NORSAR Subarra | 24.13 | 342 | P | P | 08 35 40.9 | -0.4 |
| | comp=Z,18nm,1.4s,baz=150,slow=9.1,SNR=3.3 | | | | | | |
| NB200 | NORSAR Array S | 24.13 | 342 | eP | P | 08 35 40.8 | -0.5 |
| NB200 | NORSAR Array S | 24.13 | 342 | eP | P | 08 35 40.8 | -0.5 |
| NOA | NORSAR Array B | 24.13 | 342 | P | P | 08 35 40.8 | -0.5 |
| | comp=Z,1.7nm,0.8s,baz=146,slow=9.6,SNR=3.8 | | | | | | |
| GEYT | Alibeck | 24.89 | 82 | P | P | 08 35 49.3 | +0.9 |
| | comp=Z,62nm,0.7s,baz=294,slow=7.4,SNR=3.7 | | | | | | |
| EKA | Eskdalemuir Ar | 25.70 | 320 | P | P | 08 35 56.4 | +0.9 |
| | comp=Z,3.2nm,1.0s,baz=102,slow=8.8,SNR=3.5 | | | | | | |
| MDT | Midelt | 25.71 | 266 | P | P | 08 35 57.6 | +1.6 |
| | comp=Z,1.1nm,0.7s,baz=65,slow=12,SNR=3.5 | | | | | | |
| TOA1 | Torodi Ar. Sit | 33.62 | 227 | eP | P | 08 37 06.5 | +0.4 |
| TOA1 | Torodi Ar. Sit | 33.62 | 227 | eP | P | 08 37 06.5 | +0.4 |
| TORD | Torodi Ar. Bea | 33.62 | 227 | P | P | 08 37 06.5 | +0.4 |
| | comp=Z,0.5nm,0.9s,baz=44,slow=8.8,SNR=3.1 | | | | | | |
| KURBB | Kurchatov Arra | 38.16 | 55 | P | P | 08 37 44.5 | -0.2 |
| | comp=Z,1.8nm,0.5s,baz=280,slow=8.7,SNR=9.8 | | | | | | |
| KURK | Kurchatov | 38.22 | 54 | eP | P | 08 37 44.5 | -0.7 |
| KURK | Kurchatov | 38.22 | 54 | eP | P | 08 37 44.5 | -0.7 |
| MK32 | Makanchi Array | 41.06 | 60 | eP | P | 08 38 08.8 | -0.2 |
| MK32 | Makanchi Array | 41.06 | 60 | eP | P | 08 38 08.8 | -0.2 |
| MKAR | Makanchi Array | 41.06 | 60 | P | P | 08 38 08.8 | -0.2 |
| | comp=Z,1.0nm,0.6s,baz=271,slow=8.2,SNR=13 | | | | | | |
| ZAA1 | Zalesovo Array | 41.84 | 49 | eP | P | 08 38 14.6 | -0.7 |
| ZAA1 | Zalesovo Array | 41.84 | 49 | eP | P | 08 38 14.6 | -0.7 |
| ZALV | Zalesovo Beam | 41.84 | 49 | P | P | 08 38 14.6 | -0.7 |
| | comp=Z,1.2nm,0.7s,baz=260,slow=9.4,SNR=6.0 | | | | | | |
| SONA0 | Songino Array | 56.48 | 53 | eP | P | 08 40 07.6 | 0.0 |
| SONA0 | Songino Array | 56.48 | 53 | eP | P | 08 40 07.6 | 0.0 |
| SONM | Songino Array | 56.48 | 53 | P | P | 08 40 07.6 | 0.0 |
| | comp=Z,0.4nm,0.6s,baz=292,slow=12,SNR=3.0 | | | | | | |
| YKA | Yellowknife Ar | 74.23 | 342 | P | P | 08 42 01.8 | -0.3 |
| | comp=Z,0.7nm,0.6s,baz=26,slow=5.4,SNR=11 | | | | | | |
| BDFB | Brasilia | 87.94 | 248 | P | P | 08 43 15.6 | -0.2 |
| | comp=Z,2.0nm,0.8s,baz=159,slow=5.0,SNR=3.2 | | | | | | |

*IDC **05** 08:31:03.4±1.0, 17°.77S×172°.54W, h0km, mb4.0/6, mb1 4.3/7, mb1mx4.0/33, mbtmp4.0/7, ML4.0/1, MS3.5/4, Ms1 3.5/4, ms1mx2.9/37, Error ellipse: s-maj=44.8km s-min=20.1km az=134.0*

*ISCJB **05** 08:31:05.1±0.7, 17°.55S±0°.10×172°.7W±0°.1, h21km, mb4.1/9, MS3.8/3, Error ellipse: s-maj=23.1km s-min=8.3km az=32.2*

*NEIC **05** 08:31:08.7±0.7, 17°.66S×172°.65W, h35km, mb4.3/3, Error ellipse: s-maj=27.0km s-min=11.5km az=134.0*

**ISC 05 08:31:06.4**±1.0**, 17°.6S**±0°.1×**172°.7W**±0°.2**, h21km, n21, σ0.93**/19**, mb4.3**/9**, MS3.8**/3**, Tonga Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| AFI | Afiamalu | 3.76 | 14 | Pn | Pn | 08 32 02.8 | -0.4 |
| | 11nm,0.3s,baz=110,slow=11,SNR=17 | | | | | | |
| AFI | | | | Sn | Sn | 08 32 46.2 | -0.6 |
| | 32nm,0.3s,baz=187,slow=20,SNR=8.5 | | | | | | |
| AFI | Afiamalu | 3.76 | 14 | ePn | Pn | 08 32 02.5 | -0.7 |
| AFI | | | | eSn | Sn | 08 32 46.2 | -0.6 |
| RAR | Rarotonga | 12.73 | 109 | LR | LR | 08 37 35.6 | |
| | comp=Z,37nm,21.0s,baz=246,slow=31 | | | | | | |
| URZ | Urewera | 22.45 | 201 | P | P | 08 36 02.1 | -2.0 |
| | 8.1nm,0.7s,baz=327,slow=1.7,SNR=6.9 | | | | | | |
| WB2 | Warramunga Arr | 50.02 | 258 | eP | P | 08 39 59.9 | +0.2 |
| WRAB | Tennant Creek | 50.02 | 258 | eP | P | 08 40 00.5 | +0.8 |
| | 1.6nm,0.5s | | | | | | |
| WR1 | Warramunga Arr | 50.03 | 258 | eP | P | 08 40 00.5 | +0.6 |
| | 4.1nm,0.9s | | | | | | |
| WRA | Warramunga Arr | 50.03 | 258 | P | P | 08 40 00.5 | +0.6 |
| | 1.1nm,0.3s,baz=92,slow=6.3,SNR=12 | | | | | | |
| AS01 | Alice Springs | 50.06 | 254 | eP | P | 08 40 00.3 | +0.2 |
| AS31 | Alice Springs | 50.10 | 254 | eP | P | 08 40 01.1 | +0.7 |
| | 2.7nm,1.0s | | | | | | |
| ASAR | Alice Springs | 50.10 | 254 | P | P | 08 40 01.2 | +0.8 |
| | 5.8nm,0.8s,baz=91,slow=8.4,SNR=59 | | | | | | |
| LPIG | La Paz | 73.62 | 58 | LR | LR | 09 05 16.6 | |
| | comp=Z,124nm,20.1s,baz=183,slow=28 | | | | | | |
| LTX | Lajitas | 81.28 | 56 | eP | P | 08 43 22.0 | +0.5 |
| TXAR | Lajitas Array | 81.28 | 56 | P | P | 08 43 22.0 | +0.5 |
| | 0.2nm,0.7s,baz=238,slow=5.2,SNR=2.5 | | | | | | |
| PDAR | Pinedale Array | 83.44 | 41 | P | P | 08 43 32.8 | +0.1 |
| | 0.4nm,1.0s,baz=216,slow=4.5,SNR=2.7 | | | | | | |
| ILAR | Eielson Array | 84.44 | 11 | P | P | 08 43 38.5 | +1.5 |
| | 0.9nm,0.7s,baz=224,slow=5.5,SNR=12 | | | | | | |
| ILB | Eielson Array | 84.44 | 11 | eP | P | 08 43 38.3 | +1.3 |
| MAW | Mawson | 85.95 | 198 | LR | LR | 09 25 02.8 | |
| | comp=Z,17nm,18.3s,baz=63,slow=38 | | | | | | |
| LPAZ | La Paz | 98.45 | 110 | LR | LR | 09 21 26.0 | |
| | comp=Z,30nm,18.4s,baz=359,slow=31 | | | | | | |
| BR101 | Keskin Array S | 148.25 | 319 | ePKPbc | PKPab | 08 50 53.6 | -0.8 |
| BRTR | Keskin Array B | 148.25 | 319 | PKPbc | PKPab | 08 50 53.6 | -0.8 |
| | 0.8nm,0.8s,baz=66,slow=3.6,SNR=3.3 | | | | | | |

**SJA 05 08:37:29.7**±0.6**, 26°.53S×64°.97W, h202km**±5km**, ML3.9, MW4.0, Tucuman Province**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| AHML | Horco Molle | 0.42 | 232 | i P | Pn | 08 37 56.9 | +0.1 |
| AHML | | | | i S | S | 08 38 17.4 | -0.7 |
| AHML | | | | IAML | | 08 38 19.9 | |
| | comp=Z,2µm,0.4s | | | | | | |
| FSA | Cafayete | 1.00 | 294 | i P | Pn | 08 38 00.6 | +0.6 |
| FSA | | | | i S | S | 08 38 22.9 | -0.2 |
| FSA | | | | IAML | | 08 38 23.3 | |
| | comp=Z,397nm,0.2s | | | | | | |
| SLA | San Lorenzo | 1.86 | 345 | i P | Pn | 08 38 08.0 | +0.8 |
| SLA | | | | IAML | | 08 38 35.7 | |
| | comp=Z,766nm,0.7s | | | | | | |
| SLA | | | | i S | S | 08 38 36.4 | +0.5 |
| AZAP | Zapla | 2.29 | 358 | i P | Pn | 08 38 12.6 | +0.8 |
| AZAP | | | | i S | S | 08 38 43.9 | 0.0 |
| ASTB | Santa Barbara | 2.61 | 10 | i P | Pn | 08 38 16.1 | +0.9 |
| ALOL | LOMAS DE OLMED | 2.84 | 19 | i P | Pn | 08 38 18.0 | +0.2 |
| HJA | Humahuaca | 3.33 | 353 | i P | Pn | 08 38 25.0 | +1.2 |
| YJA | Yavi | 4.36 | 353 | i P | Pn | 08 38 37.6 | +1.0 |

*ISK **05** 08:42:55.8, 38°.85N×26°.32E, h10km, ML3.7*

*ISCJB **05** 08:42:56.1±0.4, 38°.85N±0°.02×26°.30E±0°.03, h11km±3km, Error ellipse: s-maj=4.3km s-min=2.8km az=161.7*

*CSEM **05** 08:42:56.5±0.1, 38°.83N×26°.28E, h10km, ML3.4, Error ellipse: s-maj=2.7km s-min=2.0km az=77.0*

*ATH **05** 08:42:56.1, 38°.87N×26°.28E, h26km±1km, ML3.4/7, Error ellipse: s-maj=2.5km s-min=1.0km az=264.0*

*THE **05** 08:42:57.0, 38°.86N×26°.31E, h7km±1km, ML3.5/6, Error ellipse: s-maj=1.5km s-min=0.6km az=261.0*

**ISC 05 08:42:56.6**±1.0**, 38°.85N**±0°.02×**26°.31E**±0°.02**, h9km**±8km**, n149, σ0.68**/176**, 8C-1D, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| PRK | Paraskevi | 0.40 | 356 | P | Pg | 08 43 04.5 | +0.1 |
| PRK | | | | S | Sg | 08 43 09.5 | -0.2 |
| PRK | | | | AML | AML | 08 43 10.9 | |
| | comp=E,13729µm,0.3s | | | | | | |
| PRK | | | | AML | AML | 08 43 11.1 | |
| | comp=N,20434µm,0.5s | | | | | | |
| PRK | Paraskevi | 0.40 | 356 | P | Pg | 08 43 04.5 | +0.1 |
| PRK | | | | S | Sb | 08 43 11.0 | -1.0 |
| PRK | Paraskevi | 0.40 | 356 | P | Pg | 08 43 04.5 | +0.1 |
| PRK | | | | S | Sb | 08 43 11.0 | -1.0 |
| CHOS | Chios island | 0.50 | 203 | ePG | Pg | 08 43 06.4 | 0.0 |
| CHOS | Chios island | 0.50 | 203 | P | Pb | 08 43 07.7 | +0.1 |
| CHOS | | | | S | Sg | 08 43 13.8 | +0.9 |
| CHOS | | | | AML | AML | 08 43 20.6 | |
| | comp=N,9734µm,0.2s | | | | | | |
| CHOS | | | | AML | AML | 08 43 22.1 | |
| | comp=E,19015µm,0.3s | | | | | | |
| CHOS | Chios island | 0.50 | 203 | ePg | Pg | 08 43 06.4 | 0.0 |
| CHOS | Chios island | 0.50 | 203 | P | Pb | 08 43 07.3 | -0.3 |
| CHOS | | | | S | Sg | 08 43 13.8 | +0.9 |
| CHOS | Chios island | 0.50 | 203 | P | Pb | 08 43 07.3 | -0.3 |
| SIGR | SIGRI | 0.50 | 316 | ePG | Pg | 08 43 06.8 | +0.4 |
| SIGR | SIGRI | 0.50 | 316 | P | Pb | 08 43 08.0 | +0.4 |
| SIGR | | | | S | Sg | 08 43 13.4 | +0.4 |
| SIGR | | | | AML | AML | 08 43 16.2 | |
| | comp=N,5654µm,0.2s | | | | | | |
| SIGR | | | | AML | AML | 08 43 17.0 | |
| | comp=E,6201µm,0.3s | | | | | | |
| SIGR | SIGRI | 0.50 | 316 | ePg | Pg | 08 43 06.8 | +0.4 |
| SIGR | SIGRI | 0.50 | 316 | P | Pb | 08 43 07.1 | -0.5 |
| SIGR | | | | S | Sg | 08 43 13.4 | +0.4 |
| SIGR | SIGRI | 0.50 | 316 | P | Pb | 08 43 07.1 | -0.5 |
| SIGR | | | | S | Sg | 08 43 13.8 | +0.8 |
| DKL | Dikili | 0.52 | 64 | ePG | Pg | 08 43 05.3 | -1.3 |
| DKL | | | | eSG | Sg | 08 43 13.9 | +0.5 |
| DKL | Dikili | 0.52 | 64 | ePg | Pg | 08 43 05.3 | -1.3 |
| DKL | | | | eSg | Sg | 08 43 13.9 | +0.5 |
| URLA | Izmir | 0.54 | 155 | ePG | Pg | 08 43 06.9 | -0.1 |
| URLA | | | | eSG | Sg | 08 43 14.2 | +0.1 |
| URLA | Izmir | 0.54 | 155 | ePg | Pg | 08 43 06.9 | -0.1 |
| URLA | | | | eSg | Sg | 08 43 14.2 | +0.1 |
| EZN | Ezine | 0.97 | 1 | ePG | Pg | 08 43 15.1 | -0.3 |
| EZN | | | | eSG | Sb | 08 43 28.9 | +0.3 |
| EZN | Ezine | 0.97 | 1 | ePg | Pg | 08 43 15.1 | -0.3 |
| EZN | | | | eSg | Sb | 08 43 28.9 | +0.3 |
| EZN | Ezine | 0.97 | 1 | P | Pg | 08 43 14.9 | -0.4 |
| EZN | | | | S | Sb | 08 43 29.0 | +0.4 |
| BOZC | Bozcaada | 1.01 | 349 | ePG | Pb | 08 43 16.1 | -0.1 |
| BOZC | | | | eSG | Sb | 08 43 29.6 | +0.1 |
| BOZC | Bozcaada | 1.01 | 349 | ePg | Pb | 08 43 16.1 | -0.1 |
| BOZC | | | | eSg | Sb | 08 43 29.7 | +0.1 |
| AKS | Akhisar | 1.18 | 88 | ePN | Pb | 08 43 18.4 | -0.6 |
| AKS | Akhisar | 1.18 | 88 | ePn | Pb | 08 43 18.4 | -0.6 |
| SMG | Samos | 1.21 | 160 | P | Pg | 08 43 20.3 | +0.4 |
| SMG | | | | S | Sn | 08 43 37.1 | +0.9 |
| SMG | | | | AML | AML | 08 43 40.2 | |
| | comp=E,5864µm,0.3s | | | | | | |
| SMG | | | | AML | AML | 08 43 40.3 | |
| | comp=N,5739µm,0.3s | | | | | | |
| SMG | Samos | 1.21 | 160 | P | Pn | 08 43 18.6 | -1.1 |
| SMG | | | | S | Sn | 08 43 37.1 | +0.9 |
| SMG | Samos | 1.21 | 160 | P | Pn | 08 43 18.6 | -1.1 |
| SMG | | | | S | Sn | 08 43 37.4 | +1.2 |
| GCAM | G?zelcaml? | 1.36 | 147 | ePN | Pn | 08 43 21.8 | +0.2 |
| GCAM | G?zelcaml? | 1.36 | 147 | ePn | Pn | 08 43 21.8 | +0.2 |
| LIA | Limnos Island | 1.36 | 321 | P | Pn | 08 43 21.6 | -0.1 |
| LIA | | | | S | Sb | 08 43 39.5 | -0.2 |
| LIA | | | | AML | AML | 08 43 42.5 | |
| | comp=N,3059µm,0.3s | | | | | | |
| LIA | | | | AML | AML | 08 43 43.0 | |
| | comp=E,3055µm,0.5s | | | | | | |
| LIA | Limnos Island | 1.36 | 321 | P | Pn | 08 43 21.4 | -0.3 |
| LIA | | | | S | Sb | 08 43 39.5 | -0.2 |
| LIA | Limnos Island | 1.36 | 321 | P | Pn | 08 43 21.4 | -0.3 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LIA | | | | S | Sg | 08 43 40.3 | -0.1 |
| SKY | Skiros Island | 1.37 | 272 | P | Pn | 08 43 20.4 | -1.5 |
| SKY | Skiros Island | 1.37 | 272 | P | Pn | 08 43 20.4 | -1.5 |
| GADA | Gvkgeada | 1.38 | 347 | ePN | Pn | 08 43 21.6 | -0.3 |
| GADA | Gvkgeada | 1.38 | 347 | P | Pn | 08 43 21.2 | -0.7 |
| GADA | Gvkgeada | 1.38 | 347 | ePn | Pn | 08 43 21.6 | -0.3 |
| GADA | Gvkgeada | 1.38 | 347 | P | Pn | 08 43 21.2 | -0.7 |
| BALB | Balikesir | 1.46 | 57 | ePN | Pn | 08 43 22.3 | -0.7 |
| BALB | Balikesir | 1.46 | 57 | ePn | Pn | 08 43 22.3 | -0.7 |
| GELI | Tayfur-Gelibol | 1.55 | 5 | ePN | Pn | 08 43 24.0 | -0.3 |
| GELI | Tayfur-Gelibol | 1.55 | 5 | ePn | Pn | 08 43 24.0 | -0.3 |
| LPK | Lapseki | 1.56 | 13 | ePN | Pn | 08 43 24.0 | -0.5 |
| LPK | Lapseki | 1.56 | 13 | ePn | Pn | 08 43 24.0 | -0.5 |
| KRBG | Karabiga-Canak | 1.72 | 26 | ePN | Pn | 08 43 25.9 | -0.7 |
| KRBG | Karabiga-Canak | 1.72 | 26 | ePn | Pn | 08 43 25.9 | -0.7 |
| SMTH | Samothraki Isl | 1.73 | 340 | P | Pn | 08 43 25.9 | -0.9 |
| SMTH | | | | S | Sn | 08 43 48.5 | -0.4 |
| SMTH | | | | AML | AML | 08 43 55.2 | |
| | comp=N,1132μm,0.4s | | | | | | |
| SMTH | | | | AML | AML | 08 43 55.4 | |
| | comp=E,718μm,0.2s | | | | | | |
| SMTH | Samothraki Isl | 1.73 | 340 | P | Pn | 08 43 26.0 | -0.8 |
| SMTH | | | | S | Sn | 08 43 48.7 | -0.2 |
| SMTH | Samothraki Isl | 1.73 | 340 | P | Pn | 08 43 26.0 | -0.8 |
| SMTH | | | | S | Sn | 08 43 48.7 | -0.2 |
| ERIK | Erikli-Kesan | 1.83 | 5 | ePN | Pn | 08 43 27.8 | -0.3 |
| ERIK | Erikli-Kesan | 1.83 | 5 | ePn | Pn | 08 43 27.8 | -0.3 |
| KULA | Kula-Manisa | 1.87 | 100 | ePN | Pn | 08 43 28.6 | -0.2 |
| KULA | Kula-Manisa | 1.87 | 100 | ePn | Pn | 08 43 28.6 | -0.2 |
| APE | Apeiranthos | 1.88 | 199 | ePN | Pn | 08 43 28.0 | -0.9 |
| APE | Apeiranthos | 1.88 | 199 | ⇑iP | Pn | 08 43 27.6 | -1.3 |
| APE | Apeiranthos | 1.88 | 199 | P | Pn | 08 43 27.5 | -1.4 |
| APE | Apeiranthos | 1.88 | 199 | P | Pn | 08 43 27.7 | -1.2 |
| APE | Apeiranthos | 1.88 | 199 | ePn | Pn | 08 43 28.0 | -0.9 |
| APE | Apeiranthos | 1.88 | 199 | P | Pn | 08 43 27.7 | -1.2 |
| ENEZ | Enez | 1.89 | 356 | ePN | Pn | 08 43 28.8 | -0.1 |
| ENEZ | Enez | 1.89 | 356 | P | Pn | 08 43 28.8 | -0.1 |
| ENEZ | Enez | 1.89 | 356 | P | Pn | 08 43 28.8 | -0.1 |
| EDC | Edincik | 1.92 | 38 | ePN | Pn | 08 43 29.0 | -0.4 |
| EDC | Edincik | 1.92 | 38 | ePn | Pn | 08 43 29.0 | -0.4 |
| BODT | Bodrum | 1.95 | 156 | ePN | Pn | 08 43 29.1 | -0.8 |
| BODT | Bodrum | 1.95 | 156 | ePn | Pn | 08 43 29.1 | -0.8 |
| BODT | Bodrum | 1.95 | 156 | P | Pn | 08 43 28.9 | -1.0 |
| RKY | Sarkoy-Tekirda | 1.96 | 20 | ePN | Pn | 08 43 30.5 | +0.5 |
| RKY | Sarkoy-Tekirda | 1.96 | 20 | ePn | Pn | 08 43 30.5 | +0.5 |
| ALN | Alexandroupoli | 2.06 | 354 | ePN | Pn | 08 43 30.9 | -0.3 |
| ALN | Alexandroupoli | 2.06 | 354 | P | Pn | 08 43 31.0 | -0.3 |
| ALN | | | | AML | AML | 08 44 02.5 | |
| | comp=N,1235μm,0.5s | | | | | | |
| ALN | | | | AML | AML | 08 44 04.7 | |
| | comp=E,756μm,0.3s | | | | | | |
| ALN | Alexandroupoli | 2.06 | 354 | P | Pn | 08 43 31.0 | -0.3 |
| ALN | | | | S | Sn | 08 43 57.6 | +0.6 |
| ALN | Alexandroupoli | 2.06 | 354 | P | Pn | 08 43 30.4 | -0.8 |
| ALN | | | | S | Sn | 08 43 57.6 | +0.6 |
| SIMA | Simav-Kutahya | 2.10 | 83 | ePN | Pn | 08 43 32.2 | +0.3 |
| SIMA | Simav-Kutahya | 2.10 | 83 | ePn | Pn | 08 43 32.2 | +0.3 |
| KCTX | Karacabey (Bur | 2.12 | 48 | ePN | Pn | 08 43 31.4 | -0.8 |
| KCTX | Karacabey (Bur | 2.12 | 48 | ePn | Pn | 08 43 31.4 | -0.8 |
| OUR | Ouranopolis | 2.33 | 310 | ePN | Pn | 08 43 34.7 | -0.3 |
| OUR | Ouranopolis | 2.33 | 310 | P | Pn | 08 43 34.6 | -0.4 |
| OUR | Ouranopolis | 2.33 | 310 | ePn | Pn | 08 43 34.7 | -0.3 |
| OUR | Ouranopolis | 2.33 | 310 | P | Pn | 08 43 34.9 | -0.1 |
| ORLT | Orhaneli | 2.33 | 58 | ePN | Pn | 08 43 35.1 | 0.0 |
| ORLT | Orhaneli | 2.33 | 58 | ePn | Pn | 08 43 35.2 | 0.0 |
| NIS1 | Nisyros Isl. | 2.35 | 163 | ePN | Pn | 08 43 35.3 | 0.0 |
| NIS1 | Nisyros Isl. | 2.35 | 163 | ePn | Pn | 08 43 35.3 | 0.0 |
| RDO | Rodhopi | 2.37 | 346 | P | Pn | 08 43 35.4 | -0.1 |
| RDO | Rodhopi | 2.37 | 346 | P | Pn | 08 43 35.5 | -0.1 |
| RDO | Rodhopi | 2.37 | 346 | P | Pn | 08 43 35.5 | -0.1 |
| SBT3 | Marmara-Eregli | 2.40 | 32 | ePN | Pn | 08 43 36.3 | +0.4 |
| SBT3 | Marmara-Eregli | 2.40 | 32 | ePn | Pn | 08 43 36.3 | +0.4 |
| MDNY | Mudanya-Bursa | 2.50 | 52 | ePN | Pn | 08 43 38.5 | +1.1 |
| MDNY | Mudanya-Bursa | 2.50 | 52 | ePn | Pn | 08 43 38.5 | +1.1 |
| TVSB | Tavsanli | 2.52 | 75 | ePN | Pn | 08 43 38.2 | +0.4 |
| TVSB | Tavsanli | 2.52 | 75 | ePn | Pn | 08 43 38.2 | +0.4 |
| KAVA | Kavala | 2.55 | 328 | P | Pn | 08 43 37.2 | -0.8 |
| KAVA | Kavala | 2.55 | 328 | P | Pn | 08 43 37.7 | -0.3 |
| KAVA | Kavala | 2.55 | 328 | P | Pn | 08 43 37.7 | -0.3 |
| ARMT | Armutlu | 2.61 | 48 | ePN | Pn | 08 43 39.1 | +0.2 |
| ARMT | Armutlu | 2.61 | 48 | ePn | Pn | 08 43 39.1 | +0.2 |
| SBT2 | Guzelce-Avcila | 2.65 | 39 | ePN | Pn | 08 43 40.0 | +0.7 |
| SBT2 | Guzelce-Avcila | 2.65 | 39 | ePn | Pn | 08 43 40.0 | +0.7 |
| SBT5 | Esenkoy-Cinarc | 2.67 | 47 | ePN | Pn | 08 43 40.5 | +0.9 |
| SBT5 | Esenkoy-Cinarc | 2.67 | 47 | ePn | Pn | 08 43 40.5 | +0.9 |
| TURN | Turunc | 2.68 | 137 | ePN | Pn | 08 43 38.6 | -1.2 |
| TURN | Turunc | 2.68 | 137 | ePn | Pn | 08 43 38.6 | -1.2 |
| GEMT | Gemlik | 2.73 | 54 | ePN | Pn | 08 43 41.2 | +0.7 |
| GEMT | Gemlik | 2.73 | 54 | ePn | Pn | 08 43 41.2 | +0.7 |
| DALY | Dalyan (Mu˜la | 2.75 | 137 | ePN | Pn | 08 43 41.7 | +0.9 |
| DALY | Dalyan (Mu˜la | 2.75 | 137 | ePn | Pn | 08 43 41.7 | +0.9 |
| SLVT | Silivri | 2.79 | 31 | ePN | Pn | 08 43 42.2 | +0.8 |
| SLVT | Silivri | 2.79 | 31 | ePn | Pn | 08 43 42.2 | +0.8 |
| YLV | Yalova | 2.92 | 53 | ePN | Pn | 08 43 43.9 | +0.7 |
| YLV | Yalova | 2.92 | 53 | ePn | Pn | 08 43 43.9 | +0.7 |
| CTKS | Kestanelik-??a | 2.92 | 35 | ePN | Pn | 08 43 44.0 | +0.9 |
| CTKS | Kestanelik-??a | 2.92 | 35 | ePn | Pn | 08 43 44.0 | +0.9 |
| PHSR | Pinarhisar | 2.93 | 18 | ePN | Pn | 08 43 44.1 | +0.8 |
| PHSR | Pinarhisar | 2.93 | 18 | ePn | Pn | 08 43 44.1 | +0.8 |
| BUY | Buyukada | 2.95 | 46 | ePN | Pn | 08 43 44.4 | +0.9 |
| BUY | Buyukada | 2.95 | 46 | ePn | Pn | 08 43 44.4 | +0.9 |
| EDRB | Edirne | 3.01 | 6 | ePN | Pn | 08 43 45.1 | +0.7 |
| EDRB | Edirne | 3.01 | 6 | ePn | Pn | 08 43 45.1 | +0.7 |
| CTYL | Yalikoy Yolu | 3.03 | 29 | ePN | Pn | 08 43 45.3 | +0.7 |
| CTYL | Yalikoy Yolu | 3.03 | 29 | ePn | Pn | 08 43 45.3 | +0.7 |
| CAVI | Cavuskoy | 3.05 | 63 | ePN | Pn | 08 43 46.0 | +1.0 |
| CAVI | Cavuskoy | 3.05 | 63 | ePn | Pn | 08 43 46.0 | +1.0 |
| KAVV | Kandilli-Istan | 3.06 | 43 | ePN | Pn | 08 43 46.1 | +1.0 |
| KAVV | Kandilli-Istan | 3.06 | 43 | ePn | Pn | 08 43 46.1 | +1.0 |
| ISK | Istanbul-Kandi | 3.06 | 43 | ePN | Pn | 08 43 46.2 | +1.1 |
| ISK | Istanbul-Kandi | 3.06 | 43 | ePn | Pn | 08 43 46.2 | +1.1 |
| ADVT | Abdulvahap | 3.09 | 58 | ePN | Pn | 08 43 46.0 | +0.6 |
| ADVT | Abdulvahap | 3.09 | 58 | ePn | Pn | 08 43 46.0 | +0.6 |
| NVR | Nevrokopi | 3.12 | 324 | P | Pn | 08 43 45.9 | -0.1 |
| NVR | Nevrokopi | 3.12 | 324 | P | Pn | 08 43 45.9 | -0.1 |
| KLYT | Kilyos | 3.19 | 40 | ePN | Pn | 08 43 47.5 | +0.7 |
| KLYT | Kilyos | 3.19 | 40 | ePn | Pn | 08 43 47.5 | +0.7 |
| HRT | Hereke | 3.25 | 52 | ePN | Pn | 08 43 47.7 | 0.0 |
| HRT | Hereke | 3.25 | 52 | ePn | Pn | 08 43 47.7 | 0.0 |
| GULT | Gulveren | 3.61 | 63 | ePN | Pn | 08 43 53.5 | +0.8 |
| GULT | Gulveren | 3.61 | 63 | ePn | Pn | 08 43 53.5 | +0.8 |
| MDUB | Mudurnu | 4.11 | 65 | ePN | Pn | 08 43 59.9 | +0.3 |
| MDUB | Mudurnu | 4.11 | 65 | ePn | Pn | 08 43 59.9 | +0.3 |
| BARS | Barje | 5.22 | 321 | ⇑iPn | Pn | 08 44 15.9 | +1.1 |
| TIRR | Tirgusor | 5.82 | 15 | ⇑iP | Pn | 08 44 22.3 | -0.7 |
| MLR | Muntele Rosu | 6.64 | 358 | ⇑iP | Pn | 08 44 34.0 | -0.4 |
| MDVR | Moldovita | 6.85 | 331 | ⇓iP | Pn | 08 44 37.5 | +0.3 |
| PLOR | Plostina | 7.00 | 2 | ⇑iP | Pn | 08 44 40.9 | +1.6 |
| VRI | Vrincioaia | 7.02 | 2 | ⇑iP | Pn | 08 44 38.4 | -1.1 |
| DOPR | Dopca | 7.15 | 355 | ⇑iP | Pn | 08 44 41.6 | +0.4 |
| DRGR | | 8.37 | 343 | ⇑iP | Pn | 08 45 04.0 | +6.0 |

*ISCJB **05** 08:43:02.5±0.6, 6°.86S±0°.07×124°.8E±0°.2, h543km, mb3.7/9, Error ellipse: s-maj=26.6km s-min=6.9km az=165.2*
*IDC **05** 08:43:04.3±1.7, 6°.96S×124°.88E, h550km±22km, mb3.3/9, mb1 3.4/12, mb1mx3.2/38, mbtmp4.3/12, Error ellipse: s-maj=33.9km s-min=9.9km az=72.0*
**ISC 05 08:43:03.7**±0.8**, 6°.94S**±0°.09×**124°.9E**±0°.2**, h543**km**, n12, σ0s.90**/16**, mb3.8**/9**, Banda Sea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| FITZ | Fitzroy Crossi | 11.11 | 177 | P | P | 08 45 33.5 | +0.5 |
| | 2.1nm,0.3s,baz=352,slow=6.1,SNR=70 | | | | | | |
| FITZ | | | | S | S | 08 47 34.5 | -1.4 |
| | 0.5nm,0.3s,baz=321,slow=13,SNR=5.3 | | | | | | |
| WRA | Warramunga Arr | 15.82 | 146 | P | P | 08 46 21.1 | -0.7 |
| | 1.8nm,0.3s,baz=325,slow=10,SNR=17 | | | | | | |
| WRA | | | | S | S | 08 49 02.8 | -1.1 |
| | 0.1nm,0.3s,baz=314,slow=18,SNR=4.7 | | | | | | |
| ASAR | Alice Springs | 18.73 | 154 | P | P | 08 46 49.6 | +1.0 |
| | 2.3nm,0.3s,baz=341,slow=12,SNR=164 | | | | | | |
| ASAR | | | | S | S | 08 49 51.3 | -0.3 |
| | baz=339,slow=20,SNR=4.8 | | | | | | |
| ASAR | | | | ScP | ScP | 08 53 32.1 | -1.2 |
| | 0.1nm,0.3s,baz=348,slow=2.0,SNR=8.7 | | | | | | |
| STKA | Stephens Creek | 29.28 | 150 | P | P | 08 48 23.2 | +0.9 |
| | 6.1nm,0.6s,baz=328,slow=8.9,SNR=23 | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KSRS | Korea Array | 44.25 | 3 | P | P | 08 50 25.6 | +0.5 |
| | 1.0nm,0.4s,baz=184,slow=9.0,SNR=4.3 | | | | | | |
| MJAR | Matsushiro Arr | 45.01 | 15 | P | P | 08 50 29.9 | -1.0 |
| | 1.1nm,0.7s,baz=101,slow=32,SNR=4.4 | | | | | | |
| USRK | Ussuriysk Ar. | 51.30 | 6 | P | P | 08 51 16.8 | -0.9 |
| | 1.6nm,0.5s,baz=199,slow=6.3,SNR=4.1 | | | | | | |
| SONM | Songino Array | 56.95 | 345 | P | P | 08 51 57.3 | -0.3 |
| | 0.9nm,0.6s,baz=166,slow=9.6,SNR=7.4 | | | | | | |
| MKAR | Makanchi Array | 65.51 | 329 | P | P | 08 52 53.6 | +0.1 |
| | 1.6nm,0.5s,baz=124,slow=7.5,SNR=23 | | | | | | |
| PETK | Petropavlovsk- | 65.95 | 21 | P | P | 08 52 56.7 | +0.6 |
| | 2.8nm,1.0s,baz=161,slow=3.7,SNR=6.1 | | | | | | |
| ZALV | Zalesovo Beam | 69.39 | 336 | P | P | 08 53 16.4 | -0.7 |
| | 1.4nm,0.4s,baz=147,slow=4.8,SNR=7.3 | | | | | | |
| SEY | Seymchan | 72.77 | 13 | P | P | 08 53 37.2 | +0.5 |
| | 1.8nm,0.5s,baz=176,slow=19,SNR=7.8 | | | | | | |

**IDC 05 08:44:48.9**±3.3**, 4°.49S**×**151°.55E, h180**km±21km**, mb3.3**/3**, mb1 3.5**/4**, mb1mx3.0**/37**, mbtmp3.8**/4**, Error ellipse: s-maj=102.3km s-min=25.5km az=126.0, New Britain region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PMG | Port Moresby | 6.54 | 221 | P | Pn | 08 46 22.6 | -0.5 |
| | 1.5nm,0.3s,baz=27,slow=4.5,SNR=3.7 | | | | | | |
| PMG | | | | S | Sn | 08 47 38.3 | +1.0 |
| | 2.0nm,0.3s,baz=313,slow=22,SNR=8.1 | | | | | | |
| WRA | Warramunga Arr | 22.73 | 226 | P | P | 08 49 36.1 | +0.3 |
| | 1.5nm,0.4s,baz=52,slow=9.6,SNR=14 | | | | | | |
| WRA | | | | S | S | 08 53 31.6 | +0.8 |
| | 0.3nm,0.8s,baz=46,slow=17,SNR=2.1 | | | | | | |
| ASAR | Alice Springs | 25.56 | 220 | P | P | 08 50 01.2 | -0.2 |
| | 0.3nm,0.4s,baz=52,slow=7.0,SNR=4.2 | | | | | | |
| FITZ | Fitzroy Crossi | 28.72 | 240 | P | P | 08 50 30.0 | +0.3 |
| | 0.7nm,0.3s,baz=56,slow=6.4,SNR=7.5 | | | | | | |
| TORD | Torodi Ar. Bea | 149.02 | 288 | PKPbc | PKPbc | 09 04 15.9 | -0.9 |
| | 0.9nm,0.7s,baz=70,slow=3.4,SNR=5.5 | | | | | | |

*JMA **05** 08:52:01.0±0.2, 38°.44N×142°.86E, h12km±3km, M3.3*
*IDC **05** 08:52:04.3±8.3, 38°.83N×142°.31E, h0km, mb3.4/2, mb1 3.5/3, mb1mx3.2/58, mbtmp3.2/3, ML2.6/1, Error ellipse: s-maj=185.3km s-min=47.7km az=167.0*
**ISC 05 08:52:05.0**±2.6**, 38°.48N**±0°.06×**142°.51E**±0°.10**, h2**km±13km**, n16, σ1s.55**/21**, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| OFUJ | Ofunato | 0.89 | 313 | P | Pb | 08 52 22.3 | -0.8 |
| OFUJ | | | | eS | Sn | 08 52 37.1 | -0.8 |
| JIO | Ouri | 0.91 | 269 | P | Pg | 08 52 22.7 | +0.3 |
| JIO | | | | S | Sn | 08 52 38.6 | +0.2 |
| JMK | Ichinoseki | 1.11 | 296 | P | Pb | 08 52 25.8 | -1.1 |
| JMK | | | | S | Sn | 08 52 44.2 | +0.8 |
| JOM | Ohasama | 1.37 | 317 | eS | Sg | 08 52 49.5 | +0.4 |
| JOU | Okura | 1.45 | 266 | P | Pb | 08 52 31.8 | -0.9 |
| JOU | | | | eS | Sg | 08 52 53.7 | +2.0 |
| JMM | Marumori | 1.48 | 246 | P | Pn | 08 52 30.7 | -1.9 |
| JFK | Kawauchi | 1.70 | 230 | P | Pn | 08 52 33.0 | -2.7 |
| JFK | | | | eS | Sn | 08 52 56.1 | -1.9 |
| JRG | Rokugo | 1.73 | 303 | P | Pb | 08 52 36.3 | -1.1 |
| JRG | | | | eS | Sg | 08 53 01.7 | +1.3 |
| JYK | Kaneyama | 1.74 | 285 | P | Pb | 08 52 35.9 | -1.7 |
| JFT | Otama | 1.96 | 241 | P | Pn | 08 52 38.7 | -0.6 |
| JFT | | | | eS | Sb | 08 53 05.8 | -0.6 |
| MJAR | Matsushiro Arr | 3.93 | 242 | Pn | Pn | 08 53 05.9 | -0.4 |
| | 0.4nm,0.3s,baz=53,slow=13,SNR=3.2 | | | | | | |
| MJAR | | | | Sn | Sn | 08 53 55.0 | +2.1 |
| | 0.2nm,0.3s,baz=70,slow=14,SNR=2.4 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 28.20 | 125 | T | T | 09 27 02.1 | |
| | baz=312,slow=74,SNR=5.6 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 28.20 | 125 | T | T | 09 27 02.4 | |
| | baz=312 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 28.21 | 125 | T | T | 09 27 07.1 | |
| | baz=312,slow=74,SNR=4.3 | | | | | | |
| WRA | Warramunga Arr | 58.61 | 189 | P | P | 09 02 05.3 | +1.8 |
| | 0.4nm,0.8s,baz=7.7,slow=7.1,SNR=4.4 | | | | | | |
| ASAR | Alice Springs | 62.34 | 189 | P | P | 09 02 30.8 | +1.9 |
| | 0.2nm,0.7s,baz=25,slow=7.2,SNR=3.5 | | | | | | |

*ISCJB **05** 08:52:31.7±0.5, 7°.13S±0°.08×156°.07E±0°.06, h100km, mb4.0/10, Error ellipse: s-maj=11.8km s-min=7.9km az=8.4*
*NEIC **05** 08:52:35.1±1.0, 7°.17S×156°.09E, h121km±10km, mb4.2/4, Error ellipse: s-maj=10.7km s-min=8.4km az=177.0*
*IDC **05** 08:52:35.3±2.2, 7°.19S×155°.99E, h119km±21km, mb3.8/8, mb1 3.9/11, mb1mx3.6/45, mbtmp4.2/11, MS3.1/3, Ms1 3.1/3, ms1mx2.7/21, Error ellipse: s-maj=22.3km s-min=14.5km az=3.0*
**ISC 05 08:52:33.3**±0.7**, 7°.1S**±0°.1×**156°.07E**±0°.07**, h100**km**, n30, σ1s.23**/32**, mb4.1**/10**, Bougainville-Solomon Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| HNR | Honiara | 4.51 | 122 | P | Pn | 08 53 40.0 | +0.6 |
| | 3.5nm,0.3s,baz=230,slow=3.7,SNR=2.8 | | | | | | |
| HNR | | | | S | Sn | 08 54 34.0 | +3.2 |
| | 8.0nm,0.3s,baz=243,slow=11,SNR=4.0 | | | | | | |
| HNR | Honiara | 4.51 | 122 | ePn | Pn | 08 53 40.0 | +0.6 |
| HNR | | | | eSn | Sn | 08 54 28.0 | -2.8 |
| PMG | Port Moresby | 9.12 | 254 | P | Pn | 08 54 43.9 | +1.8 |
| | 3.1nm,0.3s,baz=56,slow=9.6,SNR=18 | | | | | | |
| PMG | | | | S | Sn | 08 56 22.6 | -0.4 |
| | 0.5nm,0.3s,baz=47,slow=19,SNR=2.1 | | | | | | |
| PMG | | | | LR | LR | 08 58 08.7 | |
| | comp=Z,68nm,19.8s,baz=330,slow=37 | | | | | | |
| PMG | Port Moresby | 9.12 | 254 | ePn | Pn | 08 54 44.1 | +2.0 |
| PMG | | | | eSn | Sn | 08 56 23.8 | +0.8 |
| DZM | Mont Dzumac | 17.98 | 147 | P | P | 08 56 36.6 | +0.4 |
| | 0.2nm,0.3s,baz=311,slow=20,SNR=3.2 | | | | | | |
| DZM | Mont Dzumac | 17.98 | 147 | eP | P | 08 56 35.9 | -0.3 |
| | 20nm,1.4s | | | | | | |
| WRAB | Tennant Creek | 24.66 | 237 | eP | P | 08 57 44.6 | -0.3 |
| | 7.7nm,0.8s | | | | | | |
| WB2 | Warramunga Arr | 24.66 | 237 | eP | P | 08 57 44.3 | -0.6 |
| WR1 | Warramunga Arr | 24.67 | 237 | eP | P | 08 57 44.4 | -0.6 |
| | 5.7nm,0.7s | | | | | | |
| WR1 | | | | ePcP | PcP | 09 01 19.3 | -0.7 |
| WRA | Warramunga Arr | 24.67 | 237 | P | P | 08 57 44.4 | -0.6 |
| | 5.2nm,0.7s,baz=60,slow=9.9,SNR=44 | | | | | | |
| WRA | | | | PcP | PcP | 09 01 19.3 | -0.7 |
| | 0.6nm,0.9s,baz=57,slow=3.0,SNR=3.7 | | | | | | |
| WRA | | | | LR | LR | 09 07 19.1 | |
| | comp=Z,42nm,19.7s,baz=90,slow=36 | | | | | | |
| ASAR | Alice Springs | 26.94 | 230 | P | P | 08 58 04.3 | -1.2 |
| | 0.8nm,0.8s,baz=72,slow=9.4,SNR=7.2 | | | | | | |
| ASAR | | | | LR | LR | 09 07 59.5 | |
| | comp=Z,60nm,20.2s,baz=120,slow=34 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 27.46 | 22 | T | T | 09 26 36.8 | |
| | baz=202,slow=76,SNR=34 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 27.46 | 22 | T | T | 09 26 33.2 | |
| | baz=202,slow=76,SNR=50 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 27.47 | 22 | T | T | 09 26 33.9 | |
| | baz=202,slow=76,SNR=21 | | | | | | |
| STKA | Stephens Creek | 28.16 | 207 | P | P | 08 58 14.4 | -1.8 |
| | 0.9nm,0.5s,baz=16,slow=20,SNR=2.5 | | | | | | |
| STKA | Stephens Creek | 28.16 | 207 | eP | P | 08 58 15.1 | -1.1 |
| | 4.3nm,1.7s | | | | | | |
| H11N1 | WAKE ISLAND Hy | 28.65 | 22 | T | T | 09 28 01.6 | |
| | baz=211 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 28.66 | 22 | T | T | 09 28 04.1 | |
| | baz=211 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 28.66 | 22 | T | T | 09 28 02.2 | |
| | baz=211 | | | | | | |
| CMAR | Chiang Mai Arr | 61.77 | 295 | P | P | 09 02 40.5 | -1.3 |
| | 1.5nm,0.5s,baz=126,slow=5.2,SNR=5.4 | | | | | | |
| SONA0 | Songino Array | 69.96 | 327 | eP | P | 09 03 35.0 | +1.0 |
| SONM | Songino Array | 69.96 | 327 | P | P | 09 03 35.0 | +1.0 |
| | 2.6nm,0.8s,baz=141,slow=7.2,SNR=19 | | | | | | |
| MK32 | Makanchi Array | 84.15 | 318 | eP | P | 09 04 53.9 | +0.5 |
| MKAR | Makanchi Array | 84.15 | 318 | P | P | 09 04 53.9 | +0.5 |
| | 2.1nm,0.7s,baz=102,slow=5.5,SNR=19 | | | | | | |
| ZALV | Zalesovo Beam | 84.82 | 326 | P | P | 09 04 56.2 | -0.3 |
| | 0.7nm,0.4s,baz=134,slow=3.6,SNR=4.2 | | | | | | |
| ZAA1 | Zalesovo Array | 84.82 | 326 | eP | P | 09 04 56.2 | -0.3 |
| BVAR | Borovoye Array | 92.98 | 323 | P | P | 09 05 34.7 | -0.6 |
| | 0.2nm,0.3s,baz=88,slow=3.4,SNR=4.2 | | | | | | |
| BDFB | Brasilia | 147.18 | 134 | PKPbc | PKPdf | 09 12 05.2 | +1.5 |
| | 1.2nm,0.4s,baz=297,slow=4.5,SNR=3.0 | | | | | | |
| TORD | Torodi Ar. Bea | 154.06 | 286 | PKPbc | PKPbc | 09 12 21.5 | -0.9 |
| | 0.9nm,1.0s,baz=18,slow=3.0,SNR=3.9 | | | | | | |
| TORD | | | | PKPab | PKPab | 09 12 35.9 | -0.3 |
| | 0.5nm,0.7s,baz=60,slow=2.5,SNR=2.8 | | | | | | |
| TOA1 | Torodi Ar. Sit | 154.07 | 286 | ePKPbc | PKPbc | 09 12 21.5 | -0.9 |
| TOA1 | | | | ePKPab | PKPab | 09 12 35.9 | -0.4 |

*IDC **05** 08:56:36.1±1.1, 8°.54N×102°.91W, h0km, mb3.5/6, mb1 3.9/6, mb1mx3.7/35, mbtmp3.6/6, MS3.5/7, Ms1 3.5/7, ms1mx3.2/20, Error ellipse: s-maj=59.3km s-min=21.7km az=62.0*
**ISC 05 08:56:39.1**±1.1**, 8°.7N**±0°.3×**102°.8W**±0°.4**, h19**km**, n16, σ1s.05**/9**, mb3.8**/5**, MS3.4**/5**, Northern East Pacific Rise**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CMIG | Matias Romero | 11.36 | 42 | Pn | Pn | 08 59 16.4 | -4.1 |
| | 0.1nm,0.3s,baz=300,slow=20,SNR=3.3 | | | | | | |
| CMIG | | | | LR | LR | 09 02 58.8 | |
| | comp=Z,299nm,18.9s,baz=196,slow=33 | | | | | | |
| H06E1 | SOCORRO T-PHAS | 12.79 | 323 | T | T | 09 12 57.8 | |
| | SNR=5.2 | | | | | | |
| LPIG | La Paz | 16.95 | 336 | LR | LR | 09 05 38.7 | |
| | comp=Z,235nm,20.0s,baz=176,slow=32 | | | | | | |
| TXAR | Lajitas Array | 20.57 | 358 | P | Pn | 09 01 19.6 | +0.3 |
| | 0.6nm,0.8s,baz=180,slow=13,SNR=5.7 | | | | | | |
| TXAR | | | | LR | LR | 09 08 12.1 | |
| | comp=Z,56nm,19.0s,baz=0.0,slow=34 | | | | | | |
| ATAH | Atahualpa | 28.93 | 122 | LR | LR | 09 11 49.9 | |
| | comp=Z,108nm,20.6s,baz=274,slow=32 | | | | | | |
| PDAR | Pinedale Array | 34.48 | 351 | P | P | 09 03 26.0 | -0.2 |
| | 0.3nm,0.8s,baz=140,slow=7.1,SNR=2.5 | | | | | | |
| LPAZ | La Paz | 42.32 | 126 | P | P | 09 04 33.6 | +0.8 |
| | 1.6nm,0.9s,baz=284,slow=6.8,SNR=5.7 | | | | | | |
| LPAZ | | | | LR | LR | 09 21 08.1 | |
| | comp=Z,33nm,18.8s,baz=3.5,slow=35 | | | | | | |
| SCHQ | Schefferville | 54.18 | 25 | LR | LR | 09 30 58.5 | |
| | comp=Z,44nm,18.1s,baz=303,slow=38 | | | | | | |
| YKA | Yellowknife Ar | 54.41 | 353 | P | P | 09 06 03.8 | -0.9 |
| | 0.4nm,0.7s,baz=160,slow=6.8,SNR=3.1 | | | | | | |
| CPUP | Villa Florida | 56.19 | 130 | P | P | 09 06 17.3 | -0.8 |
| | 1.8nm,0.8s,baz=13,slow=2.5,SNR=3.1 | | | | | | |
| ILAR | Eielson Array | 63.92 | 341 | P | P | 09 07 11.3 | +0.7 |
| | 1.2nm,0.8s,baz=153,slow=5.0,SNR=9.6 | | | | | | |
| NOA | NORSAR Array B | 93.72 | 26 | LR | LR | 09 50 30.6 | |
| | comp=Z,19nm,21.9s,baz=260,slow=34 | | | | | | |
| WRA | Warramunga Arr | 123.77 | 252 | PKP | PKPdf | 09 15 35.8 | -0.9 |
| | 0.5nm,1.1s,baz=92,slow=3.0,SNR=2.9 | | | | | | |
| ASAR | Alice Springs | 123.90 | 247 | PKP | PKPdf | 09 15 36.0 | -0.9 |
| | 0.1nm,0.7s,baz=64,slow=2.2,SNR=2.5 | | | | | | |
| MKAR | Makanchi Array | 124.60 | 356 | PKP | PKPdf | 09 15 38.9 | +1.3 |
| | 0.3nm,0.5s,baz=328,slow=2.2,SNR=3.3 | | | | | | |
| CMAR | Chiang Mai Arr | 145.56 | 322 | PKPbc | PKPab | 09 16 18.4 | +0.9 |
| | 0.9nm,0.3s,baz=5.7,slow=1.8,SNR=2.4 | | | | | | |

*IDC **05** 09:02:39.8±1.4, 31°.83N×141°.89E, h0km, mb3.6/6, mb1 3.7/8, mb1mx3.6/34, mbtmp3.5/8, ML3.3/2, MS3.2/3, Ms1 3.2/3, ms1mx2.7/30, Error ellipse: s-maj=48.2km s-min=19.5km az=65.0*
*JMA **05** 09:02:40.0±0.8, 31°.78N×142°.05E, h72km, M3.3*
*ISCJB **05** 09:02:41.8±0.8, 31°.84N±0°.06×141°.8E±0°.1, h26km, mb3.6/6, MS3.5/2, Error ellipse: s-maj=15.8km s-min=7.2km az=158.8*
**ISC 05 09:02:43.8**±1.1**, 31°.87N**±0°.09×**141°.8E**±0°.1**, h26**km**, n18, σ1s.67**/19**, mb3.6**/6**, Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JHCJ | Hachijojimakas | 2.05 | 306 | P | Pn | 09 03 16.1 | -0.5 |
| JHJ2 | Mitsune | 2.06 | 307 | P | Pn | 09 03 16.3 | -0.4 |
| JHJ | Hachijo jima 2 | 2.09 | 307 | Pn | Pn | 09 03 16.4 | -0.7 |
| | 38nm,0.3s,baz=75,slow=16,SNR=15 | | | | | | |
| JHJ | | | | Sn | Sn | 09 03 41.8 | -0.5 |
| | 20nm,0.3s,baz=82,slow=18,SNR=3.0 | | | | | | |
| BSO1 | Boso 1 | 2.85 | 347 | P | Pn | 09 03 26.4 | -0.7 |
| BSO1 | | | | eS | Sn | 09 04 01.6 | +1.3 |
| BSO3 | Boso 3 | 3.10 | 341 | S | Sn | 09 04 08.1 | +1.1 |
| JRY | Ryogami san | 4.77 | 331 | P | Pn | 09 03 54.1 | +0.1 |
| JRY | | | | eS | Sn | 09 04 50.7 | +2.2 |
| JAG | Ashikaga | 4.93 | 338 | P | Pn | 09 03 56.0 | -0.2 |
| MJAR | Matsushiro Arr | 5.51 | 329 | Pn | Pn | 09 04 04.8 | +0.6 |
| | 0.6nm,0.3s,baz=139,slow=11,SNR=5.2 | | | | | | |
| MJAR | | | | Sn | Sn | 09 05 02.7 | -4.0 |
| | 0.3nm,0.3s,baz=156,slow=12,SNR=3.0 | | | | | | |
| ASAJ | Asahikawa | 12.24 | 3 | Pn | Pn | 09 05 32.5 | -3.9 |
| | 0.2nm,0.3s,baz=225,slow=20,SNR=2.1 | | | | | | |
| KSRS | Korea Array | 12.68 | 300 | LR | LR | 09 11 08.7 | |
| | comp=Z,38nm,18.6s,baz=300,slow=40 | | | | | | |
| SONM | Songino Array | 31.16 | 311 | P | P | 09 09 02.3 | +1.7 |
| | 0.3nm,0.5s,baz=103,slow=9.0,SNR=3.5 | | | | | | |
| ZALV | Zalesovo Beam | 45.72 | 316 | P | P | 09 11 03.0 | +0.5 |
| | 0.3nm,0.4s,baz=108,slow=3.2,SNR=2.4 | | | | | | |
| MKAR | Makanchi Array | 47.26 | 306 | P | P | 09 11 15.0 | +0.2 |
| | 0.4nm,0.6s,baz=89,slow=9.8,SNR=4.3 | | | | | | |
| WRA | Warramunga Arr | 52.01 | 189 | P | P | 09 11 51.1 | 0.0 |
| | 1.0nm,0.8s,baz=6.1,slow=7.6,SNR=16 | | | | | | |
| ASAR | Alice Springs | 55.74 | 189 | P | P | 09 12 17.9 | -0.4 |
| | 0.3nm,0.7s,baz=20,slow=14,SNR=4.4 | | | | | | |
| NEW | Newport | 73.66 | 43 | LR | LR | 09 49 15.1 | |
| | comp=Z,36nm,18.2s,baz=327,slow=38 | | | | | | |
| NOA | NORSAR Array B | 79.06 | 338 | LR | LR | 09 52 59.6 | |
| | comp=Z,12nm,18.4s,baz=270,slow=38 | | | | | | |
| TXAR | Lajitas Array | 93.02 | 53 | P | P | 09 15 55.2 | -0.3 |
| | 0.5nm,0.9s,baz=283,slow=0.8,SNR=3.9 | | | | | | |

*IDC **05** 09:07:00.6±1.1, 31°.58N×129°.15E, h0km, mb3.5/4, mb1 3.7/5, mb1mx3.5/29, mbtmp3.5/5, ML3.3/1, Error ellipse: s-maj=31.7km s-min=20.9km az=93.0*
*JMA **05** 09:07:00.0±0.1, 31°.47N×129°.47E, h10km±1km, M3.6*
*JMA Felt I J1.*
**ISC 05 09:06:59.6**±1.6**, 31°.46N**±0°.04×**129°.47E**±0°.05**, h5**km±11km**, n14, σ1s.33**/22**, mb3.4**/4**, Kyushu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JSJ | Shimokoshiki | 0.30 | 43 | P | Pg | 09 07 05.7 | +0.2 |
| JSJ | | | | S | Sg | 09 07 09.9 | +0.4 |
| JSU | Suzuyama | 0.84 | 86 | P | Pb | 09 07 15.7 | -1.0 |
| JSU | | | | S | Sg | 09 07 27.2 | +0.6 |
| JKC | Kuchinoerabu | 1.17 | 148 | P | Pb | 09 07 21.6 | -0.7 |
| JKC | | | | S | Sn | 09 07 37.1 | -1.9 |
| JZO | Okuchi | 1.18 | 54 | P | Pn | 09 07 22.0 | -0.8 |
| JZO | | | | S | Sb | 09 07 38.0 | 0.0 |
| JFU | Fukue jima 2 | 1.34 | 333 | P | Pb | 09 07 24.4 | -0.9 |
| JFU | | | | S | Sb | 09 07 41.9 | -0.9 |
| JTZ | Takazaki | 1.45 | 72 | P | Pn | 09 07 25.8 | -0.7 |
| JTZ | | | | S | Sn | 09 07 44.3 | -1.6 |
| JYAK | Yakushimahirau | 1.51 | 143 | P | Pn | 09 07 26.4 | -0.9 |
| JTN | Tanegashima 3 | 1.52 | 121 | P | Pn | 09 07 26.6 | -0.9 |
| JIU2 | Izumi 2 | 1.57 | 46 | P | Pb | 09 07 29.1 | -0.1 |
| JIU2 | | | | S | Sb | 09 07 50.0 | +0.6 |
| JNU | Nakatsue | 2.04 | 35 | Pn | Pg | 09 07 38.4 | -0.3 |
| | 16nm,0.3s,baz=237,slow=12,SNR=165 | | | | | | |
| JNU | | | | Sn | Sb | 09 08 04.1 | +1.1 |
| | 40nm,0.3s,baz=270,slow=11,SNR=12 | | | | | | |
| SONM | Songino Array | 24.01 | 320 | P | P | 09 12 16.2 | +0.7 |
| | 0.1nm,0.3s,baz=110,slow=11,SNR=2.3 | | | | | | |
| WRA | Warramunga Arr | 51.32 | 174 | P | P | 09 16 07.9 | +2.9 |
| | 0.5nm,0.9s,baz=355,slow=8.4,SNR=3.1 | | | | | | |
| ASAR | Alice Springs | 54.98 | 175 | P | P | 09 16 34.6 | +2.7 |
| | 0.2nm,0.6s,baz=3.1,slow=14,SNR=4.7 | | | | | | |
| FINES | FINESS Array B | 68.88 | 330 | P | P | 09 18 03.9 | -1.1 |
| | 2.6nm,0.9s,baz=96,slow=10,SNR=2.6 | | | | | | |

*ATH **05** 09:12:18.3, 38°.87N×26°.39E, h27km±2km, ML2.2/3, Error ellipse: s-maj=4.3km s-min=1.5km az=265.0*
*ISK **05** 09:12:18.6, 38°.85N×26°.41E, h15km, MD2.9*
*DDA **05** 09:12:18.3, 38°.84N×26°.27E, h7km, Ml3.0*
*ISCJB **05** 09:12:19.0±0.4, 38°.85N±0°.02×26°.39E±0°.05, h11km±4km, Error ellipse: s-maj=6.0km s-min=3.1km az=170.5*
*CSEM **05** 09:12:19.1±0.1, 38°.83N×26°.40E, h15km, ML2.2, Error ellipse: s-maj=3.8km s-min=2.4km az=81.0*
*THE **05** 09:12:20.0, 38°.87N×26°.31E, h0km±1km, ML2.2/3, Error ellipse: s-maj=1.9km s-min=0.5km az=100.0*
**ISC 05 09:12:18.6**±1.0**, 38°.84N**±0°.02×**26°.40E**±0°.03**, h15**km±8km**, n53, σ0s.68**/73**, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PRK | Paraskevi | 0.42 | 346 | P | Pb | 09 12 27.8 | +0.1 |
| PRK | | | | S | Sg | 09 12 32.8 | 0.0 |

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PRK | | | | AML | AML | 09 12 34.3 | |
| | comp=N,1316μm,0.2s | | | | | | |
| PRK | | | | AML | AML | 09 12 34.4 | |
| | comp=E,979μm,0.2s | | | | | | |
| **PRK** | **Paraskevi** | **0.42** | **346** | P | **Pb** | **09 12 27.5** | **-0.2** |
| PRK | | | | S | **Sg** | **09 12 32.8** | **0.0** |
| **PRK** | **Paraskevi** | **0.42** | **346** | P | **Pb** | **09 12 27.5** | **-0.2** |
| PRK | | | | S | **Sb** | **09 12 33.9** | **+0.1** |
| **DKL** | **Dikili** | **0.46** | **60** | *e*PG | **Pg** | **09 12 27.9** | **+0.1** |
| DKL | | | | *e*SG | **Sb** | **09 12 34.9** | **0.0** |
| **DKL** | **Dikili** | **0.46** | **60** | *e*Pg | **Pg** | **09 12 27.9** | **+0.1** |
| DKL | | | | *e*Sg | **Sb** | **09 12 34.9** | **0.0** |
| **URLA** | **Izmir** | **0.50** | **162** | *i* P | **Pb** | **09 12 29.2** | **0.0** |
| URLA | | | | *i* S | **Sb** | **09 12 37.0** | **+0.7** |
| **URLA** | **Izmir** | **0.50** | **162** | P | **Pb** | **09 12 29.2** | **0.0** |
| URLA | | | | S | **Sb** | **09 12 37.0** | **+0.7** |
| **CHOS** | **Chios island** | **0.53** | **211** | P | **Pb** | **09 12 30.2** | **+0.7** |
| CHOS | | | | S | **Sn** | **09 12 38.8** | **-1.5** |
| CHOS | | | | AML | AML | 09 12 41.8 | |
| | comp=E,878μm,0.2s | | | | | | |
| CHOS | | | | AML | AML | 09 12 41.9 | |
| | comp=N,414μm,0.2s | | | | | | |
| **CHOS** | **Chios island** | **0.53** | **211** | P | **Pb** | **09 12 29.9** | **+0.3** |
| CHOS | | | | S | **Sn** | **09 12 38.8** | **-1.5** |
| **CHOS** | **Chios island** | **0.53** | **211** | P | **Pb** | **09 12 29.9** | **+0.3** |
| CHOS | | | | S | **Sn** | **09 12 38.8** | **-1.5** |
| **SIGR** | **SIGRI** | **0.56** | **311** | *e*PG | **Pb** | **09 12 30.3** | **+0.1** |
| **SIGR** | **SIGRI** | **0.56** | **311** | P | **Pb** | **09 12 30.7** | **+0.6** |
| SIGR | | | | S | **Sg** | **09 12 35.9** | **-1.3** |
| SIGR | | | | AML | AML | 09 12 41.9 | |
| | comp=E,228μm,0.2s | | | | | | |
| SIGR | | | | AML | AML | 09 12 41.9 | |
| | comp=N,304μm,0.2s | | | | | | |
| **SIGR** | **SIGRI** | **0.56** | **311** | P | **Pb** | **09 12 29.9** | **-0.2** |
| **SIGR** | **SIGRI** | **0.56** | **311** | *e*Pg | **Pb** | **09 12 30.3** | **+0.1** |
| SIGR | | | | S | **Sg** | **09 12 37.3** | **+0.1** |
| **SIGR** | **SIGRI** | **0.56** | **311** | P | **Pb** | **09 12 29.9** | **-0.2** |
| SIGR | | | | S | **Sg** | **09 12 37.3** | **+0.1** |
| **ZEY** | **˜zmir** | **0.61** | **172** | *i* P | **Pb** | **09 12 31.1** | **+0.2** |
| ZEY | | | | *i* S | **Sn** | **09 12 42.8** | **+0.7** |
| **DGB** | **˜zmir** | **0.87** | **154** | *i* P | **Pb** | **09 12 35.3** | **-0.1** |
| DGB | | | | *i* S | **Sn** | **09 12 48.7** | **0.0** |
| **BAYC** | **CANAKKALE_Bayr** | **0.91** | **7** | *i* P | **Pn** | **09 12 36.6** | **-0.2** |
| BAYC | | | | *i* S | **Sn** | **09 12 49.0** | **-0.6** |
| **BAYC** | **CANAKKALE_Bayr** | **0.91** | **7** | P | **Pn** | **09 12 36.6** | **-0.2** |
| BAYC | | | | S | **Sn** | **09 12 49.0** | **-0.6** |
| **EZN** | **Ezine** | **0.98** | **357** | *e*PG | **Pn** | **09 12 37.8** | **0.0** |
| **EZN** | **Ezine** | **0.98** | **357** | P | **Pn** | **09 12 38.4** | **+0.5** |
| EZN | | | | S | **Sn** | **09 12 52.5** | **+1.0** |
| **EZN** | **Ezine** | **0.98** | **357** | P | **Pn** | **09 12 38.4** | **+0.5** |
| EZN | | | | S | **Sn** | **09 12 52.5** | **+1.0** |
| **BOZC** | **Bozcaada** | **1.03** | **345** | *e*PG | **Pn** | **09 12 38.8** | **+0.2** |
| **BOZC** | **Bozcaada** | **1.03** | **345** | *i* P | **Pb** | **09 12 37.6** | **-0.6** |
| BOZC | | | | *i* S | **Sn** | **09 12 52.6** | **-0.2** |
| **BOZC** | **Bozcaada** | **1.03** | **345** | *e*Pg | **Pn** | **09 12 38.8** | **+0.2** |
| **SMG** | **Samos** | **1.18** | **163** | P | **Pn** | **09 12 39.6** | **-1.0** |
| **SMG** | **Samos** | **1.18** | **163** | P | **Pn** | **09 12 39.6** | **-1.0** |
| **GCAM** | **G?zelcaml?** | **1.31** | **150** | *e*PN | **Pb** | **09 12 42.9** | **-0.1** |
| **GCAM** | **G?zelcaml?** | **1.31** | **150** | *e*Pn | **Pb** | **09 12 42.9** | **-0.1** |
| **BALB** | **Balikesir** | **1.40** | **55** | *e*PN | **Pn** | **09 12 44.0** | **+0.4** |
| **BALB** | **Balikesir** | **1.40** | **55** | *e*Pn | **Pn** | **09 12 44.0** | **+0.4** |
| **GADA** | **Gvkgeada** | **1.40** | **344** | *e*PN | **Pb** | **09 12 44.2** | **-0.3** |
| **LIA** | **Limnos Island** | **1.42** | **319** | P | **Pn** | **09 12 44.0** | **+0.2** |
| **LIA** | **Limnos Island** | **1.42** | **319** | P | **Pn** | **09 12 44.0** | **+0.2** |
| **LPK** | **Lapseki** | **1.56** | **10** | *e*PN | **Pb** | **09 12 46.4** | **-0.7** |
| **LPK** | **Lapseki** | **1.56** | **10** | *e*Pn | **Pb** | **09 12 46.4** | **-0.7** |
| **GELI** | **Tayfur-Gelibol** | **1.56** | **2** | *e*PN | **Pn** | **09 12 46.2** | **+0.5** |
| **GELI** | **Tayfur-Gelibol** | **1.56** | **2** | *e*Pn | **Pn** | **09 12 46.2** | **+0.5** |
| **KRBG** | **Karabiga-Canak** | **1.70** | **24** | *e*PN | **Pn** | **09 12 48.5** | **+0.8** |
| **KRBG** | **Karabiga-Canak** | **1.70** | **24** | *e*Pn | **Pn** | **09 12 48.5** | **+0.8** |
| **SMTH** | **Samothraki Isl** | **1.76** | **338** | P | **Pn** | **09 12 49.3** | **+0.8** |
| **SMTH** | **Samothraki Isl** | **1.76** | **338** | P | **Pn** | **09 12 49.3** | **+0.8** |
| **ERIK** | **Erikli-Kesan** | **1.83** | **3** | *e*PN | **Pn** | **09 12 50.2** | **+0.8** |
| **ERIK** | **Erikli-Kesan** | **1.83** | **3** | *e*Pn | **Pn** | **09 12 50.2** | **+0.8** |
| **APE** | **Apeiranthos** | **1.90** | **201** | *e*PN | **Pn** | **09 12 51.3** | **+0.8** |
| **ENEZ** | **Enez** | **1.90** | **354** | *e*PN | **Pn** | **09 12 51.2** | **+0.8** |
| **ENEZ** | **Enez** | **1.90** | **354** | *e*Pn | **Pn** | **09 12 51.2** | **+0.8** |
| **RKY** | **Sarkoy-Tekirda** | **1.94** | **18** | *e*PN | **Pn** | **09 12 52.0** | **+0.9** |
| **RKY** | **Sarkoy-Tekirda** | **1.94** | **18** | *e*Pn | **Pn** | **09 12 52.0** | **+0.9** |
| **ALN** | **Alexandroupoli** | **2.07** | **353** | *e*PN | **Pn** | **09 12 53.6** | **+0.8** |
| **ALN** | **Alexandroupoli** | **2.07** | **353** | P | **Pb** | **09 12 54.5** | **-1.4** |
| **ALN** | **Alexandroupoli** | **2.07** | **353** | *e*Pn | **Pn** | **09 12 53.6** | **+0.8** |
| **ALN** | **Alexandroupoli** | **2.07** | **353** | P | **Pb** | **09 12 54.5** | **-1.4** |

*ATH **05** 09:15:50.8, 38°.87N×26°.34E, h26km±1km, ML2.6/3, Error ellipse: s-maj=4.1km s-min=1.2km az=266.0*
*ISK **05** 09:15:50.8, 38°.84N×26°.36E, h17km, ML2.7*
*DDA **05** 09:15:50.9, 38°.85N×26°.40E, h7km, Ml2.9*
*ISCJB **05** 09:15:51.1±0.4, 38°.86N±0°.02×26°.33E±0°.04, h10km±4km, Error ellipse: s-maj=6.0km s-min=3.2km az=167.2*
*CSEM **05** 09:15:51.4±0.1, 38°.86N×26°.35E, h12km, ML2.4, Error ellipse: s-maj=2.5km s-min=1.5km az=86.0*
*THE **05** 09:15:52.0, 38°.87N×26°.29E, h10km±1km, ML2.4/3, Error ellipse: s-maj=1.9km s-min=0.7km az=267.0*
**ISC 05 09:15:51.2**±0.9**, 38°.86N**±0°.02×**26°.35E**±0°.03**, h14**km±8km**, n50, σ0ˢ.43**/71**, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PRK** | **Paraskevi** | **0.39** | **351** | P | **Pb** | **09 15 59.7** | **-0.1** |
| PRK | | | | S | **Sg** | **09 16 04.4** | **+0.1** |
| PRK | | | | AML | AML | 09 16 05.7 | |
| | comp=E,1188μm,0.5s | | | | | | |
| PRK | | | | AML | AML | 09 16 10.1 | |
| | comp=N,1818μm,0.2s | | | | | | |
| **PRK** | **Paraskevi** | **0.39** | **351** | P | **Pg** | **09 15 59.3** | **+0.3** |
| PRK | | | | S | **Sg** | **09 16 04.4** | **+0.1** |
| **PRK** | **Paraskevi** | **0.39** | **351** | P | **Pg** | **09 15 59.3** | **+0.3** |
| **DKL** | **Dikili** | **0.48** | **64** | *e*PG | **Pb** | **09 16 01.0** | **-0.4** |
| DKL | | | | *e*SG | **Sb** | **09 16 08.2** | **-0.1** |
| **DKL** | **Dikili** | **0.48** | **64** | *e*Pg | **Pb** | **09 16 01.0** | **-0.4** |
| DKL | | | | *e*Sg | **Sb** | **09 16 08.2** | **-0.1** |
| **SIGR** | **SIGRI** | **0.52** | **312** | *e*PG | **Pb** | **09 16 02.1** | **0.0** |
| **SIGR** | **SIGRI** | **0.52** | **312** | P | **Pb** | **09 16 02.5** | **+0.4** |
| SIGR | | | | S | **Sg** | **09 16 07.7** | **-0.7** |
| **SIGR** | **SIGRI** | **0.52** | **312** | P | **Pg** | **09 16 01.6** | **+0.1** |
| **SIGR** | **SIGRI** | **0.52** | **312** | *e*Pg | **Pb** | **09 16 02.1** | **0.0** |
| SIGR | | | | S | **Sg** | **09 16 07.7** | **-0.7** |
| **SIGR** | **SIGRI** | **0.52** | **312** | P | **Pg** | **09 16 01.6** | **+0.1** |
| **CHOS** | **Chios island** | **0.53** | **206** | *e*PG | **Pg** | **09 16 01.4** | **-0.2** |
| **CHOS** | **Chios island** | **0.53** | **206** | P | **Pb** | **09 16 02.0** | **-0.2** |
| CHOS | | | | S | **Sb** | **09 16 09.8** | **0.0** |
| CHOS | | | | AML | AML | 09 16 13.3 | |
| | comp=E,1723μm,0.2s | | | | | | |
| CHOS | | | | AML | AML | 09 16 15.3 | |
| | comp=N,932μm,0.2s | | | | | | |
| **CHOS** | **Chios island** | **0.53** | **206** | *e*Pg | **Pg** | **09 16 01.4** | **-0.2** |
| **CHOS** | **Chios island** | **0.53** | **206** | P | **Pb** | **09 16 02.0** | **-0.2** |
| CHOS | | | | S | **Sb** | **09 16 09.8** | **0.0** |
| **CHOS** | **Chios island** | **0.53** | **206** | P | **Pg** | **09 16 01.8** | **+0.2** |
| CHOS | | | | S | **Sb** | **09 16 09.8** | **0.0** |
| **URLA** | **Izmir** | **0.54** | **159** | *i* P | **Pg** | **09 16 01.4** | **-0.3** |
| URLA | | | | *i* S | **Sg** | **09 16 08.7** | **-0.1** |
| **URLA** | **Izmir** | **0.54** | **159** | P | **Pg** | **09 16 01.4** | **-0.3** |
| URLA | | | | S | **Sg** | **09 16 08.7** | **-0.1** |
| **BAYC** | **CANAKKALE_Bayr** | **0.89** | **10** | *i* P | **Pg** | **09 16 08.3** | **-0.1** |
| BAYC | | | | *i* S | **Sb** | **09 16 20.8** | **+0.6** |
| **BAYC** | **CANAKKALE_Bayr** | **0.89** | **10** | P | **Pg** | **09 16 08.3** | **-0.1** |
| BAYC | | | | S | **Sb** | **09 16 20.8** | **+0.6** |
| **DGB** | **˜zmir** | **0.91** | **153** | *i* P | **Pg** | **09 16 07.9** | **-0.9** |
| DGB | | | | *i* S | **Sg** | **09 16 20.6** | **-0.1** |
| **EZN** | **Ezine** | **0.96** | **359** | *e*PG | **Pn** | **09 16 10.2** | **-0.1** |
| **EZN** | **Ezine** | **0.96** | **359** | P | **Pg** | **09 16 09.7** | **-0.1** |
| **EZN** | **Ezine** | **0.96** | **359** | *e*Pg | **Pn** | **09 16 10.2** | **-0.1** |
| EZN | | | | S | **Sn** | **09 16 23.3** | **-0.4** |
| **EZN** | **Ezine** | **0.96** | **359** | P | **Pg** | **09 16 09.7** | **-0.1** |
| EZN | | | | S | **Sn** | **09 16 23.3** | **-0.4** |
| **BOZC** | **Bozcaada** | **1.01** | **347** | *e*PG | **Pn** | **09 16 11.0** | **+0.1** |
| **BOZC** | **Bozcaada** | **1.01** | **347** | *e*Pg | **Pn** | **09 16 11.0** | **+0.1** |
| **SMG** | **Samos** | **1.21** | **162** | P | **Pg** | **09 16 15.8** | **+1.3** |
| SMG | | | | S | **Sb** | **09 16 29.3** | **-0.1** |
| SMG | | | | AML | AML | 09 16 32.0 | |
| | comp=E,501μm,0.4s | | | | | | |
| SMG | | | | AML | AML | 09 16 33.7 | |
| | comp=N,562μm,0.4s | | | | | | |
| **SMG** | **Samos** | **1.21** | **162** | P | **Pg** | **09 16 14.9** | **+0.4** |
| SMG | | | | S | **Sb** | **09 16 29.3** | **-0.1** |
| **SMG** | **Samos** | **1.21** | **162** | P | **Pg** | **09 16 14.9** | **+0.4** |
| SMG | | | | S | **Sg** | **09 16 31.4** | **+1.1** |
| **GADA** | **Gvkgeada** | **1.37** | **345** | *e*PN | **Pn** | **09 16 16.0** | **+0.1** |
| **GADA** | **Gvkgeada** | **1.37** | **345** | *e*Pn | **Pn** | **09 16 16.0** | **+0.1** |
| **LIA** | **Limnos Island** | **1.38** | **319** | P | **Pb** | **09 16 16.3** | **-0.3** |
| **LIA** | **Limnos Island** | **1.38** | **319** | P | **Pb** | **09 16 16.3** | **-0.3** |
| LIA | | | | S | **Sn** | **09 16 33.5** | **-0.4** |
| **LIA** | **Limnos Island** | **1.38** | **319** | P | **Pn** | **09 16 16.2** | **+0.3** |
| LIA | | | | S | **Sn** | **09 16 33.5** | **-0.4** |
| **GELI** | **Tayfur-Gelibol** | **1.54** | **3** | *e*PN | **Pn** | **09 16 18.5** | **+0.3** |
| **GELI** | **Tayfur-Gelibol** | **1.54** | **3** | *e*Pn | **Pn** | **09 16 18.5** | **+0.3** |
| **LPK** | **Lapseki** | **1.54** | **12** | *e*PN | **Pn** | **09 16 18.5** | **+0.3** |
| **LPK** | **Lapseki** | **1.54** | **12** | *e*Pn | **Pn** | **09 16 18.5** | **+0.3** |
| **KRBG** | **Karabiga-Canak** | **1.69** | **25** | *e*PN | **Pn** | **09 16 20.7** | **+0.4** |
| **KRBG** | **Karabiga-Canak** | **1.69** | **25** | *e*Pn | **Pn** | **09 16 20.7** | **+0.4** |
| **SMTH** | **Samothraki Isl** | **1.73** | **339** | P | **Pn** | **09 16 21.6** | **+0.8** |
| **SMTH** | **Samothraki Isl** | **1.73** | **339** | P | **Pn** | **09 16 21.6** | **+0.8** |
| **ERIK** | **Erikli-Kesan** | **1.81** | **4** | *e*PN | **Pn** | **09 16 22.4** | **+0.5** |
| **ERIK** | **Erikli-Kesan** | **1.81** | **4** | *e*Pn | **Pn** | **09 16 22.4** | **+0.5** |
| **ENEZ** | **Enez** | **1.88** | **355** | *e*PN | **Pn** | **09 16 23.5** | **+0.6** |
| **ENEZ** | **Enez** | **1.88** | **355** | *e*Pn | **Pn** | **09 16 23.5** | **+0.6** |
| **RKY** | **Sarkoy-Tekirda** | **1.93** | **19** | *e*PN | **Pn** | **09 16 24.4** | **+0.8** |
| **RKY** | **Sarkoy-Tekirda** | **1.93** | **19** | *e*Pn | **Pn** | **09 16 24.4** | **+0.8** |
| **ALN** | **Alexandroupoli** | **2.05** | **353** | P | **Pn** | **09 16 25.1** | **-0.1** |
| **ALN** | **Alexandroupoli** | **2.05** | **353** | P | **Pn** | **09 16 25.1** | **-0.1** |

*ISK **05** 09:29:59.2, 38°.63N×43°.10E, h6km, ML2.7*
*ISCJB **05** 09:30:00.6±0.4, 38°.66N±0°.02×43°.12E±0°.04, h5km±7km, Error ellipse: s-maj=4.8km s-min=3.8km az=164.0*
*DDA **05** 09:30:00.0, 38°.63N×43°.12E, h7km, Ml3.1*
*CSEM **05** 09:30:00.2±0.2, 38°.64N×43°.13E, h5km, ML2.7, Error ellipse: s-maj=4.5km s-min=4.0km az=101.0*
**ISC 05 09:30:00.4**±0.9**, 38°.65N**±0°.02×**43°.11E**±0°.02**, h10**km±8km**, n33, σ0ˢ.72**/54**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.22** | **103** | *e*PG | **Pg** | **09 30 05.0** | **-0.1** |
| VANB | | | | *e*SG | **Sg** | **09 30 09.3** | **+1.1** |
| **VANB** | **Van** | **0.22** | **103** | *e*Pg | **Pg** | **09 30 05.0** | **-0.1** |
| VANB | | | | *e*Sg | **Sg** | **09 30 09.3** | **+1.1** |
| **TVAN** | **Van** | **0.26** | **117** | *i* P | **Pg** | **09 30 04.9** | **-0.9** |
| TVAN | | | | *i* S | **Sg** | **09 30 09.8** | **+0.5** |
| **TVAN** | **Van** | **0.26** | **117** | P | **Pg** | **09 30 04.9** | **-0.9** |
| TVAN | | | | S | **Sg** | **09 30 09.8** | **+0.5** |
| **GEVA** | **Gevas** | **0.34** | **187** | *i* P | **Pg** | **09 30 06.5** | **-0.8** |
| GEVA | | | | *i* S | **Sb** | **09 30 13.8** | **-0.4** |
| **GEVA** | **Gevas** | **0.34** | **187** | P | **Pg** | **09 30 06.4** | **-0.8** |
| GEVA | | | | S | **Sb** | **09 30 13.8** | **-0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.34** | **298** | *i* P | **Pg** | **09 30 07.4** | **0.0** |
| ADCV | | | | *i* S | **Sb** | **09 30 13.9** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.34** | **298** | P | **Pg** | **09 30 07.4** | **0.0** |
| ADCV | | | | S | **Sb** | **09 30 13.9** | **-0.6** |
| **ERCV** | **ERCIS-VAN** | **0.41** | **25** | *e*PG | **Pg** | **09 30 08.5** | **-0.1** |
| **ERCV** | **ERCIS-VAN** | **0.41** | **25** | *e*Pg | **Pg** | **09 30 08.5** | **-0.1** |
| **VMUR** | **Van-Muradiye** | **0.49** | **46** | *i* P | **Pg** | **09 30 09.8** | **-0.3** |
| VMUR | | | | *i* S | **Sb** | **09 30 18.8** | **0.0** |
| **VMUR** | **Van-Muradiye** | **0.49** | **46** | P | **Pg** | **09 30 09.8** | **-0.3** |
| VMUR | | | | S | **Sb** | **09 30 18.8** | **0.0** |
| **TUTA** | **Tutak** | **0.79** | **343** | *i* P | **Pg** | **09 30 14.9** | **-0.8** |
| TUTA | | | | *i* S | **Sg** | **09 30 26.4** | **+0.4** |
| **TUTA** | **Tutak** | **0.79** | **343** | P | **Pg** | **09 30 14.9** | **-0.8** |
| TUTA | | | | S | **Sg** | **09 30 26.4** | **+0.4** |
| **CLDR** | **Caldiran** | **0.80** | **51** | *e*PG | **Pg** | **09 30 15.0** | **-0.9** |
| CLDR | | | | *e*SG | **Sb** | **09 30 27.5** | **-0.1** |
| **CLDR** | **Caldiran** | **0.80** | **51** | *i* P | **Pg** | **09 30 15.1** | **-0.9** |
| CLDR | | | | *i* S | **Sb** | **09 30 27.5** | **-0.1** |
| **CLDR** | **Caldiran** | **0.80** | **51** | P | **Pg** | **09 30 15.1** | **-0.8** |
| CLDR | | | | S | **Sb** | **09 30 27.5** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **0.93** | **354** | *e*PG | **Pg** | **09 30 17.7** | **-0.7** |
| AGRB | | | | *e*SG | **Sg** | **09 30 30.9** | **+0.3** |
| **AGRB** | **Hanur-Agry** | **0.93** | **354** | *e*Pg | **Pg** | **09 30 17.7** | **-0.7** |
| AGRB | | | | *e*Sg | **Sg** | **09 30 30.9** | **+0.3** |
| **EKAR** | **Karacoban** | **1.02** | **307** | *i* P | **Pb** | **09 30 20.4** | **+0.1** |
| **EKAR** | **Karacoban** | **1.02** | **307** | P | **Pb** | **09 30 20.5** | **+0.1** |
| **SRTM** | **Siirt_Merkez** | **1.14** | **235** | *i* P | **Pn** | **09 30 22.6** | **0.0** |
| **SRTM** | **Siirt_Merkez** | **1.14** | **235** | P | **Pn** | **09 30 22.6** | **0.0** |
| **SIRT** | **Sirnak** | **1.26** | **205** | *e*PN | **Pn** | **09 30 23.8** | **-0.5** |
| **SIRT** | **Sirnak** | **1.26** | **205** | *e*Pn | **Pn** | **09 30 23.8** | **-0.5** |
| **EATA** | **Eleskirt** | **1.31** | **339** | *i* P | **Pn** | **09 30 23.9** | **-1.2** |
| EATA | | | | *i* S | **Sn** | **09 30 45.0** | **+2.2** |
| **EATA** | **Eleskirt** | **1.31** | **339** | P | **Pn** | **09 30 23.9** | **-1.2** |
| EATA | | | | S | **Sn** | **09 30 45.0** | **+2.2** |
| **CUKT** | **Cukurca** | **1.45** | **164** | *e*PN | **Pn** | **09 30 26.6** | **-0.3** |
| **CUKT** | **Cukurca** | **1.45** | **164** | *e*Pn | **Pn** | **09 30 26.6** | **-0.3** |
| **BTMN** | **Batman** | **1.64** | **243** | *i* P | **Pb** | **09 30 31.0** | **+0.2** |
| BTMN | | | | *i* S | **Sg** | **09 30 53.0** | **0.0** |
| **BTMN** | **Batman** | **1.64** | **243** | P | **Pb** | **09 30 31.0** | **+0.2** |
| BTMN | | | | S | **Sg** | **09 30 53.0** | **0.0** |
| **DIGO** | **Kars** | **1.78** | **6** | *i* P | **Pb** | **09 30 32.6** | **-0.6** |
| **DIGO** | **Kars** | **1.78** | **6** | P | **Pb** | **09 30 32.7** | **-0.6** |

*ISCJB **05** 09:49:35.5±0.4, 8°.08S±0°.04×118°.67E±0°.04, h183km±4km, mb4.4/22, Error ellipse: s-maj=7.7km s-min=5.3km az=37.4*
*NEIC **05** 09:49:36.2±0.5, 8°.10S×118°.68E, h174km±5km, mb4.7/9, Error ellipse: s-maj=6.0km s-min=4.2km az=223.0*
*IDC **05** 09:49:37.8±0.7, 8°.05S×118°.70E, h187km±6km, mb3.8/17, mb1 4.0/19, mb1mx3.7/55, mbtmp4.4/19, MS2.9/1, Ms1 2.9/1, ms1mx2.3/39, Error ellipse: s-maj=18.4km s-min=8.5km az=63.0*
*DJA **05** 09:49:37.4±0.2, 8°S±4°×11°9E±°, h176km±4km, M4.9/9, mb5.0/9, mB5.4/4, MLv4.8/7, Mw(mB)4.9/4*
**ISC 05 09:49:36.4**±0.5**, 8°.19S**±0°.05×**118°.67E**±0°.05**, h180**km±5km**, h181**km**:pP-P, n73, σ1ˢ.77**/93**, mb4.3**/23**, 1D, Sumbawa region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PLAI** | **Plampang** | **1.08** | **234** | P | **Pn** | **09 50 05.8** | **+1.0** |
| PLAI | | | | S | **Sn** | **09 50 27.2** | **+0.5** |
| **EDFI** | **Ende, Flores** | **3.04** | **101** | P | **Pn** | **09 50 26.1** | **+0.4** |
| **DNP** | **Denpasar** | **3.45** | **262** | P | **Pn** | **09 50 33.5** | **+2.8** |
| **MMRI** | **Maumere** | **3.56** | **97** | P | **Pn** | **09 50 32.5** | **+0.4** |
| **MMRI** | **Maumere** | **3.56** | **97** | *e*Pn | **Pn** | **09 50 32.4** | **+0.4** |
| **JAGI** | **Jajag, Banyuwa** | **4.48** | **266** | P | **Pn** | **09 50 43.7** | **0.0** |
| **JAGI** | **Jajag, Banyuwa** | **4.48** | **266** | *e*Pn | **Pn** | **09 50 43.2** | **-0.4** |
| **SOEI** | **Soe** | **5.75** | **106** | P | **Pn** | **09 51 00.7** | **+0.4** |
| **SOEI** | **Soe** | **5.75** | **106** | *e*Pn | **Pn** | **09 51 00.6** | **+0.3** |
| **UGM** | **Wanagama** | **8.07** | **271** | P | **Pn** | **09 51 31.7** | **+1.0** |
| UGM | | | | S | **Sn** | **09 52 56.2** | **-5.1** |
| **UGM** | **Wanagama** | **8.07** | **271** | *e*Pn | **Pn** | **09 51 32.3** | **+1.6** |
| **LUWI** | **Luwuk** | **8.20** | **30** | *e*Pn | **Pn** | **09 51 30.8** | **-1.5** |
| **KPJI** | **Karang Pucung** | **9.69** | **274** | P | **Pn** | **09 51 52.5** | **+0.6** |
| **CISI** | **Cisompet, Garu** | **10.77** | **273** | P | **Pn** | **09 52 04.6** | **-1.6** |
| **CISI** | **Cisompet, Garu** | **10.77** | **273** | *e*Pn | **Pn** | **09 52 04.5** | **-1.6** |
| CISI | | | | *e*Sn | **Sn** | **09 54 00.1** | **-5.9** |
| **FITZ** | **Fitzroy Crossi** | **11.96** | **146** | P | **Pn** | **09 52 22.5** | **+1.1** |
| | 2.3nm,0.3s,baz=331,slow=9.7,SNR=40 | | | | | | |
| FITZ | | | | S | **Sn** | **09 54 26.9** | **-7.5** |
| | 3.7nm,0.3s,baz=3.5,slow=19,SNR=12 | | | | | | |
| **SAUI** | **Saumlaki** | **12.51** | **90** | P | **Pn** | **09 52 28.0** | **-0.5** |
| **MBWA** | **Marble Bar** | **12.93** | **176** | *e*Pn | **Pn** | **09 52 34.4** | **+0.6** |
| MBWA | | | | *e*Sn | **Sn** | **09 54 53.3** | **-4.3** |
| **FAKI** | **Fak Fak** | **14.49** | **70** | *e*Pn | **Pn** | **09 52 51.9** | **-1.6** |
| FAKI | | | | *e*S | **Sn** | **09 55 34.1** | **-1.1** |
| **WR1** | **Warramunga Arr** | **19.15** | **129** | *e*P | **P** | **09 53 46.7** | **+0.4** |
| | 18nm,0.7s | | | | | | |
| WR1 | | | | *e*S | **S** | **09 57 10.8** | **-3.0** |
| **WRA** | **Warramunga Arr** | **19.15** | **129** | P | **P** | **09 53 46.7** | **+0.4** |
| | 5.0nm,0.3s,baz=303,slow=12,SNR=370 | | | | | | |
| WRA | | | | S | **S** | **09 57 10.8** | **-3.0** |
| | 0.4nm,0.3s,baz=305,slow=21,SNR=7.6 | | | | | | |
| WRA | | | | ScP | **ScP** | **10 01 19.0** | **-2.5** |
| | 0.1nm,0.3s,baz=312,slow=2.5,SNR=4.0 | | | | | | |
| **WRAB** | **Tennant Creek** | **19.15** | **129** | *e*P | **P** | **09 53 46.8** | **+0.5** |
| | 19nm,0.6s | | | | | | |
| **WB2** | **Warramunga Arr** | **19.16** | **129** | *e*P | **P** | **09 53 45.9** | **-0.5** |
| WB2 | | | | *e*P | **Pn** | **09 53 46.9** | **-2.4** |
| **AS31** | **Alice Springs** | **21.21** | **138** | *e*P | **P** | **09 54 09.0** | **+0.7** |
| | 9.0nm,0.7s | | | | | | |
| AS31 | | | | *e*S | **S** | **09 57 51.9** | **-1.6** |
| **ASAR** | **Alice Springs** | **21.21** | **138** | P | **P** | **09 54 09.1** | **+0.7** |
| | 29nm,0.6s,baz=314,slow=8.8,SNR=196 | | | | | | |
| ASAR | | | | S | **S** | **09 57 51.9** | **-1.6** |
| | 11nm,0.9s,baz=324,slow=24,SNR=25 | | | | | | |
| ASAR | | | | ScP | **ScP** | **10 01 24.4** | **-2.0** |
| | 0.8nm,0.4s,baz=332,slow=3.0,SNR=4.3 | | | | | | |
| ASAR | | | | LR | LR | 10 03 04.0 | |
| | comp=Z,30nm,18.0s,baz=99,slow=38 | | | | | | |
| **AS01** | **Alice Springs** | **21.24** | **138** | *e*P | **P** | **09 54 08.7** | **+0.1** |
| AS01 | | | | *e*S | **S** | **09 57 54.8** | **+0.8** |
| **FORT** | **Forrest** | **24.13** | **160** | *e*P | **P** | **09 54 37.0** | **+1.2** |
| | 373nm,0.7s | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **24.65** | **183** | P | **P** | **09 54 41.8** | **+1.2** |
| | 14nm,0.7s,baz=270,slow=10,SNR=5.5 | | | | | | |
| **COEN** | **Coen** | **24.71** | **106** | *e*P | **P** | **09 54 41.7** | **+0.4** |
| | 8.8nm,0.6s | | | | | | |
| **CTA** | **Charters Tower** | **29.19** | **117** | P | **P** | **09 55 22.6** | **+1.3** |
| | 4.7nm,0.8s,baz=294,slow=11,SNR=3.8 | | | | | | |
| **STKA** | **Stephens Creek** | **31.78** | **141** | P | **P** | **09 55 45.2** | **+1.3** |
| | 3.4nm,0.5s,baz=323,slow=8.3,SNR=15 | | | | | | |
| STKA | | | | ScP | **ScP** | **10 01 55.5** | **-1.9** |
| | 1.4nm,0.7s,baz=329,slow=18,SNR=2.6 | | | | | | |
| **STKA** | **Stephens Creek** | **31.78** | **141** | *e*P | **P** | **09 55 45.1** | **+1.1** |
| | 1.0nm,0.6s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **32.86** | **324** | P | **P** | **09 55 53.5** | **0.0** |
| | 0.6nm,0.4s,baz=150,slow=6.2,SNR=3.9 | | | | | | |
| CMAR | | | | ScP | **ScP** | **10 02 00.2** | **-1.0** |
| | 0.7nm,0.4s,baz=180,slow=3.5,SNR=4.7 | | | | | | |
| **ENH** | **Enshi** | **39.25** | **347** | *e*P | **P** | **09 56 48.2** | **+0.7** |
| | 41nm,0.6s | | | | | | |
| **KS15** | **Wonju Array Si** | **46.21** | **10** | *e*P | **P** | **09 57 43.5** | **+0.1** |
| **KSAR** | **Wonju Array Be** | **46.21** | **10** | P | **P** | **09 57 43.5** | **+0.1** |
| **KSRS** | **Korea Array** | **46.23** | **10** | P | **P** | **09 57 43.5** | **0.0** |
| | 0.6nm,0.5s,baz=191,slow=11,SNR=3.7 | | | | | | |
| **DZM** | **Mont Dzumac** | **47.94** | **112** | P | **P** | **09 57 58.9** | **+1.7** |
| | 4.0nm,0.6s,baz=247,slow=12,SNR=8.2 | | | | | | |
| **DZM** | **Mont Dzumac** | **47.94** | **112** | *e*P | **P** | **09 57 58.4** | **+1.2** |
| | 29nm,1.4s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **53.52** | **12** | P | **P** | **09 58 38.1** | **-0.3** |
| | 1.3nm,0.4s,baz=197,slow=5.5,SNR=4.6 | | | | | | |
| **SONA0** | **Songino Array** | **56.83** | **350** | *e*P | **P** | **09 59 02.7** | **+0.5** |
| **SONM** | **Songino Array** | **56.83** | **350** | P | **P** | **09 59 02.7** | **+0.5** |
| | 0.7nm,0.5s,baz=170,slow=9.3,SNR=7.4 | | | | | | |
| **RPZ** | **Rata Peaks** | **57.62** | **137** | P | **P** | **09 59 09.4** | **+1.7** |
| | 15nm,0.9s,baz=252,slow=3.0,SNR=9.4 | | | | | | |
| **MK32** | **Makanchi Array** | **63.59** | **333** | *e*P | **P** | **09 59 47.8** | **-0.3** |
| MK32 | | | | *e*pP | **pP** | **10 00 31.8** | **+1.7** |
| **MKAR** | **Makanchi Array** | **63.59** | **333** | P | **P** | **09 59 47.8** | **-0.3** |
| | 0.9nm,0.5s,baz=157,slow=7.1,SNR=13 | | | | | | |
| MKAR | | | | pP | **pP** | **10 00 31.8** | **+1.7** |
| | 2.1nm,1.1s,baz=134,slow=8.7,SNR=2.5 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **68.10** | **334** | P | **P** | **10 00 15.9** | **-0.8** |
| | 0.4nm,0.4s,baz=144,slow=5.6,SNR=5.8 | | | | | | |
| KURBB | | | | pP | **pP** | **10 01 00.3** | **+1.0** |
| | 0.6nm,0.7s,baz=143,slow=5.5,SNR=3.9 | | | | | | |
| **KURK** | **Kurchatov** | **68.13** | **334** | *e*P | **P** | **10 00 15.9** | **-1.0** |
| KURK | | | | *e*pP | **pP** | **10 01 00.3** | **+0.8** |
| **ZALV** | **Zalesovo Beam** | **68.17** | **339** | P | **P** | **10 00 16.4** | **-0.7** |
| | 1.5nm,0.5s,baz=139,slow=5.6,SNR=7.1 | | | | | | |
| ZALV | | | | pP | **pP** | **10 01 00.4** | **+0.7** |
| | 0.9nm,0.6s,baz=160,slow=2.9,SNR=2.1 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **68.18** | **339** | *e*P | **P** | **10 00 16.4** | **-0.7** |
| ZAA1 | | | | *e*pP | **pP** | **10 01 00.4** | **+0.7** |
| **MAW** | **Mawson** | **69.88** | **200** | P | **P** | **10 00 29.6** | **+2.2** |
| | 3.2nm,0.6s,baz=6.6,slow=11,SNR=4.2 | | | | | | |
| **MAW** | **Mawson** | **69.88** | **200** | *e*P | **P** | **10 00 29.6** | **+2.2** |
| | 9.8nm,1.8s | | | | | | |
| **VNDA** | **Vanda** | **72.83** | **171** | P | **P** | **10 00 47.2** | **+2.3** |
| | 1.9nm,0.4s,baz=317,slow=6.9,SNR=24 | | | | | | |
| **VNDA** | **Vanda** | **72.83** | **171** | *e*P | **P** | **10 00 47.0** | **+2.0** |
| **BVAR** | **Borovoye Array** | **73.43** | **332** | pP | pP | 10 01 32.9 | +0.8 |
| | 0.6nm,0.6s,baz=94,slow=4.3,SNR=2.4 | | | | | | |
| **SYO** | **Syowa Base** | **78.48** | **201**⇓ | *e*P | **P** | **10 01 18.0** | **+0.9** |
| **LBTB** | **Lobatse** | **89.34** | **245** | P | **P** | **10 02 14.3** | **+1.1** |
| | 2.5nm,0.7s,baz=112,slow=12,SNR=2.7 | | | | | | |
| **LBTB** | **Lobatse** | **89.34** | **245** | *e*P | **P** | **10 02 14.0** | **+0.8** |
| | 49nm,2.0s | | | | | | |
| **SNAA** | **Sanae** | **91.69** | **196** | P | **P** | **10 02 24.8** | **+1.8** |
| | 1.5nm,0.7s,baz=161,slow=4.0,SNR=19 | | | | | | |
| **SNAA** | **Sanae** | **91.69** | **196** | *e*P | **P** | **10 02 24.8** | **+1.8** |
| | 13nm,0.6s | | | | | | |
| **KDAK** | **Kodiak Island** | **96.20** | **33** | P | **P** | **10 02 42.5** | **-1.2** |
| | 9.7nm,1.1s,baz=322,slow=12,SNR=2.7 | | | | | | |
| **KDAK** | **Kodiak Island** | **96.20** | **33** | *e*P | **P** | **10 02 42.5** | **-1.2** |
| | 256nm,2.0s | | | | | | |
| **YKA** | **Yellowknife Ar** | **113.59** | **24** | Pdiff | **Pdif** | **10 04 03.0** | **+1.8** |
| | 0.5nm,0.9s,baz=344,slow=3.3,SNR=3.9 | | | | | | |
| **YKA** | **Yellowknife Ar** | **113.59** | **24** | Pdif | **Pdif** | **10 04 03.0** | **+1.8** |
| **YKB5** | **Yellowknife Ar** | **113.59** | **24** | *e*Pdif | **Pdif** | **10 04 03.0** | **+1.8** |
| **TORD** | **Torodi Ar. Bea** | **117.99** | **281** | PKP | **PKPdf** | **10 08 02.4** | **-0.4** |
| | 0.6nm,0.7s,baz=32,slow=2.3,SNR=4.8 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **118.00** | **281** | *e*PKPdf | **PKPdf** | **10 08 02.4** | **-0.4** |
| **DBIC** | **Dimbokro** | **124.01** | **273** | PKP | **PKPdf** | **10 08 14.2** | **-0.1** |
| | 2.5nm,0.8s,baz=27,slow=2.3,SNR=2.4 | | | | | | |
| **PD31** | **Pinedale Array** | **125.55** | **42** | *e*PKPpre | PKPpre | 10 08 10.4 | |
| **PDAR** | **Pinedale Array** | **125.55** | **42** | PKhKP | PKPpre | 10 08 10.4 | |
| | 0.2nm,0.6s,baz=253,slow=5.6,SNR=2.2 | | | | | | |
| **PLCA** | **Paso Flores** | **130.58** | **171** | SKPbc | **SKPbc** | **10 11 32.7** | **-0.7** |
| | 2.0nm,1.0s,baz=237,slow=15,SNR=2.9 | | | | | | |
| **LTX** | **Lajitas** | **135.07** | **56** | *e*PKPdf | **PKPdf** | **10 08 36.2** | **+1.1** |
| **TXAR** | **Lajitas Array** | **135.07** | **56** | PKhKP | PKPpre | 10 08 24.0 | |
| | 0.2nm,0.6s,baz=332,slow=3.1,SNR=3.1 | | | | | | |
| TXAR | | | | PKP | **PKiKP** | **10 08 36.2** | **-0.4** |
| | 0.2nm,0.7s,baz=326,slow=4.7,SNR=3.3 | | | | | | |
| TXAR | | | | SKPbc | **SKPbc** | **10 11 47.8** | **-1.3** |
| | 0.4nm,0.8s,baz=222,slow=1.7,SNR=5.0 | | | | | | |
| **CPUP** | **Villa Florida** | **145.47** | **186** | PKPbc | **PKPbc** | **10 08 54.3** | **+0.1** |
| | 2.0nm,0.7s,baz=179,slow=1.0,SNR=4.4 | | | | | | |

*IDC **05** 10:00:59.3±0.8, 55°.91S×27°.15W, h0km, mb4.3/9, mb1 4.4/10, mb1mx4.1/27, mbtmp4.3/10, ML4.3/1, MS2.7/1, Ms1 2.7/1, ms1mx2.4/15, Error ellipse: s-maj=28.3km s-min=18.9km az=84.0*
*ISCJB **05** 10:01:06.2±0.5, 55°.99S±0°.08×27°.0W±0°.2, h63km, mb4.4/13, Error ellipse: s-maj=14.0km s-min=11.3km az=150.0*
*NEIC **05** 10:01:10.2±1.4, 56°.02S×27°.16W, h90km±13km, mb4.5/9, Error ellipse: s-maj=12.4km s-min=8.4km az=66.0*
**ISC 05 10:01:07.7**±0.6**, 56°.0S**±0°.1×**27°.0W**±0°.1**, h63**km**, n36, σ0ˢ.88**/29**, mb4.4**/11**, South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HOPE** | **Hope Point** | **5.71** | **283** | *e*Pn | **Pn** | **10 02 31.0** | **+1.1** |
| **SNAA** | **Sanae** | **18.77** | **156** | P | **P** | **10 05 21.5** | **+0.1** |
| | 0.9nm,0.3s,baz=303,slow=9.6,SNR=46 | | | | | | |
| **SNAA** | **Sanae** | **18.77** | **156** | *e*P | **P** | **10 05 21.4** | **0.0** |
| | 13nm,0.6s | | | | | | |
| **PLCA** | **Paso Flores** | **32.10** | **280** | LR | LR | 10 18 34.7 | |
| | comp=Z,16nm,21.8s,baz=230,slow=33 | | | | | | |
| **QSPA** | **South Pole Qui** | **34.28** | **180** | *e*P | **P** | **10 07 47.0** | **-0.5** |
| | 5.4nm,0.8s | | | | | | |
| **CPUP** | **Villa Florida** | **36.85** | **311** | P | **P** | **10 08 09.2** | **-0.5** |
| | 6.0nm,1.3s,baz=129,slow=8.9,SNR=3.8 | | | | | | |
| **CPUP** | **Villa Florida** | **36.85** | **311** | *e*P | **P** | **10 08 08.6** | **-1.1** |
| | 9.7nm,1.5s | | | | | | |
| **MAW** | **Mawson** | **40.14** | **144** | P | **P** | **10 08 37.2** | **+0.4** |
| | 1.2nm,0.3s,baz=275,slow=12,SNR=4.8 | | | | | | |
| **MAW** | **Mawson** | **40.14** | **144** | *e*P | **P** | **10 08 37.2** | **+0.4** |
| | 12nm,1.9s | | | | | | |
| **VNDA** | **Vanda** | **46.66** | **183** | P | **P** | **10 09 29.8** | **+0.7** |
| | 3.8nm,0.7s,baz=179,slow=7.1,SNR=15 | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **47.89** | **17** | T | T | 11 01 48.2 | |
| | baz=190,slow=75,SNR=43 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **47.89** | **17** | T | T | 11 01 49.9 | |
| | baz=190,slow=75,SNR=42 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **47.91** | **17** | T | T | 11 01 48.7 | |
| | baz=190,slow=75,SNR=30 | | | | | | |
| **LBTB** | **Lobatse** | **48.87** | **73** | P | **P** | **10 09 47.5** | **+0.4** |
| | 2.2nm,0.7s,baz=223,slow=9.0,SNR=3.2 | | | | | | |
| **LBTB** | **Lobatse** | **48.87** | **73** | *e*P | **P** | **10 09 47.5** | **+0.4** |
| | 24nm,1.6s | | | | | | |
| **H10N1** | **ASCENSION HYDR** | **49.01** | **17** | T | T | 11 03 07.1 | |
| | baz=189,slow=75,SNR=5.1 | | | | | | |
| **H10N3** | **ASCENSION HYDR** | **49.01** | **16** | T | T | 11 03 10.0 | |
| | baz=189,slow=75,SNR=16 | | | | | | |
| **H10N2** | **ASCENSION HYDR** | **49.02** | **16** | T | T | 11 03 08.8 | |
| | baz=189,slow=75,SNR=9.5 | | | | | | |
| **TSUM** | **Tsumeb** | **49.54** | **61** | P | **P** | **10 09 52.6** | **+0.4** |
| | 1.0nm,0.4s,baz=192,slow=4.1,SNR=3.8 | | | | | | |
| **LPAZ** | **La Paz** | **50.43** | **305** | *e*P | **P** | **10 10 00.0** | **+0.5** |
| | 3.8nm,0.7s | | | | | | |
| **DBIC** | **Dimbokro** | **65.05** | **24** | P | **P** | **10 11 40.9** | **-0.4** |
| | 5.3nm,0.9s,baz=168,slow=10,SNR=3.5 | | | | | | |
| **DBIC** | **Dimbokro** | **65.05** | **24** | *e*P | **P** | **10 11 40.9** | **-0.4** |
| | 17nm,1.3s | | | | | | |
| **TOA0** | **Torodi Ar. Sit** | **72.93** | **29** | *e*P | **P** | **10 12 30.4** | **+0.3** |
| | 5.3nm,1.0s | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **72.93** | **29** | P | **P** | **10 12 30.5** | **+0.4** |
| | 1.6nm,0.3s,baz=200,slow=6.1,SNR=34 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **72.93** | **29** | *e*P | **P** | **10 12 30.5** | **+0.4** |
| **MDT** | **Midelt** | **90.47** | **19** | P | **P** | **10 14 03.3** | **+1.2** |
| | 1.1nm,0.6s,baz=153,slow=6.8,SNR=3.1 | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| ASAR | Alice Springs | 99.03 | 162 | P | Pdif | 10 14 40.8 | -0.8 |
| | 0.3nm,0.8s,baz=203,slow=6.9,SNR=3.0 | | | | | | |
| AS31 | Alice Springs | 99.03 | 162 | eP | Pdif | 10 14 40.8 | -0.8 |
| | 0.6nm,0.9s | | | | | | |
| WR1 | Warramunga Arr | 102.75 | 162 | ePdif | Pdif | 10 14 58.9 | +0.7 |
| WRA | Warramunga Arr | 102.75 | 162 | P | Pdif | 10 14 58.9 | +0.7 |
| | 0.2nm,1.0s,baz=214,slow=4.1,SNR=2.4 | | | | | | |
| YKA | Yellowknife Ar | 136.19 | 318 | PKP | PKPdf | 10 20 18.4 | -1.9 |
| | 0.8nm,0.7s,baz=130,slow=1.9,SNR=5.3 | | | | | | |
| YKB5 | Yellowknife Ar | 136.19 | 318 | ePKPdf | PKPdf | 10 20 18.4 | -1.9 |
| ILAR | Eielson Array | 150.15 | 312 | PKPbc | PKPbc | 10 20 49.0 | -0.7 |
| | 2.9nm,0.8s,baz=137,slow=2.1,SNR=26 | | | | | | |
| ILB | Eielson Array | 150.15 | 312 | ePKPbc | PKPbc | 10 20 48.3 | -1.5 |
| SONA0 | Songino Array | 150.60 | 86 | ePKPbc | PKPbc | 10 20 50.8 | -0.8 |
| SONM | Songino Array | 150.60 | 86 | PKPbc | PKPbc | 10 20 50.8 | -0.8 |
| | 1.4nm,0.6s,baz=225,slow=3.6,SNR=9.8 | | | | | | |

*CSEM 05 10:02:22.4, 41°.92N×26°.88E, h5km, MD2.6*
**ISK 05 10:02:22.4, 41°.92N×26°.88E, h5km, MD2.6, Greece-Bulgaria border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| EDRB | Edirne | 0.12 | 236 | ePG | Pg | 10 02 25.3 | +0.4 |
| EDRB | Edirne | 0.12 | 236 | ePg | Pg | 10 02 25.3 | +0.4 |
| PHSR | Pinarhisar | 0.56 | 120 | ePG | Pg | 10 02 33.5 | +0.3 |
| PHSR | | | | eSG | Sg | 10 02 41.5 | +1.1 |
| PHSR | Pinarhisar | 0.56 | 120 | ePg | Pg | 10 02 33.5 | +0.4 |
| PHSR | | | | eSg | Sg | 10 02 41.5 | +1.1 |
| CTYL | Yalikoy Yolu | 1.14 | 112 | ePN | Pb | 10 02 44.6 | 0.0 |
| CTYL | | | | eSN | Sn | 10 03 00.8 | -0.2 |
| CTYL | Yalikoy Yolu | 1.14 | 112 | ePn | Pb | 10 02 44.6 | 0.0 |
| CTYL | | | | eSn | Sn | 10 03 00.8 | -0.2 |
| ALN | Alexandroupoli | 1.20 | 212 | ePN | Pn | 10 02 46.0 | +0.3 |
| ALN | Alexandroupoli | 1.20 | 212 | ePn | Pn | 10 02 46.1 | +0.3 |
| SLVT | Silivri | 1.21 | 124 | ePN | Pn | 10 02 46.4 | +0.5 |
| SLVT | Silivri | 1.21 | 124 | ePn | Pn | 10 02 46.4 | +0.4 |
| SBT3 | Marmara-Eregli | 1.32 | 141 | ePN | Pg | 10 02 48.7 | +1.1 |
| SBT3 | Marmara-Eregli | 1.32 | 141 | ePn | Pg | 10 02 48.7 | +1.1 |
| CTKS | Kestanelik-??a | 1.40 | 119 | ePN | Pg | 10 02 49.3 | +0.2 |
| CTKS | Kestanelik-??a | 1.40 | 119 | ePn | Pg | 10 02 49.3 | +0.2 |

*ISCJB 05 10:04:58.6±0.7, 34°.36N±0°.04×36°.66E±0°.04, h9km±6km, Error ellipse: s-maj=7.0km s-min=5.1km az=140.3*
*NSSC 05 10:04:58.1±1.4, 34°.38N×36°.66E, h0km±12km, ML2.1*
*GRAL 05 10:05:00.2±0.3, 34°.32N×36°.63E, h4km±2km, MD2.9*
**ISC 05 10:04:58.6±1.2, 34°.32N±0°.06×36°.66E±0°.04, h15km±12km, n9, σ0s.44/16, Jordan-Syria region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| FKH | Fakeheh | 0.22 | 250 | eP | Pg | 10 05 03.8 | +0.1 |
| ROOS | tl_alroos | 0.54 | 106 | eP | Pg | 10 05 09.1 | -0.3 |
| ROOS | | | | eS | Sb | 10 05 17.8 | +0.3 |
| ROOS | | | | AML | AML | 10 05 20.6 | |
| | comp=N,149nm,0.3s | | | | | | |
| ROOS | | | | AML | AML | 10 05 24.3 | |
| | comp=E,107nm,0.3s | | | | | | |
| HWQ | Hawqa | 0.59 | 266 | eP | Pg | 10 05 10.6 | +0.2 |
| HWQ | | | | eS | Sg | 10 05 18.1 | -0.2 |
| BHL | Bhannes | 0.93 | 244 | eP | Pg | 10 05 16.7 | 0.0 |
| RCY | Rachaya | 1.07 | 220 | eP | Pg | 10 05 19.1 | -0.2 |
| RCY | | | | eS | Sg | 10 05 33.4 | 0.0 |
| DQRL | Deir Qamar | 1.09 | 236 | eP | Pg | 10 05 19.5 | -0.2 |
| DQRL | | | | eS | Sg | 10 05 33.8 | -0.3 |
| ARNB | Al Arnab | 1.64 | 340 | eP | Pn | 10 05 27.1 | +0.2 |
| ARNB | | | | eS | Sb | 10 05 48.6 | -0.4 |
| ARNB | | | | AML | AML | 10 05 51.5 | |
| | comp=N,44nm,0.3s | | | | | | |
| ARNB | | | | AML | AML | 10 05 51.8 | |
| | comp=E,65nm,0.5s | | | | | | |
| BTCH | Batrach | 1.72 | 355 | eP | Pn | 10 05 28.0 | -0.1 |
| BTCH | | | | eS | Sb | 10 05 51.2 | -0.2 |
| BTCH | | | | AML | AML | 10 05 56.2 | |
| | comp=E,44nm,0.2s | | | | | | |
| BTCH | | | | AML | AML | 10 05 58.3 | |
| | comp=N,64nm,0.4s | | | | | | |
| DRWC | Darouich | 2.29 | 0 | eP | Pn | 10 05 37.1 | +1.2 |
| DRWC | | | | eS | Sn | 10 06 03.5 | -0.5 |
| DRWC | | | | AML | AML | 10 06 13.8 | |
| | comp=E,18nm,0.7s | | | | | | |
| DRWC | | | | AML | AML | 10 06 20.1 | |
| | comp=N,6.8nm,0.7s | | | | | | |

*IDC 05 10:11:53.4±1.4, 24°.67N×121°.82E, h0km, mb3.7/5, mb1 3.8/6, mb1mx3.5/48, mbtmp3.8/6, ML3.8/1, MS4.2/1, Ms1 4.2/1, ms1mx2.5/37, Error ellipse: s-maj=64.0km s-min=21.9km az=66.0*
*ISCJB 05 10:12:10.6±0.5, 25°.22N±0°.09×122°.97E±0°.06, h186km±7km, mb3.5/5, Error ellipse: s-maj=15.3km s-min=6.8km az=157.1*
*JMA 05 10:12:12.7±0.3, 25°.05N×122°.91E, h178km±3km, M4.0*
**ISC 05 10:12:11.1±0.9, 25°.29N±0°.10×122°.95E±0°.07, h181km±10km, n28, σ1s.22/43, mb3.3/5, Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| YOJ | Yonaguni jima | 0.82 | 176 | P | Pn | 10 12 37.9 | +0.1 |
| YOJ | | | | S | Sn | 10 12 57.4 | -1.0 |
| JYNG | Yonagunijimaku | 0.83 | 180 | P | Pn | 10 12 38.0 | +0.1 |
| JYNG | | | | S | Sn | 10 12 57.7 | -0.8 |
| IRIF | Iriomote-Funau | 1.18 | 143 | P | Pn | 10 12 40.6 | +0.2 |
| IRIF | | | | eS | Sn | 10 13 01.8 | -1.2 |
| JISG | Ishigakijimahi | 1.42 | 119 | P | Pn | 10 12 42.8 | +0.3 |
| JISG | | | | S | Sn | 10 13 05.8 | -0.9 |
| JKRS | Kuro-shima | 1.42 | 137 | P | Pn | 10 12 43.2 | +0.7 |
| JKRS | | | | S | Sn | 10 13 05.6 | -1.1 |
| JIJ | Ishigaki jima | 1.42 | 130 | P | Pn | 10 12 42.9 | +0.4 |
| JIJ | | | | S | Sn | 10 13 04.7 | -2.0 |
| HATJ | Hateruma jima | 1.45 | 147 | P | Pn | 10 12 43.2 | +0.4 |
| HATJ | | | | eS | Sn | 10 13 06.1 | -1.1 |
| JTJ | Tarama | 1.72 | 112 | P | Pn | 10 12 46.5 | +1.2 |
| JTJ | | | | S | Sn | 10 13 11.6 | -0.2 |
| JIRB | Irabujima | 2.07 | 102 | P | Pn | 10 12 50.2 | +1.2 |
| JIRB | | | | S | Sn | 10 13 17.6 | -0.8 |
| JIKM | Ikemajima | 2.12 | 99 | P | Pn | 10 12 51.3 | +1.8 |
| JIKM | | | | eS | Sn | 10 13 19.6 | +0.3 |
| JMJ | Miyako jima 2 | 2.18 | 102 | P | Pn | 10 12 52.0 | +1.8 |
| JMJ | | | | S | Sn | 10 13 20.2 | -0.4 |
| JOGS | Gusukube | 2.29 | 103 | P | Pn | 10 12 53.3 | +1.8 |
| JOGS | | | | S | Sn | 10 13 23.1 | +0.2 |
| JKE | Kume jima 2 | 3.61 | 72 | P | Pn | 10 13 08.8 | +1.4 |
| JKE | | | | S | Sn | 10 13 52.8 | +1.5 |
| JAGN | Aguni-jima | 4.08 | 71 | P | Pn | 10 13 14.5 | +1.2 |
| JJT2 | Tamagusuku 2 | 4.41 | 78 | P | Pn | 10 13 19.2 | +1.6 |
| JNTH | Nagotoyohara | 4.73 | 74 | P | Pn | 10 13 22.4 | +0.8 |
| JNTH | | | | S | Sn | 10 14 14.7 | -2.3 |
| JOW | Kunigami | 5.03 | 71 | P | Pn | 10 13 25.7 | +0.2 |
| JOW | | | | S | Sn | 10 14 20.7 | -3.3 |
| JOKE | Okinoerabujima | 5.45 | 66 | P | Pn | 10 13 30.8 | -0.2 |
| JTK | Tokunoshima | 5.93 | 64 | P | Pn | 10 13 36.9 | -0.3 |
| JAMN | Amaminishikomi | 6.30 | 61 | P | Pn | 10 13 41.3 | -0.7 |
| JAMN | | | | S | Sn | 10 14 51.6 | -2.1 |
| JMZ | Minamidaito 2 | 7.49 | 84 | P | Pn | 10 13 57.0 | -0.7 |
| KSRS | Korea Array | 12.85 | 18 | Pn | P | 10 15 11.4 | +0.2 |
| | 0.5nm,0.3s,baz=198,slow=12,SNR=30 | | | | | | |
| SONM | Songino Array | 26.03 | 334 | P | P | 10 17 28.9 | +1.4 |
| | 0.6nm,0.8s,baz=134,slow=8.3,SNR=3.5 | | | | | | |
| MKAR | Makanchi Array | 38.69 | 314 | P | P | 10 19 18.2 | +0.9 |
| | 0.7nm,0.4s,baz=105,slow=8.4,SNR=12 | | | | | | |
| ZALV | Zalesovo Beam | 40.22 | 326 | P | P | 10 19 29.4 | -0.4 |
| | 0.6nm,0.4s,baz=133,slow=8.5,SNR=2.7 | | | | | | |
| KURBB | Kurchatov Arra | 42.33 | 319 | P | P | 10 19 46.9 | -0.1 |
| | 0.5nm,0.6s,baz=110,slow=8.2,SNR=3.2 | | | | | | |
| WRA | Warramunga Arr | 46.30 | 165 | P | P | 10 20 18.4 | -0.4 |
| | 0.6nm,0.5s,baz=340,slow=7.2,SNR=16 | | | | | | |
| CTA | Charters Tower | 50.47 | 151 | LR | LR | 10 40 34.9 | |
| | comp=Z,246nm,21.4s,baz=250,slow=34 | | | | | | |

**MEX 05 10:19:14.9±0.5, 26°.83N×110°.94W, h8km±34km, MD3.8, Gulf of California**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SRIG | Santa Rosalia | 1.26 | 293 | eP | Pn | 10 19 35.1 | -3.7 |
| SRIG | | | | eS | Sb | 10 19 50.6 | -4.6 |
| LPIG | La Paz | 2.78 | 168 | eP | Pn | 10 19 56.9 | -2.8 |
| LPIG | | | | eS | Sn | 10 20 29.3 | -4.1 |
| SLBS | Sierra La Lagu | 3.26 | 164 | eP | Pn | 10 20 03.1 | -3.3 |
| SLBS | | | | eS | Sn | 10 20 42.1 | -3.3 |

**IDC 05 10:24:36.2±2.8, 16°.57S×174°.03W, h0km, mb3.9/3, mb1 4.1/4, mb1mx3.7/37, mbtmp3.8/4, ML3.0/1, Error ellipse: s-maj=155.0km s-min=22.1km az=145.0, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AFI | Afiamalu | 3.42 | 40 | Pn | Pn | 10 25 29.0 | -1.9 |
| | 1.6nm,0.3s,baz=171,slow=19,SNR=3.1 | | | | | | |
| AFI | | | | Sn | Sn | 10 26 12.3 | 0.0 |
| | 2.6nm,0.3s,baz=210,slow=20,SNR=3.2 | | | | | | |
| WRA | Warramunga Arr | 48.99 | 258 | P | P | 10 33 25.0 | -0.1 |
| | 0.1nm,0.3s,baz=98,slow=7.3,SNR=8.9 | | | | | | |
| ASAR | Alice Springs | 49.18 | 253 | P | P | 10 33 25.9 | -0.6 |
| | 5.7nm,0.3s,baz=95,slow=7.9,SNR=9.3 | | | | | | |
| PDAR | Pinedale Array | 83.53 | 42 | P | P | 10 37 07.5 | +1.0 |
| | 0.1nm,0.3s,baz=201,slow=4.8,SNR=3.9 | | | | | | |

**IDC 05 10:42:35.2±5.9, 49°.82S×112°.34E, h0km, mb4.3/2, mb1 4.5/2, mb1mx3.8/22, mbtmp4.3/2, MS2.8/1, Ms1 2.7/1, ms1mx2.4/16, Error ellipse: s-maj=247.6km s-min=52.1km az=108.0, Southeast Indian Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| H01W2 | Cape Leeuwin H | 14.97 | 6 | T | T | 11 00 58.4 | |
| | baz=194,slow=74,SNR=16 | | | | | | |
| H01W1 | Cape Leeuwin H | 14.98 | 6 | T | T | 11 00 59.6 | |
| | baz=194,slow=74,SNR=16 | | | | | | |
| H01W3 | Cape Leeuwin H | 14.99 | 6 | T | T | 11 00 59.6 | |
| | baz=194,slow=74,SNR=13 | | | | | | |
| STKA | Stephens Creek | 28.22 | 62 | LR | LR | 10 58 18.8 | |
| | comp=Z,19nm,21.7s,baz=204,slow=33 | | | | | | |
| ASAR | Alice Springs | 31.09 | 41 | P | P | 10 48 54.9 | -0.2 |
| | 4.7nm,0.3s,baz=215,slow=7.8,SNR=5.7 | | | | | | |
| WRA | Warramunga Arr | 34.59 | 38 | P | P | 10 49 26.0 | +0.2 |
| | 1.0nm,0.9s,baz=205,slow=9.1,SNR=4.6 | | | | | | |
| TXAR | Lajitas Array | 145.98 | 113 | PKPbc | PKPdf | 11 02 15.8 | -0.1 |
| | 0.2nm,0.8s,baz=190,slow=3.3,SNR=2.2 | | | | | | |

**IDC 05 11:00:50.4±999.0, 46°.57N×48°.22E, h0km, Error ellipse: s-maj=3864.0km s-min=177.1km az=57.0, Ukraine-Moldova-Southwestern Russia region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| I31KZ | AKTYUBINSK INF | 7.57 | 56 | i | | 11 42 45.0 | |
| | baz=244,slow=301,SNR=6.6 | | | | | | |
| I46RU | ZALESOVO INFRA | 24.32 | 59 | i | | 13 31 40.0 | |
| | baz=267,slow=320,SNR=1.4 | | | | | | |
| I34MN | SONGINO INFRAS | 38.76 | 66 | i | | 14 59 00.0 | |
| | baz=289,slow=374,SNR=0.9 | | | | | | |

*ATA 05 11:10:22.1±0.7, 39°.39N×39°.92E, h0km±45km, ML3.2, MW3.0*
*ISCJB 05 11:10:24.5±1.2, 39°.30N±0°.05×40°.05E±0°.09, h8km, Error ellipse: s-maj=10.6km s-min=6.6km az=155.8*
*CSEM 05 11:10:26.5, 39°.37N×40°.39E, h20km, MD2.4*
*ISK 05 11:10:26.5, 39°.37N×40°.39E, h20km, MD2.4*
**ISC 05 11:10:24.1±1.2, 39°.39N±0°.06×40°.12E±0°.05, h8km, n11, σ1s.77/13, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| YEDI | Yedisu-Bingol | 0.33 | 82 | ePG | Pb | 11 10 31.1 | -1.3 |
| YEDI | Yedisu-Bingol | 0.33 | 82 | ePg | Pb | 11 10 31.1 | -1.3 |
| ERZN | Erzincan | 0.36 | 302 | ePG | Pn | 11 10 38.1 | +2.3 |
| BINT | Bingol | 0.59 | 151 | ePg | Pb | 11 10 35.9 | -0.9 |
| BINT | | | | eSg | Sg | 11 10 42.9 | -0.4 |
| BNGB | Bingˆ¶l | 0.59 | 133 | ePG | Pb | 11 10 35.9 | -0.9 |
| BNGB | | | | eSG | Sg | 11 10 42.9 | -0.4 |
| EZC | Erzincan | 0.69 | 301 | ePg | Pn | 11 10 38.1 | -2.2 |
| ECAT | Cat-ERZURUM | 0.69 | 72 | eP | Pn | 11 10 39.3 | -1.2 |
| ECAT | | | | IAML | | 11 10 51.2 | |
| | comp=Z,18nm,0.4s | | | | | | |
| ECAT | | | | eS | Sn | 11 10 53.0 | +1.5 |
| PTK | Pertek | 0.76 | 229 | ePG | Pn | 11 10 44.9 | +3.7 |
| PTK | Pertek | 0.76 | 229 | ePg | Pn | 11 10 44.9 | +3.7 |
| BNGL | BINGOL | 0.92 | 119 | eP | Pn | 11 10 43.2 | -0.2 |
| BNGL | | | | eS | Sn | 11 11 00.2 | +3.3 |
| BNGL | | | | IAML | | 11 11 03.1 | |
| | comp=Z,111nm,0.5s | | | | | | |
| ERZM | Erzurum | 1.09 | 62 | eP | Pn | 11 10 47.1 | +1.2 |

*DDA 05 11:11:46.3, 36°.91N×30°.63E, h7km, Ml2.2*
*CSEM 05 11:11:47.8±0.2, 37°.19N×30°.41E, h2km, MD2.5, Error ellipse: s-maj=5.4km s-min=3.7km az=123.0*
*ISK 05 11:11:47.6, 37°.17N×30°.45E, h8km, MD2.5*
**ISC 05 11:11:48.0±1.1, 37°.17N±0°.03×30°.45E±0°.04, h6km±11km, n16, σ0s.94/24, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KORT | Korkueli | 0.18 | 207 | ePG | Pg | 11 11 51.2 | -0.6 |
| KORT | | | | eSG | Sg | 11 11 55.4 | +1.2 |
| KORT | Korkueli | 0.18 | 207 | i P | Pg | 11 11 51.0 | -0.8 |
| KORT | | | | i S | Sg | 11 11 54.9 | +0.6 |
| KORT | Korkueli | 0.18 | 207 | P | Pg | 11 11 51.0 | -0.8 |
| KORT | Korkueli | 0.18 | 207 | ePg | Pg | 11 11 51.2 | -0.6 |
| KORT | | | | S | Sg | 11 11 54.9 | +0.6 |
| KORT | | | | eSg | Sg | 11 11 55.4 | +1.1 |
| ANTB | Antalya | 0.31 | 149 | ePG | Pg | 11 11 54.2 | +0.1 |
| ANTB | | | | eSG | Sb | 11 11 59.5 | -1.7 |
| ANTB | Antalya | 0.31 | 149 | ePg | Pg | 11 11 54.2 | +0.1 |
| ANTB | | | | eSg | Sb | 11 11 59.5 | -1.7 |
| BCK | Bucak | 0.31 | 20 | ePG | Pg | 11 11 54.2 | 0.0 |
| BCK | | | | eSG | Sg | 11 11 58.8 | +0.4 |
| BCK | Bucak | 0.31 | 20 | ePg | Pg | 11 11 54.2 | 0.0 |
| BCK | | | | eSg | Sg | 11 11 58.8 | +0.4 |
| SUTC | Sutluce-Ispart | 0.54 | 54 | ePG | Pg | 11 11 58.3 | -0.1 |
| SUTC | Sutluce-Ispart | 0.54 | 54 | ePg | Pg | 11 11 58.3 | -0.1 |
| ELL | Elmali | 0.60 | 227 | ePG | Pg | 11 11 59.9 | +0.2 |
| ELL | Elmali | 0.60 | 227 | ePg | Pg | 11 11 59.9 | +0.2 |
| GOLH | Golhisar | 0.72 | 276 | i P | Pg | 11 12 00.5 | -1.3 |
| GOLH | | | | i S | Sn | 11 12 17.8 | +1.7 |
| GOLH | Golhisar | 0.72 | 276 | P | Pg | 11 12 00.5 | -1.3 |
| FETY | Fethiye | 1.22 | 245 | ePN | Pg | 11 12 12.1 | +0.7 |
| FETY | Fethiye | 1.22 | 245 | ePn | Pg | 11 12 12.1 | +0.7 |

*ISK 05 11:15:39.4, 38°.68N×43°.23E, h18km, MD2.3*
*CSEM 05 11:15:40.8±0.2, 38°.71N×43°.26E, h10km, ML2.8, Error ellipse: s-maj=5.6km s-min=4.8km az=89.0*
*DDA 05 11:15:41.1, 38°.70N×43°.28E, h7km, Ml2.8*
**ISC 05 11:15:40.4±1.2, 38°.68N±0°.04×43°.30E±0°.04, h24km±8km, n16, σ0s.56/30, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.11 | 142 | ePG | Pb | 11 15 45.0 | -0.1 |
| VANB | | | | eSG | Sb | 11 15 49.0 | +0.8 |
| VANB | Van | 0.11 | 142 | ePg | Pb | 11 15 45.0 | -0.1 |
| VANB | | | | eSg | Sb | 11 15 49.0 | +0.8 |
| TVAN | Van | 0.17 | 152 | i P | Pb | 11 15 45.1 | -0.7 |
| TVAN | | | | i S | Sb | 11 15 49.2 | -0.2 |
| TVAN | Van | 0.17 | 152 | P | Pb | 11 15 45.1 | -0.7 |
| TVAN | | | | S | Sb | 11 15 49.2 | -0.2 |
| VMUR | Van-Muradiye | 0.37 | 34 | i P | Pb | 11 15 48.4 | -0.2 |
| VMUR | | | | i S | Sb | 11 15 54.6 | +0.4 |
| VMUR | Van-Muradiye | 0.37 | 34 | P | Pb | 11 15 48.4 | -0.2 |
| VMUR | | | | S | Sb | 11 15 54.6 | +0.4 |
| GEVA | Gevas | 0.41 | 208 | i P | Pb | 11 15 48.7 | -0.5 |
| GEVA | | | | i S | Sb | 11 15 56.6 | +1.3 |
| GEVA | Gevas | 0.41 | 208 | P | Pb | 11 15 48.7 | -0.5 |
| GEVA | | | | S | Sb | 11 15 56.6 | +1.3 |
| ADCV | BITLIS_Adilcev | 0.47 | 286 | i P | Pb | 11 15 50.0 | -0.2 |
| ADCV | | | | i S | Sb | 11 15 57.2 | +0.3 |
| ADCV | BITLIS_Adilcev | 0.47 | 286 | P | Pb | 11 15 50.0 | -0.2 |
| ADCV | | | | S | Sb | 11 15 57.2 | +0.3 |
| CLDR | Caldiran | 0.67 | 46 | ePG | Pb | 11 15 53.7 | +0.2 |
| CLDR | | | | eSG | Sn | 11 16 04.1 | -0.3 |
| CLDR | Caldiran | 0.67 | 46 | ePg | Pb | 11 15 53.7 | +0.2 |
| CLDR | | | | eSg | Sn | 11 16 04.1 | -0.3 |
| TUTA | Tutak | 0.82 | 332 | i P | Pb | 11 15 55.7 | -0.4 |
| TUTA | | | | i S | Sb | 11 16 07.0 | +0.3 |
| TUTA | Tutak | 0.82 | 332 | P | Pb | 11 15 55.7 | -0.4 |
| TUTA | | | | S | Sb | 11 16 07.0 | +0.3 |
| AGRB | Hanur-Agry | 0.93 | 345 | ePG | Pb | 11 15 57.5 | -0.4 |
| AGRB | Hanur-Agry | 0.93 | 345 | ePg | Pb | 11 15 57.5 | -0.4 |

*IDC 05 11:38:20.8±2.4, 21°.06S×66°.52W, h106km±21km, mb3.2/3, mb1 3.5/7, mb1mx3.4/28, mbtmp3.7/7, Error ellipse: s-maj=30.4km s-min=21.0km az=73.0*
*SJA 05 11:38:21.4±0.5, 20°.97S×66°.28W, h140km±5km, ML3.2, MW3.2*
*ISCJB 05 11:38:22.8±0.8, 21°.05S±0°.06×66°.3W±0°.1, h150km, mb3.2/3, Error ellipse: s-maj=17.5km s-min=6.7km az=162.1*
**ISC 05 11:38:24.1±0.8, 21°.02S±0°.07×66°.3W±0°.1, h150km, n16, σ1s.98/20, mb3.5/3, Southern Bolivia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| YJA | Yavi | 1.35 | 149 | i P | Pn | 11 38 50.8 | -1.8 |
| YJA | | | | i S | Sn | 11 39 12.9 | -1.4 |
| YJA | | | | IAML | | 11 39 15.2 | |
| | comp=Z,164nm,0.3s | | | | | | |
| HJA | Humahuaca | 2.32 | 160 | i P | Pn | 11 39 02.5 | -1.0 |
| HJA | | | | i S | Sn | 11 39 32.2 | -1.5 |
| HJA | | | | IAML | | 11 39 44.3 | |
| | comp=Z,92nm,0.3s | | | | | | |
| ASTB | Santa Barbara | 3.36 | 151 | i P | Pn | 11 39 15.2 | -1.1 |
| ASTB | | | | i S | Sn | 11 39 54.9 | -1.8 |
| AZAP | Zapla | 3.38 | 161 | i P | Pn | 11 39 15.5 | -1.1 |
| AZAP | | | | i S | Sn | 11 39 55.6 | -1.6 |
| AZAP | | | | IAML | | 11 40 02.5 | |
| | comp=Z,59nm,0.3s | | | | | | |
| ALOL | LOMAS DE OLMED | 3.49 | 143 | i P | Pn | 11 39 16.3 | -1.5 |
| ALOL | | | | i S | Sn | 11 39 57.0 | -2.5 |
| LPAZ | La Paz | 5.03 | 339 | P | Pn | 11 39 34.7 | -3.9 |
| | comp=Z,0.5nm,0.3s,baz=170,slow=11,SNR=11 | | | | | | |
| SIV | San Ignacio | 7.01 | 45 | P | Pn | 11 40 03.0 | -1.5 |
| | comp=Z,12nm,0.3s,baz=251,slow=10,SNR=84 | | | | | | |
| CPUP | Villa Florida | 9.74 | 125 | P | Pn | 11 40 41.4 | +0.7 |
| | comp=Z,0.6nm,0.3s,baz=292,slow=9.9,SNR=6.4 | | | | | | |
| PLCA | Paso Flores | 19.99 | 190 | P | P | 11 42 43.1 | -1.9 |
| | comp=Z,0.1nm,0.3s,baz=0.0,slow=18,SNR=2.5 | | | | | | |
| TORD | Torodi Ar. Bea | 74.87 | 69 | P | P | 11 49 51.4 | +2.6 |
| | comp=Z,0.4nm,0.4s,baz=252,slow=5.6,SNR=6.0 | | | | | | |
| PDAR | Pinedale Array | 74.96 | 328 | P | P | 11 49 49.5 | +0.5 |
| | comp=Z,0.1nm,0.5s,baz=83,slow=7.4,SNR=3.3 | | | | | | |
| YKA | Yellowknife Ar | 91.57 | 340 | P | P | 11 51 15.0 | +1.6 |
| | comp=Z,0.2nm,0.5s,baz=130,slow=4.8,SNR=4.4 | | | | | | |
| ASAR | Alice Springs | 131.44 | 205 | PKP | PKPdf | 11 57 21.5 | +1.9 |
| | comp=Z,0.1nm,0.4s,baz=140,slow=2.2,SNR=3.6 | | | | | | |
| WRA | Warramunga Arr | 134.58 | 208 | PKP | PKPdf | 11 57 27.9 | +2.3 |
| | comp=Z,0.3nm,1.0s,baz=151,slow=1.7,SNR=6.3 | | | | | | |
| MKAR | Makanchi Array | 143.77 | 37 | PKP | PKPdf | 11 57 42.9 | +1.5 |
| | comp=Z,0.1nm,0.3s,baz=321,slow=1.8,SNR=3.3 | | | | | | |
| SONM | Songino Array | 152.59 | 11 | PKPbc | PKPbc | 11 58 05.4 | +2.5 |
| | comp=Z,0.3nm,0.5s,baz=332,slow=4.9,SNR=3.8 | | | | | | |

**MEX 05 11:39:56.0±0.5, 26°.29N×111°.97W, h5km, MD3.5, Gulf of California**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SRIG | Santa Rosalia | 1.05 | 347 | eP | Pg | 11 40 12.9 | -3.3 |
| SRIG | | | | eS | Sg | 11 40 27.6 | -2.3 |
| GUYB | Guaymas | 1.88 | 31 | eP | Pn | 11 40 24.8 | -4.0 |
| SLBS | Sierra La Lagu | 3.18 | 144 | eP | Pn | 11 40 44.3 | -2.5 |
| SLBS | | | | eS | Sn | 11 41 22.1 | -3.1 |

**IDC 05 11:50:51.1±7.6, 17°.31S×173°.78W, h0km, mb3.6/3, mb1 3.9/3, mb1mx3.6/28, mbtmp3.6/3, Error ellipse: s-maj=332.6km s-min=36.6km az=141.0, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AFI | Afiamalu | 3.89 | 30 | Pn | Pn | 11 51 43.4 | -9.0 |
| | 1.0nm,0.3s,baz=149,slow=18,SNR=2.3 | | | | | | |
| AFI | | | | Sn | Sn | 11 52 26.6 | -12 |
| | 1.5nm,0.3s,baz=198,slow=20,SNR=2.0 | | | | | | |
| WRA | Warramunga Arr | 49.08 | 258 | P | P | 11 59 40.2 | -0.4 |
| | 0.4nm,0.8s,baz=97,slow=7.6,SNR=8.2 | | | | | | |
| ASAR | Alice Springs | 49.20 | 253 | P | P | 11 59 41.8 | +0.3 |
| | 1.5nm,1.0s,baz=85,slow=9.4,SNR=7.8 | | | | | | |
| ILAR | Eielson Array | 84.38 | 11 | P | P | 12 03 24.8 | -0.1 |
| | 0.5nm,1.0s,baz=208,slow=5.6,SNR=3.0 | | | | | | |

**IDC 05 12:08:43.1±1.9, 1°.57N×124°.40E, h0km, mb3.5/3, mb1 3.6/4, mb1mx3.4/33, mbtmp3.5/4, ML3.5/1, Error ellipse: s-maj=152.9km s-min=25.0km az=66.0, Minahassa Peninsula, Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| FITZ | Fitzroy Crossi | 19.59 | 176 | P | P | 12 13 13.5 | +0.6 |
| | 0.1nm,0.3s,baz=5.2,slow=11,SNR=1.6 | | | | | | |
| WRA | Warramunga Arr | 23.50 | 156 | P | P | 12 13 54.8 | 0.0 |
| | 0.6nm,0.3s,baz=334,slow=10.0,SNR=6.0 | | | | | | |
| ASAR | Alice Springs | 26.73 | 160 | P | P | 12 14 23.5 | -1.1 |
| | 0.2nm,0.8s,baz=331,slow=7.4,SNR=1.6 | | | | | | |
| MKAR | Makanchi Array | 58.04 | 327 | P | P | 12 18 38.5 | +0.4 |
| | 0.4nm,0.5s,baz=121,slow=8.0,SNR=5.0 | | | | | | |

*ISK 05 12:09:38.9, 37°.13N×29°.61E, h12km, MD2.4*
*ISCJB 05 12:09:39.5±0.8, 37°.08N±0°.04×29°.61E±0°.06, h3km±10km, Error ellipse: s-maj=8.7km s-min=7.1km az=152.8*
*CSEM 05 12:09:39.6±0.2, 37°.12N×29°.60E, h2km, ML2.6, Error ellipse: s-maj=5.3km s-min=5.3km az=71.0*
*DDA 05 12:09:39.3, 37°.12N×29°.54E, h6km, Ml2.6*
**ISC 05 12:09:39.6±1.0, 37°.11N±0°.03×29°.58E±0°.04, h9km±7km, n17, σ0s.60/23, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GLHS | Glhisar (BURDU | 0.08 | 302 | ePG | Pg | 12 09 41.5 | -0.4 |
| GLHS | | | | eSG | Sg | 12 09 44.1 | +0.5 |
| GLHS | Glhisar (BURDU | 0.08 | 302 | ePg | Pg | 12 09 41.5 | -0.4 |
| GLHS | | | | eSg | Sg | 12 09 44.1 | +0.5 |
| GOLH | Golhisar | 0.12 | 352 | i P | Pg | 12 09 42.2 | -0.3 |
| GOLH | Golhisar | 0.12 | 352 | P | Pg | 12 09 42.2 | -0.3 |
| ELL | Elmali | 0.45 | 144 | ePG | Pg | 12 09 47.9 | -0.4 |
| ELL | Elmali | 0.45 | 144 | ePg | Pg | 12 09 47.9 | -0.4 |
| FETY | Fethiye | 0.62 | 220 | ePG | Pb | 12 09 52.3 | -0.4 |
| FETY | Fethiye | 0.62 | 220 | P | Pg | 12 09 51.2 | -0.4 |
| FETY | Fethiye | 0.62 | 220 | ePg | Pb | 12 09 52.3 | -0.4 |
| KORT | Korkueli | 0.62 | 100 | ePG | Pg | 12 09 51.6 | -0.1 |
| KORT | Korkueli | 0.62 | 100 | i P | Pb | 12 09 52.5 | -0.3 |
| KORT | | | | i S | Sn | 12 10 05.1 | +0.2 |
| KORT | Korkueli | 0.62 | 100 | ePg | Pg | 12 09 51.6 | -0.1 |
| KORT | Korkueli | 0.62 | 100 | P | Pb | 12 09 52.5 | -0.3 |
| BRDR | BURDUR-Merkez | 0.69 | 33 | i P | Pg | 12 09 52.1 | -0.9 |
| BRDR | | | | i S | Sb | 12 10 04.0 | +0.3 |
| BRDR | BURDUR-Merkez | 0.69 | 33 | P | Pg | 12 09 52.1 | -0.9 |
| KHAL | Karahalli | 1.26 | 357 | i P | Pg | 12 10 03.1 | -0.7 |
| KHAL | | | | i S | Sn | 12 10 21.6 | +1.0 |
| KHAL | Karahalli | 1.26 | 357 | P | Pg | 12 10 03.1 | -0.7 |
| KHAL | | | | S | Sn | 12 10 21.6 | +1.0 |

*ISCJB 05 12:10:45.9±1.5, 38°.66N±0°.06×43°.72E±0°.09, h11km±6km, Error ellipse: s-maj=14.2km s-min=6.0km az=34.9*
*ISK 05 12:10:45.6, 38°.74N×43°.55E, h5km, MD2.4*
*CSEM 05 12:10:46.5±0.6, 38°.70N×43°.65E, h2km, MD2.6, Error ellipse: s-maj=13.1km s-min=6.6km az=127.0*
*DDA 05 12:10:46.5, 38°.70N×43°.63E, h7km, Md2.6*
**ISC 05 12:10:47.7±1.1, 38°.73N±0°.03×43°.59E±0°.05, h6km±10km, n17, σ1s.32/29, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.21 | 228 | ePG | Pg | 12 10 51.3 | -0.5 |
| VANB | | | | eSG | Sg | 12 10 56.8 | +2.2 |
| VANB | Van | 0.21 | 228 | ePg | Pg | 12 10 51.3 | -0.5 |
| VANB | | | | eSg | Sg | 12 10 56.8 | +2.2 |
| TVAN | Van | 0.25 | 215 | i P | Pg | 12 10 51.0 | -1.6 |
| TVAN | | | | i S | Sg | 12 10 56.3 | +0.3 |
| TVAN | Van | 0.25 | 215 | P | Pg | 12 10 51.0 | -1.6 |
| TVAN | | | | S | Sg | 12 10 56.3 | +0.3 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.26** | **357** | *i* P | **Pg** | **12 10 51.8** | **-0.9** |
| VMUR | | | | *i* S | **Sg** | **12 10 57.5** | **+1.3** |
| **VMUR** | **Van-Muradiye** | **0.26** | **357** | P | **Pg** | **12 10 51.8** | **-0.9** |
| VMUR | | | | S | **Sg** | **12 10 57.5** | **+1.3** |
| **CLDR** | **Caldiran** | **0.48** | **32** | *e*PG | **Pg** | **12 10 56.1** | **-1.0** |
| CLDR | | | | *e*SG | **Sb** | **12 11 04.9** | **-1.3** |
| **CLDR** | **Caldiran** | **0.48** | **32** | *i* P | **Pg** | **12 10 56.9** | **-0.2** |
| CLDR | | | | *i* S | **Sb** | **12 11 05.9** | **-0.3** |
| **CLDR** | **Caldiran** | **0.48** | **32** | *e*Pg | **Pg** | **12 10 56.1** | **-1.0** |
| **CLDR** | **Caldiran** | **0.48** | **32** | P | **Pg** | **12 10 56.9** | **-0.2** |
| CLDR | | | | *e*Sg | **Sb** | **12 11 04.9** | **-1.3** |
| **TUTA** | **Tutak** | **0.90** | **318** | *i* P | **Pg** | **12 11 02.9** | **-2.1** |
| TUTA | | | | *i* S | **Sg** | **12 11 17.4** | **+0.7** |
| **AGRB** | **Hanur-Agry** | **0.96** | **331** | *e*PG | **Pg** | **12 11 04.5** | **-1.6** |
| **AGRB** | **Hanur-Agry** | **0.96** | **331** | *e*Pg | **Pg** | **12 11 04.5** | **-1.6** |
| **EKAR** | **Karacoban** | **1.30** | **294** | *i* P | **Pb** | **12 11 12.9** | **+0.3** |
| **EKAR** | **Karacoban** | **1.30** | **294** | P | **Pb** | **12 11 12.9** | **+0.3** |
| **EATA** | **Eleskirt** | **1.41** | **323** | *i* P | **Pn** | **12 11 13.8** | **-0.5** |
| EATA | | | | *i* S | **Sn** | **12 11 35.2** | **+1.9** |
| **EATA** | **Eleskirt** | **1.41** | **323** | P | **Pn** | **12 11 13.8** | **-0.5** |
| EATA | | | | S | **Sn** | **12 11 35.2** | **+1.9** |

*ISK **05** 12:14:44.8, 38°.74N×43°.23E, h17km, MD2.3*
*ISCJB **05** 12:14:45.3±0.8, 38°.76N±0°.04×43°.19E±0°.06, h15km, Error ellipse: s-maj=7.2km s-min=5.8km az=175.2*
*CSEM **05** 12:14:45.5±0.3, 38°.74N×43°.18E, h10km, ML2.8, Error ellipse: s-maj=8.1km s-min=7.1km az=92.0*
*DDA **05** 12:14:45.8, 38°.70N×43°.20E, h7km, Ml2.8*
**ISC 05 12:14:45.2**±1.1**, 38°.74N**±0°.03×**43°.18E**±0°.04**, h15km, n14,** σ**0$^s$44**/20**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.22** | **131** | *e*PG | **Pb** | **12 14 51.0** | **+0.1** |
| VANB | | | | *e*SG | **Sb** | **12 14 55.6** | **+0.9** |
| **VANB** | **Van** | **0.22** | **131** | *e*Pg | **Pb** | **12 14 51.0** | **+0.1** |
| VANB | | | | *e*Sg | **Sb** | **12 14 55.7** | **+0.9** |
| **TVAN** | **Van** | **0.27** | **140** | *i* P | **Pg** | **12 14 50.8** | **-0.4** |
| TVAN | | | | *i* S | **Sg** | **12 14 54.6** | **-0.7** |
| **TVAN** | **Van** | **0.27** | **140** | P | **Pg** | **12 14 50.8** | **-0.4** |
| TVAN | | | | S | **Sg** | **12 14 54.6** | **-0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.36** | **281** | *i* P | **Pb** | **12 14 53.6** | **+0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.36** | **281** | P | **Pb** | **12 14 53.6** | **+0.1** |
| **VMUR** | **Van-Muradiye** | **0.39** | **50** | *i* P | **Pb** | **12 14 54.1** | **+0.1** |
| **VMUR** | **Van-Muradiye** | **0.39** | **50** | P | **Pb** | **12 14 54.1** | **+0.1** |
| **GEVA** | **Gevas** | **0.44** | **193** | *i* P | **Pg** | **12 14 53.8** | **-0.2** |
| **GEVA** | **Gevas** | **0.44** | **193** | P | **Pg** | **12 14 53.8** | **-0.2** |
| **CLDR** | **Caldiran** | **0.70** | **55** | *e*PG | **Pg** | **12 14 58.6** | **-0.4** |
| CLDR | | | | *e*SG | **Sg** | **12 15 08.3** | **0.0** |
| **CLDR** | **Caldiran** | **0.70** | **55** | *e*Pg | **Pg** | **12 14 58.6** | **-0.4** |
| CLDR | | | | *e*Sg | **Sg** | **12 15 08.3** | **0.0** |
| **AGRB** | **Hanur-Agry** | **0.85** | **350** | *e*PG | **Pb** | **12 15 01.8** | **0.0** |
| **AGRB** | **Hanur-Agry** | **0.85** | **350** | *e*Pg | **Pb** | **12 15 01.8** | **0.0** |

*IDC **05** 12:27:35.1±2.1, 0°.60S×127°.90E, h0km, mb3.3/4, mb1 3.5/4, mb1mx3.4/41, mbtmp3.3/4, Error ellipse: s-maj=154.2km s-min=27.5km az=66.0*
*DJA **05** 12:27:39.5±0.6, 1°S±3°×12°7E±°, h11km±4km, M4.2/3, mB5.0/1, MLv4.2/3, Mw(mB)4.3/1*
*ISCJB **05** 12:27:40.2±0.6, 0°.91S±0°.05×126°.89E±0°.03, h34km, mb3.4/3, Error ellipse: s-maj=7.0km s-min=4.9km az=178.5*
**ISC 05 12:27:41.2**±0.9**, 1°.06S**±0°.06×**127°.00E**±0°.05**, h34km, n12,** σ**1$^s$87**/16**, mb3.3**/3**, Southern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LBMI** | **Labuha** | **0.65** | **50** | P | **Pn** | **12 27 53.0** | **-1.0** |
| LBMI | | | | S | **Sn** | **12 28 02.9** | **-0.2** |
| **SANI** | **Sanana** | **1.41** | **226** | P | **Pn** | **12 28 03.1** | **-1.4** |
| SANI | | | | S | **Sb** | **12 28 24.2** | **-0.5** |
| **AAI** | **Ambon** | **2.87** | **155** | S | **Sb** | **12 29 03.9** | **-2.7** |
| **MSAI** | **Masohi** | **2.98** | **140** | S | **Sb** | **12 29 07.7** | **-2.0** |
| **SGSI** | **Sangihe** | **4.94** | **343** | P | **Pn** | **12 28 53.1** | **+0.1** |
| **APSI** | **Ampana** | **5.35** | **272** | P | **Pn** | **12 28 58.9** | **+0.2** |
| APSI | | | | S | **Sn** | **12 29 58.6** | **-0.6** |
| **FAKI** | **Fak Fak** | **5.56** | **109** | S | **Sn** | **12 30 09.7** | **+5.2** |
| **SPSI** | **Sidrap Palu** | **7.78** | **248** | P | **Pn** | **12 29 33.7** | **+1.6** |
| SPSI | | | | S | **Sn** | **12 30 58.8** | **-0.3** |
| **WRA** | **Warramunga Arr** | **20.10** | **160** | P | **P** | **12 32 11.6** | **-0.6** |
| | 0.3nm,0.6s,baz=342,slow=11,SNR=4.9 | | | | | | |
| **ASAR** | **Alice Springs** | **23.45** | **164** | P | **P** | **12 32 48.0** | **+0.3** |
| | 0.7nm,0.8s,baz=346,slow=11,SNR=6.7 | | | | | | |
| **STKA** | **Stephens Creek** | **33.61** | **157** | P | **P** | **12 34 18.9** | **+0.4** |
| | 1.2nm,0.9s,baz=331,slow=10,SNR=1.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **61.65** | **327** | P | **P** | **12 37 55.5** | **-0.3** |
| | 0.2nm,0.8s,baz=119,slow=8.5,SNR=1.9 | | | | | | |

**BUC 05 12:28:48.1**±0.7**, 45°.29N**×**25°.12E, h3km, MD1.9**/2**, 2C-4D, Error ellipse: s-maj=5.1km s-min=3.1km az=13.0, Romania**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VOIR** | | **0.15** | **342**⇑ | *i*P | Pg | 12 28 51.5 | +0.3 |
| VOIR | | | | S | Sg | 12 28 54.6 | +1.4 |
| **VOIR** | | **0.15** | **342**⇑ | *i*P | Pg | 12 28 51.5 | +0.3 |
| VOIR | | | | *i* S | Sg | 12 28 54.6 | +1.4 |
| **ARR** | **Arges** | **0.35** | **283**⇓ | *i*P | Pg | 12 28 55.9 | +1.0 |
| **ARR** | **Arges** | **0.35** | **283** | S | Sb | 12 29 01.5 | -1.5 |
| **ARR** | **Arges** | **0.35** | **283**⇓ | *i*P | Pg | 12 28 55.9 | +1.0 |
| ARR | | | | *i* S | Sb | 12 29 01.5 | -1.5 |
| **MLR** | **Muntele Rosu** | **0.62** | **71**⇓ | *i*P | Pb | 12 29 01.2 | -0.4 |
| **MLR** | **Muntele Rosu** | **0.62** | **71**⇓ | *i*P | Pb | 12 29 01.2 | -0.4 |
| MLR | | | | *i* S | Sb | 12 29 10.2 | -0.5 |

**BUC 05 12:29:16.4**±0.0**, 45°.31N**×**25°.11E, h2km, MD1.9**/2**, 6C, Error ellipse: s-maj=0.2km s-min=0.1km az=7.0, Romania**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VOIR** | | **0.13** | **342**⇑ | *i*P | Pg | 12 29 19.3 | +0.3 |
| VOIR | | | | S | Sg | 12 29 22.5 | +1.7 |
| **VOIR** | | **0.13** | **342**⇑ | *i*P | Pg | 12 29 19.3 | +0.3 |
| VOIR | | | | *i* S | Sg | 12 29 22.5 | +1.7 |
| **ARR** | **Arges** | **0.34** | **280**⇑ | *i*P | Pg | 12 29 23.5 | +0.6 |
| **ARR** | **Arges** | **0.34** | **280** | S | Sg | 12 29 29.2 | +1.8 |
| **ARR** | **Arges** | **0.34** | **280**⇑ | *i*P | Pg | 12 29 23.5 | +0.6 |
| ARR | | | | *i* S | Sg | 12 29 29.2 | +1.8 |
| **MLR** | **Muntele Rosu** | **0.62** | **73**⇑ | *i*P | Pb | 12 29 29.1 | -0.9 |
| **MLR** | **Muntele Rosu** | **0.62** | **73**⇑ | *i*P | Pb | 12 29 29.1 | -0.9 |
| MLR | | | | *i* S | Sb | 12 29 38.0 | -1.1 |

*IDC **05** 12:30:24.9±0.7, 38°.20N×20°.54E, h0km, mb4.0/17, mb1 4.1/24, mb1mx4.0/44, mbtmp3.9/24, ML3.7/6, MS3.2/11, Ms1 3.2/11, ms1mx2.9/47, Error ellipse: s-maj=15.7km s-min=12.9km az=10.0*
*ISCJB **05** 12:30:25.9±0.4, 38°.07N±0°.02×20°.29E±0°.02, h18km±3km, mb4.0/19, MS3.0/7, Error ellipse: s-maj=3.1km s-min=2.0km az=138.0*
*TIR **05** 12:30:25.8±7.8, 38°.17N×20°.14E, h48km±22km, ML4.6*
*ATH **05** 12:30:26.4, 38°.07N×20°.42E, h18km, ML4.1/23, Error ellipse: s-maj=1.5km s-min=0.6km az=68.0*
*CSEM **05** 12:30:26.1±0.1, 38°.08N×20°.37E, h5km, mb4.2/13, Error ellipse: s-maj=3.5km s-min=1.9km az=38.0*
*PDG **05** 12:30:26.8±0.6, 38°.15N×20°.38E, h11km±1km, ML4.6/11, Error ellipse: s-maj=1.0km s-min=1.2km az=0.0*
*THE **05** 12:30:27.0, 38°.06N×20°.42E, h0km±1km, ML4.2/21, Error ellipse: s-maj=1.7km s-min=0.8km az=244.0*
*MOS **05** 12:30:28.1±1.3, 38°.32N×20°.60E, h25km, mb4.3/13, Error ellipse: s-maj=10.0km s-min=5.8km az=73.5*
*NEIC **05** 12:30:28.9±0.0, 38°.13N×20°.42E, h10km, ML4.1(ATH), ML4.2(THE), After ATH.*
**ISC 05 12:30:26.8**±0.9**, 38°.09N**±0°.02×**20°.45E**±0°.02**, h16km**±5km**, n386,** σ**1$^s$67**/524**, mb4.0**/20**, MS3.1**/7**, 29C-18D, Greece**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VLS** | **Valsamata** | **0.14** | **53** | P | **Pb** | **12 30 31.8** | **+0.7** |
| VLS | | | | S | **Sg** | **12 30 33.7** | **+0.3** |
| VLS | | | | AML | AML | 12 30 34.0 | |
| VLS | | | | AML | AML | 12 30 34.4 | |
| **VLS** | **Valsamata** | **0.14** | **53** | P | **Pb** | **12 30 31.2** | **+0.1** |
| VLS | | | | S | **Sg** | **12 30 33.7** | **+0.3** |
| **VTN** | **Vitineika** | **0.61** | **106** | P | **Pn** | **12 30 39.9** | **-0.9** |
| VTN | | | | S | **Sb** | **12 30 47.1** | **-0.2** |
| **VTN** | **Vitineika** | **0.61** | **106** | P | **Pb** | **12 30 39.0** | **0.0** |
| VTN | | | | S | **Sb** | **12 30 47.2** | **-0.2** |
| **AXS** | **Araxos** | **0.74** | **81** | P | **Pb** | **12 30 40.9** | **-0.4** |
| AXS | | | | S | **Sn** | **12 30 52.5** | **-1.0** |
| **AXS** | **Araxos** | **0.74** | **81** | P | **Pb** | **12 30 41.0** | **-0.4** |
| AXS | | | | S | **Sn** | **12 30 52.5** | **-1.0** |
| **PDO** | **Prodromos** | **0.77** | **49** | P | **Pb** | **12 30 41.6** | **-0.3** |
| PDO | | | | S | **Sb** | **12 30 52.5** | **+0.4** |
| PDO | | | | AML | AML | 12 30 57.7 | |
| | comp=E,80898µm,0.4s | | | | | | |
| PDO | | | | AML | AML | 12 31 02.4 | |
| | comp=N,84046µm,0.3s | | | | | | |
| **PDO** | **Prodromos** | **0.77** | **49** | P | **Pb** | **12 30 41.8** | **0.0** |
| PDO | | | | S | **Sb** | **12 30 52.5** | **+0.4** |
| **PDO** | **Prodromos** | **0.77** | **49** | P | **Pb** | **12 30 41.8** | **0.0** |
| PDO | | | | S | **Sn** | **12 30 54.7** | **+0.4** |
| **RLS** | **Riolos of Patr** | **0.81** | **92** | P | **Pb** | **12 30 42.0** | **-0.4** |
| RLS | | | | S | **Sn** | **12 30 55.4** | **+0.3** |
| RLS | | | | AML | AML | 12 30 59.3 | |
| | comp=N,19238µm,0.6s | | | | | | |
| RLS | | | | AML | AML | 12 31 05.3 | |
| | comp=E,15349µm,0.4s | | | | | | |
| **RLS** | **Riolos of Patr** | **0.81** | **92** | P | **Pb** | **12 30 42.3** | **-0.1** |
| RLS | | | | S | **Sg** | **12 30 54.1** | **+0.9** |
| **RLS** | **Riolos of Patr** | **0.81** | **92** | P | **Pb** | **12 30 42.3** | **-0.1** |
| RLS | | | | S | **Sg** | **12 30 54.1** | **+0.9** |
| **PVO** | **Paravola** | **1.00** | **58** | P | **Pg** | **12 30 46.7** | **+0.6** |
| PVO | | | | S | **Sn** | **12 31 01.9** | **+2.0** |
| PVO | | | | AML | AML | 12 31 06.0 | |
| | comp=E,47257µm,0.7s | | | | | | |
| PVO | | | | AML | AML | 12 31 07.1 | |
| | comp=N,58505µm,0.5s | | | | | | |
| **PVO** | **Paravola** | **1.00** | **58** | P | **Pg** | **12 30 46.3** | **+0.1** |
| PVO | | | | S | **Sn** | **12 31 00.3** | **+0.4** |
| **PVO** | **Paravola** | **1.00** | **58** | P | **Pg** | **12 30 46.3** | **+0.1** |
| PVO | | | | S | **Sn** | **12 31 01.2** | **+1.3** |
| **DRO** | **Drossia** | **1.01** | **97** | P | **Pg** | **12 30 46.3** | **0.0** |
| DRO | | | | S | **Sn** | **12 31 00.4** | **+0.2** |
| DRO | | | | AML | AML | 12 31 08.6 | |
| | comp=E,44286µm,0.4s | | | | | | |
| DRO | | | | AML | AML | 12 31 11.8 | |
| | comp=N,29861µm,0.4s | | | | | | |
| **DRO** | **Drossia** | **1.01** | **97** | P | **Pg** | **12 30 46.3** | **0.0** |
| DRO | | | | S | **Sn** | **12 31 01.3** | **+1.2** |
| **DRO** | **Drossia** | **1.01** | **97** | P | **Pn** | **12 30 46.1** | **-0.2** |
| DRO | | | | S | **Sn** | **12 31 01.3** | **+1.2** |
| **UPR** | **University Cam** | **1.07** | **79** | P | **Pb** | **12 30 46.9** | **-0.1** |
| UPR | | | | S | **Sg** | **12 31 02.2** | **+0.6** |
| **UPR** | **University Cam** | **1.07** | **79** | P | **Pg** | **12 30 47.8** | **+0.2** |
| UPR | | | | S | **Sg** | **12 31 02.2** | **+0.6** |
| **UPR** | **University Cam** | **1.07** | **79** | P | **Pg** | **12 30 47.8** | **+0.2** |
| **AMT** | **Artemida-Makis** | **1.15** | **119** | P | **Pg** | **12 30 48.6** | **-0.3** |
| AMT | | | | S | **Sg** | **12 31 04.2** | **+0.3** |
| AMT | | | | AML | AML | 12 31 13.4 | |
| | comp=N,26272µm,0.5s | | | | | | |
| AMT | | | | AML | AML | 12 31 17.4 | |
| | comp=E,31791µm,0.5s | | | | | | |
| **AMT** | **Artemida-Makis** | **1.15** | **119** | P | **Pg** | **12 30 48.7** | **-0.3** |
| AMT | | | | S | **Sg** | **12 31 04.2** | **+0.3** |
| **AMT** | **Artemida-Makis** | **1.15** | **119** | P | **Pg** | **12 30 48.6** | **-0.3** |
| AMT | | | | S | **Sg** | **12 31 05.7** | **+1.8** |
| **DSL** | **Palaion Diasel** | **1.16** | **26** | P | **Pn** | **12 30 47.8** | **-0.6** |
| DSL | | | | S | **Sn** | **12 31 04.3** | **+0.4** |
| DSL | | | | AML | AML | 12 31 09.7 | |
| | comp=N,34281µm,0.4s | | | | | | |
| DSL | | | | AML | AML | 12 31 09.9 | |
| | comp=E,29430µm,0.6s | | | | | | |
| **DSL** | **Palaion Diasel** | **1.16** | **26** | P | **Pb** | **12 30 48.8** | **+0.3** |
| DSL | | | | S | **Sn** | **12 31 04.3** | **+0.4** |
| **DSL** | **Palaion Diasel** | **1.16** | **26** | P | **Pb** | **12 30 48.5** | **0.0** |
| DSL | | | | S | **Sg** | **12 31 08.8** | **+4.4** |
| **EFP** | **Efpalio** | **1.20** | **73** | P | **Pn** | **12 30 48.8** | **0.0** |
| EFP | | | | S | **Sg** | **12 31 07.5** | **+1.9** |
| EFP | | | | AML | AML | 12 31 12.3 | |
| | comp=N,17937µm,0.4s | | | | | | |
| EFP | | | | AML | AML | 12 31 14.6 | |
| | comp=E,17323µm,0.5s | | | | | | |
| **EFP** | **Efpalio** | **1.20** | **73** | P | **Pb** | **12 30 49.2** | **+0.1** |
| EFP | | | | S | **Sg** | **12 31 07.1** | **+1.5** |
| **EFP** | **Efpalio** | **1.20** | **73** | P | **Pb** | **12 30 49.2** | **+0.1** |
| **LAKA** | **Lakka** | **1.22** | **82** | P | **Pb** | **12 30 49.5** | **0.0** |
| **LAKA** | **Lakka** | **1.22** | **82** | P | **Pb** | **12 30 49.5** | **0.0** |
| **ANX** | **Ano Chora** | **1.27** | **66** | P | **Pg** | **12 30 51.4** | **+0.2** |
| ANX | | | | S | **Sg** | **12 31 08.5** | **+0.8** |
| **ANX** | **Ano Chora** | **1.27** | **66** | P | **Pg** | **12 30 50.9** | **-0.3** |
| ANX | | | | S | **Sg** | **12 31 08.5** | **+0.8** |
| **ANX** | **Ano Chora** | **1.27** | **66** | P | **Pg** | **12 30 50.9** | **-0.3** |
| **MES3** | **Kyparissia** | **1.29** | **130** | P | **Pg** | **12 30 51.2** | **-0.4** |
| MES3 | | | | S | **Sg** | **12 31 08.9** | **+0.6** |
| **MES3** | **Kyparissia** | **1.29** | **130** | P | **Pg** | **12 30 51.2** | **-0.4** |
| MES3 | | | | S | **Sg** | **12 31 08.9** | **+0.6** |
| **SERG** | **Sergoula** | **1.31** | **75** | P | **Pn** | **12 30 50.2** | **-0.2** |
| SERG | | | | S | **Sg** | **12 31 09.6** | **+0.5** |
| SERG | | | | AML | AML | 12 31 16.1 | |
| | comp=E,19045µm,0.7s | | | | | | |
| SERG | | | | AML | AML | 12 31 17.1 | |
| | comp=N,21180µm,0.4s | | | | | | |
| **SERG** | **Sergoula** | **1.31** | **75** | P | **Pb** | **12 30 50.8** | **-0.2** |
| SERG | | | | S | **Sg** | **12 31 10.1** | **+1.0** |
| **SERG** | **Sergoula** | **1.31** | **75** | P | **Pb** | **12 30 50.8** | **-0.2** |
| **TRIZ** | **Trizonia** | **1.31** | **77** | P | **Pb** | **12 30 50.7** | **-0.3** |
| **KLV** | **Kalavryta, Ach** | **1.35** | **91** | P | **Pn** | **12 30 51.0** | **0.0** |
| KLV | | | | S | **Sg** | **12 31 10.7** | **+0.4** |
| KLV | | | | AML | AML | 12 31 17.6 | |
| | comp=E,6118µm,0.5s | | | | | | |
| KLV | | | | AML | AML | 12 31 18.8 | |
| | comp=N,6258µm,0.7s | | | | | | |
| **KLV** | **Kalavryta, Ach** | **1.35** | **91** | P | **Pb** | **12 30 51.5** | **-0.2** |
| KLV | | | | S | **Sg** | **12 31 10.7** | **+0.4** |
| **KLV** | **Kalavryta, Ach** | **1.35** | **91** | P | **Pb** | **12 30 51.5** | **-0.2** |
| **EVR** | **Evrytania** | **1.35** | **52** | P | **Pb** | **12 30 51.4** | **-0.4** |
| EVR | | | | S | **Sg** | **12 31 11.7** | **+1.2** |
| EVR | | | | AML | AML | 12 31 16.2 | |
| | comp=N,10912µm,0.7s | | | | | | |
| EVR | | | | AML | AML | 12 31 18.0 | |
| | comp=E,7720µm,0.5s | | | | | | |
| **EVR** | **Evrytania** | **1.35** | **52** | P | **Pb** | **12 30 51.9** | **+0.1** |
| EVR | | | | S | **Sg** | **12 31 11.7** | **+1.2** |
| **EVR** | **Evrytania** | **1.35** | **52** | P | **Pb** | **12 30 51.9** | **+0.1** |
| **KALE** | **Kalithea** | **1.37** | **77** | P | **Pb** | **12 30 51.8** | **-0.2** |
| **KALE** | **Kalithea** | **1.37** | **77** | P | **Pb** | **12 30 51.8** | **-0.2** |
| **IGT** | **Igoumenitsa** | **1.44** | **357** | P | **Pb** | **12 30 53.4** | **+0.1** |
| IGT | | | | S | **Sg** | **12 31 15.4** | **+2.0** |
| IGT | | | | AML | AML | 12 31 22.1 | |
| | comp=E,11347µm,0.5s | | | | | | |
| IGT | | | | AML | AML | 12 31 22.3 | |
| | comp=N,11293µm,0.4s | | | | | | |
| **IGT** | **Igoumenitsa** | **1.44** | **357** | P | **Pb** | **12 30 53.4** | **+0.1** |
| **IGT** | **Igoumenitsa** | **1.44** | **357** | P | **Pb** | **12 30 53.8** | **+0.5** |
| **ITM** | **Ithomi** | **1.49** | **127** | P | **Pg** | **12 30 54.5** | **-0.9** |
| ITM | | | | S | **Sg** | **12 31 14.2** | **-0.6** |
| ITM | | | | AML | AML | 12 31 19.6 | |
| | comp=N,6283µm,0.5s | | | | | | |
| ITM | | | | AML | AML | 12 31 26.9 | |
| | comp=E,7251µm,1.0s | | | | | | |
| **ITM** | **Ithomi** | **1.49** | **127** | P | **Pg** | **12 30 54.4** | **-1.0** |
| ITM | | | | S | **Sg** | **12 31 14.7** | **0.0** |
| **ITM** | **Ithomi** | **1.49** | **127** | P | **Pg** | **12 30 54.4** | **-1.0** |
| ITM | | | | S | **Sg** | **12 31 14.7** | **0.0** |
| **GUR** | **Goura** | **1.51** | **95** | P | **Pn** | **12 30 53.3** | **+0.1** |
| GUR | | | | S | **Sg** | **12 31 15.4** | **0.0** |
| GUR | | | | AML | AML | 12 31 26.0 | |
| | comp=E,16271µm,0.5s | | | | | | |
| GUR | | | | AML | AML | 12 31 27.4 | |
| | comp=N,19309µm,0.5s | | | | | | |
| **GUR** | **Goura** | **1.51** | **95** | P | **Pb** | **12 30 53.7** | **-0.7** |
| GUR | | | | S | **Sg** | **12 31 15.4** | **0.0** |
| **GUR** | **Goura** | **1.51** | **95** | P | **Pb** | **12 30 53.7** | **-0.7** |
| **SGD** | **Sagiada** | **1.53** | **354** | P | **Pb** | **12 30 54.9** | **+0.2** |
| SGD | | | | S | **Sg** | **12 31 15.8** | **-0.3** |
| **SGD** | **Sagiada** | **1.53** | **354** | P | **Pb** | **12 30 54.9** | **+0.2** |
| SGD | | | | S | **Sg** | **12 31 15.8** | **-0.3** |
| **SGD** | **Sagiada** | **1.53** | **354** | P | **Pb** | **12 30 55.1** | **+0.4** |
| **PYL** | **PYLOS** | **1.58** | **139** | P | **Pb** | **12 30 54.7** | **-0.8** |
| **PYL** | **PYLOS** | **1.58** | **139** | P | **Pb** | **12 30 55.2** | **-0.3** |
| PYL | | | | S | **Sg** | **12 31 18.4** | **+0.8** |
| **PYL** | **PYLOS** | **1.58** | **139** | P | **Pb** | **12 30 55.2** | **-0.3** |
| PYL | | | | S | **Sg** | **12 31 18.4** | **+0.8** |
| **MES2** | **Methoni** | **1.61** | **141** | P | **Pb** | **12 30 56.0** | **-0.2** |
| **MES2** | **Methoni** | **1.61** | **141** | P | **Pb** | **12 30 56.0** | **-0.2** |
| **DSF** | **Desfina** | **1.67** | **78** | P | **Pb** | **12 30 56.2** | **-0.9** |
| **DSF** | **Desfina** | **1.67** | **78** | P | **Pb** | **12 30 56.7** | **-0.5** |
| **DSF** | **Desfina** | **1.67** | **78** | P | **Pb** | **12 30 56.7** | **-0.5** |
| **VLX** | **Vlachokerasia** | **1.69** | **114** | P | **Pb** | **12 30 57.7** | **+0.1** |
| **VLX** | **Vlachokerasia** | **1.69** | **114** | P | **Pb** | **12 30 57.7** | **+0.1** |
| **VLX** | **Vlachokerasia** | **1.69** | **114** | P | **Pg** | **12 30 59.0** | **-0.4** |
| **KEK** | **Kerkira** | **1.70** | **343** | P | **Pn** | **12 30 56.2** | **+0.4** |
| KEK | | | | S | **Sg** | **12 31 20.8** | **-0.7** |
| KEK | | | | AML | AML | 12 31 30.3 | |
| | comp=E,9070µm,0.6s | | | | | | |
| KEK | | | | AML | AML | 12 31 31.6 | |
| | comp=N,8386µm,0.6s | | | | | | |
| **KEK** | **Kerkira** | **1.70** | **343** | P | **Pn** | **12 30 56.2** | **+0.4** |
| KEK | | | | S | **Sg** | **12 31 21.4** | **-0.1** |
| **KEK** | **Kerkira** | **1.70** | **343** | P | **Pb** | **12 30 56.7** | **-0.9** |
| KEK | | | | S | **Sg** | **12 31 21.4** | **-0.1** |
| **AGG** | **Agios Georgios** | **1.75** | **57** | P | **Pg** | **12 31 00.4** | **+0.1** |
| **AGG** | **Agios Georgios** | **1.75** | **57** | P | **Pg** | **12 30 59.6** | **-0.8** |
| AGG | | | | S | **Sg** | **12 31 22.7** | **-0.4** |
| **AGG** | **Agios Georgios** | **1.75** | **57** | P | **Pg** | **12 30 59.6** | **-0.8** |
| AGG | | | | S | **Sg** | **12 31 22.7** | **-0.4** |
| **THAL** | **Thalero** | **1.75** | **91** | P | **Pb** | **12 30 58.9** | **+0.4** |
| **THAL** | **Thalero** | **1.75** | **91** | P | **Pb** | **12 30 58.9** | **+0.4** |
| **SRN** | **Sarande** | **1.82** | **349** | *i* PN | **Pb** | **12 30 59.3** | **-0.4** |
| **SRN** | **Sarande** | **1.82** | **349** | *i* Pn | **Pb** | **12 30 59.3** | **-0.4** |
| | SNR=40 | | | | | | |
| **THL** | **Klokotos Trika** | **1.92** | **39** | P | **Pg** | **12 31 02.6** | **-1.0** |
| **THL** | **Klokotos Trika** | **1.92** | **39** | P | **Pb** | **12 31 01.7** | **+0.4** |
| THL | | | | S | **Sb** | **12 31 26.9** | **+1.9** |
| **THL** | **Klokotos Trika** | **1.92** | **39** | P | **Pb** | **12 31 01.7** | **+0.4** |
| THL | | | | S | **Sb** | **12 31 26.9** | **+1.9** |
| **LTK** | **Loutraki** | **1.99** | **91** | P | **Pb** | **12 31 01.8** | **-0.8** |
| **LTK** | **Loutraki** | **1.99** | **91** | P | **Pb** | **12 31 01.8** | **-0.8** |
| **LTK** | **Loutraki** | **1.99** | **91** | P | **Pb** | **12 31 01.9** | **-0.7** |
| **KPRO** | **Kipourio** | **2.00** | **21** | P | **Pb** | **12 31 03.7** | **+1.0** |
| **KPRO** | **Kipourio** | **2.00** | **21** | P | **Pb** | **12 31 02.9** | **+0.2** |
| KPRO | | | | S | **Sb** | **12 31 28.0** | **+0.6** |
| **KPRO** | **Kipourio** | **2.00** | **21** | P | **Pb** | **12 31 02.9** | **+0.2** |
| KPRO | | | | S | **Sb** | **12 31 28.0** | **+0.6** |
| **LOUT** | **Loutraki** | **2.00** | **92** | P | **Pb** | **12 31 02.1** | **-0.7** |
| **LOUT** | **Loutraki** | **2.00** | **92** | P | **Pb** | **12 31 02.1** | **-0.7** |
| **LKR** | **Lokris** | **2.08** | **74** | P | **Pb** | **12 31 03.3** | **-0.9** |
| **LKR** | **Lokris** | **2.08** | **74** | P | **Pb** | **12 31 03.0** | **-1.2** |
| **LKR** | **Lokris** | **2.08** | **74** | P | **Pb** | **12 31 03.0** | **-1.2** |
| **PENT** | **Pentalofos** | **2.17** | **14** | P | **Pb** | **12 31 06.6** | **+0.9** |
| **PENT** | **Pentalofos** | **2.17** | **14** | P | **Pb** | **12 31 05.5** | **-0.3** |
| **PENT** | **Pentalofos** | **2.17** | **14** | P | **Pb** | **12 31 05.5** | **-0.3** |
| **KRND** | **KRANIDI** | **2.26** | **107** | P | **Pb** | **12 31 05.4** | **-1.8** |
| **KRND** | **KRANIDI** | **2.26** | **107** | P | **Pb** | **12 31 05.4** | **-1.8** |
| **VILL** | **Villia** | **2.26** | **87** | P | **Pb** | **12 31 05.8** | **-1.5** |
| **VILL** | **Villia** | **2.26** | **87** | P | **Pb** | **12 31 05.8** | **-1.5** |
| **DID** | **Didima** | **2.29** | **104** | P | **Pb** | **12 31 06.0** | **-1.7** |
| DID | | | | S | **Sb** | **12 31 35.7** | **0.0** |
| DID | | | | AML | AML | 12 31 45.7 | |
| | comp=N,2881µm,0.4s | | | | | | |
| DID | | | | AML | AML | 12 31 48.2 | |
| | comp=E,3661µm,0.6s | | | | | | |
| **DID** | **Didima** | **2.29** | **104** | P | **Pb** | **12 31 05.8** | **-1.9** |
| DID | | | | S | **Sb** | **12 31 35.7** | **0.0** |
| **DID** | **Didima** | **2.29** | **104** | P | **Pb** | **12 31 05.8** | **-1.9** |
| DID | | | | S | **Sb** | **12 31 36.7** | **+1.0** |
| **SMIA** | **Simia** | **2.31** | **69** | P | **Pb** | **12 31 06.8** | **-1.2** |
| **SMIA** | **Simia** | **2.31** | **69** | P | **Pb** | **12 31 06.8** | **-1.2** |
| **FYTO** | **Fytoko, Volos** | **2.35** | **55** | P | **Pb** | **12 31 07.1** | **-1.7** |
| FYTO | | | | S | **Sb** | **12 31 37.6** | **0.0** |
| **FYTO** | **Fytoko, Volos** | **2.35** | **55** | P | **Pb** | **12 31 07.1** | **-1.7** |
| FYTO | | | | S | **Sb** | **12 31 37.6** | **0.0** |
| **NEST** | **Nestorio** | **2.37** | **11** | P | **Pb** | **12 31 09.6** | **+0.5** |
| **NEST** | **Nestorio** | **2.37** | **11** | P | **Pb** | **12 31 08.6** | **-0.5** |
| **NEST** | **Nestorio** | **2.37** | **11** | P | **Pb** | **12 31 08.6** | **-0.5** |
| **VLI** | **Veliai** | **2.41** | **124** | P | **Pb** | **12 31 08.5** | **-1.3** |
| **VLI** | **Veliai** | **2.41** | **124** | P | **Pb** | **12 31 08.5** | **-1.3** |
| **VLI** | **Veliai** | **2.41** | **124** | P | **Pb** | **12 31 09.6** | **-0.2** |
| **KZN** | **Kozani** | **2.44** | **25** | P | **Pb** | **12 31 09.4** | **-0.9** |
| KZN | | | | S | **Sn** | **12 31 37.5** | **+1.8** |
| KZN | | | | AML | AML | 12 31 40.5 | |
| | comp=N,2097µm,0.7s | | | | | | |
| KZN | | | | AML | AML | 12 31 43.8 | |
| | comp=E,3703µm,0.5s | | | | | | |
| **KZN** | **Kozani** | **2.44** | **25** | P | **Pb** | **12 31 08.8** | **-1.6** |
| KZN | | | | S | **Sb** | **12 31 38.2** | **-2.0** |
| **KZN** | **Kozani** | **2.44** | **25** | P | **Pb** | **12 31 08.8** | **-1.6** |
| KZN | | | | S | **Sb** | **12 31 38.2** | **-2.0** |
| **NEO** | **Neokhori** | **2.49** | **60** | P | **Pb** | **12 31 09.1** | **-2.0** |
| **NEO** | **Neokhori** | **2.49** | **60** | P | **Pb** | **12 31 09.1** | **-2.0** |
| **XOR** | **Xorichti** | **2.50** | **58** | P | **Pb** | **12 31 09.4** | **-1.9** |
| **XOR** | **Xorichti** | **2.50** | **58** | P | **Pb** | **12 31 09.1** | **-2.2** |
| **XOR** | **Xorichti** | **2.50** | **58** | P | **Pb** | **12 31 09.1** | **-2.2** |
| **KBN** | **Korca** | **2.54** | **6** | *i* PN | **Pb** | **12 31 11.8** | **-0.3** |
| KBN | | | | *i* SN | **Sb** | **12 31 43.0** | **-0.2** |
| **KBN** | **Korca** | **2.54** | **6** | *i* Pn | **Pb** | **12 31 11.8** | **-0.3** |
| | SNR=40 | | | | | | |
| KBN | | | | *i* Sn | **Sb** | **12 31 43.0** | **-0.2** |
| | SNR=40 | | | | | | |
| **LIT** | **Litokhoron** | **2.56** | **38** | P | **Pb** | **12 31 10.6** | **-1.8** |
| **LIT** | **Litokhoron** | **2.56** | **38** | P | **Pb** | **12 31 10.1** | **-2.3** |
| LIT | | | | S | **Sb** | **12 31 43.2** | **-0.4** |
| **LIT** | **Litokhoron** | **2.56** | **38** | P | **Pb** | **12 31 10.1** | **-2.3** |
| LIT | | | | S | **Sb** | **12 31 43.2** | **-0.4** |
| **ATH** | **Athens Observa** | **2.59** | **92** | P | **Pb** | **12 31 10.4** | **-2.3** |
| ATH | | | | S | **Sb** | **12 31 44.0** | **-0.3** |
| ATH | | | | AML | AML | 12 31 56.1 | |
| | comp=N,2024µm,0.5s | | | | | | |
| ATH | | | | AML | AML | 12 32 00.2 | |
| | comp=E,2425µm,0.6s | | | | | | |
| **ATH** | **Athens Observa** | **2.59** | **92** | P | **Pb** | **12 31 10.4** | **-2.3** |
| ATH | | | | S | **Sb** | **12 31 44.0** | **-0.3** |
| **ATH** | **Athens Observa** | **2.59** | **92** | P | **Pb** | **12 31 10.8** | **-1.9** |
| **VLY** | **Voula,Athens** | **2.66** | **94** | P | **Pn** | **12 31 09.8** | **+0.9** |
| **VLY** | **Voula,Athens** | **2.66** | **94** | P | **Pn** | **12 31 10.8** | **+1.9** |
| **VLY** | **Voula,Athens** | **2.66** | **94** | P | **Pn** | **12 31 10.8** | **+1.9** |
| **PTL** | **Penteli** | **2.70** | **90** | P | **Pn** | **12 31 10.0** | **+0.5** |
| **PTL** | **Penteli** | **2.70** | **90** | P | **Pn** | **12 31 10.0** | **+0.5** |
| **KYTH** | **Kithira** | **2.76** | **130** | P | **Pb** | **12 31 12.7** | **-3.1** |
| KYTH | | | | S | **Sn** | **12 31 45.6** | **+2.2** |
| KYTH | | | | AML | AML | 12 31 51.3 | |
| | comp=N,1246µm,0.4s | | | | | | |
| KYTH | | | | AML | AML | 12 31 55.4 | |
| | comp=E,1004µm,0.3s | | | | | | |
| **KYTH** | **Kithira** | **2.76** | **130** | P | **Pb** | **12 31 14.0** | **-1.8** |
| **EREA** | **Eretria** | **2.77** | **82** | P | **Pn** | **12 31 12.5** | **+2.1** |
| **EREA** | **Eretria** | **2.77** | **82** | P | **Pn** | **12 31 12.5** | **+2.1** |
| **FNA** | **Florina** | **2.79** | **15** | P | **Pb** | **12 31 13.6** | **-2.6** |
| FNA | | | | S | **Sn** | **12 31 46.5** | **+2.5** |
| FNA | | | | AML | AML | 12 31 51.1 | |
| | comp=E,2897µm,0.4s | | | | | | |
| FNA | | | | AML | AML | 12 31 52.2 | |
| | comp=N,2266µm,0.4s | | | | | | |
| **FNA** | **Florina** | **2.79** | **15** | P | **Pn** | **12 31 13.1** | **+2.3** |
| FNA | | | | S | **Sn** | **12 31 46.5** | **+2.5** |
| **FNA** | **Florina** | **2.79** | **15** | P | **Pn** | **12 31 13.1** | **+2.3** |
| **BIA** | **Bitola** | **3.00** | **13** | P | **Pb** | **12 31 17.4** | **-2.5** |
| **BIA** | **Bitola** | **3.00** | **13** | P | **Pb** | **12 31 17.4** | **-2.5** |
| **BIA** | **Bitola** | **3.00** | **13** | *i* Pn | **Pb** | **12 31 17.7** | **-2.2** |
| BIA | | | | *i* Sg | **Sn** | **12 31 52.6** | **+3.1** |
| **OHR** | **Ohrid** | **3.03** | **5** | *i* Pn | **Pn** | **12 31 17.0** | **+2.9** |
| OHR | | | | *i* Sg | **Sn** | **12 31 52.8** | **+2.8** |
| **PAIG** | **Paliouri** | **3.12** | **53** | P | **Pn** | **12 31 15.8** | **+0.5** |
| **PAIG** | **Paliouri** | **3.12** | **53** | P | **Pn** | **12 31 16.6** | **+1.4** |
| **PAIG** | **Paliouri** | **3.12** | **53** | P | **Pn** | **12 31 16.6** | **+1.4** |
| **KARY** | **Karystos** | **3.15** | **90** | P | **Pn** | **12 31 17.0** | **+1.3** |
| **KARY** | **Karystos** | **3.15** | **90** | P | **Pn** | **12 31 17.0** | **+1.3** |
| **ANKY** | **Antikythira Is** | **3.19** | **133** | P | **Pn** | **12 31 18.9** | **+2.7** |
| ANKY | | | | S | **Sn** | **12 31 56.2** | **+2.4** |
| **ANKY** | **Antikythira Is** | **3.19** | **133** | P | **Pn** | **12 31 18.9** | **+2.7** |
| ANKY | | | | S | **Sn** | **12 31 56.2** | **+2.4** |
| **THE** | **Thessaloniki** | **3.20** | **37** | P | **Pn** | **12 31 17.5** | **+1.1** |
| THE | | | | AML | AML | 12 31 58.3 | |
| | comp=E,464µm,0.5s | | | | | | |
| THE | | | | S | **Sb** | **12 31 58.4** | **-3.6** |
| THE | | | | AML | AML | 12 31 59.6 | |
| | comp=N,496µm,0.3s | | | | | | |
| **THE** | **Thessaloniki** | **3.20** | **37** | P | **Pn** | **12 31 17.5** | **+1.1** |
| THE | | | | S | **Sb** | **12 31 58.4** | **-3.6** |
| **GRG** | **Griva** | **3.24** | **27** | P | **Pn** | **12 31 18.6** | **+1.6** |
| GRG | | | | S | **Sn** | **12 31 58.7** | **+3.5** |
| GRG | | | | AML | AML | 12 32 00.2 | |
| | comp=E,2302µm,0.4s | | | | | | |
| GRG | | | | AML | AML | 12 32 02.6 | |

comp=N,3461µm,0.5s
**GRG Griva** 3.24 27 P Pn 12 31 18.5 +1.6
GRG S Sn 12 31 58.7 +3.5
**GRG Griva** 3.24 27 P Pn 12 31 18.5 +1.6
GRG S Sn 12 31 57.1 +1.9
**HORT Hortiatis** 3.24 39 P Pn 12 31 17.5 +0.4
**HORT Hortiatis** 3.24 39 P Pn 12 31 18.4 +1.4
**HORT Hortiatis** 3.24 39 P Pn 12 31 18.4 +1.4
**PLG Polygyros** 3.26 45 P Pn 12 31 17.9 +0.6
**PLG Polygyros** 3.26 45 P Pn 12 31 18.6 +1.3
**PLG Polygyros** 3.26 45 P Pn 12 31 18.6 +1.3
**TIR Tirane** 3.29 352 *i* PN Pn 12 31 19.6 +2.0
TIR *i* SN Sn 12 31 58.3 +2.0
**TIR Tirane** 3.29 352 *i* Pn Pn 12 31 19.6 +2.0
SNR=40
TIR *i* Sn Sn 12 31 58.3 +2.0
SNR=40
**KRUS Krusevo** 3.33 10 *i* Pn Pn 12 31 20.2 +1.9
KRUS *i* Sg Sn 12 31 59.9 +2.3
**CGL1 Ceglie Messapi** 3.44 319 *e*Pn Pn 12 31 20.5 +0.8
**MHLO Agia Marina, M** 3.45 113 P Pn 12 31 20.1 +0.3
**MHLO Agia Marina, M** 3.45 113 P Pn 12 31 20.1 +0.3
**TAR1 Taranto** 3.45 316 *e*Pn Pn 12 31 21.5 +1.6
**SOH Sokhos** 3.54 39 P Pn 12 31 23.8 +2.7
**SOH Sokhos** 3.54 39 P Pn 12 31 23.7 +2.7
**SOH Sokhos** 3.54 39 P Pn 12 31 23.7 +2.7
**OUR Ouranopolis** 3.55 50 P Pn 12 31 20.6 -0.5
**OUR Ouranopolis** 3.55 50 P Pn 12 31 22.3 +1.2
**OUR Ouranopolis** 3.55 50 P Pn 12 31 22.3 +1.2
**MASS Massafra** 3.60 316 *e*Pn Pn 12 31 23.3 +1.3
**KNT Kendrikon** 3.61 31 P Pn 12 31 23.6 +1.7
KNT S Sn 12 32 04.6 +0.4
KNT AML AML 12 32 06.1
comp=E,629µm,0.6s
KNT AML AML 12 32 06.6
comp=N,928µm,0.6s
**KNT Kendrikon** 3.61 31 P Pn 12 31 23.6 +1.7
KNT S Sn 12 32 04.6 +0.4
**KNT Kendrikon** 3.61 31 P Pn 12 31 23.7 +1.7
KNT S Sn 12 32 05.8 +1.6
**VAY Valandovo** 3.62 26 *i* Pn Pn 12 31 24.4 +2.3
VAY *i* Sg Sn 12 32 06.1 +1.6
**FASA Fasano** 3.62 320 *e*Pn Pn 12 31 23.4 +1.2
**IMMV Iera Moni Meta** 3.87 132 P Pn 12 31 25.8 +0.3
**IMMV Iera Moni Meta** 3.87 132 P Pn 12 31 25.8 +0.3
**SRS Serrai** 3.88 38 P Pn 12 31 26.3 +0.6
**SRS Serrai** 3.88 38 P Pn 12 31 27.2 +1.5
**SRS Serrai** 3.88 38 P Pn 12 31 27.2 +1.5
**SKO Skopje** 3.95 11 *i* Pn Pn 12 31 29.0 +2.2
SKO *i* Sg Sn 12 32 13.7 +0.9
**PUK Puka** 3.97 354 *i* PN Pn 12 31 28.3 +1.3
**PUK Puka** 3.97 354 *i* Pn Pn 12 31 28.3 +1.3
SNR=40
**ULC Ulcinj** 3.98 347⇑ *i*Pn Pn 12 31 27.8 +0.7
ULC *e*Sn Sn 12 32 14.4 +1.0
**ULC Ulcinj** 3.98 347⇑ *i*Pn Pn 12 31 27.8 +0.7
ULC *e*Sn Sn 12 32 14.4 +1.0
**SG1 Sgolgore (BA)** 4.00 314 *e*Pn Pn 12 31 28.6 +1.1
**VAM Vamos** 4.03 130 P Pn 12 31 29.0 +1.2
**VAM Vamos** 4.03 130 P Pn 12 31 29.0 +1.2
**BAI Bari** 4.08 319 *e*Pn Pn 12 31 29.1 +0.6
**LIA Limnos Island** 4.11 62 P Pn 12 31 29.9 +1.0
**LIA Limnos Island** 4.11 62 P Pn 12 31 29.9 +1.0
**APE Apeiranthos** 4.17 103 *e*P Pn 12 31 31.5 +1.8
**APE Apeiranthos** 4.17 103 P Pb 12 31 35.1 -4.6
**APE Apeiranthos** 4.17 103 *e*P Pn 12 31 31.5 +1.8
**NVR Nevrokopi** 4.19 38 P Pn 12 31 31.2 +1.2
**NVR Nevrokopi** 4.19 38 P Pn 12 31 31.2 +1.2
**NVR Nevrokopi** 4.19 38 P Pn 12 31 32.1 +2.1
**DRME Dracevica, Mon** 4.21 347⇓ *i*Pn Pn 12 31 31.5 +1.3
DRME *e*Sn Sn 12 32 20.1 +1.1
**DRME Dracevica, Mon** 4.21 347⇓ *i*Pn Pn 12 31 31.5 +1.3
DRME *e*Sn Sn 12 32 20.1 +1.1
**KAVA Kavala** 4.28 46 P Pn 12 31 31.5 +0.3
**KAVA Kavala** 4.28 46 P Pn 12 31 32.3 +1.1
**KAVA Kavala** 4.28 46 P Pn 12 31 32.3 +1.1
**BCI Bajram Curri** 4.28 356 *i* PN Pn 12 31 33.4 +2.1
**BCI Bajram Curri** 4.28 356 *i* Pn Pn 12 31 33.4 +2.1
SNR=40
**BUM Brajici-Budva** 4.37 345⇑ *i*Pn Pn 12 31 33.1 +0.6
BUM *e*Sn Sn 12 32 24.0 +0.9
**BUM Brajici-Budva** 4.37 345⇑ *i*Pn Pn 12 31 33.1 +0.6
BUM *e*Sn Sn 12 32 24.0 +0.9
**GVD Gavdhos** 4.38 137 P Pn 12 31 33.2 +0.7
**GVD Gavdhos** 4.38 137 P Pn 12 31 33.2 +0.7
**CDT Castel del Mon** 4.39 314 *e*Pn Pn 12 31 33.9 +1.1
**CHOS Chios island** 4.43 84 P Pn 12 31 34.6 +1.3
**CHOS Chios island** 4.43 84 P Pn 12 31 34.6 +1.3
**PDG Podgorica** 4.43 349⇓ *i*Pn Sn 12 32 20.9 -3.6
**PDG Podgorica** 4.43 349⇑ *i*Pn Sn 12 31 34.0 +0.7
PDG *e*Sn Sn 12 32 25.8 +1.3
**TTG Podgorica** 4.43 349⇑ *i*Pn Pn 12 31 34.0 +0.7
TTG *e*Sn Sn 12 32 25.8 +1.3
**PVY Plav** 4.51 355⇑ *i*Pn Pn 12 31 36.6 +2.0
PVY *e*Sn Sn 12 32 28.0 +1.2
**PVY Plav** 4.51 355⇑ *i*Pn Pn 12 31 36.6 +2.0
PVY *e*Sn Sn 12 32 28.0 +1.2
**IDI Anoyia** 4.54 127 Pn Pn 12 31 36.9 +2.1
comp=N,3.0nm,0.3s,baz=335,slow=15,SNR=15
IDI Sn Sn 12 32 27.8 +0.5
comp=N,6.8nm,0.3s,baz=203,slow=21,SNR=5.4
**IDI Anoyia** 4.54 127 P Pn 12 31 35.9 +1.1
**IDI Anoyia** 4.54 127 P Pn 12 31 35.9 +1.1
**HCY Herceg Novi** 4.60 342⇑ *i*Pn Pn 12 31 35.4 -0.2
HCY *e*Sn Sn 12 32 29.8 +1.1
**HCY Herceg Novi** 4.60 342⇑ *i*Pn Pn 12 31 35.4 -0.2
HCY *e*Sn Sn 12 32 29.8 +1.1
**CEME Cevo** 4.60 346⇑ *i*Pn Pn 12 31 36.0 +0.3
CEME *e*Sn Sn 12 32 29.4 +0.5
**CEME Cevo** 4.60 346⇑ *i*Pn Pn 12 31 36.0 +0.3
CEME *e*Sn Sn 12 32 29.4 +0.5
**SMTH Samothraki Isl** 4.61 57 P Pn 12 31 35.4 -0.3
**SMTH Samothraki Isl** 4.61 57 P Pn 12 31 35.4 -0.3
**BEY Berane** 4.80 355⇑ *i*Pn Pn 12 31 40.2 +1.8
BEY *e*Sn Sn 12 32 34.2 +0.6
**IVA Berane** 4.80 355⇑ *i*Pn Pn 12 31 40.2 +1.8
IVA *e*Sn Sn 12 32 34.2 +0.6
**KOME Kolasin** 4.81 352⇓ *i*Pn Pn 12 31 40.1 +1.5
KOME *e*Sn Sn 12 32 35.6 +1.6
**KOME Kolasin** 4.81 352⇓ *i*Pn Sn 12 31 40.1 +1.5
KOME *e*Sn Sn 12 32 35.6 +1.6
**NKME Niksic** 4.81 347⇓ *i*Pn Sn 12 31 39.0 +0.5
NKME *e*Sn Sn 12 32 34.0 +0.1
**NKME Niksic** 4.81 347⇓ *i*Pn Pn 12 31 39.0 +0.5
NKME *e*Sn Sn 12 32 34.0 +0.1
**VAE Valguarnera** 4.82 265 Pn Pb 12 31 44.1 -6.7
comp=N,4.8nm,0.3s,baz=12,slow=13,SNR=3.1
VAE Sn Sn 12 32 37.8 +3.6
comp=N,3.7nm,0.3s,baz=14,slow=3.8,SNR=3.8
**BARS Barje** 4.84 12⇑ *i*Pn Pn 12 31 40.1 +1.2
**NKY Niksic** 4.85 347⇓ *i*Pn Pn 12 31 40.1 +1.0
NKY *e*Sn Sn 12 32 35.8 +0.9
**NKY Niksic** 4.85 347⇓ *i*Pn Pn 12 31 40.1 +1.0
NKY *e*Sn Sn 12 32 35.8 +0.9
**TREB Trebinje** 4.89 342⇑ *i*Pn Pn 12 31 39.0 -0.6
**VTS Vitosha** 4.97 24⇓ *i*P Pn 12 31 43.2 +2.4
**VTS Vitosha** 4.97 24 S Sn 12 32 38.8 +0.8
**VTS Vitosha** 4.97 24⇓ *i*P Pn 12 31 43.2 +2.4
**RDO Rodhopi** 4.98 51 P Pn 12 31 41.6 +0.8
**RDO Rodhopi** 4.98 51 P Pn 12 31 41.6 +0.8
**LAST Lasithi** 4.99 124 P Pn 12 31 43.3 +2.2
**LAST Lasithi** 4.99 124 P Pn 12 31 43.3 +2.2
**BRY Bratogost** 5.02 344⇑ *i*Pn Pn 12 31 42.5 +0.9
BRY *e*Sn Sn 12 32 39.2 -0.1
**BRY Bratogost** 5.02 344⇑ *i*Pn Pn 12 31 42.5 +0.9
BRY *e*Sn Sn 12 32 39.2 -0.1
**SMG Samos** 5.07 92 P Pn 12 31 44.2 +2.1
**SMG Samos** 5.07 92 P Pn 12 31 44.2 +2.1
**ALN Alexandroupoli** 5.16 55 P Pn 12 31 43.5 +0.2
**ALN Alexandroupoli** 5.16 55 P Pn 12 31 43.5 +0.2
**STON Ston** 5.21 337 *e*Pn Pn 12 31 43.9 -0.1
STON Sn Sn 12 32 40.6 -3.2
**STON Ston** 5.21 337 *e*Pn Pn 12 31 43.9 -0.2
STON Sn Sn 12 32 40.6 -3.2
**UPM Unac-Piva** 5.24 348⇓ *i*Pn Pn 12 31 45.6 +1.0
UPM *e*Sn Sn 12 32 45.1 +0.3
**UPM Unac-Piva** 5.24 348⇓ *i*Pn Pn 12 31 45.6 +1.0
UPM *e*Sn Sn 12 32 45.1 +0.3
**PLE Pljevlja** 5.30 352⇑ *i*Pn Pn 12 31 46.6 +1.3
PLE *e*Sn Sn 12 32 46.8 +0.8
**PLE Pljevlja** 5.30 352⇑ *i*Pn Pn 12 31 46.6 +1.3
PLE *e*Sn Sn 12 32 46.8 +0.8
**ZKR Zakros** 5.51 121 P Pn 12 31 50.4 +2.2
**ZKR Zakros** 5.51 121 P Pn 12 31 50.4 +2.2
**BBLS Lazići** 5.82 353 *e*Pn Pn 12 31 52.9 +0.4
**KARP Karpathos** 5.96 113 P Pn 12 31 55.1 +0.8
**KARP Karpathos** 5.96 113 P Pn 12 31 55.1 +0.8
**DIVS Divibare** 6.01 357⇑ *i*Pn Pn 12 31 54.9 -0.2
**HAPS Han Pijesak,BI** 6.10 350⇑ *i*Pn Pn 12 31 55.6 -0.7
**TEKS Tekeris** 6.49 354 *e*Pn Pn 12 32 01.4 -0.2
**MDVR Moldovita** 6.75 8 S Sn 12 33 18.3 -3.5
**BLY Banja Luka** 7.09 341 *e*Pn Pn 12 32 10.2 +0.4
**UDBI Udbina** 7.33 333 *e*Pn Pn 12 32 14.7 +1.5
UDBI Sn Sn 12 33 34.1 -1.9
**UDBI Udbina** 7.33 333 *e*Pn Pn 12 32 14.7 +1.5
**ARR Arges** 7.92 22⇓ *i*P Pn 12 32 22.7 +1.5
**VOIR** 8.11 24⇑ *i*P Pn 12 32 25.8 +2.0
**OZLJ Ozalj** 8.38 335 *i* Pn Pn 12 32 27.7 +0.2
OZLJ Sn Sn 12 33 56.4 -5.4
**OZLJ Ozalj** 8.38 335 *i* Pn Pn 12 32 27.7 +0.2
**MLR Muntele Rosu** 8.46 27 Pn Pn 12 32 31.6 +2.9
comp=N,0.2nm,0.3s,baz=199,slow=7.9,SNR=8.6
**MLR Muntele Rosu** 8.46 27⇓ *i*P Pn 12 32 32.4 +3.7
**GBRS Gornja Briga** 8.54 332 *i* Pn Pn 12 32 30.5 +0.8
**CRES Cresnjev** 8.57 336 *e*Pn Pn 12 32 29.8 -0.4
**BEHE Becsehely** 8.80 343⇑ *e*Pn Pn 12 32 31.6 -1.7
BEHE *e*Sn Sn 12 34 07.9 -4.2
**BEHE Becsehely** 8.80 343⇑ *e*Pn Pn 12 32 31.6 -1.7
**CEY Cerknica** 8.86 332⇑ *i*Pn Pn 12 32 34.4 +0.3
**PLOR Plostina** 9.03 29⇓ *i*P Pn 12 32 40.0 +3.6
**PLOR Plostina** 9.03 29⇓ *i*P Pn 12 32 40.0 +3.6
**LJU Ljubljana** 9.08 333⇑ *i*Pn Pn 12 32 37.1 0.0
**KEST Kesra** 9.20 259 Pn Pn 12 32 40.4 +1.6
comp=N,0.6nm,0.3s,baz=42,slow=12,SNR=4.3
KEST Sn Sn 12 34 21.5 -0.5
comp=N,0.1nm,0.3s,baz=294,slow=21,SNR=2.8
KEST LR LR 12 36 44.5
comp=N,72nm,18.8s,baz=19,slow=41
**CSKK Cs˘ákako** 9.41 351 *e*Sn Sn 12 34 26.2 -0.7
**SOKA Soboth** 9.47 337 *i* Pn Pn 12 32 41.9 -0.6
comp=N,11nm,0.3s,SNR=8.6
SOKA *e*Sn Sn 12 34 22.8 -5.8
comp=N,22nm,0.5s
**SOKA Soboth** 9.47 337 Pn Pn 12 32 41.9 -0.6
comp=N,11nm,0.3s,SNR=8.6
**OBKA Obir** 9.48 334 *i* Pn Pn 12 32 42.8 +0.2
comp=N,7.6nm,0.3s
OBKA *e*Sn Sn 12 34 23.6 -5.2
comp=N,92nm,0.7s
**OBKA Obir** 9.48 334 Pn Pn 12 32 42.8 +0.2
comp=N,7.6nm,0.3s
**PSZ Piszkesteto** 9.83 358⇑ *i*P Pn 12 32 48.2 +0.7
**PSZ Piszkesteto** 9.83 358 S Sn 12 34 32.7 -4.8
**PSZ Piszkesteto** 9.83 358 *e*Sn Sn 12 34 32.2 -5.3
**PSZ Piszkesteto** 9.83 358⇑ *i*P Pn 12 32 48.2 +0.7
**ARSA Arzberg** 9.84 340 *e*Pn Pn 12 32 47.2 -0.4
comp=N,4.2nm,0.4s
ARSA *e*Sn Sn 12 34 31.7 -6.0
comp=N,5.5nm,0.4s
**ARSA Arzberg** 9.84 340 Pn Pn 12 32 47.2 -0.4
comp=N,4.2nm,0.4s
**MYKA Terra Mystica** 9.90 332 *e*Pn Pn 12 32 49.6 +1.1
comp=N,3.8nm,0.3s
MYKA *e*Sn Sn 12 34 32.8 -6.4
comp=N,12nm,0.6s
**MYKA Terra Mystica** 9.90 332 Pn Pn 12 32 49.6 +1.1
comp=N,3.8nm,0.3s
**KECS Kecovo** 10.39 0 *e*P Pn 12 32 56.0 +1.0
KECS *e* 12 34 44.1
**KECS Kecovo** 10.39 0 *e*P Pn 12 32 56.0 +1.0
**KBA Koelnbreinsper** 10.39 332 *e*Sn Sn 12 34 46.8 -4.6
comp=N,10nm,0.5s
**BRTR Keskin Array B** 10.41 77 Pn Pn 12 32 57.5 +2.0
comp=N,0.1nm,0.3s,baz=255,slow=12,SNR=2.7
BRTR LR LR 12 37 50.7
comp=N,124nm,19.7s,baz=256,slow=43
**ABTA Abfaltersbach** 10.45 328 *e*Pn Pn 12 32 56.2 +0.3
comp=N,3.3nm,0.2s
ABTA *e*Sn Sn 12 34 46.2 -6.4
comp=N,42nm,0.6s
**ABTA Abfaltersbach** 10.45 328 Pn Pn 12 32 56.2 +0.3
comp=N,3.3nm,0.2s
**MOA Molln** 10.75 337 *e*Pn Pn 12 32 59.8 -0.2
comp=N,6.2nm,0.3s,SNR=12
MOA *e*Sn Sn 12 34 54.8 -5.1
comp=N,18nm,0.6s
**MOA Molln** 10.75 337 Pn Pn 12 32 59.8 -0.2
comp=N,6.2nm,0.3s,SNR=12
**CRVS Cervenica-Dubn** 10.83 4 *e*P Pn 12 33 03.2 +2.1
**CRVS Cervenica-Dubn** 10.83 4 *e*P Pn 12 33 03.2 +2.1
**WTTA Wattenberg** 11.22 328 *e*Pn Pn 12 33 08.2 +1.6
comp=N,1.7nm,0.2s
WTTA *e*Sn Sn 12 35 07.2 -4.5
comp=N,42nm,0.8s
**WTTA Wattenberg** 11.22 328 Pn Pn 12 33 08.2 +1.6
comp=N,1.7nm,0.2s
**WATA Walderalm** 11.30 328 *e*Pn Pn 12 33 09.0 +1.3
comp=N,6.4nm,0.3s,SNR=4.4
WATA *e*Sn Sn 12 35 11.3 -2.4
comp=N,21nm,0.5s
**WATA Walderalm** 11.30 328 Pn Pn 12 33 09.0 +1.3
comp=N,6.4nm,0.3s,SNR=4.4
**FETA Feichten** 11.44 324 Pn Pn 12 33 11.8 +2.3
comp=N,1.2nm,0.5s
FETA *i* Sn Sn 12 35 11.1 -5.8
**FETA Feichten** 11.44 324 Pn Pn 12 33 11.8 +2.3
comp=N,1.2nm,0.5s
**MOTA Moosalm** 11.51 326 *e*Pn Pn 12 33 12.6 +2.1
comp=N,10.0nm,0.5s,SNR=8.6
MOTA *e*Sn Sn 12 35 16.1 -2.7
comp=N,7.6nm,0.4s
**MOTA Moosalm** 11.51 326 Pn Pn 12 33 12.6 +2.1
comp=N,10.0nm,0.5s,SNR=8.6
**DAVOX Davos/Dischmat** 11.67 321 Pn Pn 12 33 14.8 +2.1
comp=N,0.7nm,0.3s,baz=142,slow=19,SNR=4.1
DAVOX Sn Sn 12 35 17.9 -4.7
comp=N,1.7nm,0.3s,baz=301,slow=22,SNR=5.6
**GERES GERESS Array B** 11.81 338 Pn Pn 12 33 13.3 -1.2
comp=N,1.0nm,0.3s,baz=158,slow=14,SNR=13
GERES Sn Sn 12 35 18.7 -7.2
comp=N,1.3nm,0.3s,baz=153,slow=22,SNR=7.1
GERES LR LR 12 39 19.5
comp=N,77nm,19.0s,baz=127,slow=46
**DAVA Damuels** 12.03 323 *e*Pn Pn 12 33 18.6 +1.0
comp=N,1.4nm,0.2s
DAVA *e*Sn Sn 12 35 27.8 -3.5
comp=N,4.3nm,0.4s
**DAVA Damuels** 12.03 323 Pn Pn 12 33 18.6 +1.0
comp=N,1.4nm,0.2s
**KHC Kasperske Hory** 12.10 338 *e*P Pn 12 33 18.2 -0.3
KHC *ex* x 12 33 28.8
KHC *e*S Sn 12 35 27.2 -5.8
KHC *ex* x 12 35 39.8
**KHC Kasperske Hory** 12.10 338 *e*P Pn 12 33 18.2 -0.3
KHC *e*S Sn 12 35 27.2 -5.8
**KHC Kasperske Hory** 12.10 338 *e*P Pn 12 33 18.2 -0.3
**MMAI Mount Meron Ar** 13.19 108 Pn Pn 12 33 32.9 -0.5
baz=302,slow=9.7,SNR=2.3
**KIEV Kiev** 14.06 24 *e*P Pn 12 33 41.5 -3.6
**AKASG Malin Array Be** 14.07 24 Pn Pn 12 33 42.6 -2.6
comp=N,0.4nm,0.3s,baz=209,slow=12,SNR=2.4
**NEY Neytrino** 17.65 66 *e*P Pn 12 34 31.9 -0.2
**KIV Kislovodsk** 17.75 64 *e*P Pn 12 34 31.6 -1.7
KIV pmax pmax
comp=Z,5.0nm,1.1s
KIV MLR MLR
comp=Z,36nm,14.0s
**KBZ Khabaz** 17.86 65 P P 12 34 35.2 +0.2
comp=Z,0.1nm,0.3s,baz=326,slow=9.5,SNR=4.9
**VSR Storozhevoye** 18.63 39 *e*P P 12 34 43.3 -0.1
VSR pmax pmax
comp=Z,7.0nm,1.2s
**VSR Storozhevoye** 18.63 39 *e*P P 12 34 43.3 -0.1
comp=Z,7.0nm,1.2s
**GNI Garni** 18.95 76 LR LR 12 42 15.6
comp=Z,87nm,21.2s,baz=286,slow=38
**GNI Garni** 18.95 76 *e*P Pn 12 34 47.7 -0.3
**GNI Garni** 18.95 76 *e*P Pn 12 34 47.7 -0.3
**ESDC Sonseca Array** 19.06 282 P Pn 12 34 50.2 +1.0
baz=78,slow=12,SNR=4.8
**LPSR Galich'ya Gora** 19.39 36 *e*P P 12 34 51.8 0.0
LPSR pmax pmax
comp=Z,4.0nm,0.8s
**LPSR Galich'ya Gora** 19.39 36 *e*P P 12 34 51.8 0.0
comp=Z,4.0nm,0.8s
**VRH Novokhopyorsk** 19.93 42 *e*P P 12 34 55.9 -1.8
VRH pmax pmax
comp=Z,3.0nm,0.3s
**OBN Obninsk** 20.23 27 LR LR 12 43 24.0
comp=Z,66nm,18.7s,baz=192,slow=39
**OBN Obninsk** 20.23 27⇓ *e*P P 12 35 00.4 -0.5
OBN pmax pmax
comp=Z,9.0nm,0.6s
OBN MLR MLR
comp=Z,78nm,12.0s
**OBN Obninsk** 20.23 27 *e*P P 12 35 00.4 -0.5
comp=Z,78nm,12.0s
**VSU Vasula** 20.79 9 *i* P P 12 35 07.2 +0.2
VSU pmax pmax
comp=Z,42nm,0.8s
**VSU Vasula** 20.79 9 *i* P P 12 35 07.2 +0.2
comp=Z,42nm,0.8s
**MDT Midelt** 21.05 263 P P 12 35 12.1 +1.9
comp=Z,1.3nm,0.7s,baz=75,slow=14,SNR=3.4
MDT LR LR 12 43 35.7
comp=Z,22nm,20.0s,baz=54,slow=37
**HFS Hagfors** 22.48 351 P P 12 35 25.7 +0.6
comp=Z,7.0nm,0.4s,baz=160,slow=12,SNR=46
HFS LR LR 12 45 08.5
comp=Z,104nm,18.6s,baz=84,slow=40
**EKA Eskdalemuir Ar** 23.47 325 P P 12 35 35.2 -0.1
comp=Z,5.9nm,0.9s,baz=122,slow=13,SNR=6.9
**FINES FINESS Array B** 23.64 7 P P 12 35 36.9 -0.1
comp=Z,1.5nm,0.3s,baz=172,slow=14,SNR=17
FINES LR LR 12 45 17.2
comp=Z,111nm,20.2s,baz=234,slow=38
**NB2 NORSAR Subarra** 23.69 349 P P 12 35 37.8 +0.2
comp=Z,4.7nm,0.8s,baz=157,slow=10
**NB2 NORSAR Subarra** 23.69 349 P P 12 35 37.8 +0.2
comp=Z,4.7nm,0.8s,SNR=7.0
**NOA NORSAR Array B** 23.69 349 P P 12 35 37.5 0.0
comp=Z,1.5nm,0.6s,baz=152,slow=9.4,SNR=18
NOA LR LR 12 46 38.8
comp=Z,41nm,19.7s,baz=170,slow=41
**NOA NORSAR Array B** 23.69 349 *e*P P 12 35 37.5 0.0
NOA pmax pmax
comp=Z,1.0nm,0.4s
**NOA NORSAR Array B** 23.69 349 *e*P P 12 35 37.5 0.0
comp=Z,1.0nm,0.4s
**KLMR Klimovskoe** 25.74 22 *e*P P 12 35 56.3 +0.1
KLMR pmax pmax
comp=Z,21nm,1.5s
**KLMR Klimovskoe** 25.74 22 *e*P P 12 35 56.3 +0.1
comp=Z,21nm,1.5s
**AKTK Aktyubinsk** 29.28 53 P P 12 36 28.6 +0.5
comp=Z,37nm,21.4s
**AKTO Aktyubinsk** 29.28 53 P P 12 36 28.6 +0.5
comp=Z,0.8nm,0.3s,baz=263,slow=8.1,SNR=2.5
AKTO LR LR 12 49 43.0
comp=Z,37nm,21.4s,baz=269,slow=40
**TORD Torodi Ar. Bea** 29.92 219 P P 12 36 35.0 +0.9
comp=Z,0.9nm,0.6s,baz=36,slow=8.8,SNR=7.1
**ARCES ARCESS Array B** 31.62 3 P P 12 36 47.0 -1.6
comp=Z,0.5nm,0.3s,baz=190,slow=11,SNR=10
**ARCES ARCESS Array B** 31.62 3 *e*P P 12 36 49.3 +0.7
ARCES pmax pmax
comp=Z,1.0nm,0.3s
**ARCES ARCESS Array B** 31.62 3 *e*P P 12 36 49.3 +0.7
comp=Z,1.0nm,0.3s
**DBIC Dimbokro** 38.79 223 LR LR 12 54 06.6
comp=Z,36nm,19.2s,baz=357,slow=36
**KURBB Kurchatov Arra** 42.33 53 P P 12 38 19.1 -0.6
comp=Z,1.0nm,0.5s,baz=278,slow=8.9,SNR=9.1
**KURK Kurchatov** 42.38 53 P P 12 38 19.1 -1.0
KURK pmax pmax
comp=Z,1.0nm,0.5s
**KURK Kurchatov** 42.38 53 P P 12 38 19.1 -1.0
**NVS Novosibirsk** 44.78 47 *e*P P 12 38 37.2 -2.2
**MKAR Makanchi Array** 45.40 58 P P 12 38 44.0 -0.4
comp=Z,2.3nm,0.4s,baz=274,slow=7.4,SNR=53
**ZALV Zalesovo Beam** 45.80 48 P P 12 38 47.1 -0.3
comp=Z,7.8nm,0.5s,baz=274,slow=9.0,SNR=32
**SONM Songino Array** 60.56 51 P P 12 40 36.1 -0.3
comp=Z,0.6nm,0.5s,baz=280,slow=7.3,SNR=6.3
**YAK Yakutsk** 65.22 29 *e*P P 12 41 07.5 +0.6
YAK pmax pmax
comp=Z,3.0nm,0.7s
**YAK Yakutsk** 65.22 29 *e*P P 12 41 07.5 +0.6
comp=Z,3.0nm,0.7s
**CMAR Chiang Mai Arr** 69.96 82 P P 12 41 37.5 -0.2
comp=Z,0.5nm,0.7s,baz=308,slow=7.6,SNR=5.0
**INK Inuvik** 72.14 350 P P 12 41 50.5 +0.5
comp=Z,1.4nm,1.1s,baz=39,slow=4.0,SNR=4.0
**YKA Yellowknife Ar** 73.45 340 P P 12 41 58.7 +0.8
comp=Z,0.7nm,0.9s,baz=34,slow=5.4,SNR=4.4
**KSAR Wonju Array Be** 79.42 51 P P 12 42 32.1 -0.1
**KSAR Wonju Array Be** 79.42 51 P P 12 42 32.1 -0.1
**KSAR Wonju Array Be** 79.42 51 P P 12 42 32.1 -0.1
**KSRS Korea Array** 79.43 51 P P 12 42 32.1 -0.1
comp=Z,0.7nm,0.4s,baz=308,slow=4.3,SNR=6.1
**TXAR Lajitas Array** 94.99 313 P P 12 43 51.3 +2.4
comp=Z,0.2nm,0.8s,baz=57,slow=6.6,SNR=3.0
**WRA Warramunga Arr** 120.59 92 PKP PKPdf 12 49 17.1 -1.0
comp=Z,0.2nm,1.0s,baz=305,slow=2.0,SNR=3.0

*JMA* ***05*** *12:30:42.2s 0.1, 23°.33N x 121°.48E, h0km, M4.0*
*ISCJB* ***05*** *12:30:44.6s 0.3, 23°.33N ±0°.02 x 121°.40E ±0°.02, h21km ±2km, mb3.9/16, MS3.5/5, Error ellipse: s-maj=3.0km s-min=2.2km az=44.4*
*BJI* ***05*** *12:30:44.2, 23°.33N x 121°.29E, h6km, mb4.1/14, mB4.3/4, ML4.1/6, Ms4.0/7, Ms7 4.0/5*
*TAP* ***05*** *12:30:45.1, 23°.37N x 121°.29E, h13km, ML4.5, B*
*IDC* ***05*** *12:30:49.5 ±5.4, 23°.38N x 121°.58E, h60km ±50km, mb3.7/15, mb1 3.8/16, mb1mx3.7/47, mbtmp4.0/16, ML3.4/1, MS3.5/6, Ms1 3.5/6, ms1mx3.0/39, Error ellipse: s-maj=27.2km s-min=12.9km az=66.0*

**ISC 05 12:30:44.8 ±0.8, 23°.35N ±0°.02 x 121°.37E ±0°.02, h13km ±5km, n114, σ1§28/148, mb4.0/16, MS3.6/5, 19C-12D, Taiwan**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **TWF1** | **Yuli** | **0.07** | **274** | ⇑*i*P | | **Pg** | | **12 30 47.6** | **+0.1** |
| | baz=137 | | | | | | | | |
| **EHY** | **Hungye** | **0.16** | **344** | ⇓*i*P | | **Pg** | | **12 30 48.9** | **+0.1** |
| | baz=6.0 | | | | | | | | |
| EHY | | | | *e*S | | **Sg** | | **12 30 50.6** | **-0.8** |
| | baz=6.0 | | | | | | | | |
| **CHKT** | **Chengkung** | **0.25** | **181** | ⇑*i*P | | **Pb** | | **12 30 51.9** | **+0.7** |
| | baz=152 | | | | | | | | |
| CHKT | | | | *e*S | | **Sb** | | **12 30 56.9** | **+1.6** |
| | baz=152 | | | | | | | | |
| **ELDTW** | **Lidau** | **0.36** | **244** | ⇓*i*P | | **Pg** | | **12 30 51.4** | **-0.8** |
| | baz=238 | | | | | | | | |
| **TEGC** | **Jichi Village** | **0.39** | **23** | *e*P | | **Pb** | | **12 30 54.3** | **+0.7** |
| | baz=25 | | | | | | | | |
| **YUS** | **Yu-Shan** | **0.41** | **290** | ⇑*i*P | | **Pg** | | **12 30 52.6** | **-0.6** |
| | baz=292 | | | | | | | | |
| **ESL** | **Shilin** | **0.47** | **7** | ⇓*i*P | | **Pg** | | **12 30 53.5** | **-0.6** |
| | baz=28 | | | | | | | | |
| ESL | | | | *e*S | | **Sg** | | **12 30 59.9** | **-0.5** |
| | baz=28 | | | | | | | | |
| **ESF** | **Shoufeng Towns** | **0.54** | **13** | *e*P | | **Pb** | | **12 30 55.8** | **-0.3** |
| | baz=24 | | | | | | | | |
| **ALS** | **Alishan** | **0.54** | **287** | ⇑*i*P | | **Pg** | | **12 30 55.1** | **-0.5** |
| | baz=288 | | | | | | | | |
| ALS | | | | *e*S | | **Sg** | | **12 31 01.0** | **-1.9** |
| | baz=288 | | | | | | | | |
| **TWG** | **Pinlang** | **0.59** | **208** | ⇑*e*P | | **Pg** | | **12 30 55.3** | **-1.1** |
| | baz=204 | | | | | | | | |
| TWG | | | | *e*S | | **Sb** | | **12 31 04.5** | **-0.8** |
| | baz=204 | | | | | | | | |
| **STYT** | **Tauyuan** | **0.59** | **252** | ⇓*i*P | | **Pg** | | **12 30 55.9** | **-0.6** |
| | baz=246 | | | | | | | | |
| STYT | | | | S | | **Sg** | | **12 31 02.4** | **-1.9** |
| | baz=246 | | | | | | | | |
| **TTN** | **Taitung** | **0.63** | **199** | *e*P | | **Pg** | | **12 30 55.8** | **-1.3** |
| | baz=178 | | | | | | | | |
| **HWA** | **Hwalien** | **0.66** | **19** | *e*P | | **Pg** | | **12 30 56.3** | **-1.5** |
| | baz=28 | | | | | | | | |
| **CHN5** | **Tsauling** | **0.68** | **291** | ⇑*i*P | | **Pg** | | **12 30 57.9** | **-0.3** |
| | baz=293 | | | | | | | | |
| **SMLT** | **Sun Moon Lake** | **0.69** | **321** | ⇑*i*P | | **Pg** | | **12 30 57.5** | **-0.7** |
| | baz=334 | | | | | | | | |
| SMLT | | | | *e*S | | **Sg** | | **12 31 05.2** | **-2.1** |
| | baz=334 | | | | | | | | |
| **WTP** | **Ta-pu** | **0.70** | **262** | ⇓*i*P | | **Pg** | | **12 30 58.1** | **-0.4** |
| | baz=258 | | | | | | | | |
| WTP | | | | S | | **Sg** | | **12 31 06.7** | **-1.1** |
| | baz=258 | | | | | | | | |
| **CHN4** | **Tsaushan** | **0.71** | **270** | ⇓*i*P | | **Pg** | | **12 30 58.5** | **-0.2** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| | baz=268 | | | | | | |
| **TYC** | **Yuchr** | **0.73** | **320**⇑ | *i*P | **Pg** | **12 30 58.2** | **-0.7** |
| | baz=330 | | | | | | |
| TYC | | | | *e*S | **Sg** | **12 31 07.1** | **-1.5** |
| | baz=330 | | | | | | |
| **TWD** | **Chiawan** | **0.76** | **16** | *e*P | **Pg** | **12 30 58.2** | **-1.4** |
| | baz=24 | | | | | | |
| TWD | | | | *e*S | **Sg** | **12 31 09.5** | **0.0** |
| | baz=24 | | | | | | |
| **SGST** | **Jiashian** | **0.77** | **250**⇓ | *i*P | **Pb** | **12 30 59.7** | **-0.4** |
| | baz=246 | | | | | | |
| SGST | | | | *e*S | **Sb** | **12 31 09.9** | **-0.6** |
| | baz=246 | | | | | | |
| **CHN1** | **Nanshi** | **0.79** | **258** | ⇓P | **Pb** | **12 31 00.1** | **-0.4** |
| | baz=255 | | | | | | |
| CHN1 | | | | S | **Sg** | **12 31 10.1** | **-0.5** |
| | baz=255 | | | | | | |
| **TWK** | **Hsinying** | **0.81** | **265** | ⇓P | **Pg** | **12 31 00.3** | **-0.4** |
| | baz=262 | | | | | | |
| TWK | | | | *e*S | **Sg** | **12 31 10.9** | **-0.4** |
| | baz=262 | | | | | | |
| **WGK** | **Gukeng** | **0.81** | **295**⇑ | *i*P | **Pb** | **12 31 00.9** | **0.0** |
| | baz=296 | | | | | | |
| WGK | | | | *e*S | **Sb** | **12 31 11.9** | **+0.1** |
| | baz=296 | | | | | | |
| **WNT** | **Mingjian** | **0.82** | **310**⇑ | *i*P | **Pb** | **12 31 01.2** | **+0.2** |
| | baz=314 | | | | | | |
| WNT | | | | S | **Sn** | **12 31 13.0** | **-1.1** |
| | baz=314 | | | | | | |
| **ECL** | **Taimali** | **0.84** | **207** | *e*P | **Pg** | **12 30 58.7** | **-2.4** |
| | baz=189 | | | | | | |
| **CHN2** | **Minshiung** | **0.84** | **283** | ⇑P | **Pb** | **12 31 01.4** | **+0.1** |
| | baz=283 | | | | | | |
| CHN2 | | | | *e*S | **Sb** | **12 31 12.3** | **-0.2** |
| | baz=283 | | | | | | |
| **CHY** | **Chiayi** | **0.88** | **280**⇑ | *i*P | **Pb** | **12 31 02.0** | **0.0** |
| | baz=279 | | | | | | |
| CHY | | | | *i* S | **Sb** | **12 31 13.7** | **0.0** |
| | baz=279 | | | | | | |
| **SSD** | **Sandimen** | **0.91** | **229**⇑ | *i*P | **Pg** | **12 31 01.0** | **-1.4** |
| | baz=219 | | | | | | |
| SSD | | | | *e*S | **Sg** | **12 31 12.5** | **-1.7** |
| | baz=219 | | | | | | |
| **TWT** | **Tachien** | **0.92** | **349** | *e*P | **Pg** | **12 31 01.8** | **-0.8** |
| | baz=355 | | | | | | |
| TWT | | | | *e*S | **Sg** | **12 31 12.1** | **-2.6** |
| | baz=355 | | | | | | |
| **CHN3** | **Shinhua** | **0.96** | **254** | *e*P | **Pn** | **12 31 04.4** | **+0.4** |
| | baz=262 | | | | | | |
| CHN3 | | | | *e*S | **Sn** | **12 31 18.5** | **+0.9** |
| | baz=262 | | | | | | |
| **TWM1** | **Shoushan** | **1.02** | **239** | ⇓P | **Pn** | **12 31 05.3** | **+0.5** |
| | baz=224 | | | | | | |
| **SGLT** | **Jiouru** | **1.02** | **233** | *e*P | **Pn** | **12 31 04.6** | **-0.2** |
| | baz=226 | | | | | | |
| **TCU** | **Taichung** | **1.02** | **322**⇑ | *i*P | **Pn** | **12 31 04.7** | **-0.1** |
| | baz=314 | | | | | | |
| TCU | | | | *e*S | **Sn** | **12 31 18.9** | **0.0** |
| | baz=314 | | | | | | |
| **CHN8** | **Yiju** | **1.07** | **270** | ⇑P | **Pb** | **12 31 04.7** | **-0.4** |
| | baz=268 | | | | | | |
| CHN8 | | | | *e*S | **Sn** | **12 31 19.5** | **-0.6** |
| | baz=268 | | | | | | |
| **EAST** | **Anshuo** | **1.07** | **207** | *e*P | **Pb** | **12 31 02.7** | **-2.6** |
| | baz=190 | | | | | | |
| **TAW** | **Tawu** | **1.08** | **204** | *e*P | **Pb** | **12 31 05.0** | **-0.3** |
| | baz=183 | | | | | | |
| **NNS** | **Nan Shan** | **1.09** | **0**⇓ | *e*P | **Pb** | **12 31 04.0** | **-1.6** |
| | baz=22 | | | | | | |
| NNS | | | | *e*S | **Sb** | **12 31 18.8** | **-1.0** |
| | baz=22 | | | | | | |
| **WSF** | **Szhu** | **1.09** | **286** | *e*P | **Pb** | **12 31 05.2** | **-0.4** |
| | baz=286 | | | | | | |
| WSF | | | | *e*S | **Sb** | **12 31 19.5** | **-0.3** |
| | baz=286 | | | | | | |
| **TAI1** | **Yung-k'ang** | **1.09** | **254**⇓ | *e*P | **Pg** | **12 31 06.7** | **+0.7** |
| | baz=250 | | | | | | |
| **SCLT** | **Jiali** | **1.10** | **261** | *e*P | **Pg** | **12 31 05.7** | **-0.3** |
| | baz=258 | | | | | | |
| SCLT | | | | *e*S | **Sn** | **12 31 20.1** | **-0.7** |
| | baz=258 | | | | | | |
| **WTCT** | **Ta-ch'eng** | **1.12** | **297** | *e*P | **Pb** | **12 31 05.4** | **-0.7** |
| | baz=300 | | | | | | |
| WTCT | | | | *e*S | **Sg** | **12 31 20.9** | **-0.2** |
| | baz=300 | | | | | | |
| **ENA** | **Nanau** | **1.13** | **17** | *e*P | **Pb** | **12 31 03.6** | **-2.6** |
| | baz=25 | | | | | | |
| **TWQ1** | **Liyutan** | **1.14** | **331** | ⇑P | **Pg** | **12 31 06.9** | **+0.1** |
| | baz=338 | | | | | | |
| TWQ1 | | | | *e*S | **Sn** | **12 31 22.9** | **+0.9** |
| | baz=338 | | | | | | |
| **SCZT** | **Fangliau** | **1.19** | **216** | *e*P | **Pn** | **12 31 06.2** | **-1.0** |
| | baz=210 | | | | | | |
| **NSY** | **Sanyi** | **1.20** | **332** | *e*P | **Pg** | **12 31 08.3** | **+0.3** |
| | baz=339 | | | | | | |
| NSY | | | | *e*S | **Sg** | **12 31 24.9** | **+1.3** |
| | baz=339 | | | | | | |
| **KAU** | **Kaohsiung** | **1.25** | **232** | *e*P | **Pg** | **12 31 08.8** | **-0.1** |
| | baz=225 | | | | | | |
| **ENTT** | **Nioudou** | **1.30** | **8** | *e*P | **Pn** | **12 31 06.9** | **-1.8** |
| | baz=28 | | | | | | |
| **LAY** | **Lan-yu** | **1.31** | **173** | *e*P | **Pn** | **12 31 06.8** | **-2.1** |
| | baz=169 | | | | | | |
| **NSTT** | **Nanjuang** | **1.32** | **345** | ⇑P | **Pb** | **12 31 09.2** | **-0.3** |
| | baz=4.0 | | | | | | |
| NSTT | | | | *e*S | **Sn** | **12 31 26.4** | **-0.1** |
| | baz=4.0 | | | | | | |
| **NSK** | **Sanguang** | **1.32** | **359** | *e*P | **Pn** | **12 31 08.2** | **-0.8** |
| | baz=7.0 | | | | | | |
| NSK | | | | *e*S | **Sb** | **12 31 25.4** | **-1.0** |
| | baz=7.0 | | | | | | |
| **TWC** | **Suao** | **1.33** | **19** | *e*P | **Pn** | **12 31 06.9** | **-2.2** |
| | baz=27 | | | | | | |
| **TWP** | **Hsiaoliuchiu** | **1.36** | **223** | *e*P | **Pg** | **12 31 12.8** | **+1.7** |
| | baz=216 | | | | | | |
| **TWE** | **Neicheng** | **1.39** | **11** | *e*P | **Pn** | **12 31 08.7** | **-1.3** |
| | baz=32 | | | | | | |
| TWE | | | | *e*S | **Sb** | **12 31 28.9** | **+0.5** |
| | baz=32 | | | | | | |
| **ILA** | **Ilan** | **1.45** | **14** | *e*P | **Pg** | **12 31 12.4** | **-0.3** |
| | baz=21 | | | | | | |
| **HEN** | **Hengchun** | **1.46** | **204** | *e*P | **Pg** | **12 31 12.9** | **0.0** |
| | baz=186 | | | | | | |
| **TWK1** | **Hengchun** | **1.49** | **201** | *e*P | **Pg** | **12 31 13.2** | **-0.3** |
| | baz=184 | | | | | | |
| **HSN** | **Hsinchu** | **1.49** | **346** | *e*P | **Pb** | **12 31 12.1** | **-0.3** |
| | baz=354 | | | | | | |
| **TSEB** | **Hengchuen, Pin** | **1.50** | **197** | *e*P | **Pg** | **12 31 13.9** | **+0.1** |
| | baz=183 | | | | | | |
| **WDGT** | **Dungji** | **1.57** | **267** | *e*P | **Pn** | **12 31 11.5** | **-0.9** |
| | baz=265 | | | | | | |
| WDGT | | | | *e*S | **Sn** | **12 31 31.0** | **-1.7** |
| | baz=265 | | | | | | |
| **NCU** | **National Centr** | **1.62** | **354** | *e*P | **Pb** | **12 31 14.8** | **+0.1** |
| | baz=2.0 | | | | | | |
| **TWA** | **Mucha** | **1.64** | **7** | *e*P | **Pb** | **12 31 14.9** | **+0.1** |
| | baz=29 | | | | | | |
| **PNG** | **Penghu** | **1.68** | **278** | *e*P | **Pn** | **12 31 13.3** | **-0.6** |
| | baz=258 | | | | | | |
| PNG | | | | *e*S | **Sn** | **12 31 34.0** | **-1.4** |
| | baz=258 | | | | | | |
| **TAP** | **Taipei** | **1.69** | **4** | *e*P | **Pg** | **12 31 16.9** | **-0.4** |
| | baz=31 | | | | | | |
| **TAP1** | **Taipei** | **1.69** | **5** | *e*P | **Pb** | **12 31 15.8** | **0.0** |
| | baz=357 | | | | | | |
| TAP1 | | | | *e*S | **Sg** | **12 31 38.5** | **-0.7** |
| | baz=357 | | | | | | |
| **TWS1** | **Kuangyinshan** | **1.75** | **1** | *e*P | **Pn** | **12 31 15.4** | **+0.6** |
| | baz=350 | | | | | | |
| **TWB1** | **Santiao Chiao** | **1.75** | **19** | *e*P | **Pn** | **12 31 15.0** | **+0.1** |
| | baz=26 | | | | | | |
| **NWF** | **Wu-fen Shan** | **1.76** | **12** | *e*P | **Pn** | **12 31 14.9** | **-0.2** |
| | baz=31 | | | | | | |
| **JYNG** | **Yonagunijimaku** | **1.81** | **52** | P | **Pn** | **12 31 15.6** | **-0.1** |
| **YOJ** | **Yonaguni jima** | **1.87** | **53**⇑ | *e*P | **Pn** | **12 31 16.4** | **0.0** |
| | baz=52 | | | | | | |
| **YOJ** | **Yonaguni jima** | **1.87** | **53** | P | **Pn** | **12 31 16.4** | **0.0** |
| **TWY** | **Chenhua** | **1.93** | **6** | *e*P | **Pb** | **12 31 18.8** | **-1.1** |
| | baz=32 | | | | | | |
| **HATJ** | **Hateruma jima** | **2.34** | **72** | P | **Pn** | **12 31 22.7** | **-0.3** |
| HATJ | | | | *e*S | **Sn** | **12 31 51.6** | **0.0** |
| **IRIF** | **Iriomote-Funau** | **2.37** | **65** | P | **Pn** | **12 31 23.5** | **+0.1** |
| IRIF | | | | *e*S | **Sn** | **12 31 53.5** | **+1.1** |
| **JKRS** | **Kuro-shima** | **2.57** | **69** | P | **Pn** | **12 31 26.3** | **+0.1** |
| JKRS | | | | *e*S | **Sn** | **12 31 58.9** | **+1.5** |
| **JIJ** | **Ishigaki jima** | **2.73** | **68** | P | **Pn** | **12 31 27.9** | **-0.5** |
| JIJ | | | | *e*S | **Sn** | **12 32 00.3** | **-1.0** |
| **KNM** | **Kinmen** | **2.89** | **292** | *e*P | **Pn** | **12 31 31.2** | **+0.6** |
| | baz=290 | | | | | | |
| **JISG** | **Ishigakijimahi** | **2.96** | **65** | P | **Pn** | **12 31 30.9** | **-0.6** |
| JISG | | | | *e*S | **Sn** | **12 32 05.9** | **-1.0** |
| **QZH** | **Quanzhou** | **2.99** | **303**⇑ | *i*Pn | **Pn** | **12 31 30.0** | **-2.0** |
| QZH | | | | Sn | **Sn** | **12 32 04.5** | **-3.2** |
| QZH | | | | smax | smax | | |
| | comp=N,1µm,0.8s | | | | | | |
| QZH | | | | smax | smax | | |
| | comp=E,2µm,1.2s | | | | | | |
| **JTJ** | **Tarama** | **3.31** | **66** | P | **Pn** | **12 31 36.2** | **-0.1** |
| JTJ | | | | *e*S | **Sn** | **12 32 15.8** | **+0.3** |
| **JIRB** | **Irabujima** | **3.77** | **66** | P | **Pn** | **12 31 42.4** | **-0.3** |
| **JKE** | **Kume jima 2** | **5.74** | **58** | P | **Pn** | **12 32 08.9** | **-0.9** |
| **JNTH** | **Nagotoyohara** | **6.81** | **61** | P | **Pn** | **12 32 23.3** | **-1.2** |
| **JOW** | **Kunigami** | **7.16** | **60** | P | **Pn** | **12 32 27.8** | **-1.4** |
| **KSRS** | **Korea Array** | **15.15** | **20** | P | **Pn** | **12 34 19.9** | **+1.4** |
| | 0.2nm,0.3s,baz=195,slow=11,SNR=3.5 | | | | | | |
| KSRS | | | | LR | LR | 12 40 04.6 | |
| | comp=Z,51nm,21.8s,baz=200,slow=37 | | | | | | |
| **XAN** | **Xi'an** | **15.24** | **317** | P | **P** | **12 34 30.9** | **+6.2** |
| XAN | | | | pP | sP | 12 34 38.7 | +8.5 |
| XAN | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.6s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=N,400nm,8.6s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=E,400nm,12.6s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,740nm,12.6s | | | | | | |
| **LZH** | **Lanzhou** | **19.78** | **314** | *e*P | **Pn** | **12 35 17.4** | **+0.9** |
| LZH | | | | pP | sP | 12 35 20.3 | -0.1 |
| LZH | | | | sP | pP | 12 35 24.1 | +5.4 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,15nm,0.7s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **21.50** | **261** | P | **P** | **12 35 37.2** | **+3.6** |
| | comp=Z,2.7nm,0.9s,baz=63,slow=8.3,SNR=15 | | | | | | |
| CMAR | | | | LR | LR | 12 44 19.1 | |
| | comp=Z,82nm,18.3s,baz=76,slow=37 | | | | | | |
| **MPSI** | **Mapaga** | **22.92** | **184** | pP | **P** | **12 35 51.1** | **+2.5** |
| **GTA** | **Gaotai** | **24.30** | **316** | *e*P | **P** | **12 36 02.5** | **+0.3** |
| GTA | | | | pP | sP | 12 36 06.9 | -1.0 |
| GTA | | | | sP | pP | 12 36 10.0 | +3.8 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.7s | | | | | | |
| **SONM** | **Songino Array** | **27.20** | **338** | P | **P** | **12 36 27.6** | **-0.8** |
| | comp=Z,2.0nm,0.7s,baz=153,slow=10.0,SNR=14 | | | | | | |
| SONM | | | | LR | LR | 12 48 36.3 | |
| | comp=Z,160nm,19.0s,baz=192,slow=39 | | | | | | |
| **SDSI** | **Sungai Dareh** | **30.96** | **222** | pP | P | 12 37 07.0 | +5.1 |
| **EDFI** | **Ende, Flores** | **31.90** | **179** | pP | **P** | **12 37 13.1** | **+2.9** |
| **WMQ** | **Urumqi** | **34.36** | **315** | *e*P | **P** | **12 37 33.4** | **+1.9** |
| **MKAR** | **Makanchi Array** | **39.06** | **317** | P | **P** | **12 38 11.7** | **+0.2** |
| | comp=Z,2.2nm,0.7s,baz=112,slow=9.7,SNR=20 | | | | | | |
| **PETK** | **Petropavlovsk-** | **40.47** | **33** | LR | LR | 12 55 18.6 | |
| | comp=Z,37nm,21.8s,baz=208,slow=36 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.04** | **328** | P | **P** | **12 38 26.3** | **-1.4** |
| | comp=Z,3.4nm,0.8s,baz=117,slow=7.6,SNR=15 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **42.37** | **86** | T | T | 13 23 48.3 | |
| | baz=283,slow=75,SNR=98 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **42.37** | **86** | T | T | 13 23 48.4 | |
| | baz=283,slow=75,SNR=146 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **42.39** | **86** | T | T | 13 23 48.6 | |
| | baz=283,slow=75,SNR=114 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **42.48** | **88** | T | T | 13 23 60.0 | |
| | baz=284,slow=75,SNR=174 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **42.48** | **88** | T | T | 13 23 55.4 | |
| | baz=284,slow=75,SNR=77 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **42.49** | **88** | T | T | 13 24 05.0 | |
| | baz=284,slow=75,SNR=80 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **42.86** | **320** | P | **P** | **12 38 41.5** | **-1.1** |
| | comp=Z,1.0nm,0.2s,baz=118,slow=7.5,SNR=7.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.85** | **163** | P | **P** | **12 38 56.5** | **-2.5** |
| | comp=Z,0.4nm,0.4s,baz=345,slow=8.6,SNR=22 | | | | | | |
| **ASAR** | **Alice Springs** | **48.29** | **165** | P | **P** | **12 39 23.9** | **-2.1** |
| | comp=Z,0.2nm,0.3s,baz=346,slow=6.9,SNR=10 | | | | | | |
| ASAR | | | | PcP | **PcP** | **12 40 50.5** | **-2.3** |
| | comp=Z,0.4nm,0.5s,baz=343,slow=3.2,SNR=5.3 | | | | | | |
| **GEYT** | **Alibeck** | **55.37** | **301** | P | **P** | **12 40 20.1** | **+1.3** |
| | comp=Z,7.2nm,0.7s,baz=166,slow=1.2,SNR=5.6 | | | | | | |
| GEYT | | | | LR | LR | 13 09 11.1 | |
| | comp=Z,43nm,18.2s,baz=30,slow=42 | | | | | | |
| **STKA** | **Stephens Creek** | **58.22** | **160** | P | **P** | **12 40 38.9** | **0.0** |
| | comp=Z,1.2nm,0.6s,baz=331,slow=10,SNR=3.0 | | | | | | |
| **ILAR** | **Eielson Array** | **69.88** | **27** | P | **P** | **12 41 54.6** | **-0.5** |
| | comp=Z,0.2nm,0.6s,baz=292,slow=5.9,SNR=3.2 | | | | | | |
| **FINES** | **FINESS Array B** | **72.25** | **330** | P | **P** | **12 42 08.4** | **-1.1** |
| | comp=Z,2.0nm,0.7s,baz=54,slow=3.3,SNR=5.0 | | | | | | |
| **BRTR** | **Keskin Array B** | **73.81** | **307** | P | **P** | **12 42 19.4** | **0.0** |
| | comp=Z,1.0nm,0.8s,baz=134,slow=7.1,SNR=5.5 | | | | | | |
| **HFS** | **Hagfors** | **78.38** | **331** | P | **P** | **12 42 43.3** | **-1.5** |
| | comp=Z,2.6nm,0.7s,baz=104,slow=6.1,SNR=4.9 | | | | | | |
| **NB2** | **NORSAR Subarra** | **79.04** | **332** | P | **P** | **12 42 46.7** | **-1.8** |
| | comp=Z,1.3nm,0.6s,baz=56,slow=5.9 | | | | | | |
| **NOA** | **NORSAR Array B** | **79.04** | **332** | P | **P** | **12 42 47.0** | **-1.6** |
| | comp=Z,1.8nm,0.6s,baz=58,slow=5.8,SNR=3.9 | | | | | | |
| NOA | | | | LR | LR | 13 21 15.4 | |
| | comp=Z,101nm,18.9s,baz=310,slow=38 | | | | | | |
| **GERES** | **GERESS Array B** | **83.59** | **321** | P | **P** | **12 43 11.3** | **-1.7** |
| | comp=Z,0.6nm,0.5s,baz=56,slow=5.0,SNR=4.8 | | | | | | |

---

*ISK* ***05*** *12:36:50.8, 38.°83N×43.°60E, h5km, ML2.7*
*ATA* ***05*** *12:36:51.4±1.2, 38.°86N×43.°55E, h0km±5km, ML3.2*
*CSEM* ***05*** *12:36:52.3±0.2, 38.°84N×43.°60E, h5km, ML3.0, Error ellipse: s-maj=4.9km s-min=3.0km az=115.0*
*DDA* ***05*** *12:36:52.3, 38.°81N×43.°58E, h7km, Ml3.0*
**ISC 05 12:36:52.0**±0.9**, 38.°82N**±0.°02×**43.°62E**±0.°03**, h15**km±6km**,**
**n39,** σ**0.°71**/64**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.17** | **349** | *i* P | **Pg** | **12 36 55.8** | **-0.6** |
| VMUR | | | | *i* S | **Sg** | **12 36 59.8** | **+0.5** |
| **VMUR** | **Van-Muradiye** | **0.17** | **349** | P | **Pg** | **12 36 55.8** | **-0.6** |
| VMUR | | | | S | **Sg** | **12 36 59.8** | **+0.5** |
| **VANB** | **Van** | **0.28** | **218** | *e*PG | **Pb** | **12 36 59.0** | **+0.1** |
| **VANB** | **Van** | **0.28** | **218** | *e*Pg | **Pb** | **12 36 59.0** | **+0.1** |
| **ERCV** | **ERCIS-VAN** | **0.29** | **313** | *e*PG | **Pg** | **12 36 57.3** | **-1.0** |
| ERCV | | | | *e*SG | **Sb** | **12 37 02.9** | **-1.0** |
| **ERCV** | **ERCIS-VAN** | **0.29** | **313** | *e*Pg | **Pg** | **12 36 57.3** | **-1.0** |
| ERCV | | | | *e*Sg | **Sb** | **12 37 02.9** | **-1.0** |
| **TVAN** | **Van** | **0.33** | **210** | *i* P | **Pb** | **12 36 59.1** | **-0.6** |
| TVAN | | | | *i* S | **Sb** | **12 37 05.2** | **+0.2** |
| **TVAN** | **Van** | **0.33** | **210** | P | **Pb** | **12 36 59.1** | **-0.6** |
| TVAN | | | | S | **Sb** | **12 37 05.2** | **+0.2** |
| **CLDR** | **Caldiran** | **0.40** | **36** | *e*PG | **Pg** | **12 36 59.8** | **-0.4** |
| CLDR | | | | *e*SG | **Sb** | **12 37 06.7** | **-0.3** |
| **CLDR** | **Caldiran** | **0.40** | **36** | *i* P | **Pb** | **12 37 00.4** | **-0.5** |
| CLDR | | | | *i* S | **Sb** | **12 37 07.7** | **+0.7** |
| **CLDR** | **Caldiran** | **0.40** | **36** | *e*Pg | **Pg** | **12 36 59.8** | **-0.4** |
| **CLDR** | **Caldiran** | **0.40** | **36** | P | **Pb** | **12 37 00.4** | **-0.5** |
| CLDR | | | | *e*Sg | **Sb** | **12 37 06.7** | **-0.3** |
| CLDR | | | | S | **Sb** | **12 37 07.7** | **+0.7** |
| **GEVA** | **Gevas** | **0.67** | **221** | *e*P | **Pg** | **12 37 04.5** | **-0.5** |
| GEVA | | | | *e*S | **Sn** | **12 37 17.1** | **-0.3** |
| GEVA | | | | IAML | | 12 37 17.6 | |
| | comp=Z,67nm,0.4s | | | | | | |
| **GEVA** | **Gevas** | **0.67** | **221** | *i* P | **Pg** | **12 37 04.6** | **-0.5** |
| GEVA | | | | *i* S | **Sb** | **12 37 15.4** | **+0.8** |
| **GEVA** | **Gevas** | **0.67** | **221** | P | **Pg** | **12 37 04.6** | **-0.5** |
| GEVA | | | | S | **Sb** | **12 37 15.4** | **+0.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.70** | **269** | *i* P | **Pg** | **12 37 05.1** | **-0.5** |
| ADCV | | | | *i* S | **Sb** | **12 37 15.6** | **+0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.70** | **269** | P | **Pg** | **12 37 05.1** | **-0.5** |
| ADCV | | | | S | **Sb** | **12 37 15.6** | **+0.2** |
| **DYDN** | **Diyadin** | **0.73** | **4** | *e*P | **Pb** | **12 37 06.2** | **-0.2** |
| DYDN | | | | *e*S | **Sn** | **12 37 17.5** | **-1.4** |
| DYDN | | | | IAML | | 12 37 19.7 | |
| | comp=Z,35nm,0.3s | | | | | | |
| **DYDN** | **Diyadin** | **0.73** | **4** | *i* P | **Pb** | **12 37 06.6** | **+0.1** |
| DYDN | | | | *i* S | **Sb** | **12 37 17.2** | **+0.9** |
| **DYDN** | **Diyadin** | **0.73** | **4** | P | **Pb** | **12 37 06.6** | **+0.1** |
| DYDN | | | | S | **Sb** | **12 37 17.2** | **+0.9** |
| **BASK** | **Baskale_VAN** | **0.82** | **158** | *e*P | **Pn** | **12 37 09.8** | **+0.6** |
| **TUTA** | **Tutak** | **0.85** | **313** | *e*P | **Pg** | **12 37 07.6** | **-1.0** |
| TUTA | | | | *e*S | **Sb** | **12 37 20.8** | **+0.8** |
| TUTA | | | | IAML | | 12 37 25.6 | |
| | comp=Z,132nm,0.2s | | | | | | |
| **TUTA** | **Tutak** | **0.85** | **313** | *i* P | **Pg** | **12 37 07.7** | **-0.9** |
| TUTA | | | | *i* S | **Sb** | **12 37 20.0** | **0.0** |
| **TUTA** | **Tutak** | **0.85** | **313** | P | **Pg** | **12 37 07.7** | **-0.9** |
| TUTA | | | | S | **Sb** | **12 37 20.0** | **0.0** |
| **AGRB** | **Hanur-Agry** | **0.90** | **328** | *e*PG | **Pg** | **12 37 08.6** | **-0.8** |
| **AGRB** | **Hanur-Agry** | **0.90** | **328** | *e*Pg | **Pg** | **12 37 08.6** | **-0.8** |
| **TASB** | **TASBURUN-IGDIR** | **1.26** | **22** | *e*PN | **Pg** | **12 37 15.8** | **-0.5** |
| **TASB** | **TASBURUN-IGDIR** | **1.26** | **22** | *e*Pn | **Pg** | **12 37 15.8** | **-0.5** |
| **EATA** | **Eleskirt** | **1.36** | **320** | *i* P | **Pg** | **12 37 17.6** | **-0.6** |
| EATA | | | | *i* S | **Sg** | **12 37 37.6** | **+1.8** |
| **EATA** | **Eleskirt** | **1.36** | **320** | P | **Pg** | **12 37 17.6** | **-0.6** |
| EATA | | | | S | **Sg** | **12 37 37.7** | **+1.8** |
| **SRTM** | **Siirt_Merkez** | **1.57** | **239** | *i* P | **Pg** | **12 37 21.6** | **-0.5** |
| SRTM | | | | *i* S | **Sg** | **12 37 42.5** | **0.0** |
| **SRTM** | **Siirt_Merkez** | **1.57** | **239** | P | **Pg** | **12 37 21.6** | **-0.5** |
| SRTM | | | | S | **Sg** | **12 37 42.5** | **0.0** |
| **CUKT** | **Cukurca** | **1.57** | **180** | *e*PN | **Pg** | **12 37 21.3** | **-0.8** |
| **CUKT** | **Cukurca** | **1.57** | **180** | *e*Pn | **Pg** | **12 37 21.3** | **-0.8** |
| **SIRT** | **Sirnak** | **1.61** | **216** | *e*PN | **Pb** | **12 37 21.4** | **-0.1** |
| **SIRT** | **Sirnak** | **1.61** | **216** | *e*Pn | **Pb** | **12 37 21.4** | **-0.1** |
| **HOMI** | **Horasan** | **1.80** | **313** | *i* P | **Pb** | **12 37 25.2** | **+0.4** |
| **BNGL** | **BINGOL** | **1.93** | **275** | *i* P | **Pb** | **12 37 27.4** | **+0.5** |
| **ERZM** | **Erzurum** | **2.05** | **303** | *e*P | **Pg** | **12 37 30.5** | **-0.9** |

---

*ISCJB* ***05*** *12:40:58.8±1.0, 36.°84N±0.°06×7.°38W±0.°04, h56km±12km, Error ellipse: s-maj=10.3km s-min=5.9km az=173.3*
*INMG* ***05*** *12:40:59.5±1.4, 36.°74N×7.°44W, h23km±4km, ML1.7, Error ellipse: s-maj=6.9km s-min=3.4km az=22.0*
*CSEM* ***05*** *12:41:00.0, 36.°82N×7.°38W, h53km, mb3.5/2*
*MDD* ***05*** *12:41:00.0±1.2, 36.°82N×7.°38W, h53km±27km, mb3.5/2, Error ellipse: s-maj=16.8km s-min=6.6km az=166.0, PRXIMO*
*IGIL* ***05*** *12:41:00.5, 36.°75N×7.°45W, h30km, ML1.6*
**ISC 05 12:40:57.9**±1.7**, 36.°74N**±0.°08×**7.°36W**±0.°03**, h51**km±21km**,**
**n30,** σ**1.°09**/57**, 2D, Strait of Gibraltar**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PBDV** | **Barranco-do-Ve** | **0.68** | **318**⇓ | *e*Pg | **Pn** | **12 41 11.8** | **+0.3** |
| PBDV | | | | *e*Sg | **Sn** | **12 41 20.3** | **-1.0** |
| PBDV | | | | A | A | 12 41 21.4 | |
| | 16nm,0.4s | | | | | | |
| **EGRO** | **El Granado** | **0.80** | **353** | ⇓P | **Pn** | **12 41 13.7** | **+0.7** |
| | 5.3nm,0.0s,SNR=18 | | | | | | |
| EGRO | | | | S | **Sn** | **12 41 23.6** | **-0.4** |
| | 8.9nm,0.1s,SNR=16 | | | | | | |
| **EGRO** | **El Granado** | **0.80** | **353** | P | **Pn** | **12 41 13.7** | **+0.7** |
| | 5.3nm,0.0s,SNR=18 | | | | | | |
| EGRO | | | | S | **Sn** | **12 41 23.6** | **-0.4** |
| | 8.9nm,0.1s,SNR=16 | | | | | | |
| **PCVE** | **Castro Verde** | **1.04** | **329** | *e*P | **Pn** | **12 41 17.2** | **+0.9** |
| PCVE | | | | *e*S | **Sn** | **12 41 29.9** | **+0.1** |
| PCVE | | | | A | A | 12 41 30.1 | |
| | 15nm,0.3s | | | | | | |
| **EMIN** | **Mina Concepcio** | **1.16** | **28** | P | **Pn** | **12 41 18.6** | **+0.8** |
| | 0.1nm,0.0s,SNR=11 | | | | | | |
| EMIN | | | | S | **Sn** | **12 41 31.6** | **-1.0** |
| | 3.4nm,0.1s,SNR=16 | | | | | | |
| **EMIN** | **Mina Concepcio** | **1.16** | **28** | P | **Pn** | **12 41 18.6** | **+0.8** |
| | 0.1nm,0.0s,SNR=11 | | | | | | |
| EMIN | | | | S | **Sn** | **12 41 31.6** | **-1.0** |
| | 3.4nm,0.1s,SNR=16 | | | | | | |
| **MORF** | **Marmelete** | **1.18** | **299** | *e*P | **Pn** | **12 41 18.8** | **+0.7** |
| MORF | | | | *e*S | **Sn** | **12 41 32.0** | **-1.2** |
| MORF | | | | AML | AML | 12 41 32.9 | |
| | comp=N,13nm,0.1s | | | | | | |
| **MORF** | **Marmelete** | **1.18** | **299** | P | **Pn** | **12 41 18.8** | **+0.7** |
| MORF | | | | S | **Sn** | **12 41 32.0** | **-1.2** |
| | comp=N,13nm,0.1s | | | | | | |
| **MORF** | **Marmelete** | **1.18** | **299** | P | **Pn** | **12 41 18.8** | **+0.7** |
| MORF | | | | S | **Sn** | **12 41 32.0** | **-1.2** |
| | comp=N,13nm,0.1s | | | | | | |
| **MORF** | **Marmelete** | **1.18** | **299** | *e*P | **Pn** | **12 41 18.8** | **+0.7** |
| MORF | | | | *e*S | **Sn** | **12 41 32.5** | **-0.7** |
| MORF | | | | A | A | 12 41 32.7 | |
| | comp=N,9.4nm,0.1s | | | | | | |
| **PFVI** | **Vila Bisbo** | **1.24** | **289** | P | **Pn** | **12 41 20.1** | **+1.2** |
| | comp=N,0.7nm,0.0s,SNR=7.9 | | | | | | |
| PFVI | | | | S | **Sn** | **12 41 33.6** | **-1.0** |
| | comp=N,5.2nm,0.1s,SNR=7.9 | | | | | | |
| **PFVI** | **Vila Bisbo** | **1.24** | **289** | P | **Pn** | **12 41 20.1** | **+1.2** |
| | comp=N,0.7nm,0.0s,SNR=7.9 | | | | | | |
| PFVI | | | | S | **Sn** | **12 41 33.6** | **-1.0** |
| | comp=N,5.2nm,0.1s,SNR=7.9 | | | | | | |
| **PFVI** | **Vila Bisbo** | **1.24** | **289** | *e*S | **Sn** | **12 41 34.0** | **-0.6** |
| PFVI | | | | A | A | 12 41 35.5 | |
| | comp=N,9.0nm,0.6s | | | | | | |
| **MESJ** | **Messejana** | **1.30** | **328** | *e*P | **Pn** | **12 41 20.6** | **+1.0** |
| MESJ | | | | *e*S | **Sn** | **12 41 35.1** | **-0.8** |
| MESJ | | | | AML | AML | 12 41 35.6 | |
| | comp=N,5.0nm,0.1s | | | | | | |
| **MESJ** | **Messejana** | **1.30** | **328** | P | **Pn** | **12 41 20.6** | **+1.0** |
| MESJ | | | | S | **Sn** | **12 41 35.1** | **-0.8** |
| | comp=N,5.0nm,0.1s | | | | | | |
| **MESJ** | **Messejana** | **1.30** | **328** | P | **Pn** | **12 41 20.6** | **+1.0** |
| MESJ | | | | S | **Sn** | **12 41 35.1** | **-0.8** |
| | comp=N,5.0nm,0.1s | | | | | | |
| **PTEO** | **Sao Teotonio** | **1.36** | **307** | *e*S | **Sn** | **12 41 36.8** | **-0.6** |
| **PBAR** | **Barrancos** | **1.46** | **10** | *e*P | **Pn** | **12 41 22.7** | **+0.9** |
| PBAR | | | | *e*S | **Sn** | **12 41 42.3** | **+2.5** |
| PBAR | | | | A | A | 12 41 47.0 | |
| | comp=N,9.7nm,0.1s | | | | | | |
| **PNCL** | **Nicolau / Gran** | **1.66** | **326** | *e*P | **Pn** | **12 41 25.4** | **+0.8** |
| PNCL | | | | *e*S | **Sn** | **12 41 43.6** | **-1.1** |
| PNCL | | | | A | A | 12 41 46.4 | |
| | comp=N,4.3nm,0.3s | | | | | | |
| **EBAD** | **Badajoz** | **2.03** | **8** | P | **Pn** | **12 41 29.7** | **0.0** |
| | comp=N,0.3nm,0.0s,SNR=7.9 | | | | | | |
| EBAD | | | | S | **Sn** | **12 41 52.5** | **-1.3** |
| | comp=N,0.7nm,0.1s,SNR=7.9 | | | | | | |
| **EBAD** | **Badajoz** | **2.03** | **8** | P | **Pn** | **12 41 29.7** | **0.0** |
| | comp=N,0.3nm,0.0s,SNR=7.9 | | | | | | |
| EBAD | | | | S | **Sn** | **12 41 52.5** | **-1.3** |
| | comp=N,0.7nm,0.1s,SNR=7.9 | | | | | | |
| **ECAB** | **El Cabril** | **2.04** | **49** | P | **Pn** | **12 41 30.9** | **+1.1** |
| | comp=N,0.1nm,0.1s,SNR=7.9 | | | | | | |
| ECAB | | | | S | **Sn** | **12 41 52.5** | **-1.6** |
| | comp=N,0.4nm,0.1s,SNR=9.1 | | | | | | |
| **ECAB** | **El Cabril** | **2.04** | **49** | P | **Pn** | **12 41 30.9** | **+1.1** |
| | comp=N,0.1nm,0.1s,SNR=7.9 | | | | | | |
| ECAB | | | | S | **Sn** | **12 41 52.5** | **-1.6** |
| | comp=N,0.4nm,0.1s,SNR=9.1 | | | | | | |
| **PMTG** | **Montargil** | **2.43** | **344** | *e*Pn | **Pn** | **12 41 36.0** | **+0.9** |
| PMTG | | | | *e*Sn | **Sn** | **12 42 03.8** | **+0.3** |
| PMTG | | | | A | A | 12 42 05.3 | |
| | comp=N,1.7nm,0.2s | | | | | | |
| **EADA** | **Adamuz** | **2.63** | **56** | P | **Pn** | **12 41 39.6** | **+1.7** |
| | comp=N,0.1nm,0.1s,SNR=4.0 | | | | | | |
| EADA | | | | S | **Sn** | **12 42 06.5** | **-2.1** |
| | comp=N,0.1nm,0.1s,SNR=7.9 | | | | | | |
| **EADA** | **Adamuz** | **2.63** | **56** | P | **Pn** | **12 41 39.6** | **+1.7** |
| | comp=N,0.1nm,0.1s,SNR=4.0 | | | | | | |
| EADA | | | | S | **Sn** | **12 42 06.5** | **-2.1** |
| | comp=N,0.1nm,0.1s,SNR=7.9 | | | | | | |
| **PMRV** | **Marv??o** | **2.69** | **359** | *e*Pn | **Pn** | **12 41 39.5** | **+0.9** |
| PMRV | | | | *e*Sn | **Sn** | **12 42 09.7** | **-0.2** |
| **PMAFR** | **Mafra** | **2.69** | **326** | P | **Pn** | **12 41 38.7** | **0.0** |
| | comp=N,2.0nm,0.2s,SNR=4.0 | | | | | | |
| PMAFR | | | | S | **Sn** | **12 42 09.0** | **-0.9** |
| | comp=N,0.6nm,0.1s,SNR=4.0 | | | | | | |
| **PMAFR** | **Mafra** | **2.69** | **326** | P | **Pn** | **12 41 38.7** | **0.0** |
| | comp=N,2.0nm,0.2s,SNR=4.0 | | | | | | |
| PMAFR | | | | S | **Sn** | **12 42 09.0** | **-0.9** |
| | comp=N,0.6nm,0.1s,SNR=4.0 | | | | | | |
| **PMAFR** | **Mafra** | **2.69** | **326** | *e*Sn | **Sn** | **12 42 09.1** | **-0.9** |

---

*ISK* ***05*** *13:21:22.0, 38.°70N×43.°27E, h20km, MD2.4*
*CSEM* ***05*** *13:21:23.7±0.2, 38.°74N×43.°35E, h10km, ML2.5, Error ellipse: s-maj=5.4km s-min=4.7km az=107.0*
*DDA* ***05*** *13:21:23.9, 38.°74N×43.°36E, h7km, Ml2.5*
*ISCJB* ***05*** *13:21:24.1±0.6, 38.°73N±0.°03×43.°34E±0.°04, h12km±6km, Error ellipse: s-maj=6.0km s-min=5.2km az=144.3*
**ISC 05 13:21:24.0**±1.0**, 38.°74N**±0.°03×**43.°34E**±0.°03**, h11**km±10km**,**
**n20,** σ**0.°62**/35**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.15** | **165** | *e*PG | **Pg** | **13 21 27.7** | **+0.1** |
| **VANB** | **Van** | **0.15** | **165** | *e*Pg | **Pg** | **13 21 27.7** | **+0.1** |
| **TVAN** | **Van** | **0.22** | **166** | *i* P | **Pg** | **13 21 28.0** | **-0.8** |
| TVAN | | | | *i* S | **Sg** | **13 21 32.3** | **+0.3** |
| **TVAN** | **Van** | **0.22** | **166** | P | **Pg** | **13 21 28.0** | **-0.8** |
| TVAN | | | | S | **Sg** | **13 21 32.3** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.31** | **36** | *i* P | **Pg** | **13 21 30.4** | **0.0** |
| VMUR | | | | *i* S | **Sb** | **13 21 36.9** | **+0.1** |
| **VMUR** | **Van-Muradiye** | **0.31** | **36** | P | **Pg** | **13 21 30.4** | **0.0** |
| VMUR | | | | S | **Sb** | **13 21 36.9** | **+0.1** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **GEVA** | **Gevas** | **0.48** | **207** | *i* P | **Pb** | **13 21 34.2** | **-0.4** |
| **GEVA** | **Gevas** | **0.48** | **207** | P | **Pb** | **13 21 34.2** | **-0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.48** | **278** | *i* P | **Pg** | **13 21 33.3** | **-0.3** |
| ADCV | | | | *i* S | **Sb** | **13 21 41.9** | **-0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.48** | **278** | P | **Pg** | **13 21 33.3** | **-0.3** |
| ADCV | | | | S | **Sb** | **13 21 41.8** | **-0.1** |
| **CLDR** | **Caldiran** | **0.60** | **48** | *e*PG | **Pg** | **13 21 35.6** | **-0.2** |
| CLDR | | | | *e*SG | **Sb** | **13 21 45.7** | **+0.3** |
| **CLDR** | **Caldiran** | **0.60** | **48** | *i* P | **Pg** | **13 21 34.9** | **-1.0** |
| CLDR | | | | *i* S | **Sb** | **13 21 45.0** | **-0.5** |
| **CLDR** | **Caldiran** | **0.60** | **48** | P | **Pg** | **13 21 34.9** | **-1.0** |
| **CLDR** | **Caldiran** | **0.60** | **48** | *e*Pg | **Pg** | **13 21 35.7** | **-0.2** |
| CLDR | | | | S | **Sb** | **13 21 45.0** | **-0.5** |
| **TUTA** | **Tutak** | **0.78** | **328** | *i* P | **Pg** | **13 21 38.8** | **-0.3** |
| TUTA | | | | *i* S | **Sb** | **13 21 49.9** | **-0.5** |
| **TUTA** | **Tutak** | **0.78** | **328** | P | **Pg** | **13 21 38.8** | **-0.3** |
| TUTA | | | | S | **Sb** | **13 21 49.9** | **-0.5** |
| **AGRB** | **Hanur-Agry** | **0.88** | **342** | *e*PG | **Pg** | **13 21 39.9** | **-1.1** |
| AGRB | | | | *e*SG | **Sb** | **13 21 52.9** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **0.88** | **342** | *e*Pg | **Pg** | **13 21 39.9** | **-1.1** |
| AGRB | | | | *e*Sg | **Sb** | **13 21 52.9** | **-0.3** |
| **EATA** | **Eleskirt** | **1.30** | **330** | *i* P | **Pb** | **13 21 48.6** | **-0.1** |
| EATA | | | | *i* S | **Sn** | **13 22 07.4** | **+1.4** |
| **EATA** | **Eleskirt** | **1.30** | **330** | P | **Pb** | **13 21 48.6** | **-0.1** |
| EATA | | | | S | **Sn** | **13 22 07.4** | **+1.4** |

**JMA 05 13:38:35.7**±0.1**,38°.84N**×**142°.13E,h47**km±1km**,M3.5,**
**Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OFUJ** | **Ofunato** | **0.43** | **304** | P | Pn | 13 38 46.1 | +0.1 |
| OFUJ | | | | S | Sn | 13 38 53.3 | 0.0 |
| **JMK** | **Ichinoseki** | **0.72** | **279** | P | Pn | 13 38 49.6 | 0.0 |
| JMK | | | | S | Sn | 13 38 59.4 | -0.2 |
| **JIO** | **Ouri** | **0.72** | **238** | P | Pn | 13 38 49.5 | -0.1 |
| JIO | | | | S | Sn | 13 38 59.0 | -0.7 |
| **JOM** | **Ohasama** | **0.91** | **314** | P | Pn | 13 38 52.3 | +0.2 |
| JOM | | | | S | Sn | 13 39 04.2 | +0.1 |
| **JOU** | **Okura** | **1.24** | **248** | P | Pn | 13 38 56.9 | +0.2 |
| JOU | | | | *e*S | Sn | 13 39 12.8 | +0.5 |
| **JRG** | **Rokugo** | **1.29** | **296** | P | Pn | 13 38 57.6 | +0.3 |
| **JYK** | **Kaneyama** | **1.38** | **274** | P | Pn | 13 38 58.9 | +0.3 |
| JYK | | | | *e*S | Sn | 13 39 16.4 | +0.7 |
| **JMM** | **Marumori** | **1.43** | **228** | P | Pn | 13 38 58.9 | -0.3 |
| JMM | | | | *e*S | Sn | 13 39 16.7 | -0.2 |
| **JANG** | **Nango** | **1.60** | **343** | P | Pn | 13 39 02.0 | +0.4 |
| JANG | | | | S | Sn | 13 39 21.1 | 0.0 |

*IDC **05** 13:45:18.6±2.1,27°.16N×144°.10E,h0km,mb3.7/8, mb1 3.9/9,mb1mx3.7/38,mbtmp3.7/9,ML3.6/1,Error ellipse: s-maj=62.1km s-min=28.0km az=12.0*
*JMA **05** 13:45:20.6,27°.22N×142°.14E,h196km,M3.6*
*ISCJB **05** 13:45:21.9±1.2,27°.2N±0°.2×143°.9E±0°.1,h33km,mb3.7/8, Error ellipse: s-maj=25.4km s-min=8.1km az=154.3*
**ISC 05 13:45:23.5**±1.3**,27°.1N**±0°.2×**143°.8E**±0°.1**,h35**km**,n12,**
σ**1.s19**/14**,mb3.9**/8**,Bonin Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CBIJ** | **Chichi jima** | **1.48** | **271** | P | **Pn** | **13 45 46.1** | **-1.5** |
| CBIJ | | | | *e*S | **Sn** | **13 46 05.8** | **0.0** |
| **JHHJ** | **Haha-jima-NKT** | **1.56** | **253** | P | **Pn** | **13 45 47.4** | **-1.3** |
| JHHJ | | | | *e*S | **Sn** | **13 46 07.8** | **+0.1** |
| **MJAR** | **Matsushiro Arr** | **10.57** | **334** | Pn | **Pn** | **13 47 51.0** | **-1.5** |
| | 0.4nm,0.3s,baz=156,slow=11,SNR=5.1 | | | | | | |
| **SONM** | **Songino Array** | **35.75** | **315** | P | **P** | **13 52 21.0** | **+1.9** |
| | 0.4nm,0.4s,baz=118,slow=6.0,SNR=5.7 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **50.47** | **319** | P | **P** | **13 54 18.4** | **+0.7** |
| | 0.4nm,0.3s,baz=133,slow=6.3,SNR=1.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **51.62** | **310** | P | **P** | **13 54 27.8** | **+1.2** |
| | 0.9nm,0.6s,baz=90,slow=9.0,SNR=14 | | | | | | |
| **ILAR** | **Eielson Array** | **57.01** | **29** | P | **P** | **13 55 04.8** | **-0.7** |
| | 0.2nm,0.9s,baz=253,slow=5.6,SNR=1.9 | | | | | | |
| **BVAR** | **Borovoye Array** | **59.05** | **318** | P | **P** | **13 55 20.5** | **+0.6** |
| | 0.6nm,0.5s,baz=94,slow=7.4,SNR=4.6 | | | | | | |
| **INK** | **Inuvik** | **62.42** | **25** | P | **P** | **13 55 41.9** | **-0.6** |
| | 0.6nm,0.7s,baz=264,slow=3.9,SNR=1.9 | | | | | | |
| **KBZ** | **Khabaz** | **79.09** | **314** | P | **P** | **13 57 25.8** | **+1.4** |
| | 1.8nm,0.8s,baz=153,slow=5.1,SNR=3.7 | | | | | | |
| **PDAR** | **Pinedale Array** | **83.17** | **45** | P | **P** | **13 57 45.9** | **-0.6** |
| | 0.2nm,0.6s,baz=287,slow=7.1,SNR=4.2 | | | | | | |
| **LPAZ** | **La Paz** | **148.49** | **77** | PKPbc | **PKPbc** | **14 05 07.6** | **-0.4** |
| | 0.6nm,0.6s,baz=315,slow=2.9,SNR=4.5 | | | | | | |

*IDC **05** 13:45:48.3±4.3,6°.86S×129°.62E,h92km±40km,mb3.7/7, mb1 4.0/10,mb1mx3.7/33,mbtmp4.1/10,MS2.9/1, Ms1 2.9/1,ms1mx2.3/28,Error ellipse: s-maj=45.9km s-min=17.6km az=63.0*
*ISCJB **05** 13:45:51.2±0.4,7°.13S±0°.04×129°.65E±0°.05,h139km, mb3.8/7,Error ellipse: s-maj=7.7km s-min=5.0km az=6.7*
*DJA **05** 13:45:53.3±0.5,7°S±4°×13°0E±°,h187km±11km,M4.6/7, mB5.3/1,mb4.6/5,MLv4.6/7,Mw(mB)4.7/1*
**ISC 05 13:45:53.1**±0.6**,6°.97S**±0°.05×**129°.51E**±0°.06**,h139**km**,n22,**
σ**1.s92**/27**,mb3.8**/7**,Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SAUI** | **Saumlaki** | **2.04** | **120** | P | **Pn** | **13 46 30.7** | **+2.6** |
| SAUI | | | | S | **Sn** | **13 46 58.6** | **+3.6** |
| **AAI** | **Ambon** | **3.51** | **338** | P | **Pn** | **13 46 49.1** | **+2.3** |
| **MSAI** | **Masohi** | **3.65** | **351** | P | **Pn** | **13 46 51.8** | **+3.3** |
| **FAKI** | **Fak Fak** | **4.87** | **34** | P | **Pn** | **13 47 04.6** | **0.0** |
| FAKI | | | | S | **Sn** | **13 47 57.7** | **-2.6** |
| **SOEI** | **Soe** | **5.88** | **242** | P | **Pn** | **13 47 19.1** | **+0.9** |
| | 52nm,0.6s | | | | | | |
| SOEI | | | | S | **Sn** | **13 48 23.5** | **-1.1** |
| | 52nm,0.6s | | | | | | |
| **SANI** | **Sanana** | **6.02** | **324** | P | **Pn** | **13 47 22.6** | **+2.6** |
| | 33nm,0.8s | | | | | | |
| **LBMI** | **Labuha** | **6.60** | **342** | P | **Pn** | **13 47 30.7** | **+2.8** |
| | 73nm,0.8s | | | | | | |
| **RKPI** | **Ransiki, Papua** | **7.15** | **41** | P | **Pn** | **13 47 36.8** | **+1.6** |
| RKPI | | | | S | **Sn** | **13 48 53.7** | **-1.5** |
| **FITZ** | **Fitzroy Crossi** | **11.69** | **198** | P | **Pn** | **13 48 33.3** | **-2.4** |
| | 2.9nm,0.3s,baz=30,slow=11,SNR=60 | | | | | | |
| FITZ | | | | S | Sn | 13 50 33.1 | -12 |
| | 3.0nm,0.3s,baz=94,slow=18,SNR=6.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **13.72** | **160** | P | **Pn** | **13 48 58.8** | **-3.2** |
| | 3.3nm,0.3s,baz=332,slow=13,SNR=39 | | | | | | |
| WRA | | | | S | Sn | 13 51 25.1 | -8.8 |
| | 2.0nm,0.3s,baz=332,slow=22,SNR=6.2 | | | | | | |
| **ASAR** | **Alice Springs** | **17.13** | **166** | P | **P** | **13 49 43.6** | **-0.2** |
| | 1.4nm,0.3s,baz=345,slow=8.6,SNR=96 | | | | | | |
| ASAR | | | | S | S | 13 52 42.7 | -13 |
| | 0.1nm,0.3s,baz=340,slow=25,SNR=4.6 | | | | | | |
| ASAR | | | | LR | LR | 13 57 19.0 | |
| | comp=Z,37nm,18.8s,baz=37,slow=40 | | | | | | |
| **STKA** | **Stephens Creek** | **27.23** | **157** | P | **P** | **13 51 24.8** | **+0.7** |
| | 1.4nm,0.5s,baz=358,slow=9.6,SNR=4.0 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **39.34** | **310** | P | **P** | **13 53 09.3** | **+0.2** |
| | 1.0nm,0.5s,baz=138,slow=7.3,SNR=7.3 | | | | | | |
| CMAR | | | | PcP | **PcP** | **13 55 16.0** | **+1.0** |
| | 0.3nm,0.3s,baz=120,slow=1.7,SNR=4.4 | | | | | | |
| **SONM** | **Songino Array** | **58.26** | **342** | P | **P** | **13 55 33.7** | **+0.5** |
| | 0.3nm,0.4s,baz=142,slow=4.9,SNR=4.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.93** | **327** | P | **P** | **13 56 37.0** | **+0.1** |
| | 1.5nm,0.5s,baz=116,slow=8.0,SNR=20 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **71.34** | **334** | P | **P** | **13 56 57.0** | **-0.6** |
| | 0.5nm,0.4s,baz=134,slow=4.2,SNR=3.0 | | | | | | |
| **SEY** | **Seymchan** | **71.87** | **11** | P | **P** | **13 57 01.0** | **+0.4** |
| | 2.8nm,0.9s,baz=227,slow=13,SNR=4.2 | | | | | | |
| **ILAR** | **Eielson Array** | **93.53** | **25** | P | **P** | **13 58 50.9** | **-2.0** |
| | 0.4nm,0.7s,baz=239,slow=4.5,SNR=4.3 | | | | | | |
| **TXAR** | **Lajitas Array** | **125.33** | **59** | PKP | **PKPdf** | **14 04 39.2** | **+0.8** |
| | 0.3nm,0.7s,baz=221,slow=1.2,SNR=3.6 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **128.32** | **281** | PKP | **PKPdf** | **14 04 44.4** | **+0.2** |
| | 0.3nm,0.6s,baz=67,slow=2.2,SNR=3.2 | | | | | | |
| **CPUP** | **Villa Florida** | **146.24** | **169** | PKPbc | **PKPbc** | **14 05 18.2** | **+0.1** |
| | 2.0nm,0.7s,baz=23,slow=3.7,SNR=5.5 | | | | | | |
| **LPAZ** | **La Paz** | **151.04** | **143** | PKPbc | **PKPbc** | **14 05 32.7** | **+1.2** |
| | 0.8nm,0.4s,baz=283,slow=2.5,SNR=4.6 | | | | | | |

**WEL 05 13:53:59.8**±0.1**,37°.95S**×**177°.32E,h61**km±1km**,ML3.6**/33**,**
**15C-5D,Error ellipse: s-maj=0.8km s-min=0.7km az=0.0,**
**Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RUGZ** | **Raukumara Rang** | **0.28** | **93** | ⇓P* | Pn | 13 54 09.0 | -1.1 |
| RUGZ | | | | S* | Sn | 13 54 16.2 | -1.3 |
| **WHRZ** | **Whale Island** | **0.29** | **289** | P* | Pn | 13 54 10.5 | +0.5 |
| **URZ** | **Urewera** | **0.35** | **208** | P* | Pn | 13 54 09.7 | -0.8 |
| URZ | | | | S* | Sn | 13 54 18.4 | +0.3 |
| URZ | | | | AML | AML | 13 54 18.7 | |
| **HAZ** | **Te Kaha** | **0.41** | **62** | P* | Pn | 13 54 09.7 | -1.2 |
| HAZ | | | | S* | Sn | 13 54 18.4 | -0.7 |
| HAZ | | | | AML | AML | 13 54 18.7 | |
| HAZ | | | | AML | AML | 13 54 18.8 | |
| HAZ | | | | AML | AML | 13 54 18.9 | |
| **MWZ** | **Matawai** | **0.41** | **157** | P* | Pn | 13 54 10.6 | -0.5 |
| MWZ | | | | S* | Sn | 13 54 19.5 | +0.2 |
| MWZ | | | | AML | AML | 13 54 19.9 | |
| **WIZ** | **White Island** | **0.44** | **346** | P* | Pn | 13 54 10.8 | -0.4 |
| **EDRZ** | **Edgecumbe** | **0.49** | **251** | ⇑P* | Pn | 13 54 11.7 | -0.1 |
| **MARZ** | **Manawahe** | **0.51** | **266** | P* | Pn | 13 54 11.8 | -0.3 |
| **RAGZ** | **Rawiri** | **0.55** | **172** | ⇑P* | Pn | 13 54 12.3 | -0.2 |
| RAGZ | | | | AML | AML | 13 54 25.8 | |
| RAGZ | | | | AML | AML | 13 54 30.0 | |
| **TWGZ** | **Tauwhareparae** | **0.57** | **114** | ⇑PN | Pn | 13 54 13.0 | +0.4 |
| TWGZ | | | | SN | Sn | 13 54 24.1 | +2.1 |
| TWGZ | | | | AML | AML | 13 54 27.7 | |
| **PKGZ** | **Pakihiroa** | **0.60** | **84** | ⇓PN | Pn | 13 54 12.6 | -0.4 |
| PKGZ | | | | AML | AML | 13 54 26.8 | |
| PKGZ | | | | AML | AML | 13 54 28.0 | |
| **OPRZ** | **Ohinepanea** | **0.62** | **280** | ⇑P* | Pn | 13 54 12.9 | -0.3 |
| **TKGZ** | **Te Karaka** | **0.64** | **140** | ⇑PN | Pn | 13 54 13.4 | -0.1 |
| TKGZ | | | | AML | AML | 13 54 27.4 | |
| TKGZ | | | | AML | AML | 13 54 27.8 | |
| **MUGZ** | **Murupara** | **0.68** | **219** | ⇑P* | Pn | 13 54 13.6 | -0.4 |
| **TARZ** | **Mount Tarawera** | **0.70** | **246** | P* | Pn | 13 54 14.6 | +0.3 |
| **RTZ** | **Ruatahuna** | **0.72** | **202** | ⇑P* | Pn | 13 54 13.9 | -0.5 |
| **RRRZ** | **Republican Roa** | **0.75** | **238** | ⇑P* | Pn | 13 54 14.6 | -0.1 |
| **PUZ** | **Puketiti** | **0.75** | **100** | ⇑PN | Pn | 13 54 14.4 | -0.3 |
| PUZ | | | | AML | AML | 13 54 30.0 | |
| PUZ | | | | AML | AML | 13 54 30.6 | |
| **RIGZ** | **Rimuhau** | **0.83** | **156** | PN | Pn | 13 54 15.7 | -0.1 |
| RIGZ | | | | AML | AML | 13 54 30.5 | |
| RIGZ | | | | AML | AML | 13 54 30.7 | |
| **SNGZ** | **Shannon Statio** | **0.83** | **179** | ⇑PN | Pn | 13 54 15.9 | +0.1 |
| SNGZ | | | | AML | AML | 13 54 37.3 | |
| SNGZ | | | | AML | AML | 13 54 37.9 | |
| **KARZ** | **Kaharoa** | **0.85** | **265** | ⇑P* | Pn | 13 54 16.0 | -0.1 |
| **TGRZ** | **Tauranga** | **0.87** | **284** | P* | Pn | 13 54 15.9 | -0.3 |
| **MXZ** | **Matakaoa Point** | **0.87** | **64** | P* | Pn | 13 54 16.5 | +0.2 |
| MXZ | | | | AML | AML | 13 54 33.8 | |
| MXZ | | | | AML | AML | 13 54 34.2 | |
| **WMGZ** | **Waiomatatini S** | **0.87** | **82** | ⇓PN | Pn | 13 54 16.3 | 0.0 |
| WMGZ | | | | AML | AML | 13 54 30.5 | |
| WMGZ | | | | AML | AML | 13 54 31.0 | |
| **CNGZ** | **Carnagh Statio** | **0.88** | **128** | PN | Pn | 13 54 16.3 | -0.1 |
| CNGZ | | | | AML | AML | 13 54 44.3 | |
| **PRRZ** | **Plateau Road** | **0.91** | **233** | P* | Pn | 13 54 16.7 | -0.1 |
| **HSRZ** | **Hossack Road** | **0.92** | **247** | P* | Pn | 13 54 17.5 | +0.6 |
| **HRRZ** | **Handcock Road** | **0.93** | **242** | P* | Pn | 13 54 17.0 | 0.0 |
| **MTHZ** | **Maungataniwha** | **0.98** | **203** | P* | Pn | 13 54 17.3 | -0.3 |
| **ALRZ** | **Allen Road** | **0.98** | **231** | P* | Pn | 13 54 17.7 | 0.0 |
| **PRGZ** | **Paritu Road** | **1.07** | **156** | PN | Pn | 13 54 18.2 | -0.6 |
| PRGZ | | | | AML | AML | 13 54 41.9 | |
| **KNZ** | **Kokohu** | **1.10** | **166** | PN | Pn | 13 54 18.4 | -0.8 |
| KNZ | | | | AML | AML | 13 56 34.5 | |
| KNZ | | | | AML | AML | 13 59 38.0 | |
| **WHHZ** | **Waihua** | **1.13** | **184** | PN | Pn | 13 54 19.4 | -0.2 |
| WHHZ | | | | AML | AML | 13 54 42.9 | |
| WHHZ | | | | AML | AML | 13 54 43.5 | |
| **MRHZ** | **Matea Rd** | **1.13** | **219** | ⇓P* | Pn | 13 54 19.5 | -0.1 |
| MRHZ | | | | AML | AML | 13 54 36.2 | |
| MRHZ | | | | AML | AML | 13 54 39.1 | |
| **NMHZ** | **Naumai** | **1.21** | **199** | PN | Pn | 13 54 21.3 | +0.5 |
| NMHZ | | | | AML | AML | 13 54 43.8 | |
| NMHZ | | | | AML | AML | 13 54 43.8 | |
| **MHGZ** | **Mahia Peninsul** | **1.28** | **159** | PN | Pn | 13 54 20.9 | -0.7 |
| **ARHZ** | **Aropaoanui** | **1.33** | **191** | PN | Pn | 13 54 22.1 | -0.2 |
| ARHZ | | | | AML | AML | 13 54 46.2 | |
| ARHZ | | | | AML | AML | 13 54 49.1 | |
| **BKZ** | **Black Stump Fm** | **1.38** | **208** | ⇑P* | Pn | 13 54 22.8 | -0.2 |
| BKZ | | | | AML | AML | 13 54 46.7 | |
| BKZ | | | | AML | AML | 13 54 46.9 | |
| **TLZ** | **Tolley Road** | **1.46** | **254** | P* | Pn | 13 54 23.9 | 0.0 |
| **TOZ** | **Tahuroa Road** | **1.46** | **278** | P* | Pn | 13 54 23.9 | 0.0 |
| **MCHZ** | **McNeill Hill** | **1.57** | **198** | PN | Pn | 13 54 25.3 | -0.2 |
| MCHZ | | | | AML | AML | 13 54 55.3 | |
| MCHZ | | | | AML | AML | 13 54 57.1 | |
| **KWHZ** | **Kaweka Forest** | **1.63** | **205** | P* | Pn | 13 54 26.0 | -0.4 |
| KWHZ | | | | AML | AML | 13 54 55.2 | |
| KWHZ | | | | AML | AML | 13 54 55.6 | |
| **KUZ** | **Kuaotunu** | **1.75** | **313** | ⇑PN | Pn | 13 54 27.5 | -0.5 |
| **OTVZ** | **Oturere** | **1.78** | **227** | ⇓P* | Pn | 13 54 28.8 | +0.4 |
| **NGZ** | **Ngauruhoe** | **1.82** | **227** | P* | Pn | 13 54 29.4 | +0.4 |
| **BHHZ** | **Black Hill Sta** | **1.82** | **212** | P* | Pn | 13 54 29.1 | +0.1 |
| BHHZ | | | | AML | AML | 13 54 58.6 | |
| BHHZ | | | | AML | AML | 13 54 59.4 | |
| **KAHZ** | **Kahuranaki** | **1.87** | **191** | PN | Pn | 13 54 28.3 | -1.4 |
| KAHZ | | | | AML | AML | 13 55 08.1 | |
| **MOVZ** | **Moawhango** | **1.90** | **220** | P* | Pn | 13 54 29.8 | -0.3 |
| **MKAZ** | **Moumakai** | **1.92** | **296** | ⇑PN | Pn | 13 54 30.2 | +0.1 |
| **WNVZ** | **Wahianoa** | **1.93** | **224** | ⇑P* | Pn | 13 54 30.5 | +0.1 |
| **HIZ** | **Hauiti** | **2.02** | **253** | PN | Pn | 13 54 32.4 | +0.8 |
| **MTVZ** | **Mangateitei** | **2.04** | **225** | P* | Pn | 13 54 32.2 | +0.3 |
| **PKVZ** | **Pokaka** | **2.04** | **229** | P* | Pn | 13 54 32.8 | +0.8 |
| **PXZ** | **Pawanui** | **2.11** | **190** | PN | Pn | 13 54 30.4 | -2.3 |
| PXZ | | | | AML | AML | 13 54 56.9 | |
| **PNHZ** | **Pukenui** | **2.15** | **204** | PN | Pn | 13 54 31.7 | -1.6 |
| PNHZ | | | | AML | AML | 13 54 58.6 | |
| PNHZ | | | | AML | AML | 13 55 08.2 | |
| **VRZ** | **Vera Road** | **2.33** | **239** | P* | Pn | 13 54 36.5 | +0.8 |
| **TSZ** | **Takapari Road** | **2.36** | **206** | PN | Pn | 13 54 34.3 | -1.8 |
| **PRHZ** | **Porangahau** | **2.37** | **193** | PN | Pn | 13 54 34.0 | -2.4 |
| PRHZ | | | | AML | AML | 13 55 03.4 | |
| PRHZ | | | | AML | AML | 13 55 05.0 | |
| **DVHZ** | **Dannevirke** | **2.51** | **201** | AML | AML | 13 55 05.7 | |
| DVHZ | | | | AML | AML | 13 55 05.7 | |
| **WAZ** | **Wanganui** | **2.56** | **225** | PN | Pn | 13 54 39.3 | +0.3 |
| **ANWZ** | **Angora Road** | **2.59** | **194** | PN | Pn | 13 54 37.0 | -2.3 |
| ANWZ | | | | AML | AML | 13 55 07.9 | |
| ANWZ | | | | AML | AML | 13 55 08.7 | |
| **LREZ** | **Lake Rotokare** | **2.74** | **236** | PN | Pn | 13 54 42.8 | +1.5 |
| **OHWZ** | **Ohakea** | **2.74** | **214** | PN | Pn | 13 54 40.7 | -0.7 |
| **MRZ** | **Mangatainoka R** | **3.03** | **206** | PN | Pn | 13 54 42.5 | -2.7 |
| MRZ | | | | AML | AML | 13 55 17.9 | |
| **TIWZ** | **Tintock** | **3.03** | **201** | PN | Pn | 13 54 42.6 | -2.8 |
| TIWZ | | | | AML | AML | 13 55 18.9 | |
| TIWZ | | | | AML | AML | 13 55 19.2 | |
| **HOWZ** | **Holdsworth Sta** | **3.26** | **205** | PN | Pn | 13 54 45.4 | -3.1 |
| HOWZ | | | | AML | AML | 13 55 21.8 | |
| **OGWZ** | **Otaki Gorge** | **3.31** | **210** | PN | Pn | 13 54 47.3 | -1.9 |
| OGWZ | | | | AML | AML | 13 55 38.6 | |
| OGWZ | | | | AML | AML | 13 55 43.3 | |
| **TMWZ** | **Te Maipa** | **3.34** | **199** | PN | Pn | 13 54 45.9 | -3.7 |
| **KIW** | **Kapiti Island** | **3.46** | **212** | PN | Pn | 13 54 48.3 | -2.9 |
| **MTW** | **Mount Morrison** | **3.50** | **203** | PN | Pn | 13 54 48.3 | -3.4 |
| **CAW** | **Cannon Point** | **3.60** | **208** | PN | Pn | 13 54 49.9 | -3.3 |
| **DUWZ** | **D'Urville Isla** | **3.88** | **222** | PN | Pn | 13 54 54.0 | -3.0 |
| **QRZ** | **Quartz Range** | **4.69** | **231** | PN | Pn | 13 55 05.7 | -2.4 |
| **THZ** | **Tophouse** | **5.10** | **220** | PN | Pn | 13 55 09.6 | -4.1 |
| **KHZ** | **Kahutara** | **5.32** | **212** | PN | Pn | 13 55 12.9 | -3.7 |

*IDC **05** 13:54:12.1±2.0,35°.12N×142°.66E,h0km,mb3.5/3, mb1 3.7/5,mb1mx3.5/37,mbtmp3.5/5,ML3.5/2,MS2.9/1, Ms1 2.9/1,ms1mx2.3/29,Error ellipse: s-maj=60.5km s-min=25.4km az=71.0*
*JMA **05** 13:54:13.0±0.5,35°.17N×142°.57E,h41km,M3.1*
*ISCJB **05** 13:54:14.5±1.0,35°.24N±0°.07×142°.47E±0°.08,h42km, mb3.5/3,MS2.9/1,Error ellipse: s-maj=10.0km s-min=9.2km az=8.1*
**ISC 05 13:54:16.1**±1.5**,35°.27N**±0°.08×**142°.46E**±0°.10**,h42**km**,n14,**
σ**1.s06**/17**,mb3.3**/3**,Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BSO1** | **Boso 1** | **1.36** | **243** | P | **Pn** | **13 54 36.6** | **-1.6** |
| BSO1 | | | | *e*S | **Sn** | **13 54 53.6** | **-1.1** |
| **CHOJ** | **Chosi** | **1.37** | **289** | P | **Pn** | **13 54 38.7** | **-0.1** |
| CHOJ | | | | *e*S | **Sn** | **13 54 56.4** | **+0.7** |
| **BSO3** | **Boso 3** | **1.66** | **254** | P | **Pn** | **13 54 41.8** | **-0.8** |
| **BSO4** | **Boso 4** | **1.76** | **261** | P | **Pn** | **13 54 44.1** | **+0.1** |
| **JAG** | **Ashikaga** | **2.69** | **296** | P | **Pn** | **13 54 56.8** | **-0.2** |
| **JOD2** | **Odawara 2** | **2.75** | **271** | P | **Pn** | **13 54 56.7** | **-1.1** |
| JOD2 | | | | *e*S | **Sn** | **13 55 30.5** | **+0.6** |
| **JFT** | **Otama** | **2.82** | **323** | P | **Pn** | **13 54 59.0** | **+0.3** |
| **JRY** | **Ryogami san** | **2.99** | **285** | P | **Pn** | **13 55 01.3** | **+0.3** |
| **MJAR** | **Matsushiro Arr** | **3.67** | **291** | Pn | **Pn** | **13 55 10.8** | **+0.4** |
| | 2.0nm,0.3s,baz=95,slow=13,SNR=15 | | | | | | |
| MJAR | | | | Sn | **Sn** | **13 55 52.2** | **-0.3** |
| | 0.3nm,0.3s,baz=136,slow=12,SNR=1.9 | | | | | | |
| **ASAJ** | **Asahikawa** | **8.83** | **1** | Pn | **Pn** | **13 56 22.1** | **+0.9** |
| | 0.7nm,0.3s,baz=202,slow=15,SNR=7.5 | | | | | | |
| ASAJ | | | | Sn | **Sn** | **13 57 56.8** | **-2.5** |
| | 0.1nm,0.3s,baz=176,slow=24,SNR=1.2 | | | | | | |
| **TLY** | **Talaya** | **32.13** | **313** | LR | LR | 14 14 24.0 | |
| | comp=Z,20nm,18.3s,baz=352,slow=38 | | | | | | |
| **MKAR** | **Makanchi Array** | **45.78** | **304** | P | P | 14 02 38.5 | +5.0 |
| | 0.3nm,0.7s,baz=89,slow=12,SNR=2.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **55.45** | **189** | P | **P** | **14 03 47.2** | **+0.6** |
| | 0.8nm,0.7s,baz=8.2,slow=7.3,SNR=10 | | | | | | |
| **ASAR** | **Alice Springs** | **59.18** | **189** | P | **P** | **14 04 13.9** | **+1.1** |
| | 0.2nm,0.8s,baz=354,slow=7.4,SNR=4.2 | | | | | | |

*ISCJB **05** 14:01:07.9±0.9,19°.3S±0°.2×177°.5W±0°.2,h570km,mb3.7/5, Error ellipse: s-maj=29.4km s-min=14.5km az=141.9*
*IDC **05** 14:01:08.9±1.7,19°.32S×177°.29W,h572km±22km,mb3.2/5, mb1 3.4/8,mb1mx3.0/35,mbtmp4.2/8,Error ellipse: s-maj=29.3km s-min=18.3km az=134.0*
**ISC 05 14:01:08.9**±0.9**,19°.2S**±0°.2×**177°.5W**±0°.2**,h570**km**,n11,**
σ**1.s41**/15**,mb4.0**/5**,Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AFI** | **Afiamalu** | **7.60** | **47** | P | **P** | **14 03 03.2** | **-0.4** |
| | 9.1nm,0.3s,baz=144,slow=2.4,SNR=8.4 | | | | | | |
| **DZM** | **Mont Dzumac** | **15.33** | **257** | P | **P** | **14 04 23.5** | **+2.2** |
| | 0.3nm,0.3s,baz=212,slow=22,SNR=6.0 | | | | | | |
| **URZ** | **Urewera** | **19.53** | **193** | P | **P** | **14 04 58.8** | **-0.8** |
| | 1.5nm,0.3s,baz=269,slow=3.9,SNR=14 | | | | | | |
| **STKA** | **Stephens Creek** | **38.81** | **243** | P | **P** | **14 07 46.7** | **+1.0** |
| | 3.2nm,0.5s,baz=90,slow=9.0,SNR=22 | | | | | | |
| **WRA** | **Warramunga Arr** | **45.30** | **261** | P | **P** | **14 08 36.6** | **-0.2** |
| | 1.7nm,0.4s,baz=98,slow=7.2,SNR=123 | | | | | | |
| WRA | | | | PcP | **PcP** | **14 10 04.9** | **+0.5** |
| | 0.4nm,0.4s,baz=102,slow=3.3,SNR=4.7 | | | | | | |
| WRA | | | | S | **S** | **14 14 33.4** | **-3.1** |
| | 0.4nm,0.9s,baz=101,slow=17,SNR=1.2 | | | | | | |
| **ASAR** | **Alice Springs** | **45.32** | **255** | P | **P** | **14 08 37.2** | **+0.3** |
| | 5.9nm,0.7s,baz=88,slow=8.3,SNR=160 | | | | | | |
| ASAR | | | | PcP | **PcP** | **14 10 04.7** | **+0.2** |
| | 1.1nm,0.8s,baz=98,slow=4.2,SNR=7.2 | | | | | | |
| ASAR | | | | S | **S** | **14 14 34.9** | **-2.0** |
| | 0.8nm,0.6s,baz=92,slow=16,SNR=12 | | | | | | |
| **ILAR** | **Eielson Array** | **86.98** | **13** | P | **P** | **14 12 53.4** | **-0.2** |
| | 0.1nm,0.5s,baz=214,slow=6.4,SNR=1.7 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **90.18** | **289** | P | **P** | **14 13 11.0** | **+1.4** |
| | 0.7nm,0.8s,baz=134,slow=3.4,SNR=5.2 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **109.83** | **321** | PKiKP | **PKiKP** | **14 18 34.5** | **-1.0** |
| | 0.4nm,0.5s,baz=159,slow=4.3,SNR=1.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **110.71** | **314** | PKiKP | **PKiKP** | **14 18 36.9** | **-0.5** |
| | 0.2nm,0.5s,baz=95,slow=1.5,SNR=2.2 | | | | | | |
| **BVAR** | **Borovoye Array** | **118.44** | **320** | PKP | **PKPdf** | **14 18 51.7** | **-0.4** |
| | 0.4nm,0.4s,baz=132,slow=1.9,SNR=3.2 | | | | | | |

**MEX 05 14:04:03.8**±0.4**,18°.10N**×**94°.28W,h33**km±4km**,MD4.1,**
**Bay of Campeche**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OXBJ** | **Oaxaca** | **2.55** | **247** | *e*P | Pn | 14 04 42.0 | -1.1 |
| **VHO** | **Vista Hermosa** | **2.56** | **247** | *e*P | Pn | 14 04 42.0 | -1.1 |
| VHO | | | | *i* S | Sn | 14 05 10.7 | -2.5 |

*CSEM **05** 14:08:39.8±0.8,39°.48N×44°.10E,h2km,ML2.8,Error ellipse: s-maj=15.9km s-min=10.8km az=119.0*
*DDA **05** 14:08:40.5,39°.44N×44°.07E,h7km,Ml2.8*
**ISC 05 14:08:40.2**±1.3**,39°.50N**±0°.03×**44°.05E**±0°.04**,h7**km±11km**,**
**n16,**σ**1.s74**/27**,Iran-Armenia-Azerbaijan border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DYDN** | **Diyadin** | **0.29** | **280** | *i* P | **Pg** | **14 08 45.7** | **-0.3** |
| DYDN | | | | *i* S | **Sb** | **14 08 52.3** | **-0.6** |
| **DYDN** | **Diyadin** | **0.29** | **280** | P | **Pg** | **14 08 45.7** | **-0.3** |
| DYDN | | | | S | **Sb** | **14 08 52.3** | **-0.6** |
| **CLDR** | **Caldiran** | **0.37** | **197** | *e*PG | **Pg** | **14 08 47.0** | **-0.4** |
| CLDR | | | | *e*SG | **Sb** | **14 08 55.2** | **0.0** |
| **CLDR** | **Caldiran** | **0.37** | **197** | *i* P | **Pg** | **14 08 47.2** | **-0.3** |
| CLDR | | | | *i* S | **Sb** | **14 08 57.4** | **+2.2** |
| **CLDR** | **Caldiran** | **0.37** | **197** | *e*Pg | **Pg** | **14 08 47.1** | **-0.4** |
| CLDR | | | | *e*Sg | **Sb** | **14 08 55.2** | **0.0** |
| **TASB** | **TASBURUN-IGDIR** | **0.51** | **16** | *e*PG | **Pg** | **14 08 49.3** | **-0.8** |
| **TASB** | **TASBURUN-IGDIR** | **0.51** | **16** | *e*Pg | **Pg** | **14 08 49.3** | **-0.8** |
| **AGRB** | **Hanur-Agry** | **0.82** | **276** | *e*PG | **Pg** | **14 08 55.4** | **-0.7** |
| **AGRB** | **Hanur-Agry** | **0.82** | **276** | *e*Pg | **Pg** | **14 08 55.4** | **-0.7** |
| **TUTA** | **Tutak** | **0.96** | **265** | *i* P | **Pg** | **14 08 58.2** | **-0.6** |
| TUTA | | | | *i* S | **Sn** | **14 09 13.8** | **-0.7** |
| **TUTA** | **Tutak** | **0.96** | **265** | P | **Pg** | **14 08 58.2** | **-0.6** |
| TUTA | | | | S | **Sn** | **14 09 13.8** | **-0.7** |
| **DIGO** | **Kars** | **1.06** | **331** | *i* P | **Pb** | **14 09 02.1** | **+1.1** |
| DIGO | | | | *i* S | **Sn** | **14 09 22.8** | **+6.0** |
| **DIGO** | **Kars** | **1.06** | **331** | P | **Pb** | **14 09 02.1** | **+1.1** |
| **EATA** | **Eleskirt** | **1.26** | **287** | *i* P | **Pn** | **14 09 00.8** | **-3.8** |
| EATA | | | | *i* S | **Sb** | **14 09 20.2** | **-0.8** |
| **EKAR** | **Karacoban** | **1.56** | **262** | *i* P | **Pg** | **14 09 11.2** | **+1.0** |
| EKAR | | | | *i* S | **Sg** | **14 09 31.9** | **+1.5** |
| **EKAR** | **Karacoban** | **1.56** | **262** | P | **Pg** | **14 09 11.1** | **+1.0** |
| EKAR | | | | S | **Sg** | **14 09 31.9** | **+1.5** |

*ISCJB **05** 14:20:35.5±0.6,38°.70N±0°.06×43°.25E±0°.05,h12km±9km, Error ellipse: s-maj=9.7km s-min=5.8km az=8.9*
*DDA **05** 14:20:35.3,38°.69N×43°.26E,h7km,Ml2.8*
*CSEM **05** 14:20:35.0±0.2,38°.69N×43°.25E,h10km,ML2.8,Error ellipse: s-maj=5.9km s-min=5.4km az=80.0*
**ISC 05 14:20:35.4**±1.0**,38°.69N**±0°.03×**43°.24E**±0°.03**,h13**km±8km**,**
**n16,**σ**0.s66**/28**,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.15** | **127** | *e*PG | **Pg** | **14 20 38.6** | **-0.5** |
| VANB | | | | *e*SG | **Sg** | **14 20 42.7** | **+0.9** |
| **VANB** | **Van** | **0.15** | **127** | *e*Pg | **Pg** | **14 20 38.6** | **-0.5** |
| VANB | | | | *e*Sg | **Sg** | **14 20 42.7** | **+0.9** |
| **TVAN** | **Van** | **0.21** | **140** | *i* P | **Pg** | **14 20 39.2** | **-0.9** |
| TVAN | | | | *i* S | **Sg** | **14 20 43.4** | **0.0** |
| **TVAN** | **Van** | **0.21** | **140** | P | **Pg** | **14 20 39.2** | **-0.9** |
| TVAN | | | | S | **Sg** | **14 20 43.3** | **0.0** |
| **GEVA** | **Gevas** | **0.40** | **200** | *i* P | **Pg** | **14 20 42.4** | **-1.0** |
| GEVA | | | | *i* S | **Sb** | **14 20 50.7** | **+0.1** |
| **GEVA** | **Gevas** | **0.40** | **200** | P | **Pg** | **14 20 42.4** | **-1.0** |
| GEVA | | | | S | **Sb** | **14 20 50.7** | **+0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.42** | **287** | *i* P | **Pg** | **14 20 43.8** | **0.0** |
| ADCV | | | | *i* S | **Sb** | **14 20 51.6** | **+0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.42** | **287** | P | **Pg** | **14 20 43.8** | **0.0** |
| ADCV | | | | S | **Sb** | **14 20 51.6** | **+0.5** |
| **CLDR** | **Caldiran** | **0.70** | **49** | *e*PG | **Pg** | **14 20 48.5** | **-0.5** |
| **CLDR** | **Caldiran** | **0.70** | **49** | *i* P | **Pg** | **14 20 48.9** | **-0.1** |
| CLDR | | | | *i* S | **Sb** | **14 20 59.1** | **-0.2** |
| **CLDR** | **Caldiran** | **0.70** | **49** | *e*Pg | **Pg** | **14 20 48.5** | **-0.5** |
| **CLDR** | **Caldiran** | **0.70** | **49** | P | **Pg** | **14 20 48.9** | **-0.1** |
| CLDR | | | | S | **Sb** | **14 20 59.1** | **-0.2** |
| **TUTA** | **Tutak** | **0.79** | **335** | *i* P | **Pg** | **14 20 49.8** | **-0.9** |
| TUTA | | | | *i* S | **Sg** | **14 21 00.2** | **-0.8** |
| **TUTA** | **Tutak** | **0.79** | **335** | P | **Pg** | **14 20 49.8** | **-0.9** |
| TUTA | | | | S | **Sg** | **14 21 00.2** | **-0.8** |
| **AGRB** | **Hanur-Agry** | **0.91** | **348** | *e*PN | **Pn** | **14 20 54.7** | **+0.6** |
| **AGRB** | **Hanur-Agry** | **0.91** | **348** | *e*Pn | **Pn** | **14 20 54.7** | **+0.6** |

*IDC **05** 14:24:11.4±2.2,1°.41N×97°.22E,h0km,mb3.7/7,mb1 3.7/8, mb1mx3.6/46,mbtmp3.6/8,ML3.7/1,Error ellipse: s-maj=70.5km s-min=20.4km az=62.0*
*ISCJB **05** 14:24:13.0±0.8,1°.31N±0°.06×96°.96E±0°.07,h28km, mb3.7/7,Error ellipse: s-maj=12.6km s-min=5.6km az=139.3*
*DJA **05** 14:24:14.0±0.9,1°N±9°×9°7E±°,h14km±6km,M3.9/7, mb4.0/1,MLv3.9/7*
**ISC 05 14:24:13.9**±1.0**,1°.28N**±0°.09×**97°.03E**±0°.09**,h28**km**,n18,**
σ**0.s94**/18**,mb4.0**/7**,Northern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GSI | Gunungsitoli | 0.54 | 88 | P | Pn | 14 24 25.6 | -0.2 |
| GSI | | | | S | Sn | 14 24 34.6 | +0.6 |
| SNSI | Sinabang, Aceh | 1.32 | 328 | P | Pn | 14 24 36.6 | +0.1 |
| SNSI | | | | S | Sn | 14 24 52.7 | -0.6 |
| PBSI | Pulau Batu | 1.82 | 137 | P | Pb | 14 24 45.4 | -1.2 |
| KCSI | Kotacane, Aceh | 2.35 | 18 | P | Pn | 14 24 50.1 | -0.5 |
| MLSI | Meulaboh, Aceh | 3.03 | 348 | P | Pn | 14 24 59.4 | -0.7 |
| MLSI | | | | S | Sn | 14 25 35.2 | -0.3 |
| SISI | Saibi | 3.31 | 142 | P | Pb | 14 25 10.6 | -1.3 |
| LHMI | Lhok Sumawe | 3.92 | 359 | S | Sn | 14 25 58.0 | +0.5 |
| CMAR | Chiang Mai Arr | 17.17 | 6 | P | Pn | 14 28 10.1 | -1.9 |
| | 0.1nm,0.3s,baz=198,slow=12,SNR=9.5 | | | | | | |
| H08S2 | Diego Garcia H | 26.03 | 250 | T | T | 14 56 45.2 | |
| | baz=70,slow=76,SNR=344 | | | | | | |
| H08S3 | Diego Garcia H | 26.04 | 250 | T | T | 14 56 42.1 | |
| | baz=70,slow=76,SNR=300 | | | | | | |
| H08S1 | Diego Carcia H | 26.05 | 250 | T | T | 14 56 46.6 | |
| | baz=70,slow=76,SNR=359 | | | | | | |
| WRA | Warramunga Arr | 42.22 | 122 | P | P | 14 32 05.4 | +0.5 |
| | 0.3nm,0.6s,baz=300,slow=9.3,SNR=4.5 | | | | | | |
| ASAR | Alice Springs | 43.58 | 127 | P | P | 14 32 17.2 | +1.3 |
| | 0.2nm,0.7s,baz=294,slow=7.3,SNR=2.8 | | | | | | |
| KSRS | Korea Array | 45.88 | 35 | P | P | 14 32 33.6 | -0.3 |
| | 2.5nm,1.0s,baz=221,slow=11,SNR=7.5 | | | | | | |
| SONM | Songino Array | 47.08 | 9 | P | P | 14 32 43.7 | +0.3 |
| | 2.0nm,0.9s,baz=192,slow=7.9,SNR=9.8 | | | | | | |
| MKAR | Makanchi Array | 47.12 | 346 | P | P | 14 32 44.9 | +1.3 |
| | 1.4nm,0.8s,baz=168,slow=8.4,SNR=10 | | | | | | |
| ZALV | Zalesovo Beam | 53.45 | 351 | P | P | 14 33 32.0 | +0.7 |
| | 2.0nm,0.6s,baz=182,slow=6.3,SNR=11 | | | | | | |
| KLR | Kul'dur | 56.26 | 27 | P | P | 14 33 52.6 | +0.8 |
| | 0.2nm,0.9s,baz=234,slow=8.9,SNR=5.9 | | | | | | |

**IDC 05 14:25:14.4±2.1, 2°.14N×125°.41E, h0km, mb3.3/3, mb1 3.5/3, mb1mx3.2/42, mbtmp3.3/3, Error ellipse: s-maj=181.8km s-min=27.4km az=65.0, Talaud Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 23.62 | 159 | P | P | 14 30 26.8 | -0.5 |
| | 0.5nm,0.5s,baz=337,slow=10,SNR=25 | | | | | | |
| ASAR | Alice Springs | 26.95 | 163 | P | P | 14 30 58.2 | +0.5 |
| | 0.2nm,0.3s,baz=345,slow=8.0,SNR=12 | | | | | | |
| MKAR | Makanchi Array | 58.13 | 326 | P | P | 14 35 09.8 | -0.1 |
| | 0.4nm,0.8s,baz=111,slow=5.7,SNR=1.3 | | | | | | |

*KRSC 05 14:26:26.5±1.2, 55°.79N×165°.78E, h44km±16km, ML3.7*
*ISCJB 05 14:26:28.6±0.5, 55°.71N±0°.04×165°.48E±0°.06, h10km, mb3.7/10, MS4.6/1, Error ellipse: s-maj=6.2km s-min=4.3km az=28.3*
*IDC 05 14:26:28.8±0.9, 55°.77N×165°.38E, h0km, mb3.7/10, mb1 3.9/11, mb1mx3.6/42, mbtmp3.6/11, ML2.2/1, MS4.5/1, Ms1 4.5/1, ms1mx2.7/37, Error ellipse: s-maj=30.1km s-min=15.4km az=160.0*
**ISC 05 14:26:29.6±0.6, 55°.81N±0°.05×165°.48E±0°.05, h10km, n37, σ1s44/40, mb3.7/10, Komandorsky Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BKI | Bering | 0.67 | 155 | eP | Pg | 14 26 40.3 | -2.2 |
| BKI | | | | eS | Sg | 14 26 47.5 | -3.7 |
| KBTR | Krutoberegovo | 1.55 | 286 | eP | Pn | 14 26 54.8 | -2.4 |
| KBTR | | | | eS | Sn | 14 27 15.5 | -1.8 |
| KBG | Krutoberegovo | 1.62 | 287 | eP | Pn | 14 26 55.3 | -2.8 |
| KBG | | | | eS | Sn | 14 27 16.6 | -2.4 |
| SMKR | Semkarok | 2.37 | 291 | eP | Pn | 14 27 09.0 | +0.4 |
| SMKR | | | | eS | Sb | 14 27 40.0 | -1.7 |
| BDR | Baidarnaya | 2.50 | 290 | eP | Pn | 14 27 11.0 | +0.6 |
| BDR | | | | eS | Sb | 14 27 43.1 | -2.5 |
| SRKR | Sorokina | 2.55 | 291 | eP | Pn | 14 27 11.6 | +0.6 |
| ZLN | Zelenaya | 2.64 | 277 | eP | Pn | 14 27 13.2 | +0.9 |
| KRSR | Krestovskiy | 2.79 | 281 | eP | Pn | 14 27 15.0 | +0.7 |
| BZMR | Bezymyannaya | 2.81 | 275 | eP | Pn | 14 27 15.0 | +0.3 |
| KMNR | Kamenistaya | 2.96 | 271 | eP | Pn | 14 27 17.7 | +1.0 |
| TUMR | Tumrok | 3.07 | 262 | eP | Pn | 14 27 19.6 | +1.3 |
| KOZ | Kozyrevsk | 3.16 | 277 | eP | Pn | 14 27 20.6 | +1.2 |
| OSSR | Ossora | 3.69 | 340 | eS | Sn | 14 28 09.1 | -1.0 |
| ESO | Esso | 3.82 | 275 | eP | Pn | 14 27 29.7 | +1.3 |
| SDLR | Sedlovina | 4.60 | 239 | eP | Pn | 14 27 39.3 | +0.1 |
| KRX | Arik | 4.67 | 241 | eP | Pn | 14 27 41.1 | +0.9 |
| TILK | Tilichiki | 4.67 | 4 | eP | Pn | 14 27 37.9 | -2.1 |
| UGLR | Uglovaya | 4.67 | 239 | eP | Pn | 14 27 40.5 | +0.3 |
| AVH | Avacha | 4.68 | 240 | eP | Pn | 14 27 41.1 | +0.8 |
| DALK | Dalny | 4.81 | 237 | eP | Pn | 14 27 41.9 | -0.1 |
| GNL | Ganaly | 4.85 | 247 | eP | Pn | 14 27 43.5 | +0.8 |
| KRMR | Karymshinskiy | 5.23 | 238 | eP | Pn | 14 27 48.0 | +0.2 |
| KRMR | | | | eS | Sn | 14 28 47.4 | -0.7 |
| PETK | Petropavlovsk- | 5.28 | 242 | Pn | Pn | 14 27 49.2 | +0.7 |
| | 0.4nm,0.3s,baz=67,slow=17,SNR=14 | | | | | | |
| PETK | | | | Sn | Sn | 14 28 49.5 | +0.1 |
| | 0.4nm,0.3s,baz=36,slow=20,SNR=2.8 | | | | | | |
| ILAR | Eielson Array | 24.66 | 49 | P | P | 14 31 51.6 | +1.6 |
| | 0.3nm,0.7s,baz=253,slow=8.4,SNR=5.2 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 36.03 | 178 | T | T | 15 11 11.4 | |
| | baz=359,slow=76,SNR=49 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 36.05 | 178 | T | T | 15 11 19.9 | |
| | baz=359,slow=76,SNR=22 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 36.05 | 178 | T | T | 15 11 11.4 | |
| | baz=359,slow=76,SNR=46 | | | | | | |
| SONM | Songino Array | 36.35 | 283 | P | P | 14 33 34.3 | +0.7 |
| | 0.4nm,0.5s,baz=60,slow=8.5,SNR=3.5 | | | | | | |
| YKA | Yellowknife Ar | 39.02 | 47 | P | P | 14 33 57.0 | +1.2 |
| | 0.4nm,0.6s,baz=295,slow=8.1,SNR=3.9 | | | | | | |
| MKAR | Makanchi Array | 49.78 | 297 | P | P | 14 35 22.0 | -0.1 |
| | 0.3nm,0.7s,baz=50,slow=8.1,SNR=3.6 | | | | | | |
| ARCES | ARCESS Array B | 51.64 | 343 | P | P | 14 35 36.8 | +1.1 |
| | 3.7nm,1.0s,baz=77,slow=26,SNR=3.2 | | | | | | |
| PDAR | Pinedale Array | 53.49 | 66 | P | P | 14 35 51.5 | +1.4 |
| | 0.9nm,0.8s,baz=324,slow=2.0,SNR=8.6 | | | | | | |
| FINES | FINESS Array B | 58.81 | 339 | P | P | 14 36 27.8 | +0.3 |
| | 3.3nm,1.0s,baz=54,slow=9.8,SNR=5.7 | | | | | | |
| CMAR | Chiang Mai Arr | 61.76 | 261 | P | P | 14 36 49.1 | +0.8 |
| | 0.4nm,0.5s,baz=20,slow=6.7,SNR=3.2 | | | | | | |
| TXAR | Lajitas Array | 66.74 | 72 | P | P | 14 37 22.2 | +1.2 |
| | 0.7nm,0.5s,baz=299,slow=5.4,SNR=10 | | | | | | |
| ASAR | Alice Springs | 83.59 | 209 | P | P | 14 38 57.8 | 0.0 |
| | 0.2nm,0.5s,baz=23,slow=4.0,SNR=4.0 | | | | | | |
| RAO | Raoul Island | 85.90 | 166 | LR | LR | 15 09 29.4 | |
| | comp=Z,282nm,21.4s,baz=306,slow=30 | | | | | | |

*IDC 05 14:28:00.6±0.9, 1°.34N×97°.02E, h0km, mb4.2/14, mb1 4.3/15, mb1mx4.1/43, mbtmp4.2/15, ML4.0/1, MS3.7/14, Ms1 3.8/14, ms1mx3.5/36, Error ellipse: s-maj=28.3km s-min=16.0km az=54.0*
*ISCJB 05 14:28:03.6±0.4, 1°.36N±0°.04×97°.13E±0°.05, h28km, mb4.4/26, MS3.9/17, Error ellipse: s-maj=7.6km s-min=4.4km az=143.4*
*DJA 05 14:28:03.9±0.8, 1°N±4°×9°7E±°, h20km±7km, M4.5/10, mB4.6/1, mb4.5/5, MLv4.5/10, Mw(mB)3.8/1*
*NEIC 05 14:28:06.6±1.2, 1°.49N×97°.17E, h40km±10km, mb4.5/5, Error ellipse: s-maj=13.2km s-min=9.1km az=50.0*
*NEIC Felt [II] on Pulau Nias.*
**ISC 05 14:28:05.2±0.6, 1°.40N±0°.06×97°.10E±0°.06, h28km, n81, σ1s51/79, mb4.5/26, MS3.8/17, Northern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GSI | Gunungsitoli | 0.49 | 102 | P | Pb | 14 28 15.9 | +0.6 |
| GSI | Gunungsitoli | 0.49 | 102 | ePn | Pb | 14 28 16.0 | +0.6 |
| SNSI | Sinabang, Aceh | 1.26 | 322 | P | Pn | 14 28 26.6 | -0.4 |
| SNSI | | | | S | Sn | 14 28 42.9 | -0.2 |
| KCSI | Kotacane, Aceh | 2.21 | 18 | P | Pn | 14 28 40.4 | +0.3 |
| PSI | Prapat | 2.29 | 53 | ePn | Pn | 14 28 41.6 | +0.3 |
| MLSI | Meulaboh, Aceh | 2.93 | 346 | P | Pn | 14 28 49.6 | -0.3 |
| MLSI | | | | S | Sn | 14 29 25.5 | +1.3 |
| SISI | Saibi | 3.36 | 144 | P | Pn | 14 28 55.6 | -0.3 |
| LHMI | Lhok Sumawe | 3.80 | 358 | P | Pn | 14 29 02.3 | +0.3 |
| LHMI | | | | S | Sn | 14 29 47.9 | +2.1 |
| IPM | Ipoh | 4.97 | 52 | ePn | Pn | 14 29 18.8 | +0.7 |
| PPSI | Pulau Pagai | 5.06 | 145 | P | Pn | 14 29 18.2 | -1.0 |
| KULM | Kulim | 5.24 | 42 | ePn | Pn | 14 29 21.9 | +0.2 |
| MASI | Maura Aman, Be | 6.84 | 131 | P | Pn | 14 29 44.3 | +0.5 |
| TRTT | Trang | 6.89 | 22 | P | Pn | 14 29 45.0 | +0.5 |
| | 29nm,1.6s,0.1nm | | | | | | |
| CHAI | Chaiyaphum | 15.19 | 18 | P | P | 14 31 45.6 | +2.9 |
| PBKT | Sadao Pong | 15.55 | 14 | P | P | 14 31 47.0 | +0.4 |
| | 12nm,0.9s | | | | | | |
| SUKH | Sukhothai | 16.17 | 9 | P | P | 14 31 54.4 | +0.8 |
| | 3.3nm,1.1s | | | | | | |
| CM01 | Chiang Mai Arr | 17.01 | 6 | ePn | Pn | 14 31 59.6 | -1.7 |
| CMAR | Chiang Mai Arr | 17.05 | 6 | P | Pn | 14 32 00.8 | -0.8 |
| | 0.2nm,0.3s,baz=199,slow=11,SNR=19 | | | | | | |
| CMAR | | | | LR | LR | 14 39 09.3 | |
| | comp=Z,418nm,18.5s,baz=193,slow=39 | | | | | | |
| PALK | Pallekele | 17.35 | 290 | P | P | 14 32 06.8 | 0.0 |
| | 0.3nm,0.3s,baz=114,slow=14,SNR=3.7 | | | | | | |
| PALK | | | | LR | LR | 14 38 08.4 | |
| | comp=Z,278nm,19.3s,baz=116,slow=35 | | | | | | |
| CMMT | Chiang Mai | 17.40 | 6 | P | P | 14 32 07.8 | +0.6 |
| | 10nm,0.9s | | | | | | |
| CHTO | Chiang Mai | 17.40 | 6 | P | P | 14 32 07.9 | +0.7 |
| | 78nm,1.3s | | | | | | |
| CHTO | Chiang Mai | 17.40 | 6 | ePn | Pn | 14 32 02.4 | -3.7 |
| | 9.4nm,1.3s | | | | | | |
| KKM | Kota Kinabalu | 19.62 | 76 | eP | P | 14 32 28.7 | -3.1 |
| | 37nm,1.2s | | | | | | |
| QIZ | Qiongzhong | 21.51 | 35 | P | P | 14 32 52.2 | 0.0 |
| QIZ | | | | pP | sP | 14 33 02.2 | -1.2 |
| QIZ | | | | S | S | 14 36 49.9 | +0.4 |
| QIZ | | | | LR | LR | | |
| | comp=N,830nm,5.7s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=E,500nm,5.6s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=Z,530nm,4.7s | | | | | | |
| MYLDM | Lahad Datu | 21.69 | 80 | eP | P | 14 32 53.4 | -0.7 |
| | comp=Z,46nm,1.4s | | | | | | |
| HYB | Hyderabad | 24.20 | 312 | iP | P | 14 33 20.0 | +0.3 |
| KMI | Kunming | 24.20 | 13 | P | P | 14 33 20.8 | +1.0 |
| KMI | | | | pP | sP | 14 33 33.6 | +2.1 |
| KMI | | | | sP | pP | 14 33 38.5 | +10 |
| KMI | | | | S | S | 14 37 32.8 | -4.0 |
| KMI | | | | sS | sS | 14 37 51.9 | +1.7 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,24nm,1.1s | | | | | | |
| KMI | | | | pmax | pmax | | |
| | comp=Z,200nm,5.0s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=N,970nm,14.4s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=E,590nm,15.5s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,1µm,14.4s | | | | | | |
| SHL | Shillong | 24.54 | 349 | eP | P | 14 33 25.5 | +2.6 |
| H08S2 | Diego Garcia H | 26.14 | 250 | T | T | 15 00 31.6 | |
| | baz=71,slow=76,SNR=825 | | | | | | |
| H08S3 | Diego Garcia H | 26.14 | 250 | T | T | 15 00 27.6 | |
| | baz=71,slow=76,SNR=787 | | | | | | |
| H08S1 | Diego Carcia H | 26.16 | 250 | T | T | 15 00 33.1 | |
| | baz=71,slow=76,SNR=841 | | | | | | |
| ODAN | Odare | 26.98 | 341 | eP | P | 14 33 46.2 | +1.2 |
| | comp=Z,50nm,1.1s | | | | | | |
| TAPN | Taplejung | 27.33 | 342 | eP | P | 14 33 49.6 | +1.4 |
| | comp=Z,83nm,1.0s | | | | | | |
| RAMN | Ramite | 27.33 | 339 | eP | P | 14 33 49.8 | +1.6 |
| JIRN | Jiri | 28.12 | 339 | eP | P | 14 33 56.7 | +1.3 |
| | comp=Z,380nm,1.0s | | | | | | |
| PKI | Pulchoki | 28.33 | 338 | eP | P | 14 33 58.6 | +1.4 |
| PKIN | Phulchoki | 28.34 | 338 | eP | P | 14 33 58.5 | +1.3 |
| GUN | Gumba | 28.46 | 339 | eP | P | 14 33 59.5 | +1.1 |
| | comp=Z,24nm,0.7s | | | | | | |
| DMN | Daman | 28.48 | 337 | eP | P | 14 33 59.3 | +0.9 |
| KKN | Kakani | 28.57 | 338 | eP | P | 14 34 00.4 | +1.2 |
| LSA | Lhasa | 28.70 | 349 | eP | P | 14 33 58.9 | -1.7 |
| | comp=Z,4.1nm,0.8s | | | | | | |
| KOLN | Koldanda | 29.23 | 335 | eP | P | 14 34 06.5 | +1.4 |
| | comp=Z,25nm,0.8s | | | | | | |
| DANN | Dangsing | 29.68 | 336 | eP | P | 14 34 10.3 | +1.2 |
| PYUN | Piuthan | 29.78 | 334 | eP | P | 14 34 11.2 | +1.3 |
| ENH | Enshi | 31.03 | 21 | eP | P | 14 34 18.7 | -2.0 |
| | comp=Z,23nm,1.1s | | | | | | |
| XAN | Xi'an | 34.30 | 18 | P | P | 14 34 48.4 | -0.9 |
| XAN | | | | pP | pP | 14 34 55.9 | -1.7 |
| XAN | | | | pmax | pmax | | |
| | comp=Z,22nm,1.0s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=N,360nm,14.1s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=E,330nm,16.8s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,700nm,14.1s | | | | | | |
| NJ2 | Nanjing | 36.74 | 32 | eP | P | 14 35 09.8 | -0.5 |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,13nm,0.7s | | | | | | |
| GTA | Gaotai | 37.91 | 3 | eP | P | 14 35 20.7 | +0.4 |
| GTA | | | | pP | sP | 14 35 32.8 | +0.8 |
| GTA | | | | sP | pP | 14 35 38.0 | +9.4 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.7s | | | | | | |
| H01W3 | Cape Leeuwin H | 39.47 | 158 | T | T | 15 17 24.4 | |
| | baz=333,slow=76,SNR=19 | | | | | | |
| H01W2 | Cape Leeuwin H | 39.48 | 158 | T | T | 15 17 27.1 | |
| | baz=333,slow=76,SNR=17 | | | | | | |
| H01W1 | Cape Leeuwin H | 39.48 | 158 | T | T | 15 17 22.0 | |
| | baz=333,slow=76,SNR=16 | | | | | | |
| HHC | Hu-ho-hao-te | 41.39 | 17 | eP | P | 14 35 49.3 | +0.1 |
| HHC | | | | S | S | 14 42 00.6 | -1.9 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,13nm,0.7s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,260nm,6.0s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=N,140nm,12.0s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=E,430nm,15.1s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,130nm,14.8s | | | | | | |
| BJI | Beijing | 42.19 | 22 | P | P | 14 35 56.1 | +0.5 |
| BJI | | | | S | S | 14 42 04.7 | -9.3 |
| BJI | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.7s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=N,240nm,7.3s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=E,190nm,9.4s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,120nm,21.2s | | | | | | |
| WRA | Warramunga Arr | 42.23 | 122 | P | P | 14 35 55.4 | -0.9 |
| | comp=Z,1.6nm,0.7s,baz=301,slow=9.2,SNR=13 | | | | | | |
| KSH | Kashi | 42.55 | 336 | P | P | 14 36 00.6 | +1.9 |
| KSH | | | | pP | sP | 14 36 13.1 | +2.6 |
| KSH | | | | PP | PP | 14 37 42.8 | +5.1 |
| KSH | | | | PcP | PcP | 14 37 53.3 | +2.3 |
| KSH | | | | S | S | 14 42 19.5 | -0.1 |
| KSH | | | | SS | SS | 14 45 25.8 | -4.2 |
| KSH | | | | ScS | ScS | 14 45 55.8 | -2.8 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.5s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,78nm,7.7s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,200nm,5.3s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,240nm,5.3s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,270nm,6.4s | | | | | | |
| WMQ | Urumqi | 43.06 | 350 | P | P | 14 36 04.2 | +1.5 |
| WMQ | | | | pP | pP | 14 36 11.5 | +0.4 |
| WMQ | | | | sP | sP | 14 36 20.8 | +6.3 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,15nm,1.5s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,71nm,3.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,170nm,29.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,320nm,24.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,170nm,29.3s | | | | | | |
| ASAR | Alice Springs | 43.60 | 127 | P | P | 14 36 07.0 | -0.3 |
| | comp=Z,1.1nm,0.9s,baz=298,slow=7.8,SNR=12 | | | | | | |
| KSAR | Wonju Array Be | 45.71 | 35 | P | P | 14 36 24.2 | +0.3 |
| KSRS | Korea Array | 45.74 | 35 | P | P | 14 36 24.2 | +0.1 |
| | comp=Z,5.9nm,1.0s,baz=225,slow=9.0,SNR=17 | | | | | | |
| KSRS | | | | LR | LR | 14 55 56.5 | |
| | comp=Z,105nm,19.5s,baz=230,slow=37 | | | | | | |
| AAK | Ala-Archa | 45.78 | 337 | LR | LR | 14 58 54.4 | |
| | comp=Z,92nm,18.2s,baz=145,slow=40 | | | | | | |
| SONM | Songino Array | 46.95 | 9 | P | P | 14 36 34.2 | +0.5 |
| | comp=Z,6.7nm,1.0s,baz=192,slow=9.7,SNR=24 | | | | | | |
| MKAR | Makanchi Array | 47.02 | 346 | P | P | 14 36 34.7 | +0.6 |
| | comp=Z,5.2nm,0.9s,baz=153,slow=8.5,SNR=25 | | | | | | |
| MKAR | | | | LR | LR | 14 59 35.6 | |
| | comp=Z,93nm,20.3s,baz=158,slow=40 | | | | | | |
| TLY | Talaya | 50.40 | 5 | LR | LR | 15 01 15.8 | |
| | comp=Z,205nm,18.2s,baz=176,slow=40 | | | | | | |
| KURK | Kurchatov | 51.57 | 345 | eP | P | 14 37 08.4 | -0.4 |
| | comp=Z,93nm,1.4s | | | | | | |
| MJAR | Matsushiro Arr | 51.61 | 42 | LR | LR | 14 59 13.4 | |
| | comp=Z,60nm,21.8s,baz=250,slow=36 | | | | | | |
| USRK | Ussuriysk Ar. | 52.65 | 31 | P | P | 14 37 17.7 | +0.8 |
| | comp=Z,14nm,1.1s,baz=222,slow=5.1,SNR=12 | | | | | | |
| ZALV | Zalesovo Beam | 53.34 | 351 | P | P | 14 37 22.2 | +0.4 |
| | comp=Z,3.3nm,0.4s,baz=178,slow=7.5,SNR=16 | | | | | | |
| ZALV | | | | LR | LR | 15 05 09.6 | |
| | comp=Z,90nm,19.0s,baz=44,slow=42 | | | | | | |
| STKA | Stephens Creek | 53.57 | 132 | P | P | 14 37 24.5 | +0.6 |
| | comp=Z,2.4nm,0.8s,baz=306,slow=8.2,SNR=4.6 | | | | | | |
| STKA | | | | LR | LR | 15 02 10.3 | |
| | comp=Z,117nm,21.6s,baz=6.7,slow=38 | | | | | | |
| KLR | Kul'dur | 56.12 | 27 | P | P | 14 37 42.1 | 0.0 |
| | comp=Z,0.7nm,1.0s,baz=251,slow=6.6,SNR=13 | | | | | | |
| KBZ | Khabaz | 63.85 | 319 | P | P | 14 38 35.0 | -0.3 |
| | comp=Z,2.9nm,1.0s,baz=180,slow=9.1,SNR=3.6 | | | | | | |
| YAK | Yakutsk | 65.25 | 16 | P | P | 14 38 43.7 | -0.4 |
| | comp=Z,3.4nm,0.3s,baz=140,slow=2.6,SNR=12 | | | | | | |
| YAK | Yakutsk | 65.25 | 16 | eP | P | 14 38 43.3 | -0.7 |
| | comp=Z,22nm,0.9s | | | | | | |
| BRTR | Keskin Array B | 68.90 | 312 | P | P | 14 39 07.6 | -0.3 |
| | comp=Z,0.3nm,0.3s,baz=132,slow=6.0,SNR=3.4 | | | | | | |
| PETK | Petropavlovsk- | 71.62 | 34 | LR | LR | 15 12 14.8 | |
| | comp=Z,26nm,19.3s,baz=235,slow=37 | | | | | | |
| MAW | Mawson | 72.89 | 193 | LR | LR | 15 05 21.9 | |
| | comp=Z,49nm,20.8s,baz=60,slow=31 | | | | | | |
| AKASG | Malin Array Be | 75.04 | 322 | P | P | 14 39 43.6 | -0.7 |
| | comp=Z,0.6nm,0.5s,baz=88,slow=4.6,SNR=3.9 | | | | | | |
| FINES | FINESS Array B | 79.77 | 333 | P | P | 14 40 10.3 | -0.3 |
| | comp=Z,4.3nm,0.9s,baz=187,slow=3.3,SNR=5.2 | | | | | | |
| ARCES | ARCESS Array B | 82.31 | 340 | LR | LR | 15 21 15.9 | |
| | comp=Z,47nm,18.1s,baz=114,slow=39 | | | | | | |
| NOA | NORSAR Array B | 86.78 | 331 | LR | LR | 15 21 37.6 | |
| | comp=Z,15nm,20.5s,baz=355,slow=37 | | | | | | |
| TORD | Torodi Ar. Bea | 94.95 | 283 | LR | LR | 15 23 00.3 | |
| | comp=Z,41nm,19.2s,baz=85,slow=35 | | | | | | |
| CPUP | Villa Florida | 145.09 | 223 | PKP | PKPdf | 14 47 40.7 | -0.1 |
| | comp=Z,2.0nm,0.8s,baz=115,slow=0.3,SNR=4.4 | | | | | | |

**WEL 05 14:28:31.1±0.4, 37°.48S×180°.00W, h33km, ML3.6/8, 3D, Error ellipse: s-maj=4.2km s-min=3.2km az=0.0, East of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WMGZ | Waiomatatini S | 1.31 | 254 | PN | Pn | 14 28 52.2 | -0.9 |
| WMGZ | | | | AML | AML | 14 29 10.4 | |
| WMGZ | | | | AML | AML | 14 29 12.6 | |
| PUZ | Puketiti | 1.51 | 246 | ⇓PN | Pn | 14 28 55.2 | -0.7 |
| PUZ | | | | SN | Sn | 14 29 13.2 | -1.2 |
| PUZ | | | | AML | AML | 14 29 14.4 | |
| PKGZ | Pakihiroa | 1.58 | 254 | ⇓PN | Pn | 14 28 56.1 | -0.8 |
| PKGZ | | | | SN | Sn | 14 29 15.8 | -0.5 |
| PKGZ | | | | AML | AML | 14 29 17.6 | |
| CNGZ | Carnagh Statio | 1.74 | 234 | PN | Pn | 14 28 59.4 | +0.4 |
| HAZ | Te Kaha | 1.79 | 260 | PN | Pn | 14 28 59.1 | -0.5 |
| HAZ | | | | SN | Sn | 14 29 19.9 | -1.3 |
| HAZ | | | | AML | AML | 14 29 23.0 | |
| RUGZ | Raukumara Rang | 1.91 | 254 | PN | Pn | 14 29 01.3 | -0.1 |
| TKGZ | Te Karaka | 1.96 | 240 | PN | Pn | 14 29 01.7 | -0.3 |
| TKGZ | | | | AML | AML | 14 29 26.5 | |
| TKGZ | | | | AML | AML | 14 29 26.6 | |
| MWZ | Matawai | 2.14 | 246 | PN | Pn | 14 29 03.7 | -0.9 |
| MWZ | | | | AML | AML | 14 29 29.8 | |
| MWZ | | | | AML | AML | 14 29 30.1 | |
| RIGZ | Rimuhau | 2.15 | 235 | PN | Pn | 14 29 04.6 | -0.1 |
| RIGZ | | | | AML | AML | 14 29 32.1 | |
| RIGZ | | | | AML | AML | 14 29 32.7 | |
| URZ | Urewera | 2.42 | 250 | PN | Pn | 14 29 08.1 | -0.2 |
| URZ | | | | AML | AML | 14 29 38.1 | |
| RTZ | Ruatahuna | 2.64 | 244 | PN | Pn | 14 29 10.4 | -1.1 |
| MUGZ | Murupara | 2.74 | 248 | PN | Pn | 14 29 12.4 | -0.5 |
| MTHZ | Maungataniwha | 2.85 | 240 | PN | Pn | 14 29 13.9 | -0.4 |
| MTHZ | | | | SN | Sn | 14 29 45.4 | -2.0 |
| BKZ | Black Stump Fm | 3.24 | 238 | ⇓PN | Pn | 14 29 18.9 | -0.7 |
| MCHZ | McNeill Hill | 3.26 | 232 | PN | Pn | 14 29 19.3 | -0.6 |

*ISK 05 14:29:52.8, 38°.60N×43°.19E, h19km, MD2.5*
*CSEM 05 14:29:53.9±0.3, 38°.62N×43°.18E, h10km, ML2.7, Error ellipse: s-maj=6.6km s-min=5.8km az=161.0*
*DDA 05 14:29:54.1, 38°.63N×43°.21E, h7km, Ml2.7*
**ISC 05 14:29:53.8±1.1, 38°.61N±0°.03×43°.20E±0°.03, h16km±10km, n16, σ0s70/29, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.15 | 96 | ePG | Pg | 14 29 57.9 | -0.1 |
| VANB | | | | eSG | Sb | 14 30 01.9 | +0.5 |
| VANB | Van | 0.15 | 96 | ePg | Pg | 14 29 57.9 | -0.1 |
| VANB | | | | eSg | Sb | 14 30 01.9 | +0.5 |
| GEVA | Gevas | 0.32 | 200 | iP | Pg | 14 30 00.2 | -0.4 |
| GEVA | | | | iS | Sb | 14 30 06.8 | +0.5 |
| GEVA | Gevas | 0.32 | 200 | P | Pg | 14 30 00.2 | -0.4 |
| GEVA | | | | S | Sb | 14 30 06.8 | +0.5 |
| ADCV | BITLIS_Adilcev | 0.42 | 298 | iP | Pg | 14 30 02.5 | +0.1 |
| ADCV | | | | iS | Sb | 14 30 09.7 | +0.5 |
| ADCV | BITLIS_Adilcev | 0.42 | 298 | P | Pg | 14 30 02.5 | +0.1 |
| ADCV | | | | S | Sb | 14 30 09.7 | +0.5 |
| VMUR | Van-Muradiye | 0.48 | 38 | iP | Pb | 14 30 03.9 | -0.2 |
| VMUR | | | | iS | Sb | 14 30 12.3 | +1.4 |
| VMUR | Van-Muradiye | 0.48 | 38 | P | Pb | 14 30 03.8 | -0.2 |
| VMUR | | | | S | Sb | 14 30 12.3 | +1.4 |
| CLDR | Caldiran | 0.77 | 46 | ePG | Pg | 14 30 08.7 | -0.3 |
| CLDR | | | | eSG | Sb | 14 30 19.9 | +0.5 |
| CLDR | Caldiran | 0.77 | 46 | iP | Pg | 14 30 07.9 | -1.1 |
| CLDR | | | | iS | Sb | 14 30 20.8 | +1.3 |
| CLDR | Caldiran | 0.77 | 46 | P | Pg | 14 30 07.9 | -1.1 |
| CLDR | Caldiran | 0.77 | 46 | ePg | Pg | 14 30 08.7 | -0.3 |
| CLDR | | | | eSg | Sb | 14 30 20.0 | +0.5 |
| TUTA | Tutak | 0.84 | 339 | iP | Pg | 14 30 09.7 | -0.6 |
| TUTA | | | | iS | Sb | 14 30 21.9 | +0.5 |
| TUTA | Tutak | 0.84 | 339 | P | Pg | 14 30 09.7 | -0.6 |
| TUTA | | | | S | Sb | 14 30 21.9 | +0.5 |
| AGRB | Hanur-Agry | 0.97 | 351 | ePG | Pb | 14 30 12.1 | -0.4 |
| AGRB | Hanur-Agry | 0.97 | 351 | ePg | Pb | 14 30 12.1 | -0.4 |

**IDC 05 14:54:16.0±2.6, 13°.71N×92°.79E, h0km, mb3.3/2, mb1 3.4/3, mb1mx3.0/46, mbtmp3.2/3, ML3.0/1, Error ellipse: s-maj=67.1km s-min=36.2km az=66.0, Andaman Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CMAR | Chiang Mai Arr | 7.57 | 51 | Pn | Pn | 14 56 07.5 | -0.2 |
| | 0.1nm,0.3s,baz=241,slow=15,SNR=2.2 | | | | | | |
| MKAR | Makanchi Array | 34.14 | 347 | P | P | 15 01 02.9 | +0.2 |
| | 0.3nm,0.8s,baz=147,slow=8.1,SNR=1.9 | | | | | | |
| ASAR | Alice Springs | 54.73 | 132 | P | P | 15 03 47.4 | -0.3 |
| | 0.2nm,0.4s,baz=308,slow=7.1,SNR=2.5 | | | | | | |

*CSEM 05 14:58:30.8, 44°.27N×42°.69E, h11km, mb4.1*
*MOS 05 14:58:30.8±1.4, 44°.27N×42°.69E, h11km, mb4.1/1, Error ellipse: s-maj=9.9km s-min=5.1km az=112.4*
*TIF 05 14:58:30.5, 44°.23N×42°.68E, h9km±2km*
**ISC 05 14:58:30.6±1.0, 44°.30N±0°.02×42°.72E±0°.02, h8km±8km, n52, σ0s85/93, 2C-9D, Western Caucasus**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BEYR | Belyy Ugol+ | 0.29 | 166 | ⇓iPG | Pg | 14 58 36.2 | -0.2 |
| BEYR | | | | eS | Sg | 14 58 40.8 | +0.4 |
| BEYR | Belyy Ugol+ | 0.29 | 166 | iPg | Pg | 14 58 36.2 | -0.2 |
| BEYR | | | | eSg | Sg | 14 58 40.8 | +0.4 |
| KIV | Kislovodsk | 0.34 | 183 | ⇓iPG | Pg | 14 58 37.4 | 0.0 |
| KIV | | | | eS | Sb | 14 58 42.7 | -1.9 |
| KIV | Kislovodsk | 0.34 | 183 | iPg | Pg | 14 58 37.4 | 0.0 |
| KIV | | | | eSg | Sb | 14 58 42.7 | -1.9 |
| SHA1 | Shidzhatmaz | 0.56 | 184 | ePG | Pg | 14 58 41.2 | -0.3 |
| SHA1 | | | | eS | Sb | 14 58 49.3 | -1.7 |
| SHA1 | Shidzhatmaz | 0.56 | 184 | ePg | Pg | 14 58 41.2 | -0.3 |
| SHA1 | | | | eSg | Sb | 14 58 49.3 | -1.7 |
| GOF | Gofitskoye | 0.80 | 17 | ⇓iPG | Pg | 14 58 44.7 | -1.2 |
| GOF | | | | eS | Sg | 14 58 56.0 | -0.3 |
| GOF | | | | pmax | pmax | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | comp=Z,207nm,0.7s | | | | | | |
| GOF | | | | smax | smax | | |
| | comp=N,284nm,0.6s | | | | | | |
| GOF | | | | smax | smax | | |
| | comp=E,420nm,0.6s | | | | | | |
| GOF | Gofitskoye | 0.80 | 17 | i Pg | Pg | 14 58 44.7 | -1.2 |
| | comp=E,207nm,0.7s | | | | | | |
| GOF | | | | eSg | Sg | 14 58 56.0 | -0.3 |
| | comp=E,284nm,0.6s | | | | | | |
| NCK | Nalchik | 1.02 | 141 | ePG | Pg | 14 58 49.7 | -0.5 |
| NCK | | | | i S | Sb | 14 59 03.8 | -0.3 |
| NCK | Nalchik | 1.02 | 141 | ePg | Pg | 14 58 49.7 | -0.5 |
| NCK | | | | i Sg | Sb | 14 59 03.8 | -0.3 |
| NEY | Neytrino | 1.05 | 180 | ⇓iPG | Pg | 14 58 49.9 | -0.8 |
| NEY | | | | i S | Sg | 14 59 03.8 | -0.5 |
| NEY | Neytrino | 1.05 | 180 | i Pg | Pg | 14 58 49.9 | -0.8 |
| NEY | | | | i Sg | Sg | 14 59 03.8 | -0.5 |
| PRTR | Priterechnaya | 1.25 | 115 | ePG | Pn | 14 58 54.1 | -0.2 |
| PRTR | | | | i S | Sg | 14 59 12.6 | +1.7 |
| PRTR | Priterechnaya | 1.25 | 115 | ePg | Pn | 14 58 54.1 | -0.2 |
| PRTR | | | | i Sg | Sg | 14 59 12.6 | +1.7 |
| DOMR | Dombai | 1.28 | 219 | ePG | Pn | 14 58 54.0 | -0.8 |
| DOMR | | | | eS | Sn | 14 59 11.2 | -1.0 |
| DOMR | Dombai | 1.28 | 219 | ePg | Pn | 14 58 54.0 | -0.8 |
| DOMR | | | | eSg | Sn | 14 59 11.2 | -1.0 |
| LSNR | Lesken | 1.30 | 141 | ⇓iPG | Pn | 14 58 54.8 | -0.2 |
| LSNR | | | | i S | Sg | 14 59 12.5 | +0.2 |
| LSNR | Lesken | 1.30 | 141 | i Pg | Pn | 14 58 54.8 | -0.2 |
| LSNR | | | | i Sg | Sg | 14 59 12.5 | +0.2 |
| STDR | Stavd-Durt | 1.35 | 133 | ⇓iPG | Pb | 14 58 56.2 | +0.2 |
| STDR | | | | i S | Sg | 14 59 15.3 | +1.4 |
| STDR | Stavd-Durt | 1.35 | 133 | i Pg | Pb | 14 58 56.2 | +0.2 |
| STDR | | | | i Sg | Sg | 14 59 15.3 | +1.4 |
| LABN | Labinsk | 1.47 | 284 | ePG | Pb | 14 58 58.2 | +0.1 |
| LABN | | | | eS | Sg | 14 59 19.1 | +1.4 |
| LABN | Labinsk | 1.47 | 284 | ePg | Pb | 14 58 58.2 | +0.1 |
| LABN | | | | eSg | Sg | 14 59 19.1 | +1.4 |
| DIGR | Digorskoe uzhe | 1.53 | 155 | ⇓iPG | Pn | 14 58 57.8 | -0.6 |
| DIGR | | | | i S | Sn | 14 59 18.2 | -0.3 |
| DIGR | Digorskoe uzhe | 1.53 | 155 | i Pg | Pn | 14 58 57.8 | -0.6 |
| DIGR | | | | i Sg | Sn | 14 59 18.2 | -0.3 |
| KORR | Kora | 1.56 | 141 | ⇑iPG | Pn | 14 58 58.9 | +0.3 |
| KORR | | | | i S | Sg | 14 59 20.6 | -0.1 |
| KORR | Kora | 1.56 | 141 | i Pg | Pn | 14 58 58.9 | +0.3 |
| KORR | | | | i Sg | Sg | 14 59 20.6 | -0.1 |
| TRKR | Terskaya | 1.56 | 111 | ⇑iPG | Pb | 14 58 59.5 | -0.2 |
| TRKR | | | | i S | Sg | 14 59 21.4 | +0.6 |
| TRKR | Terskaya | 1.56 | 111 | i Pg | Pb | 14 58 59.5 | -0.2 |
| TRKR | | | | i Sg | Sg | 14 59 21.4 | +0.6 |
| ARNR | Ardon | 1.59 | 134 | ePG | Pb | 14 59 00.2 | 0.0 |
| ARNR | | | | eS | Sg | 14 59 22.0 | +0.2 |
| BTKR | Batakoyurt | 1.61 | 124 | ePG | Pb | 14 59 00.4 | -0.2 |
| BTKR | | | | i S | Sg | 14 59 22.9 | +0.5 |
| BTKR | Batakoyurt | 1.61 | 124 | ePg | Pb | 14 59 00.4 | -0.2 |
| BTKR | | | | i Sg | Sg | 14 59 22.9 | +0.5 |
| CHVG | Ch'k'valeri | 1.64 | 196 | P | Pg | 14 59 04.2 | +2.2 |
| CHVG | | | | S | Sg | 14 59 25.7 | +2.3 |
| ZEI | Tsey | 1.74 | 150 | ⇓iPN | Pn | 14 59 00.8 | -0.4 |
| ZEI | | | | i S | Sb | 14 59 24.5 | -0.3 |
| LACR | Lac | 1.87 | 141 | ⇓iPN | Pn | 14 59 03.4 | +0.5 |
| LACR | Lac | 1.87 | 141 | i Pn | Pn | 14 59 03.4 | +0.5 |
| VLKR | Vladikavkaz | 1.90 | 131 | ePN | Pg | 14 59 07.1 | +0.2 |
| VLKR | | | | eS | Sg | 14 59 32.3 | +0.8 |
| VLKR | Vladikavkaz | 1.90 | 131 | ePn | Pg | 14 59 07.1 | +0.2 |
| VLKR | | | | eSg | Sg | 14 59 32.3 | +0.8 |
| ERBR | Yeremizino-Bor | 2.12 | 313 | ePN | Pb | 14 59 09.2 | -0.1 |
| ERBR | | | | eS | Sb | 14 59 36.4 | +0.6 |
| ERBR | Yeremizino-Bor | 2.12 | 313 | ePn | Pb | 14 59 09.2 | -0.1 |
| ERBR | | | | eSb | Sb | 14 59 36.4 | +0.6 |
| GUDG | Gudauri | 2.24 | 144 | P | Pb | 14 59 11.3 | 0.0 |
| GUDG | | | | S | Sb | 14 59 39.9 | +0.6 |
| SOC | Sochi | 2.28 | 253 | ePN | Pb | 14 59 11.0 | -0.9 |
| SOC | | | | e | | 14 59 39.0 | |
| SOC | | | | pmax | pmax | | |
| | comp=Z,29nm,0.6s | | | | | | |
| SOC | Sochi | 2.28 | 253 | ePn | Pb | 14 59 11.0 | -0.9 |
| | comp=Z,29nm,0.6s | | | | | | |
| SOC | | | | eSn | Sb | 14 59 39.0 | -1.2 |
| GROC | Groznyy | 2.49 | 115 | ePN | Pb | 14 59 14.9 | -0.5 |
| GROC | | | | eS | Sg | 14 59 49.3 | -1.1 |
| GROC | | | | pmax | pmax | | |
| | comp=Z,41nm,0.8s | | | | | | |
| GROC | | | | smax | smax | | |
| | comp=N,82nm,0.6s | | | | | | |
| GROC | | | | smax | smax | | |
| | comp=N,117nm,1.1s | | | | | | |
| GROC | Groznyy | 2.49 | 115 | ePn | Pb | 14 59 14.9 | -0.5 |
| | comp=N,41nm,0.8s | | | | | | |
| GROC | | | | eSb | Sg | 14 59 49.3 | -1.1 |
| | comp=N,117nm,1.1s | | | | | | |
| VSU | Vasula | 17.27 | 331 | eP | Pn | 15 02 31.8 | +0.1 |
| VSU | | | | pmax | pmax | | |
| | comp=Z,58nm,1.2s | | | | | | |
| VSU | Vasula | 17.27 | 331 | eP | Pn | 15 02 31.8 | +0.1 |
| | comp=Z,58nm,1.2s | | | | | | |
| KURK | Kurchatov | 24.91 | 62 | eP | P | 15 03 55.3 | +1.6 |
| KURK | Kurchatov | 24.91 | 62 | eP | P | 15 03 55.3 | +1.6 |
| KMBO | Kilima Mbogo | 45.49 | 188 | i P | P | 15 06 50.2 | -0.4 |
| KMBO | Kilima Mbogo | 45.49 | 188 | i P | P | 15 06 50.2 | -0.4 |
| PALK | Pallekele | 49.54 | 127 | i P | P | 15 07 22.6 | +0.7 |
| PALK | Pallekele | 49.54 | 127 | i P | P | 15 07 22.6 | +0.7 |

**JMA 05 15:07:43.3±0.1, 35°.78N×140°.88E, h17km±1km, M3.1, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CHOJ | Chosi | 0.08 | 193 | P | Pg | 15 07 46.4 | -0.2 |
| CHOJ | | | | S | Sg | 15 07 48.5 | -0.3 |
| JCN | Nagara | 0.66 | 237 | P | Pg | 15 07 56.3 | 0.0 |
| JYT | Yasato | 0.71 | 309 | P | Pb | 15 07 56.5 | -0.8 |
| JYT | | | | S | Sg | 15 08 05.9 | -0.9 |
| BSO3 | Boso 3 | 1.02 | 197 | P | Pb | 15 08 02.2 | -0.2 |
| MAT | Matsushiro | 2.29 | 290 | P | Pn | 15 08 20.2 | -0.2 |
| MAT | | | | S | Sb | 15 08 53.4 | +1.1 |

*ISCJB **05** 15:11:47.7±0.5, 7°.20S±0°.04×129°.77E±0°.05, h150km, mb3.7/6, Error ellipse: s-maj=7.5km s-min=5.4km az=178.1*
*DJA **05** 15:11:47.0±0.5, 7°S±2°×13°0E±°, h132km±22km, M4.7/6, mb4.5/4, mB5.2/3, MLv4.8/6, Mw(mB)4.5/3*
*IDC **05** 15:11:57.6±5.8, 7°.46S×129°.66E, h237km±62km, mb3.4/6, mb1 3.6/8, mb1mx3.3/30, mbtmp4.1/8, Error ellipse: s-maj=32.9km s-min=23.1km az=37.0*
**ISC 05 15:11:47.9±0.7, 7°.24S±0°.05×129°.88E±0°.06, h150km, n20, σ2s.94/27, mb3.8/6, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SAUI | Saumlaki | 1.59 | 118 | P | Pn | 15 12 22.2 | +3.8 |
| BNDI | Bandanaira | 2.70 | 0 | P | Pn | 15 12 31.8 | +0.3 |
| AAI | Ambon | 3.91 | 334 | P | Pn | 15 12 47.2 | +0.2 |
| AAI | | | | S | Sn | 15 13 29.9 | -3.0 |
| MSAI | Masohi | 3.98 | 346 | P | Pn | 15 12 48.6 | +0.6 |
| MSAI | | | | S | Sn | 15 13 35.9 | +1.2 |
| FAKI | Fak Fak | 4.90 | 29 | P | Pn | 15 12 58.0 | -2.0 |
| FAKI | | | | S | Sn | 15 13 50.8 | -5.4 |
| KMPI | Kaimana, Papua | 5.21 | 47 | S | Sn | 15 13 59.1 | -4.5 |
| SOEI | Soe | 6.09 | 245 | P | Pn | 15 13 16.4 | +0.5 |
| | 203nm,0.9s,3μm | | | | | | |
| SOEI | | | | S | Sn | 15 14 22.4 | -2.4 |
| | 203nm,0.9s,3μm | | | | | | |
| SANI | Sanana | 6.45 | 323 | P | Pn | 15 13 21.2 | +0.5 |
| LBMI | Labuha | 6.97 | 340 | P | Pn | 15 13 26.4 | -1.3 |
| RKPI | Ransiki, Papua | 7.12 | 37 | S | Sn | 15 14 45.0 | -4.5 |
| MMRI | Maumere | 7.70 | 259 | P | Pn | 15 13 38.0 | +0.7 |
| MMRI | | | | S | Sn | 15 15 00.9 | -2.4 |
| WRA | Warramunga Arr | 13.35 | 162 | P | Pn | 15 14 51.6 | 0.0 |
| | 3.9nm,0.3s,baz=332,slow=13,SNR=113 | | | | | | |
| WRA | | | | S | Sn | 15 17 13.0 | -6.4 |
| | 6.7nm,0.3s,baz=337,slow=23,SNR=13 | | | | | | |
| ASAR | Alice Springs | 16.78 | 167 | P | Pn | 15 15 36.3 | +2.0 |
| | 1.3nm,0.3s,baz=334,slow=9.8,SNR=103 | | | | | | |
| ASAR | | | | S | S | 15 18 37.6 | -3.4 |
| | 1.7nm,0.3s,baz=345,slow=25,SNR=7.5 | | | | | | |
| PMG | Port Moresby | 17.23 | 98 | P | Pn | 15 15 45.0 | +5.3 |
| | 0.6nm,0.3s,baz=262,slow=6.2,SNR=8.2 | | | | | | |
| CMAR | Chiang Mai Arr | 39.79 | 310 | P | P | 15 19 06.9 | +0.3 |
| | 0.7nm,0.7s,baz=141,slow=6.1,SNR=6.0 | | | | | | |
| SONM | Songino Array | 58.63 | 342 | P | P | 15 21 30.9 | +1.6 |
| | 0.3nm,0.6s,baz=155,slow=7.7,SNR=2.8 | | | | | | |
| MKAR | Makanchi Array | 68.36 | 327 | P | P | 15 22 34.9 | +1.7 |
| | 1.0nm,0.3s,baz=116,slow=8.5,SNR=45 | | | | | | |
| ZALV | Zalesovo Beam | 71.74 | 334 | P | P | 15 22 54.6 | +1.0 |
| | 0.8nm,0.5s,baz=138,slow=5.0,SNR=2.7 | | | | | | |
| SEY | Seymchan | 72.06 | 11 | P | P | 15 22 57.0 | +1.7 |
| | 1.6nm,0.3s,baz=210,slow=3.3,SNR=10 | | | | | | |
| ILAR | Eielson Array | 93.61 | 25 | P | P | 15 24 47.0 | +0.2 |
| | 0.5nm,0.8s,baz=259,slow=4.2,SNR=5.6 | | | | | | |

*ISCJB **05** 15:31:27.1±0.9, 6°.79N±0°.04×73°.11W±0°.05, h141km±7km, Error ellipse: s-maj=8.7km s-min=5.8km az=25.9*
*IDC **05** 15:31:27.1±5.0, 6°.44N×72°.87W, h166km±38km, mb1 3.6/1, mb1mx2.9/32, mbtmp4.1/1, Error ellipse: s-maj=684.4km s-min=62.0km az=133.0*
*RSNC **05** 15:31:28.1±0.9, 6°.78N×73°.11W, h139km±5km, ML3.7*
**ISC 05 15:31:25.8±1.0, 6°.80N±0°.04×73°.08W±0°.06, h151km±7km, n22, σ0s.93/35, 2D, Northern Colombia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BARC | Barichara | 0.23 | 207 | eP | Pn | 15 31 47.0 | +0.4 |
| BARC | | | | eS | Sn | 15 32 01.1 | -1.3 |
| BARC | | | | i | | 15 32 03.0 | |
| | comp=Z,2μm,0.3s | | | | | | |
| GIRC | Giron, Santand | 0.30 | 338 | eP | Pn | 15 31 47.1 | +0.5 |
| PAMC | Pamplona, Colo | 0.66 | 35 | eP | Pn | 15 31 49.9 | +1.2 |
| PAMC | | | | i | | 15 31 50.3 | |
| | comp=Z,1μm,0.2s | | | | | | |
| PAMC | | | | eS | Sn | 15 32 05.9 | -0.3 |
| BRRC | Barranca, Sant | 0.70 | 296 | ⇓iP | Pn | 15 31 48.9 | +0.5 |
| BRRC | | | | i | | 15 31 49.4 | |
| | comp=Z,2μm,0.1s | | | | | | |
| BRRC | | | | eS | Sn | 15 32 05.5 | -0.2 |
| RUSC | La Rusia | 0.90 | 180 | eP | Pn | 15 31 50.9 | +0.4 |
| RUSC | | | | eS | Sn | 15 32 08.5 | -0.8 |
| RUSC | | | | i | | 15 32 10.7 | |
| | comp=Z,865nm,0.4s | | | | | | |
| CBRI | Barrientos, No | 0.95 | 17 | ⇓iP | Pn | 15 31 51.8 | +1.3 |
| CBRI | | | | eS | Sn | 15 32 09.2 | -0.3 |
| OCAC | Ocana | 1.45 | 350 | eP | Pn | 15 31 56.2 | +1.1 |
| OCAC | | | | eS | Sn | 15 32 17.5 | -0.1 |
| OCAC | | | | i | | 15 32 21.3 | |
| | comp=Z,1μm,0.3s | | | | | | |
| YOPC | Yopal, Colombi | 1.58 | 155 | eP | Pn | 15 31 57.7 | +1.3 |
| YOPC | | | | eS | Sn | 15 32 20.6 | +0.7 |
| YOPC | | | | i | | 15 32 23.8 | |
| | comp=Z,270nm,0.2s | | | | | | |
| NORC | Norcasia | 2.16 | 236 | eP | Pn | 15 32 03.0 | 0.0 |
| NORC | | | | eS | Sn | 15 32 30.8 | -0.7 |
| CHIC | Chingaza | 2.25 | 197 | eP | Pn | 15 32 05.1 | +0.7 |
| CHIC | | | | i | | 15 32 07.4 | |
| | comp=Z,127nm,0.3s | | | | | | |
| CHIC | | | | eS | Sn | 15 32 33.9 | -0.2 |
| ROSC | El Rosal | 2.31 | 213 | P | Pn | 15 32 06.6 | +1.6 |
| | comp=Z,50nm,0.3s,baz=1.0,slow=2.3,SNR=95 | | | | | | |
| ROSC | | | | S | Sn | 15 32 34.9 | -0.3 |
| | comp=Z,67nm,0.3s,baz=342,slow=23,SNR=15 | | | | | | |
| ROSC | El Rosal | 2.31 | 213 | eP | Pn | 15 32 06.7 | +1.7 |
| ROSC | | | | eS | Sn | 15 32 34.9 | -0.3 |
| ROSC | | | | i | | 15 32 43.6 | |
| | comp=Z,393nm,0.4s | | | | | | |
| HELC | Santa Helena | 2.51 | 256 | eP | Pn | 15 32 08.2 | +0.8 |
| HELC | | | | eS | Sn | 15 32 40.3 | +0.8 |
| HELC | | | | i | | 15 32 47.0 | |
| | comp=Z,211nm,0.4s | | | | | | |
| VILC | Villavicencio, | 2.74 | 193 | eP | Pn | 15 32 10.2 | +0.2 |
| VILC | | | | i | | 15 32 17.7 | |
| | comp=Z,90nm,0.4s | | | | | | |
| GUYC | Guyana, Colomb | 2.78 | 236 | eP | Pn | 15 32 12.0 | +1.1 |
| GUYC | | | | eS | Sn | 15 32 46.4 | +0.7 |
| GUYC | | | | i | | 15 32 51.3 | |
| | comp=Z,281nm,0.3s | | | | | | |
| TOLC | Tolima | 3.13 | 226 | eP | Pn | 15 32 16.5 | +1.3 |
| SDV | Santo Domingo | 3.19 | 49 | eP | Pn | 15 32 16.9 | +1.1 |
| SDV | | | | i | | 15 32 58.9 | |
| | comp=Z,108nm,0.7s | | | | | | |
| PRAC | Prado | 3.55 | 211 | eP | Pn | 15 32 21.3 | +1.0 |
| PRAC | | | | i | | 15 33 08.2 | |
| | comp=Z,493nm,0.3s | | | | | | |
| PLMC | San Jos˜' del | 3.70 | 240 | eP | Pn | 15 32 23.2 | +1.0 |
| MKAR | Makanchi Array | 122.33 | 20 | PKP | PKPdf | 15 50 01.9 | -1.3 |
| | comp=Z,0.1nm,0.4s,baz=325,slow=3.2,SNR=4.0 | | | | | | |
| ASAR | Alice Springs | 149.13 | 234 | PKPbc | PKPbc | 15 50 56.5 | -0.7 |
| | comp=Z,0.7nm,0.5s,baz=117,slow=3.6,SNR=27 | | | | | | |
| WRA | Warramunga Arr | 150.36 | 241 | PKPbc | PKPbc | 15 50 59.6 | -0.6 |
| | comp=Z,0.8nm,0.4s,baz=110,slow=2.5,SNR=44 | | | | | | |

*TEH **05** 15:31:28.6, 26°.57N×55°.16E, h8km, ML2.9*
*OMAN **05** 15:31:28.6, 26°.57N×55°.16E, h8km, Error ellipse: s-maj=1.0km s-min=1.0km az=1.0*
*ISCJB **05** 15:31:29.9±0.5, 26°.50N±0°.04×55°.08E±0°.06, h17km, Error ellipse: s-maj=8.8km s-min=4.3km az=149.2*
*DSN **05** 15:31:29.6±1.6, 26°.58N×55°.18E, h15km, ML2.8/9, Error ellipse: s-maj=20.6km s-min=5.0km az=6.0*
*CSEM **05** 15:31:30.3±0.2, 26°.49N×55°.21E, h10km, ML2.8, Error ellipse: s-maj=6.7km s-min=2.9km az=62.0*
**ISC 05 15:31:31.0±1.2, 26°.44N±0°.05×55°.17E±0°.06, h17km, n37, σ0s.78/43, Southern Iran**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SHME | Shamm | 0.95 | 114 | Pg | Pb | 15 31 48.2 | -0.9 |
| | SNR=6.4 | | | | | | |
| BANOM | Banah | 1.14 | 117 | eP | Pn | 15 31 51.4 | -0.8 |
| | SNR=170 | | | | | | |
| BANOM | | | | S | Sn | 15 32 07.9 | +0.5 |
| BANOM | Banah | 1.14 | 117 | P | Pn | 15 31 51.4 | -0.8 |
| | SNR=169 | | | | | | |
| BANOM | | | | S | Sg | 15 32 08.5 | +0.7 |
| BANOM | Banah | 1.14 | 117 | Pb | Pn | 15 31 51.4 | -0.8 |
| | SNR=169 | | | | | | |
| BANOM | | | | Sb | Sg | 15 32 08.5 | +0.7 |
| BANOM | Banah | 1.14 | 117 | P | Pn | 15 31 51.4 | -0.8 |
| | SNR=169 | | | | | | |
| BANOM | | | | S | Sg | 15 32 08.5 | +0.7 |
| MSFE | Esma-Masafi | 1.39 | 140 | Pb | Pb | 15 31 56.9 | +0.3 |
| | SNR=7.4 | | | | | | |
| NAZ | Nazwa, Dubai | 1.51 | 163 | P | Pn | 15 31 58.0 | +0.7 |
| NAZ | Nazwa, Dubai | 1.51 | 163 | P | Pn | 15 31 58.0 | +0.7 |
| IBND | Bandar-abas | 1.58 | 50 | ePn | Pn | 15 31 57.9 | -0.4 |
| IBND | | | | eSg | Sb | 15 32 19.4 | -0.1 |
| IBND | | | | eAMB | AMB | 15 32 36.3 | |
| | comp=Z,3μm,0.3s | | | | | | |
| IBND | Bandar-abas | 1.58 | 50 | ePn | Pn | 15 31 57.9 | -0.4 |
| IBND | | | | eSg | Sb | 15 32 19.4 | -0.1 |
| FAQ | Al Faqa, Dubai | 1.73 | 167 | P | Pn | 15 32 00.8 | +0.5 |
| FAQ | Al Faqa, Dubai | 1.73 | 167 | P | Pn | 15 32 00.8 | +0.5 |
| UOSS | Minazif | 1.75 | 148 | P | Pn | 15 32 01.9 | +1.3 |
| HATD | Hatta, Dubai | 1.82 | 151 | P | Pn | 15 32 02.2 | +0.6 |
| HATD | Hatta, Dubai | 1.82 | 151 | P | Pn | 15 32 02.2 | +0.6 |
| ASHO | Ashiyiah | 1.92 | 155 | eP | Pn | 15 32 03.5 | +0.5 |
| | SNR=7.3 | | | | | | |
| ASHO | Ashiyiah | 1.92 | 155 | P | Pn | 15 32 03.5 | +0.5 |
| | SNR=7.3 | | | | | | |
| ASHO | Ashiyiah | 1.92 | 155 | pPn | Pb | 15 32 04.7 | -0.9 |
| | SNR=7.3 | | | | | | |
| ASHO | Ashiyiah | 1.92 | 155 | P | Pb | 15 32 04.7 | -0.9 |
| | SNR=7.3 | | | | | | |
| ISRV | Sarvestan | 3.45 | 329 | ePn | Pn | 15 32 24.5 | +0.2 |
| ISRV | | | | eAMB | AMB | 15 33 26.7 | |
| | comp=Z,102nm,0.1s | | | | | | |
| ISRV | Sarvestan | 3.45 | 329 | ePn | Pn | 15 32 24.5 | +0.2 |
| WSAR | Wadi Sarin | 4.47 | 135 | pPn | Pn | 15 32 40.0 | +1.9 |
| | SNR=5.7 | | | | | | |
| WSAR | Wadi Sarin | 4.47 | 135 | P | Pn | 15 32 40.0 | +1.9 |
| | SNR=5.7 | | | | | | |
| IMEH | Mehriz | 4.96 | 354 | ePn | Pn | 15 32 44.9 | 0.0 |
| IMEH | | | | eAMB | AMB | 15 32 45.2 | |
| | comp=Z,104nm,0.2s | | | | | | |
| IMEH | Mehriz | 4.96 | 354 | ePn | Pn | 15 32 44.9 | 0.0 |
| IBAF | Bafgh | 5.15 | 4 | ePn | Pn | 15 32 46.7 | -0.7 |
| IBAF | | | | eAMB | AMB | 15 32 46.9 | |
| | comp=Z,126nm,0.2s | | | | | | |
| IBAF | Bafgh | 5.15 | 4 | ePn | Pn | 15 32 46.7 | -0.7 |
| ISAD | Sadrabad | 5.61 | 347 | ePn | Pn | 15 32 54.6 | +0.7 |
| ISAD | | | | eAMB | AMB | 15 32 55.0 | |
| | comp=Z,189nm,0.4s | | | | | | |
| ISAD | Sadrabad | 5.61 | 347 | ePn | Pn | 15 32 54.6 | +0.7 |
| ICHK | Chekchek | 5.82 | 354 | eAMB | AMB | 15 30 59.9 | |
| | comp=Z,40nm,0.2s | | | | | | |
| ICHK | | | | ePn | Pn | 15 32 56.2 | -0.6 |
| IRAM | Ramesheh | 5.88 | 336 | ePn | Pn | 15 32 57.5 | -0.1 |
| IRAM | | | | eAMB | AMB | 15 32 58.5 | |
| | comp=Z,80nm,0.2s | | | | | | |
| IRAM | Ramesheh | 5.88 | 336 | ePn | Pn | 15 32 57.5 | -0.1 |
| IZEF | Zefreh | 6.89 | 340 | eAMB | AMB | 15 33 11.4 | |
| | comp=Z,33nm,0.1s | | | | | | |
| IZEF | | | | ePn | Pn | 15 33 09.9 | -1.6 |
| IPIR | Pirpir | 7.25 | 330 | ePn | Pn | 15 33 16.0 | -0.5 |
| IPIR | | | | eAMB | AMB | 15 33 20.0 | |
| | comp=Z,55nm,0.1s | | | | | | |
| IPIR | Pirpir | 7.25 | 330 | ePn | Pn | 15 33 16.0 | -0.5 |
| IKLH | Kolahrood | 7.53 | 336 | ePn | Pn | 15 33 20.5 | +0.2 |
| IKLH | | | | eAMB | AMB | 15 35 02.9 | |
| | comp=Z,29nm,0.1s | | | | | | |
| IKLH | Kolahrood | 7.53 | 336 | ePn | Pn | 15 33 20.5 | +0.2 |

*OBM **05** 15:32:37.4±0.1, 44°.31N×101°.36E, h2km, Ml4.1/4, Error ellipse: s-maj=1.8km s-min=0.7km az=10.0*
*IDC **05** 15:32:38.7±0.5, 44°.42N×101°.38E, h0km, mb4.2/22, mb1 4.3/27, mb1mx4.1/56, mbtmp4.2/27, ML3.8/5, MS3.3/12, Ms1 3.3/12, ms1mx3.1/51, Error ellipse: s-maj=12.4km s-min=10.2km az=4.0*
*ISCJB **05** 15:32:38.7±0.2, 44°.45N±0°.02×101°.34E±0°.03, h10km, mb4.2/37, MS3.2/9, Error ellipse: s-maj=3.6km s-min=2.8km az=138.1*
*BJI **05** 15:32:39.5, 44°.29N×101°.45E, h8km, mb4.4/25, mB4.8/18, ML4.5/10, Ms4.2/21, Ms7 4.0/21*
*MOS **05** 15:32:41.3±0.8, 44°.42N×101°.32E, h32km, mb4.3/25, Error ellipse: s-maj=8.5km s-min=7.2km az=97.2*
*NEIC **05** 15:32:42.2±1.7, 44°.38N×101°.30E, h24km±13km, mb4.4/8, Error ellipse: s-maj=6.2km s-min=4.9km az=189.0*
**ISC 05 15:32:40.8±0.3, 44°.43N±0°.03×101°.38E±0°.03, h10km, n156, σ2s.44/187, mb4.3/38, MS3.2/9, 2C-1D, Mongolia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DZBM | | 2.33 | 104 | ePg | Pn | 15 33 18.8 | -0.6 |
| DZBM | | | | eSg | Sb | 15 33 51.5 | -0.4 |
| TTS | Tsetserleg | 3.05 | 1 | ePn | Pn | 15 33 31.0 | +1.7 |
| TTS | Tsetserleg | 3.05 | 1 | ePg | Pb | 15 33 35.3 | 0.0 |
| TTS | | | | eSg | Sb | 15 34 15.8 | +3.1 |
| BLGM | Bulgan | 4.61 | 18 | ePn | Pn | 15 33 50.8 | +0.2 |
| BLGM | Bulgan | 4.61 | 18 | ePg | Pb | 15 34 02.3 | +0.5 |
| BLGM | | | | eSg | Sb | 15 35 02.8 | +5.4 |
| | 962nm,0.3s | | | | | | |
| TSC | Tosontsengel | 4.85 | 335 | ePn | Pn | 15 33 55.1 | +1.2 |
| TSC | Tosontsengel | 4.85 | 335 | ePg | Pb | 15 34 08.7 | +2.8 |
| TSC | | | | eSg | Sg | 15 35 11.1 | -5.3 |
| | 356nm,0.3s | | | | | | |
| SONB4 | Songino Array | 4.86 | 44 | ePn | Pn | 15 33 54.2 | +0.1 |
| SONB4 | Songino Array | 4.86 | 44 | ePg | Pb | 15 34 07.7 | +1.6 |
| SONB4 | | | | eSg | Sg | 15 35 10.9 | -5.9 |
| | 638nm,0.4s | | | | | | |
| SONA0 | Songino Array | 4.88 | 44 | ePn | Pn | 15 33 54.5 | +0.2 |
| SONA0 | Songino Array | 4.88 | 44 | ePg | Pb | 15 34 08.0 | +1.6 |
| SONA0 | | | | eSg | Sb | 15 35 11.2 | +6.1 |
| SONB5 | Songino Array | 4.88 | 44 | ePn | Pn | 15 33 54.5 | +0.2 |
| SONB5 | Songino Array | 4.88 | 44 | ePg | Pb | 15 34 08.0 | +1.6 |
| SONB5 | | | | eSg | Sb | 15 35 11.2 | +6.1 |
| | 618nm,0.4s | | | | | | |
| SONM | Songino Array | 4.88 | 44 | Pn | Pn | 15 33 54.5 | +0.2 |
| | 35nm,0.3s,baz=224,slow=15,SNR=542 | | | | | | |
| SONM | | | | Pg | Pb | 15 34 07.8 | +1.4 |
| | 41nm,0.3s,baz=220,slow=19,SNR=50 | | | | | | |
| SONM | | | | Sn | Sn | 15 34 49.4 | -1.5 |
| | 92nm,0.3s,baz=222,slow=28,SNR=14 | | | | | | |
| SONM | | | | Lg | Lg | 15 35 12.9 | |
| | 154nm,0.3s,baz=224,slow=30,SNR=12 | | | | | | |
| SONM | | | | LR | LR | 15 36 02.0 | |
| | comp=Z,812nm,19.4s,baz=180,slow=42 | | | | | | |
| SONA4 | Songino Array | 4.88 | 44 | ePn | Pn | 15 33 54.6 | +0.2 |
| SONA4 | Songino Array | 4.88 | 44 | ePg | Pb | 15 34 08.1 | +1.6 |
| SONA4 | | | | eSg | Sb | 15 35 10.8 | +5.5 |
| | 415nm,0.3s | | | | | | |
| SONB3 | Songino Array | 4.89 | 44 | ePn | Pn | 15 33 54.6 | +0.2 |
| SONB3 | Songino Array | 4.89 | 44 | ePg | Pb | 15 34 08.0 | +1.5 |
| SONB3 | | | | eSg | Sb | 15 35 10.8 | +5.4 |
| | 404nm,0.3s | | | | | | |
| SONA1 | Songino Array | 4.89 | 44 | ePn | Pn | 15 33 54.3 | -0.2 |
| SONA1 | Songino Array | 4.89 | 44 | ePn | Pn | 15 33 54.7 | +0.2 |
| SONA1 | Songino Array | 4.89 | 44 | ePg | Pb | 15 34 08.2 | +1.6 |
| SONA1 | | | | eSg | Sb | 15 35 11.0 | +5.5 |
| | 477nm,0.3s | | | | | | |
| SONA2 | Songino Array | 4.89 | 44 | ePn | Pn | 15 33 54.7 | +0.2 |
| SONA2 | Songino Array | 4.89 | 44 | ePg | Pb | 15 34 08.2 | +1.6 |
| SONA2 | | | | eSg | Sb | 15 35 10.9 | +5.4 |
| | 428nm,0.3s | | | | | | |
| SONA3 | Songino Array | 4.89 | 44 | ePn | Pn | 15 33 54.7 | +0.1 |
| SONA3 | Songino Array | 4.89 | 44 | ePg | Pb | 15 34 08.2 | +1.5 |
| SONA3 | | | | eSg | Sb | 15 35 11.0 | +5.4 |
| | 544nm,0.3s | | | | | | |
| SONB1 | Songino Array | 4.90 | 44 | ePn | Pn | 15 33 54.8 | +0.1 |
| SONB1 | Songino Array | 4.90 | 44 | ePg | Pb | 15 34 08.4 | +1.6 |
| SONB1 | | | | eSg | Sb | 15 35 11.0 | +5.2 |
| | 488nm,0.4s | | | | | | |
| SONB2 | Songino Ar. Si | 4.90 | 44 | ePn | Pn | 15 33 54.9 | +0.3 |
| SONB2 | Songino Ar. Si | 4.90 | 44 | ePg | Pb | 15 34 08.4 | +1.6 |
| SONB2 | | | | eSg | Sb | 15 35 10.7 | +4.9 |
| | 554nm,0.3s | | | | | | |
| SEMM | | 5.01 | 49 | ePn | Pn | 15 33 56.1 | 0.0 |
| SEMM | | | | eSg | Sg | 15 35 15.4 | -6.1 |
| GTA | Gaotai | 5.15 | 194 | Pn | Pn | 15 33 58.1 | +0.1 |
| GTA | | | | Pg | Pb | 15 34 13.1 | +2.1 |
| GTA | | | | Sn | Sn | 15 34 56.5 | -1.0 |
| GTA | | | | Sg | Sb | 15 35 17.3 | +4.4 |
| GTA | | | | smax | smax | | |
| | comp=N,310nm,0.9s | | | | | | |
| GTA | | | | smax | smax | | |
| | comp=E,760nm,0.7s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=N,1μm,7.6s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=E,2μm,7.1s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,1μm,9.0s | | | | | | |
| ALFM | | 5.17 | 45 | ePn | Pn | 15 33 58.5 | +0.1 |
| ALFM | | | | eSg | Sg | 15 35 20.9 | -5.9 |
| | 1μm,0.5s | | | | | | |
| ULN | Ulaanbaatar | 5.23 | 47 | d iP | Pn | 15 33 59.1 | -0.1 |
| ULN | | | | pmax | pmax | | |
| | comp=Z,27nm,0.8s | | | | | | |
| ULN | Ulaanbaatar | 5.23 | 47 | ePn | Pn | 15 33 59.1 | -0.1 |
| UGDM | | 5.28 | 50 | ePn | Pn | 15 33 59.0 | -0.9 |
| UGDM | | 5.28 | 50 | ePn | Pn | 15 33 59.9 | 0.0 |
| UGDM | | | | eSg | Sb | 15 35 22.4 | +5.5 |
| | comp=Z,224nm,0.4s | | | | | | |
| UGDM | | | | eSg | Sg | 15 35 26.6 | -3.8 |
| | comp=Z,545nm,0.4s | | | | | | |
| ARTM | | 5.39 | 47 | ePn | Pn | 15 34 01.3 | -0.1 |
| ARTM | | 5.39 | 47 | ePg | Pb | 15 34 17.6 | +2.5 |
| ARTM | | | | eSg | Sb | 15 35 26.2 | +6.4 |
| | comp=Z,242nm,0.3s | | | | | | |
| HTG | Hatgal | 6.09 | 353 | ePn | Pn | 15 34 12.9 | +1.9 |
| HTG | Hatgal | 6.09 | 353 | ePg | Pb | 15 34 31.5 | +4.4 |
| HTG | | | | eSg | Sg | 15 35 51.4 | -4.9 |
| | comp=Z,909nm,0.6s | | | | | | |
| ZAK | Zakamensk | 6.10 | 12 | eP | Pn | 15 34 11.8 | +0.8 |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,59nm,0.9s | | | | | | |
| MOY | Mondy | 7.25 | 358 | eP | Pn | 15 34 28.6 | +1.8 |
| TLY | Talaya | 7.42 | 11 | Pn | Pn | 15 34 28.9 | -0.1 |
| | comp=Z,0.0nm,0.3s,baz=204,slow=10,SNR=12 | | | | | | |
| TLY | | | | Pg | Pb | 15 34 53.4 | +3.9 |
| | comp=Z,0.1nm,0.3s,baz=206,slow=8.0,SNR=13 | | | | | | |
| TLY | | | | Lg | Lg | 15 36 32.4 | |
| | comp=Z,0.2nm,0.3s,baz=70,slow=6.0,SNR=7.3 | | | | | | |
| TLY | | | | LR | LR | 15 37 37.9 | |
| | comp=Z,378nm,20.1s,baz=182,slow=40 | | | | | | |
| TLY | Talaya | 7.42 | 11 | eP | Pn | 15 34 30.8 | +1.7 |
| TLY | Talaya | 7.42 | 11 | ePn | Pn | 15 34 30.8 | +1.7 |
| TLY | | | | Pg | Pb | 15 34 53.4 | +3.9 |
| TLY | | | | Lg | Lg | 15 36 32.4 | |
| BTO | Baotou | 7.44 | 118 | ePn | Pn | 15 34 26.8 | -2.7 |
| BTO | | | | smax | smax | | |
| | comp=Z,25nm,1.0s | | | | | | |
| BTO | | | | smax | smax | | |
| | comp=Z,20nm,0.5s | | | | | | |
| HBD | Hovd | 7.64 | 301 | ePg | Pb | 15 34 57.7 | +4.3 |
| HBD | | | | eSg | Sg | 15 36 35.7 | -10 |
| HHC | Hu-ho-hao-te | 8.32 | 112 | eP | Pn | 15 34 45.2 | +3.7 |

HHC S **Sn** **15 36 20.5 +5.0**
HHC pmax pmax
comp=Z,24nm,1.1s
HHC pmax pmax
comp=Z,190nm,4.6s
HHC LR LR
comp=Z,1µm,8.9s
HHC LR LR
comp=Z,690nm,4.8s
HHC LR LR
comp=Z,540nm,7.1s
**ULG Ulaangom 8.41 314** *e*Pn **Pn** **15 34 47.3 +4.5**
**ULG Ulaangom 8.41 314** *e*Pg Pb 15 35 11.9 +5.3
ULG *e*Sg Sg 15 36 59.1 -12
comp=Z,228nm,0.7s
**LZH Lanzhou 8.54 166** *e*P **Pn** **15 34 45.5 +0.8**
LZH pP pP 15 34 52.0
LZH sP sP 15 34 56.6
LZH *e*S **Sn** **15 36 25.1 +4.0**
LZH sS sS 15 36 29.0
LZH pmax pmax
comp=Z,45nm,1.1s
LZH pmax pmax
comp=Z,290nm,5.3s
LZH LR LR
comp=Z,950nm,7.6s
LZH LR LR
comp=Z,1µm,9.4s
LZH LR LR
comp=Z,1µm,10.0s
**BYO Bayan-Olgiy 9.06 304** *e*Pg Pn 15 35 23.3 +32
BYO *e*Sg Sn 15 37 27.5 +54
comp=Z,195nm,0.8s
**WMQ Urumqi 9.86 271** P **Pn** **15 35 02.9 +0.3**
WMQ LR LR
comp=Z,1µm,6.1s
WMQ LR LR
comp=Z,630nm,4.3s
WMQ LR LR
comp=Z,250nm,18.3s
**BJI Beijing 11.81 107** P **Pn** **15 35 29.8 +0.6**
BJI S **Sn** **15 37 38.1 -2.9**
BJI pmax pmax
comp=Z,7.0nm,0.5s
BJI LR LR
comp=Z,770nm,7.5s
BJI LR LR
comp=Z,450nm,8.7s
**HIA Hailar 13.46 62** *e*P **Pn** **15 35 52.0 +0.2**
**MK01 Makanchi Array 13.56 287** *e*Pn **Pn** **15 35 52.7 -0.5**
**MK31 Makanchi Array 13.57 287** *e*P **Pn** **15 35 52.7 -0.5**
**MK31 Makanchi Array 13.57 287** *e*Pn **Pn** **15 35 52.7 -0.5**
**MKAR Makanchi Array 13.57 287** Pn **Pn** **15 35 52.5 -0.7**
comp=Z,0.1nm,0.3s,baz=100,slow=14,SNR=8.2
MKAR Lg Lg 15 39 47.1
comp=Z,0.2nm,0.3s,baz=76,slow=24,SNR=5.5
MKAR LR LR 15 41 36.7
comp=Z,49nm,21.2s,baz=166,slow=40
**MKAR Makanchi Array 13.57 287** *i* P **Pn** **15 35 53.0 -0.3**
MKAR pmax pmax
comp=Z,1.0nm,0.7s
**ZAA0 Zalesovo Array 14.39 317** *e*Pn **Pn** **15 36 04.0 -0.3**
**ZALV Zalesovo Beam 14.39 317** Pn **Pn** **15 36 07.6 +3.3**
comp=Z,0.8nm,0.3s,baz=122,slow=10.0,SNR=31
ZALV Lg Lg 15 40 12.7
comp=Z,0.2nm,0.3s,baz=120,slow=22,SNR=6.8
**ZALV Zalesovo Beam 14.39 317** *e*P **P** **15 36 10.8 -0.6**
ZALV Lg Lg 15 40 12.7
**ENH Enshi 15.52 153** *e*Pn **Pn** **15 36 21.6 +1.9**
comp=Z,18nm,0.6s
**NVS Novosibirsk 15.66 318** *e*P Pn 15 36 07.3 -14
**PDGK Podgornoye 15.82 274** *i* P **Pn** **15 36 25.8 +2.2**
PDGK pmax pmax
comp=Z,16nm,1.2s
**KURK Kurchatov 16.56 300** *e*P **Pn** **15 36 31.9 -1.1**
KURK pmax pmax
comp=Z,22nm,0.6s
**KURK Kurchatov 16.56 300** *e*Pn **Pn** **15 36 31.9 -1.1**
comp=Z,22nm,0.6s
KURK Lg Lg 15 41 25.1
**KURBB Kurchatov Arra 16.59 300** Pn **Pn** **15 36 32.3 -1.1**
comp=Z,0.3nm,0.3s,baz=104,slow=13,SNR=65
KURBB Lg Lg 15 41 25.1
comp=Z,0.1nm,0.3s,baz=100,slow=32,SNR=8.4
**LSA Lhasa 16.79 212** *e*P **Pn** **15 36 32.6 -3.9**
LSA pmax pmax
comp=Z,4.0nm,0.8s
**LSA Lhasa 16.79 212** *e*Pn **Pn** **15 36 32.5 -3.9**
comp=Z,4.4nm,0.8s
**WHN Wuhan 17.23 139** P **P** **15 36 45.9 +2.8**
**TKM2 Tokmak 2 18.69 274** *i* P **P** **15 36 58.8 -0.5**
TKM2 pmax pmax
comp=Z,16nm,1.0s
**TKM2 Tokmak 2 18.69 274** P **P** **15 36 58.1 -1.2**
SNR=5.7
**KBK Karagaybulak 19.22 274** P **Pn** **15 37 07.3 +1.4**
SNR=9.1
**CHMS Chumysh 19.27 275** P **Pn** **15 37 06.5 -0.1**
SNR=6.5
**KMI Kunming 19.29 176** P **P** **15 37 06.7 +0.7**
KMI pmax pmax
comp=Z,12nm,0.5s
**USP Ospenovka 19.39 276** P **P** **15 37 07.7 +0.8**
SNR=6.6
**KSH Kashi 19.48 264** P **Pn** **15 37 14.0 +4.9**
KSH pP sP 15 37 21.7 +10
KSH PP **PnPn** **15 37 33.0 +11**
KSH S **S** **15 40 49.4 +1.3**
KSH SS SnSn 15 41 17.8 +16
KSH ScS **ScS** **15 48 46.1 -0.4**
KSH pmax pmax
comp=Z,7.0nm,0.6s
KSH LR LR
comp=Z,190nm,6.3s
KSH LR LR
comp=Z,200nm,5.2s
KSH LR LR
comp=Z,250nm,6.0s
**AAK Ala-Archa 19.55 274** P **Pn** **15 37 09.6 -0.3**
comp=Z,1.1nm,0.3s,baz=103,slow=8.9,SNR=15
AAK LR LR 15 45 38.9
comp=Z,137nm,19.4s,baz=55,slow=40
**AAK Ala-Archa 19.55 274** *e*P **P** **15 37 07.8 -0.8**
**AAK Ala-Archa 19.55 274** P **Pn** **15 37 09.5 -0.3**
SNR=6.6
**AAK Ala-Archa 19.55 274** *e*P **P** **15 37 09.2 +0.5**
comp=Z,13nm,1.2s
**UCH Uchtor 19.64 273** P **Pn** **15 37 11.6 +0.3**
SNR=24
**EKS2 Erkin-Say 20.05 275** P **P** **15 37 14.7 +0.6**
SNR=9.4
**AML Almayashu 20.25 273** P **P** **15 37 17.7 +1.2**
SNR=9.3
**TAPN Taplejung 20.27 217** *e*P **P** **15 37 17.4 +0.6**
comp=Z,28nm,0.8s
**GUN Gumba 20.63 222** *e*P **P** **15 37 20.7 -0.1**
comp=Z,27nm,0.6s
**JIRN Jiri 20.70 221** *e*P **P** **15 37 21.6 +0.1**
comp=Z,120nm,0.6s
**ODAN Odare 20.84 217** *e*P **P** **15 37 22.8 -0.1**
comp=Z,54nm,0.8s
**MNAS Manas 21.00 275** *i* P **P** **15 37 23.6 -0.9**
MNAS pmax pmax
comp=Z,16nm,1.2s
**KKN Kakani 21.02 223** *e*P **P** **15 37 24.6 -0.3**
comp=Z,18nm,0.5s
**SFK Sufi-Kurgan 21.06 268** *i* P **P** **15 37 24.9 -0.3**
SFK pmax pmax
comp=Z,16nm,1.2s
**RAMN Ramite 21.11 219** *e*P **P** **15 37 25.6 -0.2**
**KS01 Wonju Array Si 21.14 100** *e*P **P** **15 37 25.4 -0.4**
**PKI Pulchoki 21.14 223** *e*P **P** **15 37 26.0 -0.3**
**PKIN Phulchoki 21.14 223** *e*P **P** **15 37 26.5 +0.3**
comp=Z,24nm,0.7s
**KS15 Wonju Array Si 21.15 100** *e*P **P** **15 37 25.8 -0.1**
**KSAR Wonju Array Be 21.15 100** P **P** **15 37 26.2 +0.3**
**KSAR Wonju Array Be 21.15 100** P **P** **15 37 26.2 +0.3**
**KSRS Korea Array 21.17 100** P **P** **15 37 26.2 +0.1**
comp=Z,11nm,0.8s,baz=292,slow=9.9,SNR=35
KSRS LR LR 15 46 21.6
comp=Z,51nm,18.8s,baz=155,slow=39
**KLR Kul'dur 21.25 66** P **P** **15 37 28.1 +1.2**
comp=Z,0.2nm,0.6s,baz=294,slow=5.4,SNR=8.9
KLR LR LR 15 46 25.0
comp=Z,26nm,18.4s,baz=268,slow=39
**DMN Daman 21.26 223** *e*P **P** **15 37 27.6 +0.2**
comp=Z,25nm,0.7s
**DANN Dangsing 21.34 227** *e*P **P** **15 37 27.9 -0.4**
comp=Z,4.2nm,1.0s
**USRK Ussuriysk Ar. 21.85 80** P **P** **15 37 33.9 +0.5**
comp=Z,2.4nm,0.6s,baz=267,slow=9.9,SNR=6.4
**KOLN Koldanda 21.89 227** *e*P **P** **15 37 33.6 -0.6**
comp=Z,23nm,0.8s
**PYUN Piuthan 21.95 228** *e*P **P** **15 37 34.2 -0.6**
comp=Z,47nm,0.7s
**BVA0 Borovoye Array 22.03 304** *i* P **P** **15 37 34.3 -1.0**
BVA0 pmax pmax
comp=Z,39nm,1.2s
**BVAR Borovoye Array 22.03 304** P **P** **15 37 34.6 -0.7**
comp=Z,9.4nm,0.5s,baz=102,slow=9.4,SNR=49
**BRVK Borovoye 22.10 304** *i* P **P** **15 37 34.7 -1.3**
BRVK pmax pmax
comp=Z,69nm,1.7s
**BRVK Borovoye 22.10 304** *e*P **P** **15 37 35.0 -1.0**
comp=Z,27nm,1.0s
**KK31 Karatay Array 22.27 277** *c e*P **P** **15 37 36.9 -1.0**
KK31 pmax pmax
comp=Z,2.0nm,0.5s
**THN Thein Dam 23.29 248** *e*P **P** **15 37 47.4 -1.3**
**YAK Yakutsk 24.13 33** *e*P **P** **15 37 55.8 -0.7**
YAK pmax pmax
comp=Z,8.0nm,1.5s
**DZET Dzherino 24.87 268** P **P** **15 38 02.7 -0.9**
DZET pmax pmax
comp=Z,5.0nm,0.6s
**JNU Nakatsue 25.49 106** P **P** **15 38 08.6 -0.6**
comp=Z,5.0nm,0.8s,baz=273,slow=5.9,SNR=4.3
**CHTO Chiang Mai 25.62 185** *e*P **P** **15 38 09.0 -1.4**
CHTO pmax pmax
comp=Z,5.0nm,0.9s
**CHTO Chiang Mai 25.62 185** *e*P **P** **15 38 09.0 -1.4**
comp=Z,5.2nm,0.9s
**CMAR Chiang Mai Arr 25.97 185** P **P** **15 38 13.6 -0.1**
comp=Z,3.3nm,0.8s,baz=357,slow=9.9,SNR=23
CMAR LR LR 15 49 31.6
comp=Z,123nm,19.3s,baz=359,slow=39
**CM01 Chiang Mai Arr 26.01 185** *e*P **P** **15 38 12.6 -1.3**
**YSS Yuzh-Sakhalins 28.78 70** *e*P **P** **15 38 39.1 +0.6**
YSS pmax pmax
comp=Z,19nm,1.0s
**MJAR Matsushiro Arr 28.91 93** LR LR 15 51 26.5
comp=Z,31nm,19.6s,baz=335,slow=39
**ARU Arti 29.30 310** P **P** **15 38 42.5 -0.7**
comp=Z,3.8nm,0.5s,baz=95,slow=11,SNR=9.0
**ARU Arti 29.30 310** *c i*P **P** **15 38 42.2 -0.9**
ARU 15 39 34.7
ARU S **S** **15 43 36.2 +0.2**
ARU SS **SnSn** **15 44 58.8 -2.6**
ARU pmax pmax
comp=Z,14nm,1.7s
**TIXI Tiksi 30.34 17** *e*P **P** **15 38 50.7 -1.5**
TIXI pmax pmax
comp=Z,1.0nm,1.0s
**GEYT Alibeck 32.90 274** P **P** **15 39 15.9 +0.8**
comp=Z,3.8nm,0.8s,baz=66,slow=5.0,SNR=7.2
**PETK Petropavlovsk- 37.24 56** P **P** **15 39 52.5 +0.2**
comp=Z,2.4nm,0.7s,baz=87,slow=3.7,SNR=4.0
PETK LR LR 15 57 18.2
comp=Z,80nm,21.1s,baz=294,slow=40
**PETK Petropavlovsk- 37.24 56** P **P** **15 39 52.5 +0.2**
PETK pmax pmax
comp=Z,5.0nm,1.0s
PETK MLR MLR
comp=Z,80nm,21.2s
**KIV Kislovodsk 41.29 291** *e*P **P** **15 40 23.3 -3.0**
KIV pmax pmax
comp=Z,4.0nm,1.0s
KIV MLR MLR
comp=Z,38nm,16.0s
**GNI Garni 41.40 285** P **P** **15 40 28.3 +0.9**
comp=Z,5.2nm,0.8s,baz=174,slow=8.7,SNR=4.2
**GNI Garni 41.40 285** *e*P **P** **15 40 26.9 -0.5**
GNI pmax pmax
comp=Z,31nm,1.5s
**NEY Neytrino 41.53 290** *e*P **P** **15 40 27.2 -1.2**
NEY pmax pmax
comp=Z,1.0nm,0.9s
**ARCES ARCESS Array B 44.39 331** P **P** **15 40 49.5 -1.6**
comp=Z,4.4nm,1.0s,baz=66,slow=12,SNR=1.8
ARCES PcP **PP** **15 42 33.2 -1.1**
comp=Z,3.3nm,0.9s,baz=90,slow=4.5,SNR=5.3
**ARCES ARCESS Array B 44.39 331** P **P** **15 40 49.5 -1.6**
ARCES 15 42 33.2
ARCES pmax pmax
comp=Z,3.0nm,0.9s
ARCES pmax pmax
comp=Z,3.0nm,0.9s
**FINES FINESS Array B 45.64 319** P **P** **15 41 00.1 -0.9**
comp=Z,3.8nm,0.8s,baz=76,slow=8.0,SNR=8.1
**AKASG Malin Array Be 47.31 305** P **P** **15 41 12.9 -1.3**
comp=Z,0.6nm,0.6s,baz=57,slow=9.1,SNR=2.5
**BRTR Keskin Array B 49.20 289** P **P** **15 41 29.4 +0.2**
comp=Z,1.5nm,0.8s,baz=72,slow=6.8,SNR=6.8
BRTR LR LR 16 04 25.0
comp=Z,20nm,20.1s,baz=49,slow=39
**BR231 Keskin MP Arra 49.73 290** *e*P **P** **15 41 29.8 -3.4**
**ASF Jabal al Asfar 50.84 279** P **P** **15 41 42.2 +0.5**
comp=Z,2.8nm,0.7s,baz=6.0,slow=7.2,SNR=5.0
**MMAI Mount Meron Ar 51.43 281** LR LR 16 06 20.1
comp=Z,21nm,18.0s,baz=270,slow=39
**HFS Hagfors 51.80 320** P **P** **15 41 47.3 -1.0**
comp=Z,1.4nm,0.6s,baz=49,slow=9.7,SNR=5.7
**NOA NORSAR Array B 52.52 322** P **P** **15 41 52.5 -1.4**
comp=Z,0.6nm,0.6s,baz=66,slow=4.5,SNR=3.1
**MDM Murphy Dome 58.33 28** *e*P **P** **15 42 35.7 +0.1**
comp=Z,117nm,1.5s
**CCB Clear Creek Bu 58.67 28** *e*P **P** **15 42 37.8 -0.1**
comp=Z,23nm,1.6s
**ILAR Eielson Array 58.90 28** P **P** **15 42 39.2 -0.3**
comp=Z,1.0nm,0.6s,baz=295,slow=6.1,SNR=22
**ILB Eielson Array 58.90 28** *e*P **P** **15 42 39.6 +0.1**
**DHY Denali Highway 59.81 29** *e*P **P** **15 42 45.4 -0.6**
comp=Z,25nm,1.6s
**INK Inuvik 60.37 20** P **P** **15 42 49.4 -0.1**
comp=Z,1.2nm,0.7s,baz=322,slow=8.4,SNR=3.3
**BFO Black Forest 60.39 310** *i* P **P** **15 42 49.2 -0.8**
**YKA Yellowknife Ar 69.59 17** P **P** **15 43 49.0 -0.5**
comp=Z,0.7nm,0.7s,baz=333,slow=6.2,SNR=4.2
**WRA Warramunga Arr 70.79 147** P **P** **15 43 56.0 -1.4**
comp=Z,1.6nm,0.7s,baz=342,slow=6.5,SNR=21
**WRA Warramunga Arr 70.79 147** P **P** **15 43 56.0 -1.4**
WRA pmax pmax
comp=Z,2.0nm,0.7s
**ASAR Alice Springs 74.01 149** P **P** **15 44 15.2 -1.4**
comp=Z,1.6nm,0.7s,baz=338,slow=5.3,SNR=33
**AS01 Alice Springs 74.03 149** *e*P **P** **15 44 15.0 -1.7**
**TORD Torodi Ar. Bea 87.69 286** P **P** **15 45 29.0 -1.0**
comp=Z,1.5nm,0.8s,baz=47,slow=3.8,SNR=9.6
TORD LR LR 16 30 05.2
comp=Z,34nm,20.4s,baz=275,slow=39
**LPAZ La Paz 150.58 339** PKPbc **PKPbc** **15 52 32.4 -1.5**
comp=Z,0.6nm,0.4s,baz=354,slow=4.3,SNR=3.5

*DDA **05** 15:32:44.7,37°.31N×42°.81E,h7km,Ml2.9*
*ISK **05** 15:32:46.2,37°.30N×42°.55E,h5km,MD2.6*
*CSEM **05** 15:32:47.9±0.5,37°.37N×42°.60E,h8km,MD2.6,Error ellipse: s-maj=16.0km s-min=6.9km az=12.0*
*ISCJB **05** 15:32:48.4±1.0,37°.39N±0°.06×42°.66E±0°.04,h1km±11km, Error ellipse: s-maj=11.0km s-min=5.3km az=13.8*
**ISC 05 15:32:48.0±1.0,37°.45N±0°.04×42°.65E±0°.02,h9km±8km, n18,σ1$69/29,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | | h m s | ISC |
| **SIRT** | **Sirnak** | **0.18** | **288** | *e*PG | | **Pg** | **15 32 51.2** | **-0.5** |
| SIRT | | | | *e*SG | | **Sg** | **15 32 55.8** | **+1.4** |
| **SIRT** | **Sirnak** | **0.18** | **288** | *e*Pg | | **Pg** | **15 32 51.2** | **-0.5** |
| SIRT | | | | *e*Sg | | **Sg** | **15 32 55.8** | **+1.4** |
| **CUKT** | **Cukurca** | **0.79** | **104** | *e*PG | | **Pb** | **15 33 03.6** | **-0.3** |
| CUKT | | | | *e*SG | | **Sn** | **15 33 16.1** | **-1.3** |
| **CUKT** | **Cukurca** | **0.79** | **104** | *i* P | | Pg | 15 32 57.6 | -5.5 |
| CUKT | | | | *i* S | | **Sn** | **15 33 20.1** | **+2.8** |
| **CUKT** | **Cukurca** | **0.79** | **104** | *e*Pg | | **Pb** | **15 33 03.6** | **-0.3** |
| CUKT | | | | *e*Sg | | **Sn** | **15 33 16.1** | **-1.3** |
| **SRTM** | **Siirt_Merkez** | **0.79** | **313** | *i* S | | **Sn** | **15 33 19.0** | **+1.5** |
| **SRTM** | **Siirt_Merkez** | **0.79** | **313** | S | | **Sn** | **15 33 19.0** | **+1.5** |
| **HAKT** | **HAKKARI** | **0.85** | **82** | *i* P | | **Pg** | **15 33 04.4** | **+0.1** |
| HAKT | | | | *i* S | | **Sn** | **15 33 19.0** | **0.0** |
| **HAKT** | **HAKKARI** | **0.85** | **82** | P | | **Pg** | **15 33 04.4** | **+0.1** |
| HAKT | | | | S | | **Sn** | **15 33 19.0** | **0.0** |
| **GEVA** | **Gevas** | **0.92** | **20** | *i* P | | **Pg** | **15 33 03.2** | **-2.5** |
| GEVA | | | | *i* S | | **Sg** | **15 33 19.0** | **+1.2** |
| **GEVA** | **Gevas** | **0.92** | **20** | P | | **Pg** | **15 33 03.2** | **-2.5** |
| GEVA | | | | S | | **Sg** | **15 33 19.0** | **+1.2** |
| **BTMN** | **Batman** | **1.18** | **292** | *i* P | | **Pn** | **15 33 11.3** | **+0.5** |
| BTMN | | | | *i* S | | **Sn** | **15 33 29.9** | **+2.9** |
| **BTMN** | **Batman** | **1.18** | **292** | P | | **Pn** | **15 33 11.3** | **+0.5** |
| BTMN | | | | S | | **Sn** | **15 33 29.9** | **+2.9** |
| **MARD** | **Mardin** | **1.50** | **265** | *i* P | | **Pg** | **15 33 14.8** | **-1.9** |
| MARD | | | | *i* S | | **Sg** | **15 33 37.4** | **+1.2** |
| **MAZI** | **Mazidag** | **1.75** | **271** | *e*PN | | **Pb** | **15 33 17.9** | **-2.5** |
| **MAZI** | **Mazidag** | **1.75** | **271** | *e*Pn | | **Pb** | **15 33 17.9** | **-2.5** |
| **AGRB** | **Hanur-Agry** | **2.14** | **7** | *e*PN | | **Pb** | **15 33 26.5** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **2.14** | **7** | *e*Pn | | **Pb** | **15 33 26.5** | **-0.6** |

**IDC 05 15:49:50.8±2.5,7°.07N×93°.91E,h0km,mb3.4/5,mb1 3.5/6, mb1mx3.4/37,mbtmp3.4/6,ML3.6/1,MS3.5/4,Ms1 3.5/4, ms1mx3.0/28,Error ellipse: s-maj=90.4km s-min=22.9km az=65.0,Nicobar Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | | h m s | ISC |
| **CMAR** | **Chiang Mai Arr** | **12.33** | **23** | Pn | | Pn | 15 52 48.8 | +1.0 |
| | 0.1nm,0.3s,baz=218,slow=14,SNR=4.4 | | | | | | | |
| **H08S3** | **Diego Garcia H** | **25.88** | **236** | T | | T | 16 22 05.7 | |
| | baz=58 | | | | | | | |
| **H08S2** | **Diego Garcia H** | **25.88** | **236** | T | | T | 16 22 14.7 | |
| | baz=58 | | | | | | | |
| **H08S1** | **Diego Garcia H** | **25.90** | **236** | T | | T | 16 22 19.1 | |
| | baz=58 | | | | | | | |
| **AAK** | **Ala-Archa** | **39.35** | **337** | LR | | LR | 16 14 16.1 | |
| | comp=Z,55nm,20.2s,baz=174,slow=37 | | | | | | | |
| **MKAR** | **Makanchi Array** | **40.82** | **348** | P | | P | 15 57 34.5 | +0.5 |
| | 0.2nm,0.6s,baz=160,slow=8.8,SNR=1.8 | | | | | | | |
| **SONM** | **Songino Array** | **41.99** | **13** | P | | P | 15 57 43.0 | -0.9 |
| | 0.4nm,0.6s,baz=186,slow=5.8,SNR=2.1 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **47.32** | **353** | P | | P | 15 58 25.7 | -0.4 |
| | 0.6nm,0.4s,baz=182,slow=8.9,SNR=4.5 | | | | | | | |
| **WRA** | **Warramunga Arr** | **47.99** | **125** | P | | P | 15 58 31.5 | -0.3 |
| | 0.4nm,0.9s,baz=305,slow=8.4,SNR=5.0 | | | | | | | |
| **ASAR** | **Alice Springs** | **49.59** | **129** | P | | P | 15 58 44.2 | +0.2 |
| | 0.4nm,0.9s,baz=300,slow=7.7,SNR=7.4 | | | | | | | |
| **AKTO** | **Aktyubinsk** | **52.54** | **332** | LR | | LR | 16 21 33.9 | |
| | comp=Z,37nm,19.1s,baz=154,slow=36 | | | | | | | |
| **ARU** | **Arti** | **56.53** | **337** | LR | | LR | 16 24 34.1 | |
| | comp=Z,43nm,18.9s,baz=188,slow=37 | | | | | | | |
| **KBZ** | **Khabaz** | **57.52** | **318** | LR | | LR | 16 26 28.4 | |
| | comp=Z,45nm,18.2s,baz=50,slow=38 | | | | | | | |

*ISCJB **05** 15:57:38.5±1.2,19°.4N±0°.1×107°.83W±0°.07,h10km, mb4.0/11,MS3.3/6,Error ellipse: s-maj=19.1km s-min=4.9km az=26.3*
*NEIC **05** 15:57:38.4±1.3,19°.16N×107°.93W,h10km,mb4.2/10, MD4.0(MEX),Error ellipse: s-maj=21.4km s-min=8.3km az=31.0*
*IDC **05** 15:57:38.4±3.8,19°.32N×108°.23W,h0km,mb3.6/3, mb1 3.9/5,mb1mx3.7/38,mbtmp3.7/5,ML3.8/2,MS3.4/11, Ms1 3.4/11,ms1mx3.2/24,Error ellipse: s-maj=73.3km s-min=42.9km az=27.0*
*MEX **05** 15:57:41.3±0.3,19°.49N×107°.91W,h10km,MD4.0*
**ISC 05 15:57:40.1±1.7,19°.4N±0°.2×107°.8W±0°.1,h10km,n38, σ1$48/31,mb4.1/11,MS3.2/6,Off coast of Jalisco**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | | h m s | ISC |
| **CJM** | **Chamela** | **2.64** | **88** | *e*P | | **Pn** | **15 58 22.0** | **-0.8** |
| CJM | | | | *e*S | | **Sn** | **15 58 53.7** | **-1.1** |
| **CJM** | **Chamela** | **2.64** | **88** | *e*P | | **Pn** | **15 58 22.0** | **-0.8** |
| CJM | | | | *e*S | | **Sn** | **15 58 53.7** | **-1.1** |
| **H06E1** | **SOCORRO T-PHAS** | **2.99** | **259** | T | | T | 16 00 47.9 | |
| | SNR=133 | | | | | | | |
| **H06N1** | **SOCORRO T-PHAS** | **3.03** | **260** | T | | T | 16 00 52.1 | |
| | SNR=30 | | | | | | | |
| **H06S1** | **SOCORRO T** | **3.03** | **258** | T | | T | 16 00 52.9 | |
| | SNR=21 | | | | | | | |
| **R15V** | | **3.65** | **93** | *e*P | | **Pn** | **15 58 36.4** | **-0.3** |
| R15V | | | | *e*S | | **Sn** | **15 59 19.0** | **-0.9** |
| **EZ5V** | | **4.00** | **88** | *e*P | | **Pn** | **15 58 40.6** | **-1.1** |
| EZ5V | | | | *e*S | | **Sn** | **15 59 28.4** | **-0.3** |
| **MMIG** | **Aquila** | **4.39** | **104** | *e*P | | **Pn** | **15 58 47.0** | **+0.1** |
| MMIG | | | | *i* S | | **Sn** | **15 59 38.8** | **+0.6** |
| **MMIG** | **Aquila** | **4.39** | **104** | *e*P | | **Pn** | **15 58 47.0** | **+0.1** |
| MMIG | | | | *i* S | | **Sn** | **15 59 38.8** | **+0.6** |
| **LPIG** | **La Paz** | **5.21** | **334** | LR | | LR | 16 00 35.0 | |
| | comp=Z,464nm,20.9s,baz=191,slow=34 | | | | | | | |
| **ZAIG** | **Zacatecas** | **5.95** | **55** | *e*Pn | | **Pn** | **15 59 10.5** | **+1.9** |
| **TLIG** | **Tlapa** | **8.98** | **100** | *e*Pn | | **Pn** | **15 59 48.2** | **-1.9** |
| **TXAR** | **Lajitas Array** | **10.59** | **20** | Pn | | **Pn** | **16 00 15.1** | **+3.0** |
| | 0.2nm,0.3s,baz=204,slow=13,SNR=10 | | | | | | | |
| TXAR | | | | LR | | LR | 16 04 00.7 | |
| | comp=Z,116nm,18.9s,baz=0.0,slow=35 | | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **10.59** | **20** | *e*Pn | | **Pn** | **16 00 13.7** | **+1.7** |
| **CMIG** | **Matias Romero** | **12.52** | **99** | Pn | | **Pn** | **16 00 42.6** | **+4.2** |
| | 0.4nm,0.3s,baz=300,slow=8.9,SNR=5.4 | | | | | | | |
| CMIG | | | | LR | | LR | 16 05 25.5 | |
| | comp=Z,194nm,18.2s,baz=266,slow=36 | | | | | | | |
| **LAZ** | **Ladron** | **14.95** | **2** | *e*Pn | | **Pn** | **16 01 09.8** | **-2.0** |
| **ANMO** | **Albuquerque** | **15.53** | **4** | LR | | LR | 16 06 55.9 | |
| | comp=Z,63nm,19.2s,baz=48,slow=36 | | | | | | | |
| **PFO** | **Pinyon Flats O** | **16.11** | **333** | LR | | LR | 16 06 51.0 | |
| | comp=Z,247nm,19.1s,baz=140,slow=34 | | | | | | | |
| **WUAZ** | **Wupatki** | **16.35** | **350** | *e*Pn | | **Pn** | **16 01 29.8** | **-0.2** |
| | 6.8nm,1.0s | | | | | | | |
| **WHAR** | **Wooly Hollow** | **20.96** | **38** | *e*P | | **P** | **16 02 22.8** | **-0.5** |
| | 12nm,1.0s | | | | | | | |
| **DUG** | **Dugway, Tooele** | **21.16** | **349** | P | | **P** | **16 02 27.4** | **+1.8** |
| | 6.3nm,1.2s | | | | | | | |
| **N23A** | **Red Feather La** | **21.48** | **4** | *e*P | | **P** | **16 02 29.1** | **0.0** |
| | 7.7nm,1.0s | | | | | | | |
| **WAKR** | **Walker** | **21.53** | **335** | *e*P | | **P** | **16 02 28.7** | **-1.0** |
| | 11nm,1.2s | | | | | | | |
| **TCUT** | **Toone Canyon** | **21.86** | **353** | *e*P | | **P** | **16 02 35.1** | **+2.0** |
| | 29nm,1.5s | | | | | | | |
| **YERR** | **Yerington** | **21.87** | **336** | *e*P | | **P** | **16 02 34.5** | **+1.2** |
| | 9.0nm,1.1s | | | | | | | |
| **PDAR** | **Pinedale Array** | **23.34** | **357** | P | | **P** | **16 02 49.5** | **+0.8** |
| | 0.5nm,0.7s,baz=163,slow=9.4,SNR=5.4 | | | | | | | |
| PDAR | | | | LR | | LR | 16 11 48.8 | |
| | comp=Z,101nm,18.2s,baz=172,slow=36 | | | | | | | |
| **REDW** | **Red Top Meadow** | **24.02** | **355** | *e*P | | **P** | **16 02 56.3** | **+0.9** |
| | 10nm,1.5s | | | | | | | |
| **FXWY** | **Fox Creek** | **24.31** | **354** | *e*P | | **P** | **16 02 58.6** | **+0.5** |
| | 12nm,1.8s | | | | | | | |
| **HLID** | **Hailey** | **24.71** | **349** | *e*P | | **P** | **16 03 02.8** | **+1.1** |
| | 6.4nm,1.3s | | | | | | | |
| **YBH** | **Yreka Blue Hor** | **25.60** | **334** | LR | | LR | 16 12 33.7 | |
| | comp=Z,95nm,18.2s,baz=172,slow=35 | | | | | | | |
| **TKL** | **Tuckaleechee C** | **26.68** | **48** | LR | | LR | 16 16 00.6 | |
| | comp=Z,51nm,18.6s,baz=250,slow=41 | | | | | | | |
| **NEW** | **Newport** | **29.76** | **347** | LR | | LR | 16 14 08.3 | |
| | comp=Z,39nm,18.8s,baz=206,slow=33 | | | | | | | |
| **INK** | **Inuvik** | **51.48** | **348** | P | | **P** | **16 06 45.6** | **+0.2** |
| | 2.5nm,0.9s,baz=130,slow=6.3,SNR=6.0 | | | | | | | |
| **ILAR** | **Eielson Array** | **52.23** | **340** | P | | **P** | **16 06 50.0** | **-1.0** |
| | 0.6nm,0.7s,baz=148,slow=6.5,SNR=10.0 | | | | | | | |
| **PPT** | **Papeete** | **55.05** | **231** | LR | | LR | 16 25 30.8 | |
| | comp=Z,18nm,19.4s,baz=176,slow=31 | | | | | | | |
| **PPT2** | **Papeete2** | **55.07** | **231** | *e*LR | | LR | 16 22 44.3 | |
| | 136nm,27.2s | | | | | | | |
| **NOA** | **NORSAR Array B** | **86.25** | **25** | LR | | LR | 16 48 46.9 | |
| | comp=Z,24nm,19.3s,baz=75,slow=36 | | | | | | | |
| **DZM** | **Mont Dzumac** | **93.33** | **248** | *e*LR | | LR | 16 40 42.0 | |
| | 118nm,26.4s | | | | | | | |

**IDC 05 15:59:11.6±7.1,2°.62N×94°.88W,h0km,mb3.6/5, mb1 3.9/5,mb1mx3.7/37,mbtmp3.6/5,MS3.4/6,Ms1 3.4/6, ms1mx3.1/17,Error ellipse: s-maj=371.9km s-min=143.5km az=75.0,Galapagos Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | | h m s | ISC |
| **H06E1** | **SOCORRO T-PHAS** | **22.47** | **317** | T | | T | 16 26 56.3 | |
| | SNR=4.3 | | | | | | | |
| **NNA** | **Nana** | **23.06** | **129** | LR | | LR | 16 11 29.3 | |
| | comp=Z,76nm,18.1s,baz=288,slow=32 | | | | | | | |
| **SDV** | **Santo Domingo** | **24.90** | **75** | LR | | LR | 16 12 53.6 | |
| | comp=Z,43nm,21.0s,baz=338,slow=33 | | | | | | | |
| **TXAR** | **Lajitas Array** | **27.85** | **343** | P | | P | 16 05 03.3 | +0.2 |
| | 0.3nm,0.6s,baz=162,slow=9.5,SNR=3.1 | | | | | | | |
| TXAR | | | | LR | | LR | 16 15 00.2 | |
| | comp=Z,71nm,20.6s,baz=0.0,slow=34 | | | | | | | |
| **LPAZ** | **La Paz** | **32.43** | **126** | LR | | LR | 16 16 47.5 | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| | comp=Z,38nm,22.0s,baz=312,slow=33 | | | | | | |
| **PDAR** | **Pinedale Array** | **42.07** | **344** | P | P | 16 07 05.6 | 0.0 |
| | 0.7nm,0.9s,baz=151,slow=6.4,SNR=5.0 | | | | | | |
| PDAR | | | | LR | LR | 16 24 05.1 | |
| | comp=Z,134nm,18.1s,baz=154,slow=36 | | | | | | |
| **PLCA** | **Paso Flores** | **48.53** | **155** | LR | LR | 16 24 02.4 | |
| | comp=Z,62nm,18.7s,baz=322,slow=31 | | | | | | |
| **YKA** | **Yellowknife Ar** | **61.52** | **350** | P | P | 16 09 29.1 | -1.1 |
| | 0.4nm,0.7s,baz=158,slow=7.1,SNR=2.4 | | | | | | |
| **INK** | **Inuvik** | **70.60** | **346** | P | P | 16 10 30.4 | +2.0 |
| | 0.9nm,0.6s,baz=154,slow=4.2,SNR=3.5 | | | | | | |
| **ILAR** | **Eielson Array** | **72.27** | **339** | P | P | 16 10 37.4 | -1.2 |
| | 0.5nm,0.9s,baz=116,slow=6.1,SNR=4.1 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **97.15** | **289** | T | T | 18 00 07.5 | |
| | baz=85,slow=74,SNR=10 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **97.15** | **289** | T | T | 18 00 06.8 | |
| | baz=85,slow=74,SNR=5.6 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **97.17** | **289** | T | T | 18 00 12.9 | |
| | baz=85,slow=74,SNR=6.2 | | | | | | |

---

*ISCJB **05** 16:01:57.9±0.2, 45°.66N±0°.01×10°.50E±0°.02, h10km, Error ellipse: s-maj=2.0km s-min=1.5km az=162.5*
*VIE **05** 16:01:59.8±0.5, 45°.69N×10°.65E, h6km±2km, mb2.5/12, ML3.1/18, Error ellipse: s-maj=3.1km s-min=2.3km az=29.0*
*CSEM **05** 16:01:59.1±0.1, 45°.65N×10°.59E, h15km, ML3.2/28, Error ellipse: s-maj=2.3km s-min=1.8km az=160.0*
*LDG **05** 16:01:59.5±0.1, 45°.66N×10°.71E, h10km, Ml3.0/19, Error ellipse: s-maj=3.0km s-min=2.4km az=175.0*
*ROM **05** 16:01:59.8±0.1, 45°.64N×10°.63E, h22km±1km, Ml3.1/20, Error ellipse: s-maj=1.5km s-min=1.0km az=39.0*
*PRU **05** 16:02:00.8, 45°.69N×10°.68E, h13km*
*GEN **05** 16:02:00.2, 45°.67N×10°.59E, h19km, ML3.0*
**ISC 05 16:01:59.1**±0.7**, 45°.66N**±0°.01×**10°.63E**±0°.01**, h10km, n199,** σ**2.05**/291**, 14C-14D, Northern Italy**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SALO** | **Salr** | **0.09** | **240** | ⇑iPg | **Pg** | **16 02 03.7** | **+2.1** |
| SALO | | | | Sg | **Sg** | **16 02 07.3** | **+3.9** |
| | 5µm,0.2s | | | | | | |
| **SALO** | **Salr** | **0.09** | **240** | ⇑iPg | **Pg** | **16 02 03.7** | **+2.1** |
| SALO | | | | Sg | **Sg** | **16 02 07.3** | **+3.9** |
| | 5µm,0.2s | | | | | | |
| **MAGA** | **Magasa** | **0.11** | **358** | ⇑iPg | **Pg** | **16 02 04.4** | **+2.4** |
| MAGA | | | | Sg | **Sg** | **16 02 08.0** | **+3.9** |
| | 5µm,0.3s | | | | | | |
| **MAGA** | **Magasa** | **0.11** | **358** | ⇑iPg | **Pg** | **16 02 04.4** | **+2.4** |
| MAGA | | | | Sg | **Sg** | **16 02 08.0** | **+3.9** |
| | 5µm,0.3s | | | | | | |
| **BALD** | **Monte Baldo** | **0.13** | **81** | ⇓ePg | **Pg** | **16 02 04.7** | **+2.4** |
| BALD | | | | eSg | **Sg** | **16 02 08.3** | **+3.7** |
| **BALD** | **Monte Baldo** | **0.13** | **81** | ePg | **Pg** | **16 02 04.7** | **+2.4** |
| BALD | | | | eSg | **Sg** | **16 02 08.3** | **+3.7** |
| **ROVR** | **Rover^¤ Verone** | **0.31** | **93** | ⇓iPg | **Pg** | **16 02 06.8** | **+1.5** |
| ROVR | | | | Sg | **Sb** | **16 02 11.8** | **-0.1** |
| | 2µm,0.2s | | | | | | |
| **ROVR** | **Rover^¤ Verone** | **0.31** | **93** | ⇓iPg | **Pg** | **16 02 06.8** | **+1.5** |
| ROVR | | | | Sg | **Sb** | **16 02 11.8** | **-0.1** |
| | 2µm,0.2s | | | | | | |
| **RNI** | **Roncone** | **0.32** | **359** | ⇓ePg | **Pg** | **16 02 07.3** | **+1.8** |
| RNI | | | | eSg | **Sb** | **16 02 13.0** | **+0.7** |
| **RNI** | **Roncone** | **0.32** | **359** | ePg | **Pg** | **16 02 07.3** | **+1.8** |
| **MABI** | **Malga Bissina** | **0.40** | **348** | ⇓iPg | **Pg** | **16 02 08.7** | **+1.6** |
| MABI | | | | Sg | **Sb** | **16 02 14.8** | **+0.1** |
| | 706nm,0.3s | | | | | | |
| **MABI** | **Malga Bissina** | **0.40** | **348** | ⇓iPg | **Pg** | **16 02 08.7** | **+1.6** |
| MABI | | | | Sg | **Sb** | **16 02 14.8** | **+0.1** |
| | 706nm,0.3s | | | | | | |
| **MARN** | **Marana (Italy)** | **0.41** | **93** | ⇓ePg | **Pg** | **16 02 08.2** | **+1.1** |
| MARN | | | | eSg | **Sb** | **16 02 14.8** | **+0.2** |
| **MARN** | **Marana (Italy)** | **0.41** | **93** | ePg | **Pg** | **16 02 08.2** | **+1.1** |
| MARN | | | | eSg | **Sb** | **16 02 14.8** | **+0.2** |
| **DDS** | **Dosso del Somm** | **0.45** | **61** | ⇓ePg | **Pg** | **16 02 09.3** | **+1.4** |
| DDS | | | | eSg | **Sb** | **16 02 15.9** | **0.0** |
| **DDS** | **Dosso del Somm** | **0.45** | **61** | ePg | **Pg** | **16 02 09.3** | **+1.4** |
| DDS | | | | eSg | **Sb** | **16 02 15.9** | **0.0** |
| **PANI** | **Panarotta** | **0.62** | **51** | ⇑ePg | **Pg** | **16 02 12.4** | **+1.2** |
| PANI | | | | eSg | **Sb** | **16 02 21.4** | **+0.2** |
| **GAZZ** | **Gazzo Veronese** | **0.64** | **149** | ⇓ePg | **Pg** | **16 02 12.2** | **+0.8** |
| GAZZ | | | | eSg | **Sb** | **16 02 22.5** | **+1.2** |
| **GAZZ** | **Gazzo Veronese** | **0.64** | **149** | ePg | **Pg** | **16 02 12.2** | **+0.8** |
| GAZZ | | | | eSg | **Sb** | **16 02 22.5** | **+1.2** |
| **SBPO** | **S.Benedetto Po** | **0.65** | **162** | Pg | **Pg** | **16 02 12.3** | **+0.8** |
| | 1µm,0.2s | | | | | | |
| **SBPO** | **S.Benedetto Po** | **0.65** | **162** | Pg | **Pg** | **16 02 12.3** | **+0.8** |
| | 1µm,0.2s | | | | | | |
| **CARE** | **Lago del Cares** | **0.76** | **3** | ⇑ePg | **Pg** | **16 02 15.2** | **+1.3** |
| CARE | | | | eSg | **Sb** | **16 02 25.7** | **+0.5** |
| **CARE** | **Lago del Cares** | **0.76** | **3** | ePg | **Pg** | **16 02 15.2** | **+1.3** |
| CARE | | | | eSg | **Sb** | **16 02 25.7** | **+0.5** |
| **TEOL** | **Teolo** | **0.79** | **112** | Pg | **Pg** | **16 02 14.4** | **+0.1** |
| TEOL | | | | Sg | **Sg** | **16 02 25.7** | **+1.1** |
| **TEOL** | **Teolo** | **0.79** | **112** | ⇓ePg | **Pg** | **16 02 14.4** | **+0.1** |
| TEOL | | | | eSg | **Sg** | **16 02 25.4** | **+0.9** |
| **TEOL** | **Teolo** | **0.79** | **112** | Pg | **Pg** | **16 02 14.4** | **+0.1** |
| TEOL | | | | Sg | **Sg** | **16 02 25.7** | **+1.1** |
| **OZOL** | **Ozolo** | **0.80** | **21** | ⇓ePg | **Pg** | **16 02 15.6** | **+1.1** |
| **OZOL** | **Ozolo** | **0.80** | **21** | ePg | **Pg** | **16 02 15.6** | **+1.1** |
| **BRMO** | **Bormio** | **0.83** | **348** | Pg | **Pg** | **16 02 16.2** | **+1.0** |
| BRMO | | | | Sg | **Sg** | **16 02 27.5** | **+1.4** |
| | 272nm,0.4s | | | | | | |
| **BRMO** | **Bormio** | **0.83** | **348** | Pg | **Pg** | **16 02 16.2** | **+1.0** |
| BRMO | | | | Sg | **Sg** | **16 02 27.5** | **+1.4** |
| | 272nm,0.4s | | | | | | |
| **CGRP** | **Cima Grappa** | **0.84** | **75** | Pg | **Pg** | **16 02 16.0** | **+0.6** |
| CGRP | | | | Sg | **Sb** | **16 02 27.8** | **+0.3** |
| | 563nm,0.3s | | | | | | |
| **CGRP** | **Cima Grappa** | **0.84** | **75** | ⇑ePg | **Pg** | **16 02 16.0** | **+0.6** |
| CGRP | | | | eSg | **Sb** | **16 02 27.7** | **+0.3** |
| **CGRP** | **Cima Grappa** | **0.84** | **75** | Pg | **Pg** | **16 02 16.0** | **+0.6** |
| CGRP | | | | Sg | **Sb** | **16 02 27.8** | **+0.3** |
| | 563nm,0.3s | | | | | | |
| **BERNI** | **Berninapass** | **0.86** | **331** | Pg | **Pg** | **16 02 16.6** | **+0.8** |
| BERNI | | | | Sg | **Sg** | **16 02 28.4** | **+1.4** |
| **BERNI** | **Berninapass** | **0.86** | **331** | Pg | **Pg** | **16 02 16.6** | **+0.8** |
| BERNI | | | | Sg | **Sg** | **16 02 28.4** | **+1.4** |
| **NOVE** | **Novellara** | **0.87** | **176** | Pg | **Pg** | **16 02 16.0** | **+0.2** |
| | 2µm,0.5s | | | | | | |
| **NOVE** | **Novellara** | **0.87** | **176** | Pg | **Pg** | **16 02 16.0** | **+0.2** |
| | 2µm,0.5s | | | | | | |
| **APPI** | **Appiano** | **0.92** | **27** | Pg | **Pg** | **16 02 17.8** | **+1.1** |
| | 748nm,0.4s | | | | | | |
| **APPI** | **Appiano** | **0.92** | **27** | Pg | **Pg** | **16 02 17.8** | **+1.1** |
| | 748nm,0.4s | | | | | | |
| **KOSI** | **Kohlern** | **0.95** | **33** | ⇑iPg | **Pg** | **16 02 18.4** | **+0.9** |
| | 310nm,0.2s | | | | | | |
| **KOSI** | **Kohlern** | **0.95** | **33** | ⇑iPg | **Pg** | **16 02 18.4** | **+0.9** |
| | 310nm,0.2s | | | | | | |
| **MOSI** | **Grossmontoni** | **0.95** | **357** | Pg | **Pg** | **16 02 18.1** | **+0.6** |
| | 687nm,0.3s | | | | | | |
| **MOSI** | **Grossmontoni** | **0.95** | **357** | Pg | **Pg** | **16 02 18.1** | **+0.6** |
| | 687nm,0.3s | | | | | | |
| **RAVA** | **Ravarino** | **0.97** | **159** | Pg | **Pg** | **16 02 18.0** | **+0.3** |
| **RAVA** | **Ravarino** | **0.97** | **159** | Pg | **Pg** | **16 02 18.0** | **+0.3** |
| **FUORN** | **Ofenpass-Fuorn** | **0.99** | **345** | Pg | **Pg** | **16 02 18.9** | **+0.7** |
| | 174nm,0.4s | | | | | | |
| **FUORN** | **Ofenpass-Fuorn** | **0.99** | **345** | Pg | **Pg** | **16 02 18.9** | **+0.7** |
| | 174nm,0.4s | | | | | | |
| **MTLO** | **Montello** | **1.03** | **81** | ePg | **Pg** | **16 02 19.2** | **+0.2** |
| **MTLO** | **Montello** | **1.03** | **81** | ePg | **Pg** | **16 02 19.2** | **+0.2** |
| **VARN** | **Col Varnada, M** | **1.08** | **72** | ⇑ePg | **Pg** | **16 02 19.5** | **-0.4** |
| **VARN** | **Col Varnada, M** | **1.08** | **72** | ePg | **Pg** | **16 02 19.5** | **-0.4** |
| **FAU** | **Forcella Aurin** | **1.10** | **58** | ePg | **Pg** | **16 02 20.6** | **+0.4** |
| **FAU** | **Forcella Aurin** | **1.10** | **58** | ePg | **Pg** | **16 02 20.6** | **+0.4** |
| **MUGIO** | **Muggio** | **1.14** | **284** | Pg | **Pb** | **16 02 19.8** | **-1.2** |
| | 204nm,0.3s | | | | | | |
| **MUGIO** | **Muggio** | **1.14** | **284** | Pg | **Pb** | **16 02 19.8** | **-1.2** |
| | 204nm,0.3s | | | | | | |
| **AGOR** | **Agordo** | **1.16** | **57** | ⇑iPg | **Pb** | **16 02 21.7** | **+0.4** |
| | 397nm,0.5s | | | | | | |
| **AGOR** | **Agordo** | **1.16** | **57** | ⇑ePg | **Pb** | **16 02 21.7** | **+0.4** |
| **ABSI** | **Aberstueckl** | **1.17** | **24** | Pg | **Pg** | **16 02 21.4** | **-0.1** |
| | 505nm,0.6s | | | | | | |
| **ABSI** | **Aberstueckl** | **1.17** | **24** | Pg | **Pg** | **16 02 21.4** | **-0.1** |
| | 505nm,0.6s | | | | | | |
| **TUE** | **Stuetta** | **1.21** | **313** | Pg | **Pb** | **16 02 22.1** | **-0.1** |
| | 220nm,0.2s | | | | | | |
| **TUE** | **Stuetta** | **1.21** | **313** | Pg | **Pb** | **16 02 22.1** | **-0.1** |
| | 220nm,0.2s | | | | | | |
| **DAVOX** | **Davos/Dischmat** | **1.23** | **335** | Pg | **Pb** | **16 02 23.1** | **+0.5** |
| | 118nm,0.4s | | | | | | |
| **DAVOX** | **Davos/Dischmat** | **1.23** | **335** | Pg | **Pb** | **16 02 23.1** | **+0.5** |
| | 118nm,0.4s | | | | | | |
| **GRAM** | **Graiana** | **1.24** | **199** | P | **Pn** | **16 02 21.8** | **-0.7** |
| **CAE** | **Caneva** | **1.31** | **74** | ⇑ePg | **Pn** | **16 02 22.8** | **-0.7** |
| **CAE** | **Caneva** | **1.31** | **74** | ePg | **Pn** | **16 02 22.8** | **-0.7** |
| **VARE** | **Varese** | **1.32** | **280** | Pg | **Pn** | **16 02 23.0** | **-0.7** |
| | 213nm,0.4s | | | | | | |
| **VARE** | **Varese** | **1.32** | **280** | Pg | **Pn** | **16 02 23.0** | **-0.7** |
| | 213nm,0.4s | | | | | | |
| **CSO** | **Casso** | **1.33** | **62** | ⇑ePg | **Pn** | **16 02 23.4** | **-0.4** |
| **CSO** | **Casso** | **1.33** | **62** | ePg | **Pn** | **16 02 23.4** | **-0.4** |
| **FETA** | **Feichten** | **1.36** | **3** | Pg | **Pn** | **16 02 25.8** | **+1.5** |
| | 6.2nm,0.2s,SNR=22 | | | | | | |
| FETA | | | | Sg | **Sn** | **16 02 43.4** | **+0.9** |
| | 26nm,0.2s | | | | | | |
| **ROSI** | **Rosskopf** | **1.38** | **23** | Pg | **Pn** | **16 02 25.2** | **+0.7** |
| | 284nm,0.3s | | | | | | |
| **ROSI** | **Rosskopf** | **1.38** | **23** | Pg | **Pn** | **16 02 25.2** | **+0.7** |
| | 284nm,0.3s | | | | | | |
| **CIMO** | **Cimolais** | **1.42** | **62** | ePg | **Pn** | **16 02 24.7** | **-0.2** |
| **CIMO** | **Cimolais** | **1.42** | **62** | ePg | **Pn** | **16 02 24.7** | **-0.2** |
| **MLNI** | **Malnisio** | **1.46** | **70** | Pg | **Pn** | **16 02 25.8** | **+0.2** |
| **MLNI** | **Malnisio** | **1.46** | **70** | Pg | **Pn** | **16 02 25.8** | **+0.2** |
| **SARO** | **Sassorosso** | **1.49** | **186** | P | **Pn** | **16 02 26.2** | **+0.2** |
| SARO | | | | S | **Sn** | **16 02 46.8** | **+1.3** |
| **STAL** | **STALIGIAL** | **1.57** | **67** | Pg | **Pn** | **16 02 26.6** | **-0.4** |
| | 336nm,0.3s | | | | | | |
| **SQTA** | **Sankt Quirin** | **1.61** | **14** | Pn | **Pn** | **16 02 29.1** | **+1.4** |
| **POPM** | **Popiglio** | **1.62** | **177** | P | **Pn** | **16 02 29.2** | **+1.5** |
| **RISI** | **Rein** | **1.63** | **37** | Pg | **Pn** | **16 02 28.2** | **+0.2** |
| | 430nm,0.4s | | | | | | |
| **CSMI** | **Casera Mimoias** | **1.64** | **58** | Pg | **Pn** | **16 02 28.5** | **+0.3** |
| **CSMI** | **Casera Mimoias** | **1.64** | **58** | Pg | **Pn** | **16 02 28.5** | **+0.3** |
| **ABTA** | **Abfaltersbach** | **1.70** | **50** | Pn | **Pn** | **16 02 30.0** | **+1.2** |
| | 9.6nm,0.2s,SNR=24 | | | | | | |
| ABTA | | | | Sn | **Sb** | **16 02 52.7** | **+0.8** |
| | 32nm,0.2s | | | | | | |
| **DAVA** | **Damuels** | **1.71** | **342** | Pn | **Pn** | **16 02 30.6** | **+1.6** |
| | 2.0nm,0.2s | | | | | | |
| DAVA | | | | Sg | **Sg** | **16 02 54.6** | **+0.7** |
| | 43nm,0.3s | | | | | | |
| **MOTA** | **Moosalm** | **1.71** | **11** | Pn | **Pn** | **16 02 30.8** | **+1.7** |
| | 7.9nm,0.2s,SNR=16 | | | | | | |
| MOTA | | | | Sg | **Sg** | **16 02 55.4** | **+1.2** |
| | 14nm,0.2s | | | | | | |
| **WTTA** | **Wattenberg** | **1.74** | **23** | Pn | **Pn** | **16 02 30.7** | **+1.1** |
| | 5.3nm,0.1s | | | | | | |
| WTTA | | | | Sg | **Sg** | **16 02 55.6** | **+0.4** |
| | 25nm,0.3s,SNR=7.3 | | | | | | |
| **MAIM** | **Mastiano** | **1.75** | **183** | P | **Pn** | **16 02 29.5** | **0.0** |
| **WATA** | **Walderalm** | **1.79** | **21** | Pn | **Pn** | **16 02 31.0** | **+0.7** |
| | 7.9nm,0.1s,SNR=10 | | | | | | |
| WATA | | | | Sg | **Sg** | **16 02 57.8** | **+1.0** |
| | 18nm,0.2s | | | | | | |
| **FUSE** | **Fusea** | **1.81** | **65** | ePn | **Pn** | **16 02 30.5** | **+0.1** |
| **FUSE** | **Fusea** | **1.81** | **65** | ePn | **Pn** | **16 02 30.5** | **+0.1** |
| **RETA** | **Reutte** | **1.83** | **3** | Pn | **Pn** | **16 02 32.1** | **+1.5** |
| | 4.3nm,0.2s | | | | | | |
| RETA | | | | Sn | **Sb** | **16 02 56.1** | **+0.5** |
| | 23nm,0.4s | | | | | | |
| **BOO** | **Bordano** | **1.84** | **68** | ePn | **Pn** | **16 02 30.3** | **-0.5** |
| **BOO** | **Bordano** | **1.84** | **68** | ePn | **Pn** | **16 02 30.3** | **-0.5** |
| **PCP** | **Piancastagn** | **1.86** | **234** | P | **Pn** | **16 02 30.0** | **-1.0** |
| PCP | | | | S | **Sn** | **16 02 53.6** | **-0.9** |
| **ZOU** | **Zoufplan** | **1.86** | **60** | ⇓ePn | **Pn** | **16 02 31.5** | **+0.4** |
| **ZOU** | **Zoufplan** | **1.86** | **60** | ⇓ePn | **Pn** | **16 02 31.5** | **+0.4** |
| **ZOU** | **Zoufplan** | **1.86** | **60** | ePn | **Pn** | **16 02 31.5** | **+0.4** |
| **VINO** | **Villanova** | **1.94** | **71** | ⇓ePn | **Pn** | **16 02 31.5** | **-0.6** |
| **VINO** | **Villanova** | **1.94** | **71** | ePn | **Pn** | **16 02 31.5** | **-0.6** |
| **SATI** | **Passo dei Sala** | **1.95** | **277** | P | **Pn** | **16 02 32.6** | **+0.1** |
| SATI | | | | S | **Sn** | **16 02 55.3** | **-1.9** |
| **SABO** | **M.te Sabotino** | **2.10** | **80** | ePn | **Pn** | **16 02 33.9** | **-0.4** |
| **SABO** | **M.te Sabotino** | **2.10** | **80** | ePn | **Pn** | **16 02 33.9** | **-0.4** |
| **CIRO** | **Champorcher** | **2.15** | **269** | P | **Pn** | **16 02 37.6** | **+2.3** |
| **DRE** | **Drenchia** | **2.16** | **75** | ePn | **Pn** | **16 02 35.2** | **0.0** |
| **DRE** | **Drenchia** | **2.16** | **75** | ePn | **Pn** | **16 02 35.2** | **0.0** |
| **ACOM** | **Acomizza, Ital** | **2.19** | **65** | ePn | **Pn** | **16 02 36.1** | **+0.5** |
| **ACOM** | **Acomizza, Ital** | **2.19** | **65** | ePn | **Pn** | **16 02 36.2** | **+0.5** |
| **MYKA** | **Terra Mystica** | **2.30** | **64** | Pn | **Pn** | **16 02 37.4** | **+0.2** |
| | 0.6nm,0.1s | | | | | | |
| MYKA | | | | Sg | **Sg** | **16 03 12.8** | **-0.3** |
| | 17nm,0.2s | | | | | | |
| **KBA** | **Koelnbreinsper** | **2.35** | **52** | Pn | **Pn** | **16 02 39.2** | **+1.3** |
| | 6.7nm,0.2s | | | | | | |
| **LPG** | **La Plagne** | **2.73** | **268** | ePn | **Pn** | **16 02 42.9** | **-0.3** |
| | SNR=1.0 | | | | | | |
| **LPG** | **La Plagne** | **2.73** | **268** | ePg | **Pb** | **16 02 51.8** | **+3.6** |
| LPG | | | | eSn | **Sn** | **16 03 13.5** | **-3.0** |
| | 11nm,0.3s,SNR=1.0 | | | | | | |
| LPG | | | | eSg | **Sg** | **16 03 27.2** | **+0.4** |
| | 20nm,0.3s | | | | | | |
| **LPG** | **La Plagne** | **2.73** | **268** | ePn | **Pn** | **16 02 42.9** | **-0.3** |
| | SNR=1.0 | | | | | | |
| **LPG** | **La Plagne** | **2.73** | **268** | ePg | **Pb** | **16 02 51.8** | **+3.6** |
| LPG | | | | eSn | **Sn** | **16 03 13.5** | **-3.0** |
| | 5.3nm,0.3s,SNR=1.0 | | | | | | |
| LPG | | | | eSg | **Sg** | **16 03 27.2** | **+0.4** |
| | 10nm,0.3s | | | | | | |
| **LPL** | **La Plagne** | **2.74** | **268** | ePn | **Pn** | **16 02 42.9** | **-0.5** |
| | SNR=1.0 | | | | | | |
| **LPL** | **La Plagne** | **2.74** | **268** | ePg | **Pb** | **16 02 52.1** | **+3.8** |
| **LPL** | **La Plagne** | **2.74** | **268** | ePn | **Pn** | **16 02 42.9** | **-0.5** |
| | SNR=1.0 | | | | | | |
| **LPL** | **La Plagne** | **2.74** | **268** | ePg | **Pb** | **16 02 52.1** | **+3.8** |
| **OBKA** | **Obir** | **2.85** | **71** | Pn | **Pn** | **16 02 44.7** | **0.0** |
| | 1.0nm,0.1s | | | | | | |
| OBKA | | | | Sg | **Sg** | **16 03 30.6** | **-0.1** |
| | 24nm,0.3s | | | | | | |
| **MBDF** | **Montbardon** | **2.89** | **252** | ePn | **Pn** | **16 02 43.2** | **-2.1** |
| | SNR=1.0 | | | | | | |
| MBDF | | | | eSn | **Sn** | **16 03 17.4** | **-2.7** |
| | 13nm,0.2s,SNR=1.0 | | | | | | |
| **MBDF** | **Montbardon** | **2.89** | **252** | ePn | **Pn** | **16 02 43.2** | **-2.1** |
| | SNR=1.0 | | | | | | |
| MBDF | | | | eSn | **Sn** | **16 03 17.4** | **-2.7** |
| | 6.4nm,0.2s,SNR=1.0 | | | | | | |
| **SBF** | **Sospel** | **2.90** | **233** | ePn | **Pn** | **16 02 44.0** | **-1.4** |
| | SNR=1.0 | | | | | | |
| **SBF** | **Sospel** | **2.90** | **233** | ePg | **Pb** | **16 02 54.0** | **+3.0** |
| SBF | | | | eSg | **Sb** | **16 03 29.9** | **+3.3** |
| | 33nm,0.2s | | | | | | |
| **SBF** | **Sospel** | **2.90** | **233** | ePn | **Pn** | **16 02 44.0** | **-1.4** |
| | SNR=1.0 | | | | | | |
| **SBF** | **Sospel** | **2.90** | **233** | ePg | **Pb** | **16 02 54.0** | **+3.0** |
| SBF | | | | eSg | **Sb** | **16 03 29.9** | **+3.3** |
| | 16nm,0.2s | | | | | | |
| **CABF** | **La Chapelle** | **3.30** | **288** | ePn | **Pn** | **16 02 50.1** | **-0.8** |
| | SNR=1.0 | | | | | | |
| **CABF** | **La Chapelle** | **3.30** | **288** | ePg | **Pb** | **16 03 01.5** | **+3.8** |
| **CABF** | **La Chapelle** | **3.30** | **288** | ePn | **Pn** | **16 02 50.1** | **-0.8** |
| | SNR=1.0 | | | | | | |
| **CABF** | **La Chapelle** | **3.30** | **288** | ePg | **Pb** | **16 03 01.5** | **+3.8** |
| **MOA** | **Molln** | **3.32** | **47** | Pn | **Pn** | **16 02 51.9** | **+0.8** |
| | 1.4nm,0.1s | | | | | | |
| MOA | | | | Sn | **Sn** | **16 03 32.8** | **+2.2** |
| | 2.6nm,0.2s | | | | | | |
| **PGF** | **Pioggiola** | **3.33** | **201** | ePn | **Pn** | **16 02 49.7** | **-1.6** |
| **PGF** | **Pioggiola** | **3.33** | **201** | ePn | **Pn** | **16 02 49.7** | **-1.6** |
| **HINF** | **Hinteralfeld** | **3.38** | **311** | ePn | **Pn** | **16 02 50.7** | **-1.2** |
| HINF | | | | eSn | **Sn** | **16 03 28.7** | **-3.3** |
| | 6.1nm,0.2s | | | | | | |
| HINF | | | | eSg | **Sg** | **16 03 46.5** | **-1.0** |
| **HINF** | **Hinteralfeld** | **3.38** | **311** | ePn | **Pn** | **16 02 50.7** | **-1.2** |
| HINF | | | | eSn | **Sn** | **16 03 28.7** | **-3.3** |
| | 3.0nm,0.2s | | | | | | |
| HINF | | | | eSg | **Sg** | **16 03 46.5** | **-1.0** |
| **OZLJ** | **Ozalj** | **3.39** | **89** | ePn | **Pn** | **16 02 51.4** | **-0.6** |
| OZLJ | | | | Sn | **Sn** | **16 03 29.6** | **-2.7** |
| **OZLJ** | **Ozalj** | **3.39** | **89** | ePn | **Pn** | **16 02 51.4** | **-0.6** |
| OZLJ | | | | Sn | **Sn** | **16 03 29.5** | **-2.7** |
| **ORIF** | **Oris-en-Rattie** | **3.44** | **259** | ePn | **Pn** | **16 02 53.4** | **+0.6** |
| | SNR=1.0 | | | | | | |
| ORIF | | | | eSn | **Sn** | **16 03 30.6** | **-3.0** |
| | 13nm,0.4s,SNR=1.0 | | | | | | |
| **ORIF** | **Oris-en-Rattie** | **3.44** | **259** | ePn | **Pn** | **16 02 53.4** | **+0.6** |
| | SNR=1.0 | | | | | | |
| ORIF | | | | eSn | **Sn** | **16 03 30.6** | **-3.0** |
| | 6.4nm,0.4s,SNR=1.0 | | | | | | |
| **FRF** | **La Foret Royal** | **3.54** | **235** | ePn | **Pn** | **16 02 52.5** | **-1.6** |
| | SNR=1.0 | | | | | | |
| **FRF** | **La Foret Royal** | **3.54** | **235** | ePg | **Pb** | **16 03 05.3** | **+3.5** |
| FRF | | | | eSn | **Sn** | **16 03 32.6** | **-3.4** |
| | 5.8nm,0.2s | | | | | | |
| **FRF** | **La Foret Royal** | **3.54** | **235** | ePn | **Pn** | **16 02 52.5** | **-1.6** |
| | SNR=1.0 | | | | | | |
| **FRF** | **La Foret Royal** | **3.54** | **235** | ePg | **Pb** | **16 03 05.3** | **+3.5** |
| FRF | | | | eSn | **Sn** | **16 03 32.6** | **-3.4** |
| | 2.9nm,0.2s | | | | | | |
| **CDF** | **Champ du Feu** | **3.58** | **321** | ePn | **Pn** | **16 02 54.0** | **-0.8** |
| CDF | | | | eSn | **Sn** | **16 03 33.1** | **-4.1** |
| | 8.3nm,0.3s | | | | | | |
| **CDF** | **Champ du Feu** | **3.58** | **321** | ePn | **Pn** | **16 02 54.0** | **-0.8** |
| CDF | | | | eSn | **Sn** | **16 03 33.1** | **-4.1** |
| | 4.2nm,0.3s | | | | | | |
| **ARSA** | **Arzberg** | **3.73** | **63** | Pn | **Pn** | **16 02 56.8** | **0.0** |
| | 2.0nm,0.2s | | | | | | |
| ARSA | | | | Sg | **Sg** | **16 03 58.6** | **-0.3** |
| | 2.7nm,0.4s | | | | | | |
| **LMR** | **La Mourre** | **3.76** | **233** | ePn | **Pn** | **16 02 56.5** | **-0.6** |
| | SNR=1.0 | | | | | | |
| **LMR** | **La Mourre** | **3.76** | **233** | ePn | **Pn** | **16 02 56.5** | **-0.6** |
| | SNR=1.0 | | | | | | |
| **HAU** | **Haudompre** | **3.76** | **310** | ePn | **Pn** | **16 02 56.2** | **-0.9** |
| HAU | | | | eSn | **Sn** | **16 03 37.2** | **-4.3** |
| | 12nm,0.4s | | | | | | |
| HAU | | | | eSg | **Sg** | **16 03 59.0** | **-0.8** |
| **HAU** | **Haudompre** | **3.76** | **310** | ePn | **Pn** | **16 02 56.2** | **-0.9** |
| HAU | | | | eSn | **Sn** | **16 03 37.2** | **-4.3** |
| | 6.1nm,0.4s | | | | | | |
| HAU | | | | eSg | **Sg** | **16 03 59.0** | **-0.8** |
| **UDBI** | **Udbina** | **3.81** | **106** | ePn | **Pn** | **16 02 57.2** | **-0.6** |
| UDBI | | | | Sn | **Sn** | **16 03 39.5** | **-3.2** |
| **UDBI** | **Udbina** | **3.81** | **106** | ePn | **Pn** | **16 02 57.2** | **-0.6** |
| UDBI | | | | Sn | **Sn** | **16 03 39.4** | **-3.2** |
| **SMRF** | **Simiane la Rot** | **3.98** | **247** | ePn | **Pn** | **16 02 59.5** | **-0.6** |
| | SNR=1.0 | | | | | | |
| **SMRF** | **Simiane la Rot** | **3.98** | **247** | ePn | **Pn** | **16 02 59.5** | **-0.6** |
| | SNR=1.0 | | | | | | |
| **KHC** | **Kasperske Hory** | **4.00** | **29** | ePN | **Pn** | **16 03 00.0** | **-0.5** |
| KHC | | | | ePG | **Pg** | **16 03 18.7** | **+2.9** |
| KHC | | | | eSN | **Sn** | **16 03 46.0** | **-1.5** |
| KHC | | | | eSG | **Sg** | **16 04 05.5** | **-2.1** |
| | comp=Z,18nm,0.8s | | | | | | |
| **KHC** | **Kasperske Hory** | **4.00** | **29** | Pn | **Pn** | **16 03 00.0** | **-0.5** |
| KHC | | | | Sn | **Sn** | **16 03 46.0** | **-1.5** |
| KHC | | | | Sg | **Sg** | **16 04 05.5** | **-2.1** |
| | 18nm,0.8s | | | | | | |
| **VIVF** | **Saint-Julien-l** | **4.29** | **261** | ePn | **Pn** | **16 03 02.8** | **-1.6** |
| | SNR=1.0 | | | | | | |
| VIVF | | | | eSn | **Sn** | **16 03 51.0** | **-3.4** |
| | 3.9nm,0.3s | | | | | | |
| **VIVF** | **Saint-Julien-l** | **4.29** | **261** | ePn | **Pn** | **16 03 02.8** | **-1.6** |
| | SNR=1.0 | | | | | | |
| VIVF | | | | eSn | **Sn** | **16 03 51.0** | **-3.4** |
| | 2.0nm,0.3s | | | | | | |
| **PAGF** | **Fort de Pagny** | **4.43** | **313** | eSn | **Sn** | **16 03 53.0** | **-4.9** |
| | 2.4nm,0.5s | | | | | | |
| **PAGF** | **Fort de Pagny** | **4.43** | **313** | eSn | **Sn** | **16 03 53.0** | **-4.9** |
| | 1.2nm,0.5s | | | | | | |
| **SFTF** | **Sexfontaines** | **4.60** | **306** | ePn | **Pn** | **16 03 07.4** | **-1.2** |
| | baz=129 | | | | | | |
| **SFTF** | **Sexfontaines** | **4.60** | **306** | ePn | **Pn** | **16 03 07.4** | **-1.2** |
| **NKC** | **Novy Kostel** | **4.73** | **14** | eSG | **Sg** | **16 04 31.7** | **+0.8** |
| | comp=Z,5.1nm,0.4s | | | | | | |
| **NKC** | **Novy Kostel** | **4.73** | **14** | Sg | **Sg** | **16 04 31.7** | **+0.8** |
| | 5.1nm,0.4s | | | | | | |
| **SMF** | **Signal de Mont** | **4.82** | **284** | ePn | **Pn** | **16 03 10.6** | **-1.1** |
| | SNR=1.0 | | | | | | |
| **SMF** | **Signal de Mont** | **4.82** | **284** | eP | **Pn** | **16 03 15.9** | **+4.2** |
| SMF | | | | eSn | **Sn** | **16 04 03.9** | **-3.7** |
| | 5.5nm,0.2s,SNR=1.0 | | | | | | |
| **SMF** | **Signal de Mont** | **4.82** | **284** | ePn | **Pn** | **16 03 10.6** | **-1.1** |
| | SNR=1.0 | | | | | | |
| SMF | | | | eSn | **Sn** | **16 04 03.9** | **-3.7** |
| | 2.8nm,0.2s,SNR=1.0 | | | | | | |
| **LOR** | **Lormes** | **4.95** | **291** | ePn | **Pn** | **16 03 12.1** | **-1.4** |
| | baz=118,SNR=1.0 | | | | | | |
| **LOR** | **Lormes** | **4.95** | **291** | eP | **Pn** | **16 03 16.4** | **+2.9** |
| LOR | | | | eSn | **Sn** | **16 04 07.6** | **-3.1** |
| | 4.3nm,0.3s,SNR=1.0 | | | | | | |
| **LOR** | **Lormes** | **4.95** | **291** | ePn | **Pn** | **16 03 12.1** | **-1.4** |
| | SNR=1.0 | | | | | | |
| **LOR** | **Lormes** | **4.95** | **291** | eP | **Pn** | **16 03 16.4** | **+2.9** |
| LOR | | | | eSn | **Sn** | **16 04 07.6** | **-3.1** |
| | 2.2nm,0.3s,SNR=1.0 | | | | | | |
| **PRU** | **Pruhonice** | **5.06** | **30** | eSG | **Sg** | **16 04 41.5** | **-0.1** |
| **PRU** | **Pruhonice** | **5.06** | **30** | Sg | **Sg** | **16 04 41.5** | **-0.1** |
| **LASF** | **Ste Croix** | **5.07** | **254** | ePn | **Pn** | **16 03 13.5** | **-1.7** |
| **LASF** | **Ste Croix** | **5.07** | **254** | ePg | **Pg** | **16 03 34.5** | **-1.7** |
| LASF | | | | eSn | **Sn** | **16 04 10.0** | **-3.8** |
| | 2.1nm,0.2s | | | | | | |
| **LASF** | **Ste Croix** | **5.07** | **254** | ePn | **Pn** | **16 03 13.5** | **-1.7** |
| **LASF** | **Ste Croix** | **5.07** | **254** | ePg | **Pg** | **16 03 34.5** | **-1.7** |
| LASF | | | | eSn | **Sn** | **16 04 10.0** | **-3.8** |
| | 1.0nm,0.2s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **5.09** | **32** | eSG | **Sg** | **16 04 40.5** | **-1.9** |
| | comp=Z,7.7nm,0.5s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **5.09** | **32** | Sg | **Sg** | **16 04 40.5** | **-1.9** |
| | 7.7nm,0.5s | | | | | | |
| **SSF** | **Saint Saulge** | **5.13** | **288** | ePn | **Pn** | **16 03 15.0** | **-0.9** |
| | SNR=1.0 | | | | | | |
| SSF | | | | eSn | **Sn** | **16 04 10.5** | **-4.6** |
| | 2.1nm,0.3s,SNR=1.0 | | | | | | |
| **SSF** | **Saint Saulge** | **5.13** | **288** | ePn | **Pn** | **16 03 15.0** | **-0.9** |
| | SNR=1.0 | | | | | | |
| SSF | | | | eSn | **Sn** | **16 04 10.5** | **-4.6** |
| | 1.0nm,0.3s,SNR=1.0 | | | | | | |
| **AVF** | **Avril sur Loir** | **5.18** | **285** | ePn | **Pn** | **16 03 15.3** | **-1.3** |
| | SNR=1.0 | | | | | | |
| AVF | | | | eSn | **Sn** | **16 04 09.7** | **-6.6** |
| | 2.9nm,0.4s,SNR=1.0 | | | | | | |
| **AVF** | **Avril sur Loir** | **5.18** | **285** | ePn | **Pn** | **16 03 15.3** | **-1.3** |
| | SNR=1.0 | | | | | | |
| AVF | | | | eSn | **Sn** | **16 04 09.7** | **-6.6** |
| | 1.5nm,0.4s,SNR=1.0 | | | | | | |
| **BGF** | **Bois d'Agland** | **5.49** | **282** | ePn | **Pn** | **16 03 19.8** | **-1.1** |
| | SNR=1.0 | | | | | | |
| **BGF** | **Bois d'Agland** | **5.49** | **282** | eP | **Pn** | **16 03 25.3** | **+4.4** |
| BGF | | | | eSn | **Sn** | **16 04 19.8** | **-4.2** |
| | 3.8nm,0.2s | | | | | | |
| **BGF** | **Bois d'Agland** | **5.49** | **282** | ePn | **Pn** | **16 03 19.8** | **-1.1** |
| | SNR=1.0 | | | | | | |
| BGF | | | | eSn | **Sn** | **16 04 19.8** | **-4.2** |
| | 1.9nm,0.2s | | | | | | |
| **HYF** | **Humbligny** | **5.75** | **289** | ePn | **Pn** | **16 03 23.5** | **-1.0** |
| HYF | | | | eSn | **Sn** | **16 04 28.6** | **-1.9** |
| **HYF** | **Humbligny** | **5.75** | **289** | ePn | **Pn** | **16 03 23.5** | **-1.0** |
| HYF | | | | eSn | **Sn** | **16 04 28.6** | **-1.9** |
| **STON** | **Ston** | **5.79** | **116** | ePn | **Pn** | **16 03 23.2** | **-1.8** |
| STON | | | | Sn | **Sn** | **16 04 25.1** | **-6.3** |
| **STON** | **Ston** | **5.79** | **116** | ePn | **Pn** | **16 03 23.1** | **-1.8** |
| **CLL** | **Collm** | **5.86** | **15** | eSg | **Sg** | **16 05 12.0** | **+4.8** |
| **TCF** | **Toulx Ste Croi** | **5.91** | **279** | ePn | **Pn** | **16 03 25.4** | **-1.2** |
| TCF | | | | eSn | **Sn** | **16 04 28.8** | **-5.5** |
| | 2.8nm,0.3s,SNR=1.0 | | | | | | |
| **TCF** | **Toulx Ste Croi** | **5.91** | **279** | ePn | **Pn** | **16 03 25.4** | **-1.2** |
| **GIVF** | **Givet** | **5.92** | **321** | ePn | **Pn** | **16 03 25.5** | **-1.2** |
| **GIVF** | **Givet** | **5.92** | **321** | ePg | Pb | 16 03 48.2 | +6.0 |
| **GIVF** | **Givet** | **5.92** | **321** | ePn | **Pn** | **16 03 25.5** | **-1.2** |
| **UPC** | **Upice** | **6.04** | **35** | ex | **Sg** | **16 05 10.9** | **-1.9** |
| **DPC** | **Dobruska-Polom** | **6.04** | **37** | ex | **Sg** | **16 05 09.3** | **-3.7** |
| **RJF** | **Les Rejaudoux** | **6.42** | **270** | eSn | **Sn** | **16 04 42.0** | **-5.0** |
| | 2.0nm,0.2s,SNR=1.0 | | | | | | |

---

*ISCJB **05** 16:10:31.3±0.3, 37°.35N±0°.02×71°.86E±0°.03, h102km±4km, mb4.5/81, Error ellipse: s-maj=3.7km s-min=3.0km az=147.4*
*MOS **05** 16:10:32.8±1.1, 37°.48N×71°.84E, h111km, mb4.6/31, Error ellipse: s-maj=6.3km s-min=4.4km az=115.0*
*BJI **05** 16:10:33.9, 37°.53N×71°.87E, h119km, mb4.4/35, mB4.8/24*
*NEIC **05** 16:10:34.8±0.3, 37°.50N×71°.83E, mb4.6/24, Error ellipse: s-maj=6.2km s-min=4.6km az=154.0*
*NEIC Felt at Dushanbe.*
*IDC **05** 16:10:35.5±0.6, 37°.45N×71°.80E, h123km±4km, mb4.0/24, mb1 4.1/28, mb1mx3.9/48, mbtmp4.4/28, MS3.2/6, Ms1 3.2/6, ms1mx2.8/38, Error ellipse: s-maj=12.7km s-min=9.5km az=179.0*
*NNC **05** 16:10:36.0±1.2, 37°.70N×71°.56E, h119km±12km, mb3.7, mpv4.4, Error ellipse: s-maj=11.5km s-min=4.5km az=162.0*
**ISC 05 16:10:34.3**±0.3**, 37°.44N**±0°.03×**71°.83E**±0°.03**, h122km**±3km**, h122km:pP-P, n266,** σ**2.06**/297**, mb4.5**/81**, 35C-25D, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZET** | **Dzherino** | **2.73** | **301** | ⇑P | **Pn** | **16 11 14.6** | **-2.7** |

DZET ⇑S **Sn** **16 11 45.4 -5.0**
7µm,0.4s
**DZET Dzherino 2.73 301** *e*PN **Pn** **16 11 14.0 -3.3**
**SFK Sufi-Kurgan 2.89 26** ⇓P **Pn** **16 11 18.6 -0.9**
28nm,0.2s
SFK ⇓S **Sn** **16 11 53.2 -1.0**
456nm,0.5s
**SFK Sufi-Kurgan 2.89 26** *e*PN **Pn** **16 11 20.0 +0.6**
**CEP Cherat 3.60 179** P **Pn** **16 11 28.9 +0.1**
CEP S **Sn** **16 12 12.0 +1.1**
**KBL Kabul 3.67 219** *e*PN **Pn** **16 11 29.5 -0.2**
**KBL Kabul 3.67 219** *e*Pn **Pn** **16 11 29.5 -0.2**
**CHCP Chirah Chowk 3.95 162** P **Pn** **16 11 34.0 +0.7**
**THW Thamme Wali 4.63 181** P **Pn** **16 11 41.7 -0.7**
**AML Almayashu 4.91 16** P **Pn** **16 11 46.4 0.0**
SNR=857
**MNAS Manas 5.07 6** ⇑P **Pn** **16 11 47.0 -1.4**
20nm,0.4s
MNAS ⇓S **Sn** **16 12 41.9 -4.1**
356nm,0.7s
**MNAS Manas 5.07 6** *e*PN **Pn** **16 11 47.0 -1.4**
**UCH Uchtor 5.21 23** P **Pn** **16 11 50.7 +0.1**
SNR=46
**JMU Jammu 5.34 151** *e*S **Sn** **16 12 47.5 -4.7**
**EKS2 Erkin-Say 5.43 15** P **Pn** **16 11 53.8 +0.7**
SNR=50
**AAK Ala-Archa 5.58 21** P **Pn** **16 11 55.9 +0.7**
22nm,0.3s,baz=180,slow=7.1,SNR=206
AAK S **Sn** **16 12 57.2 -1.1**
15nm,0.3s,baz=330,slow=22,SNR=14
AAK LR LR 16 14 15.2
comp=Z,91nm,20.0s,baz=186,slow=39
**AAK Ala-Archa 5.58 21** ⇑P **Pn** **16 11 55.8 +0.6**
22nm,0.3s
AAK ⇓S **Sn** **16 12 57.0 -1.4**
88nm,0.5s
**AAK Ala-Archa 5.58 21** P **Pn** **16 11 55.7 +0.4**
SNR=52
**KBK Karagaybulak 5.74 24** P **Pn** **16 11 58.7 +1.3**
SNR=24
**KK31 Karatay Array 5.75 350** ⇓P **Pn** **16 11 56.4 -0.9**
30nm,0.4s,baz=178,slow=13,SNR=428
KK31 ⇑S **Sn** **16 12 57.5 -4.7**
152nm,0.5s,baz=178,slow=20,SNR=9.5
**KK31 Karatay Array 5.75 350** *e*PN **Pn** **16 11 56.0 -1.4**
**KKAR Karatay Array 5.75 350** *e*PN **Pn** **16 11 56.0 -1.4**
**FRU Bishkek 5.80 21** *e*PN **Pn** **16 11 58.0 -0.1**
FRU pmax pmax
comp=Z,100nm,2.3s
**ULHL Ulahol 5.88 34** P **Pn** **16 11 59.5 +0.1**
SNR=28
**THN Thein Dam 5.92 146** *e*P **Pn** **16 11 58.0 -1.8**
THN *ex* **Sn** **16 13 06.0 -0.4**
**CHMS Chumysh 5.99 21** P **Pn** **16 12 01.1 +0.5**
SNR=65
**USP Ospenovka 6.17 18** P **Pn** **16 12 03.0 -0.1**
SNR=25
**TKM2 Tokmak 2 6.19 27** ⇓P **Pn** **16 12 03.6 +0.1**
comp=Z,31nm,0.7s
TKM2 ⇓S **Sn** **16 13 12.9 -0.2**
comp=Z,43nm,0.8s
**TKM2 Tokmak 2 6.19 27** P **Pn** **16 12 04.0 +0.5**
SNR=24
**PONG Pong 6.44 147** *e*P **Pn** **16 12 05.0 -1.7**
PONG *e*S **Sn** **16 13 13.0 -5.8**
**JWA Jwalamukhi 6.68 145** *e*P **Pn** **16 12 08.0 -2.0**
JWA *e*S **Sn** **16 13 19.0 -5.7**
**MDOK Medeo 6.97 33** ⇓P **Pn** **16 12 15.6 +1.5**
**KNDC Almaty 6.98 33** ⇓P **Pn** **16 12 16.6 +2.6**
**BHK Bhakra 7.10 146** *ex* **Pn** **16 12 16.8 +1.1**
BHK *e*S **Sn** **16 13 28.6 -6.3**
**PDGK Podgornoye 8.30 42** ⇑P **Pn** **16 12 31.9 +0.1**
comp=Z,5.4nm,0.7s
**PDGK Podgornoye 8.30 42** *e*PN **Pn** **16 12 32.7 +0.9**
**DDI Dehra Dun 8.78 142** *e*S **Sn** **16 14 08.5 -7.2**
**JOSI Joshimath 9.39 135** *e*P **Pn** **16 12 44.1 -2.7**
JOSI *e*S Sn 16 14 21.0 -10
JOSI AML AML 16 14 27.7
comp=E,732nm,1.1s
JOSI AML AML 16 14 29.3
comp=N,862nm,0.8s
**NDI New Delhi 9.83 151** *e*P **Pn** **16 12 50.0 -2.5**
NDI *e*S Sn 16 14 32.0 -9.0
**KHET Khetri 9.92 159** *e*P **Pn** **16 12 49.3 -4.4**
KHET *e*S Sn 16 14 34.0 -9.2
KHET AML AML 16 14 38.9
comp=N,100nm,0.9s
KHET AML AML 16 14 39.2
comp=E,90nm,0.9s
**KUDL Kundal 10.06 156** *e*P Pn 16 12 50.6 -4.9
KUDL *e*S Sn 16 14 34.7 -12
KUDL AML AML 16 14 39.1
comp=E,124nm,0.6s
KUDL AML AML 16 14 44.8
comp=N,78nm,0.5s
**ASHT Ashkhabad 10.67 277** *e*P **Pn** **16 13 00.3 -3.4**
**GEYT Alibeck 10.88 277** P Pn 16 13 00.9 -5.7
comp=N,21nm,0.3s,baz=104,slow=11,SNR=194
GEYT S Sn 16 14 56.7 -10
comp=N,59nm,0.3s,baz=250,slow=41,SNR=16
GEYT LR LR 16 17 59.5
comp=N,46nm,18.7s,baz=30,slow=41
**MAKZ Makanchi 12.01 36** *e*P **Pn** **16 13 20.2 -1.3**
**MAKZ Makanchi 12.01 36** *e*Pn **Pn** **16 13 20.2 -1.3**
**MK01 Makanchi Array 12.13 36** *e*Pn **Pn** **16 13 22.4 -0.7**
**MK31 Makanchi Array 12.15 36** P **Pn** **16 13 22.1 -1.1**
comp=N,3.6nm,0.7s,baz=221,slow=14,SNR=29
**MK31 Makanchi Array 12.15 36** *e*P **Pn** **16 13 22.4 -0.9**
**MK31 Makanchi Array 12.15 36** *e*Pn **Pn** **16 13 22.4 -0.9**
**MKAR Makanchi Array 12.15 36** P **Pn** **16 13 22.6 -0.7**
comp=N,0.5nm,0.3s,baz=223,slow=14,SNR=35
MKAR LR LR 16 18 21.8
comp=N,56nm,18.1s,baz=206,slow=38
**MKAR Makanchi Array 12.15 36** *i* P **Pn** **16 13 23.2 -0.1**
MKAR pmax pmax
comp=Z,6.0nm,0.8s
**PYUN Piuthan 13.21 132** *e*P **Pn** **16 13 33.4 -4.1**
comp=Z,112nm,0.7s
PYUN *e*S Sn 16 15 50.3 -13
**DANN Dangsing 13.50 129** *e*P Pn 16 13 36.7 -4.6
comp=Z,0.8nm,0.3s
**WMQ Urumqi 13.63 57** P **Pn** **16 13 43.6 +1.0**
WMQ sP P 16 14 14.0 +27
WMQ S **Sn** **16 16 09.1 -3.7**
WMQ pmax pmax
comp=Z,13nm,1.1s
WMQ pmax pmax
comp=Z,420nm,7.5s
WMQ LR LR
comp=Z,40nm,15.5s
WMQ LR LR
comp=Z,10.0nm,22.1s
WMQ LR LR
comp=Z,140nm,19.9s
**KOLN Koldanda 13.82 131** *e*P **Pn** **16 13 41.0 -4.3**
comp=Z,46nm,0.5s
**KURBB Kurchatov Arra 14.03 18** P **Pn** **16 13 44.5 -3.0**
comp=Z,0.1nm,0.3s,baz=210,slow=12,SNR=6.0
**KURBB Kurchatov Arra 14.03 18** ⇑P **Pn** **16 13 44.1 -3.5**
comp=Z,7.7nm,1.0s
**KURK Kurchatov 14.14 18** *e*P **Pn** **16 13 46.2 -2.7**
**KURK Kurchatov 14.14 18** *e*Pn **Pn** **16 13 46.2 -2.7**
**AB31 Akbulak array 14.62 328** ⇓P **Pn** **16 13 51.7 -3.3**
comp=Z,11nm,0.7s,baz=137,slow=13,SNR=150
AB31 ⇑S **Sn** **16 16 27.7 -8.7**
comp=Z,86nm,0.7s,baz=146,slow=22,SNR=16
**KKN Kakani 14.85 126** *e*P Pn 16 13 53.7 -4.7
comp=Z,43nm,0.9s
**DMN Daman 14.87 127** *e*P **Pn** **16 13 54.7 -3.9**
comp=Z,195nm,0.9s
DMN *e*S Sn 16 16 30.4 -13
**PKIN Phulchoki 15.07 127** *e*P **Pn** **16 13 56.8 -4.4**
comp=Z,21nm,0.4s
**PKI Pulchoki 15.09 127** *e*P **Pn** **16 13 57.0 -4.5**
comp=Z,16nm,0.3s
**GUN Gumba 15.16 125** *e*P **Pn** **16 13 57.9 -4.5**
comp=Z,26nm,0.4s
**JIRN Jiri 15.53 125** *e*P **Pn** **16 14 03.1 -3.9**
comp=Z,599nm,0.6s
**BVA0 Borovoye Array 15.62 357** P **Pn** **16 14 06.7 -0.9**
comp=Z,9.6nm,0.9s,baz=172,slow=12,SNR=28
**BVAR Borovoye Array 15.62 357** P **Pn** **16 14 05.8 -1.8**
comp=Z,0.4nm,0.3s,baz=153,slow=10.0,SNR=17
**BRVK Borovoye 15.66 357** *i* P **Pn** **16 14 06.3 -1.8**
BRVK pmax pmax
comp=Z,41nm,1.2s
**BRVK Borovoye 15.66 357** *e*Pn **Pn** **16 14 06.0 -2.1**
comp=Z,19nm,1.0s
**JBP Jabalpur 15.86 151** ⇓*i*P **Pn** **16 14 09.5 -1.2**
JBP *ex* x 16 16 51.5
**RAMN Ramite 16.28 126** *e*P **Pn** **16 14 12.3 -3.9**
comp=Z,32nm,0.4s
**AKTO Aktyubinsk 16.33 327** P **Pn** **16 14 15.1 -1.2**
comp=Z,6.8nm,0.3s,baz=130,slow=12,SNR=118
AKTO S Sn 16 17 06.3 -11
comp=Z,2.7nm,0.3s,baz=289,slow=5.9,SNR=8.5
**AKTO Aktyubinsk 16.33 327** ⇑P **Pn** **16 14 14.9 -1.4**
comp=Z,102nm,0.8s
AKTO ⇑S **Sn** **16 17 10.3 -7.3**
comp=Z,70nm,0.8s
**TAPN Taplejung 16.74 122** *e*P **Pn** **16 14 18.1 -3.8**
comp=Z,11nm,0.3s
**ODAN Odare 16.86 124** *e*P **Pn** **16 14 19.4 -3.8**
comp=Z,144nm,0.8s
**BANOM Banah 17.48 233** P **P** **16 14 28.1 -1.8**
**LSA Lhasa 17.84 110** *e*P **P** **16 14 34.7 +0.4**
LSA pmax pmax
comp=Z,21nm,0.8s
**LSA Lhasa 17.84 110** *e*P **P** **16 14 34.7 +0.4**
comp=Z,21nm,0.8s
**WSAR Wadi Sarin 18.14 222** P **Pn** **16 14 38.6 +0.2**
comp=Z,1.0nm,0.3s,baz=65,slow=8.9,SNR=11
**LKRN Lenkeran, Azer 18.19 281** *e*P **P** **16 14 37.8 +0.3**
**UOSS Minazif 18.23 231** *e*P **P** **16 14 37.3 -0.9**
comp=Z,28nm,0.9s
**HATD Hatta, Dubai 18.37 231** *i* P **P** **16 14 38.8 -0.8**
SNR=7.1
**ASHO Ashiyiah 18.52 231** *i* P **P** **16 14 41.2 -0.1**
SNR=22
**FAQ Al Faqa, Dubai 18.76 232** P **P** **16 14 41.9 -2.0**
**ZAA0 Zalesovo Array 18.79 24** ⇑P **P** **16 14 44.4 +0.4**
comp=Z,0.8nm,0.8s
**ZAA0 Zalesovo Array 18.79 24** *e*P **P** **16 14 43.5 -0.5**
comp=Z,9.1nm,0.6s
**ZALV Zalesovo Beam 18.79 24** P **Pn** **16 14 44.8 -1.1**
comp=Z,1.4nm,0.3s,baz=210,slow=9.9,SNR=15
**ZALV Zalesovo Beam 18.79 24** *e*P **P** **16 14 43.6 -0.4**
**NVS Novosibirsk 19.07 20** ⇑*i*P **Pn** **16 14 48.1 -1.1**
NVS *e* 16 18 08.7
**SEKA Sheki 19.40 289** *e*P **Pn** **16 14 52.0 -1.2**
**ZKTA Zakatala 19.86 290** *e*P **Pn** **16 14 57.2 -1.3**
**GANJ Ganja 20.05 287** *e*P **P** **16 14 58.7 +0.9**
**GROC Groznyy 20.62 294** *e*P **P** **16 15 03.9 0.0**
GROC *e*S **S** **16 18 44.8 -2.8**
GROC pmax pmax
comp=Z,126nm,1.0s
**HVS Khovu-Aksy 20.70 42** *e*P **P** **16 15 04.0 -0.7**
**SVE Sverdlovsk 20.79 343** ⇓*i*P **P** **16 15 06.1 +0.6**
SVE *e*S **S** **16 18 46.5 -4.0**
SVE pmax pmax
comp=Z,18nm,1.0s
**HYB Hyderabad 20.80 162** *i* P **P** **16 15 07.0 +0.9**
HYB *e*S **S** **16 18 51.0 -0.5**
**ARU Arti 20.98 339** P **P** **16 15 08.3 +0.7**
comp=Z,11nm,0.7s,baz=157,slow=4.8,SNR=27
ARU S **S** **16 18 55.8 +1.6**
comp=Z,4.4nm,0.5s,baz=120,slow=23,SNR=6.7
ARU LR LR 16 23 31.8
comp=Z,141nm,19.8s,baz=190,slow=37
**ARU Arti 20.98 339** *c i*P **P** **16 15 08.2 +0.6**
ARU 16 15 46.5
ARU S **S** **16 18 53.9 -0.3**
ARU SS Sn 16 19 34.6 +26
ARU pmax pmax
comp=Z,36nm,1.2s
**ARU Arti 20.98 339** *e*P **P** **16 15 07.8 +0.2**
comp=Z,20nm,0.8s
ARU S **S** **16 18 55.8 +1.6**
**GNI Garni 21.26 286** P **P** **16 15 13.5 +2.6**
comp=Z,75nm,0.7s,baz=40,slow=1.2,SNR=57
**GNI Garni 21.26 286** *i* P **P** **16 15 12.2 +1.3**
SNR=37
**GNI Garni 21.26 286** *d i*P **P** **16 15 13.3 +2.4**
GNI pmax pmax
comp=Z,264nm,1.0s
**GNI Garni 21.26 286** *e*P **P** **16 15 12.9 +2.0**
comp=Z,90nm,0.8s
**ZEI Tsey 21.96 293** *e*P **P** **16 15 17.3 -1.1**
ZEI pmax pmax
comp=Z,12nm,0.6s
**GTA Gaotai 21.98 76** *e*P **P** **16 15 21.0 +2.4**
GTA pP pP 16 15 43.5 +2.2
GTA sP sP 16 15 57.6 +1.1
GTA pmax pmax
comp=Z,27nm,1.1s
**VIS Vishakhapatnam 22.09 150** *i* P **P** **16 15 20.3 +0.6**
**NCK Nalchik 22.25 295** *e*P **P** **16 15 22.0 +0.8**
NCK pmax pmax
comp=Z,33nm,0.9s
**KBZ Khabaz 22.78 295** P **P** **16 15 25.3 -1.0**
comp=Z,12nm,0.9s,baz=122,slow=6.8,SNR=16
**GOF Gofitskoye 22.86 299** ⇑*e*P **P** **16 15 27.8 +0.7**
GOF pmax pmax
comp=Z,63nm,0.8s
**NEY Neytrino 22.86 294** ⇓*i*P **P** **16 15 29.5 +2.1**
NEY pmax pmax
comp=Z,5.0nm,1.1s
**KVAR Kislovodsk Arr 22.95 296** P **P** **16 15 28.9 +0.8**
comp=Z,9.4nm,0.6s,baz=308,slow=2.6,SNR=7.2
**KIV Kislovodsk 22.96 296** *i* P **P** **16 15 29.2 +1.0**
SNR=5.9
**KIV Kislovodsk 22.96 296** *e*P **P** **16 15 28.5 +0.3**
KIV *e*S **S** **16 19 27.8 -1.2**
KIV pmax pmax
comp=Z,25nm,1.0s
KIV MLR MLR
comp=Z,55nm,14.0s
**KIV Kislovodsk 22.96 296** *e*P **P** **16 15 27.5 -0.7**
comp=Z,31nm,0.6s
**ARTV Artvin 23.38 289** *e*P **P** **16 15 33.5 +1.2**
comp=Z,17nm,1.1s
**KOPT Kop Dagi 24.51 286** *e*P **P** **16 15 44.2 +1.6**
comp=Z,28nm,1.2s
**MARD Mardin 24.62 279** *e*P **P** **16 15 45.2 +1.8**
comp=Z,18nm,0.6s
**VRH Novokhopyorsk 25.35 313** *e*P **P** **16 15 49.5 -0.2**
VRH *e**SP **sP** **16 16 33.4 +3.4**
VRH pmax pmax
comp=Z,10.0nm,0.8s
**LZH Lanzhou 25.62 83** *e*P **P** **16 15 52.2 -0.4**
LZH pP pP 16 16 18.5 -0.3
LZH sP sP 16 16 31.4 -1.5
LZH pmax pmax
comp=Z,23nm,1.0s
LZH pmax pmax
comp=Z,140nm,4.2s
**RAYN Ar Rayn 26.48 246** *e*P **P** **16 15 59.2 -1.0**
comp=Z,13nm,0.9s
**ANN Anapa 26.79 297** *e*P **P** **16 16 02.3 -0.4**
**VSR Storozhevoye 26.87 311** *e*P **P** **16 16 02.6 -0.8**
VSR *e**SP **sP** **16 16 48.8 +5.0**
VSR pmax pmax
comp=Z,20nm,0.7s
**CD2 Chengdu 27.12 94** *e*P **P** **16 16 08.2 +2.2**
CD2 pmax pmax
comp=Z,10.0nm,1.0s
**SONM Songino Array 27.26 57** P **P** **16 16 09.0 +1.8**
comp=Z,0.4nm,0.4s,baz=248,slow=7.8,SNR=5.1
**SONM Songino Array 27.26 57** P **P** **16 16 09.0 +1.8**
**SONA1 Songino Array 27.27 57** *e*P **P** **16 16 06.6 -0.6**
**LPSR Galich'ya Gora 27.46 314** *e*P **P** **16 16 08.1 -0.6**
LPSR pmax pmax
comp=Z,20nm,1.0s
**KMI Kunming 29.00 106** P **P** **16 16 24.2 +1.3**
KMI pmax pmax
comp=Z,8.0nm,0.6s
**ASF Jabal al Asfar 29.05 270** P **P** **16 16 25.5 +2.3**
comp=Z,4.9nm,1.1s,baz=184,slow=16,SNR=3.8
**OBN Obninsk 29.67 318** ⇓*e*P **P** **16 16 29.9 +1.7**
OBN *e* 16 16 56.8
OBN *e* 16 17 33.9
OBN pmax pmax
comp=Z,16nm,1.3s
**BR131 Keskin Array S 29.79 286** *e*P **P** **16 16 30.7 +1.0**
**BRTR Keskin Array B 29.79 286** P **P** **16 16 30.9 +1.2**
comp=Z,4.7nm,0.7s,baz=104,slow=8.8,SNR=34
BRTR pP **pP** **16 16 57.5 +1.3**
comp=Z,1.2nm,0.7s,baz=93,slow=6.2,SNR=2.0
BRTR sP **sP** **16 17 11.9 +1.6**
comp=Z,4.0nm,0.8s,baz=99,slow=7.9,SNR=4.8
**CHTO Chiang Mai 30.10 121** P P 16 16 37.6 +5.2
comp=Z,39nm,0.9s
**CMMT Chiang Mai 30.10 121** P P 16 16 37.6 +5.1
comp=Z,6.0nm,1.4s
**CMAR Chiang Mai Arr 30.35 121** P **P** **16 16 36.5 +2.0**
comp=Z,2.0nm,0.8s,baz=309,slow=8.9,SNR=14
**CM01 Chiang Mai Arr 30.38 121** *e*P **P** **16 16 35.0 +0.1**
**HHC Hu-ho-hao-te 30.83 71** *e*P **P** **16 16 39.5 +0.7**
HHC PP **PnPn** **16 17 40.5 -3.8**
HHC S **S** **16 21 33.5 +0.1**
HHC pmax pmax
comp=Z,15nm,1.1s
HHC pmax pmax
comp=Z,200nm,6.7s
**KLMR Klimovskoe 31.00 329** *e*P **P** **16 16 38.2 -1.7**
KLMR pmax pmax
comp=Z,24nm,1.8s
**GYA Guiyang 31.36 100** P **P** **16 16 44.9 +1.3**
GYA pmax pmax
comp=Z,10.0nm,0.8s
**SUKH Sukhothai 31.49 122** P **P** **16 16 46.7 +2.1**
comp=Z,3.8nm,1.0s
**UTHA Uthaitani 32.74 124** P **P** **16 16 57.8 +2.2**
comp=Z,6.1nm,1.0s,comp=Z,61nm
**AKASG Malin Array Be 32.89 308** P **P** **16 16 57.1 +0.6**
comp=Z,7.5nm,0.6s,baz=79,slow=7.1,SNR=49
AKASG sP **sP** **16 17 37.0 -0.3**
comp=Z,5.4nm,0.9s,baz=82,slow=7.0,SNR=2.9
**AKBB Malin Array Si 32.89 308** *e*P **P** **16 16 56.4 -0.1**
AKBB pmax pmax
comp=Z,16nm,0.8s
**AKBB Malin Array Si 32.89 308** *e*P **P** **16 16 56.4 -0.1**
comp=Z,16nm,0.8s
**KIEV Kiev 32.90 308** *e*P **P** **16 16 56.4 -0.2**
KIEV pmax pmax
comp=Z,15nm,0.7s
**KIEV Kiev 32.90 308** *e*P **P** **16 16 56.4 -0.2**
comp=Z,15nm,0.7s
**AK11 Malin Array Si 32.92 308** *e*P **P** **16 16 56.7 -0.1**
**PBKT Sadaa Pong 33.04 121** P **P** **16 17 01.3 +3.1**
comp=Z,9.4nm,1.3s,comp=Z,1µm
**SORM Soroca 33.24 303** ⇓*i*P **P** **16 17 00.2 +0.6**
**SORM Soroca 33.24 303** ⇓P **P** **16 17 00.2 +0.6**
**CFR Carcaliu 33.38 297** ⇑*i*P **P** **16 17 02.4 +1.5**
**CFR Carcaliu 33.38 297** ⇑P **P** **16 17 02.4 +1.5**
**SRDT SRDT 33.42 126** P **P** **16 17 03.9 +2.4**
comp=Z,108nm,1.0s
**MANT Manisa 33.90 285** *e*P **P** **16 17 05.8 0.0**
comp=Z,69nm,1.2s
**VRI Vrincioaia 34.35 299** ⇓*i*P **P** **16 17 11.9 +2.6**
**VRI Vrincioaia 34.35 299** ⇓P **P** **16 17 11.9 +2.6**
**TESR Tescani 34.38 300** ⇓*i*P **P** **16 17 11.1 +1.5**
**PLOR Plostina 34.40 299** ⇑*i*P **P** **16 17 12.3 +2.5**
**PLOR Plostina 34.40 299** ⇑P **P** **16 17 12.3 +2.5**
**PHET Kaeng Krachan 34.82 127** P **P** **16 17 16.3 +2.7**
comp=Z,8.0nm,1.0s
**NAYO Nakonayok 34.88 123** P **P** **16 17 17.0 +2.9**
comp=Z,132nm,1.0s
**MLR Muntele Rosu 34.91 298** ⇑*i*P **P** **16 17 17.3 +3.0**
**MLR Muntele Rosu 34.91 298** *e*P **P** **16 17 15.3 +1.0**
MLR pmax pmax
comp=Z,25nm,0.9s
**MLR Muntele Rosu 34.91 298** *e*P **P** **16 17 15.3 +1.0**
comp=Z,25nm,0.9s
**DOPR Dopca 35.28 299** ⇓*i*P **P** **16 17 19.2 +1.9**
**BURAR Bucovina Array 35.34 302** ⇑*i*P **P** **16 17 19.6 +1.7**
**BURAR Bucovina Array 35.34 302** ⇑P **P** **16 17 19.6 +1.7**
**BUR04 Bucovina Ar. S 35.35 302** *e*P **P** **16 17 19.0 +1.1**
**BUR08 Bucovina Ar. S 35.35 302** *e*P **P** **16 17 18.1 +0.1**
**VOIR 35.55 298** ⇑*i*P **P** **16 17 21.5 +1.9**
**VOIR 35.55 298** ⇑P **P** **16 17 21.5 +1.9**
**KARP Karpathos 35.71 281** *e*P **P** **16 17 21.3 +0.2**
comp=Z,21nm,0.9s
**ARR Arges 35.84 298** ⇑*i*P **P** **16 17 23.8 +1.6**
**ARCR ARCALIA 35.94 301** ⇑*i*P **P** **16 17 25.8 +2.9**
**LVV L'vov 36.15 306** *e*P **P** **16 17 22.9 -1.7**
**APE Apeiranthos 36.56 284** ⇑*i*P **P** **16 17 28.9 +0.5**
**APE Apeiranthos 36.56 284** ⇑P **P** **16 17 28.9 +0.5**
**ATD Arta Tunnel 36.61 233** P **P** **16 17 30.5 +1.5**
comp=Z,19nm,1.0s,baz=5.9,slow=4.5,SNR=5.4
**DRGR 37.08 301** ⇑*i*P **P** **16 17 34.9 +2.2**
**DRGR 37.08 301** ⇑P **P** **16 17 34.9 +2.2**
**FINES FINESS Array B 37.09 325** P **P** **16 17 33.3 +0.9**
comp=Z,6.5nm,0.7s,baz=108,slow=10,SNR=16
FINES pP **pP** **16 18 00.5 +1.0**
comp=Z,6.7nm,0.6s,baz=109,slow=11,SNR=5.1
**VTS Vitosha 37.18 294** ⇑*i*P **P** **16 17 34.6 +0.9**
**VTS Vitosha 37.18 294** ⇑P **P** **16 17 34.6 +0.9**
**IDI Anoyia 37.56 281** P **P** **16 17 36.9 +0.1**
comp=Z,7.3nm,0.8s,baz=99,slow=12,SNR=4.8
**SIRR Siria 37.84 300** ⇑*i*P **P** **16 17 41.1 +2.1**
**BZS Buzias 37.94 299** ⇓*i*P **P** **16 17 41.6 +1.8**
**BZS Buzias 37.94 299** ⇓P **P** **16 17 41.6 +1.8**
**STHS Stebnicka Huta 37.96 305** *e*P **P** **16 17 41.1 +1.2**
STHS pmax pmax
comp=Z,2.0nm,0.7s
**STHS Stebnicka Huta 37.96 305** *e*P **P** **16 17 41.1 +1.2**
**MDVR Moldovita 37.96 297** ⇑*i*P **P** **16 17 41.9 +1.8**
**KECS Kecovo 38.49 303** *e*P **P** **16 17 45.5 +1.1**
KECS pmax pmax
comp=Z,3.0nm,0.9s
**KECS Kecov 38.49 303** *e*P **P** **16 17 45.5 +1.1**
**NIE Niedzica 38.57 305** *e*P **P** **16 17 47.5 +2.3**
**NIE Niedzica 38.57 305** *e*P **P** **16 17 47.5 +2.3**
**NJ2 Nanjing 38.70 84** *e*P **P** **16 17 47.3 +1.0**
NJ2 pmax pmax
comp=Z,13nm,0.5s
**TRTT Trang 38.81 132** P **P** **16 17 50.6 +3.2**
comp=Z,14nm,1.3s
**OJC Ojcow 38.88 306** *e*P **P** **16 17 49.0 +1.4**
**OJC Ojcow 38.88 306** *e*P **P** **16 17 49.0 +1.4**
**OJC Ojcow 38.88 306** *e*P **P** **16 17 47.8 +0.2**
comp=Z,17nm,1.0s
**PSZ Piszkesteto 38.92 303** ⇓*i*P **P** **16 17 50.5 +2.4**
**PSZ Piszkesteto 38.92 303** ⇓P **P** **16 17 50.5 +2.4**
**LANS Liptovska Anna 39.13 305** *e*P **P** **16 17 52.2 +2.4**
**LANS Liptovska Anna 39.13 305** *e*P **P** **16 17 52.2 +2.4**
**VYHS Vyhne 39.58 304** *e*P **P** **16 17 55.1 +1.6**
**VYHS Vyhne 39.58 304** *e*P **P** **16 17 55.1 +1.6**
**GKP Gorka Klasztor 40.45 311** *e*P **P** **16 18 01.9 +1.4**
**GKP Gorka Klasztor 40.45 311** *e*P **P** **16 18 01.9 +1.4**
**ARCES ARCESS Array B 40.54 337** P **P** **16 18 02.3 +1.2**
comp=Z,6.3nm,0.7s,baz=107,slow=7.8,SNR=11
ARCES LR LR 16 34 44.3
comp=Z,81nm,18.4s,baz=137,slow=36
**VRAC Vranov 41.00 305** ⇑*i*P **P** **16 18 07.4 +2.2**
**VRAC Vranov 41.00 305** ⇑P **P** **16 18 07.4 +2.2**
**KSP Ksiaz 41.09 307** *e*P **P** **16 18 07.2 +1.3**
**KSP Ksiaz 41.09 307** *e*P **P** **16 18 07.2 +1.3**
**DPC Dobruska-Polom 41.10 307** *e*P **P** **16 18 08.1 +2.1**
DPC *ex* x 16 18 17.8
DPC *es*P **sP** **16 18 47.6 +0.2**
**DPC Dobruska-Polom 41.10 307** *e*P **P** **16 18 08.1 +2.1**
DPC *e* 16 18 47.6
**UPC Upice 41.29 307** *e*P **P** **16 18 09.4 +1.9**
**UPC Upice 41.29 307** *e*P **P** **16 18 09.4 +1.9**
**CONA Conrad Observa 41.62 303** *i* P **P** **16 18 12.3 +2.0**
comp=Z,18nm,1.1s
**ARSA Arzberg 41.93 302** *i* P **P** **16 18 14.5 +1.7**
comp=Z,5.8nm,1.0s
**PRU Pruhonice 42.27 306** *e*P **P** **16 18 17.4 +1.9**
**PRU Pruhonice 42.27 306** *e*P **P** **16 18 17.4 +1.9**
**SOKA Soboth 42.34 301** *i* P **P** **16 18 18.2 +1.9**
comp=Z,11nm,1.0s
**BRG Berggiesshubel 42.57 308** *i* P **P** **16 18 19.4 +1.5**
comp=Z,16nm,0.9s
BRG *e* 16 18 46.4
comp=Z,6.2nm,0.9s
**BRG Berggiesshubel 42.57 308** *i* P **P** **16 18 19.4 +1.5**
BRG *e* 16 18 46.3
BRG pmax pmax
comp=Z,16nm,0.9s
BRG pmax pmax
comp=Z,6.0nm,0.9s
**MOA Molln 42.69 303** *i* P **P** **16 18 20.5 +1.6**
comp=Z,7.6nm,0.9s
**YAK Yakutsk 42.82 36** P **P** **16 18 21.0 +1.3**
comp=Z,2.6nm,0.3s,baz=203,slow=1.1,SNR=5.9
**YAK Yakutsk 42.82 36** *e*P **P** **16 18 20.3 +0.6**
YAK pmax pmax
comp=Z,9.0nm,0.9s
**GERES GERESS Array B 42.94 305** P **P** **16 18 22.5 +1.5**
comp=Z,0.8nm,0.6s,baz=108,slow=4.3,SNR=6.1
GERES PP **PP** **16 20 05.7 +2.9**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | comp=Z,1.2nm,0.8s,baz=72,slow=8.6,SNR=4.3 | | | | | | |
| KHC | Kasperske Hory | 42.98 | 305 | eP | P | 16 18 23.2 | +1.9 |
| KHC | | | | ex | x | 16 18 57.4 | |
| KHC | | | | esP | sP | 16 19 02.4 | -0.4 |
| KHC | Kasperske Hory | 42.98 | 305 | eP | P | 16 18 23.2 | +1.9 |
| KHC | | | | e | | 16 19 02.4 | |
| GSI | Gunungsitoli | 43.08 | 141 | eP | P | 16 18 23.3 | +1.0 |
| | comp=Z,24nm,0.9s | | | | | | |
| CLL | Collm | 43.13 | 308 | i P | P | 16 18 23.4 | +1.0 |
| CLL | | | | e*PP | pP | 16 18 51.0 | +0.9 |
| CLL | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.0s | | | | | | |
| CLL | Collm | 43.13 | 308 | i P | P | 16 18 23.4 | +1.0 |
| | comp=Z,9.0nm,1.0s | | | | | | |
| CLL | | | | epP | pP | 16 18 51.0 | +0.9 |
| CLL | | | | ePP | PP | 16 20 06.0 | +1.3 |
| CLL | Collm | 43.13 | 308 | eP | P | 16 18 23.0 | +0.6 |
| | comp=Z,8.1nm,0.9s | | | | | | |
| KSAR | Wonju Array Be | 43.93 | 72 | sP | sP | 16 19 11.3 | +0.7 |
| KSRS | Korea Array | 43.96 | 72 | sP | sP | 16 19 11.3 | +0.5 |
| | comp=Z,2.1nm,0.9s,baz=278,slow=6.8,SNR=4.4 | | | | | | |
| NB2 | NORSAR Subarra | 44.04 | 322 | P | P | 16 18 29.9 | +0.3 |
| | comp=Z,4.8nm,0.7s,baz=92,slow=7.9 | | | | | | |
| NOA | NORSAR Array B | 44.04 | 322 | P | P | 16 18 30.2 | +0.6 |
| | comp=Z,7.5nm,0.8s,baz=93,slow=7.8,SNR=15 | | | | | | |
| NOA | | | | pP | pP | 16 18 58.3 | +0.9 |
| | comp=Z,4.2nm,0.7s,baz=95,slow=8.2,SNR=4.5 | | | | | | |
| NOA | | | | LR | LR | 16 38 14.1 | |
| | comp=Z,41nm,18.5s,baz=90,slow=38 | | | | | | |
| ABTA | Abfaltersbach | 44.04 | 302 | i P | P | 16 18 30.5 | +0.6 |
| | comp=Z,7.2nm,1.1s | | | | | | |
| TIXI | Tiksi | 44.66 | 22 | i P | P | 16 18 34.7 | +0.4 |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.0s | | | | | | |
| MOTA | Moosalm | 44.89 | 303 | i P | P | 16 18 37.0 | +0.3 |
| | comp=Z,5.5nm,0.8s | | | | | | |
| FETA | Feichten | 45.20 | 302 | i P | P | 16 18 39.8 | +0.7 |
| | comp=Z,7.4nm,1.4s | | | | | | |
| DAVA | Damuels | 45.72 | 303 | i P | P | 16 18 44.0 | +0.8 |
| | comp=Z,19nm,1.0s | | | | | | |
| JNU | Nakatsue | 47.72 | 77 | P | P | 16 19 01.5 | +2.6 |
| | comp=Z,6.0nm,1.0s,baz=216,slow=23,SNR=3.5 | | | | | | |
| KEST | Kesra | 49.37 | 288 | P | P | 16 19 13.0 | +1.5 |
| | comp=Z,3.4nm,0.6s,baz=285,slow=2.9,SNR=5.5 | | | | | | |
| KMBO | Kilima Mbogo | 49.95 | 228 | eP | P | 16 19 16.6 | +0.3 |
| KMBO | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | |
| KMBO | Kilima Mbogo | 49.95 | 228 | eP | P | 16 19 16.6 | +0.3 |
| | comp=Z,1.8nm,0.7s | | | | | | |
| DAG | Danmarks Havn | 54.02 | 343 | i P | P | 16 19 46.7 | +1.4 |
| DAG | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.2s | | | | | | |
| DAG | Danmarks Havn | 54.02 | 343 | i P | P | 16 19 46.7 | +1.4 |
| | comp=Z,7.1nm,1.2s | | | | | | |
| ES19 | SONSECA Array | 57.55 | 298 | eP | P | 16 20 11.8 | +0.7 |
| ESDC | Sonseca Array | 57.61 | 298 | P | P | 16 20 12.3 | +0.7 |
| | comp=Z,4.1nm,0.6s,baz=59,slow=7.4,SNR=23 | | | | | | |
| ESDC | | | | pP | pP | 16 20 41.6 | +0.9 |
| | comp=Z,0.8nm,0.4s,baz=29,slow=17,SNR=5.4 | | | | | | |
| ESDC | Sonseca Array | 57.61 | 298 | Pg | pP | 16 20 41.5 | +0.8 |
| | comp=Z,0.2nm,0.1s,baz=33,slow=15,SNR=4.2 | | | | | | |
| TAM | Tamanrasset | 58.10 | 276 | eP | P | 16 20 14.5 | -0.9 |
| TAM | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.8s | | | | | | |
| TAM | Tamanrasset | 58.10 | 276 | eP | P | 16 20 14.5 | -0.9 |
| | comp=Z,3.3nm,0.8s | | | | | | |
| TOA0 | Torodi Ar. Sit | 66.40 | 269 | eP | P | 16 21 09.6 | -0.9 |
| TORD | Torodi Ar. Bea | 66.40 | 269 | P | P | 16 21 09.9 | -0.6 |
| | comp=Z,3.4nm,0.6s,baz=44,slow=5.6,SNR=23 | | | | | | |
| TORD | | | | sP | sP | 16 21 55.9 | +2.2 |
| | comp=Z,5.3nm,0.7s,baz=45,slow=5.5,SNR=8.5 | | | | | | |
| KOWA | Kowa | 70.18 | 273 | eP | P | 16 21 33.8 | -0.3 |
| | comp=Z,14nm,0.6s | | | | | | |
| COLD | Coldfoot | 70.89 | 16 | eP | P | 16 21 37.5 | -0.1 |
| | comp=Z,6.5nm,1.3s | | | | | | |
| INK | Inuvik | 72.88 | 10 | P | P | 16 21 50.7 | +1.3 |
| | comp=Z,1.2nm,0.5s,baz=338,slow=4.6,SNR=5.7 | | | | | | |
| COLA | College | 73.39 | 17 | P | P | 16 21 53.5 | +1.0 |
| COLA | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.9s | | | | | | |
| COLA | College | 73.39 | 17 | P | P | 16 21 53.5 | +1.0 |
| | comp=Z,4.5nm,0.9s | | | | | | |
| IL1 | Eielson Array | 73.70 | 16 | eP | P | 16 21 54.2 | -0.1 |
| ILAR | Eielson Array | 73.70 | 16 | P | P | 16 21 55.2 | +0.8 |
| | comp=Z,1.4nm,0.9s,baz=311,slow=4.8,SNR=12 | | | | | | |
| YKA | Yellowknife Ar | 80.28 | 3 | P | P | 16 22 32.3 | +1.2 |
| | comp=Z,0.4nm,0.3s,baz=351,slow=5.5,SNR=7.7 | | | | | | |
| YKA | | | | pP | pP | 16 23 03.2 | +1.2 |
| | comp=Z,1.2nm,0.7s,baz=352,slow=5.6,SNR=4.3 | | | | | | |
| WRA | Warramunga Arr | 81.93 | 123 | P | P | 16 22 40.5 | -0.1 |
| | comp=Z,0.6nm,1.0s,baz=324,slow=4.7,SNR=8.2 | | | | | | |
| ASAR | Alice Springs | 84.25 | 125 | P | P | 16 22 52.8 | +0.3 |
| | comp=Z,0.1nm,0.6s,baz=321,slow=5.4,SNR=2.8 | | | | | | |

*CSEM **05** 16:19:33.9±0.2, 42°.95N×1°.48W, h10km, ML2.6/15, Error ellipse: s-maj=3.6km s-min=3.1km az=122.0*

*LDG **05** 16:19:34.3±0.1, 42°.96N×1°.52W, h2km, Md2.5/3, Ml2.7/12, Error ellipse: s-maj=1.6km s-min=1.4km az=106.0*

**MDD 05 16:19:34.3**±0.2**, 42°.95N×1°.53W, h4**km±3km**, mbLg2.3**/24**, 2C-4D, Error ellipse: s-maj=1.7km s-min=1.3km az=114.0, PRXIMO, Pyrenees**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| EORO | Oroz-Betelu | 0.17 | 109 | ⇓Pg | Pg | 16 19 37.5 | -0.2 |
| | 97nm,0.1s,SNR=18 | | | | | | |
| EORO | | | | Lg | Lg | 16 19 40.5 | |
| | 325nm,0.1s,SNR=13 | | | | | | |
| EORO | Oroz-Betelu | 0.17 | 109 | Pg | Pg | 16 19 37.5 | -0.2 |
| | 97nm,0.1s,SNR=18 | | | | | | |
| EORO | | | | Lg | Lg | 16 19 40.5 | |
| | 325nm,0.1s,SNR=13 | | | | | | |
| EARA | Aranguren | 0.18 | 191 | ⇑Pg | Pg | 16 19 37.6 | -0.3 |
| | 58nm,0.1s,SNR=18 | | | | | | |
| EARA | | | | Lg | Lg | 16 19 40.6 | |
| | 252nm,0.1s | | | | | | |
| EARA | Aranguren | 0.18 | 191 | Pg | Pg | 16 19 37.6 | -0.2 |
| | 58nm,0.1s,SNR=18 | | | | | | |
| EARA | | | | Lg | Lg | 16 19 40.6 | |
| | 252nm,0.1s | | | | | | |
| IPRE | Itoiz | 0.20 | 138 | ⇓Pg | Pg | 16 19 37.9 | -0.2 |
| | 71nm,0.1s,SNR=18 | | | | | | |
| IPRE | | | | Lg | Lg | 16 19 40.9 | |
| | 300nm,0.2s,SNR=7.9 | | | | | | |
| IPRE | Itoiz | 0.20 | 138 | Pg | Pg | 16 19 37.9 | -0.2 |
| | 71nm,0.1s,SNR=18 | | | | | | |
| IPRE | | | | Lg | Lg | 16 19 40.9 | |
| | 300nm,0.2s,SNR=7.9 | | | | | | |
| IELO | Elcoad | 0.24 | 116 | ⇓Pg | Pg | 16 19 38.8 | -0.2 |
| | 81nm,0.1s,SNR=18 | | | | | | |
| IELO | | | | Lg | Lg | 16 19 42.6 | |
| | 224nm,0.1s,SNR=7.9 | | | | | | |
| IELO | Elcoad | 0.24 | 116 | Pg | Pg | 16 19 38.8 | -0.2 |
| | 81nm,0.1s,SNR=18 | | | | | | |
| IELO | | | | Lg | Lg | 16 19 42.6 | |
| | 224nm,0.1s,SNR=7.9 | | | | | | |
| EALK | Alkurruntz | 0.27 | 4 | ⇑Pg | Pg | 16 19 39.4 | -0.2 |
| | 19nm,0.1s,SNR=18 | | | | | | |
| EALK | | | | Lg | Lg | 16 19 43.5 | |
| | 151nm,0.2s,SNR=6.4 | | | | | | |
| EALK | Alkurruntz | 0.27 | 4 | Pg | Pg | 16 19 39.4 | -0.1 |
| | 19nm,0.1s,SNR=18 | | | | | | |
| EALK | | | | Lg | Lg | 16 19 43.5 | |
| | 151nm,0.2s,SNR=6.4 | | | | | | |
| SJPF | Ste Jean | 0.28 | 54 | ePg | Pg | 16 19 39.5 | -0.2 |
| SJPF | | | | eSg | Sg | 16 19 43.2 | -0.2 |
| | 150nm,0.2s | | | | | | |
| SJPF | Ste Jean | 0.28 | 54 | Pg | Pg | 16 19 39.5 | -0.2 |
| SJPF | | | | Lg | Lg | 16 19 43.2 | |
| | 75nm,0.2s | | | | | | |
| SJPF | Ste Jean | 0.28 | 54 | Pg | Pg | 16 19 39.5 | -0.2 |
| SJPF | | | | eSg | Sg | 16 19 43.2 | -0.2 |
| | 75nm,0.2s | | | | | | |
| OSSF | Osses | 0.36 | 33 | Pg | Pg | 16 19 41.0 | -0.4 |
| OSSF | | | | Lg | Lg | 16 19 45.4 | |
| OSSF | Osses | 0.36 | 33 | Pg | Pg | 16 19 41.0 | -0.3 |
| OSSF | | | | Lg | Lg | 16 19 45.4 | |
| ORDF | Ordiarp | 0.51 | 59 | Pg | Pg | 16 19 43.9 | -0.2 |
| ORDF | | | | Lg | Lg | 16 19 51.4 | |
| ORDF | Ordiarp | 0.51 | 59 | Pg | Pg | 16 19 43.9 | -0.2 |
| ORDF | | | | Lg | Lg | 16 19 51.4 | |
| ATE | Arette | 0.63 | 77 | Pg | Pg | 16 19 45.9 | -0.4 |
| ATE | | | | Sg | Sg | 16 19 54.7 | +0.3 |
| ATE | Arette | 0.63 | 77 | ⇓Pg | Pg | 16 19 45.9 | -0.4 |
| | 10nm,0.1s,SNR=18 | | | | | | |
| ATE | | | | Lg | Lg | 16 19 54.4 | |
| | 54nm,0.1s,SNR=7.9 | | | | | | |
| ATE | Arette | 0.63 | 77 | Pg | Pg | 16 19 45.9 | -0.4 |
| | 10nm,0.1s,SNR=18 | | | | | | |
| ATE | | | | Lg | Lg | 16 19 54.4 | |
| | 54nm,0.1s,SNR=7.9 | | | | | | |
| ATE | | | | Sg | Sg | 16 19 54.7 | +0.3 |
| ETSF | Etsaut | 0.72 | 94 | ePg | Pg | 16 19 47.3 | -0.8 |
| ETSF | | | | eSg | Sg | 16 19 56.8 | -0.6 |
| | 43nm,0.2s | | | | | | |
| ETSF | | | | eSn | Sb | 16 20 00.7 | +1.1 |
| ETSF | Etsaut | 0.72 | 94 | Pg | Pg | 16 19 47.3 | -0.8 |
| ETSF | | | | Lg | Lg | 16 19 56.8 | |
| | 21nm,0.2s | | | | | | |
| ETSF | Etsaut | 0.72 | 94 | Pg | Pg | 16 19 47.3 | -0.8 |
| ETSF | | | | eSg | Sg | 16 19 56.8 | -0.6 |
| | 21nm,0.2s | | | | | | |
| ETSF | | | | eSn | Sb | 16 20 00.7 | +1.1 |
| FDAF | Les Forges d'A | 0.72 | 100 | Pg | Pg | 16 19 47.5 | -0.6 |
| FDAF | | | | Lg | Lg | 16 19 57.9 | |
| FDAF | Les Forges d'A | 0.72 | 100 | Pg | Pg | 16 19 47.5 | -0.7 |
| FDAF | | | | Lg | Lg | 16 19 57.9 | |
| REYF | Montagne du Re | 0.85 | 82 | Pg | Pg | 16 19 49.5 | -1.0 |
| REYF | | | | Lg | Lg | 16 20 00.1 | |
| REYF | Montagne du Re | 0.85 | 82 | Pg | Pg | 16 19 49.5 | -1.0 |
| REYF | | | | Lg | Lg | 16 20 00.1 | |
| VIEF | Viey | 1.15 | 93 | Pg | Pg | 16 19 55.3 | -1.0 |
| VIEF | | | | Lg | Lg | 16 20 09.9 | |
| VIEF | Viey | 1.15 | 93 | Pg | Pg | 16 19 55.3 | -1.0 |
| VIEF | | | | Lg | Lg | 16 20 09.9 | |
| LABF | Labassere | 1.18 | 85 | Pg | Pg | 16 19 55.7 | -1.3 |
| LABF | | | | Lg | Lg | 16 20 11.9 | |
| LABF | Labassere | 1.18 | 85 | Pg | Pg | 16 19 55.7 | -1.3 |
| LABF | | | | Lg | Lg | 16 20 11.9 | |
| ECHI | Chisagues Biel | 1.30 | 102 | Pg | Pg | 16 19 58.8 | -0.4 |
| | 6.2nm,0.2s,SNR=20 | | | | | | |
| ECHI | | | | Lg | Lg | 16 20 18.0 | |
| | 49nm,0.1s,SNR=10 | | | | | | |
| ECHI | Chisagues Biel | 1.30 | 102 | Pg | Pg | 16 19 58.8 | -0.5 |
| | 6.2nm,0.2s,SNR=20 | | | | | | |
| ECHI | | | | Lg | Lg | 16 20 18.0 | |
| | 49nm,0.1s,SNR=10 | | | | | | |
| EPF | Esparros | 1.38 | 86 | ePg | Pn | 16 19 59.7 | -0.6 |
| EPF | Esparros | 1.38 | 86 | eP | Pg | 16 20 00.7 | 0.0 |
| EPF | | | | eSg | Sg | 16 20 17.4 | -1.1 |
| | 35nm,0.2s | | | | | | |
| EPF | Esparros | 1.38 | 86 | Pg | Pn | 16 19 59.7 | -0.6 |
| EPF | | | | Lg | Lg | 16 20 17.4 | |
| | 17nm,0.2s | | | | | | |
| EPF | Esparros | 1.38 | 86 | Pg | Pn | 16 19 59.7 | -0.6 |
| EPF | Esparros | 1.38 | 86 | eP | Pg | 16 20 00.7 | 0.0 |
| EPF | | | | eSg | Sg | 16 20 17.4 | -1.1 |
| | 17nm,0.2s | | | | | | |
| RESF | Ens | 1.38 | 95 | Pn | Pn | 16 19 59.7 | -0.8 |
| RESF | Ens | 1.38 | 95 | Pg | Pg | 16 20 01.6 | +0.8 |
| RESF | | | | Sg | Sn | 16 20 20.7 | +1.4 |
| RESF | Ens | 1.38 | 95 | Pg | Pn | 16 19 59.7 | -0.8 |
| RESF | | | | Lg | Lg | 16 20 20.5 | |
| RESF | Ens | 1.38 | 95 | Pg | Pn | 16 19 59.7 | -0.8 |
| RESF | | | | Lg | Lg | 16 20 20.5 | |
| ELAN | Lanestosa | 1.42 | 282 | Pg | Pn | 16 19 59.7 | -1.2 |
| | 6.8nm,0.1s,SNR=80 | | | | | | |
| ELAN | | | | Lg | Lg | 16 20 20.2 | |
| | 20nm,0.2s | | | | | | |
| ELAN | Lanestosa | 1.42 | 282 | Pg | Pn | 16 19 59.7 | -1.2 |
| | 6.8nm,0.1s,SNR=80 | | | | | | |
| ELAN | | | | Lg | Lg | 16 20 20.2 | |
| | 20nm,0.2s | | | | | | |
| ESAC | San Caprasio | 1.46 | 147 | Pn | Pn | 16 20 00.5 | -1.0 |
| | 3.0nm,0.1s,SNR=7.9 | | | | | | |
| ESAC | | | | Pg | Pb | 16 20 01.5 | -0.5 |
| | 11nm,0.2s,SNR=10 | | | | | | |
| ESAC | | | | Lg | Lg | 16 20 21.0 | |
| | 118nm,0.2s,SNR=5.9 | | | | | | |
| ESAC | San Caprasio | 1.46 | 147 | Pn | Pn | 16 20 00.5 | -1.0 |
| | 3.0nm,0.1s,SNR=7.9 | | | | | | |
| ESAC | San Caprasio | 1.46 | 147 | Pg | Pn | 16 20 01.5 | 0.0 |
| | 11nm,0.2s,SNR=10 | | | | | | |
| ESAC | | | | Lg | Lg | 16 20 21.0 | |
| | 118nm,0.2s,SNR=5.9 | | | | | | |
| MELF | Melles | 1.69 | 92 | Lg | Lg | 16 20 28.9 | |
| MELF | Melles | 1.69 | 92 | Lg | Lg | 16 20 28.9 | |
| SALF | Salau | 2.01 | 95 | Lg | Lg | 16 20 37.7 | |
| SALF | Salau | 2.01 | 95 | Lg | Lg | 16 20 37.7 | |
| CSOR | Sort | 2.05 | 105 | Pg | Pb | 16 20 12.3 | +0.2 |
| | 3.2nm,0.2s,SNR=7.1 | | | | | | |
| CSOR | | | | Lg | Lg | 16 20 40.4 | |
| | 12nm,0.2s,SNR=7.1 | | | | | | |
| CSOR | Sort | 2.05 | 105 | Pg | Pb | 16 20 12.3 | +0.2 |
| | 3.2nm,0.2s,SNR=7.1 | | | | | | |
| CSOR | | | | Lg | Lg | 16 20 40.4 | |
| | 12nm,0.2s,SNR=7.1 | | | | | | |
| ETOR | Torete | 2.17 | 191 | Pn | Pn | 16 20 11.1 | -0.1 |
| | 0.7nm,0.2s,SNR=17 | | | | | | |
| ETOR | | | | Pg | Pg | 16 20 15.0 | -0.7 |
| | 1.9nm,0.2s,SNR=7.9 | | | | | | |
| ETOR | | | | Lg | Lg | 16 20 44.4 | |
| | 2.9nm,0.2s | | | | | | |
| ETOR | Torete | 2.17 | 191 | Pn | Pn | 16 20 11.1 | -0.1 |
| | 0.7nm,0.2s,SNR=17 | | | | | | |
| ERTA | Horta de San J | 2.43 | 144 | Pn | Pn | 16 20 14.6 | -0.2 |
| | 0.4nm,0.1s,SNR=7.9 | | | | | | |
| ERTA | | | | Pg | Pg | 16 20 20.1 | -0.7 |
| | 0.7nm,0.1s,SNR=7.9 | | | | | | |
| ERTA | | | | Lg | Lg | 16 20 50.2 | |
| | 3.4nm,0.1s,SNR=4.0 | | | | | | |
| ERTA | Horta de San J | 2.43 | 144 | Pn | Pn | 16 20 14.6 | -0.2 |
| | 0.4nm,0.1s,SNR=7.9 | | | | | | |
| EMIR | Miracle | 2.49 | 114 | Pg | Pb | 16 20 20.1 | +0.5 |
| | 2.6nm,0.2s,SNR=4.0 | | | | | | |
| EMIR | | | | Lg | Lg | 16 20 53.2 | |
| | 5.9nm,0.2s,SNR=7.9 | | | | | | |
| EMIR | Miracle | 2.49 | 114 | Pg | Pb | 16 20 20.1 | +0.5 |
| | 2.6nm,0.2s,SNR=4.0 | | | | | | |
| EMIR | | | | Lg | Lg | 16 20 53.2 | |
| | 5.9nm,0.2s,SNR=7.9 | | | | | | |
| EPOB | Poblet | 2.52 | 129 | Pn | Pn | 16 20 15.1 | -0.9 |
| | 0.2nm,0.1s,SNR=7.9 | | | | | | |
| EPOB | | | | Pg | Pb | 16 20 20.8 | +0.8 |
| | 1.1nm,0.1s,SNR=7.9 | | | | | | |
| EPOB | | | | Sn | Sn | 16 20 44.4 | -2.7 |
| | 1.4nm,0.2s,SNR=7.9 | | | | | | |
| EPOB | | | | Lg | Lg | 16 20 52.0 | |
| | 3.0nm,0.2s,SNR=7.9 | | | | | | |
| EPOB | Poblet | 2.52 | 129 | Pn | Pn | 16 20 15.1 | -0.9 |
| | 0.2nm,0.1s,SNR=7.9 | | | | | | |
| EPOB | Poblet | 2.52 | 129 | Pg | Pb | 16 20 20.8 | +0.8 |
| | 1.1nm,0.1s,SNR=7.9 | | | | | | |
| EPOB | | | | Sn | Sn | 16 20 44.3 | -2.8 |
| | 1.4nm,0.2s,SNR=7.9 | | | | | | |
| EPOB | | | | Lg | Lg | 16 20 52.0 | |
| | 3.0nm,0.2s,SNR=7.9 | | | | | | |
| LFF | La Frestale | 2.58 | 39 | ePn | Pn | 16 20 15.1 | -1.7 |
| LFF | La Frestale | 2.58 | 39 | eP | Pn | 16 20 17.6 | +0.8 |
| LFF | | | | eSn | Sn | 16 20 44.9 | -3.6 |
| | 4.9nm,0.2s | | | | | | |
| LFF | La Frestale | 2.58 | 39 | Pn | Pn | 16 20 15.1 | -1.7 |
| LFF | | | | Sn | Sn | 16 20 44.9 | -3.6 |
| | 2.5nm,0.2s | | | | | | |
| LFF | La Frestale | 2.58 | 39 | Pn | Pn | 16 20 15.1 | -1.7 |
| LFF | La Frestale | 2.58 | 39 | eP | Pn | 16 20 17.6 | +0.8 |
| LFF | | | | Sn | Sn | 16 20 44.9 | -3.6 |
| | 2.5nm,0.2s | | | | | | |
| CLLI | Llivia | 2.63 | 99 | Pn | Pn | 16 20 14.5 | -3.1 |
| | 0.5nm,0.2s,SNR=7.9 | | | | | | |
| CLLI | | | | Pg | Pb | 16 20 22.8 | +0.8 |
| | 0.4nm,0.1s,SNR=8.3 | | | | | | |
| CLLI | | | | Lg | Lg | 16 20 57.7 | |
| | 4.4nm,0.3s,SNR=7.9 | | | | | | |
| CLLI | Llivia | 2.63 | 99 | Pn | Pn | 16 20 14.5 | -3.1 |
| | 0.5nm,0.2s,SNR=7.9 | | | | | | |
| EMOS | Mosqueruela | 2.71 | 163 | Pn | Pn | 16 20 18.1 | -0.5 |
| | 1.0nm,0.3s,SNR=7.9 | | | | | | |
| EMOS | | | | Sn | Sn | 16 20 50.3 | -1.7 |
| | 0.8nm,0.1s,SNR=7.9 | | | | | | |
| EMOS | | | | Lg | Lg | 16 20 59.6 | |
| | 1.7nm,0.1s,SNR=7.9 | | | | | | |
| EMOS | Mosqueruela | 2.71 | 163 | Pn | Pn | 16 20 18.1 | -0.6 |
| | 1.0nm,0.3s,SNR=7.9 | | | | | | |
| EMOS | | | | Sn | Sn | 16 20 50.3 | -1.6 |
| | 0.8nm,0.1s,SNR=7.9 | | | | | | |
| EMOS | | | | Lg | Lg | 16 20 59.6 | |
| | 1.7nm,0.1s,SNR=7.9 | | | | | | |
| EARI | Arriondas | 2.71 | 279 | Pn | Pn | 16 20 18.3 | -0.4 |
| | 0.2nm,0.1s,SNR=7.9 | | | | | | |
| EARI | | | | Sn | Sn | 16 20 50.4 | -1.5 |
| | 0.8nm,0.2s,SNR=7.9 | | | | | | |
| EARI | | | | Lg | Lg | 16 21 00.5 | |
| | 2.9nm,0.4s,SNR=7.9 | | | | | | |
| EARI | Arriondas | 2.71 | 279 | Pn | Pn | 16 20 18.3 | -0.4 |
| | 0.2nm,0.1s,SNR=7.9 | | | | | | |
| EARI | | | | Sn | Sn | 16 20 50.4 | -1.6 |
| | 0.8nm,0.2s,SNR=7.9 | | | | | | |
| EARI | | | | Lg | Lg | 16 21 00.5 | |
| | 2.9nm,0.4s,SNR=7.9 | | | | | | |
| MTLF | Montolieu | 2.77 | 81 | ePn | Pn | 16 20 17.5 | -2.0 |
| MTLF | Montolieu | 2.77 | 81 | eP | Pn | 16 20 20.1 | +0.6 |
| MTLF | Montolieu | 2.77 | 81 | ePg | Pb | 16 20 25.5 | +1.1 |
| MTLF | | | | eSn | Sn | 16 20 49.4 | -4.0 |
| MTLF | | | | eSg | Sg | 16 21 01.2 | -2.1 |
| | 5.1nm,0.3s | | | | | | |
| MTLF | Montolieu | 2.77 | 81 | Pn | Pn | 16 20 17.5 | -2.0 |
| MTLF | | | | Pg | Pb | 16 20 25.5 | +1.1 |
| MTLF | | | | Sn | Sn | 16 20 49.4 | -4.0 |
| MTLF | | | | Lg | Lg | 16 21 01.2 | |
| | 2.6nm,0.3s | | | | | | |
| MTLF | Montolieu | 2.77 | 81 | Pn | Pn | 16 20 17.5 | -2.0 |
| MTLF | Montolieu | 2.77 | 81 | eP | Pn | 16 20 20.1 | +0.6 |
| MTLF | Montolieu | 2.77 | 81 | Pg | Pb | 16 20 25.5 | +1.1 |
| MTLF | | | | Sn | Sn | 16 20 49.4 | -4.0 |
| MTLF | | | | eSg | Sg | 16 21 01.2 | -2.1 |
| | 2.5nm,0.3s | | | | | | |
| GUD | Guadarrama | 3.03 | 221 | Sn | Sn | 16 20 57.0 | -2.7 |
| | 0.8nm,0.2s,SNR=7.9 | | | | | | |
| GUD | | | | Lg | Lg | 16 21 08.1 | |
| | 2.9nm,0.3s,SNR=7.9 | | | | | | |
| GUD | Guadarrama | 3.03 | 221 | Sn | Sn | 16 20 57.0 | -2.8 |
| | 0.8nm,0.2s,SNR=7.9 | | | | | | |
| GUD | | | | Lg | Lg | 16 21 08.1 | |
| | 2.9nm,0.3s,SNR=7.9 | | | | | | |
| CFON | Fontmartina | 3.17 | 111 | Pn | Pn | 16 20 24.7 | -0.4 |
| | 1.3nm,0.1s,SNR=7.9 | | | | | | |
| CFON | | | | Pg | Pb | 16 20 32.5 | +1.2 |
| | 1.6nm,0.2s,SNR=7.8 | | | | | | |
| CFON | | | | Lg | Lg | 16 21 15.2 | |
| | 17nm,0.3s | | | | | | |
| CFON | Fontmartina | 3.17 | 111 | Pn | Pn | 16 20 24.7 | -0.3 |
| | 1.3nm,0.1s,SNR=7.9 | | | | | | |
| RJF | Les Rejaudoux | 3.22 | 42 | eP | Pn | 16 20 25.9 | +0.3 |
| RJF | | | | eSn | Sn | 16 21 00.2 | -4.2 |
| | 7.8nm,0.3s | | | | | | |
| RJF | Les Rejaudoux | 3.22 | 42 | eP | Pn | 16 20 25.9 | +0.3 |
| RJF | | | | eSn | Sn | 16 21 00.2 | -4.2 |
| | 3.9nm,0.3s | | | | | | |
| CAF | Calviac | 3.26 | 52 | ePn | Pn | 16 20 24.3 | -1.9 |
| CAF | Calviac | 3.26 | 52 | eP | Pn | 16 20 27.1 | +0.9 |
| CAF | | | | eSn | Sn | 16 21 01.2 | -4.3 |
| | 5.2nm,0.2s | | | | | | |
| CAF | Calviac | 3.26 | 52 | Pn | Pn | 16 20 24.3 | -1.9 |
| CAF | | | | Sn | Sn | 16 21 01.2 | -4.3 |
| | 2.6nm,0.2s | | | | | | |
| CAF | Calviac | 3.26 | 52 | Pn | Pn | 16 20 24.3 | -1.9 |
| CAF | Calviac | 3.26 | 52 | eP | Pn | 16 20 27.1 | +0.9 |
| CAF | | | | Sn | Sn | 16 21 01.2 | -4.3 |
| | 2.6nm,0.2s | | | | | | |
| SJAF | Saint Jean de | 3.29 | 97 | Pg | Pb | 16 20 34.6 | +1.4 |
| | 0.7nm,0.2s,SNR=7.9 | | | | | | |
| SJAF | | | | Lg | Lg | 16 21 18.1 | |
| | 0.6nm,0.2s,SNR=7.9 | | | | | | |
| SJAF | Saint Jean de | 3.29 | 97 | Pg | Pb | 16 20 34.6 | +1.4 |
| | 0.7nm,0.2s,SNR=7.9 | | | | | | |
| SJAF | | | | Lg | Lg | 16 21 18.1 | |
| | 0.6nm,0.2s,SNR=7.9 | | | | | | |
| EJON | La Jonquera | 3.30 | 97 | Lg | Lg | 16 21 19.1 | |
| | 1.8nm,0.3s,SNR=7.9 | | | | | | |
| EJON | La Jonquera | 3.30 | 97 | Lg | Lg | 16 21 19.1 | |
| | 1.8nm,0.3s,SNR=7.9 | | | | | | |
| ESDC | Sonseca Array | 3.75 | 210 | Pn | Pn | 16 20 32.7 | -0.2 |
| | 0.7nm,0.1s,baz=32,slow=14,SNR=7.9 | | | | | | |
| ESDC | | | | Lg | Lg | 16 21 31.9 | |
| | 1.3nm,0.3s,baz=30,slow=28,SNR=9.0 | | | | | | |
| ESDC | Sonseca Array | 3.75 | 210 | Pn | Pn | 16 20 32.7 | -0.2 |
| | 0.7nm,0.1s,SNR=7.9 | | | | | | |
| ESDC | | | | Lg | Lg | 16 21 31.9 | |
| | 1.3nm,0.3s,SNR=9.0 | | | | | | |
| MFF | Saint Martin d | 3.78 | 15 | eP | Pn | 16 20 34.6 | +1.3 |
| MFF | | | | eSg | Sg | 16 21 32.4 | -3.3 |
| | 1.0nm,0.2s | | | | | | |
| MFF | Saint Martin d | 3.78 | 15 | eP | Pn | 16 20 34.6 | +1.3 |
| MFF | | | | eSg | Sg | 16 21 32.4 | -3.3 |
| | 0.5nm,0.2s | | | | | | |
| LASF | Ste Croix | 4.08 | 72 | ePn | Pn | 16 20 35.6 | -1.8 |
| LASF | Ste Croix | 4.08 | 72 | eP | Pn | 16 20 39.0 | +1.6 |
| LASF | | | | eSn | Sn | 16 21 20.8 | -4.8 |
| | 3.1nm,0.3s | | | | | | |
| LASF | Ste Croix | 4.08 | 72 | Pn | Pn | 16 20 35.6 | -1.8 |
| LASF | | | | Sn | Sn | 16 21 20.8 | -4.8 |
| | 1.6nm,0.3s | | | | | | |
| LASF | Ste Croix | 4.08 | 72 | ePn | Pn | 16 20 35.6 | -1.8 |
| LASF | Ste Croix | 4.08 | 72 | eP | Pn | 16 20 39.0 | +1.6 |
| LASF | | | | eSn | Sn | 16 21 20.8 | -4.8 |
| | 1.5nm,0.3s | | | | | | |
| TCF | Toulx Ste Croi | 4.28 | 37 | ePn | Pn | 16 20 38.9 | -1.2 |
| TCF | | | | eSn | Sn | 16 21 25.7 | -4.7 |
| | 2.2nm,0.2s | | | | | | |
| TCF | Toulx Ste Croi | 4.28 | 37 | Pn | Pn | 16 20 38.9 | -1.2 |
| TCF | | | | Sn | Sn | 16 21 25.7 | -4.7 |
| | 1.1nm,0.2s | | | | | | |
| TCF | Toulx Ste Croi | 4.28 | 37 | ePn | Pn | 16 20 38.9 | -1.2 |
| TCF | | | | eSn | Sn | 16 21 25.7 | -4.7 |
| | 1.1nm,0.2s | | | | | | |
| BGF | Bois d'Agland | 4.77 | 39 | ePn | Pn | 16 20 44.9 | -2.0 |
| BGF | | | | eSn | Sn | 16 21 37.3 | -5.2 |
| | 7.6nm,0.3s | | | | | | |
| BGF | Bois d'Agland | 4.77 | 39 | Pn | Pn | 16 20 44.9 | -2.0 |
| BGF | | | | Sn | Sn | 16 21 37.3 | -5.2 |
| | 3.8nm,0.3s | | | | | | |
| BGF | Bois d'Agland | 4.77 | 39 | ePn | Pn | 16 20 44.9 | -2.0 |
| BGF | | | | eSn | Sn | 16 21 37.3 | -5.2 |
| | 3.8nm,0.3s | | | | | | |
| EAGO | Agolada(Pontev | 4.82 | 270 | Pn | Pn | 16 20 46.5 | -1.1 |
| | 0.4nm,0.1s,SNR=7.9 | | | | | | |
| VIVF | Saint-Julien-l | 4.87 | 65 | ePn | Pn | 16 20 45.8 | -2.5 |
| VIVF | Saint-Julien-l | 4.87 | 65 | eP | Pn | 16 20 49.8 | +1.5 |
| VIVF | | | | eSn | Sn | 16 21 40.2 | -5.0 |
| | 1.1nm,0.3s | | | | | | |
| VIVF | Saint-Julien-l | 4.87 | 65 | Pn | Pn | 16 20 45.8 | -2.5 |
| VIVF | | | | Sn | Sn | 16 21 40.2 | -5.0 |
| | 0.6nm,0.3s | | | | | | |
| VIVF | Saint-Julien-l | 4.87 | 65 | ePn | Pn | 16 20 45.8 | -2.5 |
| VIVF | Saint-Julien-l | 4.87 | 65 | eP | Pn | 16 20 49.8 | +1.5 |
| VIVF | | | | eSn | Sn | 16 21 40.2 | -5.0 |
| | 0.6nm,0.3s | | | | | | |
| AVF | Avril sur Loir | 5.18 | 40 | ePn | Pn | 16 20 50.1 | -2.4 |
| AVF | Avril sur Loir | 5.18 | 40 | ePn | Pn | 16 20 50.1 | -2.4 |

*SJA **05** 16:20:49.9±1.1, 24°.23S×67°.44W, h168km±23km, ML2.0, MW2.7*

*ISCJB **05** 16:20:53.3±0.4, 24°.28S±0°.04×67°.14W±0°.05, h169km, Error ellipse: s-maj=7.5km s-min=3.8km az=42.5*

*GUC **05** 16:20:55.4±0.3, 23°.95S×67°.49W, h224km±12km, ML4.0*

**ISC 05 16:20:53.2**±1.2**, 24°.33S**±0°.04×**67°.14W**±0°.05**, h169**km**, n16, σ1§38**/27**, 2C, Chile-Argentina border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SLA | San Lorenzo | 1.54 | 105 | i P | Pn | 16 21 26.0 | +1.2 |
| AZAP | Zapla | 1.90 | 87 | i P | Pn | 16 21 28.8 | +0.2 |
| FSA | Cafayete | 2.06 | 150 | i P | Pn | 16 21 31.4 | +1.0 |
| FSA | | | | IAML | | 16 21 38.0 | |
| | comp=Z,8.7nm,0.3s | | | | | | |
| FSA | | | | i S | Sn | 16 22 00.4 | +1.2 |
| ASTB | Santa Barbara | 2.48 | 82 | i P | Pn | 16 21 35.8 | +0.5 |
| YJA | Yavi | 2.61 | 35 | i P | Pn | 16 21 36.5 | -0.6 |
| YJA | | | | i S | Sn | 16 22 10.4 | -0.6 |
| YJA | | | | IAML | | 16 22 12.8 | |
| | comp=Z,3.0nm,0.4s | | | | | | |
| PB06 | IPOC Station P | 2.76 | 305 | ⇑iP | Pn | 16 21 40.4 | +1.9 |
| PB06 | | | | eS | Sn | 16 22 14.2 | +0.6 |
| PB06 | | | | IAML | | 16 22 18.1 | |
| | comp=N,250nm,0.1s | | | | | | |
| ALOL | LOMAS DE OLMED | 2.93 | 81 | i P | Pn | 16 21 40.9 | +0.4 |
| AHML | Horco Molle | 2.94 | 147 | i P | Pn | 16 21 41.5 | +0.9 |
| AHML | | | | i S | Sn | 16 22 19.2 | +1.7 |
| PB09 | IPOC Station P | 3.18 | 322 | ⇑iP | Pn | 16 21 44.9 | +1.1 |
| PB09 | | | | eS | Sn | 16 22 23.7 | +0.6 |
| PB09 | | | | IAML | | 16 22 30.6 | |
| | comp=E,263nm,0.7s | | | | | | |
| PB10 | IPOC Station P | 3.23 | 284 | eP | Pn | 16 21 46.1 | +2.0 |
| PB10 | | | | eS | Sn | 16 22 25.0 | +1.2 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PB10 | | | | | IAML | 16 22 28.2 | |
| | comp=E,326nm,0.2s | | | | | | |
| **PB04** | **IPOC Station P** | **3.41** | **305** | *e*P | **Pn** | **16 21 47.6** | **+1.0** |
| PB04 | | | | *e*S | **Sn** | **16 22 27.6** | **-0.5** |
| PB04 | | | | | IAML | 16 22 30.7 | |
| | comp=N,175nm,0.3s | | | | | | |
| **PB07** | **IPOC Station P** | **3.62** | **315** | *e*P | **Pn** | **16 21 49.9** | **+0.6** |
| PB07 | | | | *e*S | **Sn** | **16 22 31.5** | **-1.5** |
| PB07 | | | | | IAML | 16 22 36.9 | |
| | comp=E,120nm,0.2s | | | | | | |
| **PB01** | **IPOC Station P** | **3.92** | **326** | *e*P | **Pn** | **16 21 52.9** | **-0.2** |
| PB01 | | | | *e*S | **Sn** | **16 22 38.0** | **-1.8** |
| **PB02** | **IPOC Station P** | **3.93** | **319** | *e*P | **Pn** | **16 21 53.1** | **-0.1** |
| PB02 | | | | *e*S | **Sn** | **16 22 37.5** | **-2.5** |
| PB02 | | | | | IAML | 16 22 43.8 | |
| | comp=E,112nm,0.2s | | | | | | |
| **VCA** | **Vinchina** | **4.49** | **192** | *i* P | **Pn** | **16 21 58.0** | **-2.4** |
| **ACLC** | **CERRO LA CRUZ** | **5.08** | **178** | *i* P | **Pn** | **16 22 07.7** | **-0.3** |
| ACLC | | | | *i* S | **Sn** | **16 23 04.3** | **-2.5** |

*DDA **05** 16:26:35.0, 38.°43N×39.°33E, h7km, Md2.7*
*ISCJB **05** 16:26:35.2±0.6, 38.°43N±0.°04×39.°31E±0.°05, h6km±6km, Error ellipse: s-maj=7.7km s-min=5.6km az=141.0*
*CSEM **05** 16:26:35.2±0.1, 38.°43N×39.°28E, h5km, MD2.7, Error ellipse: s-maj=3.8km s-min=2.6km az=80.0*
**ISC 05 16:26:34.5**±1.0**, 38.°41N**±0.°04×**39.°33E**±0.°03**, h10**km±6km**, n14, σ0.s47**/24**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SVRC** | **Sivrice-ELAZID** | **0.04** | **213** | *e*PG | **Pg** | **16 26 36.8** | **+0.2** |
| SVRC | | | | *e*SG | **Sg** | **16 26 37.8** | **-0.3** |
| **SVRC** | **Sivrice-ELAZID** | **0.04** | **213** | *e*Pg | **Pg** | **16 26 36.8** | **+0.2** |
| SVRC | | | | *e*Sg | **Sg** | **16 26 37.8** | **-0.3** |
| **ELZG** | **Elazig** | **0.29** | **288** | *i* P | **Pg** | **16 26 40.7** | **+0.4** |
| ELZG | | | | *i* S | **Sg** | **16 26 45.2** | **+0.9** |
| **ELZG** | **Elazig** | **0.29** | **288** | P | **Pg** | **16 26 40.7** | **+0.4** |
| ELZG | | | | S | **Sg** | **16 26 45.2** | **+0.9** |
| **PTK** | **Pertek** | **0.48** | **6** | *e*PG | **Pb** | **16 26 44.8** | **-0.4** |
| **PTK** | **Pertek** | **0.48** | **6** | *e*Pg | **Pb** | **16 26 44.8** | **-0.4** |
| **TNCL** | **Tunceli-Merkez** | **0.72** | **13** | *i* P | **Pg** | **16 26 48.7** | **+0.2** |
| TNCL | | | | *i* S | **Sg** | **16 26 58.7** | **+0.7** |
| **TNCL** | **Tunceli-Merkez** | **0.72** | **13** | P | **Pg** | **16 26 48.7** | **+0.2** |
| TNCL | | | | S | **Sg** | **16 26 58.7** | **+0.7** |
| **URFA** | **Urfa** | **1.05** | **203** | *e*PG | **Pn** | **16 26 55.3** | **0.0** |
| **URFA** | **Urfa** | **1.05** | **203** | *e*Pg | **Pn** | **16 26 55.3** | **0.0** |
| **KEMA** | **Kemaliye** | **1.08** | **323** | *i* P | **Pg** | **16 26 55.0** | **-0.2** |
| KEMA | | | | *i* S | **Sg** | **16 27 08.8** | **-0.5** |
| **KEMA** | **Kemaliye** | **1.08** | **323** | P | **Pg** | **16 26 55.0** | **-0.2** |
| KEMA | | | | S | **Sg** | **16 27 08.8** | **-0.5** |
| **BTMN** | **Batman** | **1.61** | **108** | *i* P | **Pg** | **16 27 05.5** | **+0.1** |
| BTMN | | | | *i* S | **Sg** | **16 27 26.7** | **+0.3** |
| **BTMN** | **Batman** | **1.61** | **108** | P | **Pg** | **16 27 05.5** | **+0.1** |
| BTMN | | | | S | **Sg** | **16 27 26.7** | **+0.3** |

**IDC 05 16:51:43.1**±1.9**, 17.°00S**×**177.°58W, h0**km**, mb3.9**/5**, mb1 4.2**/5**, mb1mx3.7**/28**, mbtmp3.9**/5**, Error ellipse: s-maj=110.3km s-min=26.3km az=148.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **STKA** | **Stephens Creek** | **39.76** | **240** | P | P | 16 59 18.2 | +0.4 |
| | 1.3nm,0.5s,baz=60,slow=8.5,SNR=5.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **45.58** | **259** | P | P | 17 00 05.2 | 0.0 |
| | 1.4nm,0.4s,baz=97,slow=7.0,SNR=36 | | | | | | |
| **ASAR** | **Alice Springs** | **45.80** | **253** | P | P | 17 00 06.5 | -0.6 |
| | 3.3nm,0.7s,baz=91,slow=7.8,SNR=117 | | | | | | |
| **ILAR** | **Eielson Array** | **84.83** | **13** | P | P | 17 04 18.6 | -0.5 |
| | 0.2nm,0.8s,baz=221,slow=4.7,SNR=4.2 | | | | | | |
| **TXAR** | **Lajitas Array** | **84.85** | **57** | P | P | 17 04 20.6 | +0.5 |
| | 0.3nm,0.5s,baz=216,slow=6.2,SNR=3.9 | | | | | | |

**MAN 05 17:01:28, 16.°47N**×**121.°05E, h21**km**, mb4.5, ML3.4, MS3.3, Luzon**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CAUP** | **Cauayan** | **0.88** | **57** | *e*P | Pb | 17 01 44.9 | +0.3 |
| **BALP** | **Baler** | **0.88** | **145** | *e*P | Pb | 17 01 43.9 | -0.7 |
| **PCPH** | **Palayan** | **0.90** | **177** | *e*P | Pb | 17 01 45.1 | +0.2 |
| PCPH | | | | *e*S | Sn | 17 01 59.2 | +1.4 |
| **ABRA** | **Dolores** | **1.22** | **345** | *e*P | Pb | 17 01 50.3 | 0.0 |
| ABRA | | | | *e*S | Sn | 17 02 06.7 | +1.0 |

**DJA 05 17:09:43.4**±0.9**, 3°S**±6°×**12°2E**±°**, h21**km±6km**, M3.6**/5**, MLv3.6**/5**, Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TTSI** | **Tana Toraja** | **1.96** | **265** | Pg | Pb | 17 10 21.1 | +2.6 |
| **APSI** | **Ampana** | **1.97** | **356** | P | Pn | 17 10 16.9 | +1.3 |
| APSI | | | | S | Sb | 17 10 41.5 | -1.2 |
| **LUWI** | **Luwuk** | **2.09** | **28** | P | Pn | 17 10 16.3 | -0.9 |
| LUWI | | | | S | Sn | 17 10 44.1 | +1.6 |
| **BNSI** | **Bone** | **2.25** | **228** | P | Pb | 17 10 25.8 | +2.5 |
| **SPSI** | **Sidrap Palu** | **2.27** | **242** | Pg | Pb | 17 10 27.1 | +3.4 |
| SPSI | | | | S | Sn | 17 10 47.9 | +0.8 |
| **MRSI** | **Marisa** | **3.35** | **3** | P | Pn | 17 10 34.7 | +0.2 |
| MRSI | | | | S | Sn | 17 11 12.7 | -1.0 |

*BJI **05** 17:11:23.2, 4.°78N×125.°33E, h302km, mb4.6/39, mB4.7/19*
*MAN **05** 17:11:24, 4.°82N×125.°06E, h284km, mb5.1, ML4.0, MS4.2*
*MOS **05** 17:11:24.7±1.0, 4.°95N×125.°00E, h294km, mb4.8/36, Error ellipse: s-maj=12.8km s-min=5.6km az=112.0*
*ISCJB **05** 17:11:25.2±0.2, 4.°98N±0.°02×125.°11E±0.°03, h296km±2km, mb4.6/96, Error ellipse: s-maj=5.1km s-min=3.1km az=170.5*
*IDC **05** 17:11:26.5±1.2, 4.°97N×125.°02E, h296km±11km, mb4.2/24, mb1 4.3/25, mb1mx4.1/40, mbtmp4.9/25, Error ellipse: s-maj=14.7km s-min=7.1km az=70.0*
*DJA **05** 17:11:26.9±0.3, 5°N±3°×12°5E±°, h270km±3km, M4.8/18, mb5.0/18, mB5.2/14, MLv5.3/9, Mw(mB)4.6/14*
*NEIC **05** 17:11:27.1±0.6, 4.°98N×125.°05E, h302km±6km, mb4.7/46, Error ellipse: s-maj=7.4km s-min=4.1km az=71.0*
**ISC 05 17:11:26.3**±0.4**, 4.°99N**±0.°03×**125.°09E**±0.°05**, h292**km±3km**, n240, σ1.s28**/282**, mb4.7**/95**, 19C-6D, Talaud Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GSPH** | **General Santos** | **1.10** | **353**⇑ | *e*P | **Pn** | **17 12 05.6** | **-0.9** |
| GSPH | | | | *e*S | **S** | **17 12 36.7** | **-1.7** |
| **SGSI** | **Sangihe** | **1.36** | **161** | P | **Pn** | **17 12 05.5** | **-2.3** |
| SGSI | | | | S | **S** | **17 12 36.5** | **-4.3** |
| **KCP** | **Kidapawan** | **2.01** | **0**⇑ | *i*P | **Pn** | **17 12 11.7** | **-0.8** |
| KCP | | | | *i* S | **S** | **17 12 47.3** | **-2.0** |
| **DMPH** | **Davao City--Mi** | **2.13** | **11**⇑ | *e*P | **Pn** | **17 12 13.1** | **-0.3** |
| DMPH | | | | *e*S | **S** | **17 12 48.5** | **-2.4** |
| **DAV** | **Davao City (W)** | **2.13** | **13** | *e*Pn | **Pn** | **17 12 13.5** | **+0.1** |
| **MATI** | **Mati** | **2.27** | **31** | *e*P | **Pn** | **17 12 13.0** | **-1.6** |
| MATI | | | | *e*S | **S** | **17 12 53.4** | **+0.3** |
| **CTBH** | **Cotabato--PC H** | **2.37** | **339**⇑ | *i*P | **Pn** | **17 12 14.5** | **-1.0** |
| **BUKP** | **Musuan** | **2.88** | **360** | *e*P | **Pn** | **17 12 20.4** | **+0.1** |
| BUKP | | | | *e*S | **S** | **17 13 03.6** | **+0.2** |
| **PAGZ** | **Pagadian** | **3.31** | **329** | *e*P | **Pn** | **17 12 24.9** | **+0.2** |
| **ZCP** | **Zamboanga City** | **3.56** | **303**⇑ | *i*P | **Pn** | **17 12 27.5** | **+0.2** |
| ZCP | | | | *i* S | **S** | **17 13 08.7** | **-7.4** |
| **KMSI** | **Cibinong** | **4.52** | **194** | P | **Pn** | **17 12 37.8** | **-0.2** |
| **SNPH** | **Sibulan** | **4.70** | **337**⇑ | *e*P | **Pn** | **17 12 41.0** | **+0.9** |
| **MSLP** | **Maasin** | **5.12** | **358** | *e*P | **Pn** | **17 12 45.0** | **+0.1** |
| **MRSI** | **Marisa** | **5.47** | **215** | P | **Pn** | **17 12 49.3** | **+0.2** |
| | 199nm,0.7s,2μm | | | | | | |
| MRSI | | | | S | **S** | **17 13 53.7** | **-1.9** |
| | 199nm,0.7s,2μm | | | | | | |
| **LBMI** | **Labuha** | **6.08** | **157** | P | **Pn** | **17 12 54.6** | **-1.9** |
| LBMI | | | | S | **S** | **17 14 05.9** | **-3.2** |
| **LUWI** | **Luwuk** | **6.42** | **201** | P | **Pn** | **17 13 00.3** | **-0.2** |
| **LUWI** | **Luwuk** | **6.42** | **201** | *e*Pn | **Pn** | **17 12 60.0** | **-0.5** |
| **MYLDM** | **Lahad Datu** | **6.56** | **272** | *e*Pn | **Pn** | **17 13 04.2** | **+1.9** |
| **APSI** | **Ampana** | **6.79** | **210** | P | **Pn** | **17 13 05.6** | **+0.6** |
| | 176nm,0.7s,3μm | | | | | | |
| APSI | | | | S | **S** | **17 14 26.2** | **+1.5** |
| | 176nm,0.7s,3μm | | | | | | |
| **RCP** | **Roxas** | **6.93** | **341**⇑ | *e*P | **Pn** | **17 13 07.5** | **+0.8** |
| **MPSI** | **Mapaga** | **6.94** | **228** | P | **Pn** | **17 13 07.1** | **+0.3** |
| | 25nm,1.0s,414nm | | | | | | |
| **SANI** | **Sanana** | **7.05** | **173** | P | **Pn** | **17 13 03.8** | **-4.3** |
| **SJMP** | **San Jose** | **8.40** | **332** | *e*P | **Pn** | **17 13 24.7** | **0.0** |
| **PVCP** | **Virac** | **8.61** | **354** | *e*P | **Pn** | **17 13 28.6** | **+1.3** |
| **KKM** | **Kota Kinabalu** | **8.89** | **277** | *e*Pn | **Pn** | **17 13 31.6** | **+0.6** |
| **MSAI** | **Masohi** | **9.12** | **155** | P | **Pn** | **17 13 33.5** | **-0.2** |
| | 35nm,0.8s,840nm | | | | | | |
| **AAI** | **Ambon** | **9.16** | **160** | P | **Pn** | **17 13 32.7** | **-1.5** |
| | 262nm,0.7s,4μm | | | | | | |
| **TTSI** | **Tana Toraja** | **9.55** | **214** | P | **Pn** | **17 13 40.1** | **+1.0** |
| | 179nm,0.8s,2μm | | | | | | |
| **TGY** | **Tagaytay City** | **9.94** | **336** | P | **Pn** | **17 13 45.1** | **+1.3** |
| | 7.2nm,0.3s,baz=187,slow=5.5,SNR=5.9 | | | | | | |
| **SPSI** | **Sidrap Palu** | **10.36** | **211** | P | **Pn** | **17 13 49.3** | **+0.4** |
| | 26nm,1.1s,546nm | | | | | | |
| **BNSI** | **Bone** | **10.57** | **208** | P | **Pn** | **17 13 51.1** | **-0.4** |
| **FAKI** | **Fak Fak** | **10.62** | **138** | P | **P** | **17 13 57.2** | **+1.8** |
| **CAUP** | **Cauayan** | **12.31** | **345** | *e*P | **Pn** | **17 14 12.2** | **-0.5** |
| **ABRA** | **Dolores** | **13.29** | **342** | *e*P | **P** | **17 14 24.8** | **-0.2** |
| **APYP** | **Conner** | **13.34** | **344** | *e*P | **Pn** | **17 14 25.1** | **-0.1** |
| **MMRI** | **Maumere** | **13.82** | **192** | P | **Pn** | **17 14 31.4** | **+0.3** |
| **MMRI** | **Maumere** | **13.82** | **192** | *e*P | **P** | **17 14 30.9** | **0.0** |
| **EDFI** | **Ende, Flores** | **14.06** | **194** | P | **Pn** | **17 14 34.0** | **0.0** |
| **SOEI** | **Soe** | **14.67** | **183** | P | **Pn** | **17 14 44.2** | **+2.9** |
| **SOEI** | **Soe** | **14.67** | **183** | *e*P | **Pn** | **17 14 42.0** | **+0.7** |
| **KSM** | **Kuching** | **15.16** | **257** | *e*P | **Pn** | **17 14 48.1** | **+1.1** |
| | 28nm,1.0s | | | | | | |
| **PLAI** | **Plampang** | **15.54** | **208** | P | **Pn** | **17 14 51.4** | **0.0** |
| **GENI** | **Genyem** | **16.84** | **116** | P | **Pn** | **17 15 06.0** | **-0.7** |
| **JAY** | **Jayapura** | **17.29** | **115** | P | **P** | **17 15 09.8** | **+0.8** |
| **GMJI** | **Gumukmas** | **17.56** | **221** | P | **P** | **17 15 12.6** | **+0.8** |
| **MTN** | **Manton Dam** | **18.70** | **161** | *e*P | **P** | **17 15 23.6** | **-0.5** |
| | 48nm,0.4s | | | | | | |
| **TPUB** | **Ta-pu** | **18.71** | **347** | *e*P | **P** | **17 15 23.6** | **-0.5** |
| | 47nm,0.9s | | | | | | |
| **SSLB** | **Suanglung** | **19.11** | **348** | *e*P | **P** | **17 15 27.1** | **-1.3** |
| | 30nm,0.9s | | | | | | |
| **MMPI** | **Merauke** | **20.28** | **131** | P | **P** | **17 15 42.1** | **+1.3** |
| **UBPT** | **Khong Chiam** | **21.83** | **299** | P | **P** | **17 15 56.3** | **+0.8** |
| | 104nm,1.1s | | | | | | |
| **JOW** | **Kunigami** | **21.94** | **8** | *e*P | **P** | **17 15 57.6** | **+1.2** |
| | 172nm,0.9s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **22.95** | **179** | P | **P** | **17 16 05.4** | **-0.2** |
| | 21nm,0.5s,baz=6.2,slow=8.7,SNR=147 | | | | | | |
| **SKNT** | **Sakolnakorn** | **23.86** | **302** | P | **P** | **17 16 14.8** | **+0.8** |
| | 132nm,0.9s | | | | | | |
| **SRAK** | **Srakaew** | **24.41** | **293** | P | **P** | **17 16 15.2** | **-3.8** |
| | 96nm,0.8s,795nm | | | | | | |
| **KHON** | **Khomkaen** | **24.58** | **299** | P | **P** | **17 16 21.8** | **+1.3** |
| | 21nm,0.8s | | | | | | |
| **NONG** | **Nongkai** | **25.08** | **303** | P | **P** | **17 16 25.4** | **+0.4** |
| | 112nm,0.8s,9μm | | | | | | |
| **CHAI** | **Chaiyaphum** | **25.14** | **297** | P | **P** | **17 16 25.8** | **+0.2** |
| | 12nm,0.9s,101nm | | | | | | |
| **PMG** | **Port Moresby** | **26.24** | **123** | *e*P | **P** | **17 16 35.1** | **-0.3** |
| PMG | | | | pmax | pmax | | |
| | comp=Z,128nm,1.1s | | | | | | |
| **PBKT** | **Sadao Pong** | **26.30** | **298** | P | **P** | **17 16 36.6** | **+0.7** |
| | comp=Z,25nm,1.0s,comp=Z,1μm | | | | | | |
| **WRAB** | **Tennant Creek** | **26.39** | **160***c* | *i*P | **P** | **17 16 35.6** | **-1.0** |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,14nm,0.8s | | | | | | |
| **WRAB** | **Tennant Creek** | **26.39** | **160** | *e*P | **P** | **17 16 35.8** | **-0.8** |
| | comp=Z,20nm,0.9s | | | | | | |
| **WR1** | **Warramunga Arr** | **26.39** | **160** | *e*P | **P** | **17 16 35.6** | **-1.1** |
| | comp=Z,23nm,0.7s | | | | | | |
| WR1 | | | | *e*ScP | **ScP** | **17 23 05.8** | **-0.2** |
| **WRA** | **Warramunga Arr** | **26.39** | **160** | P | **P** | **17 16 35.6** | **-1.1** |
| | comp=Z,12nm,0.5s,baz=342,slow=9.2,SNR=125 | | | | | | |
| WRA | | | | ScP | **ScP** | **17 23 05.8** | **-0.2** |
| | comp=Z,3.4nm,0.7s,baz=341,slow=3.1,SNR=6.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **26.39** | **160***c* | *e*P | **P** | **17 16 35.2** | **-1.5** |
| WRA | | | | pmax | pmax | | |
| | comp=Z,13nm,0.5s | | | | | | |
| **WB2** | **Warramunga Arr** | **26.39** | **160** | *e*P | **P** | **17 16 34.5** | **-2.2** |
| **UTTA** | **Uttaradit** | **27.14** | **300** | P | **P** | **17 16 44.4** | **+1.1** |
| | comp=Z,11nm,0.9s,comp=Z,81nm | | | | | | |
| **WHN** | **Wuhan** | **27.36** | **340** | P | **P** | **17 16 47.3** | **+2.1** |
| WHN | | | | pmax | pmax | | |
| | comp=Z,100nm,1.2s | | | | | | |
| **NANT** | **Nan** | **27.47** | **302** | P | **P** | **17 16 47.2** | **+0.9** |
| | comp=Z,6.9nm,0.7s | | | | | | |
| **SUKH** | **Sukhothai** | **27.83** | **299** | P | **P** | **17 16 51.1** | **+1.6** |
| | comp=Z,5.4nm,1.0s | | | | | | |
| **JNU** | **Nakatsue** | **28.51** | **10** | P | **P** | **17 16 55.2** | **-0.2** |
| | comp=Z,25nm,0.8s,baz=142,slow=2.3,SNR=18 | | | | | | |
| **JNU** | **Nakatsue** | **28.51** | **10** | *e*P | **P** | **17 16 55.6** | **+0.2** |
| | comp=Z,33nm,0.9s | | | | | | |
| **RABL** | **Rabaul** | **28.54** | **108** | *e*P | **P** | **17 16 57.8** | **+1.9** |
| | comp=Z,70nm,0.6s | | | | | | |
| **CM01** | **Chiang Mai Arr** | **28.80** | **300** | *e*P | **P** | **17 16 58.6** | **+0.5** |
| **CM31** | **Chiang Mai Arr** | **28.83** | **300** | *e*P | **P** | **17 16 59.7** | **+1.4** |
| CM31 | | | | *e*PcP | **PcP** | **17 20 00.5** | **+0.3** |
| **CMAR** | **Chiang Mai Arr** | **28.83** | **300** | P | **P** | **17 16 59.2** | **+0.9** |
| | comp=Z,16nm,0.8s,baz=112,slow=7.0,SNR=125 | | | | | | |
| CMAR | | | | PcP | **PcP** | **17 20 00.5** | **+0.3** |
| | comp=Z,0.7nm,0.8s,baz=126,slow=1.6,SNR=5.3 | | | | | | |
| CMAR | | | | ScP | **ScP** | **17 23 13.6** | **+0.1** |
| | comp=Z,4.1nm,0.8s,baz=140,slow=1.9,SNR=27 | | | | | | |
| **CMMT** | **Chiang Mai** | **28.97** | **301** | P | **P** | **17 17 00.2** | **+0.6** |
| | comp=Z,36nm,0.9s | | | | | | |
| **CMMT** | **Chiang Mai** | **28.97** | **301** | P | **ScP** | **17 23 14.5** | **+0.5** |
| **CHTO** | **Chiang Mai** | **28.97** | **301** | P | **P** | **17 17 00.3** | **+0.7** |
| | comp=Z,161nm,0.9s | | | | | | |
| **CHTO** | **Chiang Mai** | **28.97** | **301** | P | **ScP** | **17 23 14.6** | **+0.6** |
| | comp=Z,41nm,1.1s | | | | | | |
| **CHTO** | **Chiang Mai** | **28.97** | **301** | *e*P | **P** | **17 17 00.3** | **+0.7** |
| CHTO | | | | pmax | pmax | | |
| | comp=Z,31nm,0.9s | | | | | | |
| **CHTO** | **Chiang Mai** | **28.97** | **301** | *e*P | **P** | **17 17 00.3** | **+0.7** |
| | comp=Z,30nm,0.9s | | | | | | |
| **ENH** | **Enshi** | **29.14** | **331** | *e*P | **P** | **17 17 01.1** | **+0.2** |
| | comp=Z,41nm,1.0s | | | | | | |
| **AS31** | **Alice Springs** | **29.75** | **164** | *e*P | **P** | **17 17 06.0** | **-0.4** |
| | comp=Z,3.2nm,0.9s | | | | | | |
| AS31 | | | | *e*PcP | **PcP** | **17 20 02.1** | **-0.3** |
| **ASAR** | **Alice Springs** | **29.75** | **164** | P | **P** | **17 17 06.0** | **-0.4** |
| | comp=Z,4.9nm,0.4s,baz=339,slow=7.0,SNR=392 | | | | | | |
| ASAR | | | | PcP | **PcP** | **17 20 02.1** | **-0.3** |
| | comp=Z,3.0nm,0.5s,baz=344,slow=2.5,SNR=11 | | | | | | |
| ASAR | | | | ScP | **ScP** | **17 23 16.0** | **-0.4** |
| | comp=Z,4.5nm,0.7s,baz=346,slow=2.7,SNR=17 | | | | | | |
| **AS01** | **Alice Springs** | **29.76** | **163** | *e*P | **P** | **17 17 05.7** | **-0.7** |
| **TJN** | **Taejon** | **31.31** | **4** | *i* P | **P** | **17 17 20.8** | **+1.0** |
| **INU** | **Inuyama** | **32.16** | **19** | *e*P | **P** | **17 17 27.8** | **+0.5** |
| | comp=Z,33nm,0.9s | | | | | | |
| **KS15** | **Wonju Array Si** | **32.41** | **4** | *e*P | **P** | **17 17 30.4** | **+1.1** |
| **KSAR** | **Wonju Array Be** | **32.41** | **4** | P | **P** | **17 17 30.0** | **+0.7** |
| **KSAR** | **Wonju Array Be** | **32.41** | **4** | P | **P** | **17 17 30.0** | **+0.7** |
| **KSRS** | **Korea Array** | **32.42** | **4** | P | **P** | **17 17 30.0** | **+0.6** |
| | comp=Z,21nm,0.8s,baz=180,slow=9.9,SNR=60 | | | | | | |
| **KS01** | **Wonju Array Si** | **32.44** | **4** | *e*P | **P** | **17 17 29.3** | **-0.4** |
| **CTAO** | **Charters Tower** | **32.46** | **141** | *e*P | **P** | **17 17 30.7** | **+0.6** |
| CTAO | | | | pmax | pmax | | |
| | comp=Z,16nm,0.6s | | | | | | |
| **CTAO** | **Charters Tower** | **32.46** | **141** | *e*P | **P** | **17 17 30.7** | **+0.6** |
| | comp=Z,16nm,0.6s | | | | | | |
| **XAN** | **Xi'an** | **32.58** | **335** | P | **P** | **17 17 30.4** | **-0.5** |
| XAN | | | | pmax | pmax | | |
| | comp=Z,33nm,1.5s | | | | | | |
| **MAJO** | **Matsushiro** | **33.64** | **19** | *e*P | **P** | **17 17 39.8** | **-0.2** |
| MAJO | | | | pmax | pmax | | |
| | comp=Z,27nm,1.0s | | | | | | |
| **MAJO** | **Matsushiro** | **33.64** | **19** | *e*P | **P** | **17 17 39.8** | **-0.2** |
| | comp=Z,28nm,1.0s | | | | | | |
| **MJAR** | **Matsushiro Arr** | **33.64** | **19** | P | **P** | **17 17 39.4** | **-0.7** |
| | comp=Z,12nm,0.8s,baz=192,slow=9.3,SNR=31 | | | | | | |
| **FORT** | **Forrest** | **35.67** | **176** | *e*P | **P** | **17 17 57.5** | **+0.1** |
| | comp=Z,650nm,0.6s | | | | | | |
| **BJT** | **Baijiatuau** | **35.79** | **348** | *e*P | **P** | **17 17 58.1** | **-0.2** |
| BJT | | | | pmax | pmax | | |
| | comp=Z,35nm,1.0s | | | | | | |
| **BJT** | **Baijiatuau** | **35.79** | **348** | *e*P | **P** | **17 17 58.1** | **-0.2** |
| | comp=Z,34nm,1.0s | | | | | | |
| **LZH** | **Lanzhou** | **36.60** | **331** | *e*P | **P** | **17 18 06.5** | **+1.1** |
| LZH | | | | pmax | pmax | | |
| | comp=Z,72nm,1.0s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,240nm,4.2s | | | | | | |
| **HNR** | **Honiara** | **37.58** | **112** | P | **P** | **17 18 13.2** | **-0.5** |
| | comp=Z,53nm,0.7s,baz=176,slow=2.4,SNR=4.6 | | | | | | |
| **SHL** | **Shillong** | **37.82** | **306**⇓ | *i*P | **P** | **17 18 19.0** | **+3.3** |
| SHL | | | | *e*S | **S** | **17 23 48.5** | **+3.7** |
| **MSHR** | **Mys Shultsa** | **37.82** | **7** | *e*P | **P** | **17 18 15.6** | **+0.3** |
| **VLA** | **Vladivostok** | **38.45** | **8***d* | *i*P | **P** | **17 18 21.3** | **+0.8** |
| VLA | | | | pmax | pmax | | |
| | comp=Z,38nm,0.9s | | | | | | |
| **BBOO** | **Buckleboo** | **39.01** | **165** | *e*P | **P** | **17 18 25.5** | **+0.3** |
| | comp=Z,48nm,0.7s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **39.53** | **8** | P | **P** | **17 18 30.0** | **+0.7** |
| | comp=Z,24nm,0.9s,baz=190,slow=7.9,SNR=24 | | | | | | |
| **MDJ** | **Mudanjiang** | **39.67** | **5** | *e*P | **P** | **17 18 31.5** | **+1.0** |
| | comp=Z,21nm,0.8s | | | | | | |
| **STKA** | **Stephens Creek** | **39.89** | **158** | P | **P** | **17 18 33.1** | **+0.6** |
| | comp=Z,35nm,0.7s,baz=331,slow=8.5,SNR=72 | | | | | | |
| STKA | | | | ScP | **ScP** | **17 23 52.4** | **-0.4** |
| | comp=Z,4.4nm,0.8s,baz=17,slow=6.0,SNR=5.2 | | | | | | |
| **STKA** | **Stephens Creek** | **39.89** | **158** | *e*P | **P** | **17 18 33.1** | **+0.6** |
| STKA | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.8s | | | | | | |
| **STKA** | **Stephens Creek** | **39.89** | **158** | *e*P | **P** | **17 18 33.1** | **+0.6** |
| | comp=Z,8.2nm,0.8s | | | | | | |
| STKA | | | | ScP | **ScP** | **17 23 52.4** | **-0.4** |
| **LSA** | **Lhasa** | **40.38** | **311** | *e*P | **P** | **17 18 38.3** | **+1.1** |
| LSA | | | | pmax | pmax | | |
| | comp=Z,30nm,0.6s | | | | | | |
| **LSA** | **Lhasa** | **40.38** | **311** | *e*P | **P** | **17 18 38.3** | **+1.1** |
| | comp=Z,30nm,0.6s | | | | | | |
| **GTA** | **Gaotai** | **41.19** | **330** | *e*P | **P** | **17 18 43.4** | **+0.3** |
| GTA | | | | pmax | pmax | | |
| | comp=Z,11nm,0.9s | | | | | | |
| **TAPN** | **Taplejung** | **41.96** | **306** | *e*P | **P** | **17 18 49.9** | **+0.2** |
| | comp=Z,23nm,0.6s | | | | | | |
| **ODAN** | **Odare** | **42.01** | **305** | *e*P | **P** | **17 18 50.2** | **+0.1** |
| | comp=Z,44nm,0.7s | | | | | | |
| **RAMN** | **Ramite** | **42.69** | **305** | *e*P | **P** | **17 18 55.9** | **+0.3** |
| | comp=Z,30nm,0.6s | | | | | | |
| **JIRN** | **Jiri** | **43.31** | **306** | *e*P | **P** | **17 19 00.8** | **+0.2** |
| | comp=Z,110nm,0.3s | | | | | | |
| **GUN** | **Gumba** | **43.66** | **306** | *e*P | **P** | **17 19 03.5** | **+0.1** |
| | comp=Z,33nm,0.5s | | | | | | |
| **PKI** | **Pulchoki** | **43.91** | **305** | *e*P | **P** | **17 19 05.0** | **-0.3** |
| **PKIN** | **Phulchoki** | **43.92** | **305** | *e*P | **P** | **17 19 05.4** | **0.0** |
| **KKN** | **Kakani** | **44.10** | **305** | *e*P | **P** | **17 19 06.5** | **-0.2** |
| | comp=Z,18nm,0.6s | | | | | | |
| **HABR** | **Khabarovsk** | **44.16** | **10** | *e*P | **P** | **17 19 05.1** | **-1.4** |
| HABR | | | | *e**PP | **pP** | **17 20 06.4** | **-0.1** |
| HABR | | | | *e* | | 17 20 43.4 | |
| HABR | | | | *e* | | 17 20 55.2 | |
| HABR | | | | *e*S | **S** | **17 25 16.5** | **-0.4** |
| HABR | | | | *e**SS | **sS** | **17 27 07.1** | **+3.1** |
| HABR | | | | *e* | | 17 28 30.1 | |
| HABR | | | | pmax | pmax | | |
| | comp=E,18nm,0.9s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=N,9.0nm,0.9s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=Z,34nm,0.9s | | | | | | |
| HABR | | | | MLR | MLR | | |
| | comp=Z,117nm,16.0s | | | | | | |
| **DMN** | **Daman** | **44.17** | **305** | *e*P | **P** | **17 19 07.2** | **-0.1** |
| | comp=Z,23nm,0.8s | | | | | | |
| **HIA** | **Hailar** | **44.36** | **355***c* | *i*P | **P** | **17 19 08.4** | **+0.3** |
| HIA | | | | pmax | pmax | | |
| | comp=Z,21nm,1.0s | | | | | | |
| **GKN** | **Gorkha** | **44.71** | **305** | *e*P | **P** | **17 19 11.0** | **-0.4** |
| **ULN** | **Ulaanbaatar** | **45.44** | **343***d* | *i*P | **P** | **17 19 16.3** | **-0.5** |
| ULN | | | | pmax | pmax | | |
| | comp=Z,22nm,1.0s | | | | | | |
| **ULN** | **Ulaanbaatar** | **45.44** | **343** | *e*P | **P** | **17 19 16.5** | **-0.3** |
| | comp=Z,20nm,0.9s | | | | | | |
| **KOLN** | **Koldanda** | **45.47** | **305** | *e*P | **P** | **17 19 17.5** | **+0.1** |
| | comp=Z,66nm,0.3s | | | | | | |
| **DANN** | **Dangsing** | **45.56** | **305** | *e*P | **P** | **17 19 18.3** | **+0.1** |
| | comp=Z,3.5nm,0.6s | | | | | | |
| **SONA0** | **Songino Array** | **45.60** | **342** | *e*P | **P** | **17 19 17.8** | **-0.2** |
| SONA0 | | | | *e*PcP | **PcP** | **17 20 50.9** | **-0.2** |
| SONA0 | | | | *e*ScP | **ScP** | **17 24 14.9** | **-0.9** |
| **SONM** | **Songino Array** | **45.60** | **342** | P | **P** | **17 19 17.8** | **-0.2** |
| | comp=Z,13nm,0.8s,baz=162,slow=8.2,SNR=44 | | | | | | |
| SONM | | | | PcP | **PcP** | **17 20 50.9** | **-0.2** |
| | comp=Z,3.1nm,0.9s,baz=162,slow=5.3,SNR=4.4 | | | | | | |
| SONM | | | | ScP | **ScP** | **17 24 14.9** | **-0.9** |
| | comp=Z,2.1nm,0.8s,baz=159,slow=3.9,SNR=8.7 | | | | | | |
| **SONA1** | **Songino Array** | **45.61** | **342** | *e*P | **P** | **17 19 17.5** | **-0.6** |
| **CAN** | **Canberra** | **45.97** | **153** | *e*P | **P** | **17 19 22.8** | **+1.9** |
| CAN | | | | pmax | pmax | | |
| | comp=Z,38nm,0.7s | | | | | | |
| **CAN** | **Canberra** | **45.97** | **153** | *e*P | **P** | **17 19 22.8** | **+1.9** |
| | comp=Z,38nm,0.7s | | | | | | |
| **PYUN** | **Piuthan** | **46.09** | **305** | *e*P | **P** | **17 19 22.6** | **+0.3** |
| | comp=Z,34nm,0.4s | | | | | | |
| **DZM** | **Mont Dzumac** | **48.59** | **125** | P | **P** | **17 19 42.2** | **+0.9** |
| | comp=Z,14nm,0.8s,baz=353,slow=15,SNR=11 | | | | | | |
| **DZM** | **Mont Dzumac** | **48.59** | **125** | *e*P | **P** | **17 19 41.8** | **+0.4** |
| | comp=Z,20nm,1.0s | | | | | | |
| **TLY** | **Talaya** | **49.84** | **343** | *i* P | **P** | **17 19 49.8** | **-0.4** |
| TLY | | | | pmax | pmax | | |
| | comp=Z,14nm,1.1s | | | | | | |
| **TLY** | **Talaya** | **49.84** | **343** | *e*P | **P** | **17 19 50.4** | **+0.2** |
| | comp=Z,9.2nm,0.8s | | | | | | |
| **MOY** | **Mondy** | **50.66** | **341** | *e*P | **P** | **17 19 56.6** | **+0.2** |
| MOY | | | | pmax | pmax | | |
| | comp=Z,53nm,1.4s | | | | | | |
| **THN** | **Thein Dam** | **53.51** | **307** | *e*P | **P** | **17 20 16.4** | **-1.1** |
| **PETK** | **Petropavlovsk-** | **54.91** | **23** | P | **P** | **17 20 28.6** | **+1.4** |
| | comp=Z,6.6nm,0.8s,baz=188,slow=2.8,SNR=10.0 | | | | | | |
| **PEA1** | **Petropavlovsk-** | **54.92** | **23** | *e*P | **P** | **17 20 28.6** | **+1.4** |
| **PDGK** | **Podgornoye** | **55.41** | **321** | P | **P** | **17 20 30.4** | **-0.7** |
| PDGK | | | | pmax | pmax | | |
| | comp=Z,27nm,1.1s | | | | | | |
| **MK01** | **Makanchi Array** | **55.58** | **326** | *e*P | **P** | **17 20 31.7** | **-0.4** |
| **MK31** | **Makanchi Array** | **55.60** | **326***c* | *e*P | **P** | **17 20 31.6** | **-0.6** |
| MK31 | | | | pmax | pmax | | |
| | comp=Z,17nm,0.8s | | | | | | |
| **MK31** | **Makanchi Array** | **55.60** | **326** | *e*P | **P** | **17 20 31.9** | **-0.3** |
| **MK32** | **Makanchi Array** | **55.60** | **326** | *e*P | **P** | **17 20 31.9** | **-0.3** |
| MK32 | | | | *e*PcP | **PcP** | **17 21 27.2** | **-0.8** |
| MK32 | | | | *e*ScP | **ScP** | **17 24 56.8** | **-1.9** |
| **MKAR** | **Makanchi Array** | **55.60** | **326** | P | **P** | **17 20 31.9** | **-0.3** |
| | comp=Z,10.0nm,0.6s,baz=124,slow=8.0,SNR=94 | | | | | | |
| MKAR | | | | PcP | **PcP** | **17 21 27.2** | **-0.8** |
| | comp=Z,5.5nm,0.6s,baz=131,slow=3.3,SNR=11 | | | | | | |
| MKAR | | | | ScP | **ScP** | **17 24 56.8** | **-1.9** |
| | comp=Z,1.5nm,0.7s,baz=128,slow=4.3,SNR=6.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **55.60** | **326***c* | *e*P | **P** | **17 20 31.8** | **-0.4** |
| MKAR | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.6s | | | | | | |
| **MAKZ** | **Makanchi** | **55.78** | **325** | *e*P | **P** | **17 20 33.2** | **-0.3** |
| MAKZ | | | | pmax | pmax | | |
| | comp=Z,18nm,0.8s | | | | | | |
| **MAKZ** | **Makanchi** | **55.78** | **325** | *e*P | **P** | **17 20 33.2** | **-0.3** |
| | comp=Z,18nm,0.8s | | | | | | |
| **KSH** | **Kashi** | **56.00** | **315** | P | **P** | **17 20 37.3** | **+2.0** |
| KSH | | | | PcP | **PcP** | **17 21 32.5** | **+2.6** |
| KSH | | | | pP | pP | 17 21 40.3 | +1.8 |
| KSH | | | | PP | **PP** | **17 22 47.8** | **+4.0** |
| KSH | | | | S | **S** | **17 28 00.2** | **-0.3** |
| KSH | | | | ScS | **ScS** | **17 29 51.2** | **-3.3** |
| KSH | | | | SS | **SS** | **17 31 50.6** | **-1.0** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,11nm,0.8s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,160nm,5.4s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,200nm,5.6s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,230nm,6.1s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,310nm,5.9s | | | | | | |
| **YAK** | **Yakutsk** | **57.02** | **3** | *i* P | **P** | **17 20 42.3** | **+0.5** |
| YAK | | | | pmax | pmax | | |
| | comp=Z,53nm,0.9s | | | | | | |
| **YAK** | **Yakutsk** | **57.02** | **3** | *e*P | **P** | **17 20 41.8** | **-0.1** |
| | comp=Z,50nm,0.8s | | | | | | |
| **TKM2** | **Tokmak 2** | **57.73** | **319** | P | **P** | **17 20 46.9** | **-0.5** |
| TKM2 | | | | pmax | pmax | | |
| | comp=Z,18nm,1.0s | | | | | | |
| **TKM2** | **Tokmak 2** | **57.73** | **319** | P | **P** | **17 20 47.8** | **+0.4** |
| | SNR=12 | | | | | | |
| **MA2** | **Magadan** | **57.91** | **15** | *i* P | **P** | **17 20 49.0** | **+0.9** |
| **KBK** | **Karagaybulak** | **58.04** | **318** | P | **P** | **17 20 50.0** | **+0.5** |
| | SNR=10 | | | | | | |
| **UCH** | **Uchtor** | **58.15** | **318** | P | **P** | **17 20 51.3** | **+0.7** |
| | SNR=26 | | | | | | |
| **CHMS** | **Chumysh** | **58.32** | **318** | P | **P** | **17 20 51.4** | **+0.1** |
| | SNR=7.4 | | | | | | |
| **AAK** | **Ala-Archa** | **58.33** | **318** | *e*P | **P** | **17 20 52.2** | **+0.7** |
| AAK | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.0s | | | | | | |
| **AAK** | **Ala-Archa** | **58.33** | **318** | P | **P** | **17 20 52.2** | **+0.7** |
| | SNR=5.2 | | | | | | |
| **AAK** | **Ala-Archa** | **58.33** | **318** | *e*P | **P** | **17 20 52.2** | **+0.7** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| | comp=Z,7.4nm,1.0s | | | | | | |
| **USP** | **Ospenovka** | **58.60** | **319** | P | **P** | **17 20 53.6** | **+0.3** |
| | SNR=27 | | | | | | |
| **AML** | **Almayashu** | **58.66** | **317** | P | **P** | **17 20 54.9** | **+0.8** |
| | SNR=16 | | | | | | |
| **ZAA0** | **Zalesovo Array** | **58.74** | **333** | *e*P | **P** | **17 20 52.4** | **-1.5** |
| | comp=Z,11nm,0.9s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **58.74** | **333** | P | **P** | **17 20 52.2** | **-1.6** |
| | comp=Z,7.0nm,0.7s,baz=125,slow=5.9,SNR=32 | | | | | | |
| ZALV | | | | PcP | **PcP** | **17 21 39.5** | **-0.7** |
| | comp=Z,0.8nm,0.4s,baz=104,slow=5.4,SNR=2.3 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **58.74** | **333** | *e*P | **P** | **17 20 52.2** | **-1.6** |
| ZAA1 | | | | *e*PcP | **PcP** | **17 21 39.5** | **-0.7** |
| **EKS2** | **Erkin-Say** | **58.82** | **318** | P | **P** | **17 20 55.4** | **+0.5** |
| | SNR=13 | | | | | | |
| **KBL** | **Kabul** | **59.46** | **307** | *e*P | **P** | **17 20 59.5** | **0.0** |
| KBL | | | | pmax | pmax | | |
| | comp=Z,22nm,0.8s | | | | | | |
| **KBL** | **Kabul** | **59.46** | **307** | *e*P | **P** | **17 20 59.5** | **0.0** |
| | comp=Z,22nm,0.8s | | | | | | |
| **MNAS** | **Manas** | **59.61** | **317** | P | **P** | **17 21 00.2** | **-0.1** |
| MNAS | | | | pmax | pmax | | |
| | comp=Z,25nm,1.0s | | | | | | |
| **KURK** | **Kurchatov** | **59.81** | **328***d* | *i*P | **P** | **17 21 00.5** | **-0.7** |
| KURK | | | | pmax | pmax | | |
| | comp=Z,42nm,0.8s | | | | | | |
| **KURK** | **Kurchatov** | **59.81** | **328** | *e*P | **P** | **17 21 00.6** | **-0.6** |
| | comp=Z,58nm,0.7s | | | | | | |
| **NVS** | **Novosibirsk** | **60.02** | **334** | *e*P | **P** | **17 21 00.8** | **-1.8** |
| NVS | | | | *e*S | **S** | **17 28 50.5** | **-1.0** |
| NVS | | | | pmax | pmax | | |
| | comp=Z,15nm,0.8s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=N,8.0nm,0.7s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=E,6.0nm,0.7s | | | | | | |
| NVS | | | | smax | smax | | |
| | comp=E,8.0nm,1.7s | | | | | | |
| **DZET** | **Dzherino** | **60.91** | **312** | P | P | 17 21 02.8 | -6.2 |
| DZET | | | | pmax | pmax | | |
| | comp=Z,42nm,0.3s | | | | | | |
| **SEY** | **Seymchan** | **61.20** | **14** | *e*P | **P** | **17 21 11.3** | **+1.0** |
| **KK31** | **Karatay Array** | **61.20** | **317***c* | *e*P | **P** | **17 21 10.2** | **-0.6** |
| KK31 | | | | pmax | pmax | | |
| | comp=Z,16nm,0.8s | | | | | | |
| **RPZ** | **Rata Peaks** | **63.73** | **144** | *e*P | **P** | **17 21 28.6** | **+1.2** |
| | comp=Z,20nm,0.8s | | | | | | |
| **URZ** | **Urewera** | **64.57** | **137** | P | **P** | **17 21 33.0** | **+0.1** |
| | comp=Z,11nm,0.6s,baz=321,slow=6.2,SNR=5.4 | | | | | | |
| **BKZ** | **Black Stump Fm** | **64.61** | **138** | *e*P | **P** | **17 21 33.8** | **+0.6** |
| | comp=Z,37nm,0.8s | | | | | | |
| **BVA0** | **Borovoye Array** | **65.38** | **327** | *i* P | **P** | **17 21 36.6** | **-1.3** |
| BVA0 | | | | pmax | pmax | | |
| | comp=Z,21nm,1.0s | | | | | | |
| **BRVK** | **Borovoye** | **65.45** | **327** | *e*P | **P** | **17 21 37.8** | **-0.5** |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,29nm,0.9s | | | | | | |
| **BRVK** | **Borovoye** | **65.45** | **327** | *e*P | **P** | **17 21 37.8** | **-0.5** |
| | comp=Z,29nm,0.9s | | | | | | |
| **TIXI** | **Tiksi** | **66.62** | **1***d* | *i*P | **P** | **17 21 44.4** | **-0.9** |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,15nm,0.9s | | | | | | |
| **TIXI** | **Tiksi** | **66.62** | **1** | *e*P | **P** | **17 21 44.5** | **-0.9** |
| | comp=Z,16nm,0.7s | | | | | | |
| **GEYT** | **Alibeck** | **68.83** | **309** | P | **P** | **17 22 00.2** | **+0.4** |
| | comp=Z,7.0nm,0.8s,baz=124,slow=4.3,SNR=17 | | | | | | |
| **AB31** | **Akbulak array** | **70.15** | **321***c* | *e*P | **P** | **17 22 06.1** | **-1.4** |
| AB31 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.7s | | | | | | |
| **SVE** | **Sverdlovsk** | **72.04** | **329** | *e*P | **P** | **17 22 17.9** | **-0.8** |
| SVE | | | | pmax | pmax | | |
| | comp=Z,27nm,1.0s | | | | | | |
| **ARU** | **Arti** | **73.01** | **328***c* | *i*P | **P** | **17 22 23.0** | **-1.4** |
| ARU | | | | *PP | **pP** | **17 23 30.8** | **-0.3** |
| ARU | | | | | | 17 25 08.8 | |
| ARU | | | | S | **S** | **17 31 26.8** | **0.0** |
| ARU | | | | SS | **SS** | **17 36 17.5** | **+3.3** |
| ARU | | | | pmax | pmax | | |
| | comp=Z,19nm,1.0s | | | | | | |
| **ARU** | **Arti** | **73.01** | **328** | *e*P | **P** | **17 22 22.9** | **-1.4** |
| | comp=Z,18nm,1.0s | | | | | | |
| **RAYN** | **Ar Rayn** | **78.48** | **293** | *e*P | **P** | **17 22 55.1** | **-0.9** |
| | comp=Z,7.3nm,0.8s | | | | | | |
| **ZEI** | **Tsey** | **80.16** | **312** | *e*P | **P** | **17 23 02.0** | **-2.8** |
| ZEI | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.6s | | | | | | |
| **NEY** | **Neytrino** | **81.04** | **313** | *e*P | **P** | **17 23 07.8** | **-1.6** |
| **KDAK** | **Kodiak Island** | **81.72** | **32***c* | *e*P | **P** | **17 23 13.7** | **+1.4** |
| **CAST** | **Castle Rocks** | **82.36** | **27** | *e*P | **P** | **17 23 17.3** | **+1.7** |
| | comp=Z,7.0nm,0.9s | | | | | | |
| **KOPT** | **Kop Dagi** | **82.68** | **310** | *e*P | **P** | **17 23 18.4** | **+0.3** |
| | comp=Z,5.7nm,0.7s | | | | | | |
| **SUA** | **Susitna One** | **82.86** | **29** | *e*P | **P** | **17 23 19.1** | **+0.8** |
| | comp=Z,13nm,0.8s | | | | | | |
| **BPAW** | **Bear Paw Mtn.** | **82.89** | **26** | *e*P | **P** | **17 23 17.0** | **-1.3** |
| | comp=Z,16nm,1.1s | | | | | | |
| **MLY** | **Manley** | **83.05** | **25** | *e*P | **P** | **17 23 20.3** | **+1.2** |
| | comp=Z,12nm,0.7s | | | | | | |
| **COLD** | **Coldfoot** | **83.38** | **23** | *e*P | **P** | **17 23 22.7** | **+2.0** |
| | comp=Z,9.3nm,0.8s | | | | | | |
| **KLMR** | **Klimovskoe** | **83.51** | **331** | *e*P | **P** | **17 23 18.7** | **-2.8** |
| KLMR | | | | pmax | pmax | | |
| | comp=Z,29nm,1.4s | | | | | | |
| **MCK** | **McKinley** | **83.78** | **27** | *e*P | **P** | **17 23 23.4** | **+0.5** |
| MCK | | | | pmax | pmax | | |
| | comp=Z,11nm,0.8s | | | | | | |
| **MCK** | **McKinley** | **83.78** | **27** | *e*P | **P** | **17 23 23.4** | **+0.5** |
| | comp=Z,10nm,0.8s | | | | | | |
| **RND** | **Reindeer** | **83.81** | **27** | *e*P | **P** | **17 23 23.6** | **+0.5** |
| RND | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.8s | | | | | | |
| **RND** | **Reindeer** | **83.81** | **27** | *e*P | **P** | **17 23 23.6** | **+0.5** |
| | comp=Z,6.1nm,0.8s | | | | | | |
| **ILAR** | **Eielson Array** | **84.68** | **25** | P | **P** | **17 23 26.5** | **-0.8** |
| | comp=Z,1.0nm,0.5s,baz=249,slow=4.9,SNR=27 | | | | | | |
| **ILB** | **Eielson Array** | **84.68** | **25** | *e*P | **P** | **17 23 26.8** | **-0.5** |
| **VNDA** | **Vanda** | **84.87** | **172** | P | **P** | **17 23 27.9** | **-0.1** |
| | comp=Z,2.8nm,0.9s,baz=320,slow=7.1,SNR=8.5 | | | | | | |
| **VNDA** | **Vanda** | **84.87** | **172** | *e*P | **P** | **17 23 28.2** | **+0.2** |
| VNDA | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.9s | | | | | | |
| **VNDA** | **Vanda** | **84.87** | **172** | *e*P | **P** | **17 23 28.2** | **+0.2** |
| | comp=Z,2.7nm,0.9s | | | | | | |
| **OBN** | **Obninsk** | **85.10** | **325**⇓ | *e*P | **P** | **17 23 27.4** | **-2.1** |
| OBN | | | | pmax | pmax | | |
| | comp=Z,18nm,0.6s | | | | | | |
| **BR101** | **Keskin Array S** | **87.96** | **310** | *e*P | **P** | **17 23 42.1** | **-1.8** |
| **BR131** | **Keskin Array S** | **87.96** | **310** | *e*P | **P** | **17 23 42.4** | **-1.5** |
| **BRTR** | **Keskin Array B** | **87.96** | **310** | P | **P** | **17 23 42.1** | **-1.8** |
| | comp=Z,3.8nm,0.8s,baz=119,slow=5.2,SNR=20 | | | | | | |
| **BRTR** | **Keskin Array B** | **87.96** | **310***c* | *e*P | **P** | **17 23 42.9** | **-1.0** |
| BRTR | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.8s | | | | | | |
| **ARA0** | **ARCESS Array S** | **88.71** | **340** | *e*P | **P** | **17 23 44.8** | **-1.8** |
| **ARCES** | **ARCESS Array B** | **88.71** | **340** | P | **P** | **17 23 44.8** | **-1.8** |
| | comp=Z,3.7nm,0.7s,baz=90,slow=4.9,SNR=5.9 | | | | | | |
| **AKASG** | **Malin Array Be** | **89.89** | **321** | P | **P** | **17 23 50.6** | **-1.9** |
| | comp=Z,1.5nm,0.5s,baz=67,slow=4.6,SNR=9.3 | | | | | | |
| **AKASG** | **Malin Array Be** | **89.89** | **321***c* | *e*P | **P** | **17 23 51.2** | **-1.2** |
| AKASG | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.5s | | | | | | |
| **AKBB** | **Malin Array Si** | **89.89** | **321** | *e*P | **P** | **17 23 50.6** | **-1.9** |
| AKBB | | | | pmax | pmax | | |
| | comp=Z,18nm,1.7s | | | | | | |
| **AKBB** | **Malin Array Si** | **89.89** | **321** | *e*P | **P** | **17 23 50.6** | **-1.9** |
| | comp=Z,18nm,1.7s | | | | | | |
| **FIA0** | **FINESS Array S** | **89.96** | **332** | *e*P | **P** | **17 23 50.9** | **-1.6** |
| **FIA0** | **FINESS Array S** | **89.96** | **332** | *e*P | **P** | **17 23 50.9** | **-1.6** |
| **FINES** | **FINESS Array B** | **89.96** | **332** | P | **P** | **17 23 50.9** | **-1.6** |
| | comp=Z,2.5nm,0.6s,baz=55,slow=6.3,SNR=13 | | | | | | |
| **FINES** | **FINESS Array B** | **89.96** | **332***c* | *e*P | **P** | **17 23 51.5** | **-1.0** |
| FINES | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.6s | | | | | | |
| **VSU** | **Vasula** | **90.15** | **329** | *e*P | **P** | **17 23 51.6** | **-1.9** |
| VSU | | | | pmax | pmax | | |
| | comp=Z,24nm,0.9s | | | | | | |
| **BUR04** | **Bucovina Ar. S** | **92.98** | **318** | *e*P | **P** | **17 24 06.0** | **-1.0** |
| **CRVS** | **Cervenica-Dubn** | **95.16** | **320** | *e*P | **P** | **17 24 17.0** | **+0.2** |
| **CRVS** | **Cervenica-Dubn** | **95.16** | **320** | *e*PDIFF | **P** | **17 24 17.0** | **+0.2** |
| **STHS** | **Stebnicka Huta** | **95.18** | **320** | *e*P | **P** | **17 24 17.1** | **+0.2** |
| **STHS** | **Stebnicka Huta** | **95.18** | **320** | *e*PDIFF | **P** | **17 24 17.1** | **+0.2** |
| **KECS** | **Kecovo** | **95.89** | **320** | *e*P | **P** | **17 24 20.1** | **0.0** |
| **KECS** | **Kecovo** | **95.89** | **320** | *e*PDIFF | **P** | **17 24 20.1** | **0.0** |
| **YKA** | **Yellowknife Ar** | **99.03** | **24** | P | **Pdif** | **17 24 33.4** | **-0.5** |
| | comp=Z,0.9nm,0.9s,baz=288,slow=4.1,SNR=4.6 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **120.97** | **288** | PKP | **PKPdf** | **17 29 44.4** | **-0.8** |
| | comp=Z,1.9nm,0.7s,baz=52,slow=2.1,SNR=12 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **120.97** | **288** | *e*PKPdf | **PKPdf** | **17 29 44.4** | **-0.8** |

*IDC **05** 17:12:58.0±1.2, 6°.60S×146°.94E, h0km, mb4.0/5, mb1 4.2/6, mb1mx3.8/34, mbtmp4.0/6, ML1.6/1, MS3.0/2, Ms1 3.0/2, ms1mx2.5/26, Error ellipse: s-maj=43.9km s-min=21.5km az=88.0*

*ISCJB **05** 17:13:03.2±1.0, 6°.68S±0°.08×146°.8E±0°.3, h49km, mb4.0/4, MS3.2/1, Error ellipse: s-maj=36.3km s-min=10.0km az=169.2*

**ISC 05 17:13:04.5**±1.2**, 6°.7S**±0°.1×**147°.0E**±0°.3**, h49**km**, n8,** σ**1.08**/8**, mb3.7**/5**, Eastern New Guinea region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **2.70** | **176** | Pn | **Pn** | **17 13 44.1** | **-1.4** |
| | 9.0nm,0.3s,baz=32,slow=4.5,SNR=35 | | | | | | |
| PMG | | | | Sn | **Sn** | **17 14 18.5** | **+1.4** |
| | 17nm,0.3s,baz=299,slow=23,SNR=10 | | | | | | |
| PMG | | | | LR | LR | 17 14 53.7 | |
| | comp=Z,154nm,19.1s,baz=46,slow=41 | | | | | | |
| **ASAR** | **Alice Springs** | **21.02** | **215** | P | **P** | **17 17 44.5** | **+0.3** |
| | 3.2nm,0.8s,baz=34,slow=12,SNR=12 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **53.53** | **299** | P | **P** | **17 22 20.8** | **+0.1** |
| | 2.9nm,0.6s,baz=120,slow=5.9,SNR=31 | | | | | | |
| **TLY** | **Talaya** | **68.94** | **333** | LR | LR | 17 54 39.0 | |
| | comp=Z,13nm,18.4s,baz=350,slow=36 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **79.57** | **328** | P | **P** | **17 25 05.2** | **-1.0** |
| | 0.3nm,0.3s,baz=106,slow=4.7,SNR=3.1 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **81.75** | **323** | P | **P** | **17 25 18.6** | **+0.6** |
| | 0.5nm,0.6s,baz=116,slow=4.4,SNR=3.0 | | | | | | |
| **ILAR** | **Eielson Array** | **86.13** | **23** | P | **P** | **17 25 40.6** | **+0.6** |
| | 1.0nm,0.6s,baz=251,slow=5.0,SNR=13 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **145.21** | **283** | PKPbc | **PKPab** | **17 32 37.6** | **0.0** |
| | 1.5nm,0.7s,baz=71,slow=2.9,SNR=8.1 | | | | | | |

**IDC 05 17:19:56.9**±11.0**, 7°.69N**×**93°.85E, h64**km±92km**, mb3.2**/5**, mb1 3.3**/6**, mb1mx3.1**/39**, mbtmp3.4**/6**, ML3.6**/1**, MS3.6**/2**, Ms1 3.6**/2**, ms1mx2.7**/19**, Error ellipse: s-maj=130.3km s-min=20.8km az=62.0, Nicobar Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CMAR** | **Chiang Mai Arr** | **11.79** | **24** | P | Pn | 17 22 42.5 | +0.1 |
| | 0.1nm,0.3s,baz=210,slow=14,SNR=4.4 | | | | | | |
| **H08S3** | **Diego Garcia H** | **26.18** | **235** | T | T | 17 52 15.8 | |
| | baz=54,slow=76,SNR=48 | | | | | | |
| **H08S2** | **Diego Garcia H** | **26.18** | **235** | T | T | 17 52 12.1 | |
| | baz=54,slow=76,SNR=47 | | | | | | |
| **H08S1** | **Diego Carcia H** | **26.20** | **235** | T | T | 17 52 03.2 | |
| | baz=54,slow=76,SNR=15 | | | | | | |
| **MKAR** | **Makanchi Array** | **40.21** | **348** | P | P | 17 27 26.6 | -0.6 |
| | 0.1nm,0.4s,baz=176,slow=6.9,SNR=4.6 | | | | | | |
| MKAR | | | | LR | LR | 17 46 48.6 | |
| | comp=Z,88nm,19.4s,baz=66,slow=40 | | | | | | |
| **SONM** | **Songino Array** | **41.41** | **13** | P | P | 17 27 36.8 | -0.3 |
| | 0.3nm,0.4s,baz=189,slow=8.7,SNR=3.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **46.70** | **353** | P | P | 17 28 19.8 | +0.6 |
| | 0.8nm,0.4s,baz=173,slow=10,SNR=5.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **48.39** | **125** | P | P | 17 28 32.6 | -0.3 |
| | 0.5nm,1.1s,baz=306,slow=8.4,SNR=4.8 | | | | | | |
| **BVAR** | **Borovoye Array** | **49.07** | **341** | LR | LR | 17 53 20.8 | |
| | comp=Z,54nm,20.0s,baz=73,slow=41 | | | | | | |
| **ASAR** | **Alice Springs** | **50.02** | **130** | P | P | 17 28 45.3 | 0.0 |
| | 0.6nm,1.0s,baz=302,slow=8.2,SNR=7.8 | | | | | | |

*ISCJB **05** 17:40:55.9±0.6, 33°.78N±0°.02×35°.75E±0°.05, h7km±7km, Error ellipse: s-maj=7.2km s-min=4.2km az=176.8*

*NSSC **05** 17:40:55.2±1.1, 33°.78N×35°.70E, h4km±8km*

*CSEM **05** 17:40:56.4, 33°.79N×35°.77E, h1km, ML2.8*

*GRAL **05** 17:40:56.4±0.2, 33°.79N×35°.77E, h2km±9km, MD2.8*

**ISC 05 17:40:55.9**±1.4**, 33°.78N**±0°.02×**35°.76E**±0°.05**, h8**km±19km**, n14,** σ**0.24**/26**, Jordan-Syria region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BHL** | **Bhannes** | **0.15** | **323** | *e*P | **Pg** | **17 40 59.1** | **0.0** |
| BHL | | | | *e*S | **Sg** | **17 41 01.3** | **-0.2** |
| **BHL** | **Bhannes** | **0.15** | **323** | *e*P | **Pg** | **17 40 59.1** | **0.0** |
| BHL | | | | *e*S | **Sg** | **17 41 01.3** | **-0.2** |
| **DQRL** | **Deir Qamar** | **0.18** | **244** | *e*P | **Pg** | **17 40 59.7** | **+0.1** |
| DQRL | | | | *e*S | **Sg** | **17 41 02.3** | **+0.1** |
| **DQRL** | **Deir Qamar** | **0.18** | **244** | *e*P | **Pg** | **17 40 59.7** | **+0.1** |
| DQRL | | | | *e*S | **Sg** | **17 41 02.3** | **+0.1** |
| **RCY** | **Rachaya** | **0.29** | **168** | *e*P | **Pg** | **17 41 01.6** | **-0.1** |
| RCY | | | | *e*S | **Sg** | **17 41 05.6** | **0.0** |
| **RCY** | **Rachaya** | **0.29** | **168** | *e*P | **Pg** | **17 41 01.6** | **-0.1** |
| RCY | | | | *e*S | **Sg** | **17 41 05.6** | **0.0** |
| **BRBR** | **Barbar** | **0.40** | **157** | *e*P | **Pg** | **17 41 03.8** | **0.0** |
| BRBR | | | | *e*S | **Sg** | **17 41 09.1** | **0.0** |
| **SHBL** | **Chebaa** | **0.43** | **182** | *e*P | **Pg** | **17 41 04.3** | **-0.1** |
| SHBL | | | | *e*S | **Sg** | **17 41 10.1** | **0.0** |
| **SHBL** | **Chebaa** | **0.43** | **182** | *e*P | **Pg** | **17 41 04.3** | **-0.1** |
| SHBL | | | | *e*S | **Sg** | **17 41 10.1** | **0.0** |
| **HWQ** | **Hawqa** | **0.52** | **17** | *e*P | **Pg** | **17 41 05.5** | **-0.4** |
| **HWQ** | **Hawqa** | **0.52** | **17** | *e*P | **Pg** | **17 41 05.5** | **-0.4** |
| **MARH** | **Ras Al Marh** | **0.65** | **68** | *e*P | **Pg** | **17 41 08.8** | **+0.4** |
| MARH | | | | *e*S | **Sb** | **17 41 19.0** | **+0.2** |
| **HAWK** | **Haweek** | **0.91** | **36** | *e*P | **Pg** | **17 41 13.3** | **-0.1** |
| HAWK | | | | *e*S | **Sg** | **17 41 25.9** | **+0.6** |
| **SALA** | **Sala** | **1.34** | **142** | *e*P | **Pg** | **17 41 21.4** | **-0.3** |
| SALA | | | | *e*S | **Sg** | **17 41 38.8** | **-0.3** |

*OBM **05** 17:43:16.8±0.1, 50°.78N×87°.03E, h2km, Ml4.1/1, Error ellipse: s-maj=2.7km s-min=1.5km az=177.0*

*MOS **05** 17:43:17.9±1.4, 50°.74N×87°.16E, h14km, mb4.1/6, Error ellipse: s-maj=9.6km s-min=6.8km az=92.5*

*BJI **05** 17:43:17.4, 51°.03N×86°.90E, h17km, mb3.8/2, ML4.1/5*

*IDC **05** 17:43:17.7±0.8, 50°.76N×87°.20E, h0km, mb3.9/10, mb1 4.1/17, mb1mx3.9/50, mbtmp4.0/17, ML3.7/7, MS2.9/7, Ms1 2.9/7, ms1mx2.7/35, Error ellipse: s-maj=12.1km s-min=8.9km az=122.0*

*ISCJB **05** 17:43:18.3±0.3, 50°.76N±0°.02×87°.05E±0°.04, h10km, mb4.0/15, MS3.0/4, Error ellipse: s-maj=3.6km s-min=3.2km az=173.0*

*NEIC **05** 17:43:19.5±0.6, 50°.81N×87°.17E, h10km, mb4.1/4, Error ellipse: s-maj=11.5km s-min=7.2km az=104.0*

*ASRS **05** 17:43:19.1±0.5, 50°.75N×87°.15E, h15km, Ms3.6/3*

*NNC **05** 17:43:23.1±0.9, 50°.82N×86°.56E, h6km±4km, mb4.4, mpv4.2, Error ellipse: s-maj=7.6km s-min=2.6km az=99.0*

**ISC 05 17:43:20.2**±0.4**, 50°.70N**±0°.03×**87°.06E**±0°.03**, h10**km**, n113,** σ**2.08**/117**, mb3.9**/15**, MS2.9**/4**, 18C-16D, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AKAR** | **Aktash** | **0.53** | **137** | *e*PG | **Pg** | **17 43 29.0** | **-1.5** |
| AKAR | | | | *e* | | 17 43 35.8 | |
| **DGZ** | **Jazzator, Alta** | **1.03** | **166** | *i* PG | Pg | 17 43 38.2 | -1.9 |
| **UKR** | **Ust'-Kan** | **1.47** | **280** | *e*Pg | **Pn** | **17 43 46.5** | **-0.3** |
| UKR | | | | *e*Sg | **Sn** | **17 44 06.1** | **-0.1** |
| **UKR** | **Ust'-Kan** | **1.47** | **280** | *e*PG | **Pn** | **17 43 46.5** | **-0.3** |
| UKR | | | | *e* | | 17 44 06.1 | |
| **BYO** | **Bayan-Olgiy** | **2.56** | **132** | *e*Pn | **Pn** | **17 44 01.9** | **-0.1** |
| BYO | | | | *e*Sg | **Sn** | **17 44 35.1** | **+1.7** |
| **ELT** | **Eltsovka** | **2.61** | **349** | *e*Pg | **Pn** | **17 44 04.5** | **+2.0** |
| ELT | | | | *e*Sg | **Sn** | **17 44 38.5** | **+4.3** |
| **ELT** | **Eltsovka** | **2.61** | **349** | *e*PN | **Pn** | **17 44 04.5** | **+2.0** |
| ELT | | | | *e* | | 17 44 38.5 | |
| **ULG** | **Ulaangom** | **3.29** | **101** | *e*Pn | **Pn** | **17 44 12.6** | **+0.7** |
| ULG | | | | *e*Sg | **Sb** | **17 45 01.5** | **+2.7** |
| **ZAA0** | **Zalesovo Array** | **3.53** | **338** | ⇓Pn | **Pn** | **17 44 15.4** | **+0.4** |
| | 10nm,0.5s | | | | | | |
| ZAA0 | | | | ⇓Sn | **Sn** | **17 44 56.2** | **-0.6** |
| | 7.6nm,0.6s | | | | | | |
| ZAA0 | | | | ⇑Lg | Lg | 17 45 08.1 | |
| | 83nm,1.1s | | | | | | |
| **ZAA0** | **Zalesovo Array** | **3.53** | **338** | *e*Pn | **Pn** | **17 44 15.4** | **+0.4** |
| **ZALV** | **Zalesovo Beam** | **3.53** | **338** | Pn | **Pn** | **17 44 15.4** | **+0.4** |
| | 24nm,0.3s,baz=162,slow=14,SNR=394 | | | | | | |
| ZALV | | | | Sn | **Sn** | **17 44 58.2** | **+1.4** |
| | 23nm,0.3s,baz=166,slow=26,SNR=8.1 | | | | | | |
| ZALV | | | | Lg | Lg | 17 45 08.3 | |
| | 38nm,0.3s,baz=152,slow=29,SNR=8.9 | | | | | | |
| ZALV | | | | LR | LR | 17 45 55.8 | |
| | comp=Z,66nm,20.4s,baz=176,slow=45 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **3.53** | **338** | *e*Pn | **Pn** | **17 44 15.4** | **+0.3** |
| ZAA1 | | | | *e*Sn | **Sn** | **17 44 58.2** | **+1.3** |
| ZAA1 | | | | *e*Lg | Lg | 17 45 08.3 | |
| ZAA1 | | | | *e* | | 17 45 55.8 | |
| **HBD** | **Hovd** | **4.03** | **130** | *e*Pn | **Pn** | **17 44 23.3** | **+1.2** |
| HBD | | | | *e*Sg | **Sb** | **17 45 24.9** | **+4.6** |
| **HVS** | **Khovu-Aksy** | **4.23** | **82** | *i* PN | Pn | 17 44 22.2 | -2.5 |
| **NVS** | **Novosibirsk** | **4.75** | **332** | *e*Pn | **Pn** | **17 44 31.4** | **-0.4** |
| NVS | | | | *e*Pg | **Pb** | **17 44 47.1** | **+3.6** |
| NVS | | | | *e*Sn | **Sn** | **17 45 28.9** | **+2.1** |
| NVS | | | | *e*Sg | **Sb** | **17 45 47.4** | **+6.8** |
| **NVS** | **Novosibirsk** | **4.75** | **332**⇓ | *i*PN | **Pn** | **17 44 31.4** | **-0.4** |
| NVS | | | | *i* | | 17 44 47.1 | |
| NVS | | | | *e* | | 17 45 28.9 | |
| **MK31** | **Makanchi Array** | **5.03** | **221** | ⇑Pn | **Pn** | **17 44 38.0** | **+2.3** |
| | 8.3nm,0.3s,baz=42,slow=13,SNR=769 | | | | | | |
| MK31 | | | | ⇓Pg | Pb | 17 44 53.8 | +5.6 |
| | 29nm,0.6s,baz=40,slow=19,SNR=6.9 | | | | | | |
| MK31 | | | | ⇑Sn | **Sn** | **17 45 36.7** | **+2.9** |
| | 51nm,0.5s,baz=45,slow=22,SNR=6.1 | | | | | | |
| MK31 | | | | ⇑Lg | Lg | 17 45 58.7 | |
| | 125nm,0.5s,baz=51,slow=30,SNR=7.8 | | | | | | |
| **MK31** | **Makanchi Array** | **5.03** | **221** | *e*PN | **Pn** | **17 44 38.0** | **+2.3** |
| **MK31** | **Makanchi Array** | **5.03** | **221** | *e*Pn | **Pn** | **17 44 38.0** | **+2.3** |
| **MK32** | **Makanchi Array** | **5.03** | **221** | *e*Pn | **Pn** | **17 44 38.1** | **+2.4** |
| MK32 | | | | *e*Sn | **Sn** | **17 45 36.7** | **+2.9** |
| MK32 | | | | *e*Lg | Lg | 17 45 58.8 | |
| MK32 | | | | *e* | | 17 46 47.3 | |
| **MKAR** | **Makanchi Array** | **5.03** | **221** | Pn | **Pn** | **17 44 38.1** | **+2.4** |
| | 21nm,0.3s,baz=43,slow=11,SNR=656 | | | | | | |
| MKAR | | | | Sn | **Sn** | **17 45 36.7** | **+2.9** |
| | 33nm,0.3s,baz=40,slow=17,SNR=8.4 | | | | | | |
| MKAR | | | | Lg | Lg | 17 45 58.8 | |
| | 45nm,0.3s,baz=38,slow=33,SNR=12 | | | | | | |
| MKAR | | | | LR | LR | 17 46 47.3 | |
| | comp=Z,94nm,19.8s,baz=5.0,slow=41 | | | | | | |
| **MK01** | **Makanchi Array** | **5.04** | **220** | *e*Pn | **Pn** | **17 44 38.1** | **+2.2** |
| **MK01** | **Makanchi Array** | **5.04** | **220** | *e*Pn | **Pn** | **17 44 38.1** | **+2.2** |
| MK01 | | | | *e*Sg | **Sb** | **17 45 56.1** | **+7.0** |
| **MAKZ** | **Makanchi** | **5.15** | **223** | ⇓Pn | **Pn** | **17 44 38.7** | **+1.4** |
| | 25nm,0.6s | | | | | | |
| MAKZ | | | | ⇑Sn | **Sn** | **17 45 37.6** | **+0.9** |
| | 73nm,0.5s | | | | | | |
| MAKZ | | | | ⇑Lg | Lg | 17 46 02.4 | |
| | 111nm,0.5s | | | | | | |
| **MAKZ** | **Makanchi** | **5.15** | **223** | *e*PN | **Pn** | **17 44 39.9** | **+2.6** |
| **MAKZ** | **Makanchi** | **5.15** | **223** | *e*Pn | **Pn** | **17 44 39.5** | **+2.2** |
| **KURK** | **Kurchatov** | **5.36** | **273***c* | *i*PN | **Pn** | **17 44 40.6** | **+0.4** |
| **KURK** | **Kurchatov** | **5.36** | **273** | *e*Pn | **Pn** | **17 44 40.8** | **+0.6** |
| KURK | | | | *e*Sn | **Sn** | **17 45 44.5** | **+2.5** |
| KURK | | | | *e*Lg | Lg | 17 46 09.9 | |
| **KURBB** | **Kurchatov Arra** | **5.42** | **272** | Pn | **Pn** | **17 44 41.6** | **+0.5** |
| | 3.9nm,0.3s,baz=86,slow=14,SNR=366 | | | | | | |
| KURBB | | | | Sn | **Sn** | **17 45 44.5** | **+1.0** |
| | 4.3nm,0.3s,baz=84,slow=28,SNR=9.9 | | | | | | |
| KURBB | | | | Lg | Lg | 17 46 09.9 | |
| | 7.9nm,0.3s,baz=86,slow=34,SNR=16 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **5.42** | **272** | ⇓Pn | **Pn** | **17 44 40.6** | **-0.5** |
| | 65nm,0.5s | | | | | | |
| KURBB | | | | ⇑Sn | **Sn** | **17 45 40.0** | **-3.6** |
| | 214nm,0.7s | | | | | | |
| KURBB | | | | ⇑Lg | Lg | 17 46 06.1 | |
| | 383nm,0.6s | | | | | | |
| **WMQ** | **Urumqi** | **6.90** | **176** | Pn | Pn | 17 45 07.3 | +5.9 |
| WMQ | | | | Sn | **Sn** | **17 46 26.0** | **+6.0** |
| WMQ | | | | smax | smax | | |
| | comp=N,72nm,1.0s | | | | | | |
| WMQ | | | | smax | smax | | |
| | comp=E,68nm,0.8s | | | | | | |
| **TSC** | **Tosontsengel** | **7.51** | **101** | *e*Pg | **Pb** | **17 45 35.1** | **+4.6** |
| TSC | | | | *e*Sg | Sb | 17 47 12.3 | +12 |
| **HTG** | **Hatgal** | **8.35** | **87** | *e*Sg | Sb | 17 47 37.8 | +13 |
| **PDGK** | **Podgornoye** | **9.00** | **218** | ⇑Pn | **Pn** | **17 45 30.6** | **+0.3** |
| | 13nm,0.7s | | | | | | |
| PDGK | | | | ⇓Sn | **Sn** | **17 47 14.8** | **+3.0** |
| | 33nm,0.8s | | | | | | |
| PDGK | | | | ⇑Lg | Lg | 17 48 06.7 | |
| | 31nm,0.7s | | | | | | |
| **PDGK** | **Podgornoye** | **9.00** | **218** | P | **Pn** | **17 45 30.6** | **+0.3** |
| **TTS** | **Tsetserleg** | **9.97** | **103** | *e*Sg | Sn | 17 48 29.6 | +54 |
| | 65nm,1.0s | | | | | | |
| **KNDC** | **Almaty** | **10.18** | **226** | ⇑Lg | Lg | 17 48 40.4 | |
| **MDOK** | **Medeo** | **10.18** | **226** | ⇓Pn | **Pn** | **17 45 46.4** | **0.0** |
| MDOK | | | | ⇑Lg | Lg | 17 48 42.7 | |
| **TLY** | **Talaya** | **10.46** | **78** | LR | LR | 17 49 47.8 | |
| | comp=Z,77nm,18.9s,baz=300,slow=38 | | | | | | |
| **BVA0** | **Borovoye Array** | **10.57** | **289** | ⇓Pn | **Pn** | **17 45 50.1** | **-1.6** |
| | 3.8nm,0.5s,baz=105,slow=13,SNR=46 | | | | | | |
| BVA0 | | | | ⇓Sn | **Sn** | **17 47 46.2** | **-3.8** |
| | 10nm,0.6s,baz=91,slow=22,SNR=7.1 | | | | | | |
| **BVAR** | **Borovoye Array** | **10.57** | **289** | Pn | **Pn** | **17 45 50.1** | **-1.6** |
| | 2.4nm,0.3s,baz=99,slow=14,SNR=57 | | | | | | |
| BVAR | | | | Sn | **Sn** | **17 47 45.4** | **-4.6** |
| | 2.1nm,0.3s,baz=91,slow=23,SNR=11 | | | | | | |
| **BRVK** | **Borovoye** | **10.64** | **289** | *e*P | **Pn** | **17 45 51.4** | **-1.1** |
| **BRVK** | **Borovoye** | **10.64** | **289** | *e*Pn | **Pn** | **17 45 51.4** | **-1.1** |
| **BLGM** | **Bulgan** | **10.83** | **94** | *e*Sg | Sn | 17 48 55.3 | +59 |
| **TKM2** | **Tokmak 2** | **11.05** | **230** | ⇑Pn | **Pn** | **17 45 59.6** | **+1.2** |
| | 3.7nm,0.7s | | | | | | |
| TKM2 | | | | ⇓Sn | **Sn** | **17 48 01.6** | **-0.5** |
| | 9.2nm,0.8s | | | | | | |
| TKM2 | | | | ⇑Lg | Lg | 17 49 08.0 | |
| | 41nm,0.9s | | | | | | |
| **TKM2** | **Tokmak 2** | **11.05** | **230** | P | **Pn** | **17 45 59.6** | **+1.2** |
| **AAK** | **Ala-Archa** | **11.80** | **232** | Pn | **Pn** | **17 46 08.6** | **-0.1** |
| | 0.3nm,0.3s,baz=68,slow=7.3,SNR=5.5 | | | | | | |
| AAK | | | | Sn | **Sn** | **17 48 18.6** | **-1.8** |
| | 0.4nm,0.3s,baz=240,slow=22,SNR=4.4 | | | | | | |
| AAK | | | | Lg | Lg | 17 49 34.0 | |
| | 0.9nm,0.3s,baz=163,slow=18,SNR=5.5 | | | | | | |
| **AAK** | **Ala-Archa** | **11.80** | **232** | ⇓Pn | **Pn** | **17 46 08.6** | **-0.1** |
| | 2.8nm,0.7s | | | | | | |
| AAK | | | | ⇑Sn | **Sn** | **17 48 21.2** | **+0.8** |
| | 14nm,0.8s | | | | | | |
| AAK | | | | ⇑Lg | Lg | 17 49 32.7 | |
| | 36nm,0.9s | | | | | | |
| **SONB5** | **Songino Array** | **12.92** | **95** | *e*Sg | | 17 50 01.4 | |
| **SONB4** | **Songino Array** | **12.93** | **95** | *e*Sg | | 17 50 01.5 | |
| **SONB1** | **Songino Array** | **12.94** | **95** | *e*Sg | | 17 50 01.8 | |
| | 38nm,1.3s | | | | | | |
| **SONA2** | **Songino Array** | **12.94** | **95** | *e*Sg | | 17 50 01.6 | |
| **SONA0** | **Songino Array** | **12.95** | **95** | *e*Sg | | 17 50 02.2 | |
| **SONM** | **Songino Array** | **12.95** | **95** | Lg | Lg | 17 50 10.0 | |
| | 0.1nm,0.3s,baz=268,slow=30,SNR=8.5 | | | | | | |
| **SONA1** | **Songino Array** | **12.95** | **95** | *e*Sg | | 17 50 01.8 | |
| **SONA4** | **Songino Array** | **12.95** | **95** | *e*Sg | | 17 50 01.7 | |
| **SONA3** | **Songino Array** | **12.95** | **95** | *e*Sg | | 17 50 01.9 | |
| **SONB2** | **Songino Ar. Si** | **12.96** | **95** | *e*Sg | | 17 50 02.4 | |
| | 41nm,1.2s | | | | | | |
| **SONB3** | **Songino Array** | **12.96** | **95** | *e*Sg | | 17 50 02.9 | |
| | 26nm,1.0s | | | | | | |
| **ALFM** | | **13.14** | **94** | *e*Sg | S | 17 50 08.3 | +50 |
| **ARTM** | | **13.47** | **94** | *e*Sg | S | 17 50 19.0 | +54 |
| **KK31** | **Karatay Array** | **13.61** | **242** | Pn | **Pn** | **17 46 34.6** | **+1.4** |
| | 1.4nm,0.5s,baz=49,slow=14,SNR=13 | | | | | | |
| KK31 | | | | ⇓Sn | **Sn** | **17 49 04.7** | **+0.3** |
| | 3.5nm,0.5s | | | | | | |
| KK31 | | | | ⇓Lg | Lg | 17 50 26.9 | |
| | 20nm,0.8s,baz=54,slow=29,SNR=4.8 | | | | | | |
| **KK31** | **Karatay Array** | **13.61** | **242** | P | **Pn** | **17 46 34.6** | **+1.4** |
| **DZBM** | | **13.69** | **113** | *e*Sg | S | 17 50 25.8 | +56 |
| **AB31** | **Akbulak array** | **17.47** | **276** | ⇓Pn | **Pn** | **17 47 22.8** | **-0.9** |
| | 2.1nm,0.7s,baz=77,slow=11,SNR=16 | | | | | | |
| **ARU** | **Arti** | **17.79** | **300** | Pn | **Pn** | **17 47 24.2** | **-3.5** |
| | 0.0nm,0.3s,baz=94,slow=16,SNR=4.9 | | | | | | |
| **ARU** | **Arti** | **17.79** | **300***d* | *i*P | **Pn** | **17 47 27.9** | **+0.2** |
| ARU | | | | S | **Sn** | **17 50 48.3** | **+2.6** |
| ARU | | | | pmax | pmax | | |
| | comp=Z,29nm,2.5s | | | | | | |
| **ARU** | **Arti** | **17.79** | **300** | *e*Pn | **Pn** | **17 47 24.2** | **-3.5** |
| | comp=Z,7.8nm,1.3s | | | | | | |
| ARU | | | | *e*Sn | **Sn** | **17 50 43.2** | **-2.5** |
| **AKTO** | **Aktyubinsk** | **18.40** | **280** | P | **P** | **17 47 33.5** | **-1.8** |
| | comp=Z,0.6nm,0.3s,baz=86,slow=12,SNR=10 | | | | | | |
| **AKTO** | **Aktyubinsk** | **18.40** | **280** | ⇑Pn | **P** | **17 47 33.1** | **-2.2** |
| | comp=Z,5.4nm,0.9s | | | | | | |
| **GUN** | **Gumba** | **22.78** | **183** | *e*P | **P** | **17 48 24.5** | **+1.3** |
| | comp=Z,8.2nm,0.5s | | | | | | |
| **PYUN** | **Piuthan** | **22.79** | **189** | *e*P | **P** | **17 48 22.8** | **-0.3** |
| **KKN** | **Kakani** | **22.92** | **184** | *e*P | **P** | **17 48 25.2** | **+0.7** |
| | comp=Z,10nm,0.6s | | | | | | |
| **JIRN** | **Jiri** | **23.02** | **182** | *e*P | **P** | **17 48 26.7** | **+1.0** |
| **KOLN** | **Koldanda** | **23.05** | **188** | *e*P | **P** | **17 48 25.1** | **-0.8** |
| | comp=Z,7.5nm,0.6s | | | | | | |
| **PKIN** | **Phulchoki** | **23.13** | **184** | *e*P | **P** | **17 48 27.1** | **+0.4** |
| **PKI** | **Pulchoki** | **23.14** | **184** | *e*P | **P** | **17 48 27.3** | **+0.5** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| | comp=Z,6.5nm,0.5s | | | | | | |
| **TAPN** | **Taplejung** | **23.33** | **179** | *e*P | **P** | **17 48 29.2** | **+0.4** |
| | comp=Z,2.7nm,0.4s | | | | | | |
| **RAMN** | **Ramite** | **23.72** | **181** | *e*P | **P** | **17 48 32.3** | **-0.3** |
| | comp=Z,10nm,0.6s | | | | | | |
| **ODAN** | **Odare** | **23.81** | **179** | *e*P | **P** | **17 48 33.4** | **-0.1** |
| | comp=Z,4.8nm,0.6s | | | | | | |
| **YAK** | **Yakutsk** | **25.68** | **47** | *i* P | **P** | **17 48 46.9** | **-3.0** |
| YAK | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.8s | | | | | | |
| **TIXI** | **Tiksi** | **28.09** | **27** | *i* P | **P** | **17 49 11.4** | **-0.2** |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.9s | | | | | | |
| **GNI** | **Garni** | **31.12** | **267** | LR | LR | 18 04 04.1 | |
| | comp=Z,28nm,19.4s,baz=28,slow=40 | | | | | | |
| **KSRS** | **Korea Array** | **31.78** | **99** | LR | LR | 18 03 28.9 | |
| | comp=Z,27nm,20.7s,baz=300,slow=38 | | | | | | |
| **FIA0** | **FINESS Array S** | **34.40** | **312** | *e*P | **P** | **17 50 06.7** | **-0.5** |
| **FIA0** | **FINESS Array S** | **34.40** | **312** | *e*P | **P** | **17 50 06.7** | **-0.5** |
| **FINES** | **FINESS Array B** | **34.40** | **312** | P | **P** | **17 50 06.7** | **-0.5** |
| | comp=Z,0.6nm,0.4s,baz=69,slow=10,SNR=6.3 | | | | | | |
| **FINES** | **FINESS Array B** | **34.40** | **312** | *i* P | **P** | **17 50 06.6** | **-0.6** |
| FINES | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.4s | | | | | | |
| **AKASG** | **Malin Array Be** | **35.81** | **293** | P | **P** | **17 50 18.4** | **-1.1** |
| | comp=Z,1.4nm,0.4s,baz=62,slow=9.1,SNR=11 | | | | | | |
| AKASG | | | | LR | LR | 18 05 27.8 | |
| | comp=Z,44nm,18.3s,baz=50,slow=37 | | | | | | |
| **AKBB** | **Malin Array Si** | **35.81** | **293** | *e*P | **P** | **17 50 18.4** | **-1.1** |
| AKBB | | | | pmax | pmax | | |
| | comp=Z,20nm,1.8s | | | | | | |
| **AKBB** | **Malin Array Si** | **35.81** | **293** | *e*P | **P** | **17 50 18.4** | **-1.1** |
| | comp=Z,20nm,1.8s | | | | | | |
| **SPITS** | **Spitsbergen Ar** | **37.01** | **341** | P | **P** | **17 50 29.1** | **-0.3** |
| | comp=Z,20nm,1.1s,baz=73,slow=8.9,SNR=8.6 | | | | | | |
| **BR101** | **Keskin Array S** | **38.41** | **275** | *e*P | **P** | **17 50 41.8** | **0.0** |
| **BR131** | **Keskin Array S** | **38.41** | **275** | *e*P | **P** | **17 50 42.3** | **+0.4** |
| **BRTR** | **Keskin Array B** | **38.41** | **275** | P | **P** | **17 50 41.8** | **0.0** |
| | comp=Z,1.8nm,0.9s,baz=76,slow=7.1,SNR=8.8 | | | | | | |
| BRTR | | | | LR | LR | 18 09 21.0 | |
| | comp=Z,16nm,19.0s,baz=28,slow=41 | | | | | | |
| **BRTR** | **Keskin Array B** | **38.41** | **275** | *i* P | **P** | **17 50 42.0** | **+0.1** |
| BRTR | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.9s | | | | | | |
| **BR231** | **Keskin MP Arra** | **38.89** | **275** | *e*P | P | 17 50 42.5 | -3.4 |
| **BUR08** | **Bucovina Ar. S** | **39.52** | **290** | *e*P | **P** | **17 50 51.0** | **-0.1** |
| **BUR04** | **Bucovina Ar. S** | **39.53** | **290** | *e*P | **P** | **17 50 50.6** | **-0.4** |
| **NB2** | **NORSAR Subarra** | **41.42** | **314** | P | **P** | **17 51 05.0** | **-1.4** |
| | comp=Z,3.6nm,0.8s,baz=66,slow=7.9 | | | | | | |
| **NB200** | **NORSAR Array S** | **41.42** | **314** | *e*P | **P** | **17 51 04.9** | **-1.5** |
| **NOA** | **NORSAR Array B** | **41.42** | **314** | P | **P** | **17 51 04.9** | **-1.5** |
| | comp=Z,0.6nm,0.5s,baz=68,slow=7.2,SNR=4.4 | | | | | | |
| **RAYN** | **Ar Rayn** | **42.01** | **245** | *e*P | **P** | **17 51 11.8** | **+0.1** |
| | comp=Z,4.4nm,0.8s | | | | | | |
| **CLL** | **Collm** | **44.73** | **301** | *e*P | **P** | **17 51 32.0** | **-1.3** |
| **CLL** | **Collm** | **44.73** | **301** | *e*P | **P** | **17 51 32.0** | **-1.3** |
| **ILAR** | **Eielson Array** | **57.52** | **24** | P | **P** | **17 53 07.9** | **-1.3** |
| | comp=Z,0.6nm,0.6s,baz=320,slow=6.0,SNR=8.6 | | | | | | |
| **ESDC** | **Sonseca Array** | **61.18** | **298** | P | **P** | **17 53 34.5** | **-0.4** |
| | comp=Z,0.3nm,0.4s,baz=53,slow=7.7,SNR=6.1 | | | | | | |
| **YKA** | **Yellowknife Ar** | **65.85** | **11** | P | **P** | **17 54 03.5** | **-1.7** |
| | comp=Z,0.7nm,0.5s,baz=342,slow=6.5,SNR=6.4 | | | | | | |
| **YKB5** | **Yellowknife Ar** | **65.85** | **11** | *e*P | **P** | **17 54 03.5** | **-1.7** |
| **TOA1** | **Torodi Ar. Sit** | **77.02** | **275** | *e*P | **P** | **17 55 11.7** | **-1.8** |
| **TORD** | **Torodi Ar. Bea** | **77.03** | **275** | P | **P** | **17 55 11.7** | **-1.8** |
| | comp=Z,0.3nm,0.5s,baz=30,slow=5.9,SNR=3.7 | | | | | | |
| **AS31** | **Alice Springs** | **84.80** | **138** | *e*P | **P** | **17 55 52.9** | **-1.8** |
| | comp=Z,1.4nm,1.3s | | | | | | |
| **ASAR** | **Alice Springs** | **84.80** | **138** | P | **P** | **17 55 52.9** | **-1.8** |
| | comp=Z,0.3nm,0.7s,baz=330,slow=4.9,SNR=7.2 | | | | | | |

---

*STR **05** 18:05:58.5±0.5, 50°.71N×6°.65E, h10km, Ml2.4, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*
*BGR **05** 18:05:59.5±0.3, 50°.77N×6°.74E, h10km, ML2.0/5, Error ellipse: s-maj=5.6km s-min=4.4km az=157.0*
*CSEM **05** 18:05:59.5±0.1, 50°.73N×6°.72E, h15km, ML2.6/16, Error ellipse: s-maj=2.0km s-min=1.9km az=50.0*
*BNS **05** 18:06:00.2±1.1, 50°.79N×6°.69E, h9km±10km, ML1.8*
*UCC **05** 18:06:00.6, 50°.73N×6°.67E, h12km, ML2.0*
*LDG **05** 18:06:00.3±0.1, 50°.75N×6°.71E, h10km, Md2.7/1, Ml2.7/14, Error ellipse: s-maj=1.1km s-min=1.1km az=90.0*
**ISC 05 18:05:59.8**±0.8**, 50°.78N**±0°.01×**6°.70E**±0°.01**, h19**km±1km**, n137,** $\sigma 1^{s}$**45**/229**, 19C-7D, Germany**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BA05** | **Sindorf** | **0.14** | **350** | ⇑*e*Pg | **Pg** | **18 06 03.8** | **-0.2** |
| **BA05** | **Sindorf** | **0.14** | **350** | Pg | **Pg** | **18 06 03.8** | **-0.2** |
| **BD04** | **Gut Margarthen** | **0.15** | **334** | ⇑*e*Pg | **Pg** | **18 06 04.5** | **+0.4** |
| **BD04** | **Gut Margarthen** | **0.15** | **334** | Pg | **Pg** | **18 06 04.5** | **+0.4** |
| **BD07** | **Roetschberg** | **0.17** | **354** | ⇑*e*Pg | **Pb** | **18 06 04.0** | **+0.7** |
| **BD07** | **Roetschberg** | **0.17** | **354** | Pg | **Pb** | **18 06 04.0** | **+0.7** |
| **BD01** | **Bergheim Laure** | **0.19** | **347** | ⇑*e*Pg | **Pg** | **18 06 05.1** | **+0.5** |
| **BD01** | **Bergheim Laure** | **0.19** | **347** | Pg | **Pg** | **18 06 05.1** | **+0.5** |
| **STB** | **Steinbach** | **0.20** | **155** | ⇓*i*Pg | **Pb** | **18 06 04.6** | **+0.3** |
| STB | | | | *e*Sg | **Sb** | **18 06 07.5** | **+0.2** |
| | 87nm,0.5s | | | | | | |
| **STB** | **Steinbach** | **0.20** | **155** | Pg | **Pb** | **18 06 04.6** | **+0.3** |
| STB | | | | Sg | **Sb** | **18 06 07.5** | **+0.2** |
| | 87nm,0.5s | | | | | | |
| **GSH** | **Grosshau** | **0.21** | **259** | *i* Pg | **Pb** | **18 06 04.7** | **+0.2** |
| GSH | | | | *e*Sg | **Sb** | **18 06 07.8** | **+0.2** |
| | 249nm,0.1s | | | | | | |
| **GSH** | **Grosshau** | **0.21** | **259** | Pg | **Pb** | **18 06 04.7** | **+0.2** |
| GSH | | | | Sg | **Sb** | **18 06 07.8** | **+0.2** |
| | 249nm,0.1s | | | | | | |
| **BD03** | **Millendorf** | **0.23** | **337** | ⇓*e*Pg | **Pg** | **18 06 05.9** | **+0.6** |
| **BD03** | **Millendorf** | **0.23** | **337** | Pg | **Pg** | **18 06 05.9** | **+0.6** |
| **PLH** | **Pulheim** | **0.24** | **18** | *i* Pg | **Pb** | **18 06 05.2** | **-0.1** |
| PLH | | | | *e*Sg | **Sb** | **18 06 08.7** | **-0.1** |
| | 286nm,0.1s | | | | | | |
| **PLH** | **Pulheim** | **0.24** | **18** | Pg | **Pb** | **18 06 05.2** | **-0.1** |
| PLH | | | | Sg | **Sb** | **18 06 08.7** | **-0.1** |
| | 286nm,0.1s | | | | | | |
| **TDN** | **Todenfeld** | **0.26** | **143** | *e*Pg | **Pg** | **18 06 05.3** | **-0.3** |
| TDN | | | | *e*Sg | **Sg** | **18 06 08.8** | **-0.8** |
| | 64nm,0.1s | | | | | | |
| **TDN** | **Todenfeld** | **0.26** | **143** | Pg | **Pg** | **18 06 05.3** | **-0.3** |
| TDN | | | | Sg | **Sg** | **18 06 08.8** | **-0.8** |
| | 64nm,0.1s | | | | | | |
| **KLL** | **Kalltalsperre** | **0.28** | **242** | ⇑*e*Pg | **Pg** | **18 06 05.8** | **-0.2** |
| **KLL** | **Kalltalsperre** | **0.28** | **242** | Pg | **Pg** | **18 06 05.8** | **-0.2** |
| **DREG** | **Dreilaegerbach** | **0.32** | **249** | ⇑*e*Pg | **Pg** | **18 06 06.5** | **-0.2** |
| DREG | | | | *e*Sg | **Sg** | **18 06 10.7** | **-0.7** |
| | 104nm,0.6s | | | | | | |
| **DREG** | **Dreilaegerbach** | **0.32** | **249** | Pg | **Pg** | **18 06 06.5** | **-0.2** |
| DREG | | | | Sg | **Sg** | **18 06 10.7** | **-0.7** |
| | 104nm,0.6s | | | | | | |
| **AHRW** | **Bad Neuenahr-A** | **0.34** | **135** | ⇑*e*Pg | **Pg** | **18 06 07.4** | **+0.5** |
| AHRW | | | | *e*Sg | **Sg** | **18 06 12.0** | **+0.2** |
| **AHRW** | **Bad Neuenahr-A** | **0.34** | **135** | Pg | **Pg** | **18 06 07.4** | **+0.5** |
| AHRW | | | | Sg | **Sg** | **18 06 12.0** | **+0.2** |
| **OLFT** | **Oleftalsperre** | **0.34** | **212** | *i* Pg | **Pg** | **18 06 06.6** | **-0.4** |
| OLFT | | | | *e*Sg | **Sg** | **18 06 11.6** | **-0.3** |
| **OLFT** | **Oleftalsperre** | **0.34** | **212** | Pg | **Pg** | **18 06 06.6** | **-0.4** |
| OLFT | | | | Sg | **Sg** | **18 06 11.6** | **-0.3** |
| **BNS** | **Bensberg** | **0.35** | **58** | ⇑*e*Pg | **Pg** | **18 06 07.0** | **-0.3** |
| **BNS** | **Bensberg** | **0.35** | **58** | Pg | **Pg** | **18 06 07.0** | **-0.3** |
| **WBS** | **Wahnbachtalspe** | **0.37** | **85** | *e*Pg | **Pg** | **18 06 07.3** | **-0.2** |
| WBS | | | | *e*Sg | **Sg** | **18 06 11.8** | **-1.0** |
| | 107nm,0.1s | | | | | | |
| **WBS** | **Wahnbachtalspe** | **0.37** | **85** | Pg | **Pg** | **18 06 07.3** | **-0.2** |
| WBS | | | | Sg | **Sg** | **18 06 11.8** | **-1.0** |
| | 107nm,0.1s | | | | | | |
| **HOBG** | **Hohbusch** | **0.45** | **62** | ⇑*e*Pg | **Pg** | **18 06 08.7** | **-0.3** |
| **HOBG** | **Hohbusch** | **0.45** | **62** | Pg | **Pg** | **18 06 08.7** | **-0.3** |
| **MEM** | **Membach** | **0.47** | **249** | ⇑P | **Pg** | **18 06 09.1** | **-0.3** |
| **MEM** | **Membach** | **0.47** | **249** | ⇑P* | **Pg** | **18 06 09.1** | **-0.3** |
| MEM | | | | S* | **Sg** | **18 06 15.4** | **-0.4** |
| **MEM** | **Membach** | **0.47** | **249** | P | **Pg** | **18 06 09.0** | **-0.3** |
| MEM | | | | S | **Sg** | **18 06 14.9** | **-0.9** |
| | 46nm,0.4s | | | | | | |
| MEM | | | | Sb | **Sg** | **18 06 15.4** | **-0.4** |
| **HILG** | **Hillesheim** | **0.49** | **182** | ⇑*e*Pg | **Pg** | **18 06 09.6** | **0.0** |
| **HILG** | **Hillesheim** | **0.49** | **182** | Pg | **Pg** | **18 06 09.6** | **0.0** |
| **HGN** | **Heimansgroeve** | **0.49** | **269** | *e*Pg | **Pg** | **18 06 09.5** | **-0.1** |
| | 77nm,0.1s | | | | | | |
| HGN | | | | *e*Sg | **Sg** | **18 06 16.0** | **-0.3** |
| **HGN** | **Heimansgroeve** | **0.49** | **269** | *e*Pg | **Pg** | **18 06 09.6** | **-0.1** |
| HGN | | | | *e*Sg | **Sg** | **18 06 16.3** | **0.0** |
| **HGN** | **Heimansgroeve** | **0.49** | **269** | Pg | **Pg** | **18 06 09.6** | **-0.1** |
| HGN | | | | Sg | **Sg** | **18 06 16.3** | **0.0** |
| **BHE** | **Schloss Buerre** | **0.52** | **144** | *e*Pg | **Pg** | **18 06 10.3** | **0.0** |
| BHE | | | | *e*Sg | **Sg** | **18 06 17.2** | **-0.1** |
| | 32nm,0.1s | | | | | | |
| **BHE** | **Schloss Buerre** | **0.52** | **144** | Pg | **Pg** | **18 06 10.3** | **0.0** |
| BHE | | | | Sg | **Sg** | **18 06 17.2** | **-0.1** |
| | 32nm,0.1s | | | | | | |
| **HKB** | **Herkenbosch** | **0.53** | **321** | P | **Pb** | **18 06 11.5** | **+1.0** |
| HKB | | | | S | **Sb** | **18 06 18.8** | **+1.0** |
| **HKB** | **Herkenbosch** | **0.53** | **321** | P | **Pb** | **18 06 11.5** | **+1.0** |
| HKB | | | | S | **Sb** | **18 06 18.7** | **+1.0** |
| **LAUG** | **Laupendahl** | **0.59** | **15** | ⇓*e*Pg | **Pb** | **18 06 11.2** | **-0.3** |
| **LAUG** | **Laupendahl** | **0.59** | **15** | Pg | **Pb** | **18 06 11.2** | **-0.3** |
| **LOH** | **Wallersheim-Lo** | **0.60** | **190** | *e*Pg | **Pb** | **18 06 11.7** | **0.0** |
| LOH | | | | *e*Sg | **Sb** | **18 06 19.7** | **-0.1** |
| | 50nm,0.1s | | | | | | |
| **LOH** | **Wallersheim-Lo** | **0.60** | **190** | Pg | **Pb** | **18 06 11.7** | **0.0** |
| LOH | | | | Sg | **Sb** | **18 06 19.7** | **-0.1** |
| | 50nm,0.1s | | | | | | |
| **BLI** | **Bleialf** | **0.61** | **206** | ⇓P* | **Pb** | **18 06 11.2** | **-0.5** |
| BLI | | | | S* | **Sg** | **18 06 21.6** | **+1.6** |
| **BLI** | **Bleialf** | **0.61** | **206** | Pb | **Pb** | **18 06 11.2** | **-0.5** |
| BLI | | | | Sb | **Sg** | **18 06 21.6** | **+1.6** |
| **ENTS** | **Ennepetalsperr** | **0.65** | **44** | *e*Pg | **Pb** | **18 06 11.6** | **-0.8** |
| ENTS | | | | *e*Sg | **Sb** | **18 06 20.4** | **-0.6** |
| **ENTS** | **Ennepetalsperr** | **0.65** | **44** | Pg | **Pb** | **18 06 11.6** | **-0.8** |
| ENTS | | | | Sg | **Sb** | **18 06 20.4** | **-0.6** |
| **BEBN** | **Eben Emael** | **0.65** | **272** | ⇓P | **Pb** | **18 06 12.5** | **0.0** |
| BEBN | | | | S | **Sb** | **18 06 21.2** | **0.0** |
| | comp=E,45nm,0.2s | | | | | | |
| **BEBN** | **Eben Emael** | **0.65** | **272** | P | **Pb** | **18 06 12.5** | **0.0** |
| BEBN | | | | S | **Sb** | **18 06 21.1** | **0.0** |
| | comp=E,45nm,0.2s | | | | | | |
| **BGG** | **Burgeitz** | **0.70** | **144** | ⇑*e*Pg | **Pb** | **18 06 13.4** | **0.0** |
| **BGG** | **Burgeitz** | **0.70** | **144** | Pg | **Pb** | **18 06 13.4** | **0.0** |
| **BIW** | **Bindweide** | **0.72** | **93** | P* | **Pb** | **18 06 13.4** | **-0.3** |
| BIW | | | | S* | **Sg** | **18 06 24.1** | **+0.6** |
| **BIW** | **Bindweide** | **0.72** | **93** | Pb | **Pb** | **18 06 13.4** | **-0.3** |
| BIW | | | | Sb | **Sg** | **18 06 24.1** | **+0.6** |
| **KOE** | **Koeppel** | **0.74** | **118** | ⇓*e*Pg | **Pb** | **18 06 14.2** | **0.0** |
| **KOE** | **Koeppel** | **0.74** | **118** | Pg | **Pb** | **18 06 14.2** | **0.0** |
| **BSTI** | **Sart Tilman** | **0.75** | **255** | ⇓P | **Pb** | **18 06 14.2** | **-0.1** |
| **BSTI** | **Sart Tilman** | **0.75** | **255** | P | **Pb** | **18 06 14.1** | **-0.1** |
| **FSH** | **Hochheid** | **0.75** | **160** | P* | **Pb** | **18 06 14.2** | **0.0** |
| FSH | | | | PmP | | 18 06 15.3 | |
| FSH | | | | S* | **Sb** | **18 06 23.9** | **-0.1** |
| **FSH** | **Hochheid** | **0.75** | **160** | Pb | **Pb** | **18 06 14.2** | **0.0** |
| **BUG** | **Bochum--Univer** | **0.75** | **28** | *e*Pg | **Pb** | **18 06 14.5** | **+0.2** |
| BUG | | | | *e*Sg | **Sg** | **18 06 25.3** | **+0.7** |
| **FACH** | **Fachingen** | **0.93** | **117** | P* | **Pb** | **18 06 17.3** | **+0.1** |
| FACH | | | | S* | **Sb** | **18 06 30.2** | **+1.1** |
| FACH | | | | SmS | | 18 06 31.5 | |
| **BCLA** | **Clavier** | **0.96** | **249** | ⇑P | **Pb** | **18 06 17.9** | **+0.1** |
| BCLA | | | | S | **Sb** | **18 06 30.4** | **+0.2** |
| | comp=E,14nm,0.1s | | | | | | |
| **BCLA** | **Clavier** | **0.96** | **249** | P | **Pb** | **18 06 17.9** | **+0.1** |
| BCLA | | | | S | **Sb** | **18 06 30.3** | **+0.2** |
| | comp=E,14nm,0.1s | | | | | | |
| **ABH** | **Alteburg** | **1.05** | **149** | Pg | **Pb** | **18 06 19.7** | **+0.4** |
| ABH | | | | PmP | | 18 06 20.9 | |
| ABH | | | | S* | **Sb** | **18 06 32.7** | **+0.1** |
| **ABH** | **Alteburg** | **1.05** | **149** | Pg | **Pb** | **18 06 18.5** | **-0.8** |
| ABH | | | | Sg | **Sb** | **18 06 32.1** | **-0.6** |
| **RIVT** | **Riveris** | **1.07** | **178** | ⇑P* | **Pb** | **18 06 19.3** | **-0.4** |
| RIVT | | | | PmP | | 18 06 20.6 | |
| RIVT | | | | S* | **Sb** | **18 06 33.3** | **-0.1** |
| RIVT | | | | SmS | | 18 06 36.2 | |
| **RIVT** | **Riveris** | **1.07** | **178** | Pb | **Pb** | **18 06 19.3** | **-0.4** |
| **RUP** | **Ruppelstein** | **1.10** | **168** | P* | **Pn** | **18 06 20.2** | **-0.1** |
| RUP | | | | S* | **Sb** | **18 06 34.5** | **+0.2** |
| **RUP** | **Ruppelstein** | **1.10** | **168** | Pg | **Pn** | **18 06 18.3** | **-2.0** |
| RUP | | | | Sg | **Sb** | **18 06 33.2** | **-1.0** |
| **BGES** | **Gesves** | **1.10** | **250** | ⇑P | **Pn** | **18 06 20.3** | **0.0** |
| BGES | | | | S | **Sb** | **18 06 34.4** | **+0.2** |
| | comp=E,20nm,0.2s | | | | | | |
| **BGES** | **Gesves** | **1.10** | **250** | P | **Pn** | **18 06 20.2** | **0.0** |
| BGES | | | | S | **Sb** | **18 06 34.4** | **+0.2** |
| | comp=E,20nm,0.2s | | | | | | |
| **BDSL** | **Dessel** | **1.12** | **294** | P | **Pn** | **18 06 20.9** | **+0.4** |
| BDSL | | | | S | **Sb** | **18 06 34.7** | **-0.2** |
| **BDSL** | **Dessel** | **1.12** | **294** | P | **Pn** | **18 06 20.9** | **+0.4** |
| BDSL | | | | S | **Sb** | **18 06 34.6** | **-0.2** |
| **RCHB** | **Rochefort** | **1.13** | **237** | ⇑P | **Pn** | **18 06 20.6** | **0.0** |
| RCHB | | | | S | **Sb** | **18 06 35.7** | **+0.7** |
| | comp=N,108nm,0.2s | | | | | | |
| **RCHB** | **Rochefort** | **1.13** | **237** | P | **Pn** | **18 06 20.5** | **0.0** |
| RCHB | | | | S | **Sb** | **18 06 35.7** | **+0.7** |
| | comp=N,108nm,0.1s | | | | | | |
| **WLF** | **Walferdange** | **1.17** | **198** | P | **Pn** | **18 06 21.2** | **+0.1** |
| WLF | | | | S | **Sb** | **18 06 36.2** | **0.0** |
| | comp=N,16nm,0.1s | | | | | | |
| **WLF** | **Walferdange** | **1.17** | **198** | P* | **Pn** | **18 06 21.2** | **+0.1** |
| WLF | | | | *e*Pg | **Pb** | **18 06 21.8** | **+0.4** |
| WLF | | | | *e*Sg | **Sb** | **18 06 35.9** | **-0.2** |
| **WLF** | **Walferdange** | **1.17** | **198** | P | **Pn** | **18 06 21.2** | **+0.1** |
| WLF | | | | S | **Sb** | **18 06 36.1** | **0.0** |
| | comp=N,16nm,0.1s | | | | | | |
| **WTSB** | **Winterswijk** | **1.19** | **3** | *e*Sg | **Sn** | **18 06 37.7** | **+0.6** |
| **WTSB** | **Winterswijk** | **1.19** | **3** | *e*Sg | **Sn** | **18 06 37.7** | **+0.6** |
| **TNS** | **Taunus Mts** | **1.25** | **116** | P | **Pn** | **18 06 21.9** | **-0.4** |
| TNS | | | | Pg | **Pb** | **18 06 23.4** | **+0.7** |
| TNS | | | | *e*Sg | **Sb** | **18 06 38.7** | **+0.3** |
| **BMRD** | **Maredsous** | **1.32** | **250** | ⇑P | **Pn** | **18 06 23.7** | **+0.4** |
| BMRD | | | | S | **Sn** | **18 06 41.5** | **+1.1** |
| | comp=N,22nm,0.2s | | | | | | |
| **BMRD** | **Maredsous** | **1.32** | **250** | P | **Pn** | **18 06 23.6** | **+0.4** |
| BMRD | | | | S | **Sn** | **18 06 41.4** | **+1.1** |
| | comp=N,22nm,0.2s | | | | | | |
| **GIVF** | **Givet** | **1.38** | **241** | *e*Pn | **Pn** | **18 06 24.1** | **+0.1** |
| **GIVF** | **Givet** | **1.38** | **241** | *e*Pg | **Pb** | **18 06 25.5** | **+0.6** |
| GIVF | | | | *e*Sn | **Sn** | **18 06 41.2** | **-0.5** |
| | comp=N,40nm,0.2s | | | | | | |
| GIVF | | | | *e*Sg | **Sb** | **18 06 43.7** | **+1.5** |
| **GIVF** | **Givet** | **1.38** | **241** | *e*Pn | **Pn** | **18 06 24.1** | **+0.1** |
| **GIVF** | **Givet** | **1.38** | **241** | *e*Pg | **Pb** | **18 06 25.5** | **+0.6** |
| GIVF | | | | *e*Sn | **Sn** | **18 06 41.2** | **-0.5** |
| | comp=N,20nm,0.2s | | | | | | |
| GIVF | | | | *e*Sg | **Sb** | **18 06 43.7** | **+1.5** |
| **IMS** | **Imsbach** | **1.41** | **147** | Sg | **Sb** | **18 06 45.0** | **+1.9** |
| **DOU** | **Dourbes** | **1.51** | **244** | ⇑P | **Pn** | **18 06 26.3** | **+0.5** |
| DOU | | | | S | **Sn** | **18 06 45.0** | **0.0** |
| | comp=E,19nm,0.2s | | | | | | |
| **DOU** | **Dourbes** | **1.51** | **244** | P | **Pn** | **18 06 26.3** | **+0.5** |
| DOU | | | | S | **Sn** | **18 06 45.0** | **0.0** |
| | comp=E,19nm,0.2s | | | | | | |
| **BSKQ** | **Steenkerk** | **1.67** | **267** | P | **Pn** | **18 06 29.2** | **+1.2** |
| **BSKQ** | **Steenkerk** | **1.67** | **267** | P | **Pn** | **18 06 29.2** | **+1.2** |
| **BAIF** | **Baives** | **1.75** | **247** | *e*Pn | **Pn** | **18 06 29.8** | **+0.7** |
| **BAIF** | **Baives** | **1.75** | **247** | *e*Pg | **Pb** | **18 06 32.8** | **+1.5** |
| BAIF | | | | *e*Sn | **Sn** | **18 06 49.7** | **-1.2** |
| BAIF | | | | *e*Sg | **Sb** | **18 06 54.0** | **+1.1** |
| | comp=E,39nm,0.3s | | | | | | |
| **BAIF** | **Baives** | **1.75** | **247** | *e*Pn | **Pn** | **18 06 29.8** | **+0.7** |
| **BAIF** | **Baives** | **1.75** | **247** | *e*Pg | **Pb** | **18 06 32.8** | **+1.5** |
| BAIF | | | | *e*Sn | **Sn** | **18 06 49.7** | **-1.2** |
| BAIF | | | | *e*Sg | **Sb** | **18 06 54.0** | **+1.1** |
| | comp=E,19nm,0.3s | | | | | | |
| **TOD** | **Tromm** | **1.79** | **130** | Pg | **Pn** | **18 06 31.5** | **+1.8** |
| TOD | | | | Sg | **Sb** | **18 06 55.9** | **+1.9** |
| **LANF** | **Langenberg** | **1.94** | **158** | Pg | **Pb** | **18 06 34.3** | **-0.1** |
| LANF | | | | Sg | **Sb** | **18 07 00.7** | **+2.5** |
| **LANF** | **Langenberg** | **1.94** | **158** | Pg | **Pb** | **18 06 34.3** | **-0.1** |
| LANF | | | | Sg | **Sb** | **18 07 00.7** | **+2.5** |
| **UBBA** | **Unterbreizbach** | **2.09** | **88** | *e*Sg | **Sb** | **18 07 03.7** | **+1.1** |
| **PAGF** | **Fort de Pagny** | **2.31** | **196** | *e*Pn | **Pn** | **18 06 36.8** | **-0.1** |
| | baz=25 | | | | | | |
| **PAGF** | **Fort de Pagny** | **2.31** | **196** | *e*Pg | **Pb** | **18 06 42.9** | **+2.0** |
| PAGF | | | | *e*Sg | **Sb** | **18 07 12.3** | **+3.2** |
| | comp=E,1.1nm,0.2s,baz=24 | | | | | | |
| **PAGF** | **Fort de Pagny** | **2.31** | **196** | *e*Pn | **Pn** | **18 06 36.8** | **-0.1** |
| **PAGF** | **Fort de Pagny** | **2.31** | **196** | *e*Pg | **Pb** | **18 06 42.9** | **+2.0** |
| PAGF | | | | *e*Sg | **Sb** | **18 07 12.3** | **+3.2** |
| | comp=E,0.6nm,0.2s | | | | | | |
| **CDF** | **Champ du Feu** | **2.40** | **171** | *e*Pg | **Pb** | **18 06 44.4** | **+2.0** |
| CDF | | | | *e*Sn | **Sn** | **18 07 04.4** | **-2.6** |
| CDF | | | | *e*Sg | **Sb** | **18 07 14.4** | **+2.8** |
| | comp=E,3.0nm,0.3s | | | | | | |
| **CDF** | **Champ du Feu** | **2.40** | **171** | *e*Pg | **Pb** | **18 06 44.4** | **+2.0** |
| CDF | | | | *e*Sn | **Sn** | **18 07 04.4** | **-2.6** |
| CDF | | | | *e*Sg | **Sb** | **18 07 14.4** | **+2.8** |
| | comp=E,1.5nm,0.3s | | | | | | |
| **MEZF** | **Maizieres J'vi** | **2.52** | **206** | *e*Sn | **Sn** | **18 07 07.9** | **-1.9** |
| MEZF | | | | *e*Sg | **Sb** | **18 07 19.1** | **+4.2** |
| | comp=E,6.2nm,0.3s,baz=22 | | | | | | |
| **MEZF** | **Maizieres J'vi** | **2.52** | **206** | *e*Sn | **Sn** | **18 07 07.9** | **-1.9** |
| MEZF | | | | *e*Sg | **Sb** | **18 07 19.1** | **+4.2** |
| | comp=E,3.1nm,0.3s | | | | | | |
| **CLZ** | **Clausthal** | **2.54** | **64** | *e*Sg | **Sb** | **18 07 17.5** | **+1.9** |
| **ECH** | **Echery** | **2.58** | **173** | Pg | **Pb** | **18 06 46.2** | **+0.7** |
| ECH | | | | Sg | **Sb** | **18 07 20.4** | **+3.6** |
| **ECH** | **Echery** | **2.58** | **173** | Sg | **Sb** | **18 07 21.1** | **+4.3** |
| **ECH** | **Echery** | **2.58** | **173** | Pg | **Pb** | **18 06 46.2** | **+0.7** |
| ECH | | | | Sg | **Sb** | **18 07 20.4** | **+3.6** |
| **THEF** | **They Montfort** | **2.60** | **191** | Pg | **Pb** | **18 06 45.7** | **0.0** |
| THEF | | | | Sg | **Sb** | **18 07 20.8** | **+3.6** |
| **THEF** | **They Montfort** | **2.60** | **191** | Pg | **Pb** | **18 06 45.7** | **0.0** |
| THEF | | | | Sg | **Sb** | **18 07 20.8** | **+3.6** |
| **BFO** | **Black Forest** | **2.67** | **156** | S | **Sn** | **18 07 11.8** | **-1.9** |
| **HAU** | **Haudompre** | **2.78** | **185** | *e*Pg | **Pb** | **18 06 51.1** | **+2.2** |
| HAU | | | | *e*Sg | **Sb** | **18 07 26.0** | **+3.3** |
| | comp=E,4.9nm,0.3s | | | | | | |
| **HAU** | **Haudompre** | **2.78** | **185** | *e*Pg | **Pb** | **18 06 51.1** | **+2.2** |
| HAU | | | | *e*Sg | **Sb** | **18 07 26.0** | **+3.3** |
| | comp=E,2.5nm,0.3s | | | | | | |
| **SFTF** | **Sexfontaines** | **2.79** | **203** | *e*Pg | **Pb** | **18 06 51.2** | **+2.1** |
| SFTF | | | | *e*Sg | **Sb** | **18 07 26.9** | **+4.0** |
| | comp=E,5.6nm,0.2s | | | | | | |
| **SFTF** | **Sexfontaines** | **2.79** | **203** | *e*Pg | **Pb** | **18 06 51.2** | **+2.1** |
| SFTF | | | | *e*Sg | **Sb** | **18 07 26.9** | **+4.0** |
| | comp=E,2.8nm,0.2s | | | | | | |
| **HINF** | **Hinteralfeld** | **2.96** | **178** | *e*Sg | **Sb** | **18 07 32.4** | **+4.5** |
| | comp=E,2.7nm,0.2s | | | | | | |
| **HINF** | **Hinteralfeld** | **2.96** | **178** | *e*Sg | **Sb** | **18 07 32.4** | **+4.5** |
| | comp=E,1.4nm,0.2s | | | | | | |
| **LOR** | **Lormes** | **3.98** | **209** | *e*Pn | **Pn** | **18 06 59.3** | **-0.5** |
| | baz=32 | | | | | | |
| **LOR** | **Lormes** | **3.98** | **209** | *e*Pg | **Pb** | **18 07 12.8** | **+3.5** |
| | baz=32 | | | | | | |
| LOR | | | | *e*Sn | **Sn** | **18 07 42.9** | **-3.0** |
| | comp=E,1.7nm,0.2s,baz=29 | | | | | | |
| LOR | | | | *e*Sg | **Sg** | **18 08 04.1** | **-3.4** |
| | comp=E,3.0nm,0.3s,baz=28 | | | | | | |
| **LOR** | **Lormes** | **3.98** | **209** | *e*Pn | **Pn** | **18 06 59.3** | **-0.5** |
| LOR | | | | *e*Sn | **Sn** | **18 07 42.9** | **-3.0** |
| | comp=E,0.9nm,0.2s | | | | | | |
| **SSF** | **Saint Saulge** | **4.28** | **211** | *e*Pn | **Pn** | **18 07 03.8** | **0.0** |
| **SSF** | **Saint Saulge** | **4.28** | **211** | *e*Pn | **Pn** | **18 07 03.8** | **0.0** |
| **AVF** | **Avril sur Loir** | **4.56** | **210** | *e*Pn | **Pn** | **18 07 07.3** | **-0.5** |
| **AVF** | **Avril sur Loir** | **4.56** | **210** | *e*Pg | **Pg** | **18 07 24.5** | **-2.6** |
| **AVF** | **Avril sur Loir** | **4.56** | **210** | *e*Pn | **Pn** | **18 07 07.3** | **-0.5** |
| **LDF** | **La Druitiere** | **4.94** | **246** | *e*Sg | **Sg** | **18 08 34.3** | **-3.9** |
| | comp=E,2.3nm,0.3s | | | | | | |
| **FLN** | **La Foliniere** | **5.07** | **249** | *e*Sg | **Sg** | **18 08 39.2** | **-3.3** |
| | comp=E,2.3nm,0.2s | | | | | | |
| **GRR** | **Gorron** | **5.47** | **247** | *e*Sn | **Sn** | **18 08 18.8** | **-3.8** |
| | comp=E,2.4nm,0.3s | | | | | | |

---

*NEIC **05** 18:15:55.7±0.0, 10°.31N×62°.33W, h3km, MD4.0(TRN), After TRN.*
**TRN 05 18:15:56.1, 10°.33N×62°.31W, h3km, MD4.0, Near coast of Venezuela**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TCE** | **Chacachacare** | **0.66** | **56** | *e*P | Pg | 18 16 08.9 | +0.3 |
| **TCE** | **Chacachacare** | **0.66** | **56** | *e*P | Pg | 18 16 08.9 | +0.3 |
| **TPP** | **Pointe-a-Pierr** | **0.84** | **91** | *e*P | Pg | 18 16 11.8 | -0.5 |
| **TPP** | **Pointe-a-Pierr** | **0.84** | **91** | *e*P | Pg | 18 16 11.8 | -0.5 |
| TPP | | | | *e*S | Sb | 18 16 25.6 | +0.4 |
| **TRN** | **Trinidad (W)** | **0.95** | **71** | *e*P | Pg | 18 16 14.4 | +0.1 |
| TRN | | | | *e*S | Sb | 18 16 28.3 | +0.2 |
| **TRN** | **Trinidad (W)** | **0.95** | **71** | *e*P | Pg | 18 16 14.4 | +0.1 |
| TRN | | | | *e*S | Sb | 18 16 28.3 | +0.2 |
| **TBH** | **Brigand Hill** | **1.23** | **83** | *e*P | Pn | 18 16 20.3 | 0.0 |
| TBH | | | | *e*S | Sn | 18 16 38.2 | +0.8 |
| **TBH** | **Brigand Hill** | **1.23** | **83** | *e*P | Pn | 18 16 20.3 | 0.0 |
| TBH | | | | *e*S | Sn | 18 16 38.2 | +0.8 |
| **GRGR** | **Grenville** | **1.90** | **20** | *e*P | Pn | 18 16 29.7 | +0.2 |
| GRGR | | | | *e*S | Sn | 18 16 54.6 | +0.6 |
| **GRGR** | **Grenville** | **1.90** | **20** | *e*P | Pn | 18 16 29.7 | +0.2 |
| GRGR | | | | *e*S | Sn | 18 16 54.6 | +0.6 |
| **TOSP** | **Speyside** | **1.99** | **61** | *e*P | Pn | 18 16 31.7 | +1.0 |
| TOSP | | | | *e*S | Sb | 18 16 58.1 | -0.1 |
| **TOSP** | **Speyside** | **1.99** | **61** | *e*P | Pn | 18 16 31.7 | +1.0 |
| TOSP | | | | *e*S | Sb | 18 16 58.1 | -0.1 |
| **SVB** | **Belmont** | **3.10** | **19** | *e*P | Pn | 18 16 47.1 | +1.1 |
| SVB | | | | *e*S | Sn | 18 17 23.6 | 0.0 |
| **SVB** | **Belmont** | **3.10** | **19** | *e*P | Pn | 18 16 47.1 | +1.1 |
| SVB | | | | *e*S | Sn | 18 17 23.6 | 0.0 |
| **SVCV** | **St. Vincent, C** | **3.14** | **21** | *e*P | Pn | 18 16 47.1 | +0.6 |
| SVCV | | | | *e*S | Sn | 18 17 25.6 | +1.0 |
| **MCLT** | **Moule a Chique** | **3.61** | **22** | *e*P | Pn | 18 16 53.9 | +0.8 |
| MCLT | | | | *e*S | Sn | 18 17 35.5 | -0.8 |
| **MCLT** | **Moule a Chique** | **3.61** | **22** | *e*P | Pn | 18 16 53.9 | +0.8 |
| MCLT | | | | *e*S | Sn | 18 17 35.5 | -0.8 |

---

*ISK **05** 18:36:52.3, 38°.71N×43°.19E, h10km, MD2.6*
*ISCJB **05** 18:36:53.4±0.5, 38°.72N±0°.03×43°.20E±0°.04, h12km±6km, Error ellipse: s-maj=5.4km s-min=4.7km az=148.1*
*CSEM **05** 18:36:53.1±0.2, 38°.71N×43°.19E, h10km, MD2.6, Error ellipse: s-maj=4.5km s-min=4.2km az=113.0*
*DDA **05** 18:36:53.0, 38°.71N×43°.22E, h7km, Ml2.7*
**ISC 05 18:36:53.8**±0.9**, 38°.71N**±0°.02×**43°.20E**±0°.02**, h13**km±8km**, n22,** $\sigma 0^{s}$**95**/37**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.19** | **129** | *e*PG | **Pg** | **18 36 58.0** | **-0.2** |
| VANB | | | | *e*SG | **Sb** | **18 37 02.4** | **-0.5** |
| **VANB** | **Van** | **0.19** | **129** | *e*Pg | **Pg** | **18 36 58.0** | **-0.2** |
| VANB | | | | *e*Sg | **Sb** | **18 37 02.4** | **-0.5** |
| **TVAN** | **Van** | **0.24** | **139** | *i* P | **Pg** | **18 36 57.8** | **-1.3** |
| TVAN | | | | *i* S | **Sg** | **18 37 02.4** | **-0.4** |
| **TVAN** | **Van** | **0.24** | **139** | P | **Pg** | **18 36 57.8** | **-1.3** |
| TVAN | | | | S | **Sg** | **18 37 02.4** | **-0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.38** | **284** | *i* P | **Pg** | **18 37 00.9** | **-0.7** |
| ADCV | | | | *i* S | **Sg** | **18 37 07.0** | **+0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.38** | **284** | P | **Pg** | **18 37 00.9** | **-0.7** |
| ADCV | | | | S | **Sg** | **18 37 07.1** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.40** | **46** | *i* P | **Pg** | **18 37 01.1** | **-0.9** |
| VMUR | | | | *i* S | **Sg** | **18 37 07.6** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.40** | **46** | P | **Pg** | **18 37 01.0** | **-0.9** |
| VMUR | | | | S | **Sg** | **18 37 07.6** | **+0.3** |
| **GEVA** | **Gevas** | **0.42** | **196** | *i* P | **Pg** | **18 37 00.8** | **-1.4** |
| GEVA | | | | *i* S | **Sg** | **18 37 08.1** | **+0.3** |
| **GEVA** | **Gevas** | **0.42** | **196** | P | **Pg** | **18 37 00.8** | **-1.4** |
| GEVA | | | | S | **Sg** | **18 37 08.1** | **+0.3** |
| **CLDR** | **Caldiran** | **0.70** | **52** | *e*PG | **Pg** | **18 37 07.5** | **-0.1** |
| CLDR | | | | *e*SG | **Sg** | **18 37 16.6** | **-0.3** |
| **CLDR** | **Caldiran** | **0.70** | **52** | *i* P | **Pb** | **18 37 08.0** | **-0.2** |
| CLDR | | | | *i* S | **Sg** | **18 37 16.1** | **-0.8** |
| **CLDR** | **Caldiran** | **0.70** | **52** | *e*Pg | **Pg** | **18 37 07.5** | **-0.1** |
| **CLDR** | **Caldiran** | **0.70** | **52** | P | **Pb** | **18 37 08.0** | **-0.2** |
| CLDR | | | | S | **Sg** | **18 37 16.1** | **-0.8** |
| **TUTA** | **Tutak** | **0.75** | **336** | *i* S | **Pg** | **18 37 07.0** | **-1.5** |
| TUTA | | | | *i* S | **Sg** | **18 37 17.6** | **-0.8** |
| **TUTA** | **Tutak** | **0.75** | **336** | S | **Sg** | **18 37 17.6** | **-0.8** |
| **AGRB** | **Hanur-Agry** | **0.88** | **349** | *e*PG | **Pg** | **18 37 09.4** | **-1.4** |
| **AGRB** | **Hanur-Agry** | **0.88** | **349** | *e*Pg | **Pg** | **18 37 09.4** | **-1.4** |
| **EKAR** | **Karacoban** | **1.04** | **302** | *i* P | **Pn** | **18 37 14.4** | **0.0** |
| EKAR | | | | *i* S | **Sn** | **18 37 31.8** | **+2.9** |
| **EKAR** | **Karacoban** | **1.04** | **302** | P | **Pn** | **18 37 14.4** | **0.0** |
| **CUKT** | **Cukurca** | **1.50** | **167** | *e*PN | **Pn** | **18 37 19.8** | **-0.8** |
| **CUKT** | **Cukurca** | **1.50** | **167** | *e*Pn | **Pn** | **18 37 19.8** | **-0.8** |

---

*TEH **05** 18:47:50.7, 40°.35N×47°.56E, h20km, ML2.5*
**ISC 05 18:47:39.6**±11.0**, 40°.8N**±0°.2×**47°.7E**±0°.8**, h17**km**, n6,** $\sigma 0^{s}$**69**/7**, Eastern Caucasus**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DDFL** | **Dedoflistskaro** | **1.40** | **299** | P | **Pg** | **18 48 07.3** | **+0.8** |
| DDFL | | | | S | **Sn** | **18 48 22.1** | **-0.3** |
| **TBLG** | **Delisi** | **2.46** | **294** | P | **Pb** | **18 48 22.4** | **-0.8** |
| **IHRS** | **Heris** | **2.51** | **193** | *e*AMB | AMB | 18 48 32.9 | |
| | comp=Z,294nm,0.1s | | | | | | |
| IHRS | | | | *e*Sg | **Sb** | **18 48 55.3** | **+0.2** |
| **IMRD** | **Marand** | **2.59** | **218** | *e*Pn | **Pb** | **18 48 25.3** | **-0.3** |
| IMRD | | | | *e*AMB | AMB | 18 48 37.2 | |
| | comp=Z,502nm,0.1s | | | | | | |
| **GUDG** | **Gudauri** | **2.97** | **306** | P | **Sn** | **18 49 01.7** | **+0.2** |
| **ISHB** | **Shabestar** | **2.98** | **214** | *e*Pn | **Pb** | **18 48 31.8** | **-0.6** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| ISHB | | | | eAMB | AMB | 18 48 46.8 | |
| | comp=Z,88nm,0.2s | | | | | | |

*NIED* ***05*** *18:49:00, 24.°60N×122.°20E, h44km, Mw3.8 Best double couple: M₀5.31000×10¹⁴ NP1:φs84.00000°, δ62.00000°, λ167.00000°. NP2:φs180.00000°, δ79.00000°, λ28.00000°.*
*IDC* ***05*** *18:49:27.8±1.4, 24.°23N×121.°25E, h0km, mb3.5/4, mb1 3.7/5, mb1mx3.3/44, mbtmp3.6/5, ML3.4/1, MS3.8/1, Ms1 3.8/1, ms1mx2.5/29, Error ellipse: s-maj=68.2km s-min=24.3km az=68.0*
*NEIC* ***05*** *18:49:27.1±0.7, 24.°80N×122.°66E, h10km, mb4.4/2, Error ellipse: s-maj=12.7km s-min=9.4km az=93.0*
*ISCJB* ***05*** *18:49:34.3±0.2, 24.°70N±0.°02×122.°21E±0.°02, h70km±3km, mb3.6/6, Error ellipse: s-maj=3.8km s-min=2.3km az=163.6*
*JMA* ***05*** *18:49:34.4±0.2, 24.°60N×122.°19E, h67km±3km, M3.7*
*TAP* ***05*** *18:49:34.7, 24.°67N×122.°20E, h65km, ML4.3, B*
**ISC 05 18:49:34.8**±0.8**, 24.°65N**±0.°03×**122.°20E**±0.°02**, h61**km±6km**, n95, σ1.°34**/149**, mb3.7**/6**, 11C-17D, Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TWC | Suao | 0.33 | 263 | ⇓iP | Pn | 18 49 45.5 | +0.4 |
| | baz=260 | | | | | | |
| TWC | | | | iS | Sn | 18 49 53.0 | +0.3 |
| | baz=260 | | | | | | |
| TWB1 | Santiao Chiao | 0.41 | 331 | ⇑P | Pn | 18 49 46.2 | +0.3 |
| | baz=331 | | | | | | |
| TWB1 | | | | iS | Sn | 18 49 53.6 | -0.3 |
| | baz=331 | | | | | | |
| ILA | Ilan | 0.43 | 286 | eP | Pn | 18 49 46.9 | +0.8 |
| | baz=283 | | | | | | |
| ILA | | | | S | Sn | 18 49 55.4 | +1.1 |
| | baz=283 | | | | | | |
| ENA | Nanau | 0.48 | 242 | ⇓P | Pn | 18 49 47.1 | +0.5 |
| | baz=240 | | | | | | |
| ENA | | | | S | Sn | 18 49 56.4 | +1.3 |
| | baz=240 | | | | | | |
| TWE | Neicheng | 0.49 | 278 | ⇓P | Pn | 18 49 47.4 | +0.7 |
| | baz=276 | | | | | | |
| TWE | | | | eS | Sn | 18 49 55.5 | +0.1 |
| | baz=276 | | | | | | |
| EHP | Heping Village | 0.54 | 231 | eP | Pn | 18 49 48.3 | +1.1 |
| | baz=226 | | | | | | |
| NWF | Wu-fen Shan | 0.57 | 318 | ⇑iP | Pn | 18 49 48.2 | +0.5 |
| | baz=309 | | | | | | |
| NWF | | | | S | Sn | 18 49 57.0 | -0.1 |
| | baz=309 | | | | | | |
| ENTT | Nioudou | 0.58 | 269 | ⇓P | Pn | 18 49 48.6 | +0.9 |
| | baz=270 | | | | | | |
| ENTT | | | | S | Sn | 18 49 58.0 | +0.8 |
| | baz=270 | | | | | | |
| TWA | Mucha | 0.65 | 300 | ⇑P | Pn | 18 49 49.0 | +0.5 |
| | baz=299 | | | | | | |
| TWA | | | | S | Sn | 18 49 58.5 | 0.0 |
| | baz=299 | | | | | | |
| JYNG | Yonagunijimaku | 0.70 | 106 | P | Pn | 18 49 49.4 | +0.3 |
| JYNG | | | | S | Sn | 18 50 00.2 | +0.6 |
| TATO | Taipei | 0.73 | 297 | ePn | Pn | 18 49 49.6 | +0.2 |
| TAP1 | Taipei | 0.73 | 302 | eP | Pn | 18 49 49.8 | +0.4 |
| | baz=300 | | | | | | |
| TAP1 | | | | eS | Sn | 18 50 00.4 | +0.3 |
| | baz=300 | | | | | | |
| NACB | Ninganchiao | 0.73 | 230 | ePn | Pn | 18 49 49.0 | -0.4 |
| TAP | Taipei | 0.74 | 302 | eP | Pn | 18 49 49.7 | +0.1 |
| | baz=300 | | | | | | |
| TAP | | | | eS | Sn | 18 50 00.9 | +0.4 |
| | baz=300 | | | | | | |
| YHNB | Yeheng | 0.75 | 272 | ePn | Pn | 18 49 50.4 | +0.6 |
| YOJ | Yonaguni jima | 0.76 | 104 | eP | Pn | 18 49 49.6 | -0.2 |
| | baz=100 | | | | | | |
| YOJ | | | | S | Sn | 18 50 01.1 | +0.2 |
| | baz=100 | | | | | | |
| YOJ | Yonaguni jima | 0.76 | 104 | P | Pn | 18 49 49.9 | +0.1 |
| YOJ | | | | eS | Sn | 18 50 01.0 | +0.2 |
| NSK | Sanguang | 0.77 | 272 | ⇑P | Pn | 18 49 50.9 | +0.9 |
| | baz=276 | | | | | | |
| NSK | | | | eS | Sn | 18 50 01.8 | +0.7 |
| | baz=276 | | | | | | |
| NNS | Nan Shan | 0.79 | 255 | ⇓P | Pn | 18 49 51.1 | +0.8 |
| | baz=246 | | | | | | |
| NNS | | | | eS | Sn | 18 50 02.4 | +0.8 |
| | baz=246 | | | | | | |
| TWD | Chiawan | 0.79 | 224 | eP | Pn | 18 49 50.2 | 0.0 |
| | baz=216 | | | | | | |
| TWD | | | | eS | Sn | 18 50 02.0 | +0.4 |
| | baz=216 | | | | | | |
| TWY | Chenhua | 0.83 | 319 | ⇑P | Pn | 18 49 51.2 | +0.5 |
| | baz=317 | | | | | | |
| TWY | | | | S | Sn | 18 50 03.1 | +0.7 |
| | baz=317 | | | | | | |
| TWS1 | Kuangyinshan | 0.84 | 302 | ⇑iP | Pn | 18 49 51.4 | +0.6 |
| | baz=307 | | | | | | |
| TWS1 | | | | S | Sn | 18 50 03.2 | +0.6 |
| | baz=307 | | | | | | |
| HWA | Hwalien | 0.86 | 219 | eP | Pn | 18 49 51.3 | +0.2 |
| | baz=209 | | | | | | |
| NCU | National Centr | 0.98 | 289 | eP | Pn | 18 49 53.3 | +0.8 |
| | baz=288 | | | | | | |
| NCU | | | | eS | Sn | 18 50 06.3 | +0.6 |
| | baz=288 | | | | | | |
| PCYT | Pengchaiyu | 0.98 | 353 | ⇑eP | Pn | 18 49 53.3 | +0.7 |
| | baz=345 | | | | | | |
| ESF | Shoufeng Towns | 1.00 | 219 | eP | Pn | 18 49 53.4 | +0.5 |
| | baz=210 | | | | | | |
| TWT | Tachien | 1.02 | 247 | eP | Pn | 18 49 54.4 | +1.2 |
| | baz=247 | | | | | | |
| TWT | | | | eS | Sn | 18 50 08.2 | +1.3 |
| | baz=247 | | | | | | |
| ESL | Shilin | 1.09 | 220 | ⇓iP | Pn | 18 49 53.7 | -0.3 |
| | baz=230 | | | | | | |
| ESL | | | | eS | Sn | 18 50 07.1 | -1.3 |
| | baz=230 | | | | | | |
| NSTT | Nanjuang | 1.09 | 269 | ⇑P | Pn | 18 49 55.1 | +1.0 |
| | baz=278 | | | | | | |
| NSTT | | | | eS | Sn | 18 50 09.5 | +1.1 |
| | baz=278 | | | | | | |
| TEGC | Jichi Village | 1.12 | 213 | eP | Pn | 18 49 55.1 | +0.7 |
| | baz=203 | | | | | | |
| HSN | Hsinchu | 1.13 | 278 | eP | Pn | 18 49 55.2 | +0.7 |
| | baz=287 | | | | | | |
| HSN | | | | eS | Sn | 18 50 10.0 | +0.7 |
| | baz=287 | | | | | | |
| NSY | Sanyi | 1.33 | 260 | eP | Pn | 18 49 58.4 | +1.2 |
| | baz=259 | | | | | | |
| NSY | | | | eS | Sn | 18 50 15.8 | +1.7 |
| | baz=259 | | | | | | |
| TWQ1 | Liyutan | 1.34 | 257 | ⇑P | Pn | 18 49 58.5 | +1.2 |
| | baz=257 | | | | | | |
| TWQ1 | | | | eS | Sn | 18 50 15.1 | +0.9 |
| | baz=257 | | | | | | |
| EHY | Hungye | 1.40 | 215 | ⇓eP | Pn | 18 49 57.3 | -0.8 |
| | baz=224 | | | | | | |
| EHY | | | | eS | Sn | 18 50 13.6 | -2.0 |
| | baz=224 | | | | | | |
| SMLT | Sun Moon Lake | 1.41 | 238 | ⇓P | Pn | 18 49 59.5 | +1.1 |
| | baz=229 | | | | | | |
| SMLT | | | | eS | Sn | 18 50 19.2 | +3.0 |
| | baz=229 | | | | | | |
| IRIF | Iriomote-Funau | 1.43 | 102 | P | Pn | 18 49 58.6 | +0.1 |
| IRIF | | | | S | Sn | 18 50 16.3 | 0.0 |
| SSLB | Suanglung | 1.43 | 233 | ePn | Pn | 18 49 58.8 | +0.3 |
| TYC | Yuchr | 1.44 | 239 | ⇓iP | Pn | 18 49 59.8 | +1.2 |
| | baz=239 | | | | | | |
| TYC | | | | eS | Sn | 18 50 18.4 | +1.8 |
| | baz=239 | | | | | | |
| TCU | Taichung | 1.48 | 251 | eP | Pn | 18 50 00.8 | +1.6 |
| | baz=249 | | | | | | |
| YULB | Yu-li | 1.50 | 214 | ePn | Pn | 18 49 58.4 | -1.1 |
| TWF1 | Yuli | 1.54 | 213 | eP | Pn | 18 49 59.1 | -0.8 |
| | baz=221 | | | | | | |
| HATJ | Hateruma jima | 1.58 | 112 | P | Pn | 18 50 01.4 | +0.9 |
| WNT | Mingjian | 1.59 | 241 | eP | Pn | 18 50 02.2 | +1.6 |
| | baz=254 | | | | | | |
| WNT | | | | eS | Sn | 18 50 22.4 | +2.2 |
| | baz=254 | | | | | | |
| YUS | Yu-Shan | 1.63 | 225 | ⇓eP | Pn | 18 50 02.3 | +0.7 |
| | baz=219 | | | | | | |
| YUS | | | | eS | Sn | 18 50 22.1 | +0.3 |
| | baz=219 | | | | | | |
| JKRS | Kuro-shima | 1.70 | 104 | P | Pn | 18 50 02.7 | +0.6 |
| JKRS | | | | S | Sn | 18 50 23.4 | +0.6 |
| ALS | Alishan | 1.71 | 229 | ⇓P | Pn | 18 50 03.7 | +1.2 |
| | baz=220 | | | | | | |
| ALS | | | | eS | Sn | 18 50 25.1 | +1.5 |
| | baz=220 | | | | | | |
| CHKT | Chengkung | 1.73 | 207 | eP | Pn | 18 50 01.5 | -1.0 |
| | baz=198 | | | | | | |
| CHKT | | | | eS | Sn | 18 50 21.1 | -2.4 |
| | baz=198 | | | | | | |
| CHN5 | Tsauling | 1.74 | 233 | ⇓iP | Pn | 18 50 04.5 | +1.6 |
| | baz=246 | | | | | | |
| CHN5 | | | | eS | Sn | 18 50 26.6 | +2.4 |
| | baz=246 | | | | | | |
| WGK | Gukeng | 1.78 | 238 | eP | Pn | 18 50 04.9 | +1.7 |
| | baz=249 | | | | | | |
| WGK | | | | eS | Sn | 18 50 27.4 | +2.5 |
| | baz=249 | | | | | | |
| JIJ | Ishigaki jima | 1.79 | 99 | P | Pn | 18 50 03.4 | 0.0 |
| JIJ | | | | S | Sn | 18 50 24.5 | -0.6 |
| ELDTW | Lidau | 1.82 | 217 | ⇑eP | Pn | 18 50 03.5 | -0.3 |
| | baz=211 | | | | | | |
| JISG | Ishigakijimahi | 1.92 | 91 | P | Pn | 18 50 05.5 | +0.4 |
| JISG | | | | S | Sn | 18 50 28.6 | +0.4 |
| WTCT | Ta-ch'eng | 1.92 | 246 | eP | Pn | 18 50 06.3 | +1.1 |
| | baz=255 | | | | | | |
| CHN2 | Minshiung | 1.93 | 235 | eP | Pn | 18 50 06.4 | +1.1 |
| | baz=247 | | | | | | |
| CHN2 | | | | eS | Sn | 18 50 30.9 | +2.4 |
| | baz=247 | | | | | | |
| CHN4 | Tsaushan | 1.96 | 229 | ⇓P | Pn | 18 50 07.2 | +1.5 |
| | baz=229 | | | | | | |
| CHN4 | | | | eS | Sn | 18 50 31.9 | +2.6 |
| | baz=229 | | | | | | |
| TPUB | Ta-pu | 1.97 | 227 | ePn | Pn | 18 50 07.2 | +1.3 |
| STYT | Tauyuan | 1.99 | 222 | ⇓iP | Pn | 18 50 07.1 | +1.0 |
| | baz=222 | | | | | | |
| STYT | | | | eS | Sn | 18 50 31.6 | +1.6 |
| | baz=222 | | | | | | |
| CHY | Chiayi | 1.99 | 235 | eP | Pn | 18 50 07.1 | +1.0 |
| | baz=247 | | | | | | |
| CHY | | | | eS | Sn | 18 50 31.1 | +1.1 |
| | baz=247 | | | | | | |
| WTP | Ta-pu | 2.02 | 226 | ⇓P | Pn | 18 50 07.8 | +1.3 |
| | baz=226 | | | | | | |
| WTP | | | | eS | Sn | 18 50 32.8 | +2.1 |
| | baz=226 | | | | | | |
| WSF | Szhu | 2.07 | 241 | eP | Pn | 18 50 07.5 | +0.3 |
| | baz=251 | | | | | | |
| WSF | | | | eS | Sn | 18 50 32.6 | +0.7 |
| | baz=251 | | | | | | |
| TWK | Hsinying | 2.09 | 229 | eP | Pn | 18 50 09.0 | +1.5 |
| | baz=229 | | | | | | |
| TWK | | | | eS | Sn | 18 50 34.6 | +2.2 |
| | baz=229 | | | | | | |
| TWG | Pinlang | 2.10 | 210 | ⇑eP | Pn | 18 50 06.5 | -1.0 |
| | baz=210 | | | | | | |
| TWG | | | | eS | Sn | 18 50 30.2 | -2.3 |
| | baz=210 | | | | | | |
| TWG | Pinlang | 2.10 | 210 | ePn | Pn | 18 50 05.8 | -1.8 |
| CHN1 | Nanshi | 2.12 | 227 | eP | Pn | 18 50 09.1 | +1.3 |
| | baz=227 | | | | | | |
| CHN1 | | | | eS | Sn | 18 50 35.3 | +2.2 |
| | baz=227 | | | | | | |
| SGST | Jiashian | 2.15 | 224 | ⇓P | Pn | 18 50 09.9 | +1.6 |
| | baz=224 | | | | | | |
| SGST | | | | eS | Sn | 18 50 36.1 | +2.1 |
| | baz=224 | | | | | | |
| CHN8 | Yiju | 2.24 | 235 | eP | Pn | 18 50 10.7 | +1.3 |
| | baz=245 | | | | | | |
| JTJ | Tarama | 2.27 | 90 | P | Pn | 18 50 11.1 | +1.2 |
| JTJ | | | | eS | Sn | 18 50 39.7 | +2.9 |
| CHN3 | Shinhua | 2.30 | 227 | eP | Pn | 18 50 11.1 | +0.8 |
| | baz=240 | | | | | | |
| CHN3 | | | | eS | Sn | 18 50 41.5 | +4.0 |
| | baz=240 | | | | | | |
| ECL | Taimali | 2.34 | 210 | eP | Pn | 18 50 08.9 | -2.0 |
| | baz=209 | | | | | | |
| SCLT | Jiali | 2.35 | 232 | eP | Pn | 18 50 12.2 | +1.2 |
| | baz=241 | | | | | | |
| SSD | Sandimen | 2.38 | 218 | eP | Pn | 18 50 12.4 | +1.0 |
| | baz=229 | | | | | | |
| SSD | | | | eS | Sn | 18 50 41.4 | +1.9 |
| | baz=229 | | | | | | |
| TWM1 | Shoushan | 2.44 | 222 | eP | Pn | 18 50 14.2 | +1.8 |
| | baz=222 | | | | | | |
| SGLT | Jiouru | 2.48 | 220 | eP | Pn | 18 50 15.6 | +2.8 |
| | baz=219 | | | | | | |
| EAST | Anshuo | 2.58 | 209 | eP | Pn | 18 50 13.6 | -0.5 |
| | baz=202 | | | | | | |
| PNG | Penghu | 2.65 | 247 | eP | Pn | 18 50 14.3 | -0.7 |
| | baz=245 | | | | | | |
| SCZT | Fangliau | 2.69 | 213 | eP | Pn | 18 50 17.1 | +1.4 |
| | baz=226 | | | | | | |
| SCZT | | | | eS | Sn | 18 50 49.4 | +2.2 |
| | baz=226 | | | | | | |
| JIRB | Irabujima | 2.71 | 86 | P | Pn | 18 50 18.0 | +2.2 |
| JIRB | | | | eS | Sn | 18 50 49.5 | +2.1 |
| WDGT | Dungji | 2.71 | 240 | eP | Pn | 18 50 16.1 | +0.3 |
| | baz=240 | | | | | | |
| WDGT | | | | eS | Sn | 18 50 46.2 | -1.3 |
| | baz=240 | | | | | | |
| JIKM | Ikemajima | 2.78 | 84 | eS | Sn | 18 50 50.6 | +1.4 |
| JMJ | Miyako jima 2 | 2.81 | 86 | P | Pn | 18 50 19.2 | +1.9 |
| HEN | Hengchun | 2.96 | 207 | eP | Pn | 18 50 20.2 | +0.9 |
| | baz=219 | | | | | | |
| TWK1 | Hengchun | 2.99 | 206 | eP | Pn | 18 50 19.6 | -0.1 |
| | baz=200 | | | | | | |
| QZH | Quanzhou | 3.29 | 276 | ⇓iPn | Pn | 18 50 22.6 | -1.3 |
| QZH | | | | Sn | Sn | 18 50 57.7 | -4.2 |
| QZH | | | | smax | smax | | |
| | comp=N,280nm,0.8s | | | | | | |
| QZH | | | | smax | smax | | |
| | comp=E,260nm,1.2s | | | | | | |
| KNM | Kinmen | 3.44 | 267 | eP | Pn | 18 50 26.8 | +0.9 |
| | baz=264 | | | | | | |
| JOW | Kunigami | 5.89 | 67 | eP | Pn | 18 51 00.8 | +1.3 |
| | baz=73 | | | | | | |
| KSRS | Korea Array | 13.67 | 20 | Pn | P | 18 52 53.7 | +1.3 |
| | comp=E,0.2nm,0.3s,baz=209,slow=14,SNR=11 | | | | | | |
| SONA0 | Songino Array | 26.32 | 336 | eP | P | 18 55 04.0 | -0.9 |
| SONM | Songino Array | 26.32 | 336 | P | P | 18 55 04.0 | -0.9 |
| | comp=E,0.4nm,0.5s,baz=157,slow=8.7,SNR=3.1 | | | | | | |
| MK32 | Makanchi Array | 38.66 | 315 | eP | P | 18 56 50.7 | -1.6 |
| MKAR | Makanchi Array | 38.66 | 315 | P | P | 18 56 50.7 | -1.6 |
| | comp=E,0.2nm,0.6s,baz=98,slow=10,SNR=2.1 | | | | | | |
| PALK | Pallekele | 43.26 | 254 | LR | LR | 19 16 08.5 | |
| | comp=E,106nm,18.9s,baz=115,slow=38 | | | | | | |
| WRAB | Tennant Creek | 45.87 | 164 | eP | P | 18 57 50.0 | -1.1 |
| | comp=E,2.4nm,0.9s | | | | | | |
| WR1 | Warramunga Arr | 45.87 | 164 | eP | P | 18 57 50.7 | -0.5 |
| | comp=E,13nm,1.6s | | | | | | |
| WRA | Warramunga Arr | 45.87 | 164 | P | P | 18 57 50.7 | -0.5 |
| | comp=E,1.0nm,0.6s,baz=346,slow=8.7,SNR=12 | | | | | | |
| BVAR | Borovoye Array | 47.91 | 320 | P | P | 18 58 06.8 | +0.1 |
| | comp=E,0.3nm,0.5s,baz=117,slow=12,SNR=2.1 | | | | | | |

*IDC* ***05*** *18:55:40.2±0.6, 32.°50N×92.°88E, h0km, mb4.2/21, mb1 4.3/25, mb1mx4.2/46, mbtmp4.2/25, ML3.8/4, MS3.9/18, Ms1 3.9/18, ms1mx3.7/45, Error ellipse: s-maj=16.1km s-min=12.2km az=42.0*
*BJI* ***05*** *18:55:40.2, 32.°50N×92.°80E, h10km, mb4.6/34, mB4.9/22, ML4.1/10, Ms4.4/33, Ms7 4.2/32*
*ISCJB* ***05*** *18:55:41.2±0.2, 32.°52N±0.°02×92.°81E±0.°03, h17km, mb4.4/47, MS3.9/17, Error ellipse: s-maj=3.3km s-min=2.5km az=175.6*
*GCMT* ***05*** *18:55:43.0±0.3, 32.°42N×92.°88E, h28km±1km, MW4.9/71, Moment Tensor Solution. s18,c19; s71,c100; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr0.26±.15; Mθθ-2.13±.11; Mφφ1.87±.11; Mrθ0.40±.20; Mθφ1.44±.10; Mφr-0.01±.18; Best double couple: M₀2.49300×10¹⁶ NP1:φs243.00000°, δ87.00000°, λ-8.00000°. NP2: φs333.00000°, δ82.00000°, λ-177.00000°. Principal axes: T 2.3410, Plg3.0000°, Azm288.0000°; N 0.3050, Plg82.0000°, Azm42.0000°; P -2.6460, Plg8.0000°, Azm198.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*MOS* ***05*** *18:55:43.1±1.7, 32.°50N×92.°95E, h30km, mb4.6/26 Error ellipse: s-maj=9.3km s-min=5.3km az=113.3*
*NEIC* ***05*** *18:55:43.0±2.7, 32.°55N×92.°89E, h16km±17km, mb4.7/21, Error ellipse: s-maj=7.5km s-min=4.9km az=61.0*
**ISC 05 18:55:43.7**±0.3**, 32.°51N**±0.°03×**92.°81E**±0.°04**, h17**km**, n192, σ1.°96**/203**, mb4.5**/47**, MS4.0**/17**, 13C-11D, Xizang**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LSA | Lhasa | 3.14 | 207 | Pg | Pb | 18 56 37.1 | -2.3 |
| LSA | | | | Sg | Sb | 18 57 20.6 | +3.0 |
| LSA | | | | smax | smax | | |
| | comp=N,670nm,1.0s | | | | | | |
| LSA | | | | smax | smax | | |
| | comp=E,3µm,1.2s | | | | | | |
| LSA | Lhasa | 3.14 | 207 | eP | Pb | 18 56 36.6 | -2.8 |
| LSA | Lhasa | 3.14 | 207 | ePn | Pb | 18 56 36.6 | -2.8 |
| ZIRO | ZIRO | 5.05 | 169 | eP | Pn | 18 57 00.4 | +1.6 |
| ZIRO | | | | eS | Sn | 18 57 59.4 | +2.5 |
| ZIRO | | | | AML | AML | 18 58 26.5 | |
| | comp=E,3µm,0.6s | | | | | | |
| ZIRO | | | | AML | AML | 18 58 26.7 | |
| | comp=N,2µm,0.5s | | | | | | |
| ITAN | ITANAGAR | 5.41 | 171 | eP | Pn | 18 57 05.0 | +1.4 |
| ITAN | | | | ex | Sn | 18 58 10.8 | +5.4 |
| LKP | Lekhapani | 5.80 | 152 | eP | Pn | 18 57 08.8 | -0.1 |
| TEZP | TEZPUR | 5.88 | 180 | eP | Pn | 18 57 10.6 | +0.6 |
| TEZP | | | | eS | Sn | 18 58 17.6 | +0.7 |
| MOKO | MOKOCHONG | 6.35 | 166 | eP | Pn | 18 57 17.1 | +0.5 |
| MOKO | | | | eS | Sn | 18 58 28.2 | -0.6 |
| MOKO | | | | AML | AML | 18 59 07.5 | |
| | comp=N,404nm,0.6s | | | | | | |
| MOKO | | | | AML | AML | 18 59 08.5 | |
| | comp=E,533nm,0.6s | | | | | | |
| GUWA | GUWAHATI | 6.37 | 189 | eP | Pn | 18 57 16.8 | 0.0 |
| TAPN | Taplejung | 6.78 | 222 | eP | Pn | 18 57 22.8 | +0.1 |
| | comp=E,37nm,0.3s | | | | | | |
| DHUB | DHUBRI | 6.92 | 201 | eS | Sn | 18 58 43.5 | +0.8 |
| SHL | Shillong | 6.97 | 187 | eP | Pn | 18 57 24.9 | -0.3 |
| SHL | | | | eS | Sn | 18 58 44.8 | +0.6 |
| TURI | Tura | 7.27 | 198 | eP | Pn | 18 57 29.3 | +0.2 |
| TURI | | | | ex | Sn | 18 58 52.6 | +1.3 |
| ODAN | Odare | 7.34 | 221 | eP | Pn | 18 57 29.7 | -0.7 |
| | comp=E,57nm,0.4s | | | | | | |
| JIRN | Jiri | 7.50 | 232 | eP | Pn | 18 57 33.4 | +0.8 |
| | comp=E,293nm,0.4s | | | | | | |
| GUN | Gumba | 7.54 | 234 | eP | Pn | 18 57 34.4 | +1.1 |
| | comp=E,54nm,0.4s | | | | | | |
| SILR | SILCHAR | 7.70 | 180 | eP | Pn | 18 57 35.6 | +0.5 |
| SILR | | | | eS | Sn | 18 59 04.0 | +2.1 |
| SILR | | | | AML | AML | 18 59 35.3 | |
| | comp=E,417nm,0.5s | | | | | | |
| SILR | | | | AML | AML | 18 59 36.1 | |
| | comp=N,291nm,0.7s | | | | | | |
| RAMN | Ramite | 7.73 | 226 | eP | Pn | 18 57 35.3 | -0.5 |
| | comp=N,58nm,0.4s | | | | | | |
| KKN | Kakani | 8.04 | 236 | eP | Pn | 18 57 40.4 | +0.5 |
| | comp=N,34nm,0.4s | | | | | | |
| PKI | Pulchoki | 8.08 | 234 | eP | Pn | 18 57 40.8 | +0.2 |
| | comp=N,94nm,0.4s | | | | | | |
| PKIN | Phulchoki | 8.09 | 234 | eP | Pn | 18 57 40.8 | +0.2 |
| | comp=N,93nm,0.4s | | | | | | |
| DMN | Daman | 8.27 | 236 | eP | Pn | 18 57 44.1 | +1.0 |
| | comp=N,39nm,0.4s | | | | | | |
| GKN | Gorkha | 8.37 | 240 | eP | Pn | 18 57 45.5 | +1.1 |
| | comp=N,3.0nm,0.3s | | | | | | |
| AGT | Agartala | 8.71 | 189 | eP | Pn | 18 57 47.0 | -1.8 |
| DANN | Dangsing | 8.84 | 244 | eP | Pn | 18 57 51.7 | +0.7 |
| GTA | Gaotai | 8.92 | 38 | eP | Pn | 18 57 52.9 | +1.0 |
| GTA | | | | pP | | 18 57 57.1 | |
| GTA | | | | sP | | 18 58 00.5 | |
| GTA | | | | S | Sn | 18 59 36.8 | +4.7 |
| GTA | | | | sS | | 18 59 41.5 | |
| GTA | | | | pmax | pmax | | |
| | comp=N,21nm,1.5s | | | | | | |
| GTA | | | | pmax | pmax | | |
| | comp=N,170nm,5.9s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=N,3µm,12.6s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=N,1µm,12.8s | | | | | | |
| KOLN | Koldanda | 9.26 | 242 | eP | Pn | 18 57 56.3 | -0.4 |
| | comp=N,19nm,0.4s | | | | | | |
| BELO | BELONIA | 9.31 | 188 | eP | Pn | 18 57 55.5 | -1.6 |
| BELO | | | | eS | Sn | 18 59 38.8 | -2.7 |
| CD2 | Chengdu | 9.47 | 97 | P | Pn | 18 58 00.5 | +1.2 |
| CD2 | | | | S | Sn | 18 59 49.8 | +4.4 |
| CD2 | | | | pmax | pmax | | |
| | comp=N,20nm,1.2s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=N,3µm,7.1s | | | | | | |
| PYUN | Piuthan | 9.55 | 245 | eP | Pn | 18 58 00.2 | -0.5 |
| | comp=N,175nm,0.8s | | | | | | |
| WMQ | Urumqi | 11.98 | 342 | P | Pn | 18 58 33.3 | -0.4 |
| WMQ | | | | pP | | 18 58 38.4 | |
| WMQ | | | | sP | | 18 58 42.0 | |
| WMQ | | | | PP | PnPn | 18 58 44.9 | +3.3 |
| WMQ | | | | S | Sn | 19 00 45.3 | -1.7 |
| WMQ | | | | pmax | pmax | | |
| | comp=N,20nm,0.7s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=N,200nm,5.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,1µm,17.1s | | | | | | |
| SMLA | Simla | 13.37 | 268 | eP | Pn | 18 58 51.0 | -1.7 |
| GYA | Guiyang | 13.49 | 113 | ⇑iP | Pn | 18 58 51.2 | -3.3 |
| GYA | | | | S | Sn | 19 01 23.4 | -0.7 |
| GYA | | | | pmax | pmax | | |
| | comp=N,50nm,0.7s | | | | | | |
| GYA | | | | pmax | pmax | | |
| | comp=N,120nm,4.6s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=N,1µm,12.1s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=N,610nm,8.7s | | | | | | |
| XAN | Xi'an | 13.57 | 79 | P | Pn | 18 58 53.6 | -1.9 |
| XAN | | | | pmax | pmax | | |
| | comp=N,15nm,1.2s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=N,1µm,20.6s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=N,460nm,18.5s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=N,1µm,9.3s | | | | | | |
| ENH | Enshi | 14.42 | 94 | ePn | Pn | 18 59 08.4 | +1.3 |
| THN | Thein Dam | 14.43 | 274 | eP | Pn | 18 59 03.8 | -3.4 |
| JBP | Jabalpur | 14.66 | 234 | eP | Pn | 18 59 08.8 | -1.6 |
| JBP | | | | ex | x | 19 03 01.4 | |
| CHTO | Chiang Mai | 14.71 | 156 | P | P | 18 59 17.6 | +0.4 |
| | comp=N,41nm,0.9s | | | | | | |
| CHTO | Chiang Mai | 14.71 | 156 | eP | Pn | 18 59 10.3 | -0.8 |
| CHTO | Chiang Mai | 14.71 | 156 | ePn | Pn | 18 59 10.3 | -0.8 |
| CMMT | Chiang Mai | 14.72 | 156 | P | P | 18 59 17.0 | -0.2 |
| | comp=N,19nm,1.3s | | | | | | |
| CM31 | Chiang Mai Arr | 15.05 | 157 | ePn | Pn | 18 59 15.0 | -0.6 |
| CMAR | Chiang Mai Arr | 15.05 | 157 | Pn | Pn | 18 59 12.9 | -2.7 |
| | comp=N,0.1nm,0.3s,baz=331,slow=12,SNR=16 | | | | | | |
| CMAR | | | | LR | LR | 19 05 42.3 | |
| | comp=N,270nm,18.4s,baz=343,slow=40 | | | | | | |
| CM01 | Chiang Mai Arr | 15.09 | 157 | ePn | Pn | 18 59 13.7 | -2.5 |
| KSH | Kashi | 15.30 | 302 | P | P | 18 59 22.1 | -1.6 |
| KSH | | | | pP | pP | 18 59 25.7 | -2.8 |
| KSH | | | | PP | sP | 18 59 35.8 | +5.1 |
| KSH | | | | S | Sn | 19 02 11.8 | +3.7 |
| KSH | | | | SS | S | 19 02 30.8 | +6.3 |
| KSH | | | | pmax | pmax | | |
| | comp=N,42nm,2.1s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,510nm,8.3s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,510nm,9.7s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,710nm,7.2s | | | | | | |
| BTO | Baotou | 16.00 | 55 | eP | P | 18 59 30.6 | -0.9 |
| SUKH | Sukhothai | 16.18 | 156 | P | P | 18 59 36.8 | +3.3 |
| | comp=N,4.6nm,0.9s | | | | | | |
| MK01 | Makanchi Array | 16.35 | 334 | ePn | Pn | 18 59 30.6 | -1.9 |
| MK31 | Makanchi Array | 16.38 | 334 | eP | Pn | 18 59 31.3 | -1.5 |
| MK31 | Makanchi Array | 16.38 | 334 | ePn | Pn | 18 59 31.2 | -1.5 |
| MK32 | Makanchi Array | 16.38 | 334 | ePn | Pn | 18 59 30.8 | -1.9 |
| MKAR | Makanchi Array | 16.38 | 334 | Pn | Pn | 18 59 30.8 | -1.9 |
| | comp=N,0.5nm,0.3s,baz=140,slow=14,SNR=17 | | | | | | |
| MKAR | | | | LR | LR | 19 05 52.6 | |
| | comp=N,337nm,21.5s,baz=152,slow=37 | | | | | | |
| MAKZ | Makanchi | 16.51 | 333 | eP | Pn | 18 59 32.3 | -2.1 |
| MAKZ | Makanchi | 16.51 | 333 | ePn | Pn | 18 59 32.2 | -2.1 |
| SFK | Sufi-Kurgan | 17.25 | 301 | P | P | 18 59 45.5 | 0.0 |
| PBKT | Sadao Pong | 17.51 | 153 | P | Pn | 18 59 47.3 | +0.2 |
| | comp=N,10nm,1.0s,comp=N,1µm | | | | | | |
| AAK | Ala-Archa | 17.65 | 310 | P | P | 18 59 50.3 | +0.5 |
| | comp=N,0.5nm,0.3s,baz=70,slow=0.6,SNR=12 | | | | | | |
| AAK | | | | LR | LR | 19 07 55.6 | |
| | comp=N,447nm,19.4s,baz=82,slow=42 | | | | | | |
| AAK | Ala-Archa | 17.65 | 310 | ⇑eP | Pn | 18 59 48.8 | -0.1 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| SONA0 | Songino Array | 18.45 | 30 | eP | P | 18 59 57.2 | -1.3 |
| SONM | Songino Array | 18.45 | 30 | P | P | 18 59 57.2 | -1.3 |
| | comp=N,0.2nm,0.3s,baz=218,slow=11,SNR=18 | | | | | | |
| SONM | | | | LR | LR | 19 07 56.6 | |
| | comp=N,325nm,20.9s,baz=208,slow=40 | | | | | | |
| SONA1 | Songino Array | 18.46 | 30 | eP | P | 18 59 58.4 | -0.3 |
| WHN | Wuhan | 18.47 | 90 | ⇑P | P | 18 59 58.0 | -0.7 |
| WHN | | | | S | Sn | 19 03 23.6 | -1.3 |
| WHN | | | | LR | LR | | |
| | comp=N,4µm,13.9s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=N,3µm,14.6s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=N,2µm,17.2s | | | | | | |
| KHON | Khomkaen | 18.49 | 148 | P | Pn | 19 00 13.0 | +14 |
| CHAI | Chaiyaphum | 18.52 | 151 | P | Pn | 19 00 13.0 | +13 |
| HVS | Khovu-Aksy | 18.62 | 2 | ⇓eP | P | 18 59 59.3 | -1.0 |
| ULN | Ulaanbaatar | 18.76 | 31 | ⇓eP | P | 19 00 01.3 | -0.6 |
| ULN | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.1s | | | | | | |
| ULN | Ulaanbaatar | 18.76 | 31 | eP | P | 18 59 59.3 | -2.6 |
| | comp=Z,8.4nm,1.0s | | | | | | |
| MNAS | Manas | 18.89 | 308 | P | Pn | 19 00 06.5 | +2.4 |
| ZAK | Zakamensk | 19.47 | 20 | eP | P | 19 00 07.2 | -2.5 |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,11nm,1.1s | | | | | | |
| NAYO | Nakonayok | 19.71 | 155 | P | Pn | 19 00 22.0 | +8.1 |
| HYB | Hyderabad | 19.79 | 224 | iP | Pn | 19 00 17.0 | +2.2 |
| KBL | Kabul | 19.91 | 282 | eP | P | 19 00 13.9 | -0.8 |
| KBL | | | | pmax | pmax | | |
| | comp=Z,16nm,0.8s | | | | | | |
| KBL | Kabul | 19.91 | 282 | eP | P | 19 00 13.9 | -0.8 |
| | comp=Z,16nm,0.8s | | | | | | |
| MOY | Mondy | 20.06 | 15 | eP | Pn | 19 00 19.4 | +1.5 |
| MOY | | | | pmax | pmax | | |
| | comp=Z,53nm,2.4s | | | | | | |
| SRAK | Srakaew | 20.26 | 153 | P | Pn | 19 00 22.1 | +1.8 |
| | comp=Z,54nm,0.8s | | | | | | |
| TIA | Tai'an | 20.40 | 73 | ⇓P | P | 19 00 19.4 | -0.4 |
| TIA | | | | pmax | pmax | | |
| | comp=Z,20nm,0.9s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,3µm,12.4s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,960nm,14.1s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,900nm,14.7s | | | | | | |
| DZET | Dzherino | 20.44 | 295 | P | P | 19 00 18.9 | -1.5 |
| TLY | Talaya | 20.73 | 19 | P | P | 19 00 23.7 | +0.4 |
| | comp=Z,2.3nm,0.5s,baz=252,slow=16,SNR=2.5 | | | | | | |
| TLY | | | | LR | LR | 19 09 12.5 | |
| | comp=Z,410nm,21.9s,baz=193,slow=39 | | | | | | |
| KURBB | Kurchatov Arra | 20.95 | 334 | P | P | 19 00 25.2 | -0.4 |
| | comp=Z,16nm,1.1s,baz=138,slow=10,SNR=30 | | | | | | |
| KURK | Kurchatov | 20.99 | 334 | eP | P | 19 00 24.7 | -1.3 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,22nm,0.8s | | | | | | |
| KURK | Kurchatov | 20.99 | 334 | eP | P | 19 00 25.5 | -0.5 |
| | comp=Z,42nm,1.2s | | | | | | |
| IRK | Irkutsk | 21.41 | 20 | eP | P | 19 00 30.2 | -0.4 |
| IRK | | | | pmax | pmax | | |
| | comp=Z,53nm,1.5s | | | | | | |
| POO | Poona | 22.01 | 235 | ex | P | 19 00 30.0 | -7.3 |
| NJ2 | Nanjing | 22.02 | 84 | eP | P | 19 00 41.9 | +4.7 |
| NJ2 | | | | S | S | 19 04 39.4 | -0.1 |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,18nm,0.5s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,870nm,13.6s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,760nm,13.0s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,910nm,12.1s | | | | | | |
| ZAA0 | Zalesovo Array | 22.17 | 347 | eP | P | 19 00 38.0 | -0.7 |
| | comp=Z,8.8nm,1.0s | | | | | | |
| ZALV | Zalesovo Beam | 22.17 | 347 | P | P | 19 00 38.2 | -0.5 |
| | comp=Z,3.2nm,0.6s,baz=162,slow=11,SNR=15 | | | | | | |
| ZALV | | | | LR | LR | 19 09 45.0 | |
| | comp=Z,259nm,18.5s,baz=252,slow=38 | | | | | | |
| ZALV | Zalesovo Beam | 22.17 | 347 | eP | P | 19 00 37.7 | -1.0 |
| ZALV | Zalesovo Beam | 22.17 | 347 | eP | P | 19 00 37.7 | -1.0 |
| ZAA1 | Zalesovo Array | 22.18 | 347 | eP | P | 19 00 38.2 | -0.6 |
| NVS | Novosibirsk | 23.33 | 346 | eP | P | 19 00 49.2 | -1.6 |
| PKDT | Phuket | 25.03 | 167 | P | P | 19 01 12.1 | +5.1 |
| | comp=Z,33nm,0.9s | | | | | | |
| TRTT | Trang | 25.37 | 164 | P | P | 19 01 14.4 | +4.3 |
| | comp=Z,26nm,0.8s | | | | | | |
| BVAR | Borovoye Array | 26.09 | 328 | P | P | 19 01 16.4 | +0.1 |
| | comp=Z,1.0nm,0.5s,baz=166,slow=13,SNR=5.8 | | | | | | |
| BVAR | | | | LR | LR | 19 13 02.6 | |
| | comp=Z,204nm,18.7s,baz=104,slow=40 | | | | | | |
| HIA | Hailar | 26.16 | 42 | eP | P | 19 01 16.8 | -0.3 |
| HIA | | | | pmax | pmax | | |
| | comp=Z,18nm,1.1s | | | | | | |
| HIA | Hailar | 26.16 | 42 | eP | P | 19 01 16.8 | -0.3 |
| | comp=Z,18nm,1.1s | | | | | | |
| BRVK | Borovoye | 26.16 | 328 | eP | P | 19 01 16.4 | -0.6 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.0s | | | | | | |
| BRVK | Borovoye | 26.16 | 328 | eP | P | 19 01 17.1 | +0.1 |
| | comp=Z,17nm,1.4s | | | | | | |
| PALK | Pallekele | 27.52 | 207 | LR | LR | 19 12 35.2 | |
| | comp=Z,105nm,21.9s,baz=116,slow=37 | | | | | | |
| GEYT | Alibeck | 28.74 | 291 | P | P | 19 01 40.4 | 0.0 |
| | comp=Z,3.8nm,0.4s,baz=101,slow=7.7,SNR=11 | | | | | | |
| GEYT | | | | LR | LR | 19 14 57.2 | |
| | comp=Z,454nm,21.2s,baz=100,slow=40 | | | | | | |
| KSAR | Wonju Array Be | 29.05 | 70 | P | P | 19 01 40.7 | -2.3 |
| KSAR | Wonju Array Be | 29.05 | 70 | P | P | 19 01 40.7 | -2.3 |
| KSRS | Korea Array | 29.08 | 70 | P | P | 19 01 40.7 | -2.6 |
| | comp=Z,1.5nm,0.7s,baz=269,slow=9.0,SNR=7.6 | | | | | | |
| KSRS | | | | LR | LR | 19 15 22.1 | |
| | comp=Z,141nm,18.8s,baz=268,slow=41 | | | | | | |
| GSI | Gunungsitoli | 31.37 | 171 | eP | P | 19 02 05.9 | +2.3 |
| | comp=Z,13nm,0.7s | | | | | | |
| USRK | Ussuriysk Ar. | 32.58 | 58 | LR | LR | 19 15 39.1 | |
| | comp=Z,265nm,18.2s,baz=255,slow=37 | | | | | | |
| SVE | Sverdlovsk | 32.86 | 327 | eP | P | 19 02 22.2 | +5.8 |
| KLR | Kul'dur | 33.41 | 48 | P | P | 19 02 20.1 | -1.2 |
| | comp=Z,0.3nm,0.7s,baz=257,slow=11,SNR=7.1 | | | | | | |
| ARU | Arti | 33.61 | 326 | d iP | P | 19 02 23.3 | +0.3 |
| ARU | | | | | | 19 03 29.5 | |
| ARU | | | | | | 19 04 58.1 | |
| ARU | | | | S | S | 19 07 46.4 | +1.8 |
| ARU | | | | pmax | pmax | | |
| | comp=Z,16nm,2.5s | | | | | | |
| KKM | Kota Kinabalu | 34.20 | 135 | eP | P | 19 02 27.3 | -1.3 |
| | comp=Z,31nm,1.1s | | | | | | |
| MAK | Makhachkala | 36.92 | 300 | eP | P | 19 02 47.5 | -4.0 |
| MAK | | | | e | | 19 04 13.3 | |
| MAK | | | | eS | S | 19 08 29.9 | -5.8 |
| MAK | | | | eSS | SnSn | 19 11 07.7 | -0.7 |
| YAK | Yakutsk | 37.78 | 28 | P | P | 19 02 58.9 | +0.3 |
| | comp=Z,3.5nm,0.3s,baz=279,slow=1.6,SNR=4.2 | | | | | | |
| YAK | Yakutsk | 37.78 | 28 | eP | P | 19 02 56.5 | -2.1 |
| YAK | | | | pmax | pmax | | |
| | comp=Z,12nm,1.1s | | | | | | |
| YAK | Yakutsk | 37.78 | 28 | eP | P | 19 02 56.5 | -2.1 |
| | comp=Z,12nm,1.1s | | | | | | |
| GNI | Garni | 39.07 | 295 | P | P | 19 03 11.0 | +1.0 |
| | comp=Z,4.0nm,0.7s,baz=83,slow=8.1,SNR=2.6 | | | | | | |
| GNI | Garni | 39.07 | 295 | eP | P | 19 03 10.4 | +0.4 |
| GNI | | | | pmax | pmax | | |
| | comp=Z,18nm,1.2s | | | | | | |
| AKH | Akhalkalaki | 39.93 | 297 | ⇓iP | P | 19 03 18.6 | +1.4 |
| KBZ | Khabaz | 40.28 | 301 | LR | LR | 19 23 32.2 | |
| | comp=Z,106nm,18.6s,baz=34,slow=42 | | | | | | |
| KIV | Kislovodsk | 40.43 | 301 | eP | P | 19 03 20.0 | -1.1 |
| KIV | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.9s | | | | | | |
| KIV | | | | MLR | MLR | | |
| | comp=Z,150nm,16.0s | | | | | | |
| RAYN | Ar Rayn | 42.42 | 270 | eP | P | 19 03 36.6 | -1.1 |
| | comp=Z,5.8nm,1.4s | | | | | | |
| MARD | Mardin | 42.49 | 292 | eP | P | 19 03 37.4 | -0.8 |
| | comp=Z,6.9nm,0.6s | | | | | | |
| TIXI | Tiksi | 43.64 | 16 | P | P | 19 03 44.5 | -2.4 |
| | comp=Z,0.7nm,0.6s,baz=231,slow=7.3,SNR=3.7 | | | | | | |
| TIXI | Tiksi | 43.64 | 16 | ⇑eP | P | 19 03 48.3 | +1.5 |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.9s | | | | | | |
| KLMR | Klimovskoe | 44.46 | 326 | eP | P | 19 03 52.0 | -1.6 |
| KLMR | | | | pmax | pmax | | |
| | comp=Z,25nm,1.6s | | | | | | |
| BR101 | Keskin Array S | 47.59 | 296 | eP | P | 19 04 17.0 | -1.7 |
| BR131 | Keskin Array S | 47.59 | 296 | eP | P | 19 04 18.3 | -0.5 |
| BRTR | Keskin Array B | 47.59 | 296 | P | P | 19 04 17.0 | -1.7 |
| | comp=Z,2.0nm,0.9s,baz=103,slow=5.5,SNR=9.1 | | | | | | |
| BRTR | | | | LR | LR | 19 27 59.0 | |
| | comp=Z,81nm,18.3s,baz=91,slow=41 | | | | | | |
| BRTR | Keskin Array B | 47.59 | 296 | P | P | 19 04 17.0 | -1.7 |
| BRTR | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.8s | | | | | | |
| BRTR | | | | MLR | MLR | | |
| | comp=Z,81nm,18.3s | | | | | | |
| BR231 | Keskin MP Arra | 48.22 | 297 | eP | P | 19 04 18.5 | -5.1 |
| AKASG | Malin Array Be | 49.32 | 311 | P | P | 19 04 30.3 | -1.4 |
| | comp=Z,2.1nm,0.7s,baz=76,slow=6.9,SNR=5.2 | | | | | | |
| AKASG | | | | LR | LR | 19 27 50.4 | |
| | comp=Z,136nm,19.2s,baz=85,slow=39 | | | | | | |
| AKBB | Malin Array Si | 49.32 | 311 | eP | P | 19 04 30.3 | -1.4 |
| AKBB | | | | pmax | pmax | | |
| | comp=Z,18nm,1.5s | | | | | | |
| AKBB | Malin Array Si | 49.32 | 311 | eP | P | 19 04 30.3 | -1.4 |
| | comp=Z,18nm,1.5s | | | | | | |
| SORM | Soroca | 50.12 | 308 | ⇓iP | P | 19 04 35.1 | -2.7 |
| SORM | Soroca | 50.12 | 308 | ⇓P | P | 19 04 35.1 | -2.7 |
| FIA0 | FINESS Array S | 50.99 | 325 | eP | P | 19 04 46.4 | +2.2 |
| FIA0 | FINESS Array S | 50.99 | 325 | eP | P | 19 04 46.4 | +2.2 |
| FINES | FINESS Array B | 50.99 | 325 | P | P | 19 04 46.4 | +2.2 |
| | comp=Z,1.6nm,0.6s,baz=95,slow=8.8,SNR=9.9 | | | | | | |
| FINES | | | | LR | LR | 19 28 19.2 | |
| | comp=Z,143nm,18.1s,baz=108,slow=38 | | | | | | |
| TESR | Tescani | 51.48 | 306 | ⇑iP | P | 19 04 47.3 | -0.9 |
| VRI | Vrincioaia | 51.53 | 305 | ⇓iP | P | 19 04 51.5 | +2.9 |
| VRI | Vrincioaia | 51.53 | 305 | ⇓P | P | 19 04 51.5 | +2.9 |
| PLOR | Plostina | 51.59 | 305 | ⇑iP | P | 19 04 49.5 | +0.5 |
| PLOR | Plostina | 51.59 | 305 | ⇑P | P | 19 04 49.5 | +0.5 |
| SOEI | Soe | 51.66 | 139 | eP | P | 19 04 48.7 | -1.2 |
| | comp=Z,56nm,0.8s | | | | | | |
| ARA0 | ARCESS Array S | 52.02 | 336 | eP | P | 19 04 54.8 | +2.9 |
| ARCES | ARCESS Array B | 52.02 | 336 | P | P | 19 04 54.8 | +2.9 |
| | comp=Z,3.0nm,0.7s,baz=93,slow=8.5,SNR=8.1 | | | | | | |
| ARCES | | | | LR | LR | 19 28 06.5 | |
| | comp=Z,165nm,19.2s,baz=98,slow=37 | | | | | | |
| MLR | Muntele Rosu | 52.14 | 305 | ⇑iP | P | 19 04 52.7 | -0.5 |
| MLR | Muntele Rosu | 52.14 | 305 | ⇑P | P | 19 04 52.7 | -0.5 |
| MLR | Muntele Rosu | 52.14 | 305 | eP | P | 19 04 53.4 | +0.2 |
| | comp=Z,11nm,1.0s | | | | | | |
| BURAR | Bucovina Array | 52.28 | 308 | ⇓iP | P | 19 04 57.9 | +3.7 |
| BURAR | Bucovina Array | 52.28 | 308 | ⇓P | P | 19 04 57.9 | +3.7 |
| VOIR | | 52.77 | 305 | ⇑iP | P | 19 05 01.2 | +3.3 |
| VOIR | | 52.77 | 305 | ⇑P | P | 19 05 01.2 | +3.3 |
| DRGR | | 54.10 | 307 | ⇑iP | P | 19 05 07.6 | 0.0 |
| DRGR | | 54.10 | 307 | ⇑P | P | 19 05 07.6 | 0.0 |
| STHS | Stebnicka Huta | 54.58 | 311 | eP | P | 19 05 13.0 | +2.0 |
| STHS | Stebnicka Huta | 54.58 | 311 | eP | P | 19 05 13.0 | +2.0 |
| KECS | Kecovo | 55.24 | 310 | eP | P | 19 05 18.1 | +2.3 |
| KECS | | | | pmax | pmax | | |
| | comp=Z,11nm,2.3s | | | | | | |
| KECS | Kecovo | 55.24 | 310 | eP | P | 19 05 18.1 | +2.3 |
| OJC | Ojcow | 55.35 | 312 | eP | P | 19 05 18.8 | +2.3 |
| OJC | | | | pmax | pmax | | |
| | comp=Z,42nm,2.0s | | | | | | |
| OJC | Ojcow | 55.35 | 312 | eP | P | 19 05 18.8 | +2.3 |
| | comp=Z,42nm,2.0s | | | | | | |
| LANS | Liptovska Anna | 55.77 | 310 | eP | P | 19 05 23.3 | +3.7 |
| LANS | Liptovska Anna | 55.77 | 310 | eP | P | 19 05 23.3 | +3.7 |
| DPC | Dobruska-Polom | 57.50 | 312 | eP | P | 19 05 34.9 | +3.0 |
| DPC | | | | ex | x | 19 05 45.4 | |
| DPC | Dobruska-Polom | 57.50 | 312 | eP | P | 19 05 34.9 | +3.0 |
| DPC | | | | e | | 19 05 45.4 | |
| NB2 | NORSAR Subarra | 58.17 | 325 | P | P | 19 05 38.2 | +1.8 |
| | comp=Z,3.1nm,0.8s,baz=80,slow=6.9 | | | | | | |
| NB200 | NORSAR Array S | 58.17 | 325 | eP | P | 19 05 36.4 | 0.0 |
| NOA | NORSAR Array B | 58.17 | 325 | P | P | 19 05 36.4 | 0.0 |
| | comp=Z,1.8nm,0.6s,baz=80,slow=6.9,SNR=7.3 | | | | | | |
| NOA | | | | LR | LR | 19 30 12.2 | |
| | comp=Z,113nm,19.8s,baz=90,slow=36 | | | | | | |
| FITZ | Fitzroy Crossi | 59.33 | 143 | P | P | 19 05 43.9 | -1.0 |
| | comp=Z,5.7nm,1.1s,baz=343,slow=13,SNR=3.4 | | | | | | |
| GERES | GERESS Array B | 59.53 | 311 | P | P | 19 05 45.4 | -0.7 |
| | comp=Z,1.2nm,0.6s,baz=64,slow=4.6,SNR=7.2 | | | | | | |
| GERES | | | | LR | LR | 19 35 46.6 | |
| | comp=Z,133nm,18.2s,baz=66,slow=40 | | | | | | |
| KMBO | Kilima Mbogo | 62.14 | 249 | P | P | 19 06 04.5 | 0.0 |
| | comp=Z,2.7nm,0.7s,baz=48,slow=12,SNR=6.0 | | | | | | |
| KMBO | Kilima Mbogo | 62.14 | 249 | eP | P | 19 06 04.5 | 0.0 |
| | comp=Z,4.7nm,0.9s | | | | | | |
| WRAB | Tennant Creek | 65.56 | 137 | eP | P | 19 06 26.2 | -0.4 |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.9s | | | | | | |
| WRAB | Tennant Creek | 65.56 | 137 | eP | P | 19 06 26.2 | -0.4 |
| | comp=Z,9.5nm,0.9s | | | | | | |
| WRA | Warramunga Arr | 65.57 | 137 | P | P | 19 06 25.7 | -1.0 |
| | comp=Z,7.0nm,1.0s,baz=319,slow=8.7,SNR=30 | | | | | | |
| WR1 | Warramunga Arr | 65.57 | 137 | eP | P | 19 06 25.7 | -1.0 |
| | comp=Z,9.3nm,0.9s | | | | | | |
| WB2 | Warramunga Arr | 65.57 | 137 | eP | P | 19 06 25.3 | -1.4 |
| | comp=Z,9.7nm,1.0s | | | | | | |
| AS31 | Alice Springs | 68.27 | 140 | eP | P | 19 06 43.5 | -0.3 |
| | comp=Z,2.4nm,1.0s | | | | | | |
| ASAR | Alice Springs | 68.27 | 140 | P | P | 19 06 43.2 | -0.5 |
| | comp=Z,4.0nm,0.7s,baz=324,slow=6.3,SNR=24 | | | | | | |
| AS01 | Alice Springs | 68.29 | 140 | eP | P | 19 06 43.3 | -0.7 |
| IL1 | Eielson Array | 72.51 | 23 | eP | P | 19 07 08.0 | -1.2 |
| ILAR | Eielson Array | 72.51 | 23 | P | P | 19 07 07.8 | -1.4 |
| | comp=Z,1.7nm,0.8s,baz=256,slow=3.6,SNR=13 | | | | | | |
| ILB | Eielson Array | 72.51 | 23 | eP | P | 19 07 07.8 | -1.4 |
| HDA | Harding Lake | 72.72 | 23 | eP | P | 19 07 08.5 | -2.0 |
| | comp=Z,223nm,1.1s | | | | | | |
| ES19 | SONSECA Array | 74.68 | 307 | eP | P | 19 07 22.1 | -0.4 |
| ESDC | Sonseca Array | 74.73 | 307 | P | P | 19 07 21.9 | -0.9 |
| | comp=Z,0.8nm,0.6s,baz=46,slow=6.2,SNR=7.2 | | | | | | |
| STKA | Stephens Creek | 78.90 | 139 | P | P | 19 07 45.9 | -0.2 |
| | comp=Z,1.3nm,0.7s,baz=312,slow=8.1,SNR=2.8 | | | | | | |
| STKA | Stephens Creek | 78.90 | 139 | eP | P | 19 07 45.0 | -1.1 |
| STKA | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.8s | | | | | | |
| STKA | Stephens Creek | 78.90 | 139 | eP | P | 19 07 45.0 | -1.1 |
| | comp=Z,3.8nm,1.8s | | | | | | |
| YKA | Yellowknife Ar | 82.79 | 12 | P | P | 19 08 06.3 | -0.2 |
| | comp=Z,0.4nm,0.6s,baz=333,slow=5.3,SNR=3.7 | | | | | | |
| YKA | Yellowknife Ar | 82.79 | 12 | P | P | 19 08 06.3 | -0.2 |
| YKA | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.8s | | | | | | |
| YKB5 | Yellowknife Ar | 82.79 | 12 | eP | P | 19 08 06.3 | -0.2 |
| TOA0 | Torodi Ar. Sit | 83.98 | 282 | eP | P | 19 08 12.3 | -1.1 |
| TOA1 | Torodi Ar. Sit | 83.98 | 282 | eP | P | 19 08 12.8 | -0.7 |
| TORD | Torodi Ar. Bea | 83.98 | 282 | P | P | 19 08 12.8 | -0.7 |
| | comp=Z,7.4nm,0.6s,baz=50,slow=4.6,SNR=33 | | | | | | |

*MOS* ***05*** *19:09:41.5±0.9, 5°.62N×126°.41E, h76km, mb5.1/36, Error ellipse: s-maj=15.1km s-min=6.8km az=118.9*
*MAN* ***05*** *19:09:41, 5°.46N×126°.61E, h39km, mb5.1, ML4.1, MS4.3*
*IDC* ***05*** *19:09:42.8±2.9, 5°.60N×126°.45E, h70km±25km, mb4.3/25, mb1 4.5/25, mb1mx4.4/40, mbtmp4.6/25, MS4.6/1, Ms1 4.6/1, ms1mx3.2/52, Error ellipse: s-maj=20.5km s-min=10.2km az=68.0*
*ISCJB* ***05*** *19:09:43.7±0.3, 5°.57N±0°.02×126°.56E±0°.03, h97km±2km, mb4.7/93, Error ellipse: s-maj=5.2km s-min=3.2km az=176.6*
*NEIC* ***05*** *19:09:43.7±1.2, 5°.55N×126°.47E, h83km±11km, mb4.9/42, Error ellipse: s-maj=6.5km s-min=4.3km az=64.0*
*KLM* ***05*** *19:09:44.2, 5°.74N×126°.82E, h107km, mb4.9*
*BJI* ***05*** *19:09:45.6, 5°.31N×126°.19E, h118km, mb4.6/26, mB5.2/16*
*DJA* ***05*** *19:09:46.1±0.4, 5°N±3°×12°7E±°, h65km±17km, M5.2/13, mb5.2/13, mB5.4/10, MLv5.5/7, Mw(mB)4.9/10*
**ISC 05 19:09:45.2**±0.6**, 5°.55N**±0°.03×**126°.52E**±0°.05**, h94**km±5km**,**
**n287, σ1°.54**/313**, mb4.7**/92**, 18C-23D, Mindanao**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MATI | Mati | 1.41 | 349 | eP | Pn | 19 10 07.4 | -2.7 |
| MATI | | | | eS | Sn | 19 10 26.8 | -2.0 |
| GSPH | General Santos | 1.65 | 289 | ⇓eP | Pn | 19 10 09.9 | -3.3 |
| GSPH | | | | eS | Sn | 19 10 30.7 | -3.7 |
| DAV | Davao City (W) | 1.78 | 328 | ePn | Pn | 19 10 14.1 | -0.6 |
| DMPH | Davao City--Mi | 1.83 | 327 | ⇑eP | Pn | 19 10 14.0 | -1.3 |
| DMPH | | | | eS | Sn | 19 10 35.8 | -2.4 |
| KCP | Kidapawan | 2.03 | 316 | ⇓iP | Pn | 19 10 16.4 | -1.6 |
| SGSI | Sangihe | 2.10 | 208 | P | Pn | 19 10 18.4 | -0.4 |
| SGSI | | | | S | Sn | 19 10 45.3 | +0.8 |
| BIPH | Bislig | 2.62 | 356 | ⇑eP | Pn | 19 10 23.9 | -1.9 |
| BIPH | | | | eS | Sn | 19 10 56.2 | -0.6 |
| BUKP | Musuan | 2.73 | 328 | eP | Pn | 19 10 26.5 | -0.8 |
| BUKP | | | | eS | Sn | 19 11 00.7 | +1.1 |
| CTBH | Cotabato--PC H | 2.81 | 306 | ⇓iP | Pn | 19 10 27.1 | -1.1 |
| BUTP | Butuan | 3.51 | 345 | eP | Pn | 19 10 39.3 | +1.6 |
| BUTP | | | | eS | Sn | 19 11 27.5 | +9.2 |
| PAGZ | Pagadian | 3.87 | 306 | eP | Pn | 19 10 42.1 | -0.3 |
| SCPH | Surigao | 4.33 | 346 | eP | Pn | 19 10 48.7 | 0.0 |
| SCPH | | | | eS | Sn | 19 11 42.7 | +4.6 |
| ZCP | Zamboanga City | 4.63 | 287 | ⇓iP | Pn | 19 10 52.0 | -0.8 |
| ZCP | | | | iS | Sn | 19 11 42.6 | -2.8 |
| MSLP | Maasin | 4.84 | 340 | eP | Pn | 19 10 55.4 | -0.4 |
| TBP | Tagbilaran | 4.89 | 328 | eP | Pn | 19 10 57.0 | +0.6 |
| TBP | | | | eS | Sn | 19 12 00.3 | +8.6 |
| SNPH | Sibulan | 4.98 | 319 | ⇑eP | Pn | 19 11 00.5 | +2.8 |
| LLP | Lapu-Lapu | 5.37 | 332 | ⇓eP | Pn | 19 11 02.6 | -0.3 |
| LLP | | | | eS | Sn | 19 11 59.8 | -3.7 |
| KMSI | Cibinong | 5.55 | 207 | P | Pn | 19 11 06.5 | +1.1 |
| OCLP | Ormoc | 5.79 | 341 | eP | Pn | 19 11 09.0 | +0.4 |
| PLP | Palo | 5.79 | 345 | ⇑eP | Pn | 19 11 09.2 | +0.7 |
| BESP | Borongan | 6.11 | 350 | eP | Pn | 19 11 16.4 | +3.4 |
| LBMI | Labuha | 6.22 | 171 | P | Pn | 19 11 13.9 | -0.6 |
| | 325nm,0.8s,3µm2.7nm | | | | | | |
| LBMI | | | | S | Sn | 19 12 20.8 | -3.5 |
| | 325nm,0.8s,3µm2.7nm | | | | | | |
| MRSI | Marisa | 6.80 | 222 | P | Pn | 19 11 23.0 | +0.6 |
| | 286nm,0.5s,4µm1.6nm | | | | | | |
| MRSI | | | | S | Sn | 19 12 37.2 | -1.3 |
| | 286nm,0.5s,4µm1.6nm | | | | | | |
| RCP | Roxas | 7.04 | 328 | ⇑eP | Pn | 19 11 26.8 | +1.1 |
| LUWI | Luwuk | 7.54 | 210 | P | Pn | 19 11 33.6 | +1.1 |
| LUWI | Luwuk | 7.54 | 210 | ePn | Pn | 19 11 32.5 | 0.0 |
| SANI | Sanana | 7.57 | 184 | S | Sn | 19 12 49.7 | -7.4 |
| MYLDM | Lahad Datu | 8.00 | 268 | ⇓P | Pn | 19 11 41.7 | +3.1 |
| MYLDM | Lahad Datu | 8.00 | 268 | ePn | Pn | 19 11 39.3 | +0.7 |
| APSI | Ampana | 8.05 | 217 | P | Pn | 19 11 42.2 | +2.7 |
| APSI | | | | S | Sn | 19 13 14.3 | +5.4 |
| MPSI | Mapaga | 8.40 | 232 | P | Pn | 19 11 42.9 | -1.3 |
| | 36nm,0.8s,2µm | | | | | | |
| MPSI | | | | S | Sn | 19 13 17.8 | +0.4 |
| | 36nm,0.8s,2µm | | | | | | |
| SJMP | San Jose | 8.70 | 323 | eP | Pn | 19 11 50.6 | +2.4 |
| TSM | Tawau | 8.71 | 262 | ⇓P | Pn | 19 11 51.1 | +2.7 |
| MSAI | Masohi | 9.16 | 165 | P | Pn | 19 11 55.0 | +0.5 |
| SDKM | Sandakan | 9.28 | 271 | ⇑P | Pn | 19 11 58.9 | +2.7 |
| AAI | Ambon | 9.32 | 170 | P | Pn | 19 11 55.6 | -1.2 |
| AAI | | | | S | Sn | 19 13 41.2 | +1.2 |
| KDM | Kudat | 9.73 | 279 | ⇑P | Pn | 19 12 04.0 | +1.8 |
| FAKI | Fak Fak | 10.17 | 146 | P | Pn | 19 12 08.6 | +0.3 |
| FAKI | Fak Fak | 10.17 | 146 | ePn | Pn | 19 12 07.3 | -1.1 |
| KKM | Kota Kinabalu | 10.27 | 273 | ⇓P | Pn | 19 12 13.0 | +3.3 |
| KKM | Kota Kinabalu | 10.27 | 273 | ePn | Pn | 19 12 12.0 | +2.2 |
| RKPI | Ransiki, Papua | 10.37 | 132 | P | Pn | 19 12 13.0 | +1.9 |
| TTSI | Tana Toraja | 10.85 | 218 | P | Pn | 19 12 19.4 | +1.8 |
| SPSI | Sidrap Palu | 11.61 | 216 | P | Pn | 19 12 28.2 | +0.4 |
| | 61nm,0.7s | | | | | | |
| APYP | Conner | 13.28 | 338 | eP | P | 19 12 54.9 | -1.4 |
| MTKI | Muara Teweh, K | 13.28 | 241 | P | Pn | 19 12 51.7 | +1.6 |
| BTM | Bintulu | 13.60 | 261 | ⇓P | P | 19 12 57.3 | -2.6 |
| MMRI | Maumere | 14.72 | 197 | P | P | 19 13 14.3 | +1.9 |
| MMRI | Maumere | 14.72 | 197 | ePn | Pn | 19 13 07.1 | -1.7 |
| EDFI | Ende, Flores | 15.00 | 199 | P | P | 19 13 15.9 | +0.3 |
| SOEI | Soe | 15.37 | 188 | P | P | 19 13 21.5 | +1.8 |
| SOEI | Soe | 15.37 | 188 | ePn | Pn | 19 13 16.1 | -1.0 |
| | 188nm,1.2s | | | | | | |
| KSM | Kuching | 16.68 | 257 | ⇓P | P | 19 13 35.9 | +1.8 |
| KSM | Kuching | 16.68 | 257 | ePn | P | 19 13 34.6 | +0.5 |
| | 67nm,0.8s | | | | | | |
| KMMI | Kalianget | 17.71 | 225 | P | Pn | 19 13 53.2 | +7.3 |
| TPUB | Ta-pu | 18.54 | 343 | eP | P | 19 13 53.2 | -1.3 |
| | 188nm,2.0s | | | | | | |
| MTN | Manton Dam | 18.84 | 166 | eP | P | 19 13 56.8 | -1.0 |
| | 73nm,0.8s | | | | | | |
| MYKOM | Kota Tinggi | 22.93 | 261 | ⇓P | P | 19 14 42.2 | +0.6 |
| MYKOM | Kota Tinggi | 22.93 | 261 | eP | P | 19 14 42.0 | +0.4 |
| | 26nm,0.9s | | | | | | |
| KTGM | Kuala Trenggan | 23.28 | 271 | ⇓P | P | 19 14 44.9 | 0.0 |
| KGM | Kluang | 23.41 | 262 | ⇓P | P | 19 14 46.7 | +0.6 |
| FRIM | Kepong | 24.93 | 266 | ⇓P | P | 19 15 00.6 | +0.7 |
| IPM | Ipoh | 25.42 | 269 | ⇓P | P | 19 15 04.6 | +0.2 |
| IPM | Ipoh | 25.42 | 269 | eP | P | 19 15 04.0 | -0.4 |
| | 15nm,0.6s | | | | | | |
| COEN | Coen | 25.47 | 140 | eP | P | 19 15 04.2 | -0.5 |
| | 20nm,1.0s | | | | | | |
| MNAI | Manna | 25.51 | 248 | eP | P | 19 15 03.0 | -2.2 |
| | 158nm,0.9s | | | | | | |
| SRAK | Srakaew | 25.52 | 291 | P | P | 19 15 03.6 | -1.6 |
| | 46nm,0.9s | | | | | | |
| KHON | Khomkaen | 25.59 | 297 | P | P | 19 15 07.8 | +2.0 |
| | 11nm,0.8s | | | | | | |
| KULM | Kulim | 25.76 | 271 | ⇑P | P | 19 15 07.4 | 0.0 |
| KULM | Kulim | 25.76 | 271 | eP | P | 19 15 07.3 | -0.1 |
| | 74nm,2.0s | | | | | | |
| CHAI | Chaiyaphum | 26.18 | 295 | P | P | 19 15 13.2 | +2.1 |
| | 4.8nm,0.8s | | | | | | |
| NAYO | Nakonayok | 26.28 | 291 | P | P | 19 15 14.7 | +2.6 |
| | 18nm,0.7s,13µm | | | | | | |
| WR1 | Warramunga Arr | 26.47 | 163 | eP | P | 19 15 14.1 | +0.3 |
| | 107nm,1.1s | | | | | | |
| WRA | Warramunga Arr | 26.47 | 163 | P | P | 19 15 14.1 | +0.3 |
| | 14nm,0.5s,baz=342,slow=10,SNR=7.2 | | | | | | |
| WC3 | Warramunga Arr | 26.50 | 163 | eP | P | 19 15 10.8 | -3.2 |
| | 53nm,0.8s | | | | | | |
| PBKT | Sadao Pong | 27.32 | 296 | P | P | 19 15 22.8 | +1.4 |
| | 14nm,0.8s | | | | | | |
| WHN | Wuhan | 27.38 | 337 | P | P | 19 15 30.1 | +8.4 |
| PHET | Kaeng Krachan | 27.51 | 287 | P | P | 19 15 25.2 | +2.1 |
| | 12nm,0.8s,100nm | | | | | | |
| PSI | Prapat | 27.66 | 265 | eP | P | 19 15 24.4 | -0.2 |
| PSI | | | | pmax | pmax | | |
| | comp=Z,14nm,1.0s | | | | | | |
| PSI | Prapat | 27.66 | 265 | eP | P | 19 15 24.4 | -0.2 |
| | comp=Z,14nm,1.0s | | | | | | |
| JNU | Nakatsue | 27.73 | 8 | P | P | 19 15 24.4 | -0.5 |
| | comp=Z,6.4nm,1.0s,baz=180,slow=5.1,SNR=3.5 | | | | | | |
| UTTA | Uttaradit | 28.12 | 298 | P | P | 19 15 30.5 | +2.0 |
| | comp=Z,2.3nm,0.9s | | | | | | |
| SISI | Saibi | 28.24 | 257 | P | P | 19 15 28.8 | -0.8 |
| NANT | Nan | 28.41 | 300 | P | P | 19 15 32.2 | +1.1 |
| | comp=Z,3.9nm,0.6s | | | | | | |
| SUKH | Sukhothai | 28.84 | 297 | P | P | 19 15 37.4 | +2.4 |
| | comp=Z,2.3nm,1.0s | | | | | | |
| GSI | Gunungsitoli | 29.20 | 263 | eP | P | 19 15 35.4 | -2.7 |
| | comp=Z,31nm,0.8s | | | | | | |
| ENH | Enshi | 29.36 | 329 | eP | P | 19 15 37.6 | -1.8 |
| | comp=Z,8.7nm,0.8s | | | | | | |
| CM01 | Chiang Mai Arr | 29.78 | 298 | eP | P | 19 15 42.3 | -1.0 |
| CM31 | Chiang Mai Arr | 29.81 | 298 | eP | P | 19 15 43.8 | +0.3 |
| CMAR | Chiang Mai Arr | 29.81 | 298 | P | P | 19 15 43.5 | -0.1 |
| | comp=Z,4.2nm,0.7s,baz=113,slow=7.3,SNR=40 | | | | | | |
| CMAR | | | | ScP | ScP | 19 22 21.4 | +2.6 |
| | comp=Z,2.6nm,0.9s,baz=118,slow=1.9,SNR=6.5 | | | | | | |
| AS31 | Alice Springs | 29.92 | 166 | eP | P | 19 15 43.6 | -0.8 |
| | comp=Z,27nm,0.8s | | | | | | |
| ASAR | Alice Springs | 29.92 | 166 | P | P | 19 15 45.0 | +0.6 |
| | comp=Z,18nm,0.7s,baz=346,slow=7.3,SNR=2.3 | | | | | | |
| CMMT | Chiang Mai | 29.94 | 299 | P | P | 19 15 45.2 | +0.5 |
| | comp=Z,11nm,0.8s | | | | | | |
| CHTO | Chiang Mai | 29.95 | 299 | P | P | 19 15 45.3 | +0.6 |
| | comp=Z,74nm,1.0s | | | | | | |
| CHTO | Chiang Mai | 29.95 | 299 | eP | P | 19 15 43.8 | -0.9 |
| CHTO | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.6s | | | | | | |
| CHTO | Chiang Mai | 29.95 | 299 | eP | P | 19 15 43.8 | -0.9 |
| | comp=Z,8.6nm,0.6s | | | | | | |
| KS15 | Wonju Array Si | 31.77 | 2 | eP | P | 19 15 58.6 | -1.9 |
| KSAR | Wonju Array Be | 31.77 | 2 | P | P | 19 16 00.1 | -0.4 |
| KSAR | | | | | | 19 18 49.9 | |
| KSAR | Wonju Array Be | 31.77 | 2 | P | P | 19 16 00.1 | -0.4 |
| KSAR | | | | PcP | PcP | 19 18 49.9 | +0.1 |
| KSRS | Korea Array | 31.78 | 2 | P | P | 19 16 00.1 | -0.6 |
| | comp=Z,0.7nm,0.4s,baz=181,slow=9.8,SNR=5.7 | | | | | | |
| KSRS | | | | PcP | PcP | 19 18 49.9 | +0.1 |
| | comp=Z,3.0nm,0.7s,baz=191,slow=3.6,SNR=11 | | | | | | |
| KS01 | Wonju Array Si | 31.80 | 2 | eP | P | 19 15 58.8 | -2.0 |
| KS01 | | | | ePcP | PcP | 19 18 51.0 | +1.1 |
| CTA | Charters Tower | 32.02 | 143 | P | P | 19 16 02.6 | -0.4 |
| | comp=Z,8.8nm,0.8s,baz=339,slow=14,SNR=7.7 | | | | | | |
| CTA | Charters Tower | 32.02 | 143 | eP | P | 19 16 02.6 | -0.4 |
| CTAO | Charters Tower | 32.02 | 143 | eP | P | 19 16 03.2 | +0.2 |
| CTAO | | | | pmax | pmax | | |
| | comp=Z,32nm,0.9s | | | | | | |
| CTAO | Charters Tower | 32.02 | 143 | eP | P | 19 16 03.2 | +0.2 |
| | comp=Z,32nm,0.9s | | | | | | |
| MJAR | Matsushiro Arr | 32.66 | 18 | P | P | 19 16 07.5 | -0.8 |
| | comp=Z,1.2nm,0.7s,baz=198,slow=9.0,SNR=3.4 | | | | | | |
| XAN | Xi'an | 32.71 | 332 | P | P | 19 16 08.3 | -0.6 |

XAN pmax pmax
comp=Z,15nm,0.6s
**BJT Baijiatuau 35.56 346** *eP* **P 19 16 33.4 0.0**
BJT pmax pmax
comp=Z,16nm,0.7s
**BJT Baijiatuau 35.56 346** *eP* **P 19 16 33.4 0.0**
comp=Z,16nm,0.7s
**LZH Lanzhou 36.85 329** *eP* **P 19 16 46.0 +1.4**
LZH pmax pmax
comp=Z,18nm,1.0s
**SHL Shillong 38.66 305** *eP* **P 19 17 03.0 +2.9**
**USRK Ussuriysk Ar. 38.79 6** P **P 19 17 00.9 +0.2**
comp=Z,3.5nm,0.6s,baz=180,slow=6.0,SNR=7.7
**MDJ Mudanjiang 39.01 3** *eP* **P 19 17 03.0 +0.6**
comp=Z,19nm,1.3s
**STKA Stephens Creek 39.90 160** P **P 19 17 10.8 +0.8**
comp=Z,52nm,0.7s,baz=358,slow=4.4,SNR=4.3
**STKA Stephens Creek 39.90 160** *eP* **P 19 17 10.8 +0.8**
STKA pmax pmax
comp=Z,13nm,0.8s
**STKA Stephens Creek 39.90 160** *eP* **P 19 17 10.8 +0.8**
comp=Z,13nm,0.8s
**ASAJ Asahikawa 40.93 18** P **P 19 17 17.6 -0.7**
comp=Z,2.9nm,0.3s,baz=190,slow=12,SNR=2.1
**ASAJ Asahikawa 40.93 18** *eP* **P 19 17 17.6 -0.7**
comp=Z,50nm,1.7s
**H11S3 WAKE ISLAND Hy 41.22 68** T T 20 01 29.5
baz=258,slow=75,SNR=11
**H11S1 WAKE ISLAND Hy 41.24 68** T T 20 01 34.2
baz=258,slow=75,SNR=12
**H11S2 WAKE ISLAND Hy 41.24 68** T T 20 01 29.9
baz=258,slow=75,SNR=30
**GTA Gaotai 41.45 328** *eP* **P 19 17 23.3 +0.4**
GTA pmax pmax
comp=Z,5.0nm,0.8s
**H11N1 WAKE ISLAND Hy 41.70 67** T T 20 02 06.9
baz=254,slow=75,SNR=13
**H11N2 WAKE ISLAND Hy 41.71 67** T T 20 02 11.4
baz=254,slow=75,SNR=7.7
**H11N3 WAKE ISLAND Hy 41.72 67** T T 20 02 04.8
baz=254,slow=75,SNR=11
**TAPN Taplejung 42.80 305** *eP* **P 19 17 34.0 -0.2**
comp=Z,27nm,0.7s
**ODAN Odare 42.87 304** *eP* **P 19 17 34.4 -0.4**
comp=Z,40nm,0.7s
**RAMN Ramite 43.56 304** *eP* **P 19 17 40.4 +0.1**
comp=Z,51nm,0.6s
**JIRN Jiri 44.16 305** *eP* **P 19 17 44.8 -0.5**
comp=Z,324nm,0.6s
**GUN Gumba 44.51 305** *eP* **P 19 17 47.7 -0.3**
comp=Z,44nm,0.6s
**PKI Pulchoki 44.77 304** *eP* **P 19 17 49.4 -0.7**
comp=Z,16nm,0.6s
**PKIN Phulchoki 44.78 304** *eP* **P 19 17 50.0 -0.1**
comp=Z,11nm,0.6s
**KKN Kakani 44.96 304** *eP* **P 19 17 50.8 -0.6**
comp=Z,31nm,0.8s
**DMN Daman 45.03 304** *eP* **P 19 17 51.8 -0.3**
comp=Z,40nm,1.0s
**ULN Ulaanbaatar 45.34 342** *ceP* **P 19 17 54.4 +0.4**
ULN pmax pmax
comp=Z,10.0nm,1.7s
**ULN Ulaanbaatar 45.34 342** *eP* **P 19 17 54.7 +0.6**
comp=Z,9.1nm,0.9s
ULN *ePcP* **PcP 19 19 33.5 +1.3**
**SONA0 Songino Array 45.52 341** *eP* **P 19 17 55.9 +0.5**
SONA0 *ePcP* **PcP 19 19 33.5 +0.7**
**SONM Songino Array 45.52 341** P **P 19 17 55.9 +0.5**
comp=Z,1.8nm,0.7s,baz=154,slow=9.3,SNR=14
SONM PcP **PcP 19 19 33.5 +0.7**
comp=Z,7.8nm,0.7s,baz=164,slow=4.0,SNR=15
**SONA1 Songino Array 45.53 341** *eP* **P 19 17 56.0 +0.5**
**KOLN Koldanda 46.34 303** *eP* **P 19 18 01.8 -0.5**
comp=Z,59nm,0.6s
**DANN Dangsing 46.41 304** *eP* **P 19 18 02.6 -0.4**
comp=Z,5.0nm,0.8s
**PYUN Piuthan 46.96 304** *eP* **P 19 18 06.8 -0.4**
comp=Z,72nm,0.6s
**DZM Mont Dzumac 47.76 126** P **P 19 18 13.8 +0.5**
comp=Z,14nm,0.8s,baz=266,slow=5.5,SNR=13
**DZM Mont Dzumac 47.76 126** *eP* **P 19 18 12.9 -0.4**
comp=Z,40nm,1.4s
**TLY Talaya 49.75 342** *eP* **P 19 18 30.3 +2.3**
TLY pmax pmax
comp=Z,9.0nm,0.8s
**MOY Mondy 50.61 340** *eP* **P 19 18 37.6 +3.0**
MOY *e* 19 21 32.8
**BOD Bodaibo 53.05 352** *eP* P 19 18 43.7 -8.7
BOD pmax pmax
comp=Z,7.0nm,1.4s
**PETK Petropavlovsk- 53.84 23** P **P 19 18 58.4 +0.1**
comp=Z,5.5nm,1.0s,baz=185,slow=5.6,SNR=2.9
**PEA1 Petropavlovsk- 53.84 23** *eP* **P 19 18 58.4 +0.1**
**THN Thein Dam 54.32 306** *eP* **P 19 19 00.8 -1.4**
**MSVF Nonsavu 55.87 116** *eP* **P 19 19 13.8 +0.2**
MSVF pmax pmax
comp=Z,12nm,0.9s
**MSVF Nonsavu 55.87 116** *eP* **P 19 19 13.8 +0.2**
comp=Z,12nm,0.9s
**PDGK Podgornoye 55.89 320** *i* P **P 19 19 12.7 -0.8**
PDGK pmax pmax
comp=Z,5.0nm,0.5s
**MK01 Makanchi Array 55.94 325** *eP* **P 19 19 13.2 -0.4**
**MK31 Makanchi Array 55.96 325** *eP* **P 19 19 13.5 -0.3**
**MK31 Makanchi Array 55.96 325** *eP* **P 19 19 13.5 -0.3**
**MK32 Makanchi Array 55.96 325** *eP* **P 19 19 13.3 -0.4**
MK32 *ePcP* **PcP 19 20 11.7 +0.4**
**MKAR Makanchi Array 55.96 325** P **P 19 19 13.3 -0.4**
comp=Z,7.3nm,0.5s,baz=118,slow=7.7,SNR=177
MKAR PcP **PcP 19 20 11.7 +0.4**
comp=Z,11nm,0.7s,baz=111,slow=5.3,SNR=13
**MAKZ Makanchi 56.15 325** *eP* **P 19 19 14.7 -0.4**
MAKZ pmax pmax
comp=Z,6.0nm,0.6s
**MAKZ Makanchi 56.15 325** *eP* **P 19 19 14.7 -0.4**
comp=Z,5.9nm,0.6s
**YAK Yakutsk 56.41 2** *eP* **P 19 19 19.0 +2.4**
YAK pmax pmax
comp=Z,18nm,0.9s
YAK pmax pmax
comp=N,3.0nm,1.0s
**YAK Yakutsk 56.41 2** *eP* **P 19 19 18.5 +1.9**
comp=N,35nm,0.9s
**TKM2 Tokmak 2 58.26 318** *i* P **P 19 19 29.7 -0.6**
TKM2 pmax pmax
comp=Z,5.0nm,0.7s
**ZAA0 Zalesovo Array 58.88 333** *eP* **P 19 19 33.1 -1.0**
comp=Z,14nm,1.5s
**ZALV Zalesovo Beam 58.88 333** P **P 19 19 33.3 -0.8**
comp=Z,2.7nm,0.4s,baz=137,slow=6.2,SNR=13
ZALV PcP **PcP 19 20 21.9 -0.7**
comp=Z,6.2nm,0.7s,baz=194,slow=2.5,SNR=8.3
**ZALV Zalesovo Beam 58.88 333** *eP* **P 19 19 33.0 -1.2**
ZALV PcP **PcP 19 20 21.9 -0.7**
**AAK Ala-Archa 58.89 317** *i* P **P 19 19 33.5 -1.1**
AAK pmax pmax
comp=Z,1.0nm,0.4s
**ZAA1 Zalesovo Array 58.89 333** *eP* **P 19 19 33.3 -0.9**
ZAA1 *ePcP* **PcP 19 20 21.9 -0.7**
**KURK Kurchatov 60.11 327** *ceP* **P 19 19 42.0 -0.6**
KURK pmax pmax
comp=Z,45nm,0.8s
**KURK Kurchatov 60.11 327** *eP* **P 19 19 42.2 -0.4**
comp=Z,15nm,0.7s
**NVS Novosibirsk 60.17 333** *eP* **P 19 19 42.5 -0.4**
**MNAS Manas 60.18 316** *i* P **P 19 19 43.1 -0.4**
MNAS pmax pmax
comp=Z,3.0nm,0.8s
**KBL Kabul 60.27 307** *eP* **P 19 19 43.8 -0.5**
KBL pmax pmax
comp=Z,9.0nm,0.6s
**KBL Kabul 60.27 307** *eP* **P 19 19 43.8 -0.5**
comp=Z,8.6nm,0.6s
**DZET Dzherino 61.60 311** P **P 19 19 52.2 -1.0**
DZET pmax pmax
comp=Z,9.0nm,0.5s
**KK31 Karatay Array 61.77 316** *i* P **P 19 19 53.2 -0.9**
KK31 pmax pmax
comp=Z,3.0nm,0.7s
**BRVK Borovoye 65.77 327** *ceP* **P 19 20 19.5 -0.6**
BRVK pmax pmax
comp=Z,21nm,0.8s
**BRVK Borovoye 65.77 327** *eP* **P 19 20 19.6 -0.5**
comp=Z,12nm,0.8s
**TIXI Tiksi 66.04 1** *eP* **P 19 20 21.3 -0.2**
TIXI pmax pmax
comp=Z,8.0nm,0.8s
**TIXI Tiksi 66.04 1** *eP* **P 19 20 21.3 -0.2**
comp=Z,8.0nm,0.8s
**WSAR Wadi Sarin 67.53 293** LR LR 19 53 19.3
comp=Z,379nm,18.3s,slow=39
**GEYT Alibeck 69.61 308** P **P 19 20 44.4 -0.2**
comp=Z,4.1nm,0.7s,baz=151,slow=4.6,SNR=13
**AB31 Akbulak array 70.62 320** *i* P **P 19 20 49.4 -1.1**
AB31 pmax pmax
comp=Z,4.0nm,0.6s
**AKTO Aktyubinsk 72.12 321** *i* P **P 19 20 58.7 -0.8**
AKTO pmax pmax
comp=Z,8.0nm,0.6s
**SVE Sverdlovsk 72.31 328** *eP* **P 19 21 00.1 -0.4**
SVE pmax pmax
comp=Z,13nm,0.8s
**ARU Arti 73.30 327** *eP* **P 19 21 05.6 -0.8**
ARU pmax pmax
comp=Z,9.0nm,0.7s
**ARU Arti 73.30 327** *eP* **P 19 21 05.6 -0.8**
comp=Z,8.6nm,0.7s
**MIR Mirnyy 75.87 193** *i* P P 19 21 31.0 +10
MIR pmax pmax
comp=Z,6.0nm,1.0s
**RAYN Ar Rayn 79.59 293** *eP* **P 19 21 41.4 -1.2**
comp=Z,4.5nm,0.8s
**IMAR Indian Mountai 80.78 24** *eP* **P 19 21 48.4 +0.3**
**ZEI Tsey 80.84 312** *eP* **P 19 21 48.0 -1.2**
ZEI pmax pmax
comp=Z,5.0nm,0.7s
**NCK Nalchik 81.08 313** *eP* **P 19 21 50.4 +0.2**
NCK pmax pmax
comp=Z,4.0nm,0.3s
**AKH Akhalkalaki 81.13 311** *iP* **P 19 21 51.2 +0.5**
**CAST Castle Rocks 81.21 27** *eP* **P 19 21 51.3 +0.8**
comp=Z,8.1nm,1.0s
**KBZ Khabaz 81.59 313** P **P 19 21 52.6 -0.2**
comp=Z,3.7nm,0.9s,baz=109,slow=5.1,SNR=6.1
**SUA Susitna One 81.68 29** *eP* **P 19 21 53.8 +0.6**
comp=Z,29nm,1.4s
**KIV Kislovodsk 81.74 313** *eP* **P 19 21 53.2 -0.6**
KIV pmax pmax
comp=Z,13nm,1.0s
KIV MLR MLR
comp=Z,362nm,19.0s
**KIV Kislovodsk 81.74 313** *eP* **P 19 21 54.3 +0.5**
comp=Z,10nm,0.7s
**MLY Manley 81.93 25** *eP* **P 19 21 55.4 +1.1**
comp=Z,5.9nm,0.8s
**VRH Novokhopyorsk 82.45 321** *eP* **P 19 21 55.2 -2.0**
VRH pmax pmax
comp=Z,10.0nm,0.7s
**MCK McKinley 82.64 27** *eP* **P 19 21 58.3 +0.3**
MCK pmax pmax
comp=Z,11nm,0.8s
**MCK McKinley 82.64 27** *eP* **P 19 21 58.3 +0.3**
comp=Z,11nm,0.8s
**COLA College 83.15 25** *i* P **P 19 21 58.4 -2.1**
COLA pmax pmax
comp=Z,2.0nm,0.5s
**IL1 Eielson Array 83.56 26** *eP* **P 19 22 01.8 -0.8**
**ILAR Eielson Array 83.56 26** P **P 19 22 02.6 -0.1**
comp=Z,2.1nm,1.0s,baz=242,slow=5.8,SNR=11
**ILB Eielson Array 83.56 26** *eP* **P 19 22 03.4 +0.7**
**KLMR Klimovskoe 83.73 331** *eP* **P 19 22 03.2 -0.4**
KLMR pmax pmax
comp=Z,25nm,1.2s
**LPSR Galich'ya Gora 84.17 322** *eP* **P 19 22 05.3 -0.7**
LPSR pmax pmax
comp=Z,10.0nm,0.8s
**TMCR Tamitsa 84.38 334** *eP* **P 19 22 03.9 -2.9**
TMCR pmax pmax
comp=Z,21nm,0.9s
**VNDA Vanda 85.25 173** P **P 19 22 11.7 +0.9**
comp=Z,7.5nm,0.9s,baz=302,slow=6.8,SNR=5.8
**VNDA Vanda 85.25 173** *eP* **P 19 22 11.8 +0.9**
VNDA pmax pmax
comp=Z,11nm,1.0s
**VNDA Vanda 85.25 173** *eP* **P 19 22 11.8 +0.9**
comp=Z,11nm,1.0s
**OBN Obninsk 85.46 325** *ieP* **P 19 22 10.1 -2.3**
OBN *e**PP **pP 19 22 38.8 +1.7**
OBN *eS* S 19 32 27.0 -10
OBN pmax pmax
comp=Z,13nm,1.0s
OBN MLR MLR
comp=Z,630nm,18.0s
**ANN Anapa 85.48 314** *eP* **P 19 22 11.3 -1.4**
ANN *e**PP **pP 19 22 37.3 -0.2**
ANN *eS* S 19 32 27.0 -10
ANN pmax pmax
comp=Z,49nm,0.8s
**ARA0 ARCESS Array S 88.68 340** *eP* **P 19 22 27.5 -0.2**
**ARCES ARCESS Array B 88.68 340** P **P 19 22 27.5 -0.2**
comp=Z,22nm,0.7s,baz=82,slow=6.5,SNR=86
**ARCES ARCESS Array B 88.68 340** *eP* **P 19 22 26.4 -1.3**
**ARCES ARCESS Array B 88.68 340** *eP* **P 19 22 26.4 -1.3**
**ARE0 ARCESS Array S 88.68 340** *eP* **P 19 22 27.9 +0.2**
comp=Z,28nm,0.8s
**BR101 Keskin Array S 88.71 310** *eP* **P 19 22 27.2 -1.4**
**BR131 Keskin Array S 88.71 310** *eP* **P 19 22 27.4 -1.4**
**BRTR Keskin Array B 88.71 310** P **P 19 22 27.2 -1.4**
comp=Z,2.8nm,0.7s,baz=111,slow=4.6,SNR=18
**FIA0 FINESS Array S 90.14 332** *eP* **P 19 22 34.4 -0.3**
**FIA0 FINESS Array S 90.14 332** *eP* **P 19 22 34.4 -0.3**
**FINES FINESS Array B 90.14 332** P **P 19 22 34.4 -0.3**
comp=Z,4.0nm,0.5s,baz=62,slow=5.0,SNR=44
**AKASG Malin Array Be 90.36 321** P **P 19 22 34.4 -1.5**
comp=Z,0.7nm,0.5s,baz=64,slow=4.8,SNR=5.1
**AKASG Malin Array Be 90.36 321** *iP* **P 19 22 34.7 -1.2**
AKASG pmax pmax
comp=Z,1.0nm,0.5s
**AKBB Malin Array Si 90.36 321** *eP* **P 19 22 34.4 -1.5**
AKBB pmax pmax
comp=Z,12nm,1.6s
**AKBB Malin Array Si 90.36 321** *eP* **P 19 22 34.4 -1.5**
comp=Z,12nm,1.6s
**CFR Carcaliu 91.99 316** *iP* **P 19 22 42.9 -0.7**
**TESR Tescani 92.78 317** *iP* **P 19 22 46.5 -0.7**
**VRI Vrincioaia 92.84 316** *iP* **P 19 22 47.7 +0.1**
**PLOR Plostina 92.90 316** *iP* **P 19 22 47.6 -0.3**
**MLR Muntele Rosu 93.45 316** *iP* **P 19 22 50.3 -0.2**
**MLR Muntele Rosu 93.45 316** *eP* **P 19 22 50.4 -0.2**
MLR pmax pmax
comp=Z,23nm,1.7s
**MLR Muntele Rosu 93.45 316** *eP* **P 19 22 50.4 -0.2**
comp=Z,23nm,1.7s
**BURAR Bucovina Array 93.51 318** *iP* **P 19 22 50.8 +0.1**
**BUR04 Bucovina Ar. S 93.52 318** *eP* **P 19 22 50.5 -0.3**
**DRGR 95.36 318** *iP* **P 19 22 58.2 -1.0**
**DAG Danmarks Havn 95.43 352** *i* P **P 19 22 58.5 -0.3**
DAG pmax pmax
comp=Z,3.0nm,0.8s
**DAG Danmarks Havn 95.43 352** *i* P **P 19 22 58.5 -0.3**
comp=Z,3.4nm,0.8s
**CRVS Cervenica-Dubn 95.65 320** *eP* **P 19 23 00.8 +0.4**
**CRVS Cervenica-Dubn 95.65 320** *ePDIFF* **P 19 23 00.8 +0.4**
**STHS Stebnicka Huta 95.66 321** *eP* **P 19 23 00.2 -0.2**
**STHS Stebnicka Huta 95.66 321** *ePDIFF* **P 19 23 00.2 -0.2**
**BZS Buzias 96.39 317** *iP* **P 19 23 02.7 -1.1**
**NB2 NORSAR Subarra 97.08 334** P **P 19 23 05.4 -1.2**
comp=Z,7.1nm,0.7s,baz=65,slow=4.6
**NB2 NORSAR Subarra 97.08 334** P **P 19 23 05.4 -1.2**
baz=65,slow=4.6
**NB200 NORSAR Array S 97.08 334** *eP* **P 19 23 05.6 -1.0**
NB200 *ePKKPbc* **PKKPbc 19 39 48.8 -0.1**
**NOA NORSAR Array B 97.08 334** P **P 19 23 05.6 -1.0**
comp=Z,5.9nm,0.7s,baz=65,slow=4.6,SNR=13
NOA PKKPbc **PKKPbc 19 39 48.8 -0.1**
comp=Z,1.8nm,0.9s,baz=274,slow=0.9,SNR=3.3
**YKA Yellowknife Ar 97.94 24** P Pdif 19 23 11.3 +0.9
comp=Z,0.6nm,0.9s,baz=304,slow=4.4,SNR=3.6
YKA PKKPbc **PKKPbc 19 39 43.1 -3.4**
comp=Z,0.7nm,0.7s,baz=120,slow=2.6,SNR=5.3
**YKB5 Yellowknife Ar 97.94 24** *eP* Pdif 19 23 11.3 +0.9
YKB5 *ePKKPbc* **PKKPbc 19 39 43.1 -3.4**
**CLL Collm 100.05 324** *eP* **Pdif 19 23 25.0 +4.9**
**CLL Collm 100.05 324** *e*(P) **Pdif 19 23 25.0 +4.9**
CLL LmV 20 15 00.0
comp=Z,400nm,20.3s
**GERES GERESS Array B 100.54 322** P **Pdif 19 23 22.1 -0.3**
comp=Z,0.5nm,0.7s,baz=86,slow=7.3,SNR=2.8
**LTX Lajitas 120.64 51** *ePKIKP* **PKPdf 19 28 26.8 -0.2**
**LTX Lajitas 120.64 51** *ePKPdf* **PKPdf 19 28 26.8 -0.2**
**TXAR Lajitas Array 120.64 51** PKP **PKPdf 19 28 26.8 -0.1**
comp=Z,0.6nm,0.7s,baz=270,slow=0.7,SNR=7.4
**TORD Torodi Ar. Bea 122.14 289** PKP **PKPdf 19 28 30.1 0.0**
comp=Z,5.8nm,0.9s,baz=48,slow=1.9,SNR=32
TORD PKKPbc **PKKPab 19 38 27.4 -0.2**
comp=Z,1.2nm,1.1s,baz=300,slow=3.0,SNR=3.9
**TOA1 Torodi Ar. Sit 122.15 289** *ePKPdf* **PKPdf 19 28 30.1 0.0**
TOA1 *ePKKPbc* **PKKPab 19 38 27.4 -0.2**
**MIAR Mount Ida 125.05 40** *ePKIKP* **PKPdf 19 28 34.0 -1.1**
**MIAR Mount Ida 125.05 40** *ePKPdf* **PKPdf 19 28 34.0 -1.1**
**KIC Kosan Boka 129.94 283** *ePKIKP* **PKPdf 19 28 46.1 +1.1**
comp=Z,12nm,0.8s
**DBIC Dimbokro 129.98 283** PKP **PKPdf 19 28 46.3 +1.3**
comp=Z,2.8nm,0.6s,baz=76,slow=1.2,SNR=3.9
**TIC Toumodi 130.14 283** *ePKIKP* **PKPdf 19 28 45.8 +0.4**
**LIC Lamto 130.24 283** *ePKIKP* **PKPdf 19 28 46.6 +1.0**
comp=Z,32nm,1.1s
**PLCA Paso Flores 141.77 159** PKhKP PKPpre 19 29 01.4
comp=Z,2.5nm,0.9s,baz=217,slow=12,SNR=3.9
PLCA PKP **PKiKP 19 29 08.1 -1.1**
comp=Z,5.9nm,0.7s,baz=230,slow=2.8,SNR=15
**PLCA Paso Flores 141.77 159** *ePKIKP* **PKPdf 19 29 03.5 -2.8**
**PLCA Paso Flores 141.77 159** *ePKPdf* **PKPdf 19 29 03.5 -2.8**
**ROC1 El Roble 148.19 151** *eP* **PKPbc 19 29 22.1 +0.9**
**AUSP Uspallata 149.58 153** *eP* **PKPbc 19 29 26.4 +1.6**
**RTLS Leoncito 149.98 152** *eP* **PKPbc 19 29 27.1 +1.3**
**RTCV Cerro Valdivia 150.26 154** *eP* **PKPbc 19 29 26.8 +0.7**
**ACAN Cantantal 150.48 156** *eP* **PKPbc 19 29 27.6 +0.9**
**MRA San Martin 150.92 158** *eP* **PKPbc 19 29 28.6 +0.9**
**AMOG MOGNA 151.07 153** *eP* **PKPbc 19 29 29.1 +1.0**
**ACCO Cerro Coronel 151.09 151** *eP* **PKPbc 19 29 29.8 +1.2**
**AROD Rodeo 151.24 150** *eP* **PKPbc 19 29 30.4 +1.5**
**AGUA GUANDACOL 152.28 151** *eP* **PKPbc 19 29 32.5 +1.5**
**TCA Tanti 152.31 159** *eP* **PKPbc 19 29 32.1 +1.1**
**APLL PUNTA DE LOS L 152.40 155** *eP* **PKPbc 19 29 31.7 +0.6**
**ACLC CERRO LA CRUZ 153.05 153** *eP* **PKPbc 19 29 33.4 +0.6**
**CPUP Villa Florida 159.01 170** PKP **PKPdf 19 29 32.4 -0.7**
comp=Z,2.7nm,0.9s,baz=344,slow=2.0,SNR=4.7
CPUP PKPab **PKPab 19 30 10.6 +1.0**
comp=Z,7.1nm,0.9s,baz=212,slow=3.1,SNR=9.9
**LPAZ La Paz 162.10 128** PKP **PKPdf 19 29 37.7 +0.3**
comp=Z,2.0nm,0.8s,baz=223,slow=4.8,SNR=5.6
LPAZ PKPab **PKPab 19 30 26.4 +2.1**
comp=Z,2.4nm,0.7s,baz=191,slow=3.5,SNR=4.6
**LPAZ La Paz 162.10 128** *ePKPdf* **PKPdf 19 29 38.6 +1.2**
LPAZ PKPab **PKPab 19 30 26.4 +2.1**
**LPAZ La Paz 162.10 128** *ePKPdf* **PKPdf 19 29 39.0 +1.5**
**BDFB Brasilia 168.63 208** PKP **PKPdf 19 29 42.3 +0.1**
comp=Z,1.5nm,0.5s,baz=248,slow=4.4,SNR=2.8
BDFB PKPab **PKPab 19 30 52.1 -0.2**
comp=Z,1.6nm,0.4s,baz=125,slow=11,SNR=2.3

---

*BJI* ***05*** *19:09:57.0,22.4°±44S×114.7°±5E,h10km,mb4.7/39,mB5.3/27, Ms5.4/13,Ms7 5.0/20*

*NEIC* ***05*** *19:10:00.0±0.0,21.5°±51S×114.4°±2E,h15km,mb5.0/30, ML5.1(AUST),After AUST.*

*NEIC Felt [IV] at Carnarvon and [II] at Karratha. Also felt at Onslow and Roebourne.*

*AUST* ***05*** *19:10:00.2±0.5,21.5°±51S×114.4°±2E,h15km,Error ellipse: s-maj=9.0km s-min=4.9km az=94.0*

*GCMT* ***05*** *19:10:00.0±0.2,21.4°±49S×114.4°±2E,h12km,MW5.2/103, Moment Tensor Solution. s56,c76; s103,c162; Duration: 1¹⁰ Moment tensor: Scale 10¹⁷Nm; Mrr-0.06±.02; Mθθ0.83±.01; Mϕϕ-0.77±.02; Mrθ0.42±.05; Mθϕ-0.03±.02; Mϕr-0.17±.05; Best double couple: M₀0.90900×10¹⁷ NP1:ϕs136.00000°,δ85.00000°, λ26.00000°. NP2:ϕs44.00000°,δ64.00000°,λ174.00000°. Principal axes: T 1.0030, Plg22.0000°, Azm3.0000°; N -0.1870, Plg64.0000°, Azm147.0000°; P -0.8160, Plg14.0000°, Azm267.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*ISCJB* ***05*** *19:10:01.0±0.2,21.7°±74S±0.03×114.8°±4E±0.04,h10km, mb4.8/51,MS4.9/17 Error ellipse: s-maj=5.0km s-min=3.8km az=165.1*

*MOS* ***05*** *19:10:01.2±1.0,21.7°±75S×114.8°±2E,h11km,mb5.0/31, MS4.7/4,Error ellipse: s-maj=11.6km s-min=8.1km az=111.6*

*IDC* ***05*** *19:10:01.1±0.5,21.6°±69S×114.6°±4E,h0km,mb4.6/18, mb1 4.8/21,mb1mx4.6/37,mbtmp4.6/21,ML4.6/4,MS4.8/11, Ms1 4.8/11,ms1mx4.3/41,Error ellipse: s-maj=15.2km s-min=12.0km az=55.0*

**ISC 05 19:10:03.0±0.3,21.81S±0.03×114.78E±0.04,h10km,n214,**
**σ2.2s74/215,mb4.9/52,MS4.9/17,10C-1D,Western Australia**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **GIRL** | **Giralia** | **0.97** | **211** | P | | **Pb** | **19 10 22.7** | **+0.8** |
| | baz=1.1 | | | | | | | |
| GIRL | | | | S | | **Sn** | **19 10 37.6** | **+1.1** |
| | baz=1.1 | | | | | | | |
| **GIRL** | **Giralia** | **0.97** | **211** | *e*Pb | | **Pn** | **19 10 23.2** | **+0.5** |
| GIRL | | | | *e*Sn | | **Sn** | **19 10 40.2** | **+3.7** |
| **MBWA** | **Marble Bar** | **4.66** | **83** | *e*Pn | | **Pn** | **19 11 16.1** | **+2.7** |
| MBWA | | | | *e*Sn | | **Sn** | **19 12 10.9** | **+3.2** |
| **MORW** | **Morawa** | **7.32** | **171** | P | | **Pn** | **19 11 51.6** | **+1.6** |
| | baz=7.7 | | | | | | | |
| **MORW** | **Morawa** | **7.32** | **171** | *e*Pn | | **Pn** | **19 11 52.3** | **+2.3** |
| **BLDU** | **Ballidu** | **8.94** | **169** | P | | **Pn** | **19 12 13.9** | **+1.6** |
| | baz=9.3 | | | | | | | |
| **BLDU** | **Ballidu** | **8.94** | **169** | *e*Pn | | **Pn** | **19 12 15.3** | **+3.1** |
| **KLBR** | **Kellerberrin** | **10.10** | **165** | P | | **Pn** | **19 12 29.3** | **+1.1** |
| | baz=10 | | | | | | | |
| **KLBR** | **Kellerberrin** | **10.10** | **165** | *e*Pn | | **Pn** | **19 12 30.4** | **+2.2** |
| **MUN** | **Mundaring** | **10.21** | **173** | P | | **Pn** | **19 12 30.9** | **+1.2** |
| | baz=11 | | | | | | | |
| **MUN** | **Mundaring** | **10.21** | **173** | *e*P | | **Pn** | **19 12 31.4** | **+1.7** |
| **MUN** | **Mundaring** | **10.21** | **173** | *e*Pn | | **Pn** | **19 12 31.4** | **+1.7** |
| **FITZ** | **Fitzroy Crossi** | **10.86** | **72** | Pn | | **Pn** | **19 12 39.2** | **+0.6** |
| | 19nm,0.3s,baz=263,slow=7.7,SNR=636 | | | | | | | |
| FITZ | | | | Sn | | **Sn** | **19 14 34.4** | **-5.8** |
| | 13nm,0.3s,baz=148,slow=24,SNR=6.3 | | | | | | | |
| FITZ | | | | Lg | | Lg | 19 15 48.8 | |
| | 14nm,0.3s,baz=320,slow=18,SNR=2.9 | | | | | | | |
| FITZ | | | | LR | | LR | 19 17 03.4 | |
| | comp=Z,4µm,18.6s,baz=269,slow=39 | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **10.86** | **72** | P | | **Pn** | **19 12 39.1** | **+0.5** |
| | baz=11 | | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **11.29** | **169** | Pn | | **Pn** | **19 12 44.7** | **+0.3** |
| | 22nm,0.3s,baz=220,slow=13,SNR=112 | | | | | | | |
| NWAO | | | | Sn | | **Sn** | **19 14 44.0** | **-6.7** |
| | 10nm,0.3s,baz=102,slow=20,SNR=2.1 | | | | | | | |
| NWAO | | | | Lg | | Lg | 19 16 05.0 | |
| | 46nm,0.3s,baz=307,slow=18,SNR=11 | | | | | | | |
| NWAO | | | | LR | | LR | 19 17 43.0 | |
| | comp=Z,6µm,18.3s,baz=226,slow=40 | | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **11.29** | **169** | P | | **Pn** | **19 12 44.9** | **+0.5** |
| | baz=12 | | | | | | | |
| NWAO | | | | P | | **Pn** | **19 12 44.9** | **+0.5** |
| | baz=12 | | | | | | | |
| **KMBL** | **Kambalda** | **11.44** | **148** | P | | **Pn** | **19 12 47.7** | **+1.2** |
| | baz=12 | | | | | | | |
| **WRKA** | **Warakurna** | **12.82** | **107** | P | | **Pn** | **19 13 06.5** | **+1.0** |
| | baz=13 | | | | | | | |
| **WRKA** | **Warakurna** | **12.82** | **107** | *e*Pn | | **Pn** | **19 13 06.4** | **+0.9** |
| **RKGY** | **Rocky Gully** | **12.90** | **172** | P | | **Pn** | **19 13 07.8** | **+1.3** |
| | baz=13 | | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **13.04** | **182** | Pn | | **Pn** | **19 13 07.3** | **-0.9** |
| H01W3 | | | | Sn | | **Sn** | **19 15 26.1** | **-7.0** |
| **H01W1** | **Cape Leeuwin H** | **13.05** | **182** | Pn | | **Pn** | **19 13 07.4** | **-0.9** |
| H01W1 | | | | Sn | | **Sn** | **19 15 27.1** | **-6.3** |
| **H01W2** | **Cape Leeuwin H** | **13.05** | **182** | Pn | | **Pn** | **19 13 08.7** | **+0.4** |
| H01W2 | | | | Sn | | **Sn** | **19 15 31.4** | **-2.1** |
| **DNP** | **Denpasar** | **13.06** | **2** | P | | **P** | **19 13 18.6** | **-0.6** |
| **PLAI** | **Plampang** | **13.23** | **13** | P | | Pn | 19 13 05.2 | -5.8 |
| | 234nm,0.8s,2µm | | | | | | | |
| PLAI | | | | S | | Sn | 19 15 17.6 | -21 |
| | 234nm,0.8s,2µm | | | | | | | |
| **JAGI** | **Jajag, Banyuwa** | **13.28** | **357** | P | | Pn | 19 13 04.4 | -7.2 |
| | baz=13 | | | | | | | |
| **JAGI** | **Jajag, Banyuwa** | **13.28** | **357** | P | | Pn | 19 13 03.3 | -8.4 |
| JAGI | | | | S | | Sn | 19 15 18.3 | -21 |
| **JAGI** | **Jajag, Banyuwa** | **13.28** | **357** | *e*Pn | | Pn | 19 13 04.1 | -7.6 |
| **GMJI** | **Gumukmas** | **13.52** | **354** | P | | Pn | 19 13 07.3 | -7.7 |
| **SRBI** | **Singaraja** | **13.65** | **2** | P | | **Pn** | **19 13 13.3** | **-3.5** |
| | 72nm,0.7s,1µm | | | | | | | |
| **PCJI** | **Pacitan** | **13.97** | **345** | P | | Pn | 19 13 15.0 | -6.2 |
| | 59nm,0.7s | | | | | | | |
| **PWJI** | **Pagerwojo** | **14.00** | **348** | P | | Pn | 19 13 15.6 | -6.0 |
| | 69nm,1.1s,798nm | | | | | | | |
| **BLJI** | **Banyuglugur** | **14.03** | **355** | P | | **Pn** | **19 13 18.0** | **-4.0** |
| | 184nm,0.9s,2µm | | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| XMIS | Christmas Isla | 14.27 | 321 | *e*Pn | Pn | 19 13 14.2 | -11 |
| XMIS | | | | *e*Sn | Sn | 19 15 35.9 | -28 |
| XMI | Christmas Isla | 14.27 | 321 | P | Pn | 19 13 16.1 | -9.2 |
| | baz=14 | | | | | | |
| UGM | Wanagama | 14.41 | 343 | P | Pn | 19 13 19.7 | -7.5 |
| | baz=14 | | | | | | |
| UGM | Wanagama | 14.41 | 343 | P | Pn | 19 13 20.0 | -7.3 |
| UGM | Wanagama | 14.41 | 343 | *e*Pn | Pn | 19 13 19.3 | -8.0 |
| KNRA | Kununurra | 14.58 | 68 | P | Pn | 19 13 27.9 | -1.6 |
| | baz=15 | | | | | | |
| FORT | Forrest | 14.88 | 130 | *e*Pn | Pn | 19 13 33.6 | +0.1 |
| | 3μm,0.7s | | | | | | |
| GRJI | Gresik | 14.97 | 351 | P | Pn | 19 13 28.7 | -6.2 |
| KPJI | Karang Pucung | 15.46 | 338 | P | Pn | 19 13 33.4 | -7.9 |
| CISI | Cisompet, Garu | 15.68 | 334 | P | Pn | 19 13 31.5 | -13 |
| CISI | Cisompet, Garu | 15.68 | 334 | *e*Pn | Pn | 19 13 31.9 | -12 |
| | 142nm,0.8s | | | | | | |
| CNJI | Cibinong | 16.20 | 332 | P | Pn | 19 13 38.6 | -12 |
| BSSI | Bau Bau, Buton | 16.53 | 20 | P | P | 19 14 03.1 | +5.4 |
| DBJI | Dramaga | 17.04 | 332 | P | P | 19 14 02.2 | -1.1 |
| ASAR | Alice Springs | 17.74 | 100 | P | Pn | 19 14 10.0 | -0.3 |
| | 1.4nm,0.3s,baz=278,slow=11,SNR=87 | | | | | | |
| ASAR | | | | S | Sn | 19 17 19.3 | -8.9 |
| | 10nm,0.3s,baz=272,slow=23,SNR=6.7 | | | | | | |
| AS31 | Alice Springs | 17.74 | 100 | *e*Pn | Pn | 19 14 09.7 | -0.7 |
| | 54nm,0.8s | | | | | | |
| AS31 | | | | *e*Sn | Sn | 19 17 19.3 | -8.9 |
| AS01 | Alice Springs | 17.78 | 100 | *e*Pn | Pn | 19 14 09.0 | -1.9 |
| BBSI | Bau Bau | 17.89 | 26 | P | P | 19 14 12.8 | 0.0 |
| MTN | Manton Dam | 17.97 | 63 | *e*Pn | Pn | 19 14 12.2 | -0.9 |
| | 110nm,0.9s | | | | | | |
| BNSI | Bone | 18.06 | 17 | P | Pn | 19 14 12.5 | -1.7 |
| BNSI | Bone | 18.06 | 17 | S | P | 19 14 13.5 | -1.1 |
| WR1 | Warramunga Arr | 18.38 | 88 | *e*P | P | 19 14 17.2 | -0.9 |
| | 83nm,0.9s | | | | | | |
| WR1 | | | | *e*Sn | Sn | 19 17 34.4 | -9.1 |
| WRA | Warramunga Arr | 18.38 | 88 | P | P | 19 14 17.2 | -0.9 |
| | 1.7nm,0.3s,baz=266,slow=14,SNR=123 | | | | | | |
| WRA | | | | S | Sn | 19 17 34.4 | -9.1 |
| | 9.6nm,0.3s,baz=260,slow=22,SNR=6.3 | | | | | | |
| WRA | | | | LR | LR | 19 22 30.9 | |
| | comp=Z,2μm,18.3s,baz=265,slow=40 | | | | | | |
| WB2 | Warramunga Arr | 18.39 | 88 | *e*P | P | 19 14 16.2 | -2.0 |
| WRAB | Tennant Creek | 18.39 | 88 | *ce*P | P | 19 14 16.2 | -2.1 |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,366nm,1.2s | | | | | | |
| WRAB | Tennant Creek | 18.39 | 88 | *e*P | P | 19 14 17.2 | -1.1 |
| | comp=Z,97nm,0.8s | | | | | | |
| SPSI | Sidrap Palu | 18.39 | 16 | P | Pn | 19 14 16.7 | -1.5 |
| SPSI | Sidrap Palu | 18.39 | 16 | S | P | 19 14 17.5 | -0.7 |
| | comp=Z,61nm,0.7s | | | | | | |
| WC3 | Warramunga Arr | 18.40 | 88 | *e*P | P | 19 14 16.1 | -2.4 |
| | comp=Z,76nm,0.8s | | | | | | |
| KBKI | Kotabaru | 18.45 | 4 | P | P | 19 14 15.2 | -3.7 |
| KASI | Kota Agung | 19.00 | 327 | P | P | 19 14 20.3 | -4.7 |
| KASI | | | | S | Sn | 19 17 32.3 | -26 |
| TTSI | Tana Toraja | 19.29 | 15 | P | Pn | 19 14 29.5 | +0.4 |
| TTSI | Tana Toraja | 19.29 | 15 | S | Pn | 19 14 34.1 | +5.0 |
| KLI | Kotabumi | 19.40 | 329 | P | P | 19 14 23.1 | -6.2 |
| LWLI | Liwa | 19.66 | 327 | P | P | 19 14 28.7 | -3.6 |
| MTKI | Muara Teweh, K | 20.74 | 0 | P | P | 19 14 44.6 | +0.6 |
| MNAI | Manna | 20.79 | 325 | *e*P | P | 19 14 40.9 | -3.7 |
| | comp=Z,128nm,0.9s | | | | | | |
| SAUI | Saumlaki | 21.04 | 52 | *e*P | P | 19 14 45.8 | -1.4 |
| | comp=Z,222nm,0.9s | | | | | | |
| BBOO | Buckleboo | 21.81 | 125 | *e*P | P | 19 14 59.9 | +4.4 |
| | comp=Z,158nm,0.9s | | | | | | |
| STKI | Sintang | 21.98 | 351 | P | P | 19 15 06.1 | +8.8 |
| MASI | Maura Aman, Be | 22.20 | 325 | P | P | 19 14 58.9 | -0.8 |
| AAI | Ambon | 22.23 | 38 | P | P | 19 15 12.9 | +13 |
| MPSI | Mapaga | 22.57 | 13 | P | P | 19 15 07.4 | +3.7 |
| KSM | Kuching | 23.55 | 349 | *e*P | P | 19 15 12.4 | -1.3 |
| | comp=Z,74nm,1.2s | | | | | | |
| PDSI | Padang | 25.02 | 324 | P | P | 19 15 21.7 | -5.7 |
| PDSI | | | | S | S | 19 19 46.1 | -5.6 |
| FAKI | Fak Fak | 25.32 | 45 | P | P | 19 15 29.4 | -0.7 |
| FAKI | Fak Fak | 25.32 | 45 | *e*P | P | 19 15 30.4 | +0.3 |
| | comp=Z,129nm,1.0s | | | | | | |
| SISI | Saibi | 25.45 | 321 | S | S | 19 19 50.8 | -7.7 |
| STKA | Stephens Creek | 25.88 | 118 | P | P | 19 15 36.4 | +1.3 |
| | comp=Z,12nm,0.7s,baz=284,slow=7.6,SNR=15 | | | | | | |
| STKA | | | | S | S | 19 20 08.4 | +3.2 |
| | comp=Z,7.7nm,0.6s,baz=150,slow=20,SNR=1.5 | | | | | | |
| STKA | | | | LR | LR | 19 26 45.8 | |
| | comp=Z,6μm,18.6s,baz=276,slow=39 | | | | | | |
| STKA | Stephens Creek | 25.88 | 118 | P | P | 19 15 36.4 | +1.3 |
| STKA | | | | S | S | 19 20 08.4 | +3.2 |
| STKA | | | | pmax | pmax | | |
| | comp=Z,13nm,0.7s | | | | | | |
| STKA | | | | smax | smax | | |
| | comp=N,8.0nm,0.6s | | | | | | |
| STKA | | | | MLR | MLR | | |
| | comp=Z,6μm,18.6s | | | | | | |
| STKA | Stephens Creek | 25.88 | 118 | *e*P | P | 19 15 39.3 | +4.2 |
| | comp=Z,11nm,0.9s | | | | | | |
| STKA | | | | *e*S | S | 19 20 08.4 | +3.2 |
| COEN | Coen | 28.10 | 79 | *e*P | P | 19 15 57.2 | +2.0 |
| | comp=Z,25nm,0.8s | | | | | | |
| CTA | Charters Tower | 29.42 | 92 | P | P | 19 16 08.4 | +1.4 |
| | comp=Z,30nm,0.9s,baz=272,slow=9.3,SNR=14 | | | | | | |
| CTA | | | | LR | LR | 19 28 05.3 | |
| | comp=Z,4μm,19.6s,baz=282,slow=37 | | | | | | |
| CTA | Charters Tower | 29.42 | 92 | P | P | 19 16 08.4 | +1.4 |
| CTA | | | | pmax | pmax | | |
| | comp=Z,30nm,0.9s | | | | | | |
| CTA | | | | MLR | MLR | | |
| | comp=Z,4μm,19.6s | | | | | | |
| CTAO | Charters Tower | 29.42 | 92 | *e*P | P | 19 16 10.7 | +3.7 |
| CTAO | | | | pmax | pmax | | |
| | comp=Z,35nm,0.9s | | | | | | |
| CTAO | Charters Tower | 29.42 | 92 | *e*P | P | 19 16 10.7 | +3.7 |
| | comp=Z,35nm,0.9s | | | | | | |
| PMG | Port Moresby | 33.45 | 73 | *i* P | P | 19 16 41.3 | -1.2 |
| PMG | | | | pmax | pmax | | |
| | comp=Z,22nm,1.0s | | | | | | |
| QIZ | Qiongzhong | 40.87 | 353 | P | P | 19 17 48.3 | +2.9 |
| QIZ | | | | PP | PnPn | 19 19 23.3 | -0.7 |
| QIZ | | | | S | S | 19 24 04.0 | +7.1 |
| QIZ | | | | LR | LR | | |
| | comp=Z,860nm,5.8s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=Z,830nm,29.6s | | | | | | |
| CM01 | Chiang Mai Arr | 42.88 | 338 | *e*P | P | 19 17 59.7 | -2.1 |
| CM31 | Chiang Mai Arr | 42.91 | 338 | *e*P | P | 19 18 01.8 | -0.3 |
| CMAR | Chiang Mai Arr | 42.91 | 338 | P | P | 19 17 59.3 | -2.8 |
| | comp=Z,7.9nm,0.9s,baz=174,slow=7.5,SNR=25 | | | | | | |
| CMAR | Chiang Mai Arr | 42.91 | 338 | *ce*P | P | 19 18 01.2 | -0.9 |
| CMAR | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.9s | | | | | | |
| H08S2 | Diego Garcia H | 43.09 | 283 | T | T | 20 03 09.9 | |
| | baz=114,slow=76,SNR=5272 | | | | | | |
| H08S3 | Diego Garcia H | 43.10 | 283 | T | T | 20 03 07.7 | |
| | baz=114,slow=76 | | | | | | |
| H08S1 | Diego Carcia H | 43.11 | 283 | T | T | 20 03 11.2 | |
| | baz=114,slow=76,SNR=6202 | | | | | | |
| CHTO | Chiang Mai | 43.24 | 338 | *e*P | P | 19 18 03.8 | -0.9 |
| CHTO | | | | pmax | pmax | | |
| | comp=Z,11nm,1.1s | | | | | | |
| CHTO | Chiang Mai | 43.24 | 338 | *e*P | P | 19 18 03.8 | -0.9 |
| | comp=Z,11nm,1.1s | | | | | | |
| H08N1 | Diego Carcia H | 44.96 | 283 | T | T | 20 06 28.5 | |
| | baz=100,slow=70,SNR=92 | | | | | | |
| H08N3 | Diego Garcia H | 44.98 | 283 | T | T | 20 06 31.7 | |
| | baz=100,slow=70,SNR=84 | | | | | | |
| H08N2 | Diego Garcia H | 44.98 | 283 | T | T | 20 06 18.1 | |
| | baz=100,slow=70,SNR=84 | | | | | | |
| DZM | Mont Dzumac | 47.73 | 100 | *e*S | S | 19 25 51.4 | +14 |
| | comp=Z,1μm,27.5s | | | | | | |
| DZM | | | | *e*LR | LR | 19 32 19.2 | |
| | comp=Z,3μm,22.8s | | | | | | |
| KMI | Kunming | 48.09 | 345 | P | P | 19 18 44.8 | +1.5 |
| KMI | | | | pP | sP | 19 18 49.4 | +1.7 |
| KMI | | | | sP | pP | 19 18 51.8 | +5.3 |
| KMI | | | | S | S | 19 25 46.8 | +4.6 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,16nm,1.4s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,630nm,17.8s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,1μm,17.2s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,1μm,24.1s | | | | | | |
| GYA | Guiyang | 48.62 | 350⇑ | *i*P | P | 19 18 41.2 | -6.0 |
| GYA | | | | PP | PP | 19 20 44.2 | +3.8 |
| GYA | | | | ScP | ScP | 19 24 08.9 | +1.1 |
| GYA | | | | S | S | 19 25 50.0 | +0.6 |
| GYA | Guiyang | 48.62 | 350 | SS | SS | 19 29 17.8 | -2.2 |
| GYA | | | | pmax | pmax | | |
| | comp=Z,20nm,0.8s | | | | | | |
| GYA | | | | pmax | pmax | | |
| | comp=Z,130nm,5.4s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=N,810nm,22.4s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=E,550nm,14.6s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,1μm,18.5s | | | | | | |
| ENH | Enshi | 52.03 | 354 | *e*P | P | 19 19 12.8 | -0.1 |
| | comp=Z,30nm,1.2s | | | | | | |
| WHN | Wuhan | 52.05 | 360 | P | P | 19 19 10.4 | -2.6 |
| WHN | | | | LR | LR | | |
| | comp=Z,2μm,20.7s | | | | | | |
| HYB | Hyderabad | 52.71 | 315 | *i* P | P | 19 19 18.0 | -0.2 |
| CD2 | Chengdu | 53.47 | 348 | P | P | 19 19 23.6 | 0.0 |
| CD2 | | | | pP | sP | 19 19 27.7 | -0.3 |
| CD2 | | | | S | S | 19 26 56.9 | +0.6 |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,30nm,0.8s | | | | | | |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,240nm,10.7s | | | | | | |
| NJ2 | Nanjing | 53.70 | 4 | *e*P | P | 19 19 27.5 | +2.4 |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,21nm,0.7s | | | | | | |
| MAW | Mawson | 55.88 | 201 | P | P | 19 19 40.9 | +0.4 |
| | comp=Z,10.0nm,1.1s,baz=356,slow=10.0,SNR=3.9 | | | | | | |
| MAW | | | | LR | LR | 19 39 25.9 | |
| | comp=Z,850nm,21.2s,baz=52,slow=32 | | | | | | |
| MAW | Mawson | 55.88 | 201 | *e*P | P | 19 19 40.9 | +0.4 |
| | comp=Z,8.6nm,1.5s | | | | | | |
| LSA | Lhasa | 56.04 | 335 | *e*P | P | 19 19 42.9 | +0.2 |
| LSA | | | | pmax | pmax | | |
| | comp=Z,15nm,0.8s | | | | | | |
| LSA | Lhasa | 56.04 | 335 | *e*P | P | 19 19 42.9 | +0.2 |
| | comp=Z,15nm,0.8s | | | | | | |
| LZH | Lanzhou | 58.50 | 350 | *e*P | P | 19 20 03.6 | +3.9 |
| LZH | | | | pP | sP | 19 20 07.8 | +3.7 |
| LZH | | | | sP | pP | 19 20 09.7 | +6.8 |
| LZH | | | | S | S | 19 28 07.0 | +3.7 |
| LZH | | | | sS | sS | 19 28 19.8 | +11 |
| LZH | | | | SS | SS | 19 32 01.4 | +5.0 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,28nm,1.1s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,210nm,7.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,2μm,18.1s | | | | | | |
| MSVF | Nonsavu | 59.33 | 98 | *e*P | P | 19 20 09.5 | +3.8 |
| MSVF | | | | pmax | pmax | | |
| | comp=Z,27nm,1.0s | | | | | | |
| MSVF | Nonsavu | 59.33 | 98 | *e*P | P | 19 20 09.5 | +3.8 |
| | comp=Z,27nm,1.0s | | | | | | |
| VNDA | Vanda | 60.12 | 169 | P | P | 19 20 11.1 | +0.9 |
| | comp=Z,2.5nm,0.7s,baz=316,slow=7.2,SNR=20 | | | | | | |
| VNDA | Vanda | 60.12 | 169 | *e*P | P | 19 20 12.5 | +2.3 |
| VNDA | | | | pmax | pmax | | |
| | comp=Z,20nm,1.5s | | | | | | |
| VNDA | Vanda | 60.12 | 169 | *e*P | P | 19 20 12.5 | +2.3 |
| | comp=Z,20nm,1.5s | | | | | | |
| KS15 | Wonju Array Si | 60.21 | 12 | *e*P | P | 19 20 10.7 | -0.6 |
| KSAR | Wonju Array Be | 60.21 | 12 | P | P | 19 20 11.1 | -0.1 |
| KSAR | Wonju Array Be | 60.21 | 12 | P | P | 19 20 11.1 | -0.1 |
| KSRS | Korea Array | 60.23 | 12 | P | P | 19 20 11.1 | -0.2 |
| | comp=Z,13nm,0.8s,baz=191,slow=7.6,SNR=25 | | | | | | |
| KS01 | Wonju Array Si | 60.25 | 12 | *e*P | P | 19 20 11.0 | -0.5 |
| BJI | Beijing | 61.54 | 1 | P | P | 19 20 23.9 | +3.7 |
| BJI | | | | PP | PP | 19 22 38.5 | +2.5 |
| BJI | | | | S | S | 19 28 48.3 | +6.4 |
| BJI | | | | SS | SS | 19 32 50.2 | +6.6 |
| BJI | | | | pmax | pmax | | |
| | comp=Z,10.0nm,2.0s | | | | | | |
| BJI | | | | pmax | pmax | | |
| | comp=Z,140nm,6.5s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,2μm,26.8s | | | | | | |
| MJAR | Matsushiro Arr | 62.12 | 21 | P | P | 19 20 23.1 | -1.1 |
| | comp=Z,4.1nm,0.9s,baz=188,slow=6.2,SNR=8.4 | | | | | | |
| HHC | Hu-ho-hao-te | 62.41 | 357 | *e*P | P | 19 20 29.0 | +2.8 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,18nm,1.0s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,140nm,5.7s | | | | | | |
| GTA | Gaotai | 62.49 | 347 | *e*P | P | 19 20 27.8 | +1.0 |
| GTA | | | | pP | sP | 19 20 31.7 | +0.5 |
| GTA | | | | sP | pP | 19 20 35.2 | +5.2 |
| GTA | | | | S | S | 19 28 52.5 | -1.7 |
| GTA | | | | SS | SS | 19 32 59.8 | +1.1 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.1s | | | | | | |
| GTA | | | | pmax | pmax | | |
| | comp=Z,110nm,6.2s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,490nm,21.1s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,700nm,26.1s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,810nm,20.0s | | | | | | |
| SYO | Syowa Base | 64.52 | 203⇑ | *e*P | P | 19 20 36.8 | -2.9 |
| MDJ | Mudanjiang | 67.48 | 11 | *e*P | P | 19 20 58.9 | -0.1 |
| | comp=Z,13nm,0.8s | | | | | | |
| USRK | Ussuriysk Ar. | 67.55 | 13 | P | P | 19 20 58.5 | -1.0 |
| | comp=Z,6.1nm,0.8s,baz=203,slow=4.3,SNR=7.6 | | | | | | |
| QSPA | South Pole Qui | 68.26 | 180 | *e*P | P | 19 21 05.3 | +1.4 |
| | comp=Z,21nm,0.9s | | | | | | |
| ULN | Ulaanbaatar | 69.70 | 354 | *ce*P | P | 19 21 12.3 | -0.7 |
| ULN | | | | pmax | pmax | | |
| | comp=Z,14nm,2.5s | | | | | | |
| ULN | Ulaanbaatar | 69.70 | 354 | *e*P | P | 19 21 10.6 | -2.4 |
| | comp=Z,5.4nm,1.1s | | | | | | |
| SONA0 | Songino Array | 69.73 | 354 | *e*P | P | 19 21 11.6 | -1.5 |
| SONM | Songino Array | 69.73 | 354 | P | P | 19 21 11.6 | -1.5 |
| | comp=Z,1.8nm,0.6s,baz=176,slow=7.0,SNR=6.0 | | | | | | |
| SONA1 | Songino Array | 69.74 | 354 | *e*P | P | 19 21 10.9 | -2.3 |
| WMQ | Urumqi | 69.88 | 339 | P | P | 19 21 15.0 | +0.9 |
| WMQ | | | | pP | sP | 19 21 19.5 | +1.0 |
| WMQ | | | | sP | pP | 19 21 22.7 | +5.4 |
| WMQ | | | | S | S | 19 30 22.5 | -1.3 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,15nm,1.3s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,260nm,4.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,2μm,28.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,2μm,28.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,800nm,30.3s | | | | | | |
| WSAR | Wadi Sarin | 70.66 | 306 | LR | LR | 19 47 19.6 | |
| | comp=Z,813nm,21.8s,slow=32 | | | | | | |
| KSH | Kashi | 70.97 | 329 | P | P | 19 21 21.4 | +0.5 |
| KSH | | | | pP | sP | 19 21 25.6 | +0.2 |
| KSH | | | | PcP | PcP | 19 21 42.3 | +1.0 |
| KSH | | | | PP | PP | 19 23 59.8 | +1.2 |
| KSH | | | | S | S | 19 30 33.0 | -3.9 |
| KSH | | | | ScS | SKSac | 19 31 19.7 | -3.9 |
| KSH | | | | SS | SS | 19 35 08.3 | -2.1 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.0s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,390nm,8.5s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,400nm,7.6s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,530nm,13.8s | | | | | | |
| YSS | Yuzh-Sakhalins | 72.96 | 20 | *e*P | P | 19 21 37.4 | +4.9 |
| YSS | | | | pmax | pmax | | |
| | comp=Z,30nm,1.2s | | | | | | |
| AAK | Ala-Archa | 74.11 | 330 | LR | LR | 19 56 36.7 | |
| | comp=Z,284nm,21.9s,baz=132,slow=38 | | | | | | |
| AAK | Ala-Archa | 74.11 | 330 | *ce*P | P | 19 21 39.1 | -0.5 |
| AAK | | | | pmax | pmax | | |
| | comp=Z,13nm,1.0s | | | | | | |
| AAK | Ala-Archa | 74.11 | 330 | *e*P | P | 19 21 39.5 | -0.1 |
| | comp=Z,12nm,0.9s | | | | | | |
| MK01 | Makanchi Array | 74.30 | 337 | *e*P | P | 19 21 39.1 | -1.4 |
| MK31 | Makanchi Array | 74.33 | 337 | *e*P | P | 19 21 38.4 | -2.2 |
| MK31 | Makanchi Array | 74.33 | 337 | *e*P | P | 19 21 38.4 | -2.2 |
| MK32 | Makanchi Array | 74.33 | 337 | *e*P | P | 19 21 39.7 | -0.9 |
| MKAR | Makanchi Array | 74.33 | 337 | P | P | 19 21 39.7 | -0.9 |
| | comp=Z,3.4nm,0.8s,baz=144,slow=7.7,SNR=3.6 | | | | | | |
| MKAR | Makanchi Array | 74.33 | 337 | *ce*P | P | 19 21 42.7 | +2.1 |
| MKAR | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.7s | | | | | | |
| SNAA | Sanae | 77.64 | 197 | P | P | 19 21 59.8 | +0.5 |
| | comp=Z,3.4nm,0.8s,baz=164,slow=5.5,SNR=20 | | | | | | |
| SNAA | Sanae | 77.64 | 197 | *i* P | P | 19 21 58.2 | -1.1 |
| SNAA | Sanae | 77.64 | 197 | *e*P | P | 19 22 00.1 | +0.7 |
| | comp=Z,24nm,1.5s | | | | | | |
| ATD | Arta Tunnel | 77.93 | 288 | LR | LR | 19 48 15.3 | |
| | comp=Z,168nm,20.6s,slow=30 | | | | | | |
| KMBO | Kilima Mbogo | 78.00 | 274 | P | P | 19 22 00.2 | -2.4 |
| | comp=Z,3.3nm,1.0s,baz=83,slow=5.2,SNR=5.0 | | | | | | |
| KMBO | Kilima Mbogo | 78.00 | 274 | *ce*P | P | 19 22 01.5 | -1.1 |
| KMBO | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.0s | | | | | | |
| KMBO | Kilima Mbogo | 78.00 | 274 | *e*P | P | 19 22 00.2 | -2.4 |
| | comp=Z,5.5nm,0.9s | | | | | | |
| KURK | Kurchatov | 78.94 | 338 | *ce*P | P | 19 22 06.1 | -0.4 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,77nm,1.0s | | | | | | |
| KURK | Kurchatov | 78.94 | 338 | *e*P | P | 19 22 06.4 | -0.1 |
| | comp=Z,19nm,0.8s | | | | | | |
| BOD | Bodaibo | 79.32 | 360 | *e*P | P | 19 22 08.3 | -0.2 |
| BOD | | | | pmax | pmax | | |
| | comp=Z,20nm,1.6s | | | | | | |
| BOSA | Boshof | 79.47 | 243 | P | P | 19 22 09.3 | -1.0 |
| | comp=Z,3.2nm,0.9s,baz=119,slow=12,SNR=3.4 | | | | | | |
| ZAA0 | Zalesovo Array | 79.75 | 343 | *e*P | P | 19 22 08.7 | -2.2 |
| | comp=Z,27nm,1.9s | | | | | | |
| ZALV | Zalesovo Beam | 79.75 | 343 | P | P | 19 22 09.3 | -1.6 |
| | comp=Z,3.3nm,0.8s,baz=176,slow=3.3,SNR=5.3 | | | | | | |
| ZALV | Zalesovo Beam | 79.75 | 343 | *e*P | P | 19 22 10.1 | -0.8 |
| ZALV | Zalesovo Beam | 79.75 | 343 | *e*P | P | 19 22 10.1 | -0.8 |
| ZAA1 | Zalesovo Array | 79.75 | 343 | *e*P | P | 19 22 09.3 | -1.6 |
| GEYT | Alibeck | 79.76 | 318 | P | P | 19 22 09.5 | -2.0 |
| | comp=Z,5.0nm,0.8s,baz=130,slow=4.5,SNR=6.5 | | | | | | |
| LSZ | Lusaka | 81.37 | 257 | *e*P | P | 19 22 21.3 | +0.5 |
| LSZ | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.0s | | | | | | |
| LSZ | Lusaka | 81.37 | 257 | *e*P | P | 19 22 21.2 | +0.5 |
| | comp=Z,7.7nm,1.0s | | | | | | |
| PETK | Petropavlovsk- | 83.36 | 24 | P | P | 19 22 29.4 | -0.6 |
| | comp=Z,5.5nm,0.9s,baz=238,slow=10.0,SNR=3.9 | | | | | | |
| PEA1 | Petropavlovsk- | 83.37 | 24 | *e*P | P | 19 22 29.4 | -0.7 |
| BRVK | Borovoye | 83.94 | 335 | *ce*P | P | 19 22 32.5 | -0.5 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,25nm,1.7s | | | | | | |
| YAK | Yakutsk | 84.40 | 7 | *e*P | P | 19 22 34.2 | -0.9 |
| YAK | | | | pmax | pmax | | |
| | comp=Z,19nm,0.8s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,3.0nm,0.9s | | | | | | |
| YAK | Yakutsk | 84.40 | 7 | *e*P | P | 19 22 36.2 | +1.1 |
| | comp=N,23nm,0.8s | | | | | | |
| LKRN | Lenkeran, Azer | 86.23 | 314 | P | P | 19 22 44.7 | -0.2 |
| TBI | Tubuai | 86.57 | 114 | *e*LR | LR | 19 50 08.8 | |
| | comp=N,463nm,28.8s | | | | | | |
| MNGR | Mingechevir, A | 88.42 | 315 | P | P | 19 22 55.3 | -0.1 |
| SEKA | Sheki | 88.57 | 316 | P | P | 19 22 55.7 | -0.5 |
| PPT2 | Papeete2 | 88.64 | 108 | *e*LR | LR | 19 51 08.7 | |
| | comp=N,576nm,23.5s | | | | | | |
| NAX | Nakhchivan | 88.67 | 313 | P | P | 19 22 56.4 | -0.4 |
| GANJ | Ganja | 88.85 | 315 | P | P | 19 22 57.3 | -0.2 |
| ZKTA | Zakatala | 89.16 | 316 | P | P | 19 22 58.7 | -0.2 |
| SVE | Sverdlovsk | 90.53 | 334 | *e*P | P | 19 23 06.2 | +1.3 |
| SVE | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.9s | | | | | | |
| ARU | Arti | 91.15 | 332 | *d i*P | P | 19 23 06.7 | -1.1 |
| ARU | | | | | | 19 26 43.0 | |
| ARU | | | | S | SKSac | 19 33 38.3 | -1.4 |
| ARU | | | | SS | SS | 19 40 04.3 | -6.3 |
| ARU | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.8s | | | | | | |
| ONI | Oni | 91.68 | 316 | P | P | 19 23 04.9 | -5.8 |
| ASF | Jabal al Asfar | 91.73 | 304 | LR | LR | 20 05 40.5 | |
| | comp=Z,367nm,18.1s,baz=81,slow=36 | | | | | | |
| KBZ | Khabaz | 92.57 | 316 | P | P | 19 23 14.1 | -0.6 |
| | comp=Z,1.9nm,0.4s,baz=94,slow=3.3,SNR=8.7 | | | | | | |
| KIV | Kislovodsk | 92.81 | 317 | *e*P | P | 19 23 13.8 | -2.1 |
| KIV | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.9s | | | | | | |
| MMAI | Mount Meron Ar | 93.23 | 304 | LR | LR | 20 02 52.0 | |
| | comp=Z,725nm,20.3s,baz=135,slow=34 | | | | | | |
| TIXI | Tiksi | 93.72 | 4 | *i* P | P | 19 23 17.7 | -1.6 |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.8s | | | | | | |
| BR101 | Keskin Array S | 97.17 | 310 | *e*P | P | 19 23 35.7 | -0.3 |
| BRTR | Keskin Array B | 97.17 | 310 | P | P | 19 23 35.7 | -0.3 |
| | comp=Z,0.9nm,0.9s,baz=126,slow=2.0,SNR=2.3 | | | | | | |
| RKT | Rikitea | 98.74 | 119 | *e*LR | LR | 19 55 57.3 | |
| | comp=Z,728nm,29.5s | | | | | | |
| YKA | Yellowknife Ar | 127.45 | 26 | PKP | PKPdf | 19 29 07.6 | 0.0 |
| | comp=Z,1.8nm,0.8s,baz=307,slow=2.1,SNR=9.5 | | | | | | |
| YKB5 | Yellowknife Ar | 127.45 | 26 | *e*PKPdf | PKPdf | 19 29 07.7 | 0.0 |
| CRPB | Russellman Par | 129.03 | 58 | *e*PKPdf | PKPdf | 19 29 10.6 | -0.8 |
| GMRC | Granite Mounta | 134.18 | 62 | *e*PKPdf | PKPdf | 19 29 22.1 | +0.7 |
| EMSC | East Mesa | 134.81 | 65 | *e*PKPdf | PKPdf | 19 29 24.8 | +2.3 |
| PD31 | Pinedale Array | 137.68 | 50 | *e*PKPdf | PKPdf | 19 29 30.6 | +2.8 |
| PDAR | Pinedale Array | 137.68 | 50 | PKP | PKPdf | 19 29 30.6 | +2.8 |
| | comp=Z,0.5nm,0.7s,baz=48,slow=2.2,SNR=3.7 | | | | | | |
| ULM | Lac du Bonnet | 142.79 | 33 | PKP | PKPdf | 19 29 36.1 | -0.5 |
| | comp=Z,1.8nm,0.8s,baz=297,slow=4.5,SNR=2.5 | | | | | | |
| MNTX | Cornudas Mount | 142.99 | 66 | *e*PKPdf | PKPdf | 19 29 39.7 | +2.2 |
| TX31 | Lajitas Ar. Si | 144.64 | 70 | *e*PKPdf | PKPdf | 19 29 40.8 | +0.2 |
| LTX | Lajitas | 144.64 | 70 | *e*PKIKP | PKPdf | 19 29 40.4 | -0.2 |
| LTX | Lajitas | 144.64 | 70 | *e*PKPdf | PKPdf | 19 29 40.4 | -0.2 |
| TXAR | Lajitas Array | 144.64 | 70 | PKP | PKPdf | 19 29 40.4 | -0.2 |
| | comp=Z,8.7nm,1.1s,baz=259,slow=2.6,SNR=16 | | | | | | |
| MSTX | Muleshoe | 144.86 | 62 | *e*PKPbc | PKPdf | 19 29 41.8 | +0.9 |
| ECSD | EROS Data Cent | 146.04 | 43 | *e*PKPdf | PKPab | 19 29 44.4 | +0.5 |
| SCHQ | Schefferville | 147.00 | 2 | PKPbc | PKPbc | 19 29 46.4 | +0.7 |
| | comp=Z,19nm,1.0s,baz=0.0,slow=1.0,SNR=4.9 | | | | | | |
| SCHQ | Schefferville | 147.00 | 2 | *e*PKPdf | PKPab | 19 29 49.2 | +2.0 |
| SAML | Samuel | 149.37 | 184 | *e*PKPbc | PKPbc | 19 29 54.0 | +0.8 |

**TIF 05 19:22:32.5, 43°.22N×45°.84E, h12$^{km}\pm1^{km}$, Eastern Caucasus**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GUDG | Gudauri | 1.26 | 233 | P | Pn | 19 22 56.2 | 0.0 |
| GUDG | | | | S | Sn | 19 23 14.6 | +1.5 |
| DUS | Dusheti | 1.41 | 217 | P | Pb | 19 22 58.6 | -0.2 |
| DUS | | | | S | Sg | 19 23 20.7 | +2.8 |
| SEAG | Tbilisi Sea | 1.65 | 208 | P | Pg | 19 23 03.7 | -0.5 |
| TBLG | Delisi | 1.70 | 209 | P | Pb | 19 23 03.8 | +0.1 |
| TBLG | | | | S | Sg | 19 23 27.6 | +0.4 |
| DDFL | Dedoflistskaro | 1.79 | 173 | P | Pg | 19 23 07.8 | +1.0 |
| DGRG | David-gareji | 1.81 | 191 | P | Pg | 19 23 06.4 | -0.7 |
| ONI | Oni | 1.87 | 251 | P | Pb | 19 23 05.8 | -0.8 |
| ONI | | | | S | Sg | 19 23 31.7 | -0.9 |
| AKH | Akhalkalaki | 2.52 | 225 | P | Pb | 19 23 16.4 | -1.3 |
| AKH | | | | S | Sb | 19 23 50.3 | +1.6 |

*BJI **05** 19:28:30.3, 5°.01S×133°.89E, h7$^{km}$, mb5.4/82, mB5.4/64, Ms5.5/85, Ms7 5.3/80*

*IDC **05** 19:28:33.8±0.3, 4°.78S×133°.68E, h0$^{km}$, mb5.2/38, mb1 5.2/41, mb1mx5.2/45, mbtmp5.2/41, ML5.2/2, MS5.4/21, Ms1 5.4/21, ms1mx5.1/33, Error ellipse: s-maj=13.4km s-min=7.8km az=63.0*

*ISCJB **05** 19:28:34.0±0.7, 4°.79S±0°.02×133°.63E±0°.02, h13$^{km}\pm4^{km}$, mb5.5/210, MS5.5/132, Error ellipse: s-maj=4.3km s-min=3.4km az=41.1*

*DJA **05** 19:28:35.7±1.7, 5°S±3°×13°4E±°, h14$^{km}\pm14^{km}$, M6.0/16, mb6.1/16, mB6.2/16, MLv6.0/6, Mw(mB)6.0/16*

*GCMT **05** 19:28:36.9±0.1, 4°.78S×133°.64E, h12$^{km}$, MW5.7/134, Moment Tensor Solution. s108,c195; s134,c357; Duration: 1$^s$7 Moment tensor: Scale $10^{17}$Nm; $M_{rr}$0.43±.04; $M_{\theta\theta}$-3.31±.04; $M_{\phi\phi}$2.88±.04; $M_{r\theta}$0.46±.10; $M_{\theta\phi}$2.47±.03; $M_{\phi r}$0.96±.11; Best double couple: $M_0$4.11600×$10^{17}$ NP1:$\phi_s$65.00000°, δ80.00000°, λ13.00000°. NP2:$\phi_s$333.00000°, δ77.00000°, λ169.00000°. Principal axes: T 4.0550, Plg16.0000°, Azm290.0000°; N 0.1270, Plg74.0000°, Azm104.0000°; P -4.1780, Plg2.0000°, Azm199.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

*NEIC **05** 19:28:36.9±2.1, 4°.76S×133°.64E, h19$^{km}\pm13^{km}$, mb5.7/103, MS5.6/75 Error ellipse: s-maj=5.0km s-min=3.4km az=60.0*

*MOS **05** 19:28:37.3±1.1, 4°.74S×133°.58E, h33km, mb5.7/61, MS5.3/23, Error ellipse: s-maj=9.1km s-min=4.9km az=112.1*

**ISC 05 19:28:36.9**±0.4, **4°.76S**±0°.03×**133°.68E**±0°.04, **h20**km±3km, **h21**km**:pP-P, n634**, σ1.69/660, **mb5.6**/218, **MS5.5**/134, **33C-12D, Irian Jaya region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KMPI | Kaimana, Papua | 1.10 | 1 | P | Pn | 19 28 55.9 | -1.2 |
| FAKI | Fak Fak | 2.32 | 322 | P | Pn | 19 29 13.8 | -0.3 |
| FAKI | Fak Fak | 2.32 | 322 | ePn | Pn | 19 29 13.6 | -0.5 |
| RKPI | Ransiki, Papua | 3.27 | 9 | P | Pn | 19 29 26.6 | -0.5 |
| BNDI | Bandanaira | 3.77 | 273 | P | Pn | 19 29 35.2 | +1.2 |
| SAUI | Saumlaki | 3.98 | 216 | P | Pn | 19 29 38.1 | +1.3 |
| SAUI | Saumlaki | 3.98 | 216 | ePn | Pn | 19 29 37.8 | +1.0 |
| MSAI | Masohi | 4.95 | 286 | P | Pn | 19 29 50.8 | +0.7 |
| AAI | Ambon | 5.58 | 281 | P | Pn | 19 29 59.5 | +0.7 |
| | 7µm,0.8s,56µm22nm | | | | | | |
| GENI | Genyem | 6.82 | 72 | P | Pn | 19 30 15.3 | -0.7 |
| JAY | Jayapura | 7.36 | 73 | P | Pn | 19 30 21.7 | -1.6 |
| LBMI | Labuha | 7.41 | 303 | P | Pn | 19 30 24.1 | +0.1 |
| MMPI | Merauke | 7.61 | 119 | P | Pn | 19 30 24.8 | -1.9 |
| SANI | Sanana | 8.14 | 289 | P | Pn | 19 30 32.1 | -1.9 |
| MTN | Manton Dam | 8.41 | 197 | ePn | Pn | 19 30 36.3 | -1.5 |
| SOEI | Soe | 10.57 | 242 | P | Pn | 19 31 07.0 | -0.5 |
| SOEI | Soe | 10.57 | 242 | ePn | Pn | 19 31 07.2 | -0.3 |
| KMSI | Cibinong | 11.05 | 298 | P | Pn | 19 31 12.6 | -1.3 |
| BBSI | Bau Bau | 11.09 | 266 | P | Pn | 19 31 18.1 | +3.6 |
| LUWI | Luwuk | 11.50 | 288 | P | Pn | 19 31 19.3 | -0.9 |
| LUWI | Luwuk | 11.50 | 288 | ePn | Pn | 19 31 19.2 | -0.9 |
| SGSI | Sangihe | 11.70 | 316 | P | Pn | 19 31 23.1 | +0.3 |
| MMRI | Maumere | 12.00 | 251 | P | Pn | 19 31 27.6 | +0.7 |
| MMRI | Maumere | 12.00 | 251 | ePn | Pn | 19 31 27.9 | +1.0 |
| EDFI | Ende, Flores | 12.55 | 251 | P | Pn | 19 31 36.0 | +1.4 |
| APSI | Ampana | 12.61 | 287 | P | Pn | 19 31 35.2 | -0.1 |
| MRSI | Marisa | 12.83 | 294 | P | Pn | 19 31 36.8 | -1.6 |
| COEN | Coen | 13.08 | 135 | ePn | Pn | 19 31 37.9 | -3.8 |
| KAPI | Kappang | 13.88 | 268 | P | Pn | 19 31 53.3 | +0.6 |
| | SNR=27 | | | | | | |
| KAPI | Kappang | 13.88 | 268 | pPn | Pn | 19 31 53.3 | +0.6 |
| | SNR=27 | | | | | | |
| SPSI | Sidrap Palu | 13.89 | 273 | P | Pn | 19 31 53.6 | +0.7 |
| PMG | Port Moresby | 14.14 | 110 | Pn | Pn | 19 31 53.4 | -2.9 |
| | 5.7nm,0.3s,baz=290,slow=13,SNR=45 | | | | | | |
| PMG | | | | Sn | Sn | 19 34 18.7 | -14 |
| | 4.6nm,0.3s,baz=208,slow=17,SNR=3.5 | | | | | | |
| PMG | Port Moresby | 14.14 | 110 | d iP | Pn | 19 31 52.7 | -3.6 |
| PMG | Port Moresby | 14.14 | 110 | ePn | Pn | 19 31 53.0 | -3.3 |
| PMG | | | | Sn | Sn | 19 34 18.7 | -14 |
| DAV | Davao City (W) | 14.27 | 325 | ⇑eP | Pn | 19 31 55.3 | -2.7 |
| DAV | Davao City (W) | 14.27 | 325 | P | Pn | 19 31 58.9 | +0.9 |
| | SNR=6.1 | | | | | | |
| DAV | Davao City (W) | 14.27 | 325 | Pn | Pn | 19 31 58.9 | +0.9 |
| | SNR=6.1 | | | | | | |
| WRAB | Tennant Creek | 15.09 | 178 | ceP | Pn | 19 32 03.9 | -5.3 |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,808nm,1.2s | | | | | | |
| WRAB | Tennant Creek | 15.09 | 178 | ePn | Pn | 19 32 03.5 | -5.7 |
| | comp=Z,626nm,1.3s | | | | | | |
| WB2 | Warramunga Arr | 15.10 | 178 | ePn | Pn | 19 32 01.8 | -7.5 |
| WB2 | | | | eSn | Sn | 19 34 42.3 | -14 |
| WR1 | Warramunga Arr | 15.10 | 178 | ePn | Pn | 19 32 04.1 | -5.1 |
| | comp=Z,508nm,1.2s | | | | | | |
| WR1 | | | | eSn | Sn | 19 34 37.4 | -19 |
| WRA | Warramunga Arr | 15.10 | 178 | Pn | Pn | 19 32 04.1 | -5.2 |
| | comp=Z,17nm,0.3s,baz=356,slow=12,SNR=320 | | | | | | |
| WRA | | | | Sn | Sn | 19 34 37.4 | -19 |
| | comp=Z,11nm,0.3s,baz=4.4,slow=23,SNR=7.1 | | | | | | |
| WRA | | | | LR | LR | 19 38 27.1 | |
| | comp=Z,22µm,21.8s,baz=355,slow=39 | | | | | | |
| CTBH | Cotabato--PC H | 15.18 | 322 | ⇑eP | Pn | 19 32 08.3 | -2.0 |
| FITZ | Fitzroy Crossi | 15.41 | 210 | Pn | Pn | 19 32 08.8 | -4.6 |
| | comp=Z,3.3nm,0.3s,baz=29,slow=12,SNR=251 | | | | | | |
| FITZ | | | | Sn | Sn | 19 34 48.4 | -15 |
| | comp=Z,66nm,0.3s,baz=170,slow=20,SNR=13 | | | | | | |
| MYLDM | Lahad Datu | 18.10 | 303 | ⇑P | P | 19 32 50.8 | +3.2 |
| MYLDM | Lahad Datu | 18.10 | 303 | ePn | P | 19 32 48.1 | +0.5 |
| | comp=Z,3µm,1.5s | | | | | | |
| TSM | Tawau | 18.18 | 299 | ⇑P | P | 19 32 48.5 | 0.0 |
| RABL | Rabaul | 18.43 | 89 | eP | P | 19 32 49.3 | -2.0 |
| | comp=Z,283nm,0.9s | | | | | | |
| AS01 | Alice Springs | 18.79 | 179 | eP | P | 19 32 52.1 | -3.1 |
| AS31 | Alice Springs | 18.79 | 179 | eP | P | 19 32 52.0 | -3.2 |
| | comp=Z,103nm,0.7s | | | | | | |
| ASAR | Alice Springs | 18.79 | 179 | P | P | 19 32 52.9 | -2.4 |
| | comp=Z,9.8nm,0.3s,baz=13,slow=12,SNR=231 | | | | | | |
| ASAR | | | | S | Sn | 19 36 11.3 | -14 |
| | comp=Z,6.5nm,0.3s,baz=4.2,slow=29,SNR=7.2 | | | | | | |
| ASAR | | | | LR | LR | 19 40 41.8 | |
| | comp=Z,27µm,20.6s,baz=360,slow=39 | | | | | | |
| SDKM | Sandakan | 19.44 | 302 | ⇑P | Pn | 19 33 04.0 | +0.3 |
| CTA | Charters Tower | 19.54 | 142 | P | Pn | 19 33 04.5 | -0.4 |
| | comp=Z,3.8nm,0.3s,baz=317,slow=12,SNR=43 | | | | | | |
| CTA | | | | S | S | 19 36 43.6 | +0.1 |
| | comp=Z,0.8nm,0.3s,baz=218,slow=19,SNR=3.3 | | | | | | |
| CTAO | Charters Tower | 19.54 | 142 | eP | Pn | 19 33 04.4 | -0.4 |
| CTAO | | | | pmax | pmax | | |
| | comp=Z,480nm,1.3s | | | | | | |
| CTAO | Charters Tower | 19.54 | 142 | eP | Pn | 19 33 04.4 | -0.4 |
| | comp=Z,481nm,1.4s | | | | | | |
| JAGI | Jajag, Banyuwa | 19.74 | 258 | eP | P | 19 33 02.3 | -3.4 |
| | comp=Z,470nm,1.4s | | | | | | |
| KDM | Kudat | 20.43 | 304 | ⇑P | Pn | 19 33 15.0 | -0.3 |
| KKM | Kota Kinabalu | 20.48 | 301 | eP | P | 19 33 14.5 | +0.7 |
| | comp=Z,747nm,1.2s | | | | | | |
| MBWA | Marble Bar | 21.19 | 218 | eP | P | 19 33 21.5 | +0.2 |
| | comp=Z,333nm,0.9s | | | | | | |
| MBWA | Marble Bar | 21.19 | 218 | P | P | 19 33 21.7 | +0.4 |
| | SNR=15 | | | | | | |
| MBWA | Marble Bar | 21.19 | 218 | P | P | 19 33 21.7 | +0.4 |
| | SNR=15 | | | | | | |
| GUMO | Guam | 21.35 | 31 | P | P | 19 33 22.8 | -0.3 |
| | comp=Z,946nm,1.0s,baz=199,slow=8.4,SNR=14 | | | | | | |
| GUMO | Guam | 21.35 | 31 | eP | P | 19 33 24.7 | +1.6 |
| GUMO | | | | pmax | pmax | | |
| | comp=Z,2µm,1.2s | | | | | | |
| GUMO | Guam | 21.35 | 31 | eP | P | 19 33 22.8 | -0.3 |
| GUMO | | | | LR | LR | | |
| | comp=Z,8µm,22.0s | | | | | | |
| BTM | Bintulu | 22.05 | 291 | ⇑P | P | 19 33 33.0 | +2.4 |
| TGY | Tagaytay City | 22.61 | 326 | P | P | 19 33 35.8 | -0.9 |
| | comp=Z,347nm,0.9s,baz=274,slow=5.4,SNR=13 | | | | | | |
| UGM | Wanagama | 23.23 | 261 | eP | P | 19 33 42.3 | -0.8 |
| | comp=Z,564nm,1.5s | | | | | | |
| SMRI | Semarang | 23.23 | 263 | eP | P | 19 33 42.1 | -0.9 |
| | comp=Z,241nm,1.0s | | | | | | |
| KSM | Kuching | 24.16 | 284 | ⇓P | P | 19 33 53.5 | +1.4 |
| KSM | Kuching | 24.16 | 284 | eP | P | 19 33 52.5 | +0.5 |
| | comp=Z,486nm,1.1s | | | | | | |
| CISI | Cisompet, Garu | 25.86 | 263 | eP | P | 19 34 05.0 | -2.6 |
| | comp=Z,608nm,1.2s | | | | | | |
| FORT | Forrest | 26.41 | 191 | eP | P | 19 34 12.3 | 0.0 |
| | comp=Z,4µm,0.8s | | | | | | |
| EIDS | Eidsvold | 26.43 | 143 | eP | P | 19 34 12.2 | -0.3 |
| | comp=Z,142nm,1.3s | | | | | | |
| HNR | Honiara | 26.46 | 102 | P | P | 19 34 11.5 | -1.5 |
| | comp=Z,103nm,0.8s,baz=200,slow=1.2,SNR=6.5 | | | | | | |
| HNR | Honiara | 26.46 | 102 | eP | P | 19 34 12.5 | -0.5 |
| HNR | | | | pmax | pmax | | |
| | comp=Z,690nm,1.1s | | | | | | |
| HNR | Honiara | 26.46 | 102 | eP | P | 19 34 11.5 | -1.5 |
| HNR | | | | LR | LR | | |
| | comp=Z,12µm,21.0s | | | | | | |
| STKA | Stephens Creek | 27.98 | 166 | P | P | 19 34 26.2 | -0.2 |
| | comp=Z,38nm,0.9s,baz=336,slow=8.8,SNR=30 | | | | | | |
| STKA | | | | LR | LR | 19 46 42.4 | |
| | comp=Z,10µm,18.4s,baz=339,slow=39 | | | | | | |
| STKA | Stephens Creek | 27.98 | 166 | eP | P | 19 34 25.7 | -0.7 |
| STKA | | | | pmax | pmax | | |
| | comp=Z,20nm,1.0s | | | | | | |
| STKA | Stephens Creek | 27.98 | 166 | eP | P | 19 34 25.7 | -0.7 |
| | comp=Z,20nm,1.0s | | | | | | |
| BBOO | Buckleboo | 27.99 | 176 | eP | P | 19 34 25.8 | -0.7 |
| | comp=Z,419nm,1.6s | | | | | | |
| MYKOM | Kota Tinggi | 30.51 | 282 | ⇓P | P | 19 34 50.5 | +1.5 |
| MYKOM | Kota Tinggi | 30.51 | 282 | eP | P | 19 34 49.8 | +0.7 |
| | comp=Z,121nm,1.1s | | | | | | |
| ARMA | Armidale | 30.62 | 148 | eP | P | 19 34 49.9 | -0.1 |
| | comp=Z,67nm,0.9s | | | | | | |
| KGM | Kluang | 31.07 | 282 | ⇓P | P | 19 34 55.2 | +1.1 |
| JOW | Kunigami | 31.84 | 351 | eP | P | 19 35 00.9 | +0.3 |
| | comp=Z,64nm,1.0s | | | | | | |
| NWAO | Narrogin (SRO) | 31.95 | 207 | P | P | 19 35 01.0 | -0.6 |
| | comp=Z,134nm,1.1s,baz=264,slow=9.5,SNR=13 | | | | | | |
| NWAO | Narrogin (SRO) | 31.95 | 207 | eP | P | 19 35 02.2 | +0.7 |
| | comp=Z,185nm,1.1s | | | | | | |
| NWAO | Narrogin (SRO) | 31.95 | 207 | P | P | 19 35 01.9 | +0.3 |
| | SNR=5.9 | | | | | | |
| NWAO | | | | P | P | 19 35 01.9 | +0.3 |
| | SNR=5.9 | | | | | | |
| NWAO | Narrogin (SRO) | 31.95 | 207 | P | P | 19 35 01.9 | +0.3 |
| | SNR=5.9 | | | | | | |
| QZH | Quanzhou | 32.97 | 334 | P | P | 19 35 09.0 | -1.6 |
| QZH | | | | S | S | 19 40 24.6 | -3.3 |
| QZH | | | | LR | LR | | |
| | comp=Z,6µm,18.9s | | | | | | |
| QZH | | | | LR | LR | | |
| | comp=Z,4µm,14.6s | | | | | | |
| QZH | | | | LR | LR | | |
| | comp=Z,10µm,22.8s | | | | | | |
| BKNI | Bangkinang | 33.00 | 278 | eP | P | 19 35 11.2 | +0.2 |
| | comp=Z,285nm,1.0s | | | | | | |
| QIZ | Qiongzhong | 33.32 | 316 | P | P | 19 35 14.9 | +1.2 |
| QIZ | | | | sP | pP | 19 35 19.3 | -0.6 |
| QIZ | | | | S | S | 19 40 37.5 | +4.0 |
| QIZ | | | | ScS | ScS | 19 45 39.9 | -0.2 |
| QIZ | | | | pmax | pmax | | |
| | comp=Z,49nm,1.6s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=Z,1µm,16.3s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=Z,2µm,18.5s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=Z,3µm,17.0s | | | | | | |
| CAN | Canberra | 33.54 | 157 | eP | P | 19 35 15.3 | -0.2 |
| CAN | | | | pmax | pmax | | |
| | comp=Z,57nm,1.2s | | | | | | |
| CAN | Canberra | 33.54 | 157 | eP | P | 19 35 15.3 | -0.2 |
| | comp=Z,57nm,1.2s | | | | | | |
| CAN | | | | LR | LR | | |
| | comp=Z,16µm,19.0s | | | | | | |
| IPM | Ipoh | 33.89 | 285 | eP | P | 19 35 18.5 | -0.3 |
| | comp=Z,185nm,1.1s | | | | | | |
| GZH | Guangzhou | 34.07 | 325 | P | P | 19 35 21.7 | +1.5 |
| GZH | | | | S | S | 19 40 51.1 | +6.1 |
| UBPT | Khong Chiam | 34.31 | 306 | P | P | 19 35 22.9 | +0.5 |
| | comp=Z,142nm,1.2s | | | | | | |
| KULM | Kulim | 34.47 | 286 | eP | P | 19 35 23.4 | -0.4 |
| | comp=Z,72nm,1.1s | | | | | | |
| PSI | Prapat | 35.53 | 282 | eP | P | 19 35 31.9 | -1.2 |
| PSI | | | | pmax | pmax | | |
| | comp=Z,180nm,1.1s | | | | | | |
| PSI | Prapat | 35.53 | 282 | eP | P | 19 35 31.9 | -1.2 |
| | comp=Z,177nm,1.1s | | | | | | |
| DZM | Mont Dzumac | 36.08 | 122 | P | P | 19 35 37.1 | -0.5 |
| | comp=Z,24nm,0.9s,baz=290,slow=7.6,SNR=16 | | | | | | |
| DZM | Mont Dzumac | 36.08 | 122 | eP | P | 19 35 37.0 | -0.7 |
| | comp=Z,149nm,1.1s | | | | | | |
| DZM | | | | eS | S | 19 41 16.6 | +0.3 |
| | comp=Z,3µm,27.3s | | | | | | |
| DZM | | | | eLR | LR | 19 45 26.8 | |
| | comp=Z,17µm,24.1s | | | | | | |
| DZM | Mont Dzumac | 36.08 | 122 | eP | P | 19 35 36.9 | -0.8 |
| | comp=Z,76nm,1.1s | | | | | | |
| TRTT | Trang | 36.15 | 290 | P | P | 19 35 38.3 | +0.1 |
| | comp=Z,162nm,1.2s,comp=Z,2µm | | | | | | |
| SKNT | Sakolnakorn | 36.44 | 307 | P | P | 19 35 40.6 | -0.1 |
| | comp=Z,112nm,2.0s | | | | | | |
| SRAK | Srakaew | 36.52 | 301 | P | P | 19 35 37.0 | -4.3 |
| GSI | Gunungsitoli | 36.57 | 279 | eP | P | 19 35 40.3 | -1.6 |
| | comp=Z,288nm,1.2s | | | | | | |
| KHON | Khomkaen | 37.03 | 305 | P | P | 19 35 45.8 | +0.1 |
| | comp=Z,78nm,1.3s,comp=Z,864nm | | | | | | |
| COCO | West Island | 37.15 | 256 | i P | P | 19 35 50.7 | +4.0 |
| COCO | West Island | 37.15 | 256 | PFAKE | | 19 36 00.0 | +13 |
| COCO | | | | LR | LR | | |
| | comp=Z,3µm,20.0s | | | | | | |
| NAYO | Nakonayok | 37.27 | 301 | P | P | 19 35 48.2 | +0.4 |
| | comp=Z,65nm,2.1s | | | | | | |
| SURT | Suratani | 37.35 | 291 | P | P | 19 35 48.6 | +0.1 |
| | comp=Z,42nm,1.3s,comp=Z,591nm | | | | | | |
| PKDT | Phuket | 37.44 | 289 | P | P | 19 35 49.1 | -0.1 |
| | comp=Z,120nm,1.2s,comp=Z,2µm | | | | | | |
| CHAI | Chaiyaphum | 37.49 | 304 | P | P | 19 35 49.2 | -0.4 |
| | comp=Z,26nm,1.1s,comp=Z,259nm | | | | | | |
| SSE | Sheshan | 37.60 | 342 | eP | P | 19 35 50.6 | +0.3 |
| SSE | | | | pP | pP | 19 35 54.7 | -1.9 |
| SSE | | | | S | S | 19 41 41.9 | +3.0 |
| SSE | | | | sS | sS | 19 41 49.2 | 0.0 |
| SSE | | | | pmax | pmax | | |
| | comp=Z,26nm,0.8s | | | | | | |
| SSE | | | | pmax | pmax | | |
| | comp=Z,210nm,4.1s | | | | | | |
| SSE | | | | LR | LR | | |
| | comp=Z,2µm,20.5s | | | | | | |
| SSE | | | | LR | LR | | |
| | comp=Z,6µm,20.5s | | | | | | |
| SSE | | | | LR | LR | | |
| | comp=Z,4µm,18.8s | | | | | | |
| NONG | Nongkai | 37.70 | 308 | P | P | 19 35 50.9 | -0.5 |
| | comp=Z,120nm,1.7s | | | | | | |
| JNU | Nakatsue | 37.77 | 356 | P | P | 19 35 51.1 | -0.7 |
| | comp=Z,52nm,0.8s,baz=150,slow=3.7,SNR=4.2 | | | | | | |
| JNU | Nakatsue | 37.77 | 356 | eP | P | 19 35 50.7 | -1.1 |
| | comp=Z,68nm,0.9s | | | | | | |
| LHMI | Lhok Sumawe | 38.01 | 285 | eP | P | 19 35 54.1 | 0.0 |
| | comp=Z,175nm,0.9s | | | | | | |
| PHET | Kaeng Krachan | 38.11 | 298 | P | P | 19 35 55.6 | +0.7 |
| | comp=Z,19nm,1.0s,comp=Z,183nm | | | | | | |
| PBKT | Sadao Pong | 38.67 | 304 | P | P | 19 35 59.4 | -0.1 |
| | comp=Z,57nm,1.5s | | | | | | |
| SRDT | SRDT | 39.18 | 300 | P | P | 19 36 04.6 | +0.7 |
| | comp=Z,273nm,1.8s,comp=Z,6µm | | | | | | |
| NJ2 | Nanjing | 39.24 | 340 | eP | P | 19 36 04.5 | +0.4 |
| NJ2 | | | | S | S | 19 42 03.8 | +0.1 |
| NJ2 | | | | sS | sS | 19 42 13.6 | -0.4 |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,31nm,1.4s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,3µm,26.0s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,2µm,21.7s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,3µm,26.0s | | | | | | |
| UTHA | Uthaitani | 39.46 | 301 | P | P | 19 36 06.2 | 0.0 |
| | comp=Z,23nm,1.1s,comp=Z,222nm | | | | | | |
| UTTA | Uttaradit | 39.61 | 305 | P | P | 19 36 07.3 | -0.1 |
| | comp=Z,24nm,1.5s,comp=Z,264nm | | | | | | |
| WHN | Wuhan | 39.68 | 333 | ⇓P | P | 19 36 09.2 | +1.4 |
| WHN | | | | S | S | 19 42 04.4 | -6.0 |
| WHN | | | | pmax | pmax | | |
| | comp=Z,260nm,1.2s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=Z,7µm,18.0s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=Z,9µm,22.6s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=Z,10µm,21.5s | | | | | | |
| TAU | Tasmania Unive | 39.87 | 164 | eP | P | 19 36 10.3 | +1.1 |
| TAU | | | | pmax | pmax | | |
| | comp=Z,90nm,1.2s | | | | | | |
| TAU | Tasmania Unive | 39.87 | 164 | eP | P | 19 36 10.3 | +1.1 |
| | comp=Z,90nm,1.3s | | | | | | |
| TAU | | | | LR | LR | | |
| | comp=Z,13µm,20.0s | | | | | | |
| SUKH | Sukhothai | 40.23 | 304 | P | P | 19 36 12.8 | +0.2 |
| | comp=Z,18nm,1.4s,comp=Z,243nm | | | | | | |
| GYA | Guiyang | 40.59 | 321 | ⇑iP | P | 19 36 15.5 | -0.1 |
| GYA | | | | PP | PnPn | 19 37 55.6 | +2.2 |
| GYA | | | | PcP | PcP | 19 38 20.0 | +2.3 |
| GYA | | | | ScP | ScP | 19 42 07.4 | +1.1 |
| GYA | | | | S | S | 19 42 34.2 | +10 |
| GYA | | | | SS | SS | 19 45 22.8 | -2.1 |
| GYA | | | | pmax | pmax | | |
| | comp=Z,40nm,1.0s | | | | | | |
| GYA | | | | pmax | pmax | | |
| | comp=Z,180nm,6.2s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,2µm,20.2s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,2µm,18.9s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,5µm,18.1s | | | | | | |
| CM01 | Chiang Mai Arr | 41.26 | 305 | eP | P | 19 36 20.3 | -0.8 |
| CM31 | Chiang Mai Arr | 41.29 | 305 | eP | P | 19 36 21.9 | +0.5 |
| CMAR | Chiang Mai Arr | 41.29 | 305 | P | P | 19 36 21.6 | +0.2 |
| | comp=Z,34nm,1.0s,baz=131,slow=6.7,SNR=187 | | | | | | |
| CMAR | | | | PcP | PcP | 19 38 20.6 | +0.6 |
| | comp=Z,13nm,1.1s,baz=145,slow=2.1,SNR=5.6 | | | | | | |
| CMAR | Chiang Mai Arr | 41.29 | 305 | P | P | 19 36 21.6 | +0.2 |
| CMAR | | | | | | 19 38 20.6 | |
| CMAR | | | | pmax | pmax | | |
| | comp=Z,31nm,1.0s | | | | | | |
| CMAR | | | | pmax | pmax | | |
| | comp=Z,13nm,1.1s | | | | | | |
| MJAR | Matsushiro Arr | 41.31 | 6 | P | P | 19 36 20.1 | -1.2 |
| | comp=Z,5.3nm,0.8s,baz=185,slow=9.0,SNR=4.9 | | | | | | |
| MJAR | | | | PcP | PcP | 19 38 19.8 | +0.2 |
| | comp=Z,5.1nm,0.9s,baz=181,slow=4.3,SNR=3.6 | | | | | | |
| MJAR | | | | LR | LR | 19 51 43.6 | |
| | comp=Z,9µm,19.3s,baz=195,slow=34 | | | | | | |
| MAJO | Matsushiro | 41.31 | 6 | i P | P | 19 36 19.9 | -1.3 |
| MAJO | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.9s | | | | | | |
| MAJO | Matsushiro | 41.31 | 6 | eP | P | 19 36 21.0 | -0.2 |
| | comp=Z,36nm,1.1s | | | | | | |
| MAT | Matsushiro | 41.31 | 6 | P | P | 19 36 21.7 | +0.5 |
| MAT | | | | S | S | 19 42 46.0 | +11 |
| TJN | Taejon | 41.35 | 352 | ⇓iP | P | 19 36 21.0 | -0.5 |
| CMMT | Chiang Mai | 41.47 | 305 | P | P | 19 36 22.5 | -0.3 |
| | comp=Z,147nm,1.6s,comp=Z,3µm | | | | | | |
| CHTO | Chiang Mai | 41.47 | 305 | P | P | 19 36 22.6 | -0.2 |
| | comp=Z,370nm,1.6s,comp=Z,12µm | | | | | | |
| CHTO | Chiang Mai | 41.47 | 305 | eP | P | 19 36 22.8 | -0.1 |
| CHTO | | | | pmax | pmax | | |
| | comp=Z,290nm,1.4s | | | | | | |
| CHTO | Chiang Mai | 41.47 | 305 | eP | P | 19 36 22.8 | -0.1 |
| | comp=Z,294nm,1.4s | | | | | | |
| CHTO | | | | LR | LR | | |
| | comp=Z,2µm,20.0s | | | | | | |
| CHTO | Chiang Mai | 41.47 | 305 | P | P | 19 36 22.9 | +0.1 |
| | SNR=23 | | | | | | |
| CHTO | | | | P | P | 19 36 22.9 | +0.1 |
| | SNR=23 | | | | | | |
| CHTO | Chiang Mai | 41.47 | 305 | P | P | 19 36 22.9 | +0.1 |
| | SNR=23 | | | | | | |
| ENH | Enshi | 41.84 | 328 | eP | P | 19 36 25.3 | -0.4 |
| | comp=Z,209nm,1.4s | | | | | | |
| ENH | | | | LR | LR | | |
| | comp=Z,4µm,20.0s | | | | | | |
| KMI | Kunming | 42.27 | 316 | P | P | 19 36 30.0 | +0.5 |
| KMI | | | | pP | pP | 19 36 33.0 | -2.8 |
| KMI | | | | sP | sP | 19 36 34.9 | -3.4 |
| KMI | | | | S | S | 19 42 49.9 | +0.4 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,52nm,1.4s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,1µm,19.5s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,2µm,22.4s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,3µm,20.8s | | | | | | |
| KS15 | Wonju Array Si | 42.34 | 353 | eP | P | 19 36 30.5 | +0.9 |
| KSAR | Wonju Array Be | 42.34 | 353 | P | P | 19 36 29.9 | +0.3 |
| KSAR | | | | | | 19 38 22.5 | |
| KSAR | Wonju Array Be | 42.34 | 353 | P | P | 19 36 29.9 | +0.3 |
| KSAR | | | | PcP | PcP | 19 38 22.5 | -0.4 |
| KSRS | Korea Array | 42.34 | 353 | P | P | 19 36 29.9 | +0.3 |
| | comp=Z,10nm,1.0s,baz=171,slow=9.3,SNR=15 | | | | | | |
| KSRS | | | | PcP | PcP | 19 38 22.5 | -0.4 |
| | comp=Z,3.5nm,0.9s,baz=180,slow=3.4,SNR=2.2 | | | | | | |
| KSRS | | | | LR | LR | 19 56 45.1 | |
| | comp=Z,2µm,18.1s,baz=173,slow=40 | | | | | | |
| KSRS | Korea Array | 42.34 | 353 | P | P | 19 36 29.9 | +0.3 |
| KSRS | | | | | | 19 38 22.5 | |
| KSRS | | | | pmax | pmax | | |
| | comp=Z,13nm,0.9s | | | | | | |
| KSRS | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.0s | | | | | | |
| KSRS | | | | MLR | MLR | | |
| | comp=Z,2µm,18.1s | | | | | | |
| KS01 | Wonju Array Si | 42.37 | 353 | eP | P | 19 36 29.0 | -0.8 |
| INCN | Inchon | 42.54 | 352 | PFAKE | | 19 36 40.0 | +8.7 |
| INCN | | | | LR | LR | | |
| | comp=Z,4µm,19.0s | | | | | | |
| TIA | Tai'an | 43.61 | 340 | ⇑P | P | 19 36 39.3 | -0.7 |
| TIA | | | | S | S | 19 43 08.0 | -0.5 |
| TIA | | | | pmax | pmax | | |
| | comp=Z,40nm,1.2s | | | | | | |
| TIA | | | | pmax | pmax | | |
| | comp=Z,870nm,10.2s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,3µm,23.5s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,4µm,17.5s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,4µm,21.9s | | | | | | |
| PBA | Port Blair | 43.87 | 292 | eP | P | 19 36 39.9 | -2.5 |
| DGPR | DIGLIPUR | 44.22 | 294 | eP | P | 19 36 43.0 | -2.2 |
| DL2 | Dalian | 44.86 | 347 | P | P | 19 36 51.0 | +1.1 |
| DL2 | | | | pmax | pmax | | |
| | comp=Z,39nm,1.0s | | | | | | |
| DL2 | | | | pmax | pmax | | |
| | comp=Z,700nm,11.6s | | | | | | |
| DL2 | | | | LR | LR | | |
| | comp=Z,4µm,18.2s | | | | | | |
| DL2 | | | | LR | LR | | |
| | comp=Z,7µm,19.6s | | | | | | |
| DL2 | | | | LR | LR | | |
| | comp=Z,7µm,17.7s | | | | | | |
| XAN | Xi'an | 45.13 | 331 | P | P | 19 36 51.9 | -0.3 |
| XAN | | | | pP | pP | 19 36 58.6 | 0.0 |
| XAN | | | | PP | PP | 19 38 40.9 | +2.9 |
| XAN | | | | S | S | 19 43 27.0 | -3.8 |
| XAN | | | | pmax | pmax | | |
| | comp=Z,140nm,1.2s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,2µm,17.8s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,2µm,22.2s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,3µm,24.4s | | | | | | |
| MSVF | Nonsavu | 45.25 | 110 | eP | P | 19 36 54.4 | +0.9 |
| MSVF | | | | pmax | pmax | | |
| | comp=Z,140nm,1.3s | | | | | | |
| MSVF | Nonsavu | 45.25 | 110 | eP | P | 19 36 54.4 | +0.9 |
| | comp=Z,144nm,1.3s | | | | | | |
| MSVF | | | | LR | LR | | |
| | comp=Z,9µm,19.0s | | | | | | |
| FUNA | Funafuti | 45.34 | 97 | PFAKE | | 19 37 10.0 | +16 |
| FUNA | | | | LR | LR | | |
| | comp=Z,5µm,20.0s | | | | | | |
| CD2 | Chengdu | 45.56 | 323 | ⇑iP | P | 19 36 55.2 | -0.5 |
| CD2 | | | | pP | pP | 19 37 02.0 | 0.0 |
| CD2 | | | | S | S | 19 43 35.5 | -1.5 |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,100nm,1.3s | | | | | | |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,690nm,10.7s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,4µm,19.8s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,2µm,17.8s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,3µm,19.0s | | | | | | |
| TIY | Taiyuan | 46.66 | 337 | eP | P | 19 37 02.5 | -1.7 |
| TIY | | | | S | S | 19 43 51.8 | -0.9 |
| TIY | | | | ScS | ScS | 19 47 00.1 | +1.8 |
| TIY | | | | SS | SS | 19 47 15.5 | -3.8 |
| TIY | | | | pmax | pmax | | |
| | comp=Z,89nm,1.3s | | | | | | |
| TIY | | | | pmax | pmax | | |
| | comp=Z,420nm,4.3s | | | | | | |
| TIY | | | | LR | LR | | |
| | comp=Z,1µm,14.3s | | | | | | |
| TIY | | | | LR | LR | | |
| | comp=Z,930nm,15.3s | | | | | | |
| TIY | | | | LR | LR | | |
| | comp=Z,2µm,15.0s | | | | | | |
| MSHR | Mys Shultsa | 47.18 | 357 | c iP | P | 19 37 09.0 | +0.9 |
| SNY | Shenyang | 47.28 | 350 | ⇑P | P | 19 37 08.7 | -0.2 |
| SNY | | | | S | S | 19 44 01.2 | 0.0 |
| SNY | | | | pmax | pmax | | |
| | comp=Z,31nm,1.5s | | | | | | |
| SNY | | | | pmax | pmax | | |
| | comp=Z,710nm,6.4s | | | | | | |
| SNY | | | | LR | LR | | |
| | comp=Z,4µm,19.6s | | | | | | |
| SNY | | | | LR | LR | | |
| | comp=Z,2µm,18.6s | | | | | | |
| SNY | | | | LR | LR | | |
| | comp=Z,6µm,22.9s | | | | | | |
| ERM | Erimo | 47.35 | 10 | PFAKE | | 19 37 20.0 | +11 |
| ERM | | | | LR | LR | | |
| | comp=Z,4µm,20.0s | | | | | | |
| BJT | Baijiatuau | 47.39 | 342 | eP | P | 19 37 09.9 | +0.1 |
| BJT | | | | pmax | pmax | | |

BJT MLR MLR
comp=Z,4µm,20.0s
**BJT Baijiatuau 47.39 342** *e*P **P 19 37 09.9 +0.1**
comp=Z,283nm,1.5s
BJT LR LR
comp=Z,4µm,20.0s
**BJI Beijing 47.41 342** P **P 19 37 09.8 -0.1**
BJI PP **PP 19 39 01.8 +0.4**
BJI S **S 19 44 03.5 +0.4**
BJI SS **SS 19 47 21.7 -9.4**
BJI pmax pmax
comp=Z,73nm,1.4s
BJI pmax pmax
comp=Z,520nm,3.6s
BJI LR LR
comp=Z,2µm,22.2s
BJI LR LR
comp=Z,5µm,22.7s
BJI LR LR
comp=Z,3µm,26.8s
**VLA Vladivostok 47.69 358***c i*P **P 19 37 12.9 +0.8**
VLA pmax pmax
comp=Z,222nm,1.1s
**USRK Ussuriysk Ar. 48.76 358** P **P 19 37 20.9 +0.6**
comp=Z,70nm,0.8s,baz=179,slow=7.1,SNR=95
USRK LR LR 19 56 32.1
comp=Z,3µm,20.3s,baz=168,slow=34
**CN2 Changchun 48.91 352** *e*P **P 19 37 20.8 -0.7**
CN2 pmax pmax
comp=Z,10.0nm,0.7s
CN2 pmax pmax
comp=Z,360nm,7.0s
CN2 LR LR
comp=Z,2µm,17.0s
CN2 LR LR
comp=Z,3µm,17.0s
CN2 LR LR
comp=Z,3µm,16.0s
**MDJ Mudanjiang 49.29 356** *e*P **P 19 37 25.0 +0.6**
comp=Z,155nm,0.9s
**ASAJ Asahikawa 49.31 8** P **P 19 37 25.1 +0.5**
comp=Z,18nm,0.8s,baz=236,slow=14,SNR=9.3
**ASAJ Asahikawa 49.31 8** *e*P **P 19 37 25.4 +0.8**
comp=Z,22nm,0.8s
**LZH Lanzhou 49.32 328** ⇑P **P 19 37 25.9 +0.9**
LZH pP pP 19 37 30.6 -0.8
LZH sP sP 19 37 32.8 -1.1
LZH PP **PP 19 39 25.1 +5.9**
LZH S **S 19 44 30.0 -0.7**
LZH sS sS 19 44 43.0 +1.8
LZH SS **SS 19 48 05.6 +3.0**
LZH pmax pmax
comp=Z,160nm,1.1s
LZH pmax pmax
comp=Z,520nm,5.2s
LZH LR LR
comp=Z,2µm,16.7s
LZH LR LR
comp=Z,2µm,16.4s
LZH LR LR
comp=Z,3µm,17.2s
**HHC Hu-ho-hao-te 49.71 338** *e*P **P 19 37 28.6 +0.7**
HHC S **S 19 44 36.0 +0.1**
HHC SS **SS 19 48 06.8 -1.9**
HHC pmax pmax
comp=Z,61nm,1.6s
HHC pmax pmax
comp=Z,460nm,7.8s
HHC LR LR
comp=Z,4µm,16.9s
HHC LR LR
comp=Z,2µm,19.8s
HHC LR LR
comp=Z,2µm,19.4s
**YUK Yuzh-Kuril'sk 49.80 11** P **P 19 37 26.2 -2.1**
YUK 19 39 20.1
YUK *e*S **S 19 44 37.5 +0.8**
YUK SSS SSS 19 49 32.3
**SHO Shikotan 49.84 12** P **P 19 37 32.1 +3.5**
**DCZ Deep Cove 49.94 150** *e*P **P 19 37 29.8 +0.4**
comp=Z,92nm,1.1s
**FOZ Fox Glacier 50.06 146** *e*P **P 19 37 30.8 +0.5**
comp=Z,56nm,1.2s
**BTO Baotou 50.10 337** *e*P **P 19 37 30.2 -0.6**
**MLZ Mavora Lakes 50.36 149** *e*P **P 19 37 33.8 +1.2**
comp=Z,169nm,1.8s
**WKZ Wanaka 50.47 148** *e*P **P 19 37 35.0 +1.5**
comp=Z,149nm,1.2s
**SHL Shillong 50.53 309** *e*P **P 19 37 33.8 -0.7**
SHL *e*S **S 19 44 47.0 -1.0**
**WHZ Wether Hill Ro 50.63 149** *e*P **P 19 37 34.4 -0.3**
comp=Z,42nm,0.7s
**THZ Tophouse 50.78 142** *e*P **P 19 37 36.2 +0.3**
comp=Z,147nm,1.6s
**LBZ Lake Benmore 50.81 147** *e*P **P 19 37 36.0 0.0**
comp=Z,144nm,1.1s
**RPZ Rata Peaks 50.87 145** *e*P **P 19 37 36.8 +0.3**
comp=Z,58nm,0.8s
**LTZ Lake Taylor 51.00 144** *e*P **P 19 37 37.7 +0.1**
comp=Z,105nm,1.3s
**OXZ Oxford 51.19 144** *e*P **P 19 37 38.4 -0.5**
comp=Z,31nm,0.8s
**ODZ Otahua Downs 51.49 147** *e*P **P 19 37 40.6 -0.5**
comp=Z,65nm,1.0s
**KHZ Kahutara 51.54 143** *e*P **P 19 37 41.2 -0.3**
comp=Z,81nm,1.2s
**URZ Urewera 51.64 136** LR LR 20 00 40.8
comp=Z,12µm,18.5s,baz=318,slow=37
**BKZ Black Stump Fm 51.67 138** *e*P **P 19 37 43.7 +1.1**
comp=Z,44nm,1.0s
**MQZ McQueen's Vall 51.78 145** *e*P **P 19 37 43.0 -0.3**
comp=Z,94nm,1.1s
**RAO Raoul Island 51.81 124** LR LR 19 59 33.1
comp=Z,3µm,19.9s,baz=309,slow=36
**YSS Yuzh-Sakhalins 52.12 8**⇑*e*P **P 19 37 45.9 +0.2**
YSS *e* 19 37 59.2
YSS *e*S **S 19 45 13.8 +5.1**
YSS pmax pmax
comp=Z,60nm,0.9s
**YSS Yuzh-Sakhalins 52.12 8** *e*P **P 19 37 45.2 -0.5**
comp=Z,301nm,1.6s
**HABR Khabarovsk 53.03 1***ce*P **P 19 37 50.2 -2.2**
HABR *e* 19 38 58.3
HABR *e* 19 39 50.5
HABR *e*PPP PPP 19 40 55.5
HABR *e*S **S 19 45 21.6 +0.5**
HABR *e**SS **pS 19 45 27.4 -1.5**
HABR *e* 19 45 35.7
HABR *e* 19 47 39.9
HABR *e*SS **SS 19 49 03.0 +2.3**
HABR *e*SSS SSS 19 50 52.6
HABR pmax pmax
comp=Z,20nm,1.3s
HABR MLR MLR
comp=Z,4µm,17.0s
**LSA Lhasa 53.25 313** *e*P **P 19 37 55.6 +0.6**
LSA pmax pmax
comp=Z,111nm,1.3s
**LSA Lhasa 53.25 313** *e*P **P 19 37 55.6 +0.6**
comp=Z,111nm,1.3s
**KLR Kul'dur 53.80 358** P **P 19 37 58.5 +0.4**
comp=Z,2.7nm,0.8s,baz=208,slow=3.0,SNR=77
**GTA Gaotai 53.92 328** P **P 19 37 59.8 +0.5**
GTA pP pP 19 38 03.9 -1.9
GTA sP sP 19 38 07.4 -0.8
GTA S **S 19 45 34.0 +0.1**
GTA sS pS 19 45 43.0 +1.3
GTA ScS **ScS 19 47 46.6 -1.4**
GTA SS **SS 19 49 14.7 -0.8**
GTA pmax pmax
comp=Z,99nm,1.2s
GTA pmax pmax
comp=Z,510nm,6.2s
GTA LR LR
comp=Z,2µm,20.7s
GTA LR LR
comp=Z,1µm,20.4s
GTA LR LR
comp=Z,2µm,19.5s
**CHLP Challavanipeta 54.08 297** *e*P **P 19 38 00.4 -0.3**
CHLP IAmb IAmb 19 38 02.2
comp=Z,130nm,1.3s
CHLP *e*S **S 19 45 34.5 -2.0**
CHLP IVMs_BB IVMs_BB 20 03 58.9
comp=Z,760nm,17.8s

**PALK Pallekele 54.20 282** P **P 19 38 01.6 -0.1**
comp=Z,47nm,1.0s,baz=116,slow=5.2,SNR=15
**PALK Pallekele 54.20 282** *i* P **P 19 38 01.8 0.0**
SNR=14
**PALK Pallekele 54.20 282** *e*P **P 19 38 01.9 +0.2**
comp=Z,87nm,1.1s
**PALK Pallekele 54.20 282** P **P 19 38 02.1 +0.4**
SNR=6.2
PALK P **P 19 38 02.1 +0.4**
SNR=6.2
**PALK Pallekele 54.20 282** P **P 19 38 02.1 +0.4**
SNR=6.2
**VIS Vishakhapatnam 54.47 296** *e*P **P 19 38 03.7 +0.2**
**AFI Afiamalu 54.47 104** LR LR 19 59 45.7
comp=Z,3µm,21.9s,baz=274,slow=34
**BOK Bokaro 54.54 304** *e*P **P 19 38 04.2 +0.2**
**TAPN Taplejung 54.66 308** *e*P **P 19 38 04.8 -0.4**
comp=Z,684nm,1.6s
**ODAN Odare 54.68 308** *e*P **P 19 38 04.9 -0.3**
comp=Z,163nm,1.1s
**HIA Hailar 55.16 349** *e*P **P 19 38 08.6 +0.6**
HIA pmax pmax
comp=Z,55nm,1.4s
HIA MLR MLR
comp=Z,3µm,22.0s
**HIA Hailar 55.16 349** *e*P **P 19 38 08.6 +0.6**
comp=Z,55nm,1.4s
HIA LR LR
comp=Z,3µm,22.0s
**RAMN Ramite 55.35 307** *e*P **P 19 38 10.0 -0.1**
comp=Z,249nm,1.2s
**PVM Polavaram 55.86 294** *e*P **P 19 38 12.9 -0.6**
PVM IAmb IAmb 19 38 14.7
comp=Z,101nm,1.2s
PVM *e*S **S 19 45 58.1 -2.3**
PVM IVMs_BB IVMs_BB 20 04 41.9
comp=Z,594nm,19.4s
**TYV Tymovskoe 55.94 7** *e*P **P 19 38 14.6 +1.1**
TYV *e* 19 38 30.9
TYV pmax pmax
comp=Z,50nm,1.3s
TYV pmax pmax
comp=Z,1µm,5.9s
TYV MLR MLR
comp=N,3µm,19.0s
**MDRS Chennai 55.95 289** *e*P **P 19 38 14.3 0.0**
**JIRN Jiri 56.00 308** *e*P **P 19 38 14.6 -0.3**
comp=N,982nm,1.3s
**GUN Gumba 56.36 308** *e*P **P 19 38 17.2 -0.2**
comp=N,118nm,0.9s
**PKI Pulchoki 56.58 307** *e*P **P 19 38 18.2 -0.8**
comp=N,74nm,1.1s
**PKIN Phulchoki 56.59 307** *e*P **P 19 38 19.0 0.0**
comp=N,39nm,0.9s
**SKHT Srikalahasti 56.62 290** *e*P **P 19 38 18.4 -0.7**
SKHT IAmb IAmb 19 38 20.0
comp=Z,95nm,1.3s
SKHT *e*S **S 19 46 05.2 -5.4**
SKHT IVMs_BB IVMs_BB 20 02 42.6
comp=Z,1µm,22.1s
**KKN Kakani 56.78 308** *e*P **P 19 38 19.9 -0.3**
comp=Z,89nm,1.0s
**DMN Daman 56.83 307** *e*P **P 19 38 20.4 -0.3**
comp=Z,117nm,1.0s
**ADKI Addanki 56.95 292** *e*P **P 19 38 20.6 -0.8**
ADKI IAmb IAmb 19 38 22.5
comp=Z,140nm,1.4s
ADKI *e*S **S 19 46 10.3 -4.6**
ADKI IVMs_BB IVMs_BB 20 05 04.3
comp=Z,795nm,21.4s
**GKN Gorkha 57.38 308** *e*P **P 19 38 24.2 -0.2**
**ULN Ulaanbaatar 57.39 339***ce*P **P 19 38 23.5 -0.6**
ULN pmax pmax
comp=Z,84nm,1.7s
**ULN Ulaanbaatar 57.39 339** *e*P **P 19 38 24.5 +0.4**
comp=Z,40nm,0.9s
**ULN Ulaanbaatar 57.39 339** P **P 19 38 25.1 +1.0**
SNR=28
ULN P **P 19 38 25.1 +1.0**
SNR=28
**ULN Ulaanbaatar 57.39 339** P **P 19 38 25.1 +1.0**
SNR=28
**SONA0 Songino Array 57.60 339** *e*P **P 19 38 26.0 +0.4**
**SONM Songino Array 57.60 339** P **P 19 38 26.0 +0.4**
comp=Z,21nm,1.2s,baz=158,slow=5.5,SNR=63
SONM LR LR 20 03 17.2
comp=Z,2µm,20.6s,baz=148,slow=36
**SONA1 Songino Array 57.61 339** *e*P **P 19 38 25.3 -0.4**
**NJS Nagarjunasagar 57.77 293** *e*P **P 19 38 25.9 -1.3**
NJS IAmb IAmb 19 38 27.6
comp=Z,140nm,1.4s
NJS *e*S **S 19 46 23.1 -2.6**
NJS IVMs_BB IVMs_BB 19 59 27.4
comp=Z,613nm,32.2s
**SRLM Srisailam 58.02 292** *e*P **P 19 38 28.1 -0.9**
SRLM IAmb IAmb 19 38 29.4
comp=Z,120nm,1.2s
SRLM *e*S **S 19 46 25.9 -3.1**
SRLM IVMs_BB IVMs_BB 19 59 12.3
comp=Z,620nm,36.0s
**KOLN Koldanda 58.10 307** *e*P **P 19 38 29.5 -0.1**
comp=Z,594nm,1.6s
**DANN Dangsing 58.23 308** *e*P **P 19 38 30.4 -0.2**
**RPR Rampur 58.46 295** *e*P **P 19 38 31.2 -0.8**
RPR IAmb IAmb 19 38 32.6
comp=Z,116nm,1.4s
RPR *e*S **S 19 46 30.1 -4.6**
RPR IVMs_BB IVMs_BB 20 06 38.9
comp=Z,648nm,20.5s
**HYB Hyderabad 58.70 294** *i* P **P 19 38 32.0 -1.8**
**HYB Hyderabad 58.70 294** *e*P **P 19 38 33.2 -0.6**
**HYBB Hyderabad (bro 58.71 294** *e*P **P 19 38 32.5 -1.3**
HYBB IAmb IAmb 19 38 34.0
comp=Z,146nm,1.5s
HYBB *e*S **S 19 46 35.1 -2.8**
HYBB IVMs_BB IVMs_BB 20 00 13.4
comp=Z,643nm,29.0s
**PYUN Piuthan 58.73 307** *e*P **P 19 38 34.0 0.0**
comp=Z,339nm,1.1s
**CIT Chita 59.11 346** *e*P **P 19 38 37.0 +1.0**
CIT *e* 19 38 47.2
CIT *e* 19 38 52.6
CIT *e* 19 39 30.7
CIT pmax pmax
comp=Z,87nm,1.5s
**URV Uravakonda 59.23 290** *e*P **P 19 38 36.2 -1.2**
URV IAmb IAmb 19 38 37.5
comp=Z,53nm,1.2s
URV *e*S **S 19 46 40.4 -4.3**
URV IVMs_BB IVMs_BB 20 09 34.9
comp=Z,981nm,18.2s
**SRSP Sriramsagar 59.34 295** *e*P **P 19 38 37.0 -1.1**
SRSP IAmb IAmb 19 38 38.3
comp=Z,75nm,1.2s
SRSP *e*S **S 19 46 42.6 -3.5**
SRSP IVMs_BB IVMs_BB 20 05 25.0
comp=Z,622nm,19.4s
**JOHN Johnston Islan 60.04 68** PFAKE 19 39 00.0 +17
JOHN LR LR
comp=Z,322nm,19.0s
**KLRI Killari 60.68 294** *e*P **P 19 38 45.0 -2.3**
KLRI IAmb IAmb 19 38 46.6
comp=Z,38nm,1.1s
KLRI *e*S **S 19 46 59.8 -3.6**
KLRI IVMs_BB IVMs_BB 20 00 25.1
comp=Z,864nm,39.9s
**ZAK Zakamensk 60.86 338** *e*P **P 19 38 48.0 -0.1**
ZAK pmax pmax
comp=Z,37nm,1.2s
**DGAR Diego Garcia 60.90 264** PFAKE 19 39 00.0 +11
DGAR LR LR
comp=Z,3µm,22.0s
**PETK Petropavlovsk- 61.12 16** P **P 19 38 50.5 +0.9**
comp=Z,18nm,0.8s,baz=179,slow=5.5,SNR=15
PETK LR LR 20 02 49.6
comp=Z,2µm,21.9s,baz=199,slow=34
**PETK Petropavlovsk- 61.12 16** *e*P **P 19 38 50.4 +0.7**
**PETK Petropavlovsk- 61.12 16** *e*P **P 19 38 50.4 +0.7**
**PEA1 Petropavlovsk- 61.12 16** *e*P **P 19 38 50.5 +0.9**
**BHPL Bhopal 61.52 300** *e*P **P 19 38 52.0 -1.0**
**TLY Talaya 61.80 339** P **P 19 38 55.5 +1.2**
comp=Z,2.6nm,0.5s,baz=153,slow=12,SNR=4.0
**TLY Talaya 61.80 339** *e*P **P 19 38 55.0 +0.7**
TLY *e* 19 41 05.6
TLY *e*S **S 19 47 17.7 +1.2**
TLY *e* 19 48 45.7

TLY pmax pmax
comp=Z,40nm,1.1s
TLY MLR MLR
comp=Z,2µm,17.0s
**TLY Talaya 61.80 339** *e*P **P 19 38 55.1 +0.7**
comp=Z,43nm,1.2s
**TLY Talaya 61.80 339** P **P 19 38 55.0 +0.7**
SNR=5.3
TLY P **P 19 38 55.0 +0.7**
SNR=5.3
**TLY Talaya 61.80 339** P **P 19 38 55.0 +0.7**
SNR=5.3
**CLNS Chul'man 61.81 355** *e*P **P 19 38 53.5 -0.8**
CLNS *e**PP **sP 19 39 02.4 -0.9**
CLNS *e* 19 39 33.1
CLNS *e* 19 41 13.1
CLNS *e*PPP PPP 19 42 36.5
CLNS *e*S **S 19 47 17.2 +0.7**
CLNS pmax pmax
comp=Z,40nm,1.3s
CLNS pmax pmax
comp=E,8.0nm,1.0s
CLNS pmax pmax
comp=N,29nm,1.3s
CLNS pmax pmax
comp=E,10.0nm,1.0s
CLNS pmax pmax
comp=N,12nm,1.1s
CLNS pmax pmax
comp=Z,4.0nm,1.0s
CLNS smax smax
comp=N,387nm,11.0s
CLNS smax smax
comp=E,503nm,11.0s
CLNS MLR MLR
comp=Z,1µm,16.0s
CLNS MLR MLR
comp=N,1µm,13.0s
CLNS MLR MLR
comp=E,965nm,12.0s
**IRK Irkutsk 62.05 340** *e*P **P 19 38 56.0 +0.1**
IRK pmax pmax
comp=Z,99nm,2.5s
**MOY Mondy 62.75 338** *e*P **P 19 39 01.6 +0.8**
MOY pmax pmax
comp=Z,114nm,2.3s
**POO Poona 63.31 293**⇑*ix* P 19 38 58.0 -7.1
**DDI Dehra Dun 63.57 307** *e*P **P 19 39 06.9 +0.3**
**WMQ Urumqi 63.62 324** P **P 19 39 07.6 +0.9**
WMQ pP pP 19 39 12.5 -0.7
WMQ sP sP 19 39 15.4 -0.3
WMQ PcP **PcP 19 39 44.4 +1.5**
WMQ S **S 19 47 40.4 +0.6**
WMQ sS pS 19 47 47.7 -0.1
WMQ pmax pmax
comp=Z,340nm,1.1s
WMQ pmax pmax
comp=Z,1µm,3.6s
WMQ LR LR
comp=Z,3µm,17.5s
WMQ LR LR
comp=Z,3µm,18.3s
WMQ LR LR
comp=Z,3µm,20.5s
**BOD Bodaibo 64.37 348** *e*P **P 19 39 10.3 -0.9**
BOD pmax pmax
comp=Z,88nm,1.4s
**SMLA Simla 64.59 308** *e*P **P 19 39 13.7 +0.6**
SMLA AMB AMB 19 39 14.5
comp=Z,117nm,1.1s
**HVS Khovu-Aksy 65.35 334**⇑*e*P **P 19 39 18.2 +0.3**
HVS pmax pmax
comp=Z,194nm,1.1s
**MA2 Magadan 65.56 9** P **P 19 39 20.3 +1.5**
comp=Z,11nm,0.7s,baz=190,slow=11,SNR=3.5
**DHRM DHARAMSHALA 65.71 308** *e*P **P 19 39 20.5 -0.2**
DHRM AMB AMB 19 39 21.2
comp=Z,93nm,1.1s
**THN Thein Dam 66.23 308** *e*P **P 19 39 22.4 -1.4**
**RAR Rarotonga 66.44 111** LR LR 20 07 02.7
comp=Z,1µm,19.6s,baz=270,slow=35
**YAK Yakutsk 66.67 358** P **P 19 39 26.6 +0.6**
comp=Z,86nm,0.8s,baz=348,slow=1.2,SNR=61
**YAK Yakutsk 66.67 358** *e*P **P 19 39 26.1 +0.1**
YAK *e**PP **pP 19 39 32.3 -0.3**
YAK *e* 19 39 52.0
YAK *e* 19 41 51.8
YAK *e*PPP PPP 19 43 30.4
YAK *e*S **S 19 48 18.2 +1.8**
YAK *e**SS sS 19 48 50.3 +23
YAK pmax pmax
comp=Z,121nm,1.0s
YAK pmax pmax
comp=N,37nm,1.0s
YAK pmax pmax
comp=E,18nm,1.1s
YAK pmax pmax
comp=Z,26nm,1.4s
YAK pmax pmax
comp=N,39nm,1.7s
YAK pmax pmax
comp=E,24nm,1.5s
YAK smax smax
comp=N,436nm,4.4s
YAK smax smax
comp=E,279nm,4.2s
YAK MLR MLR
comp=E,859nm,20.0s
**YAK Yakutsk 66.67 358** *e*P **P 19 39 26.4 +0.4**
comp=E,171nm,1.0s
**ZSN Zaisan 67.37 326** *i* P **P 19 39 29.8 -1.0**
comp=E,157nm,1.1s
ZSN *e*S **S 19 48 28.7 +3.3**
**MIR Mirnyy 67.78 196** *i* P **P 19 39 33.0 0.0**
MIR pmax pmax
comp=Z,12nm,1.6s
**SHLS Shalkode 68.27 320** *e*P **P 19 39 33.2 -3.5**
comp=Z,692nm,1.4s
SHLS *e*S **S 19 48 34.4 -2.2**
SHLS LR LR 20 10 31.5
comp=Z,316nm,14.8s
**PDGK Podgornoye 68.34 320** *i* P **P 19 39 37.3 +0.2**
PDGK pmax pmax
comp=Z,82nm,1.4s
**BHJ Bhuj 68.34 297** *e*P **P 19 39 37.4 0.0**
**MK01 Makanchi Array 68.43 325** *e*P **P 19 39 37.3 -0.2**
**MK31 Makanchi Array 68.45 325** *i* P **P 19 39 38.0 +0.4**
MK31 pmax pmax
comp=Z,130nm,1.1s
**MK31 Makanchi Array 68.45 325** *e*P **P 19 39 38.0 +0.4**
**MK32 Makanchi Array 68.45 325** *e*P **P 19 39 38.2 +0.6**
**MKAR Makanchi Array 68.45 325** P **P 19 39 38.2 +0.6**
comp=Z,58nm,0.8s,baz=120,slow=7.7,SNR=346
MKAR LR LR 20 11 31.8
comp=Z,2µm,19.1s,baz=110,slow=38
**UZB Uzynbulak 68.55 320** *i* P **P 19 39 36.6 -1.9**
comp=Z,504nm,1.4s
UZB LR LR 20 07 10.1
comp=Z,521nm,18.3s
**MAKZ Makanchi 68.64 325** *i* P **P 19 39 38.9 +0.1**
MAKZ pmax pmax
comp=Z,145nm,1.2s
**MAKZ Makanchi 68.64 325** *e*P **P 19 39 39.3 +0.5**
comp=Z,133nm,1.1s
**KSH Kashi 68.93 316** P **P 19 39 42.6 +1.7**
KSH pP pP 19 39 47.4 -0.1
KSH PcP **PcP 19 40 06.4 +1.2**
KSH PP **PP 19 42 16.4 +3.1**
KSH S **S 19 48 46.0 +1.4**
KSH ScS **ScS 19 49 40.4 -0.2**
KSH SS **SS 19 53 13.9 +3.5**
KSH pmax pmax
comp=Z,57nm,1.2s
KSH LR LR
comp=Z,480nm,10.4s
KSH LR LR
comp=Z,390nm,9.8s
KSH LR LR
comp=Z,800nm,11.1s
**ZHN Zhinishke 68.94 320** *i* P **P 19 39 38.8 -2.1**
comp=Z,248nm,1.4s
ZHN LR LR 20 08 05.0
comp=Z,323nm,15.4s
**SEY Seymchan 68.99 9** P **P 19 39 41.8 +1.1**
comp=Z,74nm,0.9s,baz=183,slow=4.6,SNR=57
**SEY Seymchan 68.99 9***ce*P **P 19 39 41.6 +1.0**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PAF | Port-aux-Franc | 69.30 | 219 | PFAKE | | 19 39 50.0 | +7.2 |
| PAF | | | | LR | LR | | |
| | comp=Z,2μm,19.0s | | | | | | |
| TDK | Taldyqorghan | 69.84 | 322 | *i* P | P | 19 39 44.5 | -1.8 |
| | comp=Z,418nm,1.4s | | | | | | |
| TDK | | | | *e*S | S | 19 48 55.6 | +0.7 |
| TDK | | | | LR | LR | 20 11 31.3 | |
| | comp=Z,557nm,17.4s | | | | | | |
| AAA | Alma-Ata | 69.94 | 319 | *i* P | P | 19 39 44.4 | -2.6 |
| AAA | | | | *i* S | S | 19 49 01.3 | +5.1 |
| AAA | | | | pmax | pmax | | |
| | comp=Z,800nm,4.0s | | | | | | |
| AAA | | | | smax | smax | | |
| | comp=N,2μm,6.1s | | | | | | |
| AAA | | | | MLR | MLR | | |
| | comp=Z,2μm,14.0s | | | | | | |
| AAA | Alma-Ata | 69.94 | 319 | *e*P | P | 19 39 45.2 | -1.7 |
| | comp=Z,281nm,1.2s | | | | | | |
| AAA | | | | LR | LR | 20 11 07.0 | |
| | comp=Z,350nm,18.3s | | | | | | |
| KUU | Kurty | 70.62 | 320 | *i* P | P | 19 39 49.2 | -1.9 |
| | comp=Z,518nm,1.5s | | | | | | |
| KUU | | | | *e*S | S | 19 49 04.9 | +0.8 |
| KUU | | | | LRM | MLR | 20 13 49.0 | |
| | comp=Z,164nm,15.8s | | | | | | |
| TKM2 | Tokmak 2 | 70.67 | 319 | *i* P | P | 19 39 52.0 | +0.4 |
| TKM2 | | | | pmax | pmax | | |
| | comp=Z,45nm,1.3s | | | | | | |
| TKM2 | Tokmak 2 | 70.67 | 319 | P | P | 19 39 52.2 | +0.6 |
| | SNR=9.2 | | | | | | |
| SFK | Sufi-Kurgan | 70.86 | 315 | *i* P | P | 19 39 53.5 | +0.6 |
| SFK | | | | pmax | pmax | | |
| | comp=Z,47nm,1.4s | | | | | | |
| KBK | Karagaybulak | 70.98 | 318 | P | P | 19 39 54.3 | +0.8 |
| | SNR=6.8 | | | | | | |
| UCH | Uchtor | 71.09 | 318 | P | P | 19 39 55.4 | +0.8 |
| | SNR=29 | | | | | | |
| CHMS | Chumysh | 71.26 | 318 | P | P | 19 39 55.8 | +0.8 |
| | SNR=8.2 | | | | | | |
| AAK | Ala-Archa | 71.28 | 318 | P | P | 19 39 54.9 | -0.4 |
| | comp=Z,14nm,1.0s,baz=114,slow=6.6,SNR=17 | | | | | | |
| AAK | Ala-Archa | 71.28 | 318*c* | *i* P | P | 19 39 56.1 | +0.8 |
| AAK | | | | pmax | pmax | | |
| | comp=Z,44nm,1.4s | | | | | | |
| AAK | Ala-Archa | 71.28 | 318 | P | P | 19 39 56.6 | +1.4 |
| | SNR=12 | | | | | | |
| AAK | Ala-Archa | 71.28 | 318 | P | P | 19 39 56.1 | +0.8 |
| | SNR=14 | | | | | | |
| AAK | | | | P | P | 19 39 56.1 | +0.8 |
| | SNR=14 | | | | | | |
| AAK | Ala-Archa | 71.28 | 318 | P | P | 19 39 56.1 | +0.8 |
| | SNR=14 | | | | | | |
| ZAA0 | Zalesovo Array | 71.28 | 332 | *e*P | P | 19 39 54.1 | -0.7 |
| | comp=Z,60nm,1.0s | | | | | | |
| ZALV | Zalesovo Beam | 71.28 | 332 | P | P | 19 39 54.4 | -0.4 |
| | comp=Z,36nm,0.8s,baz=114,slow=5.0,SNR=162 | | | | | | |
| ZALV | | | | PP | PP | 19 42 33.9 | +0.8 |
| | comp=Z,5.6nm,0.9s,baz=142,slow=7.3,SNR=4.1 | | | | | | |
| ZALV | Zalesovo Beam | 71.28 | 332 | *e*P | P | 19 39 53.6 | -1.2 |
| ZALV | | | | | | 19 42 33.9 | |
| ZALV | Zalesovo Beam | 71.28 | 332 | *e*P | P | 19 39 53.5 | -1.2 |
| ZALV | | | | PP | PP | 19 42 33.9 | +0.8 |
| FRU | Bishkek | 71.28 | 318 | *e*P | P | 19 39 55.0 | -0.1 |
| FRU | | | | *e* | | 19 40 09.0 | |
| FRU | | | | *e* | | 19 42 37.0 | |
| FRU | | | | *e* | | 19 49 30.0 | |
| FRU | | | | pmax | pmax | | |
| | comp=Z,90nm,2.0s | | | | | | |
| FRU | | | | MLR | MLR | | |
| | comp=Z,2μm,19.0s | | | | | | |
| ZAA1 | Zalesovo Array | 71.28 | 332 | *e*P | P | 19 39 54.4 | -0.4 |
| ZAA1 | | | | *e*PP | PP | 19 42 33.9 | +0.7 |
| USP | Ospenovka | 71.54 | 319 | P | P | 19 39 57.2 | +0.5 |
| | SNR=24 | | | | | | |
| SEM | Semipalatinsk | 71.55 | 327 | *i* P | P | 19 39 54.9 | -2.0 |
| | comp=Z,543nm,1.3s | | | | | | |
| SEM | | | | *e*S | S | 19 49 15.6 | +0.6 |
| SEM | | | | LR | LR | 20 11 54.8 | |
| | comp=Z,263nm,17.4s | | | | | | |
| AML | Almayashu | 71.60 | 317 | P | P | 19 39 58.5 | +1.0 |
| | SNR=20 | | | | | | |
| HON | Honolulu | 71.73 | 66 | *e*P | P | 19 40 01.5 | +3.3 |
| HON | Honolulu | 71.73 | 66 | *e*P | P | 19 40 01.5 | +3.3 |
| KIP | Kipapa | 71.74 | 66*c* | *e*P | P | 19 40 00.5 | +2.2 |
| KIP | Kipapa | 71.74 | 66 | *e*P | P | 19 40 01.5 | +3.2 |
| EKS2 | Erkin-Say | 71.77 | 318 | P | P | 19 39 59.1 | +1.0 |
| | SNR=12 | | | | | | |
| KBL | Kabul | 72.19 | 308 | *e*P | P | 19 40 01.1 | +0.1 |
| KBL | Kabul | 72.19 | 308 | *e*P | P | 19 40 01.1 | +0.1 |
| | comp=Z,58nm,1.0s | | | | | | |
| MNAS | Manas | 72.55 | 317 | *i* P | P | 19 40 03.2 | +0.3 |
| MNAS | | | | pmax | pmax | | |
| | comp=Z,76nm,1.3s | | | | | | |
| NVS | Novosibirsk | 72.56 | 332 | *e*P | P | 19 40 02.2 | -0.2 |
| NVS | | | | *e*S | S | 19 49 24.2 | -1.6 |
| NVS | | | | pmax | pmax | | |
| | comp=Z,95nm,1.4s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=N,23nm,1.0s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=E,40nm,1.2s | | | | | | |
| NVS | | | | smax | smax | | |
| | comp=E,34nm,2.4s | | | | | | |
| KURK | Kurchatov | 72.59 | 327*c* | *e*P | P | 19 40 01.2 | -1.6 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,526nm,1.2s | | | | | | |
| KURK | Kurchatov | 72.59 | 327 | *e*P | P | 19 40 02.8 | +0.1 |
| KURK | | | | *e*S | S | 19 49 25.8 | -0.7 |
| KURK | | | | LR | LR | | |
| | comp=Z,2μm,20.0s | | | | | | |
| KURK | Kurchatov | 72.59 | 327 | P | P | 19 40 03.2 | +0.4 |
| | SNR=38 | | | | | | |
| KURK | | | | P | P | 19 40 03.2 | +0.4 |
| | SNR=38 | | | | | | |
| KURK | Kurchatov | 72.59 | 327 | P | P | 19 40 03.2 | +0.4 |
| | SNR=38 | | | | | | |
| KURBB | Kurchatov Arra | 72.59 | 327 | P | P | 19 40 02.8 | +0.1 |
| | comp=Z,60nm,1.0s,baz=125,slow=5.1,SNR=381 | | | | | | |
| KURBB | | | | S | S | 19 49 25.8 | -0.7 |
| | comp=Z,0.3nm,0.9s,baz=110,slow=15,SNR=4.8 | | | | | | |
| BTLS | Baital | 72.60 | 320 | *e*P | P | 19 40 00.9 | -2.1 |
| | comp=Z,356nm,1.4s | | | | | | |
| DZET | Dzherino | 73.78 | 313 | P | P | 19 40 10.0 | -0.2 |
| DZET | | | | pmax | pmax | | |
| | comp=Z,53nm,1.4s | | | | | | |
| IUG | Iuzhnay | 74.11 | 316 | *i* P | P | 19 40 10.2 | -1.9 |
| | comp=Z,535nm,1.3s | | | | | | |
| IUG | | | | LR | LR | 20 11 45.3 | |
| | comp=Z,313nm,17.4s | | | | | | |
| KK31 | Karatay Array | 74.14 | 317 | *i* P | P | 19 40 12.0 | -0.1 |
| KK31 | | | | pmax | pmax | | |
| | comp=Z,44nm,1.2s | | | | | | |
| VNDA | Vanda | 74.24 | 174 | P | P | 19 40 12.2 | +0.1 |
| | comp=Z,17nm,0.9s,baz=321,slow=5.9,SNR=38 | | | | | | |
| VNDA | | | | LR | LR | 20 12 06.3 | |
| | comp=Z,4μm,19.0s,baz=352,slow=35 | | | | | | |
| VNDA | Vanda | 74.24 | 174 | *e*P | P | 19 40 11.8 | -0.3 |
| VNDA | Vanda | 74.24 | 174 | *e*P | P | 19 40 11.8 | -0.3 |
| BRLS | Borolday | 74.57 | 317 | *i* P | P | 19 40 12.7 | -1.9 |
| | comp=Z,33nm,1.3s | | | | | | |
| BRLS | | | | *e*S | S | 19 49 49.8 | +0.5 |
| SBA | Scott Base | 75.08 | 173 | *e*P | P | 19 40 16.7 | -0.2 |
| SBA | Scott Base | 75.08 | 173 | *e*P | P | 19 40 16.7 | -0.2 |
| | comp=Z,174nm,1.9s | | | | | | |
| MRIV | Mauritius Mete | 75.41 | 250 | *e*P | P | 19 40 21.3 | +1.3 |
| BRZS | Berezniki | 75.59 | 324 | *i* P | P | 19 40 18.7 | -1.7 |
| | comp=Z,76nm,1.2s | | | | | | |
| PAE | Paea | 75.94 | 107 | *e*P | P | 19 40 25.1 | +2.1 |
| | comp=Z,12nm,1.1s | | | | | | |
| PPT2 | Papeete2 | 75.95 | 107 | *e*P | P | 19 40 25.7 | +2.6 |
| | comp=Z,75nm,1.3s | | | | | | |
| PPT2 | | | | *e*S | S | 19 50 04.2 | -1.4 |
| | comp=Z,677nm,26.5s | | | | | | |
| PPT2 | Papeete2 | 75.95 | 107 | *e*LR | LR | 20 03 52.8 | |
| | comp=Z,3μm,22.2s | | | | | | |
| PPT | Papeete | 75.95 | 107 | P | P | 19 40 25.8 | +2.7 |
| | comp=Z,16nm,0.4s,baz=72,slow=20,SNR=2.6 | | | | | | |
| PPT | | | | LR | LR | 20 10 20.7 | |
| | comp=Z,2μm,21.7s,baz=260,slow=33 | | | | | | |
| TBI | Tubuai | 76.07 | 113 | *e*S | S | 19 50 04.8 | -1.7 |
| | comp=Z,1μm,25.8s | | | | | | |
| TBI | Tubuai | 76.07 | 113 | *e*LQ | LQ | 20 00 40.4 | |
| | comp=Z,2μm,30.0s | | | | | | |
| TBI | | | | *e*LR | LR | 20 03 55.4 | |
| | comp=Z,5μm,25.8s | | | | | | |
| TVO | Taravao | 76.26 | 107 | *e*P | P | 19 40 27.5 | +2.6 |
| | comp=Z,23nm,1.2s | | | | | | |
| TIXI | Tiksi | 76.33 | 358 | P | P | 19 40 23.8 | -0.3 |
| | comp=Z,21nm,0.9s,baz=209,slow=1.0,SNR=73 | | | | | | |
| TIXI | | | | LR | LR | 20 12 39.4 | |
| | comp=Z,3μm,21.0s,baz=180,slow=35 | | | | | | |
| TIXI | Tiksi | 76.33 | 358*c* | *e*P | P | 19 40 23.5 | -0.6 |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,26nm,0.8s | | | | | | |
| TIXI | Tiksi | 76.33 | 358 | *e*P | P | 19 40 22.4 | -1.7 |
| | comp=Z,35nm,0.9s | | | | | | |
| RER | Riviere de l'E | 77.05 | 249 | *e*P | P | 19 40 28.7 | -0.7 |
| | comp=Z,77nm,0.9s | | | | | | |
| MSEY | Mahe Island | 77.89 | 266 | *i* P | P | 19 40 36.0 | +1.9 |
| MSEY | Mahe Island | 77.89 | 266 | PFAKE | | 19 40 50.0 | +16 |
| MSEY | | | | LR | LR | | |
| | comp=Z,3μm,22.0s | | | | | | |
| BVA0 | Borovoye Array | 78.18 | 327 | *i* P | P | 19 40 34.5 | -0.4 |
| BVA0 | | | | pmax | pmax | | |
| | comp=Z,101nm,1.3s | | | | | | |
| BVAR | Borovoye Array | 78.18 | 327 | P | P | 19 40 35.0 | +0.1 |
| | comp=Z,39nm,0.8s,baz=116,slow=6.8,SNR=165 | | | | | | |
| BVAR | Borovoye Array | 78.18 | 327 | P | P | 19 40 35.0 | +0.1 |
| BVAR | | | | pmax | pmax | | |
| | comp=Z,39nm,0.8s | | | | | | |
| WSAR | Wadi Sarin | 78.22 | 295 | P | P | 19 40 35.4 | -0.4 |
| | comp=Z,25nm,1.0s,baz=108,slow=6.6,SNR=6.1 | | | | | | |
| BRVK | Borovoye | 78.25 | 327*c* | *i*P | P | 19 40 35.3 | 0.0 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,257nm,1.2s | | | | | | |
| BRVK | Borovoye | 78.25 | 327 | *e*P | P | 19 40 35.5 | +0.2 |
| | comp=Z,68nm,0.9s | | | | | | |
| BRVK | | | | LR | LR | | |
| | comp=Z,1μm,19.0s | | | | | | |
| BRVK | Borovoye | 78.25 | 327 | P | P | 19 40 35.3 | 0.0 |
| | SNR=31 | | | | | | |
| MAW | Mawson | 78.36 | 202 | P | P | 19 40 36.6 | +1.0 |
| | comp=Z,21nm,0.6s,baz=75,slow=6.3,SNR=22 | | | | | | |
| MAW | | | | PP | PP | 19 43 31.6 | -1.1 |
| | comp=Z,11nm,0.3s,baz=85,slow=12,SNR=28 | | | | | | |
| MAW | | | | LR | LR | 20 12 43.5 | |
| | comp=Z,5μm,19.4s,baz=72,slow=34 | | | | | | |
| MAW | Mawson | 78.36 | 202 | *e*P | P | 19 40 37.3 | +1.7 |
| | comp=Z,18nm,1.2s | | | | | | |
| MAW | | | | PP | PP | 19 43 31.6 | -1.1 |
| BIDO | Bidbid | 78.73 | 295 | P | P | 19 40 39.4 | +0.9 |
| | SNR=6.2 | | | | | | |
| FALS | False Pass | 78.75 | 32 | *e*P | P | 19 40 38.8 | +0.9 |
| | comp=Z,192nm,1.0s | | | | | | |
| GAMB | Gambell | 79.49 | 22 | *e*P | P | 19 40 43.2 | +1.5 |
| | comp=Z,62nm,1.2s | | | | | | |
| UOSS | Minazif | 80.70 | 296 | *e*P | P | 19 40 49.4 | +0.2 |
| | comp=Z,62nm,1.3s | | | | | | |
| HATD | Hatta, Dubai | 80.75 | 296 | P | P | 19 40 49.9 | +0.4 |
| BANOM | Banah | 80.78 | 297 | *i* P | P | 19 40 50.1 | +0.4 |
| | SNR=8.0 | | | | | | |
| FAQ | Al Faqa, Dubai | 81.22 | 296 | P | P | 19 40 52.1 | +0.1 |
| GEYT | Alibeck | 81.61 | 309 | P | P | 19 40 54.5 | +0.7 |
| | comp=Z,53nm,1.2s,baz=126,slow=2.6,SNR=62 | | | | | | |
| GEYT | | | | PKPPKP | P'P'df | 20 07 45.1 | +14 |
| | comp=Z,0.4nm,0.4s,baz=240,slow=2.8,SNR=3.7 | | | | | | |
| CHGN | Chignik | 81.93 | 31 | *e*P | P | 19 40 55.4 | +0.4 |
| | comp=Z,135nm,1.4s | | | | | | |
| AB31 | Akbulak array | 83.08 | 321 | *i* P | P | 19 41 00.2 | -1.0 |
| AB31 | | | | pmax | pmax | | |
| | comp=Z,16nm,0.7s | | | | | | |
| AKTO | Aktyubinsk | 84.58 | 322 | P | P | 19 41 08.9 | +0.1 |
| | comp=Z,22nm,1.0s,baz=100,slow=5.7,SNR=37 | | | | | | |
| AKTO | Aktyubinsk | 84.58 | 322 | *i* P | P | 19 41 07.9 | -1.0 |
| AKTO | | | | pmax | pmax | | |
| | comp=Z,100nm,1.4s | | | | | | |
| SVE | Sverdlovsk | 84.79 | 328*d* | *i*P | P | 19 41 01.0 | -8.7 |
| SVE | | | | *e*S | S | 19 51 28.6 | -8.0 |
| SVE | | | | pmax | pmax | | |
| | comp=Z,86nm,1.4s | | | | | | |
| OHAK | Old Harbor | 84.89 | 31 | *e*P | P | 19 41 10.9 | +0.6 |
| | comp=Z,101nm,1.1s | | | | | | |
| SVW2 | Sparrevohn | 84.97 | 27 | *e*P | P | 19 41 12.0 | +1.4 |
| | comp=Z,44nm,1.2s | | | | | | |
| ABPO | Ambohimpanom | 85.12 | 251 | *e*P | P | 19 41 13.8 | +1.3 |
| ABPO | | | | pmax | pmax | | |
| | comp=Z,38nm,1.4s | | | | | | |
| ABPO | | | | MLR | MLR | | |
| | comp=Z,498nm,21.0s | | | | | | |
| ABPO | Ambohimpanom | 85.12 | 251 | *e*P | P | 19 41 13.8 | +1.3 |
| | comp=Z,38nm,1.4s | | | | | | |
| ABPO | | | | LR | LR | | |
| | comp=Z,498nm,21.0s | | | | | | |
| QSPA | South Pole Qui | 85.20 | 180 | *e*P | P | 19 41 11.8 | -0.1 |
| | comp=Z,219nm,1.6s | | | | | | |
| KDAK | Kodiak Island | 85.42 | 31 | P | P | 19 41 13.7 | +0.8 |
| | comp=Z,32nm,0.6s,baz=255,slow=3.6,SNR=31 | | | | | | |
| KDAK | Kodiak Island | 85.42 | 31 | *e*P | P | 19 41 12.9 | +0.1 |
| KDAK | | | | pmax | pmax | | |
| | comp=Z,82nm,1.0s | | | | | | |
| KDAK | | | | MLR | MLR | | |
| | comp=Z,2μm,20.0s | | | | | | |
| KDAK | Kodiak Island | 85.42 | 31 | *e*P | P | 19 41 12.9 | +0.1 |
| | comp=Z,82nm,1.0s | | | | | | |
| KDAK | | | | LR | LR | | |
| | comp=Z,2μm,20.0s | | | | | | |
| TAOE | Nuku Hiva Isla | 85.50 | 98 | *e*LR | LR | 20 08 20.1 | |
| | comp=Z,4μm,23.6s | | | | | | |
| ARU | Arti | 85.78 | 327 | P | P | 19 41 12.7 | -2.0 |
| | comp=Z,12nm,0.9s,baz=43,slow=1.3,SNR=15 | | | | | | |
| ARU | | | | PP | PP | 19 44 34.4 | +0.2 |
| | comp=Z,8.8nm,0.9s,baz=99,slow=7.6,SNR=5.5 | | | | | | |
| ARU | Arti | 85.78 | 327*d* | *i*P | P | 19 41 12.9 | -1.8 |
| ARU | | | | | | 19 44 32.8 | |
| ARU | | | | S | S | 19 51 37.9 | -8.6 |
| ARU | | | | SS | SS | 19 57 19.5 | -4.0 |
| ARU | | | | pmax | pmax | | |
| | comp=Z,30nm,1.7s | | | | | | |
| ARU | Arti | 85.78 | 327 | *e*P | P | 19 41 12.3 | -2.4 |
| | comp=Z,29nm,1.0s | | | | | | |
| ARU | | | | PP | PP | 19 44 34.4 | +0.2 |
| ARU | | | | LR | LR | | |
| | comp=Z,1μm,19.0s | | | | | | |
| SPU | Mount Spurr | 86.63 | 28 | *e*P | P | 19 41 20.4 | +1.5 |
| PPLA | Purkeypile | 87.05 | 26 | *e*P | P | 19 41 21.5 | +0.5 |
| | comp=Z,152nm,1.5s | | | | | | |
| SYO | Syowa Base | 87.06 | 201⇑ | *e*P | P | 19 41 19.6 | -1.2 |
| CAST | Castle Rocks | 87.24 | 26 | *e*P | P | 19 41 22.3 | +0.5 |
| | comp=Z,34nm,1.0s | | | | | | |
| IMAR | Indian Mountai | 87.31 | 23 | *e*P | P | 19 41 22.8 | +0.8 |
| SUA | Susitna One | 87.31 | 28 | *e*P | P | 19 41 22.1 | -0.2 |
| | comp=Z,81nm,1.1s | | | | | | |
| SOKR | Solikamsk | 87.48 | 330*c* | *i*P | P | 19 41 28.5 | +5.6 |
| SOKR | | | | S | S | 19 52 03.3 | +0.5 |
| SOKR | | | | pmax | pmax | | |
| | comp=Z,26nm,1.0s | | | | | | |
| SOKR | | | | MLR | MLR | | |
| | comp=Z,741nm,18.0s | | | | | | |
| SEW | Seward | 87.59 | 29 | *e*P | P | 19 41 23.9 | +0.4 |
| | comp=Z,130nm,1.4s | | | | | | |
| RC01 | Rabbit Creek A | 87.69 | 28 | *e*P | P | 19 41 24.1 | +0.2 |
| | comp=Z,70nm,0.9s | | | | | | |
| KTH | Kantishna Hill | 87.78 | 26 | *e*P | P | 19 41 24.7 | +0.3 |
| | comp=Z,73nm,1.2s | | | | | | |
| BPAW | Bear Paw Mtn. | 87.90 | 25 | *e*P | P | 19 41 22.6 | -2.3 |
| | comp=Z,36nm,0.9s | | | | | | |
| TRF | Thorofare Moun | 88.03 | 26 | *e*P | P | 19 41 26.1 | +0.3 |
| | comp=Z,59nm,1.2s | | | | | | |
| PMR | Palmer | 88.10 | 28 | *e*P | P | 19 41 25.3 | -0.5 |
| PMR | | | | pmax | pmax | | |
| | comp=Z,68nm,1.1s | | | | | | |
| PMR | Palmer | 88.10 | 28 | *e*P | P | 19 41 25.3 | -0.5 |
| | comp=Z,68nm,1.1s | | | | | | |
| MLY | Manley | 88.24 | 24 | *e*P | P | 19 41 27.2 | +0.6 |
| | comp=Z,22nm,0.8s | | | | | | |
| SML | Sawmill | 88.52 | 28 | *e*P | P | 19 41 28.6 | +0.7 |
| SML | | | | pmax | pmax | | |
| | comp=Z,114nm,1.1s | | | | | | |
| SML | Sawmill | 88.52 | 28 | *e*P | P | 19 41 28.6 | +0.7 |
| | comp=Z,114nm,1.1s | | | | | | |
| RND | Reindeer | 88.64 | 26 | *e*P | P | 19 41 28.6 | +0.1 |
| RND | | | | pmax | pmax | | |
| | comp=Z,48nm,0.9s | | | | | | |
| RND | Reindeer | 88.64 | 26 | *e*P | P | 19 41 28.6 | +0.1 |
| | comp=Z,48nm,0.9s | | | | | | |
| MCK | McKinley | 88.68 | 26 | *e*P | P | 19 41 28.8 | +0.2 |
| MCK | | | | pmax | pmax | | |
| | comp=Z,47nm,1.0s | | | | | | |
| MCK | McKinley | 88.68 | 26 | *e*P | P | 19 41 28.8 | +0.2 |
| | comp=Z,47nm,1.0s | | | | | | |
| LKRN | Lenkeran, Azer | 88.97 | 309 | *i* P | P | 19 41 29.9 | -0.6 |
| SCM | Sheep Creek Mo | 88.99 | 28 | *e*P | P | 19 41 31.5 | +1.3 |
| SCM | | | | pmax | pmax | | |
| | comp=Z,126nm,1.3s | | | | | | |
| SCM | Sheep Creek Mo | 88.99 | 28 | *e*P | P | 19 41 31.5 | +1.3 |
| | comp=Z,126nm,1.3s | | | | | | |
| COLD | Coldfoot | 89.02 | 22 | *e*P | P | 19 41 31.4 | +1.3 |
| | comp=Z,32nm,1.0s | | | | | | |
| WRH | Wood River Hil | 89.21 | 25 | *e*P | P | 19 41 31.2 | +0.1 |
| | comp=Z,37nm,1.0s | | | | | | |
| DHY | Denali Highway | 89.22 | 27 | *e*P | P | 19 41 32.3 | +0.9 |
| | comp=Z,48nm,1.0s | | | | | | |
| CCB | Clear Creek Bu | 89.37 | 25 | *e*P | P | 19 41 31.0 | -0.8 |
| | comp=Z,40nm,1.0s | | | | | | |
| RKT | Rikitea | 89.39 | 113 | *e*S | S | 19 52 20.4 | -2.0 |
| | comp=Z,1μm,27.8s | | | | | | |
| RKT | Rikitea | 89.39 | 113 | *e*LQ | LQ | 20 06 17.7 | |
| | comp=Z,1μm,37.2s | | | | | | |
| RKT | | | | *e*LR | LR | 20 09 59.0 | |
| | comp=Z,3μm,24.5s | | | | | | |
| COLA | College | 89.40 | 25 | *i* P | P | 19 41 32.3 | +0.4 |
| COLA | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.5s | | | | | | |
| COLA | College | 89.40 | 25 | PFAKE | | 19 41 40.0 | +8.1 |
| COLA | | | | LR | LR | | |
| | comp=Z,2μm,20.0s | | | | | | |
| KLU | Klutina | 89.58 | 28 | *e*P | P | 19 41 33.8 | +0.8 |
| | comp=Z,108nm,1.8s | | | | | | |
| DIV | Divide | 89.58 | 29 | *e*P | P | 19 41 34.3 | +1.3 |
| | comp=Z,98nm,1.0s | | | | | | |
| IL1 | Eielson Array | 89.78 | 25 | *e*P | P | 19 41 31.3 | -2.5 |
| ILAR | Eielson Array | 89.78 | 25 | P | P | 19 41 32.5 | -1.2 |
| | comp=Z,9.7nm,0.9s,baz=267,slow=4.4,SNR=22 | | | | | | |
| ILAR | | | | PP | PP | 19 45 05.7 | -0.4 |
| | comp=Z,2.3nm,1.1s,baz=256,slow=5.3,SNR=3.2 | | | | | | |
| ILAR | | | | PKKPbc | PKKPbc | 19 59 08.8 | -0.6 |
| | comp=Z,0.4nm,0.6s,baz=310,slow=1.3,SNR=6.5 | | | | | | |
| ILAR | | | | PKPPKP | P'P'df | 20 07 15.7 | +1.2 |
| | comp=Z,0.3nm,0.8s,baz=64,slow=2.1,SNR=2.8 | | | | | | |
| ILAR | | | | LR | LR | 20 19 03.8 | |
| | comp=Z,1μm,20.4s,baz=264,slow=34 | | | | | | |
| ILB | Eielson Array | 89.78 | 25 | *e*P | P | 19 41 32.6 | -1.2 |
| RAYN | Ar Rayn | 90.21 | 293 | PFAKE | | 19 41 50.0 | +13 |
| RAYN | | | | LR | LR | | |
| | comp=Z,2μm,21.0s | | | | | | |
| MAK | Makhachkala | 90.42 | 313 | *e*P | P | 19 41 31.8 | -5.4 |
| MAK | | | | *e* | | 19 45 06.6 | |
| MAK | | | | *e*S | SKSac | 19 51 59.4 | -8.2 |
| MAK | | | | *e*SS | SS | 19 58 25.4 | -6.3 |
| MAK | | | | *e*SSS | SSS | 20 02 00.9 | |
| MAK | | | | pmax | pmax | | |
| | comp=Z,158nm,1.2s | | | | | | |
| SEKA | Sheki | 90.46 | 311 | *i* P | P | 19 41 36.5 | -1.0 |
| MNGR | Mingechevir, A | 90.50 | 311 | *i* P | P | 19 41 37.0 | -0.6 |
| MENT | Mentasta | 90.84 | 27 | *e*P | P | 19 41 38.1 | -0.7 |
| ZKTA | Zakatala | 90.93 | 312 | *i* P | P | 19 41 39.0 | -0.7 |
| GANJ | Ganja | 91.07 | 311 | *i* P | P | 19 41 39.6 | -0.7 |
| NAX | Nakhchivan | 91.57 | 309 | *i* P | P | 19 41 42.0 | -0.8 |
| ATD | Arta Tunnel | 91.75 | 281 | P | P | 19 41 45.6 | +1.5 |
| | comp=Z,7.6nm,0.7s,baz=301,slow=15,SNR=4.5 | | | | | | |
| EGAK | Eagle | 92.21 | 25 | PFAKE | | 19 42 00.0 | +15 |
| EGAK | | | | LR | LR | | |
| | comp=Z,2μm,20.0s | | | | | | |
| GNI | Garni | 92.23 | 310 | P | P | 19 41 44.4 | -1.5 |
| | comp=Z,3.7nm,0.9s,baz=212,slow=5.4,SNR=3.9 | | | | | | |
| GNI | Garni | 92.23 | 310 | *i* P | P | 19 41 45.9 | 0.0 |
| GNI | | | | pmax | pmax | | |
| | comp=Z,16nm,1.1s | | | | | | |
| GNI | Garni | 92.23 | 310 | *e*P | P | 19 41 44.4 | -1.5 |
| GNI | | | | LR | LR | | |
| | comp=Z,995nm,19.0s | | | | | | |
| DAWY | Dawson | 92.90 | 26 | *e*P | P | 19 41 49.8 | +1.4 |
| | comp=Z,14nm,1.0s | | | | | | |
| ZEI | Tsey | 93.04 | 313 | *e*P | P | 19 41 47.5 | -2.1 |
| ZEI | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.0s | | | | | | |
| AKH | Akhalkalaki | 93.26 | 311⇓ | *i*P | P | 19 41 51.2 | +0.6 |
| HYT | Haines Junctio | 93.54 | 29 | *e*P | P | 19 41 53.2 | +1.7 |
| | comp=Z,29nm,1.5s | | | | | | |
| KBZ | Khabaz | 93.83 | 313 | P | P | 19 41 51.8 | -1.2 |
| | comp=Z,2.4nm,0.9s,baz=282,slow=6.9,SNR=3.6 | | | | | | |
| KBZ | | | | LR | LR | 20 30 45.7 | |
| | comp=Z,547nm,18.1s,baz=80,slow=40 | | | | | | |
| KIV | Kislovodsk | 93.99 | 314 | *e*P | P | 19 41 51.3 | -2.5 |
| KIV | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.1s | | | | | | |
| KIV | Kislovodsk | 93.99 | 314 | PFAKE | | 19 42 00.0 | +6.2 |
| KIV | | | | LR | LR | | |
| | comp=Z,995nm,20.0s | | | | | | |
| ARTV | Artvin | 94.42 | 311 | *e*P | P | 19 41 56.6 | +0.5 |
| VRH | Novokhopyorsk | 94.91 | 321 | *e*P | P | 19 42 00.0 | +2.3 |
| VRH | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.8s | | | | | | |
| INK | Inuvik | 95.43 | 22 | P | P | 19 41 58.2 | -1.5 |
| | comp=Z,2.3nm,0.6s,baz=269,slow=4.1,SNR=4.7 | | | | | | |
| INK | | | | LR | LR | 20 26 38.7 | |
| | comp=Z,589nm,18.2s,baz=262,slow=36 | | | | | | |
| INK | Inuvik | 95.43 | 22 | P | P | 19 41 58.2 | -1.5 |
| INK | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.1s | | | | | | |
| INK | | | | MLR | MLR | | |
| | comp=Z,589nm,18.2s | | | | | | |
| INK | Inuvik | 95.43 | 22 | *e*P | P | 19 41 59.0 | -0.8 |
| | comp=Z,24nm,1.2s | | | | | | |
| KOPT | Kop Dagi | 95.47 | 310 | *e*P | P | 19 42 00.7 | -0.3 |
| | comp=Z,15nm,1.1s | | | | | | |
| NVL | N'lazarevskaya | 95.53 | 196 | *e*P | P | 19 42 00.4 | +0.2 |
| NVL | | | | *e*S | SKSac | 19 52 32.7 | -2.3 |
| NVL | | | | *e*PS | PS | 19 54 39.1 | +3.3 |
| NVL | | | | MLR | MLR | | |
| | comp=Z,7μm,20.0s | | | | | | |
| KLMR | Klimovskoe | 96.16 | 331 | *e*P | P | 19 41 59.2 | -4.0 |
| KLMR | | | | *e* | | 19 45 52.4 | |
| KLMR | | | | S | SKSac | 19 52 34.7 | -3.8 |
| KLMR | | | | pmax | pmax | | |
| | comp=Z,47nm,1.4s | | | | | | |
| KMBO | Kilima Mbogo | 96.31 | 268 | P | P | 19 42 05.2 | -0.2 |
| | comp=Z,1.4nm,0.5s,baz=87,slow=6.3,SNR=4.5 | | | | | | |
| KMBO | | | | LR | LR | 20 22 39.4 | |
| | comp=Z,2μm,21.9s,baz=94,slow=34 | | | | | | |
| KMBO | Kilima Mbogo | 96.31 | 268 | *e*P | P | 19 42 05.2 | -0.2 |
| | comp=Z,7.7nm,1.3s | | | | | | |
| VSR | Storozhevoye | 96.52 | 321 | *e*P | P | 19 42 02.8 | -2.3 |
| VSR | | | | pmax | pmax | | |
| | comp=Z,20nm,1.5s | | | | | | |
| LPSR | Galich'ya Gora | 96.65 | 322 | *e*P | P | 19 42 03.5 | -2.1 |
| LPSR | | | | pmax | pmax | | |
| | comp=Z,20nm,1.1s | | | | | | |
| MOS | Moscow | 97.33 | 325 | *e*P | P | 19 42 00.7 | -7.9 |
| MOS | | | | *e* | | 19 46 04.4 | |
| MOS | | | | pmax | pmax | | |
| | comp=Z,30nm,1.0s | | | | | | |
| OBN | Obninsk | 97.96 | 325 | PFAKE | | 19 42 20.0 | +8.5 |
| OBN | | | | LR | LR | | |
| | comp=Z,2μm,19.0s | | | | | | |
| ASF | Jabal al Asfar | 98.25 | 302 | P | Pdif | 19 42 13.7 | +0.1 |
| | comp=Z,4.0nm,1.0s,baz=220,slow=3.8,SNR=5.3 | | | | | | |
| APA | Apatity | 98.30 | 338⇓ | *i*P | Pdif | 19 42 17.0 | +4.2 |
| APA | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.1s | | | | | | |
| APA | | | | MLR | MLR | | |
| | comp=Z,4μm,19.0s | | | | | | |
| SNAA | Sanae | 98.66 | 193 | *e*P | Pdif | 19 42 14.7 | +0.2 |
| SNAA | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.0s | | | | | | |
| SNAA | Sanae | 98.66 | 193 | *e*P | Pdif | 19 42 14.7 | +0.2 |
| | comp=Z,9.9nm,1.0s | | | | | | |
| EIL | Elat | 99.92 | 299 | P | Pdif | 19 42 20.8 | -0.1 |
| | comp=Z,3.6nm,0.9s,baz=127,slow=10.0,SNR=2.3 | | | | | | |
| SIM | Simferopol' | 100.12 | 315 | P | Pdif | 19 42 17.1 | -4.3 |
| SIM | | | | S | SKSac | 19 53 02.0 | +2.7 |
| SIM | | | | pmax | pmax | | |
| | comp=Z,13nm,0.8s | | | | | | |
| KBS | Kingsbay | 100.50 | 350 | PFAKE | | 19 42 30.0 | +7.6 |
| KBS | | | | LR | LR | | |
| | comp=Z,2μm,20.0s | | | | | | |
| BR101 | Keskin Array S | 100.75 | 309 | *e*Pdif | Pdif | 19 42 23.4 | -1.2 |
| BR101 | | | | *e*PP | PP | 19 46 33.8 | +1.6 |
| BRTR | Keskin Array B | 100.75 | 309 | P | Pdif | 19 42 23.4 | -1.2 |
| | comp=Z,0.9nm,0.9s,baz=90,slow=5.9,SNR=4.5 | | | | | | |
| BRTR | | | | PP | PP | 19 46 33.8 | +1.6 |
| | comp=Z,2.5nm,1.1s,baz=79,slow=7.2,SNR=3.3 | | | | | | |
| ARA0 | ARCESS Array S | 100.75 | 340 | *e*Pdif | Pdif | 19 42 24.4 | +0.7 |
| ARCES | ARCESS Array B | 100.75 | 340 | P | Pdif | 19 42 24.4 | +0.7 |
| | comp=Z,4.2nm,1.0s,baz=61,slow=13,SNR=4.7 | | | | | | |
| ANTO | Ankara | 101.39 | 310 | PFAKE | | 19 42 40.0 | +13 |
| ANTO | | | | LR | LR | | |
| | comp=Z,632nm,20.0s | | | | | | |
| FIA0 | FINESS Array S | 102.54 | 332 | *e*P | Pdif | 19 42 29.6 | -2.2 |

FIA0 FINESS Array S 102.54 332 ePdif Pdif 19 42 29.6 -2.2
FINES FINESS Array B 102.54 332 Pdiff Pdif 19 42 29.6 -2.2
comp=Z,2.8nm,0.9s,baz=95,slow=17,SNR=4.0
AKASG Malin Array Be 102.82 321 Pdiff Pdif 19 42 31.6 -1.7
comp=Z,0.1nm,0.3s,baz=72,slow=3.0,SNR=4.8
AKASG PP PP 19 46 45.6 -1.6
comp=Z,0.2nm,0.3s,baz=62,slow=7.9,SNR=3.6
KIS Kishinev 103.60 317 eP Pdif 19 42 36.0 -0.8
KIS eLR LR 20 27 10.0
comp=Z,2µm,20.0s
KIS Kishinev 103.60 317 eP Pdif 19 42 36.0 -0.8
BOSA Boshof 103.75 239 Pdiff Pdif 19 42 37.3 -0.8
comp=Z,6.9nm,1.2s,baz=74,slow=3.5,SNR=3.8
YKA Yellowknife Ar 104.14 26 Pdiff Pdif 19 42 38.5 -0.4
comp=Z,1.1nm,1.0s,baz=289,slow=4.9,SNR=3.4
YKA PKiKP PP 19 46 56.7 +0.2
comp=Z,0.7nm,0.7s,baz=303,slow=1.6,SNR=6.1
YKA PKKPbc PKKPbc 19 58 27.1 -2.7
comp=Z,0.6nm,0.5s,baz=111,slow=3.0,SNR=9.8
YKB5 Yellowknife Ar 104.14 26 ePdif Pdif 19 42 38.5 -0.4
YKB5 ePKiKP PP 19 46 56.7 +0.2
HAWA Hanford 105.00 43 PFAKE 19 47 10.0
HAWA LR LR
comp=Z,2µm,20.0s
TESR Tescani 105.15 317⇑iP Pdif 19 42 49.4 +5.7
VRI Vrincioaia 105.19 316⇓iP Pdif 19 42 43.1 -0.9
VRI Vrincioaia 105.19 316 ⇓P Pdif 19 42 43.1 -0.9
MLR Muntele Rosu 105.80 316 PKiKP PKiKP 19 47 04.5 +5.0
comp=Z,1.3nm,1.1s,baz=80,slow=1.9,SNR=3.0
MLR Muntele Rosu 105.80 316⇑iP Pdif 19 42 46.2 -0.6
MLR Muntele Rosu 105.80 316 ⇑P Pdif 19 42 46.2 -0.6
BURAR Bucovina Array 105.92 318⇑iP Pdif 19 42 46.6 -0.7
BURAR Bucovina Array 105.92 318 ⇑P Pdif 19 42 46.6 -0.7
BUR04 Bucovina Ar. S 105.92 318 ePdif Pdif 19 42 46.5 -0.8
BUR08 Bucovina Ar. S 105.93 318 ePdif Pdif 19 42 47.1 -0.2
SUR Sutherland 106.48 234 PFAKE 19 47 10.0
SUR LR LR
comp=Z,2µm,21.0s
IDI Anoyia 108.06 305 PKiKP PKiKP 19 47 04.3 +0.3
comp=Z,3.2nm,0.5s,baz=63,slow=4.5,SNR=5.6
CRVS Cervenica-Dubn 108.10 320 eP Pdif 19 42 57.6 +0.7
CRVS Cervenica-Dubn 108.10 320 ePDIFF Pdif 19 42 57.5 +0.7
HFS Hagfors 108.71 333 Pdiff Pdif 19 42 58.3 -1.0
comp=Z,8.4nm,1.1s,baz=63,slow=4.5,SNR=2.5
HFS PKiKP PKiKP 19 47 06.1 +1.8
comp=Z,5.1nm,0.9s,baz=48,slow=2.4,SNR=3.1
HLID Hailey 109.08 46 PFAKE 19 47 20.0
HLID LR LR
comp=Z,2µm,19.0s
PFO Pinyon Flats O 109.15 56 PFAKE 19 47 20.0
PFO LR LR
comp=Z,2µm,19.0s
JMIC Jan Mayen 109.63 348 PKiKP PKiKP 19 47 05.3 -0.5
comp=Z,145nm,0.5s,baz=43,slow=2.3,SNR=2.5
DPC Dobruska-Polom 110.90 322 AMS AMS 20 46 00.0
comp=Z,2µm,18.2s
TIR Tirane 110.93 312 PFAKE 19 47 20.0
TIR LR LR
comp=Z,1µm,20.0s
DUG Dugway, Tooele 110.95 49 PFAKE 19 47 20.0
DUG LR LR
comp=Z,3µm,19.0s
UPC Upice 111.04 323 AMS AMS 20 45 10.0
comp=Z,2µm,17.6s
EGMT Eagleton 111.12 40 PFAKE 19 47 20.0
EGMT LR LR
comp=Z,1µm,22.0s
RPN Rapa Nui 111.44 121 PFAKE 19 47 20.0
RPN LR LR
comp=Z,1µm,21.0s
TREC Trest 111.75 322 AMS AMS 20 45 50.0
comp=Z,2µm,17.9s
PVCC Panska Ves 111.90 323 AMS AMS 20 44 10.0
comp=Z,1µm,20.5s
GOPC GO Pecny, Ondr 111.98 322 eSP SP 19 57 22.3 -2.1
GOPC AMS AMS 20 44 50.0
comp=Z,2µm,18.2s
PRU Pruhonice 112.10 323 eSP SP 19 57 22.5 -3.0
PRU AMS AMS 20 40 00.0
comp=Z,1µm,18.5s
PRA Prague 112.14 323 AMS AMS 20 45 50.0
CLL Collm 112.54 324 ePKIKP PKiKP 19 47 12.0 +0.2
CLL e 19 47 59.0
CLL MLR MLR
comp=Z,2µm,18.9s
CLL Collm 112.54 324 ePKiKP PKiKP 19 47 12.0 +0.2
CLL e 19 47 28.0
CLL ePP PP 19 47 59.0 +0.8
CLL eSKSac SKSac 19 54 00.0 +5.9
CLL ePS PS 19 57 24.0 -8.8
CLL e 19 58 12.0
CLL ePPS PPS 19 58 36.0
CLL eSS SS 20 03 42.0 +4.1
CLL LmV 20 47 00.0
comp=Z,2µm,18.9s
PDAR Pinedale Array 112.72 45 PKiKP PKiKP 19 47 12.9 +0.1
comp=Z,0.5nm,0.7s,baz=277,slow=1.5,SNR=3.2
PDAR PKKPbc PKKPbc 19 58 00.9 -1.3
comp=Z,0.7nm,0.8s,baz=101,slow=4.8,SNR=5.0
KHC Kasperske Hory 112.99 322 epPKP pPKiKP 19 47 21.3 +1.5
KHC eSP SP 19 57 37.4 +3.6
KHC AMS AMS 20 46 50.0
comp=Z,2µm,17.6s
KHC Kasperske Hory 112.99 322 ePKIKP pPKiKP 19 47 21.3 +1.5
KHC ePS PS 19 57 37.4 +0.3
KHC MLR MLR
comp=Z,2µm,17.6s
GERES GERESS Array B 113.01 322 PKiKP PKiKP 19 47 12.7 -0.3
comp=Z,0.6nm,0.6s,baz=151,slow=3.0,SNR=4.5
FFC Flin Flon 113.16 31 PFAKE 19 47 20.0
FFC LR LR
comp=Z,2µm,21.0s
NKC Novy Kostel 113.27 323 AMS AMS 20 47 20.0
comp=Z,2µm,20.5s
DGMT Dagmar 114.47 38 PFAKE 19 47 30.0 +14
DGMT LR LR
comp=Z,2µm,21.0s
DAVOX Davos/Dischmat 116.17 320 PKP PKPdf 19 47 19.3 +0.1
comp=Z,2.8nm,0.9s,baz=128,slow=7.5,SNR=3.5
ISCO Idaho Springs 116.40 48 PFAKE 19 47 30.0 +10
ISCO LR LR
comp=Z,3µm,19.0s
BFO Black Forest 116.50 323 PFAKE 19 47 30.0 +10
BFO LR LR
comp=Z,1µm,19.0s
TUE Stuetta 116.62 320 PFAKE 19 47 30.0 +10
TUE LR LR
comp=Z,1µm,20.0s
VLC Villacollemand 116.81 318 PFAKE 19 47 30.0 +10
VLC LR LR
comp=Z,1µm,19.0s
ANMO Albuquerque 117.04 53 PFAKE 19 47 30.0 +8.7
ANMO LR LR
comp=Z,2µm,19.0s
WLF Walferdange 117.21 325 PFAKE 19 47 30.0 +9.1
WLF LR LR
comp=Z,2µm,19.0s
ECH Echery 117.26 323 PFAKE 19 47 30.0 +8.9
ECH LR LR
comp=Z,1µm,19.0s
ULM Lac du Bonnet 118.57 34 PKP PKPdf 19 47 23.3 -0.2
comp=Z,1.9nm,0.7s,baz=19,slow=3.2,SNR=3.3
BNI Bardonecchia 118.91 320 PFAKE 19 47 40.0 +16
BNI LR LR
comp=Z,2µm,21.0s
ESK Eskdalemuir 118.92 333 PFAKE 19 47 40.0 +16
ESK LR LR
comp=Z,3µm,20.0s
VSL Villasalto 119.13 313 PFAKE 19 47 40.0 +15
VSL LR LR
comp=Z,1µm,20.0s
AGMN Agassiz Nation 119.55 36 PFAKE 19 47 40.0 +15
AGMN LR LR
comp=Z,2µm,20.0s
SSB Saint Sauveur 120.17 321 PFAKE 19 47 40.0 +13
SSB LR LR
comp=Z,887nm,19.0s
KEST Kesra 120.35 309 PKP PKPdf 19 47 27.5 0.0
comp=Z,3.3nm,0.9s,baz=34,slow=3.6,SNR=3.0
HOPE Hope Point 120.59 187 PFAKE 19 47 40.0 +13
HOPE LR LR
comp=Z,3µm,19.0s
TX31 Lajitas Ar. Si 120.64 59 ePKPdf PKPdf 19 47 29.3 +1.1
LTX Lajitas 120.64 59 ePKIKP PKPdf 19 47 28.5 +0.2
LTX Lajitas 120.64 59 ePKPdf PKPdf 19 47 28.5 +0.2
LTX ePKKPbc PKKPab 19 57 34.9 +0.4
TXAR Lajitas Array 120.64 59 PKP PKPdf 19 47 28.5 +0.2
comp=Z,0.5nm,0.6s,baz=148,slow=1.2,SNR=5.2
TXAR PKKPab PKKPab 19 57 34.9 +0.4
comp=Z,0.9nm,0.6s,baz=104,slow=5.7,SNR=6.9
ECSD EROS Data Cent 121.22 41 PFAKE 19 47 40.0 +11
ECSD LR LR
comp=Z,2µm,21.0s
EYMN Ely 122.23 34 PFAKE 19 47 40.0 +9.4
EYMN LR LR
comp=Z,3µm,19.0s
EFI East Falkland 122.89 171 PFAKE 19 47 40.0 +8.3
EFI LR LR
comp=Z,3µm,19.0s
JCT Junction City 123.61 56 ePKIKP PKPdf 19 47 34.5 +0.7
JCT MLR MLR
comp=Z,2µm,20.0s
JCT Junction City 123.61 56 ePKPdf PKPdf 19 47 34.5 +0.7
JCT LR LR
comp=Z,2µm,20.0s
W35A Tecumseh 124.48 50 ePKPdf PKPdf 19 47 36.9 +1.6
V36A Jenks 124.96 49 ePKPdf PKPdf 19 47 37.4 +1.2
W37B Quinton 125.58 50 ePKPdf PKPdf 19 47 38.6 +1.2
JFWS Jewell Farm 125.68 39 PFAKE 19 47 50.0 +13
JFWS LR LR
comp=Z,2µm,22.0s
TAM Tamanrasset 126.87 295 ePKIKP PKPdf 19 47 42.0 +1.6
TAM Tamanrasset 126.87 295 ePKPdf PKPdf 19 47 42.0 +1.6
HDIL Hopedale 127.52 41 PFAKE 19 47 50.0 +9.1
HDIL LR LR
comp=Z,2µm,19.0s
GLMI Grayling 127.92 34 PFAKE 19 47 50.0 +8.4
GLMI LR LR
comp=Z,2µm,19.0s
ESDC Sonseca Array 128.38 318 PKP PKPdf 19 47 41.0 -1.7
comp=Z,0.2nm,0.4s,baz=120,slow=1.9,SNR=3.3
MVO Moncorvo 129.53 322 eP PKPdf 19 48 12.2 +27
MVO Moncorvo 129.53 322 eLR LR 20 42 14.8
comp=Z,870nm,18.0s
PLCA Paso Flores 129.57 156 PKP PKPdf 19 47 45.4 +0.3
comp=Z,1.1nm,0.5s,baz=214,slow=11,SNR=3.1
PLCA Paso Flores 129.57 156 ePKIKP PKPdf 19 47 45.8 +0.8
PLCA Paso Flores 129.57 156 ePKPdf PKPdf 19 47 45.8 +0.8
PGAV Gavieira, Arco 129.81 323 eLR LR 20 46 08.7
comp=Z,1µm,20.0s
POLO Lamas de Olo 129.88 322 eP PKPdf 19 48 03.3 +18
AAM Ann Arbor 130.03 36 PFAKE 19 48 00.0 +14
AAM LR LR
comp=Z,3µm,21.0s
MTE Manteigas 130.29 321 PFAKE 19 48 00.0 +14
MTE LR LR
comp=Z,1µm,19.0s
MTE Manteigas 130.29 321 eLR LR 20 41 29.9
comp=Z,1µm,18.0s
PMRV Marv??o 130.74 320 eLR LR 20 44 07.5
comp=Z,954nm,20.0s
ACSO Alum Creek Sta 131.69 38 PFAKE 19 48 00.0 +11
ACSO LR LR
comp=Z,2µm,22.0s
TOA0 Torodi Ar. Sit 131.92 283 ePKPdf PKPdf 19 47 49.5 -0.5
TORD Torodi Ar. Bea 131.92 283 PKhKP PKPpre 19 47 34.9
comp=Z,0.4nm,0.5s,baz=79,slow=3.7,SNR=7.6
TORD PKP PKiKP 19 47 50.7 -0.3
comp=Z,7.8nm,0.7s,baz=63,slow=1.9,SNR=36
TORD PP PP 19 50 14.3 +3.2
comp=Z,4.9nm,1.1s,baz=98,slow=3.5,SNR=6.4
TORD SKPbc SKPbc 19 51 15.0 -0.1
comp=Z,4.2nm,0.9s,baz=50,slow=2.0,SNR=5.4
TOA1 Torodi Ar. Sit 131.92 283 ePKPdf PKPdf 19 47 50.7 +0.7
TOA1 ePP PP 19 50 14.3 +3.2
TOA1 eSKPbc SKPbc 19 51 15.0 -0.1
PBDV Barranco-do-Ve 132.31 318 eP PKPdf 19 48 10.0 +20
RTC Rabat Centre 133.25 314 PFAKE 19 48 00.0 +8.0
RTC LR LR
comp=Z,3µm,21.0s
BRAL Brewton 133.62 51 PFAKE 19 48 00.0 +7.2
BRAL LR LR
comp=Z,2µm,20.0s
SHEL Horse Pasture 134.88 242 PFAKE 19 48 10.0 +14
SHEL LR LR
comp=Z,619nm,19.0s
BLA Blacksburg 135.11 39 PFAKE 19 48 10.0 +15
BLA LR LR
comp=Z,2µm,20.0s
GOGA Godfrey 135.21 46 PFAKE 19 48 10.0 +14
GOGA LR LR
comp=Z,2µm,21.0s
IP03 Louisa 136.08 37 ePKPdf PKPdf 19 47 55.8 -1.4
KOWA Kowa 137.26 286 ePKPdf PKPdf 19 47 59.4 -0.6
NHSC New Hope 137.69 44 PFAKE 19 48 10.0 +10
NHSC LR LR
comp=Z,2µm,22.0s
CNNC Cliffs of the 137.94 40 PFAKE 19 48 10.0 +9.3
CNNC LR LR
comp=Z,2µm,20.0s
KIC Kosan Boka 138.59 274 eP PKPpre 19 47 58.9
comp=Z,53nm,1.1s
DBIC Dimbokro 138.71 275 PKhKP PKPpre 19 47 52.6
comp=Z,3.3nm,0.9s,baz=52,slow=4.7,SNR=5.6
DBIC PKP PKPdf 19 48 02.8 +0.1
comp=Z,6.3nm,0.6s,baz=76,slow=7.8,SNR=4.9
DBIC Dimbokro 138.71 275 PKHKP PKPpre 19 47 52.7
DBIC e 19 48 00.6
DBIC Dimbokro 138.71 275 PKPpre PKPpre 19 47 52.6
DBIC ePKPdf PKPdf 19 48 00.6 -2.1
TIC Toumodi 138.87 275 eP PKPpre 19 47 56.6
LIC Lamto 138.88 274 eP PKPpre 19 47 55.8
comp=Z,48nm,0.8s
JTS JuntasAbangare 141.33 80 PFAKE 19 48 20.0 +13
JTS LR LR
comp=Z,1µm,20.0s
MAPC Malpelo 144.81 90 eP PKPab 19 48 12.1 -0.5
NNA Nana 145.38 119 PKPbc PKPab 19 48 15.3 +0.6
comp=Z,37nm,0.9s,baz=268,slow=9.8,SNR=9.3
NNA Nana 145.38 119 PFAKE 19 48 30.0 +15
NNA LR LR
comp=Z,1µm,20.0s
ASCN Ascension 145.72 249 PFAKE 19 48 30.0 +14
ASCN LR LR
comp=Z,957nm,21.0s
PB01 IPOC Station P 145.73 139 ePKPdf PKPab 19 48 17.3 +1.5
ATAH Atahualpa 145.88 110 PKPbc PKPab 19 48 18.2 +1.2
comp=Z,78nm,0.9s,baz=198,slow=1.5,SNR=37
BCIP Isla Barro Col 146.46 81 PFAKE 19 48 30.0 +11
BCIP LR LR
comp=Z,1µm,20.0s
PB11 IPOC Station P 146.52 137 ePKPdf PKPdf 19 48 17.2 +0.6
MNMC Minye Minye 147.00 137 ePKPdf PKPbc 19 48 18.7 -0.9
CPUP Villa Florida 147.30 162 PKPbc PKPbc 19 48 20.3 +0.4
comp=Z,25nm,0.9s,baz=228,slow=1.6,SNR=26
CPUP Villa Florida 147.30 162 ePKPdf PKPbc 19 48 20.2 +0.3
OTAV Otavalo 147.59 97 eP PKPbc 19 48 20.6 -1.0
GTBY Guantanamo Bay 148.18 59 PFAKE 19 48 30.0 +4.7
GTBY LR LR
comp=Z,2µm,20.0s
LPAZ La Paz 149.95 135 PKP PKPdf 19 48 24.1 +1.3
comp=Z,5.8nm,0.8s,baz=193,slow=3.0,SNR=7.7
LPAZ PKPbc PKiKP 19 48 28.7 0.0
comp=Z,27nm,0.9s,baz=153,slow=1.6,SNR=35
LPAZ La Paz 149.95 135 PKIKP PKPdf 19 48 24.2 +1.3
LPAZ 19 48 28.7
LPAZ pmax pmax
comp=Z,7.0nm,0.8s
LPAZ pmax pmax
comp=Z,27nm,0.9s
LPAZ La Paz 149.95 135 ePKPbc PKPbc 19 48 28.3 +0.5
MOTC Monteria, Cord 150.59 81 eP PKPbc 19 48 30.8 +2.2
GRTK Grand Turk 150.74 53 PFAKE 19 48 30.0 +1.3
GRTK LR LR
comp=Z,1µm,21.0s
HELC Santa Helena 150.89 86 ePKPbc PKPbc 19 48 30.1 +0.4
SJCC San Jacinto, C 150.94 78 eP PKPab 19 48 33.3 -3.5
GUYC Guyana, Colomb 151.04 88 eP PKPbc 19 48 31.6 +1.4
PRAC Prado 151.49 91 eP PKPbc 19 48 29.1 -1.7
PRAC Prado 151.49 91 ePKPbc PKPbc 19 48 31.3 +0.5
SDDR Presa de Saban 151.84 58 ePKPbc PKPbc 19 48 31.6 +0.2
ROSC El Rosal 152.10 89 PKPbc PKPbc 19 48 32.9 +0.3
comp=Z,13nm,0.6s,baz=134,slow=13,SNR=6.3
ROSC PKPab PKPab 19 48 40.2 -1.9
comp=Z,34nm,0.8s,baz=167,slow=4.7,SNR=18
ROSC El Rosal 152.10 89 ePKPbc PKPbc 19 48 34.3 +1.7
ROSC PKPab PKPab 19 48 40.2 -1.9
CODC Agust˘›n Codaz 152.62 78 eP PKPbc 19 48 32.5 -0.8
GIRC Giron, Santand 153.17 84 eP PKPbc 19 48 32.5 -2.2
BARC Barichara 153.21 85 eP PKPbc 19 48 36.7 +1.8
RUSC La Rusia 153.33 86 ePKPbc PKPbc 19 48 33.7 -1.8
PAMC Pamplona, Colo 153.65 83 eP PKPbc 19 48 36.7 +0.6
SIV San Ignacio 154.73 145 PKP PKPdf 19 48 28.9 -0.3
comp=Z,1.3nm,0.6s,baz=280,slow=3.1,SNR=2.3
SIV PKPab PKPab 19 48 52.3 -0.2
comp=Z,6.2nm,1.0s,baz=217,slow=5.2,SNR=5.4
SDV Santo Domingo 155.52 79 PKP PKPdf 19 48 29.3 -1.3
comp=Z,3.0nm,0.3s,baz=318,slow=15,SNR=3.5
SDV PKPab PKPab 19 48 54.9 -1.4
comp=Z,14nm,0.8s,baz=262,slow=8.3,SNR=5.6
HUMP Col San Antoni 156.73 54 ePKPab PKPab 19 49 00.9 -0.2
BDFB Brasilia 159.66 175 PKPab PKPab 19 49 13.1 -0.6
comp=Z,1.2nm,0.3s,baz=225,slow=2.9,SNR=2.5
ANWB Willy Bob 160.16 49 PFAKE 19 48 50.0 +14
ANWB LR LR
comp=Z,2µm,20.0s
PCRV Puerto La Cruz 161.06 72 PKP PKPdf 19 48 36.9 -0.2
comp=Z,4.8nm,0.6s,baz=23,slow=7.7,SNR=2.2
FDF Fort de France 162.36 55 PFAKE 19 48 50.0 +12
FDF LR LR
comp=Z,1µm,21.0s
GRGR Grenville 163.17 63 PFAKE 19 48 50.0 +11
GRGR LR LR
comp=Z,1µm,22.0s
BBGH Gun Hill 164.50 57 PFAKE 19 48 50.0 +10
BBGH LR LR
comp=Z,3µm,22.0s
PTGA Pitinga 165.31 111 PKP PKPdf 19 48 40.9 -0.2
comp=Z,1.1nm,0.4s,baz=119,slow=19,SNR=3.6
PTGA PKPab PKPab 19 49 40.2 +1.4
comp=Z,8.4nm,0.9s,baz=232,slow=4.8,SNR=8.2
PTGA Pitinga 165.31 111 PKP PKPdf 19 48 40.9 -0.2
PTGA ePKPdf pPKPdf 19 48 46.4 -1.7
PTGA ePKPab PKPab 19 49 40.5 +1.7

---

**IDC 05 19:44:03.6±5.4, 5°.32S×132°.90E, h0km, mb3.4/1, mb1 4.0/3, mb1mx3.4/37, mbtmp3.7/3, ML3.8/2, Error ellipse: s-maj=325.2km s-min=33.4km az=76.0, Aru Islands region**

Code Station Name Δ° AZ° Phase ID Op ISC Time h m s Res ISC
WRA Warramunga Arr 14.60 175 Pn Pn 19 47 29.7 -1.9
0.4nm,0.3s,baz=352,slow=13,SNR=6.2
WRA Sn Sn 19 50 06.8 -7.6
0.2nm,0.3s,baz=1.8,slow=23,SNR=2.7
ASAR Alice Springs 18.27 177 P P 19 48 19.4 +0.5
0.5nm,0.3s,baz=0.8,slow=10,SNR=11
MKAR Makanchi Array 68.45 325 P P 19 55 07.6 0.0
0.2nm,0.4s,baz=125,slow=7.6,SNR=2.7

---

*IDC 05 19:47:48.4±0.8, 31°.49S×71°.73W, h0km, mb4.5/8, mb1 4.4/11, mb1mx4.1/36, mbtmp4.3/11, ML4.2/3, MS3.9/4, Ms1 3.8/4, ms1mx3.7/19, Error ellipse: s-maj=29.8km s-min=20.4km az=76.0*
*ISCJB 05 19:47:50.7±0.4, 31°.59S±0°.02×72°.15W±0°.04, h33km, mb4.5/13, Error ellipse: s-maj=5.1km s-min=3.4km az=2.2*
*SJA 05 19:47:50.7±0.9, 31°.69S×71°.94W, h25km, ML4.9, MW4.4*
*NEIC 05 19:47:51.6±1.7, 31°.51S×71°.82W, h22km±11km, mb4.9/4, Error ellipse: s-maj=12.2km s-min=5.9km az=83.0*
*GUC 05 19:47:52.5±0.8, 31°.57S×71°.47W, h25km±13km, ML4.3*
**ISC 05 19:47:51.8±1.5, 31°.55S±0°.04×71°.75W±0°.05, h25km±10km, n79, σ1§61/86, mb4.8/13, 1C, Near coast of central Chile**

Code Station Name Δ° AZ° Phase ID Op ISC Time h m s Res ISC
ROCH El Roble 1.55 156 eP Pn 19 48 18.4 +0.3
ROCH eS Sn 19 48 38.3 +0.8
ROCH IAML 19 48 44.8
comp=E,5µm,0.8s
ROC1 El Roble 1.55 157 ePn Pn 19 48 18.7 +0.6
ROC1 El Roble 1.55 157 eP Pn 19 48 18.9 +0.7
ROC1 eS Sn 19 48 38.6 +0.9
TLL Tololo Astrono 1.60 31 eP Pb 19 48 20.4 -0.4
TLL eS Sb 19 48 41.5 +0.8
TLL IAML 19 48 45.5
comp=E,14µm,0.4s
LSCH La Serena 1.69 15 eP Pb 19 48 21.6 -0.7
LSCH eS Sb 19 48 44.2 +1.1
PEL Peldehue 1.83 151 ePn Pn 19 48 22.6 +0.8
PEL Peldehue 1.83 151 eP Pn 19 48 22.9 +1.1
PEL eS Sn 19 48 45.1 +1.0
PEL IAML 19 48 52.1
comp=E,4µm,0.6s
RTLS Leoncito 2.10 97 eP Pb 19 48 29.2 -0.2
RTLS eS Sb 19 48 58.5 +3.3
AUSP Uspallata 2.12 109 eP Pb 19 48 29.4 -0.3
FCH Farellones 2.16 146 eP Pn 19 48 28.2 +1.6
FCH IAML 19 48 57.6
comp=E,3µm,0.3s
FSR Penalolen 2.18 152 eP Pn 19 48 28.2 +1.5
FSR eS Sb 19 48 55.5 -1.8
AROD Rodeo 2.39 55 eP Pb 19 48 34.4 0.0
AROD eS Sb 19 49 05.5 +1.9
ACCO Cerro Coronel 2.49 68 eP Pb 19 48 35.9 -0.2
ACCO eS Sb 19 49 07.0 +0.5
ACCO IAML 19 49 12.1
comp=Z,4µm,0.3s
LMEL Las Melosas 2.64 151 eP Pn 19 48 34.8 +1.8
LCO Las Campanas 2.69 20 ePn Pn 19 48 34.9 +1.2
LCO Las Campanas 2.69 20 eP Pn 19 48 35.5 +1.8
RTCV Cerro Valdivia 2.75 97 eP Pb 19 48 38.7 -1.6
AMOG MOGNA 2.85 79 eP Pb 19 48 40.5 -1.6
AMOG eS Sb 19 49 17.1 +0.5
GO05 HualaæØ 3.46 182 ePn Pn 19 48 44.4 +0.2
GO05 HualaæØ 3.46 182 eP Pn 19 48 44.3 +0.2
AGUA GUANDACOL 3.48 55 eP Pb 19 48 49.5 -3.4
AGUA eS Sb 19 49 33.2 -1.5
ACAN Cantantal 3.94 102 eP Pn 19 48 53.9 +3.1
ACAN eS Sn 19 49 38.1 +1.7
VCA Vinchina 4.15 48 eP Pb 19 48 59.0 -5.4
ACLC CERRO LA CRUZ 4.65 64 eP Pn 19 49 03.8 +3.2
FSA Cafayete 7.41 44 eP Pn 19 49 41.8 +3.1
PB10 IPOC Station P 8.07 8 ePn Pn 19 49 46.7 -0.9
PLCA Paso Flores 9.22 174 Pn Pn 19 50 04.4 +1.1
comp=Z,0.5nm,0.3s,baz=358,slow=14,SNR=5.9
PLCA LR LR 19 54 03.4
comp=Z,220nm,21.1s,baz=358,slow=40
PB04 IPOC Station P 9.29 9 ePn Pn 19 50 06.4 +2.0
TRQA Tornquist 10.32 132 ePn Pn 19 50 19.6 +1.2
CPUP Villa Florida 13.65 71 Pn Pn 19 51 04.2 +0.4
comp=Z,0.3nm,0.3s,baz=245,slow=14,SNR=3.4
CPUP Sn Sn 19 53 29.0 -5.8
baz=217,slow=19,SNR=1.7
CPUP LR LR 19 56 18.0
comp=Z,152nm,19.8s,baz=296,slow=37
CPUP Villa Florida 13.65 71 ePn Pn 19 51 03.6 -0.2
CPUP Sn Sn 19 53 29.0 -5.8
SIV San Ignacio 18.29 35 P P 19 52 04.2 +0.1
comp=Z,0.7nm,0.3s,baz=220,slow=11,SNR=5.5
BDFB Brasilia 26.81 59 P P 19 53 29.5 -0.9
comp=Z,9.3nm,1.0s,baz=225,slow=1.4,SNR=6.0
BDFB LR LR 20 06 00.3
comp=Z,304nm,18.4s,baz=52,slow=41
SNAA Sanae 53.76 159 P P 19 57 12.2 +0.5
comp=Z,1.7nm,0.5s,baz=277,slow=7.6,SNR=34
SNAA Sanae 53.76 159 eP P 19 57 12.2 +0.5
comp=Z,5.6nm,1.0s
H06E1 SOCORRO T-PHAS62.59 318 T T 21 06 15.0
SNR=6.1
LTX Lajitas 67.73 330 eP P 19 58 47.9 +0.5
TXAR Lajitas Array 67.73 330 P P 19 58 47.9 +0.5
comp=Z,0.4nm,0.6s,baz=146,slow=9.8,SNR=3.4
SYO Syowa Base 68.05 159⇑eP P 19 58 47.6 -1.2
LIC Lamto 73.78 72 eP P 19 59 23.7 -0.7
comp=Z,26nm,0.8s
TIC Toumodi 74.02 72 eP P 19 59 25.7 -0.2
KIC Kosan Boka 74.09 72 eP P 19 59 25.9 -0.4
comp=Z,50nm,1.1s
DBIC Dimbokro 74.17 72 P P 19 59 26.9 +0.1
comp=Z,8.1nm,0.6s,baz=210,slow=6.3,SNR=21
DBIC Dimbokro 74.17 72 eP P 19 59 26.9 +0.1
comp=Z,8.9nm,0.6s
SUR Sutherland 75.80 119 P P 19 59 36.9 +0.6
comp=Z,0.4nm,0.9s,baz=205,slow=8.9
SADO Sadowa 76.25 355 P P 19 59 37.7 -0.2
comp=Z,4.5nm,0.5s,baz=182,slow=4.7,SNR=5.1
EML El Monte Cty P 76.96 322 eP P 19 59 40.6 -1.7
PASC Pasadena Art C 78.66 322 eP P 19 59 50.9 -0.9
SZCU Shurtz Canyon 78.88 328 eP P 19 59 50.5 -2.6
comp=Z,6.3nm,0.6s

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| SRTC | Snort | 79.61 | 323 | eP | P | 20 00 00.6 | +3.6 |
| TSUM | Tsumeb | 79.65 | 106 | P | P | 19 59 58.4 | +0.6 |
| | comp=Z,1.4nm,0.7s,baz=236,slow=7.3,SNR=3.4 | | | | | | |
| BOSA | Boshof | 80.99 | 118 | P | P | 20 00 05.3 | +0.5 |
| | comp=Z,3.7nm,0.7s,baz=223,slow=4.0,SNR=5.8 | | | | | | |
| MDPB | Devils Postpil | 81.79 | 324 | eP | P | 20 00 10.7 | +1.8 |
| | comp=Z,12nm,1.0s | | | | | | |
| TORD | Torodi Ar. Bea | 83.15 | 70 | P | P | 20 00 16.1 | 0.0 |
| | comp=Z,5.8nm,0.8s,baz=258,slow=4.4,SNR=31 | | | | | | |
| TOA1 | Torodi Ar. Sit | 83.15 | 70 | eP | P | 20 00 16.1 | 0.0 |
| SCHQ | Schefferville | 86.13 | 3 | LR | LR | 20 39 54.4 | |
| | comp=Z,417nm,21.8s,baz=330,slow=36 | | | | | | |
| BR101 | Keskin Array S | 120.41 | 60 | ePKPdf | PKPdf | 20 06 41.0 | -0.2 |
| BRTR | Keskin Array B | 120.41 | 60 | PKP | PKPdf | 20 06 41.0 | -0.2 |
| | comp=Z,0.5nm,0.8s,baz=227,slow=5.7,SNR=2.8 | | | | | | |
| ARA0 | ARCESS Array S | 121.69 | 24 | ePKPdf | PKPdf | 20 06 42.9 | +0.3 |
| ARCES | ARCESS Array B | 121.69 | 24 | PKP | PKPdf | 20 06 42.9 | +0.3 |
| | comp=Z,3.4nm,1.0s,baz=251,slow=2.8,SNR=7.0 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 126.02 | 271 | T | T | 22 25 45.9 | |
| | baz=116,slow=75,SNR=80 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 126.03 | 271 | T | T | 22 25 48.0 | |
| | baz=116,slow=75,SNR=48 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 126.04 | 271 | T | T | 22 25 47.1 | |
| | baz=116,slow=75,SNR=63 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 126.37 | 272 | T | T | 22 26 11.8 | |
| | baz=125 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 126.38 | 272 | T | T | 22 26 28.4 | |
| | baz=125 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 126.39 | 272 | T | T | 22 26 15.1 | |
| | baz=125 | | | | | | |
| BRVK | Borovoye | 145.22 | 41 | ePKPbc | PKPdf | 20 07 27.7 | +0.8 |
| BVAR | Borovoye Array | 145.29 | 41 | PKPbc | PKPdf | 20 07 28.1 | +1.1 |
| | comp=Z,8.9nm,0.5s,baz=302,slow=3.2,SNR=90 | | | | | | |
| KURBB | Kurchatov Arra | 150.88 | 40 | PKPbc | PKPbc | 20 07 42.7 | +0.8 |
| | comp=Z,4.6nm,0.8s,baz=301,slow=2.9,SNR=43 | | | | | | |
| KURK | Kurchatov | 150.89 | 40 | ePKPbc | PKPbc | 20 07 42.7 | +0.8 |
| AAK | Ala-Archa | 151.06 | 58 | ePKPbc | PKPbc | 20 07 44.2 | +1.4 |
| ZAA1 | Zalesovo Array | 152.00 | 30 | ePKPbc | PKPbc | 20 07 45.0 | +0.6 |
| ZAA0 | Zalesovo Array | 152.01 | 30 | ePKPbc | PKPbc | 20 07 44.6 | +0.3 |
| ZALV | Zalesovo Beam | 152.01 | 30 | PKPbc | PKPbc | 20 07 45.0 | +0.6 |
| | comp=Z,23nm,0.4s,baz=296,slow=3.4,SNR=43 | | | | | | |
| MK32 | Makanchi Array | 154.92 | 45 | ePKPbc | PKPbc | 20 07 51.2 | +0.3 |
| MK32 | | | | ePKPab | PKPab | 20 08 07.2 | +0.8 |
| MKAR | Makanchi Array | 154.92 | 45 | PKPbc | PKPbc | 20 07 51.2 | +0.3 |
| | comp=Z,0.6nm,0.5s,baz=298,slow=3.1,SNR=6.0 | | | | | | |
| MKAR | | | | PKPab | PKPab | 20 08 07.2 | +0.8 |
| | comp=Z,2.1nm,0.9s,baz=278,slow=3.5,SNR=7.5 | | | | | | |
| MK01 | Makanchi Array | 154.94 | 45 | ePKPbc | PKPbc | 20 07 51.2 | +0.2 |
| SONA0 | Songino Array | 163.67 | 4 | ePKPab | PKPab | 20 08 42.4 | -1.9 |
| SONM | Songino Array | 163.67 | 4 | PKPab | PKPab | 20 08 42.4 | -1.9 |
| | comp=Z,1.3nm,1.1s,baz=343,slow=4.5,SNR=3.6 | | | | | | |

---

*ISCJB **05** 19:50:47.4±0.7, 4°.95S±0°.05×133°.51E±0°.06, h21km, mb3.4/2, Error ellipse: s-maj=9.7km s-min=5.4km az=149.6*
*IDC **05** 19:50:47.4±1.6, 5°.01S×133°.30E, h0km, mb3.5/2, mb1 4.1/6, mb1mx3.7/37, mbtmp3.9/6, ML4.0/4, Error ellipse: s-maj=68.1km s-min=24.8km az=72.0*
*DJA **05** 19:50:54.6±0.7, 4°S±4°×13°3E±°, h16km±6km, M4.3/6, mB5.7/1, mb4.5/5, MLv4.3/6, Mw(mB)5.3/1*
**ISC 05 19:50:47.6**±0.8, **4°.96S**±0°.05×**133°.67E**±0°.07, **h21**km, **n14**, σ**3s.17**/23, **Irian Jaya region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KMPI | Kaimana, Papua | 1.28 | 2 | P | Pb | 19 51 10.2 | -0.8 |
| KMPI | | | | Pg | Pb | 19 51 10.3 | -0.8 |
| KMPI | | | | S | Sn | 19 51 23.7 | -3.2 |
| FAKI | Fak Fak | 2.47 | 325 | P | Pn | 19 51 26.8 | +0.2 |
| FAKI | | | | S | Sn | 19 51 52.9 | -3.2 |
| RKPI | Ransiki, Papua | 3.46 | 8 | S | Sn | 19 52 17.5 | -3.1 |
| MSAI | Masohi | 4.99 | 289 | P | Pn | 19 52 04.1 | +2.8 |
| MSAI | | | | S | Sn | 19 52 57.9 | -0.5 |
| AAI | Ambon | 5.60 | 283 | P | Pn | 19 52 13.1 | +3.4 |
| | 70nm,0.8s,0.3nm | | | | | | |
| AAI | | | | S | Sn | 19 53 12.4 | -1.1 |
| | 70nm,0.8s,0.3nm | | | | | | |
| GENI | Genyem | 6.90 | 70 | P | Pn | 19 52 36.8 | +9.3 |
| | 21nm,0.7s,0.4nm | | | | | | |
| LBMI | Labuha | 7.50 | 305 | P | Pn | 19 52 37.9 | +2.0 |
| | 28nm,0.8s,0.3nm | | | | | | |
| LBMI | | | | S | Sn | 19 53 58.1 | -2.3 |
| | 28nm,0.8s,0.3nm | | | | | | |
| SANI | Sanana | 8.19 | 290 | P | Pn | 19 52 46.9 | +1.6 |
| SANI | | | | S | Sn | 19 54 12.9 | -4.3 |
| WRA | Warramunga Arr | 14.91 | 178 | Pn | Pn | 19 54 17.1 | -0.3 |
| | 0.6nm,0.3s,baz=358,slow=13,SNR=8.2 | | | | | | |
| WRA | | | | Sn | Sn | 19 56 55.1 | -6.9 |
| | 0.5nm,0.3s,baz=0.2,slow=23,SNR=5.8 | | | | | | |
| FITZ | Fitzroy Crossi | 15.24 | 210 | Pn | Pn | 19 54 21.0 | -0.7 |
| | 1.2nm,0.3s,baz=35,slow=9.4,SNR=9.8 | | | | | | |
| FITZ | | | | Sn | Sn | 19 57 04.6 | -5.4 |
| | 0.8nm,0.3s,baz=176,slow=14,SNR=11 | | | | | | |
| ASAR | Alice Springs | 18.61 | 179 | P | Pn | 19 55 06.5 | +2.4 |
| | 1.1nm,0.3s,baz=2.7,slow=11,SNR=18 | | | | | | |
| ASAR | | | | S | Sn | 19 58 28.6 | -3.0 |
| | 0.2nm,0.3s,baz=0.9,slow=28,SNR=4.5 | | | | | | |
| CTA | Charters Tower | 19.40 | 142 | P | Pn | 19 55 17.4 | +3.8 |
| | 0.1nm,0.3s,baz=312,slow=13,SNR=1.2 | | | | | | |
| MKAR | Makanchi Array | 68.59 | 325 | P | P | 20 01 50.9 | +1.8 |
| | 0.4nm,0.7s,baz=140,slow=7.5,SNR=2.9 | | | | | | |
| KURBB | Kurchatov Arra | 72.75 | 327 | P | P | 20 02 16.9 | +2.7 |
| | 0.4nm,0.8s,baz=126,slow=6.5,SNR=3.3 | | | | | | |

---

*ATH **05** 19:53:26.8, 38°.86N×26°.31E, h28km±1km, ML3.1/4, Error ellipse: s-maj=2.5km s-min=1.0km az=265.0*
*THE **05** 19:53:26.6, 38°.86N×26°.33E, h1km, ML3.0/6, Error ellipse: s-maj=0.7km s-min=0.3km az=86.0*
*DDA **05** 19:53:26.6, 38°.85N×26°.37E, h4km, Ml3.2*
*ISK **05** 19:53:26.8, 38°.86N×26°.36E, h6km, ML3.1*
*ISCJB **05** 19:53:27.0±0.4, 38°.84N±0°.02×26°.31E±0°.03, h10km±3km, Error ellipse: s-maj=3.5km s-min=2.5km az=161.4*
*CSEM **05** 19:53:27.0±0.1, 38°.83N×26°.32E, h5km, ML3.1, Error ellipse: s-maj=3.1km s-min=2.7km az=65.0*
**ISC 05 19:53:26.7**±1.1, **38°.82N**±0°.02×**26°.33E**±0°.02, **h6**km±9km, **n157**, σ**0s.91**/197, **7C-8D, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PRK | Paraskevi | 0.43 | 354 | P | Pg | 19 53 35.0 | 0.0 |
| PRK | | | | S | Sg | 19 53 40.9 | +0.3 |
| PRK | | | | AML | AML | 19 53 46.0 | |
| | comp=E,6938µm,0.4s | | | | | | |
| PRK | | | | AML | AML | 19 53 46.3 | |
| | comp=N,7332µm,0.5s | | | | | | |
| PRK | Paraskevi | 0.43 | 354 | P | Pg | 19 53 35.0 | 0.0 |
| PRK | | | | S | Sg | 19 53 40.9 | +0.3 |
| PRK | Paraskevi | 0.43 | 354 | P | Pg | 19 53 35.0 | 0.0 |
| PRK | | | | S | Sg | 19 53 41.7 | +1.1 |
| CHOS | Chios island | 0.48 | 206 | ePG | Pb | 19 53 37.8 | +0.1 |
| CHOS | Chios island | 0.48 | 206 | P | Pb | 19 53 37.5 | -0.2 |
| CHOS | | | | S | Sb | 19 53 45.4 | +0.4 |
| CHOS | | | | AML | AML | 19 53 48.9 | |
| | comp=N,3703µm,0.2s | | | | | | |
| CHOS | | | | AML | AML | 19 53 48.9 | |
| | comp=E,7503µm,0.3s | | | | | | |
| CHOS | Chios island | 0.48 | 206 | P | Pb | 19 53 37.5 | -0.2 |
| CHOS | Chios island | 0.48 | 206 | ePg | Pb | 19 53 37.8 | +0.1 |
| CHOS | | | | S | Sb | 19 53 45.4 | +0.4 |
| CHOS | Chios island | 0.48 | 206 | P | Pb | 19 53 37.5 | -0.2 |
| CHOS | | | | S | Sb | 19 53 46.1 | +1.1 |
| URLA | Izmir | 0.51 | 155 | ePG | Pb | 19 53 37.3 | -0.8 |
| URLA | | | | eSG | Sb | 19 53 45.1 | -0.6 |
| URLA | Izmir | 0.51 | 155 | iP | Pb | 19 53 37.2 | -0.8 |
| URLA | | | | iS | Sb | 19 53 45.0 | -0.7 |
| URLA | Izmir | 0.51 | 155 | ePg | Pb | 19 53 37.3 | -0.8 |
| URLA | | | | S | Sb | 19 53 45.0 | -0.7 |
| DKL | Dikili | 0.52 | 61 | ePG | Pg | 19 53 36.5 | -0.2 |
| DKL | | | | eSG | Sg | 19 53 43.6 | +0.2 |
| DKL | Dikili | 0.52 | 61 | ePg | Pg | 19 53 36.5 | -0.2 |
| DKL | | | | eSg | Sg | 19 53 43.7 | +0.2 |
| SIGR | SIGRI | 0.54 | 317 | ePG | Pg | 19 53 37.5 | +0.5 |
| SIGR | | | | eSG | Sb | 19 53 45.5 | -1.0 |
| SIGR | SIGRI | 0.54 | 317 | P | Pb | 19 53 38.5 | -0.1 |
| SIGR | | | | S | Sg | 19 53 44.8 | +0.8 |
| SIGR | | | | AML | AML | 19 53 46.2 | |
| | comp=E,3140µm,0.3s | | | | | | |
| SIGR | | | | AML | AML | 19 53 49.4 | |
| | comp=N,3622µm,0.2s | | | | | | |
| SIGR | SIGRI | 0.54 | 317 | ePg | Pg | 19 53 37.5 | +0.5 |
| SIGR | SIGRI | 0.54 | 317 | P | Pb | 19 53 37.8 | -0.7 |
| SIGR | | | | S | Sg | 19 53 44.8 | +0.8 |
| SIGR | | | | eSg | Sb | 19 53 45.5 | -1.0 |
| SIGR | SIGRI | 0.54 | 317 | P | Pb | 19 53 37.8 | -0.7 |
| SIGR | | | | S | Sb | 19 53 46.2 | -0.3 |
| ZEY | ˜zmir | 0.60 | 166 | iP | Pb | 19 53 39.0 | -0.5 |
| ZEY | | | | iS | Sb | 19 53 48.5 | +0.3 |
| DGB | ˜zmir | 0.88 | 150 | iP | Pg | 19 53 43.4 | -0.2 |
| DGB | | | | iS | Sg | 19 53 55.5 | +0.4 |
| EZN | Ezine | 1.00 | 0 | ePG | Pg | 19 53 45.4 | -0.6 |
| EZN | Ezine | 1.00 | 0 | ePg | Pg | 19 53 45.4 | -0.6 |
| EZN | Ezine | 1.00 | 0 | P | Pg | 19 53 45.7 | -0.3 |
| EZN | | | | S | Sb | 19 54 00.2 | +0.2 |
| EZN | Ezine | 1.00 | 0 | P | Pg | 19 53 45.7 | -0.3 |
| EZN | | | | S | Sb | 19 54 00.2 | +0.2 |
| BOZC | Bozcaada | 1.04 | 348 | ePG | Pg | 19 53 46.8 | +0.1 |
| BOZC | Bozcaada | 1.04 | 348 | ePg | Pg | 19 53 46.8 | +0.1 |
| AKS | Akhisar | 1.16 | 87 | ePN | Pb | 19 53 49.0 | -0.2 |
| AKS | Akhisar | 1.16 | 87 | ePn | Pb | 19 53 49.0 | -0.2 |
| AKHS | Akhisar | 1.16 | 87 | iP | Pg | 19 53 48.8 | -0.2 |
| AKHS | | | | iS | Sb | 19 54 04.5 | -0.1 |
| AKHS | Akhisar | 1.16 | 87 | P | Pg | 19 53 48.8 | -0.2 |
| AKHS | | | | S | Sb | 19 54 04.5 | -0.1 |
| SMG | Samos | 1.18 | 160 | P | Pg | 19 53 48.8 | -0.6 |
| SMG | | | | S | Sn | 19 54 08.0 | +1.8 |
| SMG | | | | AML | AML | 19 54 09.2 | |
| | comp=E,1716µm,0.5s | | | | | | |
| SMG | | | | AML | AML | 19 54 09.9 | |
| | comp=N,1688µm,0.4s | | | | | | |
| SMG | Samos | 1.18 | 160 | P | Pg | 19 53 49.2 | -0.1 |
| SMG | | | | S | Sn | 19 54 06.8 | +0.6 |
| SMG | Samos | 1.18 | 160 | P | Pg | 19 53 49.2 | -0.1 |
| SMG | | | | S | Sn | 19 54 06.8 | +0.6 |
| STEP | BALIKESIR_Sava | 1.22 | 62 | iP | Pg | 19 53 48.9 | -1.2 |
| STEP | | | | iS | Sg | 19 54 04.0 | -1.8 |
| STEP | BALIKESIR_Sava | 1.22 | 62 | P | Pg | 19 53 48.9 | -1.2 |
| STEP | | | | S | Sg | 19 54 04.1 | -1.8 |
| GCAM | G?zelcaml? | 1.33 | 147 | ePN | Pg | 19 53 52.5 | +0.4 |
| GCAM | G?zelcaml? | 1.33 | 147 | ePn | Pg | 19 53 52.5 | +0.4 |
| BALY | Balya | 1.36 | 47 | iP | Pn | 19 53 51.2 | -1.2 |
| BALY | | | | iS | Sb | 19 54 09.7 | -0.7 |
| BALY | Balya | 1.36 | 47 | P | Pn | 19 53 51.2 | -1.2 |
| BALY | | | | S | Sb | 19 54 09.7 | -0.7 |
| LIA | Limnos Island | 1.39 | 321 | P | Pn | 19 53 52.5 | -0.2 |
| LIA | Limnos Island | 1.39 | 321 | P | Pn | 19 53 52.5 | -0.2 |
| LIA | | | | S | Sb | 19 54 10.5 | -0.7 |
| LIA | Limnos Island | 1.39 | 321 | P | Pn | 19 53 51.2 | -1.5 |
| LIA | | | | S | Sb | 19 54 10.5 | -0.7 |
| GADA | Gvkgeada | 1.41 | 347 | ePN | Pn | 19 53 53.0 | +0.1 |
| GADA | Gvkgeada | 1.41 | 347 | P | Pn | 19 53 51.2 | -1.7 |
| GADA | Gvkgeada | 1.41 | 347 | ePn | Pn | 19 53 53.0 | +0.1 |
| GADA | | | | S | Sb | 19 54 10.6 | -1.1 |
| GADA | Gvkgeada | 1.41 | 347 | P | Pn | 19 53 51.2 | -1.7 |
| GADA | | | | S | Sb | 19 54 10.6 | -1.1 |
| BALB | Balikesir | 1.46 | 55 | ePN | Pn | 19 53 52.9 | -0.7 |
| BALB | Balikesir | 1.46 | 55 | ePn | Pn | 19 53 52.9 | -0.7 |
| GELI | Tayfur-Gelibol | 1.58 | 4 | ePN | Pn | 19 53 55.3 | 0.0 |
| GELI | Tayfur-Gelibol | 1.58 | 4 | ePn | Pn | 19 53 55.3 | 0.0 |
| LPK | Lapseki | 1.59 | 12 | ePN | Pn | 19 53 55.7 | +0.3 |
| LPK | Lapseki | 1.59 | 12 | ePn | Pn | 19 53 55.7 | +0.3 |
| GONE | Gonen-Balikesi | 1.62 | 40 | ePN | Pn | 19 53 56.0 | +0.2 |
| GONE | Gonen-Balikesi | 1.62 | 40 | ePn | Pn | 19 53 56.0 | +0.2 |
| KARY | Karystos | 1.68 | 243 | P | Pn | 19 53 55.3 | -1.4 |
| KARY | Karystos | 1.68 | 243 | P | Pn | 19 53 55.8 | -0.8 |
| KARY | Karystos | 1.68 | 243 | P | Pn | 19 53 55.8 | -0.8 |
| KRBG | Karabiga-Canak | 1.74 | 25 | ePN | Pn | 19 53 57.5 | 0.0 |
| KRBG | Karabiga-Canak | 1.74 | 25 | ePn | Pn | 19 53 57.5 | 0.0 |
| SMTH | Samothraki Isl | 1.76 | 340 | P | Pn | 19 53 57.2 | -0.6 |
| SMTH | Samothraki Isl | 1.76 | 340 | P | Pn | 19 53 57.2 | -0.6 |
| SMTH | Samothraki Isl | 1.76 | 340 | P | Pn | 19 53 56.2 | -1.6 |
| MANT | Manisa | 1.78 | 100 | iP | Pn | 19 53 58.9 | +0.6 |
| MANT | | | | iS | Sn | 19 54 20.8 | -0.5 |
| MANT | Manisa | 1.78 | 100 | P | Pn | 19 53 58.8 | +0.6 |
| MANT | | | | S | Sn | 19 54 20.8 | -0.5 |
| ERIK | Erikli-Kesan | 1.85 | 4 | ePN | Pn | 19 53 58.8 | -0.3 |
| ERIK | Erikli-Kesan | 1.85 | 4 | ePn | Pn | 19 53 58.8 | -0.3 |
| KULA | Kula-Manisa | 1.85 | 99 | ePN | Pn | 19 53 59.5 | +0.4 |
| KULA | Kula-Manisa | 1.85 | 99 | ePn | Pn | 19 53 59.5 | +0.4 |
| APE | Apeiranthos | 1.86 | 200 | ⇑iP | Pn | 19 53 58.4 | -0.8 |
| APE | | | | S | Sn | 19 54 22.7 | -0.3 |
| APE | Apeiranthos | 1.86 | 200 | P | Pn | 19 53 58.4 | -0.8 |
| APE | | | | S | Sn | 19 54 23.1 | +0.1 |
| APE | Apeiranthos | 1.86 | 200 | P | Pn | 19 53 58.4 | -0.8 |
| APE | | | | S | Sn | 19 54 23.1 | +0.1 |
| DEMI | Demirci | 1.88 | 82 | iP | Pn | 19 53 59.9 | +0.4 |
| DEMI | | | | iS | Sn | 19 54 24.2 | +0.7 |
| DEMI | Demirci | 1.88 | 82 | P | Pn | 19 53 59.9 | +0.4 |
| DEMI | | | | S | Sn | 19 54 24.2 | +0.7 |
| EREA | Eretria | 1.92 | 259 | P | Pn | 19 53 58.7 | -1.2 |
| EREA | Eretria | 1.92 | 259 | P | Pn | 19 53 58.7 | -1.2 |
| ENEZ | Enez | 1.92 | 356 | ePN | Pn | 19 54 00.5 | +0.5 |
| ENEZ | Enez | 1.92 | 356 | ePn | Pn | 19 54 00.5 | +0.5 |
| BODT | Bodrum | 1.92 | 156 | P | Pn | 19 53 59.4 | -0.6 |
| BODT | Bodrum | 1.92 | 156 | P | Pn | 19 53 59.4 | -0.6 |
| EDC | Edincik | 1.93 | 37 | ePN | Pn | 19 54 00.7 | +0.5 |
| EDC | Edincik | 1.93 | 37 | ePn | Pn | 19 54 00.7 | +0.5 |
| DST | Dursunbey | 1.95 | 66 | ePN | Pn | 19 54 00.9 | +0.5 |
| DST | Dursunbey | 1.95 | 66 | ePn | Pn | 19 54 00.9 | +0.5 |
| RKY | Sarkoy-Tekirda | 1.98 | 19 | ePN | Pn | 19 54 01.1 | +0.3 |
| RKY | Sarkoy-Tekirda | 1.98 | 19 | ePn | Pn | 19 54 01.1 | +0.3 |
| ALN | Alexandroupoli | 2.09 | 354 | ePN | Pn | 19 54 02.5 | +0.3 |
| ALN | Alexandroupoli | 2.09 | 354 | P | Pn | 19 54 01.5 | -0.7 |
| ALN | Alexandroupoli | 2.09 | 354 | P | Pn | 19 54 01.5 | -0.7 |
| ALN | Alexandroupoli | 2.09 | 354 | ePn | Pn | 19 54 02.5 | +0.3 |
| ALN | Alexandroupoli | 2.09 | 354 | P | Pn | 19 54 00.5 | -1.7 |
| SIMA | Simav-Kutahya | 2.09 | 82 | ePN | Pn | 19 54 03.1 | +0.7 |
| SIMA | Simav-Kutahya | 2.09 | 82 | ePn | Pn | 19 54 03.1 | +0.7 |
| KCTX | Karacabey (Bur | 2.13 | 47 | ePN | Pn | 19 54 03.3 | +0.4 |
| KCTX | Karacabey (Bur | 2.13 | 47 | ePn | Pn | 19 54 03.3 | +0.4 |
| PAIG | Paliouri | 2.33 | 299 | P | Pn | 19 54 04.9 | -0.7 |
| PAIG | Paliouri | 2.33 | 299 | P | Pn | 19 54 04.9 | -0.7 |
| ORLT | Orhaneli | 2.34 | 58 | ePN | Pn | 19 54 06.6 | +0.9 |
| ORLT | Orhaneli | 2.34 | 58 | ePn | Pn | 19 54 06.6 | +0.9 |
| OUR | Ouranopolis | 2.36 | 311 | ePN | Pn | 19 54 06.9 | +0.9 |
| OUR | Ouranopolis | 2.36 | 311 | P | Pn | 19 54 06.0 | 0.0 |
| OUR | Ouranopolis | 2.36 | 311 | P | Pn | 19 54 06.0 | 0.0 |
| OUR | Ouranopolis | 2.36 | 311 | ePn | Pn | 19 54 06.9 | +0.9 |
| TKR | Tekirdag | 2.36 | 23 | ePN | Pn | 19 54 06.4 | +0.4 |
| TKR | Tekirdag | 2.36 | 23 | ePn | Pn | 19 54 06.4 | +0.4 |
| RDO | Rodhopi | 2.40 | 346 | P | Pn | 19 54 05.1 | -1.5 |
| RDO | Rodhopi | 2.40 | 346 | P | Pn | 19 54 05.1 | -1.5 |
| SBT3 | Marmara-Eregli | 2.42 | 31 | ePN | Pn | 19 54 07.5 | +0.8 |
| SBT3 | Marmara-Eregli | 2.42 | 31 | ePn | Pn | 19 54 07.5 | +0.8 |
| MDNY | Mudanya-Bursa | 2.51 | 51 | ePN | Pn | 19 54 08.3 | +0.2 |
| MDNY | Mudanya-Bursa | 2.51 | 51 | ePn | Pn | 19 54 08.3 | +0.2 |
| TVSB | Tavsanli | 2.52 | 75 | ePN | Pn | 19 54 09.0 | +0.7 |
| TVSB | Tavsanli | 2.52 | 75 | ePn | Pn | 19 54 09.0 | +0.7 |
| CRLT | Corlu | 2.55 | 25 | ePN | Pn | 19 54 08.7 | +0.1 |
| CRLT | Corlu | 2.55 | 25 | ePn | Pn | 19 54 08.7 | +0.1 |
| KAVA | Kavala | 2.58 | 328 | P | Pn | 19 54 08.0 | -1.0 |
| KAVA | Kavala | 2.58 | 328 | P | Pn | 19 54 08.0 | -1.0 |
| ARMT | Armutlu | 2.62 | 48 | ePN | Pn | 19 54 10.2 | +0.6 |
| ARMT | Armutlu | 2.62 | 48 | ePn | Pn | 19 54 10.2 | +0.6 |
| SBT2 | Guzelce-Avcila | 2.66 | 39 | ePN | Pn | 19 54 11.4 | +1.4 |
| SBT2 | Guzelce-Avcila | 2.66 | 39 | ePn | Pn | 19 54 11.4 | +1.4 |
| SBT5 | Esenkoy-Cinarc | 2.67 | 47 | ePN | Pn | 19 54 11.4 | +1.1 |
| SBT5 | Esenkoy-Cinarc | 2.67 | 47 | ePn | Pn | 19 54 11.4 | +1.1 |
| SLVT | Silivri | 2.81 | 30 | ePN | Pn | 19 54 13.3 | +1.1 |
| SLVT | Silivri | 2.81 | 30 | ePn | Pn | 19 54 13.3 | +1.1 |
| KDZ | Kurdzhali | 2.91 | 346 | eP | Pn | 19 54 12.8 | -0.8 |
| YLV | Yalova | 2.93 | 52 | ePN | Pn | 19 54 15.0 | +1.1 |
| YLV | Yalova | 2.93 | 52 | ePn | Pn | 19 54 15.0 | +1.1 |
| CTKS | Kestanelik-??a | 2.94 | 34 | ePN | Pn | 19 54 15.0 | +1.0 |
| CTKS | Kestanelik-??a | 2.94 | 34 | ePn | Pn | 19 54 15.0 | +1.0 |
| BUY | Buyukada | 2.96 | 46 | ePN | Pn | 19 54 15.4 | +1.3 |
| BUY | Buyukada | 2.96 | 46 | ePn | Pn | 19 54 15.5 | +1.3 |
| EDRB | Edirne | 3.04 | 6 | ePN | Pn | 19 54 16.4 | +1.0 |
| EDRB | Edirne | 3.04 | 6 | ePn | Pn | 19 54 16.4 | +1.0 |
| ISK | Istanbul-Kandi | 3.07 | 42 | ePN | Pn | 19 54 17.4 | +1.6 |
| ISK | Istanbul-Kandi | 3.07 | 42 | ePn | Pn | 19 54 17.4 | +1.6 |
| KAVV | Kandilli-Istan | 3.07 | 42 | ePN | Pn | 19 54 16.9 | +1.1 |
| KAVV | Kandilli-Istan | 3.07 | 42 | ePn | Pn | 19 54 16.9 | +1.1 |
| ADVT | Abdulvahap | 3.09 | 57 | ePN | Pn | 19 54 16.0 | 0.0 |
| ADVT | Abdulvahap | 3.09 | 57 | ePn | Pn | 19 54 16.0 | 0.0 |
| RZN | Rozhen | 3.12 | 337 | eP | Pn | 19 54 16.4 | -0.2 |
| KLYT | Kilyos | 3.20 | 40 | ePN | Pn | 19 54 18.8 | +1.2 |
| KLYT | Kilyos | 3.20 | 40 | ePn | Pn | 19 54 18.8 | +1.2 |
| MMB | Musomiste | 3.41 | 325 | eP | Pn | 19 54 20.0 | -0.5 |
| ARR | Arges | 6.66 | 350 | ⇑iP | Pn | 19 55 07.4 | +2.2 |
| ARR | Arges | 6.66 | 350 | ⇑iP | Pn | 19 55 07.4 | +2.2 |
| MLR | Muntele Rosu | 6.67 | 358 | ⇓iP | Pn | 19 55 08.0 | +2.6 |
| MLR | Muntele Rosu | 6.67 | 358 | ⇓iP | Pn | 19 55 08.0 | +2.6 |
| VOIR | | 6.68 | 352 | ⇓iP | Pn | 19 55 07.3 | +1.9 |
| VOIR | | 6.68 | 352 | ⇓iP | Pn | 19 55 07.3 | +1.9 |
| PLOR | Plostina | 7.03 | 2 | ⇓iP | Pn | 19 55 11.3 | +1.1 |
| PLOR | Plostina | 7.03 | 2 | ⇓iP | Pn | 19 55 11.3 | +1.1 |
| VRI | Vrincioaia | 7.05 | 2 | ⇑iP | Pn | 19 55 12.6 | +2.2 |
| VRI | Vrincioaia | 7.05 | 2 | ⇑iP | Pn | 19 55 12.6 | +2.2 |
| DOPR | Dopca | 7.18 | 355 | ⇓iP | Pn | 19 55 12.6 | +0.4 |
| DOPR | Dopca | 7.18 | 355 | ⇓iP | Pn | 19 55 12.6 | +0.4 |
| BZS | Buzias | 7.64 | 334 | ⇑iP | Pn | 19 55 20.3 | +1.8 |
| BZS | Buzias | 7.64 | 334 | ⇑iP | Pn | 19 55 20.3 | +1.8 |

---

**IDC 05 19:55:01.6**±7.6, **11°.95S**×**166°.90E**, **h284**km±84km, **mb3.2**/3, **mb1 3.5**/4, **mb1mx3.1**/34, **mbtmp3.9**/4, **Error ellipse: s-maj=60.6km s-min=49.9km az=177.0, Santa Cruz Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DZM | Mont Dzumac | 10.08 | 182 | P | Pn | 19 57 21.6 | +0.7 |
| | 2.2nm,0.3s,baz=150,slow=20,SNR=40 | | | | | | |
| DZM | | | | S | S | 19 59 13.0 | -1.4 |
| | 0.4nm,0.3s,baz=4.7,slow=18,SNR=5.3 | | | | | | |
| CMAR | Chiang Mai Arr | 73.51 | 293 | P | P | 20 06 04.3 | +0.3 |
| | 0.6nm,0.8s,baz=112,slow=4.9,SNR=5.6 | | | | | | |
| SONM | Songino Array | 80.06 | 323 | P | P | 20 06 39.8 | -0.3 |
| | 0.5nm,0.7s,baz=138,slow=5.4,SNR=9.3 | | | | | | |
| ILAR | Eielson Array | 84.01 | 18 | P | P | 20 06 59.8 | -0.1 |
| | 0.8nm,0.7s,baz=228,slow=5.4,SNR=7.9 | | | | | | |
| ARCES | ARCESS Array B | 117.48 | 346 | PKP | PKPdf | 20 13 13.3 | +0.2 |
| | 1.5nm,0.9s,baz=60,slow=2.2,SNR=9.6 | | | | | | |

---

*CSEM **05** 19:55:51.5±0.4, 50°.09N×19°.16E, h2km, Error ellipse: s-maj=10.3km s-min=6.8km az=172.0*
**PRU 05 19:55:52.2, 50°.13N×19°.18E, h0km, Poland**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| OJC | Ojcow | 0.41 | 77 | ePg | Pg | 19 55 60.0 | -0.1 |
| OJC | | | | eSg | Sg | 19 56 05.4 | +0.1 |
| OJC | Ojcow | 0.41 | 77 | ePg | Pg | 19 56 00.0 | 0.0 |
| OJC | | | | eSg | Sg | 19 56 05.4 | +0.1 |
| LANS | Liptovska Anna | 1.00 | 169 | eSg | Sg | 19 56 24.4 | +0.2 |
| LANS | Liptovska Anna | 1.00 | 169 | ePG | Pg | 19 56 10.8 | -0.5 |
| LANS | | | | eSG | Sg | 19 56 24.4 | +0.2 |
| MORC | Moravsky Berou | 1.11 | 252 | ePg | Pg | 19 56 13.4 | -0.2 |
| MORC | | | | eSg | Sg | 19 56 27.8 | -0.2 |
| VYHS | Vyhne | 1.65 | 188 | ePg | Pn | 19 56 21.2 | -1.3 |
| VYHS | | | | eSn | Sn | 19 56 42.7 | -1.7 |
| VYHS | Vyhne | 1.65 | 188 | ePG | Pn | 19 56 21.2 | -1.3 |
| VYHS | | | | eSN | Sn | 19 56 42.7 | -1.7 |
| DPC | Dobruska-Polom | 1.85 | 278 | ePG | Pb | 19 56 26.1 | -0.8 |
| DPC | | | | eSG | Sg | 19 56 51.1 | -0.4 |
| DPC | Dobruska-Polom | 1.85 | 278 | Pg | Pb | 19 56 26.1 | -0.8 |
| DPC | | | | Sg | Sg | 19 56 51.1 | -0.4 |

---

*CSEM **05** 19:56:39.9±0.3, 38°.81N×43°.65E, h15km, ML2.5, Error ellipse: s-maj=11.0km s-min=5.8km az=122.0*
**DDA 05 19:56:40.2, 38°.77N×43°.68E, h7km, Ml2.5, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.23 | 340 | iP | Pg | 19 56 44.4 | -0.6 |
| VMUR | | | | iS | Sg | 19 56 49.8 | +1.7 |
| VMUR | Van-Muradiye | 0.23 | 340 | P | Pg | 19 56 44.4 | -0.5 |
| VMUR | | | | S | Sg | 19 56 49.8 | +1.7 |
| VANB | Van | 0.28 | 232 | ePG | Pg | 19 56 46.7 | +0.9 |
| VANB | Van | 0.28 | 232 | ePg | Pg | 19 56 46.7 | +0.9 |
| TVAN | Van | 0.32 | 221 | iP | Pb | 19 56 47.6 | -0.7 |
| TVAN | | | | iS | Sb | 19 56 55.9 | +2.1 |
| TVAN | Van | 0.32 | 221 | P | Pb | 19 56 47.6 | -0.7 |
| CLDR | Caldiran | 0.42 | 27 | ePG | Pg | 19 56 48.4 | 0.0 |
| CLDR | | | | eSG | Sb | 19 56 55.7 | -1.1 |
| CLDR | Caldiran | 0.42 | 27 | iP | Pg | 19 56 47.8 | -0.6 |
| CLDR | | | | iS | Sb | 19 56 55.8 | -1.0 |
| CLDR | Caldiran | 0.42 | 27 | P | Pg | 19 56 47.8 | -0.6 |
| CLDR | Caldiran | 0.42 | 27 | ePg | Pg | 19 56 48.4 | 0.0 |
| CLDR | | | | eSg | Sb | 19 56 55.7 | -1.1 |
| TUTA | Tutak | 0.92 | 314 | iP | Pg | 19 56 57.3 | -0.6 |
| TUTA | | | | iS | Sb | 19 57 11.8 | +0.5 |
| TUTA | Tutak | 0.92 | 314 | P | Pg | 19 56 57.3 | -0.6 |
| AGRB | Hanur-Agry | 0.96 | 327 | ePG | Pg | 19 56 58.0 | -0.8 |
| AGRB | Hanur-Agry | 0.96 | 327 | ePg | Pg | 19 56 58.0 | -0.8 |

---

**IDC 05 19:56:55.2**±2.0, **3°.66N**×**126°.87E**, **h0**km, **mb3.6**/4, **mb1 3.7**/4, **mb1mx3.4**/42, **mbtmp3.6**/4, **Error ellipse: s-maj=187.3km s-min=23.1km az=66.0, Talaud Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 24.57 | 163 | P | P | 20 02 16.6 | -0.6 |
| | 2.2nm,0.7s,baz=343,slow=10,SNR=6.0 | | | | | | |
| ASAR | Alice Springs | 28.01 | 166 | P | P | 20 02 48.8 | +0.7 |
| | 0.2nm,0.2s,baz=347,slow=13,SNR=1.7 | | | | | | |
| MKAR | Makanchi Array | 57.69 | 325 | P | P | 20 06 47.4 | -0.3 |
| | 0.3nm,0.3s,baz=124,slow=6.7,SNR=7.6 | | | | | | |
| KURBB | Kurchatov Arra | 61.88 | 327 | P | P | 20 07 16.6 | +0.2 |
| | 0.3nm,0.5s,baz=131,slow=6.6,SNR=5.6 | | | | | | |

---

**IDC 05 19:59:35.4**±2.5, **4°.98S**×**133°.27E**, **h0**km, **mb3.6**/2, **mb1 4.1**/5, **mb1mx3.7**/32, **mbtmp3.9**/5, **ML4.0**/3, **Error ellipse: s-maj=98.3km s-min=26.4km az=85.0, Irian Jaya region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 14.91 | 176 | Pn | Pn | 20 03 06.2 | -1.5 |
| | 0.5nm,0.3s,baz=353,slow=14,SNR=9.1 | | | | | | |
| WRA | | | | Sn | Sn | 20 05 42.0 | -12 |
| | 0.2nm,0.3s,baz=5.4,slow=22,SNR=4.4 | | | | | | |
| FITZ | Fitzroy Crossi | 15.03 | 209 | Pn | Pn | 20 03 10.3 | +1.1 |
| | 1.2nm,0.3s,baz=38,slow=11,SNR=9.2 | | | | | | |
| FITZ | | | | Sn | Sn | 20 05 56.1 | -0.3 |
| | 0.2nm,0.3s,baz=213,slow=17,SNR=2.8 | | | | | | |
| ASAR | Alice Springs | 18.59 | 178 | P | Pn | 20 03 54.6 | +0.2 |
| | 0.4nm,0.3s,baz=356,slow=12,SNR=15 | | | | | | |
| ASAR | | | | S | Sn | 20 07 10.0 | -13 |
| | 0.1nm,0.3s,baz=359,slow=28,SNR=2.4 | | | | | | |
| MKAR | Makanchi Array | 68.39 | 325 | P | P | 20 10 39.9 | +0.9 |
| | 0.8nm,0.8s,baz=130,slow=5.8,SNR=3.6 | | | | | | |
| KURBB | Kurchatov Arra | 72.55 | 327 | P | P | 20 11 03.2 | -1.1 |
| | 0.4nm,0.9s,baz=124,slow=5.7,SNR=1.9 | | | | | | |

---

*SJA **05** 20:00:19.2±0.7, 32°.44S×71°.63W, h57km±6km, ML3.9, MW3.7*
*ISCJB **05** 20:00:20.0±1.3, 32°.43S±0°.05×71°.7W±0°.1, h40km±54km, Error ellipse: s-maj=17.1km s-min=6.6km az=161.8*
*GUC **05** 20:00:20.7±0.4, 32°.30S×71°.25W, h39km±2km, ML3.5*
**ISC 05 20:00:19.7**±2.1, **32°.45S**±0°.05×**71°.7W**±0°.1, **h20**km±7km, **n17**, σ**0s.78**/27, **Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ROC1 | El Roble | 0.76 | 134 | eP | Pb | 20 00 34.8 | +0.4 |
| ROC1 | | | | eS | Sn | 20 00 47.1 | +0.6 |
| ROCH | El Roble | 0.76 | 133 | eP | Pb | 20 00 34.7 | +0.4 |
| ROCH | | | | eS | Sb | 20 00 45.2 | +0.9 |
| ROCH | | | | IAML | | 20 00 47.0 | |
| | comp=E,3µm,0.4s | | | | | | |
| PEL | Peldehue | 1.07 | 130 | eP | Pn | 20 00 38.5 | -1.1 |
| PEL | | | | eS | Sb | 20 00 51.3 | -2.0 |
| PEL | | | | IAML | | 20 00 53.4 | |
| | comp=E,3µm,0.3s | | | | | | |
| ANTU | Antumapu | 1.41 | 142 | eP | Pn | 20 00 44.5 | +0.3 |
| ANTU | | | | eS | Sn | 20 01 02.7 | +0.5 |
| ANTU | | | | IAML | | 20 01 03.3 | |
| | comp=E,2µm,0.2s | | | | | | |
| FCH | Farellones | 1.45 | 127 | eP | Pn | 20 00 44.2 | -0.8 |
| FCH | | | | eS | Sn | 20 01 02.2 | -1.4 |
| FCH | | | | IAML | | 20 01 04.2 | |
| | comp=N,2µm,0.1s | | | | | | |
| SJCH | San Jose de Ma | 1.62 | 137 | eP | Pn | 20 00 47.2 | +0.1 |
| SJCH | | | | eS | Sn | 20 01 06.9 | -0.6 |
| LMEL | Las Melosas | 1.85 | 139 | eP | Pn | 20 00 50.8 | +0.3 |
| LMEL | | | | eS | Sn | 20 01 13.9 | +0.6 |
| AUSP | Uspallata | 1.94 | 84 | eP | Pn | 20 00 51.8 | 0.0 |
| AUSP | | | | eS | Sn | 20 01 15.8 | +0.1 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| RTLS | Leoncito | 2.11 | 73 | eP | Pn | 20 00 54.2 | 0.0 |
| RTLS | | | | eS | Sn | 20 01 19.8 | -0.1 |
| TLL | Tololo Astrono | 2.40 | 18 | eP | Pn | 20 00 56.6 | -1.4 |
| RTCV | Cerro Valdivia | 2.72 | 78 | eP | Pn | 20 01 02.3 | +0.1 |
| ACCO | Cerro Coronel | 2.90 | 51 | eP | Pn | 20 01 05.3 | +0.3 |
| ACCO | | | | IAML | | 20 01 22.7 | |
| | comp=Z,388nm,0.5s | | | | | | |
| AROD | Rodeo | 2.95 | 40 | eP | Pn | 20 01 06.3 | +0.6 |
| AMOG | MOGNA | 3.10 | 62 | eP | Pn | 20 01 07.3 | -0.2 |
| ACAN | Cantantal | 3.79 | 88 | eP | Pn | 20 01 16.8 | -0.2 |
| ACAN | | | | eS | Sn | 20 02 00.6 | -0.5 |
| AGUA | GUANDACOL | 4.02 | 44 | eP | Pn | 20 01 21.1 | +0.8 |
| ACLC | CERRO LA CRUZ | 5.05 | 55 | eP | Pn | 20 01 34.4 | 0.0 |

**MAN 05 20:11:21, 9°.29N×125°.52E, h0km, mb4.9, ML3.8, MS3.9, 4C-3D, Mindanao**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BUTP | Butuan | 0.34 | 162 | eP | Pg | 20 11 27.6 | +0.1 |
| BUTP | | | | eS | Sg | 20 11 33.7 | +1.9 |
| SCPH | Surigao | 0.49 | 357 | ⇓iP | Pb | 20 11 31.6 | -0.9 |
| SCPH | | | | i S | Sb | 20 11 39.6 | -0.6 |
| MSLP | Maasin | 1.06 | 322 | eP | Pg | 20 11 41.8 | +0.4 |
| MSLP | | | | eS | Sn | 20 11 57.8 | -0.9 |
| BIPH | Bislig | 1.38 | 143 | ⇑iP | Pg | 20 11 43.8 | -3.7 |
| BIPH | | | | i S | Sg | 20 12 00.4 | -5.0 |
| BUKP | Musuan | 1.47 | 198 | eP | Pn | 20 11 48.1 | -0.7 |
| BUKP | | | | eS | Sn | 20 12 10.2 | +1.4 |
| TBP | Tagbilaran | 1.68 | 284 | eP | Pn | 20 11 52.2 | +0.5 |
| TBP | | | | eS | Sg | 20 12 15.6 | +0.5 |
| LLP | Lapu-Lapu | 1.84 | 304 | eP | Pn | 20 11 52.7 | -1.2 |
| LLP | | | | eS | Sg | 20 12 20.8 | +0.6 |
| PLP | Palo | 1.94 | 344 | ⇓eP | Pn | 20 11 55.5 | +0.3 |
| PLP | | | | i S | Sg | 20 12 23.3 | 0.0 |
| DMPH | Davao City--Mi | 2.19 | 180 | ⇑eP | Pg | 20 12 03.8 | +0.7 |
| DMPH | | | | eS | Sb | 20 12 30.2 | +0.9 |
| DCPH | Dipolog City | 2.25 | 252 | ⇑eP | Pn | 20 11 59.8 | +0.3 |
| SNPH | Sibulan | 2.25 | 272 | i P | Pb | 20 12 02.3 | -0.3 |
| BESP | Borongan | 2.30 | 358 | eP | Pb | 20 12 01.8 | -1.6 |
| KCP | Kidapawan | 2.31 | 191 | ⇓eP | Pb | 20 12 02.4 | -1.2 |
| CTBH | Cotabato--PC H | 2.41 | 212 | ⇑eP | Pn | 20 12 02.1 | +0.4 |
| PAGZ | Pagadian | 2.55 | 236 | eP | Pn | 20 12 05.1 | +1.4 |
| PAGZ | | | | eS | Sn | 20 12 36.3 | +0.8 |

**IDC 05 20:26:44.5±6.3, 4°.90S×134°.23E, h0km, mb3.5/1, mb1 3.6/3, mb1mx3.2/37, mbtmp3.4/3, ML2.9/2, Error ellipse: s-maj=339.9km s-min=34.8km az=78.0, Irian Jaya region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 14.96 | 180 | Pn | Pn | 20 30 15.9 | -1.4 |
| | 0.0nm,0.3s,baz=359,slow=13,SNR=2.5 | | | | | | |
| ASAR | Alice Springs | 18.66 | 181 | P | Pn | 20 31 04.8 | +0.4 |
| | 0.1nm,0.3s,baz=4.8,slow=12,SNR=3.5 | | | | | | |
| MKAR | Makanchi Array | 68.87 | 325 | P | P | 20 37 51.1 | 0.0 |
| | 0.3nm,0.7s,baz=116,slow=6.6,SNR=2.2 | | | | | | |

*ISCJB **05** 20:31:03.1±0.4, 36°.42N±0°.04×71°.03E±0°.06, h188km, mb3.5/4, Error ellipse: s-maj=7.2km s-min=3.8km az=145.0*
*IDC **05** 20:31:03.7±2.9, 36°.44N×70°.89E, h163km±31km, mb3.4/5, mb1 3.4/11, mb1mx3.1/53, mbtmp3.9/11, Error ellipse: s-maj=24.2km s-min=20.2km az=1.0*
*NNC **05** 20:31:08.1±1.2, 36°.83N×70°.96E, h157km±10km, mb3.0, mpv4.0, Error ellipse: s-maj=12.3km s-min=5.6km az=163.0*
**ISC 05 20:31:04.3±0.7, 36°.53N±0°.06×71°.00E±0°.06, h188km, n43, σ2s.32/54, mb3.5/4, 5C-12D, Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DZET | Dzherino | 2.85 | 324 | ⇓P | Pn | 20 31 50.3 | -1.4 |
| | 50nm,0.4s | | | | | | |
| DZET | | | | ⇓S | Sn | 20 32 24.6 | -4.2 |
| | 265nm,0.5s | | | | | | |
| SFK | Sufi-Kurgan | 4.00 | 29 | ⇓P | Pn | 20 32 05.4 | -0.5 |
| | 8.2nm,0.3s | | | | | | |
| SFK | | | | ⇑S | Sn | 20 32 50.7 | -3.5 |
| | 77nm,0.2s | | | | | | |
| THN | Thein Dam | 5.64 | 135 | eP | Pn | 20 32 23.8 | -3.0 |
| THN | | | | eS | Sn | 20 33 27.0 | -4.7 |
| AML | Almayashu | 5.97 | 20 | P | Pn | 20 32 31.0 | -0.4 |
| | SNR=98 | | | | | | |
| MNAS | Manas | 6.07 | 11 | ⇑P | Pn | 20 32 31.6 | -0.7 |
| | 4.9nm,0.5s | | | | | | |
| MNAS | | | | ⇓S | Sn | 20 33 37.8 | -4.1 |
| | 63nm,0.9s | | | | | | |
| UCH | Uchtor | 6.31 | 24 | P | Pn | 20 32 35.9 | 0.0 |
| | SNR=17 | | | | | | |
| EKS2 | Erkin-Say | 6.49 | 18 | P | Pn | 20 32 39.1 | +1.2 |
| | SNR=12 | | | | | | |
| KK31 | Karatay Array | 6.58 | 357 | ⇓P | Pn | 20 32 38.6 | -0.4 |
| | 4.9nm,0.3s,baz=184,slow=13,SNR=64 | | | | | | |
| KK31 | | | | ⇓S | Sn | 20 33 49.7 | -4.1 |
| | 13nm,0.6s,baz=182,slow=18,SNR=15 | | | | | | |
| AAK | Ala-Archa | 6.67 | 23 | P | Pn | 20 32 40.7 | +0.4 |
| | 4.0nm,0.3s,baz=183,slow=5.9,SNR=66 | | | | | | |
| AAK | | | | S | Sn | 20 33 51.4 | -4.7 |
| | 1.7nm,0.3s,baz=138,slow=21,SNR=14 | | | | | | |
| AAK | Ala-Archa | 6.67 | 23 | ⇓P | Pn | 20 32 40.7 | +0.4 |
| | 7.6nm,0.4s | | | | | | |
| AAK | | | | ⇑S | Sn | 20 33 52.7 | -3.5 |
| | 26nm,0.8s | | | | | | |
| AAK | Ala-Archa | 6.67 | 23 | P | Pn | 20 32 41.3 | +1.0 |
| | SNR=22 | | | | | | |
| KBK | Karagaybulak | 6.84 | 25 | P | Pn | 20 32 44.1 | +1.6 |
| | SNR=8.2 | | | | | | |
| CHMS | Chumysh | 7.08 | 23 | P | Pn | 20 32 46.1 | +0.7 |
| | SNR=6.3 | | | | | | |
| USP | Ospenovka | 7.25 | 21 | P | Pn | 20 32 48.1 | +0.4 |
| | SNR=9.1 | | | | | | |
| TKM2 | Tokmak 2 | 7.30 | 28 | ⇓P | Pn | 20 32 49.1 | +0.6 |
| | 11nm,0.5s | | | | | | |
| TKM2 | | | | ⇓S | Sn | 20 34 09.1 | -2.0 |
| | 8.7nm,0.8s | | | | | | |
| TKM2 | Tokmak 2 | 7.30 | 28 | P | Pn | 20 32 50.0 | +1.5 |
| | SNR=7.4 | | | | | | |
| GEYT | Alibeck | 10.37 | 282 | P | Pn | 20 33 27.9 | -0.7 |
| | 0.8nm,0.3s,baz=97,slow=8.2,SNR=14 | | | | | | |
| GEYT | | | | S | Sn | 20 35 21.5 | -2.5 |
| | 2.1nm,0.3s,baz=229,slow=29,SNR=13 | | | | | | |
| PYUN | Piuthan | 13.16 | 126 | eP | Pn | 20 34 01.3 | -3.1 |
| | 17nm,0.3s | | | | | | |
| MK31 | Makanchi Array | 13.27 | 36 | ⇑P | P | 20 34 10.3 | +1.6 |
| | 1.8nm,0.6s,baz=216,slow=7.2,SNR=5.5 | | | | | | |
| MKAR | Makanchi Array | 13.27 | 36 | P | Pn | 20 34 06.1 | +0.6 |
| | 0.1nm,0.3s,baz=210,slow=14,SNR=5.0 | | | | | | |
| KOLN | Koldanda | 13.78 | 126 | eP | Pn | 20 34 09.5 | -2.7 |
| | 4.5nm,0.2s | | | | | | |
| GKN | Gorkha | 14.32 | 123 | eP | Pn | 20 34 16.7 | -2.1 |
| | 2.9nm,0.2s | | | | | | |
| DMN | Daman | 14.89 | 123 | eP | Pn | 20 34 24.1 | -1.9 |
| | 7.1nm,0.3s | | | | | | |
| KKN | Kakani | 14.89 | 122 | eP | Pn | 20 34 24.1 | -1.9 |
| | 7.4nm,0.3s | | | | | | |
| AB31 | Akbulak array | 15.06 | 331 | ⇓P | P | 20 34 29.7 | +1.2 |
| | 0.3nm,0.3s,baz=143,slow=13,SNR=24 | | | | | | |
| AB31 | | | | S | S | 20 37 11.7 | -4.1 |
| | 2.1nm,0.8s,baz=154,slow=21,SNR=7.8 | | | | | | |
| KURBB | Kurchatov Arra | 15.10 | 19 | P | P | 20 34 30.6 | +1.7 |
| | 0.1nm,0.3s,baz=205,slow=11,SNR=7.4 | | | | | | |
| KURBB | Kurchatov Arra | 15.10 | 19 | ⇑P | P | 20 34 31.1 | +2.3 |
| | 2.8nm,0.8s | | | | | | |
| PKIN | Phulchoki | 15.11 | 122 | eP | Pn | 20 34 27.6 | -1.0 |
| | 14nm,0.4s | | | | | | |
| PKI | Pulchoki | 15.12 | 122 | eP | Pn | 20 34 27.6 | -1.3 |
| | 8.9nm,0.3s | | | | | | |
| GUN | Gumba | 15.23 | 120 | eP | Pn | 20 34 29.0 | -1.2 |
| | 12nm,0.4s | | | | | | |
| JIRN | Jiri | 15.60 | 120 | eP | Pn | 20 34 34.0 | -0.8 |
| RAMN | Ramite | 16.33 | 121 | eP | P | 20 34 42.1 | -0.8 |
| | 6.0nm,0.3s | | | | | | |
| BVAR | Borovoye Array | 16.50 | 359 | P | Pn | 20 34 47.3 | +2.2 |
| | 0.2nm,0.3s,baz=154,slow=15,SNR=5.4 | | | | | | |
| AKTO | Aktyubinsk | 16.76 | 330 | P | P | 20 34 47.4 | +0.2 |
| | 0.1nm,0.3s,baz=90,slow=11,SNR=2.2 | | | | | | |
| AKTO | | | | S | S | 20 37 50.2 | -2.0 |
| | 0.1nm,0.3s,baz=0.0,slow=20,SNR=2.8 | | | | | | |
| AKTO | Aktyubinsk | 16.76 | 330 | ⇓P | Pn | 20 34 52.4 | +4.3 |
| | 1.3nm,0.7s | | | | | | |
| TAPN | Taplejung | 16.86 | 118 | eP | Pn | 20 34 50.4 | +0.6 |
| | 8.9nm,0.3s | | | | | | |
| ODAN | Odare | 16.93 | 120 | eP | Pn | 20 34 50.3 | -0.4 |
| | 4.5nm,0.3s | | | | | | |
| ZAA0 | Zalesovo Array | 19.89 | 25 | ⇓P | P | 20 35 23.1 | +2.0 |
| | 0.6nm,0.6s | | | | | | |
| ZALV | Zalesovo Beam | 19.89 | 25 | P | P | 20 35 23.4 | +2.2 |
| | 5.4nm,0.5s,baz=224,slow=11,SNR=31 | | | | | | |
| CMAR | Chiang Mai Arr | 30.47 | 119 | P | P | 20 37 02.5 | +2.9 |
| | 0.4nm,0.9s,baz=297,slow=8.0,SNR=3.7 | | | | | | |
| ARCES | ARCESS Array B | 41.12 | 338 | P | P | 20 38 31.9 | +2.5 |
| | 3.2nm,1.0s,baz=113,slow=8.0,SNR=4.1 | | | | | | |
| WRA | Warramunga Arr | 82.00 | 122 | P | P | 20 43 04.9 | +1.4 |
| | 0.4nm,0.5s,baz=324,slow=4.8,SNR=4.9 | | | | | | |
| ASAR | Alice Springs | 84.27 | 125 | P | P | 20 43 17.4 | +2.3 |
| | 0.6nm,0.6s,baz=316,slow=5.2,SNR=5.9 | | | | | | |

**IDC 05 20:37:37.7±3.2, 5°.36S×133°.48E, h0km, mb3.3/1, mb1 3.7/4, mb1mx3.3/43, mbtmp3.5/4, ML3.3/3, Error ellipse: s-maj=126.1km s-min=31.9km az=82.0, Aru Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 14.52 | 177 | Pn | Pn | 20 41 03.9 | -0.7 |
| | 0.1nm,0.3s,baz=358,slow=13,SNR=3.0 | | | | | | |
| WRA | | | | Sn | Sn | 20 43 42.3 | -4.2 |
| | 0.1nm,0.3s,baz=6.2,slow=23,SNR=1.7 | | | | | | |
| FITZ | Fitzroy Crossi | 14.80 | 211 | Pn | Pn | 20 41 07.8 | -0.7 |
| | 0.2nm,0.3s,baz=36,slow=7.9,SNR=7.1 | | | | | | |
| FITZ | | | | Sn | Sn | 20 43 48.3 | -5.0 |
| | 0.0nm,0.3s,baz=122,slow=19,SNR=1.9 | | | | | | |
| ASAR | Alice Springs | 18.20 | 179 | P | P | 20 41 52.7 | +0.3 |
| | 0.1nm,0.3s,baz=3.4,slow=12,SNR=11 | | | | | | |
| MKAR | Makanchi Array | 68.82 | 325 | P | P | 20 48 44.0 | 0.0 |
| | 0.2nm,0.5s,baz=108,slow=9.3,SNR=1.9 | | | | | | |

*ISCJB **05** 20:37:44.8±0.3, 27°.34N±0°.03×103°.17E±0°.04, h10km, mb4.1/28, MS3.7/3, Error ellipse: s-maj=4.5km s-min=4.4km az=12.3*
*BKK **05** 20:37:44.1±5.1, 30°N±59°×10°6E±1°8, h10km, M4.4/11, mb4.4/11*
*IDC **05** 20:37:45.3±0.7, 27°.48N×103°.43E, h0km, mb4.0/19, mb1 4.1/20, mb1mx3.9/54, mbtmp4.0/20, ML3.4/1, MS3.8/3, Ms1 3.8/3, ms1mx3.2/50, Error ellipse: s-maj=22.2km s-min=14.1km az=48.0*
*BJI **05** 20:37:46.6, 27°.37N×103°.19E, h5km, mb4.2/13, mB4.2/3, ML4.1/19, Ms4.0/12, Ms7 3.7/14*
*NEIC **05** 20:37:51.9±0.7, 27°.41N×103°.35E, h51km±8km, mb4.6/9, Error ellipse: s-maj=6.9km s-min=5.5km az=72.0*
**ISC 05 20:37:47.2±0.4, 27°.29N±0°.03×103°.26E±0°.04, h10km, n78, σ2s.40/88, mb4.2/28, MS3.6/3, 5C-2D, Yunnan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KMI | Kunming | 2.21 | 192 | Pg | Pb | 20 38 28.1 | +0.7 |
| KMI | | | | Sn | Sn | 20 38 54.2 | +2.5 |
| KMI | | | | Sg | Sg | 20 38 58.5 | +0.2 |
| KMI | | | | smax | smax | | |
| | comp=N,500nm,0.8s | | | | | | |
| KMI | | | | smax | smax | | |
| | comp=E,270nm,0.9s | | | | | | |
| GYA | Guiyang | 3.15 | 104 | Pn | Pn | 20 38 39.1 | +2.0 |
| GYA | | | | Pg | Pb | 20 38 45.7 | +2.3 |
| GYA | | | | Sn | Sn | 20 39 17.6 | +2.8 |
| GYA | | | | Sg | Sb | 20 39 23.4 | +1.4 |
| GYA | | | | smax | smax | | |
| | comp=N,440nm,0.8s | | | | | | |
| GYA | | | | smax | smax | | |
| | comp=E,510nm,0.9s | | | | | | |
| CD2 | Chengdu | 3.63 | 7 | Pn | Pn | 20 38 43.5 | -0.1 |
| CD2 | | | | Pg | Pb | 20 38 54.4 | +2.8 |
| CD2 | | | | Sn | Sn | 20 39 30.0 | +3.4 |
| CD2 | | | | Sg | Sb | 20 39 38.8 | +3.1 |
| CD2 | | | | smax | smax | | |
| | comp=N,1μm,1.1s | | | | | | |
| CD2 | | | | smax | smax | | |
| | comp=E,2μm,1.2s | | | | | | |
| ENH | Enshi | 6.22 | 60 | ePn | Pn | 20 39 20.9 | +1.7 |
| XAN | Xi'an | 8.31 | 35 | P | Pn | 20 39 46.5 | -1.3 |
| XAN | | | | pP | pP | 20 39 56.0 | |
| XAN | | | | pmax | pmax | | |
| | comp=Z,15nm,0.8s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=N,460nm,13.4s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=E,700nm,14.1s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,560nm,16.7s | | | | | | |
| NANT | Nan | 8.77 | 196 | P | Pg | 20 40 28.3 | -6.9 |
| | 3.9nm,0.8s | | | | | | |
| LZH | Lanzhou | 8.78 | 3 | eP | Pn | 20 39 53.7 | -0.7 |
| LZH | | | | pP | pP | 20 39 56.7 | |
| LZH | | | | sP | sP | 20 39 59.0 | |
| LZH | | | | eS | Sn | 20 41 38.4 | +4.8 |
| LZH | | | | sS | sS | 20 41 45.3 | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,21nm,0.8s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,97nm,4.1s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=N,940nm,7.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,860nm,7.2s | | | | | | |
| CMMT | Chiang Mai | 9.32 | 206 | P | Pn | 20 40 06.6 | +4.8 |
| | 6.8nm,1.0s | | | | | | |
| CMMT | Chiang Mai | 9.32 | 206 | P | Pn | 20 40 06.5 | +4.8 |
| CHTO | Chiang Mai | 9.32 | 206 | P | Pn | 20 40 06.7 | +4.9 |
| | 30nm,1.1s | | | | | | |
| CHTO | Chiang Mai | 9.32 | 206 | P | Pn | 20 40 06.4 | +4.6 |
| CHTO | Chiang Mai | 9.32 | 206 | ePn | Pn | 20 40 03.8 | +2.0 |
| CM31 | Chiang Mai Arr | 9.65 | 205 | ePn | Pn | 20 40 11.2 | +4.9 |
| CMAR | Chiang Mai Arr | 9.65 | 205 | Pn | Pn | 20 40 10.7 | +4.5 |
| | 0.1nm,0.3s,baz=16,slow=13,SNR=34 | | | | | | |
| CMAR | | | | Pg | | 20 40 50.6 | |
| | 0.3nm,0.3s,baz=12,slow=13,SNR=13 | | | | | | |
| CMAR | | | | Lg | Lg | 20 42 56.1 | |
| | 0.1nm,0.3s,baz=18,slow=29,SNR=3.7 | | | | | | |
| CMAR | | | | LR | LR | 20 44 18.7 | |
| | comp=Z,357nm,18.7s,baz=37,slow=40 | | | | | | |
| CM01 | Chiang Mai Arr | 9.68 | 205 | ePn | Pn | 20 40 10.6 | +4.0 |
| WHN | Wuhan | 10.24 | 69 | ⇑iP | Pn | 20 40 17.7 | +3.4 |
| WHN | | | | LR | LR | | |
| | comp=Z,2μm,9.3s | | | | | | |
| LSA | Lhasa | 10.92 | 286 | ePn | Pn | 20 40 26.4 | +2.4 |
| TAPN | Taplejung | 13.82 | 274 | eP | Pn | 20 41 02.6 | -1.0 |
| | 6.2nm,0.4s | | | | | | |
| ODAN | Odare | 14.15 | 272 | eP | Pn | 20 41 06.4 | -1.5 |
| | 11nm,0.7s | | | | | | |
| RAMN | Ramite | 14.84 | 272 | eP | Pn | 20 41 15.3 | -2.1 |
| JIRN | Jiri | 15.16 | 275 | eP | Pn | 20 41 19.4 | -2.4 |
| GUN | Gumba | 15.42 | 276 | eP | Pn | 20 41 23.0 | -2.3 |
| | 60nm,1.1s | | | | | | |
| PKI | Pulchoki | 15.85 | 275 | eP | Pn | 20 41 27.8 | -3.1 |
| | 23nm,0.8s | | | | | | |
| PKIN | Phulchoki | 15.87 | 275 | eP | Pn | 20 41 28.0 | -3.0 |
| KKN | Kakani | 15.96 | 276 | eP | Pn | 20 41 29.5 | -2.6 |
| | 79nm,1.0s | | | | | | |
| DMN | Daman | 16.12 | 275 | eP | Pn | 20 41 31.3 | -3.0 |
| | 48nm,1.1s | | | | | | |
| KOLN | Koldanda | 17.45 | 276 | eP | Pn | 20 41 47.8 | -3.2 |
| | 52nm,1.4s | | | | | | |
| PYUN | Piuthan | 17.97 | 277 | eP | Pn | 20 41 54.2 | -3.3 |
| | 63nm,1.1s | | | | | | |
| SONA0 | Songino Array | 20.66 | 6 | eP | P | 20 42 25.5 | -1.7 |
| SONM | Songino Array | 20.66 | 6 | P | P | 20 42 25.5 | -1.7 |
| | 2.1nm,0.8s,baz=190,slow=12,SNR=9.9 | | | | | | |
| SONA1 | Songino Array | 20.67 | 6 | eP | P | 20 42 26.3 | -1.0 |
| WMQ | Urumqi | 20.73 | 327 | P | P | 20 42 27.6 | -0.4 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,120nm,16.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,270nm,19.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,310nm,28.5s | | | | | | |
| KSAR | Wonju Array Be | 23.07 | 58 | P | P | 20 42 50.2 | -2.7 |
| KSRS | Korea Array | 23.11 | 58 | P | P | 20 42 50.3 | -3.0 |
| | 1.6nm,0.7s,baz=245,slow=10,SNR=5.8 | | | | | | |
| KSRS | | | | LR | LR | 20 51 56.0 | |
| | comp=Z,190nm,19.3s,baz=268,slow=37 | | | | | | |
| KKM | Kota Kinabalu | 24.46 | 147 | eP | P | 20 43 06.0 | -0.6 |
| | 12nm,1.0s | | | | | | |
| MK01 | Makanchi Array | 25.51 | 325 | eP | P | 20 43 14.8 | -1.0 |
| MK31 | Makanchi Array | 25.53 | 325 | eP | P | 20 43 15.3 | -0.7 |
| MK32 | Makanchi Array | 25.53 | 325 | eP | P | 20 43 15.2 | -0.7 |
| MKAR | Makanchi Array | 25.53 | 325 | P | P | 20 43 15.2 | -0.8 |
| | 8.8nm,0.8s,baz=131,slow=9.5,SNR=53 | | | | | | |
| MAKZ | Makanchi | 25.70 | 325 | eP | P | 20 43 18.7 | +1.2 |
| | 18nm,1.4s | | | | | | |
| KSH | Kashi | 25.73 | 305 | P | P | 20 43 19.9 | +1.9 |
| KSH | | | | pP | sP | 20 43 23.4 | +1.1 |
| KSH | | | | PP | PnPn | 20 44 00.5 | +6.1 |
| KSH | | | | PcP | PcP | 20 46 49.3 | +1.3 |
| KSH | | | | S | S | 20 47 45.3 | -1.7 |
| KSH | | | | SS | SnSn | 20 48 50.4 | +8.8 |
| KSH | | | | ScS | ScS | 20 54 13.2 | -3.8 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.8s | | | | | | |
| AAK | Ala-Archa | 27.94 | 311 | P | P | 20 43 38.3 | +0.5 |
| | 1.9nm,0.6s,baz=133,slow=7.8,SNR=7.0 | | | | | | |
| AAK | | | | LR | LR | 20 55 37.8 | |
| | comp=Z,248nm,19.6s,baz=334,slow=38 | | | | | | |
| USRK | Ussuriysk Ar. | 28.58 | 46 | P | P | 20 43 44.2 | +0.8 |
| | 1.6nm,0.7s,baz=246,slow=6.1,SNR=3.9 | | | | | | |
| ZALV | Zalesovo Beam | 29.90 | 338 | P | P | 20 43 53.7 | -1.2 |
| | 0.7nm,0.5s,baz=139,slow=9.7,SNR=4.5 | | | | | | |
| ZALV | Zalesovo Beam | 29.90 | 338 | eP | P | 20 43 53.5 | -1.5 |
| ZAA1 | Zalesovo Array | 29.90 | 338 | eP | P | 20 43 53.7 | -1.3 |
| KURBB | Kurchatov Arra | 29.95 | 328 | P | P | 20 43 53.6 | -1.8 |
| | 1.1nm,0.7s,baz=135,slow=9.7,SNR=10 | | | | | | |
| KURK | Kurchatov | 29.97 | 328 | eP | P | 20 43 53.6 | -2.0 |
| KBL | Kabul | 30.13 | 292 | eP | P | 20 43 57.0 | -0.5 |
| | 8.3nm,0.6s | | | | | | |
| MJAR | Matsushiro Arr | 30.93 | 64 | P | P | 20 44 01.6 | -2.7 |
| | 0.7nm,0.5s,baz=268,slow=12,SNR=2.8 | | | | | | |
| BVAR | Borovoye Array | 35.41 | 326 | P | P | 20 44 42.6 | -0.7 |
| | 0.9nm,0.8s,baz=106,slow=11,SNR=5.3 | | | | | | |
| GEYT | Alibeck | 39.14 | 297 | P | P | 20 45 15.0 | -0.2 |
| | 1.7nm,0.9s,baz=130,slow=8.1,SNR=4.6 | | | | | | |
| ARU | Arti | 43.06 | 325 | P | P | 20 45 45.4 | -1.6 |
| | 0.9nm,0.3s,baz=121,slow=2.7,SNR=4.7 | | | | | | |
| ARU | Arti | 43.06 | 325 | eP | P | 20 45 45.4 | -1.6 |
| | 4.7nm,1.0s | | | | | | |
| TIXI | Tiksi | 46.62 | 11 | eP | P | 20 46 15.5 | +0.3 |
| | 12nm,1.8s | | | | | | |
| KVAR | Kislovodsk Arr | 50.85 | 306 | P | P | 20 46 49.0 | +0.7 |
| | 3.7nm,0.7s,baz=90,slow=9.1,SNR=3.4 | | | | | | |
| WR1 | Warramunga Arr | 55.78 | 144 | eP | P | 20 47 24.1 | -0.5 |
| | 15nm,1.4s | | | | | | |
| WRA | Warramunga Arr | 55.78 | 144 | P | P | 20 47 24.1 | -0.5 |
| | 2.7nm,0.9s,baz=333,slow=8.4,SNR=16 | | | | | | |
| WB2 | Warramunga Arr | 55.78 | 144 | eP | P | 20 47 24.9 | +0.2 |
| | 16nm,1.5s | | | | | | |
| BR101 | Keskin Array S | 58.04 | 302 | eP | P | 20 47 39.5 | -1.2 |
| BRTR | Keskin Array B | 58.04 | 302 | P | P | 20 47 39.5 | -1.2 |
| | 0.7nm,0.9s,baz=121,slow=6.9,SNR=4.6 | | | | | | |
| AS31 | Alice Springs | 58.67 | 147 | eP | P | 20 47 45.4 | +0.3 |
| | 2.2nm,1.4s | | | | | | |
| ASAR | Alice Springs | 58.67 | 147 | P | P | 20 47 45.4 | +0.3 |
| | 1.2nm,0.7s,baz=327,slow=6.6,SNR=15 | | | | | | |
| AKASG | Malin Array Be | 59.49 | 315 | P | P | 20 47 49.4 | -1.0 |
| | 0.4nm,0.3s,baz=70,slow=6.5,SNR=6.1 | | | | | | |
| FIA0 | FINESS Array S | 60.34 | 327 | eP | P | 20 47 55.3 | -0.7 |
| FINES | FINESS Array B | 60.34 | 327 | P | P | 20 47 55.3 | -0.7 |
| | 4.0nm,0.9s,baz=120,slow=24,SNR=3.5 | | | | | | |
| ARA0 | ARCESS Array S | 60.44 | 337 | eP | P | 20 47 56.2 | -0.5 |
| ARCES | ARCESS Array B | 60.44 | 337 | P | P | 20 47 56.2 | -0.5 |
| | 1.4nm,0.6s,baz=87,slow=7.1,SNR=11 | | | | | | |
| VRI | Vrincioaia | 61.89 | 310 | ⇑iP | P | 20 48 08.0 | +1.1 |
| PLOR | Plostina | 61.95 | 310 | ⇓iP | P | 20 48 07.1 | -0.2 |
| MLR | Muntele Rosu | 62.51 | 309 | ⇑iP | P | 20 48 11.8 | +0.6 |
| MLR | Muntele Rosu | 62.51 | 309 | eP | P | 20 48 10.9 | -0.3 |
| | 8.3nm,1.0s | | | | | | |
| BURAR | Bucovina Array | 62.57 | 312 | ⇑iP | P | 20 48 04.4 | -7.2 |
| ARR | Arges | 63.44 | 309 | ⇑iP | P | 20 48 16.3 | -1.0 |
| DRGR | | 64.42 | 311 | ⇓iP | P | 20 48 21.8 | -1.9 |
| NB200 | NORSAR Array S | 67.48 | 328 | eP | P | 20 48 41.4 | -1.7 |
| NOA | NORSAR Array B | 67.48 | 328 | P | P | 20 48 41.4 | -1.7 |
| | 1.2nm,0.7s,baz=69,slow=10,SNR=3.0 | | | | | | |
| ILAR | Eielson Array | 73.59 | 25 | P | P | 20 49 19.6 | -0.8 |
| | 0.4nm,0.8s,baz=262,slow=4.5,SNR=4.4 | | | | | | |

*ISK **05** 20:43:10.7, 38°.87N×26°.36E, h10km, MD2.5*
*CSEM **05** 20:43:11.0±0.3, 38°.84N×26°.33E, h10km, MD2.5, Error ellipse: s-maj=7.7km s-min=4.5km az=74.0*
*DDA **05** 20:43:12.6, 38°.86N×26°.44E, h7km, Ml2.5*
**ISC 05 20:43:10.9±1.3, 38°.82N±0°.02×26°.35E±0°.04, h7km±13km, n19, σ0s.62/29, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| URLA | Izmir | 0.49 | 157 | ePG | Pb | 20 43 21.6 | -0.4 |
| URLA | | | | eSG | Sb | 20 43 29.7 | +0.3 |
| URLA | Izmir | 0.49 | 157 | i P | Pg | 20 43 20.2 | -0.3 |
| URLA | | | | i S | Sb | 20 43 29.1 | -0.3 |
| URLA | Izmir | 0.49 | 157 | P | Pg | 20 43 20.2 | -0.3 |
| URLA | Izmir | 0.49 | 157 | ePg | Pb | 20 43 21.6 | -0.4 |
| URLA | | | | S | Sb | 20 43 29.1 | -0.3 |
| DKL | Dikili | 0.50 | 59 | ePG | Pg | 20 43 20.1 | -0.5 |
| DKL | | | | eSG | Sg | 20 43 27.7 | +0.6 |
| DKL | Dikili | 0.50 | 59 | ePg | Pg | 20 43 20.1 | -0.5 |
| DKL | | | | eSg | Sg | 20 43 27.7 | +0.6 |
| SIGR | SIGRI | 0.55 | 316 | ePG | Pg | 20 43 21.5 | -0.1 |
| SIGR | SIGRI | 0.55 | 316 | ePg | Pg | 20 43 21.5 | -0.1 |
| ZEY | ˜zmir | 0.59 | 168 | i P | Pb | 20 43 24.0 | +0.5 |
| ZEY | | | | i S | Sb | 20 43 33.7 | +1.7 |
| BAYC | CANAKKALE_Bayr | 0.93 | 9 | i P | Pb | 20 43 29.9 | +0.4 |
| BAYC | | | | i S | Sb | 20 43 42.4 | +0.4 |
| BAYC | CANAKKALE_Bayr | 0.93 | 9 | P | Pb | 20 43 29.9 | +0.4 |
| BAYC | | | | S | Sb | 20 43 42.4 | +0.4 |
| EZN | Ezine | 1.01 | 359 | ePG | Pg | 20 43 29.5 | -0.8 |
| EZN | Ezine | 1.01 | 359 | ePg | Pg | 20 43 29.5 | -0.8 |
| BOZC | Bozcaada | 1.05 | 347 | ePG | Pg | 20 43 30.1 | -1.0 |
| BOZC | Bozcaada | 1.05 | 347 | ePg | Pg | 20 43 30.1 | -1.0 |
| STEP | BALIKESIR_Sava | 1.20 | 62 | i P | Pb | 20 43 34.4 | +0.4 |
| STEP | | | | i S | Sb | 20 43 50.0 | +0.3 |
| STEP | BALIKESIR_Sava | 1.20 | 62 | P | Pb | 20 43 34.4 | +0.4 |
| STEP | | | | S | Sb | 20 43 50.0 | +0.3 |
| BALB | Balikesir | 1.44 | 55 | ePN | Pn | 20 43 37.0 | -0.4 |
| BALB | Balikesir | 1.44 | 55 | ePn | Pn | 20 43 37.0 | -0.4 |

*ISCJB **05** 20:43:58.2±0.6, 36°.26N±0°.04×70°.93E±0°.06, h100km, mb4.1/2, Error ellipse: s-maj=7.9km s-min=4.7km az=142.3*
*IDC **05** 20:44:03.6±6.2, 36°.67N×70°.97E, h72km±34km, mb3.8/2, mb1 3.7/8, mb1mx3.2/57, mbtmp3.9/8, ML3.7/6, MS4.2/3, Ms1 4.2/3, ms1mx3.3/54, Error ellipse: s-maj=79.4km s-min=24.4km az=146.0*
*NNC **05** 20:44:05.4±1.1, 36°.75N×70°.87E, h145km±11km, mb2.9, mpv3.6, Error ellipse: s-maj=10.1km s-min=5.4km az=166.0*
**ISC 05 20:44:00.2±0.8, 36°.36N±0°.06×71°.02E±0°.06, h100km, n30, σ2s.13/36, 10C-2D, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DZET | Dzherino | 3.00 | 325 | ⇓P | Pn | 20 44 47.5 | +1.5 |
| | 13nm,0.5s | | | | | | |
| DZET | | | | ⇑S | Sn | 20 45 21.0 | -0.3 |
| | 22nm,0.2s | | | | | | |
| SFK | Sufi-Kurgan | 4.14 | 27 | ⇑P | Pn | 20 45 03.9 | +2.4 |
| | 3.6nm,0.4s | | | | | | |
| SFK | | | | ⇑S | Sn | 20 45 50.4 | +1.5 |
| | 4.7nm,0.2s | | | | | | |
| THN | Thein Dam | 5.52 | 134 | eP | Pn | 20 45 21.4 | +1.5 |
| THN | | | | eS | Sn | 20 46 20.6 | -1.4 |
| AML | Almayashu | 6.12 | 19 | P | Pn | 20 45 29.3 | +0.8 |
| | SNR=135 | | | | | | |
| MNAS | Manas | 6.23 | 10 | ⇑P | Pn | 20 45 30.7 | +1.0 |
| | 2.5nm,0.5s | | | | | | |
| MNAS | | | | ⇑S | Sn | 20 46 37.0 | -2.4 |
| | 4.1nm,0.4s | | | | | | |
| UCH | Uchtor | 6.46 | 24 | P | Pn | 20 45 34.8 | +1.7 |
| | SNR=6.4 | | | | | | |
| EKS2 | Erkin-Say | 6.64 | 18 | P | Pn | 20 45 36.7 | +1.4 |
| | SNR=5.4 | | | | | | |
| KK31 | Karatay Array | 6.75 | 357 | P | Pn | 20 45 37.3 | +0.7 |
| | 1.7nm,0.3s,baz=186,slow=13,SNR=39 | | | | | | |
| KK31 | | | | ⇑S | Sn | 20 46 48.5 | -3.4 |
| | 2.0nm,0.4s | | | | | | |
| AAK | Ala-Archa | 6.82 | 22 | P | Pn | 20 45 39.0 | +1.3 |

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| | 2.7nm,0.3s,baz=170,slow=6.4,SNR=35 | | | | | | |
| AAK | | | | S | Sn | 20 46 51.5 | -2.4 |
| | 0.7nm,0.3s,baz=322,slow=19,SNR=3.8 | | | | | | |
| AAK | Ala-Archa | 6.82 | 22 | P | Pn | 20 45 38.7 | +0.9 |
| | 5.2nm,0.5s | | | | | | |
| AAK | | | | ⇑S | Sn | 20 46 51.4 | -2.5 |
| | 5.5nm,0.9s | | | | | | |
| AAK | Ala-Archa | 6.82 | 22 | P | Pn | 20 45 39.0 | +1.3 |
| | SNR=8.1 | | | | | | |
| CHMS | Chumysh | 7.23 | 22 | P | Pn | 20 45 44.1 | +0.9 |
| | SNR=7.5 | | | | | | |
| USP | Ospenovka | 7.40 | 20 | P | Pn | 20 45 47.0 | +1.5 |
| | SNR=7.8 | | | | | | |
| TKM2 | Tokmak 2 | 7.44 | 27 | ⇑P | Pn | 20 45 46.8 | +0.6 |
| | 3.8nm,0.6s | | | | | | |
| GEYT | Alibeck | 10.42 | 282 | P | Pn | 20 46 27.5 | +0.9 |
| | 1.0nm,0.3s,baz=91,slow=14,SNR=11 | | | | | | |
| GEYT | | | | S | Sn | 20 48 18.3 | -3.0 |
| | 1.1nm,0.3s,baz=100,slow=24,SNR=7.6 | | | | | | |
| PYUN | Piuthan | 13.05 | 126 | eP | Pn | 20 46 59.7 | -2.3 |
| PKIN | Phulchoki | 15.01 | 122 | eP | Pn | 20 47 24.2 | -3.1 |
| PKI | Pulchoki | 15.02 | 122 | eP | Pn | 20 47 24.5 | -3.0 |
| AB31 | Akbulak array | 15.21 | 331 | ⇑P | Pn | 20 47 26.8 | -2.6 |
| | 0.7nm,0.4s,baz=142,slow=13,SNR=33 | | | | | | |
| AB31 | | | | ⇑S | Sn | 20 50 13.0 | -4.3 |
| | 0.3nm,0.4s,baz=158,slow=22,SNR=2.8 | | | | | | |
| KURBB | Kurchatov Arra | 15.25 | 18 | P | P | 20 47 32.8 | +0.3 |
| | 0.1nm,0.3s,baz=218,slow=12,SNR=5.4 | | | | | | |
| JIRN | Jiri | 15.51 | 120 | eP | Pn | 20 47 33.8 | +0.1 |
| BVAR | Borovoye Array | 16.67 | 359 | P | Pn | 20 47 47.2 | -0.4 |
| | 0.4nm,0.3s,baz=167,slow=12,SNR=8.3 | | | | | | |
| TAPN | Taplejung | 16.77 | 118 | eP | Pn | 20 47 48.7 | -0.6 |
| AKTO | Aktyubinsk | 16.91 | 330 | P | P | 20 47 51.9 | +1.0 |
| | 0.4nm,0.3s,baz=140,slow=9.5,SNR=7.2 | | | | | | |
| AKTO | Aktyubinsk | 16.91 | 330 | ⇓P | Pn | 20 47 49.7 | -0.8 |
| | 2.4nm,0.6s | | | | | | |
| ZALV | Zalesovo Beam | 20.04 | 24 | P | P | 20 48 25.9 | +0.9 |
| | 0.6nm,0.3s,baz=210,slow=10,SNR=10 | | | | | | |
| FINES | FINESS Array B | 37.61 | 326 | P | P | 20 51 09.3 | +4.5 |
| | 3.7nm,1.0s,baz=131,slow=8.4,SNR=4.0 | | | | | | |
| ARCES | ARCESS Array B | 41.28 | 338 | P | P | 20 51 39.0 | +3.7 |
| | 2.4nm,0.9s,baz=111,slow=6.6,SNR=4.8 | | | | | | |
| TORD | Torodi Ar. Bea | 65.73 | 269 | LR | LR | 21 27 50.2 | |
| | comp=Z,558nm,18.9s,baz=270,slow=40 | | | | | | |
| FITZ | Fitzroy Crossi | 74.80 | 127 | LR | LR | 21 33 54.1 | |
| | comp=Z,30nm,18.9s,slow=40 | | | | | | |

**IDC 05 20:50:28.5±3.1,5.36S×133.56E,h0km,mb3.6/1, mb1 4.1/4,mb1mx3.6/26,mbtmp3.9/4,ML3.7/3,MS3.9/2, Ms1 3.9/2,ms1mx3.1/28,Error ellipse: s-maj=126.3km s-min=29.7km az=82.0,Aru Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 14.52 | 177 | Pn | Pn | 20 53 54.5 | -1.0 |
| | 0.3nm,0.3s,baz=358,slow=13,SNR=6.1 | | | | | | |
| WRA | | | | Sn | Sn | 20 56 32.0 | -5.2 |
| | 0.2nm,0.3s,baz=2.7,slow=23,SNR=4.9 | | | | | | |
| FITZ | Fitzroy Crossi | 14.85 | 211 | Pn | Pn | 20 53 59.5 | -0.4 |
| | 0.3nm,0.3s,baz=34,slow=13,SNR=3.8 | | | | | | |
| FITZ | | | | Sn | Sn | 20 56 38.2 | -7.0 |
| | 0.1nm,0.3s,baz=18,slow=20,SNR=1.8 | | | | | | |
| ASAR | Alice Springs | 18.21 | 179 | P | P | 20 54 43.6 | +0.4 |
| | 0.3nm,0.3s,baz=1.1,slow=13,SNR=12 | | | | | | |
| ASAR | | | | S | Sn | 20 58 03.2 | -3.7 |
| | 0.1nm,0.3s,baz=4.1,slow=27,SNR=3.2 | | | | | | |
| AFI | Afiamalu | 54.45 | 103 | LR | LR | 21 24 12.1 | |
| | comp=Z,69nm,18.1s,baz=63,slow=37 | | | | | | |
| MKAR | Makanchi Array | 68.86 | 325 | P | P | 21 01 35.0 | 0.0 |
| | 0.3nm,0.4s,baz=108,slow=8.0,SNR=6.3 | | | | | | |
| GEYT | Alibeck | 81.89 | 309 | LR | LR | 21 43 41.4 | |
| | comp=Z,90nm,21.6s,baz=225,slow=39 | | | | | | |

*ISCJB **05** 20:53:35.7±0.9,41.43N±0.03×71.78E±0.03,h1km±5km, Error ellipse: s-maj=6.0km s-min=3.9km az=14.5*
*KRNET **05** 20:53:35.4±0.1,41.43N×71.76E,h25km,mb2.4*
*NNC **05** 20:53:36.6±0.8,41.47N×71.85E,h6km±5km,mb2.8, mpv2.3,Error ellipse: s-maj=5.4km s-min=2.9km az=64.0*
*SOME **05** 20:53:38.0,41.58N×71.75E,h0km*
**ISC 05 20:53:33.9±1.2,41.39N±0.03×71.82E±0.03,h10km±10km, n23,σ0.77/43,20C-10D,Kyrgyzstan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ARK | Arkit | 0.42 | 15 | ⇓iP | Pb | 20 53 43.3 | -0.3 |
| | baz=25 | | | | | | |
| ARK | | | | ⇓eS | Sb | 20 53 49.2 | -0.9 |
| | baz=25 | | | | | | |
| ARSB | Arslanbob | 0.88 | 94 | ⇑eP | Pn | 20 53 52.4 | -0.1 |
| | baz=96 | | | | | | |
| ARSB | | | | ⇑iS | Sn | 20 54 05.8 | +0.3 |
| | baz=96 | | | | | | |
| TOKL | Toktogul | 0.96 | 55 | ⇓iP | Pn | 20 53 54.0 | +0.4 |
| | baz=58 | | | | | | |
| TOKL | | | | ⇓iS | Sn | 20 54 08.4 | +1.0 |
| | baz=58 | | | | | | |
| MNAS | Manas | 1.21 | 25 | ⇑iP | Pn | 20 53 57.8 | +0.7 |
| | baz=28 | | | | | | |
| MNAS | | | | ⇑iS | Sn | 20 54 14.0 | +0.4 |
| | baz=28 | | | | | | |
| MNAS | Manas | 1.21 | 25 | ⇑P | Pn | 20 53 57.8 | +0.7 |
| | 0.7nm,0.3s | | | | | | |
| MNAS | | | | ⇑S | Sn | 20 54 13.6 | 0.0 |
| | 2.6nm,0.3s | | | | | | |
| IUG | Iuzhnay | 1.53 | 300 | eP | Pg | 20 54 03.0 | -0.3 |
| | 24nm,0.3s | | | | | | |
| IUG | | | | eS | Sn | 20 54 21.0 | -0.5 |
| | 140nm,0.3s | | | | | | |
| DZA | Taraz | 1.54 | 347 | eP | Pg | 20 54 03.8 | +0.3 |
| | 12nm,0.2s | | | | | | |
| DZA | | | | eS | Sb | 20 54 22.5 | +0.3 |
| | 62nm,0.2s | | | | | | |
| AML | Almayashu | 1.59 | 62 | ⇑iP | Pg | 20 54 04.6 | +0.2 |
| | baz=63 | | | | | | |
| AML | | | | ⇑iS | Sg | 20 54 24.9 | -0.1 |
| | baz=63 | | | | | | |
| MRKS | Merke | 1.71 | 37 | eP | Pg | 20 54 08.2 | +1.5 |
| | 13nm,0.2s | | | | | | |
| MRKS | | | | eS | Sg | 20 54 29.7 | +0.7 |
| | 21nm,0.3s | | | | | | |
| SFK | Sufi-Kurgan | 1.88 | 136 | ⇓eP | Pg | 20 54 09.2 | -0.8 |
| | baz=136 | | | | | | |
| SFK | | | | ⇓iS | Sg | 20 54 35.1 | +0.7 |
| | baz=136 | | | | | | |
| SFK | Sufi-Kurgan | 1.88 | 136 | ⇑Pn | Pg | 20 54 10.3 | +0.3 |
| | 1.2nm,0.2s | | | | | | |
| SFK | | | | ⇑Sn | Sg | 20 54 35.4 | +1.0 |
| | 4.4nm,0.2s | | | | | | |
| CHM | Chimkent | 1.90 | 300 | eP | Pg | 20 54 10.8 | +0.6 |
| | 18nm,0.1s | | | | | | |
| CHM | | | | eS | Sg | 20 54 34.0 | -0.8 |
| | 86nm,0.4s | | | | | | |
| EKS2 | Erkin-Say | 1.94 | 48 | ⇑iP | Pg | 20 54 10.4 | -0.6 |
| | baz=50 | | | | | | |
| EKS2 | | | | ⇑iS | Sg | 20 54 35.4 | -0.8 |
| | baz=50 | | | | | | |
| KK31 | Karatay Array | 1.97 | 331 | ⇓Pn | Pb | 20 54 09.7 | -0.1 |
| | 0.4nm,0.2s,baz=173,slow=17,SNR=18 | | | | | | |
| KK31 | | | | ⇑Sn | Sb | 20 54 35.0 | +0.6 |
| | 3.9nm,0.3s,baz=152,slow=30,SNR=16 | | | | | | |
| UCH | Uchtor | 2.18 | 67 | ⇑iP | Pb | 20 54 14.1 | +0.3 |
| | baz=68 | | | | | | |
| UCH | | | | ⇑iS | Sb | 20 54 42.3 | +1.2 |
| | baz=68 | | | | | | |
| BRLS | Borolday | 2.20 | 319 | eP | Pb | 20 54 13.7 | -0.1 |
| | 3.3nm,0.2s | | | | | | |
| BRLS | | | | eS | Sb | 20 54 40.4 | -0.8 |
| | 16nm,0.4s | | | | | | |
| AAK | Ala-Archa | 2.35 | 57 | ⇑iP | Pb | 20 54 16.2 | -0.3 |
| | baz=59 | | | | | | |
| AAK | | | | ⇑iS | Sb | 20 54 45.5 | -0.2 |
| | baz=59 | | | | | | |
| AAK | Ala-Archa | 2.35 | 57 | ⇑Pg | Pg | 20 54 18.6 | -0.4 |
| | 2.4nm,0.7s | | | | | | |
| AAK | | | | Lg | Lg | 20 54 49.6 | |
| | 3.8nm,0.6s | | | | | | |
| KBK | Karagaybulak | 2.65 | 61 | ⇑iP | Pb | 20 54 21.0 | -0.6 |
| | baz=62 | | | | | | |
| KBK | | | | ⇑iS | Sb | 20 54 53.2 | -1.2 |
| | baz=62 | | | | | | |
| USP | Ospenovka | 2.73 | 46 | ⇓iP | Pb | 20 54 21.3 | -1.6 |
| | baz=47 | | | | | | |
| USP | | | | ⇓iS | Sb | 20 54 54.5 | -2.0 |
| | baz=47 | | | | | | |
| TKM2 | Tokmak 2 | 3.20 | 60 | ⇓Lg | Lg | 20 55 15.9 | |
| | 2.6nm,0.5s | | | | | | |
| DGS | Degeres | 3.47 | 56 | eP | Pg | 20 54 41.0 | +0.6 |
| | 1.6nm,0.5s | | | | | | |
| DGS | | | | eS | Sg | 20 55 25.9 | +0.6 |
| | 4.4nm,0.8s | | | | | | |
| KST | Kastek | 3.50 | 60 | eP | Pg | 20 54 40.8 | -0.1 |
| | 1.9nm,0.2s | | | | | | |
| KST | | | | eS | Sg | 20 55 25.4 | -0.7 |
| | 5.2nm,1.2s | | | | | | |

*ISK **05** 20:57:48.2,38.88N×26.39E,h8km,MD2.5*
*ISCJB **05** 20:57:49.6±0.5,38.87N±0.02×26.39E±0.04,h3km±7km, Error ellipse: s-maj=5.2km s-min=3.4km az=172.8*
*CSEM **05** 20:57:49.6±0.2,38.86N×26.39E,h10km,ML1.5,Error ellipse: s-maj=5.1km s-min=3.6km az=75.0*
*ATH **05** 20:57:49.7,38.86N×26.35E,h26km±1km,ML1.5/2,Error ellipse: s-maj=2.9km s-min=1.0km az=267.0*
*DDA **05** 20:57:50.1,38.86N×26.40E,h7km,Ml2.5*
**ISC 05 20:57:49.5±1.0,38.88N±0.02×26.38E±0.03,h8km±9km, n27,σ0.66/49,Aegean Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PRK | Paraskevi | 0.38 | 347 | P | Pg | 20 57 58.1 | +1.2 |
| PRK | | | | S | Sb | 20 58 04.0 | -0.5 |
| PRK | | | | AML | AML | 20 58 05.1 | |
| | comp=N,193µm,0.3s | | | | | | |
| PRK | | | | AML | AML | 20 58 09.2 | |
| | comp=E,152µm,0.6s | | | | | | |
| PRK | Paraskevi | 0.38 | 347 | P | Pg | 20 57 58.1 | +1.2 |
| PRK | | | | S | Sb | 20 58 04.0 | -0.5 |
| DKL | Dikili | 0.45 | 65 | ePG | Pg | 20 57 57.1 | -1.1 |
| DKL | | | | eSG | Sg | 20 58 04.0 | -0.1 |
| DKL | Dikili | 0.45 | 65 | ePg | Pg | 20 57 57.2 | -1.1 |
| DKL | | | | eSg | Sg | 20 58 04.0 | -0.1 |
| SIGR | SIGRI | 0.53 | 309 | ePG | Pg | 20 57 58.9 | -0.9 |
| SIGR | | | | eSG | Sg | 20 58 07.0 | +0.3 |
| SIGR | SIGRI | 0.53 | 309 | P | Pb | 20 58 01.1 | 0.0 |
| SIGR | | | | S | Sb | 20 58 08.6 | -0.2 |
| SIGR | SIGRI | 0.53 | 309 | ePg | Pg | 20 57 58.9 | -0.9 |
| SIGR | SIGRI | 0.53 | 309 | P | Pb | 20 58 01.1 | 0.0 |
| SIGR | | | | eSg | Sg | 20 58 07.0 | +0.3 |
| SIGR | | | | S | Sb | 20 58 08.6 | -0.2 |
| URLA | Izmir | 0.55 | 162 | ePG | Pg | 20 57 59.2 | -0.9 |
| URLA | | | | eSG | Sg | 20 58 07.0 | -0.2 |
| URLA | Izmir | 0.55 | 162 | i P | Pg | 20 57 59.7 | -0.4 |
| URLA | | | | i S | Sg | 20 58 07.2 | 0.0 |
| URLA | Izmir | 0.55 | 162 | ePg | Pg | 20 57 59.2 | -0.9 |
| URLA | Izmir | 0.55 | 162 | P | Pg | 20 57 59.7 | -0.4 |
| URLA | | | | eSg | Sg | 20 58 07.0 | -0.2 |
| CHOS | Chios island | 0.56 | 208 | P | Pg | 20 58 00.1 | -0.1 |
| CHOS | | | | S | Sg | 20 58 08.2 | +0.6 |
| CHOS | | | | AML | AML | 20 58 11.5 | |
| | comp=N,113µm,0.2s | | | | | | |
| CHOS | | | | AML | AML | 20 58 12.7 | |
| | comp=E,177µm,0.3s | | | | | | |
| CHOS | Chios island | 0.56 | 208 | P | Pg | 20 58 00.2 | -0.1 |
| CHOS | | | | S | Sg | 20 58 08.2 | +0.6 |
| ZEY | ˜zmir | 0.65 | 172 | i P | Pg | 20 58 01.7 | -0.3 |
| ZEY | | | | i S | Sb | 20 58 12.7 | +0.5 |
| BAYC | CANAKKALE_Bayr | 0.87 | 8 | i P | Pb | 20 58 07.6 | +0.7 |
| BAYC | | | | i S | Sb | 20 58 19.8 | +1.1 |
| BAYC | CANAKKALE_Bayr | 0.87 | 8 | P | Pb | 20 58 07.6 | +0.7 |
| BAYC | | | | S | Sb | 20 58 19.8 | +1.1 |
| EZN | Ezine | 0.95 | 357 | ePG | Pg | 20 58 07.1 | -0.6 |
| EZN | Ezine | 0.95 | 357 | ePg | Pg | 20 58 07.1 | -0.6 |
| STEP | BALIKESIR_Sava | 1.15 | 64 | i P | Pn | 20 58 12.7 | +0.6 |
| STEP | | | | i S | Sn | 20 58 28.1 | +0.2 |
| STEP | BALIKESIR_Sava | 1.15 | 64 | P | Pn | 20 58 12.6 | +0.6 |
| STEP | | | | S | Sn | 20 58 28.1 | +0.2 |
| SMG | Samos | 1.22 | 163 | P | Pn | 20 58 12.7 | -0.2 |
| SMG | | | | S | Sn | 20 58 30.4 | +0.8 |
| SMG | Samos | 1.22 | 163 | P | Pn | 20 58 12.7 | -0.2 |
| SMG | | | | S | Sn | 20 58 30.5 | +0.8 |
| LIA | Limnos Island | 1.38 | 318 | P | Pn | 20 58 14.4 | -0.7 |
| LIA | | | | S | Sn | 20 58 33.0 | -0.5 |
| LIA | Limnos Island | 1.38 | 318 | P | Pn | 20 58 14.4 | -0.7 |
| LIA | | | | S | Sn | 20 58 33.0 | -0.5 |
| BALB | Balikesir | 1.39 | 56 | ePN | Pn | 20 58 14.3 | -0.8 |
| BALB | Balikesir | 1.39 | 56 | ePn | Pn | 20 58 14.4 | -0.8 |

*NIED **05** 21:04:00,39.10N×142.90E,h29km,Mw4.4 Best double couple: Mo5.22000×10^15 NP1:φs163.00000°,δ22.00000°, λ42.00000°. NP2:φs33.00000°,δ76.00000°,λ106.00000°.*
*JMA **05** 21:04:10.3±0.1,39.12N×142.98E,h24km±2km,M4.3*
*JMA Felt I J1.*
*ISCJB **05** 21:04:10.9±0.7,39.15N±0.03×143.02E±0.05,h34km±5km, mb4.2/25,MS3.8/5,Error ellipse: s-maj=7.5km s-min=4.6km az=30.8*
*MOS **05** 21:04:11.8±1.2,39.23N×142.98E,h41km,mb4.7/7,Error ellipse: s-maj=9.9km s-min=7.2km az=81.9*
*NEIC **05** 21:04:15.4±1.2,39.22N×142.76E,h49km±9km,mb4.0/2, Error ellipse: s-maj=15.4km s-min=8.7km az=121.0*
*NEIC Recorded [1 JMA] in Iwate and Miyagi.*
*IDC **05** 21:04:15.1±2.2,39.12N×142.80E,h52km±19km,mb3.8/19, mb1 3.9/25,mb1mx3.8/60,mbtmp4.1/25,ML3.9/4,MS3.8/9, Ms1 3.8/9,ms1mx3.5/38,Error ellipse: s-maj=20.0km s-min=13.6km az=103.0*
**ISC 05 21:04:13.5±0.7,39.14N±0.05×142.89E±0.08,h36km±2km, n96,σ1.93/102,mb4.1/25,MS4.0/5,8C,Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MIYJ | Miyakonagasawa | 0.94 | 298 | P | Pn | 21 04 28.5 | -1.6 |
| OFUJ | Ofunato | 0.95 | 267 | P | Pn | 21 04 29.0 | -1.3 |
| OFUJ | | | | eS | Sn | 21 04 41.2 | -1.4 |
| JTH | Tanohata | 1.12 | 315 | P | Pn | 21 04 31.3 | -1.4 |
| JTH | | | | S | Sn | 21 04 46.3 | -0.6 |
| JOM | Ohasama | 1.28 | 285 | P | Pn | 21 04 34.2 | -0.7 |
| JOM | | | | eS | Sn | 21 04 51.7 | +0.9 |
| JMK | Ichinoseki | 1.31 | 262 | P | Pn | 21 04 34.6 | -0.7 |
| JMK | | | | eS | Sn | 21 04 51.1 | -0.4 |
| JIO | Ouri | 1.39 | 241 | P | Pn | 21 04 35.3 | -1.0 |
| JIO | | | | eS | Sn | 21 04 52.1 | -1.2 |
| JANG | Nango | 1.62 | 320 | P | Pn | 21 04 38.7 | -0.8 |
| JANG | | | | eS | Sn | 21 05 00.6 | +1.4 |
| JRG | Rokugo | 1.77 | 279 | P | Pn | 21 04 41.6 | +0.1 |
| JOU | Okura | 1.90 | 247 | P | Pn | 21 04 43.3 | -0.1 |
| JYK | Kaneyama | 1.98 | 264 | P | Pn | 21 04 44.7 | +0.2 |
| JAH | Hinai | 2.03 | 302 | P | Pn | 21 04 45.4 | +0.3 |
| JMM | Marumori | 2.08 | 233 | P | Pn | 21 04 45.4 | -0.4 |
| JMM | | | | eS | Sn | 21 05 11.4 | +0.9 |
| JTM | Tenmabayashi | 2.16 | 320 | P | Pn | 21 04 46.5 | -0.4 |
| JTM | | | | eS | Sn | 21 05 13.8 | +1.4 |
| ERM | Erimo | 2.88 | 4 | eP | Pn | 21 04 56.0 | -0.8 |
| ERM | | | | eS | Sn | 21 05 32.5 | +2.4 |
| ERM | Erimo | 2.88 | 4 | ePn | Pn | 21 04 56.0 | -0.8 |
| ERM | | | | eS | Sn | 21 05 32.5 | +2.4 |
| MJA0 | Matsu Arr-Jizo | 4.50 | 236 | eP | Pn | 21 05 21.3 | +2.2 |
| MJA0 | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.3s | | | | | | |
| MJAR | Matsushiro Arr | 4.52 | 236 | P | Pn | 21 05 21.4 | +1.9 |
| | comp=Z,8.0nm,0.3s,baz=35,slow=14,SNR=94 | | | | | | |
| MJAR | | | | LR | LR | 21 07 22.0 | |
| | comp=Z,1µm,18.3s,baz=45,slow=42 | | | | | | |
| MAJO | Matsushiro | 4.52 | 236 | c iP | Pn | 21 05 21.7 | +2.2 |
| MAJO | Matsushiro | 4.52 | 236 | ePn | Pn | 21 05 21.6 | +2.1 |
| MAT | Matsushiro | 4.52 | 236 | P | Pn | 21 05 21.7 | +2.2 |
| MAT | | | | eS | Sn | 21 06 17.6 | +6.8 |
| ASAJ | Asahikawa | 4.97 | 358 | P | Pn | 21 05 26.1 | +0.4 |
| | comp=Z,3.7nm,0.3s,baz=214,slow=11,SNR=11 | | | | | | |
| ASAJ | | | | S | Sn | 21 06 27.7 | +5.8 |
| | comp=Z,2.7nm,0.3s,baz=16,slow=20,SNR=3.1 | | | | | | |
| ASAJ | Asahikawa | 4.97 | 358 | ePn | Pn | 21 05 26.0 | +0.4 |
| ASAJ | | | | eS | Sn | 21 06 21.7 | -0.1 |
| YUK | Yuzh-Kuril'sk | 5.37 | 24 | P | Pn | 21 05 28.8 | -2.2 |
| YUK | | | | eS | Sn | 21 06 27.0 | -4.6 |
| YUK | | | | pmax | pmax | | |
| | comp=Z,182nm,0.3s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,439nm,0.3s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=E,255nm,0.3s | | | | | | |
| SHO | Shikotan | 5.57 | 31 | eP | Pn | 21 05 32.0 | -1.8 |
| SHO | | | | eS | Sn | 21 06 33.0 | -3.5 |
| SHO | | | | pmax | pmax | | |
| | comp=Z,13nm,0.3s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=E,278nm,0.4s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=N,259nm,0.5s | | | | | | |
| JHJ | Hachijo jima 2 | 6.51 | 204 | P | Pn | 21 05 46.6 | -0.2 |
| | comp=N,17nm,0.3s,baz=254,slow=18,SNR=3.2 | | | | | | |
| JHJ | | | | S | Sn | 21 06 55.1 | -4.7 |
| | comp=N,9.8nm,0.3s,baz=72,slow=20,SNR=2.3 | | | | | | |
| KUR | Kuril'sk | 7.12 | 30 | eP | Pn | 21 05 53.3 | -1.7 |
| KUR | | | | S | Sn | 21 07 10.9 | -3.7 |
| YSS | Yuzh-Sakhalins | 7.81 | 359 | ⇑eP | Pn | 21 06 15.9 | +11 |
| YSS | | | | pmax | pmax | | |
| | comp=Z,55nm,1.7s | | | | | | |
| MSHR | Mys Shultsa | 9.53 | 295 | ceP | Pn | 21 06 36.1 | +8.0 |
| USRK | Ussuriysk Ar. | 9.59 | 305 | P | Pn | 21 06 29.2 | +0.3 |
| | comp=Z,0.1nm,0.3s,baz=171,slow=10,SNR=3.4 | | | | | | |
| USRK | | | | LR | LR | 21 10 01.5 | |
| | comp=Z,931nm,18.9s,baz=119,slow=36 | | | | | | |
| KSRS | Korea Array | 11.88 | 267 | P | Pn | 21 07 02.9 | +2.6 |
| | comp=Z,0.3nm,0.3s,baz=80,slow=14,SNR=6.7 | | | | | | |
| KSRS | | | | LR | LR | 21 11 19.3 | |
| | comp=Z,509nm,18.1s,baz=68,slow=36 | | | | | | |
| KSAR | Wonju Array Be | 11.91 | 267 | P | Pn | 21 07 02.9 | +2.1 |
| KSAR | Wonju Array Be | 11.91 | 267 | P | Pn | 21 07 02.9 | +2.1 |
| TJN | Taejon | 12.59 | 262 | ceP | Pn | 21 07 12.6 | +2.6 |
| KLR | Kul'dur | 12.85 | 325 | P | Pn | 21 07 14.1 | +0.5 |
| | comp=Z,0.0nm,0.3s,baz=142,slow=17,SNR=3.5 | | | | | | |
| KLR | | | | LR | LR | 21 12 08.6 | |
| | comp=Z,45nm,20.7s,baz=138,slow=37 | | | | | | |
| HIA | Hailar | 19.36 | 309 | eP | P | 21 08 34.5 | -1.4 |
| HIA | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.4s | | | | | | |
| HIA | Hailar | 19.36 | 309 | eP | P | 21 08 34.5 | -1.4 |
| | comp=Z,4.8nm,0.4s | | | | | | |
| BJT | Baijiatuau | 20.59 | 281 | eP | P | 21 08 47.1 | -2.2 |
| BJT | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.4s | | | | | | |
| BJT | Baijiatuau | 20.59 | 281 | eP | P | 21 08 47.1 | -2.2 |
| | comp=Z,2.9nm,0.4s | | | | | | |
| YAK | Yakutsk | 24.30 | 345 | P | P | 21 09 26.6 | -0.7 |
| | comp=Z,9.8nm,0.3s,baz=271,slow=0.6,SNR=4.7 | | | | | | |
| YAK | Yakutsk | 24.30 | 345 | eP | P | 21 09 32.9 | +5.6 |
| YAK | | | | pmax | pmax | | |
| | comp=Z,17nm,1.0s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,6.0nm,1.0s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,5.0nm,1.4s | | | | | | |
| SEY | Seymchan | 24.50 | 10 | P | P | 21 09 29.8 | +0.7 |
| | comp=E,2.8nm,0.5s,baz=198,slow=14,SNR=12 | | | | | | |
| GUMO | Guam | 25.51 | 176 | LR | LR | 21 20 13.8 | |
| | comp=E,47nm,19.4s,baz=63,slow=38 | | | | | | |
| BOD | Bodaibo | 26.43 | 324 | eP | P | 21 09 43.5 | -3.1 |
| BOD | | | | pmax | pmax | | |
| | comp=Z,12nm,1.2s | | | | | | |
| SONM | Songino Array | 27.65 | 300 | P | P | 21 09 57.7 | -0.1 |
| | comp=Z,1.3nm,0.6s,baz=98,slow=9.1,SNR=7.0 | | | | | | |
| SONM | | | | LR | LR | 21 21 24.7 | |
| | comp=Z,335nm,19.2s,baz=60,slow=37 | | | | | | |
| SONM | Songino Array | 27.65 | 300 | eP | P | 21 09 58.3 | +0.5 |
| SONM | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.6s | | | | | | |
| H11N2 | WAKE ISLAND Hy | 28.34 | 126 | T | T | 21 40 41.2 | |
| | baz=318,slow=75,SNR=184 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 28.35 | 126 | T | T | 21 40 41.5 | |
| | baz=318,slow=75,SNR=149 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 28.36 | 126 | T | T | 21 40 44.6 | |
| | baz=318,slow=75,SNR=181 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 29.14 | 128 | T | T | 21 41 40.8 | |
| | baz=318,slow=76,SNR=18 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 29.14 | 128 | T | T | 21 41 48.6 | |
| | baz=318,slow=76,SNR=28 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 29.15 | 128 | T | T | 21 41 50.7 | |
| | baz=318,slow=76,SNR=15 | | | | | | |
| ZALV | Zalesovo Beam | 41.39 | 311 | P | P | 21 11 56.0 | 0.0 |
| | comp=Z,2.4nm,0.5s,baz=91,slow=7.8,SNR=16 | | | | | | |
| ZALV | | | | LR | LR | 21 29 51.2 | |
| | comp=Z,270nm,18.5s,baz=73,slow=37 | | | | | | |
| ZALV | Zalesovo Beam | 41.39 | 311 | P | P | 21 11 56.0 | 0.0 |
| CMAR | Chiang Mai Arr | 43.17 | 254 | P | P | 21 12 10.5 | -0.4 |
| | comp=Z,0.6nm,0.5s,baz=50,slow=5.8,SNR=7.3 | | | | | | |
| MKAR | Makanchi Array | 44.02 | 301 | P | P | 21 12 17.4 | 0.0 |
| | comp=Z,4.7nm,0.9s,baz=84,slow=10.0,SNR=28 | | | | | | |
| MKAR | | | | LR | LR | 21 31 21.9 | |
| | comp=Z,244nm,19.3s,baz=40,slow=37 | | | | | | |
| KDAK | Kodiak Island | 44.76 | 43 | i P | P | 21 12 34.8 | +12 |
| KURK | Kurchatov | 45.58 | 307 | eP | P | 21 12 29.2 | -0.5 |
| KURK | Kurchatov | 45.58 | 307 | eP | P | 21 12 29.1 | -0.5 |
| | comp=Z,120nm,0.9s | | | | | | |
| TAPN | Taplejung | 46.98 | 273 | eP | P | 21 12 42.2 | +0.8 |
| | comp=Z,3.7nm,0.4s | | | | | | |
| ILAR | Eielson Array | 47.09 | 33 | P | P | 21 12 42.1 | +0.7 |
| | comp=Z,0.5nm,0.7s,baz=280,slow=6.5,SNR=5.6 | | | | | | |
| ILAR | Eielson Array | 47.09 | 33 | eP | P | 21 12 44.8 | +3.3 |
| ILAR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.9s | | | | | | |
| ODAN | Odare | 47.47 | 272 | eP | P | 21 12 45.8 | +0.7 |
| JIRN | Jiri | 48.01 | 274 | eP | P | 21 12 50.3 | +0.8 |
| RAMN | Ramite | 48.03 | 273 | eP | P | 21 12 49.9 | +0.3 |
| | comp=Z,20nm,0.9s | | | | | | |
| GUN | Gumba | 48.13 | 275 | eP | P | 21 12 50.8 | +0.4 |
| | comp=Z,12nm,0.5s | | | | | | |
| KKN | Kakani | 48.65 | 275 | eP | P | 21 12 54.3 | 0.0 |
| | comp=Z,8.4nm,0.5s | | | | | | |
| PKI | Pulchoki | 48.66 | 274 | eP | P | 21 12 54.5 | 0.0 |
| PKIN | Phulchoki | 48.66 | 274 | eP | P | 21 12 54.4 | 0.0 |
| DMN | Daman | 48.87 | 275 | eP | P | 21 12 56.5 | +0.5 |
| DANN | Dangsing | 49.56 | 276 | eP | P | 21 13 01.5 | +0.2 |
| KOLN | Koldanda | 49.96 | 276 | eP | P | 21 13 04.1 | -0.2 |
| BRVK | Borovoye | 50.09 | 311 | ceP | P | 21 13 04.6 | 0.0 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,16nm,1.2s | | | | | | |
| PYUN | Piuthan | 50.27 | 276 | eP | P | 21 13 06.6 | 0.0 |
| | comp=Z,65nm,1.1s | | | | | | |
| INK | Inuvik | 51.98 | 28 | P | P | 21 13 19.9 | +1.3 |
| | comp=Z,1.0nm,0.8s,baz=296,slow=5.8,SNR=3.7 | | | | | | |
| ARU | Arti | 55.56 | 318 | P | P | 21 13 45.0 | 0.0 |
| | comp=Z,1.5nm,0.5s,baz=73,slow=6.2,SNR=5.1 | | | | | | |
| ARU | Arti | 55.56 | 318 | c iP | P | 21 13 45.6 | +0.6 |
| ARU | | | | | | 21 14 40.1 | |
| ARU | | | | | | 21 15 46.5 | |
| ARU | | | | S | S | 21 21 28.1 | +0.3 |
| ARU | | | | SS | SS | 21 25 07.7 | -4.8 |
| ARU | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.2s | | | | | | |
| AKTO | Aktyubinsk | 58.14 | 311 | P | P | 21 14 03.2 | -0.2 |
| | comp=Z,0.5nm,0.3s,baz=62,slow=11,SNR=4.4 | | | | | | |
| WRA | Warramunga Arr | 59.32 | 189 | P | P | 21 14 10.6 | -1.2 |
| | comp=Z,0.7nm,0.7s,baz=7.2,slow=6.9,SNR=5.5 | | | | | | |
| WRA | Warramunga Arr | 59.32 | 189 | i P | P | 21 14 12.3 | +0.5 |
| WRA | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.8s | | | | | | |
| YKA | Yellowknife Ar | 61.40 | 31 | P | P | 21 14 28.9 | +3.3 |
| | comp=Z,0.4nm,0.8s,baz=298,slow=6.7,SNR=2.7 | | | | | | |
| YKA | Yellowknife Ar | 61.40 | 31 | ceP | P | 21 14 35.0 | +9.4 |
| KLMR | Klimovskoe | 62.60 | 328 | eP | P | 21 14 32.8 | -0.8 |
| KLMR | | | | pmax | pmax | | |
| | comp=Z,12nm,1.3s | | | | | | |
| ASAR | Alice Springs | 63.04 | 189 | P | P | 21 14 36.6 | -0.3 |
| | comp=Z,0.3nm,0.7s,baz=16,slow=6.2,SNR=2.9 | | | | | | |
| GEYT | Alibeck | 63.84 | 299 | P | P | 21 14 41.2 | -1.1 |
| | comp=Z,4.0nm,0.6s,baz=46,slow=8.5,SNR=6.2 | | | | | | |
| FINES | FINESS Array B | 67.49 | 332 | P | P | 21 15 05.0 | -0.4 |
| | comp=Z,0.7nm,0.4s,baz=44,slow=8.5,SNR=3.7 | | | | | | |
| FINES | FINESS Array B | 67.49 | 332 | i P | P | 21 15 07.4 | +2.0 |
| FINES | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.4s | | | | | | |
| KVAR | Kislovodsk Arr | 70.40 | 311 | P | P | 21 15 25.0 | +1.1 |
| | comp=Z,4.6nm,1.0s,baz=240,slow=15,SNR=3.1 | | | | | | |
| KIV | Kislovodsk | 70.40 | 311 | eP | P | 21 15 23.5 | -0.4 |
| KIV | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.0s | | | | | | |
| KIV | Kislovodsk | 70.40 | 311 | eP | P | 21 15 24.4 | +0.5 |
| | comp=Z,17nm,1.1s | | | | | | |
| NOA | NORSAR Array B | 72.69 | 338 | P | P | 21 15 36.0 | -1.3 |
| | comp=Z,0.8nm,0.6s,baz=272,slow=12,SNR=3.5 | | | | | | |
| AKASG | Malin Array Be | 73.34 | 323 | P | P | 21 15 39.3 | -1.9 |
| | comp=Z,0.4nm,0.4s,baz=45,slow=6.7,SNR=4.4 | | | | | | |
| AKASG | Malin Array Be | 73.34 | 323 | eP | P | 21 15 41.6 | +0.4 |
| EKA | Eskdalemuir Ar | 81.52 | 341 | P | P | 21 16 25.9 | -1.1 |
| | comp=Z,1.6nm,0.7s,baz=23,slow=4.7,SNR=4.3 | | | | | | |
| ANMO | Albuquerque | 82.35 | 51 | ceP | P | 21 16 37.0 | +5.1 |
| ANMO | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.2s | | | | | | |
| PPT | Papeete | 84.56 | 118 | LR | LR | 21 47 09.9 | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| | comp=Z,62nm,20.9s,baz=336,slow=30 | | | | | | |
| **SADO** | **Sadowa** | **88.29** | **28** | P | **P** | **21 17 02.6** | **+1.4** |
| | comp=Z,6.4nm,0.9s,baz=0.0,slow=7.1,SNR=3.5 | | | | | | |

*ISCJB **05** 21:12:25.2±0.6, 17°.3S±0°.1×178°.9W±0°.1, h547km, mb4.1/11, Error ellipse: s-maj=20.2km s-min=13.6km az=156.6*

*IDC **05** 21:12:27.8±2.3, 17°.46S×178°.75W, h569km±28km, mb3.7/11, mb1 3.9/12, mb1mx3.6/28, mbtmp4.5/12, Error ellipse: s-maj=23.4km s-min=14.3km az=161.0*

**ISC 05 21:12:26.0**±0.7**, 17°.3S**±0°.2×**178°.8W**±0°.1**, h547km, n17, σ1ˢ42**/17**, mb4.0**/11**, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **14.72** | **249** | P | **P** | **21 15 34.4** | **+1.6** |
| | 0.7nm,0.3s,baz=89,slow=17,SNR=12 | | | | | | |
| **RAR** | **Rarotonga** | **18.33** | **105** | P | **P** | **21 16 09.1** | **+2.1** |
| | 0.6nm,0.3s,baz=340,slow=12,SNR=3.1 | | | | | | |
| **URZ** | **Urewera** | **21.18** | **189** | P | **P** | **21 16 31.6** | **-1.1** |
| | 6.5nm,0.6s,baz=59,slow=5.9,SNR=3.3 | | | | | | |
| **STKA** | **Stephens Creek** | **38.63** | **240** | P | **P** | **21 19 02.3** | **-0.5** |
| | 17nm,0.9s,baz=93,slow=10.0,SNR=25 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.42** | **259** | P | **P** | **21 19 48.2** | **-0.5** |
| | 13nm,0.7s,baz=96,slow=7.2,SNR=206 | | | | | | |
| **ASAR** | **Alice Springs** | **44.64** | **254** | P | **P** | **21 19 50.1** | **-0.3** |
| | 57nm,0.7s,baz=87,slow=8.5,SNR=540 | | | | | | |
| ASAR | | | | ScP | **ScP** | **21 24 18.6** | **-3.1** |
| | 0.9nm,1.0s,baz=90,slow=2.8,SNR=4.1 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **52.81** | **260** | P | **P** | **21 20 51.2** | **+0.3** |
| | 3.0nm,0.5s,baz=123,slow=7.5,SNR=5.7 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **67.24** | **323** | P | **P** | **21 22 26.8** | **+0.5** |
| | 0.8nm,0.5s,baz=150,slow=6.2,SNR=3.3 | | | | | | |
| **ILAR** | **Eielson Array** | **85.39** | **13** | P | **P** | **21 24 04.7** | **-0.5** |
| | 1.1nm,0.4s,baz=222,slow=4.9,SNR=23 | | | | | | |
| **TXAR** | **Lajitas Array** | **85.95** | **58** | P | **P** | **21 24 09.3** | **+0.4** |
| | 4.0nm,0.7s,baz=223,slow=5.8,SNR=25 | | | | | | |
| **PDAR** | **Pinedale Array** | **87.15** | **44** | P | **P** | **21 24 14.2** | **-0.3** |
| | 1.9nm,0.6s,baz=219,slow=3.8,SNR=6.3 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **88.38** | **290** | P | **P** | **21 24 22.4** | **+1.9** |
| | 1.6nm,0.9s,baz=119,slow=2.9,SNR=13 | | | | | | |
| **YKA** | **Yellowknife Ar** | **93.93** | **25** | P | **P** | **21 24 44.1** | **-0.8** |
| | 0.4nm,0.5s,baz=246,slow=4.5,SNR=3.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **108.49** | **314** | PKiKP | **PKiKP** | **21 29 50.5** | **-2.1** |
| | 0.2nm,0.5s,baz=97,slow=0.9,SNR=3.9 | | | | | | |
| **GEYT** | **Alibeck** | **126.44** | **305** | PKP | **PKPdf** | **21 30 27.2** | **-0.1** |
| | 0.7nm,0.6s,baz=102,slow=4.9,SNR=2.7 | | | | | | |
| **BRTR** | **Keskin Array B** | **144.14** | **315** | PKP | PKPbc | 21 30 59.5 | -0.2 |
| | 0.8nm,0.5s,baz=79,slow=3.1,SNR=7.8 | | | | | | |
| **GERES** | **GERESS Array B** | **146.96** | **345** | PKPbc | **PKPbc** | **21 31 07.5** | **+0.1** |
| | 0.6nm,0.5s,baz=54,slow=5.1,SNR=2.6 | | | | | | |

**IDC 05 21:13:27.4**±7.8**, 17°.41S**×**178°.79W, h578km**±99km**, mb3.3**/6**, mb1 3.6**/7**, mb1mx3.2**/28**, mbtmp4.2**/7**, Error ellipse: s-maj=98.0km s-min=35.6km az=154.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **14.65** | **249** | P | P | 21 16 33.0 | -0.1 |
| | 0.4nm,0.3s,baz=109,slow=18,SNR=2.2 | | | | | | |
| **STKA** | **Stephens Creek** | **38.56** | **241** | P | P | 21 20 01.2 | -0.5 |
| | 3.0nm,0.7s,baz=90,slow=10.0,SNR=3.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.37** | **259** | P | P | 21 20 47.7 | -0.1 |
| | 2.2nm,0.5s,baz=95,slow=7.2,SNR=6.8 | | | | | | |
| **ASAR** | **Alice Springs** | **44.58** | **254** | P | P | 21 20 49.2 | -0.1 |
| | 15nm,0.6s,baz=87,slow=8.6,SNR=12 | | | | | | |
| **ILAR** | **Eielson Array** | **85.49** | **13** | P | P | 21 25 04.3 | -0.1 |
| | 0.3nm,0.4s,baz=218,slow=5.0,SNR=6.0 | | | | | | |
| **TXAR** | **Lajitas Array** | **86.03** | **58** | P | P | 21 25 08.4 | +0.4 |
| | 0.9nm,0.7s,baz=224,slow=5.2,SNR=4.7 | | | | | | |
| **PDAR** | **Pinedale Array** | **87.24** | **44** | P | P | 21 25 13.1 | -0.4 |
| | 0.6nm,0.6s,baz=221,slow=3.5,SNR=3.6 | | | | | | |

*ATH **05** 21:15:03.7, 39°.17N×29°.30E, h10km±31km, ML3.3/10, Error ellipse: s-maj=31.6km s-min=1.1km az=0.0*

*ISK **05** 21:15:05.7, 39°.08N×29°.13E, h5km, ML3.6*

*ISCJB **05** 21:15:06.2±0.4, 39°.11N±0°.02×29°.08E±0°.02, h2km±3km, Error ellipse: s-maj=2.7km s-min=2.6km az=31.9*

*DDA **05** 21:15:06.3, 39°.07N×29°.10E, h7km, Ml3.8*

*CSEM **05** 21:15:06.8±0.1, 39°.09N×29°.09E, h2km, ML3.6, Error ellipse: s-maj=2.7km s-min=2.4km az=84.0*

**ISC 05 21:15:06.4**±0.8**, 39°.10N**±0°.02×**29°.10E**±0°.02**, h8km**±6km**, n216, σ1ˢ10**/250**, 23C-14D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SIMA** | **Simav-Kutahya** | **0.10** | **260** | *e*PG | **Pg** | **21 15 08.7** | **-0.1** |
| SIMA | | | | *e*SG | **Sg** | **21 15 10.3** | **-0.1** |
| **SIMA** | **Simav-Kutahya** | **0.10** | **260** | *e*Pg | **Pg** | **21 15 08.7** | **-0.1** |
| SIMA | | | | *e*Sg | **Sg** | **21 15 10.3** | **-0.1** |
| **GDZ** | **Gediz** | **0.29** | **92** | *i* P | **Pg** | **21 15 12.5** | **+0.2** |
| GDZ | | | | *i* S | **Sg** | **21 15 16.7** | **+0.5** |
| **GDZ** | **Gediz** | **0.29** | **92** | P | **Pg** | **21 15 12.5** | **+0.2** |
| GDZ | | | | S | **Sg** | **21 15 16.7** | **+0.5** |
| **DEMI** | **Demirci** | **0.31** | **259** | *i* P | **Pg** | **21 15 12.7** | **+0.2** |
| DEMI | | | | *i* S | **Sg** | **21 15 16.9** | **+0.3** |
| **DEMI** | **Demirci** | **0.31** | **259** | P | **Pg** | **21 15 12.7** | **+0.2** |
| DEMI | | | | S | **Sg** | **21 15 16.9** | **+0.3** |
| **TVSB** | **Tavsanli** | **0.45** | **38** | *e*PG | **Pg** | **21 15 15.0** | **-0.1** |
| **TVSB** | **Tavsanli** | **0.45** | **38** | *e*Pg | **Pg** | **21 15 15.0** | **-0.1** |
| **KULA** | **Kula-Manisa** | **0.68** | **211** | *e*PG | **Pg** | **21 15 19.4** | **-0.1** |
| **KULA** | **Kula-Manisa** | **0.68** | **211** | *e*Pg | **Pg** | **21 15 19.4** | **-0.1** |
| **MANT** | **Manisa** | **0.74** | **215** | *i* P | **Pg** | **21 15 20.6** | **-0.1** |
| MANT | | | | *i* S | **Sg** | **21 15 30.0** | **-0.4** |
| **MANT** | **Manisa** | **0.74** | **215** | P | **Pg** | **21 15 20.6** | **-0.1** |
| MANT | | | | S | **Sg** | **21 15 30.0** | **-0.4** |
| **KHAL** | **Karahalli** | **0.79** | **157** | *i* P | **Pb** | **21 15 21.8** | **-0.7** |
| KHAL | | | | *i* S | **Sg** | **21 15 32.0** | **+0.1** |
| **KHAL** | **Karahalli** | **0.79** | **157** | P | **Pb** | **21 15 21.8** | **-0.7** |
| KHAL | | | | S | **Sg** | **21 15 32.0** | **+0.1** |
| **KHL** | **Karahalli** | **0.84** | **157** | *e*PG | **Pg** | **21 15 22.7** | **+0.1** |
| **KHL** | **Karahalli** | **0.84** | **157** | *e*Pg | **Pg** | **21 15 22.7** | **+0.1** |
| **ORLT** | **Orhaneli** | **0.96** | **350** | *e*PG | **Pg** | **21 15 24.8** | **0.0** |
| **ORLT** | **Orhaneli** | **0.96** | **350** | *e*Pg | **Pg** | **21 15 24.8** | **0.0** |
| **AKHS** | **Akhisar** | **1.03** | **258** | *i* P | **Pg** | **21 15 26.3** | **+0.1** |
| AKHS | | | | *i* S | **Sb** | **21 15 40.0** | **-0.1** |
| **AKHS** | **Akhisar** | **1.03** | **258** | P | **Pg** | **21 15 26.3** | **+0.1** |
| AKHS | | | | S | **Sb** | **21 15 40.0** | **-0.1** |
| **AKS** | **Akhisar** | **1.03** | **258** | *e*PG | **Pb** | **21 15 26.4** | **-0.1** |
| **AKS** | **Akhisar** | **1.03** | **258** | *e*Pg | **Pb** | **21 15 26.4** | **-0.1** |
| **BALB** | **Balikesir** | **1.09** | **300** | *e*PN | **Pn** | **21 15 28.6** | **+0.6** |
| **BALB** | **Balikesir** | **1.09** | **300** | *e*Pn | **Pn** | **21 15 28.6** | **+0.6** |
| **STEP** | **BALIKESIR_Sava** | **1.11** | **285** | *i* P | **Pn** | **21 15 28.3** | **0.0** |
| STEP | | | | *i* S | **Sn** | **21 15 43.8** | **0.0** |
| **STEP** | **BALIKESIR_Sava** | **1.11** | **285** | P | **Pn** | **21 15 28.3** | **0.0** |
| STEP | | | | S | **Sn** | **21 15 43.8** | **0.0** |
| **IGD** | **Bursa** | **1.17** | **4** | *i* P | **Pg** | **21 15 28.5** | **-0.3** |
| IGD | | | | *i* S | **Sg** | **21 15 43.1** | **-0.8** |
| **KZIL** | **AFYON_Kizioren** | **1.17** | **136** | *i* S | **Pg** | **21 15 29.1** | **+0.3** |
| KZIL | | | | *i* S | **Sn** | **21 15 45.8** | **+0.4** |
| **KZIL** | **AFYON_Kizioren** | **1.17** | **136** | S | **Sn** | **21 15 45.8** | **+0.4** |
| **CAVI** | **Cavuskoy** | **1.24** | **27** | *e*PN | **Pg** | **21 15 30.5** | **+0.3** |
| **CAVI** | **Cavuskoy** | **1.24** | **27** | *e*Pn | **Pg** | **21 15 30.5** | **+0.3** |
| **SHUT** | **Suhut-Afyon** | **1.26** | **115** | *e*PN | **Pg** | **21 15 30.2** | **-0.3** |
| **SHUT** | **Suhut-Afyon** | **1.26** | **115** | *e*Pn | **Pg** | **21 15 30.2** | **-0.3** |
| **MDNY** | **Mudanya-Bursa** | **1.28** | **353** | *e*PN | **Pb** | **21 15 30.8** | **+0.1** |
| **MDNY** | **Mudanya-Bursa** | **1.28** | **353** | *e*Pn | **Pb** | **21 15 30.8** | **+0.1** |
| **KCTX** | **Karacabey (Bur** | **1.30** | **334** | *e*PN | **Pg** | **21 15 31.7** | **+0.4** |
| **KCTX** | **Karacabey (Bur** | **1.30** | **334** | *e*Pn | **Pg** | **21 15 31.7** | **+0.4** |
| **BALY** | **Balya** | **1.31** | **300** | *i* P | **Pb** | **21 15 31.6** | **+0.2** |
| BALY | | | | *i* S | **Sb** | **21 15 48.4** | **0.0** |
| **BALY** | **Balya** | **1.31** | **300** | P | **Pb** | **21 15 31.6** | **+0.2** |
| BALY | | | | S | **Sb** | **21 15 48.4** | **0.0** |
| **GEMT** | **Gemlik** | **1.33** | **3** | *e*PN | **Pg** | **21 15 32.7** | **+0.7** |
| **GEMT** | **Gemlik** | **1.33** | **3** | *e*Pn | **Pg** | **21 15 32.7** | **+0.7** |
| **DENT** | **Denizli** | **1.34** | **182** | *e*PN | **Pg** | **21 15 32.3** | **+0.1** |
| **DENT** | **Denizli** | **1.34** | **182** | *e*Pn | **Pg** | **21 15 32.3** | **+0.1** |
| **DNZL** | **Cakiroluk** | **1.41** | **182** | *i* P | **Pb** | **21 15 32.9** | **-0.1** |
| DNZL | | | | *i* S | **Sg** | **21 15 52.8** | **+1.1** |
| **DNZL** | **Cakiroluk** | **1.41** | **182** | P | **Pb** | **21 15 32.9** | **-0.1** |
| DNZL | | | | S | **Sg** | **21 15 52.8** | **+1.1** |
| **ADVT** | **Abdulvahap** | **1.42** | **20** | *e*PN | **Pg** | **21 15 33.7** | **+0.1** |
| **ADVT** | **Abdulvahap** | **1.42** | **20** | *e*Pn | **Pg** | **21 15 33.7** | **+0.1** |
| **ESKT** | **Eskisehir** | **1.42** | **72** | *e*PN | **Pg** | **21 15 34.0** | **+0.3** |
| **ESKT** | **Eskisehir** | **1.42** | **72** | *e*Pn | **Pg** | **21 15 34.0** | **+0.3** |
| **ARMT** | **Armutlu** | **1.48** | **353** | *e*PN | **Pb** | **21 15 34.5** | **+0.4** |
| **ARMT** | **Armutlu** | **1.48** | **353** | *e*Pn | **Pb** | **21 15 34.5** | **+0.4** |
| **YLV** | **Yalova** | **1.48** | **8** | *e*PN | **Pb** | **21 15 34.2** | **0.0** |
| **YLV** | **Yalova** | **1.48** | **8** | *e*Pn | **Pb** | **21 15 34.2** | **0.0** |
| **GPA** | **Golpazari** | **1.51** | **38** | *e*PN | **Pg** | **21 15 35.5** | **+0.1** |
| **GPA** | **Golpazari** | **1.51** | **38** | *e*Pn | **Pg** | **21 15 35.5** | **+0.1** |
| **SBT5** | **Esenkoy-Cinarc** | **1.54** | **354** | *e*PN | **Pb** | **21 15 35.5** | **+0.4** |
| **SBT5** | **Esenkoy-Cinarc** | **1.54** | **354** | *e*Pn | **Pb** | **21 15 35.5** | **+0.4** |
| **EDC** | **Edincik** | **1.57** | **323** | *e*PN | **Pg** | **21 15 36.3** | **-0.2** |
| **EDC** | **Edincik** | **1.57** | **323** | *e*Pn | **Pg** | **21 15 36.3** | **-0.2** |
| **DKL** | **Dikili** | **1.71** | **270** | *e*PN | **Pb** | **21 15 38.5** | **+0.4** |
| **DKL** | **Dikili** | **1.71** | **270** | *e*Pn | **Pb** | **21 15 38.5** | **+0.4** |
| **GULT** | **Gulveren** | **1.72** | **39** | *e*PN | **Pb** | **21 15 37.9** | **-0.4** |
| **GULT** | **Gulveren** | **1.72** | **39** | *e*Pn | **Pb** | **21 15 37.9** | **-0.4** |
| **BUY** | **Buyukada** | **1.75** | **0** | *e*PN | **Pb** | **21 15 38.5** | **-0.3** |
| **BUY** | **Buyukada** | **1.75** | **0** | *e*Pn | **Pb** | **21 15 38.5** | **-0.3** |
| **HRT** | **Hereke** | **1.77** | **14** | *e*PN | **Pb** | **21 15 38.7** | **-0.5** |
| **HRT** | **Hereke** | **1.77** | **14** | *e*Pn | **Pb** | **21 15 38.7** | **-0.5** |
| **SBT2** | **Guzelce-Avcila** | **1.83** | **346** | *e*PN | **Pb** | **21 15 40.7** | **+0.6** |
| **SBT2** | **Guzelce-Avcila** | **1.83** | **346** | *e*Pn | **Pb** | **21 15 40.7** | **+0.6** |
| **SPNC** | **Sapanca-Adapaz** | **1.84** | **30** | *e*PN | **Pb** | **21 15 40.5** | **+0.2** |
| **SPNC** | **Sapanca-Adapaz** | **1.84** | **30** | *e*Pn | **Pb** | **21 15 40.5** | **+0.2** |
| **KRBG** | **Karabiga-Canak** | **1.90** | **313** | *e*PN | **Pb** | **21 15 40.8** | **-0.5** |
| **KRBG** | **Karabiga-Canak** | **1.90** | **313** | *e*Pn | **Pb** | **21 15 40.8** | **-0.5** |
| **SVRH** | **Sivrihisar-ESK** | **1.91** | **79** | *e*PN | **Pb** | **21 15 40.9** | **-0.7** |
| **SVRH** | **Sivrihisar-ESK** | **1.91** | **79** | *e*Pn | **Pb** | **21 15 40.9** | **-0.7** |
| **KAVV** | **Kandilli-Istan** | **1.96** | **359** | *e*PN | **Pb** | **21 15 42.1** | **-0.3** |
| **KAVV** | **Kandilli-Istan** | **1.96** | **359** | *e*Pn | **Pb** | **21 15 42.1** | **-0.3** |
| **ISK** | **Istanbul-Kandi** | **1.96** | **359** | *e*PN | **Pb** | **21 15 41.7** | **-0.7** |
| **ISK** | **Istanbul-Kandi** | **1.96** | **359** | *e*Pn | **Pb** | **21 15 41.7** | **-0.7** |
| **GLHS** | **Glhisar (BURDU** | **1.97** | **171** | *e*PN | **Pn** | **21 15 40.9** | **+0.7** |
| **GLHS** | **Glhisar (BURDU** | **1.97** | **171** | *e*Pn | **Pn** | **21 15 40.9** | **+0.7** |
| **SBT3** | **Marmara-Eregli** | **1.98** | **334** | *e*PN | **Pb** | **21 15 42.7** | **+0.1** |
| **SBT3** | **Marmara-Eregli** | **1.98** | **334** | *e*Pn | **Pb** | **21 15 42.7** | **+0.1** |
| **BCK** | **Bucak** | **2.01** | **144** | *e*PN | **Pn** | **21 15 41.7** | **+0.9** |
| **BCK** | **Bucak** | **2.01** | **144** | *e*Pn | **Pn** | **21 15 41.7** | **+0.9** |
| **GCAM** | **G?zelcaml?** | **2.03** | **227** | *e*PN | **Pb** | **21 15 43.1** | **-0.4** |
| **GCAM** | **G?zelcaml?** | **2.03** | **227** | *e*Pn | **Pb** | **21 15 43.1** | **-0.4** |
| **SILT** | **Sile** | **2.09** | **11** | *e*PN | **Pb** | **21 15 43.7** | **-0.9** |
| **SILT** | **Sile** | **2.09** | **11** | *e*Pn | **Pb** | **21 15 43.7** | **-0.9** |
| **URLA** | **Izmir** | **2.10** | **250** | *e*PN | **Pb** | **21 15 43.9** | **-0.8** |
| **URLA** | **Izmir** | **2.10** | **250** | *e*Pn | **Pb** | **21 15 43.9** | **-0.8** |
| **MDUB** | **Mudurnu** | **2.12** | **49** | *e*PN | **Pn** | **21 15 43.5** | **+1.3** |
| **MDUB** | **Mudurnu** | **2.12** | **49** | *e*Pn | **Pn** | **21 15 43.5** | **+1.3** |
| **KLYT** | **Kilyos** | **2.15** | **359** | *e*PN | **Pb** | **21 15 44.3** | **-1.3** |
| **KLYT** | **Kilyos** | **2.15** | **359** | *e*Pn | **Pb** | **21 15 44.3** | **-1.3** |
| **RKY** | **Sarkoy-Tekirda** | **2.17** | **318** | *e*PN | **Pb** | **21 15 45.1** | **-0.9** |
| **RKY** | **Sarkoy-Tekirda** | **2.17** | **318** | *e*Pn | **Pb** | **21 15 45.1** | **-0.9** |
| **KIZT** | **Kizilcal** | **2.18** | **95** | *e*PN | **Pn** | **21 15 44.2** | **+1.2** |
| **KIZT** | **Kizilcal** | **2.18** | **95** | *e*Pn | **Pn** | **21 15 44.3** | **+1.2** |
| **CTKS** | **Kestanelik-??a** | **2.18** | **348** | *e*PN | **Pb** | **21 15 45.7** | **-0.4** |
| **CTKS** | **Kestanelik-??a** | **2.18** | **348** | *e*Pn | **Pb** | **21 15 45.7** | **-0.4** |
| **SUTC** | **Sutluce-Ispart** | **2.20** | **137** | *e*PN | **Pn** | **21 15 44.1** | **+0.7** |
| **SUTC** | **Sutluce-Ispart** | **2.20** | **137** | *e*Pn | **Pn** | **21 15 44.1** | **+0.7** |
| **PRK** | **Paraskevi** | **2.21** | **275** | P | **Pn** | **21 15 43.0** | **-0.3** |
| PRK | | | | S | **Sb** | **21 16 14.5** | **+0.5** |
| PRK | | | | AML | AML | 21 16 21.7 | |
| | comp=N,1107µm,0.6s | | | | | | |
| PRK | | | | AML | AML | 21 16 26.4 | |
| | comp=E,1441µm,0.8s | | | | | | |
| **PRK** | **Paraskevi** | **2.21** | **275** | P | **Pn** | **21 15 43.0** | **-0.3** |
| PRK | | | | S | **Sb** | **21 16 14.5** | **+0.5** |
| **LPK** | **Lapseki** | **2.21** | **306** | *e*PN | **Pb** | **21 15 46.1** | **-0.5** |
| **LPK** | **Lapseki** | **2.21** | **306** | *e*Pn | **Pb** | **21 15 46.1** | **-0.5** |
| **SLVT** | **Silivri** | **2.23** | **342** | *e*PN | **Pb** | **21 15 46.3** | **-0.7** |
| **SLVT** | **Silivri** | **2.23** | **342** | *e*Pn | **Pb** | **21 15 46.3** | **-0.7** |
| **SMG** | **Samos** | **2.26** | **233** | P | **Pb** | **21 15 47.5** | **+0.1** |
| SMG | | | | S | **Sb** | **21 16 15.8** | **+0.3** |
| SMG | | | | AML | AML | 21 16 25.4 | |
| | comp=E,660µm,0.4s | | | | | | |
| SMG | | | | AML | AML | 21 16 27.2 | |
| | comp=N,1056µm,0.8s | | | | | | |
| **SMG** | **Samos** | **2.26** | **233** | P | **Pb** | **21 15 47.5** | **+0.1** |
| SMG | | | | S | **Sb** | **21 16 15.8** | **+0.3** |
| **EZN** | **Ezine** | **2.27** | **290** | *e*PN | **Pb** | **21 15 46.7** | **-0.9** |
| **EZN** | **Ezine** | **2.27** | **290** | *e*Pn | **Pb** | **21 15 46.7** | **-0.9** |
| **CRLT** | **Corlu** | **2.28** | **333** | *e*PN | **Pn** | **21 15 46.2** | **+1.8** |
| **CRLT** | **Corlu** | **2.28** | **333** | *e*Pn | **Pn** | **21 15 46.2** | **+1.8** |
| **KORT** | **Korkueli** | **2.32** | **154** | *e*PN | **Pn** | **21 15 45.7** | **+0.7** |
| **KORT** | **Korkueli** | **2.32** | **154** | *e*Pn | **Pn** | **21 15 45.7** | **+0.7** |
| **GELI** | **Tayfur-Gelibol** | **2.41** | **303** | *e*PN | **Pn** | **21 15 48.1** | **+2.0** |
| **GELI** | **Tayfur-Gelibol** | **2.41** | **303** | *e*Pn | **Pn** | **21 15 48.1** | **+2.0** |
| **CTYL** | **Yalikoy Yolu** | **2.45** | **346** | *e*PN | **Pb** | **21 15 48.9** | **-1.9** |
| **CTYL** | **Yalikoy Yolu** | **2.45** | **346** | *e*Pn | **Pb** | **21 15 48.9** | **-1.9** |
| **BOZC** | **Bozcaada** | **2.47** | **288** | *e*PN | **Pn** | **21 15 49.0** | **+2.0** |
| **BOZC** | **Bozcaada** | **2.47** | **288** | *e*Pn | **Pn** | **21 15 49.0** | **+2.0** |
| **CHOS** | **Chios island** | **2.49** | **254** | P | **Pn** | **21 15 46.0** | **-1.3** |
| CHOS | | | | AML | AML | 21 16 35.3 | |
| | comp=E,1041µm,0.8s | | | | | | |
| CHOS | | | | AML | AML | 21 16 40.1 | |
| | comp=N,561µm,0.9s | | | | | | |
| **CHOS** | **Chios island** | **2.49** | **254** | P | **Pn** | **21 15 46.0** | **-1.3** |
| **SIGR** | **SIGRI** | **2.53** | **274** | P | **Pn** | **21 15 47.6** | **-0.1** |
| SIGR | | | | S | **Sb** | **21 16 23.6** | **+0.3** |
| SIGR | | | | AML | AML | 21 16 30.8 | |
| | comp=E,757µm,0.5s | | | | | | |
| SIGR | | | | AML | AML | 21 16 33.2 | |
| | comp=N,709µm,0.5s | | | | | | |
| **SIGR** | **SIGRI** | **2.53** | **274** | P | **Pn** | **21 15 47.7** | **-0.1** |
| SIGR | | | | S | **Sb** | **21 16 23.6** | **+0.3** |
| **ERIK** | **Erikli-Kesan** | **2.54** | **309** | *e*PN | **Pb** | **21 15 50.1** | **-2.0** |
| **ERIK** | **Erikli-Kesan** | **2.54** | **309** | *e*Pn | **Pb** | **21 15 50.1** | **-2.0** |
| **LADK** | **Ladik-KONYA** | **2.71** | **108** | *e*PN | **Pn** | **21 15 51.5** | **+1.1** |
| **LADK** | **Ladik-KONYA** | **2.71** | **108** | *e*Pn | **Pn** | **21 15 51.5** | **+1.1** |
| **PHSR** | **Pinarhisar** | **2.80** | **335** | *e*PN | **Pn** | **21 15 53.7** | **+2.2** |
| **PHSR** | **Pinarhisar** | **2.80** | **335** | *e*Pn | **Pn** | **21 15 53.7** | **+2.2** |
| **LOD** | **Lodumlu** | **2.94** | **73** | *e*PN | **Pn** | **21 15 55.5** | **+2.0** |
| **LOD** | **Lodumlu** | **2.94** | **73** | *e*Pn | **Pn** | **21 15 55.5** | **+2.0** |
| **ALN** | **Alexandroupoli** | **2.96** | **308** | P | **Pn** | **21 15 54.0** | **+0.4** |
| ALN | | | | S | **Sn** | **21 16 29.5** | **+0.2** |
| ALN | | | | AML | AML | 21 16 41.1 | |
| | comp=N,484µm,0.6s | | | | | | |
| ALN | | | | AML | AML | 21 16 41.8 | |
| | comp=E,273µm,0.5s | | | | | | |
| **ALN** | **Alexandroupoli** | **2.96** | **308** | P | **Pn** | **21 15 54.0** | **+0.4** |
| ALN | | | | S | **Sn** | **21 16 29.5** | **+0.2** |
| **KSL** | **Kastellorizon** | **2.97** | **172** | P | **Pn** | **21 15 56.1** | **+2.3** |
| **ARG** | **Arkhangelos** | **2.98** | **195** | P | **Pn** | **21 15 55.5** | **+1.5** |
| ARG | | | | S | **Sb** | **21 16 33.7** | **-2.6** |
| ARG | | | | AML | AML | 21 16 53.4 | |
| | comp=E,198µm,1.0s | | | | | | |
| ARG | | | | AML | AML | 21 16 59.9 | |
| | comp=N,209µm,0.9s | | | | | | |
| **ARG** | **Arkhangelos** | **2.98** | **195** | P | **Pn** | **21 15 55.5** | **+1.5** |
| ARG | | | | S | **Sb** | **21 16 33.7** | **-2.6** |
| **SMTH** | **Samothraki Isl** | **3.07** | **298** | P | **Pn** | **21 15 55.5** | **+0.2** |
| SMTH | | | | AML | AML | 21 16 47.2 | |
| | comp=N,590µm,0.6s | | | | | | |
| SMTH | | | | AML | AML | 21 16 47.6 | |
| | comp=E,472µm,0.4s | | | | | | |
| **SMTH** | **Samothraki Isl** | **3.07** | **298** | P | **Pn** | **21 15 55.5** | **+0.2** |
| **LIA** | **Limnos Island** | **3.13** | **286** | P | **Pn** | **21 15 55.3** | **-0.8** |
| LIA | | | | AML | AML | 21 16 52.2 | |
| | comp=E,310µm,0.6s | | | | | | |
| LIA | | | | AML | AML | 21 16 58.1 | |
| | comp=N,335µm,1.0s | | | | | | |
| **LIA** | **Limnos Island** | **3.13** | **286** | P | **Pn** | **21 15 55.3** | **-0.8** |
| **RDO** | **Rodhopi** | **3.41** | **308** | P | **Pn** | **21 16 00.5** | **+0.6** |
| RDO | | | | S | **Sn** | **21 16 40.5** | **0.0** |
| RDO | | | | AML | AML | 21 16 55.4 | |
| | comp=N,134µm,0.6s | | | | | | |
| RDO | | | | AML | AML | 21 16 56.4 | |
| | comp=E,213µm,0.7s | | | | | | |
| **RDO** | **Rodhopi** | **3.41** | **308** | P | **Pn** | **21 16 00.5** | **+0.6** |
| RDO | | | | S | **Sn** | **21 16 40.5** | **0.0** |
| **APE** | **Apeiranthos** | **3.47** | **235** | ⇑*i*P | **Pg** | **21 16 12.4** | **-0.5** |
| **APE** | **Apeiranthos** | **3.47** | **235** | S | **Sg** | **21 16 59.5** | **+1.6** |
| **KARP** | **Karpathos** | **3.87** | **204** | P | **Pn** | **21 16 05.3** | **-1.0** |
| **KARP** | **Karpathos** | **3.87** | **204** | P | **Pn** | **21 16 05.3** | **-1.0** |
| **KAVA** | **Kavala** | **4.00** | **300** | P | **Pn** | **21 16 08.0** | **0.0** |
| KAVA | | | | AML | AML | 21 17 16.0 | |
| | comp=N,77µm,0.4s | | | | | | |
| KAVA | | | | AML | AML | 21 17 17.7 | |
| | comp=E,40µm,0.6s | | | | | | |
| **KAVA** | **Kavala** | **4.00** | **300** | P | **Pn** | **21 16 08.0** | **0.0** |
| **OUR** | **Ouranopolis** | **4.14** | **289** | P | **Pn** | **21 16 09.5** | **-0.4** |
| **OUR** | **Ouranopolis** | **4.14** | **289** | P | **Pn** | **21 16 09.5** | **-0.4** |
| **XOR** | **Xorichti** | **4.60** | **275** | P | **Pn** | **21 16 15.5** | **-0.8** |
| **XOR** | **Xorichti** | **4.60** | **275** | P | **Pn** | **21 16 15.5** | **-0.8** |
| **NVR** | **Nevrokopi** | **4.60** | **301** | P | **Pn** | **21 16 16.5** | **+0.2** |
| NVR | | | | S | **Sn** | **21 17 12.0** | **+2.1** |
| **NVR** | **Nevrokopi** | **4.60** | **301** | P | **Pn** | **21 16 16.5** | **+0.2** |
| NVR | | | | S | **Sn** | **21 17 12.0** | **+2.1** |
| **ZKR** | **Zakros** | **4.60** | **211** | P | **Pn** | **21 16 18.1** | **+1.9** |
| **ZKR** | **Zakros** | **4.60** | **211** | P | **Pn** | **21 16 18.1** | **+1.9** |
| **SRS** | **Serrai** | **4.68** | **297** | P | **Pn** | **21 16 16.9** | **-0.5** |
| **SRS** | **Serrai** | **4.68** | **297** | P | **Pn** | **21 16 16.9** | **-0.5** |
| **NPS** | **Neapolis** | **4.74** | **217** | P | **Pn** | **21 16 19.7** | **+1.6** |
| **NPS** | **Neapolis** | **4.74** | **217** | P | **Pn** | **21 16 19.7** | **+1.6** |
| **IDI** | **Anoyia** | **5.08** | **223** | P | **Pn** | **21 16 22.6** | **-0.3** |
| **IDI** | **Anoyia** | **5.08** | **223** | P | **Pn** | **21 16 22.6** | **-0.3** |
| **ICOR** | **Ion Corvin** | **5.11** | **349** | ⇓*i*P | **Pn** | **21 16 24.8** | **+1.6** |
| **ICOR** | **Ion Corvin** | **5.11** | **349** | ⇓*i*P | **Pn** | **21 16 24.8** | **+1.6** |
| **KNT** | **Kendrikon** | **5.18** | **295** | P | **Pn** | **21 16 25.1** | **+0.9** |
| **KNT** | **Kendrikon** | **5.18** | **295** | P | **Pn** | **21 16 25.1** | **+0.9** |
| **LIT** | **Litokhoron** | **5.20** | **283** | P | **Pn** | **21 16 25.5** | **+0.9** |
| **LIT** | **Litokhoron** | **5.20** | **283** | P | **Pn** | **21 16 25.5** | **+0.9** |
| **TIRR** | **Tirgusor** | **5.38** | **355** | ⇑*i*P | **Pn** | **21 16 27.9** | **+1.0** |
| **TIRR** | **Tirgusor** | **5.38** | **355** | S | **Sn** | **21 17 25.9** | **-3.1** |
| **TIRR** | **Tirgusor** | **5.38** | **355** | ⇑*i*P | **Pn** | **21 16 27.9** | **+1.0** |
| **THL** | **Klokotos Trika** | **5.51** | **277** | P | **Pn** | **21 16 29.5** | **+0.7** |
| **THL** | **Klokotos Trika** | **5.51** | **277** | P | **Pn** | **21 16 29.5** | **+0.7** |
| **VTS** | **Vitosha** | **5.67** | **310** | ⇑*i*P | **Pn** | **21 16 34.4** | **+3.3** |
| **VTS** | **Vitosha** | **5.67** | **310** | S | **Sn** | **21 17 35.6** | **-0.8** |
| **VTS** | **Vitosha** | **5.67** | **310** | ⇑*i*P | **Pn** | **21 16 34.4** | **+3.3** |
| **TLCR** | | **6.09** | **358** | ⇓*i*P | **Pn** | **21 16 37.8** | **+1.2** |
| **TLCR** | | **6.09** | **358** | S | **Sn** | **21 17 41.9** | **-4.5** |
| **TLCR** | | **6.09** | **358** | ⇓*i*P | **Pn** | **21 16 37.8** | **+1.2** |
| **CFR** | **Carcaliu** | **6.12** | **354** | ⇓*i*P | **Pn** | **21 16 37.4** | **+0.4** |
| **CFR** | **Carcaliu** | **6.12** | **354** | S | **Sn** | **21 17 43.2** | **-4.0** |
| **CFR** | **Carcaliu** | **6.12** | **354** | ⇓*i*P | **Pn** | **21 16 37.4** | **+0.4** |
| **MLR** | **Muntele Rosu** | **6.80** | **341** | ⇓*i*P | **Pn** | **21 16 49.1** | **+2.5** |
| **MLR** | **Muntele Rosu** | **6.80** | **341** | S | **Sn** | **21 18 01.2** | **-3.1** |
| **MLR** | **Muntele Rosu** | **6.80** | **341** | ⇓*i*P | **Pn** | **21 16 49.1** | **+2.5** |
| **ODBI** | **Odobesti** | **6.83** | **348** | ⇑*i*P | **Pn** | **21 16 48.9** | **+2.1** |
| **ODBI** | **Odobesti** | **6.83** | **348** | ⇑*i*P | **Pn** | **21 16 48.9** | **+2.1** |
| **PLOR** | **Plostina** | **6.99** | **346** | ⇑*i*P | **Pn** | **21 16 50.3** | **+1.3** |
| **PLOR** | **Plostina** | **6.99** | **346** | ⇑*i*P | **Pn** | **21 16 50.3** | **+1.3** |
| **VRI** | **Vrincioaia** | **6.99** | **346** | ⇑*i*P | **Pn** | **21 16 50.8** | **+1.8** |
| **VRI** | **Vrincioaia** | **6.99** | **346** | ⇑*i*P | **Pn** | **21 16 50.8** | **+1.8** |
| **VOIR** | | **7.01** | **336** | ⇑*i*P | **Pn** | **21 16 50.2** | **+0.8** |
| **VOIR** | | **7.01** | **336** | ⇑*i*P | **Pn** | **21 16 50.2** | **+0.8** |
| **ARR** | **Arges** | **7.08** | **334** | ⇑*i*P | **Pn** | **21 16 52.1** | **+1.7** |
| **ARR** | **Arges** | **7.08** | **334** | ⇑*i*P | **Pn** | **21 16 52.1** | **+1.7** |
| **SELS** | **Selova** | **7.29** | **307** | *e*Pn | **Pn** | **21 16 54.4** | **+1.1** |
| **DOPR** | **Dopca** | **7.39** | **339** | ⇑*i*P | **Pn** | **21 16 55.8** | **+1.2** |
| **DOPR** | **Dopca** | **7.39** | **339** | ⇑*i*P | **Pn** | **21 16 55.8** | **+1.2** |
| **TESR** | **Tescani** | **7.62** | **347** | ⇑*i*P | **Pn** | **21 16 58.0** | **+0.2** |
| **TESR** | **Tescani** | **7.62** | **347** | ⇑*i*P | **Pn** | **21 16 58.0** | **+0.2** |
| **KUBS** | **Kucevo** | **7.68** | **316** | *e*Pn | **Pn** | **21 16 58.0** | **-0.5** |
| **MILM** | **Milestii Mici** | **7.82** | **359** | ⇓*i*P | **Pn** | **21 17 01.5** | **+1.1** |
| **MILM** | **Milestii Mici** | **7.82** | **359** | ⇓*i*P | **Pn** | **21 17 01.5** | **+1.1** |
| **IVAS** | **Ivanjica** | **8.08** | **306** | *e*Pn | **Pn** | **21 17 05.2** | **+1.1** |
| **BZS** | **Buzias** | **8.55** | **322** | ⇓*i*P | **Pn** | **21 17 11.1** | **+0.7** |
| **BZS** | **Buzias** | **8.55** | **322** | ⇓*i*P | **Pn** | **21 17 11.1** | **+0.7** |
| **BURAR** | **Bucovina Array** | **8.97** | **343** | ⇓*i*P | **Pn** | **21 17 18.1** | **+1.8** |
| **BURAR** | **Bucovina Array** | **8.97** | **343** | ⇓*i*P | **Pn** | **21 17 18.1** | **+1.8** |
| **DRGR** | | **9.00** | **331** | ⇑*i*P | **Pn** | **21 17 16.8** | **+0.1** |
| **DRGR** | | **9.00** | **331** | ⇑*i*P | **Pn** | **21 17 16.8** | **+0.1** |
| **SORM** | **Soroca** | **9.05** | **357** | ⇑*i*P | **Pn** | **21 17 16.6** | **-0.7** |
| **SORM** | **Soroca** | **9.05** | **357** | ⇑*i*P | **Pn** | **21 17 16.6** | **-0.7** |

**IDC 05 21:22:32.1**±3.2**, 5°.24S**×**133°.77E, h0km, mb3.4**/1**, mb1 3.8**/4**, mb1mx3.5**/29**, mbtmp3.6**/4**, ML3.5**/3**, Error ellipse: s-maj=128.9km s-min=30.7km az=82.0, Aru Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **14.62** | **178** | Pn | Pn | 21 25 59.4 | -1.1 |
| | 0.1nm,0.3s,baz=359,slow=13,SNR=4.7 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **15.05** | **211** | Pn | Pn | 21 26 06.1 | -0.1 |
| | 0.3nm,0.3s,baz=34,slow=11,SNR=4.8 | | | | | | |
| FITZ | | | | Sn | Sn | 21 28 39.8 | -14 |
| | 0.2nm,0.3s,baz=270,slow=20,SNR=3.0 | | | | | | |
| **ASAR** | **Alice Springs** | **18.32** | **180** | P | P | 21 26 48.5 | +0.4 |
| | 0.2nm,0.3s,baz=0.3,slow=13,SNR=11 | | | | | | |
| **MKAR** | **Makanchi Array** | **68.89** | **325** | P | P | 21 33 38.8 | 0.0 |
| | 0.3nm,0.8s,baz=122,slow=6.2,SNR=4.5 | | | | | | |

*NEIC **05** 21:23:55.0±1.4, 6°.73S×156°.29E, h206km±13km, mb4.5/3, Error ellipse: s-maj=12.6km s-min=10.0km az=142.0*

*IDC **05** 21:23:57.9±2.2, 6°.80S×156°.18E, h230km±21km, mb3.8/16, mb1 4.0/18, mb1mx3.9/29, mbtmp4.4/18, Error ellipse: s-maj=14.5km s-min=9.2km az=108.0*

*ISCJB **05** 21:23:58.6±0.5, 6°.85S±0°.07×156°.15E±0°.09, h250km, mb4.1/18, Error ellipse: s-maj=13.0km s-min=9.1km az=5.9*

**ISC 05 21:23:60.0**±0.5**, 6°.79S**±0°.08×**156°.15E**±0°.09**, h250km, n40, σ1ˢ02**/42**, mb4.1**/18**, Bougainville-Solomon Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HNR** | **Honiara** | **4.59** | **125** | P | **Pn** | **21 25 12.2** | **+1.3** |
| | 8.6nm,0.3s,baz=336,slow=20,SNR=4.6 | | | | | | |
| HNR | | | | S | S | 21 26 14.5 | +7.3 |
| | 9.2nm,0.3s,baz=143,slow=20,SNR=3.9 | | | | | | |
| **HNR** | **Honiara** | **4.59** | **125** | Pn | Pn | 21 25 02.1 | -8.7 |
| HNR | | | | S | S | 21 26 14.5 | +7.3 |
| **PMG** | **Port Moresby** | **9.27** | **253** | P | **P** | **21 26 15.0** | **-1.3** |
| | 0.6nm,0.3s,baz=126,slow=17,SNR=2.0 | | | | | | |
| PMG | | | | S | S | 21 28 05.1 | +11 |
| | 0.9nm,0.3s,baz=289,slow=18,SNR=3.2 | | | | | | |
| **COEN** | **Coen** | **14.61** | **240** | *e*Pn | **Pn** | **21 27 15.6** | **0.0** |
| | 3.9nm,1.0s | | | | | | |
| **CTA** | **Charters Tower** | **16.34** | **215** | P | **Pn** | **21 27 35.1** | **-1.0** |
| | 1.0nm,0.3s,baz=38,slow=13,SNR=13 | | | | | | |
| **CTAO** | **Charters Tower** | **16.34** | **215** | *e*Pn | **Pn** | **21 27 34.4** | **-1.8** |
| **DZM** | **Mont Dzumac** | **18.16** | **148** | P | **P** | **21 27 53.6** | **-0.9** |
| | 1.5nm,0.3s,baz=303,slow=12,SNR=16 | | | | | | |
| **WRAB** | **Tennant Creek** | **24.86** | **236** | *e*P | **P** | **21 28 59.8** | **-0.4** |
| | 9.5nm,0.6s | | | | | | |
| **WRA** | **Warramunga Arr** | **24.88** | **236** | P | **P** | **21 28 59.6** | **-0.6** |
| | 6.7nm,0.4s,baz=63,slow=8.8,SNR=40 | | | | | | |
| WRA | | | | S | **S** | **21 33 07.2** | **+2.6** |
| | 2.6nm,0.8s,baz=66,slow=15,SNR=6.1 | | | | | | |
| **ASAR** | **Alice Springs** | **27.17** | **229** | P | **P** | **21 29 19.8** | **-1.0** |
| | 5.9nm,0.3s,baz=58,slow=9.7,SNR=36 | | | | | | |
| ASAR | | | | S | **S** | **21 33 43.1** | **+2.3** |
| | 0.9nm,0.8s,baz=34,slow=22,SNR=6.0 | | | | | | |
| **STKA** | **Stephens Creek** | **28.42** | **207** | P | **P** | **21 29 32.0** | **+0.3** |
| | 2.1nm,0.7s,baz=41,slow=12,SNR=4.1 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **31.78** | **246** | P | **P** | **21 30 00.6** | **-0.9** |
| | 3.8nm,0.3s,baz=51,slow=6.4,SNR=15 | | | | | | |
| **MBWA** | **Marble Bar** | **37.99** | **244** | *e*P | **P** | **21 30 53.5** | **-0.9** |
| | 14nm,0.5s | | | | | | |
| **RPZ** | **Rata Peaks** | **39.04** | **163** | P | **P** | **21 31 02.4** | **-0.3** |
| | 15nm,0.5s,baz=314,slow=2.9,SNR=12 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **46.27** | **340** | P | **P** | **21 31 59.4** | **-1.3** |
| | 0.9nm,0.4s,baz=158,slow=6.4,SNR=4.4 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **55.24** | **339** | P | **P** | **21 33 07.7** | **+0.3** |
| | 1.3nm,0.6s,baz=103,slow=13,SNR=3.0 | | | | | | |
| **PETK** | **Petropavlovsk-** | **59.68** | **1** | P | **P** | **21 33 38.2** | **+0.1** |
| | 1.8nm,0.6s,baz=140,slow=7.9,SNR=5.2 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **61.73** | **295** | P | **P** | **21 33 53.0** | **+0.5** |
| | 0.8nm,0.6s,baz=118,slow=5.1,SNR=8.7 | | | | | | |
| **SONM** | **Songino Array** | **69.79** | **327** | P | **P** | **21 34 44.8** | **+1.4** |
| | 4.4nm,0.8s,baz=140,slow=6.2,SNR=32 | | | | | | |
| **VNDA** | **Vanda** | **70.76** | **179** | P | **P** | **21 34 49.7** | **+1.1** |
| | 1.1nm,0.7s,baz=337,slow=9.0,SNR=4.7 | | | | | | |
| **TAPN** | **Taplejung** | **74.28** | **301** | *e*P | **P** | **21 35 11.5** | **+0.8** |
| | 6.7nm,0.6s | | | | | | |
| **ODAN** | **Odare** | **74.41** | **300** | *e*P | **P** | **21 35 12.2** | **+0.8** |
| | 19nm,0.6s | | | | | | |
| **JIRN** | **Jiri** | **75.66** | **301** | *e*P | **P** | **21 35 19.5** | **+0.8** |
| **GUN** | **Gumba** | **75.99** | **301** | *e*P | **P** | **21 35 21.4** | **+0.9** |
| | 15nm,0.7s | | | | | | |
| **PKI** | **Pulchoki** | **76.30** | **300** | *e*P | **P** | **21 35 22.7** | **+0.4** |
| | 5.0nm,0.4s | | | | | | |
| **PKIN** | **Phulchoki** | **76.32** | **300** | *e*P | **P** | **21 35 22.6** | **+0.3** |
| **KKN** | **Kakani** | **76.47** | **301** | *e*P | **P** | **21 35 23.7** | **+0.6** |
| | 6.4nm,0.4s | | | | | | |
| **DMN** | **Daman** | **76.57** | **300** | *e*P | **P** | **21 35 24.2** | **+0.5** |
| | 10nm,0.5s | | | | | | |
| **GKN** | **Gorkha** | **77.08** | **301** | *e*P | **P** | **21 35 27.2** | **+0.8** |
| | 1.3nm,0.3s | | | | | | |
| **KOLN** | **Koldanda** | **77.91** | **300** | *e*P | **P** | **21 35 31.3** | **+0.3** |
| | 6.1nm,0.5s | | | | | | |
| **ILAR** | **Eielson Array** | **82.77** | **21** | P | **P** | **21 35 54.6** | **-1.1** |
| | 0.7nm,0.5s,baz=248,slow=5.0,SNR=12 | | | | | | |
| **MKAR** | **Makanchi Array** | **84.01** | **318** | P | **P** | **21 36 03.3** | **+0.8** |
| | 2.1nm,0.7s,baz=94,slow=8.3,SNR=20 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **84.65** | **326** | P | **P** | **21 36 05.3** | **-0.1** |
| | 1.5nm,0.4s,baz=114,slow=5.2,SNR=8.7 | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| MAW | Mawson | 85.02 | 203 | P | P | 21 36 07.4 | +0.3 |
| | 2.3nm,0.7s,baz=95,slow=7.3,SNR=6.3 | | | | | | |
| YKA | Yellowknife Ar | 95.62 | 28 | P | P | 21 36 56.7 | 0.0 |
| | 0.6nm,0.8s,baz=268,slow=4.4,SNR=5.3 | | | | | | |
| AKASG | Malin Array Be | 118.03 | 325 | PKP | PKPdf | 21 42 17.0 | 0.0 |
| | 0.4nm,0.3s,baz=60,slow=2.8,SNR=3.0 | | | | | | |
| GERES | GERESS Array B | 127.46 | 330 | PKP | PKPdf | 21 42 36.3 | +1.0 |
| | 0.6nm,0.6s,baz=64,slow=2.3,SNR=3.6 | | | | | | |
| ESDC | Sonseca Array | 142.69 | 334 | PKP | PKPdf | 21 43 03.5 | -0.4 |
| | 0.1nm,0.5s,baz=345,slow=5.0,SNR=2.9 | | | | | | |
| BDFB | Brasilia | 147.30 | 133 | PKPbc | PKPbc | 21 43 13.4 | -1.8 |
| | 2.9nm,0.5s,baz=200,slow=0.8,SNR=4.6 | | | | | | |
| TORD | Torodi Ar. Bea | 154.07 | 286 | PKPbc | PKPbc | 21 43 30.3 | -0.8 |
| | 0.7nm,0.7s,baz=38,slow=2.8,SNR=6.1 | | | | | | |
| TORD | | | | PKPab | PKPab | 21 43 46.0 | +0.3 |
| | 0.6nm,0.5s,baz=78,slow=4.4,SNR=6.5 | | | | | | |

**MEX 05 21:31:52.7±0.8, 26°.18N×112°.00W, h5km, MD3.9, Gulf of California**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SRIG | Santa Rosalia | 1.15 | 349 | eP | Pg | 21 32 11.2 | -3.6 |
| SRIG | | | | eS | Sg | 21 32 27.0 | -2.8 |
| GUYB | Guaymas | 1.98 | 30 | eP | Pn | 21 32 21.6 | -5.3 |
| SLBS | Sierra La Lagu | 3.11 | 143 | eP | Pn | 21 32 40.0 | -2.4 |
| SLBS | | | | eS | Sn | 21 33 16.2 | -3.9 |

**NNC 05 21:42:06.7±3.8, 36°.94N×70°.68E, h0km, mb3.6, mpv3.2, 3C-3D, Error ellipse: s-maj=31.0km s-min=29.5km az=119.0, Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SFK | Sufi-Kurgan | 3.78 | 35 | ⇑P | Pn | 21 43 06.4 | 0.0 |
| | 1.0nm,0.3s | | | | | | |
| SFK | | | | ⇑S | Sn | 21 43 53.4 | +1.6 |
| | 11nm,0.3s | | | | | | |
| MNAS | Manas | 5.71 | 14 | ⇓P | Pn | 21 43 32.7 | -0.2 |
| | 2.8nm,0.8s | | | | | | |
| MNAS | | | | ⇓S | Sn | 21 44 39.5 | +0.2 |
| | 2.1nm,0.5s | | | | | | |
| KK31 | Karatay Array | 6.16 | 359 | ⇑P | Pn | 21 43 39.3 | +0.4 |
| | 1.5nm,0.3s,baz=188,slow=13,SNR=34 | | | | | | |
| KK31 | | | | ⇓S | Sn | 21 44 52.1 | +2.1 |
| | 0.4nm,0.3s,baz=5.8,slow=16,SNR=4.9 | | | | | | |

*ISCJB **05** 21:44:02.0±0.3, 43°.16N±0°.02×76°.84E±0°.02, h5km±3km, Error ellipse: s-maj=3.8km s-min=2.4km az=168.3*
*KRNET **05** 21:44:01.2±0.1, 43°.12N×76°.86E, h23km, mb2.5*
*IASPEI **05** 21:44:01.6±0.9, 43°.13N±0°.03×76°.87E±0°.02, h13km±5km, Error ellipse: s-maj=4.0km s-min=3.1km az=149.7, GT5 selection from ISC bulletin GT5 identified by Bondˆ¡r and McLaughlin (2009) selection criteria Bondˆ¡r and McLaughlin, A new ground truth data set for seismic studies, <i>Seism. Res. Let.</i>, <b>80</b>, 465-472, 2009*
*NNC **05** 21:44:01.4±0.2, 43°.07N×76°.86E, h1km±1km, mb2.7, mpv2.4, Error ellipse: s-maj=2.3km s-min=1.3km az=177.0*
*SOME **05** 21:44:02.5, 43°.15N×76°.88E, h10km*
*KNET **05** 21:44:03.1±0.8, 43°.06N×76°.75E, h36km±2km, ml2.1, Error ellipse: s-maj=5.1km s-min=2.6km az=48.0*
**ISC 05 21:44:01.7±0.8, 43°.13N±0°.02×76°.86E±0°.02, h11km±5km, n47, σ0§67/88, 46C-14D, Lake Issyk-Kul region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AAA | Alma-Ata | 0.09 | 25 | eP | Pg | 21 44 04.5 | 0.0 |
| | 2µm,0.1s | | | | | | |
| AAA | | | | eS | Sg | 21 44 06.0 | -0.5 |
| | 1µm,0.1s | | | | | | |
| TNSS | Tian-Shan | 0.11 | 146 | eP | Pg | 21 44 05.4 | +0.4 |
| | 144nm,0.1s | | | | | | |
| TNSS | | | | eS | Sg | 21 44 07.4 | 0.0 |
| | 1µm,0.1s | | | | | | |
| KNDC | Almaty | 0.12 | 40 | ⇑P | Pg | 21 44 04.7 | -0.1 |
| KNDC | | | | ⇑S | Sg | 21 44 07.2 | +0.2 |
| MDOK | Medeo | 0.14 | 75 | ⇑P | Pg | 21 44 04.9 | -0.3 |
| MDOK | | | | ⇑S | Sg | 21 44 07.3 | -0.4 |
| MDOK | Medeo | 0.14 | 75 | eP | Pg | 21 44 04.9 | -0.3 |
| | 66nm,0.1s | | | | | | |
| MDOK | | | | eS | Sg | 21 44 06.3 | -1.4 |
| | 875nm,0.2s | | | | | | |
| KOTS | Kotyrbulak | 0.21 | 60 | eP | Pg | 21 44 06.8 | +0.5 |
| KOTS | | | | eS | Sg | 21 44 09.8 | +0.3 |
| MTBS | Maitube | 0.32 | 270 | eP | Pg | 21 44 08.4 | +0.2 |
| | 22nm,0.1s | | | | | | |
| MTBS | | | | eS | Sg | 21 44 12.9 | +0.4 |
| | 86nm,0.1s | | | | | | |
| KTBS | Karatobe | 0.60 | 347 | eP | Pg | 21 44 13.5 | +0.1 |
| KTBS | | | | eS | Sg | 21 44 21.2 | -0.1 |
| KST | Kastek | 0.67 | 263 | eP | Pg | 21 44 14.9 | +0.3 |
| | 2.9nm,0.1s | | | | | | |
| KST | | | | eS | Sg | 21 44 23.7 | +0.3 |
| | 22nm,0.3s | | | | | | |
| CHKK | Chushkaly | 0.73 | 7 | eP | Pg | 21 44 15.1 | -0.8 |
| | 18nm,0.3s | | | | | | |
| CHKK | | | | eS | Sg | 21 44 24.1 | -1.4 |
| | 153nm,0.1s | | | | | | |
| DGS | Degeres | 0.81 | 278 | eP | Pg | 21 44 17.6 | +0.2 |
| | 24nm,0.2s | | | | | | |
| DGS | | | | eS | Sg | 21 44 27.9 | 0.0 |
| | 21nm,0.2s | | | | | | |
| KUU | Kurty | 0.85 | 334 | ⇓iP | Pg | 21 44 17.2 | -1.0 |
| | 6.4nm,0.2s | | | | | | |
| KUU | | | | eS | Sg | 21 44 27.8 | -1.6 |
| | 29nm,0.2s | | | | | | |
| BOOM | Boomskoye usch | 0.93 | 227 | ⇑iP | Pg | 21 44 19.7 | 0.0 |
| | baz=227 | | | | | | |
| BOOM | | | | ⇑iS | Sb | 21 44 33.0 | +0.6 |
| | baz=227 | | | | | | |
| TKM2 | Tokmak 2 | 0.95 | 258 | ⇑iP | Pg | 21 44 19.5 | -0.6 |
| | baz=258 | | | | | | |
| TKM2 | | | | ⇑iS | Sg | 21 44 32.5 | 0.0 |
| | baz=258 | | | | | | |
| TKM2 | Tokmak 2 | 0.95 | 258 | ⇑iP | Pg | 21 44 19.5 | -0.6 |
| | baz=259 | | | | | | |
| TKM2 | | | | ⇑iS | Sg | 21 44 32.7 | +0.1 |
| | baz=259 | | | | | | |
| TKM2 | Tokmak 2 | 0.95 | 258 | ⇑P | Pg | 21 44 19.5 | -0.6 |
| | 1.8nm,0.2s | | | | | | |
| TKM2 | | | | ⇑S | Sg | 21 44 32.6 | +0.1 |
| | 6.3nm,0.2s | | | | | | |
| TKM2 | Tokmak 2 | 0.95 | 258 | ⇑P | Pg | 21 44 19.7 | -0.4 |
| | 9.8nm,0.1s,SNR=70 | | | | | | |
| TKM2 | | | | ⇑S | Sb | 21 44 33.0 | 0.0 |
| | 23nm,0.1s | | | | | | |
| ULHL | Ulahol | 0.99 | 208 | ⇑iP | Pg | 21 44 20.0 | -0.8 |
| | baz=208 | | | | | | |
| ULHL | | | | ⇑iS | Sg | 21 44 33.8 | -0.1 |
| | baz=208 | | | | | | |
| ULHL | Ulahol | 0.99 | 208 | ⇑iP | Pg | 21 44 20.1 | -0.8 |
| | baz=209 | | | | | | |
| ULHL | | | | ⇑iS | Sg | 21 44 33.4 | -0.5 |
| | baz=209 | | | | | | |
| ULHL | Ulahol | 0.99 | 208 | P | Pg | 21 44 20.5 | -0.4 |
| | 1.2nm,0.2s,SNR=14 | | | | | | |
| ULHL | | | | ⇑S | Sg | 21 44 34.0 | +0.1 |
| | 4.1nm,0.1s | | | | | | |
| SATY | Saty | 1.13 | 93 | eP | Pb | 21 44 22.5 | -0.9 |
| | 6.8nm,0.1s | | | | | | |
| SATY | | | | eS | Sb | 21 44 37.1 | -0.9 |
| | 45nm,0.1s | | | | | | |
| ARXS | Arharly | 1.29 | 32 | eP | Pb | 21 44 25.9 | -0.1 |
| | 7.0nm,0.1s | | | | | | |
| ARXS | | | | eS | Sn | 21 44 42.9 | -0.1 |
| | 22nm,0.1s | | | | | | |
| PRZ | Przheval'sk | 1.30 | 119 | ⇓eP | Pn | 21 44 26.1 | +0.1 |
| | baz=119 | | | | | | |
| PRZ | | | | ⇓iS | Sg | 21 44 44.1 | +0.5 |
| | baz=119 | | | | | | |
| KBK | Karagaybulak | 1.48 | 252 | ⇑iP | Pb | 21 44 29.0 | -0.4 |
| | baz=252 | | | | | | |
| KBK | | | | ⇑iS | Sb | 21 44 48.9 | +0.6 |
| | baz=252 | | | | | | |
| KBK | Karagaybulak | 1.48 | 252 | ⇑iP | Pb | 21 44 28.9 | -0.4 |
| | baz=253 | | | | | | |
| KBK | | | | ⇑iS | Sg | 21 44 49.3 | -0.2 |
| | baz=253 | | | | | | |
| KBK | Karagaybulak | 1.48 | 252 | P | Pb | 21 44 29.4 | +0.1 |
| | 1.5nm,0.1s,SNR=12 | | | | | | |
| KBK | | | | ⇑S | Sg | 21 44 49.6 | +0.1 |
| | 6.7nm,0.2s | | | | | | |
| CHMS | Chumysh | 1.55 | 266 | ⇑iP | Pn | 21 44 29.4 | +0.1 |
| | baz=266 | | | | | | |
| CHMS | | | | ⇑iS | Sb | 21 44 50.2 | +0.1 |
| | baz=266 | | | | | | |
| CHMS | Chumysh | 1.55 | 266 | ⇓iP | Pn | 21 44 29.4 | +0.1 |
| | baz=267 | | | | | | |
| CHMS | | | | ⇓iS | Sb | 21 44 50.0 | -0.1 |
| | baz=267 | | | | | | |
| CHMS | Chumysh | 1.55 | 266 | P | Pn | 21 44 29.8 | +0.5 |
| | 1.5nm,0.1s,SNR=9.7 | | | | | | |
| CHMS | | | | ⇑S | Sb | 21 44 50.4 | +0.3 |
| | 24nm,0.2s | | | | | | |
| FRU1 | Bishkek | 1.67 | 260 | ⇑iP | Pb | 21 44 33.0 | +0.5 |
| | baz=260 | | | | | | |
| FRU1 | | | | ⇑iS | Sg | 21 44 55.6 | +0.2 |
| | baz=260 | | | | | | |
| USP | Ospenovka | 1.73 | 275 | ⇓iP | Pb | 21 44 32.9 | -0.7 |
| | baz=276 | | | | | | |
| USP | | | | ⇓iS | Sb | 21 44 55.5 | +0.1 |
| | baz=276 | | | | | | |
| USP | Ospenovka | 1.73 | 275 | ⇑iP | Pb | 21 44 32.8 | -0.8 |
| | baz=276 | | | | | | |
| USP | | | | ⇑iS | Sb | 21 44 55.1 | -0.3 |
| | baz=276 | | | | | | |
| USP | Ospenovka | 1.73 | 275 | P | Pb | 21 44 33.1 | -0.5 |
| | 5.0nm,0.1s,SNR=34 | | | | | | |
| AAK | Ala-Archa | 1.81 | 255 | ⇑iP | Pb | 21 44 34.0 | -0.9 |
| | baz=255 | | | | | | |
| AAK | | | | ⇑iS | Sb | 21 44 58.3 | +0.7 |
| | baz=255 | | | | | | |
| AAK | Ala-Archa | 1.81 | 255 | ⇑iP | Pb | 21 44 34.0 | -0.9 |
| | baz=256 | | | | | | |
| AAK | | | | ⇑iS | Sb | 21 44 58.3 | +0.7 |
| | baz=256 | | | | | | |
| AAK | Ala-Archa | 1.81 | 255 | ⇑P | Pb | 21 44 34.5 | -0.4 |
| | 2.4nm,0.9s | | | | | | |
| AAK | | | | ⇓S | Sb | 21 44 58.6 | +1.0 |
| | 6.8nm,0.6s | | | | | | |
| PDGK | Podgornoye | 1.93 | 83 | ⇓eP | Pb | 21 44 36.0 | -1.0 |
| | baz=83 | | | | | | |
| PDGK | | | | ⇓iS | Sb | 21 45 01.9 | +0.8 |
| | baz=83 | | | | | | |
| PDGK | Podgornoye | 1.93 | 83 | ⇑iP | Pb | 21 44 35.9 | -1.0 |
| | baz=83 | | | | | | |
| PDGK | | | | ⇑iS | Sb | 21 45 00.7 | -0.4 |
| | baz=83 | | | | | | |
| PDGK | Podgornoye | 1.93 | 83 | ⇑Pn | Pb | 21 44 36.0 | -1.0 |
| | 1.2nm,0.4s | | | | | | |
| PDGK | | | | ⇑Sn | Sb | 21 45 01.3 | +0.2 |
| | 7.4nm,0.5s | | | | | | |
| UCH | Uchtor | 1.95 | 243 | ⇓iP | Pb | 21 44 36.6 | -0.9 |
| | baz=243 | | | | | | |
| UCH | | | | ⇓iS | Sb | 21 45 02.4 | +0.4 |
| | baz=243 | | | | | | |
| UCH | Uchtor | 1.95 | 243 | ⇑iP | Pn | 21 44 36.0 | +0.8 |
| | baz=244 | | | | | | |
| UCH | | | | ⇑iS | Sb | 21 45 02.0 | 0.0 |
| | baz=244 | | | | | | |
| EKS2 | Erkin-Say | 2.32 | 259 | ⇑iP | Pn | 21 44 41.2 | +1.3 |
| | baz=260 | | | | | | |
| EKS2 | | | | ⇑iS | Sb | 21 45 10.4 | -1.8 |
| | baz=260 | | | | | | |
| DJR | Jarkent | 2.44 | 59 | eP | Pb | 21 44 45.6 | +0.1 |
| | 2.3nm,0.2s | | | | | | |
| DJR | | | | eS | Sb | 21 45 17.0 | +1.3 |
| | 6.4nm,0.2s | | | | | | |
| KAPS | Kapalarasan | 2.80 | 39 | eP | Pb | 21 44 52.0 | +0.2 |
| | 0.9nm,0.3s | | | | | | |
| KAPS | | | | eS | Sb | 21 45 27.6 | +1.4 |
| | 3.8nm,0.3s | | | | | | |
| MNAS | Manas | 3.27 | 260 | ⇓Lg | Lg | 21 45 44.1 | |
| | 2.9nm,0.8s | | | | | | |
| KK31 | Karatay Array | 4.65 | 272 | ⇑Lg | Lg | 21 46 29.0 | |
| | 0.7nm,0.3s,baz=97,slow=26,SNR=6.2 | | | | | | |
| MK31 | Makanchi Array | 5.32 | 45 | ⇑Pn | Pn | 21 45 22.4 | +1.4 |
| | baz=224,slow=16,SNR=2.5 | | | | | | |
| MK31 | | | | ⇓Lg | Lg | 21 46 51.0 | |
| | 0.3nm,0.5s,baz=209,slow=29,SNR=4.5 | | | | | | |

*NIED **05** 21:50:00, 43°.50N×146°.90E, h44km, Mw4.3 Best double couple: Mo3.13000×10^15 NP1:φs172.00000°, δ39.00000°, λ2.00000°. NP2:φs80.00000°, δ89.00000°, λ129.00000°.*
*ISCJB **05** 21:50:13.9±0.6, 43°.43N±0°.04×147°.02E±0°.05, h50km±4km, mb4.2/29, Error ellipse: s-maj=7.4km s-min=4.3km az=42.8*
*MOS **05** 21:50:13.1±1.4, 43°.46N×147°.09E, h45km, mb4.8/8, Error ellipse: s-maj=9.4km s-min=5.9km az=113.4*
*MOS Felt (II) at Malokuril'skoye, Yuzhno-Kuril'sk.*
*SKHL **05** 21:50:13.8±0.9, 43°.41N×147°.20E, h46km±2km, mb5.2/9*
*SKHL Felt (II) at Malokurilskoe,(II) at Yushno-Kurilsk.*
*IDC **05** 21:50:15.4±2.1, 43°.49N×147°.02E, h48km±20km, mb3.9/21, mb1 4.1/25, mb1mx4.0/38, mbtmp4.2/25, ML3.9/4, Error ellipse: s-maj=17.2km s-min=11.8km az=140.0*
*JMA **05** 21:50:15.0±0.2, 43°.40N×146°.91E, h39km±3km, M4.5*
*JMA Felt II J1.*
*NEIC **05** 21:50:15.2±1.0, 43°.42N×147°.14E, h49km±8km, mb4.4/5, Error ellipse: s-maj=11.5km s-min=7.3km az=141.0*
*NEIC Recorded [2 JMA] in eastern Hokkaido.*
**ISC 05 21:50:14.3±0.6, 43°.39N±0°.05×147°.08E±0°.06, h39km±4km, n103, σ1§47/123, mb4.2/29, 6C-5D, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SHO | Shikotan | 0.51 | 340 | d iPN | Pn | 21 50 24.6 | -0.6 |
| SHO | | | | i S | Sn | 21 50 31.8 | -1.0 |
| SHO | | | | pmax | pmax | | |
| | comp=Z,23µm,0.6s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=E,3µm,0.4s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=N,11µm,0.6s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=N,47µm,0.5s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=E,57µm,0.5s | | | | | | |
| SHO | Shikotan | 0.51 | 340 | i P | Pn | 21 50 24.6 | -0.6 |
| SHO | | | | AMB | AMB | 21 50 25.3 | |
| | comp=E,23µm,0.6s | | | | | | |
| SHO | | | | i S | Sn | 21 50 33.0 | +0.2 |
| SHO | | | | A | A | 21 50 33.7 | |
| | comp=E,57µm,0.5s | | | | | | |
| SHO | | | | A | A | 21 50 33.7 | |
| | comp=E,48µm,0.5s | | | | | | |
| NEM2 | Nemuro 2 | 0.97 | 269 | P | Pn | 21 50 30.7 | -0.7 |
| NEM2 | | | | eS | Sn | 21 50 41.8 | -2.1 |
| YUK | Yuzh-Kuril'sk | 1.09 | 307 | d iPN | Pn | 21 50 32.3 | -0.7 |
| YUK | | | | i S | Sn | 21 50 45.7 | -1.2 |
| YUK | | | | pmax | pmax | | |
| | comp=N,991nm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=E,1µm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=Z,5µm,0.2s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,11µm,0.2s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=E,10µm,0.2s | | | | | | |
| YUK | Yuzh-Kuril'sk | 1.09 | 307 | eP | Pn | 21 50 32.3 | -0.7 |
| YUK | | | | AMB | AMB | 21 50 33.0 | |
| | comp=E,992nm,0.2s | | | | | | |
| YUK | | | | AMB | AMB | 21 50 33.0 | |
| | comp=E,1µm,0.2s | | | | | | |
| YUK | | | | AMB | AMB | 21 50 33.0 | |
| | comp=E,5µm,0.2s | | | | | | |
| YUK | | | | i S | Sn | 21 50 46.5 | -0.4 |
| YUK | | | | A | A | 21 50 46.7 | |
| | comp=E,10µm,0.2s | | | | | | |
| YUK | | | | A | A | 21 50 46.7 | |
| | comp=E,11µm,0.2s | | | | | | |
| GRPR | Tuman | 1.12 | 303 | d iPN | Pn | 21 50 32.7 | -0.8 |
| GRPR | | | | i S | Sn | 21 50 46.4 | -1.3 |
| GRPR | Tuman | 1.12 | 303 | eP | Pn | 21 50 32.7 | -0.8 |
| GRPR | | | | eS | Sn | 21 50 46.4 | -1.3 |
| LAGR | Lagunnoye | 1.15 | 306 | ePN | Pn | 21 50 32.9 | -0.9 |
| LAGR | | | | i S | Sn | 21 50 46.9 | -1.4 |
| LAGR | Lagunnoye | 1.15 | 306 | eP | Pn | 21 50 32.9 | -0.9 |
| LAGR | | | | eS | Sn | 21 50 46.9 | -1.4 |
| GLVR | Golovnino | 1.18 | 288 | d iPN | Pn | 21 50 33.9 | -0.4 |
| GLVR | | | | i S | Sn | 21 50 48.1 | -1.1 |
| GLVR | Golovnino | 1.18 | 288 | eP | Pn | 21 50 33.9 | -0.4 |
| GLVR | | | | eS | Sn | 21 50 48.1 | -1.1 |
| JRA | Rausu | 1.52 | 292 | P | Pn | 21 50 38.7 | -0.2 |
| JRA | | | | eS | Sn | 21 50 56.6 | -0.8 |
| JNK | Nakash | 1.73 | 277 | P | Pn | 21 50 41.3 | -0.5 |
| JNK | | | | eS | Sn | 21 51 01.0 | -1.6 |
| JAK | Akkeshi | 1.78 | 258 | P | Pn | 21 50 42.3 | -0.2 |
| JAK | | | | eS | Sn | 21 51 02.5 | -1.4 |
| KUR | Kuril'sk | 1.93 | 17 | c iPN | Pn | 21 50 44.7 | +0.2 |
| KUR | | | | i S | Sn | 21 51 06.9 | -0.6 |
| KUR | | | | pmax | pmax | | |
| | comp=Z,522nm,0.3s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=N,178nm,0.2s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=E,413nm,0.2s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=N,2.0nm,0.2s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,891nm,0.2s | | | | | | |
| KUR | Kuril'sk | 1.93 | 17 | i P | Pn | 21 50 44.7 | +0.2 |
| KUR | | | | AMB | AMB | 21 50 48.0 | |
| | comp=E,250nm,0.2s | | | | | | |
| KUR | | | | AMB | AMB | 21 50 48.0 | |
| | comp=E,422nm,0.2s | | | | | | |
| KUR | | | | AMB | AMB | 21 50 48.0 | |
| | comp=E,600nm,0.2s | | | | | | |
| KUR | | | | AMB | AMB | 21 50 53.5 | |
| | comp=E,918nm,1.0s | | | | | | |
| KUR | | | | i S | Sn | 21 51 07.3 | -0.2 |
| KUR | | | | A | A | 21 51 09.1 | |
| | comp=E,2µm,0.2s | | | | | | |
| KUR | | | | A | A | 21 51 09.1 | |
| | comp=E,900nm,0.2s | | | | | | |
| KUR | | | | A | A | 21 51 13.1 | |
| | comp=E,3µm,2.0s | | | | | | |
| KUR | | | | A | A | 21 51 13.1 | |
| | comp=E,3µm,2.0s | | | | | | |
| JTKR | Abashiri--Toko | 2.37 | 285 | P | Pn | 21 50 51.4 | +0.8 |
| JTKR | | | | eS | Sn | 21 51 19.2 | +0.8 |
| JAR | Ashorobuto | 2.41 | 269 | P | Pn | 21 50 51.4 | +0.2 |
| JAR | | | | eS | Sn | 21 51 18.8 | -0.7 |
| JOB | Onbets | 2.42 | 260 | P | Pn | 21 50 51.7 | +0.4 |
| JOB | | | | eS | Sn | 21 51 19.1 | -0.6 |
| JMP | Maruseppu | 2.77 | 284 | P | Pn | 21 50 57.1 | +1.0 |
| JCH | Churui | 2.83 | 255 | P | Pn | 21 50 57.3 | +0.4 |
| ERM | Erimo | 3.20 | 246 | ePN | Pn | 21 51 04.3 | +2.3 |
| ERM | | | | eS | Sn | 21 51 37.4 | -1.4 |
| ERM | Erimo | 3.20 | 246 | eP | Pn | 21 51 04.3 | +2.3 |
| ERM | Erimo | 3.20 | 246 | ePn | Pn | 21 51 04.3 | +2.3 |
| ERM | | | | eS | Sn | 21 51 37.4 | -1.4 |
| JEM | Erimo | 3.20 | 246 | P | Pn | 21 51 04.1 | +2.1 |
| JKA | Kamikawa-asahi | 3.32 | 284 | eP | Pn | 21 51 05.8 | +2.1 |
| ASAJ | Asahikawa | 3.33 | 284 | P | Pn | 21 51 05.8 | +2.0 |
| | comp=E,7.5nm,0.3s,baz=105,slow=4.8,SNR=9.8 | | | | | | |
| ASAJ | | | | S | Sn | 21 51 48.5 | +6.5 |
| | comp=E,13nm,0.3s,baz=158,slow=19,SNR=6.8 | | | | | | |
| ASAJ | Asahikawa | 3.33 | 284 | ePn | Pn | 21 51 05.4 | +1.7 |
| ASAJ | | | | eS | Sn | 21 51 47.9 | +5.9 |
| YSS | Yuzh-Sakhalins | 4.69 | 321 | ⇑iPN | Pn | 21 51 23.8 | +1.3 |
| YSS | | | | eS | Sn | 21 52 14.7 | -1.0 |
| YSS | | | | pmax | pmax | | |
| | comp=Z,60nm,0.7s | | | | | | |
| YSS | | | | smax | smax | | |
| | comp=N,50nm,0.8s | | | | | | |
| YSS | Yuzh-Sakhalins | 4.69 | 321 | eP | Pn | 21 51 23.6 | +1.1 |
| YSS | | | | AMB | AMB | 21 51 24.0 | |
| | comp=N,66nm,0.3s | | | | | | |
| YSS | | | | eS | Sn | 21 52 16.9 | +1.2 |
| YSS | Yuzh-Sakhalins | 4.69 | 321 | ePn | Pn | 21 51 23.6 | +1.1 |
| UGL | Uglegorsk | 6.67 | 330 | ePN | Pn | 21 51 48.2 | -1.3 |
| UGL | Uglegorsk | 6.67 | 330 | eP | Pn | 21 51 50.8 | +1.3 |
| UGL | | | | AMB | AMB | 21 51 59.2 | |
| | comp=N,60nm,0.3s | | | | | | |
| TYV | Tymovskoe | 8.06 | 340 | ePN | Pn | 21 52 12.5 | +3.8 |
| TYV | | | | pmax | pmax | | |
| | comp=Z,19nm,1.8s | | | | | | |
| TYV | Tymovskoe | 8.06 | 340 | eP | Pn | 21 52 10.7 | +2.0 |
| TYV | | | | AMB | AMB | 21 52 14.8 | |
| | comp=Z,19nm,0.5s | | | | | | |
| TYV | | | | eS | Sn | 21 53 39.3 | +0.9 |
| TYV | | | | A | A | 21 53 40.5 | |
| | comp=Z,24nm,1.0s | | | | | | |
| SKR | Severo-Kuril's | 9.55 | 37 | ePN | Pn | 21 52 15.0 | -14 |
| SKR | | | | pmax | pmax | | |
| | comp=Z,85nm,0.8s | | | | | | |
| MAJO | Matsushiro | 9.64 | 228 | eP | Pn | 21 52 33.7 | +3.2 |
| MJAR | Matsushiro Arr | 9.64 | 228 | P | Pn | 21 52 30.2 | -0.3 |
| | comp=Z,1.0nm,0.3s,baz=26,slow=15,SNR=9.7 | | | | | | |
| MJAR | | | | S | Sn | 21 54 19.5 | +2.0 |
| | comp=Z,0.4nm,0.3s,baz=152,slow=34,SNR=2.9 | | | | | | |
| HABR | Khabarovsk | 9.80 | 305 | ePN | Pn | 21 52 30.8 | -1.6 |
| HABR | | | | eSS | Sn | 21 54 34.5 | +13 |
| HABR | | | | pmax | pmax | | |
| | comp=N,18nm,1.4s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=Z,25nm,1.4s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=E,23nm,1.3s | | | | | | |
| HABR | | | | MLR | MLR | | |
| | comp=Z,140nm,15.0s | | | | | | |
| PETK | Petropavlovsk- | 12.02 | 32 | P | Pn | 21 53 01.6 | -1.2 |
| | comp=Z,1.5nm,0.3s,baz=198,slow=9.7,SNR=17 | | | | | | |
| KLR | Kul'dur | 12.09 | 304 | P | Pn | 21 53 07.8 | +3.9 |
| | comp=Z,0.0nm,0.3s,baz=109,slow=15,SNR=12 | | | | | | |
| EKMR | Ekimchan | 13.48 | 321 | eP | Pn | 21 53 25.0 | +2.1 |
| EKMR | | | | AMB | AMB | 21 53 27.6 | |
| | comp=Z,16nm,0.8s | | | | | | |
| ZEA | Zeya | 16.66 | 315 | erx | rx | 21 54 08.8 | |
| SEY | Seymchan | 19.82 | 7 | P | P | 21 54 40.2 | -1.0 |
| | comp=Z,1.0nm,0.3s,baz=184,slow=11,SNR=13 | | | | | | |
| ULN | Ulaanbaatar | 28.12 | 293 | c eP | P | 21 56 04.3 | +1.8 |
| ULN | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.2s | | | | | | |
| ULN | Ulaanbaatar | 28.12 | 293 | eP | P | 21 56 04.3 | +1.8 |
| ULN | Ulaanbaatar | 28.12 | 293 | eP | P | 21 56 04.4 | +1.8 |
| | comp=Z,7.5nm,1.0s | | | | | | |
| SONM | Songino Array | 28.56 | 293 | P | P | 21 56 06.0 | -0.4 |
| | comp=Z,1.1nm,0.5s,baz=88,slow=8.6,SNR=10 | | | | | | |
| SONM | Songino Array | 28.56 | 293 | eP | P | 21 56 09.0 | +2.6 |
| SONM | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.5s | | | | | | |
| H11N2 | WAKE ISLAND Hy | 28.86 | 139 | T | T | 22 27 00.3 | |
| | baz=329,slow=75,SNR=1600 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 28.88 | 139 | T | T | 22 27 03.6 | |
| | baz=329,slow=75,SNR=1360 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 28.88 | 139 | T | T | 22 27 04.1 | |
| | baz=329,slow=75,SNR=1234 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 29.82 | 140 | T | T | 22 28 00.4 | |
| | baz=330,slow=76,SNR=1476 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 29.83 | 140 | T | T | 22 27 58.2 | |
| | baz=330,slow=76,SNR=1240 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 29.84 | 140 | T | T | 22 28 01.7 | |
| | baz=330,slow=76,SNR=1080 | | | | | | |
| KDAK | Kodiak Island | 39.53 | 47 | P | P | 21 57 41.2 | +0.3 |
| | comp=Z,5.7nm,0.7s,baz=236,slow=7.3,SNR=7.4 | | | | | | |
| ZALV | Zalesovo Beam | 41.17 | 307 | P | P | 21 57 54.4 | -0.2 |
| | comp=Z,0.3nm,0.3s,baz=99,slow=9.2,SNR=2.4 | | | | | | |
| SML | Sawmill | 41.33 | 41 | eP | P | 21 57 55.5 | -0.3 |
| SML | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.7s | | | | | | |
| SML | Sawmill | 41.33 | 41 | eP | P | 21 57 55.5 | -0.3 |
| SML | Sawmill | 41.33 | 41 | eP | P | 21 57 55.5 | -0.3 |
| | comp=Z,1.4nm,0.7s | | | | | | |
| COLA | College | 41.40 | 36 | eP | P | 21 57 56.4 | +0.2 |
| COLA | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.7s | | | | | | |
| COLA | College | 41.40 | 36 | eP | P | 21 57 56.4 | +0.2 |
| COLA | College | 41.40 | 36 | eP | P | 21 57 56.4 | +0.2 |
| | comp=Z,7.2nm,0.7s | | | | | | |
| ILAR | Eielson Array | 41.81 | 36 | P | P | 21 57 59.8 | +0.1 |
| | comp=Z,3.4nm,0.8s,baz=262,slow=6.0,SNR=26 | | | | | | |
| EGAK | Eagle | 44.26 | 36 | eP | P | 21 58 19.6 | +0.2 |
| | comp=Z,4.2nm,0.5s | | | | | | |
| MKAR | Makanchi Array | 44.70 | 298 | P | P | 21 58 22.6 | -0.7 |
| | comp=Z,1.1nm,0.6s,baz=82,slow=9.6,SNR=15 | | | | | | |
| KURK | Kurchatov | 45.69 | 304 | eP | P | 21 58 30.7 | -0.3 |
| KURK | Kurchatov | 45.69 | 304 | eP | P | 21 58 30.7 | -0.3 |
| KURK | Kurchatov | 45.69 | 304 | eP | P | 21 58 30.7 | -0.3 |
| INK | Inuvik | 46.74 | 30 | P | P | 21 58 39.6 | +0.6 |
| | comp=Z,11nm,0.6s,baz=295,slow=7.8,SNR=3.9 | | | | | | |
| INK | Inuvik | 46.74 | 30 | eP | P | 21 58 39.3 | +0.3 |
| | comp=Z,7.2nm,0.4s | | | | | | |
| CMAR | Chiang Mai Arr | 47.37 | 254 | P | P | 21 58 45.6 | +1.1 |
| | comp=Z,0.3nm,0.4s,baz=55,slow=7.8,SNR=2.0 | | | | | | |
| BRVK | Borovoye | 49.74 | 310 | c eP | P | 21 59 02.8 | +0.5 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,14nm,2.5s | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| BRVK | Borovoye | 49.74 | 310 | eP | P | 21 59 02.8 | +0.5 |
| RES | Resolute Bay | 55.33 | 17 | P | P | 21 59 42.4 | -1.0 |
| | comp=Z,2.7nm,0.4s,baz=328,slow=7.8,SNR=14 | | | | | | |
| YKA | Yellowknife Ar | 56.13 | 34 | P | P | 21 59 49.3 | 0.0 |
| | comp=Z,1.7nm,0.5s,baz=304,slow=7.0,SNR=16 | | | | | | |
| ARCES | ARCESS Array B | 59.57 | 340 | P | P | 22 00 11.6 | -1.7 |
| | comp=Z,1.4nm,0.8s,baz=28,slow=5.5,SNR=10 | | | | | | |
| WRA | Warramunga Arr | 64.10 | 193 | P | P | 22 00 44.4 | +0.1 |
| | comp=Z,0.9nm,0.8s,baz=10,slow=6.6,SNR=6.8 | | | | | | |
| GEYT | Alibeck | 64.56 | 299 | P | P | 22 00 46.9 | -0.5 |
| | comp=Z,6.1nm,0.5s,baz=11,slow=1.5,SNR=3.4 | | | | | | |
| FINES | FINESS Array B | 65.17 | 333 | P | P | 22 00 49.8 | -1.0 |
| | comp=Z,5.6nm,0.5s,baz=42,slow=7.8,SNR=49 | | | | | | |
| ASAR | Alice Springs | 67.81 | 193 | P | P | 22 01 08.9 | +0.7 |
| | comp=Z,0.8nm,0.8s,baz=1.6,slow=5.1,SNR=7.5 | | | | | | |
| NB2 | NORSAR Subarra | 69.92 | 339 | P | P | 22 01 19.7 | -1.2 |
| | comp=Z,3.7nm,0.6s,baz=31,slow=6.5 | | | | | | |
| NOA | NORSAR Array B | 69.92 | 339 | P | P | 22 01 20.1 | -0.9 |
| | comp=Z,6.4nm,0.7s,baz=32,slow=6.2,SNR=15 | | | | | | |
| KIV | Kislovodsk | 69.96 | 312 | eP | P | 22 01 22.4 | +0.9 |
| KIV | | | | pmax | pmax | | |
| | comp=Z,13nm,1.0s | | | | | | |
| KIV | Kislovodsk | 69.96 | 312 | eP | P | 22 01 22.4 | +0.9 |
| KBZ | Khabaz | 70.00 | 312 | P | P | 22 01 22.3 | +0.7 |
| | comp=Z,4.9nm,0.8s,baz=83,slow=4.7,SNR=11 | | | | | | |
| ZEI | Tsey | 70.06 | 310 | eP | P | 22 01 20.5 | -1.8 |
| ZEI | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.8s | | | | | | |
| ZEI | Tsey | 70.06 | 310 | eP | P | 22 01 20.5 | -1.8 |
| PDAR | Pinedale Array | 70.18 | 50 | P | P | 22 01 23.5 | +0.4 |
| | comp=Z,0.6nm,0.7s,baz=260,slow=2.3,SNR=6.3 | | | | | | |
| AKASG | Malin Array Be | 71.84 | 324 | P | P | 22 01 31.6 | -1.1 |
| | comp=Z,2.3nm,0.4s,baz=39,slow=5.9,SNR=17 | | | | | | |
| BURAR | Bucovina Array | 75.89 | 324 | ⇑iP | P | 22 01 56.2 | -0.4 |
| STHS | Stebnicka Huta | 76.13 | 327 | eP | P | 22 01 58.6 | +0.8 |
| STHS | Stebnicka Huta | 76.13 | 327 | eP | P | 22 01 58.6 | +0.8 |
| CLL | Collm | 77.61 | 333 | eP | P | 22 02 05.0 | -1.1 |
| CLL | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.6s | | | | | | |
| CLL | Collm | 77.61 | 333 | eP | P | 22 02 05.0 | -1.1 |
| | comp=Z,4.0nm,0.6s | | | | | | |
| CLL | | | | e(pP) | PcP | 22 02 17.0 | +0.8 |
| CLL | Collm | 77.61 | 333 | eP | P | 22 02 05.0 | -1.1 |
| VOIR | | 77.65 | 322 | ⇓iP | P | 22 02 06.3 | -0.2 |
| BRTR | Keskin Array B | 77.75 | 314 | P | P | 22 02 07.4 | +0.1 |
| | comp=Z,0.7nm,0.8s,baz=12,slow=4.8,SNR=3.3 | | | | | | |
| VYHS | Vyhne | 77.82 | 328 | eP | P | 22 02 07.4 | +0.1 |
| VYHS | Vyhne | 77.82 | 328 | eP | P | 22 02 07.4 | +0.1 |
| ARR | Arges | 77.89 | 323 | ⇑iP | P | 22 02 07.6 | -0.2 |
| GERES | GERESS Array B | 79.45 | 331 | P | P | 22 02 15.6 | -0.8 |
| | comp=Z,0.4nm,0.5s,baz=23,slow=5.3,SNR=3.0 | | | | | | |
| TXAR | Lajitas Array | 82.89 | 56 | P | P | 22 02 35.2 | +0.2 |
| | comp=Z,1.1nm,0.7s,baz=299,slow=4.0,SNR=4.9 | | | | | | |

**WEL 05 21:50:15.1±0.5, 36°.17S×177°.39E, h217km±9km, ML3.6/17, 1C, Error ellipse: s-maj=8.8km s-min=8.2km az=0.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RUGZ | Raukumara Rang | 1.81 | 173 | PN | Pn | 21 50 52.9 | -0.2 |
| WMGZ | Waiomatatini S | 1.84 | 154 | PN | Pn | 21 50 53.3 | 0.0 |
| WMGZ | | | | SN | S | 21 51 21.7 | -1.4 |
| WMGZ | | | | AML | AML | 21 51 23.7 | |
| PUZ | Puketiti | 2.02 | 160 | PN | Pn | 21 50 54.9 | -0.2 |
| TWGZ | Tauwhareparae | 2.06 | 167 | ⇑PN | Pn | 21 50 56.2 | +0.8 |
| TWGZ | | | | SN | S | 21 51 26.7 | -0.3 |
| TWGZ | | | | AML | AML | 21 51 30.0 | |
| URZ | Urewera | 2.10 | 186 | PN | Pn | 21 50 56.4 | +0.6 |
| MWZ | Matawai | 2.16 | 177 | PN | Pn | 21 50 56.7 | +0.2 |
| MWZ | | | | SN | S | 21 51 28.7 | -0.2 |
| RAGZ | Rawiri | 2.32 | 180 | PN | Pn | 21 50 58.8 | +0.6 |
| CNGZ | Carnagh Statio | 2.40 | 165 | PN | Pn | 21 50 59.2 | +0.3 |
| RTZ | Ruatahuna | 2.46 | 188 | PN | Pn | 21 50 60.0 | +0.2 |
| RIGZ | Rimuhau | 2.55 | 173 | PN | Pn | 21 51 00.7 | +0.1 |
| RIGZ | | | | AML | AML | 21 51 39.5 | |
| MTHZ | Maungataniwha | 2.71 | 189 | PN | Pn | 21 51 02.7 | +0.3 |
| KNZ | Kokohu | 2.86 | 176 | PN | Pn | 21 51 03.9 | 0.0 |
| BKZ | Black Stump Fm | 3.08 | 193 | PN | Pn | 21 51 06.6 | +0.1 |
| ARHZ | Aropaoanui | 3.10 | 186 | PN | Pn | 21 51 07.0 | +0.2 |
| MCHZ | McNeill Hill | 3.32 | 189 | PN | Pn | 21 51 09.7 | +0.4 |
| KWHZ | Kaweka Forest | 3.34 | 193 | PN | Pn | 21 51 09.6 | 0.0 |
| WNVZ | Wahianoa | 3.46 | 204 | PN | Pn | 21 51 11.7 | +0.6 |
| BHHZ | Black Hill Sta | 3.48 | 197 | PN | Pn | 21 51 11.1 | -0.2 |
| KRHZ | Kereru | 3.56 | 193 | PN | Pn | 21 51 11.8 | -0.4 |
| KAHZ | Kahuranaki | 3.64 | 186 | PN | Pn | 21 51 13.0 | -0.1 |
| PNHZ | Pukenui | 3.85 | 194 | PN | Pn | 21 51 14.9 | -0.8 |
| ANWZ | Angora Road | 4.34 | 189 | PN | Pn | 21 51 20.6 | -1.0 |
| MRZ | Mangatainoka R | 4.71 | 197 | PN | Pn | 21 51 24.5 | -1.6 |
| TIWZ | Tintock | 4.75 | 194 | PN | Pn | 21 51 25.1 | -1.7 |

*ISCJB 05 21:54:46.8±0.7, 37°.95N±0°.05×42°.8E±0°.1, h11km±12km, Error ellipse: s-maj=15.7km s-min=4.8km az=31.9*
*CSEM 05 21:54:46.8±0.2, 37°.97N×42°.78E, h10km, ML2.8, Error ellipse: s-maj=5.2km s-min=3.3km az=118.0*
*DDA 05 21:54:46.1, 37°.96N×42°.77E, h7km, Ml2.8*
*ISK 05 21:54:47.0, 37°.91N×42°.78E, h3km, MD2.6*
**ISC 05 21:54:46.8±1.0, 37°.94N±0°.03×42°.86E±0°.04, h15km±9km, n14, σ1s.27/25, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GEVA | Gevas | 0.40 | 23 | iP | Pg | 21 54 54.3 | -0.7 |
| GEVA | | | | iS | Sg | 21 55 00.9 | +0.3 |
| GEVA | Gevas | 0.40 | 23 | P | Pg | 21 54 54.3 | -0.7 |
| GEVA | | | | S | Sg | 21 55 00.9 | +0.3 |
| SIRT | Sirnak | 0.55 | 217 | ePG | Pg | 21 54 57.4 | -0.3 |
| SIRT | | | | eSG | Sg | 21 55 05.0 | -0.1 |
| SIRT | Sirnak | 0.55 | 217 | ePg | Pg | 21 54 57.4 | -0.3 |
| SIRT | | | | eSg | Sg | 21 55 05.0 | -0.1 |
| VANB | Van | 0.77 | 33 | ePG | Pb | 21 55 02.8 | +0.8 |
| VANB | | | | eSG | Sn | 21 55 14.1 | -0.6 |
| VANB | Van | 0.77 | 33 | ePg | Pb | 21 55 02.8 | +0.8 |
| VANB | | | | eSg | Sn | 21 55 14.1 | -0.6 |
| ADCV | BITLIS_Adilcev | 0.87 | 353 | iP | Pg | 21 55 02.5 | -1.2 |
| ADCV | | | | iS | Sg | 21 55 14.5 | -0.7 |
| ADCV | BITLIS_Adilcev | 0.87 | 353 | P | Pg | 21 55 02.5 | -1.2 |
| ADCV | | | | S | Sg | 21 55 14.5 | -0.7 |
| CUKT | Cukurca | 0.92 | 139 | ePG | Pn | 21 55 05.7 | +0.5 |
| CUKT | Cukurca | 0.92 | 139 | ePg | Pn | 21 55 05.7 | +0.5 |
| BTMN | Batman | 1.26 | 268 | iP | Pn | 21 55 09.7 | -0.2 |
| BTMN | | | | iS | Sb | 21 55 25.6 | -0.6 |
| BTMN | Batman | 1.26 | 268 | P | Pn | 21 55 09.7 | -0.2 |
| BTMN | | | | S | Sb | 21 55 25.6 | -0.6 |
| EKAR | Karacoban | 1.45 | 335 | iP | Pn | 21 55 13.0 | +0.3 |
| EKAR | | | | iS | Sg | 21 55 38.7 | +5.0 |
| EKAR | Karacoban | 1.45 | 335 | P | Pn | 21 55 13.0 | +0.3 |

*ISK 05 22:18:20.2, 38°.78N×43°.46E, h12km, MD2.6*
*ISCJB 05 22:18:21.6±0.5, 38°.73N±0°.03×43°.19E±0°.04, h11km±6km, Error ellipse: s-maj=5.5km s-min=4.8km az=153.9*
*CSEM 05 22:18:21.6±0.2, 38°.73N×43°.19E, h2km, MD2.6, Error ellipse: s-maj=5.1km s-min=3.6km az=70.0*
*DDA 05 22:18:21.0, 38°.72N×43°.21E, h7km, Ml2.7*
**ISC 05 22:18:21.0±1.1, 38°.72N±0°.02×43°.24E±0°.03, h19km±2km, n17, σ0s.93/29, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.17 | 137 | ePG | Pg | 22 18 26.3 | +0.4 |
| VANB | | | | eSG | Sg | 22 18 30.7 | +1.5 |
| VANB | Van | 0.17 | 137 | ePg | Pg | 22 18 26.3 | +0.4 |
| VANB | | | | eSg | Sg | 22 18 30.7 | +1.5 |
| TVAN | Van | 0.23 | 145 | iP | Pb | 22 18 26.5 | -0.1 |
| TVAN | | | | iS | Sb | 22 18 30.1 | -0.1 |
| TVAN | Van | 0.23 | 145 | P | Pb | 22 18 26.5 | -0.1 |
| TVAN | | | | S | Sb | 22 18 30.1 | -0.1 |
| VMUR | Van-Muradiye | 0.37 | 44 | iP | Pg | 22 18 21.4 | -7.7 |
| VMUR | | | | iS | Sb | 22 18 35.8 | +1.1 |
| ADCV | BITLIS_Adilcev | 0.41 | 282 | iP | Pg | 22 18 29.7 | +0.1 |
| ADCV | | | | iS | Sg | 22 18 35.0 | -0.4 |
| ADCV | BITLIS_Adilcev | 0.41 | 282 | P | Pg | 22 18 29.7 | +0.1 |
| ADCV | | | | S | Sg | 22 18 35.0 | -0.4 |
| GEVA | Gevas | 0.43 | 199 | iP | Pg | 22 18 29.6 | -0.4 |
| GEVA | | | | iS | Sg | 22 18 35.8 | -0.3 |
| GEVA | Gevas | 0.43 | 199 | P | Pg | 22 18 29.6 | -0.4 |
| GEVA | | | | S | Sg | 22 18 35.8 | -0.3 |
| CLDR | Caldiran | 0.68 | 51 | ePG | Pb | 22 18 30.7 | -3.5 |
| CLDR | Caldiran | 0.68 | 51 | iP | Pb | 22 18 24.4 | -10 |
| CLDR | | | | iS | Sg | 22 18 44.2 | +0.6 |
| TUTA | Tutak | 0.75 | 334 | iP | Pb | 22 18 35.9 | +0.2 |
| TUTA | | | | iS | Sb | 22 18 46.0 | +0.4 |
| TUTA | Tutak | 0.75 | 334 | P | Pb | 22 18 35.9 | +0.2 |
| TUTA | | | | S | Sb | 22 18 46.0 | +0.4 |
| AGRB | Hanur-Agry | 0.87 | 348 | ePG | Pb | 22 18 37.4 | -0.3 |
| AGRB | | | | eSG | Sg | 22 18 50.4 | +0.6 |
| AGRB | Hanur-Agry | 0.87 | 348 | ePg | Pb | 22 18 37.4 | -0.3 |
| AGRB | | | | eSg | Sg | 22 18 50.4 | +0.6 |
| SIRT | Sirnak | 1.37 | 207 | ePN | Pg | 22 18 47.7 | +0.2 |
| SIRT | Sirnak | 1.37 | 207 | ePn | Pg | 22 18 47.7 | +0.2 |

*ISCJB 05 22:20:15.5±0.7, 5°.02S±0°.04×133°.50E±0°.07, h25km, mb3.6/2, MS3.7/1, Error ellipse: s-maj=10.6km s-min=5.4km az=178.3*
*DJA 05 22:20:20.5±0.6, 5°S±4°×13°4E±°, h85km±13km, M4.5/4, mB5.3/1, mb5.3/1, MLv4.1/4, Mw(mB)4.7/1*
*IDC 05 22:20:21.1±1.8, 5°.36S×133°.21E, h0km, mb3.8/2, mb1 4.2/5, mb1mx3.7/26, mbtmp4.0/5, ML4.1/3, MS3.5/1, Ms1 3.5/1, ms1mx2.9/22, Error ellipse: s-maj=72.8km s-min=24.6km az=79.0*
**ISC 05 22:20:14.6±0.9, 5°.05S±0°.05×133°.55E±0°.06, h25km, n11, σ2s.60/15, Aru Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KMPI | Kaimana, Papua | 1.39 | 6 | P | Pb | 22 20 39.4 | -0.5 |
| KMPI | | | | S | Sb | 22 20 56.5 | -0.7 |
| FAKI | Fak Fak | 2.48 | 328 | P | Pn | 22 20 55.3 | +1.8 |
| FAKI | | | | S | Sn | 22 21 22.1 | -0.9 |
| RKPI | Ransiki, Papua | 3.57 | 10 | P | Pn | 22 21 10.2 | +1.8 |
| RKPI | | | | S | Sn | 22 21 47.3 | -2.6 |
| BNDI | Bandanaira | 3.67 | 278 | P | Pb | 22 21 17.1 | -1.7 |
| BNDI | | | | S | Sb | 22 22 00.7 | -2.3 |
| MSAI | Masohi | 4.91 | 290 | S | Sn | 22 22 26.1 | +3.1 |
| WRA | Warramunga Arr | 14.82 | 177 | Pn | P | 22 23 46.2 | -2.2 |
| | 0.7nm,0.3s,baz=357,slow=13,SNR=3.3 | | | | | | |
| WRA | | | | Sn | Sn | 22 26 23.7 | -2.6 |
| | 0.3nm,0.3s,baz=355,slow=23,SNR=4.7 | | | | | | |
| FITZ | Fitzroy Crossi | 15.10 | 210 | Pn | P | 22 23 50.3 | -1.1 |
| | 1.0nm,0.3s,baz=31,slow=12,SNR=44 | | | | | | |
| FITZ | | | | Sn | Sn | 22 26 34.2 | +1.1 |
| | 1.3nm,0.3s,baz=168,slow=15,SNR=7.5 | | | | | | |
| ASAR | Alice Springs | 18.51 | 179 | P | Pn | 22 24 35.1 | +5.6 |
| | 0.8nm,0.3s,baz=10,slow=12,SNR=21 | | | | | | |
| ASAR | | | | S | Sn | 22 27 54.0 | -1.8 |
| | 0.1nm,0.3s,baz=358,slow=30,SNR=3.8 | | | | | | |
| STKA | Stephens Creek | 27.73 | 165 | P | P | 22 26 10.4 | +9.2 |
| | 1.3nm,0.7s,baz=329,slow=15,SNR=3.0 | | | | | | |
| MKAR | Makanchi Array | 68.61 | 325 | P | P | 22 31 26.3 | +11 |
| | 0.4nm,0.5s,baz=117,slow=6.3,SNR=9.0 | | | | | | |
| KMBO | Kilima Mbogo | 96.18 | 268 | LR | LR | 23 14 42.7 | |
| | comp=Z,23nm,19.1s,baz=84,slow=34 | | | | | | |

*ISK 05 22:43:16.2, 38°.80N×43°.57E, h5km, MD2.9*
*ISCJB 05 22:43:17.8±0.6, 38°.82N±0°.03×43°.55E±0°.06, h10km±5km, Error ellipse: s-maj=7.8km s-min=4.4km az=17.3*
*DDA 05 22:43:17.3, 38°.81N×43°.57E, h7km, Ml2.8*
*CSEM 05 22:43:17.4±0.3, 38°.82N×43°.56E, h5km, ML2.8, Error ellipse: s-maj=8.3km s-min=5.4km az=108.0*
**ISC 05 22:43:17.5±1.0, 38°.80N±0°.02×43°.58E±0°.03, h11km±7km, n29, σ0s.92/42, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.19 | 359 | iP | Pg | 22 43 20.8 | -0.9 |
| VMUR | | | | iS | Sg | 22 43 25.3 | +0.6 |
| VMUR | Van-Muradiye | 0.19 | 359 | P | Pg | 22 43 20.8 | -0.9 |
| VMUR | | | | S | Sg | 22 43 25.3 | +0.6 |
| VANB | Van | 0.25 | 216 | ePG | Pb | 22 43 23.9 | -0.2 |
| VANB | Van | 0.25 | 216 | ePg | Pb | 22 43 23.9 | -0.2 |
| ERCV | ERCIS-VAN | 0.29 | 320 | ePG | Pg | 22 43 23.1 | -0.4 |
| ERCV | ERCIS-VAN | 0.29 | 320 | ePg | Pg | 22 43 23.1 | -0.4 |
| TVAN | Van | 0.30 | 207 | iP | Pg | 22 43 23.2 | -0.5 |
| TVAN | | | | iS | Sb | 22 43 29.8 | -0.3 |
| TVAN | Van | 0.30 | 207 | P | Pg | 22 43 23.2 | -0.5 |
| TVAN | | | | S | Sb | 22 43 29.8 | -0.3 |
| CLDR | Caldiran | 0.43 | 37 | ePG | Pg | 22 43 25.5 | -0.7 |
| CLDR | | | | eSG | Sb | 22 43 33.3 | -0.7 |
| CLDR | Caldiran | 0.43 | 37 | iP | Pg | 22 43 25.7 | -0.4 |
| CLDR | | | | iS | Sb | 22 43 33.3 | -0.7 |
| CLDR | Caldiran | 0.43 | 37 | P | Pg | 22 43 25.7 | -0.4 |
| CLDR | | | | S | Sb | 22 43 33.3 | -0.7 |
| GEVA | Gevas | 0.63 | 220 | iP | Pg | 22 43 28.3 | -1.5 |
| GEVA | | | | iS | Sb | 22 43 41.4 | +1.8 |
| GEVA | Gevas | 0.63 | 220 | P | Pg | 22 43 28.3 | -1.5 |
| ADCV | BITLIS_Adilcev | 0.67 | 271 | iP | Pg | 22 43 29.8 | -0.7 |
| ADCV | | | | iS | Sb | 22 43 40.7 | +0.1 |
| ADCV | BITLIS_Adilcev | 0.67 | 271 | P | Pg | 22 43 29.8 | -0.7 |
| ADCV | | | | S | Sb | 22 43 40.7 | +0.1 |
| TUTA | Tutak | 0.85 | 316 | iP | Pg | 22 43 32.1 | -1.8 |
| TUTA | Tutak | 0.85 | 316 | P | Pg | 22 43 32.1 | -1.8 |
| AGRB | Hanur-Agry | 0.90 | 330 | ePG | Pg | 22 43 33.6 | -1.3 |
| AGRB | | | | eSG | Sb | 22 43 47.8 | +0.5 |
| AGRB | Hanur-Agry | 0.90 | 330 | ePg | Pg | 22 43 33.6 | -1.3 |
| AGRB | | | | eSg | Sb | 22 43 47.8 | +0.5 |
| TASB | TASBURUN-IGDIR | 1.29 | 23 | ePN | Pb | 22 43 42.2 | +0.4 |
| TASB | TASBURUN-IGDIR | 1.29 | 23 | ePn | Pb | 22 43 42.2 | +0.4 |
| SRTM | Siirt_Merkez | 1.53 | 239 | iP | Pg | 22 43 46.8 | -0.1 |
| SRTM | | | | iS | Sn | 22 44 03.4 | -1.4 |
| SRTM | Siirt_Merkez | 1.53 | 239 | P | Pg | 22 43 46.8 | -0.1 |
| CUKT | Cukurca | 1.55 | 179 | ePN | Pn | 22 43 45.9 | +0.8 |
| CUKT | Cukurca | 1.55 | 179 | ePn | Pn | 22 43 45.9 | +0.8 |
| VRTB | Varto-Mus | 1.69 | 283 | ePN | Pn | 22 43 48.0 | +0.8 |
| VRTB | Varto-Mus | 1.69 | 283 | ePn | Pn | 22 43 48.0 | +0.8 |
| SENK | Senkaya-Erzuru | 2.00 | 332 | ePN | Pn | 22 43 52.6 | +1.2 |
| SENK | Senkaya-Erzuru | 2.00 | 332 | ePn | Pn | 22 43 52.6 | +1.2 |

*ISCJB 05 23:07:45.4±0.6, 15°.39S±0°.07×74°.08W±0°.09, h71km, mb4.1/6, Error ellipse: s-maj=13.5km s-min=7.7km az=151.6*
*NEIC 05 23:07:45.0±0.0, 15°.71S×74°.58W, h81km, MG4.6(ARE), After ARE.*
*NEIC Felt [II] at Acari.*
*IDC 05 23:07:46.7±0.7, 15°.37S×74°.17W, h74km±6km, mb3.8/7, mb1 3.9/10, mb1mx3.6/29, mbtmp4.1/10, MS2.7/3, Ms1 2.7/3, ms1mx2.6/19, Error ellipse: s-maj=20.4km s-min=11.2km az=58.0*
**ISC 05 23:07:46.6±0.6, 15°.43S±0°.07×74°.15W±0°.10, h71km, n25, σ1s.28/29, mb4.1/6, 1C, Near coast of Peru**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| NNA | Nana | 4.30 | 322 | P | Pn | 23 08 50.7 | +1.0 |
| | 25nm,0.3s,baz=118,slow=12,SNR=28 | | | | | | |
| NNA | | | | S | Sn | 23 09 37.7 | -0.9 |
| | 37nm,0.3s,baz=214,slow=18,SNR=6.2 | | | | | | |
| NNA | | | | LR | LR | 23 10 32.6 | |
| | comp=Z,79nm,19.7s,baz=153,slow=39 | | | | | | |
| LPAZ | La Paz | 5.86 | 99 | P | Pn | 23 09 13.6 | +2.2 |
| | 0.8nm,0.3s,baz=316,slow=6.2,SNR=7.5 | | | | | | |
| LPAZ | | | | LR | LR | 23 11 19.7 | |
| | comp=Z,32nm,19.9s,baz=356,slow=36 | | | | | | |
| ATAH | Atahualpa | 9.23 | 333 | P | Pn | 23 10 02.7 | +5.4 |
| | 1.7nm,0.3s,baz=148,slow=10,SNR=11 | | | | | | |
| ATAH | | | | S | Sn | 23 11 47.5 | +7.7 |
| | 0.7nm,0.3s,baz=58,slow=15,SNR=2.9 | | | | | | |
| SAML | Samuel | 12.50 | 60 | ePn | Pn | 23 10 39.5 | -2.2 |
| | 7.6nm,0.7s | | | | | | |
| LCO | Las Campanas | 13.89 | 167 | eP | P | 23 11 04.4 | -2.0 |
| SJAC | San Juan de Ar | 18.58 | 1 | eP | P | 23 11 57.6 | -0.6 |
| PRAC | Prado | 19.03 | 358 | eP | Pn | 23 12 07.6 | +3.1 |
| CPUP | Villa Florida | 19.08 | 127 | P | P | 23 12 03.7 | +0.3 |
| | 0.1nm,0.3s,baz=294,slow=7.0,SNR=3.6 | | | | | | |
| ROSC | El Rosal | 20.14 | 360 | P | P | 23 12 15.4 | 0.0 |
| | 3.7nm,0.4s,baz=181,slow=11,SNR=2.2 | | | | | | |
| ROSC | | | | LR | LR | 23 20 58.5 | |
| | comp=Z,52nm,19.1s,baz=116,slow=39 | | | | | | |
| ROSC | El Rosal | 20.14 | 360 | eP | Pn | 23 12 19.6 | +1.7 |
| PTGA | Pitinga | 20.23 | 45 | P | P | 23 12 15.6 | -0.5 |
| | 7.1nm,0.7s,baz=225,slow=14,SNR=13 | | | | | | |
| NORC | Norcasia | 20.86 | 358 | eP | P | 23 12 23.5 | +0.6 |
| RUSC | La Rusia | 21.21 | 3 | eP | P | 23 12 26.2 | -0.9 |
| PAMC | Pamplona, Colo | 22.66 | 4 | eP | P | 23 12 43.5 | +0.8 |
| MOTC | Monteria, Cord | 24.09 | 356 | eP | P | 23 12 56.1 | +0.4 |
| SDV | Santo Domingo | 24.40 | 8 | P | P | 23 12 58.9 | +0.2 |
| | 3.1nm,0.3s,baz=207,slow=11,SNR=3.1 | | | | | | |
| SJCC | San Jacinto, C | 25.18 | 358 | eP | P | 23 13 08.1 | +2.5 |
| PLCA | Paso Flores | 25.41 | 174 | P | P | 23 13 07.4 | -0.1 |
| | 5.3nm,0.7s,baz=7.4,slow=10,SNR=15 | | | | | | |
| USHA | Ushuaia | 39.57 | 175 | P | P | 23 15 11.3 | +0.7 |
| | 44nm,1.0s,baz=66,slow=4.7,SNR=3.2 | | | | | | |
| TXAR | Lajitas Array | 52.84 | 327 | P | P | 23 16 53.8 | -1.4 |
| | 0.4nm,0.6s,baz=126,slow=4.6,SNR=2.4 | | | | | | |
| TXAR | | | | pP | pP | 23 17 13.5 | +0.2 |
| | 0.7nm,0.6s,baz=159,slow=8.0,SNR=3.2 | | | | | | |
| TORD | Torodi Ar. Bea | 80.21 | 73 | P | P | 23 19 49.4 | -0.6 |
| | 0.9nm,0.8s,baz=268,slow=5.8,SNR=6.7 | | | | | | |
| TORD | | | | pP | pP | 23 20 09.6 | +0.3 |
| | 2.4nm,1.0s,baz=249,slow=5.0,SNR=7.4 | | | | | | |
| TORD | | | | sP | sP | 23 20 17.6 | +0.6 |
| | 1.4nm,0.7s,baz=258,slow=5.5,SNR=4.0 | | | | | | |
| VNDA | Vanda | 81.91 | 190 | P | P | 23 19 59.2 | +1.3 |
| | 0.6nm,0.3s,baz=112,slow=3.4,SNR=4.0 | | | | | | |
| SYO | Syowa Base | 83.88 | 161 | ⇑ePcP | P | 23 20 06.8 | -1.4 |
| ASAR | Alice Springs | 132.44 | 216 | PKP | PKPdf | 23 26 52.8 | -0.9 |
| | 0.7nm,0.8s,baz=117,slow=1.4,SNR=4.9 | | | | | | |
| ASAR | | | | pPKP | pPKPdf | 23 27 14.6 | +0.6 |
| | 0.1nm,0.5s,baz=135,slow=1.3,SNR=1.2 | | | | | | |
| WRA | Warramunga Arr | 135.06 | 219 | PKP | PKPdf | 23 26 58.0 | -0.6 |
| | 0.8nm,0.8s,baz=133,slow=2.1,SNR=7.4 | | | | | | |
| WRA | | | | pPKP | pPKPdf | 23 27 19.4 | +0.4 |
| | 0.5nm,0.7s,baz=147,slow=1.6,SNR=1.7 | | | | | | |

*ATH 05 23:14:05.7, 36°.33N×28°.74E, h44km±1km, ML2.5/5, Error ellipse: s-maj=2.5km s-min=1.2km az=185.0*
*ISK 05 23:14:05.4, 36°.29N×28°.74E, h19km, MD3.0*
*ISCJB 05 23:14:06.8±0.4, 36°.32N±0°.03×28°.71E±0°.03, h33km±3km, Error ellipse: s-maj=5.1km s-min=3.5km az=160.4*
*CSEM 05 23:14:07.2±0.3, 36°.36N×28°.73E, h26km±2km, ML3.0, Error ellipse: s-maj=5.3km s-min=3.7km az=161.0*
*DDA 05 23:14:07.5, 36°.41N×28°.80E, h8km, Ml3.0*
**ISC 05 23:14:06.8±1.0, 36°.33N±0°.03×28°.74E±0°.02, h28km±9km, n60, σ1s.04/87, Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| FETY | Fethiye | 0.41 | 43 | ePG | Pb | 23 14 15.1 | -0.6 |
| FETY | | | | eSG | Sb | 23 14 21.5 | -0.3 |
| FETY | Fethiye | 0.41 | 43 | P | Pb | 23 14 15.1 | -0.6 |
| FETY | | | | eSg | Sb | 23 14 21.5 | -0.3 |
| DALY | Dalyan (Mu˜la | 0.49 | 352 | ePG | Pb | 23 14 16.4 | -0.6 |
| DALY | | | | eSG | Sb | 23 14 24.0 | +0.2 |
| DALY | Dalyan (Mu˜la | 0.49 | 352 | iP | Pb | 23 14 16.3 | -0.6 |
| DALY | | | | iS | Sb | 23 14 23.9 | +0.1 |
| DALY | Dalyan (Mu˜la | 0.49 | 352 | P | Pb | 23 14 16.3 | -0.6 |
| DALY | | | | S | Sb | 23 14 23.9 | +0.1 |
| ARG | Arkhangelos | 0.51 | 257 | P | Pb | 23 14 17.7 | +0.4 |
| ARG | | | | S | Sb | 23 14 25.6 | +1.2 |
| ARG | | | | AML | AML | 23 14 25.8 | |
| | comp=N,671µm,0.3s | | | | | | |
| ARG | | | | AML | AML | 23 14 27.9 | |
| | comp=E,1052µm,0.5s | | | | | | |
| TURN | Turunc | 0.55 | 349 | ePG | Pb | 23 14 18.3 | +0.4 |
| TURN | Turunc | 0.55 | 349 | iP | Pb | 23 14 18.4 | +0.4 |
| TURN | | | | iS | Sn | 23 14 27.5 | +0.5 |
| TURN | Turunc | 0.55 | 349 | ePg | Pb | 23 14 18.3 | +0.4 |
| TURN | | | | S | Sn | 23 14 27.5 | +0.5 |
| MRSB | Marmaris-Mugla | 0.58 | 311 | ePG | Pb | 23 14 18.4 | -0.1 |
| MRSB | | | | eSG | Sn | 23 14 27.5 | -0.3 |
| MRSB | Marmaris-Mugla | 0.58 | 311 | ePg | Pb | 23 14 18.4 | -0.1 |
| MRSB | | | | eSg | Sn | 23 14 27.5 | -0.3 |
| AKAS | Kas | 0.71 | 98 | ePG | Pb | 23 14 19.6 | -1.1 |
| AKAS | Kas | 0.71 | 98 | iP | Pb | 23 14 20.4 | -0.3 |
| AKAS | | | | iS | Sb | 23 14 30.9 | +0.7 |
| AKAS | Kas | 0.71 | 98 | P | Pb | 23 14 20.4 | -0.3 |
| AKAS | | | | S | Sb | 23 14 30.9 | +0.7 |
| KSL | Kastellorizon | 0.71 | 105 | P | Pb | 23 14 20.4 | -0.2 |
| KSL | | | | S | Sb | 23 14 30.5 | +0.5 |
| KSL | | | | AML | AML | 23 14 33.3 | |
| | comp=N,158µm,0.4s | | | | | | |
| KSL | | | | AML | AML | 23 14 34.4 | |
| | comp=E,227µm,0.3s | | | | | | |
| GLHS | Glhisar (BURDU | 1.02 | 36 | ePG | Pn | 23 14 25.8 | +0.4 |
| GLHS | Glhisar (BURDU | 1.02 | 36 | ePg | Pn | 23 14 25.8 | +0.4 |
| ELL | Elmali | 1.03 | 66 | ePG | Pn | 23 14 26.1 | +0.6 |
| ELL | Elmali | 1.03 | 66 | ePg | Pn | 23 14 26.1 | +0.6 |
| GOLH | Golhisar | 1.12 | 36 | iP | Pn | 23 14 27.3 | +0.6 |
| GOLH | | | | iS | Sb | 23 14 41.8 | 0.0 |
| GOLH | Golhisar | 1.12 | 36 | P | Pn | 23 14 27.3 | +0.6 |
| GOLH | | | | S | Sb | 23 14 41.8 | 0.0 |
| TAVA | DENIZLI_Tavas | 1.14 | 7 | iP | Pn | 23 14 27.3 | +0.3 |
| TAVA | | | | iS | Sn | 23 14 41.6 | -0.1 |
| TAVA | DENIZLI_Tavas | 1.14 | 7 | P | Pn | 23 14 27.3 | +0.3 |
| TAVA | | | | S | Sn | 23 14 41.6 | -0.1 |
| NIS1 | Nisyros Isl. | 1.28 | 282 | ePN | Pn | 23 14 29.6 | +0.6 |
| NIS1 | Nisyros Isl. | 1.28 | 282 | P | Pn | 23 14 30.1 | +1.1 |
| NIS1 | | | | S | Sn | 23 14 42.7 | -2.5 |
| NIS1 | | | | AML | AML | 23 14 51.7 | |
| | comp=E,474µm,0.4s | | | | | | |
| NIS1 | | | | AML | AML | 23 14 54.9 | |
| | comp=N,573µm,0.4s | | | | | | |
| NISR | Nisiros | 1.33 | 283 | P | Pn | 23 14 30.6 | +1.2 |
| BODT | Bodrum | 1.36 | 303 | ePN | Pn | 23 14 29.8 | -0.1 |
| BODT | Bodrum | 1.36 | 303 | ePn | Pn | 23 14 29.8 | -0.1 |
| DENT | Denizli | 1.44 | 9 | ePN | Pn | 23 14 32.0 | +0.9 |
| DENT | Denizli | 1.44 | 9 | ePn | Pn | 23 14 32.0 | +0.9 |
| KORT | Korkueli | 1.46 | 62 | ePN | Pn | 23 14 31.6 | +0.3 |
| KORT | Korkueli | 1.46 | 62 | iP | Pn | 23 14 32.0 | +0.6 |
| KORT | Korkueli | 1.46 | 62 | ePn | Pn | 23 14 31.7 | +0.3 |
| KORT | Korkueli | 1.46 | 62 | P | Pn | 23 14 32.0 | +0.6 |
| KARP | Karpathos | 1.50 | 239 | ePN | Pn | 23 14 31.5 | -0.4 |
| KARP | Karpathos | 1.50 | 239 | P | Pn | 23 14 33.3 | +1.4 |
| KARP | | | | S | Sn | 23 14 47.9 | -2.7 |
| KARP | | | | AML | AML | 23 14 56.9 | |
| | comp=N,244µm,0.3s | | | | | | |
| KARP | | | | AML | AML | 23 14 59.5 | |
| | comp=E,207µm,0.3s | | | | | | |
| KARP | Karpathos | 1.50 | 239 | ePn | Pn | 23 14 31.5 | -0.4 |
| KARP | Karpathos | 1.50 | 239 | P | Pn | 23 14 33.3 | +1.4 |
| KARP | | | | S | Sn | 23 14 47.9 | -2.7 |
| GCAM | G?zelcaml? | 1.82 | 319 | ePN | Pn | 23 14 36.6 | +0.4 |
| GCAM | G?zelcaml? | 1.82 | 319 | ePn | Pn | 23 14 36.6 | +0.4 |
| SMG | Samos | 2.05 | 313 | P | Pn | 23 14 38.9 | -0.5 |
| SMG | | | | S | Sn | 23 15 04.2 | +0.1 |
| SMG | | | | AML | AML | 23 15 08.3 | |
| | comp=E,162µm,0.2s | | | | | | |
| SMG | | | | AML | AML | 23 15 08.8 | |
| | comp=N,246µm,0.5s | | | | | | |
| SMG | Samos | 2.05 | 313 | P | Pn | 23 14 38.9 | -0.5 |
| SMG | | | | S | Sn | 23 15 04.2 | +0.1 |
| KULA | Kula-Manisa | 2.18 | 358 | ePN | Pn | 23 14 43.0 | +1.7 |
| KULA | Kula-Manisa | 2.18 | 358 | ePn | Pn | 23 14 43.0 | +1.7 |
| ZKR | Zakros | 2.38 | 240 | P | Pn | 23 14 46.3 | +2.3 |
| ZKR | | | | S | Sn | 23 15 12.7 | +0.4 |
| ZKR | Zakros | 2.38 | 240 | P | Pn | 23 14 46.3 | +2.3 |
| ZKR | | | | S | Sn | 23 15 12.7 | +0.4 |
| NPS | Neapolis | 2.76 | 248 | P | Pn | 23 14 47.7 | -1.4 |
| NPS | | | | S | Sn | 23 15 18.5 | -3.0 |
| LAST | Lasithi | 2.90 | 247 | P | Pn | 23 14 51.1 | -0.1 |
| CHOS | Chios island | 2.96 | 315 | P | Pn | 23 14 50.9 | -1.1 |
| CHOS | Chios island | 2.96 | 315 | P | Pn | 23 14 50.9 | -1.1 |
| IDI | Anoyia | 3.30 | 253 | P | Pn | 23 14 56.0 | -0.6 |
| IDI | | | | S | Sn | 23 15 34.2 | -0.7 |
| IDI | Anoyia | 3.30 | 253 | P | Pn | 23 14 56.0 | -0.6 |
| IDI | | | | S | Sn | 23 15 34.2 | -0.7 |
| SIVA | Sivas | 3.46 | 249 | P | Pn | 23 15 00.8 | +2.1 |
| SIVA | Sivas | 3.46 | 249 | P | Pn | 23 15 00.8 | +2.1 |
| PRK | Paraskevi | 3.50 | 327 | P | Pn | 23 14 59.0 | -0.4 |
| PRK | Paraskevi | 3.50 | 327 | P | Pn | 23 14 59.0 | -0.4 |
| VAM | Vamos | 3.80 | 257 | P | Pn | 23 15 04.7 | +1.2 |
| VAM | Vamos | 3.80 | 257 | P | Pn | 23 15 04.7 | +1.2 |
| IMMV | Iera Moni Meta | 3.96 | 259 | P | Pn | 23 15 07.4 | +1.7 |
| IMMV | Iera Moni Meta | 3.96 | 259 | P | Pn | 23 15 07.4 | +1.7 |

*ISCJB 05 23:25:08.3±0.8, 38°.18N±0°.04×141°.82E±0°.08, h58km±6km, mb3.3/6, Error ellipse: s-maj=11.1km s-min=5.5km az=26.3*
*JMA 05 23:25:08.9±0.1, 38°.18N×141°.77E, h56km±1km, M3.8*
*JMA Felt II J1.*
*IDC 05 23:25:12.9±3.1, 38°.13N×141°.73E, h92km±29km, mb3.1/6, mb1 3.3/8, mb1mx3.1/39, mbtmp3.4/8, MS2.1/1, Ms1 2.1/1, ms1mx2.0/15, Error ellipse: s-maj=26.7km s-min=20.5km az=100.0*

**ISC 05 23:25:08.6**±1.5**, 38°.17N**±0°.06×**141°.85E**±0°.09**, h47**km±13km**,** **n28,** σ**1ˢ.32**/35**, mb3.3**/6**, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JIO** | **Ouri** | **0.49** | **306** | P | **Pn** | **23 25 19.9** | **+0.4** |
| JIO | | | | S | **Sn** | **23 25 27.4** | **+0.1** |
| **JMM** | **Marumori** | **0.89** | **251** | P | **Pn** | **23 25 24.3** | **-0.5** |
| JMM | | | | S | **Sn** | **23 25 35.6** | **-1.0** |
| **OFUJ** | **Ofunato** | **0.92** | **351** | P | **Pn** | **23 25 25.5** | **+0.3** |
| OFUJ | | | | S | **Sn** | **23 25 37.4** | **0.0** |
| **JMK** | **Ichinoseki** | **0.93** | **328** | P | **Pn** | **23 25 25.5** | **+0.2** |
| JMK | | | | S | **Sn** | **23 25 37.3** | **-0.2** |
| **JOU** | **Okura** | **0.96** | **282** | P | **Pn** | **23 25 25.6** | **-0.1** |
| JOU | | | | S | **Sn** | **23 25 37.6** | **-0.6** |
| **JFK** | **Kawauchi** | **1.11** | **224** | P | **Pn** | **23 25 27.7** | **-0.1** |
| **JFT** | **Otama** | **1.36** | **242** | P | **Pn** | **23 25 31.5** | **+0.3** |
| JFT | | | | S | **Sn** | **23 25 47.9** | **-0.3** |
| **JOM** | **Ohasama** | **1.38** | **342** | P | **Pn** | **23 25 31.9** | **+0.5** |
| JOM | | | | *e*S | **Sn** | **23 25 48.8** | **+0.4** |
| **JYK** | **Kaneyama** | **1.39** | **303** | P | **Pn** | **23 25 31.5** | **-0.1** |
| JYK | | | | *e*S | **Sn** | **23 25 48.3** | **-0.5** |
| **JYS** | **Shirataka** | **1.41** | **273** | P | **Pn** | **23 25 31.9** | **+0.1** |
| JYS | | | | S | **Sn** | **23 25 48.8** | **-0.5** |
| **JRG** | **Rokugo** | **1.55** | **323** | P | **Pn** | **23 25 34.4** | **+0.6** |
| JRG | | | | *e*S | **Sn** | **23 25 53.8** | **+1.0** |
| **JYA** | **Atsumi** | **1.73** | **285** | P | **Pn** | **23 25 36.3** | **0.0** |
| JYA | | | | *e*S | **Sn** | **23 25 56.6** | **-0.6** |
| **JFY** | **Yanaizu** | **1.86** | **247** | P | **Pn** | **23 25 38.6** | **+0.5** |
| JFY | | | | *e*S | **Sn** | **23 26 00.4** | **0.0** |
| **MJAR** | **Matsushiro Arr** | **3.33** | **242** | P | **Pn** | **23 25 59.9** | **+1.7** |
| | 1.3nm,0.3s,baz=59,slow=10.0,SNR=9.2 | | | | | | |
| MJAR | | | | S | **Sn** | **23 26 39.6** | **+3.1** |
| | 1.3nm,0.3s,baz=95,slow=16,SNR=4.4 | | | | | | |
| MJAR | | | | LR | LR | 23 27 42.3 | |
| | comp=Z,32nm,20.9s,baz=60,slow=47 | | | | | | |
| **MAT** | **Matsushiro** | **3.33** | **242** | P | **Pn** | **23 26 01.6** | **+3.4** |
| **USRK** | **Ussuriysk Ar.** | **9.57** | **312** | P | **Pn** | **23 27 27.5** | **+3.8** |
| | 0.2nm,0.3s,baz=101,slow=15,SNR=4.0 | | | | | | |
| **SONM** | **Songino Array** | **27.46** | **302** | P | **P** | **23 30 51.5** | **+1.2** |
| | 0.2nm,0.5s,baz=95,slow=9.1,SNR=2.3 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.45** | **123** | T | T | 00 01 12.4 | |
| | baz=316,slow=76,SNR=84 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.46** | **123** | T | T | 00 01 15.9 | |
| | baz=316,slow=76,SNR=155 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.47** | **123** | T | T | 00 01 16.6 | |
| | baz=316,slow=76,SNR=95 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.20** | **125** | T | T | 00 02 12.7 | |
| | baz=318,slow=76,SNR=46 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.20** | **125** | T | T | 00 02 12.8 | |
| | baz=318,slow=76,SNR=59 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.22** | **125** | T | T | 00 02 15.2 | |
| | baz=318,slow=76,SNR=36 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.42** | **311** | P | **P** | **23 32 48.0** | **-2.3** |
| | 0.5nm,0.6s,baz=86,slow=8.8,SNR=2.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.82** | **301** | P | **P** | **23 33 08.6** | **-1.3** |
| | 0.5nm,0.7s,baz=88,slow=8.9,SNR=4.5 | | | | | | |
| **ILAR** | **Eielson Array** | **48.35** | **33** | P | **P** | **23 33 45.6** | **+0.3** |
| | 0.2nm,0.6s,baz=273,slow=8.0,SNR=3.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **58.23** | **188** | P | **P** | **23 34 57.3** | **-0.9** |
| | 0.3nm,0.4s,baz=6.4,slow=7.3,SNR=6.8 | | | | | | |
| **PDAR** | **Pinedale Array** | **76.62** | **46** | P | **P** | **23 36 54.7** | **+0.1** |
| | 0.2nm,0.7s,baz=224,slow=2.5,SNR=3.6 | | | | | | |

---

*IDC **05** 23:35:48.6±3.1, 4°.92S×133°.44E, h0km, mb3.4/1, mb1 4.0/4, mb1mx3.6/29, mbtmp3.8/4, ML4.1/3, MS3.1/4, Ms1 3.1/4, ms1mx2.9/17, Error ellipse: s-maj=128.9km s-min=30.0km az=81.0*

*ISCJB **05** 23:35:49.4±0.7, 4°.93S±0°.04×133°.67E±0°.05, h28km, mb3.4/1, MS3.0/2, Error ellipse: s-maj=7.9km s-min=5.2km az=177.2*

*DJA **05** 23:35:53.6±1.1, 5°S±4°×13°4E±°, h28km±13km, M4.6/6, mB5.3/2, mb4.9/1, MLv4.5/6, Mw(mB)4.8/2*

**ISC 05 23:35:49.7**±0.9**, 4°.98S**±0°.05×**133°.77E**±0°.07**, h28**km**, n13,** σ**2ˢ.95**/21**, Irian Jaya region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KMPI** | **Kaimana, Papua** | **1.31** | **357** | P | **Pn** | **23 36 11.9** | **-0.2** |
| KMPI | | | | S | **Sn** | **23 36 26.4** | **-2.3** |
| **FAKI** | **Fak Fak** | **2.55** | **323** | P | **Pn** | **23 36 29.0** | **-0.2** |
| FAKI | | | | S | **Sn** | **23 36 55.9** | **-3.4** |
| **RKPI** | **Ransiki, Papua** | **3.46** | **7** | P | **Pn** | **23 36 43.6** | **+1.8** |
| RKPI | | | | S | **Sn** | **23 37 22.0** | **0.0** |
| **BNDI** | **Bandanaira** | **3.88** | **276** | P | **Pn** | **23 36 50.3** | **+2.7** |
| BNDI | | | | S | **Sn** | **23 37 35.3** | **+3.0** |
| **MSAI** | **Masohi** | **5.10** | **288** | P | **Pn** | **23 37 06.2** | **+1.9** |
| MSAI | | | | S | **Sn** | **23 38 01.2** | **-1.1** |
| **AAI** | **Ambon** | **5.71** | **283** | P | **Pn** | **23 37 15.6** | **+2.9** |
| AAI | | | | S | **Sn** | **23 38 16.6** | **-0.8** |
| **SANI** | **Sanana** | **8.30** | **290** | P | **Pn** | **23 37 48.6** | **+0.3** |
| | 36nm,0.5s | | | | | | |
| SANI | | | | S | **Sn** | **23 39 15.5** | **-5.6** |
| | 36nm,0.5s | | | | | | |
| **WRA** | **Warramunga Arr** | **14.89** | **178** | Pn | **Pn** | **23 39 20.0** | **+1.6** |
| | 0.6nm,0.3s,baz=353,slow=13,SNR=15 | | | | | | |
| WRA | | | | Sn | **Sn** | **23 41 59.0** | **-3.6** |
| | 0.6nm,0.3s,baz=359,slow=23,SNR=7.3 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **15.28** | **211** | Pn | **Pn** | **23 39 24.2** | **+0.5** |
| | 1.3nm,0.3s,baz=40,slow=12,SNR=18 | | | | | | |
| FITZ | | | | Sn | **Sn** | **23 42 06.4** | **-5.7** |
| | 1.7nm,0.3s,baz=180,slow=14,SNR=10 | | | | | | |
| FITZ | | | | LR | LR | 23 46 27.2 | |
| | comp=Z,40nm,18.8s,baz=32,slow=42 | | | | | | |
| **ASAR** | **Alice Springs** | **18.58** | **180** | P | **Pn** | **23 40 08.7** | **+3.5** |
| | 0.5nm,0.3s,baz=4.8,slow=12,SNR=11 | | | | | | |
| ASAR | | | | S | **Sn** | **23 43 29.0** | **-3.3** |
| | 0.2nm,0.3s,baz=0.1,slow=28,SNR=5.7 | | | | | | |
| ASAR | | | | LR | LR | 23 47 46.9 | |
| | comp=Z,109nm,20.1s,baz=351,slow=38 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **41.51** | **5** | LR | LR | 23 59 10.0 | |
| | comp=Z,51nm,19.9s,baz=45,slow=34 | | | | | | |
| **KSRS** | **Korea Array** | **42.56** | **353** | LR | LR | 00 01 30.4 | |
| | comp=Z,9.6nm,19.8s,baz=325,slow=36 | | | | | | |
| **MKAR** | **Makanchi Array** | **68.67** | **325** | P | **P** | **23 46 52.5** | **+1.8** |
| | 0.3nm,0.6s,baz=107,slow=7.4,SNR=4.9 | | | | | | |

---

*ISCJB **05** 23:37:17.9±0.6, 38°.58N±0°.04×43°.29E±0°.08, h13km±6km, Error ellipse: s-maj=10.5km s-min=5.2km az=23.7*

*CSEM **05** 23:37:17.5±0.2, 38°.58N×43°.28E, h10km, MD2.6, Error ellipse: s-maj=6.3km s-min=5.0km az=118.0*

*ISK **05** 23:37:17.7, 38°.59N×43°.38E, h11km, MD2.6*

*DDA **05** 23:37:18.0, 38°.58N×43°.27E, h7km, Ml2.8*

**ISC 05 23:37:17.8**±1.0**, 38°.58N**±0°.03×**43°.27E**±0°.04**, h10**km±8km**, n22,** σ**0ˢ.54**/34**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.10** | **80** | *e*PG | **Pg** | **23 37 20.2** | **-0.3** |
| VANB | | | | *e*SG | **Sg** | **23 37 22.8** | **+0.4** |
| **VANB** | **Van** | **0.10** | **80** | *e*Pg | **Pg** | **23 37 20.2** | **-0.3** |
| VANB | | | | *e*Sg | **Sg** | **23 37 22.8** | **+0.4** |
| **TVAN** | **Van** | **0.12** | **115** | *i* P | **Pg** | **23 37 20.4** | **-0.4** |
| TVAN | | | | *i* S | **Sg** | **23 37 23.4** | **+0.5** |
| **TVAN** | **Van** | **0.12** | **115** | P | **Pg** | **23 37 20.5** | **-0.4** |
| TVAN | | | | S | **Sg** | **23 37 23.5** | **+0.5** |
| **GEVA** | **Gevas** | **0.31** | **212** | *i* P | **Pg** | **23 37 23.7** | **-0.4** |
| GEVA | | | | *i* S | **Sb** | **23 37 30.1** | **-0.7** |
| **GEVA** | **Gevas** | **0.31** | **212** | P | **Pg** | **23 37 23.7** | **-0.4** |
| GEVA | | | | S | **Sb** | **23 37 30.1** | **-0.7** |
| **ERCV** | **ERCIS-VAN** | **0.44** | **7** | *e*PG | **Pg** | **23 37 26.6** | **0.0** |
| ERCV | | | | *e*SG | **Sg** | **23 37 33.4** | **+0.9** |
| **ERCV** | **ERCIS-VAN** | **0.44** | **7** | *e*Pg | **Pg** | **23 37 26.6** | **0.0** |
| ERCV | | | | *e*Sg | **Sg** | **23 37 33.4** | **+0.9** |
| **VMUR** | **Van-Muradiye** | **0.47** | **30** | *i* P | **Pg** | **23 37 27.3** | **+0.2** |
| VMUR | | | | *i* S | **Sb** | **23 37 35.8** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.47** | **30** | P | **Pg** | **23 37 27.3** | **+0.2** |
| VMUR | | | | S | **Sb** | **23 37 35.8** | **+0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.48** | **298** | *i* P | **Pg** | **23 37 27.0** | **-0.3** |
| ADCV | | | | *i* S | **Sb** | **23 37 35.7** | **-0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.48** | **298** | P | **Pg** | **23 37 27.0** | **-0.3** |
| ADCV | | | | S | **Sb** | **23 37 35.7** | **-0.1** |
| **CLDR** | **Caldiran** | **0.76** | **42** | *e*PG | **Pg** | **23 37 31.5** | **-0.9** |
| **CLDR** | **Caldiran** | **0.76** | **42** | *e*Pg | **Pg** | **23 37 31.5** | **-0.9** |
| **TUTA** | **Tutak** | **0.90** | **337** | *i* P | **Pg** | **23 37 34.3** | **-0.8** |
| **TUTA** | **Tutak** | **0.90** | **337** | P | **Pg** | **23 37 34.3** | **-0.8** |
| **AGRB** | **Hanur-Agry** | **1.02** | **348** | *e*PG | **Pb** | **23 37 37.5** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **1.02** | **348** | *e*Pg | **Pb** | **23 37 37.5** | **-0.1** |
| **EKAR** | **Karacoban** | **1.16** | **306** | *i* P | **Pb** | **23 37 39.9** | **-0.2** |
| **EKAR** | **Karacoban** | **1.16** | **306** | P | **Pb** | **23 37 39.9** | **-0.2** |
| **SIRT** | **Sirnak** | **1.26** | **212** | *e*PN | **Pg** | **23 37 42.7** | **+0.7** |
| **SIRT** | **Sirnak** | **1.26** | **212** | *e*Pn | **Pg** | **23 37 42.7** | **+0.7** |

---

*CSEM **05** 23:41:26.8±0.3, 39°.83N×42°.34E, h15km, ML2.7, Error ellipse: s-maj=7.0km s-min=6.1km az=118.0*

*ISK **05** 23:41:26.9, 39°.82N×42°.32E, h10km, MD2.8*

*ISCJB **05** 23:41:27.4±0.5, 39°.80N±0°.04×42°.32E±0°.04, h10km±5km, Error ellipse: s-maj=6.1km s-min=4.9km az=20.3*

*DDA **05** 23:41:27.8, 39°.81N×42°.35E, h7km, Ml2.7*

**ISC 05 23:41:27.1**±0.9**, 39°.81N**±0°.03×**42°.34E**±0°.03**, h16**km±6km**, n19,** σ**0ˢ.59**/31**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **EATA** | **Eleskirt** | **0.13** | **63** | *i* P | **Pg** | **23 41 30.8** | **-0.3** |
| EATA | | | | *i* S | **Sg** | **23 41 34.0** | **+0.2** |
| **EATA** | **Eleskirt** | **0.13** | **63** | P | **Pg** | **23 41 30.8** | **-0.3** |
| EATA | | | | S | **Sg** | **23 41 34.0** | **+0.2** |
| **HOMI** | **Horasan** | **0.41** | **306** | *i* P | **Pg** | **23 41 35.6** | **0.0** |
| HOMI | | | | *i* S | **Sb** | **23 41 42.7** | **+0.3** |
| **TUTA** | **Tutak** | **0.54** | **138** | *i* P | **Pg** | **23 41 37.8** | **-0.1** |
| TUTA | | | | *i* S | **Sb** | **23 41 46.5** | **+0.4** |
| **TUTA** | **Tutak** | **0.54** | **138** | P | **Pg** | **23 41 37.8** | **-0.1** |
| TUTA | | | | S | **Sb** | **23 41 46.5** | **+0.4** |
| **AGRB** | **Hanur-Agry** | **0.55** | **114** | *e*PG | **Pb** | **23 41 38.4** | **-0.1** |
| AGRB | | | | *e*SG | **Sb** | **23 41 46.9** | **+0.6** |
| **AGRB** | **Hanur-Agry** | **0.55** | **114** | *e*Pg | **Pb** | **23 41 38.4** | **-0.1** |
| AGRB | | | | *e*Sg | **Sb** | **23 41 46.9** | **+0.6** |
| **EKAR** | **Karacoban** | **0.59** | **202** | *i* P | **Pb** | **23 41 39.2** | **0.0** |
| EKAR | | | | *i* S | **Sn** | **23 41 50.0** | **-0.5** |
| **EKAR** | **Karacoban** | **0.59** | **202** | P | **Pb** | **23 41 39.2** | **0.0** |
| EKAR | | | | S | **Sn** | **23 41 50.0** | **-0.5** |
| **SENK** | **Senkaya-Erzuru** | **0.76** | **0** | *e*PG | **Pg** | **23 41 41.3** | **-0.6** |
| SENK | | | | *e*SG | **Sb** | **23 41 52.7** | **+0.5** |
| **SENK** | **Senkaya-Erzuru** | **0.76** | **0** | *e*Pg | **Pg** | **23 41 41.3** | **-0.6** |
| SENK | | | | *e*Sg | **Sb** | **23 41 52.7** | **+0.5** |
| **VRTB** | **Varto-Mus** | **0.94** | **227** | *e*PG | **Pb** | **23 41 45.8** | **+0.7** |
| **VRTB** | **Varto-Mus** | **0.94** | **227** | *e*Pg | **Pb** | **23 41 45.8** | **+0.7** |
| **DIGO** | **Kars** | **1.00** | **52** | *i* P | **Pg** | **23 41 46.0** | **-0.5** |
| DIGO | | | | *i* S | **Sn** | **23 42 01.8** | **+1.1** |
| **DIGO** | **Kars** | **1.00** | **52** | P | **Pg** | **23 41 46.0** | **-0.5** |
| **YEDI** | **Yedisu-Bingol** | **1.44** | **256** | *e*PN | **Pb** | **23 41 53.6** | **+0.1** |
| **YEDI** | **Yedisu-Bingol** | **1.44** | **256** | *e*Pn | **Pb** | **23 41 53.7** | **+0.1** |
| **BNGB** | **Bingˆ¶l** | **1.52** | **238** | *e*PN | **Pn** | **23 41 54.7** | **+0.8** |
| **BINT** | **Bingol** | **1.71** | **238** | *e*Pn | **Pn** | **23 41 54.7** | **-1.7** |

---

*ATH **05** 23:52:18.5, 38°.85N×26°.34E, h29km±1km, ML2.1/4, Error ellipse: s-maj=2.7km s-min=1.0km az=261.0*

*DDA **05** 23:52:18.5, 38°.85N×26°.32E, h7km, Ml2.9*

*ISCJB **05** 23:52:19.2±0.4, 38°.86N±0°.02×26°.32E±0°.04, h12km±3km, Error ellipse: s-maj=5.3km s-min=2.8km az=166.1*

*CSEM **05** 23:52:19.5±0.1, 38°.84N×26°.33E, h12km, ML2.1, Error ellipse: s-maj=4.8km s-min=2.7km az=79.0*

*ISK **05** 23:52:19.0, 38°.85N×26°.36E, h6km, MD2.7*

**ISC 05 23:52:19.1**±0.9**, 38°.84N**±0°.02×**26°.33E**±0°.03**, h16**km±8km**, n56,** σ**0ˢ.61**/83**, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PRK** | **Paraskevi** | **0.41** | **353** | P | **Pg** | **23 52 27.4** | **0.0** |
| PRK | | | | S | **Sg** | **23 52 33.0** | **0.0** |
| PRK | | | | AML | AML | 23 52 37.6 | |
| | comp=N,610μm,0.2s | | | | | | |
| PRK | | | | AML | AML | 23 52 38.3 | |
| | comp=E,618μm,0.5s | | | | | | |
| **PRK** | **Paraskevi** | **0.41** | **353** | P | **Pg** | **23 52 27.4** | **0.0** |
| PRK | | | | S | **Sg** | **23 52 33.0** | **0.0** |
| **CHOS** | **Chios island** | **0.50** | **206** | *e*PG | **Pb** | **23 52 29.7** | **+0.1** |
| **CHOS** | **Chios island** | **0.50** | **206** | P | **Pb** | **23 52 30.0** | **+0.4** |
| CHOS | | | | S | **Sb** | **23 52 37.2** | **+0.5** |
| CHOS | | | | AML | AML | 23 52 41.7 | |
| | comp=E,840μm,0.2s | | | | | | |
| CHOS | | | | AML | AML | 23 52 41.9 | |
| | comp=N,462μm,0.2s | | | | | | |
| **CHOS** | **Chios island** | **0.50** | **206** | *e*Pg | **Pb** | **23 52 29.7** | **+0.1** |
| **CHOS** | **Chios island** | **0.50** | **206** | P | **Pb** | **23 52 30.0** | **+0.4** |
| CHOS | | | | S | **Sb** | **23 52 37.2** | **+0.5** |
| **DKL** | **Dikili** | **0.50** | **63** | *e*PG | **Pg** | **23 52 28.7** | **-0.4** |
| DKL | | | | *e*SG | **Sg** | **23 52 35.9** | **0.0** |
| **DKL** | **Dikili** | **0.50** | **63** | *e*Pg | **Pg** | **23 52 28.7** | **-0.4** |
| DKL | | | | *e*Sg | **Sg** | **23 52 35.9** | **0.0** |
| **URLA** | **Izmir** | **0.52** | **157** | *e*PG | **Pg** | **23 52 29.6** | **+0.1** |
| URLA | | | | *e*SG | **Sb** | **23 52 37.5** | **+0.2** |
| **URLA** | **Izmir** | **0.52** | **157** | *i* P | **Pg** | **23 52 29.1** | **-0.3** |
| URLA | | | | *i* S | **Sg** | **23 52 36.1** | **-0.3** |
| **URLA** | **Izmir** | **0.52** | **157** | P | **Pg** | **23 52 29.1** | **-0.3** |
| **URLA** | **Izmir** | **0.52** | **157** | *e*Pg | **Pg** | **23 52 29.6** | **+0.1** |
| URLA | | | | S | **Sg** | **23 52 36.1** | **-0.3** |
| URLA | | | | *e*Sg | **Sb** | **23 52 37.5** | **+0.2** |
| **SIGR** | **SIGRI** | **0.53** | **315** | *e*PG | **Pb** | **23 52 29.8** | **-0.2** |
| **SIGR** | **SIGRI** | **0.53** | **315** | P | **Pb** | **23 52 30.4** | **+0.4** |
| SIGR | | | | S | **Sg** | **23 52 36.6** | **+0.1** |
| SIGR | | | | AML | AML | 23 52 41.0 | |
| | comp=E,362μm,0.2s | | | | | | |
| SIGR | | | | AML | AML | 23 52 41.3 | |
| | comp=N,254μm,0.2s | | | | | | |
| **SIGR** | **SIGRI** | **0.53** | **315** | *e*Pg | **Pb** | **23 52 29.8** | **-0.2** |
| **SIGR** | **SIGRI** | **0.53** | **315** | P | **Pb** | **23 52 30.4** | **+0.4** |
| SIGR | | | | S | **Sg** | **23 52 36.6** | **+0.1** |
| **ZEY** | **˜zmir** | **0.61** | **167** | *i* P | **Pg** | **23 52 31.0** | **-0.1** |
| ZEY | | | | *i* S | **Sn** | **23 52 42.0** | **-0.8** |
| **DGB** | **˜zmir** | **0.90** | **151** | *i* P | **Pb** | **23 52 36.5** | **+0.1** |
| DGB | | | | *i* S | **Sg** | **23 52 48.7** | **+0.4** |
| **BAYC** | **CANAKKALE_Bayr** | **0.92** | **10** | *i* P | **Pb** | **23 52 35.9** | **-0.7** |
| BAYC | | | | *i* S | **Sg** | **23 52 48.8** | **-0.1** |
| **BAYC** | **CANAKKALE_Bayr** | **0.92** | **10** | P | **Pb** | **23 52 35.9** | **-0.7** |
| BAYC | | | | S | **Sg** | **23 52 48.8** | **-0.1** |
| **EZN** | **Ezine** | **0.98** | **360** | *e*PG | **Pg** | **23 52 38.1** | **0.0** |
| **EZN** | **Ezine** | **0.98** | **360** | *e*Pg | **Pg** | **23 52 38.1** | **0.0** |
| **BOZC** | **Bozcaada** | **1.02** | **348** | *e*PG | **Pg** | **23 52 39.0** | **+0.1** |
| **BOZC** | **Bozcaada** | **1.02** | **348** | *e*Pg | **Pg** | **23 52 39.0** | **+0.1** |
| **SMG** | **Samos** | **1.20** | **160** | P | **Pb** | **23 52 41.8** | **+0.4** |
| SMG | | | | S | **Sb** | **23 52 56.3** | **-0.4** |
| SMG | | | | AML | AML | 23 53 01.4 | |
| | comp=E,303μm,0.4s | | | | | | |
| SMG | | | | AML | AML | 23 53 01.9 | |
| | comp=N,214μm,0.3s | | | | | | |
| **SMG** | **Samos** | **1.20** | **160** | P | **Pb** | **23 52 41.8** | **+0.4** |
| SMG | | | | S | **Sb** | **23 52 56.3** | **-0.4** |
| **STEP** | **BALIKESIR_Sava** | **1.20** | **63** | *i* S | **Pb** | **23 52 41.5** | **0.0** |
| STEP | | | | *i* S | **Sn** | **23 52 57.3** | **-0.1** |
| **STEP** | **BALIKESIR_Sava** | **1.20** | **63** | S | **Sn** | **23 52 57.3** | **-0.1** |
| **GCAM** | **G?zelcaml?** | **1.34** | **148** | *e*PN | **Pg** | **23 52 44.7** | **-0.2** |
| **GCAM** | **G?zelcaml?** | **1.34** | **148** | *e*Pn | **Pg** | **23 52 44.7** | **-0.2** |
| **LIA** | **Limnos Island** | **1.38** | **320** | P | **Pb** | **23 52 44.5** | **0.0** |
| LIA | | | | S | **Sn** | **23 53 01.3** | **-0.4** |
| **LIA** | **Limnos Island** | **1.38** | **320** | P | **Pb** | **23 52 44.5** | **0.0** |
| LIA | | | | S | **Sn** | **23 53 01.3** | **-0.4** |
| **GADA** | **Gvkgeada** | **1.39** | **346** | *e*PN | **Pb** | **23 52 45.1** | **+0.4** |
| **GADA** | **Gvkgeada** | **1.39** | **346** | *e*Pn | **Pb** | **23 52 45.1** | **+0.4** |
| **BALB** | **Balikesir** | **1.44** | **56** | *e*PN | **Pb** | **23 52 46.2** | **+0.6** |
| **BALB** | **Balikesir** | **1.44** | **56** | *e*Pn | **Pb** | **23 52 46.2** | **+0.6** |
| **GELI** | **Tayfur-Gelibol** | **1.56** | **4** | *e*PN | **Pb** | **23 52 47.8** | **+0.2** |
| **GELI** | **Tayfur-Gelibol** | **1.56** | **4** | *e*Pn | **Pb** | **23 52 47.8** | **+0.2** |
| **KRBG** | **Karabiga-Canak** | **1.72** | **25** | *e*PN | **Pb** | **23 52 50.0** | **-0.3** |
| **KRBG** | **Karabiga-Canak** | **1.72** | **25** | *e*Pn | **Pb** | **23 52 50.0** | **-0.3** |
| **SMTH** | **Samothraki Isl** | **1.74** | **339** | P | **Pn** | **23 52 48.5** | **-0.2** |
| SMTH | | | | S | **Sn** | **23 53 09.6** | **-1.0** |
| **SMTH** | **Samothraki Isl** | **1.74** | **339** | P | **Pn** | **23 52 48.5** | **-0.2** |
| SMTH | | | | S | **Sn** | **23 53 09.6** | **-1.0** |
| **ERIK** | **Erikli-Kesan** | **1.83** | **4** | *e*PN | **Pb** | **23 52 51.7** | **-0.5** |
| **ERIK** | **Erikli-Kesan** | **1.83** | **4** | *e*Pn | **Pb** | **23 52 51.7** | **-0.5** |
| **APE** | **Apeiranthos** | **1.88** | **200** | P | **Pn** | **23 52 50.6** | **-0.1** |
| **APE** | **Apeiranthos** | **1.88** | **200** | P | **Pn** | **23 52 50.6** | **-0.1** |
| **ALN** | **Alexandroupoli** | **2.07** | **354** | *e*PN | **Pb** | **23 52 55.6** | **-0.6** |
| **ALN** | **Alexandroupoli** | **2.07** | **354** | P | **Pn** | **23 52 54.2** | **+1.0** |
| ALN | | | | S | **Sn** | **23 53 19.8** | **+1.2** |
| **ALN** | **Alexandroupoli** | **2.07** | **354** | P | **Pn** | **23 52 54.2** | **+1.0** |
| **ALN** | **Alexandroupoli** | **2.07** | **354** | *e*Pn | **Pb** | **23 52 55.6** | **-0.6** |
| ALN | | | | S | **Sn** | **23 53 19.8** | **+1.2** |
| **RDO** | **Rodhopi** | **2.38** | **345** | P | **Pn** | **23 52 59.3** | **+1.8** |
| RDO | | | | S | **Sn** | **23 53 25.4** | **-1.0** |
| **RDO** | **Rodhopi** | **2.38** | **345** | P | **Pn** | **23 52 59.3** | **+1.8** |
| RDO | | | | S | **Sn** | **23 53 25.4** | **-1.0** |
| **KAVA** | **Kavala** | **2.57** | **328** | P | **Pn** | **23 53 01.3** | **+1.2** |
| **KAVA** | **Kavala** | **2.57** | **328** | P | **Pn** | **23 53 01.3** | **+1.2** |
| **NVR** | **Nevrokopi** | **3.14** | **324** | P | **Pn** | **23 53 06.7** | **-1.3** |
| **NVR** | **Nevrokopi** | **3.14** | **324** | P | **Pn** | **23 53 06.7** | **-1.3** |

---

*ATA **06** 00:00:17.8±2.0, 38°.93N×43°.50E, h1km±13km, ML3.4, MW3.1*

*ISK **06** 00:00:18.1, 38°.91N×43°.50E, h5km, ML2.7*

*DDA **06** 00:00:18.0, 38°.90N×43°.57E, h6km, Ml3.1*

*CSEM **06** 00:00:18.7±0.3, 38°.92N×43°.56E, h2km, ML3.1, Error ellipse: s-maj=6.3km s-min=3.7km az=92.0*

**ISC 06 00:00:19.1**±0.9**, 38°.90N**±0°.02×**43°.54E**±0°.03**, h7**km±7km**, n52,** σ**0ˢ.85**/80**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.09** | **14** | *i* P | **Pg** | **00 00 20.4** | **-1.0** |
| VMUR | | | | *i* S | **Sg** | **00 00 24.8** | **+1.9** |
| **VMUR** | **Van-Muradiye** | **0.09** | **14** | P | **Pg** | **00 00 20.4** | **-1.0** |
| **ERCV** | **ERCIS-VAN** | **0.20** | **307** | *e*PG | **Pg** | **00 00 22.0** | **-1.1** |
| **ERCV** | **ERCIS-VAN** | **0.20** | **307** | *e*Pg | **Pg** | **00 00 22.0** | **-1.1** |
| **VANB** | **Van** | **0.33** | **202** | *e*PG | **Pb** | **00 00 27.1** | **-0.2** |
| VANB | | | | *e*SG | **Sb** | **00 00 34.1** | **+1.2** |
| **VANB** | **Van** | **0.33** | **202** | *e*Pg | **Pb** | **00 00 27.2** | **-0.2** |
| VANB | | | | *e*Sg | **Sb** | **00 00 34.1** | **+1.2** |
| **TVAN** | **Van** | **0.39** | **196** | *i* P | **Pg** | **00 00 25.8** | **-0.9** |
| TVAN | | | | *i* S | **Sb** | **00 00 33.9** | **-0.8** |
| **TVAN** | **Van** | **0.39** | **196** | P | **Pg** | **00 00 25.8** | **-0.9** |
| TVAN | | | | S | **Sb** | **00 00 33.9** | **-0.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.65** | **262** | *i* P | **Pg** | **00 00 31.3** | **-0.2** |
| ADCV | | | | *i* S | **Sb** | **00 00 41.4** | **-0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.65** | **262** | P | **Pg** | **00 00 31.3** | **-0.2** |
| ADCV | | | | S | **Sb** | **00 00 41.4** | **-0.7** |
| **DYDN** | **Diyadin** | **0.65** | **10** | *e*P | **Pg** | **00 00 31.0** | **-0.6** |
| DYDN | | | | *e*S | **Sb** | **00 00 41.5** | **-0.9** |
| DYDN | | | | IAML | | 00 00 46.5 | |
| | comp=Z,77nm,0.3s | | | | | | |
| **DYDN** | **Diyadin** | **0.65** | **10** | *i* P | **Pg** | **00 00 31.1** | **-0.6** |
| DYDN | | | | *i* S | **Sg** | **00 00 41.0** | **+0.8** |
| **DYDN** | **Diyadin** | **0.65** | **10** | P | **Pg** | **00 00 31.1** | **-0.6** |
| DYDN | | | | S | **Sg** | **00 00 41.0** | **+0.8** |
| **GEVA** | **Gevas** | **0.70** | **213** | *e*P | **Pg** | **00 00 31.6** | **-1.0** |
| GEVA | | | | *e*S | **Sb** | **00 00 44.1** | **+0.5** |
| GEVA | | | | IAML | | 00 00 57.4 | |
| | comp=Z,82nm,0.5s | | | | | | |
| **GEVA** | **Gevas** | **0.70** | **213** | *e*P | **Pg** | **00 00 31.8** | **-0.7** |
| GEVA | | | | *e*S | **Sb** | **00 00 43.1** | **-0.6** |
| GEVA | | | | IAML | | 00 00 57.4 | |
| | comp=Z,82nm,0.5s | | | | | | |
| **GEVA** | **Gevas** | **0.70** | **213** | *i* P | **Pg** | **00 00 31.0** | **-1.6** |
| GEVA | | | | *i* S | **Sg** | **00 00 42.5** | **+0.8** |
| **GEVA** | **Gevas** | **0.70** | **213** | P | **Pg** | **00 00 31.0** | **-1.6** |
| GEVA | | | | S | **Sg** | **00 00 42.5** | **+0.8** |
| **TUTA** | **Tutak** | **0.76** | **312** | *e*P | **Pg** | **00 00 31.5** | **-2.1** |
| TUTA | | | | *e*S | **Sg** | **00 00 43.9** | **+0.4** |
| TUTA | | | | IAML | | 00 00 49.4 | |
| | comp=Z,151nm,0.2s | | | | | | |
| **TUTA** | **Tutak** | **0.76** | **312** | *e*P | **Pg** | **00 00 32.9** | **-0.7** |
| TUTA | | | | *e*S | **Sg** | **00 00 43.9** | **+0.4** |
| TUTA | | | | IAML | | 00 00 49.3 | |
| | comp=Z,151nm,0.2s | | | | | | |
| **TUTA** | **Tutak** | **0.76** | **312** | *i* P | **Pg** | **00 00 31.9** | **-1.7** |
| TUTA | | | | *i* S | **Sg** | **00 00 43.9** | **+0.4** |
| **TUTA** | **Tutak** | **0.76** | **312** | P | **Pg** | **00 00 31.9** | **-1.7** |
| TUTA | | | | S | **Sg** | **00 00 43.9** | **+0.4** |
| **AGRB** | **Hanur-Agry** | **0.80** | **328** | *e*PG | **Pg** | **00 00 34.5** | **+0.1** |
| AGRB | | | | *e*SG | **Sb** | **00 00 46.2** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **0.80** | **328** | *e*Pg | **Pg** | **00 00 34.5** | **+0.1** |
| AGRB | | | | *e*Sg | **Sb** | **00 00 46.2** | **-0.3** |
| **EKAR** | **Karacoban** | **1.20** | **288** | *e*P | **Pb** | **00 00 42.3** | **-0.1** |
| **EKAR** | **Karacoban** | **1.20** | **288** | *e*P | **Pg** | **00 00 41.4** | **-0.8** |
| EKAR | | | | *e*S | **Sn** | **00 01 00.3** | **+1.0** |
| EKAR | | | | IAML | | 00 01 07.2 | |
| | comp=Z,42nm,0.6s | | | | | | |
| **EKAR** | **Karacoban** | **1.20** | **288** | *i* P | **Pg** | **00 00 41.9** | **-0.3** |
| EKAR | | | | *i* S | **Sn** | **00 01 00.2** | **+0.9** |
| **EKAR** | **Karacoban** | **1.20** | **288** | P | **Pg** | **00 00 41.9** | **-0.3** |
| EKAR | | | | S | **Sn** | **00 01 00.2** | **+0.9** |
| **TASB** | **TASBURUN-IGDIR** | **1.21** | **26** | *e*PN | **Pn** | **00 00 42.5** | **0.0** |
| **TASB** | **TASBURUN-IGDIR** | **1.21** | **26** | *e*Pn | **Pn** | **00 00 42.5** | **0.0** |
| **EATA** | **Eleskirt** | **1.26** | **320** | *e*P | **Pg** | **00 00 42.0** | **-1.2** |
| EATA | | | | IAML | | 00 01 06.9 | |
| | comp=Z,11nm,0.4s | | | | | | |
| **EATA** | **Eleskirt** | **1.26** | **320** | *i* P | **Pg** | **00 00 42.3** | **-1.0** |
| EATA | | | | *i* S | **Sn** | **00 01 00.3** | **-0.5** |
| **EATA** | **Eleskirt** | **1.26** | **320** | P | **Pg** | **00 00 42.3** | **-1.0** |
| EATA | | | | S | **Sn** | **00 01 00.3** | **-0.5** |
| **DIGO** | **Kars** | **1.52** | **355** | *e*P | **Pb** | **00 00 47.7** | **-0.1** |
| **SRTM** | **Siirt_Merkez** | **1.56** | **235** | *i* P | **Pb** | **00 00 48.4** | **-0.1** |
| SRTM | | | | *i* S | **Sg** | **00 01 08.9** | **-0.4** |
| **SRTM** | **Siirt_Merkez** | **1.56** | **235** | P | **Pb** | **00 00 48.3** | **-0.1** |
| SRTM | | | | S | **Sg** | **00 01 08.9** | **-0.4** |
| **VRTB** | **Varto-Mus** | **1.65** | **280** | *e*PN | **Pn** | **00 00 48.9** | **+0.3** |
| **VRTB** | **Varto-Mus** | **1.65** | **280** | *i* P | **Pg** | **00 00 50.0** | **-0.6** |
| VRTB | | | | *i* S | **Sg** | **00 01 13.9** | **+1.9** |
| **VRTB** | **Varto-Mus** | **1.65** | **280** | *e*Pn | **Pn** | **00 00 48.9** | **+0.3** |
| **VRTB** | **Varto-Mus** | **1.65** | **280** | P | **Pg** | **00 00 50.0** | **-0.6** |
| **SIRT** | **Sirnak** | **1.65** | **212** | *e*PN | **Pn** | **00 00 49.1** | **+0.6** |
| **SIRT** | **Sirnak** | **1.65** | **212** | *e*Pn | **Pn** | **00 00 49.1** | **+0.6** |
| **CUKT** | **Cukurca** | **1.65** | **178** | *e*PN | **Pb** | **00 00 49.7** | **-0.3** |
| **CUKT** | **Cukurca** | **1.65** | **178** | *e*Pn | **Pb** | **00 00 49.7** | **-0.3** |
| **KARS** | **Kars** | **1.76** | **348** | *e*PN | **Pn** | **00 00 50.5** | **+0.3** |
| **KARS** | **Kars** | **1.76** | **348** | *e*Pn | **Pn** | **00 00 50.5** | **+0.3** |
| **SENK** | **Senkaya-Erzuru** | **1.90** | **331** | *e*PN | **Pn** | **00 00 52.9** | **+0.8** |
| **SENK** | **Senkaya-Erzuru** | **1.90** | **331** | *e*Pn | **Pn** | **00 00 52.9** | **+0.8** |
| **ERZM** | **Erzurum** | **1.96** | **301** | *e*P | **Pb** | **00 00 55.5** | **+0.1** |
| **ECAT** | **Cat-ERZURUM** | **2.12** | **290** | *e*P | **Pb** | **00 00 57.1** | **-0.8** |
| **ECAT** | **Cat-ERZURUM** | **2.12** | **290** | *e*P | **Pb** | **00 00 57.1** | **-0.8** |
| ECAT | | | | IAML | | 00 01 03.3 | |
| | comp=Z,5.9nm,0.3s | | | | | | |
| **YEDI** | **Yedisu-Bingol** | **2.39** | **284** | *e*PN | **Pn** | **00 00 59.6** | **+0.7** |
| **YEDI** | **Yedisu-Bingol** | **2.39** | **284** | *e*Pn | **Pn** | **00 00 59.6** | **+0.7** |

---

*ATA **06** 00:08:15.3±0.9, 39°.02N×43°.61E, h0km±3km, ML2.5, MW3.0*

*CSEM **06** 00:08:16.1, 38°.96N×43°.52E, h5km, MD2.7*

*ISK **06** 00:08:16.1, 38°.96N×43°.52E, h5km, MD2.7*

**ISC 06 00:08:16.7**±1.3**, 38°.97N**±0°.03×**43°.58E**±0°.05**, h5**km±11km**, n22,** σ**1ˢ.20**/32**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ERCV** | **ERCIS-VAN** | **0.19** | **284** | *e*PG | **Pg** | **00 08 19.8** | **-0.7** |
| **ERCV** | **ERCIS-VAN** | **0.19** | **284** | *e*Pg | **Pg** | **00 08 19.8** | **-0.7** |
| **VANB** | **Van** | **0.41** | **201** | *e*PG | **Pb** | **00 08 25.7** | **-0.7** |
| VANB | | | | *e*SG | **Sb** | **00 08 34.1** | **+1.1** |
| **VANB** | **Van** | **0.41** | **201** | *e*Pg | **Pb** | **00 08 25.7** | **-0.7** |
| VANB | | | | *e*Sg | **Sb** | **00 08 34.1** | **+1.1** |
| **DYDN** | **Diyadin** | **0.58** | **9** | *e*P | **Pg** | **00 08 26.9** | **-0.9** |
| DYDN | | | | *e*S | **Sg** | **00 08 36.4** | **+1.1** |
| DYDN | | | | IAML | | 00 08 45.4 | |
| | comp=Z,13nm,0.5s | | | | | | |
| **TUTA** | **Tutak** | **0.73** | **306** | *e*P | **Pb** | **00 08 30.4** | **-1.7** |
| TUTA | | | | *e*S | **Sb** | **00 08 42.4** | **-0.1** |
| TUTA | | | | IAML | | 00 08 45.8 | |
| | comp=Z,31nm,0.3s | | | | | | |
| **AGRB** | **Hanur-Agry** | **0.75** | **323** | *e*PG | **Pb** | **00 08 31.1** | **-1.4** |
| AGRB | | | | *e*SG | **Sb** | **00 08 43.1** | **0.0** |
| **AGRB** | **Hanur-Agry** | **0.75** | **323** | *e*Pg | **Pb** | **00 08 31.1** | **-1.4** |
| AGRB | | | | *e*Sg | **Sb** | **00 08 43.1** | **0.0** |
| **GEVA** | **Gevas** | **0.77** | **212** | *e*P | **Pb** | **00 08 32.2** | **-0.5** |
| GEVA | | | | *e*S | **Sn** | **00 08 46.0** | **-0.6** |
| GEVA | | | | IAML | | 00 08 48.6 | |
| | comp=Z,15nm,0.6s | | | | | | |
| **TASB** | **TASBURUN-IGDIR** | **1.13** | **27** | *e*PN | **Pn** | **00 08 39.9** | **+0.6** |
| **TASB** | **TASBURUN-IGDIR** | **1.13** | **27** | *e*Pn | **Pn** | **00 08 39.9** | **+0.6** |
| **EATA** | **Eleskirt** | **1.22** | **317** | *e*P | **Pg** | **00 08 39.4** | **-0.8** |
| EATA | | | | *e*S | **Sn** | **00 08 58.9** | **+1.0** |
| EATA | | | | IAML | | 00 09 08.0 | |
| | comp=Z,5.3nm,0.9s | | | | | | |
| **DIGO** | **Kars** | **1.45** | **354** | *e*P | **Pn** | **00 08 43.5** | **-0.4** |
| DIGO | | | | IAML | | 00 08 55.9 | |
| | comp=Z,1.8nm,0.5s | | | | | | |
| DIGO | | | | *e*S | **Sg** | **00 09 04.4** | **+1.2** |
| **VRTB** | **Varto-Mus** | **1.66** | **277** | *e*PN | **Pg** | **00 08 47.1** | **-1.4** |
| **VRTB** | **Varto-Mus** | **1.66** | **277** | *e*Pn | **Pg** | **00 08 47.1** | **-1.4** |
| **HOMI** | **Horasan** | **1.68** | **310** | *e*P | **Pg** | **00 08 48.5** | **-0.4** |
| HOMI | | | | IAML | | 00 08 57.1 | |
| | comp=Z,3.1nm,0.5s | | | | | | |
| HOMI | | | | *e*S | **Sg** | **00 09 14.4** | **+3.8** |
| **SIRT** | **Sirnak** | **1.72** | **212** | *e*PN | **Pb** | **00 08 48.0** | **-0.9** |
| **SIRT** | **Sirnak** | **1.72** | **212** | *e*Pn | **Pb** | **00 08 48.0** | **-0.9** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CUKT** | **Cukurca** | **1.72** | **179** | *e*PN | **Pb** | **00 08 47.9** | **-1.0** |
| **CUKT** | **Cukurca** | **1.72** | **179** | *e*Pn | **Pb** | **00 08 47.9** | **-1.0** |
| **SENK** | **Senkaya-Erzuru** | **1.84** | **330** | *e*PN | **Pb** | **00 08 50.6** | **-0.5** |
| **SENK** | **Senkaya-Erzuru** | **1.84** | **330** | *e*Pn | **Pb** | **00 08 50.6** | **-0.5** |

*ISCJB **06** 00:43:11.6±1.2, 36°.64N±0°.07×71°.3E±0°.1, h114km, Error ellipse: s-maj=11.9km s-min=10.0km az=149.6*
*NNC **06** 00:43:16.1±2.2, 36°.96N×71°.14E, h156km±27km, mb2.5, mpv3.5, Error ellipse: s-maj=20.4km s-min=9.6km az=158.0*
**ISC 06 00:43:10.6**±1.5**, 36°.53N**±0°.08×**71°.35E**±0°.09**, h114**km**, n6,** σ**2.36**/12**, 6C-3D, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZET** | **Dzherino** | **3.03** | **319** | ⇓P | **Pn** | **00 43 58.6** | **+1.4** |
| | 11nm,0.4s | | | | | | |
| DZET | | | | ⇑S | **Sn** | **00 44 32.3** | **-0.7** |
| | 105nm,0.4s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **3.86** | **25** | ⇑P | **Pn** | **00 44 10.9** | **+2.5** |
| | 1.3nm,0.3s | | | | | | |
| SFK | | | | ⇓S | **Sn** | **00 44 54.6** | **+1.5** |
| | 4.7nm,0.4s | | | | | | |
| **THN** | **Thein Dam** | **5.45** | **137** | *e*P | **Pn** | **00 44 32.0** | **+2.5** |
| THN | | | | *e*S | **Sn** | **00 45 28.6** | **-2.4** |
| **MNAS** | **Manas** | **6.01** | **8** | ⇑P | **Pn** | **00 44 38.4** | **+1.1** |
| | 2.0nm,0.4s | | | | | | |
| MNAS | | | | ⇑S | **Sn** | **00 45 41.6** | **-3.2** |
| | 5.4nm,0.4s | | | | | | |
| **AAK** | **Ala-Archa** | **6.56** | **21** | ⇑P | **Pn** | **00 44 45.8** | **+1.1** |
| | 3.0nm,0.7s | | | | | | |
| AAK | | | | ⇑S | **Sn** | **00 45 56.2** | **-1.9** |
| | 2.0nm,0.6s | | | | | | |
| **KK31** | **Karatay Array** | **6.59** | **355** | P | **Pn** | **00 44 45.8** | **+0.8** |
| | 5.0nm,0.4s,baz=192,slow=10,SNR=23 | | | | | | |
| KK31 | | | | ⇓S | **Sn** | **00 45 55.4** | **-3.3** |
| | 1.3nm,0.3s,baz=185,slow=26,SNR=8.4 | | | | | | |

*SJA **06** 00:58:19.4±0.9, 23°.05S×66°.81W, h219km±20km, ML3.1, MW2.7*
*ISCJB **06** 00:58:21.0±0.4, 23°.15S±0°.05×66°.81W±0°.04, h208km, mb3.4/1, Error ellipse: s-maj=7.0km s-min=4.1km az=20.0*
*GUC **06** 00:58:22.1±0.3, 23°.00S×67°.25W, h246km±9km, ML4.3*
*IDC **06** 00:58:25.8±9.6, 22°.70S×66°.39W, h242km±65km, mb3.2/1, mb1 3.3/3, mb1mx3.0/16, mbtmp3.8/3, Error ellipse: s-maj=112.5km s-min=35.3km az=25.0*
**ISC 06 00:58:20.4**±0.9**, 23°.14S**±0°.06×**66°.77W**±0°.04**, h208**km**, n20,** σ**1.10**/32**, 3C-6D, Jujuy Province**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HJA** | **Humahuaca** | **1.25** | **94** | *e*P | **Pn** | **00 58 54.4** | **+1.2** |
| **YJA** | **Yavi** | **1.50** | **51** | *e*P | **Pn** | **00 58 56.6** | **+1.3** |
| YJA | | | | IAML | | 00 58 57.7 | |
| | comp=Z,101nm,0.3s | | | | | | |
| YJA | | | | *e*S | **S** | **00 59 22.9** | **+0.8** |
| **AZAP** | **Zapla** | **1.90** | **125** | *e*P | **Pn** | **00 58 59.6** | **+0.8** |
| **SLA** | **San Lorenzo** | **1.95** | **144** | *e*P | **Pn** | **00 59 01.1** | **+1.8** |
| **ASTB** | **Santa Barbara** | **2.27** | **111** | *e*P | **Pn** | **00 59 03.4** | **+0.9** |
| **PB06** | **IPOC Station P** | **2.62** | **279** | ⇓*i*P | **Pn** | **00 59 07.7** | **+1.4** |
| PB06 | | | | *e*S | **S** | **00 59 42.4** | **+0.7** |
| PB06 | | | | IAML | | 00 59 43.1 | |
| | comp=N,437nm,0.1s | | | | | | |
| **ALOL** | **LOMAS DE OLMED** | **2.64** | **105** | *e*P | **Pn** | **00 59 06.9** | **+0.5** |
| ALOL | | | | *e*S | **S** | **00 59 42.9** | **+1.0** |
| **PB09** | **IPOC Station P** | **2.65** | **300** | ⇑*i*P | **Pn** | **00 59 08.5** | **+1.8** |
| PB09 | | | | *i* S | **S** | **00 59 43.3** | **+1.0** |
| PB09 | | | | IAML | | 00 59 48.1 | |
| | comp=N,642nm,0.1s | | | | | | |
| **FSA** | **Cafayete** | **3.05** | **167** | *e*P | **Pn** | **00 59 12.5** | **+1.3** |
| **PB07** | **IPOC Station P** | **3.21** | **295** | ⇓*i*P | **Pn** | **00 59 14.1** | **+0.9** |
| PB07 | | | | *i* S | **S** | **00 59 53.4** | **-0.5** |
| PB07 | | | | IAML | | 00 59 54.7 | |
| | comp=N,685nm,0.3s | | | | | | |
| **PB04** | **IPOC Station P** | **3.23** | **284** | ⇓*i*P | **Pn** | **00 59 14.3** | **+1.0** |
| PB04 | | | | *i* S | **S** | **00 59 53.8** | **-0.4** |
| PB04 | | | | IAML | | 00 59 58.4 | |
| | comp=N,376nm,0.1s | | | | | | |
| **PB01** | **IPOC Station P** | **3.27** | **309** | ⇑*i*P | **Pn** | **00 59 14.9** | **+1.1** |
| PB01 | | | | *e*S | **S** | **00 59 55.1** | **0.0** |
| PB01 | | | | IAML | | 00 59 57.2 | |
| | comp=E,360nm,0.2s | | | | | | |
| **ANCH** | **Antofagasta** | **3.39** | **260** | ⇓*i*P | **Pn** | **00 59 16.4** | **+1.3** |
| ANCH | | | | *e*S | **S** | **00 59 57.1** | **-0.3** |
| **PB02** | **IPOC Station P** | **3.42** | **301** | ⇓*i*P | **Pn** | **00 59 16.2** | **+0.7** |
| PB02 | | | | *i* S | **S** | **00 59 57.6** | **-0.6** |
| PB02 | | | | IAML | | 01 00 02.3 | |
| | comp=N,413nm,0.2s | | | | | | |
| **PB10** | **IPOC Station P** | **3.50** | **263** | ⇑*i*P | **Pn** | **00 59 17.2** | **+0.8** |
| PB10 | | | | *i* S | **S** | **00 59 59.2** | **-0.6** |
| PB10 | | | | IAML | | 01 00 01.9 | |
| | comp=N,390nm,0.1s | | | | | | |
| **PB08** | **IPOC Station P** | **3.72** | **323** | ⇓*i*P | **Pn** | **00 59 21.3** | **+1.8** |
| PB08 | | | | *e*S | **S** | **01 00 06.5** | **+1.2** |
| PB08 | | | | IAML | | 01 00 09.8 | |
| | comp=N,108nm,0.2s | | | | | | |
| **LPAZ** | **La Paz** | **6.93** | **349** | P | **Pn** | **01 00 01.6** | **+1.1** |
| | comp=N,0.5nm,0.3s,baz=174,slow=8.7,SNR=9.9 | | | | | | |
| LPAZ | | | | S | **S** | **01 01 19.1** | **-0.7** |
| | comp=N,0.1nm,0.3s,baz=6.7,slow=17,SNR=3.4 | | | | | | |
| **BDFB** | **Brasilia** | **19.18** | **70** | P | **P** | **01 02 27.7** | **-1.1** |
| | comp=N,0.5nm,0.3s,baz=334,slow=15,SNR=8.4 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **76.06** | **69** | P | **P** | **01 09 43.8** | **-1.6** |
| | comp=N,0.5nm,0.5s,baz=251,slow=5.5,SNR=12 | | | | | | |
| **MKAR** | **Makanchi Array** | **145.72** | **39** | PKPbc | **PKPbc** | **01 17 34.8** | **-0.1** |
| | comp=N,0.6nm,0.8s,baz=325,slow=3.0,SNR=4.5 | | | | | | |

*NSSP **06** 01:13:36.7, 39°.33N×44°.02E, h10km, Ms3.3*
*ATA **06** 01:13:39.2±1.2, 39°.48N×43°.98E, h0km±4km, ML3.7, MW3.7*
*ISK **06** 01:13:40.0, 39°.48N×43°.98E, h5km, ML2.9*
*CSEM **06** 01:13:41.3±0.3, 39°.49N×43°.98E, h2km, ML2.9, Error ellipse: s-maj=9.6km s-min=4.8km az=125.0*
**ISC 06 01:13:40.5**±1.2**, 39°.46N**±0°.03×**44°.01E**±0°.03**, h6**km±10km**, n42,** σ**1.40**/59**, 2C-2D, Iran-Armenia-Azerbaijan border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DYDN** | **Diyadin** | **0.26** | **288** | ⇑*e*P | **Pg** | **01 13 45.4** | **-0.4** |
| DYDN | | | | *e*S | **Sg** | **01 13 49.5** | **+0.2** |
| DYDN | | | | IAML | | 01 14 00.9 | |
| | comp=Z,2μm,0.7s | | | | | | |
| **TASB** | **TASBURUN-IGDIR** | **0.55** | **18** | *e*PG | **Pg** | **01 13 51.0** | **0.0** |
| TASB | | | | *e*SG | **Sb** | **01 14 00.5** | **-0.2** |
| **TASB** | **TASBURUN-IGDIR** | **0.55** | **18** | *e*Pg | **Pg** | **01 13 51.1** | **0.0** |
| TASB | | | | *e*Sg | **Sb** | **01 14 00.5** | **-0.2** |
| **ERCV** | **ERCIS-VAN** | **0.69** | **230** | *e*PG | **Pb** | **01 13 53.8** | **-1.2** |
| ERCV | | | | *e*SG | **Sb** | **01 14 04.8** | **+0.1** |
| **ERCV** | **ERCIS-VAN** | **0.69** | **230** | *e*Pg | **Pb** | **01 13 53.8** | **-1.2** |
| ERCV | | | | *e*Sg | **Sb** | **01 14 04.8** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **0.80** | **278** | *e*PG | **Pb** | **01 13 55.7** | **-1.2** |
| AGRB | | | | *e*SG | **Sb** | **01 14 08.0** | **0.0** |
| **AGRB** | **Hanur-Agry** | **0.80** | **278** | *e*Pg | **Pb** | **01 13 55.7** | **-1.2** |
| AGRB | | | | *e*Sg | **Sb** | **01 14 08.0** | **0.0** |
| **GNI** | **Garni** | **0.89** | **39** | ⇓*i*P | **Pg** | **01 13 57.1** | **-0.4** |
| GNI | | | | ⇑*i*S | **Sn** | **01 14 12.1** | **-0.8** |
| **GNI** | **Garni** | **0.89** | **39** | ⇓P | **Pg** | **01 13 57.1** | **-0.4** |
| GNI | | | | S | **Sn** | **01 14 12.1** | **-0.8** |
| **TUTA** | **Tutak** | **0.93** | **267** | *e*P | **Pg** | **01 13 57.8** | **-0.6** |
| TUTA | | | | *e*S | **Sb** | **01 14 11.7** | **-0.2** |
| TUTA | | | | IAML | | 01 14 18.1 | |
| | comp=Z,283nm,0.8s | | | | | | |
| **VANB** | **Van** | **0.99** | **209** | *e*PG | **Pn** | **01 14 01.6** | **+0.5** |
| **VANB** | **Van** | **0.99** | **209** | *e*Pg | **Pn** | **01 14 01.6** | **+0.5** |
| **DIGO** | **Kars** | **1.07** | **333** | *e*P | **Pg** | **01 14 00.2** | **-0.9** |
| DIGO | | | | *e*S | **Sn** | **01 14 18.2** | **+0.7** |
| DIGO | | | | IAML | | 01 14 24.1 | |
| | comp=Z,59nm,0.4s | | | | | | |
| **EATA** | **Eleskirt** | **1.24** | **289** | *e*P | **Pb** | **01 14 03.5** | **-1.0** |
| EATA | | | | *e*S | **Sn** | **01 14 23.2** | **+1.3** |
| EATA | | | | IAML | | 01 14 25.2 | |
| | comp=Z,38nm,0.4s | | | | | | |
| **EAK** | **Akyaka** | **1.26** | **346** | *e*P | **Pn** | **01 14 04.4** | **-0.4** |
| EAK | | | | *e*S | **Sn** | **01 14 24.3** | **+2.1** |
| EAK | | | | IAML | | 01 14 34.6 | |
| | comp=Z,64nm,0.5s | | | | | | |
| **KARS** | **Kars** | **1.37** | **329** | *e*PN | **Pg** | **01 14 06.7** | **0.0** |
| **KARS** | **Kars** | **1.37** | **329** | *e*Pn | **Pg** | **01 14 06.7** | **0.0** |
| **GEVA** | **Gevas** | **1.37** | **213** | *e*P | **Pb** | **01 14 06.1** | **-0.6** |
| GEVA | | | | IAML | | 01 14 13.2 | |
| | comp=Z,25nm,0.4s | | | | | | |
| GEVA | | | | *e*S | **Sn** | **01 14 27.6** | **+2.8** |
| **EKAR** | **Karacoban** | **1.52** | **263** | *e*P | **Pg** | **01 14 09.6** | **-0.1** |
| EKAR | | | | *e*S | **Sg** | **01 14 31.6** | **+2.1** |
| EKAR | | | | IAML | | 01 14 49.4 | |
| | comp=Z,52nm,0.6s | | | | | | |
| **SENK** | **Senkaya-Erzuru** | **1.68** | **311** | *e*PN | **Pg** | **01 14 11.5** | **-1.3** |
| **SENK** | **Senkaya-Erzuru** | **1.68** | **311** | *e*Pn | **Pg** | **01 14 11.5** | **-1.3** |
| **HOMI** | **Horasan** | **1.73** | **290** | *e*P | **Pg** | **01 14 12.6** | **-1.0** |
| HOMI | | | | IAML | | 01 14 19.4 | |
| | comp=Z,54nm,0.5s | | | | | | |
| HOMI | | | | *e*S | **Sg** | **01 14 38.7** | **+2.7** |
| **AKH** | **Akhalkalaki** | **1.98** | **349** | *e*PN | **Pb** | **01 14 16.3** | **-0.8** |
| **AKH** | **Akhalkalaki** | **1.98** | **349** | *e*Pn | **Pb** | **01 14 16.3** | **-0.8** |
| **VRTB** | **Varto-Mus** | **2.01** | **262** | *e*PN | **Pb** | **01 14 16.1** | **-1.4** |
| **VRTB** | **Varto-Mus** | **2.01** | **262** | *e*Pn | **Pb** | **01 14 16.1** | **-1.4** |
| **ERZM** | **Erzurum** | **2.09** | **283** | *e*P | **Pg** | **01 14 19.6** | **-1.0** |
| **CUKT** | **Cukurca** | **2.23** | **188** | *e*PN | **Pb** | **01 14 19.9** | **-1.5** |
| **CUKT** | **Cukurca** | **2.23** | **188** | *e*Pn | **Pb** | **01 14 19.9** | **-1.5** |
| **EPOS** | **Posof** | **2.26** | **335** | *e*P | **Pb** | **01 14 21.3** | **-0.5** |
| EPOS | | | | IAML | | 01 14 34.6 | |
| | comp=Z,4.3nm,0.5s | | | | | | |
| **BNGL** | **BINGOL** | **2.28** | **258** | *e*P | **Pb** | **01 14 21.4** | **-0.8** |
| BNGL | | | | IAML | | 01 15 02.8 | |
| | comp=Z,63nm,0.6s | | | | | | |
| **SIRT** | **Sirnak** | **2.32** | **213** | *e*PN | **Pb** | **01 14 21.0** | **-1.7** |
| **SIRT** | **Sirnak** | **2.32** | **213** | *e*Pn | **Pb** | **01 14 21.0** | **-1.7** |
| **TBLG** | **Delisi** | **2.33** | **13** | *e*PN | **Pb** | **01 14 21.2** | **-1.7** |
| **TBLG** | **Delisi** | **2.33** | **13** | P | **Pb** | **01 14 21.3** | **-1.6** |
| TBLG | | | | S | **Sg** | **01 14 59.2** | **+3.8** |
| **TBLG** | **Delisi** | **2.33** | **13** | *e*Pn | **Pb** | **01 14 21.2** | **-1.7** |
| **ECAT** | **Cat-ERZURUM** | **2.35** | **274** | *e*P | **Pb** | **01 14 23.2** | **-0.3** |
| ECAT | | | | IAML | | 01 15 02.7 | |
| | comp=Z,19nm,0.4s | | | | | | |
| **BNGB** | **Bingˆ¶l** | **2.63** | **261** | *e*PN | **Pb** | **01 14 25.3** | **-2.8** |
| **YEDI** | **Yedisu-Bingol** | **2.69** | **271** | *e*PN | **Pb** | **01 14 26.3** | **-2.8** |
| **YEDI** | **Yedisu-Bingol** | **2.69** | **271** | *e*Pn | **Pb** | **01 14 26.3** | **-2.8** |
| **KOPT** | **Kop Dagi** | **2.77** | **283** | *e*P | **Pb** | **01 14 28.8** | **-1.7** |
| KOPT | | | | IAML | | 01 14 38.6 | |
| | comp=Z,15nm,0.5s | | | | | | |
| **BINT** | **Bingol** | **2.80** | **259** | *e*Pn | **Pn** | **01 14 25.3** | **-0.7** |

**MAN 06 01:18:28, 13°.48N×120°.60E, h81**km**, mb3.5, ML2.2, MS1.6, 1D, Mindoro**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PGP** | **Puerto Galera** | **0.34** | **86** | ⇓*e*P | Pn | 01 18 43.1 | +2.4 |
| PGP | | | | *i* S | Sn | 01 18 54.3 | +4.2 |
| **LUBP** | **Lubang** | **0.43** | **306** | *e*P | Pn | 01 18 44.1 | +2.9 |
| **SJMP** | **San Jose** | **1.13** | **153** | *e*P | Pn | 01 18 50.5 | +1.8 |

*CSEM **06** 01:20:11.3, 38°.83N×43°.55E, h5km, MD2.9*
*ATA **06** 01:20:11.2±1.1, 38°.85N×43°.48E, h0km±8km, ML2.6, MW2.8*
*ISK **06** 01:20:11.3, 38°.83N×43°.55E, h5km, MD2.9*
*ISCJB **06** 01:20:13.0±0.8, 38°.85N±0°.03×43°.57E±0°.08, h13km, Error ellipse: s-maj=9.0km s-min=4.4km az=177.0*
**ISC 06 01:20:12.2**±1.0**, 38°.84N**±0°.02×**43°.55E**±0°.05**, h13**km**, n24,** σ**0.72**/30**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ERCV** | **ERCIS-VAN** | **0.24** | **318** | *e*PG | **Pg** | **01 20 17.2** | **-0.3** |
| **ERCV** | **ERCIS-VAN** | **0.24** | **318** | *e*Pg | **Pg** | **01 20 17.2** | **-0.3** |
| **VANB** | **Van** | **0.28** | **207** | *e*PG | **Pb** | **01 20 18.9** | **-0.2** |
| VANB | | | | *e*SG | **Sb** | **01 20 24.9** | **+1.3** |
| **VANB** | **Van** | **0.28** | **207** | *e*Pg | **Pb** | **01 20 18.9** | **-0.2** |
| VANB | | | | *e*Sg | **Sb** | **01 20 24.9** | **+1.3** |
| **GEVA** | **Gevas** | **0.65** | **216** | *e*P | **Pg** | **01 20 24.8** | **-0.2** |
| GEVA | | | | IAML | | 01 20 39.2 | |
| | comp=Z,13nm,0.5s | | | | | | |
| **DYDN** | **Diyadin** | **0.71** | **9** | *e*P | **Pg** | **01 20 25.7** | **-0.3** |
| DYDN | | | | IAML | | 01 20 43.3 | |
| | comp=Z,15nm,0.3s | | | | | | |
| **TUTA** | **Tutak** | **0.80** | **315** | *e*P | **Pg** | **01 20 27.1** | **-0.7** |
| TUTA | | | | *e*S | **Sb** | **01 20 39.8** | **+0.7** |
| TUTA | | | | IAML | | 01 20 43.0 | |
| | comp=Z,42nm,0.3s | | | | | | |
| **AGRB** | **Hanur-Agry** | **0.85** | **330** | *e*PG | **Pg** | **01 20 28.4** | **-0.4** |
| AGRB | | | | *e*SG | **Sn** | **01 20 42.2** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **0.85** | **330** | *e*Pg | **Pg** | **01 20 28.4** | **-0.4** |
| AGRB | | | | *e*Sg | **Sn** | **01 20 42.3** | **-0.3** |
| **EKAR** | **Karacoban** | **1.23** | **290** | *e*P | **Pn** | **01 20 34.2** | **-1.1** |
| EKAR | | | | IAML | | 01 21 02.4 | |
| | comp=Z,6.1nm,0.4s | | | | | | |
| **TASB** | **TASBURUN-IGDIR** | **1.26** | **25** | *e*PN | **Pg** | **01 20 36.4** | **0.0** |
| **TASB** | **TASBURUN-IGDIR** | **1.26** | **25** | *e*Pn | **Pg** | **01 20 36.4** | **0.0** |
| **EATA** | **Eleskirt** | **1.31** | **322** | *e*P | **Pb** | **01 20 37.1** | **+0.2** |
| EATA | | | | *e*S | **Sg** | **01 20 56.1** | **+1.6** |
| EATA | | | | IAML | | 01 21 00.6 | |
| | comp=Z,2.1nm,0.5s | | | | | | |
| **DIGO** | **Kars** | **1.58** | **355** | *e*P | **Pg** | **01 20 42.8** | **+0.2** |
| DIGO | | | | IAML | | 01 21 17.4 | |
| | comp=Z,4.9nm,0.2s | | | | | | |
| **CUKT** | **Cukurca** | **1.59** | **178** | *e*PN | **Pg** | **01 20 41.9** | **-0.8** |
| **CUKT** | **Cukurca** | **1.59** | **178** | *e*Pn | **Pg** | **01 20 41.9** | **-0.8** |
| **SIRT** | **Sirnak** | **1.60** | **214** | *e*PN | **Pb** | **01 20 41.9** | **+0.3** |
| **SIRT** | **Sirnak** | **1.60** | **214** | *e*Pn | **Pb** | **01 20 41.9** | **+0.3** |
| **VRTB** | **Varto-Mus** | **1.66** | **282** | *e*PN | **Pb** | **01 20 43.0** | **+0.2** |
| **VRTB** | **Varto-Mus** | **1.66** | **282** | *e*Pn | **Pb** | **01 20 43.0** | **+0.2** |
| **SENK** | **Senkaya-Erzuru** | **1.95** | **332** | *e*PN | **Pb** | **01 20 47.1** | **-0.7** |
| **SENK** | **Senkaya-Erzuru** | **1.95** | **332** | *e*Pn | **Pb** | **01 20 47.1** | **-0.7** |
| **BNGB** | **Bingˆ¶l** | **2.25** | **275** | *e*PN | **Pb** | **01 20 51.1** | **-1.5** |
| **BINT** | **Bingol** | **2.39** | **272** | *e*Pn | **Pn** | **01 20 51.1** | **-0.1** |

*IDC **06** 01:22:22.5±0.5, 12°.22N×91°.87E, h0km, mb4.2/19, mb1 4.3/21, mb1mx4.1/47, mbtmp4.2/21, ML4.1/2, MS3.3/5, Ms1 3.3/5, ms1mx2.9/44, Error ellipse: s-maj=20.8km s-min=12.7km az=52.0*
*ISCJB **06** 01:22:25.6±0.3, 12°.28N±0°.04×91°.84E±0°.03, h33km, mb4.5/38, MS3.8/3, Error ellipse: s-maj=6.2km s-min=3.8km az=34.9*
*NEIC **06** 01:22:27.9±0.8, 12°.21N×91°.86E, h38km±7km, mb4.7/20, Error ellipse: s-maj=6.8km s-min=4.7km az=57.0*
*BKK **06** 01:22:49.7±2.2, 12°N±6°×9°4E±2°3, h10km, mB4.3/5, mb4.3/9, MLv4.1/6, Mw(mB)3.4/5*
**ISC 06 01:22:27.9**±0.4**, 12°.38N**±0°.06×**91°.96E**±0°.05**, h35**km**, n111,** σ**1.50**/106**, mb4.4**/38**, MS3.5**/3**, 3C-2D, Andaman Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SRDT** | **SRDT** | **7.24** | **73** | P | Pn | 01 24 23.1 | +12 |
| **PHET** | **Kaeng Krachan** | **7.51** | **85** | P | **Pn** | **01 24 17.4** | **+2.5** |
| | 20nm,0.7s,220nm0.1nm | | | | | | |
| **SURT** | **Suratani** | **7.53** | **116** | P | **Pn** | **01 24 17.5** | **+2.3** |
| | 13nm,0.7s,0.0nm | | | | | | |
| **PKDT** | **Phuket** | **7.70** | **125** | P | **Pn** | **01 24 19.3** | **+1.7** |
| | 33nm,1.0s,0.5nm | | | | | | |
| **KRAB** | **Krabi** | **8.23** | **119** | P | **Pn** | **01 24 28.2** | **+3.3** |
| | 55nm,0.7s,1μm0.2nm | | | | | | |
| **SUKH** | **Sukhothai** | **8.99** | **55** | P | Pn | 01 24 45.0 | +10 |
| **CM31** | **Chiang Mai Arr** | **9.05** | **47** | *e*Pn | **Pn** | **01 24 38.8** | **+2.7** |
| CM31 | | | | *e*Sn | **Sn** | **01 26 12.6** | **-4.3** |
| **CMAR** | **Chiang Mai Arr** | **9.05** | **47** | Pn | **Pn** | **01 24 38.8** | **+2.7** |
| | 0.6nm,0.3s,baz=240,slow=15,SNR=8.1 | | | | | | |
| CMAR | | | | Sn | **Sn** | **01 26 12.6** | **-4.3** |
| | 0.7nm,0.3s,baz=239,slow=28,SNR=6.9 | | | | | | |
| CMAR | | | | LR | LR | 01 28 43.5 | |
| | comp=Z,82nm,21.0s,baz=231,slow=41 | | | | | | |
| **CHTO** | **Chiang Mai** | **9.29** | **46** | *e*Pn | **Pn** | **01 24 42.8** | **+3.4** |
| CHTO | | | | *e*Sn | **Sn** | **01 26 18.7** | **-4.0** |
| **PBKT** | **Sadao Pong** | **9.67** | **63** | P | Pn | 01 24 56.2 | +12 |
| **CHLP** | **Challavanipeta** | **9.75** | **310** | *e*P | **Pn** | **01 24 44.3** | **-1.5** |
| CHLP | | | | *e*S | Sn | 01 26 22.1 | -12 |
| **BWNR** | **Bhubaneshwar** | **9.84** | **324** | *e*P | Pn | 01 24 38.2 | -8.7 |
| BWNR | | | | *e*S | Sn | 01 26 18.6 | -18 |
| BWNR | | | | AML | AML | 01 26 24.7 | |
| | comp=N,330nm,0.4s | | | | | | |
| BWNR | | | | AML | AML | 01 26 25.5 | |
| | comp=E,576nm,0.4s | | | | | | |
| **VIS** | **Vishakhapatnam** | **9.88** | **304** | *i* P | **Pn** | **01 24 46.8** | **-0.7** |
| VIS | | | | *i* S | Sn | 01 26 26.4 | -11 |
| VIS | | | | *e*x | x | 01 26 28.0 | |
| | comp=E,108nm,0.2s | | | | | | |
| VIS | | | | *e*x | x | 01 26 30.8 | |
| | comp=N,278nm,0.5s | | | | | | |
| **BRDH** | **Bariadhala** | **10.25** | **358** | LR | LR | 01 29 45.0 | |
| | comp=N,197nm,20.1s,baz=142,slow=42 | | | | | | |
| **PVM** | **Polavaram** | **11.10** | **297** | *e*P | **Pn** | **01 25 04.2** | **0.0** |
| PVM | | | | *e*S | Sn | 01 26 54.6 | -13 |
| **SKHT** | **Srikalahasti** | **12.01** | **278** | *e*P | **Pn** | **01 25 15.8** | **-0.9** |
| SKHT | | | | *e*S | Sn | 01 27 15.1 | -14 |
| **ADKI** | **Addanki** | **12.13** | **288** | *e*P | **Pn** | **01 25 16.8** | **-1.5** |
| ADKI | | | | *e*S | Sn | 01 27 18.0 | -14 |
| **PALK** | **Pallekele** | **12.19** | **246** | Pn | **Pn** | **01 25 16.6** | **-2.6** |
| | comp=N,1.1nm,0.3s,baz=118,slow=12,SNR=4.8 | | | | | | |
| PALK | | | | Sn | Sn | 01 27 20.6 | -13 |
| | comp=N,5.9nm,0.3s,baz=116,slow=17,SNR=10 | | | | | | |
| PALK | | | | LR | LR | 01 29 29.3 | |
| | comp=N,156nm,20.7s,baz=116,slow=35 | | | | | | |
| **PALK** | **Pallekele** | **12.19** | **246** | *e*Pn | **Pn** | **01 25 16.6** | **-2.6** |
| PALK | | | | *e*Sn | Sn | 01 27 21.7 | -12 |
| **NJS** | **Nagarjunasagar** | **12.94** | **290** | *e*P | **Pn** | **01 25 28.8** | **-0.6** |
| NJS | | | | *e*S | Sn | 01 27 41.0 | -11 |
| **SRLM** | **Srisailam** | **13.20** | **288** | *e*P | **Pn** | **01 25 32.1** | **-0.8** |
| SRLM | | | | *e*S | Sn | 01 27 44.1 | -14 |
| **RPR** | **Rampur** | **13.79** | **299** | *e*P | Pn | 01 25 35.6 | -5.4 |
| RPR | | | | *e*S | Sn | 01 28 02.5 | -11 |
| **HYB** | **Hyderabad** | **13.89** | **293** | *i* P | **P** | **01 25 51.5** | **+1.4** |
| HYB | | | | *e*S | **Sn** | **01 28 15.0** | **-0.4** |
| **HYBB** | **Hyderabad (bro** | **13.89** | **293** | *e*S | Sn | 01 28 00.9 | -15 |
| **ODAN** | **Odare** | **15.04** | **344** | *e*P | **Pn** | **01 25 55.8** | **-2.2** |
| | comp=N,18nm,0.4s | | | | | | |
| **NGP** | **Nagpur** | **15.12** | **307** | *e*P | **Pn** | **01 26 00.3** | **+1.3** |
| NGP | | | | *e*x | x | 01 26 24.8 | |
| | comp=Z,22nm,1.6s | | | | | | |
| NGP | | | | *e*x | x | 01 28 30.2 | |
| **RAMN** | **Ramite** | **15.35** | **342** | *e*P | **Pn** | **01 26 00.9** | **-1.3** |
| | comp=Z,53nm,0.5s | | | | | | |
| **TAPN** | **Taplejung** | **15.42** | **346** | *e*P | **Pn** | **01 26 02.1** | **-1.1** |
| | comp=Z,41nm,0.6s | | | | | | |
| **JBP** | **Jabalpur** | **15.65** | **315** | *e*P | **Pn** | **01 26 06.8** | **+1.0** |
| JBP | | | | *e*x | x | 01 28 47.3 | |
| **KLRI** | **Killari** | **15.86** | **293** | *e*P | **Pn** | **01 26 08.1** | **-0.6** |
| KLRI | | | | *e*S | Sn | 01 28 48.5 | -15 |
| **JIRN** | **Jiri** | **16.14** | **341** | *e*P | **Pn** | **01 26 11.4** | **-1.1** |
| **PKI** | **Pulchoki** | **16.32** | **339** | *e*P | **Pn** | **01 26 13.4** | **-1.3** |
| | comp=Z,37nm,0.5s | | | | | | |
| **PKIN** | **Phulchoki** | **16.32** | **339** | *e*P | **Pn** | **01 26 13.4** | **-1.4** |
| | comp=Z,43nm,0.6s | | | | | | |
| PKIN | | | | *e*S | Sn | 01 29 03.5 | -11 |
| **DMN** | **Daman** | **16.46** | **338** | *e*P | **Pn** | **01 26 15.3** | **-1.1** |
| | comp=Z,46nm,0.6s | | | | | | |
| **GUN** | **Gumba** | **16.47** | **341** | *e*P | **Pn** | **01 26 15.8** | **-0.9** |
| | comp=Z,31nm,0.5s | | | | | | |
| **GKN** | **Gorkha** | **16.99** | **337** | *e*P | **Pn** | **01 26 22.5** | **-0.5** |
| **KOLN** | **Koldanda** | **17.20** | **334** | *e*P | **Pn** | **01 26 25.8** | **+0.1** |
| KOLN | | | | *e*S | Sn | 01 29 24.0 | -12 |
| **LSA** | **Lhasa** | **17.26** | **358** | *e*Pn | **P** | **01 26 28.0** | **+0.1** |
| | comp=Z,11nm,0.6s | | | | | | |
| **DANN** | **Dangsing** | **17.64** | **336** | *e*P | **Pn** | **01 26 30.7** | **-0.6** |
| **PYUN** | **Piuthan** | **17.75** | **333** | *e*P | **Pn** | **01 26 32.5** | **0.0** |
| **POO** | **Poona** | **18.49** | **292** | *e*P | **Pn** | **01 26 42.0** | **+0.5** |
| | comp=Z,68nm,1.2s | | | | | | |
| **ENH** | **Enshi** | **24.10** | **40** | *e*P | **P** | **01 27 38.6** | **-1.8** |
| | comp=Z,73nm,1.8s | | | | | | |
| **COCO** | **West Island** | **24.88** | **169** | *e*P | **P** | **01 27 44.2** | **-3.3** |
| | comp=Z,639nm,2.0s | | | | | | |
| **H08S3** | **Diego Garcia H** | **27.74** | **225** | T | T | 01 57 00.6 | |
| | baz=44,slow=74 | | | | | | |
| **H08S2** | **Diego Garcia H** | **27.75** | **225** | T | T | 01 57 01.7 | |
| | baz=44,slow=74 | | | | | | |
| **H08S1** | **Diego Carcia H** | **27.76** | **225** | T | T | 01 56 54.5 | |
| | baz=44 | | | | | | |
| **KBL** | **Kabul** | **30.33** | **320** | *e*P | **P** | **01 28 35.7** | **-0.8** |
| | comp=Z,4.4nm,0.9s | | | | | | |
| **AAK** | **Ala-Archa** | **33.75** | **337** | *e*P | **P** | **01 29 06.1** | **-0.2** |
| | comp=Z,2.5nm,0.8s | | | | | | |
| **MK01** | **Makanchi Array** | **35.24** | **348** | *e*P | **P** | **01 29 20.1** | **+1.0** |
| **MK31** | **Makanchi Array** | **35.26** | **348** | *e*P | **P** | **01 29 20.6** | **+1.4** |
| **MK32** | **Makanchi Array** | **35.26** | **348** | *e*P | **P** | **01 29 20.4** | **+1.1** |
| MK32 | | | | *e*PcP | **PcP** | **01 31 50.0** | **+0.6** |
| **MKAR** | **Makanchi Array** | **35.26** | **348** | P | **P** | **01 29 20.4** | **+1.1** |
| | comp=Z,2.9nm,0.8s,baz=171,slow=8.6,SNR=20 | | | | | | |
| MKAR | | | | PcP | **PcP** | **01 31 50.0** | **+0.6** |
| | comp=Z,0.5nm,0.6s,baz=172,slow=4.0,SNR=3.7 | | | | | | |
| **MAKZ** | **Makanchi** | **35.34** | **348** | *e*P | **P** | **01 29 20.8** | **+1.0** |
| | comp=Z,3.0nm,0.9s | | | | | | |
| **SONA0** | **Songino Array** | **37.36** | **16** | *e*P | **P** | **01 29 38.9** | **+1.7** |
| **SONM** | **Songino Array** | **37.36** | **16** | P | **P** | **01 29 38.9** | **+1.7** |
| | comp=Z,1.9nm,0.5s,baz=201,slow=8.4,SNR=16 | | | | | | |
| **SONA1** | **Songino Array** | **37.37** | **16** | *e*P | **P** | **01 29 38.9** | **+1.5** |
| **SOEI** | **Soe** | **38.91** | **123** | *e*P | **P** | **01 29 49.9** | **-0.8** |
| | comp=Z,42nm,1.5s | | | | | | |
| **GEYT** | **Alibeck** | **39.46** | **316** | P | **P** | **01 29 56.7** | **+1.8** |
| | comp=Z,13nm,0.8s,baz=146,slow=8.6,SNR=20 | | | | | | |
| GEYT | | | | LR | LR | 01 47 16.1 | |
| | comp=Z,64nm,19.2s,baz=355,slow=38 | | | | | | |
| **KURK** | **Kurchatov** | **39.76** | **347** | *e*P | **P** | **01 29 56.3** | **-0.8** |
| | comp=Z,4.6nm,1.1s | | | | | | |
| **ZAA0** | **Zalesovo Array** | **41.86** | **354** | *e*P | **P** | **01 30 15.5** | **+1.1** |
| | comp=Z,3.3nm,0.8s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.86** | **354** | P | **P** | **01 30 15.1** | **+0.7** |
| | comp=Z,2.5nm,0.6s,baz=178,slow=8.7,SNR=15 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **41.86** | **354** | *e*P | **P** | **01 30 15.1** | **+0.7** |
| **FITZ** | **Fitzroy Crossi** | **44.97** | **132** | P | **P** | **01 30 38.8** | **-1.1** |
| | comp=Z,3.9nm,0.7s,baz=332,slow=7.7,SNR=15 | | | | | | |
| **MDJ** | **Mudanjiang** | **45.44** | **38** | *e*P | **P** | **01 30 42.9** | **-0.5** |
| | comp=Z,26nm,1.5s | | | | | | |
| **AKTO** | **Aktyubinsk** | **46.99** | **331** | P | **P** | **01 30 56.0** | **+0.4** |
| | comp=Z,1.6nm,0.7s,baz=127,slow=10,SNR=6.4 | | | | | | |
| **GNI** | **Garni** | **49.80** | **313** | LR | LR | 01 54 21.9 | |
| | comp=Z,24nm,19.1s,baz=110,slow=38 | | | | | | |
| **GNI** | **Garni** | **49.80** | **313** | *e*P | **P** | **01 31 19.6** | **+2.0** |
| | comp=Z,13nm,1.0s | | | | | | |
| **KBZ** | **Khabaz** | **52.35** | **316** | P | **P** | **01 31 37.6** | **+1.2** |
| | comp=Z,1.6nm,0.8s,baz=112,slow=5.4,SNR=2.6 | | | | | | |
| **KIV** | **Kislovodsk** | **52.58** | **316** | *e*P | **P** | **01 31 39.6** | **+1.4** |
| | comp=Z,12nm,0.9s | | | | | | |
| **WR1** | **Warramunga Arr** | **52.64** | **127** | *e*P | **P** | **01 31 38.5** | **-0.5** |
| | comp=Z,9.4nm,0.6s | | | | | | |
| **WRA** | **Warramunga Arr** | **52.64** | **127** | P | **P** | **01 31 38.5** | **-0.5** |
| | comp=Z,6.8nm,0.7s,baz=305,slow=8.5,SNR=56 | | | | | | |
| **WRAB** | **Tennant Creek** | **52.65** | **127** | *e*P | **P** | **01 31 38.8** | **-0.2** |
| | comp=Z,8.8nm,0.6s | | | | | | |
| WRAB | | | | *e*S | **S** | **01 39 05.4** | **+1.0** |
| **WB2** | **Warramunga Arr** | **52.65** | **127** | *e*P | **P** | **01 31 38.4** | **-0.7** |
| **AS31** | **Alice Springs** | **54.46** | **131** | *e*P | **P** | **01 31 50.5** | **-1.7** |
| | comp=Z,1.1nm,0.8s | | | | | | |
| **ASAR** | **Alice Springs** | **54.46** | **131** | P | **P** | **01 31 51.9** | **-0.3** |
| | comp=Z,3.4nm,0.8s,baz=310,slow=7.3,SNR=29 | | | | | | |
| **AS01** | **Alice Springs** | **54.49** | **131** | *e*P | **P** | **01 31 51.8** | **-0.6** |
| **FORT** | **Forrest** | **55.18** | **142** | *e*P | **P** | **01 31 58.4** | **+1.1** |
| | comp=Z,141nm,0.9s | | | | | | |
| **BR101** | **Keskin Array S** | **57.91** | **309** | *e*P | **P** | **01 32 16.2** | **-0.6** |
| **BRTR** | **Keskin Array B** | **57.91** | **309** | P | **P** | **01 32 16.2** | **-0.6** |
| | comp=Z,1.9nm,0.8s,baz=126,slow=8.6,SNR=14 | | | | | | |
| **BR231** | **Keskin MP Arra** | **58.58** | **309** | *e*P | **P** | **01 32 16.9** | **-4.6** |
| **BBOO** | **Buckleboo** | **61.57** | **138** | *e*P | **P** | **01 32 41.5** | **-0.4** |
| | comp=Z,43nm,1.8s | | | | | | |
| **TIXI** | **Tiksi** | **63.29** | **12** | *ce*P | **P** | **01 32 52.8** | **+0.1** |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,12nm,2.5s | | | | | | |
| **TIXI** | **Tiksi** | **63.29** | **12** | *e*P | **P** | **01 32 53.1** | **+0.4** |
| | comp=Z,10nm,1.5s | | | | | | |
| **AKASG** | **Malin Array Be** | **63.32** | **321** | P | **P** | **01 32 52.4** | **-1.0** |
| | comp=Z,1.2nm,0.6s,baz=94,slow=3.6,SNR=6.3 | | | | | | |
| **AKBB** | **Malin Array Si** | **63.32** | **321** | *e*P | **P** | **01 32 52.4** | **-1.0** |
| | comp=Z,14nm,1.5s | | | | | | |
| **VRI** | **Vrincioaia** | **64.00** | **315** | ⇑*i*P | **P** | **01 32 59.3** | **+1.4** |
| **PLOR** | **Plostina** | **64.05** | **315** | ⇓*i*P | **P** | **01 32 59.6** | **+1.3** |
| **MLR** | **Muntele Rosu** | **64.48** | **315** | ⇑*i*P | **P** | **01 33 02.4** | **+1.1** |
| **MLR** | **Muntele Rosu** | **64.48** | **315** | *e*P | **P** | **01 33 00.8** | **-0.4** |
| | comp=Z,8.3nm,1.0s | | | | | | |
| **STKA** | **Stephens Creek** | **64.76** | **134** | P | **P** | **01 33 03.0** | **-0.1** |
| | comp=Z,0.8nm,0.6s,baz=332,slow=15,SNR=3.0 | | | | | | |
| **STKA** | **Stephens Creek** | **64.76** | **134** | *e*P | **P** | **01 33 03.0** | **-0.1** |
| | comp=Z,2.5nm,1.2s | | | | | | |
| **BUR04** | **Bucovina Ar. S** | **65.30** | **317** | *e*P | **P** | **01 33 06.6** | **+0.1** |
| **ARR** | **Arges** | **65.38** | **314** | ⇓*i*P | **P** | **01 33 07.3** | **+0.3** |
| **FIA0** | **FINESS Array S** | **67.75** | **332** | *e*P | **P** | **01 33 21.3** | **-0.4** |
| **FINES** | **FINESS Array B** | **67.75** | **332** | P | **P** | **01 33 21.3** | **-0.4** |
| | comp=Z,6.3nm,1.0s,baz=101,slow=5.8,SNR=3.1 | | | | | | |
| **ARA0** | **ARCESS Array S** | **70.33** | **340** | *e*P | **P** | **01 33 38.7** | **+1.0** |
| **ARCES** | **ARCESS Array B** | **70.33** | **340** | P | **P** | **01 33 38.7** | **+1.0** |
| | comp=Z,3.7nm,1.0s,baz=93,slow=7.1,SNR=3.5 | | | | | | |
| **HNR** | **Honiara** | **70.94** | **105** | LR | LR | 02 09 16.1 | |
| | comp=Z,505nm,18.1s,baz=98,slow=40 | | | | | | |
| **GERES** | **GERESS Array B** | **73.07** | **317** | P | **P** | **01 33 54.9** | **+0.2** |
| | comp=Z,1.2nm,0.7s,baz=101,slow=6.9,SNR=5.6 | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BOSA | Boshof | 76.21 | 236 | P | P | 01 34 12.9 | -0.3 |
| | comp=Z,2.8nm,0.8s,baz=102,slow=3.7,SNR=5.2 | | | | | | |
| ESDC | Sonseca Array | 86.70 | 310 | P | P | 01 35 08.5 | 0.0 |
| | comp=Z,0.1nm,0.4s,baz=70,slow=4.4,SNR=4.4 | | | | | | |
| TORD | Torodi Ar. Bea | 87.49 | 283 | P | P | 01 35 12.9 | +0.2 |
| | comp=Z,0.9nm,0.7s,baz=87,slow=4.8,SNR=8.5 | | | | | | |
| TOA1 | Torodi Ar. Sit | 87.49 | 283 | eP | P | 01 35 12.9 | +0.2 |
| INK | Inuvik | 93.27 | 15 | P | P | 01 35 38.9 | +0.3 |
| | comp=Z,0.7nm,0.4s,baz=300,slow=7.2,SNR=6.1 | | | | | | |
| INK | Inuvik | 93.27 | 15 | eP | P | 01 35 38.9 | +0.3 |
| | comp=Z,22nm,1.9s | | | | | | |
| PD31 | Pinedale Array | 121.69 | 19 | ePKPdf | PKPdf | 01 41 17.8 | -0.9 |
| PDAR | Pinedale Array | 121.69 | 19 | PKP | PKPdf | 01 41 17.8 | -0.9 |
| | comp=Z,0.3nm,0.7s,baz=262,slow=3.5,SNR=3.2 | | | | | | |
| LTX | Lajitas | 135.88 | 20 | ePKPdf | PKPdf | 01 41 46.5 | +0.6 |
| TXAR | Lajitas Array | 135.88 | 20 | PKP | PKPdf | 01 41 46.5 | +0.6 |
| | comp=Z,0.5nm,0.6s,baz=329,slow=3.4,SNR=2.7 | | | | | | |
| PLCA | Paso Flores | 147.84 | 205 | PKPbc | PKPbc | 01 42 09.9 | +0.3 |
| | comp=Z,1.0nm,0.5s,baz=174,slow=1.1,SNR=4.5 | | | | | | |
| CPUP | Villa Florida | 147.97 | 240 | PKPbc | PKPbc | 01 42 09.2 | -1.1 |
| | comp=Z,1.4nm,0.7s,baz=134,slow=2.6,SNR=3.7 | | | | | | |

---

**IDC 06 01:25:56.3±3.3, 17.71N×81.48W, h0km, mb3.5/2, mb1 4.0/2, mb1mx3.5/30, mbtmp3.5/2, Error ellipse: s-maj=140.7km s-min=45.2km az=61.0, North of Honduras**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TXAR | Lajitas Array | 23.36 | 304 | P | P | 01 31 07.2 | +0.5 |
| | 2.5nm,0.8s,baz=116,slow=10,SNR=7.9 | | | | | | |
| PDAR | Pinedale Array | 34.53 | 322 | P | P | 01 32 46.3 | -0.4 |
| | 0.2nm,0.5s,baz=121,slow=11,SNR=2.7 | | | | | | |
| WRA | Warramunga Arr | 146.06 | 260 | PKPbc | PKPdf | 01 45 38.2 | -0.1 |
| | 0.5nm,0.3s,baz=87,slow=3.6,SNR=16 | | | | | | |
| ASAR | Alice Springs | 146.43 | 254 | PKPbc | PKPdf | 01 45 39.4 | +0.5 |
| | 1.7nm,1.0s,baz=96,slow=3.9,SNR=6.5 | | | | | | |

---

*NIED **06** 01:26:00, 38.00N×141.90E, h47km, Mw4.8 Best double couple: Mo1.82000×10^16 NP1:φs190.00000°, δ14.00000°, λ140.00000°. NP2:φs319.00000°, δ81.00000°, λ80.00000°.*
*ISCJB **06** 01:26:07.9±0.6, 38.00N±0.03×141.86E±0.05, h52km±4km, mb4.5/44, MS3.6/13, Error ellipse: s-maj=7.3km s-min=3.9km az=25.4*
*MOS **06** 01:26:07.0±1.3, 38.06N×141.97E, h43km, mb4.9/9, Error ellipse: s-maj=10.0km s-min=7.1km az=79.9*
*JMA **06** 01:26:08.4±0.1, 38.03N×141.86E, h46km±1km, M4.4*
*JMA Felt II J1.*
*NEIC **06** 01:26:09.9±0.6, 38.02N×141.85E, h53km±5km, mb4.9/25, Error ellipse: s-maj=6.1km s-min=4.1km az=121.0*
*NEIC Recorded [2 JMA] in Fukushima, Iwate and Miyagi.*
*IDC **06** 01:26:09.3±0.7, 37.98N×141.85E, h48km±6km, mb4.0/19, mb1 4.2/23, mb1mx4.0/45, mbtmp4.2/23, MS3.5/17, Ms1 3.5/17, ms1mx3.3/41, Error ellipse: s-maj=15.1km s-min=11.2km az=95.0*
**ISC 06 01:26:08.9±0.7, 38.04N±0.04×141.89E±0.06, h43km±6km, h43km:pP-P, n129, σ1s36/140, mb4.6/44, MS3.6/13, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JIO | Ouri | 0.59 | 314 | P | Pn | 01 26 20.7 | -0.2 |
| JIO | | | | S | Sn | 01 26 28.9 | -0.6 |
| JMM | Marumori | 0.88 | 259 | P | Pn | 01 26 24.1 | -0.7 |
| JMM | | | | eS | Sn | 01 26 34.7 | -1.7 |
| JOU | Okura | 1.01 | 289 | P | Pn | 01 26 26.6 | -0.1 |
| JOU | | | | eS | Sn | 01 26 39.5 | -0.3 |
| JFK | Kawauchi | 1.05 | 230 | P | Pn | 01 26 26.2 | -0.9 |
| JMK | Ichinoseki | 1.05 | 330 | P | Pn | 01 26 27.1 | 0.0 |
| JMK | | | | eS | Sn | 01 26 40.7 | +0.2 |
| JFT | Otama | 1.33 | 247 | P | Pn | 01 26 31.0 | 0.0 |
| JFT | | | | eS | Sn | 01 26 47.4 | -0.2 |
| JYK | Kaneyama | 1.48 | 307 | P | Pn | 01 26 33.2 | +0.1 |
| JOM | Ohasama | 1.50 | 342 | P | Pn | 01 26 33.7 | +0.4 |
| JOM | | | | eS | Sn | 01 26 52.4 | +0.7 |
| JRG | Rokugo | 1.67 | 325 | P | Pn | 01 26 36.4 | +0.8 |
| JRG | | | | eS | Sn | 01 26 57.0 | +1.2 |
| JFY | Yanaizu | 1.84 | 251 | P | Pn | 01 26 38.1 | +0.1 |
| MJAR | Matsushiro Arr | 3.29 | 244 | P | Pn | 01 26 58.5 | +0.6 |
| | 18nm,0.3s,baz=55,slow=11,SNR=74 | | | | | | |
| MJAR | | | | S | Sn | 01 27 35.3 | -0.6 |
| | 11nm,0.3s,baz=72,slow=22,SNR=6.1 | | | | | | |
| MJAR | | | | LR | LR | 01 28 30.7 | |
| | comp=Z,2μm,20.4s,baz=70,slow=44 | | | | | | |
| MAJO | Matsushiro | 3.29 | 244 | eP | Pn | 01 26 59.2 | +1.3 |
| MAJO | | | | e | | 01 27 32.9 | |
| MAJO | Matsushiro | 3.29 | 244 | ePn | Pn | 01 26 59.2 | +1.3 |
| MAJO | | | | eSn | Sn | 01 27 32.9 | -3.0 |
| MAT | Matsushiro | 3.29 | 244 | P | Pn | 01 26 59.1 | +1.2 |
| MAT | | | | eS | Sn | 01 27 35.5 | -0.3 |
| MJB9 | Matsu-Tunnel | 3.29 | 244 | ePn | Pn | 01 26 59.4 | +1.5 |
| MJB9 | | | | eSn | Sn | 01 27 32.5 | -3.3 |
| ERM | Erimo | 4.09 | 13 | eP | Pn | 01 27 08.8 | 0.0 |
| ERM | | | | e | | 01 27 55.9 | |
| ERM | Erimo | 4.09 | 13 | ePn | Pn | 01 27 08.8 | 0.0 |
| ERM | | | | eSn | Sn | 01 27 55.9 | +0.6 |
| INU | Inuyama | 4.75 | 237 | ePn | Pn | 01 27 19.5 | +1.6 |
| JHJ2 | Mitsune | 5.20 | 200 | ePn | Pn | 01 27 23.6 | -0.5 |
| JHJ2 | | | | eSn | Sn | 01 28 19.2 | -3.6 |
| JHJ | Hachijo jima 2 | 5.20 | 200 | P | Pn | 01 27 23.8 | -0.3 |
| | 133nm,0.3s,baz=333,slow=4.5,SNR=12 | | | | | | |
| JHJ | | | | S | Sn | 01 28 18.8 | -4.1 |
| | 36nm,0.3s,baz=71,slow=23,SNR=6.3 | | | | | | |
| ASAJ | Asahikawa | 6.09 | 5 | P | Pn | 01 27 36.4 | +0.1 |
| | 7.5nm,0.3s,baz=235,slow=12,SNR=11 | | | | | | |
| ASAJ | | | | S | Sn | 01 28 45.1 | +0.4 |
| | 5.0nm,0.3s,baz=148,slow=19,SNR=3.6 | | | | | | |
| ASAJ | Asahikawa | 6.09 | 5 | ePn | Pn | 01 27 36.3 | -0.1 |
| ASAJ | | | | eSn | Sn | 01 28 43.0 | -1.7 |
| SHO | Shikotan | 6.92 | 31 | eP | Pn | 01 27 44.8 | -2.9 |
| SHO | | | | eS | Sn | 01 28 58.6 | -6.4 |
| SHO | | | | pmax | pmax | | |
| | comp=Z,76nm,0.4s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=E,36nm,0.3s | | | | | | |
| KUR | Kuril'sk | 8.46 | 30 | eP | Pn | 01 28 06.7 | -2.1 |
| KUR | | | | S | Sn | 01 29 37.5 | -5.5 |
| KUR | | | | pmax | pmax | | |
| | comp=Z,48nm,0.3s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=Z,26nm,0.1s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=N,30nm,0.2s | | | | | | |
| USRK | Ussuriysk Ar. | 9.67 | 313 | P | Pn | 01 28 27.2 | +1.8 |
| | comp=N,0.8nm,0.3s,baz=122,slow=13,SNR=10 | | | | | | |
| USRK | | | | LR | LR | 01 32 08.8 | |
| | comp=N,34nm,19.4s,baz=112,slow=37 | | | | | | |
| KSRS | Korea Array | 11.07 | 271 | P | Pn | 01 28 48.3 | +3.7 |
| | comp=N,0.4nm,0.3s,baz=88,slow=13,SNR=8.2 | | | | | | |
| KSRS | | | | LR | LR | 01 32 41.6 | |
| | comp=N,357nm,19.4s,baz=76,slow=35 | | | | | | |
| KS15 | Wonju Array Si | 11.11 | 271 | ePn | Pn | 01 28 43.9 | -1.1 |
| KSAR | Wonju Array Be | 11.11 | 271 | P | Pn | 01 28 48.3 | +3.3 |
| KSAR | Wonju Array Be | 11.11 | 271 | P | Pn | 01 28 48.3 | +3.3 |
| KLR | Kul'dur | 13.36 | 330 | P | Pn | 01 29 17.2 | +1.4 |
| | comp=N,0.0nm,0.3s,baz=122,slow=16,SNR=2.2 | | | | | | |
| PETK | Petropavlovsk- | 18.63 | 31 | LR | LR | 01 37 17.0 | |
| | comp=N,192nm,21.5s,baz=197,slow=36 | | | | | | |
| SEY | Seymchan | 25.73 | 11 | P | P | 01 31 36.2 | +1.2 |
| | comp=N,5.7nm,0.9s,baz=188,slow=7.1,SNR=6.7 | | | | | | |
| SONA1 | Songino Array | 27.55 | 302 | eP | P | 01 31 51.8 | +0.2 |
| SONA0 | Songino Array | 27.55 | 302 | eP | P | 01 31 51.7 | 0.0 |
| SONM | Songino Array | 27.55 | 302 | P | P | 01 31 51.7 | 0.0 |
| | comp=N,1.2nm,0.8s,baz=104,slow=9.8,SNR=4.8 | | | | | | |
| SONM | | | | LR | LR | 01 43 30.0 | |
| | comp=N,103nm,19.2s,baz=28,slow=38 | | | | | | |
| ENH | Enshi | 27.80 | 264 | eP | P | 01 31 53.3 | -0.8 |
| | comp=N,52nm,1.3s | | | | | | |
| H11N2 | WAKE ISLAND Hy | 28.36 | 123 | T | T | 02 02 13.2 | |
| | baz=316,slow=75,SNR=605 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 28.37 | 123 | T | T | 02 02 12.5 | |
| | baz=316,slow=75,SNR=1270 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 28.38 | 123 | T | T | 02 02 16.8 | |
| | baz=316,slow=75,SNR=879 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 29.11 | 125 | T | T | 02 03 10.1 | |
| | baz=317,slow=76,SNR=538 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 29.11 | 125 | T | T | 02 03 13.9 | |
| | baz=317,slow=76,SNR=442 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 29.13 | 125 | T | T | 02 03 14.5 | |
| | baz=317,slow=76,SNR=339 | | | | | | |
| ZAA1 | Zalesovo Array | 41.52 | 312 | eP | P | 01 33 51.1 | -0.6 |
| ZALV | Zalesovo Beam | 41.52 | 312 | P | P | 01 33 51.1 | -0.6 |
| | comp=N,1.4nm,0.4s,baz=86,slow=7.4,SNR=9.8 | | | | | | |
| ZALV | Zalesovo Beam | 41.52 | 312 | eP | P | 01 33 51.0 | -0.8 |
| ZALV | Zalesovo Beam | 41.52 | 312 | eP | P | 01 33 51.0 | -0.8 |
| FAKI | Fak Fak | 41.72 | 195 | eP | P | 01 33 53.0 | -0.7 |
| | comp=N,82nm,1.4s | | | | | | |
| CM31 | Chiang Mai Arr | 42.12 | 255 | eP | P | 01 33 56.9 | -0.2 |
| CMAR | Chiang Mai Arr | 42.12 | 255 | P | P | 01 33 56.9 | -0.2 |
| | comp=N,1.0nm,0.3s,baz=41,slow=8.4,SNR=6.0 | | | | | | |
| CMAR | | | | LR | LR | 01 54 03.4 | |
| | comp=N,80nm,18.3s,baz=48,slow=40 | | | | | | |
| MK01 | Makanchi Array | 43.91 | 301 | eP | P | 01 34 11.4 | +0.1 |
| MK31 | Makanchi Array | 43.91 | 301 | eP | P | 01 34 11.0 | -0.3 |
| MK31 | Makanchi Array | 43.91 | 301 | eP | P | 01 34 11.0 | -0.3 |
| MK32 | Makanchi Array | 43.91 | 301 | eP | P | 01 34 11.0 | -0.3 |
| MKAR | Makanchi Array | 43.91 | 301 | P | P | 01 34 11.0 | -0.3 |
| | comp=N,1.1nm,0.6s,baz=83,slow=9.7,SNR=12 | | | | | | |
| MAKZ | Makanchi | 44.12 | 301 | eP | P | 01 34 12.7 | -0.2 |
| MAKZ | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.9s | | | | | | |
| MAKZ | Makanchi | 44.12 | 301 | eP | P | 01 34 12.7 | -0.2 |
| | comp=Z,3.3nm,0.9s | | | | | | |
| SVW2 | Sparrevohn | 44.50 | 38 | eP | P | 01 34 17.7 | +1.9 |
| | comp=Z,27nm,1.5s | | | | | | |
| IMAR | Indian Mountai | 45.60 | 31 | eP | P | 01 34 24.0 | -0.4 |
| KURK | Kurchatov | 45.61 | 307 | eP | P | 01 34 24.4 | -0.3 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.9s | | | | | | |
| KURK | Kurchatov | 45.61 | 307 | eP | P | 01 34 24.4 | -0.3 |
| | comp=Z,10nm,0.9s | | | | | | |
| KDAK | Kodiak Island | 46.10 | 43 | eP | P | 01 34 29.3 | +0.9 |
| KDAK | | | | pmax | pmax | | |
| | comp=Z,136nm,1.9s | | | | | | |
| KDAK | Kodiak Island | 46.10 | 43 | eP | P | 01 34 29.3 | +0.9 |
| | comp=Z,136nm,1.9s | | | | | | |
| PPLA | Purkeypile | 46.13 | 35 | eP | P | 01 34 29.4 | +0.5 |
| | comp=Z,51nm,1.9s | | | | | | |
| MLY | Manley | 46.80 | 33 | eP | P | 01 34 32.0 | -1.9 |
| | comp=Z,4.6nm,1.0s | | | | | | |
| COLD | Coldfoot | 47.09 | 30 | eP | P | 01 34 37.9 | +1.8 |
| | comp=Z,15nm,1.8s | | | | | | |
| WRH | Wood River Hil | 47.94 | 33 | eP | P | 01 34 44.0 | +1.2 |
| | comp=Z,27nm,2.0s | | | | | | |
| SML | Sawmill | 47.96 | 37 | eP | P | 01 34 43.0 | 0.0 |
| SML | | | | pmax | pmax | | |
| | comp=Z,19nm,1.3s | | | | | | |
| SML | Sawmill | 47.96 | 37 | eP | P | 01 34 43.0 | 0.0 |
| | comp=Z,19nm,1.3s | | | | | | |
| DHY | Denali Highway | 48.32 | 35 | eP | P | 01 34 45.7 | -0.2 |
| | comp=Z,40nm,1.9s | | | | | | |
| SCM | Sheep Creek Mo | 48.44 | 37 | eP | P | 01 34 46.0 | -0.7 |
| SCM | | | | pmax | pmax | | |
| | comp=Z,50nm,1.6s | | | | | | |
| SCM | Sheep Creek Mo | 48.44 | 37 | eP | P | 01 34 46.0 | -0.7 |
| | comp=Z,50nm,1.6s | | | | | | |
| IL1 | Eielson Array | 48.45 | 33 | eP | P | 01 34 46.3 | -0.3 |
| ILAR | Eielson Array | 48.45 | 33 | P | P | 01 34 46.6 | 0.0 |
| | comp=Z,2.5nm,0.8s,baz=268,slow=6.5,SNR=39 | | | | | | |
| ILAR | | | | LR | LR | 01 56 11.9 | |
| | comp=Z,40nm,20.9s,baz=313,slow=37 | | | | | | |
| ILB | Eielson Array | 48.45 | 33 | eP | P | 01 34 47.0 | +0.4 |
| BVAR | Borovoye Array | 50.18 | 312 | LR | LR | 01 56 14.9 | |
| | comp=Z,112nm,18.6s,baz=73,slow=36 | | | | | | |
| MTN | Manton Dam | 51.61 | 193 | eP | P | 01 35 10.4 | -0.7 |
| | comp=Z,10nm,0.8s | | | | | | |
| COEN | Coen | 51.74 | 178 | eP | P | 01 35 12.7 | +0.7 |
| | comp=Z,7.9nm,0.8s | | | | | | |
| INK | Inuvik | 53.32 | 27 | P | P | 01 35 23.5 | +0.4 |
| | comp=Z,2.3nm,0.8s,baz=274,slow=6.9,SNR=7.4 | | | | | | |
| INK | Inuvik | 53.32 | 27 | eP | P | 01 35 24.4 | +1.2 |
| INK | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.1s | | | | | | |
| INK | Inuvik | 53.32 | 27 | eP | P | 01 35 24.4 | +1.2 |
| | comp=Z,4.9nm,1.1s | | | | | | |
| GSI | Gunungsitoli | 54.64 | 239 | eP | P | 01 35 33.6 | 0.0 |
| | comp=Z,18nm,0.9s | | | | | | |
| ARU | Arti | 55.86 | 318 | eP | P | 01 35 41.4 | -0.3 |
| ARU | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.2s | | | | | | |
| ARU | Arti | 55.86 | 318 | eP | P | 01 35 41.4 | -0.3 |
| | comp=Z,10nm,1.2s | | | | | | |
| KBL | Kabul | 57.41 | 291 | eP | P | 01 35 53.1 | -0.3 |
| KBL | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.9s | | | | | | |
| KBL | Kabul | 57.41 | 291 | eP | P | 01 35 53.1 | -0.3 |
| | comp=Z,4.6nm,0.9s | | | | | | |
| FITZ | Fitzroy Crossi | 57.90 | 198 | P | P | 01 35 56.1 | -0.4 |
| | comp=Z,5.3nm,0.9s,baz=24,slow=6.3,SNR=7.3 | | | | | | |
| WB2 | Warramunga Arr | 58.11 | 188 | eP | P | 01 35 57.5 | -0.5 |
| WB2 | | | | epP | pP | 01 36 11.2 | +0.9 |
| WR1 | Warramunga Arr | 58.11 | 188 | eP | P | 01 35 57.0 | -1.1 |
| | comp=Z,11nm,0.8s | | | | | | |
| WR1 | | | | epP | pP | 01 36 10.5 | +0.2 |
| WRA | Warramunga Arr | 58.11 | 188 | P | P | 01 35 57.0 | -1.1 |
| | comp=Z,8.3nm,0.7s,baz=6.6,slow=7.4,SNR=67 | | | | | | |
| WRA | | | | pP | pP | 01 36 10.5 | +0.2 |
| | comp=Z,3.8nm,0.6s,baz=1.9,slow=7.5,SNR=7.6 | | | | | | |
| RES | Resolute Bay | 61.53 | 15 | LR | LR | 02 03 59.8 | |
| | comp=Z,46nm,21.4s,baz=310,slow=37 | | | | | | |
| AS01 | Alice Springs | 61.83 | 188 | eP | P | 01 36 22.8 | -0.7 |
| AS31 | Alice Springs | 61.84 | 188 | eP | P | 01 36 23.1 | -0.5 |
| AS31 | | | | epP | pP | 01 36 37.1 | +1.1 |
| ASAR | Alice Springs | 61.84 | 188 | P | P | 01 36 23.1 | -0.5 |
| | comp=Z,2.3nm,0.8s,baz=12,slow=5.5,SNR=18 | | | | | | |
| ASAR | | | | pP | pP | 01 36 36.5 | +0.6 |
| | comp=Z,3.4nm,0.8s,baz=10,slow=7.0,SNR=13 | | | | | | |
| YKA | Yellowknife Ar | 62.75 | 31 | P | P | 01 36 29.6 | +0.3 |
| | comp=Z,0.8nm,0.7s,baz=298,slow=5.5,SNR=4.4 | | | | | | |
| YKA | | | | LR | LR | 02 05 09.7 | |
| | comp=Z,6.3nm,21.3s,baz=0.0,slow=37 | | | | | | |
| YKB5 | Yellowknife Ar | 62.75 | 31 | eP | P | 01 36 29.6 | +0.3 |
| ARA0 | ARCESS Array S | 63.19 | 339 | eP | P | 01 36 32.6 | +0.5 |
| ARCES | ARCESS Array B | 63.19 | 339 | P | P | 01 36 32.6 | +0.5 |
| | comp=Z,5.1nm,1.0s,baz=57,slow=7.4,SNR=3.7 | | | | | | |
| GEYT | Alibeck | 63.68 | 299 | P | P | 01 36 36.0 | +0.1 |
| | comp=Z,0.5nm,0.3s,baz=62,slow=3.4,SNR=2.9 | | | | | | |
| FIA0 | FINESS Array S | 68.10 | 332 | eP | P | 01 37 03.4 | -0.5 |
| FIA0 | FINESS Array S | 68.10 | 332 | eP | P | 01 37 03.4 | -0.5 |
| FINES | FINESS Array B | 68.10 | 332 | P | P | 01 37 03.4 | -0.5 |
| | comp=Z,3.3nm,0.8s,baz=39,slow=9.8,SNR=4.0 | | | | | | |
| FINES | | | | LR | LR | 02 07 27.6 | |
| | comp=Z,40nm,21.1s,baz=46,slow=36 | | | | | | |
| NEW | Newport | 69.15 | 45 | LR | LR | 02 02 02.4 | |
| | comp=Z,38nm,21.9s,baz=266,slow=31 | | | | | | |
| STKA | Stephens Creek | 69.56 | 180 | P | P | 01 37 12.7 | -0.4 |
| | comp=Z,2.3nm,0.7s,baz=29,slow=5.7,SNR=4.2 | | | | | | |
| STKA | | | | pP | pP | 01 37 26.4 | +0.8 |
| | comp=Z,2.1nm,0.8s,baz=346,slow=8.1,SNR=3.2 | | | | | | |
| KBZ | Khabaz | 70.53 | 311 | P | P | 01 37 19.6 | +0.4 |
| | comp=Z,1.3nm,0.8s,baz=64,slow=7.6,SNR=3.4 | | | | | | |
| NB200 | NORSAR Array S | 73.40 | 337 | eP | P | 01 37 36.9 | +0.7 |
| NOA | NORSAR Array B | 73.40 | 337 | P | P | 01 37 36.9 | +0.7 |
| | comp=Z,0.8nm,0.8s,baz=30,slow=4.2,SNR=3.0 | | | | | | |
| AKASG | Malin Array Be | 73.73 | 322 | P | P | 01 37 37.4 | -0.8 |
| | comp=Z,0.6nm,0.4s,baz=40,slow=5.4,SNR=3.6 | | | | | | |
| AKBB | Malin Array Si | 73.73 | 322 | eP | P | 01 37 37.4 | -0.8 |
| AKBB | | | | pmax | pmax | | |
| | comp=Z,38nm,1.9s | | | | | | |
| AKBB | Malin Array Si | 73.73 | 322 | eP | P | 01 37 37.4 | -0.8 |
| | comp=Z,38nm,1.9s | | | | | | |
| KVN | Kaiserville | 73.85 | 53 | eP | P | 01 37 40.8 | +1.4 |
| KVN | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.2s | | | | | | |
| KVN | Kaiserville | 73.85 | 53 | eP | P | 01 37 40.8 | +1.4 |
| | comp=Z,6.7nm,1.2s | | | | | | |
| IMW | Indian Meadow | 75.20 | 46 | eP | P | 01 37 49.2 | +2.0 |
| | comp=Z,3.0nm,0.8s | | | | | | |
| R11A | Troy Canyon, C | 75.85 | 52 | eP | P | 01 37 51.8 | +0.9 |
| | comp=Z,11nm,1.6s | | | | | | |
| PD31 | Pinedale Array | 76.69 | 46 | eP | P | 01 37 56.3 | +0.6 |
| PDAR | Pinedale Array | 76.69 | 46 | P | P | 01 37 56.3 | +0.6 |
| | comp=Z,1.3nm,0.7s,baz=249,slow=2.2,SNR=14 | | | | | | |
| PDAR | | | | LR | LR | 02 07 34.9 | |
| | comp=Z,24nm,21.9s,baz=314,slow=32 | | | | | | |
| PDAR | Pinedale Array | 76.69 | 46 | eP | P | 01 37 55.9 | +0.2 |
| TMUT | Trail Mountain | 77.94 | 49 | eP | P | 01 38 02.9 | 0.0 |
| | comp=Z,19nm,0.7s | | | | | | |
| GMRC | Granite Mounta | 77.97 | 55 | eP | P | 01 38 02.9 | 0.0 |
| GERES | GERESS Array B | 82.05 | 328 | LR | LR | 02 16 23.2 | |
| | comp=Z,59nm,19.6s,baz=300,slow=37 | | | | | | |
| SCHQ | Schefferville | 84.27 | 16 | LR | LR | 02 17 42.7 | |
| | comp=Z,64nm,21.3s,baz=339,slow=37 | | | | | | |
| PPT | Papeete | 84.75 | 117 | LR | LR | 02 09 10.1 | |
| | comp=Z,26nm,20.0s,baz=47,slow=30 | | | | | | |
| LTX | Lajitas | 89.21 | 53 | eP | P | 01 39 00.4 | -0.1 |
| LTX | Lajitas | 89.21 | 53 | eP | P | 01 39 00.3 | -0.1 |
| TXAR | Lajitas Array | 89.21 | 53 | P | P | 01 39 00.3 | -0.1 |
| | comp=Z,6.2nm,0.6s,baz=258,slow=4.3,SNR=8.0 | | | | | | |
| TXAR | | | | LR | LR | 02 13 27.7 | |
| | comp=Z,21nm,21.4s,baz=0.0,slow=32 | | | | | | |
| TOA1 | Torodi Ar. Sit | 116.88 | 316 | ePKPdf | PKPdf | 01 44 47.6 | -1.7 |
| TORD | Torodi Ar. Bea | 116.88 | 316 | PKP | PKPdf | 01 44 47.6 | -1.7 |
| | comp=Z,0.1nm,0.6s,baz=28,slow=2.3,SNR=3.5 | | | | | | |
| LPAZ | La Paz | 145.86 | 59 | PKPbc | PKPbc | 01 45 44.7 | 0.0 |
| | comp=Z,0.7nm,0.3s,baz=4.7,slow=7.3,SNR=5.6 | | | | | | |
| LPAZ | La Paz | 145.86 | 59 | ePKPdf | PKPab | 01 45 46.0 | +0.8 |
| SIV | San Ignacio | 150.14 | 49 | PKPbc | PKPbc | 01 45 56.3 | +0.8 |
| | comp=Z,2.0nm,0.6s,baz=25,slow=2.6,SNR=3.5 | | | | | | |

---

*ISCJB **06** 01:35:32.7±1.3, 4.7S±0.2×151.8E±0.1, h153km, mb4.0/5, Error ellipse: s-maj=24.4km s-min=15.3km az=142.2*
*IDC **06** 01:35:32.7±5.3, 4.68S×151.91E, h144km±43km, mb3.7/5, mb1 3.9/6, mb1mx3.4/31, mbtmp4.1/6, Error ellipse: s-maj=39.3km s-min=25.1km az=18.0*
**ISC 06 01:35:33.7±1.4, 4.7S±0.2×151.9E±0.2, h153km, n7, σ0s93/10, mb4.1/5, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PMG | Port Moresby | 6.61 | 225 | P | Pn | 01 37 09.0 | +0.4 |
| | 4.1nm,0.3s,baz=82,slow=4.0,SNR=3.6 | | | | | | |
| PMG | | | | S | Sn | 01 38 22.7 | -0.4 |
| | 2.6nm,0.3s,baz=90,slow=20,SNR=6.4 | | | | | | |
| DZM | Mont Dzumac | 22.26 | 142 | P | P | 01 40 18.6 | +0.1 |
| | 3.9nm,0.6s,baz=274,slow=7.2,SNR=7.2 | | | | | | |
| WRA | Warramunga Arr | 22.83 | 227 | P | P | 01 40 23.8 | 0.0 |
| | 2.7nm,0.3s,baz=51,slow=9.7,SNR=49 | | | | | | |
| ASAR | Alice Springs | 25.61 | 221 | P | P | 01 40 50.5 | +1.5 |
| | 0.5nm,0.4s,baz=55,slow=8.4,SNR=9.9 | | | | | | |
| ASAR | | | | pP | pP | 01 41 21.1 | +0.2 |
| | 0.5nm,0.7s,baz=56,slow=10.0,SNR=2.6 | | | | | | |
| ASAR | | | | sP | sP | 01 41 37.8 | -0.9 |
| | 1.1nm,0.8s,baz=55,slow=9.2,SNR=5.1 | | | | | | |
| FITZ | Fitzroy Crossi | 28.91 | 241 | P | P | 01 41 17.8 | -0.7 |
| | 1.7nm,0.4s,baz=58,slow=11,SNR=16 | | | | | | |
| CMAR | Chiang Mai Arr | 57.04 | 295 | P | P | 01 45 04.8 | +0.7 |
| | 0.8nm,0.3s,baz=119,slow=5.0,SNR=4.7 | | | | | | |
| TORD | Torodi Ar. Bea | 149.44 | 288 | PKPbc | PKPbc | 01 55 04.5 | -1.3 |
| | 0.2nm,0.4s,baz=68,slow=2.3,SNR=7.8 | | | | | | |

---

*ISCJB **06** 01:38:56.8±0.6, 21.04S±0.06×68.3W±0.1, h143km±13km, mb3.9/3, Error ellipse: s-maj=23.4km s-min=9.2km az=12.6*
*GUC **06** 01:38:58.0±0.5, 20.99S×68.54W, h147km±5km, ML3.5*
*IDC **06** 01:39:01.5±2.6, 20.77S×68.01W, h151km±25km, mb3.6/4, mb1 3.5/7, mb1mx3.3/30, mbtmp4.1/7, Error ellipse: s-maj=40.7km s-min=24.6km az=108.0*
**ISC 06 01:38:57.3±0.8, 21.01S±0.07×68.2W±0.1, h121km±13km, n15, σ1s49/20, mb4.0/3, 5C-1D, Chile-Bolivia border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PB01 | IPOC Station P | 1.24 | 268 ⇑ | iP | Pn | 01 39 22.1 | +0.1 |
| PB01 | | | | i S | Sn | 01 39 40.3 | -0.4 |
| PB01 | | | | IAML | | 01 39 40.6 | |
| | comp=N,976nm,0.3s | | | | | | |
| PB08 | IPOC Station P | 1.27 | 313 | IAML | | 01 39 43.8 | |
| | comp=N,862nm,0.8s | | | | | | |
| PB09 | IPOC Station P | 1.27 | 232 ⇑ | iP | Pn | 01 39 23.7 | +1.3 |
| PB09 | | | | eS | Sn | 01 39 43.2 | +1.7 |
| PB09 | | | | IAML | | 01 39 44.1 | |
| | comp=E,944nm,0.4s | | | | | | |
| PB02 | IPOC Station P | 1.65 | 259 ⇑ | iP | Pn | 01 39 26.4 | -0.2 |
| PB02 | | | | eS | Sn | 01 39 47.5 | -1.5 |
| PB02 | | | | IAML | | 01 39 48.0 | |
| | comp=N,2μm,0.3s | | | | | | |
| PB07 | IPOC Station P | 1.76 | 246 ⇑ | iP | Pn | 01 39 27.8 | -0.2 |
| PB07 | | | | i S | Sn | 01 39 50.4 | -1.0 |
| PB07 | | | | IAML | | 01 39 51.2 | |
| | comp=E,692nm,0.3s | | | | | | |
| PB06 | IPOC Station P | 2.13 | 218 ⇑ | iP | Pn | 01 39 33.1 | +0.5 |
| PB06 | | | | i S | Sn | 01 39 59.4 | -0.3 |
| PB06 | | | | IAML | | 01 40 00.7 | |
| | comp=E,340nm,0.4s | | | | | | |
| PB04 | IPOC Station P | 2.27 | 234 ⇓ | iP | Pn | 01 39 34.3 | -0.1 |
| PSGC | Pisagua | 2.32 | 307 | IAML | | 01 40 08.1 | |
| | comp=E,218nm,0.2s | | | | | | |
| LPAZ | La Paz | 4.70 | 0 | P | Pn | 01 40 09.3 | +2.5 |
| | comp=E,2.1nm,0.3s,baz=170,slow=4.9,SNR=34 | | | | | | |
| LPAZ | | | | S | Sn | 01 41 03.0 | +2.2 |
| | baz=99,slow=19,SNR=1.2 | | | | | | |
| SIV | San Ignacio | 8.37 | 55 | P | Pn | 01 40 55.7 | -0.2 |
| | comp=E,4.6nm,0.3s,baz=255,slow=4.2,SNR=39 | | | | | | |
| SIV | | | | S | Sn | 01 42 25.8 | -3.1 |
| | comp=E,0.1nm,0.3s,baz=150,slow=16,SNR=2.8 | | | | | | |
| PLCA | Paso Flores | 19.76 | 185 | P | Pn | 01 43 22.3 | +1.8 |
| | comp=E,1.5nm,0.6s,baz=15,slow=12,SNR=3.3 | | | | | | |
| BDFB | Brasilia | 19.85 | 78 | P | P | 01 43 19.8 | +0.7 |
| | comp=E,0.6nm,0.3s,baz=218,slow=20,SNR=7.2 | | | | | | |
| PTGA | Pitinga | 21.69 | 23 | P | P | 01 43 37.0 | -1.6 |
| | comp=E,1.9nm,0.3s,baz=162,slow=20,SNR=6.0 | | | | | | |
| DBIC | Dimbokro | 67.92 | 73 | P | P | 01 49 43.4 | -0.1 |
| | comp=E,2.4nm,0.9s,baz=222,slow=5.6,SNR=6.2 | | | | | | |
| TORD | Torodi Ar. Bea | 76.53 | 70 | P | P | 01 50 34.4 | -0.3 |
| | comp=E,1.1nm,0.4s,baz=252,slow=5.4,SNR=36 | | | | | | |

---

*ISCJB **06** 01:40:58.2±1.1, 14.80S±0.08×167.2E±0.2, h100km, mb3.9/7, Error ellipse: s-maj=24.3km s-min=11.2km az=176.2*
*IDC **06** 01:41:00.4±1.0, 14.64S×167.14E, h105km±7km, mb3.7/8, mb1 3.9/9, mb1mx3.7/32, mbtmp4.2/9, MS3.0/2, Ms1 3.0/2, ms1mx2.7/22, Error ellipse: s-maj=21.8km s-min=18.3km az=119.0*
**ISC 06 01:40:60.0±1.0, 14.7S±0.1×167.2E±0.2, h100km, n12, σ1s49/13, mb4.1/7, Vanuatu Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DZM | Mont Dzumac | 7.33 | 186 | P | Pn | 01 42 44.7 | +0.2 |
| | 26nm,0.3s,baz=11,slow=12,SNR=67 | | | | | | |
| DZM | | | | S | Sn | 01 44 04.2 | -2.0 |
| | 4.2nm,0.3s,baz=303,slow=23,SNR=4.5 | | | | | | |
| HNR | Honiara | 8.84 | 306 | LR | LR | 01 46 30.4 | |
| | comp=Z,47nm,20.5s,baz=64,slow=38 | | | | | | |
| CTA | Charters Tower | 20.68 | 252 | P | P | 01 45 33.7 | +1.6 |
| | 4.6nm,0.7s,baz=85,slow=12,SNR=6.4 | | | | | | |
| URZ | Urewera | 25.02 | 161 | P | P | 01 46 17.4 | +2.8 |
| | 12nm,0.7s,baz=2.5,slow=13,SNR=6.1 | | | | | | |
| STKA | Stephens Creek | 28.94 | 229 | P | P | 01 46 51.0 | +1.1 |
| | 9.0nm,0.5s,baz=51,slow=9.3,SNR=33 | | | | | | |
| RPZ | Rata Peaks | 29.07 | 174 | LR | LR | 01 56 19.1 | |
| | comp=Z,76nm,20.2s,baz=1.0,slow=32 | | | | | | |
| WRA | Warramunga Arr | 31.76 | 256 | P | P | 01 47 13.7 | -1.3 |
| | 0.5nm,0.8s,baz=83,slow=7.6,SNR=3.9 | | | | | | |
| WRA | | | | pP | pP | 01 47 38.2 | +0.8 |
| | 0.8nm,0.9s,baz=88,slow=9.0,SNR=3.4 | | | | | | |
| ASAR | Alice Springs | 32.61 | 249 | P | P | 01 47 21.2 | -1.1 |
| | 0.7nm,0.6s,baz=76,slow=9.0,SNR=9.9 | | | | | | |
| ASAR | | | | pP | pP | 01 47 44.7 | -0.2 |
| | 1.7nm,0.8s,baz=80,slow=9.7,SNR=5.1 | | | | | | |
| VNDA | Vanda | 62.86 | 181 | P | P | 01 51 14.3 | -0.5 |
| | 1.7nm,0.7s,baz=349,slow=5.1,SNR=12 | | | | | | |
| ILAR | Eielson Array | 86.55 | 18 | P | P | 01 53 30.4 | -1.1 |
| | 0.2nm,0.6s,baz=225,slow=5.2,SNR=3.0 | | | | | | |
| ILAR | | | | pP | pP | 01 53 58.3 | +0.6 |
| | 0.4nm,0.7s,baz=218,slow=5.7,SNR=3.6 | | | | | | |
| MKAR | Makanchi Array | 97.16 | 316 | P | Pdif | 01 54 21.6 | +0.3 |
| | 0.2nm,0.6s,baz=96,slow=7.4,SNR=2.4 | | | | | | |
| MKAR | | | | pP | pP | 01 54 49.1 | +1.4 |
| | 0.7nm,0.8s,baz=98,slow=5.0,SNR=3.9 | | | | | | |
| ARCES | ARCESS Array B | 120.24 | 345 | PKP | PKPdf | 01 59 37.7 | -1.0 |
| | 2.3nm,0.9s,baz=63,slow=2.3,SNR=10.0 | | | | | | |

---

*ISK **06** 01:48:14.8, 38.33N×42.97E, h10km, MD2.9*
*ATA **06** 01:48:14.7±1.1, 38.39N×42.99E, h8km±20km, MD2.8, ML3.2, MW2.9*
*IASPEI **06** 01:48:15.3±0.8, 38.33N±0.03×42.96E±0.03, h11km±6km, Error ellipse: s-maj=4.5km s-min=3.7km az=107.2, GT5 selection from ISC bulletin GT5 identified by Bondˆ¡r and McLaughlin (2009) selection criteria Bondˆ¡r and McLaughlin, A new ground truth data set for seismic studies, <i>Seism. Res. Let.</i>, <b>80</b>, 465-472, 2009*

*CSEM **06** 01:48:15.0±0.2, 38°.34N×42°.98E, h8km, ML2.9, Error ellipse: s-maj=4.2km s-min=3.2km az=114.0*
*DDA **06** 01:48:15.1, 38°.34N×42°.91E, h7km, Ml2.9*
*ISCJB **06** 01:48:15.4±0.5, 38°.32N±0°.03×42°.94E±0°.05, h7km±5km, Error ellipse: s-maj=6.7km s-min=4.3km az=27.5*
**ISC 06 01:48:15.5**±0.8**, 38°.34N**±0°.02×**42°.96E**±0°.03**, h10**km±6km**, n40, σ0$^{s}$.62**/57**, 1C-1D, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GEVA | Gevas | 0.08 | 107 | ⇑iP | Pg | 01 48 17.4 | -0.6 |
| GEVA | | | | eS | Sg | 01 48 20.3 | +0.4 |
| GEVA | | | | IAML | | 01 48 23.0 | |
| | comp=Z,1μm,0.4s | | | | | | |
| GEVA | Gevas | 0.08 | 107 | i P | Pg | 01 48 17.4 | -0.6 |
| GEVA | | | | i S | Sg | 01 48 20.6 | +0.7 |
| GEVA | Gevas | 0.08 | 107 | P | Pg | 01 48 17.4 | -0.6 |
| GEVA | | | | S | Sg | 01 48 20.5 | +0.7 |
| TVAN | Van | 0.40 | 61 | i P | Pg | 01 48 23.2 | -0.3 |
| TVAN | | | | i S | Sb | 01 48 31.1 | 0.0 |
| TVAN | Van | 0.40 | 61 | P | Pg | 01 48 23.2 | -0.3 |
| VANB | Van | 0.43 | 53 | ePG | Pg | 01 48 23.2 | -0.7 |
| VANB | Van | 0.43 | 53 | ePg | Pg | 01 48 23.2 | -0.7 |
| ADCV | BITLIS_Adilcev | 0.51 | 339 | i P | Pg | 01 48 24.7 | -0.7 |
| ADCV | | | | i S | Sg | 01 48 32.5 | +0.4 |
| ADCV | BITLIS_Adilcev | 0.51 | 339 | P | Pg | 01 48 24.7 | -0.7 |
| ADCV | | | | S | Sg | 01 48 32.5 | +0.4 |
| SRTM | Siirt_Merkez | 0.89 | 247 | i P | Pb | 01 48 33.1 | +0.1 |
| SRTM | | | | i S | Sg | 01 48 43.9 | -0.2 |
| SRTM | Siirt_Merkez | 0.89 | 247 | P | Pb | 01 48 33.1 | +0.1 |
| SRTM | | | | S | Sg | 01 48 43.9 | -0.2 |
| SIRT | Sirnak | 0.93 | 206 | ePG | Pg | 01 48 32.4 | -1.0 |
| SIRT | | | | eSG | Sb | 01 48 46.6 | +0.4 |
| SIRT | Sirnak | 0.93 | 206 | ePg | Pg | 01 48 32.4 | -1.0 |
| SIRT | | | | eSg | Sb | 01 48 46.6 | +0.4 |
| TUTA | Tutak | 1.07 | 354 | ⇓iP | Pg | 01 48 34.8 | -1.3 |
| TUTA | | | | IAML | | 01 48 37.8 | |
| | comp=Z,48nm,0.2s | | | | | | |
| TUTA | | | | eS | Sg | 01 48 49.8 | -0.2 |
| TUTA | Tutak | 1.07 | 354 | i P | Pg | 01 48 34.8 | -1.3 |
| TUTA | | | | i S | Sg | 01 48 50.1 | +0.1 |
| TUTA | Tutak | 1.07 | 354 | P | Pg | 01 48 34.8 | -1.3 |
| TUTA | | | | S | Sg | 01 48 50.1 | +0.1 |
| EKAR | Karacoban | 1.15 | 323 | eP | Pg | 01 48 37.5 | -0.2 |
| EKAR | | | | IAML | | 01 49 00.6 | |
| | comp=Z,22nm,0.5s | | | | | | |
| EKAR | Karacoban | 1.15 | 323 | i P | Pg | 01 48 37.3 | -0.4 |
| EKAR | | | | i S | Sb | 01 48 53.2 | +0.4 |
| EKAR | Karacoban | 1.15 | 323 | P | Pg | 01 48 37.3 | -0.4 |
| EKAR | | | | S | Sb | 01 48 53.2 | +0.4 |
| CUKT | Cukurca | 1.20 | 154 | ePN | Pb | 01 48 38.0 | -0.5 |
| CUKT | Cukurca | 1.20 | 154 | ePn | Pb | 01 48 38.0 | -0.5 |
| AGRB | Hanur-Agry | 1.24 | 1 | ePN | Pn | 01 48 38.0 | -1.1 |
| AGRB | | | | eSN | Sn | 01 48 56.7 | +0.8 |
| AGRB | Hanur-Agry | 1.24 | 1 | ePn | Pn | 01 48 38.0 | -1.1 |
| AGRB | | | | eSn | Sn | 01 48 56.7 | +0.8 |
| VRTB | Varto-Mus | 1.43 | 305 | ePN | Pn | 01 48 42.0 | +0.3 |
| VRTB | Varto-Mus | 1.43 | 305 | ePn | Pn | 01 48 42.0 | +0.3 |
| BNGL | BINGOL | 1.54 | 294 | eP | Pn | 01 48 43.4 | +0.1 |
| BNGL | | | | IAML | | 01 49 19.2 | |
| | comp=Z,44nm,0.8s | | | | | | |
| EATA | Eleskirt | 1.57 | 347 | eP | Pn | 01 48 44.2 | +0.5 |
| | baz=1.0 | | | | | | |
| EATA | | | | IAML | | 01 49 09.6 | |
| | comp=Z,6.4nm,0.4s | | | | | | |
| HOMI | Horasan | 1.89 | 335 | eP | Pb | 01 48 50.4 | +0.1 |
| | baz=1.0 | | | | | | |
| HOMI | | | | IAML | | 01 48 54.2 | |
| | comp=Z,13nm,0.6s | | | | | | |
| BNGB | Bingˆ¶l | 1.90 | 291 | ePN | Pn | 01 48 48.8 | +0.7 |
| TASB | TASBURUN-IGDIR | 1.92 | 31 | ePN | Pn | 01 48 48.8 | +0.4 |
| TASB | TASBURUN-IGDIR | 1.92 | 31 | ePn | Pn | 01 48 48.8 | +0.4 |
| ERZM | Erzurum | 2.00 | 322 | eP | Pb | 01 48 52.0 | -0.1 |
| ECAT | Cat-ERZURUM | 2.00 | 310 | eP | Pb | 01 48 51.3 | -0.8 |
| ECAT | | | | IAML | | 01 48 57.1 | |
| | comp=Z,4.0nm,0.5s | | | | | | |
| BINT | Bingol | 2.01 | 286 | ePn | Pn | 01 48 48.8 | -0.8 |
| MAZI | Mazidag | 2.17 | 247 | ePN | Pn | 01 48 52.3 | +0.5 |
| MAZI | Mazidag | 2.17 | 247 | ePn | Pn | 01 48 52.3 | +0.5 |
| YEDI | Yedisu-Bingol | 2.18 | 301 | ePN | Pn | 01 48 52.5 | +0.5 |
| YEDI | Yedisu-Bingol | 2.18 | 301 | ePn | Pn | 01 48 52.5 | +0.5 |
| SENK | Senkaya-Erzuru | 2.27 | 348 | ePN | Pn | 01 48 53.8 | +0.5 |
| SENK | Senkaya-Erzuru | 2.27 | 348 | ePn | Pn | 01 48 53.8 | +0.5 |

---

*ISK **06** 01:54:25.3, 38°.74N×43°.05E, h9km, MD2.7*
*ISCJB **06** 01:54:26.5±0.6, 38°.72N±0°.03×43°.08E±0°.05, h19km±9km, Error ellipse: s-maj=6.6km s-min=5.3km az=149.7*
*DDA **06** 01:54:26.1, 38°.70N×43°.12E, h7km, Ml2.7*
*CSEM **06** 01:54:26.1±0.2, 38°.73N×43°.06E, h10km, ML2.7, Error ellipse: s-maj=4.9km s-min=4.0km az=66.0*
**ISC 06 01:54:26.0**±1.0**, 38°.73N**±0°.03×**43°.06E**±0°.03**, h12**km±10km**, n18, σ0$^{s}$.26**/30**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ADCV | BITLIS_Adilcev | 0.28 | 287 | i P | Pb | 01 54 33.1 | 0.0 |
| ADCV | | | | i S | Sb | 01 54 38.0 | +0.2 |
| ADCV | BITLIS_Adilcev | 0.28 | 287 | P | Pb | 01 54 33.1 | 0.0 |
| ADCV | | | | S | Sb | 01 54 38.0 | +0.2 |
| VANB | Van | 0.29 | 117 | ePG | Pb | 01 54 32.9 | -0.4 |
| VANB | | | | eSG | Sb | 01 54 38.2 | +0.1 |
| VANB | Van | 0.29 | 117 | ePg | Pb | 01 54 32.9 | -0.4 |
| VANB | | | | eSg | Sb | 01 54 38.2 | +0.1 |
| TVAN | Van | 0.34 | 126 | i P | Pg | 01 54 32.8 | -0.1 |
| TVAN | | | | i S | Sg | 01 54 37.9 | +0.4 |
| TVAN | Van | 0.34 | 126 | P | Pg | 01 54 32.8 | -0.1 |
| TVAN | | | | S | Sg | 01 54 37.9 | +0.4 |
| GEVA | Gevas | 0.41 | 180 | i P | Pg | 01 54 34.0 | -0.3 |
| GEVA | | | | i S | Sg | 01 54 39.9 | 0.0 |
| GEVA | Gevas | 0.41 | 180 | P | Pg | 01 54 34.0 | -0.3 |
| GEVA | | | | S | Sg | 01 54 39.9 | 0.0 |
| VMUR | Van-Muradiye | 0.48 | 57 | i P | Pg | 01 54 35.2 | -0.3 |
| VMUR | | | | i S | Sg | 01 54 41.9 | +0.1 |
| VMUR | Van-Muradiye | 0.48 | 57 | P | Pg | 01 54 35.2 | -0.3 |
| VMUR | | | | S | Sg | 01 54 41.9 | +0.1 |
| AGRB | Hanur-Agry | 0.85 | 356 | ePG | Pg | 01 54 42.5 | 0.0 |
| AGRB | | | | eSG | Sg | 01 54 53.7 | +0.1 |
| AGRB | Hanur-Agry | 0.85 | 356 | ePg | Pg | 01 54 42.5 | 0.0 |
| AGRB | | | | eSg | Sg | 01 54 53.7 | +0.1 |
| SIRT | Sirnak | 1.32 | 202 | ePN | Pn | 01 54 50.3 | -0.1 |
| SIRT | Sirnak | 1.32 | 202 | ePn | Pn | 01 54 50.3 | -0.1 |
| VRTB | Varto-Mus | 1.32 | 290 | ePN | Pn | 01 54 50.3 | -0.2 |
| VRTB | Varto-Mus | 1.32 | 290 | ePn | Pn | 01 54 50.3 | -0.2 |
| CUKT | Cukurca | 1.54 | 164 | ePN | Pn | 01 54 54.0 | +0.5 |
| CUKT | Cukurca | 1.54 | 164 | ePn | Pn | 01 54 54.0 | +0.5 |

---

*CSEM **06** 01:55:25.8, 38°.76N×43°.59E, h5km, MD2.7*
**ISK 06 01:55:25.8, 38°.76N×43°.59E, h5**km**, MD2.7, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.23 | 223 | ePG | Pg | 01 55 32.3 | +2.0 |
| VANB | | | | eSG | Sg | 01 55 38.2 | +4.9 |
| VANB | Van | 0.23 | 223 | ePg | Pg | 01 55 32.3 | +2.0 |
| VANB | | | | eSg | Sg | 01 55 38.2 | +4.8 |
| AGRB | Hanur-Agry | 0.93 | 330 | ePG | Pb | 01 55 45.0 | +0.4 |
| AGRB | | | | eSG | Sn | 01 55 58.9 | -0.7 |
| AGRB | Hanur-Agry | 0.93 | 330 | ePg | Pb | 01 55 45.0 | +0.4 |
| AGRB | | | | eSg | Sn | 01 55 58.9 | -0.7 |
| TASB | TASBURUN-IGDIR | 1.32 | 22 | ePN | Pb | 01 55 52.0 | +0.9 |
| TASB | TASBURUN-IGDIR | 1.32 | 22 | ePn | Pb | 01 55 52.0 | +0.9 |
| CUKT | Cukurca | 1.51 | 179 | ePN | Pg | 01 55 55.4 | +0.6 |
| CUKT | Cukurca | 1.51 | 179 | ePn | Pg | 01 55 55.4 | +0.6 |

---

*ISK **06** 01:58:59.5, 36°.04N×35°.68E, h8km, MD2.9*
*CSEM **06** 01:58:59.5, 36°.04N×35°.68E, h8km, MD2.9*
*ISCJB **06** 01:59:00.2±0.7, 36°.04N±0°.04×35°.69E±0°.04, h13km±5km, Error ellipse: s-maj=6.1km s-min=5.4km az=16.8*
*NSSC **06** 01:59:02.2±1.3, 35°.96N×35°.85E, h25km±4km*
**ISC 06 01:58:59.4**±1.3**, 36°.00N**±0°.04×**35°.69E**±0°.03**, h12**km±12km**, n27, σ0$^{s}$.62**/35**, Jordan-Syria region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ARNB | Al Arnab | 0.27 | 121 | eP | Pb | 01 59 06.5 | +0.2 |
| ARNB | | | | eS | Sb | 01 59 11.3 | +0.5 |
| TAHT | Tahtakopru-Hat | 0.55 | 47 | ePG | Pb | 01 59 10.6 | -0.5 |
| TAHT | | | | eSG | Sg | 01 59 17.6 | +0.1 |
| TAHT | Tahtakopru-Hat | 0.55 | 47 | ePg | Pb | 01 59 10.6 | -0.5 |
| TAHT | | | | eSg | Sg | 01 59 17.6 | +0.1 |
| BTCH | Batrach | 0.63 | 86 | eP | Pb | 01 59 12.6 | +0.2 |
| BTCH | | | | eS | Sg | 01 59 19.4 | -0.5 |
| DRWC | Darouich | 1.00 | 52 | eP | Pb | 01 59 18.9 | 0.0 |
| DRWC | | | | eS | Sb | 01 59 31.9 | -0.2 |
| CEYT | Ceyhan | 1.01 | 3 | ePG | Pg | 01 59 18.7 | -0.2 |
| CEYT | | | | eSG | Sb | 01 59 32.5 | +0.3 |
| CEYT | Ceyhan | 1.01 | 3 | ePg | Pg | 01 59 18.7 | -0.2 |
| CEYT | | | | eSg | Sb | 01 59 32.5 | +0.3 |
| MERS | Mersin | 1.28 | 313 | ePN | Pb | 01 59 23.6 | 0.0 |
| MERS | Mersin | 1.28 | 313 | ePn | Pb | 01 59 23.6 | 0.0 |
| KIZK | Mersin | 1.34 | 292 | ePN | Pb | 01 59 24.6 | +0.1 |
| KARA | Karaisali | 1.36 | 338 | ePN | Pb | 01 59 24.8 | -0.1 |
| KARA | Karaisali | 1.36 | 338 | ePn | Pb | 01 59 24.8 | -0.1 |
| KOZT | Kozan | 1.48 | 4 | ePN | Pb | 01 59 26.9 | -0.1 |
| KOZT | Kozan | 1.48 | 4 | ePn | Pb | 01 59 26.9 | -0.1 |
| HAWK | Haweek | 1.59 | 158 | eP | Pb | 01 59 29.0 | +0.2 |
| HAWK | | | | eS | Sn | 01 59 46.2 | -1.8 |
| IKL | Isikli | 1.64 | 279 | ePN | Pn | 01 59 28.8 | +0.7 |
| IKL | Isikli | 1.64 | 279 | ePn | Pn | 01 59 28.8 | +0.7 |
| KEBE | Keben-Mersin | 1.66 | 286 | ePN | Pn | 01 59 29.1 | +0.6 |
| KEBE | Keben-Mersin | 1.66 | 286 | ePn | Pn | 01 59 29.1 | +0.6 |
| GAZ | Gaziantep | 1.69 | 46 | ePN | Pb | 01 59 30.1 | -0.5 |
| GAZ | Gaziantep | 1.69 | 46 | ePn | Pb | 01 59 30.1 | -0.5 |
| AKKU | Akkuyu-Mersin | 1.74 | 276 | ePN | Pb | 01 59 30.5 | -0.8 |
| AKKU | Akkuyu-Mersin | 1.74 | 276 | ePn | Pb | 01 59 30.5 | -0.8 |
| KMRS | Kahramanmaras | 1.79 | 33 | ePN | Pn | 01 59 31.1 | +0.8 |
| KMRS | Kahramanmaras | 1.79 | 33 | ePn | Pn | 01 59 31.1 | +0.8 |
| TEKE | Tekeli-Mersin | 2.09 | 275 | ePN | Pn | 01 59 35.4 | +1.1 |
| TEKE | Tekeli-Mersin | 2.09 | 275 | ePn | Pn | 01 59 35.4 | +1.1 |

---

**IDC 06 02:07:13.3**±2.2**, 4°.95N×123°.28E, h594**km±31km**, mb3.0**/6**, mb1 3.2**/6**, mb1mx2.8**/38**, mbtmp4.0**/6**, Error ellipse: s-maj=79.7km s-min=12.3km az=68.0, Celebes Sea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| FITZ | Fitzroy Crossi | 23.03 | 174 | P | P | 02 11 34.0 | -0.4 |
| | 1.4nm,0.8s,baz=0.5,slow=6.4,SNR=4.5 | | | | | | |
| WRA | Warramunga Arr | 27.02 | 157 | P | P | 02 12 09.1 | -0.6 |
| | 5.0nm,0.5s,baz=336,slow=9.6,SNR=110 | | | | | | |
| ASAR | Alice Springs | 30.28 | 160 | P | P | 02 12 38.3 | +0.5 |
| | 1.6nm,0.4s,baz=339,slow=7.0,SNR=24 | | | | | | |
| ASAR | | | | ScP | ScP | 02 18 05.2 | -0.9 |
| | 0.7nm,0.6s,baz=355,slow=3.2,SNR=5.7 | | | | | | |
| STKA | Stephens Creek | 40.57 | 156 | P | P | 02 14 02.8 | +0.2 |
| | 1.7nm,0.4s,baz=351,slow=9.6,SNR=8.2 | | | | | | |
| SONM | Songino Array | 45.11 | 344 | P | P | 02 14 37.8 | -0.1 |
| | 0.2nm,0.5s,baz=165,slow=7.4,SNR=2.8 | | | | | | |
| MKAR | Makanchi Array | 54.62 | 326 | P | P | 02 15 47.1 | -0.1 |
| | 0.8nm,0.4s,baz=121,slow=7.6,SNR=22 | | | | | | |

---

*ISCJB **06** 02:10:52.6±0.5, 38°.51N±0°.03×43°.23E±0°.05, h10km±4km, Error ellipse: s-maj=6.6km s-min=5.1km az=35.8*
*ISK **06** 02:10:52.2, 38°.56N×43°.33E, h17km, MD2.8*
*DDA **06** 02:10:52.3, 38°.44N×43°.24E, h7km, Ml2.7*
*CSEM **06** 02:10:52.1±0.2, 38°.49N×43°.20E, h8km, MD2.8, Error ellipse: s-maj=6.0km s-min=4.2km az=113.0*
**ISC 06 02:10:52.6**±0.9**, 38°.51N**±0°.03×**43°.24E**±0°.04**, h10**km±8km**, n21, σ0$^{s}$.54**/32**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TVAN | Van | 0.13 | 82 | i P | Pg | 02 10 55.7 | -0.1 |
| TVAN | | | | i S | Sg | 02 10 58.8 | +0.7 |
| TVAN | Van | 0.13 | 82 | P | Pg | 02 10 55.7 | -0.1 |
| TVAN | | | | S | Sg | 02 10 58.8 | +0.7 |
| VANB | Van | 0.15 | 54 | ePG | Pg | 02 10 55.6 | -0.3 |
| VANB | | | | eSG | Sg | 02 10 58.5 | +0.2 |
| VANB | Van | 0.15 | 54 | ePg | Pg | 02 10 55.6 | -0.3 |
| VANB | | | | eSg | Sg | 02 10 58.5 | +0.2 |
| GEVA | Gevas | 0.24 | 216 | i P | Pg | 02 10 56.8 | -0.8 |
| GEVA | | | | i S | Sg | 02 11 01.5 | +0.5 |
| GEVA | Gevas | 0.24 | 216 | P | Pg | 02 10 56.8 | -0.8 |
| GEVA | | | | S | Sg | 02 11 01.5 | +0.5 |
| ADCV | BITLIS_Adilcev | 0.50 | 307 | i P | Pg | 02 11 02.6 | +0.3 |
| ADCV | | | | i S | Sb | 02 11 11.6 | +0.5 |
| VMUR | Van-Muradiye | 0.55 | 28 | i P | Pb | 02 11 04.0 | -0.4 |
| VMUR | | | | i S | Sb | 02 11 13.3 | +0.9 |
| VMUR | Van-Muradiye | 0.55 | 28 | P | Pb | 02 11 04.0 | -0.4 |
| VMUR | | | | S | Sb | 02 11 13.3 | +0.9 |
| TUTA | Tutak | 0.95 | 340 | i P | Pg | 02 11 10.8 | -0.2 |
| TUTA | Tutak | 0.95 | 340 | P | Pg | 02 11 10.8 | -0.2 |
| AGRB | Hanur-Agry | 1.08 | 350 | ePG | Pg | 02 11 12.8 | -0.6 |
| AGRB | | | | eSG | Sg | 02 11 27.6 | +0.1 |
| AGRB | Hanur-Agry | 1.08 | 350 | ePg | Pg | 02 11 12.8 | -0.6 |
| AGRB | | | | eSg | Sg | 02 11 27.6 | +0.1 |
| SIRT | Sirnak | 1.19 | 212 | ePN | Pg | 02 11 15.7 | +0.3 |
| SIRT | Sirnak | 1.19 | 212 | ePn | Pg | 02 11 15.7 | +0.3 |
| CUKT | Cukurca | 1.29 | 167 | ePN | Pn | 02 11 16.5 | -0.4 |
| CUKT | Cukurca | 1.29 | 167 | ePn | Pn | 02 11 16.5 | -0.4 |
| VRTB | Varto-Mus | 1.54 | 296 | ePN | Pn | 02 11 20.2 | 0.0 |
| VRTB | Varto-Mus | 1.54 | 296 | ePn | Pn | 02 11 20.2 | 0.0 |
| BNGB | Bingˆ¶l | 2.06 | 284 | ePN | Pn | 02 11 28.0 | +0.6 |
| BINT | Bingol | 2.18 | 281 | ePn | Pn | 02 11 28.0 | -1.1 |

---

**IDC 06 02:17:27.0**±4.5**, 24°.28S×178°.57W, h0**km**, mb3.9**/2**, mb1 4.2**/2**, mb1mx3.6**/18**, mbtmp3.9**/2**, Error ellipse: s-maj=245.9km s-min=45.4km az=155.0, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ASAR | Alice Springs | 43.27 | 261 | P | P | 02 25 30.4 | -0.3 |
| | 0.4nm,0.4s,baz=94,slow=7.6,SNR=9.4 | | | | | | |
| WRA | Warramunga Arr | 43.69 | 266 | P | P | 02 25 34.0 | 0.0 |
| | 0.9nm,0.3s,baz=103,slow=8.1,SNR=7.2 | | | | | | |
| NOA | NORSAR Array B | 142.64 | 352 | PKP | PKPdf | 02 37 00.4 | -1.3 |
| | 0.9nm,0.8s,baz=26,slow=3.2,SNR=4.2 | | | | | | |
| AKASG | Malin Array Be | 145.99 | 328 | PKPbc | PKPbc | 02 37 08.2 | -0.2 |
| | 0.4nm,0.4s,baz=47,slow=4.2,SNR=4.0 | | | | | | |
| BRTR | Keskin Array B | 148.85 | 307 | PKPbc | PKPbc | 02 37 16.4 | -0.6 |
| | 0.3nm,0.6s,baz=44,slow=3.3,SNR=2.7 | | | | | | |
| MMAI | Mount Meron Ar | 149.05 | 294 | PKPbc | PKPbc | 02 37 16.6 | -1.0 |
| | 0.6nm,0.3s,baz=64,slow=6.6,SNR=3.9 | | | | | | |

---

*DDA **06** 02:22:17.2, 38°.92N×43°.70E, h8km, Md2.7*
*ISK **06** 02:22:18.2, 38°.91N×43°.50E, h5km, MD2.9*
*ATA **06** 02:22:18.0±1.5, 38°.93N×43°.55E, h7km±42km, ML3.1, MW3.2*
*CSEM **06** 02:22:19.3±0.4, 38°.92N×43°.57E, h10km, MD2.7, Error ellipse: s-maj=9.0km s-min=6.1km az=82.0*
**ISC 06 02:22:18.8**±0.9**, 38°.91N**±0°.02×**43°.55E**±0°.04**, h6**km±7km**, n38, σ0$^{s}$.71**/51**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.08 | 14 | i P | Pg | 02 22 21.0 | +0.1 |
| VMUR | | | | i S | Sg | 02 22 22.5 | +0.2 |
| VMUR | Van-Muradiye | 0.08 | 14 | P | Pg | 02 22 21.0 | +0.1 |
| VMUR | | | | S | Sg | 02 22 22.5 | +0.2 |
| VANB | Van | 0.34 | 201 | ePG | Pb | 02 22 26.4 | -0.9 |
| VANB | Van | 0.34 | 201 | ePg | Pb | 02 22 26.4 | -0.9 |
| TVAN | Van | 0.40 | 196 | i P | Pg | 02 22 26.2 | -0.4 |
| TVAN | Van | 0.40 | 196 | P | Pg | 02 22 26.2 | -0.4 |
| DYDN | Diyadin | 0.64 | 10 | eP | Pg | 02 22 30.9 | -0.3 |
| DYDN | | | | eS | Sg | 02 22 39.7 | +0.1 |
| DYDN | | | | IAML | | 02 22 41.2 | |
| | comp=Z,59nm,0.2s | | | | | | |
| ADCV | BITLIS_Adilcev | 0.65 | 261 | i P | Pb | 02 22 32.4 | -0.2 |
| ADCV | | | | i S | Sb | 02 22 43.0 | +1.0 |
| ADCV | BITLIS_Adilcev | 0.65 | 261 | P | Pb | 02 22 32.4 | -0.2 |
| ADCV | | | | S | Sb | 02 22 43.0 | +1.0 |
| GEVA | Gevas | 0.71 | 213 | eP | Pg | 02 22 32.0 | -0.4 |
| GEVA | | | | eS | Sb | 02 22 43.4 | -0.3 |
| GEVA | | | | IAML | | 02 22 51.4 | |
| | comp=Z,48nm,0.4s | | | | | | |
| TUTA | Tutak | 0.75 | 311 | eP | Pg | 02 22 33.1 | -0.2 |
| TUTA | | | | eS | Sg | 02 22 43.6 | +0.6 |
| TUTA | | | | IAML | | 02 22 45.2 | |
| | comp=Z,182nm,0.2s | | | | | | |
| TUTA | Tutak | 0.75 | 311 | i P | Pg | 02 22 33.1 | -0.2 |
| TUTA | | | | i S | Sg | 02 22 43.2 | +0.1 |
| TUTA | Tutak | 0.75 | 311 | P | Pg | 02 22 33.1 | -0.2 |
| TUTA | | | | S | Sg | 02 22 43.2 | +0.1 |
| AGRB | Hanur-Agry | 0.79 | 327 | ePG | Pb | 02 22 34.0 | -1.1 |
| AGRB | | | | eSG | Sb | 02 22 45.6 | -0.5 |
| AGRB | Hanur-Agry | 0.79 | 327 | ePg | Pb | 02 22 34.0 | -1.1 |
| AGRB | | | | eSg | Sb | 02 22 45.6 | -0.5 |
| TASB | TASBURUN-IGDIR | 1.20 | 26 | ePN | Pn | 02 22 42.8 | +0.6 |
| TASB | TASBURUN-IGDIR | 1.20 | 26 | ePn | Pn | 02 22 42.8 | +0.6 |
| EKAR | Karacoban | 1.20 | 287 | eP | Pn | 02 22 42.4 | 0.0 |
| EKAR | | | | IAML | | 02 23 07.6 | |
| | comp=Z,19nm,0.5s | | | | | | |
| EKAR | Karacoban | 1.20 | 287 | i P | Pn | 02 22 42.9 | +0.5 |
| EKAR | | | | i S | Sn | 02 23 00.2 | +1.0 |
| EKAR | Karacoban | 1.20 | 287 | P | Pn | 02 22 42.9 | +0.5 |
| EKAR | | | | S | Sn | 02 23 00.2 | +1.0 |
| EATA | Eleskirt | 1.25 | 320 | eP | Pn | 02 22 42.4 | -0.7 |
| EATA | | | | IAML | | 02 23 03.4 | |
| | comp=Z,7.3nm,0.4s | | | | | | |
| DIGO | Kars | 1.51 | 355 | eP | Pg | 02 22 47.5 | -0.3 |
| DIGO | | | | IAML | | 02 22 56.4 | |
| | comp=Z,5.7nm,0.3s | | | | | | |
| VRTB | Varto-Mus | 1.65 | 279 | ePN | Pb | 02 22 49.4 | -0.2 |
| VRTB | Varto-Mus | 1.65 | 279 | ePn | Pb | 02 22 49.4 | -0.2 |
| SIRT | Sirnak | 1.65 | 212 | ePN | Pg | 02 22 49.9 | -0.6 |
| SIRT | Sirnak | 1.65 | 212 | ePn | Pg | 02 22 49.9 | -0.6 |
| CUKT | Cukurca | 1.66 | 178 | ePN | Pb | 02 22 49.6 | -0.2 |
| CUKT | Cukurca | 1.66 | 178 | ePn | Pb | 02 22 49.6 | -0.2 |
| KARS | Kars | 1.75 | 348 | ePN | Pb | 02 22 50.8 | -0.6 |
| KARS | Kars | 1.75 | 348 | ePn | Pb | 02 22 50.8 | -0.6 |
| SENK | Senkaya-Erzuru | 1.89 | 331 | ePN | Pb | 02 22 52.8 | -1.0 |
| SENK | Senkaya-Erzuru | 1.89 | 331 | ePn | Pb | 02 22 52.8 | -1.0 |
| ERZM | Erzurum | 1.96 | 301 | eP | Pg | 02 22 55.7 | -0.7 |
| ECAT | Cat-ERZURUM | 2.11 | 290 | eP | Pb | 02 22 57.2 | -0.4 |
| ECAT | | | | IAML | | 02 23 03.5 | |
| | comp=Z,4.6nm,0.3s | | | | | | |
| BNGB | Bingˆ¶l | 2.24 | 273 | ePN | Pb | 02 22 57.8 | -1.9 |
| BINT | Bingol | 2.38 | 270 | ePn | Pn | 02 22 57.8 | -0.7 |
| YEDI | Yedisu-Bingol | 2.39 | 284 | ePN | Pn | 02 22 59.9 | +1.3 |
| YEDI | Yedisu-Bingol | 2.39 | 284 | ePn | Pn | 02 22 59.9 | +1.3 |

---

**SJA 06 02:22:43.4**±0.4**, 28°.71S×68°.59W, h105**km±3km**, ML3.5, MW3.6, La Rioja Province**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VCA | Vinchina | 0.33 | 94 | eP | Pn | 02 22 59.8 | +0.9 |
| VCA | | | | eS | Sn | 02 23 11.4 | +0.8 |
| VCA | | | | IAML | | 02 23 11.9 | |
| | comp=Z,1μm,0.2s | | | | | | |
| AGUA | GUANDACOL | 0.78 | 174 | eP | Pn | 02 23 02.8 | +0.6 |
| AGUA | | | | eS | Sn | 02 23 17.3 | +1.1 |
| ACLC | CERRO LA CRUZ | 1.60 | 117 | eP | Pn | 02 23 12.2 | +0.9 |
| ACLC | | | | eS | Sn | 02 23 33.9 | +1.4 |

---

*AZER **06** 02:55:53.2±0.1, 38°.79N×42°.76E, h43km±2km, Error ellipse: s-maj=23.4km s-min=3.5km az=247.0*
*BJI **06** 02:55:55.5, 38°.79N×42°.92E, h8km, mb4.6/30, mB5.0/22, Ms4.6/16, Ms7 4.3/16*
*ISN **06** 02:55:57.7±1.2, 38°.90N×43°.61E, h0km±55km, ML4.6*
*ATA **06** 02:55:59.6±1.0, 38°.87N×43°.49E, h12km±9km, ML5.1, MW5.2*
*DDA **06** 02:55:59.6, 38°.83N×43°.62E, h15km, Ml4.7*
*ISK **06** 02:55:59.5, 38°.85N×43°.62E, h2km, ML4.5*
*IDC **06** 02:55:60.0±0.6, 38°.81N×43°.55E, h0km, mb4.1/23, mb1 4.2/34, mb1mx4.1/46, mbtmp4.1/34, ML3.2/12, MS3.8/31, Ms1 3.8/31, ms1mx3.7/45, Error ellipse: s-maj=10.8km s-min=7.8km az=153.0*
*NEIC **06** 02:55:59.1±0.0, 38°.81N×43°.67E, h5km, mb4.6/22, ML4.7(ISK), After ISK.*
*CSEM **06** 02:56:00.6±0.1, 38°.84N×43°.64E, h2km, mb4.6/13, Error ellipse: s-maj=2.9km s-min=2.3km az=166.0*
*MOS **06** 02:56:01.2±1.7, 38°.76N×43°.61E, h16km, mb4.7/13, Error ellipse: s-maj=6.1km s-min=3.8km az=109.9*
*TEH **06** 02:56:01.0, 38°.76N×43°.57E, h8km, ML4.6*
**ISC 06 02:56:00.9**±0.9**, 38°.83N**±0°.01×**43°.59E**±0°.01**, h5**km±5km**, n564, σ1$^{s}$.96**/669**, mb4.4**/57**, MS3.7**/29**, 68C-53D, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.16 | 355 | ⇓iP | Pg | 02 56 03.0 | -1.2 |
| VMUR | | | | i S | Sg | 02 56 06.8 | +0.4 |
| VMUR | Van-Muradiye | 0.16 | 355 | P | Pg | 02 56 03.0 | -1.2 |
| VMUR | | | | S | Sg | 02 56 06.8 | +0.4 |
| VANB | Van | 0.28 | 214 | ePG | Pg | 02 56 07.3 | +1.0 |
| VANB | | | | eSG | Sb | 02 56 13.7 | +0.1 |
| VANB | Van | 0.28 | 214 | Pg | Pg | 02 56 07.2 | +0.8 |
| VANB | | | | Sg | Sb | 02 56 13.2 | -0.4 |
| VANB | Van | 0.28 | 214 | Pg | Pg | 02 56 07.2 | +0.8 |
| VANB | | | | Sg | Sb | 02 56 13.2 | -0.4 |
| TVAN | Van | 0.33 | 206 | ⇓iP | Pg | 02 56 07.0 | -0.4 |
| TVAN | | | | i S | Sb | 02 56 14.1 | -1.1 |
| TVAN | Van | 0.33 | 206 | P | Pg | 02 56 07.0 | -0.4 |
| TVAN | | | | S | Sb | 02 56 14.1 | -1.1 |
| CLDR | Caldiran | 0.41 | 39 | ⇑iP | Pg | 02 56 07.6 | -1.2 |
| CLDR | | | | i S | Sg | 02 56 15.0 | +0.8 |
| CLDR | Caldiran | 0.41 | 39 | P | Pg | 02 56 07.6 | -1.2 |
| CLDR | | | | S | Sg | 02 56 15.0 | +0.8 |
| GEVA | Gevas | 0.66 | 219 | eP | Pg | 02 56 11.8 | -1.8 |
| GEVA | | | | IAML | | 02 56 32.0 | |
| | comp=Z,6μm,0.5s | | | | | | |
| GEVA | Gevas | 0.66 | 219 | ⇑iP | Pg | 02 56 12.1 | -1.5 |
| GEVA | | | | i S | Sg | 02 56 23.3 | +1.1 |
| GEVA | Gevas | 0.66 | 219 | P | Pg | 02 56 12.1 | -1.5 |
| GEVA | | | | S | Sg | 02 56 23.3 | +1.1 |
| ADCV | BITLIS_Adilcev | 0.68 | 269 | ⇑iP | Pg | 02 56 12.7 | -1.2 |
| ADCV | | | | i S | Sg | 02 56 23.3 | +0.6 |
| ADCV | BITLIS_Adilcev | 0.68 | 269 | P | Pg | 02 56 12.7 | -1.2 |
| ADCV | | | | S | Sg | 02 56 23.3 | +0.6 |
| DYDN | Diyadin | 0.72 | 6 | eP | Pg | 02 56 13.3 | -1.4 |
| DYDN | | | | IAML | | 02 56 45.7 | |
| | comp=Z,2μm,0.6s | | | | | | |
| DYDN | Diyadin | 0.72 | 6 | ⇑iP | Pg | 02 56 12.8 | -1.9 |
| DYDN | | | | i S | Sg | 02 56 24.2 | +0.1 |
| DYDN | Diyadin | 0.72 | 6 | P | Pg | 02 56 12.8 | -1.9 |
| DYDN | | | | S | Sg | 02 56 24.2 | +0.1 |
| TUTA | Tutak | 0.83 | 314 | ⇓iP | Pg | 02 56 14.7 | -2.2 |
| TUTA | | | | eS | Sg | 02 56 26.3 | -1.4 |
| TUTA | | | | IAML | | 02 56 30.6 | |
| | comp=Z,5μm,0.2s | | | | | | |
| TUTA | Tutak | 0.83 | 314 | ⇓iP | Pg | 02 56 14.7 | -2.2 |
| TUTA | | | | i S | Sb | 02 56 29.2 | -0.5 |
| TUTA | Tutak | 0.83 | 314 | P | Pg | 02 56 14.7 | -2.2 |
| TUTA | | | | S | Sb | 02 56 29.2 | -0.5 |
| BASK | Baskale_VAN | 0.84 | 157 | i P | Pb | 02 56 18.2 | +0.1 |
| BASK | | | | eS | Sn | 02 56 31.4 | -1.1 |
| BASK | | | | IAML | | 02 56 42.0 | |
| | comp=Z,2μm,0.6s | | | | | | |
| BASK | Baskale_VAN | 0.84 | 157 | ⇓iP | Pg | 02 56 15.2 | -1.8 |
| BASK | | | | i S | Sb | 02 56 29.2 | -0.6 |
| BASK | Baskale_VAN | 0.84 | 157 | P | Pg | 02 56 15.2 | -1.8 |
| BASK | | | | S | Sb | 02 56 29.2 | -0.6 |
| AGRB | Hanur-Agry | 0.88 | 328 | ePG | Pg | 02 56 16.2 | -1.6 |
| AGRB | | | | eSG | Sg | 02 56 29.3 | +0.1 |
| AGRB | Hanur-Agry | 0.88 | 328 | Pg | Pg | 02 56 15.9 | -1.9 |
| AGRB | | | | eSg | Sg | 02 56 29.3 | +0.1 |
| AGRB | Hanur-Agry | 0.88 | 328 | Pg | Pg | 02 56 15.9 | -1.9 |
| TASB | TASBURUN-IGDIR | 1.26 | 23 | ePN | Pg | 02 56 23.5 | -1.6 |
| TASB | TASBURUN-IGDIR | 1.26 | 23 | ePn | Pg | 02 56 23.5 | -1.6 |
| EKAR | Karacoban | 1.26 | 290 | eP | Pg | 02 56 23.1 | -2.0 |
| EKAR | | | | IAML | | 02 56 57.9 | |
| | comp=Z,2μm,0.6s | | | | | | |
| EKAR | Karacoban | 1.26 | 290 | ⇓iP | Pg | 02 56 23.3 | -1.8 |
| EKAR | | | | i S | Sn | 02 56 45.1 | +2.1 |
| EKAR | Karacoban | 1.26 | 290 | P | Pg | 02 56 23.3 | -1.8 |
| EKAR | | | | S | Sn | 02 56 45.1 | +2.1 |
| HYR | Heyderabad | 1.32 | 47 | ⇓P | Pg | 02 56 24.9 | -1.4 |
| HYR | | | | ⇓S | Sn | 02 56 48.6 | +4.3 |
| HYR | Heyderabad | 1.32 | 47 | P | Pg | 02 56 24.9 | -1.4 |
| EATA | Eleskirt | 1.34 | 321 | ⇓iP | Pg | 02 56 24.0 | -2.6 |
| EATA | | | | i S | Sn | 02 56 46.1 | +1.1 |
| EATA | Eleskirt | 1.34 | 321 | P | Pg | 02 56 24.0 | -2.6 |
| EATA | | | | S | Sn | 02 56 46.1 | +1.1 |
| YOVA | Hakkari_Yˆ…kse | 1.36 | 156 | ⇓iP | Pn | 02 56 24.8 | -2.0 |
| YOVA | | | | i S | Sn | 02 56 49.0 | +3.7 |
| YOVA | Hakkari_Yˆ…kse | 1.36 | 156 | P | Pn | 02 56 24.8 | -2.0 |
| YOVA | | | | S | Sn | 02 56 49.0 | +3.7 |
| NAX | Nakhchivan | 1.52 | 76 | ⇑P | Pn | 02 56 29.0 | 0.0 |
| NAX | | | | ⇓S | Sg | 02 56 54.8 | +4.9 |
| NAX | Nakhchivan | 1.52 | 76 | P | Pn | 02 56 29.0 | 0.0 |
| SRTM | Siirt_Merkez | 1.55 | 238 | ⇑iP | Pn | 02 56 28.0 | -1.4 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| SRTM | | | | iS | Sg | 02 56 51.4 | +0.6 |
| SRTM | Siirt_Merkez | 1.55 | 238 | P | Pn | 02 56 28.0 | -1.4 |
| SRTM | | | | S | Sg | 02 56 51.4 | +0.6 |
| CUKT | Cukurca | 1.58 | 179 | ePN | Pn | 02 56 29.4 | -0.3 |
| CUKT | Cukurca | 1.58 | 179 | ⇓iP | Pn | 02 56 28.5 | -1.2 |
| CUKT | | | | iS | Sg | 02 56 52.4 | +0.8 |
| CUKT | Cukurca | 1.58 | 179 | Pn | Pn | 02 56 28.6 | -1.1 |
| CUKT | | | | S | Sg | 02 56 52.4 | +0.8 |
| CUKT | Cukurca | 1.58 | 179 | Pn | Pn | 02 56 28.6 | -1.1 |
| DIGO | Kars | 1.59 | 354 | eP | Pn | 02 56 29.8 | -0.2 |
| DIGO | | | | IAML | | 02 56 41.9 | |
| | comp=Z,425nm,0.4s | | | | | | |
| DIGO | | | | eS | Sg | 02 56 52.3 | +0.2 |
| DIGO | Kars | 1.59 | 354 | ⇓iP | Pn | 02 56 29.9 | -0.2 |
| DIGO | | | | iS | Sg | 02 56 55.4 | +3.2 |
| DIGO | Kars | 1.59 | 354 | P | Pn | 02 56 29.9 | -0.2 |
| DIGO | | | | S | Sg | 02 56 55.3 | +3.2 |
| GNI | Garni | 1.59 | 34 | Pg | Pn | 02 56 29.5 | -0.5 |
| | comp=Z,202nm,0.3s,baz=240,slow=2.8,SNR=668 | | | | | | |
| GNI | | | | Lg | Lg | 02 56 52.6 | |
| | comp=Z,179nm,0.3s,baz=57,slow=21,SNR=16 | | | | | | |
| GNI | | | | LR | LR | 02 57 13.9 | |
| | comp=Z,2µm,21.0s,baz=212,slow=46 | | | | | | |
| GNI | Garni | 1.59 | 34 | Pn | Pn | 02 56 29.5 | -0.5 |
| | SNR=346 | | | | | | |
| GNI | | | | eSn | Sb | 02 56 51.3 | -0.2 |
| GNI | Garni | 1.59 | 34 | ePn | Pn | 02 56 29.5 | -0.5 |
| GNI | | | | eSn | Sb | 02 56 51.3 | -0.2 |
| GNI | Garni | 1.59 | 34 | Pn | Pn | 02 56 29.5 | -0.5 |
| | SNR=346 | | | | | | |
| GNI | Garni | 1.59 | 34 | P | Pn | 02 56 29.5 | -0.5 |
| | SNR=346 | | | | | | |
| SIRT | Sirnak | 1.60 | 215 | ePN | Pn | 02 56 30.2 | +0.2 |
| SIRT | Sirnak | 1.60 | 215 | ePn | Pn | 02 56 30.3 | +0.2 |
| SBZ | Shahbuz | 1.63 | 69 | ⇓P | Pn | 02 56 30.4 | -0.1 |
| SBZ | | | | ⇑S | Sg | 02 56 57.3 | +4.0 |
| SBZ | Shahbuz | 1.63 | 69 | P | Pn | 02 56 30.4 | -0.1 |
| IMRD | Marand | 1.66 | 93 | eP | Pn | 02 56 29.9 | -1.0 |
| IMRD | Marand | 1.66 | 93 | eP | Pn | 02 56 29.9 | -1.0 |
| ISHB | Shabestar | 1.68 | 108 | eP | Pn | 02 56 30.5 | -0.7 |
| VRTB | Varto-Mus | 1.69 | 282 | ePN | Pn | 02 56 31.2 | -0.1 |
| VRTB | Varto-Mus | 1.69 | 282 | ⇓iP | Pn | 02 56 30.5 | -0.8 |
| VRTB | | | | iS | Sg | 02 56 57.6 | +2.2 |
| VRTB | Varto-Mus | 1.69 | 282 | P | Pn | 02 56 30.5 | -0.8 |
| VRTB | Varto-Mus | 1.69 | 282 | ePn | Pn | 02 56 31.2 | -0.1 |
| VRTB | | | | S | Sg | 02 56 57.6 | +2.2 |
| VRTB | Varto-Mus | 1.69 | 282 | Pn | Pn | 02 56 31.9 | +0.5 |
| HOMI | Horasan | 1.78 | 314 | eP | Pn | 02 56 31.5 | -1.2 |
| HOMI | | | | IAML | | 02 56 37.3 | |
| | comp=Z,1µm,0.5s | | | | | | |
| HOMI | | | | eS | Sb | 02 56 57.0 | 0.0 |
| HOMI | Horasan | 1.78 | 314 | ⇓iP | Pn | 02 56 32.1 | -0.6 |
| HOMI | | | | iS | Sg | 02 57 03.1 | +5.0 |
| KARS | Kars | 1.84 | 348 | ePN | Pn | 02 56 32.6 | -0.8 |
| KARS | Kars | 1.84 | 348 | P | Pn | 02 56 33.1 | -0.3 |
| KARS | Kars | 1.84 | 348 | ePn | Pn | 02 56 32.6 | -0.8 |
| KARS | Kars | 1.84 | 348 | P | Pn | 02 56 33.1 | -0.3 |
| KARS | Kars | 1.84 | 348 | Pn | Pn | 02 56 33.1 | -0.3 |
| EAK | Akyaka | 1.86 | 0 | eP | Pn | 02 56 34.4 | +0.8 |
| EAK | | | | eS | Sg | 02 57 01.0 | +0.5 |
| EAK | | | | IAML | | 02 57 07.7 | |
| | comp=Z,704nm,0.6s | | | | | | |
| EAK | Akyaka | 1.86 | 0 | ⇑iP | Pn | 02 56 34.5 | +0.8 |
| EAK | | | | iS | Sg | 02 57 04.8 | +4.2 |
| EAK | Akyaka | 1.86 | 0 | P | Pn | 02 56 34.5 | +0.9 |
| ORD | Ordubad | 1.88 | 86 | P | Pn | 02 56 34.3 | +0.5 |
| BNGL | BINGOL | 1.91 | 274 | ⇑iP | Pn | 02 56 34.3 | 0.0 |
| BNGL | | | | eS | Sb | 02 57 01.4 | +0.8 |
| BNGL | | | | IAML | | 02 57 07.3 | |
| | comp=Z,3µm,0.5s | | | | | | |
| BNGL | BINGOL | 1.91 | 274 | ⇓iP | Pn | 02 56 34.2 | -0.1 |
| BNGL | | | | iS | Sg | 02 57 03.1 | +0.9 |
| SENK | Senkaya-Erzuru | 1.98 | 331 | ePN | Pn | 02 56 35.0 | -0.3 |
| SENK | Senkaya-Erzuru | 1.98 | 331 | ePn | Pn | 02 56 35.0 | -0.3 |
| ERZM | Erzurum | 2.03 | 303 | eP | Pn | 02 56 36.3 | +0.2 |
| ERZM | Erzurum | 2.03 | 303 | ⇑iP | Pn | 02 56 35.9 | -0.2 |
| ERZM | | | | iS | Sg | 02 57 07.2 | +1.0 |
| ERZM | Erzurum | 2.03 | 303 | P | Pn | 02 56 35.9 | -0.2 |
| ERZM | | | | S | Sg | 02 57 07.2 | +1.0 |
| BTMN | Batman | 2.05 | 244 | ⇑iP | Pn | 02 56 35.9 | -0.3 |
| BTMN | | | | iS | Sn | 02 57 02.3 | +0.1 |
| BTMN | Batman | 2.05 | 244 | P | Pn | 02 56 35.9 | -0.3 |
| BTMN | | | | S | Sn | 02 57 02.3 | +0.1 |
| ITBZ | Tabriz | 2.09 | 106 | eP | Pn | 02 56 37.4 | +0.6 |
| ITBZ | Tabriz | 2.09 | 106 | eP | Pn | 02 56 37.4 | +0.6 |
| ECAT | Cat-ERZURUM | 2.17 | 292 | eP | Pn | 02 56 38.0 | 0.0 |
| ECAT | | | | IAML | | 02 56 44.1 | |
| | comp=Z,710nm,0.6s | | | | | | |
| ECAT | | | | eS | Sb | 02 57 07.9 | -0.3 |
| ECAT | Cat-ERZURUM | 2.17 | 292 | ⇓iP | Pn | 02 56 37.6 | -0.4 |
| ECAT | | | | iS | Sg | 02 57 11.1 | +0.3 |
| ECAT | Cat-ERZURUM | 2.17 | 292 | P | Pn | 02 56 37.6 | -0.4 |
| ECAT | | | | S | Sg | 02 57 11.1 | +0.3 |
| BNGB | Bingˆ¶l | 2.28 | 275 | ePN | Pn | 02 56 39.7 | +0.3 |
| BNGB | Bingˆ¶l | 2.28 | 275 | Pn | Pn | 02 56 39.6 | +0.3 |
| BNGB | Bingˆ¶l | 2.28 | 275 | Pn | Pn | 02 56 39.6 | +0.3 |
| BINT | Bingol | 2.42 | 272 | ePn | Pn | 02 56 39.7 | -1.6 |
| BGD | Bogdanovka | 2.43 | 0 | P | Pb | 02 56 44.3 | -1.1 |
| BGD | | | | S | Sg | 02 57 21.3 | +2.2 |
| YEDI | Yedisu-Bingol | 2.44 | 285 | ePN | Pn | 02 56 42.0 | +0.3 |
| YEDI | Yedisu-Bingol | 2.44 | 285 | ePn | Pn | 02 56 42.0 | +0.3 |
| YEDI | Yedisu-Bingol | 2.44 | 285 | Pn | Pn | 02 56 42.9 | +1.2 |
| DDEM | Demirkent | 2.50 | 326 | ⇓iP | Pn | 02 56 42.2 | -0.2 |
| DDEM | | | | iS | Sg | 02 57 25.0 | +3.7 |
| DDEM | Demirkent | 2.50 | 326 | P | Pn | 02 56 42.2 | -0.2 |
| GDB | GEDABAY | 2.52 | 41 | ⇓P | Pn | 02 56 40.8 | -2.0 |
| GDB | | | | ⇑S | Sb | 02 57 16.4 | -1.8 |
| GDB | GEDABAY | 2.52 | 41 | P | Pn | 02 56 40.8 | -2.0 |
| GDB | | | | S | Sb | 02 57 16.4 | -1.8 |
| HANI | Diyarbakir_Han | 2.53 | 262 | iP | Pn | 02 56 43.4 | +0.6 |
| HANI | | | | iS | Sb | 02 57 16.9 | -1.5 |
| HANI | Diyarbakir_Han | 2.53 | 262 | P | Pn | 02 56 43.4 | +0.6 |
| HANI | | | | S | Sb | 02 57 16.9 | -1.5 |
| AKH | Akhalkalaki | 2.58 | 358 | ePN | Pn | 02 56 44.0 | +0.4 |
| AKH | Akhalkalaki | 2.58 | 358 | P | Pb | 02 56 46.0 | -1.8 |
| AKH | | | | S | Sg | 02 57 27.6 | +3.8 |
| AKH | Akhalkalaki | 2.58 | 358 | ePn | Pn | 02 56 44.0 | +0.4 |
| DAGI | Agillar | 2.59 | 331 | ⇓iP | Pn | 02 56 45.7 | +2.1 |
| DAGI | | | | iS | Sg | 02 57 32.7 | +8.6 |
| QZX | Qazax, Azerbai | 2.62 | 31 | ⇑P | Pn | 02 56 40.9 | -3.0 |
| QZX | | | | ⇑S | Sn | 02 57 16.7 | +0.6 |
| QZX | Qazax, Azerbai | 2.62 | 31 | P | Pn | 02 56 40.9 | -3.0 |
| QZX | | | | S | Sn | 02 57 16.7 | +0.6 |
| KOPT | Kop Dagi | 2.67 | 297 | eP | Pn | 02 56 45.1 | +0.2 |
| KOPT | | | | IAML | | 02 57 01.0 | |
| | comp=Z,528nm,0.7s | | | | | | |
| KOPT | | | | eS | Sb | 02 57 20.6 | -2.0 |
| KOPT | Kop Dagi | 2.67 | 297 | ⇓iP | Pb | 02 56 47.6 | -1.8 |
| KOPT | | | | iS | Sg | 02 57 30.6 | +3.8 |
| KOPT | Kop Dagi | 2.67 | 297 | P | Pb | 02 56 47.6 | -1.8 |
| KOPT | Kop Dagi | 2.67 | 297 | ePn | Pb | 02 56 48.0 | -1.4 |
| KOPT | Kop Dagi | 2.67 | 297 | ePn | Pb | 02 56 48.0 | -1.4 |
| ARTV | Artvin | 2.68 | 332 | eP | Pn | 02 56 45.1 | +0.1 |
| ARTV | | | | IAML | | 02 56 54.4 | |
| | comp=Z,94nm,0.6s | | | | | | |
| ARTV | | | | eS | Sb | 02 57 20.9 | -1.8 |
| ARTV | Artvin | 2.68 | 332 | iP | Pn | 02 56 47.0 | +2.1 |
| ARTV | | | | iS | Sg | 02 57 30.8 | +3.9 |
| ARTV | Artvin | 2.68 | 332 | ePn | Pn | 02 56 45.6 | +0.7 |
| ARTV | Artvin | 2.68 | 332 | P | Pn | 02 56 47.0 | +2.1 |
| ARTV | Artvin | 2.68 | 332 | ePn | Pn | 02 56 45.6 | +0.7 |
| MARD | Mardin | 2.68 | 237 | ⇑iP | Pn | 02 56 44.5 | -0.4 |
| MARD | | | | iS | Sb | 02 57 22.6 | -0.2 |
| MARD | Mardin | 2.68 | 237 | ePn | Pn | 02 56 44.5 | -0.4 |
| MARD | | | | eSn | Sn | 02 57 15.3 | -2.6 |
| MARD | Mardin | 2.68 | 237 | ePn | Pn | 02 56 44.5 | -0.4 |
| MARD | | | | eSn | Sn | 02 57 15.3 | -2.6 |
| EPOS | Posof | 2.75 | 346 | eP | Pn | 02 56 46.1 | +0.2 |
| EPOS | | | | eS | Sb | 02 57 22.4 | -2.4 |
| EPOS | Posof | 2.75 | 346 | iP | Pb | 02 56 49.4 | -1.3 |
| EPOS | | | | iS | Sg | 02 57 37.0 | +7.6 |
| EPOS | Posof | 2.75 | 346 | P | Pb | 02 56 49.4 | -1.3 |
| IHRS | Heris | 2.75 | 100 | eP | Pn | 02 56 47.0 | +1.0 |
| IHRS | Heris | 2.75 | 100 | eP | Pn | 02 56 47.0 | +1.0 |
| GANJ | Ganja | 2.78 | 48 | ⇑P | Pn | 02 56 44.8 | -1.4 |
| GANJ | | | | ⇑S | Sb | 02 57 23.6 | -2.0 |
| GANJ | Ganja | 2.78 | 48 | P | Pn | 02 56 44.8 | -1.4 |
| GANJ | | | | S | Sb | 02 57 23.6 | -2.0 |
| DIY | Diyarbakir | 2.80 | 252 | ePn | Pn | 02 56 47.9 | +1.4 |
| MAZI | Mazidag | 2.83 | 242 | ePN | Pn | 02 56 47.8 | +0.9 |
| MAZI | Mazidag | 2.83 | 242 | ePn | Pn | 02 56 47.8 | +0.9 |
| MAZI | Mazidag | 2.83 | 242 | Pn | Pn | 02 56 47.8 | +0.9 |
| IBST | Bostanabad | 2.83 | 112 | eP | Pn | 02 56 47.7 | +0.6 |
| IBST | Bostanabad | 2.83 | 112 | eP | Pn | 02 56 47.7 | +0.6 |
| DYBB | Diyarbakir | 2.85 | 253 | ePN | Pn | 02 56 47.9 | +0.8 |
| DIYA | Diyarbakir | 2.87 | 253 | iP | Pn | 02 56 48.2 | +0.8 |
| DIYA | | | | iS | Sb | 02 57 29.1 | +0.9 |
| DIYA | Diyarbakir | 2.87 | 253 | P | Pn | 02 56 48.2 | +0.8 |
| DIYA | | | | S | Sb | 02 57 29.1 | +0.9 |
| DGRG | David-gareji | 2.96 | 27 | P | Pn | 02 56 50.2 | +1.6 |
| TBLG | Delisi | 3.03 | 17 | ePN | Pn | 02 56 49.6 | 0.0 |
| TBLG | Delisi | 3.03 | 17 | P | Pb | 02 56 52.6 | -2.8 |
| TBLG | | | | S | Sg | 02 57 42.0 | +3.7 |
| TBLG | Delisi | 3.03 | 17 | eP | Pn | 02 56 50.5 | +0.9 |
| TBLG | Delisi | 3.03 | 17 | ePn | Pn | 02 56 49.6 | 0.0 |
| TBLG | Delisi | 3.03 | 17 | P | Pn | 02 56 50.9 | +1.3 |
| ERZN | Erzincan | 3.10 | 285 | ePN | Pn | 02 56 52.0 | +1.4 |
| ERZN | Erzincan | 3.10 | 285 | Pn | Pn | 02 56 52.0 | +1.4 |
| ERZN | Erzincan | 3.10 | 285 | Pn | Pn | 02 56 52.0 | +1.4 |
| BRDA | Brd | 3.12 | 62 | ⇑P | Pn | 02 56 50.1 | -0.8 |
| BRDA | | | | ⇓S | Sb | 02 57 33.1 | -2.2 |
| BRDA | Brd | 3.12 | 62 | P | Pn | 02 56 50.1 | -0.8 |
| EUZM | Uzumlu | 3.15 | 287 | eP | Pn | 02 56 51.2 | -0.1 |
| EUZM | Uzumlu | 3.15 | 287 | ⇑iP | Pb | 02 56 55.8 | -1.6 |
| EUZM | | | | iS | Sg | 02 57 43.7 | +1.7 |
| EUZM | Uzumlu | 3.15 | 287 | P | Pb | 02 56 55.8 | -1.6 |
| TNCL | Tunceli-Merkez | 3.17 | 276 | eP | Pn | 02 56 51.4 | -0.2 |
| TNCL | | | | IAML | | 02 58 03.7 | |
| | comp=Z,113nm,0.4s | | | | | | |
| TNCL | Tunceli-Merkez | 3.17 | 276 | iP | Pn | 02 56 54.2 | +2.6 |
| TNCL | | | | iS | Sg | 02 57 48.2 | +5.6 |
| TNCL | Tunceli-Merkez | 3.17 | 276 | P | Pn | 02 56 54.2 | +2.6 |
| DDFL | Dedoflistskaro | 3.25 | 36 | P | Pg | 02 57 01.6 | -1.7 |
| DDFL | | | | S | Sg | 02 58 00.6 | +15 |
| PTK | Pertek | 3.28 | 272 | ePN | Pn | 02 56 54.0 | +0.8 |
| PTK | Pertek | 3.28 | 272 | ePn | Pn | 02 56 54.0 | +0.8 |
| PTK | Pertek | 3.28 | 272 | Pn | Pn | 02 56 54.8 | +1.6 |
| MNGR | Mingechevir, A | 3.32 | 53 | ⇑P | Pn | 02 56 52.3 | -1.2 |
| MNGR | | | | ⇓S | Sb | 02 57 37.2 | -3.8 |
| MNGR | Mingechevir, A | 3.32 | 53 | P | Pn | 02 56 52.3 | -1.2 |
| MNGR | | | | S | Sb | 02 57 37.2 | -3.8 |
| SVRC | Sivrice-ELAZID | 3.38 | 264 | ePN | Pn | 02 56 55.9 | +1.3 |
| SVRC | Sivrice-ELAZID | 3.38 | 264 | ePn | Pn | 02 56 55.9 | +1.3 |
| SVRC | Sivrice-ELAZID | 3.38 | 264 | Pn | Pn | 02 56 56.4 | +1.8 |
| EZC | Erzincan | 3.41 | 287 | ePn | Pn | 02 56 52.0 | -3.0 |
| ZRD | Zardab | 3.48 | 64 | ⇑P | Pn | 02 56 55.1 | -0.7 |
| ZRD | | | | ⇑S | Sb | 02 57 42.2 | -3.5 |
| ZRD | Zardab | 3.48 | 64 | P | Pn | 02 56 55.1 | -0.7 |
| KELT | Kelkit | 3.60 | 293 | eP | Pn | 02 56 58.1 | +0.4 |
| KELT | | | | IAML | | 02 57 14.6 | |
| | comp=Z,116nm,0.6s | | | | | | |
| KELT | Kelkit | 3.60 | 293 | ⇑iP | Pb | 02 57 04.1 | -1.1 |
| KELT | | | | iS | Sg | 02 58 00.2 | +3.5 |
| ZKTA | Zakatala | 3.64 | 39 | ⇑P | Pn | 02 56 55.8 | -2.2 |
| ZKTA | | | | ⇓S | Sn | 02 57 43.4 | +2.0 |
| KTUT | Trabzon | 3.65 | 307 | ePN | Pn | 02 56 59.0 | +1.0 |
| KTUT | Trabzon | 3.65 | 307 | ePn | Pn | 02 56 59.0 | +1.0 |
| KTUT | Trabzon | 3.65 | 307 | Pn | Pn | 02 56 59.0 | +1.0 |
| SEKA | Sheki | 3.65 | 48 | ⇓P | Pn | 02 56 57.4 | -0.8 |
| SEKA | | | | ⇓S | Sb | 02 57 46.3 | -4.3 |
| SEKA | Sheki | 3.65 | 48 | P | Pn | 02 56 57.4 | -0.8 |
| GUDG | Gudauri | 3.69 | 10 | P | Pb | 02 57 08.6 | +1.8 |
| LRK | Lerik | 3.72 | 91 | ⇑P | Pn | 02 56 58.8 | -0.4 |
| LRK | | | | ⇓S | Sb | 02 57 48.8 | -3.9 |
| LRK | Lerik | 3.72 | 91 | P | Pn | 02 56 58.8 | -0.4 |
| ONI | Oni | 3.76 | 358 | P | Pb | 02 57 09.0 | +1.2 |
| ONI | | | | S | Sg | 02 58 08.9 | +7.2 |
| GLBA | Clilabad | 3.76 | 82 | ⇑P | Pn | 02 56 59.5 | -0.1 |
| GLBA | | | | ⇑S | Sb | 02 57 49.9 | -3.9 |
| GLBA | Clilabad | 3.76 | 82 | P | Pn | 02 56 59.5 | -0.1 |
| REFA | Refahiye_ERZ˜ | 3.79 | 280 | eP | Pn | 02 57 01.3 | +1.1 |
| REFA | | | | IAML | | 02 59 03.7 | |
| | comp=Z,94nm,0.4s | | | | | | |
| KDMR | Kurdemir | 3.87 | 65 | ⇓P | Pn | 02 57 00.5 | -0.6 |
| KDMR | | | | ⇑S | Sn | 02 57 51.8 | +4.8 |
| KDMR | Kurdemir | 3.87 | 65 | P | Pn | 02 57 00.5 | -0.6 |
| SAAT | Saatly | 3.89 | 73 | ⇑P | Pn | 02 57 00.5 | -0.8 |
| SAAT | | | | ⇑S | Sn | 02 57 51.9 | +4.5 |
| SAAT | Saatly | 3.89 | 73 | P | Pn | 02 57 00.5 | -0.8 |
| QBL | Gabala | 3.89 | 56 | ⇓P | Pn | 02 57 00.3 | -1.2 |
| QBL | | | | ⇓S | Sn | 02 57 51.6 | +3.9 |
| QBL | Gabala | 3.89 | 56 | P | Pn | 02 57 00.3 | -1.2 |
| ILIC | ilic-Erzincan | 3.95 | 281 | ePN | Pn | 02 57 04.3 | +1.9 |
| ILIC | ilic-Erzincan | 3.95 | 281 | ePn | Pn | 02 57 04.3 | +1.9 |
| ILIC | ilic-Erzincan | 3.95 | 281 | Pn | Pn | 02 57 04.3 | +1.9 |
| ZEI | Tsey | 3.96 | 3 | eP | Pb | 02 57 07.4 | -4.0 |
| ZEI | | | | pmax | pmax | | |
| | comp=Z,35nm,0.6s | | | | | | |
| KEMA | Kemaliye | 3.99 | 278 | eP | Pn | 02 57 02.9 | 0.0 |
| URFA | Urfa | 4.01 | 251 | ePN | Pn | 02 57 04.4 | +1.3 |
| URFA | Urfa | 4.01 | 251 | ePn | Pn | 02 57 04.4 | +1.3 |
| URFA | Urfa | 4.01 | 251 | Pn | Pn | 02 57 05.0 | +2.0 |
| IML | Ismayilli | 4.04 | 60 | ⇑P | Pn | 02 57 02.6 | -1.0 |
| IML | | | | ⇑S | Sn | 02 57 55.7 | +4.3 |
| IML | Ismayilli | 4.04 | 60 | P | Pn | 02 57 02.6 | -1.0 |
| CHVG | Ch'k'valeri | 4.05 | 344 | P | Pg | 02 57 17.4 | -1.1 |
| CHVG | | | | S | Sg | 02 58 28.1 | +17 |
| LKRN | Lenkeran, Azer | 4.06 | 90 | ⇓P | Pn | 02 57 03.4 | -0.3 |
| LKRN | | | | ⇓S | Sb | 02 57 57.1 | -5.1 |
| LKRN | Lenkeran, Azer | 4.06 | 90 | P | Pn | 02 57 03.4 | -0.3 |
| MALT | Malatya | 4.08 | 264 | ePN | Pn | 02 57 05.2 | +1.2 |
| MALT | Malatya | 4.08 | 264 | P | Pn | 02 57 05.8 | +1.7 |
| MALT | Malatya | 4.08 | 264 | ePn | Pn | 02 57 05.3 | +1.2 |
| MALT | Malatya | 4.08 | 264 | P | Pn | 02 57 05.8 | +1.7 |
| MALT | Malatya | 4.08 | 264 | Pn | Pn | 02 57 05.8 | +1.7 |
| ASTR | Astara | 4.08 | 92 | ⇓P | Pn | 02 57 03.8 | -0.2 |
| ASTR | | | | ⇑S | Sb | 02 57 57.6 | -5.2 |
| ASTR | Astara | 4.08 | 92 | P | Pn | 02 57 03.8 | -0.2 |
| XNQ | Khinaliq | 4.21 | 55 | ⇑P | Pn | 02 57 04.6 | -1.3 |
| XNQ | | | | ⇓S | Sn | 02 57 59.3 | +3.7 |
| XNQ | Khinaliq | 4.21 | 55 | P | Pn | 02 57 04.6 | -1.3 |
| PQL | Pirkuli | 4.32 | 61 | ⇑P | Pn | 02 57 06.5 | -1.0 |
| PQL | | | | ⇑S | Sn | 02 58 02.7 | +4.3 |
| PQL | Pirkuli | 4.32 | 61 | P | Pn | 02 57 06.5 | -1.0 |
| ALIB | Äli-Bayra | 4.35 | 73 | ⇓P | Pn | 02 57 07.2 | -0.4 |
| ALIB | | | | ⇓S | Sn | 02 58 04.0 | +5.3 |
| ALIB | Äli-Bayra | 4.35 | 73 | P | Pn | 02 57 07.2 | -0.4 |
| NEY | Neytrino | 4.46 | 352 | iP | Pn | 02 57 11.1 | +1.6 |
| NEY | Neytrino | 4.46 | 352 | iP | Pn | 02 57 11.1 | +1.6 |
| GBS | Qobustan | 4.47 | 66 | ⇓P | Pn | 02 57 08.8 | -0.6 |
| GBS | | | | ⇑S | Sn | 02 58 06.6 | +4.7 |
| GBS | Qobustan | 4.47 | 66 | P | Pn | 02 57 08.8 | -0.6 |
| QSAR | Qusar | 4.47 | 52 | ⇓P | Pn | 02 57 08.0 | -1.5 |
| QSAR | | | | ⇓S | Sn | 02 58 05.4 | +3.4 |
| QSAR | Qusar | 4.47 | 52 | P | Pn | 02 57 08.0 | -1.5 |
| QSAR | | | | S | Sn | 02 58 05.4 | +3.4 |
| QUBA | Quba, Azerbaij | 4.53 | 55 | ⇓P | Pn | 02 57 09.0 | -1.2 |
| QUBA | | | | ⇓S | Sn | 02 58 07.1 | +3.8 |
| QUBA | Quba, Azerbaij | 4.53 | 55 | P | Pn | 02 57 09.0 | -1.2 |
| ATGJ | Altiaghaj | 4.59 | 62 | ⇑P | Pn | 02 57 10.2 | -0.9 |
| ATGJ | | | | ⇑S | Sn | 02 58 09.3 | +4.4 |
| ATGJ | Altiaghaj | 4.59 | 62 | P | Pn | 02 57 10.2 | -0.9 |
| SIZA | Siyzn | 4.66 | 60 | ⇓P | Pn | 02 57 11.0 | -1.0 |
| SIZA | | | | ⇑S | Sn | 02 58 10.8 | +4.2 |
| SIZA | Siyzn | 4.66 | 60 | P | Pn | 02 57 11.0 | -1.0 |
| NCK | Nalchik | 4.66 | 0 | iP | Pn | 02 57 11.8 | -0.2 |
| NCK | Nalchik | 4.66 | 0 | iP | Pn | 02 57 11.8 | -0.2 |
| ILIN | Lien | 4.75 | 144 | eP | Pn | 02 57 15.0 | +1.6 |
| ILIN | Lien | 4.75 | 144 | eP | Pn | 02 57 15.0 | +1.6 |
| KBZ | Khabaz | 4.92 | 354 | Pn | Pn | 02 57 19.9 | +4.3 |
| | comp=Z,0.1nm,0.3s,baz=184,slow=16,SNR=4.0 | | | | | | |
| GOBA | Gobu | 5.00 | 70 | ⇓P | Pn | 02 57 16.1 | -0.5 |
| GOBA | | | | ⇓S | Sn | 02 58 19.9 | +5.1 |
| GOBA | Gobu | 5.00 | 70 | P | Pn | 02 57 16.1 | -0.5 |
| IVIS | Veis | 5.03 | 148 | eP | Pn | 02 57 18.5 | +1.3 |
| IVIS | Veis | 5.03 | 148 | eP | Pn | 02 57 18.5 | +1.3 |
| MAK | Makhachkala | 5.08 | 34 | eP | Pn | 02 57 17.4 | -0.4 |
| MAK | | | | eS | Sn | 02 58 16.2 | -0.7 |
| MAK | | | | pmax | pmax | | |
| | comp=Z,218nm,1.3s | | | | | | |
| MAK | | | | MLR | MLR | | |
| | comp=Z,3µm,12.0s | | | | | | |
| MAK | Makhachkala | 5.08 | 34 | eP | Pn | 02 57 17.4 | -0.4 |
| | comp=Z,218nm,1.3s | | | | | | |
| MAK | | | | eS | Sn | 02 58 16.2 | -0.7 |
| | comp=Z,3µm,12.0s | | | | | | |
| IGHG | Ghaleghazi | 5.09 | 151 | eP | Pn | 02 57 19.8 | +1.7 |
| IGHG | Ghaleghazi | 5.09 | 151 | eP | Pn | 02 57 19.8 | +1.7 |
| KIV | Kislovodsk | 5.17 | 353 | eP | Pn | 02 57 20.9 | +1.9 |
| KIV | | | | pmax | pmax | | |
| | comp=Z,29nm,1.0s | | | | | | |
| KIV | | | | MLR | MLR | | |
| | comp=Z,165nm,7.0s | | | | | | |
| KIV | Kislovodsk | 5.17 | 353 | eP | Pn | 02 57 20.9 | +1.9 |
| | comp=Z,165nm,7.0s | | | | | | |
| KIV | Kislovodsk | 5.17 | 353 | ePn | Pb | 02 57 25.8 | -6.0 |
| KVAR | Kislovodsk Arr | 5.17 | 353 | Pn | Pn | 02 57 23.5 | +4.5 |
| | baz=140,slow=6.9,SNR=6.8 | | | | | | |
| KVAR | | | | Lg | Lg | 02 58 40.0 | |
| | baz=216,slow=19,SNR=1.5 | | | | | | |
| NDR | Nardaran | 5.24 | 68 | ⇓P | Pn | 02 57 19.3 | -0.6 |
| NDR | | | | ⇑S | Sn | 02 58 25.7 | +5.0 |
| NDR | Nardaran | 5.24 | 68 | P | Pn | 02 57 19.3 | -0.6 |
| GALA | Gala | 5.31 | 71 | ⇓P | Pn | 02 57 20.4 | -0.5 |
| GALA | | | | ⇓S | Sn | 02 58 27.6 | +5.2 |
| GALA | Gala | 5.31 | 71 | P | Pn | 02 57 20.4 | -0.5 |
| SOC | Sochi | 5.58 | 330 | eP | Pn | 02 57 27.4 | +2.9 |
| SOC | | | | e | | 02 58 33.3 | |
| SOC | | | | pmax | pmax | | |
| | comp=Z,36nm,0.8s | | | | | | |
| SOC | | | | MLR | MLR | | |
| | comp=Z,546nm,10.0s | | | | | | |
| BHD | Baghdad | 5.58 | 173 | ePn | Pn | 02 57 24.0 | -0.7 |
| | SNR=3.0 | | | | | | |
| GOF | Gofitskoye | 6.24 | 356 | ⇑eP | Pn | 02 57 39.9 | +6.3 |
| GOF | | | | pmax | pmax | | |
| | comp=Z,15nm,0.7s | | | | | | |
| RTB | Rutbah | 6.37 | 206 | ePn | Pn | 02 57 35.5 | 0.0 |
| | SNR=3.0 | | | | | | |
| FKH | Fakeheh | 7.37 | 234 | eP | Pn | 02 57 49.6 | +0.3 |
| IDMV | Damavand | 7.48 | 113 | eP | Pn | 02 57 54.0 | +3.0 |
| ANN | Anapa | 7.53 | 324 | eP | Pn | 02 57 50.6 | -0.8 |
| ANN | | | | eS | Sn | 02 59 17.7 | +0.6 |
| ANN | | | | pmax | pmax | | |
| | comp=Z,33nm,0.9s | | | | | | |
| ANN | Anapa | 7.53 | 324 | eP | Pn | 02 57 50.6 | -0.8 |
| | comp=Z,33nm,0.9s | | | | | | |
| ANN | | | | eS | Sn | 02 59 17.7 | +0.6 |
| HWQ | Hawqa | 7.64 | 236 | eP | Pn | 02 57 53.0 | -0.1 |
| HWQ | Hawqa | 7.64 | 236 | eP | Pn | 02 57 53.0 | -0.1 |
| BR131 | Keskin Array S | 7.77 | 280 | ePn | Pn | 02 57 54.8 | 0.0 |
| BR131 | Keskin Array S | 7.77 | 280 | ePn | Pn | 02 57 54.8 | 0.0 |
| BRTR | Keskin Array B | 7.77 | 280 | Pn | Pn | 02 57 56.0 | +1.2 |
| | comp=Z,0.1nm,0.3s,baz=109,slow=13,SNR=5.6 | | | | | | |
| BRTR | | | | LR | LR | 03 01 25.6 | |
| | comp=Z,537nm,18.7s,baz=93,slow=42 | | | | | | |
| BHL | Bhannes | 8.07 | 235 | eP | Pn | 02 58 08.9 | +10 |
| NSR | Nassriya | 8.08 | 164 | ePn | Pn | 02 57 59.0 | +0.1 |
| | SNR=3.0 | | | | | | |
| DQRL | Deir Qamar | 8.25 | 234 | eP | Pn | 02 58 03.9 | +2.5 |
| DQRL | Deir Qamar | 8.25 | 234 | eP | Pn | 02 58 03.8 | +2.5 |
| QRWL | Qaraoun | 8.28 | 233 | eP | Pn | 02 58 02.9 | +1.1 |
| QRWL | Qaraoun | 8.28 | 233 | eP | Pn | 02 58 02.9 | +1.1 |
| SHBL | Chebaa | 8.38 | 232 | eP | Pn | 02 58 04.3 | +1.1 |
| SHBL | Chebaa | 8.38 | 232 | eP | Pn | 02 58 04.3 | +1.1 |
| ANTO | Ankara | 8.43 | 280 | eP | Pn | 02 58 06.3 | +2.5 |
| ANTO | Ankara | 8.43 | 280 | eP | Pn | 02 58 06.3 | +2.5 |
| ANTO | Ankara | 8.43 | 280 | ePn | Pn | 02 58 06.3 | +2.5 |
| BR231 | Keskin MP Arra | 8.44 | 280 | ePn | Pn | 02 58 04.0 | 0.0 |
| BR231 | Keskin MP Arra | 8.44 | 280 | ePn | Pn | 02 58 04.0 | 0.0 |
| IKLH | Kolahrood | 8.49 | 128 | eP | Pn | 02 58 09.6 | +4.8 |
| IPIR | Pirpir | 8.53 | 134 | eP | Pn | 02 58 08.8 | +3.4 |
| ASF | Jabal al Asfar | 8.59 | 221 | Pn | Pn | 02 58 05.3 | -0.8 |
| | comp=Z,0.1nm,0.3s,baz=348,slow=9.3,SNR=6.5 | | | | | | |
| ASF | | | | Lg | Lg | 03 00 25.7 | |
| | comp=Z,0.3nm,0.3s,baz=3.6,slow=19,SNR=2.6 | | | | | | |
| ASF | | | | LR | LR | 03 01 52.0 | |
| | comp=Z,987nm,18.7s,baz=352,slow=41 | | | | | | |
| MMAI | Mount Meron Ar | 8.81 | 231 | Pn | Pn | 02 58 07.3 | -1.7 |
| | comp=Z,0.7nm,0.3s,baz=64,slow=15,SNR=3.9 | | | | | | |
| MMAI | | | | Lg | Lg | 03 00 39.1 | |
| | comp=Z,0.5nm,0.3s,baz=78,slow=21,SNR=2.4 | | | | | | |
| MMAI | | | | LR | LR | 03 02 00.3 | |
| | comp=Z,1µm,18.8s,baz=45,slow=41 | | | | | | |
| CSS | Mathiatis | 9.08 | 248 | ePn | Pn | 02 58 09.6 | -3.1 |
| IZEF | Zefreh | 9.24 | 127 | eP | Pn | 02 58 20.9 | +5.8 |
| GEYT | Alibeck | 11.44 | 90 | Pn | Pn | 02 58 43.9 | -1.1 |
| | comp=Z,0.1nm,0.3s,baz=286,slow=16,SNR=7.2 | | | | | | |
| GEYT | | | | LR | LR | 03 05 09.6 | |
| | comp=Z,139nm,18.0s,baz=255,slow=48 | | | | | | |
| EIL | Elat | 11.59 | 221 | Pn | Pn | 02 58 48.3 | +1.2 |
| | comp=Z,0.2nm,0.3s,baz=35,slow=13,SNR=2.2 | | | | | | |
| EIL | | | | Lg | Lg | 03 02 13.3 | |
| | baz=54,slow=19,SNR=2.3 | | | | | | |
| EIL | | | | LR | LR | 03 03 46.5 | |
| | comp=Z,1µm,18.4s,baz=44,slow=40 | | | | | | |
| IPAY | Payeh | 12.44 | 96 | eP | Pn | 02 58 59.1 | +0.2 |
| IPAY | Payeh | 12.44 | 96 | eP | Pn | 02 58 59.1 | +0.2 |
| VRH | Novokhopyorsk | 12.44 | 355 | eP | Pn | 02 58 59.5 | +0.9 |
| VRH | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.6s | | | | | | |
| VRH | Novokhopyorsk | 12.44 | 355 | eP | Pn | 02 58 59.5 | +0.9 |
| | comp=Z,8.0nm,0.6s | | | | | | |
| VSR | Storozhevoye | 12.77 | 347 | eP | Pn | 02 59 08.3 | +5.2 |
| VSR | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.7s | | | | | | |
| KARP | Karpathos | 13.50 | 261 | ePn | Pn | 02 59 09.0 | -4.2 |
| LPSR | Galich'ya Gora | 14.15 | 348 | eP | Pn | 02 59 22.2 | +0.3 |
| LPSR | | | | pmax | pmax | | |
| | comp=Z,20nm,1.0s | | | | | | |
| LPSR | Galich'ya Gora | 14.15 | 348 | eP | Pn | 02 59 22.2 | +0.3 |
| | comp=Z,20nm,1.0s | | | | | | |
| SORM | Soroca | 14.43 | 315 | ⇑iP | Pn | 02 59 25.0 | -0.8 |
| SORM | Soroca | 14.43 | 315 | ⇑P | Pn | 02 59 25.0 | -0.8 |
| TESR | Tescani | 14.62 | 307 | ⇑iP | P | 02 59 33.8 | -1.1 |
| TESR | Tescani | 14.62 | 307 | ⇑iP | P | 02 59 33.8 | -1.1 |
| MLR | Muntele Rosu | 14.67 | 303 | Pn | Pn | 02 59 29.9 | +0.7 |
| | comp=Z,0.0nm,0.3s,baz=170,slow=11,SNR=1.9 | | | | | | |
| MLR | Muntele Rosu | 14.67 | 303 | ⇑iP | P | 02 59 35.7 | +0.1 |
| MLR | Muntele Rosu | 14.67 | 303 | eP | Pn | 02 59 29.0 | -0.2 |
| MLR | Muntele Rosu | 14.67 | 303 | ePn | Pn | 02 59 29.0 | -0.2 |
| MLR | Muntele Rosu | 14.67 | 303 | ⇑iP | P | 02 59 35.7 | +0.1 |
| MLR | Muntele Rosu | 14.67 | 303 | ePn | Pn | 02 59 29.0 | -0.2 |
| DOPR | Dopca | 15.20 | 304 | ⇑iP | P | 02 59 43.0 | +1.6 |
| DOPR | Dopca | 15.20 | 304 | ⇑iP | P | 02 59 43.0 | +1.6 |
| VOIR | | 15.24 | 302 | ⇑iP | P | 02 59 41.0 | -0.9 |
| VOIR | | 15.24 | 302 | ⇑P | P | 02 59 41.0 | -0.9 |
| VOIR | | 15.24 | 302 | P | P | 02 59 41.0 | -0.9 |
| IDI | Anoyia | 15.34 | 262 | Pn | Pn | 02 59 38.2 | 0.0 |
| | comp=Z,0.2nm,0.3s,baz=46,slow=11,SNR=6.8 | | | | | | |
| RAYN | Ar Rayn | 15.35 | 173 | ePn | Pn | 02 59 32.9 | -5.4 |
| | comp=Z,36nm,1.0s | | | | | | |
| AKTO | Aktyubinsk | 15.46 | 37 | Pn | Pn | 02 59 36.6 | -3.1 |
| | comp=Z,0.1nm,0.3s,baz=227,slow=14,SNR=14 | | | | | | |
| AKTO | | | | LR | LR | 03 07 08.4 | |
| | comp=Z,527nm,18.5s,baz=224,slow=43 | | | | | | |
| ARR | Arges | 15.50 | 301 | ⇑iP | Pn | 02 59 41.8 | +1.6 |
| AKASG | Malin Array Be | 15.62 | 324 | Pn | Pn | 02 59 39.1 | -2.5 |
| | comp=Z,0.2nm,0.3s,baz=130,slow=12,SNR=20 | | | | | | |
| AKASG | | | | LR | LR | 03 06 42.8 | |
| | comp=Z,214nm,21.0s,baz=140,slow=41 | | | | | | |
| AKBB | Malin Array Si | 15.62 | 324 | eP | Pn | 02 59 40.2 | -1.5 |
| AKBB | | | | pmax | pmax | | |
| | comp=Z,20nm,1.0s | | | | | | |
| AKBB | Malin Array Si | 15.62 | 324 | ePn | Pn | 02 59 40.2 | -1.5 |
| | comp=Z,20nm,1.0s | | | | | | |
| AKBB | Malin Array Si | 15.62 | 324 | ePn | Pn | 02 59 40.1 | -1.5 |
| | comp=Z,20nm,1.0s | | | | | | |
| KIEV | Kiev | 15.62 | 324 | eP | Pn | 02 59 41.7 | 0.0 |
| KIEV | | | | pmax | pmax | | |
| | comp=Z,20nm,1.0s | | | | | | |
| KIEV | Kiev | 15.62 | 324 | ePn | Pn | 02 59 41.7 | 0.0 |
| | comp=Z,20nm,1.0s | | | | | | |
| KIEV | Kiev | 15.62 | 324 | ePn | Pn | 02 59 41.7 | 0.0 |
| | comp=Z,20nm,1.0s | | | | | | |
| AK11 | Malin Array Si | 15.63 | 324 | ePn | Pn | 02 59 38.6 | -3.2 |
| VTS | Vitosha | 15.90 | 290 | ⇓iP | P | 02 59 51.1 | +1.8 |
| VTS | Vitosha | 15.90 | 290 | ⇓P | P | 02 59 51.1 | +1.8 |
| VTS | Vitosha | 15.90 | 290 | ePn | Pn | 02 59 44.6 | -0.9 |
| | comp=Z,18nm,1.0s | | | | | | |
| VTS | Vitosha | 15.90 | 290 | P | P | 02 59 51.1 | +1.8 |
| VTS | Vitosha | 15.90 | 290 | ePn | Pn | 02 59 44.6 | -0.9 |
| | comp=Z,18nm,1.0s | | | | | | |
| BURAR | Bucovina Array | 15.98 | 309 | ⇑iP | P | 02 59 51.1 | +0.9 |
| BURAR | Bucovina Array | 15.98 | 309 | ⇑P | P | 02 59 51.1 | +0.9 |
| BURAR | Bucovina Array | 15.98 | 309 | ⇑iP | P | 02 59 51.1 | +0.9 |
| BUR04 | Bucovina Ar. S | 15.99 | 309 | ePn | Pn | 02 59 46.0 | -0.6 |
| BUR04 | Bucovina Ar. S | 15.99 | 309 | ePn | Pn | 02 59 46.0 | -0.6 |
| BUR08 | Bucovina Ar. S | 16.01 | 309 | ePn | P | 02 59 50.8 | +0.4 |
| BARS | Barje | 16.95 | 291 | ePn | P | 03 00 01.5 | +0.7 |
| OBN | Obninsk | 16.97 | 346 | Pn | Pn | 02 59 56.7 | -2.2 |
| | comp=Z,0.7nm,0.3s,baz=142,slow=19,SNR=3.1 | | | | | | |
| OBN | Obninsk | 16.97 | 346 | ⇓eP | Pn | 02 59 56.9 | -1.9 |
| OBN | | | | pmax | pmax | | |
| | comp=Z,58nm,1.1s | | | | | | |

OBN MLR MLR
comp=Z,266nm,11.0s
**OBN Obninsk 16.97 346** *e*Pn **Pn 02 59 57.0 -1.9**
comp=Z,45nm,1.0s
**OBN Obninsk 16.97 346** *e*Pn **Pn 02 59 57.0 -1.9**
comp=Z,45nm,1.0s
**DRGR 17.23 304**⇑ *i*P **P 03 00 05.0 +1.1**
**DRGR 17.23 304**⇑P **P 03 00 05.0 +1.1**
**DRGR 17.23 304** P **P 03 00 05.0 +1.1**
**MOS Moscow 17.38 349** *e*P **Pn 03 00 03.5 -0.6**
MOS pmax pmax
comp=Z,43nm,1.2s
**MOS Moscow 17.38 349** *e*P **Pn 03 00 03.5 -0.6**
comp=Z,43nm,1.2s
**UOSS Minazif 17.48 139** *e*Pn **Pn 03 00 03.9 -1.6**
comp=Z,58nm,1.2s
**UOSS Minazif 17.48 139** *e*Pn **Pn 03 00 03.9 -1.6**
comp=Z,58nm,1.2s
**BZS Buzias 17.60 300**⇑ *i*P **Pn 03 00 06.6 -0.3**
**BZS Buzias 17.60 300**⇑P **Pn 03 00 06.6 -0.3**
**BZS Buzias 17.60 300** P **Pn 03 00 06.6 -0.3**
**LVV L'vov 17.73 315** *e*P **Pn 03 00 07.3 -1.2**
**UZH Uzhgorod 18.19 309** *e*P **P 03 00 17.1 +2.7**
**UZH Uzhgorod 18.19 309** *e*P **P 03 00 17.1 +2.7**
**KWP Kalwaria Pacla 18.39 313** *e*P **Pn 03 00 15.3 -1.3**
**KWP Kalwaria Pacla 18.39 313** *e*P **Pn 03 00 15.3 -1.3**
**KWP Kalwaria Pacla 18.39 313** *e*P **Pn 03 00 15.3 -1.3**
**DIVS Divibare 18.43 294** *e*Pn **P 03 00 19.6 +2.4**
**CRVS Cervenica-Dubn 18.80 310** *e*P **Pn 03 00 22.0 +0.4**
**CRVS Cervenica-Dubn 18.80 310** *e*P **Pn 03 00 22.0 +0.4**
**CRVS Cervenica-Dubn 18.80 310** *e*PN **Pn 03 00 22.0 +0.4**
**CRVS Cervenica-Dubn 18.80 310** *e*P **Pn 03 00 27.0 +5.4**
**TEKS Tekeris 18.82 295** *e*Pn **P 03 00 21.6 +0.1**
**STHS Stebnicka Huta 19.15 311** *e*P **Pn 03 00 27.3 +1.5**
STHS pmax pmax
comp=Z,6.0nm,0.9s
**STHS Stebnicka Huta 19.15 311** *e*P **Pn 03 00 27.3 +1.5**
comp=Z,6.0nm,0.9s
**STHS Stebnicka Huta 19.15 311** *e*PN **Pn 03 00 27.2 +1.5**
**STHS Stebnicka Huta 19.15 311** *e*P **Pn 03 00 32.9 +7.1**
**KECS Kecovo 19.24 308** *e*P **Pn 03 00 27.6 +0.7**
KECS pmax pmax
comp=Z,4.0nm,1.2s
**KECS Kecovo 19.24 308** *e*P **Pn 03 00 27.6 +0.7**
comp=Z,4.0nm,1.2s
**KECS Kecovo 19.24 308** *e*PN **Pn 03 00 27.6 +0.7**
**KECS Kecovo 19.24 308** *e*P **Pn 03 00 32.3 +5.4**
**PSZ Piszkesteto 19.41 306**⇑ *i*P **Pn 03 00 30.0 +1.0**
**PSZ Piszkesteto 19.41 306** *e*P **Pn 03 00 29.6 +0.5**
PSZ pmax pmax
comp=Z,42nm,1.3s
**PSZ Piszkesteto 19.41 306** *e*P **Pn 03 00 30.3 +1.3**
**PSZ Piszkesteto 19.41 306** *e*P **Pn 03 00 29.6 +0.5**
comp=Z,42nm,1.3s
**PSZ Piszkesteto 19.41 306** *e*P **Pn 03 00 29.6 +0.5**
comp=Z,42nm,1.3s
**NIE Niedzica 19.71 310** *e*P **Pn 03 00 33.1 +0.5**
**NIE Niedzica 19.71 310** *e*P **Pn 03 00 33.1 +0.5**
**NIE Niedzica 19.71 310** *e*P **Pn 03 00 33.1 +0.5**
**BSY Bisya 19.80 140** Pn **Pn 03 00 33.3 -0.6**
SNR=6.1
**BSY Bisya 19.80 140** P **Pn 03 00 33.3 -0.6**
SNR=6.1
**BSYO Bisya 19.84 140** P **P 03 00 33.3 +0.6**
SNR=6.1
**SMDO Samad 19.98 138** P **Pn 03 00 35.3 -0.7**
SNR=5.8
**SMDO Samad 19.98 138** Pn **Pn 03 00 35.3 -0.7**
SNR=5.8
**SMDO Samad 19.98 138** P **Pn 03 00 35.3 -0.7**
SNR=5.8
**WSAR Wadi Sarin 20.14 136** P **P 03 00 36.7 +0.7**
comp=Z,8.6nm,0.9s,baz=342,slow=7.5,SNR=2.5
WSAR LR LR 03 10 24.2
comp=Z,276nm,19.1s,baz=337,slow=43
**ARU Arti 20.22 25** P **P 03 00 36.2 -0.4**
comp=Z,5.4nm,0.4s,baz=198,slow=5.1,SNR=17
ARU LR LR 03 11 12.9
comp=Z,201nm,18.6s,baz=220,slow=45
**ARU Arti 20.22 25***c i*P **P 03 00 36.4 -0.1**
ARU 03 00 55.9
ARU S Sn 03 04 28.8 +2.6
ARU SS **SnSn 03 04 44.4 +3.8**
ARU pmax pmax
comp=Z,81nm,1.7s
**ARU Arti 20.22 25** *e*P **P 03 00 36.2 -0.4**
comp=Z,74nm,1.2s
**ARU Arti 20.22 25** *e*P **P 03 00 36.2 -0.4**
comp=Z,74nm,1.2s
**VYHS Vyhne 20.27 306** *e*P Pn 03 00 39.0 -0.2
VYHS *e* 03 00 42.6
VYHS pmax pmax
comp=Z,25nm,1.6s
**VYHS Vyhne 20.27 306** *e*P Pn 03 00 39.0 -0.2
comp=Z,25nm,1.6s
**VYHS Vyhne 20.27 306** *e*PN Pn 03 00 39.0 -0.2
**VYHS Vyhne 20.27 306** *e*P Pn 03 00 42.6 +3.4
**CSKK Cs˙ákako 20.30 303** *e*P Pn 03 00 41.7 +2.2
**OJC Ojcow 20.34 312** *e*P **P 03 00 38.9 +0.9**
**OJC Ojcow 20.34 312** *e*P Pn 03 00 39.3 -0.6
OJC pmax pmax
comp=Z,68nm,2.0s
**OJC Ojcow 20.34 312** *e*P **P 03 00 38.8 +0.9**
**OJC Ojcow 20.34 312** *e*P Pn 03 00 39.3 -0.6
comp=Z,68nm,2.0s
**SUW Suwalki 20.59 324** *e*P **P 03 00 41.3 +0.7**
**SUW Suwalki 20.59 324** *e*P **P 03 00 41.3 +0.7**
**SUW Suwalki 20.59 324** *e*P **P 03 00 41.3 +0.7**
**KBL Kabul 20.83 94** *e*P Pn 03 00 46.4 +0.3
KBL pmax pmax
comp=Z,14nm,1.1s
**KBL Kabul 20.83 94** *e*P Pn 03 00 46.4 +0.3
comp=Z,14nm,1.1s
**OKC Ostrava-Krasne 21.16 310** *e*P **P 03 00 49.4 +2.5**
**OKC Ostrava-Krasne 21.16 310** *e*P **P 03 00 49.4 +2.5**
**OKC Ostrava-Krasne 21.16 310** *e*P **P 03 00 49.4 +2.5**
**SMOL Smolenice 21.16 306** *e*P **P 03 00 53.6 +6.7**
**SMOL Smolenice 21.16 306** *e*P **P 03 00 53.6 +6.7**
**MODS Modra-Piesok 21.22 305** *e*P **P 03 00 50.9 +3.4**
**MODS Modra-Piesok 21.22 305** *e*P **P 03 00 50.9 +3.4**
**SVE Sverdlovsk 21.23 26** *e*P **P 03 00 52.3 +4.8**
SVE pmax pmax
comp=Z,63nm,1.5s
**MORC Moravsky Berou 21.51 309** *e*P **P 03 00 51.2 +0.6**
**VRAC Vranov 21.93 307** P **P 03 00 56.1 +0.9**
comp=Z,3.3nm,0.8s,baz=87,slow=12,SNR=4.2
VRAC LR LR 03 11 41.6
comp=Z,133nm,18.3s,baz=76,slow=43
**VRAC Vranov 21.93 307**⇑ *i*P **P 03 00 55.6 +0.4**
**VRAC Vranov 21.93 307**⇑P **P 03 00 55.6 +0.4**
**VRAC Vranov 21.93 307** P **P 03 00 55.6 +0.4**
**CONA Conrad Observa 22.01 303** *e*Pn **P 03 01 00.3 +4.2**
comp=Z,3.6nm,0.7s
**ARSA Arzberg 22.08 302** *e*Pn **P 03 01 00.8 +4.0**
comp=Z,0.4nm,0.3s
**MNAS Manas 22.19 71** P **P 03 00 58.8 +0.7**
**MNAS Manas 22.19 71** P **P 03 00 58.8 +0.7**
**KLMR Klimovskoe 22.20 355** *e*P **P 03 00 58.4 +0.6**
KLMR pmax pmax
comp=Z,98nm,1.2s
**KLMR Klimovskoe 22.20 355** *e*P **P 03 00 58.4 +0.6**
comp=Z,98nm,1.2s
**DPC Dobruska-Polom 22.44 310** *e*P **P 03 01 05.3 +4.6**
DPC *ex* x 03 01 08.9
**DPC Dobruska-Polom 22.44 310** *e*P **P 03 01 05.3 +4.6**
DPC *e* 03 01 08.9
**KSP Ksiaz 22.64 311** *e*P **P 03 01 08.3 +5.6**
**KSP Ksiaz 22.64 311** *e*P **P 03 01 08.3 +5.6**
**UPC Upice 22.68 310** *e*P **P 03 01 06.8 +3.6**
**UPC Upice 22.68 310** *e*P **P 03 01 06.8 +3.6**
**MOA Molln 23.04 303** *e*Pn **P 03 01 08.1 +1.1**
comp=Z,5.0nm,0.8s
**MOA Molln 23.04 303** Pn **P 03 01 08.1 +1.1**
comp=Z,5.0nm,0.8s
**SFK Sufi-Kurgan 23.09 78** P **P 03 01 09.1 +1.3**
**SFK Sufi-Kurgan 23.09 78** P **P 03 01 09.1 +1.3**
**BRVK Borovoye 23.21 43**⇓ *i*P **P 03 01 08.5 -0.1**
BRVK pmax pmax
comp=Z,9.0nm,1.4s
**BRVK Borovoye 23.21 43** *i* P **P 03 01 08.5 -0.1**
comp=Z,9.0nm,1.4s
**BRVK Borovoye 23.21 43** *e*P **P 03 01 10.5 +1.9**
comp=Z,20nm,1.2s
**GOPC GO Pecny, Ondr 23.24 308** *e*P **P 03 01 11.4 +2.4**
**GOPC GO Pecny, Ondr 23.24 308** *e*P **P 03 01 11.4 +2.4**
**BVAR Borovoye Array 23.25 44** P **P 03 01 10.0 +1.0**
comp=Z,2.6nm,0.9s,baz=219,slow=9.2,SNR=11
BVAR LR LR 03 11 53.1
comp=Z,311nm,21.8s,baz=248,slow=41
**PRU Pruhonice 23.41 308** *e*P **P 03 01 14.7 +4.0**
**PRU Pruhonice 23.41 308** *e*P **P 03 01 14.7 +4.0**
**PVCC Panska Ves 23.56 309** *e*P **P 03 01 16.1 +3.9**
**PVCC Panska Ves 23.56 309** *e*P **P 03 01 16.1 +3.9**
**GEA0 GERESS Array S 23.63 305** *e*P **P 03 01 13.4 +0.4**
**GEA0 GERESS Array S 23.63 305** *e*P **P 03 01 13.4 +0.4**
**GEC2 GERESS Array S 23.63 305** *e*P **P 03 01 15.9 +2.9**
GEC2 pmax pmax
comp=Z,26nm,1.5s
**GEC2 GERESS Array S 23.63 305** *e*P **P 03 01 15.9 +2.9**
comp=Z,26nm,1.5s
**GEC2 GERESS Array S 23.63 305** *e*P **P 03 01 15.9 +2.9**
comp=Z,26nm,1.5s
**GERES GERESS Array B 23.63 305** P **P 03 01 13.5 +0.5**
comp=Z,2.0nm,0.7s,baz=118,slow=7.7,SNR=9.5
GERES LR LR 03 11 13.0
comp=Z,117nm,18.0s,baz=114,slow=39
**AAK Ala-Archa 23.66 71** P **P 03 01 14.4 +1.0**
comp=Z,2.9nm,0.9s,baz=238,slow=9.9,SNR=6.7
AAK LR LR 03 12 10.3
comp=Z,220nm,19.8s,baz=262,slow=41
**AAK Ala-Archa 23.66 71**⇓ *e*P **P 03 01 13.7 +0.3**
AAK pmax pmax
comp=Z,4.0nm,1.1s
**AAK Ala-Archa 23.66 71** *e*P **P 03 01 13.7 +0.3**
comp=Z,4.0nm,1.1s
**AAK Ala-Archa 23.66 71** *e*P **P 03 01 14.9 +1.5**
comp=Z,16nm,1.0s
**FRU Bishkek 23.74 70** *e*P **P 03 01 14.0 -0.1**
FRU pmax pmax
comp=Z,150nm,2.0s
**FRU Bishkek 23.74 70** *e*P **P 03 01 14.0 -0.1**
comp=Z,150nm,2.0s
**KHC Kasperske Hory 23.78 305** *e*P **P 03 01 14.9 +0.5**
KHC *ex* x 03 01 18.9
**KHC Kasperske Hory 23.78 305** *e*P **P 03 01 14.9 +0.5**
KHC *e* 03 01 18.9
**KHC Kasperske Hory 23.78 305** *e*P **P 03 01 14.9 +0.5**
**KHC Kasperske Hory 23.78 305** *e*P **P 03 01 15.1 +0.7**
comp=Z,18nm,1.5s
**ABTA Abfaltersbach 24.02 299** *e*Pn **P 03 01 19.8 +3.0**
comp=Z,2.3nm,0.7s
**ABTA Abfaltersbach 24.02 299** Pn **P 03 01 19.8 +3.0**
comp=Z,2.3nm,0.7s
**BRG Berggiesshubel 24.05 310** *e*P **P 03 01 20.3 +3.5**
comp=Z,6.3nm,1.1s
**BRG Berggiesshubel 24.05 310** *e*P **P 03 01 20.3 +3.5**
BRG pmax pmax
comp=Z,6.0nm,1.1s
**WTTA Wattenberg 24.69 300** *e*Pn **P 03 01 25.7 +2.7**
comp=Z,4.4nm,0.6s
**WTTA Wattenberg 24.69 300** Pn **P 03 01 25.7 +2.7**
comp=Z,4.4nm,0.6s
**CLL Collm 24.75 310** *e*P **P 03 01 24.0 +0.8**
CLL *i* 03 01 27.6
**CLL Collm 24.75 310** *e*(P) **P 03 01 24.0 +0.8**
CLL *i* 03 01 27.6
CLL *i* 03 01 39.0
CLL *e* 03 06 14.0
CLL Lm MLR 03 11 00.0
comp=N,200nm,19.1s
CLL Lm MLR 03 11 00.0
comp=E,200nm,19.7s
CLL Lm MLR 03 11 00.0
comp=Z,100nm,18.8s
**CLL Collm 24.75 310** *e*P **P 03 01 24.0 +0.8**
**CLL Collm 24.75 310** *e*P **P 03 01 27.0 +3.8**
comp=Z,14nm,1.2s
**NKC Novy Kostel 24.77 308** *e*P **P 03 01 23.9 +0.4**
**NKC Novy Kostel 24.77 308** *e*P **P 03 01 23.9 +0.4**
**NKC Novy Kostel 24.77 308** *e*P **P 03 01 23.9 +0.4**
**KSH Kashi 25.05 78** P **P 03 01 24.3 -1.9**
KSH pP pP 03 01 26.7 -0.9
KSH PP **PnPn 03 02 01.7 +2.4**
KSH PcP **PcP 03 05 02.1 +1.2**
KSH S **S 03 05 44.0 -7.0**
KSH ScS **ScS 03 12 25.9 -3.1**
KSH pmax pmax
comp=Z,5.0nm,0.8s
KSH pmax pmax
comp=Z,190nm,5.0s
KSH LR LR
comp=Z,230nm,6.4s
KSH LR LR
comp=Z,310nm,9.8s
KSH LR LR
comp=Z,300nm,6.6s
**MOTA Moosalm 25.06 300** *e*Pn **P 03 01 29.4 +3.1**
comp=Z,8.0nm,0.9s
**MOTA Moosalm 25.06 300** Pn **P 03 01 29.4 +3.1**
comp=Z,8.0nm,0.9s
**FINES FINESS Array B 25.10 340** P **P 03 01 25.8 -0.6**
comp=Z,12nm,1.0s,baz=140,slow=11,SNR=5.2
FINES LR LR 03 12 10.3
comp=Z,424nm,18.9s,baz=156,slow=39
**FETA Feichten 25.27 300** *e*Pn **P 03 01 30.6 +2.4**
comp=Z,3.8nm,0.8s
**FETA Feichten 25.27 300** Pn **P 03 01 30.6 +2.4**
comp=Z,3.8nm,0.8s
**RETA Reutte 25.31 301** *e*pP **P 03 01 30.4 +2.0**
comp=Z,1.8nm,0.5s
**RETA Reutte 25.31 301** Pn **P 03 01 30.4 +2.0**
comp=Z,1.8nm,0.5s
**GRFO Grafenberg 25.41 306** *e*P **P 03 01 32.6 +3.3**
GRFO pmax pmax
comp=Z,69nm,1.5s
**GRFO Grafenberg 25.41 306** *e*P **P 03 01 32.6 +3.3**
comp=Z,69nm,1.5s
**TMCR Tamitsa 25.59 354** *e*P **P 03 01 31.5 +0.8**
TMCR pmax pmax
comp=Z,20nm,0.9s
**TMCR Tamitsa 25.59 354** *e*P **P 03 01 31.5 +0.8**
comp=Z,20nm,0.9s
**DAVOX Davos/Dischmat 25.82 299** P **P 03 01 32.5 -0.8**
comp=Z,3.3nm,0.7s,baz=105,slow=13
DAVOX LR LR 03 12 51.3
comp=Z,207nm,19.3s,baz=98,slow=39
**DAVA Damuels 25.88 300** *e*pP **P 03 01 33.4 -0.3**
comp=Z,3.2nm,0.7s
**DAVA Damuels 25.88 300** Pn **P 03 01 33.4 -0.3**
comp=Z,3.2nm,0.7s
**ATD Arta Tunnel 27.19 182** LR LR 03 11 45.2
comp=Z,125nm,20.2s,baz=8.5,slow=35
**KURBB Kurchatov Arra 27.23 53** P **P 03 01 46.3 +0.7**
comp=Z,5.6nm,0.8s,baz=263,slow=9.2,SNR=31
**KURK Kurchatov 27.30 53***ce*P **P 03 01 45.8 -0.5**
KURK pmax pmax
comp=Z,67nm,1.2s
**KURK Kurchatov 27.30 53** *e*P **P 03 01 45.8 -0.5**
comp=Z,67nm,1.2s
**KURK Kurchatov 27.30 53** *e*P **P 03 01 47.2 +0.8**
comp=Z,18nm,1.1s
**KURK Kurchatov 27.30 53** pP **P 03 01 47.1 +0.8**
SNR=8.4
**KURK Kurchatov 27.30 53** P **P 03 01 47.1 +0.8**
SNR=8.4
KURK P **P 03 01 47.1 +0.8**
SNR=8.4
**KEST Kesra 27.33 274** P **P 03 01 47.6 +0.8**
comp=Z,7.9nm,0.9s,baz=27,slow=2.3,SNR=4.8
KEST LR LR 03 14 36.4
comp=Z,170nm,18.5s,baz=229,slow=41
**HFS Hagfors 28.42 328** P **P 03 01 55.5 -0.7**
comp=Z,6.1nm,0.8s,baz=134,slow=12,SNR=3.2
HFS LR LR 03 14 22.8
comp=Z,178nm,20.3s,baz=96,slow=39
**MK31 Makanchi Array 29.25 62** *e*P **P 03 02 04.4 +0.6**
**MK31 Makanchi Array 29.25 62** *e*P **P 03 02 04.4 +0.6**
**MK31 Makanchi Array 29.25 62** *e*P **P 03 02 04.4 +0.6**
**MKAR Makanchi Array 29.25 62** P **P 03 02 03.8 0.0**
comp=Z,2.4nm,0.9s,baz=261,slow=8.1,SNR=12
MKAR LR LR 03 15 34.1
comp=Z,267nm,19.2s,baz=255,slow=40
**MK01 Makanchi Array 29.25 62** *e*P **P 03 02 04.1 +0.2**
**MK01 Makanchi Array 29.25 62** *e*P **P 03 02 04.1 +0.2**
**NOA NORSAR Array B 29.94 329** LR LR 03 15 09.3
comp=Z,156nm,18.5s,baz=125,slow=38
**NVS Novosibirsk 30.99 46** *e*P **P 03 02 19.5 +0.5**
**NVS Novosibirsk 30.99 46** *e*P **P 03 02 19.5 +0.5**
**ZAA0 Zalesovo Array 31.69 48** *e*P **P 03 02 28.2 +2.9**
comp=Z,4.5nm,0.9s
**ZALV Zalesovo Beam 31.69 48** P **P 03 02 24.6 -0.6**
comp=Z,2.3nm,0.6s,baz=255,slow=9.7,SNR=10.0
ZALV LR LR 03 17 16.0
comp=Z,227nm,20.9s,baz=250,slow=40
**ZALV Zalesovo Beam 31.69 48** *e*P **P 03 02 24.8 -0.4**
**ZALV Zalesovo Beam 31.69 48** *e*P **P 03 02 24.8 -0.4**
**ZALV Zalesovo Beam 31.69 48** *e*P **P 03 02 24.8 -0.4**
**ARCES ARCESS Array B 32.26 348** P **P 03 02 29.9 -0.1**
comp=Z,3.3nm,0.8s,baz=167,slow=8.3,SNR=4.7
ARCES LR LR 03 14 32.9
comp=Z,184nm,19.5s,baz=146,slow=34
**ARCES ARCESS Array B 32.26 348** P **P 03 02 30.0 -0.1**
**ARCES ARCESS Array B 32.26 348** P **P 03 02 30.0 -0.1**
**WMQ Urumqi 33.20 67** P **P 03 02 40.0 +1.4**
WMQ pP sP 03 02 44.9 +4.3
WMQ sP pP 03 02 49.2 +9.2
WMQ pmax pmax
comp=Z,18nm,0.7s
WMQ pmax pmax
comp=Z,360nm,5.3s
WMQ LR LR
comp=Z,270nm,25.9s
WMQ LR LR
comp=Z,160nm,18.3s
WMQ LR LR
comp=Z,250nm,21.3s
**PYUN Piuthan 34.33 96** *e*P **P 03 02 49.0 +0.1**
**KOLN Koldanda 34.96 96** *e*P **P 03 02 54.7 +0.4**
comp=Z,52nm,1.1s
**TAM Tamanrasset 36.10 255** *e*P **P 03 03 04.5 +0.5**
TAM pmax pmax
comp=Z,9.0nm,1.0s
**TAM Tamanrasset 36.10 255** *e*P **P 03 03 04.5 +0.5**
comp=Z,9.0nm,1.0s
**TAM Tamanrasset 36.10 255** *e*P **P 03 03 04.5 +0.5**
comp=Z,9.0nm,1.0s
**DMN Daman 36.21 95** *e*P **P 03 03 05.6 +0.5**
**ES19 SONSECA Array 36.44 287** *e*P **P 03 03 05.6 -1.1**
**ES19 SONSECA Array 36.44 287** *e*P **P 03 03 05.6 -1.1**
**PKIN Pulchoki 36.45 95** *e*P **P 03 03 07.4 +0.2**
**PKI Pulchoki 36.47 95** *e*P **P 03 03 07.3 -0.1**
**ESDC Sonseca Array 36.49 287** P **P 03 03 05.1 -2.1**
comp=Z,4.5nm,0.7s,baz=67,slow=8.8,SNR=27
**GUN Gumba 36.67 94** *e*P **P 03 03 09.4 +0.3**
comp=Z,95nm,1.3s
**JIRN Jiri 37.03 94** *e*P **P 03 03 12.6 +0.4**
**RAMN Ramite 37.69 95** *e*P **P 03 03 17.8 +0.1**
comp=Z,56nm,1.0s
**ODAN Odare 38.35 95** *e*P **P 03 03 24.0 +0.8**
**MTE Manteigas 38.97 289** *e*P **P 03 03 27.5 -0.6**
**PESTR Estremoz 39.42 287** *e*P **P 03 03 32.5 +0.7**
**PMTG Montargil 39.84 287** *e*P **P 03 03 36.3 +1.0**
**KMBO Kilima Mbogo 40.19 190** LR LR 03 19 15.5
comp=Z,285nm,19.0s,baz=298,slow=35
**ZAK Zakamensk 42.94 54** *e*P **P 03 04 01.7 +0.9**
ZAK pmax pmax
comp=Z,6.0nm,1.4s
**ZAK Zakamensk 42.94 54** *e*P **P 03 04 01.7 +0.9**
comp=Z,6.0nm,1.4s
**GTA Gaotai 43.01 71** *e*P **P 03 04 01.9 +0.4**
GTA pP sP 03 04 06.4 +2.9
GTA sP pP 03 04 09.0 +6.1
GTA S **S 03 10 29.0 +1.4**
GTA sS sS 03 10 36.6 +6.7
GTA SS **SS 03 13 36.0 -3.1**
GTA pmax pmax
comp=Z,2.0nm,0.9s
GTA pmax pmax
comp=Z,32nm,4.0s
GTA LR LR
comp=Z,120nm,17.1s
GTA LR LR
comp=Z,170nm,17.1s
GTA LR LR
comp=Z,170nm,18.1s
**TOA0 Torodi Ar. Sit 44.97 247** *e*P **P 03 04 15.7 -1.6**
**TOA0 Torodi Ar. Sit 44.97 247** *e*P **P 03 04 15.7 -1.6**
**TORD Torodi Ar. Bea 44.97 247** P **P 03 04 15.2 -2.0**
comp=Z,6.2nm,1.0s,baz=49,slow=8.8,SNR=20
TORD LR LR 03 27 47.6
comp=Z,63nm,18.0s,baz=15,slow=42
**SONM Songino Array 45.42 57** P **P 03 04 20.5 -0.2**
comp=Z,0.2nm,0.6s,baz=280,slow=8.6,SNR=2.6
SONM PcP **PcP 03 06 01.4 +1.5**
comp=Z,0.6nm,0.8s,baz=318,slow=1.9,SNR=3.1
SONM LR LR 03 25 19.4
comp=Z,256nm,18.8s,baz=238,slow=39
**ULN Ulaanbaatar 45.84 57***ce*P **P 03 04 24.0 -0.1**
ULN pmax pmax
comp=Z,8.0nm,1.3s
**ULN Ulaanbaatar 45.84 57** *e*P **P 03 04 24.0 -0.1**
comp=Z,8.0nm,1.3s
**ULN Ulaanbaatar 45.84 57** *e*P **P 03 04 24.9 +0.8**
comp=Z,16nm,1.2s
**LZH Lanzhou 47.15 74** *e*P **P 03 04 35.1 +0.6**
LZH pP sP 03 04 39.7 +3.2
LZH sP pP 03 04 42.6 +6.7
LZH pmax pmax
comp=Z,14nm,1.0s
**KOWA Kowa 48.29 253** *e*P **P 03 04 42.2 -1.1**
comp=Z,10nm,1.1s
**KOWA Kowa 48.29 253** *e*P **P 03 04 42.2 -1.1**
comp=Z,10nm,1.1s
**HHC Hu-ho-hao-te 51.02 65** *e*P **P 03 05 05.6 +1.6**
HHC pmax pmax
comp=Z,18nm,1.2s
HHC pmax pmax
comp=Z,120nm,7.0s
**KMI Kunming 51.19 87** P **P 03 05 06.4 +0.8**
KMI pmax pmax
comp=Z,11nm,0.5s
KMI pmax pmax
comp=Z,120nm,4.2s
**XAN Xi'an 51.78 74** P **P 03 05 09.8 0.0**
XAN pP sP 03 05 20.4 +8.6
XAN pmax pmax
comp=Z,10.0nm,1.2s
XAN pmax pmax
comp=Z,78nm,4.0s
**CMAR Chiang Mai Arr 51.83 97** P **P 03 05 11.7 +1.4**
comp=Z,1.7nm,0.4s,baz=300,slow=8.5,SNR=10
CMAR LR LR 03 31 47.8
comp=Z,54nm,20.1s,baz=310,slow=41
**TIXI Tiksi 52.22 24***ce*P **P 03 05 13.2 +0.8**
TIXI pmax pmax
comp=Z,7.0nm,1.7s
**TIXI Tiksi 52.22 24** *e*P **P 03 05 13.2 +0.8**
comp=Z,7.0nm,1.7s
**TIXI Tiksi 52.22 24** *e*P **P 03 05 15.2 +2.9**
comp=Z,3.4nm,1.0s
**DBIC Dimbokro 54.08 247** P **P 03 05 26.8 -0.1**
comp=Z,6.1nm,0.9s,baz=356,slow=7.7,SNR=5.6
DBIC LR LR 03 33 30.3
comp=Z,95nm,18.9s,baz=42,slow=42
**KIC Kosan Boka 54.21 246** *e*PKIKP **P 03 05 28.2 +0.4**
comp=Z,42nm,1.1s
**TIC Toumodi 54.21 247** *e*PKIKP **P 03 05 28.2 +0.4**
**LIC Lamto 54.51 246** *e*PKIKP **P 03 05 28.6 -1.3**
comp=Z,68nm,1.3s
**BJI Beijing 54.58 64** P **P 03 05 30.2 0.0**
BJI S **S 03 13 09.9 -0.2**
BJI pmax pmax
comp=Z,7.0nm,0.8s
BJI LR LR
comp=Z,280nm,15.5s
BJI LR LR
comp=Z,180nm,11.5s
BJI LR LR
comp=Z,91nm,21.5s
**QIZ Qiongzhong 60.01 89** P **P 03 06 08.8 0.0**
QIZ S **S 03 14 22.9 +0.8**
QIZ LR LR
comp=Z,57nm,19.0s
**NJ2 Nanjing 60.10 71** *e*P **P 03 06 10.3 +1.0**
NJ2 pmax pmax
comp=Z,15nm,0.7s
**SEY Seymchan 63.89 29***ce*P **P 03 06 33.5 -0.8**
**SEY Seymchan 63.89 29** *e*P **P 03 06 33.5 -0.8**
**KSAR Wonju Array Be 63.91 62** P **P 03 06 34.5 -0.3**
**KSAR Wonju Array Be 63.91 62** P **P 03 06 34.5 -0.3**
**KSAR Wonju Array Be 63.91 62** P **P 03 06 34.5 -0.3**
**KSRS Korea Array 63.93 62** P **P 03 06 34.5 -0.4**
comp=Z,2.2nm,0.7s,baz=298,slow=5.5,SNR=4.3
**BOSA Boshof 69.24 197** P **P 03 07 07.7 -1.2**
comp=Z,2.7nm,0.7s,baz=7.9,slow=5.7,SNR=7.4

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| BOSA | | | | LR | LR | 03 37 40.1 | |
| | comp=Z,118nm,18.7s,baz=17,slow=36 | | | | | | |
| MJAR | Matsushiro Arr | 71.37 | 58 | LR | LR | 03 41 30.2 | |
| | comp=Z,169nm,18.5s,baz=270,slow=38 | | | | | | |
| ILAR | Eielson Array | 76.41 | 5 | P | P | 03 07 52.5 | +1.4 |
| | comp=Z,0.4nm,0.7s,baz=331,slow=5.3,SNR=4.4 | | | | | | |
| YKA | Yellowknife Ar | 77.51 | 350 | P | P | 03 07 55.5 | -1.7 |
| | comp=Z,0.4nm,0.6s,baz=14,slow=5.4,SNR=3.1 | | | | | | |
| YKA | | | | LR | LR | 03 43 42.5 | |
| | comp=Z,6.0nm,18.6s,baz=0.0,slow=37 | | | | | | |
| PDAR | Pinedale Array | 95.20 | 340 | LR | LR | 03 52 04.3 | |
| | comp=Z,58nm,19.7s,baz=24,slow=35 | | | | | | |

*IDC **06** 02:58:11.3±11.0, 11°.61N×88°.19W, h0km, mb3.4/3, mb1 3.9/3, mb1mx3.5/25, mbtmp3.5/3, Error ellipse: s-maj=302.1km s-min=108.5km az=25.0*

*ISCJB **06** 02:58:29.1±0.5, 12°.86N±0°.07×88°.47W±0°.04, h81km±6km, mb3.4/3, Error ellipse: s-maj=12.2km s-min=3.6km az=26.6*

*CASC **06** 02:58:29.6±1.9, 12°.81N×88°.49W, h64km±25km, MD4.1, ML3.9*

**ISC 06 02:58:30.6**±1.0, **12°.92N**±0°.07×**88°.45W**±0°.05, **h75**km±9km, **n38**, σ**1s.17**/48, **mb3.4**/3, **Off coast of central America**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LCY | Lacayo | 0.52 | 17 | eP | Pn | 02 58 43.4 | -0.9 |
| VSM | San Miguel | 0.53 | 18 | eP | Pn | 02 58 43.6 | -0.9 |
| PACA | Pacayal | 0.56 | 12 | eP | Pn | 02 58 43.7 | -0.9 |
| UESV | Ojushtada | 0.57 | 324 | eP | Pn | 02 58 46.1 | +1.5 |
| UESV | | | | AML | AML | 02 59 08.0 | |
| | comp=Z,3µm,0.4s | | | | | | |
| LCND | La Caˆ–ada | 0.67 | 54 | eP | Pn | 02 58 44.4 | -1.2 |
| LCND | | | | eS | Sn | 02 58 56.6 | +0.1 |
| CNCH | Conchagua | 0.69 | 59 | eP | Pn | 02 58 45.1 | -0.8 |
| CNCH | | | | eS | Sn | 02 58 58.9 | +1.6 |
| CNCH | | | | AML | AML | 02 59 03.2 | |
| | comp=Z,4µm,0.4s | | | | | | |
| SNVI | San Vicente | 0.79 | 331 | eP | Pn | 02 58 46.0 | -1.0 |
| CAHU | Cacacuatique | 0.88 | 15 | eP | Pn | 02 58 47.8 | -0.3 |
| CAHU | | | | eS | Sn | 02 59 04.2 | +3.1 |
| LFRS | El Faro | 0.92 | 320 | i P | Pn | 02 58 47.4 | -1.1 |
| LBRS | Las Brisas | 1.00 | 325 | eP | Pn | 02 58 49.0 | -0.5 |
| SOYA | Soyapango | 1.04 | 319 | eP | Pn | 02 58 49.3 | -0.6 |
| SOYA | | | | AML | AML | 02 59 06.3 | |
| | comp=Z,3µm,0.2s | | | | | | |
| UDBS | Soyapango | 1.06 | 319 | eP | Pn | 02 58 49.3 | -0.9 |
| UDBS | | | | AML | AML | 02 59 08.5 | |
| | comp=Z,4µm,0.3s | | | | | | |
| UTEC | San Salvador | 1.07 | 317 | eP | Pn | 02 58 49.5 | -0.8 |
| UTEC | | | | AML | AML | 02 59 07.1 | |
| | comp=Z,4µm,0.2s | | | | | | |
| SNET | Serv Nac Est T | 1.08 | 315 | eP | Pn | 02 58 49.2 | -1.3 |
| SNET | | | | eS | Sn | 02 59 04.1 | -1.2 |
| SNET | | | | AML | AML | 02 59 07.2 | |
| | comp=Z,3µm,0.2s | | | | | | |
| OPAM | San Salvador | 1.08 | 317 | eP | Pn | 02 58 49.7 | -0.7 |
| OPAM | | | | AML | AML | 02 59 06.1 | |
| | comp=Z,5µm,0.2s | | | | | | |
| COLS | Colinas | 1.11 | 312 | eP | Pn | 02 58 49.6 | -1.3 |
| COLS | | | | eS | Sn | 02 59 06.8 | +0.7 |
| UEES | San Salvador | 1.11 | 316 | eP | Pn | 02 58 49.9 | -1.0 |
| UEES | | | | AML | AML | 02 59 08.3 | |
| | comp=Z,3µm,0.2s | | | | | | |
| BOQS | Boqueron | 1.15 | 315 | eP | Pn | 02 58 50.8 | -0.6 |
| BOQS | | | | eS | Sn | 02 59 07.5 | +0.5 |
| CRIN | San Cristobal | 1.38 | 99 | eP | Pn | 02 58 53.8 | -0.5 |
| CRIN | | | | eS | Sn | 02 59 11.1 | -1.0 |
| CRIN | | | | AML | AML | 02 59 13.9 | |
| | comp=N,2µm,0.6s | | | | | | |
| SBLS | San Blas | 1.46 | 309 | eP | Pn | 02 58 54.5 | -1.0 |
| SNJE | San Jose | 1.47 | 310 | eP | Pn | 02 58 55.1 | -0.4 |
| MONT | Ecomontaæa | 1.49 | 309 | eP | Pn | 02 58 55.8 | -0.1 |
| RTR | El Retiro | 1.52 | 310 | eP | Pn | 02 58 56.0 | -0.1 |
| UNIC | Santa Ana | 1.52 | 315 | eP | Pn | 02 58 55.7 | -0.3 |
| TGUH | Tegucigalpa,Un | 1.61 | 45 | eP | Pn | 02 58 57.0 | -0.1 |
| TGUH | | | | AML | AML | 02 59 19.4 | |
| | comp=Z,1µm,0.3s | | | | | | |
| RBDL | Robledal | 1.69 | 315 | eP | Pn | 02 58 58.5 | +0.1 |
| CUS1 | Cusmapa | 1.76 | 304 | eP | Pn | 02 58 58.7 | -0.5 |
| COPN | Copaltepe | 1.96 | 112 | eP | Pn | 02 59 00.3 | -1.4 |
| ESTN | Estel | 2.03 | 85 | eP | Pn | 02 59 02.5 | -0.4 |
| ESTN | | | | eS | Sn | 02 59 27.8 | +0.3 |
| TISN | Laguna Tiscapa | 2.26 | 110 | eP | Pn | 02 59 04.9 | -1.0 |
| MGAN | Managua | 2.28 | 109 | eP | Pn | 02 59 04.9 | -1.3 |
| MGAN | | | | eS | Sn | 02 59 31.9 | -1.4 |
| CRZ1 | La Cruz | 3.31 | 123 | eP | Pn | 02 59 29.1 | +9.0 |
| CRZ1 | | | | eS | Sn | 02 59 56.9 | -1.4 |
| CGA2 | Cerro Gallo 2 | 4.85 | 126 | eP | Pn | 02 59 43.1 | +1.8 |
| CGA2 | | | | eS | Sn | 03 00 36.9 | +0.6 |
| QCR1 | Quepos | 5.45 | 129 | eP | Pn | 02 59 50.0 | +0.7 |
| URSC | Urasca | 5.51 | 123 | eP | Pn | 02 59 53.4 | +3.1 |
| TXAR | Lajitas Array | 21.60 | 321 | P | P | 03 03 16.0 | +1.5 |
| | comp=Z,1.0nm,0.6s,baz=136,slow=13,SNR=4.2 | | | | | | |
| YKA | Yellowknife Ar | 52.91 | 345 | P | P | 03 07 38.4 | -0.3 |
| | comp=Z,0.5nm,0.5s,baz=152,slow=6.9,SNR=4.5 | | | | | | |
| ILAR | Eielson Array | 65.20 | 336 | P | P | 03 09 02.7 | -1.0 |
| | comp=Z,0.1nm,0.4s,baz=163,slow=5.4,SNR=5.9 | | | | | | |

*NNC **06** 03:05:25.5±1.6, 40°.94N×74°.82E, h0km, mb4.4, mpv4.0, Error ellipse: s-maj=11.7km s-min=8.0km az=173.0*

*KRNET **06** 03:05:25.9±0.1, 40°.99N×74°.88E, h18km, mb3.8*

*KNET **06** 03:05:26.9±0.4, 41°.10N×74°.98E, h5km±2km, ml3.1, Error ellipse: s-maj=2.8km s-min=1.9km az=37.0*

*SOME **06** 03:05:28.5, 41°.13N×74°.83E, h0km*

**ISC 06 03:05:25.4**±1.5, **41°.01N**±0°.05×**74°.93E**±0°.03, **h4**km±11km, **n39**, σ**0s.94**/71, **29C-20D**, **Kyrgyzstan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| UCH | Uchtor | 1.25 | 346 | ⇓iP | Pg | 03 05 49.3 | -0.2 |
| | baz=348 | | | | | | |
| UCH | | | | ⇓iS | Sn | 03 06 07.4 | -0.3 |
| | baz=348 | | | | | | |
| UCH | Uchtor | 1.25 | 346 | P | Pg | 03 05 49.5 | 0.0 |
| | 76nm,0.2s,SNR=354 | | | | | | |
| UCH | | | | ⇑S | Sn | 03 06 08.0 | +0.3 |
| | 94nm,0.2s | | | | | | |
| AML | Almayashu | 1.45 | 321 | ⇓iP | Pn | 03 05 52.5 | -0.3 |
| | baz=322 | | | | | | |
| AML | | | | ⇓iS | Sn | 03 06 12.0 | -0.5 |
| | baz=322 | | | | | | |
| SFK | Sufi-Kurgan | 1.48 | 228 | ⇓eP | Pn | 03 05 52.0 | -1.0 |
| | baz=228 | | | | | | |
| ARSB | Arslanbob | 1.50 | 283 | ⇑eP | Pn | 03 05 53.3 | 0.0 |
| | baz=284 | | | | | | |
| ARSB | | | | ⇑eS | Sg | 03 06 14.1 | +0.4 |
| | baz=284 | | | | | | |
| ULHL | Ulahol | 1.58 | 38 | ⇑iP | Pb | 03 05 55.7 | +0.4 |
| | baz=39 | | | | | | |
| ULHL | | | | ⇑iS | Sg | 03 06 16.5 | +0.4 |
| | baz=39 | | | | | | |
| ULHL | Ulahol | 1.58 | 38 | P | Pn | 03 05 55.5 | +1.1 |
| | 8.8nm,0.1s,SNR=78 | | | | | | |
| ULHL | | | | ⇑S | Sg | 03 06 17.0 | +0.9 |
| | 132nm,0.4s | | | | | | |
| KBK | Karagaybulak | 1.64 | 1 | ⇑iP | Pg | 03 05 56.8 | -0.1 |
| | baz=2.0 | | | | | | |
| KBK | | | | ⇑iS | Sg | 03 06 19.4 | +1.2 |
| | baz=2.0 | | | | | | |
| KBK | Karagaybulak | 1.64 | 1 | P | Pg | 03 05 56.8 | -0.1 |
| | 153nm,0.1s,SNR=550 | | | | | | |
| KBK | | | | ⇑S | Sg | 03 06 19.4 | +1.2 |
| | 418nm,0.2s | | | | | | |
| AAK | Ala-Archa | 1.66 | 349 | ⇑iP | Pb | 03 05 56.6 | 0.0 |
| | baz=350 | | | | | | |
| AAK | | | | ⇑iS | Sg | 03 06 18.9 | +0.3 |
| | baz=350 | | | | | | |
| AAK | Ala-Archa | 1.66 | 349 | ⇓P | Pb | 03 05 56.5 | 0.0 |
| | 55nm,0.3s | | | | | | |
| AAK | | | | ⇑S | Sg | 03 06 19.7 | +1.1 |
| | 116nm,0.4s | | | | | | |
| AAK | Ala-Archa | 1.66 | 349 | P | Pg | 03 05 56.7 | -0.4 |
| | 150nm,0.2s,SNR=136 | | | | | | |
| AAK | | | | ⇑S | Sg | 03 06 19.4 | +0.7 |
| | 159nm,0.3s | | | | | | |
| BOOM | Boomskoye usch | 1.66 | 27 | ⇓eP | Pb | 03 05 57.0 | +0.3 |
| | baz=27 | | | | | | |
| BOOM | | | | ⇓iS | Sg | 03 06 19.7 | +0.9 |
| | baz=27 | | | | | | |
| TOKL | Toktogul | 1.80 | 302 | ⇓eP | Pb | 03 05 58.6 | -0.5 |
| | baz=303 | | | | | | |
| TOKL | | | | ⇓iS | Sg | 03 06 22.4 | -0.9 |
| | baz=303 | | | | | | |
| FRU1 | Bishkek | 1.81 | 353 | ⇓eP | Pg | 03 05 59.5 | -0.6 |
| | baz=354 | | | | | | |
| FRU1 | | | | ⇓eS | Sg | 03 06 23.5 | -0.1 |
| | baz=354 | | | | | | |
| EKS2 | Erkin-Say | 1.86 | 333 | ⇑iP | Pb | 03 05 59.8 | -0.2 |
| | baz=334 | | | | | | |
| EKS2 | | | | ⇑iS | Sg | 03 06 24.5 | -0.6 |
| | baz=334 | | | | | | |
| EKS2 | Erkin-Say | 1.86 | 333 | P | Pb | 03 06 00.1 | 0.0 |
| | 14nm,0.2s,SNR=82 | | | | | | |
| EKS2 | | | | ⇓S | Sg | 03 06 26.9 | +1.8 |
| | 36nm,0.3s | | | | | | |
| TKM2 | Tokmak 2 | 1.97 | 14 | ⇑iP | Pb | 03 06 01.9 | -0.1 |
| | baz=15 | | | | | | |
| TKM2 | | | | ⇑iS | Sg | 03 06 27.7 | -1.1 |
| | baz=15 | | | | | | |
| TKM2 | Tokmak 2 | 1.97 | 14 | ⇓Pn | Pb | 03 06 02.6 | +0.5 |
| | 25nm,0.3s | | | | | | |
| TKM2 | | | | ⇑Sn | Sg | 03 06 30.2 | +1.4 |
| | 143nm,0.4s | | | | | | |
| TKM2 | Tokmak 2 | 1.97 | 14 | ⇓P | Pb | 03 06 02.5 | +0.5 |
| | 55nm,0.1s,SNR=58 | | | | | | |
| TKM2 | | | | ⇑S | Sg | 03 06 29.6 | +0.8 |
| | 131nm,0.2s | | | | | | |
| CHMS | Chumysh | 1.99 | 356 | ⇑iP | Pb | 03 06 01.9 | -0.3 |
| | baz=357 | | | | | | |
| CHMS | | | | ⇑iS | Sg | 03 06 27.8 | -1.5 |
| | baz=357 | | | | | | |
| CHMS | Chumysh | 1.99 | 356 | P | Pg | 03 06 02.8 | -0.8 |
| | 58nm,0.2s,SNR=53 | | | | | | |
| MRKS | Merke | 2.15 | 324 | eP | Pg | 03 06 07.2 | +0.7 |
| | 135nm,0.3s | | | | | | |
| MRKS | | | | eS | Sg | 03 06 34.5 | +0.1 |
| | 257nm,0.3s | | | | | | |
| USP | Ospenovka | 2.27 | 352 | ⇑iP | Pb | 03 06 06.5 | -0.6 |
| | baz=353 | | | | | | |
| USP | | | | ⇑iS | Sb | 03 06 35.2 | -0.4 |
| | baz=353 | | | | | | |
| USP | Ospenovka | 2.27 | 352 | P | Pb | 03 06 07.1 | 0.0 |
| | 156nm,0.3s,SNR=175 | | | | | | |
| DGS | Degeres | 2.31 | 15 | eP | Pg | 03 06 09.8 | 0.0 |
| | 200nm,0.4s | | | | | | |
| DGS | | | | eS | Sg | 03 06 38.8 | -1.0 |
| | 187nm,0.4s | | | | | | |
| MNAS | Manas | 2.34 | 310 | ⇓iP | Pb | 03 06 06.7 | -1.5 |
| | baz=311 | | | | | | |
| MNAS | | | | ⇓iS | Sb | 03 06 35.9 | -1.5 |
| | baz=311 | | | | | | |
| MNAS | Manas | 2.34 | 310 | ⇑Pg | Pb | 03 06 07.9 | -0.3 |
| | 68nm,0.4s | | | | | | |
| MNAS | | | | ⇓Lg | Lg | 03 06 39.8 | |
| | 62nm,0.4s | | | | | | |
| ARK | Arkit | 2.36 | 290 | ⇑eP | Pn | 03 06 06.5 | +1.4 |
| | baz=291 | | | | | | |
| ARK | | | | ⇑iS | Sb | 03 06 36.2 | -2.0 |
| | baz=291 | | | | | | |
| TNSS | Tian-Shan | 2.52 | 36 | eP | Pg | 03 06 14.2 | +0.5 |
| | 27nm,0.3s | | | | | | |
| TNSS | | | | eS | Sg | 03 06 47.0 | +0.5 |
| | 144nm,0.5s | | | | | | |
| MDOK | Medeo | 2.67 | 36 | ⇑Pg | Pb | 03 06 15.1 | +1.2 |
| MDOK | | | | ⇑Lg | Lg | 03 06 51.1 | |
| KNDC | Almaty | 2.67 | 34 | ⇓Pg | Pg | 03 06 15.9 | -0.8 |
| KNDC | | | | ⇑Lg | Lg | 03 06 52.5 | |
| KOTS | Kotyrbulak | 2.75 | 35 | eP | Pg | 03 06 17.9 | -0.2 |
| KOTS | | | | eS | Sg | 03 06 52.9 | -0.9 |
| KTBS | Karatobe | 2.99 | 25 | eP | Pg | 03 06 22.0 | -0.8 |
| KTBS | | | | eS | Sg | 03 07 00.0 | -1.6 |
| CHKK | Chushkaly | 3.22 | 28 | eP | Pg | 03 06 27.0 | -0.2 |
| | 17nm,0.3s | | | | | | |
| CHKK | | | | eS | Sg | 03 07 08.2 | -0.7 |
| | 150nm,0.3s | | | | | | |
| KURS | Kuram | 3.45 | 43 | eP | Pg | 03 06 31.2 | -0.3 |
| KURS | | | | eS | Sg | 03 07 15.5 | -0.8 |
| IUG | Iuzhnay | 3.84 | 289 | eP | Pb | 03 06 35.8 | +1.9 |
| | 49nm,0.4s | | | | | | |
| IUG | | | | eS | Sb | 03 07 24.0 | +3.2 |
| | 85nm,0.4s | | | | | | |
| ARXS | Arharly | 3.85 | 33 | eP | Pg | 03 06 38.2 | -0.9 |
| | 19nm,0.5s | | | | | | |
| ARXS | | | | eS | Sg | 03 07 27.6 | -1.4 |
| | 76nm,0.5s | | | | | | |
| KK31 | Karatay Array | 3.90 | 304 | Pg | Pb | 03 06 35.0 | +0.3 |
| | 18nm,0.7s,baz=122,slow=15,SNR=64 | | | | | | |
| KK31 | | | | ⇓Lg | Lg | 03 07 26.4 | |
| | 16nm,0.5s,baz=125,slow=28,SNR=9.2 | | | | | | |

*NIED **06** 03:16:00, 37°.60N×142°.20E, h35km, Mw4.3 Best double couple: M0 3.59000×10^15 NP1:φs179.00000°, δ23.00000°, λ-82.00000°. NP2:φs350.00000°, δ68.00000°, λ-93.00000°.*

*ISCJB **06** 03:16:36.7±0.7, 37°.57N±0°.03×142°.15E±0°.05, h35km±5km, mb4.4/37, MS3.2/2, Error ellipse: s-maj=7.0km s-min=4.1km az=23.1*

*JMA **06** 03:16:36.8±0.1, 37°.61N×142°.10E, h31km±4km, M4.2*

*JMA Felt II J1.*

*IDC **06** 03:16:39.9±1.5, 37°.55N×142°.22E, h47km±14km, mb3.9/19, mb1 4.1/24, mb1mx4.0/43, mbtmp4.1/24, ML3.7/5, MS3.2/6, Ms1 3.3/6, ms1mx2.9/33, Error ellipse: s-maj=14.9km s-min=9.3km az=106.0*

*NEIC **06** 03:16:39.7±0.7, 37°.57N×142°.15E, h45km±5km, mb4.8/17, Error ellipse: s-maj=5.9km s-min=4.3km az=119.0*

*NEIC Recorded [2 JMA] in Fukushima.*

**ISC 06 03:16:38.0**±1.1, **37°.60N**±0°.05×**142°.14E**±0°.06, **h30**km±7km, **n100**, σ**1s.12**/108, **mb4.3**/37, **Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JFK | Kawauchi | 1.03 | 257 | P | Pn | 03 16 54.8 | -1.7 |
| JFK | | | | S | Sn | 03 17 07.8 | -2.2 |
| JIO | Ouri | 1.05 | 324 | P | Pn | 03 16 55.3 | -1.4 |
| JIO | | | | S | Sn | 03 17 07.8 | -2.6 |
| JMM | Marumori | 1.10 | 284 | P | Pn | 03 16 55.9 | -1.4 |
| JMM | | | | S | Sn | 03 17 09.5 | -2.0 |
| ONAJ | Iwakimizuishiy | 1.18 | 245 | P | Pn | 03 16 56.8 | -1.7 |
| JOU | Okura | 1.39 | 304 | P | Pn | 03 17 00.7 | -0.7 |
| JOU | | | | S | Sn | 03 17 18.2 | -0.6 |
| JFT | Otama | 1.44 | 267 | P | Pn | 03 17 01.6 | -0.4 |
| JFT | | | | S | Sn | 03 17 19.4 | -0.4 |
| JMK | Ichinoseki | 1.53 | 332 | P | Pn | 03 17 02.4 | -0.8 |
| JMK | | | | S | Sn | 03 17 20.4 | -1.7 |
| JYS | Shirataka | 1.75 | 291 | P | Pn | 03 17 06.0 | -0.3 |
| JYK | Kaneyama | 1.92 | 314 | P | Pn | 03 17 08.2 | -0.4 |
| JFY | Yanaizu | 1.95 | 265 | P | Pn | 03 17 08.8 | -0.2 |
| JOM | Ohasama | 1.98 | 341 | P | Pn | 03 17 09.3 | -0.2 |
| JOM | | | | eS | Sn | 03 17 32.4 | -0.9 |
| MJAR | Matsushiro Arr | 3.32 | 253 | P | Pn | 03 17 28.9 | +1.1 |
| | 12nm,0.3s,baz=316,slow=25,SNR=43 | | | | | | |
| MJAR | | | | S | Sn | 03 18 10.3 | +4.0 |
| | 8.0nm,0.3s,baz=272,slow=36,SNR=3.4 | | | | | | |
| MJAR | | | | LR | LR | 03 18 59.7 | |
| | comp=Z,1µm,18.2s,baz=80,slow=42 | | | | | | |
| MAJO | Matsushiro | 3.32 | 253 | ePn | Pn | 03 17 28.9 | +1.0 |
| MAJO | | | | eSn | Sn | 03 18 04.8 | -1.6 |
| MAT | Matsushiro | 3.32 | 253 | P | Pn | 03 17 28.6 | +0.7 |
| MAT | | | | eS | Sn | 03 18 09.9 | +3.6 |
| ERM | Erimo | 4.47 | 10 | ePn | Pn | 03 17 43.4 | -0.4 |
| ERM | | | | eSn | Sn | 03 18 37.2 | +2.5 |
| INU | Inuyama | 4.70 | 243 | ePn | Pn | 03 17 48.8 | +1.9 |
| INU | | | | eSn | Sn | 03 18 38.9 | -1.5 |
| JHJ | Hachijo jima 2 | 4.87 | 204 | P | Pn | 03 17 48.8 | -0.4 |
| | 35nm,0.3s,baz=36,slow=17,SNR=4.6 | | | | | | |
| JHJ | | | | S | Sn | 03 18 44.0 | -0.6 |
| | 50nm,0.3s,baz=234,slow=23,SNR=6.1 | | | | | | |
| ASAJ | Asahikawa | 6.51 | 3 | P | Pn | 03 18 14.0 | +2.3 |
| | 2.0nm,0.3s,baz=204,slow=16,SNR=13 | | | | | | |
| ASAJ | | | | S | Sn | 03 19 26.4 | +1.3 |
| | 2.1nm,0.3s,baz=345,slow=20,SNR=4.3 | | | | | | |
| USRK | Ussuriysk Ar. | 10.12 | 314 | P | Pn | 03 19 03.3 | +2.2 |
| | 0.8nm,0.3s,baz=124,slow=14,SNR=12 | | | | | | |
| KSRS | Korea Array | 11.29 | 274 | P | Pn | 03 19 19.1 | +1.8 |
| | 0.3nm,0.3s,baz=83,slow=14,SNR=3.6 | | | | | | |
| KSRS | | | | LR | LR | 03 23 28.7 | |
| | comp=Z,206nm,20.4s,baz=52,slow=36 | | | | | | |
| KSAR | Wonju Array Be | 11.32 | 274 | P | Pn | 03 19 19.1 | +1.4 |
| KLR | Kul'dur | 13.84 | 330 | LR | LR | 03 25 09.8 | |
| | comp=Z,13nm,19.8s,baz=146,slow=37 | | | | | | |
| PETK | Petropavlovsk- | 18.90 | 30 | LR | LR | 03 27 51.6 | |
| | comp=Z,83nm,21.4s,baz=205,slow=36 | | | | | | |
| MA2 | Magadan | 22.68 | 11 | LR | LR | 03 30 15.3 | |
| | comp=Z,69nm,19.6s,baz=222,slow=36 | | | | | | |
| SEY | Seymchan | 26.12 | 11 | P | P | 03 22 10.3 | +1.3 |
| | 3.2nm,0.9s,baz=80,slow=11,SNR=3.0 | | | | | | |
| ULN | Ulaanbaatar | 27.52 | 303 | eP | P | 03 22 22.4 | +0.4 |
| | 3.7nm,0.8s | | | | | | |
| SONA1 | Songino Array | 27.95 | 303 | eP | P | 03 22 26.1 | +0.3 |
| SONA0 | Songino Array | 27.95 | 303 | eP | P | 03 22 26.4 | +0.6 |
| SONM | Songino Array | 27.95 | 303 | P | P | 03 22 26.4 | +0.6 |
| | 5.8nm,0.8s,baz=98,slow=8.5,SNR=33 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 27.95 | 123 | T | T | 03 51 53.6 | |
| | baz=315,slow=75,SNR=384 | | | | | | |
| ENH | Enshi | 27.96 | 265 | eP | P | 03 22 25.8 | -0.2 |
| | 18nm,0.7s | | | | | | |
| H11N1 | WAKE ISLAND Hy | 27.96 | 123 | T | T | 03 51 55.3 | |
| | baz=315,slow=75,SNR=260 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 27.97 | 123 | T | T | 03 51 56.0 | |
| | baz=315,slow=75,SNR=282 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 28.70 | 125 | T | T | 03 52 50.2 | |
| | baz=317,slow=76,SNR=188 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 28.70 | 125 | T | T | 03 52 50.4 | |
| | baz=317,slow=76,SNR=256 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 28.71 | 125 | T | T | 03 52 51.5 | |
| | baz=317,slow=76,SNR=196 | | | | | | |
| ZAA0 | Zalesovo Array | 41.96 | 312 | eP | P | 03 24 26.1 | +0.2 |
| | 6.6nm,1.0s | | | | | | |
| ZAA0 | | | | epP | pP | 03 24 35.4 | +0.6 |
| ZAA1 | Zalesovo Array | 41.96 | 312 | eP | P | 03 24 26.1 | +0.2 |
| ZAA1 | | | | ePcP | PcP | 03 26 20.5 | -0.3 |
| ZALV | Zalesovo Beam | 41.96 | 312 | P | P | 03 24 26.1 | +0.2 |
| | 2.7nm,0.4s,baz=92,slow=6.6,SNR=14 | | | | | | |
| ZALV | | | | PcP | PcP | 03 26 20.5 | -0.3 |
| | 1.5nm,0.6s,baz=116,slow=3.4,SNR=4.4 | | | | | | |
| CMAR | Chiang Mai Arr | 42.20 | 255 | LR | LR | 03 43 29.6 | |
| | comp=Z,36nm,19.1s,baz=30,slow=38 | | | | | | |
| MK01 | Makanchi Array | 44.31 | 302 | eP | P | 03 24 45.0 | 0.0 |
| MK31 | Makanchi Array | 44.31 | 302 | eP | P | 03 24 45.2 | +0.2 |
| MK32 | Makanchi Array | 44.31 | 302 | eP | P | 03 24 45.1 | 0.0 |
| MKAR | Makanchi Array | 44.31 | 302 | P | P | 03 24 45.1 | 0.0 |
| | 4.2nm,0.8s,baz=84,slow=9.4,SNR=20 | | | | | | |
| MAKZ | Makanchi | 44.52 | 302 | eP | P | 03 24 47.2 | +0.4 |
| | 7.7nm,1.3s | | | | | | |
| OHAK | Old Harbor | 45.94 | 43 | eP | P | 03 24 57.9 | +0.1 |
| | 111nm,2.0s | | | | | | |
| KURK | Kurchatov | 46.04 | 308 | eP | P | 03 24 58.6 | -0.1 |
| | 12nm,0.8s | | | | | | |
| TAPN | Taplejung | 46.48 | 274 | eP | P | 03 25 03.4 | +0.6 |
| ODAN | Odare | 46.96 | 273 | eP | P | 03 25 06.7 | +0.2 |
| RAMN | Ramite | 47.54 | 274 | eP | P | 03 25 11.1 | 0.0 |
| | 30nm,0.8s | | | | | | |
| JIRN | Jiri | 47.54 | 275 | eP | P | 03 25 11.6 | +0.4 |
| RC01 | Rabbit Creek A | 47.56 | 38 | eP | P | 03 25 08.2 | -2.2 |
| | 29nm,1.2s | | | | | | |
| GUN | Gumba | 47.67 | 276 | eP | P | 03 25 12.4 | +0.2 |
| PKI | Pulchoki | 48.20 | 275 | eP | P | 03 25 15.9 | -0.4 |
| KKN | Kakani | 48.20 | 276 | eP | P | 03 25 16.3 | +0.1 |
| PKIN | Phulchoki | 48.21 | 275 | eP | P | 03 25 15.9 | -0.3 |
| IL1 | Eielson Array | 48.70 | 33 | eP | P | 03 25 21.6 | +2.3 |
| ILAR | Eielson Array | 48.70 | 33 | P | P | 03 25 20.3 | +1.1 |
| | 0.5nm,0.8s,baz=267,slow=7.2,SNR=7.6 | | | | | | |
| ILB | Eielson Array | 48.70 | 33 | eP | P | 03 25 20.3 | +1.1 |
| ILB | | | | epP | pP | 03 25 27.0 | -1.3 |
| DANN | Dangsing | 49.15 | 277 | eP | P | 03 25 24.2 | +0.7 |
| KOLN | Koldanda | 49.54 | 277 | eP | P | 03 25 26.4 | 0.0 |
| PYUN | Piuthan | 49.87 | 277 | eP | P | 03 25 29.1 | +0.2 |
| RAGM | Ragged Mountai | 50.10 | 38 | eP | P | 03 25 30.1 | +0.1 |
| | 106nm,1.6s | | | | | | |
| BRVK | Borovoye | 50.67 | 312 | eP | P | 03 25 33.8 | -0.6 |
| | 2.8nm,0.9s | | | | | | |
| COEN | Coen | 51.30 | 179 | eP | P | 03 25 40.1 | +0.8 |
| | 8.8nm,1.1s | | | | | | |
| PCA | Pinnacle | 52.32 | 38 | eP | P | 03 25 47.1 | +0.4 |
| | 193nm,1.6s | | | | | | |
| INK | Inuvik | 53.62 | 27 | P | P | 03 25 56.6 | +0.6 |
| | 0.3nm,0.4s,baz=297,slow=6.8,SNR=2.7 | | | | | | |
| ARU | Arti | 56.32 | 318 | eP | P | 03 26 15.8 | +0.1 |
| | 46nm,2.0s | | | | | | |
| FITZ | Fitzroy Crossi | 57.55 | 199 | P | P | 03 26 24.3 | -0.5 |
| | 2.1nm,0.8s,baz=21,slow=6.6,SNR=6.6 | | | | | | |
| WRAB | Tennant Creek | 57.70 | 189 | eP | P | 03 26 25.3 | -0.5 |
| | 12nm,1.0s | | | | | | |
| WB2 | Warramunga Arr | 57.71 | 189 | eP | P | 03 26 25.2 | -0.6 |
| | 8.9nm,0.9s | | | | | | |
| WR1 | Warramunga Arr | 57.71 | 189 | eP | P | 03 26 25.2 | -0.6 |
| | 17nm,1.2s | | | | | | |
| WRA | Warramunga Arr | 57.71 | 189 | P | P | 03 26 25.2 | -0.6 |
| | 6.3nm,0.6s,baz=5.2,slow=7.1,SNR=97 | | | | | | |
| AS01 | Alice Springs | 61.43 | 189 | eP | P | 03 26 51.1 | -0.4 |
| AS31 | Alice Springs | 61.43 | 189 | eP | P | 03 26 51.6 | 0.0 |
| | 1.6nm,0.8s | | | | | | |
| ASAR | Alice Springs | 61.44 | 189 | P | P | 03 26 51.4 | -0.2 |
| | 3.8nm,0.7s,baz=12,slow=6.1,SNR=32 | | | | | | |
| MBWA | Marble Bar | 62.14 | 204 | eP | P | 03 26 55.4 | -0.9 |
| | 56nm,1.8s | | | | | | |
| YKA | Yellowknife Ar | 63.02 | 30 | P | P | 03 27 01.4 | -0.3 |
| | 0.4nm,0.6s,baz=303,slow=6.5,SNR=3.6 | | | | | | |
| YKB5 | Yellowknife Ar | 63.02 | 30 | eP | P | 03 27 01.4 | -0.3 |
| ARA0 | ARCESS Array S | 63.67 | 339 | eP | P | 03 27 06.1 | +0.1 |
| ARCES | ARCESS Array B | 63.67 | 339 | P | P | 03 27 06.1 | +0.1 |
| | 0.9nm,0.6s,baz=54,slow=7.3,SNR=3.7 | | | | | | |
| FIA1 | FINESS Array S | 68.58 | 332 | eP | P | 03 27 37.5 | 0.0 |
| FIA0 | FINESS Array S | 68.58 | 332 | eP | P | 03 27 37.4 | -0.1 |
| FINES | FINESS Array B | 68.58 | 332 | P | P | 03 27 37.4 | -0.1 |
| | 5.8nm,0.8s,baz=42,slow=8.5,SNR=17 | | | | | | |
| KBZ | Khabaz | 70.97 | 311 | P | P | 03 27 53.0 | +0.4 |
| | 1.6nm,0.7s,baz=138,slow=18,SNR=3.6 | | | | | | |
| NB2 | NORSAR Subarra | 73.88 | 337 | P | P | 03 28 09.6 | -0.1 |
| | comp=Z,1.6nm,0.7s,baz=37,slow=6.2 | | | | | | |
| NB200 | NORSAR Array S | 73.88 | 337 | eP | P | 03 28 09.9 | +0.2 |
| NOA | NORSAR Array B | 73.88 | 337 | P | P | 03 28 09.9 | +0.2 |
| | comp=Z,2.2nm,0.7s,baz=38,slow=5.9,SNR=5.8 | | | | | | |
| AKASG | Malin Array Be | 74.20 | 323 | P | P | 03 28 11.5 | -0.2 |
| | comp=Z,1.4nm,0.4s,baz=44,slow=6.0,SNR=10 | | | | | | |
| AKBB | Malin Array Si | 74.20 | 323 | eP | P | 03 28 11.5 | -0.2 |
| | comp=Z,9.9nm,1.2s | | | | | | |
| PD31 | Pinedale Array | 76.85 | 46 | eP | P | 03 28 28.1 | +0.7 |
| PDAR | Pinedale Array | 76.85 | 46 | P | P | 03 28 28.1 | +0.7 |
| | comp=Z,0.3nm,0.6s,baz=281,slow=2.4,SNR=2.7 | | | | | | |
| BR101 | Keskin Array S | 78.90 | 312 | eP | P | 03 28 39.3 | +0.6 |
| BRTR | Keskin Array B | 78.91 | 312 | P | P | 03 28 39.3 | +0.6 |
| | comp=Z,1.0nm,1.0s,baz=57,slow=5.3,SNR=2.7 | | | | | | |
| GERES | GERESS Array B | 82.53 | 329 | P | P | 03 28 56.7 | -1.1 |
| | comp=Z,0.7nm,0.8s,baz=63,slow=0.3,SNR=5.6 | | | | | | |
| LTX | Lajitas | 89.31 | 53 | eP | P | 03 29 30.4 | -1.3 |
| TXAR | Lajitas Array | 89.32 | 53 | P | P | 03 29 30.4 | -1.3 |
| | comp=Z,0.7nm,0.6s,baz=319,slow=3.6,SNR=3.4 | | | | | | |
| TOA1 | Torodi Ar. Sit | 117.33 | 316 | ePKPdf | PKPdf | 03 35 19.6 | -1.4 |
| TORD | Torodi Ar. Bea | 117.33 | 316 | PKP | PKPdf | 03 35 19.6 | -1.4 |
| | comp=Z,0.1nm,0.4s,baz=7.8,slow=2.3,SNR=4.6 | | | | | | |
| LPAZ | La Paz | 145.91 | 60 | PKPbc | PKPbc | 03 36 15.7 | 0.0 |
| | comp=Z,2.5nm,0.9s,baz=306,slow=2.6,SNR=7.5 | | | | | | |

*NIED **06** 03:49:00, 24°.10N×123°.70E, h47km, Mw4.1 Best double couple: M0 1.65000×10^15 NP1:φs277.00000°, δ12.00000°, λ-115.00000°. NP2:φs122.00000°, δ79.00000°, λ-85.00000°.*

*IDC **06** 03:49:13.1±0.9, 24°.21N×123°.60E, h0km, mb3.8/12, mb1 4.0/12, mb1mx3.8/35, mbtmp3.8/12, MS2.7/4, Ms1 2.7/4, ms1mx2.5/32, Error ellipse: s-maj=44.0km s-min=18.2km az=65.0*

*ISCJB **06** 03:49:18.3±0.3, 24°.12N±0°.05×123°.64E±0°.02, h55km±2km, mb4.2/21, MS3.1/1, Error ellipse: s-maj=7.7km s-min=3.3km az=166.9*

*JMA **06** 03:49:19.8±0.2, 24°.14N×123°.68E, h45km±2km, M3.7*

*JMA Felt I J1.*

*NEIC **06** 03:49:19.7±0.8, 24°.17N×123°.65E, h50km±7km, mb4.7/8, Error ellipse: s-maj=8.6km s-min=8.4km az=216.0*

*NEIC Recorded [1 JMA] on Iriomote-jima and Ishigaki-jima.*

**ISC 06 03:49:19.1**±0.8, **24°.10N**±0°.06×**123°.65E**±0°.03, **h48**km±6km, **n60**, σ**1s.06**/74, **mb4.2**/21, **Southwestern Ryukyu Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| HATJ | Hateruma jima | 0.15 | 108 | P | Pn | 03 49 27.1 | +0.2 |
| HATJ | | | | S | Sn | 03 49 31.9 | -0.5 |
| IRIF | Iriomote-Funau | 0.24 | 18 | P | Pn | 03 49 27.3 | -0.3 |
| IRIF | | | | S | Sn | 03 49 33.1 | -0.4 |
| JKRS | Kuro-shima | 0.35 | 68 | P | Pn | 03 49 28.9 | +0.3 |
| JKRS | | | | S | Sn | 03 49 35.8 | +0.5 |
| JIJ | Ishigaki jima | 0.52 | 60 | P | Pn | 03 49 30.1 | -0.4 |
| JIJ | | | | S | Sn | 03 49 38.0 | -0.6 |
| YOJ | Yonaguni jima | 0.68 | 302 | P | Pn | 03 49 33.5 | +0.9 |
| YOJ | | | | S | Sn | 03 49 43.4 | +1.1 |
| YOJ | Yonaguni jima | 0.68 | 302 | ePg | Pn | 03 49 32.8 | +0.2 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JYNG | Yonagunijimaku | 0.73 | 298 | P | Pn | 03 49 34.2 | +1.0 |
| JYNG | | | | S | Sn | 03 49 44.8 | +1.4 |
| JISG | Ishigakijimahi | 0.77 | 51 | P | Pn | 03 49 33.4 | -0.3 |
| JISG | | | | S | Sn | 03 49 43.5 | -0.8 |
| JTJ | Tarama | 1.10 | 61 | P | Pn | 03 49 38.4 | +0.3 |
| JTJ | | | | eS | Sn | 03 49 52.3 | +0.1 |
| JIRB | Irabujima | 1.56 | 62 | P | Pn | 03 49 44.7 | +0.2 |
| JMJ | Miyako jima 2 | 1.66 | 64 | P | Pn | 03 49 46.6 | +0.8 |
| JMJ | | | | eS | Sn | 03 50 06.9 | +1.0 |
| JIKM | Ikemajima | 1.67 | 60 | P | Pn | 03 49 46.8 | +0.9 |
| JIKM | | | | eS | Sn | 03 50 07.0 | +0.9 |
| JOGS | Gusukube | 1.73 | 67 | P | Pn | 03 49 47.9 | +1.1 |
| NACB | Ninganchiao | 1.88 | 273 | ePn | Pn | 03 49 49.5 | +0.7 |
| YHNB | Yeheng | 2.15 | 286 | ePn | Pn | 03 49 54.9 | +2.3 |
| YHNB | | | | eSn | Sn | 03 50 16.3 | -1.8 |
| TATO | Taipei | 2.15 | 294 | ePn | Pn | 03 49 53.5 | +0.9 |
| TATO | | | | eSn | Sn | 03 50 16.2 | -1.8 |
| YULB | Yu-li | 2.27 | 252 | ePn | Pn | 03 49 54.0 | -0.2 |
| YULB | | | | eSn | Sn | 03 50 19.8 | -1.2 |
| SSLB | Suanglung | 2.49 | 263 | ePn | Pn | 03 49 56.7 | -0.5 |
| SSLB | | | | eSn | Sn | 03 50 23.2 | -3.1 |
| TWG | Pinlang | 2.69 | 242 | ePn | Pn | 03 50 00.2 | +0.2 |
| TWG | | | | eSn | Sn | 03 50 30.3 | -1.1 |
| TPUB | Ta-pu | 2.88 | 254 | ePn | Pn | 03 50 04.9 | +2.3 |
| TPUB | | | | eSn | Sn | 03 50 35.1 | -1.0 |
| JKE | Kume jima 2 | 3.60 | 51 | P | Pn | 03 50 12.0 | -0.4 |
| JAGN | Aguni-jima | 4.08 | 52 | P | Pn | 03 50 18.5 | -0.6 |
| JOW | Kunigami | 4.98 | 56 | P | Pn | 03 50 30.2 | -1.3 |
| JOW | Kunigami | 4.98 | 56 | ePn | Pn | 03 50 30.2 | -1.3 |
| JOW | | | | eSn | Sn | 03 51 26.9 | -0.9 |
| KSRS | Korea Array | 13.80 | 14 | LR | LR | 03 57 33.9 | |
| | comp=Z,24nm,18.8s,baz=185,slow=37 | | | | | | |
| CMAR | Chiang Mai Arr | 23.68 | 261 | LR | LR | 04 03 10.2 | |
| | comp=Z,14nm,19.1s,baz=70,slow=35 | | | | | | |
| KLR | Kul'dur | 25.88 | 12 | LR | LR | 04 06 16.3 | |
| | comp=Z,5.4nm,18.4s,slow=40 | | | | | | |
| SONA0 | Songino Array | 27.37 | 334 | eP | P | 03 54 59.7 | -0.2 |
| SONM | Songino Array | 27.37 | 334 | P | P | 03 54 59.7 | -0.2 |
| | 0.8nm,0.8s,baz=111,slow=3.3,SNR=3.9 | | | | | | |
| SONM | | | | LR | LR | 04 06 30.3 | |
| | comp=Z,52nm,19.0s,baz=207,slow=38 | | | | | | |
| MK01 | Makanchi Array | 39.96 | 315 | eP | P | 03 56 47.0 | -2.0 |
| MK31 | Makanchi Array | 39.97 | 315 | eP | P | 03 56 49.5 | +0.4 |
| MK32 | Makanchi Array | 39.97 | 315 | eP | P | 03 56 49.4 | +0.3 |
| MKAR | Makanchi Array | 39.97 | 315 | P | P | 03 56 49.4 | +0.3 |
| | 2.1nm,0.5s,baz=98,slow=9.6,SNR=25 | | | | | | |
| MAKZ | Makanchi | 40.18 | 315 | eP | P | 03 56 50.4 | -0.4 |
| | 3.4nm,0.8s | | | | | | |
| ZALV | Zalesovo Beam | 41.55 | 326 | P | P | 03 57 00.1 | -1.8 |
| | 0.5nm,0.3s,baz=129,slow=6.9,SNR=5.3 | | | | | | |
| ZAA1 | Zalesovo Array | 41.55 | 326 | eP | P | 03 57 00.1 | -1.8 |
| KURK | Kurchatov | 43.61 | 319 | P | P | 03 57 18.4 | -0.2 |
| KURBB | Kurchatov Arra | 43.63 | 319 | P | P | 03 57 18.4 | -0.4 |
| | 1.7nm,0.7s,baz=112,slow=8.4,SNR=9.4 | | | | | | |
| WR1 | Warramunga Arr | 45.00 | 166 | eP | P | 03 57 31.1 | +1.1 |
| | 7.3nm,1.4s | | | | | | |
| WRA | Warramunga Arr | 45.00 | 166 | P | P | 03 57 31.1 | +1.1 |
| | 0.3nm,0.6s,baz=347,slow=9.0,SNR=6.6 | | | | | | |
| ASAR | Alice Springs | 48.52 | 167 | P | P | 03 57 59.1 | +1.5 |
| | 0.3nm,0.5s,baz=354,slow=7.5,SNR=3.7 | | | | | | |
| AS01 | Alice Springs | 48.53 | 167 | eP | P | 03 57 57.1 | -0.5 |
| ADK | Adak | 52.79 | 42 | eP | P | 03 58 30.1 | +0.7 |
| | 414nm,1.8s | | | | | | |
| ARU | Arti | 56.53 | 323 | eP | P | 03 58 54.2 | -2.3 |
| | 23nm,1.9s | | | | | | |
| GAMB | Gambell | 57.48 | 28 | eP | P | 03 59 03.1 | +0.1 |
| | 45nm,1.8s | | | | | | |
| PPLA | Purkeypile | 66.20 | 30 | eP | P | 04 00 03.7 | +1.8 |
| | 16nm,1.4s | | | | | | |
| KTH | Kantishna Hill | 66.69 | 29 | eP | P | 04 00 05.7 | +0.8 |
| | 6.6nm,1.0s | | | | | | |
| ILAR | Eielson Array | 68.25 | 27 | P | P | 04 00 15.4 | +0.8 |
| | 0.1nm,0.6s,baz=282,slow=5.7,SNR=3.4 | | | | | | |
| BMRM | Bremner River | 70.07 | 31 | eP | P | 04 00 25.8 | -0.2 |
| | 27nm,1.4s | | | | | | |
| FIA1 | FINESS Array S | 72.64 | 330 | eP | P | 04 00 41.8 | +0.3 |
| FIA0 | FINESS Array S | 72.64 | 330 | eP | P | 04 00 41.9 | +0.4 |
| FINES | FINESS Array B | 72.64 | 330 | P | P | 04 00 41.9 | +0.4 |
| | 3.4nm,0.9s,baz=50,slow=5.3,SNR=7.8 | | | | | | |
| AKASG | Malin Array Be | 74.42 | 319 | P | P | 04 00 52.0 | -0.1 |
| | 0.5nm,0.4s,baz=59,slow=6.6,SNR=6.2 | | | | | | |
| AKBB | Malin Array Si | 74.42 | 319 | eP | P | 04 00 52.0 | -0.1 |
| | 11nm,1.4s | | | | | | |
| BR101 | Keskin Array S | 75.03 | 307 | eP | P | 04 00 57.0 | +1.0 |
| BRTR | Keskin Array B | 75.03 | 307 | P | P | 04 00 57.0 | +1.0 |
| | 1.1nm,0.8s,baz=106,slow=6.6,SNR=6.4 | | | | | | |
| NB2 | NORSAR Subarra | 79.34 | 333 | P | P | 04 01 19.9 | +0.2 |
| | comp=Z,1.0nm,0.4s,baz=52,slow=5.9 | | | | | | |
| NB200 | NORSAR Array S | 79.34 | 333 | eP | P | 04 01 19.0 | -0.7 |
| NOA | NORSAR Array B | 79.34 | 333 | P | P | 04 01 19.0 | -0.7 |
| | comp=Z,0.7nm,0.5s,baz=72,slow=5.9,SNR=6.4 | | | | | | |
| GERES | GERESS Array B | 84.32 | 321 | P | P | 04 01 46.1 | -0.1 |
| | comp=Z,0.6nm,0.7s,baz=28,slow=6.0,SNR=4.1 | | | | | | |

**JMA 06 03:50:25.7±0.2, 27°.95N×129°.48E, h29km±2km, Ryukyu Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JAMN | Amaminishikomi | 0.40 | 317 | P | Pb | 03 50 34.2 | -0.3 |
| JAMN | | | | eS | Sb | 03 50 40.2 | -0.2 |
| JTK | Tokunoshima | 0.50 | 251 | P | Pb | 03 50 35.7 | -0.3 |
| JTK | | | | eS | Sb | 03 50 43.3 | +0.2 |

**IDC 06 03:57:43.8±1.8, 4°.76N×126°.50E, h0km, mb3.9/4, mb1 4.0/4, mb1mx3.5/34, mbtmp3.9/4, Error ellipse: s-maj=150.2km s-min=22.6km az=65.0, Talaud Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 25.73 | 163 | P | P | 04 03 16.0 | -0.1 |
| | 2.9nm,0.4s,baz=343,slow=10.0,SNR=26 | | | | | | |
| ASAR | Alice Springs | 29.16 | 166 | P | P | 04 03 46.8 | -0.2 |
| | 0.2nm,0.5s,baz=347,slow=7.6,SNR=4.9 | | | | | | |
| STKA | Stephens Creek | 39.16 | 159 | P | P | 04 05 13.6 | +0.1 |
| | 2.4nm,0.5s,baz=352,slow=7.1,SNR=6.1 | | | | | | |
| MKAR | Makanchi Array | 56.59 | 325 | P | P | 04 07 28.4 | -0.1 |
| | 0.5nm,0.4s,baz=116,slow=7.5,SNR=16 | | | | | | |

**IDC 06 04:08:56.8±9.3, 5°.84S×151°.03E, h81km±66km, mb2.9/2, mb1 3.2/3, mb1mx3.0/24, mbtmp3.4/3, ML1.9/1, Error ellipse: s-maj=125.6km s-min=58.7km az=124.0, New Britain region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PMG | Port Moresby | 5.22 | 227 | P | Pn | 04 10 12.6 | +0.2 |
| | 2.9nm,0.3s,baz=343,slow=16,SNR=3.6 | | | | | | |
| PMG | | | | S | Sn | 04 11 12.1 | +0.7 |
| | 2.7nm,0.3s,baz=300,slow=20,SNR=4.5 | | | | | | |
| WRA | Warramunga Arr | 21.44 | 228 | P | P | 04 13 38.5 | 0.0 |
| | 0.6nm,0.6s,baz=54,slow=10,SNR=8.5 | | | | | | |
| ASAR | Alice Springs | 24.20 | 221 | P | P | 04 14 06.0 | 0.0 |
| | 0.2nm,0.4s,baz=55,slow=9.0,SNR=5.1 | | | | | | |
| TORD | Torodi Ar. Bea | 148.93 | 286 | PKPbc | PKPbc | 04 28 35.8 | -0.5 |
| | 0.5nm,0.6s,baz=82,slow=2.2,SNR=8.9 | | | | | | |

*SJA 06 04:16:52.7±1.0, 33°.53S×70°.98W, h68km±8km, MD3.0*
*ISCJB 06 04:16:54.8±1.4, 33°.43S±0°.06×71°.05W±0°.09, h73km±7km, Error ellipse: s-maj=12.5km s-min=9.2km az=164.3*
*GUC 06 04:16:55.2±0.7, 33°.30S×70°.87W, h77km±4km, ML2.9*
**ISC 06 04:16:56.9±2.7, 33°.38S±0°.07×71°.0W±0°.1, h61km±13km, n12, σ0s.95/24, 5C-2D, Chile-Argentina border region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RCDM | Rinconada Maip | 0.18 | 127 | ⇑iP | Pn | 04 17 06.5 | 0.0 |
| RCDM | | | | iS | Sn | 04 17 14.6 | +1.2 |
| ANTU | Antumapu | 0.34 | 123 | ⇑iP | Pn | 04 17 07.2 | -0.3 |
| ANTU | | | | iS | Sn | 04 17 16.1 | +0.9 |
| PEL | Peldehue | 0.34 | 46 | ⇑iP | Pn | 04 17 06.6 | -1.0 |
| PEL | | | | iS | Sn | 04 17 15.6 | +0.3 |
| PEL | | | | IAML | | 04 17 16.3 | |
| | comp=N,948nm,0.4s | | | | | | |
| CLCH | Cerro Calan | 0.37 | 92 | ⇑iP | Pn | 04 17 07.1 | -0.6 |
| CLCH | | | | iS | Sn | 04 17 16.2 | +0.5 |
| CLCH | | | | IAML | | 04 17 16.6 | |
| | comp=E,1μm,0.3s | | | | | | |
| ROC1 | El Roble | 0.41 | 355 | eP | Pn | 04 17 07.5 | -0.9 |
| ROC1 | | | | iS | Sn | 04 17 17.3 | +0.6 |
| ROCH | El Roble | 0.41 | 356 | ⇓iP | Pn | 04 17 07.6 | -0.8 |
| ROCH | | | | eS | Sn | 04 17 17.1 | +0.5 |
| ROCH | | | | IAML | | 04 17 18.9 | |
| | comp=N,768nm,0.1s | | | | | | |
| FCH | Farellones | 0.58 | 85 | ⇓iP | Pn | 04 17 09.1 | -1.1 |
| FCH | | | | eS | Sn | 04 17 19.3 | -0.5 |
| FCH | | | | IAML | | 04 17 19.8 | |
| | comp=E,1μm,0.1s | | | | | | |
| LMEL | Las Melosas | 0.79 | 126 | ⇑iP | Pn | 04 17 12.0 | -0.6 |
| LMEL | | | | iS | Sn | 04 17 24.4 | +0.4 |
| AUSP | Uspallata | 1.77 | 50 | eP | Pn | 04 17 24.9 | -0.6 |
| AUSP | | | | eS | Sn | 04 17 48.0 | +0.9 |
| RTLS | Leoncito | 2.12 | 42 | eP | Pn | 04 17 30.1 | -0.2 |
| RTLS | | | | iS | Sn | 04 17 58.2 | +2.4 |
| RTCV | Cerro Valdivia | 2.55 | 54 | eP | Pn | 04 17 35.0 | -0.9 |
| RTCV | | | | iS | Sn | 04 18 06.6 | +0.6 |
| AMOG | MOGNA | 3.22 | 41 | eP | Pn | 04 17 44.1 | -1.0 |
| AMOG | | | | eS | Sn | 04 18 23.3 | +1.0 |

*NIED 06 04:19:00, 37°.60N×141°.90E, h11km, Mw3.4 Best double couple: M₀1.30000×10¹⁴ NP1:φs19.00000°, δ34.00000°, λ21.00000°. NP2:φs271.00000°, δ78.00000°, λ123.00000°.*
**JMA 06 04:19:49.5±0.1, 37°.58N×141°.86E, h31km±3km, M3.6, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JFK | Kawauchi | 0.81 | 255 | P | Pn | 04 20 04.6 | -0.2 |
| JFK | | | | S | Sb | 04 20 14.8 | -1.0 |
| JMM | Marumori | 0.89 | 289 | P | Pn | 04 20 05.8 | -0.1 |
| JMM | | | | S | Sn | 04 20 17.2 | -0.6 |
| JIO | Ouri | 0.96 | 335 | P | Pn | 04 20 06.7 | -0.2 |
| JIO | | | | S | Sn | 04 20 18.0 | -1.5 |
| ONAJ | Iwakimizuishiy | 0.97 | 241 | P | Pn | 04 20 06.7 | -0.4 |
| ONAJ | | | | S | Sn | 04 20 18.5 | -1.3 |
| JFT | Otama | 1.21 | 268 | P | Pb | 04 20 11.3 | -0.6 |
| JFT | | | | S | Sn | 04 20 26.3 | +0.6 |
| JOU | Okura | 1.23 | 310 | P | Pn | 04 20 11.3 | +0.7 |
| JOU | | | | S | Sn | 04 20 26.7 | +0.6 |
| JMK | Ichinoseki | 1.46 | 340 | P | Pn | 04 20 14.2 | +0.5 |

*ISCJB 06 04:19:55.5±0.8, 31°.58S±0°.03×72°.05W±0°.06, h78km±19km, Error ellipse: s-maj=9.0km s-min=5.1km az=7.4*
*GUC 06 04:19:56.4±0.5, 31°.59S×71°.60W, h17km±6km, ML3.6*
*SJA 06 04:19:56.4±0.6, 31°.68S×71°.90W, h38km±9km, ML3.9, MW3.8*
**ISC 06 04:19:56.6±2.0, 31°.61S±0°.04×72°.06W±0°.10, h59km±46km, n28, σ1s.71/45, 1C-1D, Off coast of central Chile**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ROCH | El Roble | 1.63 | 147 | eP | Pn | 04 20 22.6 | -0.6 |
| ROCH | | | | iS | Sn | 04 20 42.8 | -0.4 |
| ROCH | | | | IAML | | 04 20 45.9 | |
| | comp=N,2μm,0.5s | | | | | | |
| ROC1 | El Roble | 1.63 | 147 | eP | Pn | 04 20 22.6 | -0.6 |
| ROC1 | | | | eS | Sn | 04 20 42.5 | -0.8 |
| TLL | Tololo Astrono | 1.79 | 37 | eP | Pn | 04 20 24.7 | -0.8 |
| TLL | | | | iS | Sn | 04 20 45.8 | -1.6 |
| PEL | Peldehue | 1.93 | 143 | ⇑iP | Pn | 04 20 27.1 | +0.1 |
| PEL | | | | iS | Sn | 04 20 49.9 | -0.3 |
| PEL | | | | IAML | | 04 20 57.4 | |
| | comp=N,832nm,0.5s | | | | | | |
| CLCH | Cerro Calan | 2.20 | 145 | ⇓iP | Pn | 04 20 31.2 | +0.4 |
| CLCH | | | | iS | Sn | 04 20 57.6 | +0.7 |
| CLCH | | | | IAML | | 04 21 05.5 | |
| | comp=E,1μm,0.6s | | | | | | |
| FCH | Farellones | 2.28 | 139 | eP | Pn | 04 20 32.2 | +0.1 |
| FCH | | | | iS | Sn | 04 20 59.2 | +0.1 |
| FCH | | | | IAML | | 04 21 01.7 | |
| | comp=E,870nm,0.3s | | | | | | |
| AUSP | Uspallata | 2.35 | 106 | eP | Pn | 04 20 33.4 | +0.2 |
| AUSP | | | | eS | Sn | 04 21 00.5 | -0.6 |
| RTLS | Leoncito | 2.36 | 95 | eP | Pn | 04 20 33.2 | -0.1 |
| RTLS | | | | eS | Sn | 04 20 59.2 | -2.1 |
| RTLS | | | | IAML | | 04 21 02.6 | |
| | comp=Z,899nm,0.9s | | | | | | |
| SJCH | San Jose de Ma | 2.49 | 145 | eP | Pn | 04 20 35.4 | +0.7 |
| SJCH | | | | iS | Sn | 04 21 05.3 | +1.3 |
| SJCH | | | | IAML | | 04 21 13.9 | |
| | comp=N,409nm,0.4s | | | | | | |
| LMEL | Las Melosas | 2.73 | 145 | eP | Pn | 04 20 38.9 | +0.8 |
| LMEL | | | | eS | Sn | 04 21 11.7 | +1.7 |
| LCO | Las Campanas | 2.84 | 25 | eP | Pn | 04 20 39.5 | -0.3 |
| LCO | | | | eS | Sn | 04 21 12.5 | -0.4 |
| SJA | San Juan | 2.99 | 89 | eP | Pn | 04 20 42.8 | +1.3 |
| SJA | | | | IAML | | 04 20 47.2 | |
| | comp=Z,309nm,0.2s | | | | | | |
| SJA | | | | eS | Sn | 04 21 17.4 | +1.2 |
| RTCV | Cerro Valdivia | 3.01 | 96 | eP | Pn | 04 20 43.0 | +1.1 |
| RTLL | Cerro Villicun | 3.08 | 86 | eP | Pn | 04 20 43.2 | +0.4 |
| RTLL | | | | eS | Sn | 04 21 19.2 | +0.8 |
| RTLL | | | | IAML | | 04 21 26.8 | |
| | comp=Z,379nm,0.4s | | | | | | |
| AMOG | MOGNA | 3.13 | 79 | eP | Pn | 04 20 44.4 | +0.9 |
| AMOG | | | | eS | Sn | 04 21 25.1 | +5.4 |
| GO05 | HualaæØ | 3.40 | 178 | eP | Pn | 04 20 47.5 | +0.4 |
| AGUA | GUANDACOL | 3.73 | 56 | eP | Pn | 04 20 53.9 | +2.1 |
| AGUA | | | | eS | Sn | 04 21 39.1 | +4.5 |
| ACAN | Cantantal | 4.20 | 100 | eP | Pn | 04 20 57.7 | -0.4 |
| ACAN | | | | eS | Sn | 04 21 42.8 | -3.0 |
| RFA | San Rafael | 4.36 | 137 | eP | Pn | 04 21 01.5 | +1.1 |
| RFA | | | | IAML | | 04 22 12.8 | |
| | comp=Z,32nm,0.4s | | | | | | |
| APLL | PUNTA DE LOS L | 4.90 | 77 | eP | Pn | 04 21 07.2 | -0.6 |
| APLL | | | | eS | Sn | 04 22 03.9 | +0.7 |
| APLL | | | | IAML | | 04 22 12.1 | |
| | comp=Z,93nm,0.6s | | | | | | |
| ACLC | CERRO LA CRUZ | 4.91 | 65 | eP | Pn | 04 21 08.1 | 0.0 |
| ACLC | | | | eS | Sn | 04 22 04.7 | +1.0 |
| CYA | Choya | 6.28 | 61 | eP | Pn | 04 21 25.6 | -1.0 |
| CYA | | | | IAML | | 04 21 30.0 | |
| | comp=Z,75nm,0.4s | | | | | | |
| CYA | | | | eS | Sn | 04 22 36.8 | -0.2 |
| SUCO | SUCO | 6.31 | 108 | IAML | | 04 22 42.6 | |
| | comp=Z,44nm,0.5s | | | | | | |
| TCA | Tanti | 6.38 | 90 | eP | Pn | 04 21 26.6 | -1.5 |
| TCA | | | | IAML | | 04 21 30.2 | |
| | comp=Z,65nm,0.4s | | | | | | |
| TCA | | | | eS | Sn | 04 22 34.3 | -5.3 |
| AHML | Horco Molle | 7.59 | 52 | eP | Pn | 04 21 43.9 | -0.7 |
| AHML | | | | IAML | | 04 23 40.3 | |
| | comp=Z,22nm,0.6s | | | | | | |
| FSA | Cafayete | 7.64 | 46 | eP | Pn | 04 21 45.5 | +0.1 |
| FSA | | | | IAML | | 04 23 22.8 | |
| | comp=Z,9.1nm,0.5s | | | | | | |
| SLA | San Lorenzo | 8.97 | 42 | eP | Pn | 04 22 07.0 | +3.4 |
| SLA | | | | IAML | | 04 24 48.7 | |
| | comp=Z,5.7nm,0.6s | | | | | | |
| AZAP | Zapla | 9.61 | 42 | IAML | | 04 24 02.4 | |
| | comp=Z,3.9nm,0.6s | | | | | | |

*IDC 06 04:31:37.2±3.0, 1°.90N×96°.55E, h0km, mb3.7/5, mb1 3.9/6, mb1mx3.6/38, mbtmp3.7/6, Error ellipse: s-maj=118.0km s-min=21.2km az=61.0*
*DJA 06 04:31:38.7±0.6, 2°N±4°×9°7E±°, h20km±6km, M3.5/5, MLv3.5/5*
*ISCJB 06 04:31:39.5±1.1, 1°.86N±0°.05×96°.54E±0°.09, h30km±9km, mb3.6/5, Error ellipse: s-maj=15.9km s-min=6.4km az=154.9*
**ISC 06 04:31:38.7±3.6, 1°.88N±0°.07×96°.6E±0°.1, h14km±25km, n17, σ0s.76/16, mb3.6/5, Off west coast of northern Sumatera**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SNSI | Sinabang, Aceh | 0.57 | 337 | P | Pb | 04 31 50.6 | +0.2 |
| SNSI | | | | S | Sn | 04 31 59.9 | -1.6 |
| GSI | Gunungsitoli | 1.18 | 119 | P | Pn | 04 32 00.0 | -0.7 |
| GSI | | | | S | Sb | 04 32 15.9 | 0.0 |
| KCSI | Kotacane, Aceh | 2.04 | 37 | P | Pn | 04 32 12.4 | -0.2 |
| KCSI | | | | S | Sn | 04 32 37.4 | -0.4 |
| MLSI | Meulaboh, Aceh | 2.37 | 356 | P | Pn | 04 32 16.8 | -0.4 |
| MLSI | | | | S | Sn | 04 32 46.1 | 0.0 |
| PBSI | Pulau Batu | 2.59 | 138 | P | Pn | 04 32 19.6 | -0.6 |
| PBSI | | | | S | Sn | 04 32 50.8 | -0.6 |
| CMAR | Chiang Mai Arr | 16.64 | 8 | Pn | P | 04 35 33.4 | -0.7 |
| | baz=196,slow=11,SNR=4.2 | | | | | | |
| H08S2 | Diego Garcia H | 25.80 | 248 | T | T | 05 03 56.4 | |
| | baz=69,slow=76,SNR=73 | | | | | | |
| H08S3 | Diego Garcia H | 25.80 | 248 | T | T | 05 03 57.2 | |
| | baz=69,slow=76,SNR=93 | | | | | | |
| H08S1 | Diego Carcia H | 25.82 | 248 | T | T | 05 03 58.4 | |
| | baz=69,slow=76,SNR=22 | | | | | | |
| H01W3 | Cape Leeuwin H | 40.12 | 157 | T | T | 05 21 47.7 | |
| | baz=327 | | | | | | |
| H01W2 | Cape Leeuwin H | 40.13 | 157 | T | T | 05 21 57.3 | |
| | baz=327 | | | | | | |
| H01W1 | Cape Leeuwin H | 40.14 | 157 | T | T | 05 21 54.4 | |
| | baz=327 | | | | | | |
| WRA | Warramunga Arr | 42.95 | 122 | P | P | 04 39 38.0 | +0.4 |
| | 0.7nm,0.8s,baz=301,slow=9.2,SNR=7.0 | | | | | | |
| ASAR | Alice Springs | 44.32 | 127 | P | P | 04 39 49.7 | +1.0 |
| | 0.3nm,0.6s,baz=291,slow=7.1,SNR=2.8 | | | | | | |
| MKAR | Makanchi Array | 46.43 | 346 | P | P | 04 40 05.7 | +0.7 |
| | 0.7nm,0.6s,baz=156,slow=9.3,SNR=9.0 | | | | | | |
| SONM | Songino Array | 46.56 | 9 | P | P | 04 40 06.1 | 0.0 |
| | 0.2nm,0.3s,baz=185,slow=8.2,SNR=3.7 | | | | | | |
| ZALV | Zalesovo Beam | 52.79 | 351 | P | P | 04 40 53.9 | +0.6 |
| | 0.7nm,0.3s,baz=184,slow=6.1,SNR=5.7 | | | | | | |

*ISCJB 06 04:35:10.7±0.9, 36°.9N±0°.1×135°.1E±0°.1, h350km, mb3.0/3, Error ellipse: s-maj=19.5km s-min=11.0km az=11.9*
*IDC 06 04:35:12.3±1.5, 36°.93N×135°.27E, h366km±26km, mb2.8/3, mb1 3.0/5, mb1mx2.7/43, mbtmp3.5/5, Error ellipse: s-maj=63.4km s-min=17.9km az=65.0*
*JMA 06 04:35:12.0±0.1, 36°.94N×135°.35E, h366km, M3.0*
**ISC 06 04:35:11.5±1.0, 36°.9N±0°.2×135°.3E±0°.1, h350km, n12, σ1s.57/13, mb3.1/3, Sea of Japan**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JNG | Nsakai | 2.33 | 102 | P | Pn | 04 36 07.3 | +1.9 |
| MAT | Matsushiro | 2.38 | 99 | P | Pn | 04 36 07.4 | +1.7 |
| MAT | Matsushiro | 2.38 | 99 | P | Pn | 04 36 07.4 | +1.7 |
| MJAR | Matsushiro Arr | 2.38 | 99 | P | Pn | 04 36 07.9 | +2.1 |
| | 2.4nm,0.3s,baz=279,slow=9.5,SNR=32 | | | | | | |
| JSD | Sado | 2.61 | 64 | P | Pn | 04 36 09.1 | +1.7 |
| JMM | Marumori | 4.49 | 76 | P | Pn | 04 36 26.3 | +0.8 |
| JFK | Kawauchi | 4.49 | 83 | P | Pn | 04 36 25.8 | +0.2 |
| JFK | | | | S | S | 04 37 24.4 | -1.1 |
| JMK | Ichinoseki | 5.11 | 65 | P | Pn | 04 36 32.9 | +0.7 |
| USRK | Ussuriysk Ar. | 7.67 | 342 | P | Pn | 04 37 03.5 | +1.9 |
| | 0.7nm,0.3s,baz=175,slow=12,SNR=8.7 | | | | | | |
| MKAR | Makanchi Array | 39.99 | 301 | P | P | 04 42 12.6 | -0.7 |
| | 0.1nm,0.4s,baz=81,slow=8.9,SNR=4.1 | | | | | | |
| WRA | Warramunga Arr | 56.58 | 181 | P | P | 04 44 18.2 | -0.7 |
| | 0.3nm,0.4s,baz=358,slow=7.5,SNR=9.3 | | | | | | |
| FINES | FINESS Array B | 66.54 | 330 | P | P | 04 45 23.3 | -1.0 |
| | 1.7nm,0.9s,baz=90,slow=4.2,SNR=3.1 | | | | | | |

*CSEM 06 04:52:12.9±0.3, 38°.89N×43°.55E, h10km, ML2.8, Error ellipse: s-maj=6.3km s-min=5.3km az=115.0*
*ATA 06 04:52:12.1±0.4, 38°.89N×43°.47E, h7km±18km, ML2.5, MW2.9*
*ISK 06 04:52:12.0, 38°.88N×43°.53E, h2km, MD2.7*
*DDA 06 04:52:13.2, 38°.85N×43°.55E, h7km, Ml2.8*
**ISC 06 04:52:13.5±0.9, 38°.88N±0°.02×43°.55E±0°.03, h9km±7km, n23, σ1s.27/39, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.12 | 9 | iP | Pg | 04 52 15.6 | -0.9 |
| VMUR | | | | iS | Sg | 04 52 20.0 | +1.5 |
| VMUR | Van-Muradiye | 0.12 | 9 | P | Pg | 04 52 15.6 | -0.9 |
| VMUR | | | | S | Sg | 04 52 20.0 | +1.5 |
| VANB | Van | 0.31 | 204 | ePG | Pg | 04 52 20.0 | +0.3 |
| VANB | | | | eSG | Sb | 04 52 26.9 | +0.5 |
| VANB | Van | 0.31 | 204 | ePg | Pg | 04 52 20.0 | +0.3 |
| VANB | | | | eSg | Sb | 04 52 26.9 | +0.5 |
| TVAN | Van | 0.36 | 198 | iP | Pg | 04 52 19.9 | -0.9 |
| TVAN | | | | iS | Sb | 04 52 26.8 | -1.4 |
| TVAN | Van | 0.36 | 198 | P | Pg | 04 52 19.9 | -0.9 |
| TVAN | | | | S | Sb | 04 52 26.8 | -1.4 |
| CLDR | Caldiran | 0.39 | 47 | ePG | Pg | 04 52 20.8 | -0.6 |
| CLDR | Caldiran | 0.39 | 47 | iP | Pg | 04 52 20.5 | -0.8 |
| CLDR | | | | iS | Sb | 04 52 28.2 | -0.8 |
| CLDR | Caldiran | 0.39 | 47 | P | Pg | 04 52 20.5 | -0.8 |
| CLDR | Caldiran | 0.39 | 47 | ePg | Pg | 04 52 20.8 | -0.6 |
| CLDR | | | | S | Sb | 04 52 28.2 | -0.8 |
| ADCV | BITLIS_Adilcev | 0.65 | 264 | iP | Pg | 04 52 24.7 | -1.4 |
| ADCV | | | | iS | Sb | 04 52 35.9 | -0.4 |
| ADCV | BITLIS_Adilcev | 0.65 | 264 | P | Pg | 04 52 24.7 | -1.4 |
| ADCV | | | | S | Sb | 04 52 35.9 | -0.4 |
| DYDN | Diyadin | 0.68 | 9 | eP | Pg | 04 52 25.7 | -1.0 |
| DYDN | | | | IAML | | 04 52 38.9 | |
| | comp=Z,14nm,0.2s | | | | | | |
| GEVA | Gevas | 0.68 | 214 | eP | Pg | 04 52 25.2 | -1.5 |
| GEVA | | | | IAML | | 04 52 48.5 | |
| | comp=Z,14nm,0.5s | | | | | | |
| TUTA | Tutak | 0.78 | 313 | eP | Pg | 04 52 26.7 | -1.8 |
| TUTA | | | | eS | Sg | 04 52 37.8 | -0.9 |
| TUTA | | | | IAML | | 04 52 45.7 | |
| | comp=Z,20nm,0.2s | | | | | | |
| TUTA | Tutak | 0.78 | 313 | iP | Pg | 04 52 27.3 | -1.2 |
| TUTA | | | | iS | Sb | 04 52 40.5 | +0.4 |
| TUTA | Tutak | 0.78 | 313 | P | Pg | 04 52 27.3 | -1.2 |
| TUTA | | | | S | Sb | 04 52 40.5 | +0.4 |
| AGRB | Hanur-Agry | 0.82 | 328 | ePG | Pg | 04 52 28.8 | -0.6 |
| AGRB | | | | eSG | Sb | 04 52 40.4 | -0.9 |
| AGRB | Hanur-Agry | 0.82 | 328 | ePg | Pg | 04 52 28.8 | -0.6 |
| AGRB | | | | eSg | Sb | 04 52 40.4 | -0.9 |
| EKAR | Karacoban | 1.22 | 289 | iP | Pn | 04 52 36.9 | 0.0 |
| EKAR | | | | iS | Sn | 04 52 58.3 | +4.7 |
| EKAR | Karacoban | 1.22 | 289 | P | Pn | 04 52 36.9 | 0.0 |
| CUKT | Cukurca | 1.63 | 178 | ePN | Pb | 04 52 42.9 | -0.8 |
| CUKT | Cukurca | 1.63 | 178 | ePn | Pb | 04 52 42.9 | -0.8 |

**NNC 06 04:53:38.1±2.3, 37°.06N×71°.28E, h0km, mb3.5, mpv3.1, 2C-2D, Error ellipse: s-maj=18.0km s-min=9.7km az=167.0, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DZET | Dzherino | 2.61 | 313 | Pn | Pn | 04 54 21.5 | -0.1 |
| | 1.7nm,0.3s | | | | | | |
| DZET | | | | ⇑Sn | Sn | 04 54 55.2 | +1.1 |
| | 5.8nm,0.3s | | | | | | |
| MNAS | Manas | 5.50 | 9 | ⇓Pn | Pn | 04 55 01.3 | -0.2 |
| | 1.2nm,0.4s | | | | | | |
| MNAS | | | | ⇑Sn | Sn | 04 56 06.4 | +0.9 |
| | 1.2nm,0.4s | | | | | | |
| KK31 | Karatay Array | 6.07 | 355 | Pn | Pn | 04 55 09.5 | +0.5 |
| | 1.3nm,0.3s,baz=178,slow=13,SNR=34 | | | | | | |
| KK31 | | | | ⇓Sn | Sn | 04 56 20.5 | +1.3 |
| | 0.2nm,0.3s,baz=175,slow=23,SNR=5.3 | | | | | | |

**IDC 06 04:57:13.4±6.0, 26°.78N×143°.75E, h0km, mb3.7/3, mb1 4.0/4, mb1mx3.5/36, mbtmp3.7/4, ML3.6/1, MS3.8/1, Ms1 3.8/1, ms1mx2.5/35, Error ellipse: s-maj=231.7km s-min=25.9km az=74.0, Bonin Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MJAR | Matsushiro Arr | 10.81 | 336 | Pn | Pn | 04 59 47.0 | -2.4 |
| | 0.4nm,0.3s,baz=157,slow=9.6,SNR=4.6 | | | | | | |
| WRA | Warramunga Arr | 47.33 | 192 | P | P | 05 05 48.9 | -0.2 |
| | 2.0nm,0.6s,baz=13,slow=8.5,SNR=27 | | | | | | |
| ASAR | Alice Springs | 51.04 | 192 | P | P | 05 06 17.1 | -0.4 |
| | 0.3nm,0.5s,baz=14,slow=14,SNR=5.3 | | | | | | |
| MKAR | Makanchi Array | 51.75 | 310 | P | P | 05 06 23.3 | +0.6 |
| | 0.6nm,0.6s,baz=87,slow=9.2,SNR=7.0 | | | | | | |
| BVAR | Borovoye Array | 59.22 | 318 | LR | LR | 05 33 37.6 | |
| | comp=Z,74nm,20.6s,baz=73,slow=37 | | | | | | |

**GUC 06 05:09:46.0±0.5, 21°.15S×68°.24W, h183km±4km, ML3.5, 2C-5D, Chile-Bolivia border region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PB09 | IPOC Station P | 1.14 | 235 | ⇓iP | Pn | 05 10 15.9 | +0.6 |
| PB09 | | | | eS | Sn | 05 10 38.8 | +0.8 |
| PB09 | | | | IAML | | 05 10 40.5 | |
| | comp=E,637nm,0.1s | | | | | | |
| PB01 | IPOC Station P | 1.17 | 275 | ⇓iP | Pn | 05 10 16.1 | +0.6 |
| PB01 | | | | eS | Sn | 05 10 39.3 | +1.1 |
| PB01 | | | | IAML | | 05 10 41.6 | |
| | comp=E,251nm,0.2s | | | | | | |
| PB08 | IPOC Station P | 1.32 | 319 | ⇓iP | Pn | 05 10 18.3 | +1.2 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PB08 | | | | *i* S | Sn | 05 10 42.5 | +1.4 |
| PB08 | | | | IAML | | 05 10 42.8 | |
| | comp=N,367nm,0.5s | | | | | | |
| PB02 | IPOC Station P | 1.56 | 263 | *e*P | Pn | 05 10 20.1 | +1.2 |
| PB02 | | | | *i* S | Sn | 05 10 45.7 | +1.4 |
| PB02 | | | | IAML | | 05 10 48.3 | |
| | comp=E,569nm,0.2s | | | | | | |
| PB07 | IPOC Station P | 1.64 | 249⇓ | *i*P | Pn | 05 10 20.8 | +1.0 |
| PB07 | | | | *i* S | Sn | 05 10 47.1 | +1.1 |
| PB07 | | | | IAML | | 05 10 48.3 | |
| | comp=N,456nm,0.2s | | | | | | |
| PB06 | IPOC Station P | 1.99 | 218⇓ | *i*P | Pn | 05 10 23.6 | +0.3 |
| PB06 | | | | *i* S | Sn | 05 10 52.6 | +0.3 |
| PB06 | | | | IAML | | 05 10 54.1 | |
| | comp=N,186nm,0.1s | | | | | | |
| PB04 | IPOC Station P | 2.13 | 236 | *e*P | Pn | 05 10 26.1 | +1.2 |
| PB04 | | | | *e*S | Sn | 05 10 55.7 | +0.5 |
| PB04 | | | | IAML | | 05 11 00.0 | |
| | comp=E,193nm,0.3s | | | | | | |
| PSGC | Pisagua | 2.35 | 311 | *e*P | Pn | 05 10 28.4 | +1.1 |
| PSGC | | | | *e*S | Sn | 05 11 00.5 | +1.2 |
| PSGC | | | | IAML | | 05 11 02.4 | |
| | comp=E,157nm,0.2s | | | | | | |
| MNMC | Minye Minye | 2.38 | 327⇑ | *i*P | Pn | 05 10 29.6 | +1.8 |
| MNMC | | | | *e*S | Sn | 05 11 02.3 | +2.0 |
| PB12 | IPOC Station P | 3.20 | 322⇑ | *i*P | Pn | 05 10 38.0 | +0.6 |
| PB12 | | | | *i* S | Sn | 05 11 18.1 | +0.7 |

**IDC 06 05:25:35.9**±2.6**, 54°.18N×86°.37E, h0**km**, mb1 2.9**/2**, mb1mx2.8**/44**, mbtmp2.9**/2**, ML2.6**/2**, Error ellipse: s-maj=19.8km s-min=12.3km az=58.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| I46RU | ZALESOVO INFRA | 0.94 | 256 | *i* | | 05 31 10.0 | |
| | baz=76,slow=351,SNR=3.1 | | | | | | |
| ZALV | Zalesovo Beam | 0.94 | 256 | Pg | Pg | 05 25 52.8 | -1.2 |
| | 3.0nm,0.3s,baz=73,slow=18,SNR=21 | | | | | | |
| ZALV | | | | Lg | Lg | 05 26 07.7 | |
| | 5.3nm,0.3s,baz=76,slow=29,SNR=21 | | | | | | |
| KURBB | Kurchatov Arra | 5.98 | 237 | Pn | Pn | 05 27 06.4 | +0.8 |
| | 0.1nm,0.3s,baz=54,slow=14,SNR=5.5 | | | | | | |
| KURBB | | | | Lg | Lg | 05 28 46.0 | |
| | 0.0nm,0.3s,baz=52,slow=32,SNR=3.9 | | | | | | |
| MKAR | Makanchi Array | 7.84 | 201 | Pn | Pn | 05 27 32.3 | +1.1 |
| | 0.1nm,0.3s,baz=23,slow=12,SNR=7.7 | | | | | | |
| MKAR | | | | Lg | Lg | 05 29 46.0 | |
| | 0.1nm,0.3s,baz=17,slow=30,SNR=5.0 | | | | | | |

**IDC 06 05:27:27.0**±63.0**, 19°.50S×178°.77E, h0**km**, mb3.9**/3**, mb1 4.1**/3**, mb1mx3.6**/38**, mbtmp3.9**/3**, Error ellipse: s-maj=1120.0km s-min=153.8km az=80.0, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| STKA | Stephens Creek | 35.53 | 242 | P | P | 05 34 26.1 | +0.3 |
| | 1.0nm,0.6s,baz=79,slow=10,SNR=2.9 | | | | | | |
| WRA | Warramunga Arr | 41.74 | 262 | P | P | 05 35 18.1 | -0.1 |
| | 0.8nm,0.5s,baz=97,slow=7.8,SNR=22 | | | | | | |
| ASAR | Alice Springs | 41.80 | 256 | P | P | 05 35 18.3 | -0.4 |
| | 2.1nm,0.8s,baz=95,slow=7.6,SNR=16 | | | | | | |

*ATA **06** 05:30:13.7±1.1, 38°.63N×42°.87E, h7km±29km, ML3.4, MW3.4*
*CSEM **06** 05:30:14.4±0.2, 38°.66N×43°.19E, h2km, MD3.2, Error ellipse: s-maj=4.3km s-min=4.0km az=31.0*
*DDA **06** 05:30:14.2, 38°.64N×43°.16E, h7km, Ml3.1*
*ISK **06** 05:30:14.2, 38°.69N×43°.31E, h7km, MD3.2*
**ISC 06 05:30:14.6**±1.0**, 38°.66N**±0°.02×**43°.19E**±0°.02**, h4**km±10km**, n42, σ0s.95**/64**, 3D, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.17 | 113 | *e*PG | Pg | 05 30 18.3 | +0.2 |
| VANB | | | | *e*SG | Sg | 05 30 22.2 | +1.8 |
| VANB | Van | 0.17 | 113 | *e*Pg | Pg | 05 30 18.3 | +0.2 |
| VANB | | | | *e*Sg | Sg | 05 30 22.2 | +1.8 |
| TVAN | Van | 0.22 | 128 | *i* P | Pg | 05 30 18.2 | -0.7 |
| TVAN | | | | *i* S | Sg | 05 30 22.4 | +0.6 |
| TVAN | Van | 0.22 | 128 | P | Pg | 05 30 18.2 | -0.7 |
| TVAN | | | | S | Sg | 05 30 22.4 | +0.6 |
| GEVA | Gevas | 0.36 | 196⇓ | *i*P | Pg | 05 30 20.6 | -1.1 |
| GEVA | | | | *e*S | Sg | 05 30 27.0 | +0.6 |
| GEVA | | | | IAML | | 05 30 28.9 | |
| | comp=Z,837nm,0.4s | | | | | | |
| GEVA | Gevas | 0.36 | 196 | *i* P | Pg | 05 30 20.8 | -0.9 |
| GEVA | | | | *i* S | Sg | 05 30 27.1 | +0.6 |
| GEVA | Gevas | 0.36 | 196 | P | Pg | 05 30 20.8 | -0.9 |
| GEVA | | | | S | Sg | 05 30 27.1 | +0.6 |
| ADCV | BITLIS_Adilcev | 0.39 | 292 | *i* P | Pg | 05 30 22.2 | +0.1 |
| ADCV | | | | *i* S | Sb | 05 30 29.6 | -1.0 |
| ADCV | BITLIS_Adilcev | 0.39 | 292 | P | Pg | 05 30 22.2 | +0.1 |
| ADCV | | | | S | Sb | 05 30 29.6 | -1.0 |
| VMUR | Van-Muradiye | 0.44 | 43 | *i* P | Pg | 05 30 23.7 | +0.5 |
| VMUR | | | | *i* S | Sb | 05 30 31.8 | -0.4 |
| VMUR | Van-Muradiye | 0.44 | 43 | P | Pg | 05 30 23.7 | +0.5 |
| VMUR | | | | S | Sb | 05 30 31.8 | -0.4 |
| CLDR | Caldiran | 0.75 | 50 | *i* P | Pg | 05 30 28.6 | -0.3 |
| CLDR | | | | *i* S | Sb | 05 30 40.7 | -0.2 |
| CLDR | Caldiran | 0.75 | 50 | P | Pg | 05 30 28.6 | -0.3 |
| CLDR | | | | S | Sb | 05 30 40.7 | -0.2 |
| TUTA | Tutak | 0.79 | 339⇓ | *i*P | Pg | 05 30 29.6 | -0.2 |
| TUTA | | | | *e*S | Sg | 05 30 40.5 | +0.4 |
| TUTA | | | | IAML | | 05 30 43.1 | |
| | comp=Z,216nm,0.2s | | | | | | |
| TUTA | Tutak | 0.79 | 339 | *i* P | Pg | 05 30 29.7 | -0.2 |
| TUTA | | | | *i* S | Sg | 05 30 40.7 | +0.6 |
| TUTA | Tutak | 0.79 | 339 | P | Pg | 05 30 29.7 | -0.2 |
| TUTA | | | | S | Sg | 05 30 40.7 | +0.6 |
| AGRB | Hanur-Agry | 0.92 | 351 | *e*PG | Pg | 05 30 31.9 | -0.4 |
| AGRB | | | | *e*SG | Sb | 05 30 45.9 | -0.1 |
| AGRB | Hanur-Agry | 0.92 | 351 | *e*Pg | Pg | 05 30 31.9 | -0.4 |
| AGRB | | | | *e*Sg | Sb | 05 30 45.9 | -0.1 |
| DYDN | Diyadin | 0.96 | 24 | *e*P | Pn | 05 30 35.8 | +0.7 |
| DYDN | | | | IAML | | 05 30 55.9 | |
| | comp=Z,34nm,0.4s | | | | | | |
| EKAR | Karacoban | 1.05 | 304 | *i* P | Pg | 05 30 34.5 | -0.3 |
| EKAR | | | | *i* S | Sn | 05 30 55.5 | +3.9 |
| EKAR | Karacoban | 1.05 | 304 | P | Pg | 05 30 34.5 | -0.3 |
| SIRT | Sirnak | 1.30 | 207 | *e*PN | Pg | 05 30 40.5 | +1.0 |
| SIRT | Sirnak | 1.30 | 207 | *e*Pn | Pg | 05 30 40.5 | +1.0 |
| EATA | Eleskirt | 1.31 | 336⇓ | *i*P | Pn | 05 30 39.0 | -1.0 |
| EATA | | | | *e*S | Sn | 05 30 57.6 | -0.5 |
| EATA | | | | IAML | | 05 31 01.8 | |
| | comp=Z,14nm,0.4s | | | | | | |
| VRTB | Varto-Mus | 1.44 | 291 | *e*PN | Pg | 05 30 42.3 | +0.2 |
| VRTB | Varto-Mus | 1.44 | 291 | *i* P | Pn | 05 30 40.9 | -0.7 |
| VRTB | | | | *i* S | Sg | 05 31 01.8 | +1.0 |
| VRTB | Varto-Mus | 1.44 | 291 | P | Pn | 05 30 40.9 | -0.7 |
| VRTB | Varto-Mus | 1.44 | 291 | *e*Pn | Pg | 05 30 42.3 | +0.2 |
| VRTB | | | | S | Sg | 05 31 01.8 | +1.0 |
| CUKT | Cukurca | 1.45 | 167 | *e*PN | Pb | 05 30 41.2 | -1.1 |
| CUKT | Cukurca | 1.45 | 167 | *e*Pn | Pb | 05 30 41.2 | -1.1 |
| TASB | TASBURUN-IGDIR | 1.55 | 31 | *e*PN | Pn | 05 30 42.1 | -1.0 |
| TASB | TASBURUN-IGDIR | 1.55 | 31 | *e*Pn | Pn | 05 30 42.1 | -1.0 |
| HOMI | Horasan | 1.70 | 325 | *e*P | Pn | 05 30 44.6 | -0.7 |
| HOMI | | | | IAML | | 05 30 51.8 | |
| | comp=Z,18nm,0.8s | | | | | | |
| DIGO | Kars | 1.75 | 5 | *e*P | Pg | 05 30 48.2 | 0.0 |
| DIGO | | | | IAML | | 05 30 53.0 | |
| | comp=Z,11nm,0.5s | | | | | | |
| BNGB | Bingˆ¶l | 1.98 | 280 | *e*PN | Pb | 05 30 50.6 | -0.7 |
| SENK | Senkaya-Erzuru | 2.00 | 341 | *e*PN | Pn | 05 30 49.7 | +0.3 |
| SENK | Senkaya-Erzuru | 2.00 | 341 | *e*Pn | Pn | 05 30 49.7 | +0.3 |
| EAK | Akyaka | 2.05 | 9 | *e*P | Pg | 05 30 53.2 | -0.6 |
| BINT | Bingol | 2.12 | 277 | *e*Pn | Pn | 05 30 50.6 | -0.3 |
| MAZI | Mazidag | 2.47 | 242 | *e*PN | Pb | 05 30 57.7 | -2.0 |
| SVRC | Sivrice-ELAZID | 3.06 | 266 | *e*PN | Pn | 05 31 05.5 | +1.6 |
| SVRC | Sivrice-ELAZID | 3.06 | 266 | *e*Pn | Pn | 05 31 05.5 | +1.6 |

**MEX 06 05:43:10.5**±0.5**, 26°.29N×111°.77W, h2**km±9km**, MD3.9, Gulf of California**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SRIG | Santa Rosalia | 1.11 | 338 | *e*P | Pg | 05 43 29.0 | -2.8 |
| SRIG | | | | *e*S | Sg | 05 43 43.8 | -2.4 |
| GUYB | Guaymas | 1.79 | 26 | *e*P | Pn | 05 43 38.9 | -3.5 |
| LPIG | La Paz | 2.55 | 148 | *e*P | Pn | 05 43 49.8 | -3.1 |
| LPIG | | | | *e*S | Sn | 05 44 20.8 | -3.6 |
| SLBS | Sierra La Lagu | 3.08 | 147 | *e*P | Pn | 05 43 58.2 | -2.0 |
| SLBS | | | | *e*S | Sn | 05 44 33.2 | -4.4 |

**KRSC 06 05:53:01.0**±0.7**, 52°.66N×159°.64E, h36**km±11km**, ML3.8, Off east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SPN | Mys Shipunski | 0.50 | 28 | *e*P | Pn | 05 53 12.3 | +0.7 |
| SPN | | | | *e*S | Sn | 05 53 20.1 | +1.1 |
| NLC | Nalytchevo | 0.55 | 341 | *e*P | Pn | 05 53 12.9 | +0.6 |
| NLC | | | | *e*S | Sn | 05 53 21.7 | +1.5 |
| DALK | Dalny | 0.66 | 305 | *e*P | Pn | 05 53 14.2 | +0.4 |
| DALK | | | | *e*S | Sn | 05 53 23.4 | +0.5 |
| PET | Petropavlovsk | 0.70 | 302 | *e*P | Pn | 05 53 14.8 | +0.4 |
| PET | | | | *e*S | Sn | 05 53 24.5 | +0.5 |
| RUS | Russkaya | 0.72 | 252 | *e*P | Pn | 05 53 15.5 | +0.8 |
| RUS | | | | *e*S | Sn | 05 53 25.8 | +1.4 |
| UGLR | Uglovaya | 0.74 | 319 | *e*P | Pn | 05 53 15.7 | +0.7 |
| UGLR | | | | *e*S | Sn | 05 53 26.1 | +1.0 |
| SDLR | Sedlovina | 0.77 | 324 | *e*P | Pn | 05 53 16.1 | +0.6 |
| SDLR | | | | *e*S | Sn | 05 53 26.8 | +0.9 |
| AVH | Avacha | 0.82 | 319 | *e*P | Pn | 05 53 16.9 | +0.8 |
| AVH | | | | *e*S | Sn | 05 53 28.5 | +1.5 |
| KRER | Koryakskii | 0.84 | 321 | *e*P | Pn | 05 53 17.4 | +0.9 |
| KRER | | | | *e*S | Sn | 05 53 29.2 | +1.4 |
| KOK | Koryaka | 0.88 | 317 | *e*P | Pn | 05 53 17.8 | +0.9 |
| KOK | | | | *e*S | Sn | 05 53 30.2 | +1.6 |
| MTVR | Mutnovka | 0.91 | 260 | *e*P | Pn | 05 53 18.3 | +1.0 |
| MTVR | | | | *e*S | Sn | 05 53 30.7 | +1.5 |
| KRX | Arik | 0.92 | 320 | *e*P | Pn | 05 53 18.3 | +0.7 |
| KRX | | | | *e*S | Sn | 05 53 30.9 | +1.2 |
| KRMR | Karymshinskiy | 0.93 | 281 | *e*P | Pn | 05 53 18.0 | +0.5 |
| KRMR | | | | *e*S | Sn | 05 53 30.4 | +0.7 |
| ASAK | Asacha | 1.10 | 256 | *e*P | Pn | 05 53 21.4 | +1.5 |
| ASAK | | | | *e*S | Sn | 05 53 36.6 | +2.8 |
| KDTR | Khodutka, Kamc | 1.28 | 229 | *e*P | Pn | 05 53 23.4 | +1.1 |
| KDTR | | | | *e*S | Sn | 05 53 40.6 | +2.4 |
| GNL | Ganaly | 1.46 | 316 | *e*P | Pn | 05 53 25.8 | +0.9 |
| GNL | | | | *e*S | Sn | 05 53 46.3 | +3.5 |
| APC | Apacha | 1.53 | 281 | *e*P | Pn | 05 53 27.3 | +1.6 |
| APC | | | | *e*S | Sn | 05 53 48.2 | +3.9 |
| KZV | Kizimen | 2.49 | 9 | *e*P | Pn | 05 53 41.2 | +2.1 |
| SKR | Severo-Kuril's | 2.95 | 229 | *e*S | Sn | 05 54 23.2 | +3.8 |

*ATA **06** 05:53:50.5±1.0, 38°.86N×43°.45E, h17km±12km, ML3.0, MW3.3*
*ISK **06** 05:53:50.7, 38°.87N×43°.54E, h5km, MD2.9*
*ISCJB **06** 05:53:51.9±0.6, 38°.87N±0°.02×43°.56E±0°.04, h4km±5km, Error ellipse: s-maj=6.0km s-min=3.8km az=17.0*
*CSEM **06** 05:53:51.6±0.2, 38°.88N×43°.59E, h5km, ML3.2, Error ellipse: s-maj=5.6km s-min=4.2km az=117.0*
*DDA **06** 05:53:51.4, 38°.85N×43°.58E, h7km, Ml3.2*
**ISC 06 05:53:52.0**±0.9**, 38°.87N**±0°.02×**43°.57E**±0°.03**, h11**km±6km**, n38, σ0s.96**/56**, 1D, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.12 | 0 | *i* P | Pg | 05 53 54.7 | -0.5 |
| VMUR | | | | *i* S | Sg | 05 53 58.8 | +1.2 |
| VMUR | Van-Muradiye | 0.12 | 0 | P | Pg | 05 53 54.7 | -0.5 |
| VMUR | | | | S | Sg | 05 53 58.8 | +1.2 |
| VANB | Van | 0.31 | 208 | *e*PG | Pb | 05 53 59.0 | -0.6 |
| VANB | Van | 0.31 | 208 | *e*Pg | Pb | 05 53 59.0 | -0.6 |
| TVAN | Van | 0.36 | 201 | *i* P | Pg | 05 53 58.8 | -0.5 |
| TVAN | | | | *i* S | Sb | 05 54 06.2 | -0.2 |
| TVAN | Van | 0.36 | 201 | P | Pg | 05 53 58.8 | -0.5 |
| CLDR | Caldiran | 0.39 | 44 | *e*PG | Pg | 05 53 58.8 | -1.0 |
| CLDR | | | | *e*SG | Sb | 05 54 07.1 | 0.0 |
| CLDR | Caldiran | 0.39 | 44 | *i* P | Pg | 05 53 59.2 | -0.6 |
| CLDR | | | | *i* S | Sb | 05 54 07.1 | 0.0 |
| CLDR | Caldiran | 0.39 | 44 | *e*Pg | Pg | 05 53 58.8 | -1.0 |
| CLDR | Caldiran | 0.39 | 44 | P | Pg | 05 53 59.2 | -0.6 |
| CLDR | | | | *e*Sg | Sb | 05 54 07.1 | 0.0 |
| ADCV | BITLIS_Adilcev | 0.66 | 265 | *i* P | Pg | 05 54 04.5 | -0.4 |
| ADCV | | | | *i* S | Sb | 05 54 15.1 | +0.1 |
| ADCV | BITLIS_Adilcev | 0.66 | 265 | P | Pg | 05 54 04.5 | -0.4 |
| ADCV | | | | S | Sb | 05 54 15.1 | +0.1 |
| DYDN | Diyadin | 0.68 | 8 | *e*P | Pg | 05 54 04.5 | -0.8 |
| DYDN | | | | IAML | | 05 54 23.9 | |
| | comp=Z,45nm,0.4s | | | | | | |
| GEVA | Gevas | 0.69 | 216 | *e*P | Pg | 05 54 03.1 | -2.2 |
| GEVA | | | | *e*S | Sg | 05 54 13.1 | -1.3 |
| GEVA | | | | IAML | | 05 54 26.1 | |
| | comp=Z,76nm,0.6s | | | | | | |
| GEVA | Gevas | 0.69 | 216 | *i* P | Pg | 05 54 04.6 | -0.7 |
| GEVA | Gevas | 0.69 | 216 | P | Pg | 05 54 04.6 | -0.7 |
| TUTA | Tutak | 0.79 | 312⇓ | *e*P | Pg | 05 54 06.2 | -1.1 |
| TUTA | | | | *e*S | Sg | 05 54 16.9 | -0.9 |
| TUTA | | | | IAML | | 05 54 21.9 | |
| | comp=Z,92nm,0.2s | | | | | | |
| TUTA | Tutak | 0.79 | 312 | *i* P | Pg | 05 54 06.3 | -1.1 |
| TUTA | | | | *i* S | Sb | 05 54 18.1 | -0.7 |
| TUTA | Tutak | 0.79 | 312 | P | Pg | 05 54 06.3 | -1.1 |
| TUTA | | | | S | Sb | 05 54 18.1 | -0.7 |
| AGRB | Hanur-Agry | 0.84 | 328 | *e*PG | Pg | 05 54 07.5 | -0.7 |
| AGRB | | | | *e*SG | Sb | 05 54 20.1 | 0.0 |
| AGRB | Hanur-Agry | 0.84 | 328 | *e*Pg | Pg | 05 54 07.5 | -0.7 |
| AGRB | | | | *e*Sg | Sb | 05 54 20.1 | 0.0 |
| TASB | TASBURUN-IGDIR | 1.23 | 25 | *e*PN | Pn | 05 54 15.4 | +0.2 |
| TASB | TASBURUN-IGDIR | 1.23 | 25 | *e*Pn | Pn | 05 54 15.4 | +0.2 |
| EKAR | Karacoban | 1.23 | 289 | *i* P | Pn | 05 54 16.4 | +0.9 |
| EKAR | | | | *i* S | Sn | 05 54 35.8 | +3.6 |
| EKAR | Karacoban | 1.23 | 289 | P | Pn | 05 54 16.4 | +0.9 |
| EATA | Eleskirt | 1.30 | 320 | *e*P | Pn | 05 54 15.1 | -1.3 |
| EATA | | | | *e*S | Sg | 05 54 33.3 | -0.6 |
| EATA | | | | IAML | | 05 54 38.1 | |
| | comp=Z,6.8nm,0.4s | | | | | | |
| DIGO | Kars | 1.55 | 354 | *e*P | Pb | 05 54 20.5 | -0.4 |
| DIGO | | | | IAML | | 05 54 28.9 | |
| | comp=Z,6.3nm,0.3s | | | | | | |
| SRTM | Siirt_Merkez | 1.56 | 236 | *i* P | Pn | 05 54 20.2 | +0.4 |
| SRTM | | | | *i* S | Sg | 05 54 42.9 | +0.5 |
| SRTM | Siirt_Merkez | 1.56 | 236 | P | Pn | 05 54 20.2 | +0.4 |
| SRTM | | | | S | Sg | 05 54 42.8 | +0.5 |
| CUKT | Cukurca | 1.62 | 179 | *e*PN | Pb | 05 54 21.6 | -0.4 |
| CUKT | Cukurca | 1.62 | 179 | *e*Pn | Pb | 05 54 21.6 | -0.4 |
| VRTB | Varto-Mus | 1.67 | 281 | *e*PN | Pb | 05 54 22.5 | -0.4 |
| VRTB | Varto-Mus | 1.67 | 281 | *e*Pn | Pb | 05 54 22.5 | -0.4 |
| SENK | Senkaya-Erzuru | 1.94 | 331 | *e*PN | Pb | 05 54 26.4 | -1.1 |
| SENK | Senkaya-Erzuru | 1.94 | 331 | *e*Pn | Pb | 05 54 26.4 | -1.1 |
| BNGB | Bingˆ¶l | 2.26 | 274 | *e*PN | Pn | 05 54 30.5 | +1.1 |
| BINT | Bingol | 2.41 | 271 | *e*Pn | Pn | 05 54 30.5 | -0.9 |
| YEDI | Yedisu-Bingol | 2.42 | 285 | *e*PN | Pn | 05 54 33.3 | +1.7 |

**RSPR 06 06:04:28.4, 18°.28N×68°.36W, h126**km±1km**, MD3.6**/10**, 6C-6D, Mona Passage**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| IMPR | Mona Island, P | 0.45 | 117⇓ | *e*P | Pn | 06 04 46.3 | -0.3 |
| IMPR | Mona Island, P | 0.45 | 117 | *e*S | Sn | 06 05 00.1 | -0.4 |
| IDE | Isla Desecheo | 0.85 | 83⇑ | *e*P | Pn | 06 04 49.4 | -0.1 |
| IDE | Isla Desecheo | 0.85 | 83 | *e*S | Sn | 06 05 05.3 | -0.1 |
| LSP | Las Mesas | 1.21 | 95⇑ | *e*P | Pn | 06 04 52.5 | -0.5 |
| LSP | Las Mesas | 1.21 | 95 | *e*S | Sn | 06 05 11.8 | 0.0 |
| CRPR | Cabo Rojo, PR | 1.22 | 103⇑ | *e*P | Pn | 06 04 52.7 | -0.3 |
| GBPR | Guanica, Bosqu | 1.44 | 102⇓ | *e*P | Pn | 06 04 55.4 | -0.1 |
| GBPR | Guanica, Bosqu | 1.44 | 102 | *e*S | Sn | 06 05 16.6 | +0.6 |
| AOPR | Arecibo Observ | 1.52 | 87⇓ | *e*P | Pn | 06 04 56.2 | -0.3 |
| AOPR | Arecibo Observ | 1.52 | 87 | *e*S | Sn | 06 05 17.3 | -0.6 |
| OBIP | Obispado Ponce | 1.68 | 98⇓ | *e*P | Pn | 06 04 57.8 | -0.5 |
| OBIP | Obispado Ponce | 1.68 | 98 | *e*S | Sn | 06 05 21.4 | +0.3 |
| CELP | Cerrillos | 1.70 | 97⇓ | *e*P | Pn | 06 04 58.4 | -0.2 |
| CELP | | | | *e*S | Sn | 06 05 21.4 | -0.2 |
| SJG | San Juan | 2.11 | 94⇓ | *e*P | Pn | 06 05 03.5 | +0.1 |
| SJG | San Juan | 2.11 | 94 | *e*S | Sn | 06 05 30.0 | -0.2 |
| HUMP | Col San Antoni | 2.39 | 93 | *e*S | Sn | 06 05 36.4 | -0.1 |
| HUMP | Col San Antoni | 2.39 | 93⇑ | *e*P | Pn | 06 05 06.7 | -0.3 |
| HUMP | Col San Antoni | 2.39 | 93⇑ | *e*P | Pn | 06 05 06.7 | -0.2 |
| HUMP | | | | *e*S | Sn | 06 05 37.0 | +0.4 |
| STVI | Saint Thomas | 3.23 | 88⇑ | *e*P | Pn | 06 05 17.7 | -0.2 |
| STVI | Saint Thomas | 3.23 | 88 | *e*S | Sn | 06 05 56.3 | +0.1 |

**JMA 06 06:31:27.3, 35°.93N×136°.34E, h9**km±1km**, M2.6, Western Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JKG | Kaga | 0.35 | 359 | P | Pg | 06 31 34.3 | +0.1 |
| JKG | | | | S | Sg | 06 31 39.1 | +0.3 |
| JWT | Wachi | 1.00 | 230 | P | Pg | 06 31 46.2 | -0.3 |
| JTT | Ttatey | 1.05 | 50 | S | Sb | 06 32 01.4 | -0.1 |
| JKY | Yasaka | 1.05 | 254 | P | Pg | 06 31 46.8 | -0.7 |
| JKY | | | | S | Sg | 06 32 00.8 | -0.3 |
| MAT | Matsushiro | 1.63 | 67 | P | Pg | 06 31 58.1 | -0.4 |
| MAT | | | | S | Sg | 06 32 19.7 | 0.0 |

**IDC 06 06:44:45.6**±6.4**, 23°.57S×179°.90E, h482**km±41km**, mb3.6**/5**, mb1 3.7**/5**, mb1mx3.2**/33**, mbtmp4.5**/5**, Error ellipse: s-maj=96.1km s-min=65.1km az=149.0, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CTA | Charters Tower | 31.39 | 270 | P | P | 06 50 26.9 | +0.7 |
| | 8.2nm,0.3s,baz=93,slow=10,SNR=12 | | | | | | |
| STKA | Stephens Creek | 34.76 | 248 | P | P | 06 50 54.0 | -0.7 |
| | 2.2nm,0.7s,baz=93,slow=8.5,SNR=5.9 | | | | | | |
| ASAR | Alice Springs | 42.00 | 260 | P | P | 06 51 53.5 | -0.5 |
| | 2.7nm,0.8s,baz=92,slow=8.2,SNR=19 | | | | | | |
| WRA | Warramunga Arr | 42.34 | 266 | P | P | 06 51 56.1 | -0.5 |
| | 3.4nm,0.3s,baz=97,slow=8.4,SNR=87 | | | | | | |
| WRA | | | | ScP | ScP | 06 56 43.2 | -0.6 |
| | 0.9nm,1.0s,baz=96,slow=4.1,SNR=5.1 | | | | | | |
| FITZ | Fitzroy Crossi | 50.77 | 265 | P | P | 06 53 01.0 | +0.3 |
| | 5.1nm,0.8s,baz=111,slow=5.4,SNR=9.5 | | | | | | |
| AKASG | Malin Array Be | 144.64 | 327 | PKP | PKPdf | 07 03 25.9 | -0.6 |
| | 0.5nm,0.5s,baz=48,slow=4.3,SNR=4.2 | | | | | | |

**MEX 06 07:04:11.7**±0.7**, 17°.95N×100°.41W, h56**km±7km**, MD3.8, Guerrero**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ARIG | Puente Sto Nin | 0.33 | 10 | *i* P | Pn | 07 04 20.2 | -1.6 |
| ARIG | | | | *i* S | Sn | 07 04 27.2 | -1.7 |
| MEIG | Mezcala | 0.75 | 92 | *e*P | Pn | 07 04 24.9 | -1.5 |
| MEIG | | | | *i* S | Sn | 07 04 35.8 | -1.5 |
| CAIG | El Cayaco | 0.91 | 171 | *e*P | Pn | 07 04 26.8 | -1.6 |
| CAIG | | | | *e*S | Sn | 07 04 38.4 | -2.3 |
| ZIIG | Zihuatanejo | 1.06 | 251 | *e*P | Pn | 07 04 28.9 | -1.5 |
| ZIIG | | | | *e*S | Sn | 07 04 42.3 | -2.0 |
| YAIG | Yautepec | 1.56 | 54 | *e*P | Pn | 07 04 35.8 | -1.6 |
| YAIG | | | | *e*S | Sn | 07 04 54.0 | -2.7 |
| TLIG | Tlapa | 1.80 | 102 | *e*P | Pn | 07 04 39.9 | -0.6 |
| TLIG | | | | *e*S | Sn | 07 04 59.9 | -2.4 |

*IDC **06** 07:16:04.9±1.2, 30°.67N×141°.27E, h0km, mb3.4/3, mb1 3.8/5, mb1mx3.4/63, mbtmp3.6/5, ML3.9/2, Error ellipse: s-maj=53.6km s-min=20.7km az=89.0*
*JMA **06** 07:16:09.6±0.1, 30°.83N×141°.22E, h50km, M4.1*
*ISCJB **06** 07:16:10.2±0.6, 30°.78N±0°.07×141°.0E±0°.3, h71km, mb3.5/3, Error ellipse: s-maj=31.8km s-min=5.6km az=165.1*
**ISC 06 07:16:12.1**±1.0**, 30°.81N**±0°.08×**140°.9E**±0°.2**, h71**km**, n15, σ1s.83**/17**, mb3.5**/3**, Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JHJ2 | Mitsune | 2.46 | 339 | P | Pn | 07 16 49.6 | -0.4 |
| JHJ | Hachijo jima 2 | 2.48 | 339 | Pn | Pn | 07 16 49.8 | -0.4 |
| | 41nm,0.3s,baz=61,slow=21,SNR=9.1 | | | | | | |
| JHJ | | | | Sn | Sn | 07 17 14.6 | -4.9 |
| | 43nm,0.3s,baz=76,slow=21,SNR=5.5 | | | | | | |
| CBIJ | Chichi jima | 3.88 | 162 | P | Pn | 07 17 07.2 | -2.1 |
| CBIJ | | | | *e*S | Sn | 07 17 50.9 | -2.7 |
| BSO3 | Boso 3 | 3.99 | 356 | P | Pn | 07 17 09.9 | -0.7 |
| BSO4 | Boso 4 | 4.19 | 354 | P | Pn | 07 17 13.4 | -0.1 |
| JOD2 | Odawara 2 | 4.69 | 342 | P | Pn | 07 17 21.5 | +1.2 |
| JHU | Hanno | 5.20 | 346 | P | Pn | 07 17 28.2 | +0.9 |
| JRY | Ryogami san | 5.45 | 343 | P | Pn | 07 17 32.2 | +1.5 |
| JAG | Ashikaga | 5.72 | 349 | P | Pn | 07 17 34.9 | +0.4 |
| JHO | Hitachi | 5.79 | 358 | P | Pn | 07 17 35.7 | +0.3 |
| MJAR | Matsushiro Arr | 6.13 | 340 | Pn | Pn | 07 17 40.7 | +0.6 |
| | 2.5nm,0.3s,baz=152,slow=15,SNR=11 | | | | | | |
| MAT | Matsushiro | 6.13 | 340 | P | Pn | 07 17 43.5 | +3.4 |
| MAT | | | | *e*S | Sn | 07 18 48.8 | 0.0 |
| WRA | Warramunga Arr | 50.85 | 188 | P | P | 07 25 06.1 | +0.4 |
| | 0.2nm,0.4s,baz=5.3,slow=7.6,SNR=14 | | | | | | |
| ASAR | Alice Springs | 54.57 | 188 | P | P | 07 25 35.0 | +1.9 |
| | 0.3nm,0.8s,baz=8.7,slow=6.7,SNR=3.1 | | | | | | |
| ILAR | Eielson Array | 55.05 | 30 | P | P | 07 25 37.6 | +1.4 |
| | 0.6nm,1.0s,baz=264,slow=7.2,SNR=3.7 | | | | | | |

*ATA **06** 07:27:36.9±1.0, 39°.00N×43°.52E, h10km±32km, ML3.7, MW3.3*
*DDA **06** 07:27:37.4, 38°.97N×43°.53E, h5km, Ml3.8*
*ISK **06** 07:27:37.0, 38°.99N×43°.59E, h5km, MD3.2*
*IASPEI **06** 07:27:38.3±1.2, 39°.01N±0°.02×43°.53E±0°.02, h0km±12km, Error ellipse: s-maj=3.4km s-min=3.3km az=174.3, GT5 selection from ISC bulletin GT5 identified by Bondˆ¡r and McLaughlin (2009) selection criteria Bondˆ¡r and McLaughlin, A new ground truth data set for seismic studies, <i>Seism. Res. Let.</i>, <b>80</b>, 465-472, 2009*
*CSEM **06** 07:27:38.0±0.2, 39°.00N×43°.57E, h2km, ML3.8, Error ellipse: s-maj=4.7km s-min=3.7km az=114.0*
**ISC 06 07:27:37.9**±0.8**, 38°.99N**±0°.02×**43°.55E**±0°.02**, h3**km±5km**, n61, σ1s.12**/95**, 5C-2D, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.02 | 85⇑ | *i*P | Pg | 07 27 38.6 | -0.2 |
| VMUR | | | | *i* S | Sg | 07 27 40.2 | +0.7 |
| VMUR | Van-Muradiye | 0.02 | 85 | P | Pg | 07 27 38.6 | -0.2 |
| VMUR | | | | S | Sg | 07 27 40.2 | +0.7 |
| CLDR | Caldiran | 0.33 | 61 | *e*PG | Pg | 07 27 44.2 | -0.1 |
| CLDR | | | | *e*SG | Sg | 07 27 49.2 | +0.7 |
| CLDR | Caldiran | 0.33 | 61⇑ | *i*P | Pg | 07 27 44.1 | -0.1 |
| CLDR | | | | *i* S | Sb | 07 27 49.9 | -2.3 |
| CLDR | Caldiran | 0.33 | 61 | *e*Pg | Pg | 07 27 44.2 | -0.1 |
| CLDR | | | | *e*Sg | Sg | 07 27 49.2 | +0.7 |
| VANB | Van | 0.41 | 198 | *e*PG | Pb | 07 27 46.8 | -1.1 |
| VANB | Van | 0.41 | 198 | *e*Pg | Pb | 07 27 46.8 | -1.1 |
| TVAN | Van | 0.47 | 194⇑ | *i*P | Pg | 07 27 46.7 | -0.3 |
| TVAN | | | | *i* S | Sg | 07 27 54.3 | +1.2 |
| TVAN | Van | 0.47 | 194 | P | Pg | 07 27 46.7 | -0.3 |
| TVAN | | | | S | Sg | 07 27 54.3 | +1.2 |
| DYDN | Diyadin | 0.56 | 11 | *e*P | Pg | 07 27 48.9 | +0.1 |
| DYDN | | | | *e*S | Sb | 07 27 57.1 | -2.0 |
| DYDN | Diyadin | 0.56 | 11 | *i* P | Pg | 07 27 48.9 | +0.1 |
| DYDN | | | | *i* S | Sb | 07 27 57.6 | -1.5 |
| DYDN | Diyadin | 0.56 | 11 | P | Pg | 07 27 48.9 | +0.1 |
| DYDN | | | | S | Sb | 07 27 57.6 | -1.5 |
| ADCV | BITLIS_Adilcev | 0.67 | 255⇑ | *i*P | Pg | 07 27 50.2 | -0.5 |
| ADCV | | | | *i* S | Sg | 07 28 00.7 | +1.3 |
| ADCV | BITLIS_Adilcev | 0.67 | 255 | P | Pg | 07 27 50.2 | -0.5 |
| ADCV | | | | S | Sg | 07 28 00.7 | +1.3 |
| TUTA | Tutak | 0.71 | 306⇓ | *e*P | Pg | 07 27 50.7 | -0.7 |
| TUTA | | | | *e*S | Sg | 07 28 01.2 | +0.5 |
| TUTA | | | | IAML | | 07 28 03.2 | |
| | comp=Z,651nm,0.2s | | | | | | |
| TUTA | Tutak | 0.71 | 306⇓ | *i*P | Pg | 07 27 50.8 | -0.7 |
| TUTA | | | | *i* S | Sg | 07 28 00.7 | +0.1 |
| TUTA | Tutak | 0.71 | 306 | P | Pg | 07 27 50.8 | -0.7 |
| TUTA | | | | S | Sg | 07 28 00.7 | +0.1 |
| AGRB | Hanur-Agry | 0.73 | 324 | *e*PG | Pg | 07 27 51.7 | -0.2 |
| AGRB | Hanur-Agry | 0.73 | 324 | *e*Pg | Pg | 07 27 51.7 | -0.2 |
| GEVA | Gevas | 0.78 | 210 | *e*P | Pg | 07 27 51.7 | -1.1 |
| GEVA | | | | *e*S | Sb | 07 28 04.3 | -0.8 |
| GEVA | | | | IAML | | 07 28 09.1 | |
| | comp=Z,127nm,0.4s | | | | | | |
| GEVA | Gevas | 0.78 | 210⇑ | *i*P | Pg | 07 27 51.4 | -1.4 |
| GEVA | | | | *i* S | Sb | 07 28 04.2 | -0.9 |
| TASB | TASBURUN-IGDIR | 1.13 | 28 | *e*PN | Pb | 07 27 59.4 | -0.7 |
| TASB | TASBURUN-IGDIR | 1.13 | 28 | *e*Pn | Pb | 07 27 59.4 | -0.7 |
| EKAR | Karacoban | 1.19 | 284 | *e*P | Pg | 07 28 00.1 | -0.5 |
| EKAR | | | | *e*S | Sn | 07 28 17.5 | -0.9 |
| EKAR | | | | IAML | | 07 28 25.3 | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| | comp=Z,84nm,0.5s | | | | | | |
| **EKAR** | **Karacoban** | **1.19** | **284** | eP | **Pg** | **07 28 00.5** | **-0.2** |
| EKAR | | | | i S | **Sn** | **07 28 19.6** | **+1.3** |
| **EKAR** | **Karacoban** | **1.19** | **284** | P | **Pg** | **07 28 00.5** | **-0.2** |
| EKAR | | | | S | **Sn** | **07 28 19.6** | **+1.3** |
| **EATA** | **Eleskirt** | **1.20** | **317** | eP | **Pg** | **07 27 59.8** | **-1.1** |
| EATA | | | | eS | **Sb** | **07 28 17.0** | **-0.4** |
| EATA | | | | IAML | | 07 28 24.1 | |
| | comp=Z,30nm,0.4s | | | | | | |
| **EATA** | **Eleskirt** | **1.20** | **317** | i P | **Pg** | **07 28 00.0** | **-0.8** |
| EATA | | | | i S | **Sn** | **07 28 18.5** | **-0.2** |
| **EATA** | **Eleskirt** | **1.20** | **317** | P | **Pg** | **07 28 00.0** | **-0.8** |
| EATA | | | | S | **Sn** | **07 28 18.5** | **-0.2** |
| **DIGO** | **Kars** | **1.43** | **355** | eP | **Pn** | **07 28 04.0** | **-0.9** |
| **DIGO** | **Kars** | **1.43** | **355** | i P | **Pg** | **07 28 05.5** | **+0.2** |
| DIGO | | | | i S | **Sn** | **07 28 28.8** | **+4.4** |
| **DIGO** | **Kars** | **1.43** | **355** | P | **Pg** | **07 28 05.5** | **+0.2** |
| **HAKT** | **HAKKARI** | **1.43** | **175** | i P | **Pn** | **07 28 04.5** | **-0.5** |
| HAKT | | | | i S | **Sn** | **07 28 27.3** | **+2.9** |
| **HAKT** | **HAKKARI** | **1.43** | **175** | P | **Pn** | **07 28 04.5** | **-0.5** |
| **SRTM** | **Siirt_Merkez** | **1.62** | **233** | eP | **Pn** | **07 28 04.8** | **-2.6** |
| SRTM | | | | i S | **Sg** | **07 28 30.2** | **+0.3** |
| **VRTB** | **Varto-Mus** | **1.64** | **277** | ePN | **Pb** | **07 28 08.5** | **-0.3** |
| **VRTB** | **Varto-Mus** | **1.64** | **277** | eP | **Pn** | **07 28 07.5** | **-0.2** |
| VRTB | | | | i S | **Sg** | **07 28 30.3** | **-0.2** |
| **VRTB** | **Varto-Mus** | **1.64** | **277** | P | **Pn** | **07 28 07.5** | **-0.2** |
| **VRTB** | **Varto-Mus** | **1.64** | **277** | ePn | **Pb** | **07 28 08.5** | **-0.3** |
| VRTB | | | | S | **Sg** | **07 28 30.3** | **-0.2** |
| **HOMI** | **Horasan** | **1.65** | **310** | eP | **Pb** | **07 28 08.4** | **-0.7** |
| HOMI | | | | eS | **Sg** | **07 28 32.1** | **+1.1** |
| HOMI | | | | IAML | | 07 28 44.5 | |
| | comp=Z,35nm,0.6s | | | | | | |
| **HOMI** | **Horasan** | **1.65** | **310** | i P | **Pg** | **07 28 09.3** | **-0.3** |
| HOMI | | | | i S | **Sg** | **07 28 33.8** | **+2.8** |
| **KARS** | **Kars** | **1.68** | **348** | ePN | **Pb** | **07 28 08.5** | **-1.0** |
| **KARS** | **Kars** | **1.68** | **348** | ePn | **Pb** | **07 28 08.5** | **-1.0** |
| **SIRT** | **Sirnak** | **1.72** | **211** | ePN | **Pb** | **07 28 10.0** | **-0.2** |
| **SIRT** | **Sirnak** | **1.72** | **211** | ePn | **Pb** | **07 28 10.0** | **-0.2** |
| **SENK** | **Senkaya-Erzuru** | **1.82** | **330** | ePN | **Pb** | **07 28 11.1** | **-0.9** |
| **SENK** | **Senkaya-Erzuru** | **1.82** | **330** | ePn | **Pb** | **07 28 11.1** | **-0.9** |
| **BNGL** | **BINGOL** | **1.87** | **270** | i P | **Pb** | **07 28 12.8** | **0.0** |
| BNGL | | | | i S | **Sg** | **07 28 38.9** | **+0.9** |
| **ERZM** | **Erzurum** | **1.92** | **299** | eP | **Pb** | **07 28 12.7** | **-1.0** |
| ERZM | | | | i S | **Sb** | **07 28 38.7** | **+0.5** |
| **ERZM** | **Erzurum** | **1.92** | **299** | P | **Pb** | **07 28 12.7** | **-1.0** |
| ERZM | | | | S | **Sb** | **07 28 38.7** | **+0.5** |
| **ECAT** | **Cat-ERZURUM** | **2.09** | **288** | eP | **Pb** | **07 28 15.5** | **-1.1** |
| **ECAT** | **Cat-ERZURUM** | **2.09** | **288** | i P | **Pb** | **07 28 16.0** | **-0.6** |
| ECAT | | | | i S | **Sg** | **07 28 45.0** | **-0.2** |
| **ECAT** | **Cat-ERZURUM** | **2.09** | **288** | P | **Pb** | **07 28 16.0** | **-0.6** |
| **BNGB** | **Bingˆ¶l** | **2.24** | **271** | ePN | **Pb** | **07 28 17.2** | **-1.8** |
| **BINT** | **Bingol** | **2.39** | **268** | ePn | **Pn** | **07 28 17.2** | **-0.8** |
| **MAZI** | **Mazidag** | **2.88** | **239** | ePN | **Pn** | **07 28 26.3** | **+1.5** |
| **MAZI** | **Mazidag** | **2.88** | **239** | ePn | **Pn** | **07 28 26.3** | **+1.5** |
| **PTK** | **Pertek** | **3.24** | **270** | ePN | **Pn** | **07 28 31.7** | **+1.9** |
| **PTK** | **Pertek** | **3.24** | **270** | ePn | **Pn** | **07 28 31.7** | **+1.9** |
| **SVRC** | **Sivrice-ELAZID** | **3.38** | **261** | ePN | **Pn** | **07 28 33.2** | **+1.6** |
| **SVRC** | **Sivrice-ELAZID** | **3.38** | **261** | ePn | **Pn** | **07 28 33.2** | **+1.6** |

*ISCJB **06** 07:27:51.3±0.6, 67°81N±0°03×20°3E±0°1, h0km, Error ellipse: s-maj=6.0km s-min=3.9km az=150.1*
*UPP **06** 07:27:52.1±0.1, 67°87N×20°18E, h0km, ML2.6*
*HEL **06** 07:27:52.9±0.3, 67°85N×20°16E, h0km, ML1.3, Explosion*
**ISC 06 07:27:52.6**±1.0**, 67°84N**±0°03×**20°22E**±0°04**, h0**km**, n13, σ0ˢ91**/19**, Sweden**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KUA** | **Kurravaara** | **0.12** | **22** | P | **Pg** | **07 27 54.3** | **-0.6** |
| KUA | | | | S | **Sg** | **07 27 56.6** | **+0.2** |
| **RATU** | **Laukkuluspa** | **0.24** | **266** | P | **Pg** | **07 27 56.8** | **-0.3** |
| **NIKU** | **Nikkaluokta** | **0.45** | **274** | P | **Pg** | **07 28 00.2** | **-0.9** |
| **MASU** | **Masugnsbyn** | **0.78** | **119** | P | **Pg** | **07 28 07.3** | **-0.2** |
| **KIF** | **Kilpisjarvi** | **1.19** | **10** | PG | **Pg** | **07 28 15.0** | **-0.3** |
| | baz=192 | | | | | | |
| KIF | | | | SB | **Sb** | **07 28 31.2** | **-0.6** |
| **PAJU** | **Pajala** | **1.39** | **125** | P | **Pg** | **07 28 18.0** | **-1.1** |
| **HEF** | **Hetta** | **1.41** | **65** | PG | **Pn** | **07 28 18.5** | **-1.0** |
| | baz=244 | | | | | | |
| HEF | | | | MSG | | 07 28 35.9 | |
| | comp=Z,2.5nm,0.2s | | | | | | |
| HEF | | | | SG | **Sg** | **07 28 37.4** | **-0.4** |
| **ERTU** | **Ertsjaerv** | **1.50** | **148** | P | **Pn** | **07 28 20.1** | **-0.7** |
| **TOF** | **Tornio** | **2.40** | **136** | PB | **Pn** | **07 28 34.4** | **+1.4** |
| | baz=328 | | | | | | |
| TOF | | | | SG | **Sb** | **07 29 06.8** | **+0.3** |
| **ARE0** | **ARCESS Array S** | **2.57** | **46** | PB | **Pn** | **07 28 36.9** | **+1.5** |
| | baz=226 | | | | | | |
| ARE0 | | | | SG | **Sb** | **07 29 10.5** | **-1.2** |
| **RNF** | **Rovaniemi** | **2.57** | **116** | PG | **Pb** | **07 28 40.3** | **+0.8** |
| | baz=308 | | | | | | |
| RNF | | | | SG | **Sg** | **07 29 14.3** | **-0.8** |
| **OUL** | **Oulu** | **3.58** | **138** | SB | **Sb** | **07 29 40.1** | **-0.6** |
| **KU6** | **Riekki** | **4.22** | **111** | PG | **Pb** | **07 29 08.8** | **+1.2** |
| | baz=288 | | | | | | |

*ISK **06** 07:36:49.6, 38°48N×26°76E, h4km, MD2.7*
*CSEM **06** 07:36:50.2±0.1, 38°51N×26°77E, h2km, MD2.7, Error ellipse: s-maj=3.2km s-min=2.9km az=112.0*
*DDA **06** 07:36:50.0, 38°48N×26°76E, h7km, Ml3.0*
**ISC 06 07:36:50.2**±1.0**, 38°50N**±0°02×**26°76E**±0°03**, h7**km±9km**, n27, σ0ˢ60**/41**, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **URLA** | **Izmir** | **0.19** | **223** | ePG | **Pg** | **07 36 53.9** | **-0.1** |
| URLA | | | | eSG | **Sg** | **07 36 57.0** | **+0.4** |
| **URLA** | **Izmir** | **0.19** | **223** | i P | **Pg** | **07 36 54.0** | **-0.1** |
| URLA | | | | i S | **Sg** | **07 36 57.1** | **+0.4** |
| **URLA** | **Izmir** | **0.19** | **223** | ePg | **Pg** | **07 36 53.9** | **-0.1** |
| URLA | | | | eSg | **Sg** | **07 36 57.1** | **+0.4** |
| **ZEY** | **˜zmir** | **0.33** | **218** | i P | **Pg** | **07 36 56.2** | **-0.4** |
| ZEY | | | | i S | **Sg** | **07 37 01.9** | **+0.9** |
| **DGB** | **˜zmir** | **0.46** | **168** | i P | **Pg** | **07 36 58.7** | **-0.4** |
| DGB | | | | i S | **Sg** | **07 37 04.5** | **-0.6** |
| **CHOS** | **Chios island** | **0.57** | **259** | ePG | **Pg** | **07 37 01.2** | **+0.1** |
| CHOS | | | | eSG | **Sb** | **07 37 10.1** | **-0.7** |
| **CHOS** | **Chios island** | **0.57** | **259** | ePg | **Pg** | **07 37 01.2** | **+0.1** |
| CHOS | | | | eSg | **Sb** | **07 37 10.1** | **-0.7** |
| **DKL** | **Dikili** | **0.58** | **11** | ePG | **Pg** | **07 37 01.8** | **+0.4** |
| **DKL** | **Dikili** | **0.58** | **11** | ePg | **Pg** | **07 37 01.8** | **+0.4** |
| **GCAM** | **G?zelcaml?** | **0.88** | **155** | ePG | **Pb** | **07 37 07.3** | **-0.5** |
| **GCAM** | **G?zelcaml?** | **0.88** | **155** | i P | **Pg** | **07 37 06.4** | **-0.7** |
| GCAM | | | | i S | **Sb** | **07 37 19.7** | **0.0** |
| **GCAM** | **G?zelcaml?** | **0.88** | **155** | P | **Pg** | **07 37 06.4** | **-0.7** |
| **GCAM** | **G?zelcaml?** | **0.88** | **155** | ePg | **Pb** | **07 37 07.3** | **-0.5** |
| GCAM | | | | S | **Sb** | **07 37 19.7** | **0.0** |
| **SIGR** | **SIGRI** | **1.00** | **315** | ePG | **Pg** | **07 37 09.8** | **+0.4** |
| **SIGR** | **SIGRI** | **1.00** | **315** | ePg | **Pg** | **07 37 09.8** | **+0.4** |
| **STEP** | **BALIKESIR_Sava** | **1.15** | **40** | i P | **Pg** | **07 37 12.5** | **+0.2** |
| STEP | | | | i S | **Sn** | **07 37 29.1** | **+0.4** |
| **STEP** | **BALIKESIR_Sava** | **1.15** | **40** | P | **Pg** | **07 37 12.5** | **+0.2** |
| **BAYC** | **CANAKKALE_Bayr** | **1.25** | **352** | i P | **Pg** | **07 37 12.9** | **-1.3** |
| BAYC | | | | i S | **Sg** | **07 37 29.2** | **-1.2** |
| **BAYC** | **CANAKKALE_Bayr** | **1.25** | **352** | P | **Pg** | **07 37 12.9** | **-1.3** |
| BAYC | | | | S | **Sg** | **07 37 29.2** | **-1.2** |
| **MANT** | **Manisa** | **1.41** | **90** | i P | **Pb** | **07 37 16.9** | **-0.1** |
| MANT | | | | i S | **Sb** | **07 37 35.5** | **+0.3** |
| **MANT** | **Manisa** | **1.41** | **90** | P | **Pb** | **07 37 16.9** | **-0.1** |
| MANT | | | | S | **Sb** | **07 37 35.5** | **+0.3** |
| **KULA** | **Kula-Manisa** | **1.49** | **89** | ePN | **Pb** | **07 37 18.1** | **-0.2** |
| **KULA** | **Kula-Manisa** | **1.49** | **89** | ePn | **Pb** | **07 37 18.1** | **-0.2** |
| **APE** | **Apeiranthos** | **1.73** | **215** | ePN | **Pn** | **07 37 21.3** | **+0.6** |
| **APE** | **Apeiranthos** | **1.73** | **215** | ePn | **Pn** | **07 37 21.3** | **+0.6** |
| **TVSB** | **Tavsanli** | **2.31** | **65** | ePN | **Pn** | **07 37 29.5** | **+0.8** |
| **TVSB** | **Tavsanli** | **2.31** | **65** | ePn | **Pn** | **07 37 29.5** | **+0.8** |

**DJA 06 07:40:16.1**±1.4**, 9°S**±6°×**10°9E**±°**, h29**km±16km**, M3.7**/9**, MLv3.7**/9**, Jawa**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KPJI** | **Karang Pucung** | **1.47** | **350** | P | Pn | 07 40 40.9 | +0.2 |
| **UGM** | **Wanagama** | **1.57** | **56** | P | Pn | 07 40 41.8 | -0.3 |
| UGM | | | | S | Sn | 07 41 02.0 | +0.5 |
| **CISI** | **Cisompet, Garu** | **1.84** | **312** | P | Pn | 07 40 45.0 | -0.8 |
| CISI | | | | S | Sn | 07 41 06.4 | -1.8 |
| **PCJI** | **Pacitan** | **2.04** | **73** | P | Pn | 07 40 48.0 | -0.5 |
| **CNJI** | **Cibinong** | **2.52** | **306** | P | Pn | 07 40 55.6 | +0.4 |
| **PWJI** | **Pagerwojo** | **2.69** | **74** | P | Pn | 07 40 56.8 | -0.6 |
| PWJI | | | | S | Sn | 07 41 28.2 | -0.8 |
| **UWJI** | **Ujung Watu** | **2.92** | **36** | P | Pn | 07 41 01.2 | +0.5 |

*ISCJB **06** 07:48:53.4±0.4, 32°70N±0°02×115°90W±0°02, h13km±2km, Error ellipse: s-maj=4.3km s-min=3.0km az=152.2*
*ECX **06** 07:48:54.3±0.5, 32°70N×115°92W, h3km, MD2.5, ML2.7*
*MEX **06** 07:48:56.0±0.6, 32°84N×116°04W, h20km±999km, MD3.5*
**ISC 06 07:48:52.9**±0.8**, 32°71N**±0°03×**115°90W**±0°02**, h14**km±6km**, n30, σ0ˢ46**/48**, 13C-1D, California-Baja California border region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **YUH** | **Yuha Desert** | **0.07** | **195** | ⇑iP | **Pg** | **07 48 55.2** | **-0.4** |
| **WESC** | **Westside Schoo** | **0.15** | **73** | ⇑iP | **Pg** | **07 48 57.3** | **+0.6** |
| WESC | | | | eS | **Sb** | **07 49 00.5** | **0.0** |
| **CRR** | **Carrizo Plain** | **0.18** | **342** | ⇓iP | **Pb** | **07 48 58.1** | **+0.1** |
| **RMX** | **La Rumorosa** | **0.19** | **233** | ⇑eP | **Pg** | **07 48 57.0** | **-0.3** |
| RMX | | | | eS | **Sg** | **07 48 59.6** | **-0.7** |
| RMX | | | | e | | 07 49 00.0 | |
| RMX | | | | IAML | | 07 49 00.0 | |
| | comp=N,1μm,0.3s | | | | | | |
| **IKP** | **In-Ko-Pah, Jac** | **0.19** | **250** | P | **Pg** | **07 48 57.7** | **+0.5** |
| | baz=81,SNR=283 | | | | | | |
| IKP | | | | S | **Sg** | **07 49 00.6** | **+0.3** |
| | baz=81 | | | | | | |
| **IKP** | **In-Ko-Pah, Jac** | **0.19** | **250** | ⇑iP | **Pg** | **07 48 57.7** | **+0.5** |
| **COK** | **Cook Ranch** | **0.20** | **47** | ⇑iP | **Pb** | **07 48 58.5** | **+0.1** |
| **ERPC** | **Ernies Place** | **0.20** | **82** | ⇑iP | **Pg** | **07 48 58.3** | **+0.9** |
| **SWSC** | **Sam W. Stewart** | **0.25** | **20** | P | **Pb** | **07 48 59.2** | **0.0** |
| | baz=198,SNR=233 | | | | | | |
| SWSC | | | | S | **Sb** | **07 49 03.1** | **-0.3** |
| | baz=198 | | | | | | |
| **SWSC** | **Sam W. Stewart** | **0.25** | **20** | ⇑iP | **Pb** | **07 48 59.1** | **0.0** |
| **CBKC** | **Canebrake** | **0.35** | **302** | ⇑iP | **Pb** | **07 49 01.4** | **+0.5** |
| **DREC** | **Desert Rsrch C** | **0.39** | **76** | ⇑iP | **Pb** | **07 49 02.1** | **+0.4** |
| **MONP2** | **Monument Peak** | **0.47** | **292** | P | **Pb** | **07 49 03.2** | **+0.1** |
| | baz=116,SNR=45 | | | | | | |
| MONP2 | | | | S | **Sb** | **07 49 09.7** | **-0.4** |
| | baz=116 | | | | | | |
| **BAR** | **Barrett** | **0.65** | **267** | ⇑iP | **Pg** | **07 49 06.1** | **+0.5** |
| BAR | | | | eS | **Sg** | **07 49 14.7** | **+0.4** |
| **MBIG** | **Mexicali** | **0.67** | **117** | eP | **Pb** | **07 49 07.3** | **+1.0** |
| **TJIG** | **Tijuana** | **0.71** | **247** | eP | **Pg** | **07 49 06.8** | **+0.1** |
| TJIG | | | | eS | **Sg** | **07 49 16.0** | **-0.1** |
| **TJIG** | **Tijuana** | **0.71** | **247** | ⇑eP | **Pg** | **07 49 06.8** | **+0.1** |
| TJIG | | | | eS | **Sg** | **07 49 15.8** | **-0.3** |
| **CBX** | **Cerro Bola** | **0.76** | **238** | i P | **Pg** | **07 49 07.9** | **+0.3** |
| CBX | | | | i S | **Sg** | **07 49 17.8** | **+0.2** |
| **CBX** | **Cerro Bola** | **0.76** | **238** | ⇑eP | **Pg** | **07 49 07.9** | **+0.3** |
| CBX | | | | eS | **Sg** | **07 49 17.9** | **+0.2** |
| CBX | | | | IAML | | 07 49 18.8 | |
| | comp=N,586nm,0.3s | | | | | | |
| CBX | | | | IAML | | 07 49 19.4 | |
| | comp=E,529nm,0.3s | | | | | | |
| **SDRC** | **San Diego Road** | **0.88** | **272** | ⇑eP | **Pb** | **07 49 09.8** | **-0.1** |
| **GLA** | **Glamis** | **0.96** | **69** | P | **Pb** | **07 49 10.9** | **-0.5** |
| | baz=248,SNR=80 | | | | | | |
| GLA | | | | S | **Sb** | **07 49 23.4** | **-0.7** |
| | baz=248 | | | | | | |
| **PFO** | **Pinyon Flats O** | **1.01** | **333** | P | **Pb** | **07 49 12.1** | **-0.2** |
| | baz=153,SNR=12 | | | | | | |
| PFO | | | | S | **Sn** | **07 49 26.5** | **-0.4** |
| | baz=153 | | | | | | |
| **BC3** | **Big Chuckawall** | **1.01** | **22** | P | **Pb** | **07 49 11.9** | **-0.3** |
| | baz=201,SNR=19 | | | | | | |
| BC3 | | | | Sb | **Sn** | **07 49 26.9** | **0.0** |
| | baz=201 | | | | | | |
| **109C** | **Camp Elliot, M** | **1.03** | **280** | P | **Pb** | **07 49 12.6** | **+0.1** |
| | baz=102,SNR=19 | | | | | | |
| 109C | | | | S | **Sb** | **07 49 25.9** | **0.0** |
| | baz=102 | | | | | | |
| **BELC** | **Belle Mtn. Jos** | **1.29** | **356** | P | **Pn** | **07 49 16.2** | **-0.4** |
| | baz=177,SNR=16 | | | | | | |
| BELC | | | | S | **Sb** | **07 49 33.0** | **-0.5** |
| | baz=177 | | | | | | |
| **MURC** | **Murrieta** | **1.40** | **310** | Pb | **Pb** | **07 49 19.5** | **+0.7** |
| | baz=130 | | | | | | |
| MURC | | | | Sb | **Sg** | **07 49 38.3** | **+0.3** |
| | baz=130 | | | | | | |
| **Y12C** | **Blythe** | **1.55** | **48** | P | **Pn** | **07 49 19.6** | **-0.5** |
| | baz=228 | | | | | | |
| Y12C | | | | S | **Sn** | **07 49 39.9** | **-0.2** |
| | baz=228 | | | | | | |
| **IRM** | **Iron Mountain** | **1.57** | **24** | P | **Pn** | **07 49 20.3** | **-0.2** |
| | baz=203 | | | | | | |
| **SPIG** | **San Pedro Mart** | **1.70** | **167** | eP | **Pb** | **07 49 24.2** | **0.0** |
| SPIG | | | | eS | **Sb** | **07 49 45.8** | **+0.2** |
| **BFSC** | **Mount Baldy Ra** | **2.11** | **316** | Sb | **Sb** | **07 49 58.8** | **+1.5** |
| | baz=136 | | | | | | |

*TAP **06** 07:53:16.1, 23°07N×120°92E, h8km, ML3.7, C*
*ISCJB **06** 07:53:17.1±0.3, 23°06N±0°01×120°94E±0°02, h4km±3km, Error ellipse: s-maj=2.9km s-min=2.5km az=5.6*
*JMA **06** 07:53:17.0±0.1, 22°99N×121°30E, h0km*
**ISC 06 07:53:16.8**±0.9**, 23°08N**±0°02×**120°95E**±0°02**, h11**km±7km**, n58, σ0ˢ82**/82**, 4D, Taiwan**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ELDTW** | **Lidau** | **0.13** | **29** | ⇓iP | **Pg** | **07 53 19.9** | **-0.1** |
| | baz=41 | | | | | | |
| **STYT** | **Tauyuan** | **0.20** | **296** | P | **Pg** | **07 53 20.1** | **-0.9** |
| | baz=302 | | | | | | |
| **TWG** | **Pinlang** | **0.28** | **156** | eP | **Pg** | **07 53 22.8** | **+0.4** |
| | baz=151 | | | | | | |
| TWG | | | | S | **Sg** | **07 53 26.9** | **+0.7** |
| | baz=151 | | | | | | |
| **SGST** | **Jiashian** | **0.34** | **271** | eP | **Pg** | **07 53 23.2** | **-0.3** |
| | baz=271 | | | | | | |
| SGST | | | | eS | **Sg** | **07 53 27.9** | **-0.2** |
| | baz=271 | | | | | | |
| **WTP** | **Ta-pu** | **0.35** | **299** | P | **Pg** | **07 53 23.6** | **-0.2** |
| | baz=302 | | | | | | |
| WTP | | | | S | **Sg** | **07 53 28.8** | **+0.3** |
| | baz=302 | | | | | | |
| **TTN** | **Taitung** | **0.37** | **150** | eP | **Pb** | **07 53 24.9** | **-0.5** |
| | baz=146 | | | | | | |
| **CHKT** | **Chengkung** | **0.39** | **87** | P | **Pb** | **07 53 25.8** | **+0.2** |
| | baz=75 | | | | | | |
| CHKT | | | | S | **Sb** | **07 53 32.9** | **+1.3** |
| | baz=75 | | | | | | |
| **CHN1** | **Nanshi** | **0.40** | **286** | eP | **Pg** | **07 53 24.8** | **+0.1** |
| | baz=291 | | | | | | |
| CHN1 | | | | eS | **Sg** | **07 53 30.8** | **+0.7** |
| | baz=291 | | | | | | |
| **YUS** | **Yu-Shan** | **0.41** | **0** | ⇓iP | **Pg** | **07 53 24.8** | **-0.3** |
| | baz=10.0 | | | | | | |
| YUS | | | | i S | **Sg** | **07 53 31.0** | **+0.4** |
| | baz=10.0 | | | | | | |
| **TWF1** | **Yuli** | **0.42** | **49** | ⇓P | **Pg** | **07 53 25.4** | **+0.3** |
| | baz=49 | | | | | | |
| TWF1 | | | | eS | **Sb** | **07 53 32.3** | **-0.5** |
| | baz=49 | | | | | | |
| **CHN4** | **Tsaushan** | **0.43** | **310** | P | **Pg** | **07 53 25.3** | **+0.1** |
| | baz=324 | | | | | | |
| **SSD** | **Sandimen** | **0.44** | **222** | ⇓P | **Pg** | **07 53 24.6** | **-0.8** |
| | baz=220 | | | | | | |
| SSD | | | | eS | **Sg** | **07 53 29.4** | **-1.8** |
| | baz=220 | | | | | | |
| **ALS** | **Alishan** | **0.45** | **343** | eP | **Pg** | **07 53 25.5** | **-0.2** |
| | baz=345 | | | | | | |
| ALS | | | | eS | **Sg** | **07 53 31.6** | **-0.2** |
| | baz=345 | | | | | | |
| **TWK** | **Hsinying** | **0.46** | **294** | P | **Pg** | **07 53 26.2** | **+0.3** |
| | baz=296 | | | | | | |
| TWK | | | | eS | **Sg** | **07 53 33.3** | **+1.3** |
| | baz=296 | | | | | | |
| **ECL** | **Taimali** | **0.48** | **179** | eP | **Pg** | **07 53 25.4** | **-0.7** |
| | baz=175 | | | | | | |
| **CHN3** | **Shinhua** | **0.54** | **270** | eP | **Pb** | **07 53 29.1** | **+0.8** |
| | baz=287 | | | | | | |
| **TWM1** | **Shoushan** | **0.55** | **243** | eP | **Pb** | **07 53 28.4** | **0.0** |
| | baz=241 | | | | | | |
| **SGLT** | **Jiouru** | **0.55** | **230** | eP | **Pg** | **07 53 27.6** | **+0.1** |
| | baz=224 | | | | | | |
| **EHY** | **Hungye** | **0.55** | **39** | eP | **Pg** | **07 53 27.3** | **-0.1** |
| | baz=37 | | | | | | |
| EHY | | | | S | **Sb** | **07 53 35.6** | **-0.7** |
| | baz=37 | | | | | | |
| **CHN5** | **Tsauling** | **0.57** | **334** | eP | **Pg** | **07 53 28.1** | **+0.2** |
| | baz=342 | | | | | | |
| CHN5 | | | | eS | **Sg** | **07 53 36.6** | **+1.0** |
| | baz=342 | | | | | | |
| **CHN2** | **Minshiung** | **0.63** | **316** | eP | **Pg** | **07 53 29.5** | **+0.5** |
| | baz=317 | | | | | | |
| CHN2 | | | | eS | **Sb** | **07 53 40.0** | **+1.4** |
| | baz=317 | | | | | | |
| **CHY** | **Chiayi** | **0.64** | **311** | eP | **Pg** | **07 53 29.7** | **+0.5** |
| | baz=313 | | | | | | |
| CHY | | | | eS | **Sb** | **07 53 39.0** | **+0.1** |
| | baz=313 | | | | | | |
| **TAI1** | **Yung-k'ang** | **0.66** | **267** | eP | **Pn** | **07 53 31.5** | **-0.6** |
| | baz=267 | | | | | | |
| **EAST** | **Anshuo** | **0.70** | **188** | eP | **Pg** | **07 53 29.9** | **-0.3** |
| | baz=180 | | | | | | |
| EAST | | | | eS | **Sb** | **07 53 40.8** | **+0.2** |
| | baz=180 | | | | | | |
| **WDT** | **Danda** | **0.70** | **14** | eP | **Pg** | **07 53 30.7** | **+0.3** |
| | baz=8.0 | | | | | | |
| **WGK** | **Gukeng** | **0.70** | **330** | eP | **Pb** | **07 53 31.0** | **-0.1** |
| | baz=331 | | | | | | |
| WGK | | | | eS | **Sn** | **07 53 42.5** | **-1.0** |
| | baz=331 | | | | | | |
| **TAW** | **Tawu** | **0.72** | **184** | eP | **Pg** | **07 53 29.6** | **-1.1** |
| | baz=181 | | | | | | |
| **CHN8** | **Yiju** | **0.73** | **292** | eP | **Pb** | **07 53 32.3** | **+0.8** |
| | baz=294 | | | | | | |
| **SCZT** | **Fangliau** | **0.76** | **203** | eP | **Pg** | **07 53 30.8** | **-0.7** |
| | baz=194 | | | | | | |
| **SMLT** | **Sun Moon Lake** | **0.80** | **357** | eP | **Pg** | **07 53 32.1** | **-0.2** |
| | baz=5.0 | | | | | | |
| **TYC** | **Yuchr** | **0.83** | **354** | eP | **Pn** | **07 53 34.0** | **-0.4** |
| | baz=2.0 | | | | | | |
| TYC | | | | eS | **Sn** | **07 53 46.1** | **-0.6** |
| | baz=2.0 | | | | | | |
| **ESL** | **Shilin** | **0.86** | **31** | eP | **Pg** | **07 53 33.0** | **-0.3** |
| | baz=45 | | | | | | |
| **TWP** | **Hsiaoliuchiu** | **0.91** | **217** | eP | **Pn** | **07 53 36.9** | **+1.4** |
| | baz=214 | | | | | | |
| **WTCT** | **Ta-ch'eng** | **0.99** | **322** | eP | **Pb** | **07 53 35.9** | **-0.2** |
| | baz=325 | | | | | | |
| **HEN** | **Hengchun** | **1.08** | **190** | eP | **Pn** | **07 53 39.8** | **+1.9** |
| | baz=175 | | | | | | |
| **TCU** | **Taichung** | **1.09** | **347** | eP | **Pn** | **07 53 38.6** | **+0.5** |
| | baz=337 | | | | | | |
| **TWK1** | **Hengchun** | **1.14** | **187** | eP | **Pg** | **07 53 40.0** | **+1.4** |
| | baz=190 | | | | | | |
| **TWD** | **Chiawan** | **1.16** | **31** | eP | **Pb** | **07 53 38.5** | **-0.4** |
| | baz=19 | | | | | | |
| TWD | | | | eS | **Sn** | **07 53 55.1** | **+0.2** |
| | baz=19 | | | | | | |
| **TSEB** | **Hengchuen, Pin** | **1.17** | **182** | eP | **Pg** | **07 53 40.7** | **+1.4** |
| | baz=189 | | | | | | |
| **TWT** | **Tachien** | **1.19** | **10** | eP | **Pg** | **07 53 39.9** | **+0.2** |
| | baz=11 | | | | | | |
| **WDGT** | **Dungji** | **1.20** | **279** | P | **Pn** | **07 53 38.5** | **-1.0** |
| | baz=281 | | | | | | |
| WDGT | | | | S | **Sb** | **07 53 54.4** | **-0.7** |
| | baz=281 | | | | | | |
| **TWQ1** | **Liyutan** | **1.28** | **353** | eP | **Pg** | **07 53 42.3** | **+1.0** |
| | baz=355 | | | | | | |
| **NSY** | **Sanyi** | **1.34** | **353** | eP | **Pg** | **07 53 42.7** | **+0.1** |
| | baz=355 | | | | | | |
| **PNG** | **Penghu** | **1.37** | **291** | eP | **Pn** | **07 53 41.1** | **-0.8** |
| | baz=293 | | | | | | |
| **NNS** | **Nan Shan** | **1.41** | **16** | eP | **Pb** | **07 53 43.6** | **+0.3** |
| | baz=12 | | | | | | |
| NNS | | | | eS | **Sg** | **07 54 03.9** | **+1.6** |
| | baz=12 | | | | | | |
| **ENA** | **Nanau** | **1.53** | **28** | eP | **Pn** | **07 53 44.2** | **+0.1** |
| | baz=43 | | | | | | |
| **NSTT** | **Nanjuang** | **1.55** | **2** | eP | **Pg** | **07 53 46.6** | **+0.1** |
| | baz=4.0 | | | | | | |
| **NSK** | **Sanguang** | **1.64** | **13** | eP | **Pb** | **07 53 47.5** | **+0.5** |
| | baz=9.0 | | | | | | |
| NSK | | | | eS | **Sg** | **07 54 09.8** | **+0.3** |
| | baz=9.0 | | | | | | |
| **ENTT** | **Nioudou** | **1.66** | **20** | eP | **Pb** | **07 53 47.9** | **+0.5** |
| | baz=30 | | | | | | |
| ENTT | | | | eS | **Sg** | **07 54 10.4** | **+0.3** |
| | baz=30 | | | | | | |
| **TWC** | **Suao** | **1.73** | **28** | P | **Pb** | **07 53 48.5** | **-0.2** |
| | baz=24 | | | | | | |
| TWC | | | | eS | **Sb** | **07 54 11.0** | **+0.5** |
| | baz=24 | | | | | | |
| **TWE** | **Neicheng** | **1.76** | **22** | eP | **Pb** | **07 53 49.0** | **-0.1** |
| | baz=37 | | | | | | |
| **TWA** | **Mucha** | **1.98** | **17** | eP | **Pg** | **07 53 54.5** | **-0.3** |
| | baz=17 | | | | | | |
| **NWF** | **Wu-fen Shan** | **2.13** | **21** | eP | **Pb** | **07 53 55.5** | **+0.1** |
| | baz=39 | | | | | | |
| **JYNG** | **Yonagunijimaku** | **2.29** | **53** | S | **Sn** | **07 54 23.0** | **+0.4** |
| **IRIF** | **Iriomote-Funau** | **2.84** | **63** | eS | **Sn** | **07 54 36.6** | **+0.3** |
| **JIJ** | **Ishigaki jima** | **3.20** | **66** | S | **Sn** | **07 54 42.5** | **-2.6** |
| **JISG** | **Ishigakijimahi** | **3.43** | **63** | P | **Pn** | **07 54 09.4** | **-0.7** |
| JISG | | | | eS | **Sn** | **07 54 49.3** | **-1.5** |
| **JTJ** | **Tarama** | **3.77** | **65** | eS | **Sn** | **07 54 57.1** | **-2.2** |

**IDC 06 08:17:52.6**±2.1**, 3°95N**×**127°46E, h0**km**, mb3.6**/4**, mb1 3.8**/4**, mb1mx3.5**/27**, mbtmp3.6**/4**, Error ellipse: s-maj=112.5km s-min=25.9km az=70.0, Talaud Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **21.98** | **185** | P | P | 08 22 48.2 | -0.2 |
| | 1.4nm,0.7s,baz=333,slow=16,SNR=4.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **24.69** | **164** | P | P | 08 23 14.2 | -1.4 |
| | 1.8nm,0.7s,baz=343,slow=8.9,SNR=16 | | | | | | |
| **ASAR** | **Alice Springs** | **28.16** | **167** | P | P | 08 23 48.1 | +1.2 |
| | 0.2nm,0.4s,baz=347,slow=11,SNR=8.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **57.79** | **325** | P | P | 08 27 46.2 | +0.3 |
| | 0.3nm,0.4s,baz=126,slow=7.2,SNR=4.2 | | | | | | |

**IDC 06 08:26:22.1**±1.8**, 3°46S**×**143°61E, h0**km**, mb3.3**/3**, mb1 3.5**/4**, mb1mx3.4**/23**, mbtmp3.3**/4**, ML3.5**/1**, MS2.7**/1**, Ms1 2.7**/1**, ms1mx2.3**/17**, Error ellipse: s-maj=77.8km s-min=27.6km az=105.0, Near north coast of New Guinea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **18.72** | **208** | P | P | 08 30 40.9 | -1.5 |
| | 0.2nm,0.3s,baz=26,slow=13,SNR=8.9 | | | | | | |
| **ASAR** | **Alice Springs** | **22.17** | **204** | P | P | 08 31 20.8 | +0.8 |
| | 0.3nm,0.7s,baz=24,slow=11,SNR=5.6 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **31.51** | **45** | T | T | 09 06 30.4 | |
| | baz=229,slow=75,SNR=10 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **31.52** | **45** | T | T | 09 06 26.0 | |
| | baz=229,slow=75,SNR=12 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **31.52** | **45** | T | T | 09 06 33.7 | |
| | baz=229,slow=75,SNR=14 | | | | | | |
| **KSRS** | **Korea Array** | **43.23** | **342** | LR | LR | 08 50 21.8 | |
| | comp=Z,9.5nm,21.9s,baz=160,slow=33 | | | | | | |
| **MKAR** | **Makanchi Array** | **73.40** | **321** | P | P | 08 37 57.1 | +0.9 |
| | 0.4nm,0.7s,baz=96,slow=7.7,SNR=2.8 | | | | | | |
| **ILAR** | **Eielson Array** | **84.51** | **24** | P | P | 08 38 55.5 | -1.2 |
| | 0.3nm,0.7s,baz=256,slow=3.6,SNR=4.5 | | | | | | |

**JMA 06 08:38:53.9, 37°07N**×**140°80E, h11**km±1km**, M1.0, Eastern Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ONAJ** | **Iwakimizuishiy** | **0.03** | **358** | P | Pg | 08 38 55.9 | -0.1 |
| ONAJ | | | | S | Sg | 08 38 57.1 | -0.4 |
| **JFK** | **Kawauchi** | **0.30** | **11** | P | Pg | 08 39 00.1 | 0.0 |
| JFK | | | | S | Sg | 08 39 04.5 | +0.3 |
| **JMM** | **Marumori** | **0.80** | **360** | P | Pg | 08 39 08.9 | -0.4 |
| JMM | | | | eS | Sg | 08 39 19.4 | -0.3 |

**JMA 06 08:39:19.7, 36°03N**×**138°07E, h7**km±1km**, M0.6, Eastern Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JNT** | **Takato** | **0.16** | **160** | P | Pg | 08 39 23.1 | 0.0 |
| JNT | | | | S | Sg | 08 39 25.5 | +0.1 |
| **JNG** | **Nsakai** | **0.38** | **4** | P | Pg | 08 39 27.0 | -0.1 |
| JNG | | | | S | Sg | 08 39 32.1 | 0.0 |
| **MAT** | **Matsushiro** | **0.52** | **12** | P | Pg | 08 39 29.5 | -0.3 |
| MAT | | | | S | Sg | 08 39 36.4 | -0.3 |
| **MAT** | **Matsushiro** | **0.52** | **12** | P | Pg | 08 39 29.5 | -0.3 |
| MAT | | | | S | Sg | 08 39 36.2 | -0.5 |

*ISK **06** 08:40:00.6, 38.°64N×43.°21E, h5km, ML3.5*
*ATA **06** 08:40:00.9±1.3, 38.°66N×43.°13E, h13km±8km, ML4.4, MW4.0*
*DDA **06** 08:40:00.8, 38.°64N×43.°20E, h18km, Ml3.7*
*AZER **06** 08:40:01.7±8.9, 38.°42N×43.°10E, h15km, Error ellipse: s-maj=95.6km s-min=45.2km az=55.0*
*CSEM **06** 08:40:02.3±0.2, 38.°62N×43.°20E, h10km, ML3.5, Error ellipse: s-maj=6.1km s-min=5.3km az=170.0*
**ISC 06 08:40:01.9**±0.9, **38.°65N**±0.°02×**43.°20E**±0.°01, **h14**km±7km, **n117**, σ**1.s39**/151, **4C-8D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.16** | **109** | ePG | **Pg** | **08 40 05.9** | **0.0** |
| **VANB** | **Van** | **0.16** | **109** | ePg | **Pg** | **08 40 05.9** | **0.0** |
| **TVAN** | **Van** | **0.20** | **126** | ⇓iP | **Pg** | **08 40 06.0** | **-0.7** |
| TVAN | | | | iS | **Sb** | **08 40 10.2** | **-1.1** |
| **TVAN** | **Van** | **0.20** | **126** | P | **Pg** | **08 40 06.0** | **-0.7** |
| TVAN | | | | S | **Sb** | **08 40 10.2** | **-1.1** |
| **GEVA** | **Gevas** | **0.35** | **198** | eP | **Pg** | **08 40 08.1** | **-1.0** |
| GEVA | | | | eS | **Sb** | **08 40 14.7** | **-0.8** |
| GEVA | | | | IAML | | 08 40 18.2 | |
| | comp=Z,5μm,0.4s | | | | | | |
| **GEVA** | **Gevas** | **0.35** | **198** | iP | **Pg** | **08 40 08.5** | **-0.6** |
| **GEVA** | **Gevas** | **0.35** | **198** | P | **Pg** | **08 40 08.5** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.40** | **294** | iP | **Pg** | **08 40 09.2** | **-0.8** |
| ADCV | | | | iS | **Sg** | **08 40 15.2** | **-0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.40** | **294** | P | **Pg** | **08 40 09.2** | **-0.8** |
| ADCV | | | | S | **Sg** | **08 40 15.2** | **-0.3** |
| **VMUR** | **Van-Muradiye** | **0.45** | **41** | ⇓iP | **Pg** | **08 40 10.7** | **-0.2** |
| **VMUR** | **Van-Muradiye** | **0.45** | **41** | P | **Pg** | **08 40 10.7** | **-0.2** |
| **CLDR** | **Caldiran** | **0.75** | **49** | ePG | **Pg** | **08 40 15.9** | **-0.6** |
| CLDR | | | | eSG | **Sn** | **08 40 27.9** | **-1.6** |
| **CLDR** | **Caldiran** | **0.75** | **49** | iP | **Pg** | **08 40 15.7** | **-0.8** |
| **CLDR** | **Caldiran** | **0.75** | **49** | ePg | **Pg** | **08 40 15.9** | **-0.6** |
| CLDR | | | | eSg | **Sn** | **08 40 28.0** | **-1.6** |
| **TUTA** | **Tutak** | **0.81** | **339** | eP | **Pg** | **08 40 16.1** | **-1.4** |
| TUTA | | | | eS | **Sg** | **08 40 27.9** | **-0.5** |
| TUTA | | | | IAML | | 08 40 31.1 | |
| | comp=Z,2μm,0.2s | | | | | | |
| **TUTA** | **Tutak** | **0.81** | **339** | iP | **Pg** | **08 40 16.2** | **-1.4** |
| **TUTA** | **Tutak** | **0.81** | **339** | P | **Pg** | **08 40 16.2** | **-1.4** |
| **BASK** | **Baskale_VAN** | **0.87** | **133** | eP | **Pb** | **08 40 18.7** | **-0.2** |
| BASK | | | | eS | **Sn** | **08 40 33.5** | **+1.0** |
| BASK | | | | IAML | | 08 40 40.4 | |
| | comp=Z,478nm,0.5s | | | | | | |
| **BASK** | **Baskale_VAN** | **0.87** | **133** | iP | **Pg** | **08 40 17.3** | **-1.5** |
| BASK | | | | iS | **Sg** | **08 40 29.2** | **-1.1** |
| **BASK** | **Baskale_VAN** | **0.87** | **133** | P | **Pg** | **08 40 17.3** | **-1.5** |
| BASK | | | | S | **Sg** | **08 40 29.2** | **-1.1** |
| **AGRB** | **Hanur-Agry** | **0.94** | **350** | ePG | **Pg** | **08 40 18.6** | **-1.5** |
| **AGRB** | **Hanur-Agry** | **0.94** | **350** | ePg | **Pg** | **08 40 18.6** | **-1.5** |
| **DYDN** | **Diyadin** | **0.97** | **23** | eP | **Pg** | **08 40 20.1** | **-0.6** |
| DYDN | | | | eS | **Sn** | **08 40 36.1** | **+1.1** |
| DYDN | | | | IAML | | 08 40 39.9 | |
| | comp=Z,285nm,0.4s | | | | | | |
| **DYDN** | **Diyadin** | **0.97** | **23** | iP | **Pg** | **08 40 19.1** | **-1.6** |
| **DYDN** | **Diyadin** | **0.97** | **23** | P | **Pg** | **08 40 19.1** | **-1.6** |
| **EKAR** | **Karacoban** | **1.07** | **305** | eP | **Pb** | **08 40 21.3** | **-1.1** |
| EKAR | | | | eS | **Sn** | **08 40 37.6** | **+0.1** |
| EKAR | | | | IAML | | 08 40 55.0 | |
| | comp=Z,633nm,0.6s | | | | | | |
| **EKAR** | **Karacoban** | **1.07** | **305** | ⇓iP | **Pb** | **08 40 21.4** | **-0.9** |
| **EKAR** | **Karacoban** | **1.07** | **305** | P | **Pb** | **08 40 21.4** | **-0.9** |
| **HAKT** | **HAKKARI** | **1.16** | **159** | iP | **Pb** | **08 40 22.8** | **-1.1** |
| **HAKT** | **HAKKARI** | **1.16** | **159** | P | **Pb** | **08 40 22.8** | **-1.1** |
| **SRTM** | **Siirt_Merkez** | **1.20** | **237** | iP | **Pn** | **08 40 23.5** | **-0.8** |
| **SRTM** | **Siirt_Merkez** | **1.20** | **237** | P | **Pn** | **08 40 23.5** | **-0.8** |
| **SIRT** | **Sirnak** | **1.29** | **208** | ePN | **Pg** | **08 40 26.4** | **-0.3** |
| **SIRT** | **Sirnak** | **1.29** | **208** | ePn | **Pg** | **08 40 26.4** | **-0.3** |
| **EATA** | **Eleskirt** | **1.33** | **336** | eP | **Pn** | **08 40 25.9** | **-0.4** |
| EATA | | | | eS | **Sg** | **08 40 45.4** | **+0.5** |
| EATA | | | | IAML | | 08 40 47.0 | |
| | comp=Z,121nm,0.6s | | | | | | |
| **EATA** | **Eleskirt** | **1.33** | **336** | ⇓iP | **Pn** | **08 40 25.5** | **-0.8** |
| EATA | | | | iS | **Sb** | **08 40 41.8** | **-2.0** |
| **EATA** | **Eleskirt** | **1.33** | **336** | P | **Pn** | **08 40 25.5** | **-0.8** |
| EATA | | | | S | **Sb** | **08 40 41.8** | **-2.0** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.37** | **140** | iP | **Pn** | **08 40 26.6** | **-0.1** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.37** | **140** | P | **Pn** | **08 40 26.6** | **-0.1** |
| **CUKT** | **Cukurca** | **1.44** | **167** | ePN | **Pb** | **08 40 28.0** | **-0.5** |
| **CUKT** | **Cukurca** | **1.44** | **167** | iP | **Pn** | **08 40 27.8** | **+0.2** |
| CUKT | | | | iS | **Sg** | **08 40 51.4** | **+3.2** |
| **CUKT** | **Cukurca** | **1.44** | **167** | ePn | **Pb** | **08 40 28.0** | **-0.5** |
| **VRTB** | **Varto-Mus** | **1.45** | **291** | ePN | **Pn** | **08 40 28.1** | **+0.2** |
| **VRTB** | **Varto-Mus** | **1.45** | **291** | iP | **Pn** | **08 40 26.8** | **-1.0** |
| VRTB | | | | iS | **Sg** | **08 40 49.7** | **+1.0** |
| **VRTB** | **Varto-Mus** | **1.45** | **291** | P | **Pn** | **08 40 26.8** | **-1.0** |
| **VRTB** | **Varto-Mus** | **1.45** | **291** | ePn | **Pn** | **08 40 28.1** | **+0.2** |
| VRTB | | | | S | **Sg** | **08 40 49.7** | **+1.0** |
| **TASB** | **TASBURUN-IGDIR** | **1.56** | **31** | ePN | **Pb** | **08 40 30.5** | **-0.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.56** | **31** | ePn | **Pb** | **08 40 30.5** | **-0.1** |
| **BNGL** | **BINGOL** | **1.63** | **281** | eP | **Pb** | **08 40 31.3** | **-0.5** |
| BNGL | | | | eS | **Sg** | **08 40 54.1** | **-0.2** |
| BNGL | | | | IAML | | 08 41 00.2 | |
| | comp=Z,765nm,0.4s | | | | | | |
| **BNGL** | **BINGOL** | **1.63** | **281** | iP | **Pb** | **08 40 31.2** | **-0.5** |
| BNGL | | | | iS | **Sg** | **08 40 53.9** | **-0.4** |
| **HYR** | **Heyderabad** | **1.67** | **50** | ⇓P | **Pg** | **08 40 33.2** | **-0.8** |
| HYR | | | | ⇓S | **Sg** | **08 40 56.0** | **+0.2** |
| **HYR** | **Heyderabad** | **1.67** | **50** | P | **Pg** | **08 40 33.2** | **-0.8** |
| HYR | | | | S | **Sg** | **08 40 56.0** | **+0.2** |
| **BTMN** | **Batman** | **1.69** | **244** | iP | **Pn** | **08 40 31.8** | **+0.7** |
| BTMN | | | | iS | **Sg** | **08 40 55.6** | **-0.8** |
| **BTMN** | **Batman** | **1.69** | **244** | P | **Pn** | **08 40 31.8** | **+0.7** |
| BTMN | | | | S | **Sg** | **08 40 55.6** | **-0.8** |
| **HOMI** | **Horasan** | **1.72** | **325** | eP | **Pb** | **08 40 32.6** | **-0.8** |
| HOMI | | | | IAML | | 08 40 55.3 | |
| | comp=Z,119nm,0.7s | | | | | | |
| HOMI | | | | eS | **Sg** | **08 40 57.8** | **+0.6** |
| **HOMI** | **Horasan** | **1.72** | **325** | iP | **Pb** | **08 40 32.7** | **-0.6** |
| **DIGO** | **Kars** | **1.77** | **4** | eP | **Pb** | **08 40 33.8** | **-0.5** |
| DIGO | | | | IAML | | 08 40 46.1 | |
| | comp=Z,61nm,0.4s | | | | | | |
| DIGO | | | | eS | **Sg** | **08 40 59.3** | **+0.4** |
| **DIGO** | **Kars** | **1.77** | **4** | iP | **Pb** | **08 40 34.0** | **-0.3** |
| **DIGO** | **Kars** | **1.77** | **4** | P | **Pb** | **08 40 34.0** | **-0.3** |
| **NAX** | **Nakhchivan** | **1.87** | **73** | P | **Pb** | **08 40 35.3** | **-0.5** |
| | SNR=5.7 | | | | | | |
| NAX | | | | ⇑S | **Sg** | **08 41 02.6** | **+0.5** |
| **NAX** | **Nakhchivan** | **1.87** | **73** | P | **Pb** | **08 40 35.3** | **-0.5** |
| | SNR=5.7 | | | | | | |
| NAX | | | | S | **Sg** | **08 41 02.6** | **+0.5** |
| **ERZM** | **Erzurum** | **1.90** | **312** | eP | **Pb** | **08 40 36.2** | **-0.2** |
| **ERZM** | **Erzurum** | **1.90** | **312** | iP | **Pb** | **08 40 35.9** | **-0.5** |
| **ERZM** | **Erzurum** | **1.90** | **312** | P | **Pb** | **08 40 35.9** | **-0.5** |
| **ECAT** | **Cat-ERZURUM** | **1.97** | **300** | eP | **Pb** | **08 40 37.1** | **-0.6** |
| ECAT | | | | eS | **Sg** | **08 41 06.5** | **+1.1** |
| **ECAT** | **Cat-ERZURUM** | **1.97** | **300** | iP | **Pb** | **08 40 37.0** | **-0.6** |
| **ECAT** | **Cat-ERZURUM** | **1.97** | **300** | P | **Pb** | **08 40 37.0** | **-0.7** |
| **KARS** | **Kars** | **1.98** | **357** | ePN | **Pb** | **08 40 36.9** | **-0.9** |
| **KARS** | **Kars** | **1.98** | **357** | ePn | **Pb** | **08 40 36.9** | **-0.9** |
| **SBZ** | **Shahbuz** | **1.98** | **67** | ⇑P | **Pb** | **08 40 37.8** | **0.0** |
| **SBZ** | **Shahbuz** | **1.98** | **67** | P | **Pb** | **08 40 37.8** | **0.0** |
| **BNGB** | **Bingˆ¶l** | **2.00** | **281** | ePN | **Pb** | **08 40 37.3** | **-0.8** |
| **SENK** | **Senkaya-Erzuru** | **2.02** | **341** | ePN | **Pb** | **08 40 37.6** | **-0.9** |
| **SENK** | **Senkaya-Erzuru** | **2.02** | **341** | ePn | **Pb** | **08 40 37.6** | **-0.9** |
| **EAK** | **Akyaka** | **2.06** | **9** | eP | **Pg** | **08 40 40.1** | **-1.3** |
| EAK | | | | eS | **Sb** | **08 41 04.1** | **-0.6** |
| EAK | | | | IAML | | 08 41 26.2 | |
| | comp=Z,78nm,0.6s | | | | | | |
| **EAK** | **Akyaka** | **2.06** | **9** | iP | **Pg** | **08 40 40.1** | **-1.3** |
| **EAK** | **Akyaka** | **2.06** | **9** | P | **Pg** | **08 40 40.1** | **-1.3** |
| **BINT** | **Bingol** | **2.13** | **277** | ePn | **Pn** | **08 40 37.3** | **+0.2** |
| **HANI** | **Diyarbakir_Han** | **2.21** | **265** | iP | **Pb** | **08 40 40.9** | **-0.7** |
| HANI | | | | iS | **Sb** | **08 41 09.8** | **+1.0** |
| **HANI** | **Diyarbakir_Han** | **2.21** | **265** | P | **Pb** | **08 40 40.9** | **-0.7** |
| HANI | | | | S | **Sb** | **08 41 09.8** | **+1.0** |
| **ORD** | **Ordubad** | **2.21** | **82** | P | **Pn** | **08 40 39.3** | **+1.1** |
| **YEDI** | **Yedisu-Bingol** | **2.21** | **292** | ePN | **Pb** | **08 40 40.2** | **-1.5** |
| **YEDI** | **Yedisu-Bingol** | **2.21** | **292** | ePn | **Pb** | **08 40 40.2** | **-1.5** |
| **MARD** | **Mardin** | **2.33** | **236** | iP | **Pn** | **08 40 40.3** | **+0.5** |
| **MAZI** | **Mazidag** | **2.47** | **242** | ePN | **Pn** | **08 40 41.8** | **-0.1** |
| **MAZI** | **Mazidag** | **2.47** | **242** | ePn | **Pn** | **08 40 41.8** | **-0.1** |
| **KOPT** | **Kop Dagi** | **2.50** | **304** | eP | **Pb** | **08 40 44.5** | **-2.2** |
| KOPT | | | | eS | **Sg** | **08 41 24.6** | **+2.4** |
| KOPT | | | | IAML | | 08 41 32.7 | |
| | comp=Z,39nm,0.6s | | | | | | |
| **KOPT** | **Kop Dagi** | **2.50** | **304** | iP | **Pb** | **08 40 47.1** | **+0.4** |
| **KOPT** | **Kop Dagi** | **2.50** | **304** | P | **Pb** | **08 40 47.1** | **+0.4** |
| **DDEM** | **Demirkent** | **2.50** | **334** | iP | **Pb** | **08 40 47.3** | **+0.7** |
| **DDEM** | **Demirkent** | **2.50** | **334** | P | **Pb** | **08 40 47.3** | **+0.7** |
| **DYBB** | **Diyarbakir** | **2.50** | **255** | ePN | **Pb** | **08 40 45.0** | **-1.6** |
| **DAGI** | **Agillar** | **2.62** | **338** | iP | **Pn** | **08 40 45.5** | **+1.6** |
| **ARTV** | **Artvin** | **2.71** | **339** | iP | **Pn** | **08 40 47.0** | **+1.7** |
| **ARTV** | **Artvin** | **2.71** | **339** | P | **Pn** | **08 40 47.0** | **+1.7** |
| **GDB** | **GEDABAY** | **2.86** | **43** | ⇓P | **Pn** | **08 40 49.3** | **+2.1** |
| | SNR=5.3 | | | | | | |
| **GDB** | **GEDABAY** | **2.86** | **43** | P | **Pn** | **08 40 49.3** | **+2.1** |
| | SNR=5.3 | | | | | | |
| **QZX** | **Qazax, Azerbai** | **2.93** | **34** | ⇑P | **Pb** | **08 40 51.6** | **-2.3** |
| | SNR=4.1 | | | | | | |
| **QZX** | **Qazax, Azerbai** | **2.93** | **34** | P | **Pb** | **08 40 51.6** | **-2.3** |
| | SNR=4.1 | | | | | | |
| **PTK** | **Pertek** | **2.98** | **276** | ePN | **Pn** | **08 40 51.5** | **+2.6** |
| **PTK** | **Pertek** | **2.98** | **276** | ePn | **Pn** | **08 40 51.5** | **+2.6** |
| **SVRC** | **Sivrice-ELAZID** | **3.06** | **266** | ePN | **Pn** | **08 40 52.9** | **+2.9** |
| **SVRC** | **Sivrice-ELAZID** | **3.06** | **266** | ePn | **Pn** | **08 40 52.9** | **+2.9** |
| **GANJ** | **Ganja** | **3.13** | **49** | ⇓P | **Pn** | **08 40 53.4** | **+2.5** |
| | SNR=6.0 | | | | | | |
| **GANJ** | **Ganja** | **3.13** | **49** | P | **Pn** | **08 40 53.4** | **+2.5** |
| | SNR=6.0 | | | | | | |
| **KELT** | **Kelkit** | **3.40** | **297** | iP | **Pb** | **08 41 02.1** | **0.0** |
| **URFA** | **Urfa** | **3.66** | **252** | ePN | **Pn** | **08 41 01.2** | **+3.1** |
| **URFA** | **Urfa** | **3.66** | **252** | ePn | **Pn** | **08 41 01.2** | **+3.1** |
| **MALT** | **Malatya** | **3.76** | **266** | ePN | **Pn** | **08 41 02.5** | **+3.0** |
| **MALT** | **Malatya** | **3.76** | **266** | ePn | **Pn** | **08 41 02.5** | **+3.0** |
| **LRK** | **Lerik** | **4.03** | **88** | ⇑P | **Pn** | **08 41 04.5** | **+1.2** |
| **LRK** | **Lerik** | **4.03** | **88** | P | **Pn** | **08 41 04.5** | **+1.2** |
| **CHVG** | **Ch'k'valeri** | **4.15** | **349** | ePN | **Pn** | **08 41 08.6** | **+3.8** |
| **CHVG** | **Ch'k'valeri** | **4.15** | **349** | ePn | **Pn** | **08 41 08.6** | **+3.8** |
| **GAZ** | **Gaziantep** | **4.96** | **255** | ePN | **Pn** | **08 41 19.7** | **+3.7** |
| **KMRS** | **Kahramanmaras** | **5.10** | **259** | ePN | **Pn** | **08 41 20.9** | **+3.0** |
| **KMRS** | **Kahramanmaras** | **5.10** | **259** | ePn | **Pn** | **08 41 20.9** | **+3.0** |

---

*SOME **06** 08:43:43.8, 44.°63N×82.°08E, h15km*
*ISCJB **06** 08:43:45.8±1.3, 44.°64N±0.°06×82.°2E±0.°1, h10km, Error ellipse: s-maj=14.4km s-min=5.1km az=29.3*
*NNC **06** 08:43:45.2±0.7, 44.°69N×82.°11E, h0km, mb3.3, mpv2.9, Error ellipse: s-maj=9.9km s-min=1.6km az=117.0*
**ISC 06 08:43:41.8**±1.8, **44.°59N**±0.°07×**82.°3E**±0.°1, **h10**km, **n8**, σ**0.s67**/16, **4C-2D, Northern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DJR** | **Jarkent** | **1.80** | **263** | eP | **Pb** | **08 44 14.8** | **0.0** |
| | 8.6nm,0.2s | | | | | | |
| DJR | | | | eS | **Sb** | **08 44 37.4** | **-0.1** |
| | 14nm,0.2s | | | | | | |
| **KTMS** | **Ketmen** | **1.80** | **231** | eP | **Pg** | **08 44 15.8** | **-0.4** |
| | 9.4nm,0.1s | | | | | | |
| KTMS | | | | eS | **Sg** | **08 44 38.9** | **-0.7** |
| | 17nm,0.2s | | | | | | |
| **KAPS** | **Kapalarasan** | **2.19** | **290** | eP | **Pb** | **08 44 21.4** | **-0.1** |
| | 5.0nm,0.2s | | | | | | |
| KAPS | | | | eS | **Sb** | **08 44 48.1** | **-0.6** |
| | 10.0nm,0.2s | | | | | | |
| **MK31** | **Makanchi Array** | **2.20** | **0** | ⇓Pn | **Pb** | **08 44 22.1** | **+0.4** |
| | 4.0nm,0.2s,baz=182,slow=13,SNR=322 | | | | | | |
| MK31 | | | | ⇓Sn | **Sb** | **08 44 49.7** | **+0.6** |
| | 2.5nm,0.2s,baz=183,slow=27,SNR=22 | | | | | | |
| **MAKZ** | **Makanchi** | **2.23** | **355** | ⇑Pn | **Pb** | **08 44 21.9** | **-0.3** |
| | 3.9nm,0.5s | | | | | | |
| MAKZ | | | | ⇑Sn | **Sb** | **08 44 50.0** | **+0.2** |
| | 4.1nm,0.6s | | | | | | |
| **PDGK** | **Podgornoye** | **2.37** | **239** | ⇑Pn | **Pb** | **08 44 24.6** | **-0.1** |
| | 1.8nm,0.4s | | | | | | |
| PDGK | | | | ⇑Sn | **Sb** | **08 44 55.4** | **+1.3** |
| | 7.5nm,0.5s | | | | | | |
| **SATY** | **Saty** | **3.19** | **243** | eP | **Pb** | **08 44 38.7** | **+0.1** |
| | 3.5nm,0.1s | | | | | | |
| SATY | | | | eS | **Sb** | **08 45 17.8** | **+0.2** |
| | 5.7nm,0.2s | | | | | | |
| **ARXS** | **Arharly** | **3.21** | **265** | eP | **Pb** | **08 44 39.7** | **+0.7** |
| | 3.6nm,0.3s | | | | | | |
| ARXS | | | | eS | **Sb** | **08 45 19.6** | **+1.4** |
| | 9.7nm,0.3s | | | | | | |

---

*ATA **06** 08:50:55.7±1.4, 38.°71N×43.°21E, h7km±39km, ML3.6, MW3.3*
*DDA **06** 08:50:56.6, 38.°64N×43.°16E, h7km, Ml3.0*
*ISK **06** 08:50:56.2, 38.°70N×43.°21E, h5km, MD3.1*
*ISCJB **06** 08:50:57.4±0.5, 38.°69N±0.°02×43.°22E±0.°04, h7km±5km, Error ellipse: s-maj=4.8km s-min=3.7km az=20.0*
*CSEM **06** 08:50:57.0±0.2, 38.°68N×43.°21E, h2km, MD3.1, Error ellipse: s-maj=4.4km s-min=4.3km az=118.0*
**ISC 06 08:50:57.6**±0.8, **38.°68N**±0.°02×**43.°23E**±0.°02, **h16**km±7km, **n50**, σ**1.s13**/70, **1D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.15** | **124** | ePG | **Pg** | **08 51 01.7** | **-0.1** |
| **VANB** | **Van** | **0.15** | **124** | ePg | **Pg** | **08 51 01.7** | **-0.1** |
| **TVAN** | **Van** | **0.21** | **137** | iP | **Pg** | **08 51 01.6** | **-1.0** |
| TVAN | | | | iS | **Sg** | **08 51 05.9** | **0.0** |
| **TVAN** | **Van** | **0.21** | **137** | P | **Pg** | **08 51 01.6** | **-1.0** |
| TVAN | | | | S | **Sg** | **08 51 05.9** | **0.0** |
| **GEVA** | **Gevas** | **0.39** | **200** | eP | **Pg** | **08 51 04.0** | **-1.7** |
| GEVA | | | | eS | **Sg** | **08 51 11.0** | **-0.1** |
| GEVA | | | | IAML | | 08 51 14.1 | |
| | comp=Z,693nm,0.4s | | | | | | |
| **GEVA** | **Gevas** | **0.39** | **200** | iP | **Pg** | **08 51 03.9** | **-1.7** |
| GEVA | | | | iS | **Sg** | **08 51 11.1** | **0.0** |
| **GEVA** | **Gevas** | **0.39** | **200** | P | **Pg** | **08 51 03.9** | **-1.7** |
| GEVA | | | | S | **Sg** | **08 51 11.1** | **0.0** |
| **VMUR** | **Van-Muradiye** | **0.41** | **41** | iP | **Pg** | **08 51 06.1** | **+0.1** |
| VMUR | | | | iS | **Sb** | **08 51 13.8** | **+1.0** |
| **VMUR** | **Van-Muradiye** | **0.41** | **41** | P | **Pg** | **08 51 06.1** | **+0.1** |
| VMUR | | | | S | **Sb** | **08 51 13.8** | **+1.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.41** | **288** | ⇓iP | **Pg** | **08 51 04.8** | **-1.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.41** | **288** | P | **Pg** | **08 51 04.8** | **-1.2** |
| **CLDR** | **Caldiran** | **0.71** | **49** | ePG | **Pg** | **08 51 10.9** | **-0.6** |
| CLDR | | | | eSG | **Sb** | **08 51 22.0** | **+0.5** |
| **CLDR** | **Caldiran** | **0.71** | **49** | iP | **Pg** | **08 51 11.2** | **-0.3** |
| **CLDR** | **Caldiran** | **0.71** | **49** | ePg | **Pg** | **08 51 10.9** | **-0.6** |
| **CLDR** | **Caldiran** | **0.71** | **49** | P | **Pg** | **08 51 11.2** | **-0.3** |
| CLDR | | | | eSg | **Sb** | **08 51 22.0** | **+0.5** |
| **TUTA** | **Tutak** | **0.79** | **336** | eP | **Pg** | **08 51 11.6** | **-1.4** |
| **TUTA** | **Tutak** | **0.79** | **336** | iP | **Pg** | **08 51 11.7** | **-1.3** |
| **TUTA** | **Tutak** | **0.79** | **336** | P | **Pg** | **08 51 11.7** | **-1.3** |
| **BASK** | **Baskale_VAN** | **0.88** | **136** | eP | **Pg** | **08 51 14.2** | **-0.4** |
| BASK | | | | eS | **Sb** | **08 51 27.5** | **+1.3** |
| BASK | | | | IAML | | 08 51 34.2 | |
| | comp=Z,83nm,0.5s | | | | | | |
| **BASK** | **Baskale_VAN** | **0.88** | **136** | iP | **Pg** | **08 51 12.7** | **-2.0** |
| BASK | | | | iS | **Sb** | **08 51 26.8** | **+0.6** |
| **BASK** | **Baskale_VAN** | **0.88** | **136** | P | **Pg** | **08 51 12.7** | **-2.0** |
| BASK | | | | S | **Sb** | **08 51 26.8** | **+0.6** |
| **AGRB** | **Hanur-Agry** | **0.91** | **349** | ePG | **Pg** | **08 51 14.1** | **-1.2** |
| **AGRB** | **Hanur-Agry** | **0.91** | **349** | ePg | **Pg** | **08 51 14.1** | **-1.2** |
| **DYDN** | **Diyadin** | **0.93** | **23** | eP | **Pg** | **08 51 13.9** | **-1.9** |
| DYDN | | | | eS | **Sg** | **08 51 26.8** | **-1.2** |
| DYDN | | | | IAML | | 08 51 35.5 | |
| | comp=Z,71nm,0.8s | | | | | | |
| **EKAR** | **Karacoban** | **1.07** | **303** | iP | **Pb** | **08 51 17.0** | **-1.0** |
| **EKAR** | **Karacoban** | **1.07** | **303** | P | **Pb** | **08 51 17.0** | **-1.0** |
| **HAKT** | **HAKKARI** | **1.18** | **161** | iP | **Pn** | **08 51 18.0** | **-1.8** |
| **HAKT** | **HAKKARI** | **1.18** | **161** | P | **Pn** | **08 51 18.0** | **-1.8** |
| **SRTM** | **Siirt_Merkez** | **1.23** | **237** | iP | **Pb** | **08 51 21.0** | **+0.3** |
| SRTM | | | | iS | **Sg** | **08 51 38.9** | **+1.3** |
| **SRTM** | **Siirt_Merkez** | **1.23** | **237** | P | **Pb** | **08 51 21.0** | **+0.3** |
| SRTM | | | | S | **Sg** | **08 51 38.9** | **+1.3** |
| **EATA** | **Eleskirt** | **1.31** | **334** | iP | **Pn** | **08 51 21.2** | **-0.4** |
| EATA | | | | iS | **Sg** | **08 51 39.9** | **-0.2** |
| **EATA** | **Eleskirt** | **1.31** | **334** | P | **Pn** | **08 51 21.2** | **-0.4** |
| EATA | | | | S | **Sg** | **08 51 39.9** | **-0.2** |
| **SIRT** | **Sirnak** | **1.33** | **208** | ePN | **Pb** | **08 51 22.8** | **+0.5** |
| **SIRT** | **Sirnak** | **1.33** | **208** | ePn | **Pb** | **08 51 22.8** | **+0.5** |
| **VRTB** | **Varto-Mus** | **1.46** | **290** | ePN | **Pb** | **08 51 24.6** | **0.0** |
| **VRTB** | **Varto-Mus** | **1.46** | **290** | ePn | **Pb** | **08 51 24.6** | **0.0** |
| **TASB** | **TASBURUN-IGDIR** | **1.52** | **31** | ePN | **Pb** | **08 51 25.8** | **+0.3** |
| **TASB** | **TASBURUN-IGDIR** | **1.52** | **31** | ePn | **Pb** | **08 51 25.8** | **+0.3** |
| **BNGL** | **BINGOL** | **1.65** | **280** | iP | **Pn** | **08 51 26.8** | **+0.7** |
| BNGL | | | | iS | **Sg** | **08 51 50.4** | **-0.3** |
| **BTMN** | **Batman** | **1.73** | **243** | iP | **Pn** | **08 51 27.8** | **+0.6** |
| BTMN | | | | iS | **Sb** | **08 51 50.6** | **0.0** |
| **BTMN** | **Batman** | **1.73** | **243** | P | **Pn** | **08 51 27.8** | **+0.6** |
| BTMN | | | | S | **Sb** | **08 51 50.6** | **0.0** |
| **ERZM** | **Erzurum** | **1.89** | **311** | eP | **Pb** | **08 51 31.7** | **-0.3** |
| **BNGB** | **Bingˆ¶l** | **2.01** | **280** | ePN | **Pn** | **08 51 32.2** | **+1.2** |
| **BINT** | **Bingol** | **2.15** | **276** | ePn | **Pn** | **08 51 32.3** | **-0.7** |
| **MAZI** | **Mazidag** | **2.51** | **242** | ePN | **Pn** | **08 51 39.9** | **+1.9** |
| **MAZI** | **Mazidag** | **2.51** | **242** | ePn | **Pn** | **08 51 39.9** | **+1.9** |
| **PTK** | **Pertek** | **3.00** | **275** | ePN | **Pn** | **08 51 47.0** | **+2.2** |
| **PTK** | **Pertek** | **3.00** | **275** | ePn | **Pn** | **08 51 47.0** | **+2.2** |
| **SVRC** | **Sivrice-ELAZID** | **3.09** | **266** | ePN | **Pn** | **08 51 48.0** | **+2.1** |
| **SVRC** | **Sivrice-ELAZID** | **3.09** | **266** | ePn | **Pn** | **08 51 48.0** | **+2.1** |

---

*BJI **06** 09:01:02.0, 21.°95N×143.°97E, h107km, mb4.7/18, mB4.9/9*
*ISCJB **06** 09:01:04.3±1.6, 22.°16N±0.°05×143.°66E±0.°06, h108km±13km, mb4.6/78, Error ellipse: s-maj=9.8km s-min=7.5km az=7.6*
*NEIC **06** 09:01:07.6±0.2, 22.°15N×143.°66E, mb4.5/55, Error ellipse: s-maj=5.6km s-min=4.4km az=82.0*
*IDC **06** 09:01:07.6±0.7, 22.°15N×143.°80E, h128km±6km, mb4.2/26, mb1 4.3/28, mb1mx4.2/36, mbtmp4.6/28, MS2.9/3, Ms1 2.9/3, ms1mx2.6/33, Error ellipse: s-maj=15.6km s-min=9.2km az=88.0*
**ISC 06 09:01:07.6**±0.7, **22.°22N**±0.°06×**143.°84E**±0.°10, **h125**km±5km, **h125**km**:pP-P**, **n123**, σ**1.s48**/129, **mb4.5**/79, **Volcano Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CBIJ** | **Chichi jima** | **5.08** | **343** | ePn | **Pn** | **09 02 23.5** | **+1.7** |
| CBIJ | | | | eSn | **Sn** | **09 03 17.6** | **-1.9** |
| **GUMO** | **Guam** | **8.64** | **173** | LR | LR | 09 05 31.4 | |
| | comp=Z,79nm,20.3s,baz=50,slow=31 | | | | | | |
| **GUMO** | **Guam** | **8.64** | **173** | ePn | Pn | 09 03 01.9 | -7.8 |
| GUMO | | | | e | | 09 05 31.4 | |
| **INU** | **Inuyama** | **14.38** | **337** | ePn | **Pn** | **09 04 24.2** | **-1.1** |
| **MJAR** | **Matsushiro Arr** | **15.09** | **342** | P | **Pn** | **09 04 32.7** | **-1.6** |
| | 3.8nm,0.3s,baz=165,slow=9.5,SNR=19 | | | | | | |
| MJAR | | | | LR | LR | 09 10 34.4 | |
| | comp=Z,38nm,18.4s,baz=80,slow=38 | | | | | | |
| **MAJO** | **Matsushiro** | **15.09** | **342** | ePn | **Pn** | **09 04 30.8** | **-3.6** |
| | 34nm,0.7s | | | | | | |
| **MAT** | **Matsushiro** | **15.09** | **342** | P | **Pn** | **09 04 33.0** | **-1.3** |
| MAT | | | | eS | **Sn** | **09 07 14.5** | **-6.9** |
| **JNU** | **Nakatsue** | **15.79** | **316** | P | **P** | **09 04 44.7** | **+0.3** |
| | 1.2nm,0.3s,baz=307,slow=1.4,SNR=12 | | | | | | |
| **JNU** | **Nakatsue** | **15.79** | **316** | ePn | **P** | **09 04 46.5** | **+2.1** |
| | 21nm,1.0s | | | | | | |
| **KSRS** | **Korea Array** | **20.48** | **321** | P | **P** | **09 05 34.8** | **-0.7** |
| | 9.1nm,0.6s,baz=146,slow=8.4,SNR=57 | | | | | | |
| KSRS | | | | LR | LR | 09 14 02.6 | |
| | comp=Z,27nm,18.1s,baz=120,slow=38 | | | | | | |
| **KS15** | **Wonju Array Si** | **20.49** | **321** | eP | Pn | 09 05 39.5 | +0.5 |
| **KSAR** | **Wonju Array Be** | **20.49** | **321** | P | **P** | **09 05 34.8** | **-0.9** |
| **KS01** | **Wonju Array Si** | **20.51** | **321** | eP | Pn | 09 05 39.4 | +0.1 |
| **SSLB** | **Suanglung** | **21.12** | **279** | eP | **P** | **09 05 44.2** | **+1.6** |
| | 34nm,0.5s | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **21.66** | **92** | T | T | 09 28 27.3 | |
| | baz=283,slow=73,SNR=3.8 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **21.67** | **92** | T | T | 09 28 27.7 | |
| | baz=283,slow=73,SNR=10 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **21.68** | **92** | T | T | 09 28 26.2 | |
| | baz=283,slow=73,SNR=9.4 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **21.73** | **96** | T | T | 09 28 40.9 | |
| | baz=283,slow=74,SNR=45 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **21.74** | **96** | T | T | 09 28 43.1 | |
| | baz=283,slow=74,SNR=20 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **21.75** | **96** | T | T | 09 28 42.2 | |
| | baz=283,slow=74,SNR=16 | | | | | | |
| **ASAJ** | **Asahikawa** | **21.86** | **358** | P | **P** | **09 05 51.5** | **+1.2** |
| | 6.0nm,0.8s,baz=196,slow=12,SNR=6.1 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **24.01** | **339** | P | **P** | **09 06 12.1** | **+1.3** |
| | 6.1nm,0.6s,baz=151,slow=9.8,SNR=19 | | | | | | |
| **TIA** | **Tai'an** | **27.06** | **307** | eP | **P** | **09 06 38.2** | **-0.2** |
| TIA | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| **KLR** | **Kul'dur** | **28.61** | **343** | P | **P** | **09 06 52.8** | **+0.8** |
| | 2.3nm,0.5s,baz=154,slow=7.5,SNR=95 | | | | | | |
| **COEN** | **Coen** | **35.96** | **181** | eP | **P** | **09 07 56.1** | **-0.3** |
| | 11nm,0.8s | | | | | | |
| **MA2** | **Magadan** | **37.65** | **6** | P | **P** | **09 08 10.9** | **+0.7** |
| | 12nm,0.8s,baz=185,slow=10.0,SNR=4.3 | | | | | | |
| **ULN** | **Ulaanbaatar** | **38.95** | **320** | eP | **P** | **09 08 21.8** | **+0.2** |
| | 8.3nm,0.8s | | | | | | |
| **SONA0** | **Songino Array** | **39.33** | **320** | eP | **P** | **09 08 25.0** | **+0.3** |
| **SONM** | **Songino Array** | **39.33** | **320** | P | **P** | **09 08 25.0** | **+0.3** |
| | 6.4nm,0.6s,baz=128,slow=7.3,SNR=46 | | | | | | |
| **SONA1** | **Songino Array** | **39.33** | **320** | eP | **P** | **09 08 24.6** | **-0.1** |
| **YAK** | **Yakutsk** | **40.96** | **350** | P | **P** | **09 08 38.4** | **+0.7** |
| | 19nm,0.4s,baz=273,slow=0.9,SNR=6.9 | | | | | | |
| **YAK** | **Yakutsk** | **40.96** | **350** | eP | **P** | **09 08 37.6** | **-0.2** |
| | 29nm,0.8s | | | | | | |
| **GTA** | **Gaotai** | **41.07** | **305** | eP | **P** | **09 08 39.1** | **-0.1** |
| **SEY** | **Seymchan** | **41.10** | **6** | P | **P** | **09 08 39.6** | **+0.7** |
| | 7.1nm,0.7s,baz=179,slow=7.9,SNR=17 | | | | | | |
| **CTAO** | **Charters Tower** | **42.11** | **177** | eP | **P** | **09 08 47.4** | **-0.3** |
| | 24nm,1.3s | | | | | | |
| **WRAB** | **Tennant Creek** | **42.91** | **193** | eP | **P** | **09 08 53.0** | **-1.0** |
| | 15nm,1.4s | | | | | | |
| **WB2** | **Warramunga Arr** | **42.92** | **193** | eP | **P** | **09 08 53.1** | **-1.1** |
| | 5.5nm,0.8s | | | | | | |
| **WR1** | **Warramunga Arr** | **42.92** | **193** | eP | **P** | **09 08 53.4** | **-0.8** |
| WR1 | | | | epP | **pP** | **09 09 21.8** | **-0.7** |
| **WRA** | **Warramunga Arr** | **42.92** | **193** | P | **P** | **09 08 53.4** | **-0.8** |
| | 2.5nm,0.3s,baz=13,slow=8.9,SNR=108 | | | | | | |
| WRA | | | | pP | **pP** | **09 09 21.8** | **-0.7** |
| | 2.8nm,0.6s,baz=16,slow=8.7,SNR=5.2 | | | | | | |
| WRA | | | | ScP | **ScP** | **09 14 20.5** | **-1.8** |
| | 3.6nm,1.1s,baz=10.0,slow=4.3,SNR=11 | | | | | | |
| **AS31** | **Alice Springs** | **46.62** | **193** | eP | **P** | **09 09 21.5** | **-1.9** |
| | 1.1nm,0.4s | | | | | | |
| **ASAR** | **Alice Springs** | **46.62** | **193** | P | **P** | **09 09 22.7** | **-0.8** |
| | 1.6nm,0.6s,baz=11,slow=6.5,SNR=28 | | | | | | |
| ASAR | | | | pP | **pP** | **09 09 51.0** | **-1.2** |
| | 0.9nm,0.6s,baz=15,slow=8.3,SNR=3.1 | | | | | | |
| ASAR | | | | ScP | **ScP** | **09 14 36.1** | **-1.3** |
| | 0.7nm,0.9s,baz=15,slow=3.8,SNR=4.6 | | | | | | |
| **TIXI** | **Tiksi** | **50.20** | **354** | eP | **P** | **09 09 50.2** | **0.0** |
| | 4.7nm,0.8s | | | | | | |
| **STKA** | **Stephens Creek** | **53.83** | **182** | P | **P** | **09 10 16.8** | **-0.8** |
| | 4.3nm,0.4s,baz=16,slow=6.8,SNR=19 | | | | | | |
| **STKA** | **Stephens Creek** | **53.83** | **182** | eP | **P** | **09 10 16.4** | **-1.2** |
| | 1.1nm,0.6s | | | | | | |
| **ZAA0** | **Zalesovo Array** | **54.19** | **321** | eP | **P** | **09 10 19.1** | **-0.8** |
| | 9.7nm,0.6s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **54.19** | **321** | P | **P** | **09 10 19.2** | **-0.7** |
| | 10nm,0.5s,baz=109,slow=7.8,SNR=43 | | | | | | |
| ZALV | | | | PcP | **PcP** | **09 11 22.3** | **-0.6** |
| | 1.9nm,0.6s,baz=126,slow=4.2,SNR=3.6 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **54.19** | **321** | eP | **P** | **09 10 19.2** | **-0.7** |
| ZAA1 | | | | ePcP | **PcP** | **09 11 22.3** | **-0.6** |
| **MK01** | **Makanchi Array** | **54.79** | **312** | eP | **P** | **09 10 24.5** | **0.0** |
| **MK31** | **Makanchi Array** | **54.80** | **312** | eP | **P** | **09 10 24.7** | **+0.1** |
| **MK32** | **Makanchi Array** | **54.80** | **312** | eP | **P** | **09 10 24.7** | **+0.1** |
| MK32 | | | | ePcP | **PcP** | **09 11 24.8** | **-0.7** |
| **MKAR** | **Makanchi Array** | **54.80** | **312** | P | **P** | **09 10 24.7** | **+0.1** |
| | 4.3nm,0.6s,baz=88,slow=8.8,SNR=47 | | | | | | |
| MKAR | | | | PcP | **PcP** | **09 11 24.8** | **-0.7** |
| | 2.6nm,0.5s,baz=67,slow=4.1,SNR=9.8 | | | | | | |
| **KDAK** | **Kodiak Island** | **57.43** | **35** | P | **P** | **09 10 42.7** | **-0.3** |
| | 4.9nm,0.4s,baz=203,slow=0.4,SNR=33 | | | | | | |
| **KDAK** | **Kodiak Island** | **57.43** | **35** | eP | **P** | **09 10 43.5** | **+0.5** |
| | 97nm,1.7s | | | | | | |
| **KURK** | **Kurchatov** | **57.51** | **317** | eP | **P** | **09 10 43.5** | **-0.3** |
| | 30nm,1.0s | | | | | | |
| **IMAR** | **Indian Mountai** | **58.76** | **25** | eP | **P** | **09 10 53.3** | **+1.1** |
| **CAST** | **Castle Rocks** | **58.80** | **28** | eP | **P** | **09 10 53.7** | **+1.2** |
| | 25nm,1.5s | | | | | | |
| **BPAW** | **Bear Paw Mtn.** | **59.43** | **28** | eP | **P** | **09 10 57.4** | **+0.6** |
| | 9.8nm,0.5s | | | | | | |
| **KSH** | **Kashi** | **59.45** | **304** | P | **P** | **09 11 00.8** | **+3.2** |
| KSH | | | | PcP | **PcP** | **09 11 47.3** | **+3.3** |
| KSH | | | | PP | **PP** | **09 13 17.2** | **+7.1** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.6s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,91nm,5.2s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,220nm,5.7s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,200nm,5.9s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,220nm,5.6s | | | | | | |
| **TRF** | **Thorofare Moun** | **59.60** | **28** | eP | **P** | **09 10 58.7** | **+0.5** |
| | 11nm,0.8s | | | | | | |
| **MLY** | **Manley** | **59.73** | **27** | eP | **P** | **09 11 00.1** | **+1.1** |
| | 4.6nm,0.9s | | | | | | |
| **PMR** | **Palmer** | **59.79** | **31** | eP | **P** | **09 10 59.5** | **+0.2** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| | 100nm,1.4s | | | | | | |
| **SML** | **Sawmill** | **60.20** | **30** | *e*P | **P** | **09 11 02.3** | **+0.1** |
| | 67nm,0.9s | | | | | | |
| **MCK** | **McKinley** | **60.24** | **28** | *e*P | **P** | **09 11 02.6** | **+0.2** |
| | 67nm,1.9s | | | | | | |
| **COLD** | **Coldfoot** | **60.45** | **24** | *e*P | **P** | **09 11 05.4** | **+1.7** |
| | 7.7nm,1.1s | | | | | | |
| **ILAR** | **Eielson Array** | **61.30** | **27** | P | **P** | **09 11 08.6** | **-1.0** |
| | 5.2nm,0.3s,baz=259,slow=5.2,SNR=67 | | | | | | |
| **ILB** | **Eielson Array** | **61.30** | **27** | *e*P | **P** | **09 11 09.0** | **-0.6** |
| **PAX** | **Paxson** | **61.68** | **29** | *e*P | **P** | **09 11 12.6** | **+0.4** |
| | 29nm,0.8s | | | | | | |
| **BRVK** | **Borovoye** | **62.74** | **319** | *e*P | **P** | **09 11 19.2** | **-0.2** |
| | 21nm,0.7s | | | | | | |
| **KBL** | **Kabul** | **65.62** | **299** | *e*P | **P** | **09 11 38.6** | **-0.2** |
| | 11nm,0.8s | | | | | | |
| **BESE** | **Bessie Mountai** | **66.82** | **34** | *e*P | **P** | **09 11 49.8** | **+4.0** |
| | 69nm,0.7s | | | | | | |
| **INK** | **Inuvik** | **66.85** | **24** | P | **P** | **09 11 45.6** | **-0.1** |
| | 5.4nm,0.8s,baz=295,slow=5.9,SNR=9.4 | | | | | | |
| **INK** | **Inuvik** | **66.85** | **24** | *e*P | **P** | **09 11 46.5** | **+0.8** |
| | 12nm,1.1s | | | | | | |
| **GEYT** | **Alibeck** | **73.45** | **305** | P | **P** | **09 12 26.8** | **+0.2** |
| | 8.4nm,0.6s,baz=35,slow=5.3,SNR=3.5 | | | | | | |
| **YKA** | **Yellowknife Ar** | **75.71** | **28** | P | **P** | **09 12 39.3** | **+0.2** |
| | 3.7nm,0.7s,baz=292,slow=5.9,SNR=23 | | | | | | |
| **LLLB** | **Lillooet** | **75.78** | **41** | *e*P | **P** | **09 12 41.1** | **+1.3** |
| | 8.4nm,1.0s | | | | | | |
| **B08A** | **Colville Reser** | **78.07** | **43** | *e*P | **P** | **09 12 53.6** | **+0.9** |
| | 5.5nm,1.0s | | | | | | |
| **ARA0** | **ARCESS Array S** | **78.62** | **342** | *e*P | **P** | **09 12 55.1** | **-0.1** |
| **ARCES** | **ARCESS Array B** | **78.62** | **342** | P | **P** | **09 12 55.1** | **-0.1** |
| | 7.0nm,0.6s,baz=69,slow=7.9,SNR=27 | | | | | | |
| **TULEG** | **Thule** | **79.47** | **7** | *e*P | **P** | **09 12 59.8** | **0.0** |
| | 13nm,0.8s | | | | | | |
| **NEW** | **Newport** | **79.49** | **42** | *e*P | **P** | **09 13 00.8** | **+0.3** |
| | 7.1nm,1.0s | | | | | | |
| **BEKR** | **Beckworth** | **80.33** | **51** | *e*P | **P** | **09 13 05.9** | **+0.6** |
| | 5.7nm,0.8s | | | | | | |
| **J08A** | **Circle Bar Ran** | **80.40** | **47** | *e*P | **P** | **09 13 06.1** | **+0.5** |
| | 4.4nm,0.8s | | | | | | |
| **WVOR** | **Wild Horse Val** | **80.62** | **48** | *e*P | **P** | **09 13 07.8** | **+1.0** |
| | 5.2nm,1.1s | | | | | | |
| **BMO** | **Blue Mountains** | **80.63** | **45** | *e*P | **P** | **09 13 07.5** | **+0.7** |
| | 2.8nm,0.6s | | | | | | |
| **CMB** | **Columbia Colle** | **80.96** | **53** | *e*P | **P** | **09 13 09.6** | **+1.0** |
| | 4.1nm,0.6s | | | | | | |
| **PNTR** | **Pine Nut** | **81.16** | **51** | *e*P | **P** | **09 13 10.6** | **+0.8** |
| | 4.8nm,0.6s | | | | | | |
| **JTMT** | **Jette** | **81.45** | **42** | *e*P | **P** | **09 13 12.0** | **+0.9** |
| | 5.8nm,1.2s | | | | | | |
| **YERR** | **Yerington** | **81.46** | **51** | *e*P | **P** | **09 13 12.3** | **+0.9** |
| | 7.4nm,1.4s | | | | | | |
| **WAKR** | **Walker** | **81.49** | **52** | *e*P | **P** | **09 13 13.0** | **+1.5** |
| | 15nm,1.9s | | | | | | |
| **MDPB** | **Devils Postpil** | **82.07** | **53** | *e*P | **P** | **09 13 14.6** | **-0.1** |
| | 11nm,0.9s | | | | | | |
| **MFID** | **Camas Ranch** | **82.16** | **46** | *e*P | **P** | **09 13 15.3** | **+0.5** |
| | 4.8nm,0.9s | | | | | | |
| **KVN** | **Kaiserville** | **82.26** | **51** | *e*P | **P** | **09 13 16.7** | **+1.1** |
| | 5.2nm,1.2s | | | | | | |
| **KBZ** | **Khabaz** | **82.45** | **314** | P | **P** | **09 13 16.3** | **+0.1** |
| | 11nm,0.8s,baz=133,slow=3.4,SNR=19 | | | | | | |
| **FIA0** | **FINESS Array S** | **82.97** | **335** | *e*P | **P** | **09 13 17.4** | **-1.1** |
| FIA0 | | | | *e*pP | **pP** | **09 13 50.1** | **-0.1** |
| **FINES** | **FINESS Array B** | **82.97** | **335** | P | **P** | **09 13 17.4** | **-1.1** |
| | 3.9nm,0.3s,baz=62,slow=4.9,SNR=36 | | | | | | |
| FINES | | | | pP | **pP** | **09 13 50.1** | **-0.1** |
| | 2.9nm,0.5s,baz=76,slow=5.3,SNR=2.8 | | | | | | |
| **TPNV** | **Topopah Spring** | **84.42** | **52** | *e*P | **P** | **09 13 27.5** | **+0.8** |
| | 5.1nm,1.1s | | | | | | |
| **YMR** | **Madison River** | **84.83** | **44** | *e*P | **P** | **09 13 30.6** | **+1.9** |
| | 5.4nm,0.9s | | | | | | |
| **YHH** | **Holmes Hill** | **84.85** | **44** | *e*P | **P** | **09 13 30.1** | **+1.3** |
| | 14nm,1.9s | | | | | | |
| **FFC** | **Flin Flon** | **85.06** | **32** | *e*P | **P** | **09 13 30.0** | **+0.7** |
| | 8.4nm,0.8s | | | | | | |
| **YPP** | **Pitchstone Pla** | **85.11** | **44** | *e*P | **P** | **09 13 27.6** | **-2.5** |
| | 2.7nm,0.8s | | | | | | |
| **IMW** | **Indian Meadow** | **85.19** | **44** | *e*P | **P** | **09 13 32.1** | **+1.6** |
| | 3.5nm,0.8s | | | | | | |
| **DUG** | **Dugway, Tooele** | **85.53** | **48** | *e*P | **P** | **09 13 32.9** | **+0.7** |
| | 14nm,1.6s | | | | | | |
| **RLMT** | **Red Lodge** | **85.70** | **43** | *e*P | **P** | **09 13 34.5** | **+1.6** |
| | 5.2nm,0.7s | | | | | | |
| **JLU** | **Jordanelle** | **86.30** | **48** | *e*P | **P** | **09 13 36.7** | **+0.7** |
| | 3.2nm,0.8s | | | | | | |
| **LCMT** | **Little Creek M** | **86.58** | **51** | *e*P | **P** | **09 13 38.5** | **+1.1** |
| | 2.5nm,0.8s | | | | | | |
| **PD31** | **Pinedale Array** | **86.59** | **45** | *e*P | **P** | **09 13 37.8** | **+0.3** |
| **PDAR** | **Pinedale Array** | **86.59** | **45** | P | **P** | **09 13 37.8** | **+0.3** |
| | 0.4nm,0.5s,baz=240,slow=1.2,SNR=5.7 | | | | | | |
| PDAR | | | | pP | **pP** | **09 14 10.9** | **+1.6** |
| | 0.6nm,0.8s,baz=291,slow=4.1,SNR=2.7 | | | | | | |
| **LAO** | **LASA Array** | **86.84** | **40** | *e*P | **P** | **09 13 39.5** | **+1.2** |
| | 8.7nm,0.8s | | | | | | |
| **KNB** | **Kanab** | **86.89** | **51** | *e*P | **P** | **09 13 40.3** | **+1.5** |
| | 9.2nm,0.9s | | | | | | |
| **AKASG** | **Malin Array Be** | **87.44** | **325** | P | **P** | **09 13 39.1** | **-1.8** |
| | 1.1nm,0.5s,baz=53,slow=4.8,SNR=8.4 | | | | | | |
| **AKBB** | **Malin Array Si** | **87.44** | **325** | *e*P | **P** | **09 13 40.9** | **-0.1** |
| | 28nm,1.8s | | | | | | |
| **NB200** | **NORSAR Array S** | **88.68** | **339** | *e*P | **P** | **09 13 44.8** | **-1.9** |
| **NOA** | **NORSAR Array B** | **88.68** | **339** | P | **P** | **09 13 44.8** | **-1.9** |
| | 1.2nm,0.7s,baz=42,slow=5.1,SNR=3.8 | | | | | | |
| **PV10** | **Paradox Valley** | **88.97** | **49** | *e*P | **P** | **09 13 49.5** | **+0.7** |
| **SMCO** | **Snowmass** | **90.01** | **47** | *e*P | **P** | **09 13 55.0** | **+1.1** |
| | 3.4nm,0.9s | | | | | | |
| **BR101** | **Keskin Array S** | **90.43** | **314** | *e*P | **P** | **09 13 54.0** | **-1.5** |
| **BRTR** | **Keskin Array B** | **90.43** | **314** | P | **P** | **09 13 54.0** | **-1.5** |
| | 1.6nm,0.7s,baz=93,slow=4.2,SNR=7.7 | | | | | | |
| **ULM** | **Lac du Bonnet** | **90.67** | **34** | P | **P** | **09 13 55.7** | **-0.5** |
| | 1.3nm,0.7s,baz=279,slow=12,SNR=3.2 | | | | | | |
| **BR231** | **Keskin MP Arra** | **90.95** | **314** | *e*P | **P** | **09 13 54.7** | **-3.1** |
| **TOA1** | **Torodi Ar. Sit** | **128.88** | **310** | *e*PKPdf | **PKPdf** | **09 20 00.5** | **-0.9** |
| **TORD** | **Torodi Ar. Bea** | **128.88** | **310** | PKP | **PKPdf** | **09 20 00.5** | **-0.9** |
| | 0.3nm,0.5s,baz=30,slow=1.9,SNR=6.1 | | | | | | |
| **PLCA** | **Paso Flores** | **145.63** | **130** | PKPbc | **PKPdf** | **09 20 30.9** | **-0.5** |
| | 3.5nm,0.8s,baz=276,slow=3.5,SNR=10 | | | | | | |
| **LPAZ** | **La Paz** | **149.28** | **85** | PKPbc | **PKPbc** | **09 20 43.3** | **0.0** |
| | 2.7nm,0.5s,baz=31,slow=11,SNR=7.8 | | | | | | |

*ATA **06** 09:07:39.9±1.3, 38°.07N×43°.13E, h45km±5km, ML3.4, MW2.9*
*ISCJB **06** 09:07:43.7±0.8, 38°.48N±0°.06×43°.38E±0°.06, h11km±5km, Error ellipse: s-maj=9.6km s-min=8.3km az=5.5*
*DDA **06** 09:07:44.0, 38°.51N×43°.33E, h7km, Ml2.8*
**ISC 06 09:07:44.0**±1.2**, 38°.45N**±0°.04×**43°.37E**±0°.04**, h3**km±12km**, n6, σ1.84**/11**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TVAN** | **Van** | **0.09** | **21** | *i* P | **Pg** | **09 07 45.7** | **-0.1** |
| TVAN | | | | *i* S | **Sg** | **09 07 47.6** | **+0.5** |
| **GEVA** | **Gevas** | **0.28** | **241** | *e*P | **Pg** | **09 07 49.3** | **-0.1** |
| GEVA | | | | *e*S | **Sb** | **09 07 56.1** | **-0.9** |
| GEVA | | | | IAML | | 09 08 02.2 | |
| | comp=Z,110nm,0.3s | | | | | | |
| **GEVA** | **Gevas** | **0.28** | **241** | *i* P | **Pg** | **09 07 49.0** | **-0.4** |
| GEVA | | | | *i* S | **Sg** | **09 07 54.7** | **+1.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.62** | **306** | *i* P | **Pg** | **09 07 55.2** | **-0.7** |
| **BASK** | **Baskale_VAN** | **0.64** | **128** | *e*P | **Pg** | **09 07 55.6** | **-0.7** |
| BASK | | | | *e*S | **Sg** | **09 08 06.2** | **+1.7** |
| BASK | | | | IAML | | 09 08 08.0 | |
| | comp=Z,58nm,0.1s | | | | | | |
| **TUTA** | **Tutak** | **1.05** | **336** | *e*P | **Pn** | **09 08 03.9** | **-2.0** |
| TUTA | | | | *e*S | **Sn** | **09 08 24.6** | **+3.5** |
| TUTA | | | | IAML | | 09 08 26.9 | |
| | comp=Z,69nm,0.5s | | | | | | |

*CSEM **06** 09:08:10.7±0.2, 38°.68N×43°.14E, h8km, ML2.9, Error ellipse: s-maj=5.7km s-min=4.8km az=69.0*
*DDA **06** 09:08:10.8, 38°.69N×43°.19E, h7km, Ml2.9*
**ISC 06 09:08:11.3**±0.9**, 38°.67N**±0°.03×**43°.17E**±0°.03**, h15**km±8km**, n21, σ0.82**/31**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.18** | **113** | *e*PG | **Pg** | **09 08 15.6** | **-0.2** |
| VANB | | | | *e*SG | **Sg** | **09 08 19.8** | **+1.0** |
| **VANB** | **Van** | **0.18** | **113** | *e*Pg | **Pg** | **09 08 15.6** | **-0.2** |
| VANB | | | | *e*Sg | **Sg** | **09 08 19.8** | **+1.0** |
| **TVAN** | **Van** | **0.23** | **127** | *i* P | **Pg** | **09 08 15.2** | **-1.3** |
| TVAN | | | | *i* S | **Sg** | **09 08 20.0** | **-0.1** |
| **TVAN** | **Van** | **0.23** | **127** | P | **Pg** | **09 08 15.2** | **-1.3** |
| TVAN | | | | S | **Sg** | **09 08 20.0** | **-0.1** |
| **GEVA** | **Gevas** | **0.36** | **194** | *i* P | **Pg** | **09 08 17.9** | **-0.9** |
| GEVA | | | | *i* S | **Sb** | **09 08 25.1** | **-0.1** |
| **GEVA** | **Gevas** | **0.36** | **194** | P | **Pg** | **09 08 17.9** | **-0.9** |
| GEVA | | | | S | **Sb** | **09 08 25.1** | **-0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.38** | **292** | *i* P | **Pg** | **09 08 18.7** | **-0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.38** | **292** | P | **Pg** | **09 08 18.7** | **-0.4** |
| **VMUR** | **Van-Muradiye** | **0.45** | **44** | *i* P | **Pg** | **09 08 19.7** | **-0.6** |
| VMUR | | | | *i* S | **Sb** | **09 08 28.0** | **+0.4** |
| **VMUR** | **Van-Muradiye** | **0.45** | **44** | P | **Pg** | **09 08 19.7** | **-0.6** |
| VMUR | | | | S | **Sb** | **09 08 28.0** | **+0.4** |
| **CLDR** | **Caldiran** | **0.75** | **50** | *e*PG | **Pg** | **09 08 25.4** | **-0.6** |
| **CLDR** | **Caldiran** | **0.75** | **50** | *e*Pg | **Pg** | **09 08 25.4** | **-0.6** |
| **TUTA** | **Tutak** | **0.79** | **339** | *i* P | **Pg** | **09 08 25.8** | **-0.8** |
| **TUTA** | **Tutak** | **0.79** | **339** | P | **Pg** | **09 08 25.8** | **-0.8** |
| **AGRB** | **Hanur-Agry** | **0.92** | **351** | *e*PG | **Pg** | **09 08 27.4** | **-1.7** |
| **AGRB** | **Hanur-Agry** | **0.92** | **351** | *e*Pg | **Pg** | **09 08 27.4** | **-1.7** |
| **EATA** | **Eleskirt** | **1.31** | **336** | *i* P | **Pn** | **09 08 35.1** | **-0.2** |
| EATA | | | | *i* S | **Sn** | **09 08 53.4** | **+0.7** |
| **EATA** | **Eleskirt** | **1.31** | **336** | P | **Pn** | **09 08 35.1** | **-0.2** |
| EATA | | | | S | **Sn** | **09 08 53.3** | **+0.7** |
| **BNGL** | **BINGOL** | **1.61** | **281** | *i* P | **Pg** | **09 08 42.0** | **-0.2** |
| **BTMN** | **Batman** | **1.69** | **243** | *i* P | **Pn** | **09 08 40.5** | **+0.2** |
| **BTMN** | **Batman** | **1.69** | **243** | P | **Pn** | **09 08 40.5** | **+0.2** |

**IDC 06 09:17:48.9**±1.5**, 4°.09N**×**126°.78E, h0**km**, mb3.5**/5**, mb1 3.6**/5**, mb1mx3.5**/32**, mbtmp3.5**/5**, Error ellipse: s-maj=107.0km s-min=19.3km az=71.0, Talaud Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **22.08** | **183** | P | P | 09 22 45.8 | +0.2 |
| | 1.3nm,0.8s,baz=356,slow=16,SNR=3.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **25.01** | **163** | P | P | 09 23 14.4 | -0.3 |
| | 0.4nm,0.6s,baz=342,slow=10,SNR=7.5 | | | | | | |
| **ASAR** | **Alice Springs** | **28.45** | **166** | P | P | 09 23 45.9 | +0.2 |
| | 0.4nm,1.0s,baz=355,slow=9.3,SNR=3.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **57.29** | **325** | P | P | 09 27 38.5 | 0.0 |
| | 0.3nm,0.4s,baz=122,slow=6.5,SNR=8.6 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **60.29** | **333** | P | P | 09 27 59.0 | -0.2 |
| | 0.4nm,0.4s,baz=127,slow=11,SNR=2.2 | | | | | | |

*IDC **06** 09:27:53.2±1.7, 17°.74S×172°.71W, h0km, mb4.2/6, mb1 4.3/7, mb1mx3.9/38, mbtmp4.2/7, ML3.7/1, MS3.0/4, Ms1 3.0/4, ms1mx2.8/29, Error ellipse: s-maj=56.3km s-min=23.1km az=124.0*
*ISCJB **06** 09:27:54.4±1.3, 17°.6S±0°.1×172°.7W±0°.2, h21km, mb4.2/8, MS3.1/2, Error ellipse: s-maj=37.2km s-min=8.4km az=27.0*
*NEIC **06** 09:27:58.1±0.8, 17°.72S×172°.67W, h35km, mb4.2/3, Error ellipse: s-maj=25.8km s-min=9.1km az=124.0*
**ISC 06 09:27:56.3**±1.5**, 17°.6S**±0°.2×**172°.7W**±0°.3**, h21**km**, n22, σ0.79**/19**, mb4.2**/8**, Tonga Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AFI** | **Afiamalu** | **3.80** | **14** | Pn | **Pn** | **09 28 54.3** | **+0.6** |
| | 5.2nm,0.3s,baz=131,slow=6.5,SNR=8.6 | | | | | | |
| AFI | | | | Sn | **Sn** | **09 29 36.8** | **-1.1** |
| | 16nm,0.3s,baz=196,slow=17,SNR=8.0 | | | | | | |
| AFI | | | | LR | LR | 09 30 10.4 | |
| | comp=Z,72nm,20.4s,baz=232,slow=35 | | | | | | |
| **AFI** | **Afiamalu** | **3.80** | **14** | *e*Pn | **Pn** | **09 28 54.2** | **+0.5** |
| AFI | | | | *e*Sn | **Sn** | **09 29 36.6** | **-1.3** |
| AFI | | | | *e*Sg | **Sn** | **09 29 36.8** | **-1.1** |
| **RAR** | **Rarotonga** | **12.75** | **108** | LR | LR | 09 34 03.3 | |
| | comp=Z,93nm,21.1s,baz=270,slow=29 | | | | | | |
| **DZM** | **Mont Dzumac** | **20.07** | **254** | *e*LR | LR | 09 37 59.0 | |
| | 129nm,25.1s | | | | | | |
| **PPT2** | **Papeete2** | **22.08** | **93** | *e*LR | LR | 09 37 28.1 | |
| | 81nm,25.8s | | | | | | |
| **PPT** | **Papeete** | **22.08** | **93** | LR | LR | 09 40 31.1 | |
| | comp=Z,35nm,18.1s,baz=252,slow=34 | | | | | | |
| **URZ** | **Urewera** | **22.40** | **201** | P | **P** | **09 32 51.8** | **-1.6** |
| | 7.9nm,0.6s,baz=291,slow=5.4,SNR=5.7 | | | | | | |
| **TBI** | **Tubuai** | **22.53** | **109** | *e*LR | LR | 09 37 42.8 | |
| | 103nm,28.2s | | | | | | |
| **HNR** | **Honiara** | **27.74** | **283** | LR | LR | 09 43 15.8 | |
| | comp=Z,73nm,18.4s,baz=183,slow=33 | | | | | | |
| **CTA** | **Charters Tower** | **38.81** | **260** | P | **P** | **09 35 19.8** | **-0.2** |
| | 3.0nm,0.7s,baz=101,slow=9.2,SNR=6.9 | | | | | | |
| **STKA** | **Stephens Creek** | **43.52** | **242** | P | **P** | **09 35 58.4** | **-0.2** |
| | 0.5nm,0.5s,baz=80,slow=11,SNR=3.4 | | | | | | |
| **STKA** | **Stephens Creek** | **43.52** | **242** | *e*P | **P** | **09 35 58.4** | **-0.2** |
| | 5.8nm,1.9s | | | | | | |
| **WB2** | **Warramunga Arr** | **49.98** | **258** | *e*P | **P** | **09 36 49.4** | **+0.1** |
| **WR1** | **Warramunga Arr** | **49.99** | **258** | *e*P | **P** | **09 36 49.6** | **+0.2** |
| | 6.9nm,1.3s | | | | | | |
| **WRA** | **Warramunga Arr** | **49.99** | **258** | P | **P** | **09 36 49.6** | **+0.2** |
| | 1.8nm,0.7s,baz=97,slow=7.2,SNR=33 | | | | | | |
| **AS01** | **Alice Springs** | **50.02** | **254** | *e*P | **P** | **09 36 49.9** | **+0.2** |
| **AS31** | **Alice Springs** | **50.06** | **254** | *e*P | **P** | **09 36 50.5** | **+0.6** |
| | 2.1nm,1.0s | | | | | | |
| **ASAR** | **Alice Springs** | **50.06** | **254** | P | **P** | **09 36 50.5** | **+0.5** |
| | 8.4nm,1.0s,baz=86,slow=8.6,SNR=44 | | | | | | |
| **ILAR** | **Eielson Array** | **84.49** | **11** | P | **P** | **09 40 27.9** | **+0.8** |
| | 0.5nm,0.7s,baz=223,slow=5.2,SNR=5.7 | | | | | | |
| **ILB** | **Eielson Array** | **84.49** | **11** | *e*P | **P** | **09 40 27.9** | **+0.8** |
| **BR101** | **Keskin Array S** | **148.25** | **319** | *e*PKPbc | **PKPbc** | **09 47 41.9** | **+0.5** |
| **BRTR** | **Keskin Array B** | **148.25** | **319** | PKPbc | **PKPbc** | **09 47 41.9** | **+0.5** |
| | 0.6nm,0.8s,baz=20,slow=4.6,SNR=2.6 | | | | | | |

*ISCJB **06** 09:30:38.7±1.3, 9°.3S±0°.1×113°.98E±0°.05, h73km±14km, mb3.5/2, Error ellipse: s-maj=20.3km s-min=7.5km az=0.9*
*DJA **06** 09:30:40.3±0.9, 9°S±5°×11°4E±°, h28km±7km, M3.6/12, MLv3.6/12*
**ISC 06 09:30:39.5**±1.7**, 9°.3S**±0°.1×**113°.99E**±0°.05**, h62**km±18km**, n14, σ1.09**/19**, South of Jawa**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JAGI** | **Jajag, Banyuwa** | **0.86** | **10** | P | **Pn** | **09 30 55.6** | **-0.4** |
| JAGI | | | | S | **Sn** | **09 31 07.0** | **-1.0** |
| **GMJI** | **Gumukmas** | **1.18** | **333** | P | **Pn** | **09 30 59.8** | **-0.2** |
| GMJI | | | | S | **Sn** | **09 31 15.3** | **+0.1** |
| **DNP** | **Denpasar** | **1.36** | **62** | P | **Sn** | **09 31 19.0** | **-0.6** |
| **BLJI** | **Banyuglugur** | **1.62** | **346** | P | **Pn** | **09 31 06.3** | **+0.4** |
| BLJI | | | | S | **Sn** | **09 31 28.6** | **+2.8** |
| **SRBI** | **Singaraja** | **1.73** | **44** | P | **Pn** | **09 31 07.7** | **+0.4** |
| SRBI | | | | S | **Sn** | **09 31 28.9** | **+0.6** |
| **KMMI** | **Kalianget** | **2.26** | **359** | P | **Pn** | **09 31 15.1** | **+0.5** |
| **PWJI** | **Pagerwojo** | **2.52** | **301** | P | **Pn** | **09 31 17.7** | **-0.4** |
| PWJI | | | | S | **Sn** | **09 31 46.7** | **-1.0** |
| **GRJI** | **Gresik** | **2.83** | **328** | P | **Pn** | **09 31 23.0** | **+0.7** |
| **PCJI** | **Pacitan** | **3.00** | **292** | P | **Pn** | **09 31 25.9** | **+1.2** |
| PCJI | | | | S | **Sn** | **09 31 59.8** | **+0.3** |
| **TBJI** | **Tambak Boyo** | **3.27** | **319** | P | **Pn** | **09 31 29.2** | **+0.8** |
| **UGM** | **Wanagama** | **3.71** | **292** | P | **Pn** | **09 31 35.2** | **+0.8** |
| **PLAI** | **Plampang** | **3.77** | **83** | P | **Pn** | **09 31 36.3** | **+1.1** |
| **ASAR** | **Alice Springs** | **23.78** | **129** | P | P | 09 35 40.0 | -6.7 |
| | 0.9nm,0.5s,baz=344,slow=12,SNR=18 | | | | | | |
| **MKAR** | **Makanchi Array** | **62.62** | **336** | P | **P** | **09 40 56.2** | **-1.1** |
| | 0.4nm,0.6s,baz=132,slow=6.2,SNR=3.6 | | | | | | |

*CSEM **06** 09:32:58.6±0.4, 37°.21N×43°.97E, h2km, ML3.7, Error ellipse: s-maj=9.9km s-min=6.9km az=109.0*
*DDA **06** 09:32:58.9, 37°.28N×43°.90E, h2km, Ml3.7*
*ISK **06** 09:32:58.5, 37°.35N×43°.90E, h6km, MD3.2*
*ISN **06** 09:32:58.9±0.9, 37°.16N×43°.84E, h0km±4km, ML3.7*
*ATA **06** 09:33:04.6±1.4, 38°.62N×44°.22E, h1km±14km, ML3.2, MW3.0*
**ISC 06 09:32:59.3**±1.0**, 37°.27N**±0°.03×**43°.90E**±0°.03**, h12**km±7km**, n34, σ1.11**/52**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CUKT** | **Cukurca** | **0.24** | **264** | *e*PG | **Pg** | **09 33 03.8** | **-0.5** |
| CUKT | | | | *e*SG | **Sg** | **09 33 08.0** | **+0.2** |
| **CUKT** | **Cukurca** | **0.24** | **264** | *i* P | **Pg** | **09 33 03.9** | **-0.5** |
| CUKT | | | | *i* S | **Sg** | **09 33 07.8** | **0.0** |
| **CUKT** | **Cukurca** | **0.24** | **264** | P | **Pg** | **09 33 03.9** | **-0.5** |
| CUKT | | | | *e*Sg | **Sg** | **09 33 08.0** | **+0.2** |
| **HAKT** | **HAKKARI** | **0.33** | **332** | *i* P | **Pg** | **09 33 05.7** | **-0.3** |
| HAKT | | | | *i* S | **Sg** | **09 33 09.9** | **-0.5** |
| **HAKT** | **HAKKARI** | **0.33** | **332** | P | **Pg** | **09 33 05.7** | **-0.3** |
| HAKT | | | | S | **Sg** | **09 33 09.9** | **-0.5** |
| **YOVA** | **Hakkari_Yˆ…kse** | **0.44** | **44** | *i* P | **Pg** | **09 33 08.1** | **+0.1** |
| YOVA | | | | *i* S | **Sg** | **09 33 14.7** | **+0.7** |
| **YOVA** | **Hakkari_Yˆ…kse** | **0.44** | **44** | P | **Pg** | **09 33 08.1** | **+0.1** |
| YOVA | | | | S | **Sg** | **09 33 14.7** | **+0.7** |
| **BASK** | **Baskale_VAN** | **0.78** | **6** | *e*P | **Pn** | **09 33 17.2** | **+0.8** |
| **MSL** | **Mosul** | **1.08** | **216** | *e*Pg | **Pb** | **09 33 19.8** | **-0.1** |
| | SNR=90 | | | | | | |
| MSL | | | | *e*Sg | **Sn** | **09 33 34.8** | **-0.3** |
| | SNR=90 | | | | | | |
| **SIRT** | **Sirnak** | **1.19** | **282** | *e*PN | **Pn** | **09 33 21.6** | **-0.2** |
| SIRT | | | | *e*SN | **Sn** | **09 33 37.9** | **-0.1** |
| **SIRT** | **Sirnak** | **1.19** | **282** | *e*Pn | **Pn** | **09 33 21.6** | **-0.2** |
| SIRT | | | | *e*Sn | **Sn** | **09 33 37.9** | **-0.1** |
| **GEVA** | **Gevas** | **1.23** | **327** | *e*P | **Pg** | **09 33 23.2** | **+0.1** |
| GEVA | | | | *e*S | **Sg** | **09 33 39.5** | **+0.3** |
| GEVA | | | | IAML | | 09 33 50.3 | |
| | comp=Z,47nm,0.4s | | | | | | |
| **VANB** | **Van** | **1.38** | **343** | *e*PN | **Pn** | **09 33 22.2** | **-2.3** |
| **VANB** | **Van** | **1.38** | **343** | *e*Pn | **Pn** | **09 33 22.2** | **-2.3** |
| **SRTM** | **Siirt_Merkez** | **1.73** | **295** | *i* P | **Pb** | **09 33 31.4** | **+0.4** |
| SRTM | | | | *i* S | **Sg** | **09 33 56.2** | **+1.4** |
| **SRTM** | **Siirt_Merkez** | **1.73** | **295** | P | **Pb** | **09 33 31.4** | **+0.4** |
| SRTM | | | | S | **Sg** | **09 33 56.2** | **+1.4** |
| **ADCV** | **BITLIS_Adilcev** | **1.79** | **329** | *i* P | **Pb** | **09 33 32.8** | **+0.6** |
| ADCV | | | | *i* S | **Sg** | **09 33 58.1** | **+1.1** |
| **ADCV** | **BITLIS_Adilcev** | **1.79** | **329** | P | **Pb** | **09 33 32.8** | **+0.6** |
| ADCV | | | | S | **Sg** | **09 33 58.1** | **+1.1** |
| **BTMN** | **Batman** | **2.18** | **287** | *i* P | **Pb** | **09 33 37.8** | **-0.9** |
| BTMN | | | | *i* S | **Sg** | **09 34 08.1** | **-1.3** |
| **BTMN** | **Batman** | **2.18** | **287** | P | **Pb** | **09 33 37.8** | **-0.9** |
| **TUTA** | **Tutak** | **2.29** | **338** | *i* P | **Pb** | **09 33 40.1** | **-0.6** |
| **TUTA** | **Tutak** | **2.29** | **338** | P | **Pb** | **09 33 40.1** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **2.41** | **343** | *e*PN | **Pn** | **09 33 38.6** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **2.41** | **343** | *e*Pn | **Pn** | **09 33 38.6** | **-0.1** |
| **EKAR** | **Karacoban** | **2.45** | **324** | *i* P | **Pg** | **09 33 45.0** | **-1.3** |
| **MARD** | **Mardin** | **2.49** | **272** | *i* P | **Pb** | **09 33 44.5** | **+0.5** |
| MARD | | | | *i* S | **Sb** | **09 34 16.8** | **+2.1** |
| **MAZI** | **Mazidag** | **2.76** | **275** | *e*PN | **Pn** | **09 33 44.4** | **+1.0** |
| **MAZI** | **Mazidag** | **2.76** | **275** | *e*Pn | **Pn** | **09 33 44.4** | **+1.0** |
| **DIY** | **Diyarbakir** | **2.99** | **283** | *e*Pn | **Pn** | **09 33 49.1** | **+2.6** |
| **DYBB** | **Diyarbakir** | **3.06** | **284** | *e*PN | **Pn** | **09 33 49.1** | **+1.5** |
| **DIYA** | **Diyarbakir** | **3.07** | **283** | *i* P | **Pg** | **09 33 56.9** | **-1.2** |
| **SVRC** | **Sivrice-ELAZID** | **3.80** | **288** | *e*PN | **Pn** | **09 33 58.8** | **+0.9** |
| **SVRC** | **Sivrice-ELAZID** | **3.80** | **288** | *e*Pn | **Pn** | **09 33 58.8** | **+0.9** |
| **RTB** | **Rutbah** | **5.16** | **216** | *e*Pn | **Pn** | **09 34 17.0** | **+0.7** |
| | SNR=39 | | | | | | |
| RTB | | | | *e*Sn | **Sn** | **09 35 12.2** | **-3.6** |
| | SNR=39 | | | | | | |

**IDC 06 09:41:30.8**±2.2**, 6°.69S**×**130°.16E, h0**km**, mb3.6**/1**, mb1 3.7**/4**, mb1mx3.4**/40**, mbtmp3.5**/4**, ML3.7**/3**, Error ellipse: s-maj=87.1km s-min=27.8km az=77.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **12.17** | **201** | Pn | Pn | 09 44 24.8 | -0.7 |
| | 0.3nm,0.3s,baz=22,slow=11,SNR=11 | | | | | | |
| FITZ | | | | Sn | Sn | 09 46 25.1 | -17 |
| | 0.6nm,0.3s,baz=265,slow=13,SNR=6.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **13.78** | **163** | Pn | Pn | 09 44 48.2 | +0.7 |
| | 0.4nm,0.3s,baz=348,slow=12,SNR=18 | | | | | | |
| WRA | | | | Sn | Sn | 09 47 11.6 | -10 |
| | 0.6nm,0.3s,baz=328,slow=24,SNR=8.0 | | | | | | |
| **ASAR** | **Alice Springs** | **17.25** | **168** | P | Pn | 09 45 33.4 | 0.0 |
| | 0.2nm,0.3s,baz=342,slow=9.2,SNR=13 | | | | | | |
| ASAR | | | | S | Sn | 09 48 35.4 | -11 |
| | 0.1nm,0.3s,baz=359,slow=26,SNR=5.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **68.06** | **327** | P | P | 09 52 32.3 | 0.0 |
| | 0.3nm,0.4s,baz=134,slow=8.0,SNR=4.4 | | | | | | |

*ISCJB **06** 09:46:56.0±0.6, 38°.86N±0°.02×26°.34E±0°.06, h6km±8km, Error ellipse: s-maj=8.0km s-min=3.8km az=169.1*
*CSEM **06** 09:46:56.2±0.1, 38°.88N×26°.36E, h5km, ML1.9, Error ellipse: s-maj=2.7km s-min=2.1km az=89.0*
*ATH **06** 09:46:56.2, 38°.88N×26°.32E, h17km±4km, ML1.9/3, Error ellipse: s-maj=4.5km s-min=1.0km az=291.0*
*DDA **06** 09:46:56.1, 38°.89N×26°.36E, h7km, Ml3.0*
**ISC 06 09:46:56.1**±1.1**, 38°.88N**±0°.02×**26°.38E**±0°.04**, h5**km±11km**, n23, σ0.31**/36**, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PRK** | **Paraskevi** | **0.38** | **347** | P | **Pg** | **09 47 03.5** | **0.0** |
| PRK | | | | S | **Sg** | **09 47 08.9** | **+0.4** |
| PRK | | | | AML | AML | 09 47 09.9 | |
| | comp=N,715μm,0.6s | | | | | | |
| PRK | | | | AML | AML | 09 47 12.6 | |
| | comp=E,390μm,0.3s | | | | | | |
| **PRK** | **Paraskevi** | **0.38** | **347** | P | **Pg** | **09 47 03.5** | **0.0** |
| PRK | | | | S | **Sg** | **09 47 08.9** | **+0.4** |
| **SIGR** | **SIGRI** | **0.53** | **310** | P | **Pg** | **09 47 06.5** | **+0.2** |
| SIGR | | | | S | **Sg** | **09 47 13.1** | **-0.1** |
| SIGR | | | | AML | AML | 09 47 16.7 | |
| | comp=E,152μm,0.4s | | | | | | |
| SIGR | | | | AML | AML | 09 47 18.3 | |
| | comp=N,238μm,0.2s | | | | | | |
| **SIGR** | **SIGRI** | **0.53** | **310** | P | **Pg** | **09 47 06.5** | **+0.2** |
| SIGR | | | | S | **Sg** | **09 47 13.1** | **-0.1** |
| **URLA** | **Izmir** | **0.54** | **162** | *i* P | **Pg** | **09 47 06.9** | **+0.3** |
| **URLA** | **Izmir** | **0.54** | **162** | P | **Pg** | **09 47 06.9** | **+0.3** |
| **CHOS** | **Chios island** | **0.55** | **208** | P | **Pg** | **09 47 06.4** | **-0.3** |
| CHOS | | | | S | **Sg** | **09 47 13.9** | **+0.1** |
| CHOS | | | | AML | AML | 09 47 18.1 | |
| | comp=E,664μm,0.2s | | | | | | |
| CHOS | | | | AML | AML | 09 47 19.0 | |
| | comp=N,424μm,0.2s | | | | | | |
| **CHOS** | **Chios island** | **0.55** | **208** | P | **Pg** | **09 47 06.4** | **-0.3** |
| CHOS | | | | S | **Sg** | **09 47 13.9** | **+0.1** |
| **ZEY** | **˜zmir** | **0.64** | **171** | *i* P | **Pg** | **09 47 08.4** | **-0.1** |
| **BAYC** | **CANAKKALE_Bayr** | **0.88** | **9** | *i* P | **Pg** | **09 47 12.9** | **0.0** |
| BAYC | | | | *i* S | **Sb** | **09 47 25.5** | **-0.3** |
| **BAYC** | **CANAKKALE_Bayr** | **0.88** | **9** | P | **Pg** | **09 47 12.9** | **0.0** |
| **DGB** | **˜zmir** | **0.91** | **154** | *i* P | **Pb** | **09 47 14.4** | **0.0** |
| DGB | | | | *i* S | **Sg** | **09 47 24.8** | **-0.6** |
| **BOZC** | **Bozcaada** | **1.00** | **345** | *i* P | **Pg** | **09 47 15.3** | **+0.1** |
| BOZC | | | | *i* S | **Sb** | **09 47 28.4** | **-0.9** |
| **AKHS** | **Akhisar** | **1.12** | **89** | *i* P | **Pn** | **09 47 18.4** | **0.0** |
| **AKHS** | **Akhisar** | **1.12** | **89** | P | **Pn** | **09 47 18.4** | **0.0** |
| **STEP** | **BALIKESIR_Sava** | **1.16** | **64** | *i* P | **Pg** | **09 47 18.1** | **-0.2** |
| STEP | | | | *i* S | **Sb** | **09 47 34.0** | **+0.1** |
| **STEP** | **BALIKESIR_Sava** | **1.16** | **64** | P | **Pg** | **09 47 18.1** | **-0.2** |
| STEP | | | | S | **Sb** | **09 47 34.0** | **+0.1** |
| **SMG** | **Samos** | **1.22** | **163** | P | **Pn** | **09 47 20.0** | **+0.2** |
| **SMG** | **Samos** | **1.22** | **163** | P | **Pn** | **09 47 20.0** | **+0.2** |
| **BALY** | **Balya** | **1.29** | **48** | *i* P | **Pn** | **09 47 20.4** | **-0.4** |
| BALY | | | | *i* S | **Sn** | **09 47 39.0** | **+0.4** |
| **BALY** | **Balya** | **1.29** | **48** | P | **Pn** | **09 47 20.4** | **-0.4** |
| BALY | | | | S | **Sn** | **09 47 39.0** | **+0.4** |
| **SMTH** | **Samothraki Isl** | **1.72** | **338** | P | **Pn** | **09 47 26.7** | **0.0** |
| **SMTH** | **Samothraki Isl** | **1.72** | **338** | P | **Pn** | **09 47 26.7** | **0.0** |

**IDC 06 09:52:51.6**±13.0**, 15°.78S**×**165°.64E, h0**km**, mb3.9**/3**, mb1 4.0**/4**, mb1mx3.6**/30**, mbtmp3.8**/4**, ML3.5**/1**, Error ellipse: s-maj=228.4km s-min=35.2km az=55.0, Vanuatu Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **6.31** | **173** | Pn | Pn | 09 54 26.4 | +0.3 |
| | 1.0nm,0.3s,baz=82,slow=7.3,SNR=30 | | | | | | |
| DZM | | | | Sn | Sn | 09 55 38.8 | -0.1 |
| | 0.3nm,0.3s,baz=139,slow=19,SNR=2.2 | | | | | | |
| **STKA** | **Stephens Creek** | **27.12** | **229** | P | P | 09 58 36.2 | -0.3 |
| | 1.7nm,0.9s,baz=73,slow=14,SNR=3.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **30.05** | **257** | P | P | 09 59 02.5 | -0.3 |
| | 0.4nm,0.6s,baz=86,slow=8.6,SNR=8.7 | | | | | | |
| **ASAR** | **Alice Springs** | **30.84** | **250** | P | P | 09 59 10.1 | +0.4 |
| | 1.1nm,0.4s,baz=76,slow=9.2,SNR=28 | | | | | | |

*ISK **06** 10:07:18.7, 38°.87N×43°.49E, h6km, MD2.7*
*ISCJB **06** 10:07:19.8±0.5, 38°.86N±0°.02×43°.55E±0°.05, h11km±4km, Error ellipse: s-maj=7.0km s-min=3.6km az=16.3*
*CSEM **06** 10:07:19.3±0.2, 38°.85N×43°.55E, h8km, ML3.0, Error ellipse: s-maj=4.8km s-min=3.1km az=115.0*
*DDA **06** 10:07:19.5, 38°.85N×43°.55E, h8km, Ml3.0*
**ISC 06 10:07:19.7**±0.9**, 38°.85N**±0°.02×**43°.56E**±0°.03**, h10**km±6km**, n34, σ0.89**/59**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.14 | 5 | iP | Pg | 10 07 22.5 | -0.6 |
| VMUR | | | | iS | Sg | 10 07 26.4 | +0.9 |
| VMUR | Van-Muradiye | 0.14 | 5 | P | Pg | 10 07 22.5 | -0.6 |
| VMUR | | | | S | Sg | 10 07 26.4 | +0.9 |
| VANB | Van | 0.29 | 207 | ePG | Pg | 10 07 25.7 | +0.1 |
| VANB | | | | eSG | Sb | 10 07 32.8 | +0.9 |
| VANB | Van | 0.29 | 207 | ePg | Pg | 10 07 25.7 | +0.1 |
| VANB | | | | eSg | Sb | 10 07 32.8 | +0.9 |
| TVAN | Van | 0.34 | 200 | iP | Pg | 10 07 26.0 | -0.7 |
| TVAN | | | | iS | Sb | 10 07 32.8 | -0.8 |
| TVAN | Van | 0.34 | 200 | P | Pg | 10 07 26.0 | -0.7 |
| TVAN | | | | S | Sb | 10 07 32.8 | -0.8 |
| CLDR | Caldiran | 0.41 | 44 | ePG | Pg | 10 07 27.7 | -0.2 |
| CLDR | | | | eSG | Sg | 10 07 33.8 | +0.5 |
| CLDR | Caldiran | 0.41 | 44 | iP | Pg | 10 07 26.9 | -0.9 |
| CLDR | | | | iS | Sb | 10 07 34.7 | -0.8 |
| CLDR | Caldiran | 0.41 | 44 | P | Pg | 10 07 26.9 | -0.9 |
| CLDR | Caldiran | 0.41 | 44 | ePg | Pg | 10 07 27.7 | -0.2 |
| CLDR | | | | eSg | Sg | 10 07 33.8 | +0.5 |
| CLDR | | | | S | Sb | 10 07 34.7 | -0.8 |
| ADCV | BITLIS_Adilcev | 0.65 | 267 | iP | Pg | 10 07 31.6 | -0.8 |
| ADCV | | | | iS | Sb | 10 07 42.3 | -0.1 |
| ADCV | BITLIS_Adilcev | 0.65 | 267 | P | Pg | 10 07 31.6 | -0.8 |
| ADCV | | | | S | Sb | 10 07 42.3 | -0.1 |
| GEVA | Gevas | 0.66 | 216 | iP | Pg | 10 07 30.9 | -1.6 |
| GEVA | | | | iS | Sb | 10 07 42.3 | -0.5 |
| GEVA | Gevas | 0.66 | 216 | P | Pg | 10 07 31.0 | -1.6 |
| GEVA | | | | S | Sb | 10 07 42.3 | -0.5 |
| DYDN | Diyadin | 0.70 | 8 | iP | Pg | 10 07 33.0 | -0.4 |
| DYDN | | | | iS | Sb | 10 07 43.7 | -0.3 |
| DYDN | Diyadin | 0.70 | 8 | P | Pg | 10 07 33.0 | -0.4 |
| DYDN | | | | S | Sb | 10 07 43.7 | -0.3 |
| TUTA | Tutak | 0.80 | 314 | iP | Pg | 10 07 34.5 | -0.7 |
| TUTA | | | | iS | Sg | 10 07 45.5 | -0.2 |
| TUTA | Tutak | 0.80 | 314 | P | Pg | 10 07 34.5 | -0.7 |
| TUTA | | | | S | Sg | 10 07 45.5 | -0.2 |
| AGRB | Hanur-Agry | 0.85 | 329 | ePG | Pg | 10 07 34.3 | -1.8 |
| AGRB | | | | eSG | Sg | 10 07 46.2 | -1.0 |
| AGRB | Hanur-Agry | 0.85 | 329 | ePg | Pg | 10 07 34.3 | -1.8 |
| AGRB | | | | eSg | Sg | 10 07 46.2 | -1.0 |
| EKAR | Karacoban | 1.23 | 290 | iP | Pg | 10 07 44.0 | +0.6 |
| EKAR | | | | iS | Sn | 10 08 03.3 | +3.3 |
| EKAR | Karacoban | 1.23 | 290 | P | Pg | 10 07 44.0 | +0.6 |
| TASB | TASBURUN-IGDIR | 1.25 | 25 | ePN | Pn | 10 07 43.4 | +0.1 |
| TASB | TASBURUN-IGDIR | 1.25 | 25 | ePn | Pn | 10 07 43.4 | +0.1 |
| EATA | Eleskirt | 1.30 | 321 | iP | Pn | 10 07 44.0 | -0.3 |
| EATA | | | | iS | Sn | 10 08 03.2 | +1.3 |
| EATA | Eleskirt | 1.30 | 321 | P | Pn | 10 07 44.0 | -0.3 |
| EATA | | | | S | Sn | 10 08 03.2 | +1.3 |
| CUKT | Cukurca | 1.60 | 179 | ePN | Pn | 10 07 48.3 | +0.1 |
| CUKT | Cukurca | 1.60 | 179 | ePn | Pn | 10 07 48.3 | +0.1 |
| SIRT | Sirnak | 1.61 | 214 | ePN | Pn | 10 07 48.3 | +0.1 |
| SIRT | Sirnak | 1.61 | 214 | ePn | Pn | 10 07 48.3 | +0.1 |
| SENK | Senkaya-Erzuru | 1.95 | 332 | ePN | Pn | 10 07 53.2 | +0.3 |
| SENK | Senkaya-Erzuru | 1.95 | 332 | ePn | Pn | 10 07 53.3 | +0.3 |
| BTMN | Batman | 2.04 | 243 | iP | Pn | 10 07 54.7 | +0.6 |
| BTMN | | | | iS | Sn | 10 08 19.0 | -0.6 |
| BTMN | Batman | 2.04 | 243 | P | Pn | 10 07 54.7 | +0.6 |
| BTMN | | | | S | Sn | 10 08 19.0 | -0.6 |

*GCMT **06** 10:08:00.0±0.2, 7°.99S×13°.50W, h18km, MW5.0/100, Moment Tensor Solution. s46,c54; s100,c142; Duration: 0 Moment tensor: Scale $10^{16}$Nm; $M_{rr}$-4.30±.19; $M_{\theta\theta}$0.36±.11; $M_{\phi\phi}$3.94±.13; $M_{r\theta}$-0.79±.26; $M_{\theta\phi}$-0.48±.08; $M_{\phi r}$-0.74±.24; Best double couple: $M_0$4.28100×$10^{16}$ NP1:$\phi_s$3.00000°, δ50.00000°, λ-77.00000°. NP2: $\phi_s$163.00000°, δ42.00000°, λ-106.00000°. Principal axes: T 4.0530, Plg4.0000°, Azm84.0000°; N 0.4540, Plg10.0000°, Azm174.0000°; P -4.5100, Plg79.0000°, Azm330.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

**IDC 06 10:07:59.4**±1.6, **8°.02S×13°.60W, h0km, mb3.9**/3, **mb1 4.0**/3, **mb1mx3.6**/26, **mbtmp3.9**/3, **MS4.1**/23, **Ms1 4.1**/23, **ms1mx4.0**/32 **Error ellipse: s-maj=42.3km s-min=18.3km az=148.0, Ascension Island region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| H10N1 | ASCENSION HYDR | 0.89 | 281 | Pn | Pn | 10 08 18.6 | -0.4 |
| | baz=107,slow=15,SNR=733 | | | | | | |
| H10N2 | ASCENSION HYDR | 0.90 | 282 | Pn | Pn | 10 08 18.8 | -0.3 |
| | baz=107,slow=15,SNR=2695 | | | | | | |
| H10N3 | ASCENSION HYDR | 0.91 | 281 | Pn | Pn | 10 08 19.4 | +0.1 |
| | baz=107,slow=15,SNR=967 | | | | | | |
| H10S1 | ASCENSION HYDR | 1.39 | 228 | Pn | Pn | 10 08 25.2 | -0.6 |
| | baz=42,slow=15,SNR=6566 | | | | | | |
| H10S2 | ASCENSION HYDR | 1.40 | 228 | Pn | Pn | 10 08 25.2 | -0.7 |
| | baz=42,slow=15,SNR=8993 | | | | | | |
| H10S3 | ASCENSION HYDR | 1.41 | 228 | Pn | Pn | 10 08 25.2 | -0.9 |
| | baz=42,slow=15,SNR=6653 | | | | | | |
| DBIC | Dimbokro | 17.00 | 31 | LR | LR | 10 17 04.8 | |
| | comp=Z,615nm,20.1s,baz=192,slow=32 | | | | | | |
| TORD | Torodi Ar. Bea | 25.94 | 36 | P | P | 10 13 33.6 | -0.1 |
| | 3.7nm,0.9s,baz=211,slow=10,SNR=17 | | | | | | |
| TORD | | | | LR | LR | 10 22 14.3 | |
| | comp=Z,722nm,20.5s,baz=220,slow=33 | | | | | | |
| BDFB | Brasilia | 34.49 | 254 | LR | LR | 10 26 11.1 | |
| | comp=Z,810nm,21.9s,baz=240,slow=32 | | | | | | |
| SUR | Sutherland | 40.08 | 132 | LR | LR | 10 28 52.3 | |
| | comp=Z,30nm,18.9s,baz=302,slow=31 | | | | | | |
| LBTB | Lobatse | 41.01 | 119 | LR | LR | 10 30 22.9 | |
| | comp=Z,591nm,20.1s,baz=282,slow=33 | | | | | | |
| LSZ | Lusaka | 41.50 | 104 | LR | LR | 10 30 16.6 | |
| | comp=Z,519nm,21.0s,baz=302,slow=32 | | | | | | |
| BOSA | Boshof | 41.92 | 124 | LR | LR | 10 30 19.3 | |
| | comp=Z,412nm,20.8s,baz=282,slow=32 | | | | | | |
| CPUP | Villa Florida | 45.30 | 241 | LR | LR | 10 33 35.1 | |
| | comp=Z,429nm,18.9s,baz=78,slow=34 | | | | | | |
| ESDC | Sonseca Array | 48.28 | 10 | LR | LR | 10 37 43.3 | |
| | comp=Z,119nm,18.2s,baz=190,slow=37 | | | | | | |
| KEST | Kesra | 48.59 | 25 | LR | LR | 10 37 13.8 | |
| | comp=Z,399nm,20.2s,baz=167,slow=36 | | | | | | |
| KMBO | Kilima Mbogo | 51.11 | 85 | LR | LR | 10 37 27.5 | |
| | comp=Z,438nm,18.1s,baz=267,slow=35 | | | | | | |
| LPAZ | La Paz | 53.81 | 256 | P | P | 10 17 26.8 | +1.6 |
| | 1.0nm,0.8s,baz=132,slow=5.8,SNR=3.7 | | | | | | |
| LPAZ | | | | LR | LR | 10 40 15.1 | |
| | comp=Z,223nm,18.6s,baz=82,slow=36 | | | | | | |
| OPO | Ambohidratompo | 59.84 | 107 | LR | LR | 10 41 18.7 | |
| | comp=Z,303nm,20.3s,baz=245,slow=33 | | | | | | |
| EIL | Elat | 59.84 | 49 | LR | LR | 10 42 39.7 | |
| | comp=Z,170nm,21.3s,baz=242,slow=35 | | | | | | |
| GERES | GERESS Array B | 61.49 | 20 | LR | LR | 10 45 34.5 | |
| | comp=Z,205nm,18.6s,baz=230,slow=37 | | | | | | |
| SNAA | Sanae | 63.94 | 176 | LR | LR | 10 39 31.5 | |
| | comp=Z,65nm,22.0s,baz=336,slow=30 | | | | | | |
| BRTR | Keskin Array B | 64.51 | 39 | LR | LR | 10 49 49.2 | |
| | comp=Z,40nm,18.4s,baz=224,slow=39 | | | | | | |
| AKASG | Malin Array Be | 69.21 | 28 | P | P | 10 19 07.6 | -0.3 |
| | 0.2nm,0.3s,baz=222,slow=6.1,SNR=4.2 | | | | | | |
| AKASG | | | | LR | LR | 10 50 53.6 | |
| | comp=Z,61nm,20.6s,baz=10.0,slow=37 | | | | | | |
| NOA | NORSAR Array B | 71.55 | 12 | LR | LR | 10 52 01.7 | |
| | comp=Z,80nm,18.5s,baz=205,slow=37 | | | | | | |
| KBZ | Khabaz | 72.49 | 39 | LR | LR | 10 54 26.9 | |
| | comp=Z,40nm,18.1s,baz=238,slow=38 | | | | | | |
| FINES | FINESS Array B | 75.83 | 18 | LR | LR | 10 53 21.9 | |
| | comp=Z,85nm,19.0s,baz=244,slow=36 | | | | | | |
| GEYT | Alibeck | 80.74 | 50 | LR | LR | 10 55 36.2 | |
| | comp=Z,92nm,21.9s,baz=240,slow=35 | | | | | | |
| ARCES | ARCESS Array B | 81.92 | 13 | LR | LR | 10 58 26.2 | |
| | comp=Z,117nm,18.2s,baz=230,slow=37 | | | | | | |

**IDC 06 10:13:41.0**±5.2, **6°.63S×127°.81E, h291**km±57km, **mb3.3**/5, **mb1 3.5**/7, **mb1mx3.3**/27, **mbtmp4.1**/7, **Error ellipse: s-maj=151.9km s-min=12.9km az=69.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 14.68 | 155 | P | P | 10 16 54.6 | -0.6 |
| | 2.5nm,0.3s,baz=328,slow=12,SNR=123 | | | | | | |
| ASAR | Alice Springs | 17.93 | 162 | P | P | 10 17 31.0 | +0.4 |
| | 2.1nm,0.3s,baz=345,slow=12,SNR=257 | | | | | | |
| ASAR | | | | S | S | 10 20 42.5 | +1.4 |
| | 0.1nm,0.3s,baz=347,slow=20,SNR=6.3 | | | | | | |
| STKA | Stephens Creek | 28.23 | 155 | P | P | 10 19 06.9 | -0.8 |
| | 1.0nm,0.4s,baz=329,slow=12,SNR=5.2 | | | | | | |
| SONM | Songino Array | 57.43 | 343 | P | P | 10 23 01.1 | +1.2 |
| | 0.6nm,0.6s,baz=160,slow=7.7,SNR=4.6 | | | | | | |
| MKAR | Makanchi Array | 66.74 | 328 | P | P | 10 24 01.8 | +0.4 |
| | 0.8nm,0.5s,baz=116,slow=8.4,SNR=11 | | | | | | |
| ZALV | Zalesovo Beam | 70.30 | 335 | P | P | 10 24 22.4 | -0.7 |
| | 0.4nm,0.3s,baz=116,slow=6.7,SNR=2.8 | | | | | | |
| KURBB | Kurchatov Arra | 71.07 | 329 | P | P | 10 24 27.4 | -0.4 |
| | 0.6nm,0.5s,baz=128,slow=4.9,SNR=7.2 | | | | | | |

*IDC **06** 10:15:03.1±0.6, 20°.19S×174°.22W, h0km, mb4.3/17, mb1 4.5/19, mb1mx4.4/31, mbtmp4.3/19, ML4.1/2, MS4.4/14, Ms1 4.4/14, ms1mx4.2/25, Error ellipse: s-maj=22.2km s-min=15.8km az=124.0*

*MOS **06** 10:15:07.0±1.1, 20°.37S×174°.37W, h33km, mb5.4/34, Error ellipse: s-maj=15.0km s-min=9.3km az=48.0*

*ISCJB **06** 10:15:07.5±0.2, 20°.42S±0°.06×174°.33W±0°.05, h35km, mb5.1/164, MS4.5/18, Error ellipse: s-maj=9.5km s-min=4.9km az=153.4*

*NEIC **06** 10:15:09.0±0.2, 20°.30S×174°.39W, h35km, mb5.3/133, Error ellipse: s-maj=12.6km s-min=5.6km az=150.0*

*GCMT **06** 10:15:09.0±0.3, 20°.78S×173°.35W, h22km, MW5.0/71, Moment Tensor Solution. s27,c35; s71,c93; Duration: 0 Moment tensor: Scale $10^{16}$Nm; $M_{rr}$2.88±.18; $M_{\theta\theta}$-0.36±.12; $M_{\phi\phi}$-2.53±.11; $M_{r\theta}$1.68±.25; $M_{\theta\phi}$-0.22±.08; $M_{\phi r}$1.20±.16; Best double couple: $M_0$3.34600×$10^{16}$ NP1:$\phi_s$29.00000°, δ63.00000°, λ110.00000°. NP2: $\phi_s$172.00000°, δ33.00000°, λ57.00000°. Principal axes: T 3.7620, Plg66.0000°, Azm336.0000°; N -0.8380, Plg17.0000°, Azm200.0000°; P -2.9300, Plg15.0000°, Azm105.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*BJI **06** 10:15:12.3, 20°.42S×173°.34W, h91km, mb4.9/32, mB5.4/28*

**ISC 06 10:15:08.9**±0.4, **20°.40S**±0°.08×**174°.32W**±0°.08, **h35**km, **n340**, σ1§**73**/344, **mb5.2**/163, **MS4.6**/18, **20C-15D, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AFI | Afiamalu | 6.89 | 21 | Pn | Pn | 10 16 39.2 | -8.3 |
| | 5.6nm,0.3s,baz=31,slow=5.4,SNR=12 | | | | | | |
| AFI | | | | Sn | Sn | 10 17 48.4 | -16 |
| | 8.2nm,0.3s,baz=70,slow=23,SNR=4.2 | | | | | | |
| AFI | | | | LR | LR | 10 18 31.6 | |
| | comp=Z,892nm,18.3s,baz=197,slow=31 | | | | | | |
| AFI | Afiamalu | 6.89 | 21 | eP | Pn | 10 16 39.6 | -8.0 |
| AFI | Afiamalu | 6.89 | 21 | ePn | Pn | 10 16 39.6 | -8.0 |
| AFI | | | | eSn | Sn | 10 17 48.4 | -16 |
| MSVF | Nonsavu | 7.69 | 289 | eP | Pn | 10 17 09.1 | +11 |
| MSVF | Nonsavu | 7.69 | 289 | ePn | Pn | 10 17 09.1 | +11 |
| RAO | Raoul Island | 9.40 | 200 | LR | LR | 10 20 23.9 | |
| | comp=Z,659nm,21.2s,baz=48,slow=33 | | | | | | |
| RAR | Rarotonga | 13.62 | 96 | Pn | Pn | 10 18 03.5 | -16 |
| | 6.4nm,0.3s,baz=298,slow=2.8,SNR=12 | | | | | | |
| RAR | | | | LR | LR | 10 22 46.7 | |
| | comp=Z,2μm,18.1s,baz=252,slow=34 | | | | | | |
| DZM | Mont Dzumac | 18.02 | 261 | P | P | 10 19 18.0 | +1.0 |
| | 0.2nm,0.3s,baz=80,slow=18,SNR=3.7 | | | | | | |
| DZM | | | | LR | LR | 10 24 35.0 | |
| | comp=Z,1μm,20.1s,baz=92,slow=32 | | | | | | |
| DZM | Mont Dzumac | 18.02 | 261 | eP | P | 10 19 22.0 | +5.0 |
| | 172nm,1.6s | | | | | | |
| DZM | | | | eLQ | LQ | 10 23 02.8 | |
| | 2μm,23.6s | | | | | | |
| DZM | | | | eLR | LR | 10 23 51.3 | |
| | 935nm,20.4s | | | | | | |
| DZM | Mont Dzumac | 18.02 | 261 | ePn | Pn | 10 19 13.4 | -3.3 |
| | 58nm,1.0s | | | | | | |
| URZ | Urewera | 19.29 | 201 | P | P | 10 19 30.5 | -0.2 |
| | 1.6nm,0.3s,baz=318,slow=5.8,SNR=10.0 | | | | | | |
| URZ | Urewera | 19.29 | 201 | eP | P | 10 19 30.5 | -0.2 |
| | 90nm,1.5s | | | | | | |
| TBI | Tubuai | 23.24 | 102 | eP | P | 10 20 02.8 | -10 |
| | 357nm,1.2s | | | | | | |
| TBI | | | | eS | S | 10 24 02.6 | -20 |
| | 519nm,26.8s | | | | | | |
| TBI | | | | eLR | LR | 10 25 37.7 | |
| | 994nm,22.0s,baz=276 | | | | | | |
| PAE | Paea | 23.54 | 88 | eT | T | 10 44 27.7 | |
| | 0.7nm,0.3s | | | | | | |
| PPT2 | Papeete2 | 23.55 | 87 | eP | P | 10 20 06.4 | -10 |
| | 80nm,1.3s | | | | | | |
| PPT2 | | | | eS | S | 10 24 08.9 | -19 |
| | 1μm,25.5s | | | | | | |
| PPT2 | | | | eLR | LR | 10 25 40.6 | |
| | 1μm,21.8s,baz=253 | | | | | | |
| PPT | Papeete | 23.56 | 87 | LR | LR | 10 27 32.4 | |
| | comp=Z,1μm,18.6s,baz=258,slow=32 | | | | | | |
| VAH | Vaihoa | 25.90 | 83 | eP | P | 10 20 28.3 | -10 |
| | 57nm,1.0s | | | | | | |
| RPZ | Rata Peaks | 26.27 | 204 | P | P | 10 20 43.4 | +2.5 |
| | 7.5nm,0.7s,baz=38,slow=2.2,SNR=2.9 | | | | | | |
| TAOE | Nuku Hiva Isla | 34.91 | 76 | eLR | LR | 10 31 01.0 | |
| | 617nm,21.0s,baz=247 | | | | | | |
| CAN | Canberra | 35.46 | 237 | eP | P | 10 22 00.2 | -1.9 |
| CAN | | | | pmax | pmax | | |
| | comp=Z,23nm,1.1s | | | | | | |
| CAN | Canberra | 35.46 | 237 | eP | P | 10 22 00.2 | -1.9 |
| | comp=Z,23nm,1.1s | | | | | | |
| RKT | Rikitea | 36.57 | 102 | eLR | LR | 10 31 48.0 | |
| | comp=Z,665nm,22.2s,baz=272 | | | | | | |
| PMG | Port Moresby | 38.70 | 281 | P | P | 10 22 28.6 | -1.2 |
| | comp=Z,11nm,0.9s,baz=57,slow=5.5,SNR=5.1 | | | | | | |
| PMG | Port Moresby | 38.70 | 281 | c iP | P | 10 22 30.2 | +0.4 |
| PMG | | | | pmax | pmax | | |
| | comp=Z,115nm,1.2s | | | | | | |
| PMG | Port Moresby | 38.70 | 281 | eP | P | 10 22 30.5 | +0.7 |
| | comp=Z,32nm,1.1s | | | | | | |
| STKA | Stephens Creek | 40.95 | 245 | P | P | 10 22 48.5 | +0.2 |
| | comp=Z,3.8nm,0.7s,baz=83,slow=11,SNR=7.2 | | | | | | |
| STKA | | | | LR | LR | 10 37 55.0 | |
| | comp=Z,188nm,18.8s,baz=61,slow=33 | | | | | | |
| STKA | Stephens Creek | 40.95 | 245 | eP | P | 10 22 48.0 | -0.3 |
| STKA | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.8s | | | | | | |
| STKA | Stephens Creek | 40.95 | 245 | eP | P | 10 22 48.0 | -0.3 |
| | comp=Z,7.6nm,1.8s | | | | | | |
| COEN | Coen | 41.03 | 272 | eP | P | 10 22 50.5 | +1.3 |
| | comp=Z,13nm,1.0s | | | | | | |
| AS01 | Alice Springs | 47.86 | 256 | eP | P | 10 23 42.2 | -1.5 |
| AS31 | Alice Springs | 47.90 | 256 | eP | P | 10 23 43.8 | -0.3 |
| | comp=Z,2.6nm,1.0s | | | | | | |
| ASAR | Alice Springs | 47.90 | 256 | P | P | 10 23 43.4 | -0.7 |
| | comp=Z,4.5nm,0.8s,baz=86,slow=8.4,SNR=28 | | | | | | |
| ASAR | | | | PcP | PcP | 10 25 12.1 | -0.2 |
| | comp=Z,1.7nm,0.8s,baz=92,slow=6.5,SNR=2.6 | | | | | | |
| ASAR | | | | LR | LR | 10 44 32.0 | |
| | comp=Z,377nm,19.0s,baz=101,slow=37 | | | | | | |
| WB2 | Warramunga Arr | 48.02 | 261 | eP | P | 10 23 43.9 | -1.1 |
| | comp=Z,18nm,1.3s | | | | | | |
| WRAB | Tennant Creek | 48.03 | 261 | c iP | P | 10 23 43.7 | -1.3 |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,22nm,1.8s | | | | | | |
| WRAB | Tennant Creek | 48.03 | 261 | eP | P | 10 23 44.3 | -0.7 |
| | comp=Z,17nm,1.3s | | | | | | |
| WR1 | Warramunga Arr | 48.03 | 261 | eP | P | 10 23 44.0 | -1.2 |
| | comp=Z,11nm,0.9s | | | | | | |
| WR1 | | | | ePcP | PcP | 10 25 12.5 | -0.3 |
| WRA | Warramunga Arr | 48.03 | 261 | P | P | 10 23 44.0 | -1.1 |
| | comp=Z,2.7nm,0.7s,baz=96,slow=7.0,SNR=16 | | | | | | |
| WRA | | | | PcP | PcP | 10 25 12.5 | -0.3 |
| | comp=Z,3.3nm,1.0s,baz=88,slow=3.7,SNR=3.5 | | | | | | |
| WRA | Warramunga Arr | 48.03 | 261 | P | P | 10 23 44.0 | -1.1 |
| MTN | Manton Dam | 52.62 | 269 | eP | P | 10 24 19.5 | -0.3 |
| | comp=Z,10nm,0.7s | | | | | | |
| FITZ | Fitzroy Crossi | 56.46 | 261 | P | P | 10 24 48.3 | +0.6 |
| | comp=Z,5.6nm,1.1s,baz=76,slow=3.8,SNR=5.6 | | | | | | |
| SBA | Scott Base | 58.23 | 185 | eP | P | 10 25 02.8 | +3.5 |
| SBA | | | | pmax | pmax | | |
| | comp=Z,17nm,1.1s | | | | | | |
| SBA | Scott Base | 58.23 | 185 | eP | P | 10 25 02.8 | +3.5 |
| | comp=Z,17nm,1.1s | | | | | | |
| VNDA | Vanda | 58.34 | 186 | P | P | 10 25 02.6 | +2.6 |
| | comp=Z,2.3nm,0.8s,baz=338,slow=5.4,SNR=9.4 | | | | | | |
| VNDA | Vanda | 58.34 | 186 | eP | P | 10 24 55.6 | -4.5 |
| VNDA | | | | e*PP | pP | 10 25 02.6 | -8.1 |
| VNDA | Vanda | 58.34 | 186 | eP | P | 10 24 55.5 | -4.5 |
| VNDA | | | | epP | pP | 10 25 02.6 | -8.1 |
| SOEI | Soe | 59.95 | 270 | eP | P | 10 25 13.7 | +1.3 |
| | comp=Z,39nm,0.9s | | | | | | |
| QSPA | South Pole Qui | 69.67 | 180 | eP | P | 10 26 15.0 | +0.2 |
| | comp=Z,18nm,1.1s | | | | | | |
| MJAR | Matsushiro Arr | 72.23 | 321 | P | P | 10 26 31.2 | +0.6 |
| | comp=Z,3.1nm,0.8s,baz=160,slow=6.2,SNR=7.7 | | | | | | |
| MJAR | | | | LR | LR | 10 52 43.6 | |
| | comp=Z,83nm,21.8s,baz=160,slow=31 | | | | | | |
| MAJO | Matsushiro | 72.23 | 321 | ⇑iP | P | 10 26 31.2 | +0.6 |
| MAJO | | | | pmax | pmax | | |
| | comp=Z,15nm,1.2s | | | | | | |
| MAT | Matsushiro | 72.23 | 321 | P | P | 10 26 30.8 | +0.2 |
| MAT | | | | S | S | 10 35 51.6 | +0.6 |
| SAO | San Andreas Ge | 75.62 | 41 | eP | P | 10 26 51.1 | +0.7 |
| SAO | | | | pmax | pmax | | |
| | comp=Z,20nm,1.4s | | | | | | |
| SAO | San Andreas Ge | 75.62 | 41 | eP | P | 10 26 51.1 | +0.7 |
| | comp=Z,20nm,1.4s | | | | | | |
| PMPB | Monarch Peak | 75.68 | 42 | eP | P | 10 26 51.4 | +0.6 |
| | comp=Z,45nm,1.4s | | | | | | |
| PAGB | Antelope Grade | 75.73 | 43 | eP | P | 10 26 50.6 | -0.4 |
| | comp=Z,53nm,1.7s | | | | | | |
| EML | El Monte Cty P | 76.28 | 47 | eP | P | 10 26 58.0 | +3.8 |
| BBSC | Beaumont Base | 76.79 | 46 | eP | P | 10 26 56.2 | -0.9 |
| ISA | Isabella, Lake | 76.83 | 44 | eP | P | 10 26 56.8 | -0.6 |
| ISA | | | | pmax | pmax | | |
| | comp=Z,63nm,1.8s | | | | | | |
| ISA | Isabella, Lake | 76.83 | 44 | eP | P | 10 26 56.8 | -0.6 |
| | comp=Z,63nm,1.8s | | | | | | |
| PFO | Pinyon Flats O | 76.96 | 46 | P | P | 10 26 57.7 | -0.5 |
| | baz=235 | | | | | | |
| PFO | Pinyon Flats O | 76.96 | 46 | eP | P | 10 26 58.7 | +0.5 |
| PFO | | | | pmax | pmax | | |
| | comp=Z,36nm,1.6s | | | | | | |
| PFO | Pinyon Flats O | 76.96 | 46 | eP | P | 10 26 58.7 | +0.5 |
| | comp=Z,36nm,1.6s | | | | | | |
| TPFO | Pinon Flats | 76.96 | 47 | P | P | 10 26 58.0 | -0.2 |
| | baz=235 | | | | | | |
| XPFO | Piæon Flat | 76.96 | 46 | eP | P | 10 26 57.3 | -1.0 |
| | comp=Z,38nm,1.6s | | | | | | |
| CMB | Columbia Colle | 77.08 | 41 | eP | P | 10 26 57.9 | -0.8 |
| CMB | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.3s | | | | | | |
| CMB | Columbia Colle | 77.08 | 41 | eP | P | 10 26 57.9 | -0.8 |
| | comp=Z,8.7nm,1.3s | | | | | | |
| PETK | Petropavlovsk- | 77.11 | 343 | P | P | 10 26 57.8 | -0.6 |
| | comp=Z,3.4nm,0.8s,baz=114,slow=8.1,SNR=4.1 | | | | | | |
| PEA1 | Petropavlovsk- | 77.12 | 343 | eP | P | 10 26 57.8 | -0.7 |
| WWPM | Walker Pass | 77.13 | 44 | eP | P | 10 27 01.2 | +2.1 |
| LRMC | Laurel Mtn Rad | 77.24 | 44 | P | P | 10 26 59.6 | -0.2 |
| | baz=233 | | | | | | |
| AFDM | Forest Hills D | 77.30 | 40 | eP | P | 10 27 00.3 | +0.4 |
| | comp=Z,38nm,2.0s | | | | | | |
| ORV | Oroville | 77.37 | 39 | eP | P | 10 27 00.8 | +0.5 |
| ORV | | | | pmax | pmax | | |
| | comp=Z,36nm,1.9s | | | | | | |
| ORV | Oroville | 77.37 | 39 | eP | P | 10 27 00.8 | +0.5 |
| | comp=Z,36nm,1.9s | | | | | | |
| YSS | Yuzh-Sakhalins | 77.40 | 331 | ⇑eP | P | 10 27 04.7 | +4.5 |
| YSS | | | | pmax | pmax | | |
| | comp=Z,20nm,1.0s | | | | | | |
| WDC | Whiskeytown Da | 77.43 | 38 | eP | P | 10 27 00.3 | -0.2 |
| WDC | | | | pmax | pmax | | |
| | comp=Z,13nm,1.4s | | | | | | |
| WDC | Whiskeytown Da | 77.43 | 38 | eP | P | 10 27 00.3 | -0.2 |
| | comp=Z,13nm,1.4s | | | | | | |
| WSHM | Spangler Hills | 77.43 | 44 | eP | P | 10 26 57.1 | -3.7 |
| MDPB | Devils Postpil | 77.64 | 42 | eP | P | 10 27 02.1 | -0.1 |
| | comp=Z,29nm,1.8s | | | | | | |
| GSC | Goldstone, Bar | 77.71 | 45 | eP | P | 10 27 00.3 | -2.1 |
| GSC | | | | pmax | pmax | | |
| | comp=Z,60nm,2.0s | | | | | | |
| GSC | Goldstone, Bar | 77.71 | 45 | eP | P | 10 27 00.3 | -2.1 |
| | comp=Z,60nm,2.0s | | | | | | |
| WAKR | Walker | 77.96 | 41 | eP | P | 10 27 02.7 | -1.1 |
| | comp=Z,50nm,1.6s | | | | | | |
| PNTR | Pine Nut | 78.22 | 40 | eP | P | 10 27 03.7 | -1.6 |
| | comp=Z,43nm,1.5s | | | | | | |
| BEKR | Beckworth | 78.25 | 39 | eP | P | 10 27 05.9 | +0.5 |
| | comp=Z,34nm,1.6s | | | | | | |
| YERR | Yerington | 78.38 | 41 | eP | P | 10 27 05.4 | -0.7 |
| | comp=Z,45nm,1.6s | | | | | | |
| HUMO | Hull Mountain | 78.53 | 36 | eP | P | 10 27 06.0 | -0.6 |
| | comp=Z,50nm,1.9s | | | | | | |
| LDFC | Landfair | 78.71 | 46 | eP | P | 10 27 07.7 | -0.3 |
| | comp=Z,107nm,1.8s | | | | | | |
| PAHR | Pah Rah Range | 78.73 | 40 | eP | P | 10 27 08.1 | +0.1 |
| | comp=Z,68nm,1.9s | | | | | | |
| TPNV | Topopah Spring | 79.04 | 44 | eP | P | 10 27 09.5 | -0.2 |
| TPNV | | | | pmax | pmax | | |
| | comp=Z,68nm,1.8s | | | | | | |
| TPNV | Topopah Spring | 79.04 | 44 | eP | P | 10 27 09.5 | -0.2 |
| | comp=Z,68nm,1.8s | | | | | | |
| KVN | Kaiserville | 79.12 | 41 | eP | P | 10 27 09.4 | -0.8 |
| KVN | | | | pmax | pmax | | |
| | comp=Z,65nm,1.9s | | | | | | |
| KVN | Kaiserville | 79.12 | 41 | eP | P | 10 27 09.4 | -0.8 |
| | comp=Z,65nm,1.9s | | | | | | |
| KSRS | Korea Array | 79.14 | 317 | P | P | 10 27 09.2 | -0.8 |
| | comp=Z,0.9nm,0.7s,baz=117,slow=6.9,SNR=3.8 | | | | | | |
| KSRS | | | | LR | LR | 10 58 50.9 | |
| | comp=Z,112nm,18.9s,baz=122,slow=33 | | | | | | |
| KS15 | Wonju Array Si | 79.16 | 317 | eP | P | 10 27 09.2 | -0.9 |
| KSAR | Wonju Array Be | 79.16 | 317 | P | P | 10 27 09.3 | -0.9 |
| KSAR | Wonju Array Be | 79.16 | 317 | P | P | 10 27 09.2 | -0.9 |
| KS01 | Wonju Array Si | 79.17 | 317 | eP | P | 10 27 11.8 | +1.6 |
| SHPR | Sheep Range | 79.50 | 45 | eP | P | 10 27 12.0 | -0.2 |
| | comp=Z,44nm,1.6s | | | | | | |
| MOD | Modoc Plateau | 79.57 | 38 | eP | P | 10 27 12.2 | -0.3 |
| | comp=Z,22nm,1.5s | | | | | | |
| TUC | Tucson | 80.22 | 50 | eP | P | 10 27 15.5 | -0.7 |
| TUC | | | | pmax | pmax | | |
| | comp=Z,51nm,1.6s | | | | | | |
| TUC | Tucson | 80.22 | 50 | eP | P | 10 27 15.5 | -0.7 |
| | comp=Z,51nm,1.6s | | | | | | |
| R11A | Troy Canyon, C | 80.28 | 43 | eP | P | 10 27 16.3 | -0.2 |
| | comp=Z,49nm,1.9s | | | | | | |
| TYV | Tymovskoe | 80.41 | 334 | eP | P | 10 27 15.6 | -1.0 |
| TYV | | | | pmax | pmax | | |
| | comp=Z,18nm,1.5s | | | | | | |
| USRK | Ussuriysk Ar. | 80.86 | 324 | P | P | 10 27 18.3 | -0.9 |
| | comp=Z,2.0nm,0.8s,baz=204,slow=3.8,SNR=5.3 | | | | | | |
| USRK | | | | LR | LR | 10 59 20.4 | |
| | comp=Z,322nm,19.8s,baz=135,slow=33 | | | | | | |
| WVOR | Wild Horse Val | 80.87 | 38 | eP | P | 10 27 19.7 | +0.2 |
| WVOR | | | | pmax | pmax | | |
| | comp=Z,36nm,1.9s | | | | | | |
| WVOR | Wild Horse Val | 80.87 | 38 | eP | P | 10 27 19.7 | +0.2 |
| | comp=Z,36nm,1.9s | | | | | | |
| F04A | Amboy | 81.03 | 34 | eP | P | 10 27 21.7 | +1.6 |
| | comp=Z,59nm,1.8s | | | | | | |
| LCMT | Little Creek M | 81.05 | 45 | eP | P | 10 27 20.4 | -0.2 |
| | comp=Z,61nm,1.9s | | | | | | |
| CCUT | Cedar City | 81.27 | 45 | eP | P | 10 27 22.0 | +0.2 |
| | comp=Z,53nm,1.9s | | | | | | |
| KNB | Kanab | 81.33 | 45 | eP | P | 10 27 21.7 | -0.4 |
| KNB | | | | pmax | pmax | | |
| | comp=Z,78nm,1.7s | | | | | | |
| KNB | Kanab | 81.33 | 45 | eP | P | 10 27 21.7 | -0.4 |
| | comp=Z,78nm,1.7s | | | | | | |
| I07A | Izee | 81.41 | 37 | eP | P | 10 27 23.4 | +1.1 |
| | comp=Z,15nm,1.4s | | | | | | |
| HPIG | | 81.44 | 57 | eP | P | 10 27 22.8 | -0.2 |
| | comp=Z,27nm,1.6s | | | | | | |
| SZCU | Shurtz Canyon | 81.48 | 45 | eP | P | 10 27 23.1 | +0.2 |
| | comp=Z,53nm,1.7s | | | | | | |
| WUAZ | Wupatki | 81.50 | 47 | eP | P | 10 27 22.8 | -0.3 |
| | comp=Z,48nm,1.6s | | | | | | |
| G06A | Carlson Farm, | 81.52 | 35 | eP | P | 10 27 22.6 | -0.2 |
| | comp=Z,49nm,1.8s | | | | | | |
| J08A | Circle Bar Ran | 81.54 | 38 | eP | P | 10 27 24.9 | +1.9 |
| | comp=Z,26nm,1.6s | | | | | | |
| LON | Longmire | 81.89 | 33 | eP | P | 10 27 25.4 | +0.7 |
| LON | | | | pmax | pmax | | |
| | comp=Z,24nm,1.8s | | | | | | |
| LON | Longmire | 81.89 | 33 | eP | P | 10 27 25.4 | +0.7 |
| | comp=Z,24nm,1.8s | | | | | | |
| ZAIG | Zacatecas | 82.08 | 62 | eP | P | 10 27 26.3 | -0.2 |
| | comp=Z,19nm,1.5s | | | | | | |
| D05A | Enumclaw | 82.09 | 33 | eP | P | 10 27 25.5 | -0.1 |
| | comp=Z,453nm,1.3s | | | | | | |
| MTPU | Mount Pierson | 82.32 | 45 | eP | P | 10 27 28.0 | +0.5 |
| | comp=Z,84nm,1.7s | | | | | | |
| W18A | Petrified Fore | 82.43 | 48 | eP | P | 10 27 29.1 | +1.1 |
| | comp=Z,78nm,1.9s | | | | | | |
| MDJ | Mudanjiang | 82.46 | 323 | P | P | 10 27 29.4 | +1.8 |
| MDJ | | | | pP | sP | 10 27 50.8 | +8.1 |
| MDJ | | | | sP | pP | 10 27 59.7 | +21 |
| MDJ | | | | PP | PP | 10 30 41.9 | +4.5 |
| MDJ | | | | S | S | 10 37 38.4 | -3.2 |
| MDJ | | | | SS | SS | 10 43 04.5 | +0.7 |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.9s | | | | | | |

MDJ pmax pmax
comp=Z,180nm,6.1s
MDJ LR LR
comp=Z,82nm,17.9s
MDJ LR LR
comp=Z,81nm,19.5s
MDJ LR LR
comp=Z,140nm,21.6s
**G08A Pilot Rock 82.47 36** *e*P **P 10 27 28.4 +0.5**
comp=Z,24nm,1.4s
**NJ2 Nanjing 82.50 308** *e*P **P 10 27 30.8 +2.6**
NJ2 pmax pmax
comp=Z,8.0nm,0.6s
**E07A Sunnyside 82.79 34** *e*P **P 10 27 30.6 +1.3**
comp=Z,58nm,1.9s
**MAW Mawson 82.81 199** P **P 10 27 29.5 +0.3**
comp=Z,5.0nm,0.9s,baz=117,slow=10.0,SNR=5.6
MAW LR LR 11 04 00.1
comp=Z,688nm,18.3s,baz=68,slow=35
**MAW Mawson 82.81 199** *e*P **P 10 27 29.4 +0.3**
MAW pmax pmax
comp=Z,3.0nm,1.1s
**MAW Mawson 82.81 199** *e*P **P 10 27 29.4 +0.2**
comp=Z,3.0nm,1.1s
**HAWA Hanford 82.86 35** *e*P **P 10 27 30.8 +1.2**
comp=Z,46nm,1.8s
**EPT El Paso 83.09 53** *e*P **P 10 27 30.6 -0.8**
comp=Z,29nm,1.4s
**DUG Dugway, Tooele 83.10 43** *e*P **P 10 27 31.4 +0.1**
DUG pmax pmax
comp=Z,34nm,1.8s
**DUG Dugway, Tooele 83.10 43** *e*P **P 10 27 31.4 +0.1**
comp=Z,34nm,1.8s
**MFID Camas Ranch 83.11 39** *e*P **P 10 27 31.9 +0.7**
comp=Z,25nm,1.4s
**BMO Blue Mountains 83.12 37** *e*P **P 10 27 31.0 -0.2**
BMO pmax pmax
comp=Z,58nm,2.0s
**BMO Blue Mountains 83.12 37** *e*P **P 10 27 31.0 -0.2**
comp=Z,58nm,2.0s
**E08A Dider Farm, El 83.17 35** *e*P **P 10 27 32.2 +1.0**
comp=Z,27nm,1.7s
**BGU Big Grassy Mou 83.37 42** *e*P **P 10 27 33.2 +0.5**
comp=Z,36nm,1.9s
**NLU North Lily Min 83.44 43** *e*P **P 10 27 33.7 +0.6**
comp=Z,36nm,1.8s
**D08A Wollman Farm, 83.60 34** *e*P **P 10 27 34.0 +0.5**
comp=Z,58nm,1.8s
**TMUT Trail Mountain 83.64 44** *e*P **P 10 27 34.2 -0.1**
comp=Z,103nm,1.7s
**E09A Wood Farm, Sta 83.68 35** *e*P **P 10 27 34.6 +0.7**
comp=Z,36nm,1.7s
**MPU Maple Canyon 83.76 43** *e*P **P 10 27 34.5 -0.3**
comp=Z,38nm,1.7s
**F10A Beach Ranch, E 83.85 36** *e*P **P 10 27 35.1 +0.2**
comp=Z,30nm,1.4s
**MNTX Cornudas Mount 83.90 53** *e*P **P 10 27 34.2 -1.2**
comp=Z,34nm,1.6s
**QIZ Qiongzhong 83.98 293** P **P 10 27 37.1 +1.0**
QIZ pP sP 10 27 58.9 +7.7
QIZ sP pP 10 28 07.8 +21
QIZ S **S 10 37 57.3 -0.8**
QIZ pmax pmax
comp=Z,340nm,5.0s
QIZ LR LR
comp=Z,81nm,19.0s
**SRU San Rafael Swe 83.99 45** *e*P **P 10 27 34.3 -1.6**
SRU pmax pmax
comp=Z,94nm,1.6s
**SRU San Rafael Swe 83.99 45** *e*P **P 10 27 34.3 -1.6**
comp=Z,94nm,1.6s
**HVU Hansel Valley 84.01 41** *e*P **P 10 27 35.5 -0.4**
HVU pmax pmax
comp=Z,42nm,1.6s
**HVU Hansel Valley 84.01 41** *e*P **P 10 27 35.5 -0.4**
comp=Z,42nm,1.6s
**HLID Hailey 84.03 39** *e*P **P 10 27 34.6 -1.4**
comp=Z,41nm,1.5s
**P17A Butcher Ranch, 84.04 44** *e*P **P 10 27 36.8 +0.6**
comp=Z,85nm,1.6s
**CTU Camp Tracy 84.05 43** *e*P **P 10 27 36.8 +0.6**
comp=Z,30nm,1.4s
**LTX Lajitas 84.11 56** *e*P **P 10 27 35.3 -1.4**
**LTX Lajitas 84.11 56** *e*P **P 10 27 35.3 -1.4**
**TX31 Lajitas Ar. Si 84.11 56** *e*P **P 10 27 35.2 -1.4**
**TXAR Lajitas Array 84.11 56** P **P 10 27 35.3 -1.4**
comp=Z,2.9nm,0.9s,baz=217,slow=6.0,SNR=14
TXAR LR LR 10 58 28.8
comp=Z,280nm,19.5s,baz=0.0,slow=31
**BNM Barren Site 84.16 50** *e*P **P 10 27 36.6 -0.3**
**JLU Jordanelle 84.19 43** *e*P **P 10 27 36.0 -1.0**
comp=Z,73nm,1.9s
**B08A Colville Reser 84.21 33** *e*P **P 10 27 36.8 +0.1**
comp=Z,35nm,1.9s
**LPM Los Pinos Moun 84.23 50** *e*P **P 10 27 36.9 -0.4**
**CN2 Changchun 84.36 321** *e*P **P 10 27 38.4 +1.0**
CN2 *e*S **S 10 37 53.3 -7.6**
CN2 pmax pmax
comp=Z,10.0nm,1.5s
CN2 pmax pmax
comp=Z,200nm,4.0s
CN2 LR LR
comp=Z,300nm,18.0s
CN2 LR LR
comp=Z,200nm,18.0s
CN2 LR LR
comp=Z,200nm,18.0s
**MVCO Mesa Verde 84.36 47** *e*P **P 10 27 38.5 +0.6**
comp=Z,33nm,1.6s
**PV05 Paradox Valley 84.40 46** *e*P **P 10 27 36.3 -1.8**
**C09A Chrisman Ranch 84.41 34** *e*P **P 10 27 39.5 +1.9**
comp=Z,51nm,1.9s
**P18A Preston Nutter 84.45 44** *e*P **P 10 27 39.1 +0.7**
comp=Z,57nm,1.6s
**TCUT Toone Canyon 84.50 43** *e*P **P 10 27 38.4 -0.1**
comp=Z,140nm,1.5s
**PV09 Paradox Valley 84.59 46** *e*P **P 10 27 38.2 -1.0**
**PV10 Paradox Valley 84.59 46** *e*P **P 10 27 39.5 +0.4**
**ANMO Albuquerque 84.67 50**⇓ *e*P **P 10 27 38.8 -0.7**
ANMO pmax pmax
comp=Z,44nm,1.6s
**ANMO Albuquerque 84.67 50** *e*P **P 10 27 38.6 -0.9**
comp=Z,54nm,1.5s
**PV04 Paradox Valley 84.69 46** *e*P **P 10 27 39.9 +0.4**
**PV01 Paradox Valley 84.79 46** *e*P **P 10 27 39.5 -0.6**
**NEW Newport 85.30 34** *e*P **P 10 27 42.5 +0.4**
NEW pmax pmax
comp=Z,6.0nm,1.4s
**NEW Newport 85.30 34** *e*P **P 10 27 42.5 +0.4**
comp=Z,6.3nm,1.4s
**LNIG Linares 85.55 62** *e*P **P 10 27 41.5 -2.4**
comp=Z,60nm,1.6s
**AHID Auburn Hatcher 85.59 41** *e*P **P 10 27 44.7 +0.8**
comp=Z,42nm,1.5s
**TRF Thorofare Moun 85.67 11** *e*P **P 10 27 42.5 -1.3**
comp=Z,13nm,0.8s
**MCMT McKenzie Canyo 85.67 39** *e*P **P 10 27 43.6 -0.7**
**S22A 4UR Ranch, Cre 85.78 47** *e*P **P 10 27 46.0 +0.9**
comp=Z,64nm,1.7s
**RND Reindeer 85.88 11** *e*P **P 10 27 43.8 -0.9**
RND pmax pmax
comp=Z,111nm,2.0s
**RND Reindeer 85.88 11** *e*P **P 10 27 43.8 -0.9**
comp=Z,110nm,2.0s
**O20A White River Ci 86.03 45** *e*P **P 10 27 46.8 +0.6**
comp=Z,41nm,1.6s
**REDW Red Top Meadow 86.06 41** *e*P **P 10 27 46.8 +0.5**
comp=Z,33nm,1.5s
**TPAW Teton Pass 86.07 41** *e*P **P 10 27 46.1 -0.3**
comp=Z,22nm,1.5s
**FXWY Fox Creek 86.11 41** *e*P **P 10 27 46.8 +0.3**
comp=Z,27nm,1.7s
**DLMT Dillon 86.12 38** *e*P **P 10 27 46.6 +0.2**
comp=Z,22nm,1.4s
**MCK McKinley 86.17 11** *e*P **P 10 27 45.0 -1.0**
MCK pmax pmax
comp=Z,18nm,1.0s
**MCK McKinley 86.17 11** *e*P **P 10 27 45.0 -1.0**
comp=Z,18nm,1.0s
**SNOW Snow King Moun 86.18 41** *e*P **P 10 27 47.6 +0.8**
comp=Z,32nm,1.5s
**MSO Missoula 86.19 37** *e*P **P 10 27 47.0 +0.3**
comp=Z,20nm,1.6s
**IMW Indian Meadow 86.30 40** *e*P **P 10 27 48.5 +1.0**
comp=Z,19nm,1.4s
**MOOW Moose Ponds 86.34 41** *e*P **P 10 27 47.4 -0.2**
comp=Z,29nm,1.9s
**LOHW Long Hollow 86.35 41** *e*P **P 10 27 48.6 +0.9**
comp=Z,27nm,1.6s
**SMCO Snowmass 86.39 46** *e*P **P 10 27 50.1 +1.8**
comp=Z,28nm,1.8s
**LRM Limekiln Ridge 86.46 38** *e*P **P 10 27 47.8 -0.4**
**QLMT Earthquake Lak 86.51 39** *e*P **P 10 27 47.5 -0.9**
**BW06 Boulder Array 86.55 42** *e*P **P 10 27 48.7 0.0**
comp=Z,24nm,1.8s
**PD31 Pinedale Array 86.55 42** *e*P **P 10 27 47.6 -1.1**
**PDAR Pinedale Array 86.55 42** P **P 10 27 46.1 -2.6**
comp=Z,2.3nm,1.0s,baz=208,slow=2.9,SNR=12
**PDAR Pinedale Array 86.55 42** *e*P **P 10 27 46.2 -2.5**
**YPP Pitchstone Pla 86.58 40** *e*P **P 10 27 48.0 -1.0**
comp=Z,8.0nm,1.1s
**SDCO Great Sand Dun 86.70 48** *e*P **P 10 27 49.5 -0.1**
comp=Z,23nm,1.8s
**YMR Madison River 86.70 40** *e*P **P 10 27 50.5 +1.1**
comp=Z,44nm,1.7s
**H17A Grant Village 86.79 40** *e*P **P 10 27 49.5 -0.3**
comp=Z,18nm,1.6s
**PLCA Paso Flores 86.81 132** LR LR 11 00 18.5
comp=Z,387nm,18.5s,baz=315,slow=31
**BOZ Bozeman (W) 86.82 39** *e*P **P 10 27 49.9 +0.1**
BOZ pmax pmax
comp=Z,42nm,1.8s
**BOZ Bozeman (W) 86.82 39** *e*P **P 10 27 49.9 +0.1**
comp=Z,42nm,1.8s
**YHH Holmes Hill 86.84 40** *e*P **P 10 27 50.9 +0.7**
comp=Z,26nm,1.7s
**MSTX Muleshoe 86.90 52** *e*P **P 10 27 50.0 -0.4**
comp=Z,149nm,1.8s
**WRH Wood River Hil 87.00 11** *e*P **P 10 27 49.0 -1.0**
comp=Z,87nm,1.8s
**SEY Seymchan 87.10 345**⇓ *e*P **P 10 27 50.6 0.0**
**T25A Trinidad 87.17 49** *e*P **P 10 27 51.8 0.0**
comp=Z,25nm,1.7s
**CCB Clear Creek Bu 87.21 11** *e*P **P 10 27 50.2 -0.9**
comp=Z,25nm,1.6s
**HRY Holter Researc 87.31 38** *e*P **P 10 27 54.6 +2.4**
**COLA College 87.41 11** *e*P **P 10 27 53.7 +1.7**
COLA pmax pmax
comp=Z,13nm,0.8s
**COLA College 87.41 11** *e*P **P 10 27 53.6 +1.7**
comp=Z,13nm,0.8s
**MDM Murphy Dome 87.42 11** *e*P **P 10 27 50.4 -1.7**
comp=Z,44nm,1.0s
**ILAR Eielson Array 87.49 11** P **P 10 27 51.0 -1.4**
comp=Z,1.4nm,0.7s,baz=225,slow=6.1,SNR=25
**ILB Eielson Array 87.49 11** *e*P **P 10 27 50.5 -1.9**
**IL1 Eielson Array 87.49 11** *e*P **P 10 27 50.4 -2.1**
**IMAR Indian Mountai 87.51 8** *e*P **P 10 27 51.4 -1.2**
**SYO Syowa Base 87.56 192**⇑ *e*X **P 10 27 49.3 -3.6**
**JCT Junction City 87.63 56** *e*P **P 10 27 53.4 -0.6**
JCT pmax pmax
comp=Z,30nm,1.6s
**JCT Junction City 87.63 56** *e*P **P 10 27 53.4 -0.6**
comp=Z,30nm,1.6s
**VNA3 Neumayer Olymp 87.98 175** P **P 10 27 53.6 -1.4**
**SNAA Sanae 87.99 177** P **P 10 27 52.0 -3.1**
**SNAA Sanae 87.99 177**⇓ *e*P **P 10 27 53.1 -2.0**
**SNAA Sanae 87.99 177** *e*P **P 10 27 53.8 -1.2**
comp=Z,9.3nm,1.3s
**AMTX Amarillo 88.11 52** *e*P **P 10 27 56.8 +0.5**
comp=Z,43nm,1.4s
**BJI Beijing 88.28 314** P **P 10 27 58.5 +1.8**
BJI PP **PP 10 31 27.9 +3.2**
BJI S **S 10 38 36.8 -2.3**
BJI SS **SS 10 44 34.2 +4.7**
BJI pmax pmax
comp=Z,15nm,1.2s
BJI pmax pmax
comp=Z,410nm,4.4s
BJI LR LR
comp=Z,140nm,13.0s
BJI LR LR
comp=Z,210nm,14.0s
BJI LR LR
comp=Z,160nm,18.7s
**K22A Casper 88.41 43** *e*P **P 10 28 00.5 +2.9**
comp=Z,37nm,1.8s
**DAWY Dawson 88.45 15** *e*P **P 10 27 56.5 -0.6**
comp=Z,39nm,1.8s
**VNA2 Neumayer--Watz 88.47 176** P **P 10 27 56.5 -0.7**
baz=196,slow=2.7
**EGAK Eagle 88.66 14** *e*P **P 10 27 59.1 +1.1**
comp=Z,58nm,1.9s
**ABTX Abilene, Hawle 88.66 54** *e*P **P 10 27 59.1 +0.3**
comp=Z,49nm,1.4s
**VNA1 Neumayer--Stat 88.67 175** P **P 10 27 59.3 +1.1**
**ENH Enshi 88.86 303** *e*P **P 10 28 02.9 +3.1**
comp=Z,24nm,1.1s
**COLD Coldfoot 89.19 9** *e*P **P 10 28 02.5 +2.0**
comp=Z,22nm,1.8s
**GYA Guiyang 89.62 298** *e*P **P 10 28 04.2 +0.6**
GYA pP sP 10 28 29.4 +11
GYA PP **PP 10 31 41.0 +5.1**
GYA SKS **SKSac 10 38 25.5 -6.3**
GYA S **S 10 38 48.8 -3.9**
GYA pmax pmax
comp=Z,30nm,1.0s
GYA pmax pmax
comp=Z,120nm,6.2s
**HKT Hockley 90.55 58** *e*P **P 10 28 09.2 +1.7**
HKT pmax pmax
comp=Z,67nm,1.8s
**HKT Hockley 90.55 58** *e*P **P 10 28 09.2 +1.7**
comp=Z,67nm,1.8s
**LAO LASA Array 90.59 40** *e*P **P 10 28 09.7 +2.1**
comp=Z,55nm,1.8s
**RSSD Black Hills 90.71 43** *e*P **P 10 28 09.9 +1.5**
RSSD pmax pmax
comp=Z,33nm,1.7s
**RSSD Black Hills 90.71 43** *e*P **P 10 28 09.9 +1.5**
comp=Z,33nm,1.7s
**XAN Xi'an 90.84 306** P P 10 28 13.4 +4.4
XAN pP sP 10 28 38.1 +14
XAN pmax pmax
comp=Z,14nm,1.4s
XAN pmax pmax
comp=Z,120nm,5.5s
**X35A Drake 91.42 54** *e*P **P 10 28 11.5 -0.1**
comp=Z,21nm,1.5s
**HHC Hu-ho-hao-te 91.78 313** *e*P **P 10 28 14.3 +1.0**
HHC S **S 10 39 08.3 -3.5**
HHC pmax pmax
comp=Z,19nm,1.5s
HHC pmax pmax
comp=Z,180nm,9.0s
HHC LR LR
comp=Z,160nm,17.6s
HHC LR LR
comp=Z,250nm,18.2s
HHC LR LR
comp=Z,160nm,18.5s
**W35A Tecumseh 91.80 53** *e*P **P 10 28 13.2 -0.2**
comp=Z,49nm,1.4s
**V35A Meyer Ranch, C 92.07 53** *e*P **P 10 28 16.6 +2.0**
comp=Z,67nm,1.9s
**OK021 N3530 Road, Sp 92.10 53** *e*P **P 10 28 16.5 +1.8**
comp=Z,35nm,1.4s
**W36A Wetumka 92.28 53** *e*P **P 10 28 17.4 +1.8**
comp=Z,30nm,1.4s
**KMI Kunming 92.40 296** P **P 10 28 17.8 +1.1**
KMI pmax pmax
comp=Z,9.0nm,0.6s
KMI pmax pmax
comp=Z,120nm,4.8s
KMI LR LR
comp=Z,200nm,13.5s
KMI LR LR
comp=Z,270nm,14.0s
KMI LR LR
comp=Z,330nm,21.8s
**DGMT Dagmar 92.65 39** *e*P **P 10 28 19.0 +1.9**
comp=Z,99nm,1.5s
**JTS JuntasAbangare 92.94 80** *e*P **P 10 28 21.0 +1.9**
JTS pmax pmax
comp=Z,32nm,1.5s
**JTS JuntasAbangare 92.94 80** *e*P **P 10 28 21.0 +1.9**
comp=Z,32nm,1.5s
**INK Inuvik 93.30 14** *e*P **P 10 28 22.4 +3.0**
INK pmax pmax
comp=Z,33nm,1.8s
**INK Inuvik 93.30 14** *e*P **P 10 28 22.4 +3.0**
comp=Z,33nm,1.8s
**CM01 Chiang Mai Arr 93.32 288** *e*P **P 10 28 22.8 +2.0**
**YAK Yakutsk 93.34 337**⇑ *e*P **P 10 28 21.3 +1.5**
YAK pmax pmax
comp=Z,7.0nm,0.9s
**CM31 Chiang Mai Arr 93.35 288** *e*P **P 10 28 21.9 +1.1**
**CMAR Chiang Mai Arr 93.35 288** P **P 10 28 21.9 +1.1**
comp=Z,0.3nm,0.3s,baz=91,slow=3.7,SNR=5.4
**CD2 Chengdu 93.66 301** *e*P **P 10 28 23.5 +1.4**
CD2 SKS **SKSac 10 38 50.4 -3.9**
CD2 S **SKKSac 10 39 20.2 +5.9**
CD2 pmax pmax
comp=Z,160nm,9.5s
CD2 LR LR
comp=Z,180nm,14.3s
CD2 LR LR
comp=Z,270nm,14.3s
**YKA Yellowknife Ar 95.00 24** LR LR 11 05 37.5
comp=Z,9.2nm,18.3s,baz=180,slow=32
**ECSD EROS Data Cent 95.38 45** *e*P **P 10 28 29.4 -0.2**
comp=Z,48nm,1.5s
**LZH Lanzhou 95.47 306** *e*P **P 10 28 31.1 +0.6**
LZH pP sP 10 28 56.9 +11
LZH sP pP 10 29 06.4 +25
LZH pmax pmax
comp=Z,19nm,0.7s
LZH pmax pmax
comp=Z,110nm,4.2s
**SONA0 Songino Array 97.96 318** *e*P Pdif 10 28 42.2 +0.7
**SONM Songino Array 97.96 318** P Pdif 10 28 42.2 +0.7
comp=Z,0.2nm,0.5s,baz=143,slow=0.7,SNR=3.1
**LPAZ La Paz 98.89 111** LR LR 11 05 57.2
comp=Z,229nm,18.2s,baz=278,slow=31
**DGZ Jarzator, Alta 110.54 317**⇓ *e*PKIKP **PKiKP 10 33 36.7 -1.1**
**KURK Kurchatov 116.26 317**⇑ *e*PKIKP **PKPdf 10 33 47.7 -0.7**
**KSH Kashi 117.67 305** PKP **PKPdf 10 33 50.5 -1.2**
KSH sPKP 10 34 28.6
KSH PP PP 10 35 13.8 +8.8
KSH PKS **PKSdf 10 37 26.5 -2.0**
KSH SKS **SKSdf 10 40 52.5 -8.8**
KSH SKKS **SKKSac 10 41 54.9 -8.0**
KSH SS **SS 10 51 18.4 +3.1**
KSH AMB AMB
comp=Z,140nm,4.5s
**BVAR Borovoye Array 121.21 320** PKP **PKPdf 10 33 56.7 -1.2**
comp=Z,1.0nm,0.7s,baz=72,slow=4.7,SNR=3.8
**BRVK Borovoye 121.27 320**⇑ *i*PKIKP **PKPdf 10 33 55.3 -2.7**
**MAK Makhachkala 138.46 312** *i* P **Pdif 10 31 32.1 -9.3**
MAK *e* 10 41 32.5
MAK *e*SS SS 10 55 26.1 -6.1
**KIV Kislovodsk 141.32 316** *i*PKIKP **PKPdf 10 34 36.6 +0.4**
KIV pmax pmax
comp=Z,4.0nm,1.0s
**KOPT Kop Dagi 144.43 311** *e*PKPdf **PKPdf 10 34 41.5 -0.5**
**AKASG Malin Array Be 144.51 334** PKP **PKPab 10 34 38.8 -1.1**
comp=Z,1.6nm,0.6s,baz=40,slow=4.4,SNR=14
**AKBB Malin Array Si 144.51 334** *e*PKIKP **PKPab 10 34 39.1 -0.8**
**AKBB Malin Array Si 144.51 334** *e*PKPdf **PKPab 10 34 39.1 -0.8**
**KIEV Kiev 144.53 334**⇑ *i*PKIKP **PKPab 10 34 38.7 -1.2**
**KIEV Kiev 144.53 334** *e*PKPdf **PKPab 10 34 39.5 -0.4**
**AK11 Malin Array Si 144.56 334** *e*PKPdf **PKPab 10 34 39.2 -0.8**
**MARD Mardin 145.19 307** *e*PKPbc **PKPdf 10 34 43.6 +0.4**
**SORM Soroca 146.83 332**⇓ *i*P **PKPbc 10 34 47.0 -0.3**
**SORM Soroca 146.83 332** ⇓PKP2 **PKPbc 10 34 47.0 -0.3**
**STHS Stebnicka Huta 148.49 340** *e*PKP2 **PKPbc 10 34 51.8 -0.1**
**STHS Stebnicka Huta 148.49 340** *e*PKP **PKPbc 10 34 51.8 -0.1**
STHS *e* 10 34 57.6
**BUR08 Bucovina Ar. S 148.55 334** *e*PKPdf **PKPdf 10 34 49.1 +0.6**
BUR08 *e*PKPbc **PKPbc 10 34 52.2 0.0**
BUR08 *e*PKPab **PKPab 10 34 55.8 +0.1**
**BUR04 Bucovina Ar. S 148.57 334** *e*PKPbc **PKPbc 10 34 52.6 +0.4**
**BURAR Bucovina Array 148.57 334**⇑ *i*P **PKPbc 10 34 52.8 +0.6**
**BURAR Bucovina Array 148.57 334**⇑PKP2 **PKPbc 10 34 52.8 +0.6**
**CLL Collm 148.62 351**⇓ *i*PKP2 **PKPab 10 34 54.3 -1.3**
**CLL Collm 148.62 351**⇓ *i*PKPbc **PKPab 10 34 54.3 -1.3**
CLL *i* PKIKP **PKiKP 10 34 55.8 +2.2**
comp=Z,23nm,1.2s
CLL *i* PKPab **pPKPdf 10 34 58.3 -1.5**
comp=Z,14nm,1.2s
CLL *e* 10 35 15.0
**UZH Uzhgorod 148.82 339** *e*PKP2 **PKPbc 10 34 52.2 -0.5**
**UPC Upice 148.86 347** *e*PKP **PKPbc 10 34 53.0 +0.3**
**UPC Upice 148.86 347** *e*PKP2 **PKPbc 10 34 53.0 +0.3**
**BRG Berggiesshubel 148.89 350** *e*PKP **PKPab 10 34 55.5 -1.2**
comp=Z,15nm,1.4s
**BRG Berggiesshubel 148.89 350** *e*PKP2 **PKPab 10 34 55.5 -1.2**
BRG pmax pmax
comp=Z,15nm,1.4s
**DPC Dobruska-Polom 148.94 347** *e*PKP **PKPbc 10 34 53.3 +0.3**
DPC *e*pPKP **pPKPdf 10 34 59.5 -1.0**
**DPC Dobruska-Polom 148.94 347** *e*PKP2 **PKPbc 10 34 53.3 +0.3**
**KRLC Kraliky 149.10 346** *e*PKP **PKPbc 10 34 53.6 +0.2**
**KRLC Kraliky 149.10 346** *e*PKP2 **PKPbc 10 34 53.6 +0.2**
**BR101 Keskin Array S 149.27 315** *e*PKPbc **PKPbc 10 34 53.4 -1.0**
**BRTR Keskin Array B 149.27 315** PKPbc **PKPbc 10 34 53.4 -1.0**
comp=Z,3.0nm,1.1s,baz=132,slow=4.1,SNR=5.8
**VRI Vrincioaia 149.27 331**⇓ *i*P **PKPab 10 34 56.6 -1.9**
**VRI Vrincioaia 149.27 331** ⇓PKP2 **PKPab 10 34 56.6 -1.9**
**PLOR Plostina 149.32 331**⇑ *i*P **PKPab 10 34 57.4 -1.3**
**PLOR Plostina 149.32 331** ⇑PKP2 **PKPab 10 34 57.4 -1.3**
**PRU Pruhonice 149.64 349** *e*PKP **PKPab 10 34 57.3 -2.5**
**PRU Pruhonice 149.64 349** *e*PKP2 **PKPab 10 34 57.3 -2.5**
**GOPC GO Pecny, Ondr 149.67 348** *e*PKP **PKPab 10 34 57.5 -2.5**
**GOPC GO Pecny, Ondr 149.67 348** *e*PKP2 **PKPab 10 34 57.5 -2.5**
**NKC Novy Kostel 149.75 351** *e*PKP **PKPbc 10 34 55.6 +0.6**
**NKC Novy Kostel 149.75 351** *e*PKP2 **PKPbc 10 34 55.6 +0.6**
**DOPR Dopca 149.79 332**⇑ *i*P **PKPbc 10 34 55.8 +0.6**
**MLR Muntele Rosu 149.91 331**⇓ *i*P **PKPbc 10 34 55.8 +0.1**
**MLR Muntele Rosu 149.91 331** ⇓PKP2 **PKPbc 10 34 55.8 +0.1**
**MLR Muntele Rosu 149.91 331** *e*PKPbc **PKPbc 10 34 55.3 -0.4**
**VYHS Vyhne 150.03 342** *e*PKP2 **PKPbc 10 34 55.3 -0.4**
**VYHS Vyhne 150.03 342** *e*PKP **PKPbc 10 34 55.3 -0.4**
**DRGR 150.23 336**⇑ *i*P **PKPbc 10 34 56.5 +0.2**
**DRGR 150.23 336**⇑PKIKP **PKPbc 10 34 56.5 +0.2**
**VOIR 150.36 332**⇑ *i*P **PKPbc 10 34 57.7 +1.0**
**VOIR 150.36 332**⇑PKIKP **PKPbc 10 34 57.7 +1.0**
**MODS Modra-Piesok 150.56 344** *e*PKIKP **PKPbc 10 34 57.1 +0.1**
**MODS Modra-Piesok 150.56 344** *e*PKP **PKPbc 10 34 57.1 +0.1**
**ARR Arges 150.59 332**⇑ *i*P **PKPbc 10 34 57.3 0.0**
**KHC Kasperske Hory 150.64 349** *e*PKP **PKPbc 10 34 56.9 -0.3**
**KHC Kasperske Hory 150.64 349** *e*PKIKP **PKPbc 10 34 56.8 -0.4**
**KHC Kasperske Hory 150.64 349** *e*PKPbc **PKPbc 10 34 56.8 -0.4**
**GERES GERESS Array B 150.89 349** PKPbc **PKPbc 10 34 56.0 -1.9**
comp=Z,2.4nm,0.9s,baz=46,slow=3.9,SNR=7.7
**GEA0 GERESS Array S 150.90 349** *e*PKPbc **PKPbc 10 34 59.8 +1.9**
**LOT Lotru 150.90 333**⇑ *i*P **PKPbc 10 34 56.5 -1.5**
**SIRR Siria 151.06 337**⇓ *i*P **PKPbc 10 34 58.2 -0.1**
**BZS Buzias 151.63 336**⇓ *i*P **PKPbc 10 34 59.1 -0.4**
**BZS Buzias 151.63 336**⇓PKIKP **PKPbc 10 34 59.1 -0.4**
**EIL Elat 151.99 295** PKPbc **PKPbc 10 35 01.8 +0.9**
comp=Z,8.0nm,0.4s,baz=148,slow=3.3,SNR=4.0
**TOA0 Torodi Ar. Sit 171.84 151** *e*PKPdf **PKPdf 10 35 13.2 -1.6**
**TORD Torodi Ar. Bea 171.84 151** PKP **PKPdf 10 35 14.2 -0.6**
comp=Z,1.6nm,1.2s,baz=237,slow=0.9,SNR=5.0
**TOA1 Torodi Ar. Sit 171.85 151** *e*PKPdf **PKPdf 10 35 14.2 -0.6**

---

*CSEM* **06** *10:18:36.0,38.04N×20.47E,h22km,ML2.4/6*
**ATH 06 10:18:36.0,38.04N×20.47E,h22km±1km, ML2.4/6, Error ellipse: s-maj=3.3km s-min=1.8km az=15.0, Greece**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VLS** | **Valsamata** | **0.17** | **34** | P | Pb | 10 18 42.1 | +0.7 |
| VLS | | | | S | Sb | 10 18 43.4 | -1.7 |
| **VLS** | **Valsamata** | **0.17** | **34** | P | Pb | 10 18 42.1 | +0.7 |
| VLS | | | | S | Sb | 10 18 43.4 | -1.8 |
| **RLS** | **Riolos of Patr** | **0.79** | **88** | P | Pb | 10 18 51.0 | +0.1 |
| RLS | | | | S | Sb | 10 19 01.7 | +0.6 |
| **RLS** | **Riolos of Patr** | **0.79** | **88** | P | Pb | 10 18 51.0 | +0.1 |
| RLS | | | | S | Sb | 10 19 01.7 | +0.6 |
| **PDO** | **Prodromos** | **0.79** | **45** | P | Pb | 10 18 50.9 | -0.1 |
| PDO | | | | S | Sb | 10 19 01.6 | +0.3 |
| PDO | | | | AML | AML | 10 19 04.3 | |
| | comp=E,744μm,0.2s | | | | | | |
| PDO | | | | AML | AML | 10 19 04.5 | |
| | comp=N,853μm,0.2s | | | | | | |
| **PDO** | **Prodromos** | **0.79** | **45** | P | Pb | 10 18 50.9 | -0.1 |
| PDO | | | | S | Sb | 10 19 01.6 | +0.3 |
| **DRO** | **Drossia** | **0.98** | **95** | P | Pn | 10 18 55.5 | +1.0 |
| DRO | | | | S | Sn | 10 19 09.0 | +1.3 |
| DRO | | | | AML | AML | 10 19 11.7 | |
| | comp=N,380μm,0.2s | | | | | | |
| DRO | | | | AML | AML | 10 19 16.5 | |
| | comp=E,452μm,0.4s | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **DRO** | **Drossia** | **0.98** | **95** | P | Pn | 10 18 55.5 | +1.0 |
| DRO | | | | S | Sn | 10 19 09.0 | +1.3 |
| **PVO** | **Paravola** | **1.01** | **55** | P | Pn | 10 18 55.8 | +1.0 |
| PVO | | | | S | Sn | 10 19 10.7 | +2.3 |
| PVO | | | | AML | AML | 10 19 10.8 | |
| | comp=E,583μm,0.3s | | | | | | |
| PVO | | | | AML | AML | 10 19 14.7 | |
| | comp=N,567μm,0.6s | | | | | | |
| **PVO** | **Paravola** | **1.01** | **55** | P | Pn | 10 18 55.8 | +1.0 |
| PVO | | | | S | Sn | 10 19 10.7 | +2.4 |
| **SERG** | **Sergoula** | **1.30** | **73** | P | Pn | 10 18 59.3 | +0.4 |
| SERG | | | | S | Sb | 10 19 19.1 | +3.0 |
| SERG | | | | AML | AML | 10 19 21.2 | |
| | comp=E,208μm,0.2s | | | | | | |
| SERG | | | | AML | AML | 10 19 23.6 | |
| | comp=N,208μm,0.5s | | | | | | |
| **SERG** | **Sergoula** | **1.30** | **73** | P | Pn | 10 18 59.3 | +0.4 |
| SERG | | | | S | Sb | 10 19 19.1 | +3.0 |
| **KLV** | **Kalavryta, Ach** | **1.33** | **89** | P | Pb | 10 19 00.2 | 0.0 |
| KLV | | | | S | Sb | 10 19 19.9 | +3.2 |
| KLV | | | | AML | AML | 10 19 25.7 | |
| | comp=E,88μm,0.5s | | | | | | |
| KLV | | | | AML | AML | 10 19 28.2 | |
| | comp=N,94μm,0.6s | | | | | | |
| **KLV** | **Kalavryta, Ach** | **1.33** | **89** | P | Pb | 10 19 00.2 | 0.0 |
| KLV | | | | S | Sb | 10 19 19.9 | +3.2 |
| **GUR** | **Goura** | **1.48** | **93** | P | Pb | 10 19 03.2 | +0.3 |
| GUR | | | | S | Sb | 10 19 24.2 | +3.0 |
| GUR | | | | AML | AML | 10 19 30.2 | |
| | comp=N,221μm,0.3s | | | | | | |
| GUR | | | | AML | AML | 10 19 33.1 | |
| | comp=E,135μm,0.4s | | | | | | |
| **GUR** | **Goura** | **1.48** | **93** | P | Pb | 10 19 03.2 | +0.3 |
| GUR | | | | S | Sb | 10 19 24.2 | +2.9 |

*ISK **06** 10:34:52.7, 38.°86N×26.°33E, h12km, ML2.8*
*THE **06** 10:34:53.8, 38.°86N×26.°32E, h1km±1km, ML2.8/4, Error ellipse: s-maj=2.3km s-min=0.8km az=106.0*
*ISCJB **06** 10:34:53.3±0.4, 38.°87N±0.°02×26.°30E±0.°03, h6km±4km, Error ellipse: s-maj=4.3km s-min=2.4km az=161.5*
*ATH **06** 10:34:53.6, 38.°90N×26.°34E, h29km±1km, ML2.8/3, Error ellipse: s-maj=3.7km s-min=1.1km az=62.0*
*DDA **06** 10:34:53.2, 38.°86N×26.°35E, h19km, Ml3.2*
*CSEM **06** 10:34:53.7±0.1, 38.°87N×26.°31E, h10km, ML2.8, Error ellipse: s-maj=4.0km s-min=2.5km az=70.0*
**ISC 06 10:34:53.4**±1.0**, 38.°87N**±0.°01×**26.°32E**±0.°02**, h14**km±9km**, n85, σ0.s54**/128**, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PRK** | **Paraskevi** | **0.38** | **354** | P | **Pb** | **10 35 01.8** | **-0.1** |
| PRK | | | | S | **Sb** | **10 35 07.3** | **-0.4** |
| PRK | | | | AML | AML | 10 35 09.2 | |
| | comp=E,3519μm,0.5s | | | | | | |
| PRK | | | | AML | AML | 10 35 12.8 | |
| | comp=N,3697μm,0.5s | | | | | | |
| **PRK** | **Paraskevi** | **0.38** | **354** | P | **Pb** | **10 35 01.8** | **-0.1** |
| PRK | | | | S | **Sb** | **10 35 07.3** | **-0.4** |
| **PRK** | **Paraskevi** | **0.38** | **354** | P | **Pb** | **10 35 01.8** | **-0.1** |
| PRK | | | | S | **Sb** | **10 35 07.4** | **-0.3** |
| **SIGR** | **SIGRI** | **0.50** | **314** | *e*PG | **Pb** | **10 35 04.1** | **+0.2** |
| SIGR | | | | *e*SG | **Sb** | **10 35 10.8** | **-0.3** |
| **SIGR** | **SIGRI** | **0.50** | **314** | P | **Pb** | **10 35 04.7** | **+0.8** |
| SIGR | | | | S | **Sb** | **10 35 11.1** | **0.0** |
| **SIGR** | **SIGRI** | **0.50** | **314** | *e*Pg | **Pb** | **10 35 04.1** | **+0.2** |
| SIGR | | | | *e*Sg | **Sb** | **10 35 10.8** | **-0.3** |
| SIGR | | | | S | **Sb** | **10 35 11.1** | **0.0** |
| **SIGR** | **SIGRI** | **0.50** | **314** | P | **Pb** | **10 35 04.2** | **+0.3** |
| SIGR | | | | S | **Sb** | **10 35 11.3** | **+0.2** |
| **DKL** | **Dikili** | **0.50** | **66** | *e*PG | **Pg** | **10 35 03.5** | **+0.2** |
| DKL | | | | *e*SG | **Sg** | **10 35 10.2** | **+0.2** |
| **DKL** | **Dikili** | **0.50** | **66** | *e*Pg | **Pg** | **10 35 03.5** | **+0.2** |
| DKL | | | | *e*Sg | **Sg** | **10 35 10.2** | **+0.2** |
| **CHOS** | **Chios island** | **0.52** | **203** | P | **Pb** | **10 35 04.3** | **-0.1** |
| CHOS | | | | S | **Sb** | **10 35 11.5** | **-0.3** |
| **CHOS** | **Chios island** | **0.52** | **203** | P | **Pb** | **10 35 04.3** | **-0.1** |
| CHOS | | | | S | **Sb** | **10 35 11.5** | **-0.3** |
| **URLA** | **Izmir** | **0.55** | **157** | *e*PG | **Pg** | **10 35 03.6** | **-0.6** |
| URLA | | | | *e*SG | **Sg** | **10 35 11.6** | **0.0** |
| **URLA** | **Izmir** | **0.55** | **157** | *i* P | **Pg** | **10 35 03.9** | **-0.4** |
| URLA | | | | *i* S | **Sb** | **10 35 12.0** | **-0.6** |
| **URLA** | **Izmir** | **0.55** | **157** | P | **Pg** | **10 35 03.9** | **-0.4** |
| URLA | | | | *e*Sg | **Sg** | **10 35 11.6** | **0.0** |
| URLA | | | | S | **Sb** | **10 35 12.0** | **-0.6** |
| **ZEY** | **˜zmir** | **0.64** | **167** | *i* P | **Pg** | **10 35 05.9** | **-0.1** |
| ZEY | | | | *i* S | **Sb** | **10 35 15.8** | **+0.6** |
| **BAYC** | **CANAKKALE_Bayr** | **0.89** | **11** | *i* P | **Pb** | **10 35 10.3** | **-0.4** |
| BAYC | | | | *i* S | **Sn** | **10 35 23.8** | **-0.4** |
| **BAYC** | **CANAKKALE_Bayr** | **0.89** | **11** | P | **Pb** | **10 35 10.3** | **-0.4** |
| BAYC | | | | S | **Sn** | **10 35 23.8** | **-0.4** |
| **DGB** | **˜zmir** | **0.93** | **151** | *i* P | **Pb** | **10 35 10.6** | **-0.7** |
| DGB | | | | *i* S | **Sb** | **10 35 22.9** | **-0.4** |
| **EZN** | **Ezine** | **0.96** | **0** | *e*PG | **Pb** | **10 35 11.3** | **-0.4** |
| **EZN** | **Ezine** | **0.96** | **0** | *e*Pg | **Pb** | **10 35 11.3** | **-0.4** |
| **EZN** | **Ezine** | **0.96** | **0** | P | **Pg** | **10 35 12.1** | **+0.2** |
| EZN | | | | S | **Sn** | **10 35 26.0** | **+0.2** |
| **EZN** | **Ezine** | **0.96** | **0** | P | **Pg** | **10 35 12.1** | **+0.2** |
| EZN | | | | S | **Sn** | **10 35 26.0** | **+0.2** |
| **BOZC** | **Bozcaada** | **0.99** | **348** | *e*PG | **Pb** | **10 35 12.1** | **-0.3** |
| **BOZC** | **Bozcaada** | **0.99** | **348** | *i* P | **Pn** | **10 35 12.8** | **-0.1** |
| BOZC | | | | *i* S | **Sn** | **10 35 26.5** | **-0.3** |
| **BOZC** | **Bozcaada** | **0.99** | **348** | *e*Pg | **Pb** | **10 35 12.1** | **-0.3** |
| **AKHS** | **Akhisar** | **1.17** | **89** | *i* P | **Pg** | **10 35 15.9** | **0.0** |
| AKHS | | | | *i* S | **Sg** | **10 35 31.8** | **+0.6** |
| **AKHS** | **Akhisar** | **1.17** | **89** | P | **Pg** | **10 35 15.9** | **0.0** |
| AKHS | | | | S | **Sg** | **10 35 31.8** | **+0.6** |
| **STEP** | **BALIKESIR_Sava** | **1.20** | **65** | *i* P | **Pb** | **10 35 16.0** | **0.0** |
| STEP | | | | *i* S | **Sg** | **10 35 32.5** | **+0.2** |
| **STEP** | **BALIKESIR_Sava** | **1.20** | **65** | P | **Pb** | **10 35 16.0** | **0.0** |
| STEP | | | | S | **Sg** | **10 35 32.5** | **+0.2** |
| **SMG** | **Samos** | **1.23** | **160** | P | **Pb** | **10 35 16.2** | **-0.1** |
| SMG | | | | S | **Sg** | **10 35 34.1** | **+1.1** |
| SMG | | | | AML | AML | 10 35 36.2 | |
| | comp=E,1248μm,0.5s | | | | | | |
| SMG | | | | AML | AML | 10 35 36.9 | |
| | comp=N,1370μm,0.3s | | | | | | |
| **SMG** | **Samos** | **1.23** | **160** | P | **Pg** | **10 35 16.7** | **-0.3** |
| SMG | | | | S | **Sg** | **10 35 34.1** | **+1.1** |
| **SMG** | **Samos** | **1.23** | **160** | P | **Pg** | **10 35 16.7** | **-0.3** |
| **BALY** | **Balya** | **1.33** | **49** | *i* P | **Pb** | **10 35 17.9** | **-0.3** |
| BALY | | | | *i* S | **Sg** | **10 35 36.2** | **-0.3** |
| **BALY** | **Balya** | **1.33** | **49** | P | **Pb** | **10 35 17.9** | **-0.3** |
| BALY | | | | S | **Sg** | **10 35 36.2** | **-0.3** |
| **LIA** | **Limnos Island** | **1.35** | **320** | P | **Pg** | **10 35 19.4** | **-0.1** |
| LIA | | | | S | **Sn** | **10 35 35.5** | **-0.1** |
| LIA | | | | AML | AML | 10 35 38.9 | |
| | comp=E,504μm,0.8s | | | | | | |
| LIA | | | | AML | AML | 10 35 42.6 | |
| | comp=N,319μm,0.8s | | | | | | |
| **LIA** | **Limnos Island** | **1.35** | **320** | P | **Pg** | **10 35 19.4** | **-0.1** |
| LIA | | | | S | **Sn** | **10 35 35.5** | **-0.1** |
| **GADA** | **Gvkgeada** | **1.36** | **346** | *e*PN | **Pn** | **10 35 17.8** | **-0.2** |
| **GADA** | **Gvkgeada** | **1.36** | **346** | *e*Pn | **Pn** | **10 35 17.8** | **-0.2** |
| **GADA** | **Gvkgeada** | **1.36** | **346** | P | **Pb** | **10 35 18.4** | **-0.2** |
| **GADA** | **Gvkgeada** | **1.36** | **346** | P | **Pb** | **10 35 18.4** | **-0.2** |
| **GCAM** | **G?zelcaml?** | **1.37** | **148** | *e*PN | **Pb** | **10 35 18.9** | **+0.1** |
| **GCAM** | **G?zelcaml?** | **1.37** | **148** | *i* P | **Pg** | **10 35 21.0** | **+1.2** |
| GCAM | | | | *i* S | **Sg** | **10 35 37.0** | **-0.6** |
| **GCAM** | **G?zelcaml?** | **1.37** | **148** | *e*Pn | **Pb** | **10 35 18.9** | **+0.1** |
| **GCAM** | **G?zelcaml?** | **1.37** | **148** | P | **Pg** | **10 35 21.0** | **+1.2** |
| GCAM | | | | S | **Sg** | **10 35 37.0** | **-0.6** |
| **BALB** | **Balikesir** | **1.44** | **57** | *e*PN | **Pn** | **10 35 18.9** | **-0.1** |
| **BALB** | **Balikesir** | **1.44** | **57** | *e*Pn | **Pn** | **10 35 18.9** | **-0.1** |
| **GELI** | **Tayfur-Gelibol** | **1.53** | **4** | *e*PN | **Pn** | **10 35 20.3** | **0.0** |
| **GELI** | **Tayfur-Gelibol** | **1.53** | **4** | *e*Pn | **Pn** | **10 35 20.3** | **0.0** |
| **LPK** | **Lapseki** | **1.54** | **13** | *e*PN | **Pn** | **10 35 20.5** | **+0.1** |
| **LPK** | **Lapseki** | **1.54** | **13** | *e*Pn | **Pn** | **10 35 20.5** | **+0.1** |
| **KRBG** | **Karabiga-Canak** | **1.70** | **26** | *e*PN | **Pn** | **10 35 22.6** | **0.0** |
| **KRBG** | **Karabiga-Canak** | **1.70** | **26** | *e*Pn | **Pn** | **10 35 22.6** | **0.0** |
| **SMTH** | **Samothraki Isl** | **1.71** | **339** | P | **Pn** | **10 35 23.5** | **+0.7** |
| **SMTH** | **Samothraki Isl** | **1.71** | **339** | P | **Pn** | **10 35 23.5** | **+0.7** |
| **AYDN** | **Tasoluk** | **1.72** | **134** | *i* P | **Pb** | **10 35 24.3** | **-0.5** |
| **AYDN** | **Tasoluk** | **1.72** | **134** | P | **Pb** | **10 35 24.3** | **-0.5** |
| **MANT** | **Manisa** | **1.79** | **101** | *i* P | **Pb** | **10 35 25.7** | **-0.4** |
| MANT | | | | *i* S | **Sb** | **10 35 49.4** | **+0.8** |
| **MANT** | **Manisa** | **1.79** | **101** | P | **Pb** | **10 35 25.7** | **-0.4** |
| MANT | | | | S | **Sb** | **10 35 49.3** | **+0.8** |
| **ERIK** | **Erikli-Kesan** | **1.81** | **5** | *e*PN | **Pn** | **10 35 24.1** | **0.0** |
| **ERIK** | **Erikli-Kesan** | **1.81** | **5** | *e*Pn | **Pn** | **10 35 24.1** | **0.0** |
| **KULA** | **Kula-Manisa** | **1.87** | **100** | *e*PN | **Pn** | **10 35 25.9** | **+0.9** |
| **KULA** | **Kula-Manisa** | **1.87** | **100** | *e*Pn | **Pn** | **10 35 25.9** | **+0.9** |
| **ENEZ** | **Enez** | **1.87** | **356** | *e*PN | **Pn** | **10 35 25.6** | **+0.6** |
| **ENEZ** | **Enez** | **1.87** | **356** | *e*Pn | **Pn** | **10 35 25.6** | **+0.6** |
| **ENEZ** | **Enez** | **1.87** | **356** | P | **Pb** | **10 35 26.2** | **-1.1** |
| ENEZ | | | | S | **Sb** | **10 35 50.9** | **+0.3** |
| **ENEZ** | **Enez** | **1.87** | **356** | P | **Pb** | **10 35 26.2** | **-1.1** |
| ENEZ | | | | S | **Sb** | **10 35 50.9** | **+0.3** |
| **DEMI** | **Demirci** | **1.88** | **84** | *i* P | **Pg** | **10 35 28.8** | **-0.6** |
| DEMI | | | | *i* S | **Sg** | **10 35 52.3** | **-1.5** |
| **DEMI** | **Demirci** | **1.88** | **84** | P | **Pg** | **10 35 28.8** | **-0.6** |
| DEMI | | | | S | **Sg** | **10 35 52.3** | **-1.5** |
| **EDC** | **Edincik** | **1.90** | **38** | *e*PN | **Pn** | **10 35 25.3** | **0.0** |
| **EDC** | **Edincik** | **1.90** | **38** | *e*Pn | **Pn** | **10 35 25.3** | **0.0** |
| **APE** | **Apeiranthos** | **1.90** | **199** | *e*PN | **Pn** | **10 35 24.9** | **-0.5** |
| **APE** | **Apeiranthos** | **1.90** | **199** | *e*Pn | **Pn** | **10 35 24.9** | **-0.5** |
| **RKY** | **Sarkoy-Tekirda** | **1.94** | **20** | *e*PN | **Pn** | **10 35 26.6** | **+0.7** |
| **RKY** | **Sarkoy-Tekirda** | **1.94** | **20** | *e*Pn | **Pn** | **10 35 26.6** | **+0.7** |
| **BODT** | **Bodrum** | **1.96** | **156** | *e*PN | **Pn** | **10 35 26.8** | **+0.5** |
| **BODT** | **Bodrum** | **1.96** | **156** | *e*Pn | **Pn** | **10 35 26.8** | **+0.5** |
| **ALN** | **Alexandroupoli** | **2.04** | **354** | *e*PN | **Pn** | **10 35 27.8** | **+0.6** |
| **ALN** | **Alexandroupoli** | **2.04** | **354** | P | **Pn** | **10 35 28.3** | **+1.0** |
| **ALN** | **Alexandroupoli** | **2.04** | **354** | *e*Pn | **Pn** | **10 35 27.8** | **+0.6** |
| **ALN** | **Alexandroupoli** | **2.04** | **354** | P | **Pn** | **10 35 28.3** | **+1.0** |
| ALN | | | | S | **Sb** | **10 35 56.3** | **+0.9** |
| **ALN** | **Alexandroupoli** | **2.04** | **354** | P | **Pn** | **10 35 27.6** | **+0.3** |
| ALN | | | | S | **Sb** | **10 35 56.3** | **+0.9** |
| **KCTX** | **Karacabey (Bur** | **2.10** | **48** | *e*PN | **Pn** | **10 35 28.6** | **+0.4** |
| **KCTX** | **Karacabey (Bur** | **2.10** | **48** | *e*Pn | **Pn** | **10 35 28.6** | **+0.4** |
| **TVSB** | **Tavsanli** | **2.51** | **76** | *e*PN | **Pn** | **10 35 35.0** | **+1.1** |
| **TVSB** | **Tavsanli** | **2.51** | **76** | *e*Pn | **Pn** | **10 35 35.0** | **+1.1** |

*ISCJB **06** 10:39:40.6±0.4, 38.°85N±0.°02×26.°35E±0.°04, h9km±4km, Error ellipse: s-maj=5.0km s-min=2.9km az=168.7*
*ATH **06** 10:39:40.9, 38.°86N×26.°36E, h14km±4km, ML2.3/3, Error ellipse: s-maj=4.6km s-min=1.0km az=267.0*
*CSEM **06** 10:39:40.8±0.2, 38.°84N×26.°40E, h15km, ML2.3, Error ellipse: s-maj=4.7km s-min=3.0km az=77.0*
*DDA **06** 10:39:40.5, 38.°86N×26.°37E, h7km, Ml2.9*
*ISK **06** 10:39:40.2, 38.°84N×26.°41E, h21km, ML2.7*
**ISC 06 10:39:40.8**±0.9**, 38.°85N**±0.°02×**26.°38E**±0.°02**, h17**km±8km**, n54, σ0.s41**/78**, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PRK** | **Paraskevi** | **0.40** | **348** | P | **Pg** | **10 39 49.0** | **0.0** |
| PRK | | | | S | **Sg** | **10 39 54.6** | **0.0** |
| PRK | | | | AML | AML | 10 39 55.7 | |
| | comp=E,1855μm,0.2s | | | | | | |
| PRK | | | | AML | AML | 10 39 55.8 | |
| | comp=N,2425μm,0.4s | | | | | | |
| **PRK** | **Paraskevi** | **0.40** | **348** | P | **Pg** | **10 39 49.0** | **0.0** |
| PRK | | | | S | **Sg** | **10 39 54.6** | **0.0** |
| **DKL** | **Dikili** | **0.46** | **62** | *e*PG | **Pg** | **10 39 50.1** | **0.0** |
| DKL | | | | *e*SG | **Sb** | **10 39 56.9** | **-0.1** |
| **DKL** | **Dikili** | **0.46** | **62** | *e*Pg | **Pg** | **10 39 50.1** | **0.0** |
| DKL | | | | *e*Sg | **Sb** | **10 39 56.9** | **-0.1** |
| **URLA** | **Izmir** | **0.52** | **161** | *e*PG | **Pg** | **10 39 50.9** | **-0.3** |
| URLA | | | | *e*SG | **Sb** | **10 39 58.6** | **-0.1** |
| **URLA** | **Izmir** | **0.52** | **161** | *i* P | **Pg** | **10 39 51.0** | **-0.1** |
| URLA | | | | *i* S | **Sb** | **10 39 58.5** | **-0.1** |
| **URLA** | **Izmir** | **0.52** | **161** | P | **Pg** | **10 39 51.0** | **-0.1** |
| URLA | | | | S | **Sb** | **10 39 58.5** | **-0.1** |
| **CHOS** | **Chios island** | **0.53** | **209** | P | **Pg** | **10 39 51.6** | **+0.2** |
| CHOS | | | | S | **Sg** | **10 39 58.7** | **+0.2** |
| CHOS | | | | AML | AML | 10 40 03.3 | |
| | comp=E,1420μm,0.2s | | | | | | |
| CHOS | | | | AML | AML | 10 40 05.0 | |
| | comp=N,814μm,0.2s | | | | | | |
| **CHOS** | **Chios island** | **0.53** | **209** | P | **Pg** | **10 39 51.6** | **+0.2** |
| CHOS | | | | S | **Sg** | **10 39 58.7** | **+0.2** |
| **SIGR** | **SIGRI** | **0.54** | **311** | *e*PG | **Pb** | **10 39 52.1** | **+0.3** |
| **SIGR** | **SIGRI** | **0.54** | **311** | P | **Pg** | **10 39 51.8** | **+0.2** |
| SIGR | | | | S | **Sg** | **10 39 58.2** | **-0.7** |
| SIGR | | | | AML | AML | 10 39 59.8 | |
| | comp=E,388μm,0.3s | | | | | | |
| SIGR | | | | AML | AML | 10 40 04.5 | |
| | comp=N,471μm,0.2s | | | | | | |
| **SIGR** | **SIGRI** | **0.54** | **311** | P | **Pg** | **10 39 51.8** | **+0.2** |
| **SIGR** | **SIGRI** | **0.54** | **311** | *e*Pg | **Pb** | **10 39 52.1** | **+0.3** |
| SIGR | | | | S | **Sg** | **10 39 58.2** | **-0.7** |
| **ZEY** | **˜zmir** | **0.62** | **171** | *i* P | **Pg** | **10 39 52.7** | **-0.3** |
| ZEY | | | | *i* S | **Sn** | **10 40 04.0** | **-0.2** |
| **DGB** | **˜zmir** | **0.89** | **154** | *i* P | **Pg** | **10 39 58.0** | **-0.1** |
| DGB | | | | *i* S | **Sg** | **10 40 09.9** | **+0.1** |
| **BAYC** | **CANAKKALE_Bayr** | **0.90** | **8** | *i* P | **Pg** | **10 39 58.1** | **0.0** |
| BAYC | | | | *i* S | **Sn** | **10 40 11.1** | **-0.1** |
| **BAYC** | **CANAKKALE_Bayr** | **0.90** | **8** | P | **Pg** | **10 39 58.2** | **0.0** |
| BAYC | | | | S | **Sn** | **10 40 11.1** | **-0.1** |
| **EZN** | **Ezine** | **0.97** | **357** | *e*PG | **Pb** | **10 39 59.2** | **+0.1** |
| **EZN** | **Ezine** | **0.97** | **357** | *e*Pg | **Pb** | **10 39 59.2** | **+0.1** |
| **BOZC** | **Bozcaada** | **1.02** | **346** | *e*PG | **Pb** | **10 39 60.0** | **0.0** |
| **BOZC** | **Bozcaada** | **1.02** | **346** | *i* P | **Pg** | **10 40 00.4** | **-0.1** |
| BOZC | | | | *i* S | **Sg** | **10 40 13.9** | **-0.1** |
| **BOZC** | **Bozcaada** | **1.02** | **346** | *e*Pg | **Pb** | **10 40 00.0** | **0.0** |
| **STEP** | **BALIKESIR_Sava** | **1.17** | **63** | *i* P | **Pn** | **10 40 02.2** | **-0.1** |
| STEP | | | | *i* S | **Sg** | **10 40 19.1** | **+0.6** |
| **STEP** | **BALIKESIR_Sava** | **1.17** | **63** | P | **Pn** | **10 40 02.2** | **-0.1** |
| STEP | | | | S | **Sg** | **10 40 19.1** | **+0.6** |
| **SMG** | **Samos** | **1.20** | **162** | P | **Pn** | **10 40 02.9** | **+0.2** |
| **SMG** | **Samos** | **1.20** | **162** | P | **Pn** | **10 40 02.9** | **+0.2** |
| **BALY** | **Balya** | **1.31** | **47** | *i* P | **Pn** | **10 40 03.7** | **-0.6** |
| BALY | | | | *i* S | **Sg** | **10 40 24.3** | **+1.2** |
| **BALY** | **Balya** | **1.31** | **47** | P | **Pn** | **10 40 03.7** | **-0.6** |
| BALY | | | | S | **Sg** | **10 40 24.3** | **+1.2** |
| **GCAM** | **G?zelcaml?** | **1.33** | **149** | *e*PN | **Pn** | **10 40 03.9** | **-0.6** |
| **GCAM** | **G?zelcaml?** | **1.33** | **149** | *i* P | **Pb** | **10 40 05.3** | **+0.1** |
| GCAM | | | | *i* S | **Sb** | **10 40 22.8** | **+0.8** |
| **GCAM** | **G?zelcaml?** | **1.33** | **149** | *e*Pn | **Pn** | **10 40 03.9** | **-0.6** |
| **GCAM** | **G?zelcaml?** | **1.33** | **149** | P | **Pb** | **10 40 05.3** | **+0.1** |
| GCAM | | | | S | **Sb** | **10 40 22.8** | **+0.8** |
| **GADA** | **Gvkgeada** | **1.39** | **345** | *e*PN | **Pn** | **10 40 05.3** | **0.0** |
| **GADA** | **Gvkgeada** | **1.39** | **345** | *e*Pn | **Pn** | **10 40 05.3** | **0.0** |
| **LIA** | **Limnos Island** | **1.40** | **319** | P | **Pb** | **10 40 06.8** | **+0.4** |
| **LIA** | **Limnos Island** | **1.40** | **319** | P | **Pb** | **10 40 06.8** | **+0.4** |
| **BALB** | **Balikesir** | **1.41** | **55** | *e*PN | **Pn** | **10 40 05.2** | **-0.3** |
| **BALB** | **Balikesir** | **1.41** | **55** | *e*Pn | **Pn** | **10 40 05.2** | **-0.3** |
| **GELI** | **Tayfur-Gelibol** | **1.54** | **3** | *e*PN | **Pn** | **10 40 07.3** | **-0.2** |
| **GELI** | **Tayfur-Gelibol** | **1.54** | **3** | *e*Pn | **Pn** | **10 40 07.3** | **-0.2** |
| **LPK** | **Lapseki** | **1.55** | **11** | *e*PN | **Pn** | **10 40 07.1** | **-0.4** |
| **LPK** | **Lapseki** | **1.55** | **11** | *e*Pn | **Pn** | **10 40 07.1** | **-0.4** |
| **MANT** | **Manisa** | **1.74** | **101** | *i* P | **Pg** | **10 40 14.5** | **+0.2** |
| MANT | | | | *i* S | **Sg** | **10 40 36.1** | **-0.8** |
| **MANT** | **Manisa** | **1.74** | **101** | P | **Pg** | **10 40 14.5** | **+0.2** |
| MANT | | | | S | **Sg** | **10 40 36.1** | **-0.8** |
| **SMTH** | **Samothraki Isl** | **1.75** | **338** | P | **Pb** | **10 40 12.8** | **+0.5** |
| **SMTH** | **Samothraki Isl** | **1.75** | **338** | P | **Pb** | **10 40 12.8** | **+0.5** |
| **KULA** | **Kula-Manisa** | **1.82** | **100** | *e*PN | **Pn** | **10 40 11.2** | **-0.1** |
| **KULA** | **Kula-Manisa** | **1.82** | **100** | *e*Pn | **Pn** | **10 40 11.2** | **-0.1** |
| **APE** | **Apeiranthos** | **1.90** | **201** | *e*PN | **Pn** | **10 40 12.2** | **-0.2** |
| **APE** | **Apeiranthos** | **1.90** | **201** | *e*Pn | **Pn** | **10 40 12.2** | **-0.2** |
| **BODT** | **Bodrum** | **1.93** | **157** | *e*PN | **Pn** | **10 40 12.7** | **-0.1** |
| **BODT** | **Bodrum** | **1.93** | **157** | *e*Pn | **Pn** | **10 40 12.7** | **-0.1** |
| **ALN** | **Alexandroupoli** | **2.06** | **353** | P | **Pb** | **10 40 17.1** | **-0.6** |
| **ALN** | **Alexandroupoli** | **2.06** | **353** | P | **Pb** | **10 40 17.1** | **-0.6** |

*ISK **06** 10:44:23.8, 38.°56N×43.°23E, h26km, MD2.3*
*ISCJB **06** 10:44:25.0±1.3, 38.°62N±0.°05×43.°20E±0.°06, h22km±13km, Error ellipse: s-maj=9.7km s-min=6.3km az=149.3*
*CSEM **06** 10:44:24.2±0.3, 38.°62N×43.°19E, h19km±1km, ML2.8*
*DDA **06** 10:44:25.1, 38.°65N×43.°20E, h7km, Ml2.8*
**ISC 06 10:44:24.3**±1.0**, 38.°63N**±0.°03×**43.°18E**±0.°03**, h19**km±2km**, n16, σ0.s75**/28**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.17** | **101** | *e*PG | **Pg** | **10 44 29.4** | **+0.4** |
| VANB | | | | *e*SG | **Sg** | **10 44 33.2** | **+1.0** |
| **VANB** | **Van** | **0.17** | **101** | *e*Pg | **Pg** | **10 44 29.4** | **+0.4** |
| VANB | | | | *e*Sg | **Sg** | **10 44 33.2** | **+1.0** |
| **TVAN** | **Van** | **0.20** | **119** | *i* P | **Pb** | **10 44 28.9** | **-0.1** |
| TVAN | | | | *i* S | **Sg** | **10 44 33.1** | **-0.1** |
| **TVAN** | **Van** | **0.20** | **119** | P | **Pb** | **10 44 28.9** | **-0.1** |
| TVAN | | | | S | **Sg** | **10 44 33.1** | **-0.1** |
| **GEVA** | **Gevas** | **0.33** | **197** | *i* P | **Pb** | **10 44 31.9** | **+0.3** |
| GEVA | | | | *i* S | **Sn** | **10 44 38.8** | **-1.8** |
| **GEVA** | **Gevas** | **0.33** | **197** | P | **Pb** | **10 44 32.0** | **+0.3** |
| GEVA | | | | S | **Sn** | **10 44 38.8** | **-1.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.40** | **297** | *i* P | **Pb** | **10 44 33.0** | **0.0** |
| ADCV | | | | *i* S | **Sb** | **10 44 40.0** | **+1.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.40** | **297** | P | **Pb** | **10 44 33.0** | **0.0** |
| ADCV | | | | S | **Sb** | **10 44 40.0** | **+1.1** |
| **VMUR** | **Van-Muradiye** | **0.47** | **40** | *i* P | **Pg** | **10 44 34.0** | **-0.1** |
| VMUR | | | | *i* S | **Sb** | **10 44 41.6** | **+0.6** |
| **VMUR** | **Van-Muradiye** | **0.47** | **40** | P | **Pg** | **10 44 34.0** | **-0.1** |
| VMUR | | | | S | **Sb** | **10 44 41.6** | **+0.6** |
| **CLDR** | **Caldiran** | **0.77** | **48** | *e*PG | **Pg** | **10 44 39.8** | **+0.2** |
| CLDR | | | | *e*SG | **Sn** | **10 44 51.1** | **-0.6** |
| **CLDR** | **Caldiran** | **0.77** | **48** | *e*Pg | **Pg** | **10 44 39.8** | **+0.2** |
| CLDR | | | | *e*Sg | **Sn** | **10 44 51.1** | **-0.6** |
| **TUTA** | **Tutak** | **0.83** | **340** | *i* P | **Pb** | **10 44 39.8** | **-0.5** |
| **TUTA** | **Tutak** | **0.83** | **340** | P | **Pb** | **10 44 39.8** | **-0.5** |
| **AGRB** | **Hanur-Agry** | **0.96** | **351** | *e*PG | **Pn** | **10 44 42.8** | **-0.2** |
| **AGRB** | **Hanur-Agry** | **0.96** | **351** | *e*Pg | **Pn** | **10 44 42.8** | **-0.2** |

**IDC 06 10:45:32.4**±5.2**, 28.°34S**×**176.°79W, h0**km**, mb3.6**/2**, mb1 3.9**/2**, mb1mx3.6**/20**, mbtmp3.6**/2**, Error ellipse: s-maj=262.4km s-min=56.8km az=158.0, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ASAR** | **Alice Springs** | **44.32** | **264** | P | P | 10 53 44.1 | -0.3 |
| | 0.4nm,0.6s,baz=102,slow=7.1,SNR=13 | | | | | | |
| **WRA** | **Warramunga Arr** | **45.12** | **269** | P | P | 10 53 50.9 | 0.0 |
| | 0.9nm,0.8s,baz=110,slow=7.7,SNR=6.9 | | | | | | |
| **AKASG** | **Malin Array Be** | **150.25** | **326** | PKPbc | PKPbc | 11 05 24.7 | -0.4 |
| | 0.4nm,0.4s,baz=50,slow=2.9,SNR=3.0 | | | | | | |

*ISK **06** 10:45:51.0, 38.°63N×43.°23E, h24km, MD2.3*
*ISCJB **06** 10:45:52.6±0.5, 38.°70N±0.°03×43.°19E±0.°04, h9km±5km, Error ellipse: s-maj=4.7km s-min=4.7km az=176.8*
*CSEM **06** 10:45:52.1±0.2, 38.°69N×43.°18E, h10km, ML2.9, Error ellipse: s-maj=5.5km s-min=4.6km az=75.0*
*DDA **06** 10:45:52.0, 38.°70N×43.°17E, h7km, Ml2.9*
**ISC 06 10:45:52.4**±0.9**, 38.°69N**±0.°02×**43.°18E**±0.°03**, h12**km±7km**, n24, σ1.s07**/42**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.19** | **121** | *e*PG | **Pg** | **10 45 56.9** | **+0.2** |
| VANB | | | | *e*SG | **Sg** | **10 46 00.6** | **+1.0** |
| **VANB** | **Van** | **0.19** | **121** | *e*Pg | **Pg** | **10 45 56.9** | **+0.2** |
| VANB | | | | *e*Sg | **Sg** | **10 46 00.6** | **+1.0** |
| **TVAN** | **Van** | **0.24** | **133** | *i* P | **Pg** | **10 45 57.2** | **-0.4** |
| TVAN | | | | *i* S | **Sg** | **10 46 01.5** | **+0.4** |
| **TVAN** | **Van** | **0.24** | **133** | P | **Pg** | **10 45 57.2** | **-0.4** |
| TVAN | | | | S | **Sg** | **10 46 01.5** | **+0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.38** | **288** | *i* P | **Pg** | **10 45 59.9** | **-0.1** |
| ADCV | | | | *i* S | **Sb** | **10 46 06.3** | **-0.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.38** | **288** | P | **Pg** | **10 45 59.9** | **-0.1** |
| **GEVA** | **Gevas** | **0.39** | **194** | *i* P | **Pg** | **10 45 59.5** | **-0.8** |
| GEVA | | | | *i* S | **Sb** | **10 46 06.5** | **-1.0** |
| **GEVA** | **Gevas** | **0.39** | **194** | P | **Pg** | **10 45 59.5** | **-0.8** |
| GEVA | | | | S | **Sb** | **10 46 06.5** | **-1.0** |
| **VMUR** | **Van-Muradiye** | **0.42** | **46** | *i* P | **Pg** | **10 46 00.7** | **-0.2** |
| VMUR | | | | *i* S | **Sb** | **10 46 07.9** | **-0.6** |
| **VMUR** | **Van-Muradiye** | **0.42** | **46** | P | **Pg** | **10 46 00.7** | **-0.2** |
| VMUR | | | | S | **Sb** | **10 46 07.9** | **-0.6** |
| **CLDR** | **Caldiran** | **0.73** | **52** | *e*PG | **Pg** | **10 46 06.5** | **-0.1** |
| CLDR | | | | *e*SG | **Sb** | **10 46 17.1** | **-0.2** |
| **CLDR** | **Caldiran** | **0.73** | **52** | *i* P | **Pg** | **10 46 05.8** | **-0.8** |
| CLDR | | | | *i* S | **Sb** | **10 46 16.5** | **-0.8** |
| **CLDR** | **Caldiran** | **0.73** | **52** | P | **Pg** | **10 46 05.8** | **-0.8** |
| **CLDR** | **Caldiran** | **0.73** | **52** | *e*Pg | **Pg** | **10 46 06.5** | **-0.1** |
| CLDR | | | | S | **Sb** | **10 46 16.5** | **-0.8** |
| CLDR | | | | *e*Sg | **Sb** | **10 46 17.1** | **-0.2** |
| **TUTA** | **Tutak** | **0.76** | **338** | *i* P | **Pg** | **10 46 06.5** | **-0.8** |
| **TUTA** | **Tutak** | **0.76** | **338** | P | **Pg** | **10 46 06.5** | **-0.8** |
| **AGRB** | **Hanur-Agry** | **0.89** | **351** | *e*PG | **Pg** | **10 46 08.9** | **-0.8** |
| **AGRB** | **Hanur-Agry** | **0.89** | **351** | *e*Pg | **Pg** | **10 46 09.0** | **-0.8** |
| **EKAR** | **Karacoban** | **1.04** | **303** | *i* P | **Pn** | **10 46 14.0** | **+0.9** |
| EKAR | | | | *i* S | **Sn** | **10 46 31.4** | **+3.7** |
| **EKAR** | **Karacoban** | **1.04** | **303** | P | **Pn** | **10 46 14.0** | **+0.9** |
| **HAKT** | **HAKKARI** | **1.21** | **160** | *i* P | **Pb** | **10 46 13.9** | **-1.5** |
| HAKT | | | | *i* S | **Sn** | **10 46 33.8** | **+2.0** |
| **HAKT** | **HAKKARI** | **1.21** | **160** | P | **Pb** | **10 46 13.9** | **-1.5** |
| HAKT | | | | S | **Sn** | **10 46 33.8** | **+2.0** |
| **EATA** | **Eleskirt** | **1.28** | **336** | *i* P | **Pn** | **10 46 16.0** | **-0.6** |
| EATA | | | | *i* S | **Sn** | **10 46 34.9** | **+1.1** |
| **EATA** | **Eleskirt** | **1.28** | **336** | P | **Pn** | **10 46 16.0** | **-0.6** |
| EATA | | | | S | **Sn** | **10 46 34.9** | **+1.1** |

**IDC 06 10:59:22.6**±999.0**, 49.°61N**×**55.°18E, h0**km**, Error ellipse: s-maj=2166.0km s-min=43.1km az=66.0, Western Kazakhstan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **I31KZ** | **AKTYUBINSK INF** | **2.01** | **66** | *i* | | 11 10 00.0 | |
| | baz=248,slow=376,SNR=0.4 | | | | | | |
| **I46RU** | **ZALESOVO INFRA** | **18.77** | **65** | *i* | | 13 00 50.0 | |
| | baz=268,slow=311,SNR=2.5 | | | | | | |
| **I34MN** | **SONGINO INFRAS** | **33.32** | **73** | *i* | | 14 26 40.0 | |
| | baz=290,slow=371,SNR=0.9 | | | | | | |

*CSEM **06** 11:08:00.9±0.2, 37.°28N×31.°94E, h2km, ML2.7, Error ellipse: s-maj=5.1km s-min=4.5km az=134.0*
*DDA **06** 11:08:01.0, 37.°30N×31.°92E, h7km, Ml2.7*
*ISK **06** 11:08:00.7, 37.°36N×31.°86E, h5km, MD2.8*
**ISC 06 11:08:01.2**±1.2**, 37.°30N**±0.°03×**31.°92E**±0.°02**, h6**km±10km**, n30, σ0.s64**/44**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KMER** | **Konya-Meram** | **0.59** | **37** | *i* P | **Pg** | **11 08 12.7** | **+0.1** |
| **KMER** | **Konya-Meram** | **0.59** | **37** | P | **Pg** | **11 08 12.7** | **+0.1** |
| **KONT** | **Konya--Tatoy** | **0.74** | **28** | *e*PG | **Pg** | **11 08 15.5** | **+0.2** |
| KONT | | | | *e*SG | **Sb** | **11 08 26.5** | **-0.4** |
| **KONT** | **Konya--Tatoy** | **0.74** | **28** | *i* P | **Pg** | **11 08 15.2** | **-0.2** |
| KONT | | | | *i* S | **Sg** | **11 08 25.1** | **+0.2** |
| **KONT** | **Konya--Tatoy** | **0.74** | **28** | *e*Pg | **Pg** | **11 08 15.5** | **+0.2** |
| KONT | | | | *e*Sg | **Sb** | **11 08 26.5** | **-0.4** |
| **SUTC** | **Sutluce-Ispart** | **0.76** | **284** | *e*PG | **Pg** | **11 08 15.3** | **-0.4** |
| SUTC | | | | *e*SG | **Sg** | **11 08 25.8** | **+0.3** |
| **SUTC** | **Sutluce-Ispart** | **0.76** | **284** | *e*Pg | **Pg** | **11 08 15.3** | **-0.4** |
| SUTC | | | | *e*Sg | **Sg** | **11 08 25.8** | **+0.3** |
| **DOGA** | **KONYA_Doganhis** | **0.83** | **346** | *i* P | **Pg** | **11 08 16.7** | **-0.5** |
| DOGA | | | | *i* S | **Sb** | **11 08 29.6** | **-0.1** |
| **DOGA** | **KONYA_Doganhis** | **0.83** | **346** | P | **Pg** | **11 08 16.7** | **-0.5** |
| DOGA | | | | S | **Sb** | **11 08 29.6** | **-0.1** |
| **LADK** | **Ladik-KONYA** | **0.97** | **21** | *e*PG | **Pg** | **11 08 19.5** | **-0.3** |
| **LADK** | **Ladik-KONYA** | **0.97** | **21** | *e*Pg | **Pg** | **11 08 19.5** | **-0.3** |
| **ERMK** | **Ermenek** | **1.03** | **129** | *i* P | **Pg** | **11 08 19.9** | **-1.0** |
| ERMK | | | | *i* S | **Sn** | **11 08 36.9** | **-0.2** |
| **ERMK** | **Ermenek** | **1.03** | **129** | P | **Pg** | **11 08 19.9** | **-1.0** |
| **BAGO** | **Egridir - ISPA** | **1.14** | **308** | *i* P | **Pg** | **11 08 22.6** | **-0.3** |
| BAGO | | | | *i* S | **Sn** | **11 08 39.3** | **-0.4** |
| **ISP** | **Isparta** | **1.23** | **296** | *e*PN | **Pg** | **11 08 24.0** | **-0.8** |
| **ISP** | **Isparta** | **1.23** | **296** | *e*Pn | **Pg** | **11 08 24.0** | **-0.8** |
| **KDHN** | **Kadinhani** | **1.23** | **7** | *i* P | **Pn** | **11 08 25.0** | **-0.1** |
| KDHN | | | | *i* S | **Sn** | **11 08 42.3** | **+0.2** |
| **KDHN** | **Kadinhani** | **1.23** | **7** | P | **Pn** | **11 08 25.0** | **-0.1** |
| KDHN | | | | S | **Sn** | **11 08 42.3** | **+0.2** |
| **KORT** | **Korkueli** | **1.29** | **257** | *e*PN | **Pn** | **11 08 25.7** | **-0.1** |
| **KORT** | **Korkueli** | **1.29** | **257** | *e*Pn | **Pn** | **11 08 25.7** | **-0.1** |
| **KIZT** | **Kizilcal** | **1.58** | **359** | *e*PN | **Pn** | **11 08 30.3** | **+0.4** |
| **KIZT** | **Kizilcal** | **1.58** | **359** | *e*Pn | **Pn** | **11 08 30.3** | **+0.4** |
| **KZIL** | **AFYON_Kizioren** | **1.71** | **305** | *i* P | **Pb** | **11 08 32.5** | **-0.5** |
| KZIL | | | | *i* S | **Sg** | **11 08 56.6** | **+0.6** |
| **KZIL** | **AFYON_Kizioren** | **1.71** | **305** | P | **Pb** | **11 08 32.5** | **-0.5** |
| KZIL | | | | S | **Sg** | **11 08 56.6** | **+0.6** |
| **GULN** | **MERSIN_Gulnar** | **1.71** | **130** | *i* P | **Pn** | **11 08 31.8** | **+0.3** |
| GULN | | | | *i* S | **Sg** | **11 08 57.7** | **+1.6** |
| **GULN** | **MERSIN_Gulnar** | **1.71** | **130** | P | **Pn** | **11 08 31.8** | **+0.3** |
| **AKAS** | **Kas** | **2.14** | **241** | *e*PN | **Pn** | **11 08 38.7** | **+1.2** |
| **AKAS** | **Kas** | **2.14** | **241** | *e*Pn | **Pn** | **11 08 38.7** | **+1.2** |
| **FETY** | **Fethiye** | **2.37** | **255** | *e*PN | **Pn** | **11 08 42.0** | **+1.5** |
| **FETY** | **Fethiye** | **2.37** | **255** | *e*Pn | **Pn** | **11 08 42.0** | **+1.5** |

*JMA **06** 11:14:08.3±0.3, 37.°14N×143.°94E, h46km, M3.2*
*IDC **06** 11:14:08.5±10.0, 36.°31N×143.°78E, h0km, mb3.4/2,*

*mb1 3.6/3, mb1mx3.3/44, mbtmp3.3/3, ML2.8/1, Error ellipse: s-maj=228.2km s-min=35.9km az=27.0*

**ISC 06 11:14:03.0**±2.4**, 37.30N**±0.06×**143.93E**±0.07**, h2km**±14km**, n20,** σ1s98/31**, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JIO** | **Ouri** | **2.35** | **300** | P | **Pg** | **11 14 47.1** | **-0.9** |
| JIO | | | | *e*S | **Sb** | **11 15 15.4** | **0.0** |
| **JFK** | **Kawauchi** | **2.44** | **273** | *e*S | **Sb** | **11 15 16.0** | **-2.0** |
| **ONAJ** | **Iwakimizuishiy** | **2.51** | **267** | P | **Pb** | **11 14 47.8** | **-1.0** |
| ONAJ | | | | *e*S | **Sn** | **11 15 16.9** | **+0.9** |
| **OFUJ** | **Ofunato** | **2.52** | **316** | P | **Pb** | **11 14 49.4** | **+0.5** |
| OFUJ | | | | *e*S | **Sb** | **11 15 19.7** | **-0.6** |
| **JMM** | **Marumori** | **2.56** | **284** | P | **Pb** | **11 14 49.2** | **-0.3** |
| JMM | | | | *e*S | **Sb** | **11 15 19.7** | **-1.7** |
| **JMK** | **Ichinoseki** | **2.70** | **309** | P | **Pb** | **11 14 52.2** | **+0.2** |
| JMK | | | | *e*S | **Sb** | **11 15 24.6** | **-1.0** |
| **JFT** | **Otama** | **2.87** | **276** | P | **Pb** | **11 14 54.6** | **-0.3** |
| JFT | | | | *e*S | **Sb** | **11 15 28.4** | **-2.1** |
| **JOM** | **Ohasama** | **3.00** | **317** | P | **Pb** | **11 14 56.7** | **-0.5** |
| JOM | | | | S | **Sb** | **11 15 32.5** | **-1.8** |
| **JYK** | **Kaneyama** | **3.25** | **301** | P | **Pb** | **11 15 00.8** | **-0.6** |
| JYK | | | | *e*S | **Sb** | **11 15 40.0** | **-1.4** |
| **JAG** | **Ashikaga** | **3.70** | **258** | P | **Pn** | **11 15 04.0** | **+2.9** |
| JAG | | | | *e*S | **Sn** | **11 15 44.9** | **-0.3** |
| **JRY** | **Ryogami san** | **4.24** | **254** | P | **Pn** | **11 15 10.9** | **+2.3** |
| JRY | | | | *e*S | **Sn** | **11 15 57.4** | **-1.3** |
| **MJAR** | **Matsushiro Arr** | **4.65** | **262** | Pn | **Pn** | **11 15 18.1** | **+3.9** |
| | 0.4nm,0.3s,baz=86,slow=9.2,SNR=4.4 | | | | | | |
| MJAR | | | | Sn | **Sn** | **11 16 11.0** | **+2.4** |
| | 0.3nm,0.3s,baz=72,slow=23,SNR=3.4 | | | | | | |
| **JCH** | **Churui** | **5.33** | **355** | P | **Pn** | **11 15 27.3** | **+3.8** |
| JCH | | | | *e*S | **Sn** | **11 16 26.0** | **+0.6** |
| **NEM2** | **Nemuro 2** | **6.22** | **12** | P | **Pn** | **11 15 37.3** | **+1.6** |
| NEM2 | | | | *e*S | **Sn** | **11 16 43.2** | **-4.1** |
| **JTKR** | **Abashiri--Toko** | **6.67** | **360** | P | **Pn** | **11 15 45.2** | **+3.4** |
| JTKR | | | | *e*S | **Sn** | **11 16 58.5** | **+0.2** |
| **H11N2** | **WAKE ISLAND Hy** | **26.60** | **125** | T | T | 11 46 41.5 | |
| | baz=311 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **26.61** | **125** | T | T | 11 46 42.6 | |
| | baz=311 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **26.62** | **125** | T | T | 11 46 40.7 | |
| | baz=311 | | | | | | |
| **WRA** | **Warramunga Arr** | **57.65** | **191** | P | **P** | **11 23 53.6** | **-1.0** |
| | 0.4nm,0.6s,baz=10,slow=7.2,SNR=5.0 | | | | | | |
| **ASAR** | **Alice Springs** | **61.37** | **190** | P | **P** | **11 24 19.3** | **-1.1** |
| | 0.2nm,0.4s,baz=5.5,slow=6.6,SNR=5.6 | | | | | | |

---

**NNC 06 11:14:18.2**±5.0**, 50.27N×72.74E, h0km, mb3.6, mpv3.2, 6C-1D, Error ellipse: s-maj=59.1km s-min=12.6km az=27.0, Suspected Mining explosion., Central Kazakhstan**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BVA0** | **Borovoye Array** | **3.13** | **333** | Pg | Pb | 11 15 15.9 | +1.2 |
| | 4.8nm,0.8s,baz=135,slow=16,SNR=20 | | | | | | |
| BVA0 | | | | ⇑Lg | Lg | 11 15 56.4 | |
| | 17nm,0.7s,baz=127,slow=29,SNR=12 | | | | | | |
| **BRVK** | **Borovoye** | **3.19** | **332** | ⇑Pg | Pg | 11 15 17.8 | -1.5 |
| | 4.5nm,0.7s | | | | | | |
| BRVK | | | | ⇓Lg | Lg | 11 15 58.0 | |
| | 44nm,0.6s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **3.72** | **82** | ⇑Pn | Pn | 11 15 15.5 | -1.3 |
| | 11nm,0.6s,baz=279,slow=13 | | | | | | |
| KURBB | | | | ⇑Sn | Sn | 11 16 03.1 | +1.8 |
| | 75nm,0.8s | | | | | | |
| **KURK** | **Kurchatov** | **3.78** | **81** | ⇑Pn | Pn | 11 15 16.7 | -1.0 |
| | 3.2nm,0.6s | | | | | | |
| KURK | | | | ⇑Sn | Sn | 11 16 04.2 | +1.4 |
| | 95nm,1.2s | | | | | | |

---

**IDC 06 11:25:32.8**±1.1**, 51.47N×75.81E, h0km, mb1 2.8**/3**, mb1mx2.7**/45**, mbtmp2.8**/3**, ML2.4**/3**, 2C-2D, Error ellipse: s-maj=29.7km s-min=8.2km az=30.0, Eastern Kazakhstan**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KURBB** | **Kurchatov Arra** | **1.92** | **115** | Pg | Pn | 11 26 06.7 | 0.0 |
| | 0.9nm,0.3s,baz=297,slow=18,SNR=57 | | | | | | |
| KURBB | | | | Lg | Lg | 11 26 35.4 | |
| | 1.0nm,0.3s,baz=306,slow=31,SNR=13 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **1.92** | **115** | ⇓Pn | Pb | 11 26 08.5 | -0.1 |
| | 8.1nm,0.3s,baz=301,slow=17 | | | | | | |
| KURBB | | | | ⇓Sn | Sg | 11 26 35.2 | +0.9 |
| | 24nm,0.3s,baz=306,slow=30 | | | | | | |
| **KURK** | **Kurchatov** | **1.93** | **112** | ⇑Pn | Pb | 11 26 07.9 | -0.8 |
| | 5.8nm,0.7s | | | | | | |
| KURK | | | | ⇑Sn | Sg | 11 26 34.7 | 0.0 |
| | 5.8nm,0.4s | | | | | | |
| **BVAR** | **Borovoye Array** | **3.68** | **297** | Pn | Pn | 11 26 30.9 | 0.0 |
| | 0.4nm,0.3s,baz=113,slow=16,SNR=4.3 | | | | | | |
| BVAR | | | | Sn | Sn | 11 27 13.2 | -1.7 |
| | 0.8nm,0.3s,baz=112,slow=22,SNR=5.5 | | | | | | |
| BVAR | | | | Lg | Lg | 11 27 23.1 | |
| | 0.9nm,0.3s,baz=114,slow=29,SNR=6.1 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **6.01** | **62** | Pn | Pn | 11 27 05.0 | +2.0 |
| | 0.5nm,0.3s,baz=246,slow=14,SNR=6.9 | | | | | | |
| **I46RU** | **ZALESOVO INFRA** | **6.01** | **62** | *i* | | 11 59 50.0 | |
| | baz=248,slow=323,SNR=0.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **6.32** | **135** | Pn | Pn | 11 27 08.0 | +0.7 |
| | 0.1nm,0.3s,baz=316,slow=11,SNR=3.1 | | | | | | |
| MKAR | | | | Sn | Sn | 11 28 18.8 | -1.4 |
| | 0.1nm,0.3s,baz=327,slow=23,SNR=2.3 | | | | | | |
| MKAR | | | | Lg | Lg | 11 28 51.9 | |
| | 0.5nm,0.3s,baz=324,slow=26,SNR=7.4 | | | | | | |

---

*ISCJB **06** 11:34:08.5±0.4, 36.36N±0.03×37.30E±0.03, h0km, Error ellipse: s-maj=3.9km s-min=3.2km az=175.6*
*CSEM **06** 11:34:08.5, 36.38N×37.31E, h7km, ML2.8, Suspected Mining explosion.*
*DDA **06** 11:34:08.5, 36.38N×37.31E, h7km, Ml2.8, Suspected Mining explosion.*
*NSSC **06** 11:34:09.5±1.2, 36.36N×37.28E, h5km±5km, ML1.9*
**ISC 06 11:34:07.8**±0.8**, 36.33N**±0.03×**37.29E**±0.02**, h0km, n16,** σ**0s45**/32**, Jordan-Syria region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KUZU** | **Kuzuini** | **0.48** | **339** | *i* P | **Pg** | **11 34 17.3** | **+0.3** |
| KUZU | | | | *i* S | **Sb** | **11 34 26.9** | **0.0** |
| **KUZU** | **Kuzuini** | **0.48** | **339** | P | **Pg** | **11 34 17.3** | **+0.3** |
| KUZU | | | | S | **Sb** | **11 34 26.9** | **0.0** |
| **SLMH** | **Al Salmeh** | **0.53** | **102** | *e*P | **Pb** | **11 34 19.7** | **-0.2** |
| SLMH | | | | *e*S | **Sb** | **11 34 28.1** | **0.0** |
| SLMH | | | | AML | AML | 11 35 29.6 | |
| | comp=E,296nm,0.6s | | | | | | |
| SLMH | | | | AML | AML | 11 35 29.8 | |
| | comp=N,360nm,0.6s | | | | | | |
| **DRWC** | **Darouich** | **0.58** | **300** | *e*P | **Pg** | **11 34 19.9** | **+0.9** |
| DRWC | | | | *e*S | **Sb** | **11 34 28.9** | **-0.9** |
| DRWC | | | | AML | AML | 11 34 34.3 | |
| | comp=N,25nm,0.3s | | | | | | |
| DRWC | | | | AML | AML | 11 34 43.5 | |
| | comp=E,72nm,0.5s | | | | | | |
| **BTCH** | **Batrach** | **0.73** | **247** | *e*P | **Pb** | **11 34 23.9** | **+0.4** |
| BTCH | | | | *e*S | **Sb** | **11 34 33.8** | **-0.3** |
| BTCH | | | | AML | AML | 11 34 41.5 | |
| | comp=E,79nm,0.5s | | | | | | |
| BTCH | | | | AML | AML | 11 34 44.2 | |
| | comp=N,94nm,0.3s | | | | | | |
| **KAMA** | **Osmaniye** | **0.99** | **330** | *i* P | **Pg** | **11 34 27.0** | **+0.2** |
| KAMA | | | | *i* S | **Sg** | **11 34 39.5** | **-0.3** |
| **YAYL** | **Yayladag** | **1.00** | **253** | *i* P | **Pb** | **11 34 28.0** | **-0.1** |
| YAYL | | | | *i* S | **Sn** | **11 34 43.2** | **-1.0** |
| **YAYL** | **Yayladag** | **1.00** | **253** | P | **Pb** | **11 34 28.0** | **-0.1** |
| YAYL | | | | S | **Sn** | **11 34 43.2** | **-1.0** |
| **HCB** | **Kahramanmara¯** | **1.06** | **343** | *i* P | **Pb** | **11 34 28.8** | **-0.3** |
| HCB | | | | *i* S | **Sb** | **11 34 42.8** | **-0.8** |
| **ARNB** | **Al Arnab** | **1.17** | **247** | *e*P | **Pb** | **11 34 31.1** | **+0.2** |
| ARNB | | | | *e*S | **Sb** | **11 34 46.5** | **-0.1** |
| ARNB | | | | AML | AML | 11 34 52.8 | |
| | comp=E,36nm,0.3s | | | | | | |
| ARNB | | | | AML | AML | 11 34 56.8 | |
| | comp=N,22nm,0.4s | | | | | | |
| **SURC** | **SANLIURFA_SURC** | **1.20** | **62** | *i* P | **Pg** | **11 34 30.6** | **-0.2** |
| SURC | | | | *i* S | **Sb** | **11 34 47.3** | **-0.2** |
| **SURC** | **SANLIURFA_SURC** | **1.20** | **62** | P | **Pg** | **11 34 30.6** | **-0.2** |
| SURC | | | | S | **Sb** | **11 34 47.3** | **-0.2** |
| **ANDN** | **Andirin** | **1.46** | **329** | *i* P | **Pb** | **11 34 36.0** | **0.0** |
| ANDN | | | | *i* S | **Sn** | **11 34 55.5** | **-0.1** |
| **ANDN** | **Andirin** | **1.46** | **329** | P | **Pb** | **11 34 36.0** | **0.0** |
| ANDN | | | | S | **Sn** | **11 34 55.5** | **-0.1** |
| **HAWK** | **Haweek** | **1.94** | **202** | *e*P | **Pb** | **11 34 44.0** | **-0.1** |
| HAWK | | | | *e*S | **Sb** | **11 35 08.4** | **-0.5** |
| HAWK | | | | AML | AML | 11 35 11.2 | |
| | comp=N,14nm,0.4s | | | | | | |
| HAWK | | | | AML | AML | 11 35 13.7 | |
| | comp=E,6.8nm,0.5s | | | | | | |
| **SFNV** | **Sufian** | **2.28** | **87** | *e*P | **Pn** | **11 34 47.5** | **+0.8** |
| SFNV | | | | *e*S | **Sn** | **11 35 15.8** | **+0.3** |
| SFNV | | | | AML | AML | 11 35 40.5 | |
| | comp=Z,7.1nm,0.4s | | | | | | |

---

*SOME **06** 11:34:39.1, 44.72N×82.10E, h10km*
*NNC **06** 11:34:40.6±0.9, 44.73N×82.01E, h0km, mb3.4, mpv2.9, Error ellipse: s-maj=16.2km s-min=3.3km az=113.0*
**ISC 06 11:34:35.0**±1.6**, 44.66N**±0.06×**82.53E**±0.09**, h8km**±16km**, n11,** σ**1s43**/21**, 2C-4D, Northern Xinjiang**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KTMS** | **Ketmen** | **1.98** | **233** | *e*P | **Pg** | **11 35 12.8** | **-0.2** |
| | 18nm,0.1s | | | | | | |
| KTMS | | | | *e*S | **Sb** | **11 35 37.0** | **+0.6** |
| | 59nm,0.4s | | | | | | |
| **DJR** | **Jarkent** | **1.99** | **261** | *e*P | **Pb** | **11 35 10.7** | **-0.7** |
| | 43nm,0.2s | | | | | | |
| DJR | | | | *e*S | **Sn** | **11 35 33.1** | **-0.9** |
| | 22nm,0.5s | | | | | | |
| **MK31** | **Makanchi Array** | **2.14** | **356** | ⇑Pn | **Pg** | **11 35 16.5** | **+0.5** |
| | 3.6nm,0.2s,baz=182,slow=14,SNR=304 | | | | | | |
| MK31 | | | | ⇓Sn | **Sg** | **11 35 44.3** | **+0.6** |
| | 5.5nm,0.2s,baz=186,slow=28,SNR=33 | | | | | | |
| **MAKZ** | **Makanchi** | **2.18** | **350** | ⇓Pn | **Pg** | **11 35 16.7** | **-0.1** |
| | 1.9nm,0.2s | | | | | | |
| MAKZ | | | | ⇑Sn | **Sg** | **11 35 44.4** | **-0.7** |
| | 7.0nm,0.3s | | | | | | |
| **KAPS** | **Kapalarasan** | **2.34** | **287** | *e*P | **Pb** | **11 35 16.5** | **-0.9** |
| | 11nm,0.1s | | | | | | |
| KAPS | | | | *e*S | **Sn** | **11 35 43.0** | **+0.4** |
| | 20nm,0.4s | | | | | | |
| **PDGK** | **Podgornoye** | **2.57** | **240** | ⇓Pn | **Pb** | **11 35 20.3** | **-1.0** |
| | 1.7nm,0.2s | | | | | | |
| PDGK | | | | ⇓Lg | Lg | 11 35 52.8 | |
| | 18nm,0.5s | | | | | | |
| **KPKS** | **Kokpek** | **3.02** | **248** | *e*P | **Pb** | **11 35 28.3** | **-0.7** |
| | 15nm,0.2s | | | | | | |
| KPKS | | | | *e*S | **Sb** | **11 36 03.7** | **-2.3** |
| | 37nm,0.6s | | | | | | |
| **ZSN** | **Zaisan** | **3.23** | **29** | *e*P | **Pg** | **11 35 36.6** | **-0.2** |
| | 1.2nm,0.4s | | | | | | |
| ZSN | | | | *e*S | **Sg** | **11 36 18.6** | **0.0** |
| | 2.6nm,0.3s | | | | | | |
| **ARXS** | **Arharly** | **3.40** | **264** | *e*P | **Pb** | **11 35 34.7** | **-0.8** |
| | 7.0nm,0.3s | | | | | | |
| ARXS | | | | *e*S | **Sb** | **11 36 15.2** | **-1.8** |
| | 14nm,0.3s | | | | | | |
| **TNSS** | **Tian-Shan** | **4.35** | **250** | *e*P | **Pb** | **11 35 53.0** | **+1.1** |
| | 2.8nm,0.6s | | | | | | |
| TNSS | | | | *e*S | **Sb** | **11 36 45.9** | **+1.2** |
| | 5.6nm,0.5s | | | | | | |
| **DGS** | **Degeres** | **5.08** | **256** | *e*P | **Pb** | **11 36 06.5** | **+2.3** |
| | 2.1nm,0.3s | | | | | | |
| DGS | | | | *e*S | **Sb** | **11 37 08.9** | **+3.5** |
| | 3.8nm,0.5s | | | | | | |

---

**IDC 06 11:35:26.9**±4.9**, 17.11S×173.48W, h0km, mb4.0**/3**, mb1 4.2**/4**, mb1mx3.8**/33**, mbtmp3.9**/4**, ML3.4**/1**, Error ellipse: s-maj=185.2km s-min=23.3km az=135.0, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AFI** | **Afiamalu** | **3.58** | **28** | Pn | Pn | 11 36 24.3 | +0.5 |
| | 3.2nm,0.3s,baz=212,slow=15,SNR=6.9 | | | | | | |
| AFI | | | | Sn | Sn | 11 37 07.1 | +0.2 |
| | 10nm,0.3s,baz=155,slow=22,SNR=7.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **49.40** | **258** | P | P | 11 44 18.9 | 0.0 |
| | 1.2nm,0.7s,baz=97,slow=8.3,SNR=15 | | | | | | |
| **ASAR** | **Alice Springs** | **49.53** | **253** | P | P | 11 44 19.6 | -0.1 |
| | 5.5nm,0.9s,baz=85,slow=8.8,SNR=44 | | | | | | |
| **ILAR** | **Eielson Array** | **84.13** | **11** | P | P | 11 47 59.2 | -0.2 |
| | 0.3nm,0.8s,baz=215,slow=4.2,SNR=3.5 | | | | | | |

---

**IDC 06 11:39:59.3**±4.9**, 24.51S×179.72E, h516km**±60km**, mb2.6**/3**, mb1 3.1**/5**, mb1mx2.9**/29**, mbtmp3.8**/5**, Error ellipse: s-maj=49.9km s-min=33.9km az=14.0, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **12.44** | **279** | P | P | 11 42 43.3 | +0.7 |
| | 0.3nm,0.3s,baz=119,slow=17,SNR=2.3 | | | | | | |
| **URZ** | **Urewera** | **13.88** | **189** | P | P | 11 42 56.4 | -1.0 |
| | 1.2nm,0.3s,baz=21,slow=2.7,SNR=2.1 | | | | | | |
| URZ | | | | S | S | 11 45 27.2 | +3.0 |
| | 0.2nm,0.3s,baz=174,slow=22,SNR=1.2 | | | | | | |
| **ASAR** | **Alice Springs** | **41.68** | **261** | P | P | 11 47 03.1 | +0.4 |
| | 0.1nm,0.4s,baz=96,slow=8.0,SNR=1.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **42.11** | **267** | P | P | 11 47 05.4 | -0.7 |
| | 0.5nm,0.5s,baz=105,slow=8.4,SNR=4.4 | | | | | | |
| **TXAR** | **Lajitas Array** | **90.97** | **58** | P | P | 11 52 08.4 | 0.0 |
| | 0.2nm,0.6s,baz=224,slow=7.6,SNR=2.3 | | | | | | |

---

*ISCJB **06** 11:50:49.1±0.4, 36.31N±0.02×36.97E±0.03, h0km, Error ellipse: s-maj=3.5km s-min=2.7km az=15.8*
*CSEM **06** 11:50:49.4, 36.34N×37.02E, h4km, ML2.9, Suspected Mining explosion.*
*DDA **06** 11:50:49.4, 36.34N×37.02E, h4km, Ml2.9, Suspected Mining explosion.*
*NSSC **06** 11:50:49.4±1.4, 36.34N×36.97E, h4km±6km, ML2.2*
**ISC 06 11:50:48.6**±0.8**, 36.29N**±0.03×**37.00E**±0.03**, h0km, n19,** σ**0s53**/38**, Jordan-Syria region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DRWC** | **Darouich** | **0.43** | **322** | *e*P | **Pg** | **11 50 56.8** | **0.0** |
| DRWC | | | | *i* S | **Sg** | **11 51 02.1** | **-0.3** |
| DRWC | | | | AML | AML | 11 51 20.8 | |
| | comp=E,292nm,0.7s | | | | | | |
| DRWC | | | | AML | AML | 11 51 25.9 | |
| | comp=N,89nm,0.7s | | | | | | |
| **KUZU** | **Kuzuini** | **0.49** | **7** | *i* P | **Pg** | **11 50 58.3** | **+0.3** |
| KUZU | | | | *i* S | **Sg** | **11 51 04.9** | **+0.5** |
| **KUZU** | **Kuzuini** | **0.49** | **7** | P | **Pg** | **11 50 58.3** | **+0.3** |
| KUZU | | | | S | **Sg** | **11 51 04.9** | **+0.5** |
| **BTCH** | **Batrach** | **0.50** | **241** | *e*P | **Pg** | **11 50 59.3** | **+1.1** |
| BTCH | | | | *e*S | **Sb** | **11 51 07.2** | **-0.9** |
| BTCH | | | | AML | AML | 11 51 15.4 | |
| | comp=N,358nm,0.5s | | | | | | |
| BTCH | | | | AML | AML | 11 51 15.6 | |
| | comp=E,326nm,0.7s | | | | | | |
| **SLMH** | **Al Salmeh** | **0.75** | **95** | *e*P | **Pb** | **11 51 04.8** | **+0.2** |
| SLMH | | | | *e*S | **Sb** | **11 51 15.2** | **-0.2** |
| SLMH | | | | AML | AML | 11 51 48.5 | |
| | comp=N,113nm,0.7s | | | | | | |
| SLMH | | | | AML | AML | 11 51 51.2 | |
| | comp=E,96nm,0.6s | | | | | | |
| **YAYL** | **Yayladag** | **0.76** | **251** | *i* P | **Pg** | **11 51 03.5** | **+0.3** |
| YAYL | | | | *i* S | **Sb** | **11 51 16.7** | **+0.9** |
| **YAYL** | **Yayladag** | **0.76** | **251** | P | **Pg** | **11 51 03.5** | **+0.3** |
| YAYL | | | | S | **Sb** | **11 51 16.7** | **+0.9** |
| **ARNB** | **Al Arnab** | **0.93** | **243** | *e*P | **Pg** | **11 51 07.0** | **+0.5** |
| ARNB | | | | *e*S | **Sb** | **11 51 20.2** | **-0.5** |
| ARNB | | | | AML | AML | 11 51 24.9 | |
| | comp=E,70nm,0.3s | | | | | | |
| ARNB | | | | AML | AML | 11 51 27.7 | |
| | comp=N,44nm,0.4s | | | | | | |
| **KAMA** | **Osmaniye** | **0.94** | **344** | *i* P | **Pg** | **11 51 06.7** | **+0.2** |
| KAMA | | | | *i* S | **Sg** | **11 51 18.6** | **-0.1** |
| **HCB** | **Kahramanmara¯** | **1.06** | **356** | *i* P | **Pg** | **11 51 09.3** | **+0.4** |
| HCB | | | | *i* S | **Sg** | **11 51 23.2** | **+0.6** |
| **KFRA** | **Kufra** | **1.08** | **189** | *e*P | **Pn** | **11 51 11.2** | **+0.1** |
| KFRA | | | | *e*S | **Sb** | **11 51 25.2** | **+0.3** |
| KFRA | | | | AML | AML | 11 51 31.7 | |
| | comp=N,182nm,0.3s | | | | | | |
| KFRA | | | | AML | AML | 11 51 37.2 | |
| | comp=E,109nm,0.5s | | | | | | |
| **SURC** | **SANLIURFA_SURC** | **1.43** | **65** | *i* P | **Pn** | **11 51 15.6** | **-0.2** |
| SURC | | | | *i* S | **Sn** | **11 51 35.7** | **+0.4** |
| **SURC** | **SANLIURFA_SURC** | **1.43** | **65** | P | **Pn** | **11 51 15.6** | **-0.2** |
| SURC | | | | S | **Sn** | **11 51 35.7** | **+0.4** |
| **HAWK** | **Haweek** | **1.82** | **196** | *e*P | **Pn** | **11 51 21.6** | **+0.3** |
| HAWK | | | | *e*S | **Sb** | **11 51 46.5** | **+0.1** |
| HAWK | | | | AML | AML | 11 51 49.1 | |
| | comp=E,16nm,0.5s | | | | | | |
| HAWK | | | | AML | AML | 11 51 54.7 | |
| | comp=N,26nm,0.8s | | | | | | |
| **ROOS** | **tl_alroos** | **2.12** | **173** | *e*P | **Pb** | **11 51 27.2** | **-0.8** |
| ROOS | | | | *e*S | **Sb** | **11 51 54.2** | **-0.7** |
| ROOS | | | | AML | AML | 11 52 11.3 | |
| | comp=N,32nm,0.4s | | | | | | |
| ROOS | | | | AML | AML | 11 52 12.2 | |
| | comp=E,28nm,0.5s | | | | | | |
| **AKCD** | **Akcadag** | **2.14** | **20** | *i* P | **Pb** | **11 51 27.9** | **-0.3** |
| AKCD | | | | *i* S | **Sg** | **11 51 56.8** | **-0.5** |
| **AKCD** | **Akcadag** | **2.14** | **20** | P | **Pb** | **11 51 28.0** | **-0.3** |
| AKCD | | | | S | **Sg** | **11 51 56.8** | **-0.5** |
| **MARH** | **Ras Al Marh** | **2.29** | **191** | *e*P | **Pb** | **11 51 29.9** | **-1.1** |
| MARH | | | | *e*S | **Sn** | **11 51 57.0** | **0.0** |
| MARH | | | | AML | AML | 11 52 12.3 | |
| | comp=E,17nm,0.5s | | | | | | |
| MARH | | | | AML | AML | 11 52 13.4 | |
| | comp=N,19nm,0.4s | | | | | | |
| **KERG** | **Konya-Eregli** | **2.57** | **297** | *i* P | **Pn** | **11 51 30.9** | **-0.6** |
| KERG | | | | *i* S | **Sn** | **11 52 03.9** | **+0.4** |

---

**IDC 06 11:59:26.5**±13.0**, 18.07S×167.60E, h0km, mb3.6**/4**, mb1 3.8**/5**, mb1mx3.6**/32**, mbtmp3.7**/5**, ML4.0**/1**, MS2.7**/1**, Ms1 2.7**/1**, ms1mx2.4**/26**, Error ellipse: s-maj=233.6km s-min=38.8km az=75.0, Vanuatu Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **4.13** | **195** | Pn | Pn | 12 00 30.3 | -0.7 |
| | 9.6nm,0.3s,baz=50,slow=11,SNR=278 | | | | | | |
| DZM | | | | Sn | Sn | 12 01 18.2 | -1.9 |
| | 24nm,0.3s,baz=319,slow=23,SNR=13 | | | | | | |
| DZM | | | | LR | LR | 12 02 05.1 | |
| | comp=Z,82nm,18.4s,baz=60,slow=38 | | | | | | |
| **STKA** | **Stephens Creek** | **27.20** | **235** | P | P | 12 05 12.8 | +0.7 |
| | 1.5nm,0.8s,baz=60,slow=8.1,SNR=2.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **31.48** | **261** | P | P | 12 05 49.6 | -0.6 |
| | 0.1nm,0.3s,baz=85,slow=8.5,SNR=4.6 | | | | | | |
| **ASAR** | **Alice Springs** | **31.93** | **254** | P | P | 12 05 54.0 | -0.1 |
| | 0.6nm,0.6s,baz=79,slow=9.1,SNR=13 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **36.34** | **359** | T | T | 12 45 19.1 | |
| | baz=179 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **36.34** | **359** | T | T | 12 45 26.1 | |
| | baz=179 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **36.36** | **359** | T | T | 12 45 19.6 | |
| | baz=179 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **37.55** | **359** | T | T | 12 47 00.8 | |
| | baz=181 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **37.55** | **359** | T | T | 12 46 60.0 | |
| | baz=181 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **37.57** | **359** | T | T | 12 47 01.9 | |
| | baz=181 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **39.83** | **263** | P | P | 12 07 02.5 | +0.6 |
| | 0.9nm,0.6s,baz=76,slow=8.3,SNR=1.8 | | | | | | |

---

**IDC 06 12:02:43.6**±1.6**, 10.92S×165.53E, h0km, mb3.8**/4**, mb1 4.1**/5**, mb1mx3.7**/31**, mbtmp3.9**/5**, ML4.0**/1**, MS3.3**/1**, Ms1 3.3**/1**, ms1mx2.6**/26**, Error ellipse: s-maj=52.3km s-min=27.7km az=132.0, Santa Cruz Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **11.12** | **176** | Pn | Pn | 12 05 23.2 | -0.9 |
| | 1.2nm,0.3s,baz=16,slow=4.9,SNR=7.3 | | | | | | |
| **PMG** | **Port Moresby** | **18.15** | **273** | LR | LR | 12 13 48.0 | |
| | comp=Z,80nm,18.6s,baz=108,slow=37 | | | | | | |
| **CTA** | **Charters Tower** | **20.67** | **242** | P | P | 12 07 26.3 | +0.9 |
| | 4.7nm,0.9s,baz=52,slow=14,SNR=4.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **31.33** | **250** | P | P | 12 09 05.9 | -0.2 |
| | 2.6nm,0.8s,baz=79,slow=9.0,SNR=17 | | | | | | |
| **ASAR** | **Alice Springs** | **32.66** | **243** | P | P | 12 09 17.6 | -0.2 |
| | 0.3nm,0.5s,baz=60,slow=12,SNR=5.2 | | | | | | |
| **ILAR** | **Eielson Array** | **83.46** | **19** | P | P | 12 15 12.9 | +0.1 |
| | 0.6nm,0.6s,baz=227,slow=5.7,SNR=11 | | | | | | |

---

**IDC 06 12:04:25.1**±2.0**, 10.93S×165.58E, h0km, mb3.6**/4**, mb1 3.9**/5**, mb1mx3.6**/31**, mbtmp3.7**/5**, ML3.9**/1**, Error ellipse: s-maj=53.8km s-min=35.0km az=131.0, Santa Cruz Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **11.11** | **176** | Pn | Pn | 12 07 05.4 | 0.0 |
| | 0.8nm,0.3s,baz=0.0,slow=20,SNR=2.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **31.37** | **250** | P | P | 12 10 47.9 | +0.1 |
| | 1.4nm,0.8s,baz=80,slow=9.2,SNR=6.2 | | | | | | |
| **ASAR** | **Alice Springs** | **32.70** | **243** | P | P | 12 10 59.3 | -0.2 |
| | 0.3nm,0.6s,baz=75,slow=8.7,SNR=2.0 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **39.25** | **255** | P | P | 12 11 55.6 | -0.1 |
| | 1.2nm,0.8s,baz=114,slow=12,SNR=1.9 | | | | | | |
| **ILAR** | **Eielson Array** | **83.45** | **19** | P | P | 12 16 54.2 | 0.0 |
| | 0.2nm,0.6s,baz=233,slow=5.3,SNR=2.2 | | | | | | |

---

**IDC 06 12:08:45.7**±1.8**, 10.95S×165.52E, h0km, mb3.6**/3**, mb1 4.0**/4**, mb1mx3.7**/32**, mbtmp3.8**/4**, ML4.1**/1**, Error ellipse: s-maj=53.0km s-min=32.1km az=127.0, Santa Cruz Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **11.10** | **176** | Pn | Pn | 12 11 25.9 | +0.1 |
| | 1.4nm,0.3s,baz=318,slow=6.4,SNR=52 | | | | | | |
| DZM | | | | Sn | Sn | 12 13 24.3 | -6.5 |
| | 0.1nm,0.3s,baz=137,slow=23,SNR=1.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **31.31** | **250** | P | P | 12 15 08.1 | +0.2 |
| | 1.5nm,0.8s,baz=81,slow=9.1,SNR=11 | | | | | | |
| **ASAR** | **Alice Springs** | **32.64** | **243** | P | P | 12 15 19.3 | -0.3 |
| | 0.3nm,0.6s,baz=71,slow=9.9,SNR=1.9 | | | | | | |
| **ILAR** | **Eielson Array** | **83.49** | **19** | P | P | 12 21 15.0 | 0.0 |
| | 0.3nm,0.6s,baz=234,slow=5.7,SNR=6.0 | | | | | | |

---

*ISK **06** 12:08:48.9, 38.63N×43.10E, h19km, MD2.5*
*ISCJB **06** 12:08:52.7±0.6, 38.74N±0.04×43.32E±0.06, h8km±8km, Error ellipse: s-maj=7.7km s-min=6.8km az=135.2*
*CSEM **06** 12:08:52.2±0.3, 38.71N×43.30E, h10km, ML2.4, Error ellipse: s-maj=7.9km s-min=7.1km az=68.0*
*DDA **06** 12:08:52.5, 38.69N×43.32E, h7km, Ml2.4*
**ISC 06 12:08:52.8**±0.9**, 38.72N**±0.03×**43.29E**±0.04**, h11km**±9km**, n22,** σ**0s94**/28**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.15** | **148** | *e*PG | **Pg** | **12 08 55.3** | **-1.1** |
| VANB | | | | *e*SG | **Sg** | **12 09 00.0** | **+1.1** |
| **VANB** | **Van** | **0.15** | **148** | *e*Pg | **Pg** | **12 08 55.3** | **-1.1** |
| VANB | | | | *e*Sg | **Sg** | **12 09 00.0** | **+1.1** |
| **TVAN** | **Van** | **0.21** | **154** | *i* P | **Pg** | **12 08 56.6** | **-0.9** |
| **TVAN** | **Van** | **0.21** | **154** | P | **Pg** | **12 08 56.6** | **-0.9** |
| **VMUR** | **Van-Muradiye** | **0.35** | **39** | *i* P | **Pg** | **12 08 59.8** | **-0.1** |
| **VMUR** | **Van-Muradiye** | **0.35** | **39** | P | **Pg** | **12 08 59.8** | **-0.1** |
| **GEVA** | **Gevas** | **0.45** | **204** | *i* P | **Pg** | **12 09 00.4** | **-1.2** |
| **GEVA** | **Gevas** | **0.45** | **204** | P | **Pg** | **12 09 00.4** | **-1.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.45** | **281** | *i* P | **Pg** | **12 09 01.9** | **+0.2** |
| ADCV | | | | *i* S | **Sb** | **12 09 10.2** | **+0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.45** | **281** | P | **Pg** | **12 09 01.9** | **+0.2** |
| ADCV | | | | S | **Sb** | **12 09 10.2** | **+0.5** |
| **CLDR** | **Caldiran** | **0.65** | **49** | *e*PG | **Pg** | **12 09 05.3** | **-0.1** |
| **CLDR** | **Caldiran** | **0.65** | **49** | *i* P | **Pb** | **12 09 06.3** | **0.0** |
| **CLDR** | **Caldiran** | **0.65** | **49** | *e*Pg | **Pg** | **12 09 05.3** | **-0.1** |
| **CLDR** | **Caldiran** | **0.65** | **49** | P | **Pb** | **12 09 06.3** | **0.0** |
| **TUTA** | **Tutak** | **0.77** | **332** | *i* P | **Pg** | **12 09 07.3** | **-0.5** |
| **TUTA** | **Tutak** | **0.77** | **332** | P | **Pg** | **12 09 07.3** | **-0.5** |
| **AGRB** | **Hanur-Agry** | **0.88** | **345** | *e*PG | **Pg** | **12 09 07.8** | **-2.1** |
| AGRB | | | | *e*SG | **Sg** | **12 09 21.5** | **0.0** |
| **AGRB** | **Hanur-Agry** | **0.88** | **345** | *e*Pg | **Pg** | **12 09 07.8** | **-2.1** |
| AGRB | | | | *e*Sg | **Sg** | **12 09 21.5** | **0.0** |
| **EKAR** | **Karacoban** | **1.09** | **300** | *i* P | **Pn** | **12 09 15.0** | **+0.7** |
| **EKAR** | **Karacoban** | **1.09** | **300** | P | **Pn** | **12 09 15.0** | **+0.7** |
| **EATA** | **Eleskirt** | **1.30** | **332** | *i* P | **Pn** | **12 09 16.7** | **-0.5** |
| **EATA** | **Eleskirt** | **1.30** | **332** | P | **Pn** | **12 09 16.7** | **-0.5** |

*ISK **06** 12:10:24.6, 41°.42N×36°.02E, h3km, MD2.5*
*DDA **06** 12:10:25.9, 41°.31N×35°.80E, h7km, Md2.6, Suspected Mining explosion.*
*ISCJB **06** 12:10:26.2±0.5, 41°.36N±0°.04×35°.81E±0°.04, h0km, Error ellipse: s-maj=5.6km s-min=4.1km az=35.5*
*CSEM **06** 12:10:26.4±0.2, 41°.34N×35°.81E, h1km, MD2.6, Error ellipse: s-maj=5.1km s-min=3.4km az=38.0, Suspected Mining explosion.*
**ISC 06 12:10:24.8**±0.9**, 41°.33N**±0°.03×**35°.84E**±0°.03**, h0km, n26, σ0.55**/34**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SAMS** | **Samsun-Alacam** | **0.26** | **82** | *i* P | **Pb** | **12 10 31.9** | **-0.6** |
| SAMS | | | | *i* S | **Sb** | **12 10 36.9** | **-0.6** |
| **SAMS** | **Samsun-Alacam** | **0.26** | **82** | P | **Pb** | **12 10 31.9** | **-0.6** |
| SAMS | | | | S | **Sb** | **12 10 36.9** | **-0.6** |
| **HAVZ** | **Havza** | **0.27** | **200** | *i* P | **Pb** | **12 10 32.0** | **-0.5** |
| HAVZ | | | | *i* S | **Sb** | **12 10 37.2** | **-0.4** |
| **HAVZ** | **Havza** | **0.27** | **200** | P | **Pb** | **12 10 32.0** | **-0.5** |
| HAVZ | | | | S | **Sb** | **12 10 37.2** | **-0.4** |
| **KVT** | **Kavak** | **0.29** | **147** | *e*PG | **Pb** | **12 10 32.2** | **-0.6** |
| KVT | | | | *e*SG | **Sb** | **12 10 37.8** | **-0.5** |
| **KVT** | **Kavak** | **0.29** | **147** | *e*Pg | **Pb** | **12 10 32.3** | **-0.6** |
| KVT | | | | *e*Sg | **Sb** | **12 10 37.8** | **-0.5** |
| **DIKM** | **Dikmen** | **0.54** | **307** | *e*PG | **Pb** | **12 10 36.9** | **-0.3** |
| **DIKM** | **Dikmen** | **0.54** | **307** | *e*Pg | **Pb** | **12 10 36.9** | **-0.3** |
| **SNOP** | **Sinop** | **0.84** | **326** | *e*PG | **Pb** | **12 10 42.0** | **-0.3** |
| **SNOP** | **Sinop** | **0.84** | **326** | *e*Pg | **Pb** | **12 10 42.0** | **-0.3** |
| **SINO** | **SINOP_Merkez** | **0.84** | **326** | *i* P | **Pb** | **12 10 41.8** | **-0.5** |
| **SINO** | **SINOP_Merkez** | **0.84** | **326** | P | **Pb** | **12 10 41.8** | **-0.5** |
| **ERBA** | **Erbaa** | **0.94** | **133** | *i* P | **Pb** | **12 10 44.2** | **+0.2** |
| ERBA | | | | *i* S | **Sb** | **12 10 58.0** | **+0.8** |
| **ERBA** | **Erbaa** | **0.94** | **133** | P | **Pb** | **12 10 44.2** | **+0.2** |
| ERBA | | | | S | **Sb** | **12 10 58.0** | **+0.8** |
| **CTAK** | **Corum_Osmancik** | **1.04** | **230** | *i* P | **Pn** | **12 10 46.5** | **-0.3** |
| **CTAK** | **Corum_Osmancik** | **1.04** | **230** | P | **Pn** | **12 10 46.5** | **-0.3** |
| **COAL** | **Corum-Alaca** | **1.25** | **211** | *i* P | **Pn** | **12 10 49.4** | **-0.2** |
| **COAL** | **Corum-Alaca** | **1.25** | **211** | P | **Pn** | **12 10 49.4** | **-0.2** |
| **BZK** | **Bozkurt** | **1.52** | **295** | *e*PN | **Pg** | **12 10 54.9** | **+1.1** |
| **BZK** | **Bozkurt** | **1.52** | **295** | *e*Pn | **Pg** | **12 10 54.9** | **+1.1** |
| **ILGA** | **Ilgaz** | **1.62** | **261** | *i* P | **Pg** | **12 10 56.3** | **+0.4** |
| **ILGA** | **Ilgaz** | **1.62** | **261** | P | **Pg** | **12 10 56.3** | **+0.4** |
| **GRSN** | **GIRESUNGRSN** | **1.88** | **102** | *i* P | **Pb** | **12 10 59.4** | **-0.6** |
| **GRSN** | **GIRESUNGRSN** | **1.88** | **102** | P | **Pb** | **12 10 59.4** | **-0.6** |
| **SUSE** | **Susehri** | **2.11** | **121** | *i* P | **Pb** | **12 11 04.5** | **+0.4** |
| **SUSE** | **Susehri** | **2.11** | **121** | P | **Pb** | **12 11 04.5** | **+0.4** |

---

**IDC 06 12:13:06.0**±3.4**, 5°.02S×133°.94E, h0km, mb3.6**/1**, mb1 3.5**/4**, mb1mx3.3**/32**, mbtmp3.3**/4**, ML3.2**/3**, MS2.7**/1**, Ms1 2.7**/1**, ms1mx2.4**/33**, Error ellipse: s-maj=133.2km s-min=32.6km az=83.0, Aru Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **14.84** | **179** | Pn | Pn | 12 16 36.6 | -0.7 |
| | 0.1nm,0.3s,baz=359,slow=13,SNR=3.8 | | | | | | |
| WRA | | | | Sn | Sn | 12 19 17.0 | -5.5 |
| | 0.1nm,0.3s,baz=358,slow=23,SNR=5.7 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **15.33** | **211** | Pn | Pn | 12 16 43.0 | -0.7 |
| | 0.1nm,0.3s,baz=37,slow=13,SNR=5.7 | | | | | | |
| FITZ | | | | Sn | Sn | 12 19 25.3 | -9.1 |
| | 0.2nm,0.3s,baz=224,slow=15,SNR=5.8 | | | | | | |
| FITZ | | | | LR | LR | 12 23 51.6 | |
| | comp=Z,30nm,21.4s,baz=135,slow=42 | | | | | | |
| **ASAR** | **Alice Springs** | **18.54** | **180** | P | Pn | 12 17 24.8 | +0.4 |
| | 0.1nm,0.3s,baz=10,slow=11,SNR=3.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **68.81** | **325** | P | P | 12 24 12.2 | 0.0 |
| | 1.3nm,1.2s,baz=141,slow=9.3,SNR=2.2 | | | | | | |

---

*ISK **06** 12:18:37.5, 38°.00N×26°.78E, h5km, ML3.2*
*ATH **06** 12:18:37.6, 38°.03N×26°.87E, h27km±1km, ML3.1/6, Error ellipse: s-maj=2.0km s-min=0.8km az=254.0*
*DDA **06** 12:18:38.0, 38°.05N×26°.86E, h4km, Ml3.4*
*THE **06** 12:18:38.6, 38°.05N×26°.83E, h5km±1km, ML3.3/5, Error ellipse: s-maj=1.2km s-min=0.4km az=230.0*
*CSEM **06** 12:18:38.6±0.1, 37°.99N×26°.78E, h5km, ML3.1, Error ellipse: s-maj=4.3km s-min=3.0km az=67.0*
*ISCJB **06** 12:18:38.3±0.4, 38°.01N±0°.02×26°.80E±0°.03, h5km±3km, Error ellipse: s-maj=3.6km s-min=2.5km az=151.5*
**ISC 06 12:18:37.9**±1.0**, 38°.02N**±0°.02×**26°.81E**±0°.02**, h3km**±8km**, n145, σ1.16**/175**, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DGB** | **˜zmir** | **0.06** | **63** | *i* P | **Pg** | **12 18 39.1** | **-0.2** |
| DGB | | | | *i* S | **Sg** | **12 18 39.7** | **-0.4** |
| **SMG** | **Samos** | **0.32** | **177** | P | **Pb** | **12 18 45.4** | **-0.9** |
| SMG | | | | S | **Sb** | **12 18 50.9** | **-0.8** |
| SMG | | | | AML | AML | 12 18 52.3 | |
| | comp=E,6567μm,0.2s | | | | | | |
| SMG | | | | AML | AML | 12 18 53.7 | |
| | comp=N,6889μm,0.3s | | | | | | |
| **SMG** | **Samos** | **0.32** | **177** | P | **Pb** | **12 18 45.3** | **-0.9** |
| SMG | | | | S | **Sb** | **12 18 50.6** | **-1.1** |
| **SMG** | **Samos** | **0.32** | **177** | P | **Pb** | **12 18 45.3** | **-0.9** |
| SMG | | | | S | **Sb** | **12 18 50.6** | **-1.1** |
| **ZEY** | **˜zmir** | **0.33** | **311** | *i* P | **Pg** | **12 18 45.0** | **+0.8** |
| ZEY | | | | *i* S | **Sb** | **12 18 50.5** | **-1.5** |
| **URLA** | **Izmir** | **0.38** | **333** | *e*PG | **Pg** | **12 18 45.8** | **+0.6** |
| **URLA** | **Izmir** | **0.38** | **333** | *i* P | **Pg** | **12 18 45.6** | **+0.4** |
| URLA | | | | *i* S | **Sg** | **12 18 51.2** | **+1.1** |
| **URLA** | **Izmir** | **0.38** | **333** | *e*Pg | **Pg** | **12 18 45.8** | **+0.6** |
| URLA | | | | S | **Sg** | **12 18 51.2** | **+1.1** |
| **GCAM** | **G?zelcaml?** | **0.46** | **134** | *i* P | **Pg** | **12 18 47.4** | **+0.6** |
| GCAM | | | | *i* S | **Sg** | **12 18 54.0** | **+1.1** |
| **GCAM** | **G?zelcaml?** | **0.46** | **134** | P | **Pg** | **12 18 47.4** | **+0.6** |
| GCAM | | | | S | **Sg** | **12 18 54.0** | **+1.1** |
| **CHOS** | **Chios island** | **0.70** | **301** | *e*PG | **Pb** | **12 18 52.1** | **-0.8** |
| CHOS | | | | *e*SG | **Sb** | **12 19 02.5** | **-0.4** |
| **CHOS** | **Chios island** | **0.70** | **301** | P | **Pb** | **12 18 52.0** | **-0.8** |
| CHOS | | | | S | **Sb** | **12 19 03.1** | **+0.2** |
| CHOS | | | | AML | AML | 12 19 05.7 | |
| | comp=E,6277μm,0.4s | | | | | | |
| CHOS | | | | AML | AML | 12 19 06.9 | |
| | comp=N,3316μm,0.4s | | | | | | |
| **CHOS** | **Chios island** | **0.70** | **301** | P | **Pb** | **12 18 52.0** | **-0.8** |
| CHOS | | | | *e*Sg | **Sb** | **12 19 02.5** | **-0.4** |
| **CHOS** | **Chios island** | **0.70** | **301** | P | **Pb** | **12 18 52.0** | **-0.8** |
| CHOS | | | | S | **Sb** | **12 19 02.7** | **-0.2** |
| **AYDN** | **Tasoluk** | **0.92** | **113** | *i* P | **Pg** | **12 18 55.4** | **-0.1** |
| **AYDN** | **Tasoluk** | **0.92** | **113** | P | **Pg** | **12 18 55.4** | **-0.1** |
| **BODT** | **Bodrum** | **1.04** | **157** | *e*PG | **Pg** | **12 18 58.2** | **+0.3** |
| BODT | | | | *e*SG | **Sb** | **12 19 13.2** | **+0.6** |
| **BODT** | **Bodrum** | **1.04** | **157** | P | **Pg** | **12 18 58.1** | **+0.3** |
| BODT | | | | *e*Sg | **Sb** | **12 19 13.2** | **+0.6** |
| BODT | | | | S | **Sn** | **12 19 14.0** | **-0.4** |
| **BODT** | **Bodrum** | **1.04** | **157** | P | **Pg** | **12 18 58.1** | **+0.3** |
| BODT | | | | S | **Sn** | **12 19 14.0** | **-0.4** |
| **DKL** | **Dikili** | **1.05** | **4** | *e*PG | **Pb** | **12 18 58.4** | **-0.3** |
| **DKL** | **Dikili** | **1.05** | **4** | *e*Pg | **Pb** | **12 18 58.4** | **-0.3** |
| **BDRM** | **Kayabasi** | **1.08** | **152** | *i* P | **Pg** | **12 18 58.8** | **+0.2** |
| **BDRM** | **Kayabasi** | **1.08** | **152** | P | **Pg** | **12 18 58.8** | **+0.2** |
| **AKHS** | **Akhisar** | **1.16** | **42** | *i* P | **Pg** | **12 18 59.3** | **-0.9** |
| **AKHS** | **Akhisar** | **1.16** | **42** | P | **Pg** | **12 18 59.3** | **-0.9** |
| **PRK** | **Paraskevi** | **1.29** | **341** | P | **Pg** | **12 19 02.2** | **-0.5** |
| PRK | | | | S | **Sb** | **12 19 19.5** | **-0.3** |
| PRK | | | | AML | AML | 12 19 24.2 | |
| | comp=E,2399μm,0.4s | | | | | | |
| PRK | | | | AML | AML | 12 19 25.1 | |
| | comp=N,1550μm,0.5s | | | | | | |
| **PRK** | **Paraskevi** | **1.29** | **341** | P | **Pg** | **12 19 02.2** | **-0.5** |
| PRK | | | | S | **Sb** | **12 19 19.8** | **0.0** |
| **PRK** | **Paraskevi** | **1.29** | **341** | P | **Pg** | **12 19 01.9** | **-0.8** |
| PRK | | | | S | **Sb** | **12 19 19.8** | **0.0** |
| **APE** | **Apeiranthos** | **1.40** | **227** | *e*PN | **Pn** | **12 19 04.5** | **+0.1** |
| **APE** | **Apeiranthos** | **1.40** | **227** | P | **Pn** | **12 19 03.1** | **-1.3** |
| APE | | | | S | **Sn** | **12 19 24.0** | **+0.7** |
| APE | | | | AML | AML | 12 19 30.7 | |
| | comp=E,382μm,0.4s | | | | | | |
| APE | | | | AML | AML | 12 19 32.4 | |
| | comp=N,440μm,0.5s | | | | | | |
| **APE** | **Apeiranthos** | **1.40** | **227** | P | **Pn** | **12 19 03.5** | **-0.8** |
| **APE** | **Apeiranthos** | **1.40** | **227** | *e*Pn | **Pn** | **12 19 04.5** | **+0.1** |
| APE | | | | S | **Sn** | **12 19 23.4** | **+0.1** |
| **APE** | **Apeiranthos** | **1.40** | **227** | P | **Pn** | **12 19 03.5** | **-0.8** |
| APE | | | | S | **Sn** | **12 19 23.4** | **+0.1** |
| **SIGR** | **SIGRI** | **1.40** | **328** | *e*PN | **Pg** | **12 19 05.4** | **+0.6** |
| **SIGR** | **SIGRI** | **1.40** | **328** | P | **Pn** | **12 19 03.6** | **-0.8** |
| SIGR | | | | S | **Sn** | **12 19 23.5** | **+0.1** |
| SIGR | | | | AML | AML | 12 19 27.3 | |
| | comp=E,1500μm,0.5s | | | | | | |
| SIGR | | | | AML | AML | 12 19 29.0 | |
| | comp=N,1599μm,0.5s | | | | | | |
| **SIGR** | **SIGRI** | **1.40** | **328** | P | **Pn** | **12 19 03.6** | **-0.8** |
| **SIGR** | **SIGRI** | **1.40** | **328** | *e*Pn | **Pg** | **12 19 05.4** | **+0.6** |
| SIGR | | | | S | **Sn** | **12 19 23.5** | **+0.1** |
| **SIGR** | **SIGRI** | **1.40** | **328** | P | **Pn** | **12 19 03.3** | **-1.1** |
| SIGR | | | | S | **Sb** | **12 19 22.1** | **-0.9** |
| **NIS1** | **Nisyros Isl.** | **1.45** | **168** | *e*PN | **Pb** | **12 19 05.6** | **0.0** |
| **NIS1** | **Nisyros Isl.** | **1.45** | **168** | P | **Pn** | **12 19 05.0** | **0.0** |
| **NIS1** | **Nisyros Isl.** | **1.45** | **168** | P | **Pn** | **12 19 05.0** | **0.0** |
| **NIS1** | **Nisyros Isl.** | **1.45** | **168** | *e*Pn | **Pb** | **12 19 05.6** | **0.0** |
| **NIS1** | **Nisyros Isl.** | **1.45** | **168** | P | **Pn** | **12 19 04.5** | **-0.5** |
| **MANT** | **Manisa** | **1.45** | **71** | *i* P | **Pn** | **12 19 04.8** | **-0.5** |
| **MANT** | **Manisa** | **1.45** | **71** | P | **Pn** | **12 19 04.8** | **-0.5** |
| **STEP** | **BALIKESIR_Sava** | **1.52** | **27** | *i* P | **Pn** | **12 19 06.0** | **-0.1** |
| **STEP** | **BALIKESIR_Sava** | **1.52** | **27** | P | **Pn** | **12 19 06.0** | **-0.1** |
| **BAYC** | **CANAKKALE_Bayr** | **1.73** | **353** | *i* P | **Pn** | **12 19 07.7** | **-1.2** |
| **BAYC** | **CANAKKALE_Bayr** | **1.73** | **353** | P | **Pn** | **12 19 07.7** | **-1.2** |
| **TAVA** | **DENIZLI_Tavas** | **1.76** | **108** | *i* P | **Pn** | **12 19 08.5** | **-0.8** |
| **TAVA** | **DENIZLI_Tavas** | **1.76** | **108** | P | **Pn** | **12 19 08.5** | **-0.8** |
| **DNZL** | **Cakiroluk** | **1.80** | **100** | *i* P | **Pn** | **12 19 09.4** | **-0.6** |
| **DNZL** | **Cakiroluk** | **1.80** | **100** | P | **Pn** | **12 19 09.4** | **-0.6** |
| **DEMI** | **Demirci** | **1.81** | **55** | *i* P | **Pb** | **12 19 11.2** | **-0.5** |
| **DEMI** | **Demirci** | **1.81** | **55** | P | **Pb** | **12 19 11.2** | **-0.5** |
| **BALB** | **Balikesir** | **1.82** | **27** | *e*PN | **Pb** | **12 19 11.5** | **-0.3** |
| **BALB** | **Balikesir** | **1.82** | **27** | *e*Pn | **Pb** | **12 19 11.5** | **-0.3** |
| **BALY** | **Balya** | **1.83** | **20** | *i* P | **Pn** | **12 19 08.8** | **-1.5** |
| **BALY** | **Balya** | **1.83** | **20** | P | **Pn** | **12 19 08.8** | **-1.5** |
| **TURN** | **Turunc** | **1.83** | **128** | *e*PN | **Pn** | **12 19 09.2** | **-1.0** |
| **TURN** | **Turunc** | **1.83** | **128** | *i* P | **Pn** | **12 19 08.4** | **-1.9** |
| **TURN** | **Turunc** | **1.83** | **128** | P | **Pn** | **12 19 08.4** | **-1.9** |
| **TURN** | **Turunc** | **1.83** | **128** | *e*Pn | **Pn** | **12 19 09.2** | **-1.0** |
| **EZN** | **Ezine** | **1.84** | **348** | *e*PN | **Pb** | **12 19 11.6** | **-0.6** |
| **EZN** | **Ezine** | **1.84** | **348** | P | **Pn** | **12 19 09.4** | **-1.0** |
| **EZN** | **Ezine** | **1.84** | **348** | *e*Pn | **Pb** | **12 19 11.6** | **-0.6** |
| **EZN** | **Ezine** | **1.84** | **348** | P | **Pn** | **12 19 09.4** | **-1.0** |
| **KARY** | **Karystos** | **1.88** | **271** | P | **Pn** | **12 19 10.6** | **-0.3** |
| **KARY** | **Karystos** | **1.88** | **271** | P | **Pn** | **12 19 10.6** | **-0.3** |
| **DALY** | **Dalyan (Mu˜la** | **1.90** | **129** | *e*PN | **Pn** | **12 19 11.5** | **+0.4** |
| **DALY** | **Dalyan (Mu˜la** | **1.90** | **129** | *e*Pn | **Pn** | **12 19 11.5** | **+0.4** |
| **BOZC** | **Bozcaada** | **1.91** | **342** | *e*PN | **Pb** | **12 19 12.7** | **-0.7** |
| **BOZC** | **Bozcaada** | **1.91** | **342** | *e*Pn | **Pb** | **12 19 12.7** | **-0.7** |
| **SIMA** | **Simav-Kutahya** | **2.00** | **57** | *e*PN | **Pb** | **12 19 14.1** | **-0.9** |
| **SIMA** | **Simav-Kutahya** | **2.00** | **57** | *e*Pn | **Pb** | **12 19 14.1** | **-0.9** |
| **GONE** | **Gonen-Balikesi** | **2.13** | **18** | *e*PN | **Pb** | **12 19 16.1** | **-1.1** |
| **GONE** | **Gonen-Balikesi** | **2.13** | **18** | *e*Pn | **Pb** | **12 19 16.1** | **-1.1** |
| **LIA** | **Limnos Island** | **2.26** | **326** | P | **Pn** | **12 19 15.7** | **-0.5** |
| LIA | | | | S | **Sn** | **12 19 44.8** | **+0.2** |
| LIA | | | | AML | AML | 12 19 53.3 | |
| | comp=E,279μm,0.5s | | | | | | |
| LIA | | | | AML | AML | 12 19 56.8 | |
| | comp=N,234μm,0.5s | | | | | | |
| **LIA** | **Limnos Island** | **2.26** | **326** | P | **Pn** | **12 19 15.7** | **-0.5** |
| LIA | | | | S | **Sn** | **12 19 44.8** | **+0.2** |
| **GADA** | **Gvkgeada** | **2.28** | **342** | *e*PN | **Pn** | **12 19 17.5** | **+1.1** |
| **GADA** | **Gvkgeada** | **2.28** | **342** | *e*Pn | **Pn** | **12 19 17.5** | **+1.1** |
| **FETY** | **Fethiye** | **2.28** | **127** | *e*PN | **Pn** | **12 19 17.2** | **+0.8** |
| **FETY** | **Fethiye** | **2.28** | **127** | P | **Pn** | **12 19 15.1** | **-1.4** |
| **FETY** | **Fethiye** | **2.28** | **127** | *e*Pn | **Pn** | **12 19 17.3** | **+0.8** |
| FETY | | | | S | **Sn** | **12 19 45.0** | **-0.1** |
| **FETY** | **Fethiye** | **2.28** | **127** | P | **Pn** | **12 19 15.1** | **-1.4** |
| FETY | | | | S | **Sn** | **12 19 45.0** | **-0.1** |
| **EREA** | **Eretria** | **2.30** | **281** | P | **Pn** | **12 19 17.7** | **+0.9** |
| **EREA** | **Eretria** | **2.30** | **281** | P | **Pn** | **12 19 17.7** | **+0.9** |
| **LPK** | **Lapseki** | **2.35** | **359** | *e*PN | **Pn** | **12 19 18.9** | **+1.6** |
| **LPK** | **Lapseki** | **2.35** | **359** | *e*Pn | **Pn** | **12 19 18.9** | **+1.6** |
| **GELI** | **Tayfur-Gelibol** | **2.38** | **354** | *e*PN | **Pn** | **12 19 19.6** | **+1.7** |
| **GELI** | **Tayfur-Gelibol** | **2.38** | **354** | *e*Pn | **Pn** | **12 19 19.6** | **+1.7** |
| **VLY** | **Voula,Athens** | **2.39** | **267** | P | **Pn** | **12 19 18.4** | **+0.4** |
| **VLY** | **Voula,Athens** | **2.39** | **267** | P | **Pn** | **12 19 18.4** | **+0.4** |
| **KRBG** | **Karabiga-Canak** | **2.40** | **9** | *e*PN | **Pn** | **12 19 19.6** | **+1.6** |
| **KRBG** | **Karabiga-Canak** | **2.40** | **9** | *e*Pn | **Pn** | **12 19 19.6** | **+1.6** |
| **EDC** | **Edincik** | **2.46** | **19** | *e*PN | **Pb** | **12 19 21.0** | **-1.8** |
| **EDC** | **Edincik** | **2.46** | **19** | *e*Pn | **Pb** | **12 19 21.0** | **-1.8** |
| **KARP** | **Karpathos** | **2.49** | **173** | *e*PN | **Pn** | **12 19 20.2** | **+0.8** |
| **KARP** | **Karpathos** | **2.49** | **173** | P | **Pn** | **12 19 18.6** | **-0.7** |
| **KARP** | **Karpathos** | **2.49** | **173** | P | **Pn** | **12 19 18.6** | **-0.7** |
| **KARP** | **Karpathos** | **2.49** | **173** | *e*Pn | **Pn** | **12 19 20.2** | **+0.8** |
| **TVSB** | **Tavsanli** | **2.51** | **55** | *e*PN | **Pb** | **12 19 22.1** | **-1.6** |
| **TVSB** | **Tavsanli** | **2.51** | **55** | *e*Pn | **Pb** | **12 19 22.1** | **-1.6** |
| **KCTX** | **Karacabey (Bur** | **2.54** | **28** | *e*PN | **Pn** | **12 19 21.6** | **+1.5** |
| **KCTX** | **Karacabey (Bur** | **2.54** | **28** | *e*Pn | **Pn** | **12 19 21.6** | **+1.5** |
| **SMTH** | **Samothraki Isl** | **2.64** | **338** | P | **Pn** | **12 19 20.6** | **-0.8** |
| **SMTH** | **Samothraki Isl** | **2.64** | **338** | P | **Pn** | **12 19 20.6** | **-0.8** |
| **ERIK** | **Erikli-Kesan** | **2.65** | **355** | *e*PN | **Pn** | **12 19 23.0** | **+1.4** |
| **ERIK** | **Erikli-Kesan** | **2.65** | **355** | *e*Pn | **Pn** | **12 19 23.0** | **+1.4** |
| **ENEZ** | **Enez** | **2.76** | **350** | *e*PN | **Pn** | **12 19 25.0** | **+2.0** |
| **ENEZ** | **Enez** | **2.76** | **350** | *e*Pn | **Pn** | **12 19 25.0** | **+2.0** |
| **VILL** | **Villia** | **2.77** | **274** | P | **Pn** | **12 19 23.5** | **+0.3** |
| **ELL** | **Elmali** | **2.77** | **116** | *e*PN | **Pn** | **12 19 24.7** | **+1.3** |
| **ELL** | **Elmali** | **2.77** | **116** | *e*Pn | **Pn** | **12 19 24.7** | **+1.3** |
| **VIL2** | **Platees** | **2.80** | **275** | P | **Pn** | **12 19 23.5** | **-0.2** |
| **AKAS** | **Kas** | **2.86** | **128** | *e*PN | **Pn** | **12 19 25.9** | **+1.3** |
| **AKAS** | **Kas** | **2.86** | **128** | *e*Pn | **Pn** | **12 19 25.9** | **+1.3** |
| **DID** | **Didima** | **2.88** | **261** | P | **Pn** | **12 19 24.4** | **-0.3** |
| **DID** | **Didima** | **2.88** | **261** | P | **Pn** | **12 19 24.4** | **-0.3** |
| **ALN** | **Alexandroupoli** | **2.93** | **349** | *e*PN | **Pn** | **12 19 27.0** | **+1.6** |
| **ALN** | **Alexandroupoli** | **2.93** | **349** | P | **Pn** | **12 19 24.5** | **-0.9** |
| **ALN** | **Alexandroupoli** | **2.93** | **349** | P | **Pn** | **12 19 24.5** | **-0.9** |
| **ALN** | **Alexandroupoli** | **2.93** | **349** | *e*Pn | **Pn** | **12 19 27.0** | **+1.6** |
| **SHUT** | **Suhut-Afyon** | **2.99** | **79** | *e*PN | **Pn** | **12 19 28.4** | **+2.1** |
| **SHUT** | **Suhut-Afyon** | **2.99** | **79** | *e*Pn | **Pn** | **12 19 28.4** | **+2.1** |
| **ARMT** | **Armutlu** | **3.00** | **31** | *e*PN | **Pb** | **12 19 29.0** | **-2.9** |
| **ARMT** | **Armutlu** | **3.00** | **31** | *e*Pn | **Pb** | **12 19 29.0** | **-2.9** |
| **SBT3** | **Marmara-Eregli** | **3.00** | **17** | *e*PN | **Pn** | **12 19 28.4** | **+2.3** |
| **SBT3** | **Marmara-Eregli** | **3.00** | **17** | *e*Pn | **Pn** | **12 19 28.4** | **+2.3** |
| **LAST** | **Lasithi** | **3.05** | **201** | P | **Pn** | **12 19 26.8** | **-0.3** |
| **LAST** | **Lasithi** | **3.05** | **201** | P | **Pn** | **12 19 26.8** | **-0.3** |
| **SBT5** | **Esenkoy-Cinarc** | **3.06** | **31** | *e*PN | **Pn** | **12 19 29.2** | **+2.1** |
| **SBT5** | **Esenkoy-Cinarc** | **3.06** | **31** | *e*Pn | **Pn** | **12 19 29.2** | **+2.1** |
| **IDI** | **Anoyia** | **3.14** | **210** | P | **Pn** | **12 19 28.2** | **-0.1** |
| **IDI** | **Anoyia** | **3.14** | **210** | P | **Pn** | **12 19 28.2** | **-0.1** |
| **SBT2** | **Guzelce-Avcila** | **3.14** | **24** | *e*PN | **Pn** | **12 19 31.0** | **+2.9** |
| **SBT2** | **Guzelce-Avcila** | **3.14** | **24** | *e*Pn | **Pn** | **12 19 31.0** | **+2.9** |
| **CAVI** | **Cavuskoy** | **3.21** | **46** | *e*PN | **Pn** | **12 19 31.3** | **+2.1** |
| **CAVI** | **Cavuskoy** | **3.21** | **46** | *e*Pn | **Pn** | **12 19 31.3** | **+2.1** |
| **YLV** | **Yalova** | **3.22** | **37** | *e*PN | **Pn** | **12 19 32.4** | **+2.9** |
| **YLV** | **Yalova** | **3.22** | **37** | *e*Pn | **Pn** | **12 19 32.4** | **+2.9** |
| **RDO** | **Rodhopi** | **3.27** | **343** | P | **Pn** | **12 19 30.2** | **+0.1** |
| **RDO** | **Rodhopi** | **3.27** | **343** | P | **Pn** | **12 19 30.2** | **+0.1** |
| **ADVT** | **Abdulvahap** | **3.31** | **42** | *e*PN | **Pn** | **12 19 33.0** | **+2.4** |
| **ADVT** | **Abdulvahap** | **3.31** | **42** | *e*Pn | **Pn** | **12 19 33.0** | **+2.4** |

---

**IDC 06 12:20:21.0**±2.8**, 11°.92S×165°.85E, h202km**±27km**, mb3.3**/5**, mb1 3.5**/7**, mb1mx3.2**/37**, mbtmp4.0**/7**, Error ellipse: s-maj=24.7km s-min=22.1km az=118.0, Santa Cruz Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HNR** | **Honiara** | **6.31** | **293** | P | Pn | 12 21 52.4 | 0.0 |
| | 22nm,0.3s,baz=220,slow=11,SNR=5.5 | | | | | | |
| **DZM** | **Mont Dzumac** | **10.11** | **177** | P | Pn | 12 22 40.2 | -1.5 |
| | 1.0nm,0.3s,baz=12,slow=9.3,SNR=14 | | | | | | |
| DZM | | | | S | S | 12 24 37.0 | +1.8 |
| | 0.1nm,0.3s,baz=6.4,slow=6.8,SNR=2.3 | | | | | | |
| **CTA** | **Charters Tower** | **20.50** | **244** | P | P | 12 24 44.0 | +0.3 |
| | 3.5nm,0.9s,baz=69,slow=14,SNR=3.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **31.29** | **251** | P | P | 12 26 22.2 | -0.2 |
| | 2.2nm,0.8s,baz=79,slow=9.1,SNR=14 | | | | | | |
| **ASAR** | **Alice Springs** | **32.50** | **245** | P | P | 12 26 33.0 | +0.1 |
| | 0.3nm,0.5s,baz=62,slow=10,SNR=6.3 | | | | | | |
| **ILAR** | **Eielson Array** | **84.31** | **18** | P | P | 12 32 29.1 | -0.7 |
| | 0.5nm,0.6s,baz=238,slow=4.9,SNR=13 | | | | | | |
| **INK** | **Inuvik** | **90.69** | **19** | P | P | 12 33 01.1 | +0.9 |
| | 0.4nm,0.4s,baz=236,slow=3.6 | | | | | | |

---

*SOME **06** 12:29:53.4, 44°.70N×82°.27E, h0km*
*NNC **06** 12:29:58.3±1.9, 44°.80N×82°.00E, h0km, mb2.7, mpv2.2, Error ellipse: s-maj=27.7km s-min=7.6km az=117.0*
**ISC 06 12:29:53.2**±1.9**, 44°.72N**±0°.06×**82°.24E**±0°.09**, h18km**±19km**, n6, σ0.77**/12**, 4C-2D, Northern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DJR** | **Jarkent** | **1.79** | **258** | *e*P | **Pg** | **12 30 27.8** | **0.0** |
| | 5.0nm,0.1s | | | | | | |
| DJR | | | | *e*S | **Sg** | **12 30 51.7** | **+0.6** |
| | 2.6nm,0.3s | | | | | | |
| **KTMS** | **Ketmen** | **1.86** | **228** | *e*P | **Pg** | **12 30 29.1** | **+0.1** |
| | 4.5nm,0.1s | | | | | | |
| KTMS | | | | *e*S | **Sg** | **12 30 54.2** | **+0.9** |
| | 7.8nm,0.3s | | | | | | |
| **MK31** | **Makanchi Array** | **2.08** | **1** | ⇑Pn | **Pg** | **12 30 33.0** | **-0.1** |
| | 1.3nm,0.2s,baz=185,slow=16,SNR=66 | | | | | | |
| MK31 | | | | ⇓Sn | **Sg** | **12 31 00.5** | **+0.5** |
| | 1.0nm,0.3s,baz=189,slow=26 | | | | | | |
| **MAKZ** | **Makanchi** | **2.10** | **355** | ⇑Pn | **Pg** | **12 30 33.1** | **-0.4** |
| | 0.6nm,0.4s | | | | | | |
| MAKZ | | | | ⇓Sn | **Sg** | **12 31 00.7** | **-0.1** |
| | 3.9nm,0.8s | | | | | | |
| **KAPS** | **Kapalarasan** | **2.12** | **286** | *e*P | **Pg** | **12 30 33.8** | **-0.2** |
| | 1.0nm,0.2s | | | | | | |
| KAPS | | | | *e*S | **Sg** | **12 31 01.6** | **+0.1** |
| | 2.3nm,0.2s | | | | | | |
| **PDGK** | **Podgornoye** | **2.42** | **236** | ⇑Pn | **Pb** | **12 30 36.5** | **+0.1** |
| | 0.3nm,0.3s | | | | | | |
| PDGK | | | | ⇑Sn | **Sg** | **12 31 09.4** | **-1.8** |
| | 3.8nm,0.5s | | | | | | |

---

*DDA **06** 12:30:02.0, 37°.18N×38°.98E, h7km, Md3.0*
*ISCJB **06** 12:30:02.7±1.4, 37°.16N±0°.04×39°.02E±0°.04, h5km±10km, Error ellipse: s-maj=7.4km s-min=4.9km az=34.3*
*CSEM **06** 12:30:02.0, 37°.18N×38°.98E, h7km, MD3.0*
*NSSC **06** 12:30:04.9±0.8, 37°.09N×39°.06E, h10km±8km, ML2.0*
**ISC 06 12:30:02.1**±1.3**, 37°.18N**±0°.04×**39°.00E**±0°.04**, h5km**±12km**, n13, σ0.45**/21**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SURC** | **SANLIURFA_SURC** | **0.43** | **226** | *i* P | **Pg** | **12 30 10.9** | **+0.4** |
| **SURC** | **SANLIURFA_SURC** | **0.43** | **226** | P | **Pg** | **12 30 10.9** | **+0.4** |
| **SFNV** | **Sufian** | **1.17** | **130** | *e*P | **Pn** | **12 30 25.5** | **+0.2** |
| SFNV | | | | *e*S | **Sg** | **12 30 39.0** | **-0.8** |
| SFNV | | | | AML | AML | 12 30 47.6 | |
| | comp=Z,51nm,0.4s | | | | | | |
| **KBSD** | **Kabsdagh** | **1.25** | **98** | *e*P | **Pn** | **12 30 26.7** | **+0.5** |
| KBSD | | | | *e*S | **Sg** | **12 30 42.4** | **+0.2** |
| KBSD | | | | AML | AML | 12 30 48.8 | |
| | comp=Z,54nm,0.3s | | | | | | |
| **ELZG** | **Elazig** | **1.31** | **359** | *i* P | **Pg** | **12 30 27.4** | **+0.1** |
| ELZG | | | | *i* S | **Sn** | **12 30 46.0** | **+0.7** |
| **ELZG** | **Elazig** | **1.31** | **359** | P | **Pg** | **12 30 27.4** | **+0.1** |
| ELZG | | | | S | **Sn** | **12 30 46.0** | **+0.7** |
| **AKCD** | **Akcadag** | **1.40** | **323** | *i* P | **Pn** | **12 30 28.2** | **-0.3** |
| AKCD | | | | *i* S | **Sb** | **12 30 46.9** | **-0.3** |
| **AKCD** | **Akcadag** | **1.40** | **323** | P | **Pn** | **12 30 28.2** | **-0.3** |
| AKCD | | | | S | **Sb** | **12 30 46.9** | **-0.3** |
| **MARD** | **Mardin** | **1.43** | **84** | *i* P | **Pb** | **12 30 29.1** | **-0.1** |
| **KUZU** | **Kuzuini** | **1.59** | **256** | *i* P | **Pb** | **12 30 31.9** | **-0.2** |
| **KUZU** | **Kuzuini** | **1.59** | **256** | P | **Pb** | **12 30 31.9** | **-0.2** |
| **MZRK** | **Al-Mazaregh** | **1.90** | **135** | *e*P | **Pn** | **12 30 35.4** | **+0.2** |
| MZRK | | | | *e*S | **Sn** | **12 30 58.7** | **-0.8** |
| MZRK | | | | AML | AML | 12 31 02.6 | |
| | comp=Z,43nm,0.5s | | | | | | |
| **DRWC** | **Darouich** | **1.95** | **254** | *e*P | **Pb** | **12 30 38.4** | **+0.1** |
| DRWC | | | | *e*S | **Sb** | **12 31 03.0** | **+0.1** |
| DRWC | | | | AML | AML | 12 31 16.6 | |
| | comp=N,10nm,0.6s | | | | | | |
| DRWC | | | | AML | AML | 12 31 17.5 | |
| | comp=E,26nm,0.6s | | | | | | |

---

*ISCJB **06** 12:30:32.6±0.8, 59°.22N±0°.03×27°.76E±0°.09, h0km, Error ellipse: s-maj=7.2km s-min=4.3km az=25.9*
*CSEM **06** 12:30:33.8±0.6, 59°.26N×27°.73E, h2km, ML2.4, Error ellipse: s-maj=11.9km s-min=6.6km az=116.0, Mining explosion.*
*NAO **06** 12:30:34.4±1.4, 59°.22N×27°.47E, ML2.4*
*BER **06** 12:30:35.5±2.5, 59°.21N×27°.55E, h0km, ML2.4(NAO), Suspected explosion*
**ISC 06 12:30:34.0**±1.2**, 59°.24N**±0°.04×**27°.58E**±0°.07**, h0km, n38, σ1.73**/59**, Baltic States-Belarus-Northwestern Russia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ARBE** | **Arbavere** | **0.84** | **284** | P | **Pb** | **12 30 51.6** | **+0.2** |
| ARBE | | | | S | **Sb** | **12 31 03.4** | **+0.2** |
| **ARBE** | **Arbavere** | **0.84** | **284** | *e*P | **Pb** | **12 30 51.7** | **+0.3** |
| ARBE | | | | *e*S | **Sb** | **12 31 03.5** | **+0.3** |
| **VSU** | **Vasula** | **0.90** | **209** | Pg | **Pg** | **12 30 50.7** | **-0.5** |
| VSU | | | | Lg | Lg | 12 31 03.0 | |
| **VSU** | **Vasula** | **0.90** | **209** | Pg | **Pg** | **12 30 50.7** | **-0.5** |
| VSU | | | | Lg | Lg | 12 31 03.0 | |
| **VSU** | **Vasula** | **0.90** | **209** | *e*P | **Pg** | **12 30 50.7** | **-0.5** |
| | SNR=90 | | | | | | |
| VSU | | | | Lg | Lg | 12 31 03.0 | |
| **VSU** | **Vasula** | **0.90** | **209** | *e*P | **Pg** | **12 30 50.7** | **-0.4** |
| VSU | | | | *e*S | **Sg** | **12 31 03.1** | **+0.4** |
| **VJF** | **Virojoki** | **1.30** | **360** | P | **Pg** | **12 30 57.4** | **-1.5** |
| VJF | | | | Sb | **Sg** | **12 31 15.4** | **-0.3** |
| **VJF** | **Virojoki** | **1.30** | **360** | *e*P | **Pg** | **12 30 57.5** | **-1.4** |
| VJF | | | | *e*SB | **Sg** | **12 31 15.4** | **-0.3** |
| **PVF** | **Pernaja** | **1.57** | **327** | P | **Pb** | **12 31 03.6** | **-0.2** |
| PVF | | | | S | **Sn** | **12 31 24.6** | **+0.6** |
| **PVF** | **Pernaja** | **1.57** | **327** | *e*P | **Pb** | **12 31 03.6** | **-0.2** |
| PVF | | | | *e*S | **Sn** | **12 31 24.6** | **+0.7** |
| PVF | | | | MSG | | 12 31 25.9 | |
| | comp=Z,6.6nm,0.1s | | | | | | |
| **MEF** | **Metsahovi** | **1.88** | **303** | Pg | **Pb** | **12 31 09.6** | **+0.4** |
| MEF | | | | Sb | **Sb** | **12 31 34.9** | **+1.6** |
| **MEF** | **Metsahovi** | **1.88** | **303** | *e*PG | **Pb** | **12 31 09.7** | **+0.4** |
| MEF | | | | *e*SB | **Sb** | **12 31 34.9** | **+1.6** |
| MEF | | | | MSG | | 12 31 36.2 | |
| | comp=Z,2.9nm,0.1s | | | | | | |
| **MTSE** | **Matsula** | **2.02** | **256** | *e*P | **Pb** | **12 31 11.0** | **-0.5** |
| | SNR=68 | | | | | | |
| MTSE | | | | Sb | **Sb** | **12 31 38.3** | **+1.2** |
| **MTSE** | **Matsula** | **2.02** | **256** | *e*P | **Pb** | **12 31 11.0** | **-0.5** |
| MTSE | | | | *e*SB | **Sb** | **12 31 38.4** | **+1.2** |
| **FIA0** | **FINESS Array S** | **2.33** | **342** | Pn | **Pn** | **12 31 13.8** | **+0.3** |
| | baz=157,slow=16 | | | | | | |
| FIA0 | | | | Sn | **Sn** | **12 31 44.5** | **+1.6** |
| | baz=161,slow=28 | | | | | | |
| FIA0 | | | | Lg | Lg | 12 31 48.3 | |
| | baz=159,slow=37 | | | | | | |
| **FIA0** | **FINESS Array S** | **2.33** | **342** | Pn | **Pn** | **12 31 13.8** | **+0.3** |
| | baz=157,slow=16 | | | | | | |
| FIA0 | | | | Sn | **Sn** | **12 31 44.5** | **+1.6** |
| | baz=161,slow=28 | | | | | | |
| FIA0 | | | | Lg | Lg | 12 31 48.3 | |
| | baz=159,slow=37 | | | | | | |
| **FIA0** | **FINESS Array S** | **2.33** | **342** | Pn | **Pn** | **12 31 13.8** | **+0.3** |
| | SNR=1.9 | | | | | | |
| **FIA0** | **FINESS Array S** | **2.33** | **342** | Pb | **Pb** | **12 31 15.5** | **-1.3** |
| FIA0 | | | | S | **Sn** | **12 31 44.5** | **+1.6** |
| FIA0 | | | | Sg | **Sb** | **12 31 47.8** | **+1.7** |
| FIA0 | | | | Lg | Lg | 12 31 48.3 | |
| | SNR=7.8 | | | | | | |
| **FIA0** | **FINESS Array S** | **2.33** | **342** | *e*P | **Pn** | **12 31 14.0** | **+0.5** |
| FIA0 | | | | *e*PB | **Pb** | **12 31 15.5** | **-1.3** |
| FIA0 | | | | *e*S | **Sn** | **12 31 44.5** | **+1.7** |
| FIA0 | | | | *e*SG | **Sb** | **12 31 47.8** | **+1.7** |
| FIA0 | | | | MSG | | 12 31 49.0 | |
| | comp=Z,4.0nm,0.1s | | | | | | |
| **KAF** | **Kangasniemi** | **2.95** | **348** | Pb | **Pb** | **12 31 25.6** | **-1.7** |
| KAF | | | | Sg | **Sb** | **12 32 05.9** | **+2.1** |
| **KAF** | **Kangasniemi** | **2.95** | **348** | *e*PB | **Pb** | **12 31 25.6** | **-1.7** |
| KAF | | | | *e*SG | **Sb** | **12 32 05.9** | **+2.1** |
| KAF | | | | MSG | | 12 32 07.0 | |
| | comp=Z,1.4nm,0.1s | | | | | | |
| **KEF** | **Keuruu** | **3.22** | **337** | P | **Pn** | **12 31 27.9** | **+2.1** |
| **KEF** | **Keuruu** | **3.22** | **337** | *e*P | **Pn** | **12 31 28.0** | **+2.2** |
| KEF | | | | *e*PB | **Pb** | **12 31 31.3** | **-0.7** |
| **RAF** | **Rauma** | **3.41** | **304** | P | **Pn** | **12 31 30.8** | **+2.4** |
| RAF | | | | *e*S | **Sn** | **12 32 12.6** | **+3.1** |
| | comp=Z,8.0nm,0.3s,SNR=46 | | | | | | |
| **RAF** | **Rauma** | **3.41** | **304** | *e*P | **Pn** | **12 31 30.9** | **+2.5** |
| **SUF** | **Sumiainen** | **3.56** | **349** | P | **Pn** | **12 31 31.6** | **+1.2** |
| **SUF** | **Sumiainen** | **3.56** | **349** | *e*P | **Pn** | **12 31 31.6** | **+1.2** |
| **JOF** | **Joensuu** | **4.11** | **25** | P | **Pn** | **12 31 38.0** | **0.0** |
| **JOF** | **Joensuu** | **4.11** | **25** | *e*P | **Pn** | **12 31 38.0** | **+0.1** |
| **HFS** | **Hagfors** | **7.08** | **283** | Sn | **Sn** | **12 33 33.8** | **-6.1** |
| | baz=95,slow=28 | | | | | | |
| HFS | | | | Lg | Lg | 12 34 13.7 | |
| | baz=97,slow=37 | | | | | | |
| **HFS** | **Hagfors** | **7.08** | **283** | Sn | **Sn** | **12 33 33.8** | **-6.1** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | baz=95,slow=28 | | | | | | |
| HFS | | | | Lg | Lg | 12 34 13.7 | |
| | baz=97,slow=37 | | | | | | |
| **HFS** | **Hagfors** | **7.08** | **283** | Lg | Lg | 12 34 13.7 | |
| | SNR=6.8 | | | | | | |
| **NB2** | **NORSAR Subarra** | **8.36** | **289** | Pn | **Pn** | **12 32 36.0** | **-0.3** |
| **NB2** | **NORSAR Subarra** | **8.36** | **289** | Pn | **Pn** | **12 32 36.0** | **-0.3** |
| **NB2** | **NORSAR Subarra** | **8.36** | **289** | Pn | **Pn** | **12 32 36.0** | **-0.3** |
| **ARA0** | **ARCESS Array S** | **10.37** | **356** | Pn | **Pn** | **12 33 02.1** | **-1.6** |
| | baz=176,slow=12 | | | | | | |
| **ARA0** | **ARCESS Array S** | **10.37** | **356** | Pn | **Pn** | **12 33 02.1** | **-1.6** |
| | baz=176,slow=12 | | | | | | |
| **ARA0** | **ARCESS Array S** | **10.37** | **356** | Pn | **Pn** | **12 33 02.2** | **-1.6** |
| | SNR=0.9 | | | | | | |

---

*NIED **06** 12:30:00, 47.°10N×153.°20E, h35km, Mw4.0 Best double couple: $M_0$1.00000×$10^{15}$ NP1:$\phi_s$220.00000°, δ70.00000°, λ-175.00000°. NP2:$\phi_s$128.00000°, δ85.00000°, λ-20.00000°.*

*JMA **06** 12:30:51.9±0.8, 47.°15N×153.°16E, h30km, M4.7*

*ISCJB **06** 12:30:55.0±0.6, 46.°93N±0.°04×152.°94E±0.°06, h59km±5km, mb4.1/32, MS3.3/5, Error ellipse: s-maj=9.3km s-min=4.2km az=135.5*

*NEIC **06** 12:30:56.0±0.4, 46.°91N×153.°04E, mb4.3/6, Error ellipse: s-maj=11.2km s-min=6.2km az=136.0*

*MOS **06** 12:30:55.8±0.9, 47.°03N×152.°86E, h60km, mb4.5/12, Error ellipse: s-maj=8.3km s-min=5.9km az=69.4*

*IDC **06** 12:30:56.1±0.7, 46.°96N×152.°95E, h52km±6km, mb3.8/24, mb1 4.0/27, mb1mx3.9/45, mbtmp4.0/27, MS3.2/8, Ms1 3.2/8, ms1mx2.9/44, Error ellipse: s-maj=16.1km s-min=11.1km az=135.0*

*SKHL **06** 12:30:56.8±0.8, 46.°89N×153.°03E, h70km±4km, mb4.8/8*

**ISC 06 12:30:54.0**±0.5**, 46.°74N**±0.°06×**153.°12E**±0.°06**, h40**km±4km**, h40km:pP-P, n158,** σ2.27/181**, mb4.1**/32**, MS3.5**/5**, 12C-8D, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KUR** | **Kuril'sk** | **3.96** | **249c** | *i*PN | **Pn** | **12 31 55.4** | **+3.2** |
| KUR | | | | *i* S | **Sn** | **12 32 41.5** | **+4.1** |
| KUR | | | | pmax | pmax | | |
| | comp=N,64nm,0.1s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=E,59nm,0.1s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=Z,209nm,0.1s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=N,330nm,0.5s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,196nm,0.2s | | | | | | |
| **KUR** | **Kuril'sk** | **3.96** | **249** | *i* P | **Pn** | **12 31 55.2** | **+3.0** |
| KUR | | | | AMB | AMB | 12 31 57.5 | |
| | comp=E,64nm,0.2s | | | | | | |
| KUR | | | | AMB | AMB | 12 31 57.5 | |
| | comp=E,59nm,0.2s | | | | | | |
| KUR | | | | AMB | AMB | 12 31 57.5 | |
| | comp=E,209nm,0.2s | | | | | | |
| KUR | | | | *i* S | **Sn** | **12 32 39.3** | **+1.9** |
| KUR | | | | A | A | 12 32 44.7 | |
| | comp=E,430nm,0.5s | | | | | | |
| KUR | | | | A | A | 12 32 44.7 | |
| | comp=E,280nm,0.5s | | | | | | |
| **SKR** | **Severo-Kuril's** | **4.41** | **26** | *e*PN | **Pn** | **12 31 58.9** | **+0.5** |
| SKR | | | | *e*S | **Sn** | **12 32 44.8** | **-3.7** |
| SKR | | | | smax | smax | | |
| | comp=E,141nm,0.4s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=N,203nm,0.7s | | | | | | |
| **SKR** | **Severo-Kuril's** | **4.41** | **26** | *e*P | **Pn** | **12 31 59.2** | **+0.8** |
| SKR | | | | AMB | AMB | 12 32 00.1 | |
| | comp=N,51nm,0.4s | | | | | | |
| SKR | | | | *e*S | **Sn** | **12 32 45.3** | **-3.2** |
| SKR | | | | A | A | 12 32 46.4 | |
| | comp=N,203nm,0.4s | | | | | | |
| SKR | | | | A | A | 12 32 46.4 | |
| | comp=N,51nm,0.4s | | | | | | |
| **SHO** | **Shikotan** | **5.29** | **239** | *e*PN | **Pn** | **12 32 12.9** | **+2.5** |
| **SHO** | **Shikotan** | **5.29** | **239** | *e*P | **Pn** | **12 32 11.4** | **+1.0** |
| SHO | | | | AMB | AMB | 12 32 12.9 | |
| | comp=N,38nm,0.3s | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **5.78** | **245d** | *i*PN | **Pn** | **12 32 20.7** | **+3.4** |
| YUK | | | | *i* S | **Sn** | **12 33 26.7** | **+4.4** |
| YUK | | | | pmax | pmax | | |
| | comp=E,87nm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=Z,179nm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=N,64nm,0.1s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=E,141nm,0.3s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,225nm,0.6s | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **5.78** | **245** | *e*P | **Pn** | **12 32 20.6** | **+3.3** |
| YUK | | | | AMB | AMB | 12 32 21.3 | |
| | comp=N,235nm,0.2s | | | | | | |
| YUK | | | | *e*S | **Sn** | **12 33 23.9** | **+1.6** |
| YUK | | | | A | A | 12 33 30.6 | |
| | comp=N,225nm,0.4s | | | | | | |
| YUK | | | | A | A | 12 33 30.6 | |
| | comp=N,141nm,0.4s | | | | | | |
| **LAGR** | **Lagunnoye** | **5.82** | **245** | *e*PN | **Pn** | **12 32 21.2** | **+3.4** |
| LAGR | | | | *i* S | **Sn** | **12 33 27.2** | **+4.0** |
| **LAGR** | **Lagunnoye** | **5.82** | **245** | *e*P | **Pn** | **12 32 21.2** | **+3.4** |
| LAGR | | | | *e*S | **Sn** | **12 33 27.2** | **+4.0** |
| **GRPR** | **Tuman** | **5.86** | **245** | *e*PN | **Pn** | **12 32 21.4** | **+3.1** |
| GRPR | | | | *e*S | **Sn** | **12 33 27.0** | **+2.8** |
| **GRPR** | **Tuman** | **5.86** | **245** | *e*P | **Pn** | **12 32 21.4** | **+3.1** |
| GRPR | | | | *e*S | **Sn** | **12 33 27.0** | **+2.8** |
| **GLVR** | **Golovnino** | **6.15** | **244c** | *i*PN | **Pn** | **12 32 24.8** | **+2.5** |
| GLVR | | | | *i* S | **Sn** | **12 33 35.5** | **+4.2** |
| **GLVR** | **Golovnino** | **6.15** | **244** | *e*P | **Pn** | **12 32 24.8** | **+2.5** |
| GLVR | | | | *e*S | **Sn** | **12 33 35.5** | **+4.2** |
| **NEM2** | **Nemuro 2** | **6.22** | **240** | P | **Pn** | **12 32 23.8** | **+0.6** |
| NEM2 | | | | *e*S | **Sn** | **12 33 31.6** | **-1.4** |
| **JRA** | **Rausu** | **6.30** | **246** | P | **Pn** | **12 32 27.5** | **+3.2** |
| **JNK** | **Nakash** | **6.72** | **245** | P | **Pn** | **12 32 32.6** | **+2.4** |
| **PEA0B** | **Petropavlovsk-** | **7.02** | **23** | *e*Pn | **Pn** | **12 32 36.4** | **+2.1** |
| **PETK** | **Petropavlovsk-** | **7.02** | **23** | P | **Pn** | **12 32 34.5** | **+0.2** |
| | comp=N,0.5nm,0.3s,baz=204,slow=14,SNR=6.7 | | | | | | |
| PETK | | | | S | **Sn** | **12 33 58.1** | **+5.4** |
| | baz=211,slow=11,SNR=2.0 | | | | | | |
| PETK | | | | LR | LR | 12 34 43.0 | |
| | comp=N,100nm,19.6s,baz=108,slow=33 | | | | | | |
| **PETK** | **Petropavlovsk-** | **7.02** | **23** | *e*PN | **Pn** | **12 32 36.7** | **+2.5** |
| PETK | | | | S | **Sn** | **12 33 58.1** | **+5.4** |
| **PETK** | **Petropavlovsk-** | **7.02** | **23** | *e*Pn | **Pn** | **12 32 36.7** | **+2.5** |
| PETK | | | | S | **Sn** | **12 33 58.1** | **+5.4** |
| **PEA1** | **Petropavlovsk-** | **7.03** | **23** | *e*Pn | **Pn** | **12 32 34.5** | **+0.2** |
| PEA1 | | | | *e*Sn | **Sn** | **12 33 58.1** | **+5.3** |
| **JTKR** | **Abashiri--Toko** | **7.06** | **250** | P | **Pn** | **12 32 38.1** | **+3.4** |
| **JAK** | **Akkeshi** | **7.06** | **241** | P | **Pn** | **12 32 35.3** | **+0.6** |
| JAK | | | | *e*S | **Sn** | **12 33 52.0** | **-1.7** |
| **YSS** | **Yuzh-Sakhalins** | **7.11** | **275** | *e*PN | Pn | 12 32 28.6 | -6.9 |
| YSS | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.4s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **7.11** | **275** | *e*P | **Pn** | **12 32 38.3** | **+2.8** |
| YSS | | | | AMB | AMB | 12 32 40.2 | |
| | comp=Z,5.0nm,0.2s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **7.11** | **275** | *e*Pn | **Pn** | **12 32 38.6** | **+3.2** |
| **PET** | **Petropavlovsk** | **7.23** | **28** | *e*PN | **Pn** | **12 32 39.8** | **+2.7** |
| **PET** | **Petropavlovsk** | **7.23** | **28** | *e*P | **Pn** | **12 32 39.8** | **+2.7** |
| PET | | | | AMB | AMB | 12 32 46.5 | |
| | comp=Z,8.0nm,0.5s | | | | | | |
| PET | | | | *e*S | **Sn** | **12 33 53.8** | **-4.0** |
| PET | | | | A | A | 12 33 54.6 | |
| | comp=Z,59nm,0.7s | | | | | | |
| **PET** | **Petropavlovsk** | **7.23** | **28** | *e*Pn | **Pn** | **12 32 39.8** | **+2.7** |
| **JMP** | **Maruseppu** | **7.40** | **252** | P | **Pn** | **12 32 43.4** | **+4.0** |
| **JAR** | **Ashorobuto** | **7.47** | **246** | P | **Pn** | **12 32 43.0** | **+2.6** |
| **JOB** | **Onbets** | **7.63** | **243** | P | **Pn** | **12 32 44.4** | **+1.8** |
| **UGL** | **Uglegorsk** | **7.79** | **291** | *e*PN | **Pn** | **12 32 44.3** | **-0.4** |
| UGL | | | | *e*S | **Sn** | **12 34 09.4** | **-2.1** |
| **UGL** | **Uglegorsk** | **7.79** | **291** | *e*P | **Pn** | **12 32 48.0** | **+3.3** |
| UGL | | | | AMB | AMB | 12 32 57.6 | |
| | comp=Z,52nm,0.7s | | | | | | |
| **JKA** | **Kamikawa-asahi** | **7.85** | **254** | *e*P | **Pn** | **12 32 50.0** | **+4.4** |
| **ASAJ** | **Asahikawa** | **7.85** | **254** | P | **Pn** | **12 32 50.0** | **+4.3** |
| | comp=Z,2.4nm,0.3s,baz=38,slow=17,SNR=31 | | | | | | |
| **ASAJ** | **Asahikawa** | **7.85** | **254** | P | **Pn** | **12 32 49.7** | **+4.0** |
| **ASAJ** | **Asahikawa** | **7.85** | **254** | *e*Pn | **Pn** | **12 32 50.4** | **+4.8** |
| **JKK2** | **Kamakawa 2** | **7.85** | **252** | P | **Pn** | **12 32 49.6** | **+3.9** |
| **TYV** | **Tymovskoe** | **8.04** | **305** | *e*PN | Pn | 12 32 41.9 | -6.3 |
| TYV | | | | pmax | pmax | | |
| | comp=Z,11nm,1.4s | | | | | | |
| **TYV** | **Tymovskoe** | **8.04** | **305** | *e*P | **Pn** | **12 32 50.0** | **+1.8** |
| TYV | | | | AMB | AMB | 12 32 55.2 | |
| | comp=Z,11nm,1.0s | | | | | | |
| **JCH** | **Churui** | **8.09** | **243** | P | **Pn** | **12 32 49.8** | **+1.0** |
| JCH | | | | *e*S | **Sn** | **12 34 17.1** | **-1.8** |
| **JFR** | **Furan** | **8.28** | **248** | P | **Pn** | **12 32 54.6** | **+3.1** |
| **JAB** | **Ashibetsu** | **8.36** | **251** | P | **Pn** | **12 32 56.6** | **+4.0** |
| **ERM** | **Erimo** | **8.56** | **240** | *e*PN | **Pn** | **12 32 58.5** | **+3.2** |
| **ERM** | **Erimo** | **8.56** | **240** | *e*Pn | **Pn** | **12 32 58.5** | **+3.2** |
| **JBT2** | **Biratori 2** | **8.62** | **247** | P | **Pn** | **12 32 57.9** | **+1.8** |
| **JNBK** | **Urakawa-nobuka** | **8.65** | **243** | P | **Pn** | **12 32 56.8** | **+0.3** |
| **JNB** | **Noboribetsu** | **9.62** | **248** | P | **Pn** | **12 33 11.2** | **+1.4** |
| JNB | | | | *e*S | **Sn** | **12 34 55.7** | **-0.8** |
| **JKB** | **Kayabe** | **9.93** | **245** | P | **Pn** | **12 33 14.5** | **+0.5** |
| JKB | | | | *e*S | **Sn** | **12 34 59.6** | **-4.5** |
| **JYM2** | **Yakumo 2** | **10.22** | **248** | P | **Pn** | **12 33 19.1** | **+1.0** |
| **JANG** | **Nango** | **10.55** | **237** | P | **Pn** | **12 33 20.7** | **-1.9** |
| JANG | | | | *e*S | **Sn** | **12 35 10.8** | **-8.6** |
| **JOSM** | **Okushiri--Mats** | **10.81** | **249** | P | **Pn** | **12 33 26.8** | **+0.6** |
| **JRG** | **Rokugo** | **11.71** | **236** | P | **Pn** | **12 33 37.4** | **-1.0** |
| **HABR** | **Khabarovsk** | **12.32** | **285** | *e*PN | **Pn** | **12 33 46.1** | **-0.6** |
| HABR | | | | pmax | pmax | | |
| | comp=E,7.0nm,1.2s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=N,17nm,2.0s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=Z,38nm,2.0s | | | | | | |
| HABR | | | | MLR | MLR | | |
| | comp=Z,56nm,13.0s | | | | | | |
| **HABR** | **Khabarovsk** | **12.32** | **285** | *e*P | **Pn** | **12 33 46.1** | **-0.6** |
| **MA2** | **Magadan** | **12.93** | **355** | P | **Pn** | **12 33 55.7** | **+0.6** |
| | comp=Z,1.1nm,0.3s,baz=171,slow=12,SNR=4.6 | | | | | | |
| **MA2** | **Magadan** | **12.93** | **355** | ⇑*e*PN | **Pn** | **12 33 53.6** | **-1.4** |
| **MA2** | **Magadan** | **12.93** | **355** | *e*P | **Pn** | **12 33 53.6** | **-1.4** |
| **KLR** | **Kul'dur** | **14.52** | **288** | P | **Pn** | **12 34 18.5** | **+1.8** |
| | comp=Z,0.0nm,0.3s,baz=258,slow=22,SNR=2.0 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **15.04** | **268** | P | **P** | **12 34 26.4** | **-2.0** |
| | comp=Z,0.7nm,0.3s,baz=73,slow=12,SNR=7.4 | | | | | | |
| USRK | | | | LR | LR | 12 40 12.1 | |
| | comp=Z,86nm,20.5s,baz=74,slow=37 | | | | | | |
| **MAJO** | **Matsushiro** | **15.08** | **233** | ⇓*e*P | **P** | **12 34 28.8** | **-0.1** |
| MAJO | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.6s | | | | | | |
| **MAJO** | **Matsushiro** | **15.08** | **233** | *e*P | **Pn** | **12 34 24.2** | **0.0** |
| **MAT** | **Matsushiro** | **15.08** | **233** | P | **P** | **12 34 31.5** | **+2.6** |
| **MJAR** | **Matsushiro Arr** | **15.08** | **233** | P | **P** | **12 34 29.3** | **+0.4** |
| | comp=Z,0.5nm,0.3s,baz=36,slow=9.1,SNR=9.4 | | | | | | |
| MJAR | | | | LR | LR | 12 40 33.5 | |
| | comp=Z,22nm,20.0s,baz=20,slow=38 | | | | | | |
| **SEY** | **Seymchan** | **16.23** | **359** | P | **Pn** | **12 34 38.7** | **-0.2** |
| | comp=Z,0.4nm,0.3s,baz=177,slow=14,SNR=5.4 | | | | | | |
| **YAK** | **Yakutsk** | **20.33** | **327** | P | **P** | **12 35 26.2** | **-0.3** |
| | comp=Z,7.7nm,0.4s,baz=82,slow=1.9,SNR=4.0 | | | | | | |
| **YAK** | **Yakutsk** | **20.33** | **327** | ⇑*e*P | **P** | **12 35 27.1** | **+0.7** |
| YAK | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.5s | | | | | | |
| **YAK** | **Yakutsk** | **20.33** | **327** | *e*P | **P** | **12 35 27.1** | **+0.7** |
| **YAK** | **Yakutsk** | **20.33** | **327** | *e*P | **P** | **12 35 26.5** | **0.0** |
| | comp=Z,12nm,0.5s | | | | | | |
| **KSRS** | **Korea Array** | **20.80** | **253** | P | Pn | 12 35 34.3 | -0.1 |
| | comp=Z,1.4nm,0.6s,baz=53,slow=11,SNR=6.8 | | | | | | |
| KSRS | | | | LR | LR | 12 42 58.3 | |
| | comp=Z,25nm,21.1s,baz=210,slow=35 | | | | | | |
| **KS15** | **Wonju Array Si** | **20.83** | **253** | *e*P | **P** | **12 35 32.7** | **+0.7** |
| **KSAR** | **Wonju Array Be** | **20.83** | **253** | P | Pn | 12 35 34.3 | -0.4 |
| **KSAR** | **Wonju Array Be** | **20.83** | **253** | *e*P | Pn | 12 35 34.3 | -0.4 |
| **KSAR** | **Wonju Array Be** | **20.83** | **253** | P | Pn | 12 35 34.3 | -0.4 |
| **JNU** | **Nakatsue** | **21.72** | **239** | P | **P** | **12 35 43.8** | **+2.1** |
| | comp=Z,2.4nm,0.9s,baz=241,slow=6.2,SNR=3.0 | | | | | | |
| **JNU** | **Nakatsue** | **21.72** | **239** | *e*P | **P** | **12 35 43.7** | **+2.0** |
| | comp=Z,5.8nm,1.0s | | | | | | |
| **TIXI** | **Tiksi** | **27.48** | **344** | ⇑*e*P | **P** | **12 36 35.4** | **-0.5** |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,9.0nm,2.7s | | | | | | |
| **TIXI** | **Tiksi** | **27.48** | **344** | *e*P | **P** | **12 36 35.4** | **-0.5** |
| **H11N2** | **WAKE ISLAND Hy** | **29.21** | **153** | T | T | 13 08 13.9 | |
| | baz=340,slow=76,SNR=1184 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **29.23** | **153** | T | T | 13 08 18.2 | |
| | baz=340,slow=76,SNR=1214 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **29.23** | **153** | T | T | 13 08 21.2 | |
| | baz=340,slow=76,SNR=829 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **30.30** | **154** | T | T | 13 09 39.1 | |
| | baz=341,slow=76,SNR=1649 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **30.31** | **154** | T | T | 13 09 47.9 | |
| | baz=341,slow=76,SNR=1087 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **30.32** | **154** | T | T | 13 09 40.6 | |
| | baz=341,slow=76,SNR=1147 | | | | | | |
| **ULN** | **Ulaanbaatar** | **30.91** | **289** | ⇑*e*P | **P** | **12 37 07.1** | **+0.3** |
| **ULN** | **Ulaanbaatar** | **30.91** | **289** | *e*P | **P** | **12 37 07.1** | **+0.3** |
| **SONA0** | **Songino Array** | **31.34** | **289** | *e*P | **P** | **12 37 09.9** | **-0.7** |
| **SONM** | **Songino Array** | **31.34** | **289** | P | **P** | **12 37 09.9** | **-0.7** |
| | comp=Z,0.6nm,0.8s,baz=83,slow=10,SNR=3.6 | | | | | | |
| **KDAK** | **Kodiak Island** | **34.10** | **51** | P | **P** | **12 37 36.7** | **+2.3** |
| | comp=Z,3.1nm,0.7s,baz=55,slow=6.9,SNR=2.6 | | | | | | |
| **COLA** | **College** | **36.14** | **38** | *e*P | **P** | **12 37 53.0** | **+1.1** |
| **ILAR** | **Eielson Array** | **36.55** | **39** | P | **P** | **12 37 55.7** | **+0.3** |
| | comp=Z,0.5nm,0.6s,baz=264,slow=8.2,SNR=9.7 | | | | | | |
| **INK** | **Inuvik** | **41.66** | **32** | P | **P** | **12 38 38.0** | **0.0** |
| | comp=Z,1.4nm,0.4s,baz=309,slow=8.3,SNR=8.2 | | | | | | |
| INK | | | | pP | **sP** | **12 38 52.0** | **-2.0** |
| | comp=Z,1.3nm,0.6s,baz=298,slow=8.7,SNR=2.7 | | | | | | |
| **INK** | **Inuvik** | **41.66** | **32** | *e*P | **P** | **12 38 38.8** | **+0.8** |
| | comp=Z,5.7nm,1.3s | | | | | | |
| INK | | | | pP | **sP** | **12 38 52.0** | **-2.0** |
| **ZAA1** | **Zalesovo Array** | **42.62** | **306** | *e*P | **P** | **12 38 44.1** | **-1.9** |
| ZAA1 | | | | *e*PcP | **PcP** | **12 40 37.4** | **-0.1** |
| **ZALV** | **Zalesovo Beam** | **42.62** | **306** | P | **P** | **12 38 44.1** | **-1.9** |
| | comp=Z,0.4nm,0.4s,baz=323,slow=28,SNR=2.8 | | | | | | |
| ZALV | | | | PcP | **PcP** | **12 40 37.4** | **-0.1** |
| | comp=Z,0.7nm,0.6s,baz=29,slow=3.3,SNR=4.1 | | | | | | |
| ZALV | | | | LR | LR | 12 57 23.7 | |
| | comp=Z,52nm,18.1s,baz=101,slow=37 | | | | | | |
| **MK32** | **Makanchi Array** | **46.95** | **297** | *e*P | **P** | **12 39 19.5** | **-1.2** |
| MK32 | | | | *e*PcP | **PcP** | **12 40 52.4** | **-0.2** |
| **MKAR** | **Makanchi Array** | **46.95** | **297** | P | **P** | **12 39 19.5** | **-1.2** |
| | comp=Z,0.8nm,0.8s,baz=60,slow=6.4,SNR=8.9 | | | | | | |
| MKAR | | | | PcP | **PcP** | **12 40 52.4** | **-0.2** |
| | comp=Z,0.4nm,0.5s,baz=64,slow=4.2,SNR=4.3 | | | | | | |
| **KURK** | **Kurchatov** | **47.37** | **304** | ⇑*e*P | **P** | **12 39 22.4** | **-1.4** |
| KURK | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.5s | | | | | | |
| **KURK** | **Kurchatov** | **47.37** | **304** | *e*P | **P** | **12 39 22.4** | **-1.4** |
| **RES** | **Resolute Bay** | **50.84** | **19** | LR | LR | 13 03 44.7 | |
| | comp=Z,36nm,18.4s,baz=258,slow=39 | | | | | | |
| **BRVK** | **Borovoye** | **50.91** | **310** | ⇑*e*P | **P** | **12 39 49.9** | **-0.9** |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.8s | | | | | | |
| **BRVK** | **Borovoye** | **50.91** | **310** | *e*P | **P** | **12 39 49.9** | **-0.9** |
| **YKA** | **Yellowknife Ar** | **50.93** | **37** | P | **P** | **12 39 51.3** | **+0.5** |
| | comp=Z,1.4nm,0.6s,baz=297,slow=7.1,SNR=5.5 | | | | | | |
| YKA | | | | pP | **pP** | **12 40 04.4** | **+2.1** |
| | comp=Z,1.0nm,0.5s,baz=299,slow=7.1,SNR=4.1 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **52.37** | **256** | P | **P** | **12 40 04.0** | **+1.7** |
| | comp=Z,1.8nm,0.7s,baz=40,slow=7.1,SNR=13 | | | | | | |
| **ARA0** | **ARCESS Array S** | **57.86** | **341** | *e*P | **P** | **12 40 39.7** | **-1.4** |
| **ARCES** | **ARCESS Array B** | **57.86** | **341** | P | **P** | **12 40 39.7** | **-1.4** |
| | comp=Z,2.3nm,0.9s,baz=35,slow=6.5,SNR=3.7 | | | | | | |
| **ARCES** | **ARCESS Array B** | **57.86** | **341** | *e*P | **P** | **12 40 41.0** | **-0.1** |
| ARCES | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.9s | | | | | | |
| **ARCES** | **ARCESS Array B** | **57.86** | **341** | *e*P | **P** | **12 40 41.0** | **-0.1** |
| **SUMG** | **Summit** | **60.71** | **4** | *i* P | **P** | **12 41 00.3** | **-0.9** |
| SUMG | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.9s | | | | | | |
| **SUMG** | **Summit** | **60.71** | **4** | *i* P | **P** | **12 41 00.3** | **-0.9** |
| | comp=Z,9.8nm,0.9s | | | | | | |
| **JMIC** | **Jan Mayen** | **61.84** | **353** | LR | LR | 13 05 42.1 | |
| | comp=Z,39nm,20.4s,baz=210,slow=34 | | | | | | |
| **FIA0** | **FINESS Array S** | **64.05** | **335** | *e*P | **P** | **12 41 21.5** | **-1.7** |
| FIA0 | | | | *e* | | 12 41 57.1 | |
| **FIA0** | **FINESS Array S** | **64.05** | **335** | *e*P | **P** | **12 41 21.4** | **-1.7** |
| FIA0 | | | | *e*PcP | **PcP** | **12 41 57.1** | **-1.1** |
| **FINES** | **FINESS Array B** | **64.05** | **335** | P | **P** | **12 41 21.5** | **-1.7** |
| | comp=Z,2.6nm,0.4s,baz=33,slow=7.0,SNR=26 | | | | | | |
| FINES | | | | PcP | **PcP** | **12 41 57.1** | **-1.1** |
| | comp=Z,1.1nm,0.6s,baz=51,slow=4.4,SNR=2.0 | | | | | | |
| **FINES** | **FINESS Array B** | **64.05** | **335** | *e*P | **P** | **12 41 21.9** | **-1.3** |
| **PD31** | **Pinedale Array** | **64.75** | **54** | *e*P | **P** | **12 41 29.2** | **+0.8** |
| **PDAR** | **Pinedale Array** | **64.75** | **54** | P | **P** | **12 41 29.1** | **+0.7** |
| | comp=Z,1.0nm,0.7s,baz=308,slow=1.5,SNR=12 | | | | | | |
| **OBN** | **Obninsk** | **65.32** | **326** | *e*P | **P** | **12 41 30.1** | **-1.4** |
| OBN | | | | pmax | pmax | | |
| | comp=Z,12nm,0.4s | | | | | | |
| **OBN** | **Obninsk** | **65.32** | **326** | *e*P | **P** | **12 41 31.3** | **-0.2** |
| **ULM** | **Lac du Bonnet** | **66.52** | **41** | P | **P** | **12 41 39.0** | **-0.4** |
| | comp=Z,1.5nm,0.6s,baz=315,slow=7.1,SNR=3.0 | | | | | | |
| **NB2** | **NORSAR Subarra** | **68.24** | **341** | P | **P** | **12 41 48.8** | **-1.3** |
| | comp=Z,2.5nm,0.6s,baz=27,slow=6.2 | | | | | | |
| **NB200** | **NORSAR Array S** | **68.24** | **341** | *e*P | **P** | **12 41 49.1** | **-1.0** |
| **NOA** | **NORSAR Array B** | **68.24** | **341** | P | **P** | **12 41 49.1** | **-1.0** |
| | comp=Z,2.2nm,0.6s,baz=31,slow=6.7,SNR=11 | | | | | | |
| **WR1** | **Warramunga Arr** | **68.51** | **199** | *e*P | **P** | **12 41 53.3** | **+1.2** |
| | comp=Z,13nm,1.6s | | | | | | |
| **WRA** | **Warramunga Arr** | **68.51** | **199** | P | **P** | **12 41 53.3** | **+1.2** |
| | comp=Z,0.5nm,0.9s,baz=15,slow=7.2,SNR=3.4 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **69.14** | **208** | P | **P** | **12 41 57.6** | **+1.5** |
| | comp=Z,1.6nm,0.9s,baz=30,slow=8.1,SNR=2.4 | | | | | | |
| **KBZ** | **Khabaz** | **70.87** | **314** | P | **P** | **12 42 06.2** | **-0.4** |
| | comp=Z,2.2nm,0.7s,baz=79,slow=2.0,SNR=4.6 | | | | | | |
| KBZ | | | | LR | LR | 13 16 04.0 | |
| | comp=Z,32nm,18.2s,baz=344,slow=38 | | | | | | |
| **AKASG** | **Malin Array Be** | **71.56** | **326** | P | **P** | **12 42 09.1** | **-1.5** |
| | comp=Z,4.6nm,0.3s,baz=34,slow=6.1,SNR=14 | | | | | | |
| **AKBB** | **Malin Array Si** | **71.56** | **326** | *e*P | **P** | **12 42 09.0** | **-1.6** |
| AKBB | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.8s | | | | | | |
| **AKBB** | **Malin Array Si** | **71.56** | **326** | *e*P | **P** | **12 42 09.0** | **-1.6** |
| | comp=Z,6.9nm,0.8s | | | | | | |
| **KIEV** | **Kiev** | **71.57** | **326** | ⇓*i*P | **P** | **12 42 09.1** | **-1.5** |
| KIEV | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.5s | | | | | | |
| **KIEV** | **Kiev** | **71.57** | **326** | *e*P | **P** | **12 42 09.1** | **-1.5** |
| **AS31** | **Alice Springs** | **72.20** | **198** | *e*P | **P** | **12 42 16.2** | **+1.5** |
| | comp=Z,1.4nm,1.4s | | | | | | |
| **ASAR** | **Alice Springs** | **72.20** | **198** | P | **P** | **12 42 16.6** | **+1.9** |
| | comp=Z,0.5nm,0.6s,baz=11,slow=5.7,SNR=12 | | | | | | |
| ASAR | | | | pP | **sP** | **12 42 30.4** | **-0.8** |
| | comp=Z,0.6nm,0.6s,baz=14,slow=5.4,SNR=4.2 | | | | | | |
| **BURAR** | **Bucovina Array** | **75.60** | **327** | ⇓*i*P | **P** | **12 42 33.6** | **-0.9** |
| **BURAR** | **Bucovina Array** | **75.60** | **327** | ⇓P | **P** | **12 42 33.6** | **-0.9** |
| **TESR** | **Tescani** | **75.95** | **325** | ⇓*i*P | **P** | **12 42 35.7** | **-0.8** |
| **CLL** | **Collm** | **76.47** | **336** | *i* P | **P** | **12 42 38.0** | **-1.3** |
| CLL | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.9s | | | | | | |
| **CLL** | **Collm** | **76.47** | **336** | *i* P | **P** | **12 42 38.0** | **-1.3** |
| | comp=Z,7.0nm,0.9s | | | | | | |
| **CLL** | **Collm** | **76.47** | **336** | *e*P | **P** | **12 42 38.0** | **-1.3** |
| **MLR** | **Muntele Rosu** | **77.07** | **325** | ⇓*i*P | **P** | **12 42 43.5** | **+0.5** |
| **MLR** | **Muntele Rosu** | **77.07** | **325** | ⇓P | **P** | **12 42 43.5** | **+0.5** |
| **DRGR** | | **77.22** | **328** | ⇑*i*P | **P** | **12 42 42.5** | **-1.2** |
| **DRGR** | | **77.22** | **328** | ⇑P | **P** | **12 42 42.5** | **-1.2** |
| **VOIR** | | **77.47** | **325** | ⇑*i*P | **P** | **12 42 44.9** | **-0.2** |
| **VOIR** | | **77.47** | **325** | ⇑P | **P** | **12 42 44.9** | **-0.2** |
| **LTX** | **Lajitas** | **77.49** | **61** | *e*P | **P** | **12 42 46.2** | **+0.7** |
| LTX | | | | *e**PP | **sP** | **12 43 00.6** | **-1.6** |
| **LTX** | **Lajitas** | **77.49** | **61** | *e*P | **P** | **12 42 46.2** | **+0.7** |
| LTX | | | | *e*pP | **sP** | **12 43 00.6** | **-1.6** |
| **TXAR** | **Lajitas Array** | **77.49** | **61** | P | **P** | **12 42 46.2** | **+0.7** |
| | comp=Z,1.1nm,0.5s,baz=302,slow=4.8,SNR=18 | | | | | | |
| TXAR | | | | pP | **sP** | **12 43 00.6** | **-1.6** |
| | comp=Z,1.1nm,0.5s,baz=294,slow=4.2,SNR=7.0 | | | | | | |
| **TXAR** | **Lajitas Array** | **77.49** | **61** | *e*P | **P** | **12 42 46.1** | **+0.6** |
| **BR101** | **Keskin Array S** | **78.40** | **317** | *e*P | **P** | **12 42 50.3** | **-0.2** |
| **BRTR** | **Keskin Array B** | **78.40** | **317** | P | **P** | **12 42 50.3** | **-0.2** |
| | comp=Z,1.4nm,0.7s,baz=76,slow=5.2,SNR=7.0 | | | | | | |
| **BRTR** | **Keskin Array B** | **78.40** | **317** | *e*P | **P** | **12 42 50.6** | **+0.1** |
| BRTR | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.9s | | | | | | |
| **GERES** | **GERESS Array B** | **78.46** | **334** | P | **P** | **12 42 49.8** | **-0.8** |
| | comp=Z,1.0nm,0.6s,baz=28,slow=6.0,SNR=5.5 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **115.10** | **329** | *e*PKiKP | **PKiKP** | **12 49 29.8** | **-1.3** |
| **TORD** | **Torodi Ar. Bea** | **115.10** | **329** | PKP | **PKPdf** | **12 49 29.8** | **-1.3** |
| | comp=Z,0.1nm,0.3s,baz=24,slow=2.0,SNR=2.9 | | | | | | |

---

**IDC 06 12:34:17.7**±8.2**, 31.°84S**×**179.°87W, h429**km±101km**, mb2.4**/2**, mb1 2.7**/3**, mb1mx2.6**/26**, mbtmp3.4**/3**, Error ellipse: s-maj=106.9km s-min=47.8km az=6.0, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **URZ** | **Urewera** | **6.87** | **200** | P | P | 12 36 01.1 | +0.5 |
| | 0.6nm,0.3s,baz=21,slow=8.2,SNR=14 | | | | | | |
| URZ | | | | S | S | 12 37 23.9 | -0.5 |
| | 1.8nm,0.3s,baz=65,slow=23,SNR=16 | | | | | | |
| **ASAR** | **Alice Springs** | **41.46** | **269** | P | P | 12 41 25.6 | +0.2 |
| | 0.5nm,1.0s,baz=104,slow=7.4,SNR=2.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **42.58** | **275** | P | P | 12 41 34.0 | -0.3 |
| | 0.1nm,0.3s,baz=111,slow=8.1,SNR=7.3 | | | | | | |
| **FINES** | **FINESS Array B** | **145.91** | **338** | PKPbc | PKPdf | 12 53 06.3 | +0.6 |
| | 4.2nm,1.0s,baz=48,slow=2.8,SNR=4.7 | | | | | | |

---

*IDC **06** 12:35:47.9±1.2, 18.°26N×123.°33E, h0km, mb3.8/4, mb1 3.8/5, mb1mx3.5/37, mbtmp3.7/5, ML3.4/1, MS3.3/1, Ms1 3.3/1, ms1mx2.4/37, Error ellipse: s-maj=72.2km s-min=21.6km az=72.0*

*MAN **06** 12:35:53, 17.°85N×122.°21E, h5km, mb4.4, ML3.3, MS3.1*

**ISC 06 12:35:51.2**±2.2**, 17.°90N**±0.°06×**122.°30E**±0.°08**, h7**km±13km**, n18,** σ1.65/15**, mb3.5**/4**, 1D, Luzon**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SGCP** | **Mt. Cagua** | **0.42** | **325** | *e*P | **Pb** | **12 36 02.6** | **+1.6** |
| **CVP** | **Callao Caves** | **0.50** | **247** | ⇓*i*P | **Pg** | **12 36 00.2** | **-0.6** |
| CVP | | | | *i* S | **Sb** | **12 36 08.7** | **-1.0** |
| **APYP** | **Conner** | **1.01** | **268** | *e*P | **Pn** | **12 36 12.0** | **+0.2** |
| APYP | | | | *e*S | **Sn** | **12 36 26.6** | **+0.3** |
| **CAUP** | **Cauayan** | **1.05** | **206** | *e*P | **Pn** | **12 36 14.3** | **+1.9** |
| CAUP | | | | *e*S | **Sn** | **12 36 30.6** | **+3.3** |
| **ABRA** | **Dolores** | **1.53** | **261** | *e*P | **Pb** | **12 36 20.3** | **+0.3** |
| ABRA | | | | *e*S | **Sg** | **12 36 40.8** | **+0.2** |
| **BALP** | **Baler** | **2.25** | **198** | *e*P | **Pn** | **12 36 30.1** | **+1.1** |
| BALP | | | | *e*S | **Sb** | **12 36 58.7** | **-1.7** |
| **KSRS** | **Korea Array** | **20.10** | **13** | P | P | 12 40 16.4 | -9.0 |
| | 0.1nm,0.3s,baz=224,slow=6.8,SNR=4.2 | | | | | | |
| **PMG** | **Port Moresby** | **36.59** | **136** | LR | LR | 12 57 25.6 | |
| | comp=Z,38nm,18.7s,baz=30,slow=36 | | | | | | |
| **WRA** | **Warramunga Arr** | **39.42** | **162** | P | **P** | **12 43 19.9** | **-2.2** |
| | 1.3nm,1.1s,baz=342,slow=9.3,SNR=4.9 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **42.09** | **82** | T | T | 13 28 57.7 | |
| | baz=276,slow=75,SNR=77 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **42.10** | **82** | T | T | 13 28 51.1 | |
| | baz=276,slow=75,SNR=92 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **42.11** | **82** | T | T | 13 28 54.2 | |
| | baz=276,slow=75,SNR=90 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **42.16** | **80** | T | T | 13 28 54.9 | |
| | baz=275,slow=75,SNR=49 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **42.16** | **80** | T | T | 13 28 55.0 | |
| | baz=275,slow=75,SNR=42 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **42.18** | **80** | T | T | 13 28 55.9 | |
| | baz=275,slow=75,SNR=34 | | | | | | |
| **ASAR** | **Alice Springs** | **42.84** | **164** | P | **P** | **12 43 48.9** | **-1.3** |
| | 0.5nm,0.6s,baz=348,slow=7.9,SNR=7.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.70** | **320** | P | **P** | **12 43 57.2** | **+0.3** |
| | 0.6nm,0.7s,baz=110,slow=7.9,SNR=8.7 | | | | | | |
| **FINES** | **FINESS Array B** | **77.39** | **331** | P | **P** | **12 47 46.1** | **-0.7** |
| | 4.8nm,1.1s,baz=18,slow=5.8,SNR=1.6 | | | | | | |

---

**IDC 06 12:37:16.1**±3.4**, 4.°41S**×**151.°85E, h0**km**, mb3.6**/3**, mb1 3.8**/3**, mb1mx3.5**/27**, mbtmp3.6**/3**, Error ellipse: s-maj=125.8km s-min=46.0km az=121.0, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **6.81** | **223** | Sn | Sn | 12 40 20.0 | +4.4 |
| | 1.4nm,0.3s,baz=156,slow=20,SNR=4.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **23.01** | **226** | P | P | 12 42 23.0 | +0.1 |
| | 1.0nm,0.6s,baz=51,slow=9.9,SNR=12 | | | | | | |
| **ASAR** | **Alice Springs** | **25.82** | **220** | P | P | 12 42 49.2 | -0.1 |
| | 0.1nm,0.4s,baz=56,slow=8.6,SNR=4.7 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **29.03** | **240** | P | P | 12 43 18.2 | 0.0 |
| | 0.8nm,0.3s,baz=58,slow=8.8,SNR=9.3 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **149.29** | **288** | PKPbc | PKPbc | 12 57 07.4 | -0.6 |
| | 0.2nm,0.5s,baz=58,slow=3.6,SNR=3.6 | | | | | | |

---

*CSEM **06** 12:40:26.9, 47.°33N×15.°14E, h0km, ML1.2/4, Mining explosion.*

**VIE 06 12:40:26.9**±0.2**, 47.°33N**×**15.°14E, h0**km**, mb0.5**/1**, ML1.2**/4**, Error ellipse: s-maj=1.4km s-min=1.1km az=60.0, Mining explosion., Austria**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ARSA | Arzberg | 0.27 | 106 | Pg | Pg | 12 40 32.1 | 0.0 |
| | 2.2nm,0.2s | | | | | | |
| ARSA | | | | Sg | Sg | 12 40 36.2 | +0.5 |
| | 6.0nm,0.2s | | | | | | |
| SOKA | Soboth | 0.65 | 186 | Pg | Pg | 12 40 39.5 | +0.1 |
| | 1.0nm,0.2s | | | | | | |
| SOKA | | | | Sg | Sg | 12 40 48.6 | +0.8 |
| | 1.7nm,0.2s | | | | | | |
| MOA | Molln | 0.79 | 312 | Pg | Pg | 12 40 42.2 | +0.2 |
| | 0.6nm,0.1s | | | | | | |
| MOA | | | | Sg | Sg | 12 40 52.9 | +0.7 |
| | 1.1nm,0.2s | | | | | | |
| OBKA | Obir | 0.91 | 206 | Pg | Pg | 12 40 44.5 | +0.2 |
| | 1.1nm,0.3s | | | | | | |
| OBKA | | | | Sg | Sb | 12 40 57.4 | -0.9 |
| | 2.4nm,0.3s | | | | | | |

**IDC 06 12:43:54.1±7.6, 5°.51S×134°.00E, h0km, mb3.9/1, mb1 3.8/4, mb1mx3.5/37, mbtmp3.6/4, ML3.4/3, MS2.9/1, Ms1 2.9/1, ms1mx2.4/30, Error ellipse: s-maj=105.5km s-min=81.4km az=142.0, Aru Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 14.35 | 179 | Pn | Pn | 12 47 19.0 | +0.3 |
| | 0.1nm,0.3s,baz=358,slow=13,SNR=7.6 | | | | | | |
| WRA | | | | Sn | Sn | 12 49 58.7 | 0.0 |
| | 0.1nm,0.3s,baz=360,slow=23,SNR=6.1 | | | | | | |
| FITZ | Fitzroy Crossi | 14.94 | 212 | Pn | Pn | 12 47 25.6 | -1.2 |
| | 0.2nm,0.3s,baz=36,slow=12,SNR=7.9 | | | | | | |
| FITZ | | | | Sn | Sn | 12 50 03.9 | -9.2 |
| | 0.1nm,0.3s,baz=171,slow=18,SNR=4.9 | | | | | | |
| ASAR | Alice Springs | 18.05 | 180 | P | P | 12 48 07.9 | +0.9 |
| | 0.1nm,0.3s,baz=1.9,slow=13,SNR=12 | | | | | | |
| ASAR | | | | LR | LR | 12 56 05.0 | |
| | comp=Z,34nm,18.7s,baz=340,slow=40 | | | | | | |
| STKA | Stephens Creek | 27.18 | 166 | P | P | 12 49 39.0 | -0.4 |
| | 1.5nm,0.9s,baz=333,slow=14,SNR=2.2 | | | | | | |

*ISCJB 06 12:48:38.9±0.6, 52°.51S±0°.07×141°.2E±0°.6, h10km, mb4.2/8, MS3.5/4, Error ellipse: s-maj=52.0km s-min=8.8km az=175.3*
*IDC 06 12:48:39.9±1.3, 52°.41S×141°.77E, h0km, mb3.9/5, mb1 4.2/5, mb1mx4.0/21, mbtmp4.0/5, MS3.6/4, Ms1 3.5/4, ms1mx3.1/20, Error ellipse: s-maj=101.9km s-min=20.4km az=81.0*
*NEIC 06 12:48:41.1±0.5, 52°.48S×141°.52E, h10km, mb4.5/3, Error ellipse: s-maj=39.7km s-min=7.6km az=84.0*
**ISC 06 12:48:40.7±0.8, 52°.51S±0°.10×141°.1E±0°.4, h10km, n27, σ1s.16/22, mb4.2/8, MS3.6/4, West of Macquarie Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| STKA | Stephens Creek | 20.63 | 1 | P | P | 12 53 19.2 | -0.9 |
| | 2.3nm,0.9s,baz=169,slow=16,SNR=2.1 | | | | | | |
| RPZ | Rata Peaks | 21.72 | 78 | LR | LR | 13 00 24.2 | |
| | comp=Z,190nm,20.3s,baz=239,slow=33 | | | | | | |
| H01W1 | Cape Leeuwin H | 26.03 | 302 | T | T | 13 20 59.9 | |
| | baz=141,slow=75,SNR=13 | | | | | | |
| H01W2 | Cape Leeuwin H | 26.03 | 302 | T | T | 13 20 59.0 | |
| | baz=141,slow=75,SNR=13 | | | | | | |
| H01W3 | Cape Leeuwin H | 26.04 | 302 | T | T | 13 21 00.9 | |
| | baz=141,slow=75,SNR=12 | | | | | | |
| VNDA | Vanda | 26.25 | 170 | P | P | 12 54 16.3 | +0.8 |
| | 1.7nm,0.6s,baz=333,slow=9.6,SNR=13 | | | | | | |
| VNDA | | | | LR | LR | 13 02 36.3 | |
| | comp=Z,76nm,18.6s,baz=346,slow=32 | | | | | | |
| VNDA | Vanda | 26.25 | 170 | eP | P | 12 54 16.2 | +0.8 |
| VNDA | | | | epP | P | 12 54 16.5 | +1.1 |
| SBA | Scott Base | 27.10 | 168 | eP | P | 12 54 24.0 | +1.0 |
| | 2.2nm,0.8s | | | | | | |
| AS01 | Alice Springs | 29.32 | 347 | eP | P | 12 54 44.0 | +0.6 |
| ASAR | Alice Springs | 29.32 | 346 | P | P | 12 54 44.5 | +1.1 |
| | 0.9nm,0.6s,baz=165,slow=10,SNR=15 | | | | | | |
| CTAO | Charters Tower | 32.61 | 9 | eP | P | 12 55 11.6 | -0.8 |
| | 52nm,1.2s | | | | | | |
| WB2 | Warramunga Arr | 32.93 | 348 | eP | P | 12 55 15.8 | +0.6 |
| | 7.7nm,1.1s | | | | | | |
| WR1 | Warramunga Arr | 32.93 | 348 | eP | P | 12 55 15.9 | +0.7 |
| | 6.5nm,1.0s | | | | | | |
| WRA | Warramunga Arr | 32.93 | 348 | P | P | 12 55 15.9 | +0.7 |
| | 3.5nm,1.0s,baz=173,slow=7.6,SNR=15 | | | | | | |
| WRAB | Tennant Creek | 32.94 | 348 | eP | P | 12 55 16.7 | +1.4 |
| FITZ | Fitzroy Crossi | 36.42 | 335 | P | P | 12 55 46.2 | +0.9 |
| | 2.1nm,0.7s,baz=159,slow=9.6,SNR=4.6 | | | | | | |
| QSPA | South Pole Qui | 37.60 | 180 | eP | P | 12 55 55.5 | +0.3 |
| MAW | Mawson | 38.84 | 217 | LR | LR | 13 10 06.8 | |
| | comp=Z,102nm,20.6s,baz=63,slow=33 | | | | | | |
| SNAA | Sanae | 53.52 | 193 | P | P | 12 57 60.0 | -0.8 |
| SNAA | Sanae | 53.52 | 193 | eP | P | 12 58 00.5 | -0.3 |
| VNA3 | Neumayer Olymp | 54.80 | 191 | P | P | 12 58 06.5 | -3.6 |
| VNA2 | Neumayer--Watz | 54.81 | 192 | P | P | 12 58 09.6 | -0.6 |
| | baz=158,slow=6.2 | | | | | | |
| VNA1 | Neumayer--Stat | 55.18 | 192 | P | P | 12 58 12.9 | +0.1 |
| BOSA | Boshof | 81.78 | 233 | LR | LR | 13 29 04.7 | |
| | comp=Z,36nm,21.9s,baz=186,slow=30 | | | | | | |
| ARCES | ARCESS Array B | 146.49 | 325 | PKPbc | PKPbc | 13 08 21.3 | +0.7 |
| | 2.4nm,0.9s,baz=94,slow=3.8,SNR=7.4 | | | | | | |
| GERES | GERESS Array B | 147.08 | 285 | PKPbc | PKPbc | 13 08 23.1 | +0.1 |
| | 0.9nm,0.7s,baz=151,slow=3.0,SNR=6.7 | | | | | | |
| MDT | Midelt | 148.44 | 245 | PKPbc | PKPab | 13 08 29.8 | -0.7 |
| | 1.8nm,0.8s,baz=161,slow=4.1,SNR=4.0 | | | | | | |

*ISCJB 06 12:49:26.8±0.7, 19°.92N±0°.06×146°.1E±0°.2, h57km, mb3.7/10, Error ellipse: s-maj=27.8km s-min=7.9km az=1.1*
*IDC 06 12:49:29.3±3.7, 19°.92N×145°.98E, h63km±34km, mb3.4/10, mb1 3.7/12, mb1mx3.5/48, mbtmp3.8/12, ML4.5/1, Error ellipse: s-maj=34.3km s-min=15.3km az=82.0*
**ISC 06 12:49:28.6±0.8, 19°.96N±0°.07×146°.0E±0°.2, h57km, n13, σ0s.82/17, mb3.7/10, Mariana Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GUMO | Guam | 6.43 | 190 | P | Pn | 12 51 01.4 | +0.6 |
| | 9.3nm,0.3s,baz=56,slow=11,SNR=1.6 | | | | | | |
| GUMO | | | | S | Sn | 12 52 13.0 | +0.1 |
| | 6.8nm,0.3s,baz=335,slow=18,SNR=1.2 | | | | | | |
| MJAR | Matsushiro Arr | 17.89 | 339 | P | Pn | 12 53 33.9 | +0.4 |
| | baz=165,slow=13,SNR=3.4 | | | | | | |
| KSRS | Korea Array | 23.51 | 322 | P | P | 12 54 34.6 | +1.1 |
| | 1.2nm,0.7s,baz=142,slow=8.3,SNR=4.8 | | | | | | |
| WRA | Warramunga Arr | 41.28 | 197 | P | P | 12 57 07.4 | -1.2 |
| | 1.4nm,0.5s,baz=14,slow=8.5,SNR=14 | | | | | | |
| WRA | | | | PcP | PcP | 12 59 07.1 | +0.7 |
| | 0.3nm,0.8s,baz=187,slow=37,SNR=2.7 | | | | | | |
| SONM | Songino Array | 42.37 | 320 | P | P | 12 57 16.0 | -1.4 |
| | 0.2nm,0.4s,baz=132,slow=7.7,SNR=4.2 | | | | | | |
| SONM | | | | PcP | PcP | 12 59 10.2 | +0.3 |
| | 0.3nm,0.5s,baz=144,slow=3.3,SNR=2.9 | | | | | | |
| ASAR | Alice Springs | 44.95 | 196 | P | P | 12 57 37.8 | -0.4 |
| | 0.2nm,0.4s,baz=16,slow=10,SNR=9.8 | | | | | | |
| ZALV | Zalesovo Beam | 57.21 | 322 | P | P | 12 59 10.2 | +0.4 |
| | 0.6nm,0.4s,baz=96,slow=5.9,SNR=3.1 | | | | | | |
| MKAR | Makanchi Array | 57.82 | 313 | P | P | 12 59 15.2 | +0.9 |
| | 0.4nm,0.4s,baz=93,slow=7.9,SNR=6.3 | | | | | | |
| MKAR | | | | PcP | PcP | 13 00 05.7 | -0.6 |
| | 0.4nm,0.6s,baz=70,slow=4.6,SNR=2.9 | | | | | | |
| ILAR | Eielson Array | 62.38 | 26 | P | P | 12 59 45.5 | +0.4 |
| | 0.3nm,0.8s,baz=264,slow=5.3,SNR=5.2 | | | | | | |
| ARCES | ARCESS Array B | 81.39 | 342 | P | P | 13 01 39.2 | +0.2 |
| | 1.9nm,0.8s,baz=39,slow=5.8,SNR=3.2 | | | | | | |
| FINES | FINESS Array B | 85.87 | 335 | P | P | 13 02 00.8 | -1.2 |
| | 1.1nm,0.3s,baz=68,slow=4.2,SNR=11 | | | | | | |
| PDAR | Pinedale Array | 86.72 | 46 | P | P | 13 02 06.4 | -0.5 |
| | 0.2nm,0.5s,baz=306,slow=3.0,SNR=2.9 | | | | | | |
| LPAZ | La Paz | 147.36 | 89 | PKPbc | PKPbc | 13 09 08.3 | +0.7 |
| | 0.5nm,0.4s,baz=291,slow=3.9,SNR=2.6 | | | | | | |

*ATA 06 12:52:21.0±1.1, 38°.64N×42°.94E, h7km±23km, ML3.7, MW3.1*
*CSEM 06 12:52:22.4±0.2, 38°.65N×43°.07E, h2km, MD3.0, Error ellipse: s-maj=4.0km s-min=3.7km az=58.0*
*DDA 06 12:52:22.3, 38°.66N×43°.04E, h18km, Ml3.3*
*ISK 06 12:52:22.2, 38°.69N×43°.07E, h5km, MD3.0, ML3.0*
**ISC 06 12:52:22.4±1.0, 38°.65N±0°.02×43°.04E±0°.02, h9km±9km, n71, σ0s.89/89, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.28 | 102 | ePG | Pg | 12 52 28.6 | +0.5 |
| VANB | | | | eSG | Sb | 12 52 33.9 | -0.8 |
| VANB | Van | 0.28 | 102 | ePg | Pg | 12 52 28.6 | +0.5 |
| ADCV | BITLIS_Adilcev | 0.29 | 302 | i P | Pg | 12 52 28.5 | +0.3 |
| ADCV | | | | i S | Sb | 12 52 34.1 | -0.7 |
| ADCV | BITLIS_Adilcev | 0.29 | 302 | P | Pg | 12 52 28.5 | +0.3 |
| ADCV | | | | S | Sb | 12 52 34.1 | -0.7 |
| TVAN | Van | 0.32 | 113 | i P | Pg | 12 52 28.6 | -0.1 |
| TVAN | | | | i S | Sb | 12 52 34.6 | -1.1 |
| TVAN | Van | 0.32 | 113 | P | Pg | 12 52 28.6 | -0.1 |
| TVAN | | | | S | Sb | 12 52 34.6 | -1.1 |
| GEVA | Gevas | 0.34 | 177 | eP | Pg | 12 52 28.3 | -0.9 |
| GEVA | | | | eS | Sg | 12 52 33.8 | +0.1 |
| GEVA | | | | IAML | | 12 52 38.1 | |
| | comp=Z,1μm,0.5s | | | | | | |
| GEVA | Gevas | 0.34 | 177 | i P | Pg | 12 52 28.3 | -0.9 |
| GEVA | Gevas | 0.34 | 177 | P | Pg | 12 52 28.3 | -0.9 |
| VMUR | Van-Muradiye | 0.54 | 51 | i P | Pg | 12 52 33.0 | +0.2 |
| VMUR | | | | i S | Sb | 12 52 42.4 | +0.4 |
| VMUR | Van-Muradiye | 0.54 | 51 | P | Pg | 12 52 33.0 | +0.2 |
| VMUR | | | | S | Sb | 12 52 42.4 | +0.4 |
| TUTA | Tutak | 0.77 | 347 | eP | Pg | 12 52 36.8 | -0.4 |
| TUTA | | | | eS | Sg | 12 52 47.7 | +0.5 |
| TUTA | | | | IAML | | 12 52 49.0 | |
| | comp=Z,450nm,0.2s | | | | | | |
| TUTA | Tutak | 0.77 | 347 | i P | Pg | 12 52 36.9 | -0.4 |
| TUTA | | | | i S | Sb | 12 52 48.0 | -0.7 |
| TUTA | Tutak | 0.77 | 347 | P | Pg | 12 52 36.9 | -0.3 |
| TUTA | | | | S | Sb | 12 52 48.0 | -0.7 |
| CLDR | Caldiran | 0.84 | 54 | ePG | Pg | 12 52 38.4 | -0.3 |
| CLDR | Caldiran | 0.84 | 54 | i P | Pg | 12 52 38.6 | -0.1 |
| CLDR | Caldiran | 0.84 | 54 | P | Pg | 12 52 38.6 | -0.1 |
| AGRB | Hanur-Agry | 0.92 | 358 | ePG | Pg | 12 52 39.6 | -0.5 |
| AGRB | | | | eSG | Sg | 12 52 51.8 | -0.3 |
| AGRB | Hanur-Agry | 0.92 | 358 | ePg | Pg | 12 52 39.6 | -0.5 |
| AGRB | | | | eSg | Sg | 12 52 51.8 | -0.3 |
| EKAR | Karacoban | 0.97 | 309 | eP | Pg | 12 52 39.6 | -1.4 |
| EKAR | Karacoban | 0.97 | 309 | i P | Pg | 12 52 41.0 | 0.0 |
| EKAR | Karacoban | 0.97 | 309 | P | Pg | 12 52 41.0 | 0.0 |
| BASK | Baskale_VAN | 0.97 | 128 | eP | Pg | 12 52 41.0 | 0.0 |
| BASK | | | | eS | Sn | 12 52 57.0 | +0.7 |
| BASK | | | | IAML | | 12 53 02.2 | |
| | comp=Z,126nm,0.6s | | | | | | |
| BASK | Baskale_VAN | 0.97 | 128 | i P | Pg | 12 52 39.6 | -1.5 |
| BASK | Baskale_VAN | 0.97 | 128 | P | Pg | 12 52 39.6 | -1.5 |
| DYDN | Diyadin | 1.02 | 30 | eP | Pb | 12 52 42.5 | +0.1 |
| DYDN | | | | eS | Sn | 12 52 58.0 | +0.3 |
| DYDN | | | | IAML | | 12 53 01.8 | |
| | comp=Z,46nm,0.5s | | | | | | |
| DYDN | Diyadin | 1.02 | 30 | i P | Pg | 12 52 41.8 | -0.3 |
| DYDN | Diyadin | 1.02 | 30 | P | Pg | 12 52 41.8 | -0.3 |
| SRTM | Siirt_Merkez | 1.10 | 233 | i P | Pg | 12 52 43.0 | -0.5 |
| SRTM | | | | i S | Sn | 12 52 59.4 | 0.0 |
| SRTM | Siirt_Merkez | 1.10 | 233 | P | Pg | 12 52 43.0 | -0.5 |
| SRTM | | | | S | Sn | 12 52 59.4 | 0.0 |
| HAKT | HAKKARI | 1.22 | 154 | i P | Pg | 12 52 44.1 | -1.6 |
| HAKT | HAKKARI | 1.22 | 154 | P | Pg | 12 52 44.1 | -1.6 |
| SIRT | Sirnak | 1.24 | 202 | ePN | Pg | 12 52 47.2 | +1.0 |
| SIRT | Sirnak | 1.24 | 202 | ePn | Pg | 12 52 47.2 | +1.0 |
| EATA | Eleskirt | 1.28 | 341 | eP | Pg | 12 52 46.0 | -1.0 |
| EATA | | | | eS | Sn | 12 53 04.2 | 0.0 |
| EATA | | | | IAML | | 12 53 09.8 | |
| | comp=Z,22nm,0.5s | | | | | | |
| EATA | Eleskirt | 1.28 | 341 | i P | Pg | 12 52 46.0 | -1.0 |
| EATA | Eleskirt | 1.28 | 341 | P | Pg | 12 52 46.0 | -1.0 |
| VRTB | Varto-Mus | 1.33 | 293 | ePN | Pn | 12 52 47.5 | +0.2 |
| VRTB | Varto-Mus | 1.33 | 293 | i P | Pn | 12 52 47.3 | 0.0 |
| VRTB | Varto-Mus | 1.33 | 293 | P | Pn | 12 52 47.3 | 0.0 |
| YOVA | Hakkari_Yˆ…kse | 1.45 | 137 | i P | Pb | 12 52 49.4 | -0.3 |
| YOVA | Hakkari_Yˆ…kse | 1.45 | 137 | P | Pb | 12 52 49.4 | -0.3 |
| CUKT | Cukurca | 1.48 | 162 | i P | Pg | 12 52 50.7 | 0.0 |
| CUKT | Cukurca | 1.48 | 162 | P | Pg | 12 52 50.7 | 0.0 |
| BNGL | BINGOL | 1.50 | 282 | i P | Pn | 12 52 50.3 | +0.6 |
| BTMN | Batman | 1.58 | 242 | i P | Pb | 12 52 51.9 | 0.0 |
| BTMN | Batman | 1.58 | 242 | P | Pb | 12 52 51.9 | 0.0 |
| TASB | TASBURUN-IGDIR | 1.62 | 35 | ePN | Pn | 12 52 51.8 | +0.6 |
| TASB | TASBURUN-IGDIR | 1.62 | 35 | ePn | Pn | 12 52 51.8 | +0.6 |
| HOMI | Horasan | 1.64 | 328 | i P | Pg | 12 52 53.5 | -0.4 |
| DIGO | Kars | 1.78 | 8 | i P | Pb | 12 52 55.5 | +0.2 |
| DIGO | Kars | 1.78 | 8 | P | Pb | 12 52 55.5 | +0.2 |
| ERZM | Erzurum | 1.80 | 314 | i P | Pb | 12 52 55.1 | -0.6 |
| ERZM | Erzurum | 1.80 | 314 | P | Pb | 12 52 55.1 | -0.6 |
| ECAT | Cat-ERZURUM | 1.86 | 301 | i P | Pb | 12 52 56.3 | -0.4 |
| ECAT | Cat-ERZURUM | 1.86 | 301 | P | Pb | 12 52 56.3 | -0.4 |
| BNGB | Bingˆ¶l | 1.87 | 281 | ePN | Pn | 12 52 55.9 | +1.2 |
| BINT | Bingol | 2.00 | 277 | ePn | Pn | 12 52 55.9 | -0.6 |
| EAK | Akyaka | 2.08 | 12 | i P | Pb | 12 52 59.4 | -1.0 |
| EAK | Akyaka | 2.08 | 12 | P | Pb | 12 52 59.4 | -1.0 |
| YEDI | Yedisu-Bingol | 2.09 | 293 | ePN | Pb | 12 52 59.7 | -0.9 |
| YEDI | Yedisu-Bingol | 2.09 | 293 | ePn | Pb | 12 52 59.7 | -0.9 |
| MARD | Mardin | 2.23 | 234 | i P | Pn | 12 52 59.8 | +0.2 |
| DIY | Diyarbakir | 2.34 | 252 | ePn | Pb | 12 53 03.7 | -1.0 |
| MAZI | Mazidag | 2.37 | 241 | ePN | Pn | 12 53 03.5 | +2.0 |
| MAZI | Mazidag | 2.37 | 241 | ePn | Pn | 12 53 03.5 | +2.0 |
| DYBB | Diyarbakir | 2.38 | 254 | ePN | Pn | 12 53 03.7 | +2.1 |
| PTK | Pertek | 2.86 | 276 | ePN | Pn | 12 53 10.6 | +2.3 |
| PTK | Pertek | 2.86 | 276 | ePn | Pn | 12 53 10.6 | +2.3 |
| SVRC | Sivrice-ELAZID | 2.94 | 266 | ePN | Pn | 12 53 11.4 | +2.0 |
| SVRC | Sivrice-ELAZID | 2.94 | 266 | ePn | Pn | 12 53 11.4 | +2.0 |

**GUC 06 13:02:22.2±0.5, 20°.71S×70°.12W, h48km±5km, ML4.1, Near coast of northern Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PB02 | IPOC Station P | 0.65 | 161 | i P | Pn | 13 02 35.7 | +0.4 |
| PB02 | | | | i S | Sn | 13 02 45.6 | +0.9 |
| PB02 | | | | IAML | | 13 02 46.2 | |
| | comp=N,14μm,0.3s | | | | | | |
| PB01 | IPOC Station P | 0.68 | 120 | i P | Pn | 13 02 36.4 | +0.7 |
| PB01 | | | | i S | Sn | 13 02 46.5 | +1.1 |
| PB01 | | | | IAML | | 13 02 47.3 | |
| | comp=E,9μm,0.2s | | | | | | |
| PB11 | IPOC Station P | 1.04 | 25 | i P | Pn | 13 02 41.3 | +0.8 |
| PB11 | | | | i S | Sn | 13 02 55.9 | +1.9 |
| PB11 | | | | IAML | | 13 02 57.3 | |
| | comp=N,16μm,0.3s | | | | | | |
| PB08 | IPOC Station P | 1.06 | 58 | i P | Pn | 13 02 41.9 | +0.8 |
| PB08 | | | | i S | Sn | 13 02 57.0 | +1.9 |
| PSGC | Pisagua | 1.10 | 360 | i P | Pn | 13 02 42.0 | +0.6 |
| PSGC | | | | i S | Sn | 13 02 56.9 | +1.3 |

*ISCJB 06 13:05:30.9±0.4, 38°.34N±0°.03×34°.06E±0°.05, h10km, Error ellipse: s-maj=6.4km s-min=3.9km az=146.2*
*CSEM 06 13:05:30.3±0.2, 38°.31N×34°.09E, h2km, MD2.7, Error ellipse: s-maj=6.1km s-min=4.3km az=66.0*
*DDA 06 13:05:30.2, 38°.25N×34°.08E, h6km, Md2.7*
*ISK 06 13:05:30.0, 38°.37N×34°.11E, h10km, MD3.0*
**ISC 06 13:05:31.6±0.9, 38°.31N±0°.03×34°.06E±0°.04, h10km, n42, σ1s.32/45, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AKSY | AKSARAY - Alti | 0.42 | 325 | i P | Pg | 13 05 38.9 | -0.9 |
| AKSY | AKSARAY - Alti | 0.42 | 325 | P | Pg | 13 05 38.9 | -0.9 |
| SULT | Sultanhani-AKS | 0.44 | 256 | ePG | Pg | 13 05 40.1 | -0.2 |
| SULT | Sultanhani-AKS | 0.44 | 256 | ePg | Pg | 13 05 40.1 | -0.2 |
| SERE | Sereflikochisa | 0.75 | 329 | ePG | Pg | 13 05 44.1 | -2.0 |
| SERE | | | | eSG | Sg | 13 05 54.5 | -1.4 |
| SERE | Sereflikochisa | 0.75 | 329 | ePg | Pg | 13 05 44.1 | -2.0 |
| SERE | | | | eSg | Sg | 13 05 54.5 | -1.4 |
| KERG | Konya-Eregli | 0.89 | 177 | i P | Pg | 13 05 46.8 | -2.0 |
| KERG | Konya-Eregli | 0.89 | 177 | P | Pg | 13 05 46.8 | -2.0 |
| CHBY | Cihanbeyli | 0.96 | 287 | ePG | Pg | 13 05 49.0 | -1.1 |
| CHBY | Cihanbeyli | 0.96 | 287 | ePg | Pg | 13 05 49.0 | -1.1 |
| YAHY | KAYSERI_Yahyal | 1.05 | 101 | i P | Pg | 13 05 49.8 | -2.0 |
| YAHY | KAYSERI_Yahyal | 1.05 | 101 | P | Pg | 13 05 49.8 | -1.9 |
| KAMT | Kaman | 1.10 | 346 | ePG | Pg | 13 05 50.8 | -1.9 |
| KAMT | Kaman | 1.10 | 346 | ePg | Pg | 13 05 50.8 | -1.9 |
| KKUL | Konya-Kulu | 1.24 | 314 | i P | Pb | 13 05 55.5 | +0.2 |
| KKUL | Konya-Kulu | 1.24 | 314 | P | Pb | 13 05 55.5 | +0.2 |
| CDAG | Cicekdag | 1.34 | 10 | i P | Pn | 13 05 56.8 | +0.3 |
| CDAG | | | | i S | Sg | 13 06 18.2 | +3.5 |
| CDAG | Cicekdag | 1.34 | 10 | P | Pn | 13 05 56.8 | +0.3 |
| LADK | Ladik-KONYA | 1.34 | 266 | ePN | Pn | 13 05 55.4 | -1.1 |
| LADK | Ladik-KONYA | 1.34 | 266 | ePn | Pn | 13 05 55.4 | -1.1 |
| AFSR | Afˉar-Bala (A | 1.38 | 326 | ePN | Pn | 13 05 55.4 | -1.6 |
| AFSR | Afˉar-Bala (A | 1.38 | 326 | ePn | Pn | 13 05 55.4 | -1.6 |
| AKO | Adana | 1.38 | 127 | i P | Pn | 13 05 55.3 | -1.7 |
| AKO | | | | i S | Sn | 13 06 16.5 | +1.1 |
| KONT | Konya--Tatoy | 1.39 | 256 | ePN | Pn | 13 05 56.8 | -0.3 |
| KONT | Konya--Tatoy | 1.39 | 256 | ePn | Pn | 13 05 56.8 | -0.3 |
| KDHN | Kadinhani | 1.54 | 279 | i P | Pn | 13 05 59.3 | 0.0 |
| KDHN | Kadinhani | 1.54 | 279 | P | Pn | 13 05 59.3 | 0.0 |
| KOZT | Kozan | 1.62 | 120 | ePN | Pn | 13 05 59.0 | -1.2 |
| KOZT | Kozan | 1.62 | 120 | ePn | Pn | 13 05 59.1 | -1.2 |
| KIZT | Kizilcal | 1.80 | 289 | ePN | Pn | 13 06 02.2 | -0.7 |
| KIZT | Kizilcal | 1.80 | 289 | ePn | Pn | 13 06 03.1 | +0.2 |
| KIZK | Mersin | 1.82 | 178 | ePN | Pn | 13 06 03.0 | 0.0 |
| KEBE | Keben-Mersin | 1.88 | 189 | ePN | Pn | 13 06 04.2 | +0.4 |
| KEBE | Keben-Mersin | 1.88 | 189 | ePn | Pn | 13 06 04.2 | +0.4 |
| TEVE | Tevekalti-Mers | 1.93 | 195 | ePN | Pn | 13 06 05.3 | +0.7 |
| TEVE | Tevekalti-Mers | 1.93 | 195 | ePn | Pn | 13 06 05.3 | +0.7 |
| COAL | Corum-Alaca | 2.07 | 20 | i P | Pn | 13 06 06.8 | +0.2 |
| COAL | | | | i S | Sb | 13 06 38.4 | +3.1 |
| COAL | Corum-Alaca | 2.07 | 20 | P | Pn | 13 06 06.8 | +0.2 |
| IKL | Isikli | 2.09 | 188 | ePN | Pn | 13 06 06.2 | -0.4 |
| IKL | Isikli | 2.09 | 188 | ePn | Pn | 13 06 06.2 | -0.4 |
| TEKE | Tekeli-Mersin | 2.29 | 200 | ePN | Pn | 13 06 10.5 | +1.1 |
| TEKE | Tekeli-Mersin | 2.29 | 200 | ePn | Pn | 13 06 10.5 | +1.1 |

*IDC 06 13:11:12.9±1.3, 34°.52N×138°.03E, h0km, mb3.4/3, mb1 3.5/5, mb1mx3.2/47, mbtmp3.3/5, ML2.9/2, Error ellipse: s-maj=50.4km s-min=18.4km az=92.0*
*ISCJB 06 13:11:15.9±0.6, 35°.07N±0°.04×139°.99E±0°.05, h75km±5km, mb3.5/3, Error ellipse: s-maj=8.2km s-min=5.8km az=145.3*
*JMA 06 13:11:16.2±0.1, 35°.08N×139°.99E, h73km±2km, M2.5*
**ISC 06 13:11:16.8±1.1, 35°.08N±0°.04×139°.98E±0°.05, h69km±7km, n18, σ0s.46/27, mb3.3/3, Near south coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TATJ | Tateyama 2 | 0.08 | 239 | P | Pn | 13 11 27.0 | +0.1 |
| TATJ | | | | S | Sn | 13 11 34.8 | +0.5 |
| KTR | Katsuura | 0.29 | 75 | P | Pn | 13 11 27.6 | -0.2 |
| KTR | | | | S | Sn | 13 11 35.4 | -0.5 |
| JYO | Yokosk | 0.30 | 300 | P | Pn | 13 11 28.2 | +0.3 |
| BSO4 | Boso 4 | 0.31 | 106 | P | Pn | 13 11 28.2 | +0.3 |
| BSO4 | | | | X | | 13 11 36.9 | |
| JCN | Nagara | 0.39 | 28 | P | Pn | 13 11 28.7 | +0.1 |
| JCN | | | | eS | Sn | 13 11 37.7 | +0.5 |
| BSO3 | Boso 3 | 0.52 | 122 | P | Pn | 13 11 29.5 | +0.1 |
| BSO3 | | | | X | | 13 11 39.3 | |
| JIM2 | Oshima 3 | 0.57 | 232 | P | Pn | 13 11 30.1 | -0.3 |
| JOD2 | Odawara 2 | 0.75 | 285 | P | Pn | 13 11 32.0 | -0.3 |
| JOD2 | | | | S | Sn | 13 11 43.0 | -0.8 |
| JIZS | Izushimoda | 0.97 | 249 | P | Pn | 13 11 35.1 | +0.2 |
| JIZS | | | | S | Sn | 13 11 48.4 | 0.0 |
| JYN | Shimob | 1.25 | 290 | P | Pn | 13 11 38.8 | +0.3 |
| JYN | | | | S | Sn | 13 11 55.0 | +0.3 |
| JRY | Ryogami san | 1.29 | 317 | P | Pn | 13 11 39.3 | +0.3 |
| JAG | Ashikaga | 1.41 | 343 | P | Pn | 13 11 40.3 | -0.3 |
| JAG | | | | S | Sn | 13 11 58.2 | -0.3 |
| JHJ | Hachijo jima 2 | 1.96 | 185 | Pn | Pn | 13 11 48.5 | +0.6 |
| | 15nm,0.3s,baz=90,slow=20,SNR=4.0 | | | | | | |
| JHJ | | | | Sn | Sn | 13 12 11.1 | -0.4 |
| | 45nm,0.3s,baz=341,slow=22,SNR=11 | | | | | | |
| MJAR | Matsushiro Arr | 2.05 | 316 | Pn | Pn | 13 11 48.5 | -0.7 |
| | 2.6nm,0.3s,baz=184,slow=5.2,SNR=37 | | | | | | |
| MJAR | | | | Sn | Sn | 13 12 14.1 | +0.3 |
| | 2.9nm,0.3s,baz=138,slow=8.2,SNR=4.5 | | | | | | |
| MAT | Matsushiro | 2.05 | 316 | P | Pn | 13 11 50.3 | +1.1 |
| MAT | | | | S | Sn | 13 12 14.2 | +0.3 |
| WRA | Warramunga Arr | 54.98 | 186 | P | P | 13 20 40.5 | -0.5 |
| | 0.2nm,0.6s,baz=1.3,slow=7.3,SNR=6.0 | | | | | | |
| INK | Inuvik | 56.66 | 26 | P | P | 13 21 05.9 | +13 |
| | 1.1nm,0.6s,baz=308,slow=12,SNR=6.0 | | | | | | |
| ASAR | Alice Springs | 58.70 | 187 | P | P | 13 21 07.6 | +0.2 |
| | 0.1nm,0.5s,baz=14,slow=12,SNR=3.3 | | | | | | |

*SCB 06 13:13:44.2±1.0, 15°.94S×75°.43W, h60km, Ml3.8/1, Error ellipse: s-maj=28.3km s-min=18.5km az=137.0*
*IDC 06 13:13:53.4±2.7, 17°.47S×74°.52W, h0km, mb4.0/1, mb1 4.1/3, mb1mx3.6/33, mbtmp4.1/3, ML4.0/2, MS2.8/4, Ms1 2.8/4, ms1mx2.6/27, Error ellipse: s-maj=76.2km s-min=33.7km az=18.0*
**ISC 06 13:13:55.2±2.1, 17°.6S±0°.2×74°.8W±0°.1, h35km, n12, σ1s.73/10, 5C, Off coast of Peru**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| NNA | Nana | 5.89 | 340 | Pn | Pn | 13 15 21.6 | +1.5 |
| | 4.5nm,0.3s,baz=135,slow=13,SNR=5.9 | | | | | | |
| NNA | | | | Sn | Sn | 13 16 24.8 | -1.7 |
| | 7.8nm,0.3s,baz=243,slow=12,SNR=5.4 | | | | | | |
| NNA | | | | LR | LR | 13 17 46.2 | |
| | comp=Z,54nm,19.8s,baz=130,slow=40 | | | | | | |
| BBOJ | La Paz, Jacaqu | 6.35 | 86 | ⇑i Pn | Pn | 13 15 29.8 | +2.9 |
| LPAZ | La Paz | 6.52 | 80 | Pn | Pn | 13 15 28.6 | -0.7 |
| | 2.2nm,0.3s,baz=286,slow=9.3,SNR=30 | | | | | | |
| LPAZ | | | | Sn | Sn | 13 16 41.4 | -1.4 |
| | baz=210,slow=16,SNR=1.6 | | | | | | |
| LPAZ | | | | LR | LR | 13 17 30.1 | |
| | comp=Z,16nm,19.8s,baz=231,slow=35 | | | | | | |
| LPAZ | La Paz | 6.52 | 80 | ⇑i Pn | Pn | 13 15 29.4 | +0.1 |
| BBOB | La Paz, Bander | 6.55 | 78 | ⇑i Pn | Pn | 13 15 29.3 | -0.3 |
| BBOB | | | | ⇑i Sn | Sn | 13 16 46.2 | +2.8 |
| | 21nm,0.7s | | | | | | |
| BBOE | La Paz, Chanca | 6.57 | 84 | ⇑i Pn | Pn | 13 15 32.8 | +2.9 |
| MOCB | Mochara | 9.39 | 114 | eP | Pn | 13 16 17.5 | +8.9 |
| SIV | San Ignacio | 13.25 | 85 | eP | Pn | 13 16 59.1 | -1.9 |
| PTGA | Pitinga | 22.21 | 43 | LR | LR | 13 27 41.3 | |
| | comp=Z,62nm,20.1s,baz=90,slow=38 | | | | | | |
| BBTS | Babate | 65.80 | 65 | LR | LR | 13 52 36.3 | |
| | comp=Z,33nm,20.4s,baz=213,slow=36 | | | | | | |
| TORD | Torodi Ar. Bea | 81.43 | 73 | P | P | 13 26 10.1 | +0.9 |
| | 1.0nm,0.8s,baz=259,slow=5.4,SNR=5.4 | | | | | | |
| SONM | Songino Array | 149.81 | 358 | PKPbc | PKPab | 13 33 46.1 | -1.0 |
| | 0.7nm,0.8s,baz=350,slow=1.6,SNR=5.0 | | | | | | |

*ISCJB 06 13:14:38.0±1.0, 36°.25N±0°.05×36°.11E±0°.06, h3km±11km, Error ellipse: s-maj=11.0km s-min=5.8km az=138.5*
*CSEM 06 13:14:37.7±0.4, 36°.21N×36°.20E, h5km, MD3.0, Error ellipse: s-maj=11.5km s-min=7.1km az=135.0*
*DDA 06 13:14:37.6, 36°.23N×36°.09E, h7km, Ml2.7*
*ISK 06 13:14:37.9, 36°.28N×36°.18E, h13km, MD3.0*
**ISC 06 13:14:37.8±1.0, 36°.23N±0°.04×36°.19E±0°.04, h10km±8km, n22, σ0s.61/29, Jordan-Syria region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TAHT | Tahtakopru-Hat | 0.15 | 0 | ePG | Pg | 13 14 41.1 | -0.1 |
| TAHT | Tahtakopru-Hat | 0.15 | 0 | ePg | Pg | 13 14 41.1 | -0.1 |
| YAYL | Yayladag | 0.20 | 198 | i P | Pg | 13 14 41.1 | -1.0 |
| YAYL | | | | i S | Sg | 13 14 45.7 | +0.7 |
| YAYL | Yayladag | 0.20 | 198 | P | Pg | 13 14 41.1 | -1.0 |
| YAYL | | | | S | Sg | 13 14 45.7 | +0.7 |
| KUZU | Kuzuini | 0.90 | 52 | i P | Pb | 13 14 55.8 | +0.2 |
| KUZU | | | | i S | Sn | 13 15 09.9 | +0.1 |
| KUZU | Kuzuini | 0.90 | 52 | P | Pb | 13 14 55.8 | +0.2 |
| KUZU | | | | S | Sn | 13 15 09.9 | +0.1 |
| KAMA | Osmaniye | 1.03 | 22 | i P | Pn | 13 14 58.5 | -0.1 |
| KOZT | Kozan | 1.29 | 347 | ePN | Pn | 13 15 01.5 | -0.5 |
| KOZT | | | | eSN | Sb | 13 15 18.6 | -0.2 |
| KOZT | Kozan | 1.29 | 347 | ePn | Pn | 13 15 01.5 | -0.5 |
| KOZT | | | | eSn | Sb | 13 15 18.6 | -0.2 |
| KIZK | Mersin | 1.67 | 279 | ePN | Pn | 13 15 07.5 | +0.4 |
| KIZK | | | | eSN | Sn | 13 15 29.0 | +0.4 |
| KEBE | Keben-Mersin | 2.01 | 277 | ePN | Pn | 13 15 12.3 | +0.4 |
| KEBE | Keben-Mersin | 2.01 | 277 | ePn | Pn | 13 15 12.3 | +0.4 |
| IKL | Isikli | 2.02 | 271 | ePN | Pn | 13 15 12.6 | +0.6 |
| IKL | Isikli | 2.02 | 271 | ePn | Pn | 13 15 12.6 | +0.6 |
| KERG | Konya-Eregli | 2.04 | 306 | i P | Pb | 13 15 14.3 | -0.7 |
| KERG | Konya-Eregli | 2.04 | 306 | P | Pb | 13 15 14.3 | -0.7 |
| AKKU | Akkuyu-Mersin | 2.13 | 269 | ePN | Pn | 13 15 14.3 | +0.8 |
| AKKU | Akkuyu-Mersin | 2.13 | 269 | ePn | Pn | 13 15 14.3 | +0.8 |
| TEVE | Tevekalti-Mers | 2.22 | 276 | ePN | Pn | 13 15 15.3 | +0.4 |
| TEVE | Tevekalti-Mers | 2.22 | 276 | ePn | Pn | 13 15 15.3 | +0.4 |
| TEKE | Tekeli-Mersin | 2.49 | 269 | ePN | Pn | 13 15 19.4 | +1.0 |
| TEKE | Tekeli-Mersin | 2.49 | 269 | ePn | Pn | 13 15 19.4 | +1.0 |

**IDC 06 13:18:59.0**±2.0**,22°.24S**×**179°.37W,h0$^{km}$,mb4.2**/4**, mb1 4.5**/4**,mb1mx4.0**/23**,mbtmp4.2**/4**,Error ellipse: s-maj=149.0km s-min=31.7km az=159.0,South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **STKA** | **Stephens Creek** | **35.90** | **246** | P | P | 13 26 01.4 | +0.4 |
| | 2.1nm,0.6s,baz=84,slow=6.6,SNR=7.6 | | | | | | |
| **ASAR** | **Alice Springs** | **42.90** | **259** | P | P | 13 26 59.2 | -0.4 |
| | 4.2nm,0.8s,baz=95,slow=7.9,SNR=56 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.12** | **264** | P | P | 13 27 01.2 | -0.3 |
| | 4.4nm,0.7s,baz=102,slow=8.2,SNR=50 | | | | | | |
| **TXAR** | **Lajitas Array** | **89.07** | **58** | P | P | 13 31 56.5 | 0.0 |
| | 0.4nm,0.7s,baz=212,slow=6.8,SNR=5.0 | | | | | | |

---

*IDC **06** 13:34:00.7±0.5, 15°.60N×119°.14E, h0$^{km}$, mb4.2/25, mb1 4.3/25, mb1mx4.2/56, mbtmp4.2/25, MS3.2/6, Ms1 3.3/6, ms1mx2.9/29, Error ellipse: s-maj=18.5km s-min=11.4km az=67.0*

*ISCJB **06** 13:34:03.5±0.3, 15°.67N±0°.05×119°.20E±0°.05, h29$^{km}$, mb4.2/31, MS3.3/4, Error ellipse: s-maj=8.1km s-min=6.2km az=142.2*

*NEIC **06** 13:34:06.4±0.9, 15°.65N×119°.21E, h38$^{km}$±9$^{km}$, mb4.7/7, Error ellipse: s-maj=8.6km s-min=5.9km az=81.0*

**ISC 06 13:34:05.1**±0.4**,15°.61N**±0°.06×**119°.22E**±0°.07**,h29$^{km}$,n59, σ0$^{s}$.73**/64**,mb4.3**/31**,MS3.4**/4**,3C-1D,Luzon**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TGY** | **Tagaytay City** | **2.24** | **132** | Pn | **Pb** | **13 34 43.4** | **-1.6** |
| | 305nm,0.3s,baz=179,slow=3.5,SNR=21 | | | | | | |
| TGY | | | | Sn | **Sb** | **13 35 12.2** | **0.0** |
| | 224nm,0.3s,baz=86,slow=21,SNR=8.4 | | | | | | |
| TGY | | | | LR | LR | 13 35 41.5 | |
| | comp=Z,474nm,18.2s,baz=203,slow=44 | | | | | | |
| **LQP** | **Lukban** | **2.69** | **123** | ⇑eP | **Pn** | **13 34 47.4** | **+0.7** |
| **YULB** | **Yu-li** | **7.98** | **14** | ePn | **Pn** | **13 35 58.4** | **-0.9** |
| **KKM** | **Kota Kinabalu** | **9.96** | **198** | ePn | **Pn** | **13 36 25.1** | **-1.3** |
| **KSM** | **Kuching** | **16.57** | **213** | eP | **P** | **13 37 57.9** | **+0.1** |
| | 4.2nm,0.4s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **19.59** | **281** | P | **Pn** | **13 38 33.1** | **+0.5** |
| | 0.3nm,0.3s,baz=92,slow=9.3,SNR=31 | | | | | | |
| CMAR | | | | PcP | **PcP** | **13 42 50.8** | **+0.2** |
| | 0.1nm,0.3s,baz=72,slow=1.1,SNR=5.1 | | | | | | |
| CMAR | | | | LR | LR | 13 45 50.9 | |
| | comp=Z,47nm,18.9s,baz=133,slow=36 | | | | | | |
| **JNU** | **Nakatsue** | **20.38** | **29** | P | **P** | **13 38 39.7** | **+0.1** |
| | 5.8nm,0.8s,baz=236,slow=8.0,SNR=4.9 | | | | | | |
| **KSAR** | **Wonju Array Be** | **23.06** | **18** | P | **P** | **13 39 08.3** | **+0.2** |
| **KSRS** | **Korea Array** | **23.08** | **18** | P | **P** | **13 39 08.3** | **0.0** |
| | 2.0nm,0.7s,baz=202,slow=12,SNR=6.2 | | | | | | |
| KSRS | | | | LR | LR | 13 49 19.2 | |
| | comp=Z,26nm,18.8s,baz=60,slow=40 | | | | | | |
| **SOEI** | **Soe** | **25.70** | **168** | eP | **P** | **13 39 35.5** | **+2.5** |
| | 30nm,0.8s | | | | | | |
| **MJAR** | **Matsushiro Arr** | **26.84** | **35** | P | **P** | **13 39 43.8** | **+0.7** |
| | 1.0nm,0.8s,baz=203,slow=7.1,SNR=2.0 | | | | | | |
| **LSA** | **Lhasa** | **29.35** | **303** | eP | **P** | **13 40 06.6** | **+0.4** |
| **TAPN** | **Taplejung** | **31.47** | **297** | eP | **P** | **13 40 24.4** | **-0.3** |
| | 21nm,1.3s | | | | | | |
| **ODAN** | **Odare** | **31.62** | **296** | eP | **P** | **13 40 25.6** | **-0.4** |
| | 17nm,0.8s | | | | | | |
| **RAMN** | **Ramite** | **32.33** | **296** | eP | **P** | **13 40 32.3** | **+0.1** |
| | 10.0nm,0.7s | | | | | | |
| **JIRN** | **Jiri** | **32.85** | **297** | eP | **P** | **13 40 36.8** | **-0.2** |
| | 77nm,0.7s | | | | | | |
| **GUN** | **Gumba** | **33.18** | **297** | eP | **P** | **13 40 39.5** | **-0.3** |
| | 21nm,0.9s | | | | | | |
| **PKI** | **Pulchoki** | **33.50** | **297** | eP | **P** | **13 40 41.5** | **-1.1** |
| **PKIN** | **Phulchoki** | **33.52** | **297** | eP | **P** | **13 40 41.4** | **-1.2** |
| **DMN** | **Daman** | **33.77** | **296** | eP | **P** | **13 40 44.1** | **-0.8** |
| **SONM** | **Songino Array** | **33.83** | **344** | P | **P** | **13 40 45.0** | **+0.1** |
| | 3.5nm,0.7s,baz=166,slow=10,SNR=23 | | | | | | |
| SONM | | | | PcP | **PcP** | **13 43 24.2** | **+0.7** |
| | 0.3nm,0.6s,baz=144,slow=5.0,SNR=2.6 | | | | | | |
| **ASAJ** | **Asahikawa** | **34.66** | **30** | P | **P** | **13 40 52.5** | **+0.5** |
| | 3.5nm,0.8s,baz=177,slow=18,SNR=1.8 | | | | | | |
| **KLR** | **Kul'dur** | **35.06** | **14** | P | **P** | **13 40 55.8** | **+0.4** |
| | 0.1nm,0.7s,baz=245,slow=6.5,SNR=4.1 | | | | | | |
| KLR | | | | PcP | **PcP** | **13 43 27.5** | **+0.7** |
| | 0.1nm,0.6s,baz=250,slow=5.9,SNR=4.6 | | | | | | |
| **KOLN** | **Koldanda** | **35.11** | **296** | eP | **P** | **13 40 55.8** | **-0.6** |
| **PYUN** | **Piuthan** | **35.71** | **297** | eP | **P** | **13 41 00.9** | **-0.6** |
| **PMG** | **Port Moresby** | **37.20** | **130** | P | **P** | **13 41 14.9** | **+0.8** |
| | 6.8nm,0.9s,baz=303,slow=6.6,SNR=3.9 | | | | | | |
| **COEN** | **Coen** | **37.74** | **140** | eP | **P** | **13 41 18.2** | **-0.4** |
| **WRAB** | **Tennant Creek** | **38.33** | **157** | eP | **P** | **13 41 22.7** | **-0.8** |
| | 5.1nm,0.8s | | | | | | |
| **WRA** | **Warramunga Arr** | **38.33** | **157** | P | **P** | **13 41 22.8** | **-0.8** |
| | 2.2nm,0.4s,baz=331,slow=9.8,SNR=45 | | | | | | |
| WRA | | | | PcP | **PcP** | **13 43 37.9** | **+0.7** |
| | 1.6nm,0.6s,baz=344,slow=3.2,SNR=10.0 | | | | | | |
| **ASAR** | **Alice Springs** | **41.59** | **160** | P | **P** | **13 41 50.5** | **-0.2** |
| | 3.7nm,0.6s,baz=335,slow=7.4,SNR=88 | | | | | | |
| ASAR | | | | PcP | **PcP** | **13 43 48.1** | **+0.5** |
| | 1.7nm,0.8s,baz=352,slow=2.2,SNR=8.6 | | | | | | |
| ASAR | | | | LR | LR | 14 01 36.1 | |
| | comp=Z,30nm,18.0s,baz=53,slow=40 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.65** | **323** | P | **P** | **13 42 07.3** | **+0.2** |
| | 2.4nm,0.8s,baz=127,slow=9.3,SNR=11 | | | | | | |
| MKAR | | | | PcP | **PcP** | **13 43 54.3** | **+0.2** |
| | 0.5nm,0.6s,baz=123,slow=3.3,SNR=3.9 | | | | | | |
| **CTA** | **Charters Tower** | **44.33** | **142** | P | **P** | **13 42 13.2** | **+0.3** |
| | 6.0nm,0.9s,baz=329,slow=12,SNR=5.2 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **46.71** | **333** | P | **P** | **13 42 30.9** | **-0.4** |
| | 1.0nm,0.5s,baz=126,slow=7.5,SNR=7.3 | | | | | | |
| **HNR** | **Honiara** | **47.40** | **119** | LR | LR | 14 00 29.1 | |
| | comp=Z,60nm,19.6s,baz=250,slow=34 | | | | | | |
| **KURK** | **Kurchatov** | **47.81** | **326** | eP | **P** | **13 42 38.1** | **-1.8** |
| | 79nm,1.1s | | | | | | |
| **PETK** | **Petropavlovsk-** | **48.08** | **30** | P | **P** | **13 42 42.5** | **+0.6** |
| | 4.7nm,0.7s,baz=197,slow=4.8,SNR=5.7 | | | | | | |
| **STKA** | **Stephens Creek** | **51.87** | **156** | P | **P** | **13 43 10.8** | **-0.1** |
| | 1.0nm,0.3s,baz=351,slow=7.6,SNR=7.1 | | | | | | |
| **TIXI** | **Tiksi** | **56.32** | **4** | eP | **P** | **13 43 41.7** | **-1.1** |
| | 4.2nm,0.9s | | | | | | |
| **GEYT** | **Alibeck** | **57.86** | **305** | P | **P** | **13 43 54.5** | **0.0** |
| | 1.0nm,0.3s,baz=191,slow=5.3,SNR=5.3 | | | | | | |
| **RAYN** | **Ar Rayn** | **69.26** | **290** | eP | **P** | **13 45 09.7** | **-0.3** |
| | 10nm,1.0s | | | | | | |
| **KBZ** | **Khabaz** | **69.55** | **311** | P | **P** | **13 45 11.5** | **+0.2** |
| | 6.5nm,1.0s,baz=155,slow=3.3,SNR=7.6 | | | | | | |
| **KVAR** | **Kislovodsk Arr** | **69.69** | **312** | P | **P** | **13 45 12.5** | **+0.2** |
| | 10nm,0.8s,baz=216,slow=5.3,SNR=6.5 | | | | | | |
| **KIV** | **Kislovodsk** | **69.69** | **312** | eP | **P** | **13 45 12.5** | **+0.1** |
| | 11nm,0.8s | | | | | | |
| **ARCES** | **ARCESS Array B** | **76.80** | **339** | P | **P** | **13 45 53.6** | **-0.1** |
| | 1.0nm,0.5s,baz=72,slow=8.3,SNR=7.7 | | | | | | |
| **BRTR** | **Keskin Array B** | **76.85** | **308** | P | **P** | **13 45 54.8** | **0.0** |
| | 1.2nm,0.8s,baz=122,slow=4.5,SNR=5.8 | | | | | | |
| **ILAR** | **Eielson Array** | **77.67** | **26** | P | **P** | **13 45 58.0** | **-0.7** |
| | 0.3nm,0.6s,baz=243,slow=6.0,SNR=5.3 | | | | | | |
| **FINES** | **FINESS Array B** | **77.92** | **331** | P | **P** | **13 45 59.4** | **-0.8** |
| | 2.8nm,0.8s,baz=55,slow=5.3,SNR=18 | | | | | | |
| **AKASG** | **Malin Array Be** | **78.08** | **319** | P | **P** | **13 46 00.2** | **-1.0** |
| | 2.3nm,0.8s,baz=42,slow=21,SNR=9.2 | | | | | | |
| **VRI** | **Vrincioaia** | **80.67** | **315** | ⇑iP | **P** | **13 46 16.3** | **+0.8** |
| **PLOR** | **Plostina** | **80.73** | **315** | ⇑iP | **P** | **13 46 16.4** | **+0.6** |
| **BURAR** | **Bucovina Array** | **81.29** | **317** | ⇓iP | **P** | **13 46 19.2** | **+0.3** |
| **MLR** | **Muntele Rosu** | **81.29** | **315** | P | **P** | **13 46 19.0** | **+0.1** |
| | 0.6nm,0.5s,baz=38,slow=18,SNR=4.1 | | | | | | |
| **KMBO** | **Kilima Mbogo** | **82.56** | **267** | P | **P** | **13 46 27.2** | **+0.9** |
| | 1.1nm,0.3s,baz=21,slow=5.8,SNR=4.7 | | | | | | |
| **HFS** | **Hagfors** | **84.12** | **331** | P | **P** | **13 46 33.3** | **+0.1** |
| | 2.3nm,0.9s,baz=17,slow=1.5,SNR=2.3 | | | | | | |
| **NOA** | **NORSAR Array B** | **84.91** | **332** | LR | LR | 14 29 41.7 | |
| | comp=Z,26nm,20.9s,baz=345,slow=39 | | | | | | |
| **CLL** | **Collm** | **87.75** | **323** | eP | **P** | **13 46 52.0** | **+0.7** |
| **YKA** | **Yellowknife Ar** | **91.56** | **22** | P | **P** | **13 47 09.4** | **+0.5** |
| | 0.6nm,0.6s,baz=309,slow=4.3,SNR=4.6 | | | | | | |
| **TXAR** | **Lajitas Array** | **119.09** | **43** | PKP | **PKPdf** | **13 52 52.2** | **+0.3** |
| | 0.2nm,0.6s,baz=345,slow=1.0,SNR=5.0 | | | | | | |
| **PLCA** | **Paso Flores** | **153.57** | **163** | PKPbc | **PKPbc** | **13 54 02.2** | **+0.8** |
| | 1.6nm,0.8s,baz=270,slow=2.0,SNR=2.9 | | | | | | |

---

*NIED **06** 13:36:00, 36°.20N×141°.10E, h32$^{km}$, Mw3.6 Best double couple: $M_0$2.76000×10$^{14}$ NP1:$\phi_s$89.00000°, δ29.00000°, λ-19.00000°. NP2:$\phi_s$196.00000°, δ81.00000°, λ-117.00000°.*

**JMA 06 13:36:33.0**±0.1**,36°.22N**×**141°.09E,h47$^{km}$**±2$^{km}$**,M3.5, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CHOJ** | **Chosi** | **0.55** | **200** | P | Pn | 13 36 44.6 | -0.1 |
| CHOJ | | | | S | Sn | 13 36 52.4 | -0.6 |
| **JHO** | **Hitachi** | **0.57** | **313** | P | Pn | 13 36 44.7 | -0.3 |
| JHO | | | | S | Sn | 13 36 52.9 | -0.7 |
| **JYT** | **Yasato** | **0.72** | **271** | P | Pn | 13 36 47.1 | +0.2 |
| JYT | | | | S | Sn | 13 36 56.8 | -0.2 |
| **ONAJ** | **Iwakimizuishiy** | **0.91** | **345** | P | Pn | 13 36 49.1 | -0.4 |
| ONAJ | | | | S | Sn | 13 36 59.8 | -1.8 |
| **JFK** | **Kawauchi** | **1.16** | **351** | P | Pn | 13 36 52.3 | -0.5 |
| **JFT** | **Otama** | **1.43** | **335** | P | Pn | 13 36 57.8 | +1.3 |
| JFT | | | | S | Sn | 13 37 15.1 | +0.9 |

---

*ISCJB **06** 13:59:55.5±0.7, 23°.77N±0°.02×122°.25E±0°.02, h8$^{km}$±4$^{km}$, Error ellipse: s-maj=3.9km s-min=2.8km az=146.8*

*JMA **06** 13:59:56.1±0.2, 23°.79N×122°.21E, h20$^{km}$±4$^{km}$, M2.9*

*TAP **06** 13:59:56.9, 23°.82N×122°.22E, h19$^{km}$, ML3.5, C*

**ISC 06 13:59:55.3**±1.1**,23°.81N**±0°.03×**122°.25E**±0°.02**,h14$^{km}$**±9$^{km}$**, n52,σ0$^{s}$.55**/78**,2C-3D,Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HWA** | **Hwalien** | **0.61** | **286** | iP | **Pb** | **14 00 08.2** | **+0.5** |
| | baz=271 | | | | | | |
| HWA | | | | iS | **Sb** | **14 00 16.8** | **+0.6** |
| | baz=271 | | | | | | |
| **TWD** | **Chiawan** | **0.65** | **294** | P | **Pb** | **14 00 08.9** | **+0.4** |
| | baz=294 | | | | | | |
| TWD | | | | eS | **Sb** | **14 00 17.7** | **+0.3** |
| | baz=294 | | | | | | |
| **ESL** | **Shilin** | **0.74** | **270** | ⇑iP | **Pg** | **14 00 10.1** | **+0.3** |
| | baz=269 | | | | | | |
| **ENA** | **Nanau** | **0.77** | **323** | iP | **Pn** | **14 00 11.5** | **-0.3** |
| | baz=336 | | | | | | |
| ENA | | | | eS | **Sn** | **14 00 22.9** | **-0.2** |
| | baz=336 | | | | | | |
| **TWC** | **Suao** | **0.87** | **336** | ⇓iP | **Pn** | **14 00 13.1** | **-0.1** |
| | baz=347 | | | | | | |
| TWC | | | | iS | **Sn** | **14 00 25.3** | **-0.4** |
| | baz=347 | | | | | | |
| **EHY** | **Hungye** | **0.90** | **250** | ⇓iP | **Pg** | **14 00 12.9** | **+0.2** |
| | baz=258 | | | | | | |
| EHY | | | | eS | **Sg** | **14 00 25.0** | **+0.5** |
| | baz=258 | | | | | | |
| **JYNG** | **Yonagunijimaku** | **0.90** | **45** | P | **Pn** | **14 00 13.7** | **+0.1** |
| JYNG | | | | S | **Sn** | **14 00 25.9** | **-0.5** |
| **YOJ** | **Yonaguni jima** | **0.95** | **47** | P | **Pn** | **14 00 14.3** | **0.0** |
| YOJ | | | | eS | **Sg** | **14 00 26.8** | **+0.5** |
| **TWF1** | **Yuli** | **0.98** | **243** | iP | **Pb** | **14 00 14.2** | **+0.1** |
| | baz=240 | | | | | | |
| TWF1 | | | | iS | **Sg** | **14 00 27.2** | **0.0** |
| | baz=240 | | | | | | |
| **NNS** | **Nan Shan** | **1.01** | **308** | iP | **Pg** | **14 00 15.4** | **+0.4** |
| | baz=308 | | | | | | |
| NNS | | | | eS | **Sn** | **14 00 28.7** | **-0.6** |
| | baz=308 | | | | | | |
| **ENTT** | **Nioudou** | **1.03** | **323** | iP | **Pg** | **14 00 15.7** | **+0.4** |
| | baz=323 | | | | | | |
| ENTT | | | | eS | **Sn** | **14 00 29.2** | **-0.4** |
| | baz=323 | | | | | | |
| **TWE** | **Neicheng** | **1.05** | **330** | ⇓iP | **Pg** | **14 00 16.1** | **+0.5** |
| | baz=331 | | | | | | |
| TWE | | | | S | **Sn** | **14 00 29.9** | **-0.1** |
| | baz=331 | | | | | | |
| **CHKT** | **Chengkung** | **1.07** | **229** | iP | **Pb** | **14 00 15.1** | **-0.6** |
| | baz=226 | | | | | | |
| **NSK** | **Sanguang** | **1.18** | **317** | iP | **Pg** | **14 00 18.1** | **0.0** |
| | baz=317 | | | | | | |
| **TWB1** | **Santiao Chiao** | **1.22** | **349** | eP | **Pg** | **14 00 18.5** | **-0.3** |
| | baz=350 | | | | | | |
| **YUS** | **Yu-Shan** | **1.23** | **255** | ⇑iP | **Pb** | **14 00 18.5** | **-0.1** |
| | baz=253 | | | | | | |
| **SMLT** | **Sun Moon Lake** | **1.23** | **274** | iP | **Pb** | **14 00 18.6** | **+0.1** |
| | baz=272 | | | | | | |
| **TYC** | **Yuchr** | **1.27** | **274** | eP | **Pb** | **14 00 19.2** | **+0.1** |
| | baz=273 | | | | | | |
| **ELDTW** | **Lidau** | **1.29** | **241** | eP | **Pn** | **14 00 18.4** | **-0.5** |
| | baz=239 | | | | | | |
| **TWA** | **Mucha** | **1.31** | **333** | P | **Pg** | **14 00 20.5** | **-0.1** |
| | baz=333 | | | | | | |
| **NWF** | **Wu-fen Shan** | **1.32** | **341** | P | **Pg** | **14 00 20.6** | **-0.2** |
| **ALS** | **Alishan** | **1.35** | **258** | eP | **Pb** | **14 00 20.7** | **0.0** |
| | baz=256 | | | | | | |
| ALS | | | | eS | **Sn** | **14 00 37.5** | **-0.5** |
| | baz=256 | | | | | | |
| **NSTT** | **Nanjuang** | **1.40** | **306** | eP | **Pg** | **14 00 22.2** | **-0.1** |
| | baz=305 | | | | | | |
| NSTT | | | | eS | **Sg** | **14 00 40.0** | **-0.5** |
| | baz=305 | | | | | | |
| **WNT** | **Mingjian** | **1.43** | **273** | eP | **Pg** | **14 00 22.4** | **-0.5** |
| | baz=271 | | | | | | |
| WNT | | | | eS | **Sg** | **14 00 40.6** | **-0.9** |
| | baz=271 | | | | | | |
| **TWQ1** | **Liyutan** | **1.45** | **292** | iP | **Pg** | **14 00 22.9** | **-0.3** |
| | baz=290 | | | | | | |
| TWQ1 | | | | iS | **Sg** | **14 00 41.6** | **-0.5** |
| | baz=290 | | | | | | |
| **CHN5** | **Tsauling** | **1.45** | **262** | eP | **Pb** | **14 00 22.3** | **+0.2** |
| | baz=261 | | | | | | |
| **IRIF** | **Iriomote-Funau** | **1.45** | **69** | P | **Pb** | **14 00 22.0** | **-0.2** |
| IRIF | | | | eS | **Sg** | **14 00 42.2** | **0.0** |
| **TWG** | **Pinlang** | **1.46** | **228** | eP | **Pn** | **14 00 21.1** | **-0.1** |
| | baz=226 | | | | | | |
| **TCU** | **Taichung** | **1.47** | **283** | eP | **Pb** | **14 00 22.8** | **+0.3** |
| | baz=283 | | | | | | |
| **TWS1** | **Kuangyinshan** | **1.49** | **330** | eP | **Pg** | **14 00 23.3** | **-0.7** |
| | baz=329 | | | | | | |
| TWS1 | | | | eS | **Sg** | **14 00 42.5** | **-0.9** |
| | baz=329 | | | | | | |
| **NCU** | **National Centr** | **1.50** | **320** | eS | **Sg** | **14 00 43.2** | **-0.6** |
| | baz=319 | | | | | | |
| **STYT** | **Tauyuan** | **1.51** | **245** | P | **Pb** | **14 00 22.7** | **-0.5** |
| | baz=231 | | | | | | |
| **WGK** | **Gukeng** | **1.55** | **266** | eP | **Pb** | **14 00 24.2** | **+0.5** |
| | baz=264 | | | | | | |
| WGK | | | | eS | **Sb** | **14 00 43.4** | **+0.2** |
| | baz=264 | | | | | | |
| **CHN4** | **Tsaushan** | **1.58** | **254** | eP | **Pb** | **14 00 24.3** | **0.0** |
| | baz=252 | | | | | | |
| **WTP** | **Ta-pu** | **1.60** | **250** | eP | **Pb** | **14 00 24.4** | **-0.3** |
| | baz=248 | | | | | | |
| WTP | | | | eS | **Sb** | **14 00 44.8** | **0.0** |
| | baz=248 | | | | | | |
| **CHN2** | **Minshiung** | **1.65** | **261** | eP | **Pb** | **14 00 25.4** | **0.0** |
| | baz=259 | | | | | | |
| CHN2 | | | | eS | **Sb** | **14 00 46.3** | **+0.3** |
| | baz=259 | | | | | | |
| **JKRS** | **Kuro-shima** | **1.67** | **75** | P | **Pb** | **14 00 26.0** | **+0.2** |
| **SGST** | **Jiashian** | **1.69** | **245** | eP | **Pb** | **14 00 26.1** | **-0.1** |
| | baz=233 | | | | | | |
| SGST | | | | eS | **Sb** | **14 00 47.0** | **-0.3** |
| | baz=233 | | | | | | |
| **CHN1** | **Nanshi** | **1.69** | **249** | eP | **Pb** | **14 00 25.8** | **-0.5** |
| | baz=247 | | | | | | |
| CHN1 | | | | eS | **Sb** | **14 00 48.0** | **+0.5** |
| | baz=247 | | | | | | |
| **CHY** | **Chiayi** | **1.70** | **260** | eP | **Pb** | **14 00 25.9** | **-0.4** |
| | baz=258 | | | | | | |
| **TWK** | **Hsinying** | **1.70** | **252** | eP | **Pb** | **14 00 26.2** | **-0.2** |
| | baz=250 | | | | | | |
| TWK | | | | eS | **Sb** | **14 00 47.4** | **-0.3** |
| | baz=250 | | | | | | |
| **WTCT** | **Ta-ch'eng** | **1.80** | **272** | eP | **Pb** | **14 00 27.5** | **-0.6** |
| | baz=271 | | | | | | |
| WTCT | | | | eS | **Sb** | **14 00 50.3** | **-0.1** |
| | baz=271 | | | | | | |
| **JIJ** | **Ishigaki jima** | **1.82** | **72** | P | **Pn** | **14 00 26.9** | **+0.7** |
| **SSD** | **Sandimen** | **1.82** | **235** | eP | **Pn** | **14 00 26.9** | **+0.7** |
| | baz=223 | | | | | | |
| **WSF** | **Szhu** | **1.86** | **265** | eS | **Sb** | **14 00 52.5** | **+0.3** |
| | baz=264 | | | | | | |
| **CHN3** | **Shinhua** | **1.88** | **247** | eS | **Sb** | **14 00 53.8** | **+1.1** |
| | baz=246 | | | | | | |
| **LAY** | **Lan-yu** | **1.88** | **200** | eP | **Pn** | **14 00 27.1** | **+0.1** |
| | baz=199 | | | | | | |
| **EAST** | **Anshuo** | **1.92** | **222** | eP | **Pn** | **14 00 27.2** | **-0.4** |
| | baz=221 | | | | | | |
| EAST | | | | eS | **Sn** | **14 00 49.8** | **-1.7** |
| | baz=221 | | | | | | |
| **TWM1** | **Shoushan** | **1.94** | **240** | eP | **Pb** | **14 00 30.7** | **+0.2** |
| | baz=238 | | | | | | |
| **JISG** | **Ishigakijimahi** | **2.04** | **67** | P | **Pn** | **14 00 29.4** | **+0.2** |
| **SCZT** | **Fangliau** | **2.07** | **227** | eP | **Pn** | **14 00 31.1** | **+1.4** |
| | baz=217 | | | | | | |
| **PNG** | **Penghu** | **2.48** | **265** | eP | **Pn** | **14 00 37.0** | **+1.7** |
| | baz=264 | | | | | | |
| PNG | | | | eS | **Sn** | **14 01 06.8** | **+1.6** |
| | baz=264 | | | | | | |

---

*DDA **06** 14:03:00.8, 38°.71N×43°.20E, h7$^{km}$, Ml3.4*

*ISCJB **06** 14:03:01.9±0.4, 38°.73N±0°.02×43°.20E±0°.03, h6$^{km}$±4$^{km}$, Error ellipse: s-maj=3.7km s-min=3.2km az=175.3*

*CSEM **06** 14:03:01.2±0.1, 38°.73N×43°.23E, h2$^{km}$, ML3.3, Error ellipse: s-maj=3.8km s-min=3.3km az=87.0*

*ISK **06** 14:03:01.3, 38°.74N×43°.25E, h9$^{km}$, ML3.3*

*ATA **06** 14:03:01.1±2.1, 38°.75N×43°.17E, h18$^{km}$±10$^{km}$, ML3.9, MW3.5*

**ISC 06 14:03:02.0**±0.8**,38°.73N**±0°.02×**43°.22E**±0°.02**,h17$^{km}$**±6$^{km}$**, n75,σ1$^{s}$.17**/92**,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.19** | **135** | ePG | **Pg** | **14 03 06.9** | **+0.1** |
| VANB | | | | eSG | **Sg** | **14 03 11.6** | **+1.5** |
| **VANB** | **Van** | **0.19** | **135** | ePg | **Pg** | **14 03 06.9** | **+0.1** |
| **TVAN** | **Van** | **0.25** | **143** | iP | **Pg** | **14 03 06.8** | **-1.0** |
| **TVAN** | **Van** | **0.25** | **143** | P | **Pg** | **14 03 06.8** | **-1.0** |
| **ERCV** | **ERCIS-VAN** | **0.31** | **18** | ePG | **Pg** | **14 03 07.7** | **-1.0** |
| **ERCV** | **ERCIS-VAN** | **0.31** | **18** | ePg | **Pg** | **14 03 07.7** | **-1.0** |
| **VMUR** | **Van-Muradiye** | **0.38** | **46** | iP | **Pb** | **14 03 09.5** | **-0.9** |
| VMUR | | | | iS | **Sb** | **14 03 16.6** | **+0.6** |
| **VMUR** | **Van-Muradiye** | **0.38** | **46** | P | **Pb** | **14 03 09.5** | **-0.9** |
| **ADCV** | **BITLIS_Adilcev** | **0.39** | **282** | iP | **Pg** | **14 03 09.1** | **-1.1** |
| ADCV | | | | iS | **Sb** | **14 03 15.9** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.39** | **282** | P | **Pg** | **14 03 09.1** | **-1.1** |
| **GEVA** | **Gevas** | **0.43** | **197** | eP | **Pg** | **14 03 09.1** | **-1.8** |
| GEVA | | | | eS | **Sb** | **14 03 18.1** | **+0.5** |
| GEVA | | | | IAML | | 14 03 22.8 | |
| | comp=Z,2μm,0.6s | | | | | | |
| **GEVA** | **Gevas** | **0.43** | **197** | iP | **Pg** | **14 03 09.1** | **-1.8** |
| **GEVA** | **Gevas** | **0.43** | **197** | P | **Pg** | **14 03 09.1** | **-1.8** |
| **CLDR** | **Caldiran** | **0.69** | **53** | ePG | **Pg** | **14 03 14.5** | **-1.1** |
| **CLDR** | **Caldiran** | **0.69** | **53** | iP | **Pg** | **14 03 14.4** | **-1.1** |
| CLDR | | | | iS | **Sb** | **14 03 25.5** | **+0.6** |
| **CLDR** | **Caldiran** | **0.69** | **53** | P | **Pg** | **14 03 14.4** | **-1.1** |
| CLDR | | | | S | **Sb** | **14 03 25.5** | **+0.6** |
| **TUTA** | **Tutak** | **0.74** | **335** | eP | **Pg** | **14 03 15.2** | **-1.4** |
| TUTA | | | | eS | **Sg** | **14 03 25.8** | **-0.8** |
| TUTA | | | | IAML | | 14 03 30.3 | |
| | comp=Z,718nm,0.3s | | | | | | |
| **TUTA** | **Tutak** | **0.74** | **335** | iP | **Pg** | **14 03 15.3** | **-1.4** |
| **TUTA** | **Tutak** | **0.74** | **335** | P | **Pg** | **14 03 15.3** | **-1.4** |
| **AGRB** | **Hanur-Agry** | **0.86** | **348** | ePG | **Pg** | **14 03 17.5** | **-1.4** |
| **AGRB** | **Hanur-Agry** | **0.86** | **348** | ePg | **Pg** | **14 03 17.5** | **-1.4** |
| **DYDN** | **Diyadin** | **0.89** | **24** | eP | **Pb** | **14 03 18.9** | **-0.2** |
| DYDN | | | | eS | **Sn** | **14 03 33.1** | **+0.5** |
| DYDN | | | | IAML | | 14 03 38.6 | |
| | comp=Z,142nm,0.6s | | | | | | |
| **DYDN** | **Diyadin** | **0.89** | **24** | iP | **Pg** | **14 03 18.0** | **-1.4** |
| **DYDN** | **Diyadin** | **0.89** | **24** | P | **Pg** | **14 03 18.0** | **-1.4** |
| **BASK** | **Baskale_VAN** | **0.92** | **137** | eP | **Pn** | **14 03 20.6** | **+0.3** |
| BASK | | | | eS | **Sn** | **14 03 34.9** | **+1.8** |
| BASK | | | | IAML | | 14 03 39.2 | |
| | comp=Z,169nm,0.6s | | | | | | |
| **BASK** | **Baskale_VAN** | **0.92** | **137** | iP | **Pg** | **14 03 17.9** | **-1.9** |
| BASK | | | | iS | **Sb** | **14 03 32.0** | **+0.5** |
| **BASK** | **Baskale_VAN** | **0.92** | **137** | P | **Pg** | **14 03 17.9** | **-1.9** |
| **EKAR** | **Karacoban** | **1.04** | **301** | eP | **Pb** | **14 03 21.4** | **-0.3** |
| EKAR | | | | eS | **Sn** | **14 03 37.8** | **+1.5** |
| EKAR | | | | IAML | | 14 03 43.9 | |
| | comp=Z,173nm,0.5s | | | | | | |
| **EKAR** | **Karacoban** | **1.04** | **301** | iP | **Pn** | **14 03 22.5** | **+0.5** |
| **EKAR** | **Karacoban** | **1.04** | **301** | P | **Pn** | **14 03 22.5** | **+0.5** |
| **HAKT** | **HAKKARI** | **1.23** | **162** | iP | **Pb** | **14 03 23.7** | **-1.2** |
| **HAKT** | **HAKKARI** | **1.23** | **162** | P | **Pb** | **14 03 23.7** | **-1.2** |
| **SRTM** | **Siirt_Merkez** | **1.26** | **235** | iP | **Pn** | **14 03 24.8** | **0.0** |
| SRTM | | | | iS | **Sg** | **14 03 42.1** | **-0.6** |
| **SRTM** | **Siirt_Merkez** | **1.26** | **235** | P | **Pn** | **14 03 24.8** | **0.0** |
| SRTM | | | | S | **Sg** | **14 03 42.1** | **-0.6** |
| **EATA** | **Eleskirt** | **1.27** | **334** | eP | **Pn** | **14 03 24.6** | **-0.6** |
| EATA | | | | eS | **Sn** | **14 03 42.7** | **+0.8** |
| EATA | | | | IAML | | 14 03 45.4 | |
| | comp=Z,63nm,0.4s | | | | | | |
| **EATA** | **Eleskirt** | **1.27** | **334** | iP | **Pn** | **14 03 24.8** | **-0.4** |
| **EATA** | **Eleskirt** | **1.27** | **334** | P | **Pn** | **14 03 24.8** | **-0.4** |
| **SIRT** | **Sirnak** | **1.37** | **207** | ePN | **Pg** | **14 03 27.7** | **-0.7** |
| **SIRT** | **Sirnak** | **1.37** | **207** | ePn | **Pg** | **14 03 27.7** | **-0.7** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.42** | **143** | iP | **Pn** | **14 03 27.6** | **+0.4** |
| YOVA | | | | iS | **Sg** | **14 03 47.2** | **-0.7** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.42** | **143** | P | **Pn** | **14 03 27.6** | **+0.4** |
| YOVA | | | | S | **Sg** | **14 03 47.2** | **-0.7** |
| **VRTB** | **Varto-Mus** | **1.44** | **288** | ePN | **Pg** | **14 03 28.7** | **-1.1** |
| **VRTB** | **Varto-Mus** | **1.44** | **288** | ePn | **Pg** | **14 03 28.7** | **-1.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.48** | **32** | ePN | **Pb** | **14 03 28.6** | **-0.5** |
| **TASB** | **TASBURUN-IGDIR** | **1.48** | **32** | ePn | **Pb** | **14 03 28.6** | **-0.5** |
| **CUKT** | **Cukurca** | **1.51** | **168** | ePN | **Pn** | **14 03 28.9** | **+0.5** |
| **CUKT** | **Cukurca** | **1.51** | **168** | iP | **Pn** | **14 03 28.9** | **+0.5** |
| **CUKT** | **Cukurca** | **1.51** | **168** | P | **Pn** | **14 03 28.9** | **+0.5** |
| **HOMI** | **Horasan** | **1.66** | **323** | eP | **Pb** | **14 03 32.4** | **+0.1** |
| **HOMI** | **Horasan** | **1.66** | **323** | iP | **Pg** | **14 03 32.5** | **-1.5** |
| **DIGO** | **Kars** | **1.69** | **4** | eP | **Pb** | **14 03 32.3** | **-0.5** |
| DIGO | | | | IAML | | 14 03 44.5 | |
| | comp=Z,28nm,0.6s | | | | | | |
| DIGO | | | | eS | **Sg** | **14 03 56.1** | **-0.4** |
| **DIGO** | **Kars** | **1.69** | **4** | iP | **Pb** | **14 03 32.8** | **+0.1** |
| **DIGO** | **Kars** | **1.69** | **4** | P | **Pb** | **14 03 32.8** | **+0.1** |
| **BTMN** | **Batman** | **1.75** | **242** | iP | **Pn** | **14 03 32.7** | **+1.1** |
| **BTMN** | **Batman** | **1.75** | **242** | P | **Pn** | **14 03 32.7** | **+1.1** |
| **ERZM** | **Erzurum** | **1.86** | **310** | eP | **Pb** | **14 03 34.8** | **-0.8** |
| **ERZM** | **Erzurum** | **1.86** | **310** | iP | **Pb** | **14 03 34.8** | **-0.8** |
| **ERZM** | **Erzurum** | **1.86** | **310** | P | **Pb** | **14 03 34.8** | **-0.8** |
| **KARS** | **Kars** | **1.90** | **357** | ePN | **Pn** | **14 03 34.5** | **+0.8** |
| **KARS** | **Kars** | **1.90** | **357** | ePn | **Pn** | **14 03 34.5** | **+0.8** |
| **SENK** | **Senkaya-Erzuru** | **1.95** | **340** | ePN | **Pn** | **14 03 35.7** | **+1.2** |
| **SENK** | **Senkaya-Erzuru** | **1.95** | **340** | ePn | **Pn** | **14 03 35.7** | **+1.2** |
| **BNGB** | **Bingˆ¶l** | **2.00** | **278** | ePN | **Pb** | **14 03 36.8** | **-1.1** |
| **BINT** | **Bingol** | **2.14** | **275** | ePn | **Pn** | **14 03 36.8** | **-0.2** |
| **YEDI** | **Yedisu-Bingol** | **2.20** | **290** | ePN | **Pn** | **14 03 39.3** | **+1.4** |
| **YEDI** | **Yedisu-Bingol** | **2.20** | **290** | ePn | **Pn** | **14 03 39.3** | **+1.4** |
| **KOPT** | **Kop Dagi** | **2.47** | **302** | eP | **Pn** | **14 03 43.2** | **+1.5** |
| **DIY** | **Diyarbakir** | **2.50** | **251** | ePn | **Pn** | **14 03 44.3** | **+2.4** |
| **MAZI** | **Mazidag** | **2.53** | **241** | ePN | **Pn** | **14 03 44.1** | **+1.8** |
| **MAZI** | **Mazidag** | **2.53** | **241** | ePn | **Pn** | **14 03 44.1** | **+1.8** |
| **DYBB** | **Diyarbakir** | **2.54** | **253** | ePN | **Pn** | **14 03 44.3** | **+1.8** |
| **PTK** | **Pertek** | **2.99** | **274** | ePN | **Pn** | **14 03 51.1** | **+2.3** |
| **PTK** | **Pertek** | **2.99** | **274** | ePn | **Pn** | **14 03 51.1** | **+2.3** |
| **SVRC** | **Sivrice-ELAZID** | **3.09** | **265** | ePN | **Pn** | **14 03 52.5** | **+2.4** |
| **SVRC** | **Sivrice-ELAZID** | **3.09** | **265** | ePn | **Pn** | **14 03 52.5** | **+2.4** |

---

*ISCJB **06** 14:03:12.5±0.6, 31°.14N±0°.06×103°.46E±0°.09, h16$^{km}$, mb3.5/8, MS2.9/2, Error ellipse: s-maj=12.1km s-min=6.4km az=150.5*

*IDC **06** 14:03:12.2±1.0, 31°.11N×103°.53E, h0$^{km}$, mb3.5/7, mb1 3.7/9, mb1mx3.5/33, mbtmp3.5/9, ML3.6/2, MS3.0/4, Ms1 3.0/4, ms1mx2.7/31, Error ellipse: s-maj=32.2km s-min=17.7km az=63.0*

*BJI **06** 14:03:14.1, 31°.22N×103°.46E, h15$^{km}$, mb3.9/5, ML3.9/16, Ms3.6/8, Ms7 3.4/6*

**ISC 06 14:03:14.1**±0.7**,31°.14N**±0°.04×**103°.45E**±0°.07**,h16$^{km}$,n18, σ2$^{s}$.47**/23**,mb3.6**/8**,1C,Sichuan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CD2** | **Chengdu** | **0.35** | **131** | ⇑iPg | **Pb** | **14 03 21.8** | **-0.2** |
| CD2 | | | | Sg | **Sb** | **14 03 28.0** | **+0.7** |
| CD2 | | | | smax | smax | | |
| | comp=N,20μm,0.6s | | | | | | |
| CD2 | | | | smax | smax | | |
| | comp=E,30μm,0.5s | | | | | | |
| **LZH** | **Lanzhou** | **4.95** | **4** | ePg | **Pg** | **14 04 48.7** | **-0.1** |
| LZH | | | | Sg | **Sg** | **14 05 54.1** | **+1.2** |
| LZH | | | | smax | smax | | |
| | comp=N,120nm,1.0s | | | | | | |
| LZH | | | | smax | smax | | |
| | comp=E,130nm,1.1s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=N,490nm,5.8s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=E,470nm,5.5s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,510nm,6.0s | | | | | | |
| **XAN** | **Xi'an** | **5.45** | **57** | Pn | **Pn** | **14 04 33.6** | **-1.1** |
| XAN | | | | Sn | **Sn** | **14 05 33.7** | **-3.4** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| XAN | | | | Sg | Sb | 14 05 59.0 | +4.9 |
| XAN | | | | smax | smax | | |
| | comp=Z,200nm,0.7s | | | | | | |
| XAN | | | | smax | smax | | |
| | comp=Z,410nm,0.9s | | | | | | |
| **GYA** | **Guiyang** | **5.45** | **148** | Pg | **Pb** | **14 04 46.9** | **-2.1** |
| GYA | | | | Sn | **Sn** | **14 05 37.2** | **-0.1** |
| GYA | | | | smax | smax | | |
| | comp=Z,790nm,0.8s | | | | | | |
| GYA | | | | smax | smax | | |
| | comp=Z,220nm,0.8s | | | | | | |
| **GTA** | **Gaotai** | **8.77** | **341** | *e*P | **Pn** | **14 05 18.1** | **-2.2** |
| GTA | | | | S | **Sn** | **14 06 54.8** | **-4.1** |
| GTA | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.1s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,130nm,14.3s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,310nm,14.3s | | | | | | |
| **WHN** | **Wuhan** | **9.39** | **91** | *e*P | Pn | 14 05 20.0 | -8.7 |
| **CMAR** | **Chiang Mai Arr** | **13.27** | **199** | Pn | **Pn** | **14 06 21.7** | **-0.2** |
| | comp=Z,0.3nm,0.3s,baz=8.9,slow=12,SNR=4.5 | | | | | | |
| CMAR | | | | LR | LR | 14 11 55.3 | |
| | comp=Z,28nm,18.9s,baz=166,slow=39 | | | | | | |
| **SONM** | **Songino Array** | **16.82** | **7** | Pn | **Pn** | **14 07 09.2** | **+0.1** |
| | comp=Z,0.0nm,0.3s,baz=198,slow=13,SNR=3.8 | | | | | | |
| SONM | | | | LR | LR | 14 14 24.1 | |
| | comp=Z,90nm,18.9s,baz=41,slow=40 | | | | | | |
| **WMQ** | **Urumqi** | **17.75** | **320** | *e*P | **Pn** | **14 07 20.2** | **-0.4** |
| WMQ | | | | LR | LR | | |
| | comp=Z,98nm,14.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,80nm,16.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,56nm,16.1s | | | | | | |
| **KSRS** | **Korea Array** | **21.15** | **66** | P | **P** | **14 07 57.8** | **-0.5** |
| | comp=Z,2.0nm,0.7s,baz=265,slow=10,SNR=7.0 | | | | | | |
| KSRS | | | | LR | LR | 14 16 01.6 | |
| | comp=Z,26nm,20.5s,baz=50,slow=36 | | | | | | |
| **CN2** | **Changchun** | **21.48** | **48** | *e*P | **P** | **14 08 02.2** | **+0.3** |
| **MKAR** | **Makanchi Array** | **22.59** | **320** | P | **P** | **14 08 15.1** | **+1.3** |
| | comp=Z,2.3nm,0.9s,baz=134,slow=10,SNR=6.8 | | | | | | |
| **AAK** | **Ala-Archa** | **25.72** | **305** | P | **P** | **14 08 51.0** | **+7.2** |
| | comp=Z,1.5nm,0.8s,baz=84,slow=6.4,SNR=6.0 | | | | | | |
| AAK | | | | LR | LR | 14 19 45.1 | |
| | comp=Z,57nm,18.6s,baz=3.5,slow=38 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **26.45** | **335** | P | **P** | **14 08 51.4** | **+1.4** |
| | comp=Z,0.4nm,0.3s,baz=131,slow=10,SNR=2.8 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **26.87** | **324** | P | **P** | **14 08 54.8** | **+0.8** |
| | comp=Z,0.9nm,0.8s,baz=127,slow=9.6,SNR=7.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **58.82** | **146** | P | **P** | **14 13 12.2** | **+0.3** |
| | comp=Z,0.9nm,0.5s,baz=337,slow=7.5,SNR=34 | | | | | | |
| **ASAR** | **Alice Springs** | **61.82** | **148** | P | **P** | **14 13 32.6** | **+0.2** |
| | comp=Z,0.3nm,0.7s,baz=333,slow=7.1,SNR=4.6 | | | | | | |
| **ILAR** | **Eielson Array** | **70.05** | **25** | P | **P** | **14 14 25.6** | **+0.7** |
| | comp=Z,0.1nm,0.4s,baz=308,slow=3.3,SNR=3.0 | | | | | | |

---

*ATH **06** 14:08:33.9, 38°.86N×26°.29E, h29km±1km, ML2.9/5, Error ellipse: s-maj=2.6km s-min=1.1km az=264.0*
*DDA **06** 14:08:34.0, 38°.87N×26°.33E, h19km, Ml3.6*
*ISCJB **06** 14:08:34.2±0.4, 38°.85N±0°.02×26°.23E±0°.04, h10km±4km, Error ellipse: s-maj=4.9km s-min=2.7km az=162.9*
*ISK **06** 14:08:34.1, 38°.86N×26°.24E, h6km, ML3.1*
*THE **06** 14:08:34.9, 38°.89N×26°.33E, h10km±1km, ML3.0/4, Error ellipse: s-maj=1.7km s-min=0.5km az=269.0*
*CSEM **06** 14:08:34.7±0.1, 38°.85N×26°.23E, h10km, ML3.0, Error ellipse: s-maj=4.0km s-min=2.8km az=77.0*
**ISC 06 14:08:34.3**±1.0, **38°.86N**±0°.01×**26°.28E**±0°.02, **h12**km±9km, **n123,** σ**0s87**/150, **1C-1D, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PRK** | **Paraskevi** | **0.38** | **359** | P | **Pg** | **14 08 41.6** | **-0.3** |
| PRK | | | | S | **Sg** | **14 08 47.7** | **+0.6** |
| PRK | | | | AML | AML | 14 08 48.6 | |
| | comp=N,4980μm,0.5s | | | | | | |
| PRK | | | | AML | AML | 14 08 51.3 | |
| | comp=E,3441μm,0.3s | | | | | | |
| **PRK** | **Paraskevi** | **0.38** | **359** | P | **Pg** | **14 08 42.0** | **+0.1** |
| PRK | | | | S | **Sg** | **14 08 47.5** | **+0.4** |
| **PRK** | **Paraskevi** | **0.38** | **359** | P | **Pg** | **14 08 42.0** | **+0.1** |
| PRK | | | | S | **Sg** | **14 08 47.5** | **+0.4** |
| **SIGR** | **SIGRI** | **0.48** | **316** | *e*PG | **Pb** | **14 08 44.2** | **-0.5** |
| SIGR | | | | *e*SG | **Sg** | **14 08 50.4** | **+0.2** |
| **SIGR** | **SIGRI** | **0.48** | **316** | P | **Pb** | **14 08 44.7** | **0.0** |
| SIGR | | | | S | **Sg** | **14 08 50.9** | **+0.7** |
| SIGR | | | | AML | AML | 14 08 52.5 | |
| | comp=E,1957μm,0.2s | | | | | | |
| SIGR | | | | AML | AML | 14 08 56.6 | |
| | comp=N,2455μm,0.2s | | | | | | |
| **SIGR** | **SIGRI** | **0.48** | **316** | *e*Pg | **Pb** | **14 08 44.2** | **-0.5** |
| **SIGR** | **SIGRI** | **0.48** | **316** | P | **Pb** | **14 08 44.5** | **-0.2** |
| SIGR | | | | *e*Sg | **Sg** | **14 08 50.4** | **+0.2** |
| **SIGR** | **SIGRI** | **0.48** | **316** | P | **Pb** | **14 08 44.5** | **-0.2** |
| SIGR | | | | S | **Sb** | **14 08 51.5** | **-0.2** |
| **CHOS** | **Chios island** | **0.51** | **201** | *e*PG | **Pg** | **14 08 44.1** | **-0.1** |
| **CHOS** | **Chios island** | **0.51** | **201** | P | **Pb** | **14 08 45.3** | **+0.1** |
| CHOS | | | | S | **Sb** | **14 08 53.3** | **+0.8** |
| CHOS | | | | AML | AML | 14 08 57.0 | |
| | comp=E,5352μm,0.2s | | | | | | |
| CHOS | | | | AML | AML | 14 08 57.0 | |
| | comp=N,2459μm,0.2s | | | | | | |
| **CHOS** | **Chios island** | **0.51** | **201** | *e*Pg | **Pg** | **14 08 44.1** | **-0.1** |
| **CHOS** | **Chios island** | **0.51** | **201** | P | **Pb** | **14 08 45.3** | **+0.1** |
| CHOS | | | | S | **Sb** | **14 08 53.3** | **+0.8** |
| **CHOS** | **Chios island** | **0.51** | **201** | P | **Pb** | **14 08 45.0** | **-0.1** |
| CHOS | | | | S | **Sb** | **14 08 54.0** | **+1.5** |
| **DKL** | **Dikili** | **0.53** | **67** | *e*PG | **Pb** | **14 08 45.2** | **-0.3** |
| **DKL** | **Dikili** | **0.53** | **67** | *e*Pg | **Pb** | **14 08 45.2** | **-0.3** |
| **URLA** | **Izmir** | **0.56** | **154** | *i* P | **Pg** | **14 08 44.9** | **-0.2** |
| URLA | | | | *i* S | **Sb** | **14 08 53.3** | **-0.6** |
| **URLA** | **Izmir** | **0.56** | **154** | P | **Pg** | **14 08 44.9** | **-0.2** |
| URLA | | | | S | **Sb** | **14 08 53.3** | **-0.6** |
| **ZEY** | **˜zmir** | **0.65** | **164** | *i* P | **Pg** | **14 08 46.8** | **-0.1** |
| ZEY | | | | *i* S | **Sb** | **14 08 56.4** | **0.0** |
| **BAYC** | **CANAKKALE_Bayr** | **0.90** | **13** | *i* P | **Pg** | **14 08 50.8** | **-0.9** |
| BAYC | | | | *i* S | **Sb** | **14 09 03.7** | **-0.2** |
| **BAYC** | **CANAKKALE_Bayr** | **0.90** | **13** | P | **Pg** | **14 08 50.8** | **-0.9** |
| BAYC | | | | S | **Sb** | **14 09 03.7** | **-0.2** |
| **DGB** | **˜zmir** | **0.94** | **150** | *i* P | **Pg** | **14 08 51.7** | **-0.6** |
| **EZN** | **Ezine** | **0.96** | **2** | *e*PG | **Pb** | **14 08 53.0** | **+0.1** |
| **EZN** | **Ezine** | **0.96** | **2** | P | **Pg** | **14 08 52.6** | **-0.2** |
| **EZN** | **Ezine** | **0.96** | **2** | *e*Pg | **Pb** | **14 08 53.0** | **+0.1** |
| EZN | | | | S | **Sg** | **14 09 05.4** | **0.0** |
| **EZN** | **Ezine** | **0.96** | **2** | P | **Pg** | **14 08 52.6** | **-0.2** |
| EZN | | | | S | **Sg** | **14 09 05.4** | **0.0** |
| **BOZC** | **Bozcaada** | **0.99** | **350** | *e*PG | **Pb** | **14 08 53.2** | **-0.2** |
| **BOZC** | **Bozcaada** | **0.99** | **350** | *i* P | **Pb** | **14 08 53.1** | **-0.4** |
| **BOZC** | **Bozcaada** | **0.99** | **350** | *e*Pg | **Pb** | **14 08 53.2** | **-0.2** |
| **AKS** | **Akhisar** | **1.19** | **89** | *e*PN | **Pg** | **14 08 58.0** | **+0.8** |
| **AKS** | **Akhisar** | **1.19** | **89** | *e*Pn | **Pg** | **14 08 58.0** | **+0.8** |
| **AKHS** | **Akhisar** | **1.20** | **89** | *i* P | **Pn** | **14 08 56.2** | **-0.6** |
| **AKHS** | **Akhisar** | **1.20** | **89** | P | **Pn** | **14 08 56.2** | **-0.6** |
| **STEP** | **BALIKESIR_Sava** | **1.23** | **65** | *i* P | **Pn** | **14 08 56.5** | **-0.8** |
| **STEP** | **BALIKESIR_Sava** | **1.23** | **65** | P | **Pn** | **14 08 56.5** | **-0.8** |
| **SMG** | **Samos** | **1.23** | **159** | P | **Pb** | **14 08 57.5** | **0.0** |
| SMG | | | | S | **Sb** | **14 09 12.8** | **-0.5** |
| SMG | | | | AML | AML | 14 09 16.9 | |
| | comp=E,2102μm,0.4s | | | | | | |
| SMG | | | | AML | AML | 14 09 17.4 | |
| | comp=N,3425μm,0.5s | | | | | | |
| **SMG** | **Samos** | **1.23** | **159** | P | **Pb** | **14 08 57.5** | **0.0** |
| SMG | | | | S | **Sb** | **14 09 12.8** | **-0.5** |
| **SMG** | **Samos** | **1.23** | **159** | P | **Pn** | **14 08 57.1** | **-0.2** |
| **LIA** | **Limnos Island** | **1.34** | **321** | P | **Pb** | **14 08 59.4** | **0.0** |
| LIA | | | | S | **Sb** | **14 09 15.4** | **-1.0** |
| LIA | | | | AML | AML | 14 09 23.7 | |
| | comp=E,505μm,0.3s | | | | | | |
| LIA | | | | AML | AML | 14 09 25.4 | |
| | comp=N,417μm,0.8s | | | | | | |
| **LIA** | **Limnos Island** | **1.34** | **321** | P | **Pb** | **14 08 59.3** | **0.0** |
| LIA | | | | S | **Sb** | **14 09 15.4** | **-1.0** |
| **BALY** | **Balya** | **1.36** | **49** | *i* P | **Pn** | **14 08 58.8** | **-0.3** |
| **BALY** | **Balya** | **1.36** | **49** | P | **Pn** | **14 08 58.8** | **-0.3** |
| **GADA** | **Gvkgeada** | **1.36** | **347** | *e*PN | **Pb** | **14 08 59.7** | **+0.1** |
| **GADA** | **Gvkgeada** | **1.36** | **347** | P | **Pn** | **14 08 58.8** | **-0.3** |
| **GADA** | **Gvkgeada** | **1.36** | **347** | *e*Pn | **Pb** | **14 08 59.7** | **+0.1** |
| GADA | | | | S | **Sb** | **14 09 16.6** | **-0.4** |
| **GADA** | **Gvkgeada** | **1.36** | **347** | P | **Pn** | **14 08 58.8** | **-0.3** |
| GADA | | | | S | **Sb** | **14 09 16.6** | **-0.4** |
| **GCAM** | **G?zelcaml?** | **1.38** | **147** | *e*PN | **Pg** | **14 09 00.8** | **0.0** |
| **GCAM** | **G?zelcaml?** | **1.38** | **147** | *i* P | **Pb** | **14 08 59.9** | **-0.1** |
| **GCAM** | **G?zelcaml?** | **1.38** | **147** | P | **Pb** | **14 08 59.9** | **-0.1** |
| **GCAM** | **G?zelcaml?** | **1.38** | **147** | *e*Pn | **Pg** | **14 09 00.8** | **0.0** |
| **BALB** | **Balikesir** | **1.46** | **57** | *e*PN | **Pb** | **14 09 01.1** | **-0.3** |
| **BALB** | **Balikesir** | **1.46** | **57** | *e*Pn | **Pb** | **14 09 01.1** | **-0.3** |
| **GELI** | **Tayfur-Gelibol** | **1.54** | **5** | *e*PN | **Pb** | **14 09 02.7** | **0.0** |
| **GELI** | **Tayfur-Gelibol** | **1.54** | **5** | *e*Pn | **Pb** | **14 09 02.7** | **0.0** |
| **LPK** | **Lapseki** | **1.55** | **14** | *e*PN | **Pb** | **14 09 03.2** | **+0.3** |
| **LPK** | **Lapseki** | **1.55** | **14** | *e*Pn | **Pb** | **14 09 03.2** | **+0.3** |
| **GONE** | **Gonen-Balikesi** | **1.61** | **42** | *e*PN | **Pb** | **14 09 03.9** | **0.0** |
| **GONE** | **Gonen-Balikesi** | **1.61** | **42** | *e*Pn | **Pb** | **14 09 03.9** | **0.0** |
| **KARY** | **Karystos** | **1.67** | **241** | P | **Pn** | **14 09 02.6** | **-0.6** |
| **KARY** | **Karystos** | **1.67** | **241** | P | **Pn** | **14 09 02.7** | **-0.6** |
| **KNL** | **Bal˜–kesir** | **1.70** | **34** | *i* P | **Pb** | **14 09 05.4** | **-0.1** |
| **SMTH** | **Samothraki Isl** | **1.71** | **340** | P | **Pn** | **14 09 04.5** | **+0.5** |
| **SMTH** | **Samothraki Isl** | **1.71** | **340** | P | **Pn** | **14 09 04.4** | **+0.5** |
| **KRBG** | **Karabiga-Canak** | **1.72** | **27** | *e*PN | **Pb** | **14 09 05.6** | **-0.2** |
| **KRBG** | **Karabiga-Canak** | **1.72** | **27** | *e*Pn | **Pb** | **14 09 05.6** | **-0.2** |
| **AYDN** | **Tasoluk** | **1.74** | **133** | *i* P | **Pn** | **14 09 03.9** | **-0.4** |
| **AYDN** | **Tasoluk** | **1.74** | **133** | P | **Pn** | **14 09 03.9** | **-0.4** |
| **ERIK** | **Erikli-Kesan** | **1.81** | **6** | *e*PN | **Pb** | **14 09 06.9** | **-0.5** |
| **ERIK** | **Erikli-Kesan** | **1.81** | **6** | *e*Pn | **Pb** | **14 09 06.9** | **-0.5** |
| **ENEZ** | **Enez** | **1.87** | **357** | *e*PN | **Pb** | **14 09 07.4** | **-1.0** |
| **ENEZ** | **Enez** | **1.87** | **357** | P | **Pn** | **14 09 05.5** | **-0.6** |
| **ENEZ** | **Enez** | **1.87** | **357** | *e*Pn | **Pb** | **14 09 07.4** | **-1.0** |
| **ENEZ** | **Enez** | **1.87** | **357** | P | **Pn** | **14 09 05.5** | **-0.6** |
| **APE** | **Apeiranthos** | **1.89** | **199** | *e*PN | **Pn** | **14 09 07.3** | **+1.0** |
| **APE** | **Apeiranthos** | **1.89** | **199** | P | **Pn** | **14 09 05.5** | **-0.9** |
| **APE** | **Apeiranthos** | **1.89** | **199** | P | **Pn** | **14 09 05.5** | **-0.9** |
| **APE** | **Apeiranthos** | **1.89** | **199** | *e*Pn | **Pn** | **14 09 07.3** | **+1.0** |
| **KULA** | **Kula-Manisa** | **1.89** | **100** | *e*PN | **Pb** | **14 09 08.3** | **-0.5** |
| **KULA** | **Kula-Manisa** | **1.89** | **100** | *e*Pn | **Pb** | **14 09 08.3** | **-0.5** |
| **EDC** | **Edincik** | **1.92** | **39** | *e*PN | **Pb** | **14 09 08.2** | **-1.0** |
| **EDC** | **Edincik** | **1.92** | **39** | *e*Pn | **Pb** | **14 09 08.2** | **-1.0** |
| **RKY** | **Sarkoy-Tekirda** | **1.95** | **20** | *e*PN | **Pb** | **14 09 08.9** | **-0.8** |
| **RKY** | **Sarkoy-Tekirda** | **1.95** | **20** | *e*Pn | **Pb** | **14 09 08.9** | **-0.8** |
| **DST** | **Dursunbey** | **1.96** | **67** | *e*PN | **Pb** | **14 09 10.0** | **+0.1** |
| **DST** | **Dursunbey** | **1.96** | **67** | *e*Pn | **Pb** | **14 09 10.0** | **+0.1** |
| **BODT** | **Bodrum** | **1.97** | **155** | *e*PN | **Pb** | **14 09 09.2** | **-0.9** |
| **BODT** | **Bodrum** | **1.97** | **155** | *e*Pn | **Pb** | **14 09 09.2** | **-0.9** |
| **KESN** | **Edirne-Kesan** | **1.98** | **9** | *i* P | **Pn** | **14 09 08.2** | **+0.2** |
| KESN | | | | *i* S | **Sb** | **14 09 35.8** | **+0.4** |
| **KESN** | **Edirne-Kesan** | **1.98** | **9** | P | **Pn** | **14 09 08.2** | **+0.2** |
| KESN | | | | S | **Sb** | **14 09 35.8** | **+0.4** |
| **ALN** | **Alexandroupoli** | **2.04** | **355** | *e*PN | **Pb** | **14 09 10.0** | **-1.3** |
| **ALN** | **Alexandroupoli** | **2.04** | **355** | P | **Pn** | **14 09 08.5** | **+0.1** |
| **ALN** | **Alexandroupoli** | **2.04** | **355** | P | **Pn** | **14 09 08.5** | **+0.1** |
| **ALN** | **Alexandroupoli** | **2.04** | **355** | *e*Pn | **Pb** | **14 09 10.0** | **-1.3** |
| ALN | | | | S | **Sn** | **14 09 34.0** | **+0.2** |
| **ALN** | **Alexandroupoli** | **2.04** | **355** | P | **Pn** | **14 09 08.4** | **0.0** |
| ALN | | | | S | **Sn** | **14 09 34.0** | **+0.2** |
| **KCTX** | **Karacabey (Bur** | **2.13** | **48** | *e*PN | **Pb** | **14 09 11.6** | **-1.2** |
| **KCTX** | **Karacabey (Bur** | **2.13** | **48** | *e*Pn | **Pb** | **14 09 11.6** | **-1.2** |
| **VLY** | **Voula,Athens** | **2.20** | **244** | P | **Pn** | **14 09 10.1** | **-0.5** |
| **VLY** | **Voula,Athens** | **2.20** | **244** | P | **Pn** | **14 09 10.1** | **-0.5** |
| **OUR** | **Ouranopolis** | **2.31** | **310** | P | **Pn** | **14 09 13.0** | **+0.9** |
| **OUR** | **Ouranopolis** | **2.31** | **310** | P | **Pn** | **14 09 13.0** | **+0.9** |
| **ORLT** | **Orhaneli** | **2.34** | **59** | *e*PN | **Pb** | **14 09 14.8** | **-1.6** |
| **ORLT** | **Orhaneli** | **2.34** | **59** | *e*Pn | **Pb** | **14 09 14.8** | **-1.6** |
| **RDO** | **Rodhopi** | **2.35** | **346** | P | **Pn** | **14 09 13.1** | **+0.4** |
| **RDO** | **Rodhopi** | **2.35** | **346** | P | **Pn** | **14 09 13.1** | **+0.4** |
| **SBT3** | **Marmara-Eregli** | **2.40** | **32** | *e*PN | **Pb** | **14 09 16.1** | **-1.2** |
| **SBT3** | **Marmara-Eregli** | **2.40** | **32** | *e*Pn | **Pb** | **14 09 16.1** | **-1.2** |
| **MDNY** | **Mudanya-Bursa** | **2.51** | **52** | *e*PN | **Pn** | **14 09 17.0** | **+2.1** |
| **MDNY** | **Mudanya-Bursa** | **2.51** | **52** | *e*Pn | **Pn** | **14 09 17.0** | **+2.1** |
| **KAVA** | **Kavala** | **2.53** | **328** | P | **Pn** | **14 09 15.3** | **+0.2** |
| **KAVA** | **Kavala** | **2.53** | **328** | P | **Pn** | **14 09 15.3** | **+0.2** |
| **KHAL** | **Karahalli** | **2.56** | **100** | *i* P | **Pn** | **14 09 15.7** | **0.0** |
| **KHAL** | **Karahalli** | **2.56** | **100** | P | **Pn** | **14 09 15.7** | **0.0** |
| **ARMT** | **Armutlu** | **2.62** | **49** | *e*PN | **Pb** | **14 09 18.9** | **-2.2** |
| **ARMT** | **Armutlu** | **2.62** | **49** | *e*Pn | **Pb** | **14 09 18.9** | **-2.2** |
| **SBT2** | **Guzelce-Avcila** | **2.65** | **40** | *e*PN | **Pb** | **14 09 19.2** | **-2.3** |
| **SBT2** | **Guzelce-Avcila** | **2.65** | **40** | *e*Pn | **Pb** | **14 09 19.2** | **-2.3** |
| **SBT5** | **Esenkoy-Cinarc** | **2.67** | **48** | *e*PN | **Pn** | **14 09 19.2** | **+2.2** |
| **SBT5** | **Esenkoy-Cinarc** | **2.67** | **48** | *e*Pn | **Pn** | **14 09 19.2** | **+2.2** |
| **SRS** | **Serrai** | **3.06** | **318** | P | **Pn** | **14 09 22.8** | **+0.4** |
| **SRS** | **Serrai** | **3.06** | **318** | P | **Pn** | **14 09 22.8** | **+0.4** |
| **CAVI** | **Cavuskoy** | **3.06** | **63** | *e*PN | **Pn** | **14 09 25.3** | **+2.8** |
| **CAVI** | **Cavuskoy** | **3.06** | **63** | *e*Pn | **Pn** | **14 09 25.3** | **+2.8** |
| **MLR** | **Muntele Rosu** | **6.63** | **358** | ⇑*i*P | **Pn** | **14 10 14.2** | **+2.6** |
| **MDVR** | **Moldovita** | **6.83** | **331** | ⇓*i*P | **Pn** | **14 10 14.1** | **-0.1** |

---

*IDC **06** 14:24:58.2±1.1, 36°.13N×142°.07E, h0km, mb3.6/6, mb1 3.7/10, mb1mx3.6/34, mbtmp3.6/10, ML3.4/4, MS2.7/1, Ms1 2.7/1, ms1mx2.4/30, Error ellipse: s-maj=24.1km s-min=19.3km az=81.0*
*ISCJB **06** 14:24:59.1±0.7, 36°.18N±0°.04×142°.10E±0°.07, h23km, mb3.4/6, Error ellipse: s-maj=8.0km s-min=5.6km az=25.1*
*NIED **06** 14:25:00, 36°.20N×142°.00E, h20km, Mw3.8 Best double couple: $M_0$5.77000×10[14] NP1:$\phi_s$244.00000°, δ30.00000°, λ126.00000°. NP2:$\phi_s$25.00000°, δ66.00000°, λ71.00000°.*
*JMA **06** 14:25:01.3±0.2, 36°.22N×141°.96E, h59km±5km, M3.6*
**ISC 06 14:25:01.2**±1.0, **36°.15N**±0°.06×**142°.06E**±0°.08, **h23**km, **n24,** σ**1s09**/26, **mb3.4**/6, **Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CHOJ** | **Chosi** | **1.07** | **246** | P | **Pn** | **14 25 20.0** | **-0.8** |
| CHOJ | | | | S | **Sb** | **14 25 33.6** | **-1.0** |
| **JHO** | **Hitachi** | **1.29** | **291** | P | **Pn** | **14 25 21.8** | **-1.9** |
| **ONAJ** | **Iwakimizuishiy** | **1.39** | **313** | P | **Pn** | **14 25 23.2** | **-2.0** |
| **JFK** | **Kawauchi** | **1.54** | **322** | P | **Pn** | **14 25 25.9** | **-1.4** |
| **BSO1** | **Boso 1** | **1.74** | **211** | P | **Pn** | **14 25 29.8** | **+0.4** |
| **BSO3** | **Boso 3** | **1.85** | **224** | P | **Pn** | **14 25 31.5** | **+0.3** |
| **JFT** | **Otama** | **1.94** | **315** | P | **Pn** | **14 25 32.3** | **-0.5** |
| **JMM** | **Marumori** | **1.99** | **330** | P | **Pn** | **14 25 32.4** | **-1.0** |
| **JAG** | **Ashikaga** | **2.12** | **278** | P | **Pn** | **14 25 33.9** | **-1.3** |
| **JRY** | **Ryogami san** | **2.56** | **268** | P | **Pn** | **14 25 40.3** | **-1.0** |
| **MJAR** | **Matsushiro Arr** | **3.13** | **278** | Pn | **Pn** | **14 25 48.9** | **-0.3** |
| | 10nm,0.3s,baz=104,slow=9.0,SNR=126 | | | | | | |
| MJAR | | | | Sn | **Sn** | **14 26 28.0** | **+2.2** |
| | 5.8nm,0.3s,baz=123,slow=14,SNR=6.5 | | | | | | |
| **MAT** | **Matsushiro** | **3.13** | **278** | P | **Pn** | **14 25 49.0** | **-0.2** |
| MAT | | | | S | **Sn** | **14 26 25.0** | **-0.9** |
| **JHJ** | **Hachijo jima 2** | **3.56** | **212** | Pn | **Pn** | **14 25 54.5** | **-0.4** |
| | 17nm,0.3s,baz=58,slow=17,SNR=4.8 | | | | | | |
| JHJ | | | | Sn | **Sn** | **14 26 34.6** | **-1.8** |
| | 54nm,0.3s,baz=84,slow=22,SNR=11 | | | | | | |
| **ASAJ** | **Asahikawa** | **7.97** | **3** | Pn | **Pn** | **14 26 55.6** | **+0.1** |
| | 0.4nm,0.3s,baz=187,slow=19,SNR=5.3 | | | | | | |
| ASAJ | | | | Sn | **Sn** | **14 28 24.1** | **-0.8** |
| | 0.2nm,0.3s,baz=204,slow=20,SNR=3.5 | | | | | | |
| **KSRS** | **Korea Array** | **11.41** | **281** | Pn | **Pn** | **14 27 43.7** | **+1.0** |
| | 0.1nm,0.3s,baz=93,slow=14,SNR=3.2 | | | | | | |
| KSRS | | | | LR | LR | 14 31 47.7 | |
| | comp=Z,37nm,21.2s,baz=106,slow=36 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **27.25** | **120** | T | T | 14 59 27.8 | |
| | baz=312,slow=75,SNR=5.9 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **27.26** | **120** | T | T | 14 59 26.2 | |
| | baz=312,SNR=4.4 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **27.27** | **120** | T | T | 14 59 28.4 | |
| | baz=312,slow=75,SNR=4.3 | | | | | | |
| **SONM** | **Songino Array** | **28.71** | **305** | P | **P** | **14 30 57.0** | **+0.3** |
| | 0.6nm,0.7s,baz=109,slow=8.8,SNR=5.5 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.89** | **313** | P | **P** | **14 32 58.1** | **+0.5** |
| | 0.4nm,0.4s,baz=88,slow=9.1,SNR=4.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **45.03** | **303** | P | **P** | **14 33 15.2** | **+0.2** |
| | 0.5nm,0.7s,baz=86,slow=7.4,SNR=5.1 | | | | | | |
| **ILAR** | **Eielson Array** | **49.96** | **32** | P | **P** | **14 33 53.9** | **+0.9** |
| | 0.2nm,0.9s,baz=254,slow=6.5,SNR=2.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **56.26** | **189** | P | **P** | **14 34 40.2** | **+0.4** |
| | 0.3nm,0.8s,baz=23,slow=7.3,SNR=6.3 | | | | | | |
| **ASAR** | **Alice Springs** | **59.99** | **189** | P | **P** | **14 35 06.2** | **+0.3** |
| | 0.3nm,0.8s,baz=7.5,slow=6.7,SNR=2.8 | | | | | | |

---

*BJI **06** 15:04:16.4, 0°.94N×127°.42E, h137km, mb4.6/53, mB5.0/36*
*KLM **06** 15:04:19.7, 1°.51N×127°.40E, h125km, mb5.0*
*NEIC **06** 15:04:21.6±0.7, 1°.44N×127°.14E, h134km±7km, mb4.9/41, Error ellipse: s-maj=6.0km s-min=3.8km az=50.0*
*NEIC Felt at Bitung, Sulawesi.*
*ISCJB **06** 15:04:21.9±0.1, 1°.51N±0°.02×127°.19E±0°.02, h150km, mb4.7/84, Error ellipse: s-maj=2.8km s-min=2.2km az=159.6*
*GCMT **06** 15:04:21.6±0.3, 1°.68N×127°.13E, h146km±4km, MW5.0/77, Moment Tensor Solution. s26,c28; s77,c110; Duration: 0 Moment tensor: Scale 10[16]Nm; $M_{rr}$0.49±.14; $M_{\theta\theta}$-0.20±.13; $M_{\phi\phi}$-0.29±.15; $M_{r\theta}$0.16±.09; $M_{\theta\phi}$1.37±.13; $M_{\phi r}$-3.11±.12; Best double couple: $M_0$3.42900×10[16] NP1:$\phi_s$175.00000°, δ85.00000°, λ113.00000°. NP2: $\phi_s$276.00000°, δ24.00000°, λ11.00000°. Principal axes: T 3.4150, Plg45.0000°, Azm108.0000°; N 0.0270, Plg23.0000°, Azm353.0000°; P -3.4420, Plg36.0000°, Azm245.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*IDC **06** 15:04:22.2±1.6, 1°.45N×127°.19E, h137km±13km, mb4.2/20, mb1 4.3/21, mb1mx4.1/38, mbtmp4.6/21, MS3.4/2, Ms1 3.4/2, ms1mx2.8/36 Error ellipse: s-maj=17.8km s-min=7.5km az=79.0*
*MOS **06** 15:04:22.2±1.0, 1°.47N×127°.11E, h154km, mb4.7/18, Error ellipse: s-maj=13.7km s-min=7.0km az=111.1*
*DJA **06** 15:04:22.0±0.2, 2°N±2°×12°7E±°, h132km±2km, M5.0/70, mb5.2/70, mB5.5/49, MLv5.7/13, Mw(mB)5.0/49*
**ISC 06 15:04:23.3**±0.3, **1°.47N**±0°.03×**127°.17E**±0°.04, **h150**km, **n270,** σ**1s53**/295, **mb4.7**/84, **14C-8D, Halmahera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LBMI** | **Labuha** | **2.12** | **171** | P | **Pn** | **15 04 59.3** | **-0.6** |
| LBMI | | | | S | **Sn** | **15 05 26.9** | **-1.2** |
| **SGSI** | **Sangihe** | **2.74** | **323** | P | **Pn** | **15 05 04.2** | **-3.3** |
| SGSI | | | | S | **Sn** | **15 05 38.3** | **-3.3** |
| **KMSI** | **Cibinong** | **3.31** | **254** | P | **Pn** | **15 05 12.9** | **-1.8** |
| KMSI | | | | S | **Sn** | **15 05 53.5** | **-1.0** |
| **SANI** | **Sanana** | **3.69** | **199** | P | **Pn** | **15 05 17.1** | **-2.5** |
| **NLAI** | **Namlea** | **4.68** | **181** | P | **Pn** | **15 05 31.3** | **-1.2** |
| **LUWI** | **Luwuk** | **5.06** | **240** | P | **Pn** | **15 05 35.7** | **-1.8** |
| | 1μm,0.6s,29μm56nm | | | | | | |
| LUWI | | | | S | **Sn** | **15 06 36.0** | **+0.5** |
| | 1μm,0.6s,29μm56nm | | | | | | |
| **LUWI** | **Luwuk** | **5.06** | **240** | *e*Pn | **Pn** | **15 05 35.4** | **-2.1** |
| **GSPH** | **General Santos** | **5.09** | **334** | *e*P | **Pn** | **15 05 34.8** | **-3.3** |
| GSPH | | | | *e*S | **Sn** | **15 06 31.7** | **-4.8** |
| **MSAI** | **Masohi** | **5.10** | **160** | P | **Pn** | **15 05 38.8** | **+0.7** |
| | 56nm,0.7s,1μm0.5nm | | | | | | |
| **AAI** | **Ambon** | **5.23** | **169** | P | **Pn** | **15 05 39.5** | **-0.3** |
| | 665nm,0.5s,12μm3.6nm | | | | | | |
| **MRSI** | **Marisa** | **5.33** | **259** | P | **Pn** | **15 05 39.3** | **-1.7** |
| | 329nm,0.7s,6μm3.9nm | | | | | | |
| MRSI | | | | S | **Sn** | **15 06 41.5** | **-0.2** |
| | 329nm,0.7s,6μm3.9nm | | | | | | |
| **MATI** | **Mati** | **5.51** | **350** | *e*P | **Pn** | **15 05 41.8** | **-1.8** |
| MATI | | | | *e*S | **Sn** | **15 06 43.0** | **-3.3** |
| **DMPH** | **Davao City--Mi** | **5.81** | **343** | ⇑*e*P | **Pn** | **15 05 48.3** | **+0.7** |
| DMPH | | | | *e*S | **Sn** | **15 06 47.5** | **-6.0** |
| **KCP** | **Kidapawan** | **5.88** | **339** | ⇓*i*P | **Pn** | **15 05 47.2** | **-1.3** |
| KCP | | | | *i* S | **Sn** | **15 06 52.5** | **-2.6** |
| **APSI** | **Ampana** | **6.01** | **247** | P | **Pn** | **15 05 48.5** | **-1.7** |
| | 915nm,0.5s,22μm22nm | | | | | | |
| **CTBH** | **Cotabato--PC H** | **6.41** | **333** | ⇑*e*P | **Pn** | **15 05 52.7** | **-2.8** |
| **BNDI** | **Bandanaira** | **6.55** | **155** | S | **Sn** | **15 07 10.7** | **-0.4** |
| **FAKI** | **Fak Fak** | **6.69** | **131** | P | **Pn** | **15 05 59.5** | **+0.2** |
| | 156nm,0.9s,3μm0.6nm | | | | | | |
| **FAKI** | **Fak Fak** | **6.69** | **131** | *e*Pn | **Pn** | **15 05 59.3** | **0.0** |
| **BUKP** | **Musuan** | **6.70** | **342** | *e*P | **Pn** | **15 05 58.2** | **-1.2** |
| BUKP | | | | *e*S | **Sn** | **15 07 11.1** | **-3.8** |
| **BIPH** | **Bislig** | **6.71** | **353** | *e*S | **Sn** | **15 07 11.6** | **-3.5** |
| **MPSI** | **Mapaga** | **7.36** | **261** | P | **Pn** | **15 06 07.4** | **-0.8** |
| | 115nm,0.9s,2μm1.0nm | | | | | | |
| **BUTP** | **Butuan** | **7.61** | **348** | *e*P | **Pn** | **15 06 10.5** | **-0.9** |
| **RKPI** | **Ransiki, Papua** | **7.61** | **113** | S | **Sn** | **15 07 36.0** | **-0.4** |
| **KMPI** | **Kaimana, Papua** | **8.28** | **128** | P | **Pn** | **15 06 19.9** | **-0.6** |
| KMPI | | | | S | **Sn** | **15 07 53.7** | **+0.9** |
| **BBSI** | **Bau Bau** | **8.30** | **214** | P | **Pn** | **15 06 22.4** | **+1.6** |
| **TTSI** | **Tana Toraja** | **8.61** | **239** | P | **Pn** | **15 06 23.5** | **-1.4** |
| | 862nm,0.7s,7μm | | | | | | |
| **BNSI** | **Bone** | **9.16** | **230** | P | **Pn** | **15 06 31.2** | **-1.0** |
| | 417nm,0.8s,3μm | | | | | | |
| **SPSI** | **Sidrap Palu** | **9.16** | **234** | P | **Pn** | **15 06 31.6** | **-0.6** |
| | 550nm,0.6s,6μm | | | | | | |
| **PALU** | **Palau** | **9.32** | **51** | P | **Pn** | **15 06 30.7** | **-3.7** |
| | baz=9.3,SNR=4.4 | | | | | | |
| **MYLDM** | **Lahad Datu** | **9.41** | **293** | *e*Pn | **Pn** | **15 06 34.4** | **-1.1** |
| **TSM** | **Tawau** | **9.70** | **287** | ⇑P | **Pn** | **15 06 38.3** | **-1.1** |
| **KAPI** | **Kappang** | **9.82** | **229** | LR | LR | 15 11 13.7 | |
| | comp=Z,6μm,19.3s,baz=154,slow=42 | | | | | | |
| **KAPI** | **Kappang** | **9.82** | **229** | *e*Pn | **Pn** | **15 06 39.4** | **-1.6** |
| | 197nm,0.6s | | | | | | |
| **BSSI** | **Bau Bau, Buton** | **10.09** | **221** | P | **Pn** | **15 06 45.1** | **+0.6** |
| **SAUI** | **Saumlaki** | **10.26** | **156** | P | **Pn** | **15 06 46.0** | **-0.8** |
| **SAUI** | **Saumlaki** | **10.26** | **156** | *e*Pn | **Pn** | **15 06 43.9** | **-2.9** |
| **SDKM** | **Sandakan** | **10.78** | **293** | ⇑P | **Pn** | **15 06 54.2** | **+0.4** |
| **MMRI** | **Maumere** | **11.18** | **206** | P | **Pn** | **15 06 59.7** | **+0.7** |
| **MMRI** | **Maumere** | **11.18** | **206** | *e*Pn | **Pn** | **15 06 55.0** | **-4.0** |
| **SOEI** | **Soe** | **11.52** | **194** | P | **Pn** | **15 07 04.7** | **+1.1** |
| **SOEI** | **Soe** | **11.52** | **194** | *e*Pn | **Pn** | **15 07 03.4** | **-0.2** |
| **EDFI** | **Ende, Flores** | **11.53** | **208** | P | **Pn** | **15 07 04.0** | **+0.3** |
| **KKM** | **Kota Kinabalu** | **11.84** | **293** | ⇑P | **Pn** | **15 07 06.9** | **-0.8** |
| **KKM** | **Kota Kinabalu** | **11.84** | **293** | *e*Pn | **Pn** | **15 07 05.8** | **-1.9** |
| **KBKI** | **Kotabaru** | **11.98** | **247** | P | **Pn** | **15 07 08.7** | **-0.7** |
| KBKI | | | | S | **Sn** | **15 09 23.1** | **+1.2** |
| **MTKI** | **Muara Teweh, K** | **12.51** | **259** | P | **Pn** | **15 07 15.4** | **-0.9** |
| **BASI** | **Baing, Sumba** | **13.34** | **209** | P | **P** | **15 07 29.0** | **-2.2** |
| **WBSI** | **Waikabubak, Su** | **13.49** | **215** | P | **P** | **15 07 29.0** | **-3.9** |
| **GENI** | **Genyem** | **13.60** | **107** | P | **Pn** | **15 07 30.3** | **0.0** |
| **PLAI** | **Plampang** | **13.87** | **222** | P | **P** | **15 07 35.7** | **-1.4** |
| **JAY** | **Jayapura** | **14.10** | **106** | P | **Pn** | **15 07 36.4** | **-0.2** |
| **BTM** | **Bintulu** | **14.18** | **277** | ⇑P | **P** | **15 07 37.1** | **-3.4** |
| **MTN** | **Manton Dam** | **14.76** | **165** | P | **Pn** | **15 07 42.3** | **-2.4** |
| | baz=15,SNR=270 | | | | | | |
| **MTN** | **Manton Dam** | **14.76** | **165** | *e*Pn | **Pn** | **15 07 42.1** | **-2.6** |
| **SBUM** | **Sibu** | **14.98** | **274** | *e*Pn | **Pn** | **15 07 44.1** | **-3.4** |
| **KDU** | **Kakadu** | **15.02** | **160** | P | **Pn** | **15 07 45.3** | **-2.7** |
| | baz=15,SNR=18 | | | | | | |
| **SRBI** | **Singaraja** | **15.24** | **231** | P | **P** | **15 07 52.0** | **-0.3** |
| **DNP** | **Denpasar** | **15.62** | **230** | P | **P** | **15 07 57.1** | **+0.7** |
| **KMMI** | **Kalianget** | **15.66** | **237** | P | **P** | **15 07 58.0** | **+1.0** |
| **STKI** | **Sintang** | **15.76** | **265** | P | **P** | **15 07 58.3** | **+0.3** |
| **PBKI** | **Pangkalan Bun** | **16.05** | **255** | P | **P** | **15 07 59.9** | **-1.3** |
| **BWJI** | **Bawean** | **16.22** | **243** | P | **P** | **15 08 02.8** | **-0.3** |
| **JAGI** | **Jajag, Banyuwa** | **16.31** | **233** | P | **P** | **15 08 06.0** | **+1.8** |
| **JAGI** | **Jajag, Banyuwa** | **16.31** | **233** | *e*Pn | **P** | **15 08 04.1** | **0.0** |
| | 229nm,1.1s | | | | | | |
| **BLJI** | **Banyuglugur** | **16.35** | **236** | P | **P** | **15 08 05.8** | **+1.3** |
| **GMJI** | **Gumukmas** | **16.77** | **235** | P | **Pn** | **15 08 10.7** | **+1.2** |
| **KSM** | **Kuching** | **16.86** | **270** | ⇑P | **Pn** | **15 08 10.7** | **+0.1** |
| **KSM** | **Kuching** | **16.86** | **270** | *e*P | **Pn** | **15 08 09.9** | **-0.8** |
| | 79nm,1.2s | | | | | | |
| **KNRA** | **Kununurra** | **17.11** | **175** | P | **Pn** | **15 08 12.5** | **-1.1** |
| | baz=17,SNR=58 | | | | | | |
| **TBJI** | **Tambak Boyo** | **17.37** | **242** | P | **Pn** | **15 08 16.8** | **0.0** |
| **PWJI** | **Pagerwojo** | **18.00** | **238** | P | **Pn** | **15 08 24.0** | **-0.2** |
| **PCJI** | **Pacitan** | **18.62** | **239** | P | **Pn** | **15 08 31.5** | **0.0** |
| **SMRI** | **Semarang** | **18.72** | **243** | P | **Pn** | **15 08 32.0** | **-0.8** |
| **SMRI** | **Semarang** | **18.72** | **243** | *e*P | **Pn** | **15 08 31.9** | **-0.8** |
| | 97nm,0.9s | | | | | | |
| **UGM** | **Wanagama** | **19.04** | **240** | P | **Pn** | **15 08 35.6** | **-0.9** |
| **UGM** | **Wanagama** | **19.04** | **240** | *e*P | **Pn** | **15 08 34.0** | **-2.6** |
| | 317nm,1.0s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **19.51** | **184** | P | **Pn** | **15 08 38.6** | **-3.3** |
| | 3.8nm,0.3s,baz=18,slow=9.6,SNR=99 | | | | | | |
| FITZ | | | | S | **S** | **15 12 07.7** | **-3.8** |
| | baz=184,slow=18,SNR=8.2 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **19.51** | **184** | P | **Pn** | **15 08 38.4** | **-3.5** |
| | baz=20,SNR=58 | | | | | | |
| **KPJI** | **Karang Pucung** | **20.19** | **244** | P | Pn | 15 08 47.1 | -2.9 |
| **GUMO** | **Guam** | **21.25** | **55** | LR | LR | 15 16 09.6 | |
| | comp=Z,67nm,22.0s,baz=153,slow=33 | | | | | | |
| **CISI** | **Cisompet, Garu** | **21.29** | **245** | P | **P** | **15 08 58.2** | **-0.1** |
| **CISI** | **Cisompet, Garu** | **21.29** | **245** | *e*P | **P** | **15 08 56.9** | **-1.5** |
| | 88nm,0.9s | | | | | | |
| **PPBI** | **Pangkal Pinang** | **21.34** | **260** | P | **P** | **15 08 58.9** | **+0.1** |
| **CBJI** | **Citeko** | **21.75** | **249** | P | **P** | **15 09 04.2** | **+1.1** |
| **CNJI** | **Cibinong** | **21.82** | **246** | P | **P** | **15 09 03.4** | **-0.4** |
| **DBJI** | **Dramaga** | **21.89** | **248** | P | **P** | **15 09 06.2** | **+1.6** |
| **COEN** | **Coen** | **22.06** | **135** | P | **P** | **15 09 05.1** | **-1.1** |
| | baz=22,SNR=38 | | | | | | |
| **COEN** | **Coen** | **22.06** | **135** | *e*P | **P** | **15 09 03.6** | **-2.7** |
| | 83nm,1.3s | | | | | | |
| **SKJI** | **Sukabumi** | **22.23** | **247** | P | **P** | **15 09 08.8** | **+0.8** |
| **SBJI** | **Serang** | **22.32** | **250** | P | **P** | **15 09 11.0** | **+2.1** |
| **WRAB** | **Tennant Creek** | **22.41** | **162** | *c i*P | **P** | **15 09 08.7** | **-1.0** |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,50nm,0.7s | | | | | | |
| **WRAB** | **Tennant Creek** | **22.41** | **162** | *e*P | **P** | **15 09 08.3** | **-1.4** |
| | comp=Z,184nm,0.8s | | | | | | |
| **WRA** | **Warramunga Arr** | **22.41** | **162** | P | **P** | **15 09 08.9** | **-0.8** |
| | comp=Z,56nm,0.5s,baz=341,slow=10,SNR=615 | | | | | | |
| WRA | | | | S | **S** | **15 13 03.1** | **-1.9** |
| | comp=Z,8.6nm,1.0s,baz=346,slow=18,SNR=8.5 | | | | | | |

WRA ScP **ScP** **15 16 24.1 +1.2**
comp=Z,3.7nm,0.7s,baz=343,slow=3.2,SNR=10
**WB2 Warramunga Arr 22.42 162** *e*P **P** **15 09 08.6 -1.2**
**PMG Port Moresby 22.65 119** P **P** **15 09 12.0 0.0**
comp=Z,16nm,0.7s,baz=310,slow=10,SNR=11
**PMG Port Moresby 22.65 119**⇓ *i*P **P** **15 09 12.0 0.0**
PMG pmax pmax
comp=Z,424nm,2.7s
**PMG Port Moresby 22.65 119** *e*P **P** **15 09 11.7 -0.3**
comp=Z,32nm,0.9s
**KLI Kotabumi 23.17 254** P **P** **15 09 18.4 +1.6**
**MYKOM Kota Tinggi 23.32 271**⇓P **P** **15 09 18.7 +0.5**
**MYKOM Kota Tinggi 23.32 271** *e*P **P** **15 09 17.7 -0.5**
comp=Z,69nm,1.0s
**MBWA Marble Bar 23.64 198** *e*P **P** **15 09 20.0 -1.0**
comp=Z,37nm,0.7s
**KASI Kota Agung 23.69 253** P **P** **15 09 23.4 +1.8**
**LWLI Liwa 23.98 254** P **P** **15 09 25.3 +1.0**
**XMIS Christmas Isla 24.49 241** *e*P **P** **15 09 27.8 -1.0**
comp=Z,264nm,1.1s
**QIS Mount Isa 25.05 152** P **P** **15 09 34.3 +0.4**
baz=25,SNR=68
**MASI Maura Aman, Be 25.34 260** P **P** **15 09 38.4 +1.8**
**RABL Rabaul 25.60 103** *e*P **P** **15 09 39.0 +0.1**
comp=Z,135nm,0.5s
**MTSU Mount Surprise 25.78 140** P **P** **15 09 40.6 +0.2**
baz=26,SNR=78
**AS31 Alice Springs 25.83 166** *e*P **P** **15 09 40.0 -0.9**
comp=Z,7.6nm,0.8s
**ASAR Alice Springs 25.83 166** P **P** **15 09 40.5 -0.5**
comp=Z,15nm,0.5s,baz=347,slow=7.8,SNR=557
ASAR S **S** **15 14 00.6 +1.1**
comp=Z,1.3nm,0.8s,baz=348,slow=17,SNR=2.7
ASAR ScP **ScP** **15 16 33.6 +1.4**
comp=Z,2.8nm,0.7s,baz=340,slow=2.2,SNR=7.7
**AS01 Alice Springs 25.84 166** *e*P **P** **15 09 40.0 -1.0**
**BKNI Bangkinang 26.16 268** P P 15 09 55.1 +11
**BKNI Bangkinang 26.16 268** *e*P **P** **15 09 41.9 -2.0**
comp=Z,283nm,0.4s
**IPM Ipoh 26.28 277** *e*P **P** **15 09 43.6 -1.4**
comp=Z,30nm,1.1s
**WRKA Warakurna 26.38 178** P **P** **15 09 45.6 -0.1**
baz=26,SNR=92
**PDSI Padang 26.81 265** P **P** **15 09 50.1 +0.2**
**CHBT CHBT 27.04 296** P **P** **15 09 52.8 +1.0**
comp=Z,189nm,1.3s
**GIRL Giralia 27.09 207** P **P** **15 09 53.3 +1.2**
baz=27,SNR=12
**SRAK Srakaew 27.80 298** P **P** **15 09 56.4 -2.1**
comp=Z,60nm,0.8s,comp=Z,520nm
**PSI Prapat 28.26 273** *e*P **P** **15 10 01.4 -1.5**
PSI pmax pmax
comp=Z,23nm,1.0s
**PSI Prapat 28.26 273** *e*P **P** **15 10 01.4 -1.5**
comp=Z,23nm,1.0s
**CTA Charters Tower 28.45 140** P **P** **15 10 05.1 +0.8**
comp=Z,19nm,0.9s,baz=319,slow=12,SNR=7.0
**CTAO Charters Tower 28.45 140** *e*P **P** **15 10 04.7 +0.4**
CTAO pmax pmax
comp=Z,42nm,1.3s
**CTAO Charters Tower 28.45 140** *e*P **P** **15 10 04.7 +0.4**
comp=Z,42nm,1.3s
**NAYO Nakonayok 28.56 298** P **P** **15 10 06.1 +0.8**
comp=Z,37nm,1.1s
**CHAI Chaiyaphum 28.67 301** P **P** **15 10 06.6 +0.3**
comp=Z,9.7nm,0.8s,comp=Z,86nm
**KCSI Kotacane, Aceh 29.44 275** P **P** **15 10 12.4 -0.8**
**GSI Gunungsitoli 29.59 270** P **P** **15 10 13.0 -1.5**
**GSI Gunungsitoli 29.59 270** *e*P **P** **15 10 12.5 -2.0**
comp=Z,51nm,1.4s
**SRDT SRDT 30.53 296** P **P** **15 10 24.1 +1.3**
comp=Z,87nm,1.1s
**UTHA Uthaitani 30.72 299** P **P** **15 10 25.0 +0.6**
comp=Z,5.2nm,0.8s,comp=Z,66nm
**UTTA Uttaradit 30.74 303** P **P** **15 10 25.8 +1.2**
comp=Z,3.2nm,0.9s
**NANT Nan 31.14 305** P **P** **15 10 29.4 +1.3**
comp=Z,5.6nm,0.8s
**PHRA Phrae 31.38 304** P **P** **15 10 32.1 +1.9**
comp=Z,28nm,0.7s,comp=Z,33µm
**SUKH Sukhothai 31.40 302** P **P** **15 10 31.6 +1.3**
comp=Z,4.4nm,0.9s
**NJ2 Nanjing 31.41 346** *e*P **P** **15 10 31.4 +1.2**
NJ2 pmax pmax
comp=Z,9.0nm,0.7s
**FORT Forrest 32.09 179** P **P** **15 10 36.0 -0.2**
baz=32,SNR=22
**FORT Forrest 32.09 179** *e*P **P** **15 10 35.1 -1.1**
comp=Z,491nm,0.7s
**MORW Morawa 32.19 199** P **P** **15 10 37.2 +0.1**
baz=32,SNR=15
**QLP Quilpie 32.39 151** P **P** **15 10 38.6 -0.3**
baz=32,SNR=16
**CM01 Chiang Mai Arr 32.40 303** *e*P **P** **15 10 39.9 +0.7**
**CMAR Chiang Mai Arr 32.43 303** P **P** **15 10 40.0 +0.6**
comp=Z,3.5nm,1.0s,baz=122,slow=7.2,SNR=28
CMAR ScP **ScP** **15 16 55.4 +2.1**
comp=Z,1.5nm,0.9s,baz=144,slow=2.0,SNR=8.4
**CMAR Chiang Mai Arr 32.43 303** *c*e**P** **P** **15 10 40.2 +0.8**
CMAR pmax pmax
comp=Z,4.0nm,1.0s
**CMMT Chiang Mai 32.59 304** P **P** **15 10 41.6 +0.8**
comp=Z,13nm,1.3s,comp=Z,461nm
**CHTO Chiang Mai 32.60 304** P **P** **15 10 41.7 +0.9**
comp=Z,60nm,1.2s
**CHTO Chiang Mai 32.60 304** *e*P **P** **15 10 41.0 +0.1**
CHTO pmax pmax
comp=Z,21nm,1.4s
**CHTO Chiang Mai 32.60 304** *e*P **P** **15 10 41.0 +0.1**
comp=Z,21nm,1.4s
**KMBL Kambalda 33.05 188** P **P** **15 10 44.4 -0.1**
baz=33,SNR=14
**COCO West Island 33.05 245** *i*P P 15 10 47.9 +3.1
**ENH Enshi 33.20 331** *e*P **P** **15 10 44.2 -1.7**
comp=Z,24nm,1.4s
**KMI Kunming 33.30 317** P **P** **15 10 49.3 +2.2**
KMI pmax pmax
comp=Z,20nm,0.7s
KMI pmax pmax
comp=Z,100nm,4.2s
**BLDU Ballidu 33.43 197** P **P** **15 10 47.9 0.0**
baz=34,SNR=35
**KLBR Kellerberrin 34.08 194** P **P** **15 10 53.7 +0.2**
baz=34,SNR=19
**RMQ Roma 34.74 145** P **P** **15 10 59.3 0.0**
baz=35,SNR=17
**MUN Mundaring 34.86 196** P **P** **15 11 00.4 +0.2**
baz=35,SNR=7.4
**BBOO Buckleboo 35.12 167** P **P** **15 11 02.2 -0.2**
baz=35,SNR=28
**BBOO Buckleboo 35.12 167** *e*P **P** **15 11 01.3 -1.1**
comp=Z,44nm,1.3s
**EIDS Eidsvold 35.32 141** P **P** **15 11 04.2 0.0**
baz=35,SNR=6.7
**EIDS Eidsvold 35.32 141** *e*P **P** **15 11 03.9 -0.4**
comp=Z,39nm,1.0s
**NWAO Narrogin (SRO) 35.48 194** P **P** **15 11 05.4 -0.1**
comp=Z,22nm,0.6s,baz=250,slow=8.1,SNR=29
**NWAO Narrogin (SRO) 35.48 194** P **P** **15 11 06.0 +0.5**
baz=36,SNR=22
NWAO P **P** **15 11 06.0 +0.5**
baz=36,SNR=22
**KSAR Wonju Array Be 35.80 1** P **P** **15 11 08.3 +0.2**
**KSAR Wonju Array Be 35.80 1** P **P** **15 11 08.3 +0.2**
**KSRS Korea Array 35.81 1** P **P** **15 11 08.3 +0.1**
comp=Z,1.9nm,0.5s,baz=177,slow=9.6,SNR=9.1
**STKA Stephens Creek 35.88 159** P **P** **15 11 08.9 0.0**
comp=Z,24nm,0.7s,baz=331,slow=8.9,SNR=53
**STKA Stephens Creek 35.88 159** P **P** **15 11 08.9 0.0**
baz=36,SNR=34
**STKA Stephens Creek 35.88 159** *e*P **P** **15 11 08.7 -0.2**
STKA pmax pmax
comp=Z,6.0nm,0.8s
**STKA Stephens Creek 35.88 159** *e*P **P** **15 11 08.7 -0.2**
comp=Z,6.3nm,0.8s
**MJAR Matsushiro Arr 36.36 15** P **P** **15 11 12.7 -0.3**
comp=Z,1.4nm,0.5s,baz=193,slow=9.3,SNR=7.6
**MAJO Matsushiro 36.36 15**⇓ *e*P **P** **15 11 12.5 -0.5**
MAJO pmax pmax
comp=Z,14nm,1.5s
**MAT Matsushiro 36.36 15** P **P** **15 11 12.4 -0.6**
**XAN Xi'an 36.62 334** P **P** **15 11 15.7 +0.4**
XAN pP pP 15 11 46.7 -1.0
XAN pmax pmax
comp=Z,22nm,1.4s
XAN pmax pmax
comp=Z,58nm,7.3s

**CD2 Chengdu 36.73 325** *e*P **P** **15 11 17.2 +1.0**
CD2 sP sP 15 12 05.6 -0.2
CD2 S **S** **15 16 47.5 -1.4**
CD2 pmax pmax
comp=Z,20nm,1.3s
**RKGY Rocky Gully 37.15 194** P **P** **15 11 21.1 +1.5**
baz=37,SNR=28
**CMSA Cobar Meteorol 37.24 153** P **P** **15 11 20.7 +0.2**
baz=37,SNR=17
**ARMA Armidale 39.36 146** P **P** **15 11 39.4 +1.0**
baz=39,SNR=71
**ARMA Armidale 39.36 146** *e*P **P** **15 11 38.9 +0.5**
comp=Z,59nm,0.6s
**BJI Beijing 39.67 347** P **P** **15 11 41.5 +0.9**
BJI pmax pmax
comp=Z,12nm,1.1s
BJI pmax pmax
comp=Z,140nm,4.6s
**ARPS Mount Arapiles 40.42 162** P **P** **15 11 47.7 +0.8**
baz=41,SNR=13
**LZH Lanzhou 40.67 331** *e*P **P** **15 11 51.0 +1.9**
LZH pP pP 15 12 21.0 -1.1
LZH sP sP 15 12 32.6 -6.5
LZH pmax pmax
comp=Z,25nm,0.7s
LZH pmax pmax
comp=Z,140nm,4.4s
**YNG Young 40.79 153** P **P** **15 11 50.6 +0.6**
baz=41,SNR=7.2
**MSHR Mys Shultsa 41.08 4**⇓ *e*P **P** **15 11 52.1 -0.1**
**MGCD Mangrove Creek 41.23 149** P **P** **15 11 55.1 +1.5**
baz=41,SNR=6.0
**SHL Shillong 41.59 308** *e*P P 15 12 00.0 +3.2
**HHC Hu-ho-hao-te 41.67 342** *e*P **P** **15 11 59.1 +1.9**
HHC pmax pmax
comp=Z,21nm,1.0s
HHC pmax pmax
comp=Z,200nm,5.4s
**CAN Canberra 41.91 153** *e*P **P** **15 11 59.8 +0.7**
CAN pmax pmax
comp=Z,33nm,1.1s
**CAN Canberra 41.91 153** *e*P **P** **15 11 59.8 +0.7**
comp=Z,33nm,1.1s
**CNB Canberra Magne 42.07 153** P **P** **15 12 01.7 +1.2**
baz=42,SNR=13
**CN2 Changchun 42.17 358** *e*P **P** **15 11 59.9 -1.2**
**TOO Toolangi 42.39 158** P **P** **15 12 04.4 +1.4**
baz=42,SNR=4.9
**USRK Ussuriysk Ar. 42.76 5** P **P** **15 12 06.7 +0.9**
comp=Z,4.4nm,0.8s,baz=186,slow=7.0,SNR=9.3
**MDJ Mudanjiang 43.01 3** P **P** **15 12 09.6 +1.8**
MDJ pP pP 15 12 38.8 -2.3
MDJ sP sP 15 12 53.7 -4.3
MDJ pmax pmax
comp=Z,9.0nm,1.1s
MDJ pmax pmax
comp=Z,130nm,5.0s
**MDJ Mudanjiang 43.01 3** *e*P **P** **15 12 07.3 -0.6**
comp=Z,24nm,1.4s
**LSA Lhasa 44.27 313** *e*P **P** **15 12 19.5 +0.8**
LSA pmax pmax
comp=Z,36nm,1.8s
**LSA Lhasa 44.27 313** *e*P **P** **15 12 19.5 +0.8**
comp=Z,36nm,1.8s
**ASAJ Asahikawa 44.62 16** P **P** **15 12 21.9 +1.2**
comp=Z,1.8nm,0.4s,baz=218,slow=11,SNR=6.5
**GTA Gaotai 45.25 330** P **P** **15 12 27.1 +1.2**
GTA pP pP 15 12 56.7 -2.8
GTA sP sP 15 13 10.2 -6.2
GTA PcP **PcP** **15 14 05.2 +1.8**
GTA ScP **ScP** **15 17 43.9 +1.8**
GTA S **S** **15 18 57.8 +2.9**
GTA SS **SS** **15 22 16.0 -4.5**
GTA pmax pmax
comp=Z,7.0nm,1.3s
GTA pmax pmax
comp=Z,72nm,5.8s
**TAPN Taplejung 45.72 308** *e*P **P** **15 12 30.6 +0.6**
**ODAN Odare 45.75 307** *e*P **P** **15 12 30.8 +0.6**
**RAMN Ramite 46.42 307** *e*P **P** **15 12 36.4 +0.9**
**PALK Pallekele 46.67 279** *i*P **P** **15 12 38.9 +1.6**
**JIRN Jiri 47.06 307** *e*P **P** **15 12 41.2 +0.6**
**GUN Gumba 47.42 308** *e*P **P** **15 12 43.9 +0.6**
**PKI Pulchoki 47.65 307** *e*P **P** **15 12 45.2 +0.1**
**PKIN Phulchoki 47.66 307** *e*P **P** **15 12 45.1 0.0**
**KLR Kul'dur 47.74 4** P **P** **15 12 45.1 +0.2**
comp=Z,0.3nm,0.5s,baz=198,slow=6.8,SNR=12
**KKN Kakani 47.85 307** *e*P **P** **15 12 47.1 +0.6**
**DMN Daman 47.91 307** *e*P **P** **15 12 47.5 +0.5**
comp=Z,49nm,1.2s
**KOLN Koldanda 49.19 306** *e*P **P** **15 12 57.6 +0.9**
comp=Z,79nm,1.0s
**DANN Dangsing 49.30 307** *e*P **P** **15 12 58.8 +1.2**
**ULN Ulaanbaatar 49.39 342** *d*i**P** **P** **15 12 58.6 +0.8**
ULN pmax pmax
comp=Z,11nm,1.2s
**ULN Ulaanbaatar 49.39 342** *e*P **P** **15 12 58.5 +0.7**
comp=Z,8.5nm,1.0s
**SONM Songino Array 49.56 342** P **P** **15 12 59.5 +0.4**
comp=Z,4.2nm,1.0s,baz=162,slow=8.7,SNR=9.6
SONM LR LR 15 35 39.7
comp=Z,61nm,19.3s,baz=55,slow=38
**SONA1 Songino Array 49.57 342** *e*P **P** **15 12 59.4 +0.2**
**PYUN Piuthan 49.81 306** *e*P **P** **15 13 02.4 +1.0**
comp=Z,118nm,0.9s
**HYB Hyderabad 50.32 291** *i*P **P** **15 13 05.0 -0.2**
HYB *e* 15 13 15.0
**WMQ Urumqi 54.82 326** P **P** **15 13 39.0 +1.1**
WMQ pP pP 15 14 10.9 -1.8
WMQ sP sP 15 14 26.3 -2.9
WMQ pmax pmax
comp=Z,28nm,1.1s
WMQ pmax pmax
comp=Z,370nm,5.3s
WMQ LR LR
comp=Z,240nm,17.5s
WMQ LR LR
comp=Z,120nm,19.1s
WMQ LR LR
comp=Z,110nm,17.5s
**BOD Bodaibo 57.15 352** *e*P **P** **15 13 54.0 -0.1**
BOD pmax pmax
comp=Z,8.0nm,1.4s
**THN Thein Dam 57.29 308** *e*P **P** **15 13 55.0 -0.6**
**PETK Petropavlovsk- 57.35 21** P **P** **15 13 56.5 +0.9**
comp=Z,3.7nm,0.6s,baz=178,slow=2.6,SNR=13
**MK01 Makanchi Array 59.63 326** *e*P **P** **15 14 11.9 +0.2**
**MK31 Makanchi Array 59.65 326** *e*P **P** **15 14 12.2 +0.4**
**MK31 Makanchi Array 59.65 326** *e*P **P** **15 14 12.2 +0.4**
**MKAR Makanchi Array 59.65 326** P **P** **15 14 12.5 +0.7**
comp=Z,5.3nm,0.4s,baz=118,slow=8.0,SNR=87
MKAR ScP **ScP** **15 18 45.4 +1.2**
comp=Z,1.0nm,0.7s,baz=121,slow=3.9,SNR=4.1
**KSH Kashi 59.95 316** P **P** **15 14 16.3 +2.2**
KSH pP pP 15 14 49.6 +0.2
KSH PcP **PcP** **15 15 00.2 +1.4**
KSH PP **PP** **15 16 33.1 +5.0**
KSH S **S** **15 22 17.0 +2.3**
KSH ScS **ScS** **15 23 48.5 -1.7**
KSH SS **SS** **15 26 17.9 +4.0**
KSH pmax pmax
comp=Z,4.0nm,0.6s
KSH pmax pmax
comp=Z,180nm,4.9s
KSH LR LR
comp=Z,110nm,6.3s
KSH LR LR
comp=Z,110nm,6.2s
KSH LR LR
comp=Z,170nm,6.1s
**YAK Yakutsk 60.44 1** *e*P **P** **15 14 17.5 +0.8**
YAK pmax pmax
comp=Z,13nm,1.0s
YAK pmax pmax
comp=N,7.0nm,1.4s
**BKZ Black Stump Fm 60.63 137** *e*P **P** **15 14 18.4 -0.1**
comp=N,73nm,1.5s
**AAK Ala-Archa 62.32 318**⇓ *i*P **P** **15 14 31.0 +1.0**
AAK pmax pmax
comp=Z,6.0nm,1.6s
**AAK Ala-Archa 62.32 318** *e*P **P** **15 14 31.1 +1.0**
comp=Z,13nm,1.5s
**ZAA0 Zalesovo Array 62.79 333** *e*P **P** **15 14 31.7 -0.9**
comp=Z,8.6nm,1.3s
**ZALV Zalesovo Beam 62.79 333** P **P** **15 14 32.4 -0.3**
comp=Z,1.0nm,0.4s,baz=123,slow=5.3,SNR=9.4
**ZALV Zalesovo Beam 62.79 333** *e*P **P** **15 14 31.5 -1.1**
**ZALV Zalesovo Beam 62.79 333** *e*P **P** **15 14 31.5 -1.1**
**KBL Kabul 63.25 308** *e*P **P** **15 14 36.7 +0.3**
KBL pmax pmax
comp=Z,7.0nm,0.6s
**KBL Kabul 63.25 308** *e*P **P** **15 14 36.6 +0.3**
comp=Z,6.5nm,0.6s
**KURK Kurchatov 63.87 328** *e*P **P** **15 14 40.0 +0.2**
KURK pmax pmax
comp=Z,14nm,0.8s
**KURK Kurchatov 63.87 328** *e*P **P** **15 14 40.0 +0.2**
comp=Z,14nm,0.8s
**SEY Seymchan 64.12 13**⇑ *i*P **P** **15 14 44.2 +3.0**
**BRVK Borovoye 69.52 327**⇑ *i*P **P** **15 15 16.1 +0.5**
BRVK pmax pmax
comp=Z,17nm,1.5s
**BRVK Borovoye 69.52 327** *e*P **P** **15 15 15.1 -0.5**
comp=Z,9.8nm,1.0s
**TIXI Tiksi 70.08 1**⇓ *e*P **P** **15 15 19.1 +0.5**
TIXI pmax pmax
comp=Z,6.0nm,1.5s
**TIXI Tiksi 70.08 1** *e*P **P** **15 15 18.1 -0.5**
comp=Z,8.2nm,1.3s
**GEYT Alibeck 72.65 309** P **P** **15 15 35.6 +0.8**
comp=Z,3.1nm,0.7s,baz=132,slow=4.4,SNR=7.7
**ARU Arti 77.07 328** *c i*P **P** **15 15 59.4 -0.4**
ARU 15 18 50.0
ARU S **S** **15 25 36.5 +0.4**
ARU SS **SS** **15 30 33.9 -2.7**
ARU pmax pmax
comp=Z,9.0nm,1.0s
**VNDA Vanda 81.15 173** P **P** **15 16 21.8 +0.3**
comp=Z,3.4nm,0.5s,baz=319,slow=6.6,SNR=31
**VNDA Vanda 81.15 173** *e*P **P** **15 16 21.7 +0.2**
VNDA pmax pmax
comp=Z,10.0nm,1.2s
**VNDA Vanda 81.15 173** *e*P **P** **15 16 21.7 +0.2**
comp=Z,9.7nm,1.2s
**MAK Makhachkala 81.43 313** *e*P P 15 16 27.5 +3.8
MAK *e**PP pP 15 17 03.6 +2.5
MAK *e**SP sP 15 17 20.5 +3.5
MAK *e* 15 19 32.8
MAK *e*S **S** **15 26 27.8 +5.1**
MAK *e**SS sS 15 27 30.0 +2.6
MAK *e*SSS SSS 15 35 11.6
**MAW Mawson 81.81 200** P **P** **15 16 25.9 +0.8**
comp=Z,3.7nm,0.4s,baz=74,slow=8.9,SNR=12
**MAW Mawson 81.81 200** P **P** **15 16 26.3 +1.2**
baz=82,SNR=11
**KDAK Kodiak Island 83.55 32** *i*P **P** **15 16 35.7 +1.3**
**ZEI Tsey 84.06 313** *e*P **P** **15 16 35.2 -2.4**
ZEI pmax pmax
comp=Z,2.0nm,0.7s
**IMAR Indian Mountai 84.21 24** *e*P **P** **15 16 38.0 +0.4**
**PPLA Purkeypile 84.42 27** *e*P **P** **15 16 40.4 +1.5**
**CAST Castle Rocks 84.54 26** *e*P **P** **15 16 39.2 -0.1**
comp=Z,25nm,1.8s
**BRLK Bradley Lake 84.67 30** *e*P **P** **15 16 40.1 +0.1**
comp=Z,24nm,1.2s
**SUA Susitna One 84.92 29** *e*P **P** **15 16 42.1 +0.7**
comp=Z,8.9nm,0.9s
**ARTV Artvin 85.45 311** *e*P **P** **15 16 44.8 +0.2**
comp=Z,15nm,1.5s
**COLD Coldfoot 85.79 23** *e*P **P** **15 16 46.2 +0.8**
comp=Z,14nm,1.7s
**RND Reindeer 85.98 27** *e*P **P** **15 16 46.7 +0.1**
RND pmax pmax
comp=Z,4.0nm,0.6s
**RND Reindeer 85.98 27** *e*P **P** **15 16 46.7 +0.1**
comp=Z,4.4nm,0.6s
**ILAR Eielson Array 86.94 25** P **P** **15 16 50.2 -0.9**
comp=Z,0.6nm,0.6s,baz=241,slow=5.3,SNR=14
**KLMR Klimovskoe 87.58 331** P **P** **15 16 51.7 -2.5**
KLMR pmax pmax
comp=Z,29nm,2.0s
**OBN Obninsk 89.15 325**⇑ *e*P **P** **15 17 00.4 -1.3**
OBN *e* 15 20 32.6
OBN pmax pmax
comp=Z,7.0nm,1.0s
**SYO Syowa Base 90.49 201**⇑ *e*P **P** **15 17 07.2 -0.5**
**ARCES ARCESS Array B 92.70 340** P **P** **15 17 18.8 +0.8**
comp=Z,2.0nm,0.9s,baz=67,slow=6.9,SNR=3.3
**TXAR Lajitas Array 122.60 53** PKP **PKPdf** **15 23 02.5 +0.6**
comp=Z,0.4nm,0.6s,baz=327,slow=1.5,SNR=5.5
**TORD Torodi Ar. Bea 124.02 287** PKKPbc PKKPbc 15 32 51.7 +0.9
comp=Z,0.4nm,0.6s,baz=255,slow=2.6,SNR=4.2
**PLCA Paso Flores 137.75 160** PKP **PKPdf** **15 23 31.8 +1.5**
comp=Z,1.7nm,0.9s,baz=332,slow=1.5,SNR=5.4

*IDC **06** 15:16:09.3±2.5, 16°.99S×171°.81E, h0km, mb3.9/6, mb1 4.1/7, mb1mx3.9/24, mbtmp3.9/7, ML3.5/1, MS3.5/8, Ms1 3.5/8, ms1mx3.3/24, Error ellipse: s-maj=86.6km s-min=27.5km az=135.0*
*ISCJB **06** 15:16:12.0±2.0, 17°.3S±0°.3×172°.0E±0°.4, h33km, mb3.9/6, MS3.5/7, Error ellipse: s-maj=62.5km s-min=19.9km az=39.7*

**ISC 06 15:16:14.2±2.4, 17°2S±0°3×171°9E±0°4, h35km, n16, σ0s57/7, mb3.9/6, MS3.5/7, Vanuatu Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **7.07** | **226** | Pn | **Pn** | | **15 17 54.9** | **-0.4** |
| | 0.9nm,0.3s,baz=77,slow=19,SNR=12 | | | | | | | |
| **RAO** | **Raoul Island** | **15.23** | **144** | LR | LR | | 15 24 25.0 | |
| | comp=Z,259nm,18.2s,baz=10,slow=32 | | | | | | | |
| **URZ** | **Urewera** | **21.50** | **169** | LR | LR | | 15 27 14.1 | |
| | comp=Z,194nm,19.2s,baz=360,slow=31 | | | | | | | |
| **CTA** | **Charters Tower** | **24.45** | **259** | P | **P** | | **15 21 30.4** | **+0.4** |
| | 2.6nm,0.7s,baz=82,slow=12,SNR=4.6 | | | | | | | |
| **PMG** | **Port Moresby** | **25.25** | **285** | LR | LR | | 15 30 17.7 | |
| | comp=Z,105nm,18.9s,baz=29,slow=34 | | | | | | | |
| **STKA** | **Stephens Creek** | **31.07** | **236** | P | **P** | | **15 22 29.9** | **+0.8** |
| | 1.3nm,0.7s,baz=66,slow=12,SNR=2.8 | | | | | | | |
| **WRA** | **Warramunga Arr** | **35.65** | **260** | P | **P** | | **15 23 08.7** | **-0.5** |
| | 0.6nm,0.8s,baz=90,slow=8.8,SNR=7.2 | | | | | | | |
| **ASAR** | **Alice Springs** | **36.09** | **253** | P | **P** | | **15 23 12.8** | **-0.2** |
| | 3.5nm,0.8s,baz=81,slow=8.7,SNR=24 | | | | | | | |
| **TBI** | **Tubuai** | **36.70** | **106** | *e*LR | LR | | 15 33 24.7 | |
| | 85nm,30.0s | | | | | | | |
| **PPT2** | **Papeete2** | **36.74** | **97** | *e*LQ | LQ | | 15 31 51.3 | |
| | 255nm,27.2s | | | | | | | |
| PPT2 | | | | *e*LR | LR | | 15 33 26.6 | |
| | 135nm,27.0s | | | | | | | |
| **PPT** | **Papeete** | **36.74** | **97** | LR | LR | | 15 35 22.9 | |
| | comp=Z,44nm,19.1s,baz=272,slow=31 | | | | | | | |
| **PETK** | **Petropavlovsk-** | **71.06** | **351** | LR | LR | | 15 54 01.5 | |
| | comp=Z,60nm,21.6s,baz=114,slow=32 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **79.99** | **293** | P | **P** | | **15 28 20.5** | **+0.1** |
| | 0.4nm,0.3s,baz=114,slow=4.4,SNR=4.4 | | | | | | | |
| **MAW** | **Mawson** | **81.27** | **202** | LR | LR | | 16 03 04.6 | |
| | comp=Z,23nm,18.2s,baz=48,slow=35 | | | | | | | |
| **ILAR** | **Eielson Array** | **87.54** | **16** | P | **P** | | **15 28 57.9** | **-0.2** |
| | 1.0nm,0.9s,baz=232,slow=4.4,SNR=8.7 | | | | | | | |
| ILAR | | | | LR | LR | | 16 04 44.9 | |
| | comp=Z,46nm,18.7s,baz=266,slow=33 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **97.70** | **27** | LR | LR | | 16 09 49.9 | |
| | comp=Z,6.2nm,18.1s,baz=0.0,slow=33 | | | | | | | |

**IDC 06 15:44:14.6±1.6, 16°20S×176°.19W, h370km±56km, mb3.3/3, mb1 3.6/4, mb1mx3.1/34, mbtmp4.1/4, Error ellipse: s-maj=264.2km s-min=19.7km az=145.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **AFI** | **Afiamalu** | **4.83** | **62** | P | | Pn | 15 45 33.0 | -0.5 |
| | 8.5nm,0.3s,baz=259,slow=5.2,SNR=19 | | | | | | | |
| AFI | | | | S | | S | 15 46 38.3 | +0.9 |
| | 0.9nm,0.3s,baz=210,slow=20,SNR=2.1 | | | | | | | |
| **WRA** | **Warramunga Arr** | **47.05** | **258** | P | | P | 15 52 10.7 | -0.3 |
| | 0.8nm,0.6s,baz=89,slow=6.8,SNR=29 | | | | | | | |
| **ASAR** | **Alice Springs** | **47.31** | **253** | P | | P | 15 52 12.9 | 0.0 |
| | 3.5nm,0.5s,baz=88,slow=7.9,SNR=125 | | | | | | | |
| **ILAR** | **Eielson Array** | **83.76** | **12** | P | | P | 15 56 02.4 | -0.2 |
| | 0.7nm,0.8s,baz=214,slow=5.3,SNR=11 | | | | | | | |
| **BRTR** | **Keskin Array B** | **145.02** | **318** | PKPbc | | PKPdf | 16 03 08.1 | -0.7 |
| | 0.3nm,0.3s,baz=56,slow=3.1,SNR=2.8 | | | | | | | |
| **GERES** | **GERESS Array B** | **146.45** | **348** | PKPbc | | PKPbc | 16 03 12.5 | -0.4 |
| | 0.3nm,0.3s,baz=336,slow=2.2,SNR=3.6 | | | | | | | |

*NSSC **06** 15:45:40.4±1.0, 38°.39N×48°.08E, h136km±301km, ML4.6*

*ATA* ***06*** *15:46:25.0±1.6, 37.°21N×43.°70E, h15km, ML5.1, MW4.9*
*DDA* ***06*** *15:46:25.6, 37.°26N×43.°88E, h3km, Ml4.6*
*IDC* ***06*** *15:46:25.9±0.7, 37.°12N×43.°77E, h0km, mb4.0/17, mb1 4.2/28, mb1mx4.0/60, mbtmp4.1/28, ML3.6/9, MS3.3/21, Ms1 3.3/21, ms1mx3.2/43, Error ellipse: s-maj=12.2km s-min=10.2km az=151.0*
*ISCJB* ***06*** *15:46:26.1±0.5, 37.°13N±0.°01×43.°83E±0.°02, h5km±4km, mb4.1/41, MS3.4/13, Error ellipse: s-maj=2.4km s-min=2.2km az=155.7*
*BJI* ***06*** *15:46:26.8, 37.°10N×43.°80E, h10km, mb4.3/14, mB4.9/4, Ms4.3/4, Ms7 4.3/4*
*ISN* ***06*** *15:46:26.0±1.3, 37.°25N×43.°74E, h0km±5km, ML4.5*
*ISK* ***06*** *15:46:27.3, 37.°20N×43.°74E, h13km, ML4.4*
*TEH* ***06*** *15:46:27.7, 37.°35N×43.°81E, h4km, ML4.5*
*CSEM* ***06*** *15:46:27.4±0.1, 37.°19N×43.°78E, h2km, mb4.3/15, Error ellipse: s-maj=3.1km s-min=2.9km az=168.0*
*NEIC* ***06*** *15:46:27.9±0.0, 37.°24N×43.°71E, h14km, mb4.5/5, ML4.4(ISK), ML4.6(DDA), MN4.5(TEH), After ISK.*
*MOS* ***06*** *15:46:27.6±1.6, 36.°99N×43.°78E, h19km, mb4.1/10, Error ellipse: s-maj=8.1km s-min=4.3km az=97.8*
*DSN* ***06*** *15:46:29.6±1.1, 37.°11N×44.°52E, h15km, mb5.1/1, Error ellipse: s-maj=36.8km s-min=4.4km az=67.0*
*AZER* ***06*** *15:46:31.4±1.7, 37.°33N×44.°02E, h2km, Error ellipse: s-maj=14.1km s-min=8.6km az=67.0*
**ISC 06 15:46:27.0**±0.7, **37.°18N**±0.°02×**43.°79E**±0.°02, **h2**km±4km, **n409**, σ1**§96**/486, **mb4.3**/42, **MS3.4**/13, **37C-41D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HAKT** | **HAKKARI** | **0.39** | **350** | ⇓*i*P | **Pg** | **15 46 32.7** | **-1.8** |
| HAKT | | | | *i* S | **Sg** | **15 46 37.4** | **-2.2** |
| **HAKT** | **HAKKARI** | **0.39** | **350** | P | **Pg** | **15 46 32.7** | **-1.8** |
| HAKT | | | | S | **Sg** | **15 46 37.4** | **-2.2** |
| **YOVA** | **Hakkari_Yˆ…kse** | **0.57** | **44** | ⇑*i*P | **Pg** | **15 46 35.3** | **-2.7** |
| YOVA | | | | *i* S | **Sg** | **15 46 41.9** | **-3.6** |
| **YOVA** | **Hakkari_Yˆ…kse** | **0.57** | **44** | P | **Pg** | **15 46 35.3** | **-2.7** |
| YOVA | | | | S | **Sg** | **15 46 41.9** | **-3.6** |
| **BASK** | **Baskale_VAN** | **0.89** | **11** | *e*P | **Pg** | **15 46 41.2** | **-2.9** |
| BASK | | | | *e*S | **Sb** | **15 46 56.3** | **-1.5** |
| BASK | | | | IAML | | 15 47 00.3 | |
| | comp=Z,1μm,0.5s | | | | | | |
| **BASK** | **Baskale_VAN** | **0.89** | **11** | ⇓*i*P | **Pg** | **15 46 40.6** | **-3.5** |
| BASK | | | | *i* S | **Sg** | **15 46 53.4** | **-2.3** |
| **BASK** | **Baskale_VAN** | **0.89** | **11** | P | **Pg** | **15 46 40.6** | **-3.5** |
| BASK | | | | S | **Sg** | **15 46 53.4** | **-2.3** |
| **MSL** | **Mosul** | **0.95** | **215** | *e*Pg | **Pn** | **15 46 48.0** | **+0.7** |
| | SNR=9.0 | | | | | | |
| **SIRT** | **Sirnak** | **1.12** | **287** | *e*PN | **Pn** | **15 46 48.4** | **-1.4** |
| SIRT | | | | *e*SN | **Sn** | **15 47 03.9** | **-1.9** |
| **SIRT** | **Sirnak** | **1.12** | **287** | *e*Pn | **Pn** | **15 46 48.4** | **-1.4** |
| SIRT | | | | *e*Sn | **Sn** | **15 47 03.9** | **-1.9** |
| **GEVA** | **Gevas** | **1.27** | **333** | *e*P | **Pn** | **15 46 49.3** | **-2.7** |
| GEVA | | | | *e*S | **Sb** | **15 47 06.0** | **-2.7** |
| GEVA | | | | IAML | | 15 47 17.4 | |
| | comp=Z,2μm,0.4s | | | | | | |
| **GEVA** | **Gevas** | **1.27** | **333** | ⇓*i*P | **Pn** | **15 46 49.1** | **-2.8** |
| GEVA | | | | *i* S | **Sb** | **15 47 06.4** | **-2.3** |
| **GEVA** | **Gevas** | **1.27** | **333** | *i* P | **Pn** | **15 46 49.2** | **-2.8** |
| GEVA | | | | S | **Sb** | **15 47 06.4** | **-2.3** |
| **GEVA** | **Gevas** | **1.27** | **333** | *i* P | **Pn** | **15 46 49.2** | **-2.7** |
| **TVAN** | **Van** | **1.38** | **348** | ⇓*i*P | **Pn** | **15 46 50.8** | **-2.7** |
| TVAN | | | | *i* S | **Sg** | **15 47 12.1** | **+0.6** |
| **TVAN** | **Van** | **1.38** | **348** | *i* P | **Pn** | **15 46 50.9** | **-2.6** |
| TVAN | | | | S | **Sg** | **15 47 12.1** | **+0.6** |
| **TVAN** | **Van** | **1.38** | **348** | *i* P | **Pn** | **15 46 50.9** | **-2.6** |
| **VANB** | **Van** | **1.45** | **348** | *e*PN | **Pn** | **15 46 50.5** | **-3.8** |
| VANB | | | | *e*SN | **Sn** | **15 47 10.4** | **-3.6** |
| **VANB** | **Van** | **1.45** | **348** | Pn | **Pn** | **15 46 50.0** | **-4.3** |
| VANB | | | | *e*Sn | **Sn** | **15 47 10.4** | **-3.6** |
| **VANB** | **Van** | **1.45** | **348** | Pn | **Pn** | **15 46 50.0** | **-4.3** |
| **SRTM** | **Siirt_Merkez** | **1.69** | **299** | ⇑*i*P | **Pb** | **15 46 58.1** | **-0.8** |
| SRTM | | | | *i* S | **Sg** | **15 47 23.2** | **+1.9** |
| **SRTM** | **Siirt_Merkez** | **1.69** | **299** | P | **Pb** | **15 46 58.1** | **-0.8** |
| SRTM | | | | S | **Sg** | **15 47 23.2** | **+1.9** |
| **VMUR** | **Van-Muradiye** | **1.82** | **355** | ⇓*i*P | **Pn** | **15 46 58.9** | **-0.6** |
| VMUR | | | | *i* S | **Sg** | **15 47 26.3** | **+0.9** |
| **VMUR** | **Van-Muradiye** | **1.82** | **355** | P | **Pn** | **15 46 58.9** | **-0.6** |
| VMUR | | | | S | **Sg** | **15 47 26.3** | **+0.9** |
| **ISHB** | **Shabestar** | **1.82** | **52** | *e*Pn | **Pn** | **15 46 57.0** | **-2.6** |
| ISHB | | | | *e*AMB | AMB | 15 47 01.5 | |
| | comp=Z,18μm,0.3s | | | | | | |
| **ISHB** | **Shabestar** | **1.82** | **52** | Pn | **Pn** | **15 46 56.9** | **-2.6** |
| **ISHB** | **Shabestar** | **1.82** | **52** | Pn | **Pn** | **15 46 56.9** | **-2.6** |
| **ADCV** | **BITLIS_Adilcev** | **1.83** | **333** | ⇓*i*P | **Pb** | **15 46 60.0** | **-1.3** |
| ADCV | | | | *i* S | **Sg** | **15 47 24.6** | **-1.3** |
| **ADCV** | **BITLIS_Adilcev** | **1.83** | **333** | P | **Pb** | **15 47 00.0** | **-1.3** |
| ADCV | | | | S | **Sg** | **15 47 24.6** | **-1.3** |
| **CLDR** | **Caldiran** | **1.97** | **3** | *e*PN | **Pn** | **15 47 00.9** | **-0.6** |
| **CLDR** | **Caldiran** | **1.97** | **3** | ⇓*i*P | **Pn** | **15 47 00.6** | **-1.0** |
| CLDR | | | | *i* S | **Sb** | **15 47 26.5** | **-2.2** |
| **CLDR** | **Caldiran** | **1.97** | **3** | *e*Pn | **Pn** | **15 47 00.9** | **-0.6** |
| **CLDR** | **Caldiran** | **1.97** | **3** | *i* P | **Pn** | **15 47 01.3** | **-0.2** |
| CLDR | | | | S | **Sb** | **15 47 26.5** | **-2.2** |
| **CLDR** | **Caldiran** | **1.97** | **3** | *i* P | **Pn** | **15 47 01.3** | **-0.2** |
| **BTMN** | **Batman** | **2.12** | **290** | ⇑*i*P | **Pn** | **15 47 03.5** | **-0.1** |
| BTMN | | | | *i* S | **Sg** | **15 47 35.0** | **-0.2** |
| **BTMN** | **Batman** | **2.12** | **290** | P | **Pn** | **15 47 03.5** | **-0.1** |
| BTMN | | | | S | **Sg** | **15 47 35.0** | **-0.2** |
| **ITBZ** | **Tabriz** | **2.15** | **60** | *e*Pn | **Pn** | **15 47 02.6** | **-1.4** |
| ITBZ | | | | *e*AMB | AMB | 15 47 41.5 | |
| | comp=Z,7μm,0.3s | | | | | | |
| **ITBZ** | **Tabriz** | **2.15** | **60** | *e*Pn | **Pn** | **15 47 02.6** | **-1.4** |
| **ITBZ** | **Tabriz** | **2.15** | **60** | Pn | **Pn** | **15 47 02.5** | **-1.4** |
| **IMRD** | **Marand** | **2.16** | **44** | *e*Pn | **Pn** | **15 47 02.9** | **-1.2** |
| IMRD | | | | *e*AMB | AMB | 15 47 43.4 | |
| | comp=Z,18μm,0.3s | | | | | | |
| **IMRD** | **Marand** | **2.16** | **44** | *e*Pn | **Pn** | **15 47 02.9** | **-1.2** |
| **IMRD** | **Marand** | **2.16** | **44** | Pn | **Pn** | **15 47 02.8** | **-1.3** |
| **TUTA** | **Tutak** | **2.35** | **341** | *e*P | **Pb** | **15 47 07.7** | **-2.5** |
| TUTA | | | | IAML | | 15 47 30.1 | |
| | comp=Z,372nm,0.8s | | | | | | |
| TUTA | | | | *e*S | **Sb** | **15 47 39.3** | **-0.4** |
| **TUTA** | **Tutak** | **2.35** | **341** | ⇓*i*P | **Pn** | **15 47 07.4** | **+0.6** |
| TUTA | | | | *i* S | **Sb** | **15 47 39.7** | **0.0** |
| **TUTA** | **Tutak** | **2.35** | **341** | P | **Pn** | **15 47 07.4** | **+0.6** |
| TUTA | | | | S | **Sb** | **15 47 39.7** | **0.0** |
| **DYDN** | **Diyadin** | **2.37** | **358** | *e*P | **Pb** | **15 47 08.3** | **-2.1** |
| DYDN | | | | *e*S | **Sn** | **15 47 29.6** | **-7.1** |
| DYDN | | | | IAML | | 15 47 30.0 | |
| | comp=Z,269nm,0.6s | | | | | | |
| **DYDN** | **Diyadin** | **2.37** | **358** | ⇓*i*P | **Pb** | **15 47 08.6** | **-1.8** |
| DYDN | | | | *i* S | **Sg** | **15 47 47.2** | **+4.2** |
| **DYDN** | **Diyadin** | **2.37** | **358** | P | **Pb** | **15 47 08.6** | **-1.8** |
| DYDN | | | | S | **Sg** | **15 47 47.2** | **+4.2** |
| **MARD** | **Mardin** | **2.41** | **274** | ⇑*i*P | **Pn** | **15 47 08.0** | **+0.5** |
| MARD | | | | *i* S | **Sg** | **15 47 43.1** | **-1.1** |
| **MARD** | **Mardin** | **2.41** | **274** | *e*Pn | **Pn** | **15 47 07.9** | **+0.5** |
| **MARD** | **Mardin** | **2.41** | **274** | *e*Pn | **Pn** | **15 47 07.9** | **+0.5** |
| **NAX** | **Nakhchivan** | **2.41** | **33** | ⇓P | **Pn** | **15 47 08.4** | **+1.0** |
| | SNR=42 | | | | | | |
| NAX | | | | ⇓S | **Sb** | **15 47 39.2** | **-2.0** |
| **NAX** | **Nakhchivan** | **2.41** | **33** | P | **Pn** | **15 47 08.4** | **+1.0** |
| | SNR=42 | | | | | | |
| NAX | | | | S | **Sb** | **15 47 39.2** | **-2.0** |
| **ORD** | **Ordubad** | **2.47** | **44** | P | **Pn** | **15 47 09.1** | **+0.8** |
| ORD | | | | S | **Sn** | **15 47 40.0** | **+1.0** |
| **AGRB** | **Hanur-Agry** | **2.48** | **346** | *e*PN | **Pn** | **15 47 08.4** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **2.48** | **346** | *e*Pn | **Pn** | **15 47 08.4** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **2.48** | **346** | Pn | **Pn** | **15 47 08.4** | **-0.1** |
| **EKAR** | **Karacoban** | **2.48** | **327** | *e*P | **Pn** | **15 47 08.9** | **+0.3** |
| EKAR | | | | *e*S | **Sb** | **15 47 41.3** | **-2.2** |
| EKAR | | | | IAML | | 15 48 05.8 | |
| | comp=Z,308nm,0.5s | | | | | | |
| **EKAR** | **Karacoban** | **2.48** | **327** | *i* P | **Pb** | **15 47 11.0** | **-1.4** |
| EKAR | | | | *i* S | **Sg** | **15 47 46.2** | **-0.5** |
| **EKAR** | **Karacoban** | **2.48** | **327** | P | **Pb** | **15 47 11.0** | **-1.4** |
| EKAR | | | | S | **Sg** | **15 47 46.2** | **-0.5** |
| **IBST** | **Bostanabad** | **2.53** | **77** | *e*AMB | AMB | 15 47 12.7 | |
| | comp=Z,11μm,0.2s | | | | | | |
| IBST | | | | *e*Pn | **Pn** | **15 47 08.9** | **-0.3** |
| IBST | | | | *e*Sg | **Sb** | **15 47 44.4** | **-0.4** |
| **SBZ** | **Shahbuz** | **2.62** | **32** | ⇓P | **Pn** | **15 47 11.7** | **+1.3** |
| SBZ | | | | ⇓S | **Sn** | **15 47 42.2** | **-0.5** |
| **SBZ** | **Shahbuz** | **2.62** | **32** | P | **Pn** | **15 47 11.7** | **+1.3** |
| SBZ | | | | S | **Sn** | **15 47 42.2** | **-0.5** |
| **HYR** | **Heyderabad** | **2.67** | **18** | ⇓P | **Pn** | **15 47 12.5** | **+1.4** |
| HYR | | | | ⇓S | **Sn** | **15 47 44.9** | **+0.8** |
| **HYR** | **Heyderabad** | **2.67** | **18** | P | **Pn** | **15 47 12.5** | **+1.4** |
| HYR | | | | S | **Sn** | **15 47 44.9** | **+0.8** |
| **MAZI** | **Mazidag** | **2.68** | **277** | *e*PN | **Pn** | **15 47 11.1** | **-0.1** |
| **MAZI** | **Mazidag** | **2.68** | **277** | *e*Pn | **Pn** | **15 47 11.1** | **-0.1** |
| **VRTB** | **Varto-Mus** | **2.70** | **318** | *e*PN | **Pn** | **15 47 11.0** | **-0.6** |
| **VRTB** | **Varto-Mus** | **2.70** | **318** | *e*Pn | **Pn** | **15 47 11.0** | **-0.6** |
| **BNGL** | **BINGOL** | **2.73** | **311** | *e*P | **Pn** | **15 47 12.0** | **-0.1** |
| BNGL | | | | *e*S | **Sb** | **15 47 47.1** | **-3.6** |
| BNGL | | | | IAML | | 15 48 15.9 | |
| | comp=Z,2μm,0.6s | | | | | | |
| **BNGL** | **BINGOL** | **2.73** | **311** | ⇑*i*P | **Pn** | **15 47 13.2** | **+1.1** |
| BNGL | | | | *i* S | **Sb** | **15 47 48.7** | **-2.0** |
| **IHRS** | **Heris** | **2.82** | **65** | *e*Pn | **Pn** | **15 47 12.6** | **-0.7** |
| IHRS | | | | *e*AMB | AMB | 15 48 01.0 | |
| | comp=Z,10μm,0.3s | | | | | | |
| **IHRS** | **Heris** | **2.82** | **65** | *e*Pn | **Pn** | **15 47 12.6** | **-0.7** |
| **TASB** | **TASBURUN-IGDIR** | **2.83** | **7** | *e*PN | **Pn** | **15 47 13.2** | **0.0** |
| **TASB** | **TASBURUN-IGDIR** | **2.83** | **7** | *e*Pn | **Pn** | **15 47 13.2** | **0.0** |
| **EATA** | **Eleskirt** | **2.87** | **340** | *e*P | **Pn** | **15 47 15.3** | **+1.3** |
| EATA | | | | *e*S | **Sb** | **15 47 53.7** | **-1.0** |
| EATA | | | | IAML | | 15 48 05.5 | |
| | comp=Z,40nm,0.6s | | | | | | |
| **EATA** | **Eleskirt** | **2.87** | **340** | ⇓*i*P | **Pb** | **15 47 16.5** | **-2.5** |
| **EATA** | **Eleskirt** | **2.87** | **340** | P | **Pb** | **15 47 16.5** | **-2.5** |
| **DIY** | **Diyarbakir** | **2.92** | **285** | *e*Pn | **Pn** | **15 47 15.5** | **+1.0** |
| **DYBB** | **Diyarbakir** | **3.00** | **286** | *e*PN | **Pn** | **15 47 15.5** | **0.0** |
| **BNGB** | **Bingˆ¶l** | **3.05** | **307** | *e*PN | **Pn** | **15 47 16.0** | **-0.3** |
| **GNI** | **Garni** | **3.06** | **14** | Pn | **Pn** | **15 47 17.4** | **+0.9** |
| | comp=Z,6.4nm,0.3s,baz=195,slow=19,SNR=24 | | | | | | |
| GNI | | | | Lg | Lg | 15 48 05.5 | |
| | comp=Z,9.0nm,0.3s,baz=336,slow=20,SNR=3.5 | | | | | | |
| GNI | | | | LR | LR | 15 48 45.2 | |
| | comp=Z,402nm,21.6s,baz=216,slow=45 | | | | | | |
| **GNI** | **Garni** | **3.06** | **14** | *i* P | **Pn** | **15 47 17.3** | **+0.8** |
| | SNR=133 | | | | | | |
| **GNI** | **Garni** | **3.06** | **14** | *de*P | **Pn** | **15 47 18.6** | **+2.1** |
| **GNI** | **Garni** | **3.06** | **14** | P | **Pn** | **15 47 16.9** | **+0.4** |
| GNI | | | | Lg | Lg | 15 48 05.5 | |
| **GNI** | **Garni** | **3.06** | **14** | P | **Pn** | **15 47 16.9** | **+0.4** |
| **GNI** | **Garni** | **3.06** | **14** | Pn | **Pn** | **15 47 16.9** | **+0.4** |
| **BINT** | **Bingol** | **3.11** | **304** | *e*Pn | **Pn** | **15 47 16.0** | **-1.1** |
| **HOMI** | **Horasan** | **3.22** | **333** | *e*P | **Pn** | **15 47 17.7** | **-1.1** |
| HOMI | | | | *e*S | **Sb** | **15 48 03.6** | **-1.2** |
| **DIGO** | **Kars** | **3.25** | **354** | *e*P | **Pn** | **15 47 20.8** | **+1.6** |
| **IDHR** | **Dehrash** | **3.25** | **139** | *e*Pn | **Pn** | **15 47 20.5** | **+1.4** |
| IDHR | | | | *e*AMB | AMB | 15 48 15.9 | |
| | comp=Z,25μm,0.2s | | | | | | |
| **IDHR** | **Dehrash** | **3.25** | **139** | *e*Pn | **Pn** | **15 47 20.5** | **+1.4** |
| **ECAT** | **Cat-ERZURUM** | **3.28** | **319** | *e*P | **Pb** | **15 47 25.2** | **-0.8** |
| ECAT | | | | *e*S | **Sg** | **15 48 12.8** | **+0.4** |
| ECAT | | | | IAML | | 15 48 24.9 | |
| | comp=Z,76nm,0.6s | | | | | | |
| **ERZM** | **Erzurum** | **3.32** | **326** | *e*P | **Pn** | **15 47 22.0** | **+1.8** |
| **YEDI** | **Yedisu-Bingol** | **3.41** | **312** | *e*PN | **Pn** | **15 47 21.2** | **-0.1** |
| **YEDI** | **Yedisu-Bingol** | **3.41** | **312** | *e*Pn | **Pn** | **15 47 21.2** | **-0.1** |
| **ILIN** | **Lien** | **3.42** | **130** | *e*Pn | **Pn** | **15 47 22.5** | **+1.0** |
| ILIN | | | | *e*AMB | AMB | 15 48 26.8 | |
| | comp=Z,20μm,0.6s | | | | | | |
| **ILIN** | **Lien** | **3.42** | **130** | *e*Pn | **Pn** | **15 47 22.5** | **+1.0** |
| **KARS** | **Kars** | **3.49** | **351** | *e*PN | **Pn** | **15 47 22.3** | **-0.1** |
| **KARS** | **Kars** | **3.49** | **351** | P | **Pn** | **15 47 23.5** | **+1.1** |
| **KARS** | **Kars** | **3.49** | **351** | *e*Pn | **Pn** | **15 47 22.3** | **-0.1** |
| **KARS** | **Kars** | **3.49** | **351** | P | **Pn** | **15 47 23.5** | **+1.1** |
| **EAK** | **Akyaka** | **3.51** | **358** | *e*P | **Pb** | **15 47 27.7** | **-2.2** |
| **SENK** | **Senkaya-Erzuru** | **3.56** | **342** | *e*PN | **Pn** | **15 47 23.6** | **+0.2** |
| **SENK** | **Senkaya-Erzuru** | **3.56** | **342** | *e*Pn | **Pn** | **15 47 23.6** | **+0.2** |
| **IVIS** | **Veis** | **3.63** | **136** | *e*Pn | **Pn** | **15 47 25.5** | **+1.2** |
| IVIS | | | | *e*AMB | AMB | 15 48 37.8 | |
| | comp=Z,15μm,0.6s | | | | | | |
| **IVIS** | **Veis** | **3.63** | **136** | *e*Pn | **Pn** | **15 47 25.5** | **+1.2** |
| **IGHG** | **Ghaleghazi** | **3.63** | **141** | *e*Pn | **Pn** | **15 47 26.0** | **+1.6** |
| IGHG | | | | *e*Sg | **Sg** | **15 48 25.3** | **+1.6** |
| IGHG | | | | *e*AMB | AMB | 15 48 48.7 | |
| | comp=Z,20μm,0.4s | | | | | | |
| **IGHG** | **Ghaleghazi** | **3.63** | **141** | *e*Pn | **Pn** | **15 47 26.0** | **+1.6** |
| IGHG | | | | *e*Sg | **Sg** | **15 48 25.3** | **+1.6** |
| **IGHG** | **Ghaleghazi** | **3.63** | **141** | Pn | **Pn** | **15 47 26.0** | **+1.6** |
| IGHG | | | | Sg | **Sg** | **15 48 25.3** | **+1.6** |
| **SVRC** | **Sivrice-ELAZID** | **3.75** | **290** | *e*PN | **Pn** | **15 47 25.3** | **-0.6** |
| **SVRC** | **Sivrice-ELAZID** | **3.75** | **290** | *e*Pn | **Pn** | **15 47 25.3** | **-0.6** |
| **KOPT** | **Kop Dagi** | **3.83** | **319** | *e*P | **Pb** | **15 47 34.7** | **-0.7** |
| KOPT | | | | IAML | | 15 48 18.5 | |
| | comp=Z,58nm,0.6s | | | | | | |
| KOPT | | | | *e*S | Sg | 15 48 38.3 | +8.2 |
| **KOPT** | **Kop Dagi** | **3.83** | **319** | *e*Pn | **Pn** | **15 47 27.7** | **+0.5** |
| **KOPT** | **Kop Dagi** | **3.83** | **319** | *e*Pn | **Pn** | **15 47 27.7** | **+0.5** |
| **GDB** | **GEDABAY** | **3.86** | **23** | ⇑P | **Pn** | **15 47 29.7** | **+2.2** |
| | SNR=24 | | | | | | |
| GDB | | | | ⇑S | **Sn** | **15 48 13.9** | **+0.5** |
| **GDB** | **GEDABAY** | **3.86** | **23** | P | **Pn** | **15 47 29.7** | **+2.2** |
| | SNR=24 | | | | | | |
| GDB | | | | S | **Sn** | **15 48 13.9** | **+0.5** |
| **TNCL** | **Tunceli-Merkez** | **3.87** | **301** | *e*P | **Pg** | **15 47 40.3** | **-0.8** |
| TNCL | | | | *e*S | **Sg** | **15 48 35.4** | **+4.2** |
| TNCL | | | | IAML | | 15 48 53.5 | |
| | comp=Z,94nm,0.6s | | | | | | |
| **PTK** | **Pertek** | **3.87** | **298** | *e*PN | **Pn** | **15 47 27.9** | **+0.3** |
| **PTK** | **Pertek** | **3.87** | **298** | *e*Pn | **Pn** | **15 47 27.9** | **+0.3** |
| **LRK** | **Lerik** | **3.89** | **66** | ⇑P | **Pn** | **15 47 29.6** | **+1.7** |
| | SNR=15 | | | | | | |
| LRK | | | | ⇓S | **Sn** | **15 48 13.5** | **-0.7** |
| **LRK** | **Lerik** | **3.89** | **66** | P | **Pn** | **15 47 29.6** | **+1.7** |
| | SNR=15 | | | | | | |
| LRK | | | | S | **Sn** | **15 48 13.5** | **-0.7** |
| **BHD** | **Baghdad** | **3.93** | **173** | *e*Pn | **Pn** | **15 47 30.0** | **+1.8** |
| | SNR=3.0 | | | | | | |
| BHD | | | | *e*Sn | **Sn** | **15 48 15.0** | **+0.1** |
| | SNR=3.0 | | | | | | |
| **URFA** | **Urfa** | **3.97** | **275** | *e*PN | **Pn** | **15 47 29.0** | **+0.1** |
| **URFA** | **Urfa** | **3.97** | **275** | *e*Pn | **Pn** | **15 47 29.0** | **+0.1** |
| **GANJ** | **Ganja** | **3.99** | **29** | ⇓P | **Pn** | **15 47 30.8** | **+1.7** |
| | SNR=17 | | | | | | |
| GANJ | | | | ⇑S | **Sn** | **15 48 16.9** | **+0.4** |
| **GANJ** | **Ganja** | **3.99** | **29** | P | **Pn** | **15 47 30.8** | **+1.7** |
| | SNR=17 | | | | | | |
| GANJ | | | | S | **Sn** | **15 48 16.9** | **+0.4** |
| **ERZN** | **Erzincan** | **4.00** | **308** | *e*PN | **Pn** | **15 47 29.7** | **+0.3** |
| **BRDA** | **Brd** | **4.07** | **40** | ⇑S | **Sn** | **15 48 18.0** | **-0.3** |
| **BRDA** | **Brd** | **4.07** | **40** | S | **Sn** | **15 48 18.0** | **-0.3** |
| **QZX** | **Qazax, Azerbai** | **4.07** | **17** | ⇓P | **Pn** | **15 47 32.2** | **+2.0** |
| | SNR=13 | | | | | | |
| QZX | | | | ⇑S | **Sn** | **15 48 19.0** | **+0.6** |
| **QZX** | **Qazax, Azerbai** | **4.07** | **17** | P | **Pn** | **15 47 32.2** | **+2.0** |
| | SNR=13 | | | | | | |
| QZX | | | | S | **Sn** | **15 48 19.0** | **+0.6** |
| **EUZM** | **Uzumlu** | **4.09** | **309** | *e*P | **Pg** | **15 47 42.6** | **-2.7** |
| EUZM | | | | *e*S | **Sg** | **15 48 42.6** | **+4.4** |
| EUZM | | | | IAML | | 15 49 11.0 | |
| | comp=Z,26nm,0.6s | | | | | | |
| **GLBA** | **Clilabad** | **4.17** | **59** | ⇑P | **Pn** | **15 47 33.0** | **+1.4** |
| | SNR=9.5 | | | | | | |
| **GLBA** | **Clilabad** | **4.17** | **59** | P | **Pn** | **15 47 33.0** | **+1.4** |
| | SNR=9.5 | | | | | | |
| **ASTR** | **Astara** | **4.19** | **69** | ⇓P | **Pn** | **15 47 32.5** | **+0.6** |
| | SNR=5.3 | | | | | | |
| ASTR | | | | ⇓S | **Sn** | **15 48 21.3** | **-0.1** |
| **ASTR** | **Astara** | **4.19** | **69** | P | **Pn** | **15 47 32.5** | **+0.6** |
| | SNR=5.3 | | | | | | |
| ASTR | | | | S | **Sn** | **15 48 21.3** | **-0.1** |
| **LKRN** | **Lenkeran, Azer** | **4.23** | **67** | ⇑P | **Pn** | **15 47 33.9** | **+1.5** |
| | SNR=9.5 | | | | | | |
| **LKRN** | **Lenkeran, Azer** | **4.23** | **67** | P | **Pn** | **15 47 33.9** | **+1.5** |
| | SNR=9.5 | | | | | | |
| **AKH** | **Akhalkalaki** | **4.23** | **357** | P | **Pb** | **15 47 43.4** | **+1.1** |
| **ARTV** | **Artvin** | **4.25** | **341** | *e*Pn | **Pn** | **15 47 35.5** | **+2.5** |
| **ARTV** | **Artvin** | **4.25** | **341** | *e*Pn | **Pn** | **15 47 35.5** | **+2.5** |
| **IKOM** | **Komasi** | **4.26** | **134** | *e*Pn | **Pn** | **15 47 34.5** | **+1.5** |
| IKOM | | | | *e*AMB | AMB | 15 49 09.8 | |
| | comp=Z,9μm,0.4s | | | | | | |
| **IKOM** | **Komasi** | **4.26** | **134** | *e*Pn | **Pn** | **15 47 34.5** | **+1.5** |
| **EZC** | **Erzincan** | **4.33** | **308** | *e*Pn | **Pn** | **15 47 29.7** | **-4.2** |
| **ZRD** | **Zardab** | **4.34** | **43** | ⇑P | **Pn** | **15 47 34.8** | **+0.8** |
| | SNR=11 | | | | | | |
| ZRD | | | | ⇓S | **Sn** | **15 48 25.0** | **-0.2** |
| **ZRD** | **Zardab** | **4.34** | **43** | P | **Pn** | **15 47 34.8** | **+0.8** |
| | SNR=11 | | | | | | |
| ZRD | | | | S | **Sn** | **15 48 25.0** | **-0.2** |
| **MALT** | **Malatya** | **4.40** | **287** | *e*PN | **Pn** | **15 47 35.3** | **+0.5** |
| **MALT** | **Malatya** | **4.40** | **287** | P | Pb | 15 47 39.6 | -5.4 |
| **MALT** | **Malatya** | **4.40** | **287** | *e*Pn | **Pn** | **15 47 35.3** | **+0.5** |
| **MALT** | **Malatya** | **4.40** | **287** | P | Pb | 15 47 39.6 | -5.4 |
| **MNGR** | **Mingechevir, A** | **4.42** | **35** | ⇓S | **Sn** | **15 48 26.7** | **-0.2** |
| **MNGR** | **Mingechevir, A** | **4.42** | **35** | S | **Sn** | **15 48 26.7** | **-0.2** |
| **TBLG** | **Delisi** | **4.61** | **9** | P | Pn | 15 47 42.3 | +4.7 |
| **TBLG** | **Delisi** | **4.61** | **9** | P | Pn | 15 47 42.3 | +4.7 |
| **KELT** | **Kelkit** | **4.62** | **311** | *e*P | **Pb** | **15 47 51.0** | **+2.1** |
| **DDFL** | **Dedoflistskaro** | **4.63** | **22** | P | **Pb** | **15 47 51.8** | **+2.9** |
| **KEMA** | **Kemaliye** | **4.66** | **298** | *e*P | Pg | 15 47 52.2 | -4.2 |
| KEMA | | | | *e*S | Sg | 15 49 06.5 | +10 |
| KEMA | | | | IAML | | 15 49 28.2 | |
| | comp=Z,7.7nm,0.7s | | | | | | |
| **SLMH** | **Al Salmeh** | **4.81** | **260** | *e*P | **Pn** | **15 47 41.6** | **+1.3** |
| **SEKA** | **Sheki** | **4.82** | **32** | ⇑P | **Pn** | **15 47 42.3** | **+1.7** |
| | SNR=6.3 | | | | | | |
| SEKA | | | | ⇑S | **Sn** | **15 48 38.8** | **+1.8** |
| **SEKA** | **Sheki** | **4.82** | **32** | P | **Pn** | **15 47 42.3** | **+1.7** |
| | SNR=6.3 | | | | | | |
| SEKA | | | | S | **Sn** | **15 48 38.8** | **+1.8** |
| **QBL** | **Gabala** | **4.91** | **39** | ⇑P | **Pn** | **15 47 42.4** | **+0.6** |
| | SNR=3.4 | | | | | | |
| QBL | | | | ⇑S | **Sn** | **15 48 39.6** | **+0.5** |
| **QBL** | **Gabala** | **4.91** | **39** | P | **Pn** | **15 47 42.4** | **+0.6** |
| | SNR=3.4 | | | | | | |
| QBL | | | | S | **Sn** | **15 48 39.6** | **+0.5** |
| **ZKTA** | **Zakatala** | **4.97** | **25** | ⇓P | **Pn** | **15 47 44.5** | **+1.9** |
| **IML** | **Ismayilli** | **4.98** | **42** | ⇑P | **Pn** | **15 47 43.2** | **+0.5** |
| **IML** | **Ismayilli** | **4.98** | **42** | P | **Pn** | **15 47 43.2** | **+0.5** |
| **RTB** | **Rutbah** | **5.03** | **216** | *e*Pn | **Pn** | **15 47 46.0** | **+2.6** |
| | SNR=3.0 | | | | | | |
| RTB | | | | *e*Sn | **Sn** | **15 48 41.0** | **-1.0** |
| | SNR=3.0 | | | | | | |
| **PQL** | **Pirkuli** | **5.20** | **45** | ⇑P | **Pn** | **15 47 47.2** | **+1.3** |
| **PQL** | **Pirkuli** | **5.20** | **45** | P | **Pn** | **15 47 47.2** | **+1.3** |
| **IGZV** | **Ghazvin** | **5.22** | **97** | *e*Pn | **Pn** | **15 47 46.0** | **-0.3** |
| IGZV | | | | *e*AMB | AMB | 15 48 07.0 | |
| | comp=Z,2μm,0.5s | | | | | | |
| **IGZV** | **Ghazvin** | **5.22** | **97** | *e*Pn | **Pn** | **15 47 46.0** | **-0.3** |
| **XNQ** | **Khinaliq** | **5.23** | **39** | ⇑P | **Pn** | **15 47 47.3** | **+0.9** |
| | SNR=3.5 | | | | | | |
| **XNQ** | **Khinaliq** | **5.23** | **39** | P | **Pn** | **15 47 47.3** | **+0.9** |
| | SNR=3.5 | | | | | | |
| **GBS** | **Qobustan** | **5.24** | **49** | ⇑P | **Pn** | **15 47 47.7** | **+1.4** |
| **GBS** | **Qobustan** | **5.24** | **49** | P | **Pn** | **15 47 47.7** | **+1.4** |
| **IRAZ** | **Razeghan** | **5.27** | **108** | *e*Pn | **Pn** | **15 47 47.7** | **+0.8** |
| IRAZ | | | | *e*AMB | AMB | 15 48 12.2 | |
| | comp=Z,2μm,0.4s | | | | | | |
| **IRAZ** | **Razeghan** | **5.27** | **108** | *e*Pn | **Pn** | **15 47 47.7** | **+0.8** |
| **ONI** | **Oni** | **5.41** | **357** | P | **Pn** | **15 47 52.0** | **+3.2** |
| **ONI** | **Oni** | **5.41** | **357** | P | **Pn** | **15 47 51.9** | **+3.2** |
| **ATGJ** | **Altiaghaj** | **5.44** | **46** | ⇑P | **Pn** | **15 47 50.5** | **+1.3** |
| **ATGJ** | **Altiaghaj** | **5.44** | **46** | P | **Pn** | **15 47 50.5** | **+1.3** |
| **QUBA** | **Quba, Azerbaij** | **5.54** | **40** | ⇑P | **Pn** | **15 47 52.0** | **+1.5** |
| **QUBA** | **Quba, Azerbaij** | **5.54** | **40** | P | **Pn** | **15 47 52.0** | **+1.5** |
| **QSAR** | **Qusar** | **5.55** | **37** | ⇓P | **Pn** | **15 47 51.1** | **+0.5** |
| **QSAR** | **Qusar** | **5.55** | **37** | P | **Pn** | **15 47 51.1** | **+0.5** |
| **ZEI** | **Tsey** | **5.61** | **1** | *e*P | **Pn** | **15 47 52.1** | **+0.6** |
| ZEI | | | | pmax | pmax | | |
| | comp=Z,14nm,0.9s | | | | | | |
| **DRWC** | **Darouich** | **5.73** | **267** | *e*P | **Pn** | **15 47 53.2** | **0.0** |
| DRWC | | | | *e*S | **Sg** | **15 49 28.9** | **-2.3** |
| DRWC | | | | AML | AML | 15 49 44.8 | |
| | comp=N,247nm,0.5s | | | | | | |
| DRWC | | | | AML | AML | 15 49 51.6 | |
| | comp=E,448nm,0.5s | | | | | | |
| **KFRA** | **Kufra** | **5.98** | **253** | *e*P | **Pn** | **15 47 57.9** | **+1.3** |
| KFRA | | | | *e*S | **Sg** | **15 49 37.5** | **-1.6** |
| KFRA | | | | AML | AML | 15 49 53.8 | |
| | comp=N,2μm,0.6s | | | | | | |
| KFRA | | | | AML | AML | 15 50 02.4 | |
| | comp=E,673nm,0.7s | | | | | | |
| **BTCH** | **Batrach** | **6.00** | **261** | *e*P | **Pn** | **15 47 57.8** | **+0.9** |
| BTCH | | | | *e*S | **Sg** | **15 49 37.3** | **-2.5** |
| BTCH | | | | AML | AML | 15 49 54.3 | |
| | comp=E,1μm,0.6s | | | | | | |
| BTCH | | | | AML | AML | 15 50 04.6 | |
| | comp=N,959nm,0.8s | | | | | | |
| **ROOS** | **tl_alroos** | **6.08** | **242** | *e*P | **Pn** | **15 47 59.5** | **+1.5** |
| ROOS | | | | *e*S | **Sg** | **15 49 39.4** | **-2.9** |
| ROOS | | | | AML | AML | 15 50 01.4 | |
| | comp=E,435nm,0.6s | | | | | | |
| ROOS | | | | AML | AML | 15 50 04.9 | |
| | comp=N,536nm,0.6s | | | | | | |
| **NEY** | **Neytrino** | **6.12** | **353** | ⇓*e*P | **Pn** | **15 48 02.0** | **+3.5** |
| **GROC** | **Groznyy** | **6.21** | **14** | *e*P | Pn | 15 48 05.9 | +6.3 |
| GROC | | | | *e*S | Sb | 15 49 19.9 | -11 |
| GROC | | | | pmax | pmax | | |
| | comp=Z,42nm,1.4s | | | | | | |
| GROC | | | | pmax | pmax | | |
| | comp=Z,51nm,1.4s | | | | | | |
| GROC | | | | smax | smax | | |
| | comp=E,125nm,2.2s | | | | | | |
| GROC | | | | smax | smax | | |
| | comp=E,44nm,1.0s | | | | | | |
| **NCK** | **Nalchik** | **6.31** | **359** | ⇓*e*P | **Pn** | **15 48 02.6** | **+1.5** |
| **NCK** | **Nalchik** | **6.31** | **359** | *e*P | **Pn** | **15 48 02.6** | **+1.5** |
| **ARNB** | **Al Arnab** | **6.43** | **261** | *e*P | **Pn** | **15 48 03.4** | **+0.7** |
| ARNB | | | | *e*S | **Sg** | **15 49 47.9** | **-5.6** |
| ARNB | | | | AML | AML | 15 50 06.7 | |
| | comp=E,541nm,0.6s | | | | | | |
| ARNB | | | | AML | AML | 15 50 10.3 | |
| | comp=N,258nm,0.6s | | | | | | |
| **MAK** | **Makhachkala** | **6.44** | **25** | *e*P | Pn | 15 48 08.0 | +5.2 |
| MAK | | | | *e*S | **Sn** | **15 49 24.6** | **+7.8** |
| MAK | | | | pmax | pmax | | |
| | comp=Z,127nm,0.9s | | | | | | |
| MAK | | | | MLR | MLR | | |
| | comp=Z,189nm,11.0s | | | | | | |
| **HAWK** | **Haweek** | **6.55** | **248** | *e*P | **Pn** | **15 48 05.6** | **+1.2** |
| HAWK | | | | *e*S | **Sg** | **15 49 52.0** | **-5.4** |
| HAWK | | | | AML | AML | 15 50 18.3 | |
| | comp=E,135nm,0.7s | | | | | | |
| HAWK | | | | AML | AML | 15 50 20.4 | |
| | comp=N,216nm,0.6s | | | | | | |
| **KBZ** | **Khabaz** | **6.58** | **354** | Pn | **Pn** | **15 48 07.2** | **+2.5** |
| | comp=N,0.2nm,0.3s,baz=174,slow=12,SNR=14 | | | | | | |
| KBZ | | | | LR | LR | 15 51 05.0 | |
| | comp=N,376nm,20.0s,baz=176,slow=42 | | | | | | |
| **FKH** | **Fakeheh** | **6.68** | **246** | *e*P | **Pn** | **15 48 07.4** | **+1.3** |
| **FKH** | **Fakeheh** | **6.68** | **246** | *e*P | **Pn** | **15 48 07.4** | **+1.3** |
| **MARH** | **Ras Al Marh** | **6.73** | **244** | *e*P | **Pn** | **15 48 09.4** | **+2.3** |
| MARH | | | | *e*S | **Sg** | **15 49 55.9** | **-7.3** |
| MARH | | | | AML | AML | 15 50 15.2 | |
| | comp=E,276nm,0.5s | | | | | | |
| MARH | | | | AML | AML | 15 50 22.7 | |
| | comp=N,218nm,0.7s | | | | | | |
| **KIV** | **Kislovodsk** | **6.82** | **353** | *i* P | **Pn** | **15 48 11.9** | **+3.8** |
| | SNR=5.9 | | | | | | |
| **KIV** | **Kislovodsk** | **6.82** | **353** | *e*P | Pn | 15 48 13.8 | +5.7 |
| KIV | | | | pmax | pmax | | |
| | comp=Z,61nm,1.1s | | | | | | |
| KIV | | | | MLR | MLR | | |
| | comp=Z,63nm,7.0s | | | | | | |
| **KIV** | **Kislovodsk** | **6.82** | **353** | *e*Pn | **Pn** | **15 48 11.6** | **+3.5** |
| **KVAR** | **Kislovodsk Arr** | **6.82** | **353** | Pn | **Pn** | **15 48 10.9** | **+2.7** |
| | baz=162,slow=9.6,SNR=19 | | | | | | |
| KVAR | | | | LR | LR | 15 51 12.9 | |
| | comp=Z,350nm,21.8s,baz=178,slow=42 | | | | | | |
| **IDMV** | **Damavand** | **6.84** | **101** | *e*AMB | AMB | 15 48 36.3 | |
| | comp=Z,670nm,0.3s | | | | | | |
| IDMV | | | | *e*Pn | **Pn** | **15 48 09.2** | **+0.6** |
| **HWQ** | **Hawqa** | **7.00** | **248** | *e*P | **Pn** | **15 48 12.2** | **+1.6** |
| **HWQ** | **Hawqa** | **7.00** | **248** | *e*P | **Pn** | **15 48 12.2** | **+1.6** |
| **TOTH** | **TOTAH** | **7.12** | **240** | *e*P | **Pn** | **15 48 14.2** | **+2.0** |
| TOTH | | | | *e*S | **Sb** | **15 50 04.2** | **+7.4** |
| TOTH | | | | AML | AML | 15 50 26.4 | |
| | comp=N,178nm,0.7s | | | | | | |
| TOTH | | | | AML | AML | 15 50 47.1 | |
| | comp=E,114nm,0.8s | | | | | | |
| **SALA** | **Sala** | **7.31** | **235** | *e*P | **Pn** | **15 48 15.6** | **+0.7** |
| SALA | | | | *e*S | **Sb** | **15 50 08.2** | **+5.9** |
| SALA | | | | AML | AML | 15 50 31.4 | |
| | comp=N,362nm,0.6s | | | | | | |
| SALA | | | | AML | AML | 15 50 37.8 | |
| | comp=E,28nm,0.6s | | | | | | |
| **IPIR** | **Pirpir** | **7.36** | **125** | *e*Pn | **Pn** | **15 48 15.6** | **-0.1** |
| IPIR | | | | *e*AMB | AMB | 15 49 47.4 | |
| | comp=Z,1μm,0.3s | | | | | | |
| **IPIR** | **Pirpir** | **7.36** | **125** | *e*Pn | **Pn** | **15 48 15.6** | **-0.1** |
| **BHL** | **Bhannes** | **7.39** | **246** | *e*P | **Pn** | **15 48 18.8** | **+2.9** |
| **BRBR** | **Barbar** | **7.43** | **242** | *e*P | **Pn** | **15 48 17.7** | **+1.2** |
| BRBR | | | | *e*S | **Sb** | **15 50 11.6** | **+5.8** |
| BRBR | | | | AML | AML | 15 50 43.3 | |
| | comp=N,186nm,0.7s | | | | | | |
| BRBR | | | | AML | AML | 15 50 44.6 | |
| | comp=E,171nm,0.6s | | | | | | |
| **IKLH** | **Kolahrood** | **7.45** | **119** | *e*Pn | **Pn** | **15 48 18.2** | **+1.4** |
| IKLH | | | | *e*AMB | AMB | 15 50 40.6 | |
| | comp=Z,1μm,0.8s | | | | | | |
| **IKLH** | **Kolahrood** | **7.45** | **119** | *e*Pn | **Pn** | **15 48 18.2** | **+1.4** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| **RCY** | **Rachaya** | **7.46** | **243** | *e*P | **Pn** | **15 48 19.5** | **+2.5** |
| **DQRL** | **Deir Qamar** | **7.55** | **245** | *e*P | **Pn** | **15 48 17.4** | **-0.7** |
| **DQRL** | **Deir Qamar** | **7.55** | **245** | *e*P | **Pn** | **15 48 17.4** | **-0.7** |
| **ASF** | **Jabal al Asfar** | **7.56** | **231** | Pn | **Pn** | **15 48 18.6** | **+0.4** |
| | comp=Z,1.2nm,0.3s,baz=358,slow=9.5,SNR=8.6 | | | | | | |
| ASF | | | | Lg | Lg | 15 50 24.5 | |
| | comp=Z,2.5nm,0.3s,baz=197,slow=19,SNR=3.2 | | | | | | |
| **SHBL** | **Chebaa** | **7.61** | **242** | *e*P | **Pn** | **15 48 20.7** | **+1.8** |
| **SHBL** | **Chebaa** | **7.61** | **242** | *e*P | **Pn** | **15 48 20.7** | **+1.8** |
| **TCHB** | **Talchebab** | **7.84** | **237** | *e*P | **Pn** | **15 48 23.5** | **+1.5** |
| TCHB | | | | *e*S | **Sb** | **15 50 20.1** | **+2.7** |
| TCHB | | | | AML | AML | 15 50 50.8 | |
| | comp=E,264nm,0.6s | | | | | | |
| TCHB | | | | AML | AML | 15 50 53.4 | |
| | comp=N,142nm,0.6s | | | | | | |
| **GOF** | **Gofitskoye** | **7.89** | **356**⇑ | *e*P | Pn | 15 48 28.8 | +6.1 |
| GOF | | | | pmax | pmax | | |
| | comp=Z,65nm,1.3s | | | | | | |
| **MMAI** | **Mount Meron Ar** | **8.03** | **241** | Pn | **Pn** | **15 48 25.9** | **+1.2** |
| | comp=Z,3.0nm,0.3s,baz=66,slow=15,SNR=11 | | | | | | |
| MMAI | | | | Lg | Lg | 15 50 41.5 | |
| | comp=Z,4.0nm,0.3s,baz=51,slow=35,SNR=3.2 | | | | | | |
| **BR131** | **Keskin Array S** | **8.36** | **291** | *e*Pn | **Pn** | **15 48 30.0** | **+0.7** |
| **BR131** | **Keskin Array S** | **8.36** | **291** | *e*Pn | **Pn** | **15 48 30.0** | **+0.7** |
| **BRTR** | **Keskin Array B** | **8.36** | **291** | Pn | **Pn** | **15 48 29.4** | **+0.2** |
| | comp=Z,0.5nm,0.3s,baz=116,slow=13,SNR=9.3 | | | | | | |
| **BRTR** | **Keskin Array B** | **8.36** | **291** | *i* P | **Pn** | **15 48 30.0** | **+0.7** |
| BRTR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.3s | | | | | | |
| **BRTR** | **Keskin Array B** | **8.36** | **291** | *i* P | **Pn** | **15 48 30.0** | **+0.7** |
| | comp=Z,1.0nm,0.3s | | | | | | |
| **ANN** | **Anapa** | **9.00** | **330** | *e*P | **Pn** | **15 48 38.3** | **+0.4** |
| ANN | | | | *e*S | **Sn** | **15 50 20.4** | **+0.6** |
| ANN | | | | pmax | pmax | | |
| | comp=Z,97nm,1.2s | | | | | | |
| **ANN** | **Anapa** | **9.00** | **330** | *e*P | **Pn** | **15 48 38.3** | **+0.4** |
| | comp=Z,97nm,1.2s | | | | | | |
| ANN | | | | *e*S | **Sn** | **15 50 20.4** | **+0.6** |
| **EIL** | **Elat** | **10.51** | **227** | Pn | **Pn** | **15 49 00.7** | **+2.0** |
| | comp=Z,0.2nm,0.3s,baz=43,slow=18,SNR=2.1 | | | | | | |
| EIL | | | | Lg | Lg | 15 51 59.0 | |
| | comp=Z,1.4nm,0.3s,baz=186,slow=18,SNR=3.5 | | | | | | |
| **GEYT** | **Alibeck** | **11.40** | **82** | Pn | **Pn** | **15 49 10.2** | **-0.7** |
| | comp=Z,0.5nm,0.3s,baz=291,slow=14,SNR=8.3 | | | | | | |
| GEYT | | | | LR | LR | 15 55 16.6 | |
| | comp=Z,173nm,18.6s,baz=330,slow=46 | | | | | | |
| **RAYN** | **Ar Rayn** | **13.69** | **173** | *e*Pn | **Pn** | **15 49 37.9** | **-4.2** |
| **VRH** | **Novokhopyorsk** | **14.10** | **355** | *e*P | **Pn** | **15 49 48.3** | **+0.7** |
| VRH | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.3s | | | | | | |
| **VRH** | **Novokhopyorsk** | **14.10** | **355** | *e*P | **Pn** | **15 49 48.3** | **+0.7** |
| | comp=Z,10.0nm,1.3s | | | | | | |
| **VSR** | **Storozhevoye** | **14.42** | **348** | *e*P | **Pn** | **15 49 53.4** | **+1.5** |
| VSR | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.3s | | | | | | |
| **IDI** | **Anoyia** | **15.37** | **269** | Pn | **Pn** | **15 50 04.4** | **-0.6** |
| | comp=Z,0.2nm,0.3s,baz=83,slow=14,SNR=2.4 | | | | | | |
| IDI | | | | LR | LR | 15 57 55.2 | |
| | comp=Z,52nm,20.6s,baz=98,slow=45 | | | | | | |
| **BANOM** | **Banah** | **15.46** | **133** | P | **Pn** | **15 50 01.1** | **-5.1** |
| **BANOM** | **Banah** | **15.46** | **133** | P | **Pn** | **15 50 01.5** | **-4.7** |
| **BANOM** | **Banah** | **15.46** | **133** | Pn | **Pn** | **15 50 01.5** | **-4.7** |
| **SORM** | **Soroca** | **15.74** | **319**⇑ | *i*P | **P** | **15 50 14.8** | **+1.1** |
| **SORM** | **Soroca** | **15.74** | **319** | ⇑P | **P** | **15 50 14.8** | **+1.1** |
| **SORM** | **Soroca** | **15.74** | **319** | P | **P** | **15 50 14.8** | **+1.1** |
| **MLR** | **Muntele Rosu** | **15.74** | **307** | Pn | **P** | **15 50 12.5** | **-1.5** |
| | comp=Z,0.0nm,0.3s,baz=124,slow=18,SNR=3.6 | | | | | | |
| MLR | | | | LR | LR | 15 57 20.5 | |
| | comp=Z,40nm,18.0s,baz=125,slow=42 | | | | | | |
| **TESR** | **Tescani** | **15.79** | **312**⇑ | *i*P | **P** | **15 50 15.3** | **+1.0** |
| **TESR** | **Tescani** | **15.79** | **312**⇑ | *i*P | **P** | **15 50 15.3** | **+1.0** |
| **LPSR** | **Galich'ya Gora** | **15.80** | **349** | *e*P | **P** | **15 50 12.1** | **-2.2** |
| LPSR | | | | pmax | pmax | | |
| | comp=Z,40nm,1.6s | | | | | | |
| **NAZ** | **Nazwa, Dubai** | **15.83** | **137** | *i* P | **Pn** | **15 50 06.4** | **-4.5** |
| | SNR=9.0 | | | | | | |
| **NAZ** | **Nazwa, Dubai** | **15.83** | **137** | P | **Pn** | **15 50 07.2** | **-3.7** |
| **NAZ** | **Nazwa, Dubai** | **15.83** | **137** | Pn | **Pn** | **15 50 07.2** | **-3.7** |
| **FAQ** | **Al Faqa, Dubai** | **15.98** | **138** | *i* P | **Pn** | **15 50 10.1** | **-2.8** |
| | SNR=7.1 | | | | | | |
| **UOSS** | **Minazif** | **16.16** | **135** | *e*Pn | **Pn** | **15 50 09.0** | **-6.2** |
| | comp=Z,39nm,0.6s | | | | | | |
| **HATD** | **Hatta, Dubai** | **16.21** | **136** | P | **Pn** | **15 50 11.4** | **-4.5** |
| **HATD** | **Hatta, Dubai** | **16.21** | **136** | P | **Pn** | **15 50 12.3** | **-3.7** |
| **HATD** | **Hatta, Dubai** | **16.21** | **136** | Pn | **Pn** | **15 50 12.3** | **-3.7** |
| **VOIR** | | **16.29** | **306**⇓ | *i*P | **P** | **15 50 22.6** | **+2.6** |
| **VOIR** | | **16.29** | **306** | ⇓P | **P** | **15 50 22.6** | **+2.6** |
| **VOIR** | | **16.29** | **306** | P | **P** | **15 50 22.6** | **+2.6** |
| **DOPR** | **Dopca** | **16.30** | **308**⇑ | *i*P | **P** | **15 50 21.0** | **+1.0** |
| **DOPR** | **Dopca** | **16.30** | **308**⇑ | *i*P | **P** | **15 50 21.0** | **+1.0** |
| **VTS** | **Vitosha** | **16.68** | **295**⇓ | *i*P | **P** | **15 50 24.1** | **-0.3** |
| **VTS** | **Vitosha** | **16.68** | **295** | P | **P** | **15 50 24.1** | **-0.3** |
| **VTS** | **Vitosha** | **16.68** | **295** | P | **P** | **15 50 24.1** | **-0.3** |
| **AKTO** | **Aktyubinsk** | **16.73** | **33** | Pn | **Pn** | **15 50 22.3** | **0.0** |
| | comp=Z,0.8nm,0.3s,baz=216,slow=8.8,SNR=16 | | | | | | |
| AKTO | | | | LR | LR | 15 57 21.7 | |
| | comp=Z,51nm,20.6s,baz=243,slow=39 | | | | | | |
| **AKASG** | **Malin Array Be** | **17.07** | **327** | P | **Pn** | **15 50 26.2** | **-0.3** |
| | comp=Z,0.5nm,0.3s,baz=133,slow=12,SNR=12 | | | | | | |
| AKASG | | | | LR | LR | 15 59 00.1 | |
| | comp=Z,74nm,20.3s,baz=135,slow=44 | | | | | | |
| **AKASG** | **Malin Array Be** | **17.07** | **327***c* | *e*P | **P** | **15 50 29.6** | **+1.2** |
| AKASG | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.8s | | | | | | |
| **AKASG** | **Malin Array Be** | **17.07** | **327** | *e*P | **P** | **15 50 29.6** | **+1.2** |
| | comp=Z,4.0nm,0.8s | | | | | | |
| **KIEV** | **Kiev** | **17.07** | **327**⇓ | *e*P | **P** | **15 50 28.7** | **+0.3** |
| **KIEV** | **Kiev** | **17.07** | **327** | *e*P | **P** | **15 50 28.7** | **+0.3** |
| **AK11** | **Malin Array Si** | **17.07** | **327** | *e*Pn | **P** | **15 50 28.6** | **+0.1** |
| **AK11** | **Malin Array Si** | **17.07** | **327** | *e*Pn | **P** | **15 50 28.6** | **+0.1** |
| **BURAR** | **Bucovina Array** | **17.19** | **313**⇓ | *i*P | **P** | **15 50 30.4** | **+0.5** |
| **BURAR** | **Bucovina Array** | **17.19** | **313** | ⇓P | **P** | **15 50 30.4** | **+0.5** |
| **BURAR** | **Bucovina Array** | **17.19** | **313**⇓ | *i*P | **P** | **15 50 30.4** | **+0.5** |
| **BUR04** | **Bucovina Ar. S** | **17.19** | **313** | *e*Pn | **P** | **15 50 28.6** | **-1.4** |
| **BUR04** | **Bucovina Ar. S** | **17.19** | **313** | *e*Pn | **P** | **15 50 28.6** | **-1.4** |
| **MDVR** | **Moldovita** | **18.28** | **301**⇑ | *i*P | **P** | **15 50 43.7** | **+1.8** |
| **MDVR** | **Moldovita** | **18.28** | **301**⇑ | *i*P | **P** | **15 50 43.7** | **+1.8** |
| **BZS** | **Buzias** | **18.61** | **304**⇓ | *i*P | **Pn** | **15 50 47.3** | **+1.7** |
| **BZS** | **Buzias** | **18.61** | **304** | P | **Pn** | **15 50 47.3** | **+1.7** |
| **BZS** | **Buzias** | **18.61** | **304** | P | **Pn** | **15 50 47.3** | **+1.7** |
| **OBN** | **Obninsk** | **18.61** | **347** | *e*P | **Pn** | **15 50 46.6** | **+1.1** |
| OBN | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.6s | | | | | | |
| OBN | | | | MLR | MLR | | |
| | comp=Z,32nm,6.0s | | | | | | |
| **OBN** | **Obninsk** | **18.61** | **347** | *e*P | **Pn** | **15 50 46.6** | **+1.1** |
| | comp=Z,32nm,6.0s | | | | | | |
| **SIRR** | **Siria** | **18.80** | **306**⇓ | *i*P | **Pn** | **15 50 49.7** | **+1.7** |
| **SIRR** | **Siria** | **18.80** | **306**⇓ | *i*P | **Pn** | **15 50 49.7** | **+1.7** |
| **WSAR** | **Wadi Sarin** | **18.87** | **133** | P | **P** | **15 50 45.8** | **-2.8** |
| | comp=Z,1.6nm,0.3s,baz=307,slow=11,SNR=15 | | | | | | |
| WSAR | | | | LR | LR | 15 59 10.2 | |
| | comp=Z,163nm,19.3s,baz=332,slow=41 | | | | | | |
| **CRVS** | **Cervenica-Dubn** | **20.01** | **313** | *e*P | **Pn** | **15 51 02.2** | **-0.3** |
| **CRVS** | **Cervenica-Dubn** | **20.01** | **313** | *e*P | **Pn** | **15 51 02.2** | **-0.3** |
| **CRVS** | **Cervenica-Dubn** | **20.01** | **313** | *e*P | **Pn** | **15 51 02.2** | **-0.3** |
| **STHS** | **Stebnicka Huta** | **20.38** | **314** | *e*P | Pn | 15 51 11.6 | +4.8 |
| STHS | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.1s | | | | | | |
| **STHS** | **Stebnicka Huta** | **20.38** | **314** | *e*P | Pn | 15 51 11.6 | +4.8 |
| **KBL** | **Kabul** | **20.62** | **90** | *e*P | **P** | **15 51 07.4** | **-0.4** |
| KBL | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.2s | | | | | | |
| **KBL** | **Kabul** | **20.62** | **90** | *e*P | **P** | **15 51 07.4** | **-0.4** |
| | comp=Z,8.8nm,1.2s | | | | | | |
| **KBL** | **Kabul** | **20.62** | **90** | *e*P | **P** | **15 51 07.4** | **-0.4** |
| | comp=Z,8.8nm,1.2s | | | | | | |
| **NIE** | **Niedzica** | **20.92** | **313** | *e*Pg | **P** | **15 51 06.4** | **-4.4** |
| NIE | | | | *e*Sg | **P** | **15 51 07.9** | **-2.9** |
| **NIE** | **Niedzica** | **20.92** | **313** | *e*P | **P** | **15 51 06.4** | **-4.4** |
| **WHFO** | **Wadi Hawf** | **21.10** | **153** | P | **P** | **15 51 11.0** | **-1.9** |
| **WHFO** | **Wadi Hawf** | **21.10** | **153** | P | **P** | **15 51 11.0** | **-1.9** |
| **WHFO** | **Wadi Hawf** | **21.10** | **153** | P | **P** | **15 51 11.0** | **-1.9** |
| **ARU** | **Arti** | **21.66** | **23** | P | **P** | **15 51 17.8** | **-0.8** |
| | comp=Z,7.1nm,0.6s,baz=233,slow=6.9,SNR=14 | | | | | | |
| **ARU** | **Arti** | **21.66** | **23***c* | *i*P | **P** | **15 51 19.9** | **+1.3** |
| ARU | | | | | | 15 51 39.0 | |
| ARU | | | | S | **S** | **15 55 20.8** | **+1.9** |
| **ARU** | **Arti** | **21.66** | **23** | *i* P | **P** | **15 51 19.9** | **+1.3** |
| ARU | | | | S | **S** | **15 55 20.8** | **+1.9** |
| **ARU** | **Arti** | **21.66** | **23** | *e*P | **P** | **15 51 16.7** | **-1.9** |
| | comp=Z,13nm,0.8s | | | | | | |
| **SHAO** | **Shalim** | **21.74** | **148** | P | **P** | **15 51 17.3** | **-2.4** |
| | SNR=10 | | | | | | |
| **SHAO** | **Shalim** | **21.74** | **148** | P | **P** | **15 51 17.3** | **-2.4** |
| | SNR=10 | | | | | | |
| **SHAO** | **Shalim** | **21.74** | **148** | P | **P** | **15 51 17.3** | **-2.4** |
| | SNR=10 | | | | | | |
| **SVE** | **Sverdlovsk** | **22.65** | **24** | *e*P | **P** | **15 51 33.2** | **+4.0** |
| **CONA** | **Conrad Observa** | **23.09** | **307** | *i* pP | **P** | **15 51 37.4** | **+3.5** |
| | comp=Z,4.5nm,1.1s | | | | | | |
| **VRAC** | **Vranov** | **23.09** | **310** | P | **P** | **15 51 33.0** | **-0.8** |
| | comp=Z,1.8nm,0.4s,baz=114,slow=12,SNR=2.8 | | | | | | |
| VRAC | | | | LR | LR | 16 00 44.1 | |
| | comp=Z,78nm,18.7s,baz=134,slow=37 | | | | | | |
| **ARSA** | **Arzberg** | **23.11** | **305** | *i* P | **P** | **15 51 35.2** | **+1.1** |
| | comp=Z,3.8nm,1.1s | | | | | | |
| **ARSA** | **Arzberg** | **23.11** | **305** | P | **P** | **15 51 35.2** | **+1.1** |
| | comp=Z,3.8nm,1.1s | | | | | | |
| **SOKA** | **Soboth** | **23.29** | **303** | *i* P | **P** | **15 51 37.2** | **+1.1** |
| | comp=Z,6.5nm,1.2s | | | | | | |
| **SOKA** | **Soboth** | **23.29** | **303** | P | **P** | **15 51 37.2** | **+1.1** |
| | comp=Z,6.5nm,1.2s | | | | | | |
| **DPC** | **Dobruska-Polom** | **23.65** | **313** | *e*P | **P** | **15 51 43.3** | **+3.8** |
| DPC | | | | *e*x | x | 15 51 47.9 | |
| **DPC** | **Dobruska-Polom** | **23.65** | **313** | *e*P | **P** | **15 51 43.3** | **+3.8** |
| DPC | | | | *e* | | 15 51 47.9 | |
| **KLMR** | **Klimovskoe** | **23.85** | **355** | *e*P | **P** | **15 51 37.5** | **-3.8** |
| KLMR | | | | pmax | pmax | | |
| | comp=Z,25nm,1.5s | | | | | | |
| **VSU** | **Vasula** | **24.04** | **338**⇓ | *e*P | **P** | **15 51 45.3** | **+2.2** |
| VSU | | | | pmax | pmax | | |
| | comp=Z,138nm,2.6s | | | | | | |
| **VSU** | **Vasula** | **24.04** | **338** | *e*P | **P** | **15 51 45.3** | **+2.2** |
| | comp=Z,138nm,2.6s | | | | | | |
| **MOA** | **Molln** | **24.09** | **306** | *i* P | **P** | **15 51 44.5** | **+0.7** |
| | comp=Z,5.5nm,1.1s | | | | | | |
| **MOA** | **Molln** | **24.09** | **306** | P | **P** | **15 51 44.5** | **+0.7** |
| | comp=Z,5.5nm,1.1s | | | | | | |
| **AAK** | **Ala-Archa** | **24.10** | **67** | P | **P** | **15 51 46.1** | **+2.0** |
| | comp=Z,0.6nm,0.5s,baz=278,slow=13,SNR=3.1 | | | | | | |
| AAK | | | | LR | LR | 16 03 20.4 | |
| | comp=Z,53nm,21.3s,baz=258,slow=42 | | | | | | |
| **AAK** | **Ala-Archa** | **24.10** | **67**⇑ | *e*P | **P** | **15 51 47.5** | **+3.4** |
| AAK | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.6s | | | | | | |
| **MYKA** | **Terra Mystica** | **24.22** | **302** | *i* P | **P** | **15 51 45.8** | **+0.8** |
| | comp=Z,8.6nm,0.8s | | | | | | |
| **MYKA** | **Terra Mystica** | **24.22** | **302** | P | **P** | **15 51 45.8** | **+0.8** |
| | comp=Z,8.6nm,0.8s | | | | | | |
| **BRVK** | **Borovoye** | **24.33** | **41**⇓ | *e*P | **P** | **15 51 48.7** | **+2.8** |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,13nm,3.5s | | | | | | |
| **BRVK** | **Borovoye** | **24.33** | **41** | *e*P | **P** | **15 51 48.0** | **+2.1** |
| | comp=Z,12nm,0.7s | | | | | | |
| **BVAR** | **Borovoye Array** | **24.37** | **41** | P | **P** | **15 51 47.9** | **+1.6** |
| | comp=Z,0.8nm,0.7s,baz=246,slow=11,SNR=3.7 | | | | | | |
| **KBA** | **Koelnbreinsper** | **24.51** | **303** | *i* P | **P** | **15 51 48.0** | **+0.2** |
| | comp=Z,11nm,0.9s | | | | | | |
| **KBA** | **Koelnbreinsper** | **24.51** | **303** | P | **P** | **15 51 48.0** | **+0.2** |
| | comp=Z,11nm,0.9s | | | | | | |
| **PRU** | **Pruhonice** | **24.58** | **311** | *e*P | **P** | **15 51 49.0** | **+0.8** |
| **PRU** | **Pruhonice** | **24.58** | **311** | *e*P | **P** | **15 51 49.0** | **+0.8** |
| **PRU** | **Pruhonice** | **24.58** | **311** | P | **P** | **15 51 49.0** | **+0.8** |
| **GEA0** | **GERESS Array S** | **24.73** | **308** | *e*P | **P** | **15 51 48.1** | **-1.6** |
| **GERES** | **GERESS Array B** | **24.73** | **308** | P | **P** | **15 51 49.0** | **-0.7** |
| | comp=Z,1.3nm,0.6s,baz=105,slow=8.4,SNR=11 | | | | | | |
| GERES | | | | LR | LR | 16 02 40.4 | |
| | comp=Z,70nm,19.6s,baz=96,slow=39 | | | | | | |
| **GERES** | **GERESS Array B** | **24.73** | **308** | P | **P** | **15 51 49.0** | **-0.7** |
| **KHC** | **Kasperske Hory** | **24.89** | **308** | *e*P | **P** | **15 51 51.0** | **-0.1** |
| KHC | | | | *e*pP | **sP** | **15 51 54.1** | **+2.0** |
| **KHC** | **Kasperske Hory** | **24.89** | **308** | *e*P | **P** | **15 51 51.0** | **-0.1** |
| KHC | | | | *e* | | 15 51 54.1 | |
| **KHC** | **Kasperske Hory** | **24.89** | **308** | P | **P** | **15 51 51.0** | **-0.1** |
| **ABTA** | **Abfaltersbach** | **25.00** | **302** | *i* P | **P** | **15 51 52.2** | **0.0** |
| | comp=Z,8.8nm,1.0s | | | | | | |
| **ABTA** | **Abfaltersbach** | **25.00** | **302** | P | **P** | **15 51 52.2** | **0.0** |
| | comp=Z,8.8nm,1.0s | | | | | | |
| **BRG** | **Berggiesshubel** | **25.25** | **312** | *e*P | P | 15 52 00.2 | +6.0 |
| | comp=Z,2.5nm,0.6s | | | | | | |
| **BRG** | **Berggiesshubel** | **25.25** | **312** | *e*P | P | 15 52 00.2 | +6.0 |
| BRG | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.6s | | | | | | |
| **KSH** | **Kashi** | **25.28** | **75** | P | **P** | **15 51 53.3** | **-1.5** |
| KSH | | | | pP | pP | 15 51 56.6 | +1.1 |
| KSH | | | | PP | **PnPn** | **15 52 30.7** | **+1.9** |
| KSH | | | | PcP | **PcP** | **15 55 30.0** | **+2.1** |
| KSH | | | | S | **S** | **15 56 13.7** | **-7.7** |
| KSH | | | | SS | **SnSn** | **15 57 12.6** | **+1.0** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.9s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,190nm,5.1s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,130nm,4.5s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,80nm,6.1s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,270nm,5.7s | | | | | | |
| **ATD** | **Arta Tunnel** | **25.55** | **182** | LR | LR | 16 01 24.8 | |
| | comp=Z,58nm,20.1s,baz=34,slow=35 | | | | | | |
| **WTTA** | **Wattenberg** | **25.69** | **303** | *i* P | **P** | **15 51 58.2** | **-0.3** |
| | comp=Z,3.9nm,0.5s | | | | | | |
| **WTTA** | **Wattenberg** | **25.69** | **303** | P | **P** | **15 51 58.2** | **-0.3** |
| | comp=Z,3.9nm,0.5s | | | | | | |
| **WATA** | **Walderalm** | **25.75** | **303** | *i* P | **P** | **15 51 58.0** | **-1.0** |
| | comp=Z,4.2nm,0.6s | | | | | | |
| **WATA** | **Walderalm** | **25.75** | **303** | P | **P** | **15 51 58.0** | **-1.0** |
| | comp=Z,4.2nm,0.6s | | | | | | |
| **CLL** | **Collm** | **25.96** | **313** | *e*P | **P** | **15 52 00.0** | **-0.6** |
| **CLL** | **Collm** | **25.96** | **313** | *e*P | **P** | **15 52 00.0** | **-0.6** |
| CLL | | | | *e* | | 15 52 09.0 | |
| **CLL** | **Collm** | **25.96** | **313** | *e*P | **P** | **15 52 00.0** | **-0.6** |
| **MOTA** | **Moosalm** | **26.06** | **303** | *i* P | **P** | **15 52 00.6** | **-1.2** |
| | comp=Z,5.5nm,0.6s | | | | | | |
| **MOTA** | **Moosalm** | **26.06** | **303** | P | **P** | **15 52 00.6** | **-1.2** |
| | comp=Z,5.5nm,0.6s | | | | | | |
| **FETA** | **Feichten** | **26.25** | **302** | *i* P | **P** | **15 52 02.8** | **-0.8** |
| | comp=Z,7.0nm,0.8s | | | | | | |
| **FETA** | **Feichten** | **26.25** | **302** | P | **P** | **15 52 02.8** | **-0.8** |
| | comp=Z,7.0nm,0.8s | | | | | | |
| **RETA** | **Reutte** | **26.32** | **304** | *i* pP | **P** | **15 52 05.8** | **+1.8** |
| | comp=Z,2.2nm,0.5s | | | | | | |
| **RETA** | **Reutte** | **26.32** | **304** | P | **P** | **15 52 05.8** | **+1.8** |
| | comp=Z,2.2nm,0.5s | | | | | | |
| **FINES** | **FINESS Array B** | **26.71** | **341** | P | **P** | **15 52 06.2** | **-1.1** |
| | comp=Z,6.1nm,0.9s,baz=159,slow=9.5,SNR=11 | | | | | | |
| FINES | | | | LR | LR | 16 04 32.8 | |
| | comp=Z,100nm,18.0s,baz=112,slow=41 | | | | | | |
| **DAVOX** | **Davos/Dischmat** | **26.79** | **302** | P | **P** | **15 52 07.1** | **-1.4** |
| | comp=Z,5.8nm,0.8s,baz=94,slow=9.6,SNR=5.1 | | | | | | |
| DAVOX | | | | LR | LR | 16 02 43.5 | |
| | comp=Z,70nm,20.6s,baz=88,slow=36 | | | | | | |
| **DAVA** | **Damuels** | **26.87** | **303** | *i* P | **P** | **15 52 08.2** | **-1.0** |
| | comp=Z,7.9nm,0.5s | | | | | | |
| **DAVA** | **Damuels** | **26.87** | **303** | P | **P** | **15 52 08.2** | **-1.0** |
| | comp=Z,7.9nm,0.5s | | | | | | |
| **KEST** | **Kesra** | **27.65** | **278** | P | **P** | **15 52 17.0** | **+0.8** |
| | comp=Z,6.4nm,0.8s,baz=278,slow=7.5,SNR=4.8 | | | | | | |
| **KEST** | **Kesra** | **27.65** | **278** | P | **P** | **15 52 17.0** | **+0.8** |
| **KURBB** | **Kurchatov Arra** | **28.13** | **50** | P | **P** | **15 52 20.7** | **+0.5** |
| | comp=Z,0.4nm,0.4s,baz=255,slow=9.5,SNR=3.0 | | | | | | |
| **KURK** | **Kurchatov** | **28.21** | **50** | P | **P** | **15 52 20.7** | **-0.2** |
| **KURK** | **Kurchatov** | **28.21** | **50** | P | **P** | **15 52 20.7** | **-0.2** |
| **KURK** | **Kurchatov** | **28.21** | **50** | P | **P** | **15 52 20.7** | **-0.2** |
| **HFS** | **Hagfors** | **29.91** | **330** | P | **P** | **15 52 35.5** | **-0.4** |
| | comp=Z,2.7nm,0.8s,baz=123,slow=12,SNR=2.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **29.93** | **59** | P | **P** | **15 52 35.6** | **-0.6** |
| | comp=Z,0.7nm,0.7s,baz=258,slow=9.3,SNR=4.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **29.93** | **59** | *i* P | **P** | **15 52 38.5** | **+2.2** |
| MKAR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.7s | | | | | | |
| **WMQ** | **Urumqi** | **33.73** | **65** | P | **P** | **15 53 11.3** | **+1.6** |
| WMQ | | | | pP | sP | 15 53 15.7 | +4.9 |
| WMQ | | | | sP | pP | 15 53 21.5 | +11 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,16nm,0.8s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,110nm,20.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,130nm,18.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,95nm,20.1s | | | | | | |
| **PYUN** | **Piuthan** | **34.03** | **94** | *e*P | **P** | **15 53 12.4** | **-0.3** |
| **DANN** | **Dangsing** | **34.54** | **93** | *e*P | **P** | **15 53 16.9** | **-0.3** |
| **KOLN** | **Koldanda** | **34.66** | **94** | *e*P | **P** | **15 53 17.7** | **-0.4** |
| **DMN** | **Daman** | **35.93** | **93** | *e*P | **P** | **15 53 28.9** | **-0.2** |
| | comp=Z,40nm,1.2s | | | | | | |
| **KKN** | **Kakani** | **35.99** | **93** | *e*P | **P** | **15 53 28.9** | **-0.7** |
| **PKIN** | **Phulchoki** | **36.18** | **93** | *e*P | **P** | **15 53 30.7** | **-0.6** |
| | comp=Z,10.0nm,0.9s | | | | | | |
| **PKI** | **Pulchoki** | **36.19** | **93** | *e*P | **P** | **15 53 30.8** | **-0.6** |
| | comp=Z,18nm,1.1s | | | | | | |
| **GUN** | **Gumba** | **36.42** | **92** | *e*P | **P** | **15 53 32.9** | **-0.5** |
| | comp=Z,40nm,1.1s | | | | | | |
| **JIRN** | **Jiri** | **36.77** | **92** | *e*P | **P** | **15 53 36.1** | **-0.4** |
| | comp=Z,56nm,0.5s | | | | | | |
| **ESDC** | **Sonseca Array** | **37.15** | **289** | P | **P** | **15 53 38.1** | **-1.1** |
| | comp=Z,0.8nm,0.5s,baz=66,slow=8.5,SNR=11 | | | | | | |
| **RAMN** | **Ramite** | **37.41** | **93** | *e*P | **P** | **15 53 41.2** | **-0.6** |
| | comp=Z,23nm,0.7s | | | | | | |
| **ODAN** | **Odare** | **38.09** | **93** | *e*P | **P** | **15 53 47.2** | **-0.2** |
| | comp=Z,37nm,1.0s | | | | | | |
| **TAPN** | **Taplejung** | **38.12** | **92** | *e*P | **P** | **15 53 47.3** | **-0.5** |
| | comp=Z,22nm,1.0s | | | | | | |
| **KMBO** | **Kilima Mbogo** | **38.59** | **191** | LR | LR | 16 09 05.3 | |
| | comp=Z,105nm,18.5s,baz=94,slow=35 | | | | | | |
| **GTA** | **Gaotai** | **43.43** | **69** | *e*P | **P** | **15 54 32.8** | **+1.5** |
| GTA | | | | pP | sP | 15 54 37.4 | +5.0 |
| GTA | | | | sP | pP | 15 54 39.9 | +7.8 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.2s | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **44.49** | **249** | P | **P** | **15 54 38.2** | **-1.7** |
| | comp=Z,0.5nm,0.8s,baz=50,slow=8.1,SNR=3.9 | | | | | | |
| **SONM** | **Songino Array** | **46.19** | **56** | P | **P** | **15 54 52.5** | **-0.8** |
| | comp=Z,0.5nm,0.6s,baz=266,slow=11,SNR=2.8 | | | | | | |
| SONM | | | | LR | LR | 16 16 45.9 | |
| | comp=Z,78nm,18.8s,baz=258,slow=39 | | | | | | |
| **ULN** | **Ulaanbaatar** | **46.62** | **56**⇑ | *e*P | **P** | **15 55 00.1** | **+3.4** |
| ULN | | | | pmax | pmax | | |
| | comp=Z,10.0nm,3.3s | | | | | | |
| **KMI** | **Kunming** | **51.14** | **86** | P | **P** | **15 55 32.6** | **+0.9** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.8s | | | | | | |
| **CHTO** | **Chiang Mai** | **51.31** | **95** | *e*P | **P** | **15 55 31.7** | **-1.1** |
| CHTO | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.8s | | | | | | |
| **CHTO** | **Chiang Mai** | **51.31** | **95** | *e*P | **P** | **15 55 31.7** | **-1.1** |
| | comp=Z,4.1nm,0.8s | | | | | | |
| **CHTO** | **Chiang Mai** | **51.31** | **95** | *e*P | **P** | **15 55 31.7** | **-1.1** |
| | comp=Z,4.1nm,0.8s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **51.50** | **95** | P | **P** | **15 55 33.2** | **-1.0** |
| | comp=Z,1.7nm,0.7s,baz=297,slow=9.1,SNR=12 | | | | | | |
| CMAR | | | | LR | LR | 16 21 45.5 | |
| | comp=Z,40nm,18.0s,baz=214,slow=41 | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **51.60** | **64** | *e*P | **P** | **15 55 34.4** | **-0.4** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,12nm,1.3s | | | | | | |
| **NJ2** | **Nanjing** | **60.49** | **71** | *e*P | **P** | **15 56 38.8** | **+0.4** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| **KLR** | **Kul'dur** | **61.77** | **48** | LR | LR | 16 24 40.0 | |
| | comp=Z,6.0nm,18.9s,baz=65,slow=37 | | | | | | |
| **KSAR** | **Wonju Array Be** | **64.56** | **61** | P | **P** | **15 57 05.0** | **-0.6** |
| **KSAR** | **Wonju Array Be** | **64.56** | **61** | P | **P** | **15 57 05.0** | **-0.6** |
| **KSAR** | **Wonju Array Be** | **64.56** | **61** | P | **P** | **15 57 05.0** | **-0.6** |
| **KSRS** | **Korea Array** | **64.58** | **61** | P | **P** | **15 57 05.0** | **-0.7** |
| | comp=Z,0.7nm,0.5s,baz=298,slow=7.1,SNR=4.1 | | | | | | |
| **KSRS** | **Korea Array** | **64.58** | **61** | P | **P** | **15 57 05.0** | **-0.7** |
| KSRS | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.5s | | | | | | |
| **KSRS** | **Korea Array** | **64.58** | **61** | P | **P** | **15 57 05.0** | **-0.7** |
| | comp=Z,1.0nm,0.5s | | | | | | |
| **SEY** | **Seymchan** | **65.26** | **29** | P | **P** | **15 57 09.8** | **+0.1** |
| | comp=Z,2.2nm,0.7s,baz=279,slow=5.8,SNR=8.0 | | | | | | |
| **SEY** | **Seymchan** | **65.26** | **29**⇓ | *e*P | **P** | **15 57 12.6** | **+2.9** |
| **BOSA** | **Boshof** | **67.72** | **198** | P | **P** | **15 57 25.1** | **-0.8** |
| | comp=Z,1.7nm,0.6s,baz=4.7,slow=5.7,SNR=4.3 | | | | | | |
| BOSA | | | | LR | LR | 16 26 49.3 | |
| | comp=Z,46nm,18.9s,baz=15,slow=36 | | | | | | |
| **PDAR** | **Pinedale Array** | **96.81** | **341** | LR | LR | 16 44 00.1 | |
| | comp=Z,29nm,18.5s,baz=5.5,slow=36 | | | | | | |

*IDC **06** 15:46:55.0±1.2, 36°.82N×141°.45E, h0$^{km}$, mb3.4/4, mb1 3.6/5, mb1mx3.3/58, mbtmp3.3/5, ML2.5/1, MS2.7/2, Ms1 2.7/2, ms1mx2.5/26, Error ellipse: s-maj=27.1km s-min=26.1km az=100.0*

*ISCJB **06** 15:46:55.1±2.3, 36°.82N±0°.05×141°.52E±0°.07, h15$^{km}$±15$^{km}$, mb3.4/4, MS3.2/1, Error ellipse: s-maj=9.5km s-min=7.8km az=152.5*

*JMA **06** 15:46:56.6±0.1, 36°.84N×141°.42E, h36$^{km}$±1$^{km}$, M3.2*

**ISC 06 15:46:55.9**±3.9**, 36°.87N**±0°.06×**141°.40E**±0°.08**, h8**$^{km}$±25$^{km}$**, n18,** σ1ˢ.**18**/17**, mb3.5**/4**, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ONAJ** | **Iwakimizuishiy** | **0.53** | **296** | P | Pb | 15 47 07.7 | +0.1 |
| ONAJ | | | | S | **Sb** | **15 47 15.8** | **+0.4** |
| **JFK** | **Kawauchi** | **0.65** | **320** | P | **Pb** | **15 47 09.5** | **-0.1** |
| JFK | | | | S | **Sb** | **15 47 19.6** | **+0.8** |
| **JHO** | **Hitachi** | **0.71** | **249** | P | **Pb** | **15 47 10.1** | **-0.4** |
| JHO | | | | S | **Sb** | **15 47 19.9** | **-0.6** |
| **JFT** | **Otama** | **1.07** | **308** | P | **Pb** | **15 47 16.8** | **+0.1** |
| JFT | | | | S | **Sb** | **15 47 31.1** | **+0.3** |
| **JMM** | **Marumori** | **1.11** | **335** | P | **Pn** | **15 47 16.5** | **-1.3** |
| JMM | | | | S | **Sb** | **15 47 31.7** | **-0.3** |
| **MJAR** | **Matsushiro Arr** | **2.58** | **264** | Pn | **Pn** | **15 47 38.5** | **+0.5** |
| | 1.0nm,0.3s,baz=88,slow=15,SNR=9.1 | | | | | | |
| MJAR | | | | Sn | **Sn** | **15 48 11.3** | **+1.7** |
| | 2.5nm,0.3s,baz=82,slow=15,SNR=6.2 | | | | | | |
| MJAR | | | | LR | LR | 15 48 45.5 | |
| | comp=Z,54nm,20.5s,baz=80,slow=43 | | | | | | |
| **MAT** | **Matsushiro** | **2.58** | **264** | P | **Pn** | **15 47 38.8** | **+0.8** |
| MAT | | | | S | **Sn** | **15 48 06.4** | **-3.3** |
| **H11N2** | **WAKE ISLAND Hy** | **28.07** | **120** | T | T | 16 22 09.3 | |
| | baz=313,slow=75,SNR=86 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.08** | **121** | T | T | 16 22 08.6 | |
| | baz=313,slow=75,SNR=66 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.09** | **120** | T | T | 16 22 10.7 | |
| | baz=313,slow=75,SNR=66 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.78** | **123** | T | T | 16 23 00.4 | |
| | baz=315,slow=76,SNR=42 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.78** | **123** | T | T | 16 22 59.5 | |
| | baz=315,slow=76,SNR=26 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.80** | **123** | T | T | 16 23 01.7 | |
| | baz=315,slow=76,SNR=23 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.20** | **302** | P | **P** | **15 55 05.8** | **+0.5** |
| | 0.6nm,0.8s,baz=94,slow=10.0,SNR=3.1 | | | | | | |
| **HNR** | **Honiara** | **49.24** | **156** | LR | LR | 16 12 10.1 | |
| | comp=Z,27nm,21.2s,baz=132,slow=31 | | | | | | |
| **ILAR** | **Eielson Array** | **49.65** | **32** | P | **P** | **15 55 48.0** | **+0.4** |
| | 0.4nm,0.8s,baz=270,slow=7.3,SNR=5.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **56.89** | **188** | P | **P** | **15 56 41.0** | **-0.4** |
| | 0.3nm,0.4s,baz=5.9,slow=7.3,SNR=8.0 | | | | | | |
| **ASAR** | **Alice Springs** | **60.62** | **188** | P | **P** | **15 57 07.7** | **+0.4** |
| | 0.1nm,0.6s,baz=15,slow=7.7,SNR=3.9 | | | | | | |

**IDC 06 16:03:39.9**±4.0**, 20°.38S**×**168°.44E, h0**$^{km}$**, mb3.5**/2**, mb1 3.8**/3**, mb1mx3.4**/35**, mbtmp3.5**/3**, ML3.2**/1**, MS3.5**/5**, Ms1 3.4**/5**, ms1mx3.1**/21**, Error ellipse: s-maj=112.7km s-min=33.2km az=130.0, Loyalty Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **2.51** | **228** | Pn | Pn | 16 04 21.7 | -0.4 |
| | 5.0nm,0.3s,baz=61,slow=19,SNR=291 | | | | | | |
| DZM | | | | Sn | Sn | 16 04 53.2 | -0.3 |
| | 32nm,0.3s,baz=167,slow=23,SNR=13 | | | | | | |
| **AFI** | **Afiamalu** | **19.96** | **74** | LR | LR | 16 13 58.1 | |
| | comp=Z,94nm,20.3s,baz=300,slow=31 | | | | | | |
| **STKA** | **Stephens Creek** | **26.61** | **239** | LR | LR | 16 18 30.3 | |
| | comp=Z,63nm,21.5s,baz=21,slow=34 | | | | | | |
| **WRA** | **Warramunga Arr** | **31.98** | **265** | P | P | 16 10 08.0 | -0.1 |
| | 0.3nm,0.7s,baz=91,slow=8.5,SNR=3.6 | | | | | | |
| **ASAR** | **Alice Springs** | **32.14** | **258** | P | P | 16 10 09.9 | +0.5 |
| | 1.0nm,0.7s,baz=84,slow=9.0,SNR=16 | | | | | | |
| ASAR | | | | LR | LR | 16 24 14.8 | |
| | comp=Z,126nm,18.2s,baz=88,slow=38 | | | | | | |
| **PPT** | **Papeete** | **39.73** | **93** | LR | LR | 16 26 09.7 | |
| | comp=Z,77nm,18.6s,baz=327,slow=34 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **40.39** | **266** | LR | LR | 16 27 55.0 | |
| | comp=Z,56nm,19.6s,baz=90,slow=36 | | | | | | |
| **GERES** | **GERESS Array B** | **145.12** | **330** | PKPbc | PKPbc | 16 23 17.9 | -1.1 |
| | 0.2nm,0.3s,baz=45,slow=2.9,SNR=3.2 | | | | | | |

**IDC 06 16:22:36.8**±2.2**, 18°.46N**×**121°.88E, h0**$^{km}$**, mb3.6**/4**, mb1 3.7**/4**, mb1mx3.3**/32**, mbtmp3.6**/4**, Error ellipse: s-maj=280.9km s-min=28.2km az=66.0, Luzon**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 40.07 | 162 | P | P | 16 30 12.8 | -1.3 |
| | 0.5nm,0.5s,baz=343,slow=9.1,SNR=10.0 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 42.41 | 83 | T | T | 17 15 06.8 | |
| | baz=280,slow=75,SNR=6.6 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 42.42 | 83 | T | T | 17 15 05.3 | |
| | baz=280,slow=75,SNR=9.9 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 42.43 | 83 | T | T | 17 15 06.3 | |
| | baz=280,slow=75,SNR=6.4 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 42.46 | 81 | T | T | 17 15 06.5 | |
| | baz=278,slow=75,SNR=10 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 42.47 | 81 | T | T | 17 15 06.6 | |
| | baz=278,slow=75,SNR=8.7 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 42.48 | 81 | T | T | 17 15 07.6 | |
| | baz=278,slow=75,SNR=7.6 | | | | | | |
| ASAR | Alice Springs | 43.48 | 164 | P | P | 16 30 41.9 | -0.2 |
| | 0.3nm,0.6s,baz=352,slow=8.9,SNR=13 | | | | | | |
| ZALV | Zalesovo Beam | 45.45 | 330 | P | P | 16 30 57.1 | -0.3 |
| | 0.4nm,0.3s,baz=129,slow=8.1,SNR=2.2 | | | | | | |
| STKA | Stephens Creek | 53.50 | 159 | P | P | 16 32 00.9 | +1.8 |
| | 0.8nm,0.7s,baz=326,slow=15,SNR=1.3 | | | | | | |

*ATA **06** 16:33:20.4±0.5, 38.°51N×43.°32E, h10km±81km, ML3.5, MW3.3*
*DDA **06** 16:33:21.0, 38.°49N×43.°32E, h5km, Ml3.3*
*ISK **06** 16:33:20.7, 38.°48N×43.°36E, h5km, MD2.8*
*CSEM **06** 16:33:21.1±0.2, 38.°47N×43.°36E, h5km, ML3.3, Error ellipse: s-maj=3.9km s-min=3.1km az=88.0*
*ISCJB **06** 16:33:21.5±0.4, 38.°47N±0.°02×43.°36E±0.°03, h7km±3km, Error ellipse: s-maj=4.6km s-min=3.7km az=9.2*
*IASPEI **06** 16:33:21.7±1.0, 38.°48N±0.°02×43.°34E±0.°02, h5km±7km, Error ellipse: s-maj=3.4km s-min=2.9km az=106.4, GT5 selection from ISC bulletin GT5 identified by Bondˆ¡r and McLaughlin (2009) selection criteria Bondˆ¡r and McLaughlin, A new ground truth data set for seismic studies, <i>Seism. Res. Let.</i>, <b>80</b>, 465-472, 2009*
**ISC 06 16:33:21.5±0.9, 38.°49N±0.°02×43.°36E±0.°02, h5km±6km, n50, σ0.s94/76, 1C-2D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TVAN | Van | 0.06 | 44 | iP | Pg | 16 33 23.1 | 0.0 |
| TVAN | | | | iS | Sg | 16 33 25.3 | +1.0 |
| TVAN | Van | 0.06 | 44 | P | Pg | 16 33 23.1 | 0.0 |
| TVAN | | | | S | Sg | 16 33 25.3 | +1.0 |
| VANB | Van | 0.11 | 14 | ePG | Pg | 16 33 22.5 | -1.4 |
| VANB | Van | 0.11 | 14 | ePg | Pg | 16 33 22.5 | -1.4 |
| GEVA | Gevas | 0.29 | 233 | ⇑iP | Pg | 16 33 26.7 | -0.5 |
| GEVA | | | | eS | Sg | 16 33 31.8 | +0.7 |
| GEVA | | | | IAML | | 16 33 35.7 | |
| | comp=Z,399nm,0.4s | | | | | | |
| GEVA | Gevas | 0.29 | 233 | iP | Pg | 16 33 26.7 | -0.5 |
| GEVA | | | | iS | Sg | 16 33 32.0 | +0.9 |
| GEVA | Gevas | 0.29 | 233 | P | Pg | 16 33 26.7 | -0.5 |
| GEVA | | | | S | Sg | 16 33 32.0 | +0.9 |
| VMUR | Van-Muradiye | 0.53 | 19 | iP | Pb | 16 33 32.4 | -1.1 |
| VMUR | | | | iS | Sb | 16 33 41.5 | +0.1 |
| VMUR | Van-Muradiye | 0.53 | 19 | P | Pb | 16 33 32.3 | -1.1 |
| VMUR | | | | S | Sb | 16 33 41.5 | +0.1 |
| ERCV | ERCIS-VAN | 0.53 | 358 | ePG | Pg | 16 33 31.6 | -0.2 |
| ERCV | | | | eSG | Sb | 16 33 39.7 | -1.8 |
| ERCV | ERCIS-VAN | 0.53 | 358 | ePg | Pg | 16 33 31.6 | -0.2 |
| ERCV | | | | eSg | Sb | 16 33 39.7 | -1.8 |
| ADCV | BITLIS_Adilcev | 0.59 | 303 | iP | Pg | 16 33 32.6 | -0.2 |
| ADCV | | | | iS | Sb | 16 33 42.5 | -0.7 |
| ADCV | BITLIS_Adilcev | 0.59 | 303 | P | Pg | 16 33 32.7 | -0.2 |
| ADCV | | | | S | Sb | 16 33 42.5 | -0.7 |
| BASK | Baskale_VAN | 0.67 | 130 | eP | Pb | 16 33 34.9 | -0.9 |
| BASK | | | | eS | Sb | 16 33 45.5 | -0.1 |
| BASK | | | | IAML | | 16 33 52.6 | |
| | comp=Z,147nm,0.4s | | | | | | |
| BASK | Baskale_VAN | 0.67 | 130 | iP | Pg | 16 33 34.5 | +0.1 |
| BASK | | | | iS | Sb | 16 33 44.5 | -1.0 |
| BASK | Baskale_VAN | 0.67 | 130 | P | Pg | 16 33 34.5 | +0.1 |
| BASK | | | | S | Sb | 16 33 44.5 | -1.0 |
| CLDR | Caldiran | 0.79 | 34 | ePG | Pg | 16 33 36.5 | -0.2 |
| CLDR | | | | eSG | Sb | 16 33 48.0 | -1.0 |
| CLDR | Caldiran | 0.79 | 34 | iP | Pb | 16 33 37.0 | -0.9 |
| CLDR | | | | iS | Sb | 16 33 49.0 | 0.0 |
| CLDR | Caldiran | 0.79 | 34 | ePg | Pg | 16 33 36.5 | -0.2 |
| CLDR | Caldiran | 0.79 | 34 | P | Pb | 16 33 37.0 | -0.9 |
| CLDR | | | | eSg | Sb | 16 33 48.0 | -1.0 |
| CLDR | | | | S | Sb | 16 33 49.0 | 0.0 |
| HAKT | HAKKARI | 0.97 | 163 | iP | Pg | 16 33 39.5 | -0.6 |
| HAKT | | | | iS | Sn | 16 33 57.0 | +0.8 |
| HAKT | HAKKARI | 0.97 | 163 | P | Pg | 16 33 39.5 | -0.6 |
| TUTA | Tutak | 1.01 | 335 | ⇓iP | Pg | 16 33 39.6 | -1.2 |
| TUTA | | | | eS | Sb | 16 33 54.4 | -0.8 |
| TUTA | | | | IAML | | 16 33 58.0 | |
| | comp=Z,131nm,0.2s | | | | | | |
| TUTA | Tutak | 1.01 | 335 | iP | Pg | 16 33 39.7 | -1.2 |
| TUTA | | | | iS | Sb | 16 33 54.7 | -0.5 |
| TUTA | Tutak | 1.01 | 335 | P | Pg | 16 33 39.7 | -1.2 |
| TUTA | | | | S | Sb | 16 33 54.7 | -0.5 |
| AGRB | Hanur-Agry | 1.12 | 345 | ePN | Pg | 16 33 42.4 | -0.7 |
| AGRB | Hanur-Agry | 1.12 | 345 | ePn | Pg | 16 33 42.4 | -0.7 |
| YOVA | Hakkari_Yˆ…kse | 1.16 | 140 | iP | Pg | 16 33 43.4 | -0.4 |
| YOVA | | | | iS | Sn | 16 34 02.2 | +1.2 |
| YOVA | Hakkari_Yˆ…kse | 1.16 | 140 | P | Pg | 16 33 43.4 | -0.4 |
| SIRT | Sirnak | 1.22 | 217 | ePN | Pg | 16 33 44.4 | -0.6 |
| SIRT | Sirnak | 1.22 | 217 | ePn | Pg | 16 33 44.4 | -0.6 |
| SRTM | Siirt_Merkez | 1.23 | 247 | iP | Pn | 16 33 45.1 | -0.4 |
| SRTM | Siirt_Merkez | 1.23 | 247 | P | Pn | 16 33 45.1 | -0.4 |
| CUKT | Cukurca | 1.25 | 171 | ePN | Pg | 16 33 44.7 | -0.9 |
| CUKT | Cukurca | 1.25 | 171 | ePn | Pg | 16 33 44.7 | -0.9 |
| EKAR | Karacoban | 1.27 | 308 | iP | Pb | 16 33 45.5 | -0.5 |
| EKAR | | | | iS | Sn | 16 34 07.6 | +3.9 |
| EKAR | Karacoban | 1.27 | 308 | P | Pb | 16 33 45.5 | -0.5 |
| EATA | Eleskirt | 1.53 | 334 | ⇓eP | Pn | 16 33 49.3 | -0.5 |
| EATA | | | | IAML | | 16 34 15.4 | |
| | comp=Z,13nm,0.5s | | | | | | |
| EATA | Eleskirt | 1.53 | 334 | iP | Pn | 16 33 49.1 | -0.7 |
| EATA | | | | iS | Sg | 16 34 12.3 | +1.6 |
| EATA | Eleskirt | 1.53 | 334 | P | Pn | 16 33 49.1 | -0.7 |
| EATA | | | | S | Sg | 16 34 12.3 | +1.6 |
| VRTB | Varto-Mus | 1.63 | 295 | ePN | Pb | 16 33 51.1 | -1.1 |
| VRTB | Varto-Mus | 1.63 | 295 | ePn | Pb | 16 33 51.1 | -1.1 |
| BTMN | Batman | 1.75 | 251 | iP | Pn | 16 33 52.8 | +0.2 |
| BTMN | Batman | 1.75 | 251 | P | Pn | 16 33 52.8 | +0.2 |
| SENK | Senkaya-Erzuru | 2.21 | 340 | ePN | Pn | 16 33 59.4 | +0.3 |
| SENK | Senkaya-Erzuru | 2.21 | 340 | ePn | Pn | 16 33 59.4 | +0.3 |
| YEDI | Yedisu-Bingol | 2.39 | 294 | ePN | Pn | 16 34 02.1 | +0.6 |
| YEDI | Yedisu-Bingol | 2.39 | 294 | ePn | Pn | 16 34 02.1 | +0.6 |
| MAZI | Mazidag | 2.52 | 247 | ePN | Pn | 16 34 03.3 | +0.1 |
| MAZI | Mazidag | 2.52 | 247 | ePn | Pn | 16 34 03.3 | +0.1 |

*ISCJB **06** 16:36:50.6±0.5, 39.°07N±0.°03×29.°04E±0.°03, h3km±5km, Error ellipse: s-maj=5.1km s-min=4.1km az=158.6*
*CSEM **06** 16:36:50.7±0.1, 39.°08N×29.°04E, h5km, MD2.5, Error ellipse: s-maj=2.1km s-min=1.9km az=138.0*
*DDA **06** 16:36:50.7, 39.°08N×29.°03E, h7km, Ml2.8*
*ISK **06** 16:36:50.0, 39.°08N×29.°07E, h4km, MD2.5*
**ISC 06 16:36:50.8±1.0, 39.°09N±0.°03×29.°03E±0.°02, h5km±6km, n25, σ0.s25/39, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SIMA | Simav-Kutahya | 0.03 | 262 | ePG | Pg | 16 36 52.1 | 0.0 |
| SIMA | | | | eSG | Sg | 16 36 52.9 | -0.2 |
| SIMA | Simav-Kutahya | 0.03 | 262 | ePg | Pg | 16 36 52.1 | 0.0 |
| DEMI | Demirci | 0.24 | 259 | iP | Pg | 16 36 55.8 | +0.1 |
| DEMI | | | | iS | Sg | 16 36 59.3 | +0.4 |
| DEMI | Demirci | 0.24 | 259 | P | Pg | 16 36 55.8 | +0.1 |
| DEMI | | | | S | Sg | 16 36 59.3 | +0.4 |
| GDZ | Gediz | 0.35 | 90 | iP | Pg | 16 36 57.9 | +0.2 |
| GDZ | | | | iS | Sg | 16 37 02.4 | -0.1 |
| GDZ | Gediz | 0.35 | 90 | P | Pg | 16 36 57.9 | +0.2 |
| GDZ | | | | S | Sg | 16 37 02.4 | -0.1 |
| TVSB | Tavsanli | 0.49 | 43 | ePG | Pg | 16 37 00.3 | -0.1 |
| TVSB | | | | eSG | Sg | 16 37 06.8 | -0.1 |
| TVSB | Tavsanli | 0.49 | 43 | ePg | Pg | 16 37 00.3 | -0.1 |
| TVSB | | | | eSg | Sg | 16 37 06.8 | -0.1 |
| KULA | Kula-Manisa | 0.64 | 207 | ePG | Pg | 16 37 03.1 | 0.0 |
| KULA | Kula-Manisa | 0.64 | 207 | ePg | Pg | 16 37 03.1 | 0.0 |
| MANT | Manisa | 0.70 | 212 | iP | Pg | 16 37 04.2 | -0.1 |
| MANT | | | | iS | Sg | 16 37 13.1 | -0.3 |
| MANT | Manisa | 0.70 | 212 | P | Pg | 16 37 04.2 | -0.1 |
| MANT | | | | S | Sg | 16 37 13.1 | -0.3 |
| KHAL | Karahalli | 0.80 | 153 | iP | Pg | 16 37 06.4 | +0.1 |
| KHAL | | | | iS | Sg | 16 37 17.0 | +0.3 |
| KHAL | Karahalli | 0.80 | 153 | P | Pg | 16 37 06.4 | +0.1 |
| KHAL | | | | S | Sg | 16 37 17.0 | +0.3 |
| ORLT | Orhaneli | 0.96 | 354 | ePG | Pg | 16 37 09.6 | +0.3 |
| ORLT | Orhaneli | 0.96 | 354 | ePg | Pg | 16 37 09.6 | +0.3 |
| AKHS | Akhisar | 0.97 | 258 | iP | Pg | 16 37 09.6 | +0.2 |
| AKHS | Akhisar | 0.97 | 258 | P | Pg | 16 37 09.6 | +0.2 |
| BALB | Balikesir | 1.04 | 302 | ePN | Pb | 16 37 11.6 | +0.2 |
| BALB | Balikesir | 1.04 | 302 | ePn | Pb | 16 37 11.6 | +0.2 |
| STEP | BALIKESIR_Sava | 1.06 | 286 | iP | Pb | 16 37 11.7 | +0.1 |
| STEP | | | | iS | Sn | 16 37 26.7 | -0.7 |
| STEP | BALIKESIR_Sava | 1.06 | 286 | P | Pb | 16 37 11.7 | +0.1 |
| STEP | | | | S | Sn | 16 37 26.7 | -0.7 |
| IGD | Bursa | 1.18 | 7 | iP | Pg | 16 37 13.4 | -0.1 |
| IGD | | | | iS | Sb | 16 37 29.7 | +0.3 |
| KCTX | Karacabey (Bur | 1.28 | 336 | ePN | Pg | 16 37 15.5 | 0.0 |
| KCTX | Karacabey (Bur | 1.28 | 336 | ePn | Pg | 16 37 15.5 | 0.0 |

*CSEM **06** 16:40:38.8±0.3, 38.°98N×43.°58E, h20km, ML2.6, Error ellipse: s-maj=9.6km s-min=7.1km az=126.0*
*ISK **06** 16:40:38.0, 38.°97N×43.°49E, h26km, MD2.6*
*ISCJB **06** 16:40:39.0±0.8, 39.°00N±0.°04×43.°67E±0.°07, h15km±7km, Error ellipse: s-maj=9.3km s-min=6.6km az=14.4*
*DDA **06** 16:40:39.7, 38.°98N×43.°51E, h7km, Ml2.6*
**ISC 06 16:40:38.8±0.9, 39.°00N±0.°03×43.°58E±0.°04, h13km±5km, n17, σ0.s94/30, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.01 | 216 | iP | Pg | 16 40 40.9 | -0.4 |
| VMUR | | | | iS | Sg | 16 40 43.4 | +0.4 |
| VMUR | Van-Muradiye | 0.01 | 216 | P | Pg | 16 40 40.9 | -0.4 |
| VMUR | | | | S | Sg | 16 40 43.4 | +0.4 |
| CLDR | Caldiran | 0.30 | 61 | ePG | Pb | 16 40 46.4 | +0.2 |
| CLDR | | | | eSG | Sb | 16 40 53.2 | +2.0 |
| CLDR | Caldiran | 0.30 | 61 | iP | Pb | 16 40 46.3 | 0.0 |
| CLDR | | | | iS | Sn | 16 40 53.5 | -2.2 |
| CLDR | Caldiran | 0.30 | 61 | ePg | Pb | 16 40 46.4 | +0.2 |
| CLDR | | | | eSg | Sb | 16 40 53.2 | +2.0 |
| VANB | Van | 0.43 | 200 | ePG | Pg | 16 40 48.3 | +1.0 |
| VANB | | | | eSG | Sb | 16 40 55.5 | +0.8 |
| VANB | Van | 0.43 | 200 | ePg | Pg | 16 40 48.3 | +1.0 |
| VANB | | | | eSg | Sb | 16 40 55.5 | +0.8 |
| TVAN | Van | 0.49 | 196 | iP | Pg | 16 40 47.9 | -0.6 |
| TVAN | | | | iS | Sb | 16 40 56.5 | 0.0 |
| TVAN | Van | 0.49 | 196 | P | Pg | 16 40 47.8 | -0.6 |
| TVAN | | | | S | Sb | 16 40 56.5 | 0.0 |
| ADCV | BITLIS_Adilcev | 0.69 | 254 | iP | Pg | 16 40 52.3 | 0.0 |
| ADCV | | | | iS | Sb | 16 41 03.5 | +1.1 |
| ADCV | BITLIS_Adilcev | 0.69 | 254 | P | Pg | 16 40 52.3 | 0.0 |
| ADCV | | | | S | Sb | 16 41 03.5 | +1.1 |
| TUTA | Tutak | 0.72 | 304 | iP | Pg | 16 40 53.4 | +0.5 |
| TUTA | | | | iS | Sn | 16 41 05.2 | -0.8 |
| TUTA | Tutak | 0.72 | 304 | P | Pg | 16 40 53.3 | +0.5 |
| TUTA | | | | S | Sn | 16 41 05.2 | -0.8 |
| AGRB | Hanur-Agry | 0.74 | 322 | ePG | Pg | 16 40 52.9 | -0.2 |
| AGRB | Hanur-Agry | 0.74 | 322 | ePg | Pg | 16 40 52.9 | -0.2 |
| TASB | TASBURUN-IGDIR | 1.11 | 27 | ePN | Pb | 16 40 59.1 | -0.8 |
| TASB | TASBURUN-IGDIR | 1.11 | 27 | ePn | Pb | 16 40 59.1 | -0.8 |

**MEX 06 16:42:01.7±0.3, 18.°06N×103.°41W, h5km±2km, MD3.7, Near coast of Michoacan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MMIG | Aquila | 0.23 | 14 | eP | Pg | 16 42 06.0 | -0.3 |
| MMIG | | | | iS | Sg | 16 42 09.5 | +0.1 |
| R15V | | 1.23 | 334 | eP | Pg | 16 42 21.9 | -3.4 |
| R15V | | | | eS | Sg | 16 42 37.6 | -3.8 |
| EZ5V | | 1.42 | 353 | eP | Pn | 16 42 24.5 | -4.0 |
| EZ5V | | | | iS | Sb | 16 42 42.6 | -4.8 |
| ARIG | Puente Sto Nin | 2.92 | 85 | eP | Pn | 16 42 46.0 | -2.8 |
| ARIG | | | | eS | Sn | 16 43 20.4 | -3.8 |

*ISCJB **06** 16:46:10.5±1.3, 37.°16N±0.°05×71.°9E±0.°2, h109km, Error ellipse: s-maj=22.5km s-min=4.4km az=166.7*
*NNC **06** 16:46:16.6±3.5, 37.°64N×71.°59E, h126km±59km, mb2.8, mpv3.6, Error ellipse: s-maj=31.7km s-min=28.0km az=80.0*
**ISC 06 16:46:09.8±1.6, 37.°20N±0.°06×71.°7E±0.°2, h109km, n24, σ1.s83/30, 6C-4D, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SFK | Sufi-Kurgan | 3.15 | 26 | ⇓P | Pn | 16 47 00.7 | +2.8 |
| | 12nm,0.3s | | | | | | |
| SFK | | | | ⇓S | Sn | 16 47 35.5 | +0.5 |
| | 15nm,0.2s | | | | | | |
| AML | Almayashu | 5.16 | 17 | P | Pn | 16 47 27.1 | +2.0 |
| | SNR=31 | | | | | | |
| MNAS | Manas | 5.32 | 6 | ⇑P | Pn | 16 47 28.9 | +1.9 |
| | 3.8nm,0.5s | | | | | | |
| MNAS | | | | ⇑S | Sn | 16 48 24.2 | -2.9 |
| | 28nm,0.8s | | | | | | |
| UCH | Uchtor | 5.47 | 22 | P | Pn | 16 47 31.2 | +1.9 |
| | SNR=8.8 | | | | | | |
| EKS2 | Erkin-Say | 5.69 | 16 | P | Pn | 16 47 34.4 | +2.5 |
| | SNR=6.4 | | | | | | |
| THN | Thein Dam | 5.79 | 144 | eP | Pn | 16 47 32.0 | -1.2 |
| THN | | | | eS | Sn | 16 48 39.0 | +0.7 |
| AAK | Ala-Archa | 5.84 | 21 | ⇓P | Pn | 16 47 36.3 | +2.2 |
| | 7.5nm,0.4s | | | | | | |
| AAK | | | | ⇑S | Sn | 16 48 39.4 | -0.4 |
| | 6.0nm,0.5s | | | | | | |
| AAK | Ala-Archa | 5.84 | 21 | P | Pn | 16 47 36.4 | +2.2 |
| | SNR=24 | | | | | | |
| KK31 | Karatay Array | 5.97 | 352 | ⇓P | Pn | 16 47 37.8 | +2.1 |
| | 1.4nm,0.3s,baz=178,slow=13,SNR=20 | | | | | | |
| KK31 | | | | ⇑S | Sn | 16 48 40.1 | -2.6 |
| | 3.4nm,0.4s,baz=174,slow=21,SNR=16 | | | | | | |
| KBK | Karagaybulak | 6.00 | 24 | P | Pn | 16 47 38.5 | +2.3 |
| | SNR=5.2 | | | | | | |
| CHMS | Chumysh | 6.25 | 21 | P | Pn | 16 47 41.4 | +1.9 |
| | SNR=16 | | | | | | |
| USP | Ospenovka | 6.43 | 19 | P | Pn | 16 47 43.6 | +1.7 |
| | SNR=6.2 | | | | | | |
| TKM2 | Tokmak 2 | 6.45 | 26 | ⇑P | Pn | 16 47 43.8 | +1.4 |
| | 2.8nm,0.5s | | | | | | |
| TKM2 | | | | ⇑S | Sn | 16 48 51.8 | -2.8 |
| | 2.8nm,0.8s | | | | | | |
| TKM2 | Tokmak 2 | 6.45 | 26 | P | Pn | 16 47 44.8 | +2.4 |
| | SNR=8.6 | | | | | | |
| PYUN | Piuthan | 13.13 | 130 | eP | Pn | 16 49 11.5 | -0.8 |
| | 6.9nm,0.3s | | | | | | |
| KOLN | Koldanda | 13.74 | 130 | eP | Pn | 16 49 19.0 | -1.3 |
| DMN | Daman | 14.80 | 126 | eP | Pn | 16 49 33.4 | -0.5 |
| PKIN | Phulchoki | 15.01 | 126 | eP | Pn | 16 49 36.3 | -0.2 |
| PKI | Pulchoki | 15.03 | 126 | eP | Pn | 16 49 36.3 | -0.4 |
| GUN | Gumba | 15.11 | 124 | eP | Pn | 16 49 36.8 | -1.0 |
| JIRN | Jiri | 15.48 | 124 | eP | Pn | 16 49 41.8 | -0.7 |
| RAMN | Ramite | 16.22 | 125 | eP | Pn | 16 49 50.4 | -1.2 |
| TAPN | Taplejung | 16.70 | 121 | eP | Pn | 16 49 57.1 | -0.5 |
| ODAN | Odare | 16.81 | 123 | eP | Pn | 16 49 58.1 | -0.7 |

**DJA 06 16:52:49.3±0.9, 10.°S±4.°×11.°5E±.°, h19km±9km, M4.1/13, MLv4.1/13, South of Bali**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DNP | Denpasar | 1.14 | 37 | P | Pn | 16 53 10.1 | -0.2 |
| DNP | | | | S | Sn | 16 53 25.8 | +0.4 |
| JAGI | Jajag, Banyuwa | 1.18 | 342 | P | Pn | 16 53 10.3 | -0.5 |
| JAGI | | | | S | Sb | 16 53 26.1 | +0.1 |
| SRBI | Singaraja | 1.65 | 25 | P | Pn | 16 53 17.7 | +0.4 |
| SRBI | | | | S | Sb | 16 53 38.9 | -0.8 |
| GMJI | Gumukmas | 1.69 | 321 | P | Pn | 16 53 17.5 | -0.4 |
| GMJI | | | | S | Sn | 16 53 39.5 | +0.5 |
| BLJI | Banyuglugur | 2.06 | 334 | P | Pn | 16 53 23.0 | +0.1 |
| KMMI | Kalianget | 2.59 | 348 | P | Pn | 16 53 31.1 | +0.9 |
| PWJI | Pagerwojo | 3.11 | 300 | P | Pn | 16 53 36.1 | -1.3 |
| PWJI | | | | S | Sn | 16 54 12.6 | -1.4 |
| PLAI | Plampang | 3.31 | 77 | P | Pn | 16 53 39.3 | -0.8 |
| GRJI | Gresik | 3.35 | 323 | P | Pn | 16 53 40.7 | +0.1 |
| GRJI | | | | S | Sn | 16 54 20.2 | +0.3 |
| PCJI | Pacitan | 3.59 | 293 | P | Pn | 16 53 43.9 | 0.0 |
| TBJI | Tambak Boyo | 3.83 | 316 | P | Pn | 16 53 47.3 | +0.1 |
| UGM | Wanagama | 4.29 | 293 | P | Pn | 16 53 53.5 | -0.2 |
| UWJI | Ujung Watu | 4.74 | 312 | P | Pn | 16 53 59.7 | -0.2 |

*ISCJB **06** 16:53:04.4±0.6, 19.°79S±0.°04×69.°7W±0.°2, h116km±5km, mb3.9/3, Error ellipse: s-maj=23.9km s-min=7.1km az=1.5*
*GUC **06** 16:53:05.1±0.4, 19.°78S×69.°64W, h107km±3km, ML4.1*
*IDC **06** 16:53:05.3±3.2, 19.°78S×69.°78W, h115km±28km, mb3.6/4, mb1 3.7/5, mb1mx3.4/24, mbtmp4.0/5, Error ellipse: s-maj=52.3km s-min=23.4km az=104.0*
**ISC 06 16:53:04.8±0.8, 19.°73S±0.°05×69.°5W±0.°1, h108km±7km, n21, σ1.s56/21, mb3.9/3, Northern Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PB11 | IPOC Station P | 0.16 | 260 | iP | Pn | 16 53 20.3 | +0.2 |
| PB11 | | | | iS | Sn | 16 53 32.0 | +0.5 |
| PB11 | | | | IAML | | 16 53 34.4 | |
| | comp=E,36µm,0.2s | | | | | | |
| MNMC | Minye Minye | 0.61 | 350 | iP | Pn | 16 53 23.2 | +0.5 |
| MNMC | | | | iS | Sn | 16 53 36.9 | +0.9 |
| MNMC | | | | IAML | | 16 53 38.2 | |
| | comp=N,13µm,0.2s | | | | | | |
| PSGC | Pisagua | 0.61 | 283 | iP | Pn | 16 53 22.1 | -0.4 |
| PSGC | | | | iS | Sn | 16 53 34.7 | -1.0 |
| PSGC | | | | IAML | | 16 53 35.6 | |
| | comp=E,9µm,0.3s | | | | | | |
| PB01 | IPOC Station P | 1.30 | 180 | iP | Pn | 16 53 29.6 | +0.3 |
| PB01 | | | | iS | Sn | 16 53 48.4 | +0.5 |
| PB01 | | | | IAML | | 16 53 49.6 | |
| | comp=N,3µm,0.3s | | | | | | |
| PB02 | IPOC Station P | 1.62 | 194 | iP | Pn | 16 53 33.4 | +0.2 |
| PB02 | | | | iS | Sn | 16 53 54.2 | -0.5 |
| PB02 | | | | IAML | | 16 53 56.9 | |
| | comp=E,2µm,0.3s | | | | | | |
| PB06 | IPOC Station P | 2.96 | 182 | iP | Pn | 16 53 38.7 | -12 |
| PB06 | | | | iS | Sn | 16 54 23.3 | -2.1 |
| PB06 | | | | IAML | | 16 54 27.0 | |
| | comp=E,255nm,0.3s | | | | | | |
| LPAZ | La Paz | 3.66 | 21 | P | Pn | 16 54 02.6 | +2.3 |
| | comp=E,6.3nm,0.3s,baz=205,slow=4.8,SNR=85 | | | | | | |
| LPAZ | | | | S | Sn | 16 54 39.0 | -3.9 |
| | comp=E,1.2nm,0.3s,baz=168,slow=6.7,SNR=3.9 | | | | | | |
| SIV | San Ignacio | 8.84 | 66 | P | Pn | 16 55 07.5 | -2.2 |
| | comp=E,3.7nm,0.3s,baz=262,slow=14,SNR=39 | | | | | | |
| PLCA | Paso Flores | 20.95 | 182 | P | P | 16 57 38.6 | -0.5 |
| | comp=E,1.4nm,0.7s,baz=34,slow=11,SNR=5.7 | | | | | | |
| PTGA | Pitinga | 21.06 | 27 | P | P | 16 57 42.5 | +2.0 |
| | comp=E,3.6nm,0.6s,baz=209,slow=14,SNR=6.6 | | | | | | |
| TORD | Torodi Ar. Bea | 77.28 | 71 | P | P | 17 04 49.2 | +1.3 |
| | comp=E,0.6nm,0.4s,baz=253,slow=5.4,SNR=7.7 | | | | | | |
| YKA | Yellowknife Ar | 89.35 | 341 | P | P | 17 05 48.1 | -0.6 |
| | comp=E,1.2nm,0.7s,baz=131,slow=4.5,SNR=6.4 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 127.10 | 279 | T | T | 19 31 32.1 | |
| | baz=101,slow=75,SNR=19 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 127.11 | 279 | T | T | 19 31 31.5 | |
| | baz=101,slow=75,SNR=16 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 127.12 | 279 | T | T | 19 31 32.7 | |
| | baz=101,slow=75,SNR=16 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 127.14 | 280 | T | T | 19 31 34.3 | |
| | baz=101,slow=75,SNR=9.1 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 127.15 | 280 | T | T | 19 31 33.4 | |
| | baz=101,slow=75,SNR=12 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 127.15 | 280 | T | T | 19 31 32.5 | |
| | baz=101,slow=75,SNR=8.9 | | | | | | |
| ASAR | Alice Springs | 131.20 | 209 | PKP | PKPdf | 17 12 04.0 | -1.0 |
| | comp=E,0.3nm,0.6s,baz=145,slow=1.5,SNR=6.4 | | | | | | |
| WRA | Warramunga Arr | 134.18 | 212 | PKP | PKPdf | 17 12 10.2 | -0.5 |
| | comp=E,0.6nm,0.8s,baz=153,slow=1.8,SNR=10 | | | | | | |
| MKAR | Makanchi Array | 144.50 | 34 | PKP | PKPab | 17 12 27.1 | -0.1 |
| | comp=E,1.1nm,0.9s,baz=313,slow=3.2,SNR=3.7 | | | | | | |

*SJA **06** 16:53:01.5±0.8, 33.°34S×70.°55W, h21km±43km, ML3.1, MW2.8*
*ISCJB **06** 16:53:05.6±1.4, 33.°30S±0.°07×70.°55W±0.°09, h99km±8km, Error ellipse: s-maj=12.4km s-min=10.6km az=145.3*
*GUC **06** 16:53:06.9±0.5, 33.°26S×70.°55W, h92km±3km, ML3.7*
**ISC 06 16:53:07.0±2.6, 33.°30S±0.°09×70.°5W±0.°1, h90km±16km, n12, σ0.s64/23, 1D, Chile-Argentina border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CLCH | Cerro Calan | 0.10 | 177 | ⇓iP | Pn | 16 53 19.8 | 0.0 |
| CLCH | | | | iS | Sn | 16 53 29.4 | +0.1 |
| CLCH | | | | IAML | | 16 53 30.4 | |
| | comp=E,3µm,0.5s | | | | | | |
| PEL | Peldehue | 0.19 | 322 | eP | Pn | 16 53 19.6 | -0.4 |
| PEL | | | | iS | Sn | 16 53 29.4 | -0.3 |
| PEL | | | | IAML | | 16 53 30.6 | |
| | comp=N,9µm,0.2s | | | | | | |
| FCH | Farellones | 0.21 | 98 | eP | Pn | 16 53 20.4 | 0.0 |
| FCH | | | | iS | Sn | 16 53 30.8 | +0.4 |
| FCH | | | | IAML | | 16 53 32.6 | |
| | comp=E,7µm,0.1s | | | | | | |
| ANTU | Antumapu | 0.28 | 196 | iP | Pn | 16 53 20.3 | -0.1 |
| ANTU | | | | iS | Sn | 16 53 30.3 | -0.1 |
| ANTU | Antumapu | 0.28 | 196 | eP | Pn | 16 53 20.3 | -0.1 |
| ANTU | | | | iS | Sn | 16 53 30.2 | -0.1 |
| ROCH | El Roble | 0.51 | 309 | eP | Pn | 16 53 21.8 | -0.2 |
| ROCH | | | | iS | Sn | 16 53 33.2 | -0.1 |
| ROCH | | | | IAML | | 16 53 34.8 | |
| | comp=N,5µm,0.2s | | | | | | |
| LMEL | Las Melosas | 0.62 | 153 | eP | Pn | 16 53 23.3 | +0.3 |
| LMEL | | | | iS | Sn | 16 53 35.4 | +0.6 |
| LMEL | | | | IAML | | 16 53 39.0 | |
| | comp=N,4µm,0.1s | | | | | | |
| ACAN | Cantantal | 3.00 | 71 | eP | Pn | 16 53 51.2 | -1.4 |
| ACAN | | | | eS | Sn | 16 54 27.4 | -0.3 |
| AGUA | GUANDACOL | 4.18 | 25 | eP | Pn | 16 54 08.7 | +0.1 |
| AGUA | | | | eS | Sn | 16 54 57.7 | +1.3 |
| APLL | PUNTA DE LOS L | 4.48 | 51 | eP | Pn | 16 54 12.1 | -0.4 |
| ACLC | CERRO LA CRUZ | 4.93 | 39 | eP | Pn | 16 54 18.1 | -0.8 |
| ACLC | | | | eS | Sn | 16 55 15.9 | +1.1 |
| TCA | Tanti | 5.40 | 70 | eP | Pn | 16 54 24.6 | -0.5 |
| TCA | | | | IAML | | 16 54 25.0 | |
| | comp=Z,8.9nm,0.3s | | | | | | |
| TCA | | | | eS | Sn | 16 55 27.1 | +1.0 |

**IDC 06 17:36:50.6±3.4, 5.°79S×150.°65E, h0km, mb3.3/2, mb1 3.5/3, mb1mx3.2/40, mbtmp3.4/3, ML0.7/1, Error ellipse: s-maj=142.0km s-min=40.4km az=120.0, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PMG | Port Moresby | 4.99 | 224 | Pn | Pn | 17 38 07.2 | +0.4 |
| | 0.2nm,0.3s,baz=45,slow=11,SNR=1.9 | | | | | | |
| WRA | Warramunga Arr | 21.20 | 227 | P | P | 17 41 37.6 | -0.5 |
| | 0.9nm,0.7s,baz=52,slow=10,SNR=7.1 | | | | | | |
| ASAR | Alice Springs | 24.00 | 221 | P | P | 17 42 07.2 | -0.1 |
| | 0.5nm,0.4s,baz=57,slow=9.0,SNR=32 | | | | | | |
| TORD | Torodi Ar. Bea | 148.54 | 286 | PKPbc | PKPbc | 17 56 40.2 | -0.4 |
| | 0.2nm,0.6s,baz=91,slow=1.7,SNR=3.1 | | | | | | |

*DDA **06** 17:45:07.1, 38.°88N×26.°33E, h7km, Ml3.3*
*ATH **06** 17:45:07.0, 38.°87N×26.°30E, h28km±1km, ML2.6/3, Error ellipse: s-maj=2.7km s-min=0.9km az=257.0*
*ISK **06** 17:45:07.1, 38.°86N×26.°35E, h11km, ML2.8*
*CSEM **06** 17:45:07.6±0.1, 38.°86N×26.°31E, h12km, ML2.7, Error ellipse: s-maj=2.8km s-min=1.9km az=73.0*
*ISCJB **06** 17:45:07.3±0.4, 38.°87N±0.°02×26.°28E±0.°03, h9km±3km, Error ellipse: s-maj=4.2km s-min=2.4km az=161.0*
*THE **06** 17:45:08.0, 38.°89N×26.°29E, h9km±1km, ML2.7/4, Error ellipse: s-maj=1.6km s-min=0.5km az=271.0*
**ISC 06 17:45:07.3±0.9, 38.°88N±0.°01×26.°30E±0.°02, h13km±8km, n92, σ0.s58/133, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PRK | Paraskevi | 0.37 | 357 | P | Pg | 17 45 14.9 | +0.1 |
| PRK | | | | S | Sg | 17 45 20.3 | +0.5 |
| PRK | Paraskevi | 0.37 | 357 | P | Pb | 17 45 15.2 | -0.6 |
| PRK | | | | S | Sg | 17 45 20.3 | +0.5 |
| PRK | Paraskevi | 0.37 | 357 | P | Pb | 17 45 15.2 | -0.6 |
| PRK | | | | S | Sg | 17 45 20.2 | +0.4 |
| SIGR | SIGRI | 0.48 | 314 | ePG | Pb | 17 45 17.9 | +0.2 |
| SIGR | SIGRI | 0.48 | 314 | P | Pb | 17 45 17.8 | +0.2 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| SIGR | | | | S | Sb | 17 45 24.5 | -0.1 |
| SIGR | | | | AML | AML | 17 45 29.1 | |
| | comp=E,727µm,0.1s | | | | | | |
| SIGR | | | | AML | AML | 17 45 29.4 | |
| | comp=N,1013µm,0.4s | | | | | | |
| SIGR | SIGRI | 0.48 | 314 | P | Pb | 17 45 17.6 | -0.1 |
| SIGR | SIGRI | 0.48 | 314 | *e*Pg | Pb | 17 45 17.9 | +0.2 |
| SIGR | | | | S | Sb | 17 45 24.3 | -0.3 |
| SIGR | SIGRI | 0.48 | 314 | P | Pb | 17 45 17.6 | -0.1 |
| SIGR | | | | S | Sb | 17 45 24.3 | -0.3 |
| DKL | Dikili | 0.51 | 67 | *e*PG | Pg | 17 45 17.3 | -0.1 |
| DKL | | | | *e*SG | Sg | 17 45 24.5 | +0.3 |
| DKL | Dikili | 0.51 | 67 | *e*Pg | Pg | 17 45 17.3 | -0.1 |
| DKL | | | | *e*Sg | Sg | 17 45 24.5 | +0.3 |
| CHOS | Chios island | 0.52 | 201 | *e*PG | Pb | 17 45 18.0 | -0.4 |
| CHOS | Chios island | 0.52 | 201 | P | Pb | 17 45 18.1 | -0.4 |
| CHOS | | | | S | Sb | 17 45 26.7 | +0.8 |
| CHOS | | | | AML | AML | 17 45 29.1 | |
| | comp=N,1298µm,0.2s | | | | | | |
| CHOS | | | | AML | AML | 17 45 29.3 | |
| | comp=E,1748µm,0.2s | | | | | | |
| CHOS | Chios island | 0.52 | 201 | P | Pb | 17 45 18.1 | -0.4 |
| CHOS | | | | S | Sb | 17 45 26.1 | +0.2 |
| CHOS | Chios island | 0.52 | 201 | P | Pb | 17 45 18.0 | -0.4 |
| CHOS | | | | S | Sb | 17 45 26.1 | +0.2 |
| URLA | Izmir | 0.56 | 155 | *e*PG | Pg | 17 45 18.1 | -0.3 |
| URLA | | | | *e*SG | Sg | 17 45 26.0 | +0.1 |
| URLA | Izmir | 0.56 | 155 | *i* P | Pg | 17 45 17.9 | -0.5 |
| URLA | | | | *i* S | Sg | 17 45 26.0 | +0.1 |
| URLA | Izmir | 0.56 | 155 | P | Pg | 17 45 17.9 | -0.5 |
| URLA | | | | S | Sg | 17 45 26.0 | +0.1 |
| ZEY | ˜zmir | 0.66 | 166 | *i* P | Pg | 17 45 19.8 | -0.3 |
| ZEY | | | | *i* S | Sb | 17 45 30.0 | +0.4 |
| BAYC | CANAKKALE_Bayr | 0.89 | 13 | *i* P | Pg | 17 45 23.9 | -0.6 |
| BAYC | | | | *i* S | Sn | 17 45 37.6 | -0.7 |
| BAYC | CANAKKALE_Bayr | 0.89 | 13 | P | Pg | 17 45 23.9 | -0.6 |
| BAYC | | | | S | Sn | 17 45 37.6 | -0.7 |
| DGB | ˜zmir | 0.94 | 151 | *i* P | Pg | 17 45 24.9 | -0.6 |
| DGB | | | | *i* S | Sb | 17 45 37.6 | -0.3 |
| EZN | Ezine | 0.95 | 1 | *e*PG | Pb | 17 45 25.8 | +0.2 |
| EZN | Ezine | 0.95 | 1 | P | Pb | 17 45 25.7 | +0.1 |
| EZN | | | | S | Sn | 17 45 39.5 | -0.3 |
| EZN | Ezine | 0.95 | 1 | P | Pb | 17 45 25.7 | +0.1 |
| EZN | | | | S | Sn | 17 45 39.5 | -0.3 |
| BOZC | Bozcaada | 0.98 | 349 | *e*PG | Pn | 17 45 26.7 | -0.1 |
| BOZC | Bozcaada | 0.98 | 349 | *i* P | Pb | 17 45 26.3 | 0.0 |
| BOZC | | | | *i* S | Sn | 17 45 40.4 | -0.3 |
| BOZC | Bozcaada | 0.98 | 349 | *e*Pg | Pn | 17 45 26.7 | -0.1 |
| AKHS | Akhisar | 1.18 | 89 | *i* P | Pb | 17 45 29.2 | -0.4 |
| AKHS | | | | *i* S | Sn | 17 45 46.3 | +0.7 |
| AKHS | Akhisar | 1.18 | 89 | P | Pb | 17 45 29.2 | -0.4 |
| AKHS | | | | S | Sn | 17 45 46.3 | +0.7 |
| AKS | Akhisar | 1.18 | 89 | *e*PN | Pb | 17 45 29.1 | -0.5 |
| AKS | Akhisar | 1.18 | 89 | *e*Pn | Pb | 17 45 29.1 | -0.5 |
| STEP | BALIKESIR_Sava | 1.21 | 65 | *i* P | Pn | 17 45 29.6 | -0.4 |
| STEP | | | | *i* S | Sn | 17 45 46.5 | +0.1 |
| STEP | BALIKESIR_Sava | 1.21 | 65 | P | Pn | 17 45 29.6 | -0.4 |
| STEP | | | | S | Sn | 17 45 46.5 | +0.1 |
| SMG | Samos | 1.24 | 160 | P | Pn | 17 45 29.6 | -0.7 |
| SMG | | | | S | Sn | 17 45 47.3 | +0.3 |
| SMG | | | | AML | AML | 17 45 48.6 | |
| | comp=E,659µm,0.5s | | | | | | |
| SMG | | | | AML | AML | 17 45 50.2 | |
| | comp=N,750µm,0.5s | | | | | | |
| SMG | Samos | 1.24 | 160 | P | Pb | 17 45 30.6 | 0.0 |
| SMG | | | | S | Sn | 17 45 47.3 | +0.3 |
| SMG | Samos | 1.24 | 160 | P | Pb | 17 45 30.6 | 0.0 |
| SMG | | | | S | Sn | 17 45 48.1 | +1.1 |
| LIA | Limnos Island | 1.34 | 320 | P | Pb | 17 45 32.6 | +0.3 |
| LIA | | | | S | Sb | 17 45 48.2 | -1.1 |
| BALY | Balya | 1.34 | 49 | *i* P | Pn | 17 45 31.6 | -0.2 |
| BALY | | | | *i* S | Sg | 17 45 51.0 | +0.5 |
| BALY | Balya | 1.34 | 49 | P | Pn | 17 45 31.6 | -0.2 |
| BALY | | | | S | Sg | 17 45 51.0 | +0.5 |
| GADA | Gvkgeada | 1.35 | 347 | *e*PN | Pg | 17 45 33.0 | -0.3 |
| GADA | Gvkgeada | 1.35 | 347 | P | Pn | 17 45 31.5 | -0.4 |
| GADA | Gvkgeada | 1.35 | 347 | *e*Pn | Pg | 17 45 33.0 | -0.3 |
| GADA | | | | S | Sn | 17 45 49.9 | +0.2 |
| GADA | Gvkgeada | 1.35 | 347 | P | Pn | 17 45 31.5 | -0.4 |
| GADA | | | | S | Sn | 17 45 49.9 | +0.2 |
| GCAM | G?zelcaml? | 1.39 | 148 | *e*PN | Pn | 17 45 32.4 | +0.1 |
| GCAM | G?zelcaml? | 1.39 | 148 | *i* P | Pg | 17 45 33.3 | -0.6 |
| GCAM | | | | *i* S | Sg | 17 45 52.4 | +0.5 |
| GCAM | G?zelcaml? | 1.39 | 148 | *e*Pn | Pn | 17 45 32.4 | +0.1 |
| GCAM | G?zelcaml? | 1.39 | 148 | P | Pg | 17 45 33.3 | -0.6 |
| GCAM | | | | S | Sg | 17 45 52.4 | +0.5 |
| BALB | Balikesir | 1.45 | 58 | *e*PN | Pn | 17 45 33.3 | +0.1 |
| BALB | Balikesir | 1.45 | 58 | *e*Pn | Pn | 17 45 33.3 | +0.1 |
| GELI | Tayfur-Gelibol | 1.53 | 5 | *e*PN | Pn | 17 45 34.8 | +0.5 |
| GELI | Tayfur-Gelibol | 1.53 | 5 | *e*Pn | Pn | 17 45 34.8 | +0.5 |
| LPK | Lapseki | 1.54 | 13 | *e*PN | Pb | 17 45 35.4 | -0.3 |
| LPK | Lapseki | 1.54 | 13 | *e*Pn | Pb | 17 45 35.4 | -0.3 |
| SMTH | Samothraki Isl | 1.70 | 340 | P | Pn | 17 45 37.4 | +0.7 |
| SMTH | | | | S | Sn | 17 45 58.1 | -0.3 |
| SMTH | Samothraki Isl | 1.70 | 340 | P | Pn | 17 45 37.4 | +0.7 |
| SMTH | | | | S | Sn | 17 45 58.1 | -0.3 |
| SMTH | Samothraki Isl | 1.70 | 340 | P | Pn | 17 45 36.9 | +0.2 |
| KRBG | Karabiga-Canak | 1.70 | 27 | *e*PN | Pb | 17 45 37.7 | -0.8 |
| KRBG | Karabiga-Canak | 1.70 | 27 | *e*Pn | Pb | 17 45 37.7 | -0.8 |
| ERIK | Erikli-Kesan | 1.80 | 5 | *e*PN | Pb | 17 45 39.3 | -0.9 |
| ERIK | Erikli-Kesan | 1.80 | 5 | *e*Pn | Pb | 17 45 39.3 | -0.9 |
| ENEZ | Enez | 1.86 | 357 | *e*PN | Pb | 17 45 40.3 | -0.9 |
| ENEZ | Enez | 1.86 | 357 | *e*Pn | Pb | 17 45 40.3 | -0.9 |
| KULA | Kula-Manisa | 1.88 | 100 | *e*PN | Pn | 17 45 39.8 | +0.5 |
| KULA | Kula-Manisa | 1.88 | 100 | *e*Pn | Pn | 17 45 39.8 | +0.5 |
| APE | Apeiranthos | 1.90 | 199 | *e*PN | Pn | 17 45 39.5 | 0.0 |
| APE | Apeiranthos | 1.90 | 199 | P | Pn | 17 45 38.4 | -1.1 |
| APE | Apeiranthos | 1.90 | 199 | P | Pn | 17 45 38.4 | -1.1 |
| APE | Apeiranthos | 1.90 | 199 | *e*Pn | Pn | 17 45 39.5 | 0.0 |
| EDC | Edincik | 1.90 | 39 | *e*PN | Pn | 17 45 40.1 | +0.6 |
| EDC | Edincik | 1.90 | 39 | *e*Pn | Pn | 17 45 40.1 | +0.6 |
| RKY | Sarkoy-Tekirda | 1.93 | 20 | *e*PN | Pn | 17 45 40.6 | +0.6 |
| RKY | Sarkoy-Tekirda | 1.93 | 20 | *e*Pn | Pn | 17 45 40.6 | +0.6 |
| BODT | Bodrum | 1.98 | 156 | *e*PN | Pn | 17 45 41.1 | +0.6 |
| BODT | Bodrum | 1.98 | 156 | *e*Pn | Pn | 17 45 41.1 | +0.6 |
| ALN | Alexandroupoli | 2.03 | 355 | *e*PN | Pn | 17 45 42.5 | +1.3 |
| ALN | Alexandroupoli | 2.03 | 355 | P | Pn | 17 45 42.4 | +1.1 |
| ALN | | | | S | Sn | 17 46 07.6 | +1.2 |
| ALN | Alexandroupoli | 2.03 | 355 | P | Pn | 17 45 41.8 | +0.6 |
| ALN | Alexandroupoli | 2.03 | 355 | *e*Pn | Pn | 17 45 42.5 | +1.3 |
| ALN | | | | S | Sn | 17 46 07.6 | +1.2 |
| ALN | Alexandroupoli | 2.03 | 355 | P | Pn | 17 45 41.8 | +0.6 |
| SIMA | Simav-Kutahya | 2.10 | 83 | *e*PN | Pn | 17 45 42.9 | +0.6 |
| SIMA | Simav-Kutahya | 2.10 | 83 | *e*Pn | Pn | 17 45 42.9 | +0.6 |
| KCTX | Karacabey (Bur | 2.11 | 48 | *e*PN | Pn | 17 45 43.2 | +0.8 |
| KCTX | Karacabey (Bur | 2.11 | 48 | *e*Pn | Pn | 17 45 43.2 | +0.8 |
| OUR | Ouranopolis | 2.31 | 310 | P | Pn | 17 45 45.2 | +0.2 |
| OUR | Ouranopolis | 2.31 | 310 | P | Pn | 17 45 45.2 | +0.2 |
| RDO | Rodhopi | 2.34 | 346 | P | Pn | 17 45 46.8 | +1.3 |
| RDO | | | | S | Sn | 17 46 13.1 | -1.1 |
| RDO | Rodhopi | 2.34 | 346 | P | Pn | 17 45 46.8 | +1.3 |
| RDO | | | | S | Sn | 17 46 13.1 | -1.1 |
| MDNY | Mudanya-Bursa | 2.49 | 52 | *e*PN | Pn | 17 45 48.1 | +0.5 |
| MDNY | Mudanya-Bursa | 2.49 | 52 | *e*Pn | Pn | 17 45 48.1 | +0.5 |
| KAVA | Kavala | 2.52 | 328 | P | Pn | 17 45 48.6 | +0.6 |
| NVR | Nevrokopi | 3.10 | 324 | P | Pn | 17 45 57.0 | +1.0 |
| NVR | Nevrokopi | 3.10 | 324 | P | Pn | 17 45 57.0 | +1.0 |

**GUC 06 17:45:50.4**±0.3**,22°.64S**×**66°.75W,h277**km±22km**,ML3.8, 6C,Jujuy Province**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PB09 | IPOC Station P | 2.46 | 290 | ⇑*i*P | Pn | 17 46 42.5 | +3.0 |
| PB09 | | | | *i* S | S | 17 47 21.6 | +3.1 |
| PB09 | | | | IAML | | 17 47 26.9 | |
| | comp=N,129nm,0.2s | | | | | | |
| PB06 | IPOC Station P | 2.61 | 268 | ⇑*i*P | Pn | 17 46 43.2 | +2.3 |
| PB06 | | | | *i* S | S | 17 47 23.3 | +2.4 |
| PB06 | | | | IAML | | 17 47 23.9 | |
| | comp=N,132nm,0.1s | | | | | | |
| PB01 | IPOC Station P | 3.00 | 301 | ⇑*i*P | Pn | 17 46 47.3 | +2.5 |
| PB01 | | | | *i* S | S | 17 47 30.8 | +2.8 |
| PB07 | IPOC Station P | 3.05 | 287 | ⇑*i*P | Pn | 17 46 48.1 | +2.8 |
| PB07 | | | | *i* S | S | 17 47 31.5 | +2.5 |
| PB04 | IPOC Station P | 3.16 | 275 | ⇑*i*P | Pn | 17 46 49.3 | +2.8 |
| PB04 | | | | *i* S | S | 17 47 33.4 | +2.3 |
| PB08 | IPOC Station P | 3.35 | 318 | ⇑*i*P | Pn | 17 46 51.9 | +3.2 |
| PB08 | | | | *i* S | S | 17 47 38.3 | +3.1 |
| MNMC | Minye Minye | 4.39 | 322 | *e*P | Pn | 17 47 02.8 | +2.5 |
| MNMC | | | | *i* S | S | 17 47 58.5 | +2.3 |

*ISCJB **06** 17:47:05.0±0.6,44°.74N±0°.08×147°.5E±0°.1,h134km, mb3.6/14,Error ellipse: s-maj=14.1km s-min=5.7km az=135.3*
*JMA **06** 17:47:10.1±0.6,44°.46N×147°.31E,h131km,M3.6*
*IDC **06** 17:47:10.5±1.9,44°.75N×147°.08E,h171km±16km, mb3.4/14,mb1 3.6/14,mb1mx3.4/49,mbtmp3.9/14,Error ellipse: s-maj=17.8km s-min=14.6km az=114.0*
**ISC 06 17:47:06.2**±0.8**,44°.64N**±0°.09×**147°.39E**±0°.10**,h134**km**,n33,** σ**1s.90**/33**,mb3.6**/14**,Kuril Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| NEM2 | Nemuro 2 | 1.74 | 224 | P | Pn | 17 47 39.2 | +1.9 |
| NEM2 | | | | *e*S | Sn | 17 48 01.8 | +0.7 |
| JRA | Rausu | 1.77 | 247 | P | Pn | 17 47 40.0 | +2.4 |
| JNK | Nakash | 2.19 | 242 | P | Pn | 17 47 45.2 | +2.5 |
| JAK | Akkeshi | 2.55 | 231 | P | Pn | 17 47 48.8 | +1.6 |
| JAK | | | | *e*S | Sn | 17 48 19.0 | +0.4 |
| JTKR | Abashiri--Toko | 2.59 | 256 | P | Pn | 17 47 50.1 | +2.5 |
| JAR | Ashorobuto | 2.94 | 244 | P | Pn | 17 47 54.6 | +2.5 |
| JOB | Onbets | 3.11 | 237 | P | Pn | 17 47 56.4 | +2.1 |
| JOB | | | | *e*S | Sn | 17 48 32.2 | +0.8 |
| ASAJ | Asahikawa | 3.48 | 263 | P | Pn | 17 48 02.0 | +2.9 |
| | 0.7nm,0.3s,baz=90,slow=13,SNR=9.7 | | | | | | |
| ASAJ | | | | S | Sn | 17 48 42.5 | +2.5 |
| | 0.4nm,0.3s,baz=98,slow=7.1,SNR=2.8 | | | | | | |
| JCH | Churui | 3.56 | 237 | P | Pn | 17 48 01.6 | +1.4 |
| JCH | | | | *e*S | Sn | 17 48 40.9 | -1.0 |
| JFR | Furan | 3.77 | 249 | P | Pn | 17 48 05.7 | +2.7 |
| JNBK | Urakawa-nobuka | 4.12 | 237 | P | Pn | 17 48 08.1 | +0.5 |
| JEW | Eniwo | 4.67 | 249 | P | Pn | 17 48 17.4 | +2.6 |
| JKB | Kayabe | 5.39 | 242 | P | Pn | 17 48 24.9 | +0.3 |
| JKB | | | | *e*S | Sn | 17 49 21.7 | -4.0 |
| SONM | Songino Array | 28.30 | 291 | P | P | 17 52 46.0 | -1.0 |
| | 0.3nm,0.3s,baz=82,slow=8.9,SNR=2.8 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 29.67 | 141 | T | T | 18 24 18.2 | |
| | baz=333,slow=76,SNR=27 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 29.68 | 141 | T | T | 18 24 19.3 | |
| | baz=333,slow=76,SNR=25 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 29.69 | 141 | T | T | 18 24 19.5 | |
| | baz=333,slow=76,SNR=26 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 30.66 | 142 | T | T | 18 25 23.4 | |
| | baz=333,slow=76,SNR=64 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 30.66 | 142 | T | T | 18 25 29.7 | |
| | baz=333,slow=76,SNR=42 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 30.67 | 142 | T | T | 18 25 33.3 | |
| | baz=333,slow=76,SNR=39 | | | | | | |
| ZALV | Zalesovo Beam | 40.60 | 306 | P | P | 17 54 32.5 | +0.1 |
| | 0.4nm,0.4s,baz=71,slow=11,SNR=2.5 | | | | | | |
| ILAR | Eielson Array | 40.67 | 37 | P | P | 17 54 33.7 | +0.8 |
| | 0.5nm,0.6s,baz=277,slow=9.7,SNR=7.3 | | | | | | |
| MKAR | Makanchi Array | 44.33 | 297 | P | P | 17 55 02.0 | -0.7 |
| | 0.7nm,0.5s,baz=77,slow=7.9,SNR=11 | | | | | | |
| INK | Inuvik | 45.55 | 31 | P | P | 17 55 12.4 | +0.4 |
| | 1.1nm,0.3s,baz=295,slow=6.8,SNR=6.4 | | | | | | |
| YKA | Yellowknife Ar | 54.97 | 34 | P | P | 17 56 25.5 | +2.6 |
| | 0.6nm,0.7s,baz=303,slow=7.3,SNR=2.8 | | | | | | |
| ARCES | ARCESS Array B | 58.47 | 339 | P | P | 17 56 45.8 | -1.8 |
| | 6.1nm,1.1s,baz=40,slow=7.1,SNR=4.5 | | | | | | |
| FINES | FINESS Array B | 64.16 | 333 | P | P | 17 57 23.5 | -2.3 |
| | 2.5nm,0.7s,baz=42,slow=9.3,SNR=8.6 | | | | | | |
| WRA | Warramunga Arr | 65.37 | 194 | P | P | 17 57 34.7 | +0.6 |
| | 0.6nm,0.8s,baz=9.6,slow=6.8,SNR=8.8 | | | | | | |
| HFS | Hagfors | 68.94 | 337 | P | P | 17 57 54.3 | -1.9 |
| | 3.9nm,1.0s,baz=36,slow=7.6,SNR=3.1 | | | | | | |
| ASAR | Alice Springs | 69.08 | 193 | P | P | 17 57 58.0 | +0.4 |
| | 0.2nm,0.5s,baz=10.0,slow=6.7,SNR=7.9 | | | | | | |
| KBZ | Khabaz | 69.34 | 311 | P | P | 17 57 59.1 | +0.1 |
| | 1.3nm,0.7s,baz=11,slow=5.2,SNR=4.4 | | | | | | |
| AKASG | Malin Array Be | 70.96 | 324 | P | P | 17 58 07.5 | -1.3 |
| | 0.4nm,0.3s,baz=41,slow=6.5,SNR=6.0 | | | | | | |
| GERES | GERESS Array B | 78.46 | 331 | P | P | 17 58 51.0 | -1.1 |
| | 0.4nm,0.4s,baz=46,slow=7.0,SNR=3.2 | | | | | | |

*ISCJB **06** 17:59:45.2±0.3,67°.08N±0°.02×21°.03E±0°.06,h0km,Error ellipse: s-maj=3.5km s-min=2.8km az=16.0*
*CSEM **06** 17:59:46.9±0.2,67°.09N×21°.05E,h2km,ML2.5,Error ellipse: s-maj=6.7km s-min=5.6km az=107.0,Mining explosion.*
*IDC **06** 17:59:46.8±0.8,67°.04N×21°.29E,h0km,mb1 3.4/5, mb1mx3.1/53,mbtmp3.4/5,ML2.5/5,Error ellipse: s-maj=14.3km s-min=6.2km az=107.0*
*HEL **06** 17:59:46.9±0.2,67°.09N×20°.96E,h0km,ML2.5,Explosion*
*UPP **06** 17:59:46.3±0.5,67°.14N×20°.94E,h0km,ML2.1*
*NAO **06** 17:59:47.2±0.8,67°.08N×21°.31E,ML2.6*
*BER **06** 17:59:48.9±3.5,67°.04N×21°.03E,h0km,ML1.9, ML2.6(NAO),Suspected explosion*
**ISC 06 17:59:45.7**±0.7**,67°.06N**±0°.02×**20°.90E**±0°.02**,h0**km**,n71,** σ**1s.34**/106**,Sweden**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DUNU | Dundret | 0.14 | 297 | P | Pg | 17 59 49.4 | +0.9 |
| DUNU | | | | S | Sg | 17 59 51.6 | +1.2 |
| ERTU | Ertsjaerv | 0.72 | 134 | PG | Pg | 17 59 59.6 | +0.1 |
| | baz=317 | | | | | | |
| LANU | Lannavaara | 1.08 | 22 | PG | Pg | 18 00 05.6 | -0.9 |
| KALU | Kalix | 1.56 | 139 | PG | Pn | 18 00 14.7 | +0.1 |
| KALU | | | | SN | Sg | 18 00 36.1 | +0.5 |
| TOF | Tornio | 1.69 | 124 | Pg | Pn | 18 00 16.8 | +0.4 |
| TOF | | | | Sn | Sg | 18 00 39.7 | -0.1 |
| TOF | Tornio | 1.69 | 124 | PG | Pn | 18 00 16.8 | +0.4 |
| TOF | | | | SN | Sg | 18 00 39.7 | -0.1 |
| HEF | Hetta | 1.72 | 37 | Pg | Pn | 18 00 16.8 | -0.1 |
| HEF | | | | Sn | Sn | 18 00 38.9 | -0.6 |
| HEF | Hetta | 1.72 | 37 | PG | Pn | 18 00 16.8 | -0.1 |
| | baz=224 | | | | | | |
| HEF | | | | MSG | | 18 00 36.9 | |
| | comp=Z,28nm,0.2s | | | | | | |
| HEF | | | | SN | Sn | 18 00 39.0 | -0.6 |
| KIF | Kilpisjarvi | 1.96 | 359 | Pn | Pb | 18 00 21.9 | -0.3 |
| KIF | | | | Lg | Lg | 18 00 49.3 | |
| KIF | Kilpisjarvi | 1.96 | 359 | *e*P | Pb | 18 00 21.8 | -0.4 |
| KIF | | | | Pn | Pb | 18 00 21.9 | -0.3 |
| KIF | | | | Lg | Lg | 18 00 49.3 | |
| KIF | Kilpisjarvi | 1.96 | 359 | Pg | Pb | 18 00 21.4 | -0.8 |
| KIF | Kilpisjarvi | 1.96 | 359 | *e*P | Pb | 18 00 21.8 | -0.4 |
| | SNR=50 | | | | | | |
| KIF | Kilpisjarvi | 1.96 | 359 | Pn | Pb | 18 00 21.9 | -0.3 |
| | SNR=50 | | | | | | |
| KIF | | | | Sg | Sg | 18 00 48.1 | -0.4 |
| KIF | | | | Lg | Lg | 18 00 49.3 | |
| | SNR=90 | | | | | | |
| KIF | Kilpisjarvi | 1.96 | 359 | PG | Pb | 18 00 21.5 | -0.8 |
| KIF | | | | MSG | | 18 00 45.2 | |
| | comp=Z,72nm,0.2s | | | | | | |
| KIF | | | | SG | Sg | 18 00 48.1 | -0.4 |
| RNF | Rovaniemi | 2.07 | 100 | PG | Pg | 18 00 26.2 | +0.8 |
| KTK1 | Kautokeino | 2.15 | 23 | *e*P | Pb | 18 00 24.8 | -0.7 |
| KTK1 | | | | IAML | | 18 00 55.3 | |
| | comp=Z,11nm,0.1s | | | | | | |
| KTK1 | Kautokeino | 2.15 | 23 | *e*P | Pb | 18 00 24.8 | -0.7 |
| | SNR=50 | | | | | | |
| SGF | Sodankyl | 2.22 | 77 | Pb | Pn | 18 00 24.7 | +0.9 |
| SGF | | | | Sg | Sb | 18 00 54.8 | +0.1 |
| SGF | Sodankyl | 2.22 | 77 | PB | Pn | 18 00 24.7 | +0.9 |
| SGF | | | | SG | Sb | 18 00 54.8 | +0.1 |
| BURU | Burvik | 2.49 | 175 | Pb | Pn | 18 00 29.3 | +1.8 |
| BURU | Burvik | 2.49 | 175 | P | Pn | 18 00 29.3 | +1.8 |
| BURU | | | | S | Sb | 18 01 01.4 | -1.0 |
| BURU | Burvik | 2.49 | 175 | PB | Pn | 18 00 29.3 | +1.8 |
| BURU | | | | SG | Sg | 18 01 05.1 | -0.6 |
| SVAU | Svanoeiden | 2.63 | 193 | P | Pn | 18 00 31.0 | +1.6 |
| SVAU | | | | S | Sn | 18 01 03.2 | +1.2 |
| TRO | Tromso | 2.69 | 345 | *e*P | Pg | 18 00 37.1 | -0.1 |
| TRO | | | | IAML | | 18 01 16.7 | |
| | comp=Z,9.9nm,0.3s | | | | | | |
| MOR8 | Moi Rana | 2.73 | 254 | *e*P | Pn | 18 00 31.4 | +0.8 |
| MOR8 | | | | *e*Sg | Sb | 18 01 08.0 | -1.2 |
| MOR8 | | | | IAML | | 18 01 10.2 | |
| | comp=Z,11nm,0.1s | | | | | | |
| MOR8 | Moi Rana | 2.73 | 254 | *e*P | Pn | 18 00 31.5 | +0.8 |
| | SNR=50 | | | | | | |
| MOR8 | | | | *e*Sg | Sb | 18 01 08.0 | -1.2 |
| | SNR=90 | | | | | | |
| OUL | Oulu | 2.84 | 132 | Pn | Pn | 18 00 33.5 | +1.3 |
| OUL | Oulu | 2.84 | 132 | PN | Pn | 18 00 33.5 | +1.3 |
| OUL | | | | SG | Sb | 18 01 12.7 | +0.2 |
| ARA0 | ARCESS Array S | 3.02 | 32 | Pn | Pn | 18 00 35.0 | +0.2 |
| | baz=209,slow=16 | | | | | | |
| ARA0 | | | | Sn | Sn | 18 01 11.9 | +0.3 |
| | baz=206,slow=28 | | | | | | |
| ARA0 | ARCESS Array S | 3.02 | 32 | Pn | Pn | 18 00 35.0 | +0.2 |
| | baz=209,slow=16 | | | | | | |
| ARA0 | | | | Sn | Sn | 18 01 11.9 | +0.3 |
| | baz=206,slow=28 | | | | | | |
| ARA0 | ARCESS Array S | 3.02 | 32 | Pn | Pn | 18 00 35.0 | +0.2 |
| | SNR=50 | | | | | | |
| ARA0 | | | | Sn | Sn | 18 01 11.9 | +0.3 |
| | SNR=50 | | | | | | |
| ARCES | ARCESS Array B | 3.02 | 32 | Pn | Pn | 18 00 34.8 | 0.0 |
| | comp=Z,0.9nm,0.3s,baz=210,slow=14,SNR=78 | | | | | | |
| ARCES | | | | Sn | Sn | 18 01 11.9 | +0.3 |
| | comp=Z,1.8nm,0.3s,baz=216,slow=23,SNR=10 | | | | | | |
| ARCES | | | | Lg | Lg | 18 01 18.9 | |
| | comp=Z,2.8nm,0.3s,baz=215,slow=30,SNR=12 | | | | | | |
| OUF | Merijarvi | 3.13 | 148 | Pn | Pn | 18 00 38.0 | +1.8 |
| OUF | Merijarvi | 3.13 | 148 | PN | Pn | 18 00 38.0 | +1.8 |
| | baz=330 | | | | | | |
| KONS | Konsvik | 3.13 | 263 | *e*P | Pn | 18 00 38.4 | +2.2 |
| KONS | | | | IAML | | 18 01 28.8 | |
| | comp=Z,9.5nm,0.4s | | | | | | |
| KONS | Konsvik | 3.13 | 263 | *e*P | Pn | 18 00 38.4 | +2.2 |
| | SNR=50 | | | | | | |
| UMAU | Umeaa | 3.19 | 182 | Pn | Pn | 18 00 38.5 | +1.5 |
| UMAU | Umeaa | 3.19 | 182 | P | Pn | 18 00 38.6 | +1.5 |
| UMAU | Umeaa | 3.19 | 182 | PN | Pn | 18 00 38.5 | +1.5 |
| STOK | Stokkvaagen | 3.22 | 261 | *e*P | Pn | 18 00 40.4 | +3.0 |
| STOK | Stokkvaagen | 3.22 | 261 | *e*P | Pn | 18 00 40.4 | +3.0 |
| | SNR=50 | | | | | | |
| BREU | Bredtraesk | 3.32 | 198 | P | Pn | 18 00 40.1 | +1.3 |
| VRF | Varrio | 3.43 | 74 | Pn | Pn | 18 00 42.8 | +2.4 |
| VRF | Varrio | 3.43 | 74 | PN | Pn | 18 00 42.8 | +2.4 |
| VRF | | | | SG | Sb | 18 01 31.2 | +1.7 |
| MSF | Maaselka | 3.46 | 106 | Pn | Pn | 18 00 42.5 | +1.7 |
| MSF | Maaselka | 3.46 | 106 | PN | Pn | 18 00 42.6 | +1.7 |
| KU6 | Riekki | 3.74 | 102 | Pn | Pn | 18 00 45.4 | +0.8 |
| KU6 | Riekki | 3.74 | 102 | PN | Pn | 18 00 45.5 | +0.8 |
| HUSU | Husum | 3.80 | 192 | P | Pn | 18 00 47.4 | +2.0 |
| HUSU | | | | S | Sn | 18 01 30.7 | 0.0 |
| VAF | Ylistaro | 4.10 | 169 | Pn | Pn | 18 00 51.3 | +1.8 |
| VAF | Ylistaro | 4.10 | 169 | PN | Pn | 18 00 51.3 | +1.8 |
| HEMU | Hemsoen | 4.56 | 197 | Pn | Pn | 18 00 57.9 | +2.0 |
| HEMU | Hemsoen | 4.56 | 197 | P | Pn | 18 00 57.3 | +1.4 |
| HEMU | Hemsoen | 4.56 | 197 | PN | Pn | 18 00 58.0 | +2.0 |
| | baz=19 | | | | | | |
| APA0 | Apatity Array | 4.71 | 78 | Pn | Pn | 18 00 57.6 | -0.3 |
| APA0 | | | | Sn | Sn | 18 01 52.5 | -0.7 |
| | baz=265,slow=28 | | | | | | |
| APA0 | | | | Lg | Lg | 18 02 09.9 | |
| | baz=270,slow=28 | | | | | | |
| APA0 | Apatity Array | 4.71 | 78 | Pn | Pn | 18 00 57.6 | -0.3 |
| APA0 | | | | Sn | Sn | 18 01 52.5 | -0.7 |
| | baz=265,slow=28 | | | | | | |
| APA0 | | | | Lg | Lg | 18 02 09.9 | |
| | baz=270,slow=28 | | | | | | |
| APA0 | Apatity Array | 4.71 | 78 | Pn | Pn | 18 00 57.6 | -0.3 |
| | SNR=50 | | | | | | |
| APA0 | | | | Sn | Sn | 18 01 52.5 | -0.7 |
| | SNR=50 | | | | | | |
| APA0 | | | | Lg | Lg | 18 02 09.9 | |
| | SNR=7.9 | | | | | | |
| HASU | Hassela | 5.26 | 203 | P | Pn | 18 01 07.4 | +1.9 |
| FIA0 | FINESS Array S | 6.07 | 156 | Pn | Pn | 18 01 18.4 | +1.8 |
| | baz=347,slow=16 | | | | | | |
| FIA0 | | | | Sn | Sn | 18 02 27.1 | +0.5 |
| | baz=344,slow=28 | | | | | | |
| FIA0 | FINESS Array S | 6.07 | 156 | Pn | Pn | 18 01 18.4 | +1.8 |
| | baz=347,slow=16 | | | | | | |
| FIA0 | | | | Sn | Sn | 18 02 27.1 | +0.5 |
| | baz=344,slow=28 | | | | | | |
| FIA0 | FINESS Array S | 6.07 | 156 | Pn | Pn | 18 01 18.4 | +1.8 |
| | SNR=50 | | | | | | |
| FIA0 | | | | Sn | Sn | 18 02 27.1 | +0.5 |
| | SNR=50 | | | | | | |
| FINES | FINESS Array B | 6.07 | 156 | Pn | Pn | 18 01 17.8 | +1.3 |
| | comp=Z,0.1nm,0.3s,baz=347,slow=12,SNR=9.4 | | | | | | |
| FINES | | | | Sn | Sn | 18 02 25.0 | -1.6 |
| | comp=Z,0.5nm,0.3s,baz=346,slow=22,SNR=9.3 | | | | | | |
| FINES | | | | Lg | Lg | 18 02 54.2 | |
| | comp=Z,0.3nm,0.3s,baz=338,slow=28,SNR=2.7 | | | | | | |
| NB2 | NORSAR Subarra | 7.38 | 220 | Pn | Pn | 18 01 35.0 | +0.4 |
| | baz=28,slow=14 | | | | | | |
| NB2 | NORSAR Subarra | 7.38 | 220 | Pn | Pn | 18 01 35.0 | +0.4 |
| | baz=28,slow=14 | | | | | | |
| NB2 | NORSAR Subarra | 7.38 | 220 | Pn | Pn | 18 01 35.0 | +0.4 |
| | SNR=50 | | | | | | |
| NOA | NORSAR Array B | 7.38 | 220 | Pn | Pn | 18 01 34.7 | +0.1 |
| | comp=Z,0.1nm,0.3s,baz=25,slow=10,SNR=4.6 | | | | | | |
| NOA | | | | Sn | Sn | 18 02 53.9 | -5.0 |
| | comp=Z,0.1nm,0.3s,baz=21,slow=19,SNR=2.6 | | | | | | |
| NOA | | | | Lg | Lg | 18 03 38.2 | |
| | comp=Z,0.3nm,0.3s,baz=32,slow=23,SNR=2.9 | | | | | | |
| HFS | Hagfors | 7.65 | 208 | Pn | Pn | 18 01 39.0 | +0.7 |
| | baz=22,slow=14 | | | | | | |
| HFS | | | | Sn | Sn | 18 03 04.2 | -1.3 |
| | baz=38,slow=28 | | | | | | |
| HFS | Hagfors | 7.65 | 208 | Pn | Pn | 18 01 38.9 | +0.7 |
| | comp=Z,0.1nm,0.3s,baz=23,slow=12,SNR=10 | | | | | | |
| HFS | | | | Sn | Sn | 18 03 01.7 | -3.9 |
| | comp=Z,0.1nm,0.3s,baz=23,slow=26,SNR=3.1 | | | | | | |
| HFS | | | | Lg | Lg | 18 03 40.7 | |
| | comp=Z,0.1nm,0.3s,baz=27,slow=26,SNR=2.5 | | | | | | |
| HFS | Hagfors | 7.65 | 208 | Pn | Pn | 18 01 39.0 | +0.7 |
| | baz=22,slow=14 | | | | | | |
| HFS | | | | Sn | Sn | 18 03 04.2 | -1.3 |
| | baz=38,slow=28 | | | | | | |
| HFS | Hagfors | 7.65 | 208 | Pn | Pn | 18 01 39.0 | +0.7 |
| | SNR=50 | | | | | | |
| HFS | | | | Sn | Sn | 18 03 04.2 | -1.3 |
| | SNR=50 | | | | | | |
| SPITS | Spitsbergen Ar | 11.26 | 355 | Pn | Pn | 18 02 27.3 | -0.2 |
| | baz=174,slow=16,SNR=2.2 | | | | | | |

*IDC **06** 18:00:48.5±1.4,22°.94S×171°.10E,h0km,mb3.9/6, mb1 4.2/7,mb1mx3.9/24,mbtmp4.0/7,ML4.0/1,MS3.4/7, Ms1 3.4/7,ms1mx3.1/30,Error ellipse: s-maj=61.1km s-min=26.1km az=164.0*
*ISCJB **06** 18:00:53.5±0.5,22°.74S±0°.08×170°.80E±0°.06,h35km, mb4.4/19,MS3.4/5,Error ellipse: s-maj=10.9km s-min=8.6km az=1.4*
*NEIC **06** 18:00:56.2±1.1,22°.70S×170°.82E,h48km±9km,mb4.6/16, Error ellipse: s-maj=11.6km s-min=9.3km az=158.0*
**ISC 06 18:00:54.7**±0.5**,22°.69S**±0°.10×**170°.82E**±0°.07**,h35**km**,n67,** σ**1s.19**/65**,mb4.5**/19**,MS3.4**/5**,Southeast of Loyalty Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DZM | Mont Dzumac | 4.10 | 278 | Pn | Pn | 18 01 55.8 | +0.8 |
| | 7.4nm,0.3s,baz=127,slow=16,SNR=376 | | | | | | |
| DZM | | | | Sn | Sn | 18 02 41.9 | +0.1 |
| | 22nm,0.3s,baz=319,slow=23,SNR=12 | | | | | | |
| DZM | | | | LR | LR | 18 03 42.8 | |
| | comp=Z,352nm,18.5s,baz=54,slow=40 | | | | | | |
| DZM | Mont Dzumac | 4.10 | 278 | *e*Pn | Pn | 18 01 55.7 | +0.6 |
| DZM | | | | *e*Sn | Sn | 18 02 39.2 | -2.6 |
| MSVF | Nonsavu | 8.39 | 55 | *e*Pn | Pn | 18 02 55.5 | +1.5 |
| LHI | Lord Howe Isla | 13.66 | 227 | *e*Pn | Pn | 18 04 08.4 | +2.3 |
| URZ | Urewera | 16.43 | 162 | LR | LR | 18 09 29.6 | |
| | comp=Z,133nm,20.3s,baz=350,slow=32 | | | | | | |
| HNR | Honiara | 16.81 | 320 | *e*Pn | Pn | 18 04 47.6 | +0.1 |
| | 35nm,0.9s | | | | | | |
| THZ | Tophouse | 19.10 | 175 | *e*P | Pn | 18 05 14.9 | -0.6 |
| | 62nm,1.5s | | | | | | |
| CTA | Charters Tower | 23.02 | 272 | P | P | 18 05 59.2 | +2.4 |
| | 3.4nm,0.9s,baz=91,slow=13,SNR=5.8 | | | | | | |
| CTAO | Charters Tower | 23.02 | 272 | *e*P | P | 18 05 58.0 | +1.2 |
| | 24nm,1.8s | | | | | | |
| STKA | Stephens Creek | 27.47 | 244 | LR | LR | 18 16 26.9 | |
| | comp=Z,77nm,21.7s,baz=32,slow=34 | | | | | | |
| STKA | Stephens Creek | 27.47 | 244 | *e*P | P | 18 06 36.5 | -1.2 |
| | 3.0nm,1.6s | | | | | | |
| COEN | Coen | 27.61 | 284 | *e*P | P | 18 06 36.4 | -2.7 |
| | 8.3nm,1.1s | | | | | | |
| AS01 | Alice Springs | 33.85 | 261 | *e*P | P | 18 07 35.4 | +1.2 |
| AS31 | Alice Springs | 33.89 | 261 | *e*P | P | 18 07 34.8 | +0.3 |
| | 0.8nm,0.6s | | | | | | |
| ASAR | Alice Springs | 33.89 | 261 | P | P | 18 07 35.2 | +0.7 |
| | 1.4nm,0.6s,baz=87,slow=9.6,SNR=41 | | | | | | |
| WB2 | Warramunga Arr | 34.03 | 268 | *e*P | P | 18 07 35.5 | -0.3 |
| WR1 | Warramunga Arr | 34.04 | 268 | *e*P | P | 18 07 35.5 | -0.3 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| | 11nm,1.6s | | | | | | |
| WRA | Warramunga Arr | 34.04 | 268 | P | P | 18 07 35.5 | -0.3 |
| | 0.4nm,0.4s,baz=97,slow=8.4,SNR=26 | | | | | | |
| MTN | Manton Dam | 38.94 | 278 | eP | P | 18 08 17.9 | +0.3 |
| | 28nm,1.8s | | | | | | |
| FAKI | Fak Fak | 42.23 | 292 | eP | P | 18 08 45.1 | +0.3 |
| | 53nm,1.4s | | | | | | |
| VNDA | Vanda | 55.05 | 182 | LR | LR | 18 32 12.0 | |
| | comp=Z,32nm,18.3s,baz=6.0,slow=34 | | | | | | |
| MJAR | Matsushiro Arr | 66.48 | 332 | LR | LR | 18 34 53.5 | |
| | comp=Z,22nm,21.6s,baz=10.0,slow=31 | | | | | | |
| SSLB | Suanglung | 66.96 | 310 | eP | P | 18 11 42.7 | -1.4 |
| | 94nm,1.8s | | | | | | |
| QSPA | South Pole Qui | 67.38 | 180 | eP | P | 18 11 46.3 | 0.0 |
| | 3.9nm,1.0s | | | | | | |
| IPM | Ipoh | 73.25 | 282 | eP | P | 18 12 23.5 | +0.6 |
| | 5.2nm,0.6s | | | | | | |
| KULM | Kulim | 73.93 | 283 | eP | P | 18 12 27.7 | +0.8 |
| | 18nm,1.4s | | | | | | |
| CM01 | Chiang Mai Arr | 81.23 | 294 | eP | P | 18 13 09.3 | +1.8 |
| CM31 | Chiang Mai Arr | 81.26 | 294 | eP | P | 18 13 08.1 | +0.3 |
| CMAR | Chiang Mai Arr | 81.26 | 294 | P | P | 18 13 09.7 | +2.0 |
| | 1.1nm,0.6s,baz=137,slow=3.9,SNR=9.6 | | | | | | |
| CHTO | Chiang Mai | 81.42 | 294 | eP | P | 18 13 09.9 | +1.3 |
| | 7.7nm,1.4s | | | | | | |
| OHAK | Old Harbor | 85.12 | 19 | eP | P | 18 13 27.8 | +1.1 |
| | 63nm,1.8s | | | | | | |
| SNAA | Sanae | 85.79 | 182 | P | P | 18 13 29.2 | -1.0 |
| SNAA | Sanae | 85.79 | 182 | eP | P | 18 13 29.4 | -0.8 |
| | 4.8nm,1.2s | | | | | | |
| VNA3 | Neumayer Olymp | 86.32 | 180 | P | P | 18 13 31.6 | -1.2 |
| VNA2 | Neumayer--Watz | 86.63 | 181 | P | P | 18 13 33.4 | -0.9 |
| | baz=178,slow=4.2 | | | | | | |
| SONA0 | Songino Array | 90.85 | 323 | eP | P | 18 13 54.8 | +0.2 |
| SONM | Songino Array | 90.85 | 323 | P | P | 18 13 54.8 | +0.2 |
| | 1.2nm,0.8s,baz=127,slow=3.9,SNR=5.6 | | | | | | |
| ILAR | Eielson Array | 93.08 | 17 | P | P | 18 14 05.1 | +0.7 |
| | 0.2nm,0.6s,baz=215,slow=4.4,SNR=3.5 | | | | | | |
| ANMO | Albuquerque | 97.04 | 55 | LR | LR | 18 51 47.6 | |
| | comp=Z,24nm,19.4s,baz=123,slow=32 | | | | | | |
| TXAR | Lajitas Array | 97.11 | 61 | LR | LR | 18 50 58.6 | |
| | comp=Z,12nm,19.3s,baz=0.0,slow=31 | | | | | | |
| AKTO | Aktyubinsk | 121.59 | 316 | PKP | PKPdf | 18 19 44.2 | -0.3 |
| | 0.4nm,0.4s,baz=63,slow=4.5,SNR=3.1 | | | | | | |
| ARA0 | ARCESS Array S | 128.77 | 345 | ePKPdf | PKPdf | 18 19 56.8 | -0.9 |
| ARCES | ARCESS Array B | 128.77 | 345 | PKP | PKPdf | 18 19 56.8 | -0.9 |
| | 3.6nm,0.9s,baz=83,slow=3.8,SNR=6.4 | | | | | | |
| KRLC | Kraliky | 145.93 | 330 | ePKP | PKPbc | 18 20 30.1 | -0.4 |
| DPC | Dobruska-Polom | 145.95 | 330 | ePKP | PKPab | 18 20 30.7 | -0.4 |
| UPC | Upice | 145.98 | 331 | ePKP | PKPab | 18 20 30.6 | -0.5 |
| BRG | Berggiesshubel | 146.60 | 333 | eP | PKPbc | 18 20 32.1 | -0.3 |
| | 7.6nm,1.0s | | | | | | |
| CLL | Collm | 146.66 | 334 | i PKPbc | PKPbc | 18 20 32.0 | -0.5 |
| | comp=Z,9.0nm,1.1s | | | | | | |
| GOPC | GO Pecny, Ondr | 146.95 | 331 | ePKP | PKPbc | 18 20 32.1 | -1.4 |
| PRU | Pruhonice | 147.00 | 332 | ePKP | PKPab | 18 20 33.8 | -1.3 |
| NKC | Novy Kostel | 147.71 | 334 | ePKP | PKPbc | 18 20 35.4 | -0.2 |
| CONA | Conrad Observa | 147.84 | 328 | i PKPbc | PKPbc | 18 20 34.4 | -1.7 |
| | comp=Z,2.8nm,0.7s | | | | | | |
| KHC | Kasperske Hory | 148.06 | 331 | ePKP | PKPbc | 18 20 36.4 | -0.2 |
| GERES | GERESS Array B | 148.22 | 331 | PKPbc | PKPbc | 18 20 36.7 | -0.4 |
| | comp=Z,3.0nm,0.8s,baz=26,slow=3.4,SNR=12 | | | | | | |
| MOA | Molln | 148.67 | 329 | i PKPab | PKPab | 18 20 41.1 | -0.8 |
| | comp=Z,3.1nm,1.1s | | | | | | |
| SOKA | Soboth | 149.10 | 327 | i PKPbc | PKPbc | 18 20 38.9 | -0.5 |
| | comp=Z,4.8nm,1.2s | | | | | | |
| KBA | Koelnbreinsper | 149.66 | 329 | i PKiKP | PKiKP | 18 20 42.5 | +0.6 |
| | comp=Z,7.1nm,1.1s | | | | | | |
| MYKA | Terra Mystica | 149.83 | 328 | i PKPbc | PKPbc | 18 20 40.5 | -0.6 |
| | comp=Z,2.9nm,0.6s | | | | | | |
| WATA | Walderalm | 150.29 | 331 | i PKPbc | PKPbc | 18 20 42.0 | -0.3 |
| | comp=Z,2.1nm,0.5s | | | | | | |
| ABTA | Abfaltersbach | 150.29 | 329 | i PKPbc | PKPbc | 18 20 39.9 | -2.5 |
| | comp=Z,5.1nm,0.7s | | | | | | |
| WTTA | Wattenberg | 150.32 | 331 | i PKPbc | PKPbc | 18 20 42.1 | -0.4 |
| | comp=Z,12nm,1.6s | | | | | | |
| MOTA | Moosalm | 150.50 | 331 | i PKPbc | PKPbc | 18 20 42.3 | -0.6 |
| | comp=Z,3.9nm,0.6s | | | | | | |
| RETA | Reutte | 150.54 | 332 | i PKPbc | PKPbc | 18 20 42.4 | -0.5 |
| | comp=Z,6.2nm,1.2s | | | | | | |
| FETA | Feichten | 150.91 | 331 | i PKPbc | PKPbc | 18 20 43.4 | -0.4 |
| | comp=Z,8.5nm,0.9s | | | | | | |
| DAVA | Damuels | 151.07 | 333 | i PKPbc | PKPbc | 18 20 41.0 | -3.3 |
| | comp=Z,5.7nm,1.1s | | | | | | |
| TORD | Torodi Ar. Bea | 165.97 | 229 | PKP | PKPdf | 18 20 55.0 | -1.9 |
| | comp=Z,1.0nm,0.9s,baz=154,slow=1.2,SNR=5.0 | | | | | | |
| TORD | | | | PKPab | PKPab | 18 21 56.8 | 0.0 |
| | comp=Z,0.8nm,1.0s,baz=68,slow=2.3,SNR=3.6 | | | | | | |
| TOA1 | Torodi Ar. Sit | 165.97 | 229 | ePKPdf | PKPdf | 18 20 55.0 | -1.9 |
| TOA1 | | | | ePKPab | PKPab | 18 21 56.8 | 0.0 |

*DDA **06** 18:01:50.6, 38°.72N×43°.19E, h7km, Ml2.8*
*ISK **06** 18:01:50.4, 38°.74N×43°.21E, h6km, MD2.7*
*ISCJB **06** 18:01:51.5±0.4, 38°.75N±0°.02×43°.19E±0°.04, h5km±6km, Error ellipse: s-maj=4.8km s-min=3.6km az=1.9*
*CSEM **06** 18:01:51.1±0.2, 38°.75N×43°.19E, h10km, MD2.7, Error ellipse: s-maj=4.6km s-min=3.6km az=101.0*

**ISC 06 18:01:51.2**±0.9, **38°.75N**±0°.02×**43°.18E**±0°.03, **h14**km±7km, **n30**, σ0s.78/52, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.22 | 134 | ePG | Pg | 18 01 56.4 | +0.3 |
| VANB | | | | eSG | Sg | 18 02 01.0 | +1.5 |
| VANB | Van | 0.22 | 134 | ePg | Pg | 18 01 56.4 | +0.3 |
| VANB | | | | eSg | Sg | 18 02 01.0 | +1.5 |
| TVAN | Van | 0.28 | 142 | i P | Pg | 18 01 56.2 | -0.9 |
| TVAN | | | | i S | Sg | 18 02 01.2 | -0.1 |
| TVAN | Van | 0.28 | 142 | P | Pg | 18 01 56.2 | -0.9 |
| TVAN | | | | S | Sg | 18 02 01.2 | -0.1 |
| ERCV | ERCIS-VAN | 0.30 | 24 | ePG | Pg | 18 01 56.7 | -0.7 |
| ERCV | | | | eSG | Sg | 18 02 01.6 | -0.1 |
| ERCV | ERCIS-VAN | 0.30 | 24 | ePg | Pg | 18 01 56.7 | -0.7 |
| ERCV | | | | eSg | Sg | 18 02 01.6 | -0.1 |
| ADCV | BITLIS_Adilcev | 0.36 | 279 | i P | Pb | 18 01 58.9 | -0.7 |
| ADCV | | | | i S | Sb | 18 02 05.6 | +0.4 |
| ADCV | BITLIS_Adilcev | 0.36 | 279 | P | Pb | 18 01 58.9 | -0.7 |
| ADCV | | | | S | Sb | 18 02 05.6 | +0.4 |
| VMUR | Van-Muradiye | 0.39 | 52 | i P | Pb | 18 01 59.2 | -0.8 |
| VMUR | | | | i S | Sb | 18 02 05.9 | 0.0 |
| VMUR | Van-Muradiye | 0.39 | 52 | P | Pb | 18 01 59.2 | -0.8 |
| VMUR | | | | S | Sb | 18 02 05.9 | 0.0 |
| GEVA | Gevas | 0.45 | 193 | i P | Pg | 18 01 58.8 | -1.3 |
| GEVA | | | | i S | Sb | 18 02 07.7 | +0.1 |
| GEVA | Gevas | 0.45 | 193 | P | Pg | 18 01 58.8 | -1.3 |
| GEVA | | | | S | Sb | 18 02 07.7 | +0.1 |
| CLDR | Caldiran | 0.69 | 55 | ePG | Pg | 18 02 04.0 | -0.8 |
| CLDR | | | | eSG | Sg | 18 02 13.8 | -0.1 |
| CLDR | Caldiran | 0.69 | 55 | i P | Pg | 18 02 04.1 | -0.7 |
| CLDR | | | | i S | Sb | 18 02 14.7 | -0.1 |
| CLDR | Caldiran | 0.69 | 55 | P | Pg | 18 02 04.1 | -0.7 |
| CLDR | | | | eSg | Sg | 18 02 13.8 | -0.1 |
| CLDR | | | | S | Sb | 18 02 14.7 | -0.1 |
| TUTA | Tutak | 0.71 | 336 | i P | Pg | 18 02 04.7 | -0.4 |
| TUTA | | | | i S | Sb | 18 02 15.0 | -0.3 |
| TUTA | Tutak | 0.71 | 336 | P | Pg | 18 02 04.7 | -0.4 |
| TUTA | | | | S | Sb | 18 02 15.0 | -0.3 |
| AGRB | Hanur-Agry | 0.84 | 350 | ePG | Pg | 18 02 07.0 | -0.5 |
| AGRB | Hanur-Agry | 0.84 | 350 | ePg | Pg | 18 02 07.0 | -0.5 |
| EATA | Eleskirt | 1.23 | 334 | i P | Pg | 18 02 14.0 | -1.0 |
| EATA | | | | i S | Sn | 18 02 32.9 | +1.9 |
| EATA | Eleskirt | 1.23 | 334 | P | Pg | 18 02 14.0 | -1.0 |
| EATA | | | | S | Sn | 18 02 32.9 | +1.9 |
| SRTM | Siirt_Merkez | 1.25 | 233 | i P | Pg | 18 02 14.5 | -0.7 |
| SRTM | | | | i S | Sn | 18 02 31.4 | +0.4 |
| SRTM | Siirt_Merkez | 1.25 | 233 | P | Pg | 18 02 14.5 | -0.7 |
| SRTM | | | | S | Sn | 18 02 31.4 | +0.4 |
| SIRT | Sirnak | 1.38 | 205 | ePN | Pg | 18 02 16.9 | -0.8 |
| SIRT | Sirnak | 1.38 | 205 | ePn | Pg | 18 02 16.9 | -0.8 |
| CUKT | Cukurca | 1.54 | 167 | ePN | Pn | 18 02 18.8 | +0.5 |
| CUKT | Cukurca | 1.54 | 167 | ePn | Pn | 18 02 18.8 | +0.5 |
| HOMI | Horasan | 1.63 | 323 | i P | Pg | 18 02 22.8 | +0.3 |
| DIGO | Kars | 1.67 | 5 | i P | Pg | 18 02 22.4 | -0.9 |
| DIGO | Kars | 1.67 | 5 | P | Pg | 18 02 22.4 | -0.9 |

*IDC **06** 18:10:00.5±2.1, 12°.19N×86°.58W, h22km±8km, mb3.6/6, mb1 3.9/6, mb1mx3.6/33, mbtmp3.7/6, Error ellipse: s-maj=67.8km s-min=37.3km az=108.0*
*ISCJB **06** 18:10:27.6±0.8, 13°.2N±0°.2×87°.81W±0°.10, h193km±7km, mb3.5/6, Error ellipse: s-maj=36.4km s-min=9.3km az=21.4*
*CASC **06** 18:10:28.6±0.8, 13°.09N×87°.89W, h181km±6km, MD3.8, ML4.0*

**ISC 06 18:10:27.2**±0.9, **13°.1N**±0°.1×**87°.87W**±0°.08, **h196**km±7km, **n25**, σ2s.17/30, **mb3.5**/6, **1C**, **Honduras**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CNCH | Conchagua | 0.15 | 11 | eP | Pn | 18 10 52.8 | -0.3 |
| LCND | La Caˆ–ada | 0.19 | 352 | eP | Pn | 18 10 52.8 | -0.2 |
| LCY | Lacayo | 0.51 | 306 | i P | Pn | 18 10 54.2 | +0.2 |
| PACA | Pacayal | 0.56 | 308 | eP | Pn | 18 10 54.3 | +0.1 |
| CRIN | San Cristobal | 0.90 | 118 | eP | Pn | 18 10 56.6 | +0.6 |
| CRIN | | | | eS | Sn | 18 11 17.7 | -0.5 |
| CRIN | | | | AML | AML | 18 11 21.8 | |
| | comp=N,2µm,0.2s | | | | | | |
| TGUH | Tegucigalpa,Un | 1.09 | 32 | eP | Pn | 18 10 57.4 | +0.3 |
| LFRS | El Faro | 1.27 | 293⇑ | iP | Pn | 18 10 59.1 | +0.5 |
| LFRS | | | | eS | Sn | 18 11 22.9 | -0.1 |
| LBRS | Las Brisas | 1.30 | 298 | eP | Pn | 18 10 59.6 | +0.7 |
| SNET | Serv Nac Est T | 1.44 | 293 | eP | Pn | 18 10 59.9 | -0.2 |
| ESTN | Estel | 1.46 | 91 | eP | Pn | 18 11 00.6 | +0.3 |
| MOMN | Momotombo | 1.48 | 119 | eP | Pn | 18 11 00.8 | +0.4 |
| BOQS | Boqueron | 1.50 | 294 | eP | Pn | 18 11 01.6 | +0.8 |
| COPN | Copaltepe | 1.56 | 127 | eP | Pn | 18 11 01.8 | +0.7 |
| SBLS | San Blas | 1.85 | 293 | eP | Pn | 18 11 05.1 | +1.0 |
| MONT | Ecomontaæa | 1.88 | 293 | eP | Pn | 18 11 05.6 | +1.2 |
| RTR | El Retiro | 1.90 | 294 | eP | Pn | 18 11 05.6 | +1.1 |
| CMIG | Matias Romero | 7.84 | 301 | Pn | Pn | 18 12 18.9 | +0.5 |
| | comp=N,0.4nm,0.3s,baz=142,slow=12,SNR=3.6 | | | | | | |
| CMIG | | | | Sn | Sn | 18 13 42.5 | -4.4 |
| | comp=N,0.5nm,0.3s,baz=233,slow=20,SNR=4.8 | | | | | | |
| TXAR | Lajitas Array | 21.80 | 320 | P | P | 18 15 06.3 | +2.4 |
| | comp=N,1.2nm,0.6s,baz=139,slow=9.5,SNR=14 | | | | | | |
| TKL | Tuckaleechee C | 22.74 | 9 | P | P | 18 15 07.7 | -4.8 |
| | comp=N,2.0nm,0.6s,baz=146,slow=7.3,SNR=2.1 | | | | | | |
| TKL | | | | pP | pP | 18 15 15.4 | -32 |
| | comp=N,11nm,0.8s,baz=160,slow=10,SNR=6.6 | | | | | | |
| PDAR | Pinedale Array | 34.99 | 332 | P | P | 18 17 03.9 | +2.7 |
| | comp=N,0.2nm,0.3s,baz=123,slow=11,SNR=4.5 | | | | | | |
| ULM | Lac du Bonnet | 37.60 | 352 | P | P | 18 17 22.9 | +0.2 |
| | comp=N,2.0nm,0.4s,baz=156,slow=11,SNR=3.7 | | | | | | |
| YKA | Yellowknife Ar | 52.86 | 345 | P | P | 18 19 24.1 | +1.7 |
| | comp=N,0.4nm,0.5s,baz=145,slow=6.6,SNR=5.0 | | | | | | |
| ILAR | Eielson Array | 65.25 | 336 | P | P | 18 20 49.0 | +1.5 |
| | comp=N,0.2nm,0.4s,baz=162,slow=4.8,SNR=5.7 | | | | | | |
| WRA | Warramunga Arr | 139.06 | 255 | PKP | PKPdf | 18 29 26.4 | -5.0 |
| | comp=N,0.5nm,1.1s,baz=90,slow=3.7,SNR=5.0 | | | | | | |
| WRA | | | | pPKP | PKiKP | 18 29 35.1 | +1.5 |
| | comp=N,1.1nm,0.5s,baz=90,slow=2.9,SNR=8.8 | | | | | | |
| ASAR | Alice Springs | 139.14 | 249 | PKP | PKPdf | 18 29 26.4 | -5.1 |
| | comp=N,0.3nm,0.8s,baz=114,slow=4.6,SNR=4.1 | | | | | | |
| ASAR | | | | pPKP | PKiKP | 18 29 35.1 | +1.4 |
| | comp=N,1.1nm,0.6s,baz=87,slow=1.8,SNR=10.0 | | | | | | |

*IDC **06** 18:16:38.0±0.7, 0°.94S×127°.11E, h0km, mb4.1/18, mb1 4.1/19, mb1mx4.0/42, mbtmp4.1/19, ML3.7/1, MS3.4/2, Ms1 3.3/2, ms1mx2.7/32, Error ellipse: s-maj=25.7km s-min=14.2km az=77.0*
*ISCJB **06** 18:16:40.6±0.2, 1°.08S±0°.03×126°.94E±0°.04, h34km, mb4.5/42, MS3.5/3, Error ellipse: s-maj=6.6km s-min=4.0km az=150.4*
*NEIC **06** 18:16:42.9±0.8, 1°.09S×126°.85E, h38km±8km, mb4.6/20, Error ellipse: s-maj=7.8km s-min=4.3km az=65.0*
*BJI **06** 18:16:43.6, 0°.99S×126°.80E, h42km, mb4.5/34, mB4.9/20, Ms4.9/9, Ms7 4.7/9*

**ISC 06 18:16:42.8**±0.4, **1°.06S**±0°.05×**126°.90E**±0°.06, **h34**km, **n90**, σ1s.41/93, **mb4.6**/42, **MS3.4**/3, **1D**, **Southern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LBMI | Labuha | 0.73 | 55 | P | Pn | 18 16 53.9 | -2.9 |
| LBMI | Labuha | 0.73 | 55 | S | Pn | 18 16 54.1 | -2.7 |
| SANI | Sanana | 1.34 | 223 | S | Pn | 18 17 03.8 | -1.3 |
| AAI | Ambon | 2.91 | 154 | S | Pn | 18 17 29.2 | +2.4 |
| MSAI | Masohi | 3.04 | 138 | P | Pn | 18 17 26.8 | -1.8 |
| MSAI | Masohi | 3.04 | 138 | S | Pn | 18 17 31.5 | +2.9 |
| FAKI | Fak Fak | 5.66 | 109 | P | Pn | 18 18 06.4 | +1.9 |
| FAKI | Fak Fak | 5.66 | 109 | ePn | Pn | 18 18 05.3 | +0.7 |
| FAKI | | | | eSn | Sn | 18 19 07.0 | -1.4 |
| KAPI | Kappang | 8.14 | 241 | ePn | Pn | 18 18 35.2 | -3.6 |
| MMRI | Maumere | 8.84 | 212 | ePn | Pn | 18 18 47.5 | -0.8 |
| SOEI | Soe | 9.03 | 197 | ePn | Pn | 18 18 49.8 | -1.1 |
| MYLDM | Lahad Datu | 10.43 | 307 | ePn | Pn | 18 19 10.5 | +0.4 |
| MTN | Manton Dam | 12.44 | 160 | ePn | Pn | 18 19 38.2 | +0.7 |
| KKM | Kota Kinabalu | 12.79 | 304 | ePn | Pn | 18 19 43.7 | +1.2 |
| FITZ | Fitzroy Crossi | 16.98 | 184 | P | Pn | 18 20 38.2 | +0.4 |
| | 0.2nm,0.3s,baz=14,slow=10.0,SNR=5.6 | | | | | | |
| WRAB | Tennant Creek | 20.12 | 159 | eP | P | 18 21 12.9 | -1.1 |
| | 9.3nm,0.8s | | | | | | |
| WR1 | Warramunga Arr | 20.13 | 159 | eP | P | 18 21 13.8 | -0.3 |
| | 8.7nm,0.6s | | | | | | |
| WRA | Warramunga Arr | 20.13 | 159 | P | P | 18 21 13.8 | -0.3 |
| | 2.2nm,0.5s,baz=341,slow=11,SNR=22 | | | | | | |
| WB2 | Warramunga Arr | 20.13 | 159 | eP | P | 18 21 14.0 | -0.2 |
| COEN | Coen | 20.58 | 129 | eP | Pn | 18 21 20.1 | -1.3 |
| | 16nm,0.8s | | | | | | |
| MBWA | Marble Bar | 21.16 | 199 | eP | P | 18 21 23.0 | -2.3 |
| | 17nm,0.9s | | | | | | |
| AS31 | Alice Springs | 23.48 | 164 | eP | P | 18 21 50.2 | +0.6 |
| | 9.9nm,1.5s | | | | | | |
| ASAR | Alice Springs | 23.48 | 164 | P | P | 18 21 49.9 | +0.2 |
| | 2.8nm,0.7s,baz=345,slow=11,SNR=26 | | | | | | |
| AS01 | Alice Springs | 23.49 | 164 | eP | P | 18 21 50.2 | +0.4 |
| MNAI | Manna | 24.14 | 262 | eP | P | 18 21 55.2 | -0.8 |
| TWG | Pinlang | 24.41 | 347 | eP | P | 18 21 57.7 | -0.5 |
| | 581nm,2.0s | | | | | | |
| YULB | Yu-li | 24.91 | 348 | eP | P | 18 22 01.8 | -1.0 |
| | 60nm,1.6s | | | | | | |
| TPUB | Ta-pu | 24.97 | 346 | eP | P | 18 22 01.8 | -1.6 |
| | 171nm,2.0s | | | | | | |
| SSLB | Suanglung | 25.37 | 347 | eP | P | 18 22 06.0 | -1.0 |
| | 112nm,1.8s | | | | | | |
| YOJ | Yonaguni jima | 25.65 | 352 | eP | P | 18 22 10.5 | +1.0 |
| | 235nm,1.3s | | | | | | |
| QIZ | Qiongzhong | 26.07 | 321 | P | P | 18 22 13.1 | -0.3 |
| QIZ | | | | pmax | pmax | | |
| | comp=Z,36nm,2.2s | | | | | | |
| YHNB | Yeheng | 26.13 | 349 | eP | P | 18 22 13.5 | -0.5 |
| | 297nm,2.0s | | | | | | |
| IPM | Ipoh | 26.43 | 282 | eP | P | 18 22 16.6 | -0.2 |
| | 4.5nm,0.7s | | | | | | |
| CTAO | Charters Tower | 26.76 | 136 | eP | P | 18 22 17.8 | -1.9 |
| | 9.4nm,1.1s | | | | | | |
| KULM | Kulim | 26.97 | 284 | eP | P | 18 22 20.4 | -1.2 |
| | 20nm,1.5s | | | | | | |
| FORT | Forrest | 29.58 | 178 | eP | P | 18 22 43.2 | -1.4 |
| | 312nm,1.3s | | | | | | |
| BBOO | Buckleboo | 32.74 | 166 | eP | P | 18 23 11.4 | -1.1 |
| | 30nm,1.8s | | | | | | |
| CMAR | Chiang Mai Arr | 33.64 | 307 | P | P | 18 23 21.9 | +1.3 |
| | 0.3nm,0.7s,baz=132,slow=6.5,SNR=4.1 | | | | | | |
| STKA | Stephens Creek | 33.65 | 157 | P | P | 18 23 21.2 | +0.7 |
| | 5.0nm,0.8s,baz=330,slow=8.9,SNR=11 | | | | | | |
| STKA | | | | LR | LR | 18 37 13.6 | |
| | comp=Z,59nm,20.4s,baz=17,slow=37 | | | | | | |
| STKA | Stephens Creek | 33.65 | 157 | eP | P | 18 23 20.9 | +0.5 |
| | 1.1nm,0.8s | | | | | | |
| NJ2 | Nanjing | 33.80 | 348 | eP | P | 18 23 23.6 | +1.8 |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,13nm,0.6s | | | | | | |
| CHTO | Chiang Mai | 33.83 | 307 | eP | P | 18 23 20.9 | -1.3 |
| | 18nm,2.0s | | | | | | |
| KMI | Kunming | 35.00 | 320 | P | P | 18 23 33.9 | +1.4 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.6s | | | | | | |
| KMI | | | | pmax | pmax | | |
| | comp=Z,140nm,3.9s | | | | | | |
| KS15 | Wonju Array Si | 38.32 | 1 | eP | P | 18 23 59.9 | -0.5 |
| KSAR | Wonju Array Be | 38.32 | 1 | P | P | 18 23 59.9 | -0.5 |
| KSRS | Korea Array | 38.33 | 1 | P | P | 18 23 59.9 | -0.6 |
| | 2.0nm,0.6s,baz=174,slow=9.7,SNR=10 | | | | | | |
| KS01 | Wonju Array Si | 38.36 | 1 | eP | P | 18 24 00.5 | -0.2 |
| XAN | Xi'an | 38.79 | 336 | P | P | 18 24 03.9 | -0.5 |
| XAN | | | | pP | pP | 18 24 14.1 | -0.3 |
| XAN | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.6s | | | | | | |
| XAN | | | | pmax | pmax | | |
| | comp=Z,50nm,4.5s | | | | | | |
| MJAR | Matsushiro Arr | 38.86 | 15 | P | P | 18 24 02.6 | -2.4 |
| | 1.1nm,0.6s,baz=199,slow=11,SNR=4.7 | | | | | | |
| LZH | Lanzhou | 42.74 | 332 | eP | P | 18 24 40.3 | +3.1 |
| LZH | | | | pP | sP | 18 24 52.1 | +0.8 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,14nm,0.6s | | | | | | |
| HHC | Hu-ho-hao-te | 43.99 | 343 | eP | P | 18 24 49.7 | +2.6 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,11nm,1.0s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,180nm,5.6s | | | | | | |
| PALK | Pallekele | 46.82 | 281 | P | P | 18 25 12.7 | +2.8 |
| | 3.4nm,0.7s,baz=112,slow=11,SNR=2.1 | | | | | | |
| TAPN | Taplejung | 47.09 | 310 | eP | P | 18 25 11.7 | -0.4 |
| ODAN | Odare | 47.09 | 309 | eP | P | 18 25 12.0 | 0.0 |
| | 8.2nm,0.8s | | | | | | |
| ASAJ | Asahikawa | 47.12 | 15 | P | P | 18 25 12.2 | +0.5 |
| | 2.0nm,0.5s,baz=188,slow=7.1,SNR=4.4 | | | | | | |
| ASAJ | Asahikawa | 47.12 | 15 | eP | P | 18 25 11.5 | -0.1 |
| | 12nm,1.3s | | | | | | |
| GTA | Gaotai | 47.31 | 331 | eP | P | 18 25 14.4 | +1.0 |
| GTA | | | | pP | pP | 18 25 23.3 | -0.3 |
| GTA | | | | sP | sP | 18 25 27.5 | -0.1 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.1s | | | | | | |
| RAMN | Ramite | 47.75 | 309 | eP | P | 18 25 18.0 | +0.8 |
| GUN | Gumba | 48.77 | 309 | eP | P | 18 25 24.4 | -0.8 |
| | 18nm,0.8s | | | | | | |
| PKI | Pulchoki | 48.98 | 309 | eP | P | 18 25 26.6 | -0.1 |
| PKIN | Phulchoki | 48.99 | 309 | eP | P | 18 25 27.7 | +0.9 |
| KKN | Kakani | 49.18 | 309 | eP | P | 18 25 28.7 | +0.5 |
| DMN | Daman | 49.23 | 309 | eP | P | 18 25 29.5 | +0.9 |
| KLR | Kul'dur | 50.27 | 4 | P | P | 18 25 34.4 | -1.4 |
| | 0.2nm,0.6s,baz=224,slow=4.9,SNR=4.0 | | | | | | |
| KOLN | Koldanda | 50.49 | 308 | eP | P | 18 25 37.3 | -0.8 |
| | 16nm,0.7s | | | | | | |
| DANN | Dangsing | 50.63 | 309 | eP | P | 18 25 38.7 | -0.6 |
| PYUN | Piuthan | 51.12 | 308 | eP | P | 18 25 43.3 | +0.5 |
| | 17nm,0.6s | | | | | | |
| ULN | Ulaanbaatar | 51.71 | 343 | eP | P | 18 25 45.7 | -1.1 |
| | 4.8nm,1.1s | | | | | | |
| SONA0 | Songino Array | 51.88 | 343 | eP | P | 18 25 48.0 | 0.0 |
| SONM | Songino Array | 51.88 | 343 | P | P | 18 25 48.0 | 0.0 |
| | 1.6nm,0.8s,baz=150,slow=9.5,SNR=8.0 | | | | | | |
| SONA1 | Songino Array | 51.88 | 343 | eP | P | 18 25 48.1 | -0.1 |
| WMQ | Urumqi | 56.76 | 327 | P | P | 18 26 25.1 | +1.5 |
| WMQ | | | | pP | sP | 18 26 37.8 | -0.2 |
| WMQ | | | | sP | pP | 18 26 43.0 | +9.0 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,15nm,0.9s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,180nm,5.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,45nm,13.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,58nm,17.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,58nm,18.5s | | | | | | |
| PETK | Petropavlovsk- | 59.80 | 21 | P | P | 18 26 44.0 | -0.5 |
| | 2.6nm,0.5s,baz=181,slow=4.7,SNR=7.3 | | | | | | |
| PEA1 | Petropavlovsk- | 59.80 | 21 | eP | P | 18 26 44.0 | -0.5 |
| MK01 | Makanchi Array | 61.58 | 327 | eP | P | 18 26 56.0 | -0.9 |
| KSH | Kashi | 61.59 | 317 | P | P | 18 26 58.9 | +1.7 |
| KSH | | | | pP | sP | 18 27 11.8 | +0.2 |
| KSH | | | | PcP | PcP | 18 27 39.2 | +0.5 |
| KSH | | | | PP | PP | 18 29 17.4 | +4.3 |
| KSH | | | | S | S | 18 35 16.3 | -0.9 |
| KSH | | | | ScS | SKKSac | 18 36 42.7 | -3.8 |
| KSH | | | | SS | SS | 18 39 20.6 | +1.6 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.0s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,74nm,6.2s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,120nm,5.1s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,110nm,5.5s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,170nm,6.0s | | | | | | |
| MK32 | Makanchi Array | 61.60 | 327 | eP | P | 18 26 57.6 | +0.6 |
| MKAR | Makanchi Array | 61.60 | 327 | P | P | 18 26 57.6 | +0.6 |
| | 1.8nm,0.6s,baz=116,slow=7.8,SNR=11 | | | | | | |
| YAK | Yakutsk | 62.96 | 1 | P | P | 18 27 05.7 | -0.1 |
| | 10.0nm,0.5s,baz=192,slow=3.4,SNR=4.4 | | | | | | |
| YAK | Yakutsk | 62.96 | 1 | eP | P | 18 27 05.5 | -0.2 |
| | 12nm,0.6s | | | | | | |
| AAK | Ala-Archa | 64.04 | 319 | P | P | 18 27 12.8 | -0.8 |
| | 0.5nm,0.4s,baz=190,slow=11,SNR=3.5 | | | | | | |
| ZALV | Zalesovo Beam | 64.92 | 334 | P | P | 18 27 18.3 | -0.6 |
| | 0.5nm,0.3s,baz=116,slow=3.4,SNR=3.9 | | | | | | |
| ZAA1 | Zalesovo Array | 64.93 | 334 | eP | P | 18 27 18.3 | -0.6 |
| KURK | Kurchatov | 65.87 | 329 | eP | P | 18 27 25.5 | +0.5 |
| | 8.8nm,1.0s | | | | | | |
| BVAR | Borovoye Array | 71.42 | 328 | P | P | 18 28 00.5 | +0.8 |
| | 0.5nm,0.5s,baz=141,slow=9.6,SNR=5.4 | | | | | | |
| TIXI | Tiksi | 72.60 | 1 | P | P | 18 28 04.9 | -1.4 |
| | 4.8nm,0.5s,baz=191,slow=3.7,SNR=11 | | | | | | |
| VNDA | Vanda | 78.68 | 173 | LR | LR | 19 03 12.8 | |
| | comp=Z,18nm,18.4s,baz=342,slow=36 | | | | | | |
| SYO | Syowa Base | 88.05 | 201⇓ | epP | pP | 18 29 44.0 | +3.8 |
| ARA0 | ARCESS Array S | 94.97 | 340 | eP | P | 18 30 01.5 | 0.0 |
| ARCES | ARCESS Array B | 94.97 | 340 | P | P | 18 30 01.5 | 0.0 |
| | 2.9nm,0.9s,baz=84,slow=8.3,SNR=2.7 | | | | | | |

*ISCJB **06** 18:18:36.9±0.3, 13°.23N±0°.04×52°.79W±0°.03, h10km, mb4.6/90, MS3.5/9, Error ellipse: s-maj=6.3km s-min=4.6km az=162.4*
*IDC **06** 18:18:36.5±0.8, 13°.25N×52°.71W, h0km, mb4.0/9, mb1 4.3/13, mb1mx4.0/39, mbtmp4.2/13, ML4.1/3, MS3.3/11, Ms1 3.3/11, ms1mx3.1/38, Error ellipse: s-maj=22.8km s-min=16.7km az=4.0*
*NEIC **06** 18:18:37.9±0.3, 13°.20N×52°.70W, h10km, mb4.7/83, Error ellipse: s-maj=6.3km s-min=5.1km az=196.0*
*BJI **06** 18:18:38.3, 13°.20N×52°.60W, h15km, mB5.4/2, Ms5.0/2, Ms7 4.9/4*

**ISC 06 18:18:38.4**±0.5, **13°.30N**±0°.07×**52°.82W**±0°.06, **h10**km, **n373**, σ1s.51/379, **mb4.7**/90, **MS3.5**/9, **North Atlantic Ocean**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BBGH | Gun Hill | 6.56 | 269 | ePn | Pn | 18 20 17.1 | +2.1 |
| BBGH | Gun Hill | 6.56 | 269 | eP | Pn | 18 20 17.7 | +2.7 |
| TOSP | Speyside | 7.79 | 256 | eP | Pn | 18 20 34.0 | +2.0 |
| H05S1 | Guadeloupe/Mar | 7.86 | 279 | Pn | Pn | 18 20 33.8 | +0.9 |
| H05S1 | | | | Sn | Sn | 18 21 56.0 | -6.0 |
| H05S1 | | | | T | T | 18 29 03.9 | |
| | SNR=22 | | | | | | |
| MCLT | Moule a Chique | 7.91 | 274 | eP | Pn | 18 20 34.1 | +0.6 |
| MVM | Montagne Vaucl | 7.94 | 280 | eP | Pn | 18 20 35.5 | +1.6 |
| BIM | Bigot | 8.10 | 280 | eP | Pn | 18 20 37.6 | +1.4 |
| SVCV | St. Vincent, C | 8.10 | 271 | eP | Pn | 18 20 37.6 | +1.4 |
| SSV | Crater Summit | 8.15 | 271 | eP | Pn | 18 20 40.0 | +3.1 |
| SVV | Soufriere Volc | 8.17 | 271 | eP | Pn | 18 20 40.4 | +3.3 |
| FCV | Fort Charlotte | 8.20 | 270 | eP | Pn | 18 20 39.6 | +2.0 |
| SVB | Belmont | 8.21 | 271 | ePn | Pn | 18 20 39.0 | +1.4 |
| SVB | | | | eSn | Sn | 18 22 04.3 | -6.2 |
| SVB | Belmont | 8.21 | 271 | eP | Pn | 18 20 38.1 | +0.4 |
| FDF | Fort de France | 8.21 | 281 | ePn | Pn | 18 20 38.9 | +1.2 |
| FDF | | | | eSn | Sn | 18 22 02.9 | -7.6 |
| FDF | Fort de France | 8.21 | 281 | eP | Pn | 18 20 38.9 | +1.2 |
| BAMF | Morne Balai | 8.22 | 282 | eP | Pn | 18 20 39.8 | +2.0 |
| PML | Morne Lenard | 8.25 | 281 | eP | Pn | 18 20 40.0 | +1.8 |
| PCM | Pelee Case Pet | 8.28 | 282 | eP | Pn | 18 20 39.3 | +0.7 |
| PCM | Pelee Case Pet | 8.28 | 282 | eP | Pn | 18 20 39.6 | +1.0 |
| DLPL | La Plaine | 8.41 | 285 | eP | Pn | 18 20 42.6 | +2.2 |
| DSTT | Stowe | 8.45 | 284 | eP | Pn | 18 20 45.1 | +4.2 |
| DBCT | Belle View Cho | 8.49 | 284 | eP | Pn | 18 20 44.0 | +2.5 |
| DSHT | Scott's Head | 8.51 | 284 | eP | Pn | 18 20 44.9 | +3.2 |
| H05N1 | Guadeloupe/Mar | 8.51 | 292 | Pn | Pn | 18 20 41.1 | -0.7 |
| H05N1 | | | | Sn | Sn | 18 22 09.5 | -8.5 |
| DEG | La Desirade | 8.51 | 292 | eP | Pn | 18 20 40.8 | -1.0 |
| MGG | Marie-Galante | 8.62 | 289 | eP | Pn | 18 20 43.3 | 0.0 |
| MDVC | Dominica, Viel | 8.63 | 287 | eP | Pn | 18 20 45.5 | +2.2 |
| MDMP | Dominica, Moor | 8.63 | 286 | eP | Pn | 18 20 45.5 | +2.1 |
| BBL | Barber's Block | 8.67 | 286 | eP | Pn | 18 20 44.9 | +0.9 |
| BBL | Barber's Block | 8.67 | 286 | eP | Pn | 18 20 45.1 | +1.2 |
| GRGR | Grenville | 8.69 | 263 | ePn | Pn | 18 20 45.8 | +1.4 |
| GRGR | | | | eSn | Sn | 18 22 15.5 | -7.0 |
| GRGR | Grenville | 8.69 | 263 | eP | Pn | 18 20 45.6 | +1.2 |
| TBG | Guadaloupe-3 | 8.91 | 288 | eP | Pn | 18 20 47.1 | -0.1 |
| GDHS | Morne Mazeau, | 9.14 | 290 | ePn | Pn | 18 20 51.1 | +0.6 |
| GDHS | | | | eSn | Sn | 18 22 27.1 | -6.4 |
| MLYT | Lee's Yard | 9.67 | 292 | eP | Pn | 18 20 58.2 | +0.5 |
| ANWB | Willy Bob | 9.67 | 298 | ePn | Pn | 18 20 55.3 | -2.4 |
| ANWB | | | | eSn | Sn | 18 22 37.5 | -8.9 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ANWB | Willy Bob | 9.67 298 | ePn | Pn | 18 20 56.4 | -1.3 | |
| SKI | Saint Kitts | 10.37 294 | ePn | Pn | 18 21 07.1 | -0.3 | |
| SKI | | | eSn | Sn | 18 22 53.1 | -11 | |
| SABA | Saba | 10.93 294 | ePn | Pn | 18 21 14.7 | -0.2 | |
| SABA | | | eSn | Sn | 18 23 08.3 | -8.9 | |
| PCRV | Puerto La Cruz | 11.98 256 | Pn | Pn | 18 21 28.9 | -0.4 | |
| | 1.5nm,0.3s,baz=51,slow=6.5,SNR=4.1 | | | | | | |
| ABVI | Anegada Island | 12.31 298 | ePn | Pn | 18 21 32.0 | -1.8 | |
| STVI | Saint Thomas | 12.71 295 | ePn | Pn | 18 21 37.3 | -2.0 | |
| STVI | | | eSn | Sn | 18 23 47.8 | -13 | |
| MTP | Monte Pirata | 13.15 293 | ePn | Pn | 18 21 44.9 | -0.5 | |
| MTP | | | eSn | Sn | 18 24 03.3 | -8.5 | |
| HUMP | Col San Antoni | 13.43 293 | ePn | Pn | 18 21 49.0 | -0.2 | |
| SJG | San Juan | 13.69 292 | Pn | Pn | 18 21 53.6 | +0.9 | |
| | baz=92,slow=11,SNR=9.8 | | | | | | |
| SJG | | | LR | LR | 18 27 16.8 | | |
| | comp=Z,94nm,19.5s,baz=128,slow=38 | | | | | | |
| SJG | San Juan | 13.69 292 | ePn | Pn | 18 21 53.4 | +0.6 | |
| CELP | Cerrillos | 14.07 291 | ePn | Pn | 18 21 57.6 | -0.3 | |
| MPR | Mayaguez | 14.62 291 | ePn | Pn | 18 22 07.0 | +1.6 | |
| PTGA | Pitinga | 15.63 207 | Pn | Pn | 18 22 16.6 | -2.3 | |
| | 4.6nm,0.3s,baz=27,slow=14,SNR=47 | | | | | | |
| PTGA | | | Sn | Sn | 18 25 00.1 | -12 | |
| | 3.2nm,0.3s,baz=80,slow=12,SNR=7.5 | | | | | | |
| PTGA | | | LR | LR | 18 28 10.0 | | |
| | comp=Z,67nm,21.0s,baz=80,slow=37 | | | | | | |
| PTGA | Pitinga | 15.63 207 | ePn | Pn | 18 22 16.2 | -2.7 | |
| | 25nm,0.6s | | | | | | |
| PTGA | | | eSn | Sn | 18 24 56.3 | -16 | |
| SDV | Santo Domingo | 18.02 258 | P | Pn | 18 22 50.1 | +0.8 | |
| | 0.6nm,0.3s,baz=57,slow=17,SNR=3.0 | | | | | | |
| SDV | | | S | Sn | 18 26 00.4 | -10 | |
| | 0.6nm,0.3s,baz=297,slow=14,SNR=3.2 | | | | | | |
| SDV | | | LR | LR | 18 31 31.3 | | |
| | comp=Z,36nm,20.2s,baz=248,slow=43 | | | | | | |
| SDV | Santo Domingo | 18.02 258 | ePn | Pn | 18 22 49.5 | +0.2 | |
| | 6.9nm,0.9s | | | | | | |
| SDV | | | S | Sn | 18 26 00.4 | -10 | |
| SDDR | Presa de Saban | 18.61 290 | eP | Pn | 18 22 58.8 | +2.4 | |
| | 15nm,0.6s | | | | | | |
| PAMC | Pamplona, Colo | 20.42 255 | eP | P | 18 23 18.0 | +1.6 | |
| CODC | Agust`›n Codaz | 20.47 263 | eP | P | 18 23 16.7 | +0.2 | |
| RUSC | La Rusia | 21.28 252 | eP | P | 18 23 30.7 | +5.0 | |
| RUSC | La Rusia | 21.28 252 | eP | P | 18 23 29.4 | +3.7 | |
| | 14nm,1.2s | | | | | | |
| SJCC | San Jacinto, C | 22.16 264 | eP | P | 18 23 32.0 | -2.7 | |
| GTBY | Guantanamo Bay | 22.34 290 | eP | P | 18 23 39.0 | +2.4 | |
| | 41nm,0.9s | | | | | | |
| CHIC | Chingaza | 22.36 249 | eP | P | 18 23 36.6 | -0.6 | |
| CTAU | Tausa, Cundina | 22.42 251 | eP | P | 18 23 41.3 | +3.3 | |
| CTAB | Cerro Tablazo, | 22.64 251 | eP | P | 18 23 42.6 | +2.3 | |
| ROSC | El Rosal | 22.81 250 | P | P | 18 23 45.7 | +3.6 | |
| | 12nm,0.7s,baz=248,slow=20,SNR=5.7 | | | | | | |
| ROSC | | | LR | LR | 18 34 06.9 | | |
| | comp=Z,46nm,19.7s,baz=114,slow=41 | | | | | | |
| ROSC | El Rosal | 22.81 250 | eP | P | 18 23 45.1 | +3.0 | |
| | 11nm,0.7s | | | | | | |
| MOTC | Monteria, Cord | 22.86 261 | eP | P | 18 23 44.6 | +2.5 | |
| NORC | Norcasia | 23.05 253 | eP | P | 18 23 47.9 | +3.7 | |
| GUYC | Guyana, Colomb | 23.66 252 | eP | P | 18 23 54.6 | +3.8 | |
| PRAC | Prado | 23.78 248 | eP | P | 18 23 53.1 | +1.6 | |
| | 14nm,0.6s | | | | | | |
| SAML | Samuel | 24.38 205 | eP | P | 18 23 57.0 | +0.1 | |
| | 8.0nm,1.3s | | | | | | |
| TUMC | Tumaco | 28.05 248 | eP | P | 18 24 29.5 | -0.7 | |
| | 255nm,1.0s | | | | | | |
| BDFB | Brasilia | 29.14 170 | eP | P | 18 24 37.3 | -2.7 | |
| | 14nm,1.2s | | | | | | |
| JSRW | J. Sargeant Re | 32.99 322 | eP | P | 18 25 11.9 | -1.7 | |
| LPAZ | La Paz | 33.06 208 | P | P | 18 25 17.9 | +2.8 | |
| | 1.5nm,0.6s,baz=346,slow=6.9,SNR=4.3 | | | | | | |
| LPAZ | | | LR | LR | 18 38 49.7 | | |
| | comp=Z,47nm,20.0s,baz=34,slow=37 | | | | | | |
| LPAZ | La Paz | 33.06 208 | eP | P | 18 25 12.6 | -2.5 | |
| TIGA | Tifton | 33.53 308 | P | P | 18 25 20.1 | +1.7 | |
| | baz=116 | | | | | | |
| KMSC | Kings Mountain | 33.69 315 | P | P | 18 25 21.0 | +1.3 | |
| | baz=123 | | | | | | |
| KMSC | Kings Mountain | 33.69 315 | eP | P | 18 25 21.1 | +1.3 | |
| | 8.9nm,0.9s | | | | | | |
| HODGE | Hodges | 33.86 313 | eP | P | 18 25 15.8 | -5.4 | |
| | 12nm,0.9s | | | | | | |
| GGN | Saint George | 33.89 342 | eP | P | 18 25 23.4 | +2.1 | |
| | 93nm,1.9s | | | | | | |
| TKL | Tuckaleechee C | 35.65 314 | P | P | 18 25 38.2 | +1.4 | |
| | 4.1nm,0.7s,baz=123,slow=12,SNR=4.8 | | | | | | |
| TKL | Tuckaleechee C | 35.65 314 | eP | P | 18 25 38.0 | +1.3 | |
| | 33nm,1.8s | | | | | | |
| CPCT | Cooper Cave | 36.08 313 | eP | P | 18 25 42.0 | +1.6 | |
| | 37nm,1.9s | | | | | | |
| PB11 | IPOC Station P | 36.79 207 | eP | P | 18 25 47.7 | +1.0 | |
| | 11nm,0.9s | | | | | | |
| LRAL | Lakeview Retre | 36.82 308 | eP | P | 18 25 48.6 | +1.9 | |
| | 20nm,1.1s | | | | | | |
| ALLY | Allegheny Colle | 36.92 325 | eP | P | 18 25 47.7 | +0.2 | |
| | 86nm,1.6s | | | | | | |
| SWET | Sewanee | 36.98 312 | eP | P | 18 25 50.0 | +1.9 | |
| | 17nm,1.3s | | | | | | |
| Z48A | Northport | 37.38 308 | P | P | 18 25 53.2 | +1.7 | |
| | baz=114 | | | | | | |
| TRQ | Mont Tremblant | 37.59 335 | eP | P | 18 25 55.8 | +2.6 | |
| 147A | Livingston | 37.66 307 | P | P | 18 25 55.8 | +1.9 | |
| | baz=113 | | | | | | |
| ACSO | Alum Creek Sta | 37.68 321 | eP | P | 18 25 52.9 | -1.0 | |
| | 20nm,1.2s | | | | | | |
| 247A | Quitman | 37.69 306 | P | P | 18 25 56.1 | +1.9 | |
| | baz=112 | | | | | | |
| Z47A | Carrollton | 37.70 308 | P | P | 18 25 56.2 | +1.9 | |
| | baz=113 | | | | | | |
| Y47A | UCPARC, Winfie | 37.82 309 | P | P | 18 25 57.1 | +1.8 | |
| | baz=114 | | | | | | |
| PLAL | Pickwick Lake | 38.44 310 | eP | P | 18 26 02.1 | +1.7 | |
| | 20nm,1.1s | | | | | | |
| SADO | Sadowa | 38.56 330 | eP | P | 18 26 03.2 | +1.9 | |
| | 29nm,1.4s | | | | | | |
| Y46A | Houston | 38.58 308 | P | P | 18 26 03.3 | +1.7 | |
| | baz=113 | | | | | | |
| WVT | Waverly | 38.77 312 | eP | P | 18 26 03.7 | +0.5 | |
| | 5.2nm,0.8s | | | | | | |
| Z45A | Winona | 39.02 307 | P | P | 18 26 07.5 | +2.1 | |
| | baz=112 | | | | | | |
| Y45A | Yeager Farm, C | 39.10 308 | P | P | 18 26 07.9 | +1.9 | |
| | baz=113 | | | | | | |
| T46A | Princeton | 39.23 313 | P | P | 18 26 08.4 | +1.4 | |
| | baz=118 | | | | | | |
| OXF | Oxford | 39.25 309 | eP | P | 18 26 08.6 | +1.4 | |
| | 32nm,0.7s | | | | | | |
| W45A | Hickory Valley | 39.34 310 | P | P | 18 26 09.2 | +1.2 | |
| | baz=114 | | | | | | |
| CPUP | Villa Florida | 39.63 186 | P | P | 18 26 10.5 | +0.1 | |
| | 0.7nm,0.5s,baz=37,slow=5.1,SNR=2.6 | | | | | | |
| CPUP | | | LR | LR | 18 42 50.1 | | |
| | comp=Z,62nm,18.7s,baz=19,slow=37 | | | | | | |
| X44A | Crenshaw | 39.80 309 | P | P | 18 26 12.7 | +0.8 | |
| | baz=113 | | | | | | |
| S45A | Carrier Mills | 40.01 314 | P | P | 18 26 15.1 | +1.6 | |
| | baz=118 | | | | | | |
| P46A | Rosedale | 40.03 317 | P | P | 18 26 15.4 | +1.8 | |
| | baz=121 | | | | | | |
| R45A | Skylar, Fairfi | 40.09 315 | P | P | 18 26 15.7 | +1.6 | |
| | baz=119,SNR=5.9 | | | | | | |
| 143A | Socs Landing, | 40.13 305 | P | P | 18 26 16.7 | +2.1 | |
| | baz=110 | | | | | | |
| Q45A | Warren Harvey, | 40.30 316 | P | P | 18 26 17.5 | +1.6 | |
| | baz=120 | | | | | | |
| S44A | Carbondale | 40.49 313 | P | P | 18 26 19.1 | +1.6 | |
| | baz=117 | | | | | | |
| 242A | Grayson | 40.52 304 | P | P | 18 26 19.8 | +1.9 | |
| | baz=108 | | | | | | |
| R44A | Waltonville | 40.62 314 | P | P | 18 26 19.9 | +1.3 | |
| | baz=118 | | | | | | |
| U43A | Rector | 40.75 311 | P | P | 18 26 20.6 | +1.0 | |
| | baz=115 | | | | | | |
| Y42A | Garnett, Star | 40.82 307 | P | P | 18 26 22.4 | +2.1 | |
| | baz=111 | | | | | | |
| Q44A | Meyer Farm, Va | 40.89 315 | P | P | 18 26 22.4 | +1.6 | |
| | baz=119 | | | | | | |
| P44A | Sand Creek, Wi | 40.90 316 | P | P | 18 26 22.9 | +2.0 | |
| | baz=120 | | | | | | |
| PBMO | Poplar Bluff | 40.93 312 | eP | P | 18 26 21.8 | +0.6 | |
| | 6.0nm,0.8s | | | | | | |
| T43A | Greenville | 40.96 312 | P | P | 18 26 22.8 | +1.4 | |
| | baz=116 | | | | | | |
| S43A | Fulton Ridge, | 41.02 313 | P | P | 18 26 23.1 | +1.2 | |
| | baz=116 | | | | | | |
| 341A | Kurthwood | 41.13 303 | P | P | 18 26 24.1 | +1.1 | |
| | baz=107 | | | | | | |
| R43A | Red Bud | 41.23 314 | P | P | 18 26 24.9 | +1.2 | |
| | baz=117 | | | | | | |
| N44A | Piper City | 41.25 318 | P | P | 18 26 25.4 | +1.7 | |
| | baz=122 | | | | | | |
| V42A | Cord | 41.25 310 | P | P | 18 26 25.2 | +1.4 | |
| | baz=113,SNR=8.4 | | | | | | |
| U42A | Revenden | 41.35 311 | P | P | 18 26 25.8 | +1.2 | |
| | baz=114,SNR=5.4 | | | | | | |
| Q43A | New Douglas | 41.38 315 | P | P | 18 26 26.1 | +1.3 | |
| | baz=118 | | | | | | |
| Z41A | Richland Creek | 41.43 306 | P | P | 18 26 26.3 | +1.0 | |
| | baz=109 | | | | | | |
| FVM | French Village | 41.45 313 | eP | P | 18 26 26.7 | +1.3 | |
| | 12nm,0.8s | | | | | | |
| T42A | Van Buren | 41.52 312 | P | P | 18 26 26.5 | +0.5 | |
| | baz=115 | | | | | | |
| P43A | Skaggs, Pawnee | 41.59 316 | P | P | 18 26 27.8 | +1.3 | |
| | baz=119 | | | | | | |
| S42A | Caledonia | 41.62 313 | P | P | 18 26 27.8 | +0.9 | |
| | baz=116 | | | | | | |
| W41B | Gary Mavity, V | 41.66 308 | P | P | 18 26 28.6 | +1.4 | |
| | baz=112,SNR=7.7 | | | | | | |
| WHAR | Wooly Hollow | 41.73 309 | eP | P | 18 26 29.1 | +1.4 | |
| | 17nm,1.2s | | | | | | |
| X301 | Greenbrier Sit | 41.80 309 | eP | P | 18 26 29.7 | +1.4 | |
| | 7.0nm,0.7s | | | | | | |
| WLAR | White Oak Lake | 41.81 306 | eP | P | 18 26 30.7 | +2.3 | |
| | 14nm,0.5s | | | | | | |
| V41A | Mountainview | 41.81 309 | P | P | 18 26 29.5 | +1.0 | |
| | baz=112,SNR=8.8 | | | | | | |
| 240A | Hunter Patters | 41.82 303 | P | P | 18 26 28.7 | +0.1 | |
| | baz=107 | | | | | | |
| L44A | Lake County Fo | 41.84 320 | P | P | 18 26 29.6 | +1.1 | |
| | baz=123 | | | | | | |
| R42A | Luebbering | 41.84 313 | P | P | 18 26 29.7 | +1.0 | |
| | baz=116 | | | | | | |
| U41A | Viola | 41.85 310 | P | P | 18 26 30.1 | +1.3 | |
| | baz=113,SNR=16 | | | | | | |
| X40A | Basin Creek Fa | 41.86 307 | P | P | 18 26 30.0 | +1.2 | |
| | baz=110 | | | | | | |
| Q42A | Golden Eagle | 41.94 314 | P | P | 18 26 30.9 | +1.4 | |
| | baz=117 | | | | | | |
| T41A | Mountain View | 42.02 311 | P | P | 18 26 31.0 | +0.9 | |
| | baz=114,SNR=11 | | | | | | |
| CCM | Cathedral Cave | 42.06 313 | eP | P | 18 26 31.5 | +1.0 | |
| | 7.8nm,0.9s | | | | | | |
| M43A | Waltham Townsh | 42.11 319 | P | P | 18 26 31.7 | +0.9 | |
| | baz=121 | | | | | | |
| P42A | Winchester | 42.12 315 | P | P | 18 26 31.9 | +1.0 | |
| | baz=118 | | | | | | |
| S41A | Jillco Farms, | 42.23 312 | P | P | 18 26 32.6 | +0.7 | |
| | baz=115,SNR=8.2 | | | | | | |
| R41A | Rosebud | 42.26 313 | P | P | 18 26 33.0 | +0.9 | |
| | baz=119 | | | | | | |
| W40A | Ferguson Farm, | 42.29 308 | P | P | 18 26 34.2 | +1.8 | |
| | baz=111 | | | | | | |
| W40A | Ferguson Farm, | 42.29 308 | eP | P | 18 26 34.1 | +1.8 | |
| | 12nm,0.7s | | | | | | |
| V40A | Witts Springs | 42.33 309 | P | P | 18 26 33.4 | +0.7 | |
| | baz=112 | | | | | | |
| Q41A | Truxton | 42.45 314 | P | P | 18 26 34.5 | +1.0 | |
| | baz=116 | | | | | | |
| MIAR | Mount Ida | 42.46 307 | P | P | 18 26 34.5 | +0.8 | |
| | baz=110 | | | | | | |
| N42A | Yates City | 42.51 317 | P | P | 18 26 35.1 | +1.1 | |
| | baz=120 | | | | | | |
| U40A | Yellville | 42.55 310 | P | P | 18 26 35.5 | +1.0 | |
| | baz=112,SNR=5.4 | | | | | | |
| T40A | Mansfield | 42.61 311 | P | P | 18 26 36.1 | +1.1 | |
| | baz=113,SNR=7.1 | | | | | | |
| P41A | Barry, Barry | 42.65 315 | P | P | 18 26 36.6 | +1.3 | |
| | baz=118 | | | | | | |
| O41A | Pasleys Farm, | 42.73 316 | P | P | 18 26 36.9 | +1.0 | |
| | baz=118 | | | | | | |
| S40A | Lebanon | 42.78 312 | P | P | 18 26 37.2 | +0.9 | |
| | baz=114,SNR=6.5 | | | | | | |
| W39A | Magazine | 42.84 308 | P | P | 18 26 38.5 | +1.7 | |
| | baz=110 | | | | | | |
| X39A | Fountain Ranch | 42.87 307 | P | P | 18 26 38.8 | +1.7 | |
| | baz=109,SNR=5.5 | | | | | | |
| SCHQ | Schefferville | 42.87 348 | eP | P | 18 26 36.4 | -0.4 | |
| | 74nm,1.9s | | | | | | |
| R40A | Maddies Statio | 42.89 313 | P | P | 18 26 37.9 | +0.7 | |
| | baz=115 | | | | | | |
| V39A | Pettigrew | 42.96 309 | P | P | 18 26 39.1 | +1.3 | |
| | baz=111,SNR=5.5 | | | | | | |
| N41A | Harden Midland | 42.99 317 | P | P | 18 26 38.4 | +0.4 | |
| | baz=118 | | | | | | |
| HKT | Hockley | 43.00 300 | eP | P | 18 26 37.8 | -0.3 | |
| | 8.2nm,1.1s | | | | | | |
| U39A | Green Forest | 43.03 310 | P | P | 18 26 39.1 | +0.7 | |
| | baz=112,SNR=5.2 | | | | | | |
| Q40A | Laux Farm, Aux | 43.05 314 | P | P | 18 26 39.2 | +0.6 | |
| | baz=116 | | | | | | |
| 138A | Matatall Enter | 43.08 304 | P | P | 18 26 39.5 | +0.7 | |
| | baz=107 | | | | | | |
| M41A | Milan | 43.11 318 | P | P | 18 26 39.6 | +0.7 | |
| | baz=119 | | | | | | |
| Y38A | Idabel | 43.16 306 | P | P | 18 26 40.6 | +1.2 | |
| | baz=108 | | | | | | |
| T39A | Clever | 43.20 311 | P | P | 18 26 40.7 | +1.0 | |
| | baz=112,SNR=7.9 | | | | | | |
| J42A | Columbus | 43.21 321 | P | P | 18 26 40.6 | +0.9 | |
| | baz=123 | | | | | | |
| P40A | Paris | 43.27 314 | P | P | 18 26 41.1 | +0.9 | |
| | baz=116 | | | | | | |
| HHAR | Hobbs | 43.34 309 | eP | P | 18 26 41.4 | +0.5 | |
| | 6.7nm,1.1s | | | | | | |
| W38A | Poteau | 43.37 307 | P | P | 18 26 42.3 | +1.2 | |
| | baz=110 | | | | | | |
| I42A | Draeger Farm, | 43.39 322 | P | P | 18 26 41.8 | +0.7 | |
| | baz=124 | | | | | | |
| S39A | Bolivar | 43.41 311 | P | P | 18 26 42.2 | +0.7 | |
| | baz=113,SNR=11 | | | | | | |
| L41A | Preston | 43.43 319 | P | P | 18 26 42.2 | +0.7 | |
| | baz=120 | | | | | | |
| R39A | Chumby, Stover | 43.46 312 | P | P | 18 26 42.5 | +0.8 | |
| | 74nm,1.9s,SNR=7.7 | | | | | | |
| X38A | Whitesboro | 43.48 307 | P | P | 18 26 43.3 | +1.3 | |
| | baz=109 | | | | | | |
| V38A | Canehill | 43.55 309 | P | P | 18 26 43.5 | +1.0 | |
| | baz=110 | | | | | | |
| K41A | Shullsburg | 43.57 319 | P | P | 18 26 43.7 | +1.0 | |
| | baz=121 | | | | | | |
| ASCN | Ascension | 43.63 117 | eP | P | 18 26 41.9 | -1.6 | |
| | 120nm,1.1s | | | | | | |
| Q39A | Willow Grove F | 43.71 313 | P | P | 18 26 44.5 | +0.7 | |
| | baz=115 | | | | | | |
| P39B | Salisbury | 43.74 314 | P | P | 18 26 44.8 | +0.7 | |
| | baz=115 | | | | | | |
| J41A | Loganville | 43.78 320 | P | P | 18 26 45.3 | +1.0 | |
| | baz=122 | | | | | | |
| S38A | Stockton | 43.82 311 | P | P | 18 26 45.4 | +0.7 | |
| | baz=113,SNR=5.9 | | | | | | |
| X37A | Clayton | 43.88 306 | P | P | 18 26 46.5 | +1.3 | |
| | baz=108 | | | | | | |
| X37A | Clayton | 43.88 306 | eP | P | 18 26 47.0 | +1.8 | |
| | 46nm,1.9s | | | | | | |
| T38A | Diamond | 43.88 310 | P | P | 18 26 45.8 | +0.6 | |
| | baz=112 | | | | | | |
| L40A | Anamosa | 43.89 318 | P | P | 18 26 45.6 | +0.4 | |
| | baz=119 | | | | | | |
| R38A | Fenwick Farm, | 44.03 312 | P | P | 18 26 47.1 | +0.7 | |
| | baz=113 | | | | | | |
| 236A | Katherine and | 44.07 302 | P | P | 18 26 47.9 | +1.1 | |
| | baz=105 | | | | | | |
| W37B | Quinton | 44.09 307 | P | P | 18 26 48.2 | +1.3 | |
| | baz=109 | | | | | | |
| W37B | Quinton | 44.09 307 | eP | P | 18 26 48.3 | +1.3 | |
| | 11nm,0.8s | | | | | | |
| V37A | Hulbert | 44.12 308 | P | P | 18 26 47.9 | +0.8 | |
| | baz=110 | | | | | | |
| Q38A | Cooks Store, C | 44.13 313 | P | P | 18 26 48.0 | +0.8 | |
| | baz=114 | | | | | | |
| K40A | Celesburg | 44.15 319 | P | P | 18 26 47.9 | +0.7 | |
| | baz=120 | | | | | | |
| N39A | Derby Farms, D | 44.18 316 | P | P | 18 26 48.2 | +0.6 | |
| | baz=117 | | | | | | |
| TLIG | Tlapa | 44.22 282 | eP | P | 18 26 48.9 | +0.6 | |
| | 8.8nm,0.4s | | | | | | |
| M39A | Webster | 44.24 317 | P | P | 18 26 48.5 | +0.5 | |
| | baz=118 | | | | | | |
| J40A | Soldiers Grove | 44.25 320 | P | P | 18 26 48.8 | +0.7 | |
| | baz=121 | | | | | | |
| U37A | Salina | 44.27 309 | P | P | 18 26 49.1 | +0.7 | |
| | baz=110 | | | | | | |
| Z36A | Blue Ridge | 44.33 304 | P | P | 18 26 50.1 | +1.2 | |
| | baz=106 | | | | | | |
| P38A | Dawn | 44.35 314 | P | P | 18 26 49.8 | +0.9 | |
| | baz=115 | | | | | | |
| L39A | Vinton | 44.43 318 | P | P | 18 26 49.8 | +0.4 | |
| | baz=119 | | | | | | |
| F41A | Three Lakes | 44.54 324 | P | P | 18 26 51.5 | +1.1 | |
| | baz=125 | | | | | | |
| S37A | Fort Scott | 44.54 311 | P | P | 18 26 51.1 | +0.5 | |
| | baz=112 | | | | | | |
| TUL1 | Leonard | 44.62 308 | P | P | 18 26 52.1 | +0.9 | |
| | baz=109 | | | | | | |
| TUL1 | Leonard | 44.62 308 | eP | P | 18 26 52.2 | +1.0 | |
| | 24nm,1.4s | | | | | | |
| K39A | Oelwein | 44.63 319 | P | P | 18 26 52.0 | +0.9 | |
| | baz=119 | | | | | | |
| X36A | Centrahoma | 44.64 306 | P | P | 18 26 52.0 | +0.7 | |
| | baz=108 | | | | | | |
| N38A | Joes South For | 44.64 316 | P | P | 18 26 51.6 | +0.3 | |
| | baz=116 | | | | | | |
| H40A | Chili | 44.68 322 | P | P | 18 26 52.4 | +0.9 | |
| | baz=122 | | | | | | |
| Q37A | Longview Farm, | 44.70 313 | P | P | 18 26 52.5 | +0.8 | |
| | baz=113 | | | | | | |
| V36A | Jenks | 44.70 308 | P | P | 18 26 52.8 | +0.9 | |
| | baz=109 | | | | | | |
| V36A | Jenks | 44.70 308 | eP | P | 18 26 52.7 | +0.9 | |
| | 18nm,1.0s | | | | | | |
| W36A | Wetumka | 44.71 307 | P | P | 18 26 52.4 | +0.6 | |
| | baz=108 | | | | | | |
| W36A | Wetumka | 44.71 307 | eP | P | 18 26 52.5 | +0.6 | |
| | 3.3nm,1.2s | | | | | | |
| U36A | Oologah | 44.74 309 | P | P | 18 26 52.9 | +0.9 | |
| | baz=110 | | | | | | |
| M38A | Pleasantville | 44.89 316 | P | P | 18 26 54.0 | +0.7 | |
| | baz=117 | | | | | | |
| P37A | Lathrop | 44.91 313 | P | P | 18 26 54.5 | +1.1 | |
| | baz=114,SNR=5.5 | | | | | | |
| I39A | Houston | 44.97 320 | P | P | 18 26 54.5 | +0.6 | |
| | baz=121 | | | | | | |
| T36A | Boggs Farm, Ca | 45.08 310 | P | P | 18 26 55.4 | +0.6 | |
| | baz=110 | | | | | | |
| X35A | Drake | 45.08 306 | P | P | 18 26 55.2 | +0.4 | |
| | baz=107 | | | | | | |
| X35A | Drake | 45.08 306 | eP | P | 18 26 55.8 | +1.0 | |
| | 5.5nm,0.8s | | | | | | |
| S36A | Lake Cedric, C | 45.09 311 | P | P | 18 26 55.3 | +0.4 | |
| | baz=111 | | | | | | |
| K38A | Parkersburg | 45.18 318 | P | P | 18 26 55.7 | +0.2 | |
| | baz=118 | | | | | | |
| W35A | Tecumseh | 45.22 307 | P | P | 18 26 56.7 | +0.7 | |
| | baz=108 | | | | | | |
| W35A | Tecumseh | 45.22 307 | eP | P | 18 26 56.3 | +0.3 | |
| | 12nm,1.1s | | | | | | |
| OK021 | N3530 Road, Sp | 45.24 307 | eP | P | 18 26 56.4 | +0.3 | |
| | 7.3nm,0.6s | | | | | | |
| R36A | Gordon, Harris | 45.25 311 | P | P | 18 26 56.5 | +0.4 | |
| | baz=112 | | | | | | |
| OK020 | N3440 Road, Me | 45.34 307 | eP | P | 18 26 57.5 | +0.6 | |
| | 13nm,0.9s | | | | | | |
| V35A | Meyer Ranch, C | 45.38 307 | eP | P | 18 26 57.7 | +0.5 | |
| | 7.7nm,0.8s | | | | | | |
| T35A | Sooner Cattle | 45.50 309 | P | P | 18 26 58.9 | +0.7 | |
| | baz=110 | | | | | | |
| G39A | Holcombe | 45.50 322 | P | P | 18 26 58.2 | +0.2 | |
| | baz=122 | | | | | | |
| P36A | Good Intent, A | 45.53 313 | P | P | 18 26 58.9 | +0.6 | |
| | baz=113 | | | | | | |
| I38A | Scanlan Farm, | 45.57 320 | P | P | 18 26 59.1 | +0.5 | |
| | baz=120 | | | | | | |
| N36A | Muff Farm, Cla | 45.84 315 | P | P | 18 27 01.5 | +0.7 | |
| | baz=114 | | | | | | |
| J37A | Redenius Farm, | 45.99 319 | P | P | 18 27 02.2 | +0.2 | |
| | baz=118 | | | | | | |
| T34A | McClaskey Farm | 46.05 309 | P | P | 18 27 03.5 | +1.0 | |
| | baz=109 | | | | | | |
| P35A | Duane Minner, | 46.07 313 | P | P | 18 27 03.2 | +0.6 | |
| | baz=112 | | | | | | |
| S34A | Willow Spring | 46.22 310 | P | P | 18 27 04.6 | +0.8 | |
| | baz=110 | | | | | | |
| I37A | Lemond, Waseca | 46.23 319 | P | P | 18 27 04.4 | +0.6 | |
| | baz=119 | | | | | | |
| K36A | Gilmore City | 46.27 317 | P | P | 18 27 04.8 | +0.6 | |
| | baz=117 | | | | | | |
| O35A | Humboldt | 46.28 314 | P | P | 18 27 04.4 | +0.1 | |
| | baz=113 | | | | | | |
| JCT | Junction City | 46.47 299 | P | P | 18 27 06.5 | +0.6 | |
| | baz=101,SNR=6.0 | | | | | | |
| JCT | Junction City | 46.47 299 | eP | P | 18 27 06.6 | +0.7 | |
| | 11nm,0.6s | | | | | | |
| R34A | Isabella, Hill | 46.52 311 | P | P | 18 27 06.7 | +0.5 | |
| | baz=110 | | | | | | |
| WMOK | Wichita Mounta | 46.61 305 | P | P | 18 27 07.2 | +0.3 | |
| | baz=106 | | | | | | |
| WMOK | Wichita Mounta | 46.61 305 | eP | P | 18 27 07.2 | +0.3 | |
| | 4.9nm,1.0s | | | | | | |
| ABTX | Abilene, Hawle | 46.78 302 | P | P | 18 27 09.2 | +0.9 | |
| | baz=103 | | | | | | |
| ABTX | Abilene, Hawle | 46.78 302 | eP | P | 18 27 09.1 | +0.7 | |
| | 14nm,1.0s | | | | | | |
| O34A | Beatrice | 46.80 313 | P | P | 18 27 08.7 | +0.3 | |
| | baz=112 | | | | | | |
| KOWA | Kowa | 47.32 82 | eP | P | 18 27 12.0 | -0.8 | |
| | 21nm,1.8s | | | | | | |
| E36A | McGregor | 47.39 323 | P | P | 18 27 13.6 | +0.8 | |
| | baz=121 | | | | | | |
| H35A | Sunnyside Ranc | 47.46 320 | P | P | 18 27 13.9 | +0.5 | |
| | baz=118 | | | | | | |
| G35A | Watkins | 47.49 320 | P | P | 18 27 14.1 | +0.4 | |
| | baz=119 | | | | | | |
| DBIC | Dimbokro | 47.63 93 | LR | LR | 18 45 02.3 | | |
| | comp=Z,34nm,18.4s,baz=256,slow=33 | | | | | | |
| F35A | Swanville | 47.85 321 | P | P | 18 27 16.9 | +0.5 | |
| | baz=119 | | | | | | |
| H34A | Spellman Lake, | 48.05 319 | P | P | 18 27 18.5 | +0.5 | |
| | baz=117 | | | | | | |
| E35A | Pequot Lakes | 48.09 322 | P | P | 18 27 18.8 | +0.5 | |
| | baz=120 | | | | | | |
| ECSD | EROS Data Cent | 48.18 318 | P | P | 18 27 19.2 | +0.2 | |
| | baz=115 | | | | | | |
| CBKS | Cedar Bluff | 48.53 310 | P | P | 18 27 21.8 | 0.0 | |
| | baz=108 | | | | | | |
| B35A | Bob, Littlefor | 48.62 324 | P | P | 18 27 23.1 | +0.8 | |
| | baz=122 | | | | | | |
| H33A | Prehn Over Nor | 48.67 319 | P | P | 18 27 23.2 | +0.4 | |
| | baz=116 | | | | | | |
| D34A | Park Rapids | 48.83 322 | P | P | 18 27 24.2 | +0.2 | |
| | baz=119 | | | | | | |
| J32A | Parkston | 48.84 317 | P | P | 18 27 24.6 | +0.5 | |
| | baz=114 | | | | | | |
| F33A | 5 Mile Ranch, | 48.90 320 | P | P | 18 27 25.1 | +0.5 | |
| | baz=117 | | | | | | |
| AMTX | Amarillo | 48.95 305 | P | P | 18 27 25.6 | +0.4 | |
| | baz=104 | | | | | | |
| AMTX | Amarillo | 48.95 305 | eP | P | 18 27 26.3 | +1.1 | |
| | 6.1nm,0.9s | | | | | | |
| K31A | O'Neill | 49.16 315 | P | P | 18 27 27.2 | +0.6 | |
| | baz=112 | | | | | | |
| LTX | Lajitas | 49.60 297 | eP | P | 18 27 31.9 | +1.6 | |
| LTX | | | ePcP | PcP | 18 28 52.4 | +0.5 | |
| TX31 | Lajitas Ar. Si | 49.60 297 | eP | P | 18 27 31.3 | +1.0 | |
| TX31 | | | ePcP | PcP | 18 28 52.1 | +0.2 | |
| TX31 | | | ePcP | PcP | 18 28 52.5 | +0.6 | |
| TXAR | Lajitas Array | 49.60 297 | P | P | 18 27 31.9 | +1.6 | |
| | 1.1nm,0.4s,baz=114,slow=6.2,SNR=30 | | | | | | |
| TXAR | | | PcP | PcP | 18 28 52.4 | +0.5 | |
| | 1.1nm,0.7s,baz=115,slow=6.4,SNR=7.4 | | | | | | |
| MSTX | Muleshoe | 49.63 303 | P | P | 18 27 30.9 | +0.5 | |
| | baz=102 | | | | | | |
| MSTX | Muleshoe | 49.63 303 | eP | P | 18 27 31.1 | +0.6 | |
| | 17nm,1.5s | | | | | | |
| A33A | Warroad | 49.87 324 | P | P | 18 27 32.1 | +0.2 | |
| | baz=120 | | | | | | |
| C32A | Crookston | 49.98 323 | P | P | 18 27 33.1 | +0.4 | |
| | baz=119 | | | | | | |
| E31A | Nome | 50.22 321 | P | P | 18 27 34.8 | +0.2 | |
| | baz=116 | | | | | | |
| ESDC | Sonseca Array | 50.23 49 | P | P | 18 27 36.0 | +1.1 | |
| | 1.2nm,0.8s,baz=233,slow=7.6,SNR=5.9 | | | | | | |
| ES19 | SONSECA Array | 50.29 49 | eP | P | 18 27 34.8 | -0.5 | |
| A32A | Rocking H Ranc | 50.48 324 | P | P | 18 27 37.3 | +0.7 | |
| | baz=119 | | | | | | |
| C31A | Landman Farms, | 50.68 322 | P | P | 18 27 38.6 | +0.6 | |
| | baz=117 | | | | | | |
| OGNE | Ogallala | 50.88 312 | P | P | 18 27 40.5 | +0.7 | |
| | baz=108 | | | | | | |
| OGNE | Ogallala | 50.88 312 | eP | P | 18 27 40.5 | +0.7 | |
| | 7.2nm,0.6s | | | | | | |
| B31A | Greenbush Farm | 50.92 323 | P | P | 18 27 40.4 | +0.6 | |
| | baz=118 | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| HPIG | | 51.10 | 294 | eP | P | 18 27 43.0 | +1.1 |
| | 7.6nm,0.9s | | | | | | |
| MNTX | Cornudas Mount | 51.39 | 300 | P | P | 18 27 44.8 | +1.1 |
| | baz=98,SNR=12 | | | | | | |
| MNTX | Cornudas Mount | 51.39 | 300 | eP | P | 18 27 44.5 | +0.8 |
| | 7.9nm,0.9s | | | | | | |
| FRB | Frobisher Bay | 51.58 | 351 | LR | LR | 18 48 43.5 | |
| | comp=Z,45nm,21.4s,baz=128,slow=35 | | | | | | |
| T25A | Trinidad | 51.63 | 307 | P | P | 18 27 46.6 | +0.9 |
| | baz=103 | | | | | | |
| T25A | Trinidad | 51.63 | 307 | eP | P | 18 27 46.9 | +1.2 |
| | 5.2nm,0.8s | | | | | | |
| SDCO | Great Sand Dun | 52.61 | 307 | P | P | 18 27 54.3 | +1.3 |
| | baz=103,SNR=5.8 | | | | | | |
| SDCO | Great Sand Dun | 52.61 | 307 | eP | P | 18 27 54.3 | +1.3 |
| | 3.5nm,0.9s | | | | | | |
| ANMO | Albuquerque | 52.81 | 304 | P | P | 18 27 55.7 | +1.4 |
| | baz=100 | | | | | | |
| ANMO | Albuquerque | 52.81 | 304 | eP | P | 18 27 55.8 | +1.4 |
| | 3.3nm,1.0s | | | | | | |
| BNM | Barren Site | 52.81 | 303 | eP | P | 18 27 56.0 | +1.5 |
| TOA1 | Torodi Ar. Sit | 52.98 | 83 | eP | P | 18 27 53.4 | -2.3 |
| TOA0 | Torodi Ar. Sit | 52.98 | 83 | eP | P | 18 27 53.0 | -2.7 |
| | 3.3nm,1.0s | | | | | | |
| TORD | Torodi Ar. Bea | 52.98 | 83 | P | P | 18 27 53.4 | -2.3 |
| | 1.2nm,0.6s,baz=286,slow=6.9,SNR=15 | | | | | | |
| TORD | | | | LR | LR | 18 48 02.3 | |
| | comp=Z,68nm,19.0s,baz=265,slow=33 | | | | | | |
| PHWY | Pilot Hill | 53.46 | 312 | eP | P | 18 28 00.3 | +1.1 |
| | 2.9nm,0.9s | | | | | | |
| 121A | Cookes Peak, D | 53.53 | 301 | P | P | 18 28 01.5 | +1.8 |
| | baz=98 | | | | | | |
| S22A | 4UR Ranch, Cre | 53.64 | 307 | P | P | 18 28 02.0 | +1.3 |
| | baz=102 | | | | | | |
| S22A | 4UR Ranch, Cre | 53.64 | 307 | eP | P | 18 28 01.9 | +1.3 |
| | 2.6nm,0.8s | | | | | | |
| SFJD | Kangerlussuaq | 53.67 | 1 | LR | LR | 18 46 55.3 | |
| | comp=Z,39nm,20.4s,baz=192,slow=32 | | | | | | |
| N23A | Red Feather La | 53.70 | 311 | P | P | 18 28 02.4 | +1.3 |
| | baz=105 | | | | | | |
| K22A | Casper | 54.59 | 313 | P | P | 18 28 07.7 | +0.5 |
| | baz=106 | | | | | | |
| K22A | Casper | 54.59 | 313 | eP | P | 18 28 08.4 | +1.1 |
| | 5.1nm,0.7s | | | | | | |
| DGMT | Dagmar | 54.90 | 321 | P | P | 18 28 10.1 | +0.8 |
| | baz=112 | | | | | | |
| DGMT | Dagmar | 54.90 | 321 | eP | P | 18 28 09.3 | +0.1 |
| | 15nm,1.0s | | | | | | |
| TUC | Tucson | 56.02 | 300 | P | P | 18 28 18.8 | +1.1 |
| | baz=96 | | | | | | |
| TUC | Tucson | 56.02 | 300 | eP | P | 18 28 19.6 | +1.9 |
| | 9.1nm,1.0s | | | | | | |
| PLCA | Paso Flores | 56.21 | 196 | LR | LR | 18 52 50.4 | |
| | comp=Z,55nm,19.5s,baz=148,slow=36 | | | | | | |
| SRU | San Rafael Swe | 56.75 | 308 | eP | P | 18 28 24.0 | +1.1 |
| | 28nm,2.0s | | | | | | |
| PD31 | Pinedale Array | 56.78 | 313 | eP | P | 18 28 23.5 | +0.3 |
| PDAR | Pinedale Array | 56.78 | 313 | P | P | 18 28 24.0 | +0.9 |
| | 1.6nm,0.7s,baz=110,slow=8.8,SNR=14 | | | | | | |
| PDAR | Pinedale Array | 56.78 | 313 | eP | P | 18 28 23.9 | +0.7 |
| BW06 | Boulder Array | 56.78 | 313 | P | P | 18 28 23.8 | +0.7 |
| | baz=103 | | | | | | |
| BW06 | Boulder Array | 56.78 | 313 | eP | P | 18 28 23.6 | +0.4 |
| | 3.7nm,1.0s | | | | | | |
| WUAZ | Wupatki | 56.87 | 304 | P | P | 18 28 24.7 | +0.9 |
| | baz=97 | | | | | | |
| WUAZ | Wupatki | 56.87 | 304 | eP | P | 18 28 25.3 | +1.4 |
| | 4.9nm,0.9s | | | | | | |
| RLMT | Red Lodge | 57.15 | 315 | P | P | 18 28 27.1 | +1.3 |
| | baz=105 | | | | | | |
| JLU | Jordanelle | 57.72 | 310 | eP | P | 18 28 29.3 | -0.6 |
| | 5.5nm,1.2s | | | | | | |
| MOOW | Moose Ponds | 57.85 | 314 | eP | P | 18 28 31.3 | +0.6 |
| | 6.6nm,1.6s | | | | | | |
| MTPU | Mount Pierson | 57.86 | 307 | eP | P | 18 28 32.8 | +1.8 |
| | 2.7nm,0.8s | | | | | | |
| AHID | Auburn Hatcher | 57.89 | 312 | eP | P | 18 28 31.5 | +0.6 |
| | 15nm,1.5s | | | | | | |
| YHH | Holmes Hill | 58.16 | 315 | eP | P | 18 28 34.0 | +1.1 |
| | 1.9nm,0.8s | | | | | | |
| YMR | Madison River | 58.21 | 315 | eP | P | 18 28 34.2 | +1.0 |
| | 17nm,1.9s | | | | | | |
| EGMT | Eagleton | 58.27 | 319 | eP | P | 18 28 32.8 | -0.5 |
| | 21nm,1.1s | | | | | | |
| YHB | Horse Butte | 58.39 | 315 | eP | P | 18 28 35.9 | +1.4 |
| | 8.7nm,0.8s | | | | | | |
| DUG | Dugway, Tooele | 58.68 | 309 | P | P | 18 28 37.3 | +0.9 |
| | baz=99 | | | | | | |
| DUG | Dugway, Tooele | 58.68 | 309 | eP | P | 18 28 36.1 | -0.3 |
| | 3.7nm,1.0s | | | | | | |
| CCUT | Cedar City | 58.72 | 306 | eP | P | 18 28 35.5 | -1.4 |
| | 5.5nm,1.3s | | | | | | |
| HVU | Hansel Valley | 58.92 | 311 | eP | P | 18 28 37.1 | -1.0 |
| | 17nm,1.9s | | | | | | |
| DLMT | Dillon | 59.50 | 315 | eP | P | 18 28 43.1 | +1.1 |
| | 4.7nm,1.1s | | | | | | |
| IRM | Iron Mountain | 59.82 | 302 | P | P | 18 28 45.4 | +1.1 |
| | baz=94 | | | | | | |
| DANC | Danby, Needles | 60.05 | 302 | eP | P | 18 28 45.3 | -0.6 |
| GMRC | Granite Mounta | 60.29 | 303 | P | P | 18 28 48.7 | +1.1 |
| | baz=94 | | | | | | |
| HLID | Hailey | 60.42 | 313 | P | P | 18 28 49.4 | +1.0 |
| | baz=100 | | | | | | |
| HLID | Hailey | 60.42 | 313 | eP | P | 18 28 49.5 | +1.0 |
| | 4.1nm,1.1s | | | | | | |
| R11A | Troy Canyon, C | 60.56 | 307 | P | P | 18 28 50.3 | +0.9 |
| | baz=96 | | | | | | |
| R11A | Troy Canyon, C | 60.56 | 307 | eP | P | 18 28 51.0 | +1.5 |
| | 13nm,2.0s | | | | | | |
| MSO | Missoula | 60.72 | 316 | P | P | 18 28 50.4 | +0.1 |
| | baz=102 | | | | | | |
| PFO | Pinyon Flats O | 60.88 | 301 | P | P | 18 28 52.1 | +0.4 |
| | baz=93 | | | | | | |
| TPNV | Topopah Spring | 60.94 | 305 | P | P | 18 28 53.6 | +1.5 |
| | baz=95 | | | | | | |
| TPNV | Topopah Spring | 60.94 | 305 | eP | P | 18 28 53.8 | +1.6 |
| | 5.8nm,1.1s | | | | | | |
| MURC | Murrieta | 61.49 | 301 | P | P | 18 28 56.8 | +1.1 |
| | baz=93 | | | | | | |
| GRAC | Grapevine Rang | 61.84 | 305 | P | P | 18 28 59.4 | +1.4 |
| | baz=94 | | | | | | |
| MPMC | Manual Prospec | 61.87 | 304 | P | P | 18 28 59.9 | +1.4 |
| | baz=94 | | | | | | |
| BFSC | Mount Baldy Ra | 61.90 | 302 | P | P | 18 28 59.8 | +1.2 |
| | baz=93 | | | | | | |
| LRMC | Laurel Mtn Rad | 61.99 | 303 | P | P | 18 28 59.9 | +0.8 |
| | baz=93 | | | | | | |
| EDW2 | Edwards Air Fo | 62.21 | 302 | P | P | 18 29 01.5 | +0.9 |
| | baz=93 | | | | | | |
| ISA | Isabella, Lake | 62.65 | 303 | P | P | 18 29 04.6 | +1.1 |
| | baz=93 | | | | | | |
| PT2 | Point Dume | 62.85 | 301 | eP | P | 18 29 00.8 | -4.0 |
| NEW | Newport | 63.12 | 318 | P | P | 18 29 06.3 | -0.1 |
| | baz=100 | | | | | | |
| NEW | Newport | 63.12 | 318 | eP | P | 18 29 05.9 | -0.4 |
| | 4.5nm,0.8s | | | | | | |
| J08A | Circle Bar Ran | 63.31 | 312 | eP | P | 18 29 08.8 | +0.9 |
| | 5.0nm,0.7s | | | | | | |
| YKA | Yellowknife Ar | 65.41 | 333 | P | P | 18 29 20.1 | -1.0 |
| | 0.8nm,0.7s,baz=130,slow=7.3,SNR=2.8 | | | | | | |
| I05D | Terrebonne, OR | 65.48 | 313 | P | P | 18 29 22.9 | +1.0 |
| | baz=95 | | | | | | |
| O03D | Paynes Creek | 65.52 | 308 | P | P | 18 29 23.1 | +0.7 |
| | baz=93 | | | | | | |
| M04C | Macdoel | 65.64 | 310 | P | P | 18 29 23.8 | +0.6 |
| | baz=94 | | | | | | |
| J04D | Umpqua Nationa | 65.94 | 312 | P | P | 18 29 25.6 | +0.5 |
| | baz=94 | | | | | | |
| I04A | Tendick Farm, | 66.20 | 312 | P | P | 18 29 27.0 | +0.4 |
| | baz=94 | | | | | | |
| M02C | Callahan | 66.38 | 309 | P | P | 18 29 28.0 | +0.2 |
| | baz=93 | | | | | | |
| G03D | McMinnville, O | 66.92 | 314 | P | P | 18 29 31.4 | +0.3 |
| | baz=94 | | | | | | |
| BR101 | Keskin Array S | 78.94 | 52 | eP | P | 18 30 42.4 | -0.3 |
| BRTR | Keskin Array B | 78.94 | 52 | P | P | 18 30 42.4 | -0.3 |
| | 0.6nm,0.8s,baz=268,slow=3.6,SNR=3.7 | | | | | | |
| ILAR | Eielson Array | 79.81 | 334 | P | P | 18 30 46.5 | -0.2 |
| | 0.9nm,0.8s,baz=96,slow=5.2,SNR=8.3 | | | | | | |
| KSH | Kashi | 109.09 | 40 | ePdif | Pdif | 18 33 06.3 | +1.6 |
| KSH | | | | PP | PP | 18 37 41.8 | +5.4 |
| KSH | | | | S | Sdif | 18 45 13.8 | -1.5 |
| KSH | | | | SS | SS | 18 52 56.7 | +0.8 |
| KSH | | | | LR | LR | | |
| | comp=Z,200nm,5.8s | | | | | | |
| WMQ | Urumqi | 112.72 | 30 | ePKP | PKiKP | 18 37 14.0 | -1.7 |
| WMQ | | | | SKS | SKSdf | 18 44 23.3 | -4.9 |
| WMQ | | | | LR | LR | | |
| | comp=N,88nm,17.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,100nm,19.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,69nm,17.7s | | | | | | |
| HHC | Hu-ho-hao-te | 124.22 | 14 | ePKP | PKPdf | 18 37 38.6 | +0.7 |
| CMAR | Chiang Mai Arr | 137.92 | 42 | PKP | PKPdf | 18 38 02.4 | -1.9 |
| | 0.2nm,0.6s,baz=339,slow=1.3,SNR=3.1 | | | | | | |

---

*ISCJB* ***06*** *18:22:53.3±0.6, 50°.34N±0°.04×18°.80E±0°.03, h0km, Error ellipse: s-maj=5.7km s-min=2.4km az=13.2*
*CSEM* ***06*** *18:22:53.6±0.2, 50°.39N×18°.85E, h2km, ML2.6/5, Error ellipse: s-maj=6.1km s-min=2.7km az=9.0*
*IPEC* ***06*** *18:22:54.0±0.2, 50°.36N×18°.90E, h0km±2km, ML1.6/3, Error ellipse: s-maj=2.7km s-min=1.1km az=170.0*
*WAR* ***06*** *18:22:54.8, 50°.36N×18°.93E, h1km, Mw2.4*
*PRU* ***06*** *18:22:55.0, 50°.34N×18°.83E, h0km*
**ISC 06 18:22:54.4**±0.9**, 50°.35N**±0°.04×**18°.86E**±0°.02**, h0**km**, n32, σ0s.81**/57**, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| OJC | Ojcow | 0.62 | 102 | ePg | Pg | 18 23 05.7 | -0.5 |
| OJC | | | | eSg | Sg | 18 23 14.2 | 0.0 |
| OJC | Ojcow | 0.62 | 102 | ePg | Pg | 18 23 05.7 | -0.5 |
| OJC | | | | eSg | Sg | 18 23 14.2 | 0.0 |
| OJC | Ojcow | 0.62 | 102 | ePg | Pg | 18 23 05.7 | -0.5 |
| OJC | | | | eSg | Sg | 18 23 14.2 | 0.0 |
| OKC | Ostrava-Krasne | 0.68 | 222 | ePG | Pg | 18 23 07.5 | +0.1 |
| OKC | | | | eSG | Sg | 18 23 16.7 | +0.4 |
| | comp=Z,8.2nm,0.3s | | | | | | |
| OKC | Ostrava-Krasne | 0.68 | 222 | Pg | Pg | 18 23 07.5 | +0.1 |
| OKC | | | | Sg | Sg | 18 23 16.7 | +0.4 |
| | 8.2nm,0.3s | | | | | | |
| MORC | Moravsky Berou | 1.02 | 237 | ePg | Pg | 18 23 14.1 | +0.2 |
| MORC | | | | eSg | Sg | 18 23 27.0 | -0.1 |
| | 14nm,0.3s | | | | | | |
| LANS | Liptovska Anna | 1.26 | 161 | ePG | Pg | 18 23 18.6 | +0.1 |
| LANS | | | | eSG | Sg | 18 23 35.4 | +0.6 |
| NIE | Niedzica | 1.32 | 134 | ePg | Pg | 18 23 19.2 | -0.4 |
| NIE | | | | eSg | Sb | 18 23 37.4 | 0.0 |
| NIE | Niedzica | 1.32 | 134 | ePg | Pg | 18 23 19.2 | -0.4 |
| NIE | | | | eSg | Sb | 18 23 37.4 | 0.0 |
| NIE | Niedzica | 1.32 | 134 | ePg | Pg | 18 23 19.2 | -0.4 |
| NIE | | | | eSg | Sb | 18 23 37.4 | 0.0 |
| KRLC | Kraliky | 1.36 | 259 | ePG | Pg | 18 23 19.6 | -0.8 |
| KRLC | | | | eSG | Sg | 18 23 37.9 | -0.1 |
| KRLC | Kraliky | 1.36 | 259 | Pg | Pg | 18 23 19.6 | -0.8 |
| KRLC | | | | Sg | Sg | 18 23 37.9 | -0.1 |
| DPC | Dobruska-Polom | 1.62 | 271 | ePG | Pn | 18 23 23.9 | -0.4 |
| DPC | | | | eSG | Sg | 18 23 46.4 | -0.1 |
| | comp=Z,5.1nm,0.2s | | | | | | |
| DPC | Dobruska-Polom | 1.62 | 271 | Pg | Pn | 18 23 23.9 | -0.4 |
| DPC | | | | Sg | Sg | 18 23 46.4 | -0.1 |
| | 5.1nm,0.2s | | | | | | |
| KSP | Ksiaz | 1.71 | 288 | ePg | Pb | 18 23 26.3 | -0.3 |
| KSP | | | | eSg | Sg | 18 23 50.3 | +1.1 |
| KSP | Ksiaz | 1.71 | 288 | ePg | Pb | 18 23 26.3 | -0.3 |
| KSP | | | | eSg | Sg | 18 23 50.3 | +1.1 |
| KSP | Ksiaz | 1.71 | 288 | ePg | Pb | 18 23 26.3 | -0.3 |
| KSP | | | | eSg | Sg | 18 23 50.3 | +1.1 |
| VRAC | Vranov | 1.80 | 235 | ePn | Pn | 18 23 26.6 | 0.0 |
| VRAC | | | | eSg | Sb | 18 23 51.4 | +0.2 |
| | 5.7nm,0.3s | | | | | | |
| STHS | Stebnicka Huta | 1.80 | 120 | ePN | Pb | 18 23 28.3 | 0.0 |
| STHS | | | | eSG | Sg | 18 23 54.8 | +2.5 |
| STHS | | | | eLG | Lg | 18 24 06.8 | |
| UPC | Upice | 1.83 | 276 | ePG | Pn | 18 23 27.2 | +0.2 |
| UPC | | | | eSG | Sg | 18 23 53.4 | +0.4 |
| UPC | Upice | 1.83 | 276 | Pg | Pn | 18 23 27.2 | +0.2 |
| UPC | | | | Sg | Sg | 18 23 53.4 | +0.4 |
| VYHS | Vyhne | 1.85 | 180 | ePN | Pn | 18 23 26.7 | -0.7 |
| KRUC | Moravsky | 2.05 | 232 | ePn | Pn | 18 23 30.1 | 0.0 |
| KRUC | | | | eSg | Sb | 18 23 59.3 | +0.8 |
| | 2.3nm,0.3s | | | | | | |
| KECS | Kecovo | 2.15 | 150 | ePN | Pn | 18 23 31.0 | -0.4 |
| KECS | | | | eLG | Lg | 18 24 09.5 | |
| GOPC | GO Pecny, Ondr | 2.65 | 262 | eSG | Sg | 18 24 19.4 | -0.2 |
| GOPC | GO Pecny, Ondr | 2.65 | 262 | Sg | Sg | 18 24 19.4 | -0.2 |
| PRU | Pruhonice | 2.80 | 264 | eSG | Sg | 18 24 22.7 | -1.5 |
| PRU | Pruhonice | 2.80 | 264 | Sg | Sg | 18 24 22.7 | -1.5 |
| BRG | Berggiesshubel | 3.17 | 281 | SG | Sg | 18 24 39.8 | +3.6 |
| | 4.2nm,0.6s | | | | | | |
| KHC | Kasperske Hory | 3.63 | 252 | ePN | Pn | 18 23 51.3 | -0.6 |
| KHC | | | | ePG | Pb | 18 24 00.1 | +0.7 |
| KHC | | | | eSG | Sg | 18 24 50.3 | -0.7 |
| KHC | Kasperske Hory | 3.63 | 252 | Pn | Pn | 18 23 51.3 | -0.6 |
| KHC | Kasperske Hory | 3.63 | 252 | Pg | Pb | 18 24 00.1 | +0.7 |
| KHC | | | | Sg | Sg | 18 24 50.3 | -0.7 |

---

*ISCJB* ***06*** *18:39:12.2±0.3, 17°.01S±0°.08×174°.09W±0°.07, h100km, mb4.4/27, Error ellipse: s-maj=12.4km s-min=7.7km az=146.4*
*IDC* ***06*** *18:39:13.2±2.5, 16°.98S×174°.10W, h96km±23km, mb3.9/15, mb1 4.1/18, mb1mx3.9/38, mbtmp4.3/18, MS3.0/4, Ms1 3.0/4, ms1mx2.8/29, Error ellipse: s-maj=19.1km s-min=12.1km az=135.0*
*BJI* ***06*** *18:39:15.2, 16°.72S×173°.80W, h119km, mb4.7/13, mB5.3/11*
*NEIC* ***06*** *18:39:16.7±1.5, 16°.98S×173°.96W, h132km±13km, mb4.6/6, Error ellipse: s-maj=22.4km s-min=11.4km az=157.0*
**ISC 06 18:39:16.1**±0.5**, 16°.91S**±0°.09×**173°.83W**±0°.08**, h124**km**, n67, σ1s.99**/70**, mb4.5**/27**, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AFI | Afiamalu | 3.58 | 34 | P | Pn | 18 40 09.5 | -0.8 |
| | 118nm,0.3s,baz=165,slow=1.5,SNR=75 | | | | | | |
| AFI | | | | S | Sn | 18 40 48.4 | -3.9 |
| | 302nm,0.3s,baz=247,slow=19,SNR=14 | | | | | | |
| AFI | Afiamalu | 3.58 | 34 | ePn | Pn | 18 40 09.5 | -0.8 |
| AFI | | | | eSn | Sn | 18 40 46.8 | -5.4 |
| MSVF | Nonsavu | 7.80 | 263 | ePn | Pn | 18 41 10.6 | +3.6 |
| RAO | Raoul Island | 12.84 | 196 | ePn | Pn | 18 42 05.3 | -8.9 |
| RAR | Rarotonga | 13.96 | 110 | P | Pn | 18 42 30.3 | +1.7 |
| | 1.8nm,0.3s,baz=270,slow=7.1,SNR=3.6 | | | | | | |
| RAR | | | | LR | LR | 18 47 05.6 | |
| | comp=Z,45nm,18.8s,baz=278,slow=33 | | | | | | |
| DZM | Mont Dzumac | 19.29 | 251 | P | P | 18 43 29.4 | -2.0 |
| | 0.7nm,0.3s,baz=286,slow=23,SNR=7.3 | | | | | | |
| DZM | | | | LR | LR | 18 48 58.1 | |
| | comp=Z,48nm,18.4s,baz=25,slow=31 | | | | | | |
| URZ | Urewera | 22.70 | 199 | P | P | 18 44 04.3 | -3.0 |
| | 12nm,0.3s,baz=286,slow=3.4,SNR=24 | | | | | | |
| PPT2 | Papeete2 | 23.17 | 95 | eLR | LR | 18 49 19.0 | |
| | 101nm,30.5s | | | | | | |
| PPT | Papeete | 23.17 | 95 | LR | LR | 18 52 40.5 | |
| | comp=Z,26nm,18.1s,baz=336,slow=34 | | | | | | |
| TBI | Tubuai | 23.74 | 110 | eT | T | 19 08 33.6 | |
| | 5.0nm,0.3s | | | | | | |
| HNR | Honiara | 26.57 | 283 | LR | LR | 18 52 56.3 | |
| | comp=Z,53nm,21.4s,baz=344,slow=31 | | | | | | |
| RPZ | Rata Peaks | 29.63 | 202 | P | P | 18 45 08.6 | -1.1 |
| | 10nm,1.0s,baz=288,slow=3.2,SNR=3.6 | | | | | | |
| CTA | Charters Tower | 37.92 | 259 | P | P | 18 46 18.1 | -3.6 |
| | 4.3nm,0.8s,baz=86,slow=13,SNR=5.6 | | | | | | |
| STKA | Stephens Creek | 42.94 | 241 | P | P | 18 47 01.1 | -1.8 |
| | 12nm,0.7s,baz=84,slow=9.9,SNR=33 | | | | | | |
| WR1 | Warramunga Arr | 49.11 | 258 | eP | P | 18 47 48.5 | -2.9 |
| | 6.9nm,0.6s | | | | | | |
| WRA | Warramunga Arr | 49.11 | 258 | P | P | 18 47 48.5 | -3.0 |
| | 3.6nm,0.4s,baz=95,slow=7.0,SNR=156 | | | | | | |
| ASAR | Alice Springs | 49.26 | 253 | P | P | 18 47 50.0 | -2.6 |
| | 49nm,0.6s,baz=87,slow=8.7,SNR=865 | | | | | | |
| ASAR | | | | PcP | PcP | 18 49 12.9 | -0.8 |
| | 1.6nm,0.7s,baz=94,slow=4.3,SNR=4.4 | | | | | | |
| FITZ | Fitzroy Crossi | 57.51 | 259 | P | P | 18 48 50.5 | -2.3 |
| | 1.0nm,0.6s,baz=75,slow=7.1,SNR=6.5 | | | | | | |
| VNDA | Vanda | 61.84 | 186 | P | P | 18 49 21.8 | +0.3 |
| | 0.8nm,0.8s,baz=9.7,slow=7.7,SNR=3.8 | | | | | | |
| MBWA | Marble Bar | 62.55 | 255 | eP | P | 18 49 24.8 | -2.5 |
| | 25nm,0.7s | | | | | | |
| MJAR | Matsushiro Arr | 69.83 | 320 | P | P | 18 50 13.1 | -0.3 |
| | 0.9nm,0.7s,baz=155,slow=6.5,SNR=4.5 | | | | | | |
| SBI | Santa Barbara | 72.40 | 46 | eP | P | 18 50 28.2 | -0.7 |
| CVS | Carmenet Viney | 73.07 | 40 | eP | P | 18 50 28.7 | -4.1 |
| MWC | Mount Wilson | 73.48 | 46 | eP | P | 18 50 39.0 | +3.5 |
| PETK | Petropavlovsk- | 73.94 | 343 | P | P | 18 50 37.7 | +0.2 |
| | 3.7nm,0.8s,baz=151,slow=9.2,SNR=4.9 | | | | | | |
| PEA1 | Petropavlovsk- | 73.94 | 343 | eP | P | 18 50 37.7 | +0.2 |
| BORC | Borrego Spring | 74.09 | 47 | eP | P | 18 50 41.7 | +2.8 |
| SRTC | Snort | 74.52 | 45 | eP | P | 18 50 42.7 | +1.3 |
| YBH | Yreka Blue Hor | 75.05 | 37 | P | P | 18 50 46.2 | +1.9 |
| | 3.0nm,0.8s,baz=158,slow=5.4,SNR=6.1 | | | | | | |
| KVN | Kaiserville | 76.22 | 41 | eP | P | 18 50 51.6 | +0.4 |
| | 2.3nm,0.9s | | | | | | |
| KSRS | Korea Array | 76.95 | 316 | P | P | 18 50 55.4 | +0.3 |
| | 1.0nm,0.8s,baz=109,slow=7.1,SNR=4.0 | | | | | | |
| KSAR | Wonju Array Be | 76.97 | 316 | P | P | 18 50 55.4 | +0.2 |
| NJ2 | Nanjing | 80.75 | 307 | eP | P | 18 51 16.6 | +0.7 |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.9s | | | | | | |
| HEB | Heber | 81.37 | 43 | eP | P | 18 51 20.1 | +0.8 |
| LTX | Lajitas | 81.80 | 56 | eP | P | 18 51 23.3 | +1.6 |
| TXAR | Lajitas Array | 81.80 | 56 | P | P | 18 51 23.3 | +1.6 |
| | 0.9nm,1.0s,baz=218,slow=9.9,SNR=5.2 | | | | | | |
| CN2 | Changchun | 81.98 | 320 | eP | P | 18 51 22.2 | 0.0 |
| PD31 | Pinedale Array | 83.66 | 42 | eP | P | 18 51 31.9 | +0.7 |
| PDAR | Pinedale Array | 83.66 | 42 | P | P | 18 51 31.8 | +0.5 |
| | 1.5nm,0.8s,baz=215,slow=4.7,SNR=10 | | | | | | |
| PDAR | Pinedale Array | 83.66 | 42 | eP | P | 18 51 31.0 | -0.3 |
| HDA | Harding Lake | 83.66 | 11 | eP | P | 18 51 30.9 | +0.4 |
| | 15nm,1.8s | | | | | | |
| CCB | Clear Creek Bu | 83.72 | 11 | eP | P | 18 51 31.0 | +0.4 |
| | 17nm,1.8s | | | | | | |
| IL1 | Eielson Array | 84.00 | 11 | eP | P | 18 51 32.5 | +0.3 |
| ILAR | Eielson Array | 84.00 | 11 | P | P | 18 51 32.1 | 0.0 |
| | 0.3nm,0.6s,baz=226,slow=5.5,SNR=6.7 | | | | | | |
| ILB | Eielson Array | 84.00 | 11 | eP | P | 18 51 32.4 | +0.3 |
| GYA | Guiyang | 88.39 | 298 | eP | P | 18 51 56.4 | +1.8 |
| GYA | | | | pP | pP | 18 52 25.0 | -1.6 |
| GYA | | | | PP | PP | 18 55 28.4 | +4.1 |
| GYA | | | | S | S | 19 02 31.7 | +1.6 |
| GYA | | | | pmax | pmax | | |
| | comp=Z,30nm,1.0s | | | | | | |
| GYA | | | | pmax | pmax | | |
| | comp=Z,120nm,6.2s | | | | | | |
| GSI | Gunungsitoli | 89.03 | 272 | eP | P | 18 51 57.9 | +0.1 |
| | 6.4nm,0.8s | | | | | | |
| HHC | Hu-ho-hao-te | 89.75 | 313 | eP | P | 18 52 01.9 | +1.2 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.4s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,68nm,8.0s | | | | | | |
| KMI | Kunming | 91.31 | 296 | P | P | 18 52 09.3 | +0.9 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.6s | | | | | | |
| KMI | | | | pmax | pmax | | |
| | comp=Z,100nm,5.2s | | | | | | |
| CM01 | Chiang Mai Arr | 92.67 | 288 | eP | P | 18 52 14.8 | +0.2 |
| CM31 | Chiang Mai Arr | 92.70 | 288 | eP | P | 18 52 15.1 | +0.4 |
| CMAR | Chiang Mai Arr | 92.70 | 288 | P | P | 18 52 15.2 | +0.4 |
| | 0.9nm,0.8s,baz=102,slow=2.1,SNR=11 | | | | | | |
| GTA | Gaotai | 97.80 | 309 | eP | Pdif | 18 52 39.5 | +1.8 |
| GTA | | | | pP | pP | 18 53 07.6 | -2.2 |
| GTA | | | | sP | sP | 18 53 20.0 | -2.8 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.4s | | | | | | |
| KSH | Kashi | 116.03 | 306 | ePKP | PKPdf | 18 57 46.9 | +2.0 |
| KSH | | | | PP | PP | 18 58 59.1 | +7.8 |
| KSH | | | | PKS | PKSdf | 19 01 21.8 | +0.2 |
| KSH | | | | SKS | SKSdf | 19 04 47.8 | +2.1 |
| KSH | | | | SKKS | SKKSac | 19 05 41.8 | +1.6 |
| KSH | | | | AMB | AMB | | |
| | comp=Z,100nm,4.5s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,47nm,5.2s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,36nm,4.7s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,240nm,5.9s | | | | | | |
| KMBO | Kilima Mbogo | 144.49 | 243 | PKP | PKPbc | 18 58 38.2 | +0.2 |
| | 3.0nm,0.7s,baz=54,slow=6.3,SNR=6.1 | | | | | | |
| KMBO | Kilima Mbogo | 144.49 | 243 | ePKPdf | PKPab | 18 58 37.4 | -0.4 |
| CLL | Collm | 145.26 | 352 | ePKPbc | PKPab | 18 58 42.0 | +2.8 |
| BRG | Berggiesshubel | 145.55 | 351 | ePKP | PKPab | 18 58 43.3 | +3.0 |
| | 5.9nm,1.2s | | | | | | |
| DPC | Dobruska-Polom | 145.66 | 348 | ePKP | PKPab | 18 58 43.7 | +2.9 |
| PRU | Pruhonice | 146.32 | 350 | ePKP | PKPab | 18 58 46.7 | +3.4 |
| BR101 | Keskin Array S | 147.05 | 319 | ePKPbc | PKPbc | 18 58 44.9 | 0.0 |
| BR131 | Keskin Array S | 147.05 | 319 | ePKPdf | PKPdf | 18 58 39.4 | -3.2 |
| BR131 | | | | ePKPbc | PKPbc | 18 58 44.4 | -0.5 |
| BRTR | Keskin Array B | 147.05 | 319 | PKPbc | PKPbc | 18 58 44.9 | 0.0 |
| | 2.2nm,0.8s,baz=153,slow=3.1,SNR=11 | | | | | | |
| BR231 | Keskin MP Arra | 147.51 | 320 | ePKPdf | PKPdf | 18 58 41.8 | -1.6 |
| BR231 | | | | ePKPbc | PKPbc | 18 58 45.3 | -0.8 |
| VISS | Visnje | 150.30 | 348 | i PKPdf | PKPbc | 18 58 52.9 | 0.0 |
| JAVS | Javornik | 150.36 | 349 | ePKPdf | PKPbc | 18 58 53.0 | -0.1 |
| TORD | Torodi Ar. Bea | 174.28 | 130 | PKPab | PKPab | 19 00 45.1 | +0.5 |
| | 1.9nm,1.1s,baz=247,slow=5.1,SNR=6.6 | | | | | | |

---

*ISK* ***06*** *18:48:56.7, 38°.61N×43°.22E, h19km, MD2.5*
*CSEM* ***06*** *18:48:57.3±0.3, 38°.61N×43°.28E, h20km, ML2.8, Error ellipse: s-maj=8.9km s-min=8.2km az=99.0*
*DDA* ***06*** *18:48:57.5, 38°.70N×43°.34E, h7km, Ml2.8*
*ISCJB* ***06*** *18:48:58.1±1.3, 38°.61N±0°.06×43°.29E±0°.07, h22km±14km, Error ellipse: s-maj=10.5km s-min=7.0km az=141.0*
**ISC 06 18:48:57.5**±1.1**, 38°.61N**±0°.03×**43°.26E**±0°.04**, h18**km±3km**, n16, σ0s.87**/26**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.10 | 101 | ePG | Pg | 18 49 01.8 | +0.4 |
| VANB | Van | 0.10 | 101 | ePg | Pg | 18 49 01.8 | +0.4 |
| TVAN | Van | 0.14 | 127 | i P | Pg | 18 49 01.7 | -0.2 |
| TVAN | | | | i S | Sg | 18 49 05.4 | +0.5 |
| TVAN | Van | 0.14 | 127 | P | Pg | 18 49 01.7 | -0.2 |
| TVAN | | | | S | Sg | 18 49 05.4 | +0.5 |
| GEVA | Gevas | 0.34 | 208 | i P | Pb | 18 49 05.0 | -0.1 |
| GEVA | | | | i S | Sn | 18 49 12.7 | -1.5 |
| GEVA | Gevas | 0.34 | 208 | P | Pb | 18 49 05.0 | -0.1 |
| GEVA | | | | S | Sn | 18 49 12.7 | -1.5 |
| ADCV | BITLIS_Adilcev | 0.46 | 295 | i P | Pg | 18 49 06.6 | -0.4 |
| ADCV | | | | i S | Sb | 18 49 15.6 | +1.8 |
| ADCV | BITLIS_Adilcev | 0.46 | 295 | P | Pg | 18 49 06.6 | -0.4 |
| ADCV | | | | S | Sb | 18 49 15.6 | +1.8 |
| CLDR | Caldiran | 0.73 | 44 | ePG | Pg | 18 49 11.8 | -0.2 |
| CLDR | | | | eSG | Sn | 18 49 23.2 | -0.8 |
| CLDR | Caldiran | 0.73 | 44 | ePg | Pg | 18 49 11.8 | -0.2 |
| CLDR | | | | eSg | Sn | 18 49 23.2 | -0.8 |
| TUTA | Tutak | 0.86 | 336 | i P | Pb | 18 49 12.7 | -1.3 |
| TUTA | Tutak | 0.86 | 336 | P | Pb | 18 49 12.7 | -1.3 |
| AGRB | Hanur-Agry | 0.98 | 348 | ePG | Pb | 18 49 16.0 | 0.0 |
| AGRB | | | | eSG | Sn | 18 49 29.8 | -0.2 |
| AGRB | Hanur-Agry | 0.98 | 348 | ePg | Pb | 18 49 16.0 | 0.0 |
| AGRB | | | | eSg | Sn | 18 49 29.8 | -0.2 |
| EKAR | Karacoban | 1.13 | 305 | i P | Pg | 18 49 19.6 | +0.2 |
| EKAR | Karacoban | 1.13 | 305 | P | Pg | 18 49 19.6 | +0.2 |

---

*ISCJB* ***06*** *18:55:07.0±0.6, 3°.58N±0°.07×125°.6E±0°.2, h150km, mb3.7/11, Error ellipse: s-maj=29.5km s-min=7.0km az=165.5*
*IDC* ***06*** *18:55:10.5±7.2, 3°.49N×125°.50E, h170km±73km, mb3.5/10, mb1 3.6/10, mb1mx3.4/37, mbtmp4.0/10, Error ellipse: s-maj=33.8km s-min=13.7km az=75.0*
**ISC 06 18:55:08.7**±0.7**, 3°.56N**±0°.09×**125°.5E**±0°.2**, h150**km**, n14, σ1s.60**/17**, mb4.0**/11**, 1C-2D, Talaud Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GSPH | General Santos | 2.57 | 347⇓ | eP | Pn | 18 55 50.8 | -0.1 |
| GSPH | | | | i S | Sn | 18 56 22.9 | -0.6 |
| DMPH | Davao City--Mi | 3.50 | 360⇑ | i P | Pn | 18 56 05.4 | +2.9 |
| DMPH | | | | i S | Sn | 18 56 41.0 | -3.2 |
| CTBH | Cotabato--PC H | 3.85 | 341⇓ | i P | Pn | 18 56 08.5 | +1.4 |
| FITZ | Fitzroy Crossi | 21.53 | 180 | P | P | 18 59 45.9 | -0.2 |
| | 2.6nm,0.5s,baz=10,slow=7.6,SNR=18 | | | | | | |
| WRA | Warramunga Arr | 24.91 | 160 | P | P | 19 00 16.2 | -1.8 |
| | 2.3nm,0.3s,baz=331,slow=11,SNR=37 | | | | | | |
| PMG | Port Moresby | 25.11 | 121 | P | P | 19 00 19.9 | +0.1 |
| | 8.4nm,0.9s,baz=285,slow=12,SNR=3.2 | | | | | | |
| ASAR | Alice Springs | 28.27 | 164 | P | P | 19 00 47.9 | -0.2 |
| | 0.6nm,0.4s,baz=343,slow=7.2,SNR=21 | | | | | | |
| KSRS | Korea Array | 33.80 | 3 | P | P | 19 01 36.8 | +0.3 |
| | 1.3nm,0.5s,baz=181,slow=9.2,SNR=7.4 | | | | | | |
| STKA | Stephens Creek | 38.41 | 158 | P | P | 19 02 15.8 | +0.1 |
| | 1.4nm,0.5s,baz=327,slow=7.9,SNR=7.2 | | | | | | |
| KLR | Kul'dur | 45.81 | 6 | P | P | 19 03 16.1 | +0.8 |
| | 0.1nm,0.4s,baz=132,slow=14,SNR=4.2 | | | | | | |
| SONM | Songino Array | 47.09 | 342 | P | P | 19 03 24.8 | -0.8 |
| | 0.4nm,0.5s,baz=151,slow=9.1,SNR=3.1 | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| **MKAR** | **Makanchi Array** | **57.02** | **326** | P | **P** | **19 04 38.5** | **-0.4** |
| | 0.3nm,0.4s,baz=118,slow=7.5,SNR=14 | | | | | | |
| MKAR | | | | PcP | **sP** | **19 05 31.9** | **+1.5** |
| | 1.4nm,0.6s,baz=142,slow=3.2,SNR=14 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **60.20** | **334** | P | **P** | **19 05 02.4** | **+1.7** |
| | 0.3nm,0.4s,baz=114,slow=7.0,SNR=2.6 | | | | | | |
| **ARCES** | **ARCESS Array B** | **90.19** | **340** | P | **P** | **19 07 49.6** | **-2.2** |
| | 1.6nm,0.8s,baz=60,slow=7.2,SNR=4.2 | | | | | | |

*IDC **06** 19:03:18.2±1.9, 19°.79S×177°.78W, h0km, mb4.0/5, mb1 4.1/5, mb1mx3.8/26, mbtmp4.0/5, Error ellipse: s-maj=50.7km s-min=34.3km az=122.0*

*ISCJB **06** 19:03:59.1±0.5, 20°.50S±0°.08×178°.1W±0°.1, h400km, mb4.2/17, Error ellipse: s-maj=14.1km s-min=9.8km az=20.4*

*NEIC **06** 19:03:59.3±0.9, 20°.49S×178°.13W, h388km±10km, mb4.8/16, Error ellipse: s-maj=15.5km s-min=10.0km az=114.0*

**ISC 06 19:04:00.5**±0.9**, 20°.4S**±0°.1×**178°.2W**±0°.2**, h400km, n31, σ1.32**/30**, mb4.3**/17**, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **URZ** | **Urewera** | **18.21** | **192** | *e*P | **P** | **19 07 47.8** | **+0.6** |
| | 50nm,1.6s | | | | | | |
| **HIZ** | **Hauiti** | **18.98** | **197** | *e*P | **P** | **19 07 53.5** | **-1.7** |
| | 242nm,1.3s | | | | | | |
| **BKZ** | **Black Stump Fm** | **19.21** | **193** | *e*P | **P** | **19 07 56.1** | **-1.4** |
| | 85nm,1.9s | | | | | | |
| **BFZ** | **Birch Farm** | **20.72** | **192** | *e*P | **P** | **19 08 11.1** | **-0.3** |
| | 190nm,1.9s | | | | | | |
| **SNZO** | **South Karori** | **21.66** | **195** | *e*P | **P** | **19 08 19.6** | **-0.3** |
| | 259nm,1.9s | | | | | | |
| **THZ** | **Tophouse** | **22.55** | **198** | *e*P | **P** | **19 08 26.8** | **-1.2** |
| | 52nm,1.5s | | | | | | |
| **LTZ** | **Lake Taylor** | **23.67** | **198** | *e*P | **P** | **19 08 36.7** | **-1.4** |
| | 158nm,1.8s | | | | | | |
| **RPZ** | **Rata Peaks** | **24.88** | **199** | P | **P** | **19 08 49.4** | **+0.5** |
| | 6.5nm,0.6s,baz=45,slow=10.0,SNR=3.2 | | | | | | |
| **RPZ** | **Rata Peaks** | **24.88** | **199** | *e*P | **P** | **19 08 49.0** | **0.0** |
| | 131nm,1.8s | | | | | | |
| **FOZ** | **Fox Glacier** | **25.11** | **201** | *e*P | **P** | **19 08 49.8** | **-1.1** |
| | 100nm,1.7s | | | | | | |
| **MLZ** | **Mavora Lakes** | **27.30** | **201** | *e*P | **P** | **19 09 09.0** | **-1.4** |
| | 70nm,1.9s | | | | | | |
| **STKA** | **Stephens Creek** | **37.62** | **244** | P | **P** | **19 10 39.5** | **+0.3** |
| | 1.0nm,0.6s,baz=73,slow=11,SNR=2.8 | | | | | | |
| **STKA** | **Stephens Creek** | **37.62** | **244** | *e*P | **P** | **19 10 39.1** | **-0.1** |
| | 1.5nm,1.4s | | | | | | |
| **AS01** | **Alice Springs** | **44.28** | **257** | *e*P | **P** | **19 11 34.2** | **+1.3** |
| **AS31** | **Alice Springs** | **44.33** | **257** | *e*P | **P** | **19 11 34.4** | **+1.2** |
| | 0.7nm,0.8s | | | | | | |
| **ASAR** | **Alice Springs** | **44.33** | **257** | P | **P** | **19 11 34.8** | **+1.6** |
| | 0.9nm,0.5s,baz=87,slow=7.9,SNR=24 | | | | | | |
| **WB2** | **Warramunga Arr** | **44.39** | **262** | *e*P | **P** | **19 11 34.9** | **+1.2** |
| | 18nm,1.8s | | | | | | |
| **WRAB** | **Tennant Creek** | **44.39** | **262** | *e*P | **P** | **19 11 31.2** | **-2.5** |
| | 31nm,2.0s | | | | | | |
| **WR1** | **Warramunga Arr** | **44.40** | **262** | *e*P | **P** | **19 11 35.6** | **+1.8** |
| | 17nm,1.8s | | | | | | |
| **WRA** | **Warramunga Arr** | **44.40** | **262** | P | **P** | **19 11 35.6** | **+1.8** |
| | 0.3nm,0.3s,baz=97,slow=7.8,SNR=31 | | | | | | |
| **FAKI** | **Fak Fak** | **51.28** | **283** | *e*P | **P** | **19 12 24.7** | **-1.2** |
| | 95nm,1.7s | | | | | | |
| **MBWA** | **Marble Bar** | **57.66** | **257** | *e*P | **P** | **19 13 11.2** | **+0.1** |
| | 25nm,1.3s | | | | | | |
| **VNDA** | **Vanda** | **57.95** | **185** | *e*P | **P** | **19 13 12.9** | **+0.7** |
| | 5.8nm,1.6s | | | | | | |
| **JHC** | **Johnson Canyon** | **78.03** | **44** | *e*P | **P** | **19 15 17.1** | **+0.9** |
| **FRD** | **Ford Ranch, An** | **79.53** | **48** | *e*P | **P** | **19 15 22.4** | **-2.1** |
| **SNDA** | **J Saunders Pla** | **79.55** | **48** | *e*P | **P** | **19 15 27.1** | **+2.4** |
| **DANC** | **Danby, Needles** | **81.00** | **48** | *e*P | **P** | **19 15 31.2** | **-0.9** |
| **COLA** | **College** | **88.19** | **12** | *e*pP | pP | 19 17 36.7 | -2.3 |
| **IL1** | **Eielson Array** | **88.30** | **13** | *e*P | **P** | **19 16 06.8** | **-0.6** |
| **ILAR** | **Eielson Array** | **88.30** | **13** | P | **P** | **19 16 07.6** | **+0.2** |
| | 1.1nm,1.1s,baz=218,slow=6.9,SNR=4.4 | | | | | | |
| **ILB** | **Eielson Array** | **88.30** | **13** | *e*P | **P** | **19 16 07.2** | **-0.2** |

*MDD **06** 19:12:10.0±1.3, 36°.94N×13°.11W, h28km±17km, mb5.1/49, Error ellipse: s-maj=11.9km s-min=6.6km az=107.0, PRXIMO*

*SFS **06** 19:12:09.0, 36°.93N×13°.10W, h0km, ML5.1*

*IDC **06** 19:12:10.3±2.1, 36°.95N×12°.77W, h0km, mb3.9/5, mb1 4.1/9, mb1mx3.7/49, mbtmp4.0/9, ML3.9/3, MS3.3/1, Ms1 3.3/1, ms1mx2.4/46, Error ellipse: s-maj=44.5km s-min=23.0km az=83.0*

*LDG **06** 19:12:12.5±0.2, 36°.97N×13°.00W, h25km, Ml4.3/17, Error ellipse: s-maj=4.0km s-min=3.3km az=61.0*

*NEIC **06** 19:12:12.7±0.6, 37°.06N×12°.58W, h10km, mb4.1/7, Error ellipse: s-maj=9.0km s-min=7.0km az=104.0*

*CNRM **06** 19:12:12.1, 36°.89N×12°.86W, h30km, MD4.1*

*IGIL **06** 19:12:12.2, 36°.90N×13°.03W, h50km, ML3.8*

*INMG **06** 19:12:13.9±1.3, 36°.91N×13°.03W, h10km, MD3.5, ML3.9, Error ellipse: s-maj=4.3km s-min=2.1km az=125.0*

*CSEM **06** 19:12:15.0±0.2, 37°.12N×12°.48W, h20km, mb5.1, Error ellipse: s-maj=4.8km s-min=4.3km az=59.0*

**ISC 06 19:12:07.1**±0.7**, 36°.90N**±0°.04×**12°.95W**±0°.05**, h10km, n334, σ3.60**/500**, mb3.8**/6**, 18C-6D, Azores-Cape St. Vincent Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PFVI** | **Vila Bisbo** | **3.31** | **85** | ⇑P | **Pn** | **19 13 00.8** | **+1.8** |
| | 202nm,0.2s,SNR=18 | | | | | | |
| PFVI | | | | S | **Sn** | **19 13 34.9** | **-3.4** |
| | 401nm,0.2s,SNR=7.3 | | | | | | |
| **PFVI** | **Vila Bisbo** | **3.31** | **85** | *e*Pn | **Pn** | **19 13 00.7** | **+1.8** |
| PFVI | | | | *e*Sn | **Sn** | **19 13 32.5** | **-5.9** |
| PFVI | | | | S | **Sn** | **19 13 34.9** | **-3.4** |
| | 401nm,0.2s,SNR=7.3 | | | | | | |
| **PFVI** | **Vila Bisbo** | **3.31** | **85** | *e*Pn | **Pn** | **19 13 00.7** | **+1.8** |
| PFVI | | | | *e*Sn | **Sn** | **19 13 32.5** | **-5.9** |
| **PFVI** | **Vila Bisbo** | **3.31** | **85** | ⇑*i*Pn | **Pn** | **19 13 00.8** | **+1.8** |
| PFVI | | | | *e*Sn | **Sn** | **19 13 35.1** | **-3.3** |
| PFVI | | | | A | A | 19 13 37.3 | |
| | 196nm,0.2s | | | | | | |
| **PTEO** | **Sao Teotonio** | **3.44** | **78** | ⇑*i*Pn | **Pn** | **19 13 02.6** | **+1.9** |
| PTEO | | | | *e*Sn | **Sn** | **19 13 38.0** | **-3.5** |
| PTEO | | | | A | A | 19 13 45.1 | |
| | 187nm,0.3s | | | | | | |
| **MORF** | **Marmelete** | **3.46** | **82** | *e*P | **Pn** | **19 13 02.8** | **+1.7** |
| MORF | | | | *e*S | **Sn** | **19 13 39.7** | **-2.5** |
| MORF | | | | AML | AML | 19 13 41.7 | |
| | comp=N,261nm,0.2s | | | | | | |
| **MORF** | **Marmelete** | **3.46** | **82** | P | **Pn** | **19 13 02.8** | **+1.7** |
| MORF | | | | S | **Sn** | **19 13 39.7** | **-2.5** |
| | comp=N,261nm,0.2s | | | | | | |
| **MORF** | **Marmelete** | **3.46** | **82** | P | **Pn** | **19 13 02.8** | **+1.7** |
| MORF | | | | S | **Sn** | **19 13 39.7** | **-2.5** |
| | comp=N,261nm,0.2s | | | | | | |
| **MORF** | **Marmelete** | **3.46** | **82** | ⇑*i*Pn | **Pn** | **19 13 02.9** | **+1.7** |
| MORF | | | | *e*Sn | **Sn** | **19 13 39.7** | **-2.5** |
| MORF | | | | A | A | 19 13 42.8 | |
| | comp=N,180nm,0.3s | | | | | | |
| **PMST** | **Lisbon--Monsan** | **3.50** | **57** | ⇑*i*Pn | **Pn** | **19 13 03.4** | **+1.8** |
| PMST | | | | *e*Sn | **Sn** | **19 13 40.4** | **-2.7** |
| PMST | | | | A | A | 19 13 45.1 | |
| | comp=N,132nm,0.2s | | | | | | |
| **LIS** | **Lisbon** | **3.52** | **58** | *e*P | **Pn** | **19 13 03.3** | **+1.5** |
| LIS | | | | *e*S | **Sn** | **19 13 40.9** | **-2.5** |
| LIS | | | | AML | AML | 19 13 42.0 | |
| | comp=E,229nm,0.2s | | | | | | |
| **LIS** | **Lisbon** | **3.52** | **58** | P | **Pn** | **19 13 03.3** | **+1.5** |
| LIS | | | | S | **Sn** | **19 13 40.9** | **-2.5** |
| | comp=E,229nm,0.2s | | | | | | |
| **LIS** | **Lisbon** | **3.52** | **58** | *e*Pn | **Pn** | **19 13 03.3** | **+1.5** |
| LIS | | | | *e*Sn | **Sn** | **19 13 40.9** | **-2.5** |
| LIS | | | | A | A | 19 13 45.0 | |
| | comp=E,183nm,0.3s | | | | | | |
| **PMAFR** | **Mafra** | **3.56** | **54** | ⇑P | **Pn** | **19 13 04.1** | **+1.8** |
| | comp=E,205nm,0.3s,SNR=18 | | | | | | |
| PMAFR | | | | S | **Sn** | **19 13 42.4** | **-2.0** |
| | comp=E,336nm,0.1s,SNR=6.3 | | | | | | |
| **PMAFR** | **Mafra** | **3.56** | **54** | P | **Pn** | **19 13 04.1** | **+1.8** |
| | comp=E,205nm,0.3s,SNR=18 | | | | | | |
| PMAFR | | | | S | **Sn** | **19 13 42.4** | **-2.0** |
| | comp=E,336nm,0.1s,SNR=6.3 | | | | | | |
| **PMAFR** | **Mafra** | **3.56** | **54** | ⇑*i*Pn | **Pn** | **19 13 04.2** | **+1.8** |
| PMAFR | | | | *e*Sn | **Sn** | **19 13 43.0** | **-1.4** |
| PMAFR | | | | A | A | 19 13 55.1 | |
| | comp=E,333nm,0.2s | | | | | | |
| PMAFR | | | | *e*T | T | 19 16 20.8 | |
| **INMG** | **Instituto de M** | **3.56** | **57** | *e*Pn | **Pn** | **19 13 04.5** | **+2.1** |
| **PNCL** | **Nicolau / Gran** | **3.72** | **70** | ⇑*i*Pn | **Pn** | **19 13 06.1** | **+1.5** |
| PNCL | | | | *e*Sn | **Sn** | **19 13 45.2** | **-3.3** |
| PNCL | | | | A | A | 19 13 50.4 | |
| | comp=E,96nm,0.2s | | | | | | |
| PNCL | | | | *e*T | T | 19 16 20.4 | |
| **MESJ** | **Messejana** | **3.88** | **75** | *e*P | **Pn** | **19 13 08.5** | **+1.6** |
| MESJ | | | | *e*S | **Sn** | **19 13 48.9** | **-3.7** |
| **MESJ** | **Messejana** | **3.88** | **75** | P | **Pn** | **19 13 08.5** | **+1.6** |
| MESJ | | | | S | **Sn** | **19 13 48.9** | **-3.7** |
| **MESJ** | **Messejana** | **3.88** | **75** | P | **Pn** | **19 13 08.5** | **+1.6** |
| MESJ | | | | S | **Sn** | **19 13 48.9** | **-3.7** |
| **PCVE** | **Castro Verde** | **3.99** | **78** | ⇑*i*Pn | **Pn** | **19 13 10.1** | **+1.8** |
| PCVE | | | | *e*Sn | **Sn** | **19 13 51.3** | **-3.8** |
| PCVE | | | | A | A | 19 13 56.8 | |
| | comp=E,97nm,0.2s | | | | | | |
| **PBDV** | **Barranco-do-Ve** | **4.03** | **84** | ⇑*i*Pn | **Pn** | **19 13 11.1** | **+2.2** |
| PBDV | | | | *e*Sn | **Sn** | **19 13 54.7** | **-1.5** |
| PBDV | | | | A | A | 19 13 59.2 | |
| | comp=E,133nm,0.3s | | | | | | |
| **ALMR** | **Almeirim** | **4.12** | **56** | *e*P | **Pn** | **19 13 11.8** | **+1.6** |
| ALMR | | | | *e*S | **Sn** | **19 13 55.2** | **-3.2** |
| ALMR | | | | AML | AML | 19 13 57.1 | |
| | comp=N,158nm,0.2s | | | | | | |
| **ALMR** | **Almeirim** | **4.12** | **56** | P | **Pn** | **19 13 11.8** | **+1.6** |
| ALMR | | | | S | **Sn** | **19 13 55.2** | **-3.2** |
| | comp=N,79nm,0.2s | | | | | | |
| **ALMR** | **Almeirim** | **4.12** | **56** | P | **Pn** | **19 13 11.8** | **+1.6** |
| ALMR | | | | S | **Sn** | **19 13 55.2** | **-3.2** |
| | comp=N,79nm,0.2s | | | | | | |
| **PBEJ** | **Beja** | **4.20** | **73** | *e*Pn | **Pn** | **19 13 12.7** | **+1.5** |
| PBEJ | | | | *e*Sn | **Sn** | **19 13 56.4** | **-3.9** |
| PBEJ | | | | A | A | 19 14 01.3 | |
| | comp=N,74nm,0.4s | | | | | | |
| **PVAQ** | **Vaqueiros** | **4.21** | **82** | ⇑*i*Pn | **Pn** | **19 13 13.4** | **+2.0** |
| PVAQ | | | | *e*Sn | **Sn** | **19 13 57.9** | **-2.7** |
| PVAQ | | | | A | A | 19 14 03.8 | |
| | comp=N,162nm,0.4s | | | | | | |
| **PMTG** | **Montargil** | **4.32** | **58** | ⇑*i*Pn | **Pn** | **19 13 14.3** | **+1.5** |
| PMTG | | | | *e*Sn | **Sn** | **19 13 59.6** | **-3.6** |
| PMTG | | | | A | A | 19 14 10.5 | |
| | comp=N,61nm,0.3s | | | | | | |
| **EGRO** | **El Granado** | **4.41** | **80** | ⇑P | **Pn** | **19 13 15.7** | **+1.6** |
| | comp=N,26nm,0.2s,SNR=18 | | | | | | |
| EGRO | | | | S | **Sn** | **19 14 01.2** | **-4.3** |
| | comp=N,108nm,0.2s,SNR=9.8 | | | | | | |
| **EGRO** | **El Granado** | **4.41** | **80** | P | **Pn** | **19 13 15.7** | **+1.6** |
| | comp=N,26nm,0.2s,SNR=18 | | | | | | |
| EGRO | | | | S | **Sn** | **19 14 01.2** | **-4.3** |
| | comp=N,108nm,0.2s,SNR=9.8 | | | | | | |
| **PTOM** | **Tomar** | **4.49** | **51** | *e*Pn | **Pn** | **19 13 17.2** | **+2.0** |
| PTOM | | | | *e*Sn | **Sn** | **19 14 04.6** | **-2.8** |
| PTOM | | | | A | A | 19 14 09.3 | |
| | comp=N,225nm,0.2s | | | | | | |
| **PESTR** | **Estremoz** | **4.67** | **64** | *e*Pn | **Pn** | **19 13 18.9** | **+1.2** |
| PESTR | | | | *e*Sn | **Sn** | **19 14 07.8** | **-4.3** |
| PESTR | | | | A | A | 19 14 25.9 | |
| | comp=N,53nm,0.6s | | | | | | |
| **PCAS** | **Casmilo, Conde** | **4.71** | **47** | *e*Pn | **Pn** | **19 13 19.9** | **+1.8** |
| PCAS | | | | *e*Sn | **Sn** | **19 14 09.4** | **-3.4** |
| PCAS | | | | A | A | 19 14 14.2 | |
| | comp=N,109nm,0.3s | | | | | | |
| **PMPS** | **Porto Santo** | **4.73** | **217** | *e*Pn | **Pn** | **19 13 18.4** | **-0.1** |
| PMPS | | | | *e*Sn | **Sn** | **19 14 05.6** | **-7.8** |
| PMPS | | | | A | A | 19 14 10.0 | |
| | comp=N,86nm,0.3s | | | | | | |
| **COI** | **Coimbra** | **4.86** | **46** | *e*Pn | **Pn** | **19 13 21.7** | **+1.5** |
| COI | | | | *e*Sn | **Sn** | **19 14 12.3** | **-4.2** |
| COI | | | | A | A | 19 14 18.4 | |
| | comp=N,218nm,0.5s | | | | | | |
| **PBAR** | **Barrancos** | **4.87** | **73** | *e*Pn | **Pn** | **19 13 22.0** | **+1.6** |
| PBAR | | | | *e*Sn | **Sn** | **19 14 13.2** | **-3.6** |
| PBAR | | | | A | A | 19 14 17.5 | |
| | comp=N,177nm,0.2s | | | | | | |
| **EBAD** | **Badajoz** | **5.05** | **67** | ⇑P | **Pn** | **19 13 23.9** | **+1.0** |
| | comp=N,21nm,0.1s,SNR=18 | | | | | | |
| EBAD | | | | S | **Sn** | **19 14 16.1** | **-5.3** |
| | comp=N,32nm,0.1s | | | | | | |
| **EBAD** | **Badajoz** | **5.05** | **67** | P | **Pn** | **19 13 23.9** | **+1.0** |
| | comp=N,21nm,0.1s,SNR=18 | | | | | | |
| EBAD | | | | S | **Sn** | **19 14 16.1** | **-5.3** |
| | comp=N,32nm,0.1s | | | | | | |
| **PMRV** | **Marv??o** | **5.06** | **58** | ⇑*e*Pn | **Pn** | **19 13 24.4** | **+1.4** |
| PMRV | | | | *e*Sn | **Sn** | **19 14 17.0** | **-4.5** |
| PMRV | | | | A | A | 19 14 29.1 | |
| | comp=N,82nm,0.5s | | | | | | |
| **EMIN** | **Mina Concepcio** | **5.08** | **78** | ⇑P | **Pn** | **19 13 24.6** | **+1.3** |
| | comp=N,21nm,0.2s,SNR=18 | | | | | | |
| EMIN | | | | S | **Sn** | **19 14 18.0** | **-4.0** |
| | comp=N,38nm,0.2s,SNR=13 | | | | | | |
| **EMIN** | **Mina Concepcio** | **5.08** | **78** | P | **Pn** | **19 13 24.6** | **+1.3** |
| | comp=N,21nm,0.2s,SNR=18 | | | | | | |
| EMIN | | | | S | **Sn** | **19 14 18.0** | **-4.0** |
| | comp=N,38nm,0.2s,SNR=13 | | | | | | |
| **PCBR** | **Castelo Branco** | **5.21** | **54** | ⇓*e*Pn | **Pn** | **19 13 26.7** | **+1.6** |
| PCBR | | | | *e*Sn | **Sn** | **19 14 21.2** | **-4.0** |
| PCBR | | | | A | A | 19 14 30.4 | |
| | comp=N,53nm,0.7s | | | | | | |
| **PMAR** | **Madeira** | **5.29** | **219** | *e*Pn | **Pn** | **19 13 25.9** | **-0.4** |
| PMAR | | | | *e*Sn | **Sn** | **19 14 21.5** | **-5.9** |
| PMAR | | | | A | A | 19 14 29.5 | |
| | comp=N,213nm,0.3s | | | | | | |
| **FUL** | **Funchal** | **5.34** | **219** | *e*Sn | **Sn** | **19 14 21.0** | **-7.4** |
| **PMOZ** | **Porto Moniz, M** | **5.36** | **222** | P | **Pn** | **19 13 26.3** | **-0.9** |
| | comp=N,41nm,0.2s,SNR=7.9 | | | | | | |
| PMOZ | | | | S | **Sn** | **19 14 23.7** | **-5.3** |
| | comp=N,135nm,0.3s,SNR=7.9 | | | | | | |
| **PMOZ** | **Porto Moniz, M** | **5.36** | **222** | *e*Pn | **Pn** | **19 13 27.5** | **+0.3** |
| PMOZ | | | | *e*Sn | **Sn** | **19 14 22.4** | **-6.6** |
| PMOZ | | | | A | A | 19 14 44.7 | |
| | comp=N,224nm,0.4s | | | | | | |
| **PTO** | **Porto** | **5.42** | **37** | *e*Pn | **Pn** | **19 13 29.1** | **+1.1** |
| PTO | | | | *e*Sn | **Sn** | **19 14 25.2** | **-5.2** |
| PTO | | | | A | A | 19 14 29.8 | |
| | comp=N,263nm,0.3s | | | | | | |
| **PVIS** | **Viseu** | **5.49** | **44** | *e*Pn | **Pn** | **19 13 30.0** | **+1.0** |
| PVIS | | | | *e*Sn | **Sn** | **19 14 26.5** | **-5.7** |
| PVIS | | | | A | A | 19 14 32.4 | |
| | comp=N,100nm,0.1s | | | | | | |
| **MTE** | **Manteigas** | **5.49** | **49** | *e*Pn | **Pn** | **19 13 30.2** | **+1.2** |
| MTE | | | | *e*Sn | **Sn** | **19 14 24.6** | **-7.6** |
| **MTE** | **Manteigas** | **5.49** | **49** | *e*Pn | **Pn** | **19 13 30.2** | **+1.2** |
| MTE | | | | *e*Sn | **Sn** | **19 14 24.6** | **-7.6** |
| **MTE** | **Manteigas** | **5.49** | **49** | *e*Pn | **Pn** | **19 13 30.0** | **+1.0** |
| MTE | | | | *e*Sn | **Sn** | **19 14 28.7** | **-3.5** |
| MTE | | | | A | A | 19 14 38.0 | |
| | comp=N,124nm,0.3s | | | | | | |
| **RTC** | **Rabat Centre** | **5.76** | **118** | P | **Pn** | **19 13 34.0** | **+1.4** |
| RTC | | | | S | **Sn** | **19 14 35.0** | **-3.8** |
| **RTC** | **Rabat Centre** | **5.76** | **118** | *e*P | **Pn** | **19 13 34.0** | **+1.4** |
| RTC | | | | *i* S | **Sn** | **19 14 35.0** | **-3.8** |
| **PVRL** | **Vila Real** | **5.97** | **41** | *e*Pn | **Pn** | **19 13 36.7** | **+1.1** |
| PVRL | | | | *e*Sn | **Sn** | **19 14 38.1** | **-6.0** |
| PVRL | | | | A | A | 19 14 44.4 | |
| | comp=N,134nm,0.4s | | | | | | |
| **POLO** | **Lamas de Olo** | **6.00** | **40** | *e*Pn | **Pn** | **19 13 36.9** | **+0.8** |
| POLO | | | | *e*Sn | **Sn** | **19 14 38.4** | **-6.5** |
| POLO | | | | A | A | 19 14 44.7 | |
| | comp=N,64nm,0.5s | | | | | | |
| **EJIF** | **Jimena Fronter** | **6.03** | **92** | ⇓P | **Pn** | **19 13 37.9** | **+1.5** |
| | comp=N,8.2nm,0.2s,SNR=18 | | | | | | |
| EJIF | | | | S | **Sn** | **19 14 43.9** | **-1.5** |
| | comp=N,3.8nm,0.2s,SNR=7.9 | | | | | | |
| **EJIF** | **Jimena Fronter** | **6.03** | **92** | P | **Pn** | **19 13 37.9** | **+1.5** |
| | comp=N,8.2nm,0.2s,SNR=18 | | | | | | |
| EJIF | | | | S | **Sn** | **19 14 43.9** | **-1.5** |
| | comp=N,3.8nm,0.2s,SNR=7.9 | | | | | | |
| **ECAB** | **El Cabril** | **6.11** | **77** | ⇑P | **Pn** | **19 13 39.0** | **+1.6** |
| | comp=N,70nm,0.5s,SNR=18 | | | | | | |
| ECAB | | | | S | **Sn** | **19 14 41.6** | **-5.7** |
| | comp=N,21nm,0.2s,SNR=6.3 | | | | | | |
| **ECAB** | **El Cabril** | **6.11** | **77** | P | **Pn** | **19 13 39.0** | **+1.6** |
| | comp=N,70nm,0.5s,SNR=18 | | | | | | |
| ECAB | | | | S | **Sn** | **19 14 41.6** | **-5.7** |
| | comp=N,21nm,0.2s,SNR=6.3 | | | | | | |
| **PCAB** | **Cabril** | **6.14** | **37** | *e*Pn | **Pn** | **19 13 39.1** | **+1.2** |
| PCAB | | | | *e*Sn | **Sn** | **19 14 41.2** | **-6.9** |
| PCAB | | | | A | A | 19 14 50.4 | |
| | comp=N,84nm,0.3s | | | | | | |
| **ECEU** | **Ceuta** | **6.19** | **97** | P | **Pn** | **19 13 40.7** | **+2.2** |
| | comp=N,8.7nm,0.2s,SNR=15 | | | | | | |
| ECEU | | | | S | **Sn** | **19 14 48.2** | **-1.2** |
| | comp=N,19nm,0.3s,SNR=7.9 | | | | | | |
| **ECEU** | **Ceuta** | **6.19** | **97** | P | **Pn** | **19 13 40.7** | **+2.2** |
| | comp=N,8.7nm,0.2s,SNR=15 | | | | | | |
| ECEU | | | | S | **Sn** | **19 14 48.2** | **-1.2** |
| | comp=N,19nm,0.3s,SNR=7.9 | | | | | | |
| **CEU** | **Ceuta** | **6.19** | **97** | ⇓P | **Pn** | **19 13 42.1** | **+3.5** |
| CEU | | | | S | **Sn** | **19 14 50.2** | **+0.8** |
| **CEU** | **Ceuta** | **6.19** | **97** | P | **Pn** | **19 13 42.1** | **+3.5** |
| **PGAV** | **Gavieira, Arco** | **6.22** | **34** | *e*Pn | **Pn** | **19 13 39.9** | **+0.8** |
| PGAV | | | | *e*Sn | **Sn** | **19 14 44.7** | **-5.6** |
| PGAV | | | | A | A | 19 14 47.8 | |
| | comp=N,127nm,0.1s | | | | | | |
| **ELOB** | **Lobios** | **6.24** | **36** | P | **Pn** | **19 13 40.0** | **+0.7** |
| | comp=N,29nm,0.1s,SNR=155 | | | | | | |
| ELOB | | | | S | **Sn** | **19 14 45.5** | **-5.3** |
| | comp=N,126nm,0.2s,SNR=8.2 | | | | | | |
| **ELOB** | **Lobios** | **6.24** | **36** | P | **Pn** | **19 13 40.0** | **+0.7** |
| | comp=N,29nm,0.1s,SNR=155 | | | | | | |
| ELOB | | | | S | **Sn** | **19 14 45.5** | **-5.3** |
| | comp=N,126nm,0.2s,SNR=8.2 | | | | | | |
| **EPLA** | **Plasencia** | **6.25** | **58** | ⇓P | **Pn** | **19 13 40.8** | **+1.4** |
| | comp=N,56nm,0.2s,SNR=18 | | | | | | |
| EPLA | | | | S | **Sn** | **19 14 45.7** | **-5.2** |
| | comp=N,10nm,0.2s | | | | | | |
| **EPLA** | **Plasencia** | **6.25** | **58** | P | **Pn** | **19 13 40.8** | **+1.4** |
| | comp=N,56nm,0.2s,SNR=18 | | | | | | |
| EPLA | | | | S | **Sn** | **19 14 45.7** | **-5.2** |
| | comp=N,10nm,0.2s | | | | | | |
| **MVO** | **Moncorvo** | **6.28** | **45** | P | **Pn** | **19 13 40.6** | **+0.8** |
| | comp=N,62nm,0.1s,SNR=148 | | | | | | |
| MVO | | | | S | **Sn** | **19 14 45.2** | **-6.4** |
| | comp=N,115nm,0.3s,SNR=16 | | | | | | |
| **MVO** | **Moncorvo** | **6.28** | **45** | P | **Pn** | **19 13 40.6** | **+0.8** |
| | comp=N,62nm,0.1s,SNR=148 | | | | | | |
| MVO | | | | S | **Sn** | **19 14 45.2** | **-6.4** |
| | comp=N,115nm,0.3s,SNR=16 | | | | | | |
| **MVO** | **Moncorvo** | **6.28** | **45** | *e*Pn | **Pn** | **19 13 40.6** | **+0.8** |
| MVO | | | | *e*Sn | **Sn** | **19 14 44.7** | **-6.9** |
| MVO | | | | A | A | 19 14 50.6 | |
| | comp=N,191nm,0.5s | | | | | | |
| **CIA** | **Chichaoua** | **6.35** | **146** | P | **Pn** | **19 13 43.0** | **+2.2** |
| CIA | | | | S | **Sn** | **19 14 50.0** | **-3.4** |
| **CIA** | **Chichaoua** | **6.35** | **146** | *i* P | **Pn** | **19 13 43.0** | **+2.2** |
| CIA | | | | *i* S | **Sn** | **19 14 50.0** | **-3.4** |
| **EMIJ** | **Mijas** | **6.58** | **90** | ⇓P | **Pn** | **19 13 45.9** | **+2.0** |
| | comp=N,13nm,0.3s,SNR=18 | | | | | | |
| EMIJ | | | | S | **Sn** | **19 14 56.1** | **-2.9** |
| | comp=N,17nm,0.3s | | | | | | |
| **EMIJ** | **Mijas** | **6.58** | **90** | P | **Pn** | **19 13 45.9** | **+2.0** |
| | comp=N,13nm,0.3s,SNR=18 | | | | | | |
| EMIJ | | | | S | **Sn** | **19 14 56.1** | **-2.9** |
| | comp=N,17nm,0.3s | | | | | | |
| **EMAZ** | **Mazaricos** | **6.77** | **26** | P | **Pn** | **19 13 46.7** | **+0.2** |
| | comp=N,20nm,0.1s,SNR=7.9 | | | | | | |
| EMAZ | | | | S | **Sn** | **19 14 55.5** | **-8.2** |
| | comp=N,128nm,0.1s,SNR=7.9 | | | | | | |
| **EMAZ** | **Mazaricos** | **6.77** | **26** | P | **Pn** | **19 13 46.7** | **+0.2** |
| | comp=N,20nm,0.1s,SNR=7.9 | | | | | | |
| **EADA** | **Adamuz** | **6.78** | **77** | P | **Pn** | **19 13 48.0** | **+1.4** |
| | comp=N,6.2nm,0.2s,SNR=18 | | | | | | |
| EADA | | | | S | **Sn** | **19 14 58.6** | **-5.2** |
| | comp=N,24nm,0.3s | | | | | | |
| **EADA** | **Adamuz** | **6.78** | **77** | P | **Pn** | **19 13 48.0** | **+1.4** |
| | comp=N,6.2nm,0.2s,SNR=18 | | | | | | |
| EADA | | | | S | **Sn** | **19 14 58.6** | **-5.2** |
| | comp=N,24nm,0.3s | | | | | | |
| **EMAL** | **Malaga-Limoner** | **6.84** | **89** | *e*P | **Pn** | **19 13 50.2** | **+2.8** |
| **PBRG** | **Braganca** | **6.87** | **43** | *e*Pn | **Pn** | **19 13 48.9** | **+1.0** |
| PBRG | | | | *e*Sn | **Sn** | **19 14 59.5** | **-6.6** |
| PBRG | | | | A | A | 19 15 03.9 | |
| | comp=N,40nm,0.3s | | | | | | |
| **ECAL** | **Calabor** | **6.96** | **42** | P | **Pn** | **19 13 50.2** | **+1.0** |
| | comp=N,120nm,0.2s,SNR=366 | | | | | | |
| ECAL | | | | S | **Sn** | **19 15 03.4** | **-5.1** |
| | comp=N,59nm,0.2s,SNR=8.9 | | | | | | |
| **ECAL** | **Calabor** | **6.96** | **42** | P | **Pn** | **19 13 50.2** | **+1.0** |
| | comp=N,120nm,0.2s,SNR=366 | | | | | | |
| ECAL | | | | S | **Sn** | **19 15 03.4** | **-5.1** |
| | comp=N,59nm,0.2s,SNR=8.9 | | | | | | |
| **EAGO** | **Agolada(Pontev** | **6.98** | **31** | P | **Pn** | **19 13 49.6** | **+0.1** |
| | comp=N,27nm,0.1s,SNR=7.9 | | | | | | |
| EAGO | | | | S | **Sn** | **19 15 00.4** | **-8.5** |
| | comp=N,99nm,0.2s,SNR=7.9 | | | | | | |
| **EAGO** | **Agolada(Pontev** | **6.98** | **31** | P | **Pn** | **19 13 49.6** | **+0.1** |
| | comp=N,27nm,0.1s,SNR=7.9 | | | | | | |
| **OUK** | **Oukaimeden** | **7.07** | **142** | P | **Pn** | **19 13 53.0** | **+2.1** |
| OUK | | | | S | **Sn** | **19 15 07.0** | **-4.5** |
| **OUK** | **Oukaimeden** | **7.07** | **142** | *i* P | **Pn** | **19 13 53.0** | **+2.1** |
| OUK | | | | *i* S | **Sn** | **19 15 07.0** | **-4.5** |
| **EGOR** | **Sierra Gorda,** | **7.08** | **86** | P | **Pn** | **19 13 53.3** | **+2.4** |
| | comp=N,7.9nm,0.3s,SNR=7.9 | | | | | | |
| EGOR | | | | S | **Sn** | **19 15 08.0** | **-3.5** |
| | comp=N,22nm,0.3s,SNR=7.9 | | | | | | |
| **EGOR** | **Sierra Gorda,** | **7.08** | **86** | P | **Pn** | **19 13 53.3** | **+2.4** |
| | comp=N,7.9nm,0.3s,SNR=7.9 | | | | | | |
| EGOR | | | | S | **Sn** | **19 15 08.0** | **-3.5** |
| | comp=N,22nm,0.3s,SNR=7.9 | | | | | | |
| **TZC** | **Tazercounte** | **7.13** | **130** | P | **Pn** | **19 13 54.0** | **+2.3** |
| TZC | | | | S | **Sn** | **19 15 08.0** | **-4.9** |
| **TZC** | **Tazercounte** | **7.13** | **130** | *i* P | **Pn** | **19 13 54.0** | **+2.3** |
| TZC | | | | *i* S | **Sn** | **19 15 08.0** | **-4.9** |
| **KIB** | **El Ksiba** | **7.14** | **125** | P | **Pn** | **19 13 52.0** | **+0.3** |
| KIB | | | | S | **Sn** | **19 15 07.0** | **-5.9** |
| **KIB** | **El Ksiba** | **7.14** | **125** | *i* P | **Pn** | **19 13 52.0** | **+0.3** |
| KIB | | | | *i* S | **Sn** | **19 15 07.0** | **-5.9** |
| **PVLZ** | **Peæn de** | **7.22** | **101** | *e*P | **Pn** | **19 13 54.8** | **+2.2** |
| PVLZ | | | | *e*S | **Sn** | **19 15 11.9** | **-2.7** |
| **PAB** | **San Pablo** | **7.27** | **66** | *e*Pn | **Pn** | **19 13 54.1** | **+0.7** |
| **PAB** | **San Pablo** | **7.27** | **66** | *e*Pn | **Pn** | **19 13 54.1** | **+0.7** |
| **SELV** | **Sierra Elvira** | **7.38** | **85** | P | **Pn** | **19 13 56.9** | **+1.9** |
| | comp=N,2.7nm,0.2s,SNR=7.9 | | | | | | |
| SELV | | | | S | **Sn** | **19 15 15.1** | **-3.7** |
| | comp=N,9.1nm,0.4s,SNR=7.9 | | | | | | |
| **SELV** | **Sierra Elvira** | **7.38** | **85** | P | **Pn** | **19 13 56.9** | **+1.9** |
| | comp=N,2.7nm,0.2s,SNR=7.9 | | | | | | |
| SELV | | | | S | **Sn** | **19 15 15.1** | **-3.7** |
| | comp=N,9.1nm,0.4s,SNR=7.9 | | | | | | |
| **ELGU** | **Los Guajares,** | **7.47** | **87** | P | **Pn** | **19 13 58.3** | **+2.1** |
| | comp=N,7.4nm,0.2s,SNR=7.9 | | | | | | |
| ELGU | | | | S | **Sn** | **19 15 18.3** | **-2.8** |
| | comp=N,3.2nm,0.2s,SNR=7.9 | | | | | | |
| **ELGU** | **Los Guajares,** | **7.47** | **87** | P | **Pn** | **19 13 58.3** | **+2.1** |
| | comp=N,7.4nm,0.2s,SNR=7.9 | | | | | | |
| ELGU | | | | S | **Sn** | **19 15 18.3** | **-2.8** |
| | comp=N,3.2nm,0.2s,SNR=7.9 | | | | | | |
| **ESDC** | **Sonseca Array** | **7.59** | **66** | Pn | **Pn** | **19 13 58.4** | **+0.6** |
| | comp=N,30nm,0.3s,baz=255,slow=13,SNR=259 | | | | | | |
| ESDC | | | | Sn | **Sn** | **19 15 17.6** | **-6.4** |
| | comp=N,10.0nm,0.3s,baz=253,slow=23,SNR=5.1 | | | | | | |
| **ESDC** | **Sonseca Array** | **7.59** | **66** | P | **Pn** | **19 13 58.5** | **+0.6** |
| | comp=N,30nm,0.2s,baz=254,slow=13,SNR=340 | | | | | | |
| ESDC | | | | S | **Sn** | **19 15 17.9** | **-6.1** |
| | comp=N,3.9nm,0.3s,baz=253,slow=23,SNR=3.6 | | | | | | |
| **ESDC** | **Sonseca Array** | **7.59** | **66** | P | **Pn** | **19 13 58.5** | **+0.6** |
| | comp=N,30nm,0.2s,SNR=340 | | | | | | |
| ESDC | | | | *e*Sn | **Sn** | **19 15 17.6** | **-6.4** |
| ESDC | | | | S | **Sn** | **19 15 17.9** | **-6.1** |
| | comp=N,3.9nm,0.3s,SNR=3.6 | | | | | | |
| **ESLA** | **Sonseca Array** | **7.59** | **66** | *e*Pn | **Pn** | **19 13 58.6** | **+0.8** |
| **ESLA** | **Sonseca Array** | **7.59** | **66** | *e*Pn | **Pn** | **19 13 58.6** | **+0.8** |
| ESLA | | | | *e*Sn | Sn | 19 15 13.4 | -11 |
| **YBT** | **Youssef Ben Ta** | **7.60** | **157** | P | **Pn** | **19 14 00.0** | **+2.1** |
| YBT | | | | S | **Sn** | **19 15 20.0** | **-4.2** |
| **YBT** | **Youssef Ben Ta** | **7.60** | **157** | *i* P | **Pn** | **19 14 00.0** | **+2.1** |
| YBT | | | | *i* S | **Sn** | **19 15 20.0** | **-4.2** |
| **EQUE** | **Quentar** | **7.61** | **85** | P | **Pn** | **19 14 00.3** | **+2.1** |
| | comp=N,10.0nm,0.3s,SNR=10 | | | | | | |
| EQUE | | | | S | **Sn** | **19 15 21.4** | **-3.2** |
| | comp=N,1.3nm,0.2s,SNR=7.0 | | | | | | |
| **EQUE** | **Quentar** | **7.61** | **85** | P | **Pn** | **19 14 00.3** | **+2.1** |
| | comp=N,10.0nm,0.3s,SNR=10 | | | | | | |
| EQUE | | | | S | **Sn** | **19 15 21.4** | **-3.2** |
| | comp=N,1.3nm,0.2s,SNR=7.0 | | | | | | |
| **ES19** | **SONSECA Array** | **7.65** | **66** | *e*Pn | **Pn** | **19 13 57.8** | **-0.8** |
| **ES19** | **SONSECA Array** | **7.65** | **66** | *e*Pn | **Pn** | **19 13 57.8** | **-0.8** |
| ES19 | | | | *e*Sn | Sn | 19 15 16.2 | -9.2 |
| **EFAM** | **Famara** | **7.76** | **184** | S | **Sn** | **19 15 21.1** | **-7.0** |
| | comp=N,13nm,0.3s,SNR=7.9 | | | | | | |
| **EPON** | **Pontenova** | **7.81** | **33** | P | **Pn** | **19 14 01.2** | **+0.4** |
| | comp=N,18nm,0.2s,SNR=80 | | | | | | |
| EPON | | | | S | **Sn** | **19 15 22.2** | **-7.0** |
| | comp=N,11nm,0.2s,SNR=7.9 | | | | | | |
| **EPON** | **Pontenova** | **7.81** | **33** | P | **Pn** | **19 14 01.2** | **+0.4** |
| | comp=N,18nm,0.2s,SNR=80 | | | | | | |
| EPON | | | | S | **Sn** | **19 15 22.2** | **-7.0** |
| | comp=N,11nm,0.2s,SNR=7.9 | | | | | | |
| **GUD** | **Guadarrama** | **7.82** | **59** | ⇑P | **Pn** | **19 14 02.0** | **+0.9** |

comp=N,28nm,0.3s,SNR=18
GUD S Sn 19 15 24.8 -5.0
comp=N,2.8nm,0.2s,SNR=7.9
**GUD Guadarrama 7.82 59** P Pn 19 14 02.0 +0.9
comp=N,28nm,0.3s,SNR=18
GUD S Sn 19 15 24.8 -5.0
comp=N,2.8nm,0.2s,SNR=7.9
**EQES Quesada 7.92 80** ⇓P Pn 19 14 03.7 +1.3
comp=N,1.7nm,0.2s,SNR=18
EQES S Sn 19 15 28.1 -4.1
comp=N,7.6nm,0.1s,SNR=5.6
**EQES Quesada 7.92 80** P Pn 19 14 03.7 +1.3
comp=N,1.7nm,0.2s,SNR=18
EQES S Sn 19 15 28.1 -4.1
comp=N,7.6nm,0.1s,SNR=5.6
**GORA Gorafe 7.93 83** S Sn 19 15 29.4 -3.0
comp=N,16nm,0.1s,SNR=7.9
**GORA Gorafe 7.93 83** S Sn 19 15 29.4 -3.0
comp=N,16nm,0.1s,SNR=7.9
**MDT Midelt 7.97 118** Pn Pn 19 14 04.6 +1.5
comp=N,2.9nm,0.3s,baz=325,slow=4.6,SNR=72
MDT Sn Sn 19 15 27.7 -5.7
comp=N,19nm,0.3s,baz=200,slow=20,SNR=26
**EALB Alboran 8.05 94** S Sn 19 15 31.1 -4.1
comp=N,5.5nm,0.2s,SNR=7.9
**EALB Alboran 8.05 94** S Sn 19 15 31.1 -4.1
comp=N,5.5nm,0.2s,SNR=7.9
**EBER Berja 8.06 87** P Pn 19 14 06.2 +1.8
comp=N,2.9nm,0.3s,SNR=12
EBER S Sn 19 15 33.0 -2.7
comp=N,2.7nm,0.2s,SNR=7.9
**EBER Berja 8.06 87** P Pn 19 14 06.2 +1.8
comp=N,2.9nm,0.3s,SNR=12
EBER S Sn 19 15 33.0 -2.7
comp=N,2.7nm,0.2s,SNR=7.9
**CFUE Fuerteventura 8.27 186** P Pn 19 14 06.2 -0.9
comp=N,2.2nm,0.2s,SNR=7.9
CFUE S Sn 19 15 30.7 -10
comp=N,4.8nm,0.1s,SNR=7.9
**UCM Universidad Co 8.33 63** *e*S Sn 19 15 36.1 -5.9
**SESP Santiago Espad 8.36 78** P Pn 19 14 09.6 +1.1
comp=N,4.8nm,0.2s,SNR=7.9
SESP S Sn 19 15 37.3 -5.7
comp=N,1.0nm,0.2s,SNR=7.9
**SESP Santiago Espad 8.36 78** P Pn 19 14 09.6 +1.1
comp=N,4.8nm,0.2s,SNR=7.9
SESP S Sn 19 15 37.3 -5.7
comp=N,1.0nm,0.2s,SNR=7.9
**ZFT Errachidia 8.60 122** P Pn 19 14 14.0 +2.2
ZFT S Sn 19 15 45.0 -4.0
**ZFT Errachidia 8.60 122** *i* P Pn 19 14 14.0 +2.2
ZFT *i* S Sn 19 15 45.0 -4.0
**ENIJ Nijar 8.61 86** P Pn 19 14 13.3 +1.6
comp=N,3.1nm,0.2s,SNR=7.9
ENIJ S Sn 19 15 45.2 -3.7
comp=N,5.5nm,0.3s,SNR=7.9
**ENIJ Nijar 8.61 86** P Pn 19 14 13.3 +1.6
comp=N,3.1nm,0.2s,SNR=7.9
ENIJ S Sn 19 15 45.2 -3.7
comp=N,5.5nm,0.3s,SNR=7.9
**EARI Arriondas 8.72 40** P Pn 19 14 14.8 +1.5
comp=N,9.9nm,0.2s,SNR=62
EARI S Sn 19 15 46.6 -5.1
comp=N,10nm,0.3s,SNR=7.9
**EARI Arriondas 8.72 40** P Pn 19 14 14.8 +1.5
comp=N,9.9nm,0.2s,SNR=62
EARI S Sn 19 15 46.6 -5.1
comp=N,10nm,0.3s,SNR=7.9
**EOSO Osorio 9.07 195** S Sn 19 15 49.5 -11
comp=N,4.7nm,0.2s,SNR=7.9
**ETOB Tobarra 9.20 76** P Pn 19 14 20.4 +0.5
comp=N,2.9nm,0.2s,SNR=38
ETOB S Sn 19 15 57.7 -5.8
comp=N,3.0nm,0.2s,SNR=7.9
**ETOB Tobarra 9.20 76** P Pn 19 14 20.4 +0.5
comp=N,2.9nm,0.2s,SNR=38
ETOB S Sn 19 15 57.7 -5.8
comp=N,3.0nm,0.2s,SNR=7.9
**ETOR Torete 9.36 62** P Pn 19 14 22.9 +0.8
comp=N,72nm,0.3s,SNR=18
ETOR S Sn 19 15 59.6 -7.8
comp=N,7.5nm,0.3s,SNR=7.9
**ETOR Torete 9.36 62** P Pn 19 14 22.9 +0.8
comp=N,72nm,0.3s,SNR=18
ETOR S Sn 19 15 59.6 -7.8
comp=N,7.5nm,0.3s,SNR=7.9
**EMUR La Murta 9.37 81** P Pn 19 14 23.5 +1.3
comp=N,1.6nm,0.2s,SNR=8.8
EMUR S Sn 19 16 03.0 -4.7
comp=N,3.2nm,0.3s,SNR=7.9
**EMUR La Murta 9.37 81** P Pn 19 14 23.5 +1.3
comp=N,1.6nm,0.2s,SNR=8.8
EMUR S Sn 19 16 03.0 -4.7
comp=N,3.2nm,0.3s,SNR=7.9
**CART Cartagena 9.56 82** *e*Pn Pn 19 14 25.8 +1.1
**CART Cartagena 9.56 82** *e*Pn Pn 19 14 25.8 +1.1
CART *e*Sn Sn 19 16 00.2 -12
**ELAN Lanestosa 9.65 46** P Pn 19 14 27.9 +1.8
comp=N,15nm,0.2s,SNR=24
ELAN S Sn 19 16 07.5 -7.1
comp=N,24nm,0.3s,SNR=7.9
**ELAN Lanestosa 9.65 46** P Pn 19 14 27.9 +1.8
comp=N,15nm,0.2s,SNR=24
ELAN S Sn 19 16 07.5 -7.1
comp=N,24nm,0.3s,SNR=7.9
**AFON Font Roja 9.98 76** P Pn 19 14 32.6 +1.9
comp=N,1.3nm,0.1s,SNR=7.9
**AFON Font Roja 9.98 76** P Pn 19 14 32.6 +1.9
comp=N,1.3nm,0.1s,SNR=7.9
**EMOS Mosqueruela 10.36 67** P Pn 19 14 37.3 +1.4
comp=N,3.3nm,0.2s,SNR=19
EMOS S Sn 19 16 24.7 -7.4
comp=N,3.3nm,0.3s,SNR=7.9
**EMOS Mosqueruela 10.36 67** P Pn 19 14 37.3 +1.4
comp=N,3.3nm,0.2s,SNR=19
EMOS S Sn 19 16 24.7 -7.4
comp=N,3.3nm,0.3s,SNR=7.9
**EARA Aranguren 10.53 53** P Pn 19 14 39.4 +1.4
comp=N,17nm,0.3s,SNR=17
EARA S Sn 19 16 29.6 -6.4
comp=N,2.7nm,0.3s,SNR=7.9
**EARA Aranguren 10.53 53** P Pn 19 14 39.4 +1.4
comp=N,17nm,0.3s,SNR=17
EARA S Sn 19 16 29.6 -6.4
comp=N,2.7nm,0.3s,SNR=7.9
**IPRE Itoiz 10.69 53** P Pn 19 14 41.8 +1.6
comp=N,8.0nm,0.3s,SNR=7.9
IPRE S Sn 19 16 33.4 -6.5
comp=N,0.2nm,0.2s,SNR=7.9
**IPRE Itoiz 10.69 53** P Pn 19 14 41.8 +1.6
comp=N,8.0nm,0.3s,SNR=7.9
IPRE S Sn 19 16 33.4 -6.5
comp=N,0.2nm,0.2s,SNR=7.9
**EORO Oroz-Betelu 10.76 53** P Pn 19 14 42.8 +1.6
comp=N,25nm,0.3s,SNR=63
EORO S Sn 19 16 35.1 -6.6
comp=N,0.7nm,0.1s,SNR=7.9
**EORO Oroz-Betelu 10.76 53** P Pn 19 14 42.8 +1.6
comp=N,25nm,0.3s,SNR=63
EORO S Sn 19 16 35.1 -6.6
comp=N,0.7nm,0.1s,SNR=7.9
**IELO Elcoad 10.78 53** P Pn 19 14 43.3 +1.7
comp=N,52nm,0.2s,SNR=7.9
IELO S Sn 19 16 36.1 -6.1
comp=N,2.0nm,0.2s,SNR=7.9
**IELO Elcoad 10.78 53** P Pn 19 14 43.3 +1.7
comp=N,52nm,0.2s,SNR=7.9
IELO S Sn 19 16 36.1 -6.1
comp=N,2.0nm,0.2s,SNR=7.9
**EALK Alkurruntz 10.80 51** P Pn 19 14 43.9 +2.1
comp=N,5.9nm,0.2s,SNR=24
EALK S Sn 19 16 36.4 -6.4
comp=N,6.5nm,0.3s,SNR=7.9
**EALK Alkurruntz 10.80 51** P Pn 19 14 43.9 +2.1
comp=N,5.9nm,0.2s,SNR=24
EALK S Sn 19 16 36.4 -6.4
comp=N,6.5nm,0.3s,SNR=7.9
**ESAC San Caprasio 10.80 60** P Pn 19 14 42.4 +0.6
comp=N,54nm,0.2s,SNR=28
ESAC S Sn 19 16 36.6 -6.2
comp=N,2.2nm,0.1s,SNR=7.9
**ESAC San Caprasio 10.80 60** P Pn 19 14 42.4 +0.6
comp=N,54nm,0.2s,SNR=28
ESAC S Sn 19 16 36.6 -6.2
comp=N,2.2nm,0.1s,SNR=7.9
**SJPF Ste Jean 10.92 52** *e*Pn Pn 19 14 45.2 +1.8
SNR=1.0
SJPF *e*Sn Sn 19 16 39.0 -6.7
comp=N,13nm,0.4s
**SJPF Ste Jean 10.92 52** *e*Pn Pn 19 14 45.2 +1.8
SNR=1.0
SJPF *e*Sn Sn 19 16 39.0 -6.7
comp=N,6.4nm,0.4s
**SJPF Ste Jean 10.92 52** *e*Pn Pn 19 14 45.2 +1.8
**ERTA Horta de San J 11.11 65** P Pn 19 14 47.4 +1.4
comp=N,2.8nm,0.2s,SNR=7.8
ERTA S Sn 19 16 43.2 -7.2
comp=N,4.8nm,0.4s,SNR=7.9
**ERTA Horta de San J 11.11 65** P Pn 19 14 47.4 +1.4
comp=N,2.8nm,0.2s,SNR=7.8
ERTA S Sn 19 16 43.2 -7.2
comp=N,4.8nm,0.4s,SNR=7.9
**ATE Arette 11.24 53** *e*P Pn 19 14 49.5 +1.7
**ATE Arette 11.24 53** P Pn 19 14 49.7 +1.9
comp=N,14nm,0.2s,SNR=7.9
ATE S Sn 19 16 47.1 -6.4
comp=N,2.2nm,0.2s,SNR=7.9
**ATE Arette 11.24 53** *e*P Pn 19 14 49.5 +1.7
**ATE Arette 11.24 53** P Pn 19 14 49.7 +1.9
comp=N,14nm,0.2s,SNR=7.9
ATE S Sn 19 16 47.1 -6.4
comp=N,2.2nm,0.2s,SNR=7.9
**ETSF Etsaut 11.24 54** *e*Pn Pn 19 14 49.6 +1.7
SNR=1.0
ETSF *e*Sn Sn 19 16 46.5 -7.1
comp=N,6.3nm,0.3s
**ETSF Etsaut 11.24 54** *e*Pn Pn 19 14 49.6 +1.7
SNR=1.0
ETSF *e*Sn Sn 19 16 46.5 -7.1
comp=N,3.2nm,0.3s
**ETSF Etsaut 11.24 54** *e*Pn Pn 19 14 49.6 +1.7
**EIBI Ibiza 11.48 75** P Pn 19 14 52.9 +1.8
comp=N,1.2nm,0.2s,SNR=7.9
EIBI S Sn 19 16 52.4 -7.1
comp=N,0.5nm,0.2s,SNR=7.9
**EIBI Ibiza 11.48 75** P Pn 19 14 52.9 +1.8
comp=N,1.2nm,0.2s,SNR=7.9
EIBI S Sn 19 16 52.4 -7.1
comp=N,0.5nm,0.2s,SNR=7.9
**VIEF Viey 11.62 55** *e*P Pn 19 14 54.7 +1.7
**VIEF Viey 11.62 55** *e*P Pn 19 14 54.7 +1.7
**ECHI Chisagues Biel 11.63 56** P Pn 19 14 54.6 +1.3
comp=N,15nm,0.3s,SNR=6.1
ECHI S Sn 19 16 56.6 -6.6
comp=N,0.9nm,0.1s,SNR=7.9
**ECHI Chisagues Biel 11.63 56** P Pn 19 14 54.6 +1.3
comp=N,15nm,0.3s,SNR=6.1
ECHI S Sn 19 16 56.7 -6.6
comp=N,0.9nm,0.1s,SNR=7.9
**LABF Labassere 11.72 54** *e*P Pn 19 14 56.2 +1.8
**LABF Labassere 11.72 54** *e*P Pn 19 14 56.2 +1.8
**EPOB Poblet 11.77 64** P Pn 19 14 55.9 +0.8
comp=N,3.4nm,0.2s,SNR=6.8
**EPOB Poblet 11.77 64** P Pn 19 14 55.9 +0.8
comp=N,3.4nm,0.2s,SNR=6.8
**RESF Ens 11.79 56** *e*P Pn 19 14 57.4 +2.0
**RESF Ens 11.79 56** *e*P Pn 19 14 57.4 +2.0
**EPF Esparros 11.89 55** *e*Pn Pn 19 14 59.5 +2.8
SNR=1.0
EPF *e*Sn Sn 19 17 02.3 -7.1
comp=N,14nm,0.6s,SNR=1.0
**EPF Esparros 11.89 55** *e*Pn Pn 19 14 59.5 +2.8
SNR=1.0
EPF *e*Sn Sn 19 17 02.3 -7.1
comp=N,7.0nm,0.6s,SNR=1.0
**EPF Esparros 11.89 55** *e*Pn Pn 19 14 59.5 +2.8
**MELF Melles 12.10 56** *e*P Pn 19 15 01.1 +1.5
**MELF Melles 12.10 56** *e*P Pn 19 15 01.1 +1.5
**CSOR Sort 12.15 59** P Pn 19 15 01.6 +1.2
comp=N,7.0nm,0.3s,SNR=7.4
CSOR S Sn 19 17 08.2 -7.8
comp=N,3.1nm,0.4s,SNR=7.9
**CSOR Sort 12.15 59** P Pn 19 15 01.6 +1.2
comp=N,7.0nm,0.3s,SNR=7.4
CSOR S Sn 19 17 08.2 -7.8
comp=N,3.1nm,0.4s,SNR=7.9
**EMIR Miracle 12.26 61** P Pn 19 15 02.7 +0.8
comp=N,5.4nm,0.2s,SNR=6.9
EMIR S Sn 19 17 12.0 -6.6
comp=N,1.6nm,0.2s,SNR=7.9
**EMIR Miracle 12.26 61** S Sn 19 17 12.0 -6.6
comp=N,1.6nm,0.2s,SNR=7.9
**SALF Salau 12.34 57** *e*P Pn 19 15 04.5 +1.6
**SALF Salau 12.34 57** *e*P Pn 19 15 04.5 +1.6
**ETOS Mallorca 12.71 72** P Pn 19 15 09.6 +1.7
comp=N,0.6nm,0.2s,SNR=7.9
**ETOS Mallorca 12.71 72** P Pn 19 15 09.6 +1.7
comp=N,0.6nm,0.2s,SNR=7.9
**CLLI Llivia 12.77 60** P Pn 19 15 10.6 +1.8
comp=N,6.1nm,0.3s,SNR=27
CLLI S Sn 19 17 23.4 -7.7
comp=N,0.5nm,0.2s,SNR=7.9
**CLLI Llivia 12.77 60** P Pn 19 15 10.6 +1.8
comp=N,6.1nm,0.3s,SNR=27
CLLI S Sn 19 17 23.4 -7.7
comp=N,0.5nm,0.2s,SNR=7.9
**CFON Fontmartina 12.86 63** P Pn 19 15 10.7 +0.7
comp=N,12nm,0.2s,SNR=38
**CFON Fontmartina 12.86 63** P Pn 19 15 10.7 +0.7
comp=N,12nm,0.2s,SNR=38
**LFF La Frestale 13.09 48** *e*Pn Pn 19 15 14.1 +1.0
SNR=1.0
LFF *e*Sn Sn 19 17 30.3 -8.4
comp=N,5.8nm,0.3s
**LFF La Frestale 13.09 48** *e*Pn Pn 19 15 14.1 +1.0
**QUIF Quistinic 13.16 30** *e*Pn Pn 19 15 14.4 +0.5
SNR=1.0
QUIF *e*Sn Sn 19 17 27.5 -13
comp=N,7.9nm,0.3s,SNR=1.0
**QUIF Quistinic 13.16 30** *e*Pn Pn 19 15 14.4 +0.5
SNR=1.0
**QUIF Quistinic 13.16 30** *e*Pn Pn 19 15 14.4 +0.5
**MTLF Montolieu 13.27 56** *e*Pn Pn 19 15 16.8 +1.4
SNR=1.0
**MTLF Montolieu 13.27 56** *e*Pn Pn 19 15 16.8 +1.4
SNR=1.0
**MTLF Montolieu 13.27 56** *e*Pn Pn 19 15 16.8 +1.4
**EJON La Jonquera 13.40 61** P Pn 19 15 18.1 +0.8
comp=N,2.9nm,0.2s,SNR=7.9
**EJON La Jonquera 13.40 61** P Pn 19 15 18.1 +0.8
comp=N,2.9nm,0.2s,SNR=7.9
**SJAF Saint Jean de 13.40 61** P Pn 19 15 18.2 +0.8
comp=N,0.0nm,0.1s,SNR=7.9
**SJAF Saint Jean de 13.40 61** P Pn 19 15 18.2 +0.8
SNR=7.9
**ROSF Rostrenen 13.46 29** *e*Pn Pn 19 15 18.2 +0.2
SNR=1.0
ROSF *e*Sn Sn 19 17 35.6 -12
comp=N,10nm,0.3s,SNR=1.0
**ROSF Rostrenen 13.46 29** *e*Pn Pn 19 15 18.2 +0.2
SNR=1.0
**ROSF Rostrenen 13.46 29** *e*Pn Pn 19 15 18.2 +0.2
**MFF Saint Martin d 13.60 41** *e*Pn Pn 19 15 21.5 +1.5
SNR=1.0
MFF *e*Sn Sn 19 17 42.2 -8.9
comp=N,5.6nm,0.4s
**MFF Saint Martin d 13.60 41** *e*Pn Pn 19 15 21.5 +1.5
SNR=1.0
MFF *e*Sn Sn 19 17 42.2 -8.9
comp=N,2.8nm,0.4s
**MFF Saint Martin d 13.60 41** *e*Pn Pn 19 15 21.5 +1.5
**SGMF Saint Gilles 13.68 31** *e*Pn Pn 19 15 21.5 +0.5
SNR=1.0
SGMF *e*Sn Sn 19 17 39.4 -13
comp=N,3.5nm,0.3s,SNR=1.0
**SGMF Saint Gilles 13.68 31** *e*Pn Pn 19 15 21.5 +0.5
SNR=1.0
**SGMF Saint Gilles 13.68 31** *e*Pn Pn 19 15 21.5 +0.5
**RJF Les Rejaudoux 13.75 48** *e*Pn Pn 19 15 22.5 +0.4
SNR=1.0
RJF *e*Sn Sn 19 17 46.4 -8.4
comp=N,5.7nm,0.3s
**RJF Les Rejaudoux 13.75 48** *e*Pn Pn 19 15 22.5 +0.4
SNR=1.0
RJF *e*Sn Sn 19 17 46.4 -8.4
comp=N,2.8nm,0.3s
**RJF Les Rejaudoux 13.75 48** *e*Pn Pn 19 15 22.5 +0.4
**CAF Calviac 13.89 50** *e*Pn Pn 19 15 24.3 +0.4
CAF *e*Sn Sn 19 17 49.8 -8.4
comp=N,3.4nm,0.3s
**CAF Calviac 13.89 50** *e*Pn Pn 19 15 24.3 +0.4
CAF *e*Sn Sn 19 17 49.8 -8.4
comp=N,1.7nm,0.3s
**CAF Calviac 13.89 50** *e*Pn Pn 19 15 24.3 +0.4
CAF *e*Sn Sn 19 17 49.8 -8.4
**GRR Gorron 14.51 34** *e*Pn Pn 19 15 32.2 -0.2
GRR *e*Sn Sn 19 18 03.9 -9.2
comp=N,5.4nm,0.3s
**GRR Gorron 14.51 34** *e*Pn Pn 19 15 32.2 -0.2
**GRR Gorron 14.51 34** *e*Pn Pn 19 15 32.2 -0.2
**LASF Ste Croix 14.65 56** *e*Pn Pn 19 15 34.7 +0.3
SNR=1.0
**LASF Ste Croix 14.65 56** *e*Pn Pn 19 15 34.7 +0.3
SNR=1.0
**LASF Ste Croix 14.65 56** *e*Pn Pn 19 15 34.7 +0.3
**TCF Toulx Ste Croi 14.70 46** *e*Pn Pn 19 15 35.5 +0.4
SNR=1.0
TCF *e*Sn Sn 19 18 08.0 -10
comp=N,3.7nm,0.4s
**TCF Toulx Ste Croi 14.70 46** *e*Pn Pn 19 15 35.5 +0.4
SNR=1.0
**TCF Toulx Ste Croi 14.70 46** *e*Pn Pn 19 15 35.5 +0.4
**LBL Lubilhac 14.77 51** *e*P Pn 19 15 36.2 +0.2
**LBL Lubilhac 14.77 51** *e*P Pn 19 15 36.2 +0.2
**PYM Petit Puy Mans 14.88 49** *e*P Pn 19 15 37.4 -0.1
**PYM Petit Puy Mans 14.88 49** *e*P Pn 19 15 37.4 -0.1
**FLN La Foliniere 14.95 34** *e*Pn Pn 19 15 39.0 +0.6
baz=218,SNR=1.0
FLN *e*Sn Sn 19 18 13.9 -10
comp=N,6.8nm,0.4s,baz=219
**FLN La Foliniere 14.95 34** *e*Pn Pn 19 15 39.0 +0.6
**LDF La Druitiere 14.99 35** *e*Pn Pn 19 15 39.5 +0.6
SNR=1.0
LDF *e*Sn Sn 19 18 12.7 -12
**LDF La Druitiere 14.99 35** *e*Pn Pn 19 15 39.5 +0.6
**DYA Yadsworthy 15.01 23** *e*Pn Pn 19 15 38.8 -0.3
**DYA Yadsworthy 15.01 23** *e*Pn Pn 19 15 38.8 -0.3
**AGO Saint Agoulin 15.11 48** *e*P Pn 19 15 40.6 0.0
**AGO Saint Agoulin 15.11 48** *e*P Pn 19 15 40.6 0.0
**BGF Bois d'Agland 15.21 46** *e*Pn Pn 19 15 42.9 +0.9
SNR=1.0
BGF *e*Sn Sn 19 18 21.7 -8.8
comp=N,10nm,0.5s
**BGF Bois d'Agland 15.21 46** *e*Pn Pn 19 15 42.9 +0.9
SNR=1.0
BGF *e*Sn Sn 19 18 21.7 -8.8
comp=N,5.1nm,0.5s
**BGF Bois d'Agland 15.21 46** *e*Pn Pn 19 15 42.9 +0.9
**PLDF La Plantade 15.36 49** *e*P Pn 19 15 45.0 +1.1
**PLDF La Plantade 15.36 49** *e*P Pn 19 15 45.0 +1.1
**VIVF Saint-Julien-l 15.50 54** *e*Pn Pn 19 15 45.8 0.0
**VIVF Saint-Julien-l 15.50 54** *e*Pg 19 16 57.8
**VIVF Saint-Julien-l 15.50 54** *e*Pn Pn 19 15 45.8 0.0
**VIVF Saint-Julien-l 15.50 54** *e*Pn Pn 19 15 45.8 0.0
VIVF *e* 19 16 57.8
**SSB Saint Sauveur 15.60 52** *e*Pn Pn 19 15 48.0 +1.0
comp=N,28nm,1.6s
**SSB Saint Sauveur 15.60 52** *e*Pn Pn 19 15 48.0 +1.0
comp=N,28nm,1.6s
**AVF Avril sur Loir 15.63 46** *e*Pn Pn 19 15 48.4 +1.0
SNR=1.0
AVF *e*Sn Sn 19 18 31.2 -9.4
**AVF Avril sur Loir 15.63 46** *e*Pn Pn 19 15 48.4 +1.0
SNR=1.0
**AVF Avril sur Loir 15.63 46** *e*Pn Pn 19 15 48.4 +1.0
**SMF Signal de Mont 15.84 47** *e*Pn Pn 19 15 51.1 +1.0
SNR=1.0
**SMF Signal de Mont 15.84 47** *e*Pn Pn 19 15 51.1 +1.0
SNR=1.0
**SMF Signal de Mont 15.84 47** *e*Pn Pn 19 15 51.1 +1.0
**SSF Saint Saulge 15.87 45** *e*Pn Pn 19 15 51.5 +1.0
SNR=1.0
**SSF Saint Saulge 15.87 45** *e*Pn Pn 19 15 51.5 +1.0
SNR=1.0
**SSF Saint Saulge 15.87 45** *e*Pn Pn 19 15 51.5 +1.0
**LOR Lormes 16.19 45** *e*Pn Pn 19 15 56.0 +1.4
baz=231,SNR=1.0
**LOR Lormes 16.19 45** *e*Pn Pn 19 15 56.0 +1.4
SNR=1.0
**LOR Lormes 16.19 45** *e*Pn Pn 19 15 56.0 +1.4
**ORIF Oris-en-Rattie 16.31 55** *e*Pn P 19 15 59.6 +0.3
SNR=1.0
**ORIF Oris-en-Rattie 16.31 55** *e*Pn P 19 15 59.6 +0.3
SNR=1.0
**ORIF Oris-en-Rattie 16.31 55** *e*Pn P 19 15 59.6 +0.3
**FRF La Foret Royal 16.36 60** *e*Pn P 19 15 59.2 -0.5
SNR=1.0
**FRF La Foret Royal 16.36 60** *e*Pn P 19 15 59.2 -0.5
SNR=1.0
**FRF La Foret Royal 16.36 60** *e*Pn P 19 15 59.2 -0.5
**BNI Bardonecchia 16.89 55** *e*Pn P 19 16 06.4 +0.7
comp=N,34nm,1.8s
**BNI Bardonecchia 16.89 55** *e*Pn P 19 16 06.4 +0.7
comp=N,34nm,1.8s
**SFTF Sexfontaines 17.37 44** *e*Pn P 19 16 12.5 +1.6
**SFTF Sexfontaines 17.37 44** *e*Pn P 19 16 12.5 +1.6
**SFTF Sexfontaines 17.37 44** *e*Pn P 19 16 12.5 +1.6
**MEZF Maizieres J'vi 17.55 43** *e*Pn P 19 16 13.7 +0.9
**MEZF Maizieres J'vi 17.55 43** *e*Pn P 19 16 13.7 +0.9
**MEZF Maizieres J'vi 17.55 43** *e*Pn P 19 16 13.7 +0.9
**PGF Pioggiola 17.79 65** *e*Pn P 19 16 18.1 +2.5
SNR=1.0
**PGF Pioggiola 17.79 65** *e*Pn P 19 16 18.1 +2.5
SNR=1.0
**PGF Pioggiola 17.79 65** *e*Pn P 19 16 18.1 +2.5
**SENIN Lac Senin/Sane 17.81 52** *e*Pn P 19 16 16.5 +0.6
comp=N,19nm,1.5s
**SENIN Lac Senin/Sane 17.81 52** *e*Pn P 19 16 16.5 +0.6
comp=N,19nm,1.5s
**HAU Haudompre 18.00 46** *e*Pn P 19 16 20.2 +2.3
**HAU Haudompre 18.00 46** *e*Pn P 19 16 20.2 +2.3
**HAU Haudompre 18.00 46** *e*Pn P 19 16 20.2 +2.3
**KEST Kesra 18.01 87** P P 19 16 21.6 +3.6
comp=N,0.2nm,0.3s,baz=89,slow=8.8,SNR=4.0
**KEST Kesra 18.01 87** *e*Pn P 19 16 19.7 +1.7
comp=N,26nm,1.5s
**KEST Kesra 18.01 87** *e*Pn P 19 16 19.7 +1.7
comp=N,26nm,1.5s
**BAIF Baives 18.06 38** *e*Pn P 19 16 20.9 +2.5
**BAIF Baives 18.06 38** *e*Pn P 19 16 20.9 +2.5
**BAIF Baives 18.06 38** *e*Pn P 19 16 20.9 +2.5
**VLC Villacollemand 19.13 60** *e*P Pn 19 16 30.8 -0.3
comp=N,95nm,1.5s
**VLC Villacollemand 19.13 60** *e*P Pn 19 16 30.8 -0.3
comp=N,95nm,1.5s
**TUE Stuetta 19.15 53** *e*P Pn 19 16 31.6 +0.1
comp=N,5.2nm,0.9s
**TUE Stuetta 19.15 53** *e*P Pn 19 16 31.6 +0.1
comp=N,5.2nm,0.9s
**EKA Eskdalemuir Ar 19.61 17** P Pn 19 16 40.3 +3.6
baz=208,slow=13,SNR=3.4
**GEA0 GERESS Array S 22.76 50** *e*P P 19 17 12.5 +2.9
**GEA0 GERESS Array S 22.76 50** *e*P P 19 17 12.5 +2.9
**GERES GERESS Array B 22.77 50** P P 19 17 13.8 +4.2
comp=N,2.5nm,0.9s,baz=245,slow=9.6,SNR=11
**VRAC Vranov 24.71 51** P P 19 17 31.8 +3.4
comp=N,2.9nm,0.7s,baz=256,slow=8.3,SNR=4.1
**TOA1 Torodi Ar. Sit 27.04 147** *e*P P 19 17 55.0 +5.3
**TOA1 Torodi Ar. Sit 27.04 147** *e*P P 19 17 55.0 +5.3
**TOA0 Torodi Ar. Sit 27.05 147** *e*P P 19 17 54.6 +4.9
comp=N,3.1nm,1.0s
**TOA0 Torodi Ar. Sit 27.05 147** *e*P P 19 17 54.6 +4.9
comp=N,3.1nm,1.0s
**TORD Torodi Ar. Bea 27.05 147** P P 19 17 55.0 +5.3
comp=N,0.7nm,0.6s,baz=323,slow=11,SNR=9.3
**TORD Torodi Ar. Bea 27.05 147** P P 19 17 55.0 +5.3
**FIA0 FINESS Array S 34.56 32** *e*P P 19 18 59.3 +3.7
**FIA0 FINESS Array S 34.56 32** *e*P P 19 18 59.3 +3.7
**FINES FINESS Array B 34.56 32** P P 19 18 59.3 +3.7
comp=N,3.4nm,0.8s,baz=204,slow=4.2,SNR=6.5
FINES LR LR 19 33 05.5
comp=N,48nm,18.4s,baz=284,slow=36
**FIA1 FINESS Array S 34.56 32** *e*P P 19 18 59.2 +3.6
**FIA1 FINESS Array S 34.56 32** *e*P P 19 18 59.2 +3.6
**ARA0 ARCESS Array S 38.70 20** *e*P P 19 19 33.8 +3.0
**ARA0 ARCESS Array S 38.70 20** *e*P P 19 19 33.9 +3.0
**ARCES ARCESS Array B 38.70 20** P P 19 19 33.9 +3.1
comp=N,1.0nm,0.6s,baz=229,slow=8.9,SNR=5.5
**ISA Isabella, Lake 80.08 307** *e*P P 19 24 24.4 +7.1
**ISA Isabella, Lake 80.08 307** *e*P P 19 24 24.4 +7.1
**SNDA J Saunders Pla 80.17 305** *e*P P 19 24 24.9 +7.0
**SNDA J Saunders Pla 80.17 305** *e*P P 19 24 24.9 +7.0
**WR1 Warramunga Arr 146.85 68** *e*PKIKP **PKPab 19 31 52.8 +1.5**
**WR1 Warramunga Arr 146.85 68** *e*PKPdf **PKPab 19 31 52.8 +1.5**
**WRA Warramunga Arr 146.85 68** PKPbc **PKPab 19 31 52.8 +1.5**
comp=N,0.4nm,0.5s,baz=321,slow=2.7,SNR=7.4

**IDC 06 19:17:25.5±6.8,5°58S×147°51E,h164$^{km}_{\pm 69}$,mb3.0/2,**

**mb1 2.9/4,mb1mx2.8/37,mbtmp3.2/4,Error ellipse: s-maj=102.7km s-min=49.5km az=129.0,Eastern New Guinea region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **3.81** | **185** | P | Pn | 19 18 25.5 | +1.7 |
| | 0.7nm,0.3s,baz=20,slow=12,SNR=9.5 | | | | | | |
| PMG | | | | S | Sn | 19 19 08.9 | -0.4 |
| | 1.9nm,0.3s,baz=17,slow=6.1,SNR=9.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **19.18** | **221** | P | P | 19 21 37.0 | +0.3 |
| | 0.1nm,0.3s,baz=38,slow=11,SNR=4.8 | | | | | | |
| **ASAR** | **Alice Springs** | **22.25** | **215** | P | P | 19 22 09.8 | +0.6 |
| | 0.3nm,0.4s,baz=45,slow=7.5,SNR=6.1 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **24.71** | **238** | P | P | 19 22 31.8 | 0.0 |
| | 0.9nm,0.5s,baz=56,slow=13,SNR=6.7 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **145.47** | **285** | PKPbc | PKPdf | 19 36 44.0 | -1.2 |
| | 0.2nm,0.4s,baz=83,slow=4.5,SNR=2.3 | | | | | | |

*IDC **06** 19:23:12.0±1.2,29°.65S×176°.02W,h0km,mb3.9/5, mb1 4.0/5,mb1mx3.7/36,mbtmp3.9/5,MS3.1/2,Ms1 3.1/2, ms1mx2.6/27,Error ellipse: s-maj=46.0km s-min=23.5km az=2.0*
*NEIC **06** 19:23:13.4±1.0,30°.03S×176°.21W,h10km,mb4.6/10, Error ellipse: s-maj=22.3km s-min=11.3km az=99.0*
**ISC 06 19:23:13.6**±0.9**,29°.94S**±0°.09×**176°.2W**±0°.1**,h10km,n35, σ2s.05**/35**,mb4.1**/9**,Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **1.65** | **294** | Pn | **Pb** | **19 23 43.8** | **-0.3** |
| | 138nm,0.3s,baz=125,slow=4.2,SNR=15 | | | | | | |
| RAO | | | | Sn | **Sn** | **19 24 04.9** | **+0.9** |
| | 561nm,0.3s,baz=92,slow=21,SNR=9.4 | | | | | | |
| **MXZ** | **Matakaoa Point** | **8.88** | **210** | ePn | **Pn** | **19 25 21.5** | **-0.4** |
| **URZ** | **Urewera** | **9.98** | **212** | Pn | **Pn** | **19 25 35.5** | **-1.6** |
| | 0.3nm,0.3s,baz=284,slow=19,SNR=5.5 | | | | | | |
| URZ | | | | Sn | **Sn** | **19 27 30.9** | **+1.7** |
| | 3.1nm,0.3s,baz=355,slow=17,SNR=16 | | | | | | |
| **BKZ** | **Black Stump Fm** | **11.00** | **211** | ePn | **Pn** | **19 25 47.9** | **-3.2** |
| BKZ | | | | eSn | Sn | 19 27 37.3 | -17 |
| **BFZ** | **Birch Farm** | **12.37** | **208** | ePn | **Pn** | **19 26 07.0** | **-2.7** |
| BFZ | | | | eSn | Sn | 19 28 13.5 | -14 |
| **SNZO** | **South Karori** | **13.54** | **211** | ePn | **Pn** | **19 26 21.1** | **-4.6** |
| **THZ** | **Tophouse** | **14.73** | **214** | ePn | **Pn** | **19 26 42.0** | **0.0** |
| **KHZ** | **Kahutara** | **14.95** | **211** | ePn | **Pn** | **19 26 43.0** | **-1.9** |
| **OXZ** | **Oxford** | **16.34** | **212** | ePn | **Pn** | **19 27 01.8** | **-1.3** |
| | 172nm,2.0s | | | | | | |
| **RPZ** | **Rata Peaks** | **17.10** | **213** | P | **P** | **19 27 12.5** | **-1.9** |
| | 0.5nm,0.3s,baz=46,slow=17,SNR=4.2 | | | | | | |
| **RPZ** | **Rata Peaks** | **17.10** | **213** | ePn | **P** | **19 27 12.4** | **-1.9** |
| | 104nm,1.6s | | | | | | |
| **RAR** | **Rarotonga** | **17.16** | **63** | LR | LR | 19 32 45.3 | |
| | comp=Z,88nm,18.8s,baz=274,slow=34 | | | | | | |
| **FOZ** | **Fox Glacier** | **17.57** | **216** | ePn | **P** | **19 27 17.9** | **-1.6** |
| | 46nm,1.4s | | | | | | |
| **ODZ** | **Otahua Downs** | **18.31** | **211** | eP | **P** | **19 27 27.2** | **-0.5** |
| | 144nm,2.0s | | | | | | |
| **WKZ** | **Wanaka** | **18.91** | **214** | eP | **Pn** | **19 27 34.5** | **-0.4** |
| | 60nm,1.5s | | | | | | |
| **PYZ** | **Puysegur Point** | **21.01** | **215** | eP | **P** | **19 27 54.5** | **-2.8** |
| | 100nm,1.3s | | | | | | |
| **PPT** | **Papeete** | **27.22** | **69** | LR | LR | 19 38 50.4 | |
| | comp=Z,23nm,18.9s,baz=185,slow=35 | | | | | | |
| **CTA** | **Charters Tower** | **35.28** | **277** | P | **P** | **19 30 11.0** | **+2.1** |
| | 1.8nm,0.7s,baz=87,slow=12,SNR=3.6 | | | | | | |
| **STKA** | **Stephens Creek** | **36.11** | **256** | P | **P** | **19 30 17.8** | **+1.9** |
| | 0.8nm,0.6s,baz=85,slow=12,SNR=3.5 | | | | | | |
| **STKA** | **Stephens Creek** | **36.11** | **256** | eP | **P** | **19 30 15.1** | **-0.7** |
| | 1.2nm,1.3s | | | | | | |
| **AS31** | **Alice Springs** | **44.70** | **266** | eP | **P** | **19 31 25.8** | **-1.3** |
| | 0.9nm,1.0s | | | | | | |
| **ASAR** | **Alice Springs** | **44.70** | **266** | P | **P** | **19 31 27.1** | **-0.1** |
| | 0.2nm,0.3s,baz=106,slow=7.7,SNR=5.9 | | | | | | |
| **WB2** | **Warramunga Arr** | **45.64** | **271** | eP | **P** | **19 31 33.5** | **-1.1** |
| | 8.7nm,1.4s | | | | | | |
| **WR1** | **Warramunga Arr** | **45.65** | **271** | eP | **P** | **19 31 34.8** | **+0.1** |
| | 7.0nm,1.3s | | | | | | |
| **WRA** | **Warramunga Arr** | **45.65** | **271** | P | **P** | **19 31 34.8** | **+0.1** |
| | 0.6nm,0.3s,baz=110,slow=8.1,SNR=20 | | | | | | |
| **SNAA** | **Sanae** | **78.57** | **178** | P | **P** | **19 35 18.1** | **+3.1** |
| **VNA3** | **Neumayer Olymp** | **78.65** | **176** | P | **P** | **19 35 17.3** | **+1.9** |
| **VNA2** | **Neumayer--Watz** | **79.11** | **176** | P | **P** | **19 35 21.0** | **+3.1** |
| | baz=168,slow=5.2 | | | | | | |
| **VNA1** | **Neumayer--Stat** | **79.33** | **176** | P | **P** | **19 35 22.2** | **+3.2** |
| **ILAR** | **Eielson Array** | **97.13** | **12** | P | **P** | **19 36 42.8** | **-2.7** |
| | 0.8nm,1.1s,baz=231,slow=5.3,SNR=3.3 | | | | | | |
| **FIA0** | **FINESS Array S** | **145.23** | **341** | ePKPbc | **PKPbc** | **19 42 49.7** | **-0.8** |
| **FINES** | **FINESS Array B** | **145.23** | **341** | PKPbc | **PKPbc** | **19 42 49.7** | **-0.8** |
| | 1.7nm,0.8s,baz=80,slow=4.3,SNR=5.4 | | | | | | |
| **AKASG** | **Malin Array Be** | **151.86** | **325** | PKPbc | **PKPbc** | **19 43 07.3** | **-1.0** |
| | 0.5nm,0.5s,baz=46,slow=2.5,SNR=4.3 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **163.18** | **173** | PKPab | **PKPab** | **19 44 09.4** | **+2.5** |
| | 1.2nm,0.8s,baz=193,slow=4.5,SNR=7.1 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **163.18** | **173** | ePKPab | **PKPab** | **19 44 09.4** | **+2.4** |

**IDC 06 19:24:51.8**±13.0**,8°.36S**×**122°.39E,h175km**±93km**,mb3.4**/1**, mb1 3.0**/4**,mb1mx2.7**/50**,mbtmp3.5**/4**,Error ellipse: s-maj=150.1km s-min=103.0km az=76.0,Flores region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **10.19** | **162** | P | Pn | 19 27 13.6 | -0.4 |
| | 0.1nm,0.3s,baz=356,slow=5.6,SNR=17 | | | | | | |
| FITZ | | | | S | Sn | 19 29 07.0 | -0.2 |
| | 0.1nm,0.3s,baz=53,slow=20,SNR=2.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **16.32** | **136** | P | Pn | 19 28 32.8 | +1.4 |
| | 0.2nm,0.3s,baz=310,slow=12,SNR=13 | | | | | | |
| **ASAR** | **Alice Springs** | **18.80** | **145** | P | P | 19 28 59.1 | +0.9 |
| | 0.1nm,0.3s,baz=333,slow=11,SNR=10 | | | | | | |
| **STKA** | **Stephens Creek** | **29.44** | **145** | P | P | 19 30 38.1 | -1.1 |
| | 0.4nm,0.3s,baz=326,slow=11,SNR=3.6 | | | | | | |

*ISCJB **06** 19:25:40.5±0.3,59°.43N±0°.02×153°.57W±0°.05, h122km±3km,mb3.6/2,Error ellipse: s-maj=4.5km s-min=3.3km az=35.7*
*IDC **06** 19:25:40.6±1.8,59°.42N×153°.80W,h94km±19km,mb3.3/2, mb1 3.6/5,mb1mx3.0/66,mbtmp3.6/5,Error ellipse: s-maj=27.3km s-min=17.3km az=84.0*
*NEIC **06** 19:25:42.5±0.0,59°.38N×153°.66W,h114km,MG3.1(AEIC), After AEIC.*
**ISC 06 19:25:41.6**±0.8**,59°.42N**±0°.03×**153°.60W**±0°.04**, h120km**±6km**,n106,σ1s.73**/142**,Southern Alaska**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AUNW** | **Augustine NWes** | **0.07** | **123** | P | **Pn** | **19 25 57.6** | **-0.3** |
| **AUI** | **Augustine Isla** | **0.12** | **134** | P | **Pn** | **19 25 57.7** | **-0.4** |
| AUI | | | | S | **Sn** | **19 26 09.6** | **-0.8** |
| **AUE** | **Augustine Isla** | **0.13** | **117** | ePn | **Pn** | **19 25 57.8** | **-0.2** |
| **OPT** | **Oil Point** | **0.30** | **38** | ePn | **Pn** | **19 25 57.9** | **-0.7** |
| **PDB** | **Pedro Bay** | **0.48** | **321** | ePn | **Pn** | **19 25 58.8** | **-0.6** |
| **CDD** | **Cape Douglas** | **0.49** | **183** | P | **Pn** | **19 25 58.9** | **-0.7** |
| **ILS** | **Iliamna Low So** | **0.60** | **26** | P | **Pn** | **19 26 00.2** | **-0.1** |
| **FONW** | **Fourpeaked Sta** | **0.61** | **196** | P | **Pn** | **19 25 59.6** | **-0.7** |
| FONW | | | | S | **Sn** | **19 26 13.5** | **-1.0** |
| **FOSS** | **Fourpeaked Sta** | **0.62** | **185** | ePn | **Pn** | **19 25 59.7** | **-0.7** |
| **FOPK** | **Fourpeaked Vol** | **0.67** | **174** | P | **Pn** | **19 25 59.8** | **-0.9** |
| **ILW** | **Iliamna West** | **0.68** | **20** | ePn | **Pn** | **19 26 00.8** | **-0.2** |
| **KAPH** | **Katmai Pasha** | **0.91** | **206** | P | **Pn** | **19 26 02.1** | **-0.8** |
| KAPH | | | | S | **Sn** | **19 26 17.1** | **-1.7** |
| **HOM** | **Homer** | **1.02** | **76** | ePn | **Pn** | **19 26 03.6** | **-0.2** |
| HOM | | | | eSn | **Sn** | **19 26 21.2** | **+0.6** |
| **KAHC** | **Katmai Hardscr** | **1.06** | **224** | P | **Pn** | **19 26 03.3** | **-1.0** |
| **RED** | **Redoubt Volcan** | **1.09** | **22** | P | **Pn** | **19 26 04.8** | **+0.2** |
| **RSO** | **Redoubt South** | **1.13** | **22** | ePn | **Pn** | **19 26 05.4** | **+0.3** |
| RSO | | | | eSn | **Sn** | **19 26 22.7** | **-0.3** |
| **RDWB** | **Redoubt West** | **1.14** | **19** | P | **Pn** | **19 26 05.3** | **+0.1** |
| RDWB | | | | S | **Sn** | **19 26 22.5** | **-0.5** |
| **CNPM** | **China Poot** | **1.21** | **84** | ePn | **Pn** | **19 26 05.8** | **0.0** |
| CNPM | | | | eSn | **Sn** | **19 26 23.7** | **-0.4** |
| **KAWH** | **Katmai** | **1.21** | **212** | P | **Pn** | **19 26 04.8** | **-1.0** |
| **RDJH** | **Redoubt Jeurge** | **1.24** | **18** | P | **Pn** | **19 26 06.4** | **+0.2** |
| **DFR** | **Drift River** | **1.26** | **21** | P | **Pn** | **19 26 06.6** | **+0.2** |
| DFR | | | | S | **Sn** | **19 26 25.4** | **+0.1** |
| **KVTA** | **Katmai Vly 10** | **1.36** | **221** | P | **Pn** | **19 26 06.7** | **-0.8** |
| **BRLK** | **Bradley Lake** | **1.42** | **75** | ePn | **Pn** | **19 26 07.8** | **-0.3** |
| BRLK | | | | eSn | **Sn** | **19 26 27.5** | **-0.8** |
| **KELA** | **Mount Kelaz** | **1.48** | **229** | P | **Pn** | **19 26 07.9** | **-1.0** |
| **KDAK** | **Kodiak Island** | **1.73** | **162** | P | **Pn** | **19 26 10.5** | **-1.1** |
| | 77nm,0.3s,baz=16,slow=11,SNR=664 | | | | | | |
| KDAK | | | | S | **Sn** | **19 26 32.0** | **-2.5** |
| | 46nm,0.3s,baz=188,slow=21,SNR=20 | | | | | | |
| **KDAK** | **Kodiak Island** | **1.73** | **162** | P | **Pn** | **19 26 10.3** | **-1.3** |
| KDAK | | | | eSn | **Sn** | **19 26 31.6** | **-2.9** |
| KDAK | | | | S | **Sn** | **19 26 32.0** | **-2.5** |
| **CKL** | **Chakachamna La** | **1.89** | **19** | P | **Pn** | **19 26 14.2** | **+0.5** |
| **SPU** | **Mount Spurr** | **1.93** | **23** | ePn | **Pn** | **19 26 13.7** | **-0.4** |
| SPU | | | | eSn | **Sn** | **19 26 37.8** | **-1.2** |
| **SPWE** | **Spurr West** | **1.93** | **15** | P | **Pn** | **19 26 15.0** | **+0.8** |
| **SVW2** | **Sparrevohn** | **1.95** | **330** | ePn | **Pn** | **19 26 14.1** | **-0.4** |
| SVW2 | | | | eSn | **Sn** | **19 26 37.9** | **-1.7** |
| **SPCP** | **Crater Peak Br** | **1.99** | **21** | P | **Pn** | **19 26 15.6** | **+0.6** |
| **SLKM** | **Skilak Lake** | **2.02** | **56** | ePn | **Pn** | **19 26 16.2** | **+0.9** |
| **PLK2** | **Peulik 2** | **2.19** | **222** | P | **Pn** | **19 26 17.0** | **-0.4** |
| **OHAK** | **Old Harbor** | **2.21** | **176** | ePn | **Pn** | **19 26 16.0** | **-1.6** |
| OHAK | | | | eSn | **Sn** | **19 26 41.0** | **-4.2** |
| **SEW** | **Seward** | **2.21** | **70** | ePn | **Pn** | **19 26 18.1** | **+0.6** |
| SEW | | | | eSn | **Sn** | **19 26 43.5** | **-1.7** |
| **PLK3** | **Peulik 3** | **2.23** | **220** | P | **Pn** | **19 26 17.7** | **-0.2** |
| **STLK** | **Strandline Lak** | **2.26** | **22** | P | **Pn** | **19 26 19.3** | **+0.9** |
| **FIB** | **Fire Island** | **2.44** | **43** | ePn | **Pn** | **19 26 22.1** | **+1.5** |
| **SUA** | **Susitna One** | **2.49** | **33** | ePn | **Pn** | **19 26 21.9** | **+0.6** |
| SUA | | | | eSn | **Sn** | **19 26 51.3** | **-0.6** |
| **RC01** | **Rabbit Creek A** | **2.55** | **47** | ePn | **Pn** | **19 26 22.3** | **+0.3** |
| RC01 | | | | eSn | **Sn** | **19 26 52.0** | **-1.1** |
| **SKT** | **Skwentna** | **2.76** | **21** | ePn | **Pn** | **19 26 25.2** | **+0.5** |
| **PMR** | **Palmer** | **3.10** | **43** | ePn | **Pn** | **19 26 28.4** | **-0.7** |
| PMR | | | | eSn | **Sn** | **19 27 02.3** | **-3.5** |
| **KNK** | **Knik Glacier** | **3.24** | **50** | ePn | **Pn** | **19 26 30.5** | **-0.5** |
| **GHO** | **Glory Hole Cre** | **3.30** | **42** | ePn | **Pn** | **19 26 31.5** | **-0.3** |
| **SML** | **Sawmill** | **3.53** | **45** | ePn | **Pn** | **19 26 34.3** | **-0.5** |
| SML | | | | eSn | **Sn** | **19 27 09.8** | **-6.3** |
| **PPLA** | **Purkeypile** | **3.56** | **10** | ePn | **Pn** | **19 26 36.6** | **+1.4** |
| **GLI** | **Glacier Island** | **3.57** | **63** | ePn | **Pn** | **19 26 34.8** | **-0.5** |
| GLI | | | | eSn | **Sn** | **19 27 12.0** | **-4.8** |
| **TT01** | **Tatalina** | **3.69** | **343** | ePn | **Pn** | **19 26 36.8** | **-0.1** |
| **HIN** | **Hinchinbrook I** | **3.71** | **72** | ePn | **Pn** | **19 26 37.1** | **0.0** |
| **MID** | **Middleton Isla** | **3.71** | **87** | ePn | **Pn** | **19 26 37.4** | **+0.3** |
| **TTA** | **Tatalina** | **3.71** | **343** | P | **Pn** | **19 26 37.0** | **-0.2** |
| **FID** | **Port Fidalgo** | **3.81** | **66** | ePn | **Pn** | **19 26 37.7** | **-0.8** |
| FID | | | | eSn | **Sn** | **19 27 17.8** | **-4.7** |
| **JPK** | **Jack Peak** | **3.86** | **62** | ePn | **Pn** | **19 26 39.5** | **+0.3** |
| **SCM** | **Sheep Creek Mo** | **3.92** | **49** | ePn | **Pn** | **19 26 39.9** | **-0.2** |
| SCM | | | | eSn | **Sn** | **19 27 22.8** | **-2.7** |
| **CHGN** | **Chignik** | **4.05** | **222** | ePn | **Pn** | **19 26 39.3** | **-2.3** |
| **CAST** | **Castle Rocks** | **4.08** | **10** | ePn | **Pn** | **19 26 43.0** | **+0.9** |
| **EYAK** | **Cordova Ski Ar** | **4.10** | **71** | ePn | **Pn** | **19 26 42.1** | **-0.2** |
| EYAK | | | | eSn | **Sn** | **19 27 28.6** | **-0.9** |
| **DIV** | **Divide** | **4.26** | **63** | ePn | **Pn** | **19 26 45.0** | **+0.5** |
| DIV | | | | eSn | **Sn** | **19 27 30.6** | **-2.8** |
| **KLU** | **Klutina** | **4.33** | **58** | ePn | **Pn** | **19 26 45.5** | **0.0** |
| KLU | | | | eSn | **Sn** | **19 27 32.7** | **-2.5** |
| **KTH** | **Kantishna Hill** | **4.34** | **16** | ePn | **Pn** | **19 26 45.2** | **-0.4** |
| KTH | | | | eSn | **Sn** | **19 27 34.5** | **-0.9** |
| **TRF** | **Thorofare Moun** | **4.35** | **20** | P | **Pn** | **19 26 45.7** | **-0.1** |
| TRF | | | | eSn | **Sn** | **19 27 34.2** | **-1.4** |
| **SGAM** | **Sherman Glacie** | **4.36** | **72** | ePn | **Pn** | **19 26 45.4** | **-0.4** |
| **RAGM** | **Ragged Mountai** | **4.60** | **74** | ePn | **Pn** | **19 26 49.1** | **0.0** |
| RAGM | | | | eSn | **Sn** | **19 27 40.1** | **-1.3** |
| **RND** | **Reindeer** | **4.60** | **28** | ePn | **Pn** | **19 26 49.1** | **-0.1** |
| **PS12** | **TAPS Pump St12** | **4.67** | **60** | ePn | **Pn** | **19 26 50.9** | **+0.9** |
| **KAIM** | **Kayak Island** | **4.68** | **80** | ePn | **Pn** | **19 26 50.9** | **+0.7** |
| **DHY** | **Denali Highway** | **4.74** | **37** | ePn | **Pn** | **19 26 50.7** | **-0.3** |
| DHY | | | | eSn | **Sn** | **19 27 43.3** | **-1.8** |
| **HMT** | **Hamilton** | **4.79** | **75** | ePn | **Pn** | **19 26 51.9** | **+0.2** |
| **BPAW** | **Bear Paw Mtn.** | **4.86** | **14** | ePn | **Pn** | **19 26 52.0** | **-0.5** |
| **MCK** | **McKinley** | **4.87** | **25** | ePn | **Pn** | **19 26 52.5** | **-0.1** |
| **BERG** | **Berg Lake** | **5.08** | **75** | ePn | **Pn** | **19 26 55.5** | **+0.1** |
| **HARP** | **HAARP** | **5.09** | **50** | ePn | **Pn** | **19 26 57.0** | **+1.4** |
| **PAX** | **Paxson** | **5.30** | **44** | ePn | **Pn** | **19 26 58.8** | **+0.2** |
| PAX | | | | eSn | **Sn** | **19 27 56.1** | **-2.4** |
| **KHIT** | **Khitrov Hills** | **5.31** | **74** | P | **Pn** | **19 26 58.9** | **+0.3** |
| **BARK** | **Barkley Ridge** | **5.68** | **75** | ePn | **Pn** | **19 27 03.8** | **+0.2** |
| **WRH** | **Wood River Hil** | **5.70** | **25** | ePn | **Pn** | **19 27 03.1** | **-0.6** |
| WRH | | | | eSn | **Sn** | **19 28 02.7** | **-5.1** |
| **ISLE** | **Juniper Island** | **5.77** | **73** | P | **Pn** | **19 27 05.2** | **+0.3** |
| **MLY** | **Manley** | **5.79** | **12** | ePn | **Pn** | **19 27 04.5** | **-0.5** |
| **BALM** | **Baldy** | **5.84** | **69** | ePn | **Pn** | **19 27 05.9** | **+0.1** |
| BALM | | | | eSn | **Sn** | **19 28 06.5** | **-4.9** |
| **BAGL** | **Bagley Icefiel** | **5.88** | **75** | ePn | **Pn** | **19 27 06.9** | **+0.7** |
| **HDA** | **Harding Lake** | **5.91** | **29** | ePn | **Pn** | **19 27 06.0** | **-0.6** |
| HDA | | | | eSn | **Sn** | **19 28 09.5** | **-3.5** |
| **CCB** | **Clear Creek Bu** | **5.91** | **25** | ePn | **Pn** | **19 27 05.7** | **-1.0** |
| **MDM** | **Murphy Dome** | **6.10** | **22** | ePn | **Pn** | **19 27 08.6** | **-0.6** |
| **IL1** | **Eielson Array** | **6.22** | **28** | ePn | **Pn** | **19 27 09.6** | **-1.3** |
| IL1 | | | | eSn | **Sn** | **19 28 15.5** | **-5.1** |
| **ILAR** | **Eielson Array** | **6.22** | **28** | P | **Pn** | **19 27 10.2** | **-0.7** |
| | 2.5nm,0.3s,baz=217,slow=13,SNR=80 | | | | | | |
| ILAR | | | | S | **Sn** | **19 28 15.2** | **-5.4** |
| | 2.8nm,0.3s,baz=200,slow=18,SNR=14 | | | | | | |
| **ILB** | **Eielson Array** | **6.22** | **28** | ePn | **Pn** | **19 27 10.1** | **-0.7** |
| ILB | | | | eSn | **Sn** | **19 28 14.9** | **-5.6** |
| **RKAV** | **Rock Avalanche** | **6.24** | **77** | P | **Pn** | **19 27 12.3** | **+1.1** |
| **TABL** | **Table Mountain** | **6.35** | **75** | P | **Pn** | **19 27 13.8** | **+1.1** |
| **IM3** | **Indian Mountai** | **6.59** | **359** | P | **Pn** | **19 27 16.1** | **+0.3** |
| **IMAR** | **Indian Mountai** | **6.59** | **359** | ePn | **Pn** | **19 27 14.4** | **-1.3** |
| **BVCY** | **Beaver Creek** | **6.89** | **59** | P | **Pn** | **19 27 21.2** | **+1.2** |
| **PNL** | **Peninsula** | **7.22** | **82** | ePn | **Pn** | **19 27 24.6** | **+0.2** |
| **EGAK** | **Eagle** | **7.92** | **42** | ePn | **Pn** | **19 27 33.3** | **-0.5** |
| **COLD** | **Coldfoot** | **7.99** | **10** | ePn | **Pn** | **19 27 34.3** | **-0.3** |
| **FYU** | **Fort Yukon** | **8.11** | **24** | ePn | **Pn** | **19 27 33.0** | **-3.3** |
| **HYT** | **Haines Junctio** | **8.16** | **73** | ePn | **Pn** | **19 27 37.6** | **+0.5** |
| **DAWY** | **Dawson** | **8.19** | **49** | ePn | **Pn** | **19 27 37.8** | **+0.5** |
| **BM3** | **Burnt Mountain** | **8.97** | **23** | P | **Pn** | **19 27 46.7** | **-1.3** |
| **SPIA** | **Saint Paul Isl** | **9.05** | **263** | ePn | Pn | 19 27 41.9 | -7.1 |
| **INK** | **Inuvik** | **12.49** | **36** | P | **Pn** | **19 28 35.9** | **+1.1** |
| | 0.1nm,0.3s,baz=215,slow=14,SNR=2.4 | | | | | | |
| **YKA** | **Yellowknife Ar** | **18.97** | **64** | P | **P** | **19 29 54.0** | **+0.9** |
| | 0.1nm,0.3s,baz=274,slow=9.7,SNR=6.1 | | | | | | |
| **YKB5** | **Yellowknife Ar** | **18.97** | **64** | eP | **P** | **19 29 54.0** | **+0.9** |
| **LTX** | **Lajitas** | **45.07** | **109** | eP | **P** | **19 33 48.1** | **+2.7** |
| **TXAR** | **Lajitas Array** | **45.07** | **109** | P | **P** | **19 33 48.1** | **+2.7** |
| | 0.4nm,0.7s,baz=317,slow=6.1,SNR=3.6 | | | | | | |
| **SONA0** | **Songino Array** | **54.89** | **306** | eP | **P** | **19 35 00.2** | **+0.9** |
| **SONM** | **Songino Array** | **54.89** | **306** | P | **P** | **19 35 00.2** | **+0.9** |
| | 0.7nm,0.4s,baz=44,slow=6.2,SNR=5.1 | | | | | | |

*ISK **06** 19:26:53.8,38°.73N×43°.33E,h8km,MD2.6*
*ISCJB **06** 19:26:55.0±0.5,38°.73N±0°.02×43°.40E±0°.05,h12km±5km, Error ellipse: s-maj=6.2km s-min=3.9km az=10.0*
*CSEM **06** 19:26:54.4±0.3,38°.71N×43°.42E,h10km,MD2.6,Error ellipse: s-maj=7.2km s-min=4.7km az=99.0*
*DDA **06** 19:26:54.8,38°.71N×43°.42E,h7km,Ml2.8*
**ISC 06 19:26:54.2**±0.9**,38°.73N**±0°.02×**43°.46E**±0°.04**,h14km**±7km**, n22,σ0s.85**/38**,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.14** | **203** | ePG | **Pb** | **19 26 58.9** | **+0.1** |
| **VANB** | **Van** | **0.14** | **203** | ePg | **Pb** | **19 26 58.9** | **+0.1** |
| **TVAN** | **Van** | **0.20** | **192** | iP | **Pg** | **19 26 58.7** | **-0.3** |
| TVAN | | | | iS | **Sg** | **19 27 02.6** | **+0.4** |
| **TVAN** | **Van** | **0.20** | **192** | P | **Pg** | **19 26 58.7** | **-0.3** |
| TVAN | | | | S | **Sg** | **19 27 02.6** | **+0.4** |
| **VMUR** | **Van-Muradiye** | **0.28** | **18** | iP | **Pb** | **19 27 00.9** | **-0.2** |
| VMUR | | | | iS | **Sb** | **19 27 07.1** | **+1.4** |
| **VMUR** | **Van-Muradiye** | **0.28** | **18** | P | **Pb** | **19 27 00.9** | **-0.2** |
| VMUR | | | | S | **Sb** | **19 27 07.1** | **+1.4** |
| **GEVA** | **Gevas** | **0.52** | **217** | iP | **Pg** | **19 27 03.7** | **-0.8** |
| GEVA | | | | iS | **Sb** | **19 27 12.3** | **-0.4** |
| **GEVA** | **Gevas** | **0.52** | **217** | P | **Pg** | **19 27 03.7** | **-0.8** |
| GEVA | | | | S | **Sb** | **19 27 12.3** | **-0.4** |
| **CLDR** | **Caldiran** | **0.55** | **41** | ePG | **Pb** | **19 27 06.2** | **+0.4** |
| CLDR | | | | eSG | **Sn** | **19 27 15.3** | **-1.6** |
| **CLDR** | **Caldiran** | **0.55** | **41** | ePg | **Pb** | **19 27 06.2** | **+0.4** |
| CLDR | | | | eSg | **Sn** | **19 27 15.3** | **-1.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.58** | **278** | iP | **Pg** | **19 27 05.8** | **+0.1** |
| ADCV | | | | iS | **Sb** | **19 27 14.6** | **+0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.58** | **278** | P | **Pg** | **19 27 05.8** | **+0.1** |
| ADCV | | | | S | **Sb** | **19 27 14.6** | **+0.1** |
| **TUTA** | **Tutak** | **0.84** | **323** | iP | **Pg** | **19 27 10.1** | **-0.5** |
| TUTA | | | | iS | **Sb** | **19 27 22.6** | **+0.6** |
| **TUTA** | **Tutak** | **0.84** | **323** | P | **Pg** | **19 27 10.1** | **-0.5** |
| TUTA | | | | S | **Sb** | **19 27 22.6** | **+0.6** |
| **AGRB** | **Hanur-Agry** | **0.92** | **337** | ePG | **Pg** | **19 27 11.2** | **-0.9** |
| AGRB | | | | eSG | **Sb** | **19 27 24.1** | **-0.2** |
| **AGRB** | **Hanur-Agry** | **0.92** | **337** | ePg | **Pg** | **19 27 11.2** | **-0.9** |
| AGRB | | | | eSg | **Sb** | **19 27 24.1** | **-0.2** |
| **HAKT** | **HAKKARI** | **1.18** | **170** | iP | **Pb** | **19 27 15.3** | **-1.3** |
| HAKT | | | | iS | **Sn** | **19 27 34.4** | **+1.8** |
| **HAKT** | **HAKKARI** | **1.18** | **170** | P | **Pb** | **19 27 15.3** | **-1.3** |
| HAKT | | | | S | **Sn** | **19 27 34.4** | **+1.8** |
| **TASB** | **TASBURUN-IGDIR** | **1.39** | **25** | ePN | **Pg** | **19 27 20.6** | **-0.4** |
| **TASB** | **TASBURUN-IGDIR** | **1.39** | **25** | ePn | **Pg** | **19 27 20.6** | **-0.4** |
| **SIRT** | **Sirnak** | **1.47** | **214** | ePN | **Pn** | **19 27 20.6** | **+0.3** |
| **SIRT** | **Sirnak** | **1.47** | **214** | ePn | **Pn** | **19 27 20.6** | **+0.3** |

*IDC **06** 19:31:41.1±0.5,11°.51N×124°.56E,h0km,mb4.3/30, mb1 4.4/30,mb1mx4.3/55,mbtmp4.3/30,MS3.8/21, Ms1 3.8/21,ms1mx3.7/29,Error ellipse: s-maj=18.9km s-min=11.0km az=74.0*
*MAN **06** 19:31:41,11°.50N×124°.36E,h2km,mb5.4,ML4.4,MS4.7*
*MAN INTENSITY IV - NAVAL BILIRAN.*
*ISCJB **06** 19:31:43.3±0.5,11°.48N±0°.02×124°.50E±0°.02,h28km±3km, mb4.6/89,MS4.0/27,Error ellipse: s-maj=4.1km s-min=3.1km az=174.3*
*BJI **06** 19:31:44.8,11°.32N×124°.54E,h48km,mb4.5/52,mB4.9/37, Ms4.5/44,Ms7 4.2/43*
*NEIC **06** 19:31:45.4±1.9,11°.46N×124°.53E,h30km±14km,mb4.8/53, Error ellipse: s-maj=6.5km s-min=4.2km az=84.0*
*NEIC Felt [IV PIVS] at Naval. Felt at Cebu City and Daanbantayan, Cebu.*
*GCMT **06** 19:31:45.4±0.3,11°.55N×124°.44E,h16km±1km,MW4.8/77, Moment Tensor Solution. s8,c12; s77,c107; Duration: 0 Moment tensor: Scale $10^{16}$Nm; $M_{rr}$0.00±.08; $M_{\theta\theta}$1.43±.07; $M_{\phi\phi}$-1.43±.07; $M_{r\theta}$-0.65±.26; $M_{\theta\phi}$-0.55±.05; $M_{\phi r}$-0.33±.21; Best double couple: $M_0$1.69400×$10^{16}$ NP1:$\phi_s$235.00000°,δ88.00000°,λ155.00000°. NP2: $\phi_s$326.00000°,δ65.00000°,λ2.00000°. Principal axes: T 1.7320, Plg19.0000°, Azm188.0000°; N -0.0720, Plg65.0000°, Azm50.0000°; P -1.6560, Plg16.0000°, Azm283.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*DJA **06** 19:31:50.0±0.4,12°N±4°×12°4E±°,h10km,M4.7/24, mb4.8/24,mB5.3/10,Mw(mB)4.7/10*
**ISC 06 19:31:45.3**±0.9**,11°.50N**±0°.02×**124°.55E**±0°.03**,h27km**±6km**, n215,σ2s.11**/229**,mb4.7**/89**,MS3.9**/28**,7C-6D,Leyte**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OCLP** | **Ormoc** | **0.45** | **172** | eP | **Pb** | **19 31 52.0** | **-2.8** |
| OCLP | | | | eS | **Sb** | **19 32 00.4** | **-0.7** |
| **PLP** | **Palo** | **0.54** | **128** | ⇓iP | **Pb** | **19 31 54.6** | **-1.7** |
| PLP | | | | iS | **Sb** | **19 32 04.1** | **+0.4** |
| **BESP** | **Borongan** | **0.88** | **83** | eP | **Pn** | **19 32 00.6** | **-1.4** |
| **CNP** | **Catarman** | **1.02** | **7** | eP | **Pn** | **19 32 01.6** | **-2.3** |
| CNP | | | | eS | **Sb** | **19 32 17.5** | **+0.3** |
| **MMPH** | **Masbate** | **1.24** | **314** | ⇑iP | **Pb** | **19 32 09.6** | **+1.4** |
| MMPH | | | | iS | **Sb** | **19 32 26.1** | **+2.3** |
| **LLP** | **Lapu-Lapu** | **1.30** | **206** | ⇑eP | **Pn** | **19 32 04.4** | **-3.3** |
| LLP | | | | iS | **Sn** | **19 32 22.2** | **-2.1** |
| **MSLP** | **Maasin** | **1.39** | **167** | eP | **Pn** | **19 32 08.3** | **-0.6** |
| MSLP | | | | eS | **Sb** | **19 32 30.0** | **+2.1** |
| **RCP** | **Roxas** | **1.77** | **272** | ⇓eP | **Pn** | **19 32 10.8** | **-3.3** |
| **TBP** | **Tagbilaran** | **1.91** | **201** | eP | **Pn** | **19 32 14.8** | **-1.4** |
| TBP | | | | eS | **Sn** | **19 32 38.0** | **-1.4** |
| **GUIM** | **Jordan** | **2.10** | **246** | eP | **Pn** | **19 32 16.4** | **-2.4** |
| GUIM | | | | eS | **Sn** | **19 32 42.9** | **-1.2** |
| **PVCP** | **Virac** | **2.12** | **350** | eP | **Pn** | **19 32 17.6** | **-1.5** |
| **KALP** | **Kalibo** | **2.17** | **275** | ⇑eP | **Pn** | **19 32 16.6** | **-3.1** |
| **SNPH** | **Sibulan** | **2.50** | **211** | ⇑iP | **Pn** | **19 32 22.0** | **-2.2** |
| SNPH | | | | iS | **Sb** | **19 33 00.1** | **+0.2** |
| **AUQP** | **San Andres** | **2.58** | **315** | eP | **Pn** | **19 32 25.6** | **+0.2** |
| AUQP | | | | eS | **Sn** | **19 32 57.7** | **+1.9** |
| **OTRP** | **Odiongan** | **2.62** | **289** | eP | **Pn** | **19 32 23.0** | **-2.8** |
| **JAP** | **San Jose, Anti** | **2.66** | **254** | ⇓eP | **Pn** | **19 32 25.5** | **-0.9** |
| **BUTP** | **Butuan** | **2.72** | **157** | eP | **Pn** | **19 32 30.0** | **+2.6** |
| **BUTP** | **Butuan** | **2.72** | **157** | eP | **Pb** | **19 32 31.1** | **-2.2** |
| **DCPH** | **Dipolog City** | **3.12** | **202** | ⇑eP | **Pn** | **19 32 30.4** | **-2.4** |
| **GQP** | **Guinayangan** | **3.15** | **320** | ⇓eP | **Pn** | **19 32 30.3** | **-2.9** |
| GQP | | | | eS | **Sb** | **19 33 16.6** | **-2.1** |
| **BOAC** | **Boac** | **3.28** | **307** | eP | **Pn** | **19 32 32.1** | **-2.9** |
| **SJMP** | **San Jose** | **3.49** | **286** | eP | **Pn** | **19 32 35.9** | **-2.0** |
| **BUKP** | **Musuan** | **3.63** | **172** | eP | **Pn** | **19 32 40.7** | **+0.9** |
| **BIPH** | **Bislig** | **3.75** | **151** | ⇑iP | **Pb** | **19 32 47.1** | **-3.7** |
| BIPH | | | | iS | **Sb** | **19 33 41.0** | **+5.3** |
| **PAGZ** | **Pagadian** | **3.80** | **198** | eP | **Pn** | **19 32 41.4** | **-0.7** |
| **LQP** | **Lukban** | **3.92** | **312** | ⇑eP | **Pn** | **19 32 44.1** | **+0.1** |
| **CTBH** | **Cotabato--PC H** | **4.26** | **184** | ⇓eP | **Pn** | **19 32 48.3** | **-0.1** |
| **BUSP** | **Coron** | **4.29** | **277** | eP | **Pn** | **19 32 46.4** | **-2.4** |
| **TGY** | **Tagaytay City** | **4.37** | **307** | Pn | **Pn** | **19 32 51.6** | **+1.5** |
| | 44nm,0.3s,baz=126,slow=9.8,SNR=4.6 | | | | | | |
| TGY | | | | LR | LR | 19 34 43.8 | |
| | comp=Z,2μm,19.1s,baz=264,slow=42 | | | | | | |
| **DAV** | **Davao City (W)** | **4.51** | **167** | ePn | **Pn** | **19 32 52.8** | **+0.8** |
| **LUBP** | **Lubang** | **4.75** | **298** | eP | **Pn** | **19 32 53.8** | **-1.5** |
| **MATI** | **Mati** | **4.83** | **159** | eP | **Pn** | **19 33 00.5** | **+4.3** |
| **ENPP** | **El Nido** | **5.03** | **267** | eP | **Pn** | **19 32 56.5** | **-2.6** |
| **CAUP** | **Cauayan** | **6.03** | **334** | eP | **Pn** | **19 33 12.1** | **-0.7** |
| **APYP** | **Conner** | **7.09** | **334** | eP | **Pn** | **19 33 27.1** | **-0.3** |
| **ABRA** | **Dolores** | **7.16** | **329** | eP | **Pn** | **19 33 29.1** | **+0.9** |
| **MYLDM** | **Lahad Datu** | **8.67** | **224** | ePn | **Pn** | **19 33 48.0** | **-1.1** |
| **KKM** | **Kota Kinabalu** | **9.85** | **237** | ePn | **Pn** | **19 34 02.7** | **-2.7** |
| **YULB** | **Yu-li** | **12.23** | **346** | ePn | **Pn** | **19 34 34.1** | **-3.8** |
| **TPUB** | **Ta-pu** | **12.32** | **343** | ePn | Pn | 19 34 33.1 | -6.0 |
| **LUWI** | **Luwuk** | **12.58** | **188** | P | **P** | **19 34 49.7** | **-4.2** |
| **LUWI** | **Luwuk** | **12.58** | **188** | ePn | **Pn** | **19 34 43.5** | **+0.9** |
| **SSLB** | **Suanglung** | **12.69** | **345** | ePn | **Pn** | **19 34 45.2** | **+0.9** |
| **YOJ** | **Yonaguni jima** | **12.98** | **354** | ePn | **Pn** | **19 34 46.1** | **-2.0** |
| **SANI** | **Sanana** | **13.53** | **174** | P | **Pn** | **19 34 55.2** | **-0.5** |
| **SBUM** | **Sibu** | **15.17** | **235** | ePn | **Pn** | **19 35 19.4** | **+1.5** |
| | 53nm,1.4s | | | | | | |
| **TTSI** | **Tana Toraja** | **15.19** | **198** | P | **P** | **19 35 26.7** | **+3.7** |
| | 52nm,1.0s | | | | | | |
| **MSAI** | **Masohi** | **15.38** | **163** | P | **P** | **19 35 29.3** | **+4.3** |
| **AAI** | **Ambon** | **15.51** | **166** | P | **P** | **19 35 31.2** | **+4.6** |
| **MTKI** | **Muara Teweh, K** | **15.64** | **218** | P | **P** | **19 35 29.3** | **+1.3** |
| **JOW** | **Kunigami** | **15.66** | **12** | ePn | **Pn** | **19 35 24.7** | **+0.5** |
| | 64nm,1.2s | | | | | | |
| **QIZ** | **Qiongzhong** | **16.03** | **300** | P | **Pn** | **19 35 28.5** | **-0.6** |
| QIZ | | | | S | **Sn** | **19 38 25.6** | **-0.6** |
| QIZ | | | | LR | LR | | |
| | comp=N,540nm,4.6s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=Z,630nm,20.4s | | | | | | |
| **SPSI** | **Sidrap Palu** | **16.08** | **197** | P | **P** | **19 35 36.3** | **+3.5** |
| **KBKI** | **Kotabaru** | **16.89** | **210** | P | **P** | **19 35 45.1** | **+3.2** |
| **STKI** | **Sintang** | **17.25** | **230** | P | **P** | **19 35 47.9** | **+2.1** |
| **KSM** | **Kuching** | **17.28** | **236** | ePn | **P** | **19 35 46.8** | **+0.6** |
| | 14nm,0.9s | | | | | | |
| **UBPT** | **Khong Chiam** | **18.93** | **284** | P | **Pn** | **19 36 04.8** | **-0.3** |
| | 84nm,1.0s | | | | | | |
| **PBKI** | **Pangkalan Bun** | **19.05** | **223** | P | **Pn** | **19 36 12.9** | **+6.3** |
| | 72nm,1.3s | | | | | | |
| **GUMO** | **Guam** | **19.95** | **82** | LR | LR | 19 42 43.6 | |
| | comp=Z,204nm,21.8s,baz=256,slow=33 | | | | | | |
| **MMRI** | **Maumere** | **20.13** | **187** | P | Pn | 19 36 22.5 | +3.1 |
| **MMRI** | **Maumere** | **20.13** | **187** | eP | **P** | **19 36 16.1** | **-1.3** |
| | 98nm,1.5s | | | | | | |
| **EDFI** | **Ende, Flores** | **20.31** | **188** | P | Pn | 19 36 27.4 | +5.8 |
| **SAUI** | **Saumlaki** | **20.48** | **161** | eP | **P** | **19 36 22.0** | **+0.7** |
| | 86nm,0.7s | | | | | | |
| **GENI** | **Genyem** | **20.91** | **131** | P | Pn | 19 36 35.6 | +7.0 |
| | 66nm,1.3s | | | | | | |
| **SOEI** | **Soe** | **21.11** | **181** | P | P | 19 36 38.8 | +11 |
| | 67nm,1.0s,947nm | | | | | | |
| **SOEI** | **Soe** | **21.11** | **181** | eP | **P** | **19 36 28.1** | **-0.1** |
| | 57nm,1.0s | | | | | | |
| **NJ2** | **Nanjing** | **21.12** | **346** | eP | **P** | **19 36 28.0** | **-0.1** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,21nm,0.7s | | | | | | |
| **WHN** | **Wuhan** | **21.18** | **335** | P | P | 19 36 40.4 | +12 |
| WHN | | | | S | **S** | **19 40 22.6** | **-0.5** |
| WHN | | | | LR | LR | | |
| | comp=N,3μm,19.8s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=E,1μm,14.0s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=Z,1μm,21.0s | | | | | | |
| **PLAI** | **Plampang** | **21.28** | **199** | P | P | 19 36 37.9 | +8.0 |
| | comp=Z,44nm,0.7s,comp=Z,1μm | | | | | | |
| **CHBT** | **CHBT** | **21.75** | **276** | P | **P** | **19 36 31.4** | **-3.6** |
| | comp=Z,97nm,0.8s,comp=Z,103μm | | | | | | |
| **GRJI** | **Gresik** | **21.88** | **214** | P | **P** | **19 36 42.6** | **+6.3** |
| **BASI** | **Baing, Sumba** | **21.93** | **191** | P | **P** | **19 36 43.5** | **+6.6** |
| **DNP** | **Denpasar** | **22.09** | **205** | P | **P** | **19 36 45.4** | **+6.9** |
| **TBJI** | **Tambak Boyo** | **22.15** | **215** | P | **P** | **19 36 45.0** | **+5.8** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| JNU | Nakatsue | 22.30 | 14 | P | P | 19 36 40.3 | -0.5 |
| | comp=Z,5.7nm,0.9s,baz=112,slow=8.5,SNR=3.1 | | | | | | |
| JNU | Nakatsue | 22.30 | 14 | eP | P | 19 36 40.6 | -0.1 |
| | comp=Z,12nm,1.1s | | | | | | |
| CHAI | Chaiyaphum | 22.34 | 284 | P | P | 19 36 38.3 | -3.1 |
| | comp=Z,8.2nm,0.9s,comp=Z,71nm | | | | | | |
| UWJI | Ujung Watu | 22.36 | 218 | P | P | 19 36 47.5 | +6.0 |
| JAGI | Jajag, Banyuwa | 22.37 | 208 | P | P | 19 36 48.0 | +6.4 |
| JAGI | Jajag, Banyuwa | 22.37 | 208 | eP | P | 19 36 42.6 | +1.0 |
| | comp=Z,176nm,1.5s | | | | | | |
| GMJI | Gumukmas | 22.53 | 210 | P | P | 19 36 49.8 | +6.5 |
| MYKOM | Kota Tinggi | 22.68 | 246 | eP | P | 19 36 43.7 | -1.3 |
| | comp=Z,12nm,0.9s | | | | | | |
| CBIJ | Chichi jima | 22.71 | 44 | eP | P | 19 36 45.0 | -0.2 |
| | comp=Z,20nm,0.9s | | | | | | |
| NAYO | Nakonayok | 22.81 | 280 | P | P | 19 36 44.6 | -1.7 |
| | comp=Z,104nm,0.7s | | | | | | |
| ENH | Enshi | 23.34 | 325 | eP | P | 19 36 51.4 | -0.2 |
| | comp=Z,23nm,1.1s | | | | | | |
| PBKT | Sadao Pong | 23.41 | 285 | P | P | 19 36 51.7 | -0.7 |
| | comp=Z,11nm,1.1s | | | | | | |
| IPM | Ipoh | 24.30 | 255 | eP | P | 19 36 58.2 | -2.6 |
| | comp=Z,33nm,1.2s | | | | | | |
| KULM | Kulim | 24.42 | 257 | eP | P | 19 36 58.9 | -3.0 |
| | comp=Z,25nm,1.2s | | | | | | |
| PHRA | Phrae | 24.48 | 289 | P | P | 19 37 12.0 | +10 |
| KMI | Kunming | 24.69 | 306 | P | P | 19 37 04.5 | -0.1 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,14nm,0.5s | | | | | | |
| KMI | | | | pmax | pmax | | |
| | comp=Z,120nm,4.8s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,260nm,13.5s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,310nm,15.5s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,390nm,21.0s | | | | | | |
| UTHA | Uthaitani | 24.73 | 282 | P | P | 19 37 05.0 | +0.3 |
| | comp=Z,2.4nm,0.9s | | | | | | |
| SUKH | Sukhothai | 24.83 | 287 | P | P | 19 37 04.6 | -1.0 |
| MTN | Manton Dam | 25.05 | 165 | eP | P | 19 37 06.7 | -0.9 |
| | comp=Z,20nm,1.0s | | | | | | |
| CISI | Cisompet, Garu | 25.20 | 222 | eP | P | 19 37 10.3 | +1.3 |
| | comp=Z,38nm,1.0s | | | | | | |
| TIA | Tai'an | 25.51 | 346 | ⇓P | P | 19 37 10.9 | -0.7 |
| TIA | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| CM01 | Chiang Mai Arr | 25.64 | 289 | eP | P | 19 37 11.7 | -1.3 |
| CMAR | Chiang Mai Arr | 25.66 | 289 | P | P | 19 37 12.7 | -0.5 |
| | comp=Z,2.6nm,0.9s,baz=99,slow=8.1,SNR=21 | | | | | | |
| CMAR | | | | LR | LR | 19 47 59.4 | |
| | comp=Z,198nm,18.1s,baz=134,slow=38 | | | | | | |
| CM31 | Chiang Mai Arr | 25.66 | 289 | eP | P | 19 37 12.4 | -0.8 |
| JHJ2 | Mitsune | 25.68 | 31 | eP | P | 19 37 13.1 | 0.0 |
| | comp=Z,188nm,0.9s | | | | | | |
| CHTO | Chiang Mai | 25.74 | 290 | eP | P | 19 37 12.6 | -1.3 |
| | comp=Z,6.1nm,1.3s | | | | | | |
| KS15 | Wonju Array Si | 26.01 | 6 | eP | P | 19 37 15.5 | -0.6 |
| KSAR | Wonju Array Be | 26.01 | 6 | P | P | 19 37 15.9 | -0.2 |
| KSRS | Korea Array | 26.03 | 6 | P | P | 19 37 15.9 | -0.3 |
| | comp=Z,1.9nm,0.7s,baz=186,slow=9.9,SNR=6.0 | | | | | | |
| KSRS | | | | LR | LR | 19 46 54.0 | |
| | comp=Z,242nm,20.6s,baz=202,slow=35 | | | | | | |
| KS01 | Wonju Array Si | 26.05 | 6 | eP | P | 19 37 18.4 | +2.0 |
| INU | Inuyama | 26.31 | 23 | eP | P | 19 37 17.2 | -1.6 |
| | comp=Z,23nm,1.1s | | | | | | |
| XAN | Xi'an | 26.59 | 330 | P | P | 19 37 20.3 | -1.2 |
| XAN | | | | pP | sP | 19 37 32.0 | -0.7 |
| XAN | | | | pmax | pmax | | |
| | comp=Z,29nm,1.0s | | | | | | |
| XAN | | | | pmax | pmax | | |
| | comp=Z,140nm,5.4s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,330nm,21.3s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,610nm,20.7s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,550nm,18.2s | | | | | | |
| PSI | Prapat | 26.82 | 253 | eP | P | 19 37 21.4 | -2.5 |
| | comp=Z,8.9nm,0.9s | | | | | | |
| MJAR | Matsushiro Arr | 27.82 | 24 | P | P | 19 37 29.6 | -2.9 |
| | comp=Z,1.7nm,0.8s,baz=197,slow=9.1,SNR=5.3 | | | | | | |
| MJAR | | | | LR | LR | 19 46 42.2 | |
| | comp=Z,219nm,21.9s,baz=210,slow=32 | | | | | | |
| GSI | Gunungsitoli | 28.61 | 251 | eP | P | 19 37 36.9 | -2.8 |
| | comp=Z,9.4nm,0.9s | | | | | | |
| XMIS | Christmas Isla | 28.80 | 221 | eP | P | 19 37 41.3 | 0.0 |
| | comp=Z,74nm,1.6s | | | | | | |
| BJT | Baijiatuau | 29.36 | 347 | eP | P | 19 37 44.5 | -1.5 |
| | comp=Z,19nm,1.3s | | | | | | |
| BJI | Beijing | 29.38 | 347 | P | P | 19 37 45.0 | -1.2 |
| BJI | | | | S | S | 19 42 38.7 | +0.3 |
| BJI | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.8s | | | | | | |
| BJI | | | | pmax | pmax | | |
| | comp=Z,90nm,3.2s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,230nm,8.5s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,280nm,15.5s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,150nm,31.6s | | | | | | |
| FITZ | Fitzroy Crossi | 29.43 | 178 | P | P | 19 37 47.0 | +0.2 |
| | comp=Z,3.7nm,0.8s,baz=26,slow=14,SNR=3.5 | | | | | | |
| FITZ | | | | LR | LR | 19 50 52.3 | |
| | comp=Z,82nm,20.0s,baz=354,slow=39 | | | | | | |
| PMG | Port Moresby | 30.61 | 132 | eP | P | 19 37 57.0 | -0.4 |
| | comp=Z,12nm,1.0s | | | | | | |
| LZH | Lanzhou | 30.82 | 326 | eP | P | 19 37 59.9 | +0.7 |
| LZH | | | | pP | sP | 19 38 13.0 | +2.6 |
| LZH | | | | sP | pP | 19 38 18.9 | +12 |
| LZH | | | | PP | PnPn | 19 39 02.0 | +2.1 |
| LZH | | | | S | S | 19 42 59.1 | -2.3 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,49nm,1.5s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,160nm,6.4s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,1μm,16.7s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,730nm,16.4s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,950nm,15.3s | | | | | | |
| COEN | Coen | 31.32 | 143 | eP | P | 19 38 02.7 | -0.9 |
| | comp=Z,8.0nm,0.9s | | | | | | |
| HHC | Hu-ho-hao-te | 31.40 | 341 | eP | P | 19 38 05.3 | +1.1 |
| HHC | | | | S | S | 19 43 05.2 | -5.0 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,15nm,0.8s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,92nm,4.9s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,210nm,13.5s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,370nm,12.4s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,210nm,12.8s | | | | | | |
| CN2 | Changchun | 32.20 | 1 | eP | P | 19 38 10.6 | -0.5 |
| WRAB | Tennant Creek | 32.69 | 163 | eP | P | 19 38 12.7 | -2.9 |
| | comp=Z,14nm,1.4s | | | | | | |
| WR1 | Warramunga Arr | 32.69 | 163 | eP | P | 19 38 13.7 | -2.0 |
| | comp=Z,7.1nm,1.0s | | | | | | |
| WRA | Warramunga Arr | 32.69 | 163 | P | P | 19 38 13.7 | -2.0 |
| | comp=Z,2.9nm,0.9s,baz=340,slow=10.0,SNR=13 | | | | | | |
| WB2 | Warramunga Arr | 32.70 | 163 | eP | P | 19 38 12.3 | -3.4 |
| MBWA | Marble Bar | 32.79 | 188 | eP | P | 19 38 14.3 | -2.2 |
| | comp=Z,67nm,1.9s | | | | | | |
| USRK | Ussuriysk Ar. | 33.22 | 10 | P | P | 19 38 19.8 | -0.2 |
| | comp=Z,4.1nm,0.8s,baz=220,slow=10,SNR=5.7 | | | | | | |
| USRK | | | | LR | LR | 19 50 50.1 | |
| | comp=Z,68nm,21.3s,baz=187,slow=35 | | | | | | |
| MDJ | Mudanjiang | 33.29 | 7 | P | P | 19 38 22.1 | +1.5 |
| MDJ | | | | pP | sP | 19 38 33.2 | +1.4 |
| MDJ | | | | sP | pP | 19 38 38.2 | +10 |
| MDJ | | | | PP | PP | 19 39 35.1 | -1.1 |
| MDJ | | | | S | S | 19 43 42.0 | +2.6 |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.9s | | | | | | |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,100nm,5.1s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=Z,160nm,15.5s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=Z,290nm,17.8s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=Z,340nm,16.1s | | | | | | |
| MDJ | Mudanjiang | 33.29 | 7 | eP | P | 19 38 20.6 | 0.0 |
| | comp=Z,7.6nm,0.8s | | | | | | |
| SHL | Shillong | 33.87 | 299 | ex | P | 19 38 28.0 | +1.8 |
| GTA | Gaotai | 35.42 | 326 | P | P | 19 38 41.5 | +2.1 |
| GTA | | | | pP | sP | 19 38 53.6 | +3.0 |
| GTA | | | | sP | pP | 19 38 58.8 | +11 |
| GTA | | | | S | S | 19 44 13.6 | +0.8 |
| GTA | | | | sS | sS | 19 44 33.8 | +7.9 |
| GTA | | | | SS | SnSn | 19 46 37.3 | +4.3 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.6s | | | | | | |
| GTA | | | | pmax | pmax | | |
| | comp=Z,110nm,6.1s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,530nm,20.4s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,420nm,20.9s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,410nm,18.5s | | | | | | |
| LSA | Lhasa | 35.94 | 305 | eP | P | 19 38 44.9 | +0.6 |
| | comp=Z,6.2nm,0.9s | | | | | | |
| ASAJ | Asahikawa | 36.04 | 22 | P | P | 19 38 43.8 | -0.6 |
| | comp=Z,1.7nm,0.5s,baz=259,slow=5.2,SNR=2.3 | | | | | | |
| ASAJ | Asahikawa | 36.04 | 22 | eP | P | 19 38 45.1 | +0.6 |
| | comp=Z,11nm,1.0s | | | | | | |
| AS31 | Alice Springs | 36.12 | 165 | eP | P | 19 38 44.0 | -1.4 |
| | comp=Z,2.1nm,0.6s | | | | | | |
| ASAR | Alice Springs | 36.12 | 165 | P | P | 19 38 44.9 | -0.5 |
| | comp=Z,2.5nm,0.5s,baz=348,slow=11,SNR=29 | | | | | | |
| AS01 | Alice Springs | 36.13 | 165 | eP | P | 19 38 43.2 | -2.3 |
| TAPN | Taplejung | 37.97 | 300 | eP | P | 19 39 01.1 | -0.4 |
| | comp=Z,12nm,0.7s | | | | | | |
| ODAN | Odare | 38.11 | 299 | eP | P | 19 39 01.7 | -0.8 |
| | comp=Z,30nm,0.8s | | | | | | |
| RAMN | Ramite | 38.81 | 299 | eP | P | 19 39 08.2 | -0.2 |
| | comp=Z,60nm,1.2s | | | | | | |
| ULN | Ulaanbaatar | 39.12 | 341 | eP | P | 19 39 10.2 | -0.4 |
| | comp=Z,18nm,1.4s | | | | | | |
| SONA0 | Songino Array | 39.30 | 341 | eP | P | 19 39 11.8 | -0.3 |
| SONM | Songino Array | 39.30 | 341 | P | P | 19 39 11.8 | -0.3 |
| | comp=Z,6.4nm,1.0s,baz=158,slow=6.9,SNR=20 | | | | | | |
| SONM | | | | LR | LR | 19 55 43.4 | |
| | comp=Z,185nm,20.4s,baz=160,slow=37 | | | | | | |
| SONA1 | Songino Array | 39.31 | 341 | eP | P | 19 39 11.8 | -0.4 |
| JIRN | Jiri | 39.36 | 300 | eP | P | 19 39 12.3 | -0.9 |
| GUN | Gumba | 39.69 | 300 | eP | P | 19 39 15.2 | -0.7 |
| | comp=Z,52nm,0.8s | | | | | | |
| PKI | Pulchoki | 40.00 | 299 | eP | P | 19 39 17.2 | -1.3 |
| KKN | Kakani | 40.17 | 300 | eP | P | 19 39 18.9 | -0.8 |
| | comp=Z,32nm,1.1s | | | | | | |
| DMN | Daman | 40.27 | 299 | eP | P | 19 39 19.6 | -1.0 |
| | comp=Z,39nm,1.1s | | | | | | |
| KOLN | Koldanda | 41.60 | 299 | eP | P | 19 39 30.5 | -1.0 |
| | comp=Z,33nm,1.0s | | | | | | |
| PYUN | Piuthan | 42.20 | 299 | eP | P | 19 39 35.6 | -0.9 |
| WMQ | Urumqi | 45.22 | 322 | P | P | 19 40 02.9 | +2.5 |
| WMQ | | | | pP | sP | 19 40 13.9 | +2.2 |
| WMQ | | | | sP | pP | 19 40 20.0 | +12 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,13nm,0.6s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,230nm,5.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,1μm,5.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,510nm,5.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,660nm,21.5s | | | | | | |
| BBOO | Buckleboo | 45.41 | 166 | eP | P | 19 40 01.0 | -0.8 |
| | comp=Z,23nm,1.0s | | | | | | |
| STKA | Stephens Creek | 46.11 | 160 | P | P | 19 40 07.9 | +0.5 |
| | comp=Z,11nm,0.8s,baz=334,slow=7.7,SNR=16 | | | | | | |
| STKA | | | | LR | LR | 20 02 16.5 | |
| | comp=Z,104nm,20.0s,baz=1.7,slow=40 | | | | | | |
| STKA | Stephens Creek | 46.11 | 160 | eP | P | 19 40 06.4 | -1.0 |
| ARMA | Armidale | 49.15 | 149 | eP | P | 19 40 29.4 | -1.8 |
| | comp=Z,93nm,2.0s | | | | | | |
| PETK | Petropavlovsk- | 49.25 | 26 | P | P | 19 40 31.3 | -0.3 |
| | comp=Z,8.6nm,1.0s,baz=192,slow=1.7,SNR=4.5 | | | | | | |
| PETK | | | | LR | LR | 20 02 15.7 | |
| | comp=Z,51nm,18.2s,baz=205,slow=37 | | | | | | |
| PETK | Petropavlovsk- | 49.25 | 26 | eP | P | 19 40 32.4 | +0.8 |
| PEA1 | Petropavlovsk- | 49.26 | 26 | eP | P | 19 40 31.3 | -0.3 |
| MK01 | Makanchi Array | 50.02 | 323 | eP | P | 19 40 37.2 | -0.3 |
| MK31 | Makanchi Array | 50.03 | 323 | eP | P | 19 40 38.2 | +0.6 |
| MK32 | Makanchi Array | 50.03 | 323 | eP | P | 19 40 37.9 | +0.2 |
| MKAR | Makanchi Array | 50.03 | 323 | P | P | 19 40 37.9 | +0.2 |
| | comp=Z,7.4nm,0.7s,baz=124,slow=7.5,SNR=32 | | | | | | |
| MAKZ | Makanchi | 50.23 | 323 | eP | P | 19 40 38.8 | -0.3 |
| | comp=Z,16nm,1.0s | | | | | | |
| YAK | Yakutsk | 50.59 | 3 | P | P | 19 40 40.8 | -0.7 |
| | comp=Z,6.2nm,0.4s,baz=326,slow=1.2,SNR=3.3 | | | | | | |
| YAK | Yakutsk | 50.59 | 3 | eP | P | 19 40 40.2 | -1.3 |
| | comp=Z,18nm,0.9s | | | | | | |
| KSH | Kashi | 51.16 | 312 | P | P | 19 40 48.2 | +1.8 |
| KSH | | | | pP | sP | 19 41 01.1 | +3.3 |
| KSH | | | | PcP | PcP | 19 42 02.4 | +0.7 |
| KSH | | | | PP | PP | 19 42 47.8 | +4.6 |
| KSH | | | | S | S | 19 48 03.5 | +0.4 |
| KSH | | | | ScS | ScS | 19 50 32.9 | -2.6 |
| KSH | | | | SS | SS | 19 51 36.6 | -2.0 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.9s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,180nm,5.8s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,140nm,5.6s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,130nm,6.8s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,300nm,7.9s | | | | | | |
| ZAA0 | Zalesovo Array | 52.75 | 332 | eP | P | 19 40 57.5 | -0.3 |
| | comp=Z,5.3nm,0.8s | | | | | | |
| ZALV | Zalesovo Beam | 52.75 | 332 | P | P | 19 40 57.5 | -0.3 |
| | comp=Z,5.2nm,0.7s,baz=118,slow=6.6,SNR=13 | | | | | | |
| ZALV | | | | LR | LR | 20 05 37.6 | |
| | comp=Z,128nm,18.7s,baz=74,slow=39 | | | | | | |
| ZALV | Zalesovo Beam | 52.75 | 332 | eP | P | 19 40 57.0 | -0.8 |
| ZAA1 | Zalesovo Array | 52.75 | 332 | eP | P | 19 40 57.5 | -0.3 |
| DZM | Mont Dzumac | 52.93 | 129 | P | P | 19 40 59.8 | +0.1 |
| | comp=Z,8.0nm,0.9s,baz=259,slow=20,SNR=5.8 | | | | | | |
| DZM | Mont Dzumac | 52.93 | 129 | eP | P | 19 41 01.6 | +1.9 |
| | comp=Z,73nm,1.8s | | | | | | |
| AAK | Ala-Archa | 53.27 | 315 | eP | P | 19 41 01.6 | -0.4 |
| | comp=Z,8.2nm,1.4s | | | | | | |
| KURK | Kurchatov | 54.11 | 326 | eP | P | 19 41 07.4 | -0.4 |
| | comp=Z,43nm,1.1s | | | | | | |
| SEY | Seymchan | 55.07 | 15 | P | P | 19 41 15.2 | +0.6 |
| | comp=Z,2.7nm,0.9s,baz=163,slow=19,SNR=2.6 | | | | | | |
| KBL | Kabul | 55.25 | 304 | eP | P | 19 41 15.8 | -0.8 |
| | comp=Z,20nm,1.3s | | | | | | |
| BRVK | Borovoye | 59.77 | 325 | eP | P | 19 41 48.6 | +0.7 |
| | comp=Z,10nm,0.8s | | | | | | |
| TIXI | Tiksi | 60.17 | 2 | P | P | 19 41 49.6 | -0.7 |
| | comp=Z,2.0nm,0.5s,baz=142,slow=5.3,SNR=5.4 | | | | | | |
| TIXI | Tiksi | 60.17 | 2 | eP | P | 19 41 49.6 | -0.7 |
| | comp=Z,16nm,1.6s | | | | | | |
| MSVF | Nonsavu | 60.28 | 118 | eP | P | 19 41 50.3 | -1.8 |
| | comp=Z,35nm,1.6s | | | | | | |
| GEYT | Alibeck | 64.46 | 307 | P | P | 19 42 20.6 | +0.8 |
| | comp=Z,16nm,0.6s,baz=104,slow=4.7,SNR=8.2 | | | | | | |
| GEYT | | | | LR | LR | 20 12 38.2 | |
| | comp=Z,105nm,19.0s,baz=70,slow=38 | | | | | | |
| AKTO | Aktyubinsk | 66.30 | 320 | P | P | 19 42 31.4 | -0.1 |
| | comp=Z,1.8nm,0.9s,baz=124,slow=3.6,SNR=6.1 | | | | | | |
| ARU | Arti | 67.28 | 327 | P | P | 19 42 36.9 | -0.6 |
| | comp=Z,2.9nm,0.6s,baz=71,slow=0.8,SNR=6.7 | | | | | | |
| ARU | Arti | 67.28 | 327 | eP | P | 19 42 36.4 | -1.1 |
| | comp=Z,7.1nm,0.7s | | | | | | |
| FOZ | Fox Glacier | 68.54 | 146 | eP | P | 19 42 47.4 | +1.9 |
| | comp=Z,72nm,1.6s | | | | | | |
| RAYN | Ar Rayn | 75.55 | 291 | eP | P | 19 43 28.0 | -0.1 |
| | comp=Z,7.6nm,1.2s | | | | | | |
| KBZ | Khabaz | 76.14 | 312 | P | P | 19 43 30.4 | -0.6 |
| | comp=Z,2.3nm,0.9s,baz=80,slow=12,SNR=3.3 | | | | | | |
| IMAR | Indian Mountai | 76.20 | 25 | eP | P | 19 43 31.2 | +0.3 |
| KVAR | Kislovodsk Arr | 76.27 | 313 | P | P | 19 43 31.6 | -0.4 |
| | comp=Z,4.1nm,0.8s,baz=42,slow=1.4,SNR=3.9 | | | | | | |
| KIV | Kislovodsk | 76.28 | 313 | eP | P | 19 43 31.4 | -0.6 |
| | comp=Z,6.2nm,0.8s | | | | | | |
| CAST | Castle Rocks | 76.84 | 27 | eP | P | 19 43 33.5 | -1.2 |
| | comp=Z,43nm,2.0s | | | | | | |
| BPAW | Bear Paw Mtn. | 77.33 | 27 | eP | P | 19 43 38.7 | +1.3 |
| | comp=Z,29nm,1.6s | | | | | | |
| COLD | Coldfoot | 77.65 | 23 | eP | P | 19 43 38.8 | -0.3 |
| | comp=Z,22nm,2.0s | | | | | | |
| RND | Reindeer | 78.29 | 27 | eP | P | 19 43 43.5 | +0.7 |
| | comp=Z,28nm,1.9s | | | | | | |
| ILAR | Eielson Array | 79.08 | 26 | P | P | 19 43 46.6 | -0.5 |
| | comp=Z,0.7nm,0.8s,baz=253,slow=4.8,SNR=6.3 | | | | | | |
| ILAR | | | | LR | LR | 20 17 55.8 | |
| | comp=Z,22nm,21.9s,baz=280,slow=35 | | | | | | |
| ILB | Eielson Array | 79.08 | 26 | eP | P | 19 43 45.8 | -1.3 |
| ASF | Jabal al Asfar | 82.01 | 301 | P | P | 19 44 05.3 | +1.7 |
| | comp=Z,1.2nm,0.8s,baz=56,slow=7.3,SNR=3.2 | | | | | | |
| BR101 | Keskin Array S | 83.45 | 309 | eP | P | 19 44 11.5 | +0.5 |
| BRTR | Keskin Array B | 83.45 | 309 | P | P | 19 44 11.5 | +0.5 |
| | comp=Z,0.5nm,0.5s,baz=128,slow=9.3,SNR=3.2 | | | | | | |
| BRTR | | | | LR | LR | 20 24 55.7 | |
| | comp=Z,28nm,19.8s,baz=63,slow=38 | | | | | | |
| INK | Inuvik | 83.78 | 21 | P | P | 19 44 15.5 | +3.7 |
| | comp=Z,3.4nm,1.1s,baz=164,slow=2.5,SNR=3.6 | | | | | | |
| INK | Inuvik | 83.78 | 21 | eP | P | 19 44 13.9 | +2.1 |
| | comp=Z,12nm,1.4s | | | | | | |
| FIA0 | FINESS Array S | 84.01 | 331 | eP | P | 19 44 12.3 | -0.9 |
| FINES | FINESS Array B | 84.01 | 331 | P | P | 19 44 12.3 | -0.9 |
| | comp=Z,3.0nm,0.9s,baz=270,slow=0.6,SNR=3.6 | | | | | | |
| FINES | | | | LR | LR | 20 24 32.6 | |
| | comp=Z,75nm,18.1s,baz=112,slow=38 | | | | | | |
| AKASG | Malin Array Be | 84.55 | 321 | P | P | 19 44 14.8 | -1.3 |
| | comp=Z,0.5nm,0.5s,baz=64,slow=4.5,SNR=7.0 | | | | | | |
| AKASG | | | | LR | LR | 20 26 16.8 | |
| | comp=Z,56nm,18.1s,baz=15,slow=39 | | | | | | |
| KMBO | Kilima Mbogo | 87.57 | 268 | P | P | 19 44 33.5 | +1.4 |
| | comp=Z,0.8nm,0.4s,baz=70,slow=15,SNR=3.5 | | | | | | |
| KMBO | | | | LR | LR | 20 22 26.1 | |
| | comp=Z,49nm,20.0s,baz=92,slow=35 | | | | | | |
| BUR04 | Bucovina Ar. S | 87.81 | 318 | eP | P | 19 44 32.4 | -0.1 |
| PPT | Papeete | 89.55 | 108 | LR | LR | 20 17 10.1 | |
| | comp=Z,25nm,19.8s,baz=7.0,slow=30 | | | | | | |
| PPT2 | Papeete2 | 89.56 | 108 | eLR | LR | 20 13 18.3 | |
| | comp=Z,106nm,30.2s | | | | | | |
| CRVS | Cervenica-Dubn | 89.86 | 320 | eP | P | 19 44 43.7 | +1.7 |
| TBI | Tubuai | 90.86 | 114 | eLR | LR | 20 13 58.7 | |
| | comp=Z,103nm,29.5s | | | | | | |
| NOA | NORSAR Array B | 90.92 | 333 | LR | LR | 20 28 58.6 | |
| | comp=Z,109nm,18.3s,baz=55,slow=38 | | | | | | |
| VNDA | Vanda | 91.36 | 172 | P | P | 19 44 47.9 | -0.3 |
| | comp=Z,1.6nm,0.9s,baz=294,slow=6.0,SNR=5.5 | | | | | | |
| VNDA | | | | LR | LR | 20 26 14.9 | |
| | comp=Z,42nm,19.8s,baz=334,slow=36 | | | | | | |
| VNDA | Vanda | 91.36 | 172 | eP | P | 19 44 47.2 | -1.0 |
| GERES | GERESS Array B | 94.69 | 322 | P | P | 19 45 04.7 | +0.3 |
| | comp=Z,0.4nm,0.6s,baz=48,slow=2.0,SNR=5.0 | | | | | | |
| GERES | | | | LR | LR | 20 29 31.7 | |
| | comp=Z,134nm,18.4s,baz=76,slow=37 | | | | | | |
| LTX | Lajitas | 118.28 | 48 | ePKPdf | PKPdf | 19 50 31.3 | +0.3 |
| TXAR | Lajitas Array | 118.28 | 48 | PKP | PKPdf | 19 50 31.3 | +0.3 |
| | comp=Z,0.4nm,0.8s,baz=356,slow=1.1,SNR=4.8 | | | | | | |
| PLCA | Paso Flores | 147.98 | 158 | PKPbc | PKPbc | 19 51 29.6 | +0.9 |
| | comp=Z,1.8nm,0.9s,baz=270,slow=6.1,SNR=3.9 | | | | | | |

---

*ISCJB **06** 19:34:28.3±1.2, 38.°79N±0.°06×43.°47E±0.°09, h34km±13km, Error ellipse: s-maj=13.6km s-min=6.4km az=37.5*
*CSEM **06** 19:34:30.0±0.4, 38.°81N×43.°37E, h10km, ML2.6, Error ellipse: s-maj=12.2km s-min=7.6km az=128.0*
*DDA **06** 19:34:30.1, 38.°81N×43.°40E, h7km, Ml2.6*
*ISK **06** 19:34:30.1, 38.°67N×43.°62E, h19km, MD2.4*
**ISC 06 19:34:30.6**±1.1**, 38.°76N**±0.°04×**43.°44E**±0.°05**, h25**km±8km**, n16, σ2§10**/27**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.17 | 193 | ePG | Pb | 19 34 36.0 | -0.1 |
| VANB | | | | eSG | Sb | 19 34 40.2 | +0.5 |
| VANB | Van | 0.17 | 193 | ePg | Pb | 19 34 36.0 | -0.1 |
| VANB | | | | eSg | Sb | 19 34 40.2 | +0.5 |
| TVAN | Van | 0.23 | 186 | i P | Pb | 19 34 36.1 | -0.8 |
| TVAN | | | | i S | Sb | 19 34 40.6 | -0.6 |
| TVAN | Van | 0.23 | 186 | P | Pb | 19 34 36.1 | -0.8 |
| TVAN | | | | S | Sb | 19 34 40.6 | -0.6 |
| VMUR | Van-Muradiye | 0.25 | 24 | i P | Pb | 19 34 35.9 | -1.3 |
| VMUR | | | | i S | Sb | 19 34 37.9 | -3.7 |
| VMUR | Van-Muradiye | 0.25 | 24 | P | Pb | 19 34 35.9 | -1.3 |
| CLDR | Caldiran | 0.54 | 44 | ePG | Pb | 19 34 41.0 | -0.6 |
| CLDR | Caldiran | 0.54 | 44 | i P | Pb | 19 34 40.3 | -1.3 |
| CLDR | | | | i S | Sb | 19 34 45.2 | -3.8 |
| CLDR | Caldiran | 0.54 | 44 | P | Pb | 19 34 40.3 | -1.3 |
| CLDR | Caldiran | 0.54 | 44 | ePg | Pb | 19 34 41.0 | -0.6 |
| GEVA | Gevas | 0.54 | 214 | i P | Pb | 19 34 39.2 | -2.4 |
| GEVA | | | | i S | Sb | 19 34 46.2 | -2.8 |
| GEVA | Gevas | 0.54 | 214 | P | Pb | 19 34 39.2 | -2.4 |
| GEVA | | | | S | Sb | 19 34 46.2 | -2.8 |
| ADCV | BITLIS_Adilcev | 0.56 | 275 | i P | Pb | 19 34 40.3 | -1.7 |
| ADCV | | | | i S | Sb | 19 34 48.6 | -1.1 |
| ADCV | BITLIS_Adilcev | 0.56 | 275 | P | Pb | 19 34 40.3 | -1.7 |
| ADCV | | | | S | Sb | 19 34 48.6 | -1.1 |
| TUTA | Tutak | 0.81 | 323 | i P | Pn | 19 34 47.4 | +0.8 |
| AGRB | Hanur-Agry | 0.89 | 337 | ePG | Pn | 19 34 50.1 | +2.3 |
| AGRB | | | | eSG | Sn | 19 35 04.5 | +4.6 |

---

*ISCJB **06** 19:34:34.6±1.3, 19.°09N±0.°06×145.°9E±0.°3, h200km, mb3.5/11, Error ellipse: s-maj=45.2km s-min=8.6km az=179.1*
*IDC **06** 19:34:38.7±2.1, 18.°99N×145.°79E, h228km±19km, mb3.3/11, mb1 3.5/13, mb1mx3.2/58, mbtmp3.9/13, Error ellipse: s-maj=42.1km s-min=10.7km az=87.0*
**ISC 06 19:34:37.0**±1.4**, 19.°08N**±0.°07×**145.°7E**±0.°4**, h200**km**, n14, σ1§51**/15**, mb3.7**/11**, Mariana Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GUMO | Guam | 5.51 | 188 | P | Pn | 19 36 00.6 | +2.5 |
| | 5.2nm,0.3s,baz=207,slow=18,SNR=5.1 | | | | | | |
| GUMO | | | | S | Sn | 19 37 02.2 | +0.1 |
| | 9.6nm,0.3s,baz=0.0,slow=20,SNR=3.0 | | | | | | |
| MJAR | Matsushiro Arr | 18.59 | 341 | P | P | 19 38 40.1 | +0.9 |
| | 0.8nm,0.3s,baz=158,slow=6.5,SNR=10 | | | | | | |
| MAT | Matsushiro | 18.59 | 341 | P | Pn | 19 38 43.9 | +2.0 |
| KSRS | Korea Array | 23.99 | 323 | P | P | 19 39 33.9 | +0.5 |
| | 1.1nm,0.6s,baz=148,slow=8.8,SNR=4.8 | | | | | | |
| KLR | Kul'dur | 32.09 | 343 | P | P | 19 40 46.2 | +1.1 |
| | 0.2nm,0.4s,baz=159,slow=10 | | | | | | |
| WRA | Warramunga Arr | 40.34 | 197 | P | P | 19 41 54.1 | -1.2 |
| | 1.4nm,0.5s,baz=22,slow=8.7,SNR=17 | | | | | | |
| FITZ | Fitzroy Crossi | 41.86 | 209 | P | P | 19 42 06.8 | -0.9 |
| | 1.5nm,0.3s,baz=36,slow=6.5,SNR=21 | | | | | | |
| SONM | Songino Array | 42.82 | 321 | P | P | 19 42 15.1 | -0.3 |
| | 0.5nm,0.5s,baz=132,slow=7.8,SNR=4.6 | | | | | | |
| ASAR | Alice Springs | 44.01 | 196 | P | P | 19 42 23.4 | -1.5 |
| | 0.5nm,0.4s,baz=14,slow=6.3,SNR=8.1 | | | | | | |
| CMAR | Chiang Mai Arr | 44.13 | 277 | P | P | 19 42 26.7 | +0.6 |
| | 0.3nm,0.6s,baz=81,slow=5.6,SNR=3.8 | | | | | | |
| YAK | Yakutsk | 44.34 | 349 | P | P | 19 42 27.9 | +0.9 |
| | 9.0nm,0.6s,baz=11,slow=2.6,SNR=4.1 | | | | | | |
| MKAR | Makanchi Array | 58.17 | 314 | P | P | 19 44 09.6 | -0.5 |
| | 0.7nm,0.6s,baz=86,slow=9.6,SNR=4.8 | | | | | | |
| AKTO | Aktyubinsk | 74.06 | 318 | P | P | 19 45 49.0 | -2.0 |
| | 0.8nm,0.6s,baz=113,slow=7.7,SNR=3.1 | | | | | | |
| FINES | FINESS Array B | 86.52 | 335 | P | P | 19 46 54.9 | -2.2 |
| | 0.7nm,0.4s,baz=67,slow=3.4,SNR=7.7 | | | | | | |

---

**NNC 06 20:24:35.8**±8.6**, 37.°08N**×**70.°28E, h0**km**, mb3.7, mpv3.3, 4C-4D, Error ellipse: s-maj=68.7km s-min=57.1km az=158.0, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SFK | Sufi-Kurgan | 3.87 | 40 | ⇓Pn | Pn | 20 25 37.3 | +0.5 |
| | 4.5nm,0.3s | | | | | | |
| SFK | | | | ⇓Sn | Sn | 20 26 24.7 | +1.6 |
| | 5.4nm,0.3s | | | | | | |
| MNAS | Manas | 5.67 | 17 | ⇑Pn | Pn | 20 26 01.7 | +0.3 |
| | 0.8nm,0.4s | | | | | | |
| MNAS | | | | ⇓Sn | Sn | 20 27 08.8 | +1.6 |
| | 8.9nm,0.6s | | | | | | |
| KK31 | Karatay Array | 6.02 | 2 | ⇓Pn | Pn | 20 26 06.4 | +0.3 |
| | 0.5nm,0.3s,baz=164,slow=13,SNR=7.4 | | | | | | |
| KK31 | | | | ⇑Sn | Sn | 20 27 17.4 | +1.7 |
| | 2.4nm,0.4s,baz=188,slow=22,SNR=18 | | | | | | |
| AAK | Ala-Archa | 6.43 | 29 | ⇑Pn | Pn | 20 26 10.3 | -1.6 |
| | 3.7nm,0.9s | | | | | | |
| AAK | | | | ⇑Sn | Sn | 20 27 25.5 | -0.5 |
| | 3.3nm,0.6s | | | | | | |

---

**IDC 06 20:33:06.2**±7.0**, 19.°14S**×**177.°73E, h0**km**, mb3.4**/2**, mb1 3.7**/2**, mb1mx3.4**/19**, mbtmp3.4**/2**, Error ellipse: s-maj=350.7km s-min=107.7km az=156.0, South of Fiji**

**Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 40.82 | 261 | P | P | 20 40 49.5 | -0.4 |
| | 0.4nm,1.0s,baz=96,slow=6.4,SNR=5.5 | | | | | | |
| ASAR | Alice Springs | 40.94 | 256 | P | P | 20 40 50.9 | 0.0 |
| | 0.4nm,0.5s,baz=89,slow=8.7,SNR=6.7 | | | | | | |
| BRTR | Keskin Array B | 142.94 | 311 | PKP | PKPdf | 20 52 42.5 | +0.1 |
| | 0.2nm,0.5s,baz=56,slow=3.7,SNR=2.1 | | | | | | |

**MEX 06 20:41:46.3±0.5, 15°.15N×92°.94W, h79km±11km, MD3.5, Mexico-Guatemala border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PCIG | | 0.61 | 334 | eP | Pn | 20 42 00.3 | -0.7 |
| PCIG | | | | eS | Sn | 20 42 09.9 | -2.0 |
| CCIG | Comitan | 1.36 | 34 | eP | Pn | 20 42 03.3 | -6.7 |
| CCIG | | | | i S | Sn | 20 42 25.6 | -2.2 |

*ISCJB **06** 20:50:48.1±0.8, 32°.71N±0°.06×89°.43E±0°.08, h10km, Error ellipse: s-maj=9.7km s-min=8.1km az=174.4*
*BJI **06** 20:50:49.6, 32°.62N×89°.37E, h6km, mb3.7/2, ML4.1/1*
**ISC 06 20:50:50.2±1.1, 32°.69N±0°.07×89°.4E±0°.1, h10km, n15, σ1s.10/16, Xizang**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LSA | Lhasa | 3.35 | 152 | Pg | Pb | 20 51 48.1 | -1.9 |
| LSA | | | | Sg | Sg | 20 52 38.8 | +0.8 |
| TAPN | Taplejung | 5.51 | 195 | eP | Pn | 20 52 13.8 | +1.2 |
| GUN | Gumba | 5.63 | 213 | eP | Pn | 20 52 15.4 | +1.1 |
| | 12nm,0.4s | | | | | | |
| JIRN | Jiri | 5.71 | 209 | eP | Pn | 20 52 16.3 | +0.8 |
| | 90nm,0.4s | | | | | | |
| KKN | Kakani | 6.02 | 217 | eP | Pn | 20 52 20.3 | +0.7 |
| | 7.9nm,0.4s | | | | | | |
| ODAN | Odare | 6.06 | 197 | eP | Pn | 20 52 21.1 | +1.0 |
| PKI | Pulchoki | 6.14 | 215 | eP | Pn | 20 52 22.3 | +1.0 |
| | 7.2nm,0.4s | | | | | | |
| PKIN | Phulchoki | 6.14 | 215 | eP | Pn | 20 52 22.3 | +1.0 |
| | 6.2nm,0.5s | | | | | | |
| GKN | Gorkha | 6.20 | 222 | eP | Pn | 20 52 22.5 | +0.5 |
| RAMN | Ramite | 6.20 | 203 | eP | Pn | 20 52 22.5 | +0.4 |
| | 13nm,0.4s | | | | | | |
| DMN | Daman | 6.26 | 217 | eP | Pn | 20 52 24.3 | +1.4 |
| | 9.9nm,0.5s | | | | | | |
| KOLN | Koldanda | 6.99 | 227 | eP | Pn | 20 52 32.7 | -0.1 |
| PYUN | Piuthan | 7.15 | 232 | eP | Pn | 20 52 33.9 | -1.2 |
| | 5.8nm,0.4s | | | | | | |
| WMQ | Urumqi | 11.19 | 354 | eP | Pn | 20 53 30.8 | +0.6 |
| LZH | Lanzhou | 12.44 | 70 | eP | Pn | 20 53 47.4 | 0.0 |
| LZH | | | | pP | | 20 53 51.5 | |
| LZH | | | | sP | | 20 53 54.6 | |

*ISCJB **06** 20:56:06.8±0.8, 38°.66N±0°.03×43°.61E±0°.06, h1km±7km, Error ellipse: s-maj=7.4km s-min=4.3km az=7.8*
*CSEM **06** 20:56:06.8±0.3, 38°.64N×43°.60E, h2km, MD2.7, Error ellipse: s-maj=7.2km s-min=4.6km az=94.0*
*DDA **06** 20:56:06.6, 38°.65N×43°.62E, h7km, Ml2.6*
*ISK **06** 20:56:06.8, 38°.67N×43°.46E, h6km, MD2.7*
**ISC 06 20:56:07.3±1.0, 38°.64N±0°.02×43°.57E±0°.03, h11km±7km, n31, σ0s.80/48, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.15 | 252 | ePG | Pg | 20 56 10.7 | -0.2 |
| VANB | Van | 0.15 | 252 | ePg | Pg | 20 56 10.7 | -0.2 |
| TVAN | Van | 0.17 | 229 | i P | Pg | 20 56 10.6 | -0.7 |
| TVAN | | | | i S | Sg | 20 56 14.6 | +0.5 |
| TVAN | Van | 0.17 | 229 | P | Pg | 20 56 10.6 | -0.7 |
| TVAN | | | | S | Sg | 20 56 14.6 | +0.5 |
| VMUR | Van-Muradiye | 0.35 | 360 | i P | Pg | 20 56 13.9 | -0.4 |
| VMUR | | | | i S | Sb | 20 56 22.4 | +1.2 |
| VMUR | Van-Muradiye | 0.35 | 360 | P | Pg | 20 56 13.9 | -0.4 |
| VMUR | | | | S | Sb | 20 56 22.4 | +1.2 |
| GEVA | Gevas | 0.52 | 231 | i P | Pg | 20 56 17.0 | -0.6 |
| GEVA | | | | i S | Sb | 20 56 26.4 | +0.1 |
| GEVA | Gevas | 0.52 | 231 | P | Pg | 20 56 17.0 | -0.6 |
| GEVA | | | | S | Sb | 20 56 26.4 | +0.1 |
| CLDR | Caldiran | 0.57 | 28 | ePG | Pg | 20 56 17.8 | -0.6 |
| CLDR | | | | eSG | Sb | 20 56 27.9 | +0.3 |
| CLDR | Caldiran | 0.57 | 28 | i P | Pg | 20 56 17.9 | -0.6 |
| CLDR | | | | i S | Sb | 20 56 29.0 | +1.4 |
| CLDR | Caldiran | 0.57 | 28 | P | Pg | 20 56 17.9 | -0.6 |
| CLDR | | | | S | Sb | 20 56 29.0 | +1.4 |
| ADCV | BITLIS_Adilcev | 0.68 | 284 | i P | Pg | 20 56 20.0 | -0.6 |
| ADCV | | | | i S | Sb | 20 56 31.4 | +0.5 |
| ADCV | BITLIS_Adilcev | 0.68 | 284 | P | Pg | 20 56 20.0 | -0.6 |
| ADCV | | | | S | Sb | 20 56 31.4 | +0.5 |
| TUTA | Tutak | 0.96 | 322 | i P | Pg | 20 56 24.5 | -1.4 |
| TUTA | | | | i S | Sb | 20 56 39.4 | +0.4 |
| TUTA | Tutak | 0.96 | 322 | P | Pg | 20 56 24.5 | -1.4 |
| TUTA | | | | S | Sb | 20 56 39.4 | +0.4 |
| AGRB | Hanur-Agry | 1.03 | 334 | ePG | Pg | 20 56 26.0 | -1.3 |
| AGRB | | | | eSG | Sg | 20 56 40.0 | -0.8 |
| AGRB | Hanur-Agry | 1.03 | 334 | ePg | Pg | 20 56 26.0 | -1.3 |
| AGRB | | | | eSg | Sg | 20 56 40.0 | -0.8 |
| HAKT | HAKKARI | 1.09 | 174 | i P | Pg | 20 56 26.9 | -1.4 |
| HAKT | | | | i S | Sb | 20 56 43.5 | +0.9 |
| HAKT | HAKKARI | 1.09 | 174 | P | Pg | 20 56 26.9 | -1.4 |
| HAKT | | | | S | Sb | 20 56 43.5 | +0.9 |
| EKAR | Karacoban | 1.33 | 298 | i P | Pg | 20 56 33.3 | +0.5 |
| EKAR | Karacoban | 1.33 | 298 | P | Pg | 20 56 33.3 | +0.5 |
| CUKT | Cukurca | 1.39 | 179 | ePN | Pg | 20 56 33.8 | -0.3 |
| CUKT | Cukurca | 1.39 | 179 | ePn | Pg | 20 56 33.8 | -0.3 |
| TASB | TASBURUN-IGDIR | 1.44 | 21 | ePN | Pg | 20 56 34.2 | -0.6 |
| TASB | TASBURUN-IGDIR | 1.44 | 21 | ePn | Pg | 20 56 34.3 | -0.6 |
| SIRT | Sirnak | 1.45 | 218 | ePN | Pn | 20 56 33.7 | +0.1 |
| SIRT | Sirnak | 1.45 | 218 | ePn | Pn | 20 56 33.7 | +0.1 |
| EATA | Eleskirt | 1.48 | 326 | i P | Pn | 20 56 34.3 | +0.1 |
| EATA | Eleskirt | 1.48 | 326 | P | Pn | 20 56 34.3 | +0.1 |
| DIGO | Kars | 1.78 | 355 | i P | Pg | 20 56 41.0 | -0.4 |
| DIGO | Kars | 1.78 | 355 | P | Pg | 20 56 41.0 | -0.4 |

**IDC 06 20:59:18.1±8.8, 9°.59S×161°.46E, h0km, mb3.6/3, mb1 3.8/3, mb1mx3.5/28, mbtmp3.6/3, Error ellipse: s-maj=235.1km s-min=56.0km az=114.0, Bougainville-Solomon Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ASAR | Alice Springs | 29.81 | 239 | P | P | 21 05 26.9 | -0.2 |
| | 0.2nm,0.4s,baz=57,slow=10,SNR=4.3 | | | | | | |
| CMAR | Chiang Mai Arr | 67.67 | 294 | P | P | 21 10 18.1 | +0.5 |
| | 0.4nm,0.7s,baz=135,slow=5.0,SNR=4.4 | | | | | | |
| MKAR | Makanchi Array | 89.59 | 318 | P | P | 21 12 17.4 | -0.4 |
| | 0.6nm,0.6s,baz=86,slow=7.0,SNR=4.1 | | | | | | |

**IDC 06 21:01:24.6±2.2, 5°.72S×130°.68E, h0km, mb3.8/1, mb1 3.8/4, mb1mx3.5/28, mbtmp3.6/4, ML3.5/3, MS3.9/1, Ms1 3.9/1, ms1mx2.7/28, Error ellipse: s-maj=95.0km s-min=27.9km az=77.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| FITZ | Fitzroy Crossi | 13.26 | 201 | Pn | Pn | 21 04 35.5 | +1.3 |
| | 0.2nm,0.3s,baz=31,slow=12,SNR=11 | | | | | | |
| FITZ | | | | Sn | Sn | 21 06 56.1 | -6.3 |
| | 0.1nm,0.3s,baz=0.0,slow=20,SNR=1.9 | | | | | | |
| WRA | Warramunga Arr | 14.58 | 166 | Pn | Pn | 21 04 50.2 | -2.2 |
| | 0.2nm,0.3s,baz=348,slow=13,SNR=12 | | | | | | |
| WRA | | | | Sn | Sn | 21 07 23.8 | -11 |
| | 0.6nm,0.3s,baz=346,slow=23,SNR=9.4 | | | | | | |
| ASAR | Alice Springs | 18.12 | 170 | P | Pn | 21 05 38.0 | +0.2 |
| | 0.2nm,0.3s,baz=348,slow=11,SNR=13 | | | | | | |
| ASAR | | | | S | Sn | 21 08 48.5 | -12 |
| | 0.2nm,0.3s,baz=358,slow=29,SNR=5.1 | | | | | | |
| RAO | Raoul Island | 53.81 | 122 | LR | LR | 21 31 40.3 | |
| | comp=Z,104nm,19.6s,baz=334,slow=34 | | | | | | |
| MKAR | Makanchi Array | 67.53 | 326 | P | P | 21 12 22.8 | 0.0 |
| | 0.4nm,0.4s,baz=112,slow=8.2,SNR=9.1 | | | | | | |

*IDC **06** 21:16:16.8±1.2, 34°.53N×23°.60E, h0km, mb3.7/5, mb1 3.7/7, mb1mx3.5/36, mbtmp3.5/7, ML3.4/2, Error ellipse: s-maj=43.4km s-min=23.1km az=143.0*
*ATH **06** 21:16:18.4, 34°.75N×23°.34E, h8km±2km, ML3.1/5, Error ellipse: s-maj=2.8km s-min=0.8km az=47.0*
*ISCJB **06** 21:16:20.4±1.7, 34°.75N±0°.08×23°.42E±0°.06, h17km±11km, mb3.6/5, Error ellipse: s-maj=14.3km s-min=6.1km az=29.3*
*CSEM **06** 21:16:21.3±0.4, 34°.86N×23°.48E, h2km, ML3.0, Error ellipse: s-maj=8.5km s-min=3.1km az=22.0*
*THE **06** 21:16:22.5, 34°.92N×23°.55E, h0km±3km, ML3.0/5, Error ellipse: s-maj=4.8km s-min=1.2km az=237.0*
**ISC 06 21:16:20.1±1.5, 34°.83N±0°.06×23°.43E±0°.04, h17km±8km, n89, σ2s.02/105, mb3.8/5, Crete**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GVD | Gavdhos | 0.54 | 89 | P | Pb | 21 16 30.9 | -0.2 |
| GVD | | | | S | Sb | 21 16 38.4 | -0.2 |
| GVD | | | | AML | AML | 21 16 40.6 | |
| | comp=E,7204µm,0.3s | | | | | | |
| GVD | | | | AML | AML | 21 16 41.1 | |
| | comp=N,8478µm,0.3s | | | | | | |
| GVD | Gavdhos | 0.54 | 89 | P | Pb | 21 16 30.9 | -0.2 |
| GVD | | | | S | Sb | 21 16 38.4 | -0.2 |
| GVD | Gavdhos | 0.54 | 89 | P | Pg | 21 16 30.7 | -0.2 |
| GVD | | | | S | Sb | 21 16 39.2 | +0.6 |
| IMMV | Iera Moni Meta | 0.77 | 36 | P | Pb | 21 16 35.3 | +0.3 |
| IMMV | | | | S | Sn | 21 16 48.4 | +1.0 |
| IMMV | | | | AML | AML | 21 16 58.4 | |
| | comp=E,2172µm,0.5s | | | | | | |
| IMMV | | | | AML | AML | 21 16 59.3 | |
| | comp=N,2368µm,0.4s | | | | | | |
| IMMV | Iera Moni Meta | 0.77 | 36 | P | Pb | 21 16 35.4 | +0.3 |
| IMMV | | | | S | Sg | 21 16 45.3 | -0.1 |
| IMMV | Iera Moni Meta | 0.77 | 36 | P | Pb | 21 16 35.4 | +0.3 |
| IMMV | | | | S | Sg | 21 16 45.3 | -0.1 |
| VAM | Vamos | 0.85 | 47 | P | Pb | 21 16 36.8 | +0.3 |
| VAM | | | | S | Sn | 21 16 49.3 | -0.1 |
| VAM | | | | AML | AML | 21 16 59.8 | |
| | comp=E,1524µm,0.6s | | | | | | |
| VAM | | | | AML | AML | 21 17 03.2 | |
| | comp=N,1475µm,0.6s | | | | | | |
| VAM | Vamos | 0.85 | 47 | P | Pb | 21 16 36.8 | +0.3 |
| VAM | | | | S | Sg | 21 16 47.0 | -0.9 |
| VAM | Vamos | 0.85 | 47 | P | Pb | 21 16 36.7 | +0.2 |
| VAM | | | | S | Sg | 21 16 47.0 | -0.9 |
| ANKY | Antikythira Is | 1.04 | 354 | P | Pb | 21 16 39.3 | -0.4 |
| ANKY | Antikythira Is | 1.04 | 354 | P | Pn | 21 16 41.2 | +1.3 |
| ANKY | Antikythira Is | 1.04 | 354 | P | Pn | 21 16 41.2 | +1.3 |
| SIVA | Sivas | 1.15 | 80 | P | Pg | 21 16 41.8 | -0.6 |
| SIVA | | | | S | Sn | 21 16 59.0 | +2.3 |
| SIVA | | | | AML | AML | 21 17 10.1 | |
| | comp=N,1641µm,0.5s | | | | | | |
| SIVA | | | | AML | AML | 21 17 10.5 | |
| | comp=E,4457µm,0.7s | | | | | | |
| SIVA | Sivas | 1.15 | 80 | P | Pg | 21 16 41.8 | -0.6 |
| SIVA | | | | S | Sn | 21 16 57.8 | +1.1 |
| SIVA | Sivas | 1.15 | 80 | P | Pg | 21 16 41.7 | -0.6 |
| SIVA | | | | S | Sn | 21 16 57.8 | +1.1 |
| IDI | Anoyia | 1.28 | 69 | P | Pn | 21 16 43.0 | -0.3 |
| IDI | | | | S | Sg | 21 17 02.9 | +1.4 |
| IDI | | | | AML | AML | 21 17 12.9 | |
| | comp=E,655µm,0.6s | | | | | | |
| IDI | | | | AML | AML | 21 17 13.7 | |
| | comp=N,444µm,0.6s | | | | | | |
| IDI | Anoyia | 1.28 | 69 | P | Pn | 21 16 43.7 | +0.4 |
| IDI | | | | S | Sg | 21 17 01.6 | +0.1 |
| IDI | Anoyia | 1.28 | 69 | P | Pn | 21 16 43.7 | +0.4 |
| IDI | | | | S | Sg | 21 17 01.6 | +0.1 |
| KYTH | Kithira | 1.46 | 348 | P | Pb | 21 16 47.8 | +0.8 |
| LAST | Lasithi | 1.71 | 78 | P | Pg | 21 16 52.8 | -0.3 |
| LAST | Lasithi | 1.71 | 78 | P | Pg | 21 16 52.8 | -0.3 |
| NPS | Neapolis | 1.84 | 76 | P | Pg | 21 16 54.4 | -1.1 |
| NPS | Neapolis | 1.84 | 76 | P | Pb | 21 16 53.4 | +0.1 |
| NPS | Neapolis | 1.84 | 76 | P | Pb | 21 16 53.4 | +0.1 |
| VLI | Veliai | 1.92 | 348 | P | Pb | 21 16 55.1 | +0.4 |
| VLI | Veliai | 1.92 | 348 | P | Pb | 21 16 54.6 | -0.2 |
| VLI | Veliai | 1.92 | 348 | P | Pb | 21 16 54.6 | -0.2 |
| MHLO | Agia Marina, M | 2.01 | 23 | P | Pb | 21 16 56.0 | -0.3 |
| MHLO | Agia Marina, M | 2.01 | 23 | P | Pb | 21 16 56.0 | -0.3 |
| ZKR | Zakros | 2.30 | 82 | P | Pb | 21 17 00.6 | -0.6 |
| ZKR | Zakros | 2.30 | 82 | P | Pb | 21 17 00.0 | -1.2 |
| ZKR | Zakros | 2.30 | 82 | P | Pb | 21 17 00.0 | -1.2 |
| KRND | KRANIDI | 2.56 | 355 | P | Pb | 21 17 03.8 | -1.7 |
| KRND | KRANIDI | 2.56 | 355 | P | Pb | 21 17 03.8 | -1.7 |
| ITM | Ithomi | 2.64 | 333 | P | Pn | 21 17 04.9 | +2.9 |
| ITM | Ithomi | 2.64 | 333 | P | Pn | 21 17 04.9 | +2.9 |
| DID | Didima | 2.67 | 357 | P | Pn | 21 17 05.2 | +2.8 |
| DID | Didima | 2.67 | 357 | P | Pn | 21 17 05.2 | +2.8 |
| APE | Apeiranthos | 2.81 | 37 | P | Pb | 21 17 07.8 | -2.0 |
| APE | Apeiranthos | 2.81 | 37 | P | Pb | 21 17 07.8 | -2.0 |
| VLY | Voula,Athens | 3.03 | 5 | P | Pn | 21 17 09.3 | +2.0 |
| VLY | Voula,Athens | 3.03 | 5 | P | Pn | 21 17 09.3 | +2.0 |
| KARP | Karpathos | 3.13 | 76 | P | Pn | 21 17 10.8 | +2.0 |
| KARP | Karpathos | 3.13 | 76 | P | Pn | 21 17 10.8 | +2.0 |
| ATHU | Athens Univers | 3.14 | 5 | P | Pn | 21 17 10.8 | +2.0 |
| ATHU | Athens Univers | 3.14 | 5 | P | Pn | 21 17 10.9 | +2.0 |
| LTK | Loutraki | 3.21 | 353 | P | Pn | 21 17 12.7 | +3.0 |
| LTK | Loutraki | 3.21 | 353 | P | Pn | 21 17 12.7 | +3.0 |
| GUR | Goura | 3.22 | 344 | P | Pn | 21 17 13.3 | +3.3 |
| GUR | Goura | 3.22 | 344 | P | Pn | 21 17 13.3 | +3.3 |
| PTL | Penteli | 3.23 | 6 | P | Pn | 21 17 12.2 | +2.1 |
| PTL | Penteli | 3.23 | 6 | P | Pn | 21 17 12.2 | +2.1 |
| KARY | Karystos | 3.29 | 14 | P | Pn | 21 17 12.3 | +1.3 |
| KARY | Karystos | 3.29 | 14 | P | Pn | 21 17 12.3 | +1.3 |
| VILL | Villia | 3.33 | 358 | P | Pn | 21 17 13.9 | +2.5 |
| KLV | Kalavryta, Ach | 3.37 | 342 | P | Pn | 21 17 15.7 | +3.7 |
| KLV | Kalavryta, Ach | 3.37 | 342 | P | Pn | 21 17 15.7 | +3.7 |
| VIL2 | Platees | 3.37 | 358 | P | Pn | 21 17 13.8 | +1.8 |
| DRO | Drossia | 3.41 | 336 | P | Pn | 21 17 15.6 | +3.1 |
| DRO | Drossia | 3.41 | 336 | P | Pn | 21 17 15.6 | +3.1 |
| PROD | Prodromos | 3.45 | 353 | P | Pn | 21 17 15.6 | +2.6 |
| PROD | Prodromos | 3.45 | 353 | P | Pn | 21 17 15.6 | +2.6 |
| EREA | Eretria | 3.60 | 6 | P | Pn | 21 17 17.4 | +2.2 |
| EREA | Eretria | 3.60 | 6 | P | Pn | 21 17 17.4 | +2.2 |
| DSF | Desfina | 3.64 | 349 | P | Pn | 21 17 18.5 | +2.7 |
| DSF | Desfina | 3.64 | 349 | P | Pn | 21 17 18.5 | +2.7 |
| EFP | Efpalio | 3.79 | 342 | P | Pn | 21 17 21.0 | +3.2 |
| EFP | Efpalio | 3.79 | 342 | P | Pn | 21 17 21.0 | +3.2 |
| ANX | Ano Chora | 3.94 | 343 | P | Pn | 21 17 22.7 | +2.7 |
| ANX | Ano Chora | 3.94 | 343 | P | Pn | 21 17 22.7 | +2.7 |
| AXAR | Agios Charalam | 3.97 | 351 | P | Pn | 21 17 22.3 | +2.0 |
| AXAR | Agios Charalam | 3.97 | 351 | P | Pn | 21 17 22.3 | +2.0 |
| PDO | Prodromos | 4.17 | 335 | P | Pn | 21 17 25.1 | +2.1 |
| PDO | Prodromos | 4.17 | 335 | P | Pn | 21 17 25.1 | +2.1 |
| AGG | Agios Georgios | 4.27 | 348 | P | Pn | 21 17 26.7 | +2.2 |
| AGG | Agios Georgios | 4.27 | 348 | P | Pn | 21 17 26.7 | +2.2 |
| XOR | Xorichti | 4.53 | 358 | P | Pn | 21 17 32.5 | +4.6 |
| XOR | Xorichti | 4.53 | 358 | P | Pn | 21 17 32.5 | +4.6 |
| THL | Klokotos Trika | 4.86 | 347 | P | Pn | 21 17 35.5 | +3.1 |
| THL | Klokotos Trika | 4.86 | 347 | P | Pn | 21 17 35.5 | +3.1 |
| STON | Ston | 9.19 | 333 | ePn | Pn | 21 18 30.5 | -1.3 |
| STON | | | | Sn | Sn | 21 20 10.2 | -4.5 |
| BRTR | Keskin Array B | 9.48 | 56 | Pn | Pn | 21 18 40.0 | +3.9 |
| | comp=N,0.1nm,0.3s,baz=232,slow=16,SNR=3.4 | | | | | | |
| GERES | GERESS Array B | 15.75 | 336 | Pn | P | 21 20 06.5 | +1.4 |
| | comp=N,0.1nm,0.3s,baz=148,slow=11,SNR=4.1 | | | | | | |
| KHC | Kasperske Hory | 16.03 | 336 | eP | P | 21 20 10.5 | +2.4 |
| TORD | Torodi Ar. Bea | 29.21 | 228 | P | P | 21 22 19.6 | -1.4 |
| | comp=N,0.3nm,0.7s,baz=38,slow=8.1,SNR=4.0 | | | | | | |
| MKAR | Makanchi Array | 45.13 | 56 | P | P | 21 24 35.5 | -0.1 |
| | comp=N,0.6nm,0.5s,baz=277,slow=7.6,SNR=7.5 | | | | | | |
| ZALV | Zalesovo Beam | 46.25 | 46 | P | P | 21 24 42.9 | -1.4 |
| | comp=N,0.4nm,0.3s,baz=266,slow=10,SNR=3.4 | | | | | | |
| SONM | Songino Array | 60.78 | 50 | P | P | 21 26 31.5 | +0.2 |
| | comp=N,0.4nm,0.5s,baz=290,slow=7.6,SNR=4.7 | | | | | | |
| CMAR | Chiang Mai Arr | 68.02 | 82 | P | P | 21 27 17.7 | -1.2 |
| | comp=N,0.3nm,0.3s,baz=300,slow=9.3,SNR=5.6 | | | | | | |

*ISCJB **06** 21:36:58.8±0.4, 38°.87N±0°.02×26°.29E±0°.03, h8km±3km, Error ellipse: s-maj=4.3km s-min=2.6km az=161.7*
*ATH **06** 21:36:58.2, 38°.88N×26°.35E, h26km±1km, ML2.2/7, Error ellipse: s-maj=2.6km s-min=0.9km az=264.0*
*DDA **06** 21:36:58.8, 38°.88N×26°.34E, h7km, Ml3.0*
*ISK **06** 21:36:58.6, 38°.87N×26°.33E, h10km, MD2.9*
*CSEM **06** 21:36:59.2±0.1, 38°.88N×26°.32E, h10km, ML2.2, Error ellipse: s-maj=1.9km s-min=1.4km az=68.0*
**ISC 06 21:36:59.0±0.9, 38°.87N±0°.01×26°.32E±0°.02, h12km±8km, n76, σ0s.53/112, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PRK | Paraskevi | 0.38 | 354 | P | Pg | 21 37 06.5 | -0.1 |
| PRK | | | | S | Sg | 21 37 11.7 | +0.1 |
| PRK | | | | AML | AML | 21 37 13.1 | |
| | comp=N,1684µm,0.5s | | | | | | |
| PRK | | | | AML | AML | 21 37 15.7 | |
| | comp=E,936µm,0.6s | | | | | | |
| PRK | Paraskevi | 0.38 | 354 | P | Pg | 21 37 06.5 | -0.1 |
| PRK | | | | S | Sg | 21 37 11.7 | +0.1 |
| SIGR | SIGRI | 0.49 | 313 | ePG | Pg | 21 37 09.0 | +0.2 |
| SIGR | | | | eSG | Sb | 21 37 16.3 | -0.6 |
| SIGR | SIGRI | 0.49 | 313 | P | Pb | 21 37 09.4 | -0.2 |
| SIGR | | | | S | Sg | 21 37 15.6 | +0.2 |
| SIGR | | | | AML | AML | 21 37 17.3 | |
| | comp=E,461µm,0.6s | | | | | | |
| SIGR | | | | AML | AML | 21 37 21.1 | |
| | comp=N,591µm,0.5s | | | | | | |
| SIGR | SIGRI | 0.49 | 313 | ePg | Pg | 21 37 09.0 | +0.2 |
| SIGR | SIGRI | 0.49 | 313 | P | Pb | 21 37 09.4 | -0.2 |
| SIGR | | | | S | Sg | 21 37 15.6 | +0.2 |
| SIGR | | | | eSg | Sb | 21 37 16.3 | -0.6 |
| DKL | Dikili | 0.50 | 66 | ePG | Pg | 21 37 08.8 | 0.0 |
| DKL | | | | eSG | Sb | 21 37 16.1 | -0.9 |
| DKL | Dikili | 0.50 | 66 | ePg | Pg | 21 37 08.8 | 0.0 |
| DKL | | | | eSg | Sb | 21 37 16.1 | -0.9 |
| CHOS | Chios island | 0.53 | 203 | ePG | Pg | 21 37 09.5 | +0.2 |
| CHOS | | | | eSG | Sb | 21 37 17.5 | -0.3 |
| CHOS | Chios island | 0.53 | 203 | P | Pg | 21 37 09.6 | +0.2 |
| CHOS | | | | S | Sb | 21 37 18.1 | +0.2 |
| CHOS | | | | AML | AML | 21 37 20.8 | |
| | comp=E,1046µm,0.3s | | | | | | |
| CHOS | | | | AML | AML | 21 37 21.9 | |
| | comp=N,794µm,0.2s | | | | | | |
| CHOS | Chios island | 0.53 | 203 | P | Pg | 21 37 09.6 | +0.2 |
| CHOS | | | | eSg | Sb | 21 37 17.5 | -0.3 |
| CHOS | | | | S | Sb | 21 37 18.1 | +0.2 |
| URLA | Izmir | 0.56 | 157 | ePG | Pg | 21 37 09.7 | -0.2 |
| URLA | Izmir | 0.56 | 157 | i P | Pg | 21 37 09.7 | -0.2 |
| URLA | | | | i S | Sg | 21 37 17.6 | +0.3 |
| URLA | Izmir | 0.56 | 157 | P | Pg | 21 37 09.7 | -0.2 |
| URLA | | | | S | Sg | 21 37 17.6 | +0.3 |
| ZEY | ˜zmir | 0.65 | 167 | i P | Pg | 21 37 11.5 | -0.2 |
| ZEY | | | | i S | Sb | 21 37 21.7 | +0.4 |
| BAYC | CANAKKALE_Bayr | 0.89 | 11 | i P | Pg | 21 37 15.6 | -0.6 |
| BAYC | | | | i S | Sb | 21 37 28.9 | +0.8 |
| BAYC | CANAKKALE_Bayr | 0.89 | 11 | P | Pg | 21 37 15.6 | -0.6 |
| BAYC | | | | S | Sb | 21 37 28.9 | +0.8 |
| DGB | ˜zmir | 0.93 | 151 | i P | Pg | 21 37 15.5 | -1.5 |
| DGB | | | | i S | Sg | 21 37 29.2 | 0.0 |
| EZN | Ezine | 0.95 | 0 | ePG | Pg | 21 37 17.2 | -0.2 |
| EZN | Ezine | 0.95 | 0 | ePg | Pg | 21 37 17.2 | -0.2 |
| BOZC | Bozcaada | 0.99 | 348 | ePG | Pb | 21 37 18.0 | -0.1 |
| BOZC | Bozcaada | 0.99 | 348 | i P | Pb | 21 37 18.1 | -0.1 |
| BOZC | | | | i S | Sg | 21 37 31.7 | +0.7 |
| BOZC | Bozcaada | 0.99 | 348 | ePg | Pb | 21 37 18.0 | -0.1 |
| AKHS | Akhisar | 1.17 | 89 | i P | Pb | 21 37 20.9 | -0.2 |
| AKHS | | | | i S | Sn | 21 37 38.2 | +1.1 |
| AKHS | Akhisar | 1.17 | 89 | P | Pb | 21 37 20.9 | -0.2 |
| AKHS | | | | S | Sn | 21 37 38.2 | +1.1 |
| AKS | Akhisar | 1.17 | 89 | ePN | Pg | 21 37 21.3 | -0.2 |
| AKS | Akhisar | 1.17 | 89 | ePn | Pg | 21 37 21.3 | -0.2 |
| STEP | BALIKESIR_Sava | 1.20 | 65 | i P | Pn | 21 37 21.4 | -0.3 |
| STEP | | | | i S | Sg | 21 37 37.4 | -0.3 |
| STEP | BALIKESIR_Sava | 1.20 | 65 | P | Pn | 21 37 21.4 | -0.3 |
| STEP | | | | S | Sg | 21 37 37.4 | -0.3 |
| SMG | Samos | 1.23 | 160 | P | Pn | 21 37 22.0 | -0.1 |
| SMG | | | | S | Sn | 21 37 38.5 | -0.1 |
| SMG | | | | AML | AML | 21 37 40.2 | |
| | comp=E,531µm,0.5s | | | | | | |
| SMG | | | | AML | AML | 21 37 41.5 | |
| | comp=N,588µm,0.5s | | | | | | |
| SMG | Samos | 1.23 | 160 | P | Pn | 21 37 22.0 | -0.1 |
| SMG | | | | S | Sn | 21 37 38.5 | -0.1 |
| BALY | Balya | 1.33 | 49 | i P | Pn | 21 37 23.3 | -0.2 |
| BALY | | | | i S | Sg | 21 37 42.1 | +0.1 |
| BALY | Balya | 1.33 | 49 | P | Pn | 21 37 23.3 | -0.2 |
| BALY | | | | S | Sg | 21 37 42.1 | +0.1 |
| LIA | Limnos Island | 1.35 | 320 | P | Pn | 21 37 23.5 | -0.2 |
| LIA | | | | S | Sn | 21 37 41.5 | 0.0 |
| LIA | | | | AML | AML | 21 37 48.2 | |
| | comp=E,96µm,0.3s | | | | | | |
| LIA | | | | AML | AML | 21 37 50.5 | |
| | comp=N,134µm,0.5s | | | | | | |
| LIA | Limnos Island | 1.35 | 320 | P | Pn | 21 37 23.5 | -0.2 |
| LIA | | | | S | Sn | 21 37 41.5 | 0.0 |
| GADA | Gvkgeada | 1.36 | 346 | ePN | Pn | 21 37 23.9 | +0.1 |
| GADA | Gvkgeada | 1.36 | 346 | ePn | Pn | 21 37 23.9 | +0.1 |
| GCAM | G?zelcaml? | 1.37 | 148 | ePN | Pb | 21 37 24.4 | -0.3 |
| GCAM | G?zelcaml? | 1.37 | 148 | i P | Pg | 21 37 25.0 | -0.4 |
| GCAM | | | | i S | Sg | 21 37 43.9 | +0.6 |
| GCAM | G?zelcaml? | 1.37 | 148 | ePn | Pb | 21 37 24.4 | -0.3 |
| GCAM | G?zelcaml? | 1.37 | 148 | P | Pg | 21 37 25.0 | -0.4 |
| GCAM | | | | S | Sg | 21 37 43.9 | +0.6 |
| BALB | Balikesir | 1.43 | 57 | ePN | Pn | 21 37 24.9 | +0.1 |
| BALB | Balikesir | 1.43 | 57 | ePn | Pn | 21 37 24.9 | +0.1 |
| GELI | Tayfur-Gelibol | 1.53 | 4 | ePN | Pb | 21 37 26.6 | -0.7 |
| GELI | Tayfur-Gelibol | 1.53 | 4 | ePn | Pb | 21 37 26.6 | -0.7 |
| LPK | Lapseki | 1.54 | 13 | ePN | Pb | 21 37 26.8 | -0.7 |
| LPK | Lapseki | 1.54 | 13 | ePn | Pb | 21 37 26.8 | -0.7 |
| GONE | Gonen-Balikesi | 1.58 | 42 | ePN | Pn | 21 37 27.3 | +0.5 |
| GONE | Gonen-Balikesi | 1.58 | 42 | ePn | Pn | 21 37 27.3 | +0.5 |
| KNL | Bal˜–kesir | 1.68 | 33 | i P | Pn | 21 37 28.8 | +0.5 |
| KNL | | | | i S | Sg | 21 37 53.4 | +0.3 |
| KRBG | Karabiga-Canak | 1.70 | 26 | ePN | Pb | 21 37 29.3 | -0.9 |
| KRBG | Karabiga-Canak | 1.70 | 26 | ePn | Pb | 21 37 29.3 | -0.9 |
| SMTH | Samothraki Isl | 1.71 | 339 | P | Pn | 21 37 28.6 | 0.0 |
| SMTH | | | | S | Sn | 21 37 50.9 | +0.5 |
| SMTH | | | | AML | AML | 21 37 58.3 | |
| | comp=N,75µm,0.6s | | | | | | |
| SMTH | | | | AML | AML | 21 38 00.7 | |
| | comp=E,42µm,0.4s | | | | | | |
| SMTH | Samothraki Isl | 1.71 | 339 | P | Pn | 21 37 28.6 | 0.0 |
| SMTH | | | | S | Sn | 21 37 50.9 | +0.5 |
| KULA | Kula-Manisa | 1.87 | 100 | ePN | Pn | 21 37 31.6 | +0.7 |
| KULA | Kula-Manisa | 1.87 | 100 | ePn | Pn | 21 37 31.6 | +0.7 |
| EDC | Edincik | 1.90 | 39 | ePN | Pn | 21 37 31.8 | +0.6 |
| EDC | Edincik | 1.90 | 39 | ePn | Pn | 21 37 31.8 | +0.6 |
| APE | Apeiranthos | 1.91 | 199 | ePN | Pn | 21 37 32.1 | +0.7 |
| APE | Apeiranthos | 1.91 | 199 | P | Pn | 21 37 29.6 | -1.8 |
| APE | Apeiranthos | 1.91 | 199 | P | Pn | 21 37 29.6 | -1.8 |
| APE | Apeiranthos | 1.91 | 199 | ePn | Pn | 21 37 32.1 | +0.7 |
| SART | Tekirdag | 1.93 | 20 | i P | Pb | 21 37 34.6 | +0.4 |
| SART | Tekirdag | 1.93 | 20 | P | Pb | 21 37 34.6 | +0.4 |
| BODT | Bodrum | 1.97 | 156 | ePN | Pn | 21 37 33.1 | +0.9 |
| BODT | Bodrum | 1.97 | 156 | ePn | Pn | 21 37 33.2 | +0.9 |
| ALN | Alexandroupoli | 2.03 | 354 | P | Pn | 21 37 33.3 | +0.2 |
| ALN | | | | S | Sn | 21 37 57.9 | -0.5 |
| ALN | | | | AML | AML | 21 38 04.2 | |
| | comp=E,43µm,0.5s | | | | | | |
| ALN | | | | AML | AML | 21 38 04.4 | |
| | comp=N,92µm,0.5s | | | | | | |
| ALN | Alexandroupoli | 2.03 | 354 | P | Pn | 21 37 33.3 | +0.2 |
| ALN | | | | S | Sn | 21 37 57.9 | -0.5 |
| SIMA | Simav-Kutahya | 2.09 | 83 | ePN | Pn | 21 37 34.7 | +0.8 |
| SIMA | Simav-Kutahya | 2.09 | 83 | ePn | Pn | 21 37 34.7 | +0.8 |
| OUR | Ouranopolis | 2.32 | 310 | P | Pn | 21 37 37.3 | +0.3 |
| OUR | Ouranopolis | 2.32 | 310 | P | Pn | 21 37 37.3 | +0.3 |
| RDO | Rodhopi | 2.35 | 345 | P | Pn | 21 37 37.9 | +0.5 |
| RDO | Rodhopi | 2.35 | 345 | P | Pn | 21 37 37.9 | +0.5 |
| NVR | Nevrokopi | 3.11 | 324 | P | Pn | 21 37 48.1 | +0.2 |
| NVR | Nevrokopi | 3.11 | 324 | P | Pn | 21 37 48.1 | +0.2 |

**SJA 06 22:02:20.1±0.8, 31°.76S×68°.75W, h107km±3km, MD3.1, ML2.9, MW3.6, San Juan Province**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RTCV | Cerro Valdivia | 0.21 | 120 | eP | Pn | 22 02 36.1 | +0.8 |
| RTCV | | | | eS | Sn | 22 02 47.2 | +0.6 |
| SJA | San Juan | 0.28 | 36 | eP | Pn | 22 02 36.2 | +0.7 |
| SJA | | | | IAML | | 22 02 36.7 | |
| | comp=Z,330nm,0.2s | | | | | | |
| RTLS | Leoncito | 0.47 | 265 | eP | Pn | 22 02 37.8 | +1.0 |
| RTLS | | | | eS | Sn | 22 02 50.8 | +1.5 |
| RTLL | Cerro Villicun | 0.49 | 29 | eP | Pn | 22 02 37.4 | +0.7 |
| RTLL | | | | eS | Sn | 22 02 49.8 | +0.8 |
| AUSP | Uspallata | 0.71 | 229 | eP | Pn | 22 02 39.3 | +0.7 |
| AUSP | | | | eS | Sn | 22 02 54.4 | +1.8 |
| AMOG | MOGNA | 0.84 | 15 | eP | Pn | 22 02 40.8 | +1.1 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| AMOG | | | | *e*S | Sn | 22 02 55.6 | +1.4 |
| **ACAN** | **Cantantal** | **1.43** | **112** | *e*P | Pn | 22 02 47.5 | +1.6 |
| ACAN | | | | *e*S | Sn | 22 03 06.3 | +0.9 |
| **AGUA** | **GUANDACOL** | **2.27** | **6** | *e*P | Pn | 22 02 57.3 | +0.7 |
| AGUA | | | | *e*S | Sn | 22 03 25.6 | +1.1 |
| **APLL** | **PUNTA DE LOS L** | **2.34** | **55** | *e*P | Pn | 22 02 58.5 | +1.1 |
| APLL | | | | *e*S | Sn | 22 03 26.8 | +0.7 |
| **ACLC** | **CERRO LA CRUZ** | **2.79** | **34** | *e*P | Pn | 22 03 04.6 | +1.1 |

*ISK **06** 22:02:28.8, 38.°98N×43.°58E, h5km, MD3.2*
*CSEM **06** 22:02:29.9±0.2, 39.°00N×43.°56E, h2km, ML3.2, Error ellipse: s-maj=5.0km s-min=3.5km az=85.0*
*ATA **06** 22:02:29.2±1.6, 39.°03N×43.°57E, h24km±7km, ML3.5, MW3.3*
*DDA **06** 22:02:29.5, 38.°98N×43.°52E, h2km, Ml3.2*
*ISCJB **06** 22:02:30.5±0.4, 39.°00N±0.°02×43.°55E±0.°03, h3km±3km, Error ellipse: s-maj=3.8km s-min=3.1km az=161.0*
*IASPEI **06** 22:02:30.1±0.9, 38.°98N±0.°02×43.°55E±0.°03, h4km±5km, Error ellipse: s-maj=3.9km s-min=3.3km az=91.0, GT5 selection from ISC bulletin GT5 identified by Bondˆ¡r and McLaughlin (2009) selection criteria Bondˆ¡r and McLaughlin, A new ground truth data set for seismic studies, <i>Seism. Res. Let.</i>, <b>80</b>, 465-472, 2009*
**ISC 06 22:02:30.0**±0.8**, 38.°99N**±0.°02×**43.°56E**±0.°02**, h4**km±4km**, n66,** σ1.s19/96**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.01** | **102** | *i* P | **Pg** | **22 02 30.7** | **-0.3** |
| VMUR | | | | *i* S | **Sg** | **22 02 32.6** | **+1.0** |
| **VMUR** | **Van-Muradiye** | **0.01** | **102** | P | **Pg** | **22 02 30.7** | **-0.3** |
| VMUR | | | | S | **Sg** | **22 02 32.6** | **+1.0** |
| **ERCV** | **ERCIS-VAN** | **0.17** | **279** | *e*PG | **Pg** | **22 02 33.0** | **-0.5** |
| ERCV | | | | *e*SG | **Sg** | **22 02 37.1** | **+1.3** |
| **ERCV** | **ERCIS-VAN** | **0.17** | **279** | *e*Pg | **Pg** | **22 02 33.0** | **-0.5** |
| ERCV | | | | *e*Sg | **Sg** | **22 02 37.1** | **+1.3** |
| **CLDR** | **Caldiran** | **0.32** | **61** | *e*PG | **Pg** | **22 02 36.2** | **+0.1** |
| **CLDR** | **Caldiran** | **0.32** | **61** | *i* P | **Pg** | **22 02 36.3** | **+0.1** |
| CLDR | | | | *i* S | **Sb** | **22 02 43.0** | **-1.1** |
| **CLDR** | **Caldiran** | **0.32** | **61** | P | **Pg** | **22 02 36.3** | **+0.1** |
| **VANB** | **Van** | **0.42** | **198** | *e*PG | **Pb** | **22 02 39.4** | **-0.7** |
| **VANB** | **Van** | **0.42** | **198** | *e*Pg | **Pb** | **22 02 39.4** | **-0.7** |
| **TVAN** | **Van** | **0.48** | **194** | *i* P | **Pg** | **22 02 39.0** | **-0.2** |
| TVAN | | | | *i* S | **Sb** | **22 02 48.2** | **-0.4** |
| **TVAN** | **Van** | **0.48** | **194** | P | **Pg** | **22 02 39.0** | **-0.2** |
| TVAN | | | | S | **Sb** | **22 02 48.2** | **-0.4** |
| **DYDN** | **Diyadin** | **0.56** | **10** | *e*P | **Pg** | **22 02 40.9** | **+0.1** |
| DYDN | | | | *e*S | **Sb** | **22 02 49.3** | **-1.8** |
| DYDN | | | | IAML | | 22 02 52.4 | |
| | comp=Z,122nm,0.5s | | | | | | |
| **DYDN** | **Diyadin** | **0.56** | **10** | *i* P | **Pg** | **22 02 40.9** | **+0.1** |
| DYDN | | | | *i* S | **Sb** | **22 02 49.8** | **-1.2** |
| **DYDN** | **Diyadin** | **0.56** | **10** | P | **Pg** | **22 02 40.9** | **+0.1** |
| DYDN | | | | S | **Sb** | **22 02 49.8** | **-1.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.68** | **255** | *i* P | **Pg** | **22 02 42.4** | **-0.6** |
| ADCV | | | | *i* S | **Sb** | **22 02 53.0** | **-1.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.68** | **255** | P | **Pg** | **22 02 42.4** | **-0.6** |
| ADCV | | | | S | **Sb** | **22 02 53.0** | **-1.3** |
| **TUTA** | **Tutak** | **0.71** | **306** | *e*P | **Pg** | **22 02 42.8** | **-0.8** |
| TUTA | | | | *e*S | **Sb** | **22 02 53.5** | **-1.8** |
| TUTA | | | | IAML | | 22 02 55.0 | |
| | comp=Z,414nm,0.2s | | | | | | |
| **TUTA** | **Tutak** | **0.71** | **306** | *i* P | **Pg** | **22 02 43.0** | **-0.6** |
| TUTA | | | | *i* S | **Sb** | **22 02 53.5** | **-1.8** |
| **TUTA** | **Tutak** | **0.71** | **306** | P | **Pg** | **22 02 43.0** | **-0.6** |
| TUTA | | | | S | **Sb** | **22 02 53.5** | **-1.8** |
| **AGRB** | **Hanur-Agry** | **0.73** | **323** | *e*PG | **Pg** | **22 02 43.9** | **-0.1** |
| AGRB | | | | *e*SG | **Sb** | **22 02 56.1** | **+0.2** |
| **AGRB** | **Hanur-Agry** | **0.73** | **323** | *e*Pg | **Pg** | **22 02 43.9** | **-0.1** |
| AGRB | | | | *e*Sg | **Sb** | **22 02 56.1** | **+0.2** |
| **GEVA** | **Gevas** | **0.78** | **210** | *e*P | **Pg** | **22 02 45.1** | **+0.1** |
| GEVA | | | | *e*S | **Sb** | **22 02 58.4** | **+1.0** |
| GEVA | | | | IAML | | 22 03 03.7 | |
| | comp=Z,126nm,0.4s | | | | | | |
| **GEVA** | **Gevas** | **0.78** | **210** | *i* P | **Pg** | **22 02 44.1** | **-0.9** |
| GEVA | | | | *i* S | **Sb** | **22 02 57.9** | **+0.5** |
| **GEVA** | **Gevas** | **0.78** | **210** | P | **Pg** | **22 02 44.1** | **-0.9** |
| GEVA | | | | S | **Sb** | **22 02 57.9** | **+0.5** |
| **BASK** | **Baskale_VAN** | **1.00** | **159** | *e*P | **Pn** | **22 02 50.2** | **-0.9** |
| BASK | | | | *e*S | **Sn** | **22 03 04.8** | **-0.9** |
| BASK | | | | IAML | | 22 03 11.1 | |
| | comp=Z,59nm,0.4s | | | | | | |
| **TASB** | **TASBURUN-IGDIR** | **1.12** | **28** | *e*PN | **Pb** | **22 02 51.4** | **-0.7** |
| **TASB** | **TASBURUN-IGDIR** | **1.12** | **28** | *e*Pn | **Pb** | **22 02 51.4** | **-0.7** |
| **EKAR** | **Karacoban** | **1.19** | **283** | *e*P | **Pn** | **22 02 53.0** | **-0.7** |
| EKAR | | | | *e*S | **Sn** | **22 03 11.4** | **+0.9** |
| EKAR | | | | IAML | | 22 03 20.9 | |
| | comp=Z,52nm,0.4s | | | | | | |
| **EKAR** | **Karacoban** | **1.19** | **283** | *i* P | **Pg** | **22 02 52.4** | **-0.5** |
| EKAR | | | | *i* S | **Sn** | **22 03 14.3** | **+3.8** |
| **EKAR** | **Karacoban** | **1.19** | **283** | P | **Pg** | **22 02 52.4** | **-0.5** |
| **EATA** | **Eleskirt** | **1.20** | **317** | *i* P | **Pg** | **22 02 52.2** | **-0.8** |
| EATA | | | | *i* S | **Sn** | **22 03 11.0** | **+0.2** |
| **EATA** | **Eleskirt** | **1.20** | **317** | P | **Pg** | **22 02 52.2** | **-0.8** |
| **DIGO** | **Kars** | **1.43** | **354** | *e*P | **Pn** | **22 02 55.8** | **-1.2** |
| DIGO | | | | IAML | | 22 03 07.9 | |
| | comp=Z,12nm,0.5s | | | | | | |
| DIGO | | | | *e*S | **Sn** | **22 03 15.5** | **-0.9** |
| **DIGO** | **Kars** | **1.43** | **354** | *i* P | **Pg** | **22 02 57.8** | **+0.4** |
| DIGO | | | | *i* S | **Sn** | **22 03 22.3** | **+5.9** |
| **DIGO** | **Kars** | **1.43** | **354** | P | **Pg** | **22 02 57.8** | **+0.4** |
| **HAKT** | **HAKKARI** | **1.44** | **175** | *i* P | **Pn** | **22 02 55.5** | **-1.6** |
| **HAKT** | **HAKKARI** | **1.44** | **175** | P | **Pn** | **22 02 55.5** | **-1.6** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.52** | **157** | *i* P | **Pb** | **22 02 58.4** | **-0.4** |
| YOVA | | | | *i* S | **Sg** | **22 03 20.1** | **+1.4** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.52** | **157** | P | **Pb** | **22 02 58.4** | **-0.4** |
| YOVA | | | | S | **Sg** | **22 03 20.1** | **+1.4** |
| **SRTM** | **Siirt_Merkez** | **1.63** | **233** | *i* P | **Pb** | **22 02 59.7** | **-1.0** |
| **SRTM** | **Siirt_Merkez** | **1.63** | **233** | P | **Pb** | **22 02 59.7** | **-1.0** |
| **VRTB** | **Varto-Mus** | **1.65** | **277** | *e*PN | **Pb** | **22 03 00.4** | **-0.6** |
| **VRTB** | **Varto-Mus** | **1.65** | **277** | *i* P | **Pb** | **22 03 00.7** | **-0.3** |
| VRTB | | | | *i* S | **Sg** | **22 03 24.7** | **+1.9** |
| **VRTB** | **Varto-Mus** | **1.65** | **277** | *e*Pn | **Pb** | **22 03 00.4** | **-0.6** |
| **VRTB** | **Varto-Mus** | **1.65** | **277** | P | **Pb** | **22 03 00.7** | **-0.3** |
| **KARS** | **Kars** | **1.68** | **347** | *e*PN | **Pb** | **22 03 00.2** | **-1.3** |
| **KARS** | **Kars** | **1.68** | **347** | *e*Pn | **Pb** | **22 03 00.2** | **-1.3** |
| **EAK** | **Akyaka** | **1.69** | **1** | *i* P | **Pg** | **22 03 03.9** | **+1.4** |
| **SIRT** | **Sirnak** | **1.73** | **211** | *e*PN | **Pb** | **22 03 01.5** | **-0.9** |
| **SIRT** | **Sirnak** | **1.73** | **211** | *e*Pn | **Pb** | **22 03 01.5** | **-0.9** |
| **CUKT** | **Cukurca** | **1.74** | **179** | *e*PN | **Pb** | **22 03 01.5** | **-1.2** |
| **CUKT** | **Cukurca** | **1.74** | **179** | *i* P | **Pb** | **22 03 02.4** | **-0.2** |
| **CUKT** | **Cukurca** | **1.74** | **179** | *e*Pn | **Pb** | **22 03 01.5** | **-1.2** |
| **CUKT** | **Cukurca** | **1.74** | **179** | P | **Pb** | **22 03 02.4** | **-0.2** |
| **SENK** | **Senkaya-Erzuru** | **1.82** | **330** | *e*PN | **Pb** | **22 03 02.8** | **-1.3** |
| **SENK** | **Senkaya-Erzuru** | **1.82** | **330** | *e*Pn | **Pb** | **22 03 02.8** | **-1.3** |
| **ERZM** | **Erzurum** | **1.93** | **299** | *e*P | **Pn** | **22 03 04.1** | **+0.3** |
| ERZM | | | | *e*S | **Sb** | **22 03 29.8** | **-0.6** |
| **BNGB** | **Bingˆ¶l** | **2.24** | **271** | *e*PN | **Pn** | **22 03 08.6** | **+0.5** |
| **DDEM** | **Demirkent** | **2.35** | **324** | *i* P | **Pg** | **22 03 14.5** | **-0.6** |
| **YEDI** | **Yedisu-Bingol** | **2.38** | **282** | *e*PN | **Pn** | **22 03 10.9** | **+0.9** |
| **YEDI** | **Yedisu-Bingol** | **2.38** | **282** | *e*Pn | **Pn** | **22 03 10.9** | **+0.9** |
| **BINT** | **Bingol** | **2.40** | **268** | *e*Pn | **Pn** | **22 03 08.6** | **-1.6** |
| **DAGI** | **Agillar** | **2.44** | **329** | *i* P | **Pg** | **22 03 15.2** | **-1.5** |
| **EPOS** | **Posof** | **2.59** | **346** | *i* P | **Pg** | **22 03 19.5** | **-0.1** |
| **MAZI** | **Mazidag** | **2.89** | **239** | *e*PN | **Pn** | **22 03 18.0** | **+1.1** |
| **MAZI** | **Mazidag** | **2.89** | **239** | *e*Pn | **Pn** | **22 03 18.0** | **+1.1** |

**IDC 06 22:09:45.6**±5.0**, 10.°96S**×**165.°53E, h0**km**, mb3.6**/3**, mb1 3.9**/3**, mb1mx3.6**/28**, mbtmp3.6**/3**, MS3.0**/2**, Ms1 3.0**/2**, ms1mx2.6**/26**, Error ellipse: s-maj=262.3km s-min=34.1km az=139.0, Santa Cruz Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **11.08** | **176** | LR | LR | 22 15 46.5 | |
| | comp=Z,63nm,20.9s,baz=84,slow=33 | | | | | | |
| **AFI** | **Afiamalu** | **22.36** | **100** | LR | LR | 22 21 52.7 | |
| | comp=Z,59nm,21.3s,baz=66,slow=32 | | | | | | |
| **WRA** | **Warramunga Arr** | **31.31** | **250** | P | P | 22 16 08.5 | +0.6 |
| | 1.1nm,0.8s,baz=81,slow=9.1,SNR=6.4 | | | | | | |
| **ASAR** | **Alice Springs** | **32.64** | **243** | P | P | 22 16 18.7 | -0.8 |
| | 0.3nm,0.5s,baz=61,slow=10,SNR=4.3 | | | | | | |
| **ILAR** | **Eielson Array** | **83.50** | **19** | P | P | 22 22 15.0 | 0.0 |
| | 0.2nm,0.6s,baz=223,slow=5.8,SNR=5.1 | | | | | | |

*ISCJB **06** 22:16:53.2±0.7, 20.°5S±0.°2×177.°6W±0.°1, h450km, mb4.0/7, Error ellipse: s-maj=21.9km s-min=13.9km az=151.9*
*IDC **06** 22:16:56.4±2.3, 20.°21S×177.°68W, h477km±26km, mb3.6/7, mb1 3.8/9, mb1mx3.5/28, mbtmp4.5/9, Error ellipse: s-maj=24.5km s-min=16.7km az=154.0*
**ISC 06 22:16:54.7**±0.7**, 20.°5S**±0.°2×**177.°5W**±0.°1**, h450**km**, n16,** σ**1.s85**/16**, mb4.1**/7**, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AFI** | **Afiamalu** | **8.53** | **41** | P | **P** | **22 18 56.6** | **+0.5** |
| | 8.2nm,0.3s,baz=120,slow=1.4,SNR=6.9 | | | | | | |
| **DZM** | **Mont Dzumac** | **15.04** | **261** | P | **P** | **22 20 07.7** | **+1.3** |
| | 0.3nm,0.3s,baz=99,slow=19,SNR=3.0 | | | | | | |
| **CTA** | **Charters Tower** | **33.94** | **264** | P | **P** | **22 22 58.1** | **-1.1** |
| | 6.2nm,0.4s,baz=92,slow=11,SNR=17 | | | | | | |
| **STKA** | **Stephens Creek** | **38.20** | **244** | P | **P** | **22 23 34.1** | **-0.4** |
| | 6.0nm,0.8s,baz=96,slow=10,SNR=12 | | | | | | |
| **ASAR** | **Alice Springs** | **44.97** | **257** | P | **P** | **22 24 26.9** | **-1.6** |
| | 22nm,0.8s,baz=87,slow=8.5,SNR=187 | | | | | | |
| ASAR | | | | PcP | **pP** | **22 25 58.3** | **+3.7** |
| | 1.2nm,0.7s,baz=99,slow=4.5,SNR=4.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **45.05** | **262** | P | **P** | **22 24 27.2** | **-2.1** |
| | 4.0nm,0.6s,baz=96,slow=7.8,SNR=7.1 | | | | | | |
| **VNDA** | **Vanda** | **57.96** | **185** | P | **P** | **22 26 04.0** | **+1.7** |
| | 1.1nm,0.8s,baz=15,slow=7.7,SNR=3.3 | | | | | | |
| **VNA3** | **Neumayer Olymp** | **88.12** | **176** | P | **P** | **22 28 54.8** | **-1.2** |
| **VNA2** | **Neumayer--Watz** | **88.57** | **177** | P | **P** | **22 28 56.9** | **-1.1** |
| | baz=180,slow=3.7 | | | | | | |
| **PDAR** | **Pinedale Array** | **88.64** | **43** | P | **P** | **22 28 58.1** | **-1.1** |
| | 0.4nm,0.6s,baz=221,slow=3.6,SNR=3.3 | | | | | | |
| **VNA1** | **Neumayer--Stat** | **88.79** | **176** | P | **P** | **22 28 57.9** | **-1.2** |
| **CMAR** | **Chiang Mai Arr** | **90.54** | **289** | P | **P** | **22 29 07.4** | **-0.8** |
| | 2.2nm,0.7s,baz=121,slow=3.0,SNR=18 | | | | | | |
| **AKASG** | **Malin Array Be** | **143.22** | **331** | PKhKP | PKPpre | 22 35 30.7 | |
| | 0.3nm,0.4s,baz=56,slow=3.7,SNR=7.0 | | | | | | |
| **BRTR** | **Keskin Array B** | **147.17** | **313** | PKPbc | **PKPdf** | **22 35 43.9** | **0.0** |
| | 0.9nm,0.7s,baz=146,slow=5.1,SNR=5.2 | | | | | | |
| **GERES** | **GERESS Array B** | **150.31** | **345** | PKPbc | **PKPdf** | **22 35 51.9** | **+3.3** |
| | 0.8nm,0.8s,baz=80,slow=3.0,SNR=3.6 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **172.66** | **174** | PKPab | **PKPab** | **22 37 39.7** | **-0.7** |
| | 0.3nm,0.6s,baz=188,slow=2.5,SNR=3.0 | | | | | | |

*ISCJB **06** 22:23:55.8±0.8, 38.°59N±0.°04×43.°22E±0.°06, h22km±9km, Error ellipse: s-maj=7.9km s-min=5.9km az=175.6*
*CSEM **06** 22:23:55.3±0.3, 38.°62N×43.°18E, h10km, ML2.5, Error ellipse: s-maj=8.4km s-min=6.4km az=72.0*
*DDA **06** 22:23:56.2, 38.°61N×43.°20E, h7km, Ml2.5*
**ISC 06 22:23:55.6**±1.0**, 38.°62N**±0.°03×**43.°17E**±0.°03**, h14**km±8km**, n16,** σ**0.s67**/27**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.17** | **99** | *e*PG | **Pg** | **22 23 59.8** | **0.0** |
| **VANB** | **Van** | **0.17** | **99** | *e*Pg | **Pg** | **22 23 59.8** | **0.0** |
| **TVAN** | **Van** | **0.21** | **116** | *i* P | **Pg** | **22 23 59.5** | **-0.9** |
| TVAN | | | | *i* S | **Sg** | **22 24 04.1** | **+0.5** |
| **TVAN** | **Van** | **0.21** | **116** | P | **Pg** | **22 23 59.5** | **-0.9** |
| TVAN | | | | S | **Sg** | **22 24 04.1** | **+0.5** |
| **GEVA** | **Gevas** | **0.32** | **196** | *i* P | **Pg** | **22 24 02.2** | **-0.1** |
| GEVA | | | | *i* S | **Sb** | **22 24 08.9** | **+0.5** |
| **GEVA** | **Gevas** | **0.32** | **196** | P | **Pg** | **22 24 02.2** | **-0.1** |
| GEVA | | | | S | **Sb** | **22 24 08.9** | **+0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.40** | **298** | *i* P | **Pg** | **22 24 03.5** | **-0.1** |
| ADCV | | | | *i* S | **Sb** | **22 24 11.6** | **+1.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.40** | **298** | P | **Pg** | **22 24 03.5** | **-0.1** |
| ADCV | | | | S | **Sb** | **22 24 11.6** | **+1.0** |
| **VMUR** | **Van-Muradiye** | **0.48** | **40** | *i* P | **Pg** | **22 24 05.5** | **+0.2** |
| VMUR | | | | *i* S | **Sb** | **22 24 14.1** | **+0.9** |
| **VMUR** | **Van-Muradiye** | **0.48** | **40** | P | **Pg** | **22 24 05.4** | **+0.2** |
| VMUR | | | | S | **Sb** | **22 24 14.1** | **+0.9** |
| **TUTA** | **Tutak** | **0.83** | **340** | *i* P | **Pg** | **22 24 11.4** | **-0.3** |
| TUTA | | | | *i* S | **Sn** | **22 24 25.6** | **+0.3** |
| **TUTA** | **Tutak** | **0.83** | **340** | P | **Pg** | **22 24 11.4** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **0.96** | **352** | *e*PG | **Pg** | **22 24 13.1** | **-1.2** |
| AGRB | | | | *e*SG | **Sg** | **22 24 26.8** | **-0.2** |
| **AGRB** | **Hanur-Agry** | **0.96** | **352** | *e*Pg | **Pg** | **22 24 13.1** | **-1.2** |
| AGRB | | | | *e*Sg | **Sg** | **22 24 26.8** | **-0.2** |
| **CUKT** | **Cukurca** | **1.41** | **166** | *e*PN | **Pn** | **22 24 20.5** | **-0.6** |
| **CUKT** | **Cukurca** | **1.41** | **166** | *e*Pn | **Pn** | **22 24 20.5** | **-0.6** |

**IDC 06 22:28:08.8**±2.8**, 6.°46S**×**135.°66E, h0**km**, mb3.5**/1**, mb1 3.5**/3**, mb1mx3.2**/32**, mbtmp3.4**/3**, ML3.3**/2**, Error ellipse: s-maj=109.3km s-min=33.1km az=81.0, Aru Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **13.46** | **185** | Pn | Pn | 22 31 19.9 | -1.4 |
| | 0.1nm,0.3s,baz=7.0,slow=13,SNR=5.7 | | | | | | |
| **ASAR** | **Alice Springs** | **17.19** | **185** | P | P | 22 32 11.8 | -0.5 |
| | 0.3nm,0.3s,baz=9.3,slow=13,SNR=4.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **70.97** | **324** | P | P | 22 39 28.3 | 0.0 |
| | 0.3nm,0.7s,baz=126,slow=7.3,SNR=3.8 | | | | | | |

*ISK **06** 22:29:18.4, 38.°64N×43.°13E, h5km, MD2.6*
*CSEM **06** 22:29:19.6±0.2, 38.°64N×43.°15E, h10km, MD2.6, Error ellipse: s-maj=6.3km s-min=5.1km az=64.0*
*DDA **06** 22:29:19.4, 38.°60N×43.°15E, h7km, Ml2.7*
*ISCJB **06** 22:29:20.0±0.6, 38.°66N±0.°03×43.°16E±0.°05, h12km±7km, Error ellipse: s-maj=6.9km s-min=5.2km az=155.0*
**ISC 06 22:29:19.9**±1.0**, 38.°63N**±0.°03×**43.°12E**±0.°03**, h13**km±10km**, n20,** σ**0.s76**/30**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.21** | **98** | *e*PG | **Pg** | **22 29 24.4** | **-0.2** |
| **VANB** | **Van** | **0.21** | **98** | *e*Pg | **Pg** | **22 29 24.4** | **-0.2** |
| **TVAN** | **Van** | **0.24** | **114** | *i* P | **Pg** | **22 29 24.1** | **-1.1** |
| TVAN | | | | *i* S | **Sg** | **22 29 29.6** | **+0.8** |
| **TVAN** | **Van** | **0.24** | **114** | P | **Pg** | **22 29 24.1** | **-1.1** |
| TVAN | | | | S | **Sg** | **22 29 29.6** | **+0.8** |
| **GEVA** | **Gevas** | **0.32** | **189** | *i* P | **Pg** | **22 29 25.6** | **-0.9** |
| GEVA | | | | *i* S | **Sb** | **22 29 33.2** | **+0.4** |
| **GEVA** | **Gevas** | **0.32** | **189** | P | **Pg** | **22 29 25.6** | **-0.9** |
| GEVA | | | | S | **Sb** | **22 29 33.2** | **+0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.36** | **300** | *i* P | **Pg** | **22 29 27.1** | **-0.2** |
| ADCV | | | | *i* S | **Sb** | **22 29 33.8** | **-0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.36** | **300** | P | **Pg** | **22 29 27.1** | **-0.2** |
| ADCV | | | | S | **Sb** | **22 29 33.8** | **-0.2** |
| **VMUR** | **Van-Muradiye** | **0.51** | **44** | *i* P | **Pb** | **22 29 29.9** | **-0.9** |
| VMUR | | | | *i* S | **Sb** | **22 29 39.6** | **+1.4** |
| **VMUR** | **Van-Muradiye** | **0.51** | **44** | P | **Pb** | **22 29 29.9** | **-0.9** |
| VMUR | | | | S | **Sb** | **22 29 39.6** | **+1.4** |
| **CLDR** | **Caldiran** | **0.81** | **50** | *e*PG | **Pg** | **22 29 34.9** | **-0.7** |
| **CLDR** | **Caldiran** | **0.81** | **50** | *e*Pg | **Pg** | **22 29 34.9** | **-0.7** |
| **TUTA** | **Tutak** | **0.81** | **343** | *i* P | **Pg** | **22 29 35.2** | **-0.5** |
| **TUTA** | **Tutak** | **0.81** | **343** | P | **Pg** | **22 29 35.2** | **-0.5** |
| **AGRB** | **Hanur-Agry** | **0.95** | **354** | *e*PG | **Pg** | **22 29 37.6** | **-0.8** |
| AGRB | | | | *e*SG | **Sb** | **22 29 51.7** | **+0.6** |
| **AGRB** | **Hanur-Agry** | **0.95** | **354** | *e*Pg | **Pg** | **22 29 37.6** | **-0.8** |
| AGRB | | | | *e*Sg | **Sb** | **22 29 51.7** | **+0.6** |
| **VRTB** | **Varto-Mus** | **1.41** | **293** | *e*PN | **Pb** | **22 29 46.2** | **0.0** |
| **VRTB** | **Varto-Mus** | **1.41** | **293** | *e*Pn | **Pb** | **22 29 46.2** | **0.0** |
| **CUKT** | **Cukurca** | **1.43** | **164** | *e*PN | **Pb** | **22 29 46.7** | **+0.2** |
| **CUKT** | **Cukurca** | **1.43** | **164** | *e*Pn | **Pb** | **22 29 46.7** | **+0.2** |

*IDC **06** 22:40:15.3±1.0, 52.°50N×170.°54W, h0km, mb3.9/9, mb1 4.0/12, mb1mx3.8/54, mbtmp3.9/12, ML3.4/3, Error ellipse: s-maj=33.0km s-min=15.9km az=172.0*
*ISCJB **06** 22:40:21.3±0.7, 52.°3N±0.°1×170.°52W±0.°09, h55km, mb3.9/10, Error ellipse: s-maj=20.7km s-min=3.4km az=160.9*
*NEIC **06** 22:40:21.5±0.0, 52.°34N×170.°54W, h26km, ML3.7(AEIC), After AEIC.*
**ISC 06 22:40:22.5**±0.9**, 52.°4N**±0.°2×**170.°54W**±0.°07**, h55**km**, n38,** σ**1.s22**/38**, mb3.8**/10**, Fox Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **NIKH** | **Nikolski High** | **1.18** | **60** | P | **Pn** | **22 40 41.9** | **-0.8** |
| NIKH | | | | S | **Sn** | **22 40 56.9** | **-0.8** |
| **OKSO** | **Okmok South** | **1.73** | **55** | P | **Pn** | **22 40 50.9** | **+0.6** |
| OKSO | | | | S | **Sn** | **22 41 13.1** | **+1.8** |
| **OKNC** | **Okmok New Cone** | **1.81** | **53** | P | **Pn** | **22 40 52.8** | **+1.5** |
| **OKTU** | **Okmok Mt. Tuli** | **1.81** | **56** | P | **Pn** | **22 40 52.4** | **+1.2** |
| **OKFG** | **Magazine Ridge** | **1.89** | **56** | P | **Pn** | **22 40 53.2** | **+0.8** |
| **KOSE** | **Korovin Southe** | **2.15** | **270** | P | **Pn** | **22 40 57.0** | **+1.0** |
| **KOFP** | **Korovin Flat P** | **2.19** | **268** | P | **Pn** | **22 40 57.0** | **+0.6** |
| **KOKL** | **Mount Kliuchef** | **2.25** | **270** | P | **Pn** | **22 40 58.0** | **+0.7** |
| **ATKA** | **Atka Island** | **2.25** | **267** | P | **Pn** | **22 40 57.3** | **0.0** |
| ATKA | | | | S | **Sn** | **22 41 25.7** | **+1.8** |
| **MGOD** | **Makushin Gods** | **2.62** | **56** | P | **Pn** | **22 41 03.5** | **+1.2** |
| **MSW** | **Makushin Switc** | **2.73** | **55** | P | **Pn** | **22 41 05.2** | **+1.4** |
| MSW | | | | S | **Sn** | **22 41 37.5** | **+2.0** |
| **MTBL** | **Makushin Table** | **2.81** | **54** | P | **Pn** | **22 41 06.9** | **+2.0** |
| **AKMO** | **Akutan Morgan** | **3.21** | **56** | P | **Pn** | **22 41 12.4** | **+2.0** |
| **GSTD** | **Great Sitkin T** | **3.47** | **267** | P | **Pn** | **22 41 14.8** | **+0.8** |
| **ADAG** | **Mount Adagdak** | **3.76** | **266** | P | **Pn** | **22 41 18.7** | **+0.8** |
| **ADK** | **Adak** | **3.82** | **265** | *e*Pn | **Pn** | **22 41 18.2** | **-0.5** |
| ADK | | | | *e*S | **Sn** | **22 42 03.9** | **+1.5** |
| **WESN** | **West Dahl Nort** | **4.17** | **56** | P | **Pn** | **22 41 25.5** | **+1.9** |
| **TAFP** | **Tanaga Falls P** | **4.61** | **267** | P | **Pn** | **22 41 30.4** | **+0.8** |
| **KDAK** | **Kodiak Island** | **11.60** | **55** | Pn | **Pn** | **22 43 03.2** | **-1.9** |
| | 0.9nm,0.3s,baz=279,slow=3.7,SNR=11 | | | | | | |
| **ILAR** | **Eielson Array** | **17.34** | **35** | P | **Pn** | **22 44 18.2** | **-2.1** |
| | 0.0nm,0.3s,baz=216,slow=8.9,SNR=3.0 | | | | | | |
| **PETK** | **Petropavlovsk-** | **19.16** | **285** | P | **P** | **22 44 41.5** | **+0.4** |
| | 1.3nm,0.3s,baz=85,slow=13,SNR=12 | | | | | | |
| **NEW** | **Newport** | **33.70** | **75** | P | **P** | **22 46 57.4** | **-0.7** |
| | 1.5nm,0.6s,baz=279,slow=13,SNR=3.6 | | | | | | |
| **KLR** | **Kul'dur** | **35.77** | **289** | P | **P** | **22 47 14.4** | **-1.5** |
| | 0.1nm,0.4s,baz=45,slow=7.1,SNR=6.7 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **37.04** | **217** | T | T | 23 26 39.1 | |
| | baz=20,slow=75,SNR=8.0 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **37.04** | **217** | T | T | 23 26 46.6 | |
| | baz=20,slow=75,SNR=8.0 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **37.05** | **217** | T | T | 23 26 40.8 | |
| | baz=20,slow=75,SNR=6.3 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **38.23** | **216** | T | T | 23 28 17.6 | |
| | baz=22,slow=76,SNR=52 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **38.24** | **216** | T | T | 23 28 13.9 | |
| | baz=22,slow=76,SNR=56 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **38.25** | **216** | T | T | 23 28 18.4 | |
| | baz=22,slow=76,SNR=44 | | | | | | |
| **KSRS** | **Korea Array** | **44.69** | **276** | P | **P** | **22 48 30.4** | **+0.7** |
| | 0.8nm,0.6s,baz=65,slow=6.9,SNR=3.6 | | | | | | |
| **KSAR** | **Wonju Array Be** | **44.72** | **276** | P | **P** | **22 48 30.4** | **+0.4** |
| **SONM** | **Songino Array** | **50.67** | **300** | P | **P** | **22 49 15.9** | **-0.2** |
| | 0.5nm,0.6s,baz=70,slow=6.9,SNR=5.8 | | | | | | |
| SONM | | | | PcP | **PcP** | **22 50 32.7** | **0.0** |
| | 0.4nm,0.8s,baz=67,slow=2.2,SNR=2.8 | | | | | | |
| **TXAR** | **Lajitas Array** | **53.46** | **88** | P | **P** | **22 49 38.2** | **+1.1** |
| | 0.8nm,0.6s,baz=288,slow=5.2,SNR=8.8 | | | | | | |
| **ARCES** | **ARCESS Array B** | **57.82** | **353** | P | **P** | **22 50 07.4** | **-0.2** |
| | 3.7nm,0.9s,baz=15,slow=7.5,SNR=2.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **63.26** | **313** | P | **P** | **22 50 44.5** | **-0.5** |
| | 0.7nm,0.9s,baz=46,slow=7.0,SNR=6.9 | | | | | | |
| **FINES** | **FINESS Array B** | **65.74** | **351** | P | **P** | **22 51 00.3** | **-0.6** |
| | 2.5nm,0.9s,baz=12,slow=7.1,SNR=2.3 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **75.91** | **282** | P | **P** | **22 52 03.6** | **+0.3** |
| | 1.3nm,0.7s,baz=26,slow=6.7,SNR=12 | | | | | | |
| **ASAR** | **Alice Springs** | **89.87** | **229** | P | **P** | **22 53 14.9** | **-0.2** |
| | 0.2nm,0.4s,baz=46,slow=5.4,SNR=4.5 | | | | | | |

*DDA **06** 22:45:07.5, 38.°47N×43.°32E, h3km, Ml2.5*
*CSEM **06** 22:45:08.3±0.4, 38.°50N×43.°31E, h2km, MD2.6, Error ellipse: s-maj=10.6km s-min=6.7km az=114.0*
*ISK **06** 22:45:08.0, 38.°55N×43.°37E, h5km, MD2.6*
**ISC 06 22:45:07.8**±1.0**, 38.°56N**±0.°04×**43.°32E**±0.°03**, h4**km±9km**, n18,** σ**1.s05**/30**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.07** | **54** | *e*PG | **Pg** | **22 45 09.0** | **-0.3** |
| **VANB** | **Van** | **0.07** | **54** | *e*Pg | **Pg** | **22 45 09.0** | **-0.3** |
| **TVAN** | **Van** | **0.07** | **112** | *i* P | **Pg** | **22 45 09.3** | **-0.2** |
| TVAN | | | | *i* S | **Sg** | **22 45 11.6** | **+1.0** |
| **TVAN** | **Van** | **0.07** | **112** | P | **Pg** | **22 45 09.3** | **-0.2** |
| TVAN | | | | S | **Sg** | **22 45 11.6** | **+1.0** |
| **GEVA** | **Gevas** | **0.32** | **220** | *i* P | **Pg** | **22 45 12.3** | **-1.7** |
| GEVA | | | | *i* S | **Sg** | **22 45 18.0** | **-0.1** |
| **GEVA** | **Gevas** | **0.32** | **220** | P | **Pg** | **22 45 12.3** | **-1.7** |
| GEVA | | | | S | **Sg** | **22 45 18.0** | **-0.1** |
| **VMUR** | **Van-Muradiye** | **0.48** | **24** | *i* P | **Pn** | **22 45 20.3** | **-1.3** |
| VMUR | | | | *i* S | **Sb** | **22 45 27.4** | **+1.1** |
| **VMUR** | **Van-Muradiye** | **0.48** | **24** | P | **Pn** | **22 45 20.3** | **-1.3** |
| VMUR | | | | S | **Sb** | **22 45 27.4** | **+1.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.53** | **299** | *i* P | **Pg** | **22 45 18.8** | **+0.8** |
| ADCV | | | | *i* S | **Sb** | **22 45 27.5** | **-0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.53** | **299** | P | **Pg** | **22 45 18.8** | **+0.8** |
| ADCV | | | | S | **Sb** | **22 45 27.5** | **-0.4** |
| **CLDR** | **Caldiran** | **0.75** | **38** | *e*PG | **Pn** | **22 45 23.8** | **-1.6** |
| CLDR | | | | *e*SG | **Sb** | **22 45 34.2** | **0.0** |
| **CLDR** | **Caldiran** | **0.75** | **38** | *e*Pg | **Pn** | **22 45 23.8** | **-1.6** |
| CLDR | | | | *e*Sg | **Sb** | **22 45 34.3** | **0.0** |
| **AGRB** | **Hanur-Agry** | **1.05** | **346** | *e*PG | **Pn** | **22 45 29.8** | **+0.3** |
| AGRB | | | | *e*SG | **Sn** | **22 45 44.4** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **1.05** | **346** | *e*Pg | **Pn** | **22 45 29.8** | **+0.3** |
| AGRB | | | | *e*Sg | **Sn** | **22 45 44.4** | **-0.3** |
| **SIRT** | **Sirnak** | **1.26** | **214** | *e*PN | **Pg** | **22 45 33.6** | **+1.7** |
| **SIRT** | **Sirnak** | **1.26** | **214** | *e*Pn | **Pg** | **22 45 33.6** | **+1.7** |
| **CUKT** | **Cukurca** | **1.33** | **170** | *e*PN | **Pg** | **22 45 34.3** | **+1.2** |
| **CUKT** | **Cukurca** | **1.33** | **170** | *e*Pn | **Pg** | **22 45 34.3** | **+1.2** |

**IDC 06 22:46:18.2**±3.4**, 62.°76S**×**148.°61E, h0**km**, mb3.7**/2**, mb1 4.3**/3**, mb1mx4.0**/26**, mbtmp4.1**/3**, ML4.9**/1**, MS3.1**/4**, Ms1 3.1**/4**, ms1mx2.9**/16**, Error ellipse: s-maj=225.4km s-min=30.4km az=81.0, Balleny Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VNDA** | **Vanda** | **15.42** | **169** | Pn | Pn | 22 49 56.6 | 0.0 |
| | 5.0nm,0.3s,baz=335,slow=14,SNR=98 | | | | | | |
| VNDA | | | | Sn | Sn | 22 52 35.4 | -12 |
| | 0.6nm,0.3s,baz=184,slow=13,SNR=5.1 | | | | | | |
| VNDA | | | | LR | LR | 22 55 43.3 | |
| | comp=Z,39nm,20.8s,baz=341,slow=37 | | | | | | |
| **RPZ** | **Rata Peaks** | **23.11** | **45** | LR | LR | 22 58 22.9 | |
| | comp=Z,38nm,21.3s,baz=344,slow=31 | | | | | | |
| **STKA** | **Stephens Creek** | **31.22** | **348** | LR | LR | 23 02 55.0 | |
| | comp=Z,45nm,18.3s,baz=22,slow=32 | | | | | | |
| **ASAR** | **Alice Springs** | **40.32** | **339** | P | P | 22 53 57.1 | -0.1 |
| | 0.5nm,0.4s,baz=165,slow=8.6,SNR=5.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.90** | **340** | P | P | 22 54 26.2 | -0.1 |
| | 0.7nm,0.6s,baz=165,slow=6.9,SNR=3.1 | | | | | | |
| **BOSA** | **Boshof** | **78.43** | **229** | LR | LR | 23 31 38.6 | |
| | comp=Z,19nm,18.1s,baz=167,slow=35 | | | | | | |
| **AKASG** | **Malin Array Be** | **145.97** | **278** | PKPbc | PKPdf | 23 05 57.8 | +0.2 |
| | 1.2nm,0.7s,baz=123,slow=2.5,SNR=6.2 | | | | | | |
| **ESDC** | **Sonseca Array** | **151.61** | **228** | PKPbc | PKPbc | 23 06 13.6 | +0.1 |
| | 0.6nm,0.7s,baz=168,slow=1.0,SNR=5.5 | | | | | | |
| **GERES** | **GERESS Array B** | **151.78** | **262** | PKPbc | PKPbc | 23 06 12.9 | -0.7 |
| | 0.3nm,0.6s,baz=224,slow=2.7,SNR=4.0 | | | | | | |

*IPEC **06** 22:48:06.2±0.2, 47.°74N×16.°23E, h7km±1km, ML2.1/2, Error ellipse: s-maj=1.6km s-min=0.7km az=117.0*
*VIE **06** 22:48:06.3±0.3, 47.°74N×16.°17E, h10km, mb1.5/4, ML2.2/7, Error ellipse: s-maj=2.7km s-min=2.0km az=147.0*
*CSEM **06** 22:48:06.1±0.2, 47.°79N×16.°16E, h2km, ML2.9/10, Error ellipse: s-maj=3.5km s-min=2.8km az=139.0*
*PRU **06** 22:48:06.8, 47.°79N×16.°21E, h0km*
**ISC 06 22:48:06.6**±0.9**, 47.°76N**±0.°02×**16.°14E**±0.°02**, h10**km±8km**, n36,** σ**1.s05**/61**, 3D, Austria**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CONA** | **Conrad Observa** | **0.25** | **312** | Pg | **Pg** | **22 48 12.4** | **+0.7** |
| | 9.9nm,0.1s | | | | | | |
| CONA | | | | Sg | **Sg** | **22 48 16.5** | **+1.3** |
| **SOP** | **Sopron** | **0.30** | **105**⇓ | *e*Pg | **Pg** | **22 48 12.6** | **+0.1** |
| SOP | | | | *e*Sg | **Sg** | **22 48 16.1** | **-0.4** |
| **SOP** | **Sopron** | **0.30** | **105**⇓ | *e*Pg | **Pg** | **22 48 12.6** | **+0.1** |
| SOP | | | ⇓ | *e*Sg | **Sg** | **22 48 16.1** | **-0.4** |
| **ARSA** | **Arzberg** | **0.66** | **219** | Pg | **Pb** | **22 48 19.2** | **-0.9** |
| ARSA | | | | Sg | **Sb** | **22 48 28.0** | **-1.3** |
| | 44nm,0.3s | | | | | | |
| **ZST** | **Bratislava** | **0.78** | **56** | *e*Pg | **Pg** | **22 48 20.3** | **-1.3** |
| ZST | | | | *e*Sg | **Sg** | **22 48 30.8** | **-1.1** |
| **ZST** | **Bratislava** | **0.78** | **56** | *e*PG | **Pg** | **22 48 20.3** | **-1.3** |
| ZST | | | | *e*SG | **Sg** | **22 48 30.8** | **-1.1** |
| **MODS** | **Modra-Piesok** | **0.98** | **51** | *e*Pg | **Pg** | **22 48 24.2** | **-1.2** |
| MODS | | | | *e*Sg | **Sg** | **22 48 37.7** | **-0.5** |
| **MODS** | **Modra-Piesok** | **0.98** | **51** | *e*PG | **Pg** | **22 48 24.2** | **-1.2** |
| MODS | | | | *e*SN | **Sg** | **22 48 37.7** | **-0.5** |
| **SMOL** | **Smolenice** | **1.15** | **48** | *e*Pn | **Pg** | **22 48 28.4** | **-0.2** |
| SMOL | | | | *e*Sn | **Sb** | **22 48 44.6** | **+1.2** |

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SMOL | Smolenice | 1.15 | 48 | ePN | Pg | 22 48 28.4 | -0.2 |
| SMOL | | | | eSN | Sb | 22 48 44.6 | +1.2 |
| MOA | Molln | 1.26 | 275 | Pg | Pn | 22 48 31.2 | +0.9 |
| | 1.3nm,0.1s | | | | | | |
| MOA | | | | Sg | Sn | 22 48 48.3 | +1.0 |
| | 7.1nm,0.2s | | | | | | |
| KRUC | Moravsky | 1.31 | 7 | ePg | Pg | 22 48 30.6 | -1.2 |
| KRUC | | | | eSg | Sg | 22 48 47.6 | -1.2 |
| | 17nm,0.1s | | | | | | |
| SOKA | Soboth | 1.32 | 215 | Pn | Pn | 22 48 31.2 | +0.1 |
| SOKA | | | | Sg | Sg | 22 48 47.5 | -1.5 |
| | 3.9nm,0.3s | | | | | | |
| PERS | Pernice | 1.32 | 212 | i Pg | Pn | 22 48 31.2 | 0.0 |
| PERS | | | | i Sg | Sb | 22 48 48.1 | -0.4 |
| PERS | Pernice | 1.32 | 212 | i Pn | Pn | 22 48 31.1 | 0.0 |
| PERS | | | | i Sg | Sb | 22 48 48.1 | -0.4 |
| CSKK | Csˆ‡kako | 1.49 | 105 | ePn | Pg | 22 48 35.6 | +0.4 |
| CSKK | | | | eSn | Sg | 22 48 54.9 | +0.4 |
| CSKK | Csˆ‡kako | 1.49 | 105 | ePn | Pg | 22 48 35.6 | +0.4 |
| CSKK | | | | eSn | Sg | 22 48 54.9 | +0.4 |
| VRAC | Vranov | 1.58 | 11 | ePn | Pn | 22 48 34.5 | -0.1 |
| VRAC | | | | eSg | Sn | 22 48 55.7 | +0.6 |
| | 14nm,0.2s | | | | | | |
| OBKA | Obir | 1.66 | 221 | Pg | Pg | 22 48 38.5 | +0.2 |
| | 2.6nm,0.3s | | | | | | |
| OBKA | | | | Sg | Sg | 22 49 00.0 | +0.2 |
| | 3.3nm,0.4s | | | | | | |
| VYHS | Vyhne | 1.95 | 67 | ePg | Pb | 22 48 42.2 | 0.0 |
| VYHS | Vyhne | 1.95 | 67 | ePG | Pb | 22 48 42.2 | 0.0 |
| VYHS | | | | eLG | Lg | 22 49 11.8 | |
| MYKA | Terra Mystica | 2.04 | 237 | Pg | Pg | 22 48 46.5 | +0.8 |
| | 0.4nm,0.1s | | | | | | |
| KHC | Kasperske Hory | 2.19 | 310 | ePN | Pb | 22 48 45.1 | -1.1 |
| KHC | | | | ePG | Pg | 22 48 47.5 | -0.9 |
| KHC | | | | eSG | Sg | 22 49 15.2 | -1.6 |
| | comp=Z,10nm,0.4s | | | | | | |
| KHC | Kasperske Hory | 2.19 | 310 | ePn | Pb | 22 48 45.1 | -1.1 |
| KHC | Kasperske Hory | 2.19 | 310 | Pg | Pg | 22 48 47.5 | -0.9 |
| KHC | | | | Sg | Sg | 22 49 15.2 | -1.6 |
| | 10nm,0.4s | | | | | | |
| MORC | Moravsky Berou | 2.22 | 24 | ePn | Pn | 22 48 43.6 | +0.1 |
| MORC | | | | eSn | Sn | 22 49 09.9 | -1.1 |
| PRU | Pruhonice | 2.46 | 335 | ePG | Pb | 22 48 52.1 | +1.2 |
| PRU | | | | eSG | Sb | 22 49 23.5 | +2.2 |
| | comp=Z,5.6nm,0.3s | | | | | | |
| PRU | Pruhonice | 2.46 | 335 | Pg | Pb | 22 48 52.1 | +1.2 |
| PRU | | | | Sg | Sb | 22 49 23.5 | +2.2 |
| | 5.6nm,0.3s | | | | | | |
| DPC | Dobruska-Polom | 2.59 | 3 | eSG | Sb | 22 49 26.4 | +1.3 |
| DPC | Dobruska-Polom | 2.59 | 3 | Sg | Sb | 22 49 26.4 | +1.3 |
| PVCC | Panska Ves | 2.96 | 340 | eSG | Sg | 22 49 39.7 | -1.7 |
| | comp=Z,11nm,0.2s | | | | | | |
| PVCC | Panska Ves | 2.96 | 340 | Sg | Sg | 22 49 39.7 | -1.7 |
| | 11nm,0.2s | | | | | | |
| BRG | Berggiesshubel | 3.43 | 336 | SG | Sg | 22 49 54.5 | -2.1 |
| | 3.0nm,0.3s | | | | | | |
| NKC | Novy Kostel | 3.47 | 317 | eSG | Sg | 22 49 58.0 | +0.2 |
| | comp=Z,4.3nm,0.4s | | | | | | |
| NKC | Novy Kostel | 3.47 | 317 | Sg | Sg | 22 49 58.0 | +0.2 |
| | 4.3nm,0.4s | | | | | | |
| CLL | Collm | 4.09 | 331 | eSg | Sg | 22 50 18.0 | 0.0 |

**MEX 06 22:49:18.5**±0.3**, 14°.71N**×**92°.83W, h5**$^{km}$±28$^{km}$**, MD3.6, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PCIG | | 1.05 | 339 | eP | Pg | 22 49 36.3 | -2.5 |
| PCIG | | | | eS | Sg | 22 49 49.6 | -2.8 |
| CCIG | Comitan | 1.69 | 23 | eP | Pn | 22 49 46.7 | -2.3 |
| CCIG | | | | i S | Sn | 22 50 02.0 | -9.2 |

*ISK **06** 22:57:56.4, 38°.68N×43°.18E, h2$^{km}$, MD2.7*
*ISCJB **06** 22:57:57.8±0.5, 38°.69N±0°.03×43°.16E±0°.04, h11$^{km}$±6$^{km}$, Error ellipse: s-maj=5.5km s-min=4.9km az=12.7*
*CSEM **06** 22:57:57.3±0.2, 38°.69N×43°.13E, h2$^{km}$, MD2.7, Error ellipse: s-maj=4.5km s-min=3.8km az=82.0*
*DDA **06** 22:57:57.5, 38°.68N×43°.16E, h7$^{km}$, Ml2.7*
**ISC 06 22:57:57.9**±0.9**, 38°.68N**±0°.02×**43°.15E**±0°.03**, h14**$^{km}$±8$^{km}$**, n22,** $\sigma 0^s.80$/36**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.20 | 113 | ePG | Pg | 22 58 02.3 | -0.2 |
| VANB | | | | eSG | Sg | 22 58 06.4 | +0.7 |
| VANB | Van | 0.20 | 113 | ePg | Pg | 22 58 02.3 | -0.2 |
| VANB | | | | eSg | Sg | 22 58 06.4 | +0.7 |
| TVAN | Van | 0.25 | 126 | i P | Pg | 22 58 02.1 | -1.2 |
| TVAN | | | | i S | Sg | 22 58 06.8 | -0.1 |
| TVAN | Van | 0.25 | 126 | P | Pg | 22 58 02.1 | -1.2 |
| TVAN | | | | S | Sg | 22 58 06.8 | -0.1 |
| ADCV | BITLIS_Adilcev | 0.36 | 292 | i P | Pg | 22 58 04.8 | -0.4 |
| ADCV | | | | i S | Sb | 22 58 11.7 | -0.1 |
| ADCV | BITLIS_Adilcev | 0.36 | 292 | P | Pg | 22 58 04.8 | -0.4 |
| ADCV | | | | S | Sb | 22 58 11.7 | -0.1 |
| GEVA | Gevas | 0.37 | 191 | i P | Pg | 22 58 04.0 | -1.4 |
| GEVA | | | | i S | Sb | 22 58 11.4 | -0.6 |
| GEVA | Gevas | 0.37 | 191 | P | Pg | 22 58 04.0 | -1.4 |
| GEVA | | | | S | Sb | 22 58 11.4 | -0.6 |
| VMUR | Van-Muradiye | 0.46 | 46 | i P | Pg | 22 58 06.4 | -0.6 |
| VMUR | | | | i S | Sb | 22 58 14.4 | -0.2 |
| VMUR | Van-Muradiye | 0.46 | 46 | P | Pg | 22 58 06.4 | -0.6 |
| VMUR | | | | S | Sb | 22 58 14.4 | -0.2 |
| CLDR | Caldiran | 0.76 | 52 | ePG | Pg | 22 58 11.4 | -1.3 |
| CLDR | | | | eSG | Sg | 22 58 22.5 | -0.2 |
| CLDR | Caldiran | 0.76 | 52 | ePg | Pg | 22 58 11.4 | -1.3 |
| CLDR | | | | eSg | Sg | 22 58 22.5 | -0.2 |
| TUTA | Tutak | 0.77 | 340 | i P | Pg | 22 58 11.9 | -1.0 |
| TUTA | | | | i S | Sg | 22 58 23.0 | -0.1 |
| TUTA | Tutak | 0.77 | 340 | P | Pg | 22 58 11.9 | -1.0 |
| TUTA | | | | S | Sg | 22 58 23.0 | -0.1 |
| AGRB | Hanur-Agry | 0.91 | 352 | ePG | Pg | 22 58 14.4 | -1.1 |
| AGRB | Hanur-Agry | 0.91 | 352 | ePg | Pg | 22 58 14.4 | -1.1 |
| SIRT | Sirnak | 1.30 | 206 | ePN | Pb | 22 58 22.6 | +0.5 |
| SIRT | Sirnak | 1.30 | 206 | ePn | Pb | 22 58 22.6 | +0.5 |
| VRTB | Varto-Mus | 1.41 | 291 | ePN | Pn | 22 58 24.0 | +0.7 |
| VRTB | Varto-Mus | 1.41 | 291 | ePn | Pn | 22 58 24.0 | +0.7 |
| CUKT | Cukurca | 1.47 | 166 | ePN | Pn | 22 58 25.1 | +1.0 |
| CUKT | Cukurca | 1.47 | 166 | ePn | Pn | 22 58 25.1 | +1.0 |

**IDC 06 23:21:03.4**±11.0**, 24°.25S**×**179°.31W, h514**$^{km}$±57$^{km}$**, mb2.9**/3**, mb1 3.2**/5**, mb1mx3.0**/21**, mbtmp4.1**/5**, Error ellipse: s-maj=179.4km s-min=43.9km az=65.0, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DZM | Mont Dzumac | 13.29 | 277 | P | P | 23 23 55.5 | -0.1 |
| | 0.4nm,0.3s,baz=99,slow=16,SNR=6.8 | | | | | | |
| URZ | Urewera | 14.29 | 191 | P | P | 23 24 06.1 | +0.3 |
| | 1.4nm,0.3s,baz=352,slow=7.1,SNR=2.7 | | | | | | |
| URZ | | | | S | S | 23 26 34.8 | -1.4 |
| | 0.3nm,0.3s,baz=107,slow=22,SNR=2.0 | | | | | | |
| STKA | Stephens Creek | 35.18 | 249 | P | P | 23 27 14.2 | +0.2 |
| | 0.7nm,0.4s,baz=98,slow=15,SNR=3.6 | | | | | | |
| ASAR | Alice Springs | 42.60 | 261 | P | P | 23 28 14.2 | -0.1 |
| | 1.0nm,0.8s,baz=92,slow=8.7,SNR=8.0 | | | | | | |
| WRA | Warramunga Arr | 43.02 | 266 | P | P | 23 28 17.1 | -0.4 |
| | 1.0nm,0.4s,baz=103,slow=8.1,SNR=7.6 | | | | | | |

*NIED **06** 23:33:00, 38°.30N×141°.70E, h29$^{km}$, Mw3.4 Best double couple: $M_0$1.62000×10$^{14}$ NP1:$\phi_s$285.00000°, δ21.00000°, λ152.00000°. NP2:$\phi_s$42.00000°, δ80.00000°, λ71.00000°.*
**JMA 06 23:33:42.2**±0.1**, 38°.34N**×**141°.64E, h54**$^{km}$±1$^{km}$**, M3.5, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JIO | Ouri | 0.26 | 297 | P | Pn | 23 33 51.5 | +0.2 |
| JIO | | | | S | Sn | 23 33 57.7 | -0.2 |
| JMK | Ichinoseki | 0.69 | 332 | P | Pn | 23 33 56.4 | +0.4 |
| JMK | | | | S | Sn | 23 34 06.2 | +0.1 |
| OFUJ | Ofunato | 0.74 | 2 | P | Pn | 23 33 56.6 | 0.0 |
| OFUJ | | | | S | Sn | 23 34 06.6 | -0.5 |
| JOU | Okura | 0.77 | 272 | P | Pn | 23 33 57.1 | +0.1 |
| JOU | | | | eS | Sn | 23 34 08.2 | +0.4 |
| JMM | Marumori | 0.82 | 235 | P | Pn | 23 33 57.3 | -0.3 |
| JMM | | | | eS | Sn | 23 34 08.2 | -0.7 |
| JFK | Kawauchi | 1.15 | 212 | P | Pn | 23 34 01.8 | -0.2 |
| JFK | | | | eS | Sn | 23 34 16.2 | -0.5 |
| JYK | Kaneyama | 1.16 | 300 | P | Pn | 23 34 02.4 | +0.3 |
| JYK | | | | eS | Sn | 23 34 17.7 | +0.7 |
| JOM | Ohasama | 1.16 | 347 | P | Pn | 23 34 02.4 | +0.2 |
| JOM | | | | eS | Sn | 23 34 17.2 | +0.1 |
| JYS | Shirataka | 1.25 | 265 | P | Pn | 23 34 03.7 | +0.4 |
| JYS | | | | eS | Sn | 23 34 19.8 | +0.7 |
| JRG | Rokugo | 1.31 | 324 | P | Pn | 23 34 04.9 | +0.6 |
| JRG | | | | eS | Sn | 23 34 22.4 | +1.6 |
| JFT | Otama | 1.32 | 232 | P | Pn | 23 34 04.8 | +0.5 |
| JFT | | | | eS | Sn | 23 34 21.6 | +0.8 |
| JYA | Atsumi | 1.53 | 280 | P | Pn | 23 34 07.6 | +0.4 |
| MAT | Matsushiro | 3.27 | 238 | P | Pn | 23 34 34.1 | +3.1 |
| MAT | | | | S | Sn | 23 35 13.5 | +4.9 |

*IDC **06** 23:52:55.9±1.1, 0°.78N×126°.21E, h0$^{km}$, mb3.8/6, mb1 3.9/7, mb1mx3.6/39, mbtmp3.8/7, ML3.2/1, Error ellipse: s-maj=120.6km s-min=17.0km az=69.0*
*ISCJB **06** 23:52:59.4±0.7, 0°.77N±0°.08×126°.3E±0°.1, h39$^{km}$, mb4.1/10, Error ellipse: s-maj=17.0km s-min=10.7km az=165.0*
*NEIC **06** 23:53:00.9±0.5, 0°.78N×126°.31E, h35$^{km}$, mb4.3/3, Error ellipse: s-maj=13.3km s-min=8.1km az=74.0*
**ISC 06 23:53:01.4**±0.9**, 0°.8N**±0°.1×**126°.3E**±0°.2**, h39**$^{km}$**, n14,** $\sigma 0^s.73$/14**, mb4.1**/10**, Northern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LUWI | Luwuk | 3.94 | 243 | ePn | Pn | 23 53 59.1 | -0.2 |
| KAPI | Kappang | 8.68 | 229 | ePn | Pn | 23 55 04.9 | +0.3 |
| FITZ | Fitzroy Crossi | 18.76 | 182 | P | Pn | 23 57 17.9 | -0.1 |
| | 0.1nm,0.3s,baz=354,slow=10,SNR=2.3 | | | | | | |
| WRAB | Tennant Creek | 22.04 | 159 | eP | P | 23 57 52.5 | -0.4 |
| | 6.7nm,0.8s | | | | | | |
| WRA | Warramunga Arr | 22.04 | 159 | P | P | 23 57 52.6 | -0.4 |
| | 6.0nm,0.8s,baz=338,slow=11,SNR=14 | | | | | | |
| ASAR | Alice Springs | 25.39 | 164 | P | P | 23 58 25.0 | -0.4 |
| | 1.0nm,0.3s,baz=345,slow=12,SNR=16 | | | | | | |
| STKA | Stephens Creek | 35.56 | 157 | P | P | 23 59 55.5 | +0.4 |
| | 1.4nm,0.6s,baz=331,slow=6.6,SNR=4.9 | | | | | | |
| SONM | Songino Array | 49.96 | 343 | P | P | 00 01 51.4 | -0.4 |
| | 0.4nm,0.7s,baz=156,slow=11,SNR=2.8 | | | | | | |
| MKAR | Makanchi Array | 59.74 | 326 | P | P | 00 03 01.4 | -1.0 |
| | 0.4nm,0.3s,baz=120,slow=8.6,SNR=14 | | | | | | |
| ZALV | Zalesovo Beam | 63.02 | 334 | P | P | 00 03 26.2 | +1.9 |
| | 0.3nm,0.3s,baz=119,slow=5.1,SNR=2.1 | | | | | | |
| KURK | Kurchatov | 64.00 | 328 | eP | P | 00 03 30.5 | -0.4 |
| | 19nm,0.8s | | | | | | |
| BRVK | Borovoye | 69.63 | 328 | eP | P | 00 04 06.4 | -0.3 |
| | 4.0nm,0.7s | | | | | | |
| RAYN | Ar Rayn | 81.23 | 294 | eP | P | 00 05 14.5 | +0.5 |
| | 3.1nm,1.1s | | | | | | |
| TORD | Torodi Ar. Bea | 123.36 | 286 | PKP | PKPdf | 00 11 55.0 | -0.4 |
| | 0.3nm,0.7s,baz=89,slow=2.7,SNR=2.3 | | | | | | |

*ISCJB **06** 23:55:28.6±0.5, 39°.22N±0°.02×27°.84E±0°.05, h6$^{km}$±5$^{km}$, Error ellipse: s-maj=6.2km s-min=3.7km az=159.8*
*DDA **06** 23:55:28.6, 39°.21N×27°.82E, h9$^{km}$, Ml2.8*
*ISK **06** 23:55:28.5, 39°.21N×27°.91E, h7$^{km}$, MD2.7*
*CSEM **06** 23:55:28.6±0.2, 39°.21N×27°.83E, h10$^{km}$, ML2.8, Error ellipse: s-maj=5.0km s-min=3.1km az=70.0*
**ISC 06 23:55:28.8**±1.0**, 39°.22N**±0°.02×**27°.86E**±0°.03**, h8**$^{km}$±9$^{km}$**, n36,** $\sigma 0^s.51$/52**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| STEP | BALIKESIR_Sava | 0.19 | 325 | i P | Pg | 23 55 32.3 | -0.4 |
| STEP | | | | i S | Sg | 23 55 35.9 | +0.6 |
| STEP | BALIKESIR_Sava | 0.19 | 325 | P | Pg | 23 55 32.3 | -0.4 |
| STEP | | | | S | Sg | 23 55 35.9 | +0.6 |
| AKHS | Akhisar | 0.34 | 185 | i P | Pg | 23 55 35.3 | -0.3 |
| AKHS | | | | i S | Sg | 23 55 40.2 | +0.1 |
| AKHS | Akhisar | 0.34 | 185 | P | Pg | 23 55 35.3 | -0.3 |
| AKHS | | | | S | Sg | 23 55 40.2 | +0.1 |
| AKS | Akhisar | 0.34 | 186 | ePG | Pg | 23 55 35.9 | +0.4 |
| AKS | Akhisar | 0.34 | 186 | ePg | Pg | 23 55 35.9 | +0.4 |
| BALB | Balikesir | 0.42 | 3 | ePG | Pg | 23 55 37.2 | +0.2 |
| BALB | | | | eSG | Sb | 23 55 44.4 | -0.6 |
| BALB | Balikesir | 0.42 | 3 | ePg | Pg | 23 55 37.2 | +0.2 |
| BALB | | | | eSg | Sb | 23 55 44.4 | -0.6 |
| BALY | Balya | 0.55 | 341 | i P | Pg | 23 55 39.4 | 0.0 |
| BALY | | | | i S | Sg | 23 55 47.0 | +0.4 |
| BALY | Balya | 0.55 | 341 | P | Pg | 23 55 39.4 | 0.0 |
| BALY | | | | S | Sg | 23 55 47.0 | +0.4 |
| DEMI | Demirci | 0.69 | 105 | i P | Pg | 23 55 42.6 | +0.5 |
| DEMI | | | | i S | Sb | 23 55 53.1 | +0.1 |
| DEMI | Demirci | 0.69 | 105 | P | Pg | 23 55 42.6 | +0.5 |
| DEMI | | | | S | Sb | 23 55 53.1 | +0.1 |
| DST | Dursunbey | 0.70 | 57 | ePG | Pg | 23 55 42.0 | -0.3 |
| DST | | | | eSG | Sg | 23 55 52.0 | +0.5 |
| DST | Dursunbey | 0.70 | 57 | ePg | Pg | 23 55 42.1 | -0.3 |
| DST | | | | eSg | Sg | 23 55 52.0 | +0.5 |
| SIMA | Simav-Kutahya | 0.89 | 99 | ePG | Pg | 23 55 44.9 | -1.0 |
| SIMA | Simav-Kutahya | 0.89 | 99 | ePg | Pg | 23 55 44.9 | -1.0 |
| MANT | Manisa | 0.91 | 143 | i P | Pg | 23 55 46.3 | -0.1 |
| MANT | | | | i S | Sb | 23 55 59.4 | -0.1 |
| MANT | Manisa | 0.91 | 143 | P | Pg | 23 55 46.3 | -0.1 |
| MANT | | | | S | Sb | 23 55 59.4 | -0.1 |
| KULA | Kula-Manisa | 0.95 | 138 | ePG | Pg | 23 55 46.5 | -0.5 |
| KULA | Kula-Manisa | 0.95 | 138 | ePg | Pg | 23 55 46.5 | -0.5 |
| KCTX | Karacabey (Bur | 1.11 | 20 | ePN | Pg | 23 55 49.6 | -0.5 |
| KCTX | Karacabey (Bur | 1.11 | 20 | ePn | Pg | 23 55 49.6 | -0.5 |
| EDC | Edincik | 1.12 | 0 | ePN | Pn | 23 55 50.6 | -0.2 |
| EDC | Edincik | 1.12 | 0 | ePn | Pn | 23 55 50.7 | -0.2 |
| ORLT | Orhaneli | 1.15 | 44 | ePN | Pb | 23 55 50.4 | -0.6 |
| ORLT | Orhaneli | 1.15 | 44 | ePn | Pb | 23 55 50.4 | -0.6 |
| KRBG | Karabiga-Canak | 1.25 | 340 | ePN | Pg | 23 55 52.8 | +0.1 |
| KRBG | Karabiga-Canak | 1.25 | 340 | ePn | Pg | 23 55 52.8 | +0.1 |
| TVSB | Tavsanli | 1.27 | 79 | ePN | Pn | 23 55 52.0 | -1.0 |
| TVSB | Tavsanli | 1.27 | 79 | ePn | Pn | 23 55 52.0 | -1.0 |
| GDZ | Gediz | 1.27 | 96 | i P | Pg | 23 55 53.7 | +0.5 |
| GDZ | | | | i S | Sn | 23 56 11.4 | +1.0 |
| GDZ | Gediz | 1.27 | 96 | P | Pg | 23 55 53.7 | +0.5 |
| GDZ | | | | S | Sn | 23 56 11.4 | +1.0 |
| ARMT | Armutlu | 1.55 | 30 | ePN | Pn | 23 55 57.2 | +0.5 |
| ARMT | Armutlu | 1.55 | 30 | ePn | Pn | 23 55 57.2 | +0.5 |
| YLV | Yalova | 1.78 | 41 | ePN | Pn | 23 56 00.4 | +0.4 |
| YLV | Yalova | 1.78 | 41 | ePn | Pn | 23 56 00.4 | +0.4 |

**SJA 06 23:56:12.2**±0.5**, 31°.31S**×**68°.44W, h107**$^{km}$±2$^{km}$**, ML4.2, MW3.0, San Juan Province**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RTLL | Cerro Villicun | 0.04 | 239 | eP | Pn | 23 56 27.3 | +0.3 |
| RTLL | | | | eS | Sn | 23 56 39.1 | +0.9 |
| AMOG | MOGNA | 0.37 | 353 | eP | Pn | 23 56 28.7 | +0.6 |
| AMOG | | | | IAML | | 23 56 29.0 | |
| | comp=Z,6μm,0.1s | | | | | | |
| AMOG | | | | eS | Sn | 23 56 40.8 | +0.8 |
| RTCV | Cerro Valdivia | 0.56 | 189 | eP | Pn | 23 56 30.1 | +0.9 |
| RTCV | | | | eS | Sn | 23 56 43.2 | +1.2 |
| RTLS | Leoncito | 0.88 | 236 | eP | Pn | 23 56 33.4 | +1.2 |
| RTLS | | | | eS | Sn | 23 56 49.2 | +1.9 |
| AUSP | Uspallata | 1.22 | 221 | eP | Pn | 23 56 37.0 | +1.1 |
| AUSP | | | | eS | Sn | 23 56 55.7 | +2.0 |
| ASAL | Salagasta | 1.32 | 195 | eP | Pn | 23 56 37.8 | +1.0 |
| ASAL | | | | eS | Sn | 23 56 56.4 | +1.0 |
| ACAN | Cantantal | 1.43 | 132 | eP | Pn | 23 56 39.4 | +1.3 |
| ACAN | | | | eS | Sn | 23 56 58.9 | +1.2 |
| AGUA | GUANDACOL | 1.82 | 359 | eP | Pn | 23 56 44.2 | +1.3 |
| AGUA | | | | eS | Sn | 23 57 07.5 | +1.3 |
| APLL | PUNTA DE LOS L | 1.88 | 61 | eP | Pn | 23 56 44.6 | +1.0 |
| APLL | | | | eS | Sn | 23 57 08.5 | +1.0 |

*NIED **07** 00:03:00, 39°.60N×144°.40E, h38$^{km}$, Mw3.7 Best double couple: $M_0$3.62000×10$^{14}$ NP1:$\phi_s$29.00000°, δ59.00000°, λ19.00000°. NP2:$\phi_s$288.00000°, δ73.00000°, λ147.00000°.*
*IDC **07** 00:03:24.1±3.8, 39°.35N×144°.70E, h0$^{km}$, mb3.8/6, mb1 3.8/9, mb1mx3.6/42, mbtmp3.8/9, ML3.4/3, MS2.7/1, Ms1 2.7/1, ms1mx2.2/32, Error ellipse: s-maj=69.9km s-min=32.4km az=136.0*
*ISCJB **07** 00:03:27.1±0.8, 39°.59N±0°.04×144°.37E±0°.06, h23$^{km}$, mb3.6/6, Error ellipse: s-maj=7.9km s-min=4.0km az=36.3*
*JMA **07** 00:03:28.4±0.2, 39°.58N×144°.38E, h54$^{km}$, M3.7*
**ISC 07 00:03:28.4**±1.3**, 39°.52N**±0°.07×**144°.45E**±0°.09**, h23**$^{km}$**, n26,** $\sigma 2^s.20$/41**, mb3.7**/6**, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MIYJ | Miyakonagasawa | 2.03 | 272 | P | Pn | 00 04 00.4 | -0.9 |
| MIYJ | | | | eS | Sn | 00 04 23.7 | -2.2 |
| JTH | Tanohata | 2.04 | 283 | P | Pn | 00 04 00.2 | -1.1 |
| JTH | | | | eS | Sn | 00 04 24.0 | -2.0 |
| OFUJ | Ofunato | 2.20 | 259 | P | Pn | 00 04 02.4 | -1.2 |
| OFUJ | | | | eS | Sn | 00 04 27.4 | -2.6 |
| JANG | Nango | 2.41 | 292 | P | Pn | 00 04 05.1 | -1.4 |
| JANG | | | | eS | Sn | 00 04 32.5 | -2.7 |
| JOM | Ohasama | 2.44 | 270 | P | Pn | 00 04 06.4 | -0.5 |
| JOM | | | | eS | Sn | 00 04 34.9 | -1.1 |
| JMK | Ichinoseki | 2.57 | 258 | P | Pn | 00 04 07.8 | -0.8 |
| JMK | | | | eS | Sn | 00 04 37.2 | -2.0 |
| JNBK | Urakawa-nobuka | 3.04 | 336 | P | Pn | 00 04 14.4 | -0.7 |
| JNBK | | | | eS | Sn | 00 04 49.4 | -1.4 |
| JCH | Churui | 3.20 | 345 | P | Pn | 00 04 16.2 | -1.1 |
| JCH | | | | eS | Sn | 00 04 52.6 | -2.1 |
| JAK | Akkeshi | 3.48 | 3 | P | Pn | 00 04 19.5 | -1.6 |
| JAK | | | | eS | Sn | 00 04 59.0 | -2.5 |
| JKB | Kayabe | 3.51 | 313 | P | Pn | 00 04 21.4 | -0.2 |
| JKB | | | | eS | Sn | 00 05 00.2 | -2.2 |
| JFT | Otama | 3.79 | 239 | P | Pn | 00 04 24.5 | -1.0 |
| JFT | | | | eS | Sn | 00 05 06.3 | -3.1 |
| JAR | Ashorobuto | 3.81 | 353 | P | Pn | 00 04 23.9 | -1.8 |
| JAR | | | | eS | Sn | 00 05 05.8 | -3.9 |
| NEM2 | Nemuro 2 | 3.96 | 14 | P | Pn | 00 04 25.1 | -2.7 |
| NEM2 | | | | eS | Sn | 00 05 08.7 | -4.8 |
| JTKR | Abashiri--Toko | 4.47 | 355 | P | Pn | 00 04 33.8 | -0.9 |
| JTKR | | | | eS | Sn | 00 05 22.5 | -3.4 |
| JHR | Hokuryu | 4.69 | 335 | P | Pn | 00 04 39.0 | +1.3 |
| ASAJ | Asahikawa | 4.80 | 344 | Pn | Pn | 00 04 40.0 | +0.7 |
| | 2.9nm,0.3s,baz=185,slow=14,SNR=6.3 | | | | | | |
| ASAJ | | | | Sn | Sn | 00 05 34.3 | +0.3 |
| | 1.3nm,0.3s,baz=16,slow=26,SNR=1.7 | | | | | | |
| JRY | Ryogami san | 5.62 | 233 | P | Pn | 00 04 49.0 | -1.5 |
| JRY | | | | eS | Sn | 00 05 48.6 | -5.7 |
| MJAR | Matsushiro Arr | 5.75 | 241 | Pn | Pn | 00 04 52.5 | +0.1 |
| | 1.1nm,0.3s,baz=57,slow=11,SNR=5.1 | | | | | | |
| USRK | Ussuriysk Ar. | 10.40 | 301 | Pn | Pn | 00 05 58.6 | +2.5 |
| | 0.3nm,0.3s,baz=93,slow=14,SNR=4.8 | | | | | | |
| KSRS | Korea Array | 13.11 | 266 | LR | LR | 00 11 48.4 | |
| | comp=Z,32nm,19.1s,baz=90,slow=38 | | | | | | |
| SEY | Seymchan | 23.93 | 9 | P | P | 00 08 42.1 | +1.7 |
| | 1.8nm,0.2s,baz=210,slow=19,SNR=3.6 | | | | | | |
| SONM | Songino Array | 28.51 | 300 | P | P | 00 09 24.9 | +2.8 |
| | 0.4nm,0.7s,baz=116,slow=11,SNR=2.7 | | | | | | |
| ZALV | Zalesovo Beam | 42.06 | 310 | P | P | 00 11 19.2 | +1.1 |
| | 0.3nm,0.4s,baz=77,slow=7.6,SNR=2.2 | | | | | | |
| MKAR | Makanchi Array | 44.87 | 301 | P | P | 00 11 41.3 | +0.4 |
| | 0.5nm,0.8s,baz=93,slow=8.7,SNR=3.0 | | | | | | |
| KURBB | Kurchatov Arra | 46.40 | 307 | P | P | 00 11 53.2 | +0.3 |
| | 0.8nm,0.6s,baz=79,slow=8.5,SNR=6.5 | | | | | | |
| FINES | FINESS Array B | 67.71 | 333 | P | P | 00 14 23.8 | +0.3 |
| | 1.6nm,0.9s,baz=24,slow=11,SNR=3.2 | | | | | | |

**IDC 07 00:05:22.8**±6.4**, 7°.17S**×**150°.42E, h45**$^{km}$±54$^{km}$**, mb3.3**/3**, mb1 3.7**/4**, mb1mx3.4**/28**, mbtmp3.6**/4**, ML1.6**/1**, Error ellipse: s-maj=91.5km s-min=38.9km az=130.0, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PMG | Port Moresby | 3.92 | 235 | P | Pn | 00 06 21.6 | +1.1 |
| | 3.2nm,0.3s,baz=64,slow=12,SNR=6.5 | | | | | | |
| PMG | | | | S | Sn | 00 07 05.4 | +0.3 |
| | 7.1nm,0.3s,baz=138,slow=19,SNR=4.9 | | | | | | |
| WRA | Warramunga Arr | 20.11 | 229 | P | P | 00 09 52.6 | -0.4 |
| | 1.7nm,0.6s,baz=55,slow=11,SNR=20 | | | | | | |
| ASAR | Alice Springs | 22.81 | 222 | P | P | 00 10 21.5 | -0.6 |
| | 0.6nm,0.7s,baz=56,slow=8.8,SNR=6.4 | | | | | | |
| ILAR | Eielson Array | 85.23 | 22 | P | P | 00 17 54.0 | -0.4 |
| | 0.7nm,0.9s,baz=241,slow=6.5,SNR=5.1 | | | | | | |
| TORD | Torodi Ar. Bea | 148.66 | 283 | PKPbc | PKPbc | 00 25 06.3 | +0.1 |
| | 0.3nm,0.4s,baz=88,slow=4.1,SNR=8.2 | | | | | | |

*ISK **07** 00:25:10.8, 38°.77N×43°.24E, h6$^{km}$, MD2.8*
*ISCJB **07** 00:25:11.7±0.4, 38°.78N±0°.02×43°.24E±0°.03, h11$^{km}$±4$^{km}$, Error ellipse: s-maj=4.4km s-min=3.3km az=179.8*
*CSEM **07** 00:25:11.2±0.2, 38°.77N×43°.25E, h10$^{km}$, MD2.8, Error ellipse: s-maj=4.1km s-min=3.2km az=88.0*
*DDA **07** 00:25:11.1, 38°.78N×43°.25E, h7$^{km}$, Ml2.7*
**ISC 07 00:25:11.9**±0.8**, 38°.77N**±0°.02×**43°.25E**±0°.02**, h15**$^{km}$±6$^{km}$**, n36,** $\sigma 1^s.23$/60**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.21 | 147 | ePG | Pg | 00 25 17.1 | +0.3 |
| VANB | | | | eSG | Sg | 00 25 21.5 | +1.5 |
| VANB | Van | 0.21 | 147 | ePg | Pg | 00 25 17.1 | +0.3 |
| ERCV | ERCIS-VAN | 0.26 | 16 | ePG | Pg | 00 25 16.9 | -0.7 |
| ERCV | | | | eSG | Sg | 00 25 20.7 | -0.9 |
| ERCV | ERCIS-VAN | 0.26 | 16 | ePg | Pg | 00 25 16.9 | -0.7 |
| ERCV | | | | eSg | Sg | 00 25 20.7 | -0.9 |
| TVAN | Van | 0.27 | 152 | i P | Pg | 00 25 17.1 | -0.8 |
| TVAN | | | | i S | Sb | 00 25 22.3 | -0.8 |
| TVAN | Van | 0.27 | 152 | P | Pg | 00 25 17.1 | -0.8 |
| TVAN | | | | S | Sb | 00 25 22.3 | -0.8 |
| VMUR | Van-Muradiye | 0.34 | 49 | i P | Pg | 00 25 18.3 | -0.6 |
| VMUR | | | | i S | Sb | 00 25 24.5 | -0.4 |
| VMUR | Van-Muradiye | 0.34 | 49 | P | Pg | 00 25 18.3 | -0.6 |
| VMUR | | | | S | Sb | 00 25 24.5 | -0.4 |
| ADCV | BITLIS_Adilcev | 0.41 | 275 | i P | Pg | 00 25 19.1 | -1.1 |
| ADCV | | | | i S | Sb | 00 25 26.6 | -0.4 |
| ADCV | BITLIS_Adilcev | 0.41 | 275 | P | Pg | 00 25 19.1 | -1.1 |
| ADCV | | | | S | Sb | 00 25 26.6 | -0.4 |
| GEVA | Gevas | 0.48 | 198 | i P | Pg | 00 25 20.0 | -1.5 |
| GEVA | | | | i S | Sg | 00 25 27.9 | -0.1 |
| GEVA | Gevas | 0.48 | 198 | P | Pg | 00 25 20.0 | -1.5 |
| GEVA | | | | S | Sg | 00 25 27.9 | -0.1 |
| CLDR | Caldiran | 0.64 | 54 | ePG | Pg | 00 25 23.5 | -1.1 |
| CLDR | | | | eSG | Sb | 00 25 33.2 | -0.6 |
| CLDR | Caldiran | 0.64 | 54 | i P | Pg | 00 25 22.7 | -1.9 |
| CLDR | | | | i S | Sg | 00 25 33.0 | -0.2 |
| CLDR | Caldiran | 0.64 | 54 | P | Pg | 00 25 22.7 | -1.9 |
| CLDR | Caldiran | 0.64 | 54 | ePg | Pg | 00 25 23.5 | -1.1 |
| CLDR | | | | S | Sg | 00 25 33.0 | -0.2 |
| TUTA | Tutak | 0.71 | 332 | i P | Pg | 00 25 24.7 | -1.2 |
| TUTA | | | | i S | Sg | 00 25 34.8 | -0.6 |
| TUTA | Tutak | 0.71 | 332 | P | Pg | 00 25 24.7 | -1.2 |
| TUTA | | | | S | Sg | 00 25 34.8 | -0.6 |
| AGRB | Hanur-Agry | 0.83 | 346 | ePG | Pg | 00 25 27.0 | -1.0 |
| AGRB | | | | eSG | Sb | 00 25 39.1 | 0.0 |
| AGRB | Hanur-Agry | 0.83 | 346 | ePg | Pg | 00 25 27.0 | -1.0 |
| AGRB | | | | eSg | Sb | 00 25 39.1 | 0.0 |
| EKAR | Karacoban | 1.04 | 298 | i P | Pb | 00 25 31.7 | 0.0 |
| EKAR | | | | i S | Sn | 00 25 50.1 | +3.6 |
| EKAR | Karacoban | 1.04 | 298 | P | Pb | 00 25 31.7 | 0.0 |
| EKAR | | | | S | Sn | 00 25 50.1 | +3.6 |
| EATA | Eleskirt | 1.24 | 332 | i P | Pg | 00 25 33.9 | -1.9 |
| EATA | | | | i S | Sn | 00 25 52.5 | +0.9 |
| EATA | Eleskirt | 1.24 | 332 | P | Pg | 00 25 33.9 | -1.9 |
| EATA | | | | S | Sn | 00 25 52.5 | +0.9 |
| HAKT | HAKKARI | 1.26 | 163 | i P | Pg | 00 25 33.8 | -2.5 |
| HAKT | | | | i S | Sn | 00 25 53.6 | +1.5 |
| HAKT | HAKKARI | 1.26 | 163 | P | Pg | 00 25 33.8 | -2.5 |
| HAKT | | | | S | Sn | 00 25 53.6 | +1.5 |
| SIRT | Sirnak | 1.42 | 207 | ePN | Pn | 00 25 37.3 | +0.1 |
| SIRT | Sirnak | 1.42 | 207 | ePn | Pn | 00 25 37.3 | +0.1 |
| TASB | TASBURUN-IGDIR | 1.44 | 32 | ePN | Pn | 00 25 37.9 | +0.5 |
| TASB | TASBURUN-IGDIR | 1.44 | 32 | ePn | Pn | 00 25 37.9 | +0.5 |
| VRTB | Varto-Mus | 1.45 | 286 | ePN | Pb | 00 25 38.5 | -0.2 |
| VRTB | Varto-Mus | 1.45 | 286 | ePn | Pb | 00 25 38.5 | -0.2 |
| CUKT | Cukurca | 1.55 | 169 | ePN | Pn | 00 25 39.5 | +0.5 |
| CUKT | Cukurca | 1.55 | 169 | ePn | Pn | 00 25 39.5 | +0.5 |
| SENK | Senkaya-Erzuru | 1.92 | 339 | ePN | Pn | 00 25 45.1 | +0.9 |
| SENK | Senkaya-Erzuru | 1.92 | 339 | ePn | Pn | 00 25 45.1 | +0.9 |

*ISK **07** 00:28:01.6, 38°.79N×43°.26E, h7$^{km}$, MD2.6*
*ISCJB **07** 00:28:02.4±0.5, 38°.79N±0°.03×43°.24E±0°.04, h14$^{km}$±5$^{km}$, Error ellipse: s-maj=5.6km s-min=4.5km az=19.9*
*CSEM **07** 00:28:02.2±0.2, 38°.79N×43°.23E, h10$^{km}$, MD2.6, Error ellipse: s-maj=4.7km s-min=4.0km az=88.0*
*DDA **07** 00:28:02.1, 38°.77N×43°.19E, h7$^{km}$, Ml2.7*
**ISC 07 00:28:02.6**±0.9**, 38°.79N**±0°.02×**43°.23E**±0°.03**, h18**$^{km}$±8$^{km}$**,**

**n24, σ0$^{s}$83/38, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.23 | 146 | ePG | Pg | 00 28 07.9 | -0.1 |
| VANB | | | | eSG | Sg | 00 28 12.8 | +1.1 |
| VANB | Van | 0.23 | 146 | ePg | Pg | 00 28 07.9 | -0.1 |
| VANB | | | | eSg | Sg | 00 28 12.8 | +1.1 |
| TVAN | Van | 0.29 | 151 | iP | Pg | 00 28 08.0 | -1.1 |
| TVAN | | | | iS | Sg | 00 28 13.2 | -0.3 |
| TVAN | Van | 0.29 | 151 | P | Pg | 00 28 08.0 | -1.1 |
| TVAN | | | | S | Sg | 00 28 13.2 | -0.3 |
| VMUR | Van-Muradiye | 0.34 | 53 | iP | Pg | 00 28 09.2 | -0.7 |
| VMUR | | | | iS | Sb | 00 28 15.8 | +0.4 |
| VMUR | Van-Muradiye | 0.34 | 53 | P | Pg | 00 28 09.2 | -0.7 |
| VMUR | | | | S | Sb | 00 28 15.8 | +0.4 |
| ADCV | BITLIS_Adilcev | 0.39 | 273 | iP | Pg | 00 28 10.2 | -0.7 |
| ADCV | | | | iS | Sb | 00 28 17.5 | +0.5 |
| ADCV | BITLIS_Adilcev | 0.39 | 273 | P | Pg | 00 28 10.1 | -0.7 |
| ADCV | | | | S | Sb | 00 28 17.5 | +0.5 |
| GEVA | Gevas | 0.49 | 196 | iP | Pg | 00 28 10.8 | -1.7 |
| GEVA | | | | iS | Sg | 00 28 18.8 | -0.4 |
| GEVA | Gevas | 0.49 | 196 | P | Pg | 00 28 10.8 | -1.7 |
| GEVA | | | | S | Sg | 00 28 18.8 | -0.4 |
| CLDR | Caldiran | 0.65 | 56 | ePG | Pg | 00 28 14.2 | -1.2 |
| CLDR | | | | eSG | Sg | 00 28 23.3 | -0.8 |
| CLDR | Caldiran | 0.65 | 56 | ePg | Pg | 00 28 14.2 | -1.2 |
| CLDR | | | | eSg | Sg | 00 28 23.3 | -0.8 |
| TUTA | Tutak | 0.69 | 333 | iP | Pg | 00 28 15.5 | -0.8 |
| TUTA | | | | iS | Sg | 00 28 25.4 | -0.2 |
| TUTA | Tutak | 0.69 | 333 | P | Pg | 00 28 15.5 | -0.8 |
| TUTA | | | | S | Sg | 00 28 25.4 | -0.2 |
| AGRB | Hanur-Agry | 0.81 | 347 | ePG | Pg | 00 28 17.6 | -0.9 |
| AGRB | Hanur-Agry | 0.81 | 347 | ePg | Pg | 00 28 17.6 | -0.9 |
| SIRT | Sirnak | 1.43 | 206 | ePN | Pb | 00 28 28.8 | +0.1 |
| SIRT | Sirnak | 1.43 | 206 | ePn | Pb | 00 28 28.8 | +0.1 |
| TASB | TASBURUN-IGDIR | 1.43 | 33 | ePN | Pn | 00 28 28.3 | +0.5 |
| TASB | TASBURUN-IGDIR | 1.43 | 33 | ePn | Pn | 00 28 28.3 | +0.5 |
| VRTB | Varto-Mus | 1.43 | 286 | ePN | Pb | 00 28 29.3 | +0.5 |
| VRTB | Varto-Mus | 1.43 | 286 | ePn | Pb | 00 28 29.3 | +0.5 |
| CUKT | Cukurca | 1.56 | 169 | ePN | Pn | 00 28 30.4 | +0.7 |
| CUKT | Cukurca | 1.56 | 169 | ePn | Pn | 00 28 30.4 | +0.7 |

*ISCJB **07** 00:29:05.0±0.5, 38°80N±0°03×43°24E±0°04, h15$^{km}$±4$^{km}$, Error ellipse: s-maj=5.3km s-min=4.3km az=20.1*
*CSEM **07** 00:29:04.6±0.2, 38°80N×43°24E, h10$^{km}$, MD2.6, Error ellipse: s-maj=4.5km s-min=3.7km az=106.0*
*DDA **07** 00:29:04.6, 38°78N×43°25E, h7$^{km}$, Ml2.8*
*ISK **07** 00:29:04.0, 38°79N×43°24E, h6$^{km}$, MD2.6*
**ISC 07 00:29:05.1**±0.9, **38°79N**±0°02×**43°23E**±0°03, **h17**$^{km}$±7$^{km}$, **n26, σ0$^{s}$90**/42, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.23 | 148 | ePG | Pg | 00 29 10.6 | 0.0 |
| VANB | | | | eSG | Sg | 00 29 15.4 | +1.1 |
| VANB | Van | 0.23 | 148 | ePg | Pg | 00 29 10.6 | 0.0 |
| VANB | | | | eSg | Sg | 00 29 15.4 | +1.1 |
| ERCV | ERCIS-VAN | 0.24 | 19 | ePG | Pg | 00 29 09.8 | -1.0 |
| ERCV | ERCIS-VAN | 0.24 | 19 | ePg | Pg | 00 29 09.8 | -1.0 |
| TVAN | Van | 0.29 | 153 | iP | Pg | 00 29 10.3 | -1.4 |
| TVAN | | | | iS | Sg | 00 29 15.8 | -0.3 |
| TVAN | Van | 0.29 | 153 | P | Pg | 00 29 10.3 | -1.4 |
| TVAN | | | | S | Sg | 00 29 15.8 | -0.3 |
| VMUR | Van-Muradiye | 0.33 | 53 | iP | Pg | 00 29 11.6 | -0.6 |
| VMUR | | | | iS | Sb | 00 29 18.1 | +0.4 |
| VMUR | Van-Muradiye | 0.33 | 53 | P | Pg | 00 29 11.6 | -0.6 |
| VMUR | | | | S | Sb | 00 29 18.1 | +0.4 |
| ADCV | BITLIS_Adilcev | 0.40 | 273 | iP | Pg | 00 29 12.9 | -0.5 |
| ADCV | | | | iS | Sb | 00 29 19.9 | +0.2 |
| ADCV | BITLIS_Adilcev | 0.40 | 273 | P | Pg | 00 29 12.9 | -0.5 |
| ADCV | | | | S | Sb | 00 29 19.9 | +0.2 |
| GEVA | Gevas | 0.50 | 196 | iP | Pg | 00 29 13.4 | -1.8 |
| GEVA | | | | iS | Sg | 00 29 21.7 | -0.3 |
| GEVA | Gevas | 0.50 | 196 | P | Pg | 00 29 13.4 | -1.8 |
| GEVA | | | | S | Sg | 00 29 21.7 | -0.3 |
| CLDR | Caldiran | 0.64 | 56 | ePG | Pg | 00 29 16.9 | -0.8 |
| CLDR | | | | eSG | Sg | 00 29 26.0 | -0.4 |
| CLDR | Caldiran | 0.64 | 56 | iP | Pg | 00 29 16.1 | -1.7 |
| CLDR | | | | iS | Sb | 00 29 27.0 | +0.4 |
| CLDR | Caldiran | 0.64 | 56 | P | Pg | 00 29 16.1 | -1.7 |
| CLDR | Caldiran | 0.64 | 56 | ePg | Pg | 00 29 17.0 | -0.8 |
| CLDR | | | | eSg | Sg | 00 29 26.0 | -0.4 |
| CLDR | | | | S | Sb | 00 29 27.0 | +0.4 |
| TUTA | Tutak | 0.69 | 332 | iP | Pg | 00 29 18.3 | -0.5 |
| TUTA | | | | iS | Sg | 00 29 28.0 | -0.1 |
| TUTA | Tutak | 0.69 | 332 | P | Pg | 00 29 18.3 | -0.5 |
| TUTA | | | | S | Sg | 00 29 28.0 | -0.1 |
| AGRB | Hanur-Agry | 0.81 | 347 | ePG | Pg | 00 29 19.9 | -1.0 |
| AGRB | Hanur-Agry | 0.81 | 347 | ePg | Pg | 00 29 19.9 | -1.0 |
| SIRT | Sirnak | 1.43 | 206 | ePN | Pn | 00 29 31.1 | +0.7 |
| SIRT | Sirnak | 1.43 | 206 | ePn | Pn | 00 29 31.1 | +0.7 |
| VRTB | Varto-Mus | 1.43 | 285 | ePN | Pn | 00 29 31.1 | +0.7 |
| VRTB | Varto-Mus | 1.43 | 285 | ePn | Pn | 00 29 31.1 | +0.7 |
| CUKT | Cukurca | 1.57 | 169 | ePN | Pn | 00 29 33.1 | +0.9 |
| CUKT | Cukurca | 1.57 | 169 | ePn | Pn | 00 29 33.2 | +0.9 |

*ISK **07** 00:35:55.8, 38°71N×43°54E, h5$^{km}$, MD2.8*
*CSEM **07** 00:35:56.8±0.2, 38°68N×43°58E, h2$^{km}$, MD2.8, Error ellipse: s-maj=4.6km s-min=3.0km az=97.0*
*ISCJB **07** 00:35:57.2±0.6, 38°71N±0°02×43°56E±0°05, h1$^{km}$±6$^{km}$, Error ellipse: s-maj=6.0km s-min=3.5km az=6.5*
*DDA **07** 00:35:57.1, 38°71N×43°55E, h7$^{km}$, Ml2.7*
**ISC 07 00:35:57.5**±1.0, **38°70N**±0°02×**43°57E**±0°03, **h9**$^{km}$±8$^{km}$, **n38, σ0$^{s}$96**/60, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.18 | 234 | ePG | Pg | 00 36 01.3 | 0.0 |
| VANB | Van | 0.18 | 234 | ePg | Pg | 00 36 01.3 | 0.0 |
| TVAN | Van | 0.21 | 217 | iP | Pg | 00 36 01.1 | -0.9 |
| TVAN | | | | iS | Sg | 00 36 05.1 | +0.1 |
| TVAN | Van | 0.21 | 217 | P | Pg | 00 36 01.1 | -0.9 |
| TVAN | | | | S | Sg | 00 36 05.1 | +0.1 |
| VMUR | Van-Muradiye | 0.29 | 0 | iP | Pg | 00 36 02.9 | -0.5 |
| VMUR | | | | iS | Sb | 00 36 09.6 | -0.4 |
| VMUR | Van-Muradiye | 0.29 | 0 | P | Pg | 00 36 02.9 | -0.5 |
| VMUR | | | | S | Sb | 00 36 09.6 | -0.4 |
| CLDR | Caldiran | 0.52 | 31 | ePG | Pg | 00 36 06.5 | -1.1 |
| CLDR | | | | eSG | Sb | 00 36 15.7 | -0.9 |
| CLDR | Caldiran | 0.52 | 31 | iP | Pg | 00 36 07.0 | -0.6 |
| CLDR | | | | iS | Sb | 00 36 16.3 | -0.3 |
| CLDR | Caldiran | 0.52 | 31 | ePg | Pg | 00 36 06.5 | -1.1 |
| CLDR | Caldiran | 0.52 | 31 | P | Pg | 00 36 07.0 | -0.6 |
| CLDR | | | | eSg | Sb | 00 36 15.7 | -0.9 |
| CLDR | | | | S | Sb | 00 36 16.3 | -0.3 |
| GEVA | Gevas | 0.56 | 226 | iP | Pg | 00 36 07.4 | -0.9 |
| GEVA | | | | iS | Sb | 00 36 16.5 | -1.1 |
| GEVA | Gevas | 0.56 | 226 | P | Pg | 00 36 07.4 | -0.9 |
| GEVA | | | | S | Sb | 00 36 16.5 | -1.1 |
| ADCV | BITLIS_Adilcev | 0.67 | 280 | iP | Pg | 00 36 09.5 | -1.0 |
| ADCV | | | | iS | Sb | 00 36 19.9 | -1.0 |
| ADCV | BITLIS_Adilcev | 0.67 | 280 | P | Pg | 00 36 09.5 | -1.0 |
| ADCV | | | | S | Sb | 00 36 19.9 | -1.0 |
| TUTA | Tutak | 0.92 | 320 | iP | Pg | 00 36 13.8 | -1.3 |
| TUTA | | | | iS | Sb | 00 36 27.1 | -1.0 |
| TUTA | Tutak | 0.92 | 320 | P | Pg | 00 36 13.8 | -1.3 |
| TUTA | | | | S | Sb | 00 36 27.1 | -1.0 |
| AGRB | Hanur-Agry | 0.98 | 333 | ePG | Pg | 00 36 15.6 | -0.8 |
| AGRB | | | | eSG | Sb | 00 36 29.4 | -0.5 |
| AGRB | Hanur-Agry | 0.98 | 333 | ePg | Pg | 00 36 15.6 | -0.8 |
| AGRB | | | | eSg | Sb | 00 36 29.4 | -0.5 |
| HAKT | HAKKARI | 1.14 | 175 | iP | Pg | 00 36 18.0 | -1.5 |
| HAKT | | | | iS | Sn | 00 36 36.6 | +0.8 |
| HAKT | HAKKARI | 1.14 | 175 | P | Pg | 00 36 18.0 | -1.5 |
| HAKT | | | | S | Sn | 00 36 36.6 | +0.8 |
| YOVA | Hakkari_Yˆ…kse | 1.25 | 153 | iP | Pg | 00 36 20.0 | -1.4 |
| YOVA | Hakkari_Yˆ…kse | 1.25 | 153 | P | Pg | 00 36 20.0 | -1.4 |
| TASB | TASBURUN-IGDIR | 1.38 | 22 | ePN | Pn | 00 36 23.0 | 0.0 |
| TASB | TASBURUN-IGDIR | 1.38 | 22 | ePn | Pn | 00 36 23.0 | 0.0 |
| EATA | Eleskirt | 1.43 | 325 | iP | Pg | 00 36 24.2 | -0.8 |
| EATA | | | | iS | Sn | 00 36 44.4 | +1.4 |
| EATA | Eleskirt | 1.43 | 325 | P | Pg | 00 36 24.2 | -0.8 |
| EATA | | | | S | Sn | 00 36 44.4 | +1.4 |
| CUKT | Cukurca | 1.45 | 179 | ePN | Pn | 00 36 24.0 | 0.0 |
| CUKT | Cukurca | 1.45 | 179 | iP | Pg | 00 36 24.8 | -0.5 |
| CUKT | | | | iS | Sg | 00 36 46.3 | +2.2 |
| CUKT | Cukurca | 1.45 | 179 | ePn | Pn | 00 36 24.0 | 0.0 |
| CUKT | Cukurca | 1.45 | 179 | P | Pg | 00 36 24.8 | -0.5 |
| CUKT | | | | S | Sg | 00 36 46.3 | +2.2 |
| SIRT | Sirnak | 1.49 | 217 | ePN | Pn | 00 36 24.6 | +0.1 |
| SIRT | Sirnak | 1.49 | 217 | ePn | Pn | 00 36 24.6 | +0.1 |
| VRTB | Varto-Mus | 1.71 | 286 | ePN | Pn | 00 36 27.6 | 0.0 |
| VRTB | Varto-Mus | 1.71 | 286 | ePn | Pn | 00 36 27.6 | 0.0 |
| DIGO | Kars | 1.72 | 355 | iP | Pg | 00 36 29.3 | -1.2 |
| DIGO | Kars | 1.72 | 355 | P | Pg | 00 36 29.3 | -1.2 |
| SENK | Senkaya-Erzuru | 2.08 | 334 | ePN | Pn | 00 36 33.5 | +0.7 |
| SENK | Senkaya-Erzuru | 2.08 | 334 | ePn | Pn | 00 36 33.5 | +0.7 |

**SJA 07 00:57:43.2**±0.4, **31°71S×68°42W, h99**$^{km}$±2$^{km}$, **ML3.7, MW2.4, San Juan Province**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RTCV | Cerro Valdivia | 0.18 | 214 | eP | Pn | 00 57 58.3 | +0.9 |
| RTCV | | | | eS | Sn | 00 58 08.8 | +0.9 |
| RTLL | Cerro Villicun | 0.38 | 353 | eP | Pn | 00 57 58.7 | +0.5 |
| RTLL | | | | eS | Sn | 00 58 10.3 | +1.0 |
| RTLS | Leoncito | 0.75 | 263 | eP | Pn | 00 58 02.6 | +1.3 |
| RTLS | | | | eS | Sn | 00 58 16.9 | +1.9 |
| AMOG | MOGNA | 0.77 | 355 | eP | Pn | 00 58 02.1 | +0.8 |
| AMOG | | | | IAML | | 00 58 02.2 | |
| | comp=Z,2μm,0.2s | | | | | | |
| AMOG | | | | eS | Sn | 00 58 16.0 | +1.1 |
| AUSP | Uspallata | 0.97 | 238 | eP | Pn | 00 58 04.6 | +1.1 |
| AUSP | | | | eS | Sn | 00 58 20.9 | +2.0 |
| ACAN | Cantantal | 1.19 | 119 | eP | Pn | 00 58 06.7 | +1.0 |
| ACAN | | | | eS | Sn | 00 58 23.9 | +1.2 |

**IDC 07 01:11:53.8**±3.0, **5°07S×133°53E, h0**$^{km}$, **mb3.5**/1, **mb1 3.9**/4, **mb1mx3.7**/23, **mbtmp3.8**/4, **ML3.7**/3, **MS3.2**/3, **Ms1 3.2**/3, **ms1mx2.8**/25, **Error ellipse: s-maj=128.9km s-min=29.0km az=82.0, Aru Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PMG | Port Moresby | 14.19 | 108 | LR | LR | 01 22 34.2 | |
| | comp=Z,107nm,18.8s,baz=340,slow=45 | | | | | | |
| WRA | Warramunga Arr | 14.81 | 177 | Pn | Pn | 01 15 23.2 | -1.4 |
| | 0.3nm,0.3s,baz=359,slow=13,SNR=11 | | | | | | |
| WRA | | | | Sn | Sn | 01 18 00.6 | -9.0 |
| | 0.4nm,0.3s,baz=352,slow=24,SNR=6.8 | | | | | | |
| FITZ | Fitzroy Crossi | 15.08 | 210 | Pn | Pn | 01 15 27.8 | -0.5 |
| | 0.4nm,0.3s,baz=32,slow=12,SNR=8.9 | | | | | | |
| FITZ | | | | Sn | Sn | 01 18 09.2 | -6.9 |
| | 0.6nm,0.3s,baz=210,slow=20,SNR=10 | | | | | | |
| ASAR | Alice Springs | 18.50 | 179 | P | Pn | 01 16 12.4 | +0.7 |
| | 0.3nm,0.3s,baz=360,slow=12,SNR=15 | | | | | | |
| ASAR | | | | S | Sn | 01 19 29.8 | -9.3 |
| | 0.1nm,0.3s,baz=0.2,slow=29,SNR=3.6 | | | | | | |
| ASAR | | | | LR | LR | 01 23 20.7 | |
| | comp=Z,67nm,20.7s,baz=19,slow=37 | | | | | | |
| MJAR | Matsushiro Arr | 41.62 | 6 | LR | LR | 01 35 29.3 | |
| | comp=Z,36nm,20.2s,baz=95,slow=34 | | | | | | |
| MKAR | Makanchi Array | 68.61 | 325 | P | P | 01 22 58.8 | 0.0 |
| | 0.4nm,0.6s,baz=127,slow=7.8,SNR=2.7 | | | | | | |

*ISCJB **07** 01:29:10.7±0.5, 27°32N±0°07×141°2E±0°1, h350$^{km}$, mb3.5/15, Error ellipse: s-maj=18.4km s-min=8.4km az=160.6*
*IDC **07** 01:29:12.6±2.1, 27°19N×140°39E, h337$^{km}$±20$^{km}$, mb3.2/13, mb1 3.4/14, mb1mx3.3/32, mbtmp4.0/14, Error ellipse: s-maj=20.3km s-min=12.1km az=87.0*
*JMA **07** 01:29:12.9±0.1, 27°45N×141°02E, h327$^{km}$, M4.2*
**ISC 07 01:29:12.6**±0.6, **27°28N**±0°08×**140°9E**±0°1, **h350**$^{km}$, **n23, σ2$^{s}$20**/30, **mb3.5**/15, **Bonin Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CBIJ | Chichi jima | 1.13 | 99 | P | Pn | 01 29 56.9 | -2.0 |
| CBIJ | | | | S | S | 01 30 31.0 | -5.0 |
| JHHJ | Haha-jima-NKT | 1.29 | 120 | P | Pn | 01 29 57.9 | -1.8 |
| JHHJ | | | | eS | S | 01 30 33.1 | -4.3 |
| BSO4 | Boso 4 | 7.70 | 356 | P | Pn | 01 31 02.2 | -0.8 |
| BSO4 | | | | eS | S | 01 32 27.7 | -5.2 |
| JAG | Ashikaga | 9.20 | 353 | P | Pn | 01 31 19.1 | -1.8 |
| KSRS | Korea Array | 14.94 | 316 | P | Pn | 01 32 29.7 | +1.1 |
| | 0.3nm,0.3s,baz=132,slow=12,SNR=7.3 | | | | | | |
| USRK | Ussuriysk Ar. | 18.35 | 339 | P | P | 01 33 03.0 | -0.1 |
| | 0.5nm,0.3s,baz=166,slow=12,SNR=13 | | | | | | |
| KLR | Kul'dur | 23.03 | 344 | P | P | 01 33 48.9 | +0.9 |
| | 0.2nm,0.6s,baz=171,slow=4.2,SNR=5.2 | | | | | | |
| SONM | Songino Array | 33.81 | 317 | P | P | 01 35 21.9 | -1.1 |
| | 0.9nm,0.4s,baz=141,slow=10,SNR=3.9 | | | | | | |
| WRA | Warramunga Arr | 47.38 | 188 | P | P | 01 37 12.7 | -0.2 |
| | 1.7nm,0.3s,baz=5.4,slow=7.6,SNR=26 | | | | | | |
| WRA | | | | ScP | ScP | 01 41 58.7 | +1.4 |
| | 0.1nm,0.3s,baz=358,slow=3.5,SNR=2.3 | | | | | | |
| ZALV | Zalesovo Beam | 48.62 | 319 | P | P | 01 37 21.6 | -0.3 |
| | 0.6nm,0.3s,baz=101,slow=7.5,SNR=3.2 | | | | | | |
| ZALV | | | | PcP | PcP | 01 38 41.6 | +0.2 |
| | 0.9nm,0.3s,baz=111,slow=2.2,SNR=3.6 | | | | | | |
| MKAR | Makanchi Array | 49.49 | 310 | P | P | 01 37 27.7 | -1.0 |
| | 0.4nm,0.5s,baz=86,slow=10,SNR=6.5 | | | | | | |
| MKAR | | | | PcP | PcP | 01 38 45.4 | +0.6 |
| | 0.5nm,0.6s,baz=74,slow=6.6,SNR=5.5 | | | | | | |
| MKAR | | | | ScP | ScP | 01 42 07.8 | +1.7 |
| | 0.4nm,0.6s,baz=70,slow=6.0,SNR=3.6 | | | | | | |
| ASAR | Alice Springs | 51.10 | 188 | P | P | 01 37 40.7 | -0.2 |
| | 0.2nm,0.5s,baz=357,slow=5.6,SNR=4.1 | | | | | | |
| KDAK | Kodiak Island | 54.88 | 37 | P | P | 01 38 11.9 | +4.3 |
| | 4.8nm,0.9s,baz=310,slow=7.9,SNR=5.6 | | | | | | |
| ILAR | Eielson Array | 58.08 | 29 | P | P | 01 38 33.0 | +3.0 |
| | 0.5nm,0.7s,baz=250,slow=5.8,SNR=9.0 | | | | | | |
| YKA | Yellowknife Ar | 72.50 | 28 | P | P | 01 40 04.8 | +3.2 |
| | 0.6nm,0.5s,baz=300,slow=5.6,SNR=3.7 | | | | | | |
| ARCES | ARCESS Array B | 73.00 | 341 | P | P | 01 40 05.3 | +0.9 |
| | 1.9nm,0.7s,baz=87,slow=7.4,SNR=8.0 | | | | | | |
| FINES | FINESS Array B | 77.28 | 333 | P | P | 01 40 29.1 | +0.4 |
| | 6.0nm,0.3s,baz=69,slow=4.9,SNR=84 | | | | | | |
| AKASG | Malin Array Be | 81.80 | 323 | P | P | 01 40 52.9 | -0.2 |
| | 0.4nm,0.3s,baz=49,slow=5.7,SNR=6.5 | | | | | | |
| NB2 | NORSAR Subarra | 83.02 | 338 | P | P | 01 40 59.3 | +0.1 |
| | comp=Z,1.5nm,0.6s,baz=47,slow=4.8 | | | | | | |
| NOA | NORSAR Array B | 83.02 | 338 | P | P | 01 40 59.4 | +0.1 |
| | comp=Z,1.2nm,0.6s,baz=48,slow=4.7,SNR=3.3 | | | | | | |
| BRTR | Keskin Array B | 85.05 | 312 | P | P | 01 41 09.3 | -0.6 |
| | comp=Z,0.5nm,0.6s,baz=91,slow=4.8,SNR=4.0 | | | | | | |
| GERES | GERESS Array B | 90.77 | 328 | P | P | 01 41 36.2 | -0.5 |
| | comp=Z,0.2nm,0.4s,baz=47,slow=4.3,SNR=2.8 | | | | | | |
| TORD | Torodi Ar. Bea | 123.61 | 310 | PKP | PKPdf | 01 47 30.2 | +0.5 |
| | comp=Z,0.3nm,0.5s,baz=29,slow=1.4,SNR=5.2 | | | | | | |

**SJA 07 01:32:25.4**±0.5, **26°16S×64°42W, h3**$^{km}$±4$^{km}$, **ML2.9, MW3.5, Tucuman Province**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AHML | Horco Molle | 1.03 | 232 | iP | Pb | 01 32 46.1 | +0.1 |
| FSA | Cafayete | 1.40 | 272 | iP | Pb | 01 32 52.8 | +0.5 |
| FSA | | | | iS | Sn | 01 33 13.6 | +2.4 |
| FSA | | | | IAML | | 01 33 13.6 | |
| | comp=Z,95nm,0.2s | | | | | | |
| SLA | San Lorenzo | 1.73 | 325 | iP | Pg | 01 32 59.2 | +0.5 |
| SLA | | | | iS | Sg | 01 33 23.6 | +2.4 |
| SLA | | | | IAML | | 01 33 27.1 | |
| | comp=Z,283nm,0.5s | | | | | | |
| AZAP | Zapla | 2.01 | 343 | iP | Pb | 01 33 03.4 | +0.5 |
| AZAP | | | | iS | Sg | 01 33 31.3 | +1.2 |
| ASTB | Santa Barbara | 2.20 | 359 | iP | Pb | 01 33 05.8 | -0.2 |
| ALOL | LOMAS DE OLMED | 2.37 | 10 | iP | Pb | 01 33 07.9 | -0.9 |
| CYA | Choya | 2.58 | 208 | iP | Pb | 01 33 10.8 | -1.7 |
| HJA | Humahuaca | 3.07 | 343 | iP | Pb | 01 33 18.4 | -2.6 |

*ISCJB **07** 01:34:38.9±0.6, 38°50N±0°03×43°32E±0°05, h4$^{km}$±6$^{km}$, Error ellipse: s-maj=6.7km s-min=4.5km az=17.5*
*CSEM **07** 01:34:38.1, 38°46N×43°39E, h6$^{km}$, MD3.1*
*ATA **07** 01:34:38.0±0.6, 38°51N×43°27E, h7$^{km}$±22$^{km}$, ML3.1, MW3.1*
*ISK **07** 01:34:38.1, 38°46N×43°39E, h6$^{km}$, MD3.1*
**ISC 07 01:34:38.0**±1.2, **38°47N**±0°03×**43°40E**±0°04, **h4**$^{km}$±10$^{km}$, **n29, σ0$^{s}$83**/38, **1C-1D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.13 | 357 | ePG | Pg | 01 34 40.4 | -0.2 |
| VANB | Van | 0.13 | 357 | ePg | Pg | 01 34 40.4 | -0.2 |
| GEVA | Gevas | 0.31 | 240⇑ | iP | Pg | 01 34 43.9 | -0.1 |
| GEVA | | | | eS | Sg | 01 34 48.2 | +0.2 |
| GEVA | | | | IAML | | 01 34 51.7 | |
| | comp=Z,207nm,0.4s | | | | | | |
| ERCV | ERCIS-VAN | 0.55 | 355 | ePG | Pg | 01 34 48.9 | +0.3 |
| ERCV | | | | eSG | Sb | 01 34 57.6 | -1.1 |
| ERCV | ERCIS-VAN | 0.55 | 355 | ePg | Pg | 01 34 48.9 | +0.3 |
| ERCV | | | | eSg | Sb | 01 34 57.6 | -1.1 |
| BASK | Baskale_VAN | 0.63 | 131 | eP | Pn | 01 34 53.2 | -0.7 |
| BASK | | | | eS | Sn | 01 35 04.0 | -0.5 |
| BASK | | | | IAML | | 01 35 10.2 | |
| | comp=Z,60nm,0.5s | | | | | | |
| CLDR | Caldiran | 0.79 | 31 | ePG | Pg | 01 34 53.9 | +0.8 |
| CLDR | | | | eSG | Sb | 01 35 05.2 | -0.3 |
| CLDR | Caldiran | 0.79 | 31 | ePg | Pg | 01 34 53.9 | +0.8 |
| CLDR | | | | eSg | Sb | 01 35 05.2 | -0.3 |
| TUTA | Tutak | 1.04 | 334⇓ | eP | Pg | 01 34 56.9 | -1.0 |
| TUTA | | | | IAML | | 01 35 00.6 | |
| | comp=Z,48nm,0.2s | | | | | | |
| TUTA | | | | eS | Sg | 01 35 11.4 | +0.1 |
| AGRB | Hanur-Agry | 1.15 | 344 | ePN | Pg | 01 35 00.1 | +0.1 |
| AGRB | | | | eSN | Sn | 01 35 17.0 | -0.3 |
| AGRB | Hanur-Agry | 1.15 | 344 | ePn | Pg | 01 35 00.1 | +0.1 |
| AGRB | | | | eSn | Sn | 01 35 17.0 | -0.3 |
| SIRT | Sirnak | 1.23 | 218 | ePN | Pb | 01 35 01.6 | -0.1 |
| SIRT | Sirnak | 1.23 | 218 | ePn | Pb | 01 35 01.6 | -0.1 |
| CUKT | Cukurca | 1.23 | 172 | ePN | Pb | 01 35 01.7 | -0.1 |
| CUKT | Cukurca | 1.23 | 172 | ePn | Pb | 01 35 01.7 | -0.1 |
| EATA | Eleskirt | 1.56 | 333 | eP | Pn | 01 35 06.5 | -0.2 |
| EATA | | | | IAML | | 01 35 35.0 | |
| | comp=Z,5.8nm,0.6s | | | | | | |
| TASB | TASBURUN-IGDIR | 1.65 | 23 | ePN | Pb | 01 35 08.8 | -0.2 |
| TASB | TASBURUN-IGDIR | 1.65 | 23 | ePn | Pb | 01 35 08.8 | -0.2 |
| VRTB | Varto-Mus | 1.67 | 295 | ePN | Pb | 01 35 08.8 | -0.5 |
| VRTB | Varto-Mus | 1.67 | 295 | ePn | Pb | 01 35 08.8 | -0.5 |
| ERZM | Erzurum | 2.13 | 313 | eP | Pb | 01 35 16.6 | -0.7 |
| BNGB | Bingˆ¶l | 2.19 | 285 | ePN | Pn | 01 35 16.2 | +1.0 |
| SENK | Senkaya-Erzuru | 2.24 | 339 | ePN | Pn | 01 35 17.5 | +1.5 |
| SENK | Senkaya-Erzuru | 2.24 | 339 | ePn | Pn | 01 35 17.5 | +1.5 |
| BINT | Bingol | 2.31 | 281 | ePn | Pn | 01 35 16.2 | -0.7 |
| YEDI | Yedisu-Bingol | 2.42 | 294 | ePN | Pn | 01 35 19.6 | +1.1 |
| YEDI | Yedisu-Bingol | 2.42 | 294 | ePn | Pn | 01 35 19.6 | +1.1 |
| SVRC | Sivrice-ELAZID | 3.21 | 270 | ePN | Pn | 01 35 31.3 | +1.9 |
| SVRC | Sivrice-ELAZID | 3.21 | 270 | ePn | Pn | 01 35 31.3 | +1.9 |

**MEX 07 01:37:17.5**±0.4, **17°96N×101°71W, h20**$^{km}$±277$^{km}$, **MD3.7, Near coast of Guerrero**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ZIIG | Zihuatanejo | 0.42 | 146 | eP | Pb | 01 37 24.6 | -1.6 |
| ZIIG | | | | eS | Sb | 01 37 30.7 | -1.5 |
| ARIG | Puente Sto Nin | 1.34 | 76 | eP | Pn | 01 37 38.0 | -3.1 |
| ARIG | | | | eS | Sn | 01 37 54.1 | -4.2 |
| MMIG | Aquila | 1.59 | 282 | eP | Pn | 01 37 42.0 | -2.5 |

*ISCJB **07** 01:45:21.0±0.5, 14°65N±0°05×146°08E±0°08, h96$^{km}$, mb4.4/21, Error ellipse: s-maj=11.4km s-min=7.2km az=1.9*
*IDC **07** 01:45:24.9±1.0, 14°62N×145°87E, h107$^{km}$±7$^{km}$, mb3.8/11, mb1 3.9/11, mb1mx3.6/37, mbtmp4.1/11, Error ellipse: s-maj=21.7km s-min=10.5km az=115.0*
*NEIC **07** 01:45:25.3±0.8, 14°58N×146°01E, h118$^{km}$±6$^{km}$, mb4.8/8, Error ellipse: s-maj=11.1km s-min=6.0km az=90.0*
**ISC 07 01:45:23.1**±0.6, **14°55N**±0°06×**146°08E**±0°10, **h96**$^{km}$, **n56, σ1$^{s}$50**/58, **mb4.3**/21, **Mariana Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GUMO | Guam | 1.51 | 231 | P | Pn | 01 45 51.3 | +2.1 |
| | 493nm,0.3s,baz=53,slow=5.1,SNR=162 | | | | | | |
| GUMO | | | | S | Sn | 01 46 09.6 | +0.5 |
| | 664nm,0.3s,baz=353,slow=22,SNR=9.1 | | | | | | |
| SARN | Sarigan | 2.16 | 352 | ePn | Pn | 01 46 01.2 | +3.6 |
| SARN | | | | eSn | Sn | 01 46 25.3 | +1.4 |
| H11S3 | WAKE ISLAND Hy | 20.14 | 76 | T | T | 02 11 23.9 | |
| | baz=263,slow=75,SNR=22 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 20.16 | 76 | T | T | 02 11 25.0 | |
| | baz=263,slow=75,SNR=22 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 20.16 | 76 | T | T | 02 11 25.7 | |
| | baz=263,slow=75,SNR=24 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 20.54 | 73 | T | T | 02 11 31.9 | |
| | baz=260,slow=75,SNR=12 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 20.55 | 73 | T | T | 02 11 32.6 | |
| | baz=260,slow=75,SNR=7.7 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 20.56 | 73 | T | T | 02 11 33.5 | |
| | baz=260,slow=75,SNR=14 | | | | | | |
| FAKI | Fak Fak | 22.11 | 219 | eP | P | 01 50 09.4 | -1.5 |
| | 15nm,1.0s | | | | | | |
| INU | Inuyama | 22.25 | 340 | eP | P | 01 50 12.2 | +0.1 |
| | 29nm,1.2s | | | | | | |
| YULB | Yu-li | 25.00 | 294 | eP | P | 01 50 38.0 | -0.1 |
| | 52nm,1.4s | | | | | | |
| KSRS | Korea Array | 27.94 | 328 | P | P | 01 51 03.9 | -0.5 |
| | 0.8nm,0.5s,baz=140,slow=9.8,SNR=3.7 | | | | | | |
| KS15 | Wonju Array Si | 27.95 | 328 | eP | P | 01 51 03.9 | -0.6 |
| KSAR | Wonju Array Be | 27.95 | 328 | P | P | 01 51 03.9 | -0.6 |
| MTN | Manton Dam | 30.98 | 209 | eP | P | 01 51 31.6 | +0.2 |
| | 27nm,1.6s | | | | | | |
| WB2 | Warramunga Arr | 36.16 | 199 | eP | P | 01 52 17.4 | +1.0 |
| WR1 | Warramunga Arr | 36.17 | 199 | eP | P | 01 52 16.8 | +0.3 |
| WR1 | | | | epP | pP | 01 52 42.9 | +4.4 |
| WRA | Warramunga Arr | 36.17 | 199 | P | P | 01 52 16.8 | +0.3 |
| | 1.0nm,0.7s,baz=13,slow=8.8,SNR=11 | | | | | | |
| WRA | | | | pP | pP | 01 52 42.9 | +4.4 |
| | 0.8nm,0.8s,baz=16,slow=8.7,SNR=3.0 | | | | | | |
| AS31 | Alice Springs | 39.80 | 198 | eP | P | 01 52 48.5 | +1.4 |
| | 1.6nm,1.3s | | | | | | |
| ASAR | Alice Springs | 39.80 | 198 | P | P | 01 52 48.5 | +1.4 |
| | 0.4nm,0.5s,baz=19,slow=7.9,SNR=12 | | | | | | |
| FUNA | Funafuti | 40.06 | 123 | eP | P | 01 52 49.7 | +0.4 |
| | 102nm,1.2s | | | | | | |
| CM31 | Chiang Mai Arr | 45.26 | 282 | eP | P | 01 53 30.2 | -1.2 |
| CMAR | Chiang Mai Arr | 45.26 | 282 | P | P | 01 53 30.9 | -0.5 |
| | 2.7nm,0.5s,baz=83,slow=5.7,SNR=9.6 | | | | | | |
| SONA0 | Songino Array | 46.64 | 324 | eP | P | 01 53 41.6 | -0.3 |
| SONM | Songino Array | 46.64 | 324 | P | P | 01 53 41.6 | -0.3 |
| | 0.5nm,0.6s,baz=141,slow=9.0,SNR=5.1 | | | | | | |
| SONA1 | Songino Array | 46.64 | 324 | eP | P | 01 53 41.7 | -0.3 |
| BBOO | Buckleboo | 48.06 | 191 | eP | P | 01 53 53.6 | +0.7 |
| | 19nm,1.5s | | | | | | |
| NWAO | Narrogin (SRO) | 54.67 | 210 | eP | P | 01 54 41.0 | -1.2 |
| | 114nm,1.8s | | | | | | |
| TAPN | Taplejung | 55.54 | 293 | eP | P | 01 54 48.6 | -0.5 |
| | 21nm,0.4s | | | | | | |
| ODAN | Odare | 55.82 | 293 | eP | P | 01 54 49.9 | -1.2 |
| | 9.0nm,0.4s | | | | | | |
| AIN | Ainahou | 55.91 | 76 | eP | P | 01 54 49.8 | -2.0 |
| | 1μm,1.6s | | | | | | |
| JIRN | Jiri | 56.89 | 294 | eP | P | 01 54 57.8 | -1.0 |
| | 78nm,0.5s | | | | | | |
| GUN | Gumba | 57.17 | 294 | eP | P | 01 55 00.1 | -0.6 |
| | 13nm,0.4s | | | | | | |
| PKI | Pulchoki | 57.59 | 294 | eP | P | 01 55 02.4 | -1.2 |
| | 5.2nm,0.4s | | | | | | |
| PKIN | Phulchoki | 57.60 | 294 | eP | P | 01 55 02.3 | -1.4 |
| | 5.2nm,0.4s | | | | | | |
| KKN | Kakani | 57.70 | 294 | eP | P | 01 55 02.9 | -1.4 |
| DMN | Daman | 57.85 | 294 | eP | P | 01 55 04.1 | -1.3 |
| DANN | Dangsing | 59.04 | 294 | eP | P | 01 55 13.0 | -0.7 |
| KOLN | Koldanda | 59.19 | 294 | eP | P | 01 55 13.3 | -1.4 |
| | 22nm,0.8s | | | | | | |
| PYUN | Piuthan | 59.72 | 294 | eP | P | 01 55 17.1 | -1.2 |
| | 8.1nm,0.3s | | | | | | |
| ZALV | Zalesovo Beam | 61.53 | 324 | P | P | 01 55 29.0 | -0.9 |
| | 2.1nm,0.7s,baz=98,slow=6.5,SNR=8.8 | | | | | | |
| ZALV | Zalesovo Beam | 61.53 | 324 | eP | P | 01 55 28.8 | -1.1 |
| ZAA1 | Zalesovo Array | 61.54 | 324 | eP | P | 01 55 29.0 | -0.9 |
| MK32 | Makanchi Array | 61.62 | 316 | eP | P | 01 55 30.4 | -0.3 |
| MK32 | | | | epP | pP | 01 55 57.5 | +2.9 |
| MKAR | Makanchi Array | 61.62 | 316 | P | P | 01 55 30.4 | -0.3 |
| | 1.2nm,0.4s,baz=90,slow=8.6,SNR=25 | | | | | | |
| MKAR | | | | pP | pP | 01 55 57.5 | +2.9 |
| | 0.6nm,0.5s,baz=86,slow=8.2,SNR=2.2 | | | | | | |
| KURK | Kurchatov | 64.61 | 319 | eP | P | 01 55 49.9 | -0.4 |
| | 14nm,0.9s | | | | | | |
| ILAR | Eielson Array | 67.20 | 25 | P | P | 01 56 07.5 | +0.8 |
| | 0.8nm,0.5s,baz=247,slow=6.3,SNR=23 | | | | | | |
| ILAR | | | | pP | PcP | 01 56 33.0 | -1.0 |
| | 0.4nm,0.7s,baz=254,slow=5.8,SNR=1.9 | | | | | | |
| ILB | Eielson Array | 67.20 | 25 | eP | P | 01 56 07.5 | +0.8 |
| ILB | | | | epP | PcP | 01 56 33.0 | -1.0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| GEYT | Alibeck | 79.62 | 307 | P | P | 01 57 20.1 | -0.1 |
| | 1.2nm,0.7s,baz=93,slow=5.2,SNR=4.3 | | | | | | |
| FIA0 | FINESS Array S | 90.78 | 335 | eP | P | 01 58 13.2 | -2.1 |
| FINES | FINESS Array B | 90.78 | 335 | P | P | 01 58 13.2 | -2.1 |
| | 2.5nm,0.9s,baz=48,slow=6.4,SNR=4.6 | | | | | | |
| BR101 | Keskin Array S | 97.24 | 314 | eP | P | 01 58 44.4 | -1.2 |
| BRTR | Keskin Array B | 97.24 | 314 | P | P | 01 58 44.4 | -1.2 |
| | 0.3nm,0.5s,baz=46,slow=6.8,SNR=2.5 | | | | | | |
| TOA1 | Torodi Ar. Sit | 135.26 | 306 | ePKPdf | PKPdf | 02 04 32.4 | -0.1 |
| TORD | Torodi Ar. Bea | 135.26 | 306 | PKP | PKPdf | 02 04 32.4 | -0.1 |
| | 0.4nm,0.8s,baz=33,slow=2.6,SNR=3.0 | | | | | | |
| DBIC | Dimbokro | 144.28 | 304 | PKP | PKPdf | 02 04 48.3 | -0.7 |
| | 1.4nm,0.5s,baz=45,slow=2.9,SNR=4.6 | | | | | | |

*ISCJB **07** 02:17:29.1±0.7, 35°.45N±0°.05×139°.48E±0°.10, h142km±5km, mb3.8/2, Error ellipse: s-maj=14.2km s-min=6.7km az=154.4*

*JMA **07** 02:17:30.7±0.1, 35°.48N×139°.53E, h132km±1km, M3.3*

*IDC **07** 02:17:31.2±0.9, 35°.20N×138°.82E, h137km±9km, mb3.6/2, mb1 3.7/3, mb1mx3.0/67, mbtmp4.0/3, Error ellipse: s-maj=69.9km s-min=7.5km az=69.0*

**ISC 07 02:17:30.0**±1.0, **35°.46N**±0°.05×**139°.50E**±0°.08, **h139**km±7km, **n13**, σ**0s.68**/23, **Near south coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JOD2 | Odawara 2 | 0.39 | 240 | P | Pn | 02 17 49.6 | -0.1 |
| JOD2 | | | | *i* S | Sn | 02 18 04.0 | -0.5 |
| JRY | Ryogami san | 0.74 | 319 | P | Pn | 02 17 52.2 | +0.5 |
| JRY | | | | S | Sn | 02 18 08.2 | 0.0 |
| JIM2 | Oshima 3 | 0.74 | 184 | P | Pn | 02 17 51.3 | -0.5 |
| JIM2 | | | | eS | Sn | 02 18 07.4 | -0.8 |
| JYN | Shimob | 0.78 | 273 | P | Pn | 02 17 52.4 | +0.4 |
| JYN | | | | S | Sn | 02 18 09.7 | +1.0 |
| JIZS | Izushimoda | 0.90 | 215 | P | Pn | 02 17 53.3 | +0.4 |
| JIZS | | | | S | Sn | 02 18 10.1 | -0.2 |
| JAG | Ashikaga | 0.96 | 358 | P | Pn | 02 17 53.6 | +0.1 |
| JAG | | | | S | Sn | 02 18 10.7 | -0.7 |
| BSO3 | Boso 3 | 1.06 | 128 | P | Pn | 02 17 54.4 | +0.4 |
| BSO3 | | | | S | Sn | 02 18 13.2 | +0.9 |
| SHZ3 | Shizuoka 3 | 1.12 | 250 | P | Pn | 02 17 55.8 | +0.8 |
| MJAR | Matsushiro Arr | 1.50 | 316 | P | Pn | 02 17 58.5 | -0.2 |
| | 4.5nm,0.3s,baz=159,slow=11,SNR=34 | | | | | | |
| MJAR | | | | S | Sn | 02 18 20.1 | -0.7 |
| | 7.7nm,0.3s,baz=182,slow=20,SNR=13 | | | | | | |
| MAT | Matsushiro | 1.50 | 316 | P | Pn | 02 17 59.0 | +0.2 |
| MAT | | | | S | Sn | 02 18 20.1 | -0.8 |
| JHJ | Hachijo jima 2 | 2.35 | 174 | P | Pn | 02 18 09.3 | +0.6 |
| | 13nm,0.3s,baz=23,slow=16,SNR=1.5 | | | | | | |
| JHJ | | | | S | Sn | 02 18 37.1 | -1.4 |
| | 28nm,0.3s,baz=121,slow=22,SNR=5.9 | | | | | | |
| WRA | Warramunga Arr | 55.31 | 186 | P | P | 02 26 48.7 | -0.5 |
| | 0.5nm,0.4s,baz=0.3,slow=7.5,SNR=11 | | | | | | |
| FINES | FINESS Array B | 69.47 | 332 | P | P | 02 28 23.4 | +0.5 |
| | 2.4nm,0.8s,baz=72,slow=4.5,SNR=3.4 | | | | | | |

*GCMT **07** 02:18:48.0±0.4, 38°.60S×16°.81W, h19km±1km, MW4.9/81, Moment Tensor Solution. s16,c20; s81,c98; Duration: 0 Moment tensor: Scale 10^16Nm; Mrr-0.27±.11; Mθθ1.08±.12; Mφφ-0.80±.10; Mrθ0.50±.24; Mθφ-2.15±.09; Mφr0.46±.20; Best double couple: M0 2.45300×10^16 NP1:φs259.00000°, δ81.00000°, λ-165.00000°. NP2: φs167.00000°, δ75.00000°, λ-10.00000°. Principal axes: T 2.4950, Plg4.0000°, Azm33.0000°; N -0.0830, Plg73.0000°, Azm291.0000°; P -2.4110, Plg17.0000°, Azm124.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

**IDC 07 02:18:49.8**±9.4, **37°.89S**×**16°.48W**, **h0**km, **mb3.9**/2, **mb1 4.0**/2, **mb1mx3.5**/37, **mbtmp3.9**/2, **MS3.8**/15, **Ms1 3.8**/15, **ms1mx3.7**/20 **Error ellipse: s-maj=298.3km s-min=41.9km az=152.0, Southern Mid-Atlantic Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| H09W1 | TRISTAN DA CUN | 3.39 | 78 | T | T | 02 23 40.0 | |
| | SNR=20 | | | | | | |
| H09N1 | TRISTAN DA CUN | 3.41 | 77 | T | T | 02 23 46.1 | |
| | SNR=26 | | | | | | |
| H10S2 | ASCENSION HYDR | 28.85 | 4 | T | T | 02 55 42.1 | |
| | baz=184,slow=75,SNR=99 | | | | | | |
| H10S3 | ASCENSION HYDR | 28.85 | 4 | T | T | 02 55 42.1 | |
| | baz=184,slow=75,SNR=89 | | | | | | |
| H10S1 | ASCENSION HYDR | 28.86 | 4 | T | T | 02 55 44.0 | |
| | baz=184,slow=75,SNR=115 | | | | | | |
| H10N1 | ASCENSION HYDR | 29.96 | 4 | T | T | 02 57 07.2 | |
| | baz=191,slow=79,SNR=20 | | | | | | |
| H10N3 | ASCENSION HYDR | 29.96 | 4 | T | T | 02 57 07.9 | |
| | baz=191,slow=79,SNR=164 | | | | | | |
| H10N2 | ASCENSION HYDR | 29.98 | 4 | T | T | 02 57 06.0 | |
| | baz=191,slow=79,SNR=44 | | | | | | |
| BDFB | Brasilia | 35.55 | 300 | LR | LR | 02 37 40.0 | |
| | comp=Z,186nm,20.9s,baz=293,slow=32 | | | | | | |
| BOSA | Boshof | 35.86 | 88 | LR | LR | 02 37 14.4 | |
| | comp=Z,66nm,20.0s,baz=225,slow=31 | | | | | | |
| CPUP | Villa Florida | 36.21 | 276 | LR | LR | 02 38 34.0 | |
| | comp=Z,166nm,18.2s,baz=130,slow=33 | | | | | | |
| PLCA | Paso Flores | 41.38 | 249 | LR | LR | 02 42 04.9 | |
| | comp=Z,168nm,18.5s,baz=146,slow=34 | | | | | | |
| DBIC | Dimbokro | 45.63 | 16 | LR | LR | 02 42 03.9 | |
| | comp=Z,125nm,19.4s,baz=170,slow=30 | | | | | | |
| LPAZ | La Paz | 50.06 | 281 | P | P | 02 27 47.2 | -0.1 |
| | 1.7nm,1.0s,baz=98,slow=7.1,SNR=5.1 | | | | | | |
| LPAZ | | | | LR | LR | 02 47 34.3 | |
| | comp=Z,65nm,20.2s,baz=124,slow=34 | | | | | | |
| MAW | Mawson | 51.62 | 151 | LR | LR | 02 45 04.9 | |
| | comp=Z,46nm,21.6s,baz=244,slow=30 | | | | | | |
| TORD | Torodi Ar. Bea | 53.55 | 22 | P | P | 02 28 12.4 | -0.1 |
| | 1.8nm,0.9s,baz=200,slow=7.3,SNR=7.9 | | | | | | |
| TORD | | | | LR | LR | 02 46 40.9 | |
| | comp=Z,208nm,20.1s,baz=195,slow=31 | | | | | | |
| KMBO | Kilima Mbogo | 61.32 | 67 | LR | LR | 02 53 25.7 | |
| | comp=Z,81nm,19.8s,baz=294,slow=34 | | | | | | |
| VNDA | Vanda | 64.86 | 180 | LR | LR | 02 55 48.6 | |
| | comp=Z,83nm,18.1s,baz=182,slow=34 | | | | | | |
| ROSC | El Rosal | 68.38 | 295 | LR | LR | 02 59 07.5 | |
| | comp=Z,155nm,18.0s,baz=164,slow=35 | | | | | | |
| KEST | Kesra | 77.06 | 21 | LR | LR | 03 02 36.9 | |
| | comp=Z,162nm,18.1s,baz=218,slow=34 | | | | | | |
| ESDC | Sonseca Array | 78.04 | 10 | LR | LR | 03 03 08.7 | |
| | comp=Z,59nm,18.3s,baz=320,slow=34 | | | | | | |
| BRTR | Keskin Array B | 89.89 | 36 | LR | LR | 03 11 11.7 | |
| | comp=Z,8.1nm,20.4s,baz=201,slow=35 | | | | | | |
| GERES | GERESS Array B | 90.42 | 19 | LR | LR | 03 09 25.4 | |
| | comp=Z,69nm,20.4s,baz=251,slow=34 | | | | | | |
| ILAR | Eielson Array | 140.56 | 329 | PKP | PKPdf | 02 38 19.6 | -0.6 |
| | 0.4nm,0.8s,baz=90,slow=1.3,SNR=3.7 | | | | | | |

*IDC **07** 02:23:50.4±1.2, 0°.44S×127°.35E, h0km, mb4.0/8, mb1 4.1/9, mb1mx3.8/55, mbtmp4.0/9, ML3.9/1, Error ellipse: s-maj=82.5km s-min=17.6km az=69.0*

*ISCJB **07** 02:24:02.9±0.5, 0°.54S±0°.04×127°.39E±0°.05, h121km±4km, mb4.0/10, Error ellipse: s-maj=8.9km s-min=5.5km az=136.2*

*NEIC **07** 02:24:04.4±0.7, 0°.51S×127°.47E, h119km±7km, mb4.1/7, Error ellipse: s-maj=9.2km s-min=4.5km az=49.0*

*DJA **07** 02:24:05.4±0.5, 1°S±3°×12°7E±°, h98km±6km, M5.1/8, mB5.9/1, mb5.6/1, MLv4.9/8, Mw(mB)5.5/1*

**ISC 07 02:24:03.9**±0.7, **0°.57S**±0°.06×**127°.39E**±0°.06, **h116**km±5km, **n39**, σ**1s.05**/45, **mb4.0**/10, **Halmahera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LBMI | Labuha | 0.13 | 120 | P | Pn | 02 24 20.6 | +0.7 |
| LBMI | | | | S | Sn | 02 24 31.3 | -0.6 |
| SANI | Sanana | 2.03 | 224 | P | Pn | 02 24 37.7 | +0.2 |
| SANI | | | | S | Sn | 02 25 02.8 | -0.4 |
| NLAI | Namlea | 2.67 | 186 | P | Pn | 02 24 46.7 | +1.0 |
| NLAI | | | | S | Sn | 02 25 18.2 | +0.3 |
| MSAI | Masohi | 3.16 | 151 | P | Pn | 02 24 53.3 | +1.1 |
| MSAI | | | | S | Sn | 02 25 28.8 | -0.6 |
| AAI | Ambon | 3.20 | 165 | P | Pn | 02 24 54.0 | +1.3 |
| KMSI | Cibinong | 3.59 | 288 | P | Pn | 02 24 58.6 | +0.7 |
| KMSI | | | | S | Sn | 02 25 39.5 | -0.3 |
| SGSI | Sangihe | 4.62 | 336 | P | Pn | 02 25 12.8 | +1.1 |
| LUWI | Luwuk | 4.64 | 264 | P | Pn | 02 25 12.8 | +0.8 |
| LUWI | Luwuk | 4.64 | 264 | ePn | Pn | 02 25 13.2 | +1.2 |
| LUWI | | | | eSn | Sn | 02 26 04.1 | -0.8 |
| FAKI | Fak Fak | 5.39 | 116 | ePn | Pn | 02 25 21.9 | -0.2 |
| APSI | Ampana | 5.75 | 267 | P | Pn | 02 25 28.7 | +1.8 |
| KAPI | Kappang | 8.81 | 240 | ePn | Pn | 02 26 10.8 | +2.4 |
| | 12nm,0.4s | | | | | | |
| MYLDM | Lahad Datu | 10.56 | 303 | ePn | Pn | 02 26 37.6 | +5.6 |
| FITZ | Fitzroy Crossi | 17.50 | 186 | P | P | 02 27 55.8 | -4.5 |
| | 0.3nm,0.3s,baz=333,slow=6.8,SNR=6.8 | | | | | | |
| WR1 | Warramunga Arr | 20.42 | 161 | eP | P | 02 28 32.2 | +0.2 |
| | 6.9nm,1.3s | | | | | | |
| WRA | Warramunga Arr | 20.42 | 161 | P | P | 02 28 32.2 | +0.2 |
| | 0.7nm,0.3s,baz=340,slow=11,SNR=6.5 | | | | | | |
| WB2 | Warramunga Arr | 20.42 | 161 | eP | P | 02 28 32.2 | +0.1 |
| | 14nm,1.5s | | | | | | |
| COEN | Coen | 20.52 | 131 | eP | P | 02 28 33.6 | +0.4 |
| | 9.8nm,1.4s | | | | | | |
| AS31 | Alice Springs | 23.81 | 165 | eP | P | 02 29 07.4 | +1.0 |
| | 1.2nm,0.8s | | | | | | |
| ASAR | Alice Springs | 23.81 | 165 | P | P | 02 29 07.4 | +1.0 |
| | 2.2nm,0.5s,baz=341,slow=8.8,SNR=20 | | | | | | |
| AS01 | Alice Springs | 23.82 | 165 | eP | P | 02 29 07.5 | +1.0 |
| CM31 | Chiang Mai Arr | 33.75 | 306 | eP | P | 02 30 35.1 | +0.3 |
| CMAR | Chiang Mai Arr | 33.75 | 306 | P | P | 02 30 35.1 | +0.3 |
| | 0.7nm,0.3s,baz=128,slow=7.3,SNR=4.2 | | | | | | |
| SONA0 | Songino Array | 51.56 | 342 | eP | P | 02 32 58.6 | +0.4 |
| SONM | Songino Array | 51.56 | 342 | P | P | 02 32 58.6 | +0.4 |
| | 0.6nm,0.6s,baz=156,slow=7.0,SNR=4.8 | | | | | | |
| SONA1 | Songino Array | 51.57 | 342 | eP | P | 02 32 57.7 | -0.6 |
| MK01 | Makanchi Array | 61.44 | 326 | eP | P | 02 34 08.7 | +0.6 |
| MK31 | Makanchi Array | 61.46 | 326 | eP | P | 02 34 08.8 | +0.5 |
| MK32 | Makanchi Array | 61.46 | 326 | eP | P | 02 34 08.6 | +0.3 |
| MK32 | | | | esP | sP | 02 34 49.1 | -0.1 |
| MKAR | Makanchi Array | 61.46 | 326 | P | P | 02 34 08.6 | +0.3 |
| | 2.0nm,0.4s,baz=115,slow=7.9,SNR=52 | | | | | | |
| MKAR | | | | PcP | sP | 02 34 49.1 | -0.1 |
| | 0.9nm,0.8s,baz=124,slow=7.2,SNR=3.0 | | | | | | |
| KSH | Kashi | 61.57 | 317 | eP | P | 02 34 18.1 | +8.8 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,200nm,5.1s | | | | | | |
| MAKZ | Makanchi | 61.64 | 326 | eP | P | 02 34 09.5 | 0.0 |
| | comp=Z,25nm,1.4s | | | | | | |
| KURBB | Kurchatov Arra | 65.71 | 328 | P | P | 02 34 35.9 | -0.1 |
| | comp=Z,2.7nm,0.7s,baz=127,slow=6.0,SNR=25 | | | | | | |
| KURK | Kurchatov | 65.71 | 328 | eP | P | 02 34 35.9 | -0.1 |
| BVAR | Borovoye Array | 71.27 | 328 | P | P | 02 35 10.2 | -0.4 |
| | comp=Z,1.0nm,0.6s,baz=133,slow=8.1,SNR=6.7 | | | | | | |
| BRVK | Borovoye | 71.34 | 328 | eP | P | 02 35 10.7 | -0.4 |
| | comp=Z,3.0nm,1.1s | | | | | | |
| AKTO | Aktyubinsk | 77.43 | 322 | P | P | 02 35 46.3 | -0.1 |
| | comp=Z,1.3nm,0.5s,baz=113,slow=7.7,SNR=5.5 | | | | | | |
| TORD | Torodi Ar. Bea | 124.79 | 286 | PKP | PKPdf | 02 42 50.7 | -0.4 |
| | comp=Z,0.6nm,0.8s,baz=69,slow=2.6,SNR=4.0 | | | | | | |
| TOA1 | Torodi Ar. Sit | 124.79 | 286 | ePKPdf | PKPdf | 02 42 50.7 | -0.4 |

**WEL 07 02:26:49.9**±0.4, **38°.60S**×**179°.94W**, **h12**km, **ML3.8**/25, **2C-2D, Error ellipse: s-maj=4.2km s-min=2.3km az=90.0, East of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CNGZ | Carnagh Statio | 1.46 | 274 | PN | Pn | 02 27 15.5 | -0.5 |
| CNGZ | | | | AML | AML | 02 27 44.3 | |
| CNGZ | | | | AML | AML | 02 27 55.4 | |
| WMGZ | Waiomatatini S | 1.51 | 300 | PN | Pn | 02 27 15.9 | -0.8 |
| WMGZ | | | | SN | Sn | 02 27 35.8 | -0.6 |
| WMGZ | | | | AML | AML | 02 27 42.8 | |
| PUZ | Puketiti | 1.52 | 290 | PN | Pn | 02 27 15.7 | -1.1 |
| PUZ | | | | SN | Sn | 02 27 35.5 | -1.0 |
| PUZ | | | | AML | AML | 02 27 43.4 | |
| TWGZ | Tauwhareparae | 1.69 | 284 | PN | Pn | 02 27 18.5 | -0.8 |
| TWGZ | | | | AML | AML | 02 27 43.7 | |
| TWGZ | | | | AML | AML | 02 27 46.8 | |
| PKGZ | Pakihiroa | 1.72 | 294 | AML | AML | 02 28 21.0 | |
| PKGZ | | | | AML | AML | 02 28 21.5 | |
| MXZ | Matakaoa Point | 1.73 | 306 | PN | Pn | 02 27 19.7 | 0.0 |
| MXZ | | | | AML | AML | 02 27 42.6 | |
| PRGZ | Paritu Road | 1.74 | 259 | PN | Pn | 02 27 18.9 | -1.0 |
| PRGZ | | | | AML | AML | 02 27 45.5 | |
| PRGZ | | | | AML | AML | 02 27 46.0 | |
| MHGZ | Mahia Peninsul | 1.77 | 251 | PN | Pn | 02 27 19.1 | -1.3 |
| MHGZ | | | | AML | AML | 02 27 43.9 | |
| RIGZ | Rimuhau | 1.81 | 266 | ⇓PN | Pn | 02 27 20.1 | -0.7 |
| RIGZ | | | | AML | AML | 02 27 46.4 | |
| RIGZ | | | | AML | AML | 02 27 46.6 | |
| KNZ | Kokohu | 1.92 | 256 | ⇓PN | Pn | 02 27 21.2 | -1.1 |
| RUGZ | Raukumara Rang | 1.98 | 288 | PN | Pn | 02 27 22.2 | -1.1 |
| HAZ | Te Kaha | 1.98 | 294 | PN | Pn | 02 27 22.3 | -0.9 |
| HAZ | | | | AML | AML | 02 27 53.0 | |
| HAZ | | | | AML | AML | 02 28 03.2 | |
| MWZ | Matawai | 2.01 | 277 | ⇑PN | Pn | 02 27 22.6 | -1.1 |
| MWZ | | | | AML | AML | 02 27 48.8 | |
| MWZ | | | | AML | AML | 02 27 49.2 | |
| SNGZ | Shannon Statio | 2.14 | 264 | PN | Pn | 02 27 24.6 | -0.8 |
| SNGZ | | | | AML | AML | 02 27 53.7 | |
| SNGZ | | | | AML | AML | 02 27 54.5 | |
| URZ | Urewera | 2.34 | 277 | PN | Pn | 02 27 27.7 | -0.4 |
| URZ | | | | AML | AML | 02 27 58.6 | |
| URZ | | | | AML | AML | 02 27 59.4 | |
| ARHZ | Aropaoanui | 2.48 | 254 | PN | Pn | 02 27 29.5 | -0.6 |
| ARHZ | | | | AML | AML | 02 28 01.9 | |
| ARHZ | | | | AML | AML | 02 28 04.8 | |
| MTHZ | Maungataniwha | 2.53 | 263 | PN | Pn | 02 27 30.4 | -0.5 |
| KAHZ | Kahuranaki | 2.75 | 243 | PN | Pn | 02 27 32.4 | -1.4 |
| MCHZ | McNeill Hill | 2.76 | 251 | PN | Pn | 02 27 33.2 | -0.7 |
| MCHZ | | | | AML | AML | 02 28 12.5 | |
| MCHZ | | | | AML | AML | 02 28 14.8 | |
| TARZ | Mount Tarawera | 2.82 | 276 | PN | Pn | 02 27 34.6 | -0.2 |
| TARZ | | | | AML | AML | 02 28 11.7 | |
| TARZ | | | | AML | AML | 02 28 20.5 | |
| BKZ | Black Stump Fm | 2.84 | 257 | PN | Pn | 02 27 34.1 | -1.0 |
| BKZ | | | | AML | AML | 02 28 09.6 | |
| BKZ | | | | AML | AML | 02 28 09.6 | |
| MRHZ | Matea Rd | 2.86 | 264 | PN | Pn | 02 27 35.0 | -0.4 |
| MRHZ | | | | AML | AML | 02 28 11.4 | |
| MRHZ | | | | AML | AML | 02 28 12.8 | |
| KRHZ | Kereru | 3.06 | 249 | PN | Pn | 02 27 36.8 | -1.3 |
| KRHZ | | | | AML | AML | 02 28 20.6 | |
| BHHZ | Black Hill Sta | 3.24 | 253 | PN | Pn | 02 27 39.3 | -1.3 |
| BHHZ | | | | AML | AML | 02 28 21.3 | |
| BHHZ | | | | AML | AML | 02 28 22.2 | |
| PNHZ | Pukenui | 3.27 | 245 | AML | AML | 02 28 20.2 | |
| MOVZ | Moawhango | 3.46 | 255 | PN | Pn | 02 27 43.0 | -0.6 |
| DVHZ | Dannevirke | 3.46 | 239 | PN | Pn | 02 27 41.5 | -2.1 |
| DVHZ | | | | AML | AML | 02 28 28.8 | |
| DVHZ | | | | AML | AML | 02 28 32.0 | |
| OTVZ | Oturere | 3.48 | 259 | PN | Pn | 02 27 43.7 | -0.3 |
| OTVZ | | | | AML | AML | 02 28 30.8 | |
| TSZ | Takapari Road | 3.50 | 244 | PN | Pn | 02 27 42.1 | -2.0 |
| WNVZ | Wahianoa | 3.56 | 257 | PN | Pn | 02 27 44.5 | -0.5 |
| BFZ | Birch Farm | 3.61 | 234 | PN | Pn | 02 27 41.5 | -4.1 |
| BFZ | | | | AML | AML | 02 30 13.8 | |
| MRZ | Mangatainoka R | 4.03 | 238 | ⇑PN | Pn | 02 27 47.8 | -3.6 |
| MRZ | | | | AML | AML | 02 28 35.0 | |
| MRZ | | | | AML | AML | 02 28 38.9 | |
| HOWZ | Holdsworth Sta | 4.19 | 235 | PN | Pn | 02 27 49.5 | -4.2 |

*NIED **07** 02:46:00, 35°.60N×141°.10E, h8km, Mw4.4 Best double couple: M0 4.21000×10^15 NP1:φs136.00000°, δ38.00000°, λ-115.00000°. NP2:φs347.00000°, δ56.00000°, λ-72.00000°.*

*IDC **07** 02:46:00.5±0.6, 35°.50N×140°.90E, h0km, mb4.2/18, mb1 4.3/21, mb1mx4.2/38, mbtmp4.2/21, ML3.1/3, MS3.1/6, Ms1 3.1/6, ms1mx2.8/36, Error ellipse: s-maj=16.3km s-min=12.3km az=129.0*

*ISCJB **07** 02:46:01.9±0.6, 35°.57N±0°.03×141°.05E±0°.05, h20km±4km, mb4.4/39, MS3.5/4, Error ellipse: s-maj=6.6km s-min=4.2km az=9.5*

*JMA **07** 02:46:02.7±0.1, 35°.60N×140°.98E, h17km±1km, M4.4*

*JMA Felt II J1.*

*MOS **07** 02:46:03.1±1.6, 35°.58N×141°.08E, h30km, mb4.5/20, Error ellipse: s-maj=11.3km s-min=7.5km az=115.6*

*NEIC **07** 02:46:04.3±2.1, 35°.56N×140°.98E, h25km±15km, mb4.7/16, Error ellipse: s-maj=8.3km s-min=6.2km az=132.0*

*NEIC Recorded [2 JMA] in Chiba.*

**ISC 07 02:46:03.1**±0.8, **35°.61N**±0°.03×**140°.85E**±0°.04, **h15**km±4km, **n116**, σ**1s.42**/118, **mb4.5**/39, **MS3.5**/4, **5C-9D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CHOJ | Chosi | 0.10 | 5 | P | Pg | 02 46 06.7 | +0.4 |
| CHOJ | | | | eS | Sg | 02 46 09.7 | +1.3 |
| I30JP | ISUMI INFRASON | 0.53 | 236 | Pn | Pn | 02 46 15.4 | -0.7 |
| JCN | Nagara | 0.56 | 251 | ⇑P | Pn | 02 46 16.3 | -0.2 |
| KTR | Katsuura | 0.63 | 224 | P | Pn | 02 46 16.1 | -1.4 |
| KTR | | | | eS | Sb | 02 46 26.0 | +1.5 |
| BSO4 | Boso 4 | 0.74 | 214 | P | Pn | 02 46 18.4 | -0.5 |
| JYT | Yasato | 0.82 | 320 | ⇓P | Pn | 02 46 19.1 | -1.0 |
| JYT | | | | S | Sn | 02 46 31.3 | -0.6 |
| BSO3 | Boso 3 | 0.85 | 199 | ⇓P | Pn | 02 46 19.3 | -1.0 |
| BSO1 | Boso 1 | 0.96 | 174 | ⇓P | Pb | 02 46 19.3 | -1.7 |
| JHO | Hitachi | 1.03 | 347 | ⇓P | Pg | 02 46 21.6 | -1.3 |
| JHO | | | | eS | Sg | 02 46 35.9 | -0.5 |
| MJAR | Matsushiro Arr | 2.33 | 294 | Pn | Pb | 02 46 42.1 | -2.8 |
| | 9.0nm,0.3s,baz=96,slow=13,SNR=62 | | | | | | |
| MAJO | Matsushiro | 2.33 | 294 | eP | Pb | 02 46 42.8 | -2.1 |
| MAJO | | | | e | | 02 47 08.0 | |
| MAJO | Matsushiro | 2.33 | 294 | ePn | Pb | 02 46 42.8 | -2.1 |
| MAJO | | | | eSn | Sn | 02 47 08.0 | -1.4 |
| MAT | Matsushiro | 2.33 | 294 | P | Pb | 02 46 42.3 | -2.6 |
| MAT | | | | eS | Sg | 02 47 18.1 | 0.0 |
| MJB9 | Matsu-Tunnel | 2.34 | 294 | ePn | Pb | 02 46 43.0 | -1.9 |
| MJB9 | | | | eSn | Sn | 02 47 08.0 | -1.5 |
| JHJ2 | Mitsune | 2.63 | 199 | ePn | Pn | 02 46 44.9 | -0.1 |
| JHJ2 | | | | eSn | Sb | 02 47 18.7 | -3.3 |
| JHJ | Hachijo jima 2 | 2.63 | 200 | Pn | Pn | 02 46 45.1 | +0.1 |
| | 34nm,0.3s,baz=43,slow=19,SNR=9.3 | | | | | | |
| JHJ | | | | Sn | Sn | 02 47 14.5 | -2.3 |
| | 49nm,0.3s,baz=71,slow=23,SNR=4.3 | | | | | | |
| INU | Inuyama | 3.14 | 266 | ePn | Pb | 02 46 56.2 | -2.3 |
| INU | | | | eSn | Sb | 02 47 34.8 | -1.9 |
| ERM | Erimo | 6.65 | 15 | eP | Pn | 02 47 37.5 | -2.7 |
| ERM | | | | e | | 02 48 50.6 | |
| ERM | Erimo | 6.65 | 15 | ePn | Pn | 02 47 37.5 | -2.7 |
| ERM | | | | eSn | Sn | 02 48 50.6 | -5.1 |
| ASAJ | Asahikawa | 8.61 | 8 | Pn | Pn | 02 48 05.2 | -1.8 |
| | 1.9nm,0.3s,baz=226,slow=12,SNR=5.6 | | | | | | |
| ASAJ | | | | Sn | Sn | 02 49 39.8 | -4.0 |
| | 1.0nm,0.3s,baz=212,slow=31,SNR=1.7 | | | | | | |
| JNU | Nakatsue | 8.61 | 256 | Pn | Pn | 02 48 10.8 | +3.6 |
| | 0.2nm,0.3s,baz=96,slow=19,SNR=2.1 | | | | | | |
| KSRS | Korea Array | 10.56 | 284 | Pn | Pn | 02 48 41.3 | +7.4 |
| | baz=99,slow=14,SNR=7.1 | | | | | | |
| KSRS | | | | LR | LR | 02 52 50.0 | |
| | comp=Z,92nm,19.6s,baz=88,slow=38 | | | | | | |
| KSAR | Wonju Array Be | 10.59 | 284 | P | Pn | 02 48 41.3 | +7.0 |
| KSAR | Wonju Array Be | 10.59 | 284 | Pn | Pn | 02 48 41.3 | +7.0 |
| USRK | Ussuriysk Ar. | 10.95 | 324 | Pn | Pn | 02 48 41.9 | +2.8 |
| | 0.2nm,0.3s,baz=104,slow=12,SNR=4.4 | | | | | | |
| USRK | | | | LR | LR | 02 52 43.0 | |
| | comp=Z,135nm,18.6s,baz=158,slow=36 | | | | | | |
| YSS | Yuzh-Sakhalins | 11.43 | 7 | P | Pn | 02 48 55.0 | +9.3 |
| KLR | Kul'dur | 15.16 | 337 | LR | LR | 02 55 26.2 | |
| | comp=Z,9.0nm,18.7s,baz=146,slow=37 | | | | | | |
| PETK | Petropavlovsk- | 21.15 | 29 | P | P | 02 50 49.4 | +2.0 |
| | 5.3nm,0.8s,baz=213,slow=11,SNR=3.6 | | | | | | |
| PETK | | | | LR | LR | 03 01 03.5 | |
| | comp=Z,39nm,18.1s,baz=192,slow=42 | | | | | | |
| PEA1 | Petropavlovsk- | 21.16 | 29 | eP | P | 02 50 49.4 | +1.9 |
| YAK | Yakutsk | 27.37 | 349 | ⇓eP | P | 02 51 50.5 | +3.1 |
| YAK | | | | pmax | pmax | | |
| | comp=Z,13nm,0.8s | | | | | | |
| H11N2 | WAKE ISLAND Hy | 27.85 | 118 | T | T | 03 20 44.8 | |
| | baz=311,slow=75,SNR=804 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 27.86 | 118 | T | T | 03 20 44.2 | |
| | baz=311,slow=75,SNR=455 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 27.87 | 118 | T | T | 03 20 45.4 | |
| | baz=311,slow=75,SNR=505 | | | | | | |
| SONA1 | Songino Array | 28.23 | 306 | eP | P | 02 51 56.6 | +1.1 |
| SONA0 | Songino Array | 28.23 | 306 | eP | P | 02 51 56.5 | +1.0 |
| SONM | Songino Array | 28.23 | 306 | P | P | 02 51 56.5 | +1.0 |
| | comp=Z,1.4nm,0.7s,baz=114,slow=9.8,SNR=9.3 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 28.51 | 120 | T | T | 03 21 35.4 | |
| | baz=308,slow=74 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 28.51 | 120 | T | T | 03 21 35.4 | |
| | baz=308 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 28.52 | 120 | T | T | 03 21 37.7 | |
| | baz=308,slow=74,SNR=1951 | | | | | | |
| CMAR | Chiang Mai Arr | 40.71 | 256 | LR | LR | 03 11 38.1 | |
| | comp=Z,31nm,19.4s,baz=185,slow=38 | | | | | | |
| ZAA0 | Zalesovo Array | 42.55 | 314 | eP | P | 02 53 58.7 | +0.7 |
| | comp=Z,2.8nm,0.7s | | | | | | |
| ZAA1 | Zalesovo Array | 42.55 | 314 | eP | P | 02 53 58.7 | +0.7 |
| ZALV | Zalesovo Beam | 42.55 | 314 | P | P | 02 53 58.7 | +0.7 |
| | comp=Z,3.1nm,0.7s,baz=90,slow=6.6,SNR=12 | | | | | | |
| ZALV | Zalesovo Beam | 42.55 | 314 | eP | P | 02 53 58.6 | +0.6 |
| ZALV | Zalesovo Beam | 42.55 | 314 | eP | P | 02 53 58.6 | +0.6 |
| BRDH | Bariadhala | 44.45 | 267 | LR | LR | 03 14 30.7 | |
| | comp=Z,91nm,18.8s,baz=96,slow=38 | | | | | | |
| MK01 | Makanchi Array | 44.50 | 303 | eP | P | 02 54 13.6 | -0.3 |
| MK31 | Makanchi Array | 44.50 | 303 | eP | P | 02 54 14.2 | +0.3 |
| MK31 | Makanchi Array | 44.50 | 303 | eP | P | 02 54 14.2 | +0.3 |
| MK32 | Makanchi Array | 44.50 | 303 | eP | P | 02 54 14.6 | +0.7 |
| MKAR | Makanchi Array | 44.50 | 303 | P | P | 02 54 14.6 | +0.7 |
| | comp=Z,2.6nm,0.8s,baz=83,slow=9.4,SNR=11 | | | | | | |
| KURK | Kurchatov | 46.46 | 309 | ⇑eP | P | 02 54 29.0 | -0.3 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.9s | | | | | | |
| KURK | Kurchatov | 46.46 | 309 | eP | P | 02 54 28.0 | -1.3 |
| | comp=Z,11nm,1.0s | | | | | | |
| IMAR | Indian Mountai | 48.11 | 30 | eP | P | 02 54 41.1 | -0.8 |
| KDAK | Kodiak Island | 48.47 | 41 | P | P | 02 54 44.9 | +0.2 |
| | comp=Z,5.6nm,0.7s,baz=282,slow=9.3,SNR=4.2 | | | | | | |
| KDAK | Kodiak Island | 48.47 | 41 | eP | P | 02 54 43.5 | -1.2 |
| KDAK | | | | pmax | pmax | | |
| | comp=Z,73nm,1.8s | | | | | | |
| KDAK | Kodiak Island | 48.47 | 41 | eP | P | 02 54 43.5 | -1.2 |
| | comp=Z,73nm,1.8s | | | | | | |
| PPLA | Purkeypile | 48.60 | 34 | eP | P | 02 54 45.9 | 0.0 |
| | comp=Z,24nm,1.4s | | | | | | |
| CAST | Castle Rocks | 48.66 | 33 | eP | P | 02 54 44.4 | -1.9 |
| | comp=Z,20nm,1.8s | | | | | | |
| MLY | Manley | 49.30 | 31 | eP | P | 02 54 52.7 | +1.6 |
| | comp=Z,4.3nm,0.9s | | | | | | |
| MDM | Murphy Dome | 50.37 | 31 | eP | P | 02 55 00.9 | +1.6 |
| | comp=Z,8.6nm,0.9s | | | | | | |
| WRH | Wood River Hil | 50.43 | 32 | eP | P | 02 54 58.0 | -1.6 |
| | comp=Z,32nm,2.0s | | | | | | |
| COLA | College | 50.53 | 32 | ⇓eP | P | 02 55 02.1 | +1.7 |
| COLA | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.8s | | | | | | |
| AAK | Ala-Archa | 50.77 | 299 | ⇓eP | P | 02 55 03.3 | +0.5 |
| AAK | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.0s | | | | | | |
| DHY | Denali Highway | 50.80 | 34 | eP | P | 02 55 01.4 | -1.3 |
| | comp=Z,14nm,1.6s | | | | | | |
| HDA | Harding Lake | 50.93 | 32 | eP | P | 02 55 03.5 | +0.1 |
| | comp=Z,3.9nm,0.8s | | | | | | |
| IL1 | Eielson Array | 50.94 | 32 | eP | P | 02 55 03.0 | -0.5 |
| ILAR | Eielson Array | 50.94 | 32 | P | P | 02 55 03.8 | +0.2 |
| | comp=Z,3.1nm,0.8s,baz=269,slow=6.3,SNR=36 | | | | | | |
| ILB | Eielson Array | 50.94 | 32 | eP | P | 02 55 04.3 | +0.7 |
| BRVK | Borovoye | 51.26 | 313 | ⇓eP | P | 02 55 06.7 | +0.6 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.2s | | | | | | |
| BRVK | Borovoye | 51.26 | 313 | eP | P | 02 55 07.4 | +1.3 |
| | comp=Z,3.3nm,0.8s | | | | | | |
| WRAB | Tennant Creek | 55.58 | 187 | ⇑*i*P | P | 02 55 36.6 | -1.5 |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,30nm,1.2s | | | | | | |
| WB2 | Warramunga Arr | 55.59 | 187 | eP | P | 02 55 37.0 | -1.2 |
| WR1 | Warramunga Arr | 55.59 | 187 | eP | P | 02 55 36.8 | -1.3 |
| | comp=Z,8.0nm,1.0s | | | | | | |
| WRA | Warramunga Arr | 55.59 | 187 | P | P | 02 55 36.8 | -1.3 |
| | comp=Z,5.9nm,1.0s,baz=5.3,slow=7.7,SNR=43 | | | | | | |
| WRA | Warramunga Arr | 55.59 | 187 | *i* P | P | 02 55 36.9 | -1.2 |
| WRA | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.9s | | | | | | |
| INK | Inuvik | 55.86 | 27 | P | P | 02 55 40.3 | +0.7 |
| | comp=Z,2.7nm,0.7s,baz=264,slow=5.1,SNR=4.1 | | | | | | |
| INK | Inuvik | 55.86 | 27 | eP | P | 02 55 40.3 | +0.7 |
| | comp=Z,17nm,1.8s | | | | | | |
| ARU | Arti | 57.13 | 319 | *c i*P | P | 02 55 49.5 | +0.6 |
| ARU | | | | | | 02 57 52.3 | |
| ARU | | | | S | S | 03 03 45.1 | +1.8 |
| ARU | | | | SS | SS | 03 07 34.3 | +2.7 |
| ARU | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.8s | | | | | | |
| ARU | Arti | 57.13 | 319 | eP | P | 02 55 49.4 | +0.6 |
| | comp=Z,5.4nm,1.0s | | | | | | |
| AS01 | Alice Springs | 59.31 | 187 | eP | P | 02 56 03.2 | -1.1 |
| AS31 | Alice Springs | 59.31 | 187 | eP | P | 02 56 03.4 | -1.0 |
| | comp=Z,1.2nm,1.1s | | | | | | |
| ASAR | Alice Springs | 59.31 | 187 | P | P | 02 56 03.4 | -1.0 |
| | comp=Z,0.9nm,0.9s,baz=20,slow=10,SNR=7.5 | | | | | | |
| RES | Resolute Bay | 64.09 | 14 | P | P | 02 56 36.5 | +0.5 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | comp=Z,5.3nm,0.8s,baz=299,slow=6.9,SNR=5.9 | | | | | | |
| MAK | Makhachkala | 68.98 | 308 | eP | P | 02 57 05.7 | -2.0 |
| MAK | | | | e | | 02 59 38.3 | |
| MAK | | | | ePPP | PPP | 03 01 18.8 | |
| MAK | | | | eS | S | 03 06 10.5 | -1.4 |
| MAK | | | | eSS | SS | 03 10 37.9 | +1.0 |
| MAK | | | | MLR | MLR | | |
| | comp=Z,151nm,19.0s | | | | | | |
| FIA0 | FINESS Array S | 69.86 | 332 | eP | P | 02 57 13.1 | +0.3 |
| FIA0 | FINESS Array S | 69.86 | 332 | eP | P | 02 57 13.1 | +0.3 |
| FINES | FINESS Array B | 69.86 | 332 | P | P | 02 57 13.1 | +0.3 |
| | comp=Z,4.6nm,0.9s,baz=61,slow=6.5,SNR=9.1 | | | | | | |
| KBZ | Khabaz | 71.49 | 311 | P | P | 02 57 23.4 | +0.3 |
| | comp=Z,3.3nm,0.9s,baz=51,slow=5.6,SNR=5.4 | | | | | | |
| KIV | Kislovodsk | 71.50 | 311 | eP | P | 02 57 24.5 | +1.2 |
| KIV | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.1s | | | | | | |
| NEY | Neytrino | 71.85 | 310 | ⇑eP | P | 02 57 27.9 | +2.4 |
| NEY | | | | pmax | pmax | | |
| | comp=Z,3.0nm,2.0s | | | | | | |
| AKASG | Malin Array Be | 75.14 | 322 | P | P | 02 57 44.6 | 0.0 |
| | comp=Z,1.2nm,0.4s,baz=47,slow=6.1,SNR=8.5 | | | | | | |
| AKASG | Malin Array Be | 75.14 | 322 | i P | P | 02 57 44.2 | -0.3 |
| AKASG | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.5s | | | | | | |
| AKBB | Malin Array Si | 75.14 | 322 | eP | P | 02 57 44.6 | +0.1 |
| AKBB | | | | pmax | pmax | | |
| | comp=Z,31nm,1.8s | | | | | | |
| AKBB | Malin Array Si | 75.14 | 322 | eP | P | 02 57 44.6 | +0.1 |
| | comp=Z,31nm,1.8s | | | | | | |
| KIEV | Kiev | 75.16 | 322 | ⇓eP | P | 02 57 44.3 | -0.3 |
| KIEV | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.6s | | | | | | |
| NB2 | NORSAR Subarra | 75.32 | 337 | P | P | 02 57 45.5 | 0.0 |
| | comp=Z,1.1nm,0.6s,baz=40,slow=6.2 | | | | | | |
| NB200 | NORSAR Array S | 75.32 | 337 | eP | P | 02 57 45.3 | -0.1 |
| NOA | NORSAR Array B | 75.32 | 337 | P | P | 02 57 45.3 | -0.1 |
| | comp=Z,1.9nm,0.7s,baz=40,slow=5.7,SNR=4.6 | | | | | | |
| PD31 | Pinedale Array | 78.99 | 45 | eP | P | 02 58 06.9 | +0.2 |
| PDAR | Pinedale Array | 78.99 | 45 | P | P | 02 58 06.9 | +0.2 |
| | comp=Z,0.6nm,0.5s,baz=280,slow=1.4,SNR=9.0 | | | | | | |
| BR101 | Keskin Array S | 79.45 | 311 | eP | P | 02 58 09.4 | +0.3 |
| BRTR | Keskin Array B | 79.45 | 311 | P | P | 02 58 09.4 | +0.3 |
| | comp=Z,1.1nm,0.8s,baz=38,slow=3.6,SNR=7.4 | | | | | | |
| STHS | Stebnicka Huta | 79.86 | 325 | eP | P | 02 58 11.9 | +0.9 |
| STHS | Stebnicka Huta | 79.86 | 325 | eP | P | 02 58 11.9 | +0.9 |
| CLL | Collm | 82.10 | 330 | eP | P | 02 58 23.0 | +0.1 |
| CLL | Collm | 82.10 | 330 | eP | P | 02 58 23.0 | +0.1 |
| CLL | | | | e | | 02 58 27.0 | |
| GERES | GERESS Array B | 83.68 | 328 | P | P | 02 58 31.0 | -0.3 |
| | comp=Z,0.5nm,0.7s,baz=54,slow=6.6,SNR=3.5 | | | | | | |
| GERES | GERESS Array B | 83.68 | 328 | P | P | 02 58 31.0 | -0.3 |
| GERES | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.7s | | | | | | |
| LTX | Lajitas | 91.36 | 52 | eP | P | 02 59 09.1 | +0.4 |
| LTX | Lajitas | 91.36 | 52 | eP | P | 02 59 09.1 | +0.4 |
| TXAR | Lajitas Array | 91.36 | 52 | P | P | 02 59 09.1 | +0.3 |
| | comp=Z,1.1nm,0.9s,baz=291,slow=3.1,SNR=6.1 | | | | | | |
| TOA1 | Torodi Ar. Sit | 118.00 | 314 | ePKPdf | PKPdf | 03 04 49.0 | -0.8 |
| TORD | Torodi Ar. Bea | 118.00 | 314 | PKP | PKPdf | 03 04 49.0 | -0.8 |
| | comp=Z,0.2nm,0.7s,baz=13,slow=3.5,SNR=3.2 | | | | | | |
| LPAZ | La Paz | 147.80 | 61 | PKPbc | PKPbc | 03 05 48.9 | +0.3 |
| | comp=Z,1.6nm,0.8s,baz=333,slow=4.5,SNR=7.9 | | | | | | |
| LPAZ | La Paz | 147.80 | 61 | ePKPbc | PKPbc | 03 05 49.1 | +0.5 |

---

*NIED **07** 02:56:00, 35°.70N×142°.40E, h26km, Mw3.8 Best double couple: $M_0$5.72000×$10^{14}$ NP1:$\phi_s$34.00000°, δ47.00000°, λ-49.00000°. NP2:$\phi_s$161.00000°, δ57.00000°, λ-126.00000°.*

*IDC **07** 02:56:40.9±1.1, 35°.52N×142°.57E, h0km, mb3.5/3, mb1 3.8/6, mb1mx3.5/41, mbtmp3.7/6, ML3.7/3, Error ellipse: s-maj=30.3km s-min=22.9km az=128.0*

*JMA **07** 02:56:44.7±0.2, 35°.65N×142°.42E, h71km, M3.6*

**ISC 07 02:56:42.0**±3.5**, 35°.60N**±0°.05×**142°.50E**±0°.07**, h10**km±22km**, n22,** σ1$^s$52/32**, mb3.6**/3**, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CHOJ | Chosi | 1.34 | 275 | P | Pn | 02 57 07.3 | +0.6 |
| BSO1 | Boso 1 | 1.56 | 233 | P | Pb | 02 57 10.0 | -0.7 |
| BSO3 | Boso 3 | 1.81 | 244 | P | Pb | 02 57 14.3 | -0.8 |
| JHO | Hitachi | 1.85 | 303 | P | Pn | 02 57 13.6 | -0.3 |
| JHO | | | | eS | Sn | 02 57 34.4 | -2.9 |
| JFK | Kawauchi | 2.19 | 324 | P | Pn | 02 57 18.1 | -0.4 |
| JFK | | | | S | Sn | 02 57 42.9 | -2.8 |
| JFT | Otama | 2.58 | 318 | P | Pn | 02 57 24.7 | +0.8 |
| JFT | | | | S | Sn | 02 57 54.6 | -0.7 |
| JAG | Ashikaga | 2.60 | 289 | P | Pn | 02 57 24.3 | +0.2 |
| JAG | | | | eS | Sn | 02 57 53.8 | -1.9 |
| JOD2 | Odawara 2 | 2.80 | 264 | P | Pn | 02 57 27.4 | +0.5 |
| JOD2 | | | | S | Sn | 02 57 59.4 | -1.3 |
| JRY | Ryogami san | 2.95 | 279 | P | Pn | 02 57 30.0 | +1.1 |
| JYN | Shimob | 3.22 | 269 | P | Pn | 02 57 33.4 | +0.7 |
| JHJ2 | Mitsune | 3.33 | 222 | P | Pn | 02 57 34.7 | +0.6 |
| JHJ | Hachijo jima 2 | 3.34 | 223 | Pn | Pn | 02 57 34.6 | +0.3 |
| | 23nm,0.3s,baz=61,slow=18,SNR=2.1 | | | | | | |
| JHJ | | | | Sn | Sn | 02 58 10.6 | -3.4 |
| | 86nm,0.3s,baz=41,slow=24,SNR=8.9 | | | | | | |
| JNS | Sasagawa | 3.38 | 312 | P | Pn | 02 57 36.0 | +1.2 |
| JNS | | | | S | Sn | 02 58 14.5 | -0.4 |
| JMK | Ichinoseki | 3.49 | 343 | P | Pn | 02 57 36.3 | -0.1 |
| JMK | | | | S | Sn | 02 58 15.1 | -2.6 |
| MJAR | Matsushiro Arr | 3.60 | 286 | Pn | Pn | 02 57 39.2 | +1.4 |
| | 6.2nm,0.3s,baz=103,slow=6.5,SNR=28 | | | | | | |
| MJAR | | | | Sn | Sn | 02 58 22.4 | +2.1 |
| | 2.4nm,0.3s,baz=186,slow=20,SNR=4.0 | | | | | | |
| MAT | Matsushiro | 3.60 | 286 | P | Pn | 02 57 39.3 | +1.5 |
| MAT | | | | eS | Sn | 02 58 21.5 | +1.1 |
| MAT | Matsushiro | 3.60 | 286 | P | Pn | 02 57 39.8 | +2.0 |
| ASAJ | Asahikawa | 8.50 | 0 | Pn | Pn | 02 58 45.7 | +0.5 |
| | 1.1nm,0.3s,baz=222,slow=14,SNR=4.4 | | | | | | |
| ILAR | Eielson Array | 50.24 | 32 | P | P | 03 05 38.4 | +0.5 |
| | 0.5nm,0.7s,baz=264,slow=6.0,SNR=8.0 | | | | | | |
| WRA | Warramunga Arr | 55.78 | 189 | P | P | 03 06 18.6 | -0.6 |
| | 0.3nm,0.5s,baz=7.4,slow=7.6,SNR=6.7 | | | | | | |
| TXAR | Lajitas Array | 90.29 | 53 | P | P | 03 09 44.7 | +1.2 |
| | 0.2nm,0.8s,baz=289,slow=5.6,SNR=3.2 | | | | | | |
| LPAZ | La Paz | 146.62 | 63 | PKPbc | PKPdf | 03 16 24.8 | +1.3 |
| | 0.4nm,0.7s,baz=323,slow=5.1,SNR=3.7 | | | | | | |

---

*IDC **07** 03:07:42.6±3.4, 35°.89N×71°.57E, h65km±28km, mb3.6/15, mb1 3.9/21, mb1mx3.7/44, mbtmp4.0/21, ML4.0/6, Error ellipse: s-maj=25.7km s-min=15.4km az=173.0*

*ISCJB **07** 03:07:49.2±0.2, 36°.38N±0°.02×71°.54E±0°.03, h114km, mb4.0/20, Error ellipse: s-maj=4.0km s-min=2.8km az=150.9*

*NEIC **07** 03:07:49.1±0.9, 36°.19N×71°.62E, h117km±8km, mb4.5/8, Error ellipse: s-maj=10.4km s-min=6.4km az=152.0*

*NNC **07** 03:07:55.1±1.7, 36°.87N×70°.93E, h134km±33km, mb3.7, mpv4.4, Error ellipse: s-maj=17.2km s-min=13.0km az=72.0*

**ISC 07 03:07:49.7**±0.5**, 36°.41N**±0°.04×**71°.56E**±0°.05**, h114**km**, n108,** σ**2$^s$04**/123**, mb4.1**/20**, 12C-15D, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CEP | Cherat | 2.60 | 174 | ⇓P | Pn | 03 08 33.4 | +2.7 |
| CEP | | | | S | Sn | 03 09 05.0 | +2.9 |
| KBL | Kabul | 2.78 | 229 | ePn | Pn | 03 08 33.0 | -0.1 |
| KBL | | | | eSn | Sn | 03 09 03.4 | -3.1 |
| CHCP | Chirah Chowk | 3.08 | 153 | P | Pn | 03 08 40.9 | +4.0 |
| THW | Thamme Wali | 3.61 | 178 | P | Pn | 03 08 46.0 | +2.0 |
| SFK | Sufi-Kurgan | 3.91 | 22 | ⇑Pn | Pn | 03 08 51.5 | +3.4 |
| | 19nm,0.4s | | | | | | |
| SFK | | | | ⇓Sn | Sn | 03 09 36.3 | +3.0 |
| | 187nm,0.5s | | | | | | |
| SARP | Sargodha | 4.57 | 168 | P | Pn | 03 08 57.8 | +1.0 |
| THN | Thein Dam | 5.25 | 138 | eP | Pn | 03 09 08.4 | +2.5 |
| THN | | | | eS | Sn | 03 10 07.0 | +1.9 |
| AML | Almayashu | 5.95 | 15 | P | Pn | 03 09 17.3 | +1.6 |
| | SNR=351 | | | | | | |
| JWA | Jwalamukhi | 6.01 | 138 | eP | Pn | 03 09 19.0 | +2.8 |
| JWA | | | | eS | Sn | 03 10 23.0 | -0.8 |
| MNAS | Manas | 6.11 | 7 | ⇓Pn | Pn | 03 09 18.3 | +0.7 |
| | 12nm,0.5s | | | | | | |
| MNAS | | | | ⇓Sn | Sn | 03 10 24.1 | -2.2 |
| | 90nm,0.4s | | | | | | |
| UCH | Uchtor | 6.24 | 21 | P | Pn | 03 09 21.7 | +2.0 |
| | SNR=36 | | | | | | |
| EKS2 | Erkin-Say | 6.47 | 15 | P | Pn | 03 09 24.4 | +1.8 |
| | SNR=26 | | | | | | |
| AAK | Ala-Archa | 6.62 | 19 | P | Pn | 03 09 26.0 | +1.5 |
| | 16nm,0.3s,baz=169,slow=6.1,SNR=174 | | | | | | |
| AAK | | | | S | Sn | 03 10 39.2 | +0.6 |
| | 14nm,0.3s,baz=81,slow=21,SNR=16 | | | | | | |
| AAK | Ala-Archa | 6.62 | 19 | ⇑Pn | Pn | 03 09 26.5 | +1.9 |
| | 21nm,0.5s | | | | | | |
| AAK | | | | ⇓Sn | Sn | 03 10 38.9 | +0.3 |
| | 75nm,0.8s | | | | | | |
| AAK | Ala-Archa | 6.62 | 19 | P | Pn | 03 09 26.8 | +2.2 |
| | SNR=81 | | | | | | |
| AAK | Ala-Archa | 6.62 | 19 | ePn | Pn | 03 09 26.7 | +2.2 |
| AAK | | | | eSn | Sn | 03 10 38.5 | -0.1 |
| SDNR | Sundarnagar | 6.64 | 136 | eP | Pn | 03 09 26.0 | +1.2 |
| SDNR | | | | eS | Sn | 03 10 38.0 | -1.1 |
| KK31 | Karatay Array | 6.73 | 353 | ⇑Pn | Pn | 03 09 25.8 | -0.1 |
| | 30nm,0.5s,baz=179,slow=13,SNR=783 | | | | | | |
| KK31 | | | | ⇓Sn | Sn | 03 10 35.8 | -5.3 |
| | 27nm,0.4s,baz=177,slow=20,SNR=12 | | | | | | |
| KBK | Karagaybulak | 6.76 | 22 | P | Pn | 03 09 28.9 | +2.4 |
| | SNR=19 | | | | | | |
| CHMS | Chumysh | 7.02 | 19 | P | Pn | 03 09 31.7 | +1.9 |
| | SNR=26 | | | | | | |
| TKM2 | Tokmak 2 | 7.21 | 24 | ⇓Pn | Pn | 03 09 34.7 | +2.2 |
| | 11nm,0.4s | | | | | | |
| TKM2 | | | | ⇑Sn | Sn | 03 10 54.8 | +1.9 |
| | 33nm,1.1s | | | | | | |
| TKM2 | Tokmak 2 | 7.21 | 24 | P | Pn | 03 09 34.9 | +2.3 |
| | SNR=37 | | | | | | |
| USP | Ospenovka | 7.21 | 17 | P | Pn | 03 09 33.6 | +1.2 |
| | SNR=55 | | | | | | |
| JOSI | Joshimath | 8.87 | 129 | eP | Pn | 03 09 58.0 | +2.8 |
| JOSI | | | | eS | Sn | 03 11 31.8 | -1.5 |
| JOSI | | | | AML | AML | 03 11 37.6 | |
| | comp=N,232nm,0.7s | | | | | | |
| JOSI | | | | AML | AML | 03 11 38.6 | |
| | comp=E,255nm,1.3s | | | | | | |
| KHET | Khetri | 9.05 | 155 | eP | Pn | 03 09 54.5 | -2.9 |
| KHET | | | | eS | Sn | 03 11 27.2 | -10 |
| KALG | Kalgarh | 9.16 | 137 | eP | Pn | 03 09 49.5 | -9.3 |
| KALG | | | | eS | Sn | 03 11 26.4 | -14 |
| GEYT | Alibeck | 10.84 | 282 | P | Pn | 03 10 16.1 | -5.5 |
| | comp=E,1.3nm,0.3s,baz=107,slow=8.5,SNR=8.4 | | | | | | |
| GEYT | | | | S | Sn | 03 12 10.2 | -11 |
| | comp=E,3.8nm,0.3s,baz=92,slow=15,SNR=9.0 | | | | | | |
| PYUN | Piuthan | 12.72 | 127 | eP | Pn | 03 10 46.4 | -0.4 |
| | comp=E,60nm,0.4s | | | | | | |
| DANN | Dangsing | 13.06 | 125 | eP | Pn | 03 10 51.2 | 0.0 |
| | comp=E,4.9nm,1.0s | | | | | | |
| MK01 | Makanchi Array | 13.09 | 34 | ePn | Pn | 03 10 50.8 | -0.4 |
| MK31 | Makanchi Array | 13.10 | 34 | ePn | Pn | 03 10 54.1 | +2.8 |
| MK32 | Makanchi Array | 13.10 | 34 | ePn | Pn | 03 10 52.1 | +0.7 |
| MK32 | | | | eSn | Sn | 03 13 10.9 | -4.6 |
| MKAR | Makanchi Array | 13.10 | 34 | P | Pn | 03 10 52.1 | +0.7 |
| | comp=E,0.1nm,0.3s,baz=226,slow=16,SNR=4.3 | | | | | | |
| MKAR | | | | S | Sn | 03 13 10.9 | -4.6 |
| | comp=E,0.3nm,0.3s,baz=204,slow=17,SNR=4.2 | | | | | | |
| KOLN | Koldanda | 13.34 | 127 | eP | Pn | 03 10 54.4 | -0.4 |
| | comp=E,15nm,0.4s | | | | | | |
| GKN | Gorkha | 13.87 | 123 | eP | Pn | 03 11 01.9 | +0.3 |
| | comp=E,3.2nm,0.2s | | | | | | |
| DMN | Daman | 14.44 | 124 | eP | Pn | 03 11 08.3 | -0.7 |
| | comp=E,24nm,0.5s | | | | | | |
| KKN | Kakani | 14.45 | 123 | eP | Pn | 03 11 09.0 | 0.0 |
| | comp=E,47nm,0.5s | | | | | | |
| KKN | | | | eS | Sn | 03 13 42.3 | -6.2 |
| PKIN | Phulchoki | 14.66 | 123 | eP | Pn | 03 11 12.0 | +0.2 |
| | comp=E,34nm,0.5s | | | | | | |
| PKI | Pulchoki | 14.67 | 123 | eP | Pn | 03 11 12.6 | +0.6 |
| | comp=E,42nm,0.5s | | | | | | |
| GUN | Gumba | 14.78 | 121 | eP | Pn | 03 11 12.8 | -0.6 |
| | comp=E,44nm,0.4s | | | | | | |
| KURBB | Kurchatov Arra | 15.07 | 17 | P | Pn | 03 11 17.5 | +1.1 |
| | comp=E,0.2nm,0.3s,baz=207,slow=10,SNR=14 | | | | | | |
| JIRN | Jiri | 15.15 | 121 | eP | Pn | 03 11 17.5 | -0.5 |
| | comp=E,247nm,0.4s | | | | | | |
| KURK | Kurchatov | 15.18 | 17 | ePn | Pn | 03 11 19.0 | +1.2 |
| AB31 | Akbulak array | 15.38 | 330 | ⇑P | Pn | 03 11 17.5 | -2.9 |
| | comp=E,4.6nm,0.6s,baz=142,slow=12,SNR=139 | | | | | | |
| AB31 | | | | ⇓S | Sn | 03 13 57.2 | -13 |
| | comp=E,8.9nm,0.6s,baz=151,slow=21,SNR=13 | | | | | | |
| RAMN | Ramite | 15.88 | 122 | eP | Pn | 03 11 26.6 | -0.4 |
| | comp=E,13nm,0.3s | | | | | | |
| TAPN | Taplejung | 16.40 | 119 | eP | P | 03 11 34.3 | 0.0 |
| | comp=E,91nm,0.5s | | | | | | |
| ODAN | Odare | 16.48 | 121 | eP | Pn | 03 11 34.2 | -0.2 |
| | comp=E,27nm,0.6s | | | | | | |
| BVAR | Borovoye Array | 16.63 | 358 | P | P | 03 11 36.4 | +0.1 |
| | comp=E,0.6nm,0.3s,baz=125,slow=15,SNR=18 | | | | | | |
| BVAR | | | | S | Sn | 03 14 33.7 | -6.9 |
| | comp=E,0.6nm,0.3s,baz=164,slow=23,SNR=9.3 | | | | | | |
| BRVK | Borovoye | 16.67 | 357 | ePn | P | 03 11 37.2 | +0.5 |
| | comp=E,4.9nm,0.7s | | | | | | |
| AKTO | Aktyubinsk | 17.09 | 329 | P | Pn | 03 11 41.6 | +0.2 |
| | comp=E,2.0nm,0.3s,baz=145,slow=12,SNR=42 | | | | | | |
| AKTO | | | | S | Sn | 03 14 38.9 | -13 |
| | comp=E,0.8nm,0.3s,baz=338,slow=22,SNR=6.0 | | | | | | |
| AKTO | Aktyubinsk | 17.09 | 329 | ⇑P | P | 03 11 39.9 | -1.4 |
| | comp=E,12nm,0.6s | | | | | | |
| AKTO | | | | ⇑S | Sn | 03 14 39.5 | -12 |
| | comp=E,6.3nm,0.6s | | | | | | |
| ZAA0 | Zalesovo Array | 19.81 | 24 | eP | Pn | 03 12 12.6 | -1.1 |
| | comp=E,6.9nm,0.6s | | | | | | |
| ZALV | Zalesovo Beam | 19.81 | 24 | P | P | 03 12 12.3 | +1.3 |
| | comp=E,6.2nm,0.4s,baz=224,slow=11,SNR=30 | | | | | | |
| ZAA1 | Zalesovo Array | 19.82 | 24 | eP | P | 03 12 12.3 | +1.3 |
| GNI | Garni | 21.35 | 288 | P | P | 03 12 29.2 | +1.3 |
| | comp=E,10.0nm,0.7s,baz=54,slow=6.0,SNR=9.6 | | | | | | |
| GNI | Garni | 21.35 | 288 | eP | P | 03 12 31.9 | +3.9 |
| ARU | Arti | 21.87 | 340 | P | P | 03 12 34.4 | +1.4 |
| | comp=E,6.1nm,0.5s,baz=153,slow=5.4,SNR=12 | | | | | | |
| ARU | Arti | 21.87 | 340 | eP | P | 03 12 35.3 | +2.3 |
| | comp=E,6.7nm,0.7s | | | | | | |
| KBZ | Khabaz | 23.05 | 297 | P | P | 03 12 44.8 | -0.1 |
| | comp=E,4.6nm,0.9s,baz=71,slow=8.8,SNR=7.3 | | | | | | |
| SONA0 | Songino Array | 28.01 | 55 | eP | P | 03 13 31.0 | +1.0 |
| SONM | Songino Array | 28.01 | 55 | P | P | 03 13 31.0 | +1.0 |
| | comp=E,0.2nm,0.5s,baz=270,slow=7.2,SNR=2.1 | | | | | | |
| BR101 | Keskin Array S | 29.89 | 288 | eP | P | 03 13 47.0 | +0.3 |
| BRTR | Keskin Array B | 29.89 | 288 | P | P | 03 13 47.0 | +0.3 |
| | comp=E,0.8nm,0.7s,baz=101,slow=7.8,SNR=7.0 | | | | | | |
| BR231 | Keskin MP Arra | 30.54 | 288 | eP | P | 03 13 50.4 | -2.0 |
| AKASG | Malin Array Be | 33.36 | 309 | P | P | 03 14 16.9 | +0.2 |
| | comp=E,1.7nm,0.6s,baz=82,slow=6.8,SNR=9.8 | | | | | | |
| AKBB | Malin Array Si | 33.36 | 309 | eP | P | 03 14 16.9 | +0.2 |
| | comp=E,29nm,1.9s | | | | | | |
| CFR | Carcaliu | 33.68 | 299 | ⇑iP | P | 03 14 20.6 | +1.0 |
| PLOR | Plostina | 34.72 | 300 | ⇓iP | P | 03 14 30.8 | +2.1 |
| TESR | Tescani | 34.72 | 301 | ⇓iP | P | 03 14 30.4 | +1.8 |
| MLR | Muntele Rosu | 35.22 | 299 | ⇑iP | P | 03 14 35.9 | +2.8 |
| MLR | Muntele Rosu | 35.22 | 299 | eP | P | 03 14 33.7 | +0.6 |
| | comp=E,7.4nm,0.9s | | | | | | |
| BURAR | Bucovina Array | 35.72 | 303 | ⇓iP | P | 03 14 39.1 | +1.9 |
| BUR04 | Bucovina Ar. S | 35.72 | 303 | eP | P | 03 14 38.9 | +1.6 |
| BUR08 | Bucovina Ar. S | 35.73 | 303 | eP | P | 03 14 37.7 | +0.4 |
| VOIR | | 35.85 | 299 | ⇓iP | P | 03 14 40.1 | +1.7 |
| ARR | Arges | 36.15 | 299 | ⇓iP | P | 03 14 43.0 | +2.1 |
| ARCR | ARCALIA | 36.30 | 302 | ⇑iP | P | 03 14 45.4 | +3.3 |
| LOT | Lotru | 36.75 | 299 | ⇑iP | P | 03 14 48.4 | +2.3 |
| DRGR | | 37.43 | 302 | ⇓iP | P | 03 14 53.9 | +2.1 |
| FIA1 | FINESS Array S | 37.81 | 326 | eP | P | 03 14 55.5 | +0.9 |
| FIA0 | FINESS Array S | 37.81 | 326 | eP | P | 03 14 55.4 | +0.7 |
| FINES | FINESS Array B | 37.81 | 326 | P | P | 03 14 55.4 | +0.7 |
| | comp=E,2.7nm,0.8s,baz=113,slow=6.9,SNR=13 | | | | | | |
| SIRR | Siria | 38.18 | 301 | ⇓iP | P | 03 15 00.0 | +2.0 |
| BZS | Buzias | 38.25 | 300 | ⇑iP | P | 03 14 58.2 | -0.4 |
| ARA0 | ARCESS Array S | 41.40 | 337 | eP | P | 03 15 26.2 | +1.9 |
| ARCES | ARCESS Array B | 41.40 | 337 | P | P | 03 15 26.2 | +1.9 |
| | comp=E,2.9nm,0.7s,baz=114,slow=7.8,SNR=24 | | | | | | |
| ARCES | ARCESS Array B | 41.40 | 337 | eP | P | 03 15 25.9 | +1.5 |
| ARE0 | ARCESS Array S | 41.40 | 337 | eP | P | 03 15 26.3 | +2.0 |
| | comp=E,120nm,1.8s | | | | | | |
| GERES | GERESS Array B | 43.35 | 305 | P | P | 03 15 42.0 | +1.5 |
| | comp=E,0.1nm,0.3s,baz=5.3,slow=5.8,SNR=3.9 | | | | | | |
| NC405 | NORSAR Array S | 44.49 | 323 | eP | P | 03 15 50.1 | +0.7 |
| NC602 | NORSAR Array S | 44.54 | 323 | eP | P | 03 15 50.3 | +0.6 |
| NC303 | NORSAR Array S | 44.67 | 323 | eP | P | 03 15 51.7 | +1.0 |
| NB201 | NORSAR Array S | 44.69 | 323 | eP | P | 03 15 51.7 | +0.8 |
| NB2 | NORSAR Subarra | 44.73 | 323 | P | P | 03 15 51.8 | +0.6 |
| | comp=Z,1.2nm,0.4s,baz=98,slow=7.9 | | | | | | |
| NB200 | NORSAR Array S | 44.73 | 323 | eP | P | 03 15 52.1 | +0.8 |
| NOA | NORSAR Array B | 44.73 | 323 | P | P | 03 15 52.1 | +0.8 |
| | comp=Z,2.3nm,0.5s,baz=96,slow=7.8,SNR=9.5 | | | | | | |
| NBO00 | NORSAR Array S | 44.94 | 323 | eP | P | 03 15 53.7 | +0.8 |
| NC204 | NORSAR Array S | 44.96 | 323 | eP | P | 03 15 53.1 | 0.0 |
| KONO | Kongsberg | 45.44 | 321 | eP | P | 03 15 57.7 | +0.9 |
| | comp=Z,54nm,1.4s | | | | | | |
| ESDC | Sonseca Array | 57.90 | 298 | P | P | 03 17 30.1 | +0.2 |
| | comp=Z,0.2nm,0.5s,baz=51,slow=7.2,SNR=4.0 | | | | | | |
| TOA1 | Torodi Ar. Sit | 66.17 | 269 | eP | P | 03 18 23.5 | -1.8 |
| TORD | Torodi Ar. Bea | 66.17 | 269 | P | P | 03 18 23.5 | -1.8 |
| | comp=Z,1.7nm,0.6s,baz=54,slow=5.1,SNR=34 | | | | | | |
| ILAR | Eielson Array | 74.74 | 16 | P | P | 03 19 17.6 | +1.0 |
| | comp=Z,1.1nm,1.1s,baz=305,slow=5.2,SNR=5.5 | | | | | | |
| ILB | Eielson Array | 74.74 | 16 | eP | P | 03 19 17.6 | +1.0 |
| YKA | Yellowknife Ar | 81.31 | 3 | P | P | 03 19 55.2 | +2.2 |
| | comp=Z,1.2nm,0.7s,baz=351,slow=5.5,SNR=8.6 | | | | | | |
| YKB5 | Yellowknife Ar | 81.31 | 3 | eP | P | 03 19 55.2 | +2.2 |
| WR1 | Warramunga Arr | 81.56 | 122 | eP | P | 03 19 51.3 | -3.6 |
| | comp=Z,16nm,1.6s | | | | | | |
| WRA | Warramunga Arr | 81.56 | 122 | P | P | 03 19 51.3 | -3.6 |
| | comp=Z,0.5nm,1.1s,baz=326,slow=4.8,SNR=60 | | | | | | |

---

**NNC 07 03:14:09.9**±2.5**, 37°.11N**×**70°.86E, h0**km**, mb3.9, mpv3.6, 7C-1D, Error ellipse: s-maj=19.5km s-min=17.1km az=142.0, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SFK | Sufi-Kurgan | 3.56 | 35 | ⇓Pn | Pn | 03 15 07.1 | +0.4 |
| | 5.8nm,0.4s | | | | | | |
| SFK | | | | ⇑Sn | Sn | 03 15 51.3 | +1.6 |
| | 15nm,0.4s | | | | | | |
| AML | Almayashu | 5.47 | 23 | P | Pn | 03 15 32.2 | -0.9 |
| | SNR=93 | | | | | | |
| MNAS | Manas | 5.52 | 13 | ⇑Pn | Pn | 03 15 33.3 | -0.2 |
| | 2.3nm,0.6s | | | | | | |
| MNAS | | | | ⇑Sn | Sn | 03 16 39.0 | +1.3 |
| | 7.0nm,0.4s | | | | | | |
| UCH | Uchtor | 5.84 | 28 | P | Pn | 03 15 36.8 | -1.3 |
| | SNR=5.4 | | | | | | |
| EKS2 | Erkin-Say | 5.98 | 21 | P | Pn | 03 15 39.6 | -0.2 |
| | SNR=19 | | | | | | |
| KK31 | Karatay Array | 6.00 | 358 | ⇑Pn | Pn | 03 15 40.5 | +0.6 |
| | 1.9nm,0.3s,baz=176,slow=13,SNR=86 | | | | | | |
| KK31 | | | | ⇑Sn | Sn | 03 16 50.8 | +1.6 |
| | 1.5nm,0.3s,baz=185,slow=24,SNR=8.9 | | | | | | |
| AAK | Ala-Archa | 6.19 | 26 | ⇑Pn | Pn | 03 15 41.5 | -1.2 |
| | 2.5nm,0.3s | | | | | | |
| AAK | | | | ⇑Sn | Sn | 03 16 54.0 | -0.3 |
| | 2.2nm,0.4s | | | | | | |
| AAK | Ala-Archa | 6.19 | 26 | P | Pn | 03 15 41.9 | -0.8 |
| | SNR=7.6 | | | | | | |
| CHMS | Chumysh | 6.60 | 26 | P | Pn | 03 15 47.1 | -1.0 |
| | SNR=5.9 | | | | | | |
| USP | Ospenovka | 6.75 | 23 | P | Pn | 03 15 49.1 | -1.3 |
| | SNR=10 | | | | | | |

---

*ISCJB **07** 03:16:49.8±0.3, 31°.71S±0°.03×179°.28W±0°.07, h100km, mb4.8/24, Error ellipse: s-maj=8.8km s-min=3.2km az=14.6*

*NEIC **07** 03:16:51.0±0.7, 31°.72S×178°.94W, h118km±6km, mb4.8/14, Error ellipse: s-maj=10.6km s-min=6.9km az=114.0*

*IDC **07** 03:16:52.5±1.5, 31°.64S×179°.07W, h126km±13km, mb4.4/9, mb1 4.5/12, mb1mx4.2/31, mbtmp4.6/12, MS3.4/2, Ms1 3.4/2, ms1mx2.8/30, Error ellipse: s-maj=23.1km s-min=14.0km az=148.0*

**ISC 07 03:16:50.1**±0.4**, 31°.73S**±0°.05×**179°.14W**±0°.08**, h100**km**, n131,** σ1$^s$85/151**, mb4.8**/23**, 1C, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RAO | Raoul Island | 2.69 | 23 | P | Pn | 03 17 31.8 | +0.1 |
| | 112nm,0.3s,baz=148,slow=21,SNR=5.4 | | | | | | |
| RAO | | | | S | Sn | 03 18 04.5 | +0.9 |
| | 348nm,0.3s,baz=152,slow=22,SNR=7.0 | | | | | | |
| RAO | Raoul Island | 2.69 | 23 | ePn | Pn | 03 17 32.2 | +0.5 |
| RAO | | | | eSn | Sn | 03 18 05.0 | +1.4 |
| MXZ | Matakaoa Point | 6.19 | 199 | ePn | Pn | 03 18 22.1 | +3.2 |
| MXZ | | | | eSn | Sn | 03 19 30.7 | +2.5 |
| MXZ | Matakaoa Point | 6.19 | 199 | PN | Pn | 03 18 23.3 | +4.4 |
| WMGZ | Waiomatatini S | 6.40 | 198 | PN | Pn | 03 18 23.8 | +2.0 |
| PKGZ | Pakihiroa | 6.55 | 200 | PN | Pn | 03 18 24.8 | +0.8 |
| PKGZ | | | | SN | Sn | 03 19 37.9 | +0.7 |
| PUZ | Puketiti | 6.68 | 198 | SN | Sn | 03 19 39.0 | -1.1 |
| RUGZ | Raukumara Rang | 6.75 | 202 | ePN | Pn | 03 18 28.6 | +2.0 |
| TWGZ | Tauwhareparae | 6.85 | 199 | PN | Pn | 03 18 29.9 | +2.0 |
| TWGZ | | | | SN | Sn | 03 19 45.8 | +1.4 |
| CNGZ | Carnagh Statio | 7.08 | 197 | PN | Pn | 03 18 36.2 | +5.2 |
| MWZ | Matawai | 7.13 | 202 | PN | Pn | 03 18 32.4 | +0.6 |
| URZ | Urewera | 7.20 | 204 | P | Pn | 03 18 34.6 | +2.0 |
| | 1.0nm,0.3s,baz=278,slow=5.5,SNR=12 | | | | | | |
| URZ | | | | S | Sn | 03 19 56.7 | +3.9 |
| | 19nm,0.3s,baz=179,slow=23,SNR=16 | | | | | | |
| URZ | Urewera | 7.20 | 204 | PN | Pn | 03 18 33.1 | +0.4 |
| RIGZ | Rimuhau | 7.41 | 199 | PN | Pn | 03 18 35.8 | +0.3 |
| RIGZ | | | | SN | Sn | 03 19 58.1 | +0.2 |
| SNGZ | Shannon Statio | 7.60 | 201 | PN | Pn | 03 18 39.3 | +1.2 |
| SNGZ | | | | SN | Sn | 03 20 05.1 | +2.5 |
| KNZ | Kokohu | 7.73 | 199 | PN | Pn | 03 18 40.0 | +0.3 |
| MTHZ | Maungataniwha | 7.83 | 204 | SN | Sn | 03 20 10.8 | +2.6 |
| BKZ | Black Stump Fm | 8.23 | 204 | ePn | Pn | 03 18 46.0 | -0.6 |
| BKZ | | | | eSn | Sn | 03 20 15.1 | -2.9 |
| HIZ | Hauiti | 8.36 | 214 | ePn | Pn | 03 18 52.6 | +4.2 |
| MCHZ | McNeill Hill | 8.41 | 203 | PN | Pn | 03 18 51.2 | +2.1 |
| OTVZ | Oturere | 8.54 | 208 | PN | Pn | 03 18 51.4 | +0.4 |
| OTVZ | | | | SN | Sn | 03 20 28.7 | +3.0 |
| KRHZ | Kereru | 8.70 | 204 | PN | Pn | 03 18 54.5 | +1.4 |
| KRHZ | | | | SN | Sn | 03 20 27.8 | -1.5 |
| PXZ | Pawanui | 8.89 | 200 | SN | Sn | 03 20 32.0 | -2.0 |
| BFZ | Birch Farm | 9.68 | 201 | ePn | Pn | 03 19 02.1 | -4.2 |
| BFZ | | | | eSn | Sn | 03 20 51.9 | -1.2 |
| OGWZ | Otaki Gorge | 10.16 | 205 | SN | Sn | 03 21 00.7 | -4.1 |
| KIW | Kapiti Island | 10.30 | 206 | PN | Pn | 03 19 11.2 | -3.5 |
| SNZO | South Karori | 10.76 | 206 | ePn | Pn | 03 19 20.8 | -0.3 |
| MSVF | Nonsavu | 14.17 | 349 | ePn | Pn | 03 20 06.7 | +0.4 |
| RPZ | Rata Peaks | 14.25 | 210 | P | P | 03 20 09.6 | -1.7 |
| | 1.1nm,0.3s,baz=117,slow=11,SNR=3.1 | | | | | | |
| RPZ | | | | S | Sn | 03 22 34.0 | -10 |
| | 2.3nm,0.3s,baz=338,slow=20,SNR=7.3 | | | | | | |
| DZM | Mont Dzumac | 16.05 | 303 | LR | LR | 03 25 41.5 | |
| | comp=Z,46nm,20.9s,baz=206,slow=33 | | | | | | |
| DZM | Mont Dzumac | 16.05 | 303 | eP | P | 03 20 35.9 | +4.4 |
| | 55nm,1.2s | | | | | | |
| DZM | | | | eLR | LR | 03 24 05.1 | |
| | 225nm,28.0s | | | | | | |
| TBI | Tubuai | 27.54 | 80 | eLR | LR | 03 29 19.6 | |
| | 78nm,32.0s | | | | | | |
| TBI | Tubuai | 27.54 | 80 | eT | T | 03 50 34.9 | |
| | 8.7nm,0.3s | | | | | | |
| PAE | Paea | 30.17 | 69 | eT | T | 03 53 36.6 | |
| | 2.2nm,0.2s | | | | | | |
| PPT2 | Papeete2 | 30.21 | 69 | eLR | LR | 03 30 31.0 | |
| | 107nm,33.2s | | | | | | |
| PPT2 | Papeete2 | 30.21 | 69 | eT | T | 03 53 39.9 | |
| | 2.6nm,0.3s | | | | | | |
| VAH | Vaihoa | 33.08 | 68 | eT | T | 03 57 11.7 | |
| | 9.8nm,0.2s | | | | | | |
| CTAO | Charters Tower | 33.08 | 282 | eP | P | 03 23 18.5 | +2.0 |
| | 19nm,0.8s | | | | | | |
| STKA | Stephens Creek | 33.25 | 259 | P | P | 03 23 19.9 | +2.1 |
| | 11nm,0.6s,baz=98,slow=10,SNR=29 | | | | | | |
| STKA | Stephens Creek | 33.25 | 259 | eP | P | 03 23 20.4 | +2.6 |
| | 2.3nm,0.8s | | | | | | |
| BBOO | Buckleboo | 37.68 | 256 | eP | P | 03 23 56.8 | +1.0 |
| | 20nm,0.8s | | | | | | |
| COEN | Coen | 38.73 | 288 | eP | P | 03 24 06.0 | +1.3 |
| | 11nm,0.9s | | | | | | |
| AS01 | Alice Springs | 42.04 | 269 | eP | P | 03 24 31.8 | -0.2 |
| AS31 | Alice Springs | 42.08 | 269 | eP | P | 03 24 33.1 | +0.7 |
| | 6.9nm,0.7s | | | | | | |
| AS31 | | | | ePcP | PcP | 03 26 24.8 | -0.6 |
| AS31 | | | | eScP | ScP | 03 30 03.3 | -3.5 |
| ASAR | Alice Springs | 42.08 | 269 | P | P | 03 24 33.0 | +0.7 |
| | 24nm,0.7s,baz=105,slow=7.5,SNR=218 | | | | | | |
| ASAR | | | | PcP | PcP | 03 26 24.8 | -0.6 |
| | 1.2nm,0.5s,baz=113,slow=3.6,SNR=3.7 | | | | | | |
| ASAR | | | | ScP | ScP | 03 30 03.3 | -3.5 |
| | 0.5nm,0.8s,baz=126,slow=2.2,SNR=4.3 | | | | | | |
| WB2 | Warramunga Arr | 43.18 | 274 | eP | P | 03 24 41.7 | +0.4 |
| WRAB | Tennant Creek | 43.19 | 274 | eP | P | 03 24 41.8 | +0.5 |
| | 30nm,0.9s | | | | | | |
| WR1 | Warramunga Arr | 43.19 | 274 | eP | P | 03 24 41.8 | +0.5 |
| | 43nm,0.9s | | | | | | |
| WR1 | | | | ePP | PcP | 03 26 28.2 | -0.9 |
| WR1 | | | | eScP | ScP | 03 30 05.3 | -5.9 |
| WR1 | | | | eS | S | 03 30 58.2 | -2.6 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 43.19 | 274 | P | P | 03 24 41.8 | +0.5 |
| | 17nm,0.4s,baz=112,slow=7.7,SNR=153 | | | | | | |
| WRA | | | | PcP | PcP | 03 26 28.2 | -0.9 |
| | 2.5nm,0.9s,baz=124,slow=3.2,SNR=4.6 | | | | | | |
| WRA | | | | ScP | ScP | 03 30 05.3 | -5.9 |
| | 0.5nm,1.0s,baz=91,slow=3.3,SNR=3.5 | | | | | | |
| WRA | | | | S | S | 03 30 58.2 | -2.6 |
| | 1.0nm,1.1s,baz=118,slow=13,SNR=3.1 | | | | | | |
| FORT | Forrest | 44.77 | 257 | eP | P | 03 24 53.5 | -0.4 |
| | 299nm,0.8s | | | | | | |
| VNDA | Vanda | 46.68 | 186 | P | P | 03 25 11.1 | +2.9 |
| | 1.1nm,0.7s,baz=3.1,slow=11,SNR=3.9 | | | | | | |
| VNDA | Vanda | 46.68 | 186 | eP | P | 03 25 08.7 | +0.5 |
| MTN | Manton Dam | 49.25 | 281 | eP | P | 03 25 29.1 | +0.3 |
| | 34nm,0.6s | | | | | | |
| NWAO | Narrogin (SRO) | 53.02 | 251 | P | P | 03 25 56.3 | -0.5 |
| | 8.2nm,0.8s,baz=357,slow=5.1,SNR=5.6 | | | | | | |
| QSPA | South Pole Qui | 58.38 | 180 | eP | P | 03 26 38.0 | +3.2 |
| | 27nm,0.6s | | | | | | |
| ANA2 | Anatahan | 58.49 | 320 | eP | P | 03 26 37.3 | +1.3 |
| SBUM | Sibu | 73.27 | 284 | eP | P | 03 28 11.2 | +0.2 |
| | 5.4nm,0.8s | | | | | | |
| SYO | Syowa Base | 75.60 | 193⇑ | eP | P | 03 28 22.0 | -1.5 |
| SNAA | Sanae | 76.85 | 179 | P | P | 03 28 32.2 | +1.5 |
| SNAA | Sanae | 76.85 | 179 | LR | LR | 03 56 43.2 | |
| | comp=Z,62nm,21.4s,baz=142,slow=31 | | | | | | |
| SNAA | Sanae | 76.85 | 179 | eP | P | 03 28 31.6 | +0.9 |
| | 10nm,0.9s | | | | | | |
| VNA3 | Neumayer Olymp | 77.04 | 177 | P | P | 03 28 33.1 | +1.4 |
| VNA2 | Neumayer--Watz | 77.47 | 177 | P | P | 03 28 35.7 | +1.7 |
| | baz=184,slow=2.6 | | | | | | |
| VNA1 | Neumayer--Stat | 77.70 | 177 | P | P | 03 28 37.0 | +1.7 |
| SBC | Santa Barbara | 86.36 | 45 | eP | P | 03 29 23.6 | +2.6 |
| PETK | Petropavlovsk- | 86.86 | 346 | P | P | 03 29 21.6 | -1.5 |
| | 3.0nm,0.7s,baz=153,slow=6.5,SNR=4.5 | | | | | | |
| PEA1 | Petropavlovsk- | 86.87 | 346 | eP | P | 03 29 21.6 | -1.5 |
| FRD | Ford Ranch, An | 87.66 | 48 | eP | P | 03 29 30.6 | +3.2 |
| USRK | Ussuriysk Ar. | 87.74 | 327 | P | P | 03 29 28.1 | +0.7 |
| | 4.5nm,0.8s,baz=157,slow=5.4,SNR=6.3 | | | | | | |
| GLA | Glamis | 88.50 | 49 | eP | P | 03 29 33.4 | +2.0 |
| | 4.7nm,0.8s | | | | | | |
| LDFC | Landfair | 89.62 | 48 | eP | P | 03 29 38.6 | +1.9 |
| | 7.7nm,0.9s | | | | | | |
| CM31 | Chiang Mai Arr | 92.92 | 290 | eP | P | 03 29 51.3 | -0.9 |
| CMAR | Chiang Mai Arr | 92.92 | 290 | P | P | 03 29 51.3 | -0.9 |
| | 1.0nm,0.3s,baz=145,slow=3.3,SNR=3.0 | | | | | | |
| LTX | Lajitas | 93.92 | 58 | eP | P | 03 29 54.7 | -2.1 |
| TXAR | Lajitas Array | 93.92 | 58 | P | P | 03 29 54.7 | -2.1 |
| | 0.7nm,1.1s,baz=218,slow=7.9,SNR=4.0 | | | | | | |
| P18A | Preston Nutter | 95.48 | 46 | eP | P | 03 30 08.0 | +4.1 |
| | 6.7nm,1.3s | | | | | | |
| ILAR | Eielson Array | 99.44 | 13 | P | Pdif | 03 30 21.4 | +0.6 |
| | 0.8nm,0.8s,baz=236,slow=5.8,SNR=7.7 | | | | | | |
| ILAR | | | | PKiKP | PKiKP | 03 34 50.5 | +1.0 |
| | 0.2nm,0.6s,baz=272,slow=2.3,SNR=6.0 | | | | | | |
| ILB | Eielson Array | 99.44 | 13 | ePdif | Pdif | 03 30 21.4 | +0.6 |
| ILB | | | | ePKiKP | PKiKP | 03 34 50.5 | +1.0 |
| MK32 | Makanchi Array | 117.87 | 310 | ePKPdf | PKPdf | 03 35 22.3 | -2.3 |
| MKAR | Makanchi Array | 117.87 | 310 | PKP | PKPdf | 03 35 22.3 | -2.3 |
| | 1.1nm,0.7s,baz=64,slow=0.9,SNR=7.8 | | | | | | |
| ZALV | Zalesovo Beam | 118.37 | 318 | PKP | PKPdf | 03 35 22.9 | -2.4 |
| | 0.6nm,0.5s,baz=107,slow=4.8,SNR=3.5 | | | | | | |
| ZAA1 | Zalesovo Array | 118.37 | 318 | ePKPdf | PKPdf | 03 35 22.9 | -2.4 |
| KURK | Kurchatov | 121.25 | 313 | ePKPdf | PKPdf | 03 35 29.5 | -1.4 |
| AAK | Ala-Archa | 122.03 | 303 | ePKPdf | PKPdf | 03 35 32.1 | -0.8 |
| BRVK | Borovoye | 126.73 | 315 | ePKPdf | PKPdf | 03 35 40.4 | -0.9 |
| ARA0 | ARCESS Array S | 139.67 | 347 | ePKPpre | PKPpre | 03 35 57.1 | |
| ARA0 | | | | ePKPdf | PKPdf | 03 36 05.3 | +0.1 |
| ARCES | ARCESS Array B | 139.67 | 347 | PKhKP | PKPpre | 03 35 57.1 | |
| | 1.8nm,0.7s,baz=50,slow=1.4,SNR=8.5 | | | | | | |
| ARCES | | | | PKP | PKPdf | 03 36 05.3 | +0.1 |
| | 1.9nm,0.8s,baz=83,slow=2.9,SNR=7.3 | | | | | | |
| KBZ | Khabaz | 145.01 | 302 | PKPbc | PKPbc | 03 36 13.8 | -1.1 |
| | 12nm,1.0s,baz=87,slow=3.2,SNR=15 | | | | | | |
| OBN | Obninsk | 145.68 | 324 | ePKPdf | PKPdf | 03 36 15.7 | -0.4 |
| FIA1 | FINESS Array S | 146.04 | 339 | ePKPdf | PKPdf | 03 36 15.6 | -1.0 |
| FIA1 | | | | ePKPdf | PKPbc | 03 36 16.1 | -1.5 |
| FIA0 | FINESS Array S | 146.04 | 339 | ePKPdf | PKPdf | 03 36 15.7 | -0.8 |
| FINES | FINESS Array B | 146.04 | 339 | PKPbc | PKPdf | 03 36 15.7 | -0.8 |
| | 20nm,0.8s,baz=53,slow=4.1,SNR=118 | | | | | | |
| MZRK | Al-Mazaregh | 146.83 | 288 | eP | PKPab | 03 36 21.6 | -0.8 |
| SFNV | Sufian | 147.31 | 289 | eP | PKPbc | 03 36 22.2 | 0.0 |
| ROOS | tl_alroos | 149.43 | 284 | eP | PKPbc | 03 36 27.6 | -0.1 |
| SALA | Sala | 149.72 | 282 | eP | PKPbc | 03 36 28.6 | -0.1 |
| NB2 | NORSAR Subarra | 149.90 | 350 | PKP | PKPbc | 03 36 25.8 | -2.2 |
| | comp=Z,1.6nm,0.5s,baz=13,slow=2.6 | | | | | | |
| NB200 | NORSAR Array S | 149.90 | 350 | ePKPbc | PKPbc | 03 36 26.5 | -1.4 |
| NOA | NORSAR Array B | 149.90 | 350 | PKPbc | PKPbc | 03 36 26.5 | -1.4 |
| | comp=Z,1.5nm,0.7s,baz=57,slow=1.5,SNR=10 | | | | | | |
| MARH | Ras Al Marh | 150.09 | 284 | eP | PKPbc | 03 36 30.4 | +0.8 |
| IZAR | Zarasai | 150.10 | 331 | eP | PKPbc | 03 36 28.1 | -0.5 |
| IZAR | | | | IAmb | IAmb | 03 36 35.1 | |
| | comp=Z,10nm,0.7s | | | | | | |
| IDID | Didziasalis | 150.19 | 330 | eP | PKPbc | 03 36 27.7 | -1.0 |
| IDID | | | | IAmb | IAmb | 03 36 35.5 | |
| | comp=Z,4.2nm,0.8s | | | | | | |
| IDID | Didziasalis | 150.19 | 330 | eP | PKPbc | 03 36 27.7 | -1.0 |
| BTCH | Batrach | 150.24 | 288 | eP | PKPbc | 03 36 29.8 | +0.1 |
| BIDA | Albida | 150.30 | 286 | eP | PKPbc | 03 36 29.9 | 0.0 |
| IIGN | Ignalina | 150.39 | 330 | eP | PKPbc | 03 36 27.7 | -1.6 |
| IIGN | | | | IAmb | IAmb | 03 36 36.3 | |
| | comp=Z,5.7nm,0.6s | | | | | | |
| AKASG | Malin Array Be | 151.73 | 320 | PKPbc | PKPbc | 03 36 31.0 | -1.5 |
| | comp=Z,4.9nm,0.6s,baz=57,slow=2.2,SNR=19 | | | | | | |
| AKBB | Malin Array Si | 151.73 | 320 | ePKPbc | PKPbc | 03 36 31.4 | -1.1 |
| BR101 | Keskin Array S | 152.34 | 296 | ePKPbc | PKPbc | 03 36 33.0 | -1.5 |
| BR101 | | | | ePKPab | PKPab | 03 36 44.2 | -0.7 |
| BRTR | Keskin Array B | 152.34 | 296 | PKPbc | PKPbc | 03 36 33.0 | -1.5 |
| | comp=Z,5.5nm,0.6s,baz=143,slow=3.4,SNR=36 | | | | | | |
| BRTR | | | | PKPab | PKPab | 03 36 44.2 | -0.7 |
| | comp=Z,2.8nm,0.7s,baz=145,slow=4.6,SNR=8.0 | | | | | | |
| STHS | Stebnicka Huta | 156.63 | 325 | ePKP | PKPab | 03 37 02.1 | -0.6 |
| DPC | Dobruska-Polom | 158.12 | 333 | ePKPAB | PKPab | 03 37 08.8 | -0.3 |
| VYHS | Vyhne | 158.42 | 326 | ePKP | PKPab | 03 37 09.2 | -1.2 |
| CLL | Collm | 158.49 | 339 | ePKPab | PKPab | 03 37 09.0 | -1.5 |
| BRG | Berggiesshubel | 158.56 | 337 | ePKP | PKPab | 03 37 09.4 | -1.4 |
| | comp=Z,3.2nm,1.0s | | | | | | |
| KHC | Kasperske Hory | 160.15 | 335 | ePKPAB | PKPab | 03 37 17.2 | -0.7 |
| CONA | Conrad Observa | 160.20 | 329 | i PKPab | PKPab | 03 37 17.3 | -0.9 |
| | comp=Z,4.8nm,0.9s | | | | | | |
| GERES | GERESS Array B | 160.34 | 334 | PKPab | PKPab | 03 37 17.0 | -1.9 |
| | comp=Z,1.6nm,0.8s,baz=32,slow=5.2,SNR=10.0 | | | | | | |
| ARSA | Arzberg | 160.86 | 328 | i sPKPdf | PKPab | 03 37 20.5 | -0.5 |
| | comp=Z,1.4nm,0.6s | | | | | | |
| MOA | Molln | 160.93 | 331 | i PKPab | PKPab | 03 37 20.6 | -0.8 |
| | comp=Z,2.4nm,0.9s | | | | | | |
| TORD | Torodi Ar. Bea | 161.49 | 183 | PKP | PKPdf | 03 36 39.2 | -0.5 |
| | comp=Z,1.2nm,0.9s,baz=259,slow=1.2,SNR=8.1 | | | | | | |
| TORD | | | | PKPab | PKPab | 03 37 24.7 | +0.3 |
| | comp=Z,5.1nm,0.8s,baz=168,slow=3.9,SNR=23 | | | | | | |
| TOA1 | Torodi Ar. Sit | 161.49 | 183 | ePKPdf | PKPdf | 03 36 39.2 | -0.5 |
| TOA1 | | | | ePKPab | PKPab | 03 37 24.7 | +0.3 |
| SOKA | Soboth | 161.51 | 328 | i PKPab | PKPab | 03 37 23.7 | -0.3 |
| | comp=Z,3.0nm,0.8s | | | | | | |
| MYKA | Terra Mystica | 162.16 | 330 | i PKPab | PKPab | 03 37 24.9 | -1.9 |
| | comp=Z,2.4nm,0.6s | | | | | | |
| WATA | Walderalm | 162.39 | 335 | i PKPab | PKPab | 03 37 27.6 | -0.3 |
| | comp=Z,1.4nm,0.5s | | | | | | |
| WTTA | Wattenberg | 162.43 | 335 | i PKPab | PKPab | 03 37 26.6 | -1.5 |
| | comp=Z,4.6nm,0.8s | | | | | | |
| ABTA | Abfaltersbach | 162.53 | 332 | i PKPab | PKPab | 03 37 27.1 | -1.3 |
| | comp=Z,3.6nm,0.8s | | | | | | |
| RETA | Reutte | 162.54 | 337 | i PKPab | PKPab | 03 37 27.5 | -0.9 |
| | comp=Z,7.6nm,1.3s | | | | | | |
| MOTA | Moosalm | 162.54 | 336 | i PKPab | PKPab | 03 37 27.9 | -0.6 |
| | comp=Z,1.2nm,0.4s | | | | | | |
| FETA | Feichten | 162.95 | 336 | i PKPab | PKPab | 03 37 29.6 | -0.8 |
| | comp=Z,3.6nm,1.1s | | | | | | |
| ESDC | Sonseca Array | 171.16 | 25 | PKP | PKPdf | 03 36 45.8 | -0.8 |
| | comp=Z,0.7nm,0.8s,baz=340,slow=3.0,SNR=9.7 | | | | | | |
| ESDC | | | | PKPab | PKPab | 03 38 06.5 | -0.1 |
| | comp=Z,0.8nm,0.8s,baz=339,slow=2.8,SNR=4.2 | | | | | | |

---

*CSEM **07** 03:19:50.2±0.4, 35.°51N×44.°88E, h10km, ML2.5, Error ellipse: s-maj=15.1km s-min=5.7km az=18.0*
*ISN **07** 03:19:50.2±1.9, 35.°55N×45.°00E, h18km±64km, ML2.5*
**TEH 07 03:19:50.9, 35.°64N×44.°97E, h5km, ML2.5, Iraq**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ILIN | Lien | 1.79 | 113 | ePn | Pn | 03 20 22.3 | -0.3 |
| ILIN | | | | eSg | Sb | 03 20 47.0 | -0.1 |
| ILIN | | | | eAMB | AMB | 03 20 49.4 | |
| | comp=Z,369nm,0.1s | | | | | | |
| ILIN | Lien | 1.79 | 113 | ePn | Pn | 03 20 22.3 | -0.3 |
| ILIN | | | | eSg | Sb | 03 20 47.0 | -0.1 |
| IGHG | Ghaleghazi | 1.86 | 134 | eSg | Sb | 03 20 49.0 | -0.1 |
| IGHG | | | | eAMB | AMB | 03 20 57.2 | |
| | comp=Z,402nm,0.3s | | | | | | |
| IGHG | Ghaleghazi | 1.86 | 134 | eSg | Sb | 03 20 49.0 | -0.1 |
| IVIS | Veis | 1.91 | 125 | ePn | Pn | 03 20 23.7 | -0.4 |
| IVIS | | | | eSg | Sb | 03 20 49.7 | -0.6 |
| IVIS | | | | eAMB | AMB | 03 20 53.3 | |
| | comp=Z,361nm,0.2s | | | | | | |
| IVIS | Veis | 1.91 | 125 | ePn | Pn | 03 20 23.7 | -0.4 |
| IVIS | | | | eSg | Sb | 03 20 49.7 | -0.6 |

---

*IDC **07** 03:26:29.6±0.9, 49.°72S×117.°51E, h0km, mb4.2/8, mb1 4.4/9, mb1mx4.1/37, mbtmp4.3/9, ML2.7/1, MS4.2/2, Ms1 4.2/2, ms1mx3.6/24, Error ellipse: s-maj=39.8km s-min=18.8km az=102.0*
*ISCJB **07** 03:26:31.0±0.6, 49.°69S±0.°09×117.°5E±0.°2, h19km, mb4.4/15, MS4.2/2, Error ellipse: s-maj=21.5km s-min=10.5km az=20.2*
*NEIC **07** 03:26:31.5±0.5, 49.°71S×117.°49E, h10km, mb4.7/11, Error ellipse: s-maj=19.4km s-min=9.6km az=108.0*
**ISC 07 03:26:32.8±0.7, 49.°7S±0.°1×117.°2E±0.°2, h19km, n40, σ1§15/28, mb4.5/14, Western Indian-Antarctic Ridge**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| H01W2 | Cape Leeuwin H | 14.93 | 350 | T | T | 03 45 27.6 | |
| | baz=170,slow=74,SNR=16 | | | | | | |
| H01W1 | Cape Leeuwin H | 14.93 | 350 | T | T | 03 45 16.3 | |
| | baz=170,slow=74,SNR=17 | | | | | | |
| H01W3 | Cape Leeuwin H | 14.95 | 350 | T | T | 03 45 18.0 | |
| | baz=170,slow=74,SNR=12 | | | | | | |
| NWAO | Narrogin (SRO) | 16.72 | 0 | Pn | P | 03 30 27.9 | -0.2 |
| | 1.2nm,0.3s,baz=350,slow=21,SNR=9.1 | | | | | | |
| NWAO | Narrogin (SRO) | 16.72 | 0 | ePn | P | 03 30 29.3 | +1.2 |
| | 59nm,1.0s | | | | | | |
| TAU | Tasmania Unive | 21.76 | 83 | eP | P | 03 31 25.8 | +2.7 |
| | 105nm,1.8s | | | | | | |
| BBOO | Buckleboo | 21.90 | 47 | eP | P | 03 31 24.0 | -0.7 |
| | 60nm,1.5s | | | | | | |
| STKA | Stephens Creek | 25.44 | 55 | P | P | 03 31 58.6 | -0.7 |
| | 2.5nm,0.9s,baz=186,slow=12,SNR=5.1 | | | | | | |
| STKA | Stephens Creek | 25.44 | 55 | eP | P | 03 31 59.7 | +0.4 |
| | 8.3nm,1.8s | | | | | | |
| ASAR | Alice Springs | 29.06 | 33 | P | P | 03 32 31.3 | -0.6 |
| | 2.3nm,0.8s,baz=206,slow=8.6,SNR=17 | | | | | | |
| AS31 | Alice Springs | 29.06 | 33 | eP | P | 03 32 32.1 | +0.2 |
| | 1.2nm,0.6s | | | | | | |
| AS01 | Alice Springs | 29.08 | 33 | eP | P | 03 32 31.0 | -1.0 |
| FITZ | Fitzroy Crossi | 32.21 | 15 | P | P | 03 32 59.6 | 0.0 |
| | 2.3nm,0.8s,baz=182,slow=8.9,SNR=4.3 | | | | | | |
| VNDA | Vanda | 32.59 | 164 | P | P | 03 33 01.3 | -1.2 |
| | 2.4nm,0.8s,baz=270,slow=8.0,SNR=5.4 | | | | | | |
| VNDA | Vanda | 32.59 | 164 | eP | P | 03 33 03.3 | +0.8 |
| | 10.0nm,1.1s | | | | | | |
| WR1 | Warramunga Arr | 32.65 | 31 | eP | P | 03 33 02.2 | -1.3 |
| | 4.7nm,0.9s | | | | | | |
| WRA | Warramunga Arr | 32.65 | 31 | P | P | 03 33 02.2 | -1.3 |
| | 3.4nm,0.8s,baz=200,slow=8.8,SNR=11 | | | | | | |
| WB2 | Warramunga Arr | 32.66 | 31 | eP | P | 03 33 01.1 | -2.5 |
| WRAB | Tennant Creek | 32.66 | 31 | eP | P | 03 33 04.1 | +0.4 |
| | 6.5nm,0.8s | | | | | | |
| CTA | Charters Tower | 37.48 | 49 | LR | LR | 03 47 46.3 | |
| | comp=Z,305nm,18.7s,baz=207,slow=34 | | | | | | |
| QSPA | South Pole Qui | 40.46 | 180 | eP | P | 03 34 09.3 | -0.6 |
| | 22nm,1.4s | | | | | | |
| SNAA | Sanae | 51.82 | 200 | P | P | 03 35 39.1 | +0.1 |
| | 2.3nm,0.9s,baz=122,slow=4.7,SNR=7.1 | | | | | | |
| SNAA | Sanae | 51.82 | 200 | eP | P | 03 35 39.1 | +0.1 |
| | 29nm,1.7s | | | | | | |
| H08S2 | Diego Garcia H | 56.08 | 303 | T | T | 04 36 43.9 | |
| | baz=147,slow=76,SNR=5.8 | | | | | | |
| H08S1 | Diego Carcia H | 56.09 | 303 | T | T | 04 36 42.7 | |
| | baz=147 | | | | | | |
| H08S3 | Diego Garcia H | 56.10 | 303 | T | T | 04 36 43.5 | |
| | baz=147,slow=76,SNR=6.8 | | | | | | |
| OPO | Ambohidratompo | 63.19 | 273 | LR | LR | 03 57 35.0 | |
| | comp=Z,156nm,19.6s,baz=215,slow=29 | | | | | | |
| CM31 | Chiang Mai Arr | 69.73 | 341 | eP | P | 03 37 42.0 | +0.7 |
| CMAR | Chiang Mai Arr | 69.73 | 341 | P | P | 03 37 42.0 | +0.7 |
| | 1.6nm,0.4s,baz=157,slow=7.8,SNR=6.4 | | | | | | |
| TSUM | Tsumeb | 81.63 | 250 | eP | P | 03 38 50.8 | +1.0 |
| | 10nm,1.3s | | | | | | |
| SONA0 | Songino Array | 97.57 | 353 | eP | Pdif | 03 40 04.8 | -0.4 |
| SONM | Songino Array | 97.57 | 353 | P | Pdif | 03 40 04.8 | -0.4 |
| | 0.3nm,0.6s,baz=159,slow=4.3,SNR=2.9 | | | | | | |
| ILAR | Eielson Array | 135.67 | 38 | PKP | PKPdf | 03 45 50.7 | +0.2 |
| | 0.5nm,0.8s,baz=259,slow=3.6,SNR=4.6 | | | | | | |
| ILB | Eielson Array | 135.67 | 38 | ePKPdf | PKPdf | 03 45 50.7 | +0.2 |
| LTX | Lajitas | 143.07 | 108 | ePKPpre | PKPpre | 03 46 02.4 | |
| TXAR | Lajitas Array | 143.07 | 108 | PKP | PKPbc | 03 46 02.4 | +0.3 |
| | 0.3nm,0.8s,baz=232,slow=4.1,SNR=3.7 | | | | | | |
| PD31 | Pinedale Array | 147.34 | 84 | ePKPbc | PKPbc | 03 46 15.2 | +0.4 |
| PDAR | Pinedale Array | 147.34 | 84 | PKPbc | PKPbc | 03 46 14.1 | -0.7 |
| | 1.0nm,0.8s,baz=184,slow=2.4,SNR=8.6 | | | | | | |
| YKA | Yellowknife Ar | 149.28 | 46 | PKPbc | PKPbc | 03 46 17.0 | -1.9 |
| | 2.7nm,0.7s,baz=283,slow=1.9,SNR=9.8 | | | | | | |
| YKB5 | Yellowknife Ar | 149.28 | 46 | ePKPdf | PKPbc | 03 46 17.0 | -1.9 |

---

*ISCJB **07** 03:29:01.7±0.4, 49.°62S±0.°07×117.°2E±0.°1, h10km, mb4.7/25, MS4.4/4, Error ellipse: s-maj=14.0km s-min=7.9km az=29.8*
*IDC **07** 03:29:01.7±0.5, 49.°66S×117.°34E, h0km, mb4.5/14, mb1 4.6/14, mb1mx4.4/33, mbtmp4.5/14, MS4.4/5, Ms1 4.4/5, ms1mx3.9/27, Error ellipse: s-maj=24.8km s-min=13.7km az=121.0*
*NEIC **07** 03:29:03.4±0.3, 49.°63S×117.°12E, h10km, mb4.8/17, Error ellipse: s-maj=11.7km s-min=7.0km az=119.0*
*GCMT **07** 03:29:03.4±0.3, 49.°68S×117.°28E, h13km±1km, MW5.0/90, Moment Tensor Solution. s40,c45; s90,c139; Duration: 0 Moment tensor: Scale 10^16Nm; Mrr-3.55±.20; Mθθ2.93±.14; Mφφ0.62±.13; Mrθ0.23±.33; Mθφ-1.64±.08; Mφr1.48±.40; Best double couple: M0 3.95700×10^16 NP1:φs137.00000°,δ52.00000°,λ-64.00000°. NP2: φs279.00000°,δ45.00000°,λ-119.00000°. Principal axes: T 3.8150, Plg4.0000°, Azm209.0000°; N 0.2860, Plg20.0000°, Azm300.0000°; P -4.0990, Plg70.0000°, Azm108.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
**ISC 07 03:29:03.2±0.4, 49.°67S±0.°08×117.°2E±0.°1, h10km, n65, σ1§09/57, mb4.7/24, MS4.3/4, 1C-1D, Western Indian-Antarctic Ridge**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| H01W2 | Cape Leeuwin H | 14.94 | 350 | T | T | 03 47 52.9 | |
| | baz=170,slow=74,SNR=52 | | | | | | |
| H01W1 | Cape Leeuwin H | 14.94 | 350 | T | T | 03 47 53.7 | |
| | baz=170,slow=74,SNR=40 | | | | | | |
| H01W3 | Cape Leeuwin H | 14.95 | 350 | T | T | 03 47 52.5 | |
| | baz=170,slow=74,SNR=65 | | | | | | |
| NWAO | Narrogin (SRO) | 16.73 | 360 | Pn | P | 03 33 00.7 | +0.8 |
| | 3.6nm,0.3s,baz=45,slow=9.5,SNR=28 | | | | | | |
| NWAO | | | | LR | LR | 03 37 55.3 | |
| | comp=Z,2μm,18.9s,baz=70,slow=32 | | | | | | |
| NWAO | Narrogin (SRO) | 16.73 | 360 | ePn | P | 03 33 01.3 | +1.4 |
| | 130nm,1.5s | | | | | | |
| FORT | Forrest | 20.56 | 27 | eP | Pn | 03 33 41.8 | -2.3 |
| | 427nm,1.0s | | | | | | |
| BBOO | Buckleboo | 21.90 | 47 | eP | P | 03 33 58.6 | +2.2 |
| | 71nm,1.3s | | | | | | |
| STKA | Stephens Creek | 25.44 | 55 | P | P | 03 34 30.4 | -0.7 |
| | 6.5nm,0.9s,baz=210,slow=11,SNR=9.4 | | | | | | |
| STKA | Stephens Creek | 25.44 | 55 | eP | P | 03 34 32.3 | +1.3 |
| | 2.7nm,0.8s | | | | | | |
| ASAR | Alice Springs | 29.06 | 33 | P | P | 03 35 02.6 | -1.0 |
| | 5.6nm,0.8s,baz=206,slow=8.0,SNR=32 | | | | | | |
| ASAR | | | | PcP | PcP | 03 38 10.4 | -1.3 |
| | 0.9nm,0.7s,baz=188,slow=2.2,SNR=6.1 | | | | | | |
| ASAR | | | | LR | LR | 03 45 36.1 | |
| | comp=Z,1μm,18.6s,baz=190,slow=34 | | | | | | |
| AS31 | Alice Springs | 29.06 | 33 | eP | P | 03 35 03.2 | -0.4 |
| | 3.8nm,0.9s | | | | | | |
| AS31 | | | | ePcP | PcP | 03 38 10.4 | -1.3 |
| AS01 | Alice Springs | 29.08 | 33 | eP | P | 03 35 02.7 | -1.1 |
| MAW | Mawson | 32.09 | 216 | P | P | 03 35 31.0 | +1.1 |
| | 4.6nm,0.8s,baz=79,slow=6.1,SNR=6.7 | | | | | | |
| MAW | | | | LR | LR | 03 46 43.7 | |
| | comp=Z,652nm,18.6s,baz=72,slow=33 | | | | | | |
| MAW | Mawson | 32.09 | 216 | eP | P | 03 35 31.4 | +1.4 |
| | 2.9nm,1.1s | | | | | | |
| FITZ | Fitzroy Crossi | 32.21 | 15 | P | P | 03 35 32.9 | +1.5 |
| | 7.0nm,0.6s,baz=185,slow=7.8,SNR=8.8 | | | | | | |
| VNDA | Vanda | 32.59 | 164 | P | P | 03 35 34.9 | +0.6 |
| | 6.5nm,0.8s,baz=298,slow=8.5,SNR=16 | | | | | | |
| VNDA | Vanda | 32.59 | 164 | eP | P | 03 35 35.0 | +0.8 |
| | 8.7nm,0.8s | | | | | | |
| WR1 | Warramunga Arr | 32.65 | 31 | eP | P | 03 35 34.1 | -1.2 |
| | 16nm,1.1s | | | | | | |
| WR1 | | | | ePcP | PcP | 03 38 19.8 | -1.4 |
| WRA | Warramunga Arr | 32.65 | 31 | P | P | 03 35 34.1 | -1.2 |
| | 8.6nm,0.8s,baz=200,slow=8.6,SNR=18 | | | | | | |
| WRA | | | | PcP | PcP | 03 38 19.8 | -1.4 |
| | 2.1nm,0.8s,baz=210,slow=3.7,SNR=3.7 | | | | | | |
| WRA | | | | LR | LR | 03 47 42.2 | |
| | comp=Z,705nm,20.9s,baz=185,slow=34 | | | | | | |
| WB2 | Warramunga Arr | 32.66 | 31 | eP | P | 03 35 36.2 | +0.8 |
| WRAB | Tennant Creek | 32.67 | 31 | eP | P | 03 35 36.5 | +1.0 |
| | 13nm,1.0s | | | | | | |
| CTA | Charters Tower | 37.48 | 49 | P | P | 03 36 17.7 | +0.7 |
| | 5.7nm,0.9s,baz=211,slow=12,SNR=7.7 | | | | | | |
| CTA | | | | PcP | PcP | 03 38 34.3 | -1.0 |
| | 2.6nm,0.8s,baz=216,slow=4.7,SNR=3.4 | | | | | | |
| CTAO | Charters Tower | 37.48 | 49 | eP | P | 03 36 18.4 | +1.5 |
| | 14nm,1.1s | | | | | | |
| QSPA | South Pole Qui | 40.46 | 180 | eP | P | 03 36 41.8 | +0.2 |
| | 35nm,1.4s | | | | | | |
| SYO | Syowa Base | 40.61 | 213⇓ | eP | P | 03 36 41.6 | -1.0 |
| SYO | Syowa Base | 40.61 | 213⇑ | epP | pP | 03 36 46.2 | +0.5 |
| COEN | Coen | 41.46 | 40 | eP | P | 03 36 52.1 | +1.9 |
| | 14nm,1.2s | | | | | | |
| SNAA | Sanae | 51.82 | 200 | P | P | 03 38 10.9 | +0.1 |
| | 7.1nm,0.8s,baz=141,slow=8.8,SNR=26 | | | | | | |
| SNAA | Sanae | 51.82 | 200 | eP | P | 03 38 11.3 | +0.5 |
| | 11nm,1.0s | | | | | | |
| RAO | Raoul Island | 52.35 | 92 | eP | P | 03 38 14.6 | -0.6 |
| | 2μm,0.6s | | | | | | |
| PSI | Prapat | 54.61 | 337 | eP | P | 03 38 30.6 | -1.4 |
| | 16nm,1.3s | | | | | | |
| IPM | Ipoh | 55.73 | 340 | eP | P | 03 38 38.9 | -1.1 |
| | 17nm,1.1s | | | | | | |
| H08S2 | Diego Garcia H | 56.09 | 303 | T | T | 04 39 15.7 | |
| | baz=147,slow=76,SNR=6.6 | | | | | | |
| H08S1 | Diego Carcia H | 56.10 | 303 | T | T | 04 39 17.9 | |
| | baz=147,slow=76,SNR=5.5 | | | | | | |
| H08S3 | Diego Garcia H | 56.11 | 303 | T | T | 04 39 18.6 | |
| | baz=147,slow=76,SNR=7.9 | | | | | | |
| DGAR | Diego Garcia | 56.30 | 303 | eP | P | 03 38 42.2 | -2.0 |
| | 246nm,1.3s | | | | | | |
| OPO | Ambohidratompo | 63.20 | 273 | P | P | 03 39 33.4 | +1.6 |
| | 2.3nm,0.4s,baz=37,slow=4.0,SNR=7.9 | | | | | | |
| PALK | Pallekele | 65.02 | 319 | LR | LR | 04 01 56.1 | |
| | comp=Z,216nm,21.5s,baz=116,slow=30 | | | | | | |
| CM01 | Chiang Mai Arr | 69.70 | 341 | eP | P | 03 40 13.8 | +0.8 |
| CM31 | Chiang Mai Arr | 69.74 | 341 | eP | P | 03 40 13.7 | +0.4 |
| CMAR | Chiang Mai Arr | 69.74 | 341 | P | P | 03 40 13.7 | +0.4 |
| | 2.7nm,0.6s,baz=190,slow=5.0,SNR=6.9 | | | | | | |
| LBTB | Lobatse | 72.37 | 252 | P | P | 03 40 29.2 | -0.3 |
| | 3.2nm,0.9s,baz=114,slow=3.5,SNR=4.4 | | | | | | |
| LSZ | Lusaka | 77.91 | 261 | eP | P | 03 41 03.4 | +1.9 |
| | 10nm,1.1s | | | | | | |
| KS15 | Wonju Array Si | 87.25 | 8 | eP | P | 03 41 49.9 | +0.6 |
| KSAR | Wonju Array Be | 87.25 | 8 | P | P | 03 41 49.9 | +0.6 |
| KSRS | Korea Array | 87.26 | 8 | P | P | 03 41 49.9 | +0.5 |
| | 1.0nm,0.7s,baz=187,slow=4.4,SNR=3.6 | | | | | | |
| PLCA | Paso Flores | 89.72 | 174 | P | P | 03 42 01.3 | -0.2 |
| | 3.7nm,0.9s,baz=222,slow=18,SNR=7.2 | | | | | | |
| PLCA | Paso Flores | 89.72 | 174 | eP | P | 03 42 01.7 | +0.2 |
| | 27nm,1.5s | | | | | | |
| SONA0 | Songino Array | 97.57 | 353 | eP | Pdif | 03 42 37.0 | -0.2 |
| SONM | Songino Array | 97.57 | 353 | P | Pdif | 03 42 37.0 | -0.2 |
| | 0.5nm,0.7s,baz=132,slow=2.2,SNR=3.5 | | | | | | |
| BR101 | Keskin Array S | 115.34 | 302 | ePKPdf | PKPdf | 03 47 44.2 | -0.4 |
| BRTR | Keskin Array B | 115.34 | 302 | PKP | PKPdf | 03 47 44.2 | -0.4 |
| | 0.4nm,0.8s,baz=159,slow=3.3,SNR=3.4 | | | | | | |
| TORD | Torodi Ar. Bea | 116.40 | 259 | PKP | PKPdf | 03 47 46.6 | -0.7 |
| | 0.3nm,0.6s,baz=102,slow=1.5,SNR=4.1 | | | | | | |
| TOA1 | Torodi Ar. Sit | 116.41 | 259 | ePKPdf | PKPdf | 03 47 46.6 | -0.7 |
| GERES | GERESS Array B | 132.16 | 300 | PKP | PKPdf | 03 48 16.1 | -0.3 |
| | 1.0nm,0.8s,baz=207,slow=1.5,SNR=4.1 | | | | | | |
| ILAR | Eielson Array | 135.67 | 38 | PKP | PKPdf | 03 48 22.2 | -0.2 |
| | 0.8nm,0.6s,baz=290,slow=3.8,SNR=13 | | | | | | |
| ILB | Eielson Array | 135.67 | 38 | ePKPdf | PKPdf | 03 48 22.2 | -0.2 |
| ESDC | Sonseca Array | 138.00 | 279 | PKP | PKPdf | 03 48 26.6 | -1.0 |
| | 0.5nm,0.8s,baz=44,slow=1.9,SNR=4.7 | | | | | | |
| LTX | Lajitas | 143.06 | 108 | ePKPpre | PKPpre | 03 48 33.8 | |
| TXAR | Lajitas Array | 143.06 | 108 | PKhKP | PKPpre | 03 48 33.8 | |
| | 0.5nm,0.8s,baz=203,slow=5.6,SNR=5.0 | | | | | | |
| PD31 | Pinedale Array | 147.34 | 84 | ePKPbc | PKPab | 03 48 47.0 | -1.6 |
| PDAR | Pinedale Array | 147.34 | 84 | PKPbc | PKPab | 03 48 46.5 | -2.1 |
| | 2.1nm,0.8s,baz=211,slow=2.4,SNR=16 | | | | | | |
| DAG | Danmarks Havn | 147.91 | 342 | i P | PKPbc | 03 48 46.1 | -0.8 |
| | 3.9nm,0.8s | | | | | | |
| YKA | Yellowknife Ar | 149.28 | 46 | PKPbc | PKPbc | 03 48 50.8 | +0.1 |
| | 5.3nm,0.7s,baz=277,slow=2.1,SNR=27 | | | | | | |
| YKB5 | Yellowknife Ar | 149.28 | 46 | ePKPbc | PKPbc | 03 48 50.9 | +0.1 |

---

**IDC 07 03:31:38.0±2.0, 8.°31S×129.°65E, h0km, mb3.7/1, mb1 4.0/4, mb1mx3.6/36, mbtmp3.8/4, ML4.0/3, Error ellipse: s-maj=76.7km s-min=27.8km az=77.0, Timor Sea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| FITZ | Fitzroy Crossi | 10.48 | 201 | Pn | Pn | 03 34 07.6 | -2.1 |
| | 0.7nm,0.3s,baz=26,slow=9.1,SNR=30 | | | | | | |
| FITZ | | | | Sn | Sn | 03 35 56.2 | -12 |
| | 1.3nm,0.3s,baz=60,slow=20,SNR=6.3 | | | | | | |
| WRA | Warramunga Arr | 12.42 | 159 | Pn | Pn | 03 34 37.9 | +1.6 |
| | 1.0nm,0.3s,baz=345,slow=13,SNR=27 | | | | | | |
| WRA | | | | Sn | Sn | 03 36 49.8 | -5.7 |
| | 0.7nm,0.3s,baz=332,slow=22,SNR=5.0 | | | | | | |
| ASAR | Alice Springs | 15.80 | 166 | Pn | Pn | 03 35 22.4 | +0.4 |
| | 0.4nm,0.3s,baz=339,slow=11,SNR=11 | | | | | | |
| MKAR | Makanchi Array | 69.13 | 327 | P | P | 03 42 46.2 | +0.1 |
| | 0.5nm,0.6s,baz=119,slow=6.4,SNR=2.5 | | | | | | |

---

*ATA **07** 03:32:38.2±1.1, 38.°71N×43.°33E, h8km±20km, ML3.3, MW3.3*
*ISK **07** 03:32:38.7, 38.°69N×43.°39E, h2km, MD3.1*
*CSEM **07** 03:32:39.6±0.2, 38.°69N×43.°41E, h5km, MD3.1, Error ellipse: s-maj=4.6km s-min=3.3km az=93.0*
*DDA **07** 03:32:39.6, 38.°70N×43.°40E, h7km, Ml3.0*
**ISC 07 03:32:40.1±0.8, 38.°70N±0.°02×43.°37E±0.°02, h11km±6km, n64, σ1§20/91, 1D, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.11 | 173 | ePG | Pg | 03 32 43.3 | +0.2 |
| VANB | Van | 0.11 | 173 | ePg | Pg | 03 32 43.3 | +0.2 |
| TVAN | Van | 0.17 | 171 | i P | Pg | 03 32 43.1 | -1.0 |
| TVAN | | | | i S | Sg | 03 32 47.1 | +0.2 |
| TVAN | Van | 0.17 | 171 | P | Pg | 03 32 43.1 | -1.0 |
| TVAN | | | | S | Sg | 03 32 47.1 | +0.2 |
| ERCV | ERCIS-VAN | 0.32 | 355 | ePG | Pg | 03 32 45.9 | -0.8 |
| ERCV | | | | eSG | Sb | 03 32 52.1 | -1.1 |
| ERCV | ERCIS-VAN | 0.32 | 355 | ePg | Pg | 03 32 45.9 | -0.8 |
| ERCV | | | | eSg | Sb | 03 32 52.2 | -1.1 |
| VMUR | Van-Muradiye | 0.33 | 28 | i P | Pg | 03 32 46.4 | -0.5 |
| VMUR | | | | i S | Sb | 03 32 52.7 | -0.8 |
| VMUR | Van-Muradiye | 0.33 | 28 | P | Pg | 03 32 46.4 | -0.5 |
| VMUR | | | | S | Sb | 03 32 52.7 | -0.8 |
| GEVA | Gevas | 0.46 | 213⇓ | iP | Pg | 03 32 47.7 | -1.4 |
| GEVA | | | | eS | Sg | 03 32 54.9 | -0.4 |
| GEVA | | | | IAML | | 03 33 01.3 | |
| | comp=Z,199nm,0.6s | | | | | | |
| GEVA | Gevas | 0.46 | 213 | i P | Pg | 03 32 47.8 | -1.4 |
| GEVA | | | | i S | Sb | 03 32 56.3 | -1.0 |
| GEVA | Gevas | 0.46 | 213 | P | Pg | 03 32 47.8 | -1.4 |
| GEVA | | | | S | Sb | 03 32 56.3 | -1.0 |
| ADCV | BITLIS_Adilcev | 0.52 | 282 | i P | Pg | 03 32 49.7 | -0.6 |
| ADCV | | | | i S | Sb | 03 32 58.5 | -0.5 |
| ADCV | BITLIS_Adilcev | 0.52 | 282 | P | Pg | 03 32 49.7 | -0.6 |
| ADCV | | | | S | Sb | 03 32 58.5 | -0.5 |
| CLDR | Caldiran | 0.61 | 44 | ePG | Pg | 03 32 51.6 | -0.5 |
| CLDR | | | | eSG | Sb | 03 33 01.1 | -0.7 |
| CLDR | Caldiran | 0.61 | 44 | i P | Pg | 03 32 51.4 | -0.8 |
| CLDR | | | | i S | Sb | 03 33 01.7 | -0.1 |
| CLDR | Caldiran | 0.61 | 44 | ePg | Pg | 03 32 51.6 | -0.5 |
| CLDR | | | | eSg | Sb | 03 33 01.1 | -0.7 |
| TUTA | Tutak | 0.82 | 328 | eP | Pg | 03 32 54.8 | -1.3 |
| TUTA | | | | eS | Sg | 03 33 06.5 | -0.5 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TUTA | | | | IAML | | 03 33 08.7 | |
| | comp=Z,180nm,0.5s | | | | | | |
| TUTA | Tutak | 0.82 | 328 | *i* P | Pg | 03 32 54.9 | -1.2 |
| TUTA | | | | *i* S | Sg | 03 33 06.8 | -0.1 |
| TUTA | Tutak | 0.82 | 328 | P | Pg | 03 32 54.9 | -1.2 |
| TUTA | | | | S | Sg | 03 33 06.8 | -0.1 |
| DYDN | Diyadin | 0.88 | 16 | *e*P | Pg | 03 32 55.8 | -1.3 |
| DYDN | | | | *e*S | Sg | 03 33 08.4 | -0.2 |
| DYDN | | | | IAML | | 03 33 09.6 | |
| | comp=Z,54nm,0.6s | | | | | | |
| AGRB | Hanur-Agry | 0.92 | 341 | *e*PG | Pg | 03 32 56.9 | -1.1 |
| AGRB | Hanur-Agry | 0.92 | 341 | *e*Pg | Pg | 03 32 56.9 | -1.1 |
| EKAR | Karacoban | 1.16 | 299 | *e*P | Pg | 03 32 59.7 | -2.8 |
| EKAR | | | | IAML | | 03 33 27.1 | |
| | comp=Z,31nm,0.4s | | | | | | |
| EKAR | Karacoban | 1.16 | 299 | *i* P | Pg | 03 33 02.3 | -0.2 |
| EKAR | | | | *i* S | Sn | 03 33 21.2 | +2.6 |
| EKAR | Karacoban | 1.16 | 299 | P | Pg | 03 33 02.3 | -0.2 |
| EKAR | | | | S | Sn | 03 33 21.2 | +2.6 |
| HAKT | HAKKARI | 1.17 | 167 | *i* P | Pg | 03 33 00.4 | -2.3 |
| HAKT | | | | *i* S | Sn | 03 33 20.2 | +1.4 |
| HAKT | HAKKARI | 1.17 | 167 | P | Pg | 03 33 00.4 | -2.3 |
| HAKT | | | | S | Sn | 03 33 20.2 | +1.4 |
| YOVA | Hakkari_Yˆ…kse | 1.33 | 147 | *i* P | Pn | 03 33 04.4 | -0.4 |
| YOVA | | | | *i* S | Sn | 03 33 27.9 | +5.3 |
| YOVA | Hakkari_Yˆ…kse | 1.33 | 147 | P | Pn | 03 33 04.4 | -0.4 |
| SRTM | Siirt_Merkez | 1.34 | 239 | *i* P | Pb | 03 33 05.3 | -0.1 |
| SRTM | | | | *i* S | Sn | 03 33 25.4 | +2.5 |
| SRTM | Siirt_Merkez | 1.34 | 239 | P | Pb | 03 33 05.3 | -0.1 |
| SRTM | | | | S | Sn | 03 33 25.4 | +2.5 |
| EATA | Eleskirt | 1.35 | 330 | *e*P | Pn | 03 33 04.6 | -0.6 |
| EATA | | | | IAML | | 03 33 28.0 | |
| | comp=Z,12nm,0.5s | | | | | | |
| EATA | Eleskirt | 1.35 | 330 | *i* P | Pn | 03 33 04.9 | -0.3 |
| EATA | | | | *i* S | Sn | 03 33 23.9 | +0.6 |
| EATA | Eleskirt | 1.35 | 330 | P | Pn | 03 33 04.9 | -0.3 |
| EATA | | | | S | Sn | 03 33 23.9 | +0.6 |
| SIRT | Sirnak | 1.41 | 212 | *e*PN | Pb | 03 33 06.3 | -0.2 |
| SIRT | Sirnak | 1.41 | 212 | *e*Pn | Pb | 03 33 06.3 | -0.2 |
| TASB | TASBURUN-IGDIR | 1.45 | 27 | *e*PN | Pg | 03 33 07.0 | -0.9 |
| TASB | TASBURUN-IGDIR | 1.45 | 27 | *e*Pn | Pg | 03 33 07.0 | -0.9 |
| CUKT | Cukurca | 1.46 | 173 | *e*PN | Pn | 03 33 06.1 | -0.5 |
| CUKT | Cukurca | 1.46 | 173 | *i* P | Pn | 03 33 06.4 | -0.2 |
| CUKT | Cukurca | 1.46 | 173 | *e*Pn | Pn | 03 33 06.1 | -0.5 |
| CUKT | Cukurca | 1.46 | 173 | P | Pn | 03 33 06.4 | -0.2 |
| VRTB | Varto-Mus | 1.56 | 288 | *e*PN | Pb | 03 33 09.2 | 0.0 |
| VRTB | Varto-Mus | 1.56 | 288 | *i* P | Pb | 03 33 09.5 | +0.3 |
| VRTB | Varto-Mus | 1.56 | 288 | *e*Pn | Pb | 03 33 09.2 | 0.0 |
| VRTB | Varto-Mus | 1.56 | 288 | P | Pb | 03 33 09.5 | +0.3 |
| DIGO | Kars | 1.71 | 0 | *e*P | Pb | 03 33 11.4 | -0.4 |
| DIGO | | | | IAML | | 03 33 29.6 | |
| | comp=Z,6.7nm,0.5s | | | | | | |
| BNGL | BINGOL | 1.75 | 279 | *e*P | Pn | 03 33 10.4 | -0.3 |
| BNGL | | | | IAML | | 03 33 40.2 | |
| | comp=Z,41nm,0.4s | | | | | | |
| BNGL | BINGOL | 1.75 | 279 | *i* P | Pb | 03 33 12.7 | +0.2 |
| HOMI | Horasan | 1.76 | 320 | *i* P | Pn | 03 33 10.1 | -0.7 |
| BTMN | Batman | 1.84 | 245 | *i* P | Pb | 03 33 13.3 | -0.6 |
| BTMN | Batman | 1.84 | 245 | P | Pb | 03 33 13.3 | -0.6 |
| KARS | Kars | 1.94 | 353 | *e*PN | Pn | 03 33 14.2 | +1.0 |
| KARS | Kars | 1.94 | 353 | *e*Pn | Pn | 03 33 14.2 | +1.0 |
| ERZM | Erzurum | 1.97 | 308 | *e*P | Pb | 03 33 15.1 | -1.1 |
| SENK | Senkaya-Erzuru | 2.02 | 337 | *e*PN | Pn | 03 33 15.4 | +1.0 |
| SENK | Senkaya-Erzuru | 2.02 | 337 | *e*Pn | Pn | 03 33 15.4 | +1.0 |
| ECAT | Cat-ERZURUM | 2.07 | 297 | *e*P | Pb | 03 33 17.0 | -0.9 |
| ECAT | | | | IAML | | 03 33 54.8 | |
| | comp=Z,4.9nm,0.5s | | | | | | |
| BNGB | Bingˆ¶l | 2.12 | 279 | *e*PN | Pn | 03 33 17.0 | +1.3 |
| BINT | Bingol | 2.26 | 275 | *e*Pn | Pn | 03 33 17.0 | -0.6 |
| YEDI | Yedisu-Bingol | 2.32 | 289 | *e*PN | Pn | 03 33 19.7 | +1.2 |
| YEDI | Yedisu-Bingol | 2.32 | 289 | *e*Pn | Pn | 03 33 19.7 | +1.2 |
| MAZI | Mazidag | 2.62 | 243 | *e*PN | Pn | 03 33 23.7 | +1.2 |
| MAZI | Mazidag | 2.62 | 243 | *e*Pn | Pn | 03 33 23.7 | +1.2 |

*ISCJB* ***07*** *03:37:45.6±0.7, 36°.97N±0°.03×4°.02E±0°.07, h13km, Error ellipse: s-maj=7.8km s-min=4.2km az=5.8*
*CSEM* ***07*** *03:37:45.8±0.3, 36°.82N×4°.11E, h10km, mb4.1, Error ellipse: s-maj=9.6km s-min=5.1km az=97.0*
*MDD* ***07*** *03:37:46.1±0.8, 36°.85N×4°.11E, h0km, mb4.1/7, Error ellipse: s-maj=10.1km s-min=5.1km az=89.0, PRXIMO*
*CRAAG* ***07*** *03:37:46.1, 36°.70N×4°.06E, Ml3.0*
**ISC 07 03:37:44.9**±1.1**, 36°.90N**±0°.04×**4°.17E**±0°.05**, h13km, n41, σ1s.70**/57**, Northern Algeria**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ABMS | Boumerdes | 0.57 | 255 | P | Pg | 03 37 54.4 | -1.6 |
| ABMS | Boumerdes | 0.57 | 255 | P | Pg | 03 37 54.4 | -1.6 |
| ABMS | Boumerdes | 0.57 | 255 | P | Pg | 03 37 54.4 | -1.6 |
| AKET | Djebel Ketaf | 0.88 | 195 | P | Pg | 03 38 01.5 | -0.4 |
| AKET | Djebel Ketaf | 0.88 | 195 | P | Pg | 03 38 01.5 | -0.4 |
| AKET | Djebel Ketaf | 0.88 | 195 | P | Pg | 03 38 01.5 | -0.4 |
| ADJB | Djebel Djouab | 0.94 | 219 | P | Pg | 03 38 03.2 | +0.1 |
| ADJB | Djebel Djouab | 0.94 | 219 | P | Pg | 03 38 03.2 | +0.1 |
| ADJB | Djebel Djouab | 0.94 | 219 | P | Pg | 03 38 03.2 | +0.1 |
| ATAF | Djebel Tarf | 1.03 | 175 | P | Pg | 03 38 03.5 | -1.2 |
| ATAF | Djebel Tarf | 1.03 | 175 | P | Pg | 03 38 03.5 | -1.2 |
| ATAF | Djebel Tarf | 1.03 | 175 | P | Pg | 03 38 03.5 | -1.2 |
| EMHD | Djebel Mahouad | 1.20 | 235 | P | Pb | 03 38 06.8 | -0.7 |
| EMHD | Djebel Mahouad | 1.20 | 235 | P | Pb | 03 38 06.8 | -0.7 |
| EMHD | Djebel Mahouad | 1.20 | 235 | P | Pb | 03 38 06.8 | -0.7 |
| OKGL | Djebel Kef Gue | 2.97 | 254 | P | Pn | 03 38 32.9 | +1.2 |
| | 1.7nm,0.1s,SNR=7.9 | | | | | | |
| OKGL | | | | S | Sn | 03 39 06.8 | -0.4 |
| | 44nm,0.4s,SNR=7.9 | | | | | | |
| OKGL | Djebel Kef Gue | 2.97 | 254 | P | Pn | 03 38 32.9 | +1.2 |
| | 1.7nm,0.1s,SNR=7.9 | | | | | | |
| OKGL | | | | S | Sn | 03 39 06.8 | -0.4 |
| | 44nm,0.4s,SNR=7.9 | | | | | | |
| ETOS | Mallorca | 3.05 | 340 | P | Pn | 03 38 34.9 | +2.0 |
| | 0.7nm,0.2s,SNR=7.9 | | | | | | |
| ETOS | | | | S | Sn | 03 39 07.9 | -1.4 |
| | 16nm,0.6s,SNR=7.9 | | | | | | |
| ETOS | Mallorca | 3.05 | 340 | P | Pn | 03 38 34.9 | +2.0 |
| | 0.7nm,0.2s,SNR=7.9 | | | | | | |
| EIBI | Ibiza | 3.08 | 314 | P | Pn | 03 38 35.3 | +2.1 |
| | 7.8nm,0.4s,SNR=7.9 | | | | | | |
| EIBI | | | | S | Sn | 03 39 10.4 | +0.5 |
| | 25nm,0.7s,SNR=7.9 | | | | | | |
| EIBI | Ibiza | 3.08 | 314 | P | Pn | 03 38 35.3 | +2.1 |
| | 7.8nm,0.4s,SNR=7.9 | | | | | | |
| EIBI | | | | S | Sn | 03 39 10.4 | +0.5 |
| | 25nm,0.7s,SNR=7.9 | | | | | | |
| ETOB | Tobarra | 4.85 | 293 | P | Pn | 03 39 00.2 | +2.6 |
| | 0.9nm,0.2s,SNR=5.6 | | | | | | |
| ETOB | | | | S | Sn | 03 39 53.0 | -0.7 |
| | 5.1nm,0.7s,SNR=7.9 | | | | | | |
| ETOB | Tobarra | 4.85 | 293 | P | Pn | 03 39 00.2 | +2.6 |
| | 0.9nm,0.2s,SNR=5.6 | | | | | | |
| ETOB | | | | S | Sn | 03 39 53.0 | -0.7 |
| | 5.1nm,0.7s,SNR=7.9 | | | | | | |
| EMOS | Mosqueruela | 5.01 | 315 | P | Pn | 03 39 01.7 | +1.8 |
| | 0.8nm,0.2s,SNR=7.9 | | | | | | |
| EMOS | | | | S | Sn | 03 39 56.7 | -1.1 |
| | 21nm,0.8s,SNR=7.9 | | | | | | |
| EMOS | Mosqueruela | 5.01 | 315 | P | Pn | 03 39 01.7 | +1.8 |
| | 0.8nm,0.2s,SNR=7.9 | | | | | | |
| CFON | Fontmartina | 5.04 | 345 | P | Pn | 03 39 01.6 | +1.4 |
| | 2.8nm,0.2s,SNR=7.1 | | | | | | |
| CFON | | | | S | Sn | 03 39 57.5 | -0.8 |
| | 7.6nm,0.6s | | | | | | |
| CFON | Fontmartina | 5.04 | 345 | P | Pn | 03 39 01.6 | +1.4 |
| | 2.8nm,0.2s,SNR=7.1 | | | | | | |
| EPOB | Poblet | 5.05 | 333 | P | Pn | 03 39 02.3 | +1.9 |
| | 0.5nm,0.2s,SNR=7.9 | | | | | | |
| EPOB | | | | S | Sn | 03 39 58.0 | -0.7 |
| | 5.7nm,0.6s,SNR=7.9 | | | | | | |
| EPOB | Poblet | 5.05 | 333 | P | Pn | 03 39 02.3 | +1.9 |
| | 0.5nm,0.2s,SNR=7.9 | | | | | | |
| EMIR | Miracle | 5.41 | 339 | P | Pn | 03 39 07.8 | +2.5 |
| | 6.7nm,0.3s,SNR=116 | | | | | | |
| EMIR | | | | S | Sn | 03 40 06.5 | -1.0 |
| | 6.0nm,0.5s | | | | | | |
| EMIR | Miracle | 5.41 | 339 | P | Pn | 03 39 07.8 | +2.5 |
| | 6.7nm,0.3s,SNR=116 | | | | | | |
| EJON | La Jonquera | 5.63 | 350 | P | Pn | 03 39 10.0 | +1.8 |
| | 3.3nm,0.3s,SNR=7.9 | | | | | | |
| EJON | La Jonquera | 5.63 | 350 | P | Pn | 03 39 10.0 | +1.8 |
| | 3.3nm,0.3s,SNR=7.9 | | | | | | |
| SJAF | Saint Jean de | 5.66 | 350 | P | Pn | 03 39 10.5 | +1.8 |
| | 2.3nm,0.3s,SNR=7.9 | | | | | | |
| SJAF | | | | S | Sn | 03 40 11.6 | -2.0 |
| | 38nm,1.1s,SNR=7.9 | | | | | | |
| SJAF | Saint Jean de | 5.66 | 350 | P | Pn | 03 39 10.5 | +1.8 |
| | 2.3nm,0.3s,SNR=7.9 | | | | | | |
| CLLI | Llivia | 5.82 | 344 | P | Pn | 03 39 13.8 | +2.8 |
| | 2.9nm,0.3s,SNR=15 | | | | | | |
| CLLI | | | | S | Sn | 03 40 15.8 | -1.9 |
| | 0.3nm,0.2s | | | | | | |
| CLLI | Llivia | 5.82 | 344 | P | Pn | 03 39 13.8 | +2.8 |
| | 2.9nm,0.3s,SNR=15 | | | | | | |
| EQES | Quesada | 5.84 | 281 | P | Pn | 03 39 14.0 | +2.8 |
| | 0.2nm,0.2s,SNR=7.9 | | | | | | |
| EQES | | | | S | Sn | 03 40 16.4 | -1.6 |
| | 9.4nm,0.7s,SNR=7.9 | | | | | | |
| EQES | Quesada | 5.84 | 281 | P | Pn | 03 39 14.0 | +2.8 |
| | 0.2nm,0.2s,SNR=7.9 | | | | | | |
| EQES | | | | S | Sn | 03 40 16.4 | -1.6 |
| | 9.4nm,0.7s,SNR=7.9 | | | | | | |
| CSOR | Sort | 5.95 | 338 | P | Pn | 03 39 15.2 | +2.5 |
| | 0.3nm,0.2s,SNR=7.9 | | | | | | |
| CSOR | | | | S | Sn | 03 40 19.4 | -1.3 |
| | 28nm,1.1s,SNR=7.9 | | | | | | |
| CSOR | Sort | 5.95 | 338 | P | Pn | 03 39 15.2 | +2.5 |
| | 0.3nm,0.2s,SNR=7.9 | | | | | | |

*DDA* ***07*** *03:41:02.8, 39°.23N×26°.03E, h7km, Ml2.6*
*THE* ***07*** *03:41:03.2, 39°.26N×26°.05E, h10km, ML1.7/2, Error ellipse: s-maj=0.9km s-min=0.5km az=328.0*
*ISCJB* ***07*** *03:41:03.4±0.4, 39°.24N±0°.02×26°.05E±0°.03, h7km±3km, Error ellipse: s-maj=4.5km s-min=3.2km az=170.5*
*ATH* ***07*** *03:41:03.1, 39°.25N×26°.06E, h17km±2km, ML1.8/6, Error ellipse: s-maj=2.3km s-min=1.2km az=178.0*
*ISK* ***07*** *03:41:03.4, 39°.26N×26°.12E, h8km, MD2.7*
*CSEM* ***07*** *03:41:03.6±0.1, 39°.24N×26°.06E, h10km, ML1.8, Error ellipse: s-maj=3.1km s-min=2.0km az=83.0*
**ISC 07 03:41:03.5**±0.8**, 39°.25N**±0°.02×**26°.06E**±0°.02**, h14**km±5km**, n46, σ0s.45**/75**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PRK | Paraskevi | 0.16 | 90 | P | Pg | 03 41 07.2 | -0.3 |
| PRK | | | | S | Sg | 03 41 10.2 | 0.0 |
| PRK | | | | AML | AML | 03 41 10.7 | |
| | comp=N,2660µm,0.5s | | | | | | |
| PRK | | | | AML | AML | 03 41 11.3 | |
| | comp=E,1504µm,0.4s | | | | | | |
| PRK | Paraskevi | 0.16 | 90 | P | Pg | 03 41 07.3 | -0.3 |
| PRK | | | | S | Sg | 03 41 10.2 | 0.0 |
| PRK | Paraskevi | 0.16 | 90 | P | Pg | 03 41 07.3 | -0.3 |
| PRK | | | | S | Sg | 03 41 10.3 | 0.0 |
| SIGR | SIGRI | 0.16 | 257 | *e*PG | Pg | 03 41 08.2 | +0.7 |
| SIGR | SIGRI | 0.16 | 257 | P | Pg | 03 41 07.4 | -0.1 |
| SIGR | | | | S | Sg | 03 41 09.4 | -0.8 |
| SIGR | | | | AML | AML | 03 41 10.1 | |
| | comp=E,347µm,0.2s | | | | | | |
| SIGR | | | | AML | AML | 03 41 10.2 | |
| | comp=N,374µm,0.1s | | | | | | |
| SIGR | SIGRI | 0.16 | 257 | P | Pg | 03 41 07.4 | -0.1 |
| SIGR | SIGRI | 0.16 | 257 | *e*Pg | Pg | 03 41 08.2 | +0.7 |
| SIGR | | | | S | Sg | 03 41 09.8 | -0.4 |
| SIGR | SIGRI | 0.16 | 257 | P | Pg | 03 41 07.4 | -0.1 |
| SIGR | | | | S | Sg | 03 41 09.8 | -0.4 |
| BOZC | Bozcaada | 0.59 | 359 | *e*PG | Pg | 03 41 15.1 | -0.1 |
| BOZC | | | | *e*SG | Sb | 03 41 23.7 | -0.3 |
| BOZC | Bozcaada | 0.59 | 359 | *i* P | Pg | 03 41 14.8 | -0.4 |
| BOZC | | | | *i* S | Sb | 03 41 23.8 | -0.1 |
| BOZC | Bozcaada | 0.59 | 359 | *e*Pg | Pg | 03 41 15.1 | -0.1 |
| BOZC | | | | *e*Sg | Sb | 03 41 23.7 | -0.3 |
| EZN | Ezine | 0.61 | 19 | *e*PG | Pg | 03 41 15.2 | -0.4 |
| EZN | | | | *e*SG | Sg | 03 41 23.7 | 0.0 |
| EZN | Ezine | 0.61 | 19 | P | Pg | 03 41 15.4 | -0.2 |
| EZN | | | | *e*Sg | Sg | 03 41 23.7 | 0.0 |
| EZN | | | | S | Sb | 03 41 24.2 | -0.3 |
| EZN | Ezine | 0.61 | 19 | P | Pg | 03 41 15.4 | -0.2 |
| EZN | | | | S | Sb | 03 41 24.2 | -0.3 |
| BAYC | CANAKKALE_Bayr | 0.62 | 37 | *i* P | Pg | 03 41 15.5 | -0.2 |
| BAYC | | | | *i* S | Sb | 03 41 24.9 | +0.1 |
| BAYC | CANAKKALE_Bayr | 0.62 | 37 | P | Pg | 03 41 15.5 | -0.2 |
| BAYC | | | | S | Sb | 03 41 24.9 | +0.1 |
| DKL | Dikili | 0.68 | 105 | *e*PG | Pb | 03 41 17.1 | -0.1 |
| DKL | Dikili | 0.68 | 105 | *e*Pg | Pb | 03 41 17.1 | -0.1 |
| CHOS | Chios island | 0.86 | 180 | *e*PG | Pb | 03 41 20.4 | +0.1 |
| CHOS | Chios island | 0.86 | 180 | P | Pg | 03 41 19.7 | -0.5 |
| CHOS | | | | S | Sb | 03 41 32.3 | +0.6 |
| CHOS | | | | AML | AML | 03 41 33.4 | |
| | comp=E,232µm,0.4s | | | | | | |
| CHOS | | | | AML | AML | 03 41 34.9 | |
| | comp=N,147µm,0.6s | | | | | | |
| CHOS | Chios island | 0.86 | 180 | P | Pg | 03 41 19.7 | -0.5 |
| CHOS | Chios island | 0.86 | 180 | *e*Pg | Pb | 03 41 20.4 | +0.1 |
| CHOS | | | | S | Sb | 03 41 32.3 | +0.6 |
| CHOS | Chios island | 0.86 | 180 | P | Pg | 03 41 19.4 | -0.8 |
| CHOS | | | | S | Sb | 03 41 32.3 | +0.6 |
| LIA | Limnos Island | 0.94 | 314 | P | Pb | 03 41 22.0 | +0.4 |
| LIA | | | | S | Sb | 03 41 34.0 | +0.1 |
| LIA | | | | AML | AML | 03 41 36.7 | |
| | comp=E,95µm,0.7s | | | | | | |
| LIA | | | | AML | AML | 03 41 40.0 | |
| | comp=N,82µm,0.6s | | | | | | |
| LIA | Limnos Island | 0.94 | 314 | P | Pb | 03 41 22.0 | +0.4 |
| LIA | | | | S | Sb | 03 41 34.0 | +0.1 |
| GADA | Gvkgeada | 0.95 | 352 | *e*PG | Pb | 03 41 21.7 | -0.1 |
| GADA | Gvkgeada | 0.95 | 352 | *e*Pg | Pb | 03 41 21.7 | -0.1 |
| URLA | Izmir | 0.98 | 155 | *e*PG | Pb | 03 41 22.6 | +0.3 |
| URLA | Izmir | 0.98 | 155 | *i* P | Pg | 03 41 21.4 | -1.1 |
| URLA | | | | *i* S | Sb | 03 41 35.1 | 0.0 |
| URLA | Izmir | 0.98 | 155 | P | Pg | 03 41 21.4 | -1.1 |
| URLA | Izmir | 0.98 | 155 | *e*Pg | Pb | 03 41 22.6 | +0.3 |
| URLA | | | | S | Sb | 03 41 35.1 | 0.0 |
| ZEY | ˜zmir | 1.06 | 161 | *i* P | Pg | 03 41 23.3 | -0.8 |
| ZEY | | | | *i* S | Sb | 03 41 37.7 | +0.3 |
| GELI | Tayfur-Gelibol | 1.19 | 15 | *e*PN | Pg | 03 41 26.4 | -0.1 |
| GELI | Tayfur-Gelibol | 1.19 | 15 | *e*Pn | Pg | 03 41 26.4 | -0.1 |
| LPK | Lapseki | 1.25 | 25 | *e*PN | Pg | 03 41 27.1 | -0.4 |
| LPK | Lapseki | 1.25 | 25 | *e*Pn | Pg | 03 41 27.1 | -0.4 |
| SMTH | Samothraki Isl | 1.29 | 342 | P | Pg | 03 41 28.2 | -0.2 |
| SMTH | | | | S | Sg | 03 41 45.0 | -0.1 |
| SMTH | | | | AML | AML | 03 41 46.3 | |
| | comp=E,69µm,0.5s | | | | | | |
| SMTH | | | | AML | AML | 03 41 46.4 | |
| | comp=N,44µm,0.5s | | | | | | |
| SMTH | Samothraki Isl | 1.29 | 342 | P | Pg | 03 41 28.2 | -0.2 |
| SMTH | | | | S | Sg | 03 41 45.0 | -0.1 |
| STEP | BALIKESIR_Sava | 1.29 | 84 | *i* P | Pg | 03 41 28.5 | +0.1 |
| STEP | | | | *i* S | Sg | 03 41 46.1 | +0.8 |
| STEP | BALIKESIR_Sava | 1.29 | 84 | P | Pg | 03 41 28.5 | +0.1 |
| STEP | | | | S | Sg | 03 41 46.1 | +0.8 |
| BALB | Balikesir | 1.46 | 74 | *e*PN | Pn | 03 41 30.0 | +0.5 |
| BALB | Balikesir | 1.46 | 74 | *e*Pn | Pn | 03 41 30.0 | +0.5 |
| KRBG | Karabiga-Canak | 1.49 | 39 | *e*PN | Pb | 03 41 30.5 | -0.4 |
| KRBG | Karabiga-Canak | 1.49 | 39 | *e*Pn | Pb | 03 41 30.5 | -0.4 |
| ALN | Alexandroupoli | 1.65 | 360 | P | Pn | 03 41 31.6 | -0.4 |
| ALN | | | | S | Sb | 03 41 55.3 | +1.0 |
| ALN | | | | AML | AML | 03 41 58.3 | |
| | comp=E,28µm,0.7s | | | | | | |
| ALN | | | | AML | AML | 03 42 00.8 | |
| | comp=N,39µm,1.3s | | | | | | |
| ALN | Alexandroupoli | 1.65 | 360 | P | Pn | 03 41 31.6 | -0.4 |
| ALN | | | | S | Sb | 03 41 55.3 | +1.0 |

*ISCJB* ***07*** *03:41:08.2±0.4, 49°.12S±0°.06×127°.4E±0°.2, h13km, mb5.0/9, MS4.4/10, Error ellipse: s-maj=20.0km s-min=7.8km az=14.5*
*IDC* ***07*** *03:41:08.4±0.8, 49°.10S×127°.60E, h0km, mb4.8/6, mb1 5.0/6, mb1mx4.5/21, mbtmp4.8/6, MS4.3/10, Ms1 4.2/10, ms1mx4.1/23, Error ellipse: s-maj=44.1km s-min=17.8km az=97.0*
*NEIC* ***07*** *03:41:09.7±0.4, 49°.07S×127°.51E, h10km, mb4.7/4, Error ellipse: s-maj=20.0km s-min=9.0km az=104.0*
*GCMT* ***07*** *03:41:09.7±0.2, 49°.09S×127°.31E, h16km±1km, MW5.1/82, Moment Tensor Solution. s34,c45; s82,c119; Duration: 0 Moment tensor: Scale $10^{16}$Nm; $M_{rr}$-0.61±.14; $M_{\theta\theta}$-1.28±.13; $M_{\phi\phi}$1.88±.15; $M_{r\theta}$-2.10±.47; $M_{\theta\phi}$-4.15±.12; $M_{\phi r}$1.26±.39; Best double couple: $M_0$5.00600×$10^{16}$ NP1:$\phi_s$281.00000°,δ88.00000°,λ153.00000°. NP2: $\phi_s$12.00000°,δ63.00000°,λ2.00000°. Principal axes: T 5.5600, Plg20.0000°, Azm233.0000°; N -1.1160, Plg63.0000°, Azm97.0000°; P -4.4520, Plg17.0000°, Azm330.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
**ISC 07 03:41:10.1**±0.6**, 49°.11S**±0°.09×**127°.5E**±0°.2**, h13km, n42, σ0s.79**/29**, mb5.0**/9**, MS4.3**/10**, 1C-1D, Western Indian-Antarctic Ridge**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| H01W1 | Cape Leeuwin H | 17.27 | 320 | T | T | 04 02 54.4 | |
| | baz=147,slow=74,SNR=65 | | | | | | |
| H01W2 | Cape Leeuwin H | 17.27 | 320 | T | T | 04 02 55.4 | |
| | baz=147,slow=74,SNR=65 | | | | | | |
| H01W3 | Cape Leeuwin H | 17.28 | 320 | T | T | 04 03 00.3 | |
| | baz=147,slow=74,SNR=70 | | | | | | |
| BBOO | Buckleboo | 17.51 | 25 | P | Pn | 03 45 12.8 | -1.1 |
| | baz=14,SNR=6.2 | | | | | | |
| BBOO | Buckleboo | 17.51 | 25 | *e*Pn | Pn | 03 45 12.7 | -1.1 |
| | 46nm,1.3s | | | | | | |
| NWAO | Narrogin (SRO) | 17.88 | 331 | LR | LR | 03 50 35.8 | |
| | comp=Z,1µm,19.5s,baz=22,slow=32 | | | | | | |
| STKA | Stephens Creek | 20.23 | 37 | P | P | 03 45 45.3 | +0.4 |
| | 6.7nm,0.9s,baz=191,slow=12,SNR=10 | | | | | | |
| STKA | | | | LR | LR | 03 52 16.3 | |
| | comp=Z,2µm,20.9s,baz=204,slow=33 | | | | | | |
| STKA | Stephens Creek | 20.23 | 37 | P | Pn | 03 45 46.2 | -0.6 |
| | baz=17,SNR=5.0 | | | | | | |
| MORW | Morawa | 21.84 | 332 | P | P | 03 46 02.9 | +0.7 |
| | baz=19,SNR=3.4 | | | | | | |
| CMSA | Cobar Meteorol | 22.29 | 45 | P | P | 03 46 07.8 | +0.9 |
| | baz=19,SNR=13 | | | | | | |
| WRKA | Warakurna | 24.04 | 2 | P | P | 03 46 24.6 | -0.2 |
| | baz=20,SNR=3.8 | | | | | | |
| ASAR | Alice Springs | 25.89 | 14 | P | P | 03 46 41.9 | +0.1 |
| | 17nm,0.7s,baz=189,slow=9.0,SNR=151 | | | | | | |
| ASAR | | | | PcP | PcP | 03 50 09.9 | -0.6 |
| | 0.4nm,0.7s,baz=190,slow=2.3,SNR=4.5 | | | | | | |
| ASAR | | | | LR | LR | 03 55 30.7 | |
| | comp=Z,247nm,21.4s,baz=190,slow=33 | | | | | | |
| WRA | Warramunga Arr | 29.62 | 13 | P | P | 03 47 14.7 | -0.3 |
| | 5.4nm,0.7s,baz=190,slow=12,SNR=48 | | | | | | |
| WRA | | | | PcP | PcP | 03 50 19.3 | -0.2 |
| | 0.3nm,0.5s,baz=200,slow=2.7,SNR=2.6 | | | | | | |
| WRA | | | | LR | LR | 03 59 12.5 | |
| | comp=Z,312nm,18.1s,baz=185,slow=37 | | | | | | |
| WB2 | Warramunga Arr | 29.62 | 13 | P | P | 03 47 14.9 | -0.1 |
| | baz=26 | | | | | | |
| WRAB | Tennant Creek | 29.63 | 13 | *e*P | P | 03 47 14.6 | -0.6 |
| | 6.2nm,0.8s | | | | | | |
| QIS | Mount Isa | 30.10 | 23 | P | P | 03 47 20.1 | +0.8 |
| | baz=26,SNR=3.3 | | | | | | |
| VNDA | Vanda | 31.39 | 166 | P | P | 03 47 31.1 | +1.0 |
| | 18nm,0.9s,baz=315,slow=8.6,SNR=38 | | | | | | |
| VNDA | | | | LR | LR | 03 59 07.5 | |
| | comp=Z,555nm,19.0s,baz=326,slow=34 | | | | | | |
| MTN | Manton Dam | 36.28 | 6 | P | P | 03 48 13.5 | +0.3 |
| | baz=33 | | | | | | |
| MAW | Mawson | 36.46 | 216 | LR | LR | 04 00 57.3 | |
| | comp=Z,240nm,18.8s,baz=71,slow=33 | | | | | | |
| QSPA | South Pole Qui | 41.02 | 180 | *e*P | P | 03 48 53.1 | +0.4 |
| | 112nm,0.9s | | | | | | |
| PMG | Port Moresby | 42.87 | 29 | LR | LR | 04 06 43.5 | |
| | comp=Z,673nm,18.0s,baz=188,slow=36 | | | | | | |
| SYO | Syowa Base | 44.61 | 211⇑ | *i*P | P | 03 49 19.8 | -1.7 |
| SYO | Syowa Base | 44.61 | 211⇓ | *e*pP | pP | 03 49 26.4 | +0.9 |
| SNAA | Sanae | 54.51 | 197 | P | P | 03 50 37.2 | +0.2 |
| SNAA | Sanae | 54.51 | 197 | P | P | 03 50 37.3 | +0.2 |
| | 40nm,1.0s,baz=141,slow=8.0,SNR=40 | | | | | | |
| SNAA | Sanae | 54.51 | 197 | *e*P | P | 03 50 37.2 | +0.2 |
| | 2µm,0.9s | | | | | | |
| VNA2 | Neumayer--Watz | 55.98 | 196 | P | P | 03 50 47.7 | +0.2 |
| | baz=149,slow=8.3 | | | | | | |
| VNA3 | Neumayer Olymp | 56.12 | 195 | P | P | 03 50 47.7 | -0.9 |
| VNA1 | Neumayer--Stat | 56.37 | 196 | P | P | 03 50 50.2 | -0.1 |
| GSI | Gunungsitoli | 56.45 | 323 | *e*P | P | 03 50 51.2 | -0.4 |
| | 31nm,1.4s | | | | | | |
| AFI | Afiamalu | 60.55 | 77 | LR | LR | 04 13 01.5 | |
| | comp=Z,9µm,18.8s,baz=196,slow=32 | | | | | | |
| CMAR | Chiang Mai Arr | 71.89 | 332 | P | P | 03 52 33.9 | +1.2 |
| | 3.2nm,0.2s,baz=182,slow=5.6,SNR=14 | | | | | | |
| CMAR | | | | LR | LR | 04 24 02.6 | |
| | comp=Z,80nm,19.5s,baz=190,slow=36 | | | | | | |
| BOSA | Boshof | 76.29 | 242 | LR | LR | 04 19 49.1 | |
| | comp=Z,286nm,19.1s,baz=166,slow=30 | | | | | | |
| LSZ | Lusaka | 84.54 | 253 | *e*P | P | 03 53 43.4 | +0.1 |
| | 13nm,1.3s | | | | | | |
| KMBO | Kilima Mbogo | 89.29 | 269 | LR | LR | 04 25 49.8 | |
| | comp=Z,114nm,21.4s,baz=100,slow=30 | | | | | | |
| H10S2 | ASCENSION HYDR | 113.31 | 221 | T | T | 06 03 52.8 | |
| | baz=152,slow=75,SNR=13 | | | | | | |
| H10S3 | ASCENSION HYDR | 113.33 | 221 | T | T | 06 03 50.1 | |
| | baz=152,slow=75,SNR=9.4 | | | | | | |
| H10S1 | ASCENSION HYDR | 113.33 | 221 | T | T | 06 03 55.4 | |
| | baz=152,slow=75,SNR=13 | | | | | | |
| TXAR | Lajitas Array | 136.68 | 98 | PKP | PKPdf | 04 00 32.5 | +0.5 |
| | 0.5nm,1.0s,baz=126,slow=1.2,SNR=2.5 | | | | | | |
| ESDC | Sonseca Array | 144.57 | 273 | PKP | PKPbc | 04 00 45.1 | +0.5 |
| | 2.4nm,1.1s,baz=84,slow=4.0,SNR=6.1 | | | | | | |
| DAG | Danmarks Havn | 149.22 | 345 | *i* P | PKPbc | 04 00 57.7 | +1.0 |
| ULM | Lac du Bonnet | 152.22 | 71 | PKPab | PKPab | 04 01 12.8 | -1.7 |
| | 4.5nm,0.9s,baz=217,slow=5.5,SNR=3.6 | | | | | | |

*ISCJB* ***07*** *03:45:28.7±0.4, 49°.89N±0°.03×18°.42E±0°.03, h0km, Error ellipse: s-maj=4.3km s-min=2.3km az=16.3*
*IPEC* ***07*** *03:45:29.9±0.2, 49°.86N×18°.55E, h0km±3km, ML1.8/3, Error ellipse: s-maj=2.2km s-min=1.1km az=161.0*
*CSEM* ***07*** *03:45:29.8±0.2, 49°.88N×18°.44E, h2km, ML2.9/6, Error ellipse: s-maj=5.8km s-min=2.8km az=10.0*
**ISC 07 03:45:29.2**±0.7**, 49°.85N**±0°.03×**18°.47E**±0°.02**, h0km, n37, σ0s.91**/66**, Czech and Slovak Republics**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| OKC | Ostrava-Krasne | 0.21 | 266 | *i* PG | Pg | 03 45 35.3 | +2.1 |
| OKC | | | | *e*SG | Sg | 03 45 39.1 | +3.2 |
| | comp=Z,35nm,0.2s | | | | | | |
| OKC | Ostrava-Krasne | 0.21 | 266 | Pg | Pg | 03 45 35.3 | +2.1 |
| MORC | Moravsky Berou | 0.61 | 263 | *e*Pg | Pb | 03 45 42.3 | -0.4 |
| MORC | | | | *e*Sg | Sb | 03 45 50.4 | -1.4 |
| | 18nm,0.2s | | | | | | |
| OJC | Ojcow | 0.93 | 66 | *e*Pg | Pg | 03 45 47.0 | -0.1 |
| OJC | | | | *e*Sg | Sg | 03 45 59.4 | +0.3 |
| OJC | Ojcow | 0.93 | 66 | *e*Pg | Pg | 03 45 47.0 | -0.1 |
| OJC | | | | *e*Sg | Sg | 03 45 59.4 | +0.3 |
| LANS | Liptovska Anna | 0.96 | 137 | *e*Pg | Pb | 03 45 48.3 | -0.4 |
| LANS | | | | *e*Sg | Sb | 03 46 02.2 | +0.3 |
| LANS | Liptovska Anna | 0.96 | 137 | *e*PG | Pb | 03 45 48.3 | -0.4 |
| LANS | | | | *e*SG | Sb | 03 46 02.2 | +0.3 |
| NIE | Niedzica | 1.27 | 109 | *e*Pg | Pn | 03 45 54.2 | 0.0 |
| NIE | | | | *e*Sg | Sn | 03 46 11.6 | -0.3 |
| NIE | Niedzica | 1.27 | 109 | *e*Pg | Pn | 03 45 54.2 | 0.0 |
| NIE | | | | *e*Sg | Sn | 03 46 11.6 | -0.3 |
| VRAC | Vranov | 1.34 | 247 | *e*Pg | Pn | 03 45 55.6 | +0.4 |
| VRAC | | | | *e*Sg | Sn | 03 46 13.4 | -0.3 |
| VYHS | Vyhne | 1.38 | 170 | *e*Pn | Pb | 03 45 55.9 | 0.0 |
| VYHS | Vyhne | 1.38 | 170 | *e*PN | Pb | 03 45 55.9 | 0.0 |
| VYHS | | | | *e*SN | Sn | 03 46 14.6 | -0.1 |
| VYHS | | | | *e*LG | Lg | 03 46 16.0 | |
| DPC | Dobruska-Polom | 1.47 | 291 | *e*PG | Pb | 03 45 57.5 | 0.0 |
| DPC | | | | *e*SG | Sn | 03 46 17.5 | +0.5 |
| | comp=Z,13nm,0.2s | | | | | | |
| DPC | Dobruska-Polom | 1.47 | 291 | Pg | Pb | 03 45 57.5 | 0.0 |
| DPC | | | | Sg | Sn | 03 46 17.5 | +0.5 |
| | 13nm,0.2s | | | | | | |
| SMOL | Smolenice | 1.50 | 207 | *e*Pn | Pg | 03 45 58.2 | +0.2 |
| SMOL | | | | *e*Sn | Sn | 03 46 18.9 | +1.1 |
| SMOL | Smolenice | 1.50 | 207 | *e*PN | Pg | 03 45 58.2 | +0.2 |
| SMOL | | | | *e*SN | Sn | 03 46 18.9 | +1.1 |
| KRUC | Moravsky | 1.57 | 240 | *e*Pg | Pg | 03 45 59.1 | -0.2 |
| KRUC | | | | *e*Sg | Sg | 03 46 20.5 | +0.9 |
| | 12nm,0.4s | | | | | | |
| MODS | Modra-Piesok | 1.68 | 208 | *e*Pn | Pn | 03 45 59.8 | 0.0 |
| MODS | | | | *e*Sn | Sn | 03 46 21.5 | -0.5 |
| MODS | Modra-Piesok | 1.68 | 208 | *e*PN | Pn | 03 45 59.8 | 0.0 |
| MODS | | | | *e*SN | Sn | 03 46 21.5 | -0.5 |
| KSP | Ksiaz | 1.71 | 306 | *e*Pg | Pg | 03 46 02.8 | +0.8 |
| KSP | | | | *e*Sg | Sg | 03 46 24.9 | +0.8 |
| UPC | Upice | 1.71 | 293 | *e*PG | Pg | 03 46 01.7 | -0.3 |
| UPC | | | | *e*SG | Sg | 03 46 24.1 | -0.1 |
| | comp=Z,15nm,0.5s | | | | | | |
| UPC | Upice | 1.71 | 293 | Pg | Pg | 03 46 01.7 | -0.3 |
| UPC | | | | Sg | Sg | 03 46 24.1 | -0.1 |
| | 15nm,0.5s | | | | | | |
| STHS | Stebnicka Huta | 1.85 | 103 | *e*Pn | Pg | 03 46 05.1 | +0.3 |
| STHS | | | | *e*Sn | Sg | 03 46 30.2 | +1.4 |

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **STHS** | **Stebnicka Huta** | **1.85** | **103** | *e*PN | **Pg** | **03 46 05.1** | **+0.3** |
| STHS | | | | *e*SN | **Sg** | **03 46 30.1** | **+1.3** |
| STHS | | | | *e*LG | Lg | 03 46 35.2 | |
| **KECS** | **Kecovo** | **1.91** | **135** | *e*Pn | **Pb** | **03 46 04.3** | **-0.5** |
| KECS | | | | *e*Sn | **Sb** | **03 46 28.9** | **-0.3** |
| **KECS** | **Kecovo** | **1.91** | **135** | *e*PN | **Pb** | **03 46 04.3** | **-0.5** |
| KECS | | | | *e*SN | **Sb** | **03 46 28.9** | **-0.3** |
| KECS | | | | *e*LG | Lg | 03 46 31.5 | |
| **GOPC** | **GO Pecny, Ondr** | **2.38** | **273** | *e*SG | **Sb** | **03 46 44.0** | **+1.0** |
| | comp=Z,3.8nm,0.2s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **2.38** | **273** | Sg | **Sb** | **03 46 44.0** | **+1.0** |
| | 3.8nm,0.2s | | | | | | |
| **PRU** | **Pruhonice** | **2.54** | **275** | *e*SN | **Sn** | **03 46 43.0** | **-0.4** |
| PRU | | | | *e*SG | **Sg** | **03 46 49.1** | **-1.8** |
| **PRU** | **Pruhonice** | **2.54** | **275** | Sn | **Sn** | **03 46 43.0** | **-0.4** |
| PRU | | | | Sg | **Sg** | **03 46 49.1** | **-1.8** |
| **PVCC** | **Panska Ves** | **2.60** | **287** | *e*SG | **Sg** | **03 46 52.4** | **-0.2** |
| | comp=Z,8.4nm,0.2s | | | | | | |
| **PVCC** | **Panska Ves** | **2.60** | **287** | Sg | **Sg** | **03 46 52.4** | **-0.2** |
| | 8.4nm,0.2s | | | | | | |
| **BRG** | **Berggiesshubel** | **3.07** | **291** | SG | **Sg** | **03 47 07.7** | **-0.2** |
| | 3.7nm,0.6s | | | | | | |
| **KHC** | **Kasperske Hory** | **3.27** | **259** | *e*PG | **Pg** | **03 46 31.1** | **-0.8** |
| KHC | | | | *e*SN | **Sn** | **03 47 00.9** | **-0.5** |
| KHC | | | | *e*SG | **Sg** | **03 47 11.7** | **-2.5** |
| | comp=Z,3.3nm,0.3s | | | | | | |
| **KHC** | **Kasperske Hory** | **3.27** | **259** | Pg | **Pg** | **03 46 31.1** | **-0.8** |
| KHC | | | | Sn | **Sn** | **03 47 00.9** | **-0.5** |
| **NKC** | **Novy Kostel** | **3.90** | **278** | *e*SG | **Sg** | **03 47 33.3** | **-1.2** |
| **NKC** | **Novy Kostel** | **3.90** | **278** | Sg | **Sg** | **03 47 33.3** | **-1.2** |

**IDC 07 03:45:33.4**±1.4**, 56°.10S×28°.26W, h0km, mb3.8**/2**, mb1 3.8**/3**, mb1mx3.6**/18**, mbtmp3.8**/3**, ML3.7**/1**, Error ellipse: s-maj=63.8km s-min=37.1km az=85.0, South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SNAA** | **Sanae** | **18.94** | **155** | P | P | 03 49 55.6 | 0.0 |
| | 0.2nm,0.3s,baz=296,slow=11,SNR=5.5 | | | | | | |
| **DBIC** | **Dimbokro** | **65.47** | **26** | P | P | 03 56 19.1 | +1.0 |
| | 1.8nm,0.6s,baz=198,slow=6.4,SNR=3.5 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **73.40** | **30** | P | P | 03 57 06.3 | -0.8 |
| | 0.1nm,0.4s,baz=190,slow=7.1,SNR=6.3 | | | | | | |
| **INK** | **Inuvik** | **145.46** | **321** | PKPbc | PKPdf | 04 05 09.9 | -1.7 |
| | 2.0nm,0.3s,baz=129,slow=6.5,SNR=6.7 | | | | | | |
| **ILAR** | **Eielson Array** | **149.70** | **312** | PKPbc | PKPbc | 04 05 24.0 | +0.5 |
| | 0.3nm,0.7s,baz=111,slow=2.2,SNR=4.5 | | | | | | |

**IDC 07 04:03:05.3**±1.9**, 22°.62S×179°.78W, h0km, mb4.0**/4**, mb1 4.3**/4**, mb1mx3.8**/28**, mbtmp4.0**/4**, Error ellipse: s-maj=137.9km s-min=29.0km az=158.0, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **STKA** | **Stephens Creek** | **35.40** | **246** | P | P | 04 10 02.2 | -0.8 |
| | 1.7nm,0.4s,baz=85,slow=9.4,SNR=7.7 | | | | | | |
| **ASAR** | **Alice Springs** | **42.46** | **259** | P | P | 04 11 02.2 | -0.1 |
| | 0.7nm,0.5s,baz=95,slow=7.5,SNR=11 | | | | | | |
| **WRA** | **Warramunga Arr** | **42.71** | **265** | P | P | 04 11 05.0 | +0.6 |
| | 2.1nm,0.5s,baz=97,slow=8.2,SNR=27 | | | | | | |
| **TXAR** | **Lajitas Array** | **89.58** | **58** | P | P | 04 16 05.3 | +0.1 |
| | 0.2nm,0.7s,baz=217,slow=5.4,SNR=2.6 | | | | | | |
| **BRTR** | **Keskin Array B** | **146.95** | **309** | PKPbc | PKPdf | 04 22 49.1 | +0.8 |
| | 0.5nm,0.6s,baz=127,slow=3.7,SNR=3.4 | | | | | | |

*ISCJB **07** 04:08:16.4±1.0, 33°.16N±0°.03×35°.58E±0°.07, h9km±5km, Error ellipse: s-maj=10.6km s-min=4.7km az=169.1*
*NSSC **07** 04:08:16.7±1.2, 33°.16N×35°.60E, h12km±5km, ML1.1*
*CSEM **07** 04:08:17.7, 33°.18N×35°.64E, h9km, ML2.7*
*GRAL **07** 04:08:17.7±0.3, 33°.18N×35°.64E, h10km±5km, MD2.7*
**ISC 07 04:08:16.5**±1.5**, 33°.17N**±0°.04×**35°.60E**±0°.08**, h14**km±8km**, n14, σ0s.28**/26**, Jordan-Syria region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SHBL** | **Chebaa** | **0.22** | **34** | *e*P | **Pg** | **04 08 21.6** | **+0.1** |
| SHBL | | | | *e*S | **Sg** | **04 08 24.5** | **-0.3** |
| **SHBL** | **Chebaa** | **0.22** | **34** | *e*P | **Pg** | **04 08 21.6** | **+0.1** |
| SHBL | | | | *e*S | **Sg** | **04 08 24.5** | **-0.3** |
| **BRBR** | **Barbar** | **0.38** | **50** | *e*P | **Pg** | **04 08 24.6** | **+0.3** |
| BRBR | | | | *e*S | **Sg** | **04 08 30.2** | **+0.6** |
| BRBR | | | | AML | AML | 04 08 31.3 | |
| | comp=N,22nm,0.5s | | | | | | |
| BRBR | | | | AML | AML | 04 08 31.7 | |
| | comp=E,41nm,0.5s | | | | | | |
| **RCY** | **Rachaya** | **0.38** | **31** | *e*P | **Pg** | **04 08 24.3** | **0.0** |
| RCY | | | | *e*S | **Sg** | **04 08 29.3** | **-0.3** |
| **QRWL** | **Qaraoun** | **0.38** | **10** | *e*P | **Pg** | **04 08 24.6** | **+0.2** |
| QRWL | | | | *e*S | **Sg** | **04 08 29.8** | **+0.1** |
| **QRWL** | **Qaraoun** | **0.38** | **10** | *e*P | **Pg** | **04 08 24.6** | **+0.2** |
| QRWL | | | | *e*S | **Sg** | **04 08 29.8** | **+0.1** |
| **DQRL** | **Deir Qamar** | **0.54** | **357** | *e*P | **Pg** | **04 08 27.3** | **+0.1** |
| DQRL | | | | *e*S | **Sg** | **04 08 34.5** | **+0.2** |
| **DQRL** | **Deir Qamar** | **0.54** | **357** | *e*P | **Pg** | **04 08 27.3** | **+0.1** |
| DQRL | | | | *e*S | **Sg** | **04 08 34.5** | **+0.2** |
| **TCHB** | **Talchebab** | **0.59** | **148** | *e*P | **Pg** | **04 08 28.3** | **+0.3** |
| TCHB | | | | *e*S | **Sg** | **04 08 35.5** | **-0.3** |
| TCHB | | | | AML | AML | 04 08 37.9 | |
| | comp=E,17nm,0.4s | | | | | | |
| TCHB | | | | AML | AML | 04 08 38.1 | |
| | comp=N,12nm,0.7s | | | | | | |
| **BHL** | **Bhannes** | **0.73** | **4** | *e*P | **Pg** | **04 08 30.9** | **0.0** |
| **BHL** | **Bhannes** | **0.73** | **4** | *e*P | **Pg** | **04 08 30.9** | **0.0** |
| **SALA** | **Sala** | **1.06** | **115** | *e*P | **Pb** | **04 08 36.4** | **-0.3** |
| SALA | | | | *e*S | **Sb** | **04 08 50.9** | **+0.4** |
| SALA | | | | AML | AML | 04 08 52.0 | |
| | comp=N,7.1nm,0.4s | | | | | | |
| SALA | | | | AML | AML | 04 08 54.9 | |
| | comp=E,0.5nm,0.4s | | | | | | |
| **MARH** | **Ras Al Marh** | **1.13** | **40** | *e*P | **Pn** | **04 08 38.4** | **+0.1** |
| MARH | | | | *e*S | **Sb** | **04 08 52.7** | **0.0** |
| MARH | | | | AML | AML | 04 08 59.9 | |
| | comp=N,5.2nm,0.4s | | | | | | |
| MARH | | | | AML | AML | 04 09 01.4 | |
| | comp=E,6.0nm,0.5s | | | | | | |
| **HAWK** | **Haweek** | **1.51** | **26** | *e*P | **Pb** | **04 08 44.1** | **-0.2** |
| HAWK | | | | AML | AML | 04 08 45.1 | |
| | comp=E,2.8nm,0.3s | | | | | | |
| HAWK | | | | *e*S | **Sn** | **04 09 02.4** | **-0.4** |
| HAWK | | | | AML | AML | 04 09 06.7 | |
| | comp=N,6.0nm,0.4s | | | | | | |

*IDC **07** 04:08:29.9±0.5, 20°.54S×174°.02W, h0km, mb4.8/22, mb1 4.9/24, mb1mx4.9/32, mbtmp4.8/24, ML5.3/2, MS5.1/21, Ms1 5.1/21, ms1mx4.9/27, Error ellipse: s-maj=22.9km s-min=13.8km az=151.0*
*MOS **07** 04:08:35.4±1.5, 20°.24S×174°.33W, h33km, mb5.4/53, MS5.3/51, Error ellipse: s-maj=10.8km s-min=7.8km az=57.3*
*ISCJB **07** 04:08:35.4±0.1, 20°.43S±0°.04×174°.24W±0°.03, h34km, mb5.3/252, MS5.4/467, Error ellipse: s-maj=6.0km s-min=2.7km az=150.3*
*BJI **07** 04:08:36.0, 20°.30S×174°.30W, h29km, mb5.2/46, mB5.8/43, Ms5.5/57, Ms7 5.2/56*
*NEIC **07** 04:08:37.6±0.9, 20°.32S×174°.29W, h41km±8km, mb5.3/191, MS5.4/299, Error ellipse: s-maj=8.5km s-min=4.2km az=140.0*
*GCMT **07** 04:08:37.6±0.1, 20°.80S×173°.30W, h20km, MW5.4/136, Moment Tensor Solution. s88,c140; s136,c223; Duration: 1s.2 Moment tensor: Scale $10^{17}$Nm; $M_{rr}$1.02±.02; $M_{\theta\theta}$-0.36±.02; $M_{\phi\phi}$-0.66±.02; $M_{r\theta}$0.57±.03; $M_{\theta\phi}$-0.41±.01; $M_{\phi r}$0.78±.03; Best double couple: $M_0$1.37800×$10^{17}$ NP1:$\phi_s$36.00000°, δ67.00000°, λ91.00000°. NP2:$\phi_s$214.00000°, δ23.00000°, λ88.00000°. Principal axes: T 1.4150, Plg68.0000°, Azm307.0000°; N -0.0750, Plg1.0000°, Azm216.0000°; P -1.3400, Plg22.0000°, Azm125.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
**ISC 07 04:08:35.6**±0.3**, 20°.56S**±0°.05×**174°.03W**±0°.05**, h31**km±1km**, h31km:pP-P, n1121, σ1s.53**/887**, mb5.3**/252**, MS5.4**/468**, 52C-26D, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **NIUE** | **Niue** | **4.14** | **70** | P | Pn | 04 09 24.7 | -12 |
| | baz=3.6,SNR=73 | | | | | | |
| **AFI** | **Afiamalu** | **6.95** | **18** | Pn | Pn | 04 10 08.5 | -6.9 |
| | 20nm,0.3s,baz=345,slow=2.6,SNR=13 | | | | | | |
| AFI | | | | Sn | Sn | 04 11 19.3 | -14 |
| | 34nm,0.3s,baz=52,slow=22,SNR=6.4 | | | | | | |
| **AFI** | **Afiamalu** | **6.95** | **18** | *e*P | Pn | 04 10 08.9 | -6.5 |
| **AFI** | **Afiamalu** | **6.95** | **18** | *e*Pn | Pn | 04 10 08.9 | -6.6 |
| AFI | | | | *e*Sn | Sn | 04 11 14.8 | -19 |
| **MSVF** | **Nonsavu** | **7.99** | **289** | *e*P | Pn | 04 10 36.8 | +7.1 |
| **MSVF** | **Nonsavu** | **7.99** | **289** | *e*Pn | Pn | 04 10 36.8 | +7.1 |
| MSVF | | | | *e*Sn | Sn | 04 12 07.7 | +8.6 |
| **RAO** | **Raoul Island** | **9.35** | **201** | Pn | **Pn** | **04 10 45.1** | **-3.1** |
| | 54nm,0.3s,baz=272,slow=24,SNR=8.7 | | | | | | |
| RAO | | | | Sn | **Sn** | **04 12 28.6** | **-3.7** |
| | 42nm,0.3s,baz=70,slow=22,SNR=9.1 | | | | | | |
| RAO | | | | LR | LR | 04 14 43.8 | |
| | comp=Z,8µm,18.1s,baz=46,slow=40 | | | | | | |
| **RAR** | **Rarotonga** | **13.35** | **95** | Pn | Pn | 04 11 30.8 | -12 |
| | 3.3nm,0.3s,baz=283,slow=6.9,SNR=16 | | | | | | |
| RAR | | | | Sn | Sn | 04 13 45.2 | -25 |
| | 4.4nm,0.3s,baz=98,slow=16,SNR=3.3 | | | | | | |
| RAR | | | | LR | LR | 04 16 15.9 | |
| | comp=Z,9µm,18.6s,baz=249,slow=35 | | | | | | |
| **DZM** | **Mont Dzumac** | **18.25** | **262** | P | **P** | **04 12 48.9** | **+2.2** |
| | 5.6nm,0.3s,baz=70,slow=22,SNR=24 | | | | | | |
| **DZM** | **Mont Dzumac** | **18.25** | **262** | *e*P | **P** | **04 12 49.0** | **+2.3** |
| | 308nm,1.4s | | | | | | |
| DZM | | | | *e*LR | LR | 04 17 10.2 | |
| | 5µm,20.3s | | | | | | |
| **DZM** | **Mont Dzumac** | **18.25** | **262** | *e*Pn | **P** | **04 12 48.9** | **+2.2** |
| | 116nm,1.1s | | | | | | |
| **URZ** | **Urewera** | **19.24** | **202** | P | **P** | **04 12 57.8** | **+0.5** |
| | 4.0nm,0.3s,baz=46,slow=2.0,SNR=18 | | | | | | |
| URZ | | | | S | Sn | 04 16 19.1 | -14 |
| | 0.6nm,0.3s,baz=132,slow=19,SNR=4.3 | | | | | | |
| **URZ** | **Urewera** | **19.24** | **202** | *e*P | **P** | **04 12 57.8** | **+0.5** |
| | 41nm,0.7s | | | | | | |
| URZ | | | | *e*S | Sn | 04 16 19.1 | -14 |
| **BKZ** | **Black Stump Fm** | **20.26** | **202** | *e*P | **P** | **04 13 09.2** | **+0.7** |
| | 70nm,1.4s | | | | | | |
| BKZ | | | | *e*S | Sn | 04 16 57.1 | -0.8 |
| BKZ | | | | LR | LR | | |
| | comp=Z,4µm,18.0s | | | | | | |
| **HIZ** | **Hauiti** | **20.31** | **206** | *e*P | **P** | **04 13 09.1** | **+0.1** |
| | comp=Z,145nm,1.1s | | | | | | |
| HIZ | | | | LR | LR | | |
| | comp=Z,4µm,19.0s | | | | | | |
| **BFZ** | **Birch Farm** | **21.71** | **200** | *e*P | **P** | **04 13 28.1** | **+4.1** |
| | comp=Z,330nm,1.8s | | | | | | |
| BFZ | | | | LR | LR | | |
| | comp=Z,6µm,18.0s | | | | | | |
| **SNZO** | **South Karori** | **22.79** | **202** | *e*P | **P** | **04 13 38.5** | **+2.9** |
| | comp=Z,227nm,1.5s | | | | | | |
| SNZO | | | | LR | LR | | |
| | comp=Z,4µm,19.0s | | | | | | |
| **TBI** | **Tubuai** | **22.95** | **101** | *e*P | P | 04 13 30.5 | -7.0 |
| | comp=Z,106nm,1.0s | | | | | | |
| TBI | | | | *e*S | S | 04 17 32.3 | -13 |
| | comp=Z,5µm,27.0s | | | | | | |
| TBI | | | | *e*LR | LR | 04 18 59.5 | |
| | comp=Z,5µm,21.8s,baz=273 | | | | | | |
| **TBI** | **Tubuai** | **22.95** | **101** | *e*T | T | 04 36 22.4 | |
| | comp=Z,4.7nm,0.3s | | | | | | |
| **PAE** | **Paea** | **23.28** | **87** | *e*P | **P** | **04 13 34.4** | **-6.4** |
| | comp=Z,16nm,1.2s | | | | | | |
| **PAE** | **Paea** | **23.28** | **87** | *e*T | T | 04 36 55.2 | |
| | comp=Z,1.7nm,0.3s | | | | | | |
| **PPT2** | **Papeete2** | **23.30** | **87** | *e*P | **P** | **04 13 35.1** | **-6.0** |
| | comp=Z,88nm,1.2s | | | | | | |
| PPT2 | | | | *e*S | S | 04 17 40.4 | -11 |
| | comp=Z,7µm,25.2s | | | | | | |
| PPT2 | | | | *e*LR | LR | 04 19 07.3 | |
| | comp=Z,5µm,21.5s,baz=257 | | | | | | |
| **PPT2** | **Papeete2** | **23.30** | **87** | *e*T | T | 04 36 56.8 | |
| | comp=Z,2.5nm,0.4s | | | | | | |
| **PPT** | **Papeete** | **23.30** | **87** | P | **P** | **04 13 38.3** | **-2.7** |
| | comp=Z,66nm,1.0s,baz=336,slow=5.0,SNR=5.5 | | | | | | |
| PPT | | | | LR | LR | 04 21 10.3 | |
| | comp=Z,6µm,18.2s,baz=259,slow=33 | | | | | | |
| **PPTF** | **Pamatai, Papee** | **23.31** | **87** | *e*P | **P** | **04 13 39.1** | **-2.0** |
| | comp=Z,171nm,1.2s | | | | | | |
| PPTF | | | | LR | LR | | |
| | comp=Z,9µm,18.0s | | | | | | |
| **TIAR** | **Tiarei** | **23.52** | **87** | *e*P | **P** | **04 13 36.7** | **-6.5** |
| | comp=Z,15nm,1.0s | | | | | | |
| **THZ** | **Tophouse** | **23.86** | **205** | *e*P | **P** | **04 13 51.8** | **+5.6** |
| | comp=Z,31nm,0.8s | | | | | | |
| THZ | | | | LR | LR | | |
| | comp=Z,6µm,18.0s | | | | | | |
| **KHZ** | **Kahutara** | **24.18** | **203** | PFAKE | | 04 14 00.0 | +11 |
| KHZ | | | | LR | LR | | |
| | comp=Z,5µm,18.0s | | | | | | |
| **LTZ** | **Lake Taylor** | **24.97** | **204** | *e*P | **P** | **04 14 01.1** | **+4.8** |
| | comp=Z,55nm,1.0s | | | | | | |
| LTZ | | | | LR | LR | | |
| | comp=Z,6µm,18.0s | | | | | | |
| **TARA** | **Tarawa** | **25.25** | **328** | PFAKE | | 04 14 10.0 | +11 |
| TARA | | | | LR | LR | | |
| | comp=Z,6µm,18.0s | | | | | | |
| **CRLZ** | **Canterbury Las** | **25.52** | **203** | PFAKE | | 04 14 20.0 | +19 |
| CRLZ | | | | LR | LR | | |
| | comp=Z,4µm,18.0s | | | | | | |
| **OXZ** | **Oxford** | **25.52** | **204** | *e*P | **P** | **04 14 02.9** | **+1.6** |
| | comp=Z,183nm,1.5s | | | | | | |
| OXZ | | | | LR | LR | | |
| | comp=Z,5µm,20.0s | | | | | | |
| **MQZ** | **McQueen's Vall** | **25.62** | **203** | *e*P | **P** | **04 14 06.5** | **+4.3** |
| | comp=Z,284nm,1.7s | | | | | | |
| MQZ | | | | LR | LR | | |
| | comp=Z,4µm,18.0s | | | | | | |
| **RPZ** | **Rata Peaks** | **26.23** | **205** | P | **P** | **04 14 09.7** | **+1.9** |
| | comp=Z,15nm,0.6s,baz=2.8,slow=9.0,SNR=3.1 | | | | | | |
| RPZ | | | | LR | LR | 04 24 36.7 | |
| | comp=Z,6µm,18.1s,baz=26,slow=37 | | | | | | |
| **LHI** | **Lord Howe Isla** | **26.45** | **240** | P | **P** | **04 14 11.9** | **+2.0** |
| | baz=27,SNR=3.5 | | | | | | |
| **LHI** | **Lord Howe Isla** | **26.45** | **240** | *e*P | **P** | **04 14 11.3** | **+1.4** |
| | comp=Z,110nm,1.2s | | | | | | |
| LHI | | | | LR | LR | | |
| | comp=Z,6µm,19.0s | | | | | | |
| **FOZ** | **Fox Glacier** | **26.59** | **207** | *e*P | **P** | **04 14 13.1** | **+2.1** |
| | comp=Z,143nm,1.3s | | | | | | |
| FOZ | | | | LR | LR | | |
| | comp=Z,9µm,18.0s | | | | | | |
| **LBZ** | **Lake Benmore** | **27.14** | **205** | *e*P | **P** | **04 14 19.5** | **+3.5** |
| | comp=Z,130nm,1.6s | | | | | | |
| LBZ | | | | LR | LR | | |
| | comp=Z,8µm,18.0s | | | | | | |
| **HNR** | **Honiara** | **27.41** | **290** | LR | LR | 04 23 45.3 | |
| | comp=Z,3µm,18.7s,baz=125,slow=33 | | | | | | |
| **ODZ** | **Otahua Downs** | **27.51** | **204** | PFAKE | | 04 14 30.0 | +11 |
| ODZ | | | | LR | LR | | |
| | comp=Z,5µm,18.0s | | | | | | |
| **WKZ** | **Wanaka** | **27.98** | **206** | *e*P | **P** | **04 14 28.2** | **+4.7** |
| | comp=Z,143nm,1.4s | | | | | | |
| WKZ | | | | LR | LR | | |
| | comp=Z,5µm,19.0s | | | | | | |
| **MLZ** | **Mavora Lakes** | **28.79** | **207** | *e*P | **P** | **04 14 34.7** | **+4.0** |
| | comp=Z,162nm,1.9s | | | | | | |
| MLZ | | | | LR | LR | | |
| | comp=Z,6µm,18.0s | | | | | | |
| **DCZ** | **Deep Cove** | **29.28** | **208** | *e*P | **P** | **04 14 37.1** | **+2.1** |
| | comp=Z,121nm,2.0s | | | | | | |
| DCZ | | | | LR | LR | | |
| | comp=Z,4µm,20.0s | | | | | | |
| **WHZ** | **Wether Hill Ro** | **29.29** | **206** | *e*P | **P** | **04 14 38.8** | **+3.8** |
| | comp=Z,30nm,0.9s | | | | | | |
| WHZ | | | | LR | LR | | |
| | comp=Z,4µm,18.0s | | | | | | |
| **PYZ** | **Puysegur Point** | **30.04** | **207** | PFAKE | | 04 15 00.0 | +18 |
| PYZ | | | | LR | LR | | |
| | comp=Z,5µm,18.0s | | | | | | |
| **ARMA** | **Armidale** | **32.41** | **245** | P | **P** | **04 15 03.9** | **+1.0** |
| | baz=33,SNR=5.6 | | | | | | |
| **ARMA** | **Armidale** | **32.41** | **245** | *e*P | **P** | **04 15 03.7** | **+0.8** |
| | comp=Z,37nm,1.4s | | | | | | |
| ARMA | | | | LR | LR | | |
| | comp=Z,3µm,18.0s | | | | | | |
| **EIDS** | **Eidsvold** | **32.42** | **255** | P | **P** | **04 15 02.0** | **-1.0** |
| | baz=33,SNR=3.4 | | | | | | |
| **EIDS** | **Eidsvold** | **32.42** | **255** | *e*P | **P** | **04 15 02.2** | **-0.7** |
| | comp=Z,137nm,1.8s | | | | | | |
| EIDS | | | | LR | LR | | |
| | comp=Z,3µm,18.0s | | | | | | |
| **MGCD** | **Mangrove Creek** | **33.39** | **241** | P | **P** | **04 15 12.1** | **+0.7** |
| | baz=34,SNR=6.4 | | | | | | |
| **KWAJ** | **Kwajalein Atol** | **34.31** | **326** | PFAKE | | 04 15 30.0 | +11 |
| KWAJ | | | | LR | LR | | |
| | comp=Z,9µm,19.0s | | | | | | |
| **RMQ** | **Roma** | **34.54** | **253** | P | **P** | **04 15 21.2** | **-0.3** |
| | baz=35,SNR=15 | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **34.70** | **75** | *e*S | **S** | **04 20 45.0** | **-6.3** |
| | comp=Z,498nm,25.3s | | | | | | |
| TAOE | | | | *e*LR | LR | 04 24 32.0 | |
| | comp=Z,3µm,20.9s,baz=251 | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **34.70** | **75** | PFAKE | | 04 15 40.0 | +17 |
| TAOE | | | | LR | LR | | |
| | comp=Z,4µm,19.0s | | | | | | |
| **CNB** | **Canberra Magne** | **35.30** | **238** | P | **P** | **04 15 28.0** | **0.0** |
| | baz=36,SNR=12 | | | | | | |
| **CAN** | **Canberra** | **35.59** | **238** | *e*P | **P** | **04 15 30.2** | **-0.3** |
| CAN | | | | pmax | pmax | | |
| | comp=Z,68nm,1.2s | | | | | | |
| CAN | | | | MLR | MLR | | |
| | comp=Z,4µm,18.0s | | | | | | |
| **CAN** | **Canberra** | **35.59** | **238** | *e*P | **P** | **04 15 30.2** | **-0.3** |
| | comp=Z,68nm,1.2s | | | | | | |
| CAN | | | | LR | LR | | |
| | comp=Z,4µm,18.0s | | | | | | |
| **YNG** | **Young** | **35.84** | **240** | P | **P** | **04 15 32.3** | **-0.2** |
| | baz=36,SNR=10 | | | | | | |
| **RKT** | **Rikitea** | **36.28** | **101** | *e*LR | LR | 04 25 06.4 | |
| | comp=Z,4µm,21.8s | | | | | | |
| **RABL** | **Rabaul** | **36.68** | **292** | PFAKE | | 04 15 50.0 | +10 |
| RABL | | | | LR | LR | | |
| | comp=Z,6µm,18.0s | | | | | | |
| **CTAO** | **Charters Tower** | **37.18** | **264** | *e*P | **P** | **04 15 43.5** | **-0.6** |
| CTAO | | | | MLR | MLR | | |
| | comp=Z,6µm,18.0s | | | | | | |
| **CTAO** | **Charters Tower** | **37.18** | **264** | *e*P | **P** | **04 15 43.5** | **-0.6** |
| CTAO | | | | LR | LR | | |
| | comp=Z,6µm,18.0s | | | | | | |
| **CMSA** | **Cobar Meteorol** | **37.61** | **245** | P | **P** | **04 15 46.8** | **-0.8** |
| | baz=38,SNR=5.9 | | | | | | |
| **PATS** | **Pohnpei** | **38.47** | **312** | PFAKE | | 04 16 00.0 | +5.0 |
| PATS | | | | LR | LR | | |
| | comp=Z,4µm,20.0s | | | | | | |
| **TOO** | **Toolangi** | **38.89** | **235** | P | **P** | **04 15 58.2** | **-0.2** |
| | baz=39,SNR=16 | | | | | | |
| **PMG** | **Port Moresby** | **38.99** | **281** *c* | *i*P | **P** | **04 15 58.2** | **-1.2** |
| PMG | | | | pmax | pmax | | |
| | comp=Z,220nm,1.0s | | | | | | |
| **PMG** | **Port Moresby** | **38.99** | **281** | *e*P | **P** | **04 15 58.4** | **-1.1** |
| | comp=Z,50nm,0.9s | | | | | | |
| PMG | | | | *e*pP | **sP** | **04 16 11.2** | **-1.3** |
| PMG | | | | LR | LR | | |
| | comp=Z,4µm,18.0s | | | | | | |
| **MOO** | **Moorlands** | **39.15** | **227** | P | **P** | **04 16 01.4** | **+0.9** |
| | baz=40,SNR=5.4 | | | | | | |
| **TAU** | **Tasmania Unive** | **39.24** | **226** | *e*P | **P** | **04 16 02.1** | **+1.0** |
| TAU | | | | pmax | pmax | | |
| | comp=Z,47nm,1.1s | | | | | | |
| TAU | | | | MLR | MLR | | |
| | comp=Z,5µm,18.0s | | | | | | |
| **TAU** | **Tasmania Unive** | **39.24** | **226** | *e*P | **P** | **04 16 02.1** | **+1.0** |
| | comp=Z,47nm,1.1s | | | | | | |
| TAU | | | | LR | LR | | |
| | comp=Z,5µm,18.0s | | | | | | |
| **MTSU** | **Mount Surprise** | **39.30** | **266** | P | **P** | **04 16 01.7** | **-0.3** |
| | baz=40,SNR=8.4 | | | | | | |
| **STKA** | **Stephens Creek** | **41.12** | **245** | P | **P** | **04 16 16.1** | **-0.9** |
| | comp=Z,20nm,0.8s,baz=91,slow=10,SNR=40 | | | | | | |
| STKA | | | | LR | LR | 04 31 23.2 | |
| | comp=Z,685nm,18.1s,baz=76,slow=33 | | | | | | |
| **STKA** | **Stephens Creek** | **41.12** | **245** | P | **P** | **04 16 16.0** | **-0.9** |
| | baz=42,SNR=33 | | | | | | |
| **STKA** | **Stephens Creek** | **41.12** | **245** | *e*P | **P** | **04 16 15.5** | **-1.5** |
| **STKA** | **Stephens Creek** | **41.12** | **245** | *e*P | **P** | **04 16 15.4** | **-1.5** |
| **COEN** | **Coen** | **41.30** | **272** | P | **P** | **04 16 17.6** | **-1.0** |
| | baz=42,SNR=49 | | | | | | |
| **COEN** | **Coen** | **41.30** | **272** | *e*P | **P** | **04 16 17.3** | **-1.3** |
| | comp=Z,58nm,1.0s | | | | | | |
| COEN | | | | LR | LR | | |
| | comp=Z,3µm,18.0s | | | | | | |
| **ARPS** | **Mount Arapiles** | **41.57** | **237** | P | **P** | **04 16 20.1** | **-0.5** |
| | baz=42,SNR=16 | | | | | | |
| **MWH** | **Moku'aweowe** | **43.70** | **26** | PFAKE | | 04 16 50.0 | +11 |
| MWH | | | | LR | LR | | |
| | comp=Z,3µm,19.0s | | | | | | |
| **BYL** | **Byron's Ledge** | **43.77** | **26** | PFAKE | | 04 16 50.0 | +11 |
| BYL | | | | LR | LR | | |
| | comp=Z,3µm,22.0s | | | | | | |
| **STCH** | **Steam Cracks** | **43.80** | **26** | PFAKE | | 04 16 50.0 | +11 |
| STCH | | | | LR | LR | | |
| | comp=Z,3µm,20.0s | | | | | | |
| **KIP** | **Kipapa** | **44.56** | **21**⇓ | *e*P | **P** | **04 16 45.0** | **+0.2** |
| **BBOO** | **Buckleboo** | **45.85** | **244** | P | **P** | **04 16 53.7** | **-1.4** |
| | baz=46,SNR=13 | | | | | | |
| **BBOO** | **Buckleboo** | **45.85** | **244** | *e*P | **P** | **04 16 53.7** | **-1.4** |
| | comp=Z,37nm,1.1s | | | | | | |
| BBOO | | | | LR | LR | | |
| | comp=Z,3µm,18.0s | | | | | | |
| **JAY** | **Jayapura** | **47.61** | **286** | P | **P** | **04 17 09.0** | **-0.1** |
| | comp=Z,829nm,1.1s,comp=Z,13µm | | | | | | |
| **AS01** | **Alice Springs** | **48.08** | **256** | *e*P | **P** | **04 17 10.2** | **-2.4** |
| **AS31** | **Alice Springs** | **48.12** | **256** | *e*P | **P** | **04 17 11.4** | **-1.6** |
| | comp=Z,11nm,1.1s | | | | | | |
| AS31 | | | | *e*PcP | **PcP** | **04 18 40.9** | **+0.6** |
| AS31 | | | | *e*S | **S** | **04 24 06.8** | **-3.1** |
| **ASAR** | **Alice Springs** | **48.12** | **256** | P | **P** | **04 17 11.4** | **-1.5** |
| | comp=Z,30nm,0.9s,baz=87,slow=8.3,SNR=159 | | | | | | |
| ASAR | | | | PcP | **PcP** | **04 18 40.9** | **+0.6** |
| | comp=Z,5.1nm,0.8s,baz=106,slow=3.5,SNR=5.1 | | | | | | |
| ASAR | | | | S | **S** | **04 24 06.8** | **-3.1** |
| | comp=Z,1.9nm,1.0s,baz=96,slow=15,SNR=8.3 | | | | | | |
| ASAR | | | | LR | LR | 04 37 59.7 | |
| | comp=Z,2µm,18.9s,baz=100,slow=37 | | | | | | |
| **ASAR** | **Alice Springs** | **48.12** | **256** | P | **P** | **04 17 11.5** | **-1.5** |
| ASAR | | | | | | 04 18 40.9 | |
| ASAR | | | | S | **S** | **04 24 06.9** | **-3.1** |
| ASAR | | | | pmax | pmax | | |
| | comp=Z,30nm,0.9s | | | | | | |
| ASAR | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.8s | | | | | | |
| ASAR | | | | smax | smax | | |
| | comp=N,2.0nm,1.0s | | | | | | |
| ASAR | | | | MLR | MLR | | |
| | comp=Z,2µm,19.0s | | | | | | |
| **WB2** | **Warramunga Arr** | **48.26** | **261** | *e*P | **P** | **04 17 12.0** | **-2.0** |
| **WRAB** | **Tennant Creek** | **48.26** | **261** *c* | *i*P | **P** | **04 17 11.4** | **-2.7** |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,83nm,1.0s | | | | | | |
| WRAB | | | | MLR | MLR | | |
| | comp=Z,3µm,17.0s | | | | | | |
| **WRAB** | **Tennant Creek** | **48.26** | **261** | *e*P | **P** | **04 17 10.5** | **-3.6** |
| | comp=Z,45nm,1.2s | | | | | | |
| WRAB | | | | LR | LR | | |
| | comp=Z,3µm,18.0s | | | | | | |
| **WR1** | **Warramunga Arr** | **48.27** | **261** | *e*P | **P** | **04 17 11.8** | **-2.3** |
| | comp=Z,73nm,1.4s | | | | | | |
| WR1 | | | | *e*PcP | **PcP** | **04 18 41.0** | **+0.1** |
| **WRA** | **Warramunga Arr** | **48.27** | **261** | P | **P** | **04 17 11.8** | **-2.3** |
| | comp=Z,16nm,0.8s,baz=96,slow=6.7,SNR=58 | | | | | | |
| WRA | | | | PcP | **PcP** | **04 18 41.0** | **+0.1** |
| | comp=Z,4.9nm,0.8s,baz=106,slow=2.9,SNR=3.9 | | | | | | |
| WRA | | | | LR | LR | 04 36 55.0 | |
| | comp=Z,2µm,18.7s,baz=95,slow=35 | | | | | | |
| **KDU** | **Kakadu** | **51.67** | **270** | P | **P** | **04 17 38.8** | **-1.2** |
| | baz=52,SNR=3.1 | | | | | | |
| **FORT** | **Forrest** | **52.68** | **246** | P | **P** | **04 17 46.1** | **-1.2** |
| | baz=53 | | | | | | |
| **FORT** | **Forrest** | **52.68** | **246** | *e*P | **P** | **04 17 46.3** | **-1.0** |
| | comp=Z,315nm,0.8s | | | | | | |
| FORT | | | | LR | LR | | |
| | comp=Z,20µm,18.0s | | | | | | |
| **MTN** | **Manton Dam** | **52.88** | **269** | P | **P** | **04 17 47.4** | **-1.5** |
| | baz=53,SNR=8.5 | | | | | | |
| **MTN** | **Manton Dam** | **52.88** | **269** | *e*P | **P** | **04 17 47.5** | **-1.5** |
| | comp=Z,36nm,1.0s | | | | | | |
| MTN | | | | LR | LR | | |
| | comp=Z,1µm,21.0s | | | | | | |
| **WRKA** | **Warakurna** | **53.02** | **254** | P | **P** | **04 17 48.8** | **-1.1** |
| | baz=54,SNR=44 | | | | | | |
| **SARN** | **Sarigan** | **54.10** | **310** | *e*P | P | 04 17 52.7 | -5.1 |
| **KNRA** | **Kununurra** | **54.36** | **265** | P | **P** | **04 17 58.9** | **-0.9** |
| | baz=55,SNR=7.3 | | | | | | |
| **FAKI** | **Fak Fak** | **55.15** | **281** | PFAKE | | 04 18 20.0 | +14 |
| FAKI | | | | LR | LR | | |
| | comp=Z,2µm,18.0s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **56.70** | **261** | P | **P** | **04 18 15.5** | **-1.1** |
| | baz=57 | | | | | | |
| **KMBL** | **Kambalda** | **57.92** | **245** | P | **P** | **04 18 24.1** | **-1.0** |
| | baz=58 | | | | | | |
| **SBA** | **Scott Base** | **58.09** | **185** | PFAKE | | 04 18 40.0 | +15 |

SBA LR LR
comp=Z,2µm,18.0s
**VNDA Vanda 58.21 186** P **P 04 18 29.9 +3.5**
comp=Z,5.4nm,1.0s,baz=12,slow=7.1,SNR=8.6
VNDA LR LR 04 40 52.9
comp=Z,901nm,18.1s,baz=18,slow=33
**VNDA Vanda 58.21 186** *e*P P 04 18 32.6 +6.3
comp=Z,35nm,1.5s
**SOEI Soe 60.22 270** P **P 04 18 42.2 +0.8**
comp=Z,150nm,0.9s,comp=Z,2µm
**SOEI Soe 60.22 270** *e*P **P 04 18 41.9 +0.5**
comp=Z,119nm,0.9s
SOEI LR LR
comp=Z,900nm,21.0s
**SANI Sanana 61.25 279** P **P 04 18 47.4 -0.9**
comp=Z,41nm,1.0s,comp=Z,933nm
**KLBR Kellerberrin 61.39 244** P **P 04 18 49.0 0.0**
baz=62,SNR=11
**MBWA Marble Bar 61.46 257** *e*P **P 04 18 48.7 -0.9**
comp=Z,23nm,0.8s
MBWA LR LR
comp=Z,7µm,18.0s
**NWAO Narrogin (SRO) 61.66 243** PFAKE 04 19 00.0 +9.2
NWAO LR LR
comp=Z,3µm,18.0s
**BLDU Balliduu 62.42 245** P **P 04 18 55.6 -0.3**
baz=63,SNR=9.2
**MUN Mundaring 62.65 244** P **P 04 18 58.2 +0.8**
baz=63,SNR=3.6
**EDFI Ende, Flores 62.95 271** P **P 04 18 59.0 -0.8**
comp=Z,46nm,0.9s,comp=Z,784nm
**MORW Morawa 63.24 247** P **P 04 19 01.2 -0.2**
baz=64,SNR=8.9
**DAV Davao City (W) 65.36 288** PFAKE 04 19 30.0 +15
DAV LR LR
comp=Z,2µm,18.0s
**CASY Casey 65.51 205** PFAKE 04 19 30.0 +14
CASY LR LR
comp=Z,1µm,19.0s
**APSI Ampana 65.69 279** P **P 04 19 20.0 +2.3**
comp=Z,93nm,1.0s,comp=Z,1µm
**GIRL Giralia 66.11 254** P **P 04 19 21.0 +0.8**
baz=67,SNR=5.1
**SPSI Sidrap Palu 66.34 275** P **P 04 19 21.2 -0.6**
comp=Z,14nm,0.9s
**PLAI Plampang 66.59 269** P **P 04 19 23.1 -0.3**
comp=Z,54nm,1.1s,comp=Z,935nm
**MPSI Mapaga 67.78 279** P **P 04 19 30.5 -0.5**
comp=Z,41nm,0.7s,comp=Z,843nm
**QSPA South Pole Qui 69.52 180** *e*P **P 04 19 42.4 +1.3**
comp=Z,39nm,1.1s
QSPA LR LR
comp=Z,2µm,18.0s
**KBKI Kotabaru 69.94 274** P **P 04 19 47.3 +2.9**
comp=Z,25nm,1.2s
**JAGI Jajag, Banyuwa 70.10 268** P **P 04 19 46.9 +1.5**
comp=Z,30nm,0.8s
**JAGI Jajag, Banyuwa 70.10 268** *e*P **P 04 19 45.4 0.0**
comp=Z,27nm,0.9s
**GMJI Gumukmas 70.83 268** P P 04 19 54.9 +5.1
**TSM Tawau 71.17 282** ⇓P P 04 20 01.5 +10
**PWJI Pagerwojo 72.44 268** P **P 04 20 01.8 +2.2**
comp=Z,30nm,1.4s
**MJAR Matsushiro Arr 72.52 321** P **P 04 19 58.2 -1.3**
comp=Z,20nm,0.9s,baz=157,slow=5.9,SNR=27
MJAR LR LR 04 47 52.0
comp=Z,390nm,21.1s,baz=145,slow=33
**MAJO Matsushiro 72.52 321**⇑ *e*P **P 04 19 59.2 -0.3**
MAJO pmax pmax
comp=Z,32nm,1.0s
**MAJO Matsushiro 72.52 321** *e*P **P 04 19 59.5 0.0**
comp=Z,26nm,0.9s
MAJO LR LR
comp=Z,1µm,18.0s
**MAT Matsushiro 72.52 321** P **P 04 19 59.2 -0.3**
MAT S **S 04 29 18.6 -3.3**
**MJB9 Matsu-Tunnel 72.52 321** *e*P **P 04 19 59.9 +0.3**
comp=Z,25nm,0.9s
MJB9 LR LR
comp=Z,1µm,18.0s
**PCJI Pacitan 72.97 267** P **P 04 20 04.2 +1.5**
comp=Z,87nm,1.0s
**JOW Kunigami 73.09 308** PFAKE 04 20 10.0 +6.9
JOW LR LR
comp=Z,800nm,20.0s
**KDM Kudat 73.16 284** ⇑P P 04 20 09.6 +5.8
**KKM Kota Kinabalu 73.38 283** ⇓P **P 04 20 05.2 0.0**
**KKM Kota Kinabalu 73.38 283** PFAKE 04 20 20.0 +15
KKM LR LR
comp=Z,500nm,22.0s
**YUK Yuzh-Kuril'sk 74.03 331** P **P 04 20 05.7 -2.5**
**KUR Kuril'sk 74.09 333***c i*P **P 04 20 07.6 -0.9**
KUR *e*S **S 04 29 40.8 +1.6**
KUR *e* 04 30 06.9
KUR pmax pmax
comp=Z,1µm,4.6s
KUR MLR MLR
comp=N,804nm,17.0s
KUR MLR MLR
comp=Z,1µm,17.0s
**SNCC San Nicolas Is 74.61 45** P **P 04 20 13.2 +1.3**
baz=232
**SNCC San Nicolas Is 74.61 45** PFAKE 04 20 20.0 +8.1
SNCC LR LR
comp=Z,2µm,18.0s
**JNU Nakatsue 74.92 315** *e*P **P 04 20 14.7 +1.0**
comp=Z,19nm,1.1s
**SCZ2 Santa Cruz Isl 74.99 44** P **P 04 20 15.5 +1.4**
baz=232
**SCI2 San Clemente I 75.10 46** P **P 04 20 15.9 +1.2**
baz=233
**BTM Bintulu 75.17 279** ⇑P **P 04 20 15.6 0.0**
**SBC Santa Barbara 75.21 44** P **P 04 20 16.8 +1.4**
baz=232
**KPJI Karang Pucung 75.36 268** P **P 04 20 16.8 +0.2**
comp=Z,30nm,0.9s,comp=Z,1µm
**PKM Mcpherson Peak 75.42 44** P **P 04 20 18.4 +1.6**
baz=232
**BLG Laguna Peak, P 75.43 45** P **P 04 20 17.7 +1.0**
baz=233
**CIS Catalina Islan 75.44 46** P **P 04 20 17.6 +0.9**
baz=233
**SAO San Andreas Ge 75.57 41** *e*P **P 04 20 18.1 +0.8**
SAO pmax pmax
comp=Z,66nm,1.8s
SAO MLR MLR
comp=Z,2µm,18.0s
**SAO San Andreas Ge 75.57 41** *e*P **P 04 20 18.1 +0.8**
comp=Z,66nm,1.8s
SAO LR LR
comp=Z,2µm,18.0s
**SMMC Simmler 75.57 43** P **P 04 20 19.1 +1.7**
baz=232
**MCCM Marconi Confer 75.60 39** PFAKE 04 20 30.0 +13
MCCM LR LR
comp=Z,1µm,18.0s
**ASAJ Asahikawa 75.61 329** P **P 04 20 18.1 +0.7**
comp=Z,8.6nm,0.8s,baz=188,slow=7.1
**ASAJ Asahikawa 75.61 329** *e*P **P 04 20 18.1 +0.7**
comp=Z,10nm,0.8s
**PMPB Monarch Peak 75.62 42** *e*P **P 04 20 22.1 +4.4**
comp=Z,137nm,1.9s
PMPB LR LR
comp=Z,3µm,19.0s
**PAGB Antelope Grade 75.67 43** *e*P **P 04 20 19.5 +1.6**
comp=Z,18nm,1.2s
PAGB LR LR
comp=Z,2µm,18.0s
**SBUM Sibu 75.69 278** ⇓P **P 04 20 19.9 +1.4**
**FMP Fort Macarthur 75.71 45** P **P 04 20 19.5 +1.4**
baz=233
**OSI Osito Audit: C 75.97 44** P **P 04 20 21.0 +1.3**
baz=233
**OSI Osito Audit: C 75.97 44** PFAKE 04 20 30.0 +10
OSI LR LR
comp=Z,2µm,20.0s
**DECC Green Verdugo 76.00 45** P **P 04 20 20.5 +0.6**
baz=233
**109C Camp Elliot, M 76.02 47** P **P 04 20 20.8 +0.8**
baz=234
**HOPS Hopland Field 76.04 39** PFAKE 04 20 30.0 +10
HOPS LR LR
comp=Z,2µm,20.0s
**PASC Pasadena Art C 76.05 45** *e*P **P 04 20 18.7 -1.5**
PASC LR LR
comp=Z,2µm,18.0s
**GDXM Geysers 76.08 39** PFAKE 04 20 30.0 +10
GDXM LR LR
comp=Z,2µm,19.0s
**MWC Mount Wilson 76.17 45** *e*P **P 04 20 24.6 +3.6**
MWC pmax pmax
comp=Z,27nm,1.4s
MWC MLR MLR
comp=Z,1µm,19.0s
**MWC Mount Wilson 76.17 45** *e*P **P 04 20 24.6 +3.6**
comp=Z,27nm,1.4s
MWC LR LR
comp=Z,1µm,19.0s
**BAR Barrett 76.19 47** *e*P **P 04 20 22.4 +1.4**
comp=Z,51nm,1.7s
BAR LR LR
comp=Z,900nm,20.0s
**KCPM Cahto Peak 76.21 38** *e*P **P 04 20 25.4 +4.3**
comp=Z,45nm,1.5s
KCPM LR LR
comp=Z,3µm,20.0s
**ARVC Arvin 76.21 44** P **P 04 20 22.3 +1.3**
baz=233
**SLBS Sierra La Lagu 76.35 58** PFAKE 04 20 40.0 +18
SLBS LR LR
comp=Z,2µm,19.0s
**MURC Murrieta 76.38 46** P **P 04 20 23.2 +1.1**
baz=234
**SRIG Santa Rosalia 76.42 54** PFAKE 04 20 40.0 +18
SRIG LR LR
comp=Z,2µm,19.0s
**BFSC Mount Baldy Ra 76.44 45** P **P 04 20 23.3 +0.8**
baz=234
**VES Vestal, Richgr 76.48 43** P **P 04 20 23.7 +1.2**
baz=232,SNR=7.8
**MONP2 Monument Peak 76.49 47** P **P 04 20 24.2 +1.3**
baz=235,SNR=6.2
**KMRM Mail Ridge 76.49 37** *e*P **P 04 20 24.8 +2.2**
comp=Z,68nm,1.5s
KMRM LR LR
comp=Z,3µm,20.0s
**IKP In-Ko-Pah, Jac 76.56 47** P **P 04 20 24.5 +1.4**
baz=235
**TWG Pinlang 76.57 301** PFAKE 04 20 30.0 +6.7
TWG LR LR
comp=Z,4µm,20.0s
**EDW2 Edwards Air Fo 76.61 45** P **P 04 20 24.6 +1.2**
baz=233,SNR=7.3
**RCTC Rector, Farmer 76.66 43** P **P 04 20 24.6 +1.1**
baz=232
**JCC Jacoby Creek, 76.71 37** PFAKE 04 20 40.0 +16
JCC LR LR
comp=Z,3µm,19.0s
**ISA Isabella, Lake 76.76 44** P **P 04 20 25.8 +1.6**
baz=233
**ISA Isabella, Lake 76.76 44** *e*P **P 04 20 25.8 +1.6**
ISA pmax pmax
comp=Z,30nm,1.4s
ISA MLR MLR
comp=Z,2µm,19.0s
**ISA Isabella, Lake 76.76 44** *e*P **P 04 20 25.8 +1.6**
comp=Z,30nm,1.4s
ISA LR LR
comp=Z,2µm,19.0s
**NACB Ninganchiao 76.82 302** *e*P **P 04 20 24.4 -0.3**
NACB *e*pP **PcP 04 20 36.8 +1.0**
**PFO Pinyon Flats O 76.88 46** P **P 04 20 24.9 -0.1**
comp=Z,3.8nm,1.0s,baz=229,slow=5.2,SNR=8.4
**PFO Pinyon Flats O 76.88 46** P **P 04 20 26.2 +1.2**
baz=234
**PFO Pinyon Flats O 76.88 46** P **P 04 20 24.9 -0.1**
PFO pmax pmax
comp=Z,6.0nm,1.1s
**PFO Pinyon Flats O 76.88 46** *e*P **P 04 20 26.0 +1.0**
comp=Z,46nm,1.7s
PFO LR LR
comp=Z,2µm,18.0s
**XPFO Piæon Flat 76.88 46** *e*P **P 04 20 26.0 +1.0**
comp=Z,54nm,1.8s
XPFO LR LR
comp=Z,2µm,18.0s
**KHMM Horse Mountain 76.92 37** PFAKE 04 20 40.0 +15
KHMM LR LR
comp=Z,3µm,20.0s
**SWSC Sam W. Stewart 76.94 47** P **P 04 20 26.4 +1.2**
baz=235
**BBRC Big Bear Solar 76.95 46** P **P 04 20 26.9 +1.3**
baz=234
**PET Petropavlovsk 77.01 343** *e*P **P 04 20 28.9 +3.8**
PET *e*S **S 04 30 12.6 +1.4**
PET *e*SS **SS 04 35 10.3 +1.1**
PET pmax pmax
comp=Z,300nm,12.3s
**CMB Columbia Colle 77.03 41** *e*P **P 04 20 24.9 -0.7**
CMB pmax pmax
comp=Z,17nm,1.3s
CMB MLR MLR
comp=Z,2µm,18.0s
**CMB Columbia Colle 77.03 41** *e*P **P 04 20 24.9 -0.7**
comp=Z,17nm,1.3s
CMB LR LR
comp=Z,2µm,18.0s
**KSM Kuching 77.11 277** *e*P **P 04 20 27.3 +0.7**
comp=Z,48nm,1.4s
KSM LR LR
comp=Z,298nm,19.0s
**SSLB Suanglung 77.14 302** *e*P **P 04 20 26.0 -0.5**
comp=Z,20nm,0.7s
SSLB LR LR
comp=Z,1µm,18.0s
**TPUB Ta-pu 77.16 301** *e*P **P 04 20 25.8 -0.9**
comp=Z,48nm,0.6s
TPUB LR LR
comp=Z,1µm,18.0s
**LRMC Laurel Mtn Rad 77.17 44** P **P 04 20 27.8 +1.2**
baz=233,SNR=8.9
**AFDM Forest Hills D 77.25 40** *e*P **P 04 20 27.4 +0.6**
comp=Z,14nm,1.4s
AFDM LR LR
comp=Z,1µm,18.0s
**KRMB Red Mountain 77.26 36** PFAKE 04 20 40.0 +13
KRMB LR LR
comp=Z,3µm,20.0s
**RRX Edison Barstow 77.26 45** P **P 04 20 28.4 +1.4**
baz=234
**ORV Oroville 77.33 39** *e*P **P 04 20 28.3 +1.0**
ORV pmax pmax
comp=Z,14nm,1.5s
ORV MLR MLR
comp=Z,900nm,18.0s
**ORV Oroville 77.33 39** *e*P **P 04 20 28.3 +1.0**
comp=Z,14nm,1.5s
ORV LR LR
comp=Z,900nm,18.0s
**PETK Petropavlovsk- 77.34 343** P **P 04 20 25.8 -1.2**
comp=Z,13nm,0.8s,baz=130,slow=8.1,SNR=10
PETK LR LR 04 48 36.4
comp=Z,489nm,21.1s,baz=165,slow=31
**PETK Petropavlovsk- 77.34 343** *e*P **P 04 20 26.5 -0.5**
**PETK Petropavlovsk- 77.34 343** *e*P **P 04 20 26.5 -0.5**
**PEA1 Petropavlovsk- 77.35 343** *e*P **P 04 20 25.8 -1.2**
**WDC Whiskeytown Da 77.40 38** *e*P **P 04 20 29.7 +2.1**
WDC pmax pmax
comp=Z,76nm,1.8s
WDC MLR MLR
comp=Z,2µm,20.0s
**WDC Whiskeytown Da 77.40 38** *e*P **P 04 20 29.7 +2.1**
comp=Z,76nm,1.8s
WDC LR LR
comp=Z,2µm,20.0s
**XMIS Christmas Isla 77.40 263** *e*P **P 04 20 29.5 +1.2**
comp=Z,23nm,0.6s
XMIS LR LR
comp=Z,2µm,19.0s
**BELC Belle Mtn. Jos 77.42 46** P **P 04 20 29.3 +1.3**
baz=235,SNR=6.3
**CWC Cottonwood Cre 77.49 43** P **P 04 20 30.1 +1.7**
baz=233
**KBO Bosley Butte 77.55 36** PFAKE 04 20 40.0 +11
KBO LR LR
comp=Z,3µm,20.0s
**N02D Trinity Center 77.56 37** P **P 04 20 30.4 +1.7**
baz=229
**MDPB Devils Postpil 77.58 42** *e*P **P 04 20 29.8 +0.7**
comp=Z,20nm,1.3s
MDPB LR LR
comp=Z,2µm,18.0s
**BC3 Big Chuckawall 77.59 47** P **P 04 20 30.5 +1.5**
baz=235,SNR=7.8
**O03D Paynes Creek 77.64 38** P **P 04 20 30.2 +1.2**
baz=230,SNR=5.7
**GSC Goldstone, Bar 77.64 45** P **P 04 20 30.1 +0.9**
baz=234,SNR=9.8
**GSC Goldstone, Bar 77.64 45** *e*P **P 04 20 29.6 +0.4**
GSC pmax pmax
comp=Z,65nm,2.0s
GSC MLR MLR
comp=Z,1µm,19.0s
**GSC Goldstone, Bar 77.64 45** *e*P **P 04 20 29.6 +0.4**
comp=Z,65nm,2.0s
GSC LR LR
comp=Z,1µm,19.0s
**MPMC Manual Prospec 77.64 44** P **P 04 20 30.7 +1.4**
baz=233,SNR=13
**DBJI Dramaga 77.66 268** P **P 04 20 32.6 +2.9**
comp=Z,62nm,0.6s
**YSS Yuzh-Sakhalins 77.67 331***c i*P **P 04 20 27.0 -1.9**
YSS *e*SP **PcP 04 20 40.1 +1.2**
YSS *e* 04 20 42.4
YSS *e* 04 23 21.0
YSS *e*PPP PPP 04 25 09.0
YSS *e*S **S 04 30 12.8 -5.8**
YSS *e*PPS PPS 04 30 47.0
YSS pmax pmax
comp=Z,40nm,0.9s
YSS pmax pmax
comp=Z,720nm,8.0s
YSS MLR MLR
comp=Z,900nm,18.0s
**YSS Yuzh-Sakhalins 77.67 331** *e*P **P 04 20 29.8 +0.9**
comp=Z,42nm,1.0s
YSS LR LR
comp=Z,600nm,20.0s
**HEC Hector,Ludlow 77.67 45** P **P 04 20 30.4 +1.0**
baz=234,SNR=10
**GLA Glamis 77.68 48** P **P 04 20 31.0 +1.6**
baz=236
**GLA Glamis 77.68 48** *e*P **P 04 20 31.5 +2.1**
GLA pmax pmax
comp=Z,32nm,1.3s
GLA MLR MLR
comp=Z,1µm,18.0s
**GLA Glamis 77.68 48** *e*P **P 04 20 31.5 +2.1**
comp=Z,32nm,1.3s
GLA LR LR
comp=Z,1µm,18.0s
**CHGN Chignik 77.69 9** *e*P **P 04 20 30.2 +1.5**
comp=Z,707nm,1.0s
**MLAC Mammoth, Mammo 77.74 42** P **P 04 20 31.5 +1.6**
baz=232
**M02C Callahan 77.76 37** P **P 04 20 31.1 +1.4**
baz=229,SNR=6.7
**TIN Tinemaha, Big 77.77 43** P **P 04 20 31.5 +1.6**
baz=233
**L02D Cave Junction, 77.85 36** P **P 04 20 31.9 +1.8**
baz=228
**WAKR Walker 77.91 41** *e*P **P 04 20 30.9 +0.2**
comp=Z,153nm,2.0s
WAKR LR LR
comp=Z,2µm,19.0s
**KEBM Edson Butte 77.94 35** PFAKE 04 20 40.0 +9.4
KEBM LR LR
comp=Z,4µm,19.0s
**YBH Yreka Blue Hor 78.06 37** P **P 04 20 30.4 -1.0**
comp=Z,2.0nm,0.8s,baz=193,slow=5.9,SNR=8.4
**YBH Yreka Blue Hor 78.06 37** *e*P **P 04 20 31.0 -0.4**
YBH pmax pmax
comp=Z,82nm,2.0s
YBH MLR MLR
comp=Z,2µm,20.0s
**YBH Yreka Blue Hor 78.06 37** *e*P **P 04 20 31.0 -0.4**
comp=Z,82nm,2.0s
YBH LR LR
comp=Z,2µm,20.0s
**IRM Iron Mountain 78.09 47** P **P 04 20 33.0 +1.4**
baz=235,SNR=12
**GMRC Granite Mounta 78.10 46** P **P 04 20 33.0 +1.2**
baz=235
**PNTR Pine Nut 78.17 40** *e*P **P 04 20 32.4 +0.2**
comp=Z,22nm,1.0s
PNTR LR LR
comp=Z,2µm,18.0s
**BEKR Beckworth 78.21 39** *e*P **P 04 20 32.3 -0.1**
comp=Z,49nm,1.8s
BEKR LR LR
comp=Z,800nm,18.0s
**Y12C Blythe 78.28 47** P **P 04 20 34.1 +1.5**
baz=236
**Y12C Blythe 78.28 47** PFAKE 04 20 50.0 +17
Y12C LR LR
comp=Z,1µm,18.0s
**GRAC Grapevine Rang 78.28 43** P **P 04 20 34.6 +1.9**
baz=233,SNR=19
**FURC Furnace Creek, 78.29 44** P **P 04 20 34.1 +1.5**
baz=234
**TUQ Turquoise Moun 78.30 45** P **P 04 20 34.2 +1.3**
baz=235,SNR=8.4
**YERR Yerington 78.33 41** *e*P **P 04 20 32.5 -0.6**
comp=Z,110nm,1.9s
YERR LR LR
comp=Z,2µm,19.0s
**SHOC Shoshone, Teco 78.34 45** P **P 04 20 34.4 +1.5**
baz=234
**214A Organ Pipe Nat 78.48 49** P **P 04 20 35.3 +1.5**
baz=237
**214A Organ Pipe Nat 78.48 49** *e*P **P 04 20 33.2 -0.7**
comp=Z,813nm,2.3s
**HUMO Hull Mountain 78.51 36** *e*P **P 04 20 36.0 +2.3**
comp=Z,30nm,1.7s
HUMO LR LR
comp=Z,2µm,20.0s
**M04C Macdoel 78.59 37** P **P 04 20 36.0 +1.7**
baz=229
**LDFC Landfair 78.64 46** *e*P **P 04 20 35.6 +0.8**
comp=Z,42nm,1.1s
LDFC LR LR
comp=Z,1µm,18.0s
**PAHR Pah Rah Range 78.69 40** *e*P **P 04 20 35.8 +0.9**
comp=Z,20nm,1.3s
PAHR LR LR
comp=Z,2µm,19.0s
**NEE2 Needles Airpor 78.79 46** P **P 04 20 37.1 +1.7**
baz=236
**PDMCI Parker Dam,Lak 78.85 47** P **P 04 20 37.3 +1.5**
baz=236
**TPNV Topopah Spring 78.97 44** P **P 04 20 38.0 +1.4**
baz=234,SNR=12
**TPNV Topopah Spring 78.97 44** *e*P **P 04 20 36.2 -0.4**
TPNV pmax pmax
comp=Z,65nm,1.6s
TPNV MLR MLR
comp=Z,2µm,18.0s
**TPNV Topopah Spring 78.97 44** *e*P **P 04 20 36.1 -0.4**
comp=Z,65nm,1.6s
TPNV LR LR
comp=Z,2µm,18.0s
**I03D Drain, OR 79.03 35** P **P 04 20 38.2 +1.7**
baz=228
**KVN Kaiserville 79.06 41** *e*P **P 04 20 36.4 -0.7**
KVN pmax pmax
comp=Z,66nm,1.7s
KVN MLR MLR
comp=Z,2µm,19.0s
**KVN Kaiserville 79.06 41** *e*P **P 04 20 36.4 -0.7**
comp=Z,66nm,1.7s
KVN LR LR
comp=Z,2µm,19.0s
**K04D Chiloquin, OR 79.19 36** P **P 04 20 39.1 +1.5**
baz=229
**J04D Umpqua Nationa 79.39 36** P **P 04 20 40.2 +1.3**
baz=229
**SHPR Sheep Range 79.42 45** *e*P **P 04 20 39.7 +0.6**
comp=Z,48nm,1.7s
SHPR LR LR
comp=Z,1µm,20.0s
**KSRS Korea Array 79.44 317** P **P 04 20 38.9 0.0**
comp=Z,2.8nm,0.6s,baz=132,slow=5.8,SNR=11
KSRS LR LR 04 52 39.8
comp=Z,524nm,19.8s,baz=118,slow=33
**KSRS Korea Array 79.44 317** P **P 04 20 38.9 0.0**
KSRS pmax pmax
comp=Z,5.0nm,0.9s
**KS15 Wonju Array Si 79.45 317** *e*P **P 04 20 38.9 -0.1**
**KSAR Wonju Array Be 79.45 317** P **P 04 20 38.9 -0.1**
**KSAR Wonju Array Be 79.45 317** P **P 04 20 38.9 -0.1**
**KS01 Wonju Array Si 79.47 317** *e*P **P 04 20 39.4 +0.4**

**MOD Modoc Plateau 79.54 38 eP P 04 20 38.9 -0.7**
comp=Z,63nm,1.7s
MOD LR LR
comp=Z,2µm,19.0s
**QZH Quanzhou 79.58 302⇑ iP P 04 20 40.0 0.0**
QZH pP sP 04 20 52.6 -0.9
QZH S S 04 30 39.1 -0.9
QZH pmax pmax
comp=Z,100nm,0.8s
QZH LR LR
comp=Z,1µm,12.2s
QZH LR LR
comp=Z,2µm,18.3s
QZH LR LR
comp=Z,2µm,20.3s
**I04A Tendick Farm, 79.60 35 P P 04 20 41.0 +1.2**
baz=229
**COR Corvallis 79.65 34 PFAKE 04 20 50.0 +10**
COR LR LR
comp=Z,4µm,19.0s
**J05D Fort Rock, OR 79.91 36 P P 04 20 43.0 +1.5**
baz=230
**KDAK Kodiak Island 80.07 11 PFAKE 04 20 50.0 +8.2**
KDAK LR LR
comp=Z,2µm,20.0s
**G03D McMinnville, O 80.09 34 P P 04 20 44.1 +1.8**
baz=228
**KASI Kota Agung 80.11 268 P P 04 20 43.0 -0.1**
comp=Z,113nm,1.0s,comp=Z,1µm
**TUC Tucson 80.12 50 P P 04 20 44.6 +1.7**
baz=238
**TUC Tucson 80.12 50 eP P 04 20 43.3 +0.4**
TUC pmax pmax
comp=Z,67nm,1.6s
TUC MLR MLR
comp=Z,2µm,19.0s
**TUC Tucson 80.12 50 eP P 04 20 43.3 +0.4**
comp=Z,67nm,1.6s
TUC LR LR
comp=Z,2µm,19.0s
**R11A Troy Canyon, C 80.22 43 P P 04 20 44.6 +1.2**
baz=234,SNR=9.5
**R11A Troy Canyon, C 80.22 43 eP P 04 20 42.6 -0.8**
comp=Z,24nm,1.5s
R11A LR LR
comp=Z,1µm,19.0s
**H04A Detroit Lake 80.31 35 eP P 04 20 44.8 +1.2**
comp=Z,80nm,2.0s
H04A epP sP 04 20 55.3 -1.8
H04A LR LR
comp=Z,3µm,19.0s
**F03A Seaside 80.43 33 PFAKE 04 21 00.0 +16**
F03A LR LR
comp=Z,2µm,19.0s
**I05D Terrebonne, OR 80.54 35 P P 04 20 46.2 +1.4**
baz=229
**MSHR Mys Shultsa 80.59 322⇑ eP P 04 20 44.1 -0.9**
**TYV Tymovskoe 80.67 334 eP P 04 20 42.0 -3.2**
TYV pmax pmax
comp=Z,1µm,5.9s
TYV pmax pmax
comp=Z,22nm,2.2s
**LWLI Liwa 80.69 268 P P 04 20 58.4 +12**
**F04D Rainier, OR 80.81 33 P P 04 20 47.5 +1.3**
baz=228
**WVOR Wild Horse Val 80.83 38 eP P 04 20 45.9 -0.6**
WVOR pmax pmax
comp=Z,14nm,1.2s
WVOR MLR MLR
comp=Z,2µm,19.0s
**WVOR Wild Horse Val 80.83 38 eP P 04 20 45.9 -0.6**
comp=Z,14nm,1.2s
WVOR LR LR
comp=Z,2µm,19.0s
**E03A Lebam 80.85 33 PFAKE 04 21 00.0 +14**
E03A LR LR
comp=Z,3µm,19.0s
**LCMT Little Creek M 80.98 45 eP P 04 20 48.9 +1.4**
comp=Z,27nm,1.5s
LCMT LR LR
comp=Z,1µm,18.0s
**F04A Amboy 81.02 34 eP P 04 20 49.9 +2.6**
comp=Z,31nm,0.3s
F04A LR LR
comp=Z,2µm,19.0s
**G05D Wamic, OR 81.14 35 P P 04 20 50.0 +2.0**
baz=229
**USRK Usuriysk Ar. 81.15 324 P P 04 20 47.8 -0.1**
comp=Z,4.5nm,0.9s,baz=90,slow=5.7,SNR=6.4
USRK LR LR 04 52 49.2
comp=Z,2µm,19.8s,baz=124,slow=33
**CCUT Cedar City 81.20 45 eP P 04 20 49.7 +1.0**
comp=Z,74nm,1.9s
CCUT LR LR
comp=Z,1µm,20.0s
**KNB Kanab 81.26 45 eP P 04 20 49.8 +0.8**
KNB pmax pmax
comp=Z,63nm,1.5s
KNB MLR MLR
comp=Z,800nm,19.0s
**KNB Kanab 81.26 45 eP P 04 20 49.8 +0.8**
comp=Z,63nm,1.5s
KNB LR LR
comp=Z,800nm,19.0s
**I07A Izee 81.38 36 eP P 04 20 49.5 +0.1**
comp=Z,8.8nm,1.0s
I07A LR LR
comp=Z,3µm,19.0s
**SZCU Shurtz Canyon 81.41 45 eP P 04 20 51.1 +1.3**
comp=Z,17nm,1.2s
SZCU LR LR
comp=Z,900nm,20.0s
**WUAZ Wupatki 81.42 47 P P 04 20 51.8 +1.9**
baz=238
**WUAZ Wupatki 81.42 47 eP P 04 20 52.2 +2.3**
comp=Z,93nm,1.9s
WUAZ LR LR
comp=Z,1µm,18.0s
**G06A Carlson Farm, 81.50 35 eP P 04 20 51.0 +1.1**
comp=Z,19nm,1.4s
G06A LR LR
comp=Z,3µm,19.0s
**J08A Circle Bar Ran 81.50 37 eP P 04 20 50.2 +0.2**
comp=Z,72nm,2.0s
J08A LR LR
comp=Z,2µm,19.0s
**MOIG Morelia 81.74 65 PFAKE 04 21 00.0 +8.0**
MOIG LR LR
comp=Z,2µm,18.0s
**PKCU Pink Cliffs 81.83 45 eP P 04 20 56.5 +4.3**
comp=Z,131nm,1.8s
PKCU LR LR
comp=Z,2µm,18.0s
**LON Longmire 81.88 33 eP P 04 20 51.3 -0.6**
LON pmax pmax
comp=Z,49nm,2.0s
LON MLR MLR
comp=Z,1µm,19.0s
**LON Longmire 81.88 33 eP P 04 20 51.3 -0.6**
comp=Z,49nm,2.0s
LON LR LR
comp=Z,1µm,19.0s
**ZAIG Zacatecas 81.92 62 PFAKE 04 21 10.0 +17**
ZAIG LR LR
comp=Z,600nm,19.0s
**CNPM China Poot 81.95 12 PFAKE 04 21 00.0 +8.1**
CNPM LR LR
comp=Z,2µm,19.0s
**D05A Enumclaw 82.08 33 eP P 04 20 55.4 +2.6**
comp=Z,402nm,1.3s
**BRLK Bradley Lake 82.24 12 PFAKE 04 21 00.0 +6.6**
BRLK LR LR
comp=Z,1µm,20.0s
**MTPU Mount Pierson 82.25 45 eP P 04 20 55.8 +1.4**
comp=Z,36nm,1.3s
**F07A Phinny Hill Vi 82.31 35 eP P 04 20 57.3 +3.2**
comp=Z,34nm,1.9s
F07A LR LR
comp=Z,4µm,19.0s
**PGC Sidney 82.34 31 PFAKE 04 21 10.0 +16**
PGC LR LR
comp=Z,2µm,20.0s
**W18A Petrified Fore 82.34 48 P P 04 20 56.2 +1.4**
baz=239
**W18A Petrified Fore 82.34 48 PFAKE 04 21 10.0 +15**
W18A LR LR
comp=Z,900nm,20.0s

**HABR Khabarovsk 82.38 329 eP P 04 20 52.2 -2.1**
HABR e*PP pP 04 21 02.4 -1.9
HABR e*SP sP 04 21 06.6 -1.3
HABR e 04 24 00.0
HABR eS S 04 31 04.8 -3.3
HABR eSS SS 04 36 25.2 -4.7
HABR SSS SSS 04 39 53.0
HABR pmax pmax
comp=N,14nm,1.4s
HABR pmax pmax
comp=Z,36nm,1.4s
HABR pmax pmax
comp=E,9.0nm,0.7s
HABR MLR MLR
comp=Z,820nm,18.0s
**TCRU Three Creeks R 82.39 44 PFAKE 04 21 10.0 +15**
TCRU LR LR
comp=Z,2µm,18.0s
**121A Cookes Peak, D 82.41 51 P P 04 20 56.9 +1.7**
baz=240
**121A Cookes Peak, D 82.41 51 eP P 04 20 56.2 +1.1**
comp=Z,237nm,2.4s
**G08A Pilot Rock 82.44 36 eP P 04 20 53.9 -1.1**
comp=Z,85nm,1.8s
G08A LR LR
comp=Z,2µm,19.0s
**B05A Bryant 82.74 32 P P 04 20 57.8 +1.6**
baz=228
**MAW Mawson 82.74 199 LR LR 04 57 28.3**
comp=Z,3µm,18.3s,baz=108,slow=36
**MAW Mawson 82.74 199 eP P 04 21 01.1 +5.1**
MAW pmax pmax
comp=Z,6.0nm,1.1s
**MAW Mawson 82.74 199 eP P 04 21 01.1 +5.1**
comp=Z,5.9nm,1.1s
**MDJ Mudanjiang 82.75 323 P P 04 20 57.6 +1.3**
MDJ pP pP 04 21 04.1 -2.2
MDJ sP sP 04 21 06.8 -3.2
MDJ PP PP 04 24 09.4 +2.5
MDJ S S 04 31 15.7 +3.6
MDJ pmax pmax
comp=Z,19nm,0.9s
MDJ pmax pmax
comp=Z,630nm,6.2s
MDJ LR LR
comp=Z,280nm,19.8s
MDJ LR LR
comp=Z,340nm,17.5s
MDJ LR LR
comp=Z,700nm,19.0s
**MDJ Mudanjiang 82.75 323 eP P 04 20 57.7 +1.3**
comp=Z,28nm,0.6s
MDJ LR LR
comp=Z,1µm,20.0s
**E07A Sunnyside 82.77 34 eP P 04 20 56.9 +0.4**
comp=Z,78nm,1.8s
E07A LR LR
comp=Z,5µm,19.0s
**LTY Liberty 82.80 33 eP P 04 20 59.8 +3.1**
comp=Z,49nm,1.8s
LTY LR LR
comp=Z,2µm,19.0s
**JRQG Juriquilla Cam 82.81 65 PFAKE 04 22 00.0 +62**
JRQG LR LR
comp=Z,3µm,18.0s
**NJ2 Nanjing 82.81 308 eP P 04 20 58.8 +1.8**
NJ2 pmax pmax
comp=Z,22nm,0.8s
**SEW Seward 82.83 12 PFAKE 04 21 10.0 +14**
SEW LR LR
comp=Z,1µm,18.0s
**HAWA Hanford 82.84 35 eP P 04 20 56.4 -0.4**
comp=Z,74nm,1.7s
HAWA LR LR
comp=Z,4µm,19.0s
**MID Middleton Isla 82.87 14 PFAKE 04 21 10.0 +13**
MID LR LR
comp=Z,2µm,18.0s
**EPT El Paso 82.98 52 PFAKE 04 21 10.0 +12**
EPT LR LR
comp=Z,2µm,19.0s
**DUG Dugway, Tooele 83.04 43 P P 04 20 59.7 +1.5**
baz=236
**DUG Dugway, Tooele 83.04 43 eP P 04 20 59.5 +1.3**
DUG pmax pmax
comp=Z,45nm,2.0s
DUG MLR MLR
comp=Z,1µm,19.0s
**DUG Dugway, Tooele 83.04 43 eP P 04 20 59.5 +1.3**
comp=Z,45nm,2.0s
DUG LR LR
comp=Z,1µm,19.0s
**MFID Camas Ranch 83.07 39 eP P 04 20 59.4 +1.1**
comp=Z,15nm,1.3s
MFID LR LR
comp=Z,1µm,19.0s
**BMO Blue Mountains 83.09 37 eP P 04 20 57.3 -1.0**
BMO pmax pmax
comp=Z,40nm,1.9s
BMO MLR MLR
comp=Z,2µm,20.0s
**BMO Blue Mountains 83.09 37 eP P 04 20 57.3 -1.0**
comp=Z,40nm,1.9s
BMO LR LR
comp=Z,2µm,20.0s
**C06D Leavenworth 83.12 33 P P 04 20 59.4 +1.1**
baz=229
**TLIG Tlapa 83.13 68 eP P 04 21 02.7 +3.6**
comp=Z,50nm,1.5s
TLIG LR LR
comp=Z,2µm,18.0s
**E08A Dider Farm, El 83.15 35 eP P 04 20 59.7 +1.3**
comp=Z,68nm,1.8s
E08A LR LR
comp=Z,4µm,19.0s
**B06A Marblemount 83.22 32 PFAKE 04 21 10.0 +11**
B06A LR LR
comp=Z,2µm,19.0s
**MYKOM Kota Tinggi 83.24 274 eP P 04 21 00.4 +0.7**
comp=Z,32nm,1.1s
**BGU Big Grassy Mou 83.31 42 eP P 04 21 00.2 +0.6**
comp=Z,31nm,2.0s
**UNM Universidad Na 83.32 67 PFAKE 04 21 10.0 +10**
UNM LR LR
comp=Z,2µm,18.0s
**NLU North Lily Min 83.38 43 eP P 04 21 01.6 +1.5**
comp=Z,60nm,1.9s
NLU LR LR
comp=Z,2µm,20.0s
**TMUT Trail Mountain 83.57 44 eP P 04 21 02.3 +1.1**
comp=Z,31nm,1.1s
TMUT LR LR
comp=Z,1µm,20.0s
**D08A Wollman Farm, 83.58 34 eP P 04 20 59.8 -0.9**
comp=Z,145nm,2.0s
D08A LR LR
comp=Z,4µm,19.0s
**E09A Wood Farm, Sta 83.66 35 eP P 04 21 00.2 -0.9**
comp=Z,99nm,2.0s
E09A LR LR
comp=Z,3µm,19.0s
**RC01 Rabbit Creek A 83.69 12 eP P 04 21 04.9 +4.1**
comp=Z,55nm,1.5s
**MPU Maple Canyon 83.69 43 eP P 04 21 03.1 +1.4**
comp=Z,59nm,1.8s
MPU LR LR
comp=Z,2µm,20.0s
**MNTX Cornudas Mount 83.78 53 P P 04 21 03.5 +1.4**
baz=242
**MNTX Cornudas Mount 83.78 53 eP P 04 21 01.7 -0.4**
comp=Z,51nm,1.6s
**Y22D IRIS PASSCAL I 83.81 50 P P 04 21 04.4 +2.1**
baz=240
**Y22D IRIS PASSCAL I 83.81 50 PFAKE 04 21 10.0 +7.7**
Y22D LR LR
comp=Z,2µm,18.0s
**LAZ Ladron 83.81 50 eP P 04 21 04.6 +2.2**
**F10A Beach Ranch, E 83.82 36 eP P 04 21 00.8 -1.2**
comp=Z,83nm,1.8s
**SUA Susitna One 83.85 11 eP P 04 21 00.8 -1.0**
comp=Z,83nm,2.0s
SUA LR LR
comp=Z,1µm,20.0s
**SPUT South Promonto 83.89 42 eP P 04 21 02.4 -0.2**
comp=Z,83nm,1.9s
**PAYG Puerto Ayora 83.91 88 PFAKE 04 21 20.0 +17**
PAYG LR LR

comp=Z,2µm,18.0s
**SRU San Rafael Swe 83.92 44 eP P 04 21 03.4 +0.6**
SRU pmax pmax
comp=Z,50nm,1.3s
SRU MLR MLR
comp=Z,1µm,18.0s
**SRU San Rafael Swe 83.92 44 eP P 04 21 03.4 +0.6**
comp=Z,50nm,1.3s
SRU LR LR
comp=Z,1µm,18.0s
**HVU Hansel Valley 83.95 41 eP P 04 21 03.8 +0.9**
HVU pmax pmax
comp=Z,77nm,1.9s
**HVU Hansel Valley 83.95 41 eP P 04 21 03.8 +0.9**
comp=Z,77nm,1.9s
**P17A Butcher Ranch, 83.97 44 eP P 04 21 05.2 +2.1**
comp=Z,41nm,1.2s
P17A LR LR
comp=Z,2µm,19.0s
**HLID Hailey 83.98 39 P P 04 21 04.7 +1.6**
baz=235
**HLID Hailey 83.98 39 eP P 04 21 02.7 -0.3**
comp=Z,15nm,1.0s
HLID LR LR
comp=Z,800nm,18.0s
**LTX Lajitas 83.98 56 eP P 04 21 02.3 -1.0**
**LTX Lajitas 83.98 56 eP P 04 21 02.3 -1.0**
**TX31 Lajitas Ar. Si 83.98 56 eP P 04 21 02.9 -0.4**
**TXAR Lajitas Array 83.98 56 P P 04 21 02.3 -1.0**
comp=Z,8.9nm,1.2s,baz=222,slow=8.5,SNR=18
TXAR LR LR 04 52 06.5
comp=Z,1µm,19.2s,baz=0.0,slow=31
**TXAR Lajitas Array 83.98 56 P P 04 21 02.3 -1.0**
TXAR pmax pmax
comp=Z,10.0nm,1.2s
**CTU Camp Tracy 83.99 43 eP P 04 21 04.5 +1.4**
comp=Z,42nm,1.6s
CTU LR LR
comp=Z,1µm,20.0s
**EYAK Cordova Ski Ar 84.01 14 PFAKE 04 21 10.0 +7.5**
EYAK LR LR
comp=Z,2µm,18.0s
**GLI Glacier Island 84.02 13 PFAKE 04 21 10.0 +7.5**
GLI LR LR
comp=Z,1µm,18.0s
**FID Port Fidalgo 84.03 13 PFAKE 04 21 10.0 +7.4**
FID LR LR
comp=Z,2µm,18.0s
**BNM Barren Site 84.06 50 eP P 04 21 05.4 +1.7**
**RAGM Ragged Mountai 84.11 14 PFAKE 04 21 10.0 +6.9**
RAGM LR LR
comp=Z,3µm,19.0s
**JLU Jordanelle 84.13 43 eP P 04 21 04.2 +0.2**
comp=Z,78nm,1.9s
JLU LR LR
comp=Z,2µm,18.0s
**LPM Los Pinos Moun 84.13 50 eP P 04 21 05.8 +1.8**
**B08A Colvile Reser 84.20 33 eP P 04 21 02.4 -1.4**
comp=Z,55nm,1.8s
B08A LR LR
comp=Z,700nm,18.0s
**PMR Palmer 84.27 12 eP P 04 21 04.3 +0.6**
PMR pmax pmax
comp=Z,28nm,1.4s
PMR MLR MLR
comp=Z,2µm,18.0s
**PMR Palmer 84.27 12 eP P 04 21 04.3 +0.6**
comp=Z,28nm,1.4s
PMR LR LR
comp=Z,2µm,18.0s
**MVCO Mesa Verde 84.28 47 P P 04 21 06.3 +1.5**
baz=239
**MVCO Mesa Verde 84.28 47 eP P 04 21 07.0 +2.2**
comp=Z,72nm,2.0s
MVCO LR LR
comp=Z,1µm,18.0s
**QIZ Qiongzhong 84.29 293 P P 04 21 06.0 +1.1**
QIZ pP sP 04 21 16.9 -1.6
QIZ PP PP 04 24 23.1 +3.0
QIZ S S 04 31 31.1 +2.3
QIZ pmax pmax
comp=Z,440nm,7.7s
QIZ LR LR
comp=Z,670nm,15.0s
QIZ LR LR
comp=Z,650nm,18.7s
**QIZ Qiongzhong 84.29 293 PFAKE 04 21 20.0 +15**
QIZ LR LR
comp=Z,700nm,18.0s
**DL2 Dalian 84.36 315 P P 04 21 05.4 +0.6**
DL2 SKS S 04 31 26.9 -1.7
DL2 S SKKSac 04 31 30.8 -0.9
DL2 pmax pmax
comp=Z,53nm,1.0s
DL2 pmax pmax
comp=Z,720nm,4.9s
DL2 LR LR
comp=Z,970nm,20.6s
DL2 LR LR
comp=Z,730nm,18.6s
DL2 LR LR
comp=Z,960nm,18.1s
**P18A Preston Nutter 84.38 44 eP P 04 21 05.7 +0.4**
comp=Z,58nm,1.6s
P18A LR LR
comp=Z,2µm,20.0s
**C09A Chrisman Ranch 84.39 34 eP P 04 21 04.0 -0.7**
comp=Z,33nm,1.5s
C09A LR LR
comp=Z,4µm,19.0s
**LLLB Lillooet 84.42 30 eP P 04 21 05.5 +0.7**
comp=Z,15nm,1.2s
LLLB LR LR
comp=Z,2µm,19.0s
**TCUT Toone Canyon 84.44 42 eP P 04 21 05.3 -0.2**
comp=Z,97nm,1.2s
TCUT LR LR
comp=Z,2µm,19.0s
**PV10 Paradox Valley 84.52 46 eP P 04 21 06.7 +0.8**
**PV09 Paradox Valley 84.52 46 eP P 04 21 06.8 +0.8**
**DIV Divide 84.53 13 eP P 04 21 05.1 -0.1**
comp=Z,17nm,0.9s
DIV LR LR
comp=Z,2µm,18.0s
**ANMO Albuquerque 84.57 50 P P 04 21 05.8 -0.5**
comp=Z,8.6nm,1.1s,baz=42,slow=4.2,SNR=28
**ANMO Albuquerque 84.57 50 P P 04 21 07.9 +1.6**
baz=241
**ANMO Albuquerque 84.57 50d iP P 04 21 07.8 +1.6**
ANMO pmax pmax
comp=Z,85nm,2.5s
**ANMO Albuquerque 84.57 50 eP P 04 21 07.3 +1.0**
comp=Z,68nm,1.5s
ANMO LR LR
comp=Z,1µm,19.0s
**PV04 Paradox Valley 84.62 46 eP P 04 21 06.8 +0.4**
**SML Sawmill 84.62 12 PFAKE 04 21 20.0 +14**
SML LR LR
comp=Z,900nm,20.0s
**BMRM Bremner River 84.64 14 eP P 04 21 06.7 +0.9**
BMRM epP sP 04 21 20.4 +1.0
BMRM LR LR
comp=Z,2µm,18.0s
**CN2 Changchun 84.65 321 eP P 04 21 04.8 -1.4**
CN2 eS S 04 31 27.8 -3.6
CN2 pmax pmax
comp=Z,10.0nm,0.6s
CN2 pmax pmax
comp=Z,800nm,5.0s
CN2 LR LR
comp=Z,400nm,15.0s
CN2 LR LR
comp=Z,400nm,15.0s
CN2 LR LR
comp=Z,500nm,16.0s
**PV01 Paradox Valley 84.71 46 eP P 04 21 07.5 +0.6**
**KLU Klutina 84.82 13 PFAKE 04 21 20.0 +13**
KLU LR LR
comp=Z,1µm,18.0s
**SCM Sheep Creek Mo 84.84 12 eP P 04 21 06.2 -0.6**
SCM pmax pmax
comp=Z,22nm,1.0s
SCM MLR MLR
comp=Z,1µm,19.0s
**SCM Sheep Creek Mo 84.84 12 eP P 04 21 06.2 -0.6**
comp=Z,22nm,1.0s
SCM LR LR

comp=Z,1µm,19.0s
**MA2 Magadan 84.88 343** ||| *e*P **P** 04 21 06.5 -0.4
**PPLA Purkeypile 84.95 10** PFAKE 04 21 20.0 +13
PPLA LR LR
comp=Z,2µm,19.0s
**BALM Baldy 85.23 15** PFAKE 04 21 20.0 +11
BALM LR LR
comp=Z,1µm,18.0s
**BESE Bessie Mountai 85.23 19** PFAKE 04 21 20.0 +11
BESE LR LR
comp=Z,1µm,18.0s
**NEW Newport 85.29 34** P **P** 04 21 08.9 -0.4
comp=Z,0.9nm,0.6s,baz=259,slow=3.9,SNR=7.9
**NEW Newport 85.29 34** P **P** 04 21 10.2 +0.9
baz=232
**NEW Newport 85.29 34** *e*P **P** 04 21 11.8 +2.5
comp=Z,13nm,1.6s
NEW LR LR
comp=Z,4µm,18.0s
**BKNI Bangkinang 85.36 272** PFAKE 04 21 20.0 +10
BKNI LR LR
comp=Z,900nm,18.0s
**LNIG Linares 85.39 61** *e*P **P** 04 21 08.4 -1.9
comp=Z,42nm,1.3s
LNIG LR LR
comp=Z,1µm,18.0s
**CAST Castle Rocks 85.45 10** *e*P **P** 04 21 07.8 -2.0
comp=Z,20nm,1.2s
CAST LR LR
comp=Z,1µm,20.0s
**WHN Wuhan 85.50 305** ⇑P **P** 04 21 12.6 +1.9
WHN S **S** 04 31 39.3 -1.0
WHN LR LR
comp=Z,2µm,17.0s
WHN LR LR
comp=Z,2µm,19.2s
WHN LR LR
comp=Z,2µm,18.1s
**AHID Auburn Hatcher 85.53 41** *e*P **P** 04 21 12.3 +1.5
comp=Z,51nm,1.5s
**MCMT McKenzie Canyo 85.63 39** *e*P **P** 04 21 11.6 +0.2
**S22A 4UR Ranch, Cre 85.70 47** P **P** 04 21 13.7 +1.8
baz=240
**S22A 4UR Ranch, Cre 85.70 47** *e*P **P** 04 21 12.4 +0.5
comp=Z,75nm,1.8s
S22A LR LR
comp=Z,1µm,19.0s
**KTH Kantishna Hill 85.77 10** *e*P **P** 04 21 11.2 -0.2
comp=Z,48nm,1.3s
KTH LR LR
comp=Z,2µm,20.0s
**TRF Thorofare Moun 85.78 10** *e*P **P** 04 21 10.2 -1.3
comp=Z,160nm,1.8s
TRF LR LR
comp=Z,2µm,20.0s
**SKAG Skagway 85.79 19** *e*P **P** 04 21 13.7 +2.3
comp=Z,54nm,1.4s
SKAG *e*pP **sP** 04 21 24.5 -0.6
SKAG LR LR
comp=Z,800nm,20.0s
**HARP HAARP 85.80 13** PFAKE 04 21 20.0 +8.5
HARP LR LR
comp=Z,1µm,19.0s
**LVIG Laguna Verde 85.86 67** PFAKE 04 21 30.0 +17
LVIG LR LR
comp=Z,2µm,18.0s
**O20A White River Ci 85.96 45** P **P** 04 21 14.4 +1.4
baz=239
**O20A White River Ci 85.96 45** *e*P **P** 04 21 15.9 +2.8
comp=Z,25nm,1.4s
O20A LR LR
comp=Z,700nm,19.0s
**DHY Denali Highway 85.96 12** *e*P **P** 04 21 13.1 +0.7
comp=Z,50nm,1.6s
DHY LR LR
comp=Z,1µm,18.0s
**RND Reindeer 85.99 11** *e*P **P** 04 21 11.9 -0.5
RND pmax pmax
comp=Z,69nm,1.2s
RND MLR MLR
comp=Z,1µm,20.0s
**RND Reindeer 85.99 11** *e*P **P** 04 21 11.9 -0.5
comp=Z,69nm,1.2s
RND LR LR
comp=Z,1µm,20.0s
**REDW Red Top Meadow 86.01 41** *e*P **P** 04 21 14.4 +1.1
comp=Z,72nm,1.8s
REDW LR LR
comp=Z,2µm,19.0s
**TPAW Teton Pass 86.02 41** *e*P **P** 04 21 14.6 +1.2
comp=Z,22nm,1.4s
TPAW LR LR
comp=Z,2µm,19.0s
**FXWY Fox Creek 86.06 40** *e*P **P** 04 21 14.9 +1.4
comp=Z,13nm,1.4s
FXWY LR LR
comp=Z,2µm,18.0s
**DLMT Dillon 86.08 38** *e*P **P** 04 21 14.5 +1.0
comp=Z,43nm,1.8s
DLMT LR LR
comp=Z,2µm,20.0s
**TIA Tai'an 86.09 311** ⇑P **P** 04 21 14.4 +0.9
TIA S **S** 04 31 46.3 +0.4
TIA pmax pmax
comp=Z,30nm,1.0s
TIA pmax pmax
comp=Z,1µm,7.4s
TIA LR LR
comp=Z,630nm,17.6s
TIA LR LR
comp=Z,480nm,17.1s
TIA LR LR
comp=Z,580nm,17.7s
**SNOW Snow King Moun 86.13 41** *e*P **P** 04 21 15.2 +1.4
comp=Z,83nm,1.8s
SNOW LR LR
comp=Z,2µm,19.0s
**MSO Missoula 86.16 37** P **P** 04 21 14.8 +1.0
baz=235
**MSO Missoula 86.16 37** *e*P **P** 04 21 14.3 +0.6
comp=Z,29nm,1.8s
MSO LR LR
comp=Z,2µm,20.0s
**CMIG Matias Romero 86.17 70** P **P** 04 21 15.1 +0.8
comp=Z,15nm,1.2s,baz=333,slow=8.8,SNR=4.8
**PAX Paxson 86.24 13** *e*P **P** 04 21 14.2 +0.4
PAX pmax pmax
comp=Z,18nm,1.2s
PAX MLR MLR
comp=Z,1µm,18.0s
**PAX Paxson 86.24 13** *e*P **P** 04 21 14.2 +0.4
comp=Z,18nm,1.2s
PAX LR LR
comp=Z,1µm,18.0s
**IMW Indian Meadow 86.25 40** *e*P **P** 04 21 15.5 +1.0
comp=Z,42nm,1.9s
IMW LR LR
comp=Z,1µm,19.0s
**BPAW Bear Paw Mtn. 86.27 10** *e*P **P** 04 21 13.5 -0.3
comp=Z,20nm,1.3s
BPAW LR LR
comp=Z,1µm,20.0s
**MCK McKinley 86.27 11** *e*P **P** 04 21 12.7 -1.1
MCK pmax pmax
comp=Z,47nm,1.0s
MCK MLR MLR
comp=Z,2µm,20.0s
**MCK McKinley 86.27 11** *e*P **P** 04 21 12.7 -1.1
comp=Z,47nm,1.0s
MCK LR LR
comp=Z,2µm,20.0s
**MOOW Moose Ponds 86.29 40** *e*P **P** 04 21 16.4 +1.8
comp=Z,19nm,1.7s
MOOW LR LR
comp=Z,2µm,19.0s
**HYT Haines Junctio 86.29 17** *e*P **P** 04 21 14.9 +0.8
comp=Z,50nm,2.0s
**LOHW Long Hollow 86.30 41** *e*P **P** 04 21 16.8 +2.1
LOHW LR LR
comp=Z,2µm,20.0s
**SMCO Snowmass 86.31 46** *e*P **P** 04 21 16.8 +1.7
comp=Z,22nm,1.5s
SMCO LR LR
comp=Z,700nm,19.0s
**QLMT Earthquake Lak 86.47 39** *e*P **P** 04 21 18.0 +2.5
QLMT *e*pP **pP** 04 21 27.1 +1.6
**BW06 Boulder Array 86.49 42** P **P** 04 21 16.4 +0.7
baz=238
**BW06 Boulder Array 86.49 42** *e*P **P** 04 21 15.0 -0.7
comp=Z,57nm,2.0s
BW06 LR LR
comp=Z,1µm,18.0s
**PD31 Pinedale Array 86.49 42** *e*P **P** 04 21 15.0 -0.7
**PDAR Pinedale Array 86.49 42** P **P** 04 21 14.3 -1.4
comp=Z,1.9nm,0.8s,baz=168,slow=3.0,SNR=13
PDAR LR LR 04 55 50.0
comp=Z,1µm,18.2s,baz=256,slow=33
**PDAR Pinedale Array 86.49 42** *e*P **P** 04 21 13.2 -2.4
**PLCA Paso Flores 86.51 132** LR LR 04 54 05.5
comp=Z,2µm,18.2s,baz=294,slow=32
**YPP Pitchstone Pla 86.54 40** *e*P **P** 04 21 18.4 +2.5
comp=Z,24nm,1.8s
YPP LR LR
comp=Z,1µm,18.0s
**YHB Horse Butte 86.57 39** *e*P **P** 04 21 19.7 +3.7
comp=Z,40nm,1.8s
**MENT Mentasta 86.58 13** *e*P **P** 04 21 15.2 -0.1
comp=Z,20nm,1.1s
MENT LR LR
comp=Z,1µm,18.0s
**SDCO Great Sand Dun 86.61 48** P **P** 04 21 17.5 +1.1
baz=241
**SDCO Great Sand Dun 86.61 48** *e*P **P** 04 21 19.2 +2.7
comp=Z,22nm,1.8s
SDCO LR LR
comp=Z,800nm,20.0s
**YFT Old Faithful 86.62 40** PFAKE 04 21 30.0 +14
YFT LR LR
comp=Z,1µm,19.0s
**YMR Madison River 86.66 40** *e*P **P** 04 21 18.3 +1.9
comp=Z,63nm,1.9s
YMR LR LR
comp=Z,800nm,19.0s
**H17A Grant Village 86.74 40** P **P** 04 21 19.1 +2.2
baz=237
**H17A Grant Village 86.74 40** *e*P P 04 21 22.1 +5.2
comp=Z,8.5nm,1.3s
H17A LR LR
comp=Z,1µm,19.0s
**BOZ Bozeman (W) 86.78 39** P **P** 04 21 18.3 +1.4
baz=236
**BOZ Bozeman (W) 86.78 39** *e*P **P** 04 21 18.3 +1.4
BOZ pmax pmax
comp=Z,48nm,1.8s
BOZ MLR MLR
comp=Z,2µm,19.0s
**BOZ Bozeman (W) 86.78 39** *e*P **P** 04 21 18.3 +1.4
comp=Z,48nm,1.8s
BOZ LR LR
comp=Z,2µm,19.0s
**MSTX Muleshoe 86.79 52** P **P** 04 21 18.1 +0.9
baz=243
**MSTX Muleshoe 86.79 52** *e*P **P** 04 21 16.7 -0.5
comp=Z,108nm,1.6s
MSTX LR LR
comp=Z,2µm,19.0s
**YHH Holmes Hill 86.79 40** *e*P **P** 04 21 18.1 +0.9
comp=Z,23nm,1.6s
YHH LR LR
comp=Z,1µm,18.0s
**IPM Ipoh 86.83 276** *e*P **P** 04 21 17.9 +0.2
comp=Z,27nm,0.8s
IPM LR LR
comp=Z,200nm,20.0s
**YNR Norris Junctio 86.85 40** PFAKE 04 21 30.0 +13
YNR LR LR
comp=Z,700nm,18.0s
**HGTCO Madrid Canyon 86.88 49** PFAKE 04 21 30.0 +12
HGTCO LR LR
comp=Z,1µm,20.0s
**WHY Whitehorse 86.90 18** PFAKE 04 21 30.0 +13
WHY LR LR
comp=Z,1µm,21.0s
**833A Chaparral WMA, 86.90 58** P **P** 04 21 18.3 +0.7
baz=245
**LKWY Lake 86.94 40** PFAKE 04 21 30.0 +12
LKWY LR LR
comp=Z,2µm,19.0s
**T25A Trinidad 87.08 49** P **P** 04 21 19.7 +1.0
baz=242
**T25A Trinidad 87.08 49** *e*P **P** 04 21 22.6 +3.9
comp=Z,29nm,1.7s
T25A LR LR
comp=Z,1µm,20.0s
**WRH Wood River Hil 87.10 11** *e*P **P** 04 21 16.7 -1.1
comp=Z,97nm,1.4s
WRH LR LR
comp=Z,1µm,20.0s
**MLY Manley 87.17 10** *e*P **P** 04 21 17.1 -1.2
comp=Z,30nm,1.3s
**HDA Harding Lake 87.25 11** *e*P **P** 04 21 17.7 -0.9
comp=Z,26nm,1.1s
HDA LR LR
comp=Z,2µm,18.0s
**HRY Holter Researc 87.28 38** *e*P **P** 04 21 22.0 +2.8
**CCB Clear Creek Bu 87.31 11** *e*P **P** 04 21 17.7 -1.1
comp=Z,52nm,1.3s
CCB LR LR
comp=Z,1µm,20.0s
**SEY Seymchan 87.32 345** P **P** 04 21 17.9 -0.9
comp=Z,14nm,0.8s,baz=145,slow=5.7,SNR=17
**SEY Seymchan 87.32 345** ||/*e*P **P** 04 21 19.0 +0.1
**RWWY Rawlins 87.42 44** PFAKE 04 21 30.0 +10
RWWY LR LR
comp=Z,2µm,19.0s
**Q24A Divide 87.44 47** P **P** 04 21 21.5 +1.0
baz=241
**Q24A Divide 87.44 47** PFAKE 04 21 30.0 +10
Q24A LR LR
comp=Z,1µm,18.0s
**SYO Syowa Base 87.45 192** ||*e*P **P** 04 21 19.0 -0.6
**SYO Syowa Base 87.45 192** ⇑/pP pP 04 21 34.2 +4.5
**KULM Kulim 87.47 277** *e*P **P** 04 21 21.2 +0.4
comp=Z,55nm,1.5s
KULM LR LR
comp=Z,100nm,22.0s
**WALA Waterton Lakes 87.47 35** *e*P **P** 04 21 21.9 +1.8
comp=Z,49nm,2.0s
WALA LR LR
comp=Z,3µm,19.0s
**JCT Junction City 87.50 56** P **P** 04 21 21.2 +0.6
baz=245
**JCT Junction City 87.50 56** *e*P **P** 04 21 20.9 +0.3
JCT pmax pmax
comp=Z,36nm,1.5s
JCT MLR MLR
comp=Z,2µm,19.0s
**JCT Junction City 87.50 56** *e*P **P** 04 21 20.9 +0.3
comp=Z,36nm,1.5s
JCT LR LR
comp=Z,2µm,19.0s
**COLA College 87.51 11** *e*P **P** 04 21 19.1 -0.6
COLA pmax pmax
comp=Z,40nm,1.0s
COLA MLR MLR
comp=Z,2µm,20.0s
**COLA College 87.51 11** *e*P **P** 04 21 19.1 -0.6
comp=Z,40nm,1.0s
COLA LR LR
comp=Z,2µm,20.0s
**MDM Murphy Dome 87.52 11** *e*P **P** 04 21 18.5 -1.3
comp=Z,93nm,1.6s
MDM LR LR
comp=Z,2µm,20.0s
**ISCO Idaho Springs 87.54 46** P **P** 04 21 21.9 +1.0
baz=241
**ISCO Idaho Springs 87.54 46** PFAKE 04 21 30.0 +9.1
ISCO LR LR
comp=Z,1µm,18.0s
**ILAR Eielson Array 87.59 11** P **P** 04 21 18.9 -1.2
comp=Z,2.6nm,0.7s,baz=221,slow=5.6,SNR=32
**ILB Eielson Array 87.59 11** *e*P **P** 04 21 19.0 -1.2
**IL1 Eielson Array 87.59 11** *e*P **P** 04 21 18.8 -1.3
**IMAR Indian Mountai 87.63 8** *e*P **P** 04 21 19.8 -0.5
**KVTX Kingsville 87.78 60** PFAKE 04 21 30.0 +8.1
KVTX LR LR
comp=Z,1µm,19.0s
**VNA3 Neumayer Olymp 87.80 175** P **P** 04 21 21.4 0.0
**SNAA Sanae 87.81 177** P **P** 04 21 22.3 +0.9
**SNAA Sanae 87.81 177** ⇑/P **P** 04 21 23.7 +2.2
**SNAA Sanae 87.81 177** *e*P **P** 04 21 23.9 +2.4
comp=Z,34nm,1.8s
SNAA LR LR
comp=Z,2µm,18.0s
**GO05 HualaæØ 87.82 127** PFAKE 04 21 40.0 +18
GO05 LR LR
comp=Z,3µm,18.0s
**N23A Red Feather La 87.85 45** P **P** 04 21 23.4 +1.1
baz=241
**N23A Red Feather La 87.85 45** *e*P **P** 04 21 25.4 +3.0
comp=Z,56nm,1.9s
N23A LR LR
comp=Z,800nm,18.0s
**RLMT Red Lodge 87.92 40** P **P** 04 21 22.9 +0.4
baz=238
**RLMT Red Lodge 87.92 40** PFAKE 04 21 30.0 +7.5
RLMT LR LR
comp=Z,1µm,18.0s
**AMTX Amarillo 88.00 52** P **P** 04 21 23.9 +0.9
baz=244
**AMTX Amarillo 88.00 52** *e*P **P** 04 21 24.8 +1.8
comp=Z,82nm,1.8s
AMTX LR LR
comp=Z,3µm,18.0s
**PSI Prapat 88.20 274** *e*P **P** 04 21 24.1 -0.4
PSI pmax pmax
comp=Z,31nm,1.2s
PSI MLR MLR
comp=Z,1µm,20.0s
**PSI Prapat 88.20 274** *e*P **P** 04 21 24.1 -0.4
comp=Z,31nm,1.2s
PSI LR LR
comp=Z,1µm,20.0s
**VNA2 Neumayer--Watz 88.29 176** P **P** 04 21 23.8 +0.2
baz=188,slow=2.9
**K22A Casper 88.35 43** P **P** 04 21 25.1 +0.6
baz=240
**K22A Casper 88.35 43** *e*pP **pP** 04 21 36.9 +2.3
K22A LR LR
comp=Z,2µm,19.0s
**PHWY Pilot Hill 88.37 45** PFAKE 04 21 40.0 +15
PHWY LR LR
comp=Z,700nm,18.0s
**VNA1 Neumayer--Stat 88.49 175** P **P** 04 21 23.9 -0.6
**DAWY Dawson 88.54 14** *e*P **P** 04 21 24.8 0.0
comp=Z,16nm,1.0s
DAWY LR LR
comp=Z,1µm,20.0s
**ABTX Abilene, Hawle 88.54 54** P **P** 04 21 26.5 +1.0
baz=245
**ABTX Abilene, Hawle 88.54 54** *e*P **P** 04 21 26.8 +1.3
comp=Z,52nm,1.4s
ABTX LR LR
comp=Z,2µm,19.0s
**BJT Baijiatuau 88.57 314** PFAKE 04 21 40.0 +15
BJT LR LR
comp=Z,1µm,19.0s
**BJI Beijing 88.58 314** P **P** 04 21 26.1 +0.7
BJI SKS **SKSac** 04 31 54.0 +1.7
BJI S **S** 04 32 10.5 +0.9
BJI SS **SS** 04 38 03.3 +1.9
BJI LR LR
comp=Z,380nm,19.9s
BJI LR LR
comp=Z,770nm,17.4s
BJI LR LR
comp=Z,600nm,18.1s
**EGAK Eagle 88.75 13** PFAKE 04 21 40.0 +14
EGAK LR LR
comp=Z,1µm,19.0s
**GSI Gunungsitoli 88.94 272** P **P** 04 21 29.7 +1.9
comp=Z,54nm,1.0s,comp=Z,2µm
**GSI Gunungsitoli 88.94 272** *e*P **P** 04 21 29.1 +1.3
comp=Z,73nm,1.2s
**ENH Enshi 89.17 303** *e*P **P** 04 21 31.2 +2.7
comp=Z,100nm,1.4s
ENH LR LR
comp=Z,600nm,19.0s
**EGMT Eagleton 89.18 37** P **P** 04 21 29.4 +1.2
baz=238
**EGMT Eagleton 89.18 37** PFAKE 04 21 40.0 +12
EGMT LR LR
comp=Z,2µm,19.0s
**KSCO Kaye Shedlock' 89.20 48** P **P** 04 21 29.7 +1.1
baz=243
**KSCO Kaye Shedlock' 89.20 48** PFAKE 04 21 40.0 +11
KSCO LR LR
comp=Z,800nm,20.0s
**TRTT Trang 89.25 279** P **P** 04 21 31.6 +2.4
comp=Z,90nm,2.2s
**TRTT Trang 89.25 279** P **P** 04 21 31.3 +2.1
comp=Z,46nm,1.5s,comp=Z,1µm
**COLD Coldfoot 89.30 9** PFAKE 04 21 40.0 +12
COLD LR LR
comp=Z,699nm,18.0s
**435B Jarrell 89.36 57** P **P** 04 21 30.1 +0.8
baz=246
**GYA Guiyang 89.93 298** P **P** 04 21 32.0 -0.3
GYA pP pP 04 21 42.4 +0.1
GYA PP **PP** 04 25 06.8 +1.2
GYA SKS **SKSac** 04 31 59.2 -2.0
GYA S **S** 04 32 20.0 -3.2
GYA sS pS 04 32 35.5 -0.5
GYA pmax pmax
comp=Z,30nm,1.0s
GYA pmax pmax
comp=Z,140nm,6.8s
**WHTX Lake Whitney, 89.95 56** P **P** 04 21 32.9 +0.8
baz=246
**WHTX Lake Whitney, 89.95 56** PFAKE 04 21 40.0 +7.9
WHTX LR LR
comp=Z,2µm,19.0s
**SNET Serv Nac Est T 89.97 75** PFAKE 04 21 50.0 +17
SNET LR LR
comp=Z,2µm,19.0s
**CHAI Chaiyaphum 90.03 287** P **P** 04 21 33.9 +1.1
comp=Z,4.0nm,1.1s,comp=Z,91nm
**NAYO Nakonayok 90.06 285** P **P** 04 21 36.2 +3.3
comp=Z,29nm,0.7s
**NAYO Nakonayok 90.06 285** P **P** 04 21 34.8 +1.9
comp=Z,17nm,1.9s,comp=Z,947nm
**WMOK Wichita Mounta 90.09 53** P **P** 04 21 33.2 +0.5
baz=245
**WMOK Wichita Mounta 90.09 53** PFAKE 04 21 50.0 +17
WMOK LR LR
comp=Z,1µm,20.0s
**TIY Taiyuan 90.11 310** *e*P **P** 04 21 34.8 +2.0
TIY pmax pmax
comp=Z,390nm,5.2s
TIY LR LR
comp=Z,350nm,15.1s
TIY LR LR
comp=Z,500nm,15.3s
TIY LR LR
comp=Z,600nm,18.1s
**SCIG Sabancuy 90.14 70** PFAKE 04 21 50.0 +17
SCIG LR LR
comp=Z,700nm,19.0s
**336A Riesel 90.18 57** P **P** 04 21 33.6 +0.4
baz=246
**HKT Hockley 90.41 58** ||*e*P **P** 04 21 35.9 +1.8
HKT pmax pmax
comp=Z,104nm,2.0s
**HKT Hockley 90.41 58** PFAKE 04 21 50.0 +16
HKT LR LR
comp=Z,1µm,19.0s
**SURT Suratani 90.48 279** P P 04 21 44.4 +9.5
comp=Z,14nm,1.1s
**OGNE Ogallala 90.49 46** P **P** 04 21 35.5 +1.0
baz=243
**OGNE Ogallala 90.49 46** PFAKE 04 21 50.0 +16
OGNE LR LR
comp=Z,900nm,19.0s
**LAO LASA Array 90.55 40** P **P** 04 21 36.6 +2.0
baz=240
**LAO LASA Array 90.55 40** *e*P **P** 04 21 36.5 +1.9
comp=Z,121nm,1.9s
LAO LR LR
comp=Z,1µm,18.0s
**U32A Winter Ranch, 90.62 51** P **P** 04 21 36.2 +1.1
baz=245
**RSSD Black Hills 90.65 43** P **P** 04 21 36.0 +0.7
baz=242
**RSSD Black Hills 90.65 43** *e*P **P** 04 21 35.0 -0.3
RSSD pmax pmax
comp=Z,9.0nm,1.2s
RSSD MLR MLR
comp=Z,1µm,18.0s
**RSSD Black Hills 90.65 43** *e*P **P** 04 21 35.0 -0.3
comp=Z,9.5nm,1.2s
RSSD LR LR

comp=Z,1µm,18.0s
**236A Katherine and** 90.67 56 P P 04 21 36.1 +0.6
baz=246
**136A Ennis** 90.87 56 P P 04 21 37.1 +0.8
baz=246
**337A Centerville** 90.91 57 P P 04 21 37.7 +1.1
baz=247
**HIA Hailar** 90.93 323 PFAKE 04 21 50.0 +14
HIA LR LR
comp=Z,1µm,20.0s
**Y35A Marietta** 91.06 54 P P 04 21 38.3 +1.2
baz=246
**MLSI Meulaboh, Aceh** 91.07 274 P P 04 21 46.8 +9.1
**PHET Kaeng Krachan** 91.09 283 P P 04 21 41.8 +4.0
comp=Z,8.4nm,1.0s
**PHET Kaeng Krachan** 91.09 283 P P 04 21 40.2 +2.4
comp=Z,8.4nm,1.0s,comp=Z,131nm
**CBKS Cedar Bluff** 91.13 49 P P 04 21 38.5 +1.0
baz=245
**CBKS Cedar Bluff** 91.13 49 PFAKE 04 21 50.0 +13
CBKS LR LR
comp=Z,1µm,18.0s
**XAN Xi'an** 91.15 306 P P 04 21 39.6 +1.9
XAN pP sP 04 21 50.2 -1.1
XAN SKS SKSac 04 32 09.1 +1.3
XAN pmax pmax
comp=Z,19nm,1.3s
XAN pmax pmax
comp=Z,490nm,9.9s
XAN LR LR
comp=Z,220nm,18.2s
XAN LR LR
comp=Z,490nm,17.8s
XAN LR LR
comp=Z,710nm,16.1s
**PBKT Sadao Pong** 91.18 287 P P 04 21 41.1 +3.0
comp=Z,45nm,0.7s
**PBKT Sadao Pong** 91.18 287 P P 04 21 41.3 +3.2
comp=Z,22nm,1.6s,comp=Z,1µm
**LCO Las Campanas** 91.20 122 PFAKE 04 21 50.0 +12
LCO LR LR
comp=Z,3µm,18.0s
**237A Washetta, Mont** 91.24 56 P P 04 21 39.0 +1.0
baz=247
**Z36A Blue Ridge** 91.26 55 P P 04 21 39.4 +1.2
baz=246
**X35A Drake** 91.31 54 P P 04 21 39.0 +0.6
baz=246
**X35A Drake** 91.31 54 PFAKE 04 21 50.0 +12
X35A LR LR
comp=Z,2µm,20.0s
**338A Crockett** 91.37 57 P P 04 21 40.3 +1.6
baz=247
**137A Heron Place, G** 91.52 56 P P 04 21 40.7 +1.4
baz=247
**439A Center Grove,** 91.58 58 P P 04 21 41.2 +1.5
baz=247
**Y36A Durant** 91.63 54 P P 04 21 40.8 +1.0
baz=247
**W35A Tecumseh** 91.69 53 P P 04 21 41.0 +0.9
baz=246
**W35A Tecumseh** 91.69 53 eP P 04 21 42.5 +2.4
comp=Z,62nm,1.8s
W35A LR LR
comp=Z,2µm,20.0s
**238A Jacksonville** 91.78 57 P P 04 21 41.8 +1.2
baz=247
**OK020 N3440 Road, Me** 91.84 53 PFAKE 04 21 50.0 +9.2
OK020 LR LR
comp=Z,1µm,19.0s
**X36A Centrahoma** 91.84 54 P P 04 21 41.8 +1.0
baz=247
**Z37A Pogue Cattle C** 91.86 55 P P 04 21 42.1 +1.2
baz=247
**TGUH Tegucigalpa,Un** 91.88 76 eP P 04 21 44.7 +3.3
comp=Z,34nm,1.3s
TGUH LR LR
comp=Z,1µm,18.0s
**339A Huntington** 91.96 57 P P 04 21 42.6 +1.2
baz=247
**V35A Meyer Ranch, C** 91.96 53 P P 04 21 42.1 +0.8
baz=246
**V35A Meyer Ranch, C** 91.96 53 PFAKE 04 21 50.0 +8.7
V35A LR LR
comp=Z,1µm,19.0s
**UTTA Uttaradit** 91.97 288 P P 04 21 51.6 +10
**UTTA Uttaradit** 91.97 288 P P 04 21 44.2 +2.5
comp=Z,4.0nm,1.1s
**OK021 N3530 Road, Sp** 91.98 53 PFAKE 04 21 50.0 +8.6
OK021 LR LR
comp=Z,1µm,20.0s
**540A Vidor** 91.98 59 P P 04 21 43.2 +1.6
baz=248
**NATX Nacogdoches** 92.04 57 P P 04 21 43.1 +1.3
baz=247
**NATX Nacogdoches** 92.04 57 PFAKE 04 21 50.0 +8.2
NATX LR LR
comp=Z,2µm,20.0s
**138A Matatall Enter** 92.06 56 P P 04 21 43.4 +1.6
baz=247
**SRDT SRDT** 92.06 284 P P 04 21 49.9 +7.7
**HHC Hu-ho-hao-te** 92.08 313 eP P 04 21 43.1 +1.2
HHC sP sP 04 21 55.9 +0.3
HHC PP PP 04 25 25.6 +3.3
HHC SKS SKSac 04 32 15.0 +2.1
HHC S S 04 32 42.2 +0.1
HHC sS pS 04 32 54.5 -0.5
HHC pmax pmax
comp=Z,26nm,1.5s
HHC pmax pmax
comp=Z,400nm,4.5s
HHC LR LR
comp=Z,510nm,16.0s
HHC LR LR
comp=Z,580nm,16.0s
HHC LR LR
comp=Z,520nm,16.0s
**MYIG MOrida** 92.12 69 PFAKE 04 21 50.0 +7.6
MYIG LR LR
comp=Z,900nm,19.0s
**Y37A Hugo** 92.17 55 P P 04 21 43.5 +1.2
baz=247
**W36A Wetumka** 92.17 53 P P 04 21 43.4 +1.1
baz=247
**W36A Wetumka** 92.17 53 PFAKE 04 21 50.0 +7.7
W36A LR LR
comp=Z,400nm,19.0s
**UTHA Uthaitani** 92.19 286 P P 04 21 52.8 +10
**UTHA Uthaitani** 92.19 286 P P 04 21 49.6 +6.8
comp=Z,4.2nm,1.0s
**440A Kirbyville** 92.21 58 P P 04 21 44.3 +1.7
baz=248
**NANT Nan** 92.21 289 P P 04 21 50.4 +7.5
comp=Z,4.6nm,1.1s
**NANT Nan** 92.21 289 P P 04 21 44.9 +2.0
comp=Z,4.6nm,1.1s,comp=Z,117nm
**T34A McClaskey Farm** 92.21 51 P P 04 21 43.6 +1.1
baz=246
**U35A Pawnee** 92.28 52 P P 04 21 43.7 +0.9
baz=246
**U35A Pawnee** 92.28 52 PFAKE 04 22 00.0 +17
U35A LR LR
comp=Z,2µm,20.0s
**239A Gary** 92.29 57 P P 04 21 43.8 +0.9
baz=248
**Z38A Mt. Pleasant** 92.37 55 P P 04 21 44.5 +1.2
baz=247
**NNA Nana** 92.45 104 PFAKE 04 22 00.0 +16
NNA LR LR
comp=Z,2µm,18.0s
**340A Bronson** 92.52 57 P P 04 21 45.3 +1.3
baz=248
**S34A Willow Spring** 92.54 51 P P 04 21 44.8 +0.8
baz=246
**541A Lake Charles** 92.56 59 P P 04 21 45.0 +0.7
baz=248
**X37A Clayton** 92.59 54 P P 04 21 45.0 +0.7
baz=247
**X37A Clayton** 92.59 54 PFAKE 04 22 00.0 +16
X37A LR LR
comp=Z,2µm,20.0s
**139A Bunkhouse Ranc** 92.61 56 P P 04 21 45.6 +1.2
baz=248
**DGMT Dagmar** 92.61 39 P P 04 21 45.7 +1.7
baz=242
**DGMT Dagmar** 92.61 39 eP P 04 21 44.0 -0.1
comp=Z,78nm,1.6s
DGMT LR LR
comp=Z,2µm,20.0s
**V36A Jenks** 92.64 53 P P 04 21 45.3 +0.8
baz=247
**V36A Jenks** 92.64 53 PFAKE 04 22 00.0 +16
V36A LR LR
comp=Z,2µm,19.0s
**T35A Sooner Cattle** 92.66 52 P P 04 21 45.6 +1.1
baz=247
**R34A Isabella, Hill** 92.69 50 P P 04 21 45.5 +0.8
baz=246
**SUKH Sukhothai** 92.70 288 P P 04 21 53.1 +8.0
comp=Z,5.1nm,1.1s
**SUKH Sukhothai** 92.70 288 P P 04 21 47.6 +2.5
comp=Z,5.1nm,1.1s
**JTS JuntasAbangare** 92.70 80 eP P 04 21 46.8 +1.5
**KMI Kunming** 92.70 296 P P 04 21 45.5 +0.2
KMI pP pP 04 21 54.9 -0.5
KMI sP sP 04 21 58.5 -0.5
KMI PP PP 04 25 29.3 +1.6
KMI S S 04 32 45.4 -3.2
KMI sS pS 04 33 01.0 -0.6
KMI SS SS 04 39 00.9 -1.3
KMI pmax pmax
comp=Z,16nm,0.9s
KMI pmax pmax
comp=Z,310nm,5.2s
KMI LR LR
comp=Z,510nm,19.5s
KMI LR LR
comp=Z,850nm,19.7s
KMI LR LR
comp=Z,1µm,19.9s
**W37B Quinton** 92.76 54 P P 04 21 45.8 +0.7
baz=247
**W37B Quinton** 92.76 54 PFAKE 04 22 00.0 +15
W37B LR LR
comp=Z,1µm,20.0s
**TUL1 Leonard** 92.80 53 P P 04 21 46.1 +0.9
baz=247
**TUL1 Leonard** 92.80 53 PFAKE 04 22 00.0 +15
TUL1 LR LR
comp=Z,2µm,19.0s
**Y38A Idabel** 92.83 55 P P 04 21 46.3 +0.9
baz=247
**U36A Oologah** 93.03 52 P P 04 21 47.1 +0.8
baz=247
**X38A Whitesboro** 93.04 54 P P 04 21 47.1 +0.7
baz=247
**341A Kurthwood** 93.06 58 P P 04 21 47.4 +1.0
baz=248
**S35A Otter Creek Ra** 93.11 51 P P 04 21 47.5 +0.9
baz=247
**TEIG Tepich** 93.14 70 PFAKE 04 22 00.0 +13
TEIG LR LR
comp=Z,1µm,19.0s
**Q34A Chapman** 93.16 50 P P 04 21 47.8 +1.0
baz=246
**O33A Hebron** 93.17 48 P P 04 21 47.6 +0.8
baz=246
**T36A Boggs Farm, Ca** 93.19 52 P P 04 21 47.8 +0.8
baz=247
**V37A Hulbert** 93.27 53 P P 04 21 48.1 +0.7
baz=247
**BGNE Belgrade** 93.33 47 P P 04 21 48.6 +1.0
baz=246
**BGNE Belgrade** 93.33 47 PFAKE 04 22 00.0 +12
BGNE LR LR
comp=Z,900nm,18.0s
**HDC Heredia** 93.38 81 PFAKE 04 22 00.0 +11
HDC LR LR
comp=Z,700nm,19.0s
**INK Inuvik** 93.39 14 P P 04 21 46.0 -1.1
comp=Z,1.8nm,0.6s,baz=342,slow=19,SNR=3.7
**INK Inuvik** 93.39 14 eP P 04 21 48.5 +1.4
INK e*PP pP 04 21 57.8 +0.6
INK MLR MLR
comp=Z,1µm,18.0s
**INK Inuvik** 93.39 14 eP P 04 21 48.5 +1.4
INK epP pP 04 21 57.8 +0.6
INK LR LR
comp=Z,1µm,18.0s
**K31A O'Neill** 93.43 46 P P 04 21 49.0 +1.0
baz=246
**W38A Poteau** 93.43 54 P P 04 21 49.2 +1.1
baz=248
**R35A Emporia Munici** 93.45 50 P P 04 21 48.9 +0.8
baz=247
**KSU1 Kansas State U** 93.47 50 PFAKE 04 22 00.0 +12
KSU1 LR LR
comp=Z,2µm,19.0s
**P34A Walnut Farm, R** 93.49 49 P P 04 21 49.5 +1.1
baz=246
**U37A Salina** 93.49 52 P P 04 21 49.2 +0.8
baz=247
**241A Mo Tay, Goldon** 93.51 57 P P 04 21 49.1 +0.6
baz=248
**PB10 IPOC Station P** 93.56 117 PFAKE 04 22 00.0 +11
PB10 LR LR
comp=Z,1µm,20.0s
**YAK Yakutsk** 93.59 337 eP P 04 21 47.0 -1.2
YAK pmax pmax
comp=Z,10.0nm,0.8s
YAK pmax pmax
comp=E,4.0nm,0.9s
YAK pmax pmax
comp=N,3.0nm,0.8s
**Z40A Long Farm, Mag** 93.60 56 P P 04 21 49.7 +0.7
baz=248
**CM01 Chiang Mai Arr** 93.62 288 eP P 04 21 53.0 +3.6
**CM31 Chiang Mai Arr** 93.65 288 eP P 04 21 49.6 0.0
**CMAR Chiang Mai Arr** 93.65 288 P P 04 21 49.6 0.0
comp=N,2.5nm,0.2s,baz=133,slow=3.6,SNR=6.9
CMAR LR LR 05 03 52.9
comp=N,411nm,19.0s,baz=130,slow=36
**S36A Lake Cedric, C** 93.66 51 P P 04 21 50.0 +0.8
baz=247
**141A Papa Simpson,** 93.74 57 P P 04 21 50.7 +1.1
baz=248
**CMMT Chiang Mai** 93.77 289 P P 04 21 57.6 +7.5
**CMMT Chiang Mai** 93.77 289 P P 04 21 51.9 +1.8
**CHTO Chiang Mai** 93.77 289 P P 04 21 57.7 +7.6
comp=N,97nm,1.4s
**CHTO Chiang Mai** 93.77 289 P P 04 21 52.9 +2.8
**CHTO Chiang Mai** 93.77 289 eP P 04 21 49.3 -0.8
CHTO pmax pmax
comp=Z,19nm,1.2s
CHTO MLR MLR
comp=Z,500nm,19.0s
**CHTO Chiang Mai** 93.77 289 eP P 04 21 49.3 -0.8
comp=Z,19nm,1.2s
CHTO LR LR
comp=Z,500nm,19.0s
**Q35A Mercer Eighty,** 93.78 50 P P 04 21 50.7 +1.0
baz=247
**V38A Canehill** 93.81 53 P P 04 21 50.5 +0.6
baz=248
**O34A Beatrice** 93.84 49 P P 04 21 50.6 +0.7
baz=247
**MIAR Mount Ida** 93.94 55 PFAKE 04 22 00.0 +9.5
MIAR LR LR
comp=Z,2µm,19.0s
**R36A Gordon, Harris** 93.96 51 P P 04 21 51.0 +0.5
baz=247
**CD2 Chengdu** 93.97 301 eP P 04 21 51.2 +0.4
CD2 PP PP 04 25 40.6 +3.3
CD2 SKS SKSac 04 32 24.1 +0.4
CD2 S S 04 32 57.4 -1.8
CD2 pmax pmax
comp=Z,10.0nm,1.2s
CD2 pmax pmax
comp=Z,250nm,8.3s
CD2 LR LR
comp=Z,420nm,17.8s
CD2 LR LR
comp=Z,420nm,20.2s
CD2 LR LR
comp=Z,340nm,19.0s
**Y40A Okolona** 93.97 55 P P 04 21 51.5 +0.8
baz=248
**W39A Magazine** 94.03 54 P P 04 21 51.9 +1.0
baz=248
**U38A Gravette** 94.05 53 P P 04 21 51.9 +0.9
baz=248
**M33A Taylor Creek F** 94.05 47 P P 04 21 51.9 +1.1
baz=246
**SUSD Miller** 94.06 44 P P 04 21 51.8 +0.9
baz=246
**P35A Duane Minner,** 94.06 49 P P 04 21 52.0 +1.1
baz=247
**Z41A Richland Creek** 94.06 56 P P 04 21 51.8 +0.7
baz=248
**242A Grayson** 94.13 57 P P 04 21 52.6 +1.1
baz=249
**I31A Royce, Wessing** 94.16 44 P P 04 21 52.1 +0.8
baz=246
**S37A Fort Scott** 94.23 51 P P 04 21 52.6 +0.8
baz=248
**Q36A Arnold C. Orve** 94.23 50 P P 04 21 52.0 +0.3
baz=247
**N34A Lincoln** 94.24 48 P P 04 21 52.0 +0.3
baz=247
**L33A Hoskins** 94.24 47 P P 04 21 52.3 +0.6
baz=246
**J32A Parkston** 94.34 45 P P 04 21 52.8 +0.7
baz=246
**T38A Diamond** 94.35 52 P P 04 21 52.9 +0.6
baz=248
**PB04 IPOC Station P** 94.38 116 PFAKE 04 22 10.0 +17
PB04 LR LR
comp=Z,2µm,19.0s
**V39A Pettigrew** 94.38 53 P P 04 21 53.2 +0.6
baz=248
**H31A Wolsey** 94.38 44 P P 04 21 53.1 +0.8
baz=246
**O35A Humboldt** 94.42 49 P P 04 21 53.6 +1.0
baz=247
**M34A Aspy Farms, Fr** 94.44 47 P P 04 21 53.7 +1.1
baz=247
**W40A Ferguson Farm,** 94.57 54 PFAKE 04 22 10.0 +17
W40A LR LR
comp=Z,2µm,20.0s
**243A Waterproof** 94.59 58 P P 04 21 54.9 +1.3
baz=249
**N35A Tabor** 94.84 48 P P 04 21 55.6 +1.1
baz=247
**S38A Stockton** 94.86 52 P P 04 21 55.2 +0.5
baz=248
**G31A Conde** 94.86 43 P P 04 21 55.1 +0.6
baz=246
**J33A Davis** 94.91 46 P P 04 21 55.2 +0.4
baz=247
**Q37A Longview Farm,** 94.93 50 P P 04 21 55.2 +0.2
baz=248
**143A Socs Landing,** 94.95 57 P P 04 21 56.2 +1.0
baz=249
**UALR University of** 94.97 55 PFAKE 04 22 10.0 +15
UALR LR LR
comp=Z,2µm,19.0s
**V40A Witts Springs** 94.99 54 P P 04 21 56.3 +1.0
baz=249
**T39A Clever** 95.02 52 P P 04 21 56.1 +0.7
baz=248
**YKA Yellowknife Ar** 95.04 24 P P 04 21 53.4 -1.4
comp=Z,1.9nm,0.8s,baz=232,slow=5.1,SNR=4.6
**YKB5 Yellowknife Ar** 95.04 24 eP P 04 21 53.4 -1.4
**O36A Bolckow** 95.04 49 P P 04 21 56.3 +0.9
baz=248
**M35A Neola** 95.04 48 P P 04 21 56.3 +0.9
baz=247
**R38A Fenwick Farm,** 95.07 51 P P 04 21 56.3 +0.7
baz=248
**H32A Carlson Farm,** 95.07 44 P P 04 21 56.0 +0.5
baz=246
**MDND Maddock** 95.08 41 P P 04 21 56.1 +0.7
baz=245
**MDND Maddock** 95.08 41 PFAKE 04 22 10.0 +15
MDND LR LR
comp=Z,2µm,19.0s
**F31A Hecla** 95.10 43 P P 04 21 56.0 +0.5
baz=246
**CCAR Cane Creek** 95.10 56 PFAKE 04 22 10.0 +14
CCAR LR LR
comp=Z,3µm,19.0s
**U40A Yellville** 95.17 53 P P 04 21 56.5 +0.4
baz=249
**W41B Gary Mavity, V** 95.19 55 P P 04 21 56.8 +0.6
baz=249
**WHAR Wooly Hollow** 95.20 54 PFAKE 04 22 10.0 +14
WHAR LR LR
comp=Z,2µm,20.0s
**K34A Le Mars** 95.24 46 P P 04 21 56.8 +0.5
baz=247
**P37A Lathrop** 95.27 50 P P 04 21 57.0 +0.5
baz=248
**N36A Muff Farm, Cla** 95.31 48 P P 04 21 57.5 +0.9
baz=248
**ECSD EROS Data Cent** 95.31 45 P P 04 21 57.3 +0.7
baz=247
**ECSD EROS Data Cent** 95.31 45 eP P 04 21 56.3 -0.3
comp=Z,69nm,1.8s
ECSD LR LR
comp=Z,900nm,18.0s
**I33A Coleman** 95.31 45 P P 04 21 57.5 +0.9
baz=247
**S39A Bolivar** 95.31 52 P P 04 21 57.4 +0.7
baz=248
**OTAV Otavalo** 95.31 92 PFAKE 04 22 10.0 +12
OTAV LR LR
comp=Z,2µm,18.0s
**G32A Webster** 95.33 44 P P 04 21 57.2 +0.6
baz=246
**PB01 IPOC Station P** 95.47 115 PFAKE 04 22 10.0 +12
PB01 LR LR
comp=Z,1µm,20.0s
**VBMS Vicksburg** 95.48 58 PFAKE 04 22 10.0 +12
VBMS LR LR
comp=Z,1µm,19.0s
**V41A Mountainview** 95.48 54 P P 04 21 58.2 +0.6
baz=249
**Q38A Cooks Store, C** 95.56 51 P P 04 21 58.1 +0.2
baz=248
**H33A Prehn Over Nor** 95.60 44 P P 04 21 58.4 +0.5
baz=247
**TUMC Tumaco** 95.61 90 PFAKE 04 22 10.0 +11
TUMC LR LR
comp=Z,1µm,18.0s
**E31A Nome** 95.61 42 P P 04 21 58.5 +0.6
baz=246
**T40A Mansfield** 95.70 53 P P 04 21 59.1 +0.5
baz=249
**R39A Chumby, Stover** 95.75 51 P P 04 21 59.4 +0.7
baz=249
**LZH Lanzhou** 95.78 306 eP P 04 21 59.6 +0.5
LZH pP sP 04 22 10.8 -2.0
LZH sP pP 04 22 16.2 +7.0
LZH PP PP 04 25 54.0 +2.6
LZH S S 04 33 12.5 -2.5
LZH sS sS 04 33 33.0 +1.2
LZH SS SS 04 39 47.2 +1.7
LZH pmax pmax
comp=Z,28nm,1.0s
LZH LR LR
comp=Z,620nm,17.4s
LZH LR LR
comp=Z,1µm,19.4s
LZH LR LR
comp=Z,2µm,19.9s
**PB11 IPOC Station P** 95.85 113 PFAKE 04 22 10.0 +10
PB11 LR LR
comp=Z,1µm,18.0s
**U41A Viola** 95.86 54 P P 04 22 00.0 +0.7
baz=249
**P38A Dawn** 95.87 50 P P 04 21 59.6 +0.4
baz=249
**S40A Lebanon** 95.88 52 P P 04 21 59.8 +0.5
baz=249
**L36A Harm Buss Farm** 96.00 47 P P 04 22 00.4 +0.7
baz=248
**G33A Ortonville** 96.00 44 P P 04 22 00.0 +0.3
baz=247
**Q39A Willow Grove F** 96.06 51 P P 04 22 00.7 +0.6
baz=249
**V42A Cord** 96.07 54 P P 04 22 00.6 +0.3
baz=249
**O38A Galt** 96.10 50 P P 04 22 00.5 +0.2
baz=249
**MNMC Minye Minye** 96.15 113 PFAKE 04 22 10.0 +8.6
MNMC LR LR
comp=Z,2µm,19.0s
**C31A Landman Farms,** 96.21 41 P P 04 22 01.0 +0.4
baz=247
**H34A Spellman Lake,** 96.23 45 P P 04 22 01.4 +0.7
baz=248

**T41A Mountain View** 96.23 53 P P 04 22 01.9 +1.0
baz=249
**R40A Maddies Statio** 96.30 52 P P 04 22 02.2 +1.0
baz=249
**F33A 5 Mile Ranch,** 96.34 43 P P 04 22 02.6 +1.4
baz=247
**K36A Gilmore City** 96.35 47 P P 04 22 02.6 +1.3
baz=248
**U42A Reevenden** 96.38 54 P P 04 22 02.5 +0.9
baz=250
**P39B Salisbury** 96.38 50 P P 04 22 03.3 +1.7
baz=249
**D32A Dogwood Acres,** 96.39 42 P P 04 22 02.6 +1.2
baz=247
**S41A Jillco Farms,** 96.44 52 P P 04 22 02.5 +0.7
baz=249
**I35A Creekview Farm** 96.44 46 P P 04 22 02.6 +0.8
baz=248
**N38A Joes South For** 96.51 49 P P 04 22 02.8 +0.7
baz=249
**G34A Benson** 96.54 44 P P 04 22 03.0 +0.9
baz=248
**HBAR Harrisburg** 96.54 55 PFAKE 04 22 10.0 +7.7
HBAR LR LR
comp=Z,2µm,19.0s
**J36A Seneca 1, Swea** 96.68 46 P P 04 22 03.7 +0.8
baz=248
**FFC Flin Flon** 96.71 34 PFAKE 04 22 10.0 +7.4
FFC LR LR
comp=Z,3µm,19.0s
**T42A Van Buren** 96.73 53 P P 04 22 04.0 +0.9
baz=250
**M38A Pleasantville** 96.77 48 P P 04 22 03.9 +0.7
baz=249
**E33A Westby DABS, E** 96.78 43 P P 04 22 04.3 +1.1
baz=248
**H35A Sunnyside Ranc** 96.86 45 P P 04 22 04.5 +0.9
baz=248
**SCIA State Center** 96.93 48 PFAKE 04 22 20.0 +16
SCIA LR LR
comp=Z,800nm,20.0s
**MET Memphis--Engin** 96.95 55 PFAKE 04 22 20.0 +16
MET LR LR
comp=Z,2µm,20.0s
**K37A Belmond** 96.95 47 P P 04 22 04.8 +0.8
baz=249
**CCM Cathedral Cave** 96.97 52 PFAKE 04 22 20.0 +16
CCM LR LR
comp=Z,2µm,19.0s
**F34A Alexandria** 97.00 44 P P 04 22 05.0 +0.8
baz=248
**HOPE Hope Point** 97.05 156 PFAKE 04 22 20.0 +16
HOPE LR LR
comp=Z,2µm,20.0s
**BCIP Isla Barro Col** 97.06 83 PFAKE 04 22 20.0 +15
BCIP LR LR
comp=Z,600nm,18.0s
**PBMO Poplar Bluff** 97.14 54 PFAKE 04 22 20.0 +15
PBMO LR LR
comp=Z,2µm,19.0s
**GNAR Gosnell** 97.17 54 PFAKE 04 22 20.0 +15
GNAR LR LR
comp=Z,2µm,20.0s
**B32A Ashes, Strandq** 97.18 41 P Pdif 04 22 06.0 +0.9
baz=248
**G35A Watkins** 97.28 44 P Pdif 04 22 06.5 +1.0
baz=249
**Q41A Truxton** 97.30 51 P Pdif 04 22 06.3 +0.5
baz=250
**E34A Wadena** 97.32 43 P Pdif 04 22 06.8 +1.1
baz=248
**T43A Greenville** 97.35 53 P Pdif 04 22 06.6 +0.6
baz=250
**A32A Rocking H Ranc** 97.41 41 P Pdif 04 22 06.5 +0.4
baz=248
**F35A Swanville** 97.46 44 P Pdif 04 22 07.1 +0.8
baz=249
**FVM French Village** 97.56 52 PFAKE 04 22 20.0 +13
FVM LR LR
comp=Z,2µm,19.0s
**AGMN Agassiz Nation** 97.56 41 PFAKE 04 22 20.0 +13
AGMN LR LR
comp=Z,800nm,19.0s
**I37A Lemond, Waseca** 97.56 46 P Pdif 04 22 07.8 +0.9
baz=249
**PVMO Portageville** 97.57 54 PFAKE 04 22 20.0 +13
PVMO LR LR
comp=Z,2µm,20.0s
**248A Dixon Mills** 97.65 59 P Pdif 04 22 08.5 +1.0
baz=251
**HALT Halls** 97.67 55 PFAKE 04 22 20.0 +12
HALT LR LR
comp=Z,2µm,19.0s
**Z47A Carrollton** 97.75 58 P Pdif 04 22 08.4 +0.5
baz=251
**G36A St. Michael** 97.77 45 P Pdif 04 22 08.8 +1.1
baz=249
**GLAT Glass** 97.83 54 PFAKE 04 22 20.0 +12
GLAT LR LR
comp=Z,2µm,20.0s
**ULN Ulaanbaatar** 97.86 318 ‖ *e*P Pdif 04 22 08.5 +0.2
ULN pmax pmax
comp=Z,9.0nm,2.4s
**ULN Ulaanbaatar** 97.86 318 PFAKE 04 22 20.0 +12
ULN LR LR
comp=Z,600nm,18.0s
**BRAL Brewton** 97.90 60 PFAKE 04 22 20.0 +11
BRAL LR LR
comp=Z,1µm,19.0s
**SLM Saint Louis** 97.92 52 PFAKE 04 22 20.0 +11
SLM LR LR
comp=Z,2µm,19.0s
**A33A Warroad** 98.09 41 P Pdif 04 22 09.7 +0.7
baz=248
**SONA1 Songino Array** 98.26 318 *e*P Pdif 04 22 11.3 +1.3
**SONA0 Songino Array** 98.26 318 *e*P **P** **04 22 08.4 -1.6**
**SONM Songino Array** 98.26 318 P **P** **04 22 08.4 -1.6**
comp=Z,0.8nm,0.9s,baz=141,slow=3.2,SNR=6.5
SONM LR LR 05 08 08.5
comp=Z,420nm,18.2s,baz=134,slow=36
**ULM Lac du Bonnet** 98.29 39 LR LR 05 02 41.4
comp=Z,2µm,18.7s,baz=256,slow=33
**ULM Lac du Bonnet** 98.29 39 PFAKE 04 22 20.0 +10
ULM LR LR
comp=Z,2µm,19.0s
**PLAL Pickwick Lake** 98.34 56 PFAKE 04 22 20.0 +10
PLAL LR LR
comp=Z,2µm,19.0s
**SPMN Marine on St.** 98.39 45 P Pdif 04 22 11.3 +0.8
baz=250
**SPMN Marine on St.** 98.39 45 PFAKE 04 22 20.0 +9.5
SPMN LR LR
comp=Z,1µm,18.0s
**C35A Jirik Farms, M** 98.52 42 P Pdif 04 22 11.8 +0.8
baz=249
**LRAL Lakeview Retre** 98.55 58 PFAKE 04 22 20.0 +8.5
LRAL LR LR
comp=Z,1µm,19.0s
**E36A McGregor** 98.56 44 P Pdif 04 22 12.0 +0.8
baz=250
**LPAZ La Paz** 98.59 111 LR LR 04 59 07.3
comp=Z,1µm,18.4s,baz=267,slow=31
**P43A Skaggs, Pawnee** 98.78 51 P Pdif 04 22 13.3 +0.9
baz=251
**WVT Waverly** 98.90 55 PFAKE 04 22 30.0 +17
WVT LR LR
comp=Z,2µm,20.0s
**B35A Bob, Littlefor** 98.91 42 P Pdif 04 22 13.5 +0.8
baz=250
**G38A Ridgeland** 99.00 45 P **Pdif** **04 22 13.9 +0.7**
baz=250
**HDIL Hopedale** 99.24 50 P **Pdif** **04 22 14.8 +0.4**
baz=251
**HDIL Hopedale** 99.24 50 PFAKE 04 22 30.0 +16
HDIL LR LR
comp=Z,2µm,18.0s
**F38A Pierce - Schro** 99.26 44 P **Pdif** **04 22 14.7 +0.3**
baz=250
**JFWS Jewell Farm** 99.34 48 PFAKE 04 22 30.0 +15
JFWS LR LR
comp=Z,1µm,18.0s
**OLIL Olney** 99.53 52 PFAKE 04 22 30.0 +14
OLIL LR LR
comp=Z,2µm,18.0s
**USIN University of** 99.61 53 PFAKE 04 22 30.0 +14
USIN LR LR
comp=Z,2µm,19.0s

**TIXI Tiksi** 99.78 344 *ce*P **Pdif** **04 22 15.2 -0.8**
TIXI pmax pmax
comp=Z,11nm,2.9s
**TIXI Tiksi** 99.78 344 PFAKE 04 22 30.0 +14
TIXI LR LR
comp=Z,600nm,19.0s
**PRAC Prado** 99.85 90 PFAKE 04 22 30.0 +12
PRAC LR LR
comp=Z,900nm,18.0s
**GTA Gaotai** 99.90 308 *e*P **Pdif** **04 22 19.0 +1.4**
GTA pP sP 04 22 29.8 -1.5
GTA sP pP 04 22 33.4 +5.7
GTA PP **PP** **04 26 25.7 +2.7**
GTA SKS **SKSac** **04 32 55.8 +1.6**
GTA S **ScS** **04 33 46.6 -3.3**
GTA SS **SS** **04 40 42.9 -0.5**
GTA pmax pmax
comp=Z,2.0nm,1.1s
GTA pmax pmax
comp=Z,190nm,6.2s
GTA LR LR
comp=Z,310nm,16.8s
GTA LR LR
comp=Z,550nm,16.5s
GTA LR LR
comp=Z,590nm,17.0s
**SWET Sewanee** 100.08 56 PFAKE 04 22 30.0 +12
SWET LR LR
comp=Z,1µm,20.0s
**HELC Santa Helena** 100.09 87 PFAKE 04 22 30.0 +11
HELC LR LR
comp=Z,1µm,19.0s
**EYMN Ely** 100.17 43 PFAKE 04 22 30.0 +12
EYMN LR LR
comp=Z,2µm,19.0s
**J42A Columbus** 100.25 48 P **Pdif** **04 22 19.6 +0.8**
baz=252
**N45A Kentland** 100.62 50 P **Pdif** **04 22 22.4 +1.9**
baz=252
**E40A Wakefield** 100.72 44 P **Pdif** **04 22 22.6 +1.7**
baz=252
**WCI Wyandotte Cave** 100.72 53 PFAKE 04 22 30.0 +9.0
WCI LR LR
comp=Z,2µm,20.0s
**ROSC El Rosal** 100.77 89 PFAKE 04 22 40.0 +18
ROSC LR LR
comp=Z,800nm,18.0s
**SFIN Lafayette** 100.78 51 PFAKE 04 22 30.0 +8.8
SFIN LR LR
comp=Z,2µm,18.0s
**BLO Bloomington** 100.83 52 PFAKE 04 22 30.0 +8.5
BLO LR LR
comp=Z,2µm,18.0s
**CPCT Cooper Cave** 101.25 56 PFAKE 04 22 40.0 +17
CPCT LR LR
comp=Z,1µm,20.0s
**TLY Talaya** 101.26 321 PFAKE 04 22 30.0 +6.9
TLY LR LR
comp=Z,600nm,18.0s
**GOGA Godfrey** 101.48 59 PFAKE 04 22 40.0 +15
GOGA LR LR
comp=Z,1µm,20.0s
**DWPF Disney Wildern** 101.61 64 PFAKE 04 22 40.0 +15
DWPF LR LR
comp=Z,800nm,18.0s
**TKL Tuckaleechee C** 101.89 56 PFAKE 04 22 40.0 +14
TKL LR LR
comp=Z,1µm,19.0s
**RUSC La Rusia** 102.28 88 PFAKE 04 22 40.0 +11
RUSC LR LR
comp=Z,400nm,18.0s
**TZTN Tazewell** 102.32 56 PFAKE 04 22 40.0 +12
TZTN LR LR
comp=Z,2µm,19.0s
**BG3 Lake Jocassee** 102.36 57 PFAKE 04 22 40.0 +12
BG3 LR LR
comp=Z,1µm,18.0s
**JSC Jenkinsville** 103.49 58 PFAKE 04 22 50.0 +17
JSC LR LR
comp=Z,700nm,19.0s
**KMSC Kings Mountain** 103.66 57 PFAKE 04 22 50.0 +16
KMSC LR LR
comp=Z,1µm,19.0s
**ACSO Alum Creek Sta** 103.75 52 PFAKE 04 22 50.0 +16
ACSO LR LR
comp=Z,1µm,19.0s
**GLMI Grayling** 103.79 47 PFAKE 04 22 50.0 +15
GLMI LR LR
comp=Z,1µm,20.0s
**AAM Ann Arbor** 103.81 50 PFAKE 04 22 50.0 +15
AAM LR LR
comp=Z,2µm,20.0s
**E45A Wooded Hills,** 103.82 45 P **Pdif** **04 22 36.2 +1.6**
baz=255
**NHSC New Hope** 104.04 60 PFAKE 04 22 50.0 +14
NHSC LR LR
comp=Z,1µm,18.0s
**BLA Blacksburg** 104.91 56 PFAKE 04 22 50.0 +10
BLA LR LR
comp=Z,1µm,18.0s
**SDV Santo Domingo** 105.56 86 PFAKE 04 27 10.0
SDV LR LR
comp=Z,500nm,18.0s
**MCWV Mont Chateau** 105.94 53 PFAKE 04 27 10.0
MCWV LR LR
comp=Z,2µm,21.0s
**SAML Samuel** 106.00 106 PFAKE 04 27 10.0
SAML LR LR
comp=Z,400nm,19.0s
**ERPA Erie** 106.40 51 PFAKE 04 27 10.0
ERPA LR LR
comp=Z,2µm,20.0s
**CNNC Cliffs of the** 106.42 58 PFAKE 04 27 10.0
CNNC LR LR
comp=Z,1µm,18.0s
**PALK Pallekele** 106.78 272 PFAKE 04 27 10.0
PALK LR LR
comp=Z,800nm,19.0s
**IP04 Greensprings** 106.92 55 PFAKE 04 27 10.0
IP04 LR LR
comp=Z,2µm,20.0s
**IP07 Quail** 106.93 55 PFAKE 04 27 10.0
IP07 LR LR
comp=Z,1µm,20.0s
**IP03 Louisa** 106.96 55 PFAKE 04 27 10.0
IP03 LR LR
comp=Z,2µm,19.0s
**IP06 Yanceyville** 106.97 55 PFAKE 04 27 10.0
IP06 LR LR
comp=Z,1µm,19.0s
**IP01 Cuckoo** 107.03 55 PFAKE 04 27 10.0
IP01 LR LR
comp=Z,1µm,20.0s
**SPRD Spring Road, M** 107.06 55 PFAKE 04 27 10.0
SPRD LR LR
comp=Z,1µm,20.0s
**IP05 Hopewell Churc** 107.12 55 PFAKE 04 27 10.0
IP05 LR LR
comp=Z,1µm,20.0s
**CVRD Centerville Ro** 107.13 55 PFAKE 04 27 10.0
CVRD LR LR
comp=Z,1µm,20.0s
**PTRD Partlow Road** 107.28 55 PFAKE 04 27 10.0
PTRD LR LR
comp=Z,2µm,20.0s
**SPFD Spotsylvania F** 107.37 55 PFAKE 04 27 10.0
SPFD LR LR
comp=Z,1µm,20.0s
**CBN Corbin Frederi** 107.50 55 PFAKE 04 27 10.0
CBN LR LR
comp=Z,1µm,19.0s
**SADO Sadowa** 107.57 48 PFAKE 04 27 10.0
SADO LR LR
comp=Z,800nm,19.0s
**SSPA Standing Stone** 107.63 53 PFAKE 04 27 10.0
SSPA LR LR
comp=Z,1µm,20.0s
**SDMD Soldier's Deli** 108.16 54 PFAKE 04 27 10.0
SDMD LR LR
comp=Z,1µm,19.0s
**SDD Santo Domingo** 109.08 77 PFAKE 04 27 20.0
SDD LR LR
comp=Z,2µm,21.0s
**PSUB Penn St. - Bra** 109.31 54 PFAKE 04 27 20.0
PSUB LR LR

comp=Z,3µm,19.0s
**VLDQ Val d'Or** 109.33 45 PFAKE 04 27 10.0
VLDQ LR LR
comp=Z,2µm,18.0s
**BINY Binghamton** 109.33 51 PFAKE 04 27 20.0
BINY LR LR
comp=Z,2µm,19.0s
**LUPA Lehigh Univers** 109.50 53 PFAKE 04 27 20.0
LUPA LR LR
comp=Z,200nm,20.0s
**BRNJ Basking Ridge** 110.11 53 PFAKE 04 27 20.0
BRNJ LR LR
comp=Z,3µm,20.0s
**ODNJ Ogdensburg** 110.15 53 PFAKE 04 27 20.0
ODNJ LR LR
comp=Z,1µm,20.0s
**CPNY Central Park** 110.59 53 PFAKE 04 27 20.0
CPNY LR LR
comp=Z,3µm,20.0s
**PAL Palisades** 110.66 53 PFAKE 04 27 20.0
PAL LR LR
comp=Z,2µm,20.0s
**LONY Lake Ozonia** 110.75 49 PFAKE 04 27 20.0
LONY LR LR
comp=Z,1µm,19.0s
**NCB Newcomb** 110.90 50 PFAKE 04 27 20.0
NCB LR LR
comp=Z,1µm,19.0s
**TRY Troy** 111.11 51 PFAKE 04 27 20.0
TRY LR LR
comp=Z,2µm,20.0s
**ACCN Adirondack Com** 111.21 50 PFAKE 04 27 20.0
ACCN LR LR
comp=Z,2µm,18.0s
**YLE Yale** 111.44 53 PFAKE 04 27 20.0
YLE LR LR
comp=Z,2µm,21.0s
**FRNY Flat Rock** 111.48 49 PFAKE 04 27 20.0
FRNY LR LR
comp=Z,1µm,19.0s
**VT1 Waterbury** 112.00 49 PFAKE 04 27 20.0
VT1 LR LR
comp=Z,2µm,20.0s
**QUA2 Belchertown** 112.01 52 PFAKE 04 27 20.0
QUA2 LR LR
comp=Z,2µm,18.0s
**PTGA Pitinga** 112.19 100 PFAKE 04 27 20.0
PTGA LR LR
comp=Z,2µm,19.0s
**HNH Hanover** 112.25 50 PFAKE 04 27 20.0
HNH LR LR
comp=Z,1µm,20.0s
**BRYW Bryant College** 112.56 52 PFAKE 04 27 20.0
BRYW LR LR
comp=Z,2µm,20.0s
**LBNH Lisbon** 112.58 50 PFAKE 04 27 20.0
LBNH LR LR
comp=Z,2µm,19.0s
**HRV Adam Dziewonsk** 112.62 51 PFAKE 04 27 20.0
HRV LR LR
comp=Z,2µm,18.0s
**FFD Franklin Falls** 112.68 50 PFAKE 04 27 20.0
FFD LR LR
comp=Z,1µm,19.0s
**WES Weston** 112.78 52 PFAKE 04 27 20.0
WES LR LR
comp=Z,2µm,18.0s
**ZAA0 Zalesovo Array** 112.87 321 PFAKE 04 27 20.0
ZAA0 LR LR
comp=Z,700nm,19.0s
**ZAA1 Zalesovo Array** 112.87 321 *e*PKiKP **PKiKP** **04 27 07.5 -1.5**
**ZALV Zalesovo Beam** 112.87 321 PKiKP **PKiKP** **04 27 07.5 -1.5**
comp=Z,0.5nm,0.4s,baz=16,slow=2.3,SNR=3.1
**BCX Boston College** 112.89 52 PFAKE 04 27 20.0
BCX LR LR
comp=Z,2µm,20.0s
**MK32 Makanchi Array** 113.94 313 *e*PKiKP **PKiKP** **04 27 10.3 -1.1**
**MKAR Makanchi Array** 113.94 313 PKiKP **PKiKP** **04 27 10.3 -1.1**
comp=Z,2.2nm,1.0s,baz=173,slow=1.1,SNR=4.6
**MAKZ Makanchi** 114.16 313 PFAKE 04 27 20.0 +8.2
MAKZ LR LR
comp=Z,600nm,18.0s
**WVL Waterville** 114.23 49 PFAKE 04 27 20.0 +8.0
WVL LR LR
comp=Z,2µm,19.0s
**PKME Peaks-Kenny Pk** 114.55 49 PFAKE 04 27 30.0 +17
PKME LR LR
comp=Z,1µm,20.0s
**SEUS St. Eustatius** 115.19 80 PFAKE 04 27 30.0 +15
SEUS LR LR
comp=Z,300nm,18.0s
**PQI Presque Isle** 115.54 47 PFAKE 04 27 30.0 +16
PQI LR LR
comp=Z,2µm,21.0s
**EMMW East Machias** 115.81 49 PFAKE 04 27 30.0 +15
EMMW LR LR
comp=Z,900nm,18.0s
**BDFB Brasilia** 115.94 120 PFAKE 04 27 30.0 +14
BDFB LR LR
comp=Z,3µm,19.0s
**FDF Fort de France** 116.15 83 PFAKE 04 27 30.0 +13
FDF LR LR
comp=Z,700nm,18.0s
**GGN Saint George** 116.27 49 PFAKE 04 27 30.0 +14
GGN LR LR
comp=Z,2µm,19.0s
**SCHQ Schefferville** 116.42 38 PFAKE 04 27 30.0 +14
SCHQ LR LR
comp=Z,1µm,18.0s
**KURK Kurchatov** 116.56 317 ‖ *i*PKIKP **PKPdf** **04 27 15.3 -0.9**
**KURK Kurchatov** 116.56 317 *e*PKPdf **PKPdf** **04 27 14.6 -1.6**
KURK LR LR
comp=Z,600nm,18.0s
**KURBB Kurchatov Arra** 116.61 317 PKP **PKPdf** **04 27 14.6 -1.8**
comp=Z,0.8nm,0.7s,baz=101,slow=2.0,SNR=7.2
**LMN Caledonia Moun** 117.73 48 PFAKE 04 27 30.0 +11
LMN LR LR
comp=Z,2µm,21.0s
**KSH Kashi** 117.97 305 *e*PKP **PKPdf** **04 27 20.0 +0.5**
KSH sPKP 04 27 33.9
KSH PP **PP** **04 28 38.8 +4.4**
KSH PKS **PKSdf** **04 30 54.8 -1.5**
KSH SKS **SKSdf** **04 34 25.4 -4.2**
KSH SKKS **SKKSac** **04 35 25.6 -7.0**
KSH AMB AMB
comp=Z,250nm,4.3s
KSH LR LR
comp=Z,78nm,5.2s
KSH LR LR
comp=Z,47nm,3.5s
KSH LR LR
comp=Z,270nm,8.2s
**FRU Bishkek** 119.17 308 *i* PKIKP **PKPdf** **04 27 20.5 -1.1**
FRU *e* 04 28 46.0
**BVAR Borovoye Array** 121.50 320 PKP **PKPdf** **04 27 24.4 -1.4**
comp=Z,1.2nm,0.4s,baz=141,slow=1.2,SNR=8.7
**BRVK Borovoye** 121.56 320 ‖ *i*PKIKP **PKPdf** **04 27 25.2 -0.6**
**BRVK Borovoye** 121.56 320 PFAKE 04 27 40.0 +14
BRVK LR LR
comp=Z,800nm,19.0s
**ABPO Ambohimpanom** 123.60 229 PFAKE 04 27 40.0 +8.9
ABPO LR LR
comp=Z,1µm,18.0s
**MSEY Mahe Island** 125.32 248 PFAKE 04 27 50.0 +16
MSEY LR LR
comp=Z,1µm,18.0s
**ARU Arti** 127.33 326 PKP **PKPdf** **04 27 35.7 -1.1**
comp=Z,4.7nm,0.2s,baz=90,slow=4.7,SNR=4.0
**ARU Arti** 127.33 326 *i* PKIKP **PKPdf** **04 27 36.0 -0.8**
ARU 04 29 35.2
ARU 04 34 44.3
ARU SS SS 04 46 39.2 -4.9
ARU MLR MLR
comp=Z,1µm,20.0s
**ARA0 ARCESS Array S** 129.59 351 *e*PKPdf **PKPdf** **04 27 39.8 -0.9**
**ARCES ARCESS Array B** 129.59 351 PKP **PKPdf** **04 27 39.8 -0.9**
comp=Z,2.3nm,0.8s,baz=5.7,slow=2.4,SNR=6.0
**ARCES ARCESS Array B** 129.59 351 PKIKP **PKPdf** **04 27 39.8 -0.9**
ARCES pmax pmax
comp=Z,3.0nm,0.9s
**RCBR Riachuelo** 131.23 118 PFAKE 04 28 00.0 +14
RCBR LR LR
comp=Z,2µm,18.0s
**GEYT Alibeck** 131.94 303 PKP **PKPdf** **04 27 47.1 +0.9**
comp=Z,2.3nm,0.8s,baz=292,slow=7.8,SNR=3.6

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| FIA0 | FINESS Array S | 136.80 | 346 | ePKIKP | PKPpre | 04 27 49.3 | |
| FIA0 | | | | e | | 04 27 54.7 | |
| FIA0 | FINESS Array S | 136.80 | 346 | ePKPpre | PKPpre | 04 27 49.3 | |
| FIA0 | | | | ePKPdf | PKPdf | 04 27 54.7 | +0.2 |
| FINES | FINESS Array B | 136.80 | 346 | PKhKP | PKPpre | 04 27 49.3 | |
| | comp=Z,5.9nm,1.0s,baz=128,slow=27,SNR=3.2 | | | | | | |
| FINES | | | | PKP | PKPdf | 04 27 54.7 | +0.2 |
| | comp=Z,3.8nm,0.9s,baz=126,slow=2.6,SNR=6.0 | | | | | | |
| LSZ | Lusaka | 138.23 | 213 | PFAKE | | 04 28 10.0 | +11 |
| LSZ | | | | LR | LR | | |
| | comp=Z,800nm,20.0s | | | | | | |
| MAK | Makhachkala | 138.76 | 312 | i P | Pdif | 04 25 06.6 | -3.4 |
| MAK | | | | e | | 04 30 52.2 | |
| MAK | | | | e | | 04 35 08.0 | |
| MAK | | | | eSS | SS | 04 48 53.3 | -10 |
| MAK | | | | eSSS | SSS | 04 54 09.0 | |
| TSUM | Tsumeb | 138.88 | 197 | PFAKE | | 04 28 10.0 | +10 |
| TSUM | | | | LR | LR | | |
| | comp=Z,1µm,20.0s | | | | | | |
| KIV | Kislovodsk | 141.62 | 316 | ePKHKP | PKPpre | 04 27 58.7 | |
| KIV | | | | i | | 04 28 01.6 | |
| KIV | | | | e | | 04 31 01.9 | |
| KIV | | | | eSS | SS | 04 49 29.3 | -7.6 |
| KIV | | | | eSSS | SSS | 04 54 46.7 | |
| KIV | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.1s | | | | | | |
| KIV | Kislovodsk | 141.62 | 316 | PFAKE | | 04 28 20.0 | +16 |
| KIV | | | | LR | LR | | |
| | comp=Z,600nm,18.0s | | | | | | |
| NEY | Neytrino | 141.90 | 315⇓ | ePKIKP | PKPdf | 04 28 04.0 | -0.6 |
| KMBO | Kilima Mbogo | 142.55 | 239 | PKhKP | PKPpre | 04 28 02.6 | |
| | comp=Z,1.5nm,0.4s,baz=266,slow=2.1,SNR=4.9 | | | | | | |
| KMBO | Kilima Mbogo | 142.55 | 239 | ePKPpre | PKPpre | 04 28 02.6 | |
| KMBO | | | | LR | LR | | |
| | comp=Z,800nm,18.0s | | | | | | |
| RAYN | Ar Rayn | 143.31 | 282 | ePKPdf | PKPdf | 04 28 08.5 | +1.0 |
| RAYN | | | | LR | LR | | |
| | comp=Z,500nm,18.0s | | | | | | |
| ATD | Arta Tunnel | 143.51 | 262 | PFAKE | | 04 28 20.0 | +12 |
| ATD | | | | LR | LR | | |
| | comp=Z,400nm,18.0s | | | | | | |
| SOC | Sochi | 143.71 | 317 | ePKIKP | PKPab | 04 28 03.7 | -0.6 |
| SOC | | | | i | | 04 28 09.3 | |
| SOC | | | | e | | 04 31 16.7 | |
| SOC | | | | ePPP | PPP | 04 34 33.1 | |
| SOC | | | | pmax | pmax | | |
| | comp=Z,29nm,1.0s | | | | | | |
| SOC | | | | pmax | pmax | | |
| | comp=Z,12nm,0.5s | | | | | | |
| ANN | Anapa | 144.50 | 320 | ePKIKP | PKPab | 04 28 06.2 | -1.1 |
| ANN | | | | pmax | pmax | | |
| | comp=Z,133nm,1.4s | | | | | | |
| KOPT | Kop Dagi | 144.73 | 311 | ePKPdf | PKPdf | 04 28 10.3 | +0.5 |
| AKASG | Malin Array Be | 144.77 | 334 | PKP | PKPab | 04 28 07.1 | -1.0 |
| | comp=Z,6.0nm,0.4s,baz=40,slow=4.5,SNR=71 | | | | | | |
| AKBB | Malin Array Si | 144.77 | 334 | ePKIKP | PKPab | 04 28 07.1 | -1.0 |
| AKBB | | | | MLR | MLR | | |
| | comp=Z,800nm,18.0s | | | | | | |
| AKBB | Malin Array Si | 144.77 | 334 | ePKPdf | PKPab | 04 28 07.1 | -1.0 |
| AKBB | | | | LR | LR | | |
| | comp=Z,800nm,18.0s | | | | | | |
| KIEV | Kiev | 144.78 | 334⇑ | iPKIKP | PKPab | 04 28 07.1 | -1.0 |
| KIEV | Kiev | 144.78 | 334 | PFAKE | | 04 28 20.0 | +11 |
| KIEV | | | | LR | LR | | |
| | comp=Z,800nm,18.0s | | | | | | |
| AK11 | Malin Array Si | 144.81 | 334 | ePKPdf | PKPab | 04 28 07.2 | -1.0 |
| MARD | Mardin | 145.50 | 307 | ePKPbc | PKPab | 04 28 11.7 | +0.3 |
| MARD | | | | LR | LR | | |
| | comp=Z,300nm,21.0s | | | | | | |
| KBSD | Kabsdagh | 145.78 | 306 | eP | PKPab | 04 28 15.1 | +2.8 |
| MZRK | Al-Mazaregh | 146.06 | 304 | eP | PKPbc | 04 28 12.9 | +0.1 |
| SFNV | Sufian | 146.29 | 305 | eP | PKPbc | 04 28 13.4 | -0.1 |
| SIM | Simferopol' | 146.36 | 323c | iPKP2 | PKPdf | 04 28 12.8 | +0.7 |
| SIM | | | | pmax | pmax | | |
| | comp=Z,350nm,11.0s | | | | | | |
| FURI | Furi | 146.38 | 255 | PFAKE | | 04 28 30.0 | +14 |
| FURI | | | | LR | LR | | |
| | comp=Z,600nm,20.0s | | | | | | |
| BEL | Belsk | 146.70 | 343 | ePKP | PKPbc | 04 28 14.6 | +0.5 |
| BEL | Belsk | 146.70 | 343 | ePKP2 | PKPbc | 04 28 14.6 | +0.5 |
| SORM | Soroca | 147.10 | 332⇑ | iP | PKPbc | 04 28 14.7 | -0.6 |
| SORM | Soroca | 147.10 | 332 | ⇑PKP2 | PKPbc | 04 28 14.7 | -0.6 |
| TOKA | Tokat | 147.38 | 314 | PFAKE | | 04 28 30.0 | +12 |
| TOKA | | | | LR | LR | | |
| | comp=Z,500nm,20.0s | | | | | | |
| LVV | L'vov | 147.46 | 338 | ePKP2 | PKPbc | 04 28 15.5 | -0.8 |
| KIS | Kishinev | 147.73 | 330 | ePKP | PKPbc | 04 28 18.0 | +0.9 |
| KIS | Kishinev | 147.73 | 330 | ePsP | | 04 28 50.0 | |
| KIS | Kishinev | 147.73 | 330 | ePP | PP | 04 32 08.0 | +24 |
| KIS | Kishinev | 147.73 | 330 | ePKKP | PKKPdf | 04 37 10.0 | -1.6 |
| KIS | | | | eSKKS | | 04 38 20.0 | |
| KIS | | | | LRM | MLR | 05 34 15.0 | |
| | comp=Z,800nm,20.0s | | | | | | |
| KIS | Kishinev | 147.73 | 330 | ePKP2 | PKPbc | 04 28 18.0 | +0.9 |
| KIS | | | | MLR | MLR | | |
| | comp=N,500nm,20.0s | | | | | | |
| KIS | | | | MLR | MLR | | |
| | comp=Z,800nm,20.0s | | | | | | |
| KIS | | | | MLR | MLR | | |
| | comp=Z,900nm,20.0s | | | | | | |
| MILM | Milestii Mici | 147.79 | 330⇑ | iP | PKPbc | 04 28 16.4 | -0.9 |
| KWP | Kalwaria Pacla | 148.07 | 339 | ePKP | PKPbc | 04 28 18.0 | 0.0 |
| KWP | Kalwaria Pacla | 148.07 | 339 | ePKP2 | PKPbc | 04 28 18.0 | 0.0 |
| LEOM | Leova | 148.38 | 330⇑ | iP | PKPbc | 04 28 19.2 | +0.3 |
| LEOM | Leova | 148.38 | 330 | ⇑PKP2 | PKPbc | 04 28 19.2 | +0.3 |
| OJC | Ojcow | 148.43 | 343 | ePKP | PKPbc | 04 28 18.7 | -0.2 |
| OJC | Ojcow | 148.43 | 343 | ePKP2 | PKPbc | 04 28 18.6 | -0.3 |
| OJC | Ojcow | 148.43 | 343 | ePKPbc | PKPbc | 04 28 18.6 | -0.3 |
| PRAR | RASCA | 148.61 | 333⇑ | iP | PKPbc | 04 28 19.8 | +0.3 |
| KSP | Ksiaz | 148.70 | 347 | ePKP | PKPbc | 04 28 19.9 | +0.3 |
| KSP | Ksiaz | 148.70 | 347 | ePKP2 | PKPbc | 04 28 19.9 | +0.3 |
| STHS | Stebnicka Huta | 148.73 | 341 | ePKP2 | PKPbc | 04 28 20.2 | +0.5 |
| STHS | Stebnicka Huta | 148.73 | 341 | ePKP | PKPbc | 04 28 20.2 | +0.5 |
| STHS | | | | e | | 04 28 24.2 | |
| BUR08 | Bucovina Ar. S | 148.81 | 335 | ePKPbc | PKPbc | 04 28 20.4 | +0.3 |
| CLL | Collm | 148.82 | 351 | ePKP2 | PKPbc | 04 28 19.0 | -0.8 |
| CLL | | | | pmax | pmax | | |
| | comp=Z,31nm,1.5s | | | | | | |
| CLL | | | | MLR | MLR | | |
| | comp=Z,600nm,18.6s | | | | | | |
| CLL | Collm | 148.82 | 351 | ePKPbc | PKPbc | 04 28 19.0 | -0.8 |
| | comp=Z,31nm,1.5s | | | | | | |
| CLL | | | | i PKPab | PKPab | 04 28 23.4 | -0.3 |
| | comp=Z,27nm,1.2s | | | | | | |
| CLL | | | | i pPKPbc | pPKPbc | 04 28 31.2 | +1.1 |
| CLL | | | | i pPKPab | pPKPab | 04 28 35.3 | +1.5 |
| CLL | | | | ePP | PP | 04 31 52.0 | +2.5 |
| CLL | | | | ePSKS | | 04 42 05.0 | |
| CLL | | | | eSS | SS | 04 50 48.0 | -9.0 |
| CLL | | | | eSSS | SSS | 04 56 36.0 | |
| CLL | | | | LmV | | 05 42 00.0 | |
| | comp=Z,600nm,18.6s | | | | | | |
| CLL | Collm | 148.82 | 351 | ePKPbc | PKPbc | 04 28 19.9 | 0.0 |
| ILGA | Ilgaz | 148.82 | 317 | PFAKE | | 04 28 30.0 | +5.6 |
| ILGA | | | | LR | LR | | |
| | comp=Z,400nm,19.0s | | | | | | |
| BUR04 | Bucovina Ar. S | 148.83 | 334 | ePKPbc | PKPbc | 04 28 20.4 | +0.3 |
| BURAR | Bucovina Array | 148.83 | 334⇑ | iP | PKPbc | 04 28 20.0 | -0.1 |
| BURAR | Bucovina Array | 148.83 | 334 | ⇑PKP2 | PKPbc | 04 28 20.1 | -0.1 |
| NIE | Niedzica | 149.01 | 342 | ePKP | PKPbc | 04 28 21.0 | +0.5 |
| NIE | Niedzica | 149.01 | 342 | ePKP2 | PKPbc | 04 28 21.0 | +0.5 |
| UZH | Uzhgorod | 149.07 | 339⇑ | iPKP2 | PKPbc | 04 28 19.5 | -1.1 |
| UPC | Upice | 149.07 | 347⇑ | ePKP | PKPbc | 04 28 21.1 | +0.6 |
| UPC | | | | epPKP | pPKPab | 04 28 35.2 | +0.3 |
| UPC | | | | AMS | AMS | 05 46 10.0 | |
| | comp=Z,800nm,16.7s | | | | | | |
| UPC | Upice | 149.07 | 347 | ePKP2 | PKPbc | 04 28 21.1 | +0.6 |
| UPC | | | | MLR | MLR | | |
| | comp=Z,800nm,16.7s | | | | | | |
| TESR | Tescani | 149.08 | 332⇑ | iP | PKPbc | 04 28 20.5 | -0.2 |
| BRG | Berggiesshubel | 149.10 | 350 | ePKP | PKPbc | 04 28 20.3 | -0.3 |
| | comp=Z,33nm,1.7s | | | | | | |
| | comp=N,892nm,18.4s | | | | | | |
| | comp=E,582nm,18.5s | | | | | | |
| | comp=Z,1µm,20.1s | | | | | | |
| BRG | Berggiesshubel | 149.10 | 350 | ePKP2 | PKPbc | 04 28 20.3 | -0.3 |
| BRG | | | | pmax | pmax | | |
| | comp=Z,33nm,1.7s | | | | | | |
| BRG | | | | MLR | MLR | | |
| | comp=N,892nm,18.4s | | | | | | |
| BRG | | | | MLR | MLR | | |
| | comp=E,582nm,18.5s | | | | | | |
| BRG | | | | MLR | MLR | | |
| | comp=Z,1µm,20.1s | | | | | | |
| CRVS | Cervenica-Dubn | 149.11 | 340 | ePKP2 | PKPbc | 04 28 20.8 | +0.1 |
| CRVS | Cervenica-Dubn | 149.11 | 340 | ePKP | PKPbc | 04 28 20.8 | +0.1 |
| CRVS | | | | e | | 04 28 25.9 | |
| DPC | Dobruska-Polom | 149.16 | 347⇑ | ePKP | PKPbc | 04 28 21.7 | +0.9 |
| DPC | | | | epPKP | pPKPab | 04 28 36.1 | +0.8 |
| DPC | | | | ex | x | 04 28 57.3 | |
| DPC | | | | AMS | AMS | 05 44 20.0 | |
| | comp=Z,1µm,14.6s | | | | | | |
| DPC | Dobruska-Polom | 149.16 | 347 | ePKP2 | PKPbc | 04 28 21.7 | +0.9 |
| DPC | | | | MLR | MLR | | |
| | comp=Z,1µm,14.6s | | | | | | |
| ROOS | tl_alroos | 149.19 | 303 | eP | PKPdf | 04 28 18.9 | +1.6 |
| BTCH | Batrach | 149.20 | 307 | eP | PKPbc | 04 28 20.6 | -0.9 |
| OKC | Ostrava-Krasne | 149.22 | 345⇑ | ePKP | PKPbc | 04 28 21.5 | +0.6 |
| OKC | | | | epPKP | sPKPbc | 04 28 33.2 | -1.6 |
| OKC | Ostrava-Krasne | 149.22 | 345 | ePKP2 | PKPbc | 04 28 21.5 | +0.6 |
| PVCC | Panska Ves | 149.33 | 349⇑ | ePKP | PKPbc | 04 28 21.2 | 0.0 |
| PVCC | | | | epPKP | sPKPbc | 04 28 33.6 | -1.4 |
| PVCC | | | | ex | x | 04 28 44.8 | |
| PVCC | Panska Ves | 149.33 | 349 | ePKP2 | PKPbc | 04 28 21.2 | 0.0 |
| CFR | Carcaliu | 149.38 | 328⇑ | iP | PKPbc | 04 28 21.0 | -0.4 |
| CFR | Carcaliu | 149.38 | 328 | ⇑PKP2 | PKPbc | 04 28 21.0 | -0.4 |
| TRPA | Tarpa | 149.41 | 338⇑ | ePKPdf | PKPbc | 04 28 21.3 | -0.1 |
| MORC | Moravsky Berou | 149.42 | 345 | ePKP2 | PKPbc | 04 28 21.1 | -0.4 |
| MORC | Moravsky Berou | 149.42 | 345 | ePKPbc | PKPbc | 04 28 21.1 | -0.4 |
| BMR | Baia Mare | 149.45 | 336⇓ | iP | PKPbc | 04 28 21.9 | +0.3 |
| BMR | Baia Mare | 149.45 | 336 | ⇓PKP2 | PKPbc | 04 28 21.9 | +0.3 |
| VRI | Vrincioaia | 149.54 | 331⇑ | iP | PKPbc | 04 28 20.9 | -1.0 |
| VRI | Vrincioaia | 149.54 | 331 | ⇑PKP2 | PKPbc | 04 28 20.9 | -1.0 |
| BR101 | Keskin Array S | 149.57 | 315 | ePKPbc | PKPbc | 04 28 21.2 | -1.1 |
| BR131 | Keskin Array S | 149.57 | 315 | ePKPdf | PKPdf | 04 28 19.5 | +1.8 |
| BRTR | Keskin Array B | 149.57 | 315 | PKPbc | PKPbc | 04 28 21.2 | -1.1 |
| | comp=Z,2.8nm,0.8s,baz=116,slow=2.9,SNR=14 | | | | | | |
| PLOR | Plostina | 149.59 | 331⇑ | iP | PKPbc | 04 28 20.7 | -1.3 |
| PLOR | Plostina | 149.59 | 331 | ⇑PKP2 | PKPbc | 04 28 20.7 | -1.3 |
| ARCR | ARCALIA | 149.60 | 335⇓ | iP | PKPbc | 04 28 22.6 | +0.6 |
| TIRR | Tirgusor | 149.75 | 327 | PFAKE | | 04 28 30.0 | +2.3 |
| TIRR | | | | LR | LR | | |
| | comp=Z,1µm,20.0s | | | | | | |
| KECS | Kecovo | 149.79 | 341 | ePKP2 | PKPbc | 04 28 22.1 | -0.3 |
| KECS | Kecovo | 149.79 | 341 | ePKP | PKPbc | 04 28 22.1 | -0.3 |
| PRU | Pruhonice | 149.85 | 349⇑ | ePKP | PKPbc | 04 28 22.2 | -0.3 |
| PRU | | | | epPKP | sPKPbc | 04 28 36.8 | +0.5 |
| PRU | | | | AMS | AMS | 05 43 40.0 | |
| | comp=Z,1µm,21.2s | | | | | | |
| PRU | Pruhonice | 149.85 | 349 | ePKP2 | PKPbc | 04 28 22.2 | -0.3 |
| PRU | | | | MLR | MLR | | |
| | comp=Z,1µm,21.2s | | | | | | |
| MARH | Ras Al Marh | 149.87 | 303 | eP | PKPbc | 04 28 22.2 | -1.2 |
| GOPC | GO Pecny, Ondr | 149.88 | 349⇑ | ePKP | PKPbc | 04 28 20.7 | -1.9 |
| GOPC | | | | ePKPAB | sPKPdf | 04 28 30.0 | -1.7 |
| GOPC | | | | epPKP | pPKPab | 04 28 38.6 | +0.4 |
| GOPC | | | | AMS | AMS | 05 43 00.0 | |
| NKC | Novy Kostel | 149.94 | 352⇑ | ePKP | PKPbc | 04 28 23.2 | +0.5 |
| NKC | Novy Kostel | 149.94 | 352 | ePKP2 | PKPbc | 04 28 23.2 | +0.5 |
| ANTO | Ankara | 150.05 | 316 | ePKP2 | PKPbc | 04 28 24.0 | +0.6 |
| ANTO | Ankara | 150.05 | 316 | ePKPbc | PKPbc | 04 28 24.0 | +0.6 |
| DOPR | Dopca | 150.06 | 332⇑ | iP | PKPbc | 04 28 23.6 | +0.5 |
| SALA | Sala | 150.06 | 300 | eP | PKPbc | 04 28 24.2 | +0.5 |
| BR231 | Keskin MP Arra | 150.08 | 316 | ePKPdf | PKPdf | 04 28 17.6 | -0.9 |
| VRAC | Vranov | 150.08 | 346⇑ | iP | PKPbc | 04 28 24.1 | +1.0 |
| VRAC | Vranov | 150.08 | 346 | ⇑PKP2 | PKPbc | 04 28 24.1 | +1.0 |
| MLR | Muntele Rosu | 150.18 | 331⇑ | iP | PKPbc | 04 28 23.3 | -0.3 |
| MLR | Muntele Rosu | 150.18 | 331 | ⇑PKP2 | PKPbc | 04 28 23.3 | -0.3 |
| MLR | Muntele Rosu | 150.18 | 331 | ePKPbc | PKPbc | 04 28 23.1 | -0.5 |
| MLR | | | | LR | LR | | |
| | comp=Z,1µm,20.0s | | | | | | |
| BCLA | Clavier | 150.19 | 1 | PKPbc | PKPbc | 04 28 24.2 | +1.0 |
| CJR | Cluj-Napoca | 150.20 | 335⇑ | iP | PKPbc | 04 28 24.5 | +1.0 |
| CJR | Cluj-Napoca | 150.20 | 335 | ⇑PKP2 | PKPbc | 04 28 24.5 | +1.0 |
| VYHS | Vyhne | 150.26 | 343 | ePKP2 | PKPbc | 04 28 23.5 | 0.0 |
| VYHS | Vyhne | 150.26 | 343 | ePKP | PKPbc | 04 28 23.5 | 0.0 |
| PSZ | Piszkesteto | 150.47 | 341⇓ | iP | PKPbc | 04 28 24.5 | +0.4 |
| PSZ | Piszkesteto | 150.47 | 341 | ⇓PKIKP | PKPbc | 04 28 24.5 | +0.4 |
| PSZ | Piszkesteto | 150.47 | 341⇑ | ePKPdf | PKPbc | 04 28 23.9 | -0.2 |
| PSZ | Piszkesteto | 150.47 | 341 | ePKPbc | PKPbc | 04 28 24.4 | +0.2 |
| DRGR | | 150.48 | 336⇑ | iP | PKPbc | 04 28 24.0 | -0.2 |
| DRGR | | 150.48 | 336 | ⇑PKIKP | PKPbc | 04 28 24.0 | -0.2 |
| DOU | Dourbes | 150.50 | 2 | PKPbc | PKPbc | 04 28 25.9 | +1.8 |
| VOIR | | 150.62 | 332⇓ | iP | PKPbc | 04 28 25.1 | +0.5 |
| VOIR | | 150.62 | 332 | ⇓PKIKP | PKPbc | 04 28 25.1 | +0.5 |
| MODS | Modra-Piesok | 150.79 | 344 | ePKIKP | PKPbc | 04 28 24.5 | -0.3 |
| MODS | Modra-Piesok | 150.79 | 344 | ePKP | PKPbc | 04 28 24.5 | -0.3 |
| KHC | Kasperske Hory | 150.84 | 350⇑ | ePKP | PKPbc | 04 28 24.8 | -0.1 |
| KHC | | | | epPKP | sPKPab | 04 28 45.8 | 0.0 |
| KHC | | | | ex | x | 04 28 56.0 | |
| KHC | Kasperske Hory | 150.84 | 350 | ePKIKP | PKPbc | 04 28 24.8 | -0.1 |
| KHC | Kasperske Hory | 150.84 | 350 | ePKPbc | PKPbc | 04 28 24.9 | -0.1 |
| ARR | Arges | 150.86 | 332⇓ | iP | PKPbc | 04 28 26.0 | +0.9 |
| GEC2 | GERESS Array S | 151.10 | 349 | ePKIKP | PKPbc | 04 28 25.7 | +0.1 |
| GEC2 | GERESS Array S | 151.10 | 349 | ePKPbc | PKPbc | 04 28 25.7 | +0.1 |
| GERES | GERESS Array B | 151.10 | 349 | PKPbc | PKPbc | 04 28 24.4 | -1.2 |
| | comp=Z,3.3nm,1.0s,baz=36,slow=2.5,SNR=13 | | | | | | |
| GEA0 | GERESS Array S | 151.11 | 349 | ePKPbc | PKPbc | 04 28 25.0 | -0.6 |
| LOT | Lotru | 151.16 | 333⇓ | iP | PKPbc | 04 28 25.4 | -0.5 |
| SIRR | Siria | 151.31 | 337⇓ | iP | PKPbc | 04 28 26.2 | +0.1 |
| SACV | Santiago Islan | 151.32 | 96 | PFAKE | | 04 28 30.0 | +3.0 |
| SACV | | | | LR | LR | | |
| | comp=Z,600nm,18.0s | | | | | | |
| CONA | Conrad Observa | 151.54 | 346 | i PKiKP | PKPbc | 04 28 26.7 | +0.1 |
| | comp=Z,18nm,1.3s | | | | | | |
| BZS | Buzias | 151.88 | 336⇓ | iP | PKPbc | 04 28 26.5 | -0.9 |
| BZS | Buzias | 151.88 | 336 | ⇓PKIKP | PKPbc | 04 28 26.5 | -0.9 |
| MOA | Molln | 151.96 | 348 | i PKiKP | PKiKP | 04 28 28.0 | +0.2 |
| | comp=Z,5.5nm,1.0s | | | | | | |
| CSS | Mathiatis | 151.97 | 307 | ePKPbc | PKPbc | 04 28 28.5 | +0.5 |
| CSS | | | | LR | LR | | |
| | comp=Z,100nm,18.0s | | | | | | |
| ARSA | Arzberg | 152.26 | 346 | ePKiKP | PKiKP | 04 28 29.7 | +1.2 |
| | comp=Z,3.6nm,0.9s | | | | | | |
| MDVR | Moldovita | 152.54 | 335⇓ | iP | PKPbc | 04 28 29.1 | +0.1 |
| ISP | Isparta | 152.64 | 314 | PFAKE | | 04 28 30.0 | +0.5 |
| ISP | | | | LR | LR | | |
| | comp=Z,600nm,19.0s | | | | | | |
| RETA | Reutte | 152.85 | 353 | i PKPbc | PKPbc | 04 28 27.8 | -1.8 |
| | comp=Z,0.6nm,0.3s | | | | | | |
| KBA | Koelnbreinsper | 152.87 | 349 | i PKiKP | PKiKP | 04 28 30.9 | +0.9 |
| | comp=Z,6.7nm,0.8s | | | | | | |
| WATA | Walderalm | 152.90 | 352 | i PKiKP | PKiKP | 04 28 32.1 | +2.1 |
| | comp=Z,2.9nm,0.5s | | | | | | |
| SOKA | Soboth | 152.91 | 346 | i PKPbc | PKPbc | 04 28 29.6 | -0.2 |
| | comp=Z,6.8nm,1.0s | | | | | | |
| MOTA | Moosalm | 152.95 | 352 | i PKPbc | PKPbc | 04 28 29.6 | -0.4 |
| | comp=Z,7.7nm,1.2s | | | | | | |
| WTTA | Wattenberg | 152.96 | 351 | i PKiKP | PKiKP | 04 28 32.2 | +2.0 |
| | comp=Z,4.8nm,0.7s | | | | | | |
| DAVA | Damuels | 153.15 | 354 | i PKiKP | PKPbc | 04 28 30.3 | -0.1 |
| | comp=Z,25nm,1.8s | | | | | | |
| OBKA | Obir | 153.18 | 347 | i PKiKP | PKiKP | 04 28 32.4 | +1.9 |
| | comp=Z,6.7nm,1.6s | | | | | | |
| MYKA | Terra Mystica | 153.25 | 348 | i PKPbc | PKPbc | 04 28 30.1 | -0.4 |
| | comp=Z,5.1nm,0.9s | | | | | | |
| FETA | Feichten | 153.32 | 353 | i PKPbc | PKPbc | 04 28 30.1 | -0.7 |
| | comp=Z,5.7nm,1.2s | | | | | | |
| ABTA | Abfaltersbach | 153.33 | 350 | i PKiKP | PKPbc | 04 28 30.7 | 0.0 |
| | comp=Z,14nm,1.2s | | | | | | |
| VTS | Vitosha | 153.67 | 330 | PFAKE | | 04 28 40.0 | -4.3 |
| VTS | | | | LR | LR | | |
| | comp=Z,600nm,20.0s | | | | | | |
| AKAS | Kas | 154.09 | 312 | PFAKE | | 04 28 40.0 | -6.4 |
| AKAS | | | | LR | LR | | |
| | comp=Z,300nm,19.0s | | | | | | |
| AQU | L'Aquila | 157.38 | 346 | PFAKE | | 04 28 40.0 | +11 |
| AQU | | | | LR | LR | | |
| | comp=Z,1µm,20.0s | | | | | | |
| ESLA | Sonseca Array | 159.13 | 22 | PFAKE | | 04 28 40.0 | +9.1 |
| ESLA | | | | LR | LR | | |
| | comp=Z,900nm,21.0s | | | | | | |
| TORD | Torodi Ar. Bea | 171.58 | 150 | PKP | PKPdf | 04 28 40.0 | -1.9 |
| | comp=Z,1.4nm,1.0s,baz=327,slow=0.9,SNR=6.6 | | | | | | |
| TORD | Torodi Ar. Bea | 171.58 | 150 | PKP | PKPdf | 04 28 40.0 | -1.9 |
| TOA1 | Torodi Ar. Sit | 171.58 | 150 | ePKPdf | PKPdf | 04 28 40.0 | -1.9 |

*MDD **07** 04:43:55.3±4.1, 35.°66N×4.°65E, h0km, mb4.0/4, Error ellipse: s-maj=65.4km s-min=35.2km az=37.0, PRXIMO*
*ISCJB **07** 04:44:00.1±1.6, 35.°8N±0.°1×4.°13E±0.°08, h10km, Error ellipse: s-maj=20.5km s-min=8.9km az=175.9*
*CSEM **07** 04:44:00.8±0.6, 35.°80N×4.°15E, h2km, ML3.2, Error ellipse: s-maj=22.9km s-min=10.6km az=12.0*
*CRAAG **07** 04:44:01.5, 35.°92N×4.°07E, Ml3.2*

**ISC 07 04:44:01.9**±1.4**, 35.°8N**±0.°1×**4.°12E**±0.°04**, h10km, n24, σ1.s40**/31**, Northern Algeria**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ATAF | Djebel Tarf | 0.14 | 64 | P | Pg | 04 44 04.2 | -1.0 |
| ATAF | Djebel Tarf | 0.14 | 64 | P | Pg | 04 44 04.2 | -1.0 |
| ATAF | Djebel Tarf | 0.14 | 64 | P | Pg | 04 44 04.2 | -1.0 |
| AKET | Djebel Ketaf | 0.30 | 321 | P | Pg | 04 44 06.3 | -1.8 |
| AKET | Djebel Ketaf | 0.30 | 321 | P | Pg | 04 44 06.3 | -1.8 |
| AKET | Djebel Ketaf | 0.30 | 321 | P | Pg | 04 44 06.3 | -1.8 |
| ADJB | Djebel Djouab | 0.65 | 302 | P | Pb | 04 44 14.5 | -0.9 |
| ADJB | Djebel Djouab | 0.65 | 302 | P | Pb | 04 44 14.5 | -0.9 |
| ADJB | Djebel Djouab | 0.65 | 302 | P | Pb | 04 44 14.5 | -0.9 |
| EMHD | Djebel Mahouad | 1.02 | 293 | P | Pg | 04 44 20.6 | -1.0 |
| EMHD | Djebel Mahouad | 1.02 | 293 | P | Pg | 04 44 20.6 | -1.0 |
| EMHD | Djebel Mahouad | 1.02 | 293 | P | Pg | 04 44 20.6 | -1.0 |
| OKGL | Djebel Kef Gue | 2.83 | 276 | P | Pn | 04 44 46.8 | -0.4 |
| | 14nm,0.3s,SNR=7.9 | | | | | | |
| OKGL | Djebel Kef Gue | 2.83 | 276 | P | Pn | 04 44 46.8 | -0.4 |
| | 14nm,0.3s,SNR=7.9 | | | | | | |
| EMUR | La Murta | 4.75 | 297 | P | Pn | 04 45 13.3 | -0.3 |
| | 2.5nm,0.3s,SNR=7.9 | | | | | | |
| EMUR | La Murta | 4.75 | 297 | P | Pn | 04 45 13.3 | -0.3 |
| | 2.5nm,0.3s,SNR=7.9 | | | | | | |
| ETOB | Tobarra | 5.33 | 304 | P | Pn | 04 45 22.2 | +0.6 |
| | 2.6nm,0.5s,SNR=7.9 | | | | | | |
| ETOB | | | | S | Sn | 04 46 26.0 | +2.9 |
| | 8.4nm,0.9s,SNR=4.0 | | | | | | |
| ETOB | Tobarra | 5.33 | 304 | P | Pn | 04 45 22.2 | +0.6 |
| | 2.6nm,0.5s,SNR=7.9 | | | | | | |
| ETOB | | | | S | Sn | 04 46 26.0 | +2.9 |
| | 8.4nm,0.9s,SNR=4.0 | | | | | | |
| EBER | Berja | 5.76 | 283 | P | Pn | 04 45 28.1 | +0.5 |
| | 0.1nm,0.3s,SNR=7.9 | | | | | | |
| EBER | | | | S | Sn | 04 46 34.7 | +0.9 |
| | 3.0nm,0.4s,SNR=4.0 | | | | | | |
| EBER | Berja | 5.76 | 283 | P | Pn | 04 45 28.1 | +0.5 |
| | 0.1nm,0.3s,SNR=7.9 | | | | | | |
| EBER | | | | S | Sn | 04 46 34.7 | +0.9 |
| | 3.0nm,0.4s,SNR=4.0 | | | | | | |
| SESP | Santiago Espad | 5.81 | 295 | P | Pn | 04 45 29.4 | +1.1 |
| | 1.3nm,0.2s,SNR=7.9 | | | | | | |
| SESP | | | | S | Sn | 04 46 37.5 | +2.4 |
| | 4.7nm,0.6s,SNR=7.9 | | | | | | |
| SESP | Santiago Espad | 5.81 | 295 | P | Pn | 04 45 29.4 | +1.1 |
| | 1.3nm,0.2s,SNR=7.9 | | | | | | |
| SESP | | | | S | Sn | 04 46 37.5 | +2.4 |
| | 4.7nm,0.6s,SNR=7.9 | | | | | | |
| EQES | Quesada | 6.10 | 291 | P | Pn | 04 45 33.2 | +1.0 |
| | 0.3nm,0.3s,SNR=7.9 | | | | | | |
| EQES | | | | S | Sn | 04 46 43.3 | +1.2 |
| | 2.9nm,0.5s,SNR=7.9 | | | | | | |
| EQES | Quesada | 6.10 | 291 | P | Pn | 04 45 33.2 | +1.0 |
| | 0.3nm,0.3s,SNR=7.9 | | | | | | |

*ISK **07** 04:50:11.2, 38.°76N×43.°22E, h11km, MD2.4*
*ISCJB **07** 04:50:12.2±0.5, 38.°77N±0.°03×43.°22E±0.°04, h15km±5km, Error ellipse: s-maj=5.0km s-min=4.6km az=20.6*
*CSEM **07** 04:50:12.2±0.2, 38.°78N×43.°23E, h10km, MD2.4, Error ellipse: s-maj=5.1km s-min=4.2km az=63.0*
*DDA **07** 04:50:12.2, 38.°76N×43.°23E, h7km, Ml2.5*

**ISC 07 04:50:11.9**±1.7**, 38.°74N**±0.°04×**43.°25E**±0.°03**, h21**km±2km**, n15, σ0.s51**/30**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.18 | 142 | ePG | Pb | 04 50 17.5 | -0.3 |
| VANB | | | | eSG | Sb | 04 50 22.3 | +0.3 |
| VANB | Van | 0.18 | 142 | ePg | Pb | 04 50 17.5 | -0.3 |
| VANB | | | | eSg | Sb | 04 50 22.3 | +0.3 |
| TVAN | Van | 0.24 | 149 | i P | Pb | 04 50 17.5 | -0.6 |
| TVAN | | | | i S | Sb | 04 50 22.8 | +0.3 |
| TVAN | Van | 0.24 | 149 | P | Pb | 04 50 17.5 | -0.6 |
| TVAN | | | | S | Sb | 04 50 22.8 | +0.3 |
| VMUR | Van-Muradiye | 0.36 | 45 | i P | Pb | 04 50 19.5 | 0.0 |
| VMUR | | | | i S | Sb | 04 50 25.4 | +0.7 |
| ADCV | BITLIS_Adilcev | 0.42 | 280 | i P | Pb | 04 50 20.3 | -0.2 |
| ADCV | | | | i S | Sb | 04 50 27.0 | +0.6 |
| ADCV | BITLIS_Adilcev | 0.42 | 280 | P | Pb | 04 50 20.3 | -0.2 |
| ADCV | | | | S | Sb | 04 50 27.0 | +0.6 |
| GEVA | Gevas | 0.45 | 199 | i P | Pb | 04 50 20.6 | -0.5 |
| GEVA | | | | i S | Sb | 04 50 28.4 | +1.0 |
| CLDR | Caldiran | 0.66 | 52 | ePG | Pb | 04 50 24.5 | -0.4 |
| CLDR | | | | eSG | Sb | 04 50 34.3 | +0.5 |
| CLDR | Caldiran | 0.66 | 52 | i P | Pb | 04 50 24.5 | -0.4 |
| CLDR | | | | i S | Sb | 04 50 34.5 | +0.8 |
| CLDR | Caldiran | 0.66 | 52 | ePg | Pb | 04 50 24.5 | -0.4 |
| CLDR | | | | eSg | Sb | 04 50 34.3 | +0.5 |
| TUTA | Tutak | 0.74 | 333 | i P | Pb | 04 50 25.8 | -0.5 |
| TUTA | | | | i S | Sb | 04 50 36.5 | +0.4 |
| TUTA | Tutak | 0.74 | 333 | P | Pb | 04 50 25.8 | -0.5 |
| TUTA | | | | S | Sb | 04 50 36.5 | +0.4 |
| AGRB | Hanur-Agry | 0.86 | 347 | ePG | Pb | 04 50 27.7 | -0.6 |
| AGRB | | | | eSG | Sb | 04 50 39.5 | +0.2 |
| AGRB | Hanur-Agry | 0.86 | 347 | ePg | Pb | 04 50 27.7 | -0.6 |
| AGRB | | | | eSg | Sb | 04 50 39.6 | +0.2 |

*DDA **07** 04:52:10.9, 39.°64N×29.°04E, h7km, Ml2.9*
*ISK **07** 04:52:10.9, 39.°65N×29.°01E, h5km, ML2.6*
*CSEM **07** 04:52:11.2±0.1, 39.°64N×29.°01E, h2km, ML2.6, Error ellipse: s-maj=2.0km s-min=1.6km az=104.0*

**ISC 07 04:52:11.3**±1.0**, 39.°64N**±0.°02×**29.°01E**±0.°02**, h5**km±10km**, n89, σ0.s53**/108**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DST | Dursunbey | 0.30 | 263 | ePG | Pg | 04 52 17.3 | +0.1 |
| DST | | | | eSG | Sg | 04 52 22.1 | +0.8 |
| DST | Dursunbey | 0.30 | 263 | ePg | Pg | 04 52 17.3 | +0.1 |
| DST | | | | eSg | Sg | 04 52 22.1 | +0.8 |
| TVSB | Tavsanli | 0.40 | 119 | ePG | Pg | 04 52 19.2 | +0.2 |
| TVSB | Tavsanli | 0.40 | 119 | ePg | Pg | 04 52 19.2 | +0.2 |
| ORLT | Orhaneli | 0.41 | 348 | ePG | Pg | 04 52 19.2 | 0.0 |
| ORLT | | | | eSG | Sg | 04 52 25.0 | +0.4 |
| ORLT | Orhaneli | 0.41 | 348 | ePg | Pg | 04 52 19.2 | 0.0 |
| ORLT | | | | eSg | Sg | 04 52 25.0 | +0.4 |
| SIMA | Simav-Kutahya | 0.56 | 182 | ePG | Pg | 04 52 21.9 | -0.2 |
| SIMA | Simav-Kutahya | 0.56 | 182 | ePg | Pg | 04 52 21.9 | -0.2 |
| IGD | Bursa | 0.64 | 13 | i P | Pg | 04 52 22.8 | -0.7 |
| IGD | | | | i S | Sg | 04 52 31.1 | -0.7 |
| DEMI | Demirci | 0.64 | 201 | i P | Pg | 04 52 23.7 | +0.1 |
| DEMI | | | | i S | Sg | 04 52 32.7 | +0.7 |
| DEMI | Demirci | 0.64 | 201 | P | Pg | 04 52 23.7 | +0.1 |
| DEMI | | | | S | Sg | 04 52 32.7 | +0.7 |
| GDZ | Gediz | 0.66 | 147 | i P | Pb | 04 52 24.6 | -0.9 |
| GDZ | | | | i S | Sg | 04 52 32.8 | +0.2 |
| GDZ | Gediz | 0.66 | 147 | P | Pb | 04 52 24.6 | -0.9 |
| GDZ | | | | S | Sg | 04 52 32.8 | +0.2 |
| MDNY | Mudanya-Bursa | 0.73 | 352 | ePG | Pg | 04 52 25.0 | -0.3 |
| MDNY | Mudanya-Bursa | 0.73 | 352 | ePg | Pg | 04 52 25.0 | -0.3 |
| KCTX | Karacabey (Bur | 0.80 | 321 | ePG | Pb | 04 52 27.1 | -0.6 |
| KCTX | Karacabey (Bur | 0.80 | 321 | ePg | Pb | 04 52 27.1 | -0.6 |
| GEMT | Gemlik | 0.80 | 10 | ePG | Pb | 04 52 27.1 | -0.6 |
| GEMT | Gemlik | 0.80 | 10 | ePg | Pb | 04 52 27.1 | -0.6 |
| CAVI | Cavuskoy | 0.85 | 49 | ePG | Pg | 04 52 26.8 | -0.7 |
| CAVI | Cavuskoy | 0.85 | 49 | ePg | Pg | 04 52 26.8 | -0.7 |
| BALB | Balikesir | 0.87 | 270 | ePG | Pb | 04 52 28.3 | -0.6 |
| BALB | Balikesir | 0.87 | 270 | ePg | Pb | 04 52 28.3 | -0.6 |
| ARMT | Armutlu | 0.93 | 353 | ePG | Pg | 04 52 28.8 | -0.3 |
| ARMT | Armutlu | 0.93 | 353 | ePg | Pg | 04 52 28.8 | -0.3 |
| YLV | Yalova | 0.96 | 17 | ePG | Pb | 04 52 29.9 | -0.6 |
| YLV | Yalova | 0.96 | 17 | ePg | Pb | 04 52 29.9 | -0.6 |
| ADVT | Abdulvahap | 0.97 | 35 | ePG | Pb | 04 52 30.0 | -0.5 |
| ADVT | Abdulvahap | 0.97 | 35 | ePg | Pb | 04 52 30.0 | -0.5 |
| SBT5 | Esenkoy-Cinarc | 0.99 | 354 | ePG | Pb | 04 52 30.8 | -0.1 |
| SBT5 | Esenkoy-Cinarc | 0.99 | 354 | ePg | Pb | 04 52 30.8 | -0.1 |
| STEP | BALIKESIR_Sava | 1.03 | 255 | i P | Pg | 04 52 30.7 | -0.4 |
| STEP | | | | i S | Sb | 04 52 45.8 | +0.2 |
| STEP | BALIKESIR_Sava | 1.03 | 255 | P | Pg | 04 52 30.7 | -0.4 |
| STEP | | | | S | Sb | 04 52 45.8 | +0.2 |
| BALY | Balya | 1.08 | 276 | i P | Pg | 04 52 31.5 | -0.4 |
| BALY | | | | i S | Sb | 04 52 47.1 | +0.3 |
| BALY | Balya | 1.08 | 276 | P | Pg | 04 52 31.5 | -0.4 |
| BALY | | | | S | Sb | 04 52 47.1 | +0.3 |
| GONE | Gonen-Balikesi | 1.10 | 292 | ePN | Pb | 04 52 32.4 | -0.3 |
| GONE | Gonen-Balikesi | 1.10 | 292 | ePn | Pb | 04 52 32.4 | -0.3 |
| EDC | Edincik | 1.13 | 309 | ePN | Pb | 04 52 32.9 | -0.4 |
| EDC | Edincik | 1.13 | 309 | ePn | Pb | 04 52 32.9 | -0.4 |
| KULA | Kula-Manisa | 1.16 | 194 | ePN | Pb | 04 52 33.3 | -0.6 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| KULA | Kula-Manisa | 1.16 | 194 | ePn | Pb | 04 52 33.3 | -0.6 |
| AKHS | Akhisar | 1.20 | 231 | i P | Pn | 04 52 34.5 | -0.3 |
| AKHS | | | | i S | Sn | 04 52 52.2 | +0.7 |
| AKHS | Akhisar | 1.20 | 231 | P | Pn | 04 52 34.5 | -0.3 |
| AKHS | | | | S | Sn | 04 52 52.2 | +0.7 |
| AKS | Akhisar | 1.20 | 231 | ePN | Pn | 04 52 34.7 | -0.1 |
| AKS | Akhisar | 1.20 | 231 | ePn | Pn | 04 52 34.7 | -0.1 |
| MANT | Manisa | 1.21 | 197 | i P | Pn | 04 52 34.5 | -0.5 |
| MANT | | | | i S | Sg | 04 52 49.9 | -0.1 |
| MANT | Manisa | 1.21 | 197 | P | Pn | 04 52 34.5 | -0.5 |
| MANT | | | | S | Sg | 04 52 49.9 | -0.1 |
| BUY | Buyukada | 1.21 | 4 | ePN | Pn | 04 52 34.7 | -0.2 |
| BUY | Buyukada | 1.21 | 4 | ePn | Pn | 04 52 34.7 | -0.2 |
| HRT | Hereke | 1.28 | 23 | ePN | Pb | 04 52 36.1 | +0.2 |
| HRT | Hereke | 1.28 | 23 | ePn | Pb | 04 52 36.1 | +0.2 |
| SBT2 | Guzelce-Avcila | 1.29 | 343 | ePN | Pg | 04 52 36.1 | +0.1 |
| SBT2 | Guzelce-Avcila | 1.29 | 343 | ePn | Pg | 04 52 36.1 | +0.1 |
| KHAL | Karahalli | 1.33 | 163 | i P | Pn | 04 52 35.8 | -0.8 |
| KHAL | | | | i S | Sb | 04 52 53.9 | -0.2 |
| KHAL | Karahalli | 1.33 | 163 | P | Pn | 04 52 35.8 | -0.8 |
| KHAL | | | | S | Sb | 04 52 53.9 | -0.2 |
| GULT | Gulveren | 1.40 | 55 | ePN | Pg | 04 52 37.9 | -0.2 |
| GULT | Gulveren | 1.40 | 55 | ePn | Pg | 04 52 37.9 | -0.2 |
| KAVV | Kandilli-Istan | 1.42 | 2 | ePN | Pn | 04 52 37.6 | -0.1 |
| KAVV | Kandilli-Istan | 1.42 | 2 | ePn | Pn | 04 52 37.6 | -0.1 |
| ISK | Istanbul-Kandi | 1.42 | 1 | ePN | Pg | 04 52 38.1 | -0.4 |
| ISK | Istanbul-Kandi | 1.42 | 1 | ePn | Pg | 04 52 38.1 | -0.4 |
| SPNC | Sapanca-Adapaz | 1.44 | 43 | ePN | Pg | 04 52 38.7 | -0.2 |
| SPNC | Sapanca-Adapaz | 1.44 | 43 | ePn | Pg | 04 52 38.7 | -0.2 |
| SBT3 | Marmara-Eregli | 1.47 | 328 | ePN | Pg | 04 52 39.0 | -0.5 |
| SBT3 | Marmara-Eregli | 1.47 | 328 | ePn | Pg | 04 52 39.0 | -0.5 |
| KRBG | Karabiga-Canak | 1.51 | 300 | ePN | Pb | 04 52 39.6 | -0.2 |
| KRBG | Karabiga-Canak | 1.51 | 300 | ePn | Pb | 04 52 39.6 | -0.2 |
| SILT | Sile | 1.58 | 18 | ePN | Pb | 04 52 40.3 | -0.7 |
| SILT | Sile | 1.58 | 18 | ePn | Pb | 04 52 40.3 | -0.7 |
| KLYT | Kilyos | 1.61 | 1 | ePN | Pb | 04 52 41.3 | -0.1 |
| KLYT | Kilyos | 1.61 | 1 | ePn | Pb | 04 52 41.3 | -0.1 |
| CTKS | Kestanelik-??a | 1.64 | 347 | ePN | Pn | 04 52 40.9 | +0.2 |
| CTKS | Kestanelik-??a | 1.64 | 347 | ePn | Pn | 04 52 40.9 | +0.2 |
| SLVT | Silivri | 1.70 | 339 | ePN | Pb | 04 52 42.4 | -0.6 |
| SLVT | Silivri | 1.70 | 339 | ePn | Pb | 04 52 42.4 | -0.6 |
| RKY | Sarkoy-Tekirda | 1.75 | 307 | ePN | Pb | 04 52 42.9 | -1.0 |
| RKY | Sarkoy-Tekirda | 1.75 | 307 | ePn | Pb | 04 52 42.9 | -1.0 |
| MDUB | Mudurnu | 1.87 | 63 | ePN | Pn | 04 52 44.5 | +0.4 |
| MDUB | Mudurnu | 1.87 | 63 | ePn | Pn | 04 52 44.5 | +0.4 |
| LPK | Lapseki | 1.88 | 294 | ePN | Pb | 04 52 44.8 | -1.2 |
| LPK | Lapseki | 1.88 | 294 | ePn | Pb | 04 52 44.8 | -1.2 |
| SVRH | Sivrihisar-ESK | 1.95 | 95 | ePN | Pn | 04 52 45.8 | +0.6 |
| SVRH | Sivrihisar-ESK | 1.95 | 95 | ePn | Pn | 04 52 45.8 | +0.6 |
| GELI | Tayfur-Gelibol | 2.09 | 292 | ePN | Pn | 04 52 47.1 | +0.2 |
| GELI | Tayfur-Gelibol | 2.09 | 292 | ePn | Pn | 04 52 47.1 | +0.2 |
| ERIK | Erikli-Kesan | 2.17 | 299 | ePN | Pn | 04 52 48.7 | +0.6 |
| ERIK | Erikli-Kesan | 2.17 | 299 | ePn | Pn | 04 52 48.7 | +0.6 |
| KIZT | Kizilcal | 2.35 | 108 | ePN | Pn | 04 52 52.0 | +1.3 |
| KIZT | Kizilcal | 2.35 | 108 | ePn | Pn | 04 52 52.0 | +1.3 |

*ISK **07** 04:53:38.1, 38°.68N×43°.89E, h4km, MD2.5*
*CSEM **07** 04:53:40.2±0.3, 38°.86N×43°.56E, h2km, ML2.6, Error ellipse: s-maj=9.0km s-min=5.8km az=133.0*
*DDA **07** 04:53:40.1, 38°.87N×43°.51E, h7km, Ml2.6*
**ISC 07 04:53:39.9**±1.0**, 38°.85N**±0°.03×**43°.60E**±0°.04**, h12**km±7km**, n18, σ0s97**/32**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.14 | 352 | i P | Pg | 04 53 42.9 | -0.5 |
| VMUR | | | | i S | Sg | 04 53 46.7 | +0.8 |
| VMUR | Van-Muradiye | 0.14 | 352 | P | Pg | 04 53 42.9 | -0.5 |
| VMUR | | | | S | Sg | 04 53 46.7 | +0.8 |
| ERCV | ERCIS-VAN | 0.26 | 310 | ePG | Pn | 04 53 49.6 | -0.1 |
| ERCV | ERCIS-VAN | 0.26 | 310 | ePg | Pn | 04 53 49.6 | -0.1 |
| VANB | Van | 0.30 | 212 | ePG | Pb | 04 53 46.9 | -0.4 |
| VANB | | | | eSG | Sb | 04 53 53.4 | +1.1 |
| VANB | Van | 0.30 | 212 | ePg | Pb | 04 53 46.9 | -0.4 |
| VANB | | | | eSg | Sb | 04 53 53.4 | +1.1 |
| TVAN | Van | 0.36 | 205 | i P | Pg | 04 53 46.2 | -0.9 |
| TVAN | | | | i S | Sb | 04 53 53.9 | 0.0 |
| TVAN | Van | 0.36 | 205 | P | Pg | 04 53 46.2 | -0.9 |
| TVAN | | | | S | Sb | 04 53 53.9 | 0.0 |
| CLDR | Caldiran | 0.38 | 41 | ePG | Pb | 04 53 47.8 | -0.9 |
| CLDR | | | | eSG | Sb | 04 53 54.8 | +0.1 |
| CLDR | Caldiran | 0.38 | 41 | i P | Pb | 04 53 47.4 | -1.3 |
| CLDR | | | | i S | Sb | 04 53 55.4 | +0.7 |
| CLDR | Caldiran | 0.38 | 41 | P | Pb | 04 53 47.4 | -1.3 |
| CLDR | Caldiran | 0.38 | 41 | ePg | Pb | 04 53 47.8 | -0.9 |
| CLDR | | | | eSg | Sb | 04 53 54.8 | +0.1 |
| CLDR | | | | S | Sb | 04 53 55.4 | +0.7 |
| ADCV | BITLIS_Adilcev | 0.68 | 266 | i P | Pg | 04 53 52.3 | -0.9 |
| ADCV | | | | i S | Sb | 04 54 03.2 | -0.1 |
| ADCV | BITLIS_Adilcev | 0.68 | 266 | P | Pg | 04 53 52.3 | -0.9 |
| ADCV | | | | S | Sb | 04 54 03.2 | -0.1 |
| TUTA | Tutak | 0.82 | 312 | i P | Pg | 04 53 54.7 | -1.0 |
| TUTA | | | | i S | Sg | 04 54 06.8 | +0.3 |
| TUTA | Tutak | 0.82 | 312 | P | Pg | 04 53 54.7 | -1.0 |
| TUTA | | | | S | Sg | 04 54 06.8 | +0.3 |
| AGRB | Hanur-Agry | 0.86 | 327 | ePN | Pn | 04 54 00.2 | +2.3 |
| AGRB | Hanur-Agry | 0.86 | 327 | ePn | Pn | 04 54 00.3 | +2.3 |

*CSEM **07** 04:59:59.1, 37°.17N×25°.05W, h5km, ML2.8*
**PDA 07 04:59:59.1**±0.8**, 37°.17N×25°.05W, h5**km**, MD3.8, ML2.8, Error ellipse: s-maj=4.0km s-min=1.2km az=83.0, Azores Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PSMN | Pico do Norte, | 0.17 | 185 | eP | Pg | 05 00 02.0 | -0.4 |
| PSMN | | | | eS | Sg | 05 00 04.7 | +0.1 |
| PSMN | | | | A | A | 05 00 08.7 | |
| | 251nm,0.2s | | | | | | |
| PSMN | Pico do Norte, | 0.17 | 185 | eP | Pg | 05 00 02.0 | -0.4 |
| PSMN | | | | eS | Sg | 05 00 04.7 | +0.1 |
| PSMA | Santa Maria | 0.18 | 201 | eP | Pg | 05 00 02.3 | -0.4 |
| PSMA | | | | eS | Sg | 05 00 05.3 | +0.1 |
| PSMA | | | | A | A | 05 00 06.1 | |
| | 3µm,0.2s | | | | | | |
| BART | Pico Bartolome | 0.62 | 351 | eP | Pg | 05 00 09.5 | -1.5 |
| BART | | | | eS | Sg | 05 00 17.5 | -1.5 |
| BART | | | | A | A | 05 00 21.6 | |
| | 156nm,0.3s | | | | | | |
| BART | Pico Bartolome | 0.62 | 351 | eP | Pg | 05 00 09.5 | -1.5 |
| BART | | | | eS | Sg | 05 00 17.5 | -1.5 |
| GRON | Grota Negra | 0.71 | 327 | eP | Pg | 05 00 10.2 | -2.6 |
| GRON | | | | eS | Sg | 05 00 18.4 | -3.7 |
| GRON | | | | A | A | 05 00 20.6 | |
| | 38nm,0.1s | | | | | | |
| PCALD | Caldeiras da R | 0.72 | 331 | eS | Sg | 05 00 20.2 | -2.1 |
| PCALD | | | | A | A | 05 00 21.6 | |
| | 123nm,0.3s | | | | | | |
| PCALD | Caldeiras da R | 0.72 | 331 | eS | Sg | 05 00 20.2 | -2.1 |
| PDA | Ponta Delgada | 0.76 | 320 | eP | Pg | 05 00 11.3 | -2.4 |
| PDA | | | | eS | Sg | 05 00 20.3 | -3.2 |
| PDA | | | | A | A | 05 00 21.3 | |
| | 85nm,0.2s | | | | | | |
| PDA | Ponta Delgada | 0.76 | 320 | eP | Pg | 05 00 11.3 | -2.4 |
| PDA | | | | eS | Sg | 05 00 20.3 | -3.2 |
| PSET | Sete Cidades | 0.85 | 321 | eP | Pg | 05 00 12.8 | -2.5 |
| PSET | | | | eS | Sg | 05 00 22.9 | -3.4 |
| PSET | | | | A | A | 05 00 27.4 | |
| | 122nm,0.3s | | | | | | |
| PSET | Sete Cidades | 0.85 | 321 | eP | Pg | 05 00 12.8 | -2.5 |
| PSET | | | | eS | Sg | 05 00 22.9 | -3.4 |
| ADH | Angra Heroismo | 2.28 | 311 | eS | Sn | 05 00 57.8 | -8.0 |
| ADH | | | | A | A | 05 01 01.1 | |
| | 19nm,0.3s | | | | | | |
| ADH | Angra Heroismo | 2.28 | 311 | eS | Sn | 05 00 57.8 | -8.0 |
| PGRA | Graciosa | 2.97 | 310 | eS | Sn | 05 01 14.9 | -8.0 |
| PGRA | | | | A | A | 05 01 20.7 | |
| | 18nm,0.3s | | | | | | |
| PGRA | Graciosa | 2.97 | 310 | eS | Sn | 05 01 14.9 | -8.0 |
| PICO | Pico | 2.99 | 297 | eP | Pn | 05 00 42.7 | -4.5 |
| PICO | | | | eS | Sn | 05 01 15.0 | -8.4 |
| PICO | | | | A | A | 05 01 16.4 | |
| | 28nm,0.4s | | | | | | |
| PICO | Pico | 2.99 | 297 | eP | Pn | 05 00 42.7 | -4.5 |
| PICO | | | | eS | Sn | 05 01 15.0 | -8.4 |
| PCAN | Candelaria | 3.01 | 296 | eP | Pn | 05 00 43.1 | -4.4 |
| PCAN | | | | eS | Sn | 05 01 15.5 | -8.5 |
| PCAN | | | | A | A | 05 01 18.4 | |
| | 17nm,0.3s | | | | | | |
| PCAN | Candelaria | 3.01 | 296 | eP | Pn | 05 00 43.1 | -4.4 |
| PCAN | | | | eS | Sn | 05 01 15.5 | -8.5 |
| CALA | Caldeira | 3.22 | 297 | eP | Pn | 05 00 46.1 | -4.3 |
| CALA | | | | eS | Sn | 05 01 20.8 | -8.3 |
| CALA | Caldeira | 3.22 | 297 | eP | Pn | 05 00 46.1 | -4.3 |
| CALA | | | | eS | Sn | 05 01 20.8 | -8.3 |

*ATH **07** 05:09:15.4, 38°.86N×26°.35E, h27km±1km, ML3.0/5, Error ellipse: s-maj=2.6km s-min=1.0km az=267.0*
*DDA **07** 05:09:15.4, 38°.88N×26°.40E, h7km, Ml3.2*
*ISK **07** 05:09:15.4, 38°.87N×26°.38E, h9km, ML2.9*
*ISCJB **07** 05:09:15.7±0.4, 38°.87N±0°.02×26°.33E±0°.03, h11km±3km, Error ellipse: s-maj=4.0km s-min=2.3km az=162.4*
*CSEM **07** 05:09:16.0±0.1, 38°.87N×26°.36E, h10km, ML2.9, Error ellipse: s-maj=2.6km s-min=1.9km az=78.0*
*THE **07** 05:09:16.1, 38°.87N×26°.33E, h5km±1km, ML2.9/5, Error ellipse: s-maj=1.5km s-min=0.5km az=264.0*
**ISC 07 05:09:15.4**±1.1**, 38°.86N**±0°.01×**26°.35E**±0°.02**, h8**km±10km**, n131, σ0s74**/168**, 12C-4D, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PRK | Paraskevi | 0.40 | 351 | P | Pb | 05 09 23.9 | -0.7 |
| PRK | | | | S | Sg | 05 09 29.5 | +1.2 |
| PRK | | | | AML | AML | 05 09 30.6 | |
| | comp=N,7872µm,0.4s | | | | | | |
| PRK | | | | AML | AML | 05 09 34.0 | |
| | comp=E,6648µm,0.5s | | | | | | |
| PRK | Paraskevi | 0.40 | 351 | P | Pb | 05 09 23.9 | -0.7 |
| PRK | | | | S | Sg | 05 09 29.5 | +1.2 |
| PRK | Paraskevi | 0.40 | 351 | P | Pb | 05 09 23.9 | -0.7 |
| PRK | | | | S | Sb | 05 09 30.1 | -0.8 |
| DKL | Dikili | 0.48 | 63 | ePG | Pg | 05 09 24.8 | +0.1 |
| DKL | Dikili | 0.48 | 63 | ePg | Pg | 05 09 24.8 | +0.1 |
| CHOS | Chios island | 0.52 | 207 | ePG | Pb | 05 09 27.0 | +0.2 |
| CHOS | Chios island | 0.52 | 207 | P | Pb | 05 09 27.3 | +0.5 |
| CHOS | | | | S | Sb | 05 09 33.8 | -0.8 |
| CHOS | | | | AML | AML | 05 09 37.8 | |
| | comp=N,2834µm,0.3s | | | | | | |
| CHOS | | | | AML | AML | 05 09 38.5 | |
| | comp=E,5955µm,0.2s | | | | | | |
| CHOS | Chios island | 0.52 | 207 | ePg | Pb | 05 09 27.0 | +0.2 |
| CHOS | Chios island | 0.52 | 207 | P | Pb | 05 09 27.3 | +0.5 |
| CHOS | | | | S | Sb | 05 09 35.1 | +0.5 |
| CHOS | Chios island | 0.52 | 207 | P | Pb | 05 09 26.7 | -0.1 |
| CHOS | | | | S | Sb | 05 09 35.1 | +0.5 |
| SIGR | SIGRI | 0.53 | 313 | ePG | Pb | 05 09 26.6 | -0.2 |
| SIGR | SIGRI | 0.53 | 313 | P | Pb | 05 09 27.6 | +0.8 |
| SIGR | | | | S | Sb | 05 09 33.9 | -0.7 |
| SIGR | | | | AML | AML | 05 09 37.7 | |
| | comp=N,1697µm,0.4s | | | | | | |
| SIGR | | | | AML | AML | 05 09 38.2 | |
| | comp=E,1776µm,0.3s | | | | | | |
| SIGR | SIGRI | 0.53 | 313 | ePg | Pb | 05 09 26.6 | -0.2 |
| SIGR | | | | S | Sb | 05 09 33.9 | -0.7 |
| SIGR | SIGRI | 0.53 | 313 | P | Pb | 05 09 26.8 | 0.0 |
| SIGR | | | | S | Sb | 05 09 34.1 | -0.5 |
| URLA | Izmir | 0.53 | 159 | ePG | Pb | 05 09 26.1 | -0.8 |
| URLA | | | | eSG | Sb | 05 09 33.4 | -1.3 |
| URLA | Izmir | 0.53 | 159 | i P | Pg | 05 09 25.9 | +0.3 |
| URLA | | | | i S | Sb | 05 09 34.9 | +0.1 |
| URLA | Izmir | 0.53 | 159 | ePg | Pb | 05 09 26.1 | -0.8 |
| URLA | | | | eSg | Sb | 05 09 33.4 | -1.3 |
| ZEY | ˜zmir | 0.63 | 169 | i P | Pb | 05 09 27.8 | -0.7 |
| ZEY | | | | i S | Sb | 05 09 38.7 | +1.2 |
| BAYC | CANAKKALE_Bayr | 0.90 | 10 | i P | Pg | 05 09 32.2 | -0.4 |
| BAYC | | | | i S | Sb | 05 09 45.5 | +0.2 |
| BAYC | CANAKKALE_Bayr | 0.90 | 10 | P | Pg | 05 09 32.2 | -0.4 |
| BAYC | | | | S | Sb | 05 09 45.5 | +0.2 |
| DGB | ˜zmir | 0.90 | 152 | i P | Pg | 05 09 32.5 | -0.3 |
| DGB | | | | i S | Sb | 05 09 45.1 | -0.4 |
| EZN | Ezine | 0.97 | 359 | ePG | Pg | 05 09 34.0 | 0.0 |
| EZN | Ezine | 0.97 | 359 | P | Pg | 05 09 33.7 | -0.3 |
| EZN | Ezine | 0.97 | 359 | ePg | Pg | 05 09 34.0 | 0.0 |
| EZN | | | | S | Sb | 05 09 47.9 | +0.5 |
| EZN | Ezine | 0.97 | 359 | P | Pg | 05 09 33.7 | -0.3 |
| EZN | | | | S | Sb | 05 09 47.9 | +0.5 |
| BOZC | Bozcaada | 1.01 | 347 | ePG | Pb | 05 09 35.2 | +0.1 |
| BOZC | Bozcaada | 1.01 | 347 | i P | Pg | 05 09 35.0 | +0.1 |
| BOZC | | | | i S | Sg | 05 09 48.3 | +0.3 |
| BOZC | Bozcaada | 1.01 | 347 | ePg | Pb | 05 09 35.3 | +0.1 |
| AKS | Akhisar | 1.14 | 88 | ePN | Pb | 05 09 37.3 | 0.0 |
| AKS | Akhisar | 1.14 | 88 | ePn | Pb | 05 09 37.3 | 0.0 |
| AKHS | Akhisar | 1.14 | 88 | i P | Pn | 05 09 37.7 | +0.1 |
| AKHS | | | | i S | Sb | 05 09 52.4 | +0.1 |
| AKHS | Akhisar | 1.14 | 88 | P | Pn | 05 09 37.7 | +0.1 |
| AKHS | | | | S | Sb | 05 09 52.4 | +0.1 |
| STEP | BALIKESIR_Sava | 1.18 | 63 | i P | Pg | 05 09 37.4 | -0.7 |
| STEP | | | | i S | Sg | 05 09 52.6 | -0.8 |
| STEP | BALIKESIR_Sava | 1.18 | 63 | P | Pg | 05 09 37.4 | -0.7 |
| STEP | | | | S | Sg | 05 09 52.6 | -0.8 |
| SMG | Samos | 1.21 | 161 | P | Pn | 05 09 38.7 | +0.2 |
| SMG | | | | S | Sn | 05 09 55.9 | +0.8 |
| SMG | | | | AML | AML | 05 09 58.2 | |
| | comp=E,2271µm,0.4s | | | | | | |
| SMG | | | | AML | AML | 05 09 58.6 | |
| | comp=N,2676µm,0.4s | | | | | | |
| SMG | Samos | 1.21 | 161 | P | Pn | 05 09 38.7 | +0.2 |
| SMG | | | | S | Sn | 05 09 55.6 | +0.5 |
| SMG | Samos | 1.21 | 161 | P | Pg | 05 09 37.7 | -0.8 |
| SMG | | | | S | Sn | 05 09 55.6 | +0.5 |
| BALY | Balya | 1.32 | 48 | i P | Pn | 05 09 39.5 | -0.7 |
| BALY | | | | i S | Sb | 05 09 57.3 | -0.3 |
| BALY | Balya | 1.32 | 48 | P | Pn | 05 09 39.5 | -0.7 |
| BALY | | | | S | Sb | 05 09 57.3 | -0.3 |
| GCAM | G?zelcaml? | 1.35 | 149 | ePN | Pg | 05 09 41.5 | +0.3 |
| GCAM | G?zelcaml? | 1.35 | 149 | i P | Pb | 05 09 40.8 | 0.0 |
| GCAM | | | | i S | Sn | 05 09 58.6 | +0.1 |
| GCAM | G?zelcaml? | 1.35 | 149 | P | Pb | 05 09 40.8 | 0.0 |
| GCAM | G?zelcaml? | 1.35 | 149 | ePn | Pg | 05 09 41.5 | +0.3 |
| GCAM | | | | S | Sn | 05 09 58.6 | +0.1 |
| GADA | Gvkgeada | 1.38 | 345 | ePN | Pb | 05 09 41.4 | 0.0 |
| GADA | Gvkgeada | 1.38 | 345 | P | Pn | 05 09 39.6 | -1.3 |
| GADA | Gvkgeada | 1.38 | 345 | ePn | Pb | 05 09 41.4 | 0.0 |
| GADA | | | | S | Sb | 05 09 58.1 | -1.1 |
| GADA | Gvkgeada | 1.38 | 345 | P | Pn | 05 09 39.6 | -1.3 |
| GADA | | | | S | Sb | 05 09 58.1 | -1.1 |
| LIA | Limnos Island | 1.38 | 319 | P | Pb | 05 09 41.4 | -0.1 |
| LIA | | | | S | Sb | 05 09 57.8 | -1.4 |
| LIA | | | | AML | AML | 05 10 01.5 | |
| | comp=N,531µm,0.5s | | | | | | |
| LIA | | | | AML | AML | 05 10 02.5 | |
| | comp=E,825µm,0.4s | | | | | | |
| LIA | Limnos Island | 1.38 | 319 | P | Pb | 05 09 41.3 | -0.1 |
| LIA | | | | S | Sb | 05 09 58.1 | -1.1 |
| LIA | Limnos Island | 1.38 | 319 | P | Pn | 05 09 40.2 | -0.7 |
| LIA | | | | S | Sb | 05 09 58.1 | -1.1 |
| SKY | Skiros Island | 1.41 | 271 | P | Pg | 05 09 42.4 | 0.0 |
| SKY | Skiros Island | 1.41 | 271 | P | Pg | 05 09 42.3 | 0.0 |
| BALB | Balikesir | 1.42 | 56 | ePN | Pn | 05 09 41.7 | +0.2 |
| BALB | Balikesir | 1.42 | 56 | ePn | Pn | 05 09 41.7 | +0.2 |
| GELI | Tayfur-Gelibol | 1.54 | 3 | ePN | Pn | 05 09 43.0 | -0.2 |
| GELI | Tayfur-Gelibol | 1.54 | 3 | ePn | Pn | 05 09 43.0 | -0.2 |
| LPK | Lapseki | 1.55 | 12 | ePN | Pn | 05 09 43.5 | +0.3 |
| LPK | Lapseki | 1.55 | 12 | ePn | Pn | 05 09 43.5 | +0.3 |
| GONE | Gonen-Balikesi | 1.57 | 41 | ePN | Pn | 05 09 44.2 | +0.6 |
| GONE | Gonen-Balikesi | 1.57 | 41 | ePn | Pn | 05 09 44.2 | +0.6 |
| AYDN | Tasoluk | 1.69 | 134 | i P | Pb | 05 09 46.2 | -0.6 |
| AYDN | | | | i S | Sg | 05 10 09.7 | -0.1 |
| AYDN | Tasoluk | 1.69 | 134 | P | Pb | 05 09 46.2 | -0.6 |
| AYDN | | | | S | Sg | 05 10 09.6 | -0.1 |
| KRBG | Karabiga-Canak | 1.70 | 25 | ePN | Pb | 05 09 46.3 | -0.6 |
| KRBG | Karabiga-Canak | 1.70 | 25 | ePn | Pb | 05 09 46.3 | -0.6 |
| KARY | Karystos | 1.71 | 242 | P | Pn | 05 09 44.6 | -0.8 |
| KARY | Karystos | 1.71 | 242 | P | Pn | 05 09 44.7 | -0.8 |
| SMTH | Samothraki Isl | 1.73 | 339 | P | Pn | 05 09 45.4 | -0.4 |
| SMTH | Samothraki Isl | 1.73 | 339 | P | Pn | 05 09 45.4 | -0.4 |
| SMTH | Samothraki Isl | 1.73 | 339 | P | Pn | 05 09 45.0 | -0.8 |
| ERIK | Erikli-Kesan | 1.82 | 4 | ePN | Pn | 05 09 47.2 | +0.3 |
| ERIK | Erikli-Kesan | 1.82 | 4 | ePn | Pn | 05 09 47.2 | +0.3 |
| KULA | Kula-Manisa | 1.84 | 100 | ePN | Pb | 05 09 48.3 | -1.0 |
| KULA | Kula-Manisa | 1.84 | 100 | ePn | Pb | 05 09 48.3 | -1.0 |
| DEMI | Demirci | 1.85 | 83 | i P | Pg | 05 09 51.1 | +0.2 |
| DEMI | Demirci | 1.85 | 83 | P | Pg | 05 09 51.1 | +0.2 |
| ENEZ | Enez | 1.89 | 355 | ePN | Pn | 05 09 48.3 | +0.4 |
| ENEZ | Enez | 1.89 | 355 | ePn | Pn | 05 09 48.3 | +0.4 |
| EDC | Edincik | 1.89 | 38 | ePN | Pn | 05 09 48.3 | +0.3 |
| EDC | Edincik | 1.89 | 38 | ePn | Pn | 05 09 48.3 | +0.3 |
| APE | Apeiranthos | 1.90 | 200 | ePN | Pn | 05 09 48.3 | +0.2 |
| APE | Apeiranthos | 1.90 | 200 | P | Pn | 05 09 46.8 | -1.3 |
| APE | Apeiranthos | 1.90 | 200 | P | Pn | 05 09 46.8 | -1.3 |
| APE | Apeiranthos | 1.90 | 200 | ePn | Pn | 05 09 48.3 | +0.2 |
| RKY | Sarkoy-Tekirda | 1.94 | 19 | ePN | Pn | 05 09 49.2 | +0.6 |
| RKY | Sarkoy-Tekirda | 1.94 | 19 | ePn | Pn | 05 09 49.2 | +0.6 |
| BODT | Bodrum | 1.94 | 157 | ePN | Pb | 05 09 49.9 | -1.1 |
| BODT | Bodrum | 1.94 | 157 | ePn | Pb | 05 09 49.9 | -1.1 |
| ALN | Alexandroupoli | 2.05 | 353 | ePN | Pn | 05 09 51.2 | +1.0 |
| ALN | Alexandroupoli | 2.05 | 353 | P | Pn | 05 09 51.2 | +1.0 |
| ALN | Alexandroupoli | 2.05 | 353 | P | Pn | 05 09 51.2 | +1.0 |
| ALN | Alexandroupoli | 2.05 | 353 | P | Pn | 05 09 48.6 | -1.6 |
| SIMA | Simav-Kutahya | 2.06 | 83 | ePN | Pn | 05 09 51.1 | +0.7 |
| SIMA | Simav-Kutahya | 2.06 | 83 | ePn | Pn | 05 09 51.1 | +0.7 |
| KCTX | Karacabey (Bur | 2.09 | 47 | ePN | Pn | 05 09 51.1 | +0.3 |
| KCTX | Karacabey (Bur | 2.09 | 47 | ePn | Pn | 05 09 51.1 | +0.3 |
| ORLT | Orhaneli | 2.30 | 58 | ePN | Pn | 05 09 54.3 | +0.7 |
| ORLT | Orhaneli | 2.30 | 58 | ePn | Pn | 05 09 54.3 | +0.7 |
| RDO | Rodhopi | 2.37 | 345 | P | Pn | 05 09 55.1 | +0.5 |
| RDO | Rodhopi | 2.37 | 345 | P | Pn | 05 09 55.1 | +0.5 |
| MDNY | Mudanya-Bursa | 2.47 | 51 | ePN | Pn | 05 09 56.6 | +0.7 |
| MDNY | Mudanya-Bursa | 2.47 | 51 | ePn | Pn | 05 09 56.6 | +0.7 |
| TVSB | Tavsanli | 2.49 | 75 | ePN | Pn | 05 09 57.3 | +1.0 |
| TVSB | Tavsanli | 2.49 | 75 | ePn | Pn | 05 09 57.3 | +1.0 |
| KAVA | Kavala | 2.56 | 327 | P | Pn | 05 09 56.1 | -1.1 |
| KAVA | Kavala | 2.56 | 327 | P | Pn | 05 09 56.1 | -1.1 |
| TURN | Turunc | 2.66 | 137 | ePN | Pn | 05 09 58.3 | -0.2 |
| TURN | Turunc | 2.66 | 137 | ePn | Pn | 05 09 58.3 | -0.2 |
| KDZ | Kurdzhali | 2.88 | 346 | eP | Pn | 05 10 01.7 | +0.1 |
| RZN | Rozhen | 3.09 | 337 | eP | Pn | 05 10 06.6 | +1.9 |
| NVR | Nevrokopi | 3.14 | 323 | P | Pn | 05 10 05.8 | +0.7 |
| NVR | Nevrokopi | 3.14 | 323 | P | Pn | 05 10 05.8 | +0.7 |
| GUR | Goura | 3.28 | 255 | P | Pn | 05 10 08.0 | +0.8 |
| GUR | Goura | 3.28 | 255 | P | Pn | 05 10 08.0 | +0.8 |
| MMB | Musomiste | 3.39 | 324 | eP | Pn | 05 10 07.4 | -1.2 |
| SZH | Strazhica | 4.42 | 356 | eP | Pn | 05 10 21.9 | -0.8 |
| CFR | Carcaliu | 6.46 | 11 | ⇑iP | Pn | 05 10 54.6 | +4.0 |
| ARR | Arges | 6.63 | 349 | ⇓iP | Pn | 05 10 53.7 | +0.5 |
| ARR | Arges | 6.63 | 349 | ⇓iP | Pn | 05 10 53.7 | +0.5 |
| MLR | Muntele Rosu | 6.64 | 358 | ⇑iP | Pn | 05 10 53.4 | +0.1 |
| MLR | Muntele Rosu | 6.64 | 358 | ⇑iP | Pn | 05 10 53.4 | +0.1 |
| VOIR | | 6.65 | 352 | ⇑iP | Pn | 05 10 53.7 | +0.3 |
| VOIR | | 6.65 | 352 | ⇑iP | Pn | 05 10 53.7 | +0.3 |
| MDVR | Moldovita | 6.86 | 331 | ⇓iP | Pn | 05 10 57.0 | +0.7 |
| MDVR | Moldovita | 6.86 | 331 | ⇓iP | Pn | 05 10 57.0 | +0.7 |
| PLOR | Plostina | 7.00 | 2 | ⇑iP | Pn | 05 10 58.1 | 0.0 |
| PLOR | Plostina | 7.00 | 2 | ⇑iP | Pn | 05 10 58.1 | 0.0 |
| VRI | Vrincioaia | 7.01 | 2 | ⇑iP | Pn | 05 10 59.3 | +1.0 |
| VRI | Vrincioaia | 7.01 | 2 | ⇑iP | Pn | 05 10 59.3 | +1.0 |
| DOPR | Dopca | 7.14 | 355 | ⇑iP | Pn | 05 11 01.1 | +1.0 |
| DOPR | Dopca | 7.14 | 355 | ⇑iP | Pn | 05 11 01.1 | +1.0 |
| BURAR | Bucovina Array | 8.79 | 355 | ⇑iP | Pn | 05 11 22.8 | -0.1 |

*ISCJB **07** 05:13:14.6±0.2, 17°.67N±0°.02×94°.06W±0°.02, h198km±2km, mb4.6/109, Error ellipse: s-maj=3.7km s-min=2.6km az=154.3*
*IDC **07** 05:13:14.1±0.4, 17°.69N×93°.95W, h178km±5km, mb4.2/21, mb1 4.3/21, mb1mx4.2/35, mbtmp4.7/21, MS4.0/1, Ms1 4.1/1, ms1mx3.1/25, Error ellipse: s-maj=12.6km s-min=7.6km az=74.0*
*BJI **07** 05:13:15.0, 17°.70N×94°.00W, h203km, mB5.4/9*
*NEIC **07** 05:13:17.2±0.0, 17°.48N×94°.25W, h193km, mb5.0/128, MD5.1(MEX), After MEX.*
*NEIC Felt [II] at Oaxaca. Also felt at Fortin de las Flores, Teolitlan and Zacatepec. Felt at Guatemala, Guatemala.*
*GCMT **07** 05:13:17.2±0.3, 17°.82N×94°.10W, h198km±2km, MW5.1/98, Moment Tensor Solution. s43,c47; s98,c140; Duration: 0 Moment tensor: Scale $10^{16}$Nm; $M_{rr}$-2.79±.14; $M_{\theta\theta}$-1.22±.14; $M_{\phi\phi}$4.01±.13; $M_{r\theta}$3.26±.12; $M_{\theta\phi}$-2.48±.16; $M_{\phi r}$-0.71±.12; Best double couple: $M_0$5.47400×$10^{16}$ NP1:$\phi_s$305.00000°, δ69.00000°, λ-130.00000°. NP2: $\phi_s$192.00000°, δ45.00000°, λ-31.00000°. Principal axes: T 5.4800, Plg14.0000°, Azm63.0000°; N -0.0120, Plg37.0000°, Azm322.0000°; P -5.4680, Plg49.0000°, Azm170.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*MEX **07** 05:13:17.2±0.6, 17°.48N×94°.25W, h193km±10km, MD5.1*
**ISC 07 05:13:16.3**±0.4**, 17°.54N**±0°.04×**94°.20W**±0°.03**, h208**km±3km**, h208km:pP-P, n701, σ1s73**/739**, mb4.6**/112**, 1D, Chiapas**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CMIG | Matias Romero | 0.79 | 236 | P | Pn | 05 13 43.1 | -2.6 |
| | 1µm,0.3s,baz=67,slow=4.3 | | | | | | |
| CMIG | | | | S | S | 05 14 03.8 | -4.6 |
| | 373nm,0.3s,baz=173,slow=23,SNR=92 | | | | | | |
| TGIG | | 1.28 | 126 | eP | Pn | 05 13 47.0 | -2.0 |
| TGIG | | | | eS | S | 05 14 10.4 | -3.7 |
| TGIG | | 1.28 | 126 | eP | Pn | 05 13 47.0 | -2.0 |
| TGIG | | | | eS | S | 05 14 10.4 | -3.7 |
| PCIG | | 2.05 | 153 | eP | Pn | 05 13 54.4 | -1.6 |
| PCIG | | | | eS | S | 05 14 23.1 | -3.4 |
| PCIG | | 2.05 | 153 | eP | Pn | 05 13 54.4 | -1.6 |
| PCIG | | | | eS | S | 05 14 23.1 | -3.4 |
| CCIG | Comitan | 2.34 | 122 | eP | Pn | 05 13 58.1 | -1.0 |
| CCIG | | | | eS | S | 05 14 29.8 | -2.2 |
| CCIG | Comitan | 2.34 | 122 | ePn | Pn | 05 13 57.6 | -1.6 |
| CCIG | | | | eS | S | 05 14 29.8 | -2.2 |
| OXBJ | Oaxaca | 2.46 | 259 | eP | Pn | 05 13 58.6 | -1.8 |
| OXBJ | | | | eS | S | 05 14 30.5 | -3.9 |
| VHO | Vista Hermosa | 2.47 | 259 | eP | Pn | 05 13 58.8 | -1.8 |
| VHO | | | | eS | S | 05 14 31.0 | -3.5 |
| VHO | Vista Hermosa | 2.47 | 259 | eP | Pn | 05 13 58.8 | -1.8 |
| VHO | | | | eS | S | 05 14 31.0 | -3.5 |
| HUIG | Huatulco | 2.54 | 226 | eP | Pn | 05 13 57.3 | -3.9 |
| HUIG | | | | eS | S | 05 14 32.1 | -3.7 |
| HUIG | Huatulco | 2.54 | 226 | eP | Pn | 05 13 57.3 | -3.9 |
| HUIG | | | | eS | S | 05 14 32.1 | -3.7 |
| LVIG | Laguna Verde | 3.02 | 316 | i P | Pn | 05 14 03.9 | -2.7 |
| LVIG | | | | eS | S | 05 14 42.5 | -3.1 |
| LVIG | Laguna Verde | 3.02 | 316 | ePn | Pn | 05 14 03.9 | -2.7 |
| LVIG | | | | eS | S | 05 14 42.5 | -3.1 |
| TPIG | Tehuac#an | 3.14 | 287 | eP | Pn | 05 14 07.1 | -1.1 |
| TPIG | | | | eS | S | 05 14 45.5 | -2.7 |
| TPIG | Tehuac#an | 3.14 | 287 | eP | Pn | 05 14 07.1 | -1.1 |
| TPIG | | | | eS | S | 05 14 45.5 | -2.7 |
| SCIG | Sabancuy | 3.19 | 63 | ePn | Pn | 05 14 05.9 | -2.7 |
| PNIG | Pinotepa | 3.93 | 254 | eP | Pn | 05 14 14.4 | -3.2 |
| PNIG | | | | eS | S | 05 14 58.4 | -6.8 |
| PNIG | Pinotepa | 3.93 | 254 | eP | Pn | 05 14 14.4 | -3.2 |
| PNIG | | | | eS | S | 05 14 58.4 | -6.8 |
| TLIG | Tlapa | 4.17 | 271 | eP | Pn | 05 14 19.4 | -1.2 |
| TLIG | | | | eS | S | 05 15 07.1 | -3.6 |
| TLIG | Tlapa | 4.17 | 271 | ePn | Pn | 05 14 19.0 | -1.6 |
| TLIG | | | | eS | S | 05 15 07.1 | -3.6 |
| UNM | Universidad Na | 5.05 | 291 | i P | Pn | 05 14 32.5 | +0.7 |
| UNM | | | | eS | S | 05 15 29.1 | -1.9 |
| UNM | Universidad Na | 5.05 | 291 | ePn | Pn | 05 14 32.8 | +1.0 |
| UNM | | | | eS | S | 05 15 29.1 | -1.9 |
| PLIG | Platanillo | 5.12 | 280 | eP | Pn | 05 14 32.6 | 0.0 |
| PLIG | | | | eS | S | 05 15 30.6 | -1.8 |
| PLIG | Platanillo | 5.12 | 280 | eP | Pn | 05 14 32.6 | 0.0 |
| PLIG | | | | eS | S | 05 15 30.6 | -1.8 |
| DEIG | Demacu | 5.34 | 302 | eP | Pn | 05 14 36.1 | +0.6 |
| DEIG | | | | eS | S | 05 15 35.4 | -2.3 |
| DEIG | Demacu | 5.34 | 302 | eP | Pn | 05 14 36.1 | +0.6 |
| DEIG | | | | eS | S | 05 15 35.4 | -2.3 |
| MYIG | MØrida | 5.41 | 50 | ePn | Pn | 05 14 33.7 | -2.5 |
| CAIG | El Cayaco | 5.82 | 266 | i P | Pn | 05 14 39.8 | -1.6 |
| CAIG | | | | eS | S | 05 15 45.4 | -3.1 |
| CAIG | El Cayaco | 5.82 | 266 | i P | Pn | 05 14 39.8 | -1.6 |
| CAIG | | | | eS | S | 05 15 45.4 | -3.1 |
| JRQG | Juriquilla Cam | 6.69 | 299 | ePn | Pn | 05 14 54.2 | +1.3 |
| MOIG | Morelia | 6.96 | 289 | ePn | Pn | 05 14 57.9 | +1.6 |
| TGUH | Tegucigalpa,Un | 7.51 | 116 | ePn | Pn | 05 15 04.3 | +1.0 |
| LNIG | Linares | 8.81 | 327 | ePn | Pn | 05 15 19.9 | -0.2 |
| ZAIG | Zacatecas | 9.42 | 305 | ePn | Pn | 05 15 30.2 | +1.9 |
| JTS | JuntasAbangare | 11.51 | 128 | ePn | Pn | 05 15 54.5 | -0.3 |
| | 35nm,0.6s | | | | | | |
| 833A | Chaparral WMA, | 11.75 | 337 | P | Pn | 05 15 56.8 | -0.9 |
| | baz=155,SNR=21 | | | | | | |
| HKT | Hockley | 12.44 | 353 | ePn | Pn | 05 16 06.2 | -0.3 |
| 543A | St. Martinvill | 12.67 | 9 | P | Pn | 05 16 07.3 | -2.0 |
| | baz=190 | | | | | | |
| 440A | Kirbyville | 13.15 | 1 | P | Pn | 05 16 13.6 | -1.7 |
| | baz=181 | | | | | | |
| 441A | DeRidder | 13.18 | 4 | P | Pn | 05 16 13.4 | -2.3 |
| | baz=184 | | | | | | |

438A **Sam Houston St** 13.20 355 P Pn 05 16 15.1 -0.9
baz=175
439A **Center Grove,** 13.20 358 P Pn 05 16 14.0 -2.1
baz=178
442A **Mamou** 13.21 7 P Pn 05 16 14.6 -1.6
baz=188,SNR=5.7
444A **Pine Grove** 13.49 13 P Pn 05 16 18.3 -1.3
baz=194
435B **Jarrell** 13.54 347 P Pn 05 16 19.8 -0.4
baz=166,SNR=9.1
445A **Amite** 13.59 14 P Pn 05 16 18.6 -2.3
baz=196
339A **Huntington** 13.74 359 P Pn 05 16 21.7 -1.0
baz=179,SNR=9.6
341A **Kurthwood** 13.76 4 P Pn 05 16 21.4 -1.6
baz=184,SNR=5.9
338A **Crockett** 13.79 356 P Pn 05 16 22.5 -0.9
baz=176,SNR=11
337A **Centerville** 13.80 354 P Pn 05 16 22.2 -1.2
baz=174
340A **Bronson** 13.82 1 P Pn 05 16 22.1 -1.6
baz=181,SNR=8.1
JCT **Junction City** 13.86 339 P Pn 05 16 23.5 -0.7
baz=158,SNR=24
JCT **Junction City** 13.86 339 *e*Pn Pn 05 16 24.1 -0.1
342A **Flagon Creek P** 13.88 7 P Pn 05 16 23.1 -1.3
baz=188,SNR=14
343A **Vidalia** 13.88 9 P Pn 05 16 23.1 -1.4
baz=190
446A **Poplarville** 13.90 18 P Pn 05 16 22.8 -1.9
baz=200
336A **Riesel** 13.99 351 P Pn 05 16 25.2 -0.6
baz=170,SNR=12
447A **Lucedale** 14.13 20 P Pn 05 16 26.3 -1.1
baz=202,SNR=6.3
HPIG 14.14 313 *e*Pn P 05 16 29.8 +0.4
NATX **Nacogdoches** 14.16 358 P Pn 05 16 26.7 -1.2
baz=178,SNR=8.5
NATX **Nacogdoches** 14.16 358 *e*Pn P 05 16 30.3 +0.9
344A **Westbrook Farm** 14.20 12 P Pn 05 16 27.6 -0.8
baz=194,SNR=8.9
239A **Gary** 14.42 359 P Pn 05 16 30.3 -0.7
baz=179,SNR=9.0
238A **Jacksonville** 14.42 357 P Pn 05 16 30.3 -0.8
baz=177,SNR=10.0
346A **Big Creek Wild** 14.44 16 P Pn 05 16 29.3 -2.0
baz=198
240A **Hunter Patters** 14.44 1 P Pn 05 16 29.5 -1.8
baz=182
241A **Mo Tay, Goldon** 14.47 4 P Pn 05 16 28.7 -2.9
baz=185
237A **Washetta, Mont** 14.47 355 P Pn 05 16 30.7 -1.0
baz=174,SNR=8.1
243A **Waterproof** 14.49 9 P Pn 05 16 29.1 -2.8
baz=190
448A **Bay Minette** 14.52 22 P Pn 05 16 29.7 -2.6
baz=205,SNR=7.9
236A **Katherine and** 14.55 352 P Pn 05 16 32.2 -0.5
baz=171,SNR=5.4
242A **Grayson** 14.58 7 P Pn 05 16 31.7 -1.3
baz=188,SNR=16
TX31 **Lajitas Ar. Si** 14.60 325 *e*Pn P 05 16 34.4 0.0
TXAR **Lajitas Array** 14.60 325 P P 05 16 35.0 +0.7
2.4nm,0.3s,baz=147,slow=12,SNR=229
TXAR S S 05 19 14.4 -0.7
0.1nm,0.3s,baz=66,slow=4.4,SNR=2.5
WHTX **Lake Whitney,** 14.69 349 P Pn 05 16 34.1 -0.2
baz=168,SNR=22
WHTX **Lake Whitney,** 14.69 349 *e*Pn P 05 16 34.8 -0.4
347A **Saraland** 14.72 19 P Pn 05 16 33.8 -0.9
baz=202,SNR=7.1
244A **Avery, Jackson** 14.78 12 P Pn 05 16 33.8 -1.7
baz=193,SNR=13
245A **Little AP, Sta** 14.95 14 P Pn 05 16 35.5 -2.0
baz=196,SNR=9.0
348A **Jackson** 14.95 21 P Pn 05 16 36.2 -1.3
baz=204,SNR=7.6
VBMS **Vicksburg** 14.99 12 P Pn 05 16 36.1 -1.9
baz=194,SNR=6.3
VBMS **Vicksburg** 14.99 12 *e*Pn Pn 05 16 36.7 -1.3
136A **Ennis** 15.02 352 P Pn 05 16 37.8 -0.6
baz=172,SNR=8.5
BRAL **Brewton** 15.04 24 *e*Pn Pn 05 16 38.5 -0.2
141A **Papa Simpson,** 15.04 4 P Pn 05 16 37.6 -1.1
baz=185,SNR=6.9
140A **Cam and Jess,** 15.05 2 P Pn 05 16 37.8 -0.9
baz=182,SNR=15
137A **Heron Place, G** 15.06 355 P Pn 05 16 38.3 -0.6
baz=174,SNR=6.2
139A **Bunkhouse Ranc** 15.07 359 P Pn 05 16 38.2 -0.9
baz=180,SNR=5.4
138A **Matatall Enter** 15.08 357 P Pn 05 16 38.5 -0.6
baz=177,SNR=12
142A **Monroe** 15.08 7 P Pn 05 16 37.7 -1.4
baz=188
143A **Socs Landing,** 15.31 9 P Pn 05 16 40.3 -1.6
baz=190,SNR=7.0
247A **Quitman** 15.31 18 P Pn 05 16 39.9 -2.0
baz=201,SNR=5.9
145A **Houston Renfro** 15.48 14 P Pn 05 16 41.6 -2.5
baz=196
248A **Dixon Mills** 15.62 21 P P 05 16 42.7 -2.8
baz=204,SNR=16
Z39A **Irene McRaven,** 15.63 0 P P 05 16 43.6 -2.0
baz=180
Z37A **Pogue Cattle C** 15.64 356 P Pn 05 16 45.7 -0.3
baz=175,SNR=14
Z40A **Long Farm, Mag** 15.67 2 P P 05 16 45.6 -0.4
baz=183,SNR=18
Z38A **Mt. Pleasant** 15.67 358 P Pn 05 16 46.2 -0.1
baz=177,SNR=6.8
Z41A **Richland Creek** 15.70 4 P P 05 16 46.0 -0.4
baz=185
DWPF **Disney Wildern** 15.77 46 *e*Pn P 05 16 46.4 -0.8
199nm,0.8s
Z36A **Blue Ridge** 15.79 353 P Pn 05 16 47.7 -0.1
baz=172,SNR=18
Z42A **Norrel Spur, H** 15.80 7 P P 05 16 47.2 -0.2
baz=188,SNR=7.9
ABTX **Abilene, Hawle** 15.80 343 P Pn 05 16 47.8 -0.2
baz=161
Z43A **Armstrong Fami** 15.83 9 P P 05 16 47.4 -0.3
baz=190,SNR=15
147A **Livingston** 15.99 18 P P 05 16 48.3 -1.2
baz=201,SNR=6.0
Z44A **Pea Ridge, Bel** 16.03 11 P P 05 16 49.5 -0.5
baz=193,SNR=8.6
Z45A **Winona** 16.28 14 P P 05 16 51.7 -1.0
baz=196,SNR=6.3
Z46A **Louisville** 16.29 16 P P 05 16 51.9 -0.9
baz=198,SNR=6.2
Y38A **Idabel** 16.33 358 P P 05 16 53.4 +0.1
baz=178,SNR=46
Y39A **Lockesburg** 16.33 0 P P 05 16 53.5 +0.2
baz=180,SNR=18
Y41A **Eaglette Beard** 16.33 5 P P 05 16 52.6 -0.7
baz=186
Y42A **Garnett, Star** 16.37 7 P P 05 16 53.9 +0.2
baz=188
Y36A **Durant** 16.40 354 P Pn 05 16 54.6 -0.4
baz=173,SNR=11
Y37A **Hugo** 16.42 356 P Pn 05 16 54.6 -0.6
baz=175,SNR=20
Y40A **Okolona** 16.42 3 P P 05 16 54.5 +0.2
baz=183,SNR=28
CCAR **Cane Creek** 16.45 7 *e*P Pn 05 16 55.8 +0.1
132nm,0.6s
Y35A **Marietta** 16.50 352 P Pn 05 16 56.3 +0.1
baz=171,SNR=26
Z47A **Carrollton** 16.54 18 P P 05 16 55.4 -0.2
baz=201,SNR=60
Y43A **Makayla and Ka** 16.57 10 P P 05 16 55.8 -0.1
baz=191
LRAL **Lakeview Retre** 16.73 21 *e*P P 05 16 57.9 +0.1
60nm,0.6s
Y44A **Strider, Charl** 16.74 12 P P 05 16 57.8 0.0
baz=193,SNR=6.3
Y45A **Yeager Farm, C** 16.79 14 P P 05 16 58.4 +0.1
baz=196,SNR=10
TIGA **Tifton** 16.86 33 P P 05 16 58.7 -0.4
baz=217,SNR=8.1
TIGA **Tifton** 16.86 33 *e*P P 05 16 57.9 -1.2
62nm,0.8s
Z48A **Northport** 16.86 19 P P 05 16 58.7 -0.4
baz=202,SNR=29
X39A **Fountain Ranch** 16.90 0 P P 05 16 59.8 +0.2
baz=180,SNR=26
X40A **Basin Creek Fa** 16.92 4 P P 05 16 59.8 0.0
baz=185,SNR=20
MIAR **Mount Ida** 16.94 2 P P 05 17 00.4 +0.3
baz=182,SNR=134
MIAR **Mount Ida** 16.94 2 *e*P P 05 17 00.5 +0.5
170nm,0.6s
X41A **Kaden, Bauxite** 16.95 5 P P 05 17 00.3 +0.2
baz=186,SNR=54
Y46A **Houston** 16.96 15 P P 05 16 59.6 -0.7
baz=198,SNR=64
X35A **Drake** 16.97 352 P Pn 05 17 01.1 -0.7
baz=171,SNR=18
X35A **Drake** 16.97 352 *e*P Pn 05 17 01.2 -0.6
113nm,0.7s
X37A **Clayton** 17.01 357 P Pn 05 17 01.7 -0.6
baz=176,SNR=25
X37A **Clayton** 17.01 357 *e*P Pn 05 17 01.7 -0.6
269nm,1.4s
X38A **Whitesboro** 17.07 358 P Pn 05 17 02.4 -0.5
baz=178,SNR=58
X36A **Centrahoma** 17.07 354 P Pn 05 17 02.1 -0.8
baz=173,SNR=36
X42A **Stuttgart** 17.10 7 P P 05 17 02.1 +0.4
baz=188,SNR=5.8
X43A **Marvell** 17.17 9 P P 05 17 02.8 +0.3
baz=191
UALR **University of** 17.24 5 *e*P P 05 17 03.7 +0.4
141nm,0.7s
Y47A **UCPARC, Winfie** 17.26 18 P P 05 17 03.0 -0.4
baz=201,SNR=23
X44A **Crenshaw** 17.27 11 P P 05 17 03.1 -0.6
baz=193,SNR=9.4
MNTX **Cornudas Mount** 17.36 326 P Pn 05 17 06.8 +0.4
baz=142,SNR=15
MNTX **Cornudas Mount** 17.36 326 *e*P Pn 05 17 07.1 +0.6
42nm,1.7s
OXF **Oxford** 17.43 13 *e*P P 05 17 04.7 -0.7
108nm,0.5s
W38A **Poteau** 17.46 359 P Pn 05 17 06.6 -0.9
baz=179,SNR=37
W37B **Quinton** 17.56 357 P P 05 17 07.2 +0.4
baz=176,SNR=28
W37B **Quinton** 17.56 357 *e*P P 05 17 07.5 +0.7
60nm,0.6s
W39A **Magazine** 17.59 1 P P 05 17 07.8 +0.7
baz=182,SNR=61
W40A **Ferguson Farm,** 17.61 3 P P 05 17 07.8 +0.5
baz=184,SNR=20
W40A **Ferguson Farm,** 17.61 3 *e*P P 05 17 07.8 +0.5
90nm,0.6s
WMOK **Wichita Mounta** 17.61 347 P P 05 17 07.3 -0.1
baz=166,SNR=44
WMOK **Wichita Mounta** 17.61 347 *e*P P 05 17 07.3 -0.1
116nm,1.8s
W36A **Wetumka** 17.62 354 P P 05 17 07.9 +0.5
baz=174,SNR=67
W36A **Wetumka** 17.62 354 *e*P P 05 17 07.8 +0.3
34nm,0.6s
W41B **Gary Mavity, V** 17.65 5 P P 05 17 07.7 0.0
baz=186,SNR=24
W35A **Tecumseh** 17.70 353 P P 05 17 08.8 +0.5
baz=172,SNR=60
W35A **Tecumseh** 17.70 353 *e*P P 05 17 08.8 +0.5
116nm,0.6s
W43A **Forest City** 17.75 9 P P 05 17 08.4 -0.5
baz=191
WHAR **Wooly Hollow** 17.76 5 *e*P P 05 17 09.4 +0.5
65nm,0.7s
W42A **Bald Knob** 17.82 7 P P 05 17 09.4 -0.2
baz=188,SNR=19
W44A **Shelby Farms P** 17.96 12 P P 05 17 10.4 -0.7
baz=194
EPT **El Paso** 18.03 324 *e*P Pn 05 17 17.8 +3.4
16nm,0.7s
MSTX **Muleshoe** 18.08 336 P P 05 17 12.8 +0.3
baz=153,SNR=37
MSTX **Muleshoe** 18.08 336 *e*P P 05 17 13.0 +0.5
80nm,1.0s
OK020 **N3440 Road, Me** 18.08 353 *e*P P 05 17 12.6 +0.1
154nm,0.6s
W45A **Hickory Valley** 18.10 13 P P 05 17 11.5 -1.2
baz=196,SNR=7.9
OK021 **N3530 Road, Sp** 18.13 353 *e*P P 05 17 13.1 +0.2
279nm,0.6s
PLAL **Pickwick Lake** 18.21 16 *e*P P 05 17 12.8 -1.1
53nm,0.4s
HBAR **Harrisburg** 18.22 9 *e*P P 05 17 14.5 +0.6
88nm,0.5s
V39A **Pettigrew** 18.23 1 P P 05 17 14.5 +0.4
baz=182,SNR=162
V40A **Witts Springs** 18.23 4 P P 05 17 14.2 +0.1
baz=184,SNR=127
GTBY **Guantanamo Bay** 18.23 80 *e*P P 05 17 13.2 -1.0
83nm,0.7s
V36A **Jenks** 18.24 355 P P 05 17 13.7 -0.5
baz=175,SNR=20
V36A **Jenks** 18.24 355 *e*P P 05 17 14.0 -0.2
60nm,0.7s
V38A **Canehill** 18.25 359 P P 05 17 14.1 -0.2
baz=180,SNR=78
V41A **Mountainview** 18.26 5 P P 05 17 14.3 -0.1
baz=186,SNR=156
V37A **Hulbert** 18.29 358 P P 05 17 14.4 -0.3
baz=177,SNR=70
V35A **Meyer Ranch, C** 18.30 353 P P 05 17 14.7 -0.1
baz=172,SNR=56
V35A **Meyer Ranch, C** 18.30 353 *e*P P 05 17 14.7 -0.1
216nm,0.6s
TUL1 **Leonard** 18.35 356 P P 05 17 14.8 -0.5
baz=175,SNR=20
TUL1 **Leonard** 18.35 356 *e*P P 05 17 15.2 -0.2
182nm,1.4s
V42A **Cord** 18.36 7 P P 05 17 15.0 -0.5
baz=189,SNR=127
V43A **Jonesboro** 18.46 9 P P 05 17 15.5 -1.0
baz=191
GOGA **Godfrey** 18.51 29 *e*P P 05 17 16.0 -1.1
50nm,0.8s
AMTX **Amarillo** 18.52 340 P P 05 17 17.8 +0.5
baz=157
AMTX **Amarillo** 18.52 340 *e*P P 05 17 17.9 +0.6
86nm,0.9s
V44A **Blytheville** 18.61 11 P P 05 17 17.0 -1.2
baz=193
V45A **Humboldt** 18.71 13 P P 05 17 18.0 -1.3
baz=196,SNR=8.1
GNAR **Gosnell** 18.72 11 *e*P P 05 17 19.4 0.0
95nm,0.4s
U39A **Green Forest** 18.78 2 P P 05 17 20.0 0.0
baz=182,SNR=82
U40A **Yellville** 18.78 3 P P 05 17 20.2 +0.2
baz=184,SNR=107
HALT **Halls** 18.80 12 *e*P P 05 17 19.7 -0.5
213nm,0.6s
U37A **Salina** 18.81 358 P P 05 17 19.7 -0.7
baz=178,SNR=12
U38A **Gravette** 18.83 360 P P 05 17 20.0 -0.5
baz=180,SNR=25
U36A **Oologah** 18.83 356 P P 05 17 19.5 -1.0
baz=176,SNR=11
U41A **Viola** 18.84 6 P P 05 17 20.5 -0.2
baz=187,SNR=66
U35A **Pawnee** 18.89 354 P P 05 17 20.4 -0.7
baz=173,SNR=26
U35A **Pawnee** 18.89 354 *e*P P 05 17 20.5 -0.7
60nm,0.8s
U42A **Revenden** 18.92 7 P P 05 17 20.7 -0.7
baz=189,SNR=99
U43A **Rector** 19.05 9 P P 05 17 22.2 -0.7
baz=191,SNR=12
SWET **Sewanee** 19.08 21 *e*P P 05 17 22.2 -1.1
68nm,0.8s
U44B **Burton Farm, H** 19.21 12 P P 05 17 23.1 -1.5
baz=194
U32A **Winter Ranch,** 19.24 348 P P 05 17 25.0 -0.1
baz=166,SNR=16
U44A **Portageville** 19.31 11 P P 05 17 24.4 -1.2
baz=193
UTMT **University of** 19.31 13 *e*P P 05 17 25.0 -0.7
160nm,0.9s
121A **Cookes Peak, D** 19.32 323 P Pn 05 17 28.0 -1.6
baz=138,SNR=11
121A **Cookes Peak, D** 19.32 323 *e*P Pn 05 17 28.8 -0.9
13nm,0.7s
U45A **Rockin P Farm,** 19.34 13 P P 05 17 24.7 -1.3
baz=196,SNR=18
WVT **Waverly** 19.36 16 *e*P P 05 17 24.4 -1.8
33nm,0.6s
T35A **Sooner Cattle** 19.41 354 P P 05 17 25.8 -0.9
baz=174,SNR=36
T38A **Diamond** 19.42 360 P P 05 17 26.4 -0.5
baz=180,SNR=34
T39A **Clever** 19.42 2 P P 05 17 26.3 -0.6
baz=182,SNR=36
PARMO **Parma** 19.45 11 *e*P P 05 17 27.2 +0.1
100nm,0.7s
PBMO **Poplar Bluff** 19.45 9 *e*P P 05 17 26.5 -0.7
74nm,0.8s
T36A **Boggs Farm, Ca** 19.50 356 P P 05 17 26.7 -1.0
baz=175,SNR=11
T41A **Mountain View** 19.55 6 P P 05 17 28.0 -0.3
baz=187,SNR=89
T34A **McClaskey Farm** 19.59 353 P P 05 17 27.6 -1.1
baz=172,SNR=19
T40A **Mansfield** 19.59 4 P P 05 17 28.0 -0.7
baz=185,SNR=48
HODGE **Hodges** 19.76 30 *e*P P 05 17 29.1 -1.4
24nm,0.8s
T43A **Greenville** 19.77 9 P P 05 17 29.6 -1.1
baz=191,SNR=63
CPCT **Cooper Cave** 19.80 24 *e*P P 05 17 29.4 -1.6
28nm,0.8s
BNM **Barren Site** 19.94 328 *e*P Pn 05 17 35.1 -2.1
SJCC **San Jacinto, C** 19.96 110 *e*P Pn 05 17 38.9 +1.4
NHSC **New Hope** 19.99 37 *e*P P 05 17 33.1 +0.1
50nm,1.0s
S38A **Stockton** 20.02 1 P P 05 17 32.4 -0.9
baz=181,SNR=50
S40A **Lebanon** 20.04 4 P P 05 17 32.8 -0.7
baz=185,SNR=54
LPM **Los Pinos Moun** 20.07 329 *e*P Pn 05 17 38.1 -0.6
LPM *e*pP pP 05 18 12.3 +3.9
BG3 **Lake Jocassee** 20.07 28 *e*P P 05 17 33.2 -0.8
45nm,0.8s
S41A **Jillco Farms,** 20.09 6 P P 05 17 33.1 -0.9
baz=187,SNR=25
S39A **Bolivar** 20.09 2 P P 05 17 33.2 -0.9
baz=183,SNR=57
S36A **Lake Cedric, C** 20.14 357 P P 05 17 33.9 -0.7
baz=176,SNR=20
S37A **Fort Scott** 20.15 359 P P 05 17 33.6 -1.1
baz=178,SNR=24
S35A **Otter Creek Ra** 20.15 355 P P 05 17 33.3 -1.4
baz=174,SNR=15
S34A **Willow Spring** 20.25 353 P P 05 17 34.3 -1.4
baz=172,SNR=16
S43A **Fulton Ridge,** 20.28 9 P P 05 17 34.3 -1.8
baz=192,SNR=34
TKL **Tuckaleechee C** 20.28 25 P P 05 17 34.4 -1.8
18nm,0.5s,baz=190,slow=9.7,SNR=36
TKL S S 05 21 09.3 -2.6
5.9nm,1.0s,baz=135,slow=13,SNR=2.2
TKL **Tuckaleechee C** 20.28 25 *e*P P 05 17 34.5 -1.6
27nm,0.8s
TKL S S 05 21 09.3 -2.6
JSC **Jenkinsville** 20.30 32 *e*P P 05 17 34.9 -1.3
16nm,0.7s
S42A **Caledonia** 20.37 8 P P 05 17 35.2 -1.9
baz=189,SNR=15
LAZ **Ladron** 20.39 328 *e*P P 05 17 40.2 +2.6
ANMO **Albuquerque** 20.49 330 P P 05 17 39.6 +1.0
4.9nm,0.7s,baz=334,slow=12,SNR=21
ANMO S S 05 21 18.4 +2.1
1.2nm,0.7s,baz=224,slow=17,SNR=2.5
ANMO **Albuquerque** 20.49 330 P P 05 17 39.8 +1.2
baz=145
ANMO **Albuquerque** 20.49 330 *e*P P 05 17 40.4 +1.7
32nm,1.2s
ANMO S S 05 21 18.4 +2.1
S44A **Carbondale** 20.54 11 P P 05 17 37.5 -1.3
baz=194,SNR=23
R38A **Fenwick Farm,** 20.57 1 P P 05 17 37.8 -1.4
baz=181,SNR=19
CCM **Cathedral Cave** 20.60 7 *e*P P 05 17 38.2 -1.3
83nm,0.6s
FVM **French Village** 20.63 8 *e*P P 05 17 39.8 -0.1
20nm,0.6s
S45A **Carrier Mills** 20.66 13 P P 05 17 38.1 -2.0
baz=195,SNR=5.6
R39A **Chumby, Stover** 20.72 3 P P 05 17 39.4 -1.4
baz=183,SNR=58
R36A **Gordon, Harris** 20.74 357 P P 05 17 39.3 -1.6
baz=177,SNR=11
R40A **Maddies Statio** 20.74 4 P P 05 17 39.7 -1.3
baz=185,SNR=60
R35A **Emporia Munici** 20.78 356 P P 05 17 39.8 -1.6
baz=175,SNR=7.1
R41A **Rosebud** 20.83 6 P P 05 17 40.3 -1.5
baz=188,SNR=20
R34A **Isabella, Hill** 20.86 353 P P 05 17 40.9 -1.3
baz=172,SNR=15
S46A **Don Dixon Farm** 20.86 15 P P 05 17 39.8 -2.4
baz=198
R42A **Luebbering** 20.88 8 P P 05 17 40.8 -1.6
baz=189,SNR=22
KMSC **Kings Mountain** 20.94 31 P P 05 17 41.5 -1.7
baz=216,SNR=12
KMSC **Kings Mountain** 20.94 31 *e*P P 05 17 42.0 -1.1
44nm,1.1s
TUC **Tucson** 20.99 318 P P 05 17 45.6 +1.8
baz=131
TUC **Tucson** 20.99 318 *e*P Pn 05 17 47.7 -2.6
36nm,1.6s
R43A **Red Bud** 20.99 9 P P 05 17 42.1 -1.5
baz=192,SNR=13
R44A **Waltonville** 21.11 11 P P 05 17 43.3 -1.5
baz=194,SNR=14
USIN **University of** 21.14 14 *e*P P 05 17 43.7 -1.5
72nm,0.8s
TZTN **Tazewell** 21.14 24 *e*P P 05 17 43.6 -1.6
37nm,0.6s
Q37A **Longview Farm,** 21.26 359 P P 05 17 44.6 -1.8
baz=180
Q35A **Mercer Eighty,** 21.30 356 P P 05 17 45.6 -1.2
baz=175,SNR=11
SLM **Saint Louis** 21.30 9 *e*P P 05 17 45.8 -1.0
67nm,0.6s
R45A **Skylar, Fairfi** 21.31 13 P P 05 17 45.1 -1.8
baz=196,SNR=16
Q38A **Cooks Store, C** 21.35 1 P P 05 17 46.2 -1.1
baz=182,SNR=34
Q36A **Arnold S. Orve** 21.37 357 P P 05 17 45.4 -2.2
baz=177
R46A **Gibon Southern** 21.41 15 P P 05 17 46.2 -1.8
baz=198,SNR=6.8
Q34A **Chapman** 21.44 354 P P 05 17 46.7 -1.5
baz=173,SNR=9.7
HELC **Santa Helena** 21.45 119 *e*P P 05 17 57.6 +8.7
Q39A **Willow Grove F** 21.45 3 P P 05 17 46.7 -1.6
baz=183,SNR=8.6
Q40A **Laux Farm, Aux** 21.46 5 P P 05 17 46.6 -1.8
baz=186,SNR=43
Q41A **Truxton** 21.49 6 P P 05 17 47.3 -1.4
baz=188,SNR=60
T25A **Trinidad** 21.50 337 P P 05 17 50.6 +1.5
baz=153,SNR=15
T25A **Trinidad** 21.50 337 *e*P P 05 17 50.8 +1.7
138nm,1.5s
CODC **Agust´›n Codaz** 21.52 108 *e*P P 05 17 48.6 -0.6
Q42A **Golden Eagle** 21.53 8 P P 05 17 47.9 -1.3
baz=190,SNR=49
KSU1 **Kansas State U** 21.59 355 P P 05 17 47.9 -1.8
baz=174
KSU1 **Kansas State U** 21.59 355 *e*P P 05 17 48.5 -1.2
KSU1 *e*pP pP 05 18 17.5 -7.4
Q43A **New Douglas** 21.68 10 P P 05 17 49.3 -1.3
baz=192,SNR=65
CBKS **Cedar Bluff** 21.74 348 P P 05 17 51.2 -0.1
baz=166,SNR=7.4
CBKS **Cedar Bluff** 21.74 348 *e*P P 05 17 52.1 +0.8
60nm,0.7s
WCI **Wyandotte Cave** 21.74 17 *e*P P 05 17 49.6 -1.7
149nm,0.8s
Q44A **Meyer Farm, Va** 21.76 11 P P 05 17 50.0 -1.5
baz=194,SNR=23
OLIL **Olney** 21.78 13 *e*P P 05 17 50.3 -1.3
108nm,0.8s
P39B **Salisbury** 21.90 3 P P 05 17 51.2 -1.7
baz=184,SNR=34
Q45A **Warren Harvey,** 21.92 13 P P 05 17 51.5 -1.5
baz=196,SNR=17
P35A **Duane Minner,** 21.97 356 P P 05 17 52.0 -1.5
baz=176,SNR=9.1
P37A **Lathrop** 21.97 360 P P 05 17 52.0 -1.5
baz=180
P40A **Paris** 21.99 4 P P 05 17 52.1 -1.5
baz=186,SNR=43
P38A **Dawn** 22.01 1 P P 05 17 52.6 -1.2

baz=182
P36A **Good Intent, A** 22.02 358 P P 05 17 52.5 -1.4
baz=178,SNR=9.6
P34A **Walnut Farm, R** 22.05 355 P P 05 17 53.2 -1.1
baz=174,SNR=17
GUYC **Guyana, Colomb** 22.10 121 eP P 05 17 58.7 +3.2
P42A **Winchester** 22.22 8 P P 05 17 54.5 -1.3
baz=190,SNR=51
Q46A **CEJHS Indians,** 22.22 14 P P 05 17 53.9 -1.9
baz=198
P41A **Barry, Barry** 22.22 6 P P 05 17 54.6 -1.3
baz=188,SNR=68
W18A **Petrified Fore** 22.32 325 eP P
W18A epP pP 05 18 35.8 +2.7
Q47A **Bedord North L** 22.37 16 P P 05 17 55.7 -1.6
baz=200,SNR=49
P44A **Sand Creek, Wi** 22.38 11 P P 05 17 56.2 -1.1
baz=194,SNR=26
P43A **Skaggs, Pawnee** 22.39 10 P P 05 17 56.2 -1.2
baz=192,SNR=27
SDCO **Great Sand Dun** 22.44 336 P P 05 17 59.5 +1.2
baz=151
SDCO **Great Sand Dun** 22.44 336 eP P 05 18 00.0 +1.7
39nm,1.4s
O38A **Galt** 22.51 1 P P 05 17 57.2 -1.3
baz=182,SNR=8.1
O36A **Bolckow** 22.52 358 P P 05 17 57.2 -1.4
baz=178
O37A **Wolven Farm, M** 22.55 0 P P 05 17 57.4 -1.4
baz=180
BLO **Bloomington** 22.57 16 eP P 05 17 57.8 -1.2
194nm,0.6s
P45A **Graceland, Par** 22.61 13 P P 05 17 58.4 -1.1
baz=196,SNR=28
KSCO **Kaye Shedlock'** 22.62 343 P P 05 17 59.9 +0.3
baz=159,SNR=9.2
KSCO **Kaye Shedlock'** 22.62 343 eP P 05 18 00.8 +1.1
34nm,0.6s
O33A **Hebron** 22.65 353 P P 05 17 59.2 -0.5
baz=172,SNR=10
O34A **Beatrice** 22.67 355 P P 05 17 59.2 -0.7
baz=174,SNR=20
O41A **Passleys Farm,** 22.68 7 P P 05 17 58.8 -1.2
baz=188,SNR=30
O39A **Kirksville** 22.68 3 P P 05 17 59.1 -0.9
baz=184,SNR=16
O35A **Humboldt** 22.69 357 P P 05 17 58.9 -1.3
baz=176
P46A **Rosedale** 22.82 14 P P 05 17 59.9 -1.4
baz=197,SNR=40
O42A **Bath** 22.86 8 P P 05 17 60.0 -1.6
baz=190,SNR=25
P47A **Martinsville** 22.93 16 P P 05 18 00.9 -1.3
baz=200,SNR=32
GIRC **Giron, Santand** 22.98 114 eP P 05 18 02.0 -1.1
S22A **4UR Ranch, Cre** 22.98 334 P P 05 18 04.5 +1.3
baz=148
S22A **4UR Ranch, Cre** 22.98 334 eP P 05 18 05.4 +2.3
89nm,1.8s
BLA **Blacksburg** 23.05 29 eP P 05 18 02.0 -1.4
35nm,0.8s
CMBC **Cumbal** 23.05 134 eP P 05 18 06.7 +2.6
O43A **Sugar Creek Fa** 23.06 10 P P 05 18 02.4 -1.0
baz=192,SNR=32
O44A **Mansfield** 23.07 11 P P 05 18 02.1 -1.5
baz=194,SNR=17
N37A **Lee Faris, Mou** 23.14 360 P P 05 18 03.2 -0.9
baz=180,SNR=8.8
OTAV **Otavalo** 23.15 136 eP P 05 18 08.1 +3.1
OTAV **Otavalo** 23.15 136 eP P 05 18 07.7 +2.7
18nm,0.8s
N38A **Joes South For** 23.19 2 P P 05 18 03.9 -0.7
baz=182,SNR=57
N36A **Muff Farm, Cla** 23.20 359 P P 05 18 03.8 -0.9
baz=178
CRUC **La Cruz** 23.22 131 eP P 05 18 08.8 +3.3
N41A **Harden Midland** 23.27 6 P P 05 18 04.2 -1.1
baz=188,SNR=20
N35A **Tabor** 23.27 357 P P 05 18 04.6 -0.8
baz=177,SNR=7.3
PAMC **Pamplona, Colo** 23.29 113 eP P 05 18 06.0 -0.3
N33A **J Bar K, Exete** 23.29 354 P P 05 18 05.0 -0.5
baz=172
MVCO **Mesa Verde** 23.29 330 P P 05 18 07.6 +1.7
baz=144,SNR=11
MVCO **Mesa Verde** 23.29 330 eP P 05 18 08.2 +2.3
199nm,1.3s
N34A **Lincoln** 23.30 356 P P 05 18 05.0 -0.6
baz=175,SNR=5.9
N39A **Derby Farms, D** 23.30 3 P P 05 18 04.2 -1.4
baz=184,SNR=31
O45A **Potomac** 23.31 13 P P 05 18 04.2 -1.5
baz=196,SNR=52
HDIL **Hopedale** 23.32 9 P P 05 18 04.7 -1.1
baz=192
N40A **Mertquake, Sal** 23.37 5 P P 05 18 05.1 -1.2
baz=186,SNR=12
Q24A **Divide** 23.39 338 P P 05 18 07.4 +0.6
baz=153
Q24A **Divide** 23.39 338 eP P 05 18 08.6 +1.8
Q24A epP pP 05 18 48.2 +3.4
N42A **Yates City** 23.48 8 P P 05 18 05.9 -1.3
baz=190,SNR=12
WUAZ **Wupatki** 23.53 323 eP P 05 18 11.9 +3.9
WUAZ epP pP 05 18 49.9 +3.7
SFIN **Lafayette** 23.57 14 P P 05 18 06.3 -1.8
baz=197,SNR=21
SFIN **Lafayette** 23.57 14 eP P 05 18 06.5 -1.6
51nm,0.6s
O47A **Sheridan** 23.66 15 P P 05 18 06.8 -2.1
baz=199,SNR=27
RUSC **La Rusia** 23.66 117 eP P 05 18 08.5 -1.2
RUSC **La Rusia** 23.66 117 epP pP 05 18 51.7 +3.5
RUSC eS S 05 22 07.7 -1.8
N43A **Stutzman Famil** 23.72 9 P P 05 18 08.4 -1.0
baz=192,SNR=18
N44A **Piper City** 23.76 11 P P 05 18 08.2 -1.5
baz=194,SNR=12
M37A **Trindle Farm,** 23.78 0 P P 05 18 09.3 -0.7
baz=180,SNR=16
M38A **Pleasantville** 23.81 2 P P 05 18 09.2 -1.1
baz=182,SNR=30
M36A **Felix, Anita** 23.84 359 P P 05 18 09.5 -1.0
baz=179,SNR=8.4
M35A **Neola** 23.88 357 P P 05 18 10.2 -0.7
baz=177,SNR=10
M40A **Post Highland** 23.90 5 P P 05 18 10.0 -1.0
baz=186,SNR=55
M39A **Webster** 23.92 4 P P 05 18 09.6 -1.6
baz=185,SNR=17
N45A **Kentland** 23.93 13 P P 05 18 09.6 -1.7
baz=196,SNR=6.8
M41A **Milan** 23.96 7 P P 05 18 10.4 -1.2
baz=189,SNR=24
BGNE **Belgrade** 24.03 353 eP P 05 18 11.5 -0.8
BGNE epP pP 05 18 50.9 -0.5
PV01 **Paradox Valley** 24.07 331 eP P 05 18 16.9 +4.0
PV01 epP pP 05 18 54.4 +2.2
M33A **Taylor Creek F** 24.09 354 P P 05 18 12.1 -0.7
baz=173
M42A **Sheffield** 24.14 8 P P 05 18 11.7 -1.5
baz=190
N46A **Monticello** 24.15 14 P P 05 18 11.3 -2.0
baz=198
M43A **Waltham Townsh** 24.24 10 P P 05 18 13.1 -1.0
baz=192,SNR=18
SMCO **Snowmass** 24.26 335 eP P 05 18 17.0 +2.1
39nm,1.4s
PV05 **Paradox Valley** 24.27 330 eP P 05 18 17.3 +2.5
PV05 epP pP 05 19 00.2 +5.9
OGNE **Ogallala** 24.28 345 P P 05 18 15.1 +0.4
baz=162
OGNE **Ogallala** 24.28 345 eP P 05 18 15.6 +0.9
34nm,0.6s
ISCO **Idaho Springs** 24.29 338 P P 05 18 16.2 +1.2
baz=153
ISCO **Idaho Springs** 24.29 338 eP P 05 18 16.6 +1.6
43nm,1.6s
SCIA **State Center** 24.30 2 eP P 05 18 14.1 -0.6
84nm,0.6s
M44A **Midewin, Midew** 24.35 11 P P 05 18 13.7 -1.5
baz=194,SNR=5.9
L34A **Svendsen Farm,** 24.42 356 P P 05 18 14.9 -0.9
baz=175
PV04 **Paradox Valley** 24.44 331 eP P 05 18 18.1 +1.9
SDV **Santo Domingo** 24.48 108 P P 05 18 14.8 -2.0
3.1nm,0.3s,baz=324,slow=5.2,SNR=6.9

SDV S S 05 22 17.8 -4.1
2.3nm,0.6s,baz=323,slow=20,SNR=2.5
L36A **Harm Buss Farm** 24.48 359 P P 05 18 15.6 -0.8
baz=179,SNR=14
PV10 **Paradox Valley** 24.48 331 eP P 05 18 20.0 +3.3
L37A **Phoenix Point,** 24.50 1 P P 05 18 15.4 -1.1
baz=181,SNR=9.6
M45A **Boilermakers S** 24.50 13 P P 05 18 15.5 -1.1
baz=196
L35A **Bielow Farm, R** 24.52 358 P P 05 18 15.4 -1.2
baz=177
L38A **Oak Wood Farm,** 24.54 2 P P 05 18 15.7 -1.2
baz=183,SNR=18
L39A **Vinton** 24.57 4 P P 05 18 16.1 -1.0
baz=185,SNR=7.2
L40A **Anamosa** 24.57 5 P P 05 18 16.0 -1.1
baz=187,SNR=33
ACSO **Alum Creek Sta** 24.61 21 eP P 05 18 15.7 -1.8
26nm,0.7s
PV09 **Paradox Valley** 24.63 331 eP P 05 18 20.6 +2.5
PV09 epP pP 05 19 01.0 +2.8
L41A **Preston** 24.66 7 P P 05 18 16.6 -1.4
baz=189,SNR=19
L42A **Oliver, Polo** 24.69 8 P P 05 18 16.9 -1.3
baz=190,SNR=6.1
M46A **Old House Fiel** 24.72 14 P P 05 18 16.4 -2.1
baz=198
IP04 **Greensprings** 24.87 31 eP P 05 18 18.0 -1.8
71nm,2.0s
L43A **Garden Prairie** 25.00 10 P P 05 18 19.2 -1.8
baz=192
K36A **Gilmore City** 25.02 360 P P 05 18 19.9 -1.3
baz=180,SNR=8.1
K38A **Parkersburg** 25.05 2 P P 05 18 20.5 -1.0
baz=183
K35A **Storm Lake** 25.11 358 P P 05 18 20.9 -1.2
baz=178
K34A **Le Mars** 25.12 357 P P 05 18 21.0 -1.0
baz=176,SNR=12
L44A **Lake County Fo** 25.14 11 P P 05 18 20.7 -1.6
baz=194
K37A **Belmond** 25.15 1 P P 05 18 20.9 -1.5
baz=181
K39A **Oelwein** 25.16 4 P P 05 18 20.8 -1.7
baz=185,SNR=10
K41A **Shullsburg** 25.20 7 P P 05 18 21.6 -1.2
baz=189,SNR=18
K40A **Colesburg** 25.21 5 P P 05 18 21.9 -1.0
baz=187,SNR=12
K32A **Verdigre** 25.24 353 P P 05 18 22.8 -0.5
baz=172
K31A **O'Neill** 25.30 352 P P 05 18 24.2 +0.4
baz=170
KNB **Kanab** 25.41 323 epP pP 05 19 02.2 -4.0
K42A **Prairie Point,** 25.49 8 P P 05 18 24.1 -1.3
baz=191,SNR=17
JFWS **Jewell Farm** 25.51 7 eP P 05 18 24.4 -1.3
178nm,0.6s
K43A **Burlington** 25.57 10 P P 05 18 24.7 -1.5
baz=193
PHWY **Pilot Hill** 25.58 340 eP P 05 18 30.5 +3.9
23nm,1.4s
O20A **White River Ci** 25.59 334 eP P 05 18 28.5 +1.9
LCMT **Little Creek M** 25.65 323 epP pP 05 19 06.2 -2.4
J37A **Redenius Farm,** 25.69 1 P P 05 18 25.4 -1.8
baz=182,SNR=5.4
J34A **George** 25.70 357 P P 05 18 25.5 -1.9
baz=176
J36A **Seneca 1, Swea** 25.71 360 P P 05 18 26.0 -1.4
baz=180,SNR=8.5
J38A **Wedel Dairy, R** 25.74 3 P P 05 18 26.0 -1.6
baz=184,SNR=5.8
J35A **Milford** 25.76 358 P P 05 18 25.8 -2.0
baz=178
SRU **San Rafael Swe** 25.77 330 epP pP 05 19 12.3 +2.6
J39A **Decorah** 25.80 4 P P 05 18 26.6 -1.6
baz=186,SNR=11
J32A **Parkston** 25.93 354 P P 05 18 28.6 -0.9
baz=172,SNR=7.4
J40A **Soldiers Grove** 25.94 6 P P 05 18 28.1 -1.3
baz=188,SNR=15
J41A **Loganville** 25.99 7 P P 05 18 28.7 -1.2
baz=189,SNR=28
P18A **Preston Nutter** 26.05 331 epP pP 05 19 07.0 -5.5
J42A **Columbus** 26.05 8 P P 05 18 29.1 -1.4
baz=191,SNR=9.8
CCUT **Cedar City** 26.10 324 epP pP 05 19 17.4 +4.5
P17A **Butcher Ranch,** 26.16 330 epP pP 05 19 16.3 +2.9
ECSD **EROS Data Cent** 26.19 356 P P 05 18 30.7 -1.1
baz=175,SNR=15
ECSD **EROS Data Cent** 26.19 356 eP P 05 18 30.5 -1.2
38nm,0.6s
J43A **Natural Harves** 26.22 10 P P 05 18 30.4 -1.6
baz=193
I35A **Creekview Farm** 26.24 359 P P 05 18 31.0 -1.2
baz=178,SNR=17
AAM **Ann Arbor** 26.27 18 eP P 05 18 30.7 -1.7
22nm,0.6s
I39A **Houston** 26.33 4 P P 05 18 32.0 -1.0
baz=186,SNR=31
N54A **Moraine State** 26.36 25 P P 05 18 31.5 -1.7
baz=212,SNR=6.1
O56A **Blue Knob Stat** 26.38 28 P P 05 18 31.5 -2.0
baz=215
I37A **Lemond, Waseca** 26.40 1 P P 05 18 31.9 -1.6
baz=182
I40A **Norwalk** 26.44 6 P P 05 18 32.9 -1.1
baz=188,SNR=15
I34A **Hadley** 26.45 357 P P 05 18 32.5 -1.5
baz=177
SHPR **Sheep Range** 26.46 320 epP pP 05 19 19.4 +3.3
I38A **Scanlan Farm,** 26.46 3 P P 05 18 32.8 -1.4
baz=184,SNR=6.9
I33A **Coleman** 26.52 356 P P 05 18 33.5 -1.2
baz=175
I42A **Draeger Farm,** 26.64 9 P P 05 18 34.5 -1.2
baz=191
I41A **Arkdale** 26.69 7 P P 05 18 34.7 -1.4
baz=189
I43A **Langenfeld Bro** 26.75 10 P P 05 18 35.8 -0.9
baz=193
M54A **Oil Creek Stat** 26.95 25 P P 05 18 36.6 -1.9
baz=212
H36A **Jessland, He** 26.95 0 P P 05 18 37.4 -1.1
baz=181
SSPA **Standing Stone** 26.98 28 epP pP 05 19 21.7 +1.1
H37A **Dierke Farm, C** 26.98 2 P P 05 18 37.7 -1.0
baz=183
MPU **Maple Canyon** 27.01 330 epP pP 05 19 23.8 +2.7
H32A **Carlson Farm,** 27.02 355 P P 05 18 38.2 -0.9
baz=173,SNR=14
H34A **Spellman Lake,** 27.08 358 P P 05 18 38.4 -1.2
baz=177
H35A **Sunnyside Ranc** 27.08 359 P P 05 18 38.2 -1.4
baz=179
H31A **Wolsey** 27.10 353 P P 05 18 38.9 -0.9
baz=171
H38A **Maiden Rock** 27.10 3 P P 05 18 38.7 -1.1
baz=184,SNR=9.7
H33A **Prehn Over Nor** 27.14 356 P P 05 18 39.3 -0.9
baz=175,SNR=9.5
K22A **Casper** 27.14 340 eP P 05 18 41.1 +0.7
K22A epP pP 05 19 28.7 +6.5
H39A **Augusta** 27.17 5 P P 05 18 39.6 -0.8
baz=186,SNR=33
NLU **North Lily Min** 27.18 329 epP pP 05 19 26.1 +3.5
H40A **Chili** 27.19 6 P P 05 18 39.2 -1.4
baz=188,SNR=7.2
MVL **Millersville** 27.20 31 epP pP 05 19 24.9 +2.4
H41A **Junction City** 27.26 7 P P 05 18 40.1 -1.2
baz=190
H42A **Shiocton** 27.31 9 P P 05 18 40.2 -1.4
baz=192
TPNV **Topopah Spring** 27.41 319 epP pP 05 19 27.7 +3.0
PSUB **Penn St. - Bra** 27.59 32 epP pP 05 19 29.4 +3.3
G36A **St. Michael** 27.61 1 P P 05 18 43.6 -0.8
baz=181
G38A **Ridgeland** 27.62 4 P P 05 18 43.4 -1.0
baz=185,SNR=25
SPMN **Marine on St.** 27.63 2 P P 05 18 43.3 -1.2
baz=183,SNR=21
SPMN **Marine on St.** 27.63 2 eP P 05 18 43.5 -0.9
53nm,0.4s
G33A **Ortonville** 27.64 357 P P 05 18 43.4 -1.2
baz=176,SNR=9.6
G34A **Benson** 27.64 358 P P 05 18 43.3 -1.4
baz=177,SNR=5.5

DUG **Dugway, Tooele** 27.73 328 epP pP 05 19 29.5 +1.9
RSSD **Black Hills** 27.77 345 P P 05 18 45.8 -0.3
baz=160
RSSD **Black Hills** 27.77 345 eP P 05 18 47.4 +1.4
54nm,1.8s
G32A **Webster** 27.77 355 P P 05 18 44.7 -1.1
baz=173
TCUT **Toone Canyon** 27.77 331 epP pP 05 19 32.2 +4.2
G39A **Holcombe** 27.78 5 P P 05 18 44.9 -1.0
baz=186,SNR=24
G40A **Rib Lake** 27.85 6 P P 05 18 45.0 -1.5
baz=188
G42A **Mountain** 28.04 9 P P 05 18 46.4 -1.7
baz=192,SNR=5.1
F37A **Hinrichs Farm,** 28.13 2 P P 05 18 46.4 -2.5
baz=183,SNR=6.4
G43A **Wallace** 28.17 10 P P 05 18 47.7 -1.6
baz=193
N59A **State Game Lan** 28.19 30 P P 05 18 47.6 -1.9
baz=220
F35A **Swanville** 28.24 359 P P 05 18 49.2 -0.7
baz=179
F36A **Milaca** 28.24 1 P P 05 18 48.6 -1.3
baz=182,SNR=5.5
PD31 **Pinedale Array** 28.34 336 epP pP 05 19 39.7 +6.5
PDAR **Pinedale Array** 28.34 336 P P 05 18 51.9 +0.8
0.9nm,0.6s,baz=133,slow=8.8,SNR=13
PDAR PcP PcP 05 21 58.3 -0.2
0.6nm,0.6s,baz=116,slow=4.1,SNR=3.9
PDAR **Pinedale Array** 28.34 336 eP P 05 18 51.7 +0.6
PDAR epP pP 05 19 38.4 +5.3
PDAR PcP PcP 05 21 58.3 -0.2
GLMI **Grayling** 28.36 14 eP P 05 18 49.7 -1.3
76nm,1.0s
BGU **Big Grassy Mou** 28.39 329 epP pP 05 19 36.0 +2.5
F38A **Pierce - Schro** 28.40 3 P P 05 18 50.3 -1.1
baz=185,SNR=13
SPUT **South Promonto** 28.41 330 epP pP 05 19 37.0 +3.3
F39A **Loretta** 28.42 5 P P 05 18 50.5 -1.1
baz=187
F40A **Park Falls** 28.50 6 P P 05 18 50.8 -1.5
baz=188,SNR=5.5
F42A **Maple Grove Fa** 28.59 9 P P 05 18 51.4 -1.5
baz=192
MMNY **Mt. Morris Dam** 28.68 26 eP P 05 18 52.4 -1.5
F43A **Flat Rock, Esc** 28.81 10 P P 05 18 53.0 -1.9
baz=194,SNR=9.8
E34A **Wadena** 28.90 359 P P 05 18 54.4 -1.4
baz=178,SNR=11
E36A **McGregor** 28.91 1 P P 05 18 54.3 -1.5
baz=182,SNR=11
E39A **Mellen** 28.91 5 P P 05 18 54.8 -1.1
baz=187
E33A **Westby DABS, E** 28.92 357 P P 05 18 54.3 -1.6
baz=177,SNR=5.2
HVU **Hansel Valley** 28.93 330 epP pP 05 19 41.1 +2.7
E35A **Pequot Lakes** 28.93 360 P P 05 18 55.5 -0.6
baz=180,SNR=16
F45A **CMU Biological** 28.98 13 P P 05 18 54.1 -2.3
baz=197
E37A **Wrenshall** 28.98 3 P P 05 18 55.0 -1.5
baz=184
E40A **Wakefield** 29.04 6 P P 05 18 55.4 -1.6
baz=188,SNR=12
E38A **The Farm, Brul** 29.07 4 P P 05 18 56.0 -1.2
baz=185,SNR=5.7
ATAH **Atahualpa** 29.07 146 P P 05 19 01.3 +3.2
7.8nm,0.7s,baz=10,slow=9.2,SNR=6.5
E31A **Nome** 29.10 355 P P 05 18 56.0 -1.5
baz=173
E41A **Kenton** 29.17 7 P P 05 18 56.7 -1.4
baz=190
E42A **Champion** 29.27 9 P P 05 18 57.4 -1.7
baz=192
REDW **Red Top Meadow** 29.36 335 eP P 05 19 01.8 +1.7
30nm,1.4s
E43A **Lone Tree Farm** 29.37 10 P P 05 18 58.1 -1.7
baz=194
SNOW **Snow King Moun** 29.40 335 eP P 05 19 02.4 +1.9
13nm,0.6s
D35A **Remer** 29.46 0 P P 05 18 59.1 -1.6
baz=180,SNR=12
LOHW **Long Hollow** 29.46 335 eP P 05 19 03.0 +1.9
6.6nm,0.8s
D34A **Park Rapids** 29.47 359 P P 05 18 59.4 -1.4
baz=178,SNR=5.4
TPAW **Teton Pass** 29.50 335 eP P 05 19 03.2 +1.7
23nm,1.3s
D33A **AnnSam, Waubun** 29.55 358 P P 05 19 00.3 -1.2
baz=177,SNR=16
D36A **Goodland** 29.57 1 P P 05 19 00.2 -1.5
baz=182
D37A **Cotton** 29.57 2 P P 05 19 00.6 -1.1
baz=184,SNR=26
MDPB **Devils Postpil** 29.62 317 epP pP 05 19 47.5 +2.7
MOOW **Moose Ponds** 29.64 335 eP P 05 19 04.3 +1.8
3.4nm,0.9s
FXWY **Fox Creek** 29.66 335 epP pP 05 19 46.0 +1.1
IMW **Indian Meadow** 29.84 335 eP P 05 19 06.1 +1.7
4.4nm,0.6s
SADO **Sadowa** 29.94 22 P P 05 19 02.7 -2.3
7.4nm,0.3s,baz=237,slow=9.4,SNR=14
SADO **Sadowa** 29.94 22 eP P 05 19 02.7 -2.3
18nm,0.9s
C34A **RKJ Ranch, Bem** 30.03 359 P P 05 19 04.5 -1.2
baz=179
C35A **Jirik Farms, M** 30.08 0 P P 05 19 04.9 -1.2
baz=180,SNR=7.2
C37A **Embarrass** 30.15 3 P P 05 19 04.6 -2.2
baz=184,SNR=5.6
C36A **Pine Crest Far** 30.16 2 P P 05 19 05.6 -1.2
baz=183,SNR=9.2
C33A **Trail** 30.16 358 P P 05 19 04.9 -2.0
baz=177,SNR=5.5
C38A **Sawbill Land.** 30.19 4 P P 05 19 05.4 -1.7
baz=186
RLMT **Red Lodge** 30.25 339 P P 05 19 08.8 +0.8
baz=151
RLMT **Red Lodge** 30.25 339 eP P 05 19 09.4 +1.4
18nm,1.4s
C31A **Landman Farms,** 30.31 355 P P 05 19 07.4 -0.8
baz=173,SNR=27
WAKR **Walker** 30.36 319 epP pP 05 19 54.4 +3.1
EYMN **Ely** 30.41 4 P P 05 19 07.6 -1.4
baz=185
EYMN **Ely** 30.41 4 eP P 05 19 07.9 -1.1
25nm,0.6s
YMR **Madison River** 30.49 336 eP P 05 19 12.5 +2.5
18nm,1.5s
YERR **Yerington** 30.53 320 epP pP 05 19 55.4 +2.6
YHH **Holmes Hill** 30.55 336 eP P 05 19 13.5 +2.8
23nm,1.9s
MDND **Maddock** 30.55 353 P P 05 19 09.6 -0.7
baz=170
MDND **Maddock** 30.55 353 eP P 05 19 10.2 -0.1
49nm,0.9s
B33A **Robert and Kas** 30.67 358 P P 05 19 10.3 -1.0
baz=178
CMB **Columbia Colle** 30.70 317 epP pP 05 19 56.1 +2.0
AGMN **Agassiz Nation** 30.71 358 P P 05 19 10.7 -1.0
baz=177,SNR=25
AGMN **Agassiz Nation** 30.71 358 eP P 05 19 10.8 -0.8
49nm,0.8s
LAO **LASA Array** 30.72 344 P P 05 19 10.2 -1.7
baz=157
LAO **LASA Array** 30.72 344 eP P 05 19 12.7 +0.8
7.5nm,0.8s
B35A **Bob, Littlefor** 30.74 1 P P 05 19 10.5 -1.4
baz=181,SNR=7.9
B32A **Ashes, Strandq** 30.83 357 P P 05 19 11.7 -1.0
baz=176,SNR=12
B34A **Aery, Baudette** 30.87 359 P P 05 19 11.7 -1.3
baz=179,SNR=6.3
B31A **Greenbush Farm** 30.93 356 P P 05 19 12.4 -1.2
baz=174,SNR=15
HLID **Hailey** 31.07 331 P P 05 19 16.5 +1.3
baz=140
HLID **Hailey** 31.07 331 eP P 05 19 17.2 +2.0
5.5nm,1.1s
A33A **Warroad** 31.33 358 P P 05 19 16.1 -1.0
baz=178,SNR=9.3
A32A **Rocking H Ranc** 31.35 357 P P 05 19 16.1 -1.1
baz=176,SNR=11
MCMT **McKenzie Canyo** 31.38 334 eP P 05 19 20.9 +3.0
BOZ **Bozeman (W)** 31.53 336 P P 05 19 19.1 0.0
baz=147
BOZ **Bozeman (W)** 31.53 336 eP P 05 19 21.1 +2.0
4.9nm,0.9s

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| LONY | Lake Ozonia | 31.62 | 27 | eP | P | 05 19 17.9 | -1.9 |
| | 14nm,0.6s | | | | | | |
| DLMT | Dillon | 31.71 | 335 | eP | P | 05 19 22.9 | +2.2 |
| | 14nm,1.4s | | | | | | |
| BEKR | Beckworth | 31.75 | 320 | epP | pP | 05 20 06.4 | +2.9 |
| DGMT | Dagmar | 31.91 | 347 | P | P | 05 19 22.8 | +0.6 |
| | baz=162,SNR=8.0 | | | | | | |
| DGMT | Dagmar | 31.91 | 347 | eP | P | 05 19 23.0 | +0.8 |
| | 20nm,0.6s | | | | | | |
| LRM | Limekiln Ridge | 32.03 | 336 | eP | P | 05 19 25.4 | +1.8 |
| LRM | | | | epP | pP | 05 20 08.6 | +2.6 |
| ORV | Oroville | 32.28 | 318 | epP | pP | 05 20 10.9 | +2.9 |
| WVOR | Wild Horse Val | 32.39 | 325 | epP | pP | 05 20 12.1 | +3.0 |
| ULM | Lac du Bonnet | 32.66 | 358 | P | P | 05 19 27.1 | -1.5 |
| | 11nm,0.5s,baz=174,slow=11,SNR=41 | | | | | | |
| ULM | Lac du Bonnet | 32.66 | 358 | eP | P | 05 19 27.2 | -1.5 |
| | 26nm,1.2s | | | | | | |
| TRQ | Mont Tremblant | 32.92 | 25 | eP | P | 05 19 29.6 | -1.5 |
| J08A | Circle Bar Ran | 32.94 | 327 | eP | P | 05 19 33.5 | +2.2 |
| | 26nm,1.4s | | | | | | |
| EGMT | Eagleton | 32.96 | 341 | P | P | 05 19 32.3 | +0.8 |
| | baz=152,SNR=6.9 | | | | | | |
| EGMT | Eagleton | 32.96 | 341 | eP | P | 05 19 32.9 | +1.5 |
| | 8.6nm,0.6s | | | | | | |
| BMO | Blue Mountains | 33.41 | 330 | eP | P | 05 19 37.1 | +1.7 |
| | 8.2nm,1.5s | | | | | | |
| MSO | Missoula | 33.45 | 335 | P | P | 05 19 36.7 | +1.0 |
| | baz=144,SNR=6.7 | | | | | | |
| MSO | Missoula | 33.45 | 335 | eP | P | 05 19 37.1 | +1.4 |
| | 11nm,1.4s | | | | | | |
| F10A | Beach Ranch, E | 34.20 | 331 | eP | P | 05 19 43.5 | +1.3 |
| | 10nm,0.6s | | | | | | |
| JTMT | Jette | 34.33 | 336 | eP | P | 05 19 44.8 | +1.4 |
| | 4.7nm,0.9s | | | | | | |
| G08A | Pilot Rock | 34.54 | 329 | ePcP | PcP | 05 22 17.3 | +2.3 |
| J04D | Umpqua Nationa | 34.86 | 323 | P | P | 05 19 49.3 | +1.3 |
| | baz=129 | | | | | | |
| E08A | Dider Farm, El | 35.45 | 330 | eP | P | 05 19 55.9 | +3.2 |
| | 17nm,2.0s | | | | | | |
| H04A | Detroit Lake | 35.81 | 325 | eP | P | 05 19 57.9 | +2.0 |
| | 22nm,1.6s | | | | | | |
| NEW | Newport | 35.90 | 334 | P | P | 05 19 57.5 | +0.9 |
| | baz=141 | | | | | | |
| NEW | Newport | 35.90 | 334 | eP | P | 05 19 57.5 | +0.9 |
| | 22nm,1.8s | | | | | | |
| C09A | Chrisman Ranch | 36.05 | 332 | eP | P | 05 19 59.5 | +1.7 |
| | 7.4nm,0.6s | | | | | | |
| G03D | McMinnville, O | 36.74 | 325 | P | P | 05 20 04.7 | +1.0 |
| | baz=129 | | | | | | |
| LTY | Liberty | 36.77 | 330 | eP | P | 05 20 05.8 | +1.9 |
| | 14nm,1.4s | | | | | | |
| LON | Longmire | 36.98 | 328 | eP | P | 05 20 07.7 | +2.0 |
| | 12nm,1.4s | | | | | | |
| FFC | Flin Flon | 37.59 | 353 | eP | P | 05 20 10.7 | 0.0 |
| | 18nm,0.4s | | | | | | |
| B05A | Bryant | 38.16 | 330 | P | P | 05 20 15.8 | +0.3 |
| | baz=134 | | | | | | |
| LPAZ | La Paz | 42.30 | 141 | P | P | 05 20 51.5 | +1.0 |
| | 19nm,0.8s,baz=334,slow=6.6,SNR=23 | | | | | | |
| LPAZ | | | | LR | LR | 05 37 55.6 | |
| | comp=Z,178nm,18.1s,baz=352,slow=35 | | | | | | |
| LPAZ | La Paz | 42.30 | 141 | eP | P | 05 20 51.7 | +1.1 |
| | 18nm,0.8s | | | | | | |
| SCHQ | Schefferville | 42.73 | 23 | P | P | 05 20 50.9 | -2.0 |
| | 6.3nm,0.7s,baz=246,slow=8.7,SNR=7.8 | | | | | | |
| SCHQ | | | | PcP | PcP | 05 22 40.0 | -0.4 |
| | 5.4nm,0.7s,baz=248,slow=5.3,SNR=4.3 | | | | | | |
| MNMC | Minye Minye | 43.73 | 145 | eP | P | 05 21 03.2 | +1.6 |
| | 35nm,0.7s | | | | | | |
| PB01 | IPOC Station P | 45.36 | 147 | eP | P | 05 21 16.0 | +1.7 |
| | 12nm,0.8s | | | | | | |
| YKA | Yellowknife Ar | 47.12 | 347 | P | P | 05 21 27.7 | +0.4 |
| | 12nm,0.6s,baz=153,slow=7.5,SNR=65 | | | | | | |
| DLBC | Dease Lake | 48.58 | 336 | eP | P | 05 21 40.7 | +2.1 |
| DLBC | | | | epP | pP | 05 22 26.4 | +2.3 |
| FSA | Cafayete | 51.34 | 147 | eP | P | 05 22 01.1 | +1.1 |
| FSA | | | | IAML | | 05 22 02.2 | |
| | comp=Z,4.5nm,0.8s | | | | | | |
| LCO | Las Campanas | 51.55 | 154 | eP | P | 05 22 03.5 | +2.0 |
| | comp=Z,12nm,0.8s | | | | | | |
| AHML | Horco Molle | 52.22 | 147 | eP | P | 05 22 07.4 | +1.1 |
| AGUA | GUANDACOL | 52.93 | 152 | eP | P | 05 22 13.8 | +2.3 |
| CYA | Choya | 53.33 | 149 | eP | P | 05 22 15.5 | +1.2 |
| CYA | | | | IAML | | 05 22 17.0 | |
| | comp=Z,3.7nm,0.5s | | | | | | |
| ACLC | CERRO LA CRUZ | 53.59 | 150 | eP | P | 05 22 17.8 | +1.4 |
| AMOG | MOGNA | 54.17 | 153 | eP | P | 05 22 22.1 | +1.7 |
| RTLS | Leoncito | 54.56 | 154 | eP | P | 05 22 26.1 | +2.5 |
| APLL | PUNTA DE LOS L | 54.60 | 151 | eP | P | 05 22 24.6 | +1.1 |
| AUSP | Uspallata | 54.90 | 154 | eP | P | 05 22 28.8 | +2.9 |
| ROC1 | El Roble | 54.91 | 156 | eP | P | 05 22 27.7 | +1.8 |
| | comp=Z,39nm,1.0s | | | | | | |
| ROC1 | El Roble | 54.91 | 156 | eP | P | 05 22 27.4 | +1.5 |
| RTCV | Cerro Valdivia | 54.94 | 153 | eP | P | 05 22 28.3 | +2.4 |
| PEL | Peldehue | 55.18 | 156 | eP | P | 05 22 29.2 | +1.6 |
| | comp=Z,33nm,0.8s | | | | | | |
| ACAN | Cantantal | 55.88 | 152 | eP | P | 05 22 34.5 | +1.9 |
| BDFB | Brasilia | 56.21 | 123 | P | P | 05 22 35.7 | +0.4 |
| | comp=Z,4.9nm,0.8s,baz=65,slow=4.6,SNR=8.2 | | | | | | |
| BDFB | Brasilia | 56.21 | 123 | eP | P | 05 22 37.1 | +1.8 |
| | comp=Z,58nm,1.9s | | | | | | |
| CPUP | Villa Florida | 56.44 | 140 | P | P | 05 22 36.3 | -0.3 |
| | comp=Z,5.1nm,0.8s,baz=322,slow=7.8,SNR=14 | | | | | | |
| CPUP | | | | PcP | PcP | 05 23 32.9 | +1.9 |
| | comp=Z,1.3nm,0.7s,baz=309,slow=6.5,SNR=2.2 | | | | | | |
| INK | Inuvik | 56.46 | 344 | eP | P | 05 22 37.0 | +0.9 |
| | comp=Z,15nm,0.5s | | | | | | |
| MRA | San Martin | 56.67 | 151 | eP | P | 05 22 39.4 | +1.1 |
| SFJD | Kangerlussuaq | 56.83 | 19 | iP | P | 05 22 35.6 | -3.1 |
| | comp=Z,9.5nm,0.7s | | | | | | |
| IL1 | Eielson Array | 58.77 | 337 | eP | P | 05 22 53.1 | +0.8 |
| IL1 | | | | epP | pP | 05 23 39.0 | -0.5 |
| ILAR | Eielson Array | 58.77 | 337 | P | P | 05 22 53.2 | +0.9 |
| | comp=Z,1.0nm,0.5s,baz=147,slow=5.0,SNR=40 | | | | | | |
| ILB | Eielson Array | 58.77 | 337 | eP | P | 05 22 53.2 | +0.9 |
| RND | Reindeer | 58.94 | 335 | eP | P | 05 22 55.9 | +2.3 |
| | comp=Z,14nm,1.0s | | | | | | |
| SUA | Susitna One | 58.98 | 332 | eP | P | 05 22 56.0 | +2.1 |
| | comp=Z,47nm,1.8s | | | | | | |
| TRF | Thorofare Moun | 59.55 | 334 | eP | P | 05 22 59.6 | +1.7 |
| | comp=Z,11nm,0.6s | | | | | | |
| TRF | | | | epP | pP | 05 23 46.0 | +0.8 |
| BPAW | Bear Paw Mtn. | 60.09 | 335 | eP | P | 05 23 02.7 | +1.3 |
| | comp=Z,22nm,1.6s | | | | | | |
| CAST | Castle Rocks | 60.28 | 334 | eP | P | 05 23 03.5 | +0.8 |
| | comp=Z,29nm,1.7s | | | | | | |
| MLY | Manley | 60.36 | 336 | eP | P | 05 23 04.4 | +1.2 |
| | comp=Z,4.9nm,0.8s | | | | | | |
| PLCA | Paso Flores | 62.00 | 160 | P | P | 05 23 16.5 | +2.0 |
| | comp=Z,19nm,0.7s,baz=358,slow=7.5,SNR=39 | | | | | | |
| TRQA | Tornquist | 63.04 | 152 | eP | P | 05 23 22.2 | +0.8 |
| | comp=Z,12nm,0.8s | | | | | | |
| SUMG | Summit | 63.42 | 16 | iP | P | 05 23 22.8 | -1.1 |
| | comp=Z,7.4nm,0.6s | | | | | | |
| SUMG | Summit | 63.42 | 16 | eP | P | 05 23 23.5 | -0.4 |
| | comp=Z,7.4nm,0.6s | | | | | | |
| SCO | Scoresbysund | 67.67 | 20 | iP | P | 05 23 49.5 | -1.1 |
| DAG | Danmarks Havn | 69.73 | 14 | iP | P | 05 24 01.9 | -1.3 |
| | comp=Z,7.8nm,0.6s | | | | | | |
| PTO | Porto | 75.42 | 51 | eP | P | 05 24 37.4 | 0.0 |
| PCAS | Casmilo, Conde | 75.70 | 52 | eP | P | 05 24 39.4 | +0.3 |
| PTOM | Tomar | 75.85 | 53 | eP | P | 05 24 40.3 | +0.4 |
| POLO | Lamas de Olo | 75.98 | 51 | eP | P | 05 24 40.6 | -0.1 |
| PVIS | Viseu | 76.03 | 51 | eP | P | 05 24 41.0 | 0.0 |
| PVRL | Vila Real | 76.06 | 51 | eP | P | 05 24 41.2 | +0.1 |
| PNCL | Nicolau / Gran | 76.06 | 54 | eP | P | 05 24 41.2 | +0.1 |
| PMTG | Montargil | 76.10 | 53 | eP | P | 05 24 41.4 | +0.1 |
| MTE | Manteigas | 76.35 | 52 | eP | P | 05 24 42.8 | 0.0 |
| PCBR | Castelo Branco | 76.52 | 52 | eP | P | 05 24 43.9 | +0.3 |
| MVO | Moncorvo | 76.58 | 51 | eP | P | 05 24 44.2 | +0.1 |
| PBEJ | Beja | 76.59 | 54 | eP | P | 05 24 44.6 | +0.5 |
| PESTR | Estremoz | 76.63 | 53 | eP | P | 05 24 44.4 | +0.1 |
| PMRV | Marv??o | 76.66 | 53 | eP | P | 05 24 44.5 | 0.0 |
| PBRG | Braganca | 76.67 | 50 | eP | P | 05 24 44.8 | +0.3 |
| PBDV | Barranco-do-Ve | 76.70 | 55 | eP | P | 05 24 47.5 | +2.7 |
| PBAR | Barrancos | 77.19 | 54 | eP | P | 05 24 48.0 | +0.5 |
| PAB | San Pablo | 78.94 | 52 | eP | P | 05 24 57.4 | +0.3 |
| | comp=Z,11nm,0.8s | | | | | | |
| ESDC | Sonseca Array | 79.19 | 52 | P | P | 05 24 58.5 | 0.0 |
| | comp=Z,5.5nm,0.7s,baz=294,slow=5.1,SNR=32 | | | | | | |
| ES19 | SONSECA Array | 79.24 | 52 | eP | P | 05 24 58.6 | -0.2 |
| NB2 | NORSAR Subarra | 82.05 | 28 | P | P | 05 25 14.0 | +0.8 |
| | comp=Z,5.2nm,0.7s,baz=291,slow=5.3 | | | | | | |
| NOA | NORSAR Array B | 82.05 | 28 | P | P | 05 25 14.1 | +0.8 |
| | comp=Z,8.0nm,0.8s,baz=292,slow=5.2,SNR=20 | | | | | | |
| DOU | Dourbes | 82.23 | 40 | P | P | 05 25 15.2 | +0.9 |
| BCLA | Clavier | 82.56 | 40 | P | P | 05 25 16.7 | +0.8 |
| WLF | Walferdange | 83.32 | 40 | P | P | 05 25 21.4 | +1.5 |
| ARCES | ARCESS Array B | 83.45 | 18 | P | P | 05 25 20.8 | +0.7 |
| | comp=Z,14nm,0.7s,baz=299,slow=4.7,SNR=39 | | | | | | |
| ARCES | ARCESS Array B | 83.45 | 18 | P | P | 05 25 20.8 | +0.7 |
| ARCES | | | | epP | pP | 05 26 10.2 | -0.5 |
| SENIN | Lac Senin/Sane | 85.16 | 43 | eP | P | 05 25 30.6 | +1.1 |
| KOWA | Kowa | 85.89 | 76 | eP | P | 05 25 33.6 | +0.2 |
| | comp=Z,17nm,0.7s | | | | | | |
| DAVA | Damuels | 86.48 | 41 | iP | P | 05 25 37.2 | +1.3 |
| | comp=Z,9.6nm,0.8s | | | | | | |
| DAVA | | | | ipP | pP | 05 26 26.0 | -0.7 |
| | comp=Z,16nm,1.4s | | | | | | |
| RETA | Reutte | 86.96 | 41 | iP | P | 05 25 39.6 | +1.5 |
| | comp=Z,7.9nm,0.7s | | | | | | |
| RETA | | | | ipP | pP | 05 26 29.1 | +0.1 |
| | comp=Z,12nm,1.2s | | | | | | |
| FETA | Feichten | 87.11 | 41 | iP | P | 05 25 39.4 | +0.5 |
| | comp=Z,8.1nm,0.7s | | | | | | |
| FETA | | | | ipP | pP | 05 26 26.5 | -3.4 |
| | comp=Z,5.7nm,1.2s | | | | | | |
| MOTA | Moosalm | 87.23 | 41 | iP | P | 05 25 41.0 | +1.5 |
| | comp=Z,4.7nm,0.6s | | | | | | |
| MOTA | | | | ipP | pP | 05 26 29.8 | -0.7 |
| | comp=Z,14nm,1.6s | | | | | | |
| TIC | Toumodi | 87.25 | 84 | eP | P | 05 25 39.8 | -0.2 |
| LIC | Lamto | 87.36 | 84 | eP | P | 05 25 40.3 | -0.3 |
| | comp=Z,71nm,1.7s | | | | | | |
| DBIC | Dimbokro | 87.39 | 84 | P | P | 05 25 40.5 | -0.1 |
| | comp=Z,3.2nm,0.5s,baz=292,slow=6.7,SNR=9.8 | | | | | | |
| WATA | Walderalm | 87.53 | 41 | iP | P | 05 25 42.0 | +1.1 |
| | comp=Z,2.0nm,0.5s | | | | | | |
| WTTA | Wattenberg | 87.59 | 41 | iP | P | 05 25 42.1 | +0.8 |
| | comp=Z,3.6nm,1.0s | | | | | | |
| KIC | Kosan Boka | 87.59 | 84 | eP | P | 05 25 41.6 | -0.1 |
| | comp=Z,24nm,1.0s | | | | | | |
| FINES | FINESS Array B | 88.19 | 25 | P | P | 05 25 42.9 | -0.6 |
| | comp=Z,2.5nm,0.9s,baz=308,slow=4.6,SNR=4.6 | | | | | | |
| GERES | GERESS Array B | 88.21 | 39 | P | P | 05 25 44.1 | +0.1 |
| | comp=Z,1.2nm,0.7s,baz=321,slow=3.4,SNR=7.0 | | | | | | |
| ABTA | Abfaltersbach | 88.35 | 41 | iP | P | 05 25 45.9 | +1.2 |
| | comp=Z,3.4nm,0.7s | | | | | | |
| ABTA | | | | ipP | pP | 05 26 36.3 | +0.5 |
| | comp=Z,11nm,1.5s | | | | | | |
| KBA | Koelnbreinsper | 88.73 | 41 | iP | P | 05 25 47.3 | +0.7 |
| | comp=Z,2.8nm,0.7s | | | | | | |
| KBA | | | | ipP | pP | 05 26 37.0 | -0.8 |
| | comp=Z,4.9nm,1.3s | | | | | | |
| MOA | Molln | 88.97 | 40 | iP | P | 05 25 48.5 | +1.0 |
| | comp=Z,0.5nm,0.3s | | | | | | |
| OBKA | Obir | 89.72 | 41 | iP | P | 05 25 51.3 | +0.2 |
| | comp=Z,4.0nm,0.7s | | | | | | |
| CONA | Conrad Observa | 89.91 | 39 | iP | P | 05 25 53.3 | +1.3 |
| | comp=Z,0.5nm,0.1s | | | | | | |
| SOKA | Soboth | 89.95 | 41 | ipP | pP | 05 26 42.7 | -0.7 |
| | comp=Z,4.0nm,1.3s | | | | | | |
| ARSA | Arzberg | 90.00 | 40 | iP | P | 05 25 51.6 | -0.8 |
| | comp=Z,1.3nm,0.3s | | | | | | |
| KEST | Kesra | 90.44 | 52 | P | P | 05 25 54.1 | -0.6 |
| | comp=Z,5.8nm,0.8s,baz=159,slow=5.6,SNR=6.3 | | | | | | |
| TOA0 | Torodi Ar. Sit | 91.59 | 76 | eP | P | 05 25 59.5 | -0.7 |
| TORD | Torodi Ar. Bea | 91.59 | 76 | P | P | 05 25 59.1 | -1.2 |
| | comp=Z,1.5nm,0.7s,baz=286,slow=5.0,SNR=12 | | | | | | |
| TAM | Tamanrasset | 91.91 | 66 | eP | P | 05 26 02.7 | +0.9 |
| BJI | Beijing | 116.10 | 334 | PKP | PKPdf | 05 31 33.9 | -1.0 |
| BJI | | | | PP | PP | 05 32 40.5 | -1.2 |
| BJI | | | | AMB | AMB | | |
| | comp=Z,210nm,6.4s | | | | | | |
| WMQ | Urumqi | 118.92 | 358 | ePKP | PKPdf | 05 31 40.5 | +0.1 |
| WMQ | | | | AMB | AMB | | |
| | comp=Z,620nm,5.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,180nm,19.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,160nm,17.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,190nm,17.9s | | | | | | |
| SYO | Syowa Base | 121.15 | 162⇓ | eX | Pdif | 05 28 18.4 | +7.2 |
| KSH | Kashi | 122.50 | 9 | ePKP | PKPdf | 05 31 44.3 | -3.2 |
| KSH | | | | sPKP | | 05 33 04.0 | |
| KSH | | | | PP | PP | 05 33 27.9 | +2.4 |
| KSH | | | | PKS | PKSdf | 05 35 19.1 | -5.1 |
| KSH | | | | SKS | SKSdf | 05 38 31.4 | -8.5 |
| KSH | | | | SKKS | SKKSac | 05 39 55.5 | -9.5 |
| KSH | | | | AMB | AMB | | |
| | comp=Z,83nm,6.3s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,52nm,4.7s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,35nm,4.0s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,270nm,6.9s | | | | | | |
| BOSA | Boshof | 123.72 | 113 | PKP | PKPdf | 05 31 50.2 | +0.2 |
| | comp=Z,3.5nm,0.8s,baz=347,slow=4.5,SNR=4.9 | | | | | | |
| LZH | Lanzhou | 124.00 | 342 | ePKP | PKPdf | 05 31 50.3 | -0.2 |
| MAW | Mawson | 127.83 | 169 | PKP | PKPdf | 05 31 56.6 | +0.1 |
| | comp=Z,3.5nm,0.7s,baz=250,slow=3.1,SNR=6.8 | | | | | | |
| STKA | Stephens Creek | 127.86 | 243 | PKP | PKPdf | 05 31 58.7 | +1.1 |
| | comp=Z,3.8nm,0.8s,baz=344,slow=3.1,SNR=8.9 | | | | | | |
| GYA | Guiyang | 131.79 | 335 | ePdif | Pdif | 05 28 58.7 | -1.1 |
| GYA | | | | PKP | PKPdf | 05 32 05.0 | -0.5 |
| GYA | | | | sPKP | | 05 33 19.4 | |
| GYA | | | | PP | PP | 05 34 31.6 | +4.7 |
| GYA | | | | AMB | AMB | | |
| | comp=Z,120nm,8.6s | | | | | | |
| WRA | Warramunga Arr | 134.10 | 259 | PKhKP | PKPpre | 05 31 56.0 | |
| | comp=Z,0.6nm,0.8s,baz=82,slow=4.2,SNR=6.7 | | | | | | |
| WRA | | | | PKP | PKiKP | 05 32 11.5 | +0.3 |
| | comp=Z,5.0nm,0.7s,baz=84,slow=2.6,SNR=68 | | | | | | |
| WRA | | | | SKPbc | SKPab | 05 35 23.0 | +0.3 |
| | comp=Z,0.5nm,0.8s,baz=88,slow=1.8,SNR=4.3 | | | | | | |
| KMI | Kunming | 134.50 | 338 | PKP | PKPdf | 05 32 10.2 | -0.6 |
| ASAR | Alice Springs | 134.73 | 254 | PKhKP | PKPpre | 05 31 55.8 | |
| | comp=Z,0.6nm,0.8s,baz=101,slow=4.1,SNR=3.1 | | | | | | |
| ASAR | | | | PKP | PKPdf | 05 32 11.8 | +0.9 |
| | comp=Z,2.5nm,0.7s,baz=87,slow=1.4,SNR=20 | | | | | | |
| ASAR | | | | SKPbc | SKPab | 05 35 24.6 | -0.8 |
| | comp=Z,1.1nm,0.8s,baz=107,slow=3.3,SNR=7.0 | | | | | | |
| CMAR | Chiang Mai Arr | 141.96 | 339 | PKhKP | PKPpre | 05 32 22.4 | |
| | comp=Z,1.0nm,0.4s,baz=254,slow=1.0,SNR=5.5 | | | | | | |
| CMAR | | | | SKPbc | SKiKP | 05 35 44.6 | +0.8 |
| | comp=Z,0.6nm,0.4s,baz=15,slow=3.7,SNR=4.1 | | | | | | |

**IDC 07 05:19:57.9±2.1, 49°.48S×116°.51E, h0km, mb4.2/5, mb1 4.3/5, mb1mx3.8/34, mbtmp4.2/5, MS3.5/1, Ms1 3.5/1, ms1mx3.1/16, Error ellipse: s-maj=60.0km s-min=26.1km az=97.0, Western Indian-Antarctic Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| H01W2 | Cape Leeuwin H | 14.67 | 352 | T | T | 05 38 54.6 | |
| | baz=170,slow=74,SNR=20 | | | | | | |
| H01W1 | Cape Leeuwin H | 14.68 | 352 | T | T | 05 38 53.2 | |
| | baz=170,slow=74,SNR=14 | | | | | | |
| H01W3 | Cape Leeuwin H | 14.69 | 352 | T | T | 05 38 49.7 | |
| | baz=170,slow=74,SNR=16 | | | | | | |
| STKA | Stephens Creek | 25.72 | 56 | P | P | 05 25 28.7 | -1.1 |
| | 2.1nm,0.8s,baz=217,slow=12,SNR=4.7 | | | | | | |
| ASAR | Alice Springs | 29.16 | 34 | P | P | 05 26 00.7 | -0.1 |
| | 1.7nm,0.7s,baz=200,slow=8.2,SNR=19 | | | | | | |
| ASAR | | | | LR | LR | 05 36 03.4 | |
| | comp=Z,91nm,20.1s,baz=244,slow=33 | | | | | | |
| WRA | Warramunga Arr | 32.73 | 32 | P | P | 05 26 32.2 | -0.1 |
| | 2.3nm,0.7s,baz=200,slow=8.7,SNR=21 | | | | | | |
| VNDA | Vanda | 32.91 | 163 | P | P | 05 26 32.4 | -0.9 |
| | 1.5nm,0.8s,baz=297,slow=11,SNR=4.8 | | | | | | |
| RPZ | Rata Peaks | 37.22 | 102 | P | P | 05 27 11.6 | +0.8 |
| | 9.1nm,0.9s,baz=216,slow=8.7,SNR=2.3 | | | | | | |
| PDAR | Pinedale Array | 147.78 | 84 | PKPbc | PKPbc | 05 39 43.3 | -1.1 |
| | 0.2nm,0.7s,baz=263,slow=1.5,SNR=3.0 | | | | | | |
| YKA | Yellowknife Ar | 149.48 | 45 | PKPbc | PKPbc | 05 39 48.4 | +0.7 |
| | 0.8nm,0.8s,baz=274,slow=2.6,SNR=4.6 | | | | | | |

**JMA 07 05:27:05.2±0.2, 25°.45N×124°.14E, h153km±5km, M3.5, Northeast of Taiwan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JISG | Ishigakijimahi | 0.87 | 170 | P | Pn | 05 27 29.0 | -0.3 |
| JISG | | | | eS | Sn | 05 27 47.8 | +0.2 |
| JTJ | Tarama | 0.95 | 148 | P | Pn | 05 27 30.4 | +0.5 |
| JTJ | | | | S | Sn | 05 27 49.1 | +0.4 |
| JIJ | Ishigaki jima | 1.08 | 180 | P | Pn | 05 27 30.8 | -0.2 |
| JIJ | | | | S | Sn | 05 27 50.7 | 0.0 |
| JIRB | Irabujima | 1.12 | 123 | P | Pn | 05 27 31.4 | +0.1 |
| JIRB | | | | eS | Sn | 05 27 51.2 | 0.0 |
| JIKM | Ikemajima | 1.13 | 117 | P | Pn | 05 27 31.6 | +0.2 |
| JIKM | | | | eS | Sn | 05 27 51.9 | +0.5 |
| IRIF | Iriomote-Funau | 1.17 | 199 | P | Pn | 05 27 31.8 | 0.0 |
| IRIF | | | | S | Sn | 05 27 53.1 | +1.0 |
| JKRS | Kuro-shima | 1.21 | 186 | P | Pn | 05 27 32.4 | +0.2 |
| JKRS | | | | eS | Sn | 05 27 53.6 | +0.8 |
| JOGS | Gusukube | 1.34 | 121 | P | Pn | 05 27 33.9 | +0.6 |
| JOGS | | | | S | Sn | 05 27 55.0 | +0.1 |
| HATJ | Hateruma jima | 1.42 | 192 | eS | Sn | 05 27 57.2 | +0.8 |
| YOJ | Yonaguni jima | 1.42 | 226 | P | Pn | 05 27 34.4 | +0.2 |
| YOJ | | | | eS | Sn | 05 27 57.4 | +1.1 |
| JYNG | Yonagunijimaku | 1.47 | 228 | P | Pn | 05 27 34.8 | +0.1 |
| JYNG | | | | eS | Sn | 05 27 57.4 | +0.1 |
| JKE | Kume jima 2 | 2.54 | 69 | P | Pn | 05 27 47.4 | +0.5 |
| JAGN | Aguni-jima | 3.01 | 67 | P | Pn | 05 27 51.0 | -1.8 |
| JAGN | | | | S | Sn | 05 28 26.1 | -3.6 |
| JNTH | Nagotoyohara | 3.65 | 72 | P | Pn | 05 27 58.7 | -2.3 |

*WAR 07 05:47:26.5, 51°.44N×16°.20E, h1km*
*CSEM 07 05:47:27.4±0.6, 51°.39N×16°.14E, h1km, ML2.7/5, Error ellipse: s-maj=8.6km s-min=4.6km az=11.0*
*PRU 07 05:47:28.5, 51°.36N×16°.12E, h0km*
**ISC 07 05:47:27.3±2.9, 51°.4N±0°.1×16°.14E±0°.07, h0km, n18, σ0s.54/28, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KSP | Ksiaz | 0.56 | 170 | ePg | Pg | 05 47 37.7 | -0.4 |
| KSP | | | | eSg | Sg | 05 47 45.5 | +0.2 |
| KSP | Ksiaz | 0.56 | 170 | ePg | Pg | 05 47 37.7 | -0.4 |
| KSP | | | | eSg | Sg | 05 47 45.5 | +0.2 |
| KSP | Ksiaz | 0.56 | 170 | ePg | Pg | 05 47 37.7 | -0.4 |
| KSP | | | | eSg | Sg | 05 47 45.5 | +0.2 |
| UPC | Upice | 0.89 | 185 | ePG | Pg | 05 47 44.9 | +0.5 |
| UPC | | | | eSG | Sg | 05 47 56.7 | +0.8 |
| | comp=Z,13nm,0.3s | | | | | | |
| UPC | Upice | 0.89 | 185 | Pg | Pg | 05 47 44.9 | +0.5 |
| UPC | | | | Sg | Sg | 05 47 56.7 | +0.8 |
| | 13nm,0.3s | | | | | | |
| DPC | Dobruska-Polom | 1.05 | 173 | ePG | Pg | 05 47 47.3 | -0.2 |
| DPC | | | | eSG | Sg | 05 48 01.4 | +0.3 |
| | comp=Z,4.2nm,0.3s | | | | | | |
| DPC | Dobruska-Polom | 1.05 | 173 | Pg | Pg | 05 47 47.3 | -0.2 |
| DPC | | | | Sg | Sg | 05 48 01.4 | +0.3 |
| | 4.2nm,0.3s | | | | | | |
| PVCC | Panska Ves | 1.32 | 229 | ePG | Pb | 05 47 52.7 | -0.2 |
| PVCC | | | | eSG | Sg | 05 48 09.8 | +0.2 |
| | comp=Z,17nm,0.2s | | | | | | |
| PVCC | Panska Ves | 1.32 | 229 | Pg | Pb | 05 47 52.7 | -0.2 |
| PVCC | | | | Sg | Sg | 05 48 09.8 | +0.2 |
| | 17nm,0.2s | | | | | | |
| BRG | Berggiesshubel | 1.48 | 250 | PG | Pg | 05 47 55.4 | -0.2 |
| BRG | | | | SG | Sn | 05 48 15.4 | +0.2 |
| | 4.8nm,0.3s | | | | | | |
| GOPC | GO Pecny, Ondr | 1.71 | 211 | eSG | Sg | 05 48 22.2 | -0.1 |
| GOPC | GO Pecny, Ondr | 1.71 | 211 | Sg | Sg | 05 48 22.2 | -0.1 |
| PRU | Pruhonice | 1.73 | 216 | eSG | Sb | 05 48 22.5 | +0.1 |
| | comp=Z,3.1nm,0.2s | | | | | | |
| PRU | Pruhonice | 1.73 | 216 | Sg | Sb | 05 48 22.5 | +0.1 |
| | 3.1nm,0.2s | | | | | | |
| NKC | Novy Kostel | 2.61 | 245 | eSG | Sg | 05 48 51.9 | +0.7 |
| | comp=Z,4.3nm,0.3s | | | | | | |
| NKC | Novy Kostel | 2.61 | 245 | Sg | Sg | 05 48 51.9 | +0.7 |
| | 4.3nm,0.3s | | | | | | |
| KHC | Kasperske Hory | 2.80 | 217 | eSG | Sg | 05 48 55.8 | -1.4 |
| KHC | Kasperske Hory | 2.80 | 217 | Sg | Sg | 05 48 55.8 | -1.4 |

**MAN 07 05:57:57, 13°.86N×120°.53E, h109km, mb3.6, ML2.3, MS1.9, 1C, Mindoro**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LUBP | Lubang | 0.30 | 245 | eP | Pn | 05 58 15.4 | +2.8 |
| PGP | Puerto Galera | 0.55 | 131⇑ | eP | Pn | 05 58 15.9 | +1.8 |
| PGP | | | | eS | Sn | 05 58 29.9 | +2.9 |
| BOAC | Boac | 1.34 | 107 | eP | Pn | 05 58 23.5 | +1.7 |
| SJMP | San Jose | 1.51 | 157 | eP | Pn | 05 58 25.0 | +1.1 |
| SJMP | | | | eS | Sn | 05 58 45.9 | +1.6 |
| BUSP | Coron | 1.88 | 190 | eP | Pn | 05 58 29.3 | +0.9 |
| BUSP | | | | eS | Sn | 05 58 53.2 | +0.8 |
| BOLP | Bolinao | 2.57 | 347 | eP | Pn | 05 58 38.2 | +0.9 |

*ISCJB 07 05:58:10.9±0.6, 24°.99S±0°.07×179°.76E±0°.09, h501km, mb4.1/11, Error ellipse: s-maj=11.6km s-min=8.8km az=163.7*
*IDC 07 05:58:11.3±1.0, 24°.95S×179°.78E, h490km±10km, mb3.7/10, mb1 3.8/12, mb1mx3.6/28, mbtmp4.5/12, Error ellipse: s-maj=18.0km s-min=14.4km az=2.0*
**ISC 07 05:58:11.6±0.6, 25°.09S±0°.08×179°.79E±0°.09, h501km, n22, σ1s.36/29, mb4.1/11, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RAO | Raoul Island | 4.62 | 154 | P | P | 05 59 36.9 | +1.7 |
| | baz=65,slow=19 | | | | | | |
| RAO | | | | S | S | 06 00 44.3 | +0.9 |
| | 39nm,0.3s,baz=60,slow=17,SNR=1.9 | | | | | | |
| DZM | Mont Dzumac | 12.60 | 281 | P | P | 06 00 57.9 | +1.2 |
| | 0.6nm,0.3s,baz=141,slow=17,SNR=7.6 | | | | | | |
| URZ | Urewera | 13.33 | 189 | P | P | 06 01 01.6 | -2.4 |
| | 2.1nm,0.3s,baz=34,slow=2.0,SNR=12 | | | | | | |
| URZ | | | | S | S | 06 03 24.5 | -1.7 |
| | 1.8nm,0.3s,baz=33,slow=14,SNR=11 | | | | | | |
| AFI | Afiamalu | 13.66 | 37 | P | P | 06 01 05.3 | -2.6 |
| | 2.3nm,0.3s,baz=212,slow=9.5,SNR=3.3 | | | | | | |
| AFI | | | | S | S | 06 03 21.6 | -12 |
| | 2.3nm,0.3s,baz=124,slow=15,SNR=4.1 | | | | | | |
| HNR | Honiara | 24.47 | 306 | P | P | 06 02 49.8 | -0.7 |
| | 68nm,0.6s,baz=199,slow=4.0,SNR=4.8 | | | | | | |
| CTA | Charters Tower | 31.31 | 272 | P | P | 06 03 50.8 | +0.4 |
| | 12nm,0.3s,baz=97,slow=11,SNR=23 | | | | | | |
| STKA | Stephens Creek | 34.12 | 250 | P | P | 06 04 14.9 | +0.9 |
| | 1.0nm,0.4s,baz=94,slow=13,SNR=6.6 | | | | | | |
| ASAR | Alice Springs | 41.66 | 262 | P | P | 06 05 16.3 | +0.4 |
| | 5.6nm,0.9s,baz=87,slow=7.4,SNR=40 | | | | | | |
| ASAR | | | | ScP | ScP | 06 10 05.2 | +1.7 |
| | 0.4nm,0.7s,baz=110,slow=5.0,SNR=3.6 | | | | | | |
| ASAR | | | | S | S | 06 10 54.8 | -1.3 |
| | 0.3nm,0.5s,baz=98,slow=12,SNR=3.8 | | | | | | |
| WRA | Warramunga Arr | 42.15 | 268 | P | P | 06 05 19.5 | -0.2 |
| | 4.8nm,0.3s,baz=100,slow=6.7,SNR=156 | | | | | | |
| WRA | | | | ScP | ScP | 06 10 07.3 | +1.9 |
| | 1.2nm,0.8s,baz=96,slow=4.6,SNR=5.0 | | | | | | |
| WRA | | | | S | S | 06 10 59.9 | -3.1 |
| | 2.5nm,0.8s,baz=101,slow=14,SNR=9.8 | | | | | | |
| MJAR | Matsushiro Arr | 72.77 | 326 | P | P | 06 08 48.6 | +0.1 |
| | 2.6nm,0.5s,baz=161,slow=6.3,SNR=7.9 | | | | | | |
| KSRS | Korea Array | 79.03 | 320 | P | P | 06 09 24.1 | +0.9 |
| | 2.2nm,0.7s,baz=129,slow=5.0,SNR=7.9 | | | | | | |
| PETK | Petropavlovsk- | 80.20 | 347 | P | P | 06 09 29.1 | 0.0 |
| | 7.2nm,0.8s,baz=116,slow=6.8,SNR=7.1 | | | | | | |
| CMAR | Chiang Mai Arr | 89.76 | 290 | P | P | 06 10 16.6 | 0.0 |
| | 1.2nm,0.3s,baz=134,slow=2.6,SNR=7.0 | | | | | | |
| TXAR | Lajitas Array | 91.22 | 58 | P | P | 06 10 24.4 | +1.2 |
| | 0.6nm,0.7s,baz=217,slow=6.6,SNR=9.9 | | | | | | |
| ILAR | Eielson Array | 93.23 | 14 | P | P | 06 10 30.1 | -1.3 |
| | 0.3nm,0.6s,baz=221,slow=5.4,SNR=5.1 | | | | | | |
| ARCES | ARCESS Array B | 133.00 | 348 | PKP | PKPdf | 06 16 28.4 | -0.4 |
| | 2.9nm,0.9s,baz=70,slow=3.7,SNR=7.2 | | | | | | |
| ARCES | | | | SKPbc | SKPbc | 06 19 10.4 | +0.9 |
| | 3.9nm,0.9s,baz=22,slow=2.9,SNR=7.5 | | | | | | |
| FINES | FINESS Array B | 139.50 | 341 | PKhKP | PKPpre | 06 16 32.3 | |
| | 0.7nm,0.5s,baz=35,slow=2.5,SNR=6.1 | | | | | | |
| FINES | | | | PKP | PKPdf | 06 16 42.4 | +1.3 |
| | 1.9nm,0.6s,baz=73,slow=1.9,SNR=4.6 | | | | | | |
| FINES | | | | SKPbc | SKPbc | 06 19 29.4 | +0.3 |
| | 4.0nm,0.8s,baz=15,slow=5.8,SNR=5.5 | | | | | | |
| NB2 | NORSAR Subarra | 143.22 | 351 | PKP | PKPab | 06 16 45.1 | -0.4 |
| | comp=Z,1.3nm,0.5s,baz=16,slow=3.2 | | | | | | |
| NOA | NORSAR Array B | 143.22 | 351 | PKhKP | PKPpre | 06 16 45.2 | |
| | comp=Z,3.3nm,0.8s,baz=23,slow=3.9,SNR=6.0 | | | | | | |
| AKASG | Malin Array Be | 145.85 | 326 | PKPbc | PKPdf | 06 16 53.5 | +1.0 |
| | comp=Z,2.3nm,0.5s,baz=45,slow=4.5,SNR=14 | | | | | | |
| BRTR | Keskin Array B | 148.12 | 306 | PKPbc | PKPbc | 06 17 00.7 | -0.2 |
| | comp=Z,0.9nm,0.7s,baz=115,slow=2.4,SNR=5.4 | | | | | | |
| BRTR | | | | PKPab | PKPab | 06 17 05.9 | +0.3 |
| | comp=Z,1.3nm,0.7s,baz=92,slow=4.9,SNR=6.7 | | | | | | |
| TORD | Torodi Ar. Bea | 167.99 | 189 | PKPab | PKPab | 06 18 31.8 | +0.2 |
| | comp=Z,0.3nm,0.7s,baz=192,slow=4.4,SNR=3.0 | | | | | | |

*ISCJB **07** 06:10:39.1±0.4, 12°.49N±0°.05×93°.98E±0°.06, h100km, mb4.2/19, Error ellipse: s-maj=8.9km s-min=5.4km az=149.6*
*NEIC **07** 06:10:42.7±1.4, 12°.48N×93°.75E, h122km±12km, mb4.3/5, Error ellipse: s-maj=12.9km s-min=4.9km az=57.0*
*IDC **07** 06:10:43.5±2.7, 12°.50N×93°.82E, h128km±24km, mb3.8/16, mb1 3.9/17, mb1mx3.7/46, mbtmp4.2/17, Error ellipse: s-maj=22.8km s-min=10.0km az=54.0*
**ISC 07 06:10:40.8**±0.5**, 12°.55N**±0°.06×**93°.83E**±0°.06**, h100**km**, n53, σ1s.79**/62**, mb4.1**/19**, Andaman Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DGPR** | **DIGLIPUR** | **1.07** | **306** | eP | **Pn** | **06 11 04.3** | **+2.3** |
| DGPR | | | | eS | **Sn** | **06 11 18.1** | **+0.1** |
| **PBA** | **Port Blair** | **1.39** | **230** | eP | Pn | 06 11 09.2 | +3.6 |
| PBA | | | | eS | Sn | 06 11 26.4 | +2.0 |
| PBA | | | | AML | AML | 06 11 31.0 | |
| | comp=N,3µm,0.4s | | | | | | |
| PBA | | | | AML | AML | 06 11 31.2 | |
| | comp=E,5µm,0.4s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **7.67** | **39** | P | **Pn** | **06 12 33.6** | **+3.9** |
| | comp=E,1.8nm,0.3s,baz=236,slow=15,SNR=31 | | | | | | |
| CMAR | | | | S | **Sn** | **06 13 51.5** | **-3.5** |
| | comp=E,0.7nm,0.3s,baz=242,slow=17,SNR=4.3 | | | | | | |
| **CHTO** | **Chiang Mai** | **7.94** | **38** | ePn | **Pn** | **06 12 37.0** | **+3.5** |
| **VIS** | **Vishakhapatnam** | **11.36** | **298** | ex | **Pn** | **06 13 19.7** | **-0.3** |
| **SHL** | **Shillong** | **13.08** | **352** | eP | **Pn** | **06 13 44.0** | **+1.2** |
| SHL | | | | eS | **Sn** | **06 16 02.0** | **-4.8** |
| **BOK** | **Bokaro** | **13.48** | **327** | eP | **Pn** | **06 13 50.1** | **+2.1** |
| BOK | | | | eS | Sn | 06 16 06.0 | -10 |
| BOK | | | | AML | AML | 06 16 21.2 | |
| | comp=N,20nm,0.2s | | | | | | |
| BOK | | | | AML | AML | 06 16 21.2 | |
| | comp=E,20nm,0.3s | | | | | | |
| **ODAN** | **Odare** | **15.46** | **338** | eP | **P** | **06 14 16.4** | **+0.5** |
| | comp=E,39nm,0.3s | | | | | | |
| **TAPN** | **Taplejung** | **15.80** | **340** | eP | **P** | **06 14 20.8** | **+1.1** |
| | comp=E,49nm,0.4s | | | | | | |
| **RAMN** | **Ramite** | **15.85** | **336** | eP | **Pn** | **06 14 19.9** | **+1.5** |
| | comp=E,36nm,0.3s | | | | | | |
| **JIRN** | **Jiri** | **16.64** | **336** | eP | **P** | **06 14 30.7** | **+1.6** |
| | comp=E,230nm,0.3s | | | | | | |
| **PKI** | **Pulchoki** | **16.89** | **333** | eP | **P** | **06 14 33.1** | **+1.2** |
| | comp=E,30nm,0.4s | | | | | | |
| **PKIN** | **Phulchoki** | **16.90** | **333** | eP | **Pn** | **06 14 32.9** | **+1.4** |
| | comp=E,24nm,0.3s | | | | | | |
| **GUN** | **Gumba** | **16.99** | **335** | eP | **P** | **06 14 34.7** | **+1.7** |
| | comp=E,24nm,0.4s | | | | | | |
| **DMN** | **Daman** | **17.06** | **333** | eP | **P** | **06 14 35.4** | **+1.8** |
| | comp=E,18nm,0.4s | | | | | | |
| **KKN** | **Kakani** | **17.14** | **333** | eP | **P** | **06 14 35.9** | **+1.4** |
| | comp=E,11nm,0.3s | | | | | | |
| **LSA** | **Lhasa** | **17.24** | **352** | eP | **Pn** | **06 14 36.9** | **+1.0** |
| | comp=E,11nm,0.6s | | | | | | |
| LSA | | | | eS | **Sn** | **06 17 48.4** | **+0.5** |
| **GKN** | **Gorkha** | **17.61** | **332** | eP | **P** | **06 14 41.1** | **+1.5** |
| | comp=E,4.3nm,0.2s | | | | | | |
| **KOLN** | **Koldanda** | **17.91** | **329** | eP | **P** | **06 14 44.4** | **+1.5** |
| | comp=E,27nm,0.5s | | | | | | |
| KOLN | | | | eS | **Sn** | **06 17 56.6** | **-7.0** |
| **DANN** | **Dangsing** | **18.31** | **331** | eP | **P** | **06 14 49.0** | **+1.6** |
| | comp=E,0.9nm,0.3s | | | | | | |
| **PYUN** | **Piuthan** | **18.49** | **328** | eP | **P** | **06 14 50.9** | **+1.6** |
| | comp=E,11nm,0.2s | | | | | | |
| **MK32** | **Makanchi Array** | **35.49** | **346** | eP | **P** | **06 17 27.8** | **+0.1** |
| **MKAR** | **Makanchi Array** | **35.49** | **346** | P | **P** | **06 17 27.8** | **+0.1** |
| | comp=E,1.8nm,0.4s,baz=163,slow=8.6,SNR=31 | | | | | | |
| **SONA0** | **Songino Array** | **36.71** | **14** | eP | **P** | **06 17 38.5** | **+0.3** |
| **SONM** | **Songino Array** | **36.71** | **14** | P | **P** | **06 17 38.5** | **+0.3** |
| | comp=E,0.6nm,0.3s,baz=196,slow=9.0,SNR=5.0 | | | | | | |
| SONM | | | | ScP | **ScP** | **06 23 33.5** | **-3.1** |
| | comp=E,0.7nm,0.7s,baz=199,slow=3.1,SNR=3.4 | | | | | | |
| **KURK** | **Kurchatov** | **40.03** | **345** | eP | **P** | **06 18 06.2** | **+0.3** |
| | comp=E,13nm,1.6s | | | | | | |
| **GEYT** | **Alibeck** | **40.61** | **315** | P | **P** | **06 18 12.6** | **+1.7** |
| | comp=E,13nm,0.5s,baz=147,slow=7.3,SNR=12 | | | | | | |
| **ZAA0** | **Zalesovo Array** | **41.91** | **352** | eP | **P** | **06 18 21.2** | **+0.1** |
| | comp=E,8.0nm,0.9s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.91** | **352** | P | **P** | **06 18 21.4** | **+0.2** |
| | comp=E,4.5nm,0.3s,baz=175,slow=8.9,SNR=25 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.91** | **352** | eP | **P** | **06 18 21.3** | **+0.1** |
| **ZAA1** | **Zalesovo Array** | **41.91** | **352** | eP | **P** | **06 18 21.4** | **+0.1** |
| **FITZ** | **Fitzroy Crossi** | **43.74** | **134** | P | **P** | **06 18 36.0** | **-0.5** |
| | comp=E,1.4nm,0.4s,baz=334,slow=5.2,SNR=14 | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **50.45** | **154** | P | **P** | **06 19 27.7** | **-0.7** |
| | comp=E,5.5nm,0.8s,baz=342,slow=3.2,SNR=3.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **51.31** | **128** | P | **P** | **06 19 34.6** | **-0.5** |
| | comp=E,0.7nm,0.6s,baz=303,slow=9.9,SNR=2.8 | | | | | | |
| WRA | | | | PcP | **PcP** | **06 20 47.5** | **-1.3** |
| | comp=E,0.3nm,0.5s,baz=318,slow=3.1,SNR=4.8 | | | | | | |
| **WR1** | **Warramunga Arr** | **51.31** | **128** | eP | **P** | **06 19 34.6** | **-0.5** |
| WR1 | | | | ePcP | **PcP** | **06 20 47.5** | **-1.3** |
| **ASAR** | **Alice Springs** | **53.21** | **133** | P | **P** | **06 19 48.8** | **-0.4** |
| | comp=E,1.2nm,0.4s,baz=310,slow=6.9,SNR=17 | | | | | | |
| ASAR | | | | PcP | **PcP** | **06 20 54.6** | **-1.4** |
| | comp=E,0.4nm,0.8s,baz=310,slow=4.3,SNR=3.0 | | | | | | |
| **AS31** | **Alice Springs** | **53.21** | **133** | eP | **P** | **06 19 48.8** | **-0.4** |
| | comp=E,0.8nm,0.9s | | | | | | |
| AS31 | | | | ePcP | **PcP** | **06 20 54.6** | **-1.4** |
| **PMG** | **Port Moresby** | **57.30** | **110** | P | **P** | **06 20 18.5** | **-0.1** |
| | comp=E,5.6nm,0.4s,baz=277,slow=17,SNR=2.9 | | | | | | |
| **BR101** | **Keskin Array S** | **59.21** | **309** | eP | **P** | **06 20 30.6** | **-1.3** |
| **BRTR** | **Keskin Array B** | **59.21** | **309** | P | **P** | **06 20 30.6** | **-1.3** |
| | comp=E,0.5nm,0.8s,baz=142,slow=6.6,SNR=3.3 | | | | | | |
| **STKA** | **Stephens Creek** | **63.59** | **135** | P | **P** | **06 21 00.4** | **-0.7** |
| | comp=E,1.2nm,0.6s,baz=310,slow=7.9,SNR=3.2 | | | | | | |
| **STKA** | **Stephens Creek** | **63.59** | **135** | eP | **P** | **06 21 00.4** | **-0.7** |
| | comp=E,5.0nm,1.9s | | | | | | |
| **FIA0** | **FINESS Array S** | **68.47** | **331** | eP | **P** | **06 21 31.1** | **-0.8** |
| **FINES** | **FINESS Array B** | **68.47** | **331** | P | **P** | **06 21 31.1** | **-0.8** |
| | comp=E,2.1nm,0.9s,baz=114,slow=4.8,SNR=5.9 | | | | | | |
| **ARA0** | **ARCESS Array S** | **70.79** | **340** | eP | **P** | **06 21 46.2** | **+0.1** |
| **ARCES** | **ARCESS Array B** | **70.79** | **340** | P | **P** | **06 21 46.2** | **+0.1** |
| | comp=E,1.9nm,0.6s,baz=101,slow=6.6,SNR=9.8 | | | | | | |
| **GERES** | **GERESS Array B** | **74.17** | **317** | P | **P** | **06 22 06.4** | **-0.3** |
| | comp=E,0.6nm,0.5s,baz=76,slow=7.0,SNR=4.0 | | | | | | |
| **BOSA** | **Boshof** | **77.83** | **237** | P | **P** | **06 22 27.6** | **-0.2** |
| | comp=E,1.9nm,0.5s,baz=69,slow=7.6,SNR=4.5 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **89.23** | **283** | P | **P** | **06 23 25.5** | **-0.8** |
| | comp=E,0.4nm,0.5s,baz=88,slow=4.2,SNR=6.2 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **89.23** | **283** | eP | **P** | **06 23 25.5** | **-0.8** |
| **LTX** | **Lajitas** | **135.06** | **22** | ePKPdf | **PKPdf** | **06 29 49.9** | **+0.7** |
| **TXAR** | **Lajitas Array** | **135.06** | **22** | PKP | **PKPdf** | **06 29 49.9** | **+0.7** |
| | comp=E,0.2nm,0.4s,baz=312,slow=0.6,SNR=4.1 | | | | | | |
| **PLCA** | **Paso Flores** | **148.75** | **203** | PKPbc | **PKPdf** | **06 30 16.1** | **+3.0** |
| | comp=E,2.0nm,0.8s,baz=355,slow=1.6,SNR=7.9 | | | | | | |

---

**IDC 07 06:50:42.5**±1.6**, 0°.21N×126°.25E, h0**km**, mb3.6**/4**, mb1 3.8**/5**, mb1mx3.5**/32**, mbtmp3.6**/5**, ML3.5**/1**, Error ellipse: s-maj=103.8km s-min=24.1km az=67.0, Northern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **18.20** | **182** | P | Pn | 06 54 55.6 | -1.3 |
| | 0.1nm,0.3s,baz=344,slow=15,SNR=3.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **21.54** | **159** | P | P | 06 55 33.6 | 0.0 |
| | 0.3nm,0.3s,baz=338,slow=11,SNR=7.9 | | | | | | |
| **ASAR** | **Alice Springs** | **24.87** | **163** | P | P | 06 56 07.7 | +0.6 |
| | 0.5nm,0.5s,baz=346,slow=7.4,SNR=5.1 | | | | | | |
| **STKA** | **Stephens Creek** | **35.06** | **157** | P | P | 06 57 37.2 | -0.1 |
| | 0.6nm,0.4s,baz=341,slow=10,SNR=2.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **60.19** | **327** | P | P | 07 00 52.2 | -0.1 |
| | 0.4nm,0.5s,baz=120,slow=7.6,SNR=5.3 | | | | | | |

---

**JMA 07 07:01:31.3**±0.1**, 38°.29N×141°.87E, h47**km±1km**, M3.5, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JIO** | **Ouri** | **0.44** | **292** | P | Pn | 07 01 41.7 | +0.1 |
| JIO | | | | S | Sn | 07 01 48.8 | -0.2 |
| **OFUJ** | **Ofunato** | **0.81** | **349** | P | Pn | 07 01 46.3 | 0.0 |
| OFUJ | | | | eS | Sn | 07 01 56.8 | -0.5 |
| **JMK** | **Ichinoseki** | **0.83** | **323** | P | Pn | 07 01 47.1 | +0.4 |
| JMK | | | | eS | Sn | 07 01 58.1 | +0.2 |
| **JMM** | **Marumori** | **0.95** | **244** | P | Pn | 07 01 47.9 | -0.3 |
| JMM | | | | eS | Sn | 07 01 59.9 | -0.8 |
| **JOU** | **Okura** | **0.95** | **275** | P | Pn | 07 01 48.7 | +0.4 |
| JOU | | | | eS | Sn | 07 02 01.3 | +0.5 |
| **JFK** | **Kawauchi** | **1.21** | **221** | P | Pn | 07 01 51.5 | -0.4 |
| JFK | | | | eS | Sn | 07 02 05.9 | -1.3 |
| **JOM** | **Ohasama** | **1.26** | **339** | P | Pn | 07 01 53.1 | +0.5 |
| JOM | | | | eS | Sn | 07 02 09.6 | +1.2 |
| **JYK** | **Kaneyama** | **1.34** | **298** | P | Pn | 07 01 54.0 | +0.4 |
| **JYS** | **Shirataka** | **1.42** | **268** | P | Pn | 07 01 55.2 | +0.5 |
| JYS | | | | eS | Sn | 07 02 12.2 | -0.1 |
| **JFT** | **Otama** | **1.44** | **238** | P | Pn | 07 01 55.5 | +0.6 |
| JFT | | | | eS | Sn | 07 02 12.8 | +0.2 |
| **JRG** | **Rokugo** | **1.47** | **319** | P | Pn | 07 01 56.0 | +0.7 |
| **JYA** | **Atsumi** | **1.72** | **281** | P | Pn | 07 01 59.6 | +0.8 |

---

*IDC **07** 07:02:51.4±3.3, 1°.30N×122°.36E, h0km, mb3.8/3, mb1 4.0/4, mb1mx3.6/36, mbtmp3.8/4, ML4.0/1, Error ellipse: s-maj=158.8km s-min=57.7km az=71.0*
*DJA **07** 07:03:22.4±0.6, 0°N±3°×12°2E±°, h86km±6km, M3.5/7, MLv3.5/7*
**ISC 07 07:03:15.0**±1.0**, 0°.28N**±0°.08×**122°.07E**±0°.05**, h151**km±7km**, n11, σ3s.46**/17**, mb3.6**/3**, Minahassa Peninsula, Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MRSI** | **Marisa** | **0.24** | **327** | P | **Pn** | **07 03 38.3** | **+2.8** |
| MRSI | | | | S | **Sn** | **07 03 47.8** | **-3.3** |
| **APSI** | **Ampana** | **1.25** | **200** | P | **Pn** | **07 03 46.2** | **+4.1** |
| APSI | | | | S | **Sn** | **07 03 57.9** | **-5.0** |
| **LUWI** | **Luwuk** | **1.48** | **152** | P | **Pn** | **07 03 48.9** | **+4.4** |
| LUWI | | | | S | **Sn** | **07 04 04.5** | **-2.6** |
| **KMSI** | **Cibinong** | **1.93** | **81** | P | **Pn** | **07 03 54.1** | **+4.7** |
| KMSI | | | | S | **Sn** | **07 04 12.3** | **-3.5** |
| **MPSI** | **Mapaga** | **2.17** | **272** | P | **Pn** | **07 03 54.8** | **+2.6** |
| MPSI | | | | S | **Sn** | **07 04 20.3** | **-0.5** |
| **TTSI** | **Tana Toraja** | **3.99** | **214** | P | **Pn** | **07 04 19.1** | **+3.9** |
| **SANI** | **Sanana** | **4.55** | **121** | P | Pn | 07 04 28.6 | +6.1 |
| SANI | | | | S | **Sn** | **07 05 13.0** | **-2.0** |
| **FITZ** | **Fitzroy Crossi** | **18.60** | **169** | P | **P** | **07 07 20.8** | **+0.1** |
| | 0.3nm,0.3s,baz=17,slow=11,SNR=29 | | | | | | |
| **WRA** | **Warramunga Arr** | **23.42** | **150** | P | **P** | **07 08 09.6** | **-0.9** |
| | 1.1nm,0.5s,baz=324,slow=11,SNR=44 | | | | | | |
| **ASAR** | **Alice Springs** | **26.43** | **155** | P | **P** | **07 08 37.1** | **-0.8** |
| | 0.7nm,0.5s,baz=343,slow=14,SNR=17 | | | | | | |
| ASAR | | | | PcP | **PcP** | **07 11 57.1** | **-2.4** |
| | 0.2nm,0.3s,baz=340,slow=2.3,SNR=4.0 | | | | | | |
| **STKA** | **Stephens Creek** | **36.94** | **152** | P | **P** | **07 10 09.2** | **-0.3** |
| | 1.9nm,0.8s,baz=321,slow=9.0,SNR=5.1 | | | | | | |

---

*CSEM **07** 07:35:46.8±0.6, 37°.20N×43°.92E, h2km, MD2.7, Error ellipse: s-maj=17.0km s-min=8.4km az=120.0*
*ISN **07** 07:35:47.4±0.3, 37°.09N×43°.72E, h0km, ML2.5*
**DDA 07 07:35:47.4, 37°.29N×43°.88E, h8**km**, Md2.7, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CUKT** | **Cukurca** | **0.22** | **259** | i P | Pg | 07 35 51.8 | -0.1 |
| CUKT | | | | i S | Sg | 07 35 56.0 | +1.1 |
| **CUKT** | **Cukurca** | **0.22** | **259** | P | Pg | 07 35 51.8 | -0.1 |
| **HAKT** | **HAKKARI** | **0.30** | **333** | i P | Pg | 07 35 53.7 | +0.3 |
| HAKT | | | | i S | Sg | 07 35 58.2 | +0.7 |
| **HAKT** | **HAKKARI** | **0.30** | **333** | P | Pg | 07 35 53.7 | +0.3 |
| HAKT | | | | S | Sg | 07 35 58.2 | +0.8 |
| **YOVA** | **Hakkari_Yˆ…kse** | **0.44** | **48** | i P | Pg | 07 35 56.3 | +0.3 |
| YOVA | | | | i S | Sg | 07 36 02.8 | +1.0 |
| **YOVA** | **Hakkari_Yˆ…kse** | **0.44** | **48** | P | Pg | 07 35 56.3 | +0.3 |
| YOVA | | | | S | Sg | 07 36 02.8 | +1.0 |
| **MSL** | **Mosul** | **1.08** | **215** | ePg | Pg | 07 36 06.0 | -2.1 |
| | SNR=90 | | | | | | |
| MSL | | | | eSg | Sg | 07 36 19.0 | -3.2 |
| | SNR=9.0 | | | | | | |
| **BTMN** | **Batman** | **2.16** | **287** | i P | Pb | 07 36 26.0 | -0.7 |
| BTMN | | | | i S | Sg | 07 36 55.8 | -0.9 |
| **BTMN** | **Batman** | **2.16** | **287** | P | Pb | 07 36 26.0 | -0.7 |
| **TUTA** | **Tutak** | **2.27** | **339** | i P | Pb | 07 36 28.4 | -0.3 |
| **TUTA** | **Tutak** | **2.27** | **339** | P | Pb | 07 36 28.4 | -0.3 |
| **MARD** | **Mardin** | **2.47** | **271** | i P | Pg | 07 36 33.8 | -0.9 |
| MARD | | | | i S | Sg | 07 37 05.9 | -0.9 |

---

*ISCJB **07** 07:40:26.4±0.3, 55°.80N±0°.03×161°.17E±0°.08, h161km±2km, mb3.6/9, Error ellipse: s-maj=7.6km s-min=4.2km az=25.9*
*KRSC **07** 07:40:26.1±1.5, 55°.74N×161°.29E, h158km±13km, ML4.0*
*IDC **07** 07:40:28.6±2.3, 55°.91N×160°.76E, h162km±22km, mb3.5/10, mb1 3.5/11, mb1mx3.3/43, mbtmp3.9/11, Error ellipse: s-maj=18.4km s-min=17.7km az=62.0*
**ISC 07 07:40:27.3**±0.7**, 55°.78N**±0°.04×**161°.18E**±0°.05**, h160**km±5km**, n47, σ1s.30**/73**, mb3.5**/9**, Near east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BZGR** | **Bezymyannyi-Gr** | **0.32** | **301** | eP | **Pn** | **07 40 51.2** | **+2.0** |
| BZGR | | | | eS | **Sn** | **07 41 10.5** | **+4.5** |
| **ZLN** | **Zelenaya** | **0.32** | **319** | eP | **Pn** | **07 40 49.1** | **-0.1** |
| ZLN | | | | eS | **Sn** | **07 41 05.4** | **-0.6** |
| **CIRR** | **Tsirk** | **0.41** | **325** | i P | **Pn** | **07 40 49.2** | **-0.4** |
| CIRR | | | | i S | **Sn** | **07 41 06.2** | **-0.5** |
| **BZMR** | **Bezymyannaya** | **0.42** | **292** | i P | **Pn** | **07 40 49.0** | **-0.6** |
| BZMR | | | | i S | **Sn** | **07 41 06.6** | **-0.1** |
| **BZWR** | **Bezymyannyi-We** | **0.43** | **296** | i P | **Pn** | **07 40 49.4** | **-0.3** |
| **KIRR** | **Kirishev** | **0.50** | **291** | i P | **Pn** | **07 40 49.4** | **-0.6** |
| KIRR | | | | eS | **Sn** | **07 41 06.8** | **-0.5** |
| **KMNR** | **Kamenistaya** | **0.53** | **268** | eP | **Pn** | **07 40 49.8** | **-0.3** |
| KMNR | | | | eS | **Sn** | **07 41 08.1** | **+0.7** |
| **KRSR** | **Krestovskiy** | **0.56** | **322** | i P | **Pn** | **07 40 49.5** | **-0.7** |
| KRSR | | | | i S | **Sn** | **07 41 06.8** | **-1.0** |
| **KPT** | **Kopyto** | **0.57** | **290** | i P | **Pn** | **07 40 49.7** | **-0.5** |
| KPT | | | | eS | **Sn** | **07 41 07.0** | **-0.8** |
| **KLY** | **Klyuchi** | **0.61** | **331** | i P | **Pn** | **07 40 49.4** | **-0.9** |
| KLY | | | | eS | **Sn** | **07 41 06.6** | **-1.4** |
| **TUMR** | **Tumrok** | **0.77** | **230** | i P | **Pn** | **07 40 51.9** | **+0.4** |
| TUMR | | | | eS | **Sn** | **07 41 10.2** | **+0.3** |
| **KOZ** | **Kozyrevsk** | **0.79** | **291** | eP | **Pn** | **07 40 51.0** | **-0.4** |
| KOZ | | | | eS | **Sn** | **07 41 09.3** | **-0.6** |
| **BDR** | **Baidarnaya** | **0.79** | **1** | eP | **Pn** | **07 40 51.0** | **-0.5** |
| BDR | | | | eS | **Sn** | **07 41 10.2** | **0.0** |
| **SMKR** | **Semkarok** | **0.82** | **11** | i P | **Pn** | **07 40 51.2** | **-0.5** |
| SMKR | | | | eS | **Sn** | **07 41 09.8** | **-0.8** |
| **KZV** | **Kizimen** | **0.83** | **217** | eP | **Pn** | **07 40 51.9** | **-0.1** |
| KZV | | | | eS | **Sn** | **07 41 10.7** | **-0.1** |
| **SRKR** | **Sorokina** | **0.88** | **360** | i P | **Pn** | **07 40 51.5** | **-0.6** |
| SRKR | | | | eS | **Sn** | **07 41 09.5** | **-1.8** |
| **KBTR** | **Krutoberegovo** | **1.02** | **64** | eP | **Pn** | **07 40 52.3** | **-0.8** |
| KBTR | | | | eS | **Sn** | **07 41 11.0** | **-2.0** |
| **ESO** | **Esso** | **1.40** | **277** | i P | **Pn** | **07 40 56.3** | **-0.4** |
| ESO | | | | eS | **Sn** | **07 41 18.8** | **-0.4** |
| **SPN** | **Mys Shipunski** | **2.77** | **195** | eP | **Pn** | **07 41 10.9** | **-1.3** |
| SPN | | | | eS | **Sn** | **07 41 43.7** | **-3.2** |
| **BKI** | **Bering** | **2.79** | **100** | i P | **Pn** | **07 41 12.8** | **+0.5** |
| BKI | | | | eS | **Sn** | **07 41 45.8** | **-1.4** |
| **GNL** | **Ganaly** | **2.81** | **223** | i P | **Pn** | **07 41 13.5** | **+0.8** |
| **NLC** | **Nalytchevo** | **2.82** | **203** | eP | **Pn** | **07 41 12.6** | **-0.2** |
| NLC | | | | eS | **Sn** | **07 41 46.6** | **-1.4** |
| **KRX** | **Arik** | **2.84** | **212** | eP | **Pn** | **07 41 14.3** | **+1.2** |
| **SDLR** | **Sedlovina** | **2.84** | **209** | eP | **Pn** | **07 41 13.7** | **+0.5** |
| **KRER** | **Koryakskii** | **2.85** | **211** | eP | **Pn** | **07 41 14.3** | **+0.9** |
| **AVH** | **Avacha** | **2.89** | **210** | eP | **Pn** | **07 41 14.8** | **+1.0** |
| **KOK** | **Koryaka** | **2.90** | **212** | eP | **Pn** | **07 41 15.5** | **+1.6** |
| **UGLR** | **Uglovaya** | **2.92** | **209** | i P | **Pn** | **07 41 14.9** | **+0.8** |
| **DALK** | **Dalny** | **3.10** | **208** | i P | **Pn** | **07 41 16.5** | **+0.3** |
| DALK | | | | eS | **Sn** | **07 41 53.8** | **-0.3** |
| **PET** | **Petropavlovsk** | **3.13** | **209** | eP | **Pn** | **07 41 17.3** | **+0.7** |
| PET | | | | eS | **Sn** | **07 41 54.9** | **0.0** |
| **PETK** | **Petropavlovsk-** | **3.36** | **219** | P | **Pn** | **07 41 20.2** | **+0.6** |
| | 3.9nm,0.3s,baz=59,slow=15,SNR=78 | | | | | | |
| **KRMR** | **Karymshinskiy** | **3.45** | **212** | i P | **Pn** | **07 41 21.1** | **+0.4** |
| KRMR | | | | eS | **Sn** | **07 42 00.9** | **-1.3** |
| **RUS** | **Russkaya** | **3.70** | **206** | eP | **Pn** | **07 41 23.5** | **-0.4** |
| RUS | | | | eS | **Sn** | **07 42 05.4** | **-2.5** |
| **APC** | **Apacha** | **3.70** | **221** | eP | **Pn** | **07 41 25.2** | **+1.3** |
| **MTVR** | **Mutnovka** | **3.74** | **209** | eP | **Pn** | **07 41 25.2** | **+0.6** |
| MTVR | | | | eS | **Sn** | **07 42 08.1** | **-1.0** |
| **ASAK** | **Asacha** | **3.91** | **211** | eP | **Pn** | **07 41 27.2** | **+0.5** |
| **KDTR** | **Khodutka, Kamc** | **4.38** | **206** | eP | **Pn** | **07 41 31.7** | **-1.0** |
| KDTR | | | | eS | **Sn** | **07 42 19.6** | **-4.1** |
| **TIXI** | **Tiksi** | **20.95** | **332** | P | **P** | **07 44 56.3** | **-0.8** |
| | 3.9nm,0.7s,baz=121,slow=12,SNR=10.0 | | | | | | |
| **KDAK** | **Kodiak Island** | **25.03** | **66** | P | **P** | **07 45 38.8** | **+2.6** |
| | 5.2nm,0.8s,baz=304,slow=11,SNR=4.3 | | | | | | |
| **SPITS** | **Spitsbergen Ar** | **44.59** | **350** | P | **P** | **07 48 22.9** | **+0.2** |
| | 17nm,1.0s,baz=19,slow=11,SNR=4.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **47.60** | **294** | P | **P** | **07 48 45.5** | **-1.1** |
| | 0.8nm,0.6s,baz=58,slow=7.5,SNR=7.3 | | | | | | |
| **BVAR** | **Borovoye Array** | **49.24** | **307** | P | **P** | **07 48 58.2** | **-0.8** |
| | 0.6nm,0.4s,baz=32,slow=8.5,SNR=4.2 | | | | | | |
| **FINES** | **FINESS Array B** | **57.91** | **336** | P | **P** | **07 50 01.5** | **-0.4** |
| | 4.8nm,1.0s,baz=39,slow=9.0,SNR=4.6 | | | | | | |
| **AKASG** | **Malin Array Be** | **66.63** | **329** | P | **P** | **07 50 58.6** | **-1.4** |
| | 0.2nm,0.3s,baz=25,slow=7.1,SNR=1.4 | | | | | | |
| **TXAR** | **Lajitas Array** | **69.03** | **69** | P | **P** | **07 51 17.6** | **+2.1** |
| | 0.4nm,0.9s,baz=302,slow=5.2,SNR=3.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **78.78** | **206** | P | **P** | **07 52 13.2** | **+1.2** |
| | 0.4nm,0.8s,baz=11,slow=5.9,SNR=5.0 | | | | | | |
| **ASAR** | **Alice Springs** | **82.47** | **205** | P | **P** | **07 52 33.2** | **+1.7** |
| | 0.1nm,0.4s,baz=17,slow=4.4,SNR=4.5 | | | | | | |

---

*IDC **07** 07:47:13.1±3.1, 8°.81S×109°.92E, h0km, mb3.8/3, mb1 3.9/4, mb1mx3.5/31, mbtmp3.7/4, ML3.3/1, Error ellipse: s-maj=157.9km s-min=24.5km az=47.0*
*ISCJB **07** 07:47:17.7±0.8, 8°.93S±0°.06×110°.39E±0°.06, h10km, mb3.5/3, Error ellipse: s-maj=8.7km s-min=7.6km az=31.4*
*DJA **07** 07:47:20.9±1.2, 9°S±5°×11°0E±°, h16km±10km, M4.0/10, MLv4.0/10*
**ISC 07 07:47:19.0**±1.1**, 8°.85S**±0°.08×**110°.37E**±0°.05**, h10**km**, n14, σ1s.29**/14**, mb3.6**/3**, Jawa**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **UGM** | **Wanagama** | **0.94** | **9** | P | **Pg** | **07 47 37.7** | **+0.6** |
| UGM | | | | S | **Sb** | **07 47 49.4** | **-0.6** |
| **PCJI** | **Pacitan** | **1.02** | **51** | P | **Pg** | **07 47 39.0** | **+0.2** |
| **PWJI** | **Pagerwojo** | **1.63** | **60** | P | **Pn** | **07 47 48.0** | **+0.1** |
| PWJI | | | | S | **Sn** | **07 48 07.3** | **-1.7** |
| **SMRI** | **Semarang** | **1.79** | **2** | P | Pg | 07 47 59.5 | +6.2 |
| **KPJI** | **Karang Pucung** | **2.07** | **316** | P | **Pn** | **07 47 54.0** | **+0.1** |
| **CISI** | **Cisompet, Garu** | **2.84** | **297** | P | **Pn** | **07 48 06.0** | **+1.5** |
| **GMJI** | **Gumukmas** | **3.09** | **80** | P | **Pn** | **07 48 10.8** | **+2.9** |
| **CNJI** | **Cibinong** | **3.56** | **295** | P | **Pn** | **07 48 13.0** | **-1.3** |
| **JAGI** | **Jajag, Banyuwa** | **3.75** | **85** | P | **Pn** | **07 48 16.4** | **-0.7** |
| **DBJI** | **Dramaga** | **4.25** | **302** | P | **Pb** | **07 48 34.9** | **+0.9** |
| **FITZ** | **Fitzroy Crossi** | **17.45** | **123** | P | **Pn** | **07 51 22.4** | **-0.3** |
| | 0.1nm,0.3s,baz=290,slow=12,SNR=2.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **25.66** | **118** | P | **P** | **07 52 48.6** | **-0.7** |
| | 1.0nm,0.8s,baz=290,slow=11,SNR=11 | | | | | | |
| **ASAR** | **Alice Springs** | **26.91** | **126** | P | **P** | **07 52 60.0** | **-0.6** |
| | 0.7nm,0.7s,baz=305,slow=8.8,SNR=10 | | | | | | |
| **MKAR** | **Makanchi Array** | **60.79** | **338** | P | P | 07 57 25.4 | -5.9 |
| | 0.9nm,0.9s,baz=133,slow=6.3,SNR=3.2 | | | | | | |

---

*GUC **07** 08:11:04.7±0.5, 22°.64S×66°.64W, h260km, ML4.4*
*ISCJB **07** 08:11:05.3±0.5, 22°.83S±0°.08×66°.34W±0°.05, h222km, Error ellipse: s-maj=11.9km s-min=5.5km az=24.2*
*SJA **07** 08:11:07.2±0.8, 22°.82S×65°.99W, h217km±17km, ML2.3, MW3.0*
**ISC 07 08:11:05.2**±1.3**, 22°.82S**±0°.09×**66°.31W**±0°.06**, h222**km**, n14, σ0s.77**/20**, 5C-2D, Jujuy Province**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HJA** | **Humahuaca** | **0.92** | **115** | eP | **Pn** | **08 11 38.7** | **+1.5** |
| HJA | | | | IAML | | 08 11 38.9 | |
| | comp=Z,46nm,0.3s | | | | | | |
| **YJA** | **Yavi** | **0.98** | **49** | eP | **Pn** | **08 11 38.7** | **+1.0** |
| YJA | | | | IAML | | 08 11 39.4 | |
| | comp=Z,20nm,0.3s | | | | | | |
| YJA | | | | eS | **S** | **08 12 02.1** | **-0.8** |
| **AZAP** | **Zapla** | **1.81** | **141** | eP | **Pn** | **08 11 44.1** | **+0.3** |
| AZAP | | | | IAML | | 08 11 45.1 | |
| | comp=Z,24nm,0.4s | | | | | | |
| **ASTB** | **Santa Barbara** | **2.04** | **124** | eP | **Pn** | **08 11 46.1** | **+0.1** |
| **ALOL** | **LOMAS DE OLMED** | **2.36** | **115** | eP | **Pn** | **08 11 48.4** | **-0.6** |
| **PB09** | **IPOC Station P** | **2.90** | **290** | ⇑ iP | **Pn** | **08 11 56.0** | **+1.0** |
| **PB06** | **IPOC Station P** | **3.01** | **272** | ⇑ iP | **Pn** | **08 11 57.1** | **+0.8** |
| PB06 | | | | i S | **S** | **08 12 37.3** | **+1.2** |
| PB06 | | | | IAML | | 08 12 39.9 | |
| | comp=N,274nm,0.1s | | | | | | |
| **FSA** | **Cafayete** | **3.29** | **175** | eP | **Pn** | **08 11 59.5** | **0.0** |
| FSA | | | | IAML | | 08 12 00.8 | |
| | comp=Z,2.1nm,0.3s | | | | | | |
| **PB01** | **IPOC Station P** | **3.44** | **300** | eP | **Pn** | **08 12 01.2** | **0.0** |
| PB01 | | | | i S | **S** | **08 12 44.7** | **-0.3** |
| PB01 | | | | IAML | | 08 12 45.6 | |
| | comp=E,390nm,0.3s | | | | | | |
| **PB07** | **IPOC Station P** | **3.48** | **288** | ⇑ iP | **Pn** | **08 12 01.8** | **-0.1** |
| PB07 | | | | i S | **S** | **08 12 45.5** | **-0.7** |
| PB07 | | | | IAML | | 08 12 46.3 | |
| | comp=N,435nm,0.2s | | | | | | |
| **PB04** | **IPOC Station P** | **3.58** | **277** | ⇑ iP | **Pn** | **08 12 03.0** | **0.0** |
| **PB02** | **IPOC Station P** | **3.64** | **294** | ⇓ iP | **Pn** | **08 12 03.3** | **-0.3** |
| PB02 | | | | i S | **S** | **08 12 48.0** | **-1.4** |
| **PB08** | **IPOC Station P** | **3.76** | **315** | ⇓ iP | **Pn** | **08 12 05.4** | **+0.1** |
| PB08 | | | | i S | **S** | **08 12 52.3** | **-0.1** |
| **PB10** | **IPOC Station P** | **3.96** | **259** | ⇑ iP | **Pn** | **08 12 07.5** | **+0.1** |

---

*IDC **07** 08:11:44.1±1.3, 38°.42N×109°.90E, h0km, mb3.7/5, mb1 3.9/6, mb1mx3.6/39, mbtmp3.7/6, ML3.2/1, Error ellipse: s-maj=44.9km s-min=18.9km az=61.0*
*ISCJB **07** 08:11:46.6±1.0, 38°.49N±0°.08×110°.0E±0°.3, h33km, mb3.7/5, Error ellipse: s-maj=31.9km s-min=10.0km az=167.0*
**ISC 07 08:11:49.3**±1.3**, 38°.4N**±0°.1×**109°.8E**±0°.3**, h35**km**, n6, σ0s.43**/7**, mb3.8**/5**, Western Nei Mongol**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SONM** | **Songino Array** | **9.75** | **346** | Pn | **Pn** | **08 14 06.8** | **-0.3** |
| | 0.2nm,0.3s,baz=169,slow=15,SNR=5.1 | | | | | | |
| SONM | | | | Sn | **Sn** | **08 15 55.7** | **+0.4** |
| | 0.1nm,0.3s,baz=166,slow=24,SNR=3.1 | | | | | | |
| SONM | | | | Lg | Lg | 08 16 45.5 | |
| | baz=168,slow=29,SNR=2.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **21.86** | **301** | P | **P** | **08 16 39.2** | **+0.4** |
| | 0.7nm,0.6s,baz=100,slow=11,SNR=6.0 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **22.03** | **209** | P | **P** | **08 16 40.7** | **-0.1** |
| | 1.4nm,0.3s,baz=13,slow=10.0,SNR=6.9 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **25.25** | **309** | P | **P** | **08 17 11.3** | **-0.5** |
| | 0.5nm,0.3s,baz=113,slow=9.6,SNR=8.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **62.43** | **154** | P | **P** | **08 22 09.1** | **+0.3** |
| | 1.2nm,0.9s,baz=349,slow=7.6,SNR=2.9 | | | | | | |
| **ASAR** | **Alice Springs** | **65.75** | **156** | P | **P** | **08 22 30.6** | **0.0** |
| | 0.5nm,0.6s,baz=346,slow=6.7,SNR=4.0 | | | | | | |

---

**MEX 07 08:11:50.2**±0.4**, 14°.18N×92°.74W, h20**km**, MD3.7, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PCIG** | | **1.58** | **343** | eP | Pn | 08 12 14.3 | -2.9 |
| PCIG | | | | i S | Sn | 08 12 32.4 | -4.6 |
| **CCIG** | **Comitan** | **2.17** | **16** | eP | Pn | 08 12 17.9 | -7.5 |
| **TGIG** | | **2.61** | **352** | eP | Pn | 08 12 25.5 | -5.8 |

---

*IDC **07** 08:12:21.8±1.8, 5°.35S×133°.38E, h0km, mb4.0/3, mb1 4.3/6, mb1mx3.8/36, mbtmp4.1/6, ML4.0/3, MS3.3/5, Ms1 3.3/5, ms1mx3.0/33, Error ellipse: s-maj=91.3km s-min=22.9km az=76.0*
*ISCJB **07** 08:12:25.0±1.1, 5°.49S±0°.07×133°.3E±0°.2, h33km, mb3.8/3, MS3.4/3, Error ellipse: s-maj=22.2km s-min=10.1km az=0.2*
**ISC 07 08:12:27.1**±1.4**, 5°.53S**±0°.10×**133°.4E**±0°.2**, h35**km**, n10, σ1s.36**/9**, mb3.8**/3**, MS3.2**/3**, Aru Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **14.19** | **107** | LR | LR | 08 22 04.9 | |
| | comp=Z,58nm,18.7s,baz=281,slow=41 | | | | | | |
| **WRA** | **Warramunga Arr** | **14.36** | **176** | Pn | **Pn** | **08 15 47.5** | **-0.5** |
| | 0.4nm,0.3s,baz=360,slow=13,SNR=37 | | | | | | |
| WRA | | | | Sn | **Sn** | **08 18 25.0** | **-1.0** |
| | 0.3nm,0.3s,baz=356,slow=23,SNR=6.0 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **14.61** | **211** | Pn | **Pn** | **08 15 51.4** | **+0.1** |
| | 1.0nm,0.3s,baz=36,slow=13,SNR=23 | | | | | | |
| FITZ | | | | Sn | **Sn** | **08 18 32.2** | **+0.2** |
| | 0.2nm,0.3s,baz=114,slow=18,SNR=2.9 | | | | | | |
| **ASAR** | **Alice Springs** | **18.04** | **178** | P | **P** | **08 16 36.9** | **+1.5** |
| | 0.6nm,0.3s,baz=0.5,slow=13,SNR=31 | | | | | | |
| ASAR | | | | S | **Sn** | **08 19 53.6** | **-1.8** |
| | 0.1nm,0.3s,baz=2.8,slow=28,SNR=4.2 | | | | | | |

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ASAR | | | | LR | LR | 08 24 25.0 | |
| | comp=Z,102nm,21.3s,baz=6.0,slow=40 | | | | | | |
| GUMO | Guam | 22.16 | 31 | LR | LR | 08 27 11.2 | |
| | comp=Z,50nm,18.2s,baz=152,slow=40 | | | | | | |
| STKA | Stephens Creek | 27.31 | 165 | P | P | 08 18 10.3 | +1.6 |
| | 1.8nm,0.8s,baz=350,slow=11,SNR=3.4 | | | | | | |
| MKAR | Makanchi Array | 68.90 | 325 | P | P | 08 23 28.0 | -0.4 |
| | 1.1nm,0.6s,baz=118,slow=8.0,SNR=5.7 | | | | | | |
| KURBB | Kurchatov Arra | 73.07 | 327 | P | P | 08 23 52.5 | -1.1 |
| | 0.4nm,0.4s,baz=124,slow=5.5,SNR=4.8 | | | | | | |
| SNAA | Sanae | 97.85 | 193 | LR | LR | 09 07 59.5 | |
| | comp=Z,45nm,21.7s,baz=327,slow=34 | | | | | | |
| BBB | Bella Bella | 99.56 | 38 | LR | LR | 09 11 14.5 | |
| | comp=Z,7.2nm,18.6s,baz=170,slow=36 | | | | | | |

---

*IDC **07** 08:16:32.5±0.8, 38.°39N×109.°86E, h0km, mb3.8/9, mb1 4.0/10, mb1mx3.8/41, mbtmp3.9/10, ML3.0/1, MS4.1/1, Ms1 4.1/1, ms1mx2.6/42, Error ellipse: s-maj=29.6km s-min=15.8km az=60.0*
*MOS **07** 08:16:33.5±0.9, 38.°51N×110.°14E, h18km, mb4.4/11, Error ellipse: s-maj=20.8km s-min=10.5km az=112.0*
*ISCJB **07** 08:16:35.7±0.6, 38.°56N±0.°07×110.°1E±0.°1, h33km, mb4.0/17, MS4.1/1, Error ellipse: s-maj=14.2km s-min=9.0km az=163.8*
**ISC 07 08:16:37.6**±0.8**, 38.°47N**±0.°09×**110.°1E**±0.°1**, h35km, n23, σ1.s72**/24**, mb4.1**/17**, 1C-1D, Western Nei Mongol**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ULN | Ulaanbaatar | 9.65 | 348 | eP | Pn | 08 18 54.3 | +0.2 |
| SONM | Songino Array | 9.75 | 345 | Pn | Pn | 08 18 54.4 | -0.9 |
| | 0.1nm,0.3s,baz=169,slow=13,SNR=9.2 | | | | | | |
| SONM | | | | Sn | Sn | 08 20 42.2 | -1.4 |
| | 0.1nm,0.3s,baz=154,slow=20,SNR=4.2 | | | | | | |
| SONM | | | | Lg | Lg | 08 21 39.6 | |
| | 0.3nm,0.3s,baz=166,slow=33,SNR=4.1 | | | | | | |
| MKAR | Makanchi Array | 22.00 | 301 | P | P | 08 21 26.7 | -1.9 |
| | 2.6nm,0.7s,baz=99,slow=12,SNR=10.0 | | | | | | |
| MKAR | Makanchi Array | 22.00 | 301 | eP | P | 08 21 30.5 | +1.9 |
| MKAR | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.7s | | | | | | |
| CMAR | Chiang Mai Arr | 22.18 | 209 | P | P | 08 21 28.9 | -1.8 |
| | comp=Z,3.9nm,0.6s,baz=15,slow=9.1,SNR=13 | | | | | | |
| CMAR | Chiang Mai Arr | 22.18 | 209 | eP | P | 08 21 30.8 | +0.1 |
| CMAR | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.6s | | | | | | |
| ZALV | Zalesovo Beam | 23.18 | 320 | P | P | 08 21 39.7 | -1.2 |
| | comp=Z,0.6nm,0.3s,baz=112,slow=6.6,SNR=4.2 | | | | | | |
| YSS | Yuzh-Sakhalins | 25.31 | 60 | eP | P | 08 21 59.9 | -0.8 |
| YSS | | | | pmax | pmax | | |
| | comp=Z,40nm,1.7s | | | | | | |
| KURK | Kurchatov | 25.34 | 309 | P | P | 08 22 00.5 | -0.4 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.2s | | | | | | |
| KURBB | Kurchatov Arra | 25.36 | 309 | P | P | 08 22 00.5 | -0.7 |
| | comp=Z,9.5nm,1.2s,baz=110,slow=10,SNR=16 | | | | | | |
| AAK | Ala-Archa | 27.24 | 290 | eP | P | 08 22 19.8 | +1.4 |
| AAK | | | | pmax | pmax | | |
| | comp=Z,6.0nm,2.0s | | | | | | |
| BVAR | Borovoye Array | 30.85 | 311 | P | P | 08 22 49.3 | -0.9 |
| | comp=Z,0.9nm,0.6s,baz=98,slow=11,SNR=5.9 | | | | | | |
| BRVK | Borovoye | 30.92 | 311 | eP | P | 08 22 53.4 | +2.6 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.9s | | | | | | |
| TIXI | Tiksi | 34.61 | 10 | eP | P | 08 23 23.3 | +0.5 |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.1s | | | | | | |
| ARU | Arti | 38.15 | 315 | LR | LR | 08 39 40.7 | |
| | comp=Z,253nm,18.6s,baz=191,slow=36 | | | | | | |
| ARU | Arti | 38.15 | 315 | d iP | P | 08 23 53.8 | +0.6 |
| ARU | | | | S | S | 08 29 48.2 | +4.4 |
| ARU | | | | pmax | pmax | | |
| | comp=Z,9.0nm,2.5s | | | | | | |
| KIV | Kislovodsk | 49.74 | 299 | eP | P | 08 25 26.8 | +0.4 |
| KIV | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.0s | | | | | | |
| OBN | Obninsk | 50.58 | 315 | ⇑eP | P | 08 25 28.9 | -3.6 |
| OBN | | | | e | | 08 27 27.7 | |
| OBN | | | | eS | S | 08 32 55.1 | +11 |
| OBN | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.0s | | | | | | |
| BRTR | Keskin Array B | 57.58 | 297 | P | P | 08 26 23.4 | -0.6 |
| | comp=Z,0.8nm,0.8s,baz=53,slow=7.0,SNR=4.2 | | | | | | |
| ILAR | Eielson Array | 61.06 | 28 | P | P | 08 26 48.9 | +1.5 |
| | comp=Z,0.3nm,0.9s,baz=290,slow=5.7,SNR=3.4 | | | | | | |
| WRA | Warramunga Arr | 62.40 | 154 | P | P | 08 26 56.8 | -0.1 |
| | comp=Z,1.8nm,0.8s,baz=346,slow=7.1,SNR=14 | | | | | | |
| WRA | Warramunga Arr | 62.40 | 154 | eP | P | 08 26 57.9 | +1.0 |
| WRA | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | |
| ASAR | Alice Springs | 65.72 | 156 | P | P | 08 27 19.3 | +0.6 |
| | comp=Z,1.1nm,0.7s,baz=346,slow=6.8,SNR=12 | | | | | | |

---

**IDC 07 08:24:46.4**±2.1**, 54.°25N×86.°03E, h0km, mb1 3.5**/3**, mb1mx3.2**/40**, mbtmp3.5**/3**, ML3.4**/3**, Error ellipse: s-maj=16.9km s-min=10.0km az=56.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| I46RU | ZALESOVO INFRA | 0.77 | 248 | i | | 08 29 40.0 | |
| | baz=66,slow=342,SNR=16 | | | | | | |
| ZALV | Zalesovo Beam | 0.77 | 248 | Pg | Pg | 08 25 00.0 | -1.2 |
| | 2.9nm,0.3s,baz=66,slow=16,SNR=20 | | | | | | |
| ZALV | | | | Lg | Lg | 08 25 13.3 | |
| | 20nm,0.3s,baz=65,slow=34,SNR=39 | | | | | | |
| KURBB | Kurchatov Arra | 5.85 | 235 | Pn | Pn | 08 26 14.8 | +0.5 |
| | 0.4nm,0.3s,baz=52,slow=13,SNR=16 | | | | | | |
| KURBB | | | | Lg | Lg | 08 27 51.5 | |
| | 0.2nm,0.3s,baz=56,slow=34,SNR=5.2 | | | | | | |
| MKAR | Makanchi Array | 7.83 | 199 | Pn | Pn | 08 26 42.4 | +0.9 |
| | 1.2nm,0.3s,baz=22,slow=12,SNR=37 | | | | | | |
| MKAR | | | | Sn | Sn | 08 28 09.5 | -1.3 |
| | 0.1nm,0.3s,baz=22,slow=28,SNR=2.1 | | | | | | |
| MKAR | | | | Lg | Lg | 08 28 55.6 | |
| | baz=32,slow=31,SNR=3.4 | | | | | | |
| BVAR | Borovoye Array | 9.38 | 269 | Pn | Pn | 08 27 03.1 | +0.5 |
| | 0.4nm,0.3s,baz=76,slow=15,SNR=4.9 | | | | | | |
| BVAR | | | | Sn | Sn | 08 28 43.1 | -5.5 |
| | 0.6nm,0.3s,baz=70,slow=24,SNR=5.6 | | | | | | |

---

**IDC 07 08:32:40.5**±3.5**, 54.°48N×87.°19E, h0km, mb1 3.1**/2**, mb1mx2.9**/37**, mbtmp3.1**/2**, ML2.7**/2**, Error ellipse: s-maj=31.9km s-min=20.7km az=44.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| I46RU | ZALESOVO INFRA | 1.49 | 250 | i | | 08 40 20.0 | |
| | baz=70,slow=344,SNR=6.4 | | | | | | |
| ZALV | Zalesovo Beam | 1.49 | 250 | Pg | Pn | 08 33 05.8 | -2.7 |
| | 1.4nm,0.3s,baz=64,slow=15,SNR=15 | | | | | | |
| ZALV | | | | Lg | Lg | 08 33 28.7 | |
| | 1.5nm,0.3s,baz=72,slow=29,SNR=5.4 | | | | | | |
| KURBB | Kurchatov Arra | 6.54 | 237 | Pn | Pn | 08 34 18.2 | +0.4 |
| | 0.1nm,0.3s,baz=52,slow=13,SNR=4.5 | | | | | | |
| MKAR | Makanchi Array | 8.30 | 204 | Pn | Pn | 08 34 43.6 | +1.7 |
| | 0.1nm,0.3s,baz=24,slow=14,SNR=5.1 | | | | | | |

---

**IDC 07 08:38:00.5**±25.0**, 19.°26S×178.°43W, h650km**±212km**, mb2.9**/3**, mb1 3.1**/4**, mb1mx2.8**/28**, mbtmp4.0**/4**, Error ellipse: s-maj=234.1km s-min=117.2km az=68.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DZM | Mont Dzumac | 14.43 | 256 | P | P | 08 41 02.4 | +0.7 |
| | 0.6nm,0.3s,baz=112,slow=19,SNR=5.2 | | | | | | |
| STKA | Stephens Creek | 37.98 | 243 | P | P | 08 44 25.8 | -0.1 |
| | 0.5nm,0.4s,baz=90,slow=12,SNR=4.5 | | | | | | |
| WRA | Warramunga Arr | 44.38 | 261 | P | P | 08 45 16.2 | -0.1 |
| | 1.2nm,0.4s,baz=98,slow=8.1,SNR=56 | | | | | | |
| WRA | | | | PcP | PcP | 08 46 45.1 | -0.2 |
| | 0.3nm,0.6s,baz=104,slow=2.8,SNR=3.8 | | | | | | |
| ASAR | Alice Springs | 44.42 | 256 | P | P | 08 45 16.9 | +0.3 |
| | 1.3nm,0.5s,baz=86,slow=8.1,SNR=35 | | | | | | |
| ASAR | | | | PcP | PcP | 08 46 45.2 | -0.3 |
| | 0.2nm,0.4s,baz=106,slow=3.4,SNR=3.5 | | | | | | |

---

**IDC 07 08:44:32.3**±2.8**, 53.°58N×87.°73E, h0km, mb1 3.4**/2**, mb1mx3.1**/39**, mbtmp3.4**/2**, ML3.2**/2**, Error ellipse: s-maj=23.9km s-min=14.4km az=56.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| I46RU | ZALESOVO INFRA | 1.77 | 283 | i | | 08 58 00.0 | |
| | baz=100,slow=336,SNR=1.9 | | | | | | |
| ZALV | Zalesovo Beam | 1.77 | 283 | Pg | Pn | 08 45 04.0 | -0.1 |
| | 3.9nm,0.3s,baz=105,slow=15,SNR=40 | | | | | | |
| ZALV | | | | Lg | Lg | 08 45 28.9 | |
| | 10nm,0.3s,baz=106,slow=36,SNR=25 | | | | | | |
| KURBB | Kurchatov Arra | 6.39 | 246 | Pn | Pn | 08 46 08.3 | +0.6 |
| | 0.3nm,0.3s,baz=65,slow=15,SNR=7.0 | | | | | | |
| KURBB | | | | Sn | Sn | 08 47 19.1 | -2.2 |
| | 0.0nm,0.3s,baz=61,slow=29,SNR=2.3 | | | | | | |
| KURBB | | | | Lg | Lg | 08 47 54.4 | |
| | 0.1nm,0.3s,baz=62,slow=32,SNR=5.3 | | | | | | |
| MKAR | Makanchi Array | 7.63 | 209 | Pn | Pn | 08 46 26.0 | +1.3 |
| | 0.5nm,0.3s,baz=23,slow=11,SNR=25 | | | | | | |
| MKAR | | | | Sn | Sn | 08 47 52.9 | +1.0 |
| | 0.2nm,0.3s,baz=29,slow=27,SNR=4.7 | | | | | | |
| MKAR | | | | Lg | Lg | 08 48 33.3 | |
| | 0.3nm,0.3s,baz=32,slow=30,SNR=4.6 | | | | | | |

---

**IDC 07 09:10:51.4**±9.1**, 17.°09S×178.°60W, h418km**±101km**, mb3.1**/4**, mb1 3.4**/5**, mb1mx3.1**/24**, mbtmp3.9**/5**, Error ellipse: s-maj=113.4km s-min=35.0km az=155.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DZM | Mont Dzumac | 14.94 | 248 | P | P | 09 14 02.5 | -0.4 |
| | 0.3nm,0.3s,baz=127,slow=21,SNR=7.6 | | | | | | |
| WRA | Warramunga Arr | 44.61 | 259 | P | P | 09 18 25.0 | +0.1 |
| | 0.4nm,0.5s,baz=93,slow=6.9,SNR=16 | | | | | | |
| ASAR | Alice Springs | 44.84 | 253 | P | P | 09 18 26.4 | -0.3 |
| | 3.5nm,0.5s,baz=88,slow=8.3,SNR=84 | | | | | | |
| ILAR | Eielson Array | 85.13 | 13 | P | P | 09 22 41.2 | -0.2 |
| | 0.2nm,0.4s,baz=217,slow=5.2,SNR=5.6 | | | | | | |
| TXAR | Lajitas Array | 85.71 | 58 | P | P | 09 22 45.4 | +0.1 |
| | 0.5nm,0.8s,baz=238,slow=7.2,SNR=5.9 | | | | | | |

---

*ISCJB **07** 09:19:01.8±0.9, 61.°06N±0.°04×29.°03E±0.°10, h0km, Error ellipse: s-maj=7.8km s-min=4.0km az=36.3*
*CSEM **07** 09:19:05.4, 60.°96N×28.°99E, h0km, ML2.0, Mining explosion.*
*HEL **07** 09:19:05.4±0.1, 60.°96N×28.°99E, h0km, ML2.0, Explosion*
*IDC **07** 09:19:06.9±1.7, 60.°90N×28.°85E, h0km, mb1 3.4/3, mb1mx3.1/34, mbtmp3.4/3, ML2.9/3, Error ellipse: s-maj=15.2km s-min=10.4km az=158.0*
**ISC 07 09:19:03.9**±1.0**, 61.°02N**±0.°04×**29.°02E**±0.°04**, h0km, n28, σ1.s18**/42**, Finland-Karelia border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VJF | Virojoki | 0.86 | 237 | Pg | Pg | 09 19 20.0 | -0.4 |
| VJF | | | | Sb | Sg | 09 19 31.9 | +0.3 |
| VJF | Virojoki | 0.86 | 237 | PG | Pg | 09 19 20.1 | -0.4 |
| | baz=59 | | | | | | |
| VJF | | | | SB | Sg | 09 19 31.9 | +0.3 |
| FIA0 | FINESS Array S | 1.48 | 288 | Pg | Pg | 09 19 32.0 | -0.2 |
| FIA0 | FINESS Array S | 1.48 | 288 | PG | Pg | 09 19 32.0 | -0.2 |
| | baz=105 | | | | | | |
| FINES | FINESS Array B | 1.48 | 288 | Pg | Pg | 09 19 32.1 | -0.2 |
| | 2.3nm,0.3s,baz=114,slow=16,SNR=47 | | | | | | |
| FINES | | | | Lg | Lg | 09 19 52.4 | |
| | 3.7nm,0.3s,baz=112,slow=26,SNR=17 | | | | | | |
| PVF | Pernaja | 1.62 | 254 | Pg | Pb | 09 19 34.1 | -0.4 |
| PVF | | | | Sn | Sg | 09 19 55.5 | -0.3 |
| PVF | Pernaja | 1.62 | 254 | PG | Pb | 09 19 34.2 | -0.4 |
| | baz=70 | | | | | | |
| PVF | | | | MSG | | 09 19 53.1 | |
| | comp=Z,20nm,0.2s | | | | | | |
| PVF | | | | SN | Sg | 09 19 55.5 | -0.3 |
| SUF | Sumiainen | 2.18 | 323 | Pg | Pg | 09 19 45.2 | -0.3 |
| SUF | | | | Sg | Sg | 09 20 15.1 | +1.3 |
| SUF | Sumiainen | 2.18 | 323 | PG | Pg | 09 19 45.3 | -0.3 |
| | baz=144 | | | | | | |
| SUF | | | | MSG | | 09 20 11.0 | |
| | comp=Z,6.6nm,0.2s | | | | | | |
| SUF | | | | SG | Sg | 09 20 15.1 | +1.3 |
| JOF | Joensuu | 2.19 | 29 | Pg | Pg | 09 19 45.7 | -0.1 |
| JOF | | | | Sg | Sg | 09 20 13.6 | -0.6 |
| JOF | Joensuu | 2.19 | 29 | PG | Pg | 09 19 45.7 | -0.1 |
| | baz=213 | | | | | | |
| JOF | | | | SG | Sg | 09 20 13.6 | -0.6 |
| ARBE | Arbavere | 2.19 | 225 | Pg | Pb | 09 19 44.0 | -0.4 |
| ARBE | Arbavere | 2.19 | 225 | PG | Pb | 09 19 44.0 | -0.4 |
| | baz=49 | | | | | | |
| KEF | Keuruu | 2.29 | 302 | Pg | Pb | 09 19 45.9 | -0.1 |
| KEF | | | | Sg | Sg | 09 20 16.5 | -0.9 |
| KEF | Keuruu | 2.29 | 302 | PG | Pb | 09 19 46.0 | -0.1 |
| | baz=131 | | | | | | |
| KEF | | | | MSG | | 09 20 13.8 | |
| | comp=Z,5.3nm,0.2s | | | | | | |
| KEF | | | | SG | Sg | 09 20 16.5 | -0.9 |
| MEF | Metsahovi | 2.42 | 253 | Pb | Pb | 09 19 46.1 | -2.1 |
| MEF | | | | Sb | Sb | 09 20 17.5 | -0.9 |
| MEF | Metsahovi | 2.42 | 253 | PB | Pb | 09 19 46.1 | -2.1 |
| | baz=60 | | | | | | |
| MEF | | | | SB | Sb | 09 20 17.5 | -0.9 |
| RAF | Rauma | 3.53 | 273 | Sn | Sn | 09 20 45.4 | +3.2 |
| RAF | Rauma | 3.53 | 273 | SN | Sn | 09 20 45.4 | +3.2 |
| VAF | Ylistaro | 3.61 | 307 | Pg | Pg | 09 20 12.3 | -0.7 |
| VAF | Ylistaro | 3.61 | 307 | PG | Pg | 09 20 12.3 | -0.7 |
| | baz=118 | | | | | | |
| OUF | Merijarvi | 3.90 | 331 | Pg | Pg | 09 20 17.6 | -0.8 |
| OUF | Merijarvi | 3.90 | 331 | PG | Pg | 09 20 17.6 | -0.8 |
| | baz=134 | | | | | | |
| OUL | Oulu | 4.32 | 342 | Pn | Pn | 09 20 11.2 | +0.5 |
| OUL | Oulu | 4.32 | 342 | PN | Pn | 09 20 11.3 | +0.5 |
| HFS | Hagfors | 7.60 | 270 | Pn | Pn | 09 20 56.0 | +0.3 |
| | comp=Z,0.2nm,0.3s,baz=72,slow=14,SNR=3.3 | | | | | | |
| HFS | | | | Sn | Sn | 09 22 19.6 | -2.8 |
| | comp=Z,0.1nm,0.3s,baz=78,slow=27,SNR=3.2 | | | | | | |
| HFS | | | | Lg | Lg | 09 23 01.9 | |
| | comp=Z,0.5nm,0.3s,baz=82,slow=31,SNR=5.8 | | | | | | |
| NOA | NORSAR Array B | 8.64 | 278 | Pn | Pn | 09 21 10.8 | +0.8 |
| | comp=Z,0.1nm,0.3s,baz=108,slow=13,SNR=2.5 | | | | | | |
| NOA | | | | Lg | Lg | 09 23 35.1 | |
| | comp=Z,0.3nm,0.3s,baz=120,slow=20,SNR=3.9 | | | | | | |
| ARCES | ARCESS Array B | 8.67 | 352 | Pn | Pn | 09 21 12.4 | +2.0 |
| | comp=Z,0.2nm,0.3s,baz=172,slow=12,SNR=12 | | | | | | |
| ARCES | | | | Sn | Sn | 09 22 47.6 | -1.1 |
| | comp=Z,0.2nm,0.3s,baz=171,slow=23,SNR=2.8 | | | | | | |

---

*NIED **07** 09:35:00, 37.°50N×142.°60E, h23km, Mw3.4 Best double couple: $M_0$1.41000×$10^{14}$ NP1:$\phi_s$211.00000°, δ21.00000°, λ70.00000°. NP2:$\phi_s$52.00000°, δ70.00000°, λ98.00000°.*
**JMA 07 09:35:33.8**±0.2**, 37.°45N×142.°56E, h21km, M3.5, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JFK | Kawauchi | 1.34 | 267 | P | Pn | 09 35 57.7 | +0.3 |
| JFK | | | | S | Sb | 09 36 15.4 | +0.3 |
| JIO | Ouri | 1.39 | 317 | P | Pn | 09 35 58.0 | +0.1 |
| JIO | | | | S | Sb | 09 36 16.0 | -0.2 |
| ONAJ | Iwakimizuishiy | 1.45 | 257 | P | Pb | 09 35 59.6 | -0.5 |
| ONAJ | | | | S | Sn | 09 36 17.6 | +0.4 |
| JMM | Marumori | 1.46 | 287 | P | Pn | 09 35 58.9 | 0.0 |
| JMM | | | | eS | Sb | 09 36 18.0 | -0.4 |
| JOU | Okura | 1.76 | 302 | P | Pn | 09 36 03.9 | +0.9 |
| JFT | Otama | 1.77 | 273 | P | Pb | 09 36 04.6 | -0.9 |
| JMK | Ichinoseki | 1.83 | 325 | P | Pn | 09 36 05.1 | +1.1 |
| JOM | Ohasama | 2.25 | 334 | P | Pn | 09 36 11.1 | +1.3 |
| JYK | Kaneyama | 2.27 | 311 | P | Pn | 09 36 11.8 | +1.7 |
| JFY | Yanaizu | 2.27 | 270 | P | Pb | 09 36 12.4 | -1.7 |
| MAT | Matsushiro | 3.60 | 257 | P | Pn | 09 36 31.4 | +3.0 |
| MAT | | | | eS | Sb | 09 37 16.0 | -4.0 |

---

*IDC **07** 09:36:38.3±1.4, 30.°94S×67.°79W, h0km, mb3.9/3, mb1 3.9/7, mb1mx3.7/30, mbtmp3.7/7, ML3.6/4, MS3.1/1, Ms1 3.1/1, ms1mx2.6/19, Error ellipse: s-maj=37.1km s-min=32.5km az=111.0*
*SJA **07** 09:36:39.9±0.4, 31.°19S×68.°02W, h14km±4km, ML3.7, MW3.9*
*GUC **07** 09:36:41.7±0.7, 31.°23S×67.°74W, h41km±8km, ML4.2*
**ISC 07 09:36:38.0**±1.1**, 31.°23S**±0.°03×**67.°82W**±0.°02**, h7km**±9km**, n28, σ1.s65**/43**, mb3.5**/3**, 4C-4D, San Juan Province**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RTLL | Cerro Villicun | 0.57 | 259 | eP | Pg | 09 36 49.0 | -0.1 |
| AMOG | MOGNA | 0.64 | 296 | eP | Pg | 09 36 49.7 | -0.7 |
| RTCV | Cerro Valdivia | 0.88 | 224 | eP | Pb | 09 36 55.9 | +0.2 |
| RTLS | Leoncito | 1.38 | 245 | i P | Pb | 09 37 04.3 | -0.1 |
| RTLS | | | | IAML | | 09 37 04.6 | |
| | comp=Z,923nm,0.3s | | | | | | |
| RTLS | | | | eS | Sb | 09 37 22.2 | -0.1 |
| APLL | PUNTA DE LOS L | 1.39 | 54 | eP | Pg | 09 37 04.5 | -0.2 |
| APLL | | | | eS | Sg | 09 37 22.4 | -0.2 |
| AUSP | Uspallata | 1.66 | 233 | eP | Pg | 09 37 09.5 | -0.5 |
| AUSP | | | | eS | Sg | 09 37 31.8 | +0.3 |
| AGUA | GUANDACOL | 1.83 | 341 | eP | Pb | 09 37 11.4 | -0.4 |
| AGUA | | | | ⇓eS | Sb | 09 37 34.9 | 0.0 |
| MRA | San Martin | 2.15 | 124 | eP | Pg | 09 37 18.6 | -0.7 |
| MRA | | | | eS | Sg | 09 37 49.8 | +2.6 |
| VCA | Vinchina | 2.50 | 352 | i P | Pb | 09 37 22.1 | -1.3 |
| VCA | | | | eS | Sb | 09 37 53.2 | -1.3 |
| VCA | | | | IAML | | 09 37 57.3 | |
| | comp=Z,696nm,0.2s | | | | | | |
| VCA | Vinchina | 2.50 | 352 | ⇑iP | Pb | 09 37 22.0 | -1.4 |
| VCA | | | | i S | Sb | 09 37 53.1 | -1.4 |
| VCA | | | | IAML | | 09 37 57.4 | |
| | comp=E,1μm,0.3s | | | | | | |
| TCA | Tanti | 2.77 | 93 | eP | Pb | 09 37 26.1 | -1.7 |
| TCA | | | | eS | Sg | 09 38 08.1 | +1.2 |
| TCA | Tanti | 2.77 | 93 | ⇓iP | Pb | 09 37 26.1 | -1.7 |
| TCA | | | | i S | Sb | 09 38 03.4 | +1.4 |
| TLL | Tololo Astrono | 2.78 | 292 | ⇑iP | Pb | 09 37 27.4 | -0.8 |
| TLL | | | | i S | Sb | 09 38 01.4 | -1.0 |
| TLL | | | | IAML | | 09 38 05.2 | |
| | comp=N,728nm,0.7s | | | | | | |
| ROCH | El Roble | 3.22 | 236 | ⇑iP | Pb | 09 37 32.7 | -3.0 |
| ROCH | | | | i S | Sb | 09 38 11.7 | -3.4 |
| ROCH | | | | IAML | | 09 38 24.4 | |
| | comp=N,417nm,0.4s | | | | | | |
| ROC1 | El Roble | 3.22 | 236 | eP | Pb | 09 37 33.8 | -1.9 |
| ROC1 | | | | eS | Sg | 09 38 22.3 | +0.7 |
| SUCO | SUCO | 3.27 | 131 | eS | Sg | 09 38 23.8 | +0.9 |
| CYA | Choya | 3.28 | 33 | eP | Pn | 09 37 32.0 | +2.1 |
| CYA | Choya | 3.28 | 33 | ⇑iP | Pn | 09 37 31.9 | +2.0 |
| CYA | | | | i S | Sn | 09 38 10.1 | +0.9 |
| CYA | | | | IAML | | 09 38 32.0 | |
| | comp=N,518nm,0.5s | | | | | | |
| LCO | Las Campanas | 3.33 | 311 | ⇓eP | Pn | 09 37 33.8 | +3.1 |
| LCO | | | | ⇓eS | Sb | 09 38 17.9 | -0.5 |
| LCO | Las Campanas | 3.33 | 311 | eP | Pn | 09 37 33.5 | +2.7 |
| LCO | | | | i S | Sn | 09 38 13.0 | +2.3 |
| LCO | | | | IAML | | 09 38 20.2 | |
| | comp=N,602nm,0.3s | | | | | | |
| PLCA | Paso Flores | 9.74 | 192 | Pn | Pn | 09 39 05.5 | +6.8 |
| | comp=N,0.1nm,0.3s,baz=34,slow=11,SNR=5.0 | | | | | | |
| PLCA | | | | Lg | Lg | 09 41 46.6 | |
| | comp=N,0.2nm,0.3s,baz=107,slow=13,SNR=3.6 | | | | | | |
| PLCA | | | | LR | LR | 09 43 27.3 | |
| | comp=N,108nm,19.3s,baz=35,slow=41 | | | | | | |
| CPUP | Villa Florida | 10.42 | 65 | Pn | Pn | 09 39 08.4 | +0.6 |
| | comp=N,0.3nm,0.3s,baz=240,slow=10,SNR=4.3 | | | | | | |
| CPUP | | | | Sn | Sn | 09 41 00.3 | -4.5 |
| | comp=N,0.5nm,0.3s,baz=169,slow=15,SNR=3.7 | | | | | | |
| CPUP | | | | Lg | Lg | 09 41 56.6 | |
| | comp=N,0.6nm,0.3s,baz=168,slow=20,SNR=3.1 | | | | | | |
| LPAZ | La Paz | 14.87 | 359 | Pn | Pn | 09 40 08.4 | -0.9 |
| | comp=N,0.1nm,0.3s,baz=180,slow=9.1,SNR=2.5 | | | | | | |
| SIV | San Ignacio | 16.37 | 24 | Pn | Pn | 09 40 27.4 | -1.1 |
| | comp=N,0.3nm,0.3s,baz=218,slow=0.9,SNR=2.9 | | | | | | |
| TXAR | Lajitas Array | 69.21 | 327 | P | P | 09 47 45.5 | -0.1 |
| | comp=N,0.2nm,0.6s,baz=170,slow=7.5,SNR=4.3 | | | | | | |
| DBIC | Dimbokro | 70.90 | 69 | P | P | 09 47 56.2 | 0.0 |
| | comp=N,4.6nm,0.9s,baz=201,slow=8.6,SNR=3.0 | | | | | | |
| TORD | Torodi Ar. Bea | 79.90 | 68 | P | P | 09 48 48.6 | +0.7 |
| | comp=N,0.3nm,0.6s,baz=255,slow=4.9,SNR=3.9 | | | | | | |
| ZALV | Zalesovo Beam | 149.98 | 33 | PKPbc | PKPbc | 09 56 28.9 | +0.2 |
| | comp=N,1.2nm,0.5s,baz=329,slow=3.6,SNR=6.2 | | | | | | |

---

*CSEM **07** 09:42:37.5±0.2, 38.°71N×43.°06E, h10km, ML2.9, Error ellipse: s-maj=5.4km s-min=3.4km az=56.0*
*DDA **07** 09:42:37.7, 38.°70N×43.°08E, h7km, Ml2.9*
*ISCJB **07** 09:42:38.0±0.5, 38.°71N±0.°03×43.°07E±0.°04, h10km±7km, Error ellipse: s-maj=6.1km s-min=5.0km az=136.1*
**ISC 07 09:42:37.6**±1.0**, 38.°70N**±0.°03×**43.°05E**±0.°03**, h8km**±10km**, n18, σ0.s80**/35**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ADCV | BITLIS_Adilcev | 0.28 | 293 | i P | Pb | 09 42 44.6 | -0.3 |
| ADCV | | | | i S | Sb | 09 42 48.9 | -1.0 |
| ADCV | BITLIS_Adilcev | 0.28 | 293 | P | Pb | 09 42 44.6 | -0.3 |
| ADCV | | | | S | Sb | 09 42 48.9 | -1.0 |
| VANB | Van | 0.28 | 112 | ePG | Pg | 09 42 43.9 | +0.6 |
| VANB | | | | eSG | Sb | 09 42 49.3 | -0.6 |
| VANB | Van | 0.28 | 112 | ePg | Pg | 09 42 43.9 | +0.6 |
| VANB | | | | eSg | Sb | 09 42 49.3 | -0.6 |
| TVAN | Van | 0.33 | 122 | i P | Pg | 09 42 43.9 | -0.2 |
| TVAN | | | | i S | Sg | 09 42 48.9 | +0.4 |
| TVAN | Van | 0.33 | 122 | P | Pg | 09 42 43.9 | -0.2 |
| TVAN | | | | S | Sg | 09 42 48.9 | +0.4 |
| GEVA | Gevas | 0.39 | 179 | i P | Pg | 09 42 44.9 | -0.4 |
| GEVA | | | | i S | Sb | 09 42 52.2 | -0.8 |
| GEVA | Gevas | 0.39 | 179 | P | Pg | 09 42 44.9 | -0.4 |
| GEVA | | | | S | Sb | 09 42 52.2 | -0.8 |
| VMUR | Van-Muradiye | 0.50 | 54 | i P | Pg | 09 42 47.1 | -0.2 |
| VMUR | | | | i S | Sb | 09 42 54.9 | -1.2 |
| VMUR | Van-Muradiye | 0.50 | 54 | P | Pg | 09 42 47.1 | -0.2 |
| VMUR | | | | S | Sb | 09 42 54.9 | -1.2 |
| TUTA | Tutak | 0.72 | 345 | i P | Pg | 09 42 51.6 | 0.0 |
| TUTA | | | | i S | Sg | 09 43 01.8 | +0.7 |
| TUTA | Tutak | 0.72 | 345 | P | Pg | 09 42 51.6 | 0.0 |
| TUTA | | | | S | Sg | 09 43 01.8 | +0.7 |
| AGRB | Hanur-Agry | 0.88 | 357 | ePG | Pg | 09 42 54.1 | -0.4 |
| AGRB | | | | eSG | Sg | 09 43 06.1 | +0.2 |
| AGRB | Hanur-Agry | 0.88 | 357 | ePg | Pg | 09 42 54.1 | -0.4 |
| AGRB | | | | eSg | Sg | 09 43 06.1 | +0.2 |
| EKAR | Karacoban | 0.95 | 306 | i P | Pg | 09 42 55.7 | -0.2 |
| EKAR | | | | i S | Sn | 09 43 14.1 | +2.8 |
| EKAR | Karacoban | 0.95 | 306 | P | Pg | 09 42 55.7 | -0.2 |
| EATA | Eleskirt | 1.24 | 340 | i P | Pb | 09 43 01.0 | -0.4 |
| EATA | | | | i S | Sn | 09 43 19.3 | +0.8 |
| EATA | Eleskirt | 1.24 | 340 | P | Pb | 09 43 01.0 | -0.4 |
| EATA | | | | S | Sn | 09 43 19.3 | +0.8 |

---

**KRSC 07 09:44:45.6**±1.5**, 54.°54N×158.°73E, h282km**±15km**, ML3.8, Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GNL | Ganaly | 0.96 | 209 | eP | Pn | 09 45 24.8 | +0.7 |
| KZV | Kizimen | 1.08 | 57 | eP | Pn | 09 45 25.9 | +1.3 |
| TUMR | Tumrok | 1.11 | 47 | eP | Pn | 09 45 26.4 | +1.7 |
| SDLR | Sedlovina | 1.26 | 176 | eP | Pn | 09 45 26.9 | +1.2 |
| AVH | Avacha | 1.27 | 180 | eP | Pn | 09 45 27.0 | +1.3 |
| UGLR | Uglovaya | 1.33 | 177 | eP | Pn | 09 45 27.4 | +1.3 |
| ESO | Esso | 1.39 | 359 | eP | Pn | 09 45 26.4 | +0.2 |
| NLC | Nalytchevo | 1.42 | 165 | eP | Pn | 09 45 27.3 | +0.8 |
| NLC | | | | eS | S | 09 45 59.4 | +0.6 |
| KMNR | Kamenistaya | 1.50 | 35 | eP | Pn | 09 45 28.3 | +1.3 |
| SPN | Mys Shipunski | 1.63 | 151 | eP | Pn | 09 45 28.6 | +0.6 |
| SPN | | | | eS | S | 09 46 00.4 | -1.2 |
| KOZ | Kozyrevsk | 1.66 | 23 | eP | Pn | 09 45 29.2 | +1.1 |
| KPT | Kopyto | 1.67 | 30 | eP | Pn | 09 45 29.2 | +1.0 |
| KIRR | Kirishev | 1.70 | 32 | eP | Pn | 09 45 29.6 | +1.1 |
| KRMR | Karymshinskiy | 1.75 | 192 | eP | Pn | 09 45 29.0 | +0.2 |
| KRSR | Krestovskiy | 1.99 | 31 | eP | Pn | 09 45 31.6 | +0.9 |
| SRKR | Sorokina | 2.54 | 32 | eP | Pn | 09 45 37.1 | +1.6 |
| SMKR | Semkarok | 2.58 | 36 | eP | Pn | 09 45 37.3 | +1.4 |
| SMKR | | | | eS | S | 09 46 16.1 | +0.1 |
| KDTR | Khodutka, Kamc | 2.76 | 188 | eS | S | 09 46 16.8 | -2.4 |
| KBTR | Krutoberegovo | 2.88 | 53 | eP | Pn | 09 45 39.3 | +0.6 |
| KBTR | | | | eS | S | 09 46 20.4 | -0.7 |

---

*ISCJB **07** 09:48:45.1±1.9, 31.°6S±0.°1×178.°4W±0.°4, h61km, mb3.7/3, Error ellipse: s-maj=48.4km s-min=7.2km az=19.4*
*IDC **07** 09:48:47.3±1.9, 31.°50S×178.°53W, h54km±19km, mb3.5/3, mb1 3.8/5, mb1mx3.6/24, mbtmp3.9/5, ML3.6/1, MS2.7/1, Ms1 2.7/1, ms1mx2.4/18, Error ellipse: s-maj=37.7km*

*s-min=12.0km az=112.0*

**ISC 07 09:48:47.4**±1.4**,31°.6S**±0°.1×**178°.4W**±0°.3**,h61**km**,n7, σ1s.18**/9**,mb3.8**/3**,Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RAO | Raoul Island | 2.35 | 11 | P | Pn | 09 49 24.1 | +0.5 |
| | baz=258,slow=20 | | | | | | |
| RAO | | | | S | Sn | 09 49 50.4 | -0.8 |
| | baz=342,slow=20 | | | | | | |
| URZ | Urewera | 7.62 | 208 | P | Pn | 09 50 34.8 | -0.9 |
| | 1.0nm,0.3s,baz=130,slow=15,SNR=9.5 | | | | | | |
| URZ | | | | S | Sn | 09 52 00.5 | -0.1 |
| | 3.7nm,0.3s,baz=196,slow=23,SNR=12 | | | | | | |
| URZ | | | | LR | LR | 09 53 00.1 | |
| | comp=Z,54nm,20.8s,baz=332,slow=33 | | | | | | |
| STKA | Stephens Creek | 33.88 | 259 | P | P | 09 55 26.1 | +1.7 |
| | 0.8nm,0.7s,baz=128,slow=17,SNR=3.3 | | | | | | |
| ASAR | Alice Springs | 42.70 | 268 | P | P | 09 56 37.6 | -0.9 |
| | 0.3nm,0.4s,baz=109,slow=8.3,SNR=4.8 | | | | | | |
| WRA | Warramunga Arr | 43.79 | 274 | P | P | 09 56 46.6 | -0.7 |
| | 0.7nm,0.3s,baz=112,slow=8.0,SNR=27 | | | | | | |
| FINES | FINESS Array B | 146.11 | 339 | PKPbc | PKPdf | 10 08 17.9 | -0.9 |
| | 0.8nm,0.4s,baz=60,slow=3.8,SNR=6.9 | | | | | | |
| TORD | Torodi Ar. Bea | 161.67 | 180 | PKPab | PKPab | 10 09 28.4 | +1.3 |
| | 0.5nm,0.7s,baz=164,slow=4.1,SNR=3.1 | | | | | | |

*ISK **07** 09:53:30.1,38°.84N×43°.51E,h5km,MD2.2*
*ISCJB **07** 09:53:32.2±0.8,38°.88N±0°.03×43°.55E±0°.08,h14km±7km, Error ellipse: s-maj=10.2km s-min=5.4km az=12.5*
*DDA **07** 09:53:32.3,38°.89N×43°.49E,h7km,Ml2.6*
*CSEM **07** 09:53:32.1±0.4,38°.88N×43°.53E,h5km,ML2.6,Error ellipse: s-maj=7.8km s-min=6.1km az=102.0*

**ISC 07 09:53:31.5**±1.0**,38°.87N**±0°.03×**43°.54E**±0°.04**,h16**km±7km**, n14,σ0s.85**/26**,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.13 | 12 | iP | Pg | 09 53 34.9 | -0.5 |
| VMUR | | | | iS | Sg | 09 53 38.7 | +0.7 |
| VANB | Van | 0.29 | 203 | ePG | Pb | 09 53 38.1 | -0.4 |
| VANB | Van | 0.29 | 203 | ePg | Pb | 09 53 38.1 | -0.4 |
| TVAN | Van | 0.35 | 197 | iP | Pb | 09 53 39.0 | -0.5 |
| TVAN | | | | iS | Sb | 09 53 46.4 | +1.5 |
| TVAN | Van | 0.35 | 197 | P | Pb | 09 53 39.0 | -0.5 |
| TVAN | | | | S | Sb | 09 53 46.4 | +1.5 |
| CLDR | Caldiran | 0.40 | 47 | ePG | Pb | 09 53 39.9 | -0.5 |
| CLDR | | | | eSG | Sb | 09 53 47.2 | +0.8 |
| CLDR | Caldiran | 0.40 | 47 | iP | Pb | 09 53 40.0 | -0.4 |
| CLDR | | | | iS | Sb | 09 53 47.3 | +0.8 |
| CLDR | Caldiran | 0.40 | 47 | ePg | Pb | 09 53 39.9 | -0.5 |
| CLDR | | | | S | Sb | 09 53 47.3 | +0.8 |
| ADCV | BITLIS_Adilcev | 0.64 | 265 | iP | Pb | 09 53 44.0 | -0.4 |
| ADCV | | | | iS | Sn | 09 53 55.1 | -0.9 |
| ADCV | BITLIS_Adilcev | 0.64 | 265 | P | Pb | 09 53 44.0 | -0.4 |
| ADCV | | | | S | Sn | 09 53 55.1 | -0.9 |
| TUTA | Tutak | 0.78 | 314 | iP | Pb | 09 53 46.4 | -0.3 |
| TUTA | | | | iS | Sb | 09 53 57.5 | +0.3 |
| TUTA | Tutak | 0.78 | 314 | P | Pb | 09 53 46.4 | -0.3 |
| TUTA | | | | S | Sb | 09 53 57.5 | +0.3 |
| AGRB | Hanur-Agry | 0.83 | 329 | ePG | Pb | 09 53 47.4 | -0.2 |
| AGRB | | | | eSG | Sb | 09 54 00.1 | +1.6 |
| AGRB | Hanur-Agry | 0.83 | 329 | ePg | Pb | 09 53 47.4 | -0.2 |
| AGRB | | | | eSg | Sb | 09 54 00.1 | +1.6 |

*IDC **07** 09:58:26.1±1.1,20°.23S×174°.26W,h0km,mb3.8/8, mb1 4.1/10,mb1mx4.0/26,mbtmp3.9/10,ML4.0/2,MS3.2/2, Ms1 3.2/2,ms1mx2.8/30,Error ellipse: s-maj=41.6km s-min=18.7km az=142.0*
*ISCJB **07** 09:58:31.7±1.0,19°.9S±0°.2×174°.5W±0°.1,h42km,mb3.9/10, MS3.5/1,Error ellipse: s-maj=29.3km s-min=12.2km az=148.4*
*NEIC **07** 09:58:31.2±0.7,20°.18S×174°.28W,h35km,mb4.3/3,Error ellipse: s-maj=18.8km s-min=10.8km az=140.0*

**ISC 07 09:58:32.1**±0.9**,20°.0S**±0°.1×**174°.3W**±0°.1**,h42**km**,n16, σ2s.01**/16**,mb3.9**/10**,Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AFI | Afiamalu | 6.49 | 23 | Pn | Pn | 10 00 05.5 | +0.4 |
| | 4.0nm,0.3s,baz=39,slow=0.7,SNR=9.8 | | | | | | |
| AFI | | | | Sn | Sn | 10 01 13.3 | -4.6 |
| | 2.3nm,0.3s,baz=72,slow=20,SNR=1.9 | | | | | | |
| AFI | | | | LR | LR | 10 02 38.5 | |
| | comp=Z,87nm,19.1s,baz=176,slow=38 | | | | | | |
| MSVF | Nonsavu | 7.54 | 286 | ePn | Pn | 10 00 19.2 | -0.4 |
| | 20nm,0.9s | | | | | | |
| URZ | Urewera | 19.70 | 200 | P | P | 10 02 53.7 | -4.1 |
| | 0.3nm,0.3s,baz=86,slow=5.2,SNR=3.1 | | | | | | |
| CTA | Charters Tower | 36.97 | 263 | P | P | 10 05 39.1 | +1.4 |
| | 1.7nm,0.4s,baz=99,slow=10,SNR=4.8 | | | | | | |
| CTAO | Charters Tower | 36.97 | 263 | eP | P | 10 05 38.8 | +1.2 |
| | 6.8nm,0.4s | | | | | | |
| PMG | Port Moresby | 38.61 | 280 | LR | LR | 10 20 54.9 | |
| | comp=Z,63nm,18.0s,baz=352,slow=35 | | | | | | |
| COEN | Coen | 41.00 | 272 | eP | P | 10 06 11.8 | +0.4 |
| | 5.5nm,1.2s | | | | | | |
| STKA | Stephens Creek | 41.12 | 244 | P | P | 10 06 11.4 | -0.9 |
| | 1.4nm,0.6s,baz=87,slow=17,SNR=3.3 | | | | | | |
| ASAR | Alice Springs | 47.99 | 256 | P | P | 10 07 07.0 | -0.2 |
| | 2.0nm,0.9s,baz=87,slow=8.5,SNR=18 | | | | | | |
| WRAB | Tennant Creek | 48.08 | 261 | eP | P | 10 07 07.8 | -0.1 |
| | 2.0nm,0.9s | | | | | | |
| WRA | Warramunga Arr | 48.09 | 261 | P | P | 10 07 07.5 | -0.4 |
| | 1.3nm,0.9s,baz=93,slow=7.6,SNR=37 | | | | | | |
| MJAR | Matsushiro Arr | 71.87 | 321 | P | P | 10 09 52.2 | +1.4 |
| | 0.7nm,0.5s,baz=114,slow=9.4,SNR=2.8 | | | | | | |
| TXAR | Lajitas Array | 83.88 | 56 | P | P | 10 10 59.6 | +1.7 |
| | 0.1nm,0.6s,baz=208,slow=6.9,SNR=2.7 | | | | | | |
| PDAR | Pinedale Array | 86.23 | 42 | P | P | 10 11 10.7 | +1.2 |
| | 0.3nm,0.8s,baz=221,slow=1.9,SNR=2.7 | | | | | | |
| ILAR | Eielson Array | 87.06 | 11 | P | P | 10 11 14.2 | +1.5 |
| | 0.4nm,0.9s,baz=236,slow=4.8,SNR=4.2 | | | | | | |
| AKASG | Malin Array Be | 144.11 | 334 | PKP | PKPdf | 10 18 02.4 | -0.7 |
| | 0.2nm,0.3s,baz=43,slow=4.4,SNR=6.3 | | | | | | |

**DDA 07 10:07:57.0,37°.87N×27°.05E,h7**km**,Ml2.3,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DGB | ˜zmir | 0.22 | 324 | iP | Pg | 10 08 02.2 | +0.8 |
| DGB | | | | iS | Sg | 10 08 05.0 | +0.6 |
| GCAM | G?zelcaml? | 0.23 | 140 | iP | Pg | 10 08 01.9 | +0.4 |
| GCAM | | | | iS | Sg | 10 08 05.4 | +0.9 |
| ZEY | ˜zmir | 0.56 | 310 | iP | Pg | 10 08 07.7 | -0.2 |
| ZEY | | | | iS | Sb | 10 08 16.5 | -1.0 |
| URLA | Izmir | 0.60 | 324 | iP | Pb | 10 08 09.3 | -0.6 |
| URLA | | | | iS | Sb | 10 08 17.8 | -0.9 |

*ISK **07** 10:09:40.7,36°.21N×33°.77E,h11km,MD1.8*
*CSEM **07** 10:09:40.6±0.1,36°.20N×33°.77E,h15km,MD1.8,Error ellipse: s-maj=4.2km s-min=1.7km az=149.0*

**DDA 07 10:09:41.8,36°.31N×33°.73E,h7**km**,Ml2.1,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| IKL | Isikli | 0.08 | 209 | ePG | Pg | 10 09 43.5 | -0.2 |
| IKL | | | | eSG | Sg | 10 09 45.3 | +0.3 |
| IKL | Isikli | 0.08 | 209 | ePg | Pg | 10 09 43.5 | -0.2 |
| IKL | | | | eSg | Sg | 10 09 45.3 | +0.3 |
| YESI | Yesilovacik-Me | 0.13 | 213 | ePG | Pg | 10 09 43.9 | -0.6 |
| YESI | Yesilovacik-Me | 0.13 | 213 | ePg | Pg | 10 09 43.9 | -0.6 |
| KEBE | Keben-Mersin | 0.14 | 354 | ePG | Pg | 10 09 46.0 | +1.2 |
| KEBE | | | | eSG | Sg | 10 09 50.2 | +3.3 |
| KEBE | Keben-Mersin | 0.14 | 354 | ePg | Pg | 10 09 46.0 | +1.2 |
| KEBE | | | | eSg | Sg | 10 09 50.2 | +3.3 |
| SILI | Silifke-Mersin | 0.17 | 68 | ePG | Pg | 10 09 45.2 | +0.1 |
| SILI | | | | eSG | Sg | 10 09 48.8 | +1.3 |
| SILI | Silifke-Mersin | 0.17 | 68 | ePg | Pg | 10 09 45.3 | +0.1 |
| SILI | | | | eSg | Sg | 10 09 48.8 | +1.3 |
| GULN | MERSIN_Gulnar | 0.19 | 231 | iP | Pg | 10 09 45.7 | 0.0 |
| GULN | | | | iS | Sg | 10 09 49.5 | +1.2 |
| GULN | MERSIN_Gulnar | 0.19 | 231 | P | Pg | 10 09 45.7 | 0.0 |
| GULN | | | | S | Sg | 10 09 49.5 | +1.2 |
| AKKU | Akkuyu-Mersin | 0.21 | 225 | ePG | Pg | 10 09 45.9 | 0.0 |
| TEVE | Tevekalti-Mers | 0.27 | 299 | ePG | Pb | 10 09 48.2 | -0.8 |
| TEVE | Tevekalti-Mers | 0.27 | 299 | ePg | Pb | 10 09 48.2 | -0.8 |
| KIZK | Mersin | 0.38 | 62 | ePG | Pg | 10 09 49.2 | +0.1 |
| KIZK | Mersin | 0.38 | 62 | iP | Pg | 10 09 49.0 | -0.1 |
| KIZK | | | | iS | Sg | 10 09 55.4 | +1.4 |
| KIZK | Mersin | 0.38 | 62 | P | Pg | 10 09 49.0 | -0.1 |
| KIZK | | | | S | Sg | 10 09 55.4 | +1.4 |
| TEKE | Tekeli-Mersin | 0.53 | 252 | ePG | Pg | 10 09 51.5 | -0.3 |
| TEKE | Tekeli-Mersin | 0.53 | 252 | ePg | Pg | 10 09 51.5 | -0.4 |
| KERG | Konya-Eregli | 1.15 | 16 | iP | Pg | 10 10 03.8 | -0.1 |
| KERG | Konya-Eregli | 1.15 | 16 | P | Pg | 10 10 03.8 | -0.1 |

*CSEM **07** 10:10:15.6±1.2,50°.61N×13°.95E,h1km,ML2.5,Error ellipse: s-maj=18.4km s-min=9.5km az=127.0,Suspected Mining explosion.*
*VIE **07** 10:10:16.0±0.5,50°.59N×14°.13E,h0km,mb2.1/2,ML2.5/5, Error ellipse: s-maj=4.2km s-min=1.8km az=47.0, Suspected Mining explosion.*

**ISC 07 10:10:14.5**±2.6**,50°.64N**±0°.09×**13°.8E**±0°.1**,h0**km**,n10, σ1s.75**/16**,Czech and Slovak Republics**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KSP | Ksiaz | 1.61 | 82 | ePg | Pb | 10 10 45.2 | +0.1 |
| KSP | | | | eSg | Sn | 10 11 05.3 | -0.3 |
| KSP | Ksiaz | 1.61 | 82 | ePg | Pb | 10 10 45.2 | +0.1 |
| KSP | | | | eSg | Sn | 10 11 05.3 | -0.3 |
| VRAC | Vranov | 2.25 | 125 | ePn | Pb | 10 10 55.7 | -0.3 |
| VRAC | | | | eSg | Sb | 10 11 22.8 | -1.6 |
| MORC | Moravsky Berou | 2.56 | 108 | eSg | Sb | 10 11 32.5 | -1.0 |
| MOA | Molln | 2.81 | 173 | Pg | Pg | 10 11 08.7 | +0.4 |
| | 0.6nm,0.2s | | | | | | |
| MOA | | | | Sg | Sg | 10 11 46.0 | +1.3 |
| | 11nm,0.6s | | | | | | |
| CONA | Conrad Observa | 3.03 | 153 | Pg | Pg | 10 11 11.3 | -1.3 |
| | 1.8nm,0.3s | | | | | | |
| CONA | | | | Sg | Sg | 10 11 52.7 | +0.8 |
| | 14nm,0.8s | | | | | | |
| MODS | Modra-Piesok | 3.21 | 134 | eSg | Sg | 10 11 57.0 | -0.7 |
| MODS | Modra-Piesok | 3.21 | 134 | eSG | Sg | 10 11 57.0 | -0.7 |
| ARSA | Arzberg | 3.58 | 161 | Pg | Pg | 10 11 23.0 | 0.0 |
| | 2.0nm,0.2s | | | | | | |
| ARSA | | | | Sg | Sg | 10 12 10.6 | +1.2 |
| | 2.8nm,0.3s | | | | | | |
| VYHS | Vyhne | 3.93 | 121 | eSG | Sg | 10 12 26.0 | +5.4 |

*ISCJB **07** 10:21:21.2±0.6,38°.87N±0°.03×21°.12E±0°.05,h31km±4km, Error ellipse: s-maj=6.3km s-min=5.1km az=161.4*
*CSEM **07** 10:21:21.4±0.1,38°.86N×21°.14E,h23km±2km,ML2.5, Error ellipse: s-maj=3.5km s-min=2.9km az=61.0*
*THE **07** 10:21:22.5,38°.85N×21°.23E,h11km±1km,ML2.5/10,Error ellipse: s-maj=1.2km s-min=0.5km az=250.0*

**ISC 07 10:21:21.7**±0.9**,38°.85N**±0°.03×**21°.18E**±0°.03**,h27**km±7km**, n24,σ0s.63**/45**,Greece**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PDO | Prodromos | 0.25 | 179 | P | Pb | 10 21 28.2 | -0.1 |
| PDO | | | | S | Sb | 10 21 32.9 | +0.1 |
| PDO | Prodromos | 0.25 | 179 | P | Pb | 10 21 28.2 | -0.1 |
| PDO | | | | S | Sb | 10 21 32.9 | +0.1 |
| DSL | Palaion Diasel | 0.29 | 347 | P | Pb | 10 21 28.9 | +0.1 |
| DSL | | | | S | Sb | 10 21 34.1 | +0.5 |
| DSL | Palaion Diasel | 0.29 | 347 | P | Pb | 10 21 28.9 | +0.1 |
| DSL | | | | S | Sb | 10 21 34.1 | +0.5 |
| PVO | Paravola | 0.36 | 131 | P | Pb | 10 21 29.2 | -0.6 |
| PVO | | | | S | Sb | 10 21 35.1 | -0.2 |
| PVO | Paravola | 0.36 | 131 | P | Pb | 10 21 29.2 | -0.6 |
| PVO | | | | S | Sb | 10 21 35.1 | -0.2 |
| EVR | Evrytania | 0.49 | 82 | P | Pb | 10 21 31.7 | -0.3 |
| EVR | | | | S | Sb | 10 21 39.1 | +0.1 |
| EVR | Evrytania | 0.49 | 82 | P | Pb | 10 21 31.7 | -0.3 |
| EVR | | | | S | Sb | 10 21 39.1 | +0.1 |
| ANX | Ano Chora | 0.64 | 114 | P | Pb | 10 21 33.7 | -0.6 |
| ANX | | | | S | Sn | 10 21 44.0 | -0.3 |
| ANX | Ano Chora | 0.64 | 114 | P | Pb | 10 21 33.7 | -0.6 |
| ANX | | | | S | Sn | 10 21 44.0 | -0.3 |
| EFP | Efpalio | 0.71 | 127 | P | Pb | 10 21 35.5 | 0.0 |
| EFP | | | | S | Sn | 10 21 46.0 | 0.0 |
| EFP | Efpalio | 0.71 | 127 | P | Pb | 10 21 35.5 | 0.0 |
| EFP | | | | S | Sn | 10 21 46.0 | 0.0 |
| SERG | Sergoula | 0.81 | 122 | P | Pb | 10 21 36.8 | -0.5 |
| SERG | Sergoula | 0.81 | 122 | P | Pb | 10 21 36.8 | -0.5 |
| VLS | Valsamata | 0.82 | 215 | P | Pb | 10 21 36.9 | -0.5 |
| VLS | Valsamata | 0.82 | 215 | P | Pb | 10 21 36.9 | -0.5 |
| VLS | | | | S | Sn | 10 21 50.5 | +1.8 |
| AGG | Agios Georgios | 0.91 | 79 | P | Pn | 10 21 38.6 | -0.2 |
| AGG | | | | S | Sn | 10 21 52.0 | +0.9 |
| AGG | Agios Georgios | 0.91 | 79 | P | Pn | 10 21 38.6 | -0.2 |
| AGG | | | | S | Sn | 10 21 52.0 | +0.9 |
| THL | Klokotos Trika | 0.96 | 42 | P | Pb | 10 21 39.8 | 0.0 |
| THL | | | | S | Sn | 10 21 53.3 | +1.1 |
| THL | Klokotos Trika | 0.96 | 42 | P | Pb | 10 21 39.8 | 0.0 |
| THL | | | | S | Sn | 10 21 53.3 | +1.1 |
| DRO | Drossia | 0.99 | 155 | P | Pb | 10 21 40.3 | 0.0 |
| DRO | | | | S | Sb | 10 21 54.0 | +1.0 |
| DRO | Drossia | 0.99 | 155 | P | Pb | 10 21 40.3 | 0.0 |
| DRO | | | | S | Sb | 10 21 54.0 | +1.0 |
| STON | Ston | 4.80 | 328 | ePn | Pn | 10 22 31.9 | -0.3 |
| STON | | | | Sn | Sn | 10 23 25.6 | -1.3 |
| STON | Ston | 4.80 | 328 | ePn | Pn | 10 22 31.9 | -0.3 |
| STON | | | | Sn | Sn | 10 23 25.6 | -1.3 |

*NNC **07** 10:24:41.1±2.6,53°.48N×87°.43E,h15km±13km,mb3.7, mpv3.4,Error ellipse: s-maj=17.5km s-min=13.9km az=36.0*

**IDC 07 10:24:37.0**±2.4**,53°.51N×87°.80E,h0**km**,mb1 3.4**/3**, mb1mx3.2**/57**,mbtmp3.4**/3**,ML3.0**/3**,5C-7D,Error ellipse: s-maj=21.1km s-min=13.2km az=62.0,Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| I46RU | ZALESOVO INFRA | 1.83 | 285 | i | | 10 38 30.0 | |
| | baz=99,slow=343,SNR=4.3 | | | | | | |
| ZALV | Zalesovo Beam | 1.83 | 285 | Pn | Pn | 10 25 07.8 | -1.8 |
| | 3.6nm,0.3s,baz=107,slow=13,SNR=102 | | | | | | |
| ZALV | | | | Lg | Lg | 10 25 34.6 | |
| | 12nm,0.3s,baz=100,slow=32,SNR=25 | | | | | | |
| KURK | Kurchatov | 6.31 | 247 | ⇓Pn | Pn | 10 26 10.9 | -0.2 |
| | 3.3nm,0.8s | | | | | | |
| KURK | | | | ⇑Sn | Sn | 10 27 19.5 | -4.3 |
| | 3.7nm,0.6s | | | | | | |
| KURK | | | | ⇓Lg | Lg | 10 27 54.5 | |
| | 14nm,0.8s | | | | | | |
| KURBB | Kurchatov Arra | 6.40 | 247 | Pn | Pn | 10 26 12.7 | +0.2 |
| | 0.2nm,0.3s,baz=62,slow=14,SNR=23 | | | | | | |
| KURBB | | | | Sn | Sn | 10 27 25.4 | -0.8 |
| | 0.1nm,0.3s,baz=60,slow=27,SNR=5.4 | | | | | | |
| KURBB | | | | Lg | Lg | 10 28 00.8 | |
| | 0.1nm,0.3s,baz=64,slow=34,SNR=9.4 | | | | | | |
| KURBB | Kurchatov Arra | 6.40 | 247 | ⇓Pn | Pn | 10 26 12.0 | -0.5 |
| | 4.8nm,0.5s | | | | | | |
| KURBB | | | | ⇓Sn | Sn | 10 27 23.9 | -2.4 |
| | 17nm,0.7s | | | | | | |
| KURBB | | | | ⇑Lg | Lg | 10 27 59.8 | |
| | 29nm,0.8s | | | | | | |
| MK31 | Makanchi Array | 7.59 | 210 | ⇓Pn | Pn | 10 26 29.0 | +0.2 |
| | 0.2nm,0.3s,baz=28,slow=13,SNR=13 | | | | | | |
| MK31 | | | | ⇑Sn | Sn | 10 27 55.0 | -0.5 |
| | 2.5nm,0.8s,baz=26,slow=15,SNR=3.8 | | | | | | |
| MK31 | | | | ⇓Lg | Lg | 10 28 37.4 | |
| | 4.7nm,0.7s,baz=37,slow=32,SNR=3.7 | | | | | | |
| MKAR | Makanchi Array | 7.59 | 210 | Pn | Pn | 10 26 29.8 | +1.0 |
| | 0.3nm,0.3s,baz=27,slow=12,SNR=11 | | | | | | |
| MKAR | | | | Sn | Sn | 10 27 55.0 | -0.6 |
| | 0.2nm,0.3s,baz=36,slow=26,SNR=5.3 | | | | | | |
| MKAR | | | | Lg | Lg | 10 28 39.5 | |
| | 0.3nm,0.3s,baz=30,slow=31,SNR=7.8 | | | | | | |
| MAKZ | Makanchi | 7.67 | 211 | ⇑Pn | Pn | 10 26 29.9 | -0.1 |
| | 3.1nm,0.9s | | | | | | |
| MAKZ | | | | ⇓Sn | Sn | 10 27 57.0 | -0.6 |
| | 2.1nm,0.8s | | | | | | |
| MAKZ | | | | ⇑Lg | Lg | 10 28 38.0 | |
| | 7.8nm,0.8s | | | | | | |
| BVAR | Borovoye Array | 10.45 | 274 | Pn | Pn | 10 27 08.5 | +0.6 |
| | 0.2nm,0.3s,baz=82,slow=13,SNR=3.8 | | | | | | |
| BVAR | | | | Sn | Sn | 10 28 59.0 | -6.5 |
| | 0.2nm,0.3s,baz=78,slow=22,SNR=7.8 | | | | | | |

*KRSC **07** 10:25:16.6±1.8,49°.33N×156°.57E,h9km±22km,ML4.4*
*ISCJB **07** 10:25:17.4±0.5,49°.28N±0°.06×155°.7E±0°.1,h54km, mb3.8/12,MS3.2/5,Error ellipse: s-maj=13.7km s-min=3.7km az=37.3*
*MOS **07** 10:25:17.2±0.9,49°.24N×155°.75E,h52km,mb4.0/8,Error ellipse: s-maj=19.8km s-min=5.0km az=74.2*
*IDC **07** 10:25:21.2±2.6,49°.36N×155°.58E,h79km±23km,mb3.5/11, mb1 3.8/15,mb1mx3.5/50,mbtmp3.9/15,MS3.2/7, Ms1 3.2/7,ms1mx2.9/34,Error ellipse: s-maj=24.7km s-min=12.7km az=135.0*

**ISC 07 10:25:18.7**±0.7**,49°.28N**±0°.08×**155°.85E**±0°.10**,h54**km**,n64, σ1s.49**/65**,mb3.8**/12**,MS3.1**/5**,Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SKR | Severo-Kuril's | 1.41 | 7 | ePN | Pn | 10 25 40.7 | -1.3 |
| SKR | | | | iS | Sn | 10 25 58.4 | -1.1 |
| SKR | | | | pmax | pmax | | |
| | comp=Z,473nm,0.5s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=N,1µm,0.5s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=E,2µm,1.0s | | | | | | |
| SKR | Severo-Kuril's | 1.41 | 7 | eP | Pn | 10 25 40.3 | -1.7 |
| SKR | | | | eS | Sn | 10 25 58.4 | -1.1 |
| KDTR | Khodutka, Kamc | 2.90 | 28 | eP | Pn | 10 26 02.1 | -0.2 |
| KDTR | | | | eS | Sn | 10 26 36.1 | +0.2 |
| ASAK | Asacha | 3.36 | 22 | PN | Pn | 10 26 10.2 | +1.5 |
| ASAK | Asacha | 3.36 | 22 | eP | Pn | 10 26 10.2 | +1.5 |
| MTVR | Mutnovka | 3.53 | 24 | PN | Pn | 10 26 12.1 | +1.1 |
| MTVR | | | | S | Sn | 10 26 53.0 | +1.5 |
| MTVR | Mutnovka | 3.53 | 24 | eP | Pn | 10 26 12.1 | +1.1 |
| MTVR | | | | eS | Sn | 10 26 53.0 | +1.5 |
| RUS | Russkaya | 3.58 | 27 | PN | Pn | 10 26 11.5 | 0.0 |
| RUS | | | | S | Sn | 10 26 52.0 | -0.5 |
| RUS | Russkaya | 3.58 | 27 | eP | Pn | 10 26 11.5 | 0.0 |
| RUS | | | | eS | Sn | 10 26 52.0 | -0.5 |
| APC | Apacha | 3.74 | 12 | PN | Pn | 10 26 16.1 | +2.3 |
| APC | Apacha | 3.74 | 12 | eP | Pn | 10 26 16.1 | +2.3 |
| KRMR | Karymshinskiy | 3.83 | 21 | PN | Pn | 10 26 16.3 | +1.3 |
| KRMR | Karymshinskiy | 3.83 | 21 | eP | Pn | 10 26 16.3 | +1.3 |
| PETK | Petropavlovsk- | 4.00 | 16 | P | Pn | 10 26 19.4 | +2.0 |
| | comp=E,2.9nm,0.3s,baz=169,slow=11,SNR=41 | | | | | | |
| PETK | | | | LR | LR | 10 28 09.9 | |
| | comp=E,197nm,21.2s,baz=200,slow=42 | | | | | | |
| PET | Petropavlovsk | 4.14 | 24 | ePN | Pn | 10 26 20.4 | +1.1 |
| PET | | | | eS | Sn | 10 27 08.9 | +2.6 |
| PET | | | | pmax | pmax | | |
| | comp=Z,23nm,0.6s | | | | | | |
| PET | | | | smax | smax | | |
| | comp=N,124nm,0.6s | | | | | | |
| PET | | | | smax | smax | | |
| | comp=E,141nm,0.6s | | | | | | |
| PET | Petropavlovsk | 4.14 | 24 | eP | Pn | 10 26 21.2 | +1.9 |
| DALK | Dalny | 4.17 | 25 | PN | Pn | 10 26 20.6 | +0.9 |
| DALK | | | | S | Sn | 10 27 08.6 | +1.5 |
| DALK | Dalny | 4.17 | 25 | eP | Pn | 10 26 20.6 | +0.9 |
| DALK | | | | eS | Sn | 10 27 08.6 | +1.5 |
| UGLR | Uglovaya | 4.35 | 24 | PN | Pn | 10 26 24.0 | +1.7 |
| UGLR | Uglovaya | 4.35 | 24 | eP | Pn | 10 26 24.0 | +1.7 |
| KOK | Koryaka | 4.38 | 22 | PN | Pn | 10 26 25.4 | +2.8 |
| KOK | Koryaka | 4.38 | 22 | eP | Pn | 10 26 25.4 | +2.8 |
| AVH | Avacha | 4.38 | 23 | PN | Pn | 10 26 25.1 | +2.5 |
| AVH | Avacha | 4.38 | 23 | eP | Pn | 10 26 25.1 | +2.5 |
| KRER | Koryakskii | 4.42 | 23 | PN | Pn | 10 26 25.3 | +2.0 |
| KRER | Koryakskii | 4.42 | 23 | eP | Pn | 10 26 25.3 | +2.0 |
| SDLR | Sedlovina | 4.43 | 24 | PN | Pn | 10 26 24.5 | +1.1 |
| SDLR | Sedlovina | 4.43 | 24 | eP | Pn | 10 26 24.5 | +1.1 |
| KRX | Arik | 4.44 | 22 | PN | Pn | 10 26 25.8 | +2.2 |
| KRX | Arik | 4.44 | 22 | eP | Pn | 10 26 25.8 | +2.2 |
| GNL | Ganaly | 4.61 | 16 | PN | Pn | 10 26 28.1 | +2.3 |
| GNL | Ganaly | 4.61 | 16 | eP | Pn | 10 26 28.1 | +2.3 |
| SPN | Mys Shipunski | 4.63 | 33 | PN | Pn | 10 26 26.0 | 0.0 |
| SPN | Mys Shipunski | 4.63 | 33 | eP | Pn | 10 26 26.0 | 0.0 |
| KUR | Kuril'sk | 6.78 | 236 | PN | Pn | 10 26 55.9 | +0.5 |
| KUR | | | | eS | Sn | 10 28 12.2 | +1.1 |
| KUR | | | | smax | smax | | |
| | comp=N,48nm,0.6s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,22nm,0.4s | | | | | | |
| TYV | Tymovskoe | 8.63 | 286 | ePN | Pn | 10 27 11.9 | -8.9 |
| TYV | | | | pmax | pmax | | |
| | comp=Z,18nm,1.7s | | | | | | |
| ASAJ | Asahikawa | 10.46 | 245 | P | Pn | 10 27 46.6 | +0.7 |
| | comp=Z,2.6nm,0.3s,baz=65,slow=13,SNR=22 | | | | | | |
| MA2 | Magadan | 10.72 | 346 | P | Pn | 10 27 49.5 | +0.2 |
| | comp=Z,0.8nm,0.3s,baz=175,slow=15,SNR=3.9 | | | | | | |
| MA2 | | | | LR | LR | 10 31 28.7 | |
| | comp=Z,78nm,18.5s,baz=227,slow=35 | | | | | | |
| SEY | Seymchan | 13.81 | 353 | eP | Pn | 10 28 31.3 | -0.1 |
| MJAR | Matsushiro Arr | 18.09 | 232 | P | P | 10 29 25.2 | -0.5 |
| | comp=Z,0.3nm,0.3s,baz=11,slow=13,SNR=3.4 | | | | | | |
| KSRS | Korea Array | 23.35 | 250 | P | P | 10 30 23.0 | +0.9 |
| | comp=Z,1.7nm,1.0s,baz=52,slow=9.4,SNR=4.2 | | | | | | |
| KSRS | | | | LR | LR | 10 38 55.2 | |
| | comp=Z,24nm,19.4s,baz=90,slow=35 | | | | | | |
| KSRS | Korea Array | 23.35 | 250 | P | P | 10 30 23.0 | +0.9 |
| KSRS | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.6s | | | | | | |
| KSRS | | | | MLR | MLR | | |
| | comp=Z,24nm,19.4s | | | | | | |
| TIXI | Tiksi | 25.62 | 341 | LR | LR | 10 41 10.4 | |
| | comp=Z,50nm,19.6s,baz=184,slow=37 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 30.79 | 159 | T | T | 11 04 00.4 | |
| | baz=346,slow=77,SNR=32 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 30.80 | 159 | T | T | 11 04 00.0 | |
| | baz=346,slow=77,SNR=21 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 30.80 | 159 | T | T | 11 04 03.2 | |
| | baz=346,slow=77,SNR=25 | | | | | | |
| ULN | Ulaanbaatar | 31.87 | 286 | eP | P | 10 31 38.4 | -0.2 |
| ULN | | | | pmax | pmax | | |
| | comp=Z,1.0nm,1.2s | | | | | | |
| H11S1 | WAKE ISLAND Hy | 31.93 | 160 | T | T | 11 05 25.5 | |
| | baz=346,slow=76,SNR=611 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 31.94 | 160 | T | T | 11 05 17.1 | |
| | baz=346,slow=76,SNR=820 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 31.94 | 160 | T | T | 11 05 26.9 | |
| | baz=346,slow=76,SNR=474 | | | | | | |
| SONM | Songino Array | 32.30 | 287 | LR | LR | 10 47 15.1 | |
| | comp=Z,36nm,19.0s,baz=332,slow=41 | | | | | | |
| ILAR | Eielson Array | 33.42 | 41 | P | P | 10 31 52.2 | +0.5 |
| | comp=Z,1.2nm,0.8s,baz=250,slow=8.1,SNR=12 | | | | | | |
| INK | Inuvik | 38.52 | 34 | P | P | 10 32 35.8 | +0.5 |
| | comp=Z,2.1nm,0.7s,baz=287,slow=11,SNR=7.0 | | | | | | |
| MKAR | Makanchi Array | 47.43 | 297 | P | P | 10 33 45.1 | -2.5 |
| | comp=Z,0.6nm,0.8s,baz=74,slow=11,SNR=3.5 | | | | | | |
| MKAR | | | | LR | LR | 10 53 55.0 | |
| | comp=Z,56nm,19.5s,baz=45,slow=36 | | | | | | |
| CMAR | Chiang Mai Arr | 54.75 | 257 | P | P | 10 34 42.4 | -0.4 |
| | comp=Z,2.0nm,0.5s,baz=30,slow=7.5,SNR=19 | | | | | | |
| CMAR | Chiang Mai Arr | 54.75 | 257 | eP | P | 10 34 43.3 | +0.6 |
| CMAR | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.5s | | | | | | |
| PDAR | Pinedale Array | 61.79 | 56 | P | P | 10 35 32.6 | +0.7 |
| | comp=Z,0.9nm,0.9s,baz=345,slow=4.6,SNR=5.6 | | | | | | |
| FINES | FINESS Array B | 62.52 | 335 | P | P | 10 35 34.9 | -1.2 |
| | comp=Z,1.7nm,0.9s,baz=31,slow=7.0,SNR=2.9 | | | | | | |
| WRA | Warramunga Arr | 71.53 | 201 | P | P | 10 36 32.4 | -1.3 |
| | comp=Z,0.4nm,0.6s,baz=14,slow=6.2,SNR=10 | | | | | | |
| WRA | Warramunga Arr | 71.53 | 201 | eP | P | 10 36 33.3 | -0.4 |
| WRA | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.9s | | | | | | |
| TXAR | Lajitas Array | 74.67 | 63 | P | P | 10 36 53.5 | +1.0 |
| | comp=Z,0.7nm,0.7s,baz=296,slow=4.6,SNR=9.7 | | | | | | |
| ASAR | Alice Springs | 75.21 | 201 | P | P | 10 36 55.0 | -0.3 |
| | comp=Z,0.6nm,0.7s,baz=12,slow=5.7,SNR=12 | | | | | | |
| WSAR | Wadi Sarin | 77.24 | 291 | LR | LR | 11 13 50.5 | |
| | comp=Z,34nm,18.2s,baz=48,slow=38 | | | | | | |
| ESDC | Sonseca Array | 89.64 | 345 | P | P | 10 38 08.8 | -1.8 |
| | comp=Z,0.2nm,0.3s,baz=352,slow=4.5,SNR=2.5 | | | | | | |

**WEL 07 10:44:44.7**±0.5**,39°.63S×174°.06E,h214**km±3km**,ML3.6**/22**, 4C-5D,Error ellipse: s-maj=3.1km s-min=1.7km az=90.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LREZ | Lake Rotokare | 0.32 | 57 | PN | Pn | 10 45 12.9 | 0.0 |
| LREZ | | | | SN | S | 10 45 32.9 | -1.9 |
| NEZ | North Egmont | 0.36 | 5 | PN | Pn | 10 45 13.2 | 0.0 |
| NEZ | | | | SN | S | 10 45 34.1 | -1.2 |
| NWEZ | Newall Road | 0.39 | 338 | ePN | Pn | 10 45 13.1 | +0.1 |
| WAZ | Wanganui | 0.73 | 100 | PN | Pn | 10 45 14.8 | +0.5 |
| VRZ | Vera Road | 0.74 | 47 | ⇓PN | Pn | 10 45 13.6 | -0.8 |
| PKVZ | Pokaka | 1.05 | 71 | PN | Pn | 10 45 15.9 | -0.4 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| OHWZ | Ohakea | 1.12 | 121 | PN | Pn | 10 45 17.2 | +0.6 |
| DUWZ | D'Urville Isla | 1.17 | 185 | PN | Pn | 10 45 16.9 | -0.1 |
| TRVZ | Turoa | 1.20 | 74 | PN | Pn | 10 45 17.3 | -0.2 |
| WNVZ | Wahianoa | 1.23 | 76 | PN | Pn | 10 45 17.5 | -0.2 |
| HIZ | Hauiti | 1.28 | 29 | ⇓PN | Pn | 10 45 17.2 | -0.7 |
| NGZ | Ngauruhoe | 1.28 | 70 | PN | Pn | 10 45 17.9 | -0.1 |
| TUVZ | Tukino | 1.29 | 74 | ⇑PN | Pn | 10 45 18.2 | +0.1 |
| WTVZ | West Tongariro | 1.29 | 67 | PN | Pn | 10 45 17.7 | -0.4 |
| MOVZ | Moawhango | 1.33 | 81 | PN | Pn | 10 45 17.8 | -0.5 |
| OTVZ | Oturere | 1.33 | 70 | ⇑PN | Pn | 10 45 18.4 | 0.0 |
| KIW | Kapiti Island | 1.39 | 152 | PN | Pn | 10 45 18.5 | -0.2 |
| OGWZ | Otaki Gorge | 1.46 | 145 | PN | Pn | 10 45 19.2 | 0.0 |
| OGWZ | | | | AML | AML | 10 45 19.7 | |
| OGWZ | | | | AML | AML | 10 45 44.5 | |
| POWZ | Post Office Ro | 1.52 | 121 | PN | Pn | 10 45 19.5 | -0.2 |
| TSZ | Takapari Road | 1.52 | 107 | PN | Pn | 10 45 19.8 | 0.0 |
| MRZ | Mangatainoka R | 1.55 | 132 | ⇑PN | Pn | 10 45 19.8 | -0.2 |
| MRZ | | | | AML | AML | 10 45 45.4 | |
| BHHZ | Black Hill Sta | 1.56 | 85 | PN | Pn | 10 45 19.7 | -0.4 |
| TCW | Tory Channel | 1.58 | 174 | PN | Pn | 10 45 20.5 | +0.3 |
| TCW | | | | AML | AML | 10 45 46.9 | |
| TCW | | | | AML | AML | 10 45 47.4 | |
| CAW | Cannon Point | 1.66 | 153 | PN | Pn | 10 45 20.8 | -0.1 |
| CAW | | | | AML | AML | 10 45 48.2 | |
| NNZ | Nelson | 1.66 | 198 | PN | Pn | 10 45 20.8 | -0.1 |
| QRZ | Quartz Range | 1.67 | 224 | PN | Pn | 10 45 20.4 | -0.6 |
| PNHZ | Pukenui | 1.67 | 100 | PN | Pn | 10 45 21.3 | +0.2 |
| PNHZ | | | | AML | AML | 10 45 48.4 | |
| HOWZ | Holdsworth Sta | 1.68 | 139 | PN | Pn | 10 45 20.9 | -0.3 |
| HOWZ | | | | AML | AML | 10 45 48.1 | |
| HOWZ | | | | AML | AML | 10 45 48.3 | |
| PRWZ | Pori Road | 1.73 | 123 | PN | Pn | 10 45 21.9 | +0.3 |
| PRWZ | | | | AML | AML | 10 45 49.8 | |
| WEL | Wellington | 1.73 | 162 | PN | Pn | 10 45 21.2 | -0.3 |
| DVHZ | Dannevirke | 1.75 | 113 | PN | Pn | 10 45 21.7 | -0.1 |
| DVHZ | | | | AML | AML | 10 45 49.2 | |
| DVHZ | | | | AML | AML | 10 45 50.2 | |
| KRHZ | Kereru | 1.79 | 91 | PN | Pn | 10 45 22.2 | 0.0 |
| KRHZ | | | | AML | AML | 10 45 49.9 | |
| KRHZ | | | | AML | AML | 10 45 50.4 | |
| TUWZ | Tuamarina | 1.80 | 183 | PN | Pn | 10 45 22.2 | +0.1 |
| TIWZ | Tintock | 1.81 | 130 | PN | Pn | 10 45 22.2 | -0.1 |
| TIWZ | | | | AML | AML | 10 45 49.7 | |
| TIWZ | | | | AML | AML | 10 45 50.3 | |
| KWHZ | Kaweka Forest | 1.84 | 84 | PN | Pn | 10 45 23.0 | +0.3 |
| KWHZ | | | | AML | AML | 10 45 51.2 | |
| KWHZ | | | | AML | AML | 10 45 51.5 | |
| MTW | Mount Morrison | 1.88 | 145 | PN | Pn | 10 45 22.6 | -0.3 |
| WPHZ | Waipukurau | 1.88 | 104 | PN | Pn | 10 45 24.0 | +0.9 |
| WPHZ | | | | AML | AML | 10 45 52.3 | |
| BKZ | Black Stump Fm | 1.94 | 77 | ⇓PN | Pn | 10 45 23.3 | -0.4 |
| BKZ | | | | AML | AML | 10 45 50.6 | |
| BFZ | Birch Farm | 1.98 | 123 | PN | Pn | 10 45 23.8 | -0.1 |
| BFZ | | | | AML | AML | 10 47 28.5 | |
| MRHZ | Matea Rd | 2.00 | 67 | PN | Pn | 10 45 23.3 | -0.9 |
| MRHZ | | | | AML | AML | 10 45 52.3 | |
| ANWZ | Angora Road | 2.03 | 115 | PN | Pn | 10 45 24.7 | +0.3 |
| ANWZ | | | | AML | AML | 10 45 54.1 | |
| TMWZ | Te Maipa | 2.03 | 137 | PN | Pn | 10 45 24.3 | -0.2 |
| MCHZ | McNeill Hill | 2.05 | 86 | PN | Pn | 10 45 25.3 | +0.6 |
| PRHZ | Porangahau | 2.08 | 109 | PN | Pn | 10 45 25.3 | +0.3 |
| PRHZ | | | | AML | AML | 10 45 54.9 | |
| PRHZ | | | | AML | AML | 10 45 55.2 | |
| PLWZ | Palliser | 2.14 | 155 | PN | Pn | 10 45 25.0 | -0.6 |
| KAHZ | Kahuranaki | 2.18 | 95 | PN | Pn | 10 45 26.5 | +0.5 |
| PXZ | Pawanui | 2.19 | 101 | PN | Pn | 10 45 26.4 | +0.3 |
| NMHZ | Naumai | 2.20 | 77 | PN | Pn | 10 45 26.8 | +0.5 |
| NMHZ | | | | AML | AML | 10 45 59.4 | |
| NMHZ | | | | AML | AML | 10 45 59.6 | |
| MTHZ | Maungataniwha | 2.30 | 71 | PN | Pn | 10 45 26.8 | -0.5 |
| THZ | Tophouse | 2.30 | 202 | PN | Pn | 10 45 27.3 | 0.0 |
| ARHZ | Aropaoanui | 2.30 | 82 | PN | Pn | 10 45 27.7 | +0.4 |
| MUGZ | Murupara | 2.41 | 62 | PN | Pn | 10 45 27.6 | -0.9 |
| RTZ | Ruatahuna | 2.49 | 67 | ⇓PN | Pn | 10 45 28.7 | -0.7 |
| DSZ | Denniston Nort | 2.72 | 218 | ⇓PN | Pn | 10 45 31.3 | -0.5 |
| URZ | Urewera | 2.75 | 61 | PN | Pn | 10 45 31.0 | -1.2 |
| KHZ | Kahutara | 2.81 | 188 | PN | Pn | 10 45 32.8 | +0.1 |
| KNZ | Kokohu | 2.87 | 79 | PN | Pn | 10 45 33.2 | -0.2 |
| KNZ | | | | AML | AML | 10 53 08.0 | |
| MWZ | Matawai | 3.00 | 65 | ⇑PN | Pn | 10 45 34.1 | -0.9 |
| MWZ | | | | AML | AML | 10 45 49.4 | |
| RIGZ | Rimuhau | 3.02 | 73 | PN | Pn | 10 45 35.0 | -0.3 |
| PRGZ | Paritu Road | 3.05 | 78 | PN | Pn | 10 45 35.5 | -0.1 |
| RUGZ | Raukumara Rang | 3.28 | 61 | PN | Pn | 10 45 36.7 | -1.7 |
| LTZ | Lake Taylor | 3.42 | 203 | PN | Pn | 10 45 39.6 | -0.3 |
| HAZ | Te Kaha | 3.46 | 58 | AML | AML | 10 45 35.4 | |
| HAZ | | | | PN | Pn | 10 45 38.9 | -1.6 |
| HAZ | | | | AML | AML | 10 46 33.8 | |
| PUZ | Puketiti | 3.63 | 66 | PN | Pn | 10 45 41.4 | -1.1 |
| PUZ | | | | AML | AML | 10 45 45.2 | |
| INZ | Inchbonnie | 3.66 | 212 | PN | Pn | 10 45 41.9 | -0.9 |
| WMGZ | Waiomatatini S | 3.86 | 63 | PN | Pn | 10 45 43.9 | -1.3 |
| OXZ | Oxford | 3.99 | 202 | PN | Pn | 10 45 45.6 | -1.1 |
| CRLZ | Canterbury Las | 4.08 | 195 | PN | Pn | 10 45 46.6 | -1.2 |
| MQZ | McQueen's Vall | 4.20 | 194 | PN | Pn | 10 45 47.5 | -1.8 |
| WVZ | Waitaha Valley | 4.25 | 215 | PN | Pn | 10 45 48.9 | -1.0 |

**IDC 07 11:09:14.1±549.0, 47.59°N×49.94°E, h0km, Error ellipse: s-maj=212.0km s-min=131.6km az=48.0, Western Kazakhstan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| I31KZ | AKTYUBINSK INF | 6.03 | 59 | *i* | | 11 41 50.0 | |
| | baz=246,slow=308,SNR=10 | | | | | | |
| I43RU | DUBNA INFRASON | 12.01 | 324 | *i* | | 12 23 40.0 | |
| | baz=134,slow=334,SNR=0.5 | | | | | | |
| I46RU | ZALESOVO INFRA | 22.79 | 61 | *i* | | 13 27 15.0 | |
| | baz=268,slow=318,SNR=5.8 | | | | | | |
| I34MN | SONGINO INFRAS | 37.28 | 68 | *i* | | 15 00 40.0 | |
| | baz=291,slow=339,SNR=0.5 | | | | | | |
| I45RU | USSURIYSK INFR | 54.64 | 61 | *i* | | 16 49 50.0 | |
| | baz=296,slow=332,SNR=1.1 | | | | | | |

*CSEM 07 11:31:37.3±0.5, 78.38°N×7.21°E, h5km, ML3.0, Error ellipse: s-maj=14.1km s-min=9.3km az=168.0*
*BER 07 11:31:41.5±1.8, 78.34°N×8.07°E, h0km±9km, ML2.8, ML3.0(NAO)*
*NAO 07 11:31:42.1±3.3, 78.37°N×8.51°E, h3km±18km, ML3.0*
*IDC 07 11:31:44.1±1.1, 78.26°N×9.12°E, h0km, mb3.5/5, mb1 3.8/6, mb1mx3.5/38, mbtmp3.6/6, ML2.7/1, MS3.5/1, Ms1 3.5/1, ms1mx2.5/31, Error ellipse: s-maj=18.9km s-min=12.4km az=33.0*
**ISC 07 11:31:41.9±2.6, 78.24°N±0.07×8.79°E±0.09, h1km±14km, n25, σ1.39/36, mb3.6/5, 2D, Svalbard region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KBS | Kingsbay | 0.93 | 41 | Pg | Pg | 11 31 58.9 | -0.8 |
| KBS | | | | Lg | Lg | 11 32 10.7 | |
| KBS | Kingsbay | 0.93 | 41 | ⇓*i*P | Pg | 11 31 58.9 | -0.8 |
| KBS | | | | *e*S | Sg | 11 32 10.6 | -1.2 |
| KBS | | | | IAML | | 11 32 13.1 | |
| | comp=Z,824nm,0.3s | | | | | | |
| KBS | Kingsbay | 0.93 | 41 | ⇓*i*P | Pg | 11 31 58.9 | -0.8 |
| | SNR=90 | | | | | | |
| KBS | | | | *e*S | Sg | 11 32 10.6 | -1.2 |
| | SNR=90 | | | | | | |
| BRBA | Barentsburg A | 1.14 | 96 | Pg | Pg | 11 32 04.7 | +1.1 |
| BRBA | | | | Lg | Lg | 11 32 21.3 | |
| | SNR=95 | | | | | | |
| SPA0 | Spitsbergen Ar | 1.56 | 89 | Pn | Pb | 11 32 11.2 | -0.3 |
| | baz=276,slow=10 | | | | | | |
| SPA0 | | | | Lg | Lg | 11 32 33.4 | |
| | baz=263,slow=28 | | | | | | |
| SPA0 | Spitsbergen Ar | 1.56 | 89 | *e*P | Pb | 11 32 11.2 | -0.3 |
| SPA0 | | | | *e*S | Sg | 11 32 33.1 | +1.2 |
| SPA0 | | | | IAML | | 11 32 34.9 | |
| | comp=Z,111nm,0.4s | | | | | | |
| SPA0 | Spitsbergen Ar | 1.56 | 89 | *e*P | Pb | 11 32 11.2 | -0.3 |
| | SNR=50 | | | | | | |
| SPA0 | | | | *e*S | Sg | 11 32 33.1 | +1.2 |
| | SNR=50 | | | | | | |
| SPITS | Spitsbergen Ar | 1.56 | 89 | Pn | Pb | 11 32 11.2 | -0.3 |
| | baz=281,slow=15,SNR=459 | | | | | | |
| SPITS | | | | LR | LR | 11 32 18.6 | |
| | comp=Z,48nm,20.6s,baz=250,slow=23 | | | | | | |
| SPITS | | | | Sn | Sg | 11 32 32.7 | +0.9 |
| | baz=258,slow=20,SNR=30 | | | | | | |
| HSP | Hornsund | 1.91 | 127 | Pn | Pn | 11 32 15.0 | -0.5 |
| HSP | | | | Sn | Sb | 11 32 41.3 | -0.5 |
| HSPB | Hornsund (broa | 1.91 | 127 | *e*P | Pn | 11 32 15.2 | -0.4 |
| HSPB | | | | *e*S | Sn | 11 32 39.7 | -0.5 |
| HSPB | | | | IAML | | 11 32 45.4 | |
| | comp=Z,66nm,0.4s | | | | | | |
| HSPB | Hornsund (broa | 1.91 | 127 | *e*P | Pn | 11 32 15.2 | -0.4 |
| | SNR=50 | | | | | | |
| HSPB | | | | *e*S | Sn | 11 32 39.7 | -0.5 |
| | SNR=50 | | | | | | |
| HSPB | | | | Sn | Sb | 11 32 41.3 | -0.5 |
| HOPEN | Hopen | 3.95 | 108 | Pn | Pn | 11 32 43.4 | -0.2 |
| HOPEN | | | | Sn | Sn | 11 33 30.6 | +0.1 |
| HOPEN | Hopen | 3.95 | 108 | *e*P | Pn | 11 32 43.7 | +0.1 |
| HOPEN | | | | *e*S | Sn | 11 33 30.1 | -0.3 |
| HOPEN | | | | IAML | | 11 33 31.1 | |
| | comp=Z,36nm,0.3s | | | | | | |
| HOPEN | Hopen | 3.95 | 108 | Pn | Pn | 11 32 43.3 | -0.2 |
| DAG | Danmarks Havn | 6.09 | 270 | *i*P | Pn | 11 33 03.2 | -10 |
| DAG | | | | *i*S | Sn | 11 34 02.5 | -21 |
| ARA0 | ARCESS Array S | 9.84 | 144 | Pn | Pn | 11 34 04.6 | +0.4 |
| | baz=343,slow=12 | | | | | | |
| ARA0 | | | | Sn | Sn | 11 35 51.5 | -3.6 |
| ARA0 | ARCESS Array S | 9.84 | 144 | Pn | Pn | 11 34 04.6 | +0.4 |
| | baz=343,slow=12 | | | | | | |
| ARA0 | | | | Sn | Sn | 11 35 51.5 | -3.6 |
| ARA0 | ARCESS Array S | 9.84 | 144 | Pn | Pn | 11 34 04.6 | +0.4 |
| ARCES | ARCESS Array B | 9.84 | 144 | Pn | Pn | 11 34 03.9 | -0.3 |
| | comp=Z,0.1nm,0.3s,baz=342,slow=12,SNR=4.4 | | | | | | |
| ARCES | | | | Sn | Sn | 11 35 51.0 | -4.1 |
| | comp=Z,0.2nm,0.3s,baz=328,slow=26,SNR=2.3 | | | | | | |
| ZALV | Zalesovo Beam | 35.04 | 87 | P | P | 11 38 36.3 | +0.7 |
| | comp=Z,0.5nm,0.5s,baz=330,slow=5.1,SNR=3.6 | | | | | | |
| ILAR | Eielson Array | 36.47 | 343 | P | P | 11 38 50.2 | +2.5 |
| | comp=Z,0.5nm,0.9s,baz=7.3,slow=6.1,SNR=5.1 | | | | | | |
| MKAR | Makanchi Array | 41.31 | 94 | P | P | 11 39 29.5 | +1.0 |
| | comp=Z,1.2nm,0.7s,baz=339,slow=6.2,SNR=6.0 | | | | | | |
| SONM | Songino Array | 45.17 | 70 | P | P | 11 39 59.8 | -0.1 |
| | comp=Z,0.4nm,0.7s,baz=356,slow=8.7,SNR=3.0 | | | | | | |
| TXAR | Lajitas Array | 65.88 | 298 | P | P | 11 42 32.6 | +3.7 |
| | comp=Z,0.3nm,0.8s,baz=23,slow=4.9,SNR=3.5 | | | | | | |
| ROSC | El Rosal | 83.88 | 264 | LR | LR | 12 22 25.4 | |
| | comp=Z,23nm,18.6s,baz=192,slow=36 | | | | | | |

**IDC 07 11:44:33.8±3.0, 5.35°S×133.51°E, h0km, mb3.5/1, mb1 3.8/4, mb1mx3.6/25, mbtmp3.6/4, ML3.5/3, Error ellipse: s-maj=124.9km s-min=29.1km az=82.0, Aru Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 14.53 | 177 | Pn | Pn | 11 48 00.1 | -0.8 |
| | 0.2nm,0.3s,baz=359,slow=13,SNR=16 | | | | | | |
| FITZ | Fitzroy Crossi | 14.82 | 211 | Pn | Pn | 11 48 03.7 | -1.2 |
| | 0.3nm,0.3s,baz=32,slow=8.4,SNR=8.9 | | | | | | |
| ASAR | Alice Springs | 18.21 | 179 | P | P | 11 48 49.3 | +0.7 |
| | 0.2nm,0.3s,baz=9.4,slow=13,SNR=14 | | | | | | |
| MKAR | Makanchi Array | 68.83 | 325 | P | P | 11 55 40.1 | 0.0 |
| | 0.4nm,0.6s,baz=123,slow=11,SNR=2.4 | | | | | | |

**IDC 07 11:47:16.4±2.8, 4.97°S×133.34°E, h0km, mb3.5/1, mb1 4.0/4, mb1mx3.7/25, mbtmp3.8/4, ML3.8/3, MS3.1/2, Ms1 3.1/2, ms1mx2.6/26, Error ellipse: s-maj=119.6km s-min=14.9km az=82.0, Irian Jaya region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 14.92 | 176 | Pn | Pn | 11 50 47.1 | -1.7 |
| | 0.3nm,0.3s,baz=355,slow=13,SNR=10 | | | | | | |
| WRA | | | | Sn | Sn | 11 53 27.4 | -7.4 |
| | 0.1nm,0.3s,baz=356,slow=24,SNR=3.7 | | | | | | |
| FITZ | Fitzroy Crossi | 15.07 | 209 | Pn | Pn | 11 50 50.4 | -0.3 |
| | 0.6nm,0.3s,baz=34,slow=15,SNR=12 | | | | | | |
| FITZ | | | | Sn | Sn | 11 53 35.3 | -3.2 |
| | 0.6nm,0.3s,baz=226,slow=20,SNR=5.9 | | | | | | |
| ASAR | Alice Springs | 18.60 | 178 | P | P | 11 51 34.4 | -1.1 |
| | 0.3nm,0.3s,baz=360,slow=12,SNR=18 | | | | | | |
| ASAR | | | | S | Sn | 11 55 05.8 | +1.6 |
| | 0.1nm,0.3s,baz=356,slow=28,SNR=3.4 | | | | | | |
| KSRS | Korea Array | 42.51 | 354 | LR | LR | 12 16 11.1 | |
| | comp=Z,13nm,18.0s,baz=90,slow=41 | | | | | | |
| YAK | Yakutsk | 66.87 | 358 | LR | LR | 12 28 37.2 | |
| | comp=Z,24nm,19.3s,baz=275,slow=37 | | | | | | |
| MKAR | Makanchi Array | 68.42 | 325 | P | P | 11 58 20.4 | +0.2 |
| | 0.4nm,0.8s,baz=108,slow=9.7,SNR=2.8 | | | | | | |

*ISK 07 11:53:31.4, 38.63°N×43.17°E, h7km, MD2.7*
*CSEM 07 11:53:32.4±0.5, 38.60°N×43.23°E, h10km, ML2.7, Error ellipse: s-maj=12.3km s-min=8.9km az=155.0*
*ATA 07 11:53:32.4±1.1, 38.65°N×43.04°E, h1km±4km, ML3.0, MW3.0*
*ISCJB 07 11:53:33.2±0.6, 38.58°N±0.04×43.26°E±0.05, h18km±9km, Error ellipse: s-maj=7.6km s-min=5.5km az=35.5*
*DDA 07 11:53:33.2, 38.62°N×43.26°E, h7km, Ml2.7*
**ISC 07 11:53:32.6±1.2, 38.62°N±0.03×43.20°E±0.03, h10km±11km, n30, σ0.90/39, 1C-1D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.15 | 101 | *e*PG | Pg | 11 53 36.3 | +0.3 |
| TVAN | Van | 0.18 | 121 | *i*P | Pg | 11 53 36.8 | +0.1 |
| TVAN | Van | 0.18 | 121 | P | Pg | 11 53 36.8 | +0.1 |
| GEVA | Gevas | 0.33 | 200 | ⇓*i*P | Pg | 11 53 39.9 | +0.6 |
| GEVA | | | | *e*S | Sb | 11 53 46.2 | 0.0 |
| GEVA | Gevas | 0.33 | 200 | *i*P | Pb | 11 53 40.1 | -0.6 |
| GEVA | Gevas | 0.33 | 200 | P | Pb | 11 53 40.1 | -0.6 |
| ADCV | BITLIS_Adilcev | 0.42 | 296 | *i*P | Pb | 11 53 42.0 | -0.3 |
| ADCV | | | | *i*S | Sb | 11 53 50.0 | +1.3 |
| ADCV | BITLIS_Adilcev | 0.42 | 296 | P | Pb | 11 53 42.0 | -0.3 |
| ADCV | | | | S | Sb | 11 53 50.0 | +1.3 |
| VMUR | Van-Muradiye | 0.47 | 38 | *i*P | Pb | 11 53 42.6 | -0.5 |
| VMUR | | | | *i*S | Sb | 11 53 50.9 | +0.8 |
| VMUR | Van-Muradiye | 0.47 | 38 | P | Pb | 11 53 42.6 | -0.5 |
| VMUR | | | | S | Sb | 11 53 50.9 | +0.8 |
| CLDR | Caldiran | 0.76 | 47 | *e*PG | Pg | 11 53 46.8 | -0.6 |
| CLDR | | | | *e*SG | Sb | 11 53 58.0 | -0.7 |
| CLDR | Caldiran | 0.76 | 47 | *i*P | Pb | 11 53 47.6 | -0.6 |
| CLDR | Caldiran | 0.76 | 47 | *e*Pg | Pg | 11 53 46.8 | -0.6 |
| CLDR | Caldiran | 0.76 | 47 | P | Pb | 11 53 47.6 | -0.6 |
| CLDR | | | | *e*Sg | Sb | 11 53 58.0 | -0.7 |
| TUTA | Tutak | 0.83 | 339 | ⇑*e*P | Pg | 11 53 48.6 | -0.2 |
| TUTA | | | | *e*S | Sb | 11 54 00.6 | -0.2 |
| TUTA | | | | IAML | | 11 54 03.6 | |
| | comp=Z,67nm,0.4s | | | | | | |
| TUTA | Tutak | 0.83 | 339 | *i*P | Pg | 11 53 48.8 | 0.0 |
| TUTA | Tutak | 0.83 | 339 | P | Pg | 11 53 48.8 | 0.0 |
| AGRB | Hanur-Agry | 0.96 | 350 | *e*PG | Pg | 11 53 50.1 | -1.2 |
| AGRB | Hanur-Agry | 0.96 | 350 | *e*Pg | Pg | 11 53 50.1 | -1.2 |
| EKAR | Karacoban | 1.09 | 306 | *e*P | Pg | 11 53 51.5 | -2.1 |
| EKAR | | | | IAML | | 11 53 58.5 | |
| | comp=Z,18nm,0.5s | | | | | | |
| EKAR | Karacoban | 1.09 | 306 | *i*P | Pn | 11 53 55.3 | +1.1 |
| EKAR | Karacoban | 1.09 | 306 | P | Pn | 11 53 55.3 | +1.1 |
| EATA | Eleskirt | 1.35 | 336 | *e*P | Pb | 11 53 58.2 | -0.1 |
| EATA | | | | *e*S | Sn | 11 54 18.0 | +1.8 |
| EATA | | | | IAML | | 11 54 22.2 | |
| | comp=Z,5.4nm,0.6s | | | | | | |
| EATA | Eleskirt | 1.35 | 336 | *i*P | Pg | 11 53 58.7 | 0.0 |
| EATA | Eleskirt | 1.35 | 336 | P | Pg | 11 53 58.7 | 0.0 |
| BNGL | BINGOL | 1.64 | 282 | *e*P | Pb | 11 54 02.7 | -0.3 |
| BNGL | | | | IAML | | 11 54 06.8 | |
| | comp=Z,36nm,0.4s | | | | | | |
| HOMI | Horasan | 1.74 | 325 | *e*P | Pn | 11 54 03.7 | +0.5 |
| DIGO | Kars | 1.79 | 4 | *e*P | Pg | 11 54 07.7 | +0.6 |
| DIGO | | | | IAML | | 11 54 19.2 | |
| | comp=Z,4.0nm,0.5s | | | | | | |
| BNGB | Bingˆ¶l | 2.01 | 281 | *e*PN | Pn | 11 54 06.1 | -0.6 |
| BINT | Bingol | 2.14 | 278 | *e*Pn | Pn | 11 54 06.1 | -2.4 |

*ISCJB 07 11:57:10.6±0.4, 18.24°N±0.03×120.28°E±0.04, h35km, mb4.1/13, MS3.8/2, Error ellipse: s-maj=6.4km s-min=4.1km az=147.9*
*MAN 07 11:57:11, 18.13°N×120.33°E, h15km, mb5.1, ML4.0, MS4.2*
*MAN INTENSITY III - PASUQUIN BATAC AND LAOAG ILOCOS NORTE.*
*NEIC 07 11:57:13.7±0.8, 18.20°N×120.61°E, h64km±10km, mb4.2/5, Error ellipse: s-maj=15.7km s-min=6.9km az=85.0*
*NEIC Felt [II PIVS] at Batac, Laoag and Pasuquin.*
*IDC 07 11:57:17.2±3.0, 18.05°N×120.60°E, h107km±31km, mb3.4/8, mb1 3.5/9, mb1mx3.3/43, mbtmp3.8/9, MS4.2/1, Ms1 4.2/1, ms1mx2.9/24, Error ellipse: s-maj=32.1km s-min=14.7km az=67.0*
**ISC 07 11:57:11.7±0.6, 18.17°N±0.04×120.31°E±0.06, h35km, n39, σ1.79/38, mb4.0/13, 1D, Luzon**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ABRA | Dolores | 0.65 | 144 | *e*P | Pn | 11 57 23.7 | -0.7 |
| ABRA | | | | *e*S | Sn | 11 57 33.4 | 0.0 |
| APYP | Conner | 0.94 | 109 | *e*P | Pn | 11 57 27.9 | -0.6 |
| APYP | | | | *e*S | Sn | 11 57 40.1 | -0.5 |
| CVP | Callao Caves | 1.51 | 108 | ⇓*i*P | Pn | 11 57 36.1 | -0.3 |
| CVP | | | | *i*S | Sn | 11 57 56.9 | +2.0 |
| SGCP | Mt. Cagua | 1.65 | 87 | *e*P | Pn | 11 57 38.4 | +0.2 |
| BOLP | Bolinao | 1.82 | 192 | *e*P | Pn | 11 57 40.6 | 0.0 |
| CAUP | Cauayan | 1.89 | 130 | *e*P | Pn | 11 57 43.8 | +2.3 |
| CAUP | | | | *e*S | Sn | 11 58 10.2 | +6.1 |
| SCZP | Santa Cruz | 2.41 | 189 | *e*P | Pn | 11 57 50.9 | +2.1 |
| BALP | Baler | 2.70 | 153 | *e*P | Pn | 11 57 54.5 | +1.8 |
| TGY | Tagaytay City | 4.09 | 171 | P | Pn | 11 58 16.6 | +4.6 |
| | 13nm,0.3s,baz=14,slow=4.2,SNR=2.8 | | | | | | |
| TWG | Pinlang | 4.68 | 9 | *e*Pn | Pn | 11 58 20.1 | +0.2 |
| TPUB | Ta-pu | 5.11 | 3 | *e*Pn | Pn | 11 58 26.4 | +0.6 |
| TPUB | | | | *e*Sn | Sn | 11 59 24.1 | +0.5 |
| YULB | Yu-li | 5.27 | 10 | *e*Pn | Pn | 11 58 28.7 | +0.6 |
| SSLB | Suanglung | 5.62 | 6 | *e*Pn | Pn | 11 58 33.5 | +0.6 |
| NACB | Ninganchiao | 6.09 | 11 | *e*Pn | Pn | 11 58 39.5 | +0.2 |
| YHNB | Yeheng | 6.54 | 9 | *e*Pn | Pn | 11 58 47.4 | +1.8 |
| QIZ | Qiongzhong | 9.96 | 277 | *e*Pn | Pn | 11 59 31.1 | -1.4 |
| DAV | Davao City (W) | 12.17 | 154 | *e*Pn | Pn | 12 00 01.9 | -0.9 |
| SBUM | Sibu | 17.52 | 208 | *e*Pn | Pn | 12 01 03.4 | -10 |
| CHTO | Chiang Mai | 20.28 | 275 | *e*P | P | 12 01 44.5 | 0.0 |
| | 7.0nm,1.4s | | | | | | |
| CM01 | Chiang Mai Arr | 20.28 | 274 | *e*P | Pn | 12 01 47.5 | +0.8 |
| CMAR | Chiang Mai Arr | 20.29 | 274 | P | Pn | 12 01 46.9 | +0.1 |
| | 1.3nm,0.5s,baz=93,slow=8.8,SNR=14 | | | | | | |
| KSAR | Wonju Array Be | 20.32 | 18 | P | P | 12 01 44.5 | -0.3 |
| KSRS | Korea Array | 20.34 | 18 | P | P | 12 01 44.5 | -0.5 |
| | 1.6nm,0.6s,baz=198,slow=11,SNR=5.2 | | | | | | |
| KS01 | Wonju Array Si | 20.35 | 18 | *e*P | P | 12 01 45.6 | +0.5 |
| BJT | Baijiatuau | 22.06 | 352 | *e*P | P | 12 02 03.8 | +0.3 |
| | 11nm,1.1s | | | | | | |
| MMRI | Maumere | 26.71 | 176 | *e*P | P | 12 02 37.3 | -11 |
| | 102nm,0.6s | | | | | | |
| SONM | Songino Array | 31.70 | 342 | P | P | 12 03 32.7 | +0.6 |
| | 0.7nm,0.7s,baz=162,slow=10.0,SNR=5.8 | | | | | | |
| WMQ | Urumqi | 37.48 | 320 | P | P | 12 04 26.0 | +3.9 |
| WMQ | | | | pP | pP | 12 04 33.5 | +1.2 |
| WMQ | | | | sP | sP | 12 04 39.7 | +3.1 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,20nm,0.7s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,220nm,4.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,51nm,18.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,67nm,15.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,53nm,17.3s | | | | | | |
| PALK | Pallekele | 40.04 | 259 | LR | LR | 12 22 14.5 | |
| | comp=Z,291nm,18.8s,baz=26,slow=37 | | | | | | |
| WRAB | Tennant Creek | 40.30 | 159 | P | P | 12 04 43.3 | -2.5 |
| | comp=Z,0.3nm,0.3s | | | | | | |
| WRA | Warramunga Arr | 40.30 | 159 | P | P | 12 04 41.7 | -4.1 |
| | comp=Z,0.3nm,0.5s,baz=341,slow=9.0,SNR=11 | | | | | | |
| MKAR | Makanchi Array | 42.28 | 321 | P | P | 12 05 02.5 | +0.5 |
| | comp=Z,2.7nm,0.8s,baz=109,slow=10,SNR=9.6 | | | | | | |
| ASAR | Alice Springs | 43.65 | 162 | P | P | 12 05 10.2 | -3.0 |
| | comp=Z,0.4nm,0.3s,baz=337,slow=7.2,SNR=10 | | | | | | |
| ZAA0 | Zalesovo Array | 44.96 | 331 | *e*P | P | 12 05 23.2 | -0.1 |
| | comp=Z,1.9nm,0.8s | | | | | | |
| ZALV | Zalesovo Beam | 44.96 | 331 | P | P | 12 05 23.4 | +0.1 |
| | comp=Z,1.9nm,0.7s,baz=126,slow=7.9,SNR=10.0 | | | | | | |
| ZALV | Zalesovo Beam | 44.96 | 331 | *e*P | P | 12 05 23.1 | -0.2 |
| KURK | Kurchatov | 46.32 | 324 | *e*P | P | 12 05 34.3 | +0.2 |
| | comp=Z,6.6nm,0.8s | | | | | | |
| BRVK | Borovoye | 51.99 | 324 | *e*P | P | 12 06 18.1 | +0.6 |
| | comp=Z,3.3nm,0.9s | | | | | | |
| BRTR | Keskin Array B | 76.12 | 308 | P | P | 12 08 55.6 | -0.8 |
| | comp=Z,0.5nm,0.6s,baz=155,slow=4.4,SNR=3.0 | | | | | | |

**IDC 07 12:02:47.9±1.8, 28.02°N×137.00°E, h0km, mb3.6/3, mb1 3.8/4, mb1mx3.5/46, mbtmp3.6/4, ML3.6/1, Error ellipse: s-maj=76.8km s-min=25.1km az=78.0, Bonin Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MJAR | Matsushiro Arr | 8.56 | 7 | Pn | Pn | 12 04 52.7 | -0.4 |
| | 0.6nm,0.3s,baz=177,slow=12,SNR=6.3 | | | | | | |
| MKAR | Makanchi Array | 46.34 | 309 | P | P | 12 11 15.7 | 0.0 |
| | 1.1nm,1.0s,baz=103,slow=8.0,SNR=3.7 | | | | | | |
| WRA | Warramunga Arr | 47.75 | 183 | P | P | 12 11 27.2 | +0.4 |
| | 0.4nm,0.3s,baz=0.7,slow=7.7,SNR=9.0 | | | | | | |
| ASAR | Alice Springs | 51.47 | 184 | P | P | 12 11 54.4 | -0.8 |
| | 0.3nm,0.5s,baz=1.5,slow=6.4,SNR=5.9 | | | | | | |

*IDC 07 12:04:17.9±2.9, 2.53°N×95.55°E, h0km, mb3.9/5, mb1 4.1/6, mb1mx3.7/52, mbtmp3.9/6, ML4.0/1, MS2.7/1, Ms1 2.7/1, ms1mx2.4/44, Error ellipse: s-maj=109.6km s-min=21.9km az=61.0*
*DJA 07 12:04:19.5±1.9, 3°N±4°×9°6E±1°0, h11km±9km, M4.2/6, mB4.6/1, mb4.5/2, MLv4.0/6, Mw(mB)3.7/1*
**ISC 07 12:04:22.6±1.3, 2.72°N±0.07×95.8°E±0.1, h25km, n18, σ0.73/13, mb3.9/5, Off west coast of northern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SNSI | Sinabang, Aceh | 0.61 | 120 | P | Pn | 12 04 35.4 | -0.2 |
| SNSI | | | | S | Sn | 12 04 46.4 | +1.7 |
| MLSI | Meulaboh, Aceh | 1.65 | 21 | P | Pn | 12 04 50.1 | +0.1 |
| MLSI | | | | S | Sb | 12 05 13.1 | +0.4 |
| KCSI | Kotacane, Aceh | 2.12 | 68 | P | Pb | 12 04 59.3 | -1.1 |
| GSI | Gunungsitoli | 2.26 | 128 | P | Pn | 12 04 58.8 | +0.4 |
| PBSI | Pulau Batu | 3.71 | 138 | P | Pn | 12 05 17.6 | -0.7 |
| PALK | Pallekele | 15.70 | 287 | LR | LR | 12 12 14.5 | |
| | comp=Z,31nm,20.9s,baz=116,slow=31 | | | | | | |
| CMAR | Chiang Mai Arr | 15.94 | 11 | Pn | P | 12 08 08.8 | 0.0 |
| | 0.2nm,0.3s,baz=198,slow=11,SNR=20 | | | | | | |
| H08S2 | Diego Garcia H | 25.43 | 246 | T | T | 12 35 50.9 | |
| | baz=67,slow=76,SNR=63 | | | | | | |
| H08S3 | Diego Garcia H | 25.43 | 246 | T | T | 12 35 51.5 | |
| | baz=67,slow=76,SNR=91 | | | | | | |
| H08S1 | Diego Carcia H | 25.45 | 246 | T | T | 12 35 52.2 | |
| | baz=67,slow=76,SNR=93 | | | | | | |
| H01W3 | Cape Leeuwin H | 41.18 | 157 | T | T | 12 55 44.6 | |
| | baz=332,slow=76,SNR=27 | | | | | | |
| H01W2 | Cape Leeuwin H | 41.19 | 157 | T | T | 12 55 45.6 | |
| | baz=332,slow=76,SNR=36 | | | | | | |
| H01W1 | Cape Leeuwin H | 41.19 | 157 | T | T | 12 55 46.6 | |
| | baz=332,slow=76,SNR=26 | | | | | | |
| WRA | Warramunga Arr | 44.02 | 122 | P | P | 12 12 28.2 | -0.4 |
| | 0.3nm,0.4s,baz=300,slow=9.3,SNR=5.2 | | | | | | |
| ASAR | Alice Springs | 45.42 | 127 | P | P | 12 12 39.9 | +0.2 |
| | 0.4nm,0.6s,baz=300,slow=8.5,SNR=5.2 | | | | | | |
| MKAR | Makanchi Array | 45.45 | 347 | P | P | 12 12 39.9 | +0.3 |
| | 2.1nm,0.5s,baz=155,slow=8.6,SNR=25 | | | | | | |
| SONM | Songino Array | 45.87 | 10 | P | P | 12 12 42.9 | 0.0 |
| | 0.9nm,0.6s,baz=190,slow=9.2,SNR=6.8 | | | | | | |
| ZALV | Zalesovo Beam | 51.85 | 352 | P | P | 12 13 28.8 | +0.2 |
| | 1.7nm,0.5s,baz=182,slow=7.0,SNR=9.5 | | | | | | |

**KRSC 07 12:07:45.9±0.9, 50.74°N×157.77°E, h48km±13km, ML3.7, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SKR | Severo-Kuril's | 1.05 | 268 | *i*P | Pn | 12 08 04.7 | +0.5 |
| SKR | | | | *i*S | Sn | 12 08 18.3 | +0.6 |
| KDTR | Khodutka, Kamc | 1.09 | 10 | *e*P | Pn | 12 08 06.2 | +1.5 |
| KDTR | | | | *e*S | Sn | 12 08 20.4 | +1.7 |
| ASAK | Asacha | 1.65 | 3 | *e*P | Pn | 12 08 14.6 | +2.1 |
| RUS | Russkaya | 1.76 | 15 | *e*P | Pn | 12 08 15.5 | +1.6 |
| RUS | | | | *e*S | Sn | 12 08 37.1 | +2.0 |
| MTVR | Mutnovka | 1.77 | 8 | *e*P | Pn | 12 08 16.1 | +2.0 |
| MTVR | | | | *e*S | Sn | 12 08 38.0 | +2.5 |
| GRL | Gorelyy | 1.83 | 6 | *e*P | Pn | 12 08 17.4 | +2.5 |
| KRMR | Karymshinskiy | 2.11 | 6 | *e*P | Pn | 12 08 21.6 | +3.0 |
| KRMR | | | | *e*S | Sn | 12 08 47.3 | +3.7 |
| APC | Apacha | 2.22 | 350 | *i*P | Pn | 12 08 23.4 | +3.2 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| PET | Petropavlovsk | 2.35 | 13 | eP | Pn | 12 08 24.5 | +2.5 |
| PET | | | | eS | Sn | 12 08 52.4 | +2.7 |
| DALK | Dalny | 2.38 | 15 | eP | Pn | 12 08 24.7 | +2.4 |
| DALK | | | | eS | Sn | 12 08 52.8 | +2.6 |
| UGLR | Uglovaya | 2.56 | 14 | i P | Pn | 12 08 28.0 | +3.0 |
| AVH | Avacha | 2.60 | 13 | eP | Pn | 12 08 29.1 | +3.6 |
| KOK | Koryaka | 2.62 | 12 | eP | Pn | 12 08 28.9 | +3.2 |
| SDLR | Sedlovina | 2.64 | 15 | eP | Pn | 12 08 28.5 | +2.5 |
| KRER | Koryakskii | 2.64 | 13 | eP | Pn | 12 08 29.3 | +3.2 |
| KRX | Arik | 2.68 | 11 | eP | Pn | 12 08 30.4 | +3.8 |
| SPN | Mys Shipunski | 2.75 | 30 | eP | Pn | 12 08 30.4 | +3.0 |
| GNL | Ganaly | 2.96 | 2 | eP | Pn | 12 08 34.1 | +3.6 |
| KBTR | Krutoberegovo | 6.25 | 27 | eP | Pn | 12 09 19.5 | +4.0 |

*JMA **07** 12:14:27.8±0.1, 24.°48N×121.°77E, h66km±2km, M2.9*
*ISCJB **07** 12:14:28.4±0.4, 24.°52N±0.°02×121.°83E±0.°02, h67km±4km, Error ellipse: s-maj=4.3km s-min=2.6km az=147.5*
*TAP **07** 12:14:28.2, 24.°51N×121.°77E, h67km, ML3.5, C*
**ISC 07 12:14:29.0**±1.2, **24.°51N**±0.°03×**121.°82E**±0.°03, **h64**km±6km, **n55**, σ**0.s97**/94, **2D, Taiwan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TWC | Suao | 0.10 | 14 | ⇓iP | Pn | 12 14 38.8 | +0.2 |
| | baz=38 | | | | | | |
| TWC | | | | S | Sn | 12 14 46.4 | +1.0 |
| | baz=38 | | | | | | |
| ENA | Nanau | 0.11 | 222 | i P | Pn | 12 14 38.4 | -0.1 |
| | baz=194 | | | | | | |
| ENA | | | | eS | Sn | 12 14 46.1 | +0.7 |
| | baz=194 | | | | | | |
| TWE | Neicheng | 0.25 | 326 | i P | Pn | 12 14 39.2 | 0.0 |
| | baz=330 | | | | | | |
| TWE | | | | S | Sn | 12 14 47.4 | +0.8 |
| | baz=330 | | | | | | |
| ILA | Ilan | 0.26 | 345 | i P | Pn | 12 14 40.0 | +0.7 |
| | baz=348 | | | | | | |
| ILA | | | | eS | Sn | 12 14 48.4 | +1.7 |
| | baz=348 | | | | | | |
| ENTT | Nioudou | 0.27 | 299 | i P | Pn | 12 14 39.1 | -0.2 |
| | baz=306 | | | | | | |
| ENTT | | | | eS | Sn | 12 14 47.0 | +0.3 |
| | baz=306 | | | | | | |
| NNS | Nan Shan | 0.41 | 260 | ⇓P | Pn | 12 14 40.4 | -0.2 |
| | baz=255 | | | | | | |
| NNS | | | | S | Sn | 12 14 48.6 | -0.4 |
| | baz=255 | | | | | | |
| NSK | Sanguang | 0.45 | 291 | i P | Pn | 12 14 40.2 | -0.7 |
| | baz=295 | | | | | | |
| NSK | | | | eS | Sn | 12 14 48.3 | -1.2 |
| | baz=295 | | | | | | |
| TWD | Chiawan | 0.48 | 206 | i P | Pn | 12 14 40.1 | -0.9 |
| | baz=208 | | | | | | |
| TWD | | | | eS | Sn | 12 14 48.9 | -0.9 |
| | baz=208 | | | | | | |
| TWA | Mucha | 0.52 | 335 | eP | Pn | 12 14 40.9 | -0.6 |
| | baz=332 | | | | | | |
| TWA | | | | eS | Sn | 12 14 50.1 | -0.4 |
| | baz=332 | | | | | | |
| TWB1 | Santiao Chiao | 0.52 | 17 | i P | Pn | 12 14 41.6 | +0.1 |
| | baz=31 | | | | | | |
| TWB1 | | | | S | Sn | 12 14 51.3 | +0.8 |
| | baz=31 | | | | | | |
| NWF | Wu-fen Shan | 0.56 | 356 | P | Pn | 12 14 42.0 | 0.0 |
| | baz=352 | | | | | | |
| NWF | | | | S | Sn | 12 14 51.7 | +0.2 |
| | baz=352 | | | | | | |
| HWA | Hwalien | 0.57 | 200 | eS | Sn | 12 14 51.9 | +0.4 |
| | baz=205 | | | | | | |
| TAP1 | Taipei | 0.59 | 333 | eS | Sn | 12 14 51.1 | -0.8 |
| | baz=328 | | | | | | |
| TAP | Taipei | 0.60 | 331 | eS | Sn | 12 14 51.5 | -0.6 |
| | baz=328 | | | | | | |
| TWT | Tachien | 0.64 | 247 | i P | Pn | 12 14 43.4 | +0.4 |
| | baz=241 | | | | | | |
| TWT | | | | S | Sn | 12 14 53.2 | -0.1 |
| | baz=241 | | | | | | |
| TWS1 | Kuangyinshan | 0.69 | 328 | i P | Pn | 12 14 43.1 | -0.3 |
| | baz=326 | | | | | | |
| TWS1 | | | | eS | Sn | 12 14 53.9 | -0.1 |
| | baz=326 | | | | | | |
| NCU | National Centr | 0.74 | 308 | eS | Sn | 12 14 54.1 | -0.7 |
| | baz=302 | | | | | | |
| NSTT | Nanjuang | 0.76 | 279 | eP | Pn | 12 14 43.7 | -0.5 |
| | baz=280 | | | | | | |
| NSTT | | | | eS | Sn | 12 14 54.4 | -0.9 |
| | baz=280 | | | | | | |
| ESL | Shilin | 0.78 | 207 | eP | Pn | 12 14 43.0 | -1.5 |
| | baz=203 | | | | | | |
| ESL | | | | eS | Sn | 12 14 53.9 | -1.9 |
| | baz=203 | | | | | | |
| TWY | Chenhua | 0.79 | 345 | eP | Pn | 12 14 44.4 | -0.2 |
| | baz=340 | | | | | | |
| TWY | | | | eS | Sn | 12 14 56.6 | +0.6 |
| | baz=340 | | | | | | |
| HSN | Hsinchu | 0.83 | 291 | eS | Sn | 12 14 55.5 | -1.4 |
| | baz=295 | | | | | | |
| TWQ1 | Liyutan | 0.97 | 261 | eP | Pn | 12 14 46.5 | -0.3 |
| | baz=261 | | | | | | |
| TWQ1 | | | | eS | Sn | 12 14 59.4 | -0.6 |
| | baz=261 | | | | | | |
| NSY | Sanyi | 0.97 | 265 | eP | Pn | 12 14 46.6 | -0.2 |
| | baz=265 | | | | | | |
| NSY | | | | eS | Sn | 12 14 59.8 | -0.3 |
| | baz=265 | | | | | | |
| JYNG | Yonagunijimaku | 1.02 | 93 | P | Pn | 12 14 47.2 | -0.3 |
| JYNG | | | | S | Sn | 12 15 01.4 | +0.1 |
| SMLT | Sun Moon Lake | 1.05 | 234 | eP | Pn | 12 14 48.1 | +0.1 |
| | baz=228 | | | | | | |
| SMLT | | | | eS | Sn | 12 15 03.0 | +1.0 |
| | baz=228 | | | | | | |
| TYC | Yuchr | 1.07 | 236 | eP | Pn | 12 14 48.0 | -0.1 |
| | baz=231 | | | | | | |
| TYC | | | | eS | Sn | 12 15 02.7 | +0.4 |
| | baz=231 | | | | | | |
| YOJ | Yonaguni jima | 1.08 | 92 | P | Pn | 12 14 48.1 | -0.2 |
| YOJ | | | | S | Sn | 12 15 02.4 | -0.2 |
| EHY | Hungye | 1.10 | 205 | eP | Pn | 12 14 46.5 | -2.0 |
| | baz=202 | | | | | | |
| PCYT | Pengchaiyu | 1.14 | 11 | P | Pn | 12 14 49.2 | +0.2 |
| | baz=14 | | | | | | |
| PCYT | | | | eS | Sn | 12 15 04.8 | +0.9 |
| | baz=14 | | | | | | |
| WNT | Mingjian | 1.22 | 239 | eP | Pn | 12 14 50.2 | +0.2 |
| | baz=250 | | | | | | |
| WNT | | | | eS | Sn | 12 15 06.3 | +0.6 |
| | baz=250 | | | | | | |
| TWF1 | Yuli | 1.25 | 203 | eP | Pn | 12 14 48.3 | -2.2 |
| | baz=204 | | | | | | |
| YUS | Yu-Shan | 1.29 | 218 | eP | Pn | 12 14 51.6 | +0.1 |
| | baz=208 | | | | | | |
| YUS | | | | eS | Sn | 12 15 08.4 | +0.2 |
| | baz=208 | | | | | | |
| ALS | Alishan | 1.36 | 223 | eP | Pn | 12 14 53.0 | +0.8 |
| | baz=234 | | | | | | |
| ALS | | | | eS | Sn | 12 15 11.2 | +1.5 |
| | baz=234 | | | | | | |
| CHN5 | Tsauling | 1.39 | 229 | eP | Pn | 12 14 52.6 | +0.2 |
| | baz=239 | | | | | | |
| CHN5 | | | | eS | Sn | 12 15 10.7 | +0.8 |
| | baz=239 | | | | | | |
| WGK | Gukeng | 1.41 | 235 | eP | Pn | 12 14 53.0 | +0.4 |
| | baz=246 | | | | | | |
| WGK | | | | eS | Sn | 12 15 11.3 | +0.9 |
| | baz=246 | | | | | | |
| ELDTW | Lidau | 1.51 | 209 | P | Pn | 12 14 53.7 | -0.3 |
| | baz=199 | | | | | | |
| ELDTW | | | | eS | Sn | 12 15 12.1 | -0.7 |
| | baz=199 | | | | | | |
| WTCT | Ta-ch'eng | 1.55 | 246 | eS | Sn | 12 15 12.6 | -1.0 |
| | baz=254 | | | | | | |
| CHN4 | Tsaushan | 1.61 | 224 | P | Pn | 12 14 56.9 | +1.6 |
| | baz=235 | | | | | | |
| CHY | Chiayi | 1.63 | 232 | eS | Sn | 12 15 17.8 | +2.3 |
| | baz=243 | | | | | | |
| STYT | Tauyuan | 1.66 | 216 | eP | Pn | 12 14 56.2 | +0.2 |
| | baz=205 | | | | | | |
| STYT | | | | eS | Sn | 12 15 19.1 | +2.7 |
| | baz=205 | | | | | | |
| WTP | Ta-pu | 1.68 | 222 | eP | Pn | 12 14 57.0 | +0.7 |
| | baz=233 | | | | | | |
| WTP | | | | eS | Sn | 12 15 17.7 | +0.9 |
| | baz=233 | | | | | | |
| WSF | Szhu | 1.70 | 240 | eS | Sn | 12 15 16.9 | -0.3 |
| | baz=240 | | | | | | |
| TWK | Hsinying | 1.74 | 225 | eP | Pn | 12 14 57.1 | 0.0 |
| | baz=238 | | | | | | |
| TWK | | | | eS | Sn | 12 15 19.4 | +1.0 |
| | baz=238 | | | | | | |
| IRIF | Iriomote-Funau | 1.75 | 95 | P | Pn | 12 14 56.7 | -0.4 |
| IRIF | | | | S | Sn | 12 15 18.3 | -0.1 |
| CHN1 | Nanshi | 1.77 | 222 | eP | Pn | 12 14 57.5 | 0.0 |
| | baz=235 | | | | | | |
| CHN1 | | | | eS | Sn | 12 15 20.7 | +1.6 |
| | baz=235 | | | | | | |
| TWG | Pinlang | 1.82 | 202 | eS | Sn | 12 15 18.4 | -1.8 |
| | baz=191 | | | | | | |
| SGST | Jiashian | 1.82 | 219 | eS | Sn | 12 15 19.9 | -0.3 |
| | baz=231 | | | | | | |
| JKRS | Kuro-shima | 2.01 | 97 | P | Pn | 12 15 00.1 | -0.6 |
| JKRS | | | | S | Sn | 12 15 25.1 | +0.3 |
| SSD | Sandimen | 2.07 | 212 | eP | Pn | 12 15 03.6 | +2.1 |
| | baz=211 | | | | | | |
| SSD | | | | eS | Sn | 12 15 28.0 | +1.8 |
| | baz=211 | | | | | | |
| JIJ | Ishigaki jima | 2.12 | 93 | P | Pn | 12 15 01.7 | -0.5 |
| JIJ | | | | S | Sn | 12 15 26.7 | -0.8 |
| JISG | Ishigakijimahi | 2.27 | 88 | P | Pn | 12 15 03.8 | -0.3 |
| JISG | | | | eS | Sn | 12 15 30.3 | -0.7 |
| PNG | Penghu | 2.27 | 246 | eS | Sn | 12 15 28.0 | -3.3 |
| | baz=248 | | | | | | |
| EAST | Anshuo | 2.30 | 203 | eP | Pn | 12 15 05.0 | +0.4 |
| | baz=195 | | | | | | |
| EAST | | | | eS | Sn | 12 15 32.6 | +0.7 |
| | baz=195 | | | | | | |
| JTJ | Tarama | 2.62 | 87 | P | Pn | 12 15 09.5 | +0.5 |
| KNM | Kinmen | 3.09 | 269 | eP | Pn | 12 15 15.3 | 0.0 |
| | baz=269 | | | | | | |

*KRNET **07** 12:14:42.8±0.1, 40.°09N×76.°64E, mb3.3*
*SOME **07** 12:14:44.2, 40.°28N×76.°57E, h0km*
*NNC **07** 12:14:45.5±1.9, 40.°32N×76.°50E, h0km, mb3.7, mpv3.3, Error ellipse: s-maj=17.5km s-min=9.7km az=137.0*
**ISC 07 12:14:47.1**±1.3, **40.°32N**±0.°06×**76.°45E**±0.°03, **h10**km, **n41**, σ**1.s73**/67, **21C-16D, Kyrgyzstan-Xinjiang border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ULHL | Ulahol | 1.93 | 355 | ⇑iP | Pb | 12 15 21.7 | -0.8 |
| | baz=352 | | | | | | |
| ULHL | | | | ⇑iS | Sg | 12 15 49.4 | +0.2 |
| | baz=352 | | | | | | |
| ULHL | Ulahol | 1.93 | 355 | P | Pb | 12 15 21.4 | -1.1 |
| | SNR=13 | | | | | | |
| BOOM | Boomskoye usch | 2.20 | 350 | ⇓iP | Pb | 12 15 25.4 | -1.7 |
| | baz=348 | | | | | | |
| BOOM | | | | ⇓iS | Sg | 12 15 57.4 | -0.5 |
| | baz=348 | | | | | | |
| SFK | Sufi-Kurgan | 2.28 | 263 | ⇑iP | Pn | 12 15 25.7 | +0.7 |
| | baz=269 | | | | | | |
| SFK | | | | ⇑iS | Sb | 12 15 56.6 | -0.2 |
| | baz=269 | | | | | | |
| SFK | Sufi-Kurgan | 2.28 | 263 | ⇑Pn | Pn | 12 15 25.2 | +0.1 |
| | 4.3nm,0.4s | | | | | | |
| SFK | | | | ⇑Lg | Lg | 12 15 57.6 | |
| | 23nm,0.4s | | | | | | |
| UCH | Uchtor | 2.40 | 323 | ⇑iP | Pb | 12 15 29.7 | -1.0 |
| | baz=324 | | | | | | |
| UCH | | | | ⇑iS | Sg | 12 16 03.9 | -0.4 |
| | baz=324 | | | | | | |
| UCH | Uchtor | 2.40 | 323 | P | Pb | 12 15 29.9 | -0.8 |
| | SNR=38 | | | | | | |
| KBK | Karagaybulak | 2.59 | 335 | P | Pg | 12 15 36.2 | -0.6 |
| | SNR=17 | | | | | | |
| PRZ | Przheval'sk | 2.61 | 34 | ⇑iP | Pn | 12 15 30.1 | +0.6 |
| | baz=29 | | | | | | |
| PRZ | | | | ⇑iS | Sb | 12 16 04.2 | -2.1 |
| | baz=29 | | | | | | |
| TKM2 | Tokmak 2 | 2.67 | 346 | ⇓iP | Pb | 12 15 32.9 | -2.3 |
| | baz=345 | | | | | | |
| TKM2 | | | | ⇓iS | Sb | 12 16 08.8 | +0.6 |
| | baz=345 | | | | | | |
| TKM2 | Tokmak 2 | 2.67 | 346 | ⇓Pn | Pb | 12 15 32.6 | -2.7 |
| | 3.7nm,0.3s | | | | | | |
| TKM2 | | | | ⇓Lg | Lg | 12 16 11.2 | |
| | 14nm,0.4s | | | | | | |
| TKM2 | Tokmak 2 | 2.67 | 346 | P | Pb | 12 15 32.7 | -2.5 |
| | SNR=19 | | | | | | |
| TNSS | Tian-Shan | 2.74 | 8 | eP | Pb | 12 15 36.4 | 0.0 |
| | 47nm,0.5s | | | | | | |
| TNSS | | | | eS | Sg | 12 16 14.2 | -0.9 |
| | 30nm,0.6s | | | | | | |
| AAK | Ala-Archa | 2.74 | 328 | ⇑iP | Pb | 12 15 34.3 | -2.0 |
| | baz=328 | | | | | | |
| AAK | | | | ⇑iS | Sb | 12 16 12.0 | +1.9 |
| | baz=328 | | | | | | |
| AAK | Ala-Archa | 2.74 | 328 | ⇓Pg | Pb | 12 15 34.1 | -2.2 |
| | 30nm,0.8s | | | | | | |
| AAK | | | | ⇑Lg | Lg | 12 16 13.1 | |
| | 26nm,0.6s | | | | | | |
| AAK | Ala-Archa | 2.74 | 328 | P | Pb | 12 15 35.8 | -0.6 |
| | SNR=13 | | | | | | |
| KST | Kastek | 2.74 | 353 | eP | Pb | 12 15 35.5 | -0.9 |
| | 3.7nm,0.3s | | | | | | |
| KST | | | | eS | Sb | 12 16 12.2 | +2.1 |
| | 16nm,0.7s | | | | | | |
| AML | Almayashu | 2.75 | 312 | ⇑iP | Pb | 12 15 35.3 | -1.4 |
| | baz=313 | | | | | | |
| AML | | | | ⇑iS | Sb | 12 16 13.2 | +2.5 |
| | baz=313 | | | | | | |
| AML | Almayashu | 2.75 | 312 | P | Pb | 12 15 33.9 | -2.8 |
| | SNR=8.4 | | | | | | |
| MTBS | Maitube | 2.81 | 360 | eP | Pb | 12 15 37.5 | +0.1 |
| | 11nm,0.3s | | | | | | |
| MTBS | | | | eS | Sg | 12 16 15.7 | -1.6 |
| | 10nm,0.4s | | | | | | |
| ARSB | Arslanbob | 2.82 | 292 | ⇓iP | Pn | 12 15 33.3 | +1.0 |
| | baz=295 | | | | | | |
| ARSB | | | | ⇓iS | Sb | 12 16 11.1 | -1.1 |
| | baz=295 | | | | | | |
| MDOK | Medeo | 2.87 | 9 | eP | Pb | 12 15 38.4 | -0.2 |
| | 30nm,0.5s | | | | | | |
| MDOK | | | | eS | Sg | 12 16 17.2 | -2.3 |
| | 24nm,0.6s | | | | | | |
| KNDC | Almaty | 2.92 | 7 | ⇓Pg | Pb | 12 15 39.0 | -0.3 |
| | 20nm,0.4s | | | | | | |
| KNDC | | | | ⇑Lg | Lg | 12 16 18.1 | |
| | 65nm,0.7s | | | | | | |
| KOTS | Kotyrbulak | 2.95 | 9 | eP | Pb | 12 15 39.9 | 0.0 |
| KOTS | | | | eS | Sg | 12 16 19.8 | -2.1 |
| CHMS | Chumysh | 2.96 | 335 | P | Pb | 12 15 37.2 | -2.9 |
| | SNR=6.5 | | | | | | |
| DGS | Degeres | 2.96 | 350 | eP | Pb | 12 15 41.0 | +1.0 |
| | 44nm,0.7s | | | | | | |
| DGS | | | | eS | Sg | 12 16 21.7 | -0.5 |
| | 36nm,0.6s | | | | | | |
| EKS2 | Erkin-Say | 3.08 | 320 | P | Pb | 12 15 38.9 | -3.2 |
| | SNR=6.9 | | | | | | |
| SATY | Saty | 3.10 | 28 | eP | Pb | 12 15 41.2 | -1.3 |
| | 32nm,0.5s | | | | | | |
| SATY | | | | eS | Sb | 12 16 22.3 | +1.9 |
| | 21nm,0.4s | | | | | | |
| USP | Ospenovka | 3.29 | 334 | ⇑iP | Pb | 12 15 41.8 | -3.7 |
| | baz=334 | | | | | | |
| USP | | | | ⇑iS | Sb | 12 16 24.4 | -1.2 |
| | baz=334 | | | | | | |
| USP | Ospenovka | 3.29 | 334 | P | Pg | 12 15 50.8 | +0.8 |
| | SNR=6.6 | | | | | | |
| KTBS | Karatobe | 3.39 | 3 | eP | Pb | 12 15 49.1 | +1.7 |
| KTBS | | | | eS | Sg | 12 16 35.7 | -0.3 |
| UZB | Uzynbulak | 3.42 | 33 | eP | Pb | 12 15 47.0 | -0.8 |
| | 2.1nm,0.5s | | | | | | |
| UZB | | | | eS | Sb | 12 16 32.2 | +2.8 |
| | 9.4nm,0.7s | | | | | | |
| MRKS | Merke | 3.42 | 316 | eP | Pb | 12 15 48.6 | +0.7 |
| | 6.7nm,0.2s | | | | | | |
| MRKS | | | | eS | Sg | 12 16 35.4 | -1.7 |
| | 14nm,0.4s | | | | | | |
| CHKK | Chushkaly | 3.55 | 6 | eP | Pb | 12 15 49.1 | -0.9 |
| | 7.4nm,0.5s | | | | | | |
| CHKK | | | | eS | Sb | 12 16 36.1 | +2.9 |
| | 19nm,0.7s | | | | | | |
| KPKS | Kokpek | 3.56 | 27 | eP | Pb | 12 15 48.9 | -1.3 |
| | 21nm,0.4s | | | | | | |
| KPKS | | | | eS | Sb | 12 16 36.0 | +2.5 |
| | 58nm,0.7s | | | | | | |
| KUU | Kurty | 3.57 | 359 | eP | Pb | 12 15 50.8 | +0.4 |
| | 2.8nm,0.4s | | | | | | |
| KUU | | | | eS | Sg | 12 16 38.4 | -3.3 |
| | 16nm,0.7s | | | | | | |
| SHLS | Shalkode | 3.62 | 38 | eP | Pg | 12 15 54.4 | -2.0 |
| | 5.8nm,0.4s | | | | | | |
| SHLS | | | | eS | Sg | 12 16 44.7 | +1.4 |
| | 18nm,0.5s | | | | | | |
| MNAS | Manas | 3.67 | 307 | ⇑Pn | Pn | 12 15 44.2 | +0.1 |
| | 1.4nm,0.4s | | | | | | |
| MNAS | | | | ⇓Pg | Pb | 12 15 54.6 | +2.4 |
| | 3.0nm,0.5s | | | | | | |
| MNAS | | | | ⇓Lg | Lg | 12 16 44.6 | |
| | 4.8nm,0.6s | | | | | | |
| PDGK | Podgornoye | 3.77 | 36 | ⇓eP | Pn | 12 15 45.8 | +0.4 |
| | baz=32 | | | | | | |
| PDGK | | | | ⇓iS | Sn | 12 16 32.1 | +2.3 |
| | baz=32 | | | | | | |
| PDGK | Podgornoye | 3.77 | 36 | ⇓Pg | Pb | 12 15 51.7 | -2.1 |
| | 5.4nm,0.6s | | | | | | |
| PDGK | | | | ⇑Lg | Lg | 12 16 41.7 | |
| | 18nm,0.7s | | | | | | |
| KK31 | Karatay Array | 5.24 | 304 | ⇑Pg | Pb | 12 16 21.0 | +2.2 |
| | 2.7nm,0.8s,baz=126,slow=16,SNR=13 | | | | | | |
| KK31 | | | | ⇓Lg | Lg | 12 17 32.5 | |
| | 1.5nm,0.5s,baz=126,slow=26,SNR=4.0 | | | | | | |

*IDC **07** 12:15:49.8±0.8, 5.°23S×140.°44E, h0km, mb4.2/7, mb1 4.3/10, mb1mx4.0/37, mbtmp4.2/10, ML4.1/3, MS2.9/3, Ms1 2.9/3, ms1mx2.7/26, Error ellipse: s-maj=25.9km s-min=15.6km az=66.0*
*ISCJB **07** 12:15:52.8±0.4, 5.°45S±0.°03×140.°30E±0.°06, h33km, mb4.2/10, Error ellipse: s-maj=8.2km s-min=4.3km az=12.1*
*DJA **07** 12:15:52.5±0.3, 5°S±2°×14°0E±°, h10km, M4.9/7, mB5.0/1, mb4.6/7, MLv5.0/2, Mw(mB)4.4/1*
*NEIC **07** 12:15:55.0±0.4, 5.°31S×140.°33E, h35km, mb4.7/5, Error ellipse: s-maj=11.4km s-min=7.1km az=63.0*
**ISC 07 12:15:54.2**±0.6, **5.°49S**±0.°05×**140.°28E**±0.°06, **h35**km, **n27**, σ**2.s28**/36, **mb4.3**/10, **Irian Jaya**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GENI | Genyem | 2.88 | 358 | P | Pn | 12 16 34.9 | -2.7 |
| GENI | | | | S | Sn | 12 17 12.0 | +1.0 |
| JAY | Jayapura | 2.98 | 8 | P | Pn | 12 16 37.5 | -1.6 |
| JAY | | | | S | Sn | 12 17 12.6 | -1.1 |
| PMG | Port Moresby | 7.85 | 120 | Pn | Pn | 12 17 47.0 | +1.0 |
| | 1.4nm,0.3s,baz=303,slow=8.8,SNR=4.1 | | | | | | |
| PMG | | | | Sn | Sn | 12 19 10.2 | -3.5 |
| | 10.0nm,0.3s,baz=17,slow=9.3,SNR=15 | | | | | | |
| PMG | | | | Lg | Lg | 12 19 58.4 | |
| | 16nm,0.3s,baz=147,slow=23,SNR=11 | | | | | | |
| PMG | | | | LR | LR | 12 21 02.7 | |
| | comp=Z,50nm,20.3s,baz=38,slow=40 | | | | | | |
| FAKI | Fak Fak | 8.41 | 287 | P | Pn | 12 17 53.4 | -0.2 |
| COEN | Coen | 8.89 | 162 | ePn | Pn | 12 18 02.8 | +2.6 |
| | 10nm,0.7s | | | | | | |
| COEN | | | | eSn | Sn | 12 19 38.0 | -1.2 |
| WRAB | Tennant Creek | 15.48 | 201 | ePn | Pn | 12 19 31.5 | +1.5 |
| | 25nm,0.5s | | | | | | |
| WRAB | | | | eSn | Sn | 12 22 14.4 | -6.0 |
| WRA | Warramunga Arr | 15.49 | 201 | Pn | Pn | 12 19 29.8 | -0.3 |
| | 0.6nm,0.3s,baz=13,slow=13,SNR=24 | | | | | | |
| WRA | | | | Sn | Sn | 12 22 22.6 | +1.9 |
| | 0.4nm,0.3s,baz=17,slow=22,SNR=4.8 | | | | | | |
| WRA | | | | Lg | Lg | 12 24 12.1 | |
| | 1.0nm,0.3s,baz=26,slow=24,SNR=6.6 | | | | | | |
| WRA | | | | LR | LR | 12 26 19.4 | |
| | comp=Z,57nm,20.8s,baz=265,slow=40 | | | | | | |
| CTA | Charters Tower | 15.63 | 159 | Pn | P | 12 19 36.1 | +0.4 |
| | 0.2nm,0.3s,baz=334,slow=14,SNR=11 | | | | | | |
| CTA | | | | Lg | Lg | 12 24 13.6 | |
| | 0.1nm,0.3s,baz=236,slow=9.5,SNR=3.3 | | | | | | |
| CTAO | Charters Tower | 15.63 | 159 | ePn | P | 12 19 35.2 | -0.5 |
| | 78nm,0.9s | | | | | | |
| SOEI | Soe | 16.43 | 254 | P | Pn | 12 19 39.2 | -3.1 |
| | 45nm,0.9s | | | | | | |
| SOEI | Soe | 16.43 | 254 | ePn | P | 12 19 44.5 | -0.2 |
| | 36nm,0.8s | | | | | | |
| SOEI | | | | eSn | Sn | 12 22 45.1 | +1.4 |
| FITZ | Fitzroy Crossi | 19.02 | 228 | P | Pn | 12 20 14.9 | +0.7 |
| | 0.5nm,0.3s,baz=74,slow=6.1,SNR=16 | | | | | | |
| FITZ | | | | S | Sn | 12 23 41.4 | -4.9 |
| | 1.6nm,0.3s,baz=191,slow=15,SNR=6.6 | | | | | | |
| ASAR | Alice Springs | 19.09 | 198 | P | Pn | 12 20 17.7 | +2.7 |
| | 1.0nm,0.3s,baz=27,slow=7.7,SNR=38 | | | | | | |
| ASAR | | | | S | Sn | 12 23 42.7 | -5.3 |
| | 0.1nm,0.3s,baz=14,slow=29,SNR=5.1 | | | | | | |
| ASAR | | | | Lg | Lg | 12 26 07.3 | |
| | 0.3nm,0.3s,baz=14,slow=31,SNR=4.2 | | | | | | |
| ASAR | | | | LR | LR | 12 26 57.9 | |
| | comp=Z,57nm,19.6s,baz=32,slow=34 | | | | | | |
| HNR | Honiara | 19.89 | 103 | P | Pn | 12 20 27.3 | +2.8 |
| | 3.1nm,0.3s,baz=239,slow=5.2,SNR=4.6 | | | | | | |
| STKA | Stephens Creek | 26.28 | 177 | P | P | 12 21 28.9 | +2.4 |
| | 1.7nm,0.6s,baz=329,slow=10,SNR=5.8 | | | | | | |
| PHRA | Phrae | 46.12 | 302 | P | P | 12 24 17.1 | +1.6 |
| | 11nm,2.3s,0.3nm | | | | | | |
| CMAR | Chiang Mai Arr | 47.19 | 301 | P | P | 12 24 25.1 | +1.3 |
| | 3.8nm,0.7s,baz=118,slow=6.1,SNR=26 | | | | | | |
| CHTO | Chiang Mai | 47.35 | 302 | eP | P | 12 24 25.5 | +0.5 |
| | 11nm,1.4s | | | | | | |
| MKAR | Makanchi Array | 72.93 | 322 | P | P | 12 27 21.0 | +1.0 |
| | 5.1nm,0.8s,baz=106,slow=8.9,SNR=7.2 | | | | | | |
| ZALV | Zalesovo Beam | 75.11 | 330 | P | P | 12 27 32.1 | -0.4 |
| | 1.1nm,0.7s,baz=141,slow=5.0,SNR=4.4 | | | | | | |
| KURK | Kurchatov | 76.88 | 325 | P | P | 12 27 43.3 | +0.6 |
| KURBB | Kurchatov Arra | 76.89 | 325 | P | P | 12 27 43.3 | +0.6 |
| | 0.9nm,0.5s,baz=118,slow=4.6,SNR=6.2 | | | | | | |
| BVAR | Borovoye Array | 82.47 | 325 | P | P | 12 28 14.3 | +1.2 |
| | 1.7nm,0.6s,baz=121,slow=7.9,SNR=9.6 | | | | | | |
| BRVK | Borovoye | 82.54 | 325 | eP | P | 12 28 13.2 | -0.2 |
| | 6.1nm,0.9s | | | | | | |
| ILAR | Eielson Array | 87.70 | 24 | P | P | 12 28 37.6 | -1.4 |
| | 1.6nm,0.9s,baz=257,slow=4.6,SNR=12 | | | | | | |
| LPAZ | La Paz | 144.53 | 128 | PKP | PKPdf | 12 35 28.9 | +0.1 |
| | 2.0nm,0.8s,baz=280,slow=1.9,SNR=6.9 | | | | | | |
| DBIC | Dimbokro | 145.32 | 274 | PKPbc | PKPdf | 12 35 30.4 | +0.9 |
| | 2.2nm,0.6s,baz=75,slow=2.8,SNR=5.4 | | | | | | |

*IDC **07** 12:20:32.5±6.3, 42.°30N×99.°06E, h0km, mb4.0/2, mb1 3.9/6, mb1mx3.5/55, mbtmp3.9/6, ML3.5/4, MS2.9/1, Ms1 2.9/1, ms1mx2.4/45, Error ellipse: s-maj=111.1km s-min=36.9km az=169.0*
*OBM **07** 12:20:38.3±0.1, 43.°06N×98.°77E, h2km, Ml3.8/1, Error ellipse: s-maj=3.1km s-min=1.4km az=15.0*
**ISC 07 12:20:39.1**±1.1, **43.°18N**±0.°07×**98.°85E**±0.°05, **h10**km, **n28**, σ**3.s41**/36, **Mongolia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DZBM | | 4.16 | 79 | ePn | Pn | 12 21 43.9 | +1.1 |
| DZBM | | 4.16 | 79 | ePg | Pb | 12 21 54.9 | +2.5 |
| DZBM | | | | eSg | Sg | 12 22 49.5 | -3.1 |
| TTS | Tsetserleg | 4.67 | 22 | ePn | Pn | 12 21 53.1 | +3.3 |
| TTS | Tsetserleg | 4.67 | 22 | ePg | Pb | 12 22 02.6 | +1.5 |
| TTS | | | | eSg | Sg | 12 23 07.3 | -1.6 |
| | 382nm,0.4s | | | | | | |
| TSC | Tosontsengel | 5.60 | 356 | ePn | Pn | 12 22 05.5 | +2.9 |
| TSC | Tosontsengel | 5.60 | 356 | ePg | Pg | 12 22 24.6 | -1.8 |
| TSC | | | | eSg | Sb | 12 23 32.9 | +8.6 |
| | 386nm,0.4s | | | | | | |
| BLGM | Bulgan | 6.48 | 29 | ePn | Pn | 12 22 16.9 | +2.3 |
| BLGM | Bulgan | 6.48 | 29 | ePg | Pb | 12 22 38.9 | +6.9 |
| BLGM | | | | eSg | Sg | 12 24 03.0 | -4.1 |
| | 329nm,0.6s | | | | | | |
| HBD | Hovd | 6.99 | 316 | ePn | Pn | 12 22 25.1 | +3.6 |
| HBD | Hovd | 6.99 | 316 | ePg | Pb | 12 22 46.2 | +5.7 |
| HBD | | | | eSg | Sg | 12 24 19.9 | -3.3 |
| SONA0 | Songino Array | 7.05 | 46 | ePn | Pn | 12 22 24.6 | +2.2 |
| SONA0 | | | | eSg | Sg | 12 24 20.3 | -4.9 |
| | 126nm,0.8s | | | | | | |
| SONM | Songino Array | 7.05 | 46 | Pn | Pn | 12 22 24.6 | +2.2 |
| | 3.3nm,0.3s,baz=226,slow=15,SNR=64 | | | | | | |
| SONM | | | | Lg | Lg | 12 24 22.8 | |
| | 8.8nm,0.3s,baz=224,slow=32,SNR=8.1 | | | | | | |
| SEMM | | 7.20 | 50 | ePn | Pn | 12 22 26.6 | +2.0 |
| SEMM | | | | eSg | Sg | 12 24 27.3 | -2.9 |
| HTG | Hatgal | 7.33 | 7 | ePn | Pn | 12 22 30.7 | +4.3 |
| HTG | Hatgal | 7.33 | 7 | ePg | Pg | 12 22 58.1 | -1.4 |
| HTG | | | | eSg | Sg | 12 24 30.2 | -4.2 |
| | 291nm,0.7s | | | | | | |
| ALFM | | 7.35 | 46 | ePn | Pn | 12 22 28.5 | +1.9 |
| ALFM | | | | eSg | Sg | 12 24 29.3 | -5.5 |
| | 88nm,0.7s | | | | | | |
| UGDM | | 7.48 | 51 | ePn | Pn | 12 22 30.3 | +1.9 |
| UGDM | | | | eSg | Sg | 12 24 35.5 | -3.7 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| | 49nm,0.6s | | | | | | |
| ARTM | | 7.58 | 48 | ePn | Pn | 12 22 31.6 | +1.9 |
| ARTM | | | | eSg | Sg | 12 24 38.5 | -3.6 |
| | 71nm,0.6s | | | | | | |
| ULG | Ulaangom | 8.23 | 328 | ePn | Pn | 12 22 41.8 | +3.2 |
| ULG | Ulaangom | 8.23 | 328 | ePg | Pg | 12 23 10.0 | -6.6 |
| ULG | | | | eSg | Sg | 12 24 55.3 | -7.8 |
| | 97nm,1.0s | | | | | | |
| BYO | Bayan-Olgiy | 8.46 | 316 | ePn | Pn | 12 22 45.3 | +3.5 |
| BYO | Bayan-Olgiy | 8.46 | 316 | ePg | Pg | 12 23 13.6 | -7.3 |
| BYO | | | | eSg | Sg | 12 25 10.6 | +0.2 |
| | 39nm,0.6s | | | | | | |
| TLY | Talaya | 9.10 | 19 | LR | LR | 12 26 37.9 | |
| | comp=Z,63nm,18.5s,baz=140,slow=37 | | | | | | |
| MKAR | Makanchi Array | 12.27 | 293 | Pn | Pn | 12 23 33.4 | -0.5 |
| | 0.1nm,0.3s,baz=100,slow=15,SNR=6.2 | | | | | | |
| MKAR | | | | Sn | Sn | 12 25 44.3 | -6.3 |
| | 0.2nm,0.3s,baz=96,slow=22,SNR=3.1 | | | | | | |
| ZALV | Zalesovo Beam | 14.19 | 324 | Pn | P | 12 24 05.7 | -1.9 |
| | 0.7nm,0.3s,baz=133,slow=11,SNR=15 | | | | | | |
| ZALV | | | | Lg | Lg | 12 28 33.9 | |
| | 0.1nm,0.3s,baz=140,slow=30,SNR=4.0 | | | | | | |
| KURBB | Kurchatov Arra | 15.72 | 305 | Pn | P | 12 24 24.6 | +0.1 |
| | 0.1nm,0.3s,baz=106,slow=11,SNR=10.0 | | | | | | |
| KURBB | | | | Lg | Lg | 12 29 04.7 | |
| | 0.1nm,0.3s,baz=112,slow=28,SNR=6.7 | | | | | | |
| BVAR | Borovoye Array | 21.27 | 307 | P | P | 12 25 26.5 | +1.0 |
| | 3.7nm,0.6s,baz=107,slow=11,SNR=18 | | | | | | |
| AKASG | Malin Array Be | 46.51 | 305 | P | P | 12 29 06.2 | -0.1 |
| | 1.2nm,0.4s,baz=59,slow=7.9,SNR=4.5 | | | | | | |

**IDC 07 12:31:19.3±9.0, 16°.42S×174°.12W, h170km±227km, mb3.6/3, mb1 3.8/4, mb1mx3.3/31, mbtmp4.1/4, ML4.0/1, Error ellipse: s-maj=314.9km s-min=97.7km az=106.0, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AFI | Afiamalu | 3.37 | 42 | P | Pn | 12 32 13.0 | +0.9 |
| | 17nm,0.3s,baz=206,slow=3.6,SNR=49 | | | | | | |
| AFI | | | | S | Sn | 12 32 53.3 | +0.1 |
| | 37nm,0.3s,baz=50,slow=22,SNR=22 | | | | | | |
| STKA | Stephens Creek | 42.94 | 241 | P | P | 12 39 01.1 | -0.4 |
| | 0.8nm,0.4s,baz=68,slow=11,SNR=5.5 | | | | | | |
| WRA | Warramunga Arr | 48.95 | 258 | P | P | 12 39 48.6 | 0.0 |
| | 0.6nm,0.6s,baz=95,slow=7.0,SNR=5.3 | | | | | | |
| ASAR | Alice Springs | 49.15 | 253 | P | P | 12 39 50.1 | -0.1 |
| | 6.1nm,0.6s,baz=87,slow=8.7,SNR=58 | | | | | | |

*ISCJB 07 12:32:35.1±1.1, 2°.6N±0°.2×128°.6E±0°.3, h150km, mb3.9/6, Error ellipse: s-maj=46.5km s-min=10.6km az=152.8*
*IDC 07 12:32:37.0±9.9, 2°.61N×128°.57E, h152km±93km, mb3.7/7, mb1 3.8/7, mb1mx3.5/39, mbtmp4.1/7, Error ellipse: s-maj=71.7km s-min=14.4km az=62.0*
**ISC 07 12:32:36.7±1.2, 2°.6N±0°.2×128°.6E±0°.3, h150km, n14, σ0s.40/15, mb4.0/6, Halmahera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| FITZ | Fitzroy Crossi | 20.79 | 188 | P | P | 12 37 05.6 | -0.6 |
| | 1.3nm,0.4s,baz=7.5,slow=9.0,SNR=12 | | | | | | |
| WRA | Warramunga Arr | 23.11 | 166 | P | P | 12 37 29.6 | -0.1 |
| | 8.0nm,0.6s,baz=344,slow=10,SNR=119 | | | | | | |
| ASAR | Alice Springs | 26.63 | 169 | P | P | 12 38 01.7 | +0.3 |
| | 1.1nm,0.4s,baz=349,slow=7.4,SNR=50 | | | | | | |
| ASAR | | | | PcP | PcP | 12 41 21.3 | -0.5 |
| | 0.4nm,0.5s,baz=353,slow=2.4,SNR=7.1 | | | | | | |
| CMAR | Chiang Mai Arr | 33.04 | 301 | P | P | 12 38 58.7 | +0.6 |
| | 1.2nm,0.5s,baz=100,slow=6.6,SNR=8.4 | | | | | | |
| STKA | Stephens Creek | 36.45 | 161 | P | P | 12 39 27.8 | +0.5 |
| | 2.8nm,0.3s,baz=334,slow=8.8,SNR=24 | | | | | | |
| TAPN | Taplejung | 46.17 | 306 | eP | P | 12 40 46.7 | -0.3 |
| | 9.0nm,0.9s | | | | | | |
| ODAN | Odare | 46.23 | 305 | eP | P | 12 40 47.4 | +0.1 |
| | 11nm,0.6s | | | | | | |
| RAMN | Ramite | 46.91 | 305 | eP | P | 12 40 52.8 | +0.1 |
| | 12nm,0.6s | | | | | | |
| JIRN | Jiri | 47.53 | 306 | eP | P | 12 40 57.5 | -0.1 |
| | 57nm,0.5s | | | | | | |
| GUN | Gumba | 47.88 | 306 | eP | P | 12 41 00.2 | -0.1 |
| | 14nm,0.7s | | | | | | |
| SONM | Songino Array | 48.96 | 340 | P | P | 12 41 08.1 | +0.2 |
| | 0.2nm,0.4s,baz=150,slow=9.3,SNR=4.6 | | | | | | |
| KOLN | Koldanda | 49.68 | 305 | eP | P | 12 41 13.7 | -0.2 |
| | 9.2nm,0.5s | | | | | | |
| PYUN | Piuthan | 50.31 | 305 | eP | P | 12 41 18.6 | 0.0 |
| | 9.5nm,0.4s | | | | | | |
| MKAR | Makanchi Array | 59.53 | 325 | P | P | 12 42 23.7 | -0.6 |
| | 1.8nm,0.6s,baz=116,slow=8.2,SNR=26 | | | | | | |

**IDC 07 12:54:17.6±26.0, 19°.49S×174°.29W, h0km, mb4.2/4, mb1 4.3/4, mb1mx3.9/26, mbtmp4.2/4, Error ellipse: s-maj=485.8km s-min=151.7km az=74.0, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CTA | Charters Tower | 37.07 | 262 | P | P | 13 01 30.7 | +0.9 |
| | 2.2nm,0.4s,baz=93,slow=9.5,SNR=7.2 | | | | | | |
| STKA | Stephens Creek | 41.36 | 244 | P | P | 13 02 05.8 | +0.2 |
| | 1.1nm,0.5s,baz=80,slow=11,SNR=5.0 | | | | | | |
| ASAR | Alice Springs | 48.15 | 255 | P | P | 13 02 59.2 | -0.7 |
| | 2.9nm,0.6s,baz=98,slow=7.7,SNR=54 | | | | | | |
| WRA | Warramunga Arr | 48.20 | 260 | P | P | 13 02 59.7 | -0.6 |
| | 0.8nm,0.3s,baz=97,slow=7.8,SNR=68 | | | | | | |

**GCMT 07 13:08:08.0±0.3, 41°.31S×90°.63W, h12km, MW4.9/77, Moment Tensor Solution. s16,c19; s77,c94; Duration: 0 Moment tensor: Scale $10^{16}$Nm;** $M_{rr}$-0.12±.12; $M_{\theta\theta}$0.11±.11; $M_{\phi\phi}$0.01±.11; $M_{r\theta}$0.02±.30; $M_{\theta\phi}$-2.64±.08; $M_{\phi r}$1.29±.30; **Best double couple:** $M_0$2.94000×$10^{16}$ **NP1:**$\phi_s$179.00000°, δ88.00000°, λ-26.00000°. **NP2:**$\phi_s$270.00000°, δ64.00000°, λ-178.00000°. **Principal axes:** T 2.9700, Plg17.0000°, Azm227.0000°; N -0.0590, Plg64.0000°, Azm356.0000°; P -2.9100, Plg19.0000°, Azm131.0000°; **nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Southeast of Easter Island**

*ISCJB 07 13:33:20.0±0.5, 39°.59N±0°.03×28°.89E±0°.04, h1km±9km Error ellipse: s-maj=4.9km s-min=4.5km az=137.5*
*ISK 07 13:33:19.3, 39°.58N×28°.89E, h4km, MD2.6*
*DDA 07 13:33:20.0, 39°.64N×28°.86E, h7km, Ml2.6*
*CSEM 07 13:33:20.3±0.1, 39°.59N×28°.89E, h5km, MD2.6, Error ellipse: s-maj=3.1km s-min=2.7km az=118.0*
**ISC 07 13:33:20.5±1.0, 39°.61N±0°.03×28°.89E±0°.02, h9km±9km, n34, σ0s.48/44, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DST | Dursunbey | 0.21 | 268 | ePG | Pg | 13 33 24.3 | -0.4 |
| DST | | | | eSG | Sg | 13 33 28.0 | +0.4 |
| DST | Dursunbey | 0.21 | 268 | ePg | Pg | 13 33 24.3 | -0.4 |
| DST | | | | eSg | Sg | 13 33 28.0 | +0.4 |
| TVSB | Tavsanli | 0.47 | 110 | ePG | Pg | 13 33 29.0 | -0.7 |
| TVSB | | | | eSG | Sg | 13 33 35.9 | 0.0 |
| TVSB | Tavsanli | 0.47 | 110 | ePg | Pg | 13 33 29.0 | -0.7 |
| TVSB | | | | eSg | Sg | 13 33 35.9 | 0.0 |
| DEMI | Demirci | 0.58 | 193 | i P | Pg | 13 33 31.7 | 0.0 |
| DEMI | Demirci | 0.58 | 193 | P | Pg | 13 33 31.7 | 0.0 |
| GDZ | Gediz | 0.70 | 138 | i P | Pg | 13 33 33.9 | 0.0 |
| GDZ | Gediz | 0.70 | 138 | P | Pg | 13 33 33.9 | 0.0 |
| BALB | Balikesir | 0.78 | 273 | ePG | Pg | 13 33 35.4 | 0.0 |
| BALB | Balikesir | 0.78 | 273 | ePg | Pg | 13 33 35.4 | 0.0 |
| STEP | BALIKESIR_Sava | 0.93 | 256 | i P | Pg | 13 33 37.8 | -0.6 |
| STEP | BALIKESIR_Sava | 0.93 | 256 | P | Pg | 13 33 37.8 | -0.6 |
| CAVI | Cavuskoy | 0.94 | 51 | ePG | Pg | 13 33 38.5 | -0.1 |
| CAVI | | | | eSG | Sb | 13 33 52.3 | +0.6 |
| CAVI | Cavuskoy | 0.94 | 51 | ePg | Pg | 13 33 38.5 | -0.1 |
| CAVI | | | | eSg | Sb | 13 33 52.3 | +0.6 |
| ARMT | Armutlu | 0.95 | 359 | ePG | Pg | 13 33 38.0 | -0.8 |
| ARMT | | | | eSG | Sn | 13 33 53.3 | -0.6 |
| ARMT | Armutlu | 0.95 | 359 | ePg | Pg | 13 33 38.0 | -0.8 |
| ARMT | | | | eSg | Sn | 13 33 53.3 | -0.6 |
| BALY | Balya | 0.99 | 278 | i P | Pb | 13 33 39.8 | 0.0 |
| BALY | Balya | 0.99 | 278 | P | Pb | 13 33 39.8 | 0.0 |
| SBT5 | Esenkoy-Cinarc | 1.02 | 360 | ePG | Pg | 13 33 40.2 | +0.1 |
| SBT5 | Esenkoy-Cinarc | 1.02 | 360 | ePg | Pg | 13 33 40.2 | +0.1 |
| YLV | Yalova | 1.03 | 21 | ePG | Pg | 13 33 39.6 | -0.6 |
| YLV | | | | eSG | Sn | 13 33 55.5 | -0.2 |
| YLV | Yalova | 1.03 | 21 | ePg | Pg | 13 33 39.6 | -0.6 |
| YLV | | | | eSg | Sn | 13 33 55.5 | -0.2 |
| ADVT | Abdulvahap | 1.05 | 38 | ePG | Pb | 13 33 40.9 | 0.0 |
| ADVT | Abdulvahap | 1.05 | 38 | ePg | Pb | 13 33 40.9 | 0.0 |
| KULA | Kula-Manisa | 1.11 | 189 | ePG | Pg | 13 33 40.6 | -1.1 |
| KULA | Kula-Manisa | 1.11 | 189 | ePg | Pg | 13 33 40.6 | -1.1 |
| MANT | Manisa | 1.15 | 193 | i P | Pg | 13 33 42.1 | -0.4 |
| MANT | Manisa | 1.15 | 193 | P | Pg | 13 33 42.1 | -0.4 |
| KHAL | Karahalli | 1.32 | 159 | i P | Pg | 13 33 46.0 | +0.1 |
| KHAL | Karahalli | 1.32 | 159 | P | Pg | 13 33 46.0 | +0.1 |
| SBT3 | Marmara-Eregli | 1.45 | 332 | ePN | Pb | 13 33 47.9 | +0.3 |
| SBT3 | Marmara-Eregli | 1.45 | 332 | ePn | Pb | 13 33 47.9 | +0.3 |
| GULT | Gulveren | 1.50 | 56 | ePN | Pn | 13 33 47.8 | +0.2 |
| GULT | Gulveren | 1.50 | 56 | ePn | Pn | 13 33 47.8 | +0.2 |

*ATA 07 13:35:55.2±0.7, 38°.65N×43°.18E, h5km±229km, ML2.5, MW2.9*
*DDA 07 13:35:56.0, 38°.66N×43°.17E, h7km, Ml2.7*
*CSEM 07 13:35:55.5±0.2, 38°.62N×43°.15E, h10km, ML2.7, Error ellipse: s-maj=5.9km s-min=4.5km az=32.0*
*ISCJB 07 13:35:56.3±0.6, 38°.64N±0°.03×43°.14E±0°.05, h7km±11km, Error ellipse: s-maj=6.9km s-min=5.7km az=4.7*
**ISC 07 13:35:55.9±0.9, 38°.62N±0°.03×43°.17E±0°.03, h15km±8km, n23, σ0s.49/34, 1D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.17 | 99 | ePG | Pg | 13 35 60.0 | -0.3 |
| VANB | | | | eSG | Sb | 13 36 04.4 | +0.2 |
| VANB | Van | 0.17 | 99 | ePg | Pg | 13 36 00.0 | -0.3 |
| VANB | | | | eSg | Sb | 13 36 04.4 | +0.2 |
| TVAN | Van | 0.21 | 117 | i P | Pg | 13 36 00.3 | -0.5 |
| TVAN | | | | i S | Sg | 13 36 04.5 | +0.4 |
| TVAN | Van | 0.21 | 117 | P | Pg | 13 36 00.3 | -0.5 |
| TVAN | | | | S | Sg | 13 36 04.5 | +0.4 |
| GEVA | Gevas | 0.32 | 196 | ⇓eP | Pg | 13 36 02.3 | -0.4 |
| GEVA | | | | IAML | | 13 36 03.2 | |
| | comp=Z,66nm,0.5s | | | | | | |
| GEVA | | | | eS | Sb | 13 36 08.8 | +0.2 |
| GEVA | Gevas | 0.32 | 196 | i P | Pg | 13 36 02.5 | -0.2 |
| GEVA | | | | i S | Sb | 13 36 09.2 | +0.6 |
| GEVA | Gevas | 0.32 | 196 | P | Pg | 13 36 02.5 | -0.2 |
| ADCV | BITLIS_Adilcev | 0.40 | 298 | i P | Pg | 13 36 04.1 | +0.1 |
| ADCV | BITLIS_Adilcev | 0.40 | 298 | P | Pg | 13 36 04.1 | +0.1 |
| VMUR | Van-Muradiye | 0.48 | 40 | i P | Pg | 13 36 05.8 | +0.2 |
| VMUR | | | | i S | Sb | 13 36 14.3 | +1.1 |
| VMUR | Van-Muradiye | 0.48 | 40 | P | Pg | 13 36 05.8 | +0.2 |
| VMUR | | | | S | Sb | 13 36 14.3 | +1.1 |
| CLDR | Caldiran | 0.78 | 48 | ePG | Pg | 13 36 10.5 | -0.7 |
| CLDR | Caldiran | 0.78 | 48 | ePg | Pg | 13 36 10.5 | -0.7 |
| TUTA | Tutak | 0.83 | 340 | eP | Pg | 13 36 11.6 | -0.4 |
| TUTA | | | | eS | Sb | 13 36 23.7 | +0.5 |
| TUTA | | | | IAML | | 13 36 26.0 | |
| | comp=Z,19nm,0.2s | | | | | | |
| TUTA | Tutak | 0.83 | 340 | i P | Pg | 13 36 11.8 | -0.3 |
| TUTA | Tutak | 0.83 | 340 | P | Pg | 13 36 11.8 | -0.3 |
| AGRB | Hanur-Agry | 0.96 | 352 | ePG | Pg | 13 36 13.8 | -0.8 |
| AGRB | Hanur-Agry | 0.96 | 352 | ePg | Pg | 13 36 13.8 | -0.8 |
| EKAR | Karacoban | 1.07 | 307 | i P | Pb | 13 36 16.1 | -0.2 |
| EKAR | Karacoban | 1.07 | 307 | P | Pb | 13 36 16.1 | -0.2 |
| EATA | Eleskirt | 1.35 | 337 | eP | Pb | 13 36 21.1 | 0.0 |
| EATA | | | | IAML | | 13 36 44.2 | |
| | comp=Z,1.3nm,0.5s | | | | | | |
| EATA | Eleskirt | 1.35 | 337 | i P | Pn | 13 36 20.5 | 0.0 |
| EATA | | | | i S | Sg | 13 36 39.1 | -0.3 |
| EATA | Eleskirt | 1.35 | 337 | P | Pn | 13 36 20.5 | 0.0 |
| EATA | | | | S | Sg | 13 36 39.1 | -0.3 |

*BJI 07 13:38:22.8, 1°.78S×126°.86E, h25km, mb5.5/84, mB5.7/78, Ms5.6/92, Ms7 5.3/84*
*IDC 07 13:38:24.2±0.3, 1°.42S×126°.50E, h0km, mb5.4/31, mb1 5.4/33, mb1mx5.3/37, mbtmp5.4/33, ML5.1/2, MS5.1/24, Ms1 5.1/24, ms1mx5.0/38, Error ellipse: s-maj=13.6km s-min=7.7km az=68.0*
*ISCJB 07 13:38:26.6±0.5, 1°.41S±0°.02×126°.55E±0°.02, h28km±3km, mb5.8/247, MS5.6/448, Error ellipse: s-maj=3.0km s-min=2.4km az=141.9*
*NEIC 07 13:38:27.0±0.0, 1°.35S×126°.59E, h25km, Moment Tensor Solution. s38 Moment tensor: Scale $10^{17}$Nm; $M_{rr}$-5.99; $M_{\theta\theta}$0.39; $M_{\phi\phi}$5.60; $M_{r\theta}$-3.16; $M_{\theta\phi}$-3.19; $M_{\phi r}$0.20; Best double couple: $M_0$7.30000×$10^{17}$ NP1:$\phi_s$132.00000°, δ56.00000°, λ-118.00000°. NP2:$\phi_s$357.00000°, δ43.00000°, λ-54.00000°. Principal axes: T 7.3000, Plg7.0000°, Azm242.0000°; N 0.0700, Plg23.0000°, Azm149.0000°; P -7.3800, Plg65.0000°, Azm348.0000°;*
*GCMT 07 13:38:28.1±0.1, 1°.45S×126°.49E, h19km, MW5.8/145, Moment Tensor Solution. s137,c267; s145,c408; Duration: 2s.0 Moment tensor: Scale $10^{17}$Nm; $M_{rr}$-6.01±.06; $M_{\theta\theta}$0.45±.05; $M_{\phi\phi}$5.56±.06; $M_{r\theta}$-0.65±.12; $M_{\theta\phi}$-3.08±.04; $M_{\phi r}$-1.14±.12; Best double couple: $M_0$6.66000×$10^{17}$ NP1:$\phi_s$346.00000°, δ49.00000°, λ-75.00000°. NP2:$\phi_s$143.00000°, δ43.00000°, λ-107.00000°. Principal axes: T 7.0510, Plg3.0000°, Azm65.0000°; N -0.7830, Plg11.0000°, Azm156.0000°; P -6.2700, Plg78.0000°, Azm319.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*
*NEIC 07 13:38:28.1±0.9, 1°.44S×126°.51E, h28km±6km, mb5.8/132, MS5.7/300, MW5.7, MW5.9, MW5.8 Error ellipse: s-maj=3.6km s-min=2.5km az=59.0, Moment Tensor Solution. s35 Moment tensor: Scale $10^{17}$Nm; $M_{rr}$-4.08; $M_{\theta\theta}$-0.19; $M_{\phi\phi}$4.28; $M_{r\theta}$-0.27; $M_{\theta\phi}$-1.44; $M_{\phi r}$-1.82; Best double couple: $M_0$4.80000×$10^{17}$ NP1:$\phi_s$354.00000°, δ56.00000°, λ-77.00000°. NP2:$\phi_s$152.00000°, δ36.00000°, λ-108.00000°. Principal axes: T 5.0100, Plg11.0000°, Azm75.0000°; N -0.4700, Plg10.0000°, Azm167.0000°; P -4.5400, Plg75.0000°, Azm301.0000°;*
*NEIC Felt [III] in southern Halmahera.*
*MOS 07 13:38:28.2±1.0, 1°.37S×126°.53E, h37km, mb6.0/76, MS5.5/59 Error ellipse: s-maj=8.0km s-min=4.4km az=111.6*
*DJA 07 13:38:30.7±0.2, 1°S±2°×12°7E±°, h43km±2km, M5.9/78, mb5.9/78, mB6.2/72, MLv6.0/19, Mw(mB)5.9/72, Mwp5.9/19*
*KLM 07 13:38:33.6, 1°.43S×126°.30E, h47km, mb5.9*
*NEIC 07 13:38:41.0±0.0, 1°.46S×126°.51E, h26km, Moment Tensor Solution. s17 Moment tensor: Scale $10^{17}$Nm; $M_{rr}$-6.52; $M_{\theta\theta}$0.30; $M_{\phi\phi}$6.22; $M_{r\theta}$-5.13; $M_{\theta\phi}$-2.96; $M_{\phi r}$-0.56; Best double couple: $M_0$8.60000×$10^{17}$ NP1:$\phi_s$129.00000°, δ59.00000°, λ-125.00000°. NP2:$\phi_s$2.00000°, δ46.00000°, λ-47.00000°. Principal axes: T 7.6300, Plg7.0000°, Azm243.0000°; N 1.8800, Plg29.0000°, Azm149.0000°; P -9.5100, Plg60.0000°, Azm346.0000°;*
**ISC 07 13:38:29.2±0.3, 1°.45S±0°.02×126°.54E±0°.03, h34km±1km, h34km:pP-P, n1572, σ1s.39/1482, mb5.8/260, MS5.6/452, 29C-50D, Southern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SANI | Sanana | 0.81 | 223 | P | Pn | 13 38 42.3 | -1.9 |
| SANI | | | | S | Sb | 13 38 55.5 | 0.0 |
| LBMI | Labuha | 1.26 | 50 | P | Pb | 13 38 51.9 | -0.5 |
| LBMI | | | | S | Sb | 13 39 09.9 | +1.6 |
| NLAI | Namlea | 1.86 | 162 | P | Pn | 13 38 58.1 | -0.6 |
| NLAI | | | | S | Sn | 13 39 20.9 | -0.2 |
| AAI | Ambon | 2.77 | 143 | P | Pn | 13 39 12.5 | +1.3 |
| MSAI | Masohi | 3.04 | 128 | P | Pn | 13 39 17.5 | +2.6 |
| KMSI | Cibinong | 3.25 | 308 | P | Pn | 13 39 17.5 | -0.3 |
| LUWI | Luwuk | 3.79 | 276 | P | Pn | 13 39 24.5 | -0.6 |
| LUWI | Luwuk | 3.79 | 276 | ePn | Pn | 13 39 24.6 | -0.6 |
| LUWI | | | | eSn | Sn | 13 40 08.0 | -0.6 |
| BNDI | Bandanaira | 4.54 | 132 | P | Pn | 13 39 36.1 | +0.6 |
| APSI | Ampana | 4.92 | 276 | P | Pn | 13 39 40.8 | +0.1 |
| MRSI | Marisa | 4.98 | 293 | P | Pn | 13 39 40.9 | -0.7 |
| SGSI | Sangihe | 5.20 | 349 | P | Pn | 13 39 45.6 | +1.0 |
| | 5μm,0.8s,37μm17nm | | | | | | |
| BBSI | Bau Bau | 5.63 | 225 | P | Pn | 13 39 52.2 | +1.6 |
| | 616nm,1.0s,7μm1.9nm | | | | | | |
| FAKI | Fak Fak | 5.89 | 104 | P | Pn | 13 39 54.2 | +0.1 |
| | 2μm,0.8s,15μm63μm6.2nm | | | | | | |
| FAKI | Fak Fak | 5.89 | 104 | ePn | Pn | 13 39 53.3 | -0.8 |
| FAKI | | | | eSn | Sn | 13 41 02.2 | +1.6 |
| MPSI | Mapaga | 6.87 | 285 | P | Pn | 13 40 08.1 | +0.5 |
| | 1μm,0.8s,13μm3.9nm | | | | | | |
| TTSI | Tana Toraja | 6.90 | 257 | P | Pn | 13 40 07.8 | -0.1 |
| | 3μm,1.1s,21μm86μm7.2nm | | | | | | |
| SPSI | Sidrap Palu | 7.21 | 250 | P | Pn | 13 40 13.1 | +0.9 |
| | 816nm,0.5s,19μm4.7nm | | | | | | |
| KMPI | Kaimana, Papua | 7.49 | 107 | P | Pn | 13 40 19.3 | +3.2 |
| | 2μm,0.9s,18μm14nm | | | | | | |
| BSSI | Bau Bau, Buton | 7.62 | 232 | P | Pn | 13 40 19.9 | +2.0 |
| | 2μm,0.9s,19μm6.7nm | | | | | | |
| RKPI | Ransiki, Papua | 7.64 | 91 | P | Pb | 13 40 33.2 | -7.7 |
| KAPI | Kappang | 7.64 | 242 | ePn | Pn | 13 40 18.0 | -0.2 |
| KAPI | Kappang | 7.64 | 242 | P | Pn | 13 40 19.2 | +1.1 |
| | SNR=153 | | | | | | |
| KAPI | | | | P | Pn | 13 40 19.2 | +1.1 |
| | SNR=153 | | | | | | |
| KAPI | Kappang | 7.64 | 242 | Pn | Pn | 13 40 19.2 | +1.1 |
| | SNR=153 | | | | | | |
| SAUI | Saumlaki | 8.04 | 144 | P | Pn | 13 40 27.3 | +3.7 |
| | 1μm,0.9s,12μm | | | | | | |
| SAUI | Saumlaki | 8.04 | 144 | ePn | Pn | 13 40 25.6 | +1.9 |
| MMRI | Maumere | 8.32 | 211 | P | Pn | 13 40 30.3 | +2.8 |
| | 718nm,1.1s,8μm52μm | | | | | | |
| MMRI | Maumere | 8.32 | 211 | ePn | Pn | 13 40 27.8 | +0.3 |
| DAV | Davao City (W) | 8.52 | 354 | ⇓eP | Pn | 13 40 30.0 | -0.2 |
| DAV | Davao City (W) | 8.52 | 354 | ⇑S | Sn | 13 42 02.3 | -2.9 |
| DAV | Davao City (W) | 8.52 | 354 | ePn | Pn | 13 40 29.9 | -0.4 |
| DAV | Davao City (W) | 8.52 | 354 | P | Pn | 13 40 37.3 | +7.1 |
| | SNR=5.3 | | | | | | |
| DAV | Davao City (W) | 8.52 | 354 | PnPn | Pn | 13 40 37.3 | +7.1 |
| | SNR=5.3 | | | | | | |
| SOEI | Soe | 8.55 | 195 | P | Pn | 13 40 36.6 | +5.8 |
| | 2μm,1.0s,16μm55μm | | | | | | |
| SOEI | Soe | 8.55 | 195 | ePn | Pn | 13 40 31.5 | +0.7 |
| EDFI | Ende, Flores | 8.71 | 213 | P | Pn | 13 40 34.8 | +1.9 |
| | 473nm,0.7s,7μm | | | | | | |
| CTBH | Cotabato--PC H | 8.91 | 345 | ⇑iP | Pn | 13 40 37.1 | +1.4 |
| BIPH | Bislig | 9.57 | 359 | ⇓eP | Pn | 13 40 47.8 | +3.1 |
| MYLDM | Lahad Datu | 10.38 | 309 | ePn | Pn | 13 40 54.5 | -1.3 |
| KBKI | Kotabaru | 10.52 | 260 | P | Pn | 13 40 59.3 | +1.6 |
| | 278nm,0.9s,4μm43μm | | | | | | |
| BASI | Baing, Sumba | 10.53 | 214 | P | Pn | 13 41 00.1 | +2.2 |
| WBSI | Waikabubak, Su | 10.80 | 221 | P | Pn | 13 41 03.0 | +1.4 |
| SCPH | Surigao | 11.21 | 355 | eP | Pn | 13 41 06.4 | -0.7 |
| SNPH | Sibulan | 11.21 | 343 | eP | Pn | 13 41 10.1 | +2.9 |
| PLAI | Plampang | 11.39 | 230 | P | Pn | 13 41 10.7 | +1.1 |
| MSLP | Maasin | 11.63 | 352 | eP | Pn | 13 41 13.1 | +0.2 |
| MTKI | Muara Teweh, K | 11.65 | 272 | P | Pn | 13 41 15.2 | +2.1 |
| | 445nm,0.9s,6μm31μm | | | | | | |
| LLP | Lapu-Lapu | 11.97 | 348 | eP | Pn | 13 41 17.0 | -0.5 |
| MTN | Manton Dam | 12.20 | 158 | P | Pn | 13 41 20.0 | -0.6 |
| | baz=12,SNR=23 | | | | | | |
| MTN | Manton Dam | 12.20 | 158 | ePn | Pn | 13 41 18.7 | -2.0 |
| OCLP | Ormoc | 12.57 | 351 | eP | P | 13 41 39.0 | +2.2 |
| KDU | Kakadu | 12.62 | 152 | P | Pn | 13 41 25.9 | -0.5 |
| | baz=13,SNR=4.0 | | | | | | |
| PLP | Palo | 12.63 | 353 | ⇓eP | Pn | 13 41 26.1 | -0.4 |
| KKM | Kota Kinabalu | 12.71 | 306 | ePn | Pn | 13 41 26.9 | -0.9 |
| BATP | Bataraza | 13.39 | 320 | eP | Pn | 13 41 30.4 | -6.6 |
| RCP | Roxas | 13.46 | 344 | ⇑eP | Pn | 13 41 38.7 | +0.8 |
| GENI | Genyem | 13.67 | 95 | P | Pn | 13 41 42.4 | +1.6 |
| JAGI | Jajag, Banyuwa | 14.17 | 240 | P | Pn | 13 41 49.8 | +2.2 |
| JAGI | Jajag, Banyuwa | 14.17 | 240 | ePn | Pn | 13 41 48.4 | +0.8 |
| JAY | Jayapura | 14.20 | 94 | P | Pn | 13 41 47.8 | -0.3 |
| KNRA | Kununurra | 14.31 | 171 | P | Pn | 13 41 48.7 | -0.7 |
| | baz=14,SNR=28 | | | | | | |
| BLJI | Banyuglugur | 14.33 | 244 | P | P | 13 41 56.3 | -0.1 |
| OTRP | Odiongan | 14.44 | 342 | eP | P | 13 42 01.1 | +3.5 |
| GMJI | Gumukmas | 14.69 | 242 | P | Pn | 13 41 56.4 | +1.7 |
| BUSP | Coron | 14.78 | 335 | eP | Pn | 13 41 55.2 | -0.6 |
| SBUM | Sibu | 14.83 | 285 | ⇑P | Pn | 13 41 57.2 | +0.7 |
| SBUM | Sibu | 14.83 | 285 | ePn | Pn | 13 41 54.9 | -1.6 |
| PBKI | Pangkalan Bun | 14.91 | 265 | P | Pn | 13 41 59.7 | +2.1 |
| | 851nm,1.1s,8μm21μm | | | | | | |
| GRJI | Gresik | 15.03 | 248 | P | P | 13 42 18.9 | +15 |
| STKI | Sintang | 15.13 | 276 | P | Pn | 13 42 01.2 | +0.6 |
| | 753nm,1.5s,14μm18μm | | | | | | |
| PVCP | Virac | 15.13 | 351 | eP | Pn | 13 41 49.6 | -11 |
| BOAC | Boac | 15.53 | 343 | eP | Pn | 13 42 04.9 | -0.9 |
| TBJI | Tambak Boyo | 15.59 | 250 | P | P | 13 42 14.5 | +4.1 |
| GQP | Guinayangan | 15.79 | 345 | ⇑eP | Pn | 13 42 08.1 | -1.0 |
| PWJI | Pagerwojo | 16.06 | 246 | P | P | 13 42 15.4 | -0.3 |
| PWJI | | | | pP | sP | 13 42 27.1 | -1.7 |
| LQP | Lukban | 16.24 | 342 | ⇑eP | P | 13 42 31.6 | +14 |
| UWJI | Ujung Watu | 16.31 | 252 | P | P | 13 42 31.3 | +13 |
| LUBP | Lubang | 16.32 | 338 | eP | Pn | 13 42 14.7 | -1.2 |
| TGY | Tagaytay City | 16.42 | 340 | Pn | Pn | 13 42 17.4 | +0.2 |
| | 198nm,0.3s,baz=168,slow=7.1,SNR=7.6 | | | | | | |
| TGY | | | | LR | LR | 13 49 50.2 | |
| | comp=Z,3μm,19.5s,baz=134,slow=42 | | | | | | |
| KSM | Kuching | 16.48 | 280 | ⇑P | Pn | 13 42 19.2 | +1.2 |
| KSM | Kuching | 16.48 | 280 | ePn | Pn | 13 42 17.4 | -0.6 |
| | 874nm,0.9s | | | | | | |
| FITZ | Fitzroy Crossi | 16.57 | 183 | Pn | Pn | 13 42 17.4 | -1.6 |
| | 3.3nm,0.3s,baz=25,slow=8.3,SNR=34 | | | | | | |
| PCJI | Pacitan | 16.70 | 246 | P | P | 13 42 24.7 | +1.9 |
| | 792nm,1.4s,17μm | | | | | | |
| SMRI | Semarang | 16.98 | 250 | P | P | 13 42 29.6 | +3.7 |
| | 808nm,1.6s,24μm | | | | | | |
| SMRI | Semarang | 16.98 | 250 | ePn | P | 13 42 27.7 | +1.8 |
| | 3μm,1.7s | | | | | | |
| UGM | Wanagama | 17.20 | 248 | P | P | 13 42 32.1 | +3.8 |
| | 698nm,1.8s,17μm35μm | | | | | | |
| UGM | Wanagama | 17.20 | 248 | ePn | P | 13 42 30.3 | +2.0 |
| | 2μm,1.6s | | | | | | |
| BALP | Baler | 17.77 | 344 | eP | P | 13 42 35.5 | +0.9 |
| SCZP | Santa Cruz | 18.33 | 339 | eP | P | 13 42 39.2 | -1.5 |
| KPJI | Karang Pucung | 18.49 | 251 | P | Pn | 13 42 45.2 | +2.3 |
| | 638nm,1.1s,24μm | | | | | | |
| CAUP | Cauayan | 18.86 | 346 | eP | P | 13 42 45.5 | -1.1 |
| BOLP | Bolinao | 18.89 | 340 | eP | P | 13 42 44.4 | -2.5 |
| JCJI | Jatiwangi | 18.89 | 254 | P | Pn | 13 42 51.1 | +3.3 |
| | 344nm,1.6s,21μm35μm | | | | | | |
| CISI | Cisompet, Garu | 19.62 | 251 | P | P | 13 42 55.4 | +0.4 |
| | 602nm,1.5s,15μm24μm | | | | | | |
| CISI | Cisompet, Garu | 19.62 | 251 | eP | P | 13 42 54.6 | -0.4 |
| | 454nm,0.9s | | | | | | |
| ABRA | Dolores | 19.83 | 343 | eP | P | 13 42 56.2 | -1.0 |
| APYP | Conner | 19.89 | 345 | eP | P | 13 42 56.7 | -1.1 |
| WRAB | Tennant Creek | 19.90 | 158 | deP | P | 13 42 56.1 | -1.8 |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,1μm,1.7s | | | | | | |
| WRAB | Tennant Creek | 19.90 | 158 | eP | P | 13 42 55.3 | -2.6 |
| | comp=Z,313nm,1.0s | | | | | | |
| WRA | Warramunga Arr | 19.90 | 158 | P | P | 13 42 56.1 | -1.9 |
| | comp=Z,7.9nm,0.3s,baz=339,slow=12,SNR=311 | | | | | | |
| WRA | | | | S | Sn | 13 46 45.2 | +2.5 |
| | baz=330,slow=15,SNR=6.2 | | | | | | |
| WRA | | | | P3KPbc | | 14 17 06.3 | |
| | comp=Z,0.0nm,0.3s,baz=162,slow=3.2,SNR=5.8 | | | | | | |
| WB2 | Warramunga Arr | 19.91 | 158 | eP | P | 13 42 56.0 | -2.0 |
| CNJI | Cibinong | 20.20 | 253 | P | P | 13 43 02.1 | +0.8 |
| | comp=Z,884nm,1.4s,comp=Z,14μm | | | | | | |
| CNJI | | | | pP | pP | 13 43 10.2 | 0.0 |
| | comp=Z,884nm,1.4s,comp=Z,14μm | | | | | | |
| CBJI | Citeko | 20.25 | 255 | P | Pn | 13 43 03.9 | 0.0 |
| | comp=Z,1μm,1.5s,comp=Z,24μm | | | | | | |
| DBJI | Dramaga | 20.37 | 255 | P | Pn | 13 43 05.2 | -0.2 |
| | comp=Z,1μm,1.6s,comp=Z,24μm | | | | | | |
| PPBI | Pangkal Pinang | 20.40 | 268 | P | P | 13 43 04.6 | +1.1 |
| | comp=Z,2.8nm,1.1s | | | | | | |
| COEN | Coen | 20.62 | 128 | P | P | 13 43 05.6 | -0.2 |
| | baz=21,SNR=68 | | | | | | |
| COEN | Coen | 20.62 | 128 | eP | P | 13 43 05.2 | -0.6 |
| | comp=Z,280nm,0.9s | | | | | | |
| SKJI | Sukabumi | 20.67 | 254 | P | Pn | 13 43 10.6 | +1.8 |
| | comp=Z,668nm,1.0s,comp=Z,12μm | | | | | | |
| MBWA | Marble Bar | 20.68 | 198 | eP | P | 13 43 05.6 | -0.8 |
| | comp=Z,416nm,1.2s | | | | | | |
| MBWA | Marble Bar | 20.68 | 198 | P | P | 13 43 06.0 | -0.4 |
| | SNR=25 | | | | | | |
| MBWA | | | | P | P | 13 43 06.0 | -0.4 |
| | SNR=25 | | | | | | |
| MBWA | Marble Bar | 20.68 | 198 | P | P | 13 43 06.0 | -0.4 |
| | SNR=25 | | | | | | |
| SBJI | Serang | 20.88 | 257 | P | Pn | 13 43 11.4 | +0.1 |
| | comp=Z,1μm,1.5s,comp=Z,19μm | | | | | | |
| SBJI | | | | pP | sP | 13 43 21.4 | -0.5 |
| | comp=Z,1μm,1.5s,comp=Z,19μm | | | | | | |
| BLSI | Bandar Lampung | 21.60 | 259 | P | P | 13 43 19.7 | +3.3 |
| | comp=Z,563nm,1.2s,comp=Z,10μmcomp=Z,19μm | | | | | | |
| PMBI | Palembang | 21.80 | 266 | P | P | 13 43 23.3 | +4.8 |
| | comp=Z,1μm,1.2s,comp=Z,37μm | | | | | | |
| KLI | Kotabumi | 21.91 | 261 | P | P | 13 43 22.5 | +2.8 |

comp=Z,1μm,1.3s,comp=Z,14μm
**DSRI Dabo 21.98 272** P **P** **13 43 20.5 0.0**
comp=Z,1μm,1.0s,comp=Z,19μmcomp=Z,239μm
**PMG Port Moresby 21.98 112** P **P** **13 43 20.6 +0.1**
comp=Z,39nm,0.7s,baz=320,slow=5.1,SNR=25
**PMG Port Moresby 21.98 112** *ceP* **P** **13 43 21.3 +0.8**
PMG pmax pmax
comp=Z,875nm,1.7s
**PMG Port Moresby 21.98 112** *eP* **P** **13 43 20.4 -0.1**
comp=Z,326nm,0.9s
**TPRI Tanjung Pinang 22.13 276** P **P** **13 43 23.1 +1.0**
comp=Z,636nm,1.4s,comp=Z,45μm
**KASI Kota Agung 22.36 259** P **P** **13 43 26.3 +1.7**
comp=Z,618nm,1.0s,comp=Z,12μm
**XMIS Christmas Isla 22.61 246** *eP* **P** **13 43 25.1 -2.1**
comp=Z,255nm,1.0s
**LWLI Liwa 22.72 261** P **P** **13 43 30.5 +2.0**
comp=Z,1μm,0.8s,comp=Z,15μm
**MYKOM Kota Tinggi 22.91 278** ⇓P **P** **13 43 30.7 +0.3**
**MYKOM Kota Tinggi 22.91 278** *eP* **P** **13 43 29.3 -1.1**
comp=Z,895nm,1.6s
**AS31 Alice Springs 23.21 163** *eP* **P** **13 43 31.6 -1.8**
comp=Z,123nm,1.0s
**ASAR Alice Springs 23.21 163** P **P** **13 43 31.6 -1.8**
comp=Z,357nm,0.9s,baz=336,slow=10.0,SNR=762
ASAR S **S** **13 47 42.1 -1.0**
comp=Z,6.4nm,0.8s,baz=345,slow=21,SNR=3.6
ASAR PKiKP **PKiKP** **13 55 04.8 -0.5**
comp=Z,1.5nm,0.8s,baz=301,slow=0.5,SNR=5.0
ASAR P3KPbc 14 17 01.6
comp=Z,0.7nm,0.7s,baz=161,slow=4.6,SNR=8.5
**AS01 Alice Springs 23.22 163** *eP* **P** **13 43 31.8 -1.8**
**KGM Kluang 23.47 278** ⇑P **P** **13 43 36.1 +0.1**
**WRKA Warakurna 23.51 176** P **P** **13 43 35.5 -0.8**
baz=24,SNR=451
**GUMO Guam 23.53 50** P **P** **13 43 37.1 +0.5**
comp=Z,59nm,0.5s,baz=238,slow=13,SNR=4.1
GUMO LR LR 13 52 28.5
comp=Z,10μm,20.6s,baz=230,slow=36
**MNAI Manna 23.72 262** P P 13 43 51.5 +13
**MNAI Manna 23.72 262** *eP* **P** **13 43 38.4 0.0**
comp=Z,4μm,1.8s
MNAI LR LR
comp=Z,18μm,19.0s
**MTSU Mount Surprise 24.07 135** P **P** **13 43 42.1 +0.4**
baz=24,SNR=22
**GIRL Giralia 24.22 209** P **P** **13 43 42.8 -0.2**
baz=24,SNR=9.7
**RGRI Rengat 24.22 272** P **P** **13 43 40.6 -2.5**
comp=Z,1μm,0.4s,comp=Z,94μm
**KTGM Kuala Trenggan 24.33 286** ⇑P **P** **13 43 45.6 +1.5**
**MASI Maura Aman, Be 24.33 266** P **P** **13 43 45.7 +1.5**
comp=Z,3μm,0.9s,comp=Z,27μm
**TWG Pinlang 24.71 348** *eP* **P** **13 43 44.6 -2.7**
comp=Z,452nm,0.9s
**YULB Yu-li 25.21 349** *eP* **P** **13 43 51.1 -0.9**
comp=Z,81nm,0.8s
**TPUB Ta-pu 25.27 347** *eP* **P** **13 43 51.4 -1.1**
comp=Z,223nm,0.8s
TPUB *e*S **S** **13 48 22.6 +6.4**
TPUB LR LR
comp=Z,5μm,20.0s
**BKNI Bangkinang 25.55 274** P **P** **13 43 56.9 +1.7**
comp=Z,2μm,1.1s,comp=Z,21μmcomp=Z,12μm
**BKNI Bangkinang 25.55 274** *eP* **P** **13 43 55.7 +0.5**
comp=Z,1μm,0.9s
**SSLB Suanglung 25.67 348** *eP* **P** **13 43 54.4 -1.7**
comp=Z,196nm,1.1s
SSLB LR LR
comp=Z,4μm,21.0s
**RABL Rabaul 25.74 97** *eP* **P** **13 43 57.8 +0.9**
comp=Z,910nm,1.3s
RABL LR LR
comp=Z,17μm,21.0s
**NACB Ninganchiao 25.92 350** *eP* **P** **13 43 58.2 -0.1**
comp=Z,117nm,1.0s
**YOJ Yonaguni jima 25.98 353** *eP* **P** **13 43 59.1 +0.2**
YOJ pmax pmax
comp=Z,719nm,1.2s
**YOJ Yonaguni jima 25.98 353** *eP* **P** **13 43 59.1 +0.2**
comp=Z,719nm,1.2s
**PDSI Padang 26.07 271** P **P** **13 43 59.7 -0.2**
comp=Z,554nm,0.7s,comp=Z,6μm
**QIZ Qiongzhong 26.14 322** P **P** **13 44 01.7 +1.3**
QIZ PP **PnPn** **13 44 48.5 +8.8**
QIZ S **S** **13 48 33.9 +3.8**
QIZ sS **sS** **13 48 48.1 +1.9**
QIZ pmax pmax
comp=Z,120nm,1.0s
QIZ pmax pmax
comp=Z,2μm,11.7s
QIZ LR LR
comp=Z,5μm,21.1s
QIZ LR LR
comp=Z,3μm,16.6s
QIZ LR LR
comp=Z,5μm,31.9s
**QIZ Qiongzhong 26.14 322** *eP* **P** **13 44 00.6 +0.2**
comp=Z,115nm,0.9s
QIZ LR LR
comp=Z,5μm,18.0s
**IPM Ipoh 26.16 283** *eP* **P** **13 44 00.6 -0.1**
comp=Z,387nm,0.9s
**YHNB Yeheng 26.44 349** *eP* **P** **13 44 02.3 -0.9**
comp=Z,222nm,0.9s
YHNB LR LR
comp=Z,10μm,22.0s
**PPSI Pulau Pagai 26.54 267** P **P** **13 44 05.4 +1.3**
comp=Z,606nm,0.8s,comp=Z,7μm
**UBPT Khong Chiam 26.66 309** P **P** **13 44 05.8 +0.7**
comp=Z,257nm,0.9s
**KULM Kulim 26.71 285** *eP* **P** **13 44 05.3 -0.4**
comp=Z,241nm,0.9s
KULM LR LR
comp=Z,16μm,20.0s
**TATO Taipei 26.72 350** *eP* **P** **13 44 04.3 -1.2**
comp=Z,783nm,1.8s
TATO LR LR
comp=Z,7μm,22.0s
**CTA Charters Tower 26.73 135** P **P** **13 44 06.8 +1.0**
comp=Z,60nm,0.9s,baz=315,slow=11,SNR=46
CTA LR LR 13 55 17.8
comp=Z,5μm,21.1s,baz=334,slow=38
**CTA Charters Tower 26.73 135** P **P** **13 44 06.8 +1.0**
CTA pmax pmax
comp=Z,60nm,0.9s
CTA MLR MLR
comp=Z,5μm,21.1s
**CTAO Charters Tower 26.73 135** *eP* **P** **13 44 06.8 +1.0**
CTAO pmax pmax
comp=Z,499nm,1.6s
**CTAO Charters Tower 26.73 135** *eP* **P** **13 44 06.8 +1.0**
comp=Z,499nm,1.6s
**QZH Quanzhou 27.34 344** ⇓*i*P **P** **13 44 10.0 -1.2**
QZH S **S** **13 48 44.0 -4.9**
QZH pmax pmax
comp=Z,100nm,0.6s
QZH pmax pmax
comp=Z,6μm,8.2s
QZH LR LR
comp=Z,5μm,16.5s
QZH LR LR
comp=Z,7μm,18.3s
QZH LR LR
comp=Z,8μm,19.7s
**SISI Saibi 27.44 270** P **P** **13 44 11.9 -0.3**
comp=Z,573nm,0.9s,comp=Z,5μm
**GZH Guangzhou 27.57 333** P **P** **13 44 16.2 +3.0**
GZH PcP **PcP** **13 47 23.7 -7.0**
GZH pmax pmax
comp=Z,3μm,8.2s
GZH LR LR
comp=Z,13μm,19.0s
**CHBT CHBT 27.86 301** P **P** **13 44 16.1 +0.2**
comp=Z,217nm,0.5s,comp=Z,36μm
**PSI Prapat 27.93 279** *eP* **P** **13 44 16.0 -0.7**
PSI pmax pmax
comp=Z,205nm,0.8s
**PSI Prapat 27.93 279** *eP* **P** **13 44 16.0 -0.7**
comp=Z,205nm,0.8s
**JOW Kunigami 28.17 3** *eP* **P** **13 44 19.0 +0.5**
comp=Z,374nm,0.9s
**PBSI Pulau Batu 28.29 273** P **P** **13 44 20.3 +0.5**
comp=Z,242nm,0.8s,comp=Z,4μm
**TRTT Trang 28.32 289** P **P** **13 44 19.9 -0.2**
comp=Z,144nm,1.4s,comp=Z,2μm
**TSI Tuntungan 28.39 280** P P 13 44 32.1 +11
**SKNT Sakolnakorn 28.81 310** P **P** **13 44 25.8 +1.4**
comp=Z,112nm,0.7s
**GSI Gunungsitoli 29.09 275** P **P** **13 44 25.8 -1.1**
comp=Z,370nm,0.9s,comp=Z,5μm
**GSI Gunungsitoli 29.09 275** *eP* **P** **13 44 24.6 -2.3**
comp=Z,242nm,0.7s
**KCSI Kotacane, Aceh 29.17 280** P **P** **13 44 26.5 -1.2**
comp=Z,174nm,0.8s,comp=Z,3μm
**FORT Forrest 29.20 177** P **P** **13 44 26.9 -0.8**
baz=29,SNR=11
**FORT Forrest 29.20 177** *eP* **P** **13 44 26.0 -1.7**
comp=Z,1μm,0.8s
FORT LR LR
comp=Z,84μm,18.0s
**MORW Morawa 29.23 199** P **P** **13 44 26.8 -1.2**
baz=29,SNR=8.4
**KHON Khomkaen 29.34 308** P **P** **13 44 28.6 -0.5**
comp=Z,98nm,0.7s,comp=Z,858nm
**NAYO Nakonayok 29.48 303** P **P** **13 44 30.1 -0.2**
comp=Z,47nm,1.0s,comp=Z,2μm
**SURT Suratani 29.51 291** P **P** **13 44 30.5 -0.2**
comp=Z,43nm,1.3s,comp=Z,806nm
**PKDT Phuket 29.62 289** P **P** **13 44 33.1 +1.5**
comp=Z,166nm,1.3s,comp=Z,2μm
**CHAI Chaiyaphum 29.76 306** P **P** **13 44 32.1 -0.7**
comp=Z,40nm,0.9s,comp=Z,299nm
**KMBL Kambaida 30.08 188** P **P** **13 44 34.4 -1.1**
baz=30,SNR=15
**NONG Nongkai 30.10 311** P **P** **13 44 34.9 -0.9**
comp=Z,86nm,0.8s
**QLP Quilpie 30.23 147** P **P** **13 44 36.8 0.0**
baz=30,SNR=9.8
**PHET Kaeng Krachan 30.27 299** P **P** **13 44 37.2 -0.2**
comp=Z,19nm,0.8s,comp=Z,204nm
**LHMI Lhok Sumawe 30.29 283** P **P** **13 44 37.9 +0.3**
**LHMI Lhok Sumawe 30.29 283** *eP* **P** **13 44 36.5 -1.1**
comp=Z,307nm,0.8s
**MLSI Meulaboh, Aceh 30.64 281** P **P** **13 44 39.9 -0.8**
**PBKT Sadao Pong 30.94 306** P **P** **13 44 43.0 -0.2**
comp=Z,48nm,0.6s,comp=Z,793nm
**KLBR Kellerberrin 31.11 195** P **P** **13 44 43.7 -0.8**
baz=31,SNR=16
**SRDT SRDT 31.36 301** P **P** **13 44 47.1 +0.1**
comp=Z,192nm,0.9s,comp=Z,5μm
**UTHA Uthaitani 31.67 303** P **P** **13 44 49.2 -0.5**
comp=Z,38nm,0.7s,comp=Z,303nm
**MUN Mundaring 31.89 197** P **P** **13 44 50.3 -1.2**
baz=32,SNR=10.0
**UTTA Uttaradit 31.92 308** P **P** **13 44 51.5 -0.3**
comp=Z,17nm,0.7s,comp=Z,132nm
**CBIJ Chichi jima 32.14 27** PFAKE
CBIJ LR LR 13 45 10.0 +16
comp=Z,2μm,20.0s
**NANT Nan 32.40 310** P **P** **13 44 56.3 +0.2**
comp=Z,44nm,0.7s,comp=Z,357nm
**BBOO Bukelboo 32.45 165** P **P** **13 44 55.6 -0.8**
baz=32,SNR=35
**BBOO Buckleboo 32.45 165** *eP* **P** **13 44 55.1 -1.2**
comp=Z,360nm,1.3s
BBOO LR LR
comp=Z,9μm,18.0s
**NWAO Narrogin (SRO) 32.51 195** P **P** **13 44 55.8 -1.1**
comp=Z,46nm,0.9s,baz=248,slow=9.8,SNR=10
NWAO LR LR 13 58 46.8
comp=Z,7μm,19.3s,baz=222,slow=38
**NWAO Narrogin (SRO) 32.51 195** P **P** **13 44 56.0 -0.8**
baz=33,SNR=7.8
NWAO P **P** **13 44 56.0 -0.8**
baz=33,SNR=7.8
**NWAO Narrogin (SRO) 32.51 195** *eP* **P** **13 44 55.3 -1.6**
NWAO pmax pmax
comp=Z,54nm,0.9s
**NWAO Narrogin (SRO) 32.51 195** *eP* **P** **13 44 55.3 -1.6**
comp=Z,54nm,0.9s
**SUKH Sukhothai 32.51 307** P **P** **13 44 56.8 -0.2**
comp=Z,30nm,0.6s,comp=Z,238nm
**PHRA Phrae 32.60 309** P **P** **13 44 58.1 +0.3**
comp=Z,11nm,1.9s
**PATS Pohnpei 32.76 75** PFAKE
PATS LR LR 13 45 10.0 +11
comp=Z,11μm,18.0s
**SSE Sheshan 32.76 352** P **P** **13 45 00.8 +1.7**
SSE S **S** **13 50 20.2 +6.4**
SSE sS **sS** **13 50 30.0 +0.1**
SSE pmax pmax
comp=Z,72nm,0.9s
SSE pmax pmax
comp=Z,2μm,7.3s
SSE LR LR
comp=Z,2μm,21.6s
SSE LR LR
comp=Z,2μm,21.6s
SSE LR LR
comp=Z,3μm,21.9s
**RMQ Roma 32.80 141** P **P** **13 45 00.3 +0.7**
baz=33,SNR=29
**STKA Stephens Creek 33.44 156** P **P** **13 45 04.5 -0.5**
comp=Z,24nm,0.6s,baz=330,slow=8.8,SNR=51
STKA PcP **PcP** **13 47 47.0 +1.1**
comp=Z,17nm,0.7s,baz=327,slow=9.5,SNR=2.9
STKA LR LR 14 01 14.0
comp=Z,5μm,18.0s,baz=346,slow=41
**STKA Stephens Creek 33.44 156** P **P** **13 45 04.5 -0.5**
baz=34,SNR=45
**STKA Stephens Creek 33.44 156** *eP* **P** **13 45 04.1 -0.9**
STKA 13 47 47.0
STKA pmax pmax
comp=Z,20nm,1.0s
**STKA Stephens Creek 33.44 156** *eP* **P** **13 45 04.0 -0.9**
comp=Z,20nm,1.0s
STKA PcP **PcP** **13 47 47.0 +1.1**
**EIDS Eidsvold 33.55 137** P **P** **13 45 06.3 +0.2**
baz=34,SNR=4.6
**EIDS Eidsvold 33.55 137** *eP* **P** **13 45 05.8 -0.3**
comp=Z,147nm,1.4s
EIDS LR LR
comp=Z,4μm,20.0s
**CM31 Chiang Mai Arr 33.59 307** *eP* **P** **13 45 06.0 -0.4**
**CMAR Chiang Mai Arr 33.59 307** P **P** **13 45 06.2 -0.3**
comp=Z,13nm,0.7s,baz=132,slow=7.0,SNR=61
CMAR PcP **PcP** **13 47 48.2 +1.6**
comp=Z,36nm,0.8s,baz=162,slow=2.2,SNR=20
CMAR ScP **ScP** **13 51 33.1 +4.2**
comp=Z,0.7nm,0.5s,baz=116,slow=2.1,SNR=2.3
CMAR PKPPKP **P'P'df** **14 18 28.5 -4.5**
comp=Z,0.5nm,0.4s,baz=257,slow=2.8,SNR=4.1
**GYA Guiyang 33.73 327** ⇑*i*P **P** **13 45 08.1 +0.3**
GYA pP pP 13 45 18.0 +0.4
GYA PP **PnPn** **13 46 21.2 +0.6**
GYA PcP **PcP** **13 47 48.3 +1.3**
GYA S **S** **13 50 30.8 +1.6**
GYA sS sS 13 50 46.0 +0.6
GYA ScP **ScP** **13 51 30.2 +0.8**
GYA SS **SnSn** **13 52 37.8 +2.5**
GYA ScS **ScS** **13 55 30.5 -0.6**
GYA pmax pmax
comp=Z,20nm,1.0s
GYA pmax pmax
comp=Z,150nm,5.4s
GYA LR LR
comp=Z,5μm,17.6s
GYA LR LR
comp=Z,4μm,17.2s
GYA LR LR
comp=Z,7μm,17.8s
**CMMT Chiang Mai 33.78 308** P **P** **13 45 07.5 -0.7**
comp=Z,83nm,1.0s,comp=Z,1μm
**CHTO Chiang Mai 33.78 308** P **P** **13 45 07.5 -0.7**
comp=Z,369nm,1.0s,comp=Z,6μm
**CHTO Chiang Mai 33.78 308** *eP* **P** **13 45 04.9 -3.3**
CHTO pmax pmax
comp=Z,52nm,0.8s
**CHTO Chiang Mai 33.78 308** *eP* **P** **13 45 07.2 -1.0**
comp=Z,52nm,0.8s
CHTO LR LR
comp=Z,3μm,19.0s
**CHTO Chiang Mai 33.78 308** P **P** **13 45 07.9 -0.3**
SNR=17
CHTO P **P** **13 45 07.9 -0.3**
SNR=17
CHTO P **P** **13 45 07.9 -0.3**
SNR=17
**CHTO Chiang Mai 33.78 308** P **P** **13 45 07.9 -0.3**
SNR=17
**WHN Wuhan 33.87 341** ⇑P **P** **13 45 10.2 +1.5**
WHN S **S** **13 50 32.6 +1.6**
WHN pmax pmax
comp=Z,190nm,1.0s
WHN LR LR
comp=Z,8μm,16.9s
WHN LR LR
comp=Z,3μm,13.2s
WHN LR LR
comp=Z,9μm,19.8s
**NJ2 Nanjing 34.11 348** *eP* **P** **13 45 11.3 +0.5**
NJ2 pP **pP** **13 45 17.8 -2.8**
NJ2 S **S** **13 50 36.5 +1.9**
NJ2 sS **sS** **13 50 53.3 +2.5**
NJ2 pmax pmax
comp=Z,120nm,1.5s
NJ2 pmax pmax
comp=Z,2μm,6.0s
NJ2 LR LR
comp=Z,3μm,19.0s
NJ2 LR LR
comp=Z,1μm,16.8s
NJ2 LR LR
comp=Z,4μm,21.4s
**HNR Honiara 34.16 105** *eP* P 13 45 05.0 -6.5
**HNR Honiara 34.16 105** P **P** **13 45 10.8 -0.7**
comp=Z,51nm,0.8s,baz=211,slow=5.2,SNR=14
HNR LR LR 14 02 07.0
comp=Z,3μm,18.8s,baz=274,slow=42
**HNR Honiara 34.16 105** *eP* **P** **13 45 10.4 -1.1**
HNR pmax pmax
comp=Z,364nm,1.4s
**HNR Honiara 34.16 105** *eP* **P** **13 45 10.4 -1.1**
comp=Z,364nm,1.4s
**RKGY Rocky Gully 34.17 194** P **P** **13 45 11.9 +0.6**
baz=34,SNR=7.8
**JNU Nakatsue 34.63 6** P **P** **13 45 14.7 -0.7**
comp=Z,28nm,0.8s,baz=223,slow=3.0,SNR=26
JNU LR LR 14 00 29.4
comp=Z,4.5nm,19.4s,baz=160,slow=38
**JNU Nakatsue 34.63 6** *eP* **P** **13 45 14.0 -1.3**
comp=Z,54nm,0.9s
**CMSA Cobar Meteorol 34.97 151** P **P** **13 45 18.5 +0.2**
baz=35,SNR=37
**KMI Kunming 35.06 320** P **P** **13 45 19.9 +0.5**
KMI pP pP 13 45 29.6 +0.3
KMI sP sP 13 45 33.1 -0.2
KMI PP **PP** **13 46 38.7 -0.7**
KMI S **S** **13 50 48.1 -1.9**
KMI SS **SnSn** **13 53 07.7 0.0**
KMI pmax pmax
comp=Z,29nm,0.8s
KMI pmax pmax
comp=Z,1μm,6.0s
KMI LR LR
comp=Z,2μm,18.2s
KMI LR LR
comp=Z,2μm,16.2s
KMI LR LR
comp=Z,4μm,20.0s
**ENH Enshi 35.49 334** *eP* **P** **13 45 22.0 -0.8**
comp=Z,82nm,0.8s
ENH LR LR
comp=Z,5μm,20.0s
**JHJ Hachijo jima 2 36.59 19** LR LR 14 01 47.4
comp=Z,28nm,18.4s,baz=170,slow=38
**ARMA Armidale 37.37 143** P **P** **13 45 40.2 +1.1**
baz=37,SNR=49
**ARMA Armidale 37.37 143** *eP* **P** **13 45 40.1 +1.1**
comp=Z,109nm,0.8s
ARMA LR LR
comp=Z,4μm,18.0s
**TJN Taejon 37.64 1** *ce*P **P** **13 45 42.6 +1.6**
**ARPS Mount Arapiles 37.88 160** P **P** **13 45 43.2 +0.1**
baz=38,SNR=30
**INU Inuyama 37.90 14** *eP* **P** **13 45 42.1 -1.1**
comp=Z,80nm,0.8s
INU LR LR
comp=Z,7μm,18.0s
**TIA Tai'an 38.48 348** ⇓P **P** **13 45 48.2 +0.1**
TIA pP **pP** **13 45 59.3 +1.3**
TIA S **S** **13 51 40.1 -1.3**
TIA pmax pmax
comp=Z,40nm,1.1s
TIA pmax pmax
comp=Z,3μm,6.3s
TIA LR LR
comp=Z,2μm,14.7s
TIA LR LR
comp=Z,5μm,17.8s
TIA LR LR
comp=Z,2μm,15.0s
**YNG Young 38.54 150** P **P** **13 45 50.0 +1.3**
baz=39,SNR=38
**KS15 Wonju Array Si 38.72 2** *eP* **P** **13 45 49.6 -0.4**
**KSAR Wonju Array Be 38.72 2** P **P** **13 45 50.4 +0.3**
KSAR 13 48 02.7
**KSAR Wonju Array Be 38.72 2** P **P** **13 45 50.4 +0.3**
KSAR PcP **PcP** **13 48 02.7 +1.2**
**KSRS Korea Array 38.73 2** P **P** **13 45 50.4 +0.2**
comp=Z,20nm,0.7s,baz=179,slow=9.4,SNR=59
KSRS PcP **PcP** **13 48 02.7 +1.2**
comp=Z,19nm,0.8s,baz=188,slow=3.3,SNR=8.4
**INCN Inchon 38.74 0** *eP* **P** **13 45 50.0 -0.2**
comp=Z,65nm,0.9s
**KS01 Wonju Array Si 38.75 2** *eP* **P** **13 45 50.2 -0.1**
**CD2 Chengdu 38.80 328** ⇓*i*P **P** **13 45 51.5 +0.6**
CD2 pP pP 13 45 58.0 -2.8
CD2 PcP **PcP** **13 48 01.8 -0.2**
CD2 S **S** **13 51 45.2 -1.3**
CD2 pmax pmax
comp=Z,70nm,1.0s
CD2 pmax pmax
comp=Z,2μm,6.0s
CD2 LR LR
comp=Z,4μm,19.0s
CD2 LR LR
comp=Z,6μm,17.8s
CD2 LR LR
comp=Z,5μm,19.0s
**XAN Xi'an 39.00 336** P **P** **13 45 52.2 -0.3**
XAN sP sP 13 46 05.5 -1.0
XAN PP **PnPn** **13 47 25.8 +0.9**
XAN PcP **PcP** **13 48 02.5 0.0**
XAN S **S** **13 51 47.9 -1.4**
XAN ScS **ScS** **13 55 58.0 -1.8**
XAN pmax pmax
comp=Z,120nm,1.0s
XAN pmax pmax
comp=Z,2μm,9.5s
XAN LR LR
comp=Z,710nm,17.3s
XAN LR LR
comp=Z,2μm,19.3s
XAN LR LR
comp=Z,4μm,21.4s
**MGCD Mangrove Creek 39.11 146** P **P** **13 45 55.6 +2.1**
baz=39,SNR=11
**MJAR Matsushiro Arr 39.33 15** P **P** **13 45 53.6 -1.6**
comp=Z,26nm,0.6s,baz=190,slow=8.9,SNR=61
MJAR PcP **PcP** **13 48 04.5 +1.0**
comp=Z,29nm,0.8s,baz=179,slow=3.8,SNR=11
MJAR ScP **ScP** **13 51 50.8 +1.1**
comp=Z,9.0nm,1.1s,baz=211,slow=4.6,SNR=6.0
MJAR LR LR 14 02 46.2
comp=Z,5μm,18.9s,baz=200,slow=37
**MJAR Matsushiro Arr 39.33 15** P **P** **13 45 53.6 -1.6**
MJAR 13 48 04.5
MJAR 13 51 50.8
MJAR pmax pmax
comp=Z,25nm,0.6s
MJAR pmax pmax
comp=Z,29nm,0.8s
MJAR pmax pmax
comp=N,9.0nm,1.2s
MJAR MLR MLR
comp=Z,5μm,18.9s
**MAJO Matsushiro 39.33 15** *d*/*i*P **P** **13 45 53.8 -1.4**
MAJO pmax pmax
comp=Z,19nm,0.7s
**MAJO Matsushiro 39.33 15** *eP* **P** **13 45 54.1 -1.2**
comp=Z,53nm,0.7s
MAJO LR LR
comp=Z,6μm,19.0s
**MAT Matsushiro 39.33 15** P **P** **13 45 53.5 -1.7**
MAT S **S** **13 51 51.2 -3.0**
**CAN Canberra 39.65 151** *eP* **P** **13 45 59.0 +1.0**
CAN pmax pmax
comp=Z,235nm,1.2s

CAN MLR MLR
comp=Z,3μm,21.0s
**CAN Canberra 39.65 151** *e*P **P 13 45 59.0 +1.0**
comp=Z,235nm,1.2s
CAN LR LR
comp=Z,3μm,21.0s
**CNB Canberra Magne 39.83 150** P **P 13 46 00.8 +1.4**
baz=40,SNR=13
**TOO Toolangi 39.96 156** P **P 13 46 01.7 +1.2**
baz=40,SNR=18
**DL2 Dalian 40.41 354** P **P 13 46 03.7 -0.5**
DL2 S **S 13 52 10.1 -0.2**
DL2 pmax pmax
comp=Z,99nm,1.0s
DL2 pmax pmax
comp=Z,2μm,8.0s
DL2 LR LR
comp=Z,3μm,17.3s
DL2 LR LR
comp=Z,4μm,20.2s
**TIY Taiyuan 41.10 343** *e*P **P 13 46 10.5 +0.6**
TIY pP **pP 13 46 20.7 +0.8**
TIY PP **PnPn 13 47 52.5 +2.7**
TIY PcS **PcS 13 51 52.8 -7.5**
TIY S **S 13 52 19.8 -0.9**
TIY sS **sS 13 52 39.1 +2.0**
TIY pmax pmax
comp=Z,220nm,0.6s
TIY pmax pmax
comp=Z,2μm,6.6s
TIY LR LR
comp=Z,2μm,14.3s
TIY LR LR
comp=Z,470nm,11.2s
TIY LR LR
comp=Z,2μm,20.8s
**MILA Mila 41.12 152** P **P 13 46 12.4 +2.2**
baz=41,SNR=4.7
**BRDH Bariadhala 41.61 307** P **P 13 46 14.5 +0.2**
comp=Z,133nm,0.5s,baz=295,slow=13,SNR=4.6
**KWAJ Kwajalein Atol 42.18 75** PFAKE 13 46 30.0 +11
KWAJ LR LR
comp=Z,8μm,19.0s
**BJT Baijiatuau 42.35 348** *e*P **P 13 46 19.4 -0.6**
BJT pmax pmax
comp=Z,141nm,0.8s
**BJT Baijiatuau 42.35 348** *e*P **P 13 46 19.4 -0.6**
comp=Z,140nm,0.8s
**BJI Beijing 42.37 348** P **P 13 46 20.3 +0.1**
BJI PP **PP 13 48 01.7 +2.9**
BJI PcS **PcS 13 52 06.0 +1.0**
BJI S **S 13 52 37.0 -2.2**
BJI pmax pmax
comp=Z,180nm,0.9s
BJI pmax pmax
comp=Z,3μm,8.1s
BJI LR LR
comp=Z,2μm,18.2s
BJI LR LR
comp=Z,2μm,17.5s
BJI LR LR
comp=Z,2μm,32.9s
**LZH Lanzhou 42.92 333** ⇓P **P 13 46 26.5 +1.5**
LZH pP pP 13 46 35.5 +0.5
LZH sP sP 13 46 39.9 +0.9
LZH PP **PP 13 48 07.3 +2.3**
LZH PcP **PcP 13 48 16.9 +1.5**
LZH S **S 13 52 52.0 +4.1**
LZH sS sS 13 53 09.3 +4.9
LZH pmax pmax
comp=Z,420nm,1.3s
LZH pmax pmax
comp=Z,3μm,6.6s
LZH LR LR
comp=Z,4μm,13.5s
LZH LR LR
comp=Z,3μm,14.6s
LZH LR LR
comp=Z,4μm,15.7s
**SHL Shillong 42.95 311** ⇓ *i*P **P 13 46 27.0 +1.6**
SHL *ex* x 13 52 36.0
**SNY Shenyang 43.16 357** ⇓P **P 13 46 26.1 -0.5**
SNY PP **PP 13 48 05.0 -2.3**
SNY S **S 13 52 47.7 -3.2**
SNY pmax pmax
comp=Z,34nm,0.8s
SNY pmax pmax
comp=Z,2μm,9.5s
SNY LR LR
comp=Z,3μm,18.3s
SNY LR LR
comp=Z,3μm,16.2s
SNY LR LR
comp=Z,4μm,19.7s
**DZM Mont Dzumac 43.89 121** P **P 13 46 33.6 +0.6**
comp=Z,34nm,0.8s,baz=286,slow=12,SNR=13
**DZM Mont Dzumac 43.89 121** *e*P **P 13 46 34.3 +1.4**
comp=Z,240nm,1.6s
DZM *e*S **S 13 53 01.5 -0.8**
comp=Z,2μm,27.4s
DZM *e*LR LR 13 58 56.5
comp=Z,6μm,24.1s
**DZM Mont Dzumac 43.89 121** *e*P **P 13 46 31.8 -1.2**
comp=Z,83nm,1.1s
**MSHR Mys Shultsa 44.03 5** *de*P **P 13 46 34.0 +0.4**
**HHC Hu-ho-hao-te 44.26 344** ⇓ *i*P **P 13 46 36.6 +1.0**
HHC PP **PcP 13 48 20.2 +0.5**
HHC S **S 13 53 12.5 +5.3**
HHC SS **SS 13 56 21.2 -5.2**
HHC ScS **ScS 13 56 33.5 +1.8**
HHC pmax pmax
comp=Z,51nm,1.1s
HHC pmax pmax
comp=Z,2μm,4.9s
HHC LR LR
comp=Z,2μm,17.3s
HHC LR LR
comp=Z,2μm,17.3s
HHC LR LR
comp=Z,3μm,18.5s
**BTO Baotou 44.49 342** *e*P **P 13 46 35.4 -2.0**
**VLA Vladivostok 44.63 6** *c i*P **P 13 46 38.9 +0.5**
VLA pmax pmax
comp=Z,69nm,0.7s
**MOO Moorlands 44.82 158** P **P 13 46 41.4 +1.5**
baz=45,SNR=7.5
**CN2 Changchun 45.06 359** *e*P **P 13 46 41.0 -0.8**
CN2 PcP **PcP 13 48 22.6 +0.3**
CN2 *e*S **S 13 53 18.0 -0.5**
CN2 SS **ScS 13 56 31.7 -4.7**
CN2 pmax pmax
comp=Z,10.0nm,1.1s
CN2 pmax pmax
comp=Z,800nm,9.0s
CN2 LR LR
comp=Z,2μm,18.0s
CN2 LR LR
comp=Z,3μm,18.0s
CN2 LR LR
comp=Z,3μm,18.0s
**TAU Tasmania Unive 45.27 158** *e*P **P 13 46 44.3 +0.8**
TAU pmax pmax
comp=Z,51nm,1.1s
TAU MLR MLR
comp=Z,6μm,22.0s
**TAU Tasmania Unive 45.27 158** *e*P **P 13 46 44.3 +0.8**
comp=Z,51nm,1.1s
TAU LR LR
comp=Z,6μm,22.0s
**USRK Ussuriysk Ar. 45.71 5** P **P 13 46 47.0 0.0**
comp=Z,70nm,0.7s,baz=186,slow=7.1,SNR=68
USRK LR LR 14 07 19.4
comp=Z,1μm,20.5s,baz=179,slow=38
**LSA Lhasa 45.84 315** P **P 13 46 49.8 +1.0**
LSA S **S 13 53 30.1 -1.0**
LSA pmax pmax
comp=Z,52nm,0.8s
LSA pmax pmax
comp=Z,1μm,7.1s
LSA LR LR
comp=Z,690nm,28.0s
LSA LR LR
comp=Z,2μm,16.5s
LSA LR LR
comp=Z,3μm,35.2s
**LSA Lhasa 45.84 315** *e*P **P 13 46 49.2 +0.4**
LSA pmax pmax
comp=Z,87nm,0.6s
LSA MLR MLR
comp=Z,1μm,21.0s
**LSA Lhasa 45.84 315** *e*P **P 13 46 49.2 +0.4**
comp=Z,87nm,0.6s
LSA LR LR
comp=Z,1μm,21.0s
**MDJ Mudanjiang 45.95 3** P **P 13 46 48.8 0.0**
MDJ pP pP 13 46 54.9 -4.0
MDJ sP sP 13 46 57.7 -5.2
MDJ PcP **PcP 13 48 25.7 +0.4**
MDJ PP **PP 13 48 35.7 -1.3**
MDJ ScP **ScP 13 52 17.5 +1.4**
MDJ PcS **PcS 13 52 20.1 +0.6**
MDJ S **S 13 53 32.2 +0.9**
MDJ ScS **ScS 13 56 43.5 +1.4**
MDJ pmax pmax
comp=Z,71nm,1.2s
MDJ pmax pmax
comp=Z,1μm,7.3s
MDJ LR LR
comp=Z,2μm,21.1s
MDJ LR LR
comp=Z,1μm,21.1s
MDJ LR LR
comp=Z,2μm,22.8s
**MDJ Mudanjiang 45.95 3** *e*P **P 13 46 48.7 -0.1**
comp=Z,91nm,0.9s
**CHLP Challavanipeta 46.23 297** *e*P **P 13 46 51.5 0.0**
CHLP IAmb IAmb 13 46 53.9
comp=Z,231nm,1.7s
CHLP *e*S **S 13 53 33.6 -2.6**
CHLP IVMs_BB IVMs_BB 14 12 58.5
comp=Z,917nm,18.4s
**TARA Tarawa 46.47 87** PFAKE 13 47 10.0 +17
TARA LR LR
comp=Z,5μm,18.0s
**PALK Pallekele 46.54 281** P **P 13 46 54.0 -0.1**
comp=Z,41nm,0.9s,baz=116,slow=7.6,SNR=13
PALK PcP **PcP 13 48 28.9 +0.8**
comp=Z,18nm,0.9s,baz=116,slow=7.0,SNR=1.8
**PALK Pallekele 46.54 281** *i* P **P 13 46 53.2 -0.9**
SNR=14
**PALK Pallekele 46.54 281** *e*P **P 13 46 53.8 -0.3**
PALK 13 48 28.9
PALK pmax pmax
comp=Z,109nm,0.9s
PALK MLR MLR
comp=Z,5μm,21.0s
**PALK Pallekele 46.54 281** *e*P **P 13 46 53.8 -0.3**
comp=Z,109nm,0.9s
PALK PcP **PcP 13 48 28.9 +0.8**
PALK LR LR
comp=Z,5μm,21.0s
**PALK Pallekele 46.54 281** P **P 13 46 53.3 -0.8**
SNR=8.7
PALK P **P 13 46 53.3 -0.8**
SNR=8.7
PALK P **P 13 46 53.3 -0.8**
SNR=8.7
**PALK Pallekele 46.54 281** P **P 13 46 53.3 -0.8**
SNR=8.7
**ODAN Odare 47.05 310** *e*P **P 13 46 58.2 +0.1**
comp=Z,216nm,0.8s
**TAPN Taplejung 47.06 310** *e*P **P 13 46 58.3 +0.1**
comp=Z,187nm,0.7s
**GTA Gaotai 47.48 332** P **P 13 47 01.8 +0.7**
GTA pP pP 13 47 10.2 -1.0
GTA sP sP 13 47 14.5 -0.7
GTA S **S 13 53 55.0 +1.3**
GTA sS sS 13 54 12.0 +1.7
GTA SS **SS 13 57 18.0 -4.0**
GTA pmax pmax
comp=Z,82nm,1.1s
GTA pmax pmax
comp=Z,2μm,5.6s
GTA LR LR
comp=Z,3μm,18.5s
GTA LR LR
comp=Z,2μm,18.5s
GTA LR LR
comp=Z,2μm,20.0s
**ASAJ Asahikawa 47.59 16** P **P 13 47 02.1 +0.5**
comp=Z,58nm,0.6s,baz=224,slow=7.1,SNR=51
ASAJ LR LR 14 09 44.3
comp=Z,12nm,18.2s,baz=200,slow=40
**ASAJ Asahikawa 47.59 16** *e*P **P 13 47 02.1 +0.5**
comp=Z,57nm,0.6s
**RAMN Ramite 47.71 309** *e*P **P 13 47 03.6 +0.4**
comp=Z,504nm,0.7s
**PVM Polavaram 48.00 295** *e*P **P 13 47 04.3 -1.0**
PVM IAmb IAmb 13 47 07.3
comp=Z,342nm,1.6s
PVM *e*S **S 13 53 58.6 -2.8**
PVM IVMs_BB IVMs_BB 14 09 14.6
comp=Z,865nm,21.5s
**JIRN Jiri 48.38 310** *e*P **P 13 47 08.7 +0.1**
comp=Z,1μm,0.7s
**YUK Yuzh-Kuril'sk 48.47 19** *e*P **P 13 47 05.7 -2.8**
YUK *e*S **S 13 54 06.3 -1.0**
YUK pmax pmax
comp=Z,1μm,2.2s
**GUN Gumba 48.74 310** *e*P **P 13 47 11.4 +0.1**
comp=Z,487nm,0.8s
**SKHT Srikalahasti 48.80 290** *e*P **P 13 47 10.9 -0.6**
SKHT IAmb IAmb 13 47 13.5
comp=Z,121nm,0.8s
SKHT *e*S **S 13 54 12.7 0.0**
SKHT IVMs_BB IVMs_BB 14 09 07.8
comp=Z,2μm,24.6s
**PKI Pulchoki 48.94 309** *e*P **P 13 47 12.6 -0.2**
comp=Z,107nm,0.7s
**PKIN Phulchoki 48.95 309** *e*P **P 13 47 12.5 -0.3**
comp=Z,80nm,0.6s
**ADKI Addanki 49.10 292** *e*P **P 13 47 13.2 -0.6**
ADKI IAmb IAmb 13 47 16.5
comp=Z,137nm,0.7s
ADKI *e*S **S 13 54 16.6 -0.4**
ADKI IVMs_BB IVMs_BB 14 10 15.1
comp=Z,2μm,20.2s
**KKN Kakani 49.15 309** *e*P **P 13 47 14.2 -0.1**
comp=Z,170nm,0.9s
**DMN Daman 49.19 309** *e*P **P 13 47 14.7 0.0**
comp=Z,338nm,1.0s
**GKN Gorkha 49.74 309** *e*P **P 13 47 18.6 -0.2**
comp=Z,9.2nm,0.4s
**NJS Nagarjunasagar 49.91 293** *e*P **P 13 47 19.2 -0.8**
NJS IAmb IAmb 13 47 22.1
comp=Z,131nm,0.7s
NJS *e*S **S 13 54 27.4 -0.9**
NJS IVMs_BB IVMs_BB 14 10 51.1
comp=Z,969nm,19.0s
**SRLM Srisailam 50.17 292** *e*P **P 13 47 20.6 -1.4**
SRLM IAmb IAmb 13 47 23.4
comp=Z,226nm,1.1s
SRLM *e*S **S 13 54 33.7 +1.7**
SRLM IVMs_BB IVMs_BB 14 10 57.1
comp=Z,1μm,20.0s
**KUR Kuril'sk 50.19 20** *e*P **P 13 47 22.9 +1.3**
KUR *e* 13 48 39.2
KUR *i* S **S 13 54 31.7 +0.4**
KUR pmax pmax
comp=Z,1μm,5.1s
KUR MLR MLR
comp=Z,1μm,16.0s
KUR MLR MLR
comp=N,2μm,18.0s
KUR MLR MLR
comp=E,699nm,14.0s
**YSS Yuzh-Sakhalins 50.27 14** *ke*P **P 13 47 21.9 -0.3**
YSS *e**PP **pP 13 47 31.6 -0.7**
YSS *e**SP **sP 13 47 35.7 -0.6**
YSS *e* 13 49 15.4
YSS *e*PPP PPP 13 50 17.0
YSS *e*S **S 13 54 29.1 -3.2**
YSS *e*PS PS 13 54 42.0
YSS *e*SS **SS 13 57 59.0 -7.3**
YSS pmax pmax
comp=Z,60nm,0.8s
YSS pmax pmax
comp=Z,1μm,11.5s
YSS smax smax
comp=N,1μm,7.0s
YSS MLR MLR
comp=Z,1μm,17.0s
YSS MLR MLR
comp=N,880nm,15.0s
YSS MLR MLR
comp=E,2μm,20.0s
**YSS Yuzh-Sakhalins 50.27 14** *e*P **P 13 47 21.8 -0.3**
comp=E,106nm,1.1s
YSS LR LR
comp=Z,2μm,22.0s
**HABR Khabarovsk 50.27 7** *e*P **P 13 47 20.5 -1.6**
HABR *e**PP **pP 13 47 30.4 -1.9**
HABR *e**SP **sP 13 47 34.7 -1.6**
HABR 13 48 39.0
HABR *e* 13 49 16.1
HABR *e*PPP PPP 13 50 12.1
HABR *e*S **S 13 54 31.5 -0.8**
HABR *e**SS **sS 13 54 48.5 -0.5**
HABR *e* 13 57 08.6
HABR *e*SS **SS 13 58 06.8 +0.5**
HABR *e*SSS SSS 13 59 34.3
HABR pmax pmax
comp=E,14nm,0.9s
HABR pmax pmax
comp=N,16nm,0.9s
HABR pmax pmax
comp=Z,66nm,0.9s
HABR pmax pmax
comp=Z,823nm,2.6s
HABR MLR MLR
comp=Z,3μm,19.0s
**KOLN Koldanda 50.44 308** *e*P **P 13 47 24.5 +0.4**
comp=Z,784nm,0.7s
**DANN Dangsing 50.59 309** *e*P **P 13 47 25.5 +0.2**
comp=Z,57nm,1.0s
**RPR Rampur 50.61 296** *e*P **P 13 47 24.8 -0.5**
RPR IAmb IAmb 13 47 27.6
comp=Z,183nm,0.7s
RPR *e*S **S 13 54 38.9 +0.9**
RPR IVMs_BB IVMs_BB 14 11 16.4
comp=Z,1μm,18.0s
**HYB Hyderabad 50.85 294** *i* P **P 13 47 25.0 -2.1**
HYB *e*S **S 13 54 40.0 -1.5**
**HYBB Hyderabad (bro 50.85 294** *e*P **P 13 47 25.9 -1.2**
HYBB IAmb IAmb 13 47 29.2
comp=Z,294nm,0.8s
HYBB *e*S **S 13 54 38.5 -2.9**
HYBB IVMs_BB IVMs_BB 14 15 30.2
comp=Z,953nm,17.9s
**HIA Hailar 50.86 354** *d i*P **P 13 47 24.9 -1.7**
HIA pmax pmax
comp=Z,33nm,1.4s
**HIA Hailar 50.86 354** *e*P **P 13 47 26.0 -0.6**
comp=Z,122nm,1.3s
HIA LR LR
comp=Z,3μm,21.0s
**PYUN Piuthan 51.07 309** *e*P **P 13 47 29.5 +0.6**
comp=Z,988nm,0.8s
**URV Uravakonda 51.39 290** *e*P **P 13 47 29.4 -1.8**
URV IAmb IAmb 13 47 32.3
comp=Z,111nm,0.9s
URV *e*S **S 13 54 48.5 -0.5**
URV IVMs_BB IVMs_BB 14 10 37.5
comp=Z,1μm,19.2s
**JBP Jabalpur 51.48 301** ⇓ *e*P **P 13 47 32.3 +0.7**
JBP *e*S **S 13 54 52.2 +2.4**
**SRSP Sriramsagar 51.49 296** *e*P **P 13 47 30.3 -1.5**
SRSP IAmb IAmb 13 47 33.8
comp=Z,173nm,0.7s
SRSP *e*S **S 13 54 49.5 -0.7**
SRSP IVMs_BB IVMs_BB 14 11 19.1
comp=Z,747nm,20.6s
**ULN Ulaanbaatar 51.98 343** *de*P **P 13 47 35.8 +0.6**
ULN pmax pmax
comp=Z,204nm,1.0s
**ULN Ulaanbaatar 51.98 343** *e*P **P 13 47 35.8 +0.6**
comp=Z,186nm,1.0s
ULN LR LR
comp=Z,2μm,22.0s
**ULN Ulaanbaatar 51.98 343** P **P 13 47 36.1 +0.9**
SNR=84
ULN P **P 13 47 36.1 +0.9**
SNR=84
ULN P **P 13 47 36.1 +0.9**
SNR=84
**ULN Ulaanbaatar 51.98 343** P **P 13 47 36.1 +0.9**
SNR=84
**SONM Songino Array 52.14 343** P **P 13 47 37.0 +0.6**
comp=Z,103nm,0.8s,baz=161,slow=8.7,SNR=190
SONM PcP **PcP 13 48 48.6 +0.7**
comp=Z,17nm,0.7s,baz=165,slow=5.1,SNR=1.7
SONM LR LR 14 13 12.0
comp=Z,2μm,19.0s,baz=160,slow=40
SONM PKP2bc 14 18 19.2
comp=Z,0.2nm,0.4s,baz=342,slow=0.5,SNR=5.4
**SONM Songino Array 52.14 343** P **P 13 47 37.0 +0.6**
SONM 13 48 48.6
SONM pmax pmax
comp=Z,104nm,0.8s
SONM pmax pmax
comp=Z,17nm,0.7s
SONM MLR MLR
comp=Z,2μm,19.0s
**SONA1 Songino Array 52.15 343** *e*P **P 13 47 36.8 +0.3**
**KLRI Killari 52.82 294** *e*P **P 13 47 40.6 -1.2**
KLRI IAmb IAmb 13 47 42.9
comp=Z,179nm,0.9s
KLRI *e*S **S 13 55 06.6 -2.0**
KLRI IVMs_BB IVMs_BB 14 16 44.0
comp=Z,1μm,19.2s
**FUNA Funafuti 52.88 100** *e*P **P 13 47 43.5 +1.2**
comp=Z,244nm,1.1s
**MSVF Nonsavu 53.09 111** *e*P **P 13 47 45.2 +1.3**
MSVF MLR MLR
comp=Z,5μm,21.0s
**MSVF Nonsavu 53.09 111** *e*P **P 13 47 45.2 +1.3**
MSVF LR LR
comp=Z,5μm,21.0s
**MNGI Mangalore 53.25 287** *i* P P 13 47 55.5 +10
MNGI *i* S S 13 55 29.1 +15
MNGI *ex* x 14 12 38.1
**TYV Tymovskoe 53.90 13** *e*P **P 13 47 48.1 -1.0**
TYV *e*S **S 13 55 21.7 -0.4**
TYV pmax pmax
comp=Z,37nm,0.8s
TYV pmax pmax
comp=Z,600nm,5.9s
TYV smax smax
comp=N,2μm,6.7s
TYV MLR MLR
comp=N,2μm,21.0s
TYV MLR MLR
comp=Z,3μm,15.0s
**DGAR Diego Garcia 54.21 262** *e*P **P 13 47 49.3 -2.8**
DGAR pmax pmax
comp=Z,668nm,1.6s
DGAR MLR MLR
comp=Z,4μm,20.0s
**DGAR Diego Garcia 54.21 262** *e*P **P 13 47 49.3 -2.8**
comp=Z,668nm,1.6s
DGAR LR LR
comp=Z,4μm,20.0s
**CIT Chita 54.40 350** *e*P **P 13 47 52.5 -0.3**
CIT *e* 13 48 01.5
CIT *e* 13 48 11.3
CIT *e* 13 48 56.9
CIT *e* 13 49 54.3
CIT pmax pmax
comp=Z,158nm,1.6s
**ZAK Zakamensk 55.34 342** *e*P **P 13 47 59.9 +0.2**
ZAK *e* 13 49 00.3
ZAK pmax pmax
comp=Z,42nm,1.2s
ZAK pmax pmax
comp=Z,48nm,1.4s
**POO Poona 55.46 294** ⇑ *i*P **P 13 47 59.0 -2.1**
comp=Z,150nm,1.0s
**NKL Nikolayevsk 55.68 10** *e*P **P 13 48 00.0 -1.9**
NKL *e*S **S 13 55 47.0 +1.1**
NKL pmax pmax
comp=N,220nm,1.1s
NKL pmax pmax
comp=Z,270nm,1.1s
NKL pmax pmax
comp=Z,1μm,9.0s
NKL smax smax
comp=N,2μm,7.0s
NKL smax smax

NKL MLR MLR
comp=N,1µm,18.0s
NKL MLR MLR
comp=E,1µm,18.0s
NKL MLR MLR
comp=Z,2µm,16.0s
**NDI New Delhi 55.91 306** *e*P **P 13 48 02.5 -1.6**
NDI *ex* x 13 48 14.5
**TLY Talaya 56.38 343** *d i*P **P 13 48 07.6 +0.5**
TLY *e* 13 49 06.2
TLY *e* 13 50 14.9
TLY *e*S **S 13 55 57.1 +1.8**
TLY pmax pmax
comp=Z,77nm,1.5s
TLY MLR MLR
comp=Z,2µm,18.0s
**TLY Talaya 56.38 343** *e*P **P 13 48 07.5 +0.5**
comp=Z,154nm,1.6s
TLY LR LR
comp=Z,2µm,20.0s
**TLY Talaya 56.38 343** P **P 13 48 07.9 +0.9**
SNR=14
TLY P **P 13 48 07.9 +0.9**
SNR=14
**TLY Talaya 56.38 343** P **P 13 48 07.9 +0.9**
SNR=14
**DCZ Deep Cove 56.50 147** *e*P **P 13 48 08.6 +0.6**
comp=Z,100nm,1.3s
DCZ LR LR
comp=Z,3µm,21.0s
**IRK Irkutsk 56.70 344** *e*P **P 13 48 07.6 -1.7**
IRK pmax pmax
comp=Z,174nm,2.4s
**FOZ Fox Glacier 56.87 143** *e*P **P 13 48 11.4 +0.8**
comp=Z,45nm,0.9s
FOZ LR LR
comp=Z,5µm,18.0s
**WMQ Urumqi 56.89 327** P **P 13 48 12.6 +1.7**
WMQ pP pP 13 48 17.0 -4.2
WMQ sP sP 13 48 21.6 -3.6
WMQ PcP **PcP 13 49 08.8 +2.6**
WMQ PP **PP 13 50 24.1 +6.4**
WMQ S **S 13 56 05.0 +2.5**
WMQ ScS **ScS 13 57 58.6 +0.8**
WMQ SS **SS 13 59 54.3 +3.0**
WMQ pmax pmax
comp=Z,410nm,0.9s
WMQ LR LR
comp=Z,9µm,20.3s
WMQ LR LR
comp=Z,6µm,20.3s
WMQ LR LR
comp=Z,5µm,26.9s
**MLZ Mavora Lakes 56.98 146** *e*P **P 13 48 11.9 +0.5**
MLZ LR LR
comp=Z,6µm,21.0s
**WKZ Wanaka 57.16 145** PFAKE 13 48 20.0 +7.2
WKZ LR LR
comp=Z,6µm,21.0s
**MOY Mondy 57.17 341** *e*P **P 13 48 13.5 +0.7**
MOY pmax pmax
comp=Z,224nm,2.3s
**WHZ Wether Hill Ro 57.20 147** *e*P **P 13 48 13.4 +0.4**
comp=Z,64nm,0.8s
**SDNR Sundarnagar 57.27 309** *e*P **P 13 48 14.0 +0.3**
**HIZ Hauiti 57.51 136** PFAKE 13 48 30.0 +15
HIZ LR LR
comp=Z,2µm,20.0s
**LBZ Lake Benmore 57.58 144** *e*P **P 13 48 16.3 +0.6**
LBZ LR LR
comp=Z,5µm,19.0s
**BHK Bhakra 57.66 309** *e*P **P 13 48 15.8 -0.7**
BHK *ex* x 13 48 28.4
**RPZ Rata Peaks 57.71 143** *e*P **P 13 48 17.4 +0.7**
comp=Z,504nm,1.9s
RPZ LR LR
comp=Z,5µm,19.0s
**THZ Tophouse 57.81 140** *e*P **P 13 48 17.6 +0.2**
comp=Z,45nm,1.0s
THZ LR LR
comp=Z,4µm,18.0s
**JWA Jwalamukhi 57.91 310** *e*P **P 13 48 18.0 -0.2**
JWA *ex* x 13 48 32.0
**LTZ Lake Taylor 57.95 142** *e*P **P 13 48 18.6 +0.3**
comp=Z,76nm,1.1s
LTZ LR LR
comp=Z,4µm,20.0s
**OXZ Oxford 58.09 142** *e*P **P 13 48 19.4 +0.1**
OXZ LR LR
comp=Z,5µm,20.0s
**CLNS Chul'man 58.12 359** *e*P **P 13 48 19.2 0.0**
CLNS *e**PP **sP 13 48 32.7 -0.8**
CLNS *e* 13 49 12.3
CLNS *e* 13 50 23.2
CLNS *e*S **S 13 56 14.4 -3.7**
CLNS *e* 13 58 00.7
CLNS pmax pmax
comp=Z,23nm,1.0s
CLNS pmax pmax
comp=N,16nm,0.9s
CLNS pmax pmax
comp=E,6.0nm,0.7s
CLNS pmax pmax
comp=Z,10.0nm,1.0s
CLNS pmax pmax
comp=E,9.0nm,1.1s
CLNS pmax pmax
comp=N,14nm,1.0s
CLNS smax smax
comp=E,530nm,11.1s
CLNS smax smax
comp=N,572nm,11.9s
CLNS MLR MLR
comp=Z,2µm,19.0s
CLNS MLR MLR
comp=N,2µm,21.0s
CLNS MLR MLR
comp=E,416nm,13.0s
**ODZ Otahua Downs 58.22 145** PFAKE 13 48 30.0 +10
ODZ LR LR
comp=Z,4µm,19.0s
**PONG Pong 58.24 309** *e*P **P 13 48 20.0 -0.5**
**KHZ Kahutara 58.55 141** *e*P **P 13 48 22.6 +0.1**
KHZ LR LR
comp=Z,4µm,18.0s
**THN Thein Dam 58.62 310** *e*P **P 13 48 22.0 -1.2**
THN *ex* x 13 50 25.4
**MQZ McQueen's Vall 58.68 142** PFAKE 13 48 40.0 +17
MQZ LR LR
comp=Z,3µm,21.0s
**SNZO South Karori 58.75 139** *e*P **P 13 48 23.7 -0.2**
comp=Z,197nm,1.1s
SNZO LR LR
comp=Z,5µm,18.0s
**BKZ Black Stump Fm 58.95 136** *e*P **P 13 48 25.2 -0.3**
comp=Z,90nm,1.0s
BKZ LR LR
comp=Z,2µm,20.0s
**URZ Urewera 58.98 135** *e*P **P 13 48 25.5 -0.1**
comp=Z,91nm,1.0s
URZ LR LR
comp=Z,5µm,21.0s
**MCQ Macquarie Isla 59.16 159** *e*P **P 13 48 27.6 +1.1**
MCQ pmax pmax
comp=Z,412nm,1.1s
**MCQ Macquarie Isla 59.16 159** *e*P **P 13 48 27.6 +1.1**
comp=Z,412nm,1.1s
**HVS Khovu-Aksy 59.36 337** *c i*P **P 13 48 28.9 +0.9**
HVS pmax pmax
comp=Z,311nm,1.0s
**BFZ Birch Farm 59.47 138** *e*P **P 13 48 29.7 +0.8**
comp=Z,114nm,1.2s
**MXZ Matakaoa Point 59.55 134** PFAKE 13 48 40.0 +11
MXZ LR LR
comp=Z,4µm,20.0s
**RAO Raoul Island 59.57 123** LR LR 14 15 17.8
comp=Z,1µm,19.2s,baz=301,slow=37
**BOD Bodaibo 59.93 352**⇑ *i*P **P 13 48 31.3 -0.4**
BOD pmax pmax
comp=Z,109nm,1.4s
**PEA0B Petropavlovsk- 60.29 21** *e*P **P 13 48 35.0 +0.7**
comp=Z,283nm,1.8s
**PETK Petropavlovsk- 60.29 21** P **P 13 48 35.1 +0.8**
comp=Z,28nm,0.6s,baz=178,slow=4.1,SNR=49
PETK LR LR 14 15 37.3
comp=Z,1µm,19.2s,baz=201,slow=37
**PETK Petropavlovsk- 60.29 21** *e*P **P 13 48 34.8 +0.5**
**PETK Petropavlovsk- 60.29 21** *e*P **P 13 48 34.9 +0.5**
**PET Petropavlovsk 60.57 22** *e*P **P 13 48 36.0 -0.1**
PET *e*S **S 13 56 51.1 +1.4**
PET pmax pmax
comp=Z,71nm,1.2s
PET pmax pmax
comp=Z,2µm,12.8s
PET pmax pmax
comp=Z,700nm,14.5s
PET MLR MLR
comp=Z,3µm,16.0s
PET MLR MLR
comp=Z,3µm,19.0s
**PET Petropavlovsk 60.57 22** *e*P **P 13 48 36.8 +0.6**
comp=Z,136nm,1.2s
**ZSN Zaisan 60.77 329** *i*P **P 13 48 37.5 -0.2**
comp=Z,449nm,1.1s
ZSN *e*S **S 13 56 54.5 +1.8**
ZSN LR LR 14 15 33.1
comp=Z,171nm,16.2s
**SHLS Shalkode 61.24 322** *i*P **P 13 48 37.1 -4.1**
comp=Z,2µm,0.9s
**PDGK Podgornoye 61.32 322** *i*P **P 13 48 42.6 +0.9**
PDGK pmax pmax
comp=Z,123nm,0.7s
**UZB Uzynbulak 61.51 322** *i*P **P 13 48 41.5 -1.5**
comp=Z,804nm,1.0s
**KSH Kashi 61.62 317** P **P 13 48 45.7 +1.9**
KSH pP pP 13 48 55.7 +1.5
KSH PcP **PcP 13 49 25.0 -0.2**
KSH PP **PP 13 51 02.0 +2.2**
KSH S **S 13 57 05.4 +1.4**
KSH ScS **SKKSac 13 58 31.1 -2.1**
KSH SS **SS 14 01 09.4 +3.5**
KSH pmax pmax
comp=Z,63nm,0.8s
KSH pmax pmax
comp=Z,2µm,3.3s
KSH LR LR
comp=Z,320nm,9.0s
KSH LR LR
comp=Z,760nm,14.6s
KSH LR LR
comp=Z,1µm,17.0s
**MK01 Makanchi Array 61.70 327** *e*P **P 13 48 44.7 +0.7**
**KNTN Kanton 61.71 92** PFAKE 13 49 00.0 +15
KNTN LR LR
comp=Z,4µm,22.0s
**MK31 Makanchi Array 61.72 327** *e*P **P 13 48 44.7 +0.5**
**MK31 Makanchi Array 61.72 327** *e*P **P 13 48 44.6 +0.5**
**MKAR Makanchi Array 61.72 327** P **P 13 48 45.0 +0.8**
comp=Z,217nm,0.7s,baz=122,slow=6.5,SNR=592
MKAR LR LR 14 16 45.1
comp=Z,3µm,21.4s,baz=121,slow=37
MKAR PKP2bc 14 18 00.3
comp=Z,1.9nm,0.9s,baz=316,slow=6.8,SNR=3.7
**MKAR Makanchi Array 61.72 327** P **P 13 48 45.0 +0.8**
MKAR pmax pmax
comp=Z,217nm,0.7s
MKAR MLR MLR
comp=Z,3µm,21.4s
**SATY Saty 61.84 322** *i*P **P 13 48 43.8 -1.4**
comp=Z,3µm,0.9s
**ZHN Zhinishke 61.88 322** *i*P **P 13 48 44.0 -1.4**
comp=Z,1µm,1.0s
**KPKS Kokpek 61.89 322** *i*P **P 13 48 43.7 -1.8**
comp=Z,2µm,0.6s
**MAKZ Makanchi 61.90 327** *e*P **P 13 48 45.8 +0.4**
MAKZ pmax pmax
comp=Z,342nm,1.1s
MAKZ MLR MLR
comp=Z,4µm,21.0s
**MAKZ Makanchi 61.90 327** *e*P **P 13 48 45.8 +0.4**
comp=Z,342nm,1.1s
MAKZ LR LR
comp=Z,4µm,21.0s
**AFI Afiamalu 62.20 105** LR LR 14 16 06.9
comp=Z,1µm,19.7s,baz=285,slow=36
**MDOK Medeo 62.74 321** *i*P **P 13 48 49.5 -1.7**
comp=Z,804nm,1.0s
MDOK *e*S **S 13 57 16.7 -1.3**
MDOK LR LR 14 15 42.8
comp=Z,539nm,18.9s
**ULHL Ulahol 62.78 320** P **P 13 48 53.1 +1.4**
SNR=16
**AAA Alma-Ata 62.85 321** *e*P **P 13 48 53.4 +1.5**
AAA *e*S **S 13 57 20.2 +1.0**
AAA pmax pmax
comp=Z,3µm,5.0s
AAA smax smax
comp=E,4µm,11.3s
AAA MLR MLR
comp=Z,2µm,22.0s
**YAK Yakutsk 63.36 2** *d i*P **P 13 48 54.8 +0.1**
YAK *e**PP **pP 13 49 05.7 +0.6**
YAK *e* 13 49 32.0
YAK *e* 13 51 11.5
YAK *i*S **S 13 57 23.9 -0.8**
YAK *e**SS **pS 13 57 38.9 +1.6**
YAK *e* 13 58 45.6
YAK pmax pmax
comp=Z,166nm,0.9s
YAK pmax pmax
comp=N,59nm,1.1s
YAK pmax pmax
comp=E,20nm,1.4s
YAK pmax pmax
comp=Z,332nm,4.4s
YAK pmax pmax
comp=N,166nm,4.2s
YAK pmax pmax
comp=E,219nm,4.9s
YAK smax smax
comp=N,801nm,4.7s
YAK smax smax
comp=E,697nm,5.1s
YAK MLR MLR
comp=Z,3µm,19.0s
YAK MLR MLR
comp=E,713nm,21.0s
**YAK Yakutsk 63.36 2** *e*P **P 13 48 54.6 -0.2**
comp=E,345nm,0.8s
**TKM2 Tokmak 2 63.53 320** *i*P **P 13 48 57.7 +1.1**
TKM2 pmax pmax
comp=Z,155nm,0.8s
**TKM2 Tokmak 2 63.53 320** P **P 13 48 57.7 +1.1**
SNR=23
**SFK Sufi-Kurgan 63.54 317** *i*P **P 13 48 58.0 +1.3**
SFK pmax pmax
comp=Z,129nm,0.6s
**KUU Kurty 63.56 322** *i*P **P 13 48 54.9 -1.6**
comp=Z,2µm,0.9s
KUU *e*S **S 13 57 26.9 -1.0**
KUU LR LR 14 16 26.5
comp=Z,127nm,14.8s
**MA2 Magadan 63.75 13** *de*P **P 13 48 58.5 +1.1**
**KBK Karagaybulak 63.82 320** P **P 13 48 59.8 +1.3**
SNR=130
**UCH Uchtor 63.89 319** P **P 13 49 00.8 +1.5**
SNR=217
**AAK Ala-Archa 64.10 320** *e*P **P 13 49 01.2 +0.9**
AAK pmax pmax
comp=Z,159nm,1.1s
**AAK Ala-Archa 64.10 320** P **P 13 49 01.7 +1.4**
SNR=142
**AAK Ala-Archa 64.10 320** *e*P **P 13 49 01.2 +0.9**
comp=Z,159nm,1.1s
**AAK Ala-Archa 64.10 320** P **P 13 49 01.7 +1.4**
SNR=68
AAK P **P 13 49 01.7 +1.4**
SNR=68
AAK P **P 13 49 01.7 +1.4**
SNR=68
**AAK Ala-Archa 64.10 320** P **P 13 49 01.7 +1.4**
SNR=68
**CHMS Chumysh 64.11 320** P **P 13 49 01.0 +0.8**
SNR=70
**FRU Bishkek 64.12 320** *e*P **P 13 49 01.0 +0.8**
FRU *e* 13 49 38.0
FRU *e*S **S 13 57 41.5 +6.5**
FRU pmax pmax
comp=Z,380nm,2.5s
FRU smax smax
comp=E,2µm,11.0s
FRU MLR MLR
comp=E,2µm,21.0s
**AML Almayashu 64.38 319** P **P 13 49 04.1 +1.6**
SNR=12
**KBL Kabul 64.58 310** *e*P **P 13 49 03.9 +0.3**
KBL pmax pmax
comp=Z,220nm,0.8s
**KBL Kabul 64.58 310** *e*P **P 13 49 03.9 +0.3**
comp=Z,220nm,0.8s
**EKS2 Erkin-Say 64.58 319** P **P 13 49 04.9 +1.5**
SNR=296
**SEM Semipalatinsk 64.99 329** *i*P **P 13 49 04.0 -2.0**
comp=Z,803nm,1.4s
SEM *e*S **S 13 57 44.4 -1.5**
SEM LR LR 14 18 12.7
comp=Z,432nm,16.4s
**ZAA0 Zalesovo Array 65.11 334** *e*P **P 13 49 05.7 -0.8**
comp=Z,230nm,1.4s
ZAA0 LR LR
comp=Z,1µm,19.0s
**ZALV Zalesovo Beam 65.11 334** P **P 13 49 05.8 -0.6**
comp=Z,62nm,0.8s,baz=116,slow=5.1,SNR=178
ZALV PKP2bc 14 17 53.5
comp=Z,3.3nm,0.9s,baz=264,slow=4.3,SNR=5.8
ZALV LR LR 14 19 42.2
comp=Z,913nm,18.4s,baz=106,slow=38
**MNAS Manas 65.33 319** *i*P **P 13 49 09.6 +1.3**
MNAS pmax pmax
comp=Z,310nm,1.0s
**BTLS Baital 65.56 322** *i*P **P 13 49 07.9 -1.6**
comp=Z,964nm,1.3s
**CASY Casey 65.69 187** PFAKE 13 49 20.0 +10
CASY LR LR
comp=Z,3µm,18.0s
**KURK Kurchatov 66.01 329** *e*P **P 13 49 12.4 +0.1**
KURK pmax pmax
comp=Z,854nm,1.5s
KURK MLR MLR
comp=Z,1µm,19.0s
**KURK Kurchatov 66.01 329** *e*P **P 13 49 12.4 +0.1**
comp=Z,854nm,1.5s
KURK LR LR
comp=Z,1µm,19.0s
**KURK Kurchatov 66.01 329** P **P 13 49 12.8 +0.5**
SNR=114
KURK P **P 13 49 12.8 +0.5**
SNR=114
**KURK Kurchatov 66.01 329** P **P 13 49 12.8 +0.5**
SNR=114
**DZA Taraz 66.28 319** *i*P **P 13 49 13.0 -1.3**
comp=Z,1µm,1.3s
**NVS Novosibirsk 66.40 334**⇑ *i*P **P 13 49 14.6 -0.1**
NVS *e*S **S 13 58 01.4 -1.0**
NVS pmax pmax
comp=Z,288nm,1.5s
NVS pmax pmax
comp=N,113nm,1.3s
NVS pmax pmax
comp=E,130nm,1.2s
NVS smax smax
comp=E,50nm,2.0s
NVS smax smax
comp=N,15nm,2.1s
**IUG Iuzhnay 66.83 318** *i*P **P 13 49 16.3 -1.6**
comp=N,1µm,1.2s
IUG *e*S **S 13 58 07.0 -1.4**
IUG LR LR 14 17 55.5
comp=N,364nm,12.9s
**KK31 Karatay Array 66.92 319** *i*P **P 13 49 18.5 +0.2**
KK31 pmax pmax
comp=Z,180nm,1.0s
**SEY Seymchan 67.09 13** *de*P **P 13 49 20.3 +1.3**
**BRLS Boroldaу 67.33 318** *i*P **P 13 49 19.9 -1.1**
comp=Z,156nm,1.2s
**BRZS Berezniki 68.81 326** *i*P **P 13 49 28.8 -1.3**
comp=Z,189nm,0.9s
**MRIV Mauritius Mete 69.86 249** *e*P **P 13 49 37.8 +0.7**
**WBK Wadi Bani Khal 69.95 295** P **P 13 49 40.1 +2.5**
SNR=6.8
**WBK Wadi Bani Khal 69.95 295** P **P 13 49 40.1 +2.5**
SNR=6.8
**WSAR Wadi Sarin 70.37 295** S **S 13 58 48.1 -2.7**
**JMDO Jabal Madar 70.69 294** P **P 13 49 44.7 +2.5**
SNR=7.4
**JMDO Jabal Madar 70.69 294** P **P 13 49 44.7 +2.5**
SNR=7.4
**SMDO Samad 70.86 295** P **P 13 49 45.8 +2.4**
SNR=12
**SMDO Samad 70.86 295** P **P 13 49 45.8 +2.4**
SNR=12
**BIDO Bidbid 70.87 295** P **P 13 49 43.6 +0.3**
SNR=28
BIDO P **P 13 49 43.6 +0.3**
SNR=28
**BIDO Bidbid 70.87 295** P **P 13 49 43.6 +0.3**
SNR=28
**MSEY Mahe Island 71.00 266** *e*P **P 13 49 46.3 +2.0**
**MSEY Mahe Island 71.00 266** *e*P **P 13 49 46.3 +2.0**
comp=Z,299nm,1.8s
MSEY LR LR
comp=Z,2µm,18.0s
**BSY Bisya 71.58 294** P **P 13 49 49.0 +1.3**
SNR=16
**BSY Bisya 71.58 294** P **P 13 49 49.0 +1.3**
SNR=16
**BRVK Borovoye 71.63 328** *de*P **P 13 49 47.2 0.0**
BRVK pmax pmax
comp=Z,173nm,1.0s
**BRVK Borovoye 71.63 328** *e*P **P 13 49 47.0 -0.2**
comp=Z,221nm,1.3s
BRVK LR LR
comp=Z,900nm,20.0s
**BRVK Borovoye 71.63 328** P **P 13 49 47.4 +0.2**
SNR=63
BRVK P **P 13 49 47.4 +0.2**
SNR=63
**BRVK Borovoye 71.63 328** P **P 13 49 47.4 +0.2**
SNR=63
**ARQ Araqi 72.29 295** P **P 13 49 52.5 +0.7**
SNR=13
**ARQ Araqi 72.29 295** P **P 13 49 52.5 +0.7**
SNR=13
**UOSS Minazif 72.85 297** *e*P **P 13 49 55.0 -0.2**
comp=Z,95nm,0.8s
**HATD Hatta, Dubai 72.89 296** *i*P **P 13 49 55.7 +0.3**
SNR=35
**HATD Hatta, Dubai 72.89 296** P **P 13 49 55.7 +0.3**
SNR=19
HATD P **P 13 49 55.7 +0.3**
SNR=19
**HATD Hatta, Dubai 72.89 296** P **P 13 49 55.7 +0.3**
SNR=19
**BANOM Banah 72.93 298** *i*P **P 13 49 56.2 +0.6**
SNR=8.8
**BANOM Banah 72.93 298** P **P 13 49 55.4 -0.2**
SNR=7.0
BANOM P **P 13 49 55.4 -0.2**
SNR=7.0
**BANOM Banah 72.93 298** P **P 13 49 55.4 -0.2**
SNR=7.0
**ASHO Ashiyiah 72.94 296** *i*P **P 13 49 56.0 +0.2**
SNR=32
**ASHO Ashiyiah 72.94 296** P **P 13 49 55.9 +0.2**
SNR=22
**ASHO Ashiyiah 72.94 296** P **P 13 49 55.9 +0.2**
SNR=22
**TIXI Tiksi 72.99 1** *de*P **P 13 49 54.1 -0.9**
TIXI pmax pmax
comp=Z,109nm,0.8s
TIXI MLR MLR
comp=Z,2µm,19.0s
**TIXI Tiksi 72.99 1** *e*P **P 13 49 53.8 -1.1**
comp=Z,145nm,0.6s
TIXI LR LR
comp=Z,2µm,18.0s
**NAZ Nazwa, Dubai 73.34 296** *i*P **P 13 49 59.0 +1.0**
SNR=16
**NAZ Nazwa, Dubai 73.34 296** P **P 13 49 57.8 -0.2**
SNR=7.3
NAZ P **P 13 49 57.8 -0.2**
SNR=7.3
**NAZ Nazwa, Dubai 73.34 296** P **P 13 49 57.8 -0.2**
SNR=7.3
**FAQ Al Faqa, Dubai 73.36 296** *i*P **P 13 49 58.4 +0.3**
SNR=25
**FAQ Al Faqa, Dubai 73.36 296** P **P 13 49 58.4 +0.3**
SNR=6.1
FAQ P **P 13 49 58.4 +0.3**

SNR=6.1
**FAQ Al Faqa, Dubai 73.36 296 P P 13 49 58.4 +0.3**
SNR=6.1
**GEYT Alibeck 74.02 310 P P 13 50 02.5 +0.7**
comp=Z,74nm,0.7s,baz=134,slow=4.3,SNR=87
GEYT LR LR 14 27 50.1
comp=Z,1µm,20.4s,baz=115,slow=40
**WHFO Wadi Hawf 74.08 289 P P 13 50 01.7 -0.8**
SNR=7.7
**WHFO Wadi Hawf 74.08 289 P P 13 50 01.7 -0.8**
SNR=7.7
**RAR Rarotonga 74.28 112 LR LR** 14 22 53.7
comp=Z,513nm,19.2s,baz=284,slow=36
**RAR Rarotonga 74.28 112** *eP* **P 13 50 02.6 -1.0**
RAR pmax pmax
comp=Z,212nm,1.8s
**RAR Rarotonga 74.28 112** *eP* **P 13 50 02.6 -1.0**
comp=Z,212nm,1.8s
**ABTO Aybut 74.46 288 P P 13 50 04.4 -0.4**
SNR=5.4
**ABTO Aybut 74.46 288 P P 13 50 04.4 -0.4**
SNR=5.4
**AB31 Akbulak array 76.04 322** *i* P **P 13 50 12.5 -0.7**
AB31 pmax pmax
comp=Z,94nm,0.9s
**KIP Kipapa 77.00 68** *i* P **P 13 50 20.6 +1.4**
**SVE Sverdlovsk 78.26 329** *c i* P **P 13 50 25.3 -0.2**
SVE *e* 13 53 27.9
SVE *e*S S 14 00 28.9 +11
SVE pmax pmax
comp=Z,233nm,1.5s
**VNDA Vanda 78.35 173 P P 13 50 25.9 +0.3**
comp=Z,31nm,0.9s,baz=315,slow=5.9,SNR=34
VNDA LR LR 14 25 23.5
comp=Z,2µm,18.5s,baz=342,slow=36
**VNDA Vanda 78.35 173** *eP* **P 13 50 26.2 +0.6**
VNDA pmax pmax
comp=Z,53nm,0.8s
**VNDA Vanda 78.35 173** *eP* **P 13 50 26.2 +0.6**
comp=Z,53nm,0.8s
**MAW Mawson 78.86 200 P P 13 50 29.5 +1.0**
comp=Z,50nm,1.1s,baz=61,slow=7.7,SNR=31
MAW LR LR 14 22 34.2
comp=Z,869nm,20.4s,baz=64,slow=34
**MAW Mawson 78.86 200 P P 13 50 29.6 +1.0**
baz=79,SNR=14
**MAW Mawson 78.86 200** *eP* **P 13 50 29.1 +0.5**
MAW pmax pmax
comp=Z,65nm,1.5s
**MAW Mawson 78.86 200** *eP* **P 13 50 29.1 +0.5**
comp=Z,65nm,1.5s
**ARU Arti 79.20 328** *d i* P **P 13 50 29.7 -1.0**
ARU PPP PPP 13 55 18.8
ARU S **S 14 00 28.0 -0.1**
ARU pmax pmax
comp=Z,195nm,1.7s
**ARU Arti 79.20 328** *eP* **P 13 50 29.6 -1.0**
comp=Z,136nm,1.2s
**SBA Scott Base 79.27 172** *eP* **P 13 50 30.6 0.0**
SBA pmax pmax
comp=Z,239nm,1.5s
SBA MLR MLR
comp=Z,3µm,19.0s
**SBA Scott Base 79.27 172** *eP* **P 13 50 30.6 0.0**
comp=Z,239nm,1.5s
SBA LR LR
comp=Z,3µm,19.0s
**ABPO Ambohimpanom 79.42 251** *eP* **P 13 50 31.7 -1.2**
ABPO pmax pmax
comp=Z,44nm,1.0s
ABPO MLR MLR
comp=Z,2µm,20.0s
**ABPO Ambohimpanom 79.42 251** *eP* **P 13 50 31.7 -1.2**
comp=Z,44nm,1.0s
ABPO LR LR
comp=Z,2µm,20.0s
**CHGN Chignik 82.94 33** PFAKE 13 51 00.0 +9.5
CHGN LR LR
comp=Z,4µm,19.0s
**MAK Makhachkala 82.96 313** *eP* P 13 50 41.5 -9.4
MAK *e* 13 53 59.2
MAK *e*SS SS 14 06 29.5 -2.2
MAK pmax pmax
comp=Z,325nm,1.3s
**PPT Papeete 83.74 107** LR LR 14 28 24.4
comp=Z,554nm,18.9s,baz=269,slow=36
**PPT2 Papeete2 83.74 107** *eS* **S 14 01 14.4 -2.3**
comp=Z,2µm,27.5s
PPT2 *e*SS **SS 14 06 41.3 -3.1**
comp=Z,1µm,33.2s
PPT2 *e*LQ LQ 14 13 51.4
comp=Z,5µm,41.2s
PPT2 *e*LR LR 14 17 11.9
comp=Z,2µm,26.8s
**DDFL Dedoflistskaro 83.77 312 P P 13 50 56.7 +1.4**
**TBI Tubuai 83.92 113** *eS* **S 14 01 14.3 -3.9**
comp=Z,997nm,28.0s
**TBI Tubuai 83.92 113** *e*LQ LQ 14 13 46.7
comp=Z,2µm,43.2s
TBI *e*LR LR 14 17 15.4
comp=Z,2µm,29.2s
**ATD Arta Tunnel 84.11 282** *eP* **P 13 50 58.5 +1.0**
comp=Z,44nm,1.0s
ATD LR LR
comp=Z,800nm,20.0s
**GROC Groznyy 84.23 314** *eP* **P 13 50 56.7 -0.8**
GROC *e*S **S 14 01 16.2 -4.4**
GROC pmax pmax
comp=Z,152nm,1.5s
**GNI Garni 84.65 310** *i* P **P 13 51 00.4 +0.5**
SNR=7.7
**GNI Garni 84.65 310** *d i* P **P 13 51 00.2 +0.3**
GNI pmax pmax
comp=Z,60nm,1.3s
**GNI Garni 84.65 310** *eP* **P 13 51 00.1 +0.3**
comp=Z,55nm,0.9s
**GNI Garni 84.65 310** P **P 13 51 00.6 +0.7**
SNR=8.2
GNI P **P 13 51 00.6 +0.7**
SNR=8.2
**GNI Garni 84.65 310** PcP **P 13 51 00.6 +0.7**
SNR=8.2
**TBLG Delisi 84.83 312 P P 13 51 01.3 +0.7**
**TBLG Delisi 84.83 312 P P 13 51 01.3 +0.7**
**GUDG Gudauri 85.11 313 P P 13 51 04.6 +2.4**
**SVW2 Sparrevohn 85.41 28** PFAKE 13 51 10.0 +6.9
SVW2 LR LR
comp=Z,2µm,20.0s
**ZEI Tsey 85.57 313** *eP* **P 13 50 59.9 -4.6**
ZEI pmax pmax
comp=Z,48nm,1.0s
**BGD Bogdanovka 85.63 311 P P 13 51 06.4 +1.5**
**AKH Akhalkalaki 85.73 312 P P 13 51 06.2 +0.9**
**AKH Akhalkalaki 85.73 312** ǁ *iP* **P 13 51 06.4 +1.1**
**AKH Akhalkalaki 85.73 312 P P 13 51 06.1 +0.9**
**NCK Nalchik 85.86 314** *d iP* **P 13 51 05.9 +0.2**
NCK pmax pmax
comp=Z,197nm,1.8s
**ONI Oni 85.88 313 P P 13 51 06.5 +0.6**
**ONI Oni 85.88 313 P P 13 51 06.4 +0.6**
**OHAK Old Harbor 85.89 33** *eP* **P 13 51 05.7 +0.2**
OHAK LR LR
comp=Z,2µm,22.0s
**KDAK Kodiak Island 86.35 32** *eP* **P 13 51 07.8 +0.1**
KDAK MLR MLR
comp=Z,4µm,21.0s
**KDAK Kodiak Island 86.35 32** *eP* **P 13 51 07.8 +0.1**
KDAK LR LR
comp=Z,4µm,21.0s
**KBZ Khabaz 86.39 314 P P 13 51 08.0 -0.2**
comp=Z,32nm,1.1s,baz=43,slow=1.2,SNR=32
**KBZ Khabaz 86.39 314 P P 13 51 08.0 -0.2**
KBZ pmax pmax
comp=Z,33nm,1.1s
**NEY Neytrino 86.47 313** *eP* **P 13 51 09.8 +0.9**
NEY pmax pmax
comp=Z,43nm,2.2s
**KIV Kislovodsk 86.56 314** *i* P **P 13 51 08.4 -0.8**
SNR=9.6
**KIV Kislovodsk 86.56 314** *eP* **P 13 51 08.2 -1.0**
KIV *e* 13 54 29.3
KIV *e* 14 01 31.9
KIV *e*SS SS 14 07 24.7 -0.3
KIV pmax pmax
comp=Z,20nm,1.1s
**KIV Kislovodsk 86.56 314** *eP* **P 13 51 08.2 -1.0**
comp=Z,155nm,1.7s
**KIV Kislovodsk 86.56 314** P **P 13 51 08.9 -0.3**
SNR=11
KIV P **P 13 51 08.9 -0.3**
SNR=11
**KIV Kislovodsk 86.56 314** P **P 13 51 08.9 -0.3**
SNR=11
**ARTV Artvin 86.88 311** *eP* **P 13 51 11.2 +0.1**
comp=Z,120nm,1.6s
ARTV LR LR
comp=Z,300nm,20.0s
**CHVG Ch'k'valeri 86.89 313** P **P 13 51 12.2 +1.4**
**IMAR Indian Mountai 87.13 24** *eP* **P 13 51 11.0 -0.4**
**CNPM China Poot 87.29 30** *eP* **P 13 51 12.4 +0.1**
comp=Z,323nm,1.9s
CNPM LR LR
comp=Z,3µm,22.0s
**PPLA Purkeypile 87.30 27** *eP* **P 13 51 12.0 -0.4**
comp=Z,112nm,1.6s
PPLA LR LR
comp=Z,2µm,22.0s
**CAST Castle Rocks 87.42 26** *eP* **P 13 51 12.4 -0.5**
comp=Z,9.6nm,0.7s
CAST LR LR
comp=Z,2µm,21.0s
**MARD Mardin 87.49 307** *eP* **P 13 51 13.9 0.0**
comp=Z,49nm,0.9s
MARD LR LR
comp=Z,1µm,21.0s
**BRLK Bradley Lake 87.50 30** PFAKE 13 51 20.0 +6.7
BRLK LR LR
comp=Z,3µm,22.0s
**SYO Syowa Base 87.56 201** ǁ *eP* **P 13 51 12.0 -1.4**
**SYO Syowa Base 87.56 201** ǁ *i* PcP **PcP 13 51 15.0 -0.3**
**SYO Syowa Base 87.56 201** ǁ *i* pP pP 13 51 23.0 -1.1
**SUA Susitna One 87.78 28** *eP* **P 13 51 14.4 -0.4**
comp=Z,30nm,0.8s
**VRH Novokhopyorsk 87.86 321** *eP* **P 13 51 13.8 -1.4**
VRH pmax pmax
comp=Z,60nm,1.7s
**KOPT Kop Dagi 87.88 310** *eP* **P 13 51 16.5 +0.6**
comp=Z,133nm,1.3s
**KTH Kantishna Hill 87.96 26** *eP* **P 13 51 15.5 0.0**
comp=Z,31nm,1.3s
KTH LR LR
comp=Z,2µm,21.0s
**BPAW Bear Paw Mtn. 88.00 26** *eP* **P 13 51 15.2 -0.4**
comp=Z,51nm,1.8s
BPAW LR LR
comp=Z,2µm,21.0s
**FURI Furi 88.11 279** PFAKE 13 51 30.0 +12
FURI LR LR
comp=Z,2µm,19.0s
**RC01 Rabbit Creek A 88.22 29** *eP* **P 13 51 15.9 -0.8**
comp=Z,24nm,0.8s
**MLY Manley 88.23 25** *eP* **P 13 51 16.6 -0.1**
comp=Z,15nm,0.9s
**TRF Thorofare Moun 88.23 27** *eP* **P 13 51 16.2 -0.8**
comp=Z,28nm,1.3s
TRF LR LR
comp=Z,2µm,22.0s
**PMR Palmer 88.56 28** *eP* **P 13 51 16.8 -1.5**
PMR pmax pmax
comp=Z,35nm,1.5s
**PMR Palmer 88.56 28** *eP* **P 13 51 16.8 -1.5**
comp=Z,35nm,1.5s
**SOC Sochi 88.68 313** *c i* P **P 13 51 19.3 0.0**
SOC *e* 13 54 51.0
SOC *e*PPP PPP 13 56 44.3
SOC *e*S **SKSac 14 01 45.0 -1.2**
SOC *e*SSS SSS 14 11 25.8
SOC pmax pmax
comp=Z,41nm,0.9s
**COLD Coldfoot 88.71 23** *eP* **P 13 51 18.4 -0.5**
comp=Z,18nm,0.9s
**MCK McKinley 88.86 26** *eP* **P 13 51 19.0 -0.7**
MCK pmax pmax
comp=Z,31nm,1.0s
MCK MLR MLR
comp=Z,2µm,22.0s
**MCK McKinley 88.86 26** *eP* **P 13 51 19.0 -0.7**
comp=Z,30nm,1.0s
MCK LR LR
comp=Z,2µm,22.0s
**RND Reindeer 88.86 27** *eP* **P 13 51 18.4 -1.4**
RND pmax pmax
comp=Z,26nm,0.8s
RND MLR MLR
comp=Z,2µm,21.0s
**RND Reindeer 88.86 27** *eP* **P 13 51 18.4 -1.4**
comp=Z,26nm,0.8s
RND LR LR
comp=Z,2µm,21.0s
**SML Sawmill 88.96 28** *eP* **P 13 51 20.3 0.0**
SML pmax pmax
comp=Z,98nm,1.6s
**SML Sawmill 88.96 28** *eP* **P 13 51 20.3 0.0**
comp=Z,98nm,1.6s
**KMBO Kilima Mbogo 89.26 269** P **P 13 51 23.4 +0.5**
comp=Z,19nm,1.0s,baz=71,slow=5.8,SNR=32
KMBO LR LR 14 30 35.9
comp=Z,939nm,18.9s,baz=94,slow=35
**KMBO Kilima Mbogo 89.26 269** *eP* **P 13 51 23.2 +0.3**
KMBO pmax pmax
comp=Z,46nm,1.1s
**KMBO Kilima Mbogo 89.26 269** *eP* **P 13 51 23.2 +0.3**
comp=Z,46nm,1.1s
**KMBO Kilima Mbogo 89.26 269** P **P 13 51 23.9 +1.0**
SNR=20
KMBO P **P 13 51 23.9 +1.0**
SNR=20
**KMBO Kilima Mbogo 89.26 269** PcP **P 13 51 23.9 +1.0**
SNR=20
**MDM Murphy Dome 89.28 25** *eP* **P 13 51 20.2 -1.5**
comp=Z,63nm,2.0s
**WRH Wood River Hil 89.30 26** *eP* **P 13 51 20.2 -1.5**
comp=Z,36nm,1.1s
WRH LR LR
comp=Z,2µm,22.0s
**COLA College 89.43 25** *eP* **P 13 51 20.8 -1.5**
COLA pmax pmax
comp=Z,12nm,0.8s
**COLA College 89.43 25** *eP* **P 13 51 20.8 -1.5**
comp=Z,12nm,0.8s
**CCB Clear Creek Bu 89.43 25** *eP* **P 13 51 20.6 -1.7**
comp=Z,65nm,1.4s
CCB LR LR
comp=Z,2µm,21.0s
**SCM Sheep Creek Mo 89.44 28** *eP* **P 13 51 21.6 -1.0**
SCM pmax pmax
comp=Z,127nm,1.8s
**SCM Sheep Creek Mo 89.44 28** *eP* **P 13 51 21.6 -1.0**
comp=Z,127nm,1.8s
**VSR Storozhevoye 89.47 321** *eP* **P 13 51 20.9 -1.9**
VSR pmax pmax
comp=Z,60nm,1.2s
**GLI Glacier Island 89.48 29** PFAKE 13 51 30.0 +7.3
GLI LR LR
comp=Z,2µm,21.0s
**DHY Denali Highway 89.50 27** *eP* **P 13 51 21.8 -1.1**
comp=Z,66nm,1.8s
DHY LR LR
comp=Z,2µm,21.0s
**LPSR Galich'ya Gora 89.68 322** *eP* **P 13 51 22.3 -1.4**
LPSR pmax pmax
comp=Z,70nm,1.4s
**FID Port Fidalgo 89.78 29** PFAKE 13 51 40.0 +16
FID LR LR
comp=Z,2µm,22.0s
**HDA Harding Lake 89.79 26** PFAKE 13 51 40.0 +16
HDA LR LR
comp=Z,1µm,21.0s
**KLMR Klimovskoe 89.80 331** *d iP* **P 13 51 21.8 -2.3**
KLMR *e* 13 54 54.1
KLMR S **SKSac 14 01 48.6 -3.5**
KLMR pmax pmax
comp=Z,59nm,1.3s
**ILAR Eielson Array 89.84 25** P **P 13 51 22.7 -1.5**
comp=Z,6.0nm,0.5s,baz=239,slow=5.0,SNR=73
ILAR PP **PP 13 54 56.0 -0.9**
comp=Z,2.2nm,0.9s,baz=264,slow=7.1,SNR=5.0
ILAR PKKP **PKKPdf 14 08 56.5 +1.7**
comp=Z,1.2nm,0.8s,baz=102,slow=1.8,SNR=9.3
ILAR PKPPKP **P'P'df 14 17 03.1 -2.1**
comp=Z,0.5nm,1.0s,baz=205,slow=3.5,SNR=5.1
ILAR LR LR 14 30 01.9
comp=Z,702nm,20.2s,baz=260,slow=34
**ILB Eielson Array 89.84 25** *eP* **P 13 51 22.0 -2.2**
**IL1 Eielson Array 89.84 25** *eP* **P 13 51 22.2 -2.0**
**KLU Klutina 90.09 29** PFAKE 13 51 40.0 +14
KLU LR LR
comp=Z,2µm,22.0s
**EYAK Cordova Ski Ar 90.12 30** PFAKE 13 51 40.0 +14
EYAK LR LR
comp=Z,3µm,22.0s
**DIV Divide 90.14 29** *eP* **P 13 51 24.3 -1.5**
comp=Z,26nm,1.0s
**PAX Paxson 90.37 27** *eP* **P 13 51 26.2 -0.7**
PAX pmax pmax
comp=Z,36nm,1.3s
PAX MLR MLR
comp=Z,2µm,22.0s
**PAX Paxson 90.37 27** *eP* **P 13 51 26.2 -0.7**
comp=Z,36nm,1.3s
PAX LR LR
comp=Z,2µm,22.0s
**ANN Anapa 90.37 315** *eP* P 13 51 21.8 -5.3
ANN pmax pmax
comp=Z,165nm,1.1s
**HARP HAARP 90.49 28** *eP* **P 13 51 27.4 +0.1**
comp=Z,32nm,1.0s
**MOS Moscow 90.57 326** *eP* **P 13 51 26.7 -1.1**
MOS *e* 13 55 00.8
MOS *e* 14 01 55.5
MOS *e*PS **PnS 14 03 33.4 +0.9**
MOS pmax pmax
comp=Z,118nm,1.4s
MOS MLR MLR
comp=Z,2µm,20.0s
**FYU Fort Yukon 90.61 24** PFAKE 13 51 40.0 +12
FYU LR LR
comp=Z,2µm,22.0s
**TMCR Tamitsa 90.64 334** *eP* **P 13 51 25.5 -2.4**
TMCR pmax pmax
comp=Z,21nm,0.4s
**RAGM Ragged Mountai 90.65 30** PFAKE 13 51 40.0 +12
RAGM LR LR
comp=Z,3µm,22.0s
**BMRM Bremner River 90.70 29** *eP* **P 13 51 28.7 +0.3**
comp=Z,59nm,1.6s
BMRM LR LR
comp=Z,3µm,22.0s
**TOKA Tokat 90.97 310** PFAKE 13 51 40.0 +10
TOKA LR LR
comp=Z,700nm,20.0s
**OBN Obninsk 91.16 325** ǁ *eP* **P 13 51 29.4 -1.1**
OBN *e* 13 55 04.4
OBN pmax pmax
comp=Z,84nm,1.4s
OBN MLR MLR
comp=Z,1µm,22.0s
**OBN Obninsk 91.16 325** *eP* **P 13 51 29.1 -1.5**
**MENT Mentasta 91.17 27** *eP* **P 13 51 30.9 +0.4**
comp=Z,13nm,0.6s
**EGAK Eagle 92.29 25** *eP* **P 13 51 35.3 -0.4**
comp=Z,43nm,1.5s
EGAK LR LR
comp=Z,1µm,20.0s
**APA Apatity 92.53 337** ǁ *iP* **P 13 51 39.1 +2.4**
APA *i* 13 55 25.0
**SIM Simferopol' 92.73 315** P **P 13 51 37.8 -0.3**
SIM 13 55 23.3
SIM pmax pmax
comp=Z,340nm,14.0s
SIM MLR MLR
comp=Z,640nm,18.0s
**TAOE Nuku Hiva Isla 93.06 99** *e*SP SP 14 03 54.6 -2.5
comp=Z,583nm,29.4s
TAOE *e*SS **SS 14 09 02.2 +1.8**
comp=Z,1µm,30.0s
**TAOE Nuku Hiva Isla 93.06 99** *e*LR LR 14 21 41.6
comp=Z,3µm,23.6s
**ILGA Ilgaz 93.08 311** PFAKE 13 51 50.0 +10
ILGA LR LR
comp=Z,1µm,21.0s
**DAWY Dawson 93.08 26** *eP* **P 13 51 39.1 -0.3**
comp=Z,41nm,1.2s
DAWY LR LR
comp=Z,2µm,21.0s
**BR131 Keskin Array S 93.15 310** *eP* **P 13 51 37.6 -2.8**
**BRTR Keskin Array B 93.15 310** P **P 13 51 38.8 -1.6**
comp=Z,4.3nm,0.9s,baz=145,slow=4.5,SNR=14
BRTR PP **PP 13 55 22.2 -1.7**
comp=Z,2.2nm,0.8s,baz=120,slow=7.3,SNR=4.3
BRTR PKKPbc **PKKPbc 14 08 51.4 +1.2**
comp=Z,0.4nm,0.7s,baz=212,slow=6.8,SNR=4.1
BRTR LR LR 14 41 10.1
comp=Z,290nm,19.5s,baz=104,slow=40
**CSS Mathiatis 93.45 305** PFAKE 13 51 50.0 +8.3
CSS LR LR
comp=Z,300nm,20.0s
**HYT Haines Junctio 94.17 29** *eP* **P 13 51 44.6 0.0**
comp=Z,52nm,1.7s
HYT LR LR
comp=Z,2µm,20.0s
**PUL Pulkovo 94.39 330** ǁ *iP* **P 13 51 46.4 +1.1**
PUL pmax pmax
comp=Z,51nm,0.7s
**INK Inuvik 95.02 22** *eP* **P 13 51 46.1 -2.0**
INK pmax pmax
comp=Z,52nm,1.2s
INK MLR MLR
comp=Z,2µm,21.0s
**INK Inuvik 95.02 22** *eP* **P 13 51 46.1 -2.0**
comp=Z,52nm,1.2s
INK LR LR
comp=Z,2µm,21.0s
**ARCES ARCESS Array B 95.21 340** P **P 13 51 47.5 -1.5**
comp=Z,10.0nm,0.7s,baz=82,slow=5.6,SNR=20
**SKAG Skagway 95.39 31** *eP* **P 13 51 50.3 +0.3**
comp=Z,19nm,1.1s
SKAG LR LR
comp=Z,2µm,21.0s
**WHY Whitehorse 95.47 29** *eP* **P 13 51 50.1 -0.4**
comp=Z,74nm,1.8s
WHY LR LR
comp=Z,2µm,22.0s
**SPA0 Spitsbergen Ar 95.49 349** *eP* **P 13 51 48.9 -1.2**
**ISP Isparta 95.64 308** *d iP* **P 13 51 50.4 -1.4**
ISP pmax pmax
comp=Z,12nm,1.6s
**SIT Sitka 95.65 33** PFAKE 13 52 00.0 +8.8
SIT LR LR
comp=Z,2µm,20.0s
**BESE Bessie Mountai 95.73 31** *eP* **P 13 51 51.3 -0.4**
comp=Z,51nm,1.4s
BESE LR LR
comp=Z,1µm,20.0s
**AKASG Malin Array Be 95.76 321** P **P 13 51 50.4 -1.5**
comp=Z,2.3nm,0.8s,baz=74,slow=4.4,SNR=23
AKASG LR LR 14 40 13.6
comp=Z,704nm,20.0s,baz=75,slow=39
**AKBB Malin Array Si 95.76 321** *eP* **P 13 51 50.0 -1.9**
AKBB pmax pmax
comp=Z,56nm,1.9s
AKBB MLR MLR
comp=Z,1µm,22.0s
**AKBB Malin Array Si 95.76 321** *eP* **P 13 51 50.0 -1.9**
comp=Z,56nm,1.9s
AKBB LR LR
comp=Z,1µm,22.0s
**KIEV Kiev 95.77 321** *eP* **P 13 51 49.9 -2.0**
KIEV pmax pmax
comp=Z,55nm,1.9s
KIEV MLR MLR
comp=Z,1µm,22.0s
**KIEV Kiev 95.77 321** *eP* **P 13 51 49.9 -2.0**
comp=Z,55nm,1.9s
KIEV LR LR
comp=Z,1µm,22.0s
**AK11 Malin Array Si 95.80 321** *eP* **P 13 51 49.4 -2.6**
**KBS Kingsbay 96.03 350** PFAKE 13 52 00.0 +7.4
KBS LR LR
comp=Z,2µm,21.0s
**FINES FINESS Array B 96.27 332** P **P 13 51 52.5 -1.5**
comp=Z,3.2nm,0.7s,baz=62,slow=4.3,SNR=8.6
FINES PKiKP **PKiKP 13 56 33.9 +2.1**
comp=Z,3.7nm,1.0s,baz=95,slow=2.8,SNR=3.9
**KIS Kishinev 96.33 317** *eP* **P 13 51 54.0 -0.5**
**KIS Kishinev 96.33 317** *eP* PP 13 55 45.0 -3.2
**KIS Kishinev 96.33 317** *eP*sP 13 56 38.0
**KIS Kishinev 96.33 317** *e*PS PS 14 04 40.0 +3.8
**KIS Kishinev 96.33 317** *e*PPS PPS 14 05 28.0

KIS LRM MLR 14 44 00.0
comp=Z,600nm,20.0s
**KIS Kishinev 96.33 317** *e*P **P 13 51 54.0 -0.5**
KIS *e* 13 55 45.0
KIS *e* 14 02 30.0
KIS *e* 14 03 12.0
KIS *e*PS **PS 14 04 40.0 +3.8**
**VSU Vasula 96.36 329** *e*P **P 13 51 54.0 -0.4**
VSU pmax pmax
comp=Z,42nm,1.0s
**SORM Soroca 96.55 318** ⇓*i*P **P 13 51 54.0 -1.5**
**SORM Soroca 96.55 318** ⇓P **P 13 51 54.0 -1.5**
**NVL N'lazarevskaya 96.59 198** *e*P **P 13 51 57.2 +2.0**
NVL *e* 13 55 52.8
NVL *e*S **SKSac 14 02 31.4 +2.2**
NVL *e*SP **SP 14 04 38.9 +5.8**
NVL *e*PS **PS 14 04 46.9 +8.9**
NVL *e*SSS SSS 14 13 41.1
**IDID Didziasalis 96.77 325** *e*P **PP 13 55 50.3 -1.1**
IDID IAmb IAmb 13 55 55.4
comp=Z,13nm,1.2s
**NACGM Naroch 96.80 325** *e* P 13 52 08.0 +12
NACGM *e*LQ LQ 14 32 20.0
NACGM *e*LR LR 14 37 28.0
**IZAR Zarasai 96.99 326** *e*P **PP 13 55 51.5 -1.6**
IZAR IAmb IAmb 13 55 58.5
comp=Z,12nm,0.7s
**CRAG Craig 97.06 34** PFAKE 13 52 10.0 +12
CRAG LR LR
comp=Z,1μm,21.0s
**IIGN Ignalina 97.06 326** *e*P **PP 13 55 51.5 -2.1**
IIGN IAmb IAmb 13 55 58.0
comp=Z,17nm,1.2s
**MANT Manisa 97.15 308** PFAKE 13 52 10.0 +11
MANT LR LR
comp=Z,2μm,21.0s
**RKT Rikitea 97.24 113** *e*LQ LQ 14 19 24.1
comp=Z,1μm,35.5s
RKT *e*LR LR 14 23 36.3
comp=Z,2μm,24.2s
**WRAK Wrangell Islan 97.36 33** *e*P Pdif 13 51 59.2 +0.2
comp=Z,12nm,1.0s
WRAK LR LR
comp=Z,1μm,20.0s
**LSZ Lusaka 97.67 254** *e*P **P 13 52 00.3 -1.1**
LSZ pmax pmax
comp=Z,57nm,1.3s
LSZ MLR MLR
comp=Z,2μm,20.0s
**LSZ Lusaka 97.67 254** *e*P **P 13 52 00.3 -1.1**
comp=Z,57nm,1.3s
LSZ LR LR
comp=Z,2μm,20.0s
**LSZ Lusaka 97.67 254** P Pdif 13 52 01.6 +0.1
SNR=12
LSZ P Pdif 13 52 01.6 +0.1
SNR=12
**LSZ Lusaka 97.67 254** PcP Pdif 13 52 01.6 +0.1
SNR=12
**DIB Dawson Inlet, 97.74 37** PFAKE 13 52 10.0 +9.2
DIB LR LR
comp=Z,3μm,22.0s
**TESR Tescani 97.86 317** ⇓*i*P **P 13 52 00.9 -0.6**
**VRI Vrincioaia 97.87 316** ⇑*i*P **P 13 52 01.3 -0.3**
**VRI Vrincioaia 97.87 316** ⇑P **P 13 52 01.3 -0.3**
**PLOR Plostina 97.93 316** ⇑*i*P **P 13 52 01.3 -0.6**
**PLOR Plostina 97.93 316** ⇑P **P 13 52 01.3 -0.6**
**DLBC Dease Lake 98.25 31** PFAKE 13 52 10.0 +6.9
DLBC LR LR
comp=Z,1μm,20.0s
**MLR Muntele Rosu 98.46 316** ⇑*i*P **P 13 52 02.8 -1.6**
**MLR Muntele Rosu 98.46 316** ⇑P **P 13 52 02.9 -1.5**
**MLR Muntele Rosu 98.46 316** *e*P **P 13 52 02.3 -2.0**
comp=Z,74nm,1.7s
MLR LR LR
comp=Z,1μm,21.0s
**BURAR Bucovina Array 98.70 318** ⇓*i*P **P 13 52 04.4 -1.0**
**BURAR Bucovina Array 98.70 318** ⇓P **P 13 52 04.4 -1.0**
**BUR04 Bucovina Ar. S 98.70 318** *e*P **P 13 52 04.2 -1.1**
**BUR08 Bucovina Ar. S 98.71 318** *e*P **P 13 52 04.1 -1.3**
**SUW Suwalki 99.01 324** *e*P **Pdif 13 51 57.9 -8.5**
**SUW Suwalki 99.01 324** *e*P **Pdif 13 51 57.9 -8.5**
**VOIR 99.09 316** ⇓*i*P **Pdif 13 52 06.3 -0.9**
**VOIR 99.09 316** ⇓P **Pdif 13 52 06.3 -0.9**
**LVV L'vov 99.17 320** *e*P **Pdif 13 52 06.8 -0.5**
**BOSA Boshof 99.20 241** P **Pdif 13 52 07.3 -0.8**
comp=Z,7.1nm,1.0s,baz=141,slow=6.9,SNR=5.5
BOSA LR LR 14 34 03.9
comp=Z,2μm,18.7s,baz=97,slow=34
**BOSA Boshof 99.20 241** *e*P **Pdif 13 52 07.0 -1.1**
BOSA pmax pmax
comp=Z,43nm,0.6s
**BOSA Boshof 99.20 241** *e*P **Pdif 13 52 07.0 -1.1**
comp=Z,43nm,0.6s
**ARR Arges 99.39 316** ⇓*i*P **Pdif 13 52 08.3 -0.2**
**KWP Kalwaria Pacla 100.05 320** *e*P **Pdif 13 52 11.6 +0.4**
**KWP Kalwaria Pacla 100.05 320** *e*P **Pdif 13 52 11.6 +0.4**
**SNAA Sanae 100.18 194** PKKPbc PKKPbc 14 08 29.1 -2.8
comp=Z,1.7nm,0.8s,baz=221,slow=3.4,SNR=5.1
**SNAA Sanae 100.18 194** *e*P **Pdif 13 52 10.0 -1.4**
SNAA MLR MLR
comp=Z,2μm,21.0s
**SNAA Sanae 100.18 194** *e*Pdif **Pdif 13 52 10.0 -1.4**
SNAA PKKPbc **PKKPbc 14 08 29.1 -2.8**
SNAA LR LR
comp=Z,2μm,21.0s
**UZH Uzhgorod 100.49 319** *i* P **Pdif 13 52 13.7 +0.6**
UZH *i* 13 56 20.7
UZH *e*S **Sdif 14 03 43.8 -3.6**
UZH *e*SP **SP 14 05 10.9 -5.4**
**DRGR 100.51 317** ⇑*i*P **Pdif 13 52 12.6 -0.8**
**DRGR 100.51 317** ⇑P **Pdif 13 52 12.6 -0.8**
**VTS Vitosha 100.79 313** ⇓*i*P **Pdif 13 52 14.4 -0.4**
**VTS Vitosha 100.79 313** ⇓P **Pdif 13 52 14.4 -0.4**
**VTS Vitosha 100.79 313** *e*Pdif **Pdif 13 52 12.8 -2.0**
**CRVS Cervenica-Dubn 100.98 320** *e*P **Pdif 13 52 15.5 +0.1**
**CRVS Cervenica-Dubn 100.98 320** *e*PDIFF **Pdif 13 52 15.5 +0.1**
**SIRR Siria 101.31 317** ⇓*i*P **Pdif 13 52 16.6 -0.3**
**MDVR Moldovita 101.53 315** ⇓*i*P **Pdif 13 52 17.3 -0.7**
**NIE Niedzica 101.63 320** *e*P **Pdif 13 52 18.7 +0.4**
**NIE Niedzica 101.63 320** *e*P **Pdif 13 52 18.7 +0.4**
**KECS Kecovo 101.69 319** *e*P **Pdif 13 52 18.5 0.0**
**KECS Kecovo 101.69 319** *e*PDIFF **Pdif 13 52 18.5 0.0**
**OJC Ojcow 101.78 321** *e*P **Pdif 13 52 19.6 +0.7**
**OJC Ojcow 101.78 321** *e*P **Pdif 13 52 19.6 +0.7**
**PSZ Piszkesteto 102.19 319** ⇓*i*P **Pdif 13 52 21.3 +0.4**
**PSZ Piszkesteto 102.19 319** ⇓P **Pdif 13 52 21.3 +0.4**
**PSZ Piszkesteto 102.19 319** *e*Pdif **Pdif 13 52 18.7 -2.2**
PSZ LR LR
comp=Z,1μm,22.0s
**DAG Danmarks Havn 102.33 352** *i* P **Pdif 13 52 19.5 -1.3**
DAG pmax pmax
comp=Z,22nm,1.3s
**DAG Danmarks Havn 102.33 352** *i* P **Pdif 13 52 19.5 -1.3**
comp=Z,22nm,1.3s
**VYHS Vyhne 102.77 319** *e*PP PP 13 56 40.2 +3.1
**OKC Ostrava-Krasne 102.91 321** AMS AMS 14 56 30.0
comp=Z,1μm,18.0s
**KRLC Kraliky 103.71 321** *e*PP PP 13 56 47.7 +3.6
**MODS Modra-Piesok 103.80 320** *e*PP PP 13 56 43.8 -1.1
**UPC Upice 104.07 322** *e*PP PP 13 56 46.0 -0.8
UPC AMS AMS 14 42 20.0
comp=Z,2μm,20.9s
**PGC Sidney 104.22 40** PFAKE 13 52 40.0 +10
PGC LR LR
comp=Z,3μm,21.0s
**YKA Yellowknife Ar 104.26 25** Pdiff **Pdif 13 52 31.9 +2.3**
comp=Z,0.3nm,0.5s,baz=192,slow=16,SNR=3.2
YKA PKiKP **PKiKP 13 56 46.0 -0.1**
comp=Z,1.9nm,0.7s,baz=300,slow=1.7,SNR=8.8
**E03A Lebam 104.66 42** PFAKE 13 52 40.0 +8.3
E03A LR LR
comp=Z,1μm,21.0s
**LLLB Lillooet 104.69 38** PFAKE 13 52 40.0 +8.1
LLLB LR LR
comp=Z,3μm,22.0s
**CONA Conrad Observa 104.83 319** *i* PP PP 13 56 51.7 -0.9
comp=Z,18nm,1.5s
**KEBM Edson Butte 104.94 46** PFAKE 13 52 40.0 +6.8
KEBM LR LR
comp=Z,2μm,20.0s
**PVCC Panska Ves 104.95 322** *e*PP PP 13 56 57.5 +4.2
PVCC AMS AMS 14 46 00.0
comp=Z,1μm,15.7s

**GOPC GO Pecny, Ondr 104.99 322** AMS AMS 14 44 50.0
comp=Z,2μm,22.1s
**PRU Pruhonice 105.12 322** *e*PP PP 13 56 59.6 +5.0
PRU AMS AMS 14 44 50.0
comp=Z,2μm,18.5s
**KBO Bosley Butte 105.16 47** PFAKE 13 57 00.0
KBO LR LR
comp=Z,2μm,22.0s
**PRA Prague 105.17 322** AMS AMS 14 44 50.0
comp=Z,2μm,22.7s
**B05A Bryant 105.19 40** P **PKiKP 13 56 48.7 +0.4**
baz=285
**ARSA Arzberg 105.22 319** *i* PKiKP **PKiKP 13 56 47.9 -0.5**
comp=Z,10nm,1.4s
**COR Corvallis 105.30 44** PFAKE 13 57 00.0
COR LR LR
comp=Z,2μm,22.0s
**I03D Drain, OR 105.47 45** P **PKiKP 13 56 49.3 +0.4**
baz=283
**B06A Marblemount 105.52 40** PFAKE 13 57 00.0
B06A LR LR
comp=Z,3μm,20.0s
**KRMB Red Mountain 105.54 47** PFAKE 13 57 00.0
KRMB LR LR
comp=Z,3μm,22.0s
**F04A Amboy 105.58 43** PFAKE 13 57 00.0
F04A LR LR
comp=Z,1μm,20.0s
**JCC Jacoby Creek, 105.59 48** PFAKE 13 57 00.0
JCC LR LR
comp=Z,3μm,20.0s
**CLL Collm 105.67 323** *e*P **Pdif 13 52 35.0 -1.2**
CLL *e* 13 56 57.0
CLL MLR MLR
comp=Z,1μm,19.0s
**CLL Collm 105.67 323** *e*Pdif **Pdif 13 52 35.0 -1.2**
CLL *e*PKiKP **PKiKP 13 56 48.0 -1.1**
CLL *e* 13 56 51.0
CLL *e*PP **PP 13 56 57.0 -1.6**
CLL *e* 13 57 02.0
CLL *e* 13 57 32.0
CLL *e*PS **PS 14 06 18.0 +2.4**
CLL *e*PPS PPS 14 07 06.0
CLL *e*SS SS 14 12 00.0 +5.5
CLL *e* 14 13 18.0
CLL *e*SSS SSS 14 16 12.0
CLL *e* 14 17 42.0
CLL LmH 14 52 00.0
comp=N,900nm,21.7s
CLL LmH 14 52 00.0
comp=E,900nm,19.7s
CLL LmV 14 56 00.0
comp=Z,1μm,19.0s
**SOKA Soboth 105.70 318** *i* PKiKP **PKiKP 13 56 49.4 0.0**
comp=Z,11nm,1.2s
**LON Longmire 105.78 42** PFAKE 13 57 00.0
LON LR LR
comp=Z,2μm,20.0s
**KHMM Horse Mountain 105.80 48** PFAKE 13 57 00.0
KHMM LR LR
comp=Z,4μm,21.0s
**MOA Molln 105.89 320** *e*PKiKP **PKiKP 13 56 48.3 -1.4**
comp=Z,16nm,1.4s
**KMRM Mail Ridge 105.96 49** PFAKE 13 57 00.0
KMRM LR LR
comp=Z,4μm,21.0s
**KHC Kasperske Hory 105.97 321** *e*PP PP 13 57 04.1 +3.2
KHC AMS AMS 14 59 40.0
comp=Z,1μm,18.8s
**GERES GERESS Array B 105.97 321** Pdiff **Pdif 13 52 37.6 -0.1**
comp=Z,0.4nm,0.5s,baz=342,slow=11,SNR=5.3
GERES PKiKP **PKiKP 13 56 49.8 -0.1**
comp=Z,3.3nm,0.8s,baz=70,slow=1.6,SNR=10
GERES PKKPbc **PKKPbc 14 08 12.6 -1.6**
comp=Z,0.7nm,0.7s,baz=174,slow=1.3,SNR=4.1
**HUMO Hull Mountain 105.99 46** *e*PKiKP **PKiKP 13 56 50.8 +0.8**
HUMO LR LR
comp=Z,3μm,22.0s
**H04A Detroit Lake 106.05 44** PFAKE 13 57 00.0
H04A LR LR
comp=Z,1μm,19.0s
**OBKA Obir 106.06 318** *i* sPKiKP **PP 13 57 03.6 +1.8**
comp=Z,13nm,1.3s
**I04A Tendick Farm, 106.11 45** P **PKiKP 13 56 50.2 0.0**
baz=284
**KCPM Cahto Peak 106.16 49** PFAKE 13 57 00.0
KCPM LR LR
comp=Z,2μm,18.0s
**NKC Novy Kostel 106.34 322** *e*PP PP 13 57 08.2 +4.6
NKC AMS AMS 14 59 20.0
comp=Z,2μm,18.2s
**M02C Callahan 106.34 47** P **PKiKP 13 56 51.1 +0.3**
baz=283
**YBH Yreka Blue Hor 106.37 47** PFAKE 13 57 00.0
YBH LR LR
comp=Z,3μm,21.0s
**LTY Liberty 106.39 41** PFAKE 13 57 00.0
LTY LR LR
comp=Z,3μm,20.0s
**J04D Umpqua Nationa 106.45 45** P **PKiKP 13 56 51.5 +0.4**
baz=284
**N02D Trinity Center 106.54 48** P **PKiKP 13 56 51.6 +0.4**
baz=283
**MYKA Terra Mystica 106.63 319** *i* PKiKP **PKiKP 13 56 51.3 +0.2**
comp=Z,6.7nm,1.1s
**HOPS Hopland Field 106.69 50** PFAKE 13 57 00.0
HOPS LR LR
comp=Z,2μm,20.0s
**KBA Koelnbreinsper 106.70 319** *i* PKiKP **PKiKP 13 56 50.7 -0.7**
comp=Z,2.7nm,0.6s
**WDC Whiskeytown Da 106.75 48** PFAKE 13 57 00.0
WDC LR LR
comp=Z,5μm,21.0s
**B08A Colville Reser 106.94 40** PFAKE 13 57 00.0
B08A LR LR
comp=Z,3μm,20.0s
**GDXM Geysers 106.94 50** PFAKE 13 57 00.0
GDXM LR LR
comp=Z,2μm,19.0s
**M04C Macdoel 106.99 47** P **PKiKP 13 56 52.0 0.0**
baz=284
**MCCM Marconi Confer 107.01 51** PFAKE 13 57 00.0
MCCM LR LR
comp=Z,2μm,18.0s
**J05D Fort Rock, OR 107.06 45** P **PKiKP 13 56 52.9 +0.7**
baz=285
**F07A Phinny Hill Vi 107.27 42** PFAKE 13 57 00.0
F07A LR LR
comp=Z,1μm,21.0s
**ABTA Abfaltersbach 107.34 319** *i* PKiKP **PKiKP 13 56 51.1 -1.4**
comp=Z,9.7nm,0.9s
**TSUM Tsumeb 107.37 249** PFAKE 13 57 00.0
TSUM LR LR
comp=Z,2μm,20.0s
**HAWA Hanford 107.39 42** PFAKE 13 57 00.0
HAWA LR LR
comp=Z,1μm,20.0s
**D08A Wollman Farm, 107.59 41** PFAKE 13 57 00.0
D08A LR LR
comp=Z,3μm,20.0s
**E08A Dider Farm, El 107.67 41** PFAKE 13 57 00.0
E08A LR LR
comp=Z,1μm,20.0s
**ORV Oroville 107.76 49** PFAKE 13 57 00.0
ORV LR LR
comp=Z,2μm,21.0s
**WTTA Wattenberg 107.76 320** *i* PKiKP **PKiKP 13 56 53.7 +0.3**
comp=Z,16nm,1.1s
**WATA Walderalm 107.78 320** *i* PKiKP **PKiKP 13 56 53.3 -0.1**
comp=Z,3.7nm,0.4s
**C09A Chrisman Ranch 107.78 40** PFAKE 13 57 00.0
C09A LR LR
comp=Z,3μm,20.0s
**I07A Izee 108.06 44** PFAKE 13 57 10.0
I07A LR LR
comp=Z,2μm,20.0s
**MOD Modoc Plateau 108.07 46** PFAKE 13 57 10.0
MOD LR LR
comp=Z,2μm,21.0s
**MOTA Moosalm 108.08 320** *i* PKiKP **PKiKP 13 56 54.0 +0.1**
comp=Z,9.8nm,1.0s
**RETA Reutte 108.26 320** *i* PP PP 13 57 17.8 0.0
comp=Z,35nm,1.8s
**E09A Wood Farm, Sta 108.27 41** PFAKE 13 57 10.0
E09A LR LR
comp=Z,2μm,20.0s

**AFDM Forest Hills D 108.30 49** PFAKE 13 57 10.0
AFDM LR LR
comp=Z,2μm,19.0s
**NEW Newport 108.37 39** PFAKE 13 57 10.0
NEW LR LR
comp=Z,2μm,21.0s
**SAO San Andreas Ge 108.42 52** PFAKE 13 57 10.0
SAO LR LR
comp=Z,3μm,18.0s
**FETA Feichten 108.43 320** *i* PKiKP **PKiKP 13 56 54.8 +0.2**
comp=Z,5.2nm,0.8s
**BEKR Beckworth 108.54 48** PFAKE 13 57 10.0
BEKR LR LR
comp=Z,3μm,21.0s
**FUORN Ofenpass-Fuorn 108.86 319** PFAKE 13 57 10.0
FUORN LR LR
comp=Z,1μm,20.0s
**DAVA Damuels 108.89 320** *i* PKiKP **PKiKP 13 56 55.5 +0.1**
comp=Z,4.8nm,0.6s
**CMB Columbia Colle 108.96 50** PFAKE 13 57 10.0
CMB LR LR
comp=Z,2μm,18.0s
**J08A Circle Bar Ran 108.98 44** PFAKE 13 57 10.0
J08A LR LR
comp=Z,2μm,22.0s
**F10A Beach Ranch, E 109.04 41** PFAKE 13 57 10.0
F10A LR LR
comp=Z,2μm,22.0s
**PMPB Monarch Peak 109.04 52** PFAKE 13 57 10.0
PMPB LR LR
comp=Z,4μm,19.0s
**WVOR Wild Horse Val 109.13 45** PFAKE 13 57 10.0
WVOR LR LR
comp=Z,2μm,20.0s
**PNTR Pine Nut 109.30 49** PFAKE 13 57 10.0
PNTR LR LR
comp=Z,2μm,18.0s
**PAHR Pah Rah Range 109.31 48** PFAKE 13 57 10.0
PAHR LR LR
comp=Z,2μm,20.0s
**BMO Blue Mountains 109.34 43** *e*PKiKP **PKiKP 13 56 55.7 -0.6**
**WAKR Walker 109.57 50** PFAKE 13 57 10.0
WAKR LR LR
comp=Z,2μm,19.0s
**PAGB Antelope Grade 109.59 53** PFAKE 13 57 10.0
PAGB LR LR
comp=Z,3μm,19.0s
**YERR Yerington 109.60 49** PFAKE 13 57 10.0
YERR LR LR
comp=Z,2μm,18.0s
**MDPB Devils Postpil 110.06 50** PFAKE 13 57 10.0
MDPB LR LR
comp=Z,2μm,20.0s
**WALA Waterton Lakes 110.08 38** PFAKE 13 57 10.0
WALA LR LR
comp=Z,2μm,20.0s
**PKM Mcpherson Peak 110.12 53** P **PKiKP 13 56 58.6 +0.4**
baz=283
**MLAC Mammoth, Mamm 110.25 50** P **PKiKP 13 56 59.2 +0.7**
baz=284
**SNCC San Nicolas Is 110.71 55** PFAKE 13 57 10.0
SNCC LR LR
comp=Z,3μm,21.0s
**MFID Camas Ranch 110.80 44** *e*PKiKP **PKiKP 13 56 59.9 +0.8**
MFID LR LR
comp=Z,2μm,19.0s
**ARVC Arvin 110.85 53** P **PKiKP 13 57 00.0 +0.7**
baz=284
**MSO Missoula 110.89 40** P **PKiKP 13 56 59.1 -0.1**
baz=292
**MSO Missoula 110.89 40** PFAKE 13 57 10.0
MSO LR LR
comp=Z,3μm,20.0s
**ISA Isabella, Lake 111.01 52** PFAKE 13 57 10.0
ISA LR LR
comp=Z,4μm,20.0s
**OSI Osito Audit: C 111.06 53** PFAKE 13 57 10.0
OSI LR LR
comp=Z,3μm,21.0s
**CWC Cottonwood Cre 111.13 51** P **PKiKP 13 57 00.0 0.0**
baz=285
**EDW2 Edwards Air Fo 111.58 53** P **PKiKP 13 57 01.4 +0.6**
baz=284
**PASC Pasadena Art C 111.59 54** PFAKE 13 57 10.0
PASC LR LR
comp=Z,4μm,21.0s
**LRMC Laurel Mtn Rad 111.68 52** P **PKiKP 13 57 01.0 -0.1**
baz=284
**MWC Mount Wilson 111.68 54** PFAKE 13 57 10.0
MWC LR LR
comp=Z,3μm,21.0s
**MPMC Manual Prospec 111.69 52** P **PKiKP 13 57 01.4 +0.3**
baz=285
**HLID Hailey 111.72 43** P **PKiKP 13 57 02.1 +1.1**
baz=290
**HLID Hailey 111.72 43** *e*PKiKP **PKiKP 13 57 01.4 +0.5**
HLID LR LR
comp=Z,2μm,20.0s
**BFSC Mount Baldy Ra 112.00 54** P **PKiKP 13 57 01.8 +0.1**
baz=284
**FURC Furnace Creek, 112.07 51** P **PKiKP 13 57 01.7 +0.2**
baz=285
**DLMT Dillon 112.30 41** *e*PKiKP **PKiKP 13 57 01.5 -0.4**
DLMT LR LR
comp=Z,2μm,20.0s
**TPNV Topopah Spring 112.41 50** P **PKiKP 13 57 03.3 +0.8**
baz=286
**TPNV Topopah Spring 112.41 50** PFAKE 13 57 10.0
TPNV LR LR
comp=Z,2μm,18.0s
**GSC Goldstone, Bar 112.42 52** P **PKiKP 13 57 03.0 +0.6**
baz=285
**GSC Goldstone, Bar 112.42 52** PFAKE 13 57 10.0
GSC LR LR
comp=Z,3μm,19.0s
**R11A Troy Canyon, C 112.53 49** P **PKiKP 13 57 02.9 +0.3**
baz=287
**R11A Troy Canyon, C 112.53 49** PFAKE 13 57 10.0
R11A LR LR
comp=Z,2μm,19.0s
**SHOC Shoshone, Teco 112.68 52** P **PKiKP 13 57 03.7 +0.9**
baz=286
**KEST Kesra 112.72 308** PP PP 13 57 49.4 -1.0
comp=Z,9.3nm,0.8s,baz=285,slow=0.8,SNR=4.9
**BOZ Bozeman (W) 112.84 40** P **PKiKP 13 57 03.2 +0.2**
baz=293
**BOZ Bozeman (W) 112.84 40** PFAKE 13 57 10.0
BOZ LR LR
comp=Z,3μm,20.0s
**HEC Hector,Ludlow 112.91 53** P **PKiKP 13 57 03.6 +0.3**
baz=285
**EGMT Eagleton 113.02 37** P **PKiKP 13 57 03.5 +0.4**
baz=296
**EGMT Eagleton 113.02 37** *e*PKiKP **PKiKP 13 57 03.0 -0.1**
EGMT LR LR
comp=Z,1μm,20.0s
**TUQ Turquoise Moun 113.08 52** P **PKiKP 13 57 04.5 +0.8**
baz=286
**PFO Pinyon Flats O 113.12 54** P **PKiKP 13 57 04.4 +0.6**
baz=284
**PFO Pinyon Flats O 113.12 54** PFAKE 13 57 20.0
PFO LR LR
comp=Z,3μm,18.0s
**XPFO Piæon Flat 113.12 54** PFAKE 13 57 20.0
XPFO LR LR
comp=Z,3μm,18.0s
**BAR Barrett 113.17 55** PFAKE 13 57 20.0
BAR LR LR
comp=Z,4μm,21.0s
**MONP2 Monument Peak 113.33 55** P **PKiKP 13 57 04.4 +0.1**
baz=284
**SHPR Sheep Range 113.38 51** PFAKE 13 57 20.0
SHPR LR LR
comp=Z,2μm,20.0s
**BELC Belle Mtn. Jos 113.39 53** P **PKiKP 13 57 04.8 +0.4**
baz=285
**YHB Horse Butte 113.45 41** PFAKE 13 57 20.0
YHB LR LR
comp=Z,2μm,20.0s
**GMRC Granite Mounta 113.46 53** P **PKiKP 13 57 05.3 +0.8**
baz=286
**HVU Hansel Valley 113.47 45** PFAKE 13 57 20.0
HVU LR LR
comp=Z,2μm,22.0s
**BGU Big Grassy Mou 113.58 45** PFAKE 13 57 20.0
BGU LR LR

comp=Z,2µm,21.0s
**YMR** **Madison River** **113.63** **41** PFAKE 13 57 20.0
YMR LR LR
comp=Z,2µm,21.0s
**IKP** **In-Ko-Pah, Jac** **113.64** **55** P **PKiKP** **13 57 05.9 +1.1**
baz=284
**YHH** **Holmes Hill** **113.66** **41** PFAKE 13 57 20.0
YHH LR LR
comp=Z,2µm,20.0s
**PSUT** **Pine Spring** **113.76** **48** PFAKE 13 57 20.0
PSUT LR LR
comp=Z,1µm,20.0s
**LDFC** **Landfair** **113.81** **52** PFAKE 13 57 20.0
LDFC LR LR
comp=Z,2µm,19.0s
**SWSC** **Sam W. Stewart** **113.82** **54** P **PKiKP** **13 57 05.7 +0.7**
baz=285
**SPUT** **South Promonto** **113.86** **45** PFAKE 13 57 20.0
SPUT LR LR
comp=Z,2µm,21.0s
**FFC** **Flin Flon** **113.87** **28** PFAKE 13 57 20.0
FFC LR LR
comp=Z,2µm,21.0s
**YPP** **Pitchstone Pla** **113.89** **41** PFAKE 13 57 20.0
YPP LR LR
comp=Z,2µm,20.0s
**BC3** **Big Chuckawall** **113.92** **54** P **PKiKP** **13 57 05.9 +0.5**
baz=285
**IMW** **Indian Meadow** **113.95** **42** *e*PKiKP **PKiKP** **13 57 04.7 -0.6**
IMW LR LR
comp=Z,2µm,20.0s
**CMAH** **Djebel Manchou** **113.97** **310** P **PKiKP** **13 57 00.8 -4.5**
**DUG** **Dugway, Tooele** **113.99** **46** P **PKiKP** **13 57 06.0 +0.7**
baz=290
**DUG** **Dugway, Tooele** **113.99** **46** *e*PKiKP **PKiKP** **13 57 05.7 +0.3**
DUG MLR MLR
comp=Z,2µm,22.0s
**DUG** **Dugway, Tooele** **113.99** **46** *e*PKiKP **PKiKP** **13 57 05.7 +0.3**
DUG LR LR
comp=Z,2µm,22.0s
**FXWY** **Fox Creek** **113.99** **42** PFAKE 13 57 20.0
FXWY LR LR
comp=Z,2µm,20.0s
**H17A** **Grant Village** **114.00** **41** P **PKiKP** **13 57 06.2 +0.9**
baz=293
**H17A** **Grant Village** **114.00** **41** PFAKE 13 57 20.0
H17A LR LR
comp=Z,3µm,21.0s
**ABSA** **Djebel Ababsia** **114.03** **309** P PKPdf 13 57 04.9 -0.6
**IRM** **Iron Mountain** **114.04** **53** P PKPdf 13 57 06.0 +0.5
baz=286
**TPAW** **Teton Pass** **114.10** **42** *e*PKiKP **PKiKP** **13 57 06.3 +0.7**
TPAW LR LR
comp=Z,2µm,20.0s
**MOOW** **Moose Ponds** **114.14** **42** *e*PKiKP PKPdf 13 57 05.5 -0.2
MOOW LR LR
comp=Z,2µm,21.0s
**REDW** **Red Top Meadow** **114.21** **42** *e*PKiKP **PKiKP** **13 57 06.3 +0.5**
REDW LR LR
comp=Z,2µm,20.0s
**SNOW** **Snow King Moun** **114.24** **42** *e*PKiKP PKPdf 13 57 05.3 -0.6
SNOW LR LR
comp=Z,2µm,20.0s
**AHID** **Auburn Hatcher** **114.27** **43** PFAKE 13 57 20.0 +14
AHID LR LR
comp=Z,1µm,22.0s
**LOHW** **Long Hollow** **114.28** **42** PFAKE 13 57 20.0 +14
LOHW LR LR
comp=Z,5µm,21.0s
**CCUT** **Cedar City** **114.44** **49** PFAKE 13 57 20.0 +14
CCUT LR LR
comp=Z,3µm,19.0s
**RLMT** **Red Lodge** **114.55** **40** P PKPdf 13 57 07.0 +0.6
baz=295
**RLMT** **Red Lodge** **114.55** **40** PFAKE 13 57 20.0 +14
RLMT LR LR
comp=Z,2µm,20.0s
**CTU** **Camp Tracy** **114.58** **45** PFAKE 13 57 20.0 +14
CTU LR LR
comp=Z,2µm,22.0s
**GLA** **Glamis** **114.58** **54** PFAKE 13 57 20.0 +13
GLA LR LR
comp=Z,2µm,21.0s
**SZCU** **Shurtz Canyon** **114.63** **49** PFAKE 13 57 20.0 +13
SZCU LR LR
comp=Z,3µm,19.0s
**Y12C** **Blythe** **114.64** **53** P PKPdf 13 57 07.2 +0.7
baz=286
**Y12C** **Blythe** **114.64** **53** PFAKE 13 57 20.0 +13
Y12C LR LR
comp=Z,2µm,20.0s
**TCUT** **Toone Canyon** **114.67** **45** PFAKE 13 57 20.0 +13
TCUT LR LR
comp=Z,3µm,21.0s
**LCMT** **Little Creek M** **114.70** **50** PFAKE 13 57 20.0 +13
LCMT LR LR
comp=Z,2µm,19.0s
**TCRU** **Three Creeks R** **114.78** **48** PFAKE 13 57 20.0 +13
TCRU LR LR
comp=Z,2µm,19.0s
**PDMCI** **Parker Dam,Lak** **114.80** **53** P PKPdf 13 57 07.5 +0.7
baz=286
**MPU** **Maple Canyon** **114.90** **46** PFAKE 13 57 20.0 +13
MPU LR LR
comp=Z,2µm,21.0s
**MTPU** **Mount Pierson** **115.17** **48** PFAKE 13 57 20.0 +12
MTPU LR LR
comp=Z,2µm,21.0s
**PKCU** **Pink Cliffs** **115.27** **49** PFAKE 13 57 20.0 +12
PKCU LR LR
comp=Z,3µm,19.0s
**BW06** **Boulder Array** **115.32** **43** P **PKPdf** **13 57 08.7 +0.8**
baz=294
**BW06** **Boulder Array** **115.32** **43** *e*PKPdf **PKPdf** **13 57 07.3 -0.6**
BW06 LR LR
comp=Z,2µm,22.0s
**PD31** **Pinedale Array** **115.32** **43** *e*PKPdf **PKPdf** **13 57 07.0 -0.9**
**PDAR** **Pinedale Array** **115.32** **43** PKP **PKPdf** **13 57 07.8 -0.2**
comp=Z,2.6nm,0.5s,baz=170,slow=1.0,SNR=29
PDAR PKKPbc **PKKPbc** **14 07 42.2 -1.4**
comp=Z,2.0nm,0.9s,baz=109,slow=4.3,SNR=8.9
**PDAR** **Pinedale Array** **115.32** **43** *e*PKiKP **PKiKP** **13 57 07.4 -0.5**
PDAR PKKPbc **PKKPbc** **14 07 42.2 -1.4**
**TMUT** **Trail Mountain** **115.46** **47** *e*PKPdf **PKPdf** **13 57 09.0 +0.6**
TMUT LR LR
comp=Z,2µm,20.0s
**P17A** **Butcher Ranch,** **115.73** **46** *e*PKPdf **PKPdf** **13 57 08.8 +0.1**
P17A LR LR
comp=Z,2µm,20.0s
**LAO** **LASA Array** **115.77** **37** P **PKPdf** **13 57 09.3 +0.8**
baz=298
**LAO** **LASA Array** **115.77** **37** *e*PKPdf **PKPdf** **13 57 09.0 +0.5**
LAO LR LR
comp=Z,2µm,21.0s
**SRU** **San Rafael Swe** **116.02** **47** *e*PKiKP **PKPdf** **13 57 08.8 -0.6**
SRU MLR MLR
comp=Z,2µm,20.0s
**SRU** **San Rafael Swe** **116.02** **47** *e*PKPdf **PKPdf** **13 57 08.8 -0.6**
SRU LR LR
comp=Z,2µm,20.0s
**P18A** **Preston Nutter** **116.04** **46** *e*PKPdf **PKPdf** **13 57 09.5 0.0**
P18A LR LR
comp=Z,2µm,20.0s
**DGMT** **Dagmar** **116.09** **35** P **PKPdf** **13 57 10.0 +1.0**
baz=301
**DGMT** **Dagmar** **116.09** **35** PFAKE 13 57 20.0 +11
DGMT LR LR
comp=Z,2µm,22.0s
**214A** **Organ Pipe Nat** **116.52** **55** P **PKPdf** **13 57 10.8 +0.5**
baz=286
**WUAZ** **Wupatki** **116.60** **51** P **PKPdf** **13 57 11.0 +0.4**
baz=289
**WUAZ** **Wupatki** **116.60** **51** *e*PKPdf **PKPdf** **13 57 11.3 +0.8**
WUAZ LR LR
comp=Z,2µm,19.0s
**PV09** **Paradox Valley** **117.26** **47** *e*PKPdf **PKPdf** **13 57 12.5 +0.7**
**O20A** **White River Ci** **117.27** **45** P **PKPdf** **13 57 12.1 +0.4**
baz=293
**O20A** **White River Ci** **117.27** **45** *e*PKPdf **PKPdf** **13 57 12.2 +0.4**
O20A LR LR
comp=Z,2µm,22.0s
**RWWY** **Rawlins** **117.35** **43** PFAKE 13 57 20.0 +8.1
RWWY LR LR
comp=Z,2µm,22.0s
**PV10** **Paradox Valley** **117.37** **47** *e*PKPdf **PKPdf** **13 57 12.5 +0.4**
**K22A** **Casper** **117.40** **42** P **PKPdf** **13 57 11.6 -0.3**
baz=296
**K22A** **Casper** **117.40** **42** *e*PKPdf **PKPdf** **13 57 11.6 -0.3**
K22A LR LR
comp=Z,2µm,20.0s
**PV05** **Paradox Valley** **117.44** **47** *e*PKPdf **PKPdf** **13 57 12.5 +0.3**
**PV04** **Paradox Valley** **117.46** **47** *e*PKPdf **PKPdf** **13 57 12.9 +0.7**
**PV01** **Paradox Valley** **117.80** **47** *e*PKPdf **PKPdf** **13 57 12.7 -0.2**
**W18A** **Petrified Fore** **118.00** **51** P **PKPdf** **13 57 13.8 +0.5**
baz=290
**W18A** **Petrified Fore** **118.00** **51** *e*PKPdf **PKPdf** **13 57 13.0 -0.3**
W18A LR LR
comp=Z,2µm,19.0s
**TUC** **Tucson** **118.06** **54** P **PKPdf** **13 57 13.8 +0.5**
baz=288
**TUC** **Tucson** **118.06** **54** *e*PKiKP **PKPdf** **13 57 13.3 0.0**
TUC MLR MLR
comp=Z,3µm,21.0s
**TUC** **Tucson** **118.06** **54** *e*PKPdf **PKPdf** **13 57 13.3 0.0**
TUC LR LR
comp=Z,3µm,21.0s
**MVCO** **Mesa Verde** **118.20** **48** P **PKPdf** **13 57 13.5 -0.1**
baz=292
**MVCO** **Mesa Verde** **118.20** **48** *e*PKPdf **PKPdf** **13 57 13.3 -0.3**
MVCO LR LR
comp=Z,2µm,19.0s
**RSSD** **Black Hills** **118.34** **39** P **PKPdf** **13 57 13.1 -0.6**
baz=299
**RSSD** **Black Hills** **118.34** **39** *e*PKiKP **PKPdf** **13 57 13.1 -0.6**
RSSD MLR MLR
comp=Z,1µm,19.0s
**RSSD** **Black Hills** **118.34** **39** *e*PKPdf **PKPdf** **13 57 13.1 -0.6**
RSSD LR LR
comp=Z,1µm,19.0s
**SMCO** **Snowmass** **118.55** **45** *e*PKPdf **PKPdf** **13 57 14.7 +0.2**
SMCO LR LR
comp=Z,2µm,22.0s
**N23A** **Red Feather La** **118.55** **43** P **PKPdf** **13 57 14.3 0.0**
baz=296
**N23A** **Red Feather La** **118.55** **43** *e*PKPdf **PKPdf** **13 57 14.6 +0.3**
N23A LR LR
comp=Z,2µm,22.0s
**PHWY** **Pilot Hill** **118.71** **43** PFAKE 13 57 30.0 +15
PHWY LR LR
comp=Z,2µm,22.0s
**TAM** **Tamanrasset** **119.01** **295** *e*PKiKP **PKPdf** **13 57 16.3 +0.8**
TAM MLR MLR
comp=Z,600nm,19.0s
**TAM** **Tamanrasset** **119.01** **295** *e*PKPdf **PKPdf** **13 57 16.3 +0.8**
TAM LR LR
comp=Z,600nm,19.0s
**MDND** **Maddock** **119.02** **34** P **PKPdf** **13 57 15.3 +0.7**
baz=305
**MDND** **Maddock** **119.02** **34** *e*PKPdf **PKPdf** **13 57 15.2 +0.6**
MDND LR LR
comp=Z,2µm,22.0s
**S22A** **4UR Ranch, Cre** **119.22** **47** P **PKPdf** **13 57 16.3 +0.6**
baz=293
**S22A** **4UR Ranch, Cre** **119.22** **47** *e*PKPdf **PKPdf** **13 57 16.4 +0.7**
S22A LR LR
comp=Z,3µm,19.0s
**ISCO** **Idaho Springs** **119.25** **44** P **PKPdf** **13 57 16.8 +1.1**
baz=295
**ISCO** **Idaho Springs** **119.25** **44** *e*PKiKP **PKPdf** **13 57 15.7 0.0**
ISCO MLR MLR
comp=Z,2µm,19.0s
**ISCO** **Idaho Springs** **119.25** **44** *e*PKPdf **PKPdf** **13 57 15.7 0.0**
ISCO LR LR
comp=Z,2µm,19.0s
**ULM** **Lac du Bonnet** **119.55** **30** PKP **PKPdf** **13 57 14.6 -0.9**
comp=Z,12nm,0.8s,baz=328,slow=4.1,SNR=14
ULM PKKPbc **PKKPbc** **14 07 24.9 -3.6**
comp=Z,3.1nm,0.9s,baz=222,slow=2.8,SNR=3.2
**ULM** **Lac du Bonnet** **119.55** **30** *e*PKPdf **PKPdf** **13 57 14.9 -0.6**
ULM PKKPbc **PKKPbc** **14 07 24.9 -3.6**
ULM LR LR
comp=Z,2µm,21.0s
**Q24A** **Divide** **119.93** **45** P **PKPdf** **13 57 17.7 +0.6**
baz=295
**Q24A** **Divide** **119.93** **45** *e*PKPdf **PKPdf** **13 57 17.0 -0.1**
Q24A LR LR
comp=Z,3µm,22.0s
**A32A** **Rocking H Ranc** **120.06** **31** P **PKPdf** **13 57 16.4 -0.2**
baz=308
**C31A** **Landman Farms,** **120.08** **33** P **PKPdf** **13 57 16.4 -0.3**
baz=306
**SDCO** **Great Sand Dun** **120.19** **46** P **PKPdf** **13 57 17.9 +0.4**
baz=294
**SDCO** **Great Sand Dun** **120.19** **46** *e*PKPdf **PKPdf** **13 57 17.9 +0.4**
SDCO LR LR
comp=Z,2µm,19.0s
**LAZ** **Ladron** **120.25** **50** *e*PKPdf **PKPdf** **13 57 18.0 +0.4**
**B32A** **Ashes, Strandq** **120.36** **32** P **PKPdf** **13 57 16.4 -0.7**
baz=308
**121A** **Cookes Peak, D** **120.40** **53** P **PKPdf** **13 57 17.8 -0.2**
baz=290
**121A** **Cookes Peak, D** **120.40** **53** *e*PKPdf **PKPdf** **13 57 18.1 +0.2**
**D31A** **Mcclaflin, Tow** **120.53** **34** P **PKPdf** **13 57 17.2 -0.3**
baz=306
**Y22D** **IRIS PASSCAL I** **120.54** **51** PFAKE 13 57 30.0 +12
Y22D LR LR
comp=Z,2µm,22.0s
**ANMO** **Albuquerque** **120.57** **50** P **PKPdf** **13 57 19.0 +0.8**
baz=292
**ANMO** **Albuquerque** **120.57** **50** *e*PKiKP **PKPdf** **13 57 18.9 +0.7**
ANMO MLR MLR
comp=Z,2µm,21.0s
**ANMO** **Albuquerque** **120.57** **50** *e*PKPdf **PKPdf** **13 57 18.9 +0.7**
ANMO LR LR
comp=Z,2µm,21.0s
**A33A** **Warroad** **120.62** **31** P **PKPdf** **13 57 18.0 +0.4**
baz=309
**LPM** **Los Pinos Moun** **120.67** **50** *e*PKPdf **PKPdf** **13 57 18.9 +0.4**
**E31A** **Nome** **120.72** **34** P **PKPdf** **13 57 16.8 -1.1**
baz=306
**BNM** **Barren Site** **120.74** **51** *e*PKPdf **PKPdf** **13 57 19.1 +0.5**
**AGMN** **Agassiz Nation** **120.78** **32** P **PKPdf** **13 57 17.5 -0.5**
baz=308
**AGMN** **Agassiz Nation** **120.78** **32** PFAKE 13 57 30.0 +12
AGMN LR LR
comp=Z,2µm,21.0s
**D32A** **Dogwood Acres,** **120.86** **33** P **PKPdf** **13 57 17.1 -1.0**
baz=307
**F31A** **Hecla** **120.92** **35** P **PKPdf** **13 57 17.8 -0.5**
baz=305
**B33A** **Robert and Kas** **120.94** **31** P **PKPdf** **13 57 18.2 0.0**
baz=309
**HGTCO** **Madrid Canyon** **121.05** **47** PFAKE 13 57 30.0 +11
HGTCO LR LR
comp=Z,3µm,21.0s
**ES19** **SONSECA Array** **121.08** **317** *e*PKPdf **PKPdf** **13 57 18.9 0.0**
**ESDC** **Sonseca Array** **121.14** **317** PKP **PKPdf** **13 57 19.5 +0.5**
comp=Z,1.2nm,0.5s,baz=18,slow=3.4,SNR=16
ESDC PP **PP** **13 58 50.0 +1.3**
comp=Z,11nm,1.1s,baz=62,slow=7.1,SNR=13
**C33A** **Trail** **121.16** **32** P **PKPdf** **13 57 18.3 -0.4**
baz=308
**E32A** **Braaten, Kindr** **121.16** **34** P **PKPdf** **13 57 19.3 +0.5**
baz=306
**OGNE** **Ogallala** **121.17** **42** P **PKPdf** **13 57 19.8 +0.7**
baz=299
**OGNE** **Ogallala** **121.17** **42** PFAKE 13 57 30.0 +11
OGNE LR LR
comp=Z,1µm,20.0s
**T25A** **Trinidad** **121.23** **47** P **PKPdf** **13 57 19.9 +0.4**
baz=295
**T25A** **Trinidad** **121.23** **47** *e*PKPdf **PKPdf** **13 57 20.0 +0.5**
T25A LR LR
comp=Z,2µm,20.0s
**B34A** **Aery, Baudette** **121.28** **31** P **PKPdf** **13 57 19.0 0.0**
baz=310
**SUSD** **Miller** **121.30** **37** P **PKPdf** **13 57 19.4 +0.3**
baz=304
**PAB** **San Pablo** **121.46** **317** *e*PKiKP **PKPdf** **13 57 19.2 -0.4**
**PAB** **San Pablo** **121.46** **317** *e*PKPdf **PKPdf** **13 57 19.2 -0.4**
**D33A** **AnnSam, Waubun** **121.50** **33** P **PKPdf** **13 57 19.8 +0.4**
baz=308
**KSCO** **Kaye Shedlock'** **121.67** **44** P **PKPdf** **13 57 19.8 -0.4**
baz=297
**KSCO** **Kaye Shedlock'** **121.67** **44** PFAKE 13 57 30.0 +10
KSCO LR LR
comp=Z,2µm,21.0s
**EPT** **El Paso** **121.67** **53** PFAKE 13 57 30.0 +10
EPT LR LR
comp=Z,2µm,21.0s
**C34A** **RKJ Ranch, Bem** **121.68** **32** P **PKPdf** **13 57 19.7 0.0**
baz=309
**G32A** **Webster** **121.70** **35** P **PKPdf** **13 57 19.2 -0.7**
baz=305
**I31A** **Royce, Wessing** **121.78** **37** P **PKPdf** **13 57 19.9 -0.2**
baz=304
**E33A** **Westby DABS, E** **121.80** **33** P **PKPdf** **13 57 19.6 -0.3**
baz=307
**B35A** **Bob, Littlefor** **121.84** **30** P **PKPdf** **13 57 19.4 -0.6**
baz=311
**D34A** **Park Rapids** **121.88** **32** P **PKPdf** **13 57 19.4 -0.7**
baz=308
**F33A** **5 Mile Ranch,** **122.04** **34** P **PKPdf** **13 57 19.9 -0.6**
baz=307
**C35A** **Jirik Farms, M** **122.14** **31** P **PKPdf** **13 57 19.9 -0.6**
baz=310
**H32A** **Carlson Farm,** **122.17** **36** P **PKPdf** **13 57 20.4 -0.4**
baz=305
**E34A** **Wadena** **122.25** **33** P **PKPdf** **13 57 20.4 -0.4**
baz=308
**G33A** **Ortonville** **122.34** **35** P **PKPdf** **13 57 20.9 -0.1**
baz=306
**K31A** **O'Neill** **122.42** **38** P **PKPdf** **13 57 21.1 -0.2**
baz=303
**I32A** **Karley and Nic** **122.42** **36** P **PKPdf** **13 57 20.8 -0.4**
baz=305
**MVO** **Moncorvo** **122.46** **320** *e*PKPdf **PKPdf** **13 57 23.9 +2.4**
**MVO** **Moncorvo** **122.46** **320** *e*PP PP 13 59 01.4 +3.7
**MVO** **Moncorvo** **122.46** **320** *e*SS SS 14 15 37.0 +0.8
**MVO** **Moncorvo** **122.46** **320** *e*LR LR 14 47 02.7
comp=Z,630nm,18.0s
**H33A** **Prehn Over Nor** **122.47** **35** P **PKPdf** **13 57 21.2 -0.2**
baz=306
**D35A** **Remer** **122.49** **32** P **PKPdf** **13 57 21.0 -0.3**
baz=310
**J32A** **Parkston** **122.56** **37** P **PKPdf** **13 57 21.0 -0.6**
baz=304
**MNTX** **Cornudas Mount** **122.60** **53** P **PKPdf** **13 57 22.1 +0.1**
baz=291
**MNTX** **Cornudas Mount** **122.60** **53** *e*PKPdf **PKPdf** **13 57 22.4 +0.4**
MNTX LR LR
comp=Z,2µm,21.0s
**E35A** **Pequot Lakes** **122.64** **32** P **PKPdf** **13 57 20.9 -0.7**
baz=309
**F34A** **Alexandria** **122.64** **34** P **PKPdf** **13 57 21.5 -0.1**
baz=308
**C36A** **Pine Crest Far** **122.68** **31** P **PKPdf** **13 57 21.5 -0.2**
baz=311
**G34A** **Benson** **122.77** **34** P **PKPdf** **13 57 21.7 -0.1**
baz=307
**PGAV** **Gavieira, Arco** **122.83** **321** *e*PKPdf **PKPdf** **13 57 21.4 -0.8**
**PGAV** **Gavieira, Arco** **122.83** **321** *e*PP PP 13 59 05.4 +5.2
**PGAV** **Gavieira, Arco** **122.83** **321** *e*SS SS 14 15 37.0 -3.9
**PGAV** **Gavieira, Arco** **122.83** **321** *e*LR LR 14 49 14.1
comp=Z,610nm,20.0s
**POLO** **Lamas de Olo** **122.84** **320** *e*PKPdf **PKPdf** **13 57 23.3 +1.0**
**PVRL** **Vila Real** **122.84** **320** *e*PKPdf **PKPdf** **13 57 23.5 +1.3**
**K32A** **Verdigre** **122.88** **38** P **PKPdf** **13 57 21.7 -0.5**
baz=304
**D36A** **Goodland** **122.89** **31** P **PKPdf** **13 57 21.9 -0.2**
baz=311
**F35A** **Swanville** **122.98** **33** P **PKPdf** **13 57 21.7 -0.5**
baz=308
**H34A** **Spellman Lake,** **123.03** **35** P **PKPdf** **13 57 22.4 0.0**
baz=307
**ECSD** **EROS Data Cent** **123.09** **36** P **PKPdf** **13 57 22.1 -0.5**
baz=305
**ECSD** **EROS Data Cent** **123.09** **36** *e*PKPdf **PKPdf** **13 57 22.1 -0.5**
ECSD LR LR
comp=Z,2µm,21.0s
**J33A** **Davis** **123.12** **37** P **PKPdf** **13 57 22.3 -0.4**
baz=305
**MTE** **Manteigas** **123.19** **319** *e*PKPdf **PKPdf** **13 57 23.7 +0.8**
**MTE** **Manteigas** **123.19** **319** *e*PKPdf **PKPdf** **13 57 23.9 +1.0**
**MTE** **Manteigas** **123.19** **319** *e*PP PP 13 59 08.5 +5.9
**MTE** **Manteigas** **123.19** **319** *e*SS SS 14 15 49.5 +4.0
**MTE** **Manteigas** **123.19** **319** *e*LR LR 14 47 22.0
comp=Z,756nm,20.0s
**L32A** **Elgin** **123.22** **39** P **PKPdf** **13 57 22.6 -0.2**
baz=303
**EYMN** **Ely** **123.23** **30** P **PKPdf** **13 57 22.1 -0.6**
baz=313
**EYMN** **Ely** **123.23** **30** *e*PKPdf **PKPdf** **13 57 22.4 -0.2**
EYMN LR LR
comp=Z,2µm,21.0s
**PVIS** **Viseu** **123.25** **320** *e*PKPdf **PKPdf** **13 57 24.3 +1.3**
**E36A** **McGregor** **123.27** **32** P **PKPdf** **13 57 22.3 -0.5**
baz=310
**D37A** **Cotton** **123.29** **31** P **PKPdf** **13 57 22.7 -0.1**
baz=311
**I34A** **Hadley** **123.36** **36** P **PKPdf** **13 57 22.9 -0.1**
baz=306
**G35A** **Watkins** **123.42** **34** P **PKPdf** **13 57 23.0 -0.1**
baz=308
**PCBR** **Castelo Branco** **123.43** **318** *e*PKPdf **PKPdf** **13 57 24.1 +0.8**
**BGNE** **Belgrade** **123.45** **39** P **PKPdf** **13 57 22.7 -0.6**
baz=303
**BGNE** **Belgrade** **123.45** **39** *e*PKPdf **PKPdf** **13 57 22.8 -0.6**
BGNE LR LR
comp=Z,2µm,20.0s
**C38A** **Sawbill Land.** **123.50** **30** P **PKPdf** **13 57 22.8 -0.4**
baz=313
**K33A** **Hardington** **123.50** **38** P **PKPdf** **13 57 22.8 -0.6**
baz=304
**F36A** **Milaca** **123.55** **33** P **PKPdf** **13 57 23.1 -0.2**
baz=310
**H35A** **Sunnyside Ranc** **123.55** **34** P **PKPdf** **13 57 23.2 -0.2**
baz=308
**PMRV** **Marv??o** **123.58** **318** *e*PKPdf **PKPdf** **13 57 24.3 +0.7**
**PMRV** **Marv??o** **123.58** **318** *e*PP PP 13 59 12.3 +7.1
**PMRV** **Marv??o** **123.58** **318** *e*SS SS 14 15 53.0 +2.5
**PMRV** **Marv??o** **123.58** **318** *e*LR LR 14 50 32.8
comp=Z,732nm,18.0s
**L33A** **Hoskins** **123.58** **38** P **PKPdf** **13 57 23.5 0.0**
baz=304
**E37A** **Wrenshall** **123.69** **31** P **PKPdf** **13 57 23.0 -0.6**
baz=311
**J34A** **George** **123.74** **36** P **PKPdf** **13 57 23.4 -0.5**
baz=306
**CBKS** **Cedar Bluff** **123.75** **43** P **PKPdf** **13 57 23.6 -0.5**
baz=300
**CBKS** **Cedar Bluff** **123.75** **43** *e*PKiKP **PKPdf** **13 57 23.7 -0.3**
CBKS MLR MLR
comp=Z,1µm,20.0s
**CBKS** **Cedar Bluff** **123.75** **43** *e*PKPdf **PKPdf** **13 57 23.7 -0.3**
CBKS LR LR
comp=Z,1µm,20.0s
**MSTX** **Muleshoe** **123.76** **49** P **PKPdf** **13 57 23.8 -0.5**
baz=294
**MSTX** **Muleshoe** **123.76** **49** *e*PKPdf **PKPdf** **13 57 23.9 -0.3**
MSTX LR LR
comp=Z,1µm,19.0s
**G36A** **St. Michael** **123.82** **33** P **PKPdf** **13 57 23.4 -0.5**
baz=309
**PBAR** **Barrancos** **123.96** **316** *e*PKPdf **PKPdf** **13 57 25.2 +0.8**
**M33A** **Taylor Creek F** **123.96** **39** P **PKPdf** **13 57 23.3 -1.0**
baz=304
**I35A** **Creekview Farm** **123.97** **35** P **PKPdf** **13 57 23.7 -0.5**
baz=307
**PCAS** **Casmilo, Conde** **123.99** **319** *e*PKPdf **PKPdf** **13 57 26.7 +2.3**
**PESTR** **Estremoz** **123.99** **317** *e*PKPdf **PKPdf** **13 57 24.2 -0.2**
**K34A** **Le Mars** **124.01** **37** P **PKPdf** **13 57 23.6 -0.7**
baz=305
**E38A** **The Farm, Brul** **124.10** **31** P **PKPdf** **13 57 24.3 -0.1**
baz=312
**F37A** **Hinrichs Farm,** **124.12** **32** P **PKPdf** **13 57 24.4 0.0**
baz=310
**H36A** **Jessenland, He** **124.13** **34** P **PKPdf** **13 57 24.6 +0.1**
baz=308
**J35A** **Milford** **124.14** **36** P **PKPdf** **13 57 24.6 +0.1**
baz=307
**TOC2** **Torodi Ar. Sit** **124.17** **285** PFAKE 13 57 40.0 +15
TOC2 LR LR
comp=Z,900nm,19.0s
**TOB2** **Torodi Ar. Sit** **124.18** **285** PFAKE 13 57 40.0 +15
TOB2 LR LR
comp=Z,800nm,19.0s
**TOC1** **Torodi Ar. Sit** **124.19** **285** PFAKE 13 57 40.0 +15
TOC1 LR LR
comp=Z,900nm,20.0s
**AMTX** **Amarillo** **124.19** **48** P **PKPdf** **13 57 25.4 +0.4**
baz=296
**AMTX** **Amarillo** **124.19** **48** *e*PKPdf **PKPdf** **13 57 24.1 -0.9**
AMTX LR LR
comp=Z,2µm,22.0s
**TOB3** **Torodi Ar. Sit** **124.19** **285** PFAKE 13 57 40.0 +15
TOB3 LR LR
comp=Z,800nm,19.0s
**TOC4** **Torodi Ar. Sit** **124.19** **285** PFAKE 13 57 40.0 +15

TOC4 LR LR
comp=Z,800nm,19.0s
**TOA0 Torodi Ar. Sit 124.20 285** *e*PKPdf **PKPdf 13 57 24.9 -0.5**
TOA0 *e*PKPdf **PKiKP 13 57 25.1 -0.6**
TOA0 LR LR
comp=Z,800nm,19.0s
**TORD Torodi Ar. Bea 124.20 285** PKP **PKPdf 13 57 25.2 -0.2**
comp=Z,31nm,0.7s,baz=62,slow=1.9,SNR=92
TORD PP **PP 13 59 13.2 +2.6**
comp=Z,7.3nm,1.0s,baz=77,slow=6.0,SNR=5.0
TORD PKKPab **PKKPbc 14 07 11.2 +1.5**
comp=Z,3.7nm,0.9s,baz=288,slow=3.5,SNR=12
**TOA1 Torodi Ar. Sit 124.20 285** PFAKE 13 57 40.0 +15
TOA1 LR LR
comp=Z,800nm,19.0s
**TOB4 Torodi Ar. Sit 124.21 285** PFAKE 13 57 40.0 +15
TOB4 LR LR
comp=Z,800nm,20.0s
**TOB5 Torodi Ar. Sit 124.21 285** PFAKE 13 57 40.0 +15
TOB5 LR LR
comp=Z,900nm,20.0s
**TOC7 Torodi Ar. Sit 124.21 285** PFAKE 13 57 40.0 +15
TOC7 LR LR
comp=Z,800nm,20.0s
**TOC5 Torodi Ar. Sit 124.22 285** PFAKE 13 57 40.0 +15
TOC5 LR LR
comp=Z,1µm,20.0s
**TOC6 Torodi Ar. Sit 124.22 285** PFAKE 13 57 40.0 +15
TOC6 LR LR
comp=Z,800nm,20.0s
**L34A Svendsen Farm, 124.25 38** P **PKPdf 13 57 24.3 -0.6**
baz=305
**N33A J Bar K, Exete 124.26 40** P **PKPdf 13 57 23.8 -1.1**
baz=303
**PMTG Montargil 124.32 318** *e*PKPdf **PKPdf 13 57 25.2 +0.2**
**SPMN Marine on St. 124.35 33** P **PKPdf 13 57 24.7 -0.2**
baz=310
**SPMN Marine on St. 124.35 33** *e*PKPdf **PKPdf 13 57 24.3 -0.6**
SPMN LR LR
comp=Z,2µm,22.0s
**F38A Pierce - Schro 124.36 32** P **PKPdf 13 57 25.3 +0.4**
baz=311
**M34A Aspy Farms, Fr 124.38 38** P **PKPdf 13 57 24.4 -0.7**
baz=304
**I36A Fitzsimmons Fa 124.43 35** P **PKPdf 13 57 24.4 -0.7**
baz=308
**K35A Storm Lake 124.50 37** P **PKPdf 13 57 25.2 -0.1**
baz=306
**O33A Hebron 124.53 40** P **PKPdf 13 57 24.7 -0.7**
baz=302
**PBEJ Beja 124.60 317** *e*PKPdf **PKPdf 13 57 27.0 +1.4**
**J36A Seneca 1, Swea 124.67 35** P **PKPdf 13 57 25.0 -0.6**
baz=307
**L35A Bielow Farm, R 124.67 37** P **PKPdf 13 57 25.4 -0.2**
baz=306
**H37A Dierke Farm, C 124.69 34** P **PKPdf 13 57 24.8 -0.7**
baz=310
**E39A Mellen 124.77 31** P **PKPdf 13 57 25.3 -0.4**
baz=313
**I37A Lemond, Waseca 124.78 34** P **PKPdf 13 57 25.6 -0.2**
baz=309
**PVAQ Vaqueiros 124.80 316** *e*PKPdf **PKPdf 13 57 27.0 +1.0**
**PVAQ Vaqueiros 124.80 316** *e*PP PP 13 59 16.3 +2.8
**PVAQ Vaqueiros 124.80 316** *e*SS SS 14 16 10.5 +4.5
**PVAQ Vaqueiros 124.80 316** *e*LR LR 14 45 25.8
comp=Z,630nm,20.0s
**N34A Lincoln 124.80 39** P **PKPdf 13 57 25.5 -0.5**
baz=304
**TX31 Lajitas Ar. Si 124.82 55** *e*PKPdf **PKPdf 13 57 24.6 -1.8**
TX31 *e*PKPdf **PKiKP 13 57 26.3 -0.4**
**TXAR Lajitas Array 124.82 55** PKP **PKPdf 13 57 26.9 +0.5**
comp=Z,4.0nm,0.7s,baz=232,slow=1.1,SNR=35
TXAR PKKPbc **PKKPbc 14 07 08.7 +0.9**
comp=Z,0.4nm,0.8s,baz=119,slow=7.3,SNR=4.2
**F39A Loretta 124.89 31** P **PKPdf 13 57 25.4 -0.5**
baz=312
**G38A Ridgeland 124.89 32** P **PKPdf 13 57 24.9 -1.0**
baz=311
**PCVE Castro Verde 124.91 316** *e*PKPdf **PKPdf 13 57 27.2 +1.0**
**MESJ Messejana 124.93 317** *e*P **PKPdf 13 57 24.8 -1.4**
MESJ *e*PP **PP 13 59 13.3 -1.1**
MESJ AMS AMS 15 02 24.0
comp=Z,801nm,18.4s
**MESJ Messejana 124.93 317** *e*PKIKP **PKPdf 13 57 24.8 -1.4**
MESJ *e* 13 59 13.2
**M35A Neola 124.95 38** P **PKPdf 13 57 25.6 -0.6**
baz=305
**H38A Maiden Rock 124.98 33** P **PKPdf 13 57 26.2 0.0**
baz=310
**PNCL Nicolau / Gran 125.01 317** *e*PKPdf **PKPdf 13 57 27.2 +0.8**
**K36A Gilmore City 125.02 36** P **PKPdf 13 57 25.7 -0.6**
baz=307
**PBDV Barranco-do-Ve 125.03 316** *e*PKPdf **PKPdf 13 57 28.3 +1.8**
**O34A Beatrice 125.04 40** P **PKPdf 13 57 25.2 -1.2**
baz=303
**E40A Wakefield 125.05 30** P **PKPdf 13 57 26.2 0.0**
baz=314
**LIS Lisbon 125.12 318** *e*PP PP 13 59 14.3 -1.2
LIS AMS AMS 15 02 19.6
comp=N,830nm,22.1s
**J37A Redenius Farm, 125.13 35** P **PKPdf 13 57 25.8 -0.6**
baz=308
**G39A Holcombe 125.18 32** P **PKPdf 13 57 26.2 -0.3**
baz=312
**L36A Harm Buss Farm 125.21 37** P **PKPdf 13 57 25.9 -0.7**
baz=306
**F40A Park Falls 125.30 31** P **PKPdf 13 57 26.4 -0.3**
baz=313
**P34A Walnut Farm, R 125.30 41** P **PKPdf 13 57 26.4 -0.6**
baz=303
**N35A Tabor 125.33 39** P **PKPdf 13 57 26.5 -0.5**
baz=305
**I38A Scanlan Farm, 125.36 34** P **PKPdf 13 57 26.6 -0.2**
baz=310
**K37A Belmond 125.42 36** P **PKPdf 13 57 26.9 -0.1**
baz=308
**U32A Winter Ranch, 125.45 45** P **PKPdf 13 57 26.7 -0.7**
baz=299
**O35A Humboldt 125.50 39** P **PKPdf 13 57 27.3 0.0**
baz=304
**MORF Marmelete 125.50 316** *e*P **PKPdf 13 57 25.8 -1.6**
MORF *e*PP **PP 13 59 16.8 -1.4**
MORF AMS AMS 14 56 01.6
comp=E,694nm,20.4s
**MORF Marmelete 125.50 316** *e*PKIKP **PKPdf 13 57 25.8 -1.6**
MORF *e* 13 59 16.7
**MORF Marmelete 125.50 316** *e*PKPdf **PKPdf 13 57 28.2 +0.8**
**E41A Kenton 125.50 30** P **PKPdf 13 57 26.7 -0.4**
baz=315
**H39A Augusta 125.52 33** P **PKPdf 13 57 26.6 -0.6**
baz=311
**Q34A Chapman 125.56 41** P **PKPdf 13 57 27.4 -0.1**
baz=302
**SCHQ Schefferville 125.68 9** PKP **PKPdf 13 57 27.8 +0.6**
comp=E,9.2nm,0.6s,baz=254,slow=7.0,SNR=8.2
**KSU1 Kansas State U 125.69 41** P **PKPdf 13 57 27.6 0.0**
baz=303
**KSU1 Kansas State U 125.69 41** *e*PKPdf **PKPdf 13 57 27.6 0.0**
KSU1 LR LR
comp=Z,1µm,20.0s
**R34A Isabella, Hill 125.69 42** P **PKPdf 13 57 27.4 -0.3**
baz=302
**G40A Rib Lake 125.70 31** P **PKPdf 13 57 26.6 -0.9**
baz=313
**PFVI Vila Bisbo 125.70 316** *e*PKPdf **PKPdf 13 57 28.6 +0.9**
**L37A Phoenix Point, 125.74 36** P **PKPdf 13 57 27.4 -0.3**
baz=307
**J38A Wedel Dairy, R 125.74 34** P **PKPdf 13 57 26.8 -0.8**
baz=309
**N36A Muff Farm, Cla 125.78 38** P **PKPdf 13 57 27.2 -0.6**
baz=305
**P35A Duane Minner, 125.84 40** P **PKPdf 13 57 27.3 -0.7**
baz=304
**I39A Houston 125.93 33** P **PKPdf 13 57 27.0 -0.9**
baz=311
**F41A Three Lakes 125.94 30** P **PKPdf 13 57 27.8 -0.2**
baz=314
**M37A Trindle Farm, 125.99 37** P **PKPdf 13 57 27.7 -0.5**
baz=307
**K38A Parkersburg 125.99 35** P **PKPdf 13 57 27.3 -0.8**
baz=309
**H40A Chili 126.04 32** P **PKPdf 13 57 27.8 -0.3**
baz=312
**E42A Champion 126.04 29** P **PKPdf 13 57 28.1 -0.1**
baz=316
**S34A Willow Spring 126.09 43** P **PKPdf 13 57 28.2 -0.3**
baz=302
**J39A Decorah 126.16 34** P **PKPdf 13 57 27.4 -1.0**
baz=310
**O36A Bolckow 126.17 39** P **PKPdf 13 57 28.1 -0.4**
baz=305
**SCIA State Center 126.19 36** P **PKPdf 13 57 28.4 -0.1**
baz=308
**SCIA State Center 126.19 36** PFAKE 13 57 40.0 +11
SCIA LR LR
comp=Z,2µm,20.0s
**Q35A Mercer Eighty, 126.19 41** P **PKPdf 13 57 28.3 -0.3**
baz=303
**L38A Oak Wood Farm, 126.20 36** P **PKPdf 13 57 28.2 -0.3**
baz=308
**G41A Antigo 126.27 31** P **PKPdf 13 57 28.0 -0.6**
baz=314
**N37A Lee Faris, Mou 126.28 38** P **PKPdf 13 57 28.0 -0.7**
baz=306
**P36A Good Intent, A 126.31 40** P **PKPdf 13 57 27.7 -1.1**
baz=304
**R35A Emporia Munici 126.38 42** P **PKPdf 13 57 28.5 -0.5**
baz=303
**WMOK Wichita Mounta 126.38 47** P **PKPdf 13 57 29.0 -0.2**
baz=298
**WMOK Wichita Mounta 126.38 47** *e*PKIKP **PKPdf 13 57 28.0 -1.2**
WMOK MLR MLR
comp=Z,2µm,21.0s
**WMOK Wichita Mounta 126.38 47** *e*PKPdf **PKPdf 13 57 28.0 -1.2**
WMOK LR LR
comp=Z,2µm,21.0s
**T34A McClaskey Farm 126.39 43** P **PKPdf 13 57 28.7 -0.3**
baz=301
**I40A Norwalk 126.40 33** P **PKPdf 13 57 28.2 -0.7**
baz=312
**F42A Maple Grove Fa 126.41 30** P **PKPdf 13 57 28.3 -0.5**
baz=315
**H41A Junction City 126.43 32** P **PKPdf 13 57 28.4 -0.5**
baz=313
**K39A Oelwein 126.46 35** P **PKPdf 13 57 29.0 -0.1**
baz=310
**M38A Pleasantville 126.50 37** P **PKPdf 13 57 28.7 -0.5**
baz=308
**Q36A Arnold C. Orve 126.51 40** P **PKPdf 13 57 28.8 -0.4**
baz=304
**E43A Lone Tree Farm 126.52 28** P **PKPdf 13 57 28.9 -0.1**
baz=317
**G42A Mountain 126.63 30** P **PKPdf 13 57 28.6 -0.7**
baz=315
**S35A Otter Creek Ra 126.64 42** P **PKPdf 13 57 29.2 -0.3**
baz=302
**J40A Soldiers Grove 126.66 33** P **PKPdf 13 57 28.7 -0.7**
baz=311
**O37A Wolven Farm, M 126.66 39** P **PKPdf 13 57 28.8 -0.7**
baz=306
**I41A Arkdale 126.69 32** P **PKPdf 13 57 29.3 -0.1**
baz=312
**ABTX Abilene, Hawle 126.70 49** P **PKPdf 13 57 29.6 -0.2**
baz=296
**ABTX Abilene, Hawle 126.70 49** *e*PKPdf **PKPdf 13 57 29.8 0.0**
ABTX LR LR
comp=Z,2µm,22.0s
**L39A Vinton 126.77 35** P **PKPdf 13 57 28.9 -0.7**
baz=309
**F43A Flat Rock, Esc 126.83 29** P **PKPdf 13 57 29.9 +0.3**
baz=316
**R36A Gordon, Harris 126.83 41** P **PKPdf 13 57 29.3 -0.5**
baz=303
**E44A Grand Marais A 126.84 28** P **PKPdf 13 57 29.2 -0.4**
baz=318
**N38A Joes South For 126.85 37** P **PKPdf 13 57 29.1 -0.7**
baz=307
**P37A Lathrop 126.87 39** P **PKPdf 13 57 29.0 -0.9**
baz=305
**K40A Colesburg 126.89 34** P **PKPdf 13 57 29.0 -0.8**
baz=310
**T35A Sooner Cattle 126.91 43** P **PKPdf 13 57 29.6 -0.4**
baz=302
**G43A Wallace 126.99 30** P **PKPdf 13 57 29.6 -0.4**
baz=315
**U35A Pawnee 127.04 44** P **PKPdf 13 57 29.1 -1.2**
baz=301
**U35A Pawnee 127.04 44** *e*PKPdf **PKPdf 13 57 29.5 -0.9**
U35A LR LR
comp=Z,2µm,22.0s
**M39A Webster 127.07 36** P **PKPdf 13 57 29.3 -0.9**
baz=309
**J41A Loganville 127.08 33** P **PKPdf 13 57 28.8 -1.4**
baz=312
**F44A Big Bay de Noc 127.08 28** P **PKPdf 13 57 29.6 -0.5**
baz=317
**H42A Shiocton 127.08 31** P **PKPdf 13 57 28.9 -1.2**
baz=314
**S36A Lake Cedric, C 127.10 42** P **PKPdf 13 57 29.5 -0.9**
baz=303
**O38A Galt 127.11 38** P **PKPdf 13 57 29.3 -1.0**
baz=306
**Q37A Longview Farm, 127.21 40** P **PKPdf 13 57 29.7 -0.9**
baz=305
**N39A Derby Farms, D 127.24 37** P **PKPdf 13 57 29.9 -0.6**
baz=308
**JFWS Jewell Farm 127.25 34** P **PKPdf 13 57 29.3 -1.2**
baz=311
**JFWS Jewell Farm 127.25 34** *e*PKIKP **PKPdf 13 57 29.7 -0.8**
JFWS MLR MLR
comp=Z,2µm,20.0s
**JFWS Jewell Farm 127.25 34** *e*PKPdf **PKPdf 13 57 29.7 -0.8**
JFWS LR LR
comp=Z,2µm,20.0s
**L40A Anamosa 127.25 35** P **PKPdf 13 57 29.9 -0.7**
baz=310
**T36A Boggs Farm, Ca 127.26 43** P **PKPdf 13 57 31.0 +0.3**
baz=302
**V35A Meyer Ranch, C 127.27 45** P **PKPdf 13 57 30.4 -0.4**
baz=300
**V35A Meyer Ranch, C 127.27 45** *e*PKPdf **PKPdf 13 57 30.8 0.0**
V35A LR LR
comp=Z,2µm,19.0s
**I42A Draeger Farm, 127.31 32** P **PKPdf 13 57 29.6 -1.0**
baz=313
**OK020 N3440 Road, Me 127.36 45** *e*PKPdf **PKPdf 13 57 31.2 +0.2**
OK020 LR LR
comp=Z,2µm,20.0s
**P38A Dawn 127.36 39** P **PKPdf 13 57 30.4 -0.4**
baz=306
**E45A Wooded Hills, 127.38 27** P **PKPdf 13 57 30.7 +0.1**
baz=319
**K41A Shullsburg 127.42 34** P **PKPdf 13 57 30.2 -0.6**
baz=311
**OK021 N3530 Road, Sp 127.44 45** *e*PKPdf **PKPdf 13 57 31.4 +0.3**
OK021 LR LR
comp=Z,2µm,19.0s
**JCT Junction City 127.48 52** P **PKPdf 13 57 30.8 -0.6**
baz=294
**JCT Junction City 127.48 52** *e*PKIKP **PKPdf 13 57 30.9 -0.5**
JCT MLR MLR
comp=Z,2µm,21.0s
**JCT Junction City 127.48 52** *e*PKPdf **PKPdf 13 57 30.9 -0.5**
JCT LR LR
comp=Z,2µm,21.0s
**M40A Post Highland 127.50 36** P **PKPdf 13 57 30.6 -0.5**
baz=309
**W35A Tecumseh 127.55 45** P **PKPdf 13 57 30.8 -0.5**
baz=300
**W35A Tecumseh 127.55 45** *e*PKPdf **PKPdf 13 57 31.2 -0.2**
W35A LR LR
comp=Z,2µm,21.0s
**S37A Fort Scott 127.59 41** P **PKPdf 13 57 30.8 -0.5**
baz=304
**J42A Columbus 127.59 32** P **PKPdf 13 57 30.7 -0.5**
baz=313
**O39A Kirksville 127.60 38** P **PKPdf 13 57 31.0 -0.3**
baz=307
**L41A Preston 127.66 34** P **PKPdf 13 57 30.9 -0.4**
baz=311
**Q38A Cooks Store, C 127.69 39** P **PKPdf 13 57 31.0 -0.5**
baz=306
**U36A Oologah 127.72 43** P **PKPdf 13 57 31.0 -0.6**
baz=302
**I43A Langenfeld Bro 127.72 31** P **PKPdf 13 57 30.5 -0.9**
baz=314
**F45A CMU Biological 127.73 28** P **PKPdf 13 57 31.1 -0.2**
baz=318
**N40A Mertquake, Sal 127.78 36** P **PKPdf 13 57 31.0 -0.6**
baz=309
**K42A Prairie Point, 127.83 33** P **PKPdf 13 57 30.9 -0.8**
baz=312
**X35A Drake 127.86 46** P **PKPdf 13 57 31.5 -0.5**
baz=300
**X35A Drake 127.86 46** *e*PKPdf **PKPdf 13 57 31.3 -0.7**
X35A LR LR
comp=Z,2µm,22.0s
**ZAIG Zacatecas 127.86 62** PFAKE 13 57 40.0 +7.4
ZAIG LR LR
comp=Z,2µm,20.0s
**V36A Jenks 127.89 44** P **PKPdf 13 57 31.7 -0.3**
baz=301
**V36A Jenks 127.89 44** *e*PKPdf **PKPdf 13 57 31.9 0.0**
V36A LR LR
comp=Z,3µm,22.0s
**J43A Natural Harves 127.92 32** P **PKPdf 13 57 30.7 -1.1**
baz=314
**P39B Salisbury 127.93 38** P **PKPdf 13 57 31.5 -0.5**
baz=307
**TUL1 Leonard 127.93 44** P **PKPdf 13 57 31.0 -1.0**
baz=302
**TUL1 Leonard 127.93 44** *e*PKPdf **PKPdf 13 57 30.7 -1.3**
TUL1 LR LR
comp=Z,2µm,22.0s
**R38A Fenwick Farm, 127.95 40** P **PKPdf 13 57 31.1 -0.9**
baz=305
**F46A Macinaw City C 128.01 27** P **PKPdf 13 57 32.0 +0.1**
baz=319
**W36A Wetumka 128.02 45** P **PKPdf 13 57 32.2 0.0**
baz=301
**W36A Wetumka 128.02 45** *e*PKPdf **PKPdf 13 57 31.7 -0.5**
W36A LR LR
comp=Z,400nm,20.0s
**Y35A Marietta 128.05 47** P **PKPdf 13 57 32.4 0.0**
baz=299
**M41A Milan 128.08 35** P **PKPdf 13 57 31.5 -0.6**
baz=310
**O40A La Belle 128.08 37** P **PKPdf 13 57 32.8 +0.6**
baz=308
**U37A Salina 128.13 43** P **PKPdf 13 57 32.6 +0.2**
baz=302
**L42A Oliver, Polo 128.17 34** P **PKPdf 13 57 32.4 0.0**
baz=312
**X36A Centrahoma 128.22 46** P **PKPdf 13 57 32.6 0.0**
baz=300
**S38A Stockton 128.27 41** P **PKPdf 13 57 32.4 -0.3**
baz=304
**N41A Harden Midland 128.33 36** P **PKPdf 13 57 32.9 +0.2**
baz=309
**P40A Paris 128.34 38** P **PKPdf 13 57 32.5 -0.2**
baz=308
**T38A Diamond 128.34 42** P **PKPdf 13 57 32.7 -0.2**
baz=304
**V37A Hulbert 128.39 44** P **PKPdf 13 57 33.0 +0.1**
baz=302
**K43A Burlington 128.43 33** P **PKPdf 13 57 32.5 -0.3**
baz=313
**R39A Chumby, Stover 128.44 40** P **PKPdf 13 57 31.8 -1.1**
baz=306
**M42A Sheffield 128.48 35** P **PKPdf 13 57 32.3 -0.7**
baz=311
**L43A Garden Prairie 128.56 33** P **PKPdf 13 57 32.7 -0.3**
baz=312
**W37B Quinton 128.58 45** P **PKPdf 13 57 32.9 -0.4**
baz=301
**W37B Quinton 128.58 45** *e*PKPdf **PKPdf 13 57 33.1 -0.2**
W37B LR LR
comp=Z,2µm,19.0s
**Y36A Durant 128.60 46** P **PKPdf 13 57 33.4 0.0**
baz=300
**U38A Gravette 128.61 43** P **PKPdf 13 57 32.8 -0.6**
baz=303
**S39A Bolivar 128.61 41** P **PKPdf 13 57 32.9 -0.4**
baz=305
**WHTX Lake Whitney, 128.64 49** P **PKPdf 13 57 33.4 -0.1**
baz=297
**WHTX Lake Whitney, 128.64 49** *e*PKPdf **PKPdf 13 57 32.2 -1.3**
WHTX LR LR
comp=Z,2µm,21.0s
**Q40A Laux Farm, Aux 128.65 39** P **PKPdf 13 57 33.3 0.0**
baz=307
**833A Chaparral WMA, 128.67 54** P **PKPdf 13 57 33.2 -0.4**
baz=293
**O41A Passleys Farm, 128.68 37** P **PKPdf 13 57 33.0 -0.4**
baz=309
**N42A Yates City 128.73 35** P **PKPdf 13 57 32.4 -1.0**
baz=310
**GLMI Grayling 128.79 28** PFAKE 13 57 40.0 +6.6
GLMI LR LR
comp=Z,1µm,20.0s
**Z36A Blue Ridge 128.79 47** P **PKPdf 13 57 34.2 +0.4**
baz=299
**P41A Barry, Barry 128.85 37** P **PKPdf 13 57 34.1 +0.4**
baz=309
**X37A Clayton 128.90 45** P **PKPdf 13 57 34.2 +0.3**
baz=301
**X37A Clayton 128.90 45** *e*PKPdf **PKPdf 13 57 33.6 -0.3**
X37A LR LR
comp=Z,2µm,22.0s
**V38A Canehill 128.91 43** P **PKPdf 13 57 34.3 +0.4**
baz=303
**R40A Maddies Statio 128.94 39** P **PKPdf 13 57 34.1 +0.2**
baz=306
**M43A Waltham Townsh 128.94 34** P **PKPdf 13 57 33.9 +0.1**
baz=312
**T39A Clever 128.96 41** P **PKPdf 13 57 34.3 +0.3**
baz=305
**HHAR Hobbs 129.00 42** *e*PKPdf **PKPdf 13 57 32.8 -1.2**
HHAR LR LR
comp=Z,2µm,19.0s
**L44A Lake County Fo 129.02 33** P **PKPdf 13 57 33.6 -0.3**
baz=313
**Y37A Hugo 129.04 46** P **PKPdf 13 57 34.5 +0.3**
baz=300
**435B Jarrell 129.08 51** P **PKPdf 13 57 34.6 +0.2**
baz=296
**VLDQ Val d'Or 129.10 21** *e*PKPdf **PKPdf 13 57 32.9 -1.0**
VLDQ LR LR
comp=Z,1µm,20.0s
**136A Ennis 129.11 48** P **PKPdf 13 57 34.1 -0.3**
baz=298
**O42A Bath 129.11 36** P **PKPdf 13 57 34.4 +0.2**
baz=310
**N43A Stutzman Famil 129.15 35** P **PKPdf 13 57 34.8 +0.6**
baz=311
**Q41A Truxton 129.19 38** P **PKPdf 13 57 34.5 +0.2**
baz=308
**S40A Lebanon 129.20 40** P **PKPdf 13 57 34.0 -0.4**
baz=306
**X38A Whitesboro 129.25 45** P **PKPdf 13 57 35.1 +0.5**
baz=302
**U39A Green Forest 129.25 42** P **PKPdf 13 57 33.8 -0.7**
baz=304
**W38A Poteau 129.25 44** P **PKPdf 13 57 34.6 0.0**
baz=302
**236A Katherine and 129.33 49** P **PKPdf 13 57 35.1 +0.3**
baz=298
**HDIL Hopedale 129.33 35** P **PKPdf 13 57 34.5 -0.1**
baz=311
**P42A Winchester 129.34 37** P **PKPdf 13 57 34.6 +0.1**
baz=309
**336A Riesel 129.38 49** P **PKPdf 13 57 34.9 0.0**
baz=298
**Z37A Pogue Cattle C 129.42 47** P **PKPdf 13 57 35.0 0.0**
baz=300
**V39A Pettigrew 129.44 43** P **PKPdf 13 57 34.6 -0.3**
baz=304
**T40A Mansfield 129.45 41** P **PKPdf 13 57 35.2 +0.3**
baz=306
**KOWA Kowa 129.48 288** *e*PKPdf **PKPdf 13 57 33.2 -2.3**
KOWA LR LR
comp=Z,1µm,19.0s
**M44A Midewin, Midew 129.49 34** P **PKPdf 13 57 35.7 +0.8**
baz=313
**O43A Sugar Creek Fa 129.50 35** P **PKPdf 13 57 34.6 -0.3**
baz=311
**R41A Rosebud 129.50 39** P **PKPdf 13 57 34.7 -0.2**
baz=307
**137A Heron Place, G 129.62 48** P **PKPdf 13 57 35.4 +0.1**
baz=299
**Q42A Golden Eagle 129.65 38** P **PKPdf 13 57 35.6 +0.4**
baz=309
**U40A Yellville 129.68 42** P **PKPdf 13 57 35.3 -0.1**
baz=305
**S41A Jillco Farms, 129.69 40** P **PKPdf 13 57 35.6 +0.2**
baz=307
**W39A Magazine 129.69 44** P **PKPdf 13 57 35.1 -0.3**
baz=303
**Y38A Idabel 129.70 45** P **PKPdf 13 57 35.0 -0.4**
baz=301
**CCM Cathedral Cave 129.73 39** P **PKPdf 13 57 34.9 -0.5**
baz=307
**CCM Cathedral Cave 129.73 39** *e*PKIKP **PKPdf 13 57 34.9 -0.5**

CCM MLR MLR
comp=Z,2µm,20.0s
**CCM** **Cathedral Cave** **129.73** **39** *e*PKPdf **PKPdf** **13 57 34.9 -0.5**
CCM LR LR
comp=Z,2µm,20.0s
**P43A** **Skaggs, Pawnee** **129.79** **36** P **PKPdf** **13 57 35.0 -0.5**
baz=310
**SHEL** **Horse Pasture** **129.80** **248** PFAKE 13 57 50.0 +14
SHEL LR LR
comp=Z,1µm,22.0s
**X39A** **Fountain Ranch** **129.83** **44** P **PKPdf** **13 57 35.6 -0.1**
baz=302
**N44A** **Piper City** **129.84** **34** P **PKPdf** **13 57 35.1 -0.4**
baz=312
**Z38A** **Mt. Pleasant** **129.86** **46** P **PKPdf** **13 57 35.8 +0.1**
baz=300
**237A** **Washetta, Mont** **129.87** **48** P **PKPdf** **13 57 36.6 +0.8**
baz=299
**R42A** **Luebbering** **129.87** **38** P **PKPdf** **13 57 35.7 +0.1**
baz=308
**M45A** **Boilermakers S** **129.92** **33** P **PKPdf** **13 57 36.4 +0.8**
baz=314
**MOIG** **Morelia** **129.95** **65** PFAKE 13 57 50.0 +13
MOIG LR LR
comp=Z,2µm,20.0s
**SLM** **Saint Louis** **130.00** **38** PFAKE 13 57 50.0 +14
SLM LR LR
comp=Z,2µm,21.0s
**T41A** **Mountain View** **130.00** **40** P **PKPdf** **13 57 36.7 +0.7**
baz=306
**V40A** **Witts Springs** **130.01** **42** P **PKPdf** **13 57 36.6 +0.5**
baz=304
**O44A** **Mansfield** **130.07** **35** P **PKPdf** **13 57 36.6 +0.7**
baz=312
**138A** **Matatall Enter** **130.08** **47** P **PKPdf** **13 57 37.3 +1.0**
baz=300
**Q43A** **New Douglas** **130.13** **37** P **PKPdf** **13 57 37.1 +0.9**
baz=310
**337A** **Centerville** **130.14** **49** P **PKPdf** **13 57 37.5 +1.1**
baz=298
**Y39A** **Lockesburg** **130.15** **45** P **PKPdf** **13 57 36.9 +0.6**
baz=302
**N45A** **Kentland** **130.15** **34** P **PKPdf** **13 57 37.0 +0.9**
baz=313
**W40A** **Ferguson Farm,** **130.19** **43** P **PKPdf** **13 57 36.4 +0.1**
baz=304
**W40A** **Ferguson Farm,** **130.19** **43** PFAKE 13 57 50.0 +14
W40A LR LR
comp=Z,2µm,22.0s
**S42A** **Caledonia** **130.19** **39** P **PKPdf** **13 57 36.9 +0.7**
baz=308
**MIAR** **Mount Ida** **130.19** **44** P **PKPdf** **13 57 37.1 +0.8**
baz=303
**MIAR** **Mount Ida** **130.19** **44** *e*PKIKP **PKPdf** **13 57 36.1 -0.3**
MIAR MLR MLR
comp=Z,3µm,19.0s
**MIAR** **Mount Ida** **130.19** **44** *e*PKPdf **PKPdf** **13 57 36.1 -0.3**
MIAR LR LR
comp=Z,3µm,19.0s
**KVTX** **Kingsville** **130.20** **54** PFAKE 13 57 50.0 +13
KVTX LR LR
comp=Z,2µm,20.0s
**FVM** **French Village** **130.28** **39** *e*PKIKP **PKPdf** **13 57 36.1 -0.4**
FVM MLR MLR
comp=Z,2µm,21.0s
**FVM** **French Village** **130.28** **39** *e*PKPdf **PKPdf** **13 57 36.1 -0.4**
FVM LR LR
comp=Z,2µm,21.0s
**U41A** **Viola** **130.31** **41** P **PKPdf** **13 57 36.7 +0.2**
baz=306
**JRQG** **Juriquilla Cam** **130.34** **64** PFAKE 13 57 50.0 +13
JRQG LR LR
comp=Z,2µm,21.0s
**238A** **Jacksonville** **130.38** **48** P **PKPdf** **13 57 37.8 +1.0**
baz=299
**M46A** **Old House Fiel** **130.39** **32** P **PKPdf** **13 57 37.1 +0.5**
baz=315
**R43A** **Red Bud** **130.41** **38** P **PKPdf** **13 57 37.4 +0.7**
baz=309
**O45A** **Potomac** **130.43** **34** P **PKPdf** **13 57 37.0 +0.3**
baz=312
**P44A** **Sand Creek, Wi** **130.44** **36** P **PKPdf** **13 57 36.9 +0.3**
baz=311
**T42A** **Van Buren** **130.44** **40** P **PKPdf** **13 57 36.7 -0.1**
baz=307
**Z39A** **Irene McRaven,** **130.44** **46** P **PKPdf** **13 57 37.9 +1.0**
baz=301
**V41A** **Mountainview** **130.47** **42** P **PKPdf** **13 57 37.4 +0.5**
baz=305
**N46A** **Monticello** **130.54** **33** P **PKPdf** **13 57 37.7 +0.8**
baz=314
**338A** **Crockett** **130.55** **49** P **PKPdf** **13 57 37.5 +0.4**
baz=299
**Q44A** **Meyer Farm, Va** **130.57** **37** P **PKPdf** **13 57 37.8 +0.8**
baz=310
**139A** **Bunkhouse Ranc** **130.58** **47** P **PKPdf** **13 57 37.9 +0.7**
baz=301
**X301** **Greenbrier Sit** **130.62** **43** PFAKE 13 57 50.0 +13
X301 LR LR
comp=Z,1µm,19.0s
**WHAR** **Wooly Hollow** **130.66** **43** PFAKE 13 57 50.0 +13
WHAR LR LR
comp=Z,1µm,22.0s
**Y40A** **Okolona** **130.68** **45** P **PKPdf** **13 57 38.1 +0.8**
baz=303
**SFIN** **Lafayette** **130.70** **34** P **PKPdf** **13 57 37.0 -0.1**
baz=313
**SFIN** **Lafayette** **130.70** **34** PFAKE 13 57 50.0 +13
SFIN LR LR
comp=Z,2µm,20.0s
**X40A** **Basin Creek Fa** **130.73** **44** P **PKPdf** **13 57 38.8 +1.4**
baz=303
**U42A** **Revenden** **130.75** **41** P **PKPdf** **13 57 37.6 +0.3**
baz=306
**W41B** **Gary Mavity, V** **130.75** **43** P **PKPdf** **13 57 38.3 +0.9**
baz=304
**HKT** **Hockley** **130.81** **51** PFAKE 13 57 50.0 +12
HKT LR LR
comp=Z,2µm,20.0s
**NATX** **Nacogdoches** **130.84** **48** P **PKPdf** **13 57 38.4 +0.7**
baz=300
**NATX** **Nacogdoches** **130.84** **48** PFAKE 13 57 50.0 +12
NATX LR LR
comp=Z,2µm,20.0s
**239A** **Gary** **130.85** **47** P **PKPdf** **13 57 38.4 +0.7**
baz=300
**P45A** **Graceland, Par** **130.91** **35** P **PKPdf** **13 57 38.0 +0.5**
baz=312
**UALR** **University of** **130.91** **43** *e*PKPdf **PKPdf** **13 57 36.9 -0.8**
UALR LR LR
comp=Z,2µm,20.0s
**T43A** **Greenville** **130.92** **39** P **PKPdf** **13 57 38.1 +0.4**
baz=308
**R44A** **Waltonville** **130.95** **37** P **PKPdf** **13 57 38.7 +1.0**
baz=310
**X41A** **Kaden, Bauxite** **130.95** **44** P **PKPdf** **13 57 38.6 +0.8**
baz=304
**V42A** **Cord** **130.97** **41** P **PKPdf** **13 57 38.4 +0.6**
baz=306
**Z40A** **Long Farm, Mag** **131.00** **45** P **PKPdf** **13 57 39.0 +1.0**
baz=302
**PBMO** **Poplar Bluff** **131.02** **40** PFAKE 13 57 50.0 +12
PBMO LR LR
comp=Z,2µm,18.0s
**Q45A** **Warren Harvey,** **131.08** **36** P **PKPdf** **13 57 39.3 +1.4**
baz=311
**339A** **Huntington** **131.13** **48** P **PKPdf** **13 57 39.2 +0.9**
baz=299
**AAM** **Ann Arbor** **131.14** **30** P **PKPdf** **13 57 39.0 +1.1**
baz=318
**AAM** **Ann Arbor** **131.14** **30** PFAKE 13 57 50.0 +12
AAM LR LR
comp=Z,2µm,22.0s
**P46A** **Rosedale** **131.15** **35** P **PKPdf** **13 57 39.2 +1.1**
baz=313
**W42A** **Bald Knob** **131.19** **42** P **PKPdf** **13 57 39.2 +1.0**
baz=305
**140A** **Cam and Jess,** **131.19** **46** P **PKPdf** **13 57 39.2 +0.9**
baz=301
**S44A** **Carbondale** **131.19** **38** P **PKPdf** **13 57 39.2 +1.0**
baz=309
**Y41A** **Eaglette Beard** **131.22** **44** P **PKPdf** **13 57 38.9 +0.6**
baz=303
**OLIL** **Olney** **131.22** **36** *e*PKPdf **PKPdf** **13 57 37.1 -1.1**
OLIL LR LR
comp=Z,2µm,19.0s
**SADO** **Sadowa** **131.25** **24** *e*PKPdf **PKPdf** **13 57 37.8 -0.3**
SADO LR LR
comp=Z,2µm,21.0s
**DBIC** **Dimbokro** **131.26** **278** PKP **PKPdf** **13 57 39.9 +0.9**
comp=Z,15nm,0.8s,baz=92,slow=3.3,SNR=11
**DBIC** **Dimbokro** **131.26** **278** *e*PKIKP **PKPdf** **13 57 38.2 -0.7**
**DBIC** **Dimbokro** **131.26** **278** *e*PKPdf **PKPdf** **13 57 38.2 -0.7**
**U43A** **Rector** **131.28** **40** P **PKPdf** **13 57 38.1 -0.3**
baz=307
**O47A** **Sheridan** **131.31** **33** P **PKPdf** **13 57 38.9 +0.5**
baz=314
**240A** **Hunter Patters** **131.36** **47** P **PKPdf** **13 57 39.4 +0.7**
baz=301
**T44A** **Benton** **131.36** **39** P **PKPdf** **13 57 39.2 +0.7**
baz=308
**R45A** **Skylar, Fairfi** **131.40** **37** P **PKPdf** **13 57 39.7 +1.1**
baz=311
**Z41A** **Richland Creek** **131.42** **45** P **PKPdf** **13 57 39.8 +1.1**
baz=302
**Q46A** **CEJHS Indians,** **131.47** **35** P **PKPdf** **13 57 39.0 +0.4**
baz=312
**X42A** **Stuttgart** **131.53** **43** P **PKPdf** **13 57 39.3 +0.4**
baz=305
**V43A** **Jonesboro** **131.54** **41** P **PKPdf** **13 57 39.5 +0.6**
baz=306
**340A** **Bronson** **131.58** **48** P **PKPdf** **13 57 40.1 +1.0**
baz=300
**HBAR** **Harrisburg** **131.60** **41** PFAKE 13 57 50.0 +11
HBAR LR LR
comp=Z,2µm,19.0s
**S45A** **Carrier Mills** **131.62** **38** P **PKPdf** **13 57 39.8 +0.8**
baz=310
**141A** **Papa Simpson,** **131.69** **46** P **PKPdf** **13 57 40.4 +1.1**
baz=302
**PVMO** **Portageville** **131.71** **40** PFAKE 13 57 50.0 +11
PVMO LR LR
comp=Z,2µm,19.0s
**GNAR** **Gosnell** **131.77** **40** PFAKE 13 57 50.0 +11
GNAR LR LR
comp=Z,2µm,19.0s
**P47A** **Martinsville** **131.77** **34** P **PKPdf** **13 57 40.2 +1.0**
baz=314
**CCAR** **Cane Creek** **131.78** **44** PFAKE 13 57 50.0 +11
CCAR LR LR
comp=Z,2µm,21.0s
**Y42A** **Garnett, Star** **131.82** **44** P **PKPdf** **13 57 40.6 +1.2**
baz=304
**W43A** **Forest City** **131.84** **42** P **PKPdf** **13 57 40.8 +1.4**
baz=306
**BLO** **Bloomington** **131.84** **35** *e*PKIKP **PKPdf** **13 57 38.1 -1.3**
BLO MLR MLR
comp=Z,2µm,22.0s
**BLO** **Bloomington** **131.84** **35** *e*PKPdf **PKPdf** **13 57 38.1 -1.3**
BLO LR LR
comp=Z,2µm,22.0s
**UNM** **Universidad Na** **131.87** **65** PFAKE 13 57 50.0 +10
UNM LR LR
comp=Z,2µm,21.0s
**R46A** **Gibon Southern** **131.91** **36** P **PKPdf** **13 57 40.8 +1.3**
baz=311
**USIN** **University of** **131.98** **37** PFAKE 13 57 50.0 +10
USIN LR LR
comp=Z,2µm,20.0s
**241A** **Mo Tay, Goldon** **131.99** **47** P **PKPdf** **13 57 41.1 +1.2**
baz=301
**Z42A** **Norrel Spur, H** **132.01** **45** P **PKPdf** **13 57 40.9 +1.1**
baz=303
**GLAT** **Glass** **132.06** **40** PFAKE 13 57 50.0 +10
GLAT LR LR
comp=Z,2µm,19.0s
**Q47A** **Bedord North L** **132.06** **35** P **PKPdf** **13 57 40.7 +0.9**
baz=313
**S46A** **Don Dixon Farm** **132.13** **37** P **PKPdf** **13 57 40.7 +0.8**
baz=311
**341A** **Kurthwood** **132.16** **48** P **PKPdf** **13 57 40.9 +0.8**
baz=301
**HALT** **Halls** **132.24** **40** PFAKE 13 57 50.0 +10
HALT LR LR
comp=Z,2µm,19.0s
**MET** **Memphis--Engin** **132.33** **41** PFAKE 13 57 50.0 +10
MET LR LR
comp=Z,1µm,19.0s
**U45A** **Rockin P Farm,** **132.34** **39** P **PKPdf** **13 57 41.1 +0.8**
baz=309
**Y43A** **Makayla and Ka** **132.36** **43** P **PKPdf** **13 57 41.9 +1.4**
baz=305
**X44A** **Crenshaw** **132.56** **42** P **PKPdf** **13 57 41.6 +0.8**
baz=306
**V45A** **Humboldt** **132.59** **40** P **PKPdf** **13 57 41.6 +0.7**
baz=308
**WCI** **Wyandotte Cave** **132.61** **35** *e*PKIKP **PKPdf** **13 57 40.7 -0.1**
WCI MLR MLR
comp=Z,2µm,22.0s
**WCI** **Wyandotte Cave** **132.61** **35** *e*PKPdf **PKPdf** **13 57 40.7 -0.1**
WCI LR LR
comp=Z,2µm,22.0s
**143A** **Socs Landing,** **132.71** **45** P **PKPdf** **13 57 42.8 +1.6**
baz=303
**W45A** **Hickory Valley** **132.80** **41** P **PKPdf** **13 57 42.1 +0.8**
baz=308
**Y44A** **Strider, Charl** **132.82** **43** P **PKPdf** **13 57 42.1 +0.8**
baz=306
**ACSO** **Alum Creek Sta** **133.01** **31** P **PKPdf** **13 57 42.7 +1.2**
baz=318
**ACSO** **Alum Creek Sta** **133.01** **31** PKPdf **PKPdf** **13 57 42.1 +0.5**
ACSO LR LR
comp=Z,2µm,21.0s
**ERPA** **Erie** **133.02** **27** PFAKE 13 57 50.0 +8.5
ERPA LR LR
comp=Z,1µm,22.0s
**OXF** **Oxford** **133.04** **42** P **PKPdf** **13 57 42.7 +0.9**
baz=307
**OXF** **Oxford** **133.04** **42** PKIKP **PKPdf** **13 57 41.3 -0.5**
OXF MLR MLR
comp=Z,1µm,20.0s
**OXF** **Oxford** **133.04** **42** PKPdf **PKPdf** **13 57 41.3 -0.5**
OXF LR LR
comp=Z,1µm,20.0s
**WVT** **Waverly** **133.06** **39** P **PKPdf** **13 57 42.7 +1.0**
baz=310
**WVT** **Waverly** **133.06** **39** *e*PKIKP **PKPdf** **13 57 42.2 +0.5**
WVT MLR MLR
comp=Z,2µm,19.0s
**WVT** **Waverly** **133.06** **39** *e*PKPdf **PKPdf** **13 57 42.2 +0.5**
WVT LR LR
comp=Z,2µm,19.0s
**Z44A** **Pea Ridge, Bel** **133.06** **44** P **PKPdf** **13 57 43.2 +1.4**
baz=305
**LONY** **Lake Ozonia** **133.12** **21** *e*PKPdf **PKPdf** **13 57 42.4 +0.8**
LONY LR LR
comp=Z,1µm,20.0s
**PQI** **Presque Isle** **133.20** **14** *e*PKPdf **PKPdf** **13 57 41.9 +0.2**
**FRNY** **Flat Rock** **133.28** **20** *e*PKPdf **PKPdf** **13 57 41.5 -0.4**
FRNY LR LR
comp=Z,1µm,20.0s
**Y45A** **Yeager Farm, C** **133.33** **42** P **PKPdf** **13 57 43.5 +1.2**
baz=306
**Z45A** **Winona** **133.52** **43** P **PKPdf** **13 57 44.4 +1.7**
baz=306
**244A** **Avery, Jackson** **133.58** **45** P **PKPdf** **13 57 43.9 +1.1**
baz=304
**VBMS** **Vicksburg** **133.60** **45** P **PKPdf** **13 57 44.4 +1.6**
baz=304
**VBMS** **Vicksburg** **133.60** **45** PFAKE 13 57 50.0 +7.1
VBMS LR LR
comp=Z,3µm,22.0s
**PLAL** **Pickwick Lake** **133.63** **40** *e*PKPdf **PKPdf** **13 57 42.6 -0.2**
PLAL LR LR
comp=Z,2µm,22.0s
**M54A** **Oil Creek Stat** **133.65** **27** P **PKPdf** **13 57 43.4 +0.7**
baz=313
**Y46A** **Houston** **133.78** **42** P **PKPdf** **13 57 44.6 +1.5**
baz=307
**145A** **Houston Renfro** **133.79** **44** P **PKPdf** **13 57 44.9 +1.6**
baz=305
**NCB** **Newcomb** **133.81** **21** *e*PKPdf **PKPdf** **13 57 42.2 -0.7**
NCB LR LR
comp=Z,1µm,20.0s
**344A** **Westbrook Farm** **133.87** **46** P **PKPdf** **13 57 45.0 +1.6**
baz=303
**N54A** **Moraine State** **133.93** **28** P **PKPdf** **13 57 44.6 +1.3**
baz=322
**VT1** **Waterbury** **134.00** **19** PFAKE 13 57 50.0 +6.7
VT1 LR LR
comp=Z,1µm,22.0s
**Z46A** **Louisville** **134.13** **43** P **PKPdf** **13 57 45.6 +1.7**
baz=306
**245A** **Little AP, Sta** **134.14** **45** P **PKPdf** **13 57 45.1 +1.2**
baz=304
**PKME** **Peaks-Kenny Pk** **134.19** **16** PFAKE 13 57 50.0 +6.4
PKME LR LR
comp=Z,1µm,21.0s
**LBNH** **Lisbon** **134.35** **19** PFAKE 13 58 00.0 +16
LBNH LR LR
comp=Z,2µm,21.0s
**Y47A** **UCPARC, Winfie** **134.44** **41** P **PKPdf** **13 57 45.1 +0.7**
baz=308
**345A** **Thompson Farm,** **134.45** **46** P **PKPdf** **13 57 45.6 +1.1**
baz=304
**BINY** **Binghamton** **134.67** **24** *e*PKPdf **PKPdf** **13 57 44.8 +0.1**
BINY LR LR
comp=Z,1µm,21.0s
**LMN** **Caledonia Moun** **134.67** **11** PFAKE 13 58 00.0 +15
LMN LR LR
comp=Z,1µm,20.0s
**HNH** **Hanover** **134.71** **19** PFAKE 13 58 00.0 +15
HNH LR LR
comp=Z,1µm,21.0s
**Z47A** **Carrollton** **134.72** **42** P **PKPdf** **13 57 46.4 +1.4**
baz=307
**WVL** **Waterville** **134.73** **16** PFAKE 13 58 00.0 +15
WVL LR LR
comp=Z,1µm,20.0s
**147A** **Livingston** **134.89** **43** P **PKPdf** **13 57 46.4 +1.1**
baz=306
**MCWV** **Mont Chateau** **135.02** **29** PFAKE 13 58 00.0 +15
MCWV LR LR
comp=Z,2µm,21.0s
**645A** **Chauvin** **135.02** **48** P **PKPdf** **13 57 46.1 +0.5**
baz=302
**TRY** **Troy** **135.09** **21** PFAKE 13 58 00.0 +15
TRY LR LR
comp=Z,1µm,20.0s
**O56A** **Blue Knob Stat** **135.14** **27** P **PKPdf** **13 57 46.4 +0.7**
baz=323
**SSPA** **Standing Stone** **135.16** **27** *e*PKPdf **PKPdf** **13 57 45.6 +0.1**
SSPA LR LR
comp=Z,1µm,20.0s
**PLCA** **Paso Flores** **135.22** **162** PKhKP PKPpre 13 57 33.5
comp=Z,3.2nm,0.8s,baz=306,slow=3.4,SNR=4.5
PLCA PKP **PKiKP** **13 57 48.3 +1.0**
comp=Z,9.6nm,0.9s,baz=230,slow=5.6,SNR=12
**TZTN** **Tazewell** **135.36** **35** P **PKPdf** **13 57 46.9 +0.8**
baz=315
**347A** **Saraland** **135.45** **44** P **PKPdf** **13 57 47.6 +1.3**
baz=305
**LRAL** **Lakeview Retre** **135.53** **41** P **PKPdf** **13 57 47.3 +0.8**
baz=308
**LRAL** **Lakeview Retre** **135.53** **41** *e*PKPdf **PKPdf** **13 57 46.1 -0.4**
LRAL LR LR
comp=Z,2µm,21.0s
**CPCT** **Cooper Cave** **135.54** **37** PFAKE 13 58 00.0 +14
CPCT LR LR
comp=Z,2µm,19.0s
**248A** **Dixon Mills** **135.60** **43** P **PKPdf** **13 57 47.8 +1.2**
baz=307
**PSET** **Sete Cidades** **135.72** **328** *e*PP PP 14 00 23.4 -0.6
**N59A** **State Game Lan** **135.83** **24** P **PKPdf** **13 57 48.2 +1.4**
baz=327
**TKL** **Tuckaleechee C** **135.84** **36** *e*PKIKP **PKPdf** **13 57 46.4 -0.6**
TKL MLR MLR
comp=Z,2µm,19.0s
**TKL** **Tuckaleechee C** **135.84** **36** *e*PKPdf **PKPdf** **13 57 46.4 -0.6**
TKL LR LR
comp=Z,2µm,19.0s
**PGRA** **Graciosa** **135.94** **331** *e*PP PP 14 00 24.9 -0.3
**QUA2** **Belchertown** **135.96** **20** PFAKE 13 58 00.0 +13
QUA2 LR LR
comp=Z,1µm,20.0s
**PSMN** **Pico do Norte,** **135.98** **327** *e*PP PP 14 00 24.9 -0.7
**PSMA** **Santa Maria** **136.02** **327** *e*PP PP 14 00 25.7 -0.1
**HRV** **Adam Dziewonsk** **136.02** **19** PFAKE 13 58 00.0 +13
HRV LR LR
comp=Z,1µm,20.0s
**ODNJ** **Ogdensburg** **136.16** **23** PFAKE 13 58 00.0 +13
ODNJ LR LR
comp=Z,2µm,21.0s
**WES** **Weston** **136.21** **19** PFAKE 13 58 00.0 +13
WES LR LR
comp=Z,2µm,22.0s
**LUPA** **Lehigh Univers** **136.26** **24** PFAKE 13 58 00.0 +12
LUPA LR LR
comp=Z,100nm,22.0s
**BCX** **Boston College** **136.30** **19** PFAKE 13 58 00.0 +12
BCX LR LR
comp=Z,1µm,20.0s
**PAL** **Palisades** **136.50** **23** PFAKE 13 58 00.0 +12
PAL LR LR
comp=Z,1µm,22.0s
**BRYW** **Bryant College** **136.55** **20** PFAKE 13 58 00.0 +12
BRYW LR LR
comp=Z,1µm,20.0s
**BLA** **Blacksburg** **136.60** **32** PFAKE 13 58 00.0 +12
BLA LR LR
comp=Z,2µm,19.0s
**SDMD** **Soldier's Deli** **136.62** **27** PFAKE 13 58 00.0 +12
SDMD LR LR
comp=Z,600nm,19.0s
**CALA** **Caldeira** **136.64** **331** *e*PP PP 14 00 29.4 -0.3
**PSUB** **Penn St. - Bra** **136.79** **25** PFAKE 13 58 00.0 +11
PSUB LR LR
comp=Z,1µm,19.0s
**BG3** **Lake Jocassee** **136.80** **36** *e*PKPpre PKPpre 13 57 39.8
BG3 LR LR
comp=Z,2µm,20.0s
**IP03** **Louisa** **137.19** **29** PFAKE 13 58 00.0 +11
IP03 LR LR
comp=Z,2µm,21.0s
**CVRD** **Centerville Ro** **137.25** **29** PFAKE 13 58 00.0 +10
CVRD LR LR
comp=Z,2µm,21.0s
**SPRD** **Spring Road, M** **137.25** **29** PFAKE 13 58 00.0 +10
SPRD LR LR
comp=Z,2µm,21.0s
**IP07** **Quail** **137.26** **29** PFAKE 13 58 00.0 +10
IP07 LR LR
comp=Z,3µm,21.0s
**IP06** **Yanceyville** **137.27** **29** PFAKE 13 58 00.0 +10
IP06 LR LR
comp=Z,2µm,21.0s
**IP01** **Cuckoo** **137.29** **29** PFAKE 13 58 00.0 +10
IP01 LR LR
comp=Z,2µm,21.0s
**PTRD** **Partlow Road** **137.30** **28** PFAKE 13 58 00.0 +10
PTRD LR LR
comp=Z,2µm,21.0s
**SPFD** **Spotsylvania F** **137.33** **28** PFAKE 13 58 00.0 +10
SPFD LR LR
comp=Z,2µm,22.0s
**CBN** **Corbin Frederi** **137.35** **28** PFAKE 13 58 00.0 +10
CBN LR LR
comp=Z,2µm,22.0s
**IP05** **Hopewell Churc** **137.46** **29** *e*PKPdf **PKPdf** **13 57 49.7 -0.2**
IP05 LR LR
comp=Z,2µm,22.0s
**GOGA** **Godfrey** **137.55** **38** *e*PKIKP **PKPdf** **13 57 50.5 +0.3**
GOGA MLR MLR
comp=Z,2µm,18.0s
**GOGA** **Godfrey** **137.55** **38** *e*PKPdf **PKPdf** **13 57 50.5 +0.3**
GOGA LR LR
comp=Z,2µm,18.0s
**KMSC** **Kings Mountain** **137.62** **35** P **PKPdf** **13 57 50.9 +0.6**
baz=316
**KMSC** **Kings Mountain** **137.62** **35** PFAKE 13 58 00.0 +10
KMSC LR LR
comp=Z,2µm,19.0s
**HODGE** **Hodges** **137.72** **36** PFAKE 13 58 00.0 +9.5
HODGE LR LR
comp=Z,2µm,21.0s
**JSC** **Jenkinsville** **138.28** **35** PFAKE 13 58 00.0 +8.5
JSC LR LR
comp=Z,2µm,20.0s
**TIGA** **Tifton** **138.77** **41** PFAKE 13 58 00.0 +7.5
TIGA LR LR
comp=Z,2µm,21.0s
**SCIG** **Sabancuy** **139.15** **62** PFAKE 13 58 10.0 +17
SCIG LR LR
comp=Z,2µm,20.0s
**CNNC** **Cliffs of the** **139.42** **31** PFAKE 13 58 10.0 +16
CNNC LR LR
comp=Z,2µm,20.0s
**NHSC** **New Hope** **139.75** **36** PFAKE 13 58 10.0 +16
NHSC LR LR
comp=Z,2µm,21.0s

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| TRQA | Tornquist | 139.91 | 170 | ePKPpre | PKPpre | 13 57 45.9 | |
| TEIG | Tepich | 141.21 | 59 | PFAKE | | 13 58 10.0 | +13 |
| TEIG | | | | LR | LR | | |
| | comp=Z,1µm,20.0s | | | | | | |
| DWPF | Disney Wildern | 142.35 | 43 | PFAKE | | 13 58 10.0 | +11 |
| DWPF | | | | LR | LR | | |
| | comp=Z,1µm,20.0s | | | | | | |
| AVIZ | Vizcacheras | 142.48 | 159 | eP | PKPdf | 13 57 52.8 | -6.5 |
| AVIZ | | | | eS | SKiKP | 14 01 57.3 | +21 |
| SNET | Serv Nac Est T | 142.59 | 69 | PFAKE | | 13 58 10.0 | +10 |
| SNET | | | | LR | LR | | |
| | comp=Z,900nm,21.0s | | | | | | |
| AAGR | Agrelo | 142.71 | 158 | eP | PKPdf | 13 57 56.9 | -2.8 |
| AAGR | | | | eS | SKiKP | 14 02 04.1 | +27 |
| ASAL | Salagasta | 143.15 | 158 | eP | PKPdf | 13 57 59.0 | -1.5 |
| ASAL | | | | eS | SKiKP | 14 02 08.0 | +30 |
| RTCV | Cerro Valdivia | 143.91 | 158 | eP | PKPbc | 13 58 00.7 | +1.1 |
| ACAN | Cantantal | 144.03 | 160 | eP | PKPab | 13 57 50.6 | -8.8 |
| ACAN | | | | eS | SKiKP | 14 01 52.5 | +13 |
| TGUH | Tegucigalpa,Un | 144.31 | 68 | PFAKE | | 13 58 10.0 | +7.2 |
| TGUH | | | | LR | LR | | |
| | comp=Z,1µm,22.0s | | | | | | |
| AMOG | MOGNA | 144.76 | 157 | eP | PKPdf | 13 58 04.8 | +1.4 |
| AMOG | | | | eS | SKiKP | 14 02 18.4 | +37 |
| LCO | Las Campanas | 145.50 | 153 | ePKPdf | PKPdf | 13 58 04.5 | -0.5 |
| ACLC | CERRO LA CRUZ | 146.70 | 158 | eP | PKPdf | 13 58 03.3 | -3.5 |
| VCA | Vinchina | 146.82 | 156 | IAmb | IAmb | 13 58 11.4 | |
| | comp=Z,223nm,1.1s | | | | | | |
| VCA | | | | IAML | | 13 58 12.5 | |
| | comp=Z,38nm,0.6s | | | | | | |
| JTS | JuntasAbangare | 147.50 | 73 | ePKP2 | PKPbc | 13 58 10.6 | -0.3 |
| JTS | JuntasAbangare | 147.50 | 73 | ePKPbc | PKPbc | 13 58 10.6 | -0.3 |
| SACV | Santiago Islan | 147.61 | 296 | ePKPdf | PKPdf | 13 58 09.5 | +1.1 |
| CYA | Choya | 148.01 | 159 | eP | PKPdf | 13 58 02.4 | -6.5 |
| CYA | | | | IAmb | IAmb | 13 58 13.8 | |
| | comp=Z,73nm,1.0s | | | | | | |
| CYA | | | | IAML | | 13 58 15.1 | |
| | comp=Z,18nm,0.6s | | | | | | |
| HDC | Heredia | 148.37 | 73 | PFAKE | | 13 58 20.0 | +3.4 |
| HDC | | | | LR | LR | | |
| | comp=Z,1µm,20.0s | | | | | | |
| AHML | Horco Molle | 149.68 | 159 | eP | PKPdf | 13 58 08.6 | -3.1 |
| FSA | Cafayete | 150.05 | 157 | eP | PKPbc | 13 58 16.2 | -1.1 |
| MTDJ | Mount Denham | 151.09 | 53 | PFAKE | | 13 58 30.0 | +2.5 |
| MTDJ | | | | LR | LR | | |
| | comp=Z,800nm,21.0s | | | | | | |
| PB04 | IPOC Station P | 151.30 | 146 | ePKPbc | PKPbc | 13 58 20.3 | -0.1 |
| CPUP | Villa Florida | 152.13 | 173 | PKP | PKPdf | 13 58 16.1 | +0.8 |
| | comp=Z,10nm,0.9s,baz=167,slow=1.0,SNR=15 | | | | | | |
| CPUP | | | | PKPbc | PKiKP | 13 58 22.6 | +0.3 |
| | comp=Z,91nm,0.8s,baz=191,slow=1.5,SNR=67 | | | | | | |
| CPUP | | | | PKPab | pPKPbc | 13 58 33.1 | +0.1 |
| | comp=Z,46nm,0.6s,baz=182,slow=3.6,SNR=16 | | | | | | |
| CPUP | Villa Florida | 152.13 | 173 | ePKIKP | PKPdf | 13 58 15.7 | +0.4 |
| CPUP | | | | e | | 13 58 22.9 | |
| CPUP | | | | | | 13 58 33.2 | |
| CPUP | Villa Florida | 152.13 | 173 | ePKPdf | PKPdf | 13 58 15.7 | +0.4 |
| CPUP | | | | ePKPbc | PKiKP | 13 58 22.9 | +0.6 |
| CPUP | | | | PKPab | pPKPbc | 13 58 33.1 | +0.1 |
| ASTB | Santa Barbara | 152.59 | 158 | eP | PKPbc | 13 58 20.6 | -2.7 |
| BCIP | Isla Barro Col | 152.66 | 73 | ePKPbc | PKPbc | 13 58 22.8 | -0.7 |
| BCIP | | | | LR | LR | | |
| | comp=Z,1µm,20.0s | | | | | | |
| PB01 | IPOC Station P | 152.69 | 146 | ePKPdf | PKPdf | 13 58 16.9 | +0.4 |
| PB01 | | | | LR | LR | | |
| | comp=Z,1µm,18.0s | | | | | | |
| ALOL | LOMAS DE OLMED | 152.88 | 158 | eP | PKPdf | 13 58 18.6 | +2.1 |
| NNA | Nana | 153.21 | 121 | PKPbc | PKPbc | 13 58 24.3 | -0.5 |
| | comp=Z,37nm,0.9s,baz=273,slow=2.3,SNR=4.0 | | | | | | |
| NNA | | | | PKPab | sPKPbc | 13 58 38.7 | -1.0 |
| | comp=Z,20nm,0.8s,baz=279,slow=6.3,SNR=4.9 | | | | | | |
| NNA | Nana | 153.21 | 121 | ePKIKP | PKPbc | 13 58 23.9 | -0.8 |
| NNA | | | | | | 13 58 38.7 | |
| NNA | | | | MLR | MLR | | |
| | comp=Z,1µm,19.0s | | | | | | |
| NNA | Nana | 153.21 | 121 | ePKPbc | PKPbc | 13 58 23.9 | -0.8 |
| NNA | | | | PKPab | sPKPbc | 13 58 38.7 | -1.0 |
| NNA | | | | LR | LR | | |
| | comp=Z,1µm,19.0s | | | | | | |
| PB11 | IPOC Station P | 153.60 | 144 | ePKPdf | PKPdf | 13 58 17.3 | -0.5 |
| MNMC | Minye Minye | 154.12 | 143 | ePKPdf | PKPdf | 13 58 18.3 | -0.4 |
| MNMC | | | | LR | LR | | |
| | comp=Z,1µm,22.0s | | | | | | |
| OTAV | Otavalo | 154.99 | 93 | eP | PKPdf | 13 58 21.1 | +0.7 |
| OTAV | Otavalo | 154.99 | 93 | ePKPdf | PKPdf | 13 58 19.9 | -0.5 |
| OTAV | | | | LR | LR | | |
| | comp=Z,700nm,22.0s | | | | | | |
| SDDR | Presa de Saban | 155.33 | 44 | PFAKE | | 13 58 30.0 | +10 |
| SDDR | | | | LR | LR | | |
| | comp=Z,1µm,22.0s | | | | | | |
| LPAZ | La Paz | 157.19 | 141 | PKP | PKPdf | 13 58 24.5 | +1.1 |
| | comp=Z,16nm,1.0s,baz=324,slow=0.9,SNR=40 | | | | | | |
| LPAZ | | | | PKPab | PKPab | 13 58 55.8 | +1.8 |
| | comp=Z,11nm,0.8s,baz=155,slow=4.8,SNR=3.9 | | | | | | |
| GUYC | Guyana, Colomb | 157.80 | 80 | eP | PKPdf | 13 58 24.0 | 0.0 |
| AGP | Aguadilla | 158.46 | 38 | PFAKE | | 13 58 30.0 | +5.9 |
| AGP | | | | LR | LR | | |
| | comp=Z,3µm,22.0s | | | | | | |
| MPR | Mayaguez | 158.61 | 38 | PFAKE | | 13 58 30.0 | +5.8 |
| MPR | | | | LR | LR | | |
| | comp=Z,3µm,21.0s | | | | | | |
| ROSC | El Rosal | 158.91 | 80 | PKP | PKPdf | 13 58 25.9 | +0.6 |
| | comp=Z,5.8nm,0.4s,baz=3.1,slow=3.2,SNR=8.1 | | | | | | |
| ROSC | | | | PKPab | PKPab | 13 59 01.8 | +0.3 |
| | comp=Z,6.3nm,0.4s,baz=90,slow=13,SNR=4.2 | | | | | | |
| RUSC | La Rusia | 159.94 | 77 | eP | PKPdf | 13 58 25.4 | -1.2 |
| RUSC | La Rusia | 159.94 | 77 | ePKPdf | PKPdf | 13 58 24.8 | -1.7 |
| PAMC | Pamplona, Colo | 159.96 | 72 | eP | PKPdf | 13 58 27.7 | +1.2 |
| RCBR | Riachuelo | 161.03 | 247 | ePKPab | PKPab | 13 59 09.9 | -0.3 |
| SIV | San Ignacio | 161.11 | 157 | PKP | PKPdf | 13 58 27.7 | +0.5 |
| | comp=Z,13nm,1.1s,baz=209,slow=1.8,SNR=14 | | | | | | |
| SIV | | | | PKPab | PKPab | 13 59 10.5 | +0.3 |
| | comp=Z,9.6nm,0.9s,baz=225,slow=5.4,SNR=6.9 | | | | | | |
| SIV | | | | PP | PP | 14 02 57.0 | +5.3 |
| | comp=Z,4.5nm,1.0s,baz=229,slow=6.2,SNR=3.5 | | | | | | |
| SDV | Santo Domingo | 161.38 | 66 | PKP | PKPdf | 13 58 27.9 | +0.1 |
| | comp=Z,20nm,0.9s,baz=266,slow=0.9,SNR=26 | | | | | | |
| SDV | | | | PKPab | PKPab | 13 59 12.4 | +0.4 |
| | comp=Z,18nm,0.7s,baz=262,slow=6.6,SNR=6.8 | | | | | | |
| SDV | Santo Domingo | 161.38 | 66 | eP | PKPdf | 13 58 26.6 | -1.2 |
| SDV | Santo Domingo | 161.38 | 66 | ePKPdf | PKPdf | 13 58 27.5 | -0.3 |
| SDV | | | | PKPab | PKPab | 13 59 12.4 | +0.4 |
| BDFB | Brasilia | 162.18 | 197 | PKP | PKPdf | 13 58 28.7 | +0.3 |
| | comp=Z,12nm,1.1s,baz=6.0,slow=0.6,SNR=9.0 | | | | | | |
| BDFB | | | | PKPab | PKPab | 13 59 15.6 | +0.7 |
| | comp=Z,7.2nm,0.7s,baz=316,slow=4.5,SNR=5.3 | | | | | | |
| BDFB | | | | PP | PP | 14 02 59.9 | +2.4 |
| | comp=Z,34nm,1.3s,baz=335,slow=3.0,SNR=5.8 | | | | | | |
| FDF | Fort de France | 164.77 | 30 | ePKIKP | PKPdf | 13 58 30.8 | 0.0 |
| FDF | Fort de France | 164.77 | 30 | ePKPdf | PKPdf | 13 58 30.8 | 0.0 |
| SAML | Samuel | 165.84 | 137 | ePKPdf | PKPdf | 13 58 30.9 | -0.8 |
| PCRV | Puerto La Cruz | 165.91 | 52 | PP | PP | 14 03 37.6 | +19 |
| | comp=Z,10nm,0.8s,baz=249,slow=2.9,SNR=3.1 | | | | | | |
| PTGA | Pitinga | 173.15 | 108 | PKP | PKPdf | 13 58 36.0 | -0.1 |
| | comp=Z,9.2nm,1.0s,baz=344,slow=0.8,SNR=12 | | | | | | |
| PTGA | | | | PP | PP | 14 04 16.6 | +21 |
| | comp=Z,1.8nm,0.5s,baz=186,slow=7.4,SNR=4.1 | | | | | | |

---

*IDC **07** 13:42:54.9±1.0, 1°.41S×126°.56E, h0km, mb4.6/12, mb1 4.7/12, mb1mx4.4/35, mbtmp4.6/12, Error ellipse: s-maj=34.8km s-min=22.2km az=81.0*

*NEIC **07** 13:42:56.3±0.5, 1°.44S×126°.40E, h10km, mb4.9/3, Error ellipse: s-maj=14.6km s-min=10.3km az=212.0*

*ISCJB **07** 13:42:57.1±0.6, 1°.43S±0°.10×126°.43E±0°.09, h29km, mb4.7/15, Error ellipse: s-maj=15.1km s-min=11.4km az=35.1*

**ISC 07 13:42:58.9±0.7, 1°.5S±0°.1×126°.4E±0°.1, h29km, n22, σ1s05/22, mb4.7/15, 1D, Southern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LUWI | Luwuk | 3.64 | 277 | Pn | Pn | 13 43 51.2 | -2.2 |
| FAKI | Fak Fak | 6.03 | 104 | ePn | Pn | 13 44 25.9 | -0.3 |
| ASAR | Alice Springs | 23.22 | 162 | P | P | 13 48 04.0 | +0.2 |
| | 19nm,0.9s,baz=342,slow=11,SNR=4.3 | | | | | | |
| CMAR | Chiang Mai Arr | 33.49 | 308 | P | P | 13 49 36.8 | +0.8 |
| | 2.1nm,0.7s,baz=128,slow=6.9,SNR=2.0 | | | | | | |
| CHTO | Chiang Mai | 33.69 | 308 | eP | P | 13 49 38.1 | +0.4 |
| | 9.8nm,1.0s | | | | | | |
| KSAR | Wonju Array Be | 38.76 | 2 | P | P | 13 50 20.8 | 0.0 |
| KSRS | Korea Array | 38.77 | 2 | P | P | 13 50 20.8 | -0.1 |
| | 1.9nm,0.7s,baz=182,slow=9.8,SNR=2.4 | | | | | | |
| MJAR | Matsushiro Arr | 39.40 | 15 | P | P | 13 50 24.4 | -1.8 |
| | 2.0nm,0.6s,baz=187,slow=9.4,SNR=4.4 | | | | | | |
| LSA | Lhasa | 45.76 | 316 | eP | P | 13 51 20.0 | +1.5 |
| | 13nm,0.6s | | | | | | |
| USRK | Ussuriysk Ar. | 45.76 | 6 | P | P | 13 51 17.8 | +0.1 |
| | 6.2nm,0.8s,baz=176,slow=5.8,SNR=4.4 | | | | | | |
| ASAJ | Asahikawa | 47.66 | 16 | P | P | 13 51 32.6 | 0.0 |
| | 3.0nm,0.4s,baz=234,slow=8.7,SNR=1.8 | | | | | | |
| ULN | Ulaanbaatar | 51.97 | 344 | eP | P | 13 52 04.8 | -0.8 |
| | 12nm,0.7s | | | | | | |
| SONM | Songino Array | 52.13 | 343 | P | P | 13 52 06.4 | -0.3 |
| | 14nm,0.9s,baz=161,slow=9.4,SNR=7.7 | | | | | | |
| PETK | Petropavlovsk- | 60.37 | 21 | P | P | 13 53 05.8 | +0.5 |
| | 6.5nm,0.9s,baz=197,slow=4.5,SNR=3.3 | | | | | | |
| MKAR | Makanchi Array | 61.67 | 327 | P | P | 13 53 15.4 | +1.2 |
| | 19nm,0.6s,baz=119,slow=8.0,SNR=9.8 | | | | | | |
| ZALV | Zalesovo Beam | 65.08 | 334 | P | P | 13 53 36.5 | -0.1 |
| | 8.6nm,0.8s,baz=139,slow=6.9,SNR=4.5 | | | | | | |
| KURK | Kurchatov | 65.97 | 329 | eP | P | 13 53 42.9 | +0.5 |
| GEYT | Alibeck | 73.92 | 310 | P | P | 13 54 32.9 | +1.2 |
| | 7.9nm,0.7s,baz=157,slow=4.2,SNR=4.8 | | | | | | |
| SYO | Syowa Base | 87.47 | 201⇓ | eP | P | 13 55 43.2 | -0.2 |
| ILAR | Eielson Array | 89.93 | 25 | P | P | 13 55 53.2 | -1.9 |
| | 3.1nm,1.1s,baz=256,slow=4.8,SNR=1.7 | | | | | | |
| TORD | Torodi Ar. Bea | 124.06 | 285 | PKP | PKPdf | 14 01 56.2 | +0.6 |
| | 2.9nm,0.8s,baz=125,slow=3.7,SNR=5.1 | | | | | | |
| CPUP | Villa Florida | 152.12 | 173 | PKPbc | PKPbc | 14 02 53.7 | +1.3 |
| | 6.6nm,0.8s,baz=31,slow=1.9,SNR=4.0 | | | | | | |

---

*DJA **07** 13:51:20.5±1.1, 1°S±4°×12°7E±°, h26km±12km, M4.0/5, MLv4.0/5*

*IDC **07** 13:51:24.0±1.4, 1°.38S×126°.82E, h0km, mb4.0/4, mb1 4.0/5, mb1mx3.7/37, mbtmp3.9/5, ML3.4/1, Error ellipse: s-maj=168.1km s-min=21.3km az=69.0*

*ISCJB **07** 13:51:26.6±0.8, 1°.42S±0°.06×126°.44E±0°.07, h29km, mb4.0/4, Error ellipse: s-maj=10.0km s-min=8.0km az=153.2*

**ISC 07 13:51:27.5±1.0, 1°.56S±0°.08×126°.55E±0°.07, h29km, n9, σ1s53/10, mb3.9/4, Southern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SANI | Sanana | 0.75 | 229 | P | Pb | 13 51 42.0 | 0.0 |
| SANI | | | | S | Sb | 13 51 52.6 | +0.7 |
| NLAI | Namlea | 1.76 | 162 | P | Pn | 13 51 50.1 | -6.0 |
| NLAI | | | | Sg | Sb | 13 52 20.6 | -0.2 |
| MSAI | Masohi | 2.97 | 127 | Sg | Sb | 13 52 54.0 | -1.5 |
| LUWI | Luwuk | 3.81 | 278 | P | Pn | 13 52 21.6 | -2.7 |
| WRA | Warramunga Arr | 19.80 | 158 | P | P | 13 55 56.8 | +1.0 |
| | 0.1nm,0.3s,baz=339,slow=11,SNR=2.8 | | | | | | |
| ASAR | Alice Springs | 23.11 | 163 | P | P | 13 56 32.8 | +1.5 |
| | 2.9nm,0.9s,baz=335,slow=9.5,SNR=12 | | | | | | |
| SONM | Songino Array | 52.24 | 343 | P | P | 14 00 37.5 | +1.3 |
| | 0.7nm,0.5s,baz=157,slow=8.5,SNR=4.2 | | | | | | |
| MKAR | Makanchi Array | 61.82 | 327 | P | P | 14 01 44.9 | +1.0 |
| | 2.2nm,0.5s,baz=118,slow=8.5,SNR=23 | | | | | | |
| ZALV | Zalesovo Beam | 65.22 | 334 | P | P | 14 02 05.9 | -0.2 |
| | 0.8nm,0.6s,baz=115,slow=9.7,SNR=3.7 | | | | | | |

---

**GUC 07 14:00:54.8±0.6, 34°.54S×72°.98W, h22km±20km, ML4.1, 1C, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CHPI | Pichilemu | 0.82 | 80 | eP | Pb | 14 01 09.7 | -0.6 |
| CHPI | | | | eS | Sb | 14 01 19.0 | -2.0 |
| CHPI | | | | IAML | | 14 01 20.5 | |
| | comp=N,16µm,0.5s | | | | | | |
| GO05 | HualaæØ | 0.99 | 119⇑ | iP | Pb | 14 01 10.9 | -2.3 |
| GO05 | | | | IAML | | 14 01 22.1 | |
| | comp=E,9µm,0.4s | | | | | | |
| NICH | Los Niches | 1.52 | 108 | eP | Pn | 14 01 20.0 | -0.6 |
| NICH | | | | IAML | | 14 01 38.9 | |
| | comp=E,9µm,0.5s | | | | | | |
| COCH | Cobquecura | 1.60 | 174 | eP | Pn | 14 01 21.4 | -0.3 |
| COCH | | | | i S | Sn | 14 01 38.4 | -3.2 |
| ANTU | Antumapu | 2.18 | 64 | i S | Sn | 14 01 57.6 | +1.6 |
| CCHI | Chillan | 2.19 | 161 | eP | Pn | 14 01 30.1 | +0.2 |
| CCHI | | | | i S | Sn | 14 01 57.6 | +1.4 |
| CCHI | | | | IAML | | 14 02 04.5 | |
| | comp=E,2µm,0.5s | | | | | | |
| LMEL | Las Melosas | 2.40 | 74 | eP | Pn | 14 01 33.8 | +0.9 |
| LMEL | | | | i S | Sn | 14 02 03.1 | +1.3 |
| LMEL | | | | IAML | | 14 02 08.6 | |
| | comp=N,1µm,0.2s | | | | | | |

---

*ISCJB **07** 14:14:55.8±1.6, 34°.83S±0°.04×73°.52W±0°.07, h12km±12km, mb3.8/3, Error ellipse: s-maj=10.3km s-min=5.9km az=4.7*

*IDC **07** 14:14:55.5±1.7, 34°.89S×73°.73W, h0km, mb3.8/3, mb1 4.0/6, mb1mx3.9/20, mbtmp3.8/6, ML3.7/3, MS3.4/1, Ms1 3.4/1, ms1mx3.1/24, Error ellipse: s-maj=42.2km s-min=30.8km az=74.0*

*GUC **07** 14:14:56.6±0.4, 34°.83S×73°.59W, h21km±3km, ML3.5*

*SJA **07** 14:14:56.2±1.1, 34°.84S×73°.44W, h17km±5km, ML3.9, MW3.4*

**ISC 07 14:14:56.9±3.6, 34°.96S±0°.05×73°.49W±0°.09, h15km±25km, n24, σ2s05/37, mb3.9/3, Off coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GO05 | HualaæØ | 1.28 | 93 | eP | Pn | 14 15 20.5 | +0.1 |
| GO05 | | | | eS | Sn | 14 15 37.2 | 0.0 |
| GO05 | HualaæØ | 1.28 | 93 | i P | Pn | 14 15 20.0 | -0.3 |
| GO05 | | | | i S | Sn | 14 15 37.3 | 0.0 |
| GO05 | | | | IAML | | 14 15 38.3 | |
| | comp=N,1µm,0.3s | | | | | | |
| COCH | Cobquecura | 1.30 | 154 | i P | Pn | 14 15 20.8 | +0.2 |
| COCH | | | | i S | Sb | 14 15 37.9 | +0.3 |
| COCH | | | | IAML | | 14 15 39.6 | |
| | comp=N,356nm,0.7s | | | | | | |
| CCHI | Chillan | 2.00 | 145 | eP | Pb | 14 15 33.1 | +0.1 |
| CCHI | | | | eS | Sb | 14 15 59.1 | +1.3 |
| CCHI | Chillan | 2.00 | 145 | i P | Pb | 14 15 31.7 | -1.3 |
| CCHI | | | | i S | Sb | 14 15 58.7 | +0.9 |
| CCHI | | | | IAML | | 14 15 59.8 | |
| | comp=N,782nm,0.7s | | | | | | |
| LMEL | Las Melosas | 2.94 | 69 | i P | Pn | 14 15 43.4 | +0.2 |
| LMEL | | | | i S | Sn | 14 16 17.9 | -0.4 |
| LMEL | | | | IAML | | 14 16 24.1 | |
| | comp=E,319nm,0.4s | | | | | | |
| ARCO | CERRO ARCO | 4.34 | 62 | IAML | | 14 16 41.4 | |
| | comp=Z,38nm,0.5s | | | | | | |
| ASAL | Salagasta | 4.54 | 60 | eP | Pn | 14 16 08.2 | +3.0 |
| ASAL | | | | eS | Sn | 14 17 00.6 | +2.9 |
| RTLS | Leoncito | 4.72 | 49 | eP | Pn | 14 16 09.1 | +1.3 |
| RTLS | | | | eS | Sn | 14 17 03.9 | +1.6 |
| RTCV | Cerro Valdivia | 5.17 | 55 | eP | Pn | 14 16 15.1 | +1.4 |
| RTCV | | | | eS | Sn | 14 17 14.0 | +0.9 |
| AMOG | MOGNA | 5.81 | 48 | eP | Pn | 14 16 22.9 | +0.3 |
| AMOG | | | | eS | Sn | 14 17 28.8 | -0.2 |
| ACAN | Cantantal | 5.90 | 65 | eP | Pn | 14 16 23.3 | -0.5 |
| ACAN | | | | eS | Sn | 14 17 30.8 | -0.4 |
| PLCA | Paso Flores | 6.22 | 159 | Pn | Pn | 14 16 32.1 | +3.9 |
| | comp=Z,0.3nm,0.3s,baz=352,slow=12,SNR=8.5 | | | | | | |
| PLCA | | | | Sn | Sb | 14 17 53.4 | -5.6 |
| | baz=69,slow=4.7,SNR=1.4 | | | | | | |
| PLCA | | | | LR | LR | 14 19 11.6 | |
| | comp=Z,342nm,20.6s,baz=176,slow=40 | | | | | | |
| AGUA | GUANDACOL | 6.91 | 39 | eP | Pn | 14 16 37.6 | -0.1 |
| AGUA | | | | eS | Sn | 14 17 53.9 | -2.1 |
| APLL | PUNTA DE LOS L | 7.43 | 54 | eP | Pn | 14 16 43.0 | -1.8 |
| APLL | | | | eS | Sn | 14 18 04.7 | -4.2 |
| VCA | Vinchina | 7.66 | 37 | eP | Pn | 14 16 47.3 | -0.8 |
| VCA | | | | eS | Sn | 14 18 09.6 | -5.2 |
| VCA | | | | IAML | | 14 18 17.5 | |
| | comp=Z,26nm,0.6s | | | | | | |
| ACLC | CERRO LA CRUZ | 7.82 | 47 | eP | Pn | 14 16 48.4 | -1.9 |
| TCA | Tanti | 8.29 | 67 | eP | Pn | 14 16 55.5 | -1.1 |
| CYA | Choya | 9.22 | 47 | IAML | | 14 17 05.8 | |
| | comp=Z,7.5nm,0.5s | | | | | | |
| CPUP | Villa Florida | 16.34 | 63 | Pn | P | 14 18 48.2 | -0.4 |
| | comp=Z,0.1nm,0.3s,baz=236,slow=7.7,SNR=4.2 | | | | | | |
| LPAZ | La Paz | 19.20 | 16 | P | Pn | 14 19 22.2 | +0.4 |
| | comp=Z,0.2nm,0.3s,baz=195,slow=9.6,SNR=8.8 | | | | | | |
| SIV | San Ignacio | 21.93 | 34 | P | P | 14 19 52.0 | +2.2 |
| | comp=Z,2.4nm,0.8s,baz=219,slow=9.3,SNR=3.9 | | | | | | |
| TXAR | Lajitas Array | 70.00 | 332 | P | P | 14 26 08.2 | +0.2 |
| | comp=Z,0.7nm,0.7s,baz=144,slow=7.2,SNR=9.4 | | | | | | |
| TORD | Torodi Ar. Bea | 85.66 | 71 | P | P | 14 27 35.8 | +0.4 |
| | comp=Z,0.5nm,0.7s,baz=240,slow=3.2,SNR=5.0 | | | | | | |

---

*ISCJB **07** 14:25:32.7±0.5, 10°.66S±0°.05×74°.32W±0°.05, h100km, mb3.8/7, Error ellipse: s-maj=7.8km s-min=6.2km az=22.5*

*IDC **07** 14:25:34.9±0.6, 10°.71S×74°.43W, h115km±6km, mb3.6/7, mb1 3.9/13, mb1mx3.8/32, mbtmp4.2/13, Error ellipse: s-maj=10.1km s-min=9.1km az=119.0*

**ISC 07 14:25:34.3±0.5, 10°.72S±0°.06×74°.35W±0°.07, h100km, n24, σ1s84/32, mb3.8/7, Central Peru**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| NNA | Nana | 2.75 | 242 | P | Pn | 14 26 17.3 | +0.5 |
| | 104nm,0.3s,baz=78,slow=9.4,SNR=114 | | | | | | |
| NNA | | | | S | Sn | 14 26 49.2 | -0.3 |
| | 204nm,0.3s,baz=230,slow=18,SNR=13 | | | | | | |
| ATAH | Atahualpa | 5.35 | 311 | P | Pn | 14 26 53.8 | +1.5 |
| | 4.4nm,0.3s,baz=135,slow=8.9,SNR=18 | | | | | | |
| ATAH | | | | S | Sn | 14 27 54.0 | +1.1 |
| | 7.5nm,0.3s,baz=119,slow=23,SNR=4.0 | | | | | | |
| LPAZ | La Paz | 8.20 | 133 | P | Pn | 14 27 32.8 | +1.6 |
| | 0.2nm,0.3s,baz=318,slow=13,SNR=9.2 | | | | | | |
| SIV | San Ignacio | 13.94 | 114 | P | Pn | 14 28 50.4 | +2.7 |
| | 0.6nm,0.3s,baz=316,slow=12,SNR=6.3 | | | | | | |
| SIV | | | | S | Sn | 14 31 20.4 | -0.9 |
| | 0.6nm,0.3s,baz=238,slow=15,SNR=3.8 | | | | | | |
| SIV | | | | Lg | Lg | 14 32 56.0 | |
| | 1.1nm,0.3s,baz=224,slow=22,SNR=2.5 | | | | | | |
| GUYC | Guyana, Colomb | 15.87 | 356 | eP | Pn | 14 29 02.7 | -10 |
| RUSC | La Rusia | 16.55 | 4 | eP | P | 14 29 23.0 | +1.1 |
| PTGA | Pitinga | 17.40 | 56 | P | P | 14 29 29.9 | -0.9 |
| | 3.5nm,0.3s,baz=230,slow=12,SNR=25 | | | | | | |
| PTGA | | | | S | Sn | 14 32 34.2 | -11 |
| | 0.5nm,0.3s,baz=301,slow=21,SNR=2.0 | | | | | | |
| PTGA | | | | Lg | Lg | 14 34 42.6 | |
| | 0.5nm,0.3s,baz=326,slow=23,SNR=6.9 | | | | | | |
| PAMC | Pamplona, Colo | 18.02 | 5 | eP | P | 14 29 38.7 | +0.7 |
| MOTC | Monteria, Cord | 19.41 | 356 | eP | Pn | 14 29 56.8 | +1.8 |
| SDV | Santo Domingo | 19.83 | 11 | P | P | 14 29 57.2 | -0.3 |
| | 15nm,0.3s,baz=167,slow=8.3,SNR=41 | | | | | | |
| SDV | | | | S | S | 14 33 34.2 | -1.5 |
| | 0.4nm,0.3s,baz=134,slow=21,SNR=2.6 | | | | | | |
| SDV | Santo Domingo | 19.83 | 11 | eP | P | 14 29 58.4 | +0.9 |
| CODC | Agust˜›n Codaz | 20.54 | 3 | eP | P | 14 30 02.5 | -2.5 |
| CPUP | Villa Florida | 22.35 | 136 | P | P | 14 30 24.2 | 0.0 |
| | 3.1nm,0.6s,baz=316,slow=8.3,SNR=8.4 | | | | | | |
| URIC | Uribia, Colomb | 22.40 | 6 | eP | P | 14 30 20.7 | -4.1 |
| PLCA | Paso Flores | 30.08 | 174 | P | P | 14 31 34.1 | -0.2 |
| | 2.4nm,0.8s,baz=19,slow=9.7,SNR=5.6 | | | | | | |
| TXAR | Lajitas Array | 48.84 | 325 | P | P | 14 34 09.0 | -1.0 |
| | 0.7nm,0.4s,baz=151,slow=9.0,SNR=21 | | | | | | |
| TXAR | | | | pP | pP | 14 34 35.3 | +1.4 |
| | 0.6nm,0.5s,baz=148,slow=7.4,SNR=6.8 | | | | | | |
| PDAR | Pinedale Array | 62.21 | 331 | P | P | 14 35 44.0 | -1.7 |
| | 0.2nm,0.4s,baz=102,slow=14,SNR=3.7 | | | | | | |
| PDAR | | | | pP | pP | 14 36 12.7 | +2.1 |
| | 0.4nm,0.6s,baz=90,slow=4.4,SNR=3.3 | | | | | | |
| SNAA | Sanae | 74.10 | 162 | P | P | 14 36 59.2 | -0.2 |
| | 3.2nm,0.7s,baz=260,slow=7.2,SNR=11 | | | | | | |
| TORD | Torodi Ar. Bea | 79.10 | 74 | P | P | 14 37 27.2 | -1.2 |
| | 0.5nm,0.4s,baz=262,slow=4.3,SNR=10 | | | | | | |
| TORD | | | | pP | pP | 14 37 55.5 | +1.2 |
| | 1.6nm,0.9s,baz=263,slow=4.8,SNR=4.7 | | | | | | |
| YKA | Yellowknife Ar | 79.36 | 342 | P | P | 14 37 26.9 | -1.9 |
| | 0.6nm,0.7s,baz=134,slow=5.3,SNR=3.1 | | | | | | |
| ZALV | Zalesovo Beam | 133.79 | 17 | PKP | PKPdf | 14 44 38.6 | -0.8 |
| | 1.3nm,0.6s,baz=277,slow=2.9,SNR=7.8 | | | | | | |
| ZALV | | | | pPKP | pPKPdf | 14 45 10.8 | +3.9 |
| | 0.7nm,0.5s,baz=264,slow=2.1,SNR=3.0 | | | | | | |
| ASAR | Alice Springs | 136.05 | 219 | PKP | PKPdf | 14 44 43.0 | -1.7 |
| | 0.6nm,0.8s,baz=126,slow=2.1,SNR=6.8 | | | | | | |
| WRA | Warramunga Arr | 138.45 | 223 | PKP | PKPdf | 14 44 47.2 | -2.0 |
| | 0.8nm,0.3s,baz=122,slow=2.0,SNR=48 | | | | | | |
| WRA | | | | pPKP | pPKPdf | 14 45 20.1 | +3.4 |
| | 0.6nm,0.7s,baz=150,slow=1.5,SNR=3.8 | | | | | | |
| KSRS | Korea Array | 146.68 | 327 | PKPbc | PKPdf | 14 45 02.0 | -1.1 |
| | 2.5nm,1.0s,baz=27,slow=2.5,SNR=6.3 | | | | | | |

---

**MEX 07 14:27:18.8±0.4, 14°.50N×91°.88W, h121km±4km, MD3.7, Guatemala**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PCIG | | 1.76 | 313 | eP | Pn | 14 27 48.0 | -1.4 |
| PCIG | | | | eS | Sn | 14 28 11.2 | -1.6 |
| CCIG | Comitan | 1.79 | 352 | eP | Pn | 14 27 48.1 | -1.9 |
| CCIG | | | | eS | Sn | 14 28 12.2 | -1.4 |
| TGIG | | 2.56 | 332 | i P | Pn | 14 27 57.9 | -1.6 |
| TGIG | | | | i S | Sn | 14 28 29.0 | -1.8 |

---

*ISCJB **07** 14:41:45.8±0.6, 46°.79N±0°.04×152°.76E±0°.06, h55km±5km, mb4.5/61, MS4.0/4, Error ellipse: s-maj=9.0km s-min=4.3km az=135.6*

*BJI **07** 14:41:45.0, 46°.90N×152°.60E, h33km, mb4.7/24, mB4.9/14, Ms4.6/2, Ms7 4.4/2*

*JMA **07** 14:41:45.3±0.6, 46°.96N×152°.80E, h30km, M5.1*

*MOS **07** 14:41:46.9±1.0, 46°.85N×152°.68E, h62km, mb4.6/30, Error ellipse: s-maj=7.7km s-min=5.9km az=90.6*

*SKHL **07** 14:41:48.1±0.5, 46°.73N×152°.92E, h82km±4km, mb5.1/8, msh6.0/5*

*NEIC **07** 14:41:49.4±0.8, 46°.84N×152°.75E, h72km±6km, mb4.6/14, Error ellipse: s-maj=9.0km s-min=4.6km az=135.0*

*IDC **07** 14:41:50.1±2.1, 46°.88N×152°.72E, h75km±18km, mb4.1/26, mb1 4.2/32, mb1mx4.2/42, mbtmp4.4/32, MS4.0/3, Ms1 4.0/3, ms1mx3.2/41, Error ellipse: s-maj=14.4km s-min=9.4km az=133.0*

**ISC 07 14:41:47.7±1.0, 46°.69N±0°.06×152°.83E±0°.06, h60km±8km, n228, σ1s74/241, mb4.5/62, 15C-5D, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KUR | Kuril'sk | 3.75 | 249 | ePN | Pn | 14 42 44.5 | +1.4 |
| KUR | | | | eS | Sn | 14 43 26.7 | +0.7 |
| KUR | | | | pmax | pmax | | |
| | comp=Z,344nm,0.4s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=Z,104nm,0.2s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=N,1µm,0.4s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,259nm,0.2s | | | | | | |
| KUR | Kuril'sk | 3.75 | 249 | eP | Pn | 14 42 44.5 | +1.4 |
| KUR | | | | AMB | AMB | 14 42 46.2 | |
| | comp=E,110nm,0.4s | | | | | | |
| KUR | | | | AMB | AMB | 14 42 46.2 | |
| | comp=E,39nm,0.4s | | | | | | |
| KUR | | | | AMB | AMB | 14 42 46.2 | |
| | comp=E,365nm,0.4s | | | | | | |
| KUR | | | | eS | Sn | 14 43 26.7 | +0.7 |
| KUR | | | | A | A | 14 43 38.5 | |
| | comp=E,1µm,0.3s | | | | | | |
| KUR | | | | A | A | 14 43 38.5 | |
| | comp=E,300nm,0.3s | | | | | | |
| KUR | | | | A | A | 14 43 41.5 | |
| | comp=E,2µm,1.0s | | | | | | |
| KUR | | | | A | A | 14 43 41.5 | |
| | comp=E,1µm,1.0s | | | | | | |
| SKR | Severo-Kuril's | 4.55 | 27 | ePN | Pn | 14 42 53.5 | -0.4 |
| SKR | | | | eS | Sn | 14 43 42.2 | -3.2 |
| SKR | | | | pmax | pmax | | |
| | comp=Z,174nm,1.2s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=N,444nm,0.6s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=E,420nm,0.6s | | | | | | |
| SKR | | | | MLR | MLR | | |
| | comp=Z,600nm,15.0s | | | | | | |
| SKR | | | | MLR | MLR | | |
| | comp=Z,1µm,17.0s | | | | | | |
| SKR | Severo-Kuril's | 4.55 | 27 | eP | Pn | 14 42 53.5 | -0.4 |
| SKR | | | | AMB | AMB | 14 42 56.6 | |
| | comp=Z,59nm,0.5s | | | | | | |
| SKR | | | | eS | Sn | 14 43 42.2 | -3.2 |
| SKR | | | | A | A | 14 43 57.0 | |
| | comp=Z,410nm,0.5s | | | | | | |
| SKR | | | | A | A | 14 43 57.0 | |
| | comp=Z,302nm,0.5s | | | | | | |
| SHO | Shikotan | 5.09 | 238 | ePN | Pn | 14 43 00.3 | -1.0 |
| SHO | | | | pmax | pmax | | |
| | comp=Z,235nm,0.4s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=Z,88nm,0.5s | | | | | | |
| SHO | | | | pmax | pmax | | |

comp=N,103nm,0.4s
**SHO Shikotan 5.09 238** *e*P Pn **14 43 00.3 -1.0**
SHO AMB AMB 14 43 12.1
comp=N,235nm,0.4s
SHO *e*S **Sn 14 43 54.8 -3.9**
SHO A A 14 44 20.2
comp=N,178nm,0.6s
SHO A A 14 44 20.2
comp=N,166nm,0.6s
**YUK Yuzh-Kuril'sk 5.58 244** *e*PN Pn **14 43 09.9 +1.8**
YUK *e*S **Sn 14 44 11.1 +0.3**
YUK pmax pmax
comp=N,78nm,0.2s
YUK pmax pmax
comp=Z,412nm,0.2s
YUK pmax pmax
comp=E,312nm,0.3s
YUK smax smax
comp=E,967nm,0.5s
YUK smax smax
comp=N,569nm,0.6s
**YUK Yuzh-Kuril'sk 5.58 244** *e*P Pn **14 43 10.1 +2.0**
YUK AMB AMB 14 43 10.4
comp=N,79nm,0.4s
YUK AMB AMB 14 43 10.4
comp=N,313nm,0.4s
YUK AMB AMB 14 43 10.4
comp=N,41nm,0.4s
YUK *e*S **Sn 14 44 11.4 +0.6**
YUK A A 14 44 30.8
comp=N,570nm,0.6s
YUK A A 14 44 30.8
comp=N,968nm,0.6s
**NEM2 Nemuro 2 6.02 239** P Pn **14 43 13.0 -1.1**
NEM2 *e*S **Sn 14 44 18.3 -3.3**
**JRA Rausu 6.09 246** P Pn **14 43 16.7 +1.7**
**JNK Nakash 6.52 244** P Pn **14 43 21.9 +0.9**
JNK *e*S **Sn 14 44 33.0 -0.9**
**JTKR Abashiri--Toko 6.85 250** P Pn **14 43 27.3 +1.9**
**JAK Akkeshi 6.86 240** P Pn **14 43 24.4 -1.2**
JAK *e*S **Sn 14 44 38.2 -4.0**
**YSS Yuzh-Sakhalins 6.92 276**⇑ *i*PN Pn **14 43 28.7 +2.4**
YSS *e*S **Sn 14 44 42.9 -0.6**
YSS pmax pmax
comp=Z,70nm,0.8s
YSS smax smax
comp=E,70nm,0.7s
YSS MLR MLR
comp=Z,410nm,16.0s
**YSS Yuzh-Sakhalins 6.92 276** *e*P Pn **14 43 28.7 +2.4**
YSS AMB AMB 14 43 30.9
comp=Z,70nm,0.8s
YSS *e*S **Sn 14 44 42.9 -0.6**
YSS AMS AMS 14 47 33.0
comp=Z,410nm,16.0s
**YSS Yuzh-Sakhalins 6.92 276** *e*Pn Pn **14 43 28.3 +2.0**
comp=Z,37nm,0.3s
**PETK Petropavlovsk- 7.15 24** P Pn **14 43 29.1 -0.4**
comp=Z,2.1nm,0.3s,baz=201,slow=9.2,SNR=14
PETK S **Sn 14 44 55.5 +6.3**
baz=183,slow=27,SNR=1.6
**JMP Maruseppu 7.19 251** P Pn **14 43 32.1 +2.0**
**JAR Ashorobuto 7.26 245** P Pn **14 43 31.8 +0.7**
JAR *e*S **Sn 14 44 52.5 +0.4**
**PET Petropavlovsk 7.37 29** *e*PN Pn 14 43 37.9 +5.4
PET pmax pmax
comp=Z,18nm,0.5s
PET MLR MLR
comp=Z,600nm,13.0s
**PET Petropavlovsk 7.37 29** *e*P Pn **14 43 33.7 +1.2**
PET AMB AMB 14 43 55.9
comp=Z,33nm,0.8s
PET *e*S **Sn 14 44 50.9 -3.6**
PET A A 14 45 22.0
comp=Z,104nm,0.5s
PET A A 14 45 22.0
comp=Z,110nm,0.5s
PET AMS AMS 14 46 17.8
comp=Z,750nm,10.0s
**PET Petropavlovsk 7.37 29** *e*Pn Pn 14 43 37.4 +4.9
**JOB Onbets 7.43 243** P Pn **14 43 33.2 -0.2**
**UGL Uglegorsk 7.62 292** *e*PN Pn **14 43 34.8 -1.1**
**UGL Uglegorsk 7.62 292** *e*P Pn **14 43 38.5 +2.6**
UGL AMB AMB 14 47 39.7
comp=Z,120nm,0.9s
UGL AMS AMS 14 48 21.0
comp=Z,2µm,14.0s
**JKA Kamikawa-asahi 7.64 254** *e*P Pn **14 43 39.1 +2.8**
**ASAJ Asahikawa 7.65 254** P Pn **14 43 39.1 +2.7**
comp=Z,4.6nm,0.3s,baz=84,slow=21,SNR=44
ASAJ S **Sn 14 45 06.9 +5.4**
baz=352,slow=7.1,SNR=1.6
**ASAJ Asahikawa 7.65 254** P Pn **14 43 39.3 +2.9**
**ASAJ Asahikawa 7.65 254** *e*Pn Pn **14 43 39.1 +2.7**
comp=Z,29nm,0.8s
ASAJ S **Sn 14 45 06.9 +5.4**
**JKK2 Kamakawa 2 7.65 252** P Pn **14 43 38.5 +2.1**
**JCH Churui 7.88 242** P Pn **14 43 39.0 -0.6**
JCH *e*S **Sn 14 45 03.2 -4.1**
**TYV Tymovskoe 7.91 306** *e*PN Pn **14 43 40.7 +0.9**
TYV pmax pmax
comp=Z,49nm,0.8s
**TYV Tymovskoe 7.91 306** *e*P Pn **14 43 40.8 +0.9**
TYV AMB AMB 14 43 44.5
comp=Z,49nm,0.8s
**JFR Furan 8.07 248** P Pn **14 43 44.7 +2.5**
**JAB Ashibetsu 8.15 251** P Pn **14 43 45.8 +2.6**
**ERM Erimo 8.36 239** *e*PN Pn **14 43 46.5 +0.4**
ERM pmax pmax
comp=Z,107nm,0.6s
**ERM Erimo 8.36 239** *e*Pn Pn **14 43 46.5 +0.4**
comp=Z,107nm,0.6s
**JEM Erimo 8.36 239** P Pn **14 43 45.3 -0.8**
**JBT2 Biratori 2 8.41 246** P Pn **14 43 47.2 +0.4**
**JNBK Urakawa-nobuka 8.44 242** P Pn **14 43 45.8 -1.5**
**JNB Noboribetsu 9.41 248** P Pn **14 44 00.2 -0.3**
JNB *e*S **Sn 14 45 41.6 -3.1**
**JKB Kayabe 9.72 245** P Pn **14 44 03.6 -1.1**
JKB *e*S **Sn 14 45 46.0 -6.3**
**JYM2 Yakumo 2 10.02 247** P Pn **14 44 08.0 -0.7**
**JSR Shiriuchi 10.30 244** P Pn **14 44 10.6 -2.1**
**JTM Tenmabayashi 10.35 239** P Pn **14 44 11.2 -2.1**
JTM *e*S **Sn 14 45 59.9 -7.8**
**JANG Nango 10.36 236** P Pn **14 44 09.6 -3.8**
JANG *e*S Sn 14 45 58.5 -9.3
**JTH Tanohata 10.45 234** *e*S Sn 14 46 00.6 -10
**JOSM Okushiri--Mats 10.61 249** P Pn **14 44 16.0 -0.8**
**OFUJ Ofunato 11.17 231** *e*S Sn 14 46 17.9 -10
**JRG Rokugo 11.51 235** P Pn **14 44 26.2 -3.0**
**GRNR Gornyy 11.57 297** *e*P Pn **14 44 31.8 +1.9**
GRNR AMB AMB 14 44 34.5
comp=Z,11nm,1.0s
**JIO Ouri 11.80 230** *e*S Sn 14 46 31.4 -12
**HABR Khabarovsk 12.14 285** *e*PN Pn **14 44 36.7 -0.9**
HABR pmax pmax
comp=N,23nm,2.0s
HABR pmax pmax
comp=E,30nm,2.0s
HABR pmax pmax
comp=Z,26nm,2.0s
HABR MLR MLR
comp=Z,210nm,12.0s
**HABR Khabarovsk 12.14 285** *e*P Pn **14 44 36.7 -0.9**
**MA2 Magadan 12.96 355** P Pn **14 44 48.6 -0.2**
comp=Z,7.0nm,0.3s,baz=166,slow=12,SNR=27
**EKMR Ekimchan 14.29 304** *e*P Pn **14 45 04.8 -1.9**
EKMR AMB AMB 14 45 15.2
comp=Z,8.0nm,0.5s
**USRK Ussuriysk Ar. 14.83 268** P Pn **14 45 14.0 +0.2**
comp=Z,1.5nm,0.3s,baz=70,slow=12,SNR=16
**MJA0 Matsu Arr-Jizo 14.87 232** *e*P **P 14 45 20.7 +1.9**
MJA0 pmax pmax
comp=Z,1.0nm,0.3s
**MJAR Matsushiro Arr 14.89 232** P Pn **14 45 15.4 +0.8**
comp=Z,0.4nm,0.3s,baz=24,slow=17,SNR=4.8
**MAJO Matsushiro 14.89 232** *i* P **P 14 45 20.7 +1.7**
**SEY Seymchan 16.28 359** P Pn **14 45 31.6 -0.5**
comp=Z,1.2nm,0.3s,baz=92,slow=22,SNR=38
**MDJ Mudanjiang 16.37 271** P Pn **14 45 33.5 +0.1**
comp=Z,24nm,1.0s
**BMKR Bomnak 17.11 307** *e*P **P 14 45 42.5 -1.0**
BMKR AMB AMB 14 45 47.4
comp=Z,16nm,0.5s
**ZEA Zeya 17.76 303** *e*rx rx 14 45 52.4
**KROS Kirovskiy 18.08 305** *e*P **P 14 45 53.3 -0.8**
KROS AMB AMB 14 45 56.0
comp=Z,6.0nm,0.4s
**CN2 Changchun 19.46 271** *e*P **P 14 46 08.0 -1.2**
CN2 pmax pmax
comp=Z,10.0nm,0.6s
**YAK Yakutsk 20.26 328** P **P 14 46 17.8 0.0**
comp=Z,22nm,0.4s,baz=3.7,slow=0.3,SNR=16
**YAK Yakutsk 20.26 328** *e*P **P 14 46 17.4 -0.4**
YAK pmax pmax
comp=Z,26nm,0.8s
YAK pmax pmax
comp=E,6.0nm,0.9s
YAK pmax pmax
comp=Z,38nm,0.9s
YAK pmax pmax
comp=N,8.0nm,0.9s
**YAK Yakutsk 20.26 328** *e*P **P 14 46 16.5 -1.3**
comp=N,30nm,0.6s
**KSRS Korea Array 20.59 252** P **P 14 46 23.1 +1.5**
comp=N,7.6nm,0.6s,baz=58,slow=10.0,SNR=22
**KSAR Wonju Array Be 20.62 252** P **P 14 46 23.1 +1.2**
**KSAR Wonju Array Be 20.62 252** P **P 14 46 23.1 +1.2**
**JNU Nakatsue 21.52 239** P **P 14 46 32.4 +0.7**
comp=N,9.1nm,0.7s,baz=298,slow=1.1,SNR=12
**JNU Nakatsue 21.52 239** *e*P **P 14 46 32.0 +0.4**
comp=N,4.3nm,0.8s
**HIA Hailar 22.20 289** *e*P **P 14 46 36.1 -2.7**
HIA pmax pmax
comp=Z,8.0nm,1.1s
**HIA Hailar 22.20 289** *e*P **P 14 46 36.1 -2.7**
**BOD Bodaibo 25.87 310** *e*P **P 14 47 11.2 -2.2**
BOD pmax pmax
comp=Z,3.0nm,1.0s
**TIXI Tiksi 27.47 344** P **P 14 47 26.1 -1.5**
comp=Z,0.7nm,0.3s,baz=131,slow=11,SNR=6.0
**H11N2 WAKE ISLAND Hy 29.26 152** T T 15 19 09.6
baz=340,slow=76
**H11N1 WAKE ISLAND Hy 29.28 152** T T 15 19 11.4
baz=340,slow=76,SNR=6365
**H11N3 WAKE ISLAND Hy 29.28 152** T T 15 19 13.5
baz=340,slow=76,SNR=6718
**H11S1 WAKE ISLAND Hy 30.35 153** T T 15 20 31.4
baz=340,slow=76,SNR=9508
**H11S3 WAKE ISLAND Hy 30.35 153** T T 15 20 24.8
baz=340,slow=76,SNR=8216
**H11S2 WAKE ISLAND Hy 30.36 153** T T 15 20 31.5
baz=340,slow=76,SNR=7375
**ULN Ulaanbaatar 30.73 289** *e*P **P 14 47 58.7 +1.7**
ULN pmax pmax
comp=Z,8.0nm,0.9s
**ULN Ulaanbaatar 30.73 289** *e*P **P 14 47 58.7 +1.7**
**ULN Ulaanbaatar 30.73 289** *e*P **P 14 47 58.7 +1.7**
comp=Z,7.5nm,0.9s
**SONM Songino Array 31.17 289** P **P 14 48 00.8 0.0**
comp=Z,1.9nm,0.6s,baz=82,slow=8.0,SNR=8.9
SONM PcP **PcP 14 50 54.8 +0.4**
comp=Z,0.4nm,0.5s,baz=135,slow=3.4,SNR=3.5
SONM LR LR 15 01 12.7
comp=Z,333nm,18.4s,baz=127,slow=38
**SONM Songino Array 31.17 289** P **P 14 48 00.8 0.0**
SONM 14 50 54.8
SONM pmax pmax
comp=Z,1.0nm,0.8s
SONM MLR MLR
comp=Z,333nm,18.4s
**XAN Xi'an 35.31 265** P **P 14 48 37.1 +0.1**
XAN pP pP 14 48 45.4 -6.6
XAN pmax pmax
comp=Z,21nm,0.9s
XAN pmax pmax
comp=Z,69nm,10.1s
**COLD Coldfoot 35.49 34** *e*P **P 14 48 37.8 -0.2**
comp=Z,3.2nm,0.7s
**SML Sawmill 36.15 44** *e*P **P 14 48 43.9 +0.1**
SML pmax pmax
comp=Z,2.0nm,0.8s
**SML Sawmill 36.15 44** *e*P **P 14 48 43.9 +0.1**
comp=Z,2.3nm,0.8s
**COLA College 36.30 38** *e*P **P 14 48 45.3 +0.3**
COLA pmax pmax
comp=Z,5.0nm,0.6s
**COLA College 36.30 38** *e*P **P 14 48 45.5 +0.5**
**COLA College 36.30 38** *e*P **P 14 48 45.3 +0.3**
comp=Z,4.7nm,0.6s
**ILAR Eielson Array 36.72 39** P **P 14 48 48.6 +0.1**
comp=Z,3.0nm,1.0s,baz=260,slow=6.9,SNR=27
**ENH Enshi 37.16 259** *e*P **P 14 48 52.9 +0.1**
comp=Z,5.1nm,0.4s
**GTA Gaotai 38.78 279** *e*P **P 14 49 08.6 +2.2**
GTA pP pP 14 49 14.1 -7.5
GTA sP sP 14 49 16.7 -12
GTA PcP **PcP 14 51 18.4 +1.7**
GTA pmax pmax
comp=Z,7.0nm,0.9s
**INK Inuvik 41.80 32** P **P 14 49 31.4 +0.6**
comp=Z,4.0nm,0.7s,baz=288,slow=9.8,SNR=8.2
**INK Inuvik 41.80 32** *e*P **P 14 49 31.3 +0.5**
**INK Inuvik 41.80 32** *e*P **P 14 49 31.3 +0.5**
**INK Inuvik 41.80 32** *e*P **P 14 49 31.3 +0.5**
**ZALV Zalesovo Beam 42.48 306** P **P 14 49 34.6 -1.9**
comp=Z,1.3nm,0.4s,baz=62,slow=7.0,SNR=7.7
ZALV PcP **PcP 14 51 28.4 +0.1**
comp=Z,1.4nm,0.4s,baz=32,slow=2.7,SNR=9.7
**MKAR Makanchi Array 46.79 297** P **P 14 50 10.1 -1.0**
comp=Z,2.6nm,0.6s,baz=69,slow=5.9,SNR=25
MKAR PcP **PcP 14 51 43.3 0.0**
comp=Z,1.6nm,0.6s,baz=80,slow=1.7,SNR=7.1
**KURK Kurchatov 47.23 304** *e*P **P 14 50 12.9 -1.4**
KURK pmax pmax
comp=Z,18nm,1.2s
**KURK Kurchatov 47.23 304** *e*P **P 14 50 12.9 -1.4**
**LSA Lhasa 50.08 273** *e*P **P 14 50 38.5 +1.5**
LSA pmax pmax
comp=Z,13nm,0.6s
**LSA Lhasa 50.08 273** *e*P **P 14 50 38.5 +1.5**
comp=Z,13nm,0.6s
**BRVK Borovoye 50.78 309** *e*P **P 14 50 40.6 -0.8**
BRVK pmax pmax
comp=Z,4.0nm,1.0s
**BRVK Borovoye 50.78 309** *e*P **P 14 50 40.6 -0.8**
**BRVK Borovoye 50.78 309** *e*P **P 14 50 40.0 -1.5**
comp=Z,4.6nm,0.4s
**RES Resolute Bay 50.95 18** P **P 14 50 42.1 -0.3**
comp=Z,1.1nm,0.4s,baz=26,slow=8.3,SNR=3.9
**YKA Yellowknife Ar 51.09 37** P **P 14 50 43.7 +0.1**
comp=Z,1.3nm,0.7s,baz=296,slow=7.0,SNR=3.5
YKA PcP **PcP 14 51 58.9 +0.5**
comp=Z,1.0nm,0.5s,baz=305,slow=3.8,SNR=6.8
**PHRA Phrae 51.28 255** P **P 14 50 47.6 +2.0**
comp=Z,11nm,1.8s,comp=Z,52µm
**UTTA Uttaradit 51.60 254** P **P 14 50 49.8 +1.8**
comp=Z,3.9nm,0.8s
**CMMT Chiang Mai 51.91 256** P **P 14 50 51.6 +1.3**
comp=Z,13nm,1.0s
**CHTO Chiang Mai 51.91 256** P **P 14 50 51.7 +1.4**
comp=Z,59nm,0.8s
**CHTO Chiang Mai 51.91 256** *e*P **P 14 50 51.3 +1.0**
CHTO pmax pmax
comp=Z,9.0nm,0.8s
**CHTO Chiang Mai 51.91 256** *e*P **P 14 50 51.3 +1.0**
comp=Z,9.1nm,0.8s
**CHAI Chaiyaphum 51.99 251** P **P 14 50 52.4 +1.5**
comp=Z,4.3nm,0.8s
**CMAR Chiang Mai Arr 52.16 256** P **P 14 50 53.6 +1.5**
comp=Z,5.5nm,0.8s,baz=31,slow=7.5,SNR=33
CMAR PcP **PcP 14 52 04.8 +1.6**
comp=Z,0.4nm,0.3s,baz=20,slow=2.9,SNR=4.9
**SHL Shillong 52.17 268** *e*P **P 14 50 55.0 +2.6**
**AAK Ala-Archa 53.68 296** *e*P **P 14 51 02.3 -1.0**
AAK pmax pmax
comp=Z,4.0nm,0.8s
**AAK Ala-Archa 53.68 296** *e*P **P 14 51 02.1 -1.2**
**AAK Ala-Archa 53.68 296** *e*P **P 14 51 02.3 -1.0**
comp=Z,3.6nm,0.8s
**TAPN Taplejung 53.91 273** *e*P **P 14 51 06.1 +0.8**
comp=Z,36nm,0.8s
**ODAN Odare 54.44 273** *e*P **P 14 51 09.9 +0.8**
comp=Z,13nm,0.4s
**KSH Kashi 54.49 292** P P 14 51 14.3 +5.1
KSH PP **PP 14 53 17.1 +5.5**
KSH pmax pmax
comp=Z,3.0nm,0.4s
KSH pmax pmax
comp=Z,130nm,6.5s
**JIRN Jiri 54.75 274** *e*P **P 14 51 12.3 +0.8**
**GUN Gumba 54.81 275** *e*P **P 14 51 12.5 +0.6**
comp=Z,14nm,0.3s
**ARU Arti 54.92 317** *c i*P **P 14 51 11.3 -0.6**
ARU 14 52 12.6
ARU S **S 14 58 46.0 -2.6**
ARU SS **SS 15 02 26.8 -5.2**
ARU pmax pmax
comp=Z,8.0nm,1.7s
**ARU Arti 54.92 317** *e*P **P 14 51 11.2 -0.6**
**RAMN Ramite 54.92 273** *e*P **P 14 51 13.1 +0.5**
comp=Z,28nm,0.4s
**KKN Kakani 55.30 275** *e*P **P 14 51 16.4 +1.1**
comp=Z,29nm,0.7s
**PKI Pulchoki 55.35 275** *e*P **P 14 51 16.0 +0.2**
comp=Z,11nm,0.4s
**PKIN Phulchoki 55.35 275** *e*P **P 14 51 16.1 +0.4**
comp=Z,10nm,0.4s
**DMN Daman 55.53 275** *e*P **P 14 51 17.8 +0.8**
comp=Z,51nm,0.8s
**GKN Gorkha 55.60 276** *e*P **P 14 51 18.4 +1.0**
comp=Z,2.2nm,0.3s
**DANN Dangsing 55.98 277** *e*P **P 14 51 21.6 +1.3**
comp=Z,1.6nm,0.6s
**KOLN Koldanda 56.46 276** *e*P **P 14 51 24.3 +0.7**
**PYUN Piuthan 56.67 277** *e*P **P 14 51 25.7 +0.7**
comp=Z,17nm,0.5s
**DAG Danmarks Havn 56.69 358** *i* P **P 14 51 22.9 -1.3**
**DAG Danmarks Havn 56.69 358** *i* P **P 14 51 22.9 -1.3**
**ARCES ARCESS Array B 57.84 341** P **P 14 51 31.4 -1.0**
comp=Z,5.2nm,1.1s,baz=37,slow=6.2,SNR=7.7
**SUMG Summit 60.77 4** *i* P **P 14 51 52.7 -0.4**
SUMG pmax pmax
comp=Z,12nm,0.9s
**SUMG Summit 60.77 4** *i* P **P 14 51 52.7 -0.4**
comp=Z,12nm,0.9s
**SUMG Summit 60.77 4** *e*P **P 14 51 52.5 -0.6**
comp=Z,11nm,0.8s
**FFC Flin Flon 60.91 40** *i* P **P 14 51 55.8 +2.0**
**FINES FINESS Array B 64.01 335** P **P 14 52 13.3 -1.0**
comp=Z,8.5nm,0.4s,baz=35,slow=7.3,SNR=100
FINES PcP **PcP 14 52 48.3 -0.9**
comp=Z,1.4nm,0.5s,baz=74,slow=1.7,SNR=3.4
**PDAR Pinedale Array 64.94 54** P **P 14 52 21.7 +0.6**
comp=Z,2.4nm,0.8s,baz=296,slow=1.6,SNR=18
**OBN Obninsk 65.24 325**⇑ *e*P **P 14 52 20.9 -1.6**
OBN *e*S S 15 01 13.4 +12
OBN pmax pmax
comp=Z,4.0nm,0.9s
OBN MLR MLR
comp=Z,131nm,17.0s
**OBN Obninsk 65.24 325** *e*P **P 14 52 20.9 -1.6**
**GEYT Ailbeck 66.46 301** P **P 14 52 31.0 +0.3**
comp=Z,18nm,0.7s,baz=62,slow=3.8,SNR=10.0
**NOA NORSAR Array B 68.22 341** P **P 14 52 40.7 -0.7**
comp=Z,5.1nm,0.7s,baz=30,slow=5.9,SNR=7.2
**WRA Warramunga Arr 68.40 199** P **P 14 52 43.6 +0.7**
comp=Z,1.9nm,0.8s,baz=18,slow=6.8,SNR=30
**FITZ Fitzroy Crossi 69.00 208** P **P 14 52 47.7 +1.1**
comp=Z,3.4nm,0.9s,baz=18,slow=3.2,SNR=4.8
**KIV Kislovodsk 70.70 314** *e*P **P 14 52 56.3 -0.7**
KIV pmax pmax
comp=Z,4.0nm,0.9s
**KIV Kislovodsk 70.70 314** *e*P **P 14 52 56.3 -0.7**
**KBZ Khabaz 70.76 314** P **P 14 52 57.5 +0.3**
comp=Z,2.5nm,0.7s,baz=273,slow=1.9,SNR=5.4
**AKASG Malin Array Be 71.48 326** P **P 14 53 00.5 -1.1**
comp=Z,11nm,0.4s,baz=34,slow=6.2,SNR=32
**ASAR Alice Springs 72.09 198** P **P 14 53 07.2 +1.7**
comp=Z,2.9nm,0.7s,baz=12,slow=5.5,SNR=76
**SORM Soroca 73.88 325**⇓ *i*P **P 14 53 14.7 -1.1**
**STHS Stebnicka Huta 75.46 330** *e*P **P 14 53 25.7 +0.7**
STHS pmax pmax
comp=Z,6.0nm,0.9s
**STHS Stebnicka Huta 75.46 330** *e*P **P 14 53 25.7 +0.7**
**BURAR Bucovina Array 75.53 326**⇓ *i*P **P 14 53 25.0 -0.5**
**UZH Uzhgorod 75.76 329** *e*P **P 14 53 26.5 -0.1**
**CRVS Cervenica-Dubn 75.82 329** *e*P **P 14 53 26.9 -0.1**
**CRVS Cervenica-Dubn 75.82 329** *e*P **P 14 53 26.9 -0.1**
**TESR Tescani 75.88 325**⇑ *i*P **P 14 53 26.9 -0.5**
**UPC Upice 76.24 333** *e*P **P 14 53 29.3 -0.1**
**UPC Upice 76.24 333** *e*P **P 14 53 29.3 -0.1**
**DPC Dobruska-Polom 76.28 333** *e*P **P 14 53 29.9 +0.2**
**DPC Dobruska-Polom 76.28 333** *e*P **P 14 53 29.9 +0.2**
**LANS Liptovska Anna 76.30 331** *e*P **P 14 53 30.3 +0.5**
**LANS Liptovska Anna 76.30 331** *e*P **P 14 53 30.3 +0.5**
**CFR Carcaliu 76.37 323**⇑ *i*P **P 14 53 29.6 -0.5**
**MORC Moravsky Berou 76.40 332**⇑ *i*P **P 14 53 30.7 +0.4**
**CLL Collm 76.43 335**⇓ *i*P **P 14 53 29.8 -0.6**
CLL pmax pmax
comp=Z,14nm,1.1s
**CLL Collm 76.43 335**⇓ *i*P **P 14 53 29.8 -0.6**
comp=Z,14nm,1.1s
**CLL Collm 76.43 335** *e*P **P 14 53 29.8 -0.6**
**KECS Kecovo 76.52 330** *e*P **P 14 53 29.8 -1.2**
KECS pmax pmax
comp=Z,4.0nm,1.0s
**KECS Kecovo 76.52 330** *e*P **P 14 53 29.8 -1.2**
**CJR Cluj-Napoca 76.89 327**⇑ *i*P **P 14 53 34.1 +0.9**
**MLR Muntele Rosu 77.00 325**⇑ *i*P **P 14 53 34.3 +0.4**
**ISR Isnita 77.06 324**⇓ *i*P **P 14 53 33.4 -0.8**
**VYHS Vyhne 77.08 331** *e*P **P 14 53 34.2 +0.1**
**VYHS Vyhne 77.08 331** *e*P **P 14 53 34.2 +0.1**
**GOPC GO Pecny, Ondr 77.14 334** *e*P **P 14 53 34.6 +0.1**
**GOPC GO Pecny, Ondr 77.14 334** *e*P **P 14 53 34.6 +0.1**
**PRU Pruhonice 77.15 334** *e*P **P 14 53 34.5 0.0**
**PRU Pruhonice 77.15 334** *e*P **P 14 53 34.5 0.0**
**PRU Pruhonice 77.15 334** *e*P **P 14 53 34.5 0.0**
**DRGR 77.16 327**⇑ *i*P **P 14 53 34.3 -0.4**
**ICOR Ion Corvin 77.37 323**⇑ *i*P **P 14 53 36.3 +0.5**
**VOIR 77.39 325**⇑ *i*P **P 14 53 36.0 -0.1**
**ARR Arges 77.61 325**⇑ *i*P **P 14 53 38.0 +0.7**
**TXAR Lajitas Array 77.69 60** P **P 14 53 38.8 +0.8**
comp=Z,0.8nm,0.4s,baz=298,slow=4.8,SNR=28
**KHC Kasperske Hory 78.20 334** *e*P **P 14 53 40.3 -0.1**
KHC *ex* x 14 53 44.8
**KHC Kasperske Hory 78.20 334** *e*P **P 14 53 40.3 -0.1**
KHC *e* 14 53 44.8
**KHC Kasperske Hory 78.20 334** *e*P **P 14 53 40.3 -0.1**
**BRTR Keskin Array B 78.30 317** P **P 14 53 41.5 +0.3**
comp=Z,2.6nm,0.8s,baz=61,slow=4.3,SNR=5.3
**GERES GERESS Array B 78.42 334** P **P 14 53 41.2 -0.5**
comp=Z,0.9nm,0.5s,baz=64,slow=6.1,SNR=4.7
**GERES GERESS Array B 78.42 334** *e*P **P 14 53 40.9 -0.8**
**CONA Conrad Observa 78.55 332** *i* P **P 14 53 41.9 -0.5**
comp=Z,7.9nm,1.1s
**BZS Buzias 78.55 327**⇑ *i*P **P 14 53 42.3 -0.1**
**MOA Molln 79.13 333** *i* P P 14 53 39.7 -5.8
comp=Z,6.0nm,1.2s
**MDVR Moldovita 79.23 327**⇑ *i*P **P 14 53 43.4 -2.8**
**ARSA Arzberg 79.26 332** *i* P **P 14 53 43.4 -2.9**
comp=Z,4.9nm,1.0s
**SOKA Soboth 79.92 332** *i* P **P 14 53 47.3 -2.6**
comp=Z,5.3nm,0.9s
**RAO Raoul Island 80.09 154** LR LR 15 27 04.9
comp=Z,80nm,18.9s,baz=258,slow=34
**KBA Koelnbreinsper 80.10 333** *i* P **P 14 53 49.0 -2.0**
comp=Z,8.5nm,0.6s
**WATA Walderalm 80.41 334** *i* P P 14 53 46.9 -5.7
comp=Z,4.3nm,0.7s
**BFO Black Forest 80.43 337** *i* P **P 14 53 53.3 +0.8**
**WTTA Wattenberg 80.45 334** *i* P **P 14 53 52.2 -0.7**
comp=Z,8.7nm,0.8s
**VTS Vitosha 80.50 325**⇑ *i*P **P 14 53 53.7 +0.5**
**RETA Reutte 80.51 335** *i* PcP **P 14 53 53.6 +0.6**
comp=Z,6.3nm,0.9s
**MOTA Moosalm 80.54 335** *i* P **P 14 53 52.4 -0.9**
comp=Z,12nm,1.1s
**ABTA Abfaltersbach 80.65 334** *i* P **P 14 53 51.1 -2.8**
comp=Z,5.7nm,1.0s
**FETA Feichten 80.94 335** *i* P **P 14 53 52.6 -2.9**
comp=Z,12nm,1.6s
**DAVA Damuels 80.95 335** *i* P **P 14 53 54.1 -1.4**
comp=Z,16nm,1.3s
**RAYN Ar Rayn 84.28 298** *e*P **P 14 54 13.0 0.0**
comp=Z,4.4nm,0.9s
**RPZ Rata Peaks 91.46 167** LR LR 15 31 40.6
comp=Z,45nm,21.6s,baz=60,slow=33
**ESDC Sonseca Array 91.55 342** P **P 14 54 46.3 -1.4**
comp=Z,0.3nm,0.4s,baz=85,slow=1.6,SNR=5.7
**TORD Torodi Ar. Bea 115.04 329** PKP PKPdf 15 00 21.4 -0.7
comp=Z,0.3nm,0.6s,baz=5.2,slow=3.2,SNR=2.3
**BDFB Brasilia 144.50 36** PKP **PKPab 15 01 15.9 0.0**
comp=Z,3.8nm,0.6s,baz=16,slow=3.6,SNR=5.6
**PLCA Paso Flores 148.40 95** PKPbc **PKPbc 15 01 27.6 +0.7**
comp=Z,3.5nm,0.8s,baz=237,slow=1.5,SNR=8.5
**CPUP Villa Florida 148.66 60** PKPbc **PKPbc 15 01 28.1 +0.2**

comp=Z,2.8nm,0.7s,baz=11,slow=1.6,SNR=7.3

**SJA 07 14:50:43.9±0.9, 31.64S×68.70W, h102km±5km, ML3.7, MW2.9, San Juan Province**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RTCV | Cerro Valdivia | 0.26 | 149 | eP | Pn | 14 50 59.0 | +0.3 |
| RTCV | | | | eS | Sn | 14 51 10.7 | +1.0 |
| RTLL | Cerro Villicun | 0.36 | 31 | eP | Pn | 14 50 59.7 | +0.5 |
| RTLL | | | | eS | Sn | 14 51 11.4 | +0.9 |
| RTLS | Leoncito | 0.54 | 253 | eP | Pn | 14 51 02.2 | +1.7 |
| RTLS | | | | eS | Sn | 14 51 14.9 | +1.9 |
| AMOG | MOGNA | 0.72 | 14 | eP | Pn | 14 51 02.7 | +0.9 |
| AMOG | | | | eS | Sn | 14 51 16.6 | +1.3 |
| AMOG | | | | IAML | | 14 51 16.9 | |
| | comp=Z,2µm,0.2s | | | | | | |
| AUSP | Uspallata | 0.83 | 225 | eP | Pn | 14 51 03.9 | +0.8 |
| AUSP | | | | eS | Sn | 14 51 19.2 | +1.8 |
| ACAN | Cantantal | 1.43 | 117 | eP | Pn | 14 51 11.3 | +1.9 |
| ACAN | | | | eS | Sn | 14 51 29.7 | +0.9 |
| AGUA | GUANDACOL | 2.15 | 5 | eP | Pn | 14 51 19.5 | +0.8 |

*CSEM 07 14:51:56.4, 39.59N×33.30E, h7km, MD2.5*

**DDA 07 14:51:56.4, 39.59N×33.30E, h7km, Md2.5, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BBAL | Bala | 0.15 | 252 | iP | Pg | 14 51 58.1 | -1.4 |
| BBAL | Bala | 0.15 | 252 | P | Pg | 14 51 58.1 | -1.4 |
| KKUL | Konya-Kulu | 0.51 | 216 | iP | Pg | 14 52 06.1 | -0.2 |
| KKUL | Konya-Kulu | 0.51 | 216 | P | Pg | 14 52 06.1 | -0.2 |
| CDAG | Cicekdag | 0.83 | 87 | iP | Pg | 14 52 12.7 | +0.4 |
| CDAG | Cicekdag | 0.83 | 87 | P | Pg | 14 52 12.7 | +0.4 |
| AKSY | AKSARAY - Alti | 1.00 | 159 | iP | Pg | 14 52 15.2 | -0.4 |
| AKSY | | | | iS | Sb | 14 52 30.1 | +0.6 |
| AKSY | AKSARAY - Alti | 1.00 | 159 | P | Pg | 14 52 15.2 | -0.4 |
| AKSY | | | | S | Sb | 14 52 30.0 | +0.5 |
| CMDR | Camlidere-ANKA | 1.11 | 325 | iP | Pg | 14 52 17.5 | -0.2 |
| CMDR | Camlidere-ANKA | 1.11 | 325 | P | Pg | 14 52 17.5 | -0.1 |
| KDHN | Kadinhani | 1.41 | 221 | iP | Pb | 14 52 23.1 | 0.0 |
| KDHN | | | | iS | Sg | 14 52 43.5 | +1.8 |
| KDHN | Kadinhani | 1.41 | 221 | P | Pb | 14 52 23.1 | 0.0 |
| KDHN | | | | S | Sg | 14 52 43.5 | +1.8 |
| CUSAR | Sarkisla-SIVAS | 2.28 | 93 | iP | Pb | 14 52 36.4 | -1.6 |
| CUSAR | Sarkisla-SIVAS | 2.28 | 93 | P | Pb | 14 52 36.4 | -1.6 |

**JMA 07 14:53:33.4±0.1, 37.43N×141.77E, h44km±3km, M3.7, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JFK | Kawauchi | 0.72 | 265 | P | Pn | 14 53 47.2 | 0.0 |
| JFK | | | | S | Sn | 14 53 56.8 | -0.3 |
| ONAJ | Iwakimizuishiy | 0.84 | 247 | P | Pn | 14 53 48.9 | 0.0 |
| ONAJ | | | | eS | Sn | 14 53 59.8 | -0.4 |
| JMM | Marumori | 0.89 | 300 | P | Pn | 14 53 49.4 | -0.1 |
| JMM | | | | eS | Sn | 14 54 01.2 | 0.0 |
| JIO | Ouri | 1.07 | 342 | P | Pn | 14 53 52.1 | +0.1 |
| JIO | | | | S | Sn | 14 54 05.1 | -0.7 |
| JFT | Otama | 1.14 | 275 | P | Pn | 14 53 53.9 | +0.9 |
| JFT | | | | S | Sn | 14 54 08.6 | +1.1 |
| JOU | Okura | 1.28 | 317 | P | Pn | 14 53 55.5 | +0.7 |
| JOU | | | | eS | Sn | 14 54 11.7 | +0.9 |
| JMK | Ichinoseki | 1.58 | 344 | P | Pn | 14 53 59.7 | +0.8 |
| JMK | | | | eS | Sn | 14 54 19.2 | +1.0 |
| JFY | Yanaizu | 1.64 | 270 | P | Pn | 14 54 00.9 | +1.1 |
| JFY | | | | eS | Sn | 14 54 21.2 | +1.4 |
| JYK | Kaneyama | 1.86 | 324 | P | Pn | 14 54 03.7 | +1.0 |
| MAT | Matsushiro | 2.99 | 254 | P | Pn | 14 54 21.0 | +2.7 |
| MAT | | | | eS | Sn | 14 54 56.8 | +3.9 |

*IDC 07 15:09:20.1±2.1, 1.02S×127.72E, h0km, mb3.4/2, mb1 3.5/3, mb1mx3.3/31, mbtmp3.3/3, ML3.1/1, Error ellipse: s-maj=161.3km s-min=25.9km az=67.0*

*ISCJB 07 15:09:25.8±0.9, 1.54S±0.06×126.43E±0.08, h33km, mb3.5/2, Error ellipse: s-maj=12.6km s-min=6.9km az=34.2*

*DJA 07 15:09:25.0±0.5, 2°S±4°×12°7E±°, h10km, M3.5/3, MLv3.5/3*

**ISC 07 15:09:26.7±1.1, 1.56S±0.07×126.44E±0.08, h35km, n6, σ0.68/9, Southern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SANI | Sanana | 0.66 | 222 | P | Pn | 15 09 39.3 | -0.3 |
| SANI | | | | S | Sn | 15 09 49.2 | +0.4 |
| LBMI | Labuha | 1.40 | 49 | P | Pn | 15 09 49.4 | -0.4 |
| LBMI | | | | S | Sn | 15 10 07.6 | +0.5 |
| NLAI | Namlea | 1.80 | 158 | P | Pn | 15 09 55.2 | 0.0 |
| NLAI | | | | S | Sn | 15 10 17.6 | +0.7 |
| WRA | Warramunga Arr | 19.84 | 158 | P | P | 15 13 53.7 | -1.0 |
| | 0.1nm,0.3s,baz=340,slow=12,SNR=7.4 | | | | | | |
| ASAR | Alice Springs | 23.14 | 162 | P | P | 15 14 29.6 | -0.4 |
| | 0.7nm,0.7s,baz=340,slow=10,SNR=11 | | | | | | |
| MKAR | Makanchi Array | 61.75 | 327 | P | P | 15 19 42.3 | +0.5 |
| | 0.3nm,0.4s,baz=107,slow=7.9,SNR=6.3 | | | | | | |

**IDC 07 15:09:52.4±28.0, 17.11S×176.55W, h257km±224km, mb2.7/3, mb1 3.0/3, mb1mx2.9/28, mbtmp3.3/3, Error ellipse: s-maj=281.9km s-min=54.6km az=134.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 46.52 | 259 | P | P | 15 17 54.3 | -0.4 |
| | 0.2nm,0.8s,baz=96,slow=7.7,SNR=1.3 | | | | | | |
| WRA | | | | PcP | PcP | 15 19 24.5 | -0.1 |
| | 0.6nm,1.1s,baz=92,slow=3.8,SNR=2.2 | | | | | | |
| ASAR | Alice Springs | 46.71 | 253 | P | P | 15 17 56.3 | +0.1 |
| | 0.4nm,0.5s,baz=91,slow=7.7,SNR=3.7 | | | | | | |
| ILAR | Eielson Array | 84.73 | 12 | P | P | 15 21 57.1 | 0.0 |
| | 0.2nm,0.5s,baz=226,slow=4.9,SNR=2.4 | | | | | | |
| BRTR | Keskin Array B | 145.45 | 317 | PKPbc | PKPdf | 15 28 59.7 | -0.5 |
| | 0.4nm,0.6s,baz=98,slow=2.9,SNR=2.3 | | | | | | |

*NEIC 07 15:11:30.8±0.0, 52.30N×172.42W, h138km, MG3.6(AEIC), After AEIC.*

*ISCJB 07 15:11:31.2±0.4, 52.7N±0.2×172.63W±0.09, h145km±4km, mb3.4/6, Error ellipse: s-maj=28.1km s-min=4.3km az=164.2*

*IDC 07 15:11:31.2±6.6, 52.58N×172.60W, h131km±62km, mb3.3/6, mb1 3.6/9, mb1mx3.3/43, mbtmp3.8/9, Error ellipse: s-maj=46.2km s-min=18.4km az=180.0*

**ISC 07 15:11:32.1±0.8, 52.6N±0.2×172.57W±0.06, h140km±7km, n34, σ0.83/35, mb3.5/6, Andreanof Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KOSE | Korovin Southe | 0.93 | 257 | P | Pn | 15 11 55.6 | +0.3 |
| KOSE | | | | S | Sn | 15 12 13.7 | +0.8 |
| KOFP | Korovin Flat P | 0.97 | 254 | P | Pn | 15 11 56.2 | +0.5 |
| KOKV | Korovin Volcan | 0.99 | 259 | P | Pn | 15 11 56.3 | +0.4 |
| KOKL | Mount Kliuchef | 1.02 | 257 | P | Pn | 15 11 56.6 | +0.4 |
| ATKA | Atka Island | 1.06 | 251 | P | Pn | 15 11 56.2 | -0.2 |
| ATKA | | | | S | Sn | 15 12 14.0 | -0.8 |
| GSTR | Great Sitkin T | 2.19 | 259 | P | Pn | 15 12 09.3 | +0.5 |
| GSTD | Great Sitkin T | 2.25 | 258 | P | Pn | 15 12 09.8 | +0.1 |
| GSTD | | | | S | Sn | 15 12 38.1 | -0.4 |
| NIKH | Nikolski High | 2.30 | 78 | P | Pn | 15 12 09.8 | -0.4 |
| NIKH | | | | S | Sn | 15 12 37.9 | -1.5 |
| ADAG | Mount Adagdak | 2.54 | 258 | P | Pn | 15 12 14.4 | +1.2 |
| ADK | Adak | 2.62 | 257 | P | Pn | 15 12 14.4 | +0.3 |
| ADK | | | | S | Sn | 15 12 45.3 | -1.1 |
| OKAK | Okmok | 2.74 | 66 | P | Pn | 15 12 15.2 | -0.4 |
| OKSO | Okmok South | 2.79 | 72 | P | Pn | 15 12 16.7 | +0.4 |
| OKSO | | | | S | Sn | 15 12 51.4 | +1.0 |
| OKTU | Okmok Mt. Tuli | 2.86 | 71 | P | Pn | 15 12 17.9 | +0.6 |
| KIKV | Kanaga Island | 2.91 | 258 | P | Pn | 15 12 17.6 | -0.3 |
| OKFG | Magazine Ridge | 2.94 | 71 | P | Pn | 15 12 19.1 | +0.9 |
| OKFG | | | | S | Sn | 15 12 55.0 | +1.1 |
| TAPA | Tanaga Point A | 3.31 | 259 | P | Pn | 15 12 23.1 | +0.1 |
| TAFP | Tanaga Falls P | 3.39 | 261 | P | Pn | 15 12 24.8 | +0.7 |
| MREP | Makushin Rep't | 3.72 | 68 | P | Pn | 15 12 29.2 | +0.8 |
| MSW | Makushin Switc | 3.73 | 66 | P | Pn | 15 12 28.1 | -0.4 |
| KDAK | Kodiak Island | 12.54 | 57 | P | Pn | 15 14 23.7 | -1.8 |
| | 0.3nm,0.3s,baz=280,slow=6.1,SNR=3.4 | | | | | | |
| KDAK | | | | S | Sn | 15 16 31.2 | -13 |
| | 0.3nm,0.3s,baz=317,slow=13,SNR=2.0 | | | | | | |
| PETK | Petropavlovsk- | 17.91 | 284 | P | P | 15 15 32.4 | +1.5 |
| | 0.3nm,0.3s,baz=92,slow=13,SNR=12 | | | | | | |
| ILAR | Eielson Array | 17.94 | 37 | P | P | 15 15 30.2 | -0.8 |
| | 0.2nm,0.3s,baz=218,slow=9.1,SNR=18 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 36.45 | 214 | T | T | 15 56 49.5 | |
| | baz=21,slow=75,SNR=2.4 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 36.46 | 214 | T | T | 15 56 50.3 | |
| | baz=21,slow=75,SNR=2.6 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 36.47 | 214 | T | T | 15 56 45.9 | |
| | baz=21,slow=75,SNR=1.9 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 37.65 | 213 | T | T | 15 58 02.4 | |
| | baz=19,slow=76,SNR=4.9 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 37.67 | 213 | T | T | 15 58 05.1 | |
| | baz=19,slow=76,SNR=5.5 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 37.67 | 213 | T | T | 15 58 03.3 | |
| | baz=19,slow=76,SNR=2.7 | | | | | | |
| PDAR | Pinedale Array | 42.28 | 77 | P | P | 15 19 12.2 | +0.4 |
| | 0.7nm,0.7s,baz=298,slow=4.9,SNR=5.1 | | | | | | |
| TXAR | Lajitas Array | 54.70 | 87 | P | P | 15 20 47.2 | +0.5 |
| | 0.8nm,0.8s,baz=298,slow=4.3,SNR=8.7 | | | | | | |
| MKAR | Makanchi Array | 62.23 | 311 | P | P | 15 21 37.6 | -1.0 |
| | 0.2nm,0.3s,baz=46,slow=6.0,SNR=4.2 | | | | | | |
| CMAR | Chiang Mai Arr | 74.66 | 280 | P | P | 15 22 56.8 | +0.7 |
| | 0.4nm,0.6s,baz=25,slow=7.5,SNR=5.6 | | | | | | |
| WRA | Warramunga Arr | 85.62 | 229 | P | P | 15 23 53.7 | -0.9 |
| | 0.3nm,0.9s,baz=31,slow=6.0,SNR=4.1 | | | | | | |
| ASAR | Alice Springs | 89.05 | 228 | P | P | 15 24 11.1 | +0.1 |
| | 0.8nm,0.8s,baz=48,slow=3.7,SNR=6.2 | | | | | | |

*IDC 07 15:11:35.7±2.3, 0.92S×127.96E, h0km, mb3.4/2, mb1 3.5/3, mb1mx3.3/29, mbtmp3.3/3, ML3.0/1, Error ellipse: s-maj=168.7km s-min=27.9km az=67.0*

*DJA 07 15:11:40.7±0.5, 2°S±4°×12°7E±°, h10km, M3.3/3, MLv3.3/3*

*ISCJB 07 15:11:41.6±0.9, 1.52S±0.06×126.44E±0.08, h33km, mb3.5/2, Error ellipse: s-maj=12.7km s-min=6.9km az=34.3*

**ISC 07 15:11:42.5±1.1, 1.54S±0.07×126.44E±0.08, h35km, n6, σ0.73/9, Southern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SANI | Sanana | 0.68 | 222 | P | Pn | 15 11 55.2 | -0.4 |
| SANI | | | | S | Sn | 15 12 05.3 | +0.3 |
| LBMI | Labuha | 1.39 | 50 | P | Pn | 15 12 05.0 | -0.3 |
| LBMI | | | | S | Sn | 15 12 22.8 | +0.3 |
| NLAI | Namlea | 1.81 | 159 | P | Pn | 15 12 11.1 | 0.0 |
| NLAI | | | | S | Sn | 15 12 33.6 | +0.8 |
| WRA | Warramunga Arr | 19.85 | 158 | P | P | 15 16 09.4 | -1.2 |
| | 0.1nm,0.3s,baz=341,slow=12,SNR=3.0 | | | | | | |
| ASAR | Alice Springs | 23.15 | 162 | P | P | 15 16 45.6 | -0.3 |
| | 0.9nm,0.7s,baz=340,slow=9.9,SNR=7.3 | | | | | | |
| MKAR | Makanchi Array | 61.75 | 327 | P | P | 15 21 58.2 | +0.7 |
| | 0.3nm,0.5s,baz=121,slow=7.6,SNR=4.2 | | | | | | |

**JMA 07 15:32:57.2±0.3, 38.63N×143.05E, h16km±5km, M3.5, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JIO | Ouri | 1.34 | 263 | P | Pn | 15 33 21.2 | -0.1 |
| JIO | | | | S | Sn | 15 33 37.9 | -0.9 |
| JMK | Ichinoseki | 1.47 | 283 | P | Pn | 15 33 23.3 | +0.3 |
| JMK | | | | S | Sb | 15 33 42.3 | -0.2 |
| JOU | Okura | 1.89 | 263 | P | Pn | 15 33 29.8 | +1.0 |
| JOU | | | | S | Sb | 15 33 54.2 | -0.5 |
| JMM | Marumori | 1.93 | 247 | P | Pn | 15 33 29.8 | +0.4 |
| JMM | | | | S | Sb | 15 33 54.7 | -1.2 |
| JYK | Kaneyama | 2.12 | 279 | P | Pb | 15 33 34.4 | -0.9 |
| JFK | Kawauchi | 2.13 | 234 | P | Pn | 15 33 32.7 | +0.5 |
| ONAJ | Iwakimizuishiy | 2.35 | 230 | P | Pn | 15 33 35.6 | +0.5 |
| JYS | Shirataka | 2.38 | 261 | P | Pn | 15 33 36.0 | +0.5 |

**JMA 07 15:52:30.2, 37.01N×140.52E, h7km±1km, M3.0, Eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ONAJ | Iwakimizuishiy | 0.24 | 68 | P | Pg | 15 52 35.2 | +0.2 |
| ONAJ | | | | S | Sg | 15 52 38.6 | +0.4 |
| JHO | Hitachi | 0.40 | 174 | P | Pg | 15 52 37.9 | -0.1 |
| JHO | | | | S | Sg | 15 52 43.5 | +0.3 |
| JFK | Kawauchi | 0.46 | 38 | P | Pg | 15 52 39.0 | 0.0 |
| JFK | | | | S | Sg | 15 52 45.1 | +0.1 |
| JFT | Otama | 0.53 | 344 | P | Pg | 15 52 40.7 | +0.3 |
| JFT | | | | S | Sg | 15 52 47.7 | +0.4 |
| JFY | Yanaizu | 0.76 | 302 | P | Pg | 15 52 45.0 | +0.1 |
| JFY | | | | S | Sg | 15 52 54.9 | +0.1 |
| MAT | Matsushiro | 1.92 | 257 | P | Pb | 15 53 04.5 | -1.0 |
| MAT | | | | S | Sb | 15 53 29.8 | +0.2 |

*NIED 07 16:12:00, 37.60N×137.40E, h5km, Mw3.8 Best double couple: M0 6.03000×10^14 NP1:φs265.00000°, δ43.00000°, λ93.00000°. NP2:φs81.00000°, δ47.00000°, λ87.00000°.*

*IDC 07 16:12:29.7±0.8, 37.56N×137.43E, h0km, mb3.7/8, mb1 3.9/12, mb1mx3.7/47, mbtmp3.7/12, ML3.2/4, Error ellipse: s-maj=20.8km s-min=10.7km az=59.0*

*ISCJB 07 16:12:30.1±0.6, 37.59N±0.03×137.34E±0.04, h11km±4km, mb3.7/8, Error ellipse: s-maj=5.9km s-min=4.5km az=153.6*

*JMA 07 16:12:30.6, 37.58N×137.33E, h10km, M3.9 Broadband fault plane solution: P waves. NP1:φs215.00000°, δ75.00000°, λ68.00000°. NP2:φs94.00000°, δ27.00000°, λ146.00000°. Principal axes: T Plg54.0000°, Azm98.0000°; N Plg22.0000°, Azm221.0000°; P Plg27.0000°, Azm323.0000°;*

*JMA Felt III J1.*

**ISC 07 16:12:30.9±1.0, 37.57N±0.03×137.40E±0.04, h8km±7km, n20, σ0.91/27, mb3.7/8, 1C-4D, Near west coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JSZ | Suzu | 0.12 | 193 | ⇓P | Pg | 16 12 33.7 | +0.1 |
| JSZ | | | | S | Sg | 16 12 36.1 | +0.6 |
| JHG | Hegura jima | 0.47 | 307 | ⇓P | Pg | 16 12 39.1 | -1.0 |
| JHG | | | | S | Sg | 16 12 45.0 | -1.3 |
| JJN | Nakama | 0.77 | 127 | P | Pb | 16 12 46.2 | -0.3 |
| JJN | | | | S | Sb | 16 12 57.2 | +0.2 |
| JJH | Hakui | 0.81 | 218 | ⇓P | Pg | 16 12 45.6 | -0.8 |
| JJH | | | | S | Sg | 16 12 56.6 | -0.3 |
| JSD | Sado | 0.83 | 55 | ⇑P | Pg | 16 12 46.7 | -0.2 |
| JSD | | | | S | Sb | 16 12 58.7 | -0.2 |
| JTT | Ttatey | 0.96 | 183 | ⇓P | Pg | 16 12 48.7 | -0.7 |
| JTT | | | | S | Sb | 16 13 02.1 | -0.5 |
| MAT | Matsushiro | 1.21 | 147 | P | Pg | 16 12 52.9 | -1.2 |
| MAT | | | | S | Sb | 16 13 09.9 | +0.1 |
| MJAR | Matsushiro Arr | 1.21 | 147 | Pg | Pb | 16 12 53.7 | -0.4 |
| | 43nm,0.3s,baz=317,slow=16,SNR=173 | | | | | | |
| MJAR | | | | Lg | Lg | 16 13 10.7 | |
| | 106nm,0.3s,baz=325,slow=27,SNR=15 | | | | | | |
| JNU | Nakatsue | 6.93 | 232 | Pn | Pn | 16 14 14.0 | +1.2 |
| | 0.8nm,0.3s,baz=56,slow=1.9,SNR=11 | | | | | | |
| KSRS | Korea Array | 7.53 | 272 | Pn | Pn | 16 14 21.9 | +0.9 |
| | 1.6nm,0.3s,baz=88,slow=14,SNR=21 | | | | | | |
| ASAJ | Asahikawa | 7.64 | 29 | Pn | Pn | 16 14 22.8 | +0.4 |
| | 0.2nm,0.3s,baz=304,slow=26,SNR=1.7 | | | | | | |
| USRK | Ussuriysk Ar. | 7.79 | 330 | Pn | Pn | 16 14 25.7 | +1.2 |
| | 0.5nm,0.3s,baz=145,slow=13,SNR=6.6 | | | | | | |
| SONM | Songino Array | 24.84 | 304 | P | P | 16 17 55.5 | +1.7 |
| | 2.1nm,0.8s,baz=103,slow=9.6,SNR=9.4 | | | | | | |
| ZALV | Zalesovo Beam | 39.19 | 312 | P | P | 16 20 00.2 | +1.2 |
| | 0.4nm,0.5s,baz=116,slow=6.8,SNR=3.6 | | | | | | |
| MKAR | Makanchi Array | 41.11 | 301 | P | P | 16 20 13.7 | -1.6 |
| | 0.5nm,0.7s,baz=98,slow=7.9,SNR=1.6 | | | | | | |
| ILAR | Eielson Array | 50.76 | 32 | P | P | 16 21 30.6 | -0.5 |
| | 0.4nm,0.9s,baz=271,slow=7.1,SNR=2.2 | | | | | | |
| WRA | Warramunga Arr | 57.27 | 183 | P | P | 16 22 18.1 | -1.0 |
| | 3.1nm,0.7s,baz=359,slow=7.6,SNR=74 | | | | | | |
| ASAR | Alice Springs | 60.99 | 184 | P | P | 16 22 44.1 | -0.6 |
| | 1.0nm,0.7s,baz=13,slow=14,SNR=22 | | | | | | |
| PDAR | Pinedale Array | 79.53 | 44 | P | P | 16 24 38.2 | -0.3 |
| | 0.5nm,0.7s,baz=270,slow=2.2,SNR=5.5 | | | | | | |
| TXAR | Lajitas Array | 92.28 | 50 | P | P | 16 25 42.3 | +0.4 |
| | 0.2nm,0.5s,baz=307,slow=3.3,SNR=2.5 | | | | | | |

**WEL 07 16:20:16.6±0.4, 35.98S×178.89E, h192km±4km, ML3.6/9, 2D, Error ellipse: s-maj=8.0km s-min=6.3km az=90.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WMGZ | Waiomatatini S | 1.88 | 192 | PN | Pn | 16 20 53.2 | 0.0 |
| HAZ | Te Kaha | 1.98 | 206 | PN | Pn | 16 20 54.5 | +0.2 |
| HAZ | | | | AML | AML | 16 20 57.0 | |
| HAZ | | | | AML | AML | 16 24 42.0 | |
| PKGZ | Pakihiroa | 2.02 | 199 | PN | Pn | 16 20 54.6 | -0.1 |
| PKGZ | | | | SN | Sn | 16 21 23.1 | -1.4 |
| PUZ | Puketiti | 2.15 | 193 | ⇓PN | Pn | 16 20 55.9 | -0.2 |
| RUGZ | Raukumara Rang | 2.21 | 206 | PN | Pn | 16 20 56.7 | -0.1 |
| RUGZ | | | | SN | Sn | 16 21 28.0 | -0.3 |
| TWGZ | Tauwhareparae | 2.31 | 198 | PN | Pn | 16 20 58.9 | +1.0 |
| TWGZ | | | | AML | AML | 16 21 32.6 | |
| TWGZ | | | | AML | AML | 16 21 33.3 | |
| CNGZ | Carnagh Statio | 2.56 | 192 | PN | Pn | 16 21 01.1 | +0.5 |
| MWZ | Matawai | 2.59 | 204 | PN | Pn | 16 21 01.6 | +0.5 |
| URZ | Urewera | 2.68 | 211 | PN | Pn | 16 21 02.3 | +0.2 |
| RIGZ | Rimuhau | 2.87 | 198 | PN | Pn | 16 21 04.6 | +0.4 |
| SNGZ | Shannon Statio | 3.06 | 203 | PN | Pn | 16 21 07.5 | +1.0 |
| KNZ | Kokohu | 3.19 | 197 | PN | Pn | 16 21 08.2 | +0.2 |
| MTHZ | Maungataniwha | 3.30 | 209 | PN | Pn | 16 21 10.5 | +1.1 |
| MRHZ | Matea Rd | 3.46 | 214 | PN | Pn | 16 21 08.4 | -3.0 |
| NMHZ | Naumai | 3.53 | 207 | PN | Pn | 16 21 13.2 | +1.0 |
| ARHZ | Aropaoanui | 3.61 | 204 | PN | Pn | 16 21 13.7 | +0.6 |
| BKZ | Black Stump Fm | 3.71 | 210 | PN | Pn | 16 21 14.8 | +0.4 |
| MCHZ | McNeill Hill | 3.87 | 206 | PN | Pn | 16 21 17.2 | +0.7 |
| OTVZ | Oturere | 4.08 | 218 | ⇓PN | Pn | 16 21 20.7 | +1.4 |
| KAHZ | Kahuranaki | 4.13 | 202 | PN | Pn | 16 21 20.2 | +0.5 |
| BHHZ | Black Hill Sta | 4.16 | 212 | PN | Pn | 16 21 20.6 | +0.5 |
| KRHZ | Kereru | 4.17 | 208 | PN | Pn | 16 21 20.1 | -0.1 |
| PXZ | Pawanui | 4.35 | 201 | PN | Pn | 16 21 21.9 | -0.6 |

**MEX 07 16:21:01.5±0.4, 16.12N×97.07W, h16km±6km, MD3.8, Oaxaca**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| HUIG | Huatulco | 0.99 | 111 | eP | Pb | 16 21 16.8 | -3.4 |
| HUIG | | | | eS | Sb | 16 21 28.7 | -4.4 |
| VHO | Vista Hermosa | 1.00 | 19 | eP | Pb | 16 21 17.1 | -3.5 |
| VHO | | | | eS | Sb | 16 21 29.6 | -4.0 |
| PNIG | Pinotepa | 1.05 | 285 | eP | Pb | 16 21 18.4 | -3.0 |
| PNIG | | | | eS | Sb | 16 21 30.5 | -4.4 |
| CMIG | Matias Romero | 2.31 | 65 | eP | Pn | 16 21 36.1 | -2.8 |
| CMIG | | | | eS | Sn | 16 22 03.2 | -3.8 |

*SJA 07 16:21:46.9±0.9, 28.27S×71.75W, h2km±10km, ML4.3, MW4.0*

*BJI 07 16:21:55.1, 28.60S×71.20W, h25km, mB5.3/4, Ms5.2/3, Ms7 4.9/2*

*NEIC 07 16:21:56.9±0.3, 28.60S×71.19W, mb4.5/13, Error ellipse: s-maj=9.5km s-min=5.6km az=72.0*

*NEIC Felt [V] at Vallenar; [IV] at Freirina and Huasco; [III] at Alto del Carmen.*

*GUC 07 16:21:57.5±0.7, 28.64S×70.98W, h59km±3km, ML4.2*

*ISCJB 07 16:21:57.1±0.9, 28.46S±0.04×71.32W±0.09, h50km±8km, mb4.3/21, MS4.2/2, Error ellipse: s-maj=12.7km s-min=5.7km az=9.6*

*IDC 07 16:21:57.3±0.7, 28.70S×71.21W, h44km±5km, mb4.0/8, mb1 4.0/10, mb1mx3.9/26, mbtmp4.1/10, ML3.8/2, MS3.4/4, Ms1 3.4/4, ms1mx3.2/17, Error ellipse: s-maj=23.7km s-min=20.9km az=44.0*

**ISC 07 16:21:56.6±0.6, 28.52S±0.05×71.38W±0.07, h42km±5km, n74, σ1.99/84, mb4.4/21, 2D, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VACH | Vallenar | 0.55 | 96 | iP | Pn | 16 22 07.6 | -0.5 |
| VACH | | | | iS | Sn | 16 22 14.8 | -1.4 |
| LCO | Las Campanas | 0.77 | 130 | ePn | Pn | 16 22 10.7 | -0.6 |
| LCO | Las Campanas | 0.77 | 130 | ⇓iP | Pn | 16 22 10.7 | -0.6 |
| LCO | | | | iS | Sn | 16 22 19.8 | -2.2 |
| LCO | | | | IAML | | 16 22 21.5 | |
| | comp=N,27µm,0.6s | | | | | | |
| GO03 | Copiap | 1.37 | 48 | ⇓iP | Pn | 16 22 19.7 | +0.4 |
| GO03 | | | | iS | Sn | 16 22 37.3 | +1.1 |
| GO03 | | | | IAML | | 16 22 39.0 | |
| | comp=N,5µm,0.5s | | | | | | |
| TLL | Tololo Astrono | 1.72 | 163 | iP | Pn | 16 22 24.6 | +0.3 |
| TLL | | | | iS | Sn | 16 22 45.3 | +0.1 |
| TLL | | | | IAML | | 16 22 59.0 | |
| | comp=E,6µm,0.5s | | | | | | |
| AROD | Rodeo | 2.34 | 135 | eP | Pn | 16 22 35.4 | +2.5 |
| AGUA | GUANDACOL | 2.71 | 112 | eP | Pn | 16 22 40.4 | +2.7 |
| VCA | Vinchina | 2.80 | 95 | eP | Pn | 16 22 41.2 | +2.2 |
| VCA | | | | IAML | | 16 23 03.7 | |
| | comp=Z,662nm,0.5s | | | | | | |
| ACCO | Cerro Coronel | 2.88 | 136 | eP | Pn | 16 22 43.3 | +3.0 |
| ACCO | | | | eS | Sn | 16 23 25.2 | +11 |
| AMOG | MOGNA | 3.48 | 135 | eP | Pn | 16 22 50.9 | +2.6 |
| RTLS | Leoncito | 3.73 | 152 | eP | Pn | 16 22 55.0 | +3.0 |
| RTLS | | | | eS | Sn | 16 23 45.2 | +10 |
| RTLL | Cerro Villicun | 3.77 | 139 | eP | Pn | 16 22 55.2 | +3.0 |
| RTLL | Cerro Villicun | 3.77 | 139 | iP | Pn | 16 22 54.5 | +2.3 |
| RTLL | | | | iS | Sn | 16 23 39.9 | +4.5 |
| AANI | Anillaco | 3.91 | 95 | eP | Pn | 16 22 56.9 | +2.5 |
| ACLC | CERRO LA CRUZ | 3.98 | 104 | eP | Pn | 16 22 58.5 | +3.2 |
| AUSP | Uspallata | 4.07 | 156 | eP | Pn | 16 22 59.7 | +3.0 |
| RTCV | Cerro Valdivia | 4.14 | 144 | eP | Pn | 16 23 00.4 | +3.0 |
| RTCV | | | | eS | Sn | 16 23 54.7 | +10 |
| ROC1 | El Roble | 4.46 | 176 | ePn | Pn | 16 23 01.4 | -0.5 |
| ASAL | Salagasta | 4.61 | 152 | eP | Pn | 16 23 06.9 | +2.9 |
| PEL | Peldehue | 4.65 | 173 | ePn | Pn | 16 23 02.9 | -1.5 |
| CYA | Choya | 4.91 | 90 | eP | Pn | 16 23 09.1 | +1.2 |
| CYA | | | | eP | Pn | 16 23 09.2 | +1.2 |
| CYA | | | | IAML | | 16 23 13.6 | |
| | comp=Z,174nm,0.6s | | | | | | |
| AAGR | Agrelo | 5.05 | 155 | eP | Pn | 16 23 12.9 | +3.0 |
| ACAN | Cantantal | 5.21 | 137 | eP | Pn | 16 23 15.2 | +3.2 |
| FSA | Cafayete | 5.37 | 65 | eP | Pn | 16 23 15.2 | +0.8 |
| AHML | Horco Molle | 5.63 | 74 | eP | Pn | 16 23 19.3 | +1.4 |
| GO05 | HualaæØ | 6.49 | 184 | ePn | Pn | 16 23 27.0 | -2.6 |
| AZAP | Zapla | 7.09 | 54 | eP | Pn | 16 23 38.1 | 0.0 |
| HJA | Humahuaca | 7.54 | 47 | eP | Pn | 16 23 43.7 | -0.7 |
| ALOL | LOMAS DE OLMED | 8.13 | 56 | eP | Pn | 16 23 51.6 | -0.5 |
| PLCA | Paso Flores | 12.21 | 177 | P | Pn | 16 24 51.4 | +3.5 |
| | comp=Z,0.1nm,0.3s,baz=346,slow=12,SNR=2.6 | | | | | | |
| PLCA | | | | LR | LR | 16 29 09.1 | |
| | comp=Z,146nm,19.7s,baz=23,slow=36 | | | | | | |
| TRQA | Tornquist | 12.33 | 143 | ePn | Pn | 16 24 48.5 | -1.1 |
| LPAZ | La Paz | 12.54 | 15 | P | Pn | 16 24 57.0 | +4.0 |
| | comp=Z,0.2nm,0.3s,baz=182,slow=7.5,SNR=8.2 | | | | | | |
| LPAZ | | | | LR | LR | 16 30 26.5 | |
| | comp=Z,124nm,19.7s,baz=206,slow=40 | | | | | | |
| LPAZ | La Paz | 12.54 | 15 | ePn | Pn | 16 24 52.6 | -0.4 |
| CPUP | Villa Florida | 12.67 | 83 | P | Pn | 16 24 53.3 | -0.9 |
| | comp=Z,0.2nm,0.3s,baz=256,slow=11,SNR=5.2 | | | | | | |
| CPUP | | | | LR | LR | 16 30 26.4 | |
| | comp=Z,206nm,18.4s,baz=248,slow=41 | | | | | | |
| CPUP | Villa Florida | 12.67 | 83 | ePn | Pn | 16 24 50.6 | -3.6 |
| BDFB | Brasilia | 25.10 | 64 | P | P | 16 27 18.6 | +0.9 |
| | comp=Z,1.4nm,0.4s,baz=308,slow=12,SNR=2.8 | | | | | | |
| SNAA | Sanae | 56.47 | 159 | P | P | 16 31 33.5 | -0.5 |
| | comp=Z,2.6nm,0.7s,baz=268,slow=10.0,SNR=7.7 | | | | | | |
| QSPA | South Pole Qui | 61.70 | 180 | eP | P | 16 32 10.4 | 0.0 |
| | comp=Z,13nm,1.6s | | | | | | |
| TXAR | Lajitas Array | 65.29 | 329 | P | P | 16 32 36.4 | +1.9 |
| | comp=Z,0.8nm,0.8s,baz=150,slow=9.1,SNR=7.8 | | | | | | |
| MNTX | Cornudas Mount | 68.07 | 329 | eP | P | 16 32 52.5 | +0.5 |
| | comp=Z,2.8nm,1.0s | | | | | | |
| MSTX | Muleshoe | 68.89 | 332 | eP | P | 16 32 58.6 | +1.4 |
| | comp=Z,7.1nm,1.1s | | | | | | |
| DBIC | Dimbokro | 72.93 | 72 | P | P | 16 33 21.9 | -0.2 |
| | comp=Z,5.8nm,1.0s,baz=244,slow=11,SNR=3.3 | | | | | | |
| DBIC | | | | pP | pP | 16 33 33.9 | -0.5 |
| | comp=Z,6.6nm,1.0s,baz=205,slow=4.3,SNR=3.4 | | | | | | |
| SDCO | Great Sand Dun | 73.26 | 332 | eP | P | 16 33 26.0 | +2.2 |
| | comp=Z,12nm,1.9s | | | | | | |
| SMCO | Snowmass | 75.09 | 332 | eP | P | 16 33 36.4 | +1.8 |
| | comp=Z,7.3nm,1.2s | | | | | | |
| ECSD | EROS Data Cent | 75.53 | 341 | eP | P | 16 33 37.4 | +0.8 |
| | comp=Z,8.6nm,0.9s | | | | | | |
| CCUT | Cedar City | 76.61 | 327 | eP | P | 16 33 43.3 | +0.2 |
| | comp=Z,2.5nm,1.0s | | | | | | |
| P18A | Preston Nutter | 76.85 | 330 | eP | P | 16 33 46.1 | +1.6 |
| | comp=Z,5.0nm,0.9s | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PDAR** | **Pinedale Array** | **79.16** | **332** | P | **P** | **16 33 59.1** | **+1.9** |
| | comp=Z,0.8nm,0.6s,baz=151,slow=3.4,SNR=4.4 | | | | | | |
| PDAR | | | | LR | LR | 17 08 57.7 | |
| | comp=Z,30nm,18.6s,baz=265,slow=36 | | | | | | |
| **HVU** | **Hansel Valley** | **79.72** | **330** | *e*P | **P** | **16 34 01.6** | **+1.5** |
| | comp=Z,3.6nm,0.8s | | | | | | |
| **YHH** | **Holmes Hill** | **81.36** | **333** | *e*P | **P** | **16 34 11.4** | **+2.4** |
| | comp=Z,5.0nm,1.1s | | | | | | |
| **ULM** | **Lac du Bonnet** | **81.38** | **344** | P | **P** | **16 34 09.1** | **+0.5** |
| | comp=Z,4.3nm,0.8s,baz=220,slow=4.9,SNR=4.6 | | | | | | |
| **TOA0** | **Torodi Ar. Sit** | **81.82** | **70** | *e*P | **P** | **16 34 10.8** | **-1.0** |
| **TORD** | **Torodi Ar. Bea** | **81.82** | **70** | P | **P** | **16 34 11.6** | **-0.2** |
| | comp=Z,3.2nm,0.8s,baz=254,slow=4.8,SNR=15 | | | | | | |
| TORD | | | | pP | **pP** | **16 34 23.9** | **-0.4** |
| | comp=Z,2.3nm,0.7s,baz=249,slow=4.5,SNR=7.2 | | | | | | |
| **HLID** | **Hailey** | **81.87** | **330** | *e*P | **P** | **16 34 13.1** | **+1.5** |
| | comp=Z,3.9nm,1.0s | | | | | | |
| **BOSA** | **Boshof** | **82.13** | **118** | P | **P** | **16 34 12.4** | **-1.0** |
| | comp=Z,1.4nm,0.7s,baz=249,slow=8.6,SNR=2.8 | | | | | | |
| **J08A** | **Circle Bar Ran** | **83.57** | **327** | *e*P | **P** | **16 34 22.4** | **+2.1** |
| | comp=Z,4.7nm,0.8s | | | | | | |
| **HAWA** | **Hanford** | **86.36** | **329** | *e*P | **P** | **16 34 34.9** | **+0.7** |
| | comp=Z,4.6nm,0.6s | | | | | | |
| **ASAR** | **Alice Springs** | **122.68** | **208** | PKP | **PKPdf** | **16 40 48.0** | **-0.6** |
| | comp=Z,0.5nm,0.8s,baz=136,slow=1.3,SNR=7.4 | | | | | | |
| ASAR | | | | pPKP | **pPKPdf** | **16 41 02.2** | **+0.7** |
| | comp=Z,0.5nm,0.7s,baz=139,slow=1.7,SNR=3.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **125.79** | **210** | PKP | **PKPdf** | **16 40 54.6** | **+0.1** |
| | comp=Z,1.3nm,0.8s,baz=164,slow=1.7,SNR=15 | | | | | | |
| WRA | | | | pPKP | **pPKPdf** | **16 41 08.2** | **+0.6** |
| | comp=Z,1.1nm,0.6s,baz=154,slow=1.6,SNR=7.7 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **126.25** | **273** | T | T | 19 00 00.9 | |
| | baz=112,slow=75,SNR=15 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **126.26** | **273** | T | T | 19 00 01.5 | |
| | baz=112,slow=75,SNR=20 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **126.26** | **273** | T | T | 19 00 00.3 | |
| | baz=112,slow=75,SNR=18 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **126.52** | **274** | T | T | 19 00 18.9 | |
| | baz=121 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **126.53** | **274** | T | T | 19 00 21.5 | |
| | baz=121 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **126.54** | **274** | T | T | 19 00 23.7 | |
| | baz=121 | | | | | | |
| **YAK** | **Yakutsk** | **143.71** | **343** | PKP | PKPbc | 16 41 24.7 | +0.7 |
| | comp=Z,2.7nm,0.3s,baz=58,slow=0.9,SNR=4.8 | | | | | | |
| **KAPI** | **Kappang** | **144.98** | **200** | *e*PKPdf | **PKPdf** | **16 41 30.5** | **+0.3** |
| **AAK** | **Ala-Archa** | **149.10** | **54** | *e*PKPbc | **PKPbc** | **16 41 41.5** | **+1.0** |
| **ZALV** | **Zalesovo Beam** | **149.21** | **28** | PKP | **PKPdf** | **16 41 36.5** | **+0.6** |
| | comp=Z,11nm,0.8s,baz=316,slow=4.0,SNR=7.3 | | | | | | |
| ZALV | | | | PKPbc | **PKPbc** | **16 41 40.9** | **+0.7** |
| | comp=Z,8.5nm,0.7s,baz=299,slow=3.6,SNR=38 | | | | | | |
| ZALV | | | | pPKPbc | **sPKPbc** | **16 41 54.9** | **-2.9** |
| | comp=Z,6.1nm,0.8s,baz=299,slow=3.3,SNR=6.5 | | | | | | |
| **KSH** | **Kashi** | **150.94** | **59** | *e*PKPbc | **PKPdf** | **16 41 37.3** | **-2.0** |
| KSH | | | | pPKP | PKiKP | 16 41 48.7 | +3.0 |
| KSH | | | | PP | **PP** | **16 45 24.7** | **+1.6** |
| KSH | | | | SKS | **SKSdf** | **16 48 39.7** | **-4.1** |
| KSH | | | | SKKS | **SKKSac** | **16 52 07.5** | **-3.0** |
| KSH | | | | SS | **SS** | **17 04 37.4** | **-5.0** |
| KSH | | | | AMB | AMB | | |
| | comp=Z,160nm,5.3s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,49nm,4.8s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,60nm,3.8s | | | | | | |
| **MKAR** | **Makanchi Array** | **152.50** | **41** | PKPbc | **PKPbc** | **16 41 48.7** | **+0.5** |
| | comp=Z,3.1nm,0.7s,baz=316,slow=2.3,SNR=13 | | | | | | |
| MKAR | | | | pPKPbc | **pPKPbc** | **16 42 02.3** | **+1.0** |
| | comp=Z,2.8nm,0.7s,baz=321,slow=2.4,SNR=6.9 | | | | | | |
| **WMQ** | **Urumqi** | **157.32** | **42** | *e*PKP | **PKPdf** | **16 41 48.5** | **+0.4** |
| WMQ | | | | AMB | AMB | | |
| | comp=Z,320nm,7.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,76nm,22.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,170nm,19.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,51nm,16.1s | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **167.46** | **350** | *e*PKP | **PKPdf** | **16 41 57.4** | **-0.9** |
| **NJ2** | **Nanjing** | **170.48** | **294** | *e*PKP | **PKPdf** | **16 42 00.1** | **-0.2** |

**JMA 07 16:27:01.6, 37°.01N×140°.53E, h6km±1km, M2.7, Eastern Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ONAJ** | **Iwakimizuishiy** | **0.23** | **67** | P | Pg | 16 27 06.6 | +0.4 |
| ONAJ | | | | S | Sg | 16 27 09.9 | +0.6 |
| **JHO** | **Hitachi** | **0.40** | **175** | P | Pg | 16 27 09.4 | +0.1 |
| JHO | | | | S | Sg | 16 27 15.0 | +0.4 |
| **JFK** | **Kawauchi** | **0.45** | **38** | P | Pg | 16 27 10.5 | +0.2 |
| JFK | | | | S | Sg | 16 27 16.5 | +0.3 |
| **JFT** | **Otama** | **0.53** | **343** | P | Pg | 16 27 12.1 | +0.3 |
| JFT | | | | S | Sg | 16 27 19.3 | +0.5 |
| **JFY** | **Yanaizu** | **0.77** | **301** | P | Pg | 16 27 16.5 | +0.1 |
| JFY | | | | S | Sg | 16 27 26.4 | 0.0 |
| **MAT** | **Matsushiro** | **1.92** | **257** | P | Pb | 16 27 36.0 | -1.1 |
| MAT | | | | S | Sb | 16 28 01.4 | +0.1 |

*ISCJB **07** 16:30:19.4±0.5, 58°.72N±0°.05×154°.8W±0°.1, h145km±5km, mb3.3/3, Error ellipse: s-maj=9.4km s-min=6.4km az=33.5*
*NEIC **07** 16:30:22.3±0.0, 58°.74N×154°.83W, h129km, MG2.9(AEIC), After AEIC.*
*IDC **07** 16:30:27.4±9.8, 59°.45N×154°.84W, h170km±88km, mb3.1/3, mb1 3.3/4, mb1mx3.0/36, mbtmp3.6/4, Error ellipse: s-maj=86.4km s-min=26.4km az=32.0*
**ISC 07 16:30:21.0**±0.9, **58°.79N**±0°.05×**154°.86W**±0°.06, **h134**km±7km, **n52**, σ**1s.22**/57, **mb3.6**/3, **Alaska Peninsula**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KAHC** | **Katmai Hardscr** | **0.16** | **208** | P | **Pn** | **16 30 39.0** | **-0.4** |
| **KAPH** | **Katmai Pasha** | **0.33** | **126** | P | **Pn** | **16 30 39.8** | **0.0** |
| KAPH | | | | S | **Sn** | **16 30 54.0** | **+0.1** |
| **KAWH** | **Katmai** | **0.41** | **176** | P | **Pn** | **16 30 39.8** | **-0.3** |
| **FONW** | **Fourpeaked Sta** | **0.49** | **85** | P | **Pn** | **16 30 40.6** | **+0.1** |
| **KABU** | **Katmai Buttres** | **0.57** | **203** | P | **Pn** | **16 30 40.9** | **-0.1** |
| KABU | | | | S | **Sn** | **16 30 55.9** | **-0.3** |
| **CDD** | **Cape Douglas** | **0.65** | **77** | P | **Pn** | **16 30 41.7** | **+0.3** |
| **FOPK** | **Fourpeaked Vol** | **0.72** | **92** | P | **Pn** | **16 30 41.7** | **-0.2** |
| **AUNW** | **Augustine NWes** | **0.92** | **50** | P | **Pn** | **16 30 44.3** | **+0.8** |
| **AUJK** | **Augustine Jueg** | **0.93** | **53** | P | **Pn** | **16 30 44.4** | **+0.8** |
| **ILW** | **Iliamna West** | **1.54** | **34** | P | **Pn** | **16 30 50.4** | **+0.4** |
| ILW | | | | S | **Sn** | **16 31 12.2** | **+0.1** |
| **KDAK** | **Kodiak Island** | **1.57** | **129** | P | **Pn** | **16 30 48.6** | **-1.5** |
| KDAK | | | | S | **Sn** | **16 31 11.1** | **-1.2** |
| **OHAK** | **Old Harbor** | **1.78** | **151** | P | **Pn** | **16 30 51.8** | **-0.7** |
| **RDWB** | **Redoubt West** | **1.98** | **30** | P | **Pn** | **16 30 55.6** | **+0.5** |
| **CNPM** | **China Poot** | **2.00** | **67** | P | **Pn** | **16 30 55.5** | **+0.3** |
| **DFR** | **Drift River** | **2.11** | **30** | P | **Pn** | **16 30 57.2** | **+0.6** |
| **SVW2** | **Sparrevohn** | **2.34** | **351** | P | **Pn** | **16 30 59.6** | **+0.3** |
| **ANPK** | **Aniakchak Peak** | **2.62** | **223** | P | **Pn** | **16 31 02.5** | **-0.5** |
| **CKL** | **Chakachamna La** | **2.72** | **27** | P | **Pn** | **16 31 05.1** | **+0.9** |
| **SPCP** | **Crater Peak Br** | **2.83** | **28** | P | **Pn** | **16 31 06.4** | **+0.8** |
| **SPCG** | **Spurr Capps Gl** | **2.88** | **28** | P | **Pn** | **16 31 07.2** | **+0.9** |
| **SEW** | **Seward** | **3.06** | **62** | *e*Pn | **Pn** | **16 31 09.3** | **+0.9** |
| **STLK** | **Strandline Lak** | **3.11** | **28** | P | **Pn** | **16 31 10.4** | **+1.3** |
| **CHGN** | **Chignik** | **3.15** | **219** | P | **Pn** | **16 31 09.0** | **-0.6** |
| **FIB** | **Fire Island** | **3.35** | **43** | P | **Pn** | **16 31 13.2** | **+1.1** |
| **SUA** | **Susitna One** | **3.38** | **36** | P | **Pn** | **16 31 13.4** | **+0.8** |
| **RC01** | **Rabbit Creek A** | **3.46** | **46** | P | **Pn** | **16 31 13.8** | **+0.2** |
| **SKT** | **Skwentna** | **3.60** | **26** | P | **Pn** | **16 31 16.6** | **+1.1** |
| **KNK** | **Knik Glacier** | **4.14** | **48** | P | **Pn** | **16 31 21.9** | **-0.8** |
| **TT01** | **Tatalina** | **4.17** | **353** | P | **Pn** | **16 31 23.5** | **+0.6** |
| **GHO** | **Glory Hole Cre** | **4.20** | **42** | P | **Pn** | **16 31 23.0** | **-0.5** |
| **HIN** | **Hinchinbrook I** | **4.54** | **66** | P | **Pn** | **16 31 28.1** | **+0.1** |
| **SCM** | **Sheep Creek Mo** | **4.83** | **48** | P | **Pn** | **16 31 31.5** | **-0.3** |
| **DIV** | **Divide** | **5.13** | **59** | *e*Pn | **Pn** | **16 31 36.2** | **+0.4** |
| **KTH** | **Kantishna Hill** | **5.14** | **20** | P | **Pn** | **16 31 36.5** | **+0.5** |
| **TRF** | **Thorofare Moun** | **5.17** | **23** | P | **Pn** | **16 31 36.4** | **-0.1** |
| **KLU** | **Klutina** | **5.22** | **55** | P | **Pn** | **16 31 37.5** | **+0.4** |
| **RND** | **Reindeer** | **5.47** | **30** | P | **Pn** | **16 31 39.6** | **-0.7** |
| **DHY** | **Denali Highway** | **5.63** | **37** | P | **Pn** | **16 31 41.7** | **-0.9** |
| **BPAW** | **Bear Paw Mtn.** | **5.64** | **18** | P | **Pn** | **16 31 42.5** | **-0.1** |
| **MCK** | **McKinley** | **5.72** | **27** | P | **Pn** | **16 31 43.5** | **-0.1** |
| **PAX** | **Paxson** | **6.21** | **44** | P | **Pn** | **16 31 50.1** | **-0.2** |
| **ISLE** | **Juniper Island** | **6.59** | **69** | P | **Pn** | **16 31 54.9** | **-0.5** |
| **BAGL** | **Bagley Icefiel** | **6.69** | **70** | P | **Pn** | **16 31 56.1** | **-0.6** |
| **CCB** | **Clear Creek Bu** | **6.76** | **27** | P | **Pn** | **16 31 56.5** | **-1.1** |
| **IL1** | **Eielson Array** | **7.08** | **29** | P | **Pn** | **16 32 00.8** | **-1.2** |
| **ILAR** | **Eielson Array** | **7.08** | **29** | P | **Pn** | **16 32 00.5** | **-1.5** |
| | 1.0nm,0.3s,baz=215,slow=13,SNR=22 | | | | | | |
| ILAR | | | | S | **Sn** | **16 33 15.2** | **-5.7** |
| | 0.3nm,0.3s,baz=222,slow=24,SNR=3.5 | | | | | | |
| **ILB** | **Eielson Array** | **7.08** | **29** | P | **Pn** | **16 32 00.7** | **-1.3** |
| **BCA3** | **Beaver Creek A** | **7.67** | **51** | P | **Pn** | **16 32 08.9** | **-1.0** |
| **PNL** | **Peninsula** | **7.98** | **77** | P | **Pn** | **16 32 13.4** | **-0.6** |
| **TXAR** | **Lajitas Array** | **45.49** | **107** | P | **P** | **16 38 30.8** | **+4.0** |
| | 0.3nm,0.9s,baz=344,slow=9.4,SNR=2.5 | | | | | | |
| **SONM** | **Songino Array** | **54.72** | **305** | P | **P** | **16 39 36.4** | **+0.2** |
| | 0.9nm,0.7s,baz=46,slow=7.0,SNR=5.3 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **57.77** | **323** | P | **P** | **16 39 55.7** | **-1.9** |
| | 0.2nm,0.3s,baz=51,slow=5.5,SNR=1.8 | | | | | | |

**MEX 07 16:39:16.5**±0.5, **16°.95N**×**97°.98W**, **h61**km±26km, **MD3.5**, **Oaxaca**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TLIG** | **Tlapa** | **0.82** | **317** | *e*P | Pn | 16 39 31.4 | -1.1 |
| TLIG | | | | *e*S | Sn | 16 39 42.3 | -2.0 |
| **VHO** | **Vista Hermosa** | **1.20** | **84** | *e*P | Pn | 16 39 35.0 | -2.4 |
| VHO | | | | *e*S | Sn | 16 39 51.5 | -1.5 |
| **HUIG** | **Huatulco** | **2.15** | **123** | *e*P | Pn | 16 39 49.0 | -1.1 |
| HUIG | | | | *i* S | Sn | 16 40 11.4 | -4.2 |

*IDC **07** 16:42:16.2±1.7, 59°.42S×25°.26W, h0km, mb4.2/2, mb1 4.2/2, mb1mx3.9/17, mbtmp4.1/2, MS3.7/1, Ms1 3.7/1, ms1mx3.0/17, Error ellipse: s-maj=117.3km s-min=52.7km az=99.0*
*ISCJB **07** 16:42:19.1±2.6, 59°.3S±0°.2×2°6W±°, h32km, mb4.1/2, MS3.6/1, Error ellipse: s-maj=116.0km s-min=18.6km az=167.6*
**ISC 07 16:42:21.1**±1.6, **59°.3S**±0°.2×**25°.8W**±0°.6, **h32**km, **n8**, σ**0s.75**/7, **South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VNA1** | **Neumayer--Stat** | **13.49** | **155** | P | **Pn** | **16 45 30.4** | **+0.5** |
| **VNA3** | **Neumayer Olymp** | **13.66** | **158** | P | **Pn** | **16 45 32.0** | **-0.3** |
| **VNA2** | **Neumayer--Watz** | **13.89** | **154** | P | **Pn** | **16 45 36.0** | **+0.7** |
| | baz=309,slow=14 | | | | | | |
| **SNAA** | **Sanae** | **15.46** | **152** | P | **Pn** | **16 45 56.2** | **-0.3** |
| **PLCA** | **Paso Flores** | **33.41** | **284** | LR | LR | 17 03 03.2 | |
| | comp=Z,122nm,18.3s,baz=117,slow=37 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **75.58** | **28** | P | **P** | **16 54 02.2** | **-0.1** |
| | 1.0nm,0.4s,baz=200,slow=6.1,SNR=6.0 | | | | | | |
| **ASAR** | **Alice Springs** | **95.64** | **161** | P | **P** | **16 55 42.5** | **-0.8** |
| | 0.6nm,0.9s,baz=183,slow=3.3,SNR=4.5 | | | | | | |
| **ILAR** | **Eielson Array** | **152.77** | **307** | PKPbc | **PKPbc** | **17 02 13.8** | **+0.9** |
| | 0.2nm,0.6s,baz=141,slow=2.6,SNR=2.6 | | | | | | |

**DJA 07 16:46:35.7**±1.7, **1°N**±4°×**12°6E**±°, **h30**km±15km, **M3.5**/4, **MLv3.5**/4, **Northern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LBMI** | **Labuha** | **2.04** | **147** | P | Pn | 16 47 07.5 | -0.6 |
| LBMI | | | | S | Sn | 16 47 33.1 | +0.6 |
| **KMSI** | **Cibinong** | **2.45** | **258** | P | Pn | 16 47 13.2 | -0.5 |
| KMSI | | | | S | Sn | 16 47 42.8 | +0.2 |
| **LUWI** | **Luwuk** | **4.18** | **240** | P | Pn | 16 47 38.9 | +1.4 |

*IDC **07** 16:55:26.7±0.9, 36°.12N×142°.03E, h0km, mb3.7/10, mb1 3.7/14, mb1mx3.6/41, mbtmp3.7/14, ML3.6/3, Error ellipse: s-maj=24.6km s-min=16.9km az=81.0*
*ISCJB **07** 16:55:27.9±0.7, 36°.17N±0°.05×142°.05E±0°.07, h23km, mb3.6/10, Error ellipse: s-maj=8.4km s-min=5.7km az=32.7*
*JMA **07** 16:55:30.3±0.2, 36°.22N×141°.87E, h59km±4km, M3.2*
**ISC 07 16:55:30.5**±0.8, **36°.15N**±0°.06×**141°.87E**±0°.08, **h23**km, **n29**, σ**1s.13**/27, **mb3.6**/10, **Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CHOJ** | **Chosi** | **0.94** | **242** | P | **Pb** | **16 55 48.1** | **+0.1** |
| CHOJ | | | | *e*S | **Sn** | **16 56 01.4** | **+0.5** |
| **JHO** | **Hitachi** | **1.15** | **294** | P | **Pn** | **16 55 49.9** | **-1.2** |
| **JFK** | **Kawauchi** | **1.45** | **327** | P | **Pn** | **16 55 54.3** | **-1.1** |
| **BSO1** | **Boso 1** | **1.66** | **206** | S | **Sb** | **16 56 20.0** | **-0.4** |
| **BSO3** | **Boso 3** | **1.75** | **220** | S | **Sn** | **16 56 20.8** | **+0.3** |
| **JAG** | **Ashikaga** | **1.97** | **279** | P | **Pn** | **16 56 02.2** | **-0.3** |
| **JRY** | **Ryogami san** | **2.41** | **268** | P | **Pn** | **16 56 08.4** | **-0.1** |
| **MJAR** | **Matsushiro Arr** | **2.98** | **279** | Pn | **Pn** | **16 56 17.1** | **+0.7** |
| | 5.0nm,0.3s,baz=102,slow=9.0,SNR=82 | | | | | | |
| MJAR | | | | Sn | **Sn** | **16 56 52.7** | **+1.2** |
| | 2.2nm,0.3s,baz=80,slow=14,SNR=5.8 | | | | | | |
| **MAT** | **Matsushiro** | **2.98** | **279** | P | **Pn** | **16 56 17.4** | **+1.0** |
| MAT | | | | *e*S | **Sb** | **16 56 56.5** | **-2.5** |
| **JHJ** | **Hachijo jima 2** | **3.48** | **210** | Pn | **Pn** | **16 56 22.6** | **-0.6** |
| | 15nm,0.3s,baz=94,slow=22,SNR=3.4 | | | | | | |
| JHJ | | | | Sn | **Sn** | **16 57 01.2** | **-2.5** |
| | 45nm,0.3s,baz=280,slow=23,SNR=5.9 | | | | | | |
| **ASAJ** | **Asahikawa** | **7.98** | **4** | Pn | **Pn** | **16 57 23.4** | **-1.6** |
| | 0.8nm,0.3s,baz=215,slow=8.0,SNR=6.6 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **11.03** | **320** | Pn | **Pn** | **16 58 06.4** | **-0.3** |
| | 0.1nm,0.3s,baz=118,slow=15,SNR=2.7 | | | | | | |
| **YAK** | **Yakutsk** | **27.01** | **347** | P | **P** | **17 01 09.8** | **-0.6** |
| | 2.5nm,0.4s,baz=270,slow=1.4,SNR=5.1 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **27.38** | **120** | T | T | 17 29 50.5 | |
| | baz=312,slow=75,SNR=7.8 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **27.39** | **120** | T | T | 17 29 48.5 | |
| | baz=312,slow=75,SNR=7.3 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **27.40** | **120** | T | T | 17 29 51.7 | |
| | baz=312,slow=75,SNR=5.0 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.07** | **122** | T | T | 17 30 38.3 | |
| | baz=330 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.07** | **122** | T | T | 17 30 39.0 | |
| | baz=330 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.09** | **122** | T | T | 17 30 40.1 | |
| | baz=330 | | | | | | |
| **SONM** | **Songino Array** | **28.59** | **305** | P | **P** | **17 01 25.7** | **+0.8** |
| | 1.5nm,0.8s,baz=108,slow=8.2,SNR=7.5 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.78** | **313** | P | **P** | **17 03 26.2** | **+0.1** |
| | 0.6nm,0.6s,baz=111,slow=8.1,SNR=4.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.90** | **303** | P | **P** | **17 03 43.5** | **+0.3** |
| | 1.1nm,0.7s,baz=85,slow=9.3,SNR=5.2 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **46.84** | **309** | P | **P** | **17 03 58.5** | **+0.1** |
| | 0.8nm,0.4s,baz=81,slow=7.5,SNR=8.9 | | | | | | |
| **ILAR** | **Eielson Array** | **50.04** | **32** | P | **P** | **17 04 22.8** | **-0.1** |
| | 0.4nm,0.7s,baz=280,slow=7.0,SNR=3.9 | | | | | | |
| **BVAR** | **Borovoye Array** | **51.44** | **313** | P | **P** | **17 04 35.6** | **+2.0** |
| | 0.2nm,0.4s,baz=90,slow=7.4,SNR=3.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **56.24** | **189** | P | **P** | **17 05 08.2** | **-0.8** |
| | 0.2nm,0.6s,baz=4.5,slow=7.2,SNR=4.0 | | | | | | |
| **ASAR** | **Alice Springs** | **59.97** | **188** | P | **P** | **17 05 34.8** | **-0.3** |
| | 0.2nm,0.7s,baz=9.2,slow=7.5,SNR=2.8 | | | | | | |
| **BRTR** | **Keskin Array B** | **79.71** | **312** | P | **P** | **17 07 38.2** | **+1.6** |
| | 0.5nm,0.8s,baz=328,slow=4.4,SNR=3.7 | | | | | | |
| **LPAZ** | **La Paz** | **146.81** | **61** | PKPbc | **PKPdf** | **17 15 10.8** | **+0.6** |
| | 1.7nm,0.6s,baz=293,slow=8.3,SNR=6.7 | | | | | | |

*IDC **07** 16:57:47.4±1.6, 36°.23N×142°.00E, h0km, mb3.5/7, mb1 3.6/10, mb1mx3.5/40, mbtmp3.6/10, ML3.4/3, Error ellipse: s-maj=35.8km s-min=21.5km az=74.0*
*ISCJB **07** 16:57:48.3±0.8, 36°.17N±0°.05×142°.06E±0°.07, h23km, mb3.4/7, Error ellipse: s-maj=8.9km s-min=6.6km az=20.0*
*JMA **07** 16:57:50.8±0.2, 36°.21N×141°.87E, h57km, M3.2*
**ISC 07 16:57:50.2**±1.2, **36°.20N**±0°.06×**141°.97E**±0°.10, **h23**km, **n24**, σ**1s.65**/22, **mb3.5**/7, **Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CHOJ** | **Chosi** | **1.02** | **242** | P | **Pn** | **16 58 08.4** | **-0.8** |
| CHOJ | | | | S | **Sb** | **16 58 21.7** | **-0.6** |
| **JHO** | **Hitachi** | **1.20** | **291** | P | **Pn** | **16 58 10.2** | **-1.4** |
| **JFK** | **Kawauchi** | **1.46** | **323** | P | **Pb** | **16 58 14.6** | **-2.1** |
| **BSO1** | **Boso 1** | **1.74** | **208** | S | **Sn** | **16 58 40.3** | **+0.6** |
| **JFT** | **Otama** | **1.86** | **316** | P | **Pb** | **16 58 21.0** | **-2.5** |
| **JMM** | **Marumori** | **1.91** | **331** | P | **Pb** | **16 58 21.8** | **-2.6** |
| **JAG** | **Ashikaga** | **2.04** | **277** | P | **Pn** | **16 58 22.6** | **-0.6** |
| **MJAR** | **Matsushiro Arr** | **3.05** | **278** | Pn | **Pn** | **16 58 37.6** | **+0.5** |
| | 4.2nm,0.3s,baz=103,slow=9.0,SNR=11 | | | | | | |
| MJAR | | | | Sn | **Sn** | **16 59 14.2** | **+1.3** |
| | 1.2nm,0.3s,baz=84,slow=15,SNR=2.0 | | | | | | |
| **MAT** | **Matsushiro** | **3.05** | **278** | P | **Pn** | **16 58 37.5** | **+0.4** |
| MAT | | | | *e*S | **Sn** | **16 59 14.8** | **+1.9** |
| **JHJ** | **Hachijo jima 2** | **3.56** | **211** | Pn | **Pn** | **16 58 42.9** | **-1.1** |
| | 8.2nm,0.3s,baz=85,slow=21,SNR=1.3 | | | | | | |
| JHJ | | | | Sn | **Sn** | **16 59 22.3** | **-3.1** |
| | 39nm,0.3s,baz=273,slow=23,SNR=3.3 | | | | | | |
| **ASAJ** | **Asahikawa** | **7.92** | **3** | Pn | **Pn** | **16 59 42.8** | **-1.2** |
| | 0.6nm,0.3s,baz=205,slow=12,SNR=2.4 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **27.34** | **120** | T | T | 17 32 13.5 | |
| | baz=311 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **27.35** | **120** | T | T | 17 32 10.3 | |
| | baz=311 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **27.36** | **120** | T | T | 17 32 12.7 | |
| | baz=311 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.04** | **122** | T | T | 17 33 00.9 | |
| | baz=314,slow=75,SNR=7.5 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.04** | **122** | T | T | 17 32 59.9 | |
| | baz=314,slow=75,SNR=7.4 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.05** | **122** | T | T | 17 33 01.1 | |
| | baz=314,slow=75,SNR=7.4 | | | | | | |
| **SONM** | **Songino Array** | **28.62** | **305** | P | **P** | **17 03 46.6** | **+1.7** |
| | 0.6nm,0.5s,baz=103,slow=9.1,SNR=3.4 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **41.73** | **257** | P | **P** | **17 05 38.3** | **+0.7** |
| | 0.2nm,0.7s,baz=81,slow=5.8,SNR=2.3 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.81** | **313** | P | **P** | **17 05 46.5** | **+0.5** |
| | 0.3nm,0.3s,baz=116,slow=6.6,SNR=2.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.94** | **303** | P | **P** | **17 06 03.8** | **+0.5** |
| | 0.8nm,0.8s,baz=89,slow=8.3,SNR=2.9 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **46.87** | **309** | P | **P** | **17 06 18.4** | **0.0** |
| | 0.6nm,0.4s,baz=82,slow=7.7,SNR=5.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **56.30** | **189** | P | **P** | **17 07 28.7** | **-0.5** |
| | 0.3nm,0.9s,baz=4.7,slow=7.4,SNR=1.6 | | | | | | |
| **ASAR** | **Alice Springs** | **60.02** | **189** | P | **P** | **17 07 58.1** | **+2.9** |
| | 0.1nm,0.5s,baz=14,slow=12,SNR=1.1 | | | | | | |

**MEX 07 17:15:42.0**±0.6, **14°.79N**×**93°.58W**, **h16**km±298km, **MD3.8**, **Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PCIG** | | **0.97** | **21** | *e*P | Pb | 17 15 56.4 | -4.1 |
| PCIG | | | | *e*S | Sb | 17 16 09.2 | -3.9 |

*ATA **07** 17:18:31.8±1.0, 38°.72N×43°.41E, h6km±28km, ML3.6, MW3.4*
*DDA **07** 17:18:32.8, 38°.70N×43°.39E, h5km, Ml3.0*
*ISK **07** 17:18:32.6, 38°.73N×43°.38E, h5km, MD3.0*
*CSEM **07** 17:18:33.4±0.2, 38°.70N×43°.44E, h2km, MD3.0, Error ellipse: s-maj=5.3km s-min=3.8km az=92.0*
**ISC 07 17:18:33.8**±0.8, **38°.71N**±0°.02×**43°.43E**±0°.02, **h13**km±6km, **n72**, σ**1s.17**/102, **Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.12** | **194** | *e*PG | **Pg** | **17 18 37.5** | **+0.3** |
| **VANB** | **Van** | **0.12** | **194** | *e*Pg | **Pg** | **17 18 37.5** | **+0.3** |
| **TVAN** | **Van** | **0.18** | **185** | *i* P | **Pg** | **17 18 37.3** | **-0.8** |
| TVAN | | | | *i* S | **Sg** | **17 18 41.1** | **0.0** |
| **TVAN** | **Van** | **0.18** | **185** | P | **Pg** | **17 18 37.3** | **-0.8** |
| TVAN | | | | S | **Sg** | **17 18 41.1** | **0.0** |
| **VMUR** | **Van-Muradiye** | **0.30** | **22** | *i* P | **Pb** | **17 18 40.3** | **-0.9** |
| VMUR | | | | *i* S | **Sb** | **17 18 46.3** | **+0.1** |
| **VMUR** | **Van-Muradiye** | **0.30** | **22** | P | **Pb** | **17 18 40.3** | **-0.9** |
| VMUR | | | | S | **Sb** | **17 18 46.3** | **+0.1** |
| **ERCV** | **ERCIS-VAN** | **0.32** | **348** | *e*PG | **Pg** | **17 18 39.7** | **-0.7** |
| **ERCV** | **ERCIS-VAN** | **0.32** | **348** | *e*Pg | **Pg** | **17 18 39.7** | **-0.7** |
| **GEVA** | **Gevas** | **0.49** | **216** | *e*P | **Pg** | **17 18 41.6** | **-1.9** |
| GEVA | | | | *e*S | **Sg** | **17 18 50.2** | **+0.1** |
| GEVA | | | | | IAML | 17 18 51.4 | |
| | comp=Z,238nm,0.4s | | | | | | |
| **GEVA** | **Gevas** | **0.49** | **216** | *i* P | **Pg** | **17 18 41.9** | **-1.7** |
| GEVA | | | | *i* S | **Sb** | **17 18 50.8** | **-0.6** |
| **GEVA** | **Gevas** | **0.49** | **216** | P | **Pg** | **17 18 41.8** | **-1.7** |
| GEVA | | | | S | **Sb** | **17 18 50.8** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.56** | **281** | *i* P | **Pg** | **17 18 43.8** | **-1.0** |
| ADCV | | | | *i* S | **Sb** | **17 18 52.6** | **-0.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.56** | **281** | P | **Pg** | **17 18 43.8** | **-1.0** |
| ADCV | | | | S | **Sb** | **17 18 52.6** | **-0.8** |
| **CLDR** | **Caldiran** | **0.58** | **41** | *e*PG | **Pb** | **17 18 44.9** | **-1.0** |
| CLDR | | | | *e*SG | **Sb** | **17 18 54.6** | **+0.5** |
| **CLDR** | **Caldiran** | **0.58** | **41** | *i* P | **Pb** | **17 18 45.0** | **-1.0** |
| CLDR | | | | *i* S | **Sb** | **17 18 55.1** | **+1.0** |
| **CLDR** | **Caldiran** | **0.58** | **41** | P | **Pb** | **17 18 45.0** | **-1.0** |
| CLDR | | | | *e*Sg | **Sb** | **17 18 54.6** | **+0.5** |
| CLDR | | | | S | **Sb** | **17 18 55.2** | **+1.0** |
| **BASK** | **Baskale_VAN** | **0.80** | **145** | *e*P | **Pg** | **17 18 47.9** | **-1.4** |
| **BASK** | **Baskale_VAN** | **0.80** | **145** | *i* P | **Pg** | **17 18 47.6** | **-1.7** |
| **BASK** | **Baskale_VAN** | **0.80** | **145** | P | **Pg** | **17 18 47.6** | **-1.7** |
| **TUTA** | **Tutak** | **0.84** | **326** | *e*P | **Pg** | **17 18 48.7** | **-1.4** |
| TUTA | | | | *e*S | **Sb** | **17 19 00.9** | **-0.9** |
| TUTA | | | | | IAML | 17 19 03.8 | |
| | comp=Z,190nm,0.6s | | | | | | |
| **TUTA** | **Tutak** | **0.84** | **326** | *i* P | **Pg** | **17 18 48.7** | **-1.4** |
| TUTA | | | | *i* S | **Sb** | **17 19 00.8** | **-0.9** |
| **TUTA** | **Tutak** | **0.84** | **326** | P | **Pg** | **17 18 48.7** | **-1.4** |
| TUTA | | | | S | **Sb** | **17 19 00.8** | **-0.9** |
| **DYDN** | **Diyadin** | **0.86** | **14** | *i* P | **Pg** | **17 18 49.5** | **-1.0** |
| **DYDN** | **Diyadin** | **0.86** | **14** | P | **Pg** | **17 18 49.5** | **-1.0** |
| **AGRB** | **Hanur-Agry** | **0.93** | **339** | *e*PG | **Pg** | **17 18 50.5** | **-1.3** |
| AGRB | | | | *e*SG | **Sb** | **17 19 04.1** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **0.93** | **339** | *e*Pg | **Pg** | **17 18 50.5** | **-1.3** |
| AGRB | | | | *e*Sg | **Sb** | **17 19 04.1** | **-0.1** |
| **HAKT** | **HAKKARI** | **1.17** | **169** | *i* P | **Pg** | **17 18 54.2** | **-2.1** |
| **HAKT** | **HAKKARI** | **1.17** | **169** | P | **Pg** | **17 18 54.2** | **-2.1** |
| **EKAR** | **Karacoban** | **1.19** | **298** | *e*P | **Pg** | **17 18 55.5** | **-1.3** |
| EKAR | | | | | IAML | 17 18 58.5 | |
| | comp=Z,54nm,0.4s | | | | | | |
| **EKAR** | **Karacoban** | **1.19** | **298** | *i* P | **Pg** | **17 18 55.5** | **-1.3** |
| EKAR | | | | *i* S | **Sn** | **17 19 14.3** | **+1.7** |
| **EKAR** | **Karacoban** | **1.19** | **298** | P | **Pg** | **17 18 55.5** | **-1.3** |
| EKAR | | | | S | **Sn** | **17 19 14.3** | **+1.7** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.31** | **148** | *i* P | **Pn** | **17 18 57.1** | **-0.8** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.31** | **148** | P | **Pn** | **17 18 57.1** | **-0.8** |
| **EATA** | **Eleskirt** | **1.36** | **328** | *e*P | **Pn** | **17 18 58.3** | **-0.5** |
| EATA | | | | *e*S | **Sn** | **17 19 17.8** | **+1.0** |
| EATA | | | | | IAML | 17 19 25.5 | |
| | comp=Z,20nm,0.4s | | | | | | |
| **EATA** | **Eleskirt** | **1.36** | **328** | *i* P | **Pn** | **17 18 58.3** | **-0.5** |
| EATA | | | | *i* S | **Sn** | **17 19 18.4** | **+1.6** |
| **EATA** | **Eleskirt** | **1.36** | **328** | P | **Pn** | **17 18 58.3** | **-0.5** |
| EATA | | | | S | **Sn** | **17 19 18.4** | **+1.6** |
| **SRTM** | **Siirt_Merkez** | **1.38** | **239** | *i* P | **Pg** | **17 18 59.2** | **-1.2** |
| SRTM | | | | *i* S | **Sn** | **17 19 20.4** | **+3.4** |
| **SRTM** | **Siirt_Merkez** | **1.38** | **239** | P | **Pg** | **17 18 59.2** | **-1.2** |
| SRTM | | | | S | **Sn** | **17 19 20.4** | **+3.4** |
| **TASB** | **TASBURUN-IGDIR** | **1.42** | **26** | *e*PN | **Pg** | **17 19 00.7** | **-0.4** |
| **TASB** | **TASBURUN-IGDIR** | **1.42** | **26** | *e*Pn | **Pg** | **17 19 00.7** | **-0.4** |
| **SIRT** | **Sirnak** | **1.44** | **213** | *e*PN | **Pg** | **17 19 00.8** | **-0.6** |
| **SIRT** | **Sirnak** | **1.44** | **213** | *e*Pn | **Pg** | **17 19 00.8** | **-0.6** |
| **SIRN** | **S˜–rnak** | **1.45** | **214** | *i* P | **Pg** | **17 19 01.2** | **-0.4** |
| SIRN | | | | *i* S | **Sg** | **17 19 21.4** | **+1.0** |
| **SIRN** | **S˜–rnak** | **1.45** | **214** | P | **Pg** | **17 19 01.2** | **-0.4** |
| SIRN | | | | S | **Sg** | **17 19 21.5** | **+1.0** |
| **CUKT** | **Cukurca** | **1.47** | **174** | *e*PN | **Pg** | **17 19 01.6** | **-0.3** |
| **CUKT** | **Cukurca** | **1.47** | **174** | *i* P | **Pg** | **17 19 01.3** | **-0.7** |
| **CUKT** | **Cukurca** | **1.47** | **174** | P | **Pg** | **17 19 01.3** | **-0.7** |
| **CUKT** | **Cukurca** | **1.47** | **174** | *e*Pn | **Pg** | **17 19 01.7** | **-0.3** |
| **VRTB** | **Varto-Mus** | **1.60** | **287** | *e*PN | **Pb** | **17 19 02.9** | **-0.4** |
| **VRTB** | **Varto-Mus** | **1.60** | **287** | *e*Pn | **Pb** | **17 19 02.9** | **-0.4** |
| **DIGO** | **Kars** | **1.71** | **359** | *i* P | **Pg** | **17 19 05.4** | **-1.2** |
| **DIGO** | **Kars** | **1.71** | **359** | P | **Pg** | **17 19 05.4** | **-1.2** |
| **HOMI** | **Horasan** | **1.78** | **319** | *e*P | **Pb** | **17 19 06.1** | **-0.3** |
| HOMI | | | | | IAML | 17 19 11.1 | |
| | comp=Z,27nm,0.5s | | | | | | |
| **HOMI** | **Horasan** | **1.78** | **319** | *i* P | **Pg** | **17 19 06.2** | **-1.8** |
| **BNGL** | **BINGOL** | **1.79** | **279** | *e*P | **Pb** | **17 19 05.6** | **-1.0** |
| BNGL | | | | | IAML | 17 19 37.4 | |
| | comp=Z,66nm,0.4s | | | | | | |
| **BNGL** | **BINGOL** | **1.79** | **279** | *i* P | **Pb** | **17 19 05.8** | **-0.8** |
| BNGL | | | | *i* S | **Sg** | **17 19 32.2** | **+0.7** |
| **BTMN** | **Batman** | **1.88** | **245** | *i* P | **Pn** | **17 19 06.5** | **+0.8** |
| BTMN | | | | *i* S | **Sg** | **17 19 32.5** | **-1.8** |
| **BTMN** | **Batman** | **1.88** | **245** | P | **Pn** | **17 19 06.5** | **+0.8** |
| BTMN | | | | S | **Sg** | **17 19 32.5** | **-1.8** |
| **EAK** | **Akyaka** | **1.98** | **4** | *i* P | **Pg** | **17 19 11.8** | **0.0** |
| **EAK** | **Akyaka** | **1.98** | **4** | P | **Pg** | **17 19 11.8** | **0.0** |
| **ERZM** | **Erzurum** | **2.00** | **307** | *i* P | **Pb** | **17 19 09.2** | **-0.9** |
| **ERZM** | **Erzurum** | **2.00** | **307** | P | **Pb** | **17 19 09.2** | **-0.9** |
| **ECAT** | **Cat-ERZURUM** | **2.11** | **296** | *e*P | **Pb** | **17 19 10.9** | **-1.0** |
| ECAT | | | | | IAML | 17 19 47.7 | |
| | comp=Z,11nm,0.5s | | | | | | |
| **BNGB** | **Bingˆ¶l** | **2.16** | **278** | *e*PN | **Pn** | **17 19 10.8** | **+1.2** |
| **BINT** | **Bingol** | **2.30** | **275** | *e*Pn | **Pn** | **17 19 10.8** | **-0.7** |
| **YEDI** | **Yedisu-Bingol** | **2.36** | **289** | *e*PN | **Pn** | **17 19 13.6** | **+1.3** |
| **YEDI** | **Yedisu-Bingol** | **2.36** | **289** | *e*Pn | **Pn** | **17 19 13.6** | **+1.3** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| HANI | Diyarbakir_Han | 2.39 | 264 | *i* P | Pb | 17 19 16.3 | -0.4 |
| HANI | Diyarbakir_Han | 2.39 | 264 | P | Pb | 17 19 16.3 | -0.4 |
| DAGI | Agillar | 2.64 | 334 | *i* P | Pg | 17 19 23.8 | -0.6 |
| PTK | Pertek | 3.16 | 275 | *e*PN | Pn | 17 19 25.3 | +2.0 |
| PTK | Pertek | 3.16 | 275 | *e*Pn | Pn | 17 19 25.3 | +2.0 |

*ISCJB **07** 17:21:00.2±1.7, 30°.49S±0°.04×71°.8W±0°.1, h14km±16km, Error ellipse: s-maj=17.5km s-min=7.1km az=7.8*
*SJA **07** 17:21:00.8±0.3, 30°.53S×71°.88W, h65km±3km, ML3.1, MW3.1*
*GUC **07** 17:21:01.6±0.3, 30°.64S×71°.10W, h80km±12km, ML3.0*
**ISC 07 17:20:56.8**±3.8**, 30°.50S**±0°.05×**72°.0W**±0°.1**, h6**km±27km**, n14,** σ**2s06**/21**, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TLL | Tololo Astrono | 1.07 | 72 | *e*P | Pb | 17 21 16.9 | -1.0 |
| TLL | | | | *i* S | Sb | 17 21 28.7 | -3.7 |
| TLL | | | | IAML | | 17 21 32.5 | |
| | comp=E,697nm,0.5s | | | | | | |
| LCO | Las Campanas | 1.86 | 37 | *e*P | Pn | 17 21 30.8 | +1.3 |
| LCO | | | | *i* S | Sn | 17 21 52.8 | -0.7 |
| ROCH | El Roble | 2.60 | 162 | *e*P | Pn | 17 21 39.7 | +0.1 |
| ROCH | | | | *i* S | Sn | 17 22 08.9 | -2.7 |
| ROCH | | | | IAML | | 17 22 17.6 | |
| | comp=N,85nm,0.1s | | | | | | |
| ROC1 | El Roble | 2.60 | 162 | *e*P | Pn | 17 21 42.1 | +2.4 |
| RTLS | Leoncito | 2.64 | 120 | *e*P | Pn | 17 21 42.6 | +2.4 |
| RTLS | | | | *e*S | Sn | 17 22 13.6 | +0.8 |
| AUSP | Uspallata | 2.81 | 128 | *e*P | Pn | 17 21 45.0 | +2.4 |
| AUSP | | | | *e*S | Sn | 17 22 17.4 | +0.5 |
| AMOG | MOGNA | 3.04 | 99 | *e*P | Pn | 17 21 47.4 | +1.9 |
| AMOG | | | | *e*S | Sn | 17 22 22.0 | -0.3 |
| AGUA | GUANDACOL | 3.19 | 72 | *e*P | Pn | 17 21 49.9 | +2.2 |
| ASAL | Salagasta | 3.40 | 129 | *e*P | Pn | 17 21 52.8 | +2.3 |
| ASAL | | | | *e*S | Sn | 17 22 31.2 | 0.0 |
| ARCO | CERRO ARCO | 3.50 | 133 | IAML | | 17 22 48.7 | |
| | comp=Z,27nm,0.4s | | | | | | |
| VCA | Vinchina | 3.73 | 63 | *e*P | Pn | 17 21 57.3 | +2.2 |
| VCA | | | | IAML | | 17 22 55.2 | |
| | comp=Z,41nm,0.3s | | | | | | |
| VCA | Vinchina | 3.73 | 63 | *i* S | Sn | 17 22 41.0 | +1.5 |
| VCA | | | | IAML | | 17 22 55.1 | |
| | comp=N,57nm,0.6s | | | | | | |
| ACLC | CERRO LA CRUZ | 4.50 | 77 | *e*P | Pn | 17 22 07.8 | +2.1 |
| ACLC | | | | *e*S | Sn | 17 22 57.3 | -1.1 |
| APLL | PUNTA DE LOS L | 4.71 | 90 | *e*P | Pn | 17 22 10.4 | +1.9 |

**WEL 07 17:31:55.6**±0.5**, 39°.42S**×**174°.67E, h238**km±4km**, ML3.7**/5**, 2C-2D, Error ellipse: s-maj=4.5km s-min=2.4km az=90.0, North Island**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WAZ | Wanganui | 0.42 | 144 | PN | Pn | 17 32 27.1 | +0.3 |
| TRVZ | Turoa | 0.69 | 80 | ⇓PN | Pn | 17 32 27.4 | -0.6 |
| WNVZ | Wahianoa | 0.73 | 83 | PN | Pn | 17 32 27.6 | -0.5 |
| OTVZ | Oturere | 0.82 | 72 | ⇑PN | Pn | 17 32 28.0 | -0.5 |
| BHHZ | Black Hill Sta | 1.08 | 94 | PN | Pn | 17 32 29.2 | -0.7 |
| BHHZ | | | | SN | S | 17 32 55.1 | -1.5 |
| TSZ | Takapari Road | 1.19 | 123 | PN | Pn | 17 32 30.6 | +0.1 |
| KRHZ | Kereru | 1.34 | 100 | PN | Pn | 17 32 31.3 | -0.2 |
| MRZ | Mangatainoka R | 1.43 | 151 | PN | Pn | 17 32 31.9 | -0.2 |
| OGWZ | Otaki Gorge | 1.45 | 165 | PN | Pn | 17 32 32.3 | +0.1 |
| OGWZ | | | | SN | S | 17 33 00.7 | -0.4 |
| OGWZ | | | | AML | AML | 17 33 02.7 | |
| KIW | Kapiti Island | 1.45 | 173 | PN | Pn | 17 32 32.1 | -0.2 |
| MCHZ | McNeill Hill | 1.57 | 92 | PN | Pn | 17 32 33.6 | +0.3 |
| TIWZ | Tintock | 1.65 | 146 | PN | Pn | 17 32 33.9 | 0.0 |
| ANWZ | Angora Road | 1.74 | 127 | PN | Pn | 17 32 34.9 | +0.3 |
| PRHZ | Porangahau | 1.74 | 120 | ⇑PN | Pn | 17 32 34.8 | +0.2 |
| KAHZ | Kahuranaki | 1.75 | 103 | PN | Pn | 17 32 35.1 | +0.3 |
| BFZ | Birch Farm | 1.75 | 137 | PN | Pn | 17 32 34.7 | 0.0 |
| BFZ | | | | SN | S | 17 33 05.8 | +0.3 |
| MTHZ | Maungataniwha | 1.78 | 72 | PN | Pn | 17 32 33.7 | -1.4 |
| MTHZ | | | | SN | S | 17 33 03.3 | -2.8 |
| TCW | Tory Channel | 1.81 | 189 | PN | Pn | 17 32 35.2 | 0.0 |
| MTW | Mount Morrison | 1.85 | 160 | PN | Pn | 17 32 35.3 | -0.3 |
| NNZ | Nelson | 2.05 | 208 | ⇓PN | Pn | 17 32 36.8 | -0.6 |
| TUWZ | Tuamarina | 2.08 | 195 | PN | Pn | 17 32 37.2 | -0.5 |
| TUWZ | | | | AML | AML | 17 33 11.6 | |
| QRZ | Quartz Range | 2.16 | 229 | PN | Pn | 17 32 36.5 | -2.0 |
| RIGZ | Rimuhau | 2.51 | 75 | PN | Pn | 17 32 40.9 | -1.2 |
| RIGZ | | | | AML | AML | 17 33 16.5 | |
| RIGZ | | | | AML | AML | 17 33 16.8 | |
| THZ | Tophouse | 2.70 | 209 | PN | Pn | 17 32 42.8 | -1.2 |
| RUGZ | Raukumara Rang | 2.77 | 59 | PN | Pn | 17 32 41.5 | -3.4 |
| HAZ | Te Kaha | 2.95 | 57 | PN | Pn | 17 32 43.2 | -3.5 |
| HAZ | | | | AML | AML | 17 34 20.8 | |
| HAZ | | | | AML | AML | 17 36 15.3 | |
| KHZ | Kahutara | 3.11 | 196 | PN | Pn | 17 32 47.4 | -1.0 |
| DSZ | Denniston Nort | 3.19 | 222 | PN | Pn | 17 32 47.1 | -2.2 |
| LTZ | Lake Taylor | 3.82 | 208 | PN | Pn | 17 32 55.0 | -1.7 |
| OXZ | Oxford | 4.38 | 206 | PN | Pn | 17 33 00.6 | -2.7 |
| MQZ | McQueen's Vall | 4.54 | 199 | PN | Pn | 17 33 02.5 | -2.8 |

*ISCJB **07** 18:00:35.5±0.4, 67°.04N±0°.03×21°.00E±0°.09, h0km, Error ellipse: s-maj=5.0km s-min=3.6km az=176.4*
*NAO **07** 18:00:36.9±1.0, 67°.07N×21°.11E, ML2.3*
*IDC **07** 18:00:36.7±1.1, 67°.03N×21°.13E, h0km, mb1 3.1/3, mb1mx2.9/42, mbtmp2.9/3, ML2.2/3, Error ellipse: s-maj=17.5km s-min=8.7km az=105.0*
*UPP **07** 18:00:36.2±0.1, 67°.05N×20°.97E, h0km, ML2.3*
*CSEM **07** 18:00:37.0±0.3, 67°.00N×20°.98E, h1km, ML2.3, Error ellipse: s-maj=9.4km s-min=6.2km az=109.0, Suspected Mining explosion.*
*BER **07** 18:00:39.4±3.2, 67°.05N×20°.81E, h0km, ML1.6, ML2.3(NAO), Suspected explosion*
**ISC 07 18:00:35.6**±0.8**, 67°.04N**±0°.03×**20°.93E**±0°.03**, h0**km**, n41,** σ**1s17**/58**, Sweden**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DUNU | Dundret | 0.17 | 301 | P | Pg | 18 00 39.8 | +1.0 |
| DUNU | | | | S | Sg | 18 00 41.6 | +0.6 |
| MASU | Masugnsbyn | 0.59 | 44 | P | Pg | 18 00 47.2 | +0.2 |
| ERTU | Ertsjaerv | 0.70 | 134 | P | Pg | 18 00 49.1 | +0.2 |
| HARU | Harads | 0.88 | 179 | P | Pg | 18 00 52.8 | +0.4 |
| RATU | Laukkuluspa | 0.94 | 327 | P | Pg | 18 00 53.6 | -0.1 |
| KUA | Kurravaara | 0.95 | 346 | P | Pg | 18 00 53.5 | -0.3 |
| LANU | Lannavaara | 1.09 | 21 | P | Pg | 18 00 56.0 | -0.6 |
| NIKU | Nikkaluokta | 1.11 | 320 | P | Pg | 18 00 56.7 | -0.2 |
| KALU | Kalix | 1.53 | 139 | P | Pn | 18 01 04.2 | 0.0 |
| SJUU | Sjulsmark | 1.56 | 170 | P | Pn | 18 01 05.0 | +0.4 |
| LILU | Lilltraesk | 1.81 | 195 | P | Pn | 18 01 09.2 | +1.1 |
| KIF | Kilpisjarvi | 1.98 | 359 | Pn | Pb | 18 01 12.2 | -0.2 |
| KIF | | | | Lg | Lg | 18 01 39.4 | |
| KIF | Kilpisjarvi | 1.98 | 359 | Pn | Pb | 18 01 12.2 | -0.2 |
| KIF | | | | Lg | Lg | 18 01 39.4 | |
| KIF | Kilpisjarvi | 1.98 | 359 | Pn | Pb | 18 01 12.2 | -0.2 |
| KIF | | | | Lg | Lg | 18 01 39.4 | |
| | SNR=90 | | | | | | |
| KTK1 | Kautokeino | 2.17 | 23 | *e*P | Pb | 18 01 15.5 | -0.2 |
| KTK1 | | | | *e*Sg | Sb | 18 01 43.0 | 0.0 |
| KTK1 | | | | IAML | | 18 01 46.0 | |
| | comp=Z,7.9nm,0.2s | | | | | | |
| KTK1 | Kautokeino | 2.17 | 23 | *e*P | Pb | 18 01 15.5 | -0.2 |
| | SNR=50 | | | | | | |
| KTK1 | | | | *e*Sg | Sb | 18 01 43.0 | 0.0 |
| | SNR=90 | | | | | | |
| BURU | Burvik | 2.47 | 176 | P | Pn | 18 01 18.8 | +1.7 |
| SVAU | Svanoeiden | 2.62 | 193 | P | Pn | 18 01 20.6 | +1.6 |
| TRO | Tromso | 2.71 | 345 | *e*P | Pg | 18 01 26.6 | -0.9 |
| TRO | | | | *e*S | Sb | 18 01 56.3 | -2.4 |
| TRO | | | | IAML | | 18 02 06.0 | |
| | comp=Z,7.5nm,0.2s | | | | | | |
| MOR8 | Moi Rana | 2.73 | 254 | *e*P | Pn | 18 01 22.0 | +1.3 |
| MOR8 | | | | *e*Sg | Sb | 18 01 57.7 | -1.6 |
| MOR8 | | | | IAML | | 18 01 59.9 | |
| | comp=Z,5.6nm,0.3s | | | | | | |
| MOR8 | Moi Rana | 2.73 | 254 | *e*P | Pn | 18 01 22.0 | +1.3 |
| | SNR=50 | | | | | | |
| MOR8 | | | | *e*Sg | Sb | 18 01 57.7 | -1.6 |
| | SNR=90 | | | | | | |
| ARA0 | ARCESS Array S | 3.03 | 32 | Pn | Pn | 18 01 25.3 | +0.5 |
| | baz=206,slow=16 | | | | | | |
| ARA0 | | | | Sn | Sn | 18 02 02.5 | +0.8 |
| | baz=217,slow=22 | | | | | | |
| ARA0 | ARCESS Array S | 3.03 | 32 | Pn | Pn | 18 01 25.3 | +0.5 |
| | baz=206,slow=16 | | | | | | |
| ARA0 | | | | Sn | Sn | 18 02 02.5 | +0.8 |
| | baz=217,slow=22 | | | | | | |
| ARA0 | ARCESS Array S | 3.03 | 32 | Pn | Pn | 18 01 25.3 | +0.5 |
| | SNR=3.4 | | | | | | |
| ARA0 | | | | Sn | Sn | 18 02 02.5 | +0.8 |
| | SNR=5.1 | | | | | | |
| ARCES | ARCESS Array B | 3.03 | 32 | Pn | Pn | 18 01 25.3 | +0.5 |
| | comp=Z,0.3nm,0.3s,baz=210,slow=12,SNR=36 | | | | | | |
| ARCES | | | | Sn | Sn | 18 02 02.2 | +0.5 |
| | comp=Z,0.5nm,0.3s,baz=212,slow=22,SNR=5.8 | | | | | | |
| LOF | Lofoten | 3.04 | 295 | *e*P | Pn | 18 01 26.8 | +1.9 |
| LOF | Lofoten | 3.04 | 295 | *e*P | Pn | 18 01 26.8 | +1.9 |
| | SNR=50 | | | | | | |
| UMAU | Umeaa | 3.17 | 182 | P | Pn | 18 01 28.1 | +1.4 |
| STOK | Stokkvaagen | 3.23 | 261 | *e*P | Pn | 18 01 29.6 | +2.2 |
| STOK | | | | *e*SG | Sb | 18 02 13.2 | -0.2 |
| STOK | Stokkvaagen | 3.23 | 261 | *e*P | Pn | 18 01 29.6 | +2.2 |
| | SNR=50 | | | | | | |
| STOK | | | | *e*Sg | Sb | 18 02 13.2 | -0.2 |
| | SNR=90 | | | | | | |
| FIA0 | FINESS Array S | 6.04 | 156 | Pn | Pn | 18 02 08.2 | +2.0 |
| | baz=347,slow=14 | | | | | | |
| FIA0 | | | | Sn | Sn | 18 03 15.8 | -0.1 |
| | baz=346,slow=22 | | | | | | |
| FIA0 | FINESS Array S | 6.04 | 156 | Pn | Pn | 18 02 08.2 | +2.0 |
| | baz=347,slow=14 | | | | | | |
| FIA0 | | | | Sn | Sn | 18 03 15.8 | -0.1 |
| | baz=346,slow=22 | | | | | | |
| FIA0 | FINESS Array S | 6.04 | 156 | Pn | Pn | 18 02 08.2 | +2.0 |
| | SNR=0.5 | | | | | | |
| FIA0 | | | | Sn | Sn | 18 03 15.8 | -0.1 |
| | SNR=3.3 | | | | | | |
| FINES | FINESS Array B | 6.04 | 156 | Pn | Pn | 18 02 07.8 | +1.6 |
| | comp=Z,0.1nm,0.3s,baz=347,slow=13,SNR=6.6 | | | | | | |
| FINES | | | | Sn | Sn | 18 03 14.9 | -1.0 |
| | comp=Z,0.2nm,0.3s,baz=344,slow=22,SNR=7.0 | | | | | | |
| FINES | | | | Lg | Lg | 18 03 45.4 | |
| | comp=Z,0.2nm,0.3s,baz=350,slow=24,SNR=3.2 | | | | | | |
| NB2 | NORSAR Subarra | 7.37 | 220 | Pn | Pn | 18 02 24.6 | +0.2 |
| | baz=22,slow=14 | | | | | | |
| NB2 | NORSAR Subarra | 7.37 | 220 | Pn | Pn | 18 02 24.6 | +0.2 |
| | baz=22,slow=14 | | | | | | |
| NB2 | NORSAR Subarra | 7.37 | 220 | Pn | Pn | 18 02 24.6 | +0.2 |
| | SNR=6.3 | | | | | | |
| NOA | NORSAR Array B | 7.37 | 220 | Pn | Pn | 18 02 25.3 | +0.9 |
| | comp=Z,0.1nm,0.3s,baz=44,slow=20,SNR=2.4 | | | | | | |
| NOA | | | | Sn | Sn | 18 03 45.1 | -3.4 |
| | comp=Z,0.1nm,0.3s,baz=224,slow=22,SNR=2.9 | | | | | | |
| HFS | Hagfors | 7.64 | 208 | Pn | Pn | 18 02 28.5 | +0.5 |
| | baz=34,slow=14 | | | | | | |
| HFS | Hagfors | 7.64 | 208 | Pn | Pn | 18 02 28.5 | +0.5 |
| | baz=34,slow=14 | | | | | | |
| HFS | Hagfors | 7.64 | 208 | Pn | Pn | 18 02 28.5 | +0.5 |
| | SNR=4.0 | | | | | | |

*JMA **07** 18:01:58.1, 22°.61N×121°.47E, h2km±2km*
*ISCJB **07** 18:01:59.9±0.4, 22°.62N±0°.03×121°.40E±0°.04, h23km±7km, Error ellipse: s-maj=5.7km s-min=4.4km az=2.8*
*TAP **07** 18:02:00.5, 22°.65N×121°.34E, h24km, ML3.1, A*
**ISC 07 18:01:59.7**±1.1**, 22°.63N**±0°.03×**121°.38E**±0°.04**, h15**km±10km**, n36,** σ**0s62**/49**, 1C, Taiwan region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TTN | Taitung | 0.24 | 300 | *i* P | Pb | 18 02 06.5 | +0.7 |
| | baz=300 | | | | | | |
| TWG | Pinlang | 0.34 | 304 | *i* P | Pb | 18 02 07.7 | +0.3 |
| | baz=304 | | | | | | |
| TWG | | | | *i* S | Sb | 18 02 12.8 | +0.2 |
| | baz=304 | | | | | | |
| ECL | Taimali | 0.39 | 265 | ⇑*i*P | Pb | 18 02 08.1 | -0.2 |
| | baz=261 | | | | | | |
| ECL | | | | *i* S | Sg | 18 02 13.5 | +0.4 |
| | baz=261 | | | | | | |
| CHKT | Chengkung | 0.47 | 359 | *e*P | Pb | 18 02 10.1 | +0.5 |
| | baz=12 | | | | | | |
| CHKT | | | | *e*S | Sb | 18 02 16.9 | +0.5 |
| | baz=12 | | | | | | |
| TAW | Tawu | 0.52 | 239 | *i* P | Pb | 18 02 10.4 | -0.1 |
| | baz=244 | | | | | | |
| TAW | | | | *i* S | Sg | 18 02 17.5 | +0.5 |
| | baz=244 | | | | | | |
| EAST | Anshuo | 0.55 | 243 | *i* P | Pg | 18 02 10.8 | +0.2 |
| | baz=240 | | | | | | |
| EAST | | | | *i* S | Sg | 18 02 17.9 | +0.1 |
| | baz=240 | | | | | | |
| LAY | Lan-yu | 0.61 | 165 | *e*P | Pb | 18 02 12.2 | +0.2 |
| | baz=153 | | | | | | |
| LAY | | | | *e*S | Sb | 18 02 21.1 | +0.6 |
| | baz=153 | | | | | | |
| ELDTW | Lidau | 0.65 | 329 | *e*P | Pg | 18 02 12.1 | -0.3 |
| | baz=331 | | | | | | |
| SSD | Sandimen | 0.70 | 280 | *i* P | Pg | 18 02 12.8 | -0.5 |
| | baz=275 | | | | | | |
| SSD | | | | *i* S | Sg | 18 02 21.4 | -1.1 |
| | baz=275 | | | | | | |
| TWF1 | Yuli | 0.72 | 354 | *e*P | Pb | 18 02 13.8 | -0.3 |
| | baz=344 | | | | | | |
| SCZT | Fangliau | 0.74 | 250 | *e*P | Pg | 18 02 13.8 | -0.4 |
| | baz=241 | | | | | | |
| STYT | Tauyuan | 0.78 | 313 | *e*P | Pg | 18 02 14.7 | -0.3 |
| | baz=320 | | | | | | |
| SGLT | Jiouru | 0.82 | 277 | *e*P | Pb | 18 02 15.9 | +0.3 |
| | baz=277 | | | | | | |
| HEN | Hengchun | 0.86 | 224 | *e*P | Pg | 18 02 16.3 | -0.1 |
| | baz=222 | | | | | | |
| SGST | Jiashian | 0.86 | 302 | P | Pg | 18 02 16.4 | 0.0 |
| | baz=309 | | | | | | |
| TWK1 | Hengchun | 0.86 | 218 | *e*P | Pg | 18 02 15.9 | -0.6 |
| | baz=205 | | | | | | |
| TWK1 | | | | *e*S | Sg | 18 02 27.4 | -0.5 |
| | baz=205 | | | | | | |
| TWM1 | Shoushan | 0.90 | 283 | *e*P | Pn | 18 02 17.8 | 0.0 |
| | baz=281 | | | | | | |
| WTP | Ta-pu | 0.93 | 311 | *e*P | Pb | 18 02 18.1 | +0.5 |
| | baz=318 | | | | | | |
| YUS | Yu-Shan | 0.94 | 336 | *e*P | Pg | 18 02 17.7 | -0.3 |
| | baz=329 | | | | | | |
| CHN1 | Nanshi | 0.96 | 305 | *e*P | Pn | 18 02 18.9 | +0.3 |
| | baz=312 | | | | | | |
| CHN4 | Tsaushan | 1.02 | 315 | *e*P | Pb | 18 02 19.2 | +0.2 |
| | baz=313 | | | | | | |
| ALS | Alishan | 1.02 | 329 | *e*P | Pb | 18 02 18.9 | -0.4 |
| | baz=328 | | | | | | |
| TWK | Hsinying | 1.03 | 308 | *e*P | Pn | 18 02 20.1 | +0.4 |
| | baz=315 | | | | | | |
| TWK | | | | *e*S | Sg | 18 02 33.6 | +0.3 |
| | baz=315 | | | | | | |
| CHN5 | Tsauling | 1.16 | 326 | *e*P | Pg | 18 02 21.8 | -0.3 |
| | baz=325 | | | | | | |
| ESL | Shilin | 1.18 | 3 | *e*P | Pn | 18 02 20.4 | -1.3 |
| | baz=350 | | | | | | |
| CHN2 | Minshiung | 1.22 | 317 | *e*P | Pg | 18 02 23.5 | +0.1 |
| | baz=315 | | | | | | |
| TYC | Yuchr | 1.35 | 339 | *e*P | Pb | 18 02 24.9 | +0.1 |
| | baz=346 | | | | | | |
| WNT | Mingjian | 1.40 | 333 | *e*P | Pg | 18 02 26.6 | 0.0 |
| | baz=329 | | | | | | |
| ENTT | Nioudou | 2.01 | 5 | *e*P | Pn | 18 02 33.2 | +0.1 |
| | baz=359 | | | | | | |
| NSK | Sanguang | 2.04 | 360 | *e*P | Pn | 18 02 34.4 | +0.9 |
| | baz=5.0 | | | | | | |
| JYNG | Yonagunijimaku | 2.32 | 38 | S | Sn | 18 03 06.0 | +0.6 |
| IRIF | Iriomote-Funau | 2.75 | 51 | P | Pn | 18 02 43.8 | +0.6 |
| IRIF | | | | S | Sn | 18 03 16.5 | +0.4 |
| JKRS | Kuro-shima | 2.90 | 56 | P | Pn | 18 02 45.8 | +0.5 |
| JKRS | | | | *e*S | Sn | 18 03 18.6 | -1.3 |
| JIJ | Ishigaki jima | 3.07 | 55 | P | Pn | 18 02 48.2 | +0.5 |
| JIJ | | | | *e*S | Sn | 18 03 24.2 | +0.1 |
| JISG | Ishigakijimahi | 3.32 | 54 | P | Pn | 18 02 51.3 | +0.2 |
| JISG | | | | *e*S | Sn | 18 03 27.8 | -2.5 |
| JTJ | Tarama | 3.65 | 56 | *e*S | Sn | 18 03 38.2 | -0.1 |

*ISCJB **07** 18:03:56.8±0.6, 32°.28N±0°.06×105°.56E±0°.08, h11km, mb3.4/5, Error ellipse: s-maj=10.4km s-min=6.5km az=34.1*
*IDC **07** 18:03:56.8±1.1, 32°.23N×105°.35E, h0km, mb3.4/5, mb1 3.5/7, mb1mx3.3/46, mbtmp3.3/7, ML3.1/2, Error ellipse: s-maj=60.7km s-min=18.4km az=61.0*
*BJI **07** 18:03:59.0, 32°.60N×105°.36E, h20km, ML3.7/17, Ms3.5/3*
**ISC 07 18:03:57.5**±0.7**, 32°.46N**±0°.06×**105°.45E**±0°.06**, h11**km**, n12,** σ**1s54**/17**, mb3.5**/5**, Sichuan**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CD2 | Chengdu | 2.12 | 223 | Pn | Pn | 18 04 33.1 | +0.2 |
| CD2 | | | | Pg | Pb | 18 04 36.7 | +0.8 |
| CD2 | | | | Sn | Sb | 18 05 02.2 | 0.0 |
| CD2 | | | | Sg | Sg | 18 05 05.8 | +0.2 |
| CD2 | | | | smax | smax | | |
| | comp=N,2µm,0.6s | | | | | | |
| CD2 | | | | smax | smax | | |
| | comp=E,2µm,0.5s | | | | | | |
| XAN | Xi'an | 3.31 | 61 | Pn | Pn | 18 04 49.8 | +0.6 |
| XAN | | | | Pg | Pb | 18 04 56.0 | -0.2 |
| XAN | | | | Sg | Sb | 18 05 36.7 | +0.3 |
| XAN | | | | smax | smax | | |
| | comp=N,220nm,0.6s | | | | | | |
| XAN | | | | smax | smax | | |
| | comp=E,270nm,0.8s | | | | | | |
| GYA | Guiyang | 6.08 | 170 | Pn | Pn | 18 05 28.2 | +0.8 |
| GYA | | | | Pg | Pg | 18 05 53.1 | -0.8 |
| GYA | | | | smax | smax | | |
| | comp=N,40nm,0.7s | | | | | | |
| GYA | | | | smax | smax | | |
| | comp=E,90nm,0.9s | | | | | | |
| GTA | Gaotai | 8.30 | 328 | *e*P | Pg | 18 06 30.6 | -5.8 |
| GTA | | | | pP | pP | 18 06 34.4 | |
| GTA | | | | sP | sP | 18 06 36.7 | |
| GTA | | | | pmax | pmax | | |
| | comp=Z,1.0nm,1.1s | | | | | | |
| GTA | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.9s | | | | | | |
| CMAR | Chiang Mai Arr | 15.13 | 204 | Pn | Pn | 18 07 30.3 | -0.9 |
| | comp=Z,0.0nm,0.3s,baz=9.9,slow=11,SNR=4.6 | | | | | | |
| SONM | Songino Array | 15.37 | 2 | Pn | P | 18 07 39.6 | +0.4 |
| | comp=Z,0.1nm,0.3s,baz=181,slow=13,SNR=2.7 | | | | | | |
| WMQ | Urumqi | 17.95 | 314 | *e*P | Pn | 18 08 03.3 | -3.8 |
| WMQ | | | | smax | smax | | |
| | comp=N,16nm,0.5s | | | | | | |
| WMQ | | | | smax | smax | | |
| | comp=E,22nm,0.5s | | | | | | |
| MKAR | Makanchi Array | 22.76 | 316 | P | P | 18 09 00.4 | +0.6 |
| | comp=E,1.9nm,1.0s,baz=131,slow=13,SNR=3.7 | | | | | | |
| ZALV | Zalesovo Beam | 26.04 | 332 | P | P | 18 09 33.0 | +2.5 |
| | comp=E,0.3nm,0.4s,baz=142,slow=12,SNR=2.6 | | | | | | |
| KURBB | Kurchatov Arra | 26.89 | 320 | P | P | 18 09 41.2 | +2.9 |
| | comp=E,0.2nm,0.4s,baz=123,slow=10.0,SNR=4.1 | | | | | | |
| WRA | Warramunga Arr | 58.99 | 148 | P | P | 18 13 57.0 | -0.3 |
| | comp=E,0.3nm,0.5s,baz=340,slow=7.5,SNR=7.6 | | | | | | |
| ASAR | Alice Springs | 62.08 | 150 | P | P | 18 14 18.4 | 0.0 |
| | comp=E,0.2nm,0.4s,baz=329,slow=6.8,SNR=2.9 | | | | | | |

*MOS **07** 18:04:38.7±0.2, 45°.02N×150°.98E, h35km, mb4.1/1, Error ellipse: s-maj=31.9km s-min=17.4km az=161.2*
**SKHL 07 18:04:39.8**±0.7**, 45°.04N**×**150°.97E, h44**km±1km**, mb4.5**/2**, 1D, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KUR | Kuril'sk | 2.21 | 276 | *d i*PN | Pn | 18 05 13.7 | -0.2 |
| KUR | | | | *i* S | Sn | 18 05 38.8 | -1.1 |
| KUR | | | | pmax | pmax | | |
| | comp=Z,62nm,0.7s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=N,387nm,0.3s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,355nm,0.6s | | | | | | |
| KUR | Kuril'sk | 2.21 | 276 | *i* P | Pn | 18 05 13.7 | -0.2 |
| KUR | | | | AMB | AMB | 18 05 14.1 | |
| | comp=E,66nm,0.3s | | | | | | |
| KUR | | | | *i* S | Sn | 18 05 38.8 | -1.1 |
| KUR | | | | A | A | 18 05 39.9 | |
| | comp=E,420nm,0.4s | | | | | | |
| KUR | | | | A | A | 18 05 39.9 | |
| | comp=E,450nm,0.4s | | | | | | |
| SHO | Shikotan | 3.19 | 250 | *e*PN | Pn | 18 05 27.4 | +0.1 |
| SHO | | | | *e*S | Sn | 18 06 03.3 | -0.8 |
| SHO | | | | smax | smax | | |
| | comp=N,22nm,0.2s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=E,104nm,0.3s | | | | | | |
| SHO | Shikotan | 3.19 | 250 | *e*P | Pn | 18 05 27.4 | +0.1 |
| SHO | | | | *e*S | Sn | 18 06 03.3 | -0.8 |
| SHO | | | | A | A | 18 06 04.3 | |
| | comp=E,22nm,0.2s | | | | | | |
| SHO | | | | A | A | 18 06 04.3 | |
| | comp=E,105nm,0.2s | | | | | | |
| YUK | Yuzh-Kuril'sk | 3.79 | 256 | *e*PN | Pn | 18 05 36.5 | +0.9 |
| YUK | | | | *e*S | Sn | 18 06 19.5 | +0.6 |
| YUK | | | | pmax | pmax | | |
| | comp=Z,58nm,0.7s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,43nm,0.3s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=E,85nm,0.7s | | | | | | |
| YUK | Yuzh-Kuril'sk | 3.79 | 256 | *e*P | Pn | 18 05 36.5 | +0.9 |
| YUK | | | | AMB | AMB | 18 05 36.9 | |
| | comp=E,58nm,0.5s | | | | | | |
| YUK | | | | *e*S | Sn | 18 06 18.5 | -0.4 |
| YUK | | | | A | A | 18 06 28.5 | |
| | comp=E,43nm,0.3s | | | | | | |
| YUK | | | | A | A | 18 06 28.5 | |
| | comp=E,85nm,0.3s | | | | | | |
| LAGR | Lagunnoye | 3.83 | 257 | PN | Pn | 18 05 36.9 | +0.7 |
| LAGR | | | | *e*S | Sn | 18 06 20.3 | +0.3 |
| LAGR | Lagunnoye | 3.83 | 257 | *e*P | Pn | 18 05 36.9 | +0.7 |
| LAGR | | | | *e*S | Sn | 18 06 20.3 | +0.3 |
| GRPR | Tuman | 3.86 | 256 | PN | Pn | 18 05 36.9 | +0.3 |
| GRPR | Tuman | 3.86 | 256 | *e*P | Pn | 18 05 36.9 | +0.3 |
| YSS | Yuzh-Sakhalins | 6.04 | 291 | *e*PN | Pn | 18 06 07.9 | +1.5 |
| YSS | Yuzh-Sakhalins | 6.04 | 291 | *e*P | Pn | 18 06 07.9 | +1.5 |
| SKR | Severo-Kuril's | 6.62 | 30 | *e*PN | Pn | 18 06 15.9 | +1.5 |
| SKR | Severo-Kuril's | 6.62 | 30 | *e*P | Pn | 18 06 15.9 | +1.5 |

*ISCJB **07** 18:08:19.9±0.4, 21°.53S±0°.05×66°.86W±0°.06, h250km, mb4.0/2, Error ellipse: s-maj=9.6km s-min=4.6km az=44.1*
*SJA **07** 18:08:20.9±0.3, 21°.31S×66°.55W, h229km±4km, ML3.2, MW3.2*
*IDC **07** 18:08:25.7±8.2, 21°.03S×66°.55W, h248km±73km, mb3.8/1, mb1 3.6/2, mb1mx3.1/20, mbtmp4.1/2, Error ellipse: s-maj=92.5km s-min=61.9km az=170.0*
*NEIC **07** 18:08:26.1±1.4, 20°.90S×67°.00W, h261km±13km, mb4.2/1, Error ellipse: s-maj=33.2km s-min=19.7km az=106.0*
**ISC 07 18:08:21.6**±0.8**, 21°.47S**±0°.06×**66°.78W**±0°.06**, h250**km**, n19,** σ**3s16**/29**, Southern Bolivia**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| YJA | Yavi | 1.37 | 121 | *e*P | Pn | 18 08 57.0 | -2.5 |
| YJA | | | | IAML | | 18 09 26.6 | |
| | comp=Z,44nm,0.4s | | | | | | |
| HJA | Humahuaca | 2.14 | 144 | *e*P | Pn | 18 09 04.7 | -1.2 |
| HJA | | | | IAML | | 18 09 05.8 | |
| | comp=Z,166nm,0.3s | | | | | | |
| HJA | | | | *e*S | S | 18 09 37.1 | -3.6 |
| PB01 | IPOC Station P | 2.56 | 279 | *e*Pn | Pn | 18 09 08.3 | -1.3 |
| PB01 | | | | *e*S | S | 18 09 43.7 | -3.8 |
| AZAP | Zapla | 3.16 | 150 | *e*P | Pn | 18 09 15.6 | -0.6 |
| AZAP | | | | *e*S | S | 18 09 56.0 | -3.3 |
| PB11 | IPOC Station P | 3.19 | 302 | *e*Pn | Pn | 18 09 15.1 | -1.3 |
| PB11 | | | | *e*S | S | 18 09 55.3 | -4.4 |
| PB04 | IPOC Station P | 3.25 | 254 | *e*Pn | Pn | 18 09 16.8 | -0.2 |
| PB04 | | | | *e*S | S | 18 09 56.3 | -4.5 |
| ASTB | Santa Barbara | 3.27 | 139 | *e*P | Pn | 18 09 16.0 | -1.2 |
| ASTB | | | | *e*S | S | 18 09 56.8 | -4.5 |
| ALOL | LOMAS DE OLMED | 3.48 | 133 | *e*P | Pn | 18 09 17.8 | -1.6 |
| ALOL | | | | *e*S | S | 18 09 59.7 | -5.6 |
| MNMC | Minye Minye | 3.52 | 311 | *e*Pn | Pn | 18 09 19.6 | -0.7 |
| MNMC | | | | *e*S | S | 18 10 03.0 | -3.7 |
| FSA | Cafayete | 4.68 | 171 | *e*P | Pn | 18 09 34.7 | +1.0 |
| LPAZ | La Paz | 5.31 | 346 | P | Pn | 18 09 41.8 | -0.2 |
| | comp=Z,2.2nm,0.3s,baz=159,slow=8.6,SNR=42 | | | | | | |
| LPAZ | | | | S | S | 18 10 42.2 | -3.7 |
| | baz=61,slow=19,SNR=3.9 | | | | | | |
| LPAZ | La Paz | 5.31 | 346 | *e*Pn | Pn | 18 09 41.0 | -1.0 |
| LPAZ | | | | *e* | | 18 09 41.7 | |
| LPAZ | | | | S | S | 18 10 42.2 | -3.7 |
| WMOK | Wichita Mounta | 63.64 | 331 | *e*P | P | 18 18 25.0 | -1.3 |
| | comp=Z,1.9nm,0.4s | | | | | | |
| TOA1 | Torodi Ar. Sit | 75.48 | 69 | *e*P | P | 18 19 41.2 | +2.3 |
| TORD | Torodi Ar. Bea | 75.48 | 69 | P | P | 18 19 41.2 | +2.3 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| | comp=Z,1.8nm,0.5s,baz=257,slow=5.7,SNR=24 | | | | | | |
| WR1 | Warramunga Arr | 133.95 | 208 | ePKPdf | PKPdf | 18 27 14.1 | +4.2 |
| WRA | Warramunga Arr | 133.95 | 208 | PKP | PKPdf | 18 27 14.1 | +4.2 |
| | comp=Z,0.3nm,0.9s,baz=153,slow=1.9,SNR=3.1 | | | | | | |
| MK32 | Makanchi Array | 144.43 | 37 | ePKPdf | PKPdf | 18 27 31.4 | +3.4 |
| MKAR | Makanchi Array | 144.43 | 37 | PKP | PKPdf | 18 27 31.4 | +3.4 |
| | comp=Z,0.4nm,0.4s,baz=325,slow=2.9,SNR=5.9 | | | | | | |

**GUC 07 18:26:46.9±0.6, 19°.56S×70°.70W, h44km±5km, ML3.6, 1C-2D, Near coast of northern Chile**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PSGC | Pisagua | 0.54 | 94 | ⇑iP | Pn | 18 26 58.0 | -0.4 |
| PSGC | | | | iS | Sn | 18 27 05.8 | -0.9 |
| PB12 | IPOC Station P | 1.00 | 20 | ⇓iP | Pn | 18 27 05.3 | +0.7 |
| PB12 | | | | iS | Sn | 18 27 19.1 | +1.5 |
| PB12 | | | | IAML | | 18 27 21.5 | |
| | comp=N,7µm,0.6s | | | | | | |
| PB11 | IPOC Station P | 1.00 | 102 | ⇓iP | Pn | 18 27 05.7 | +1.0 |
| PB11 | | | | iS | Sn | 18 27 19.5 | +1.8 |
| MNMC | Minye Minye | 1.12 | 68 | eP | Pn | 18 27 08.1 | +1.6 |
| MNMC | | | | iS | Sn | 18 27 22.8 | +1.9 |
| MNMC | | | | IAML | | 18 27 30.6 | |
| | comp=N,2µm,0.2s | | | | | | |
| PB01 | IPOC Station P | 1.86 | 143 | eP | Pn | 18 27 17.9 | +1.5 |
| PB01 | | | | iS | Sn | 18 27 40.8 | +1.9 |
| PB02 | IPOC Station P | 1.91 | 157 | eP | Pn | 18 27 18.3 | +1.2 |
| PB02 | | | | iS | Sn | 18 27 41.0 | +1.0 |
| PB02 | | | | IAML | | 18 27 49.4 | |
| | comp=E,455nm,0.5s | | | | | | |

*ISCJB **07** 18:31:50.8±0.4, 40°.65N±0°.03×27°.40E±0°.03, h8km±4km, Error ellipse: s-maj=4.6km s-min=3.6km az=171.9*
*DDA **07** 18:31:50.7, 40°.63N×27°.39E, h14km, Ml2.9*
*ISK **07** 18:31:50.6, 40°.62N×27°.39E, h14km, MD2.6*
*CSEM **07** 18:31:51.0±0.1, 40°.63N×27°.39E, h10km, MD2.6, Error ellipse: s-maj=2.4km s-min=1.9km az=2.0*
**ISC 07 18:31:50.7±0.8, 40°.63N±0°.02×27°.40E±0°.02, h14km±6km, n62, σ0.38/79, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SART | Tekirdag | 0.18 | 290 | iP | Pg | 18 31 55.1 | +0.1 |
| SART | | | | iS | Sg | 18 31 58.0 | +0.1 |
| SART | Tekirdag | 0.18 | 290 | P | Pg | 18 31 55.1 | +0.1 |
| SART | | | | S | Sg | 18 31 58.0 | +0.1 |
| RKY | Sarkoy-Tekirda | 0.18 | 289 | ePG | Pg | 18 31 55.1 | +0.1 |
| RKY | | | | eSG | Sg | 18 31 57.7 | -0.2 |
| RKY | Sarkoy-Tekirda | 0.18 | 289 | ePg | Pg | 18 31 55.1 | +0.1 |
| RKY | | | | eSg | Sg | 18 31 57.7 | -0.2 |
| KRBG | Karabiga-Canak | 0.25 | 198 | ePG | Pg | 18 31 55.9 | -0.2 |
| KRBG | | | | eSG | Sg | 18 32 00.2 | +0.5 |
| KRBG | Karabiga-Canak | 0.25 | 198 | ePg | Pg | 18 31 55.9 | -0.2 |
| KRBG | | | | eSg | Sg | 18 32 00.2 | +0.5 |
| TKR | Tekirdag | 0.38 | 16 | ePG | Pb | 18 31 59.1 | 0.0 |
| TKR | Tekirdag | 0.38 | 16 | ePg | Pb | 18 31 59.1 | 0.0 |
| EDC | Edincik | 0.45 | 128 | ePG | Pg | 18 31 59.7 | 0.0 |
| EDC | Edincik | 0.45 | 128 | ePg | Pg | 18 31 59.7 | 0.0 |
| SBT3 | Marmara-Eregli | 0.51 | 60 | ePG | Pb | 18 32 01.5 | +0.2 |
| SBT3 | Marmara-Eregli | 0.51 | 60 | ePg | Pb | 18 32 01.5 | +0.2 |
| LPK | Lapseki | 0.55 | 242 | ePG | Pg | 18 32 01.6 | 0.0 |
| LPK | Lapseki | 0.55 | 242 | ePg | Pg | 18 32 01.6 | 0.0 |
| KESN | Edirne-Kesan | 0.58 | 290 | iP | Pg | 18 32 02.3 | 0.0 |
| KESN | | | | iS | Sg | 18 32 10.3 | +0.2 |
| KESN | Edirne-Kesan | 0.58 | 290 | P | Pg | 18 32 02.3 | 0.0 |
| KESN | | | | S | Sg | 18 32 10.3 | +0.2 |
| GONE | Gonen-Balikesi | 0.62 | 159 | ePG | Pb | 18 32 03.2 | -0.1 |
| GONE | Gonen-Balikesi | 0.62 | 159 | ePg | Pb | 18 32 03.2 | -0.1 |
| ERIK | Erikli-Kesan | 0.68 | 274 | ePG | Pb | 18 32 04.3 | 0.0 |
| ERIK | Erikli-Kesan | 0.68 | 274 | ePg | Pb | 18 32 04.3 | 0.0 |
| GELI | Tayfur-Gelibol | 0.74 | 252 | ePG | Pb | 18 32 05.1 | -0.3 |
| GELI | Tayfur-Gelibol | 0.74 | 252 | ePg | Pb | 18 32 05.1 | -0.3 |
| KCTX | Karacabey (Bur | 0.81 | 116 | ePG | Pg | 18 32 06.5 | -0.1 |
| KCTX | Karacabey (Bur | 0.81 | 116 | ePg | Pg | 18 32 06.5 | -0.1 |
| SLVT | Silivri | 0.86 | 45 | ePG | Pn | 18 32 08.1 | -0.3 |
| SLVT | Silivri | 0.86 | 45 | ePg | Pn | 18 32 08.1 | -0.3 |
| BALY | Balya | 0.90 | 169 | iP | Pg | 18 32 08.5 | +0.3 |
| BALY | | | | iS | Sn | 18 32 21.0 | -0.9 |
| BALY | Balya | 0.90 | 169 | P | Pg | 18 32 08.5 | +0.3 |
| ENEZ | Enez | 0.95 | 277 | ePG | Pn | 18 32 09.7 | 0.0 |
| ENEZ | Enez | 0.95 | 277 | ePg | Pn | 18 32 09.7 | 0.0 |
| BALB | Balikesir | 1.05 | 159 | ePG | Pn | 18 32 11.1 | 0.0 |
| BALB | Balikesir | 1.05 | 159 | ePg | Pn | 18 32 11.1 | 0.0 |
| ALN | Alexandroupoli | 1.06 | 285 | ePG | Pn | 18 32 11.3 | +0.1 |
| ALN | Alexandroupoli | 1.06 | 285 | ePg | Pn | 18 32 11.3 | +0.1 |
| BAYC | CANAKKALE_Bayr | 1.10 | 217 | iP | Pg | 18 32 11.8 | -0.2 |
| BAYC | | | | iS | Sn | 18 32 26.8 | +0.1 |
| BAYC | CANAKKALE_Bayr | 1.10 | 217 | P | Pg | 18 32 11.8 | -0.2 |
| BAYC | | | | S | Sn | 18 32 26.8 | +0.1 |
| ARMT | Armutlu | 1.11 | 93 | ePN | Pb | 18 32 11.9 | +0.1 |
| ARMT | Armutlu | 1.11 | 93 | ePn | Pb | 18 32 11.9 | +0.1 |
| SBT5 | Esenkoy-Cinarc | 1.13 | 89 | ePN | Pg | 18 32 12.4 | 0.0 |
| SBT5 | Esenkoy-Cinarc | 1.13 | 89 | ePn | Pg | 18 32 12.4 | 0.0 |
| EZN | Ezine | 1.15 | 226 | ePN | Pb | 18 32 12.2 | -0.2 |
| EZN | Ezine | 1.15 | 226 | ePn | Pb | 18 32 12.2 | -0.2 |
| MDNY | Mudanya-Bursa | 1.16 | 102 | ePN | Pg | 18 32 13.0 | -0.1 |
| MDNY | Mudanya-Bursa | 1.16 | 102 | ePn | Pg | 18 32 13.0 | -0.1 |
| GADA | Gvkgeada | 1.23 | 250 | ePN | Pb | 18 32 13.8 | +0.1 |
| GADA | Gvkgeada | 1.23 | 250 | ePn | Pb | 18 32 13.8 | +0.1 |
| STEP | BALIKESIR_Sava | 1.27 | 169 | iP | Pg | 18 32 16.4 | +1.1 |
| STEP | | | | iS | Sg | 18 32 33.0 | +1.1 |
| STEP | BALIKESIR_Sava | 1.27 | 169 | P | Pg | 18 32 16.4 | +1.1 |
| STEP | | | | S | Sg | 18 32 33.0 | +1.1 |
| BOZC | Bozcaada | 1.30 | 233 | ePN | Pb | 18 32 14.6 | -0.3 |
| BOZC | Bozcaada | 1.30 | 233 | iP | Pg | 18 32 15.2 | -0.5 |
| BOZC | | | | iS | Sg | 18 32 32.8 | +0.2 |
| BOZC | Bozcaada | 1.30 | 233 | ePn | Pb | 18 32 14.6 | -0.3 |
| EDRB | Edirne | 1.31 | 338 | ePN | Pb | 18 32 15.4 | +0.2 |
| EDRB | Edirne | 1.31 | 338 | ePn | Pb | 18 32 15.4 | +0.2 |
| ISK | Istanbul-Kandi | 1.33 | 70 | ePN | Pn | 18 32 14.9 | 0.0 |
| ISK | Istanbul-Kandi | 1.33 | 70 | ePn | Pn | 18 32 14.9 | 0.0 |
| KAVV | Kandilli-Istan | 1.33 | 70 | ePN | Pb | 18 32 15.5 | 0.0 |
| KAVV | Kandilli-Istan | 1.33 | 70 | ePn | Pb | 18 32 15.5 | 0.0 |
| IGD | Bursa | 1.42 | 104 | iP | Pb | 18 32 17.4 | +0.3 |
| IGD | | | | iS | Sg | 18 32 36.3 | -0.2 |
| YLV | Yalova | 1.50 | 92 | ePN | Pb | 18 32 18.1 | -0.3 |
| YLV | Yalova | 1.50 | 92 | ePn | Pb | 18 32 18.1 | -0.3 |
| DEMI | Demirci | 1.88 | 147 | eP | Pb | 18 32 23.8 | -1.1 |
| DEMI | | | | iS | Sg | 18 32 51.4 | +0.2 |
| DEMI | Demirci | 1.88 | 147 | P | Pb | 18 32 23.8 | -1.1 |
| DEMI | | | | S | Sg | 18 32 51.4 | +0.2 |

**IDC 07 18:35:11.2±5.0, 31°.79S×176°.41W, h0km, mb3.7/3, mb1 3.9/3, mb1mx3.7/25, mbtmp3.7/3, MS3.5/2, Ms1 3.5/2, ms1mx2.8/31, Error ellipse: s-maj=202.3km s-min=58.3km az=162.0, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DZM | Mont Dzumac | 18.07 | 298 | LR | LR | 18 44 48.9 | |
| | comp=Z,45nm,18.9s,baz=61,slow=32 | | | | | | |
| CTA | Charters Tower | 35.37 | 280 | P | P | 18 42 09.8 | +1.0 |
| | 1.8nm,0.8s,baz=137,slow=7.1,SNR=3.4 | | | | | | |
| ASAR | Alice Springs | 44.41 | 268 | P | P | 18 43 23.6 | -0.3 |
| | 0.4nm,0.7s,baz=104,slow=7.3,SNR=7.7 | | | | | | |
| WRA | Warramunga Arr | 45.52 | 273 | P | P | 18 43 31.8 | -1.0 |
| | 0.8nm,0.8s,baz=111,slow=8.0,SNR=10 | | | | | | |
| CPUP | Villa Florida | 98.06 | 128 | LR | LR | 19 24 42.1 | |
| | comp=Z,57nm,20.8s,baz=196,slow=30 | | | | | | |
| FINES | FINESS Array B | 146.91 | 340 | PKPbc | PKPbc | 18 54 54.2 | -0.7 |
| | 3.9nm,1.0s,baz=35,slow=5.1,SNR=3.7 | | | | | | |

*ATA **07** 18:36:01.3±1.0, 38°.65N×43°.10E, h7km±999km, ML2.7, MW2.7*
*ISK **07** 18:36:02.6, 38°.67N×43°.05E, h14km, MD2.6*
*ISCJB **07** 18:36:03.6±0.4, 38°.66N±0°.02×43°.05E±0°.03, h7km±5km, Error ellipse: s-maj=4.1km s-min=3.9km az=15.7*
*CSEM **07** 18:36:03.4±0.2, 38°.65N×43°.06E, h8km, MD2.6, Error ellipse: s-maj=4.5km s-min=3.9km az=141.0*
*DDA **07** 18:36:03.2, 38°.67N×43°.04E, h7km, Ml2.6*
**ISC 07 18:36:03.4±0.9, 38°.65N±0°.02×43°.06E±0°.02, h11km±8km, n29, σ0.71/55, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.26 | 102 | ePG | Pg | 18 36 09.4 | +0.6 |
| VANB | | | | eSG | Sb | 18 36 14.8 | 0.0 |
| VANB | Van | 0.26 | 102 | ePg | Pg | 18 36 09.4 | +0.6 |
| VANB | | | | eSg | Sb | 18 36 14.8 | 0.0 |
| TVAN | Van | 0.30 | 114 | iP | Pg | 18 36 09.4 | -0.1 |
| TVAN | | | | iS | Sb | 18 36 15.0 | -0.9 |
| TVAN | Van | 0.30 | 114 | P | Pg | 18 36 09.4 | -0.1 |
| TVAN | | | | S | Sb | 18 36 15.0 | -0.9 |
| ADCV | BITLIS_Adilcev | 0.31 | 301 | iP | Pg | 18 36 09.6 | -0.1 |
| ADCV | | | | iS | Sb | 18 36 15.0 | -1.1 |
| ADCV | BITLIS_Adilcev | 0.31 | 301 | P | Pg | 18 36 09.6 | -0.1 |
| ADCV | | | | S | Sb | 18 36 15.0 | -1.1 |
| GEVA | Gevas | 0.34 | 180 | eP | Pg | 18 36 08.9 | -1.2 |
| GEVA | | | | eS | Sg | 18 36 14.1 | -0.6 |
| GEVA | | | | IAML | | 18 36 18.3 | |
| | comp=Z,53nm,0.3s | | | | | | |
| GEVA | Gevas | 0.34 | 180 | iP | Pg | 18 36 09.1 | -1.1 |
| GEVA | | | | iS | Sg | 18 36 15.7 | +1.1 |
| GEVA | Gevas | 0.34 | 180 | P | Pg | 18 36 09.1 | -1.1 |
| GEVA | | | | S | Sg | 18 36 15.7 | +1.1 |
| VMUR | Van-Muradiye | 0.53 | 49 | iP | Pb | 18 36 14.1 | -0.7 |
| VMUR | | | | iS | Sb | 18 36 22.8 | +0.4 |
| VMUR | Van-Muradiye | 0.53 | 49 | P | Pb | 18 36 14.1 | -0.7 |
| VMUR | | | | S | Sb | 18 36 22.8 | +0.4 |
| TUTA | Tutak | 0.78 | 346 | eP | Pg | 18 36 17.4 | -0.9 |
| TUTA | | | | eS | Sg | 18 36 28.6 | 0.0 |
| TUTA | | | | IAML | | 18 36 31.9 | |
| | comp=Z,29nm,0.2s | | | | | | |
| TUTA | Tutak | 0.78 | 346 | iP | Pg | 18 36 17.5 | -0.9 |
| TUTA | | | | iS | Sg | 18 36 28.6 | 0.0 |
| TUTA | Tutak | 0.78 | 346 | P | Pg | 18 36 17.5 | -0.9 |
| TUTA | | | | S | Sg | 18 36 28.6 | 0.0 |
| CLDR | Caldiran | 0.83 | 53 | ePG | Pg | 18 36 19.2 | -0.3 |
| CLDR | | | | eSG | Sb | 18 36 30.8 | -0.5 |
| CLDR | Caldiran | 0.83 | 53 | iP | Pg | 18 36 19.5 | 0.0 |
| CLDR | | | | iS | Sb | 18 36 31.6 | +0.3 |
| CLDR | Caldiran | 0.83 | 53 | ePg | Pg | 18 36 19.2 | -0.3 |
| CLDR | Caldiran | 0.83 | 53 | P | Pg | 18 36 19.5 | 0.0 |
| CLDR | | | | eSg | Sb | 18 36 30.8 | -0.5 |
| CLDR | | | | S | Sb | 18 36 31.6 | +0.3 |
| AGRB | Hanur-Agry | 0.93 | 357 | ePG | Pg | 18 36 20.5 | -0.8 |
| AGRB | | | | eSG | Sb | 18 36 33.6 | -0.4 |
| AGRB | Hanur-Agry | 0.93 | 357 | ePg | Pg | 18 36 20.5 | -0.8 |
| AGRB | | | | eSg | Sb | 18 36 33.6 | -0.4 |
| EKAR | Karacoban | 0.98 | 308 | eP | Pg | 18 36 21.6 | -0.8 |
| EKAR | | | | eS | Sb | 18 36 36.5 | +0.8 |
| EKAR | | | | IAML | | 18 36 53.7 | |
| | comp=Z,6.9nm,0.6s | | | | | | |
| EKAR | Karacoban | 0.98 | 308 | iP | Pn | 18 36 24.1 | +0.7 |
| EKAR | | | | iS | Sn | 18 36 39.6 | +2.1 |
| EKAR | Karacoban | 0.98 | 308 | P | Pn | 18 36 24.1 | +0.7 |
| SRTM | Siirt_Merkez | 1.11 | 234 | iP | Pg | 18 36 24.6 | -0.1 |
| SRTM | | | | iS | Sn | 18 36 40.4 | +0.1 |
| SRTM | Siirt_Merkez | 1.11 | 234 | P | Pg | 18 36 24.6 | -0.1 |
| SRTM | | | | S | Sn | 18 36 40.4 | +0.1 |
| CUKT | Cukurca | 1.46 | 163 | ePN | Pn | 18 36 29.5 | -0.4 |
| CUKT | Cukurca | 1.46 | 163 | ePn | Pn | 18 36 29.5 | -0.4 |
| BTMN | Batman | 1.60 | 242 | eP | Pb | 18 36 33.0 | 0.0 |
| BTMN | | | | iS | Sb | 18 36 53.9 | +0.7 |
| BTMN | Batman | 1.60 | 242 | P | Pb | 18 36 33.0 | 0.0 |
| BTMN | | | | S | Sb | 18 36 53.9 | +0.7 |

**IDC 07 18:42:47.9±9.5, 14°.77S×167°.57E, h106km±69km, mb3.7/4, mb1 3.9/5, mb1mx3.4/30, mbtmp4.1/5, ML4.3/1, MS3.3/1, Ms1 3.3/1, ms1mx2.7/21, Error ellipse: s-maj=122.0km s-min=54.6km az=74.0, Vanuatu Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DZM | Mont Dzumac | 7.34 | 188 | P | Pn | 18 44 33.3 | +0.8 |
| | 4.8nm,0.3s,baz=3.5,slow=19,SNR=82 | | | | | | |
| DZM | | | | S | Sn | 18 45 52.9 | -1.3 |
| | 3.5nm,0.3s,baz=135,slow=16,SNR=3.6 | | | | | | |
| RAO | Raoul Island | 19.69 | 139 | LR | LR | 18 52 09.5 | |
| | comp=Z,93nm,19.5s,baz=358,slow=28 | | | | | | |
| CTA | Charters Tower | 21.00 | 252 | P | P | 18 47 24.8 | +1.7 |
| | 1.9nm,0.7s,baz=86,slow=12,SNR=4.5 | | | | | | |
| STKA | Stephens Creek | 29.18 | 230 | P | P | 18 48 40.5 | +1.1 |
| | 2.1nm,0.4s,baz=51,slow=9.3,SNR=6.6 | | | | | | |
| WRA | Warramunga Arr | 32.09 | 256 | P | P | 18 49 04.2 | -1.0 |
| | 0.7nm,0.5s,baz=84,slow=8.9,SNR=19 | | | | | | |
| ASAR | Alice Springs | 32.93 | 249 | P | P | 18 49 11.8 | -0.7 |
| | 2.3nm,0.6s,baz=77,slow=9.4,SNR=58 | | | | | | |

**MAN 07 18:47:19, 17°.43N×119°.82E, h30km, mb4.2, ML3.0, MS2.7, Philippine Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ABRA | Dolores | 0.88 | 75 | eP | Pb | 18 47 36.0 | +0.3 |
| ABRA | | | | eS | Sn | 18 47 45.0 | -2.0 |
| BOLP | Bolinao | 1.04 | 175 | eP | Pb | 18 47 38.5 | -0.1 |
| APYP | Conner | 1.42 | 72 | eP | Pb | 18 47 44.0 | -0.9 |
| APYP | | | | eS | Sn | 18 48 01.4 | +0.9 |
| SCZP | Santa Cruz | 1.65 | 177 | eP | Pn | 18 47 46.7 | +0.8 |
| CAUP | Cauayan | 1.97 | 104 | eP | Pb | 18 47 54.1 | -0.1 |

*ATH **07** 19:01:04.6, 34°.90N×26°.22E, h10km±1km, ML3.1/8, Error ellipse: s-maj=2.9km s-min=1.0km az=350.0*
*IDC **07** 19:01:04.3±1.4, 34°.93N×26°.27E, h0km, mb3.7/3, mb1 3.5/4, mb1mx3.3/38, mbtmp3.5/4, ML2.2/1, MS2.9/1, Ms1 2.9/1, ms1mx2.4/34, Error ellipse: s-maj=29.8km s-min=12.5km az=0.0*
*CSEM **07** 19:01:05.1±0.7, 34°.90N×26°.23E, h2km, ML3.0, Error ellipse: s-maj=17.7km s-min=5.3km az=168.0*
*THE **07** 19:01:05.5, 34°.98N×26°.18E, h0km±1km, ML3.0/5, Error ellipse: s-maj=3.1km s-min=1.0km az=148.0*
**ISC 07 19:01:05.2±1.6, 34°.91N±0°.07×26°.21E±0°.03, h6km±10km, n34, σ0.71/55, mb3.6/3, Crete**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ZKR | Zakros | 0.20 | 2 | P | Pg | 19 01 09.2 | 0.0 |
| ZKR | | | | S | Sg | 19 01 11.7 | -0.3 |
| ZKR | | | | AML | AML | 19 01 12.4 | |
| | comp=E,22283µm,0.4s | | | | | | |
| ZKR | | | | AML | AML | 19 01 12.5 | |
| | comp=N,5149µm,0.4s | | | | | | |
| ZKR | Zakros | 0.20 | 2 | P | Pg | 19 01 09.2 | 0.0 |
| ZKR | | | | S | Sg | 19 01 12.4 | +0.4 |
| ZKR | Zakros | 0.20 | 2 | P | Pg | 19 01 09.2 | 0.0 |
| ZKR | | | | S | Sg | 19 01 12.4 | +0.4 |
| NPS | Neapolis | 0.60 | 306 | P | Pg | 19 01 16.6 | -0.1 |
| NPS | | | | S | Sb | 19 01 26.0 | -0.8 |
| NPS | | | | AML | AML | 19 01 28.0 | |
| | comp=E,6457µm,0.3s | | | | | | |
| NPS | | | | AML | AML | 19 01 28.1 | |
| | comp=N,5059µm,0.3s | | | | | | |
| NPS | Neapolis | 0.60 | 306 | P | Pg | 19 01 16.6 | -0.1 |
| NPS | | | | S | Sb | 19 01 26.0 | -0.8 |
| NPS | Neapolis | 0.60 | 306 | P | Pg | 19 01 16.6 | -0.1 |
| NPS | | | | S | Sb | 19 01 26.1 | -0.7 |
| LAST | Lasithi | 0.65 | 293 | P | Pg | 19 01 17.1 | -0.6 |
| LAST | | | | S | Sg | 19 01 26.9 | +0.8 |
| LAST | | | | AML | AML | 19 01 29.6 | |
| | comp=E,3790µm,0.6s | | | | | | |
| LAST | | | | AML | AML | 19 01 30.3 | |
| | comp=N,3181µm,0.4s | | | | | | |
| LAST | Lasithi | 0.65 | 293 | P | Pg | 19 01 17.3 | -0.3 |
| LAST | | | | S | Sg | 19 01 26.9 | +0.8 |
| LAST | Lasithi | 0.65 | 293 | P | Pg | 19 01 17.3 | -0.3 |
| LAST | | | | S | Sb | 19 01 27.6 | -0.6 |
| KARP | Karpathos | 1.01 | 51 | P | Pg | 19 01 24.0 | -0.5 |
| KARP | | | | S | Sb | 19 01 38.6 | 0.0 |
| KARP | | | | AML | AML | 19 01 43.4 | |
| | comp=E,1146µm,0.5s | | | | | | |
| KARP | | | | AML | AML | 19 01 44.8 | |
| | comp=N,1157µm,0.3s | | | | | | |
| KARP | Karpathos | 1.01 | 51 | P | Pg | 19 01 24.0 | -0.5 |
| KARP | | | | S | Sb | 19 01 38.6 | 0.0 |
| KARP | Karpathos | 1.01 | 51 | P | Pg | 19 01 24.5 | 0.0 |
| IDI | Anoyia | 1.14 | 290 | Pg | Pg | 19 01 26.4 | -0.7 |
| | comp=N,3.2nm,0.3s,baz=110,slow=18,SNR=20 | | | | | | |
| IDI | | | | Lg | Lg | 19 01 43.9 | |
| | comp=N,35nm,0.3s,baz=356,slow=19,SNR=13 | | | | | | |
| IDI | Anoyia | 1.14 | 290 | P | Pg | 19 01 26.4 | -0.7 |
| IDI | | | | S | Sg | 19 01 41.7 | -0.2 |
| IDI | | | | AML | AML | 19 01 47.7 | |
| | comp=N,864µm,0.5s | | | | | | |
| IDI | | | | AML | AML | 19 01 55.8 | |
| | comp=E,924µm,0.7s | | | | | | |
| IDI | Anoyia | 1.14 | 290 | P | Pg | 19 01 26.6 | -0.5 |
| IDI | | | | S | Sg | 19 01 41.7 | -0.2 |
| IDI | Anoyia | 1.14 | 290 | P | Pg | 19 01 26.6 | -0.5 |
| IDI | | | | S | Sn | 19 01 43.3 | -0.5 |
| SIVA | Sivas | 1.15 | 276 | P | Pg | 19 01 26.1 | -1.1 |
| SIVA | | | | S | Sg | 19 01 42.6 | +0.4 |
| SIVA | | | | AML | AML | 19 01 47.2 | |
| | comp=E,2257µm,0.6s | | | | | | |
| SIVA | | | | AML | AML | 19 01 49.3 | |
| | comp=N,2177µm,0.6s | | | | | | |
| SIVA | Sivas | 1.15 | 276 | P | Pg | 19 01 27.0 | -0.3 |
| SIVA | | | | S | Sg | 19 01 42.6 | +0.4 |
| SIVA | Sivas | 1.15 | 276 | P | Pg | 19 01 27.0 | -0.3 |
| SIVA | | | | S | Sn | 19 01 44.1 | +0.2 |
| THR3 | Thira Island, | 1.63 | 337 | P | Pn | 19 01 33.6 | -0.8 |
| THR3 | Thira Island, | 1.63 | 337 | P | Pn | 19 01 33.6 | -0.8 |
| VAM | Vamos | 1.72 | 287 | P | Pb | 19 01 36.9 | -0.2 |
| VAM | | | | S | Sg | 19 02 00.3 | 0.0 |
| VAM | | | | AML | AML | 19 02 05.5 | |
| | comp=N,1119µm,0.8s | | | | | | |
| VAM | | | | AML | AML | 19 02 05.8 | |
| | comp=E,797µm,0.7s | | | | | | |
| VAM | Vamos | 1.72 | 287 | P | Pb | 19 01 36.9 | -0.2 |
| VAM | | | | S | Sg | 19 02 00.3 | 0.0 |
| IMMV | Iera Moni Meta | 1.90 | 287 | P | Pb | 19 01 39.7 | -0.6 |
| IMMV | | | | S | Sb | 19 02 05.5 | +1.2 |
| IMMV | | | | AML | AML | 19 02 17.3 | |
| | comp=E,921µm,0.9s | | | | | | |
| IMMV | | | | AML | AML | 19 02 23.4 | |
| | comp=N,580µm,0.9s | | | | | | |
| IMMV | Iera Moni Meta | 1.90 | 287 | P | Pb | 19 01 39.7 | -0.6 |
| IMMV | | | | S | Sb | 19 02 05.5 | +1.2 |
| KYTH | Kithira | 2.91 | 299 | P | Pn | 19 01 53.1 | +1.1 |
| VLI | Veliai | 3.21 | 305 | P | Pn | 19 01 56.1 | 0.0 |
| VLI | Veliai | 3.21 | 305 | P | Pn | 19 01 56.1 | 0.0 |
| DID | Didima | 3.53 | 318 | P | Pn | 19 02 02.8 | +2.2 |
| DID | Didima | 3.53 | 318 | P | Pn | 19 02 02.8 | +2.2 |
| BRTR | Keskin Array B | 7.62 | 49 | Pn | Pn | 19 02 56.6 | -0.3 |
| | comp=N,0.0nm,0.3s,baz=234,slow=12,SNR=2.6 | | | | | | |
| TORD | Torodi Ar. Bea | 31.00 | 232 | P | P | 19 07 24.1 | +0.5 |
| | comp=N,0.7nm,0.5s,baz=35,slow=9.1,SNR=10.0 | | | | | | |
| TORD | | | | LR | LR | 19 21 38.0 | |
| | comp=N,24nm,20.5s,baz=200,slow=40 | | | | | | |
| MKAR | Makanchi Array | 43.20 | 56 | P | P | 19 09 07.2 | +0.3 |
| | comp=N,0.8nm,0.7s,baz=261,slow=8.2,SNR=4.2 | | | | | | |
| ZALV | Zalesovo Beam | 44.56 | 46 | P | P | 19 09 17.2 | -0.4 |
| | comp=N,0.3nm,0.3s,baz=271,slow=8.4,SNR=2.8 | | | | | | |

**IDC 07 19:16:47.7±2.1, 3°.52N×127°.36E, h0km, mb3.3/3, mb1 3.5/3, mb1mx3.3/33, mbtmp3.4/3, Error ellipse: s-maj=155.8km s-min=26.6km az=66.0, Talaud Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 24.30 | 164 | P | P | 19 22 08.2 | +1.0 |
| | 0.5nm,0.5s,baz=344,slow=10,SNR=28 | | | | | | |
| ASAR | Alice Springs | 27.76 | 167 | P | P | 19 22 37.5 | -0.9 |
| | 0.3nm,0.9s,baz=345,slow=10,SNR=2.8 | | | | | | |
| MKAR | Makanchi Array | 58.09 | 325 | P | P | 19 26 42.9 | -0.1 |
| | 0.3nm,0.5s,baz=116,slow=7.7,SNR=4.8 | | | | | | |

**IDC 07 19:21:02.5±16.0, 17°.16S×175°.13W, h282km±138km, mb3.2/4, mb1 3.4/4, mb1mx3.2/29, mbtmp3.8/4, Error ellipse: s-maj=132.3km s-min=38.0km az=130.0, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| STKA | Stephens Creek | 41.73 | 241 | P | P | 19 28 24.9 | +0.4 |
| | 0.8nm,0.7s,baz=100,slow=11,SNR=3.6 | | | | | | |
| WRA | Warramunga Arr | 47.84 | 258 | P | P | 19 29 12.4 | -0.3 |
| | 0.7nm,0.5s,baz=96,slow=7.2,SNR=29 | | | | | | |
| WRA | | | | PcP | PcP | 19 30 35.9 | -0.8 |
| | 0.2nm,0.6s,baz=97,slow=5.8,SNR=3.9 | | | | | | |
| ASAR | Alice Springs | 48.00 | 253 | P | P | 19 29 13.5 | -0.4 |
| | 3.1nm,0.7s,baz=88,slow=8.7,SNR=52 | | | | | | |
| ASAR | | | | PcP | PcP | 19 30 37.6 | +0.3 |
| | 0.3nm,0.5s,baz=98,slow=3.8,SNR=3.6 | | | | | | |
| ILAR | Eielson Array | 84.49 | 12 | P | P | 19 33 03.4 | 0.0 |
| | 0.2nm,0.5s,baz=229,slow=5.8,SNR=9.8 | | | | | | |

*JMA **07** 19:23:00.4±0.1, 23°.55N×121°.62E, h37km±3km, M3.3*
*ISCJB **07** 19:23:01.4±0.3, 23°.56N±0°.02×121°.67E±0°.02, h26km±2km, Error ellipse: s-maj=3.6km s-min=2.3km az=152.6*
*TAP **07** 19:23:01.9, 23°.57N×121°.58E, h32km, ML3.6, B*
**ISC 07 19:23:02.0±1.0, 23°.55N±0°.02×121°.60E±0°.02, h34km±2km, n67, σ0.69/103, 7C-10D, Taiwan**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TEGC | Jichi Village | 0.17 | 340 | eP | Pb | 19 23 09.0 | +0.7 |
| | baz=348 | | | | | | |
| EHY | Hungye | 0.26 | 260 | ⇑iP | Pn | 19 23 09.0 | 0.0 |
| | baz=267 | | | | | | |
| EHY | | | | eS | Sb | 19 23 13.9 | -0.5 |
| | baz=267 | | | | | | |
| ESL | Shilin | 0.30 | 329 | ⇑iP | Pb | 19 23 09.2 | -0.7 |
| | baz=324 | | | | | | |
| ESL | | | | S | Sn | 19 23 14.2 | -0.3 |
| | baz=324 | | | | | | |
| ESF | Shoufeng Towns | 0.33 | 345 | eP | Pn | 19 23 10.4 | 0.0 |
| | baz=339 | | | | | | |
| TWF1 | Yuli | 0.34 | 235 | ⇑iP | Pb | 19 23 10.2 | -0.2 |
| | baz=239 | | | | | | |
| TWF1 | | | | S | Sn | 19 23 15.8 | -0.1 |
| | baz=239 | | | | | | |
| HWA | Hwalien | 0.42 | 0 | ⇓P | Pb | 19 23 11.1 | -0.4 |
| | baz=12 | | | | | | |
| CHKT | Chengkung | 0.50 | 206 | eP | Pn | 19 23 12.4 | -0.3 |
| | baz=191 | | | | | | |
| TWD | Chiawan | 0.53 | 359 | eP | Pb | 19 23 12.3 | -0.7 |
| | baz=8.0 | | | | | | |
| YUS | Yu-Shan | 0.60 | 264 | ⇑iP | Pb | 19 23 14.5 | -0.1 |
| | baz=268 | | | | | | |
| YUS | | | | eS | Sb | 19 23 22.7 | -0.5 |
| | baz=268 | | | | | | |
| ELDTW | Lidau | 0.65 | 236 | eP | Pn | 19 23 13.9 | -0.8 |
| | baz=237 | | | | | | |
| SMLT | Sun Moon Lake | 0.72 | 297 | ⇑P | Pn | 19 23 15.6 | -0.2 |
| | baz=302 | | | | | | |
| SMLT | | | | S | Sn | 19 23 25.6 | -0.2 |
| | baz=302 | | | | | | |
| ALS | Alishan | 0.73 | 267 | ⇑iP | Pb | 19 23 16.5 | -0.1 |
| | baz=270 | | | | | | |
| ALS | | | | eS | Sb | 19 23 26.5 | 0.0 |
| | baz=270 | | | | | | |
| TYC | Yuchr | 0.77 | 297 | ⇑iP | Pn | 19 23 16.3 | 0.0 |
| | baz=304 | | | | | | |
| TYC | | | | S | Sn | 19 23 26.8 | +0.1 |
| | baz=304 | | | | | | |
| TWT | Tachien | 0.80 | 331 | eP | Pn | 19 23 16.8 | -0.2 |
| | baz=331 | | | | | | |
| TWT | | | | eS | Sn | 19 23 26.5 | -1.2 |
| | baz=331 | | | | | | |
| CHN5 | Tsauling | 0.85 | 273 | ⇓iP | Pb | 19 23 18.5 | +0.1 |
| | baz=271 | | | | | | |
| CHN5 | | | | S | Sb | 19 23 30.2 | +0.6 |
| | baz=271 | | | | | | |
| STYT | Tauyuan | 0.87 | 244 | ⇓iP | Pb | 19 23 18.2 | -0.5 |
| | baz=236 | | | | | | |
| STYT | | | | eS | Sb | 19 23 29.9 | -0.2 |
| | baz=236 | | | | | | |
| TWG | Pinlang | 0.88 | 214 | eP | Pn | 19 23 16.6 | -1.3 |
| | baz=209 | | | | | | |
| ENA | Nanau | 0.88 | 8 | eP | Pn | 19 23 16.9 | -1.1 |
| | baz=20 | | | | | | |
| WNT | Mingjian | 0.90 | 291 | eP | Pb | 19 23 19.2 | 0.0 |
| | baz=291 | | | | | | |
| WNT | | | | eS | Sb | 19 23 31.2 | +0.3 |
| | baz=291 | | | | | | |
| NNS | Nan Shan | 0.91 | 347 | eP | Pn | 19 23 18.2 | -0.2 |
| | baz=359 | | | | | | |
| NNS | | | | eS | Sn | 19 23 29.0 | -1.4 |
| | baz=359 | | | | | | |
| CHN4 | Tsaushan | 0.95 | 258 | P | Pb | 19 23 20.0 | 0.0 |
| | baz=255 | | | | | | |
| CHN4 | | | | S | Sb | 19 23 33.1 | +0.9 |
| | baz=255 | | | | | | |
| WTP | Ta-pu | 0.96 | 252 | ⇓iP | Pb | 19 23 20.1 | -0.1 |
| | baz=248 | | | | | | |
| WTP | | | | eS | Sb | 19 23 33.5 | +0.8 |
| | baz=248 | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| WGK | Gukeng | 0.96 | 278 | ⇓P | Pb | 19 23 20.0 | -0.2 |
| | baz=276 | | | | | | |
| WGK | | | | eS | Sb | 19 23 32.9 | +0.2 |
| | baz=276 | | | | | | |
| CHN2 | Minshiung | 1.03 | 269 | eP | Pb | 19 23 21.4 | 0.0 |
| | baz=266 | | | | | | |
| CHN2 | | | | eS | Sb | 19 23 36.1 | +1.4 |
| | baz=266 | | | | | | |
| TCU | Taichung | 1.03 | 305 | ⇓eP | Pb | 19 23 21.4 | 0.0 |
| | baz=306 | | | | | | |
| TCU | | | | eS | Sb | 19 23 35.4 | +0.6 |
| | baz=306 | | | | | | |
| SGST | Jiashian | 1.05 | 244 | eP | Pb | 19 23 21.6 | 0.0 |
| | baz=240 | | | | | | |
| SGST | | | | eS | Sb | 19 23 36.2 | +1.1 |
| | baz=240 | | | | | | |
| CHN1 | Nanshi | 1.05 | 250 | ⇓P | Pb | 19 23 21.6 | -0.1 |
| | baz=246 | | | | | | |
| CHN1 | | | | eS | Sb | 19 23 37.0 | +1.7 |
| | baz=246 | | | | | | |
| TWK | Hsinying | 1.06 | 255 | ⇓iP | Pb | 19 23 21.5 | -0.4 |
| | baz=251 | | | | | | |
| TWK | | | | eS | Sb | 19 23 36.0 | +0.4 |
| | baz=251 | | | | | | |
| TWC | Suao | 1.08 | 12 | eP | Pn | 19 23 20.8 | +0.2 |
| | baz=15 | | | | | | |
| CHY | Chiayi | 1.08 | 267 | eP | Pb | 19 23 22.0 | -0.2 |
| | baz=265 | | | | | | |
| CHY | | | | eS | Sb | 19 23 36.9 | +0.8 |
| | baz=265 | | | | | | |
| ENTT | Nioudou | 1.08 | 358 | eP | Pn | 19 23 20.5 | -0.3 |
| | baz=1.0 | | | | | | |
| TWQ1 | Liyutan | 1.10 | 316 | ⇓P | Pb | 19 23 22.3 | -0.2 |
| | baz=332 | | | | | | |
| TWQ1 | | | | eS | Sb | 19 23 37.1 | +0.6 |
| | baz=332 | | | | | | |
| ECL | Taimali | 1.12 | 212 | eP | Pn | 19 23 19.9 | -1.4 |
| | baz=208 | | | | | | |
| NSK | Sanguang | 1.14 | 349 | eP | Pn | 19 23 21.7 | +0.1 |
| | baz=2.0 | | | | | | |
| NSK | | | | eS | Sn | 19 23 35.1 | -1.0 |
| | baz=2.0 | | | | | | |
| NSY | Sanyi | 1.15 | 318 | eP | Pb | 19 23 23.1 | -0.3 |
| | baz=334 | | | | | | |
| NSY | | | | eS | Sb | 19 23 38.7 | +0.6 |
| | baz=334 | | | | | | |
| TWE | Neicheng | 1.17 | 3 | eP | Pn | 19 23 21.6 | -0.2 |
| | baz=6.0 | | | | | | |
| SSD | Sandimen | 1.20 | 228 | eP | Pb | 19 23 23.1 | -1.1 |
| | baz=224 | | | | | | |
| NSTT | Nanjuang | 1.21 | 333 | eP | Pb | 19 23 23.7 | -0.6 |
| | baz=346 | | | | | | |
| NSTT | | | | S | Sn | 19 23 37.8 | +0.2 |
| | baz=346 | | | | | | |
| CHN3 | Shinhua | 1.23 | 248 | eP | Pb | 19 23 24.9 | +0.1 |
| | baz=259 | | | | | | |
| WTCT | Ta-ch'eng | 1.25 | 285 | eP | Pb | 19 23 24.0 | -1.1 |
| | baz=272 | | | | | | |
| WTCT | | | | eS | Sb | 19 23 41.0 | +0.2 |
| | baz=272 | | | | | | |
| WSF | Szhu | 1.27 | 274 | eP | Pb | 19 23 24.1 | -1.2 |
| | baz=272 | | | | | | |
| WSF | | | | eS | Sb | 19 23 41.0 | -0.4 |
| | baz=272 | | | | | | |
| CHN8 | Yiju | 1.29 | 261 | eP | Pb | 19 23 24.7 | -1.1 |
| | baz=258 | | | | | | |
| CHN8 | | | | eS | Sb | 19 23 42.1 | 0.0 |
| | baz=258 | | | | | | |
| TWM1 | Shoushan | 1.31 | 236 | eP | Pb | 19 23 26.7 | +0.7 |
| | baz=220 | | | | | | |
| SGLT | Jiouru | 1.31 | 231 | eP | Pb | 19 23 26.7 | +0.6 |
| | baz=227 | | | | | | |
| SCLT | Jiali | 1.35 | 254 | eP | Pb | 19 23 26.0 | -0.7 |
| | baz=251 | | | | | | |
| EAST | Anshuo | 1.35 | 211 | eP | Pb | 19 23 25.9 | -1.0 |
| | baz=198 | | | | | | |
| TWA | Mucha | 1.42 | 359 | eP | Pb | 19 23 27.5 | -0.5 |
| | baz=2.0 | | | | | | |
| NCU | National Centr | 1.46 | 345 | eP | Pn | 19 23 26.8 | +0.9 |
| | baz=348 | | | | | | |
| SCZT | Fangliau | 1.48 | 218 | eP | Pb | 19 23 28.2 | -0.8 |
| | baz=202 | | | | | | |
| LAY | Lan-yu | 1.51 | 182 | eP | Pn | 19 23 25.3 | -1.3 |
| | baz=171 | | | | | | |
| JYNG | Yonagunijimaku | 1.52 | 54 | P | Pn | 19 23 26.9 | +0.2 |
| JYNG | | | | eS | Sn | 19 23 45.1 | -0.2 |
| NWF | Wu-fen Shan | 1.52 | 6 | eP | Pn | 19 23 27.4 | +0.6 |
| | baz=9.0 | | | | | | |
| TWS1 | Kuangyinshan | 1.55 | 354 | eP | Pb | 19 23 28.9 | -1.2 |
| | baz=12 | | | | | | |
| YOJ | Yonaguni jima | 1.57 | 55 | eP | Pn | 19 23 28.2 | +0.7 |
| | baz=58 | | | | | | |
| YOJ | Yonaguni jima | 1.57 | 55 | P | Pn | 19 23 27.7 | +0.2 |
| YOJ | | | | eS | Sn | 19 23 46.9 | +0.2 |
| HEN | Hengchun | 1.73 | 208 | eP | Pn | 19 23 31.0 | +1.3 |
| | baz=191 | | | | | | |
| TWK1 | Hengchun | 1.76 | 205 | eP | Pn | 19 23 31.4 | +1.3 |
| | baz=190 | | | | | | |
| WDGT | Dungji | 1.81 | 261 | eP | Pn | 19 23 31.1 | +0.5 |
| | baz=259 | | | | | | |
| PNG | Penghu | 1.88 | 271 | ⇓eP | Pn | 19 23 32.2 | +0.6 |
| | baz=269 | | | | | | |
| HATJ | Hateruma jima | 2.08 | 76 | P | Pn | 19 23 34.6 | +0.2 |
| HATJ | | | | S | Sn | 19 23 59.1 | 0.0 |
| IRIF | Iriomote-Funau | 2.10 | 68 | P | Pn | 19 23 35.1 | +0.5 |
| IRIF | | | | S | Sn | 19 24 00.6 | +1.1 |
| JKRS | Kuro-shima | 2.31 | 72 | P | Pn | 19 23 38.8 | +1.3 |
| JKRS | | | | eS | Sn | 19 24 05.3 | +0.6 |
| JIJ | Ishigaki jima | 2.46 | 70 | P | Pn | 19 23 39.7 | 0.0 |
| JIJ | | | | eS | Sn | 19 24 07.6 | -0.9 |
| JISG | Ishigakijimahi | 2.68 | 67 | P | Pn | 19 23 42.6 | -0.1 |
| JISG | | | | S | Sn | 19 24 12.8 | -1.2 |
| KNM | Kinmen | 3.02 | 287 | eP | Pn | 19 23 48.3 | +0.9 |
| | baz=285 | | | | | | |
| JTJ | Tarama | 3.03 | 68 | P | Pn | 19 23 47.8 | +0.3 |
| JTJ | | | | eS | Sn | 19 24 22.4 | -0.3 |
| JIRB | Irabujima | 3.50 | 68 | P | Pn | 19 23 54.5 | +0.6 |

*NIED* ***07*** *19:26:00, 38°.10N×142°.70E, h14km, Mw4.3 Best double couple: Mo3.51000×10^15 NP1:φs182.00000°, δ35.00000°, λ-29.00000°. NP2:φs297.00000°, δ74.00000°, λ-122.00000°.*

*ISCJB* ***07*** *19:26:53.9±0.2, 38°.08N±0°.03×142°.63E±0°.03, h14km, mb4.5/84, MS3.7/13, Error ellipse: s-maj=3.9km s-min=3.1km az=151.7*

*JMA* ***07*** *19:26:54.1±0.2, 38°.11N×142°.72E, h30km±3km, M4.6*

*JMA Felt I J1.*

*MOS* ***07*** *19:26:55.8±0.9, 38°.14N×142°.62E, h28km, mb4.7/41, Error ellipse: s-maj=8.2km s-min=6.4km az=85.2*

*NEIC* ***07*** *19:26:57.8±1.5, 38°.08N×142°.60E, h29km±11km, mb4.7/46, Error ellipse: s-maj=5.5km s-min=3.6km az=129.0*

*NEIC Recorded [1 JMA] in Fukushima and Miyagi.*

*IDC* ***07*** *19:26:57.0±5.8, 38°.06N×142°.66E, h26km±39km, mb4.1/27, mb1 4.3/34, mb1mx4.3/41, mbtmp4.3/34, ML4.0/5, MS3.6/14, Ms1 3.6/14, ms1mx3.3/40, Error ellipse: s-maj=15.7km s-min=10.8km az=112.0*

*BJI* ***07*** *19:27:03.9, 38°.05N×142°.09E, h77km, mb4.5/31, mB4.9/20, Ms4.6/11, Ms7 4.4/7*

**ISC 07 19:26:55.1**±0.4**, 38°.09N**±0°.04×**142°.67E**±0°.04**, h14**km**, n227, σ1s.90**/216**, mb4.6**/84**, MS3.7**/13**, 10C-3D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JIO | Ouri | 1.10 | 289 | P | Pb | 19 27 14.1 | -1.9 |
| JIO | | | | eS | Sb | 19 27 28.4 | -1.8 |
| OFUJ | Ofunato | 1.26 | 322 | P | Pn | 19 27 16.1 | -2.2 |
| JMK | Ichinoseki | 1.43 | 307 | P | Pn | 19 27 18.9 | -1.7 |
| JMK | | | | eS | Sn | 19 27 37.3 | -1.8 |
| JMM | Marumori | 1.50 | 262 | P | Pn | 19 27 19.7 | -1.9 |
| JMM | | | | eS | Sn | 19 27 39.5 | -1.5 |
| JFK | Kawauchi | 1.60 | 244 | P | Pn | 19 27 21.1 | -1.9 |
| JOU | Okura | 1.61 | 280 | P | Pn | 19 27 22.0 | -1.1 |
| JOM | Ohasama | 1.75 | 322 | P | Pn | 19 27 23.8 | -1.2 |
| JFT | Otama | 1.94 | 254 | P | Pn | 19 27 27.1 | -0.5 |
| JYK | Kaneyama | 1.99 | 295 | P | Pn | 19 27 27.5 | -0.9 |
| JYS | Shirataka | 2.06 | 274 | P | Pn | 19 27 28.7 | -0.6 |
| JANG | Nango | 2.45 | 339 | P | Pn | 19 27 33.7 | -1.0 |
| JANG | | | | eS | Sn | 19 28 03.0 | -1.4 |
| MJA0 | Matsu Arr-Jizo | 3.85 | 248 | eP | Pn | 19 27 56.2 | +2.2 |
| MJA0 | | | | pmax | pmax | | |
| | comp=Z,16nm,0.3s | | | | | | |
| MJAR | Matsushiro Arr | 3.88 | 248 | Pn | Pn | 19 27 55.7 | +1.3 |
| | comp=Z,16nm,0.3s,baz=64,slow=11,SNR=111 | | | | | | |
| MJAR | | | | Sn | Sb | 19 28 46.2 | -4.0 |
| | comp=Z,11nm,0.3s,baz=44,slow=13,SNR=5.4 | | | | | | |
| MJAR | | | | LR | LR | 19 29 36.8 | |
| | comp=Z,770nm,19.6s,baz=75,slow=42 | | | | | | |
| MAJO | Matsushiro | 3.88 | 248 | d iP | Pn | 19 27 56.2 | +1.8 |
| MAJO | Matsushiro | 3.88 | 248 | ePn | Pn | 19 27 56.5 | +2.1 |
| MAT | Matsushiro | 3.88 | 248 | P | Pn | 19 27 56.1 | +1.7 |
| MAT | | | | eS | Sn | 19 28 43.5 | +3.7 |
| MJB9 | Matsu-Tunnel | 3.88 | 248 | ePn | Pn | 19 27 56.5 | +2.1 |
| ERM | Erimo | 3.94 | 5 | eP | Pn | 19 27 54.0 | -1.1 |
| ERM | Erimo | 3.94 | 5 | ePn | Pn | 19 27 54.0 | -1.1 |
| INU | Inuyama | 5.30 | 241 | ePn | Pn | 19 28 14.6 | +0.7 |
| JHJ2 | Mitsune | 5.49 | 206 | ePn | Pn | 19 28 15.1 | -1.3 |
| JHJ | Hachijo jima 2 | 5.49 | 206 | Pn | Pn | 19 28 15.0 | -1.5 |
| | comp=Z,116nm,0.3s,baz=331,slow=2.3,SNR=18 | | | | | | |
| JHJ | | | | Sn | Sn | 19 29 15.1 | -4.3 |
| | comp=Z,52nm,0.3s,baz=90,slow=20,SNR=1.6 | | | | | | |
| ASAJ | Asahikawa | 6.02 | 359 | Pn | Pn | 19 28 23.6 | -0.1 |
| | comp=Z,7.4nm,0.3s,baz=207,slow=13,SNR=10 | | | | | | |
| ASAJ | | | | Sn | Sn | 19 29 32.8 | +0.4 |
| | baz=30,slow=20,SNR=2.9 | | | | | | |
| ASAJ | Asahikawa | 6.02 | 359 | ePn | Pn | 19 28 24.5 | +0.8 |
| ASAJ | | | | Sn | Sn | 19 29 32.8 | +0.4 |
| YUK | Yuzh-Kuril'sk | 6.41 | 21 | eP | Pn | 19 28 26.6 | -2.4 |
| YUK | | | | eS | Sn | 19 29 36.9 | -5.0 |
| YUK | | | | pmax | pmax | | |
| | comp=N,64nm,0.3s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=Z,121nm,0.3s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=E,413nm,0.4s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,279nm,0.5s | | | | | | |
| SHO | Shikotan | 6.57 | 27 | eP | Pn | 19 28 27.3 | -4.0 |
| SHO | | | | eS | Sn | 19 29 38.6 | -7.3 |
| SHO | | | | pmax | pmax | | |
| | comp=Z,155nm,0.5s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=E,87nm,0.4s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=Z,82nm,0.4s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=N,336nm,0.5s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=E,150nm,0.4s | | | | | | |
| KUR | Kuril'sk | 8.12 | 27 | eP | Pn | 19 28 51.1 | -1.4 |
| KUR | | | | eS | Sn | 19 30 17.8 | -6.3 |
| KUR | | | | pmax | pmax | | |
| | comp=N,71nm,0.4s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=Z,107nm,0.4s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=E,46nm,0.3s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=N,41nm,0.5s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,98nm,0.5s | | | | | | |
| YSS | Yuzh-Sakhalins | 8.86 | 0 | ⇑eP | Pn | 19 29 03.3 | +0.7 |
| YSS | | | | pmax | pmax | | |
| | comp=Z,40nm,0.9s | | | | | | |
| YSS | | | | MLR | MLR | | |
| | comp=Z,540nm,15.0s | | | | | | |
| YSS | | | | MLR | MLR | | |
| | comp=N,590nm,18.0s | | | | | | |
| USRK | Ussuriysk Ar. | 10.10 | 311 | Pn | Pn | 19 29 21.1 | +1.4 |
| | comp=N,0.2nm,0.3s,baz=123,slow=14,SNR=3.1 | | | | | | |
| USRK | | | | LR | LR | 19 33 01.6 | |
| | comp=N,248nm,19.1s,baz=123,slow=36 | | | | | | |
| JNU | Nakatsue | 10.80 | 246 | Pn | Pn | 19 29 29.5 | +0.1 |
| | comp=N,0.8nm,0.3s,baz=78,slow=8.1,SNR=13 | | | | | | |
| JNU | Nakatsue | 10.80 | 246 | ePn | Pn | 19 29 31.1 | +1.7 |
| CBIJ | Chichi jima | 10.97 | 182 | ePn | Pn | 19 29 28.5 | -3.2 |
| KSRS | Korea Array | 11.69 | 271 | Pn | Pn | 19 29 43.7 | +2.2 |
| | comp=N,0.5nm,0.3s,baz=90,slow=13,SNR=12 | | | | | | |
| KSRS | | | | LR | LR | 19 33 56.6 | |
| | comp=N,150nm,18.6s,baz=64,slow=36 | | | | | | |
| KSAR | Wonju Array Be | 11.73 | 271 | P | Pn | 19 29 43.7 | +1.8 |
| KSAR | Wonju Array Be | 11.73 | 271 | Pn | Pn | 19 29 43.7 | +1.8 |
| HABR | Khabarovsk | 11.76 | 334 | eP | Pn | 19 29 52.8 | +10 |
| HABR | | | | pmax | pmax | | |
| | comp=N,19nm,1.5s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=E,21nm,1.5s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=Z,19nm,1.5s | | | | | | |
| HABR | | | | MLR | MLR | | |
| | comp=Z,25nm,11.0s | | | | | | |
| CN2 | Changchun | 14.21 | 299 | eP | P | 19 30 20.5 | -2.7 |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.5s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,400nm,11.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,300nm,11.0s | | | | | | |
| SKR | Severo-Kuril's | 15.80 | 33 | eP | P | 19 30 41.0 | +0.2 |
| SKR | | | | MLR | MLR | | |
| | comp=Z,500nm,16.0s | | | | | | |
| PETK | Petropavlovsk- | 18.27 | 30 | P | P | 19 31 08.9 | +0.7 |
| | comp=Z,0.7nm,0.3s,baz=196,slow=8.6,SNR=4.4 | | | | | | |
| PETK | | | | LR | LR | 19 38 38.5 | |
| | comp=Z,100nm,18.7s,baz=235,slow=38 | | | | | | |
| PEA1 | Petropavlovsk- | 18.27 | 30 | ePn | P | 19 31 08.9 | +0.7 |
| MA2 | Magadan | 22.12 | 11 | P | P | 19 31 50.2 | +0.3 |
| | comp=Z,16nm,0.7s,baz=196,slow=9.6,SNR=7.9 | | | | | | |
| MA2 | | | | LR | LR | 19 42 08.3 | |
| | comp=Z,149nm,18.9s,baz=218,slow=41 | | | | | | |
| SSLB | Suanglung | 23.38 | 239 | eP | P | 19 32 02.2 | -1.2 |
| | comp=Z,17nm,1.0s | | | | | | |
| TPUB | Ta-pu | 23.93 | 238 | eP | P | 19 32 08.1 | -0.6 |
| | comp=Z,92nm,1.6s | | | | | | |
| GUMO | Guam | 24.48 | 175 | LR | LR | 19 41 22.0 | |
| | comp=Z,82nm,21.1s,baz=3.0,slow=35 | | | | | | |
| CIT | Chita | 24.64 | 314 | eP | P | 19 32 15.4 | +0.3 |
| CIT | | | | e | | 19 33 03.5 | |
| CIT | | | | pmax | pmax | | |
| | comp=Z,69nm,1.1s | | | | | | |
| YAK | Yakutsk | 25.27 | 346 | P | P | 19 32 21.2 | +0.6 |
| | comp=Z,7.0nm,0.4s,baz=175,slow=5.8,SNR=6.8 | | | | | | |
| YAK | Yakutsk | 25.27 | 346 | eP | P | 19 32 19.7 | -0.9 |
| YAK | | | | e*PP | sP | 19 32 27.8 | +1.2 |
| YAK | | | | e | | 19 32 52.2 | |
| YAK | | | | e | | 19 36 00.2 | |
| YAK | | | | eS | S | 19 36 40.2 | -5.5 |
| YAK | | | | e | | 19 43 14.4 | |
| YAK | | | | pmax | pmax | | |
| | comp=Z,16nm,1.3s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,6.0nm,1.4s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=Z,223nm,4.2s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,71nm,3.6s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,120nm,4.7s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=E,147nm,4.7s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=N,68nm,3.5s | | | | | | |
| YAK | | | | MLR | MLR | | |
| | comp=Z,155nm,16.0s | | | | | | |
| YAK | | | | MLR | MLR | | |
| | comp=N,189nm,17.0s | | | | | | |
| YAK | Yakutsk | 25.27 | 346 | eP | P | 19 32 20.2 | -0.4 |
| | comp=N,25nm,0.7s | | | | | | |
| SEY | Seymchan | 25.57 | 10 | P | P | 19 32 24.3 | +1.1 |
| | comp=N,11nm,0.7s,baz=202,slow=7.8,SNR=18 | | | | | | |
| BOD | Bodaibo | 27.19 | 326 | eP | P | 19 32 37.6 | -0.4 |
| BOD | | | | pmax | pmax | | |
| | comp=Z,17nm,0.7s | | | | | | |
| ULN | Ulaanbaatar | 27.61 | 302 | eP | P | 19 32 42.9 | +0.8 |
| ULN | | | | pmax | pmax | | |
| | comp=Z,17nm,1.7s | | | | | | |
| ULN | Ulaanbaatar | 27.61 | 302 | eP | P | 19 32 42.9 | +0.8 |
| | comp=Z,17nm,1.7s | | | | | | |
| H11N2 | WAKE ISLAND Hy | 27.87 | 124 | T | T | 20 01 56.5 | |
| | baz=316,slow=75,SNR=428 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 27.88 | 124 | T | T | 20 01 59.6 | |
| | baz=316,slow=75,SNR=408 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 27.89 | 124 | T | T | 20 02 00.3 | |
| | baz=316,slow=75,SNR=353 | | | | | | |
| SONA1 | Songino Array | 28.05 | 302 | eP | P | 19 32 45.9 | -0.1 |
| SONA0 | Songino Array | 28.05 | 302 | eP | P | 19 32 45.9 | -0.1 |
| SONM | Songino Array | 28.05 | 302 | P | P | 19 32 45.9 | -0.1 |
| | comp=Z,2.5nm,0.6s,baz=105,slow=8.6,SNR=14 | | | | | | |
| SONM | | | | LR | LR | 19 43 46.2 | |
| | comp=Z,58nm,18.8s,baz=183,slow=36 | | | | | | |
| ENH | Enshi | 28.43 | 264 | eP | P | 19 32 48.8 | -0.7 |
| | comp=Z,40nm,1.3s | | | | | | |
| H11S1 | WAKE ISLAND Hy | 28.63 | 126 | T | T | 20 02 51.6 | |
| | baz=318,slow=76,SNR=220 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 28.64 | 126 | T | T | 20 02 56.8 | |
| | baz=318,slow=76,SNR=271 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 28.65 | 126 | T | T | 20 02 58.2 | |
| | baz=318,slow=76,SNR=138 | | | | | | |
| ZAK | Zakamensk | 30.42 | 307 | eP | P | 19 33 03.4 | -3.6 |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.9s | | | | | | |
| GTA | Gaotai | 33.22 | 286 | eP | P | 19 33 32.6 | +0.8 |
| GTA | | | | S | S | 19 38 44.1 | -7.2 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.9s | | | | | | |
| GTA | | | | pmax | pmax | | |
| | comp=Z,79nm,4.7s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,260nm,14.3s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,200nm,15.7s | | | | | | |
| TIXI | Tiksi | 34.37 | 352 | P | P | 19 33 40.7 | -0.5 |
| | comp=Z,0.5nm,0.2s,baz=169,slow=9.8,SNR=2.7 | | | | | | |
| ZAA0 | Zalesovo Array | 41.95 | 312 | eP | P | 19 34 45.4 | +0.2 |
| | comp=Z,11nm,0.7s | | | | | | |
| ZAA1 | Zalesovo Array | 41.95 | 312 | eP | P | 19 34 45.4 | +0.1 |
| ZALV | Zalesovo Beam | 41.95 | 312 | P | P | 19 34 45.4 | +0.1 |
| | comp=Z,3.4nm,0.5s,baz=85,slow=7.2,SNR=21 | | | | | | |
| ZALV | | | | LR | LR | 19 52 43.2 | |
| | comp=Z,85nm,18.0s,baz=66,slow=37 | | | | | | |
| CHTO | Chiang Mai | 42.52 | 256 | eP | P | 19 34 49.8 | -0.5 |
| CHTO | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.7s | | | | | | |
| CHTO | Chiang Mai | 42.52 | 256 | eP | P | 19 34 49.8 | -0.5 |
| | comp=Z,3.8nm,0.7s | | | | | | |
| CM31 | Chiang Mai Arr | 42.73 | 255 | eP | P | 19 34 51.8 | -0.2 |
| CMAR | Chiang Mai Arr | 42.73 | 255 | P | P | 19 34 51.9 | -0.1 |
| | comp=Z,1.2nm,0.7s,baz=44,slow=6.1,SNR=15 | | | | | | |
| CMAR | | | | LR | LR | 19 55 35.0 | |
| | comp=Z,76nm,18.2s,baz=132,slow=40 | | | | | | |
| CMAR | Chiang Mai Arr | 42.73 | 255 | eP | P | 19 34 52.2 | +0.2 |
| CMAR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.7s | | | | | | |
| CM01 | Chiang Mai Arr | 42.74 | 255 | eP | P | 19 34 51.8 | -0.3 |
| NVS | Novosibirsk | 42.84 | 313 | eP | P | 19 34 53.1 | +0.6 |
| NVS | | | | pmax | pmax | | |
| | comp=E,7.0nm,1.1s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=Z,13nm,1.1s | | | | | | |
| LSA | Lhasa | 43.12 | 275 | eP | P | 19 34 55.7 | +0.1 |
| LSA | | | | pmax | pmax | | |
| | comp=Z,14nm,1.4s | | | | | | |
| LSA | Lhasa | 43.12 | 275 | eP | P | 19 34 55.7 | +0.1 |
| | comp=Z,14nm,1.4s | | | | | | |
| MK01 | Makanchi Array | 44.41 | 301 | eP | P | 19 35 05.3 | 0.0 |
| MK31 | Makanchi Array | 44.41 | 301 | eP | P | 19 35 05.9 | +0.6 |
| MK31 | Makanchi Array | 44.41 | 301 | eP | P | 19 35 05.9 | +0.6 |
| MK32 | Makanchi Array | 44.41 | 301 | eP | P | 19 35 05.2 | 0.0 |
| MKAR | Makanchi Array | 44.41 | 301 | P | P | 19 35 05.2 | 0.0 |
| | comp=Z,4.4nm,0.8s,baz=87,slow=9.5,SNR=16 | | | | | | |
| IMAR | Indian Mountai | 45.23 | 31 | eP | P | 19 35 12.5 | +1.0 |
| KDAK | Kodiak Island | 45.64 | 43 | P | P | 19 35 14.6 | -0.2 |
| | comp=Z,15nm,0.8s,baz=268,slow=8.8,SNR=6.7 | | | | | | |
| KURK | Kurchatov | 46.08 | 307 | eP | P | 19 35 18.0 | -0.4 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,25nm,0.8s | | | | | | |
| KURK | Kurchatov | 46.08 | 307 | eP | P | 19 35 18.0 | -0.4 |
| | comp=Z,25nm,0.8s | | | | | | |
| MLY | Manley | 46.42 | 33 | eP | P | 19 35 22.5 | +1.5 |
| | comp=Z,22nm,1.6s | | | | | | |
| TAPN | Taplejung | 46.87 | 274 | eP | P | 19 35 25.4 | +0.1 |
| PDGK | Podgornoye | 47.17 | 297 | P | P | 19 35 27.3 | +0.1 |
| ODAN | Odare | 47.35 | 273 | eP | P | 19 35 29.0 | 0.0 |
| | comp=Z,16nm,0.6s | | | | | | |
| MDM | Murphy Dome | 47.49 | 33 | eP | P | 19 35 30.7 | +1.4 |
| | comp=Z,7.6nm,0.8s | | | | | | |
| JIRN | Jiri | 47.92 | 275 | eP | P | 19 35 33.7 | +0.1 |
| | comp=Z,108nm,0.4s | | | | | | |
| RAMN | Ramite | 47.93 | 274 | eP | P | 19 35 33.4 | -0.1 |
| | comp=Z,62nm,1.0s | | | | | | |
| GUN | Gumba | 48.05 | 275 | eP | P | 19 35 34.7 | +0.2 |
| | comp=Z,33nm,0.7s | | | | | | |
| IL1 | Eielson Array | 48.06 | 33 | eP | P | 19 35 33.9 | +0.1 |
| ILAR | Eielson Array | 48.06 | 33 | P | P | 19 35 34.0 | +0.4 |
| | comp=Z,3.6nm,0.8s,baz=268,slow=6.5,SNR=45 | | | | | | |
| ILB | Eielson Array | 48.06 | 33 | eP | P | 19 35 34.1 | +0.4 |
| KKN | Kakani | 48.58 | 276 | eP | P | 19 35 38.6 | +0.2 |
| | comp=Z,45nm,0.8s | | | | | | |
| PKI | Pulchoki | 48.58 | 275 | eP | P | 19 35 38.2 | -0.4 |
| | comp=Z,11nm,0.5s | | | | | | |
| PKIN | Phulchoki | 48.58 | 275 | eP | P | 19 35 38.2 | -0.4 |
| | comp=Z,9.1nm,0.5s | | | | | | |
| DMN | Daman | 48.80 | 275 | eP | P | 19 35 40.1 | -0.1 |
| | comp=Z,14nm,0.7s | | | | | | |
| GKN | Gorkha | 48.98 | 276 | eP | P | 19 35 41.3 | -0.2 |
| DANN | Dangsing | 49.51 | 277 | eP | P | 19 35 46.3 | +0.6 |
| | comp=Z,4.8nm,1.0s | | | | | | |
| KOLN | Koldanda | 49.91 | 276 | eP | P | 19 35 48.7 | +0.1 |
| KULM | Kulim | 50.21 | 240 | eP | P | 19 35 51.0 | +0.2 |
| | comp=Z,12nm,0.8s | | | | | | |
| PYUN | Piuthan | 50.23 | 277 | eP | P | 19 35 51.2 | +0.1 |
| | comp=Z,96nm,1.1s | | | | | | |
| IPM | Ipoh | 50.55 | 239 | eP | P | 19 35 53.0 | -0.2 |
| | comp=Z,16nm,0.7s | | | | | | |
| BRVK | Borovoye | 50.66 | 312 | c eP | P | 19 36 00.9 | +7.2 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,34nm,1.2s | | | | | | |
| BRVK | Borovoye | 50.66 | 312 | eP | P | 19 35 53.7 | 0.0 |
| | comp=Z,10.0nm,0.9s | | | | | | |
| AAK | Ala-Archa | 50.87 | 298 | eP | P | 19 35 55.6 | -0.1 |
| AAK | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.1s | | | | | | |
| AAK | Ala-Archa | 50.87 | 298 | eP | P | 19 35 55.6 | -0.1 |
| | comp=Z,4.3nm,1.1s | | | | | | |
| KSH | Kashi | 50.89 | 294 | P | P | 19 36 02.1 | +6.3 |
| KSH | | | | PcP | PcP | 19 37 16.9 | +4.7 |
| KSH | | | | PP | PP | 19 37 58.4 | +6.4 |
| KSH | | | | S | S | 19 43 02.1 | -10 |
| KSH | | | | ScS | ScS | 19 45 36.0 | -10 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.6s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,160nm,4.4s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,110nm,4.8s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,190nm,5.5s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,240nm,6.4s | | | | | | |
| COEN | Coen | 51.78 | 179 | eP | P | 19 36 03.2 | +0.9 |
| | comp=Z,7.1nm,0.8s | | | | | | |
| MTN | Manton Dam | 51.81 | 194 | eP | P | 19 36 02.8 | +0.2 |
| | comp=Z,30nm,1.1s | | | | | | |
| MNAS | Manas | 52.31 | 298 | P | P | 19 36 06.8 | +0.4 |
| SFK | Sufi-Kurgan | 52.49 | 295 | P | P | 19 36 07.9 | 0.0 |
| INK | Inuvik | 52.99 | 28 | P | P | 19 36 11.6 | +0.8 |
| | comp=Z,1.7nm,0.8s,baz=271,slow=6.4,SNR=3.8 | | | | | | |
| INK | Inuvik | 52.99 | 28 | eP | P | 19 36 11.6 | +0.8 |
| | comp=Z,4.6nm,0.8s | | | | | | |
| PSI | Prapat | 53.19 | 240 | eP | P | 19 36 13.7 | +0.5 |
| PSI | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.8s | | | | | | |
| PSI | Prapat | 53.19 | 240 | eP | P | 19 36 13.7 | +0.5 |
| | comp=Z,9.1nm,0.8s | | | | | | |
| SVE | Sverdlovsk | 55.02 | 318 | eP | P | 19 36 33.0 | +7.2 |
| SVE | | | | pmax | pmax | | |
| | comp=Z,31nm,0.9s | | | | | | |
| GSI | Gunungsitoli | 55.20 | 240 | eP | P | 19 36 27.6 | -0.1 |
| | comp=Z,24nm,0.6s | | | | | | |
| ARU | Arti | 56.23 | 318 | c iP | P | 19 36 41.9 | +7.3 |
| ARU | | | | | | 19 38 44.6 | |
| ARU | | | | S | S | 19 44 33.3 | +10 |
| ARU | | | | SS | SS | 19 48 13.8 | +4.2 |
| ARU | | | | pmax | pmax | | |
| | comp=Z,32nm,1.2s | | | | | | |
| ARU | Arti | 56.23 | 318 | eP | P | 19 36 34.6 | +0.1 |
| | comp=Z,18nm,0.7s | | | | | | |
| KBL | Kabul | 57.97 | 291 | eP | P | 19 36 47.2 | -0.3 |
| KBL | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.0s | | | | | | |
| KBL | Kabul | 57.97 | 291 | eP | P | 19 36 47.2 | -0.3 |
| | comp=Z,7.4nm,1.0s | | | | | | |
| WRAB | Tennant Creek | 58.24 | 189 | eP | P | 19 36 48.5 | -0.6 |
| WRAB | | | | pmax | pmax | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| | comp=Z,17nm,1.0s | | | | | | |
| WRAB | Tennant Creek | 58.24 | 189 | eP | P | 19 36 47.8 | -1.2 |
| | comp=Z,13nm,0.8s | | | | | | |
| WB2 | Warramunga Arr | 58.25 | 189 | eP | P | 19 36 47.7 | -1.5 |
| WR1 | Warramunga Arr | 58.26 | 189 | eP | P | 19 36 48.6 | -0.6 |
| | comp=Z,14nm,0.8s | | | | | | |
| WRA | Warramunga Arr | 58.26 | 189 | P | P | 19 36 48.6 | -0.6 |
| | comp=Z,10nm,0.6s,baz=7.5,slow=7.1,SNR=173 | | | | | | |
| RES | Resolute Bay | 61.33 | 15 | P | P | 19 37 11.1 | +1.4 |
| | comp=Z,1.5nm,0.6s,baz=305,slow=8.1,SNR=3.4 | | | | | | |
| AS01 | Alice Springs | 61.97 | 189 | eP | P | 19 37 14.3 | -0.4 |
| AS31 | Alice Springs | 61.98 | 189 | eP | P | 19 37 14.8 | +0.1 |
| | comp=Z,1.5nm,0.5s | | | | | | |
| ASAR | Alice Springs | 61.98 | 189 | P | P | 19 37 14.5 | -0.2 |
| | comp=Z,3.1nm,0.8s,baz=13,slow=9.7,SNR=52 | | | | | | |
| YKA | Yellowknife Ar | 62.39 | 31 | P | P | 19 37 18.2 | +1.2 |
| | comp=Z,0.7nm,0.6s,baz=301,slow=6.2,SNR=3.5 | | | | | | |
| YKB5 | Yellowknife Ar | 62.39 | 31 | eP | P | 19 37 18.2 | +1.2 |
| ARA0 | ARCESS Array S | 63.36 | 340 | eP | P | 19 37 24.1 | +0.8 |
| ARCES | ARCESS Array B | 63.36 | 340 | P | P | 19 37 24.2 | +0.8 |
| | comp=Z,1.9nm,0.8s,baz=52,slow=7.9,SNR=5.3 | | | | | | |
| KLMR | Klimovskoe | 63.40 | 328 | eP | P | 19 37 29.8 | +6.1 |
| KLMR | | | | pmax | pmax | | |
| | comp=Z,16nm,1.9s | | | | | | |
| PALK | Pallekele | 63.57 | 258 | i P | P | 19 37 29.7 | +4.1 |
| GEYT | Alibeck | 64.20 | 299 | P | P | 19 37 29.5 | 0.0 |
| | comp=Z,11nm,0.9s,baz=70,slow=4.7,SNR=4.3 | | | | | | |
| OBN | Obninsk | 67.85 | 323⇑ | eP | P | 19 38 00.5 | +8.0 |
| OBN | | | | pmax | pmax | | |
| | comp=Z,40nm,2.5s | | | | | | |
| OBN | | | | MLR | MLR | | |
| | comp=Z,82nm,12.0s | | | | | | |
| FIA0 | FINESS Array S | 68.34 | 332 | eP | P | 19 37 55.9 | +0.4 |
| FIA0 | FINESS Array S | 68.34 | 332 | eP | P | 19 37 55.9 | +0.4 |
| FINES | FINESS Array B | 68.34 | 332 | P | P | 19 37 55.9 | +0.4 |
| | comp=Z,2.2nm,0.6s,baz=49,slow=9.4,SNR=8.2 | | | | | | |
| FINES | | | | LR | LR | 20 11 11.9 | |
| | comp=Z,109nm,18.2s,baz=356,slow=39 | | | | | | |
| STKA | Stephens Creek | 69.62 | 181 | P | P | 19 38 03.9 | +0.2 |
| | comp=Z,4.7nm,0.7s,baz=348,slow=8.4,SNR=13 | | | | | | |
| STKA | Stephens Creek | 69.62 | 181 | eP | P | 19 38 04.3 | +0.6 |
| STKA | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.7s | | | | | | |
| STKA | Stephens Creek | 69.62 | 181 | eP | P | 19 38 04.2 | +0.6 |
| | comp=Z,1.0nm,0.7s | | | | | | |
| FORT | Forrest | 69.86 | 193 | eP | P | 19 38 05.7 | +0.5 |
| | comp=Z,220nm,0.6s | | | | | | |
| WALA | Waterton Lakes | 69.98 | 43 | eP | P | 19 38 06.4 | +0.3 |
| | comp=Z,5.8nm,0.8s | | | | | | |
| J08A | Circle Bar Ran | 70.62 | 50 | eP | P | 19 38 12.0 | +1.9 |
| | comp=Z,4.2nm,0.9s | | | | | | |
| BBOO | Buckleboo | 70.81 | 186 | eP | P | 19 38 11.5 | +0.5 |
| | comp=Z,25nm,1.4s | | | | | | |
| KIV | Kislovodsk | 70.97 | 311 | eP | P | 19 38 16.6 | +4.4 |
| KIV | | | | pmax | pmax | | |
| | comp=Z,13nm,1.0s | | | | | | |
| KBZ | Khabaz | 70.97 | 311 | P | P | 19 38 12.6 | +0.5 |
| | comp=Z,2.6nm,0.9s,baz=50,slow=5.7,SNR=4.4 | | | | | | |
| WVOR | Wild Horse Val | 71.05 | 51 | eP | P | 19 38 13.7 | +0.9 |
| WVOR | | | | pmax | pmax | | |
| | comp=Z,15nm,1.8s | | | | | | |
| WVOR | Wild Horse Val | 71.05 | 51 | eP | P | 19 38 13.7 | +0.9 |
| | comp=Z,16nm,1.8s | | | | | | |
| FFC | Flin Flon | 72.27 | 33 | eP | P | 19 38 20.0 | +0.2 |
| FFC | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.8s | | | | | | |
| FFC | Flin Flon | 72.27 | 33 | eP | P | 19 38 20.0 | +0.2 |
| | comp=Z,7.9nm,0.8s | | | | | | |
| SFJWR | San Luis Fatjo | 72.49 | 57 | eP | P | 19 38 19.8 | -1.6 |
| BOZ | Bozeman (W) | 73.28 | 45 | eP | P | 19 38 27.3 | +1.2 |
| BOZ | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.9s | | | | | | |
| BOZ | Bozeman (W) | 73.28 | 45 | eP | P | 19 38 27.3 | +1.2 |
| | comp=Z,4.1nm,0.9s | | | | | | |
| KVN | Kaiserville | 73.32 | 53 | eP | P | 19 38 27.2 | +0.7 |
| KVN | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.0s | | | | | | |
| KVN | Kaiserville | 73.32 | 53 | eP | P | 19 38 27.2 | +0.7 |
| | comp=Z,4.1nm,1.0s | | | | | | |
| NB2 | NORSAR Subarra | 73.59 | 338 | P | P | 19 38 27.1 | -0.4 |
| | comp=Z,3.9nm,0.7s,baz=39,slow=6.2 | | | | | | |
| NB200 | NORSAR Array S | 73.59 | 338 | eP | P | 19 38 27.6 | 0.0 |
| NOA | NORSAR Array B | 73.59 | 338 | P | P | 19 38 27.6 | 0.0 |
| | comp=Z,1.2nm,0.6s,baz=40,slow=5.6,SNR=4.2 | | | | | | |
| NOA | | | | LR | LR | 20 13 22.6 | |
| | comp=Z,58nm,21.7s,baz=255,slow=38 | | | | | | |
| AKASG | Malin Array Be | 74.07 | 323 | P | P | 19 38 29.8 | -0.6 |
| | comp=Z,0.4nm,0.4s,baz=40,slow=5.5,SNR=4.8 | | | | | | |
| AKASG | | | | LR | LR | 20 14 59.5 | |
| | comp=Z,66nm,19.0s,baz=50,slow=39 | | | | | | |
| AKASG | Malin Array Be | 74.07 | 323 | ceP | P | 19 38 37.5 | +7.1 |
| AKASG | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.6s | | | | | | |
| AKBB | Malin Array Si | 74.07 | 323 | eP | P | 19 38 30.5 | +0.1 |
| AKBB | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.9s | | | | | | |
| AKBB | Malin Array Si | 74.07 | 323 | eP | P | 19 38 30.5 | +0.1 |
| | comp=Z,7.1nm,0.9s | | | | | | |
| H17A | Grant Village | 74.61 | 45 | eP | P | 19 38 35.5 | +1.4 |
| | comp=Z,6.6nm,0.9s | | | | | | |
| IMW | Indian Meadow | 74.72 | 46 | eP | P | 19 38 36.7 | +2.0 |
| | comp=Z,4.6nm,0.8s | | | | | | |
| FXWY | Fox Creek | 74.83 | 46 | eP | P | 19 38 36.7 | +1.4 |
| | comp=Z,3.0nm,0.9s | | | | | | |
| MOOW | Moose Ponds | 74.92 | 46 | eP | P | 19 38 37.4 | +1.6 |
| | comp=Z,3.8nm,0.9s | | | | | | |
| HVU | Hansel Valley | 74.96 | 49 | eP | P | 19 38 37.5 | +1.5 |
| HVU | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.8s | | | | | | |
| HVU | Hansel Valley | 74.96 | 49 | eP | P | 19 38 37.5 | +1.5 |
| | comp=Z,3.6nm,0.8s | | | | | | |
| TPAW | Teton Pass | 74.96 | 46 | eP | P | 19 38 37.2 | +1.1 |
| | comp=Z,3.7nm,0.8s | | | | | | |
| R11A | Troy Canyon, C | 75.32 | 53 | eP | P | 19 38 40.0 | +1.8 |
| | comp=Z,5.5nm,1.3s | | | | | | |
| WBSM | Bird Springs | 75.36 | 56 | eP | P | 19 38 41.4 | +3.0 |
| DUG | Dugway, Tooele | 75.91 | 50 | eP | P | 19 38 43.5 | +2.0 |
| DUG | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.7s | | | | | | |
| DUG | Dugway, Tooele | 75.91 | 50 | eP | P | 19 38 43.5 | +2.0 |
| | comp=Z,5.1nm,0.7s | | | | | | |
| BW06 | Boulder Array | 76.21 | 46 | eP | P | 19 38 44.0 | +0.7 |
| | comp=Z,3.0nm,0.7s | | | | | | |
| PD31 | Pinedale Array | 76.21 | 46 | eP | P | 19 38 43.8 | +0.5 |
| PDAR | Pinedale Array | 76.21 | 46 | P | P | 19 38 42.7 | -0.6 |
| | comp=Z,1.2nm,0.7s,baz=282,slow=4.2,SNR=11 | | | | | | |
| PDAR | Pinedale Array | 76.21 | 46 | eP | P | 19 38 43.7 | +0.4 |
| CCUT | Cedar City | 77.20 | 52 | eP | P | 19 38 51.0 | +2.1 |
| | comp=Z,8.8nm,0.3s | | | | | | |
| PLM | Palomar | 77.51 | 57 | eP | P | 19 38 51.7 | +1.0 |
| PLM | Palomar | 77.51 | 57 | eP | P | 19 38 51.7 | +1.0 |
| LCMT | Little Creek M | 77.61 | 53 | eP | P | 19 38 53.3 | +2.2 |
| | comp=Z,35nm,1.0s | | | | | | |
| DPP | Dos Picos Cty | 77.67 | 58 | eP | P | 19 38 54.4 | +3.0 |
| BELC | Belle Mtn. Jos | 77.69 | 56 | eP | P | 19 38 54.2 | +2.6 |
| ULM | Lac du Bonnet | 78.07 | 34 | P | P | 19 38 53.9 | +0.7 |
| | comp=Z,2.1nm,0.8s,baz=305,slow=9.1,SNR=2.4 | | | | | | |
| BUR08 | Bucovina Ar. S | 78.08 | 322 | eP | P | 19 38 53.7 | +0.2 |
| BUR04 | Bucovina Ar. S | 78.10 | 322 | eP | P | 19 38 54.0 | +0.5 |
| BURAR | Bucovina Array | 78.10 | 322⇓ | iP | P | 19 38 53.8 | +0.2 |
| TESR | Tescani | 78.16 | 321⇑ | iP | P | 19 39 01.8 | +8.0 |
| VRI | Vrincioaia | 78.56 | 320⇑ | iP | P | 19 38 58.1 | +2.0 |
| STHS | Stebnicka Huta | 78.66 | 325 | eP | P | 19 39 05.7 | +9.1 |
| STHS | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.8s | | | | | | |
| STHS | Stebnicka Huta | 78.66 | 325 | eP | P | 19 39 05.7 | +9.1 |
| BLYC | Blythe | 78.81 | 56 | eP | P | 19 39 02.2 | +4.5 |
| BR101 | Keskin Array S | 78.89 | 312 | eP | P | 19 38 58.7 | +0.5 |
| BRTR | Keskin Array B | 78.89 | 312 | P | P | 19 38 58.7 | +0.5 |
| | comp=Z,0.3nm,0.5s,baz=73,slow=4.1,SNR=2.8 | | | | | | |
| BRTR | | | | LR | LR | 20 20 15.6 | |
| | comp=Z,23nm,18.6s,baz=45,slow=40 | | | | | | |
| PV10 | Paradox Valley | 79.32 | 49 | eP | P | 19 39 00.5 | -0.2 |
| LANS | Liptovska Anna | 79.65 | 326 | eP | P | 19 39 11.3 | +9.3 |
| LANS | Liptovska Anna | 79.65 | 326 | eP | P | 19 39 11.3 | +9.3 |
| VOIR | | 79.71 | 321⇑ | iP | P | 19 39 07.5 | +5.1 |
| ARR | Arges | 79.96 | 321⇑ | iP | P | 19 39 05.5 | +1.7 |
| RAR | Rarotonga | 79.98 | 127 | LR | LR | 20 06 05.9 | |
| | comp=Z,37nm,20.4s,baz=304,slow=29 | | | | | | |
| VYHS | Vyhne | 80.42 | 326 | eP | P | 19 39 15.1 | +9.0 |
| VYHS | | | | pmax | pmax | | |
| | comp=Z,27nm,2.6s | | | | | | |
| VYHS | Vyhne | 80.42 | 326 | eP | P | 19 39 15.0 | +8.9 |
| BRG | Berggiesshubel | 80.65 | 330 | eP | P | 19 39 13.4 | +6.2 |
| | comp=Z,2.9nm,1.0s | | | | | | |
| BRG | Berggiesshubel | 80.65 | 330 | eP | P | 19 39 13.4 | +6.1 |
| BRG | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.0s | | | | | | |
| CLL | Collm | 80.67 | 331 | eP | P | 19 39 15.0 | +7.6 |
| S22A | 4UR Ranch, Cre | 81.05 | 49 | eP | P | 19 39 10.3 | +0.2 |
| | comp=Z,2.6nm,0.8s | | | | | | |
| MDVR | Moldovita | 81.82 | 322⇓ | iP | P | 19 39 21.4 | +7.7 |
| KHC | Kasperske Hory | 82.16 | 329 | epP | pP | 19 39 23.8 | +3.8 |
| KHC | | | | esP | sP | 19 39 28.7 | +7.0 |
| KHC | Kasperske Hory | 82.16 | 329 | eP | P | 19 39 23.8 | +8.4 |
| KHC | | | | e | | 19 39 28.7 | |
| GERES | GERESS Array B | 82.33 | 329 | P | P | 19 39 16.0 | -0.4 |
| | comp=Z,0.6nm,0.6s,baz=40,slow=5.2,SNR=2.6 | | | | | | |
| ANMO | Albuquerque | 83.14 | 51 | ceP | P | 19 39 29.2 | +8.2 |
| ANMO | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.7s | | | | | | |
| TX31 | Lajitas Ar. Si | 88.68 | 53 | eP | P | 19 39 47.7 | -0.6 |
| LTX | Lajitas | 88.68 | 53 | eP | P | 19 39 48.8 | +0.4 |
| LTX | Lajitas | 88.68 | 53 | eP | P | 19 39 48.8 | +0.4 |
| TXAR | Lajitas Array | 88.68 | 53 | P | P | 19 39 48.8 | +0.4 |
| | comp=Z,0.5nm,0.7s,baz=307,slow=4.6,SNR=6.1 | | | | | | |
| LPAZ | La Paz | 145.29 | 60 | PKPbc | PKPbc | 19 46 33.3 | -0.1 |
| | comp=Z,1.9nm,0.7s,baz=357,slow=5.1,SNR=4.2 | | | | | | |
| LPAZ | La Paz | 145.29 | 60 | ePKIKP | PKPbc | 19 46 31.9 | -1.5 |
| LPAZ | La Paz | 145.29 | 60 | ePKPbc | PKPbc | 19 46 31.9 | -1.5 |

*IDC **07** 19:35:01.3±1.2, 37.45N×144.04E, h0km, mb3.7/5, mb1 3.9/6, mb1mx3.6/32, mbtmp3.7/6, ML3.4/1, Error ellipse: s-maj=32.1km s-min=24.2km az=86.0*
*ISCJB **07** 19:35:04.2±0.8, 37.63N±0.05×143.75E±0.06, h33km, mb3.7/5, Error ellipse: s-maj=7.7km s-min=7.1km az=21.5*
*JMA **07** 19:35:04.1±0.2, 37.67N×143.72E, h39km, M3.5*
**ISC 07 19:35:06.7**±1.2**, 37.68N**±0.07×**143.72E**±0.09**, h35km, n17, σ1s24/26, mb3.6/5, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JIO | Ouri | 2.03 | 293 | P | Pn | 19 35 37.2 | -1.2 |
| JIO | | | | eS | Sn | 19 36 01.7 | -0.8 |
| OFUJ | Ofunato | 2.14 | 312 | P | Pn | 19 35 38.6 | -1.3 |
| OFUJ | | | | eS | Sn | 19 36 03.8 | -1.4 |
| JFK | Kawauchi | 2.29 | 263 | P | Pn | 19 35 40.4 | -1.6 |
| JFK | | | | eS | Sn | 19 36 07.4 | -1.5 |
| JMK | Ichinoseki | 2.34 | 304 | P | Pn | 19 35 41.7 | -1.0 |
| JMK | | | | eS | Sn | 19 36 10.8 | +0.5 |
| JOU | Okura | 2.51 | 287 | P | Pn | 19 35 44.6 | -0.5 |
| JOM | Ohasama | 2.62 | 314 | P | Pn | 19 35 45.5 | -1.0 |
| JOM | | | | eS | Sn | 19 36 16.4 | -0.6 |
| JFT | Otama | 2.69 | 268 | P | Pn | 19 35 47.5 | -0.1 |
| JFT | | | | eS | Sn | 19 36 18.7 | -0.3 |
| JYK | Kaneyama | 2.92 | 296 | P | Pn | 19 35 50.6 | -0.1 |
| JYK | | | | eS | Sn | 19 36 24.9 | +0.3 |
| JRG | Rokugo | 2.97 | 306 | P | Pn | 19 35 51.1 | -0.2 |
| JANG | Nango | 3.20 | 328 | P | Pn | 19 35 54.0 | -0.5 |
| MJAR | Matsushiro Arr | 4.55 | 257 | Pn | Pn | 19 36 14.0 | +0.9 |
| | 1.5nm,0.3s,baz=88,slow=15,SNR=14 | | | | | | |
| MJAR | | | | Sn | Sn | 19 37 05.8 | +1.1 |
| | baz=86,slow=26,SNR=2.6 | | | | | | |
| MAT | Matsushiro | 4.55 | 257 | P | Pn | 19 36 13.1 | 0.0 |
| MAT | | | | eS | Sn | 19 37 04.0 | -0.8 |
| ZALV | Zalesovo Beam | 42.85 | 312 | P | P | 19 43 05.0 | +3.8 |
| | 0.7nm,0.5s,baz=97,slow=7.3,SNR=3.3 | | | | | | |
| MKAR | Makanchi Array | 45.34 | 302 | P | P | 19 43 22.2 | +0.9 |
| | 0.7nm,0.8s,baz=81,slow=7.7,SNR=1.8 | | | | | | |
| ILAR | Eielson Array | 47.97 | 33 | P | P | 19 43 41.5 | 0.0 |
| | 0.5nm,0.7s,baz=269,slow=5.4,SNR=7.0 | | | | | | |
| WRA | Warramunga Arr | 57.99 | 190 | P | P | 19 44 54.5 | -1.4 |
| | 1.5nm,0.7s,baz=11,slow=7.2,SNR=10.0 | | | | | | |
| ASAR | Alice Springs | 61.71 | 190 | P | P | 19 45 20.2 | -1.2 |
| | 0.5nm,0.8s,baz=20,slow=4.8,SNR=4.6 | | | | | | |

**JMA 07 19:35:15.2**±0.4**, 37.75N**×**143.73E, h27km, M3.6, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JIO | Ouri | 2.01 | 291 | P | Pn | 19 35 48.1 | +0.8 |
| JIO | | | | eS | Sn | 19 36 12.7 | +1.2 |
| JOM | Ohasama | 2.57 | 313 | eS | Sn | 19 36 27.3 | +1.9 |
| JFT | Otama | 2.70 | 266 | eS | Sn | 19 36 30.6 | +1.9 |
| JYK | Kaneyama | 2.90 | 295 | P | Pn | 19 36 01.7 | +2.2 |
| JYK | | | | eS | Sn | 19 36 36.3 | +2.8 |

*IDC **07** 20:07:40.2±1.0, 51.46N×174.97W, h0km, mb4.1/14, mb1 4.2/17, mb1mx4.0/55, mbtmp4.1/17, ML3.8/3, MS3.1/4, Ms1 3.1/4, ms1mx2.7/44, Error ellipse: s-maj=29.5km s-min=16.6km az=163.0*
*NEIC **07** 20:07:43.8±0.0, 51.29N×175.00W, h9km, mb4.5/1, ML3.9(AEIC), After AEIC.*
**ISC 07 20:07:41.4**±2.0**, 51.21N**±0.08×**175.02W**±0.04**, h10km**±12km**, n92, σ1s29/94, mb4.0/15, MS3.4/3, Andreanof Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GSMY | Great Sitkin M | 1.05 | 323 | ePn | Pn | 20 08 03.1 | +0.9 |
| GSTR | Great Sitkin T | 1.09 | 324 | ePn | Pn | 20 08 03.9 | +1.1 |
| GSTD | Great Sitkin T | 1.10 | 321 | ePn | Pn | 20 08 03.7 | +0.8 |
| GSTD | | | | eSn | Sn | 20 08 18.9 | +0.7 |
| ATKA | Atka Island | 1.12 | 27 | ePn | Pn | 20 08 03.2 | +0.1 |
| ATKA | | | | S | Sn | 20 08 18.3 | -0.1 |
| KOFP | Korovin Flat P | 1.21 | 28 | ePn | Pn | 20 08 05.2 | +0.8 |
| KOKL | Mount Kliuchef | 1.22 | 24 | ePn | Pn | 20 08 05.2 | +0.6 |
| ADK | Adak | 1.24 | 304 | ePn | Pn | 20 08 05.4 | +0.6 |
| ADK | | | | S | Sn | 20 08 22.3 | +0.8 |
| ADAG | Mount Adagdak | 1.25 | 309 | ePn | Pn | 20 08 06.5 | +1.6 |
| KOSE | Korovin Southe | 1.28 | 28 | ePn | Pn | 20 08 06.5 | +1.1 |
| KOSE | | | | eSn | Sn | 20 08 24.8 | +2.1 |
| KIRH | Kanaga Island | 1.47 | 299 | ePn | Pg | 20 08 09.5 | 0.0 |
| KIKV | Kanaga Island | 1.50 | 297 | ePn | Pb | 20 08 09.6 | +0.3 |
| KICM | Kanaga Island | 1.53 | 298 | ePn | Pb | 20 08 10.2 | +0.3 |
| TAPA | Tanaga Point A | 1.85 | 290 | ePn | Pn | 20 08 14.8 | +1.6 |
| TAFL | Tanaga Flats | 1.88 | 288 | ePn | Pn | 20 08 15.2 | +1.6 |
| TAFP | Tanaga Falls P | 1.98 | 292 | ePn | Pn | 20 08 16.8 | +1.9 |
| TANO | Tanaga North | 2.06 | 291 | ePn | Pb | 20 08 18.5 | -0.3 |
| NIKH | Nikolski High | 4.19 | 63 | ePn | Pn | 20 08 47.0 | +1.7 |
| MREP | Makushin Rep't | 5.68 | 60 | P | Pn | 20 09 07.8 | +1.9 |
| MSW | Makushin Switc | 5.71 | 58 | ePn | Pn | 20 09 08.1 | +2.0 |
| KDAK | Kodiak Island | 14.56 | 54 | Pn | Pn | 20 11 05.0 | -2.2 |
| | 1.1nm,0.3s,baz=209,slow=3.6,SNR=16 | | | | | | |
| KDAK | | | | Sn | Sn | 20 13 51.4 | +3.0 |
| | 0.2nm,0.3s,baz=218,slow=19,SNR=3.3 | | | | | | |
| KDAK | | | | LR | LR | 20 17 20.5 | |
| | comp=Z,113nm,20.5s,baz=216,slow=40 | | | | | | |
| KDAK | Kodiak Island | 14.56 | 54 | ePn | Pn | 20 11 04.5 | -2.6 |
| KDAK | | | | Sn | Sn | 20 13 51.4 | +3.0 |
| PEA1 | Petropavlovsk- | 16.81 | 287 | ePn | Pn | 20 11 37.7 | +1.1 |
| PETK | Petropavlovsk- | 16.81 | 287 | Pn | Pn | 20 11 37.7 | +1.1 |
| | 0.4nm,0.3s,baz=87,slow=13,SNR=7.8 | | | | | | |
| CAST | Castle Rocks | 17.27 | 36 | ePn | Pn | 20 11 42.8 | +0.3 |
| KTH | Kantishna Hill | 17.78 | 37 | ePn | P | 20 11 49.8 | +0.3 |
| BPAW | Bear Paw Mtn. | 18.06 | 35 | ePn | P | 20 11 53.1 | +0.6 |
| MLY | Manley | 18.69 | 33 | eP | Pn | 20 12 00.7 | +0.9 |
| DHY | Denali Highway | 18.94 | 41 | eP | Pn | 20 12 02.6 | -0.4 |
| CCB | Clear Creek Bu | 19.52 | 36 | eP | P | 20 12 07.2 | -1.3 |
| MDM | Murphy Dome | 19.53 | 35 | eP | P | 20 12 07.6 | -1.1 |
| IL1 | Eielson Array | 19.93 | 36 | eP | P | 20 12 13.2 | +0.2 |
| ILAR | Eielson Array | 19.93 | 36 | P | P | 20 12 11.2 | -1.8 |
| | 0.6nm,0.3s,baz=230,slow=8.7,SNR=45 | | | | | | |
| ILB | Eielson Array | 19.93 | 36 | eP | P | 20 12 12.8 | -0.1 |
| COLD | Coldfoot | 20.23 | 28 | eP | P | 20 12 16.0 | -0.2 |
| FYU | Fort Yukon | 21.43 | 33 | eP | P | 20 12 30.2 | +1.0 |
| EGAK | Eagle | 22.14 | 39 | eP | P | 20 12 36.1 | -0.7 |
| DAWY | Dawson | 22.63 | 42 | eP | P | 20 12 42.8 | +0.7 |
| INK | Inuvik | 26.25 | 34 | P | P | 20 13 15.5 | -0.7 |
| | 0.9nm,0.4s,baz=210,slow=7.4,SNR=4.2 | | | | | | |
| YKA | Yellowknife Ar | 33.62 | 47 | LR | LR | 20 27 53.7 | |
| | comp=Z,6.9nm,20.8s,baz=0.0,slow=36 | | | | | | |
| JCW | Jim Creek | 33.85 | 74 | eP | P | 20 14 24.3 | +0.5 |
| JCW | | | | ePcP | PcP | 20 17 01.1 | -1.2 |
| H11N2 | WAKE ISLAND Hy | 34.50 | 211 | T | T | 20 51 34.0 | |
| | SNR=42 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 34.51 | 211 | T | T | 20 52 12.3 | |
| | baz=132,slow=74,SNR=36 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 34.52 | 211 | T | T | 20 52 27.1 | |
| | baz=21,slow=74,SNR=32 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 35.71 | 211 | T | T | 20 53 44.1 | |
| | baz=19,slow=75,SNR=62 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 35.72 | 211 | T | T | 20 53 47.6 | |
| | baz=19,slow=75,SNR=54 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 35.72 | 211 | T | T | 20 53 52.6 | |
| | baz=19,slow=75,SNR=22 | | | | | | |
| JBNB | Ben Lomond Mou | 39.58 | 90 | eP | P | 20 15 14.6 | +1.9 |
| EMB | Emerald Bay | 39.75 | 86 | eP | P | 20 15 16.0 | +1.7 |
| MCMT | McKenzie Canyo | 40.96 | 74 | eP | P | 20 15 24.4 | +0.2 |
| RLMT | Red Lodge | 42.95 | 71 | eP | P | 20 15 42.1 | +1.6 |
| | 15nm,1.7s | | | | | | |
| R11A | Troy Canyon, C | 42.96 | 83 | eP | P | 20 15 41.3 | +0.7 |
| PASC | Pasadena Art C | 43.95 | 90 | eP | P | 20 15 45.1 | -3.3 |
| PD31 | Pinedale Array | 44.08 | 74 | eP | P | 20 15 49.2 | -0.5 |
| PDAR | Pinedale Array | 44.08 | 74 | P | P | 20 15 50.5 | +0.9 |
| | 1.2nm,0.9s,baz=320,slow=4.2,SNR=6.6 | | | | | | |
| PDAR | Pinedale Array | 44.08 | 74 | eP | P | 20 15 50.4 | +0.7 |
| SGU | Sterling | 44.91 | 80 | eP | P | 20 15 57.7 | +1.4 |
| ULM | Lac du Bonnet | 47.77 | 58 | P | P | 20 16 17.2 | -1.1 |
| | 1.5nm,0.4s,baz=311,slow=7.5,SNR=5.2 | | | | | | |
| SONA0 | Songino Array | 48.83 | 299 | eP | P | 20 16 26.0 | -0.7 |
| SONM | Songino Array | 48.83 | 299 | P | P | 20 16 26.0 | -0.7 |
| | 1.0nm,0.8s,baz=54,slow=8.6,SNR=6.2 | | | | | | |
| SPITS | Spitsbergen Ar | 50.69 | 357 | P | P | 20 16 38.8 | -1.6 |
| | 3.1nm,0.6s,baz=14,slow=8.0,SNR=12 | | | | | | |
| ANMO | Albuquerque | 50.79 | 81 | LR | LR | 20 35 48.3 | |
| | comp=Z,32nm,19.2s,baz=179,slow=33 | | | | | | |
| ZAA1 | Zalesovo Array | 55.84 | 315 | eP | P | 20 17 17.1 | -1.4 |
| ZAA1 | | | | ePcP | PcP | 20 18 17.4 | +0.1 |
| ZALV | Zalesovo Beam | 55.84 | 315 | P | P | 20 17 17.0 | -1.5 |
| | 0.3nm,0.4s,baz=51,slow=7.9,SNR=2.1 | | | | | | |
| ZALV | | | | PcP | PcP | 20 18 17.4 | +0.1 |
| | 0.5nm,0.6s,baz=96,slow=1.4,SNR=3.7 | | | | | | |
| ARA0 | ARCESS Array S | 58.63 | 352 | eP | P | 20 17 36.4 | -1.6 |
| ARA0 | | | | ePcP | PcP | 20 18 26.7 | -1.2 |
| ARCES | ARCESS Array B | 58.63 | 352 | P | P | 20 17 36.4 | -1.6 |
| | 6.2nm,1.1s,baz=15,slow=7.8,SNR=5.6 | | | | | | |
| ARCES | | | | PcP | PcP | 20 18 26.7 | -1.2 |
| | 5.8nm,1.0s,baz=27,slow=4.2,SNR=3.9 | | | | | | |
| KURK | Kurchatov | 60.83 | 316 | eP | P | 20 17 53.6 | +0.3 |
| MK32 | Makanchi Array | 61.97 | 311 | eP | P | 20 18 00.8 | -0.4 |
| MKAR | Makanchi Array | 61.97 | 311 | P | P | 20 18 00.8 | -0.4 |
| | 1.5nm,0.3s,baz=46,slow=6.5,SNR=46 | | | | | | |
| FIA0 | FINESS Array S | 66.43 | 349 | eP | P | 20 18 28.2 | -1.9 |
| FINES | FINESS Array B | 66.43 | 349 | P | P | 20 18 28.2 | -1.9 |
| | 7.7nm,1.1s,baz=1.6,slow=6.7,SNR=5.1 | | | | | | |
| NB2 | NORSAR Subarra | 67.99 | 357 | P | P | 20 18 39.1 | -1.0 |
| | comp=Z,0.7nm,0.7s,baz=359,slow=6.2 | | | | | | |
| NB200 | NORSAR Array S | 67.99 | 357 | eP | P | 20 18 38.6 | -1.5 |
| NOA | NORSAR Array B | 67.99 | 357 | P | P | 20 18 38.6 | -1.5 |
| | comp=Z,0.7nm,0.8s,baz=349,slow=7.3,SNR=3.9 | | | | | | |
| CMAR | Chiang Mai Arr | 73.39 | 279 | P | P | 20 19 15.2 | +1.6 |
| | comp=Z,0.4nm,0.3s,baz=24,slow=6.9,SNR=5.0 | | | | | | |
| TAPN | Taplejung | 73.47 | 293 | eP | P | 20 19 15.5 | +1.1 |
| | comp=Z,20nm,0.9s | | | | | | |
| ODAN | Odare | 74.03 | 293 | eP | P | 20 19 18.3 | +0.7 |
| | comp=Z,24nm,1.4s | | | | | | |
| GUN | Gumba | 74.10 | 295 | eP | P | 20 19 19.3 | +1.2 |
| | comp=Z,18nm,0.7s | | | | | | |
| JIRN | Jiri | 74.11 | 294 | eP | P | 20 19 19.5 | +1.3 |
| | comp=Z,195nm,0.7s | | | | | | |
| RAMN | Ramite | 74.42 | 294 | eP | P | 20 19 20.7 | +0.8 |
| | comp=Z,31nm,0.7s | | | | | | |
| KKN | Kakani | 74.53 | 295 | eP | P | 20 19 21.6 | +1.1 |
| | comp=Z,8.5nm,0.8s | | | | | | |
| PKI | Pulchoki | 74.63 | 295 | eP | P | 20 19 21.7 | +0.5 |
| PKIN | Phulchoki | 74.63 | 295 | eP | P | 20 19 21.8 | +0.7 |
| | comp=Z,11nm,1.1s | | | | | | |
| DMN | Daman | 74.77 | 295 | eP | P | 20 19 22.9 | +1.0 |
| | comp=Z,9.3nm,0.8s | | | | | | |
| DANN | Dangsing | 74.97 | 296 | eP | P | 20 19 24.5 | +1.4 |
| | comp=Z,1.4nm,0.8s | | | | | | |
| KOLN | Koldanda | 75.50 | 296 | eP | P | 20 19 26.8 | +0.7 |
| | comp=Z,7.8nm,0.8s | | | | | | |
| PYUN | Piuthan | 75.59 | 297 | eP | P | 20 19 27.4 | +0.8 |
| | comp=Z,25nm,0.8s | | | | | | |
| AKASG | Malin Array Be | 76.39 | 344 | P | P | 20 19 29.1 | -1.4 |
| | comp=Z,0.5nm,0.3s,baz=19,slow=6.2,SNR=4.1 | | | | | | |
| GEYT | Alibeck | 79.78 | 320 | P | P | 20 19 50.4 | +0.8 |
| | comp=Z,2.8nm,0.8s,baz=349,slow=4.6,SNR=9.6 | | | | | | |
| WR1 | Warramunga Arr | 83.59 | 227 | eP | P | 20 20 09.6 | -0.1 |
| WRA | Warramunga Arr | 83.59 | 227 | P | P | 20 20 09.6 | -0.1 |
| | comp=Z,0.7nm,1.1s,baz=39,slow=5.1,SNR=12 | | | | | | |
| SDV | Santo Domingo | 92.01 | 73 | LR | LR | 21 01 43.1 | |
| | comp=Z,21nm,19.6s,baz=256,slow=35 | | | | | | |
| BOSA | Boshof | 152.76 | 318 | PKPbc | PKPbc | 20 27 39.5 | +1.2 |
| | comp=Z,2.1nm,0.5s,baz=12,slow=1.7,SNR=9.6 | | | | | | |

*ATA **07** 20:07:46.7±1.0, 38.65N×43.02E, h13km±8km, ML3.8, MW3.8*
*ISK **07** 20:07:46.6, 38.65N×43.05E, h5km, ML3.2*
*DDA **07** 20:07:47.3, 38.63N×43.02E, h5km, Ml3.3*
*CSEM **07** 20:07:48.0±0.1, 38.64N×43.07E, h2km, ML3.2, Error ellipse: s-maj=3.4km s-min=3.2km az=78.0*
**ISC 07 20:07:48.0**±1.0**, 38.64N**±0.01×**43.04E**±0.02**, h7km**±9km**, n95, σ1s26/152, 2D, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.28 | 99 | ePG | Pb | 20 07 54.2 | -1.1 |
| VANB | | | | eSG | Sb | 20 07 59.6 | -0.6 |
| VANB | Van | 0.28 | 99 | ePg | Pb | 20 07 54.2 | -1.1 |
| ADCV | BITLIS_Adilcev | 0.30 | 304 | i P | Pb | 20 07 54.7 | -1.1 |
| ADCV | | | | i S | Sb | 20 08 00.1 | -0.9 |
| ADCV | BITLIS_Adilcev | 0.30 | 304 | P | Pb | 20 07 54.7 | -1.1 |
| ADCV | | | | S | Sb | 20 08 00.1 | -0.9 |
| TVAN | Van | 0.31 | 111 | i P | Pb | 20 07 54.5 | -1.4 |
| TVAN | | | | i S | Sb | 20 08 00.4 | -0.8 |
| TVAN | Van | 0.31 | 111 | P | Pb | 20 07 54.5 | -1.4 |
| TVAN | | | | S | Sb | 20 08 00.4 | -0.8 |
| GEVA | Gevas | 0.33 | 178⇓ | eP | Pg | 20 07 54.1 | -0.3 |
| GEVA | | | | eS | Sb | 20 07 60.0 | -1.7 |
| GEVA | | | | IAML | | 20 08 04.1 | |
| | comp=Z,979nm,0.3s | | | | | | |
| GEVA | Gevas | 0.33 | 178 | i P | Pg | 20 07 54.1 | -0.3 |
| GEVA | | | | i S | Sb | 20 08 00.5 | -1.2 |
| GEVA | Gevas | 0.33 | 178 | P | Pg | 20 07 54.2 | -0.3 |
| GEVA | | | | S | Sb | 20 08 00.5 | -1.2 |
| ERCV | ERCIS-VAN | 0.45 | 31 | ePG | Pg | 20 07 56.6 | -0.1 |
| ERCV | ERCIS-VAN | 0.45 | 31 | ePg | Pg | 20 07 56.6 | -0.1 |
| VMUR | Van-Muradiye | 0.54 | 50 | i P | Pb | 20 07 58.7 | -1.2 |
| VMUR | | | | i S | Sb | 20 08 07.5 | -0.5 |
| VMUR | Van-Muradiye | 0.54 | 50 | P | Pb | 20 07 58.7 | -1.2 |
| VMUR | | | | S | Sb | 20 08 07.5 | -0.5 |
| TUTA | Tutak | 0.78 | 347⇓ | iP | Pg | 20 08 02.5 | -0.6 |
| TUTA | | | | IAML | | 20 08 08.3 | |
| | comp=Z,297nm,0.3s | | | | | | |
| TUTA | | | | eS | Sb | 20 08 13.4 | -1.6 |
| TUTA | Tutak | 0.78 | 347 | i P | Pg | 20 08 02.6 | -0.4 |
| TUTA | | | | i S | Sb | 20 08 13.8 | -1.2 |
| TUTA | Tutak | 0.78 | 347 | P | Pg | 20 08 02.6 | -0.4 |
| TUTA | | | | S | Sb | 20 08 13.8 | -1.2 |
| CLDR | Caldiran | 0.85 | 53 | ePG | Pg | 20 08 03.6 | -0.8 |
| CLDR | | | | eSG | Sb | 20 08 16.6 | -0.2 |
| CLDR | Caldiran | 0.85 | 53 | i P | Pg | 20 08 03.5 | -0.8 |
| CLDR | | | | i S | Sb | 20 08 16.7 | -0.2 |
| CLDR | Caldiran | 0.85 | 53 | ePg | Pg | 20 08 03.6 | -0.8 |
| CLDR | | | | eSg | Sb | 20 08 16.6 | -0.2 |
| AGRB | Hanur-Agry | 0.94 | 358 | ePG | Pg | 20 08 05.0 | -1.0 |
| AGRB | Hanur-Agry | 0.94 | 358 | ePg | Pg | 20 08 05.0 | -1.0 |
| BASK | Baskale_VAN | 0.96 | 127 | eP | Pg | 20 08 05.3 | -1.1 |
| BASK | | | | IAML | | 20 08 12.5 | |
| | comp=Z,123nm,0.4s | | | | | | |
| BASK | | | | eS | Sn | 20 08 20.9 | -1.0 |
| BASK | Baskale_VAN | 0.96 | 127 | i P | Pg | 20 08 04.1 | -2.2 |
| BASK | | | | i S | Sb | 20 08 20.2 | +0.3 |
| BASK | Baskale_VAN | 0.96 | 127 | P | Pg | 20 08 04.1 | -2.2 |
| BASK | | | | S | Sb | 20 08 20.2 | +0.3 |
| EKAR | Karacoban | 0.98 | 309 | i P | Pb | 20 08 06.9 | -0.5 |
| EKAR | | | | i S | Sn | 20 08 23.9 | +1.3 |
| EKAR | Karacoban | 0.98 | 309 | P | Pb | 20 08 06.9 | -0.5 |
| EKAR | | | | S | Sn | 20 08 23.9 | +1.3 |
| DYDN | Diyadin | 1.03 | 29 | eP | Pg | 20 08 06.4 | -1.5 |
| DYDN | | | | IAML | | 20 08 09.6 | |
| | comp=Z,69nm,0.4s | | | | | | |
| DYDN | | | | eS | Sn | 20 08 23.3 | -0.6 |
| DYDN | Diyadin | 1.03 | 29 | i P | Pn | 20 08 08.2 | -0.9 |
| DYDN | | | | i S | Sn | 20 08 25.1 | +1.1 |
| DYDN | Diyadin | 1.03 | 29 | P | Pn | 20 08 08.2 | -0.9 |
| DYDN | | | | S | Sn | 20 08 25.0 | +1.1 |
| SRTM | Siirt_Merkez | 1.09 | 234 | i P | Pb | 20 08 09.1 | -0.1 |
| SRTM | | | | i S | Sn | 20 08 25.6 | +0.5 |
| SRTM | Siirt_Merkez | 1.09 | 234 | P | Pb | 20 08 09.1 | -0.1 |
| SRTM | | | | S | Sn | 20 08 25.6 | +0.5 |
| HAKT | HAKKARI | 1.20 | 154 | i P | Pg | 20 08 09.4 | -1.6 |
| HAKT | | | | i S | Sn | 20 08 29.5 | +1.5 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **HAKT** | **HAKKARI** | **1.20 154** | P | **Pg** | **20 08 09.4** | **-1.6** |
| HAKT | | | S | **Sn** | **20 08 29.5** | **+1.5** |
| **SIRT** | **Sirnak** | **1.23 203** | *e*PN | **Pn** | **20 08 11.6** | **-0.1** |
| **SIRT** | **Sirnak** | **1.23 203** | *e*Pn | **Pn** | **20 08 11.6** | **-0.1** |
| **SIRN** | **S˜–rnak** | **1.24 204** | *i* P | **Pn** | **20 08 11.6** | **-0.2** |
| SIRN | | | *i* S | **Sn** | **20 08 30.5** | **+1.7** |
| **SIRN** | **S˜–rnak** | **1.24 204** | P | **Pn** | **20 08 11.6** | **-0.2** |
| SIRN | | | S | **Sn** | **20 08 30.5** | **+1.7** |
| **EATA** | **Eleskirt** | **1.29 341** | *e*P | **Pg** | **20 08 11.4** | **-1.4** |
| EATA | | | IAML | | 20 08 19.0 | |
| | comp=Z,32nm,0.5s | | | | | |
| **EATA** | **Eleskirt** | **1.29 341** | *i* P | **Pg** | **20 08 11.6** | **-1.2** |
| EATA | | | *i* S | **Sn** | **20 08 32.2** | **+1.7** |
| **EATA** | **Eleskirt** | **1.29 341** | P | **Pg** | **20 08 11.6** | **-1.2** |
| EATA | | | S | **Sn** | **20 08 32.2** | **+1.7** |
| **VRTB** | **Varto-Mus** | **1.34 293** | *e*PN | **Pn** | **20 08 12.8** | **-0.4** |
| **VRTB** | **Varto-Mus** | **1.34 293** | *i* P | **Pn** | **20 08 12.9** | **-0.4** |
| VRTB | | | *i* S | **Sn** | **20 08 31.6** | **+0.2** |
| **VRTB** | **Varto-Mus** | **1.34 293** | P | **Pn** | **20 08 12.9** | **-0.4** |
| VRTB | | | S | **Sn** | **20 08 31.6** | **+0.2** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.44 136** | *i* P | **Pb** | **20 08 14.7** | **-0.6** |
| YOVA | | | *i* S | **Sn** | **20 08 35.3** | **+1.4** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.44 136** | P | **Pb** | **20 08 14.6** | **-0.6** |
| YOVA | | | S | **Sn** | **20 08 35.3** | **+1.4** |
| **CUKT** | **Cukurca** | **1.46 162** | *e*PN | **Pb** | **20 08 14.8** | **-0.6** |
| **CUKT** | **Cukurca** | **1.46 162** | *i* P | **Pn** | **20 08 14.7** | **-0.1** |
| CUKT | | | *i* S | **Sg** | **20 08 38.6** | **+3.8** |
| **CUKT** | **Cukurca** | **1.46 162** | P | **Pn** | **20 08 14.7** | **-0.1** |
| **BNGL** | **BINGOL** | **1.51 283** | *e*P | **Pb** | **20 08 15.8** | **-0.6** |
| BNGL | | | *e*S | **Sg** | **20 08 37.4** | **+0.9** |
| BNGL | | | IAML | | 20 08 39.9 | |
| | comp=Z,396nm,0.5s | | | | | |
| **BNGL** | **BINGOL** | **1.51 283** | *i* P | **Pg** | **20 08 16.2** | **-0.8** |
| BNGL | | | *i* S | **Sg** | **20 08 36.4** | **-0.2** |
| **BTMN** | **Batman** | **1.58 242** | *i* P | **Pb** | **20 08 17.3** | **-0.2** |
| BTMN | | | *i* S | **Sg** | **20 08 39.5** | **+0.7** |
| **BTMN** | **Batman** | **1.58 242** | P | **Pb** | **20 08 17.3** | **-0.2** |
| BTMN | | | S | **Sg** | **20 08 39.5** | **+0.7** |
| **TASB** | **TASBURUN-IGDIR** | **1.63 34** | *e*PN | **Pb** | **20 08 18.0** | **-0.5** |
| **TASB** | **TASBURUN-IGDIR** | **1.63 34** | *e*Pn | **Pb** | **20 08 18.0** | **-0.5** |
| **HOMI** | **Horasan** | **1.66 328** | *e*P | **Pb** | **20 08 18.3** | **-0.7** |
| HOMI | | | *e*S | **Sg** | **20 08 42.2** | **+0.9** |
| HOMI | | | IAML | | 20 08 45.5 | |
| | comp=Z,44nm,0.5s | | | | | |
| **HOMI** | **Horasan** | **1.66 328** | *i* P | **Pb** | **20 08 18.5** | **-0.5** |
| HOMI | | | *i* S | **Sg** | **20 08 42.9** | **+1.6** |
| **DIGO** | **Kars** | **1.79 8** | *e*P | **Pb** | **20 08 20.3** | **-1.0** |
| DIGO | | | IAML | | 20 08 31.7 | |
| | comp=Z,14nm,0.6s | | | | | |
| DIGO | | | *e*S | **Sg** | **20 08 47.3** | **+1.6** |
| **DIGO** | **Kars** | **1.79 8** | *i* P | **Pb** | **20 08 20.9** | **-0.3** |
| DIGO | | | *i* S | **Sg** | **20 08 49.0** | **+3.4** |
| **DIGO** | **Kars** | **1.79 8** | P | **Pb** | **20 08 21.0** | **-0.3** |
| **ERZM** | **Erzurum** | **1.81 315** | *e*P | **Pb** | **20 08 20.7** | **-1.0** |
| **ERZM** | **Erzurum** | **1.81 315** | *i* P | **Pb** | **20 08 21.3** | **-0.4** |
| ERZM | | | *i* S | **Sg** | **20 08 47.7** | **+1.4** |
| **ERZM** | **Erzurum** | **1.81 315** | P | **Pb** | **20 08 21.3** | **-0.4** |
| ERZM | | | S | **Sg** | **20 08 47.7** | **+1.4** |
| **ECAT** | **Cat-ERZURUM** | **1.88 302** | *e*P | **Pb** | **20 08 21.5** | **-1.1** |
| ECAT | | | IAML | | 20 08 36.6 | |
| | comp=Z,25nm,0.4s | | | | | |
| ECAT | | | *e*S | **Sg** | **20 08 47.6** | **-0.7** |
| **ECAT** | **Cat-ERZURUM** | **1.88 302** | *i* P | **Pb** | **20 08 21.8** | **-0.8** |
| ECAT | | | *i* S | **Sg** | **20 08 47.9** | **-0.4** |
| **ECAT** | **Cat-ERZURUM** | **1.88 302** | P | **Pb** | **20 08 21.8** | **-0.8** |
| ECAT | | | S | **Sg** | **20 08 47.9** | **-0.4** |
| **BNGB** | **Bingˆ¶l** | **1.88 282** | *e*PN | **Pb** | **20 08 21.6** | **-1.1** |
| **KARS** | **Kars** | **1.99 1** | *e*PN | **Pb** | **20 08 22.9** | **-1.6** |
| **KARS** | **Kars** | **1.99 1** | *e*Pn | **Pb** | **20 08 22.9** | **-1.6** |
| **SENK** | **Senkaya-Erzuru** | **1.99 345** | *e*PN | **Pb** | **20 08 23.0** | **-1.7** |
| **SENK** | **Senkaya-Erzuru** | **1.99 345** | *e*Pn | **Pb** | **20 08 23.0** | **-1.7** |
| **BINT** | **Bingol** | **2.01 278** | *e*Pn | **Pn** | **20 08 21.6** | **-0.8** |
| **HANI** | **Diyarbakir_Han** | **2.08 265** | *i* P | **Pb** | **20 08 25.5** | **-0.6** |
| HANI | | | *i* S | **Sg** | **20 08 54.2** | **-0.7** |
| **HANI** | **Diyarbakir_Han** | **2.08 265** | P | **Pb** | **20 08 25.5** | **-0.6** |
| HANI | | | S | **Sg** | **20 08 54.2** | **-0.7** |
| **EAK** | **Akyaka** | **2.09 12** | *i* P | **Pg** | **20 08 27.7** | **-0.4** |
| EAK | | | *i* S | **Sg** | **20 08 59.2** | **+4.0** |
| **EAK** | **Akyaka** | **2.09 12** | P | **Pg** | **20 08 27.7** | **-0.4** |
| **YEDI** | **Yedisu-Bingol** | **2.10 293** | *e*PN | **Pb** | **20 08 24.9** | **-1.6** |
| **YEDI** | **Yedisu-Bingol** | **2.10 293** | *e*Pn | **Pb** | **20 08 24.9** | **-1.6** |
| **MARD** | **Mardin** | **2.22 234** | *i* P | **Pb** | **20 08 28.0** | **-0.6** |
| MARD | | | *i* S | **Sb** | **20 08 57.6** | **+1.3** |
| **DIY** | **Diyarbakir** | **2.34 252** | *e*Pn | **Pb** | **20 08 28.7** | **-1.7** |
| **MAZI** | **Mazidag** | **2.36 241** | *e*PN | **Pn** | **20 08 28.7** | **+1.5** |
| **MAZI** | **Mazidag** | **2.36 241** | *e*Pn | **Pn** | **20 08 28.7** | **+1.5** |
| **DYBB** | **Diyarbakir** | **2.38 254** | *e*PN | **Pn** | **20 08 28.7** | **+1.2** |
| **KOPT** | **Kop Dagi** | **2.41 306** | *i* P | **Pg** | **20 08 33.0** | **-1.1** |
| KOPT | | | *i* S | **Sg** | **20 09 10.7** | **+5.4** |
| **KOPT** | **Kop Dagi** | **2.41 306** | P | **Pg** | **20 08 33.0** | **-1.1** |
| **DIYA** | **Diyarbakir** | **2.41 254** | *i* P | **Pb** | **20 08 32.0** | **+0.4** |
| DIYA | | | *i* S | **Sg** | **20 09 03.4** | **-2.0** |
| **DIYA** | **Diyarbakir** | **2.41 254** | P | **Pb** | **20 08 32.0** | **+0.4** |
| DIYA | | | S | **Sg** | **20 09 03.3** | **-2.0** |
| **DAGI** | **Agillar** | **2.59 341** | *i* P | **Pg** | **20 08 35.6** | **-2.0** |
| **PTK** | **Pertek** | **2.86 276** | *e*PN | **Pn** | **20 08 35.4** | **+1.2** |
| **PTK** | **Pertek** | **2.86 276** | *e*Pn | **Pn** | **20 08 35.4** | **+1.2** |
| **SVRC** | **Sivrice-ELAZID** | **2.94 266** | *e*PN | **Pn** | **20 08 36.7** | **+1.4** |
| **SVRC** | **Sivrice-ELAZID** | **2.94 266** | *e*Pn | **Pn** | **20 08 36.7** | **+1.4** |
| **ELZG** | **Elazig** | **3.18 269** | *e*P | **Pb** | **20 08 44.5** | **-0.4** |
| **KELT** | **Kelkit** | **3.30 298** | *i* P | **Pb** | **20 08 47.8** | **+0.9** |
| **URFA** | **Urfa** | **3.54 252** | *e*PN | **Pn** | **20 08 44.8** | **+1.4** |
| **URFA** | **Urfa** | **3.54 252** | *e*Pn | **Pn** | **20 08 44.8** | **+1.4** |

**IDC 07 20:09:00.4**±32.0**, 22°.96S×177°.89W, h380**km±255km**, mb3.5**/6**, mb1 3.7**/6**, mb1mx3.2**/35**, mbtmp4.3**/6**, MS3.6**/3**, Ms1 3.6**/3**, ms1mx3.0**/23**, Error ellipse: s-maj=262.8km s-min=49.0km az=124.0, South of Fiji Islands**

| Code | Station Name | Δ° AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **6.27 180** | LR | LR | 20 12 41.0 | |
| | comp=Z,2μm,21.3s,baz=205,slow=35 | | | | | |
| **CTA** | **Charters Tower** | **33.42 268** | P | P | 20 15 05.6 | +0.2 |
| | 3.6nm,0.5s,baz=94,slow=10,SNR=7.6 | | | | | |
| **ASAR** | **Alice Springs** | **44.10 259** | P | P | 20 16 33.4 | +0.3 |
| | 3.7nm,0.8s,baz=96,slow=8.0,SNR=32 | | | | | |
| **WRA** | **Warramunga Arr** | **44.41 264** | P | P | 20 16 34.4 | -1.0 |
| | 1.7nm,0.6s,baz=95,slow=7.9,SNR=96 | | | | | |
| **FITZ** | **Fitzroy Crossi** | **52.84 264** | P | P | 20 17 38.9 | 0.0 |
| | 1.1nm,0.5s,baz=76,slow=6.8,SNR=9.4 | | | | | |
| **JHJ** | **Hachijo jima 2** | **68.84 323** | LR | LR | 20 47 26.2 | |
| | comp=Z,4.8nm,18.2s,baz=98,slow=34 | | | | | |
| **MJAR** | **Matsushiro Arr** | **72.24 324** | LR | LR | 20 45 54.4 | |
| | comp=Z,84nm,21.0s,baz=135,slow=31 | | | | | |
| **PETK** | **Petropavlovsk-** | **78.66 345** | P | P | 20 20 21.1 | 0.0 |
| | 2.5nm,0.7s,baz=129,slow=6.2,SNR=5.1 | | | | | |
| **CMAR** | **Chiang Mai Arr** | **91.03 290** | P | P | 20 21 23.4 | +0.4 |
| | 0.8nm,0.7s,baz=114,slow=3.2,SNR=5.3 | | | | | |
| **AKASG** | **Malin Array Be** | **145.19 329** | PKPbc | PKPdf | 20 27 52.8 | -0.3 |
| | 0.6nm,0.3s,baz=39,slow=4.4,SNR=7.1 | | | | | |
| **BRTR** | **Keskin Array B** | **148.51 309** | PKPbc | PKPbc | 20 28 02.5 | -0.8 |
| | 0.5nm,0.7s,baz=161,slow=3.7,SNR=3.3 | | | | | |

*ISCJB **07** 20:16:44.9±0.4, 8°.14S±0°.05×120°.12E±0°.04, h197km±4km, mb3.4/5, Error ellipse: s-maj=8.3km s-min=6.2km az=19.1*
*DJA **07** 20:16:46.9±0.4, 8°S±3°×12°0E±°, h181km±5km, M4.1/9, mB6.2/1, mb4.6/4, MLv3.8/9, Mw(mB)5.9/1*
*IDC **07** 20:16:48.6±2.1, 8°.10S×120°.26E, h220km±20km, mb3.2/6, mb1 3.4/8, mb1mx3.2/32, mbtmp3.9/8, Error ellipse: s-maj=53.4km s-min=9.0km az=57.0*
**ISC 07 20:16:45.6**±0.8**, 8°.19S**±0°.05×**120°.16E**±0°.05**, h194**km±7km**, n19, σ1s.54**/29**, mb3.6**/5**, Flores region**

| Code | Station Name | Δ° AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|
| **EDFI** | **Ende, Flores** | **1.61 110** | P | **Pn** | **20 17 20.7** | **+0.8** |
| EDFI | | | S | **Sn** | **20 17 45.6** | **-0.9** |
| **WBSI** | **Waikabubak, Su** | **1.63 208** | P | **Pn** | **20 17 20.6** | **+0.6** |
| WBSI | | | S | **Sn** | **20 17 46.3** | **-0.5** |
| **BASI** | **Baing, Sumba** | **2.06 168** | P | **Pn** | **20 17 25.8** | **+1.5** |
| BASI | | | S | **Sn** | **20 17 54.9** | **+0.4** |
| **BSSI** | **Bau Bau, Buton** | **2.06 9** | P | **Pn** | **20 17 23.8** | **-0.6** |
| **MMRI** | **Maumere** | **2.10 102** | P | **Pn** | **20 17 25.5** | **+0.7** |
| MMRI | | | S | **Sn** | **20 17 55.3** | **+0.1** |
| **PLAI** | **Plampang** | **2.44 255** | P | **Pn** | **20 17 29.8** | **+1.3** |
| PLAI | | | S | **Sn** | **20 18 01.8** | **0.0** |
| **BBSI** | **Bau Bau** | **3.60 42** | P | **Pn** | **20 17 42.1** | **-0.1** |
| **SPSI** | **Sidrap Palu** | **4.22 355** | P | **Pn** | **20 17 50.9** | **+0.9** |
| **SOEI** | **Soe** | **4.35 111** | P | **Pn** | **20 17 53.0** | **+1.3** |
| **TTSI** | **Tana Toraja** | **5.12 356** | P | **Pn** | **20 18 04.7** | **+3.2** |
| | 22nm,0.9s | | | | | |
| **JAGI** | **Jajag, Banyuwa** | **5.95 267** | P | **Pn** | **20 18 12.3** | **+0.1** |
| JAGI | | | S | **Sn** | **20 19 18.1** | **-2.5** |
| **FITZ** | **Fitzroy Crossi** | **11.20 152** | P | **Pn** | **20 19 22.1** | **+1.6** |
| | 0.5nm,0.3s,baz=340,slow=10,SNR=17 | | | | | |
| FITZ | | | S | **Sn** | **20 21 21.1** | **-4.2** |
| | 0.8nm,0.3s,baz=324,slow=12,SNR=4.2 | | | | | |
| **WRA** | **Warramunga Arr** | **18.03 132** | P | **Pn** | **20 20 43.9** | **-0.6** |
| | 0.9nm,0.3s,baz=308,slow=12,SNR=60 | | | | | |
| WRA | | | S | **S** | **20 23 58.5** | **-0.6** |
| | 0.4nm,0.3s,baz=305,slow=20,SNR=7.2 | | | | | |
| **ASAR** | **Alice Springs** | **20.26 141** | P | **P** | **20 21 08.4** | **+2.1** |
| | 2.2nm,0.5s,baz=315,slow=9.6,SNR=43 | | | | | |
| ASAR | | | S | **S** | **20 24 42.8** | **-0.1** |
| | 1.1nm,1.0s,baz=331,slow=24,SNR=5.9 | | | | | |
| ASAR | | | ScP | **ScP** | **20 28 28.5** | **-1.7** |
| | 0.6nm,0.4s,baz=322,slow=2.1,SNR=9.4 | | | | | |
| **STKA** | **Stephens Creek** | **30.87 143** | P | **P** | **20 22 45.4** | **+1.5** |
| | 1.0nm,0.4s,baz=313,slow=10,SNR=4.4 | | | | | |
| **USRK** | **Ussuriysk Ar.** | **53.23 11** | P | **P** | **20 25 43.5** | **-0.6** |
| | 0.8nm,0.5s,baz=195,slow=6.1,SNR=4.2 | | | | | |
| **SONM** | **Songino Array** | **57.10 349** | P | **P** | **20 26 12.5** | **+0.6** |
| | 0.3nm,0.8s,baz=162,slow=7.2,SNR=3.4 | | | | | |
| **MKAR** | **Makanchi Array** | **64.27 332** | P | **P** | **20 26 59.8** | **-0.4** |
| | 0.3nm,0.5s,baz=143,slow=6.5,SNR=4.9 | | | | | |
| **ZALV** | **Zalesovo Beam** | **68.71 338** | P | **P** | **20 27 26.6** | **-1.5** |
| | 0.5nm,0.4s,baz=130,slow=4.6,SNR=3.1 | | | | | |

*ATA **07** 20:33:28.1±1.1, 38°.72N×43°.45E, h6km±31km, ML3.2, MW3.2*
*ISK **07** 20:33:28.2, 38°.74N×43°.46E, h5km, ML2.7*
*CSEM **07** 20:33:29.2±0.2, 38°.71N×43°.51E, h2km, ML2.7, Error ellipse: s-maj=5.5km s-min=3.7km az=99.0*
*DDA **07** 20:33:29.0, 38°.71N×43°.52E, h19km, Ml2.8*
**ISC 07 20:33:30.1**±0.9**, 38°.72N**±0°.02×**43°.51E**±0°.02**, h13**km±6km**, n57, σ1s.42**/88**, Turkey**

| Code | Station Name | Δ° AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.15 216** | *e*PG | **Pg** | **20 33 33.9** | **0.0** |
| **VANB** | **Van** | **0.15 216** | *e*Pg | **Pg** | **20 33 33.9** | **0.0** |
| **TVAN** | **Van** | **0.21 202** | *i* P | **Pg** | **20 33 33.7** | **-1.1** |
| TVAN | | | *i* S | **Sg** | **20 33 38.6** | **+0.6** |
| **TVAN** | **Van** | **0.21 202** | P | **Pg** | **20 33 33.7** | **-1.1** |
| TVAN | | | S | **Sg** | **20 33 38.6** | **+0.6** |
| **VMUR** | **Van-Muradiye** | **0.27 11** | *i* P | **Pg** | **20 33 34.8** | **-1.1** |
| VMUR | | | *i* S | **Sb** | **20 33 40.6** | **-1.0** |
| **VMUR** | **Van-Muradiye** | **0.27 11** | P | **Pg** | **20 33 34.8** | **-1.1** |
| VMUR | | | S | **Sb** | **20 33 40.7** | **-1.0** |
| **CLDR** | **Caldiran** | **0.53 37** | *e*PG | **Pg** | **20 33 39.8** | **-0.8** |
| CLDR | | | *e*SG | **Sb** | **20 33 48.6** | **-0.5** |
| **CLDR** | **Caldiran** | **0.53 37** | *i* P | **Pg** | **20 33 39.6** | **-1.0** |
| CLDR | | | *i* S | **Sb** | **20 33 49.2** | **+0.1** |
| **CLDR** | **Caldiran** | **0.53 37** | P | **Pg** | **20 33 39.6** | **-1.0** |
| **CLDR** | **Caldiran** | **0.53 37** | *e*Pg | **Pg** | **20 33 39.8** | **-0.8** |
| CLDR | | | *e*Sg | **Sb** | **20 33 48.7** | **-0.5** |
| CLDR | | | S | **Sb** | **20 33 49.2** | **+0.1** |
| **GEVA** | **Gevas** | **0.54 221** | *e*P | **Pg** | **20 33 38.2** | **-2.5** |
| GEVA | | | IAML | | 20 33 51.1 | |
| | comp=Z,100nm,0.4s | | | | | |
| **GEVA** | **Gevas** | **0.54 221** | *i* P | **Pg** | **20 33 38.2** | **-2.5** |
| **GEVA** | **Gevas** | **0.54 221** | P | **Pg** | **20 33 38.2** | **-2.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.62 278** | *i* P | **Pg** | **20 33 40.8** | **-1.4** |
| ADCV | | | *i* S | **Sb** | **20 33 51.6** | **0.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.62 278** | P | **Pg** | **20 33 40.8** | **-1.4** |
| ADCV | | | S | **Sb** | **20 33 51.6** | **0.0** |
| **DYDN** | **Diyadin** | **0.83 10** | *e*P | **Pg** | **20 33 44.8** | **-1.5** |
| DYDN | | | *e*S | **Sb** | **20 33 58.1** | **+0.3** |
| DYDN | | | IAML | | 20 33 59.9 | |
| | comp=Z,30nm,0.3s | | | | | |
| **DYDN** | **Diyadin** | **0.83 10** | *i* P | **Pg** | **20 33 45.3** | **-1.0** |
| DYDN | | | *i* S | **Sb** | **20 33 58.3** | **+0.4** |
| **DYDN** | **Diyadin** | **0.83 10** | P | **Pg** | **20 33 45.3** | **-1.0** |
| DYDN | | | S | **Sb** | **20 33 58.3** | **+0.4** |
| **TUTA** | **Tutak** | **0.87 322** | *e*P | **Pg** | **20 33 44.6** | **-2.3** |
| TUTA | | | *e*S | **Sb** | **20 33 57.9** | **-0.9** |
| TUTA | | | IAML | | 20 33 59.1 | |
| | comp=Z,118nm,0.2s | | | | | |
| **TUTA** | **Tutak** | **0.87 322** | *i* P | **Pg** | **20 33 44.9** | **-2.0** |
| TUTA | | | *i* S | **Sb** | **20 33 58.6** | **-0.2** |
| **TUTA** | **Tutak** | **0.87 322** | P | **Pg** | **20 33 44.9** | **-2.0** |
| TUTA | | | S | **Sb** | **20 33 58.6** | **-0.2** |
| **AGRB** | **Hanur-Agry** | **0.94 335** | *e*PG | **Pg** | **20 33 46.9** | **-1.5** |
| AGRB | | | *e*SG | **Sb** | **20 34 00.5** | **-0.5** |
| **AGRB** | **Hanur-Agry** | **0.94 335** | *e*Pg | **Pg** | **20 33 46.9** | **-1.5** |
| AGRB | | | *e*Sg | **Sb** | **20 34 00.5** | **-0.5** |
| **HAKT** | **HAKKARI** | **1.17 172** | *i* P | **Pg** | **20 33 50.2** | **-2.5** |
| HAKT | | | *i* S | **Sn** | **20 34 11.6** | **+3.2** |
| **HAKT** | **HAKKARI** | **1.17 172** | P | **Pg** | **20 33 50.2** | **-2.5** |
| HAKT | | | S | **Sn** | **20 34 11.6** | **+3.2** |
| **EKAR** | **Karacoban** | **1.24 296** | *e*P | **Pg** | **20 33 52.4** | **-1.6** |
| EKAR | | | IAML | | 20 34 20.0 | |
| | comp=Z,28nm,0.5s | | | | | |
| **EKAR** | **Karacoban** | **1.24 296** | *i* P | **Pg** | **20 33 52.5** | **-1.6** |
| EKAR | | | *i* S | **Sn** | **20 34 14.9** | **+4.7** |
| **EKAR** | **Karacoban** | **1.24 296** | P | **Pg** | **20 33 52.5** | **-1.6** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.29 151** | *i* P | **Pg** | **20 33 52.9** | **-2.0** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.29 151** | P | **Pg** | **20 33 52.9** | **-2.0** |
| **TASB** | **TASBURUN-IGDIR** | **1.38 24** | *e*PN | **Pg** | **20 33 55.6** | **-1.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.38 24** | *e*Pn | **Pg** | **20 33 55.6** | **-1.1** |
| **EATA** | **Eleskirt** | **1.39 326** | *e*P | **Pn** | **20 33 54.5** | **-1.0** |
| EATA | | | *e*S | **Sn** | **20 34 14.4** | **+0.5** |
| EATA | | | IAML | | 20 34 20.6 | |
| | comp=Z,11nm,0.6s | | | | | |
| **EATA** | **Eleskirt** | **1.39 326** | *i* P | **Pn** | **20 33 54.9** | **-0.6** |
| EATA | | | *i* S | **Sn** | **20 34 15.7** | **+1.8** |
| **EATA** | **Eleskirt** | **1.39 326** | P | **Pn** | **20 33 54.9** | **-0.6** |
| EATA | | | S | **Sn** | **20 34 15.7** | **+1.8** |
| **SRTM** | **Siirt_Merkez** | **1.44 240** | *i* P | **Pg** | **20 33 57.0** | **-0.8** |
| SRTM | | | *i* S | **Sg** | **20 34 18.7** | **+2.2** |
| **SRTM** | **Siirt_Merkez** | **1.44 240** | P | **Pg** | **20 33 57.0** | **-0.8** |
| SRTM | | | S | **Sg** | **20 34 18.7** | **+2.2** |
| **CUKT** | **Cukurca** | **1.47 177** | *e*PN | **Pg** | **20 33 57.2** | **-1.2** |
| **CUKT** | **Cukurca** | **1.47 177** | *i* P | **Pb** | **20 33 57.0** | **-0.4** |
| **CUKT** | **Cukurca** | **1.47 177** | P | **Pb** | **20 33 57.0** | **-0.4** |
| **CUKT** | **Cukurca** | **1.47 177** | *e*Pn | **Pg** | **20 33 57.2** | **-1.2** |
| **SIRT** | **Sirnak** | **1.48 215** | *e*PN | **Pg** | **20 33 57.3** | **-1.2** |
| **SIRT** | **Sirnak** | **1.48 215** | *e*Pn | **Pg** | **20 33 57.3** | **-1.2** |
| **VRTB** | **Varto-Mus** | **1.66 286** | *e*PN | **Pn** | **20 33 58.9** | **-0.2** |
| **VRTB** | **Varto-Mus** | **1.66 286** | *e*Pn | **Pn** | **20 33 58.9** | **-0.2** |
| **DIGO** | **Kars** | **1.70 357** | *e*P | **Pb** | **20 34 00.3** | **-0.9** |
| DIGO | | | IAML | | 20 34 11.0 | |
| | comp=Z,4.0nm,0.4s | | | | | |
| DIGO | | | *e*S | **Sg** | **20 34 25.8** | **+1.0** |
| **DIGO** | **Kars** | **1.70 357** | *i* P | **Pb** | **20 34 00.5** | **-0.9** |
| **DIGO** | **Kars** | **1.70 357** | P | **Pb** | **20 34 00.4** | **-0.9** |
| **HOMI** | **Horasan** | **1.81 317** | *i* P | **Pb** | **20 34 02.6** | **-0.8** |
| HOMI | | | *i* S | **Sg** | **20 34 30.1** | **+1.6** |
| **BNGL** | **BINGOL** | **1.85 278** | *e*P | **Pb** | **20 34 03.3** | **-0.7** |
| BNGL | | | IAML | | 20 34 39.8 | |
| | comp=Z,37nm,0.5s | | | | | |
| **BTMN** | **Batman** | **1.94 245** | *i* P | **Pb** | **20 34 04.2** | **-1.2** |
| BTMN | | | *i* S | **Sg** | **20 34 32.1** | **-0.5** |
| **BTMN** | **Batman** | **1.94 245** | P | **Pb** | **20 34 04.2** | **-1.2** |
| BTMN | | | S | **Sg** | **20 34 32.1** | **-0.5** |
| **ERZM** | **Erzurum** | **2.04 306** | *e*P | **Pb** | **20 34 06.5** | **-0.7** |
| **ERZM** | **Erzurum** | **2.04 306** | *i* P | **Pb** | **20 34 06.8** | **-0.4** |
| ERZM | | | *i* S | **Sg** | **20 34 37.1** | **+1.4** |
| **ERZM** | **Erzurum** | **2.04 306** | P | **Pb** | **20 34 06.8** | **-0.4** |
| **SENK** | **Senkaya-Erzuru** | **2.04 334** | *e*PN | **Pn** | **20 34 04.5** | **+0.1** |
| **SENK** | **Senkaya-Erzuru** | **2.04 334** | *e*Pn | **Pn** | **20 34 04.5** | **+0.1** |

*NIED **07** 20:43:00, 34°.50N×140°.30E, h62km, Mw4.6 Best double couple: M0 9.06000×10[15] NP1:φs151.00000°, δ21.00000°, λ-87.00000°. NP2:φs328.00000°, δ69.00000°, λ-91.00000°.*
*MOS **07** 20:43:08.2±1.1, 34°.48N×140°.23E, h51km, mb4.9/49, Error ellipse: s-maj=9.8km s-min=5.4km az=119.2*
*BJI **07** 20:43:08.2, 34°.65N×140°.19E, h52km, mb4.8/20, mB5.0/13, Ms4.7/6, Ms7 4.5/4*
*ISCJB **07** 20:43:10.7±0.3, 34°.47N±0°.03×140°.13E±0°.03, h69km±2km, mb4.6/99, Error ellipse: s-maj=4.6km s-min=4.4km az=36.4*
*JMA **07** 20:43:10.5±0.2, 34°.54N×140°.27E, h62km±2km, M4.5*
*JMA Felt II J1.*
*NEIC **07** 20:43:12.6±0.5, 34°.44N×140°.04E, h73km±4km, mb4.7/52, Error ellipse: s-maj=4.7km s-min=4.2km az=59.0*
*NEIC Recorded [2 JMA] in Kanagawa, Shizuoka and Tokyo.*
*IDC **07** 20:43:12.4±0.9, 34°.49N×140°.13E, h74km±8km, mb4.2/24, mb1 4.4/28, mb1mx4.2/44, mbtmp4.5/28, MS3.5/13, Ms1 3.5/13, ms1mx3.3/37, Error ellipse: s-maj=14.9km s-min=5.9km az=74.0*
**ISC 07 20:43:10.3**±0.6**, 34°.55N**±0°.04×**140°.26E**±0°.04**, h52**km±5km**, n281, σ1s.38**/300**, mb4.7**/103**, MS3.5**/14**, 21C-9D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|
| **BSO3** | **Boso 3** | **0.33 39** | ⇓P | **Pn** | **20 43 21.2** | **+1.6** |
| **BSO4** | **Boso 4** | **0.45 9** | ⇓P | **Pn** | **20 43 22.6** | **+1.6** |
| BSO4 | | | X | | 20 43 32.7 | |
| **TATJ** | **Tateyama 2** | **0.57 328** | ⇓P | **Pn** | **20 43 24.2** | **+1.7** |
| **KTR** | **Katsuura** | **0.60 5** | P | **Pn** | **20 43 24.0** | **+1.1** |
| KTR | | | S | **Sn** | **20 43 34.3** | **+2.3** |
| **BSO1** | **Boso 1** | **0.60 80** | ⇓P | **Pn** | **20 43 23.5** | **+1.1** |
| **JIM2** | **Oshima 3** | **0.70 284** | ⇓P | **Pn** | **20 43 25.1** | **+0.9** |
| JIM2 | | | S | **Sn** | **20 43 35.2** | **+1.0** |
| **JKO** | **Kozu shima** | **0.99 249** | ⇑P | **Pn** | **20 43 29.3** | **+1.4** |
| JKO | | | *e*S | **Sn** | **20 43 42.1** | **+1.1** |
| **JIZS** | **Izushimoda** | **1.15 279** | P | **Pn** | **20 43 30.9** | **+0.9** |
| JIZS | | | S | **Sn** | **20 43 46.0** | **+1.3** |
| **JOD2** | **Odawara 2** | **1.20 307** | P | **Pn** | **20 43 31.3** | **+0.6** |
| JOD2 | | | S | **Sn** | **20 43 46.5** | **+0.6** |
| **JHJ** | **Hachijo jima 2** | **1.48 196** | P | **Pn** | **20 43 35.9** | **+1.4** |
| | 998nm,0.3s,baz=1.8,slow=2.6,SNR=159 | | | | | |
| JHJ | | | S | **Sn** | **20 43 53.8** | **+1.1** |
| | 433nm,0.3s,baz=70,slow=21,SNR=12 | | | | | |
| **JHJ2** | **Mitsune** | **1.48 194** | P | **Pn** | **20 43 35.9** | **+1.4** |
| **JHJ2** | **Mitsune** | **1.48 194** | *e*Pn | **Pn** | **20 43 35.7** | **+1.2** |
| **MJAR** | **Matsushiro Arr** | **2.60 321** | P | **Pn** | **20 43 50.9** | **+1.1** |
| | 136nm,0.3s,baz=155,slow=13,SNR=497 | | | | | |
| MJAR | | | S | **Sn** | **20 44 22.6** | **+2.4** |
| | 225nm,0.3s,baz=127,slow=30,SNR=15 | | | | | |
| **MAJO** | **Matsushiro** | **2.60 321** | *d i*P | **Pn** | **20 43 51.7** | **+1.9** |
| **MAJO** | **Matsushiro** | **2.60 321** | *e*Pn | **Pn** | **20 43 52.0** | **+2.1** |
| **MAT** | **Matsushiro** | **2.60 321** | P | **Pn** | **20 43 51.8** | **+2.0** |
| MAT | | | S | **Sn** | **20 44 22.1** | **+1.9** |
| **MJB9** | **Matsu-Tunnel** | **2.60 321** | *e*Pn | **Pn** | **20 43 52.0** | **+2.1** |
| **INU** | **Inuyama** | **2.78 288** | *e*Pn | **Pn** | **20 43 54.7** | **+2.4** |
| **CBIJ** | **Chichi jima** | **7.61 167** | *e*Pn | **Pn** | **20 44 57.6** | **-0.9** |
| **ERM** | **Erimo** | **7.80 16** | *e*P | **Pn** | **20 45 00.8** | **-0.2** |
| ERM | | | *e* | | 20 46 27.5 | |
| **ERM** | **Erimo** | **7.80 16** | *e*Pn | **Pn** | **20 45 00.8** | **-0.2** |
| ERM | | | *e*Sn | **Sn** | **20 46 27.5** | **-0.4** |
| **JNU** | **Nakatsue** | **7.93 262** | P | **Pn** | **20 45 05.1** | **+2.2** |
| | 12nm,0.3s,baz=78,slow=2.6,SNR=70 | | | | | |
| **JNU** | **Nakatsue** | **7.93 262** | *e*Pn | **Pn** | **20 45 06.1** | **+3.1** |
| **ASAJ** | **Asahikawa** | **9.73 10** | P | **Pn** | **20 45 25.9** | **-1.5** |
| | 6.2nm,0.3s,baz=213,slow=7.2,SNR=8.1 | | | | | |
| ASAJ | | | S | **Sn** | **20 47 09.1** | **-6.1** |
| | 2.5nm,0.3s,baz=324,slow=19,SNR=3.7 | | | | | |
| **ASAJ** | **Asahikawa** | **9.73 10** | *e*Pn | **Pn** | **20 45 27.2** | **-0.2** |
| ASAJ | | | *e*Sn | **Sn** | **20 47 09.0** | **-6.1** |
| **KSRS** | **Korea Array** | **10.40 290** | P | **Pn** | **20 45 39.2** | **+2.5** |
| | 0.6nm,0.3s,baz=109,slow=14,SNR=20 | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **10.42 23** | *i* P | **Pn** | **20 45 37.0** | **+0.1** |
| **KS15** | **Wonju Array Si** | **10.43 290** | *e*Pn | **Pn** | **20 45 38.1** | **+1.0** |
| **KSAR** | **Wonju Array Be** | **10.43 290** | P | **Pn** | **20 45 39.2** | **+2.1** |
| **KSAR** | **Wonju Array Be** | **10.43 290** | P | **Pn** | **20 45 39.2** | **+2.1** |
| **MSHR** | **Mys Shultsa** | **10.72 321** | *ce*P | Pn | 20 45 46.1 | +5.1 |
| **USRK** | **Ussuriysk Ar.** | **11.56 329** | P | **Pn** | **20 45 54.8** | **+2.3** |
| | 0.1nm,0.3s,baz=146,slow=13,SNR=2.8 | | | | | |
| USRK | | | LR | LR | 20 50 17.7 | |
| | comp=Z,168nm,18.3s,baz=144,slow=37 | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **12.54 8** | *e*P | **Pn** | **20 46 05.0** | **-0.8** |
| YSS | | | pmax | pmax | | |
| | comp=Z,30nm,0.7s | | | | | |
| YSS | | | MLR | MLR | | |
| | comp=Z,140nm,19.0s | | | | | |
| **PETK** | **Petropavlovsk-** | **22.31 28** | LR | LR | 20 57 16.3 | |
| | comp=Z,70nm,20.6s,baz=242,slow=38 | | | | | |
| **MA2** | **Magadan** | **25.98 12** | P | **P** | **20 48 38.6** | **+0.8** |
| | comp=Z,8.2nm,0.6s,baz=175,slow=8.8,SNR=3.6 | | | | | |
| **ENH** | **Enshi** | **26.27 269** | *e*P | **P** | **20 48 38.9** | **-1.9** |
| | comp=Z,16nm,1.3s | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **27.82 115** | T | T | 21 18 47.8 | |
| | baz=308,slow=75,SNR=131 | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **27.82 115** | T | T | 21 18 35.1 | |
| | baz=308,slow=75,SNR=179 | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **27.83 115** | T | T | 21 18 51.0 | |
| | baz=308,slow=75,SNR=150 | | | | | |
| **ULN** | **Ulaanbaatar** | **28.07 308** | *ce*P | **P** | **20 48 57.9** | **+1.1** |
| ULN | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.2s | | | | | |
| **ULN** | **Ulaanbaatar** | **28.07 308** | *e*P | **P** | **20 48 57.3** | **+0.5** |
| | comp=Z,10.0nm,1.1s | | | | | |
| **YAK** | **Yakutsk** | **28.31 349** | *e*P | P | 20 49 07.8 | +9.2 |
| YAK | | | *e* | | 20 50 02.7 | |
| YAK | | | *e* | | 20 52 12.3 | |
| YAK | | | *e*SS | SS | 20 55 23.5 | -19 |
| YAK | | | pmax | pmax | | |
| | comp=Z,11nm,1.1s | | | | | |
| YAK | | | pmax | pmax | | |
| | comp=N,5.0nm,1.1s | | | | | |
| YAK | | | pmax | pmax | | |
| | comp=E,3.0nm,1.3s | | | | | |
| YAK | | | pmax | pmax | | |
| | comp=Z,226nm,4.4s | | | | | |
| YAK | | | pmax | pmax | | |
| | comp=N,148nm,5.4s | | | | | |
| YAK | | | pmax | pmax | | |
| | comp=E,161nm,5.4s | | | | | |
| YAK | | | MLR | MLR | | |
| | comp=Z,72nm,18.0s | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.43 117** | T | T | 21 19 30.7 | |
| | baz=310,slow=75,SNR=122 | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.43 117** | T | T | 21 19 30.7 | |
| | baz=310,slow=75,SNR=125 | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.44 117** | T | T | 21 19 33.1 | |
| | baz=310,slow=75,SNR=105 | | | | | |
| **SONA1** | **Songino Array** | **28.48 308** | *e*P | **P** | **20 49 01.6** | **+1.1** |
| **SONA0** | **Songino Array** | **28.48 308** | *e*P | **P** | **20 48 59.8** | **-0.7** |
| SONA0 | | | *e* | | 21 00 39.3 | |
| **SONM** | **Songino Array** | **28.48 308** | P | **P** | **20 48 59.8** | **-0.7** |
| | comp=Z,4.4nm,0.8s,baz=114,slow=9.2,SNR=31 | | | | | |
| SONM | | | LR | LR | 21 00 39.3 | |
| | comp=Z,140nm,19.6s,baz=129,slow=37 | | | | | |
| **SONM** | **Songino Array** | **28.48 308** | P | **P** | **20 48 59.8** | **-0.7** |
| SONM | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.8s | | | | | |
| SONM | | | MLR | MLR | | |
| | comp=Z,140nm,19.6s | | | | | |
| **BOD** | **Bodaibo** | **29.19 331** | *e*P | **P** | **20 49 05.8** | **-0.6** |
| BOD | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.3s | | | | | |
| **GTA** | **Gaotai** | **32.48 291** | *e*P | **P** | **20 49 35.3** | **-0.5** |
| GTA | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.9s | | | | | |
| **HVS** | **Khovu-Aksy** | **37.25 311** | *e*P | **P** | **20 50 18.0** | **+1.2** |
| HVS | | | pmax | pmax | | |
| | comp=Z,27nm,1.0s | | | | | |
| **TIXI** | **Tiksi** | **37.65 354** | P | **P** | **20 50 19.0** | **-0.8** |
| | comp=Z,1.0nm,0.5s,baz=93,slow=3.2,SNR=7.9 | | | | | |
| **TIXI** | **Tiksi** | **37.65 354** | *ce*P | **P** | **20 50 20.1** | **+0.3** |
| TIXI | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.7s | | | | | |
| **PHRA** | **Phrae** | **38.94 256** | P | **P** | **20 50 32.2** | **+1.0** |
| | comp=Z,11nm,1.9s | | | | | |
| **CHTO** | **Chiang Mai** | **39.80 258** | P | **P** | **20 50 39.7** | **+1.2** |
| | comp=Z,27nm,1.4s | | | | | |
| **CHTO** | **Chiang Mai** | **39.80 258** | *e*P | **P** | **20 50 36.9** | **-1.6** |
| CHTO | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.8s | | | | | |
| **CHTO** | **Chiang Mai** | **39.80 258** | *e*P | **P** | **20 50 36.9** | **-1.6** |
| | comp=Z,3.5nm,0.8s | | | | | |
| **CM31** | **Chiang Mai Arr** | **39.99 257** | *e*P | **P** | **20 50 37.0** | **-3.1** |
| CM31 | | | *e*PcP | **PcP** | **20 52 43.7** | **-0.7** |
| CM31 | | | *e* | | 21 07 03.2 | |
| **CMAR** | **Chiang Mai Arr** | **39.99 257** | P | **P** | **20 50 37.8** | **-2.2** |
| | comp=Z,2.5nm,0.7s,baz=45,slow=7.6,SNR=29 | | | | | |
| CMAR | | | PcP | **PcP** | **20 52 43.7** | **-0.7** |
| | comp=Z,1.9nm,1.0s,baz=22,slow=1.8,SNR=10 | | | | | |
| CMAR | | | LR | LR | 21 07 03.3 | |
| | comp=Z,51nm,18.6s,baz=48,slow=36 | | | | | |
| **CMAR** | **Chiang Mai Arr** | **39.99 257** | *i* P | **P** | **20 50 39.5** | **-0.5** |
| CMAR | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.7s | | | | | |
| **CM01** | **Chiang Mai Arr** | **40.00 257** | *e*P | **P** | **20 50 38.5** | **-1.6** |
| CM01 | | | *e*PcP | **PcP** | **20 52 44.7** | **+0.2** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| LSA | Lhasa | 41.55 | 277 | eP | P | 20 50 52.7 | -0.6 |
| LSA | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.8s | | | | | | |
| LSA | Lhasa | 41.55 | 277 | eP | P | 20 50 52.7 | -0.6 |
| | comp=Z,2.7nm,0.8s | | | | | | |
| ZAA0 | Zalesovo Array | 42.94 | 314 | eP | P | 20 51 03.2 | -0.5 |
| | comp=Z,5.8nm,0.8s | | | | | | |
| ZAA1 | Zalesovo Array | 42.94 | 314 | eP | P | 20 51 03.1 | -0.6 |
| ZAA1 | | | | ePcP | PcP | 20 52 52.9 | -0.6 |
| ZAA1 | | | | e | | 21 08 03.6 | |
| ZALV | Zalesovo Beam | 42.94 | 314 | P | P | 20 51 03.1 | -0.6 |
| | comp=Z,3.6nm,0.3s,baz=91,slow=6.6,SNR=30 | | | | | | |
| ZALV | | | | PcP | PcP | 20 52 52.9 | -0.6 |
| | comp=Z,2.3nm,0.6s,baz=93,slow=3.1,SNR=5.2 | | | | | | |
| ZALV | | | | LR | LR | 21 08 03.7 | |
| | comp=Z,19nm,20.0s,baz=72,slow=35 | | | | | | |
| ZALV | Zalesovo Beam | 42.94 | 314 | eP | P | 20 51 03.2 | -0.5 |
| ZALV | | | | e | | 20 52 52.6 | |
| ZALV | Zalesovo Beam | 42.94 | 314 | eP | P | 20 51 03.2 | -0.5 |
| ZALV | | | | ePcP | PcP | 20 52 52.6 | -0.9 |
| NVS | Novosibirsk | 43.91 | 316 | eP | P | 20 51 11.8 | +0.2 |
| NVS | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.8s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=E,5.0nm,0.8s | | | | | | |
| MK01 | Makanchi Array | 44.68 | 304 | eP | P | 20 51 17.8 | -0.1 |
| MK31 | Makanchi Array | 44.69 | 304 | eP | P | 20 51 18.3 | +0.4 |
| MK31 | Makanchi Array | 44.69 | 304 | eP | P | 20 51 18.3 | +0.4 |
| MK32 | Makanchi Array | 44.69 | 304 | eP | P | 20 51 17.9 | 0.0 |
| MK32 | | | | ePcP | PcP | 20 52 58.2 | -1.4 |
| MK32 | | | | e | | 21 10 08.1 | |
| MKAR | Makanchi Array | 44.69 | 304 | P | P | 20 51 17.9 | 0.0 |
| | comp=E,19nm,0.6s,baz=84,slow=9.7,SNR=175 | | | | | | |
| MKAR | | | | PcP | PcP | 20 52 58.2 | -1.4 |
| | comp=E,2.7nm,0.9s,baz=94,slow=4.5,SNR=2.8 | | | | | | |
| MKAR | | | | LR | LR | 21 10 08.1 | |
| | comp=E,58nm,19.9s,baz=42,slow=36 | | | | | | |
| MAKZ | Makanchi | 44.90 | 304 | eP | P | 20 51 20.1 | +0.5 |
| MAKZ | | | | pmax | pmax | | |
| | comp=Z,23nm,0.9s | | | | | | |
| MAKZ | Makanchi | 44.90 | 304 | eP | P | 20 51 20.1 | +0.5 |
| | comp=Z,22nm,0.9s | | | | | | |
| TAPN | Taplejung | 45.21 | 276 | eP | P | 20 51 20.9 | -1.8 |
| | comp=Z,8.0nm,0.4s | | | | | | |
| ODAN | Odare | 45.67 | 275 | eP | P | 20 51 24.1 | -2.1 |
| | comp=Z,6.8nm,0.4s | | | | | | |
| RAMN | Ramite | 46.28 | 276 | eP | P | 20 51 29.3 | -1.7 |
| | comp=Z,31nm,0.7s | | | | | | |
| JIRN | Jiri | 46.34 | 277 | eP | P | 20 51 30.4 | -1.3 |
| | comp=Z,399nm,0.7s | | | | | | |
| GUN | Gumba | 46.50 | 277 | eP | P | 20 51 31.7 | -1.2 |
| | comp=Z,42nm,0.8s | | | | | | |
| KURK | Kurchatov | 46.76 | 310c | eP | P | 20 51 33.8 | -0.4 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,62nm,0.7s | | | | | | |
| KURK | Kurchatov | 46.76 | 310 | eP | P | 20 51 34.1 | -0.1 |
| | comp=Z,18nm,0.8s | | | | | | |
| PKI | Pulchoki | 47.02 | 277 | eP | P | 20 51 35.1 | -1.8 |
| | comp=Z,18nm,0.7s | | | | | | |
| PKIN | Phulchoki | 47.02 | 277 | eP | P | 20 51 35.1 | -1.8 |
| | comp=Z,13nm,0.7s | | | | | | |
| KKN | Kakani | 47.04 | 278 | eP | P | 20 51 35.3 | -1.6 |
| | comp=Z,24nm,0.7s | | | | | | |
| PDGK | Podgornoye | 47.15 | 300 | i P | P | 20 51 37.2 | -0.3 |
| DMN | Daman | 47.25 | 277 | eP | P | 20 51 37.1 | -1.5 |
| GKN | Gorkha | 47.48 | 278 | eP | P | 20 51 38.8 | -1.5 |
| | comp=Z,0.9nm,0.3s | | | | | | |
| MTN | Manton Dam | 47.92 | 192 | eP | P | 20 51 42.9 | -0.5 |
| | comp=Z,12nm,0.8s | | | | | | |
| DANN | Dangsing | 48.07 | 279 | eP | P | 20 51 44.5 | -0.5 |
| | comp=Z,5.1nm,0.9s | | | | | | |
| COEN | Coen | 48.31 | 176 | eP | P | 20 51 46.8 | +0.3 |
| | comp=Z,15nm,1.1s | | | | | | |
| KOLN | Koldanda | 48.42 | 278 | eP | P | 20 51 46.3 | -1.3 |
| | comp=Z,23nm,1.0s | | | | | | |
| PYUN | Piuthan | 48.79 | 279 | eP | P | 20 51 49.4 | -1.1 |
| | comp=Z,22nm,0.5s | | | | | | |
| PSI | Prapat | 49.72 | 240 | eP | P | 20 51 55.3 | -2.3 |
| PSI | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.0s | | | | | | |
| PSI | Prapat | 49.72 | 240 | eP | P | 20 51 55.3 | -2.3 |
| | comp=Z,8.9nm,1.0s | | | | | | |
| TKM2 | Tokmak 2 | 50.02 | 300 | P | P | 20 52 00.3 | +0.6 |
| | SNR=20 | | | | | | |
| BRLK | Bradley Lake | 50.39 | 38 | eP | P | 20 52 04.1 | +2.1 |
| | comp=Z,302nm,0.6s | | | | | | |
| KBK | Karagaybulak | 50.54 | 300 | P | P | 20 52 03.8 | +0.2 |
| | SNR=18 | | | | | | |
| KSH | Kashi | 50.59 | 296 | P | P | 20 52 07.4 | +3.5 |
| KSH | | | | PcP | PcP | 20 53 24.3 | +3.3 |
| KSH | | | | PP | PP | 20 54 05.5 | +5.5 |
| KSH | | | | S | S | 20 59 16.1 | +1.3 |
| KSH | | | | ScS | ScS | 21 01 48.5 | -1.8 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,11nm,0.8s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,58nm,3.3s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,150nm,6.9s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,120nm,6.5s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,120nm,5.7s | | | | | | |
| CHMS | Chumysh | 50.60 | 300 | P | P | 20 52 04.0 | +0.1 |
| | SNR=7.5 | | | | | | |
| FRU | Bishkek | 50.74 | 300 | i P | P | 20 52 05.5 | +0.6 |
| FRU | | | | pmax | pmax | | |
| | comp=Z,28nm,1.6s | | | | | | |
| AAK | Ala-Archa | 50.87 | 300d | iP | P | 20 52 05.8 | -0.2 |
| AAK | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.3s | | | | | | |
| AAK | Ala-Archa | 50.87 | 300 | P | P | 20 52 06.2 | +0.2 |
| | SNR=6.4 | | | | | | |
| AAK | Ala-Archa | 50.87 | 300 | eP | P | 20 52 06.0 | 0.0 |
| | comp=Z,6.0nm,0.9s | | | | | | |
| UCH | Uchtor | 50.96 | 299 | P | P | 20 52 07.8 | +0.7 |
| | SNR=6.7 | | | | | | |
| EKS2 | Erkin-Say | 51.38 | 300 | P | P | 20 52 09.7 | -0.2 |
| | SNR=6.7 | | | | | | |
| MDM | Murphy Dome | 51.52 | 31 | eP | P | 20 52 12.3 | +1.9 |
| | comp=Z,8.8nm,1.0s | | | | | | |
| AML | Almayashu | 51.57 | 299 | P | P | 20 52 12.3 | +0.7 |
| | SNR=32 | | | | | | |
| BVAR | Borovoye Array | 51.58 | 314 | P | P | 20 52 10.4 | -0.5 |
| | comp=Z,2.2nm,0.3s,baz=110,slow=9.2,SNR=16 | | | | | | |
| BVAR | | | | PcP | PcP | 20 53 23.1 | -1.1 |
| | comp=Z,1.9nm,0.8s,baz=98,slow=3.0,SNR=3.6 | | | | | | |
| BRVK | Borovoye | 51.63 | 314c | eP | P | 20 52 12.4 | +1.1 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,20nm,1.2s | | | | | | |
| GSI | Gunungsitoli | 51.73 | 240 | P | P | 20 52 10.6 | -1.9 |
| GSI | Gunungsitoli | 51.73 | 240 | eP | P | 20 52 10.7 | -1.9 |
| | comp=Z,58nm,1.2s | | | | | | |
| IL1 | Eielson Array | 52.10 | 31 | eP | P | 20 52 14.9 | +0.2 |
| ILAR | Eielson Array | 52.10 | 31 | P | P | 20 52 15.2 | +0.5 |
| | comp=Z,2.9nm,0.9s,baz=268,slow=5.8,SNR=21 | | | | | | |
| ILAR | | | | LR | LR | 21 15 14.9 | |
| | comp=Z,38nm,20.8s,baz=270,slow=37 | | | | | | |
| ILB | Eielson Array | 52.10 | 31 | eP | P | 20 52 15.3 | +0.7 |
| SFK | Sufi-Kurgan | 52.28 | 297 | i P | P | 20 52 16.8 | +0.1 |
| MNAS | Manas | 52.33 | 300 | i P | P | 20 52 17.6 | +0.7 |
| WRAB | Tennant Creek | 54.47 | 187c | eP | P | 20 52 31.3 | -1.2 |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,56nm,0.9s | | | | | | |
| WRAB | Tennant Creek | 54.47 | 187 | eP | P | 20 52 31.4 | -1.1 |
| | comp=Z,51nm,0.9s | | | | | | |
| WB2 | Warramunga Arr | 54.48 | 187 | eP | P | 20 52 31.6 | -0.9 |
| | comp=Z,52nm,0.8s | | | | | | |
| WR1 | Warramunga Arr | 54.48 | 187 | eP | P | 20 52 31.3 | -1.3 |
| | comp=Z,60nm,0.9s | | | | | | |
| WRA | Warramunga Arr | 54.48 | 187 | P | P | 20 52 31.3 | -1.3 |
| | comp=Z,54nm,0.9s,baz=3.5,slow=7.6,SNR=187 | | | | | | |
| WRA | Warramunga Arr | 54.48 | 187 | i P | P | 20 52 31.2 | -1.3 |
| WRA | | | | pmax | pmax | | |
| | comp=Z,55nm,0.9s | | | | | | |
| SVE | Sverdlovsk | 56.41 | 320 | eP | P | 20 52 46.0 | -0.1 |
| SVE | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.0s | | | | | | |
| INK | Inuvik | 57.03 | 26 | P | P | 20 52 49.9 | -0.4 |
| | comp=Z,2.2nm,0.7s,baz=278,slow=6.6,SNR=5.2 | | | | | | |
| INK | Inuvik | 57.03 | 26 | eP | P | 20 52 51.1 | +0.8 |
| INK | | | | pmax | pmax | | |
| | comp=Z,20nm,2.0s | | | | | | |
| INK | Inuvik | 57.03 | 26 | eP | P | 20 52 51.1 | +0.8 |
| | comp=Z,20nm,2.0s | | | | | | |
| KBL | Kabul | 57.45 | 292 | eP | P | 20 52 53.5 | -0.6 |
| KBL | | | | pmax | pmax | | |
| | comp=Z,14nm,1.0s | | | | | | |
| KBL | Kabul | 57.45 | 292 | eP | P | 20 52 53.5 | -0.6 |
| | comp=Z,14nm,1.0s | | | | | | |
| ARU | Arti | 57.61 | 319d | iP | P | 20 52 54.2 | -0.4 |
| ARU | | | | *PP | sP | 20 53 12.8 | -2.1 |
| ARU | | | | | | 20 53 43.1 | |
| ARU | | | | S | S | 21 00 49.1 | +0.4 |
| ARU | | | | pmax | pmax | | |
| | comp=Z,17nm,1.2s | | | | | | |
| ARU | Arti | 57.61 | 319 | eP | P | 20 52 54.4 | -0.3 |
| | comp=Z,15nm,1.1s | | | | | | |
| AS01 | Alice Springs | 58.20 | 187 | eP | P | 20 52 58.1 | -1.0 |
| AS31 | Alice Springs | 58.20 | 187 | eP | P | 20 52 58.2 | -0.8 |
| | comp=Z,5.5nm,1.0s | | | | | | |
| ASAR | Alice Springs | 58.21 | 187 | P | P | 20 52 58.0 | -1.1 |
| | comp=Z,11nm,0.9s,baz=8.0,slow=4.8,SNR=74 | | | | | | |
| ASAR | | | | LR | LR | 21 17 35.1 | |
| | comp=Z,36nm,19.0s,baz=20,slow=36 | | | | | | |
| ASAR | Alice Springs | 58.21 | 187 | P | P | 20 52 58.0 | -1.1 |
| ASAR | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.9s | | | | | | |
| ASAR | | | | MLR | MLR | | |
| | comp=Z,36nm,19.0s | | | | | | |
| AKTO | Aktyubinsk | 59.65 | 313 | P | P | 20 53 08.6 | -0.3 |
| | comp=Z,5.7nm,0.8s,baz=81,slow=13,SNR=15 | | | | | | |
| DZM | Mont Dzumac | 61.56 | 152 | P | P | 20 53 23.3 | +1.0 |
| | comp=Z,3.6nm,0.6s,baz=292,slow=4.4,SNR=6.1 | | | | | | |
| MSVF | Nonsavu | 63.21 | 139 | eP | P | 20 53 36.1 | +2.8 |
| MSVF | | | | pmax | pmax | | |
| | comp=Z,16nm,1.1s | | | | | | |
| MSVF | Nonsavu | 63.21 | 139 | eP | P | 20 53 36.1 | +2.8 |
| | comp=Z,16nm,1.1s | | | | | | |
| GEYT | Alibeck | 64.23 | 300 | P | P | 20 53 39.0 | -0.9 |
| | comp=Z,5.7nm,0.7s,baz=0.0,slow=3.4,SNR=16 | | | | | | |
| KLMR | Klimovskoe | 65.36 | 328 | eP | P | 20 53 45.1 | -1.6 |
| KLMR | | | | pmax | pmax | | |
| | comp=Z,11nm,1.0s | | | | | | |
| FORT | Forrest | 65.99 | 191 | eP | P | 20 53 51.0 | 0.0 |
| | comp=Z,443nm,0.8s | | | | | | |
| ARA0 | ARCESS Array S | 65.99 | 340 | eP | P | 20 53 49.9 | -0.8 |
| ARCES | ARCESS Array B | 65.99 | 340 | P | P | 20 53 49.9 | -0.8 |
| | comp=Z,2.8nm,0.8s,baz=30,slow=7.6,SNR=6.9 | | | | | | |
| STKA | Stephens Creek | 66.08 | 179 | P | P | 20 53 51.8 | +0.1 |
| | comp=Z,8.0nm,0.9s,baz=359,slow=7.8,SNR=12 | | | | | | |
| STKA | Stephens Creek | 66.08 | 179 | eP | P | 20 53 51.6 | 0.0 |
| | comp=Z,1.4nm,0.8s | | | | | | |
| VRH | Novokhopyorsk | 68.79 | 318 | eP | P | 20 54 07.4 | -1.3 |
| VRH | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.7s | | | | | | |
| OBN | Obninsk | 69.52 | 323⇑ | eP | P | 20 54 12.7 | -0.4 |
| OBN | | | | e | | 20 56 44.6 | |
| OBN | | | | i S | SKiKP | 21 03 37.8 | -19 |
| OBN | | | | pmax | pmax | | |
| | comp=Z,49nm,2.5s | | | | | | |
| OBN | | | | MLR | MLR | | |
| | comp=Z,64nm,16.0s | | | | | | |
| LPSR | Galich'ya Gora | 69.61 | 320 | eP | P | 20 54 11.8 | -1.9 |
| LPSR | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| VSR | Storozhevoye | 70.18 | 319 | eP | P | 20 54 16.3 | -1.0 |
| VSR | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.5s | | | | | | |
| FIA0 | FINESS Array S | 70.57 | 332 | eP | P | 20 54 19.3 | -0.2 |
| FIA0 | FINESS Array S | 70.57 | 332 | eP | P | 20 54 19.2 | -0.2 |
| FIA0 | | | | e | | 21 27 06.1 | |
| FINES | FINESS Array B | 70.57 | 332 | P | P | 20 54 19.2 | -0.2 |
| | comp=Z,3.8nm,0.6s,baz=64,slow=5.0,SNR=16 | | | | | | |
| FINES | | | | LR | LR | 21 27 06.1 | |
| | comp=Z,56nm,18.6s,baz=26,slow=37 | | | | | | |
| B08A | Colville Reser | 71.27 | 44 | eP | P | 20 54 26.9 | +2.9 |
| | comp=Z,10nm,1.4s | | | | | | |
| ZEI | Tsey | 71.65 | 310 | eP | P | 20 54 25.2 | -1.4 |
| ZEI | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.9s | | | | | | |
| KBZ | Khabaz | 71.81 | 311 | P | P | 20 54 27.9 | +0.6 |
| | comp=Z,14nm,0.9s,baz=61,slow=1.4,SNR=21 | | | | | | |
| KIV | Kislovodsk | 71.83 | 311 | eP | P | 20 54 28.0 | +0.5 |
| KIV | | | | pmax | pmax | | |
| | comp=Z,31nm,1.1s | | | | | | |
| KIV | Kislovodsk | 71.83 | 311 | eP | P | 20 54 28.1 | +0.6 |
| | comp=Z,25nm,0.9s | | | | | | |
| JCC | Jacoby Creek, | 72.23 | 52 | eP | P | 20 54 30.8 | +0.9 |
| GNI | Garni | 72.44 | 307c | eP | P | 20 54 32.3 | +1.0 |
| GNI | | | | pmax | pmax | | |
| | comp=Z,30nm,1.2s | | | | | | |
| AKH | Akhalkalaki | 72.61 | 308⇑ | iP | P | 20 54 32.5 | +0.1 |
| AKH | Akhalkalaki | 72.61 | 308 | i P | P | 20 54 32.4 | +0.1 |
| E09A | Wood Farm, Sta | 72.92 | 45 | eP | P | 20 54 35.5 | +1.6 |
| | comp=Z,4.6nm,0.9s | | | | | | |
| CMCM | Mills College | 75.03 | 54 | eP | P | 20 54 48.5 | +2.1 |
| MSJ | Mission San Jo | 75.38 | 54 | eP | P | 20 54 48.5 | +0.1 |
| AKASG | Malin Array Be | 75.68 | 322 | P | P | 20 54 49.2 | -0.6 |
| | comp=Z,9.4nm,0.6s,baz=48,slow=6.2,SNR=40 | | | | | | |
| AKASG | | | | LR | LR | 21 31 14.6 | |
| | comp=Z,44nm,18.1s,baz=10.0,slow=38 | | | | | | |
| AKBB | Malin Array Si | 75.68 | 322 | eP | P | 20 54 49.6 | -0.2 |
| AKBB | | | | pmax | pmax | | |
| | comp=Z,11nm,0.8s | | | | | | |
| AKBB | Malin Array Si | 75.68 | 322 | eP | P | 20 54 49.6 | -0.2 |
| | comp=Z,11nm,0.8s | | | | | | |
| KIEV | Kiev | 75.69 | 322 | eP | P | 20 54 49.5 | -0.4 |
| KIEV | | | | pmax | pmax | | |
| | comp=Z,11nm,0.7s | | | | | | |
| KIEV | Kiev | 75.69 | 322 | eP | P | 20 54 49.5 | -0.4 |
| | comp=Z,11nm,0.7s | | | | | | |
| AK11 | Malin Array Si | 75.73 | 322 | eP | P | 20 54 49.7 | -0.4 |
| CMB | Columbia Colle | 76.09 | 53 | eP | P | 20 54 54.2 | +1.7 |
| CMB | | | | pmax | pmax | | |
| | comp=Z,13nm,1.6s | | | | | | |
| CMB | Columbia Colle | 76.09 | 53 | eP | P | 20 54 54.2 | +1.7 |
| | comp=Z,13nm,1.6s | | | | | | |
| NB2 | NORSAR Subarra | 76.11 | 337 | P | P | 20 54 51.8 | -0.3 |
| | comp=Z,2.3nm,0.7s,baz=43,slow=5.9 | | | | | | |
| NB200 | NORSAR Array S | 76.11 | 337 | eP | P | 20 54 51.6 | -0.5 |
| NB200 | | | | e | | 21 31 42.9 | |
| NOA | NORSAR Array B | 76.11 | 337 | P | P | 20 54 51.6 | -0.5 |
| | comp=Z,5.5nm,0.9s,baz=47,slow=5.2,SNR=12 | | | | | | |
| NOA | | | | LR | LR | 21 31 42.9 | |
| | comp=Z,51nm,19.8s,baz=75,slow=38 | | | | | | |
| YERR | Yerington | 76.33 | 52 | eP | P | 20 54 55.7 | +1.7 |
| | comp=Z,5.8nm,1.1s | | | | | | |
| WAKR | Walker | 76.46 | 53 | eP | P | 20 54 55.6 | +0.8 |
| | comp=Z,9.4nm,1.6s | | | | | | |
| MARD | Mardin | 76.56 | 306 | eP | P | 20 54 55.9 | +0.6 |
| | comp=Z,35nm,1.6s | | | | | | |
| LRM | Limekiln Ridge | 76.59 | 43 | eP | P | 20 54 56.8 | +1.4 |
| DLMT | Dillon | 76.78 | 44 | eP | P | 20 54 57.7 | +1.3 |
| | comp=Z,3.8nm,0.9s | | | | | | |
| KVN | Kaiserville | 77.03 | 51 | eP | P | 20 54 59.8 | +1.8 |
| KVN | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.1s | | | | | | |
| KVN | Kaiserville | 77.03 | 51 | eP | P | 20 54 59.8 | +1.8 |
| | comp=Z,5.5nm,1.1s | | | | | | |
| SORM | Soroca | 77.71 | 320⇑ | iP | P | 20 55 00.5 | -0.8 |
| H17A | Grant Village | 78.50 | 44 | eP | P | 20 55 07.3 | +1.1 |
| | comp=Z,4.0nm,0.8s | | | | | | |
| IMW | Indian Meadow | 78.60 | 44 | eP | P | 20 55 09.1 | +2.4 |
| | comp=Z,12nm,1.0s | | | | | | |
| R11A | Troy Canyon, C | 79.05 | 51 | eP | P | 20 55 10.7 | +1.6 |
| | comp=Z,2.4nm,1.1s | | | | | | |
| SRTC | Snort | 79.15 | 54 | eP | P | 20 55 11.9 | +2.3 |
| TPNV | Topopah Spring | 79.42 | 52 | eP | P | 20 55 12.7 | +1.5 |
| TPNV | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.8s | | | | | | |
| TPNV | Topopah Spring | 79.42 | 52 | eP | P | 20 55 12.7 | +1.5 |
| | comp=Z,3.6nm,0.8s | | | | | | |
| CCCA | Chr Cany lake | 79.50 | 54 | eP | P | 20 55 15.3 | +3.7 |
| TESR | Tescani | 79.63 | 320⇑ | iP | P | 20 55 12.0 | 0.0 |
| BUR08 | Bucovina Ar. S | 79.66 | 321 | eP | P | 20 55 12.6 | +0.4 |
| BUR04 | Bucovina Ar. S | 79.67 | 321 | eP | P | 20 55 12.1 | -0.1 |
| BURAR | Bucovina Array | 79.67 | 321⇑ | iP | P | 20 55 12.5 | +0.2 |
| PASC | Pasadena Art C | 79.72 | 56 | eP | P | 20 55 12.9 | +0.3 |
| MWC | Mount Wilson | 79.78 | 56 | eP | P | 20 55 12.4 | -0.8 |
| MWC | Mount Wilson | 79.78 | 56 | eP | P | 20 55 12.4 | -0.8 |
| BR101 | Keskin Array S | 79.79 | 311 | eP | P | 20 55 13.1 | 0.0 |
| BR131 | Keskin Array S | 79.79 | 311 | eP | P | 20 55 13.5 | +0.4 |
| BRTR | Keskin Array B | 79.79 | 311 | P | P | 20 55 13.1 | 0.0 |
| | comp=Z,4.7nm,0.9s,baz=130,slow=2.9,SNR=20 | | | | | | |
| VRI | Vrincioaia | 80.00 | 319⇑ | iP | P | 20 55 13.5 | -0.5 |
| PDAR | Pinedale Array | 80.09 | 45 | P | P | 20 55 15.3 | +0.6 |
| | comp=Z,0.8nm,0.7s,baz=276,slow=2.4,SNR=8.2 | | | | | | |
| BR231 | Keskin MP Arra | 80.25 | 312 | eP | P | 20 55 13.7 | -1.8 |
| NLU | North Lily Min | 80.30 | 48 | eP | P | 20 55 16.7 | +0.7 |
| | comp=Z,3.0nm,0.9s | | | | | | |
| STHS | Stebnicka Huta | 80.44 | 325 | eP | P | 20 55 16.5 | +0.2 |
| STHS | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.2s | | | | | | |
| STHS | Stebnicka Huta | 80.44 | 325 | eP | P | 20 55 16.5 | +0.2 |
| OJC | Ojcow | 80.57 | 326 | eP | P | 20 55 17.4 | +0.5 |
| OJC | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.1s | | | | | | |
| OJC | Ojcow | 80.57 | 326 | eP | P | 20 55 17.4 | +0.5 |
| | comp=Z,9.3nm,1.1s | | | | | | |
| DOPR | Dopca | 80.65 | 320⇑ | iP | P | 20 55 18.6 | +1.1 |
| RAYN | Ar Rayn | 80.72 | 292 | eP | P | 20 55 17.6 | -0.7 |
| | comp=Z,9.2nm,0.9s | | | | | | |
| BHU | Blowhard Mount | 81.23 | 50 | eP | P | 20 55 22.8 | +1.6 |
| MTPU | Mount Pierson | 81.39 | 50 | eP | P | 20 55 23.5 | +1.6 |
| | comp=Z,4.3nm,1.1s | | | | | | |
| ARR | Arges | 81.44 | 320⇑ | iP | P | 20 55 22.8 | +1.0 |
| KECS | Kecovo | 81.45 | 324 | eP | P | 20 55 21.5 | -0.1 |
| KECS | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | |
| KECS | Kecovo | 81.45 | 324 | eP | P | 20 55 21.5 | -0.1 |
| LANS | Liptovska Anna | 81.47 | 325 | eP | P | 20 55 22.9 | +1.1 |
| LANS | Liptovska Anna | 81.47 | 325 | eP | P | 20 55 22.8 | +1.0 |
| LOT | Lotru | 81.85 | 320⇑ | iP | P | 20 55 24.1 | +0.1 |
| MORC | Moravsky Berou | 81.92 | 327⇑ | iP | P | 20 55 24.5 | +0.4 |
| MORC | Moravsky Berou | 81.92 | 327 | eP | P | 20 55 24.2 | +0.1 |
| MORC | | | | pmax | pmax | | |
| | comp=Z,47nm,1.5s | | | | | | |
| MORC | Moravsky Berou | 81.92 | 327 | eP | P | 20 55 24.2 | +0.1 |
| | comp=Z,47nm,1.5s | | | | | | |
| DPC | Dobruska-Polom | 82.05 | 328 | eP | P | 20 55 25.5 | +0.7 |
| DPC | Dobruska-Polom | 82.05 | 328 | eP | P | 20 55 25.5 | +0.7 |
| UPC | Upice | 82.08 | 328 | eP | P | 20 55 25.3 | +0.4 |
| UPC | Upice | 82.08 | 328 | eP | P | 20 55 25.3 | +0.4 |
| PSZ | Piszkesteto | 82.12 | 324⇑ | iP | P | 20 55 25.5 | +0.2 |
| PSZ | Piszkesteto | 82.12 | 324 | eP | P | 20 55 25.4 | +0.2 |
| PSZ | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.0s | | | | | | |
| PSZ | Piszkesteto | 82.12 | 324 | eP | P | 20 55 25.4 | +0.1 |
| | comp=Z,8.2nm,1.0s | | | | | | |
| VYHS | Vyhne | 82.23 | 325 | eP | P | 20 55 26.2 | +0.5 |
| VYHS | | | | pmax | pmax | | |
| | comp=Z,27nm,2.6s | | | | | | |
| VYHS | Vyhne | 82.23 | 325 | eP | P | 20 55 26.2 | +0.5 |
| BLYC | Blythe | 82.44 | 54 | eP | P | 20 55 25.1 | -2.0 |
| PVCC | Panska Ves | 82.69 | 328 | eP | P | 20 55 28.6 | +0.5 |
| PVCC | Panska Ves | 82.69 | 328 | eP | P | 20 55 28.6 | +0.5 |
| CLL | Collm | 82.77 | 330 | eP | P | 20 55 25.0 | -3.5 |
| CLL | Collm | 82.77 | 330 | eP | P | 20 55 28.0 | -0.5 |
| BZS | Buzias | 82.85 | 322⇑ | iP | P | 20 55 29.0 | 0.0 |
| PRU | Pruhonice | 83.10 | 328 | eP | P | 20 55 30.5 | +0.3 |
| PRU | Pruhonice | 83.10 | 328 | eP | P | 20 55 30.5 | +0.3 |
| PV10 | Paradox Valley | 83.13 | 48 | eP | P | 20 55 32.9 | +1.9 |
| PV05 | Paradox Valley | 83.28 | 48 | eP | P | 20 55 33.5 | +1.8 |
| N23A | Red Feather La | 83.36 | 44 | eP | P | 20 55 33.8 | +1.7 |
| | comp=Z,25nm,0.9s | | | | | | |
| MDVR | Moldovita | 83.37 | 321⇓ | iP | P | 20 55 31.7 | -0.1 |
| WUAZ | Wupatki | 83.44 | 51 | eP | P | 20 55 34.3 | +1.8 |
| | comp=Z,10nm,1.3s | | | | | | |
| PV01 | Paradox Valley | 83.57 | 48 | eP | P | 20 55 34.3 | +1.1 |
| PV01 | | | | eS | S | 21 05 55.1 | +3.7 |
| SMCO | Snowmass | 83.87 | 46 | eP | P | 20 55 36.5 | +1.6 |
| | comp=Z,4.4nm,0.8s | | | | | | |
| CONA | Conrad Observa | 84.02 | 326 | i PcP | P | 20 55 35.7 | +0.6 |
| | comp=Z,7.9nm,0.9s | | | | | | |
| VTS | Vitosha | 84.06 | 319⇑ | iP | P | 20 55 36.0 | +0.6 |
| VTS | Vitosha | 84.06 | 319 | eP | P | 20 55 36.1 | +0.6 |
| VTS | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.7s | | | | | | |
| VTS | Vitosha | 84.06 | 319 | eP | P | 20 55 36.1 | +0.6 |
| | comp=Z,8.8nm,0.7s | | | | | | |
| KHC | Kasperske Hory | 84.16 | 328 | eP | P | 20 55 36.0 | +0.2 |
| KHC | Kasperske Hory | 84.16 | 328 | eP | P | 20 55 36.0 | +0.2 |
| KHC | Kasperske Hory | 84.16 | 328 | eP | P | 20 55 35.9 | +0.2 |
| | comp=Z,3.1nm,0.9s | | | | | | |
| GERES | GERESS Array B | 84.32 | 328 | P | P | 20 55 36.1 | -0.5 |
| | comp=Z,2.2nm,0.7s,baz=52,slow=5.2,SNR=8.7 | | | | | | |
| GEA0 | GERESS Array S | 84.32 | 328 | eP | P | 20 55 36.4 | -0.2 |
| DIVS | Divibare | 84.74 | 321 | eP | P | 20 55 38.6 | -0.2 |
| | comp=Z,9.4nm,1.1s | | | | | | |
| MOA | Molln | 84.81 | 327 | i P | P | 20 55 37.5 | -1.5 |
| | comp=Z,6.8nm,1.1s | | | | | | |
| S22A | 4UR Ranch, Cre | 84.88 | 47 | eP | P | 20 55 41.0 | +1.1 |
| | comp=Z,3.7nm,0.9s | | | | | | |
| SOKA | Soboth | 85.32 | 326 | i P | P | 20 55 40.8 | -0.9 |
| | comp=Z,17nm,1.3s | | | | | | |
| OBKA | Obir | 85.67 | 326 | i PcP | P | 20 55 45.8 | +2.4 |
| | comp=Z,13nm,1.9s | | | | | | |
| SDCO | Great Sand Dun | 85.67 | 46 | eP | P | 20 55 45.2 | +1.4 |
| | comp=Z,5.4nm,1.3s | | | | | | |
| MYKA | Terra Mystica | 86.00 | 326 | i P | P | 20 55 42.6 | -2.4 |
| | comp=Z,4.4nm,0.9s | | | | | | |
| WTTA | Wattenberg | 86.42 | 328 | i PcP | P | 20 55 46.7 | -0.5 |
| | comp=Z,8.8nm,1.2s | | | | | | |
| FETA | Feichten | 87.00 | 328 | i P | P | 20 55 48.4 | -1.7 |
| | comp=Z,8.0nm,1.2s | | | | | | |
| DAVA | Damuels | 87.17 | 329 | i PcP | P | 20 55 51.3 | +0.4 |
| | comp=Z,13nm,1.2s | | | | | | |
| SCHQ | Schefferville | 87.98 | 15 | P | P | 20 55 54.1 | -0.3 |
| | comp=Z,4.9nm,0.6s,baz=238,slow=15,SNR=3.2 | | | | | | |
| SCHQ | Schefferville | 87.98 | 15 | eP | P | 20 55 54.1 | -0.3 |
| | comp=Z,87nm,1.9s | | | | | | |
| TX31 | Lajitas Ar. Si | 92.39 | 52 | eP | P | 20 56 16.1 | +0.5 |
| LTX | Lajitas | 92.39 | 52 | eP | P | 20 56 16.3 | +0.7 |
| LTX | Lajitas | 92.39 | 52 | eP | P | 20 56 16.3 | +0.7 |
| TXAR | Lajitas Array | 92.39 | 52 | P | P | 20 56 16.3 | +0.7 |
| | comp=Z,3.5nm,0.9s,baz=270,slow=2.5,SNR=14 | | | | | | |
| TXAR | | | | LR | LR | 21 35 12.1 | |
| | comp=Z,21nm,19.4s,baz=0.0,slow=34 | | | | | | |
| SADO | Sadowa | 93.33 | 27 | LR | LR | 21 39 39.6 | |
| | comp=Z,16nm,21.4s,baz=90,slow=36 | | | | | | |
| TOA1 | Torodi Ar. Sit | 118.37 | 313 | ePKPdf | PKPdf | 21 01 51.1 | -1.4 |
| TOA1 | | | | ePKKPbc | PKKPbc | 21 12 10.3 | +1.1 |
| TORD | Torodi Ar. Bea | 118.37 | 313 | PKP | PKPdf | 21 01 51.1 | -1.4 |
| | comp=Z,0.4nm,0.6s,baz=49,slow=1.5,SNR=9.1 | | | | | | |
| TORD | | | | PKKPbc | PKKPbc | 21 12 10.3 | +1.2 |
| | comp=Z,1.0nm,1.0s,baz=215,slow=2.8,SNR=5.5 | | | | | | |
| QSPA | South Pole Qui | 124.30 | 180 | ePKPdf | PKPdf | 21 02 01.7 | -0.6 |
| SDV | Santo Domingo | 127.83 | 40 | PKP | PKPdf | 21 02 10.5 | -0.4 |
| | comp=Z,1.1nm,0.3s,baz=350,slow=2.7,SNR=4.0 | | | | | | |
| LPAZ | La Paz | 148.73 | 62 | PKPbc | PKPbc | 21 02 52.5 | -0.5 |
| | comp=Z,2.8nm,0.7s,baz=12,slow=8.0,SNR=13 | | | | | | |
| LPAZ | La Paz | 148.73 | 62 | ePKP2 | PKPbc | 21 02 53.2 | +0.2 |
| LPAZ | La Paz | 148.73 | 62 | ePKPbc | PKPbc | 21 02 53.2 | +0.2 |

*ISCJB **07** 20:45:23.5±0.5, 67°.81N±0°.03×20°.38E±0°.07, h0km, Error ellipse: s-maj=4.2km s-min=3.6km az=43.1*
*UPP **07** 20:45:24.6±0.1, 67°.84N×20°.20E, h0km, ML2.5*
*HEL **07** 20:45:25.1±0.1, 67°.84N×20°.20E, h0km, ML1.7, Explosion*
**ISC 07 20:45:24.7**±0.9**, 67°.85N**±0°.03×**20°.27E**±0°.03**, h0km, n20, σ0s.82**/28**, Sweden**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RATU | Laukkuluspa | 0.26 | 265 | P | Pg | 20 45 29.3 | -0.3 |
| RATU | | | | S | Sg | 20 45 32.6 | -0.2 |
| NIKU | Nikkaluokta | 0.47 | 273 | P | Pg | 20 45 33.2 | -0.3 |
| LANU | Lannavaara | 0.68 | 72 | P | Pg | 20 45 37.9 | +0.3 |
| LANU | Lannavaara | 0.68 | 72 | PG | Pg | 20 45 37.8 | +0.2 |
| | baz=255 | | | | | | |
| DUNU | Dundret | 0.74 | 171 | P | Pg | 20 45 38.5 | -0.2 |
| MASU | Masugnsbyn | 0.77 | 120 | P | Pg | 20 45 39.4 | +0.1 |
| KIF | Kilpisjarvi | 1.18 | 9 | eP | Pg | 20 45 47.0 | -0.2 |
| KIF | Kilpisjarvi | 1.18 | 9 | PG | Pg | 20 45 47.4 | +0.1 |
| | baz=192 | | | | | | |
| KIF | | | | SG | Sg | 20 46 02.9 | +0.4 |
| PAJU | Pajala | 1.38 | 126 | P | Pg | 20 45 50.2 | -0.7 |
| HEF | Hetta | 1.39 | 65 | PG | Pg | 20 45 50.6 | -0.7 |
| | baz=247 | | | | | | |
| HEF | | | | MSG | | 20 46 07.9 | |
| | comp=Z,7.1nm,0.2s | | | | | | |
| HEF | | | | SG | Sg | 20 46 08.9 | -0.4 |
| ERTU | Ertsjaerv | 1.50 | 149 | P | Pn | 20 45 52.2 | -0.6 |
| ERTU | Ertsjaerv | 1.50 | 149 | PG | Pn | 20 45 52.2 | -0.6 |
| | baz=326 | | | | | | |
| ERTU | | | | SN | Sg | 20 46 12.6 | -0.1 |
| KTK1 | Kautokeino | 1.61 | 42 | eP | Pn | 20 45 54.2 | 0.0 |
| HARU | Harads | 1.71 | 170 | P | Pn | 20 45 56.0 | +0.3 |
| KALU | Kalix | 2.34 | 147 | PB | Pn | 20 46 05.6 | +1.3 |
| | baz=324 | | | | | | |
| KALU | | | | SG | Sb | 20 46 37.8 | +0.8 |
| TOF | Tornio | 2.39 | 136 | PB | Pn | 20 46 06.5 | +1.5 |
| TOF | | | | SG | Sb | 20 46 38.4 | 0.0 |
| SGF | Sodankyl | 2.43 | 97 | PG | Pb | 20 46 07.7 | -1.4 |
| | baz=277 | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SGF | | | | SG | Sb | 20 46 40.8 | +1.2 |
| RNF | Rovaniemi | 2.56 | 116 | PG | Pg | 20 46 13.0 | -0.6 |
| RNF | | | | SG | Sg | 20 46 46.5 | -0.2 |
| BURU | Burvik | 3.31 | 172 | PB | Pn | 20 46 19.6 | +2.0 |
| MSF | Maaselka | 3.97 | 115 | PN | Pn | 20 46 28.1 | +1.4 |
| | baz=294 | | | | | | |

**IDC 07 21:00:04.6±63.0, 13.°82S×168.°21E, h0km, mb3.7/3, mb1 3.9/3, mb1mx3.6/30, mbtmp3.7/3, Error ellipse: s-maj=1063.0km s-min=121.3km az=65.0, Vanuatu Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| STKA | Stephens Creek | 30.28 | 229 | P | P | 21 06 17.6 | 0.0 |
| | 1.4nm,0.5s,baz=50,slow=9.1,SNR=4.0 | | | | | | |
| WRA | Warramunga Arr | 32.94 | 255 | P | P | 21 06 41.2 | 0.0 |
| | 0.2nm,0.4s,baz=85,slow=8.9,SNR=4.1 | | | | | | |
| ASAR | Alice Springs | 33.85 | 248 | P | P | 21 06 49.0 | -0.2 |
| | 0.4nm,0.5s,baz=82,slow=9.0,SNR=8.9 | | | | | | |

*IDC **07** 21:16:34.4±1.4, 41.°15S×174.°84E, h0km, mb3.9/3, mb1 4.0/5, mb1mx3.8/32, mbtmp3.8/5, ML3.0/2, MS2.7/1, Ms1 2.7/1, ms1mx2.4/30, Error ellipse: s-maj=39.8km s-min=19.6km az=138.0*
*ISCJB **07** 21:16:40.2±0.3, 41.°32S±0.°03×174.°81E±0.°04, h58km±4km, mb3.8/3, Error ellipse: s-maj=6.4km s-min=3.1km az=41.8*
*WEL **07** 21:16:42.0±0.0, 41.°15S×174.°73E, h34km, ML4.1/42, Mw3.8, Error ellipse: s-maj=0.5km s-min=0.4km az=0.0, MM 6.*
*WEL Felt between Manawatu, Canterbury and Wairarapa, maximum reported intensity.*
*NEIC **07** 21:16:42.0±0.0, 41.°15S×174.°74E, h34km, ML4.1(WEL), After WEL.*
*NEIC Felt in the Wellington area.*
**ISC 07 21:16:40.6±0.9, 41.°23S±0.°03×174.°79E±0.°03, h43km±5km, n158, σ1.s51/162, mb3.9/3, 15C-14D, Cook Strait**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WEL | Wellington | 0.05 | 195 | P* | Pn | 21 16 48.0 | +0.5 |
| WEL | | | | S* | Sn | 21 16 52.4 | +0.2 |
| WEL | Wellington | 0.05 | 195 | P* | Pn | 21 16 48.0 | +0.5 |
| WEL | | | | S* | Sn | 21 16 52.4 | +0.2 |
| WEL | | | | AML | AML | 21 16 53.6 | |
| WEL | | | | AML | AML | 21 16 53.6 | |
| WEL | | | | AML | AML | 21 16 53.8 | |
| SNZO | South Karori | 0.10 | 218 | ePg | Pn | 21 16 48.2 | +0.6 |
| SNZO | | | | eS | Sn | 21 16 52.6 | +0.2 |
| BHW | Baring Head | 0.19 | 160 | P* | Pn | 21 16 49.4 | +1.3 |
| BHW | Baring Head | 0.19 | 160 | ⇓P* | Pn | 21 16 49.4 | +1.3 |
| BHW | | | | AML | AML | 21 16 55.9 | |
| BHW | | | | AML | AML | 21 16 56.2 | |
| CAW | Cannon Point | 0.25 | 59 | P* | Pn | 21 16 49.2 | +0.6 |
| CAW | Cannon Point | 0.25 | 59 | ⇓P* | Pn | 21 16 49.2 | +0.6 |
| CAW | | | | AML | AML | 21 16 55.9 | |
| CAW | | | | AML | AML | 21 16 56.5 | |
| KIW | Kapiti Island | 0.38 | 14 | P* | Pn | 21 16 50.0 | -0.1 |
| KIW | Kapiti Island | 0.38 | 14 | ⇓P* | Pn | 21 16 50.0 | -0.1 |
| KIW | | | | AML | AML | 21 16 55.7 | |
| KIW | | | | AML | AML | 21 16 56.5 | |
| TCW | Tory Channel | 0.39 | 273 | P* | Pn | 21 16 50.0 | -0.1 |
| TCW | Tory Channel | 0.39 | 273 | ⇑P* | Pn | 21 16 50.2 | +0.2 |
| TCW | | | | AML | AML | 21 16 56.8 | |
| TCW | | | | AML | AML | 21 16 57.0 | |
| MSWZ | Moikau Station | 0.39 | 118 | P* | Pn | 21 16 52.2 | +2.0 |
| MSWZ | Moikau Station | 0.39 | 118 | ⇑P* | Pn | 21 16 52.2 | +2.0 |
| MSWZ | | | | AML | AML | 21 17 00.3 | |
| MSWZ | | | | AML | AML | 21 17 00.6 | |
| PLWZ | Palliser | 0.49 | 134 | P* | Pn | 21 16 53.4 | +2.0 |
| PLWZ | Palliser | 0.49 | 134 | ⇑P* | Pn | 21 16 53.4 | +2.0 |
| PLWZ | | | | AML | AML | 21 17 03.8 | |
| PLWZ | | | | AML | AML | 21 17 03.9 | |
| PAWZ | Paruwai Farm | 0.51 | 107 | P* | Pn | 21 16 53.4 | +1.9 |
| PAWZ | Paruwai Farm | 0.51 | 107 | ⇑P* | Pn | 21 16 53.4 | +1.9 |
| PAWZ | | | | AML | AML | 21 17 03.1 | |
| PAWZ | | | | AML | AML | 21 17 03.6 | |
| OGWZ | Otaki Gorge | 0.51 | 35 | P* | Pn | 21 16 52.0 | +0.4 |
| OGWZ | Otaki Gorge | 0.51 | 35 | ⇓P* | Pn | 21 16 51.9 | +0.4 |
| OGWZ | | | | AML | AML | 21 16 59.6 | |
| OGWZ | | | | AML | AML | 21 16 59.8 | |
| MTW | Mount Morrison | 0.55 | 82 | P* | Pn | 21 16 53.6 | +1.6 |
| MTW | Mount Morrison | 0.55 | 82 | ⇑P* | Pn | 21 16 53.6 | +1.6 |
| MTW | | | | AML | AML | 21 17 03.5 | |
| MTW | | | | AML | AML | 21 17 03.8 | |
| HOWZ | Holdsworth Sta | 0.65 | 59 | P* | Pn | 21 16 54.7 | +1.3 |
| HOWZ | Holdsworth Sta | 0.65 | 59 | ⇑P* | Pn | 21 16 54.7 | +1.3 |
| HOWZ | | | | AML | AML | 21 17 05.2 | |
| HOWZ | | | | AML | AML | 21 17 06.8 | |
| TUWZ | Tuamarina | 0.66 | 253 | P* | Pn | 21 16 54.4 | +0.8 |
| TUWZ | Tuamarina | 0.66 | 253 | ⇑P* | Pn | 21 16 54.4 | +0.8 |
| TUWZ | | | | AML | AML | 21 17 05.1 | |
| TUWZ | | | | AML | AML | 21 17 05.3 | |
| CMWZ | Cape Campbell | 0.67 | 220 | P* | Pn | 21 16 56.5 | +2.7 |
| CMWZ | Cape Campbell | 0.67 | 220 | ⇑P* | Pn | 21 16 56.5 | +2.7 |
| CMWZ | | | | AML | AML | 21 17 13.2 | |
| CMWZ | | | | AML | AML | 21 17 16.5 | |
| TRWZ | Traveller | 0.70 | 104 | P* | Pn | 21 16 55.9 | +1.8 |
| TRWZ | Traveller | 0.70 | 104 | ⇑P* | Pn | 21 16 55.9 | +1.8 |
| TRWZ | | | | AML | AML | 21 17 10.4 | |
| TRWZ | | | | AML | AML | 21 17 10.4 | |
| DUWZ | D'Urville Isla | 0.78 | 303 | P* | Pn | 21 16 55.3 | 0.0 |
| DUWZ | D'Urville Isla | 0.78 | 303 | ⇑P* | Pn | 21 16 55.3 | 0.0 |
| MRZ | Mangatainoka R | 0.83 | 47 | P* | Pn | 21 16 57.0 | +1.2 |
| MRZ | Mangatainoka R | 0.83 | 47 | ⇓P* | Pn | 21 16 57.0 | +1.2 |
| MRZ | | | | AML | AML | 21 17 12.0 | |
| MRZ | | | | AML | AML | 21 17 12.0 | |
| BSWZ | Blackbirch Sta | 0.84 | 235 | P* | Pn | 21 16 57.7 | +1.8 |
| BSWZ | Blackbirch Sta | 0.84 | 235 | ⇓P* | Pn | 21 16 57.7 | +1.8 |
| BSWZ | | | | AML | AML | 21 17 11.1 | |
| BSWZ | | | | AML | AML | 21 17 15.8 | |
| TMWZ | Te Maipa | 0.84 | 82 | P* | Pn | 21 16 57.5 | +1.4 |
| TMWZ | Te Maipa | 0.84 | 82 | ⇑P* | Pn | 21 16 57.5 | +1.4 |
| TMWZ | | | | AML | AML | 21 17 15.3 | |
| TMWZ | | | | AML | AML | 21 17 19.1 | |
| TIWZ | Tintock | 0.95 | 62 | P* | Pn | 21 16 58.7 | +1.2 |
| TIWZ | Tintock | 0.95 | 62 | ⇓P* | Pn | 21 16 58.7 | +1.2 |
| TIWZ | | | | AML | AML | 21 17 15.5 | |
| TIWZ | | | | AML | AML | 21 17 17.2 | |
| NNZ | Nelson | 1.06 | 270 | Pn | Pn | 21 17 00.1 | +1.1 |
| NNZ | Nelson | 1.06 | 270 | ⇑PN | Pn | 21 17 00.1 | +1.1 |
| OHWZ | Ohakea | 1.10 | 22 | P* | Pn | 21 17 01.6 | +2.0 |
| CPWZ | Castlepoint | 1.12 | 74 | P* | Pn | 21 17 01.5 | +1.8 |
| CPWZ | Castlepoint | 1.12 | 74 | P* | Pn | 21 17 01.5 | +1.8 |
| CPWZ | | | | AML | AML | 21 17 28.3 | |
| CPWZ | | | | AML | AML | 21 17 32.9 | |
| POWZ | Post Office Ro | 1.12 | 42 | P* | Pn | 21 17 00.8 | +0.9 |
| POWZ | Post Office Ro | 1.12 | 42 | P* | Pn | 21 17 00.8 | +0.9 |
| POWZ | | | | AML | AML | 21 17 20.9 | |
| POWZ | | | | AML | AML | 21 17 25.7 | |
| PRWZ | Pori Road | 1.13 | 53 | P* | Pn | 21 17 01.1 | +1.2 |
| PRWZ | Pori Road | 1.13 | 53 | ⇓P* | Pn | 21 17 01.1 | +1.2 |
| PRWZ | | | | AML | AML | 21 17 21.4 | |
| PRWZ | | | | AML | AML | 21 17 22.2 | |
| BFZ | Birch Farm | 1.24 | 64 | P* | Pn | 21 17 02.1 | +0.7 |
| BFZ | Birch Farm | 1.24 | 64 | ⇓P* | Pn | 21 17 02.1 | +0.7 |
| BFZ | | | | AML | AML | 21 17 31.7 | |
| BFZ | | | | AML | AML | 21 17 31.7 | |
| BFZ | | | | AML | AML | 21 17 33.9 | |
| BFZ | | | | AML | AML | 21 17 33.9 | |
| DVHZ | Dannevirke | 1.40 | 49 | Pn | Pn | 21 17 04.1 | +0.4 |
| DVHZ | Dannevirke | 1.40 | 49 | PN | Pn | 21 17 04.1 | +0.4 |
| DVHZ | | | | AML | AML | 21 17 29.6 | |
| DVHZ | | | | AML | AML | 21 17 29.6 | |
| TSZ | Takapari Road | 1.48 | 38 | Pn | Pn | 21 17 05.5 | +0.8 |
| TSZ | Takapari Road | 1.48 | 38 | ⇓PN | Pn | 21 17 05.5 | +0.8 |
| TSZ | | | | AML | AML | 21 17 31.2 | |
| TSZ | | | | AML | AML | 21 17 33.2 | |
| WAZ | Wanganui | 1.48 | 6 | Pn | Pn | 21 17 07.1 | +2.3 |
| WAZ | Wanganui | 1.48 | 6 | PN | Pn | 21 17 07.0 | +2.2 |
| ANWZ | Angora Road | 1.50 | 59 | PN | Pn | 21 17 05.3 | +0.4 |
| ANWZ | | | | AML | AML | 21 17 41.9 | |
| ANWZ | | | | AML | AML | 21 17 43.3 | |
| KHZ | Kahutara | 1.50 | 218 | Pn | Pn | 21 17 06.6 | +1.6 |
| KHZ | Kahutara | 1.50 | 218 | ⇓PN | Pn | 21 17 06.6 | +1.6 |
| KHZ | | | | AML | AML | 21 17 24.9 | |
| KHZ | | | | AML | AML | 21 17 24.9 | |
| KHZ | | | | AML | AML | 21 17 25.8 | |
| KHZ | | | | AML | AML | 21 17 25.8 | |
| THZ | Tophouse | 1.51 | 249 | Pn | Pn | 21 17 06.5 | +1.3 |
| THZ | Tophouse | 1.51 | 249 | PN | Pn | 21 17 06.5 | +1.3 |
| PNHZ | Pukenui | 1.70 | 40 | Pn | Pn | 21 17 08.3 | +0.5 |
| PNHZ | Pukenui | 1.70 | 40 | ⇓PN | Pn | 21 17 08.3 | +0.5 |
| PNHZ | | | | AML | AML | 21 17 40.6 | |
| PNHZ | | | | AML | AML | 21 17 51.8 | |
| PRHZ | Porangahau | 1.71 | 56 | Pn | Pn | 21 17 08.0 | +0.1 |
| PRHZ | Porangahau | 1.71 | 56 | PN | Pn | 21 17 08.0 | +0.1 |
| PRHZ | | | | AML | AML | 21 17 49.4 | |
| PRHZ | | | | AML | AML | 21 18 05.9 | |
| WPHZ | Waipukurau | 1.72 | 48 | Pn | Pn | 21 17 08.3 | +0.3 |
| WPHZ | Waipukurau | 1.72 | 48 | PN | Pn | 21 17 08.3 | +0.3 |
| WPHZ | | | | AML | AML | 21 18 05.6 | |
| QRZ | Quartz Range | 1.75 | 283 | Pn | Pn | 21 17 10.2 | +1.7 |
| QRZ | Quartz Range | 1.75 | 283 | PN | Pn | 21 17 10.2 | +1.7 |
| LREZ | Lake Rotokare | 1.79 | 350 | ⇑PN | Pn | 21 17 11.1 | +2.0 |
| MTVZ | Mangateitei | 1.92 | 16 | PN | Pn | 21 17 12.6 | +1.7 |
| NMEZ | Namu Road | 1.95 | 339 | PN | Pn | 21 17 13.3 | +2.2 |
| PREZ | Palmer Road | 1.95 | 346 | PN | Pn | 21 17 13.8 | +2.6 |
| MOVZ | Moawhango | 1.97 | 22 | PN | Pn | 21 17 12.5 | +0.9 |
| PXZ | Pawanui | 1.98 | 53 | PN | Pn | 21 17 11.6 | 0.0 |
| PXZ | | | | AML | AML | 21 17 58.2 | |
| PXZ | | | | AML | AML | 21 17 58.2 | |
| PXZ | | | | AML | AML | 21 18 00.1 | |
| PXZ | | | | AML | AML | 21 18 00.1 | |
| PKVZ | Pokaka | 1.99 | 13 | PN | Pn | 21 17 14.1 | +2.3 |
| KRHZ | Kereru | 2.00 | 38 | PN | Pn | 21 17 12.0 | +0.2 |
| KRHZ | | | | AML | AML | 21 17 49.5 | |
| KRHZ | | | | AML | AML | 21 17 51.7 | |
| BHHZ | Black Hill Sta | 2.00 | 30 | Pn | Pn | 21 17 12.7 | +0.8 |
| BHHZ | Black Hill Sta | 2.00 | 30 | PN | Pn | 21 17 12.7 | +0.8 |
| BHHZ | | | | AML | AML | 21 17 48.3 | |
| BHHZ | | | | AML | AML | 21 17 49.1 | |
| WNVZ | Wahianoa | 2.00 | 18 | PN | Pn | 21 17 13.9 | +1.9 |
| TRVZ | Turoa | 2.02 | 17 | PN | Pn | 21 17 14.0 | +1.6 |
| KHEZ | Kahui Hut | 2.02 | 343 | PN | Pn | 21 17 14.5 | +2.2 |
| NEZ | North Egmont | 2.03 | 345 | PN | Pn | 21 17 14.4 | +2.0 |
| WHVZ | Whangaehu Hut | 2.04 | 18 | PN | Pn | 21 17 14.3 | +1.6 |
| DRZ | Dome Shelter | 2.04 | 17 | PN | Pn | 21 17 15.1 | +2.3 |
| FWVZ | Far West T-bar | 2.06 | 17 | PN | Pn | 21 17 14.6 | +1.7 |
| TUVZ | Tukino | 2.07 | 19 | PN | Pn | 21 17 14.7 | +1.7 |
| NWEZ | Newall Road | 2.08 | 340 | PN | Pn | 21 17 15.4 | +2.4 |
| DREZ | Durham Road | 2.09 | 347 | PN | Pn | 21 17 15.6 | +2.5 |
| VRZ | Vera Road | 2.11 | 359 | PN | Pn | 21 17 16.1 | +2.8 |
| PKE | Pukeiti | 2.13 | 343 | PN | Pn | 21 17 15.9 | +2.2 |
| KAHZ | Kahuranaki | 2.15 | 49 | Pn | Pn | 21 17 13.8 | -0.1 |
| KAHZ | Kahuranaki | 2.15 | 49 | PN | Pn | 21 17 13.8 | -0.1 |
| KAHZ | | | | AML | AML | 21 18 04.5 | |
| KAHZ | | | | AML | AML | 21 18 08.9 | |
| NGZ | Ngauruhoe | 2.15 | 17 | PN | Pn | 21 17 15.8 | +1.7 |
| OTVZ | Oturere | 2.17 | 18 | PN | Pn | 21 17 16.0 | +1.6 |
| WTVZ | West Tongariro | 2.20 | 16 | PN | Pn | 21 17 16.7 | +1.9 |
| TWVZ | Taurewa | 2.22 | 13 | PN | Pn | 21 17 16.5 | +1.5 |
| KRVZ | Karewarewa | 2.23 | 17 | PN | Pn | 21 17 17.0 | +1.8 |
| DSZ | Denniston Nort | 2.30 | 256 | Pn | Pn | 21 17 17.3 | +1.3 |
| DSZ | Denniston Nort | 2.30 | 256 | ⇓PN | Pn | 21 17 17.3 | +1.3 |
| KATZ | Kakaramea | 2.36 | 17 | PN | Pn | 21 17 20.0 | +3.0 |
| RITZ | Rihia Road | 2.40 | 20 | PN | Pn | 21 17 21.4 | +4.0 |
| LTZ | Lake Taylor | 2.43 | 230 | Pn | Pn | 21 17 18.8 | +0.9 |
| LTZ | Lake Taylor | 2.43 | 230 | PN | Pn | 21 17 18.8 | +0.9 |
| BKZ | Black Stump Fm | 2.44 | 33 | PN | Pn | 21 17 23.0 | +4.9 |
| BKZ | | | | AML | AML | 21 18 11.9 | |
| BKZ | | | | AML | AML | 21 18 20.3 | |
| RATZ | Rangitukua | 2.48 | 18 | PN | Pn | 21 17 22.9 | +4.3 |
| ARHZ | Aropaoanui | 2.59 | 41 | AML | AML | 21 17 55.2 | |
| ARHZ | | | | AML | AML | 21 18 26.5 | |
| WATZ | Wairara | 2.62 | 16 | PN | Pn | 21 17 25.1 | +4.6 |
| NMHZ | Naumai | 2.64 | 37 | Pn | Pn | 21 17 20.4 | -0.3 |
| NMHZ | Naumai | 2.64 | 37 | PN | Pn | 21 17 20.4 | -0.3 |
| NMHZ | | | | AML | AML | 21 18 15.2 | |
| NMHZ | | | | AML | AML | 21 18 21.9 | |
| MRHZ | Matea Rd | 2.70 | 28 | ⇑PN | Pn | 21 17 21.4 | -0.2 |
| MRHZ | | | | AML | AML | 21 18 10.5 | |
| MRHZ | | | | AML | AML | 21 18 11.0 | |
| HIZ | Hauiti | 2.72 | 1 | PN | Pn | 21 17 24.2 | +2.5 |
| MTHZ | Maungataniwha | 2.85 | 34 | PN | Pn | 21 17 23.6 | -0.1 |
| INZ | Inchbonnie | 2.90 | 238 | PN | Pn | 21 17 25.2 | +0.9 |
| OXZ | Oxford | 2.92 | 223 | Pn | Pn | 21 17 24.3 | -0.2 |
| OXZ | Oxford | 2.92 | 223 | PN | Pn | 21 17 24.3 | -0.2 |
| MQZ | McQueen's Vall | 2.93 | 212 | Pn | Pn | 21 17 24.2 | -0.4 |
| MQZ | McQueen's Vall | 2.93 | 212 | ⇑PN | Pn | 21 17 24.2 | -0.4 |
| TLZ | Tolley Road | 2.96 | 12 | PN | Pn | 21 17 26.2 | +1.1 |
| KNZ | Kokohu | 3.13 | 46 | PN | Pn | 21 17 26.8 | -0.5 |
| MUGZ | Murupara | 3.15 | 30 | PN | Pn | 21 17 26.7 | -1.0 |
| RAGZ | Rawiri | 3.40 | 37 | Pn | Pn | 21 17 31.0 | -0.2 |
| RAGZ | Rawiri | 3.40 | 37 | PN | Pn | 21 17 31.0 | -0.2 |
| RAGZ | | | | AML | AML | 21 18 12.3 | |
| RAGZ | | | | AML | AML | 21 18 12.3 | |
| RIGZ | Rimuhau | 3.41 | 43 | PN | Pn | 21 17 29.7 | -1.6 |
| RIGZ | | | | AML | AML | 21 18 16.3 | |
| RIGZ | | | | AML | AML | 21 18 17.1 | |
| URZ | Urewera | 3.47 | 32 | Pn | Pn | 21 17 30.1 | -1.9 |
| | 1.4nm,0.3s,baz=252,slow=6.8,SNR=6.4 | | | | | | |
| URZ | | | | Pg | | 21 17 36.4 | |
| | 4.4nm,0.3s,baz=222,slow=7.3,SNR=15 | | | | | | |
| URZ | | | | Sn | Sn | 21 18 09.5 | -2.3 |
| | 6.8nm,0.3s,baz=186,slow=1.3,SNR=7.2 | | | | | | |
| URZ | Urewera | 3.47 | 32 | Pn | Pn | 21 17 30.6 | -1.4 |
| URZ | | | | Sn | Sn | 21 18 09.5 | -2.3 |
| URZ | Urewera | 3.47 | 32 | PN | Pn | 21 17 30.6 | -1.4 |
| URZ | | | | AML | AML | 21 18 31.6 | |
| URZ | | | | AML | AML | 21 18 39.4 | |
| WVZ | Waitaha Valley | 3.53 | 237 | Pn | Pn | 21 17 33.4 | +0.6 |
| WVZ | Waitaha Valley | 3.53 | 237 | PN | Pn | 21 17 33.4 | +0.6 |
| TOZ | Tahuroa Road | 3.54 | 9 | Pn | Pn | 21 17 34.8 | +1.7 |
| TOZ | Tahuroa Road | 3.54 | 9 | PN | Pn | 21 17 34.8 | +1.7 |
| MWZ | Matawai | 3.58 | 37 | Pn | Pn | 21 17 32.0 | -1.7 |
| MWZ | Matawai | 3.58 | 37 | ⇓PN | Pn | 21 17 32.0 | -1.7 |
| MWZ | | | | AML | AML | 21 18 47.2 | |
| MWZ | | | | AML | AML | 21 18 51.8 | |
| RPZ | Rata Peaks | 3.71 | 227 | Pn | Pn | 21 17 35.8 | +0.5 |
| | 1.5nm,0.3s,baz=214,slow=2.5,SNR=15 | | | | | | |
| RPZ | | | | Sn | Sn | 21 18 15.9 | -1.9 |
| | 12nm,0.3s,baz=127,slow=22,SNR=17 | | | | | | |
| RPZ | | | | LR | LR | 21 19 18.9 | |
| | comp=Z,95nm,20.0s,baz=90,slow=43 | | | | | | |
| RPZ | Rata Peaks | 3.71 | 227 | Pn | Pn | 21 17 36.2 | +0.8 |
| RPZ | | | | Sn | Sn | 21 18 15.9 | -1.9 |
| RPZ | Rata Peaks | 3.71 | 227 | PN | Pn | 21 17 36.2 | +0.8 |
| RUGZ | Raukumara Rang | 3.96 | 35 | PN | Pn | 21 17 37.8 | -1.1 |
| AWAZ | Awhitu Peninsu | 4.17 | 358 | PN | Pn | 21 17 43.7 | +2.0 |
| HAZ | Te Kaha | 4.17 | 35 | AML | AML | 21 18 37.1 | |
| HAZ | | | | AML | AML | 21 18 45.0 | |
| FOZ | Fox Glacier | 4.34 | 236 | Pn | Pn | 21 17 43.8 | -0.2 |
| FOZ | Fox Glacier | 4.34 | 236 | PN | Pn | 21 17 43.7 | -0.2 |
| WIAZ | Waiheke Island | 4.44 | 4 | PN | Pn | 21 17 47.8 | +2.4 |
| LBZ | Lake Benmore | 4.62 | 226 | Pn | Pn | 21 17 47.9 | 0.0 |
| LBZ | Lake Benmore | 4.62 | 226 | PN | Pn | 21 17 47.9 | 0.0 |
| ODZ | Otahua Downs | 4.87 | 217 | Pn | Pn | 21 17 50.9 | -0.4 |
| ODZ | Otahua Downs | 4.87 | 217 | PN | Pn | 21 17 50.9 | -0.4 |
| JCZ | Jackson Bay | 5.26 | 235 | Pn | Pn | 21 17 55.8 | -0.9 |
| JCZ | Jackson Bay | 5.26 | 235 | PN | Pn | 21 17 55.8 | -0.9 |
| WCZ | Waipu Caves | 5.30 | 356 | PN | Pn | 21 17 59.2 | +2.0 |
| EAZ | Earnscleugh | 5.65 | 223 | PN | Pn | 21 18 01.3 | -0.7 |
| TUZ | Tuapeka | 6.02 | 217 | Pn | Pn | 21 18 07.8 | +0.7 |
| TUZ | Tuapeka | 6.02 | 217 | PN | Pn | 21 18 07.7 | +0.7 |
| ASAR | Alice Springs | 38.28 | 284 | P | P | 21 23 56.7 | -0.3 |
| | 0.4nm,0.3s,baz=122,slow=8.8,SNR=15 | | | | | | |
| WRA | Warramunga Arr | 40.31 | 289 | P | P | 21 24 13.9 | +0.1 |
| | 1.2nm,0.6s,baz=126,slow=8.0,SNR=26 | | | | | | |
| FITZ | Fitzroy Crossi | 47.78 | 284 | P | P | 21 25 13.5 | -0.2 |
| | 1.1nm,0.7s,baz=127,slow=5.1,SNR=5.7 | | | | | | |
| ARCES | ARCESS Array B | 147.43 | 341 | PKPbc | PKPdf | 21 36 17.6 | +1.6 |
| | 2.6nm,0.8s,baz=57,slow=4.5,SNR=4.4 | | | | | | |
| BRTR | Keskin Array B | 150.57 | 280 | PKPbc | PKPbc | 21 36 26.1 | -1.6 |
| | 0.2nm,0.6s,baz=132,slow=4.3,SNR=3.6 | | | | | | |
| TORD | Torodi Ar. Bea | 151.38 | 194 | PKPbc | PKPbc | 21 36 30.8 | +0.8 |
| | 0.4nm,0.5s,baz=158,slow=2.9,SNR=7.8 | | | | | | |

*IDC **07** 21:31:16.9±0.6, 1.°58N×126.°50E, h0km, mb4.2/13, mb1 4.3/14, mb1mx4.1/50, mbtmp4.2/14, ML4.1/1, MS3.2/4, Ms1 3.3/4, ms1mx2.8/40, Error ellipse: s-maj=36.4km s-min=9.5km az=71.0*
*ISCJB **07** 21:31:21.9±0.4, 1.°65N±0.°04×126.°59E±0.°04, h47km, mb4.3/19, MS3.2/4, Error ellipse: s-maj=6.7km s-min=4.7km az=157.2*
*NEIC **07** 21:31:24.1±1.5, 1.°54N×126.°37E, h57km±14km, mb4.4/6, Error ellipse: s-maj=17.1km s-min=9.9km az=52.0*
*DJA **07** 21:31:24.2±0.3, 2.°N±3.°×12.°7E±.°, h52km±12km, M4.5/11, mb4.7/10, mB5.0/4, MLv4.6/11, Mw(mB)4.3/4*
*BJI **07** 21:31:25.0, 1.°60N×126.°60E, h70km, mb4.4/5, mB5.0/4, Ms4.9/3, Ms7 4.6/2*
**ISC 07 21:31:23.5±0.5, 1.°67N±0.°05×126.°63E±0.°06, h47km, n47, σ2.s02/52, mb4.3/19, MS3.2/4, Northern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SGSI | Sangihe | 2.28 | 331 | P | Pn | 21 32 01.2 | +2.5 |
| SGSI | | | | S | Sn | 21 32 25.8 | +0.1 |
| LBMI | Labuha | 2.46 | 159 | P | Pn | 21 32 00.8 | -0.3 |
| LBMI | | | | S | Sn | 21 32 29.8 | -0.1 |
| KMSI | Cibinong | 2.87 | 248 | P | Pn | 21 32 06.7 | 0.0 |
| KMSI | | | | S | Sn | 21 32 38.3 | -1.7 |
| SANI | Sanana | 3.75 | 190 | P | Pn | 21 32 17.1 | -1.9 |
| LUWI | Luwuk | 4.71 | 235 | P | Pn | 21 32 32.7 | +0.7 |
| LUWI | Luwuk | 4.71 | 235 | ePn | Pn | 21 32 32.8 | +0.7 |
| LUWI | | | | eS | Sn | 21 33 31.8 | +6.3 |
| MRSI | Marisa | 4.84 | 256 | P | Pn | 21 32 34.3 | +0.5 |
| NLAI | Namlea | 4.90 | 175 | P | Pn | 21 32 35.2 | +0.5 |
| MSAI | Masohi | 5.49 | 155 | P | Pn | 21 32 51.5 | +8.7 |
| AAI | Ambon | 5.55 | 164 | P | Pn | 21 32 45.1 | +1.5 |
| APSI | Ampana | 5.61 | 243 | P | Pn | 21 32 45.3 | +0.9 |
| MPSI | Mapaga | 6.86 | 259 | P | Pn | 21 33 02.7 | +1.1 |
| FAKI | Fak Fak | 7.24 | 129 | P | Pn | 21 33 09.8 | +3.0 |
| FAKI | Fak Fak | 7.24 | 129 | ePn | Pn | 21 33 09.4 | +2.7 |
| | 73nm,1.3s | | | | | | |
| FAKI | | | | eS | Sn | 21 34 25.6 | -2.0 |
| TTSI | Tana Toraja | 8.27 | 235 | P | Pn | 21 33 19.7 | -1.2 |
| KMPI | Kaimana, Papua | 8.84 | 127 | P | Pn | 21 33 25.9 | -2.8 |
| SPSI | Sidrap Palu | 8.86 | 231 | P | Pn | 21 33 29.1 | +0.1 |
| KAPI | Kappang | 9.56 | 226 | Pn | Pn | 21 33 32.0 | -6.6 |
| | 7.0nm,0.4s | | | | | | |
| KKM | Kota Kinabalu | 11.26 | 293 | ePn | Pn | 21 33 59.0 | -3.1 |
| SOEI | Soe | 11.60 | 192 | P | Pn | 21 34 08.2 | +1.6 |
| PLAI | Plampang | 13.66 | 220 | P | Pn | 21 34 35.4 | +0.6 |
| KSM | Kuching | 16.32 | 270 | ePn | Pn | 21 35 05.8 | -3.8 |
| | 14nm,1.0s | | | | | | |
| FITZ | Fitzroy Crossi | 19.68 | 183 | P | P | 21 35 46.4 | -2.4 |
| | 0.4nm,0.3s,baz=19,slow=10,SNR=13 | | | | | | |
| KPJI | Karang Pucung | 19.80 | 243 | P | P | 21 35 48.0 | -2.2 |
| WRAB | Tennant Creek | 22.77 | 161 | eP | P | 21 36 20.5 | -1.7 |
| | 14nm,0.6s | | | | | | |
| WRA | Warramunga Arr | 22.77 | 161 | P | P | 21 36 20.6 | -1.6 |
| | 12nm,0.5s,baz=339,slow=11,SNR=85 | | | | | | |
| WRA | | | | S | S | 21 40 30.1 | +2.2 |
| | 3.1nm,0.9s,baz=329,slow=18,SNR=6.3 | | | | | | |
| MBWA | Marble Bar | 23.68 | 196 | eP | P | 21 36 28.8 | -2.2 |
| | 14nm,0.7s | | | | | | |
| ASAR | Alice Springs | 26.16 | 165 | P | P | 21 36 53.5 | -0.1 |
| | 7.7nm,0.5s,baz=351,slow=15,SNR=99 | | | | | | |
| ASAR | | | | PcP | PcP | 21 40 20.1 | -0.1 |
| | 0.4nm,0.3s,baz=3.2,slow=1.9,SNR=4.1 | | | | | | |
| ASAR | | | | S | S | 21 41 28.0 | +5.5 |
| | 3.3nm,0.9s,baz=342,slow=19,SNR=11 | | | | | | |
| CMAR | Chiang Mai Arr | 31.87 | 303 | P | P | 21 37 45.4 | +0.9 |
| | 0.5nm,0.6s,baz=129,slow=8.2,SNR=4.0 | | | | | | |
| CMAR | | | | LR | LR | 21 53 03.6 | |
| | comp=Z,29nm,18.3s,baz=275,slow=41 | | | | | | |
| KSRS | Korea Array | 35.62 | 2 | LR | LR | 21 51 23.5 | |
| | comp=Z,13nm,20.7s,baz=115,slow=34 | | | | | | |
| STKA | Stephens Creek | 36.26 | 158 | P | P | 21 38 22.0 | -0.4 |
| | 3.2nm,0.6s,baz=331,slow=11,SNR=5.4 | | | | | | |
| MJAR | Matsushiro Arr | 36.31 | 16 | P | P | 21 38 23.9 | +1.1 |
| | 1.4nm,0.7s,baz=185,slow=10,SNR=6.1 | | | | | | |
| USRK | Ussuriysk Ar. | 42.61 | 6 | P | P | 21 39 16.3 | +1.2 |
| | 2.1nm,0.8s,baz=208,slow=5.7,SNR=3.0 | | | | | | |
| SONM | Songino Array | 49.21 | 342 | P | P | 21 40 08.7 | +1.5 |
| | 0.9nm,0.9s,baz=152,slow=9.6,SNR=5.7 | | | | | | |
| SONM | | | | LR | LR | 22 03 29.6 | |
| | comp=Z,42nm,18.2s,baz=194,slow=39 | | | | | | |
| MKAR | Makanchi Array | 59.19 | 326 | P | P | 21 41 18.6 | -1.2 |
| | 1.7nm,0.4s,baz=121,slow=7.5,SNR=30 | | | | | | |
| MKAR | | | | LR | LR | 22 07 06.2 | |
| | comp=Z,45nm,21.8s,baz=99,slow=36 | | | | | | |
| KSH | Kashi | 59.43 | 316 | eP | P | 21 41 25.2 | +3.4 |
| ZALV | Zalesovo Beam | 62.37 | 334 | P | P | 21 41 41.0 | -0.2 |
| | 0.6nm,0.4s,baz=138,slow=6.7,SNR=3.6 | | | | | | |
| KURK | Kurchatov | 63.42 | 328 | eP | P | 21 41 46.5 | -1.7 |
| | 28nm,0.6s | | | | | | |
| BRVK | Borovoye | 69.06 | 327 | eP | P | 21 42 24.9 | +0.5 |
| | 4.7nm,0.8s | | | | | | |
| GEYT | Alibeck | 72.11 | 309 | P | P | 21 42 43.8 | +0.4 |
| | 1.1nm,0.8s,baz=94,slow=20,SNR=3.6 | | | | | | |
| AKTO | Aktyubinsk | 75.20 | 322 | P | P | 21 43 01.7 | +0.5 |
| | 1.4nm,0.5s,baz=86,slow=7.9 | | | | | | |
| ARU | Arti | 76.61 | 328 | eP | P | 21 43 08.7 | -0.4 |
| | 2.3nm,0.7s | | | | | | |
| RAYN | Ar Rayn | 81.20 | 293 | eP | P | 21 43 33.4 | -1.6 |
| | 6.2nm,1.3s | | | | | | |
| VNDA | Vanda | 81.41 | 173 | P | P | 21 43 34.8 | -0.1 |
| | 1.4nm,0.5s,baz=328,slow=6.2,SNR=9.8 | | | | | | |
| BRTR | Keskin Array B | 91.25 | 310 | P | P | 21 44 22.6 | -1.7 |
| | 0.3nm,0.6s,baz=152,slow=5.6,SNR=3.6 | | | | | | |
| TXAR | Lajitas Array | 122.92 | 53 | PKP | PKPdf | 21 50 14.7 | -0.8 |
| | 0.3nm,0.6s,baz=203,slow=2.6,SNR=3.5 | | | | | | |
| TORD | Torodi Ar. Bea | 123.44 | 287 | PKP | PKPdf | 21 50 16.2 | -0.4 |
| | 0.5nm,0.8s,baz=44,slow=1.0,SNR=3.5 | | | | | | |

*ISCJB **07** 21:32:00.3±1.0, 6.°1S±0.°1×148.°8E±0.°2, h65km, mb3.8/6, Error ellipse: s-maj=34.1km s-min=8.8km az=23.2*
*IDC **07** 21:32:03.2±3.6, 6.°14S×148.°58E, h74km±33km, mb3.7/6, mb1 3.9/7, mb1mx3.6/31, mbtmp4.0/7, MS3.3/2, Ms1 3.3/2, ms1mx2.8/27, Error ellipse: s-maj=40.0km s-min=22.9km az=105.0*
**ISC 07 21:32:02.4±1.0, 6.°1S±0.°1×148.°6E±0.°3, h65km, n13, σ0.s60/12, mb3.9/7, New Britain region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PMG | Port Moresby | 3.58 | 203 | P | Pn | 21 32 55.3 | -0.3 |
| | 9.0nm,0.3s,baz=11,slow=8.0,SNR=50 | | | | | | |
| PMG | | | | S | Sn | 21 33 37.3 | +0.6 |
| | 61nm,0.3s,baz=32,slow=18,SNR=30 | | | | | | |
| PMG | | | | LR | LR | 21 34 17.3 | |
| | comp=Z,97nm,21.1s,baz=41,slow=38 | | | | | | |
| WRA | Warramunga Arr | 19.53 | 224 | S | S | 21 40 01.6 | -0.5 |
| | baz=52,slow=22,SNR=5.2 | | | | | | |
| ASAR | Alice Springs | 22.47 | 217 | S | S | 21 40 59.0 | 0.0 |
| | 1.4nm,0.9s,baz=35,slow=22,SNR=6.0 | | | | | | |
| FITZ | Fitzroy Crossi | 25.38 | 240 | P | P | 21 37 23.9 | +0.1 |
| | 17nm,0.9s,baz=79,slow=9.0,SNR=10 | | | | | | |
| STKA | Stephens Creek | 26.47 | 193 | P | P | 21 37 34.0 | +0.4 |
| | 2.4nm,0.8s,baz=355,slow=11,SNR=3.6 | | | | | | |
| MJAR | Matsushiro Arr | 43.52 | 348 | pP | pP | 21 40 13.1 | -2.9 |
| | 2.1nm,1.0s,baz=152,slow=12,SNR=4.6 | | | | | | |
| PETK | Petropavlovsk- | 59.48 | 6 | P | P | 21 41 59.2 | +0.6 |
| | 1.6nm,0.5s,baz=170,slow=4.4,SNR=1.9 | | | | | | |
| BRDH | Bariadhala | 62.58 | 299 | LR | LR | 22 12 11.4 | |
| | comp=Z,94nm,18.8s,baz=317,slow=38 | | | | | | |
| SONM | Songino Array | 65.27 | 330 | P | P | 21 42 38.4 | +0.9 |
| | 0.3nm,0.5s,baz=151,slow=7.6,SNR=4.2 | | | | | | |
| MKAR | Makanchi Array | 78.58 | 320 | P | P | 21 43 56.2 | -1.0 |
| | 0.4nm,0.7s,baz=99,slow=9.1,SNR=4.8 | | | | | | |
| ILAR | Eielson Array | 84.95 | 23 | P | P | 21 44 29.8 | -0.4 |
| | 0.7nm,0.6s,baz=248,slow=4.8,SNR=9.5 | | | | | | |
| TORD | Torodi Ar. Bea | 146.65 | 285 | PKPbc | PKPdf | 21 51 36.2 | 0.0 |
| | 0.8nm,0.5s,baz=47,slow=3.1,SNR=14 | | | | | | |
| BDFB | Brasilia | 152.85 | 143 | PKPbc | PKPbc | 21 51 53.0 | -0.4 |
| | 1.5nm,0.5s,baz=37,slow=5.1,SNR=3.8 | | | | | | |

*IDC **07** 21:41:22.5±1.1, 13.°73N×89.°41W, h0km, mb4.2/14, mb1 4.3/14, mb1mx4.1/39, mbtmp4.2/14, MS3.4/5, Ms1 3.4/5, ms1mx3.0/37, Error ellipse: s-maj=32.7km s-min=22.8km az=40.0*
*ISCJB **07** 21:41:23.8±0.9, 12.°93N±0.°06×90.°41W±0.°06, h61km±7km, mb4.4/24, Error ellipse: s-maj=11.8km s-min=7.2km az=139.6*
*CASC **07** 21:41:23.4±1.2, 12.°97N×90.°41W, h23km±7km, MD4.1, ML4.2, mb4.4(NEIC)*
*NEIC **07** 21:41:27.9±3.8, 13.°69N×89.°68W, h34km±27km, mb4.4/8, MD4.4(SNET), Error ellipse: s-maj=20.4km s-min=11.7km az=223.0*
*NEIC Felt [I] at Ahuachapan.*
**ISC 07 21:41:27.3±1.9, 13.°1N±0.°1×90.°3W±0.°1, h71km±13km, n64, σ1.s70/68, mb4.3/24, 5C, Near coast of Guatemala**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CUS1 | Cusmapa | 0.91 | 19 | eP | Pn | 21 41 42.2 | -2.7 |
| SBLS | San Blas | 0.99 | 38 | ⇑iP | Pn | 21 41 44.5 | -1.6 |
| SBLS | | | | ⇑iP | Pn | 21 41 44.5 | -1.6 |
| MONT | Ecomontaæa | 0.99 | 36 | iP | Pn | 21 41 44.5 | -1.6 |
| RTR | El Retiro | 1.02 | 35 | ⇑eP | Pn | 21 41 44.9 | -1.5 |
| SNJE | San Jose | 1.02 | 37 | ⇑eP | Pn | 21 41 44.9 | -1.6 |
| COLS | Colinas | 1.11 | 56 | eP | Pn | 21 41 46.0 | -1.4 |
| UNIC | Santa Ana | 1.15 | 35 | eP | Pn | 21 41 46.0 | -1.8 |
| UNIC | | | | eS | Sn | 21 42 03.7 | +0.5 |
| UNIC | | | | AML | AML | 21 42 08.5 | |
| | comp=Z,3μm,0.3s | | | | | | |
| BOQS | Boqueron | 1.16 | 54 | eP | Pn | 21 41 47.0 | -1.2 |
| BOQS | | | | eS | Sn | 21 42 05.4 | +1.7 |
| SNET | Serv Nac Est T | 1.17 | 57 | iP | Pn | 21 41 47.3 | -0.9 |
| SNET | | | | eS | Sn | 21 42 04.7 | +1.0 |
| SNET | | | | AML | AML | 21 42 11.8 | |
| | comp=Z,3μm,0.3s | | | | | | |
| UEES | San Salvador | 1.19 | 55 | eP | Pn | 21 41 46.7 | -1.6 |
| RBDL | Robledal | 1.19 | 27 | ⇑iP | Pn | 21 41 47.2 | -1.3 |
| OPAM | San Salvador | 1.21 | 57 | eP | Pn | 21 41 47.6 | -1.0 |
| CUSC | San Salvador | 1.23 | 56 | eP | Pn | 21 41 48.2 | -0.7 |
| CUSC | | | | eS | Sn | 21 42 06.2 | +1.2 |
| SOYA | Soyapango | 1.25 | 59 | eP | Pn | 21 41 48.2 | -0.9 |
| SOYA | | | | eS | Sn | 21 42 07.5 | +2.1 |
| LFRS | El Faro | 1.29 | 64 | eP | Pn | 21 41 47.9 | -1.7 |
| LBRS | Las Brisas | 1.36 | 60 | eP | Pn | 21 41 49.3 | -1.2 |
| UESV | Ojushtada | 1.46 | 77 | eP | Pn | 21 41 51.5 | -0.3 |
| UESV | | | | eP | Pn | 21 41 51.5 | -0.3 |
| UESV | | | | eS | Sn | 21 42 14.1 | +3.9 |
| UESV | | | | eS | Sn | 21 42 14.1 | +3.9 |
| SNVI | San Vicente | 1.48 | 68 | eP | Pn | 21 41 50.8 | -1.4 |
| PACA | Pacayal | 1.92 | 77 | eP | Pn | 21 41 57.9 | -0.1 |
| PACA | | | | eS | Sn | 21 42 23.9 | +2.5 |
| LCY | Lacayo | 1.94 | 79 | eP | Pn | 21 41 57.3 | -1.0 |
| VSM | San Miguel | 1.96 | 79 | eP | Pn | 21 41 57.8 | -0.9 |
| CAHU | Cacacuatique | 2.11 | 70 | eP | Pn | 21 41 59.7 | -0.9 |
| LCND | La Ca˜–ada | 2.31 | 83 | eP | Pn | 21 42 02.0 | -1.2 |
| CNCH | Conchagua | 2.36 | 84 | eP | Pn | 21 42 03.1 | -0.9 |
| TGUH | Tegucigalpa,Un | 3.06 | 71 | eP | Pn | 21 42 12.6 | -0.8 |
| COPN | Copaltepe | 3.67 | 103 | eP | Pn | 21 42 19.5 | -2.3 |
| JTS | JuntasAbangare | 5.87 | 117 | ePn | Pn | 21 42 51.4 | -0.3 |
| | comp=Z,23nm,0.3s | | | | | | |
| JTS | | | | eS | Sn | 21 43 51.8 | -5.9 |
| CMIG | Matias Romero | 6.02 | 312 | Pn | Pn | 21 42 52.1 | -1.7 |
| | comp=Z,1.4nm,0.3s,baz=125,slow=10,SNR=8.4 | | | | | | |
| CGA2 | Cerro Gallo 2 | 6.42 | 117 | eP | Pn | 21 42 59.7 | +0.3 |
| QCR1 | Quepos | 6.96 | 121 | eP | Pn | 21 43 07.2 | +0.5 |
| URSC | Urasca | 7.10 | 116 | eP | Pn | 21 43 09.4 | +0.6 |
| SDV | Santo Domingo | 19.69 | 100 | LR | LR | 21 54 13.9 | |
| | comp=Z,107nm,21.2s,baz=265,slow=40 | | | | | | |
| TXAR | Lajitas Array | 20.44 | 325 | P | Pn | 21 46 01.7 | -0.2 |
| | comp=Z,3.4nm,0.8s,baz=153,slow=12,SNR=38 | | | | | | |
| LPIG | La Paz | 21.93 | 303 | LR | LR | 21 56 00.5 | |
| | comp=Z,111nm,20.0s,baz=26,slow=39 | | | | | | |
| MNTX | Cornudas Mount | 23.20 | 326 | eP | P | 21 46 29.4 | +1.1 |
| | comp=Z,10.0nm,0.9s | | | | | | |
| ATAH | Atahualpa | 23.25 | 149 | LR | LR | 21 54 18.0 | |
| | comp=Z,88nm,20.1s,baz=328,slow=33 | | | | | | |
| TKL | Tuckaleechee C | 23.26 | 13 | P | P | 21 46 26.9 | -1.9 |
| | comp=Z,4.5nm,0.6s,baz=191,slow=22,SNR=4.4 | | | | | | |
| TKL | | | | LR | LR | 21 56 36.6 | |
| | comp=Z,182nm,19.3s,baz=196,slow=41 | | | | | | |
| CCM | Cathedral Cave | 24.92 | 358 | eP | P | 21 46 44.5 | +0.7 |
| | comp=Z,53nm,0.8s | | | | | | |
| 121A | Cookes Peak, D | 25.18 | 323 | eP | P | 21 46 49.6 | +3.2 |
| | comp=Z,14nm,0.9s | | | | | | |
| ANMO | Albuquerque | 26.28 | 329 | LR | LR | 21 58 58.2 | |
| | comp=Z,35nm,20.5s,baz=332,slow=40 | | | | | | |
| ECSD | EROS Data Cent | 31.06 | 351 | eP | P | 21 47 38.9 | +0.2 |
| | comp=Z,4.1nm,0.7s | | | | | | |
| SPMN | Marine on St. | 32.14 | 357 | eP | P | 21 47 47.4 | -0.7 |
| | comp=Z,11nm,0.4s | | | | | | |
| SADO | Sadowa | 33.01 | 15 | P | P | 21 47 53.3 | -2.3 |
| | comp=Z,3.8nm,0.6s,baz=206,slow=6.9,SNR=2.6 | | | | | | |
| PDAR | Pinedale Array | 34.00 | 334 | P | P | 21 48 06.2 | +1.6 |
| | comp=Z,0.5nm,0.8s,baz=119,slow=9.4,SNR=3.4 | | | | | | |
| PDAR | | | | PcP | PcP | 21 50 44.2 | +3.0 |
| | comp=Z,0.3nm,0.5s,baz=121,slow=5.9,SNR=4.3 | | | | | | |
| SAML | Samuel | 34.64 | 128 | eP | P | 21 48 09.6 | -0.5 |
| | comp=Z,2.5nm,0.6s | | | | | | |
| AGMN | Agassiz Nation | 35.45 | 354 | eP | P | 21 48 16.7 | 0.0 |
| | comp=Z,12nm,0.6s | | | | | | |
| MDND | Maddock | 35.56 | 349 | eP | P | 21 48 18.2 | +0.5 |
| | comp=Z,17nm,0.5s | | | | | | |
| ULM | Lac du Bonnet | 37.38 | 354 | P | P | 21 48 32.1 | -1.0 |
| | comp=Z,6.1nm,0.6s,baz=171,slow=7.9,SNR=9.9 | | | | | | |
| WVOR | Wild Horse Val | 38.23 | 325 | eP | P | 21 48 42.6 | +2.0 |
| | comp=Z,2.9nm,0.9s | | | | | | |
| FFC | Flin Flon | 42.59 | 350 | eP | P | 21 49 16.6 | +0.4 |
| | comp=Z,6.1nm,0.8s | | | | | | |
| SCHQ | Schefferville | 45.54 | 19 | P | P | 21 49 37.5 | -2.3 |
| | comp=Z,9.9nm,0.6s,baz=234,slow=10,SNR=6.2 | | | | | | |
| YKA | Yellowknife Ar | 52.35 | 346 | P | P | 21 50 32.4 | +0.6 |
| | comp=Z,1.6nm,0.6s,baz=137,slow=7.3,SNR=9.7 | | | | | | |
| RES | Resolute Bay | 61.68 | 359 | P | P | 21 51 37.6 | +0.1 |
| | comp=Z,4.2nm,0.6s,baz=177,slow=9.8,SNR=14 | | | | | | |
| ILAR | Eielson Array | 64.38 | 337 | P | P | 21 51 56.3 | +0.7 |
| | comp=Z,0.8nm,0.6s,baz=164,slow=5.0,SNR=10 | | | | | | |
| EKA | Eskdalemuir Ar | 77.74 | 36 | P | P | 21 53 14.8 | -1.7 |
| | comp=Z,1.7nm,0.6s,baz=269,slow=6.1,SNR=10 | | | | | | |
| ESDC | Sonseca Array | 78.96 | 52 | P | P | 21 53 23.0 | -0.7 |
| | comp=Z,0.2nm,0.4s,baz=285,slow=4.7,SNR=5.8 | | | | | | |
| SPITS | Spitsbergen Ar | 80.67 | 12 | P | P | 21 53 32.7 | +0.5 |
| | comp=Z,1.5nm,0.5s,baz=289,slow=8.8,SNR=5.5 | | | | | | |
| DBIC | Dimbokro | 84.05 | 85 | P | P | 21 53 51.5 | +0.5 |
| | comp=Z,2.6nm,0.6s,baz=293,slow=4.9,SNR=6.7 | | | | | | |
| DAVOX | Davos/Dischmat | 87.41 | 43 | P | P | 21 54 06.9 | -0.3 |
| | comp=Z,2.1nm,0.8s,baz=339,slow=8.0,SNR=3.8 | | | | | | |
| TORD | Torodi Ar. Bea | 88.94 | 77 | P | P | 21 54 14.6 | -0.3 |
| | comp=Z,0.6nm,0.6s,baz=295,slow=5.1,SNR=10 | | | | | | |
| WRA | Warramunga Arr | 136.80 | 255 | PKP | PKPdf | 22 00 51.0 | +8.4 |
| | comp=Z,0.4nm,0.6s,baz=89,slow=2.6,SNR=4.5 | | | | | | |
| ASAR | Alice Springs | 136.94 | 249 | PKP | PKPdf | 22 00 51.3 | +8.4 |
| | comp=Z,0.3nm,0.5s,baz=93,slow=1.5,SNR=3.9 | | | | | | |
| FITZ | Fitzroy Crossi | 145.11 | 257 | PKPbc | PKPdf | 22 01 06.0 | +8.4 |
| | comp=Z,1.2nm,0.4s,baz=284,slow=3.9,SNR=8.0 | | | | | | |
| CMAR | Chiang Mai Arr | 147.41 | 344 | PKPbc | PKPab | 22 01 06.5 | +0.5 |
| | comp=Z,2.4nm,0.6s,baz=341,slow=3.2,SNR=20 | | | | | | |

*ISCJB **07** 21:50:29.0±0.4, 5°.17N±0°.04×125°.60E±0°.07, h200km, mb3.9/11, Error ellipse: s-maj=9.4km s-min=5.0km az=170.2*
*DJA **07** 21:50:28.8±2.2, 5°N±20°×12°6E±°, h148km±21km, M4.3/7, mb4.6/7, mB4.9/4, MLv4.2/1, Mw(mB)4.2/4*
*IDC **07** 21:50:29.6±1.7, 5°.14N×125°.54E, h196km±15km, mb3.7/11, mb1 3.8/11, mb1mx3.6/38, mbtmp4.2/11, Error ellipse: s-maj=23.1km s-min=10.4km az=78.0*
*MAN **07** 21:50:29, 4°.18N×125°.55E, h86km, mb5.0, ML4.0, MS4.1*
**ISC 07 21:50:30.0**±0.5**, 5°.18N**±0°.06×**125°.58E**±0°.09**, h200**km**, n38, σ0s89**/46**, mb4.1**/11**, 1C-2D, Mindanao**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GSPH | General Santos | 1.10 | 325 | ⇓eP | Pn | 21 50 60.0 | -0.7 |
| GSPH | | | | iS | Sn | 21 51 23.6 | -0.8 |
| SGSI | Sangihe | 1.48 | 182 | P | Pn | 21 51 01.9 | -1.7 |
| KCP | Kidapawan | 1.88 | 345 | ⇑iP | Pn | 21 51 07.6 | +0.1 |
| KCP | | | | iS | Sn | 21 51 36.0 | -0.7 |
| CTBH | Cotabato--PC H | 2.42 | 327 | ⇓iP | Pn | 21 51 13.5 | +0.4 |
| BUKP | Musuan | 2.73 | 349 | eP | Pn | 21 51 17.1 | +0.5 |
| BUKP | | | | eS | Sn | 21 51 53.7 | +0.6 |
| BUTP | Butuan | 3.77 | 1 | eP | Pn | 21 51 28.2 | -0.8 |
| MSLP | Maasin | 4.97 | 352 | eP | Pn | 21 51 44.5 | +0.3 |
| MRSI | Marisa | 5.92 | 218 | P | Pn | 21 51 56.3 | 0.0 |
| LBMI | Labuha | 6.09 | 162 | P | Pn | 21 51 57.5 | -1.0 |
| LUWI | Luwuk | 6.79 | 205 | P | Pn | 21 52 08.5 | +1.0 |
| APSI | Ampana | 7.21 | 213 | P | Pn | 21 52 14.5 | +1.4 |
| TTSI | Tana Toraja | 9.99 | 215 | P | Pn | 21 52 50.7 | +1.4 |
| SPSI | Sidrap Palu | 10.78 | 213 | P | P | 21 53 05.0 | -1.1 |
| STKI | Sintang | 14.97 | 251 | P | P | 21 53 54.0 | +1.3 |
| | 33nm,0.9s | | | | | | |
| GENI | Genyem | 16.49 | 118 | P | Pn | 21 54 12.8 | +2.4 |
| | 222nm,0.7s,3μm | | | | | | |
| JAY | Jayapura | 16.93 | 116 | P | Pn | 21 54 17.3 | +1.6 |
| | 356nm,0.7s | | | | | | |
| FITZ | Fitzroy Crossi | 23.13 | 180 | P | P | 21 55 17.4 | -1.2 |
| | 1.9nm,0.3s,baz=358,slow=7.7,SNR=76 | | | | | | |
| WRA | Warramunga Arr | 26.41 | 161 | P | P | 21 55 47.6 | -0.7 |
| | 1.2nm,0.3s,baz=334,slow=11,SNR=57 | | | | | | |
| WRA | | | | ScP | ScP | 22 02 29.6 | 0.0 |
| | 0.9nm,0.7s,baz=339,slow=3.0,SNR=8.1 | | | | | | |
| CMAR | Chiang Mai Arr | 29.16 | 299 | P | P | 21 56 13.2 | +0.3 |
| | 0.5nm,0.6s,baz=114,slow=7.2,SNR=7.5 | | | | | | |
| CMAR | | | | ScP | ScP | 22 02 38.7 | +0.5 |
| | 1.1nm,0.7s,baz=105,slow=1.6,SNR=5.1 | | | | | | |
| ASAR | Alice Springs | 29.80 | 165 | P | P | 21 56 18.2 | -0.1 |
| | 1.3nm,0.4s,baz=352,slow=7.5,SNR=25 | | | | | | |
| ASAR | | | | ScP | ScP | 22 02 40.4 | +0.3 |
| | 2.0nm,0.7s,baz=341,slow=2.8,SNR=18 | | | | | | |
| MJAR | Matsushiro Arr | 33.30 | 19 | P | P | 21 56 48.1 | -0.7 |
| | 2.0nm,0.8s,baz=195,slow=9.3,SNR=6.4 | | | | | | |
| NWAO | Narrogin (SRO) | 38.72 | 191 | P | P | 21 57 34.7 | -0.1 |
| | 16nm,1.0s,baz=255,slow=7.6,SNR=6.9 | | | | | | |
| STKA | Stephens Creek | 39.88 | 159 | P | P | 21 57 44.2 | -0.2 |
| | 4.1nm,0.7s,baz=324,slow=10,SNR=7.4 | | | | | | |
| TAPN | Taplejung | 42.24 | 306 | eP | P | 21 58 03.9 | -0.3 |
| | 4.4nm,0.4s | | | | | | |
| ODAN | Odare | 42.30 | 305 | eP | P | 21 58 04.2 | -0.4 |
| | 5.4nm,0.5s | | | | | | |
| RAMN | Ramite | 42.99 | 305 | eP | P | 21 58 10.0 | -0.1 |
| | 4.3nm,0.5s | | | | | | |
| JIRN | Jiri | 43.60 | 305 | eP | P | 21 58 14.9 | -0.3 |
| | 48nm,0.4s | | | | | | |
| GUN | Gumba | 43.95 | 305 | eP | P | 21 58 17.4 | -0.6 |
| DMN | Daman | 44.47 | 305 | eP | P | 21 58 21.8 | -0.1 |
| SONM | Songino Array | 45.57 | 342 | ScP | ScP | 22 03 38.3 | -0.7 |
| | 0.3nm,0.7s,baz=159,slow=4.5,SNR=2.4 | | | | | | |
| KOLN | Koldanda | 45.77 | 304 | eP | P | 21 58 31.8 | -0.3 |
| | 7.0nm,0.3s | | | | | | |
| PYUN | Piuthan | 46.39 | 304 | eP | P | 21 58 36.7 | -0.2 |
| PETK | Petropavlovsk- | 54.54 | 23 | P | P | 21 59 38.5 | +1.2 |
| | 3.3nm,0.7s,baz=51,slow=0.7,SNR=5.2 | | | | | | |
| MKAR | Makanchi Array | 55.72 | 325 | P | P | 21 59 45.6 | -0.3 |
| | 0.7nm,0.4s,baz=119,slow=7.4,SNR=25 | | | | | | |
| MKAR | | | | PcP | PcP | 22 00 42.0 | -0.7 |
| | 0.5nm,0.5s,baz=125,slow=3.7,SNR=5.3 | | | | | | |
| MKAR | | | | ScP | ScP | 22 04 20.7 | -1.9 |
| | 0.9nm,0.9s,baz=124,slow=5.0,SNR=3.8 | | | | | | |
| ILAR | Eielson Array | 84.30 | 25 | P | P | 22 02 39.5 | +0.4 |
| | 0.6nm,0.7s,baz=254,slow=4.9,SNR=11 | | | | | | |
| FINES | FINESS Array B | 90.02 | 332 | P | P | 22 03 06.7 | 0.0 |
| | 2.5nm,0.9s,baz=72,slow=4.5,SNR=7.1 | | | | | | |
| TORD | Torodi Ar. Bea | 121.38 | 289 | PKP | PKPdf | 22 08 60.0 | -0.5 |
| | 0.3nm,0.3s,baz=102,slow=1.3,SNR=11 | | | | | | |
| TXAR | Lajitas Array | 121.60 | 51 | PKP | PKPdf | 22 09 01.4 | +0.7 |
| | 0.4nm,0.6s,baz=177,slow=2.5,SNR=5.0 | | | | | | |

*ISN **07** 21:51:27.9±2.0, 38°.49N×43°.47E, h0km±317km, ML3.5*
*NSSC **07** 21:51:29.2±1.2, 39°.07N×41°.96E, h237km±30km*
*DDA **07** 21:51:30.4, 38°.47N×43°.34E, h12km, Ml3.5*
*ATA **07** 21:51:30.4±1.0, 38°.54N×43°.26E, h9km±14km, ML4.0, MW4.0*
*ISK **07** 21:51:30.0, 38°.50N×43°.29E, h5km, ML3.2*
*CSEM **07** 21:51:30.4±0.2, 38°.46N×43°.39E, h2km, ML3.5, Error ellipse: s-maj=5.1km s-min=3.5km az=89.0*
**ISC 07 21:51:31.0**±0.8**, 38°.49N**±0°.02×**43°.34E**±0°.02**, h6**km±6km**, n94, σ1s65**/136**, 1C-2D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TVAN | Van | 0.07 | 58 | iP | Pg | 21 51 32.9 | +0.1 |
| TVAN | | | | iS | Sg | 21 51 35.1 | +1.0 |
| TVAN | Van | 0.07 | 58 | P | Pg | 21 51 32.9 | +0.1 |
| TVAN | | | | S | Sg | 21 51 35.1 | +1.0 |
| VANB | Van | 0.11 | 23 | ePG | Pg | 21 51 32.4 | -1.0 |
| VANB | Van | 0.11 | 23 | ePg | Pg | 21 51 32.4 | -1.0 |
| GEVA | Gevas | 0.28 | 230 | ⇑iP | Pg | 21 51 35.9 | -0.7 |
| GEVA | | | | eS | Sb | 21 51 41.6 | -2.1 |
| GEVA | | | | IAML | | 21 51 43.4 | |
| | comp=Z,3μm,0.3s | | | | | | |
| GEVA | Gevas | 0.28 | 230 | iP | Pg | 21 51 36.0 | -0.5 |
| GEVA | | | | iS | Sb | 21 51 42.2 | -1.4 |
| GEVA | Gevas | 0.28 | 230 | P | Pg | 21 51 36.0 | -0.5 |
| GEVA | | | | S | Sb | 21 51 42.2 | -1.4 |
| ERCV | ERCIS-VAN | 0.53 | 0 | ePG | Pb | 21 51 41.7 | -1.0 |
| ERCV | | | | eSG | Sb | 21 51 49.7 | -0.9 |
| ERCV | ERCIS-VAN | 0.53 | 0 | ePg | Pb | 21 51 41.7 | -1.0 |
| ERCV | | | | eSg | Sb | 21 51 49.7 | -0.9 |
| VMUR | Van-Muradiye | 0.53 | 20 | iP | Pb | 21 51 41.8 | -1.0 |
| VMUR | | | | iS | Sb | 21 51 51.3 | +0.5 |
| VMUR | Van-Muradiye | 0.53 | 20 | P | Pb | 21 51 41.8 | -1.0 |
| ADCV | BITLIS_Adilcev | 0.57 | 303 | iP | Pg | 21 51 41.9 | -0.1 |
| ADCV | | | | iS | Sb | 21 51 51.2 | -0.8 |
| ADCV | BITLIS_Adilcev | 0.57 | 303 | P | Pg | 21 51 41.9 | -0.1 |
| ADCV | | | | S | Sb | 21 51 51.2 | -0.8 |
| CLDR | Caldiran | 0.79 | 35 | ePG | Pb | 21 51 46.1 | -1.1 |
| CLDR | | | | eSG | Sn | 21 51 59.5 | -1.7 |
| CLDR | Caldiran | 0.79 | 35 | iP | Pb | 21 51 46.2 | -1.1 |
| CLDR | | | | iS | Sn | 21 51 59.8 | -1.3 |
| CLDR | Caldiran | 0.79 | 35 | P | Pb | 21 51 46.2 | -1.1 |
| CLDR | | | | eSg | Sn | 21 51 59.5 | -1.7 |
| HAKT | HAKKARI | 0.98 | 162 | iP | Pg | 21 51 48.5 | -1.3 |
| HAKT | | | | iS | Sn | 21 52 09.3 | +3.5 |
| HAKT | HAKKARI | 0.98 | 162 | P | Pg | 21 51 48.5 | -1.3 |
| TUTA | Tutak | 0.99 | 336 | ⇓iP | Pg | 21 51 49.0 | -1.0 |
| TUTA | | | | eS | Sg | 21 52 02.6 | -0.4 |
| TUTA | | | | IAML | | 21 52 08.1 | |
| | comp=Z,693nm,0.3s | | | | | | |
| TUTA | Tutak | 0.99 | 336 | iP | Pg | 21 51 49.0 | -1.0 |
| TUTA | | | | iS | Sb | 21 52 03.6 | -0.6 |
| TUTA | Tutak | 0.99 | 336 | P | Pg | 21 51 49.0 | -1.0 |
| TUTA | | | | S | Sb | 21 52 03.6 | -0.6 |
| DYDN | Diyadin | 1.08 | 15 | eP | Pg | 21 51 51.1 | -0.7 |
| DYDN | | | | IAML | | 21 52 06.2 | |
| | comp=Z,82nm,0.4s | | | | | | |
| DYDN | Diyadin | 1.08 | 15 | iP | Pb | 21 51 51.4 | -0.9 |
| DYDN | | | | iS | Sn | 21 52 12.3 | +4.0 |
| DYDN | Diyadin | 1.08 | 15 | P | Pb | 21 51 51.4 | -0.9 |
| AGRB | Hanur-Agry | 1.11 | 346 | ePN | Pg | 21 51 51.5 | -0.8 |
| AGRB | Hanur-Agry | 1.11 | 346 | ePn | Pg | 21 51 51.5 | -0.8 |
| YOVA | Hakkari_Y˘…kse | 1.18 | 140 | iP | Pg | 21 51 52.5 | -1.1 |
| YOVA | | | | iS | Sn | 21 52 10.7 | 0.0 |
| YOVA | Hakkari_Y˘…kse | 1.18 | 140 | P | Pg | 21 51 52.5 | -1.1 |
| SIRT | Sirnak | 1.22 | 216 | ePN | Pb | 21 51 53.5 | -1.0 |
| SIRT | Sirnak | 1.22 | 216 | ePn | Pb | 21 51 53.5 | -1.0 |
| SRTM | Siirt_Merkez | 1.22 | 246 | iP | Pb | 21 51 53.6 | -0.9 |
| SRTM | | | | iS | Sn | 21 52 14.7 | +3.1 |
| SRTM | Siirt_Merkez | 1.22 | 246 | P | Pb | 21 51 53.6 | -0.9 |
| SIRN | S˜–rnak | 1.23 | 216 | iP | Pn | 21 51 53.6 | -1.2 |
| SIRN | | | | iS | Sn | 21 52 13.4 | +1.6 |
| SIRN | S˜–rnak | 1.23 | 216 | P | Pn | 21 51 53.6 | -1.2 |
| EKAR | Karacoban | 1.25 | 308 | eP | Pg | 21 51 54.5 | -0.5 |
| EKAR | | | | IAML | | 21 52 21.0 | |
| | comp=Z,223nm,0.4s | | | | | | |
| EKAR | Karacoban | 1.25 | 308 | iP | Pn | 21 51 54.3 | -0.9 |
| EKAR | | | | iS | Sn | 21 52 16.0 | +3.5 |
| EKAR | Karacoban | 1.25 | 308 | P | Pn | 21 51 54.3 | -0.9 |
| CUKT | Cukurca | 1.26 | 170 | ePN | Pg | 21 51 54.9 | -0.3 |
| CUKT | | | | eSN | Sn | 21 52 14.4 | +1.8 |
| CUKT | Cukurca | 1.26 | 170 | iP | Pn | 21 51 54.2 | -1.1 |
| CUKT | | | | iS | Sn | 21 52 18.7 | +6.1 |
| CUKT | Cukurca | 1.26 | 170 | P | Pn | 21 51 54.2 | -1.1 |
| CUKT | Cukurca | 1.26 | 170 | ePn | Pg | 21 51 54.9 | -0.3 |
| CUKT | | | | eSn | Sn | 21 52 14.4 | +1.8 |
| EATA | Eleskirt | 1.52 | 335 | ⇓iP | Pb | 21 51 58.5 | -1.2 |
| EATA | | | | eS | Sg | 21 52 19.8 | +0.1 |
| EATA | | | | IAML | | 21 52 27.1 | |
| | comp=Z,43nm,0.4s | | | | | | |
| EATA | Eleskirt | 1.52 | 335 | iP | Pb | 21 51 58.6 | -1.1 |
| EATA | | | | iS | Sg | 21 52 19.2 | -0.5 |
| EATA | Eleskirt | 1.52 | 335 | P | Pb | 21 51 58.6 | -1.1 |
| EATA | | | | S | Sg | 21 52 19.2 | -0.5 |
| VRTB | Varto-Mus | 1.61 | 295 | ePN | Pb | 21 52 00.7 | -0.5 |
| VRTB | Varto-Mus | 1.61 | 295 | iP | Pb | 21 52 00.1 | -1.1 |
| VRTB | | | | iS | Sg | 21 52 24.4 | +1.6 |
| VRTB | Varto-Mus | 1.61 | 295 | P | Pb | 21 52 00.1 | -1.1 |
| VRTB | Varto-Mus | 1.61 | 295 | ePn | Pb | 21 52 00.7 | -0.5 |
| VRTB | | | | S | Sg | 21 52 24.4 | +1.6 |
| TASB | TASBURUN-IGDIR | 1.65 | 25 | ePN | Pg | 21 52 01.6 | -0.9 |
| TASB | TASBURUN-IGDIR | 1.65 | 25 | ePn | Pg | 21 52 01.6 | -0.9 |
| BTMN | Batman | 1.73 | 250 | iP | Pb | 21 52 02.5 | -0.8 |
| BTMN | | | | iS | Sg | 21 52 27.9 | +1.2 |
| BTMN | Batman | 1.73 | 250 | P | Pb | 21 52 02.5 | -0.8 |
| BTMN | | | | S | Sg | 21 52 27.9 | +1.2 |
| BNGL | BINGOL | 1.77 | 286 | eP | Pb | 21 52 03.0 | -0.9 |
| BNGL | | | | eS | Sg | 21 52 27.9 | 0.0 |
| BNGL | | | | IAML | | 21 52 32.7 | |
| | comp=Z,329nm,0.5s | | | | | | |
| BNGL | BINGOL | 1.77 | 286 | iP | Pb | 21 52 03.2 | -0.8 |
| BNGL | | | | iS | Sg | 21 52 28.2 | +0.3 |
| HOMI | Horasan | 1.91 | 325 | eP | Pb | 21 52 05.3 | -1.0 |
| HOMI | | | | eS | Sg | 21 52 32.3 | +0.1 |
| HOMI | | | | IAML | | 21 52 38.0 | |
| | comp=Z,67nm,0.6s | | | | | | |
| HOMI | Horasan | 1.91 | 325 | iP | Pb | 21 52 05.4 | -1.0 |
| HOMI | | | | iS | Sg | 21 52 35.3 | +3.1 |
| DIGO | Kars | 1.92 | 1 | eP | Pb | 21 52 05.9 | -0.6 |
| DIGO | | | | IAML | | 21 52 22.7 | |
| | comp=Z,20nm,0.4s | | | | | | |
| DIGO | Kars | 1.92 | 1 | iP | Pb | 21 52 06.4 | -0.1 |
| DIGO | | | | iS | Sg | 21 52 40.8 | +8.2 |
| DIGO | Kars | 1.92 | 1 | P | Pb | 21 52 06.4 | -0.1 |
| ERZM | Erzurum | 2.08 | 313 | eP | Pb | 21 52 07.6 | -1.6 |
| ERZM | Erzurum | 2.08 | 313 | iP | Pb | 21 52 07.8 | -1.5 |
| ERZM | | | | iS | Sg | 21 52 38.1 | +0.3 |
| ERZM | Erzurum | 2.08 | 313 | P | Pb | 21 52 07.8 | -1.5 |
| BNGB | Bing˘¶l | 2.14 | 284 | ePN | Pn | 21 52 07.9 | +0.6 |
| KARS | Kars | 2.14 | 355 | ePN | Pb | 21 52 08.2 | -2.0 |
| KARS | Kars | 2.14 | 355 | ePn | Pb | 21 52 08.2 | -2.0 |
| ECAT | Cat-ERZURUM | 2.15 | 302 | eP | Pb | 21 52 08.4 | -2.0 |
| ECAT | | | | IAML | | 21 52 14.5 | |
| | comp=Z,35nm,0.4s | | | | | | |
| ECAT | | | | eS | Sg | 21 52 38.6 | -1.4 |
| ECAT | Cat-ERZURUM | 2.15 | 302 | iP | Pb | 21 52 09.9 | -0.5 |
| ECAT | Cat-ERZURUM | 2.15 | 302 | P | Pb | 21 52 09.9 | -0.5 |
| EAK | Akyaka | 2.20 | 5 | eP | Pb | 21 52 10.0 | -1.2 |
| EAK | | | | IAML | | 21 52 34.6 | |
| | comp=Z,30nm,0.7s | | | | | | |
| EAK | Akyaka | 2.20 | 5 | iP | Pg | 21 52 13.0 | -0.1 |
| SENK | Senkaya-Erzuru | 2.20 | 340 | ePN | Pb | 21 52 09.1 | -2.2 |
| SENK | Senkaya-Erzuru | 2.20 | 340 | ePn | Pb | 21 52 09.1 | -2.2 |
| BINT | Bingol | 2.26 | 281 | ePn | Pn | 21 52 07.9 | -1.1 |
| HANI | Diyarbakir_Han | 2.31 | 269 | iP | Pb | 21 52 11.1 | -1.9 |
| HANI | | | | iS | Sg | 21 52 45.0 | -0.1 |
| HANI | Diyarbakir_Han | 2.31 | 269 | P | Pb | 21 52 11.1 | -1.9 |
| MARD | Mardin | 2.34 | 241 | iP | Pn | 21 52 10.0 | -0.1 |
| MARD | | | | iS | Sb | 21 52 42.2 | -0.6 |
| YEDI | Yedisu-Bingol | 2.37 | 294 | ePN | Pb | 21 52 11.7 | -2.5 |
| YEDI | Yedisu-Bingol | 2.37 | 294 | ePn | Pb | 21 52 11.7 | -2.5 |
| MAZI | Mazidag | 2.51 | 247 | ePN | Pn | 21 52 13.2 | +0.8 |
| MAZI | Mazidag | 2.51 | 247 | ePn | Pn | 21 52 13.2 | +0.8 |
| DIY | Diyarbakir | 2.52 | 257 | ePn | Pb | 21 52 14.1 | -2.6 |
| DYBB | Diyarbakir | 2.57 | 259 | ePN | Pn | 21 52 14.1 | +0.8 |
| DIYA | Diyarbakir | 2.60 | 258 | iP | Pb | 21 52 15.0 | -2.9 |
| DIYA | Diyarbakir | 2.60 | 258 | P | Pb | 21 52 15.0 | -2.9 |
| KBSD | Kabsdagh | 2.67 | 237 | eP | Pn | 21 52 14.5 | 0.0 |
| KBSD | | | | eS | Sn | 21 52 48.3 | +1.1 |
| DAGI | Agillar | 2.80 | 337 | iP | Pb | 21 52 18.7 | -2.8 |
| ARTV | Artvin | 2.90 | 338 | eP | Pn | 21 52 18.9 | +1.1 |
| ARTV | | | | IAML | | 21 52 32.5 | |
| | comp=Z,4.8nm,0.6s | | | | | | |
| PTK | Pertek | 3.11 | 279 | ePN | Pn | 21 52 22.4 | +1.6 |
| PTK | Pertek | 3.11 | 279 | ePn | Pn | 21 52 22.4 | +1.6 |
| SVRC | Sivrice-ELAZID | 3.17 | 269 | ePN | Pn | 21 52 22.3 | +0.8 |
| SVRC | Sivrice-ELAZID | 3.17 | 269 | ePn | Pn | 21 52 22.3 | +0.8 |
| SFNV | Sufian | 3.30 | 232 | eP | Pn | 21 52 23.9 | +0.7 |
| MZRK | Al-Mazaregh | 3.42 | 220 | eP | Pn | 21 52 26.9 | +2.1 |
| KSRV | Kasrt alli | 4.34 | 234 | eP | Pn | 21 52 40.3 | +2.8 |

*NIED **07** 22:01:00, 37°.30N×141°.60E, h5km, Mw3.7 Best double couple: M0 3.76000×10^14 NP1:φs207.00000°, δ44.00000°, λ-93.00000°. NP2:φs31.00000°, δ46.00000°, λ-87.00000°.*
*ISCJB **07** 22:01:25.5±1.1, 37°.22N±0°.03×141°.64E±0°.05, h8km±6km, mb3.6/6, Error ellipse: s-maj=7.0km s-min=5.5km az=5.8*
*IDC **07** 22:01:26.5±1.2, 37°.20N×141°.51E, h0km, mb3.6/6, mb1 3.7/9, mb1mx3.5/45, mbtmp3.7/9, ML3.3/3, MS2.7/2, Ms1 2.7/2, ms1mx2.5/50, Error ellipse: s-maj=28.0km s-min=20.5km az=105.0*
*JMA **07** 22:01:28.3±0.2, 37°.26N×141°.51E, h28km±2km, M3.9*
*JMA Felt I J1.*
**ISC 07 22:01:26.7**±1.8**, 37°.24N**±0°.04×**141°.57E**±0°.06**, h6**km±10km**, n26, σ0s95**/29**, mb3.6**/6**, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JFK | Kawauchi | 0.57 | 283 | P | Pg | 22 01 38.4 | +0.7 |
| JFK | | | | eS | Sg | 22 01 45.8 | +0.7 |
| ONAJ | Iwakimizuishiy | 0.63 | 257 | P | Pb | 22 01 39.7 | -0.6 |
| ONAJ | | | | eS | Sg | 22 01 48.1 | +0.9 |
| JMM | Marumori | 0.88 | 315 | P | Pg | 22 01 43.6 | 0.0 |
| JMM | | | | eS | Sg | 22 01 55.1 | +0.1 |
| JFT | Otama | 1.02 | 286 | P | Pg | 22 01 46.5 | +0.2 |
| JFT | | | | S | Sg | 22 01 59.6 | 0.0 |
| JHO | Hitachi | 1.02 | 232 | P | Pg | 22 01 45.7 | -0.6 |
| JIO | Ouri | 1.22 | 352 | P | Pb | 22 01 49.3 | -1.0 |
| JIO | | | | eS | Sb | 22 02 04.7 | -1.6 |
| JOU | Okura | 1.33 | 328 | P | Pb | 22 01 51.7 | -0.5 |
| JOU | | | | eS | Sn | 22 02 09.1 | -0.9 |
| JFY | Yanaizu | 1.50 | 277 | P | Pb | 22 01 54.2 | -0.8 |
| JYS | Shirataka | 1.54 | 310 | P | Pb | 22 01 55.2 | -0.6 |
| JYS | | | | eS | Sb | 22 02 15.2 | -0.4 |
| MJAR | Matsushiro Arr | 2.78 | 256 | Pn | Pn | 22 02 11.7 | -0.2 |
| | 6.7nm,0.3s,baz=77,slow=16,SNR=50 | | | | | | |
| MJAR | | | | Sn | Sb | 22 02 48.7 | -2.6 |
| | 5.0nm,0.3s,baz=80,slow=32,SNR=5.7 | | | | | | |
| MJAR | | | | LR | LR | 22 03 37.1 | |
| | comp=Z,94nm,18.4s,baz=85,slow=48 | | | | | | |
| MAT | Matsushiro | 2.79 | 256 | P | Pn | 22 02 13.0 | +1.1 |
| MAT | | | | eS | Sn | 22 02 46.9 | +1.0 |
| JHJ | Hachijo jima 2 | 4.37 | 200 | Pn | Pn | 22 02 33.9 | +0.3 |
| | 7.5nm,0.3s,baz=72,slow=20,SNR=2.8 | | | | | | |
| JHJ | | | | Sn | Sn | 22 03 24.3 | -0.6 |
| | 12nm,0.3s,baz=73,slow=19,SNR=2.6 | | | | | | |
| KSRS | Korea Array | 10.87 | 275 | LR | LR | 22 08 02.1 | |
| | comp=Z,48nm,19.7s,baz=64,slow=36 | | | | | | |
| PETK | Petropavlovsk- | 19.44 | 30 | P | Pn | 22 05 54.1 | -0.9 |
| | 0.2nm,0.3s,baz=230,slow=13,SNR=3.1 | | | | | | |
| SONM | Songino Array | 27.77 | 304 | P | P | 22 07 16.7 | +0.3 |
| | 0.4nm,0.5s,baz=115,slow=5.4,SNR=5.1 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 28.15 | 121 | T | T | 22 36 48.3 | |
| | baz=314,slow=75,SNR=96 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 28.16 | 121 | T | T | 22 36 50.8 | |
| | baz=314,slow=75,SNR=111 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 28.17 | 121 | T | T | 22 36 47.7 | |
| | baz=314,slow=75,SNR=92 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 28.87 | 123 | T | T | 22 37 40.3 | |
| | baz=316,slow=75,SNR=122 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 28.87 | 123 | T | T | 22 37 40.6 | |
| | baz=316,slow=75,SNR=76 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 28.88 | 123 | T | T | 22 37 41.8 | |
| | baz=316,slow=75,SNR=84 | | | | | | |
| ZALV | Zalesovo Beam | 41.87 | 312 | P | P | 22 09 17.9 | +0.4 |
| | 0.8nm,0.7s,baz=103,slow=8.3,SNR=3.6 | | | | | | |
| MKAR | Makanchi Array | 44.11 | 302 | P | P | 22 09 36.4 | +0.5 |
| | 1.1nm,0.9s,baz=75,slow=7.6,SNR=2.9 | | | | | | |
| KURBB | Kurchatov Arra | 45.97 | 308 | P | P | 22 09 50.6 | +0.1 |
| | 1.1nm,0.5s,baz=84,slow=7.9,SNR=4.9 | | | | | | |
| ILAR | Eielson Array | 49.25 | 32 | P | P | 22 10 17.6 | +1.8 |
| | 0.4nm,0.7s,baz=268,slow=6.8,SNR=4.4 | | | | | | |
| WRA | Warramunga Arr | 57.28 | 188 | P | P | 22 11 15.3 | 0.0 |
| | 0.6nm,0.8s,baz=7.8,slow=7.7,SNR=6.7 | | | | | | |

*ISCJB **07** 22:02:37.5±0.6, 37°.23S±0°.07×176°.81E±0°.07, h250km, mb3.4/3, Error ellipse: s-maj=10.2km s-min=6.7km az=154.3*
*IDC **07** 22:02:38.1±0.9, 37°.46S×176°.82E, h251km±8km, mb3.2/3, mb1 3.4/4, mb1mx3.3/31, mbtmp3.9/4, Error ellipse: s-maj=30.7km s-min=24.4km az=132.0*
*WEL **07** 22:02:39.1±0.6, 37°.11S×176°.91E, h231km±5km, ML4.3/42, Error ellipse: s-maj=5.4km s-min=4.4km az=0.0*
**ISC 07 22:02:37.5**±1.0**, 37°.30S**±0°.10×**176°.83E**±0°.08**, h250**km**, n87, σ1s37**/92**, mb3.4**/3**, 21C-4D, North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| OPRZ | Ohinepanea | 0.59 | 202 | ⇑PN | Pn | 22 03 11.3 | +0.7 |
| HAZ | Te Kaha | 0.88 | 121 | ⇑PN | Pn | 22 03 11.4 | -0.5 |
| HAZ | | | | AML | AML | 22 03 35.5 | |
| HAZ | | | | SN | S | 22 03 36.5 | -2.4 |
| HAZ | | | | AML | AML | 22 03 41.8 | |
| HAZ | | | | AML | AML | 22 03 42.9 | |
| RUGZ | Raukumara Rang | 0.94 | 135 | ⇑PN | Pn | 22 03 11.8 | -0.6 |
| TARZ | Mount Tarawera | 0.97 | 195 | PN | Pn | 22 03 14.1 | +1.6 |
| URZ | Urewera | 0.98 | 167 | P | Pn | 22 03 12.8 | +0.4 |
| | 28nm,0.3s,baz=341,slow=2.9,SNR=121 | | | | | | |
| URZ | | | | S | S | 22 03 39.8 | -0.2 |
| | 44nm,0.3s,baz=346,slow=19,SNR=31 | | | | | | |
| URZ | Urewera | 0.98 | 167 | ⇑PN | Pn | 22 03 12.8 | +0.4 |
| URZ | | | | SN | S | 22 03 39.3 | -0.6 |
| URZ | | | | AML | AML | 22 03 41.5 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **PKGZ** | **Pakihiroa** | **1.15** | **121** | PN | **Pn** | **22 03 13.7** | **+0.2** |
| PKGZ | | | | AML | AML | 22 03 42.5 | |
| PKGZ | | | | AML | AML | 22 03 42.8 | |
| **MWZ** | **Matawai** | **1.17** | **152** | PN | **Pn** | **22 03 14.1** | **+0.5** |
| MWZ | | | | AML | AML | 22 03 43.7 | |
| MWZ | | | | AML | AML | 22 03 44.7 | |
| **MUGZ** | **Murupara** | **1.18** | **182** | ⇑PN | **Pn** | **22 03 14.5** | **+1.0** |
| **MXZ** | **Matakaoa Point** | **1.20** | **103** | ⇑PN | **Pn** | **22 03 13.1** | **-0.6** |
| MXZ | | | | AML | AML | 22 03 41.9 | |
| MXZ | | | | AML | AML | 22 03 42.0 | |
| **PRRZ** | **Plateau Road** | **1.25** | **196** | PN | **Pn** | **22 03 15.6** | **+1.6** |
| **TWGZ** | **Tauwhareparae** | **1.26** | **134** | ⇑PN | **Pn** | **22 03 15.1** | **+1.0** |
| TWGZ | | | | AML | AML | 22 03 45.0 | |
| TWGZ | | | | AML | AML | 22 03 45.6 | |
| **RAGZ** | **Rawiri** | **1.28** | **159** | PN | **Pn** | **22 03 15.3** | **+1.0** |
| RAGZ | | | | AML | AML | 22 03 46.3 | |
| RAGZ | | | | AML | AML | 22 03 46.8 | |
| **RTZ** | **Ruatahuna** | **1.32** | **175** | PN | **Pn** | **22 03 15.2** | **+0.6** |
| **WMGZ** | **Waiomatatini S** | **1.36** | **113** | ⇑PN | **Pn** | **22 03 15.0** | **+0.2** |
| WMGZ | | | | SN | **S** | **22 03 42.6** | **-1.5** |
| WMGZ | | | | AML | AML | 22 03 44.9 | |
| **PUZ** | **Puketiti** | **1.37** | **125** | ⇑PN | **Pn** | **22 03 15.1** | **+0.2** |
| PUZ | | | | AML | AML | 22 03 44.3 | |
| PUZ | | | | AML | AML | 22 03 44.6 | |
| **SNGZ** | **Shannon Statio** | **1.53** | **165** | ⇑PN | **Pn** | **22 03 17.5** | **+1.4** |
| SNGZ | | | | AML | AML | 22 03 50.7 | |
| SNGZ | | | | AML | AML | 22 03 51.7 | |
| **MTHZ** | **Maungataniwha** | **1.55** | **180** | ⇑PN | **Pn** | **22 03 17.5** | **+1.2** |
| **MRHZ** | **Matea Rd** | **1.56** | **192** | PN | **Pn** | **22 03 17.8** | **+1.4** |
| MRHZ | | | | AML | AML | 22 03 50.0 | |
| MRHZ | | | | AML | AML | 22 03 53.3 | |
| **RIGZ** | **Rimuhau** | **1.58** | **153** | PN | **Pn** | **22 03 17.8** | **+1.4** |
| RIGZ | | | | AML | AML | 22 03 50.5 | |
| RIGZ | | | | AML | AML | 22 03 52.4 | |
| **CNGZ** | **Carnagh Statio** | **1.61** | **138** | ⇑PN | **Pn** | **22 03 17.9** | **+1.3** |
| CNGZ | | | | AML | AML | 22 03 51.1 | |
| CNGZ | | | | AML | AML | 22 03 51.2 | |
| **RATZ** | **Rangitukua** | **1.77** | **208** | PN | **Pn** | **22 03 19.7** | **+1.6** |
| **WHHZ** | **Waihua** | **1.80** | **170** | ⇑PN | **Pn** | **22 03 20.0** | **+1.8** |
| WHHZ | | | | AML | AML | 22 03 54.2 | |
| WHHZ | | | | AML | AML | 22 03 55.9 | |
| **PRGZ** | **Paritu Road** | **1.82** | **153** | PN | **Pn** | **22 03 19.8** | **+1.4** |
| PRGZ | | | | AML | AML | 22 03 55.6 | |
| PRGZ | | | | AML | AML | 22 03 57.7 | |
| **KNZ** | **Kokohu** | **1.84** | **159** | ⇓PN | **Pn** | **22 03 19.8** | **+1.3** |
| KNZ | | | | AML | AML | 22 03 53.3 | |
| KNZ | | | | AML | AML | 22 03 55.5 | |
| **BKZ** | **Black Stump Fm** | **1.88** | **188** | PN | **Pn** | **22 03 20.3** | **+1.3** |
| BKZ | | | | AML | AML | 22 03 54.6 | |
| BKZ | | | | AML | AML | 22 03 54.9 | |
| **ARHZ** | **Aropaoanui** | **1.96** | **176** | ⇑PN | **Pn** | **22 03 21.6** | **+2.0** |
| ARHZ | | | | AML | AML | 22 03 57.3 | |
| ARHZ | | | | AML | AML | 22 03 57.4 | |
| **KRVZ** | **Karewarewa** | **2.02** | **207** | PN | **Pn** | **22 03 22.2** | **+1.9** |
| **WTVZ** | **West Tongariro** | **2.06** | **208** | PN | **Pn** | **22 03 22.5** | **+1.9** |
| **OTVZ** | **Oturere** | **2.07** | **206** | PN | **Pn** | **22 03 22.8** | **+2.0** |
| **TWVZ** | **Taurewa** | **2.08** | **211** | PN | **Pn** | **22 03 22.9** | **+2.1** |
| **NGZ** | **Ngauruhoe** | **2.11** | **207** | PN | **Pn** | **22 03 23.2** | **+2.1** |
| **MCHZ** | **McNeill Hill** | **2.14** | **183** | ⇑PN | **Pn** | **22 03 23.4** | **+2.1** |
| MCHZ | | | | AML | AML | 22 04 00.8 | |
| MCHZ | | | | AML | AML | 22 04 02.0 | |
| **KWHZ** | **Kaweka Forest** | **2.15** | **188** | ⇑PN | **Pn** | **22 03 23.2** | **+1.8** |
| KWHZ | | | | AML | AML | 22 04 00.1 | |
| KWHZ | | | | AML | AML | 22 04 00.8 | |
| **TUVZ** | **Tukino** | **2.17** | **205** | PN | **Pn** | **22 03 23.7** | **+2.0** |
| **FWVZ** | **Far West T-bar** | **2.19** | **207** | PN | **Pn** | **22 03 23.8** | **+1.8** |
| **WHVZ** | **Whangaehu Hut** | **2.21** | **206** | ⇑PN | **Pn** | **22 03 24.0** | **+1.9** |
| **TRVZ** | **Turoa** | **2.24** | **206** | PN | **Pn** | **22 03 24.3** | **+1.9** |
| **WNVZ** | **Wahianoa** | **2.24** | **205** | ⇑PN | **Pn** | **22 03 24.2** | **+1.8** |
| **BHHZ** | **Black Hill Sta** | **2.27** | **195** | PN | **Pn** | **22 03 24.0** | **+1.5** |
| BHHZ | | | | AML | AML | 22 04 00.6 | |
| BHHZ | | | | AML | AML | 22 04 02.4 | |
| **MOVZ** | **Moawhango** | **2.27** | **202** | PN | **Pn** | **22 03 24.0** | **+1.5** |
| **PKVZ** | **Pokaka** | **2.30** | **210** | ⇓PN | **Pn** | **22 03 25.0** | **+2.2** |
| **MTVZ** | **Mangateitei** | **2.34** | **207** | PN | **Pn** | **22 03 25.4** | **+2.2** |
| **CKHZ** | **Cape Kidnapper** | **2.36** | **175** | PN | **Pn** | **22 03 25.0** | **+1.7** |
| CKHZ | | | | AML | AML | 22 04 04.0 | |
| CKHZ | | | | AML | AML | 22 04 04.0 | |
| **KRHZ** | **Kereru** | **2.37** | **189** | ⇑PN | **Pn** | **22 03 24.9** | **+1.5** |
| KRHZ | | | | AML | AML | 22 04 03.5 | |
| KRHZ | | | | AML | AML | 22 04 04.5 | |
| **KAHZ** | **Kahuranaki** | **2.49** | **179** | PN | **Pn** | **22 03 26.5** | **+1.9** |
| KAHZ | | | | AML | AML | 22 04 08.4 | |
| KAHZ | | | | AML | AML | 22 04 09.4 | |
| **PNHZ** | **Pukenui** | **2.66** | **191** | ⇓PN | **Pn** | **22 03 27.6** | **+1.2** |
| PNHZ | | | | AML | AML | 22 04 09.9 | |
| PNHZ | | | | AML | AML | 22 04 10.0 | |
| **PXZ** | **Pawanui** | **2.73** | **179** | ⇑PN | **Pn** | **22 03 28.6** | **+1.6** |
| PXZ | | | | AML | AML | 22 04 09.5 | |
| PXZ | | | | AML | AML | 22 04 09.5 | |
| PXZ | | | | AML | AML | 22 04 09.9 | |
| PXZ | | | | AML | AML | 22 04 09.9 | |
| **WPHZ** | **Waipukurau** | **2.78** | **186** | PN | **Pn** | **22 03 29.5** | **+2.0** |
| WPHZ | | | | AML | AML | 22 04 14.3 | |
| **TSZ** | **Takapari Road** | **2.84** | **194** | PN | **Pn** | **22 03 29.4** | **+1.1** |
| TSZ | | | | AML | AML | 22 04 11.4 | |
| TSZ | | | | AML | AML | 22 04 14.7 | |
| **WAZ** | **Wanganui** | **2.85** | **210** | PN | **Pn** | **22 03 30.5** | **+2.2** |
| **PRHZ** | **Porangahau** | **2.97** | **183** | PN | **Pn** | **22 03 30.9** | **+1.3** |
| PRHZ | | | | AML | AML | 22 04 12.6 | |
| PRHZ | | | | AML | AML | 22 04 14.5 | |
| **DVHZ** | **Dannevirke** | **3.04** | **190** | PN | **Pn** | **22 03 31.8** | **+1.4** |
| DVHZ | | | | AML | AML | 22 04 16.6 | |
| DVHZ | | | | AML | AML | 22 04 21.6 | |
| **ANWZ** | **Angora Road** | **3.17** | **185** | PN | **Pn** | **22 03 33.4** | **+1.7** |
| ANWZ | | | | AML | AML | 22 04 18.4 | |
| ANWZ | | | | AML | AML | 22 04 21.2 | |
| **POWZ** | **Post Office Ro** | **3.20** | **195** | PN | **Pn** | **22 03 33.5** | **+1.4** |
| **PRWZ** | **Pori Road** | **3.32** | **191** | PN | **Pn** | **22 03 35.0** | **+1.6** |
| PRWZ | | | | AML | AML | 22 04 22.5 | |
| PRWZ | | | | AML | AML | 22 04 22.8 | |
| **BFZ** | **Birch Farm** | **3.41** | **187** | ⇑PN | **Pn** | **22 03 35.6** | **+1.2** |
| BFZ | | | | AML | AML | 22 04 22.3 | |
| BFZ | | | | AML | AML | 22 04 22.7 | |
| BFZ | | | | AML | AML | 22 04 22.7 | |
| BFZ | | | | AML | AML | 22 04 25.9 | |
| **MRZ** | **Mangatainoka R** | **3.49** | **196** | ⇓PN | **Pn** | **22 03 36.2** | **+0.8** |
| MRZ | | | | AML | AML | 22 04 24.5 | |
| MRZ | | | | AML | AML | 22 04 25.8 | |
| **TIWZ** | **Tintock** | **3.55** | **192** | PN | **Pn** | **22 03 37.2** | **+1.2** |
| TIWZ | | | | AML | AML | 22 04 26.3 | |
| TIWZ | | | | AML | AML | 22 04 27.0 | |
| **HOWZ** | **Holdsworth Sta** | **3.73** | **195** | PN | **Pn** | **22 03 38.7** | **+0.5** |
| HOWZ | | | | AML | AML | 22 04 28.8 | |
| HOWZ | | | | AML | AML | 22 04 29.6 | |
| **OGWZ** | **Otaki Gorge** | **3.74** | **200** | PN | **Pn** | **22 03 39.0** | **+0.8** |
| OGWZ | | | | AML | AML | 22 04 29.7 | |
| OGWZ | | | | AML | AML | 22 04 29.9 | |
| **KIW** | **Kapiti Island** | **3.86** | **202** | PN | **Pn** | **22 03 40.3** | **+0.7** |
| **TMWZ** | **Te Maipa** | **3.87** | **191** | PN | **Pn** | **22 03 40.9** | **+1.2** |
| TMWZ | | | | AML | AML | 22 04 33.0 | |
| TMWZ | | | | AML | AML | 22 04 34.9 | |
| **MTW** | **Mount Morrison** | **3.99** | **195** | PN | **Pn** | **22 03 42.0** | **+0.9** |
| MTW | | | | AML | AML | 22 04 33.7 | |
| **CAW** | **Cannon Point** | **4.04** | **199** | PN | **Pn** | **22 03 42.4** | **+0.7** |
| CAW | | | | AML | AML | 22 04 37.1 | |
| CAW | | | | AML | AML | 22 04 37.4 | |
| **TRWZ** | **Traveller** | **4.19** | **192** | PN | **Pn** | **22 03 44.3** | **+0.9** |
| **PAWZ** | **Paruwai Farm** | **4.22** | **195** | PN | **Pn** | **22 03 45.0** | **+1.1** |
| **MSWZ** | **Moikau Station** | **4.29** | **196** | PN | **Pn** | **22 03 45.0** | **+0.4** |
| **TCW** | **Tory Channel** | **4.38** | **206** | PN | **Pn** | **22 03 46.6** | **+0.9** |
| TCW | | | | AML | AML | 22 04 43.2 | |
| TCW | | | | AML | AML | 22 04 43.3 | |
| **PLWZ** | **Palliser** | **4.43** | **195** | PN | **Pn** | **22 03 46.8** | **+0.4** |
| **TUWZ** | **Tuamarina** | **4.69** | **208** | PN | **Pn** | **22 03 50.0** | **+0.5** |
| TUWZ | | | | AML | AML | 22 04 48.9 | |
| TUWZ | | | | AML | AML | 22 04 49.1 | |
| **QRZ** | **Quartz Range** | **4.86** | **222** | PN | **Pn** | **22 03 51.4** | **-0.1** |
| **BSWZ** | **Blackbirch Sta** | **4.96** | **206** | PN | **Pn** | **22 03 54.3** | **+1.5** |
| **THZ** | **Tophouse** | **5.39** | **213** | PN | **Pn** | **22 03 59.1** | **+1.0** |
| **KHZ** | **Kahutara** | **5.70** | **205** | PN | **Pn** | **22 04 02.1** | **+0.3** |
| **LTZ** | **Lake Taylor** | **6.50** | **211** | PN | **Pn** | **22 04 11.1** | **-0.7** |
| **INZ** | **Inchbonnie** | **6.81** | **216** | PN | **Pn** | **22 04 16.0** | **+0.3** |
| **MQZ** | **McQueen's Vall** | **7.14** | **205** | PN | **Pn** | **22 04 19.5** | **-0.4** |
| **RPZ** | **Rata Peaks** | **7.77** | **213** | P | **Pn** | **22 04 26.0** | **-1.9** |
| | 0.6nm,0.3s,baz=97,slow=17,SNR=3.4 | | | | | | |
| RPZ | | | | S | **S** | **22 05 53.3** | **-3.3** |
| | 1.7nm,0.3s,baz=127,slow=22,SNR=10.0 | | | | | | |
| **FOZ** | **Fox Glacier** | **8.21** | **218** | PN | **Pn** | **22 04 33.0** | **-0.3** |
| **ODZ** | **Otahua Downs** | **9.03** | **209** | PN | **Pn** | **22 04 44.8** | **+1.1** |
| **JCZ** | **Jackson Bay** | **9.11** | **220** | PN | **Pn** | **22 04 45.2** | **+0.3** |
| **ASAR** | **Alice Springs** | **39.08** | **278** | P | **P** | **22 09 41.5** | **+0.7** |
| | 0.5nm,0.5s,baz=119,slow=7.8,SNR=9.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **40.73** | **283** | P | **P** | **22 09 54.8** | **+0.4** |
| | 0.6nm,0.4s,baz=120,slow=7.9,SNR=21 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **48.57** | **279** | P | **P** | **22 10 57.0** | **+1.0** |
| | 1.7nm,0.7s,baz=119,slow=7.2,SNR=5.1 | | | | | | |
| **FINES** | **FINESS Array B** | **149.71** | **332** | PKPbc | **PKPbc** | **22 21 56.0** | **-0.7** |
| | 3.9nm,1.0s,baz=36,slow=5.2,SNR=3.7 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **155.56** | **192** | PKPab | **PKPab** | **22 22 28.7** | **-0.1** |
| | 0.2nm,0.4s,baz=172,slow=3.5,SNR=4.1 | | | | | | |

*IDC **07** 22:06:51.5±1.5, 24°.61N×121°.85E, h0km, mb3.8/9, mb1 3.9/9, mb1mx3.7/48, mbtmp3.8/9, Error ellipse: s-maj=122.6km s-min=17.7km az=64.0*
*BJI **07** 22:06:58.4, 24°.65N×121°.33E, h5km, ML3.8/5*
*JMA **07** 22:06:59.3±0.1, 24°.52N×121°.44E, h70km±1km, M3.8*
*ISCJB **07** 22:07:00.2±0.2, 24°.59N±0°.02×121°.56E±0°.02, h72km±2km, mb3.6/10, Error ellipse: s-maj=3.6km s-min=2.3km az=140.1*
*TAP **07** 22:07:01.2, 24°.55N×121°.53E, h61km, ML4.4, B*
**ISC 07 22:07:00.8**±0.7**, 24°.58N**±0°.03×**121°.55E**±0°.02**, h67**km±4km**, n88,** σ**0ˢ.96**/138**, mb3.8**/10**, 16C-23D, Taiwan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ENTT** | **Nioudou** | **0.06** | **19** | ⇑*i*P | **Pn** | **22 07 11.0** | **+0.3** |
| | baz=16 | | | | | | |
| ENTT | | | | S | **Sn** | **22 07 15.6** | **-2.3** |
| | baz=16 | | | | | | |
| **TWE** | **Neicheng** | **0.18** | **39** | ⇑*i*P | **Pn** | **22 07 11.6** | **+0.6** |
| | baz=34 | | | | | | |
| TWE | | | | *i* S | **Sn** | **22 07 18.8** | **+0.4** |
| | baz=34 | | | | | | |
| **NSK** | **Sanguang** | **0.19** | **299** | ⇑*i*P | **Pn** | **22 07 11.0** | **-0.2** |
| | baz=318 | | | | | | |
| NSK | | | | *i* S | **Sn** | **22 07 17.8** | **-1.0** |
| | baz=318 | | | | | | |
| **NNS** | **Nan Shan** | **0.21** | **228** | ⇓*i*P | **Pn** | **22 07 11.7** | **+0.3** |
| | baz=231 | | | | | | |
| NNS | | | | *e*S | **Sn** | **22 07 18.7** | **-0.4** |
| | baz=231 | | | | | | |
| **ENA** | **Nanau** | **0.24** | **131** | ⇓*i*P | **Pn** | **22 07 11.1** | **-0.2** |
| | baz=120 | | | | | | |
| ENA | | | | *e*S | **Sn** | **22 07 18.2** | **-0.7** |
| | baz=120 | | | | | | |
| **ILA** | **Ilan** | **0.26** | **45** | *e*P | **Pn** | **22 07 12.1** | **+0.6** |
| | baz=44 | | | | | | |
| ILA | | | | S | **Sn** | **22 07 19.8** | **+0.6** |
| | baz=44 | | | | | | |
| **TWC** | **Suao** | **0.28** | **85** | ⇑*i*P | **Pn** | **22 07 11.9** | **+0.3** |
| | baz=83 | | | | | | |
| TWC | | | | *e*S | **Sn** | **22 07 19.4** | **0.0** |
| | baz=83 | | | | | | |
| **EHP** | **Heping Village** | **0.33** | **147** | *e*P | **Pn** | **22 07 13.0** | **+1.0** |
| | baz=139 | | | | | | |
| **TWA** | **Mucha** | **0.40** | **5** | ⇑*i*P | **Pn** | **22 07 12.8** | **+0.3** |
| | baz=2.0 | | | | | | |
| TWA | | | | S | **Sn** | **22 07 21.0** | **-0.1** |
| | baz=2.0 | | | | | | |
| **TAP1** | **Taipei** | **0.45** | **357** | ⇑*i*P | **Pn** | **22 07 13.1** | **+0.1** |
| | baz=7.0 | | | | | | |
| TAP1 | | | | S | **Sn** | **22 07 21.5** | **-0.3** |
| | baz=7.0 | | | | | | |
| **TAP** | **Taipei** | **0.46** | **356** | *i* P | **Pn** | **22 07 13.2** | **+0.1** |
| | baz=7.0 | | | | | | |
| TAP | | | | *i* S | **Sn** | **22 07 21.9** | **0.0** |
| | baz=7.0 | | | | | | |
| **TWT** | **Tachien** | **0.47** | **226** | ⇓*i*P | **Pn** | **22 07 14.2** | **+0.9** |
| | baz=225 | | | | | | |
| TWT | | | | *i* S | **Sn** | **22 07 22.9** | **+0.5** |
| | baz=225 | | | | | | |
| **NSTT** | **Nanjuang** | **0.50** | **276** | ⇑*i*P | **Pn** | **22 07 13.6** | **+0.2** |
| | baz=280 | | | | | | |
| NSTT | | | | *i* S | **Sn** | **22 07 22.3** | **-0.3** |
| | baz=280 | | | | | | |
| **TWD** | **Chiawan** | **0.50** | **175** | ⇓*i*P | **Pn** | **22 07 12.7** | **-0.8** |
| | baz=161 | | | | | | |
| TWD | | | | *e*S | **Sn** | **22 07 20.3** | **-2.4** |
| | baz=161 | | | | | | |
| **NCU** | **National Centr** | **0.50** | **320** | ⇑*i*P | **Pn** | **22 07 13.9** | **+0.4** |
| | baz=325 | | | | | | |
| NCU | | | | S | **Sn** | **22 07 23.1** | **+0.3** |
| | baz=325 | | | | | | |
| **TWS1** | **Kuangyinshan** | **0.53** | **347** | ⇑*i*P | **Pn** | **22 07 14.2** | **+0.5** |
| | baz=341 | | | | | | |
| TWS1 | | | | S | **Sn** | **22 07 23.7** | **+0.5** |
| | baz=341 | | | | | | |
| **NWF** | **Wu-fen Shan** | **0.53** | **24** | ⇑*i*P | **Pn** | **22 07 14.3** | **+0.4** |
| | baz=17 | | | | | | |
| NWF | | | | *i* S | **Sn** | **22 07 23.3** | **0.0** |
| | baz=17 | | | | | | |
| **HSN** | **Hsinchu** | **0.57** | **293** | ⇑*i*P | **Pn** | **22 07 14.3** | **+0.2** |
| | baz=311 | | | | | | |
| HSN | | | | S | **Sn** | **22 07 23.4** | **-0.4** |
| | baz=311 | | | | | | |
| **TWB1** | **Santiao Chiao** | **0.58** | **44** | ⇑*i*P | **Pn** | **22 07 14.9** | **+0.6** |
| | baz=35 | | | | | | |
| TWB1 | | | | *e*S | **Sn** | **22 07 23.8** | **-0.3** |
| | baz=35 | | | | | | |
| **HWA** | **Hwalien** | **0.61** | **175** | *e*P | **Pn** | **22 07 13.8** | **-0.7** |
| | baz=172 | | | | | | |
| **TWY** | **Chenhua** | **0.69** | **4** | ⇓*i*P | **Pn** | **22 07 15.9** | **+0.4** |
| | baz=6.0 | | | | | | |
| TWY | | | | S | **Sn** | **22 07 26.8** | **+0.5** |
| | baz=6.0 | | | | | | |
| **ESF** | **Shoufeng Towns** | **0.71** | **183** | *e*P | **Pn** | **22 07 14.8** | **-0.9** |
| | baz=171 | | | | | | |
| **NSY** | **Sanyi** | **0.73** | **257** | ⇑*i*P | **Pn** | **22 07 16.6** | **+0.6** |
| | baz=259 | | | | | | |
| NSY | | | | S | **Sn** | **22 07 27.7** | **+0.6** |
| | baz=259 | | | | | | |
| **TWQ1** | **Liyutan** | **0.74** | **252** | ⇑*i*P | **Pn** | **22 07 16.5** | **+0.4** |
| | baz=254 | | | | | | |
| TWQ1 | | | | S | **Sn** | **22 07 27.3** | **0.0** |
| | baz=254 | | | | | | |
| **ESL** | **Shilin** | **0.77** | **188** | ⇓*i*P | **Pn** | **22 07 15.3** | **-1.2** |
| | baz=177 | | | | | | |
| **TEGC** | **Jichi Village** | **0.87** | **180** | *e*P | **Pn** | **22 07 17.3** | **-0.3** |
| | baz=177 | | | | | | |
| **TCU** | **Taichung** | **0.90** | **241** | *e*P | **Pn** | **22 07 18.4** | **+0.4** |
| | baz=251 | | | | | | |
| TCU | | | | *e*S | **Sn** | **22 07 30.9** | **+0.2** |
| | baz=251 | | | | | | |
| **SMLT** | **Sun Moon Lake** | **0.91** | **220** | ⇓*i*P | **Pn** | **22 07 18.9** | **+0.7** |
| | baz=226 | | | | | | |
| SMLT | | | | *e*S | **Sn** | **22 07 32.3** | **+1.2** |
| | baz=226 | | | | | | |
| **TYC** | **Yuchr** | **0.92** | **223** | ⇓*i*P | **Pn** | **22 07 18.9** | **+0.6** |
| | baz=229 | | | | | | |
| TYC | | | | S | **Sn** | **22 07 31.8** | **+0.7** |
| | baz=229 | | | | | | |
| **WNT** | **Mingjian** | **1.05** | **228** | ⇓*i*P | **Pn** | **22 07 20.5** | **+0.6** |
| | baz=238 | | | | | | |
| WNT | | | | S | **Sn** | **22 07 34.6** | **+0.5** |
| | baz=238 | | | | | | |
| **EHY** | **Hungye** | **1.09** | **191** | ⇓P | **Pn** | **22 07 18.8** | **-1.6** |
| | baz=179 | | | | | | |
| **PCYT** | **Pengchaiyu** | **1.15** | **25** | *e*P | **Pn** | **22 07 21.6** | **+0.5** |
| | baz=26 | | | | | | |
| PCYT | | | | *e*S | **Sn** | **22 07 35.4** | **-0.8** |
| | baz=26 | | | | | | |
| **YUS** | **Yu-Shan** | **1.22** | **207** | ⇓*i*P | **Pn** | **22 07 23.8** | **+1.3** |
| | baz=216 | | | | | | |
| YUS | | | | *e*S | **Sn** | **22 07 40.8** | **+2.2** |
| | baz=216 | | | | | | |
| **TWF1** | **Yuli** | **1.25** | **191** | ⇓P | **Pn** | **22 07 20.7** | **-1.7** |
| | baz=180 | | | | | | |
| **CHN5** | **Tsauling** | **1.26** | **219** | ⇓*i*P | **Pn** | **22 07 23.3** | **+0.6** |
| | baz=218 | | | | | | |
| CHN5 | | | | *e*S | **Sn** | **22 07 39.7** | **+0.7** |
| | baz=218 | | | | | | |
| **ALS** | **Alishan** | **1.26** | **212** | ⇓*i*P | **Pn** | **22 07 23.7** | **+0.8** |
| | baz=221 | | | | | | |
| ALS | | | | *e*S | **Sn** | **22 07 40.7** | **+1.3** |
| | baz=221 | | | | | | |
| **WGK** | **Gukeng** | **1.27** | **225** | ⇓*i*P | **Pn** | **22 07 23.5** | **+0.9** |
| | baz=236 | | | | | | |
| WGK | | | | *e*S | **Sn** | **22 07 40.2** | **+1.2** |
| | baz=236 | | | | | | |
| **JYNG** | **Yonagunijimaku** | **1.28** | **96** | P | **Pn** | **22 07 23.1** | **+0.3** |
| JYNG | | | | S | **Sn** | **22 07 39.4** | **+0.1** |
| **YOJ** | **Yonaguni jima** | **1.34** | **95** | ⇓*i*P | **Pn** | **22 07 23.9** | **+0.2** |
| | baz=84 | | | | | | |
| YOJ | | | | *e*S | **Sn** | **22 07 40.8** | **+0.1** |
| | baz=84 | | | | | | |
| **YOJ** | **Yonaguni jima** | **1.34** | **95** | P | **Pn** | **22 07 23.8** | **+0.2** |
| YOJ | | | | S | **Sn** | **22 07 40.6** | **-0.1** |
| **WTCT** | **Ta-ch'eng** | **1.36** | **238** | *e*P | **Pn** | **22 07 23.4** | **-0.4** |
| | baz=246 | | | | | | |
| WTCT | | | | *e*S | **Sn** | **22 07 41.0** | **-0.1** |
| | baz=246 | | | | | | |
| **CHN2** | **Minshiung** | **1.43** | **223** | P | **Pn** | **22 07 25.7** | **+0.8** |
| | baz=233 | | | | | | |
| CHN2 | | | | S | **Sn** | **22 07 43.9** | **+1.1** |
| | baz=233 | | | | | | |
| **ELDTW** | **Lidau** | **1.47** | **199** | *e*P | **Pn** | **22 07 25.0** | **-0.5** |
| | baz=188 | | | | | | |
| **CHKT** | **Chengkung** | **1.49** | **186** | *e*P | **Pn** | **22 07 24.4** | **-1.2** |
| | baz=173 | | | | | | |
| **CHY** | **Chiayi** | **1.49** | **224** | ⇓*i*P | **Pn** | **22 07 26.3** | **+0.7** |
| | baz=233 | | | | | | |
| CHY | | | | *e*S | **Sn** | **22 07 44.6** | **+0.4** |
| | baz=233 | | | | | | |
| **CHN4** | **Tsaushan** | **1.50** | **216** | ⇓*i*P | **Pn** | **22 07 26.7** | **+0.9** |
| | baz=214 | | | | | | |
| CHN4 | | | | *e*S | **Sn** | **22 07 46.3** | **+1.7** |
| | baz=214 | | | | | | |
| **WSF** | **Szhu** | **1.53** | **232** | ⇑*i*P | **Pn** | **22 07 26.6** | **+0.4** |
| | baz=232 | | | | | | |
| WSF | | | | *e*S | **Sn** | **22 07 45.4** | **+0.1** |
| | baz=232 | | | | | | |
| **WTP** | **Ta-pu** | **1.58** | **213** | ⇓*i*P | **Pn** | **22 07 27.4** | **+0.6** |
| | baz=210 | | | | | | |
| **STYT** | **Tauyuan** | **1.59** | **207** | *e*P | **Pn** | **22 07 27.9** | **+0.9** |
| | baz=216 | | | | | | |
| STYT | | | | *e*S | **Sn** | **22 07 48.9** | **+2.2** |
| | baz=216 | | | | | | |
| **TWK** | **Hsinying** | **1.63** | **217** | ⇓*i*P | **Pn** | **22 07 28.0** | **+0.5** |
| | baz=214 | | | | | | |
| TWK | | | | *e*S | **Sn** | **22 07 48.5** | **+0.8** |
| | baz=214 | | | | | | |
| **CHN1** | **Nanshi** | **1.67** | **214** | ⇓*i*P | **Pn** | **22 07 28.5** | **+0.4** |
| | baz=212 | | | | | | |
| CHN1 | | | | *e*S | **Sn** | **22 07 49.5** | **+0.8** |
| | baz=212 | | | | | | |
| **CHN8** | **Yiju** | **1.73** | **225** | P | **Pn** | **22 07 29.1** | **+0.3** |
| | baz=233 | | | | | | |
| CHN8 | | | | *e*S | **Sn** | **22 07 51.0** | **+0.9** |
| | baz=233 | | | | | | |
| **SGST** | **Jiashian** | **1.73** | **211** | ⇓P | **Pn** | **22 07 29.6** | **+0.7** |
| | baz=208 | | | | | | |
| SGST | | | | *e*S | **Sn** | **22 07 52.4** | **+2.3** |
| | baz=208 | | | | | | |
| **TWG** | **Pinlang** | **1.81** | **194** | *e*P | **Pn** | **22 07 28.0** | **-1.9** |
| | baz=180 | | | | | | |
| **CHN3** | **Shinhua** | **1.85** | **216** | *e*P | **Pn** | **22 07 30.3** | **-0.1** |
| | baz=213 | | | | | | |
| **SCLT** | **Jiali** | **1.87** | **222** | *e*P | **Pn** | **22 07 31.3** | **+0.6** |
| | baz=220 | | | | | | |
| SCLT | | | | *e*S | **Sn** | **22 07 54.3** | **+1.0** |
| | baz=220 | | | | | | |
| **TAI1** | **Yung-k'ang** | **1.95** | **218** | *e*P | **Pn** | **22 07 32.4** | **+0.6** |
| | baz=216 | | | | | | |
| TAI1 | | | | *e*S | **Sn** | **22 07 56.0** | **+0.7** |
| | baz=216 | | | | | | |
| **IRIF** | **Iriomote-Funau** | **2.01** | **97** | P | **Pn** | **22 07 32.5** | **0.0** |
| IRIF | | | | S | **Sn** | **22 07 56.3** | **-0.3** |
| **SSD** | **Sandimen** | **2.01** | **205** | *e*P | **Pn** | **22 07 33.5** | **+0.9** |
| | baz=212 | | | | | | |
| **TWM1** | **Shoushan** | **2.03** | **211** | *e*P | **Pn** | **22 07 32.4** | **-0.5** |
| | baz=207 | | | | | | |
| **ECL** | **Taimali** | **2.05** | **195** | *e*P | **Pn** | **22 07 31.7** | **-1.4** |
| | baz=183 | | | | | | |
| **PNG** | **Penghu** | **2.08** | **241** | *e*P | **Pn** | **22 07 32.9** | **-0.7** |
| | baz=241 | | | | | | |
| PNG | | | | *e*S | **Sn** | **22 07 56.0** | **-2.5** |
| | baz=241 | | | | | | |
| **HATJ** | **Hateruma jima** | **2.13** | **104** | S | **Sn** | **22 08 00.5** | **+0.9** |
| **WDGT** | **Dungji** | **2.17** | **233** | *e*P | **Pn** | **22 07 34.3** | **-0.4** |
| | baz=232 | | | | | | |
| WDGT | | | | *e*S | **Sn** | **22 07 58.4** | **-2.2** |
| | baz=232 | | | | | | |
| **JKRS** | **Kuro-shima** | **2.27** | **98** | P | **Pn** | **22 07 36.7** | **+0.6** |
| JKRS | | | | S | **Sn** | **22 08 03.0** | **-0.1** |
| **EAST** | **Anshuo** | **2.28** | **196** | *e*P | **Pn** | **22 07 35.1** | **-1.2** |
| | baz=183 | | | | | | |
| **TAW** | **Tawu** | **2.29** | **195** | *e*P | **Pn** | **22 07 37.1** | **+0.6** |
| | baz=183 | | | | | | |
| **SCZT** | **Fangliau** | **2.36** | **201** | *e*P | **Pn** | **22 07 37.6** | **+0.3** |
| | baz=211 | | | | | | |
| **JIJ** | **Ishigaki jima** | **2.38** | **95** | P | **Pn** | **22 07 37.6** | **+0.1** |
| JIJ | | | | S | **Sn** | **22 08 04.8** | **-0.8** |
| **JISG** | **Ishigakijimahi** | **2.52** | **89** | P | **Pn** | **22 07 39.6** | **+0.2** |
| **LAY** | **Lan-yu** | **2.53** | **180** | *e*P | **Pn** | **22 07 38.1** | **-1.6** |
| | baz=177 | | | | | | |
| **QZH** | **Quanzhou** | **2.71** | **278** | ⇓*i*Pn | **Pn** | **22 07 40.4** | **-1.6** |
| QZH | | | | Sn | **Sn** | **22 08 09.5** | **-4.2** |
| QZH | | | | smax | smax | | |
| | comp=N,470nm,0.2s | | | | | | |
| QZH | | | | smax | smax | | |
| | comp=E,520nm,0.2s | | | | | | |
| **TWK1** | **Hengchun** | **2.71** | **195** | *e*P | **Pn** | **22 07 42.4** | **+0.3** |
| | baz=181 | | | | | | |
| **KNM** | **Kinmen** | **2.84** | **267** | ⇑*e*P | **Pn** | **22 07 44.9** | **+1.1** |
| | baz=268 | | | | | | |
| **JTJ** | **Tarama** | **2.87** | **88** | P | **Pn** | **22 07 45.3** | **+1.0** |
| **JIRB** | **Irabujima** | **3.31** | **85** | P | **Pn** | **22 07 51.3** | **+1.1** |
| **JOW** | **Kunigami** | **6.47** | **68** | *e*P | **Pn** | **22 08 33.9** | **+0.4** |
| | baz=69 | | | | | | |
| **GTA** | **Gaotai** | **23.54** | **314** | *e*P | **P** | **22 12 06.5** | **+1.2** |
| GTA | | | | pP | pP | 22 12 11.9 | -8.6 |
| GTA | | | | sP | sP | 22 12 14.5 | -14 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.4s | | | | | | |
| **SONM** | **Songino Array** | **26.13** | **336** | P | **P** | **22 12 28.7** | **0.0** |
| | comp=Z,1.4nm,1.0s,baz=160,slow=9.2,SNR=7.4 | | | | | | |
| **WMQ** | **Urumqi** | **33.62** | **313** | *e*P | P | 22 13 42.1 | +7.2 |
| **MKAR** | **Makanchi Array** | **38.28** | **315** | P | **P** | **22 14 15.7** | **+0.9** |
| | comp=Z,1.6nm,0.9s,baz=110,slow=11,SNR=5.3 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **40.09** | **327** | P | **P** | **22 14 29.4** | **-0.3** |
| | comp=Z,0.7nm,0.4s,baz=116,slow=6.8,SNR=5.5 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **42.02** | **320** | P | **P** | **22 14 45.9** | **+0.4** |
| | comp=Z,0.7nm,1.0s,baz=89,slow=6.6,SNR=3.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **45.98** | **163** | P | **P** | **22 15 16.0** | **-1.5** |
| | comp=Z,1.0nm,0.6s,baz=345,slow=8.7,SNR=11 | | | | | | |
| **BVAR** | **Borovoye Array** | **47.58** | **320** | P | **P** | **22 15 30.0** | **+0.3** |
| | comp=Z,0.3nm,0.5s,baz=94,slow=8.3,SNR=4.1 | | | | | | |
| **ASAR** | **Alice Springs** | **49.44** | **165** | P | **P** | **22 15 43.2** | **-1.1** |
| | comp=Z,0.7nm,0.7s,baz=337,slow=7.1,SNR=7.8 | | | | | | |
| **FINES** | **FINESS Array B** | **71.27** | **330** | P | **P** | **22 18 12.7** | **-0.1** |
| | comp=Z,3.1nm,0.8s,baz=49,slow=5.4,SNR=11 | | | | | | |
| **BRTR** | **Keskin Array B** | **73.20** | **306** | P | **P** | **22 18 25.3** | **+0.4** |
| | comp=Z,0.3nm,0.5s,baz=91,slow=5.6,SNR=3.6 | | | | | | |

*NIED **07** 22:11:00, 36°.30N×141°.10E, h38km, Mw4.8 Best double couple: M₀1.98000×10¹⁶ NP1:φs209.00000°, δ18.00000°, λ99.00000°. NP2:φs19.00000°, δ72.00000°, λ87.00000°.*
*BJI **07** 22:11:38.8, 36°.24N×141°.26E, h43km, mb5.0/67, mB5.0/51, Ms4.4/61, Ms7 4.3/58*
*MOS **07** 22:11:40.5±1.0, 36°.31N×140°.94E, h39km, mb5.2/86, Error ellipse: s-maj=7.0km s-min=4.4km az=111.4*
*ISCJB **07** 22:11:41.4±0.3, 36°.29N±0°.02×140°.98E±0°.02, h45km±2km, mb4.9/219, MS4.3/24, Error ellipse: s-maj=3.6km s-min=3.0km az=44.4*
*JMA **07** 22:11:41.0±0.1, 36°.30N×141°.07E, h49km±2km, M4.7*
*JMA Felt II J1.*
*IDC **07** 22:11:42.2±0.5, 36°.31N×141°.13E, h44km±4km, mb4.5/30, mb1 4.6/34, mb1mx4.5/49, mbtmp4.7/34, ML3.8/4, MS4.0/11, Ms1 4.0/11, ms1mx3.6/50, Error ellipse: s-maj=9.2km s-min=7.5km az=110.0*
*NEIC **07** 22:11:42.7±0.6, 36°.30N×140°.93E, h44km±5km, mb4.9/139, Error ellipse: s-maj=3.8km s-min=2.8km az=134.0*
*NEIC Felt at Fussa, Mito and Utsunomiya. Recorded [2 JMA] in Chiba, Fukushima, Ibaraki and Tochigi.*
**ISC 07 22:11:42.0**±0.4**, 36°.32N**±0°.03×**141°.13E**±0°.04**, h40**km±2km**, h40**km**:pP-P, n518,** σ**1ˢ.41**/600**, mb4.9**/226**, MS4.2**/24**, 52C-17D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JHO** | **Hitachi** | **0.53** | **303** | P | **Pn** | **22 11 51.9** | **-1.3** |
| JHO | | | | S | **Sn** | **22 11 59.9** | **-1.2** |
| **CHOJ** | **Chosi** | **0.65** | **199** | P | **Pn** | **22 11 53.6** | **-1.2** |
| CHOJ | | | | S | **Sn** | **22 12 02.4** | **-1.5** |
| **JYT** | **Yasato** | **0.76** | **263** | P | **Pn** | **22 11 54.8** | **-1.4** |
| JYT | | | | S | **Sn** | **22 12 04.3** | **-2.2** |
| **ONAJ** | **Iwakimizuishiy** | **0.82** | **341** | P | **Pn** | **22 11 55.9** | **-1.3** |

ONAJ S **Sn** **22 12 06.3 -1.9**
**JFK Kawauchi 1.06 349** P **Pn** **22 11 59.2 -1.3**
**JFT Otama 1.35 332** P **Pn** **22 12 04.6 +0.2**
JFT S **Sn** **22 12 21.2 +0.1**
**JAG Ashikaga 1.35 275** P **Pn** **22 12 03.4 -1.0**
**MJAR Matsushiro Arr 2.36 276** P **Pn** **22 12 17.8 -0.5**
127nm,0.3s,baz=97,slow=10,SNR=1011
MJAR S **Sn** **22 12 47.0 +1.0**
MJAR 63nm,0.3s,baz=92,slow=12,SNR=5.1
MJAR LR LR 22 13 31.1
comp=Z,5µm,18.9s,baz=90,slow=47
**MAJO Matsushiro 2.36 276** *e*P **Pn** **22 12 18.6 +0.3**
**MAJO Matsushiro 2.36 276** *e*Pn **Pn** **22 12 18.6 +0.3**
**MJB9 Matsu-Tunnel 2.37 276** *e*Pn **Pn** **22 12 18.6 +0.3**
**JHJ2 Mitsune 3.38 199** *e*Pn **Pn** **22 12 31.2 -1.0**
JHJ2 *e*Sn **Sn** **22 13 09.7 -1.4**
**JHJ Hachijo jima 2 3.38 199** P **Pn** **22 12 32.8 +0.5**
53nm,0.3s,baz=4.4,slow=13,SNR=14
JHJ S **Sn** **22 13 11.1 0.0**
202nm,0.3s,baz=72,slow=20,SNR=7.7
**INU Inuyama 3.48 255** *e*Pn **Pn** **22 12 35.0 +1.4**
**ERM Erimo 5.90 15** *e*P **Pn** **22 13 04.6 -2.2**
ERM *e* 22 14 10.8
ERM pmax pmax
comp=Z,70nm,0.7s
**ERM Erimo 5.90 15** *e*Pn **Pn** **22 13 04.6 -2.2**
comp=Z,70nm,0.7s
ERM *e*Sn **Sn** **22 14 10.8 -2.3**
**ASAJ Asahikawa 7.87 8** P **Pn** **22 13 31.4 -2.4**
comp=Z,4.0nm,0.3s,baz=195,slow=14,SNR=13
ASAJ S **Sn** **22 14 58.7 -2.8**
comp=Z,3.5nm,0.3s,baz=252,slow=20,SNR=4.0
**ASAJ Asahikawa 7.87 8** *e*Pn **Pn** **22 13 32.3 -1.5**
ASAJ *e*Sn **Sn** **22 15 02.0 +0.5**
**YUK Yuzh-Kuril'sk 8.51 24** *e*P Pn 22 13 48.9 +6.3
YUK *e*S **Sn** **22 15 12.7 -4.6**
YUK pmax pmax
comp=Z,265nm,0.3s
YUK smax smax
comp=E,544nm,0.6s
YUK smax smax
comp=N,364nm,0.4s
**SHO Shikotan 8.71 28** *e*P **Pn** **22 13 48.6 +3.2**
**JNU Nakatsue 9.02 252** P **Pn** **22 13 51.2 +1.5**
comp=N,0.5nm,0.3s,baz=63,slow=11,SNR=12
**JNU Nakatsue 9.02 252** *e*Pn **Pn** **22 13 52.1 +2.4**
**CBIJ Chichi jima 9.24 174** *e*Pn **Pn** **22 13 49.3 -3.4**
CBIJ *e*Sn Sn 22 15 24.4 -11
**MSHR Mys Shultsa 9.92 312** *i* P **Pn** **22 14 03.5 +1.6**
**KUR Kuril'sk 10.26 28** *e*P Pn 22 14 12.1 +5.5
**USRK Ussuriysk Ar. 10.51 321** P **Pn** **22 14 12.2 +2.2**
comp=N,2.5nm,0.3s,baz=136,slow=13,SNR=25
USRK LR LR 22 18 06.8
comp=N,1µm,18.2s,baz=126,slow=36
**KSRS Korea Array 10.64 280** P **Pn** **22 14 15.4 +3.7**
comp=N,0.7nm,0.3s,baz=94,slow=14,SNR=30
KSRS LR LR 22 18 07.2
comp=N,1µm,20.8s,baz=76,slow=36
**KS15 Wonju Array Si 10.67 280** *e*Pn **Pn** **22 14 16.2 +4.0**
**KSAR Wonju Array Be 10.67 280** P **Pn** **22 14 15.5 +3.3**
**KSAR Wonju Array Be 10.67 280** P **Pn** **22 14 15.4 +3.3**
**YSS Yuzh-Sakhalins 10.69 6**⇑ *e*P **Pn** **22 14 11.4 -1.1**
YSS *e*S **Sn** **22 16 07.2 -3.6**
YSS pmax pmax
comp=Z,30nm,0.7s
YSS MLR MLR
comp=Z,720nm,13.0s
**TJN Taejon 11.10 274** *ce*P **Pn** **22 14 19.5 +1.4**
**MDJ Mudanjiang 12.06 317** P **Pn** **22 14 34.0 +2.8**
MDJ S **Sn** **22 16 45.3 +0.9**
MDJ PcP **PcP** **22 20 15.0 +1.0**
MDJ ScP **ScP** **22 23 44.4 +0.8**
MDJ PcS **PcS** **22 23 49.3 +1.3**
MDJ ScS **ScS** **22 27 20.7 +1.3**
MDJ pmax pmax
comp=Z,48nm,1.1s
MDJ pmax pmax
comp=Z,160nm,3.8s
**MDJ Mudanjiang 12.06 317** *e*Pn **Pn** **22 14 29.7 -1.5**
comp=Z,50nm,0.9s
**HABR Khabarovsk 12.94 342** *e*P **Pn** **22 14 42.2 -1.0**
HABR *e*S **Sn** **22 17 04.4 -1.3**
HABR pmax pmax
comp=N,14nm,1.1s
HABR pmax pmax
comp=Z,27nm,1.1s
HABR pmax pmax
comp=E,19nm,1.1s
HABR MLR MLR
comp=Z,264nm,12.0s
**CN2 Changchun 14.13 307** *e*P **Pn** **22 14 58.5 -0.9**
CN2 *ep*P P 22 15 06.9 +0.7
CN2 pmax pmax
comp=Z,10.0nm,0.5s
CN2 pmax pmax
comp=Z,200nm,4.0s
CN2 LR LR
comp=Z,500nm,14.0s
CN2 LR LR
comp=Z,800nm,14.0s
CN2 LR LR
comp=Z,900nm,13.0s
**TYV Tymovskoe 14.58 4** *e*P **Pn** **22 15 02.1 -3.3**
TYV pmax pmax
comp=Z,26nm,1.4s
**SNY Shenyang 14.69 297** ⇓P **Pn** **22 15 07.7 +0.8**
SNY S **Sn** **22 17 41.4 -7.0**
SNY pmax pmax
comp=Z,28nm,0.9s
SNY LR LR
comp=Z,810nm,15.2s
SNY LR LR
comp=Z,1µm,16.6s
SNY LR LR
comp=Z,2µm,19.0s
**DL2 Dalian 15.66 285** P **P** **22 15 23.3 0.0**
DL2 *e*S **Sn** **22 18 17.9 +5.7**
DL2 pmax pmax
comp=Z,69nm,0.7s
DL2 pmax pmax
comp=Z,420nm,8.2s
DL2 LR LR
comp=Z,2µm,21.4s
DL2 LR LR
comp=Z,2µm,17.6s
**SKR Severo-Kuril's 17.96 32** *i* P **P** **22 15 51.3 +2.7**
**TIA Tai'an 19.35 277** ⇓P **P** **22 16 02.5 -1.5**
TIA S **S** **22 19 34.2 -6.5**
TIA pmax pmax
comp=Z,70nm,0.9s
TIA pmax pmax
comp=Z,450nm,5.1s
TIA LR LR
comp=Z,620nm,17.3s
TIA LR LR
comp=Z,890nm,17.3s
TIA LR LR
comp=Z,870nm,19.9s
**BJI Beijing 19.94 288** P **P** **22 16 09.1 -1.3**
BJI pmax pmax
comp=Z,23nm,1.1s
BJI pmax pmax
comp=Z,150nm,3.7s
BJI LR LR
comp=Z,430nm,15.9s
BJI LR LR
comp=Z,610nm,15.9s
**BJT Baijiatuau 19.95 288** *e*P **P** **22 16 08.7 -1.8**
BJT pmax pmax
comp=Z,39nm,0.9s
**BJT Baijiatuau 19.95 288** *e*P **P** **22 16 08.7 -1.8**
comp=Z,39nm,0.9s
**HIA Hailar 20.25 316** *e*P **P** **22 16 11.6 -2.1**
HIA pmax pmax
comp=Z,42nm,1.0s
**HIA Hailar 20.25 316** *e*P **P** **22 16 11.6 -2.1**
comp=Z,42nm,1.0s
**PETK Petropavlovsk- 20.42 30** P **P** **22 16 16.7 +1.2**
comp=E,16nm,1.1s,baz=193,slow=6.1,SNR=5.3
PETK LR LR 22 23 40.1
comp=Z,174nm,20.7s,baz=221,slow=35
**YHNB Yeheng 20.56 241** *e*P **P** **22 16 15.6 -1.7**
comp=Z,24nm,0.8s
**SSLB Suanglung 21.42 240** *e*P **P** **22 16 24.8 -1.7**
comp=Z,9.0nm,0.6s

**YULB Yu-li 21.43 239** *e*P **P** **22 16 25.8 -0.9**
comp=Z,9.8nm,0.7s
**TPUB Ta-pu 21.96 239** *e*P **P** **22 16 28.7 -3.6**
comp=Z,49nm,1.1s
**GUMO Guam 22.88 171** LR LR 22 24 04.3
comp=Z,161nm,21.1s,baz=21,slow=32
**GUMO Guam 22.88 171** *e*P **P** **22 16 42.4 +0.2**
GUMO pmax pmax
comp=Z,86nm,0.8s
**GUMO Guam 22.88 171** *e*P **P** **22 16 42.4 +0.2**
comp=Z,86nm,0.8s
**WHN Wuhan 23.04 263** ⇓P **P** **22 16 40.9 -2.8**
WHN LR LR
comp=Z,2µm,12.7s
**CLNS Chul'man 23.24 337** *e*P **P** **22 16 43.4 -2.1**
CLNS pmax pmax
comp=Z,33nm,1.2s
CLNS pmax pmax
comp=N,21nm,1.2s
CLNS pmax pmax
comp=E,11nm,1.2s
**HHC Hu-ho-hao-te 23.49 290** *e*P **P** **22 16 48.0 -0.2**
HHC PP **PnPn** **22 17 17.0 +1.3**
HHC S **S** **22 20 55.3 -3.7**
HHC sS sS 22 21 12.6 -4.8
HHC SS **SnSn** **22 21 42.9 +5.7**
HHC PcS **PcS** **22 24 13.9 +1.5**
HHC pmax pmax
comp=E,98nm,4.6s
HHC LR LR
comp=E,230nm,12.3s
HHC LR LR
comp=E,480nm,17.3s
HHC LR LR
comp=E,490nm,14.8s
**MA2 Magadan 24.10 12** P **P** **22 16 53.9 +0.4**
comp=E,37nm,0.9s,baz=191,slow=5.7,SNR=10
MA2 LR LR 22 28 12.1
comp=E,103nm,19.0s,baz=184,slow=41
**MA2 Magadan 24.10 12** *ce*P **P** **22 16 54.0 +0.5**
**XAN Xi'an 26.36 275** P **P** **22 17 13.4 -1.0**
XAN pP pP 22 17 24.1 -1.3
XAN PP **PnPn** **22 17 54.6 -0.3**
XAN S **S** **22 21 38.9 -5.9**
XAN pmax pmax
comp=E,41nm,1.2s
XAN pmax pmax
comp=E,120nm,9.6s
XAN LR LR
comp=E,170nm,13.5s
XAN LR LR
comp=E,300nm,17.3s
XAN LR LR
comp=E,580nm,16.7s
**YAK Yakutsk 26.71 348** P **P** **22 17 15.5 -1.7**
comp=E,20nm,0.4s,baz=191,slow=4.2,SNR=17
**YAK Yakutsk 26.71 348** *c i*P **P** **22 17 16.2 -1.0**
YAK *e**PP **pP** **22 17 23.8 -4.4**
YAK *e* 22 17 57.4
YAK *e* 22 20 38.7
YAK *e*S **S** **22 21 48.5 -1.2**
YAK *e* 22 28 09.5
YAK pmax pmax
comp=Z,121nm,1.1s
YAK pmax pmax
comp=N,57nm,1.3s
YAK pmax pmax
comp=E,13nm,1.3s
YAK pmax pmax
comp=Z,119nm,3.2s
YAK smax smax
comp=E,65nm,2.3s
YAK smax smax
comp=N,23nm,2.1s
YAK MLR MLR
comp=Z,499nm,22.0s
YAK MLR MLR
comp=E,112nm,20.0s
**YAK Yakutsk 26.71 348** *e*P **P** **22 17 16.5 -0.7**
comp=E,106nm,1.0s
**ENH Enshi 27.05 266** *e*P **P** **22 17 18.9 -1.7**
comp=E,62nm,0.8s
**SEY Seymchan 27.53 11** P **P** **22 17 25.4 +0.9**
comp=E,23nm,0.9s,baz=198,slow=7.4,SNR=26
SEY LR LR 22 30 47.6
comp=E,275nm,18.3s,baz=152,slow=42
**SEY Seymchan 27.53 11** *ce*P **P** **22 17 26.6 +2.1**
**ULN Ulaanbaatar 27.57 305** *ce*P **P** **22 17 23.6 -1.6**
ULN pmax pmax
comp=Z,16nm,0.9s
**ULN Ulaanbaatar 27.57 305** *e*P **P** **22 17 23.8 -1.5**
comp=Z,9.5nm,0.8s
ULN *e*PcP **PcP** **22 20 43.0 +0.8**
**H11N2 WAKE ISLAND Hy 27.99 119** T T 22 46 50.8
baz=312,slow=75,SNR=177
**SONA1 Songino Array 27.99 305** *e*P **P** **22 17 27.8 -1.2**
**SONM Songino Array 28.00 305** P **P** **22 17 28.2 -0.8**
comp=Z,19nm,0.8s,baz=106,slow=8.2,SNR=89
SONM PcP **PcP** **22 20 43.3 +0.1**
comp=Z,1.3nm,0.6s,baz=105,slow=1.8,SNR=4.2
SONM pPcP 22 20 57.0
comp=Z,1.6nm,0.7s,baz=151,slow=4.0,SNR=4.0
SONM LR LR 22 28 44.5
comp=Z,510nm,21.0s,baz=68,slow=36
**H11N1 WAKE ISLAND Hy 28.00 119** T T 22 46 50.8
baz=312,slow=75,SNR=203
**H11N3 WAKE ISLAND Hy 28.01 119** T T 22 46 51.4
baz=312,slow=75,SNR=176
**BOD Bodaibo 28.01 329** ⇓ *i*P **P** **22 17 27.6 -1.3**
BOD pmax pmax
comp=Z,28nm,1.2s
**H11S1 WAKE ISLAND Hy 28.68 121** T T 22 47 39.4
baz=314,slow=75,SNR=377
**H11S3 WAKE ISLAND Hy 28.68 121** T T 22 47 41.3
baz=314,slow=75,SNR=272
**H11S2 WAKE ISLAND Hy 28.69 121** T T 22 47 41.3
baz=314,slow=75,SNR=276
**LZH Lanzhou 29.96 281** *e*P **P** **22 17 46.2 -0.5**
LZH pP pP 22 17 55.4 -2.4
LZH sP sP 22 18 00.9 -1.7
LZH PP **PnPn** **22 18 47.0 +2.9**
LZH S **S** **22 22 41.3 -0.5**
LZH SS **SnSn** **22 24 19.0 +3.5**
LZH pmax pmax
comp=Z,34nm,1.0s
LZH pmax pmax
comp=Z,170nm,4.5s
LZH LR LR
comp=Z,600nm,15.0s
LZH LR LR
comp=Z,740nm,12.8s
LZH LR LR
comp=Z,880nm,14.6s
**ZAK Zakamensk 30.54 309** *e*P **P** **22 17 50.4 -1.1**
ZAK pmax pmax
comp=Z,10.0nm,1.1s
**TLY Talaya 30.63 312** *e*P **P** **22 17 51.2 -1.0**
TLY *e* 22 19 03.1
TLY *e*S **S** **22 22 55.1 +3.5**
TLY pmax pmax
comp=Z,32nm,0.9s
TLY MLR MLR
comp=Z,418nm,16.0s
**TLY Talaya 30.63 312** *e*P **P** **22 17 52.7 +0.5**
comp=Z,24nm,0.8s
**GYA Guiyang 30.88 261**⇑ *i*P **P** **22 17 52.8 -2.0**
GYA pP pP 22 18 08.4 +2.5
GYA PP **PnPn** **22 18 59.0 +2.9**
GYA S **S** **22 22 56.8 +0.7**
GYA sS sS 22 23 16.6 +2.0
GYA ScP **ScP** **22 24 32.0 +1.7**
GYA SS **SnSn** **22 24 41.5 +3.7**
GYA pmax pmax
comp=Z,30nm,1.0s
GYA pmax pmax
comp=Z,120nm,5.4s
GYA LR LR
comp=Z,550nm,17.2s
GYA LR LR
comp=Z,500nm,17.5s
GYA LR LR
comp=Z,520nm,17.4s
**CD2 Chengdu 31.45 271** P **P** **22 17 58.9 -0.8**
CD2 pP pP 22 18 07.6 -3.2
CD2 sP sP 22 18 12.2 -3.4
CD2 S **S** **22 23 04.4 -0.5**
CD2 pmax pmax
comp=Z,40nm,1.1s
CD2 LR LR
comp=Z,560nm,15.5s
CD2 LR LR
comp=Z,650nm,19.0s
CD2 LR LR
comp=Z,590nm,17.8s
**MOY Mondy 32.23 311** *e*P **P** **22 18 05.9 -0.5**
**QIZ Qiongzhong 32.43 246** P **P** **22 18 09.8 +1.5**
QIZ sP **sP** **22 18 27.7 +3.4**
QIZ PP **PP** **22 19 19.4 -2.6**
QIZ S **S** **22 23 20.4 +0.2**
QIZ SS **SnSn** **22 25 20.3 +4.8**
QIZ pmax pmax
comp=Z,43nm,2.4s
QIZ pmax pmax
comp=Z,260nm,3.3s
QIZ LR LR
comp=Z,400nm,22.0s
**GTA Gaotai 32.56 288** *e*P **P** **22 18 08.8 -0.6**
GTA pP pP 22 18 20.4 -0.2
GTA sP sP 22 18 25.2 -0.2
GTA PcP **PcP** **22 20 56.2 +1.0**
GTA S **S** **22 23 19.4 -2.8**
GTA sS sS 22 23 40.4 -0.3
GTA SS **SnSn** **22 25 19.8 +1.4**
GTA pmax pmax
comp=Z,10.0nm,0.7s
GTA pmax pmax
comp=Z,99nm,4.5s
GTA LR LR
comp=Z,220nm,18.5s
GTA LR LR
comp=Z,340nm,17.6s
GTA LR LR
comp=Z,390nm,18.1s
**KMI Kunming 34.63 262** P **P** **22 18 29.7 +2.0**
KMI pP pP 22 18 41.1 +2.2
KMI sP sP 22 18 45.8 +2.1
KMI PP **PP** **22 19 46.4 -0.2**
KMI S **S** **22 23 53.9 -0.8**
KMI sS sS 22 24 13.6 +0.3
KMI SS **SnSn** **22 26 05.6 -3.5**
KMI pmax pmax
comp=Z,17nm,0.7s
KMI pmax pmax
comp=Z,140nm,3.8s
KMI LR LR
comp=Z,310nm,14.0s
KMI LR LR
comp=Z,420nm,16.1s
KMI LR LR
comp=Z,450nm,19.7s
**TIXI Tiksi 35.97 353** P **P** **22 18 37.8 -0.6**
comp=Z,3.9nm,0.6s,baz=133,slow=6.7,SNR=15
**TIXI Tiksi 35.97 353** *e*P **P** **22 18 40.5 +2.1**
TIXI pmax pmax
comp=Z,4.0nm,0.8s
**TIXI Tiksi 35.97 353** *e*P **P** **22 18 37.0 -1.4**
comp=Z,8.0nm,0.8s
**HVS Khovu-Aksy 36.66 309** *i* P **P** **22 18 44.9 +0.3**
HVS pmax pmax
comp=Z,21nm,0.7s
**NONG Nongkai 38.06 252** P **P** **22 18 59.1 +2.3**
comp=Z,37nm,1.3s
**FAKI Fak Fak 39.91 194** *e*P **P** **22 19 12.7 +0.5**
comp=Z,24nm,0.8s
**PHRA Phrae 40.07 255** P **P** **22 19 13.5 0.0**
comp=Z,12nm,1.6s,comp=Z,28µm
**CHAI Chaiyaphum 40.24 250** P **P** **22 19 14.7 -0.3**
comp=Z,9.4nm,0.9s,comp=Z,96nm
**UTTA Uttaradit 40.25 254** P **P** **22 19 15.2 +0.2**
comp=Z,4.6nm,1.0s
**PBKT Sadao Pong 40.62 252** P **P** **22 19 18.1 0.0**
comp=Z,34nm,1.1s,comp=Z,801nm
**CMMT Chiang Mai 40.89 256** P **P** **22 19 20.1 -0.3**
comp=Z,14nm,1.2s
**CHTO Chiang Mai 40.90 256** P **P** **22 19 20.1 -0.3**
comp=Z,48nm,1.0s
**CHTO Chiang Mai 40.90 256** *e*P **P** **22 19 20.1 -0.3**
CHTO pmax pmax
comp=Z,29nm,1.8s
**CHTO Chiang Mai 40.90 256** *e*P **P** **22 19 20.1 -0.3**
comp=Z,29nm,1.8s
**WMQ Urumqi 40.96 298** P **P** **22 19 21.6 +0.9**
WMQ pP pP 22 19 33.7 +1.6
WMQ sP sP 22 19 38.9 +2.0
WMQ PP **PP** **22 20 56.2 +0.7**
WMQ sS sS 22 25 50.9 +2.2
WMQ SS **SS** **22 28 30.7 -1.8**
WMQ pmax pmax
comp=Z,110nm,1.3s
WMQ pmax pmax
comp=Z,400nm,3.8s
WMQ LR LR
comp=Z,340nm,17.9s
WMQ LR LR
comp=Z,310nm,28.1s
WMQ LR LR
comp=Z,570nm,21.7s
**CMAR Chiang Mai Arr 41.09 256** P **P** **22 19 21.9 -0.1**
comp=Z,3.3nm,0.7s,baz=45,slow=5.8,SNR=22
CMAR PcP **PcP** **22 21 21.9 +0.8**
comp=Z,1.9nm,0.8s,baz=27,slow=3.4,SNR=5.7
**CMAR Chiang Mai Arr 41.09 256** P **P** **22 19 22.0 -0.1**
CMAR 22 21 22.0
CMAR pmax pmax
comp=Z,3.0nm,0.7s
CMAR pmax pmax
comp=Z,2.0nm,0.8s
**CM01 Chiang Mai Arr 41.10 256** *e*P **P** **22 19 21.5 -0.6**
CM01 *e*PcP **PcP** **22 21 21.9 +0.7**
**SUKH Sukhothai 41.11 254** P **P** **22 19 22.6 +0.4**
comp=Z,3.8nm,1.0s
**LSA Lhasa 42.05 276** *e*P **P** **22 19 30.3 0.0**
LSA pmax pmax
comp=Z,21nm,0.9s
**LSA Lhasa 42.05 276** *e*P **P** **22 19 30.3 0.0**
comp=Z,21nm,0.9s
**ZAA0 Zalesovo Array 42.23 313** *e*P **P** **22 19 30.3 -0.5**
comp=Z,36nm,0.8s
**ZALV Zalesovo Beam 42.23 313** P **P** **22 19 30.9 0.0**
comp=Z,28nm,0.6s,baz=94,slow=7.0,SNR=137
ZALV PcP **PcP** **22 21 23.6 -0.6**
comp=Z,10nm,0.9s,baz=110,slow=1.7,SNR=5.2
ZALV pPcP 22 21 36.9
comp=Z,5.5nm,0.8s,baz=95,slow=3.5,SNR=4.4
ZALV ScP **ScP** **22 25 11.1 -0.4**
comp=Z,0.4nm,0.2s,baz=120,slow=5.2,SNR=2.9
**ZALV Zalesovo Beam 42.23 313** *e*P **P** **22 19 30.2 -0.7**
ZALV PcP **PcP** **22 21 23.6 -0.6**
ZALV pPcP 22 21 36.9
ZALV ScP **ScP** **22 25 11.1 -0.4**
**UTHA Uthaitani 42.39 252** P **P** **22 19 33.0 +0.4**
comp=Z,5.1nm,1.0s
**NVS Novosibirsk 43.17 314** *e*P **P** **22 19 38.3 -0.2**
NVS pmax pmax
comp=Z,57nm,1.2s
NVS pmax pmax
comp=N,7.0nm,1.1s
NVS pmax pmax
comp=E,43nm,1.3s
**SRDT SRDT 43.37 251** P **P** **22 19 40.9 +0.3**
comp=E,72nm,1.1s
**MK01 Makanchi Array 44.30 303** *e*P **P** **22 19 47.0 -0.7**
**MK31 Makanchi Array 44.30 303** *ce*P **P** **22 19 47.6 -0.2**
MK31 pmax pmax
comp=Z,21nm,0.8s
**MK31 Makanchi Array 44.30 303** *e*P **P** **22 19 48.0 +0.2**
**MKAR Makanchi Array 44.30 303** P **P** **22 19 47.6 -0.1**
comp=Z,12nm,0.7s,baz=88,slow=9.3,SNR=41
**MAKZ Makanchi 44.52 303** *e*P **P** **22 19 48.4 -1.0**
MAKZ pmax pmax
comp=Z,93nm,1.9s
**MAKZ Makanchi 44.52 303** *e*P **P** **22 19 48.4 -1.0**
comp=Z,93nm,1.9s
**CHGN Chignik 44.64 44** *e*P **P** **22 19 49.4 -0.8**
comp=Z,148nm,1.4s
**KSM Kuching 44.89 227** *e*P **P** **22 19 52.2 -0.5**
comp=Z,7.3nm,0.8s
**KAPI Kappang 45.73 210** *e*P **P** **22 19 58.7 -0.6**
comp=Z,84nm,1.4s
**TAPN Taplejung 45.76 275** *e*P **P** **22 19 59.8 -0.1**
**PMG Port Moresby 45.84 172** LR LR 22 37 39.6
comp=Z,63nm,21.1s,baz=325,slow=34

PMG **Port Moresby** 45.84 172 *e*P P 22 20 00.1 0.0
PMG pmax pmax
comp=Z,26nm,1.1s
PMG **Port Moresby** 45.84 172 *e*P P 22 20 00.1 0.0
comp=Z,26nm,1.1s
KURK **Kurchatov** 46.19 309 *ce*P P 22 20 02.0 -0.6
KURK pmax pmax
comp=Z,76nm,0.8s
KURK **Kurchatov** 46.19 309 *e*P P 22 20 02.3 -0.4
comp=Z,86nm,0.8s
ODAN **Odare** 46.23 274 *e*P P 22 20 03.2 -0.3
comp=Z,64nm,1.1s
SVW2 **Sparrevohn** 46.23 37 *e*P P 22 20 04.5 +1.7
comp=Z,62nm,1.6s
RAMN **Ramite** 46.83 275 *e*P P 22 20 08.0 -0.2
comp=Z,289nm,1.0s
JIRN **Jiri** 46.85 276 *e*P P
GUN **Gumba** 47.00 276 *e*P P 22 20 09.8 +0.1
comp=Z,144nm,0.9s
SURT **Suratani** 47.07 245 P P 22 20 10.9 +1.0
comp=Z,13nm,1.2s
TRTT **Trang** 47.17 243 P P 22 20 11.5 +0.8
comp=Z,25nm,1.1s
IMAR **Indian Mountai** 47.38 30 *e*P P 22 20 11.8 0.0
PKI **Pulchoki** 47.52 276 *e*P P 22 20 13.4 -0.3
comp=Z,105nm,0.9s
PKIN **Phulchoki** 47.53 276 *e*P P 22 20 13.9 +0.2
comp=Z,99nm,0.9s
KKN **Kakani** 47.53 276 *e*P P 22 20 13.6 -0.1
comp=Z,137nm,1.0s
DMN **Daman** 47.75 276 *e*P P 22 20 15.2 -0.2
comp=Z,73nm,1.0s
KDAK **Kodiak Island** 47.78 41 P P 22 20 14.6 -0.3
comp=Z,17nm,1.0s,baz=253,slow=11,SNR=4.1
KDAK pP **pP** 22 20 27.3 +0.9
comp=Z,11nm,0.8s,baz=261,slow=7.5,SNR=2.4
CAST **Castle Rocks** 47.95 34 *e*P P 22 20 16.8 +0.6
comp=Z,67nm,0.9s
GKN **Gorkha** 47.96 277 *e*P P 22 20 16.7 -0.2
comp=Z,6.5nm,0.9s
MMRI **Maumere** 48.12 205 *e*P P 22 20 17.9 -0.1
comp=Z,40nm,0.9s
PKDT **Phuket** 48.12 245 P P 22 20 18.9 +0.8
comp=Z,56nm,1.0s
KULM **Kulim** 48.26 240 *e*P P 22 20 18.5 -0.7
comp=Z,13nm,1.0s
BPAW **Bear Paw Mtn.** 48.45 33 *e*P P 22 20 21.3 +1.3
comp=Z,1.0nm,0.8s
SOEI **Soe** 48.50 202 *e*P P 22 20 20.6 -0.5
comp=Z,79nm,1.0s
DANN **Dangsing** 48.51 278 *e*P P 22 20 22.0 +0.6
IPM **Ipoh** 48.57 239 *e*P P 22 20 20.9 -0.7
comp=Z,23nm,1.1s
MLY **Manley** 48.58 32 *e*P P 22 20 22.8 +1.7
comp=Z,18nm,1.0s
TRF **Thorofare Moun** 48.75 34 *e*P P 22 20 24.1 +1.5
comp=Z,6.0nm,0.9s
HNR **Honiara** 48.84 155 LR LR 22 38 30.6
comp=Z,142nm,21.7s,baz=332,slow=33
KOLN **Koldanda** 48.88 277 *e*P P 22 20 24.1 0.0
comp=Z,79nm,0.9s
COLD **Coldfoot** 48.89 29 *e*P P 22 20 23.5 +0.1
comp=Z,4.0nm,0.9s
RC01 **Rabbit Creek A** 49.07 37 *e*P P 22 20 27.6 +2.8
comp=Z,115nm,2.0s
PYUN **Piuthan** 49.23 278 *e*P P 22 20 26.9 +0.1
comp=Z,371nm,1.0s
PMR **Palmer** 49.34 36 *e*P P 22 20 26.1 -0.7
PMR pmax pmax
comp=Z,67nm,1.8s
PMR **Palmer** 49.34 36 *e*P P 22 20 26.1 -0.7
comp=Z,67nm,1.8s
MCK **McKinley** 49.35 33 *e*P P 22 20 27.7 +0.7
MCK pmax pmax
comp=Z,9.0nm,0.9s
MCK **McKinley** 49.35 33 *e*P P 22 20 27.7 +0.7
comp=Z,9.4nm,0.9s
RND **Reindeer** 49.40 34 *e*P P 22 20 28.7 +1.3
RND pmax pmax
comp=Z,12nm,0.9s
RND **Reindeer** 49.40 34 *e*P P 22 20 28.7 +1.3
comp=Z,12nm,0.9s
MDM **Murphy Dome** 49.64 32 *e*P P 22 20 31.1 +1.9
comp=Z,26nm,0.9s
SML **Sawmill** 49.70 36 *e*P P 22 20 30.3 +0.6
SML pmax pmax
comp=Z,4.0nm,0.9s
SML **Sawmill** 49.70 36 *e*P P 22 20 30.3 +0.6
comp=Z,4.4nm,0.9s
TKM2 **Tokmak 2** 49.77 299 P P 22 20 31.6 +0.9
SNR=34
MTN **Manton Dam** 49.80 193 *e*P P 22 20 30.6 -0.2
comp=Z,17nm,0.6s
COLA **College** 49.80 32 *e*P P 22 20 31.7 +1.4
COLA pmax pmax
comp=Z,10.0nm,0.8s
COLA **College** 49.80 32 *e*P P 22 20 31.7 +1.4
comp=Z,10.0nm,0.8s
COEN **Coen** 50.04 177 *e*P P 22 20 33.2 +0.6
comp=Z,24nm,1.2s
IL1 **Eielson Array** 50.22 32 *e*P P 22 20 33.0 -0.5
ILAR **Eielson Array** 50.22 32 P P 22 20 34.0 +0.5
comp=Z,10nm,0.8s,baz=269,slow=6.3,SNR=88
ILB **Eielson Array** 50.22 32 *e*P P 22 20 34.2 +0.7
KBK **Karagaybulak** 50.30 299 P P 22 20 35.3 +0.7
SNR=39
CHMS **Chumysh** 50.34 299 P P 22 20 35.1 +0.2
SNR=12
KSH **Kashi** 50.49 295 P P 22 20 39.2 +3.1
KSH pP sP 22 20 51.3 -1.1
KSH PcP **PcP** **22 21 54.8 +1.1**
KSH PP **PP** **22 22 36.0 +4.2**
KSH S **S** **22 27 50.3 +3.1**
KSH ScS **ScS** **22 30 21.9 -1.9**
KSH SS **SS** **22 31 22.1 +0.9**
KSH pmax pmax
comp=Z,16nm,0.8s
KSH pmax pmax
comp=Z,83nm,2.9s
KSH LR LR
comp=Z,330nm,3.9s
KSH LR LR
comp=Z,400nm,4.0s
AAK **Ala-Archa** 50.63 299 *ce*P P 22 20 37.2 +0.1
AAK pmax pmax
comp=Z,19nm,1.1s
AAK **Ala-Archa** 50.63 299 P P 22 20 37.3 +0.2
SNR=14
AAK **Ala-Archa** 50.63 299 *e*P P 22 20 37.3 +0.2
comp=Z,18nm,1.0s
UCH **Uchtor** 50.73 298 P P 22 20 39.1 +0.8
SNR=15
FYU **Fort Yukon** 50.84 30 *e*P P 22 20 40.8 +2.6
comp=Z,22nm,1.0s
BRVK **Borovoye** 50.94 313 *ce*P P 22 20 39.0 -0.1
BRVK pmax pmax
comp=Z,32nm,0.9s
BRVK **Borovoye** 50.94 313 *e*P P 22 20 38.9 -0.2
comp=Z,26nm,0.8s
DIV **Divide** 50.98 37 *e*P P 22 20 40.5 +1.1
comp=Z,41nm,1.3s
EKS2 **Erkin-Say** 51.13 299 P P 22 20 40.7 -0.1
SNR=11
PSI **Prapat** 51.23 239 *e*P P 22 20 40.9 -1.0
PSI pmax pmax
comp=Z,14nm,0.7s
PSI **Prapat** 51.23 239 *e*P P 22 20 40.9 -1.0
comp=Z,14nm,0.7s
JAGI **Jajag, Banyuwa** 51.27 215 *e*P P 22 20 40.0 -2.0
comp=Z,20nm,0.8s
AML **Almayashu** 51.34 298 P P 22 20 43.6 +0.8
SNR=40
EGAK **Eagle** 52.67 32 *e*P P 22 20 52.8 +1.0
comp=Z,5.2nm,0.8s
THN **Thein Dam** 53.20 286 *e*P P 22 20 54.0 -2.2
GSI **Gunungsitoli** 53.24 239 *e*P P 22 20 55.9 -0.8
comp=Z,318nm,1.5s
KK31 **Karatay Array** 53.28 300 *ce*P P 22 20 56.3 -0.4
KK31 pmax pmax
comp=Z,42nm,1.0s
JBP **Jabalpur** 53.88 274 *e*S P 22 21 01.6 +0.2
HYT **Haines Junctio** 55.01 36 *e*P P 22 21 11.9 +2.7
comp=Z,30nm,1.4s
INK **Inuvik** 55.13 27 P P 22 21 10.1 +0.5
comp=Z,12nm,0.9s,baz=297,slow=5.4,SNR=22
INK **Inuvik** 55.13 27 *e*P P 22 21 10.8 +1.1
INK pmax pmax
comp=Z,14nm,0.9s
INK **Inuvik** 55.13 27 *e*P P 22 21 10.8 +1.1
comp=Z,14nm,0.9s
SVE **Sverdlovsk** 55.53 319 *d*P P 22 21 13.1 +0.3
SVE pmax pmax
comp=Z,49nm,1.1s
FITZ **Fitzroy Crossi** 56.07 198 P P 22 21 17.0 -0.1
comp=Z,3.3nm,0.8s,baz=37,slow=6.1,SNR=6.3
FITZ pP **pP** 22 21 30.5 +1.8
comp=Z,7.0nm,0.6s,baz=16,slow=14,SNR=8.6
WHY **Whitehorse** 56.30 36 *e*P P 22 21 20.1 +1.8
comp=Z,6.8nm,0.7s
WRAB **Tennant Creek** 56.31 188 *ce*P P 22 21 18.2 -0.6
WRAB pmax pmax
comp=Z,37nm,1.2s
WRAB **Tennant Creek** 56.31 188 *e*P P 22 21 18.1 -0.6
comp=Z,15nm,0.9s
WB2 **Warramunga Arr** 56.32 188 *e*P P 22 21 18.0 -0.8
comp=Z,15nm,0.9s
WRA **Warramunga Arr** 56.32 188 P P 22 21 17.8 -1.0
comp=Z,9.6nm,0.8s,baz=5.3,slow=7.4,SNR=69
WRA pP **pP** 22 21 30.1 -0.4
comp=Z,8.6nm,0.7s,baz=2.2,slow=7.3,SNR=9.6
WRA **Warramunga Arr** 56.32 188 *ce*P P 22 21 17.7 -1.1
WRA pmax pmax
comp=Z,10.0nm,0.9s
ARU **Arti** 56.74 319 *c*P P 22 21 21.0 -0.4
ARU *PP **pP** 22 21 33.7 +0.5
ARU 22 22 15.2
ARU 22 23 29.6
ARU S **S** **22 29 11.7 +0.5**
ARU 22 31 06.3
ARU SS **SS** **22 32 55.9 -2.9**
ARU pmax pmax
comp=Z,53nm,1.0s
ARU **Arti** 56.74 319 *e*P P 22 21 21.2 -0.2
comp=Z,51nm,1.0s
KBL **Kabul** 57.45 291 *e*P P 22 21 26.5 -0.6
KBL pmax pmax
comp=Z,30nm,1.4s
KBL **Kabul** 57.45 291 *e*P P 22 21 26.5 -0.6
comp=Z,30nm,1.4s
HYB **Hyderabad** 57.95 269 *i*P P 22 21 32.0 +1.4
AB31 **Akbulak array** 58.22 310 *ce*P P 22 21 31.4 -0.6
AB31 pmax pmax
comp=Z,29nm,1.0s
AKTO **Aktyubinsk** 58.98 312 LR LR 22 46 28.9
comp=Z,685nm,19.9s,slow=35
DLBC **Dease Lake** 59.33 38 *e*P P 22 21 40.8 +1.2
comp=Z,8.5nm,0.9s
AS01 **Alice Springs** 60.05 188 *e*P P 22 21 43.9 -0.9
AS31 **Alice Springs** 60.05 188 *e*P P 22 21 44.4 -0.5
comp=Z,2.8nm,0.6s
ASAR **Alice Springs** 60.05 188 P P 22 21 44.2 -0.7
comp=Z,5.7nm,0.8s,baz=11,slow=7.3,SNR=52
ASAR pP **pP** 22 21 57.5 +0.8
comp=Z,4.2nm,0.7s,baz=16,slow=8.1,SNR=8.9
TMCR **Tamitsa** 63.26 331 *e*P P 22 22 02.8 -3.2
TMCR pmax pmax
comp=Z,27nm,1.0s
GEYT **Alibeck** 63.98 299 P P 22 22 11.3 +0.1
comp=Z,6.7nm,0.8s,baz=27,slow=3.6,SNR=20
KLMR **Klimovskoe** 64.23 328 *e*P P 22 22 11.1 -1.3
KLMR *PP **pP** 22 22 26.4 +2.0
KLMR *e* 22 24 30.1
KLMR pmax pmax
comp=Z,19nm,1.0s
YKA **Yellowknife Ar** 64.54 30 P P 22 22 14.8 +0.4
comp=Z,4.1nm,0.8s,baz=301,slow=6.4,SNR=5.8
ARCES **ARCESS Array B** 64.58 339 P P 22 22 14.3 -0.3
comp=Z,3.2nm,0.8s,baz=60,slow=4.8,SNR=6.8
TULEG **Thule** 65.84 7 *e*P P 22 22 22.0 -0.6
comp=Z,16nm,1.1s
DAG **Danmarks Havn** 66.46 355 *i*P P 22 22 26.0 -0.6
DAG *e* 22 22 38.4
DAG pmax pmax
comp=Z,16nm,0.9s
DAG **Danmarks Havn** 66.46 355 *i*P P 22 22 26.0 -0.6
comp=Z,16nm,0.9s
DAG *e* 22 22 38.4
STKA **Stephens Creek** 67.84 180 P P 22 22 36.2 +0.3
comp=Z,1.8nm,0.7s,baz=334,slow=10,SNR=3.5
FORT **Forrest** 67.86 192 *e*P P 22 22 35.3 -0.7
comp=Z,292nm,0.7s
VRH **Novokhopyorsk** 67.95 318 *e*P P 22 22 35.1 -1.4
VRH pmax pmax
comp=Z,10.0nm,0.8s
E03A **Lebam** 67.97 48 *e*P P 22 22 37.4 +0.7
comp=Z,46nm,1.3s
OBN **Obninsk** 68.53 323 *e*P P 22 22 39.9 -0.1
OBN *e* 22 25 10.9
OBN pmax pmax
comp=Z,61nm,2.2s
OBN MLR MLR
comp=Z,637nm,21.0s
OBN **Obninsk** 68.53 323 *e*P P 22 22 39.5 -0.5
comp=Z,29nm,1.2s
LPSR **Galich'ya Gora** 68.70 320 *e*P P 22 22 40.5 -0.6
LPSR pmax pmax
comp=Z,20nm,0.8s
BBOO **Buckleboo** 68.94 185 *e*P P 22 22 42.3 -0.4
comp=Z,4.2nm,0.7s
F04A **Amos** 68.96 48 *e*P P 22 22 44.1 +1.2
comp=Z,17nm,1.0s
VSR **Storozhevoye** 69.31 319 *e*P P 22 22 44.0 -1.0
VSR pmax pmax
comp=Z,10.0nm,0.7s
FIA1 **FINESS Array S** 69.33 332 *e*P P 22 22 45.0 +0.1
comp=Z,30nm,0.9s
FINES **FINESS Array B** 69.34 332 P P 22 22 44.6 -0.3
comp=Z,18nm,0.9s,baz=35,slow=7.0,SNR=23
FINES pP **pP** 22 22 57.1 +0.2
comp=Z,9.7nm,0.7s,baz=90,slow=6.9,SNR=6.0
B08A **Colville Reser** 69.51 45 *e*P P 22 22 47.5 +1.2
comp=Z,8.9nm,1.0s
H04A **Detroit Lake** 69.75 49 *e*P P 22 22 49.4 +1.5
comp=Z,32nm,1.3s
SEKA **Sheki** 69.80 307 *i*P P 22 22 46.6 -1.7
ZKTA **Zakatala** 69.95 307 *i*P P 22 22 47.9 -1.2
LKRN **Lenkeran, Azer** 70.04 304 *i*P P 22 22 48.5 -1.1
MNGR **Mingechevir, A** 70.10 306 *i*P P 22 22 48.8 -1.2
GOF **Gofitskoye** 70.39 312 *e*P P 22 22 51.6 -0.1
GOF pmax pmax
comp=Z,33nm,0.9s
G06A **Carlson Farm,** 70.39 48 *e*P P 22 22 53.4 +1.5
comp=Z,20nm,1.4s
C09A **Chrisman Ranch** 70.40 45 *e*P P 22 22 53.1 +1.3
comp=Z,10.0nm,1.0s
D08A **Wollman Farm,** 70.43 46 *e*P P 22 22 52.1 +0.2
comp=Z,16nm,1.4s
GANJ **Ganja** 70.66 307 *i*P P 22 22 52.2 -1.3
NEW **Newport** 70.80 44 *e*P P 22 22 53.8 -0.4
NEW pmax pmax
comp=Z,4.0nm,0.8s
NEW **Newport** 70.80 44 *e*P P 22 22 53.8 -0.4
comp=Z,4.2nm,0.8s
NCK **Nalchik** 70.89 310 *e*P P 22 22 54.8 0.0
NCK pmax pmax
comp=Z,14nm,1.1s
VSU **Vasula** 70.95 330 *ce*P P 22 22 55.1 +0.3
VSU pmax pmax
comp=Z,80nm,1.0s
YBH **Yreka Blue Hor** 70.96 52 *e*P P 22 22 57.3 +1.9
YBH pmax pmax
comp=Z,14nm,1.4s
YBH **Yreka Blue Hor** 70.96 52 *e*P P 22 22 57.3 +1.9
comp=Z,14nm,1.4s
ZEI **Tsey** 71.07 309 *e*P P 22 22 54.2 -2.0
ZEI pmax pmax
comp=Z,6.0nm,1.0s
E09A **Wood Farm, Sta** 71.18 46 *e*P P 22 22 57.8 +1.4
comp=Z,23nm,1.3s
KBZ **Khabaz** 71.19 311 P P 22 22 56.7 +0.2
comp=Z,12nm,0.8s,baz=21,slow=2.7,SNR=19
KIV **Kislovodsk** 71.20 311 *i*P P 22 22 57.7 +0.9
SNR=9.6
KIV **Kislovodsk** 71.20 311 *e*P P 22 22 57.3 +0.5
KIV pmax pmax
comp=Z,44nm,1.1s
KIV MLR MLR
comp=Z,658nm,18.0s
KIV **Kislovodsk** 71.20 311 *e*P P 22 22 57.2 +0.5
comp=Z,34nm,0.9s
BANOM **Banah** 71.22 289 P P 22 22 57.4 +0.3
G08A **Pilot Rock** 71.36 47 *e*P P 22 22 59.2 +1.4
comp=Z,6.3nm,1.1s
SUMG **Summit** 71.40 360 *i*P P 22 22 58.1 +0.3
SUMG *i* 22 23 10.5
SUMG pmax pmax
comp=Z,14nm,0.8s
SUMG **Summit** 71.40 360 *i*P P 22 22 58.1 +0.3
comp=Z,14nm,0.8s
SUMG *i* 22 23 10.5
SUMG **Summit** 71.40 360 *e*P P 22 22 58.9 +1.1
comp=Z,14nm,0.9s
NEY **Neytrino** 71.56 310 *e*P P 22 22 59.0 -0.1
WDC **Whiskeytown Da** 71.68 53 *e*P P 22 23 01.7 +2.1
WDC pmax pmax
comp=Z,19nm,1.4s
WDC **Whiskeytown Da** 71.68 53 *e*P P 22 23 01.7 +2.1
comp=Z,19nm,1.4s
I07A **Izee** 71.69 48 *e*P P 22 23 01.7 +1.9
comp=Z,9.9nm,1.3s
HATD **Hatta, Dubai** 71.92 288 *i*P P 22 23 01.5 +0.2
SNR=7.8
GNI **Garni** 71.94 307 P P 22 23 02.2 +0.7
GNI **Garni** 71.94 307 *ce*P P 22 23 01.9 +0.5
GNI pmax pmax
comp=Z,61nm,1.0s
GNI **Garni** 71.94 307 *e*P P 22 23 01.5 +0.1
comp=Z,28nm,1.2s
NAX **Nakhchivan** 71.97 306 *i*P P 22 23 00.3 -1.2
AKH **Akhalkalaki** 72.07 308 *i*P P 22 23 03.1 +0.9
AKH **Akhalkalaki** 72.07 308 *i*P P 22 23 03.1 +0.9
NWAO **Narrogin (SRO)** 72.42 201 P P 22 23 03.6 -0.3
comp=Z,9.0nm,0.9s,baz=253,slow=4.4,SNR=3.5
BMO **Blue Mountains** 72.58 47 *e*P P 22 23 06.4 +1.3
BMO pmax pmax
comp=Z,12nm,1.3s
BMO **Blue Mountains** 72.58 47 *e*P P 22 23 06.3 +1.3
comp=Z,12nm,1.3s
JTMT **Jette** 72.67 43 *e*P P 22 23 07.0 +1.4
comp=Z,24nm,1.4s
J08A **Circle Bar Ran** 72.72 49 *e*P P 22 23 07.7 +1.8
comp=Z,22nm,1.4s
IZAR **Zarasai** 72.88 328 *e*P P 22 23 06.2 -0.3
IZAR IAmb IAmb 22 23 08.1
comp=Z,9.9nm,0.8s
ORV **Oroville** 72.91 53 *e*P P 22 23 07.9 +0.9
ORV pmax pmax
comp=Z,17nm,1.3s
ORV **Oroville** 72.91 53 *e*P P 22 23 07.9 +0.9
comp=Z,17nm,1.3s
IDID **Didziasalis** 72.95 327 *e*P P 22 23 06.6 -0.3
IDID IAmb IAmb 22 23 08.5
comp=Z,10nm,0.9s
IIGN **Ignalina** 73.15 327 *e*P P 22 23 07.8 -0.3
IIGN IAmb IAmb 22 23 09.8
comp=Z,17nm,1.1s
ARTV **Artvin** 73.18 309 *e*P P 22 23 09.6 +0.7
comp=Z,4.9nm,0.7s
NACGM **Naroch** 73.19 327 *e* P 22 23 07.0 -1.3
NACGM *e*LQ LQ 23 18 53.0
NACGM *e*LR LR 23 32 51.0
BEKR **Beckworth** 73.47 53 *e*P P 22 23 11.7 +1.2
comp=Z,14nm,1.0s
PAHR **Pah Rah Range** 74.19 52 *e*P P 22 23 16.0 +1.3
MFID **Camas Ranch** 74.28 48 *e*P P 22 23 16.5 +1.4
comp=Z,28nm,1.7s
FFC **Flin Flon** 74.43 32 *e*P P 22 23 16.3 +0.7
FFC pmax pmax
comp=Z,15nm,1.1s
FFC **Flin Flon** 74.43 32 *e*P P 22 23 16.3 +0.7
comp=Z,15nm,1.1s
CMB **Columbia Colle** 74.47 54 *e*P P 22 23 17.5 +1.3
CMB pmax pmax
comp=Z,12nm,1.0s
CMB **Columbia Colle** 74.47 54 *e*P P 22 23 17.5 +1.3
comp=Z,12nm,1.0s
NC405 **NORSAR Array S** 74.54 337 *e*P P 22 23 16.5 +0.3
HRY **Holter Researc** 74.63 43 *e*P P 22 23 18.4 +1.3
YERR **Yerington** 74.68 53 *e*P P 22 23 19.1 +1.5
comp=Z,18nm,1.2s
NC204 **NORSAR Array S** 74.71 338 *e*P P 22 23 16.8 -0.5
AKASG **Malin Array Be** 74.72 322 P P 22 23 16.8 -0.5
comp=Z,11nm,0.6s,baz=46,slow=6.3,SNR=68
AKBB **Malin Array Si** 74.72 322 *e*P P 22 23 16.9 -0.4
AKBB pmax pmax
comp=Z,27nm,1.0s
AKBB **Malin Array Si** 74.72 322 *e*P P 22 23 16.9 -0.4
comp=Z,27nm,1.0s
NB201 **NORSAR Array S** 74.72 337 *e*P P 22 23 16.8 -0.4
KIEV **Kiev** 74.73 322 *c*P P 22 23 16.7 -0.7
KIEV pmax pmax
comp=Z,19nm,0.9s
KIEV **Kiev** 74.73 322 *e*P P 22 23 16.3 -1.1
comp=Z,27nm,1.0s
NB2 **NORSAR Subarra** 74.75 337 P P 22 23 17.0 -0.4
comp=Z,16nm,0.8s,baz=41,slow=5.9
NB2 **NORSAR Subarra** 74.75 337 P P 22 23 17.0 -0.4
baz=41,slow=5.9
NOA **NORSAR Array B** 74.75 337 P P 22 23 17.3 -0.1
comp=Z,13nm,0.8s,baz=39,slow=5.8,SNR=34
AK11 **Malin Array Si** 74.76 322 *e*P P 22 23 17.3 -0.3
LRM **Limekiln Ridge** 74.82 44 *e*P P 22 23 19.3 +0.9
WAKR **Walker** 74.83 53 *e*P P 22 23 20.1 +1.6
comp=Z,30nm,1.7s
NBO02 **NORSAR Array S** 74.86 337 *e*P P 22 23 17.9 -0.1
NBO00 **NORSAR Array S** 74.90 337 *e*P P 22 23 18.4 +0.2
EGMT **Eagleton** 74.96 41 *e*P P 22 23 19.8 +0.9
comp=Z,12nm,0.8s
DLMT **Dillon** 75.01 44 *e*P P 22 23 20.3 +1.0
comp=Z,37nm,1.5s
HLID **Hailey** 75.03 47 *e*P P 22 23 20.7 +1.2
MCMT **McKenzie Canyo** 75.19 45 *e*P P 22 23 23.5 +3.0
SUW **Suwalki** 75.36 327 *e*P P 22 23 21.0 0.0
SUW **Suwalki** 75.36 327 *e*P P 22 23 21.0 0.0
BOZ **Bozeman (W)** 75.41 44 *e*P P 22 23 22.6 +0.9
BOZ pmax pmax
comp=Z,7.0nm,0.9s
BOZ **Bozeman (W)** 75.41 44 *e*P P 22 23 22.6 +0.9
comp=Z,7.1nm,0.9s
SIM **Simferopol'** 75.67 316 P P 22 23 21.5 -1.5
SIM pmax pmax
comp=Z,20nm,0.7s
MARD **Mardin** 76.09 306 *e*P P 22 23 26.4 +0.7
comp=Z,42nm,1.3s
YHB **Horse Butte** 76.17 44 *e*P P 22 23 28.2 +2.0
comp=Z,17nm,1.2s
YHH **Holmes Hill** 76.34 44 *e*P P 22 23 28.6 +1.5
YHH *e*PcP **PcP** **22 23 37.0 -1.9**
YMR **Madison River** 76.35 44 *e*P P 22 23 28.9 +1.7
comp=Z,15nm,1.4s
YFT **Old Faithful** 76.56 44 *e*P P 22 23 31.8 +3.4
comp=Z,7.8nm,0.9s
SFJD **Kangerlussuaq** 76.61 5 *e*P P 22 23 25.6 -2.3
SFJD pmax pmax
comp=Z,12nm,0.9s
SFJD **Kangerlussuaq** 76.61 5 *i*P P 22 23 25.6 -2.3
comp=Z,12nm,0.9s
YPP **Pitchstone Pla** 76.69 45 *e*P P 22 23 31.8 +2.7
comp=Z,4.3nm,0.9s
SORM **Soroca** 76.79 321 *i*P P 22 23 28.8 -0.4
IMW **Indian Meadow** 76.84 45 *e*P P 22 23 32.1 +2.1
comp=Z,19nm,1.3s
FXWY **Fox Creek** 76.95 45 *e*P P 22 23 32.4 +1.8
FXWY *e*PcP **PcP** **22 23 39.5 -2.0**
MOOW **Moose Ponds** 77.04 45 *e*P P 22 23 32.8 +1.8
comp=Z,8.2nm,1.1s
TOKA **Tokat** 77.06 311 *e*P P 22 23 31.8 +0.9
comp=Z,26nm,1.4s
HVU **Hansel Valley** 77.06 48 *e*P P 22 23 32.8 +1.7
HVU pmax pmax
comp=Z,8.0nm,1.0s
HVU **Hansel Valley** 77.06 48 *e*P P 22 23 32.8 +1.7
comp=Z,8.2nm,1.0s
TPAW **Teton Pass** 77.08 45 *e*P P 22 23 32.2 +0.9
comp=Z,11nm,1.0s
LOHW **Long Hollow** 77.21 45 *e*P P 22 23 32.9 +0.9
comp=Z,6.7nm,1.2s
REDW **Red Top Meadow** 77.22 45 *e*P P 22 23 34.3 +2.2
REDW *e*PcP **sP** **22 23 47.2 -1.7**
BGU **Big Grassy Mou** 77.42 48 *e*P P 22 23 34.7 +1.5
comp=Z,3.7nm,0.9s
LAO **LASA Array** 77.67 41 *e*P P 22 23 34.6 +0.3
comp=Z,13nm,1.1s
TPNV **Topopah Spring** 77.79 53 *e*P P 22 23 36.1 +0.8
TPNV pmax pmax
comp=Z,18nm,1.3s
TPNV **Topopah Spring** 77.79 53 *e*P P 22 23 36.1 +0.8
comp=Z,18nm,1.3s
LVV **L'vov** 77.82 324 *i*P P 22 23 35.0 0.0

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| BEL | Belsk | 77.91 | 327 | eP | P | 22 23 36.1 | +0.6 |
| BEL | Belsk | 77.91 | 327 | eP | P | 22 23 36.1 | +0.6 |
| LEOM | Leova | 77.92 | 319⇑ | iP | P | 22 23 35.6 | 0.0 |
| DUG | Dugway, Tooele | 78.00 | 49 | eP | P | 22 23 37.5 | +1.2 |
| DUG | | | | pmax | pmax | | |
| | comp=Z,11nm,0.9s | | | | | | |
| DUG | Dugway, Tooele | 78.00 | 49 | eP | P | 22 23 37.5 | +1.2 |
| | comp=Z,11nm,0.9s | | | | | | |
| TCUT | Toone Canyon | 78.28 | 47 | eP | P | 22 23 40.0 | +2.0 |
| | comp=Z,16nm,0.9s | | | | | | |
| BW06 | Boulder Array | 78.33 | 45 | eP | P | 22 23 38.8 | +0.5 |
| | comp=Z,3.2nm,0.8s | | | | | | |
| PD31 | Pinedale Array | 78.33 | 45 | eP | P | 22 23 39.0 | +0.7 |
| PDAR | Pinedale Array | 78.33 | 45 | P | P | 22 23 38.7 | +0.4 |
| | comp=Z,1.7nm,0.6s,baz=264,slow=3.1,SNR=13 | | | | | | |
| PDAR | Pinedale Array | 78.33 | 45 | eP | P | 22 23 38.0 | -0.3 |
| KWP | Kalwaria Pacla | 78.57 | 324 | eP | P | 22 23 39.8 | +0.7 |
| KWP | Kalwaria Pacla | 78.57 | 324 | eP | P | 22 23 39.8 | +0.7 |
| NLU | North Lily Min | 78.59 | 49 | eP | P | 22 23 41.2 | +1.5 |
| | comp=Z,13nm,1.2s | | | | | | |
| BUR08 | Bucovina Ar. S | 78.71 | 322 | eP | P | 22 23 40.5 | +0.4 |
| BUR04 | Bucovina Ar. S | 78.72 | 322 | eP | P | 22 23 40.2 | +0.1 |
| BURAR | Bucovina Array | 78.72 | 322⇑ | iP | P | 22 23 40.2 | 0.0 |
| TESR | Tescani | 78.73 | 320⇑ | iP | P | 22 23 40.2 | +0.1 |
| SHPR | Sheep Range | 78.75 | 53 | eP | P | 22 23 42.5 | +1.9 |
| | comp=Z,9.9nm,1.1s | | | | | | |
| CFR | Carcaliu | 78.83 | 318⇓ | iP | P | 22 23 40.6 | 0.0 |
| ODBI | Odobesti | 79.01 | 319⇑ | iP | P | 22 23 41.9 | +0.3 |
| VRI | Vrincioaia | 79.12 | 320⇑ | iP | P | 22 23 42.0 | -0.2 |
| BR131 | Keskin Array S | 79.15 | 311 | eP | P | 22 23 43.0 | +0.2 |
| BRTR | Keskin Array B | 79.15 | 311 | P | P | 22 23 42.6 | 0.0 |
| | comp=Z,10nm,1.0s,baz=113,slow=4.0,SNR=32 | | | | | | |
| BRTR | Keskin Array B | 79.15 | 311 | ceP | P | 22 23 42.9 | +0.2 |
| BRTR | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.0s | | | | | | |
| PLOR | Plostina | 79.17 | 320⇓ | iP | P | 22 23 43.0 | +0.4 |
| CCUT | Cedar City | 79.27 | 51 | eP | P | 22 23 45.1 | +1.6 |
| | comp=Z,22nm,1.6s | | | | | | |
| STHS | Stebnicka Huta | 79.41 | 325 | eP | P | 22 23 45.1 | +1.3 |
| STHS | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.0s | | | | | | |
| STHS | Stebnicka Huta | 79.41 | 325 | eP | P | 22 23 45.1 | +1.3 |
| MSU | Marysvale | 79.42 | 50 | eP | P | 22 23 46.2 | +1.9 |
| MSU | Marysvale | 79.42 | 50 | eP | P | 22 23 46.2 | +1.9 |
| UZH | Uzhgorod | 79.46 | 324⇑ | iP | P | 22 23 44.2 | +0.2 |
| UZH | | | | e | | 22 23 52.8 | |
| UZH | | | | e | | 22 24 03.6 | |
| OJC | Ojcow | 79.50 | 326 | eP | P | 22 23 44.7 | +0.5 |
| OJC | Ojcow | 79.50 | 326 | eP | P | 22 23 44.7 | +0.5 |
| OJC | Ojcow | 79.50 | 326 | eP | P | 22 23 44.6 | +0.5 |
| | comp=Z,28nm,1.0s | | | | | | |
| ARCR | ARCALIA | 79.52 | 322⇑ | iP | P | 22 23 45.6 | +1.2 |
| TMUT | Trail Mountain | 79.53 | 49 | eP | P | 22 23 47.6 | +2.6 |
| | comp=Z,7.7nm,0.9s | | | | | | |
| BMR | Baia Mare | 79.54 | 322⇓ | iP | P | 22 23 45.4 | +0.9 |
| ANTO | Ankara | 79.57 | 312 | eP | P | 22 23 44.0 | -0.9 |
| ANTO | | | | pmax | pmax | | |
| | comp=Z,39nm,0.9s | | | | | | |
| ANTO | Ankara | 79.57 | 312 | eP | P | 22 23 44.0 | -0.9 |
| | comp=Z,39nm,0.9s | | | | | | |
| BR231 | Keskin MP Arra | 79.60 | 312 | eP | P | 22 23 42.9 | -2.2 |
| PGOR | Pogoanele | 79.62 | 319⇑ | iP | P | 22 23 45.9 | +1.0 |
| PFO | Pinyon Flats O | 79.63 | 56 | eP | P | 22 23 45.9 | +0.5 |
| PFO | | | | pmax | pmax | | |
| | comp=Z,12nm,1.1s | | | | | | |
| PFO | Pinyon Flats O | 79.63 | 56 | eP | P | 22 23 45.9 | +0.5 |
| | comp=Z,12nm,1.1s | | | | | | |
| CRVS | Cervenica-Dubn | 79.67 | 324 | eP | P | 22 23 45.5 | +0.3 |
| CRVS | Cervenica-Dubn | 79.67 | 324 | eP | P | 22 23 45.5 | +0.3 |
| LCMT | Little Creek M | 79.67 | 52 | eP | P | 22 23 47.2 | +1.6 |
| | comp=Z,17nm,1.2s | | | | | | |
| P17A | Butcher Ranch, | 79.70 | 48 | eP | P | 22 23 43.6 | -2.1 |
| | comp=Z,23nm,1.1s | | | | | | |
| ICOR | Ion Corvin | 79.70 | 318⇑ | iP | P | 22 23 46.3 | +0.9 |
| MTPU | Mount Pierson | 79.70 | 50 | eP | P | 22 23 48.0 | +1.9 |
| ISR | Istrita | 79.71 | 319⇓ | iP | P | 22 23 46.9 | +1.4 |
| DOPR | Dopca | 79.75 | 320⇓ | iP | P | 22 23 46.8 | +1.1 |
| NIE | Niedzica | 79.84 | 325 | eP | P | 22 23 46.9 | +0.8 |
| NIE | Niedzica | 79.84 | 325 | eP | P | 22 23 46.9 | +0.8 |
| P18A | Preston Nutter | 79.90 | 48 | eP | P | 22 23 49.1 | +2.2 |
| | comp=Z,13nm,1.0s | | | | | | |
| KNB | Kanab | 79.94 | 51 | eP | P | 22 23 48.9 | +1.8 |
| KNB | | | | pmax | pmax | | |
| | comp=Z,30nm,1.3s | | | | | | |
| KNB | Kanab | 79.94 | 51 | eP | P | 22 23 48.9 | +1.8 |
| | comp=Z,30nm,1.3s | | | | | | |
| SRU | San Rafael Swe | 80.06 | 49 | eP | P | 22 23 49.0 | +1.3 |
| SRU | | | | pmax | pmax | | |
| | comp=Z,24nm,1.2s | | | | | | |
| SRU | San Rafael Swe | 80.06 | 49 | eP | P | 22 23 49.0 | +1.3 |
| | comp=Z,24nm,1.2s | | | | | | |
| CJR | Cluj-Napoca | 80.15 | 322⇓ | iP | P | 22 23 48.5 | +0.6 |
| ULM | Lac du Bonnet | 80.22 | 33 | P | P | 22 23 47.5 | -0.6 |
| | comp=Z,2.8nm,0.7s,baz=311,slow=3.9,SNR=4.4 | | | | | | |
| VOIR | | 80.28 | 320⇓ | iP | P | 22 23 48.7 | +0.1 |
| LANS | Liptovska Anna | 80.42 | 325 | eP | P | 22 23 49.7 | +0.5 |
| LANS | Liptovska Anna | 80.42 | 325 | eP | P | 22 23 49.7 | +0.5 |
| KECS | Kecovo | 80.42 | 325 | eP | P | 22 23 49.9 | +0.7 |
| KECS | | | | pmax | pmax | | |
| | comp=Z,15nm,2.2s | | | | | | |
| KECS | Kecovo | 80.42 | 325 | eP | P | 22 23 49.9 | +0.7 |
| OKC | Ostrava-Krasne | 80.52 | 327⇑ | eP | P | 22 23 50.0 | +0.3 |
| OKC | | | | epP | pP | 22 24 01.7 | -0.2 |
| OKC | Ostrava-Krasne | 80.52 | 327 | eP | P | 22 23 50.0 | +0.3 |
| OKC | | | | e | | 22 24 01.7 | |
| OKC | | | | MLR | MLR | | |
| | comp=Z,3μm,17.3s | | | | | | |
| DRGR | | 80.54 | 322⇑ | iP | P | 22 23 50.2 | +0.2 |
| ARR | Arges | 80.54 | 320⇑ | iP | P | 22 23 51.2 | +1.2 |
| KSP | Ksiaz | 80.58 | 328 | eP | P | 22 23 50.6 | +0.5 |
| KSP | Ksiaz | 80.58 | 328 | eP | P | 22 23 50.6 | +0.5 |
| MORC | Moravsky Berou | 80.83 | 327⇑ | iP | P | 22 23 51.1 | -0.3 |
| MORC | Moravsky Berou | 80.83 | 327 | eP | P | 22 23 51.7 | +0.2 |
| MORC | | | | pmax | pmax | | |
| | comp=Z,57nm,1.0s | | | | | | |
| MORC | Moravsky Berou | 80.83 | 327 | eP | P | 22 23 51.7 | +0.2 |
| | comp=Z,57nm,1.0s | | | | | | |
| DPC | Dobruska-Polom | 80.94 | 328 | eP | P | 22 23 52.7 | +0.7 |
| DPC | | | | epP | pP | 22 24 02.3 | -2.0 |
| DPC | | | | ex | x | 22 24 05.4 | |
| DPC | | | | ePP | PP | 22 27 00.7 | +4.5 |
| DPC | Dobruska-Polom | 80.94 | 328 | eP | P | 22 23 52.7 | +0.7 |
| DPC | | | | e | | 22 24 05.4 | |
| DPC | | | | e | | 22 27 00.7 | |
| UPC | Upice | 80.95 | 328⇑ | eP | P | 22 23 52.6 | +0.6 |
| UPC | | | | epP | pP | 22 24 04.4 | +0.1 |
| UPC | Upice | 80.95 | 328 | eP | P | 22 23 52.6 | +0.6 |
| UPC | | | | e | | 22 24 04.4 | |
| UPC | | | | MLR | MLR | | |
| | comp=Z,4μm,17.8s | | | | | | |
| PSZ | Piszkesteto | 81.10 | 324⇑ | iP | P | 22 23 53.8 | +0.8 |
| PSZ | Piszkesteto | 81.10 | 324 | eP | P | 22 23 53.5 | +0.5 |
| PSZ | | | | pmax | pmax | | |
| | comp=Z,22nm,1.0s | | | | | | |
| PSZ | Piszkesteto | 81.10 | 324⇑ | eP | P | 22 23 53.5 | +0.5 |
| PSZ | Piszkesteto | 81.10 | 324 | eP | P | 22 23 53.5 | +0.5 |
| | comp=Z,22nm,1.0s | | | | | | |
| VYHS | Vyhne | 81.18 | 325 | eP | P | 22 23 53.5 | +0.2 |
| VYHS | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.0s | | | | | | |
| VYHS | Vyhne | 81.18 | 325 | eP | P | 22 23 53.5 | +0.2 |
| VYHS | | | | e | | 22 41 39.8 | |
| PV09 | Paradox Valley | 81.28 | 48 | eP | P | 22 23 56.2 | +1.8 |
| PV10 | Paradox Valley | 81.42 | 48 | eP | P | 22 23 56.4 | +1.4 |
| PV04 | Paradox Valley | 81.49 | 48 | eP | P | 22 23 56.4 | +1.1 |
| BRG | Berggiesshubel | 81.55 | 329 | iP | P | 22 23 55.2 | 0.0 |
| | comp=Z,12nm,0.8s | | | | | | |
| BRG | | | | epP | pP | 22 24 07.8 | +0.4 |
| | comp=Z,19nm,1.1s | | | | | | |
| BRG | | | | e | | 22 24 19.4 | |
| | comp=Z,6.8nm,0.8s | | | | | | |
| BRG | Berggiesshubel | 81.55 | 329 | iP | P | 22 23 55.2 | 0.0 |
| BRG | | | | e*PP | pP | 22 24 07.8 | +0.4 |
| BRG | | | | pmax | pmax | | |
| | comp=Z,12nm,0.9s | | | | | | |
| BRG | | | | pmax | pmax | | |
| | comp=Z,19nm,1.1s | | | | | | |
| BRG | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.8s | | | | | | |
| PVCC | Panska Ves | 81.55 | 329⇑ | eP | P | 22 23 55.7 | +0.5 |
| PVCC | | | | epP | pP | 22 24 08.4 | +1.0 |
| PVCC | Panska Ves | 81.55 | 329 | eP | P | 22 23 55.7 | +0.5 |
| PVCC | | | | e | | 22 24 08.4 | |
| PV05 | Paradox Valley | 81.57 | 49 | eP | P | 22 23 57.0 | +1.2 |
| VRAC | Vranov | 81.59 | 327⇑ | iP | P | 22 23 56.2 | +0.7 |
| CLL | Collm | 81.60 | 330 | iP | P | 22 23 55.2 | -0.2 |
| CLL | | | | i*PP | pP | 22 24 07.7 | 0.0 |
| CLL | | | | pmax | pmax | | |
| | comp=Z,30nm,0.9s | | | | | | |
| CLL | Collm | 81.60 | 330 | iP | P | 22 23 55.2 | -0.2 |
| | comp=Z,30nm,0.9s | | | | | | |
| CLL | | | | ipP | pP | 22 24 07.7 | 0.0 |
| | comp=Z,25nm,1.0s | | | | | | |
| CLL | | | | e | | 22 24 20.0 | |
| CLL | Collm | 81.60 | 330 | eP | P | 22 23 55.2 | -0.2 |
| | comp=Z,23nm,0.8s | | | | | | |
| PHWY | Pilot Hill | 81.61 | 44 | eP | P | 22 23 56.9 | +0.8 |
| WUAZ | Wupatki | 81.78 | 52 | eP | P | 22 23 57.8 | +0.9 |
| | comp=Z,8.1nm,1.0s | | | | | | |
| PV01 | Paradox Valley | 81.86 | 48 | eP | P | 22 23 58.4 | +1.0 |
| BZS | Buzias | 81.90 | 322⇑ | iP | P | 22 23 57.2 | +0.1 |
| GOPC | GO Pecny, Ondr | 81.92 | 328 | eP | P | 22 23 57.7 | +0.5 |
| GOPC | | | | epP | pP | 22 24 10.3 | +0.8 |
| GOPC | GO Pecny, Ondr | 81.92 | 328 | eP | P | 22 23 57.7 | +0.5 |
| GOPC | | | | e | | 22 24 10.3 | |
| PRU | Pruhonice | 81.97 | 328⇑ | iP | P | 22 23 57.8 | +0.4 |
| PRU | | | | epP | pP | 22 24 08.2 | -1.5 |
| PRU | Pruhonice | 81.97 | 328⇑ | iP | P | 22 23 57.8 | +0.4 |
| PRU | | | | e | | 22 24 08.2 | |
| MODS | Modra-Piesok | 81.98 | 326 | eP | P | 22 23 57.4 | -0.1 |
| MODS | Modra-Piesok | 81.98 | 326 | eP | P | 22 23 57.4 | -0.1 |
| HERR | Herculane | 82.02 | 321⇓ | iP | P | 22 23 57.8 | +0.1 |
| SMCO | Snowmass | 82.13 | 47 | eP | P | 22 24 00.2 | +1.2 |
| | comp=Z,12nm,1.2s | | | | | | |
| MDVR | Moldovita | 82.44 | 321⇑ | iP | P | 22 23 59.6 | -0.5 |
| MVCO | Mesa Verde | 82.50 | 49 | eP | P | 22 24 01.6 | +0.9 |
| | comp=Z,4.5nm,0.8s | | | | | | |
| ISCO | Idaho Springs | 82.52 | 46 | eP | P | 22 24 01.2 | +0.3 |
| ISCO | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.8s | | | | | | |
| ISCO | Idaho Springs | 82.52 | 46 | eP | P | 22 24 01.2 | +0.3 |
| | comp=Z,4.0nm,0.8s | | | | | | |
| NKC | Novy Kostel | 82.65 | 330⇑ | eP | P | 22 24 01.3 | +0.3 |
| NKC | | | | epP | pP | 22 24 13.3 | 0.0 |
| NKC | Novy Kostel | 82.65 | 330 | eP | P | 22 24 01.3 | +0.3 |
| NKC | | | | e | | 22 24 13.3 | |
| CONA | Conrad Observa | 82.94 | 326 | iP | P | 22 24 02.9 | +0.3 |
| | comp=Z,15nm,1.1s,SNR=8.4 | | | | | | |
| KHC | Kasperske Hory | 83.03 | 328⇑ | iP | P | 22 24 03.2 | +0.2 |
| KHC | | | | epP | pP | 22 24 15.7 | +0.4 |
| KHC | Kasperske Hory | 83.03 | 328⇑ | iP | P | 22 24 03.2 | +0.2 |
| KHC | | | | e | | 22 24 15.7 | |
| KHC | Kasperske Hory | 83.03 | 328 | eP | P | 22 24 03.2 | +0.2 |
| | comp=Z,6.3nm,0.9s | | | | | | |
| GEC2 | GERESS Array S | 83.19 | 328 | eP | P | 22 24 04.1 | +0.1 |
| GEC2 | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.8s | | | | | | |
| GEC2 | GERESS Array S | 83.19 | 328 | eP | P | 22 24 04.0 | +0.1 |
| | comp=Z,6.6nm,0.8s | | | | | | |
| GERES | GERESS Array B | 83.19 | 328 | P | P | 22 24 03.7 | -0.2 |
| | comp=Z,5.6nm,0.8s,baz=35,slow=4.9,SNR=20 | | | | | | |
| GERES | | | | pP | pP | 22 24 16.7 | +0.5 |
| | comp=Z,4.2nm,0.8s,baz=43,slow=2.4,SNR=7.1 | | | | | | |
| VTS | Vitosha | 83.20 | 319⇓ | iP | P | 22 24 04.8 | +0.6 |
| VTS | Vitosha | 83.20 | 319 | eP | P | 22 24 04.5 | +0.3 |
| VTS | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.8s | | | | | | |
| VTS | Vitosha | 83.20 | 319 | eP | P | 22 24 04.5 | +0.3 |
| | comp=Z,9.4nm,0.8s | | | | | | |
| GEA0 | GERESS Array S | 83.20 | 328 | eP | P | 22 24 03.6 | -0.4 |
| GRFO | Grafenberg | 83.57 | 330 | eP | P | 22 24 05.7 | -0.1 |
| GRFO | | | | pmax | pmax | | |
| | comp=Z,21nm,0.8s | | | | | | |
| GRFO | Grafenberg | 83.57 | 330 | eP | P | 22 24 05.7 | -0.1 |
| | comp=Z,21nm,0.8s | | | | | | |
| ARSA | Arzberg | 83.60 | 326 | iP | P | 22 24 06.0 | 0.0 |
| | comp=Z,12nm,1.7s | | | | | | |
| MOA | Molln | 83.71 | 327 | iP | P | 22 24 06.9 | +0.4 |
| | comp=Z,11nm,1.1s | | | | | | |
| SDCO | Great Sand Dun | 83.94 | 47 | eP | P | 22 24 08.9 | +0.7 |
| | comp=Z,8.9nm,1.2s | | | | | | |
| PERS | Pernice | 84.25 | 326 | iP | P | 22 24 09.2 | -0.1 |
| PERS | | | | epP | pP | 22 24 21.9 | +0.2 |
| SOKA | Soboth | 84.25 | 326 | iP | P | 22 24 09.5 | +0.1 |
| | comp=Z,19nm,1.0s,SNR=6.3 | | | | | | |
| VAY | Valandovo | 84.43 | 318⇑ | iP | P | 22 24 10.5 | +0.3 |
| GOLS | Golise | 84.49 | 325 | iP | P | 22 24 10.1 | -0.5 |
| GOLS | | | | epP | pP | 22 24 22.9 | 0.0 |
| SKO | Skopje | 84.57 | 319 | iP | P | 22 24 11.7 | +0.8 |
| OBKA | Obir | 84.60 | 326 | iP | P | 22 24 10.8 | -0.4 |
| | comp=Z,5.7nm,0.8s | | | | | | |
| ECSD | EROS Data Cent | 84.62 | 38 | eP | P | 22 24 11.5 | +0.3 |
| KBA | Koelnbreinsper | 84.70 | 327 | iPcP | P | 22 24 13.1 | +1.4 |
| | comp=Z,5.3nm,0.7s | | | | | | |
| MYKA | Terra Mystica | 84.91 | 327 | iP | P | 22 24 11.3 | -1.4 |
| | comp=Z,6.4nm,0.7s | | | | | | |
| KRUS | Krusevo | 85.10 | 319 | iP | P | 22 24 13.7 | -0.1 |
| ANMO | Albuquerque | 85.22 | 50 | ceP | P | 22 24 16.4 | +1.7 |
| ANMO | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.2s | | | | | | |
| ANMO | Albuquerque | 85.22 | 50 | eP | P | 22 24 15.8 | +1.1 |
| | comp=Z,14nm,1.3s | | | | | | |
| WATA | Walderalm | 85.27 | 328 | iP | P | 22 24 14.2 | -0.4 |
| | comp=Z,2.9nm,0.7s | | | | | | |
| BIA | Bitola | 85.31 | 319 | iP | P | 22 24 14.7 | -0.1 |
| ABTA | Abfaltersbach | 85.32 | 327 | iP | P | 22 24 12.7 | -2.1 |
| | comp=Z,10.0nm,1.1s | | | | | | |
| PDG | Podgorica | 85.37 | 321⇑ | iP | P | 22 24 14.9 | 0.0 |
| MOTA | Moosalm | 85.46 | 329 | iPcP | P | 22 24 15.4 | -0.2 |
| | comp=Z,6.3nm,0.8s | | | | | | |
| RETA | Reutte | 85.49 | 329 | iP | P | 22 24 15.4 | -0.2 |
| | comp=Z,12nm,0.8s | | | | | | |
| OHR | Ohrid | 85.52 | 319⇑ | iP | P | 22 24 15.3 | -0.5 |
| BFO | Black Forest | 85.81 | 331 | ceP | P | 22 24 17.2 | +0.1 |
| BFO | Black Forest | 85.81 | 331 | eP | P | 22 24 16.6 | -0.4 |
| | comp=Z,21nm,0.9s | | | | | | |
| FETA | Feichten | 85.87 | 329 | iPcP | P | 22 24 17.3 | -0.3 |
| | comp=Z,12nm,1.0s | | | | | | |
| DAVA | Damuels | 86.02 | 329 | iPcP | P | 22 24 18.3 | 0.0 |
| | comp=Z,18nm,0.9s | | | | | | |
| ECH | Echery | 86.36 | 331 | eP | P | 22 24 18.7 | -1.1 |
| ECH | | | | pmax | pmax | | |
| | comp=Z,19nm,1.0s | | | | | | |
| ECH | Echery | 86.36 | 331 | eP | P | 22 24 18.7 | -1.1 |
| | comp=Z,19nm,1.0s | | | | | | |
| FUORN | Ofenpass-Fuorn | 86.38 | 329 | eP | P | 22 24 20.5 | +0.3 |
| | comp=Z,20nm,1.0s | | | | | | |
| AQU | L'Aquila | 88.31 | 324 | eP | P | 22 24 29.8 | +0.5 |
| AQU | | | | pmax | pmax | | |
| | comp=Z,23nm,0.9s | | | | | | |
| AQU | L'Aquila | 88.31 | 324 | eP | P | 22 24 29.8 | +0.5 |
| | comp=Z,23nm,0.9s | | | | | | |
| TX31 | Lajitas Ar. Si | 90.74 | 52 | eP | P | 22 24 41.9 | +0.8 |
| TXAR | Lajitas Array | 90.74 | 52 | P | P | 22 24 41.5 | +0.4 |
| | comp=Z,2.0nm,0.8s,baz=270,slow=3.8,SNR=19 | | | | | | |
| FURI | Furi | 94.67 | 285 | eP | P | 22 25 01.4 | +1.7 |
| | comp=Z,17nm,1.0s | | | | | | |
| ES19 | SONSECA Array | 97.78 | 333 | eP | P | 22 25 12.6 | -0.4 |
| ESDC | Sonseca Array | 97.82 | 334 | P | P | 22 25 12.3 | -0.9 |
| | comp=Z,0.6nm,0.6s,baz=13,slow=4.9,SNR=8.1 | | | | | | |
| ESDC | | | | pP | pP | 22 25 25.6 | -0.1 |
| | comp=Z,0.8nm,0.8s,baz=25,slow=4.5,SNR=2.5 | | | | | | |
| LSZ | Lusaka | 117.27 | 271 | ePKIKP | PKPdf | 22 30 23.4 | -0.2 |
| LSZ | Lusaka | 117.27 | 271 | ePKPdf | PKPdf | 22 30 23.4 | -0.2 |
| TORD | Torodi Ar. Bea | 117.67 | 314 | PKP | PKPdf | 22 30 23.3 | -0.9 |
| | comp=Z,1.2nm,0.7s,baz=20,slow=1.7,SNR=8.8 | | | | | | |
| TORD | | | | pPKP | pPKPdf | 22 30 36.5 | -0.6 |
| | comp=Z,1.0nm,0.8s,baz=10,slow=1.9,SNR=3.7 | | | | | | |
| TORD | | | | PP | PP | 22 31 26.1 | -10 |
| | comp=Z,1.2nm,0.9s,baz=30,slow=5.8,SNR=5.4 | | | | | | |
| QSPA | South Pole Qui | 126.06 | 180 | ePKPdf | PKPdf | 22 30 38.5 | -0.3 |
| DBIC | Dimbokro | 126.65 | 316 | PKP | PKPdf | 22 30 41.1 | -0.4 |
| | comp=Z,4.9nm,0.8s,baz=52,slow=5.9,SNR=4.8 | | | | | | |
| SNAA | Sanae | 140.00 | 197 | ePKIKP | PKPdf | 22 31 05.5 | +0.6 |
| SNAA | Sanae | 140.00 | 197 | ePKPdf | PKPdf | 22 31 05.5 | +0.6 |
| SAML | Samuel | 144.91 | 45 | ePKPdf | PKPdf | 22 31 14.9 | -0.3 |

*ISCJB* **07** *22:13:28.2±0.8, 18°.4N±0°.1×145°.4E±0°.4, h500km, mb3.5/7, Error ellipse: s-maj=45.7km s-min=13.2km az=7.6*

*IDC* **07** *22:13:28.1±2.0, 18°.52N×145°.28E, h482km±26km, mb3.1/7, mb1 3.4/9, mb1mx3.1/46, mbtmp4.0/9, Error ellipse: s-maj=42.8km s-min=13.5km az=104.0*

**ISC 07 22:13:29.1**±0.9**, 18°.4N**±0°.1×**145°.3E**±0°.4**, h500**km**, n9, σ0s.99**/9**, mb3.4**/7**, Mariana Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GUMO | Guam | 4.84 | 185 | P | P | 22 14 53.2 | -1.5 |
| | 20nm,0.3s,baz=316,slow=17,SNR=5.9 | | | | | | |
| MJAR | Matsushiro Arr | 19.10 | 342 | P | P | 22 17 18.8 | -0.6 |
| | 0.7nm,0.3s,baz=163,slow=11,SNR=5.5 | | | | | | |
| WRA | Warramunga Arr | 39.63 | 196 | P | P | 22 20 17.7 | +0.5 |
| | 0.6nm,0.5s,baz=14,slow=8.7,SNR=9.9 | | | | | | |
| FITZ | Fitzroy Crossi | 41.14 | 209 | P | P | 22 20 30.2 | +0.9 |
| | 1.9nm,0.3s,baz=37,slow=9.8,SNR=31 | | | | | | |
| ASAR | Alice Springs | 43.30 | 195 | P | P | 22 20 47.0 | +0.7 |
| | 0.4nm,0.4s,baz=14,slow=6.8,SNR=8.7 | | | | | | |
| ILAR | Eielson Array | 64.04 | 26 | P | P | 22 23 12.7 | -0.2 |
| | 0.4nm,0.4s,baz=254,slow=5.8,SNR=3.7 | | | | | | |
| YKA | Yellowknife Ar | 78.39 | 28 | P | P | 22 24 38.0 | +0.9 |
| | 0.4nm,0.4s,baz=300,slow=6.3,SNR=2.7 | | | | | | |
| ARCES | ARCESS Array B | 82.63 | 342 | P | P | 22 24 59.6 | +0.4 |
| | 2.7nm,0.8s,baz=74,slow=6.7,SNR=5.1 | | | | | | |
| FINES | FINESS Array B | 86.97 | 335 | P | P | 22 25 19.6 | -0.9 |
| | 1.4nm,0.9s,baz=67,slow=4.7,SNR=3.3 | | | | | | |

**DJA 07 22:20:08.6**±0.6**, 2°S**±3°×**12°6E**±°**, h13**km±6km**, M3.7**/6**, MLv3.7**/6**, Southern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SANI | Sanana | 0.73 | 223 | P | Pb | 22 20 23.4 | +0.3 |
| SANI | | | | S | Sb | 22 20 33.5 | +0.5 |
| LBMI | Labuha | 1.34 | 50 | P | Pn | 22 20 32.8 | -0.2 |
| LBMI | | | | S | Sb | 22 20 50.2 | -0.5 |
| NLAI | Namlea | 1.83 | 160 | P | Pn | 22 20 39.0 | -0.7 |
| NLAI | | | | S | Sn | 22 21 03.2 | +0.5 |
| LUWI | Luwuk | 3.74 | 277 | P | Pn | 22 21 05.7 | -0.3 |
| APSI | Ampana | 4.87 | 277 | P | Pn | 22 21 21.9 | +0.3 |

*SJA* **07** *22:23:02.9±0.4, 27°.77S×71°.76W, h12km±5km, ML5.9, MW4.8*

*ISCJB* **07** *22:23:06.0±1.1, 27°.78S±0°.02×71°.06W±0°.03, h6km±6km, mb5.7/394, MS5.9/545, Error ellipse: s-maj=5.2km s-min=2.6km az=165.5*

*IDC* **07** *22:23:06.1±0.3, 27°.93S×71°.05W, h0km, mb5.4/19, mb1 5.3/23, mb1mx5.3/29, mbtmp5.3/23, ML4.6/4, MS5.8/26, Ms1 5.8/26, ms1mx5.8/26, Error ellipse: s-maj=15.9km s-min=12.2km az=87.0*

*GUC* **07** *22:23:06.9±0.4, 27°.95S×71°.36W, h32km±5km, ML5.9, MW5.6*

*NEIC* **07** *22:23:07.0±0.0, 27°.97S×70°.58W, h25km, Moment Tensor Solution. s17 Moment tensor: Scale 10^18 Nm; Mrr0.86; Mθθ0.02; Mφφ-0.88; Mrθ0.27; Mθφ-0.18; Mφr-1.43; Best double couple: Mo1.70000×10^18 NP1:φs173.00000°, δ75.00000°, λ80.00000°. NP2:φs27.00000°, δ18.00000°, λ123.00000°. Principal axes: T 1.7300, Plg58.0000°, Azm68.0000°; N -0.0400, Plg9.0000°, Azm175.0000°; P -1.6900, Plg29.0000°, Azm270.0000°;*

*BJI* **07** *22:23:07.3, 27°.75S×71°.00W, h10km, mB6.1/50, Ms6.2/65, Ms7 6.1/69*

*MOS* **07** *22:23:08.4±0.9, 27°.50S×70°.96W, h12km, mb5.9/81, MS5.8/71, Error ellipse: s-maj=13.2km s-min=6.2km az=102.9*

*NEIC* **07** *22:23:09.7±0.1, 27°.90S×70°.92W, h20km, mb5.8/297, ME5.8, MS5.8/299, MW6.0, MW6.1, ML5.8(GUC), Error ellipse: s-maj=4.2km s-min=2.4km az=73.0 Best double couple: NP1:φs165.00000°, δ67.00000°, λ83.00000°. NP2:φs4.00000°, δ24.00000°, λ107.00000°. Principal axes: T 1.1400, Plg67.0000°, Azm62.0000°; N -0.1900, Plg7.0000°, Azm168.0000°; P -0.9600, Plg22.0000°, Azm261.0000°; Depth from synthetics of broadband displacement seismograms. Energy computed from CMT mechanism.*

*NEIC Felt [V] at Copiapo; [IV] at Alto del Carmen, Freirina and Vicuna; [III] at Chanaral, Coquimbo, La Higuera, La Serena, Vallenar and Villa Alemana; [II] at Diego de Almagro, Paiguano and Santiago. Also felt at Ovalle.*

*GCMT* **07** *22:23:09.7±0.1, 28°.03S×71°.55W, h23km, MW6.1/142, Moment Tensor Solution. s142,c306; s141,c458; Duration: 2s.7 Moment tensor: Scale 10^18 Nm; Mrr1.12±.01; Mθθ0.12±.01; Mφφ-1.24±.01; Mrθ0.16±.01; Mθφ-0.13±.01; Mφr-1.09±.02; Best double couple: Mo1.62100×10^18 NP1:φs176.00000°, δ67.00000°, λ81.00000°. NP2:φs17.00000°, δ25.00000°, λ109.00000°. Principal axes: T 1.5730, Plg67.0000°, Azm70.0000°; N 0.0910, Plg8.0000°, Azm179.0000°; P -1.6690, Plg21.0000°, Azm272.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

**ISC 07 22:23:07.8**±0.4**, 27°.93S**±0°.03×**71°.13W**±0°.03**, h14**km±2km**, h14**km**:pP-P, n1727, σ1s.83**/1686**, mb5.8**/393**, MS5.9**/544**, 16C-10D, Near coast of northern Chile**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VACH | Vallenar | 0.72 | 153⇓ | iP | Pn | 22 23 22.9 | -0.8 |
| VACH | | | | iS | Sn | 22 23 33.7 | -0.8 |
| GO03 | Copiap | 0.87 | 67⇓ | iP | Pn | 22 23 26.6 | +1.0 |
| GO03 | | | | iS | Sn | 22 23 42.0 | +3.9 |
| GO03 | | | | IAML | | 22 23 49.3 | |
| | comp=N,112μm,0.5s | | | | | | |
| CPCH | Copiapo | 0.90 | 51⇓ | iP | Pn | 22 23 26.9 | +0.8 |
| CDCH | Caldera | 0.91 | 18 | eP | Pn | 22 23 25.7 | -0.4 |
| CDCH | | | | iS | Sn | 22 23 39.4 | +0.4 |
| LCO | Las Campanas | 1.14 | 161 | ePg | Pn | 22 23 29.4 | -0.2 |
| LCO | | | | eSn | Sn | 22 23 45.2 | 0.0 |
| LCO | Las Campanas | 1.14 | 161⇓ | iP | Pn | 22 23 29.5 | -0.2 |
| LCO | | | | iS | Sn | 22 23 45.5 | +0.3 |
| LSCH | La Serena | 1.97 | 183 | IAML | | 22 24 20.6 | |
| | comp=E,72μm,0.4s | | | | | | |
| TLL | Tololo Astrono | 2.25 | 173 | eP | Pn | 22 23 45.6 | +0.8 |
| TLL | | | | iS | Sb | 22 24 15.1 | -1.0 |
| TLL | | | | IAML | | 22 24 26.0 | |
| | comp=E,294μm,0.5s | | | | | | |
| VCA | Vinchina | 2.70 | 108 | eP | Pg | 22 23 56.8 | -2.8 |
| VCA | | | | eS | Sg | 22 24 37.2 | +2.5 |
| VCA | | | | IAML | | 22 24 44.7 | |
| | comp=Z,25μm,0.7s | | | | | | |
| VCA | Vinchina | 2.70 | 108 | IAML | | 22 24 45.7 | |
| | comp=N,66μm,0.6s | | | | | | |
| AGUA | GUANDACOL | 2.79 | 124 | eP | Pb | 22 23 58.1 | +0.6 |
| PB14 | IPOC Station P | 3.36 | 11 | IAML | | 22 25 00.6 | |
| | comp=E,22μm,0.5s | | | | | | |
| AMOG | MOGNA | 3.78 | 143 | eP | Pb | 22 24 10.7 | -3.7 |
| ACLC | CERRO LA CRUZ | 3.96 | 113 | eP | Pb | 22 24 15.2 | -2.3 |
| RTLL | Cerro Villicun | 4.10 | 146 | eP | Pb | 22 24 15.4 | -4.5 |
| RTLL | | | | eS | Sb | 22 25 08.8 | -0.5 |
| RTLS | Leoncito | 4.17 | 158 | eP | Pn | 22 24 15.9 | +4.5 |
| RTCV | Cerro Valdivia | 4.52 | 151 | eP | Pn | 22 24 20.6 | +4.7 |
| AUSP | Uspallata | 4.54 | 161 | eP | Pn | 22 24 20.6 | +4.2 |
| APLL | PUNTA DE LOS L | 4.72 | 122 | eP | Pb | 22 24 25.4 | -5.0 |
| APLL | | | | eS | Sb | 22 25 26.4 | -0.7 |
| CYA | Choya | 4.73 | 97 | eP | Pb | 22 24 25.2 | -5.4 |
| CYA | | | | eS | Sb | 22 25 26.6 | -0.9 |
| CYA | | | | IAML | | 22 25 30.6 | |
| | comp=Z,7μm,0.7s | | | | | | |
| FSA | Cafayete | 4.94 | 70 | eP | Pb | 22 24 27.5 | -6.8 |
| ROC1 | El Roble | 5.03 | 179 | ePn | Pn | 22 24 23.5 | +0.4 |
| ASAL | Salagasta | 5.05 | 157 | eP | Pn | 22 24 27.6 | +4.4 |
| PEL | Peldehue | 5.21 | 176 | eP | Pn | 22 24 26.4 | +1.0 |
| PEL | Peldehue | 5.21 | 176 | ePn | Pn | 22 24 26.4 | +1.0 |
| PEL | | | | eSn | Sn | 22 25 14.8 | -10 |
| PEL | Peldehue | 5.21 | 176 | eP | Pn | 22 24 26.4 | +1.0 |
| PEL | | | | iS | Sn | 22 25 27.7 | +2.4 |
| ARCO | CERRO ARCO | 5.25 | 159 | eP | Pn | 22 24 30.1 | +4.1 |
| ARCO | | | | eS | Sn | 22 25 34.0 | +7.5 |
| AHML | Horco Molle | 5.28 | 79 | eP | Pn | 22 24 32.2 | +5.8 |
| AHML | | | | eS | Sb | 22 25 38.8 | -4.5 |
| CLCH | Cerro Calan | 5.47 | 175 | eP | Pn | 22 24 29.9 | +1.0 |
| CLCH | | | | iS | Sn | 22 25 34.3 | +2.5 |
| AAGR | Agrelo | 5.51 | 159 | eP | Pn | 22 24 33.5 | +4.0 |
| ACAN | Cantantal | 5.51 | 143 | eP | Pn | 22 24 34.9 | +5.4 |
| PB04 | IPOC Station P | 5.65 | 9 | ePn | Pn | 22 24 29.1 | -2.4 |
| PB04 | | | | eSn | Sn | 22 25 26.9 | -9.3 |
| AVIZ | Vizcacheras | 5.96 | 158 | eP | Pn | 22 24 39.9 | +4.1 |
| SLA | San Lorenzo | 5.98 | 59 | eP | Pn | 22 24 40.7 | +4.6 |
| AZAP | Zapla | 6.59 | 57 | eP | Pn | 22 24 48.7 | +4.2 |
| AZAP | | | | eS | Sn | 22 26 07.3 | +7.7 |

**TCA Tanti 6.62 122** *e*S Sb 22 26 11.4 -11
TCA IAML 22 26 34.7
comp=Z,3µm,0.6s
**HJA Humahuaca 6.99 49** *e*P **Pn** **22 24 53.6 +3.4**
**PB01 IPOC Station P 7.02 13** *e*Pn **Pn** **22 24 48.6 -1.7**
PB01 *e*Sn **Sn** **22 26 08.0 -2.1**
**GO05 HualaæØ 7.09 185** *e*Pn **Pn** **22 24 49.5 -1.7**
GO05 *e*Sn **Sn** **22 26 06.6 -4.9**
**RFA San Rafael 7.19 162** *e*P **Pn** **22 24 55.6 +3.0**
**ASTB Santa Barbara 7.20 58** *e*P **Pn** **22 24 57.2 +4.3**
**ALOL LOMAS DE OLMED 7.63 59** *e*P **Pn** **22 25 02.8 +4.1**
**PB11 IPOC Station P 8.25 10** *e*Pn **Pn** **22 25 03.7 -3.5**
PB11 *e*Sn Sn 22 26 29.2 -11
**MNMC Minye Minye 8.87 9** *e*Pn **Pn** **22 25 13.1 -2.8**
MNMC *e*Sn **Sn** **22 26 53.9 -2.1**
**LPAZ La Paz 11.92 14** Pn **Pn** **22 25 56.8 -1.2**
comp=Z,6.1nm,0.3s,baz=202,slow=6.6,SNR=67
LPAZ LR LR 22 31 05.0
comp=Z,65µm,19.0s,baz=188,slow=40
**CPUP Villa Florida 12.40 86** Pn **Pn** **22 26 03.8 -0.2**
comp=Z,0.9nm,0.3s,baz=266,slow=13,SNR=22
CPUP Lg Lg 22 29 32.5
comp=Z,3.4nm,0.3s,baz=168,slow=19,SNR=4.6
CPUP LR LR 22 31 24.8
comp=Z,138µm,18.2s,baz=269,slow=40
**CPUP Villa Florida 12.40 86** *e*P **Pn** **22 26 02.8 -1.1**
**CPUP Villa Florida 12.40 86** *e*Pn **Pn** **22 26 02.8 -1.1**
CPUP Lg Lg 22 29 32.5
**TRQA Tornquist 12.68 145** *e*Pn **Pn** **22 26 08.7 +1.0**
TRQA *e*Sn **Sn** **22 28 30.4 +1.6**
**PLCA Paso Flores 12.78 178** Pn **Pn** **22 26 10.4 +1.2**
comp=Z,0.4nm,0.3s,baz=8.5,slow=14,SNR=15
PLCA Lg Lg 22 29 47.6
comp=Z,1.4nm,0.3s,baz=66,slow=16,SNR=3.3
PLCA LR LR 22 31 23.9
comp=Z,99µm,19.4s,baz=14,slow=39
**PLCA Paso Flores 12.78 178** *e*Pn **Pn** **22 26 10.8 +1.7**
PLCA Lg Lg 22 29 47.6
**SIV San Ignacio 15.10 40** Pn **Pn** **22 26 36.1 -4.7**
comp=Z,9.0nm,0.3s,baz=254,slow=10,SNR=36
**NNA Nana 16.74 340** Pn **Pn** **22 27 03.3 +1.3**
comp=Z,0.8nm,0.3s,baz=173,slow=10,SNR=5.8
NNA Lg Lg 22 31 54.5
comp=Z,0.6nm,0.3s,baz=254,slow=18,SNR=3.6
NNA LR LR 22 31 55.0
comp=Z,26µm,21.6s,baz=168,slow=32
**NNA Nana 16.74 340** *ce*P **P** **22 27 05.1 +0.8**
**NNA Nana 16.74 340** *e*Pn **P** **22 27 04.0 -0.3**
comp=Z,232nm,1.5s
NNA Lg Lg 22 31 54.5
**CHRN Cochrane 19.32 183** *e*P **Pn** **22 27 33.6 0.0**
comp=Z,113nm,1.0s
**SAML Samuel 20.32 23** *e*P **P** **22 27 43.9 +0.3**
comp=Z,569nm,1.6s
SAML LR LR
comp=Z,15µm,20.0s
**ATAH Atahualpa 21.80 340** P **P** **22 28 01.9 +1.9**
comp=Z,49nm,1.3s,baz=169,slow=11,SNR=15
ATAH LR LR 22 34 53.2
comp=Z,12µm,21.3s,baz=165,slow=32
**GO09 Cerro Castillo 23.33 182** *e*P **P** **22 28 15.9 +0.5**
comp=Z,607nm,1.4s
GO09 LR LR
comp=Z,34µm,18.0s
**BDFB Brasilia 24.66 65** P **P** **22 28 28.2 -0.2**
comp=Z,58nm,0.8s,baz=27,slow=10,SNR=63
BDFB LR LR 22 39 43.4
comp=Z,113µm,18.3s,baz=30,slow=41
**BDFB Brasilia 24.66 65** *e*P **P** **22 28 28.5 +0.1**
BDFB pmax pmax
comp=Z,1µm,1.7s
BDFB MLR MLR
comp=Z,190µm,19.0s
**BDFB Brasilia 24.66 65** *e*P **P** **22 28 28.5 +0.1**
comp=Z,1µm,1.7s
**EFI East Falkland 25.67 161** *d i*P **P** **22 28 38.3 +1.2**
EFI pmax pmax
comp=Z,71nm,0.9s
**EFI East Falkland 25.67 161** *e*P **P** **22 28 37.7 +0.6**
comp=Z,174nm,1.0s
EFI LR LR
comp=Z,39µm,19.0s
**USHA Ushuaia 26.95 177** P **P** **22 28 48.8 +0.2**
comp=Z,147nm,0.7s,baz=328,slow=11,SNR=11
USHA LR LR 22 40 22.6
comp=Z,310µm,18.2s,baz=342,slow=38
**OTAV Otavalo 28.88 345** *e*P **P** **22 29 07.6 +0.9**
**OTAV Otavalo 28.88 345** *e*P **P** **22 29 09.2 +2.5**
comp=Z,102nm,1.3s
OTAV *e*PcP **PcP** **22 32 17.3 +1.1**
OTAV LR LR
comp=Z,10µm,20.0s
**PTGA Pitinga 29.09 23** P **P** **22 29 08.2 +0.1**
comp=Z,47nm,0.9s,baz=204,slow=9.4,SNR=69
PTGA LR LR 22 41 48.0
comp=Z,21µm,19.4s,baz=196,slow=39
**PTGA Pitinga 29.09 23** *e*P **P** **22 29 07.9 -0.2**
comp=Z,372nm,1.8s
**CMBC Cumbal 29.42 346** *e*P **P** **22 29 11.8 +0.3**
**CRUC La Cruz 29.86 348** *e*P **P** **22 29 17.4 +2.1**
**GUVC San Jose del G 30.34 357** *e*P **P** **22 29 21.0 +1.9**
**TUMC Tumaco 30.47 345** *e*P **P** **22 29 18.8 -1.6**
**POPC Popayan, Colom 30.76 349** *e*P **P** **22 29 24.9 +1.7**
**SJAC San Juan de Ar 31.14 355** *e*P **P** **22 29 25.8 -0.6**
**GRGC Isla de Gorgon 31.49 346** *e*P **P** **22 29 29.1 -0.2**
**PRAC Prado 31.67 353** *e*P **P** **22 29 32.4 +1.4**
**PRAC Prado 31.67 353** *e*P **P** **22 29 32.9 +2.0**
comp=Z,212nm,1.1s
PRAC LR LR
comp=Z,8µm,18.0s
**VILC Villavicencio, 31.95 355** *e*P **P** **22 29 34.2 +0.6**
**CVER Cruz Verde, Cu 32.39 355** *e*P **P** **22 29 40.4 +2.6**
**CHIC Chingaza 32.47 355** *e*P **P** **22 29 39.9 +1.5**
**TOLC Tolima 32.58 352** *e*P **P** **22 29 42.1 +2.9**
**ROSC El Rosal 32.73 354** P **P** **22 29 41.6 +1.0**
comp=Z,15nm,0.9s,baz=151,slow=9.0,SNR=10
ROSC LR LR 22 42 52.0
comp=Z,8µm,19.7s,baz=197,slow=36
**ROSC El Rosal 32.73 354** *e*P **P** **22 29 41.7 +1.0**
**ROSC El Rosal 32.73 354** *e*P **P** **22 29 43.6 +3.0**
comp=Z,196nm,1.8s
ROSC *e*PP **PP** **22 30 53.0 -1.7**
**PAYG Puerto Ayora 32.73 323** *e*P **P** **22 29 41.7 +1.4**
comp=Z,211nm,1.6s
PAYG LR LR
comp=Z,24µm,20.0s
**PLMC San Jos'' del 33.02 351** *e*P **P** **22 29 43.6 +0.8**
**YOPC Yopal, Colombi 33.12 358** *e*P **P** **22 29 44.0 +0.3**
**GUYC Guyana, Colomb 33.22 352** *e*P **P** **22 29 43.8 -1.2**
**MAPC Malpelo 33.32 341** *e*P **P** **22 29 45.4 +0.1**
**NORC Norcasia 33.49 353** *e*P **P** **22 29 49.2 +2.3**
**RUSC La Rusia 33.68 357** *e*P **P** **22 29 50.6 +1.5**
**RUSC La Rusia 33.68 357** *e*P **P** **22 29 50.6 +1.5**
comp=Z,162nm,1.2s
RUSC *e*PcP **PcP** **22 32 28.8 -0.2**
RUSC LR LR
comp=Z,7µm,20.0s
**RPN Rapa Nui 33.79 262** LR LR 22 39 54.5
comp=Z,34µm,19.1s,baz=92,slow=30
**HELC Santa Helena 34.19 352** *e*P **P** **22 29 54.8 +1.5**
**HELC Santa Helena 34.19 352** *e*P **P** **22 29 54.6 +1.2**
comp=Z,313nm,1.3s
HELC *e*PcP **PcP** **22 32 33.5 +3.2**
HELC LR LR
comp=Z,20µm,18.0s
**BARC Barichara 34.38 356** *e*P **P** **22 29 55.3 +0.5**
**SOLC Bahia Solano 34.49 349** *e*P **P** **22 29 58.5 +2.9**
**GIRC Giron, Santand 34.86 356** *e*P P 22 29 51.2 -7.7
**BRRC Barranca, Sant 34.92 356** *e*P **P** **22 29 57.2 -2.1**
**PAMC Pamplona, Colo 35.10 357** *e*P **P** **22 30 00.9 -0.4**
**OCAC Ocana 36.02 356** *e*P **P** **22 30 07.8 -1.0**
**HOPE Hope Point 36.46 146** *e*P **P** **22 30 12.3 +0.2**
comp=Z,132nm,1.1s
HOPE LR LR
comp=Z,30µm,20.0s
**SDV Santo Domingo 36.60 1** LR LR 22 46 46.9
comp=Z,15µm,18.9s,baz=190,slow=39
**SDV Santo Domingo 36.60 1** *e*P **P** **22 30 13.0 -0.9**
**SDV Santo Domingo 36.60 1** *e*P **P** **22 30 13.4 -0.5**
comp=Z,41nm,0.9s
**MOTC Monteria, Cord 36.76 353** *e*P **P** **22 30 15.4 +0.4**
**CAPC Capurgana 36.85 350** *e*P **P** **22 30 18.1 +2.3**
**PMSA Palmer Station 37.13 175** LR LR 22 45 40.7
comp=Z,33µm,18.6s,baz=353,slow=36
**CODC Agust'›n Codaz 37.71 356** *e*P **P** **22 30 22.0 -1.1**

**SJCC San Jacinto, C 37.81 353** *e*P **P** **22 30 23.7 -0.3**
**BCIP Isla Barro Col 37.83 346** *e*P **P** **22 30 26.2 +2.1**
**BCIP Isla Barro Col 37.83 346** *e*P **P** **22 30 25.9 +1.8**
comp=Z,170nm,1.4s
**URIC Uribia, Colomb 39.41 359** *e*P P 22 30 32.6 -4.7
**HDC Heredia 39.75 340** *e*P **P** **22 30 40.9 +0.5**
comp=Z,160nm,1.3s
HDC LR LR
comp=Z,5µm,18.0s
**RCBR Riachuelo 40.00 63** *e*P **P** **22 30 44.3 +1.8**
comp=Z,312nm,1.4s
RCBR LR LR
comp=Z,36µm,20.0s
**TOSP Speyside 40.33 16** *e*P **P** **22 30 44.4 -0.6**
**GRGR Grenville 40.87 14** *e*P **P** **22 30 50.0 +0.4**
comp=Z,232nm,1.0s
GRGR LR LR
comp=Z,10µm,21.0s
**GRGR Grenville 40.87 14** *e*P **P** **22 30 48.9 -0.6**
**FCV Fort Charlotte 41.95 14** *e*P **P** **22 30 58.7 +0.3**
**SVB Belmont 42.06 14** *e*P **P** **22 30 59.1 -0.2**
comp=Z,88nm,1.1s
**SVB Belmont 42.06 14** *e*P **P** **22 30 58.3 -1.0**
**SVB Belmont 42.06 14** *e* PP 22 32 51.5 +15
**SVCV St. Vincent, C 42.09 15** *e* **P** **22 31 00.5 +1.0**
**SSV Crater Summit 42.13 15** *e*P **P** **22 31 00.6 +0.7**
**SSV Crater Summit 42.13 15** *e* **P** **22 31 03.1 +3.1**
**BBSP Saint Philip 42.33 17** *e* P 22 31 18.1 +17
**BBGH Gun Hill 42.34 17** PFAKE 22 31 10.0 +8.4
BBGH LR LR
comp=Z,14µm,21.0s
**MCLT Moule a Chique 42.56 15** *e* **P** **22 31 01.5 -1.9**
**MCLT Moule a Chique 42.56 15** *e*P **P** **22 31 03.6 +0.3**
**MCLT Moule a Chique 42.56 15** *e* **PP** **22 32 40.5 -1.7**
**BIM Bigot 43.31 14** *e*P **P** **22 31 07.7 -1.7**
**MVM Montagne Vaucl 43.38 15** *e*P **P** **22 31 09.8 -0.2**
**FDF Fort de France 43.50 14** *e*P **P** **22 31 10.7 -0.3**
FDF pmax pmax
comp=Z,180nm,1.2s
**FDF Fort de France 43.50 14** *e*P **P** **22 31 10.7 -0.3**
comp=Z,179nm,1.2s
**FDF Fort de France 43.50 14** *e*P **P** **22 31 08.9 -2.1**
**CXM Morne La Croix 43.57 14** *e*P **P** **22 31 11.2 -0.5**
**DLPL La Plaine 44.06 14** *e* P 22 31 06.8 -8.7
**BBL Barber's Block 44.20 13** *e*P **P** **22 31 15.8 -0.8**
**TBG Guadaloupe-3 44.49 13** *e* **PP** **22 33 03.1 +0.3**
**TGUH Tegucigalpa,Un 44.58 337** *e*P **P** **22 31 21.1 +1.5**
comp=Z,110nm,1.1s
**GDHS Morne Mazeau, 44.87 13** *e*P **P** **22 31 20.4 -1.6**
comp=Z,42nm,0.8s
GDHS LR LR
comp=Z,10µm,20.0s
**SNET Serv Nac Est T 44.94 335** PFAKE 22 31 40.0 +17
SNET LR LR
comp=Z,5µm,20.0s
**MLYT Lee's Yard 45.23 12** *e* **PP** **22 33 05.3 -5.5**
**SKI Saint Kitts 45.73 11** *e*P **P** **22 31 28.2 -0.5**
SKI pmax pmax
comp=Z,270nm,0.9s
SKI MLR MLR
comp=Z,25µm,18.0s
**SKI Saint Kitts 45.73 11** *e*P **P** **22 31 28.2 -0.5**
comp=Z,275nm,0.9s
SKI LR LR
comp=Z,25µm,18.0s
**SKI Saint Kitts 45.73 11** *e*P **P** **22 31 25.8 -2.9**
**SKI Saint Kitts 45.73 11** *e* **PP** **22 33 15.8 -0.3**
**CDVI St. Croix 45.83 8** *e*P **P** **22 31 28.4 -1.1**
comp=Z,52nm,0.5s
**SEUS St. Eustatius 45.84 11** *e*P **P** **22 31 29.1 -0.5**
comp=Z,247nm,1.1s
SEUS LR LR
comp=Z,16µm,18.0s
**SEUS St. Eustatius 45.84 11** *e*P **P** **22 31 27.6 -2.0**
**SEUS St. Eustatius 45.84 11** *e* **PP** **22 33 13.8 -3.5**
**SABA Saba 45.92 11** *e*P **P** **22 31 28.9 -1.3**
comp=Z,217nm,1.4s
SABA LR LR
comp=Z,15µm,18.0s
**SABA Saba 45.92 11** *e*P P 22 31 22.4 -7.8
**CELP Cerrillos 45.95 6** *e*P **P** **22 31 29.6 -0.8**
CELP *e*PcP **PcP** **22 33 07.0 -0.2**
**SJG San Juan 46.03 7** *e*P **P** **22 31 29.8 -1.2**
SJG pmax pmax
comp=Z,80nm,1.0s
SJG MLR MLR
comp=Z,7µm,20.0s
**SJG San Juan 46.03 7** *e*P **P** **22 31 30.1 -0.9**
**SJG San Juan 46.03 7** *e*P **P** **22 31 29.8 -1.2**
comp=Z,80nm,1.0s
SJG LR LR
comp=Z,7µm,20.0s
**MPR Mayaguez 46.03 5** *e*P **P** **22 31 30.5 -0.6**
comp=Z,106nm,1.3s
MPR LR LR
comp=Z,4µm,21.0s
**MTP Monte Pirata 46.08 7** *e*P **P** **22 31 30.2 -1.2**
comp=Z,100nm,1.4s
**HUMP Col San Antoni 46.09 7** *e*P **P** **22 31 31.3 -0.2**
comp=Z,71nm,1.3s
HUMP LR LR
comp=Z,9µm,20.0s
**IDE Isla Desecheo 46.18 5** *e*P **P** **22 31 31.8 -0.5**
**ANWB Willy Bob 46.23 12** *e*P **P** **22 31 30.8 -1.8**
comp=Z,180nm,1.2s
ANWB LR LR
comp=Z,6µm,21.0s
**ANWB Willy Bob 46.23 12** *e* P 22 31 24.8 -7.8
**AGP Aguadilla 46.23 5** PFAKE 22 31 50.0 +17
AGP LR LR
comp=Z,6µm,21.0s
**MTDJ Mount Denham 46.30 352** *e*P **P** **22 31 34.0 +0.7**
comp=Z,175nm,1.1s
**SDDR Presa de Saban 46.64 360** *e*P **P** **22 31 36.8 +0.8**
comp=Z,116nm,1.3s
SDDR LR LR
comp=Z,10µm,18.0s
**ABVI Anegada Island 46.85 9** *e*P **P** **22 31 36.7 -0.8**
comp=Z,123nm,0.8s
ABVI LR LR
comp=Z,10µm,20.0s
**GTBY Guantanamo Bay 47.73 355** *e*P **P** **22 31 45.7 +1.3**
comp=Z,202nm,1.3s
**CCIG Comitan 48.44 333** *e*P **P** **22 31 50.9 +0.8**
comp=Z,104nm,1.4s
**GRTK Grand Turk 49.15 0** *e*P **P** **22 31 54.2 -1.1**
comp=Z,675nm,1.5s
GRTK LR LR
comp=Z,8µm,18.0s
**TRIS Tristan da Cun 49.75 116** *e*P **P** **22 32 01.0 +1.1**
comp=Z,570nm,1.4s
TRIS LR LR
comp=Z,10µm,20.0s
**SCIG Sabancuy 50.50 335** PFAKE 22 32 20.0 +14
SCIG LR LR
comp=Z,4µm,18.0s
**TEIG Tepich 50.67 339** *e*P **P** **22 32 08.1 +1.3**
comp=Z,0.4nm,1.0s
**TUIG Tuzandepetl 50.96 331** *e*P **P** **22 32 08.7 -0.3**
comp=Z,799nm,1.6s
TUIG LR LR
comp=Z,9µm,21.0s
**MYIG MØrida 51.83 338** PFAKE 22 32 30.0 +14
MYIG LR LR
comp=Z,5µm,18.0s
**PTCN Pitcairn Islan 52.40 259** *e*P **P** **22 32 20.9 +0.9**
comp=Z,166nm,0.6s
PTCN LR LR
comp=Z,8µm,21.0s
**UNM Universidad Na 54.26 327** *e*P **P** **22 32 34.8 +0.9**
UNM pmax pmax
comp=Z,147nm,0.6s
UNM MLR MLR
comp=Z,4µm,21.0s
**UNM Universidad Na 54.26 327** *e*P **P** **22 32 34.8 +0.9**
comp=Z,147nm,0.6s
UNM LR LR
comp=Z,4µm,21.0s
**VNA3 Neumayer Olymp 54.72 160** P **P** **22 32 36.7 +0.5**
**VNA1 Neumayer--Stat 54.98 159** P **P** **22 32 39.7 +1.5**
**VNA2 Neumayer--Watz 55.34 159** P **P** **22 32 40.7 -0.1**
baz=289,slow=8.6
**MOIG Morelia 55.55 325** *e*P **P** **22 32 45.0 +1.8**
comp=Z,100nm,1.2s
MOIG LR LR
comp=Z,12µm,20.0s

**DWPF Disney Wildern 56.59 349** PFAKE 22 33 00.0 +10
DWPF LR LR
comp=Z,3µm,20.0s
**SNAA Sanae 56.94 159** P **P** **22 32 52.6 +0.3**
**SNAA Sanae 56.94 159** *e*P **P** **22 32 51.9 -0.4**
SNAA pmax pmax
comp=Z,470nm,1.5s
SNAA MLR MLR
comp=Z,9µm,18.0s
**SNAA Sanae 56.94 159** *e*P **P** **22 32 52.7 +0.5**
comp=Z,469nm,1.5s
SNAA LR LR
comp=Z,9µm,18.0s
**ASCN Ascension 57.03 81** PFAKE 22 33 10.0 +16
ASCN LR LR
comp=Z,10µm,20.0s
**RKT Rikitea 57.24 259** *e*S **S** **22 40 44.2 -6.6**
comp=Z,17µm,28.0s
RKT *e*LR LR 22 49 36.4
comp=Z,13µm,21.5s
**RKT Rikitea 57.24 259** *e*T T 23 34 31.6
comp=Z,14nm,0.2s
**ZAIG Zacatecas 58.84 326** *e*P **P** **22 33 09.0 +2.6**
comp=Z,44nm,1.2s
ZAIG LR LR
comp=Z,13µm,19.0s
**LNIG Linares 59.19 330** *e*P **P** **22 33 08.6 +0.1**
comp=Z,49nm,1.2s
**646A Port Sulphur 59.92 341** P **P** **22 33 15.8 +2.4**
baz=161
**645A Chauvin 60.03 340** P **P** **22 33 15.6 +1.5**
baz=160
**TIGA Tifton 60.22 348** P **P** **22 33 16.3 +0.9**
baz=167
**TIGA Tifton 60.22 348** *e*P **P** **22 33 16.1 +0.7**
comp=Z,136nm,1.1s
TIGA *e*PcP **PcP** **22 33 57.1 -3.7**
TIGA LR LR
comp=Z,4µm,19.0s
**H06S1 SOCORRO T 60.32 316** T T 23 38 43.0
SNR=19
**H06E1 SOCORRO T-PHAS 60.33 316** T T 23 38 44.2
SNR=83
**546A Slidell 60.50 342** P **P** **22 33 19.0 +1.6**
baz=161
**545A Edgard 60.55 341** P **P** **22 33 20.0 +2.3**
baz=160
**448A Bay Minette 60.67 344** P **P** **22 33 19.0 +0.5**
baz=163
**BRAL Brewton 60.70 344** P **P** **22 33 19.0 +0.2**
baz=164
**BRAL Brewton 60.70 344** *e*P **P** **22 33 19.6 +0.9**
comp=Z,264nm,1.3s
**447A Lucedale 60.75 343** P **P** **22 33 20.2 +1.2**
baz=162
**544A White Castle 60.81 340** P **P** **22 33 21.7 +2.2**
baz=160
**KVTX Kingsville 60.85 333** *e*P **P** **22 33 21.7 +1.9**
comp=Z,146nm,1.3s
KVTX *e*PP **PP** **22 35 28.6 -5.6**
**446A Poplarville 60.93 342** P **P** **22 33 21.2 +0.9**
baz=161
**543A St. Martinvill 61.00 339** P **P** **22 33 22.5 +1.7**
baz=159
**RGRS Roger Stewart 61.12 351** *e*P **P** **22 33 22.3 +0.8**
comp=Z,1µm,1.3s
**348A Jackson 61.14 344** P **P** **22 33 22.4 +0.7**
baz=163
348A S **S** **22 41 38.7 -1.9**
baz=163
**445A Amite 61.15 341** P **P** **22 33 23.4 +1.6**
baz=160
**CSU Charleston Sou 61.18 351** *e*P **P** **22 33 22.9 +1.0**
**SHEL Horse Pasture 61.20 94** *e*P **P** **22 33 24.0 +1.4**
SHEL pmax pmax
comp=Z,136nm,0.8s
SHEL MLR MLR
comp=Z,16µm,19.0s
**SHEL Horse Pasture 61.20 94** *e*P **P** **22 33 24.0 +1.4**
comp=Z,136nm,0.8s
SHEL LR LR
comp=Z,16µm,19.0s
**444A Pine Grove 61.25 341** P **P** **22 33 23.7 +1.2**
baz=160
**542A Morse 61.25 339** P **P** **22 33 25.3 +2.8**
baz=158
**347A Saraland 61.29 343** P **P** **22 33 23.7 +0.9**
baz=162
**NHSC New Hope 61.31 351** *e*P **P** **22 33 23.8 +1.0**
comp=Z,524nm,1.3s
NHSC LR LR
comp=Z,4µm,22.0s
**541A Lake Charles 61.40 338** P **P** **22 33 26.2 +2.7**
baz=158
**346A Big Creek Wild 61.52 342** P **P** **22 33 25.2 +0.9**
baz=161
**345A Thompson Farm, 61.60 342** P **P** **22 33 25.9 +1.0**
baz=161
**NVL N'lazarevskaya 61.60 158** *e*P **P** **22 33 25.2 +0.8**
NVL *e**PP **sP** **22 33 31.6 +1.0**
NVL *e*S **S** **22 41 44.0 -1.8**
NVL *e*SSS SSS 22 48 31.6
**443A Delano Plantat 61.61 340** P **P** **22 33 26.9 +2.0**
baz=159
**248A Dixon Mills 61.75 344** P **P** **22 33 26.5 +0.7**
baz=163
**442A Mamou 61.76 339** P **P** **22 33 27.6 +1.7**
baz=158
**247A Quitman 61.93 343** P **P** **22 33 27.7 +0.6**
baz=162
**344A Westbrook Farm 61.94 341** P **P** **22 33 28.7 +1.6**
baz=160
**246A Jackson Lee, B 62.03 343** P **P** **22 33 28.3 +0.6**
baz=162
**441A DeRidder 62.04 339** P **P** **22 33 29.8 +2.0**
baz=158
**343A Vidalia 62.04 340** P **P** **22 33 28.9 +1.1**
baz=159
**GOGA Godfrey 62.12 348** *e*P **P** **22 33 28.5 +0.2**
GOGA pmax pmax
comp=Z,270nm,1.9s
GOGA MLR MLR
comp=Z,3µm,20.0s
**GOGA Godfrey 62.12 348** *e*P **P** **22 33 28.5 +0.2**
comp=Z,265nm,1.9s
GOGA LR LR
comp=Z,3µm,20.0s
**833A Chaparral WMA, 62.15 332** P **P** **22 33 29.9 +1.2**
baz=152
**HKT Hockley 62.21 336** *e*P **P** **22 33 30.8 +1.9**
HKT pmax pmax
comp=Z,146nm,1.5s
HKT MLR MLR
comp=Z,2µm,22.0s
**HKT Hockley 62.21 336** *e*P **P** **22 33 30.8 +1.9**
comp=Z,146nm,1.5s
HKT LR LR
comp=Z,2µm,22.0s
**245A Little AP, Sta 62.25 342** P **P** **22 33 30.0 +0.8**
baz=161
**QSPA South Pole Qui 62.28 180** *e*P **P** **22 33 29.9 +0.6**
comp=Z,192nm,1.1s
QSPA LR LR
comp=Z,5µm,20.0s
**342A Flagon Creek P 62.34 340** P **P** **22 33 31.1 +1.3**
baz=159
**147A Livingston 62.44 344** P **P** **22 33 30.4 0.0**
baz=163
**LRAL Lakeview Retre 62.48 345** P **P** **22 33 30.8 +0.1**
baz=164,SNR=18
**LRAL Lakeview Retre 62.48 345** *e*P **P** **22 33 30.6 -0.1**
comp=Z,67nm,1.2s
**244A Avery Jackson 62.48 341** P **P** **22 33 31.7 +0.9**
baz=160
**243A Waterproof 62.56 341** P **P** **22 33 32.2 +0.9**
baz=160
**341A Kurthwood 62.57 339** P **P** **22 33 31.9 +0.5**
baz=158
**VBMS Vicksburg 62.60 342** P **P** **22 33 32.0 +0.5**
baz=161,SNR=5.2
**VBMS Vicksburg 62.60 342** *e*P **P** **22 33 33.3 +1.8**
comp=Z,235nm,1.1s
**146A Union 62.60 343** P **P** **22 33 32.5 +1.0**
baz=162
**439A Center Grove, 62.60 337** P **P** **22 33 33.1 +1.5**
baz=156
**JSC Jenkinsville 62.62 351** *e*P **P** **22 33 31.8 +0.2**
JSC pmax pmax

comp=Z,85nm,1.1s
JSC MLR MLR
comp=Z,4µm,20.0s
**JSC Jenkinsville 62.62 351** *e*P **P** **22 33 31.8 +0.2**
comp=Z,85nm,1.1s
JSC LR LR
comp=Z,4µm,20.0s
**HODGE Hodges 62.72 350** *e*P **P** **22 33 32.4 +0.1**
comp=Z,85nm,1.4s
HODGE LR LR
comp=Z,4µm,20.0s
**SACV Santiago Islan 62.75 53** *e*P **P** **22 33 31.5 -1.5**
comp=Z,99nm,1.3s
SACV LR LR
comp=Z,3µm,20.0s
**145A Houston Renfro 62.80 342** P **P** **22 33 33.4 +0.5**
baz=161
**438A Sam Houston St 62.81 336** P **P** **22 33 34.5 +1.5**
baz=156
**340A Bronson 62.88 338** P **P** **22 33 34.2 +0.8**
baz=157
**Z47A Carrollton 62.89 344** P **P** **22 33 33.1 -0.3**
baz=163
**242A Grayson 62.93 340** P **P** **22 33 34.3 +0.6**
baz=159
**Z48A Northport 62.93 345** P **P** **22 33 33.5 -0.3**
baz=164
**144A Alexander Plac 62.96 342** P **P** **22 33 34.9 +0.9**
baz=161
**339A Huntington 63.02 338** P **P** **22 33 34.8 +0.4**
baz=157
**Z46A Louisville 63.10 343** P **P** **22 33 35.3 +0.4**
baz=162
**241A Mo Tay, Goldon 63.13 339** P **P** **22 33 36.1 +1.0**
baz=158
**CNNC Cliffs of the 63.16 354** *e*P **P** **22 33 35.8 +0.6**
comp=Z,107nm,0.9s
CNNC *e*PP PP 22 35 40.7 -14
**338A Crockett 63.30 337** P **P** **22 33 37.4 +1.1**
baz=156
**143A Socs Landing, 63.30 341** P **P** **22 33 37.2 +1.0**
baz=160
**142A Monroe 63.32 340** P **P** **22 33 37.3 +1.0**
baz=159
**240A Hunter Patters 63.41 339** P **P** **22 33 38.1 +1.1**
baz=158
**NATX Nacogdoches 63.45 338** P **P** **22 33 38.1 +0.9**
baz=157,SNR=6.9
**NATX Nacogdoches 63.45 338** *e*P **P** **22 33 39.3 +2.1**
comp=Z,451nm,1.8s
**Z45A Winona 63.46 343** P **P** **22 33 37.8 +0.5**
baz=162
**337A Centerville 63.47 336** P **P** **22 33 38.8 +1.4**
baz=155
**KMSC Kings Mountain 63.47 351** P **P** **22 33 37.2 -0.1**
baz=170
**KMSC Kings Mountain 63.47 351** *e*P **P** **22 33 37.7 +0.4**
comp=Z,76nm,1.0s
KMSC LR LR
comp=Z,4µm,20.0s
**Y47A UCPARC, Winfie 63.51 344** P **P** **22 33 37.3 -0.3**
baz=163
**SLBS Sierra La Lagu 63.52 320** *e*P **P** **22 33 38.6 +0.7**
comp=Z,68nm,1.1s
SLBS LR LR
comp=Z,3µm,22.0s
**BG3 Lake Jocassee 63.57 349** *e*P **P** **22 33 38.8 +0.8**
comp=Z,102nm,1.2s
BG3 LR LR
comp=Z,4µm,21.0s
**Z44A Pea Ridge, Bel 63.57 342** P **P** **22 33 38.4 +0.5**
baz=161
**435B Jarrell 63.61 335** P **P** **22 33 38.8 +0.5**
baz=154
**239A Gary 63.62 338** P **P** **22 33 39.4 +1.0**
baz=157
**141A Papa Simpson, 63.66 340** P **P** **22 33 39.6 +1.1**
baz=158
**Y46A Houston 63.73 344** P **P** **22 33 38.6 -0.5**
baz=162
**Z43A Armstrong Fami 63.73 341** P **P** **22 33 39.3 +0.3**
baz=160
**238A Jacksonville 63.83 337** P **P** **22 33 40.7 +1.0**
baz=156
**HPIG 63.85 326** *e*P **P** **22 33 41.5 +1.3**
comp=Z,71nm,1.2s
HPIG LR LR
comp=Z,13µm,18.0s
**336A Riesel 63.88 336** P **P** **22 33 40.9 +0.8**
baz=155
**Y45A Yeager Farm, C 63.89 343** P **P** **22 33 40.6 +0.6**
baz=162
**140A Cam and Jess, 63.91 339** P **P** **22 33 41.1 +1.0**
baz=158
**Z42A Norrel Spur, H 64.00 341** P **P** **22 33 41.7 +1.0**
baz=159
**237A Washetta, Mont 64.06 337** P **P** **22 33 42.3 +1.0**
baz=156
**Y44A Strider, Charl 64.16 342** P **P** **22 33 42.3 +0.5**
baz=161
**139A Bunkhouse Ranc 64.20 338** P **P** **22 33 43.3 +1.2**
baz=157
**JCT Junction City 64.21 333** P **P** **22 33 43.0 +0.7**
baz=152,SNR=40
**JCT Junction City 64.21 333** *e*P **P** **22 33 43.1 +0.7**
JCT pmax pmax
comp=Z,85nm,0.8s
**JCT Junction City 64.21 333** *e*P **P** **22 33 43.1 +0.8**
comp=Z,85nm,0.8s
**Z41A Richland Creek 64.24 340** P **P** **22 33 43.3 +1.0**
baz=159
**CPCT Cooper Cave 64.30 348** *e*P **P** **22 33 43.0 +0.3**
comp=Z,168nm,1.2s
CPCT LR LR
comp=Z,3µm,22.0s
**Y43A Makayla and Ka 64.31 342** P **P** **22 33 43.8 +1.1**
baz=160
**236A Katherine and 64.32 336** P **P** **22 33 43.5 +0.6**
baz=155
**SWET Sewanee 64.35 347** *e*P **P** **22 33 43.0 -0.1**
comp=Z,140nm,0.9s
SWET LR LR
comp=Z,3µm,22.0s
**TKL Tuckaleechee C 64.36 349** *e*P **P** **22 33 43.2 0.0**
TKL pmax pmax
comp=Z,168nm,1.1s
TKL MLR MLR
comp=Z,5µm,18.0s
**TKL Tuckaleechee C 64.36 349** *e*P **P** **22 33 43.2 0.0**
comp=Z,168nm,1.1s
TKL LR LR
comp=Z,5µm,18.0s
**138A Matatall Enter 64.42 338** P **P** **22 33 44.5 +0.9**
baz=156
**Z40A Long Farm, Mag 64.42 339** P **P** **22 33 44.9 +1.4**
baz=158
**OXF Oxford 64.47 343** P **P** **22 33 43.3 -0.6**
baz=162,SNR=22
**OXF Oxford 64.47 343** *e*P **P** **22 33 43.8 0.0**
OXF pmax pmax
comp=Z,250nm,1.1s
**OXF Oxford 64.47 343** *e*P **P** **22 33 43.8 0.0**
comp=Z,247nm,1.1s
**Y42A Garnett, Star 64.48 341** P **P** **22 33 44.6 +0.7**
baz=160
**CCAR Cane Creek 64.55 341** *e*P **P** **22 33 45.6 +1.2**
comp=Z,99nm,0.9s
**137A Heron Place, G 64.59 337** P **P** **22 33 45.9 +1.2**
baz=156
**PLAL Pickwick Lake 64.59 345** *e*P **P** **22 33 44.6 0.0**
comp=Z,124nm,1.2s
PLAL LR LR
comp=Z,3µm,20.0s
**WHTX Lake Whitney, 64.65 335** P **P** **22 33 45.7 +0.6**
baz=154
**WHTX Lake Whitney, 64.65 335** *e*P **P** **22 33 46.6 +1.5**
comp=Z,118nm,1.2s
**X44A Crenshaw 64.65 343** P **P** **22 33 44.9 -0.1**
baz=161
**Z39A Irene McRaven, 64.65 339** P **P** **22 33 45.9 +0.9**
baz=157
**WLAR White Oak Lake 64.73 340** *e*P **P** **22 33 48.2 +2.6**
comp=Z,476nm,1.3s
**136A Ennis 64.75 336** P **P** **22 33 46.3 +0.6**
baz=155
**Y41A Eaglette Beard 64.76 340** P **P** **22 33 46.9 +1.2**
baz=159
**X43A Marvell 64.86 342** P **P** **22 33 47.4 +1.0**
baz=161
**TXAR Lajitas Array 64.90 329** P **P** **22 33 47.7 +0.8**
comp=Z,17nm,0.9s,baz=150,slow=6.9,SNR=58
TXAR PKP2bc 23 02 36.6
comp=Z,3.8nm,1.2s,baz=240,slow=1.0,SNR=6.0
**TX31 Lajitas Ar. Si 64.90 329** *e*P **P** **22 33 47.6 +0.7**
TX31 *e*PP **PP** **22 36 16.0 +6.0**
**Z38A Mt. Pleasant 64.93 338** P **P** **22 33 47.8 +0.9**
baz=157
**W45A Hickory Valley 65.03 344** P **P** **22 33 47.3 -0.1**
baz=162
**Y40A Okolona 65.08 340** P **P** **22 33 48.8 +1.0**
baz=158
**Z37A Pogue Cattle C 65.09 337** P **P** **22 33 48.3 +0.3**
baz=156
**X42A Stuttgart 65.10 341** P **P** **22 33 47.9 0.0**
baz=160
**W44A Shelby Farms P 65.17 343** P **P** **22 33 48.5 +0.1**
baz=162
**MET Memphis--Engin 65.18 343** *e*P **P** **22 33 49.7 +1.3**
comp=Z,600nm,1.4s
**TZTN Tazewell 65.19 349** P **P** **22 33 48.0 -0.6**
baz=168,SNR=15
**TZTN Tazewell 65.19 349** *e*P **P** **22 33 48.8 +0.3**
comp=Z,156nm,1.4s
TZTN LR LR
comp=Z,4µm,20.0s
**Y39A Lockesburg 65.27 339** P **P** **22 33 49.1 +0.1**
baz=158
**X41A Kaden, Bauxite 65.30 341** P **P** **22 33 49.6 +0.4**
baz=159
**W43A Forest City 65.35 342** P **P** **22 33 49.8 +0.2**
baz=161
**BLA Blacksburg 65.38 352** *e*P **P** **22 33 50.5 +0.7**
BLA pmax pmax
comp=Z,188nm,1.8s
BLA MLR MLR
comp=Z,3µm,21.0s
**BLA Blacksburg 65.38 352** *e*P **P** **22 33 50.5 +0.7**
comp=Z,188nm,1.8s
BLA LR LR
comp=Z,3µm,21.0s
**X40A Basin Creek Fa 65.39 340** P **P** **22 33 49.9 +0.1**
baz=159
**Z36A Blue Ridge 65.43 337** P **P** **22 33 50.9 +0.7**
baz=155
**Y38A Idabel 65.46 339** P **P** **22 33 51.0 +0.7**
baz=157
**UALR University of 65.52 341** *e*P **P** **22 33 51.2 +0.6**
comp=Z,125nm,1.4s
**V45A Humboldt 65.53 344** P **P** **22 33 50.6 -0.1**
baz=163
**WVT Waverly 65.63 345** P **P** **22 33 50.8 -0.6**
baz=164
**WVT Waverly 65.63 345** *e*P **P** **22 33 50.7 -0.7**
WVT pmax pmax
comp=Z,150nm,1.2s
**WVT Waverly 65.63 345** *e*P **P** **22 33 50.7 -0.7**
comp=Z,150nm,1.2s
**MIAR Mount Ida 65.67 340** P **P** **22 33 51.8 +0.1**
baz=158,SNR=58
**MIAR Mount Ida 65.67 340** *e*P **P** **22 33 52.4 +0.7**
MIAR pmax pmax
comp=Z,140nm,1.2s
**MIAR Mount Ida 65.67 340** *e*P **P** **22 33 52.4 +0.7**
comp=Z,139nm,1.3s
**IP05 Hopewell Churc 65.71 354** *e*P **P** **22 33 52.8 +1.0**
comp=Z,168nm,1.1s
IP05 LR LR
comp=Z,3µm,20.0s
**W42A Bald Knob 65.75 342** P **P** **22 33 52.3 +0.2**
baz=160
**HALT Halls 65.78 344** *e*P **P** **22 33 53.8 +1.5**
comp=Z,195nm,0.7s
**HBAR Harrisburg 65.78 343** *e*P **P** **22 33 53.6 +1.2**
comp=Z,316nm,1.4s
**Y37A Hugo 65.80 338** P **P** **22 33 53.4 +0.9**
baz=156
**X39A Fountain Ranch 65.80 339** P **P** **22 33 53.5 +0.9**
baz=158
**IP07 Quail 65.82 354** *e*P **P** **22 33 53.7 +1.2**
comp=Z,176nm,1.1s
IP07 LR LR
comp=Z,2µm,19.0s
**IP06 Yanceyville 65.83 354** *e*P **P** **22 33 53.7 +1.1**
comp=Z,168nm,1.1s
IP06 LR LR
comp=Z,3µm,22.0s
**V44A Blytheville 65.84 343** P **P** **22 33 52.8 +0.1**
baz=162
**IP01 Cuckoo 65.85 354** *e*P **P** **22 33 54.2 +1.5**
comp=Z,174nm,1.1s
IP01 LR LR
comp=Z,3µm,20.0s
**W41B Gary Mavity, V 65.86 341** P **P** **22 33 53.5 +0.7**
baz=159
**SPRD Spring Road, M 65.91 354** *e*P **P** **22 33 54.2 +1.1**
comp=Z,232nm,1.4s
SPRD LR LR
comp=Z,3µm,19.0s
**IP03 Louisa 65.92 354** *e*P **P** **22 33 54.2 +1.0**
comp=Z,388nm,1.7s
IP03 LR LR
comp=Z,3µm,21.0s
**CVRD Centerville Ro 65.95 354** *e*P **P** **22 33 53.9 +0.5**
CVRD *e*pP **P** **22 33 54.4 +1.1**
CVRD LR LR
comp=Z,3µm,19.0s
**Y36A Durant 65.95 337** P **P** **22 33 54.2 +0.7**
baz=156
**X301 Greenbrier Sit 65.97 341** *e*P **P** **22 33 55.2 +1.7**
comp=Z,66nm,0.9s
**V43A Jonesboro 65.97 343** P **P** **22 33 53.8 +0.3**
baz=161
**WHAR Wooly Hollow 65.98 341** *e*P **P** **22 33 54.4 +0.8**
comp=Z,390nm,1.9s
WHAR *e*PP **PP** **22 36 21.5 +2.2**
**PTRD Partlow Road 65.99 354** *e*P **P** **22 33 53.4 -0.2**
comp=Z,106nm,1.1s
PTRD LR LR
comp=Z,3µm,20.0s
**SPFD Spotsylvania F 65.99 354** *e*P **P** **22 33 54.9 +1.3**
comp=Z,333nm,1.8s
SPFD LR LR
comp=Z,3µm,19.0s
**IP04 Greensprings 66.00 354** *e*P **P** **22 33 55.2 +1.5**
comp=Z,340nm,1.6s
IP04 LR LR
comp=Z,3µm,21.0s
**GNAR Gosnell 66.00 343** *e*P **P** **22 33 55.3 +1.5**
comp=Z,408nm,1.2s
**ABTX Abilene, Hawle 66.04 334** P **P** **22 33 54.7 +0.6**
baz=152
**ABTX Abilene, Hawle 66.04 334** *e*P **P** **22 33 55.5 +1.4**
comp=Z,157nm,1.1s
**CBN Corbin Frederi 66.05 355** *e*P **P** **22 33 54.9 +0.9**
comp=Z,215nm,1.5s
CBN LR LR
comp=Z,3µm,20.0s
**U45A Rockin P Farm, 66.06 344** P **P** **22 33 53.7 -0.4**
baz=163
**UTMT University of 66.08 344** *e*P **P** **22 33 54.7 +0.4**
comp=Z,358nm,1.1s
**GLAT Glass 66.11 344** *e*P **P** **22 33 55.5 +1.1**
comp=Z,252nm,0.7s
**W40A Ferguson Farm, 66.12 340** P **P** **22 33 54.9 +0.4**
baz=159
**W40A Ferguson Farm, 66.12 340** *e*P **P** **22 33 55.8 +1.3**
comp=Z,186nm,1.3s
**X38A Whitesboro 66.17 339** P **P** **22 33 55.4 +0.5**
baz=157
**U44B Burton Farm, H 66.19 344** P **P** **22 33 55.1 +0.2**
baz=162
**V42A Cord 66.21 342** P **P** **22 33 55.2 +0.1**
baz=160
**Y35A Marietta 66.22 337** P **P** **22 33 55.8 +0.5**
baz=155
**X37A Clayton 66.28 338** P **P** **22 33 55.9 +0.4**
baz=156
**X37A Clayton 66.28 338** *e*P **P** **22 33 57.2 +1.6**
comp=Z,204nm,1.4s
**T47A Sharon Grove 66.30 346** P **P** **22 33 55.4 -0.2**
baz=164
**W39A Magazine 66.33 340** P **P** **22 33 56.6 +0.7**
baz=158
**PVMO Portageville 66.35 344** *e*P **P** **22 33 57.3 +1.4**
comp=Z,632nm,1.1s
**V41A Mountainview 66.41 341** P **P** **22 33 56.4 0.0**
baz=160
**U44A Portageville 66.43 344** P **P** **22 33 56.8 +0.3**
baz=162
**W38A Poteau 66.45 339** P **P** **22 33 57.1 +0.5**
baz=157
**U43A Rector 66.48 343** P **P** **22 33 57.4 +0.6**
baz=161
**T46A Princeton 66.52 345** P **P** **22 33 57.0 -0.1**
baz=164
**X36A Centrahoma 66.59 337** P **P** **22 33 57.9 +0.4**
baz=156
**PARMO Parma 66.60 344** *e*P **P** **22 33 58.3 +0.7**
comp=Z,250nm,0.8s
**V40A Witts Springs 66.61 341** P **P** **22 33 57.6 -0.2**
baz=159
**X35A Drake 66.64 337** P **P** **22 33 58.0 0.0**
baz=155
**X35A Drake 66.64 337** *e*P **P** **22 33 58.5 +0.5**
comp=Z,53nm,0.9s
X35A LR LR
comp=Z,2µm,22.0s
**T45A Paducah 66.67 345** P **P** **22 33 57.9 -0.1**
baz=163
**U42A Revenden 66.69 342** P **P** **22 33 58.1 0.0**
baz=160
**W37B Quinton 66.80 338** P **P** **22 33 59.1 +0.2**
baz=157
**W37B Quinton 66.80 338** *e*P **P** **22 33 59.5 +0.6**
comp=Z,156nm,1.1s
**U41A Viola 66.86 342** P **P** **22 33 59.4 +0.1**
baz=160
**PBMO Poplar Bluff 66.88 343** *e*P **P** **22 33 59.1 -0.3**
comp=Z,151nm,0.9s
PBMO *e*PcP **PcP** **22 34 27.1 -0.8**
**V39A Pettigrew 66.89 340** P **P** **22 33 59.7 +0.2**
baz=158
**T44A Benton 66.96 344** P **P** **22 33 59.9 0.0**
baz=162
**W36A Wetumka 67.06 338** P **P** **22 34 00.3 -0.2**
baz=156
**W36A Wetumka 67.06 338** *e*P **P** **22 34 00.4 -0.2**
comp=Z,52nm,1.4s
**S46A Don Dixon Farm 67.10 346** P **P** **22 33 59.9 -0.8**
baz=164
**T43A Greenville 67.13 343** P **P** **22 34 00.9 0.0**
baz=162
**U40A Yellville 67.14 341** P **P** **22 34 01.4 +0.4**
baz=159
**V38A Canehill 67.14 340** P **P** **22 34 01.6 +0.6**
baz=158
**SDMD Soldier's Deli 67.21 355** *e*P **P** **22 34 02.4 +1.1**
comp=Z,168nm,2.0s
SDMD LR LR
comp=Z,2µm,21.0s
**S45A Carrier Mills 67.29 345** P **P** **22 34 01.9 0.0**
baz=163
**T42A Van Buren 67.29 343** P **P** **22 34 01.7 -0.2**
baz=161
**W35A Tecumseh 67.29 337** P **P** **22 34 01.7 -0.4**
baz=155
**W35A Tecumseh 67.29 337** *e*P **P** **22 34 02.8 +0.8**
comp=Z,161nm,1.5s
**WCI Wyandotte Cave 67.33 347** P **P** **22 34 01.1 -1.1**
baz=165
**WCI Wyandotte Cave 67.33 347** *e*P **P** **22 34 01.6 -0.6**
WCI pmax pmax
comp=Z,83nm,0.9s
WCI MLR MLR
comp=Z,3µm,21.0s
**WCI Wyandotte Cave 67.33 347** *e*P **P** **22 34 01.6 -0.6**
comp=Z,83nm,0.9s
WCI LR LR
comp=Z,3µm,21.0s
**U39A Green Forest 67.34 341** P **P** **22 34 02.4 0.0**
baz=158
**USIN University of 67.36 346** *e*P **P** **22 34 02.5 +0.1**
comp=Z,244nm,1.3s
**HHAR Hobbs 67.39 340** *e*P **P** **22 34 03.4 +0.8**
comp=Z,122nm,1.1s
HHAR LR LR
comp=Z,2µm,19.0s
**V37A Hulbert 67.39 339** P **P** **22 34 02.8 +0.2**
baz=157
**TAOE Nuku Hiva Isla 67.39 272** *e*S **S** **22 42 51.6 -7.5**
comp=Z,12µm,28.7s
TAOE *e*SS **SS** **22 47 12.4 -6.9**
comp=Z,2µm,23.9s
TAOE *e*LR LR 22 54 21.3
comp=Z,18µm,24.3s,baz=120
**TAOE Nuku Hiva Isla 67.39 272** PFAKE 22 34 20.0 +17
TAOE LR LR
comp=Z,15µm,19.0s
**R47A Wooly Knot Far 67.44 347** P **P** **22 34 02.6 -0.3**
baz=165
**S44A Carbondale 67.46 345** P **P** **22 34 03.1 +0.1**
baz=162
**SIUC Southern Illin 67.47 345** *e*P **P** **22 34 03.2 +0.2**
comp=Z,223nm,1.1s
**T41A Mountain View 67.48 342** P **P** **22 34 03.4 +0.2**
baz=160
**S43A Fulton Ridge, 67.54 344** P **P** **22 34 03.3 -0.2**
baz=162
**V36A Jenks 67.56 338** P **P** **22 34 03.7 0.0**
baz=156
**V36A Jenks 67.56 338** *e*P **P** **22 34 03.9 +0.2**
comp=Z,302nm,1.1s
**R46A Gibon Southern 67.56 346** P **P** **22 34 03.0 -0.7**
baz=164
**WMOK Wichita Mounta 67.59 336** P **P** **22 34 03.6 -0.4**
baz=154,SNR=26
**WMOK Wichita Mounta 67.59 336** *e*P **P** **22 34 04.5 +0.5**
WMOK pmax pmax
comp=Z,99nm,1.5s
**WMOK Wichita Mounta 67.59 336** *e*P **P** **22 34 04.5 +0.5**
comp=Z,99nm,1.5s
**TUL1 Leonard 67.62 339** P **P** **22 34 04.4 +0.3**
baz=156
**TUL1 Leonard 67.62 339** *e*P **P** **22 34 04.5 +0.4**
comp=Z,270nm,1.2s
**PSUB Penn St. - Bra 67.63 356** *e*P **P** **22 34 05.6 +1.6**
comp=Z,56nm,1.4s
PSUB LR LR
comp=Z,4µm,19.0s
**SRIG Santa Rosalia 67.64 321** PFAKE 22 34 20.0 +16
SRIG LR LR
comp=Z,7µm,18.0s
**OK020 N3440 Road, Me 67.64 337** *e*P **P** **22 34 04.5 +0.3**
comp=Z,73nm,1.0s
OK020 *e*PP PP 22 36 24.4 -9.4
OK020 LR LR
comp=Z,2µm,19.0s
**OK021 N3530 Road, Sp 67.65 338** *e*P **P** **22 34 04.2 0.0**
comp=Z,95nm,1.2s
OK021 *e*PP PP 22 36 24.0 -10
OK021 LR LR
comp=Z,2µm,22.0s
**U38A Gravette 67.67 340** P **P** **22 34 04.6 +0.2**
baz=158
**MNTX Cornudas Mount 67.68 329** P **P** **22 34 04.6 0.0**
baz=147,SNR=61
**MNTX Cornudas Mount 67.68 329** *e*P **P** **22 34 04.6 0.0**
comp=Z,55nm,1.1s
MNTX LR LR
comp=Z,5µm,19.0s
**MCWV Mont Chateau 67.73 353** *e*P **P** **22 34 05.3 +0.6**
comp=Z,108nm,1.3s
MCWV LR LR
comp=Z,3µm,20.0s
**MVL Millersville 67.76 356** *e*P **P** **22 34 05.5 +0.7**
comp=Z,98nm,1.3s
**T40A Mansfield 67.79 342** P **P** **22 34 04.9 -0.2**
baz=160
**R45A Skylar, Fairfi 67.81 345** P **P** **22 34 05.0 -0.2**
baz=164
**V35A Meyer Ranch, C 67.83 338** P **P** **22 34 05.0 -0.4**
baz=155
**V35A Meyer Ranch, C 67.83 338** *e*P **P** **22 34 05.3 -0.1**
comp=Z,197nm,1.4s
V35A LR LR
comp=Z,3µm,22.0s
**U37A Salina 67.86 339** P **P** **22 34 05.8 +0.2**
baz=157
**S42A Caledonia 67.91 343** P **P** **22 34 05.8 -0.1**
baz=161
**T39A Clever 67.91 341** P **P** **22 34 06.1 +0.2**
baz=159
**R44A Waltonville 67.95 345** P **P** **22 34 05.9 -0.2**
baz=163

**S41A** **Jillco Farms,** 67.98 342 P **P** 22 34 06.9 +0.6
baz=160
**FVM** **French Village** 68.02 344 *e*P **P** 22 34 06.7 +0.1
FVM pmax pmax
comp=Z,330nm,1.1s
**FVM** **French Village** 68.02 344 *e*P **P** 22 34 07.1 +0.5
comp=Z,334nm,1.1s
**Q47A** **Bedord North L** 68.04 347 P **P** 22 34 06.1 -0.5
baz=165
**U36A** **Oologah** 68.05 339 P **P** 22 34 07.0 +0.3
baz=156
**R43A** **Red Bud** 68.17 344 P **P** 22 34 07.5 0.0
baz=162
**OLIL** **Olney** 68.19 346 *e*P **P** 22 34 07.5 -0.1
comp=Z,148nm,1.2s
**T38A** **Diamond** 68.19 340 P **P** 22 34 08.3 +0.6
baz=158
**S40A** **Lebanon** 68.20 342 P **P** 22 34 08.1 +0.4
baz=160
**O56A** **Blue Knob Stat** 68.20 354 P **P** 22 34 08.6 +0.9
baz=173
**EPT** **El Paso** 68.26 328 *e*P **P** 22 34 09.7 +1.3
EPT LR LR
comp=Z,6nm,1.1s
comp=Z,7µm,18.0s
**HSIG** 68.26 323 *e*P **P** 22 34 10.4 +2.1
comp=Z,104nm,1.4s
**BLO** **Bloomington** 68.29 347 *e*P **P** 22 34 07.9 -0.3
BLO pmax pmax
comp=Z,84nm,1.2s
**BLO** **Bloomington** 68.29 347 *e*P **P** 22 34 07.9 -0.3
comp=Z,84nm,1.2s
**CCM** **Cathedral Cave** 68.29 343 P **P** 22 34 08.6 +0.3
baz=161
**CCM** **Cathedral Cave** 68.29 343 *e*P **P** 22 34 08.4 +0.1
CCM pmax pmax
comp=Z,300nm,1.2s
CCM MLR MLR
comp=Z,2µm,22.0s
**CCM** **Cathedral Cave** 68.29 343 *e*P **P** 22 34 08.4 +0.1
comp=Z,303nm,1.3s
CCM LR LR
comp=Z,2µm,22.0s
**LUPA** **Lehigh Univers** 68.30 357 *e*P **P** 22 34 09.6 +1.3
comp=Z,15nm,1.7s
LUPA LR LR
comp=Z,300nm,20.0s
**Q46A** **CEJHS Indians,** 68.31 346 P **P** 22 34 07.3 -1.0
baz=164
**BRNJ** **Basking Ridge** 68.34 357 *e*P **P** 22 34 09.1 +0.7
comp=Z,280nm,1.8s
BRNJ LR LR
comp=Z,5µm,20.0s
**U35A** **Pawnee** 68.35 338 P **P** 22 34 08.8 +0.1
baz=156
**U35A** **Pawnee** 68.35 338 *e*P **P** 22 34 09.1 +0.4
comp=Z,233nm,1.1s
U35A LR LR
comp=Z,1µm,20.0s
**Q45A** **Warren Harvey,** 68.36 346 P **P** 22 34 08.2 -0.4
baz=164
**R42A** **Luebbering** 68.39 343 P **P** 22 34 09.1 +0.2
baz=161
**CPNY** **Central Park** 68.42 358 *e*P **P** 22 34 09.8 +0.8
comp=Z,190nm,1.6s
**MSTX** **Muleshoe** 68.48 332 P **P** 22 34 09.7 +0.1
baz=150
**MSTX** **Muleshoe** 68.48 332 *e*P **P** 22 34 10.0 +0.3
comp=Z,174nm,1.2s
MSTX LR LR
comp=Z,3µm,19.0s
**SSPA** **Standing Stone** 68.51 354 *e*P **P** 22 34 10.3 +0.8
comp=Z,338nm,1.8s
SSPA *e*PP **PP** 22 36 41.9 +0.7
SSPA LR LR
comp=Z,3µm,20.0s
**S39A** **Bolivar** 68.52 341 P **P** 22 34 09.7 0.0
baz=159
**P47A** **Martinsville** 68.54 347 P **P** 22 34 09.3 -0.5
baz=166
**Q44A** **Meyer Farm, Va** 68.56 345 P **P** 22 34 09.5 -0.4
baz=163
**R41A** **Rosebud** 68.56 343 P **P** 22 34 10.2 +0.3
baz=161
**SLM** **Saint Louis** 68.59 344 *e*P **P** 22 34 10.7 +0.6
SLM pmax pmax
comp=Z,120nm,0.9s
**SLM** **Saint Louis** 68.59 344 *e*P **P** 22 34 10.7 +0.6
comp=Z,118nm,0.9s
**S38A** **Stockton** 68.63 341 P **P** 22 34 10.7 +0.3
baz=158
**N59A** **State Game Lan** 68.64 356 P **P** 22 34 12.0 +1.6
baz=175
**PAL** **Palisades** 68.64 358 *e*P **P** 22 34 10.9 +0.6
PAL pmax pmax
comp=Z,170nm,1.7s
PAL MLR MLR
comp=Z,4µm,20.0s
**PAL** **Palisades** 68.64 358 *e*P **P** 22 34 10.9 +0.6
comp=Z,166nm,1.8s
PAL LR LR
comp=Z,4µm,20.0s
**T36A** **Boggs Farm, Ca** 68.70 339 P **P** 22 34 10.9 0.0
baz=156
**ACSO** **Alum Creek Sta** 68.71 350 P **P** 22 34 10.5 -0.3
baz=169,SNR=24
**ACSO** **Alum Creek Sta** 68.71 350 *e*P **P** 22 34 10.7 -0.1
comp=Z,192nm,1.2s
ACSO LR LR
comp=Z,3µm,21.0s
**ODNJ** **Ogdensburg** 68.74 357 *e*P **P** 22 34 13.2 +2.2
comp=Z,214nm,1.8s
ODNJ LR LR
comp=Z,5µm,20.0s
**Q43A** **New Douglas** 68.75 345 P **P** 22 34 10.8 -0.3
baz=162
**T35A** **Sooner Cattle** 68.78 338 P **P** 22 34 11.6 +0.3
baz=156
**R40A** **Maddies Statio** 68.78 342 P **P** 22 34 11.9 +0.5
baz=160
**AMTX** **Amarillo** 68.83 333 P **P** 22 34 12.2 +0.4
baz=151
**AMTX** **Amarillo** 68.83 333 *e*P **P** 22 34 13.4 +1.6
comp=Z,235nm,1.7s
**P46A** **Rosedale** 68.85 347 P **P** 22 34 11.2 -0.5
baz=165
**P45A** **Graceland, Par** 68.88 346 P **P** 22 34 11.6 -0.3
baz=164
**YLE** **Yale** 68.92 359 *e*P **P** 22 34 13.7 +1.6
comp=Z,639nm,1.5s
YLE LR LR
comp=Z,4µm,20.0s
**Q42A** **Golden Eagle** 68.92 344 P **P** 22 34 12.6 +0.4
baz=162
**P44A** **Sand Creek, Wi** 69.01 346 P **P** 22 34 12.3 -0.4
baz=163
**R39A** **Chumby, Stover** 69.02 342 P **P** 22 34 12.9 +0.1
baz=159
**S37A** **Fort Scott** 69.02 340 P **P** 22 34 13.2 +0.4
baz=158
**N54A** **Moraine State** 69.04 353 P **P** 22 34 13.1 +0.2
baz=171
**T34A** **McClaskey Farm** 69.10 338 P **P** 22 34 13.8 +0.5
baz=155
**Q41A** **Truxton** 69.14 343 P **P** 22 34 13.8 +0.3
baz=161
**U32A** **Winter Ranch,** 69.14 336 P **P** 22 34 13.8 +0.1
baz=154
**R38A** **Fenwick Farm,** 69.14 341 P **P** 22 34 13.7 +0.1
baz=158
**SBA** **Scott Base** 69.16 191 PFAKE 22 34 30.0 +17
SBA LR LR
comp=Z,3µm,18.0s
**S36A** **Lake Cedric, C** 69.22 339 P **P** 22 34 14.1 0.0
baz=157
**O47A** **Sheridan** 69.25 348 P **P** 22 34 13.6 -0.6
baz=166
**319A** **Douglas** 69.28 326 *e*P **P** 22 34 16.7 +1.9
comp=Z,42nm,0.8s
**P43A** **Skaggs, Pawnee** 69.38 345 P **P** 22 34 14.8 -0.2
baz=162
**Q40A** **Laux Farm, Aux** 69.39 343 P **P** 22 34 15.5 +0.4
baz=160
**S35A** **Otter Creek Ra** 69.41 339 P **P** 22 34 15.7 +0.4
baz=156
**121A** **Cookes Peak, D** 69.50 327 P **P** 22 34 17.5 +1.3
baz=146
**BRYW** **Bryant College** 69.50 360 *e*P **P** 22 34 17.2 +1.5
comp=Z,336nm,1.1s
BRYW LR LR
comp=Z,3µm,22.0s
**P42A** **Winchester** 69.52 344 P **P** 22 34 16.1 +0.2
baz=162
**M54A** **Oil Creek Stat** 69.54 353 P **P** 22 34 15.8 -0.2
baz=172
**SFIN** **Lafayette** 69.56 347 P **P** 22 34 15.3 -0.8
baz=165
**SFIN** **Lafayette** 69.56 347 *e*P **P** 22 34 15.5 -0.6
comp=Z,114nm,1.3s
SFIN LR LR
comp=Z,4µm,20.0s
**O45A** **Potomac** 69.57 347 P **P** 22 34 15.6 -0.5
baz=164
**TBI** **Tubuai** 69.62 254 *e*P **P** 22 34 13.6 -3.4
comp=Z,276nm,1.2s
TBI *e*S **S** 22 43 18.5 -6.8
comp=Z,4µm,25.8s
**TBI** **Tubuai** 69.62 254 *e*LR LR 22 55 23.9
comp=Z,3µm,23.0s
**TBI** **Tubuai** 69.62 254 *e*T T 23 49 59.9
comp=Z,9.3nm,0.2s
**O44A** **Mansfield** 69.63 346 P **P** 22 34 16.2 -0.3
baz=164
**S34A** **Willow Spring** 69.69 338 P **P** 22 34 16.8 -0.1
baz=156
**ALLY** **Alegheny Colle** 69.73 353 *e*P **P** 22 34 17.1 -0.1
comp=Z,285nm,1.8s
**R36A** **Gordon, Harris** 69.75 340 P **P** 22 34 17.4 +0.1
baz=157
**P41A** **Barry, Barry** 69.78 344 P **P** 22 34 17.5 0.0
baz=161
**Q38A** **Cooks Store, C** 69.78 341 P **P** 22 34 17.7 +0.2
baz=159
**QUA2** **Belchertown** 69.87 359 *e*P **P** 22 34 19.0 +1.1
comp=Z,149nm,1.2s
QUA2 LR LR
comp=Z,2µm,21.0s
**P40A** **Paris** 69.89 343 P **P** 22 34 18.5 +0.3
baz=160
**BCX** **Boston College** 69.92 360 *e*P **P** 22 34 19.6 +1.3
comp=Z,168nm,1.7s
**BINY** **Binghamton** 69.92 356 *e*P **P** 22 34 20.5 +2.2
comp=Z,375nm,1.8s
BINY LR LR
comp=Z,3µm,19.0s
**Q37A** **Longview Farm,** 69.94 341 P **P** 22 34 18.3 -0.2
baz=158
**O43A** **Sugar Creek Fa** 69.94 345 P **P** 22 34 18.1 -0.4
baz=163
**R35A** **Emporia Munici** 69.96 339 P **P** 22 34 18.8 +0.2
baz=156
**WES** **Weston** 69.97 360 *e*P **P** 22 34 20.0 +1.5
WES *e* 22 34 46.7
WES pmax pmax
comp=Z,125nm,1.2s
WES MLR MLR
comp=Z,3µm,22.0s
**WES** **Weston** 69.97 360 *e*P **P** 22 34 20.0 +1.5
comp=Z,125nm,1.2s
WES *e*PcP **PcP** 22 34 46.7 +6.0
WES LR LR
comp=Z,3µm,22.0s
**N46A** **Monticello** 69.99 347 P **P** 22 34 17.8 -0.9
baz=165
**O42A** **Bath** 70.03 345 P **P** 22 34 18.8 -0.2
baz=162
**P39B** **Salisbury** 70.04 342 P **P** 22 34 19.2 +0.1
baz=160
**HRV** **Adam Dziewonsk** 70.09 360 *e*P **P** 22 34 21.1 +1.8
HRV pmax pmax
comp=Z,160nm,1.1s
HRV MLR MLR
comp=Z,3µm,22.0s
**HRV** **Adam Dziewonsk** 70.09 360 *e*P **P** 22 34 21.1 +1.8
comp=Z,164nm,1.1s
HRV LR LR
comp=Z,3µm,22.0s
**N45A** **Kentland** 70.10 347 P **P** 22 34 19.0 -0.4
baz=164
**O41A** **Passleys Farm,** 70.15 344 P **P** 22 34 19.5 -0.3
baz=161
**N44A** **Piper City** 70.18 346 P **P** 22 34 19.3 -0.6
baz=164
**ERPA** **Erie** 70.18 353 *e*P **P** 22 34 20.1 +0.2
comp=Z,90nm,1.0s
ERPA LR LR
comp=Z,4µm,21.0s
**VNDA** **Vanda** 70.19 191 P **P** 22 34 20.6 +0.9
comp=Z,9.4nm,1.1s,baz=135,slow=5.7,SNR=11
VNDA LR LR 23 00 57.6
comp=Z,3µm,20.0s,baz=136,slow=32
**VNDA** **Vanda** 70.19 191 *e*P **P** 22 34 21.6 +2.0
comp=Z,100nm,1.6s
**HDIL** **Hopedale** 70.20 345 P **P** 22 34 19.7 -0.3
baz=163,SNR=17
**HDIL** **Hopedale** 70.20 345 *e*P **P** 22 34 19.9 -0.1
comp=Z,139nm,0.8s
HDIL LR LR
comp=Z,2µm,20.0s
**R34A** **Isabella, Hill** 70.28 338 P **P** 22 34 21.1 +0.5
baz=155
**BNM** **Barren Site** 70.30 329 *e*P **P** 22 34 23.1 +2.0
**Q36A** **Arnold C. Orve** 70.32 340 P **P** 22 34 20.5 -0.3
baz=157
**TRY** **Troy** 70.35 358 *e*P **P** 22 34 22.5 +1.6
comp=Z,339nm,1.3s
TRY LR LR
comp=Z,4µm,19.0s
**Y22D** **IRIS PASSCAL I** 70.37 329 P **P** 22 34 21.4 0.0
baz=147
**Y22D** **IRIS PASSCAL I** 70.37 329 PFAKE 22 34 30.0 +8.5
Y22D LR LR
comp=Z,6µm,18.0s
**P38A** **Dawn** 70.38 342 P **P** 22 34 21.2 0.0
baz=159
**Q35A** **Mercer Eighty,** 70.40 340 P **P** 22 34 21.3 0.0
baz=157
**O40A** **La Belle** 70.40 343 P **P** 22 34 21.3 0.0
baz=160
**M46A** **Old House Fiel** 70.42 348 P **P** 22 34 20.9 -0.4
baz=166
**LPM** **Los Pinos Moun** 70.44 329 *e*P **P** 22 34 24.1 +2.2
LPM *e*PP **PP** 22 36 51.8 -6.5
**N43A** **Stutzman Famil** 70.54 346 P **P** 22 34 22.1 0.0
baz=163
**M45A** **Boilermakers S** 70.57 347 P **P** 22 34 21.7 -0.6
baz=165
**P37A** **Lathrop** 70.57 341 P **P** 22 34 22.2 -0.2
baz=158
**MMNY** **Mt. Morris Dam** 70.59 355 *e*P **P** 22 34 23.1 +0.7
comp=Z,611nm,1.9s
MMNY *e*PP **PP** 22 36 56.6 -2.6
MMNY LR LR
comp=Z,3µm,19.0s
**N42A** **Yates City** 70.63 345 P **P** 22 34 22.2 -0.4
baz=162
**O39A** **Kirksville** 70.70 343 P **P** 22 34 23.3 +0.2
baz=160
**N41A** **Harden Midland** 70.70 344 P **P** 22 34 23.2 +0.1
baz=161
**M44A** **Midewin, Midew** 70.73 347 P **P** 22 34 22.9 -0.4
baz=164
**Q34A** **Chapman** 70.74 339 P **P** 22 34 24.0 +0.6
baz=156
**LAZ** **Ladron** 70.75 329 *e*P **P** 22 34 25.9 +2.1
LAZ *e*PP **PP** 22 36 53.9 -7.1
**TUC** **Tucson** 70.79 325 P **P** 22 34 24.8 +0.8
baz=143
**TUC** **Tucson** 70.79 325 *e*P **P** 22 34 26.0 +2.0
TUC pmax pmax
comp=Z,34nm,1.2s
TUC MLR MLR
comp=Z,7µm,19.0s
**TUC** **Tucson** 70.79 325 *e*P **P** 22 34 26.0 +2.0
comp=Z,34nm,1.2s
TUC LR LR
comp=Z,7µm,19.0s
**KSU1** **Kansas State U** 70.80 339 P **P** 22 34 23.6 -0.2
baz=156
**KSU1** **Kansas State U** 70.80 339 *e*P **P** 22 34 24.7 +0.9
comp=Z,78nm,1.3s
**O38A** **Galt** 70.83 342 P **P** 22 34 24.1 +0.2
baz=159
**AAM** **Ann Arbor** 70.83 350 P **P** 22 34 23.8 -0.1
baz=168
**AAM** **Ann Arbor** 70.83 350 *e*P **P** 22 34 24.4 +0.5
AAM pmax pmax
comp=Z,49nm,0.8s
AAM MLR MLR
comp=Z,3µm,21.0s
**AAM** **Ann Arbor** 70.83 350 *e*P **P** 22 34 24.4 +0.5
comp=Z,49nm,0.8s
AAM LR LR
comp=Z,3µm,21.0s
**P36A** **Good Intent, A** 70.85 341 P **P** 22 34 23.9 -0.2
baz=157
**ANMO** **Albuquerque** 70.89 330 P **P** 22 34 26.1 +1.4
baz=147
**ANMO** **Albuquerque** 70.89 330 *ce*P **P** 22 34 26.1 +1.4
ANMO pmax pmax
comp=Z,33nm,1.2s
**ANMO** **Albuquerque** 70.89 330 *e*P **P** 22 34 26.5 +1.8
comp=Z,175nm,2.0s
ANMO LR LR
comp=Z,7µm,19.0s
**M43A** **Waltham Townsh** 70.97 346 P **P** 22 34 24.7 0.0
baz=163
**ACCN** **Adirondack Com** 71.00 358 *e*P **P** 22 34 26.1 +1.3
comp=Z,297nm,1.6s
ACCN LR LR
comp=Z,3µm,19.0s
**P35A** **Duane Minner,** 71.01 340 P **P** 22 34 24.8 -0.2
baz=157
**N40A** **Mertquake, Sal** 71.05 344 P **P** 22 34 25.2 0.0
baz=161
**FFD** **Franklin Falls** 71.05 360 *e*P **P** 22 34 27.4 +2.2
comp=Z,253nm,1.3s
FFD *e*PP PP 22 36 53.9 -9.2
FFD LR LR
comp=Z,3µm,22.0s
**O37A** **Wolven Farm, M** 71.05 342 P **P** 22 34 25.5 +0.2
baz=158
**M42A** **Sheffield** 71.16 345 P **P** 22 34 25.7 -0.2
baz=162
**SYO** **Syowa Base** 71.23 159 *e*P **P** 22 34 24.0 -2.0
**SYO** **Syowa Base** 71.23 159 *i*P **P** 22 34 25.2 -0.8
**SYO** **Syowa Base** 71.23 159 *i*P **P** 22 34 27.3 +1.3
**O36A** **Bolckow** 71.25 341 P **P** 22 34 26.2 -0.3
baz=158
**M41A** **Milan** 71.26 345 P **P** 22 34 26.3 -0.2
baz=162
**N39A** **Derby Farms, D** 71.28 343 P **P** 22 34 26.4 -0.2
baz=160
**P34A** **Walnut Farm, R** 71.28 339 P **P** 22 34 27.1 +0.5
baz=156
**HNH** **Hanover** 71.29 359 *e*P **P** 22 34 28.3 +1.7
comp=Z,474nm,1.8s
HNH LR LR
comp=Z,2µm,22.0s
**N38A** **Joes South For** 71.39 342 P **P** 22 34 27.4 +0.1
baz=159
**L44A** **Lake County Fo** 71.46 347 P **P** 22 34 27.1 -0.6
baz=164
**M40A** **Post Highland** 71.52 344 P **P** 22 34 27.9 -0.2
baz=161
**214A** **Organ Pipe Nat** 71.56 323 P **P** 22 34 29.8 +1.2
baz=142
**CBKS** **Cedar Bluff** 71.58 337 P **P** 22 34 29.1 +0.6
baz=153,SNR=11
**CBKS** **Cedar Bluff** 71.58 337 *e*P **P** 22 34 30.2 +1.6
CBKS pmax pmax
comp=Z,301nm,1.8s
**CBKS** **Cedar Bluff** 71.58 337 *e*P **P** 22 34 30.1 +1.6
comp=Z,300nm,1.8s
**NCB** **Newcomb** 71.61 358 *e*P **P** 22 34 29.9 +1.4
comp=Z,39nm,1.0s
NCB LR LR
comp=Z,3µm,19.0s
**N37A** **Lee Faris, Mou** 71.62 342 P **P** 22 34 28.9 +0.2
baz=158
**L43A** **Garden Prairie** 71.64 346 P **P** 22 34 28.4 -0.3
baz=164
**TVO** **Taravao** 71.64 259 *e*P **P** 22 34 25.7 -3.8
comp=Z,25nm,1.2s
**O35A** **Humboldt** 71.66 340 P **P** 22 34 28.2 -0.7
baz=157
**L42A** **Oliver, Polo** 71.66 346 P **P** 22 34 28.5 -0.4
baz=163
**M39A** **Webster** 71.76 344 P **P** 22 34 29.4 -0.1
baz=160
**TIAR** **Tiarei** 71.81 259 *e*P **P** 22 34 26.8 -3.7
comp=Z,11nm,0.9s
**TIAR** **Tiarei** 71.81 259 *e*T T 23 52 51.9
comp=Z,7.2nm,0.3s
**O34A** **Beatrice** 71.82 340 P **P** 22 34 30.0 +0.1
baz=156
**LBNH** **Lisbon** 71.83 359 *e*P **P** 22 34 31.3 +1.5
LBNH pmax pmax
comp=Z,290nm,1.7s
LBNH MLR MLR
comp=Z,2µm,22.0s
**LBNH** **Lisbon** 71.83 359 *e*P **P** 22 34 31.3 +1.5
comp=Z,286nm,1.7s
LBNH LR LR
comp=Z,2µm,22.0s
**T25A** **Trinidad** 71.88 333 P **P** 22 34 32.0 +1.4
baz=149
**T25A** **Trinidad** 71.88 333 *e*P **P** 22 34 32.1 +1.5
comp=Z,197nm,1.6s
T25A *e*PcP **PcP** 22 34 52.7 +3.4
T25A LR LR
comp=Z,4µm,18.0s
**N36A** **Muff Farm, Cla** 71.89 341 P **P** 22 34 30.6 +0.3
baz=158
**L41A** **Preston** 71.92 345 P **P** 22 34 30.6 +0.1
baz=162
**VT1** **Waterbury** 71.93 359 *e*P **P** 22 34 32.2 +1.7
comp=Z,77nm,1.4s
VT1 LR LR
comp=Z,2µm,21.0s
**HGTCO** **Madrid Canyon** 71.96 332 *e*P **P** 22 34 33.3 +2.1
comp=Z,172nm,1.4s
**M38A** **Pleasantville** 71.96 343 P **P** 22 34 30.9 +0.2
baz=159
**PAE** **Paea** 71.97 259 *e*P **P** 22 34 27.7 -3.7
comp=Z,19nm,1.3s
**PPTF** **Pamatai, Papee** 71.99 259 *e*P **P** 22 34 34.4 +2.8
comp=Z,495nm,1.8s
PPTF LR LR
comp=Z,13µm,18.0s
**O33A** **Hebron** 72.00 339 P **P** 22 34 31.7 +0.7
baz=155
**PPT2** **Papeete2** 72.00 259 *e*P **P** 22 34 27.9 -3.8
comp=Z,116nm,1.4s
PPT2 *e*S **S** 22 43 46.4 -6.8
comp=Z,5µm,27.0s
PPT2 *e*SS SS 22 48 20.2 -10
comp=Z,3µm,24.8s
PPT2 *e*LR LR 22 56 27.5
comp=Z,13µm,22.2s,baz=106
**PPT** **Papeete** 72.01 259 P **P** 22 34 33.1 +1.5
comp=Z,17nm,0.5s,baz=233,slow=24,SNR=4.6
PPT LR LR 22 58 46.1
comp=Z,13µm,18.0s,baz=138,slow=30
**PPT** **Papeete** 72.01 259 *e*P **P** 22 34 33.8 +2.2
**K43A** **Burlington** 72.05 347 P **P** 22 34 30.8 -0.4
baz=164
**L40A** **Anamosa** 72.08 344 P **P** 22 34 31.3 -0.1
baz=161
**N35A** **Tabor** 72.12 341 P **P** 22 34 31.7 0.0
baz=157
**WVL** **Waterville** 72.16 1 *e*P **P** 22 34 33.6 +1.8
comp=Z,91nm,1.1s
WVL LR LR
comp=Z,4µm,21.0s
**X18A** **Snowflake** 72.17 327 *e*P **P** 22 34 34.7 +2.3
comp=Z,26nm,1.0s
X18A *e*PP **PP** 22 37 12.2 -0.9
**LIC** **Lamto** 72.18 73 *e*P **P** 22 34 33.1 +0.5
comp=Z,434nm,1.5s
**M37A** **Trindle Farm,** 72.18 342 P **P** 22 34 32.1 +0.1
baz=159
**LONY** **Lake Ozonia** 72.27 357 *e*P **P** 22 34 33.3 +0.8
comp=Z,319nm,1.8s
LONY LR LR
comp=Z,3µm,19.0s
**L39A** **Vinton** 72.32 344 P **P** 22 34 32.8 -0.1
baz=161
**K42A** **Prairie Point,** 72.33 346 P **P** 22 34 32.9 0.0
baz=163
**N34A** **Lincoln** 72.36 340 P **P** 22 34 32.9 -0.2
baz=156
**EMMW** **East Machias** 72.37 3 *e*P **P** 22 34 34.8 +1.7
comp=Z,313nm,1.8s

EMMW LR LR
comp=Z,3µm,22.0s
**K41A Shullsburg 72.38 345** P **P** 22 34 33.2 0.0
baz=162
**TIC Toumodi 72.40 72** *eP* **P** 22 34 34.5 +0.5
**SCIA State Center 72.43 343** P **P** 22 34 33.6 +0.2
baz=159,SNR=8.2
**SCIA State Center 72.43 343** *eP* **P** 22 34 34.4 +0.9
comp=Z,147nm,1.3s
**M36A Felix, Anita 72.43 342** P **P** 22 34 33.3 -0.2
baz=158
**FRNY Flat Rock 72.45 358** *eP* **P** 22 34 34.5 +1.0
comp=Z,99nm,1.1s
FRNY LR LR
comp=Z,4µm,22.0s
**KIC Kosan Boka 72.49 73** *eP* **P** 22 34 34.6 +0.1
comp=Z,680nm,1.3s
**W18A Petrified Fore 72.54 328** P **P** 22 34 35.7 +1.1
baz=145
**W18A Petrified Fore 72.54 328** *eP* **P** 22 34 36.9 +2.3
comp=Z,84nm,1.1s
W18A *ePP* **PP** 22 37 15.0 -1.3
W18A LR LR
comp=Z,13µm,18.0s
**DBIC Dimbokro 72.55 72** P **P** 22 34 35.5 +0.6
comp=Z,109nm,0.8s,baz=215,slow=6.2,SNR=92
DBIC LR LR 23 05 30.0
comp=Z,7µm,19.7s,baz=221,slow=35
**DBIC Dimbokro 72.55 72** *eP* **P** 22 34 35.5 +0.6
DBIC pmax pmax
comp=Z,180nm,1.0s
**DBIC Dimbokro 72.55 72** *eP* **P** 22 34 35.5 +0.6
comp=Z,179nm,1.0s
**N33A J Bar K, Exete 72.56 339** P **P** 22 34 34.8 +0.5
baz=156
**L38A Oak Wood Farm, 72.58 343** P **P** 22 34 34.3 -0.1
baz=160
**JFWS Jewell Farm 72.66 345** P **P** 22 34 35.0 +0.2
baz=162,SNR=13
**JFWS Jewell Farm 72.66 345** *eP* **P** 22 34 35.5 +0.6
JFWS pmax pmax
comp=Z,420nm,1.8s
JFWS MLR MLR
comp=Z,3µm,22.0s
**JFWS Jewell Farm 72.66 345** *eP* **P** 22 34 35.5 +0.6
comp=Z,417nm,1.8s
JFWS LR LR
comp=Z,3µm,22.0s
**K40A Colesburg 72.66 345** P **P** 22 34 34.7 -0.2
baz=161
**113A Mohawk Valley, 72.70 323** *eP* **P** 22 34 37.0 +1.7
comp=Z,63nm,1.5s
113A *ePP* **PP** 22 37 15.1 -2.4
113A LR LR
comp=Z,4µm,20.0s
**M35A Neola 72.70 341** P **P** 22 34 34.9 -0.2
baz=157
**J43A Natural Harves 72.72 347** P **P** 22 34 35.5 +0.3
baz=164
**SADO Sadowa 72.72 354** *eP* **P** 22 34 35.1 -0.1
comp=Z,519nm,1.9s
SADO LR LR
comp=Z,3µm,20.0s
**L37A Phoenix Point, 72.77 343** P **P** 22 34 36.0 +0.5
baz=159
**KSCO Kaye Shedlock' 72.80 335** P **P** 22 34 37.5 +1.5
baz=151
**KSCO Kaye Shedlock' 72.80 335** *eP* **P** 22 34 38.0 +2.1
comp=Z,236nm,1.4s
**J42A Columbus 72.80 346** P **P** 22 34 35.8 +0.1
baz=163
**GGN Saint George 72.81 3** *eP* **P** 22 34 37.4 +1.8
comp=Z,344nm,1.8s
GGN LR LR
comp=Z,3µm,21.0s
**X16A Lo Mia Camp, P 72.81 326** *eP* **P** 22 34 38.0 +1.8
comp=Z,53nm,1.0s
**PLVO Plevna 72.82 356** *eP* **P** 22 34 37.1 +1.3
comp=Z,209nm,1.8s
PLVO LR LR
comp=Z,4µm,20.0s
**K39A Oelwein 72.84 344** P **P** 22 34 35.8 -0.2
baz=161
**SDCO Great Sand Dun 72.85 332** P **P** 22 34 37.7 +1.2
baz=148,SNR=43
**SDCO Great Sand Dun 72.85 332** *eP* **P** 22 34 38.0 +1.5
comp=Z,84nm,1.5s
SDCO *ePP* PP 22 37 11.3 -7.7
SDCO LR LR
comp=Z,2µm,18.0s
**PKME Peaks-Kenny Pk 72.86 1** *eP* **P** 22 34 37.3 +1.3
comp=Z,144nm,1.3s
PKME LR LR
comp=Z,2µm,21.0s
**M34A Aspy Farms, Fr 72.99 340** P **P** 22 34 37.1 +0.2
baz=156
**L36A Harm Buss Farm 73.00 342** P **P** 22 34 37.4 +0.5
baz=158
**K38A Parkersburg 73.01 343** P **P** 22 34 36.7 -0.2
baz=160
**J41A Loganville 73.04 346** P **P** 22 34 37.2 +0.1
baz=162
**I43A Langenfeld Bro 73.15 347** P **P** 22 34 37.7 0.0
baz=164
**Y14A Wickenburg 73.21 325** *eP* **P** 22 34 40.0 +1.6
comp=Z,160nm,1.1s
**J40A Soldiers Grove 73.23 345** P **P** 22 34 38.2 0.0
baz=162
**M33A Taylor Creek F 73.24 340** P **P** 22 34 38.1 -0.2
baz=156
**L35A Bielow Farm, R 73.25 341** P **P** 22 34 38.6 +0.2
baz=157
**I42A Draeger Farm, 73.31 347** P **P** 22 34 39.1 +0.4
baz=164
**L34A Svendsen Farm, 73.36 341** P **P** 22 34 39.0 0.0
baz=157
**BGNE Belgrade 73.39 339** P **P** 22 34 39.7 +0.5
baz=155
**BGNE Belgrade 73.39 339** *eP* **P** 22 34 40.7 +1.4
comp=Z,349nm,1.3s
**J39A Decorah 73.39 344** P **P** 22 34 39.4 +0.2
baz=161
**S22A 4UR Ranch, Cre 73.41 331** P **P** 22 34 41.0 +1.2
baz=147
**S22A 4UR Ranch, Cre 73.41 331** *eP* **P** 22 34 41.6 +1.8
comp=Z,49nm,1.4s
S22A *ePP* **PP** 22 37 21.0 -2.8
S22A LR LR
comp=Z,4µm,20.0s
**K36A Gilmore City 73.44 342** P **P** 22 34 40.1 +0.6
baz=158
**GLMI Grayling 73.45 350** P **P** 22 34 39.7 +0.3
baz=167
**GLMI Grayling 73.45 350** *eP* **P** 22 34 39.8 +0.3
comp=Z,98nm,1.1s
GLMI LR LR
comp=Z,4µm,21.0s
**GLA Glamis 73.48 323** P **P** 22 34 41.0 +1.0
baz=140,SNR=8.9
**GLA Glamis 73.48 323** *eP* **P** 22 34 42.6 +2.6
GLA pmax pmax
comp=Z,73nm,1.3s
GLA MLR MLR
comp=Z,3µm,18.0s
**GLA Glamis 73.48 323** *eP* **P** 22 34 42.6 +2.6
comp=Z,72nm,1.4s
GLA LR LR
comp=Z,3µm,18.0s
**J38A Wedel Dairy, R 73.56 344** P **P** 22 34 40.2 0.0
baz=160
**H43A Windswept, Lux 73.64 348** P **P** 22 34 40.5 -0.1
baz=164
**WUAZ Wupatki 73.65 327** P **P** 22 34 42.7 +1.6
baz=143,SNR=38
**WUAZ Wupatki 73.65 327** *eP* **P** 22 34 43.0 +1.9
comp=Z,166nm,1.5s
WUAZ LR LR
comp=Z,8µm,20.0s
**LMN Caledonia Moun 73.66 5** *eP* **P** 22 34 41.7 +1.0
comp=Z,119nm,1.1s
LMN *ePP* **PP** 22 37 17.8 -7.6
LMN LR LR
comp=Z,4µm,22.0s
**I41A Arkdale 73.67 346** P **P** 22 34 41.2 +0.4
baz=163
**I40A Norwalk 73.67 345** P **P** 22 34 41.4 +0.6
baz=162
**MVCO Mesa Verde 73.69 330** P **P** 22 34 43.0 +1.6
baz=146,SNR=35
**MVCO Mesa Verde 73.69 330** *eP* **P** 22 34 43.3 +1.9
comp=Z,83nm,1.4s
MVCO LR LR
comp=Z,6µm,20.0s
**K35A Storm Lake 73.73 342** P **P** 22 34 41.8 +0.6
baz=158
**Q24A Divide 73.74 333** P **P** 22 34 43.3 +1.6
baz=149
**Q24A Divide 73.74 333** *eP* **P** 22 34 43.2 +1.4
comp=Z,330nm,2.0s
Q24A LR LR
comp=Z,2µm,19.0s
**L33A Hoskins 73.81 340** P **P** 22 34 41.5 -0.1
baz=156
**H42A Shiocton 73.83 347** P **P** 22 34 41.9 +0.2
baz=164
**J37A Redenius Farm, 73.83 343** P **P** 22 34 41.9 +0.1
baz=159
**I39A Houston 73.84 345** P **P** 22 34 41.9 +0.1
baz=161
**Y12C Blythe 73.86 323** P **P** 22 34 43.9 +1.8
baz=141
**Y12C Blythe 73.86 323** *eP* **P** 22 34 43.9 +1.8
comp=Z,80nm,1.4s
Y12C LR LR
comp=Z,6µm,19.0s
**IKP In-Ko-Pah, Jac 73.87 322** P **P** 22 34 43.9 +1.6
baz=139,SNR=9.4
**TRQ Mont Tremblant 73.87 358** *eP* **P** 22 34 42.4 +0.4
**L32A Elgin 73.89 339** P **P** 22 34 42.9 +0.8
baz=155
**SWSC Sam W. Stewart 73.92 322** P **P** 22 34 43.8 +1.3
baz=140,SNR=7.0
**K34A Le Mars 73.94 341** P **P** 22 34 42.7 +0.3
baz=157
**J36A Seneca 1, Swea 74.05 343** P **P** 22 34 43.3 +0.2
baz=159
**PDMCI Parker Dam,Lak 74.08 324** P **P** 22 34 44.7 +1.2
baz=141
**K33A Hardington 74.13 340** P **P** 22 34 44.0 +0.5
baz=156
**H41A Junction City 74.16 346** P **P** 22 34 43.8 +0.2
baz=163
**BAR Barrett 74.20 321** *eP* **P** 22 34 46.4 +2.2
comp=Z,59nm,1.3s
BAR LR LR
comp=Z,6µm,18.0s
**I38A Scanlan Farm, 74.21 344** P **P** 22 34 44.3 +0.3
baz=160
**MONP2 Monument Peak 74.22 322** P **P** 22 34 45.7 +1.2
baz=139,SNR=10.0
**BC3 Big Chuckawall 74.28 323** P **P** 22 34 46.1 +1.4
baz=140,SNR=33
**OGNE Ogallala 74.28 336** P **P** 22 34 45.1 +0.5
baz=152
**OGNE Ogallala 74.28 336** *eP* **P** 22 34 46.0 +1.5
comp=Z,302nm,2.0s
**PQI Presque Isle 74.31 2** *eP* **P** 22 34 45.0 +0.6
comp=Z,76nm,1.2s
PQI LR LR
comp=Z,3µm,20.0s
**J35A Milford 74.32 342** P **P** 22 34 44.7 +0.1
baz=158
**H40A Chili 74.32 346** P **P** 22 34 44.5 -0.1
baz=162
**G43A Wallace 74.39 348** P **P** 22 34 45.2 +0.2
baz=165
**F46A Macinaw City C 74.39 350** P **P** 22 34 45.3 +0.3
baz=167
**F45A CMU Biological 74.42 350** P **P** 22 34 45.2 0.0
baz=167
**I37A Leond, Waseca 74.45 344** P **P** 22 34 45.9 +0.5
baz=160
**J34A George 74.45 341** P **P** 22 34 45.8 +0.4
baz=157
**K32A Verdigre 74.47 340** P **P** 22 34 45.8 +0.3
baz=155
**PV01 Paradox Valley 74.49 330** *eP* **P** 22 34 48.0 +2.0
**IRM Iron Mountain 74.50 323** P **P** 22 34 47.2 +1.3
baz=140,SNR=20
**G42A Mountain 74.51 347** P **P** 22 34 46.0 +0.3
baz=164
**H39A Augusta 74.57 345** P **P** 22 34 46.7 +0.6
baz=161
**W13A Hualapai Mount 74.57 325** *eP* **P** 22 34 47.5 +1.0
comp=Z,22nm,0.9s
**109C Camp Elliot, M 74.60 321** P **P** 22 34 47.5 +1.1
baz=139
**I36A Fitzsimmons Fa 74.61 343** P **P** 22 34 46.3 0.0
baz=159
**G41A Antigo 74.63 347** P **P** 22 34 46.5 +0.1
baz=163
**ISCO Idaho Springs 74.64 333** P **P** 22 34 48.1 +1.1
baz=149,SNR=22
**ISCO Idaho Springs 74.64 333** *eP* **P** 22 34 48.7 +1.7
ISCO pmax pmax
comp=Z,130nm,2.0s
ISCO MLR MLR
comp=Z,3µm,19.0s
**ISCO Idaho Springs 74.64 333** *eP* **P** 22 34 48.7 +1.7
comp=Z,125nm,2.0s
ISCO LR LR
comp=Z,3µm,19.0s
**SMCO Snowmass 74.67 332** *eP* **P** 22 34 48.6 +1.3
comp=Z,67nm,1.0s
SMCO LR LR
comp=Z,4µm,19.0s
**PV05 Paradox Valley 74.67 330** *eP* **P** 22 34 48.3 +1.2
**K31A O'Neill 74.68 339** P **P** 22 34 47.9 +1.2
baz=155
**NEE2 Needles Airpor 74.69 324** P **P** 22 34 47.8 +0.8
baz=141
**I35A Creekview Farm 74.71 342** P **P** 22 34 47.5 +0.6
baz=158
**J33A Davis 74.77 341** P **P** 22 34 47.6 +0.4
baz=156
**XPFO Piæon Flat 74.78 322** *eP* **P** 22 34 50.2 +2.5
comp=Z,53nm,1.2s
XPFO LR LR
comp=Z,4µm,18.0s
**PFO Pinyon Flats O 74.79 322** P **P** 22 34 49.1 +1.4
baz=139,SNR=18
**PFO Pinyon Flats O 74.79 322** *eP* **P** 22 34 50.2 +2.4
PFO pmax pmax
comp=Z,46nm,1.1s
PFO MLR MLR
comp=Z,3µm,18.0s
**PFO Pinyon Flats O 74.79 322** *eP* **P** 22 34 50.2 +2.4
comp=Z,46nm,1.1s
PFO LR LR
comp=Z,3µm,18.0s
**H38A Maiden Rock 74.80 345** P **P** 22 34 47.7 +0.3
baz=160
**U15A North Rim 74.83 327** *eP* **P** 22 34 49.9 +1.8
comp=Z,97nm,1.4s
**BELC Belle Mtn. Jos 74.83 323** P **P** 22 34 49.4 +1.4
140,SNR=11
**F43A Flat Rock, Esc 74.85 348** P **P** 22 34 46.8 -0.8
baz=165
**F44A Big Bay de Noc 74.86 349** P **P** 22 34 47.7 0.0
baz=166
**H37A Dierke Farm, C 74.86 344** P **P** 22 34 47.7 0.0
baz=160
**PV10 Paradox Valley 74.89 330** *eP* **P** 22 34 49.6 +1.2
**G40A Rib Lake 74.89 346** P **P** 22 34 48.4 +0.5
baz=162
**F42A Maple Grove Fa 74.95 348** P **P** 22 34 48.3 +0.1
baz=164
**E45A Wooded Hills, 75.03 350** P **P** 22 34 48.9 +0.3
baz=167
**PV09 Paradox Valley 75.04 330** *eP* **P** 22 34 51.1 +1.8
**ECSD EROS Data Cent 75.05 341** P **P** 22 34 49.3 +0.5
baz=157,SNR=62
**ECSD EROS Data Cent 75.05 341** *eP* **P** 22 34 49.1 +0.3
comp=Z,151nm,1.3s
**J32A Parkston 75.08 340** P **P** 22 34 49.1 +0.1
baz=156
**H36A Jessenland, He 75.11 343** P **P** 22 34 49.6 +0.4
baz=159
**I34A Hadley 75.12 342** P **P** 22 34 49.3 +0.1
baz=157
**F41A Three Lakes 75.12 347** P **P** 22 34 49.5 +0.3
baz=163
**G39A Holcombe 75.12 346** P **P** 22 34 48.9 -0.3
baz=162
**LMQ La Malbaie 75.13 1** *eP* **P** 22 34 50.4 +1.1
**G38A Ridgeland 75.16 345** P **P** 22 34 49.5 0.0
baz=161
**MURC Murrieta 75.18 322** P **P** 22 34 51.2 +1.3
baz=139,SNR=9.9
**LDFC Landfair 75.19 324** *eP* **P** 22 34 52.5 +2.5
comp=Z,102nm,1.3s
LDFC LR LR
comp=Z,5µm,19.0s
**GMRC Granite Mounta 75.25 323** P **P** 22 34 51.8 +1.4
baz=140,SNR=36
**J31A Geddes 75.28 340** P **P** 22 34 50.5 +0.3
baz=155
**E43A Lone Tree Farm 75.34 349** P **P** 22 34 50.7 +0.2
baz=165
**I33A Coleman 75.39 341** P **P** 22 34 51.2 +0.4
baz=157
**E44A Grand Marais A 75.40 350** P **P** 22 34 51.6 +0.8
baz=166
**SPMN Marine on St. 75.44 344** P **P** 22 34 51.2 +0.1
baz=160
**SPMN Marine on St. 75.44 344** *eP* **P** 22 34 51.0 -0.1
comp=Z,67nm,1.0s
SPMN LR LR
comp=Z,3µm,21.0s
**EKU East Kanab 75.44 327** *eP* **P** 22 34 54.5 +3.0
**H35A Sunnyside Ranc 75.45 343** P **P** 22 34 51.5 +0.3
baz=158
**SCI2 San Clemente I 75.47 320** P **P** 22 34 53.0 +1.5
baz=138
**F40A Park Falls 75.50 346** P **P** 22 34 51.7 +0.3
baz=163
**BBRC Big Bear Solar 75.53 322** P **P** 22 34 53.9 +1.8
baz=139
**KNB Kanab 75.55 327** *eP* **P** 22 34 54.6 +2.5
KNB pmax pmax
comp=Z,350nm,1.6s
KNB MLR MLR
comp=Z,7µm,21.0s
**KNB Kanab 75.55 327** *eP* **P** 22 34 54.6 +2.5
comp=Z,350nm,1.6s
KNB LR LR
comp=Z,7µm,21.0s
**E42A Champion 75.56 348** P **P** 22 34 52.3 +0.6
baz=165
**I32A Karley and Nic 75.56 341** P **P** 22 34 52.1 +0.3
baz=156
**HEC Hector,Ludlow 75.64 323** P **P** 22 34 53.8 +1.2
baz=140,SNR=22
**PKCU Pink Cliffs 75.64 327** *eP* **P** 22 34 55.2 +2.4
comp=Z,68nm,1.3s
PKCU LR LR
comp=Z,8µm,19.0s
**F39A Loretta 75.66 346** P **P** 22 34 52.7 +0.4
baz=162
**H34A Spellman Lake, 75.68 342** P **P** 22 34 52.6 +0.2
baz=158
**G36A St. Michael 75.68 344** P **P** 22 34 52.7 +0.3
baz=159
**N23A Red Feather La 75.71 333** P **P** 22 34 54.7 +1.6
baz=148
**N23A Red Feather La 75.71 333** *eP* **P** 22 34 55.5 +2.5
comp=Z,51nm,1.3s
N23A LR LR
comp=Z,4µm,18.0s
**CIS Catalina Islan 75.71 321** P **P** 22 34 54.2 +1.3
baz=138,SNR=6.9
**LCMT Little Creek M 75.75 326** *eP* **P** 22 34 55.5 +2.3
comp=Z,118nm,1.7s
LCMT LR LR
comp=Z,7µm,22.0s
**E41A Kenton 75.79 347** P **P** 22 34 53.1 +0.1
baz=164
**G35A Watkins 75.85 343** P **P** 22 34 53.5 +0.1
baz=159
**F37A Hinrichs Farm, 75.87 345** P **P** 22 34 53.7 +0.2
baz=160
**PHWY Pilot Hill 75.87 334** *eP* **P** 22 34 55.1 +1.1
comp=Z,191nm,1.9s
**FMP Fort Macarthur 75.87 321** P **P** 22 34 55.1 +1.3
baz=138
**I31A Royce, Wessing 75.89 340** P **P** 22 34 54.4 +0.8
baz=155
**TUQ Turquoise Moun 75.89 324** P **P** 22 34 55.7 +1.7
baz=140,SNR=36
**VLDQ Val d'Or 75.91 356** *eP* **P** 22 34 54.5 +0.9
comp=Z,99nm,1.2s
VLDQ LR LR
comp=Z,4µm,20.0s
**BFSC Mount Baldy Ra 75.91 322** P **P** 22 34 55.5 +1.3
baz=138,SNR=9.9
**F38A Pierce - Schro 75.92 345** P **P** 22 34 54.6 +0.8
baz=161
**E40A Wakefield 75.95 347** P **P** 22 34 54.3 +0.3
baz=163
**H33A Prehn Over Nor 75.96 341** P **P** 22 34 54.7 +0.7
baz=157
**H32A Carlson Farm, 75.99 341** P **P** 22 34 54.8 +0.6
baz=156
**O20A White River Ci 76.01 332** P **P** 22 34 56.1 +1.4
baz=146
**O20A White River Ci 76.01 332** *eP* **P** 22 34 56.6 +1.9
comp=Z,60nm,0.8s
O20A LR LR
comp=Z,10µm,18.0s
**BHU Blowhard Mount 76.02 327** *eP* **P** 22 34 57.0 +1.9
**E39A Mellen 76.03 346** P **P** 22 34 54.8 +0.4
baz=162
**RRX Edison Barstow 76.03 323** P **P** 22 34 56.3 +1.6
baz=139
**MTPU Mount Pierson 76.06 328** *eP* **P** 22 34 56.8 +1.5
comp=Z,43nm,1.2s
MTPU *ePP* PP 22 37 36.0 -10
MTPU LR LR
comp=Z,9µm,20.0s
**MWC Mount Wilson 76.12 321** *eP* **P** 22 34 58.0 +2.5
MWC pmax pmax
comp=Z,110nm,1.5s
MWC MLR MLR
comp=Z,4µm,19.0s
**MWC Mount Wilson 76.12 321** *eP* **P** 22 34 58.0 +2.5
comp=Z,113nm,1.5s
MWC LR LR
comp=Z,4µm,19.0s
**SZCU Shurtz Canyon 76.14 327** *eP* **P** 22 34 57.8 +2.3
comp=Z,252nm,1.9s
SZCU LR LR
comp=Z,8µm,21.0s
**PASC Pasadena Art C 76.15 321** *eP* **P** 22 34 57.5 +2.1
comp=Z,79nm,1.3s
PASC LR LR
comp=Z,4µm,19.0s
**SRU San Rafael Swe 76.16 329** *eP* **P** 22 34 56.8 +1.2
SRU pmax pmax
comp=Z,41nm,0.9s
SRU MLR MLR
comp=Z,4µm,20.0s
**SRU San Rafael Swe 76.16 329** *eP* **P** 22 34 56.8 +1.2
comp=Z,41nm,0.9s
SRU LR LR
comp=Z,4µm,20.0s
**G34A Benson 76.17 342** P **P** 22 34 55.4 +0.2
baz=158
**F36A Milaca 76.21 344** P **P** 22 34 55.5 0.0
baz=160
**SNCC San Nicolas Is 76.23 320** P **P** 22 34 56.9 +1.1
baz=137
**SNCC San Nicolas Is 76.23 320** *eP* **P** 22 34 57.4 +1.5
comp=Z,45nm,0.9s
SNCC LR LR
comp=Z,4µm,20.0s
**CCUT Cedar City 76.24 327** *eP* **P** 22 34 58.4 +2.3
comp=Z,60nm,1.0s
CCUT LR LR
comp=Z,8µm,21.0s
**GSC Goldstone, Bar 76.25 323** P **P** 22 34 57.0 +0.9
baz=139,SNR=13
**GSC Goldstone, Bar 76.25 323** *eP* **P** 22 34 58.1 +2.0
GSC pmax pmax
comp=Z,61nm,1.3s
GSC MLR MLR
comp=Z,4µm,19.0s
**GSC Goldstone, Bar 76.25 323** *eP* **P** 22 34 58.1 +2.0
comp=Z,61nm,1.3s
GSC LR LR
comp=Z,4µm,19.0s
**H31A Wolsey 76.28 340** P **P** 22 34 56.2 +0.3
baz=155
**D41A Chassel 76.29 348** P **P** 22 34 56.2 +0.3
baz=164

Q16A **Castle Valley** 76.30 329 *e*P P 22 34 59.1 +2.7
comp=Z,61nm,1.2s
Q16A LR LR
comp=Z,8µm,18.0s
DECC **Green Verdugo** 76.30 321 P P 22 34 57.5 +1.3
baz=138
SHPR **Sheep Range** 76.31 325 *e*P P 22 34 58.6 +2.1
comp=Z,105nm,1.5s
SHPR LR LR
comp=Z,4µm,18.0s
G33A **Ortonville** 76.34 342 P P 22 34 55.8 -0.4
baz=157
SUSD **Miller** 76.39 340 P P 22 34 56.9 +0.4
baz=155
SHOC **Shoshone, Teco** 76.43 324 P P 22 34 58.3 +1.4
baz=140
MSU **Marysvale** 76.43 328 *e*P P 22 34 58.9 +1.7
MSU **Marysvale** 76.43 328 *e*P P 22 34 58.9 +1.7
P18A **Preston Nutter** 76.46 330 *e*P P 22 34 59.1 +1.7
comp=Z,84nm,1.1s
P18A LR LR
comp=Z,5µm,20.0s
E38A **The Farm, Brul** 76.46 346 P P 22 34 57.0 +0.2
baz=161
F35A **Swanville** 76.47 343 P P 22 34 57.2 +0.3
baz=159
P17A **Butcher Ranch,** 76.55 330 *e*P P 22 34 59.6 +1.9
comp=Z,82nm,1.3s
P17A LR LR
comp=Z,5µm,18.0s
EDW2 **Edwards Air Fo** 76.58 322 P P 22 34 59.0 +1.2
baz=138,SNR=19
F34A **Alexandria** 76.58 343 P P 22 34 57.9 +0.3
baz=158
BLG **Laguna Peak, P** 76.60 321 P P 22 34 59.5 +1.6
baz=138
E37A **Wrenshall** 76.61 345 P P 22 34 57.9 +0.2
baz=161
TMUT **Trail Mountain** 76.62 329 *e*P P 22 34 59.9 +1.5
comp=Z,28nm,1.0s
TMUT LR LR
comp=Z,6µm,18.0s
TCRU **Three Creeks R** 76.64 328 *e*P P 22 35 00.1 +1.8
comp=Z,180nm,1.9s
TCRU LR LR
comp=Z,11µm,18.0s
G32A **Webster** 76.70 341 P P 22 34 58.2 0.0
baz=156
E36A **McGregor** 76.76 345 P P 22 34 59.1 +0.5
baz=160
OSI **Osito Audit: C** 76.78 321 P P 22 35 00.3 +1.3
baz=138
OSI **Osito Audit: C** 76.78 321 *e*P P 22 35 01.2 +2.2
comp=Z,279nm,1.8s
OSI LR LR
comp=Z,4µm,18.0s
SCZ2 **Santa Cruz Isl** 76.83 320 P P 22 35 00.6 +1.3
baz=137
LRMC **Laurel Mtn Rad** 76.86 323 P P 22 35 00.6 +1.1
baz=139,SNR=20
G31A **Conde** 76.88 341 P P 22 34 59.3 +0.1
baz=155
RWWY **Rawlins** 76.89 333 *e*P P 22 35 00.8 +1.0
comp=Z,144nm,1.5s
RWWY LR LR
comp=Z,5µm,19.0s
F33A **5 Mile Ranch,** 76.90 342 P P 22 34 59.9 +0.5
baz=157
H07N1 **FLORES T-PHASE** 76.91 31 *e*P P 22 34 58.8 -0.8
E35A **Pequot Lakes** 77.08 344 P P 22 35 00.8 +0.5
baz=159
SUR **Sutherland** 77.12 120 *e*P P 22 35 02.9 +1.5
comp=Z,301nm,1.8s
SUR LR LR
comp=Z,13µm,20.0s
WBSM **Bird Springs** 77.15 322 *e*P P 22 35 01.1 -0.1
CALA **Caldeira** 77.15 33 *e*P P 22 35 04.2 +3.2
F32A **Veblen** 77.16 342 P P 22 35 00.6 -0.2
baz=156
PCAN **Candelaria** 77.16 33 *e*P P 22 35 03.3 +2.3
comp=Z,204nm,1.1s
FURC **Furnace Creek,** 77.17 324 P P 22 35 02.7 +1.7
baz=139
D37A **Cotton** 77.17 345 P P 22 35 01.2 +0.3
baz=161
PCED **Cedros** 77.19 33 *e*P P 22 35 03.6 +2.5
comp=Z,113nm,1.2s
MPMC **Manual Prospec** 77.19 323 P P 22 35 02.9 +1.4
baz=139
SBC **Santa Barbara** 77.21 321 P P 22 35 03.1 +1.8
baz=137
TPNV **Topopah Spring** 77.21 324 P P 22 35 03.1 +1.5
baz=140,SNR=39
TPNV **Topopah Spring** 77.21 324 *e*P P 22 35 03.4 +1.8
TPNV pmax pmax
comp=Z,110nm,1.6s
TPNV MLR MLR
comp=Z,3µm,19.0s
TPNV **Topopah Spring** 77.21 324 *e*P P 22 35 03.4 +1.8
comp=Z,113nm,1.6s
TPNV LR LR
comp=Z,3µm,19.0s
ARVC **Arvin** 77.22 322 P P 22 35 03.3 +1.9
baz=138
PICO **Pico** 77.22 33 *e*P P 22 35 02.0 +0.6
comp=Z,124nm,1.6s
E34A **Wadena** 77.23 343 P P 22 35 01.3 +0.1
baz=158
PSUT **Pine Spring** 77.25 327 *e*P P 22 35 03.0 +1.3
comp=Z,32nm,1.0s
PSUT LR LR
comp=Z,6µm,20.0s
C39A **Grand Marais** 77.31 347 P P 22 35 01.7 +0.1
baz=163
D36A **Goodland** 77.36 345 P P 22 35 01.8 -0.1
baz=160
MPU **Maple Canyon** 77.39 329 *e*P P 22 35 04.8 +2.3
comp=Z,122nm,1.5s
MPU LR LR
comp=Z,8µm,18.0s
ISA **Isabella, Lake** 77.42 322 P P 22 35 04.1 +1.5
baz=138,SNR=22
ISA **Isabella, Lake** 77.42 322 *e*P P 22 35 05.1 +2.5
ISA pmax pmax
comp=Z,38nm,1.0s
ISA MLR MLR
comp=Z,8µm,18.0s
ISA **Isabella, Lake** 77.42 322 *e*P P 22 35 05.1 +2.5
comp=Z,38nm,1.0s
ISA LR LR
comp=Z,8µm,18.0s
K22A **Casper** 77.43 334 P P 22 35 03.7 +1.0
baz=148
K22A **Casper** 77.43 334 *e*P P 22 35 04.6 +1.9
comp=Z,324nm,1.8s
K22A LR LR
comp=Z,3µm,18.0s
E33A **Westby DABS, E** 77.44 343 P P 22 35 02.4 +0.1
baz=158
KOWA **Kowa** 77.45 66 *e*P P 22 35 03.4 +0.3
comp=Z,764nm,1.8s
KOWA LR LR
comp=Z,21µm,18.0s
C38A **Sawbill Land.** 77.45 346 P P 22 35 02.5 +0.1
baz=162
F31A **Hecla** 77.47 341 P P 22 35 03.0 +0.5
baz=156
D35A **Remer** 77.48 344 P P 22 35 02.5 -0.1
baz=159
PMAN **Manadas** 77.48 33 *e*P P 22 35 04.2 +1.4
comp=Z,347nm,1.5s
NLU **North Lily Min** 77.54 329 *e*P P 22 35 05.3 +1.9
comp=Z,156nm,1.6s
NLU LR LR
comp=Z,11µm,18.0s
PKM **Mcpherson Peak** 77.59 321 P P 22 35 05.3 +1.6
baz=137,SNR=32
C37A **Embarrass** 77.66 346 P P 22 35 04.1 +0.5
baz=161
PSMA **Santa Maria** 77.71 36 *e*P P 22 35 04.5 +0.4
comp=Z,72nm,1.0s
EYMN **Ely** 77.72 346 P P 22 35 03.8 -0.1
baz=162,SNR=10
EYMN **Ely** 77.72 346 *e*P P 22 35 04.3 +0.4
comp=Z,174nm,1.8s
EYMN LR LR
comp=Z,3µm,20.0s
HTU **Hoyt Peak** 77.74 330 *e*P P 22 35 06.2 +1.6

PSMN **Pico do Norte,** 77.75 36 *e*P P 22 35 05.1 +0.8
comp=Z,96nm,1.6s
D34A **Park Rapids** 77.77 343 P P 22 35 04.1 -0.1
baz=158
RSSD **Black Hills** 77.78 336 P P 22 35 05.7 +1.1
baz=150
RSSD **Black Hills** 77.78 336 *e*P P 22 35 06.1 +1.5
RSSD pmax pmax
comp=Z,64nm,1.2s
RSSD MLR MLR
comp=Z,2µm,19.0s
RSSD **Black Hills** 77.78 336 *e*P P 22 35 06.1 +1.5
comp=Z,64nm,1.3s
RSSD LR LR
comp=Z,2µm,19.0s
JLU **Jordanelle** 77.78 330 *e*P P 22 35 06.3 +1.5
comp=Z,236nm,1.9s
JLU *e*PP PP 22 37 55.6 -5.1
JLU LR LR
comp=Z,5µm,18.0s
CWC **Cottonwood Cre** 77.79 323 P P 22 35 06.3 +1.5
baz=138
E32A **Braaten, Kindr** 77.80 342 P P 22 35 04.6 +0.2
baz=157
GRAC **Grapevine Rang** 77.83 324 P P 22 35 06.4 +1.5
baz=139,SNR=13
C36A **Pine Crest Far** 77.83 345 P P 22 35 05.4 +0.9
baz=160
PGRA **Graciosa** 77.85 33 *e*P P 22 35 04.2 -0.6
comp=Z,156nm,1.3s
VES **Vestal, Richgr** 77.89 322 P P 22 35 05.8 +0.7
baz=138
GMU **Granite Mounta** 77.90 330 *e*P P 22 35 06.5 +1.2
ADH **Angra Heroismo** 77.92 34 *e*P P 22 35 03.3 -1.9
comp=Z,272nm,1.7s
R11A **Troy Canyon, C** 77.95 326 P P 22 35 07.3 +1.6
baz=141
R11A **Troy Canyon, C** 77.95 326 *e*P P 22 35 07.1 +1.4
comp=Z,6.5nm,0.8s
R11A *e*PP PP 22 37 58.4 -3.7
R11A LR LR
comp=Z,4µm,22.0s
D33A **AnnSam, Waubun** 77.98 343 P P 22 35 06.1 +0.7
baz=158
CTU **Camp Tracy** 77.99 330 *e*P P 22 35 08.0 +2.1
comp=Z,80nm,1.7s
CTU LR LR
comp=Z,4µm,20.0s
E31A **Nome** 78.00 341 P P 22 35 06.2 +0.7
baz=156
SMMC **Simmler** 78.00 321 P P 22 35 07.2 +1.3
baz=137,SNR=15
PDA **Ponta Delgada** 78.01 35 *e*P P 22 35 04.8 -0.9
comp=Z,127nm,1.1s
PSET **Sete Cidades** 78.04 35 *e*P P 22 35 06.9 +1.0
comp=Z,218nm,1.3s
C35A **Jirik Farms, M** 78.04 344 P P 22 35 06.1 +0.4
baz=159
DUG **Dugway, Tooele** 78.08 329 P P 22 35 07.5 +1.2
baz=143,SNR=44
DUG **Dugway, Tooele** 78.08 329 *e*P P 22 35 07.8 +1.6
DUG pmax pmax
comp=Z,280nm,2.0s
DUG MLR MLR
comp=Z,7µm,19.0s
DUG **Dugway, Tooele** 78.08 329 *e*P P 22 35 07.8 +1.6
comp=Z,285nm,2.0s
DUG LR LR
comp=Z,7µm,19.0s
CMLA **Cha da Macela** 78.09 35 PFAKE 22 35 20.0 +14
CMLA LR LR
comp=Z,5µm,19.0s
PCALD **Caldeiras da R** 78.14 35 *e*P P 22 35 08.4 +1.9
comp=Z,233nm,1.0s
TCUT **Toone Canyon** 78.18 330 *e*P P 22 35 08.7 +1.7
comp=Z,211nm,1.4s
TCUT LR LR
comp=Z,5µm,20.0s
C34A **RKJ Ranch, Bem** 78.22 344 P P 22 35 07.0 +0.3
baz=158
BART **Pico Bartolome** 78.28 36 *e*P P 22 35 06.3 -1.1
comp=Z,170nm,1.4s
D32A **Dogwood Acres,** 78.29 342 P P 22 35 07.6 +0.5
baz=157
FPU **Francis Peak** 78.30 330 *e*P P 22 35 09.0 +1.3
RCTC **Rector, Farmer** 78.31 322 P P 22 35 08.3 +0.9
baz=138
TIN **Tinemaha, Big** 78.33 323 P P 22 35 09.4 +1.7
baz=138
D31A **Mcclaflin, Tow** 78.40 342 P P 22 35 08.1 +0.4
baz=156
PAGB **Antelope Grade** 78.45 321 *e*P P 22 35 11.1 +2.8
comp=Z,67nm,1.2s
PAGB *e*PP PP 22 37 59.9 -6.2
PAGB LR LR
comp=Z,3µm,19.0s
SNUT **Stansbury Nort** 78.49 329 *e*P P 22 35 09.7 +1.1
MCU **Monte Cristo P** 78.51 330 *e*P P 22 35 09.4 +0.6
C33A **Trail** 78.54 343 P P 22 35 08.7 +0.3
baz=158
B35A **Bob, Littlefor** 78.60 345 P P 22 35 09.2 +0.4
baz=160
BW06 **Boulder Array** 78.74 332 P P 22 35 10.5 +0.5
baz=146,SNR=42
BW06 **Boulder Array** 78.74 332 *e*P P 22 35 11.2 +1.2
comp=Z,49nm,1.1s
BW06 *e*S S 22 45 09.6 +2.3
BW06 LR LR
comp=Z,4µm,19.0s
PD31 **Pinedale Array** 78.74 332 *e*P P 22 35 10.4 +0.4
PDAR **Pinedale Array** 78.74 332 P P 22 35 10.3 +0.3
comp=Z,15nm,0.8s,baz=123,slow=5.5,SNR=50
PDAR PKKPbc PKKPbc 22 54 02.8 -3.8
comp=Z,0.4nm,0.7s,baz=264,slow=0.9,SNR=2.7
PDAR LR LR 23 07 02.0
comp=Z,3µm,20.1s,baz=162,slow=34
PDAR **Pinedale Array** 78.74 332 *e*P P 22 35 11.4 +1.4
PDAR PKKPbc PKKPbc 22 54 02.8 -3.8
BGU **Big Grassy Mou** 78.76 329 *e*P P 22 35 11.7 +1.7
comp=Z,116nm,1.6s
BGU LR LR
comp=Z,6µm,18.0s
MAW **Mawson** 78.76 164 P P 22 35 10.1 +0.5
comp=Z,45nm,1.1s,baz=219,slow=6.5,SNR=24
MAW LR LR 23 09 21.6
comp=Z,9µm,21.4s,baz=232,slow=35
MAW **Mawson** 78.76 164 *e*P P 22 35 10.1 +0.5
MAW pmax pmax
comp=Z,33nm,1.4s
MAW MLR MLR
comp=Z,2µm,18.0s
MAW **Mawson** 78.76 164 *e*P P 22 35 10.1 +0.5
comp=Z,33nm,1.4s
BMUT **Black Mountain** 78.79 331 *e*P P 22 35 12.0 +1.7
C32A **Crookston** 78.79 343 P P 22 35 10.3 +0.5
baz=157
SPUT **South Promonto** 78.80 330 *e*P P 22 35 11.5 +1.2
comp=Z,406nm,2.0s
SPUT LR LR
comp=Z,7µm,18.0s
B34A **Aery, Baudette** 78.94 344 P P 22 35 10.9 +0.3
baz=159
B33A **Robert and Kas** 78.97 344 P P 22 35 11.0 +0.2
baz=158
AGMN **Agassiz Nation** 79.06 343 P P 22 35 11.7 +0.4
baz=158,SNR=18
AGMN **Agassiz Nation** 79.06 343 *e*P P 22 35 11.7 +0.4
comp=Z,290nm,2.0s
AGMN LR LR
comp=Z,2µm,21.0s
MLAC **Mammoth, Mammo** 79.08 323 P P 22 35 13.4 +1.4
baz=138
C31A **Landman Farms,** 79.08 342 P P 22 35 12.0 +0.6
baz=156
PMPB **Monarch Peak** 79.11 321 *e*P P 22 35 14.2 +2.3
comp=Z,229nm,1.9s
PMPB LR LR
comp=Z,4µm,20.0s
BEI **Bear River Ran** 79.16 330 *e*P P 22 35 13.2 +1.0
RAR **Rarotonga** 79.21 252 PFAKE 22 35 30.0 +17
RAR LR LR
comp=Z,8µm,19.0s
MDPB **Devils Postpil** 79.21 323 *e*P P 22 35 14.6 +1.9
comp=Z,40nm,1.4s
MDPB LR LR
comp=Z,5µm,18.0s
PMOZ **Porto Moniz, M** 79.21 44 *e*S S 22 45 26.1 +14

PMOZ **Porto Moniz, M** 79.21 44 *e*LR LR 23 01 34.4
comp=Z,5µm,18.0s
B32A **Ashes, Strandq** 79.32 343 P P 22 35 13.0 +0.3
baz=157
HVU **Hansel Valley** 79.32 330 *e*P P 22 35 13.8 +0.7
HVU pmax pmax
comp=Z,46nm,0.8s
HVU MLR MLR
comp=Z,7µm,18.0s
HVU **Hansel Valley** 79.32 330 *e*P P 22 35 13.8 +0.7
comp=Z,46nm,0.8s
HVU LR LR
comp=Z,7µm,18.0s
AHID **Auburn Hatcher** 79.39 331 *e*P P 22 35 14.9 +1.4
comp=Z,108nm,1.3s
AHID LR LR
comp=Z,4µm,18.0s
A33A **Warroad** 79.54 344 P P 22 35 14.3 +0.4
baz=158
B31A **Greenbush Farm** 79.64 342 P P 22 35 14.7 +0.3
baz=156
MDND **Maddock** 79.66 341 P P 22 35 15.3 +0.7
baz=154
MDND **Maddock** 79.66 341 PFAKE 22 35 30.0 +15
MDND LR LR
comp=Z,2µm,18.0s
REDW **Red Top Meadow** 79.77 332 *e*P P 22 35 16.8 +1.1
comp=Z,134nm,1.3s
REDW LR LR
comp=Z,3µm,19.0s
A32A **Rocking H Ranc** 79.79 343 P P 22 35 15.5 +0.2
baz=157
SNOW **Snow King Moun** 79.81 332 *e*P P 22 35 17.3 +1.4
comp=Z,82nm,1.1s
SNOW LR LR
comp=Z,3µm,21.0s
SAO **San Andreas Ge** 79.86 321 *e*P P 22 35 15.7 -0.3
SAO pmax pmax
comp=Z,27nm,1.1s
SAO MLR MLR
comp=Z,4µm,18.0s
SAO **San Andreas Ge** 79.86 321 *e*P P 22 35 17.4 +1.4
comp=Z,27nm,1.1s
SAO LR LR
comp=Z,4µm,18.0s
LOHW **Long Hollow** 79.87 332 *e*P P 22 35 17.2 +1.1
comp=Z,74nm,1.2s
TPAW **Teton Pass** 79.92 332 *e*P P 22 35 17.5 +1.1
comp=Z,83nm,1.2s
TPAW LR LR
comp=Z,3µm,20.0s
A31A **Linda, St. Vin** 79.98 343 P P 22 35 16.5 +0.2
baz=157
MOOW **Moose Ponds** 80.04 332 *e*P P 22 35 17.9 +0.8
comp=Z,158nm,2.0s
MOOW LR LR
comp=Z,3µm,18.0s
WAKR **Walker** 80.05 324 *e*P P 22 35 18.8 +1.6
comp=Z,94nm,1.5s
WAKR LR LR
comp=Z,7µm,18.0s
FXWY **Fox Creek** 80.07 332 *e*P P 22 35 17.9 +0.7
comp=Z,54nm,1.4s
FXWY LR LR
comp=Z,3µm,21.0s
TSUM **Tsumeb** 80.15 106 *e*P P 22 35 19.0 +0.8
comp=Z,348nm,1.8s
TSUM LR LR
comp=Z,14µm,19.0s
CMB **Columbia Colle** 80.20 323 *e*P P 22 35 18.9 +1.1
CMB pmax pmax
comp=Z,23nm,1.2s
CMB MLR MLR
comp=Z,3µm,19.0s
CMB **Columbia Colle** 80.20 323 *e*P P 22 35 18.9 +1.1
comp=Z,23nm,1.2s
CMB LR LR
comp=Z,3µm,19.0s
IMW **Indian Meadow** 80.25 332 *e*P P 22 35 19.8 +1.6
comp=Z,42nm,0.9s
IMW LR LR
comp=Z,3µm,18.0s
YERR **Yerington** 80.30 324 *e*P P 22 35 20.0 +1.5
comp=Z,129nm,1.7s
YERR LR LR
comp=Z,4µm,19.0s
YTP **The Promontory** 80.38 333 *e*P P 22 35 20.6 +1.6
YPP **Pitchstone Pla** 80.50 332 *e*P P 22 35 22.1 +2.5
comp=Z,99nm,1.7s
YPP LR LR
comp=Z,4µm,21.0s
H17A **Grant Village** 80.50 332 P P 22 35 21.5 +2.0
baz=145
H17A **Grant Village** 80.50 332 *e*P P 22 35 21.6 +2.0
comp=Z,54nm,1.4s
H17A LR LR
comp=Z,5µm,19.0s
PNTR **Pine Nut** 80.56 324 *e*P P 22 35 21.9 +2.0
comp=Z,135nm,1.5s
PNTR LR LR
comp=Z,5µm,18.0s
LKWY **Lake** 80.57 333 *e*P P 22 35 22.5 +2.6
LKWY pmax pmax
comp=Z,58nm,1.2s
LKWY MLR MLR
comp=Z,5µm,20.0s
LKWY **Lake** 80.57 333 *e*P P 22 35 22.5 +2.6
comp=Z,58nm,1.2s
LKWY LR LR
comp=Z,5µm,20.0s
RLMT **Red Lodge** 80.58 334 P P 22 35 21.0 +1.0
baz=146,SNR=44
RLMT **Red Lodge** 80.58 334 *e*P P 22 35 21.2 +1.3
comp=Z,352nm,1.9s
RLMT LR LR
comp=Z,3µm,19.0s
MCID **Moose Creek** 80.59 332 *e*P P 22 35 21.6 +1.6
YFT **Old Faithful** 80.66 332 *e*P P 22 35 23.0 +2.6
comp=Z,56nm,1.2s
YFT LR LR
comp=Z,4µm,21.0s
LAO **LASA Array** 80.77 336 P P 22 35 21.6 +0.9
baz=149,SNR=31
LAO **LASA Array** 80.77 336 *e*P P 22 35 21.6 +0.9
comp=Z,76nm,0.9s
LAO LR LR
comp=Z,2µm,21.0s
YNR **Norris Junctio** 80.81 333 *e*P P 22 35 23.7 +2.5
comp=Z,80nm,1.5s
YNR LR LR
comp=Z,4µm,22.0s
ULM **Lac du Bonnet** 80.87 344 P P 22 35 20.6 -0.4
comp=Z,91nm,1.0s,baz=168,slow=3.4,SNR=32
ULM LR LR 23 12 40.0
comp=Z,2µm,20.2s,baz=152,slow=37
ULM **Lac du Bonnet** 80.87 344 *e*P P 22 35 20.9 -0.2
comp=Z,112nm,1.0s
YMR **Madison River** 80.89 332 *e*P P 22 35 23.5 +1.9
comp=Z,133nm,1.1s
YMR LR LR
comp=Z,2µm,20.0s
PAHR **Pah Rah Range** 80.91 324 *e*P P 22 35 23.3 +1.6
comp=Z,135nm,1.5s
PAHR LR LR
comp=Z,4µm,18.0s
YHH **Holmes Hill** 80.94 333 *e*P P 22 35 23.6 +1.7
comp=Z,105nm,1.1s
YHH LR LR
comp=Z,2µm,22.0s
GRM **Grahamstown** 81.01 123 *i*P P 22 35 23.4 +0.8
YHB **Horse Butte** 81.05 332 *e*P P 22 35 24.5 +2.0
comp=Z,69nm,1.2s
YHB LR LR
comp=Z,2µm,20.0s
AFDM **Forest Hills D** 81.18 323 *e*P P 22 35 24.6 +1.6
comp=Z,81nm,1.5s
AFDM LR LR
comp=Z,3µm,19.0s
QLMT **Earthquake Lak** 81.21 332 *e*P P 22 35 26.1 +2.8
GCMT **Greycliff** 81.30 334 *e*P P 22 35 25.2 +1.6
TOC5 **Torodi Ar. Sit** 81.40 70 PFAKE 22 35 40.0 +15
TOC5 LR LR
comp=Z,10µm,19.0s
TOC6 **Torodi Ar. Sit** 81.40 70 PFAKE 22 35 40.0 +15
TOC6 LR LR
comp=Z,9µm,20.0s
TOB4 **Torodi Ar. Sit** 81.41 70 PFAKE 22 35 40.0 +15
TOB4 LR LR

comp=Z,9µm,20.0s
**TOC4 Torodi Ar. Sit 81.41 70** PFAKE 22 35 40.0 +15
TOC4 LR LR
comp=Z,9µm,20.0s
**TOB5 Torodi Ar. Sit 81.42 70** PFAKE 22 35 40.0 +15
TOB5 LR LR
comp=Z,10µm,20.0s
**TOC7 Torodi Ar. Sit 81.42 70** PFAKE 22 35 40.0 +15
TOC7 LR LR
comp=Z,9µm,19.0s
**TOA3 Torodi Ar. Sit 81.42 70** PFAKE 22 35 40.0 +15
TOA3 LR LR
comp=Z,100nm,19.0s
**TOA0 Torodi Ar. Sit 81.42 70** *e*P **P 22 35 24.6 -0.2**
TOA0 LR LR
comp=Z,9µm,19.0s
**TORD Torodi Ar. Bea 81.42 70** P **P 22 35 25.2 +0.4**
comp=Z,264nm,1.3s,baz=250,slow=4.0,SNR=247
TORD PKKPbc **PKKPbc 22 54 00.0 +1.6**
comp=Z,0.8nm,0.9s,baz=63,slow=5.5,SNR=3.6
TORD LR LR 23 11 16.5
comp=Z,9µm,19.4s,baz=235,slow=36
**TOA1 Torodi Ar. Sit 81.42 70** PFAKE 22 35 40.0 +15
TOA1 LR LR
comp=Z,9µm,19.0s
**TOB3 Torodi Ar. Sit 81.43 70** PFAKE 22 35 40.0 +15
TOB3 LR LR
comp=Z,9µm,19.0s
**TOA2 Torodi Ar. Sit 81.43 70** PFAKE 22 35 40.0 +15
TOA2 LR LR
comp=Z,100nm,19.0s
**TOB2 Torodi Ar. Sit 81.44 70** PFAKE 22 35 40.0 +15
TOB2 LR LR
comp=Z,9µm,20.0s
**TOC3 Torodi Ar. Sit 81.44 70** PFAKE 22 35 40.0 +15
TOC3 LR LR
comp=Z,9µm,20.0s
**TOC1 Torodi Ar. Sit 81.44 70** PFAKE 22 35 40.0 +15
TOC1 LR LR
comp=Z,10µm,20.0s
**TOC2 Torodi Ar. Sit 81.45 70** PFAKE 22 35 40.0 +15
TOC2 LR LR
comp=Z,9µm,20.0s
**HLID Hailey 81.47 330** P **P 22 35 25.8 +1.1**
baz=142,SNR=98
**HLID Hailey 81.47 330** *e*P **P 22 35 25.9 +1.3**
comp=Z,58nm,1.0s
HLID LR LR
comp=Z,5µm,19.0s
**BEKR Beckworth 81.53 324** *e*P **P 22 35 26.7 +1.6**
comp=Z,126nm,1.7s
BEKR LR LR
comp=Z,3µm,20.0s
**DGMT Dagmar 81.62 338** P **P 22 35 26.1 +1.0**
baz=151,SNR=27
**DGMT Dagmar 81.62 338** *e*P **P 22 35 26.4 +1.3**
comp=Z,724nm,1.8s
DGMT LR LR
comp=Z,2µm,20.0s
**MCCM Marconi Confer 81.64 321** *e*P **P 22 35 27.8 +2.4**
comp=Z,118nm,1.5s
MCCM LR LR
comp=Z,3µm,18.0s
**MCMT McKenzie Canyo 81.80 331** *e*P **P 22 35 28.0 +1.6**
**ORV Oroville 81.91 323** *e*P **P 22 35 28.2 +1.4**
ORV pmax pmax
comp=Z,190nm,1.6s
ORV MLR MLR
comp=Z,4µm,18.0s
**ORV Oroville 81.91 323** *e*P **P 22 35 28.2 +1.4**
comp=Z,193nm,1.6s
ORV LR LR
comp=Z,4µm,18.0s
**BOZ Bozeman (W) 81.92 333** P **P 22 35 27.9 +1.0**
baz=144,SNR=16
**BOZ Bozeman (W) 81.92 333** *e*P **P 22 35 27.8 +0.9**
BOZ pmax pmax
comp=Z,25nm,1.1s
BOZ MLR MLR
comp=Z,3µm,18.0s
**BOZ Bozeman (W) 81.92 333** *e*P **P 22 35 27.8 +0.9**
comp=Z,25nm,1.1s
BOZ *e*PP **PP 22 38 29.5 -5.4**
BOZ LR LR
comp=Z,3µm,18.0s
**MFID Camas Ranch 82.00 329** *e*P **P 22 35 28.5 +1.1**
comp=Z,107nm,1.5s
MFID LR LR
comp=Z,6µm,20.0s
**GDXM Geysers 82.07 322** PFAKE 22 35 40.0 +12
GDXM LR LR
comp=Z,5µm,18.0s
**DLMT Dillon 82.13 332** *e*P **P 22 35 30.0 +2.0**
comp=Z,70nm,1.2s
DLMT LR LR
comp=Z,4µm,20.0s
**BOSA Boshof 82.22 118** P **P 22 35 29.0 0.0**
comp=Z,57nm,0.8s,baz=250,slow=3.4,SNR=64
BOSA LR LR 23 07 46.1
comp=Z,12µm,20.4s,baz=232,slow=33
**BOSA Boshof 82.22 118** *i* P **P 22 35 29.0 0.0**
**BOSA Boshof 82.22 118** *e*P **P 22 35 29.1 0.0**
comp=Z,97nm,0.9s
BOSA *e*PP **PP 22 38 30.0 -7.1**
**HOPS Hopland Field 82.35 322** *e*P **P 22 35 31.7 +2.5**
comp=Z,104nm,1.4s
HOPS LR LR
comp=Z,4µm,18.0s
**LRM Limekiln Ridge 82.44 332** *e*P **P 22 35 31.0 +1.2**
**SCHQ Schefferville 82.51 3** P **P 22 35 30.0 +0.4**
comp=Z,63nm,1.2s,baz=187,slow=3.9,SNR=11
SCHQ LR LR 23 15 02.7
comp=Z,1µm,18.6s,baz=187,slow=38
**SCHQ Schefferville 82.51 3** *e*P **P 22 35 30.5 +0.9**
comp=Z,132nm,1.4s
**WVOR Wild Horse Val 82.57 327** *e*P **P 22 35 32.0 +1.6**
WVOR pmax pmax
comp=Z,72nm,1.5s
WVOR MLR MLR
comp=Z,3µm,22.0s
**WVOR Wild Horse Val 82.57 327** *e*P **P 22 35 32.0 +1.6**
comp=Z,72nm,1.5s
WVOR LR LR
comp=Z,3µm,22.0s
**O03D Paynes Creek 82.60 323** P **P 22 35 30.9 +0.4**
baz=136
**HRY Holter Researc 82.91 333** *e*P **P 22 35 33.9 +1.9**
**MOD Modoc Plateau 83.00 325** PFAKE 22 35 50.0 +17
MOD LR LR
comp=Z,3µm,19.0s
**KCPM Cahto Peak 83.12 322** *e*P **P 22 35 35.4 +2.1**
comp=Z,180nm,1.8s
KCPM LR LR
comp=Z,3µm,18.0s
**EGMT Eagleton 83.18 335** P **P 22 35 33.9 +0.5**
baz=146,SNR=15
**EGMT Eagleton 83.18 335** *e*P **P 22 35 34.1 +0.8**
comp=Z,58nm,1.1s
EGMT LR LR
comp=Z,5µm,19.0s
**J08A Circle Bar Ran 83.19 327** *e*P **P 22 35 34.4 +0.8**
comp=Z,100nm,1.1s
J08A LR LR
comp=Z,5µm,18.0s
**WDC Whiskeytown Da 83.20 323** *e*P **P 22 35 33.0 -0.5**
WDC pmax pmax
comp=Z,120nm,1.9s
WDC MLR MLR
comp=Z,2µm,19.0s
**WDC Whiskeytown Da 83.20 323** *e*P **P 22 35 33.0 -0.5**
comp=Z,121nm,1.9s
WDC LR LR
comp=Z,2µm,19.0s
**N02D Trinity Center 83.57 323** P **P 22 35 36.0 +0.5**
baz=136
**KMRM Mail Ridge 83.57 322** *e*P **P 22 35 38.0 +2.4**
comp=Z,234nm,1.6s
KMRM LR LR
comp=Z,3µm,21.0s
**M04C Macdoel 83.70 324** P **P 22 35 37.0 +0.7**
baz=136
**BMO Blue Mountains 83.78 329** *e*P **P 22 35 37.0 +0.4**
BMO pmax pmax
comp=Z,110nm,1.7s
BMO MLR MLR
comp=Z,7µm,18.0s
**BMO Blue Mountains 83.78 329** *e*P **P 22 35 37.9 +1.3**
comp=Z,115nm,1.7s
BMO LR LR
comp=Z,7µm,18.0s
**MSO Missoula 83.86 332** P **P 22 35 38.0 +1.1**
baz=143,SNR=9.0
**MSO Missoula 83.86 332** *e*P **P 22 35 38.7 +1.7**
comp=Z,171nm,2.0s
MSO LR LR
comp=Z,4µm,18.0s
**M02C Callahan 83.94 324** P **P 22 35 38.2 +0.8**
baz=136
**KHMM Horse Mountain 84.04 323** *e*P **P 22 35 40.0 +2.0**
comp=Z,202nm,1.8s
KHMM LR LR
comp=Z,3µm,20.0s
**YBH Yreka Blue Hor 84.11 324** *e*P **P 22 35 38.5 +0.2**
YBH pmax pmax
comp=Z,13nm,0.8s
YBH MLR MLR
comp=Z,3µm,20.0s
**YBH Yreka Blue Hor 84.11 324** *e*P **P 22 35 38.5 +0.2**
comp=Z,13nm,0.8s
YBH LR LR
comp=Z,3µm,20.0s
**LBTB Lobatse 84.15 115** *i* P **P 22 35 38.5 -0.6**
**LBTB Lobatse 84.15 115** *e*P **P 22 35 39.4 +0.3**
LBTB pmax pmax
comp=Z,570nm,1.8s
**LBTB Lobatse 84.15 115** *e*P **P 22 35 39.4 +0.3**
comp=Z,572nm,1.8s
**JCC Jacoby Creek, 84.16 323** *e*P **P 22 35 40.2 +1.8**
comp=Z,176nm,1.7s
JCC *e*PP **PP 22 38 53.7 +0.5**
JCC LR LR
comp=Z,3µm,18.0s
**I07A Izee 84.23 327** *e*P **P 22 35 39.8 +0.9**
comp=Z,163nm,1.6s
I07A LR LR
comp=Z,6µm,18.0s
**K04D Chiloquin, OR 84.27 325** P **P 22 35 39.9 +0.8**
baz=136
**J05D Fort Rock, OR 84.48 326** P **P 22 35 41.5 +1.2**
baz=137
**KRMB Red Mountain 84.59 323** *e*P **P 22 35 42.7 +1.9**
comp=Z,144nm,1.8s
KRMB LR LR
comp=Z,3µm,18.0s
**F10A Beach Ranch, E 84.61 330** *e*P **P 22 35 41.7 +0.9**
comp=Z,134nm,1.8s
F10A *e*PP **PP 22 38 52.2 -4.6**
F10A LR LR
comp=Z,4µm,22.0s
**JTMT Jette 84.73 332** *e*P **P 22 35 42.5 +1.1**
comp=Z,138nm,1.8s
**HUMO Hull Mountain 84.87 324** *e*P **P 22 35 42.1 +0.1**
comp=Z,32nm,1.4s
HUMO *e*PP PP 22 38 51.4 -7.6
HUMO LR LR
comp=Z,2µm,20.0s
**G08A Pilot Rock 84.88 328** *e*P **P 22 35 43.5 +1.3**
comp=Z,32nm,1.1s
G08A LR LR
comp=Z,8µm,19.0s
**L02D Cave Junction, 84.88 324** P **P 22 35 43.2 +1.1**
baz=135
**J04D Umpqua Nationa 84.89 325** P **P 22 35 43.3 +0.9**
baz=136
**MIR Mirnyy 85.04 174** *i* P **P 22 35 42.0 -0.6**
MIR pmax pmax
comp=Z,8.0nm,1.8s
**I05D Terrebonne, OR 85.31 326** P **P 22 35 45.7 +1.4**
baz=137
**E09A Wood Farm, Sta 85.43 330** *e*P **P 22 35 45.7 +1.0**
comp=Z,26nm,1.3s
E09A LR LR
comp=Z,6µm,18.0s
**I04A Tendick Farm, 85.44 325** P **P 22 35 45.5 +0.6**
baz=136
**G06A Carlson Farm, 85.63 327** *e*P **P 22 35 48.2 +2.4**
comp=Z,94nm,1.5s
G06A LR LR
comp=Z,3µm,18.0s
**WALA Waterton Lakes 85.63 333** *e*P **P 22 35 47.3 +1.5**
comp=Z,361nm,1.9s
WALA LR LR
comp=Z,2µm,20.0s
**KEBM Edson Butte 85.77 324** *e*P **P 22 35 48.8 +2.2**
comp=Z,111nm,1.1s
KEBM LR LR
comp=Z,4µm,18.0s
**F07A Phinny Hill Vi 85.78 328** PFAKE 22 36 00.0 +14
F07A LR LR
comp=Z,5µm,20.0s
**E08A Dider Farm, El 85.83 329** *e*P **P 22 35 47.8 +1.1**
comp=Z,49nm,1.3s
E08A LR LR
comp=Z,6µm,19.0s
**I03D Drain, OR 85.85 325** P **P 22 35 48.3 +1.5**
baz=135
**G05D Wamic, OR 85.96 327** P **P 22 35 48.8 +1.4**
baz=137
**HAWA Hanford 85.97 329** *e*P **P 22 35 48.8 +1.4**
comp=Z,60nm,1.1s
HAWA LR LR
comp=Z,8µm,19.0s
**H04A Detroit Lake 85.97 326** *e*P **P 22 35 48.2 +0.7**
comp=Z,185nm,1.7s
H04A LR LR
comp=Z,4µm,21.0s
**CASY Casey 86.08 181** PFAKE 22 36 00.0 +12
CASY LR LR
comp=Z,8µm,20.0s
**D08A Wollman Farm, 86.19 330** *e*P **P 22 35 49.5 +1.0**
comp=Z,41nm,1.1s
D08A LR LR
comp=Z,7µm,18.0s
**E07A Sunnyside 86.24 329** *e*P **P 22 35 50.0 +1.2**
comp=Z,17nm,0.9s
E07A LR LR
comp=Z,8µm,19.0s
**NEW Newport 86.33 331** LR LR 23 11 41.6
comp=Z,4µm,18.7s,baz=142,slow=34
**NEW Newport 86.33 331** P **P 22 35 48.7 -0.5**
baz=140,SNR=16
**NEW Newport 86.33 331** *e*P **P 22 35 49.5 +0.3**
NEW pmax pmax
comp=Z,27nm,1.1s
NEW MLR MLR
comp=Z,4µm,20.0s
**NEW Newport 86.33 331** *e*P **P 22 35 49.5 +0.3**
comp=Z,27nm,1.1s
**COR Corvallis 86.46 326** *e*P **P 22 35 52.2 +2.4**
COR pmax pmax
comp=Z,162nm,1.2s
COR MLR MLR
comp=Z,2µm,20.0s
**COR Corvallis 86.46 326** *e*P **P 22 35 52.2 +2.4**
comp=Z,162nm,1.2s
COR LR LR
comp=Z,2µm,20.0s
**C09A Chrisman Ranch 86.47 330** *e*P **P 22 35 50.5 +0.7**
comp=Z,46nm,0.9s
C09A LR LR
comp=Z,3µm,22.0s
**FFC Flin Flon 86.50 343** *e*P **P 22 35 50.2 +0.4**
FFC pmax pmax
comp=Z,34nm,1.2s
FFC MLR MLR
comp=Z,3µm,20.0s
**FFC Flin Flon 86.50 343** *e*P **P 22 35 50.2 +0.4**
comp=Z,34nm,1.2s
FFC LR LR
comp=Z,3µm,20.0s
**G03D McMinnville, O 86.89 326** P **P 22 35 52.9 +1.0**
baz=136
**F04A Amboy 86.99 327** *e*P **P 22 35 53.0 +0.6**
comp=Z,254nm,1.6s
F04A LR LR
comp=Z,4µm,20.0s
**LTY Liberty 87.14 329** *e*P **P 22 35 53.5 +0.3**
comp=Z,151nm,1.8s
LTY LR LR
comp=Z,6µm,20.0s
**PFVI Vila Bisbo 87.22 45** *e*P **P 22 35 54.8 +1.1**
comp=Z,184nm,1.5s
PFVI LR LR
comp=Z,8µm,21.0s
**PFVI Vila Bisbo 87.22 45** *e*P **P 22 35 54.6 +0.9**
comp=Z,150nm,1.4s
**PFVI Vila Bisbo 87.22 45** *e*S **S 22 46 37.5 +4.3**
**LON Longmire 87.29 328** *e*P **P 22 35 54.5 +0.5**
LON pmax pmax
comp=Z,110nm,2.0s
LON MLR MLR
comp=Z,5µm,19.0s
**LON Longmire 87.29 328** *e*P **P 22 35 54.5 +0.5**
comp=Z,113nm,2.0s
LON LR LR
comp=Z,5µm,19.0s
**B08A Colville Reser 87.36 330** *e*P **P 22 35 55.0 +0.8**
comp=Z,91nm,1.8s
B08A LR LR
comp=Z,4µm,20.0s
**F04D Rainier, OR 87.39 327** P **P 22 35 55.5 +1.2**
baz=136
**MORF Marmelete 87.44 45** *e*P **P 22 35 54.8 -0.1**
MORF AMS AMS 23 14 13.2
comp=Z,7µm,20.1s
**MORF Marmelete 87.44 45** *e*P **P 22 35 54.7 -0.1**
**MORF Marmelete 87.44 45** *e*P **P 22 35 56.8 +1.9**
comp=Z,110nm,1.5s
**MORF Marmelete 87.44 45** *e*S **S 22 46 39.0 +3.6**
**BFZ Birch Farm 87.49 225** PFAKE 22 36 10.0 +15
BFZ LR LR
comp=Z,8µm,20.0s
**PTEO Sao Teotonio 87.54 45** *e*P **P 22 35 57.5 +2.2**
comp=Z,182nm,1.3s
**F03A Seaside 87.54 326** *e*P **P 22 35 56.8 +1.7**
comp=Z,113nm,1.3s
F03A LR LR
comp=Z,2µm,22.0s
**XMAS Kiritimati 87.69 274** PFAKE 22 36 10.0 +13
XMAS LR LR
comp=Z,7µm,22.0s
**D05A Enumclaw 87.70 328** *e*P **P 22 35 56.9 +1.1**
comp=Z,434nm,1.3s
**C06D Leavenworth 87.73 329** P **P 22 35 56.2 +0.2**
baz=137
**PBDV Barranco-do-Ve 87.85 45** *e*P **P 22 35 58.4 +1.6**
comp=Z,156nm,1.4s
**PBDV Barranco-do-Ve 87.85 45** *e*S **S 22 46 42.6 +3.3**
**MQZ McQueen's Vall 87.86 221** PFAKE 22 36 10.0 +13
MQZ LR LR
comp=Z,5µm,20.0s
**MXZ Matakaoa Point 87.94 228** PFAKE 22 36 10.0 +13
MXZ LR LR
comp=Z,7µm,20.0s
**CRLZ Canterbury Las 87.95 221** PFAKE 22 36 10.0 +13
CRLZ LR LR
comp=Z,6µm,22.0s
**E03A Lebam 87.98 327** *e*P **P 22 35 58.5 +1.4**
comp=Z,131nm,1.1s
E03A LR LR
comp=Z,2µm,21.0s
**PMST Lisbon--Monsan 87.99 44** *e*P **P 22 35 59.4 +2.0**
comp=Z,82nm,1.6s
**LIS Lisbon 88.00 44** *e*P **P 22 35 57.7 +0.2**
LIS *e*S **SKSac 22 46 24.4 -1.1**
LIS AMS AMS 23 19 01.8
comp=Z,6µm,16.9s
**LIS Lisbon 88.00 44** *e*P **P 22 35 57.6 +0.2**
LIS *e*S **SKSac 22 46 24.3 -1.1**
**LIS Lisbon 88.00 44** *e*P **P 22 35 59.3 +1.9**
comp=Z,94nm,2.1s
**PNCL Nicolau / Gran 88.01 44** *e*P **P 22 35 59.0 +1.5**
comp=Z,110nm,1.6s
**PNCL Nicolau / Gran 88.01 44** *e*S **S 22 46 43.2 +2.5**
**PCVE Castro Verde 88.02 45** *e*P **P 22 35 59.4 +1.8**
comp=Z,103nm,1.4s
**PCVE Castro Verde 88.02 45** *e*S **S 22 46 45.7 +4.8**
**MESJ Messejana 88.03 45** *e*P **P 22 35 57.7 +0.1**
MESJ AMS AMS 23 13 59.2
comp=Z,7µm,20.3s
**MESJ Messejana 88.03 45** *e*P **P 22 35 57.7 +0.1**
**PMAFR Mafra 88.07 43** *e*P **P 22 35 59.4 +1.6**
comp=Z,88nm,2.3s
**PMAFR Mafra 88.07 43** *e*S **S 22 46 43.7 +2.4**
**SNZO South Karori 88.07 223** PFAKE 22 36 10.0 +12
SNZO LR LR
comp=Z,5µm,18.0s
**PVAQ Vaqueiros 88.08 45** *e*P **P 22 35 59.7 +1.8**
comp=Z,116nm,1.6s
**PVAQ Vaqueiros 88.08 45** *e*S **S 22 46 44.4 +2.9**
**PVAQ Vaqueiros 88.08 45** *e*LQ LQ 23 04 19.4
PVAQ *e*LR LR 23 07 51.7
comp=Z,7µm,20.0s
**KHZ Kahutara 88.12 222** PFAKE 22 36 10.0 +12
KHZ LR LR
comp=Z,5µm,21.0s
**ODZ Otahua Downs 88.17 219** PFAKE 22 36 10.0 +12
ODZ LR LR
comp=Z,5µm,20.0s
**BKZ Black Stump Fm 88.21 226** PFAKE 22 36 10.0 +11
BKZ LR LR
comp=Z,12µm,22.0s
**URZ Urewera 88.33 227** P **P 22 36 01.0 +1.8**
comp=Z,6.8nm,0.7s,baz=53,slow=5.1,SNR=4.2
**URZ Urewera 88.33 227** P **P 22 36 01.0 +1.8**
URZ LR LR
comp=Z,8µm,20.0s
**PBEJ Beja 88.37 45** *e*P **P 22 36 00.9 +1.7**
comp=Z,70nm,1.7s
**B06A Marblemount 88.44 329** *e*P **P 22 35 59.4 +0.2**
comp=Z,44nm,1.0s
B06A LR LR
comp=Z,7µm,19.0s
**OXZ Oxford 88.44 221** *e*P **P 22 36 01.1 +1.3**
comp=Z,68nm,1.3s
OXZ LR LR
comp=Z,5µm,21.0s
**B05A Bryant 88.53 329** P **P 22 35 60.0 +0.3**
baz=136
**LTZ Lake Taylor 88.64 221** *e*P **P 22 36 02.5 +1.7**
comp=Z,42nm,0.9s
LTZ LR LR
comp=Z,5µm,19.0s
**RPZ Rata Peaks 88.77 220** P **P 22 36 01.7 +0.4**
comp=Z,21nm,0.8s,baz=75,slow=3.3,SNR=7.0
**RPZ Rata Peaks 88.77 220** *e*P **P 22 36 02.3 +1.0**
comp=Z,52nm,0.9s
RPZ LR LR
comp=Z,5µm,21.0s
**PMTG Montargil 88.79 44** *e*P **P 22 36 02.7 +1.5**
comp=Z,82nm,2.1s
**PMTG Montargil 88.79 44** *e*S **S 22 46 50.4 +2.4**
**LBZ Lake Benmore 88.83 219** PFAKE 22 36 10.0 +8.4
LBZ LR LR
comp=Z,4µm,20.0s
**THZ Tophouse 88.89 222** *e*P **P 22 36 04.9 +3.0**
comp=Z,260nm,1.9s
THZ LR LR
comp=Z,4µm,20.0s
**PBAR Barrancos 88.98 45** *e*P **P 22 36 03.5 +1.4**
comp=Z,78nm,1.2s
**PBAR Barrancos 88.98 45** *e*S **S 22 46 48.2 -1.7**
**PTOM Tomar 89.01 43** *e*P **P 22 36 04.6 +2.4**
comp=Z,63nm,1.0s
**PESTR Estremoz 89.05 44** *e*P **P 22 36 04.0 +1.5**
comp=Z,40nm,1.5s
**PESTR Estremoz 89.05 44** *e*S **S 22 46 48.5 -2.1**
**WHZ Wether Hill Ro 89.08 217** PFAKE 22 36 20.0 +17
WHZ LR LR
comp=Z,7µm,20.0s
**A04D Lummi Island 89.14 329** P **P 22 36 03.4 +0.9**
baz=136
**WKZ Wanaka 89.20 218** PFAKE 22 36 20.0 +17
WKZ LR LR
comp=Z,6µm,21.0s
**PCAS Casmilo, Conde 89.23 43** *e*P **P 22 36 05.6 +2.4**
comp=Z,142nm,1.8s
**PCAS Casmilo, Conde 89.23 43** *e*S **S 22 46 49.9 -2.3**
**MLZ Mavora Lakes 89.33 217** PFAKE 22 36 20.0 +16
MLZ LR LR
comp=Z,8µm,20.0s
**COI Coimbra 89.37 43** *e*P **P 22 36 05.3 +1.4**
comp=Z,93nm,1.4s
**COI Coimbra 89.37 43** *e*S **SKSac 22 46 39.0 +5.4**
**PGC Sidney 89.43 328** *e*P **P 22 36 05.5 +1.6**
comp=Z,37nm,1.0s
PGC LR LR
comp=Z,5µm,19.0s
**TAM Tamanrasset 89.49 64** *e*P **P 22 36 05.8 +0.7**
TAM pmax pmax
comp=Z,43nm,1.5s

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| TAM | | | | MLR | MLR | | |
| | comp=Z,13µm,20.0s | | | | | | |
| TAM | Tamanrasset | 89.49 | 64 | eP | P | 22 36 05.8 | +0.7 |
| | comp=Z,43nm,1.5s | | | | | | |
| TAM | | | | LR | LR | | |
| | comp=Z,13µm,20.0s | | | | | | |
| PMRV | Marv??o | 89.52 | 44 | eP | P | 22 36 06.5 | +1.9 |
| | comp=Z,28nm,1.6s | | | | | | |
| PMRV | Marv??o | 89.52 | 44 | eS | S | 22 46 51.4 | -3.6 |
| PMRV | Marv??o | 89.52 | 44 | eLQ | LQ | 23 05 15.3 | |
| PMRV | | | | eLR | LR | 23 08 31.6 | |
| | comp=Z,4µm,18.0s | | | | | | |
| PYZ | Puysegur Point | 89.57 | 216 | PFAKE | | 22 36 20.0 | +15 |
| PYZ | | | | LR | LR | | |
| | comp=Z,5µm,20.0s | | | | | | |
| FOZ | Fox Glacier | 89.58 | 219 | PFAKE | | 22 36 20.0 | +15 |
| FOZ | | | | LR | LR | | |
| | comp=Z,3µm,20.0s | | | | | | |
| HIZ | Hauiti | 89.63 | 226 | PFAKE | | 22 36 20.0 | +15 |
| HIZ | | | | LR | LR | | |
| | comp=Z,7µm,20.0s | | | | | | |
| PCBR | Castelo Branco | 89.72 | 44 | eP | P | 22 36 07.3 | +1.8 |
| | comp=Z,40nm,1.4s | | | | | | |
| DCZ | Deep Cove | 89.78 | 217 | PFAKE | | 22 36 20.0 | +14 |
| DCZ | | | | LR | LR | | |
| | comp=Z,6µm,20.0s | | | | | | |
| CRZF | Crozet Islands | 89.81 | 145 | PFAKE | | 22 36 20.0 | +14 |
| CRZF | | | | LR | LR | | |
| | comp=Z,4µm,22.0s | | | | | | |
| PVIS | Viseu | 90.00 | 43 | eP | P | 22 36 08.6 | +1.7 |
| | comp=Z,23nm,1.6s | | | | | | |
| MTE | Manteigas | 90.02 | 43 | eP | P | 22 36 07.5 | +0.5 |
| | comp=Z,35nm,1.1s | | | | | | |
| MTE | | | | LR | LR | | |
| | comp=Z,9µm,19.0s | | | | | | |
| MTE | Manteigas | 90.02 | 43 | eP | P | 22 36 08.3 | +1.3 |
| | comp=Z,75nm,1.4s | | | | | | |
| MTE | Manteigas | 90.02 | 43 | eS | SKSac | 22 46 44.3 | +6.8 |
| MTE | Manteigas | 90.02 | 43 | eLQ | LQ | 23 05 26.5 | |
| MTE | | | | eLR | LR | 23 09 01.6 | |
| | comp=Z,8µm,18.0s | | | | | | |
| LLLB | Lillooet | 90.14 | 330 | eP | P | 22 36 07.8 | +0.6 |
| | comp=Z,46nm,1.4s | | | | | | |
| LLLB | | | | LR | LR | | |
| | comp=Z,3µm,21.0s | | | | | | |
| PVRL | Vila Real | 90.45 | 42 | eP | P | 22 36 10.8 | +1.8 |
| | comp=Z,48nm,1.6s | | | | | | |
| POLO | Lamas de Olo | 90.46 | 42 | eS | S | 22 47 00.1 | -3.7 |
| PGAV | Gavieira, Arco | 90.54 | 42 | eS | S | 22 46 59.4 | -5.1 |
| PGAV | Gavieira, Arco | 90.54 | 42 | eLQ | LQ | 23 05 31.7 | |
| PGAV | | | | eLR | LR | 23 10 50.0 | |
| | comp=Z,7µm,22.0s | | | | | | |
| MVO | Moncorvo | 90.79 | 43 | eP | P | 22 36 12.2 | +1.6 |
| | comp=Z,65nm,1.6s | | | | | | |
| MVO | Moncorvo | 90.79 | 43 | eS | S | 22 46 59.8 | -7.0 |
| MVO | Moncorvo | 90.79 | 43 | eLQ | LQ | 23 05 42.7 | |
| MVO | | | | eLR | LR | 23 09 25.6 | |
| | comp=Z,9µm,22.0s | | | | | | |
| LSZ | Lusaka | 90.94 | 108 | eP | P | 22 36 13.6 | +1.6 |
| LSZ | | | | pmax | pmax | | |
| | comp=Z,131nm,1.5s | | | | | | |
| LSZ | | | | MLR | MLR | | |
| | comp=Z,14µm,20.0s | | | | | | |
| LSZ | Lusaka | 90.94 | 108 | eP | P | 22 36 13.6 | +1.6 |
| | comp=Z,131nm,1.5s | | | | | | |
| LSZ | | | | LR | LR | | |
| | comp=Z,14µm,20.0s | | | | | | |
| NRS | Narsarsuaq | 91.20 | 12 | eP | P | 22 36 12.4 | +0.5 |
| NRS | | | | pmax | pmax | | |
| | comp=Z,200nm,1.9s | | | | | | |
| NRS | | | | MLR | MLR | | |
| | comp=Z,4µm,19.0s | | | | | | |
| NRS | Narsarsuaq | 91.20 | 12 | i P | PP | 22 39 58.5 | +9.1 |
| NRS | | | | i | | 22 48 24.6 | |
| | comp=Z,4µm,14.0s | | | | | | |
| NRS | Narsarsuaq | 91.20 | 12 | eP | P | 22 36 12.4 | +0.5 |
| | comp=Z,199nm,1.9s | | | | | | |
| NRS | | | | LR | LR | | |
| | comp=Z,4µm,19.0s | | | | | | |
| PBRG | Braganca | 91.35 | 42 | eS | S | 22 47 04.3 | -7.5 |
| FRB | Frobisher Bay | 91.39 | 1 | LR | LR | 23 19 05.7 | |
| | comp=Z,2µm,19.5s,baz=346,slow=37 | | | | | | |
| PAB | San Pablo | 91.48 | 45 | eP | P | 22 36 14.9 | +1.1 |
| PAB | | | | pmax | pmax | | |
| | comp=Z,98nm,1.7s | | | | | | |
| PAB | | | | MLR | MLR | | |
| | comp=Z,9µm,20.0s | | | | | | |
| PAB | San Pablo | 91.48 | 45 | eP | P | 22 36 14.9 | +1.1 |
| | comp=Z,98nm,1.7s | | | | | | |
| PAB | | | | LR | LR | | |
| | comp=Z,9µm,20.0s | | | | | | |
| ESDC | Sonseca Array | 91.80 | 45 | P | P | 22 36 15.9 | +0.7 |
| | comp=Z,6.1nm,0.9s,baz=239,slow=4.4,SNR=22 | | | | | | |
| ESDC | | | | LR | LR | 23 16 30.3 | |
| | comp=Z,6µm,19.7s,baz=230,slow=35 | | | | | | |
| ESLA | Sonseca Array | 91.80 | 45 | eP | P | 22 36 16.7 | +1.4 |
| | comp=Z,75nm,1.8s | | | | | | |
| ESLA | | | | LR | LR | | |
| | comp=Z,8µm,20.0s | | | | | | |
| ES19 | SONSECA Array | 91.85 | 45 | eP | P | 22 36 16.0 | +0.4 |
| CART | Cartagena | 92.53 | 48 | PFAKE | | 22 36 30.0 | +11 |
| CART | | | | LR | LR | | |
| | comp=Z,3µm,20.0s | | | | | | |
| AFI | Afiamalu | 92.72 | 253 | PFAKE | | 22 36 30.0 | +10 |
| AFI | | | | LR | LR | | |
| | comp=Z,6µm,20.0s | | | | | | |
| BBB | Bella Bella | 94.03 | 329 | LR | LR | 23 14 50.2 | |
| | comp=Z,1µm,19.6s,baz=138,slow=33 | | | | | | |
| HPAH | Hawaii Prepara | 94.58 | 290 | PFAKE | | 22 36 40.0 | +11 |
| HPAH | | | | LR | LR | | |
| | comp=Z,5µm,20.0s | | | | | | |
| PAF | Port-aux-Franc | 95.70 | 156 | PFAKE | | 22 36 50.0 | +17 |
| PAF | | | | LR | LR | | |
| | comp=Z,6µm,18.0s | | | | | | |
| VAL | Valentia | 95.71 | 33 | eP | P | 22 36 35.0 | +2.2 |
| VAL | | | | ePP | PP | 22 40 27.5 | +2.6 |
| SFJD | Kangerlussuaq | 95.90 | 8 | LR | LR | 23 21 23.2 | |
| | comp=Z,2µm,18.9s,baz=198,slow=36 | | | | | | |
| REYF | Montagne du Re | 95.92 | 44 | eP | P | 22 36 36.1 | +1.9 |
| MELF | Melles | 96.53 | 45 | eP | P | 22 36 38.0 | +1.0 |
| YKA | Yellowknife Ar | 96.58 | 341 | P | P | 22 36 36.6 | 0.0 |
| | comp=Z,6.9nm,0.8s,baz=139,slow=4.6,SNR=15 | | | | | | |
| YKA | | | | LR | LR | 23 23 01.9 | |
| | comp=Z,166nm,18.3s,baz=180,slow=37 | | | | | | |
| YKW3 | Yellowknife Ar | 96.64 | 341 | eP | P | 22 36 37.6 | +0.8 |
| DIB | Dawson Inlet, | 96.72 | 328 | PFAKE | | 22 36 50.0 | +13 |
| DIB | | | | LR | LR | | |
| | comp=Z,3µm,20.0s | | | | | | |
| SALF | Salau | 96.74 | 45 | eP | P | 22 36 39.3 | +1.4 |
| CARF | Carcanieres | 97.29 | 45 | eP | Pdif | 22 36 42.0 | +1.4 |
| DYA | Yadsworthy | 97.99 | 37 | PFAKE | | 22 36 50.0 | +6.7 |
| DYA | | | | LR | LR | | |
| | comp=Z,6µm,19.0s | | | | | | |
| CRAG | Craig | 98.42 | 329 | PFAKE | | 22 37 00.0 | +15 |
| CRAG | | | | LR | LR | | |
| | comp=Z,2µm,20.0s | | | | | | |
| WRAK | Wrangell Islan | 98.66 | 330 | PFAKE | | 22 37 00.0 | +14 |
| WRAK | | | | LR | LR | | |
| | comp=Z,4µm,19.0s | | | | | | |
| KEST | Kesra | 98.73 | 54 | LR | LR | 23 22 48.4 | |
| | comp=Z,23µm,21.1s,baz=188,slow=36 | | | | | | |
| KEST | Kesra | 98.73 | 54 | PFAKE | | 22 37 00.0 | +13 |
| KEST | | | | LR | LR | | |
| | comp=Z,24µm,21.0s | | | | | | |
| DLBC | Dease Lake | 98.97 | 333 | eP | Pdif | 22 36 48.9 | +1.3 |
| | comp=Z,25nm,1.0s | | | | | | |
| DLBC | | | | LR | LR | | |
| | comp=Z,3µm,18.0s | | | | | | |
| MSVF | Nonsavu | 99.13 | 244 | PFAKE | | 22 37 00.0 | +11 |
| MSVF | | | | LR | LR | | |
| | comp=Z,3µm,21.0s | | | | | | |
| LBL | Lubilhac | 99.29 | 44 | eP | Pdif | 22 36 51.4 | +2.1 |
| PYM | Petit Puy Mans | 99.41 | 43 | eP | Pdif | 22 36 51.6 | +1.8 |
| PLDF | La Plantade | 99.89 | 43 | eP | Pdif | 22 36 51.7 | -0.3 |
| SSB | Saint Sauveur | 100.10 | 44 | PFAKE | | 22 37 00.0 | +7.1 |
| SSB | | | | LR | LR | | |
| | comp=Z,7µm,20.0s | | | | | | |
| SIT | Sitka | 100.36 | 330 | PFAKE | | 22 37 10.0 | +16 |
| SIT | | | | LR | LR | | |
| | comp=Z,2µm,22.0s | | | | | | |
| VSL | Villasalto | 100.51 | 51 | PFAKE | | 22 37 10.0 | +15 |
| VSL | | | | LR | LR | | |
| | comp=Z,6µm,21.0s | | | | | | |
| BESE | Bessie Mountai | 101.05 | 331 | PFAKE | | 22 37 10.0 | +13 |
| BESE | | | | LR | LR | | |
| | comp=Z,4µm,20.0s | | | | | | |
| TAU | Tasmania Unive | 101.12 | 208 | PFAKE | | 22 37 10.0 | +12 |
| TAU | | | | LR | LR | | |
| | comp=Z,5µm,20.0s | | | | | | |
| BNI | Bardonecchia | 101.32 | 45 | PFAKE | | 22 37 10.0 | +12 |
| BNI | | | | LR | LR | | |
| | comp=Z,8µm,21.0s | | | | | | |
| SKAG | Skagway | 101.77 | 332 | PFAKE | | 22 37 10.0 | +10 |
| SKAG | | | | LR | LR | | |
| | comp=Z,5µm,18.0s | | | | | | |
| WHY | Whitehorse | 102.29 | 333 | PFAKE | | 22 37 10.0 | +7.7 |
| WHY | | | | LR | LR | | |
| | comp=Z,4µm,19.0s | | | | | | |
| SENIN | Lac Senin/Sane | 102.32 | 44 | PFAKE | | 22 37 10.0 | +7.0 |
| SENIN | | | | LR | LR | | |
| | comp=Z,7µm,20.0s | | | | | | |
| CLTB | Caltabellotta | 102.34 | 54 | PFAKE | | 22 37 10.0 | +6.9 |
| CLTB | | | | LR | LR | | |
| | comp=Z,15µm,20.0s | | | | | | |
| WDD | Wied Dalam | 102.54 | 56 | PFAKE | | 22 37 20.0 | +16 |
| WDD | | | | LR | LR | | |
| | comp=Z,11µm,20.0s | | | | | | |
| BCLA | Clavier | 103.03 | 40 | P | Pdif | 22 37 06.5 | +0.8 |
| ECH | Echery | 103.08 | 42 | PFAKE | | 22 37 20.0 | +14 |
| ECH | | | | LR | LR | | |
| | comp=Z,5µm,19.0s | | | | | | |
| WLF | Walferdange | 103.16 | 41 | PFAKE | | 22 37 20.0 | +14 |
| WLF | | | | LR | LR | | |
| | comp=Z,8µm,19.0s | | | | | | |
| VLC | Villacollemand | 103.27 | 47 | PFAKE | | 22 37 20.0 | +13 |
| VLC | | | | LR | LR | | |
| | comp=Z,3µm,20.0s | | | | | | |
| HYT | Haines Junctio | 103.44 | 333 | PFAKE | | 22 37 20.0 | +13 |
| HYT | | | | LR | LR | | |
| | comp=Z,3µm,18.0s | | | | | | |
| TUE | Stuetta | 103.63 | 45 | PFAKE | | 22 37 20.0 | +11 |
| TUE | | | | LR | LR | | |
| | comp=Z,6µm,20.0s | | | | | | |
| BFO | Black Forest | 103.83 | 43 | PFAKE | | 22 37 20.0 | +11 |
| BFO | | | | LR | LR | | |
| | comp=Z,4µm,19.0s | | | | | | |
| LHI | Lord Howe Isla | 103.96 | 223 | PFAKE | | 22 37 20.0 | +9.5 |
| LHI | | | | LR | LR | | |
| | comp=Z,4µm,18.0s | | | | | | |
| TULEG | Thule | 104.23 | 1 | PFAKE | | 22 37 20.0 | +10 |
| TULEG | | | | LR | LR | | |
| | comp=Z,2µm,18.0s | | | | | | |
| FUORN | Ofenpass-Fuorn | 104.26 | 45 | PFAKE | | 22 37 20.0 | +8.3 |
| FUORN | | | | LR | LR | | |
| | comp=Z,9µm,21.0s | | | | | | |
| ABPO | Ambohimpanom | 104.28 | 121 | PFAKE | | 22 37 20.0 | +7.6 |
| ABPO | | | | LR | LR | | |
| | comp=Z,6µm,18.0s | | | | | | |
| DAVA | Damuels | 104.31 | 44 | i Pdiff | Pdif | 22 37 14.1 | +2.4 |
| | comp=Z,16nm,1.1s | | | | | | |
| DAVA | | | | i PKiKP | PKiKP | 22 41 28.7 | +0.4 |
| | comp=Z,17nm,1.4s | | | | | | |
| AQU | L'Aquila | 104.50 | 50 | PFAKE | | 22 37 20.0 | +7.5 |
| AQU | | | | LR | LR | | |
| | comp=Z,6µm,21.0s | | | | | | |
| STU | Stuttgart | 104.54 | 42 | PFAKE | | 22 37 20.0 | +7.5 |
| STU | | | | LR | LR | | |
| | comp=Z,4µm,19.0s | | | | | | |
| CEL | Celeste | 104.55 | 54 | PFAKE | | 22 37 20.0 | +7.1 |
| CEL | | | | LR | LR | | |
| | comp=Z,13µm,22.0s | | | | | | |
| FETA | Feichten | 104.72 | 44 | i Pdiff | Pdif | 22 37 15.8 | +2.2 |
| | comp=Z,24nm,1.3s | | | | | | |
| RETA | Reutte | 104.94 | 44 | i Pdiff | Pdif | 22 37 16.2 | +1.8 |
| | comp=Z,13nm,1.1s | | | | | | |
| RETA | | | | i PKiKP | PKiKP | 22 41 29.2 | -0.1 |
| | comp=Z,12nm,1.6s | | | | | | |
| MOTA | Moosalm | 105.09 | 44 | i Pdiff | Pdif | 22 37 16.8 | +1.6 |
| | comp=Z,22nm,1.4s | | | | | | |
| MOTA | | | | i PKiKP | PKiKP | 22 41 31.2 | +1.5 |
| | comp=Z,6.0nm,1.1s | | | | | | |
| CUC | Castrocucco | 105.20 | 53 | PFAKE | | 22 41 40.0 | |
| CUC | | | | LR | LR | | |
| | comp=Z,4µm,20.0s | | | | | | |
| WATA | Walderalm | 105.38 | 44 | i Pdiff | Pdif | 22 37 18.9 | +2.5 |
| | comp=Z,20nm,1.2s | | | | | | |
| WATA | | | | ePKiKP | PKiKP | 22 41 33.3 | +3.1 |
| | comp=Z,3.0nm,0.5s | | | | | | |
| WTTA | Wattenberg | 105.39 | 44 | i Pdiff | Pdif | 22 37 18.0 | +1.5 |
| | comp=Z,18nm,1.7s | | | | | | |
| WTTA | | | | i PKiKP | PKiKP | 22 41 30.4 | +0.1 |
| | comp=Z,11nm,1.5s | | | | | | |
| DZM | Mont Dzumac | 105.42 | 234 | eSKSac | SKSac | 22 47 49.0 | -8.7 |
| | comp=Z,2µm,26.6s | | | | | | |
| DZM | | | | eSP | SP | 22 50 42.7 | -10 |
| | comp=Z,2µm,25.3s | | | | | | |
| DZM | | | | eSS | SS | 22 56 26.8 | -8.2 |
| | comp=Z,6µm,28.6s | | | | | | |
| DZM | Mont Dzumac | 105.42 | 234 | eLQ | LQ | 23 07 33.2 | |
| | comp=Z,4µm,30.7s | | | | | | |
| DZM | | | | eLR | LR | 23 11 53.0 | |
| | comp=Z,8µm,23.4s | | | | | | |
| BALM | Baldy | 105.56 | 331 | PFAKE | | 22 41 40.0 | |
| BALM | | | | LR | LR | | |
| | comp=Z,2µm,21.0s | | | | | | |
| KMBO | Kilima Mbogo | 105.66 | 100 | PFAKE | | 22 41 40.0 | |
| KMBO | | | | LR | LR | | |
| | comp=Z,6µm,19.0s | | | | | | |
| ABTA | Abfaltersbach | 105.72 | 45 | i Pdiff | Pdif | 22 37 19.6 | +1.7 |
| | comp=Z,12nm,1.1s | | | | | | |
| DAWY | Dawson | 105.92 | 335 | PFAKE | | 22 41 40.0 | |
| DAWY | | | | LR | LR | | |
| | comp=Z,3µm,20.0s | | | | | | |
| TRI | Trieste | 106.10 | 47 | PFAKE | | 22 41 40.0 | |
| TRI | | | | LR | LR | | |
| | comp=Z,4µm,22.0s | | | | | | |
| GRFO | Grafenberg | 106.13 | 42 | PFAKE | | 22 41 40.0 | |
| GRFO | | | | LR | LR | | |
| | comp=Z,4µm,19.0s | | | | | | |
| RAGM | Ragged Mountai | 106.26 | 330 | PFAKE | | 22 41 40.0 | |
| RAGM | | | | LR | LR | | |
| | comp=Z,3µm,20.0s | | | | | | |
| INK | Inuvik | 106.27 | 340 | Pdiff | Pdif | 22 37 19.4 | -0.3 |
| | comp=Z,8.3nm,1.1s,baz=160,slow=3.1,SNR=6.7 | | | | | | |
| INK | Inuvik | 106.27 | 340 | eP | Pdif | 22 37 20.5 | +0.8 |
| INK | | | | MLR | MLR | | |
| | comp=Z,3µm,20.0s | | | | | | |
| INK | Inuvik | 106.27 | 340 | ePdif | Pdif | 22 37 20.5 | +0.8 |
| INK | | | | LR | LR | | |
| | comp=Z,3µm,20.0s | | | | | | |
| MYKA | Terra Mystica | 106.39 | 46 | i Pdiff | Pdif | 22 37 22.6 | +1.7 |
| | comp=Z,0.2nm,0.3s | | | | | | |
| MYKA | | | | i PKiKP | PKiKP | 22 41 34.8 | +2.8 |
| | comp=Z,28nm,1.5s | | | | | | |
| BMRM | Bremner River | 106.50 | 331 | PFAKE | | 22 41 40.0 | |
| BMRM | | | | LR | LR | | |
| | comp=Z,3µm,18.0s | | | | | | |
| CAN | Canberra | 106.56 | 213 | PFAKE | | 22 41 50.0 | |
| CAN | | | | LR | LR | | |
| | comp=Z,2µm,19.0s | | | | | | |
| EYAK | Cordova Ski Ar | 106.80 | 330 | PFAKE | | 22 41 40.0 | |
| EYAK | | | | LR | LR | | |
| | comp=Z,3µm,20.0s | | | | | | |
| OBKA | Obir | 106.92 | 46 | i Pdiff | Pdif | 22 37 24.2 | +0.9 |
| | comp=Z,14nm,1.2s | | | | | | |
| OBKA | | | | i PKiKP | PKiKP | 22 41 35.0 | +2.0 |
| | comp=Z,25nm,1.6s | | | | | | |
| EGAK | Eagle | 106.95 | 335 | PFAKE | | 22 41 40.0 | |
| EGAK | | | | LR | LR | | |
| | comp=Z,3µm,20.0s | | | | | | |
| MENT | Mentasta | 107.05 | 333 | PFAKE | | 22 41 50.0 | |
| MENT | | | | LR | LR | | |
| | comp=Z,2µm,18.0s | | | | | | |
| DIV | Divide | 107.08 | 331 | PFAKE | | 22 41 50.0 | |
| DIV | | | | LR | LR | | |
| | comp=Z,3µm,18.0s | | | | | | |
| NKC | Novy Kostel | 107.08 | 42 | ePDIFF | Pdif | 22 37 23.5 | -0.3 |
| NKC | | | | ePP | PP | 22 41 48.3 | -2.5 |
| NKC | | | | ePS | PS | 22 51 02.5 | -8.8 |
| NKC | | | | AMS | AMS | 23 23 30.0 | |
| | comp=Z,4µm,20.3s | | | | | | |
| NKC | Novy Kostel | 107.08 | 42 | eP | Pdif | 22 37 23.5 | -0.3 |
| NKC | | | | e | | 22 41 48.3 | |
| NKC | | | | ePS | PS | 22 51 02.5 | -8.8 |
| NKC | | | | MLR | MLR | | |
| | comp=Z,4µm,20.3s | | | | | | |
| FID | Port Fidalgo | 107.22 | 330 | PFAKE | | 22 41 50.0 | |
| FID | | | | LR | LR | | |
| | comp=Z,2µm,20.0s | | | | | | |
| MOA | Molln | 107.25 | 45 | i Pdiff | Pdif | 22 37 26.9 | +2.3 |
| | comp=Z,11nm,1.2s | | | | | | |
| MOA | | | | i PKiKP | PKiKP | 22 41 34.1 | +0.6 |
| | comp=Z,14nm,1.3s | | | | | | |
| SOKA | Soboth | 107.29 | 46 | i Pdiff | Pdif | 22 37 27.6 | +2.7 |
| | comp=Z,6.5nm,1.4s | | | | | | |
| SOKA | | | | i PKiKP | PKiKP | 22 41 30.3 | -3.4 |
| | comp=Z,10.0nm,1.4s | | | | | | |
| GEC2 | GERESS Array S | 107.29 | 44 | PFAKE | | 22 41 50.0 | |
| GEC2 | | | | LR | LR | | |
| | comp=Z,4µm,21.0s | | | | | | |
| GERES | GERESS Array B | 107.29 | 44 | PKiKP | PKiKP | 22 41 34.0 | +0.4 |
| | comp=Z,1.3nm,0.7s,baz=224,slow=3.7,SNR=5.3 | | | | | | |
| KLU | Klutina | 107.31 | 331 | PFAKE | | 22 41 50.0 | |
| KLU | | | | LR | LR | | |
| | comp=Z,2µm,20.0s | | | | | | |
| KHC | Kasperske Hory | 107.33 | 43 | ePDIFF | Pdif | 22 37 23.5 | -1.4 |
| KHC | | | | ePKP | PKiKP | 22 41 35.2 | +1.6 |
| KHC | | | | ePP | PP | 22 41 49.5 | -3.2 |
| KHC | | | | eSKS | SKSac | 22 48 04.7 | +0.2 |
| KHC | | | | ePS | PS | 22 51 03.6 | -10 |
| KHC | | | | AMS | AMS | 23 21 10.0 | |
| | comp=Z,5µm,23.1s | | | | | | |
| KHC | Kasperske Hory | 107.33 | 43 | eP | Pdif | 22 37 23.5 | -1.4 |
| KHC | | | | e | | 22 41 49.5 | |
| KHC | | | | e | | 22 48 04.7 | |
| KHC | | | | ePS | PS | 22 51 03.6 | -10 |
| KHC | | | | MLR | MLR | | |
| | comp=Z,5µm,23.1s | | | | | | |
| KHC | Kasperske Hory | 107.33 | 43 | PFAKE | | 22 41 50.0 | |
| KHC | | | | LR | LR | | |
| | comp=Z,1µm,19.0s | | | | | | |
| HARP | HAARP | 107.39 | 332 | PFAKE | | 22 41 50.0 | |
| HARP | | | | LR | LR | | |
| | comp=Z,2µm,22.0s | | | | | | |
| GLI | Glacier Island | 107.54 | 330 | PFAKE | | 22 41 50.0 | |
| GLI | | | | LR | LR | | |
| | comp=Z,2µm,19.0s | | | | | | |
| ARSA | Arzberg | 107.82 | 46 | i Pdiff | Pdif | 22 37 28.4 | +1.3 |
| | comp=Z,4.8nm,1.1s | | | | | | |
| ARSA | | | | i PKiKP | PKiKP | 22 41 35.0 | +0.4 |
| | comp=Z,5.0nm,0.9s | | | | | | |
| CLL | Collm | 107.82 | 41 | eP | Pdif | 22 37 29.0 | +2.0 |
| CLL | | | | e | | 22 41 55.0 | |
| CLL | | | | MLR | MLR | | |
| | comp=Z,3µm,21.8s | | | | | | |
| CLL | Collm | 107.82 | 41 | ePdif | Pdif | 22 37 29.0 | +2.0 |
| CLL | | | | ePP | PP | 22 41 55.0 | -1.2 |
| CLL | | | | eSKSac | SKSac | 22 48 18.0 | +12 |
| CLL | | | | ePS | PS | 22 51 18.0 | -0.8 |
| CLL | | | | ePPS | PPS | 22 52 17.0 | |
| CLL | | | | e | | 22 53 21.0 | |
| CLL | | | | eSS | SS | 22 57 03.0 | -4.7 |
| CLL | | | | ePPPPrev | | 23 05 06.0 | |
| CLL | | | | LmV | | 23 22 00.0 | |
| | comp=Z,3µm,21.8s | | | | | | |
| CLL | | | | Lm | MLR | 23 35 00.0 | |
| | comp=N,2µm,18.5s | | | | | | |
| CLL | | | | Lm | MLR | 23 35 00.0 | |
| | comp=E,2µm,18.7s | | | | | | |
| CLL | Collm | 107.82 | 41 | PFAKE | | 22 41 50.0 | |
| CLL | | | | LR | LR | | |
| | comp=Z,4µm,18.0s | | | | | | |
| BLY | Banja Luka | 107.97 | 48 | PFAKE | | 22 41 50.0 | |
| BLY | | | | LR | LR | | |
| | comp=Z,6µm,22.0s | | | | | | |
| SCM | Sheep Creek Mo | 108.06 | 331 | PFAKE | | 22 41 50.0 | |
| SCM | | | | LR | LR | | |
| | comp=Z,2µm,19.0s | | | | | | |
| PRA | Prague | 108.20 | 43 | AMS | AMS | 23 28 10.0 | |
| | comp=Z,4µm,17.3s | | | | | | |
| BRG | Berggiesshubel | 108.20 | 42 | ePKP | PKiKP | 22 41 48.3 | +13 |
| | comp=Z,28nm,2.0s | | | | | | |
| BRG | | | | PP | PP | 22 41 55.0 | -4.0 |
| | comp=N,2µm,17.8s | | | | | | |
| | comp=E,2µm,18.8s | | | | | | |
| | comp=Z,4µm,17.3s | | | | | | |
| BRG | Berggiesshubel | 108.20 | 42 | P | Pdif | 22 37 31.0 | +2.3 |
| BRG | Berggiesshubel | 108.20 | 42 | PDIFF | Pdif | 22 37 31.0 | +2.3 |
| PRU | Pruhonice | 108.23 | 43 | ePDIFF | Pdif | 22 37 33.1 | +4.2 |
| PRU | | | | ePP | PP | 22 41 53.7 | -5.5 |
| PRU | | | | eSKS | SKSac | 22 48 10.8 | +2.6 |
| PRU | | | | ePS | PS | 22 51 13.6 | -9.5 |
| PRU | | | | AMS | AMS | 23 25 30.0 | |
| | comp=Z,4µm,21.6s | | | | | | |
| PRU | Pruhonice | 108.23 | 43 | eP | Pdif | 22 37 33.1 | +4.2 |
| PRU | | | | e | | 22 48 10.8 | |
| PRU | | | | ePS | PS | 22 51 13.6 | -9.5 |
| PRU | | | | MLR | MLR | | |
| | comp=Z,4µm,21.6s | | | | | | |
| CONA | Conrad Observa | 108.28 | 45 | i Pdiff | Pdif | 22 37 31.8 | +2.6 |
| | comp=Z,9.7nm,1.6s | | | | | | |
| CONA | | | | i PKiKP | PKiKP | 22 41 37.0 | +1.5 |
| | comp=Z,9.4nm,1.7s | | | | | | |
| GOPC | GO Pecny, Ondr | 108.35 | 43 | ePDIFF | Pdif | 22 37 30.3 | +0.9 |
| GOPC | | | | ePP | PP | 22 41 57.3 | -2.9 |
| GOPC | | | | eSKS | SKSac | 22 48 11.3 | +2.5 |
| GOPC | | | | ePS | PS | 22 51 19.3 | -5.0 |
| GOPC | | | | AMS | AMS | 23 28 40.0 | |
| | comp=Z,3µm,17.1s | | | | | | |
| GOPC | GO Pecny, Ondr | 108.35 | 43 | eP | Pdif | 22 37 30.3 | +0.9 |
| GOPC | | | | e | | 22 41 57.3 | |
| GOPC | | | | e | | 22 48 11.3 | |
| GOPC | | | | ePS | PS | 22 51 19.3 | -5.0 |
| GOPC | | | | MLR | MLR | | |
| | comp=Z,3µm,17.1s | | | | | | |
| PVCC | Panska Ves | 108.45 | 42 | ePDIFF | Pdif | 22 37 27.4 | -2.4 |
| PVCC | | | | ePP | PP | 22 41 57.3 | -3.5 |
| PVCC | | | | AMS | AMS | 23 27 50.0 | |
| | comp=Z,4µm,17.7s | | | | | | |
| PVCC | Panska Ves | 108.45 | 42 | eP | Pdif | 22 37 27.4 | -2.4 |
| PVCC | | | | e | | 22 41 57.3 | |
| PVCC | | | | MLR | MLR | | |
| | comp=Z,4µm,17.7s | | | | | | |
| SML | Sawmill | 108.48 | 331 | PFAKE | | 22 41 50.0 | |
| SML | | | | LR | LR | | |
| | comp=Z,2µm,20.0s | | | | | | |
| TIR | Tirane | 108.56 | 53 | PFAKE | | 22 41 50.0 | |
| TIR | | | | LR | LR | | |
| | comp=Z,12µm,22.0s | | | | | | |
| DHY | Denali Highway | 108.61 | 332 | PFAKE | | 22 41 50.0 | |
| DHY | | | | LR | LR | | |
| | comp=Z,2µm,21.0s | | | | | | |
| PMR | Palmer | 108.74 | 330 | PFAKE | | 22 41 50.0 | |
| PMR | | | | LR | LR | | |
| | comp=Z,2µm,20.0s | | | | | | |
| RC01 | Rabbit Creek A | 108.80 | 330 | PFAKE | | 22 41 50.0 | |
| RC01 | | | | LR | LR | | |
| | comp=Z,2µm,22.0s | | | | | | |
| HDA | Harding Lake | 109.00 | 334 | PFAKE | | 22 41 50.0 | |
| HDA | | | | LR | LR | | |
| | comp=Z,2µm,19.0s | | | | | | |
| ARMA | Armidale | 109.05 | 218 | PFAKE | | 22 41 50.0 | |
| ARMA | | | | LR | LR | | |
| | comp=Z,5µm,21.0s | | | | | | |
| ILAR | Eielson Array | 109.13 | 334 | Pdiff | Pdif | 22 37 32.7 | +0.2 |
| | comp=Z,1.0nm,0.8s,baz=146,slow=3.2,SNR=10 | | | | | | |
| ILAR | | | | PKiKP | PKiKP | 22 41 36.9 | +0.4 |
| | comp=Z,1.5nm,0.9s,baz=159,slow=1.7,SNR=8.0 | | | | | | |
| ILAR | | | | PKKPbc | PKKPbc | 22 52 42.1 | -3.0 |
| | comp=Z,0.9nm,0.8s,baz=295,slow=3.1,SNR=6.2 | | | | | | |
| COP | Copenhagen | 109.14 | 37 | i P | PP | 22 42 02.5 | -3.2 |
| COP | | | | i | | 22 51 33.9 | |
| | comp=Z,2µm,18.0s | | | | | | |
| RGN | Rugen | 109.20 | 38 | PFAKE | | 22 41 50.0 | |
| RGN | | | | LR | LR | | |
| | comp=Z,5µm,20.0s | | | | | | |
| KONO | Kongsberg | 109.21 | 32 | PFAKE | | 22 41 50.0 | |
| KONO | | | | LR | LR | | |
| | comp=Z,7µm,20.0s | | | | | | |
| DAG | Danmarks Havn | 109.23 | 11 | i P | PP | 22 42 05.9 | +0.1 |
| DAG | | | | i | | 22 51 30.6 | |
| | comp=Z,2µm,18.0s | | | | | | |
| FYU | Fort Yukon | 109.28 | 336 | PFAKE | | 22 41 50.0 | |
| FYU | | | | LR | LR | | |
| | comp=Z,3µm,22.0s | | | | | | |
| UPC | Upice | 109.30 | 43 | ePP | PP | 22 42 03.4 | -3.6 |
| UPC | | | | ePS | PS | 22 51 34.8 | +0.8 |
| UPC | | | | AMS | AMS | 23 28 50.0 | |
| | comp=Z,4µm,17.8s | | | | | | |
| RND | Reindeer | 109.35 | 332 | PFAKE | | 22 41 50.0 | |
| RND | | | | LR | LR | | |
| | comp=Z,2µm,19.0s | | | | | | |
| DPC | Dobruska-Polom | 109.43 | 43 | ePDIFF | Pdif | 22 37 36.8 | +2.5 |
| DPC | | | | ex | x | 22 41 33.0 | |
| DPC | | | | ePKP | PKiKP | 22 41 38.8 | +1.3 |
| DPC | | | | ePP | PP | 22 42 04.9 | -3.1 |
| DPC | | | | ePS | PS | 22 51 34.7 | -0.7 |

DPC AMS AMS 23 29 10.0
comp=Z,4μm,18.0s
**DPC Dobruska-Polom 109.43 43** *e*P **Pdif 22 37 36.8 +2.5**
DPC *e* 22 42 04.9
DPC *e*PS **PS 22 51 34.7 -0.7**
DPC MLR MLR
comp=Z,4μm,18.0s
**CCB Clear Creek Bu 109.44 334** PFAKE 22 41 50.0
CCB LR LR
comp=Z,2μm,20.0s
**AGG Agios Georgios 109.50 56** PFAKE 22 41 50.0
AGG LR LR
comp=Z,14μm,20.0s
**MCK McKinley 109.52 333** PFAKE 22 41 50.0
MCK LR LR
comp=Z,3μm,22.0s
**COLA College 109.55 334** PFAKE 22 41 50.0
COLA LR LR
comp=Z,2μm,19.0s
**KSP Ksiaz 109.58 42** *e*Pdiff **Pdif 22 37 42.9 +8.0**
KSP *e*PP **PP 22 42 09.6 +0.5**
KSP LMZ LR 23 25 09.3
comp=Z,4μm,22.9s
**KSP Ksiaz 109.58 42** *e*P **Pdif 22 37 42.9 +8.0**
KSP *e* 22 42 09.6
KSP MLR MLR
comp=Z,4μm,22.9s
**MDM Murphy Dome 109.73 334** *e*Pdif **Pdif 22 37 32.7 -2.5**
MDM LR LR
comp=Z,2μm,18.0s
**TRF Thorofare Moun 109.97 332** PFAKE 22 41 50.0
TRF LR LR
comp=Z,2μm,18.0s
**MORC Moravsky Berou 109.97 44** PFAKE 22 41 50.0
MORC LR LR
comp=Z,14μm,19.0s
**BSD Bornholm Skovb 110.27 38** *i*P **PP 22 42 10.9 -2.9**
BSD *i* 22 51 39.0
comp=Z,5μm,21.0s
**KTH Kantishna Hill 110.27 332** PFAKE 22 41 50.0
KTH LR LR
comp=Z,2μm,18.0s
**OKC Ostrava-Krasne 110.36 44** *e*PP PP 22 42 11.5 -3.2
OKC *e*SKS **SKSac 22 48 15.9 -1.3**
OKC *e*PS **PS 22 51 49.6 +5.2**
OKC AMS AMS 23 33 40.0
comp=Z,3μm,17.3s
**BPAW Bear Paw Mtn. 110.50 333** PFAKE 22 41 50.0
BPAW LR LR
comp=Z,2μm,19.0s
**PPLA Purkeypile 110.56 331** PFAKE 22 41 50.0
PPLA LR LR
comp=Z,2μm,20.0s
**CAST Castle Rocks 110.70 332** PFAKE 22 41 50.0
CAST LR LR
comp=Z,3μm,18.0s
**MLY Manley 110.74 333** PFAKE 22 41 50.0
MLY LR LR
comp=Z,3μm,20.0s
**PSZ Piszkesteto 110.82 46** PFAKE 22 41 50.0
PSZ LR LR
comp=Z,4μm,19.0s
**SANT Santorini 110.92 59** PFAKE 22 41 50.0
SANT LR LR
comp=Z,6μm,22.0s
**GKP Gorka Klasztor 110.94 40** *e*Pdiff **Pdif 22 37 42.3 +1.5**
GKP LMZ LR 23 29 02.1
comp=Z,5μm,20.0s
**GKP Gorka Klasztor 110.94 40** *e*P **Pdif 22 37 42.3 +1.5**
GKP *e* 22 42 19.9 -2.2
comp=Z,5μm,20.0s
**KKB Krupnik 111.00 53** *i*P **PP 22 42 17.8 -1.8**
**VTS Vitosha 111.33 52** *i*P **PP 22 42 19.9 -2.2**
**VTS Vitosha 111.33 52** PFAKE 22 41 50.0
VTS LR LR
comp=Z,9μm,22.0s
**COLD Coldfoot 111.34 336** PFAKE 22 41 50.0
COLD LR LR
comp=Z,4μm,18.0s
**MMB Musomiste 111.37 53** *i*P **PP 22 42 20.4 -1.9**
**SVW2 Sparrevohn 111.45 329** PFAKE 22 41 50.0
SVW2 LR LR
comp=Z,2μm,18.0s
**FURI Furi 111.59 91** PFAKE 22 42 00.0
FURI LR LR
comp=Z,11μm,18.0s
**MPEP Malo Peshtene 111.94 52** P **PP 22 42 22.9 -3.4**
**KARP Karpathos 111.95 60** PFAKE 22 41 50.0
KARP LR LR
comp=Z,1μm,21.0s
**UZH Uzhgorod 112.57 46** *i*PKIKP **PKiKP 22 41 44.8 +1.4**
UZH *e*PS **PS 22 51 55.4 -9.3**
**KDZ Kurdzhali 112.59 54** *i*P **PP 22 42 27.6 -3.4**
**STKA Stephens Creek 112.85 210** PFAKE 22 42 00.0
STKA LR LR
comp=Z,900nm,22.0s
**EIDS Eidsvold 113.22 221** PFAKE 22 42 00.0
EIDS LR LR
comp=Z,3μm,20.0s
**TARA Tarawa 113.45 258** PFAKE 22 42 00.0
TARA LR LR
comp=Z,2μm,20.0s
**MANT Manisa 113.94 58** PFAKE 22 42 00.0
MANT LR LR
comp=Z,13μm,20.0s
**LVV L'vov 113.99 45** *e*PKIKP **PKiKP 22 41 46.0 -0.1**
**AKAS Kas 114.05 60** PFAKE 22 42 00.0 +13
AKAS LR LR
comp=Z,4μm,20.0s
**MLR Muntele Rosu 114.07 50** PKiKP **PKiKP 22 41 47.3 +0.6**
comp=Z,3.3nm,1.2s,baz=281,slow=4.5,SNR=5.5
MLR PP **PP 22 42 40.4 -1.2**
comp=Z,1.3nm,0.9s,baz=314,slow=8.4,SNR=3.9
**MLR Muntele Rosu 114.07 50** PKiKP **PKiKP 22 41 47.3 +0.6**
MLR PP **PP 22 42 40.4 -1.2**
MLR LR LR
comp=Z,7μm,20.0s
**BBOO Buckleboo 114.30 205** PFAKE 22 42 00.0 +13
BBOO LR LR
comp=Z,4μm,22.0s
**PSN Preselentsi 115.13 52** *i*P **PP 22 42 46.4 -2.5**
**ISP Isparta 115.22 59** PFAKE 22 42 00.0 +11
ISP LR LR
comp=Z,6μm,22.0s
**TIRR Tirgusor 115.49 51** PFAKE 22 42 00.0 +11
TIRR LR LR
comp=Z,4μm,21.0s
**BOLV Bolvadin 115.80 58** PFAKE 22 42 00.0 +10
BOLV LR LR
comp=Z,4μm,19.0s
**KBS Kingsbay 115.89 12** PFAKE 22 42 00.0 +11
KBS LR LR
comp=Z,2μm,19.0s
**KIS Kishinev 116.38 49** *e*PKP **PKPdf 22 41 51.0 +0.2**
**KIS Kishinev 116.38 49** *e*PP PP 22 43 10.0 +12
**KIS Kishinev 116.38 49** *e*PS PS 22 52 52.0 +12
**KIS Kishinev 116.38 49** *e*PPS PPS 22 54 10.0
KIS LRM MLR 23 32 15.0
comp=Z,3μm,20.0s
**KIS Kishinev 116.38 49** *e*PKIKP **PKPdf 22 41 51.0 +0.2**
KIS MLR MLR
comp=N,2μm,20.0s
KIS MLR MLR
comp=E,2μm,20.0s
KIS MLR MLR
comp=Z,3μm,20.0s
KIS MLR MLR
comp=Z,4μm,24.0s
**ATD Arta Tunnel 116.42 91** PFAKE 22 42 00.0 +8.1
ATD LR LR
comp=Z,7μm,20.0s
**CSS Mathiatis 116.57 63** PFAKE 22 42 00.0 +8.4
CSS LR LR
comp=Z,1μm,22.0s
**AK11 Malin Array Si 117.40 45** *e*PKPdf **PKPdf 22 41 51.9 -0.7**
AK11 *e*PP **PP 22 42 59.3 -5.3**
**KIEV Kiev 117.43 45** *e*PKIKP **PKPdf 22 41 52.1 -0.6**
KIEV MLR MLR
comp=Z,3μm,21.0s
**KIEV Kiev 117.43 45** *e*PKPdf **PKPdf 22 41 52.1 -0.6**
KIEV *e*PP **PP 22 43 00.3 -4.5**
KIEV LR LR
comp=Z,3μm,21.0s
**AKASG Malin Array Be 117.44 45** PKP **PKPdf 22 41 51.7 -1.0**
comp=Z,4.0nm,0.7s,baz=272,slow=2.5,SNR=15
AKASG PP **PP 22 43 03.0 -1.8**
comp=Z,0.8nm,0.5s,baz=255,slow=7.2,SNR=13
**AKBB Malin Array Si 117.44 45** *e*PKIKP **PKPdf 22 41 52.2 -0.5**
AKBB MLR MLR
comp=Z,4μm,21.0s
**AKBB Malin Array Si 117.44 45** *e*PKPdf **PKPdf 22 41 52.1 -0.5**
AKBB *e*PP **PP 22 43 01.2 -3.6**
AKBB LR LR
comp=Z,4μm,21.0s
**BR231 Keskin MP Arra 117.46 57** *e*PKPdf **PKPdf 22 41 53.8 +0.5**
**ANTO Ankara 117.48 57** PFAKE 22 42 10.0 +17
ANTO LR LR
comp=Z,5μm,19.0s
**FINES FINESS Array B 117.52 33** PKP **PKPdf 22 41 53.0 +0.5**
comp=Z,10nm,1.1s,baz=224,slow=8.0,SNR=5.7
**FIA1 FINESS Array S 117.52 33** *e*PKPdf **PKPdf 22 41 53.1 +0.6**
**MMAI Mount Meron Ar 117.67 65** PKP **PKPdf 22 41 53.8 0.0**
comp=Z,2.9nm,0.6s,baz=159,slow=0.7,SNR=9.4
**BR131 Keskin Array S 118.08 58** *e*PKPdf **PKPdf 22 41 55.0 +0.5**
**BRTR Keskin Array B 118.08 58** PKP **PKPdf 22 41 54.6 +0.1**
comp=Z,4.8nm,0.9s,baz=196,slow=2.9,SNR=15
**ARE0 ARCESS Array S 118.18 23** PFAKE 22 42 10.0 +16
ARE0 LR LR
comp=Z,2μm,20.0s
**ARCES ARCESS Array B 118.18 23** PKKPbc PKKPbc 22 52 11.8 -2.5
comp=Z,2.9nm,0.8s,baz=38,slow=6.1,SNR=4.7
**HNR Honiara 118.20 241** PFAKE 22 42 10.0 +15
HNR LR LR
comp=Z,3μm,21.0s
**ILGA Ilgaz 118.45 56** PFAKE 22 42 10.0 +15
ILGA LR LR
comp=Z,4μm,22.0s
**ASF Jabal al Asfar 118.63 67** PKP **PKPdf 22 41 56.7 +0.9**
comp=Z,5.6nm,1.0s,baz=217,slow=1.5,SNR=7.4
**FORT Forrest 118.81 199** PFAKE 22 42 10.0 +14
FORT LR LR
comp=Z,28μm,20.0s
**NWAO Narrogin (SRO) 118.95 188** PFAKE 22 42 10.0 +14
NWAO LR LR
comp=Z,4μm,20.0s
**MSEY Mahe Island 119.23 114** PFAKE 22 42 10.0 +13
MSEY LR LR
comp=Z,8μm,20.0s
**CTAO Charters Tower 120.11 221** PFAKE 22 42 10.0 +11
CTAO LR LR
comp=Z,3μm,21.0s
**TOKA Tokat 120.33 58** PFAKE 22 42 10.0 +11
TOKA LR LR
comp=Z,3μm,20.0s
**LVZ Lovozero 121.49 25***c* *i*PKIKP **PKPdf 22 42 00.4 +0.3**
LVZ pmax pmax
comp=Z,53nm,1.7s
**LVZ Lovozero 121.49 25** PFAKE 22 42 10.0 +10
LVZ LR LR
comp=Z,3μm,19.0s
**ANN Anapa 121.86 53** *i*P **Pdif 22 38 27.0 -2.6**
ANN *e* 22 43 31.9
ANN pmax pmax
comp=Z,271nm,1.6s
**OBN Obninsk 122.41 40** PKP **PKPdf 22 42 02.7 +0.6**
comp=Z,31nm,0.9s,baz=8.3,slow=11,SNR=12
**OBN Obninsk 122.41 40***d* *i*PKIKP **PKPdf 22 42 02.9 +0.8**
OBN *e* 22 43 40.5
OBN pmax pmax
comp=Z,76nm,1.2s
OBN MLR MLR
comp=Z,4μm,20.0s
**OBN Obninsk 122.41 40** *e*PKPdf **PKPdf 22 42 03.1 +1.0**
OBN LR LR
comp=Z,5μm,21.0s
**MARD Mardin 122.99 62** *e*PKPdf **PKPdf 22 42 05.4 +1.3**
MARD *e*PP **PP 22 43 40.4 -3.2**
MARD LR LR
comp=Z,4μm,20.0s
**MOS Moscow 123.04 40** *e*PKIKP **PKPdf 22 42 03.8 +0.5**
MOS *e* 22 43 43.6
MOS pmax pmax
comp=Z,49nm,1.2s
MOS MLR MLR
comp=E,5μm,22.0s
MOS MLR MLR
comp=Z,5μm,22.0s
**TMCR Tamitsa 123.10 30** *e*PKIKP **PKPdf 22 42 04.4 +1.2**
TMCR pmax pmax
comp=Z,34nm,1.0s
**KOPT Kop Dagi 123.29 59** *e*PKPdf **PKPdf 22 42 06.9 +2.2**
**SOC Sochi 123.30 54** *e*PKIKP **PKPdf 22 42 08.8 +4.6**
**ASAR Alice Springs 123.30 208** PKP **PKPdf 22 42 04.0 -1.0**
comp=Z,13nm,0.8s,baz=140,slow=1.9,SNR=61
ASAR PKKPbc **PKKPbc 22 51 54.6 +0.2**
comp=Z,3.3nm,1.0s,baz=338,slow=3.2,SNR=12
**RAYN Ar Rayn 123.30 79** *e*PKPdf **PKPdf 22 42 05.6 +0.6**
RAYN LR LR
comp=Z,6μm,20.0s
**LPSR Galich'ya Gora 123.67 44** *e*PKIKP **PKPdf 22 42 04.7 +0.1**
LPSR pmax pmax
comp=Z,40nm,1.0s
**VSR Storozhevoye 123.73 45** *e*PKIKP **PKPdf 22 42 04.9 +0.1**
VSR pmax pmax
comp=Z,30nm,1.1s
VSR MLR MLR
comp=Z,5μm,22.0s
**KLMR Klimovskoe 123.99 34** *e*PKIKP **PKPdf 22 42 03.5 -1.5**
KLMR 22 49 00.2
KLMR pmax pmax
comp=Z,74nm,1.2s
**ARTV Artvin 124.56 57** *e*PKPdf **PKPdf 22 42 08.4 +1.4**
ARTV *e*PP **PP 22 43 49.8 -4.4**
ARTV LR LR
comp=Z,1μm,22.0s
**VRH Novokhopyorsk 125.34 45** *e*PKIKP **PKPdf 22 42 08.5 +0.6**
VRH pmax pmax
comp=Z,20nm,1.0s
VRH MLR MLR
comp=Z,3μm,22.0s
**NEY Neytrino 125.42 55** *i*PKIKP **PKPdf 22 42 10.1 +1.5**
**KIV Kislovodsk 125.48 54** *i*P **PKPdf 22 42 08.9 +0.4**
SNR=10
**KIV Kislovodsk 125.48 54** *i*P **Pdif 22 38 44.8 -1.1**
KIV *i* 22 42 09.3
KIV *e* 22 43 58.8
KIV *e*PPP PPP 22 46 38.3
KIV *e*PS **PS 22 53 58.4 -3.0**
KIV pmax pmax
comp=Z,32nm,1.1s
KIV MLR MLR
comp=Z,2μm,22.0s
**KIV Kislovodsk 125.48 54** *e*PKPdf **PKPdf 22 42 09.3 +0.7**
KIV LR LR
comp=Z,2μm,22.0s
**KIV Kislovodsk 125.48 54** P **PKPdf 22 42 09.2 +0.7**
SNR=5.5
**KVAR Kislovodsk Arr 125.48 54** PKP **PKPdf 22 42 09.0 +0.4**
comp=Z,37nm,1.1s,baz=247,slow=2.2,SNR=11
**KBZ Khabaz 125.61 55** PKP **PKPdf 22 42 09.8 +1.1**
comp=Z,15nm,1.0s,baz=302,slow=1.8,SNR=13
**GOF Gofitskoye 125.84 53***i* *e*PKIKP **PKPdf 22 42 10.2 +1.1**
**NCK Nalchik 126.08 55** *i*PKIKP **PKPdf 22 42 10.8 +1.2**
**ZEI Tsey 126.23 56** *i*PKIKP **PKPdf 22 42 10.6 +0.4**
ZEI pmax pmax
comp=Z,8.0nm,1.1s
**WR0 Warramunga Arr 126.30 210** PFAKE 22 42 20.0 +9.2
WR0 LR LR
comp=Z,4μm,18.0s
**WR9 Warramunga Arr 126.31 210** PFAKE 22 42 20.0 +9.1
WR9 LR LR
comp=Z,4μm,19.0s
**WR8 Warramunga Arr 126.32 210** PFAKE 22 42 20.0 +9.1
WR8 LR LR
comp=Z,4μm,18.0s
**WR7 Warramunga Arr 126.33 210** PFAKE 22 42 20.0 +9.1
WR7 LR LR
comp=Z,4μm,18.0s
**WR6 Warramunga Arr 126.34 210** PFAKE 22 42 20.0 +9.1
WR6 LR LR
comp=Z,4μm,19.0s
**WR5 Warramunga Arr 126.36 210** PFAKE 22 42 20.0 +9.1
WR5 LR LR
comp=Z,4μm,18.0s
**WR4 Warramunga Arr 126.37 210** PFAKE 22 42 20.0 +9.0
WR4 LR LR
comp=Z,4μm,19.0s
**WC3 Warramunga Arr 126.38 210** PFAKE 22 42 20.0 +9.0
WC3 LR LR
comp=Z,4μm,18.0s
**WR3 Warramunga Arr 126.38 210** PFAKE 22 42 20.0 +9.0
WR3 LR LR
comp=Z,4μm,18.0s
**WC4 Warramunga Arr 126.39 210** PFAKE 22 42 20.0 +9.0
WC4 LR LR
comp=Z,4μm,18.0s
**WB2 Warramunga Arr 126.40 210** *e*PKPdf **PKPdf 22 42 10.4 -0.6**
WB2 LR LR
comp=Z,4μm,18.0s
**WR1 Warramunga Arr 126.40 210** PFAKE 22 42 20.0 +9.0
WR1 LR LR
comp=Z,4μm,18.0s
**WRA Warramunga Arr 126.40 210** PKP **PKPdf 22 42 10.4 -0.6**
comp=Z,20nm,0.8s,baz=161,slow=1.6,SNR=100
**WRA Warramunga Arr 126.40 210** PKIKP **PKPdf 22 42 10.4 -0.6**
WRA pmax pmax
comp=Z,26nm,1.0s
**WC2 Warramunga Arr 126.41 210** PFAKE 22 42 20.0 +9.0
WC2 LR LR
comp=Z,4μm,18.0s
**WRAB Tennant Creek 126.41 210***c* *i*PKIKP **PKPdf 22 42 11.1 +0.1**
WRAB pmax pmax
comp=Z,116nm,1.2s
**WRAB Tennant Creek 126.41 210** *e*PKPdf **PKPdf 22 42 10.6 -0.4**
WRAB LR LR
comp=Z,4μm,18.0s
**WB3 Warramunga Arr 126.41 210** PFAKE 22 42 20.0 +9.0
WB3 LR LR
comp=Z,4μm,18.0s
**WC1 Warramunga Arr 126.42 210** PFAKE 22 42 20.0 +8.9
WC1 LR LR
comp=Z,3μm,18.0s
**WB4 Warramunga Arr 126.43 210** PFAKE 22 42 20.0 +8.9
WB4 LR LR
comp=Z,4μm,18.0s
**H11S2 WAKE ISLAND Hyl 126.43 273** T T 01 01 24.0
baz=112,slow=75,SNR=270
**H11S1 WAKE ISLAND Hyl 126.44 273** T T 01 01 24.0
baz=112,slow=75,SNR=249
**H11S3 WAKE ISLAND Hyl 126.45 273** T T 01 01 24.1
baz=112,slow=75,SNR=286
**WB5 Warramunga Arr 126.45 210** PFAKE 22 42 20.0 +8.9
WB5 LR LR
comp=Z,4μm,18.0s
**WB6 Warramunga Arr 126.47 210** PFAKE 22 42 20.0 +8.8
WB6 LR LR
comp=Z,4μm,19.0s
**WB8 Warramunga Arr 126.50 210** PFAKE 22 42 20.0 +8.8
WB8 LR LR
comp=Z,4μm,18.0s
**WB9 Warramunga Arr 126.52 210** PFAKE 22 42 20.0 +8.8
WB9 LR LR
comp=Z,8μm,18.0s
**GNI Garni 126.53 59** PKP **PKPdf 22 42 12.3 +1.5**
comp=Z,12nm,1.0s,baz=142,slow=9.5,SNR=6.7
**GNI Garni 126.53 59** *i*P **PKPdf 22 42 12.1 +1.4**
SNR=6.9
**GNI Garni 126.53 59***c* *i*PKIKP **PKPdf 22 42 13.0 +2.2**
GNI pmax pmax
comp=Z,69nm,1.2s
**GNI Garni 126.53 59** *e*PKPdf **PKPdf 22 42 12.6 +1.9**
GNI LR LR
comp=Z,3μm,21.0s
**GNI Garni 126.53 59** P **PKPdf 22 42 12.2 +1.5**
**WB0 Warramunga Arr 126.53 210** PFAKE 22 42 20.0 +8.7
WB0 LR LR
comp=Z,4μm,19.0s
**H11N3 WAKE ISLAND Hyl 126.69 275** T T 01 01 42.2
baz=110
**H11N1 WAKE ISLAND Hyl 126.70 275** T T 01 01 44.1
baz=110
**H11N2 WAKE ISLAND Hyl 126.70 275** T T 01 01 42.0
baz=110
**COEN Coen 126.72 223** *e*PKPdf **PKPdf 22 42 12.2 +0.5**
COEN LR LR
comp=Z,5μm,22.0s
**NAX Nakhchivan 126.97 60** PKIKP **PKPdf 22 42 11.5 0.0**
**RABL Rabaul 127.48 240** PFAKE 22 42 30.0 +17
RABL LR LR
comp=Z,2μm,21.0s
**PMG Port Moresby 127.56 230** PKP **PKPdf 22 42 14.6 +1.3**
comp=Z,25nm,0.8s,baz=198,slow=4.9,SNR=11
**PMG Port Moresby 127.56 230***c* *i*PKIKP **PKPdf 22 42 14.8 +1.5**
PMG pmax pmax
comp=Z,136nm,1.0s
**PMG Port Moresby 127.56 230** *e*PKPdf **PKPdf 22 42 14.6 +1.3**
PMG LR LR
comp=Z,4μm,19.0s
**GANJ Ganja 127.79 59** PKIKP **PKPdf 22 42 13.1 +0.1**
**ZKTA Zakatala 128.12 57** PKIKP **PKPdf 22 42 13.7 +0.1**
**MNGR Mingechevir, A 128.38 59** PKIKP **PKPdf 22 42 14.2 +0.2**
**SEKA Sheki 128.51 58** PKIKP **PKPdf 22 42 14.6 +0.2**
**PATS Pohnpei 128.78 255** PFAKE 22 42 30.0 +14
PATS LR LR
comp=Z,6μm,19.0s
**MAK Makhachkala 128.88 56** *i*P **Pdif 22 38 55.0 -5.9**
MAK *e* 22 44 18.3
MAK *e*PPP PPP 22 47 04.5
MAK *e* 22 49 14.4
MAK *e*SSS SSS 23 06 24.0
MAK pmax pmax
comp=Z,301nm,1.0s
**LKRN Lenkeran, Azer 129.45 61** PKIKP **PKPdf 22 42 16.2 +0.1**
**MBWA Marble Bar 130.08 193** *e*PKPdf **PKPdf 22 42 18.6 +0.6**
MBWA LR LR
comp=Z,3μm,20.0s
**DGAR Diego Garcia 130.28 130** PFAKE 22 42 30.0 +12
DGAR LR LR
comp=Z,7μm,20.0s
**FAQ Al Faqa, Dubai 132.46 81** *i*P **PKPdf 22 42 22.9 +0.6**
SNR=6.1
**FAQ Al Faqa, Dubai 132.46 81** P **PKPdf 22 42 22.7 +0.4**
**ASHO Ashiyiah 132.85 81** P **PKPdf 22 42 23.4 +0.3**
**HATD Hatta, Dubai 132.95 81** P **PKPdf 22 42 23.6 +0.4**
**UOSS Minazif 133.05 81** PFAKE 22 42 40.0 +17
UOSS LR LR
comp=Z,6μm,19.0s
**MTN Manton Dam 134.08 211** *e*PKPdf **PKPdf 22 42 25.9 +0.3**
MTN LR LR
comp=Z,3μm,20.0s
**ARU Arti 134.54 37** PKP **PKPdf 22 42 26.1 +0.9**
comp=Z,8.9nm,0.7s,baz=303,slow=1.8,SNR=19
**ARU Arti 134.54 37** *i*PKIKP **PKPdf 22 42 26.3 +1.1**
ARU 22 44 54.9
ARU MLR MLR
comp=Z,4μm,20.0s
**ARU Arti 134.54 37** *e*PKPdf **PKPdf 22 42 25.5 +0.3**
ARU *e*PP **PP 22 44 54.5 -3.7**
ARU LR LR
comp=Z,4μm,20.0s
**WSAR Wadi Sarin 134.70 84** P **PKPdf 22 42 27.0 +0.5**
**TIXI Tiksi 134.86 351** PKP **PKPdf 22 42 24.8 -0.6**
comp=Z,9.1nm,0.8s,baz=45,slow=2.4,SNR=13
**TIXI Tiksi 134.86 351** *i*PKIKP **PKPdf 22 42 26.2 +0.8**
TIXI pmax pmax
comp=Z,16nm,1.0s
**TIXI Tiksi 134.86 351** *e*PKPpre PKPpre 22 42 17.6
TIXI *e*PKPdf **PKPdf 22 42 25.6 +0.3**
TIXI LR LR
comp=Z,2μm,20.0s
**SEY Seymchan 135.06 334** PKP **PKPdf 22 42 26.6 +0.7**
comp=Z,16nm,0.7s,baz=147,slow=4.1,SNR=22
**SEY Seymchan 135.06 334***c* *i*PKIKP **PKPdf 22 42 28.5 +2.5**
**SVE Sverdlovsk 135.50 36** *e*PKIKP **PKPdf 22 42 28.6 +1.6**
SVE pmax pmax
comp=Z,46nm,2.3s
**AKTO Aktyubinsk 135.68 45** PKP **PKPdf 22 42 27.9 +0.3**
comp=Z,6.8nm,0.9s,baz=339,slow=0.9,SNR=10
**PETK Petropavlovsk- 136.29 319** PKP **PKPdf 22 42 30.1 +1.5**
comp=Z,14nm,0.8s,baz=88,slow=5.8,SNR=12
**GEYT Alibeck 136.71 63** PKP **PKPdf 22 42 30.7 +0.8**
comp=Z,13nm,0.9s,baz=257,slow=4.5,SNR=16
GEYT PP **PP 22 45 12.6 -0.2**
comp=Z,4.0nm,0.9s,baz=289,slow=4.5,SNR=4.9
**GENI Genyem 137.25 230** PKP **PKPdf 22 42 33.9 +2.3**
**MA2 Magadan 137.41 330** PKP **PKPdf 22 42 31.9 +1.4**
comp=Z,7.7nm,0.5s,baz=40,slow=16,SNR=4.0
**SKR Severo-Kuril's 137.87 316** *i*PKHKP PKPpre 22 42 20.1
**SAUI Saumlaki 138.22 215** PFAKE 22 42 50.0 +17
SAUI LR LR
comp=Z,3μm,20.0s
**SOEI Soe 139.68 204** PKP **PKPdf 22 42 38.3 +2.1**
**SOEI Soe 139.68 204** *e*PKPpre PKPpre 22 42 30.2
SOEI *e*PKPdf **PKPdf 22 42 37.7 +1.5**
SOEI LR LR

comp=Z,7μm,20.0s
**WBSI Waikabubak, Su 141.28 197 PKP PKPdf 22 42 41.2 +2.2**
**MMRI Maumere 141.41 202 PFAKE 22 42 50.0 +11**
MMRI LR LR
comp=Z,3μm,22.0s
**EDFI Ende, Flores 141.48 201 PKP PKPdf 22 42 33.5 -6.0**
**XMIS Christmas Isla 141.69 175 PFAKE 22 42 50.0 +10**
XMIS LR LR
comp=Z,2μm,19.0s
**FAKI Fak Fak 141.95 220 PFAKE 22 42 50.0 +10**
FAKI LR LR
comp=Z,2μm,20.0s
**BRVK Borovoye 142.09 38 ePKPpre PKPpre 22 42 35.7**
BRVK *e*PKPdf **PKPdf 22 42 40.4 +1.2**
BRVK LR LR
comp=Z,3μm,20.0s
**BVAR Borovoye Array 142.16 38 PKhKP PKPpre 22 42 35.2**
comp=Z,2.9nm,0.7s,baz=270,slow=3.0,SNR=11
**YAK Yakutsk 143.21 344 PKP PKPbc 22 42 38.6 +0.8**
comp=Z,29nm,0.7s,baz=358,slow=2.0,SNR=11
**YAK Yakutsk 143.21 344** *i* PKIKP PKPbc 22 42 38.2 +0.4
YAK *e* 22 45 48.1
YAK pmax pmax
comp=Z,79nm,1.0s
YAK pmax pmax
comp=N,11nm,1.1s
YAK pmax pmax
comp=E,16nm,1.3s
YAK pmax pmax
comp=E,241nm,3.6s
YAK pmax pmax
comp=N,58nm,2.2s
YAK pmax pmax
comp=Z,483nm,2.9s
**YAK Yakutsk 143.21 344 PKP PKPbc 22 42 38.6 +0.8**
YAK LR LR
comp=Z,2μm,21.0s
**JAGI Jajag, Banyuwa 143.45 189** *e*PKPdf PKPbc 22 42 41.3 +1.3
JAGI LR LR
comp=Z,2μm,19.0s
**GUMO Guam 143.59 254 PKP PKPbc 22 42 41.1 +0.8**
comp=Z,82nm,0.6s,baz=197,slow=15,SNR=3.6
**PCJI Pacitan 144.02 184 PKP PKPbc 22 42 42.4 +0.8**
**PWJI Pagerwojo 144.15 185 PKP PKPbc 22 42 42.3 +0.3**
**BLJI Banyuglugur 144.24 188 PKP PKPdf 22 42 43.7 -0.5**
**BSSI Bau Bau, Buton 144.31 200 PKP PKPab 22 42 42.7 +0.5**
**UGM Wanagama 144.33 183 PKP PKPbc 22 42 43.5 +0.9**
**UGM Wanagama 144.33 183** *e*PKPdf **PKPdf 22 42 44.0 -0.4**
UGM LR LR
comp=Z,3μm,21.0s
**NLAI Namlea 144.38 212 PKP PKPbc 22 42 43.9 +1.1**
**KUR Kuril'sk 144.65 310***c i*PKIKP PKPbc 22 42 43.5 +0.8
KUR *i* 22 42 50.4
KUR *i* 22 46 03.1
KUR *e*PPP PPP 22 49 13.6
KUR pmax pmax
comp=Z,3μm,12.1s
**CISI Cisompet, Garu 144.71 178 PKP PKPab 22 42 43.9 +0.2**
**CISI Cisompet, Garu 144.71 178** *e*PKPdf **PKPab 22 42 44.0 +0.2**
CISI LR LR
comp=Z,4μm,20.0s
**BRZS Berezniki 144.77 41** *e*PKP **PKPdf 22 42 44.0 0.0**
**KMMI Kalianget 144.88 189 PKP PKPdf 22 42 45.2 -0.1**
**CNJI Cibinong 144.93 177 PKP PKPab 22 42 43.9 -0.5**
**KPJI Karang Pucung 144.94 180 PKP PKPab 22 42 44.7 +0.2**
**CHM Chimkent 145.15 55 LR LR 23 50 32.4**
comp=Z,559nm,22.6s
**BRLS Borolday 145.17 54** *i* PKP **PKPbc 22 42 44.7 +0.1**
comp=Z,78nm,1.3s
**GRJI Gresik 145.18 186 PKP PKPdf 22 42 46.3 +0.5**
**SMRI Semarang 145.19 183 PKP PKPdf 22 42 46.6 +0.7**
**SMRI Semarang 145.19 183** *e*PKPbc **PKPdf 22 42 47.1 +1.2**
SMRI LR LR
comp=Z,5μm,21.0s
**SKJI Sukabumi 145.20 176 PKP PKPdf 22 42 46.1 +0.2**
**KBL Kabul 145.48 69** *e*PKP2 **PKPbc 22 42 45.8 -0.3**
KBL MLR MLR
comp=Z,3μm,18.0s
**KBL Kabul 145.48 69** *e*PKPbc **PKPbc 22 42 46.2 +0.1**
KBL LR LR
comp=Z,3μm,18.0s
**IUG Iuzhnay 145.50 55** *e*PKP **PKPdf 22 42 45.4 -0.3**
comp=Z,770nm,1.3s
IUG *e*PP **PP 22 46 05.9 -0.3**
**NKL Nikolayevsk 145.57 326** *e*PKP2 **PKPdf 22 42 45.0 -0.2**
NKL *e* 22 46 09.0
NKL pmax pmax
comp=Z,300nm,1.3s
NKL pmax pmax
comp=Z,6μm,12.0s
NKL MLR MLR
comp=Z,1μm,12.0s
**KAPI Kappang 145.60 199 PFAKE 22 43 00.0 +13**
KAPI LR LR
comp=Z,2μm,22.0s
**DBJI Dramaga 145.66 176 PKP PKPab 22 42 47.6 +0.5**
**PALK Pallekele 146.35 122** *i* P **PKPbc 22 42 49.5 +0.5**
SNR=9.1
**PALK Pallekele 146.35 122***c i*PKP2 **PKPab 22 42 50.7 +0.8**
**PALK Pallekele 146.35 122** *e*PKPdf **PKPab 22 42 50.0 +0.1**
PALK LR LR
comp=Z,5μm,20.0s
**NVS Novosibirsk 147.30 28** *e*PKIKP **PKPbc 22 42 49.6 -0.9**
NVS pmax pmax
comp=Z,265nm,1.4s
NVS pmax pmax
comp=N,17nm,1.0s
NVS pmax pmax
comp=E,48nm,1.3s
**MNAI Manna 147.39 169** *e*PKPdf **PKPdf 22 42 48.7 -0.9**
MNAI *e*PKPbc **pPKPdf 22 42 53.3 -1.0**
**YSS Yuzh-Sakhalins 147.42 315⇑** *e*PKP2 **PKPbc 22 42 52.1 +1.1**
YSS pmax pmax
comp=Z,70nm,0.9s
YSS pmax pmax
comp=Z,4μm,14.0s
**YSS Yuzh-Sakhalins 147.42 315** *ep*PKPdf **pPKPdf 22 42 52.2 -1.0**
YSS LR LR
comp=Z,1μm,22.0s
**BTLS Baital 147.52 49** *i* PKP **PKPdf 22 42 49.0 +0.1**
comp=Z,195nm,1.7s
BTLS *e*PP **PP 22 46 17.8 -0.1**
**KURK Kurchatov 147.74 37** *e*PKIKP **PKPdf 22 42 50.0 +1.0**
KURK MLR MLR
comp=Z,4μm,21.0s
**KURK Kurchatov 147.74 37** *ep*PKPdf **PKPbc 22 42 51.4 -0.4**
KURK LR LR
comp=Z,4μm,21.0s
**KURBB Kurchatov Arra 147.74 37** PKPbc **PKPdf 22 42 50.4 +1.4**
comp=Z,45nm,0.9s,baz=303,slow=3.1,SNR=74
**URV Uravakonda 147.97 107** *e*PKPdf **PKPdf 22 42 50.8 +0.3**
URV *e*PP **PP 22 46 20.6 -0.6**
URV IVMs_BB IVMs_BB 23 44 37.3
comp=Z,2μm,20.5s
**EKS2 Erkin-Say 148.07 53 P PKPdf 22 42 51.3 +1.3**
SNR=45
**AML Almayashu 148.15 54 P PKPdf 22 42 52.1 +1.6**
SNR=32
**LUWI Luwuk 148.25 207** *e*PKPdf **PKPdf 22 42 52.8 +1.8**
LUWI *e*PKPbc **sPKPdf 22 42 55.6 -1.7**
LUWI LR LR
comp=Z,2μm,22.0s
**ASAJ Asahikawa 148.57 310** PKPbc **PKPdf 22 42 52.6 +2.1**
comp=Z,32nm,0.9s,baz=222,slow=5.5,SNR=8.4
**ASAJ Asahikawa 148.57 310** *ep*PKPdf **PKPbc 22 42 54.7 +0.5**
**AAK Ala-Archa 148.58 53***c i*PKIKP **PKPdf 22 42 52.0 +1.1**
**AAK Ala-Archa 148.58 53** P **PKPdf 22 42 52.5 +1.5**
SNR=49
**AAK Ala-Archa 148.58 53** *e*PKPdf **PKPdf 22 42 52.4 +1.5**
AAK *e*PKPbc **PKiKP 22 42 56.4 +0.4**
AAK LR LR
comp=Z,3μm,20.0s
**ZAA0 Zalesovo Array 148.59 28** *e*PKPdf **PKPdf 22 42 50.9 +0.6**
ZAA0 *e*PKPbc **PKiKP 22 42 55.4 0.0**
ZAA0 LR LR
comp=Z,4μm,22.0s
**ZALV Zalesovo Beam 148.59 28** PKPbc **PKPdf 22 42 51.8 +1.5**
comp=Z,73nm,0.8s,baz=294,slow=1.5,SNR=80
**ZALV Zalesovo Beam 148.59 28** *e*PKIKP **PKPdf 22 42 51.4 +1.1**
ZALV *e* 22 42 55.4
**ZALV Zalesovo Beam 148.59 28** *e*PKPdf **PKPdf 22 42 51.4 +1.1**
ZALV *e*PKPbc **PKiKP 22 42 55.4 0.0**
**FRU Bishkek 148.61 53** *i* PKIKP **PKPdf 22 42 52.5 +1.7**
FRU *e* 22 46 20.0
FRU pmax pmax
comp=Z,490nm,1.8s
**CHMS Chumysh 148.66 52 P PKPdf 22 42 52.3 +1.5**
SNR=39
**UCH Uchtor 148.71 54 P PKPdf 22 42 53.2 +1.7**
SNR=51
**SEM Semipalatinsk 148.77 36** *i* PKP **PKPdf 22 42 50.8 -0.2**
comp=Z,187nm,1.6s
SEM *e*PKiKP **PKiKP 22 42 56.7 +0.5**
SEM *i* PP **PP 22 46 25.0 0.0**
SEM *i* SS SS 23 05 36.1 +1.4
SEM LRM MLR 23 48 35.2
comp=Z,894nm,22.5s
**KLRI Killari 148.80 101** *e*PKPdf **PKPdf 22 42 51.9 +0.1**
KLRI *e*PP **PP 22 46 25.2 -1.0**
KLRI IVMs_BB IVMs_BB 23 44 54.9
comp=Z,3μm,20.2s
**ERM Erimo 148.81 306 PFAKE 22 43 00.0 +1.2**
ERM LR LR
comp=Z,3μm,20.0s
**KBK Karagaybulak 148.90 53 P PKPdf 22 42 52.7 +1.3**
SNR=20
**CLNS Chul'man 148.94 343** *e*PKIKP **PKPbc 22 42 54.0 -0.8**
CLNS pmax pmax
comp=Z,49nm,1.2s
CLNS pmax pmax
comp=N,29nm,1.3s
CLNS pmax pmax
comp=E,18nm,1.2s
**TKM2 Tokmak 2 149.27 52 P PKPdf 22 42 53.4 +1.3**
SNR=25
**SKHT Srikalahasti 149.41 112** *e*PKPbc **PKPdf 22 42 54.1 +1.3**
SKHT *e*PP **PP 22 46 28.1 -1.3**
SKHT IVMs_BB IVMs_BB 23 44 34.2
comp=Z,2μm,21.1s
**KUU Kurty 149.46 50** *i* PKP **PKPdf 22 42 52.4 +0.4**
comp=Z,121nm,1.3s
KUU *i* PP **PP 22 46 29.5 +0.3**
KUU *e*SS SS 23 05 44.0 +1.1
KUU LR LR 23 52 45.1
comp=Z,430nm,17.9s
**SRLM Srisailam 149.91 107** *e*PKPdf **PKPdf 22 42 53.9 +0.3**
SRLM *e*PP **PP 22 46 29.8 -2.7**
SRLM IVMs_BB IVMs_BB 23 48 35.6
comp=Z,1μm,17.0s
**BOD Bodaibo 149.91 355** *e*PKIKP **PKPdf 22 42 52.5 +0.2**
BOD pmax pmax
comp=Z,122nm,1.5s
**ULHL Ulahol 149.93 53 P PKPdf 22 42 55.3 +2.2**
SNR=12
**AAA Alma-Ata 150.09 51** *e*PKHKP **PKPdf 22 42 54.8 +1.6**
AAA pmax pmax
comp=Z,2μm,4.8s
AAA MLR MLR
comp=Z,2μm,25.0s
**AAA Alma-Ata 150.09 51** *e*PKP **PKPdf 22 42 53.1 0.0**
AAA *i* PKiKP **PKiKP 22 42 59.7 +0.7**
comp=Z,756nm,1.4s
AAA *e*PP **PP 22 46 33.2 +0.2**
AAA LR LR 23 53 15.1
comp=Z,688nm,19.2s
**MDOK Medeo 150.20 51** *i* PKP **PKPdf 22 42 53.6 +0.1**
comp=Z,144nm,1.6s
MDOK *i* PKiKP **PKiKP 22 43 00.1 +0.7**
MDOK *e*PP **PP 22 46 33.6 -0.1**
MDOK *e*SS SS 23 05 52.1 +0.7
MDOK LR LR 23 54 45.1
comp=Z,608nm,19.3s
**HYBB Hyderabad (bro 150.21 104** *e*PKPdf **PKPdf 22 42 54.7 +0.7**
HYBB *e*SKKSac SKKSac 22 53 21.4 -3.9
HYBB IVMs_BB IVMs_BB 23 53 24.4
comp=Z,1μm,15.8s
**HYB Hyderabad 150.21 104** *i* PKP **PKPdf 22 42 55.0 +1.0**
**KSH Kashi 150.46 58** PKPbc **PKPdf 22 42 54.6 +0.7**
KSH PP **PP 22 46 36.5 +1.1**
KSH SKS **SKSdf 22 49 59.6 -1.9**
KSH SKKS **SKKSac 22 53 23.8 -2.2**
KSH SS **SS 23 05 53.2 -1.6**
KSH AMB AMB
comp=Z,1μm,5.7s
KSH LR LR
comp=Z,3μm,18.6s
KSH LR LR
comp=Z,2μm,16.0s
KSH LR LR
comp=Z,2μm,12.7s
**NJS Nagarjunasagar 150.47 106** *e*PKPdf **PKPdf 22 42 53.6 -0.7**
NJS *e*PP **PP 22 46 35.6 -0.1**
NJS IVMs_BB IVMs_BB 23 56 49.1
comp=Z,2μm,17.9s
**CBIJ Chichi jima 150.49 276 PFAKE 22 43 10.0 +3.9**
CBIJ LR LR
comp=Z,3μm,19.0s
**SRSP Sriramsagar 150.66 101** *e*PKPdf **PKPdf 22 42 54.8 +0.1**
SRSP *e*PP **PP 22 46 35.4 -1.5**
SRSP IVMs_BB IVMs_BB 23 44 01.2
comp=Z,1μm,20.2s
**ADKI Addanki 150.69 108** *e*PKPdf **PKPdf 22 42 55.2 +0.5**
ADKI *e*PP **PP 22 46 36.5 -0.4**
ADKI *e*SKKSac SKKSac 22 53 24.1 -3.7
ADKI IVMs_BB IVMs_BB 23 48 21.4
comp=Z,2μm,19.7s
**ZHN Zhinishke 151.14 50 LR LR 23 53 48.1**
comp=Z,822nm,17.3s
**HABR Khabarovsk 151.19 322***ce*PKIKP **PKPdf 22 42 54.5 0.0**
HABR *e* 22 43 00.8
HABR *i* 22 43 01.7
HABR *e* 22 43 08.7
HABR *e* 22 50 02.2
HABR *e* 22 50 09.0
HABR *e*SS SS 23 06 04.4 +3.2
HABR *e*SSS SSS 23 11 48.0
HABR pmax pmax
comp=E,37nm,1.3s
HABR pmax pmax
comp=N,32nm,1.3s
HABR pmax pmax
comp=Z,217nm,1.3s
**KPKS Kokpek 151.20 49** *e*PKP **PKPdf 22 42 55.0 +0.1**
comp=Z,312nm,1.7s
KPKS *e*PP **PP 22 46 38.8 -0.5**
KPKS LR LR 23 54 26.8
comp=Z,954nm,21.3s
**GSI Gunungsitoli 151.40 156** *e*PKPdf **PKPdf 22 42 56.8 +0.8**
GSI *e*PKPbc **PKiKP 22 43 03.6 +1.1**
GSI LR LR
comp=Z,3μm,20.0s
**RPR Rampur 151.46 102** *e*PKPdf **PKPdf 22 42 56.2 +0.4**
RPR *e*PP **PP 22 46 42.4 +1.0**
RPR IVMs_BB IVMs_BB 23 48 28.9
comp=Z,1μm,16.7s
**BKNI Bangkinang 151.54 163 PFAKE 22 43 10.0 -0.6**
BKNI LR LR
comp=Z,4μm,21.0s
**MAKZ Makanchi 151.73 41** *e*PKIKP **PKPbc 22 43 01.1 -0.7**
MAKZ MLR MLR
comp=Z,5μm,22.0s
**MAKZ Makanchi 151.73 41** *e*PKPbc **PKPbc 22 43 01.1 -0.7**
MAKZ LR LR
comp=Z,5μm,22.0s
**SHLS Shalkode 151.84 50** *e*PKP **PKPdf 22 42 56.2 +0.2**
comp=Z,202nm,1.5s
SHLS *e*PP **PP 22 46 44.3 +1.3**
**MK31 Makanchi Array 151.92 41** *e*PKIKP **PKPdf 22 42 56.7 +0.9**
**MAKZ Makanchi Array 151.92 41** *e*PKPdf **PKPdf 22 42 56.7 +0.9**
MK31 *e*PKPbc **PKPbc 22 43 02.2 0.0**
MK31 *e*PKPab **pPKPab 22 43 13.5 -2.6**
**MKAR Makanchi Array 151.92 41** PKP **PKPdf 22 42 56.0 +0.2**
comp=Z,5.6nm,0.9s,baz=318,slow=1.6,SNR=15
MKAR PKPbc **PKPbc 22 43 02.5 +0.2**
comp=Z,57nm,0.9s,baz=317,slow=2.2,SNR=62
**MK01 Makanchi Array 151.94 41** *e*PKPdf **PKPdf 22 42 56.0 +0.2**
MK01 *e*PKPbc **PKiKP 22 43 03.2 +0.6**
MK01 *e*PKPab **pPKPab 22 43 13.7 -2.5**
**PVM Polavaram 152.75 107** *e*PKPdf **PKPdf 22 42 58.1 +0.3**
PVM *e*PP **PP 22 46 50.9 +2.2**
PVM IVMs_BB IVMs_BB 23 48 34.4
comp=Z,1μm,18.4s
**PSI Prapat 153.27 157** *e*PKIKP **PKPdf 22 42 59.6 +0.7**
PSI MLR MLR
comp=Z,5μm,20.0s
**PSI Prapat 153.27 157** *e*PKPdf **PKPdf 22 42 59.6 +0.7**
PSI *e*PKPbc **PKPbc 22 43 06.4 0.0**
PSI *e*PKPab **PKPab 22 43 18.2 +0.2**
PSI LR LR
comp=Z,5μm,20.0s
**JBP Jabalpur 153.54 94⇑** *e*P **PKPdf 22 42 60.0 +1.1**
**MYKOM Kota Tinggi 153.56 169** *e*PKPbc **PKPbc 22 43 06.8 -0.1**
MYKOM LR LR
comp=Z,3μm,20.0s
**KSM Kuching 153.65 183** *e*PKPdf **PKPdf 22 43 00.3 +0.9**
KSM *e*PKPbc **PKPbc 22 43 07.3 +0.3**
KSM *e*PKPab **PKPab 22 43 20.4 +0.9**
KSM LR LR
comp=Z,2μm,21.0s
**MJAR Matsushiro Arr 153.81 297** PKP **PKPdf 22 42 59.7 +0.8**
comp=Z,6.7nm,1.1s,baz=214,slow=0.2,SNR=13
MJAR PKPbc **PKiKP 22 43 07.6 +0.8**
comp=Z,8.3nm,0.8s,baz=128,slow=1.8,SNR=16
MJAR PKPab **PKPab 22 43 20.3 +0.4**
comp=Z,24nm,1.0s,baz=115,slow=2.1,SNR=15
**MAJO Matsushiro 153.82 297** *e*PKIKP **PKPdf 22 42 59.4 +0.5**
MAJO *e* 22 43 21.5
MAJO MLR MLR
comp=Z,3μm,22.0s
**MAJO Matsushiro 153.82 297** *e*PKPdf **PKPdf 22 42 59.4 +0.5**
MAJO *e*PKPbc **pPKPbc 22 43 09.2 -2.4**
MAJO *e*PKPab **PKPab 22 43 21.5 +1.6**
MAJO LR LR
comp=Z,3μm,22.0s
**MAT Matsushiro 153.82 297** *e*PKP **PKPdf 22 42 58.7 -0.2**
**MJB9 Matsu-Tunnel 153.82 297** *e*PKPdf **PKPdf 22 42 59.2 +0.4**
MJB9 *e*PKPbc **pPKPbc 22 43 09.2 -2.4**
MJB9 *e*PKPab **PKPab 22 43 20.7 +0.9**
MJB9 LR LR
comp=Z,3μm,22.0s
**DAV Davao City (W) 153.90 220 PFAKE 22 43 10.0 +2.4**
DAV LR LR
comp=Z,2μm,18.0s
**LHMI Lhok Sumawe 154.74 151** *e*PKPbc **PKPbc 22 43 09.5 +0.1**
LHMI *e*PKPab **PKPab 22 43 22.4 -1.7**
LHMI LR LR
comp=Z,4μm,22.0s
**INU Inuyama 154.97 294** *e*PKPdf **PKPdf 22 43 01.2 +0.8**
INU *e*PKPbc PKPbc 22 43 09.1 -0.1
INU LR LR
comp=Z,2μm,19.0s
**USRK Ussuriysk Ar. 155.37 317** PKP **PKPdf 22 43 02.5 +1.8**
comp=Z,2.7nm,0.8s,baz=9.5,slow=4.6,SNR=4.1
USRK PKPbc PKPbc 22 43 11.1
comp=Z,8.5nm,0.8s,baz=63,slow=0.9,SNR=8.2
USRK PKPab **PKPab 22 43 26.7 +0.6**
comp=Z,14nm,0.9s,baz=47,slow=3.1,SNR=7.6
**CHLP Challavanipeta 155.39 107** *e*PKPdf **PKPdf 22 43 02.3 +0.8**
CHLP *e*PP **PP 22 47 04.0 +0.5**
CHLP *e*SKKSac SKKSac 22 53 49.8 -3.4
CHLP IVMs_BB IVMs_BB 23 50 39.1
comp=Z,1μm,20.3s
**IRK Irkutsk 155.47 7** *e*PKIKP **PKPdf 22 43 01.7 +1.0**
IRK *e* 22 47 03.7
**IPM Ipoh 155.51 161** *e*PKPdf **PKPdf 22 43 01.0 -0.9**
IPM *e*PKPdif PKPdf 22 43 09.9 +8.0
IPM LR LR
comp=Z,2μm,20.0s
**MOY Mondy 155.56 12** *e*PKIKP **PKPdf 22 43 03.5 +2.6**
**MYLDM Lahad Datu 155.59 204 PFAKE 22 43 10.0 +8.0**
MYLDM LR LR
comp=Z,3μm,20.0s
**TLY Talaya 155.96 8** PKP **PKPdf 22 43 02.6 +1.3**
comp=Z,5.7nm,0.9s,baz=184,slow=1.6,SNR=5.5
TLY PKPab **PKPab 22 43 28.3 -0.1**
comp=Z,11nm,0.8s,baz=320,slow=3.3,SNR=7.3
**TLY Talaya 155.96 8***c i*PKIKP **PKPdf 22 43 02.3 +1.0**
TLY *e* 22 47 04.4
TLY *e*SS SS 23 06 53.7 +1.6
TLY pmax pmax
comp=Z,39nm,1.5s
**TLY Talaya 155.96 8** PKP **PKPdf 22 43 02.6 +1.3**
TLY PKPab **PKPab 22 43 28.3 -0.1**
TLY LR LR
comp=Z,3μm,20.0s
**KULM Kulim 156.16 159** *e*PKPdf **PKPdf 22 43 02.9 +0.2**
KULM *e*PKPab **PKPab 22 43 30.6 +0.5**
KULM LR LR
comp=Z,3μm,20.0s
**MDJ Mudanjiang 156.52 321** PKP **PKPdf 22 43 02.1 -0.2**
MDJ pPKP pPKP 22 43 06.8
MDJ sPKP sPKP 22 43 08.3
MDJ PP **PP 22 47 10.5 +1.7**
MDJ SKS **SKSdf 22 50 08.5 +0.5**
MDJ SS **SS 23 07 01.9 +2.4**
MDJ LR LR
comp=Z,1μm,24.9s
MDJ LR LR
comp=Z,1μm,17.2s
MDJ LR LR
comp=Z,3μm,18.4s
**MDJ Mudanjiang 156.52 321 PFAKE 22 43 10.0 +7.7**
MDJ LR LR
comp=Z,4μm,20.0s
**WMQ Urumqi 156.74 41** PKP **PKPdf 22 43 04.0 +1.3**
WMQ PKPab **pPKPab 22 43 34.2 -2.6**
WMQ PP **PP 22 47 10.6 +0.4**
WMQ SKKS 22 54 00.2
WMQ SS **SS 23 07 02.7 +0.5**
WMQ AMB AMB
comp=Z,4μm,11.1s
WMQ LR LR
comp=Z,5μm,20.7s
WMQ LR LR
comp=Z,5μm,19.9s
WMQ LR LR
comp=Z,5μm,27.7s
**HIA Hailar 157.11 341** *e*PKIKP **PKPdf 22 43 03.2 +0.3**
HIA MLR MLR
comp=Z,3μm,21.0s
**HIA Hailar 157.11 341** *e*PKPdf **PKPdf 22 43 03.2 +0.3**
HIA *e*PKPab **PKPab 22 43 34.6 +1.2**
HIA LR LR
comp=Z,3μm,21.0s
**KKM Kota Kinabalu 157.14 199 PFAKE 22 43 20.0 -14**
KKM LR LR
comp=Z,3μm,22.0s
**PYUN Piuthan 157.16 83** *e*P **PKPdf 22 43 04.3 +0.4**
**ZAK Zakamensk 157.18 9** *e*PKIKP **PKPdf 22 43 04.0 +0.9**
ZAK pmax pmax
comp=Z,21nm,1.4s
ZAK pmax pmax
comp=Z,32nm,1.4s
**KOLN Koldanda 157.67 84** *e*P **PKPdf 22 43 04.7 +0.2**
comp=Z,101nm,1.4s
**DANN Dangsing 157.87 83** *e*P **PKPdf 22 43 05.9 +1.0**
comp=Z,13nm,1.0s
**DMN Daman 158.98 85** *e*P **PKPdf 22 43 06.9 +0.7**
**KKN Kakani 159.15 85** *e*P **PKPdf 22 43 07.0 +0.7**
**PKIN Phulchoki 159.23 85** *e*P **PKPdf 22 43 07.7 +1.2**
**PKI Pulchoki 159.24 85** *e*P **PKPdf 22 43 07.1 +0.5**
comp=Z,82nm,1.4s
**CN2 Changchun 159.29 324** *e*PKP **PKPdf 22 43 05.1 -0.6**
CN2 PP **PP 22 47 26.8 +2.9**
CN2 SS SS 23 07 27.1 -1.8
CN2 AMB AMB
comp=Z,700nm,6.0s
CN2 LR LR
comp=Z,900nm,20.0s
CN2 LR LR
comp=Z,2μm,20.0s
CN2 LR LR
comp=Z,2μm,20.0s
**GUN Gumba 159.69 85** *e*P **PKPdf 22 43 07.4 +0.3**
**JIRN Jiri 159.94 85** *e*P **PKPdf 22 43 07.4 0.0**
**SONA1 Songino Array 160.03 5** *e*PKPdf **PKPdf 22 43 07.3 +0.7**
SONA1 *e*PKPab **PKPab 22 43 47.2 +1.0**
SONA1 *e*PP **PP 22 47 28.9 +1.5**
**SONM Songino Array 160.04 5** PKP **PKPdf 22 43 07.4 +0.8**
comp=Z,9.9nm,1.0s,baz=230,slow=0.8,SNR=35
SONM PKPab **PKPab 22 43 47.9 +1.6**
comp=Z,9.6nm,0.9s,baz=328,slow=2.9,SNR=8.8
SONM PP **PP 22 47 29.0 +1.6**
comp=Z,8.4nm,1.2s,baz=318,slow=2.7,SNR=7.6
**ULN Ulaanbaatar 160.05 4** *e*PKIKP **PKPdf 22 43 07.5 +0.8**
ULN MLR MLR
comp=Z,3μm,20.0s
**ULN Ulaanbaatar 160.05 4** *e*PKPdf **PKPdf 22 43 07.5 +0.8**
ULN *e*PKPab **PKPab 22 43 47.7 +1.4**
ULN *e*PP **PP 22 47 27.1 -0.4**
ULN LR LR
comp=Z,3μm,20.0s
**RAMN Ramite 160.21 88** *e*P **PKPdf 22 43 08.1 +0.5**
comp=Z,77nm,0.9s

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| ODAN | Odare | 160.90 | 88 | eP | PKPdf | 22 43 08.7 | +0.3 |
| | comp=Z,58nm,0.9s | | | | | | |
| TAPN | Taplejung | 161.25 | 87 | eP | PKPdf | 22 43 09.1 | +0.3 |
| | comp=Z,96nm,1.2s | | | | | | |
| KSRS | Korea Array | 161.39 | 305 | PKP | PKPdf | 22 43 09.4 | +1.2 |
| | comp=Z,13nm,1.0s,baz=169,slow=0.8,SNR=15 | | | | | | |
| KSRS | | | | PKPab | PKPab | 22 43 54.2 | +1.8 |
| | comp=Z,14nm,1.2s,baz=51,slow=4.3,SNR=4.7 | | | | | | |
| KS01 | Wonju Array Si | 161.40 | 306 | ePKPdf | PKPdf | 22 43 08.9 | +0.7 |
| KS01 | | | | ePKPab | PKPab | 22 43 53.9 | +1.4 |
| KSAR | Wonju Array Be | 161.42 | 305 | PKIKP | PKPdf | 22 43 09.4 | +1.2 |
| KSAR | | | | | | 22 43 54.2 | |
| KSAR | Wonju Array Be | 161.42 | 305 | PKP | PKPdf | 22 43 09.4 | +1.2 |
| KSAR | | | | PKPab | PKPab | 22 43 54.2 | +1.6 |
| SNY | Shenyang | 161.66 | 323 | PKP | PKPdf | 22 43 07.4 | -0.9 |
| SNY | | | | PP | PP | 22 47 41.1 | +4.4 |
| SNY | | | | AMB | AMB | | |
| | comp=Z,2µm,16.9s | | | | | | |
| SNY | | | | LR | LR | | |
| | comp=Z,740nm,25.4s | | | | | | |
| SNY | | | | LR | LR | | |
| | comp=Z,2µm,24.7s | | | | | | |
| SNY | | | | LR | LR | | |
| | comp=Z,4µm,23.3s | | | | | | |
| LSA | Lhasa | 164.37 | 79 | ePKIKP | PKPdf | 22 43 13.5 | +1.5 |
| LSA | Lhasa | 164.37 | 79 | ePKPdf | PKPdf | 22 43 13.5 | +1.5 |
| LSA | | | | ePKPab | PKPab | 22 44 07.5 | +1.1 |
| SHL | Shillong | 164.65 | 95 | eP | PKPdf | 22 43 18.0 | +6.0 |
| SHL | | | | eS | SKKSac | 22 54 45.0 | +3.4 |
| DL2 | Dalian | 164.74 | 319 | PKP | PKPdf | 22 43 11.5 | +0.1 |
| DL2 | | | | PKPab | PKPab | 22 44 08.4 | +1.4 |
| DL2 | | | | PP | PP | 22 47 59.7 | +6.6 |
| DL2 | | | | AMB | AMB | | |
| | comp=Z,1µm,8.8s | | | | | | |
| DL2 | | | | LR | LR | | |
| | comp=Z,2µm,20.8s | | | | | | |
| DL2 | | | | LR | LR | | |
| | comp=Z,2µm,19.0s | | | | | | |
| DL2 | | | | LR | LR | | |
| | comp=Z,4µm,20.2s | | | | | | |
| UTHA | Uthaitani | 164.90 | 143 | P | PKPab | 22 44 08.5 | +0.3 |
| | comp=Z,12nm,1.1s,comp=Z,126nm | | | | | | |
| GTA | Gaotai | 166.31 | 31 | ePKP | PKPdf | 22 43 13.7 | +0.8 |
| GTA | | | | pPKP | pPKP | 22 43 18.6 | |
| GTA | | | | sPKP | | 22 43 20.6 | |
| GTA | | | | PKPab | PKPab | 22 44 15.6 | +1.6 |
| GTA | | | | PP | PP | 22 48 03.8 | +2.7 |
| GTA | | | | SKS | SKSdf | 22 50 12.7 | -4.0 |
| GTA | | | | SKKS | SKKSac | 22 54 45.6 | -3.3 |
| GTA | | | | SS | SS | 23 08 36.2 | -5.4 |
| GTA | | | | AMB | AMB | | |
| | comp=Z,1µm,8.0s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,2µm,21.4s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,2µm,21.9s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,3µm,20.0s | | | | | | |
| BJI | Beijing | 166.49 | 335 | PKP | PKPdf | 22 43 13.3 | +0.5 |
| SUKH | Sukhothai | 166.56 | 139 | P | PKPab | 22 44 15.9 | +0.4 |
| | comp=Z,11nm,0.7s,comp=Z,122nm | | | | | | |
| SUKH | Sukhothai | 166.56 | 139 | P | PKPdf | 22 43 15.8 | +2.3 |
| CM01 | Chiang Mai Arr | 166.87 | 134 | ePKPdf | PKPdf | 22 43 14.5 | +0.8 |
| CM01 | | | | ePKPab | PKPab | 22 44 16.2 | -0.7 |
| CM01 | | | | ePP | PP | 22 48 02.5 | -1.8 |
| CMAR | Chiang Mai Arr | 166.89 | 134 | PKP | PKPdf | 22 43 14.7 | +0.9 |
| | comp=Z,6.9nm,1.0s,baz=259,slow=2.1,SNR=37 | | | | | | |
| CMAR | | | | PKPab | PKPab | 22 44 16.8 | -0.2 |
| | comp=Z,11nm,1.0s,baz=237,slow=4.1,SNR=15 | | | | | | |
| CMAR | | | | PP | PP | 22 48 04.5 | 0.0 |
| | comp=Z,0.7nm,0.5s,baz=241,slow=5.4,SNR=4.8 | | | | | | |
| HHC | Hu-ho-hao-te | 166.92 | 351 | ⇑PKP | PKPdf | 22 43 14.3 | +1.0 |
| HHC | | | | PP | PP | 22 48 05.0 | +1.2 |
| HHC | | | | SKKS | | 22 54 53.8 | |
| HHC | | | | SS | SS | 23 08 50.1 | +3.2 |
| HHC | | | | AMB | AMB | | |
| | comp=Z,2µm,9.9s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,3µm,21.0s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,2µm,18.5s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,4µm,19.7s | | | | | | |
| CHTO | Chiang Mai | 167.15 | 133 | P | PKPab | 22 44 18.4 | +0.3 |
| | comp=Z,550nm,1.2s,comp=Z,7µm | | | | | | |
| CHTO | Chiang Mai | 167.15 | 133 | P | PKPdf | 22 43 14.8 | +0.9 |
| CHTO | Chiang Mai | 167.15 | 133 | ePKIKP | PKPdf | 22 43 14.9 | +1.0 |
| CHTO | | | | e | | 22 44 18.4 | |
| CHTO | Chiang Mai | 167.15 | 133 | ePKPdf | PKPdf | 22 43 14.9 | +1.0 |
| CHTO | | | | ePKPab | PKPab | 22 44 17.9 | -0.3 |
| CMMT | Chiang Mai | 167.15 | 133 | P | PKPab | 22 44 18.4 | +0.2 |
| | comp=Z,41nm,1.2s,comp=Z,1µm | | | | | | |
| CMMT | Chiang Mai | 167.15 | 133 | P | PKPdf | 22 43 14.8 | +0.8 |
| UTTA | Uttaradit | 167.30 | 141 | P | PKPab | 22 44 19.4 | +0.7 |
| | comp=Z,10nm,1.0s,comp=Z,112nm | | | | | | |
| UTTA | Uttaradit | 167.30 | 141 | P | PKPdf | 22 43 15.6 | +1.6 |
| BTO | Baotou | 167.32 | 356 | eP | PKPdf | 22 43 04.9 | -8.7 |
| PHRA | Phrae | 167.71 | 138 | P | PKPab | 22 44 23.0 | +2.4 |
| PHRA | Phrae | 167.71 | 138 | P | PKPdf | 22 43 16.5 | +2.2 |
| SSLB | Suanglung | 168.36 | 252 | ePKPdf | PKPdf | 22 43 15.9 | +1.2 |
| SSE | Sheshan | 168.81 | 289 | PKP | PKPdf | 22 43 14.3 | -0.4 |
| SSE | | | | PP | PP | 22 48 21.7 | +6.6 |
| SSE | | | | SS | SS | 23 09 12.5 | +3.6 |
| SSE | | | | AMB | AMB | | |
| | comp=Z,1µm,11.9s | | | | | | |
| SSE | | | | LR | LR | | |
| | comp=Z,2µm,23.0s | | | | | | |
| SSE | | | | LR | LR | | |
| | comp=Z,2µm,22.8s | | | | | | |
| SSE | | | | LR | LR | | |
| | comp=Z,2µm,20.5s | | | | | | |
| TIA | Tai'an | 169.18 | 322 | PKP | PKPdf | 22 43 16.0 | +1.2 |
| TIA | | | | PP | PP | 22 48 17.5 | +1.6 |
| TIA | | | | SS | SS | 23 09 15.5 | +4.8 |
| TIA | | | | AMB | AMB | | |
| | comp=Z,2µm,14.1s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,2µm,18.6s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,2µm,20.6s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,3µm,19.1s | | | | | | |
| TIY | Taiyuan | 169.80 | 344 | ePKP | PKPdf | 22 43 16.0 | +0.8 |
| TIY | | | | PKPab | PKPab | 22 44 28.3 | -1.1 |
| TIY | | | | PP | PP | 22 48 21.4 | +3.0 |
| TIY | | | | SS | SS | 23 09 17.8 | +2.0 |
| TIY | | | | AMB | AMB | | |
| | comp=Z,800nm,13.5s | | | | | | |
| TIY | | | | LR | LR | | |
| | comp=Z,4µm,21.0s | | | | | | |
| TIY | | | | LR | LR | | |
| | comp=Z,2µm,15.7s | | | | | | |
| TIY | | | | LR | LR | | |
| | comp=Z,4µm,19.8s | | | | | | |
| NJ2 | Nanjing | 170.42 | 298 | ePKP | PKPdf | 22 43 16.2 | +0.6 |
| NJ2 | | | | PKPab | PKPab | 22 44 33.8 | +1.4 |
| NJ2 | | | | PP | PP | 22 48 27.3 | +4.4 |
| NJ2 | | | | SS | SS | 23 09 25.4 | +1.0 |
| NJ2 | | | | AMB | AMB | | |
| | comp=Z,1µm,6.2s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,1µm,17.9s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,2µm,19.0s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,3µm,20.6s | | | | | | |
| QZH | Quanzhou | 170.79 | 253 | i PKP | PKPdf | 22 43 16.2 | +0.2 |
| QZH | | | | PKPab | sPKPab | 22 44 41.2 | +0.7 |
| QZH | | | | PP | PP | 22 48 30.1 | +5.0 |
| QZH | | | | AMB | AMB | | |
| | comp=Z,2µm,8.8s | | | | | | |
| QZH | | | | LR | LR | | |
| | comp=Z,6µm,24.7s | | | | | | |
| LZH | Lanzhou | 170.82 | 26 | ePKP | PKPdf | 22 43 18.0 | +2.0 |
| LZH | | | | PP | PP | 22 48 22.2 | -1.7 |
| LZH | | | | SKKS | | 22 55 08.1 | |
| LZH | | | | SS | SS | 23 09 27.2 | +0.6 |
| LZH | | | | AMB | AMB | | |
| | comp=Z,1µm,5.5s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,2µm,16.8s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,1µm,17.9s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,2µm,20.2s | | | | | | |
| QIZ | Qiongzhong | 171.09 | 186 | PKP | PKPdf | 22 43 16.8 | +0.4 |
| QIZ | | | | PKPab | pPKPab | 22 44 38.4 | -1.6 |
| QIZ | | | | PP | PP | 22 48 27.7 | +3.0 |
| QIZ | | | | SS | SS | 23 09 30.9 | +2.7 |
| QIZ | | | | AMB | AMB | | |
| | comp=Z,1µm,12.9s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=Z,2µm,19.5s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=Z,2µm,21.2s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=Z,4µm,31.5s | | | | | | |
| GZH | Guangzhou | 173.70 | 221 | PKP | PKPdf | 22 43 18.6 | +1.2 |
| GZH | | | | PKPab | sPKPab | 22 44 54.9 | +1.6 |
| GZH | | | | PP | PP | 22 48 42.7 | +4.3 |
| GZH | | | | SKKS | | 22 55 28.1 | |
| GZH | | | | SS | SS | 23 10 00.0 | +4.8 |
| GZH | | | | AMB | AMB | | |
| | comp=Z,2µm,9.6s | | | | | | |
| GZH | | | | LR | LR | | |
| | comp=Z,7µm,18.2s | | | | | | |
| KMI | Kunming | 173.84 | 116 | PKP | PKPdf | 22 43 17.6 | -0.1 |
| KMI | | | | pPKP | sPKPdf | 22 43 21.9 | -2.2 |
| KMI | | | | sPKP | | 22 43 24.4 | |
| XAN | Xi'an | 173.91 | 360 | PKP | PKPdf | 22 43 18.3 | +1.0 |
| XAN | | | | PP | PP | 22 48 36.0 | -2.6 |
| XAN | | | | SKKS | | 22 55 21.0 | |
| XAN | | | | AMB | AMB | | |
| | comp=Z,2µm,16.0s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,840nm,18.6s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,2µm,21.4s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,4µm,20.9s | | | | | | |
| WHN | Wuhan | 174.55 | 300 | ⇓PKP | PKPdf | 22 43 21.8 | +4.3 |
| WHN | | | | PP | PP | 22 48 42.7 | -0.5 |
| WHN | | | | SKKS | | 22 55 29.3 | |
| WHN | | | | LR | LR | | |
| | comp=Z,4µm,13.4s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=Z,7µm,22.5s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=Z,11µm,21.7s | | | | | | |
| CD2 | Chengdu | 174.65 | 55 | PKP | PKPdf | 22 43 18.9 | +1.3 |
| CD2 | | | | PKPab | PKPab | 22 44 52.7 | +1.4 |
| CD2 | | | | PP | PP | 22 48 42.1 | -1.5 |
| CD2 | | | | SKKS | | 22 55 28.8 | |
| CD2 | | | | SS | SS | 23 10 02.0 | -3.5 |
| CD2 | | | | AMB | AMB | | |
| | comp=Z,3µm,12.4s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,4µm,17.8s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,2µm,21.4s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,4µm,23.8s | | | | | | |
| ENH | Enshi | 177.61 | 347 | ePKPdf | PKPdf | 22 43 19.1 | +0.8 |
| ENH | | | | ePKPab | PKPab | 22 45 04.9 | +0.8 |
| ENH | | | | ePP | PP | 22 48 55.9 | -0.4 |

---

*SJA **07** 22:34:50.0±0.7, 27°.85S×71°.84W, h8km, ML4.5, MW3.9*
*IDC **07** 22:34:52.8±0.6, 27°.96S×71°.17W, h0km, mb4.4/9, mb1 4.5/10, mb1mx4.3/25, mbtmp4.4/10, ML4.3/1, Error ellipse: s-maj=29.2km s-min=19.3km az=85.0*
*ISCJB **07** 22:34:54.0±0.6, 27°.75S±0°.04×71°.64W±0°.07, h28km, mb4.6/12, Error ellipse: s-maj=9.2km s-min=5.6km az=158.0*
*NEIC **07** 22:34:56.8±3.1, 27°.89S×71°.23W, h26km±21km, mb4.3/1, Error ellipse: s-maj=22.1km s-min=8.2km az=86.0*
**ISC 07 22:34:57.2**±0.6**, 27°.83S**±0°.05×**71°.47W**±0°.06**, h28km, n45, σ2s.29**/54**, mb4.6**/12**, Near coast of northern Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LCO | Las Campanas | 1.36 | 150 | ePg | Pn | 22 35 17.6 | -3.0 |
| LCO | | | | eS | Sn | 22 35 32.1 | -5.7 |
| LCO | Las Campanas | 1.36 | 150 | eP | Pn | 22 35 17.6 | -3.0 |
| VCA | Vinchina | 3.02 | 108 | eP | Pn | 22 35 45.3 | +2.1 |
| VCA | | | | eS | Sb | 22 36 26.2 | -0.6 |
| VCA | | | | IAML | | 22 36 32.0 | |
| | comp=Z,2µm,0.4s | | | | | | |
| AGUA | GUANDACOL | 3.10 | 123 | eP | Pn | 22 35 46.1 | +1.8 |
| AGUA | | | | eS | Sb | 22 36 27.5 | -1.5 |
| AMOG | MOGNA | 4.04 | 141 | eP | Pn | 22 35 58.7 | +1.4 |
| AMOG | | | | eS | Sn | 22 36 49.8 | +6.0 |
| ACLC | CERRO LA CRUZ | 4.28 | 113 | eP | Pn | 22 36 00.7 | 0.0 |
| ACLC | | | | eS | Sn | 22 36 54.1 | +4.4 |
| RTLL | Cerro Villicun | 4.36 | 144 | eP | Pn | 22 36 02.4 | +0.9 |
| RTLS | Leoncito | 4.38 | 155 | eP | Pn | 22 36 03.4 | +1.3 |
| RTLS | | | | eS | Sn | 22 36 56.5 | +4.1 |
| SJA | San Juan | 4.47 | 146 | IAML | | 22 37 12.6 | |
| | comp=Z,441nm,0.7s | | | | | | |
| AUSP | Uspallata | 4.74 | 158 | eP | Pn | 22 36 08.6 | +1.6 |
| AUSP | | | | eS | Sn | 22 37 06.9 | +5.7 |
| RTCV | Cerro Valdivia | 4.76 | 148 | eP | Pn | 22 36 07.4 | +0.3 |
| RTCV | | | | eS | Sn | 22 37 03.5 | +2.1 |
| APLL | PUNTA DE LOS L | 5.02 | 122 | eP | Pn | 22 36 10.1 | -0.6 |
| APLL | | | | eS | Sn | 22 37 07.1 | -0.9 |
| CYA | Choya | 5.04 | 98 | eP | Pn | 22 36 10.6 | -0.4 |
| CYA | | | | IAML | | 22 36 15.4 | |
| | comp=Z,187nm,0.5s | | | | | | |
| CYA | | | | eS | Sn | 22 37 11.2 | +2.9 |
| FSA | Cafayete | 5.19 | 72 | eP | Pn | 22 36 18.3 | +5.2 |
| AHML | Horco Molle | 5.56 | 81 | eP | Pn | 22 36 20.9 | +2.8 |
| ACAN | Cantantal | 5.78 | 141 | eP | Pn | 22 36 21.2 | +0.1 |
| TCA | Tanti | 6.93 | 122 | eP | Pn | 22 36 35.1 | -1.9 |
| TCA | | | | eS | Sn | 22 37 54.9 | -0.1 |
| GO05 | HualaæØ | 7.17 | 183 | eP | Pn | 22 36 35.8 | -4.4 |
| GO05 | | | | eS | Sb | 22 38 30.7 | +4.7 |
| LPAZ | La Paz | 11.89 | 16 | Pn | Pn | 22 37 44.4 | -1.2 |
| | comp=Z,0.7nm,0.3s,baz=183,slow=3.4,SNR=9.1 | | | | | | |
| TRQA | Tornquist | 12.94 | 144 | ePn | Pn | 22 37 58.3 | -0.8 |
| | comp=Z,41nm,1.2s | | | | | | |
| SIV | San Ignacio | 15.22 | 41 | Pn | Pn | 22 38 22.4 | -7.8 |
| | comp=Z,0.9nm,0.3s,baz=246,slow=14,SNR=5.5 | | | | | | |
| SAML | Samuel | 20.34 | 24 | eP | P | 22 39 31.2 | -0.3 |
| | comp=Z,15nm,1.0s | | | | | | |
| PTGA | Pitinga | 29.11 | 24 | P | P | 22 40 55.4 | -0.4 |
| | comp=Z,7.1nm,0.9s,baz=207,slow=8.5,SNR=5.2 | | | | | | |
| SNAA | Sanae | 57.14 | 159 | P | P | 22 44 39.6 | -1.4 |
| | comp=Z,8.2nm,0.9s,baz=324,slow=4.9,SNR=12 | | | | | | |
| SNAA | Sanae | 57.14 | 159 | eP | P | 22 44 39.2 | -1.7 |
| | comp=Z,308nm,0.6s | | | | | | |
| H06E1 | SOCORRO T-PHAS | 60.05 | 316 | T | T | 23 50 26.5 | |
| QSPA | South Pole Qui | 62.39 | 180 | eP | P | 22 45 16.5 | -0.7 |
| | comp=Z,15nm,0.7s | | | | | | |
| TXAR | Lajitas Array | 64.66 | 329 | P | P | 22 45 34.8 | +2.2 |
| | comp=Z,1.0nm,0.8s,baz=145,slow=7.7,SNR=8.4 | | | | | | |
| VNDA | Vanda | 70.23 | 191 | P | P | 22 46 06.4 | -0.7 |
| | comp=Z,0.6nm,0.4s,baz=127,slow=5.1,SNR=7.9 | | | | | | |
| LIC | Lamto | 72.43 | 73 | eP | P | 22 46 19.9 | -1.5 |
| | comp=Z,44nm,1.5s | | | | | | |
| TIC | Toumodi | 72.66 | 73 | eP | P | 22 46 22.2 | -0.5 |
| KIC | Kosan Boka | 72.74 | 73 | eP | P | 22 46 22.1 | -1.2 |
| | comp=Z,16nm,0.8s | | | | | | |
| DBIC | Dimbokro | 72.81 | 73 | P | P | 22 46 22.8 | -0.8 |
| | comp=Z,12nm,0.9s,baz=207,slow=8.7,SNR=11 | | | | | | |
| PDAR | Pinedale Array | 78.51 | 332 | P | P | 22 46 57.7 | +1.8 |
| | comp=Z,0.6nm,0.7s,baz=150,slow=9.3,SNR=3.1 | | | | | | |
| ULM | Lac du Bonnet | 80.69 | 344 | P | P | 22 47 07.8 | +0.5 |
| | comp=Z,1.3nm,0.6s,baz=164,slow=8.7,SNR=4.5 | | | | | | |
| TORD | Torodi Ar. Bea | 81.67 | 70 | P | P | 22 47 12.3 | -0.9 |
| | comp=Z,6.7nm,1.0s,baz=269,slow=4.4,SNR=21 | | | | | | |
| BOSA | Boshof | 82.53 | 118 | P | P | 22 47 16.3 | -1.6 |
| | comp=Z,5.2nm,0.9s,baz=166,slow=7.5,SNR=5.9 | | | | | | |
| ASAR | Alice Springs | 123.25 | 208 | PKP | PKPdf | 22 53 51.2 | -0.8 |
| | comp=Z,0.8nm,0.8s,baz=121,slow=2.1,SNR=4.2 | | | | | | |
| WRA | Warramunga Arr | 126.34 | 211 | PKP | PKPdf | 22 53 58.1 | +0.1 |
| | comp=Z,2.9nm,0.3s,baz=149,slow=1.6,SNR=35 | | | | | | |
| KURK | Kurchatov | 147.83 | 37 | PKPbc | PKPdf | 22 54 37.3 | +1.1 |
| KURBB | Kurchatov Arra | 147.84 | 37 | PKPbc | PKPdf | 22 54 37.3 | +1.0 |
| | comp=Z,2.7nm,0.8s,baz=306,slow=3.1,SNR=12 | | | | | | |
| ZALV | Zalesovo Beam | 148.64 | 27 | PKP | PKPdf | 22 54 38.4 | +1.0 |
| | comp=Z,7.7nm,0.8s,baz=264,slow=2.9,SNR=20 | | | | | | |
| ZALV | | | | PKPbc | PKPbc | 22 54 41.7 | +0.6 |
| | comp=Z,7.9nm,0.8s,baz=304,slow=3.6,SNR=23 | | | | | | |
| AAK | Ala-Archa | 148.76 | 53 | PKPbc | PKPbc | 22 54 41.6 | -0.5 |
| | comp=Z,5.0nm,0.8s,baz=224,slow=1.4,SNR=13 | | | | | | |
| AAK | Ala-Archa | 148.76 | 53 | ePKPbc | PKPbc | 22 54 42.6 | +0.5 |
| MKAR | Makanchi Array | 152.03 | 40 | PKPbc | PKPbc | 22 54 49.4 | -0.2 |
| | comp=Z,2.8nm,0.7s,baz=332,slow=1.9,SNR=12 | | | | | | |

---

**SJA 07 22:53:37.6**±0.4**, 28°.38S**×**71°.98W, h8km, ML3.7, MW3.4, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LCO | Las Campanas | 1.29 | 120 | eP | Pg | 22 54 04.9 | +2.6 |
| LCO | | | | eS | Sn | 22 54 20.7 | +0.9 |
| AGUA | GUANDACOL | 3.25 | 111 | eP | Pb | 22 54 34.5 | -1.1 |
| AGUA | | | | eS | Sb | 22 55 11.9 | -3.5 |
| VCA | Vinchina | 3.34 | 97 | eP | Pn | 22 54 33.3 | +3.0 |
| VCA | | | | eS | Sn | 22 55 06.2 | -4.0 |
| VCA | | | | IAML | | 22 55 21.7 | |
| | comp=Z,224nm,0.5s | | | | | | |
| AMOG | MOGNA | 3.96 | 131 | eP | Pb | 22 54 46.9 | -0.9 |
| AMOG | | | | eS | Sb | 22 55 35.0 | -0.9 |
| RTLS | Leoncito | 4.12 | 146 | eP | Pb | 22 54 51.4 | +0.7 |
| RTLS | | | | eS | Sb | 22 55 42.3 | +1.5 |
| AANI | Anillaco | 4.45 | 97 | eS | Sn | 22 55 42.0 | +4.3 |
| ACLC | CERRO LA CRUZ | 4.53 | 105 | eP | Pn | 22 54 48.5 | +1.8 |
| APLL | PUNTA DE LOS L | 5.16 | 114 | eS | Sn | 22 55 59.4 | +4.3 |
| CYA | Choya | 5.44 | 92 | eP | Pn | 22 55 00.1 | +1.0 |
| CYA | | | | IAML | | 22 55 03.4 | |
| | comp=Z,30nm,0.4s | | | | | | |
| CYA | | | | eS | Sn | 22 56 00.8 | -1.2 |
| FSA | Cafayete | 5.80 | 68 | eP | Pn | 22 55 08.0 | +3.9 |
| AHML | Horco Molle | 6.11 | 76 | eP | Pn | 22 55 11.4 | +3.1 |

---

*NEIC **07** 22:54:19.1±0.4, 32°.42N×97°.11W, h5km, MN2.7, Error ellipse: s-maj=7.2km s-min=5.2km az=127.0*
*NEIC Felt [IV] at Alvarado and Venus, [III] at Mansfield and [II] at Burleson. Also felt at Cleburne, Desoto, Grand Prairie, Roanoke, Sachse and The Colony.*
**ISC 07 22:54:18.3**±1.2**, 32°.42N**±0°.02×**97°.15W**±0°.02**, h2km**±10km**, n50, σ1s.52**/80**, Central Texas**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WHTX | Lake Whitney, | 0.50 | 212 | P | Pb | 22 54 30.2 | +0.4 |
| | baz=31 | | | | | | |
| WHTX | Lake Whitney, | 0.50 | 212 | ePg | Pb | 22 54 30.0 | +0.2 |
| WHTX | | | | eSg | Sg | 22 54 35.1 | +0.8 |
| 136A | Ennis | 0.53 | 83 | P | Pg | 22 54 29.4 | +1.0 |
| | baz=269 | | | | | | |
| 236A | Katherine and | 0.67 | 128 | P | Pb | 22 54 33.0 | +0.3 |
| | baz=313 | | | | | | |
| Z36A | Blue Ridge | 1.04 | 35 | P | Pg | 22 54 38.4 | +0.1 |
| | baz=216 | | | | | | |
| Z36A | | | | S | Sg | 22 54 52.3 | +0.5 |
| | baz=216 | | | | | | |
| 336A | Riesel | 1.06 | 166 | P | Pn | 22 54 40.7 | +0.5 |
| | baz=348 | | | | | | |
| 336A | | | | S | Sn | 22 54 55.3 | -0.2 |
| | baz=348 | | | | | | |
| 137A | Heron Place, G | 1.19 | 81 | P | Pb | 22 54 41.5 | -0.1 |
| | baz=264 | | | | | | |
| 137A | | | | S | Sn | 22 54 58.5 | -0.3 |
| | baz=264 | | | | | | |
| 237A | Washetta, Mont | 1.21 | 110 | P | Pn | 22 54 42.4 | +0.2 |
| | baz=293 | | | | | | |
| 237A | | | | S | Sn | 22 54 59.7 | +0.5 |
| | baz=293 | | | | | | |
| Y35A | Marietta | 1.49 | 3 | P | Pn | 22 54 45.4 | -0.7 |
| | baz=183 | | | | | | |
| Y35A | | | | S | Sn | 22 55 04.1 | -2.1 |
| | baz=183 | | | | | | |
| Z37A | Pogue Cattle C | 1.50 | 58 | P | Pn | 22 54 46.1 | -0.2 |
| | baz=240 | | | | | | |
| Z37A | | | | S | Sg | 22 55 06.7 | +0.2 |
| | baz=240 | | | | | | |
| 337A | Centerville | 1.53 | 135 | P | Pb | 22 54 47.9 | +0.4 |
| | baz=318 | | | | | | |
| Y36A | Durant | 1.65 | 26 | P | Pn | 22 54 48.4 | +0.1 |
| | baz=206 | | | | | | |
| Y36A | | | | S | Sb | 22 55 10.6 | -0.1 |
| | baz=206 | | | | | | |
| 138A | Matatall Enter | 1.75 | 81 | P | Pn | 22 54 50.4 | +0.6 |
| | baz=264 | | | | | | |
| 138A | | | | S | Sb | 22 55 13.4 | -0.4 |
| | baz=264 | | | | | | |
| 338A | Crockett | 1.89 | 124 | S | Sb | 22 55 17.8 | +0.3 |
| | baz=306 | | | | | | |
| X35A | Drake | 1.98 | 4 | P | Pn | 22 54 53.0 | +0.1 |
| | baz=184 | | | | | | |
| X35A | | | | S | Sn | 22 55 19.0 | +0.6 |
| | baz=184 | | | | | | |
| X35A | Drake | 1.98 | 4 | ePn | Pn | 22 54 52.7 | -0.2 |
| X35A | | | | eSn | Sn | 22 55 18.8 | +0.4 |
| Z38A | Mt. Pleasant | 2.00 | 65 | Pb | Pb | 22 54 55.9 | +0.4 |
| | baz=247 | | | | | | |
| Z38A | | | | S | Sn | 22 55 18.8 | -0.1 |
| | baz=247 | | | | | | |
| Y37A | Hugo | 2.02 | 39 | P | Pn | 22 54 53.3 | -0.1 |
| | baz=220 | | | | | | |
| Y37A | | | | S | Sn | 22 55 19.8 | +0.6 |
| | baz=220 | | | | | | |
| ABTX | Abilene, Hawle | 2.12 | 276 | ePn | Pn | 22 54 55.6 | +0.7 |
| ABTX | | | | eS | Sn | 22 55 22.0 | +0.2 |
| NATX | Nacogdoches | 2.21 | 107 | ePn | Pb | 22 54 57.6 | -1.4 |
| NATX | | | | eS | Sn | 22 55 22.3 | -1.6 |
| X36A | Centrahoma | 2.25 | 17 | P | Pn | 22 54 57.1 | +0.5 |
| | baz=197 | | | | | | |
| X36A | | | | S | Sb | 22 55 26.7 | -1.3 |
| | baz=197 | | | | | | |
| X37A | Clayton | 2.63 | 34 | P | Pn | 22 55 02.0 | +0.3 |
| | baz=215 | | | | | | |
| X37A | | | | S | Sn | 22 55 34.6 | +0.4 |
| | baz=215 | | | | | | |
| X37A | Clayton | 2.63 | 34 | ePn | Pn | 22 55 02.1 | +0.3 |
| WMOK | Wichita Mounta | 2.69 | 330 | ePn | Pn | 22 55 02.6 | 0.0 |
| WMOK | | | | eS | Sn | 22 55 35.3 | -0.5 |
| HKT | Hockley | 2.70 | 155 | ePn | Pn | 22 55 01.2 | -1.5 |
| HKT | | | | eS | Sb | 22 55 40.2 | -0.8 |
| W35A | Tecumseh | 2.74 | 5 | P | Pn | 22 55 05.9 | +2.5 |
| | baz=184 | | | | | | |
| W35A | Tecumseh | 2.74 | 5 | ePn | Pn | 22 55 02.4 | -0.9 |
| W36A | Wetumka | 2.82 | 16 | P | Pn | 22 55 05.5 | +1.1 |
| | baz=196 | | | | | | |
| W36A | | | | S | Sn | 22 55 40.4 | +1.3 |
| | baz=196 | | | | | | |
| W36A | Wetumka | 2.82 | 16 | ePn | Pn | 22 55 05.7 | +1.2 |
| 340A | Bronson | 2.94 | 109 | P | Pn | 22 55 06.9 | +0.7 |
| | baz=292 | | | | | | |
| X38A | Whitesboro | 2.97 | 40 | P | Pn | 22 55 06.8 | +0.4 |
| | baz=222 | | | | | | |
| X38A | | | | S | Sn | 22 55 42.7 | 0.0 |
| | baz=222 | | | | | | |
| JCT | Junction City | 2.98 | 230 | P | Pn | 22 55 08.8 | +2.2 |
| | baz=48 | | | | | | |
| JCT | | | | S | Sn | 22 55 45.4 | +2.4 |
| | baz=48 | | | | | | |
| JCT | Junction City | 2.98 | 230 | ePn | Pn | 22 55 07.9 | +1.2 |
| JCT | | | | eS | Sn | 22 55 42.4 | -0.6 |
| 140A | Cam and Jess, | 3.03 | 85 | P | Pn | 22 55 08.2 | +0.9 |
| | baz=268 | | | | | | |
| W37B | Quinton | 3.07 | 27 | P | Pn | 22 55 08.1 | +0.2 |
| | baz=208 | | | | | | |
| W37B | Quinton | 3.07 | 27 | ePn | Pn | 22 55 07.6 | -0.2 |
| OK020 | N3440 Road, Me | 3.12 | 4 | ePn | Pn | 22 55 10.5 | +1.9 |
| OK021 | N3530 Road, Sp | 3.20 | 6 | ePn | Pn | 22 55 09.6 | -0.1 |
| V35A | Meyer Ranch, C | 3.35 | 4 | ePn | Pn | 22 55 13.4 | +1.7 |
| WLAR | White Oak Lake | 3.62 | 68 | ePn | Pn | 22 55 15.4 | 0.0 |
| MIAR | Mount Ida | 3.66 | 54 | ePn | Pn | 22 55 15.5 | -0.5 |
| MIAR | | | | eS | Sn | 22 55 56.5 | -3.3 |
| TUL1 | Leonard | 3.66 | 17 | ePn | Pn | 22 55 16.0 | -0.1 |
| TUL1 | | | | eS | Sn | 22 55 56.1 | -3.7 |
| AMTX | Amarillo | 4.51 | 304 | ePn | Pn | 22 55 28.7 | +0.9 |
| AMTX | | | | ePg | Pb | 22 55 41.0 | +2.6 |
| AMTX | | | | eS | Sb | 22 56 37.6 | +4.4 |
| MSTX | Muleshoe | 4.96 | 290 | ePn | Pn | 22 55 34.9 | +0.9 |
| MSTX | | | | eS | Sn | 22 56 31.9 | -0.2 |
| CPRX | Cap Rock | 5.70 | 278 | ePg | Pg | 22 56 04.7 | -2.8 |
| TX31 | Lajitas Ar. Si | 6.39 | 243 | ePn | Pn | 22 55 54.2 | +0.6 |
| MNTX | Cornudas Mount | 7.03 | 266 | ePn | Pn | 22 56 01.5 | -0.8 |
| MNTX | | | | ePg | Pb | 22 56 28.0 | +6.9 |
| MNTX | | | | eSn | Sn | 22 57 18.2 | -4.7 |
| MNTX | | | | eSg | Sg | 22 58 00.6 | -3.5 |
| T25A | Trinidad | 7.61 | 310 | ePn | Pn | 22 56 07.5 | -2.9 |
| BNM | Barren Site | 8.12 | 285 | ePn | Pn | 22 56 15.7 | -1.8 |
| ANMO | Albuquerque | 8.16 | 291 | ePn | Pn | 22 56 22.0 | +4.0 |
| ANMO | | | | ePg | Pg | 22 56 50.0 | -4.7 |
| ANMO | | | | eS | Sg | 22 58 33.0 | -7.3 |

*IDC **07** 23:03:39.3±1.4, 51°.52N×174°.94W, h0km, mb4.0/15, mb1 4.1/17, mb1mx3.9/69, mbtmp4.0/17, ML4.1/2, Error ellipse: s-maj=37.9km s-min=16.6km az=4.0*
*ISCJB **07** 23:03:42.5±0.5, 51°.21N±0°.06×174°.91W±0°.04, h40km, mb4.0/18, Error ellipse: s-maj=9.0km s-min=3.8km az=174.0*
*NEIC **07** 23:03:42.9±0.0, 51°.28N×175°.02W, h20km, mb4.1/5, ML4.1(AEIC), After AEIC.*
**ISC 07 23:03:44.5**±0.8**, 51°.3N**±0°.1×**175°.02W**±0°.05**, h40km, n64, σ1s.48/63, mb4.0/17, Andreanof Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GSMY | Great Sitkin M | 1.02 | 321 | P | Pn | 23 04 01.4 | -1.0 |
| GSTR | Great Sitkin T | 1.06 | 323 | P | Pn | 23 04 02.2 | -0.7 |
| GSTD | Great Sitkin T | 1.06 | 319 | P | Pn | 23 04 02.0 | -1.0 |
| ATKA | Atka Island | 1.08 | 28 | P | Pn | 23 04 01.5 | -1.6 |
| ATKA | | | | S | Sn | 23 04 16.7 | -0.1 |
| KOFP | Korovin Flat P | 1.17 | 29 | P | Pn | 23 04 03.5 | -0.9 |
| KOKL | Mount Kliuchef | 1.19 | 25 | P | Pn | 23 04 03.5 | -1.2 |
| ADK | Adak | 1.21 | 302 | ePn | Pn | 23 04 03.7 | -1.3 |
| ADK | | | | eS | Sn | 23 04 19.6 | -0.5 |
| ADAG | Mount Adagdak | 1.23 | 307 | P | Pn | 23 04 04.8 | -0.4 |
| KOKV | Korovin Volcan | 1.23 | 25 | P | Pn | 23 04 04.8 | -0.5 |
| KOSE | Korovin Southe | 1.25 | 29 | P | Pn | 23 04 04.9 | -0.6 |
| KIKV | Kanaga Island | 1.48 | 296 | P | Pn | 23 04 08.1 | -0.5 |
| KICM | Kanaga Island | 1.51 | 297 | P | Pn | 23 04 08.7 | -0.3 |
| TAPA | Tanaga Point A | 1.83 | 289 | P | Pn | 23 04 13.4 | -0.1 |
| TAPA | | | | S | Sn | 23 04 37.3 | +1.8 |
| TAFL | Tanaga Flats | 1.87 | 287 | P | Pn | 23 04 13.6 | -0.3 |
| TAFP | Tanaga Falls P | 1.96 | 290 | P | Pn | 23 04 15.1 | 0.0 |
| TAFP | | | | S | Sn | 23 04 40.4 | +1.9 |
| GAEA | Gareloi East | 2.39 | 284 | P | Pn | 23 04 21.9 | +0.8 |
| NIKH | Nikolski High | 4.17 | 63 | P | Pn | 23 04 45.5 | -0.1 |
| OKAK | Okmok | 4.70 | 58 | P | Pn | 23 04 51.5 | -1.3 |
| MREP | Makushin Rep't | 5.66 | 60 | P | Pn | 23 05 06.3 | +0.2 |
| MSW | Makushin Switc | 5.69 | 59 | P | Pn | 23 05 06.5 | +0.2 |
| AKUT | Akutan | 6.32 | 59 | ePn | Pn | 23 05 15.9 | +0.9 |
| SPIA | Saint Paul Isl | 6.56 | 23 | P | Pn | 23 05 19.6 | +1.3 |
| SDPT | Sand Point | 9.62 | 59 | ePn | Pn | 23 06 00.3 | +0.1 |
| KDAK | Kodiak Island | 14.53 | 55 | Pn | Pn | 23 07 03.4 | -3.8 |
| | 1.3nm,0.3s,baz=248,slow=9.7,SNR=15 | | | | | | |
| KDAK | | | | Sn | Sn | 23 09 54.7 | +7.9 |
| | 0.3nm,0.3s,baz=16,slow=20,SNR=6.0 | | | | | | |
| PETK | Petropavlovsk- | 16.80 | 287 | Pn | P | 23 07 39.6 | +1.4 |
| | 0.4nm,0.3s,baz=78,slow=12,SNR=5.6 | | | | | | |
| KTH | Kantishna Hill | 17.75 | 37 | ePn | P | 23 07 48.8 | 0.0 |
| | 20nm,1.0s | | | | | | |
| BPAW | Bear Paw Mtn. | 18.03 | 35 | ePn | P | 23 07 52.3 | +0.5 |
| | 1.9nm,0.9s | | | | | | |
| ILAR | Eielson Array | 19.90 | 36 | P | P | 23 08 10.9 | -1.3 |
| | 0.4nm,0.3s,baz=227,slow=10,SNR=26 | | | | | | |
| COLD | Coldfoot | 20.19 | 28 | eP | P | 23 08 15.7 | +0.3 |
| | 9.3nm,1.0s | | | | | | |
| SEY | Seymchan | 20.95 | 316 | P | P | 23 08 24.1 | +0.6 |
| | 2.5nm,0.8s,baz=76,slow=18,SNR=2.3 | | | | | | |
| EGAK | Eagle | 22.11 | 39 | eP | P | 23 08 34.5 | -1.6 |
| | 12nm,0.7s | | | | | | |
| DAWY | Dawson | 22.60 | 42 | eP | P | 23 08 40.8 | -0.5 |
| | 4.3nm,0.8s | | | | | | |
| YKA | Yellowknife Ar | 33.59 | 47 | P | P | 23 10 20.4 | 0.0 |
| | 0.4nm,0.5s,baz=342,slow=31,SNR=3.5 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 34.53 | 211 | T | T | 23 47 18.4 | |
| | baz=18,slow=76,SNR=58 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 34.54 | 211 | T | T | 23 47 19.6 | |
| | baz=18,slow=76,SNR=67 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 34.55 | 211 | T | T | 23 47 20.5 | |
| | baz=18,slow=76,SNR=53 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 35.74 | 211 | T | T | 23 49 14.4 | |
| | baz=19,slow=76,SNR=103 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 35.75 | 211 | T | T | 23 49 15.0 | |
| | baz=19,slow=76,SNR=99 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 35.76 | 211 | T | T | 23 49 14.4 | |
| | baz=19,slow=76,SNR=33 | | | | | | |
| NEW | Newport | 36.69 | 71 | P | P | 23 10 45.0 | -2.3 |
| | 1.1nm,0.4s,baz=49,slow=20,SNR=3.4 | | | | | | |
| PDAR | Pinedale Array | 44.07 | 74 | P | P | 23 11 48.4 | -0.2 |
| | 1.1nm,0.7s,baz=359,slow=5.4,SNR=3.4 | | | | | | |
| SONM | Songino Array | 48.80 | 299 | P | P | 23 12 25.5 | 0.0 |
| | 0.5nm,0.6s,baz=66,slow=7.1,SNR=3.3 | | | | | | |
| SPITS | Spitsbergen Ar | 50.65 | 357 | P | P | 23 12 37.5 | -1.4 |
| | 7.2nm,0.8s,baz=19,slow=9.2,SNR=18 | | | | | | |
| ZALV | Zalesovo Beam | 55.81 | 315 | P | P | 23 13 17.4 | +0.2 |
| | 0.4nm,0.4s,baz=71,slow=9.6,SNR=2.7 | | | | | | |
| TXAR | Lajitas Array | 56.32 | 84 | P | P | 23 13 21.5 | +0.2 |
| | 0.4nm,0.8s,baz=285,slow=4.8,SNR=3.7 | | | | | | |
| ARCES | ARCESS Array B | 58.59 | 352 | P | P | 23 13 35.6 | -1.0 |
| | 2.0nm,0.8s,baz=14,slow=7.0,SNR=5.8 | | | | | | |
| MKAR | Makanchi Array | 61.94 | 311 | P | P | 23 13 59.0 | -0.9 |
| | 1.0nm,0.3s,baz=46,slow=6.5,SNR=50 | | | | | | |
| FINES | FINESS Array B | 66.39 | 349 | P | P | 23 14 27.1 | -1.7 |
| | 3.5nm,0.9s,baz=12,slow=7.4,SNR=5.4 | | | | | | |
| NOA | NORSAR Array B | 67.95 | 357 | P | P | 23 14 37.3 | -1.4 |
| | 1.3nm,0.9s,baz=5.3,slow=6.7,SNR=3.3 | | | | | | |
| HFS | Hagfors | 68.74 | 355 | P | P | 23 14 42.4 | -1.2 |
| | 1.0nm,0.4s,baz=355,slow=3.1,SNR=12 | | | | | | |
| TAPN | Taplejung | 73.45 | 293 | eP | P | 23 15 13.9 | +0.9 |
| | 43nm,1.2s | | | | | | |
| EKA | Eskdalemuir Ar | 73.57 | 5 | P | P | 23 15 13.3 | +0.5 |
| | 0.2nm,0.3s,baz=7.1,slow=6.0,SNR=4.1 | | | | | | |
| ODAN | Odare | 74.01 | 293 | eP | P | 23 15 16.6 | +0.4 |
| GUN | Gumba | 74.08 | 295 | eP | P | 23 15 17.5 | +0.7 |
| JIRN | Jiri | 74.09 | 294 | eP | P | 23 15 17.8 | +0.9 |
| RAMN | Ramite | 74.40 | 294 | eP | P | 23 15 19.2 | +0.7 |
| | 38nm,1.1s | | | | | | |
| PKI | Pulchoki | 74.61 | 295 | eP | P | 23 15 20.2 | +0.4 |
| | 33nm,1.4s | | | | | | |
| DANN | Dangsing | 74.95 | 296 | eP | P | 23 15 23.0 | +1.3 |
| KOLN | Koldanda | 75.48 | 296 | eP | P | 23 15 25.1 | +0.4 |
| PYUN | Piuthan | 75.57 | 297 | eP | P | 23 15 25.7 | +0.5 |
| AKASG | Malin Array Be | 76.35 | 344 | P | P | 23 15 27.7 | -1.3 |
| | 0.4nm,0.3s,baz=18,slow=6.0,SNR=3.6 | | | | | | |
| GEYT | Alibeck | 79.74 | 320 | P | P | 23 15 48.2 | +0.2 |
| | 2.2nm,0.6s,baz=320,slow=3.8,SNR=5.1 | | | | | | |
| TORD | Torodi Ar. Bea | 115.81 | 4 | PKP | PKPdf | 23 22 24.5 | +1.7 |
| | 0.3nm,0.8s,baz=341,slow=1.8,SNR=3.0 | | | | | | |
| BOSA | Boshof | 152.73 | 318 | PKPbc | PKPbc | 23 23 37.1 | +0.4 |
| | 4.0nm,0.9s,baz=35,slow=0.8,SNR=8.8 | | | | | | |

*IDC **07** 23:06:59.3±10.0, 50°.31N×174°.30W, h0km, mb3.8/6, mb1 4.0/7, mb1mx3.6/72, mbtmp4.0/7, ML3.6/1, Error ellipse: s-maj=259.9km s-min=27.8km az=162.0*
*ISCJB **07** 23:07:09.0±1.4, 51°.1N±0°.1×174°.87W±0°.08, h46km±9km, mb4.0/5, Error ellipse: s-maj=18.5km s-min=6.6km az=161.8*
*NEIC **07** 23:07:10.1±0.0, 51°.28N×175°.00W, h12km, ML3.2(AEIC), After AEIC.*
**ISC 07 23:07:11.2**±1.5**, 51°.2N**±0°.2×**174°.99W**±0°.07**, h38km**±3km**, n25, σ1s.55/31, mb4.2/5, Andreanof Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GSMY | Great Sitkin M | 1.05 | 321 | P | Pn | 23 07 29.1 | -0.2 |
| ETKA | Kagalaska Isla | 1.08 | 306 | P | Pn | 23 07 29.5 | -0.3 |
| GSTR | Great Sitkin T | 1.09 | 323 | P | Pn | 23 07 30.0 | +0.1 |
| ATKA | Atka Island | 1.09 | 27 | P | Pn | 23 07 29.1 | -0.7 |
| ATKA | | | | S | Sn | 23 07 44.1 | +0.5 |
| GSTD | Great Sitkin T | 1.09 | 319 | P | Pn | 23 07 29.8 | -0.2 |
| GSTD | | | | S | Sn | 23 07 44.8 | +0.9 |
| KOFP | Korovin Flat P | 1.18 | 28 | P | Pn | 23 07 31.1 | 0.0 |
| KOKL | Mount Kliuchef | 1.20 | 24 | P | Pn | 23 07 31.4 | +0.1 |
| KOWE | Korovin West | 1.22 | 22 | P | Pn | 23 07 32.0 | +0.3 |
| ADK | Adak | 1.24 | 302 | ePn | Pn | 23 07 31.5 | -0.4 |
| ADK | | | | eS | Sn | 23 07 42.8 | -4.6 |
| KOKV | Korovin Volcan | 1.24 | 24 | P | Pn | 23 07 32.4 | +0.4 |
| KOKV | | | | S | Sn | 23 07 50.0 | +2.5 |
| ADAG | Mount Adagdak | 1.25 | 307 | P | Pn | 23 07 32.6 | +0.6 |
| KOSE | Korovin Southe | 1.26 | 27 | P | Pn | 23 07 32.5 | +0.3 |
| KOSE | | | | S | Sn | 23 07 50.7 | +2.8 |
| KONE | Korovin Northe | 1.28 | 25 | P | Pn | 23 07 33.1 | +0.6 |
| KIKV | Kanaga Island | 1.51 | 296 | P | Pn | 23 07 35.9 | +0.4 |
| TAPA | Tanaga Point A | 1.86 | 289 | P | Pn | 23 07 40.9 | +0.4 |
| TAFP | Tanaga Falls P | 1.98 | 291 | P | Pn | 23 07 43.0 | +0.9 |
| TAFP | | | | S | Sn | 23 08 09.7 | +3.9 |
| TANO | Tanaga North | 2.07 | 291 | P | Pn | 23 07 44.4 | +1.1 |
| KDAK | Kodiak Island | 14.53 | 54 | Pn | Pn | 23 10 31.5 | -2.3 |
| | 0.3nm,0.3s,baz=9.5,slow=6.1,SNR=4.3 | | | | | | |
| ILAR | Eielson Array | 19.90 | 36 | P | P | 23 11 39.3 | +0.3 |
| | 0.7nm,0.6s,baz=222,slow=8.2,SNR=5.9 | | | | | | |
| SONM | Songino Array | 48.83 | 299 | P | P | 23 15 53.1 | +0.6 |
| | 0.3nm,0.8s,baz=60,slow=8.5,SNR=3.6 | | | | | | |
| ARCES | ARCESS Array B | 58.61 | 352 | P | P | 23 17 03.3 | -0.3 |
| | 3.8nm,0.9s,baz=26,slow=7.1,SNR=2.5 | | | | | | |
| KURK | Kurchatov | 60.82 | 316 | P | P | 23 17 20.3 | +1.2 |
| KURBB | Kurchatov Arra | 60.93 | 316 | P | P | 23 17 20.3 | +0.5 |
| | 1.1nm,0.5s,baz=45,slow=6.3,SNR=5.1 | | | | | | |
| MKAR | Makanchi Array | 61.97 | 311 | P | P | 23 17 26.9 | 0.0 |
| | 0.8nm,0.7s,baz=48,slow=6.5,SNR=8.6 | | | | | | |
| BVAR | Borovoye Array | 62.51 | 322 | P | P | 23 17 31.2 | +0.7 |
| | 1.0nm,0.6s,baz=44,slow=9.5,SNR=4.7 | | | | | | |

**SJA 07 23:11:19.9**±1.2**, 28°.25S**×**71°.62W, h11km**±8km**, ML3.5, MW3.3, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LCO | Las Campanas | 1.11 | 133 | eP | Pg | 23 11 41.0 | -0.2 |
| LCO | | | | eS | Sn | 23 11 57.0 | -0.1 |
| AGUA | GUANDACOL | 3.01 | 115 | eP | Pb | 23 12 10.7 | -2.9 |
| AGUA | | | | eS | Sb | 23 12 49.8 | -0.6 |
| VCA | Vinchina | 3.04 | 100 | eP | Pn | 23 12 10.0 | +1.8 |
| VCA | | | | eS | Sb | 23 12 48.8 | -2.7 |
| VCA | | | | IAML | | 23 13 01.4 | |
| | comp=Z,133nm,0.4s | | | | | | |
| AMOG | MOGNA | 3.82 | 135 | eP | Pn | 23 12 22.6 | +3.8 |
| AMOG | | | | eS | Sn | 23 13 07.0 | +3.2 |
| RTLS | Leoncito | 4.07 | 151 | eP | Pb | 23 12 27.5 | -4.3 |
| ACLC | CERRO LA CRUZ | 4.26 | 107 | eP | Pn | 23 12 25.5 | +0.5 |
| ACLC | | | | eS | Sn | 23 13 16.5 | +1.7 |
| AUSP | Uspallata | 4.41 | 155 | eP | Pb | 23 12 32.6 | -5.0 |
| AUSP | | | | eS | Sb | 23 13 30.0 | -0.8 |
| RTCV | Cerro Valdivia | 4.48 | 144 | eP | Pn | 23 12 32.8 | +4.9 |
| RTCV | | | | eS | Sb | 23 13 31.6 | -1.2 |
| APLL | PUNTA DE LOS L | 4.93 | 117 | eP | Pn | 23 12 34.4 | +0.3 |
| APLL | | | | eS | Sn | 23 13 35.6 | +4.4 |
| ASAL | Salagasta | 4.95 | 152 | eP | Pn | 23 12 39.5 | +5.1 |
| CYA | Choya | 5.13 | 93 | eP | Pn | 23 12 35.7 | -1.1 |
| CYA | | | | IAML | | 23 12 39.6 | |
| | comp=Z,36nm,0.2s | | | | | | |
| CYA | | | | eS | Sn | 23 13 33.9 | -2.2 |
| TCA | Tanti | 6.83 | 118 | eP | Pn | 23 13 01.2 | +0.9 |

*SJA **07** 23:28:03.7±0.9, 27°.70S×71°.81W, h11km, ML3.7, MW3.8*
*GUC **07** 23:28:12.8±0.6, 28°.40S×71°.39W, h12km±6km, ML3.4*
**ISC 07 23:28:15.2**±2.5**, 28°.33S**±0°.07×**71°.19W**±0°.09**, h5km**±12km**, n21, σ2s.42/36, 1D, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VACH | Vallenar | 0.45 | 123 | eP | Pg | 23 28 24.4 | +0.5 |
| VACH | | | | eS | Sb | 23 28 33.9 | +1.2 |
| LCO | Las Campanas | 0.80 | 148 | eP | Pn | 23 28 37.7 | +4.3 |
| LCO | | | | eS | Sn | 23 28 44.9 | -1.0 |
| LCO | Las Campanas | 0.80 | 148 | ⇓iP | Pg | 23 28 30.6 | +0.1 |
| LCO | | | | i S | Sb | 23 28 43.9 | +0.8 |
| LCO | | | | IAML | | 23 28 49.3 | |
| | comp=N,1μm,0.3s | | | | | | |
| LSCH | La Serena | 1.57 | 182 | IAML | | 23 29 21.7 | |
| | comp=N,584nm,0.3s | | | | | | |
| TLL | Tololo Astrono | 1.86 | 170 | eP | Pn | 23 28 46.3 | -1.7 |
| TLL | | | | i S | Sb | 23 29 12.4 | -1.1 |
| TLL | | | | IAML | | 23 29 25.7 | |
| | comp=E,1μm,0.5s | | | | | | |
| AGUA | GUANDACOL | 2.63 | 117 | eP | Pn | 23 29 00.3 | +1.9 |
| AGUA | | | | eS | Sg | 23 29 41.4 | +1.7 |
| VCA | Vinchina | 2.66 | 99 | eP | Pb | 23 29 01.5 | -1.8 |
| VCA | | | | eS | Sg | 23 29 43.5 | +3.0 |
| VCA | | | | IAML | | 23 29 48.5 | |
| | comp=Z,125nm,0.5s | | | | | | |
| VCA | Vinchina | 2.66 | 99 | eP | Pb | 23 29 01.4 | -2.0 |
| VCA | | | | i S | Sb | 23 29 37.3 | +1.0 |
| VCA | | | | IAML | | 23 29 49.2 | |
| | comp=E,200nm,0.3s | | | | | | |
| AMOG | MOGNA | 3.50 | 139 | eP | Pn | 23 29 12.5 | +2.1 |
| AMOG | | | | eS | Sg | 23 30 04.4 | -3.3 |
| AANI | Anillaco | 3.77 | 98 | eP | Pn | 23 29 15.2 | +1.1 |
| AANI | | | | eS | Sb | 23 30 06.8 | -1.6 |
| RTLS | Leoncito | 3.82 | 155 | eP | Pn | 23 29 17.3 | +2.3 |
| RTLS | | | | eS | Sb | 23 30 13.4 | +3.3 |
| ACLC | CERRO LA CRUZ | 3.87 | 107 | eS | Sb | 23 30 10.5 | -0.8 |
| AUSP | Uspallata | 4.18 | 159 | eP | Pn | 23 29 22.3 | +2.4 |
| APLL | PUNTA DE LOS L | 4.56 | 118 | eP | Pn | 23 29 24.1 | -0.8 |
| APLL | | | | eS | Sb | 23 30 25.0 | -6.0 |
| ASAL | Salagasta | 4.71 | 155 | eP | Pn | 23 29 28.5 | +1.6 |
| ASAL | | | | eS | Sb | 23 30 35.9 | +0.6 |
| CYA | Choya | 4.75 | 93 | eP | Pn | 23 29 28.4 | +0.9 |
| CYA | | | | eS | Sn | 23 30 24.6 | +1.6 |
| ARCO | CERRO ARCO | 4.90 | 157 | eP | Pn | 23 29 31.0 | +1.4 |
| ARCO | | | | eS | Sb | 23 30 38.0 | -2.9 |
| FSA | Cafayete | 5.14 | 66 | eP | Pn | 23 29 33.5 | +0.4 |
| ACAN | Cantantal | 5.23 | 140 | eP | Pn | 23 29 37.8 | +3.7 |
| ACAN | | | | eS | Sb | 23 30 45.0 | -5.4 |
| AHML | Horco Molle | 5.42 | 75 | eP | Pn | 23 29 37.3 | +0.5 |
| TCA | Tanti | 6.46 | 119 | eP | Pn | 23 29 51.7 | +0.6 |
| TCA | | | | eS | Sn | 23 31 06.4 | +1.0 |
| TCA | | | | IAML | | 23 31 14.7 | |
| | comp=Z,14nm,0.6s | | | | | | |

*CSEM **07** 23:35:44.8, 37°.61N×25°.72E, h19km, ML1.9/8*
**ATH 07 23:35:44.8, 37°.61N**×**25°.72E, h19km**±2km**, ML1.9**/8**, Error ellipse: s-maj=2.6km s-min=1.1km az=133.0, Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| APE | Apeiranthos | 0.56 | 195 | P | Pb | 23 35 55.8 | -0.2 |
| APE | | | | S | Sb | 23 36 02.4 | -1.2 |
| APE | | | | AML | AML | 23 36 09.3 | |
| | comp=E,130μm,0.4s | | | | | | |
| APE | | | | AML | AML | 23 36 10.9 | |
| | comp=N,93μm,0.2s | | | | | | |
| APE | Apeiranthos | 0.56 | 195 | P | Pb | 23 35 55.8 | -0.2 |
| APE | | | | S | Sb | 23 36 02.4 | -1.2 |
| CHOS | Chios island | 0.82 | 19 | P | Pb | 23 35 59.2 | -1.2 |
| CHOS | | | | S | Sb | 23 36 10.1 | -1.0 |
| CHOS | | | | AML | AML | 23 36 16.3 | |
| | comp=E,118μm,0.2s | | | | | | |
| CHOS | | | | AML | AML | 23 36 21.0 | |
| | comp=N,123μm,0.5s | | | | | | |
| CHOS | Chios island | 0.82 | 19 | P | Pb | 23 35 59.2 | -1.2 |
| CHOS | | | | S | Sb | 23 36 10.1 | -1.0 |
| SMG | Samos | 0.89 | 84 | P | Pb | 23 36 01.4 | -0.3 |
| SMG | | | | S | Sg | 23 36 14.1 | 0.0 |
| SMG | | | | AML | AML | 23 36 17.9 | |
| | comp=N,124μm,0.6s | | | | | | |
| SMG | | | | AML | AML | 23 36 18.4 | |
| | comp=E,100μm,0.3s | | | | | | |
| SMG | Samos | 0.89 | 84 | P | Pb | 23 36 01.4 | -0.3 |
| SMG | | | | S | Sg | 23 36 14.1 | 0.0 |
| SERI | Serifos | 1.08 | 246 | P | Pg | 23 36 07.1 | +1.3 |
| SERI | | | | S | Sn | 23 36 19.5 | +0.1 |
| SERI | | | | AML | AML | 23 36 29.7 | |
| | comp=E,113μm,0.6s | | | | | | |
| SERI | | | | AML | AML | 23 36 29.9 | |
| | comp=N,64μm,0.3s | | | | | | |
| SERI | Serifos | 1.08 | 246 | P | Pg | 23 36 07.1 | +1.4 |
| SERI | | | | S | Sn | 23 36 19.5 | +0.1 |
| KARY | Karystos | 1.10 | 293 | P | Pg | 23 36 05.7 | -0.3 |
| KARY | | | | S | Sn | 23 36 19.5 | -0.2 |
| KARY | | | | AML | AML | 23 36 21.9 | |
| | comp=E,156μm,0.2s | | | | | | |
| KARY | | | | AML | AML | 23 36 22.6 | |
| | comp=N,148μm,0.2s | | | | | | |
| KARY | Karystos | 1.10 | 293 | P | Pg | 23 36 05.7 | -0.3 |
| KARY | | | | S | Sn | 23 36 19.5 | -0.3 |
| VLY | Voula,Athens | 1.54 | 279 | P | Pg | 23 36 14.4 | -0.1 |
| VLY | | | | S | Sg | 23 36 35.0 | +0.3 |
| VLY | | | | AML | AML | 23 36 42.5 | |
| | comp=N,94μm,0.8s | | | | | | |
| VLY | | | | AML | AML | 23 36 45.4 | |
| | comp=E,110μm,1.5s | | | | | | |
| VLY | Voula,Athens | 1.54 | 279 | P | Pg | 23 36 14.4 | -0.1 |
| VLY | | | | S | Sg | 23 36 35.0 | +0.4 |
| ATHU | Athens Univers | 1.57 | 284 | P | Pg | 23 36 14.8 | -0.3 |
| ATHU | | | | S | Sg | 23 36 34.4 | -1.1 |
| ATHU | | | | AML | AML | 23 36 44.9 | |
| | comp=N,55μm,1.1s | | | | | | |
| ATHU | | | | AML | AML | 23 36 45.2 | |
| | comp=E,49μm,1.3s | | | | | | |
| ATHU | Athens Univers | 1.57 | 284 | P | Pg | 23 36 14.8 | -0.2 |
| ATHU | | | | S | Sg | 23 36 34.4 | -1.1 |
| EREA | Eretria | 1.62 | 300 | P | Pg | 23 36 15.8 | -0.3 |
| EREA | | | | AML | AML | 23 36 37.2 | |
| | comp=E,243μm,2.0s | | | | | | |
| EREA | | | | S | Sg | 23 36 37.5 | +0.3 |
| EREA | | | | AML | AML | 23 36 41.0 | |
| | comp=N,82μm,0.7s | | | | | | |
| EREA | Eretria | 1.62 | 300 | P | Pg | 23 36 15.8 | -0.3 |
| EREA | | | | S | Sg | 23 36 37.5 | +0.3 |

*IDC **07** 23:37:16.8±3.0, 22°.87S×179°.34W, h473km±31km, mb3.0/6, mb1 3.2/6, mb1mx3.1/23, mbtmp3.8/6, Error ellipse: s-maj=27.8km s-min=23.0km az=42.0*
*ISCJB **07** 23:37:17.5±1.3, 22°.9S±0°.1×179°.3W±0°.2, h500km, mb3.5/6, Error ellipse: s-maj=27.0km s-min=15.0km az=173.5*
**ISC 07 23:37:19.2**±1.1**, 23°.1S**±0°.1×**179°.3W**±0°.2**, h500km, n11, σ1s.70/11, mb3.4/6, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RAO | Raoul Island | 6.27 | 169 | P | P | 23 38 56.5 | -1.4 |
| | 66nm,0.3s,baz=319,slow=20,SNR=4.7 | | | | | | |
| URZ | Urewera | 15.43 | 191 | S | S | 23 43 13.6 | -0.5 |
| | 0.6nm,0.3s,baz=18,slow=20,SNR=2.8 | | | | | | |
| RPZ | Rata Peaks | 22.06 | 199 | P | P | 23 41 36.7 | +0.5 |
| | 4.5nm,0.4s,baz=12,slow=19,SNR=7.4 | | | | | | |
| STKA | Stephens Creek | 35.62 | 247 | P | P | 23 43 34.5 | +0.3 |
| | 1.0nm,0.4s,baz=100,slow=12,SNR=4.1 | | | | | | |
| ASAR | Alice Springs | 42.80 | 260 | P | P | 23 44 31.9 | -0.6 |
| | 0.5nm,0.6s,baz=91,slow=7.8,SNR=5.1 | | | | | | |
| WRA | Warramunga Arr | 43.10 | 265 | P | P | 23 44 33.8 | -1.1 |
| | 0.4nm,0.7s,baz=103,slow=7.9,SNR=8.8 | | | | | | |
| VNDA | Vanda | 55.24 | 185 | P | P | 23 46 06.2 | +2.4 |
| | 1.6nm,1.0s,baz=15,slow=7.5,SNR=3.8 | | | | | | |
| ILAR | Eielson Array | 91.10 | 13 | P | P | 23 49 28.6 | -0.8 |
| | 0.6nm,1.1s,baz=206,slow=6.0,SNR=2.8 | | | | | | |
| AKASG | Malin Array Be | 144.62 | 328 | PKP | PKPdf | 23 55 57.3 | -0.9 |
| | 0.7nm,0.3s,baz=45,slow=4.0,SNR=8.2 | | | | | | |
| BRTR | Keskin Array B | 147.58 | 309 | PKPbc | PKPdf | 23 56 06.9 | +3.2 |
| | 0.4nm,0.6s,baz=104,slow=4.8,SNR=3.3 | | | | | | |
| TORD | Torodi Ar. Bea | 170.07 | 186 | PKPab | PKPab | 23 57 47.3 | -1.2 |
| | 0.3nm,0.8s,baz=180,slow=4.7,SNR=3.5 | | | | | | |

**BUC 07 23:37:55.5**±0.6**, 45°.48N**×**24°.42E, h2km, MD1.9**/3**, 6C, Error ellipse: s-maj=11.8km s-min=2.2km az=11.0, Romania**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ARR | Arges | 0.19 | 126 | ⇑iP | Pg | 23 37 59.5 | +0.4 |
| ARR | | | | S | Sg | 23 38 01.8 | +0.3 |
| ARR | Arges | 0.19 | 126 | ⇑iP | Pg | 23 37 59.5 | +0.4 |
| ARR | | | | i S | Sg | 23 38 01.8 | +0.3 |
| VOIR | | 0.44 | 95 | ⇑iP | Pg | 23 38 04.4 | +0.4 |
| VOIR | | 0.44 | 95 | S | Sg | 23 38 11.2 | +1.4 |
| VOIR | | 0.44 | 95 | ⇑iP | Pg | 23 38 04.4 | +0.4 |
| VOIR | | | | i S | Sg | 23 38 11.2 | +1.4 |
| LOT | Lotru | 0.46 | 267 | ⇑iP | Pg | 23 38 05.0 | +0.7 |
| LOT | Lotru | 0.46 | 267 | S | Sg | 23 38 11.4 | +1.1 |
| LOT | Lotru | 0.46 | 267 | ⇑iP | Pg | 23 38 05.0 | +0.7 |
| LOT | | | | i S | Sg | 23 38 11.4 | +1.1 |

*ISK **07** 23:42:58.9, 38°.61N×43°.22E, h5km, MD2.7*
*CSEM **07** 23:42:59.7±0.2, 38°.64N×43°.28E, h10km, ML2.3, Error ellipse: s-maj=5.7km s-min=4.1km az=72.0*
*ISCJB **07** 23:43:00.1±0.5, 38°.65N±0°.03×43°.27E±0°.05, h13km±5km, Error ellipse: s-maj=6.5km s-min=4.7km az=171.6*
*DDA **07** 23:43:00.1, 38°.65N×43°.25E, h7km, Ml2.3*
**ISC 07 23:43:00.1**±1.0**, 38°.64N**±0°.02×**43°.24E**±0°.03**, h8km**±8km**, n22, σ0s.73/34, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.13 | 112 | ePG | Pg | 23 43 03.0 | 0.0 |
| VANB | Van | 0.13 | 112 | ePg | Pg | 23 43 03.0 | 0.0 |
| TVAN | Van | 0.18 | 131 | i P | Pg | 23 43 03.1 | -0.7 |
| TVAN | | | | i S | Sg | 23 43 07.4 | +1.0 |
| TVAN | Van | 0.18 | 131 | P | Pg | 23 43 03.1 | -0.7 |
| TVAN | | | | S | Sg | 23 43 07.4 | +1.0 |
| GEVA | Gevas | 0.36 | 203 | i P | Pg | 23 43 06.8 | -0.4 |
| GEVA | | | | i S | Sb | 23 43 14.3 | -0.4 |
| GEVA | Gevas | 0.36 | 203 | P | Pg | 23 43 06.8 | -0.4 |
| GEVA | | | | S | Sb | 23 43 14.3 | -0.4 |
| VMUR | Van-Muradiye | 0.43 | 37 | i P | Pg | 23 43 07.9 | -0.7 |
| VMUR | | | | i S | Sb | 23 43 16.6 | -0.3 |
| VMUR | Van-Muradiye | 0.43 | 37 | P | Pg | 23 43 07.9 | -0.7 |
| ADCV | BITLIS_Adilcev | 0.43 | 292 | i P | Pg | 23 43 08.3 | -0.3 |
| ADCV | | | | i S | Sb | 23 43 16.6 | -0.3 |
| ADCV | BITLIS_Adilcev | 0.43 | 292 | P | Pg | 23 43 08.3 | -0.3 |
| ADCV | | | | S | Sb | 23 43 16.5 | -0.3 |
| CLDR | Caldiran | 0.73 | 47 | ePG | Pb | 23 43 14.4 | -0.8 |
| CLDR | Caldiran | 0.73 | 47 | ePg | Pb | 23 43 14.4 | -0.8 |
| TUTA | Tutak | 0.82 | 337 | i P | Pg | 23 43 15.3 | -0.6 |
| TUTA | | | | i S | Sg | 23 43 26.8 | 0.0 |
| TUTA | Tutak | 0.82 | 337 | P | Pg | 23 43 15.4 | -0.6 |
| TUTA | | | | S | Sg | 23 43 26.8 | 0.0 |
| AGRB | Hanur-Agry | 0.95 | 348 | ePG | Pg | 23 43 18.1 | -0.2 |
| AGRB | | | | eSG | Sb | 23 43 32.3 | +0.6 |
| AGRB | Hanur-Agry | 0.95 | 348 | ePg | Pg | 23 43 18.1 | -0.2 |
| AGRB | | | | eSg | Sb | 23 43 32.3 | +0.6 |
| EKAR | Karacoban | 1.10 | 304 | i P | Pn | 23 43 22.5 | +0.5 |
| EKAR | Karacoban | 1.10 | 304 | P | Pn | 23 43 22.5 | +0.5 |
| HAKT | HAKKARI | 1.15 | 161 | i P | Pg | 23 43 21.4 | -0.7 |
| HAKT | | | | i S | Sn | 23 43 41.2 | +2.5 |
| HAKT | HAKKARI | 1.15 | 161 | P | Pg | 23 43 21.4 | -0.7 |
| CUKT | Cukurca | 1.43 | 168 | ePN | Pn | 23 43 25.9 | -0.5 |
| CUKT | Cukurca | 1.43 | 168 | ePn | Pn | 23 43 25.9 | -0.5 |

*NEIC **08** 00:00:25.8±0.0, 18°.36N×101°.03W, h41km, MD4.0(MEX), After MEX.*
**MEX 08 00:00:25.6**±0.6**, 18°.36N**×**101°.02W, h48km**±9km**, MD3.9, Guerrero**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ARIG | Puente Sto Nin | 0.65 | 97 | eP | Pn | 00 00 36.6 | -2.0 |
| ARIG | | | | eS | Sn | 00 00 46.2 | -1.8 |
| ZIIG | Zihuatanejo | 0.86 | 209 | eP | Pn | 00 00 40.0 | -1.4 |
| ZIIG | | | | eS | Sn | 00 00 51.2 | -1.7 |
| ZIIG | Zihuatanejo | 0.86 | 209 | eP | Pn | 00 00 40.0 | -1.4 |
| ZIIG | | | | eS | Sn | 00 00 50.9 | -2.0 |
| MOIG | Morelia | 1.32 | 353 | eP | Pn | 00 00 46.2 | -1.6 |
| MOIG | | | | i S | Sn | 00 01 02.3 | -2.2 |
| MOIG | Morelia | 1.32 | 353 | Pn | Pn | 00 00 46.5 | -1.4 |
| MOIG | | | | Sn | Sn | 00 00 58.9 | -5.6 |
| MEIG | Mezcala | 1.40 | 108 | eP | Pn | 00 00 47.4 | -1.5 |
| MEIG | | | | eS | Sn | 00 01 04.4 | -1.9 |
| MEIG | Mezcala | 1.40 | 108 | eP | Pn | 00 00 47.4 | -1.5 |
| MEIG | | | | eS | Sn | 00 01 04.4 | -1.9 |
| PLIG | Platanillo | 1.45 | 88 | eP | Pn | 00 00 48.0 | -1.5 |
| PLIG | | | | i S | Sn | 00 01 05.9 | -1.4 |
| PLIG | Platanillo | 1.45 | 88 | eP | Pn | 00 00 48.0 | -1.5 |
| PLIG | | | | i S | Sn | 00 01 05.9 | -1.4 |
| CAIG | El Cayaco | 1.49 | 151 | eP | Pn | 00 00 47.9 | -2.1 |
| CAIG | | | | i S | Sn | 00 01 05.7 | -2.6 |
| CAIG | El Cayaco | 1.49 | 151 | eP | Pn | 00 00 47.9 | -2.1 |
| CAIG | | | | i S | Sn | 00 01 05.7 | -2.6 |
| ACP2 | Acapulco | 1.83 | 144 | eP | Pn | 00 00 54.1 | -0.6 |
| ACP2 | | | | i S | Sn | 00 01 14.6 | -2.1 |
| ACX | Acapulco | 1.85 | 143 | eP | Pn | 00 00 53.0 | -1.9 |
| ACX | | | | eS | Sn | 00 01 14.3 | -3.0 |
| ACX | Acapulco | 1.85 | 143 | eP | Pn | 00 00 52.1 | -2.8 |
| ACX | | | | eS | Sn | 00 01 14.3 | -3.0 |
| YAIG | Yautepec | 1.92 | 75 | eP | Pn | 00 00 54.7 | -1.3 |
| YAIG | | | | i S | Sn | 00 01 16.7 | -2.4 |
| YAIG | Yautepec | 1.92 | 75 | eP | Pn | 00 00 54.6 | -1.4 |
| YAIG | | | | i S | Sn | 00 01 16.7 | -2.4 |
| MMIG | Aquila | 2.21 | 269 | eP | Pn | 00 00 58.2 | -1.6 |
| MMIG | | | | eS | Sn | 00 01 23.9 | -2.0 |
| MMIG | Aquila | 2.21 | 269 | eP | Pn | 00 00 58.2 | -1.6 |
| MMIG | | | | eS | Sn | 00 01 23.9 | -2.0 |

*IDC **08** 00:17:31.9±1.2, 27°.90S×71°.29W, h0km, mb4.2/5, mb1 4.3/6, mb1mx4.0/29, mbtmp4.2/6, ML4.2/1, MS3.7/1, Ms1 3.8/1, ms1mx3.2/24, Error ellipse: s-maj=41.0km s-min=33.8km az=69.0*

*SJA **08** 00:17:34.6±0.7, 28.°10S×71.°61W, h20km, ML4.4, MW4.4*
*GUC **08** 00:17:35.7±0.7, 28.°03S×71.°18W, h45km±4km, ML4.3*
*NEIC **08** 00:17:35.0±0.0, 28.°01S×71.°30W, h29km, mb3.9/1, ML4.3(GUC), After GUC.*
**ISC 08 00:17:31.9**±2.5**, 27.°94S**±0.°03×**71.°40W**±0.°06**, h2**km±15km**, n41, σ2.s67**/58**, mb4.3**/5**, 4C-1D, Near coast of northern Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VACH | Vallenar | 0.85 | 138 | ⇑iP | Pb | 00 17 49.9 | +0.5 |
| VACH | | | | iS | Sb | 00 17 59.9 | -1.3 |
| GO03 | Copiap | 1.09 | 72 | ⇓iP | Pn | 00 17 54.0 | -0.2 |
| GO03 | | | | iS | Sb | 00 18 08.3 | 0.0 |
| GO03 | | | | IAML | | 00 18 14.2 | |
| | comp=N,6µm,0.3s | | | | | | |
| CPCH | Copiapo | 1.10 | 58 | ⇑iP | Pn | 00 17 54.3 | 0.0 |
| CPCH | | | | iS | Sb | 00 18 08.6 | +0.1 |
| LCO | Las Campanas | 1.23 | 150 | ePn | Pn | 00 17 56.2 | -0.2 |
| LCO | | | | eS | Sb | 00 18 10.0 | -2.5 |
| LCO | Las Campanas | 1.23 | 150 | eP | Pn | 00 17 56.4 | 0.0 |
| LCO | | | | eS | Sb | 00 18 13.0 | +0.6 |
| LCO | Las Campanas | 1.23 | 150 | ⇑iP | Pn | 00 17 56.2 | -0.2 |
| LCO | | | | iS | Sb | 00 18 11.3 | -1.2 |
| LCO | | | | IAML | | 00 18 15.4 | |
| | comp=E,8µm,0.3s | | | | | | |
| TLL | Tololo Astrono | 2.28 | 167 | ⇑iP | Pn | 00 18 11.9 | +1.2 |
| TLL | | | | iS | Sn | 00 18 39.9 | +0.4 |
| TLL | | | | IAML | | 00 18 50.0 | |
| | comp=E,10µm,0.6s | | | | | | |
| VCA | Vinchina | 2.93 | 106 | eP | Pb | 00 18 25.0 | +0.1 |
| VCA | | | | eS | Sg | 00 19 06.2 | +0.2 |
| AGUA | GUANDACOL | 2.98 | 122 | eP | Pb | 00 18 25.5 | -0.3 |
| AGUA | | | | eS | Sb | 00 19 04.0 | +1.2 |
| PB14 | IPOC Station P | 3.42 | 15 | eP | Pn | 00 18 26.1 | -0.5 |
| PB14 | | | | eS | Sb | 00 19 19.7 | +4.1 |
| AMOG | MOGNA | 3.92 | 140 | eP | Pn | 00 18 37.5 | +4.3 |
| AMOG | | | | eS | Sb | 00 19 26.4 | -3.3 |
| AANI | Anillaco | 4.03 | 103 | eP | Pn | 00 18 38.9 | +4.1 |
| AANI | | | | eS | Sb | 00 19 30.0 | -2.9 |
| RTLL | Cerro Villicun | 4.23 | 144 | eP | Pn | 00 18 41.3 | +3.9 |
| RTLL | | | | eS | Sb | 00 19 35.0 | -3.6 |
| RTLS | Leoncito | 4.25 | 155 | eP | Pn | 00 18 42.7 | +4.7 |
| RTLS | | | | eS | Sb | 00 19 43.4 | +3.8 |
| AUSP | Uspallata | 4.61 | 158 | eP | Pn | 00 18 47.1 | +4.2 |
| RTCV | Cerro Valdivia | 4.63 | 148 | eP | Pn | 00 18 46.8 | +3.9 |
| RTCV | | | | eS | Sb | 00 19 49.0 | -1.1 |
| CYA | Choya | 4.97 | 97 | eP | Pn | 00 18 50.9 | +3.3 |
| CYA | | | | eS | Sn | 00 19 50.6 | +4.9 |
| ASAL | Salagasta | 5.14 | 155 | eP | Pn | 00 18 53.7 | +3.7 |
| FSA | Cafayete | 5.17 | 71 | eP | Pn | 00 18 56.6 | +6.1 |
| FSA | | | | eS | Sb | 00 20 03.3 | -2.6 |
| ARCO | CERRO ARCO | 5.33 | 157 | eP | Pn | 00 18 56.6 | +3.9 |
| ARCO | | | | IAML | | 00 20 32.3 | |
| | comp=Z,226nm,0.6s | | | | | | |
| AHML | Horco Molle | 5.52 | 79 | eP | Pn | 00 18 58.9 | +3.7 |
| AAGR | Agrelo | 5.58 | 157 | eP | Pn | 00 19 02.4 | +6.3 |
| ACAN | Cantantal | 5.65 | 141 | eP | Pn | 00 19 01.0 | +4.0 |
| ACAN | | | | eS | Sn | 00 20 07.5 | +5.0 |
| AVIZ | Vizcacheras | 6.04 | 156 | eP | Pn | 00 19 06.2 | +3.8 |
| TCA | Tanti | 6.82 | 121 | eP | Pn | 00 19 14.6 | +1.5 |
| GO05 | HualaæØ | 7.06 | 184 | eP | Pn | 00 19 13.8 | -2.5 |
| RFA | San Rafael | 7.25 | 160 | eP | Pn | 00 19 25.8 | +6.8 |
| LPAZ | La Paz | 11.99 | 15 | Pn | Pn | 00 20 23.4 | -1.1 |
| | comp=Z,0.6nm,0.3s,baz=194,slow=8.3,SNR=6.0 | | | | | | |
| LPAZ | | | | LR | LR | 00 25 10.0 | |
| | comp=Z,328nm,18.5s,baz=142,slow=38 | | | | | | |
| CPUP | Villa Florida | 12.64 | 86 | Pn | Pn | 00 20 35.0 | +2.3 |
| | comp=Z,0.1nm,0.3s,baz=247,slow=13,SNR=3.4 | | | | | | |
| CPUP | | | | Sn | Sn | 00 22 53.3 | -0.8 |
| | comp=Z,0.1nm,0.3s,baz=208,slow=15,SNR=1.7 | | | | | | |
| CPUP | | | | Lg | Lg | 00 24 01.5 | |
| | comp=Z,0.2nm,0.3s,baz=162,slow=20,SNR=2.9 | | | | | | |
| TRQA | Tornquist | 12.81 | 144 | ePn | Pn | 00 20 37.1 | +2.1 |
| TRQA | | | | eS | Sn | 00 22 57.9 | -0.3 |
| SIV | San Ignacio | 15.26 | 41 | Pn | Pn | 00 21 02.3 | -6.3 |
| | comp=Z,1.0nm,0.3s,baz=244,slow=14,SNR=6.0 | | | | | | |
| SAML | Samuel | 20.42 | 24 | eP | P | 00 22 11.4 | +0.9 |
| | comp=Z,6.0nm,1.0s | | | | | | |
| PTGA | Pitinga | 29.19 | 24 | P | P | 00 23 34.9 | 0.0 |
| | comp=Z,1.9nm,0.5s,baz=230,slow=7.0,SNR=4.7 | | | | | | |
| H06E1 | SOCORRO T-PHAS | 60.17 | 316 | T | T | 01 33 07.2 | |
| | SNR=6.4 | | | | | | |
| TXAR | Lajitas Array | 64.78 | 329 | P | P | 00 28 11.7 | -0.5 |
| | comp=Z,0.5nm,0.8s,baz=134,slow=6.4,SNR=4.3 | | | | | | |
| DBIC | Dimbokro | 72.78 | 73 | P | P | 00 29 02.1 | -0.1 |
| | comp=Z,2.0nm,0.5s,baz=246,slow=8.4,SNR=4.0 | | | | | | |
| TORD | Torodi Ar. Bea | 81.65 | 70 | P | P | 00 29 51.0 | -1.1 |
| | comp=Z,2.6nm,1.0s,baz=263,slow=4.4,SNR=14 | | | | | | |
| BOSA | Boshof | 82.42 | 118 | P | P | 00 29 55.9 | -0.3 |
| | comp=Z,4.0nm,1.0s,baz=162,slow=10,SNR=3.0 | | | | | | |
| WRA | Warramunga Arr | 126.27 | 210 | PKP | PKPdf | 00 36 37.1 | +0.2 |
| | comp=Z,0.6nm,0.8s,baz=157,slow=1.6,SNR=4.8 | | | | | | |
| ZALV | Zalesovo Beam | 148.71 | 27 | PKP | PKPdf | 00 37 16.3 | -0.3 |
| | comp=Z,2.8nm,1.1s,baz=310,slow=4.7,SNR=4.8 | | | | | | |
| ZALV | | | | PKPbc | PKiKP | 00 37 21.3 | -0.6 |
| | comp=Z,5.1nm,0.9s,baz=300,slow=3.8,SNR=19 | | | | | | |
| MKAR | Makanchi Array | 152.08 | 41 | PKPbc | PKPbc | 00 37 29.0 | +0.3 |
| | comp=Z,1.3nm,0.8s,baz=312,slow=2.3,SNR=5.5 | | | | | | |

---

*ISCJB **08** 00:17:54.1±1.0, 22.°13S±0.°05×68.°57W±0.°09, h131km±14km, Error ellipse: s-maj=14.2km s-min=7.3km az=164.7*
*GUC **08** 00:17:54.8±0.7, 22.°12S×68.°59W, h122km±6km, ML3.4*
**ISC 08 00:17:54.7**±2.0**, 22.°12S**±0.°06×**68.°68W**±0.°08**, h137**km±19km**, n11, σ1.s36**/20**, 7C, Northern Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PB09 | IPOC Station P | 0.62 | 302 | ⇑iP | Pn | 00 18 15.1 | -0.4 |
| PB09 | | | | iS | Sn | 00 18 30.1 | -1.2 |
| PB09 | | | | IAML | | 00 18 30.3 | |
| | comp=N,2µm,0.3s | | | | | | |
| PB06 | IPOC Station P | 1.01 | 235 | ⇑iP | Pn | 00 18 18.4 | -0.2 |
| PB06 | | | | iS | Sn | 00 18 36.5 | -0.2 |
| PB06 | | | | IAML | | 00 18 39.0 | |
| | comp=N,358nm,0.1s | | | | | | |
| PB07 | IPOC Station P | 1.19 | 289 | ⇑iP | Pn | 00 18 20.7 | +0.4 |
| PB07 | | | | iS | Sn | 00 18 40.0 | +0.2 |
| PB07 | | | | IAML | | 00 18 41.5 | |
| | comp=N,787nm,0.2s | | | | | | |
| PB01 | IPOC Station P | 1.31 | 325 | ⇑iP | Pn | 00 18 21.3 | -0.2 |
| PB01 | | | | iS | Sn | 00 18 41.9 | +0.1 |
| PB01 | | | | IAML | | 00 18 42.9 | |
| | comp=E,815nm,0.2s | | | | | | |
| PB04 | IPOC Station P | 1.38 | 261 | ⇑iP | Pn | 00 18 22.8 | +0.6 |
| PB04 | | | | iS | Sn | 00 18 44.0 | +0.8 |
| PB04 | | | | IAML | | 00 18 46.8 | |
| | comp=N,548nm,0.5s | | | | | | |
| PB08 | IPOC Station P | 2.02 | 347 | ⇑iP | Pn | 00 18 30.5 | +0.7 |
| PB08 | | | | iS | Sn | 00 18 57.0 | +0.4 |
| PB08 | | | | IAML | | 00 18 58.3 | |
| | comp=E,271nm,0.7s | | | | | | |
| PB11 | IPOC Station P | 2.52 | 339 | ⇑iP | Pn | 00 18 35.5 | -0.2 |
| PB11 | | | | eS | Sn | 00 19 06.6 | -0.5 |
| MNMC | Minye Minye | 3.10 | 344 | eP | Pn | 00 18 43.2 | 0.0 |
| MNMC | | | | iS | Sn | 00 19 20.1 | -0.4 |
| MNMC | | | | IAML | | 00 19 24.0 | |
| | comp=E,268nm,0.2s | | | | | | |
| HJA | Humahuaca | 3.21 | 110 | eP | Pn | 00 18 43.8 | -0.8 |
| HJA | | | | eS | Sn | 00 19 27.5 | +4.4 |
| AZAP | Zapla | 3.93 | 123 | eP | Pn | 00 18 52.6 | -1.3 |
| AZAP | | | | eS | Sn | 00 19 19.7 | -20 |
| ASTB | Santa Barbara | 4.29 | 116 | eP | Pn | 00 18 56.7 | -2.0 |
| ASTB | | | | eS | Sn | 00 19 26.7 | -22 |

---

*IDC **08** 00:20:19.4±0.9, 1.°61N×126.°98E, h0km, mb4.2/8, mb1 4.3/9, mb1mx4.0/36, mbtmp4.2/9, ML4.3/1, Error ellipse: s-maj=53.1km s-min=15.4km az=76.0*
*ISCJB **08** 00:20:29.4±0.7, 1.°5N±0.°1×126.°9E±0.°3, h103km, mb4.2/8, Error ellipse: s-maj=42.3km s-min=12.5km az=169.1*
**ISC 08 00:20:31.4**±0.9**, 1.°5N**±0.°1×**127.°0E**±0.°3**, h103**km**, n9, σ0.s81**/9**, mb4.3**/8**, Northern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| FITZ | Fitzroy Crossi | 19.54 | 184 | P | P | 00 24 51.1 | +0.2 |
| | 0.6nm,0.3s,baz=10,slow=12,SNR=11 | | | | | | |
| WRA | Warramunga Arr | 22.51 | 162 | P | P | 00 25 21.9 | -0.8 |
| | 7.3nm,0.4s,baz=339,slow=11,SNR=20 | | | | | | |
| ASAR | Alice Springs | 25.92 | 165 | P | P | 00 25 53.8 | -0.3 |
| | 1.6nm,0.4s,baz=347,slow=7.8,SNR=16 | | | | | | |
| NWAO | Narrogin (SRO) | 35.47 | 194 | P | P | 00 27 18.9 | +0.8 |
| | 6.1nm,0.6s,baz=239,slow=9.2,SNR=5.1 | | | | | | |
| STKA | Stephens Creek | 35.99 | 159 | P | P | 00 27 22.0 | -0.5 |
| | 1.7nm,0.4s,baz=330,slow=8.1,SNR=7.1 | | | | | | |
| SONM | Songino Array | 49.47 | 342 | P | P | 00 29 10.3 | -1.0 |
| | 0.5nm,0.6s,baz=157,slow=10,SNR=3.1 | | | | | | |
| PETK | Petropavlovsk- | 57.38 | 21 | P | P | 00 30 09.8 | +0.9 |
| | 3.5nm,0.8s,baz=256,slow=5.8,SNR=2.1 | | | | | | |
| MKAR | Makanchi Array | 59.51 | 326 | P | P | 00 30 23.4 | -0.5 |
| | 2.0nm,0.5s,baz=121,slow=8.0,SNR=26 | | | | | | |
| ZALV | Zalesovo Beam | 62.66 | 333 | P | P | 00 30 45.6 | +0.6 |
| | 0.6nm,0.4s,baz=110,slow=6.4,SNR=3.4 | | | | | | |

---

*SJA **08** 00:25:41.0±0.5, 27.°73S×71.°44W, h4km±9km, ML4.0, MW4.0*
*GUC **08** 00:25:46.0±0.7, 28.°05S×71.°17W, h41km±5km, ML3.8*
**ISC 08 00:25:40.2**±2.0**, 28.°01S**±0.°04×**71.°52W**±0.°08**, h1**km±12km**, n21, σ2.s48**/27**, 1C-3D, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VACH | Vallenar | 0.88 | 130 | ⇓iP | Pn | 00 25 59.8 | 0.0 |
| VACH | | | | iS | Sb | 00 26 09.4 | -1.1 |
| GO03 | Copiap | 1.21 | 70 | ⇓iP | Pg | 00 26 04.2 | +0.7 |
| GO03 | | | | iS | Sb | 00 26 17.7 | -2.4 |
| GO03 | | | | IAML | | 00 26 24.5 | |
| | comp=E,3µm,0.3s | | | | | | |
| CPCH | Copiapo | 1.22 | 58 | ⇑iP | Pg | 00 26 04.4 | +0.7 |
| CPCH | | | | iS | Sb | 00 26 19.0 | -1.3 |
| LCO | Las Campanas | 1.23 | 144 | ⇓iP | Pg | 00 26 06.1 | +2.2 |
| LCO | | | | iS | Sn | 00 26 21.1 | -1.2 |
| LCO | | | | IAML | | 00 26 26.2 | |
| | comp=E,4µm,0.4s | | | | | | |
| TLL | Tololo Astrono | 2.24 | 164 | eP | Pb | 00 26 22.1 | +0.4 |
| TLL | | | | eS | Sb | 00 26 50.1 | 0.0 |
| TLL | | | | IAML | | 00 26 59.9 | |
| | comp=E,3µm,0.6s | | | | | | |
| AGUA | GUANDACOL | 3.04 | 120 | eP | Pb | 00 26 34.3 | -0.9 |
| AMOG | MOGNA | 3.94 | 139 | eP | Pb | 00 26 48.0 | -2.5 |
| RTLS | Leoncito | 4.24 | 153 | eP | Pb | 00 26 53.6 | -2.3 |
| RTLS | | | | eS | Sb | 00 27 47.2 | -0.5 |
| AUSP | Uspallata | 4.59 | 157 | eP | Pb | 00 26 58.8 | -3.0 |
| AUSP | | | | eS | Sb | 00 27 56.9 | -0.8 |
| RTCV | Cerro Valdivia | 4.63 | 147 | eP | Pb | 00 26 58.5 | -3.9 |
| CYA | Choya | 5.06 | 96 | eP | Pn | 00 27 01.1 | +3.7 |
| CYA | | | | eS | Sn | 00 28 00.5 | +4.0 |
| FSA | Cafayete | 5.29 | 70 | eP | Pn | 00 27 03.0 | +2.4 |
| ARCO | CERRO ARCO | 5.31 | 156 | IAML | | 00 28 24.6 | |
| | comp=Z,67nm,0.6s | | | | | | |
| AHML | Horco Molle | 5.63 | 79 | eP | Pn | 00 27 07.9 | +2.7 |
| ACAN | Cantantal | 5.67 | 140 | eP | Pn | 00 27 12.1 | +6.4 |
| LPAZ | La Paz | 12.08 | 16 | P | Pn | 00 28 34.0 | 0.0 |
| | comp=Z,0.4nm,0.3s,baz=190,slow=6.9,SNR=7.9 | | | | | | |
| SIV | San Ignacio | 15.38 | 41 | P | Pn | 00 29 12.4 | -6.2 |
| | comp=Z,0.5nm,0.3s,baz=244,slow=12,SNR=4.0 | | | | | | |
| DBIC | Dimbokro | 72.90 | 73 | P | P | 00 37 12.4 | +1.0 |
| | comp=Z,3.5nm,0.7s,baz=266,slow=12,SNR=4.3 | | | | | | |
| TORD | Torodi Ar. Bea | 81.77 | 70 | P | P | 00 38 01.2 | +0.1 |
| | comp=Z,0.9nm,0.6s,baz=267,slow=4.2,SNR=17 | | | | | | |
| ZALV | Zalesovo Beam | 148.81 | 27 | PKP | PKPab | 00 45 31.1 | -1.9 |
| | comp=Z,1.4nm,0.6s,baz=303,slow=3.4,SNR=10 | | | | | | |
| MKAR | Makanchi Array | 152.19 | 41 | PKP | PKPbc | 00 45 39.1 | +1.6 |
| | comp=Z,0.8nm,0.6s,baz=290,slow=2.2,SNR=6.6 | | | | | | |

---

*IDC **08** 00:32:46.9±1.0, 29.°73S×176.°65W, h0km, mb4.3/6, mb1 4.4/7, mb1mx4.2/24, mbtmp4.3/7, ML3.7/1, MS4.3/3, Ms1 4.3/3, ms1mx3.5/31, Error ellipse: s-maj=26.2km s-min=21.7km az=10.0*
*ISCJB **08** 00:32:48.2±1.0, 29.°71S±0.°06×176.°66W±0.°10, h21km, mb4.5/8, MS4.3/3, Error ellipse: s-maj=12.3km s-min=8.6km az=160.3*
*NEIC **08** 00:32:50.4±4.1, 29.°70S×176.°68W, h23km±26km, mb4.4/1, Error ellipse: s-maj=22.8km s-min=12.8km az=92.0*
**ISC 08 00:32:51.2**±0.8**, 29.°60S**±0.°08×**176.°75W**±0.°09**, h21**km**, n18, σ1.s69**/21**, mb4.4**/8**, MS4.4**/3**, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RAO | Raoul Island | 1.08 | 289 | Pn | Pn | 00 33 11.7 | +0.6 |
| | baz=103,slow=13 | | | | | | |
| RAO | | | | Sn | Sb | 00 33 27.5 | +2.9 |
| | baz=90,slow=20 | | | | | | |
| RAO | Raoul Island | 1.08 | 289 | ePn | Pn | 00 33 10.7 | -0.4 |
| RAO | | | | eS | Sb | 00 33 23.4 | -1.3 |
| URZ | Urewera | 10.02 | 209 | Pn | Pn | 00 35 12.7 | -1.2 |
| | 0.7nm,0.3s,baz=180,slow=19,SNR=3.5 | | | | | | |
| URZ | | | | Sn | Sn | 00 37 06.3 | +0.6 |
| | 3.5nm,0.3s,baz=237,slow=19,SNR=13 | | | | | | |
| MSVF | Nonsavu | 12.74 | 337 | ePn | Pn | 00 35 52.1 | +0.9 |
| | 28nm,1.0s | | | | | | |
| CTA | Charters Tower | 34.76 | 277 | P | P | 00 39 38.7 | -1.5 |
| | 1.5nm,0.3s,baz=80,slow=17,SNR=4.7 | | | | | | |
| CTA | | | | LR | LR | 00 51 39.0 | |
| | comp=Z,695nm,21.9s,baz=96,slow=32 | | | | | | |
| STKA | Stephens Creek | 35.72 | 256 | P | P | 00 39 48.2 | -0.2 |
| | 5.9nm,1.0s,baz=109,slow=14,SNR=5.7 | | | | | | |
| ASAR | Alice Springs | 44.24 | 266 | P | P | 00 40 59.3 | 0.0 |
| | 4.1nm,0.9s,baz=108,slow=7.8,SNR=29 | | | | | | |
| ASAR | | | | LR | LR | 00 58 58.6 | |
| | comp=Z,511nm,18.8s,baz=70,slow=36 | | | | | | |
| WRAB | Tennant Creek | 45.15 | 271 | eP | P | 00 41 06.3 | -0.3 |
| | 4.9nm,0.9s | | | | | | |
| WRA | Warramunga Arr | 45.16 | 271 | P | P | 00 41 05.6 | -1.1 |
| | 2.6nm,0.6s,baz=110,slow=7.8,SNR=18 | | | | | | |
| WRA | | | | LR | LR | 00 59 02.5 | |
| | comp=Z,182nm,18.3s,baz=100,slow=35 | | | | | | |
| QSPA | South Pole Qui | 60.50 | 180 | eP | P | 00 43 03.9 | +4.4 |
| | 56nm,1.3s | | | | | | |
| MJAR | Matsushiro Arr | 78.22 | 324 | P | P | 00 44 48.0 | -1.2 |
| | 0.9nm,0.3s,baz=147,slow=5.5,SNR=2.8 | | | | | | |
| USRK | Ussuriysk Ar. | 87.10 | 326 | P | P | 00 45 36.1 | +1.0 |
| | 2.9nm,0.8s,baz=96,slow=4.5,SNR=3.8 | | | | | | |
| FINES | FINESS Array B | 144.76 | 341 | PKP | PKPab | 00 52 24.4 | -0.2 |
| | 3.0nm,0.8s,baz=56,slow=3.5,SNR=6.4 | | | | | | |
| KBZ | Khabaz | 145.55 | 305 | PKPbc | PKPdf | 00 52 28.1 | +0.5 |
| | 2.6nm,1.1s,baz=146,slow=11,SNR=2.9 | | | | | | |
| NOA | NORSAR Array B | 148.12 | 353 | PKPbc | PKPbc | 00 52 34.0 | -0.7 |
| | 1.8nm,0.9s,baz=21,slow=3.9,SNR=2.8 | | | | | | |
| AKASG | Malin Array Be | 151.30 | 325 | PKPbc | PKPbc | 00 52 42.1 | -0.7 |
| | 1.7nm,0.6s,baz=45,slow=2.7,SNR=10 | | | | | | |
| BRTR | Keskin Array B | 153.15 | 300 | PKPbc | PKPbc | 00 52 48.0 | +0.4 |
| | 0.7nm,1.0s,baz=185,slow=6.2,SNR=4.2 | | | | | | |
| TORD | Torodi Ar. Bea | 163.56 | 175 | PKPab | PKPab | 00 53 40.9 | -3.5 |
| | 1.3nm,1.2s,baz=180,slow=4.3,SNR=2.8 | | | | | | |

---

*ISCJB **08** 00:33:27.0±1.0, 28.°41N±0.°04×57.°5E±0.°1, h10km, Error ellipse: s-maj=17.5km s-min=5.6km az=172.0*
*CSEM **08** 00:33:27.6±0.5, 28.°40N×57.°51E, h2km, ML2.9, Error ellipse: s-maj=16.9km s-min=5.8km az=85.0*
*DSN **08** 00:33:31.4±1.2, 28.°41N×56.°79E, h16km, ML3.4/6, Error ellipse: s-maj=65.0km s-min=8.8km az=108.0*
*TEH **08** 00:33:34.6, 28.°61N×57.°12E, h5km, ML2.9*
*OMAN **08** 00:33:34.6, 28.°61N×57.°12E, h5km, Error ellipse: s-maj=1.0km s-min=1.0km az=1.0*
**ISC 08 00:33:27.2**±1.1**, 28.°41N**±0.°03×**57.°73E**±0.°09**, h10**km**, n41, σ0.s99**/43**, Southern Iran**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CHMN | Cheshme madani | 1.46 | 353 | ePg | Pg | 00 33 56.5 | +1.3 |
| CHMN | Cheshme madani | 1.46 | 353 | ePg | Pg | 00 33 56.5 | +1.3 |
| NGRK | Negar Kerman | 1.51 | 325 | ePg | Pn | 00 33 53.8 | -0.9 |
| NGRK | Negar Kerman | 1.51 | 325 | ePg | Pn | 00 33 53.8 | -0.9 |
| TVBK | TV Kerman | 1.79 | 332 | ePg | Pb | 00 33 59.9 | -0.4 |
| TVBK | TV Kerman | 1.79 | 332 | ePg | Pb | 00 33 59.9 | -0.4 |
| KHGB | Koh Gabri | 2.24 | 331 | ePn | Pb | 00 34 06.9 | -1.1 |
| KHGB | Koh Gabri | 2.24 | 331 | ePn | Pb | 00 34 06.9 | -1.1 |
| SHME | Shamm | 2.74 | 211 | Pn | Pn | 00 34 10.2 | -1.2 |
| | SNR=19 | | | | | | |
| BANOM | Banah | 2.79 | 208 | eP | Pn | 00 34 11.1 | -0.9 |
| | SNR=31 | | | | | | |
| BANOM | Banah | 2.79 | 208 | P | Pn | 00 34 11.1 | -0.9 |
| | SNR=31 | | | | | | |
| BANOM | Banah | 2.79 | 208 | Pn | Pn | 00 34 11.1 | -0.9 |
| | SNR=31 | | | | | | |
| BANOM | | | | sPn | Pb | 00 34 16.7 | -0.5 |
| | SNR=15 | | | | | | |
| BANOM | Banah | 2.79 | 208 | P | Pn | 00 34 11.1 | -0.9 |
| | SNR=31 | | | | | | |
| BANOM | | | | S | Pb | 00 34 16.7 | -0.5 |
| | SNR=15 | | | | | | |
| IBAF | Bafgh | 3.68 | 330 | eAMB | AMB | 00 34 40.1 | |
| | comp=Z,278nm,0.1s | | | | | | |
| IBAF | | | | eSg | Sb | 00 35 16.9 | -0.4 |
| UOSS | Minazif | 3.71 | 202 | Pn | Pn | 00 34 24.5 | -0.1 |
| UOSS | Minazif | 3.71 | 202 | Pn | Pn | 00 34 24.5 | -0.1 |
| UOSS | Minazif | 3.71 | 202 | P | Pn | 00 34 24.5 | -0.1 |
| ASHO | Ashiyiah | 4.00 | 202 | iP | Pn | 00 34 29.7 | +1.0 |
| | SNR=10 | | | | | | |
| ASHO | Ashiyiah | 4.00 | 202 | Pn | Pn | 00 34 29.3 | +0.6 |
| | SNR=10 | | | | | | |
| ASHO | Ashiyiah | 4.00 | 202 | Pn | Pn | 00 34 29.3 | +0.6 |
| | SNR=10 | | | | | | |
| ASHO | Ashiyiah | 4.00 | 202 | P | Pn | 00 34 29.3 | +0.6 |
| | SNR=10 | | | | | | |
| IMEH | Mehriz | 4.02 | 318 | ePn | Pn | 00 34 29.8 | +0.7 |
| IMEH | | | | eAMB | AMB | 00 34 45.5 | |
| | comp=Z,192nm,0.2s | | | | | | |
| IMEH | Mehriz | 4.02 | 318 | ePn | Pn | 00 34 29.8 | +0.7 |
| FAQ | Al Faqa, Dubai | 4.12 | 208 | iP | Pn | 00 34 30.0 | -0.3 |
| | SNR=8.4 | | | | | | |
| FAQ | Al Faqa, Dubai | 4.12 | 208 | Pn | Pn | 00 34 29.7 | -0.6 |
| | SNR=8.4 | | | | | | |
| FAQ | Al Faqa, Dubai | 4.12 | 208 | Pn | Pn | 00 34 29.7 | -0.6 |
| | SNR=8.4 | | | | | | |
| FAQ | Al Faqa, Dubai | 4.12 | 208 | P | Pn | 00 34 29.7 | -0.6 |
| | SNR=8.4 | | | | | | |
| IKOO | Kooshah | 4.15 | 15 | ePn | Pb | 00 34 38.6 | -1.9 |
| IKOO | | | | eAMB | AMB | 00 34 56.6 | |
| | comp=Z,207nm,0.2s | | | | | | |
| ISRV | Sarvestan | 4.16 | 285 | ePn | Pn | 00 34 31.0 | -0.1 |
| ISRV | | | | eAMB | AMB | 00 35 17.4 | |
| | comp=Z,302nm,0.1s | | | | | | |
| ISRV | Sarvestan | 4.16 | 285 | ePn | Pn | 00 34 31.0 | -0.1 |
| IPAR | Pars | 4.34 | 290 | ePn | Pn | 00 34 33.6 | +0.1 |
| IPAR | | | | eAMB | AMB | 00 35 51.9 | |
| | comp=Z,131nm,0.2s | | | | | | |
| IPAR | Pars | 4.34 | 290 | ePn | Pn | 00 34 33.6 | +0.1 |
| ITEG | Tejag | 4.56 | 11 | ePn | Pb | 00 34 43.3 | -4.1 |
| ITEG | | | | eAMB | AMB | 00 35 06.5 | |
| | comp=Z,109nm,0.2s | | | | | | |
| ITEG | | | | eSg | Sg | 00 35 54.3 | +0.7 |
| ISAD | Sadrabad | 4.95 | 316 | ePn | Pn | 00 34 41.3 | -0.6 |
| ISAD | | | | eAMB | AMB | 00 35 02.3 | |
| | comp=Z,81nm,0.1s | | | | | | |
| ISAD | Sadrabad | 4.95 | 316 | ePn | Pn | 00 34 41.3 | -0.6 |
| WSAR | Wadi Sarin | 5.21 | 171 | P | Pn | 00 34 47.9 | +2.6 |
| WSAR | Wadi Sarin | 5.21 | 171 | P | Pn | 00 34 47.9 | +2.6 |
| IRAM | Ramesheh | 5.74 | 307 | ePn | Pn | 00 34 51.6 | -1.1 |
| IRAM | | | | eAMB | AMB | 00 35 56.4 | |
| | comp=Z,44nm,0.1s | | | | | | |
| IRAM | Ramesheh | 5.74 | 307 | ePn | Pn | 00 34 51.6 | -1.1 |
| IPIR | Pirpir | 7.27 | 308 | ePn | Pn | 00 35 13.1 | -0.8 |
| IPIR | | | | eAMB | AMB | 00 35 18.9 | |
| | comp=Z,35nm,0.1s | | | | | | |
| IPIR | Pirpir | 7.27 | 308 | ePn | Pn | 00 35 13.1 | -0.8 |

---

*IDC **08** 00:48:55.8±2.1, 53.°01N×160.°60E, h0km, mb3.7/3, mb1 3.9/3, mb1mx3.4/46, mbtmp3.7/3, Error ellipse: s-maj=58.3km s-min=24.2km az=175.0*
*KRSC **08** 00:48:57.0±1.3, 52.°68N×160.°69E, h16km±11km, ML3.9*
*ISCJB **08** 00:48:57.4±1.1, 52.°66N±0.°04×160.°61E±0.°06, h8km±6km, mb3.7/3, Error ellipse: s-maj=8.2km s-min=4.4km az=149.8*
**ISC 08 00:48:55.7**±1.9**, 52.°81N**±0.°06×**160.°66E**±0.°06**, h6**km±11km**, n38, σ1.s32**/46**, mb3.6**/3**, Off east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SPN | Mys Shipunski | 0.48 | 307 | iP | Pn | 00 49 09.0 | -0.2 |
| SPN | | | | iS | Sb | 00 49 16.5 | +2.5 |
| NLC | Nalytchevo | 0.88 | 295 | eP | Pn | 00 49 14.6 | 0.0 |
| NLC | | | | eS | Sn | 00 49 26.7 | -0.9 |
| SDLR | Sedlovina | 1.17 | 294 | eP | Pn | 00 49 19.5 | +0.7 |
| SDLR | | | | eS | Sn | 00 49 35.9 | +0.7 |
| DALK | Dalny | 1.18 | 282 | eP | Pn | 00 49 19.2 | +0.4 |
| DALK | | | | eS | Sn | 00 49 35.3 | +0.2 |
| UGLR | Uglovaya | 1.18 | 290 | eP | Pn | 00 49 19.7 | +0.8 |
| PET | Petropavlovsk | 1.24 | 281 | eP | Pg | 00 49 20.0 | +0.6 |
| PET | | | | eS | Sn | 00 49 36.5 | -0.1 |
| AVH | Avacha | 1.25 | 292 | eP | Pn | 00 49 20.8 | +1.0 |
| KRER | Koryakskii | 1.26 | 294 | eP | Pn | 00 49 21.1 | +1.0 |
| KOK | Koryaka | 1.31 | 292 | eP | Pg | 00 49 22.4 | +1.5 |
| KRX | Arik | 1.33 | 295 | eP | Pg | 00 49 21.9 | +0.6 |
| RUS | Russkaya | 1.36 | 255 | eP | Pn | 00 49 21.5 | +0.2 |
| RUS | | | | eS | Sb | 00 49 38.8 | -0.6 |
| KRMR | Karymshinskiy | 1.54 | 272 | eP | Pn | 00 49 24.1 | +0.4 |
| KRMR | | | | eS | Sn | 00 49 43.4 | -0.6 |
| MTVR | Mutnovka | 1.55 | 259 | eP | Pn | 00 49 24.7 | +0.7 |
| MTVR | | | | eS | Sn | 00 49 44.4 | -0.1 |
| ASAK | Asacha | 1.74 | 257 | eP | Pb | 00 49 27.9 | -0.2 |
| ASAK | | | | eS | Sb | 00 49 50.1 | -0.1 |
| PETK | Petropavlovsk- | 1.82 | 281 | Pn | Pb | 00 49 29.2 | -0.2 |
| | 51nm,0.3s,baz=93,slow=19,SNR=143 | | | | | | |
| PETK | | | | Sn | Sb | 00 49 51.8 | -0.6 |
| | 18nm,0.3s,baz=105,slow=11,SNR=5.9 | | | | | | |
| GNL | Ganaly | 1.86 | 300 | eP | Pb | 00 49 30.7 | +0.5 |
| APC | Apacha | 2.13 | 274 | eP | Pb | 00 49 34.5 | -0.2 |
| APC | | | | eS | Sb | 00 50 01.7 | +0.4 |
| KZV | Kizimen | 2.32 | 355 | eP | Pb | 00 49 38.2 | +0.2 |
| KZV | | | | eS | Sg | 00 50 08.4 | -1.7 |
| TUMR | Tumrok | 2.50 | 353 | eP | Pb | 00 49 41.1 | +0.1 |
| TUMR | | | | eS | Sb | 00 50 13.4 | +1.4 |
| KMNR | Kamenistaya | 2.96 | 355 | eP | Pb | 00 49 48.2 | -0.8 |
| KMNR | | | | eS | Sb | 00 50 25.7 | +0.3 |
| BZMR | Bezymyannaya | 3.13 | 358 | eP | Pb | 00 49 51.6 | -0.3 |
| KIRR | Kirishev | 3.15 | 357 | eP | Pb | 00 49 52.3 | 0.0 |
| BZWR | Bezymyannyi-We | 3.16 | 358 | eP | Pb | 00 49 52.4 | 0.0 |
| ZLN | Zelenaya | 3.21 | 1 | eP | Pb | 00 49 51.7 | -1.6 |
| ESO | Esso | 3.33 | 341 | eP | Pb | 00 49 52.6 | -2.5 |
| KRSR | Krestovskiy | 3.41 | 359 | eP | Pb | 00 49 55.1 | -1.6 |
| KBTR | Krutoberegovo | 3.63 | 19 | eP | Pn | 00 49 55.6 | +3.2 |
| SMKR | Semkarok | 3.81 | 7 | eP | Pb | 00 50 00.3 | -3.1 |
| SRKR | Sorokina | 3.86 | 4 | eP | Pb | 00 50 00.3 | -4.0 |
| H11N2 | WAKE ISLAND Hy | 33.37 | 169 | T | T | 01 30 58.8 | |
| | baz=353,slow=76,SNR=56 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 33.38 | 169 | T | T | 01 31 01.0 | |
| | baz=353,slow=76,SNR=38 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 33.39 | 169 | T | T | 01 31 16.0 | |
| | baz=353,slow=76,SNR=39 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 34.56 | 170 | T | T | 01 32 40.8 | |
| | baz=345 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 34.57 | 170 | T | T | 01 32 43.9 | |
| | baz=345 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 34.58 | 170 | T | T | 01 32 37.6 | |
| | baz=345 | | | | | | |
| MKAR | Makanchi Array | 48.59 | 296 | P | P | 00 57 37.9 | -1.9 |
| | 0.3nm,0.5s,baz=65,slow=8.4,SNR=8.6 | | | | | | |
| FINES | FINESS Array B | 60.52 | 337 | P | P | 00 59 06.1 | 0.0 |
| | 5.2nm,1.1s,baz=36,slow=10,SNR=9.2 | | | | | | |
| TXAR | Lajitas Array | 70.43 | 67 | P | P | 01 00 12.1 | +1.2 |
| | 0.1nm,0.5s,baz=292,slow=4.8,SNR=2.4 | | | | | | |

---

*BJI **08** 00:49:10.8, 7.°60S×127.°15E, h400km, mb4.4/38, mB4.6/24*
*ISCJB **08** 00:49:17.0±0.2, 6.°92S±0.°03×126.°91E±0.°03, h407km, mb4.4/48, Error ellipse: s-maj=4.0km s-min=3.3km az=163.2*
*NEIC **08** 00:49:17.8±0.3, 6.°87S×126.°88E, h399km±4km, mb4.6/28, Error ellipse: s-maj=5.3km s-min=3.5km az=50.0*
*IDC **08** 00:49:17.3±1.7, 6.°87S×126.°84E, h390km±20km, mb4.1/21, mb1 4.0/24, mb1mx3.9/40, mbtmp4.8/24, Error ellipse: s-maj=13.6km s-min=8.3km az=76.0*
*DJA **08** 00:49:18.1±0.2, 7°S±2°×12°7E±°, h398km±3km, M5.0/18, mb4.9/18, mB5.2/11, MLv5.6/15, Mw(mB)4.6/11*
**ISC 08 00:49:18.4**±0.3**, 6.°98S**±0.°04×**126.°89E**±0.°05**, h407**km**, n125, σ1.s54**/145**, mb4.4**/48**, 1C, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AAI | Ambon | 3.52 | 22 | P | P | 00 50 26.6 | +0.1 |
| NLAI | Namlea | 3.73 | 3 | P | P | 00 50 28.6 | +0.3 |
| NLAI | | | | S | S | 00 51 25.2 | 0.0 |
| SOEI | Soe | 3.78 | 223 | P | P | 00 50 29.5 | +0.6 |
| SOEI | | | | S | S | 00 51 25.0 | -1.3 |
| SOEI | Soe | 3.78 | 223 | ePn | P | 00 50 29.9 | +1.0 |
| SOEI | | | | eS | S | 00 51 16.6 | -10 |
| BNDI | Bandanaira | 3.87 | 51 | P | P | 00 50 29.5 | -0.1 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| MSAI | Masohi | 4.15 | 29 | P | P | 00 50 30.9 | -1.3 |
| MSAI | | | | S | S | 00 51 28.8 | -3.5 |
| SAUI | Saumlaki | 4.49 | 103 | P | P | 00 50 35.3 | -0.1 |
| SAUI | | | | S | S | 00 51 37.3 | -1.0 |
| SAUI | Saumlaki | 4.49 | 103 | ePn | P | 00 50 35.6 | +0.2 |
| SAUI | | | | eS | S | 00 51 28.9 | -9.4 |
| BBSI | Bau Bau | 4.54 | 289 | P | P | 00 50 37.7 | +1.7 |
| MMRI | Maumere | 4.89 | 250 | P | P | 00 50 40.3 | +0.9 |
| MMRI | | | | S | S | 00 51 45.2 | -0.5 |
| MMRI | Maumere | 4.89 | 250 | ePn | P | 00 50 37.8 | -1.7 |
| SANI | Sanana | 4.98 | 350 | P | P | 00 50 39.9 | -0.5 |
| EDFI | Ende, Flores | 5.44 | 251 | P | P | 00 50 45.1 | -0.1 |
| LBMI | Labuha | 6.33 | 6 | P | P | 00 50 55.1 | +0.4 |
| BSSI | Bau Bau, Buton | 6.41 | 277 | P | P | 00 50 56.8 | +1.3 |
| FAKI | Fak Fak | 6.70 | 53 | P | P | 00 50 56.2 | -3.2 |
| FAKI | | | | S | S | 00 52 15.8 | -5.1 |
| FAKI | Fak Fak | 6.70 | 53 | ePn | P | 00 50 56.1 | -3.2 |
| FAKI | | | | eS | S | 00 52 09.3 | -12 |
| BASI | Baing, Sumba | 7.02 | 242 | P | P | 00 51 02.7 | -0.2 |
| MTN | Manton Dam | 7.17 | 145 | ePn | P | 00 51 05.0 | +0.5 |
| LUWI | Luwuk | 7.19 | 325 | ePn | P | 00 51 02.7 | -2.2 |
| LUWI | | | | eS | S | 00 52 31.3 | +0.2 |
| KAPI | Kappang | 7.36 | 285 | eP | P | 00 51 07.2 | +0.4 |
| | 19nm,0.7s | | | | | | |
| KMPI | Kaimana, Papua | 7.55 | 64 | P | P | 00 51 06.5 | -2.3 |
| SPSI | Sidrap Palu | 7.70 | 293 | P | P | 00 51 10.7 | +0.3 |
| WBSI | Waikabubak, Su | 7.87 | 250 | P | P | 00 51 09.4 | -3.0 |
| PLAI | Plampang | 9.21 | 258 | P | P | 00 51 25.2 | -1.9 |
| MPSI | Mapaga | 10.08 | 316 | P | P | 00 51 38.7 | +1.9 |
| FITZ | Fitzroy Crossi | 11.12 | 186 | P | P | 00 51 49.3 | +1.1 |
| | 3.1nm,0.3s,baz=21,slow=8.2,SNR=78 | | | | | | |
| FITZ | | | | S | S | 00 53 50.1 | -1.8 |
| | 2.4nm,0.3s,baz=344,slow=23,SNR=7.3 | | | | | | |
| JAGI | Jajag, Banyuwa | 12.71 | 263 | P | P | 00 52 03.8 | -2.0 |
| JAGI | Jajag, Banyuwa | 12.71 | 263 | eP | P | 00 52 04.0 | -1.8 |
| JAGI | | | | eS | S | 00 54 17.1 | -7.0 |
| BLJI | Banyuglugur | 13.21 | 266 | P | P | 00 52 13.0 | +1.8 |
| GENI | Genyem | 13.93 | 72 | P | P | 00 52 19.9 | +0.7 |
| WRAB | Tennant Creek | 14.77 | 151 | eP | P | 00 52 28.7 | +0.5 |
| WRA | Warramunga Arr | 14.77 | 151 | P | P | 00 52 28.6 | +0.4 |
| | 2.1nm,0.3s,baz=326,slow=11,SNR=137 | | | | | | |
| WRA | | | | S | S | 00 55 02.4 | -2.9 |
| | 2.3nm,0.3s,baz=322,slow=20,SNR=8.8 | | | | | | |
| WB2 | Warramunga Arr | 14.78 | 151 | eP | P | 00 52 28.8 | +0.5 |
| MBWA | Marble Bar | 15.70 | 205 | eP | P | 00 52 39.1 | +0.9 |
| | 109nm,0.8s | | | | | | |
| MBWA | | | | eS | S | 00 55 22.5 | -1.1 |
| UGM | Wanagama | 16.25 | 266 | eP | P | 00 52 43.2 | -1.1 |
| | 283nm,1.7s | | | | | | |
| KKM | Kota Kinabalu | 16.76 | 320 | eP | P | 00 52 48.9 | -0.8 |
| | 21nm,0.8s | | | | | | |
| COEN | Coen | 17.44 | 115 | eP | P | 00 52 56.8 | 0.0 |
| | 18nm,0.9s | | | | | | |
| AS31 | Alice Springs | 17.90 | 159 | eP | P | 00 53 02.8 | +1.1 |
| | 9.2nm,0.6s | | | | | | |
| ASAR | Alice Springs | 17.91 | 159 | P | P | 00 53 02.5 | +0.7 |
| | 4.4nm,0.3s,baz=327,slow=8.0,SNR=120 | | | | | | |
| ASAR | | | | S | S | 00 56 03.6 | -2.8 |
| | baz=328,slow=20,SNR=3.2 | | | | | | |
| AS01 | Alice Springs | 17.92 | 159 | eP | P | 00 53 01.4 | -0.4 |
| KSM | Kuching | 18.56 | 296 | eP | P | 00 53 07.6 | -1.1 |
| | 27nm,0.9s | | | | | | |
| CISI | Cisompet, Garu | 18.93 | 267 | eP | P | 00 53 12.0 | -0.6 |
| | 82nm,0.6s | | | | | | |
| CNJI | Cibinong | 19.61 | 268 | P | P | 00 53 16.8 | -2.1 |
| PMG | Port Moresby | 20.21 | 98 | P | P | 00 53 25.1 | +0.7 |
| | 24nm,0.8s,baz=312,slow=7.3,SNR=14 | | | | | | |
| PMG | Port Moresby | 20.21 | 98 | eP | P | 00 53 25.6 | +1.2 |
| CTA | Charters Tower | 22.86 | 127 | P | P | 00 53 48.7 | +0.2 |
| | 1.5nm,0.2s,baz=306,slow=13,SNR=3.2 | | | | | | |
| CTAO | Charters Tower | 22.86 | 127 | eP | P | 00 53 49.6 | +1.1 |
| | 36nm,0.9s | | | | | | |
| BBOO | Buckleboo | 27.07 | 163 | eP | P | 00 54 26.2 | +0.3 |
| | 16nm,0.8s | | | | | | |
| BBOO | | | | epP | pP | 00 55 36.9 | -0.6 |
| NWAO | Narrogin (SRO) | 27.33 | 198 | P | P | 00 54 29.0 | +0.8 |
| | 33nm,0.7s,baz=261,slow=7.9,SNR=19 | | | | | | |
| NWAO | Narrogin (SRO) | 27.33 | 198 | P | P | 00 54 29.0 | +0.8 |
| | 41nm,0.9s | | | | | | |
| STKA | Stephens Creek | 28.32 | 153 | P | P | 00 54 38.0 | +1.1 |
| | 4.0nm,0.5s,baz=327,slow=7.5,SNR=17 | | | | | | |
| STKA | Stephens Creek | 28.32 | 153 | eP | P | 00 54 37.9 | +1.1 |
| STKA | | | | epP | pP | 00 55 48.4 | -1.9 |
| PSI | Prapat | 29.56 | 288 | eP | P | 00 54 48.5 | +0.3 |
| | 20nm,0.8s | | | | | | |
| GSI | Gunungsitoli | 30.39 | 285 | P | P | 00 54 56.0 | +0.7 |
| GSI | Gunungsitoli | 30.39 | 285 | eP | P | 00 54 55.0 | -0.3 |
| | 23nm,0.6s | | | | | | |
| TPUB | Ta-pu | 30.71 | 349 | eP | P | 00 54 55.9 | -2.1 |
| | 144nm,2.0s | | | | | | |
| HNR | Honiara | 32.80 | 97 | P | P | 00 55 16.1 | 0.0 |
| | 69nm,0.4s,baz=251,slow=6.3,SNR=3.9 | | | | | | |
| ARMA | Armidale | 32.90 | 138 | eP | P | 00 55 15.8 | -1.1 |
| | 45nm,1.6s | | | | | | |
| CAN | Canberra | 34.76 | 147 | eP | P | 00 55 34.3 | +1.8 |
| | 9.0nm,0.9s | | | | | | |
| CM01 | Chiang Mai Arr | 37.37 | 313 | eP | P | 00 55 54.3 | -0.2 |
| CMAR | Chiang Mai Arr | 37.41 | 313 | P | P | 00 55 54.1 | -0.7 |
| | 3.2nm,0.7s,baz=138,slow=6.7,SNR=18 | | | | | | |
| CMAR | | | | ScP | S | 01 01 12.7 | -0.1 |
| | 1.3nm,0.4s,baz=153,slow=2.7,SNR=9.2 | | | | | | |
| CMMT | Chiang Mai | 37.63 | 313 | P | P | 00 55 57.3 | +0.6 |
| | 14nm,1.0s | | | | | | |
| CHTO | Chiang Mai | 37.63 | 313 | P | P | 00 55 57.4 | +0.7 |
| | 51nm,1.8s | | | | | | |
| CHTO | Chiang Mai | 37.63 | 313 | eP | P | 00 55 56.2 | -0.5 |
| | 6.1nm,0.8s | | | | | | |
| WHN | Wuhan | 39.20 | 343 | ⇑P | P | 00 56 09.7 | +0.3 |
| NJ2 | Nanjing | 39.57 | 349 | eP | P | 00 56 11.8 | -0.5 |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,28nm,1.3s | | | | | | |
| KMI | Kunming | 39.64 | 324 | P | P | 00 56 13.2 | -0.1 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,21nm,1.1s | | | | | | |
| JNU | Nakatsue | 40.06 | 5 | P | P | 00 56 15.7 | -0.7 |
| | 10nm,0.8s,baz=297,slow=6.7,SNR=6.0 | | | | | | |
| DZM | Mont Dzumac | 40.97 | 116 | P | P | 00 56 25.9 | +1.8 |
| | 10nm,0.9s,baz=323,slow=20,SNR=2.9 | | | | | | |
| CD2 | Chengdu | 43.71 | 331 | P | P | 00 56 44.8 | -0.8 |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,30nm,1.3s | | | | | | |
| KSAR | Wonju Array Be | 44.20 | 1 | P | P | 00 56 48.2 | -1.0 |
| XAN | Xi'an | 44.21 | 338 | P | P | 00 56 48.0 | -1.4 |
| XAN | | | | pmax | pmax | | |
| | comp=Z,24nm,0.9s | | | | | | |
| XAN | | | | pmax | pmax | | |
| | comp=Z,130nm,5.1s | | | | | | |
| KSRS | Korea Array | 44.22 | 1 | P | P | 00 56 48.2 | -1.1 |
| | 9.5nm,0.9s,baz=180,slow=9.6,SNR=12 | | | | | | |
| MAJO | Matsushiro | 44.58 | 13 | eP | P | 00 56 50.7 | -1.5 |
| | 39nm,1.1s | | | | | | |
| MAT | Matsushiro | 44.58 | 13 | P | P | 00 56 50.9 | -1.3 |
| MJAR | Matsushiro Arr | 44.58 | 13 | P | P | 00 56 50.9 | -1.3 |
| | 32nm,0.9s,baz=188,slow=9.0,SNR=39 | | | | | | |
| MJB9 | Matsu-Tunnel | 44.58 | 13 | eP | P | 00 56 51.1 | -1.1 |
| | 38nm,1.1s | | | | | | |
| LZH | Lanzhou | 48.00 | 335 | eP | P | 00 57 19.4 | +0.7 |
| LZH | | | | PcP | PcP | 00 58 40.6 | +1.2 |
| LZH | | | | SS | SS | 01 07 20.0 | -0.9 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,59nm,1.3s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,210nm,4.5s | | | | | | |
| HHC | Hu-ho-hao-te | 49.64 | 345 | eP | P | 00 57 34.4 | +3.6 |
| HHC | | | | S | S | 01 04 13.6 | +5.8 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.8s | | | | | | |
| CN2 | Changchun | 50.56 | 359 | eP | P | 00 57 41.0 | +3.6 |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.6s | | | | | | |
| ODAN | Odare | 50.95 | 313 | ePn | P | 00 57 40.6 | -0.3 |
| MSVF | Nonsavu | 50.96 | 107 | eP | P | 00 57 42.5 | +1.5 |
| | 16nm,0.9s | | | | | | |
| TAPN | Taplejung | 51.01 | 314 | ePn | P | 00 57 41.2 | -0.2 |
| | 13nm,0.4s | | | | | | |
| USRK | Ussuriysk Ar. | 51.15 | 5 | P | P | 00 57 41.6 | -0.1 |
| | 12nm,0.6s,baz=189,slow=7.4,SNR=20 | | | | | | |
| MDJ | Mudanjiang | 51.42 | 2 | P | P | 00 57 44.3 | +0.6 |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,20nm,1.0s | | | | | | |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,170nm,8.5s | | | | | | |
| RAMN | Ramite | 51.58 | 313 | eP | P | 00 57 45.5 | 0.0 |
| | 27nm,0.6s | | | | | | |
| JIRN | Jiri | 52.28 | 313 | eP | P | 00 57 50.6 | -0.2 |
| GTA | Gaotai | 52.53 | 334 | eP | P | 00 57 52.0 | 0.0 |
| GTA | | | | pP | pP | 00 59 12.0 | -2.9 |
| GTA | | | | sP | PP | 00 59 53.3 | -3.0 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,17nm,1.2s | | | | | | |
| GUN | Gumba | 52.65 | 313 | eP | P | 00 57 53.1 | -0.3 |
| | 14nm,0.4s | | | | | | |
| PKI | Pulchoki | 52.80 | 312 | eP | P | 00 57 53.9 | -0.6 |
| | 8.7nm,0.4s | | | | | | |
| ASAJ | Asahikawa | 52.81 | 14 | P | P | 00 57 52.0 | -1.8 |
| | 2.5nm,0.3s,baz=260,slow=14,SNR=3.9 | | | | | | |
| PKIN | Phulchoki | 52.81 | 312 | eP | P | 00 57 53.9 | -0.6 |
| | 5.9nm,0.4s | | | | | | |
| KKN | Kakani | 53.02 | 313 | ePn | P | 00 57 55.5 | -0.4 |
| GKN | Gorkha | 53.61 | 312 | eP | P | 00 57 59.7 | -0.4 |
| KOLN | Koldanda | 54.25 | 312 | eP | P | 00 58 04.6 | -0.1 |
| PYUN | Piuthan | 54.88 | 312 | eP | P | 00 58 09.2 | 0.0 |
| YSS | Yuzh-Sakhalins | 55.52 | 13 | eP | P | 00 58 12.7 | -0.3 |
| | 25nm,0.6s | | | | | | |
| ULN | Ulaanbaatar | 57.35 | 344 | eP | P | 00 58 26.0 | 0.0 |
| | 24nm,1.2s | | | | | | |
| SONM | Songino Array | 57.51 | 344 | P | P | 00 58 27.1 | 0.0 |
| | 7.2nm,0.8s,baz=171,slow=6.7,SNR=36 | | | | | | |
| SONM | | | | PcP | PcP | 00 59 15.5 | +0.2 |
| | 0.3nm,0.6s,baz=32,slow=32,SNR=3.7 | | | | | | |
| WMQ | Urumqi | 61.74 | 329 | P | P | 00 58 56.0 | +0.5 |
| WMQ | | | | PP | PP | 01 01 21.3 | +3.7 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,38nm,1.1s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,220nm,4.1s | | | | | | |
| PETK | Petropavlovsk- | 65.31 | 20 | P | P | 00 59 19.1 | +0.8 |
| | 20nm,0.6s,baz=181,slow=4.0,SNR=14 | | | | | | |
| KSH | Kashi | 65.95 | 319 | P | P | 00 59 23.0 | +0.2 |
| KSH | | | | PcP | PcP | 00 59 51.0 | +1.1 |
| KSH | | | | pP | pP | 01 00 45.0 | -5.3 |
| KSH | | | | PP | PP | 01 01 57.2 | +2.8 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.8s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,220nm,5.9s | | | | | | |
| MK01 | Makanchi Array | 66.53 | 328 | eP | P | 00 59 26.1 | -0.2 |
| MKAR | Makanchi Array | 66.55 | 328 | P | P | 00 59 26.2 | -0.1 |
| | 3.1nm,0.6s,baz=121,slow=8.0,SNR=26 | | | | | | |
| AAK | Ala-Archa | 68.56 | 321 | eP | P | 00 59 38.7 | -0.3 |
| | 2.8nm,1.1s | | | | | | |
| YAK | Yakutsk | 68.84 | 1 | P | P | 00 59 39.0 | -1.0 |
| | 18nm,0.3s,baz=129,slow=0.9,SNR=7.5 | | | | | | |
| YAK | Yakutsk | 68.84 | 1 | eP | P | 00 59 39.0 | -1.0 |
| | 45nm,0.6s | | | | | | |
| ZALV | Zalesovo Beam | 70.24 | 335 | P | P | 00 59 47.8 | -0.9 |
| | 13nm,0.7s,baz=134,slow=5.0,SNR=69 | | | | | | |
| KURK | Kurchatov | 70.92 | 330 | eP | P | 00 59 52.7 | -0.1 |
| SEY | Seymchan | 72.39 | 12 | P | P | 01 00 01.8 | +0.6 |
| | 11nm,0.6s,baz=193,slow=4.7,SNR=32 | | | | | | |
| MAW | Mawson | 73.85 | 201 | P | P | 01 00 11.0 | +1.4 |
| | 2.4nm,0.7s,baz=68,slow=11,SNR=2.9 | | | | | | |
| BRVK | Borovoye | 76.50 | 329 | eP | P | 01 00 24.3 | -0.5 |
| | 30nm,1.0s | | | | | | |
| TIXI | Tiksi | 78.48 | 1 | P | P | 01 00 34.6 | -0.6 |
| | 9.2nm,0.5s,baz=180,slow=3.8,SNR=24 | | | | | | |
| TIXI | Tiksi | 78.48 | 1 | eP | P | 01 00 34.1 | -1.1 |
| | 8.7nm,0.6s | | | | | | |
| ARU | Arti | 84.08 | 329 | eP | P | 01 01 03.6 | -0.9 |
| | 13nm,1.4s | | | | | | |
| KIV | Kislovodsk | 90.64 | 314 | eP | P | 01 01 36.4 | +0.2 |
| | 2.9nm,0.7s | | | | | | |
| ILAR | Eielson Array | 94.65 | 25 | PP | PP | 01 05 44.0 | -4.6 |
| | 1.1nm,1.1s,baz=254,slow=5.8,SNR=4.9 | | | | | | |
| BRTR | Keskin Array B | 96.91 | 309 | P | P | 01 02 04.0 | -1.0 |
| | 0.4nm,0.8s,baz=104,slow=6.5,SNR=2.9 | | | | | | |
| ARCES | ARCESS Array B | 100.48 | 339 | P | Pdif | 01 02 19.9 | -0.2 |
| | 7.2nm,1.0s,baz=88,slow=8.2,SNR=3.3 | | | | | | |
| TORD | Torodi Ar. Bea | 125.78 | 281 | PKP | PKPdf | 01 07 33.5 | 0.0 |
| | 0.7nm,0.7s,baz=53,slow=2.2,SNR=6.0 | | | | | | |
| TXAR | Lajitas Array | 127.56 | 58 | PKP | PKPdf | 01 07 37.4 | +0.7 |
| | 1.1nm,1.1s,baz=214,slow=1.4,SNR=4.8 | | | | | | |
| CPUP | Villa Florida | 146.63 | 173 | PKPbc | PKPbc | 01 08 14.2 | +0.4 |
| | 2.7nm,0.7s,baz=144,slow=3.3,SNR=4.6 | | | | | | |
| JTS | JuntasAbangare | 148.36 | 82 | ePKPbc | PKPbc | 01 08 19.1 | +0.4 |
| LPAZ | La Paz | 152.51 | 147 | PKPbc | PKPbc | 01 08 30.1 | +1.0 |
| | 0.7nm,0.5s,baz=149,slow=5.9,SNR=4.2 | | | | | | |

*IDC **08** 00:49:16.9±1.1,28°.43S×178°.01W,h0km,mb3.9/1, mb1 4.3/1,mb1mx3.9/29,mbtmp3.8/1,MS3.9/3,Ms1 3.9/3, ms1mx3.4/29,Error ellipse: s-maj=74.1km s-min=18.9km az=84.0*

**ISC 08 00:49:26.8**±1.1,**28°.7S**±0°.3×**177°.4W**±0°.4,**h54**km,**n11**, σ**2s.03**/7,**Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RAO | Raoul Island | 0.70 | 219 | Pn | Pn | 00 49 34.9 | -5.9 |
| | baz=90,slow=20 | | | | | | |
| RAO | | | | Sn | Sn | 00 49 50.7 | -0.2 |
| | baz=287,slow=20 | | | | | | |
| RAO | | | | LR | LR | 00 50 01.5 | |
| | comp=Z,2μm,21.1s,baz=142,slow=54 | | | | | | |
| DZM | Mont Dzumac | 16.00 | 291 | LR | LR | 00 56 29.1 | |
| | comp=Z,374nm,19.6s,baz=24,slow=28 | | | | | | |
| ASAR | Alice Springs | 43.74 | 265 | LR | LR | 01 15 23.3 | |
| | comp=Z,260nm,18.0s,baz=80,slow=36 | | | | | | |
| FITZ | Fitzroy Crossi | 52.90 | 268 | LR | LR | 01 21 02.3 | |
| | comp=Z,88nm,18.3s,slow=36 | | | | | | |
| TXAR | Lajitas Array | 91.04 | 57 | P | P | 01 02 25.1 | -0.6 |
| | 0.5nm,1.0s,baz=240,slow=7.2,SNR=3.7 | | | | | | |
| FINES | FINESS Array B | 143.72 | 341 | PKhKP | PKPpre | 01 08 48.5 | |
| | 2.7nm,0.8s,baz=62,slow=4.5,SNR=2.5 | | | | | | |
| KBZ | Khabaz | 144.56 | 306 | PKP | PKPab | 01 08 54.0 | -1.7 |
| | 3.6nm,1.0s,baz=106,slow=7.4,SNR=3.8 | | | | | | |
| KVAR | Kislovodsk Arr | 144.66 | 306 | PKP | PKPab | 01 08 55.0 | -1.3 |
| | 7.7nm,1.0s,baz=192,slow=2.0,SNR=3.2 | | | | | | |
| AKASG | Malin Array Be | 150.24 | 325 | PKPbc | PKPdf | 01 09 06.7 | +0.4 |
| | 1.2nm,0.5s,baz=46,slow=3.1,SNR=5.6 | | | | | | |
| MMAI | Mount Meron Ar | 151.57 | 287 | PKPbc | PKPdf | 01 09 12.4 | +3.3 |
| | 0.9nm,0.5s,baz=82,slow=8.5,SNR=8.8 | | | | | | |
| TORD | Torodi Ar. Bea | 164.50 | 177 | PKPab | PKPab | 01 10 19.5 | -0.4 |
| | 0.5nm,0.9s,baz=192,slow=4.0,SNR=2.5 | | | | | | |

*NNC **08** 00:52:37.8±3.5,36°.97N×70°.06E,h0km,mb3.6,mpv3.3, Error ellipse: s-maj=29.9km s-min=24.5km az=151.0*

**ISC 08 00:52:35.5**±3.5,**36°.7N**±0°.2×**70°.1E**±0°.1,**h10**km,**n11**, σ**1s.45**/15,**8C-2D,Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SFK | Sufi-Kurgan | 4.23 | 38 | ⇑P | Pn | 00 53 41.8 | +1.6 |
| | 1.0nm,0.3s | | | | | | |
| SFK | | | | ⇑S | Sn | 00 54 32.1 | +2.3 |
| | 9.5nm,0.4s | | | | | | |
| MNAS | Manas | 6.05 | 17 | ⇓P | Pn | 00 54 06.1 | +1.1 |
| | 1.9nm,0.5s | | | | | | |
| MNAS | | | | ⇓S | Sn | 00 55 14.4 | 0.0 |
| | 9.8nm,0.8s | | | | | | |
| AML | Almayashu | 6.07 | 26 | P | Pn | 00 54 06.3 | +0.7 |
| | SNR=57 | | | | | | |
| KK31 | Karatay Array | 6.38 | 3 | ⇑P | Pn | 00 54 11.7 | +2.1 |
| | 0.4nm,0.2s,baz=149,slow=10,SNR=14 | | | | | | |
| KK31 | | | | ⇑S | Sn | 00 55 21.9 | -0.6 |
| | 0.9nm,0.5s,baz=190,slow=25,SNR=4.6 | | | | | | |
| UCH | Uchtor | 6.46 | 30 | P | Pn | 00 54 11.1 | -0.1 |
| | SNR=9.9 | | | | | | |
| EKS2 | Erkin-Say | 6.57 | 24 | P | Pn | 00 54 13.2 | +1.0 |
| | SNR=8.0 | | | | | | |
| AAK | Ala-Archa | 6.80 | 28 | ⇑P | Pn | 00 54 15.3 | -0.2 |
| | 2.0nm,0.7s | | | | | | |
| AAK | | | | ⇑S | Sn | 00 55 30.8 | -2.3 |
| | 3.0nm,0.6s | | | | | | |
| AAK | Ala-Archa | 6.80 | 28 | P | Pn | 00 54 16.5 | +1.0 |
| | SNR=5.6 | | | | | | |
| TKM2 | Tokmak 2 | 7.49 | 33 | ⇑P | Pn | 00 54 23.7 | -1.3 |
| | 3.0nm,0.5s | | | | | | |
| TKM2 | Tokmak 2 | 7.49 | 33 | P | Pn | 00 54 23.9 | -1.0 |
| | SNR=7.7 | | | | | | |
| AB31 | Akbulak array | 14.56 | 333 | ⇑P | Pn | 00 56 00.5 | -1.0 |
| | 0.2nm,0.3s,baz=145,slow=13,SNR=16 | | | | | | |

*ISCJB **08** 01:00:18.2±0.9,37°.15N±0°.04×72°.1E±0°.1,h142km,Error ellipse: s-maj=15.2km s-min=4.3km az=163.5*
*NNC **08** 01:00:22.9±3.4,37°.78N×71°.54E,h0km,mb4.3,mpv4.0, Error ellipse: s-maj=26.8km s-min=21.9km az=158.0*

**ISC 08 01:00:17.5**±1.2,**37°.10N**±0°.06×**72°.1E**±0°.1,**h142**km,**n27**, σ**2s.53**/34,**5C-4D,Tajikistan**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SFK | Sufi-Kurgan | 3.12 | 21 | ⇓P | Pn | 01 01 08.5 | +2.2 |
| | 78nm,0.3s | | | | | | |
| SFK | | | | ⇑S | Sn | 01 01 43.6 | -0.4 |
| | 173nm,0.6s | | | | | | |
| AML | Almayashu | 5.18 | 14 | P | Pn | 01 01 34.3 | +0.8 |
| | SNR=113 | | | | | | |
| MNAS | Manas | 5.39 | 3 | ⇑P | Pn | 01 01 36.6 | +0.6 |
| | 24nm,0.6s | | | | | | |
| MNAS | | | | ⇑S | Sn | 01 02 33.1 | -4.3 |
| | 54nm,0.5s | | | | | | |
| UCH | Uchtor | 5.46 | 19 | P | Pn | 01 01 38.4 | +1.1 |
| | SNR=61 | | | | | | |
| THN | Thein Dam | 5.54 | 146 | eP | Sn | 01 02 40.0 | -0.8 |
| THN | | | | eS | Sn | 01 02 43.4 | +2.6 |
| EKS2 | Erkin-Say | 5.71 | 13 | P | Pn | 01 01 41.5 | +1.3 |
| | SNR=27 | | | | | | |
| AAK | Ala-Archa | 5.84 | 18 | ⇓P | Pn | 01 01 43.3 | +1.3 |
| | 12nm,0.3s | | | | | | |
| AAK | | | | ⇓S | Sn | 01 02 45.2 | -2.9 |
| | 24nm,0.8s | | | | | | |
| AAK | Ala-Archa | 5.84 | 18 | P | Pn | 01 01 43.4 | +1.3 |
| | SNR=28 | | | | | | |
| KBK | Karagaybulak | 5.97 | 21 | P | Pn | 01 01 45.6 | +1.7 |
| | SNR=8.0 | | | | | | |
| ULHL | Ulahol | 6.06 | 31 | P | Pn | 01 01 46.1 | +1.0 |
| | SNR=11 | | | | | | |
| KK31 | Karatay Array | 6.11 | 349 | P | Pn | 01 01 45.5 | -0.1 |
| | 2.8nm,0.4s,baz=158,slow=11,SNR=42 | | | | | | |
| KK31 | | | | ⇑S | Sn | 01 02 49.0 | -5.4 |
| | 25nm,0.4s,baz=184,slow=23,SNR=34 | | | | | | |
| CHMS | Chumysh | 6.24 | 18 | P | Pn | 01 01 48.5 | +1.2 |
| | SNR=17 | | | | | | |
| TKM2 | Tokmak 2 | 6.41 | 24 | ⇓P | Pn | 01 01 50.8 | +1.0 |
| | 1.6nm,0.4s | | | | | | |
| TKM2 | | | | ⇑S | Sn | 01 03 01.9 | -0.1 |
| | 4.5nm,0.6s | | | | | | |
| TKM2 | Tokmak 2 | 6.41 | 24 | P | Pn | 01 01 50.7 | +0.9 |
| | SNR=7.6 | | | | | | |
| SDNR | Sundarnagar | 6.90 | 143 | eS | Sn | 01 03 12.0 | -1.6 |
| SDNR | | | | ex | Sn | 01 03 13.0 | -0.6 |
| JOSI | Joshimath | 9.02 | 134 | eS | Sn | 01 04 07.2 | +2.3 |
| JOSI | | | | AML | AML | 01 04 09.9 | |
| | comp=E,71nm,0.5s | | | | | | |
| JOSI | | | | AML | AML | 01 04 10.4 | |
| | comp=N,94nm,0.2s | | | | | | |
| NDI | New Delhi | 9.44 | 151 | eS | Sn | 01 04 04.0 | -11 |
| KHET | Khetri | 9.54 | 160 | eS | Sn | 01 04 12.2 | -4.9 |
| KHET | | | | AML | AML | 01 04 17.6 | |
| | comp=E,5.8nm,0.2s | | | | | | |
| KHET | | | | AML | AML | 01 04 18.0 | |
| | comp=N,6.3nm,0.2s | | | | | | |
| PYUN | Piuthan | 12.85 | 131 | eP | Pn | 01 03 17.2 | +1.9 |
| | comp=N,6.7nm,0.3s | | | | | | |
| PYUN | | | | eS | Sn | 01 05 30.0 | -7.3 |
| KOLN | Koldanda | 13.46 | 130 | eP | Pn | 01 03 24.7 | +1.6 |
| | comp=N,3.4nm,0.3s | | | | | | |
| KOLN | | | | eS | Sn | 01 05 46.0 | -6.0 |
| KKN | Kakani | 14.50 | 126 | eP | Pn | 01 03 37.3 | +1.0 |
| PKIN | Phulchoki | 14.72 | 126 | eP | Pn | 01 03 40.6 | +1.5 |
| PKI | Pulchoki | 14.73 | 126 | eP | Pn | 01 03 41.3 | +2.0 |
| | comp=N,3.2nm,0.3s | | | | | | |
| GUN | Gumba | 14.81 | 124 | eP | Pn | 01 03 41.8 | +1.5 |
| | comp=N,7.2nm,0.3s | | | | | | |
| AB31 | Akbulak array | 15.00 | 328 | P | Pn | 01 03 42.7 | +0.5 |
| | comp=N,1.1nm,0.6s,baz=161,slow=7.8,SNR=16 | | | | | | |
| JIRN | Jiri | 15.18 | 124 | eP | Pn | 01 03 47.0 | +2.0 |
| | comp=N,90nm,0.4s | | | | | | |
| RAMN | Ramite | 15.93 | 125 | eP | P | 01 03 56.4 | +1.6 |
| | comp=N,5.4nm,0.4s | | | | | | |

*CSEM **08** 01:07:20.1,36°.87N×21°.43E,h20km,ML1.7/7*

**ATH 08 01:07:20.1,36°.87N×21°.43E,h20**km±5km,**ML1.7**/7,**Error ellipse: s-maj=6.7km s-min=1.6km az=105.0,Southern Greece**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MES2 | Methoni | 0.22 | 102 | P | Pb | 01 07 27.1 | +1.3 |
| MES2 | | | | AML | AML | 01 07 30.1 | |
| | comp=N,491μm,0.5s | | | | | | |
| MES2 | | | | S | Sb | 01 07 30.9 | +1.3 |
| MES2 | | | | AML | AML | 01 07 31.0 | |
| | comp=E,313μm,0.2s | | | | | | |
| MES2 | Methoni | 0.22 | 102 | P | Pb | 01 07 27.1 | +1.4 |
| MES2 | | | | S | Sb | 01 07 30.9 | +1.4 |
| PYL | PYLOS | 0.25 | 84 | P | Pb | 01 07 26.6 | +0.5 |
| PYL | | | | S | Sb | 01 07 29.1 | -1.0 |
| PYL | | | | AML | AML | 01 07 29.9 | |
| | comp=N,223μm,0.3s | | | | | | |
| PYL | | | | AML | AML | 01 07 30.4 | |
| | comp=E,296μm,0.2s | | | | | | |
| PYL | PYLOS | 0.25 | 84 | P | Pb | 01 07 26.6 | +0.5 |
| PYL | | | | S | Sb | 01 07 29.1 | -1.0 |
| MES3 | Kyparissia | 0.42 | 27 | P | Pb | 01 07 28.1 | -0.8 |
| MES3 | | | | S | Sb | 01 07 33.3 | -1.5 |
| MES3 | Kyparissia | 0.42 | 27 | P | Pb | 01 07 28.1 | -0.8 |
| MES3 | | | | S | Sb | 01 07 33.3 | -1.6 |
| ITM | Ithomi | 0.50 | 52 | P | Pb | 01 07 28.6 | -1.7 |
| ITM | | | | AML | AML | 01 07 40.6 | |
| | comp=N,184μm,0.3s | | | | | | |
| ITM | | | | AML | AML | 01 07 43.4 | |
| | comp=E,97μm,0.6s | | | | | | |
| ITM | Ithomi | 0.50 | 52 | P | Pb | 01 07 28.6 | -1.7 |
| AMT | Artemida-Makis | 0.70 | 18 | P | Pn | 01 07 34.4 | -0.5 |
| AMT | | | | S | Sn | 01 07 44.5 | -0.7 |
| AMT | | | | AML | AML | 01 07 44.8 | |
| | comp=E,246μm,0.3s | | | | | | |
| AMT | | | | AML | AML | 01 07 47.3 | |
| | comp=N,288μm,0.5s | | | | | | |
| AMT | Artemida-Makis | 0.70 | 18 | P | Pn | 01 07 34.4 | -0.5 |
| AMT | | | | S | Sn | 01 07 44.5 | -0.6 |
| DRO | Drossia | 1.10 | 11 | P | Pb | 01 07 40.9 | +0.3 |
| DRO | | | | S | Sn | 01 07 58.0 | +2.9 |
| DRO | | | | AML | AML | 01 07 58.6 | |
| | comp=N,89μm,0.7s | | | | | | |
| DRO | | | | AML | AML | 01 08 03.9 | |
| | comp=E,118μm,0.3s | | | | | | |
| DRO | Drossia | 1.10 | 11 | P | Pb | 01 07 40.9 | +0.3 |
| DRO | | | | S | Sn | 01 07 58.0 | +2.9 |
| GUR | Goura | 1.29 | 34 | P | Pn | 01 07 43.0 | -0.1 |
| GUR | | | | S | Sb | 01 08 02.8 | +2.9 |
| GUR | | | | AML | AML | 01 08 05.7 | |
| | comp=E,51μm,0.6s | | | | | | |
| GUR | | | | AML | AML | 01 08 06.1 | |
| | comp=N,81μm,0.4s | | | | | | |
| GUR | Goura | 1.29 | 34 | P | Pn | 01 07 43.0 | -0.1 |
| GUR | | | | S | Sb | 01 08 02.8 | +2.9 |
| KLV | Kalavryta, Ach | 1.30 | 26 | P | Pn | 01 07 43.0 | -0.3 |
| KLV | | | | S | Sb | 01 08 04.2 | +3.9 |
| KLV | | | | AML | AML | 01 08 09.5 | |
| | comp=N,54μm,1.7s | | | | | | |
| KLV | | | | AML | AML | 01 08 10.0 | |
| | comp=E,90μm,1.8s | | | | | | |
| KLV | Kalavryta, Ach | 1.30 | 26 | P | Pn | 01 07 43.0 | -0.3 |
| KLV | | | | S | Sb | 01 08 04.2 | +3.9 |

*IDC **08** 01:07:23.3±2.6,36°.36N×70°.97E,h168km±22km,mb3.4/11, mb1 3.5/17,mb1mx3.3/53,mbtmp3.9/17,Error ellipse: s-maj=20.5km s-min=14.6km az=172.0*
*ISCJB **08** 01:07:25.0±0.3,36°.53N±0°.03×70°.89E±0°.05,h188km, mb3.6/10,Error ellipse: s-maj=5.8km s-min=3.8km az=162.5*
*NNC **08** 01:07:30.9±2.3,36°.95N×70°.77E,h187km±36km,mb3.3, mpv4.4,Error ellipse: s-maj=26.6km s-min=18.6km az=63.0*

**ISC 08 01:07:25.2**±0.5,**36°.51N**±0°.05×**70°.92E**±0°.06,**h188**km,**n46**, σ**2s.27**/57,**mb3.6**/10,**8C-3D,Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CEP | Cherat | 2.80 | 163 | P | Pn | 01 08 14.8 | +2.8 |
| CEP | | | | S | Sn | 01 08 50.0 | +1.6 |
| CHCP | Chirah Chowk | 3.43 | 145 | P | Pn | 01 08 22.6 | +3.1 |
| THW | Thamme Wali | 3.77 | 169 | P | Pn | 01 08 26.1 | +2.4 |
| SFK | Sufi-Kurgan | 4.05 | 29 | ⇑P | Pn | 01 08 28.7 | +1.4 |
| | 24nm,0.5s | | | | | | |
| SFK | | | | ⇑S | Sn | 01 09 15.6 | -0.5 |
| | 124nm,0.6s | | | | | | |
| THN | Thein Dam | 5.68 | 134 | eP | Pn | 01 08 46.4 | -1.7 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| THN | | | | eS | Sn | 01 09 51.0 | -2.4 |
| AML | Almayashu | 6.02 | 20 | P | Pn | 01 08 53.6 | +0.8 |
| | SNR=205 | | | | | | |
| MNAS | Manas | 6.10 | 11 | ⇑P | Pn | 01 08 54.2 | +0.6 |
| | 22nm,0.5s | | | | | | |
| MNAS | | | | ⇓S | Sn | 01 09 59.7 | -3.8 |
| | 71nm,1.1s | | | | | | |
| UCH | Uchtor | 6.36 | 25 | P | Pn | 01 08 58.4 | +1.1 |
| | SNR=19 | | | | | | |
| EKS2 | Erkin-Say | 6.53 | 19 | P | Pn | 01 09 00.1 | +0.9 |
| | SNR=22 | | | | | | |
| KK31 | Karatay Array | 6.60 | 357 | P | Pn | 01 09 00.3 | +0.3 |
| | 11nm,0.5s,baz=186,slow=13,SNR=91 | | | | | | |
| KK31 | | | | S | Sn | 01 10 10.2 | -4.9 |
| | 17nm,0.6s,baz=180,slow=16,SNR=9.5 | | | | | | |
| AAK | Ala-Archa | 6.72 | 23 | P | Pn | 01 09 02.6 | +0.9 |
| | 2.9nm,0.3s,baz=193,slow=8.6,SNR=63 | | | | | | |
| AAK | | | | S | Sn | 01 10 17.0 | -1.1 |
| | 1.2nm,0.3s,baz=142,slow=20,SNR=15 | | | | | | |
| AAK | Ala-Archa | 6.72 | 23 | ⇑P | Pn | 01 09 02.6 | +0.9 |
| | 17nm,0.7s | | | | | | |
| AAK | | | | ⇓S | Sn | 01 10 16.9 | -1.2 |
| | 14nm,0.5s | | | | | | |
| AAK | Ala-Archa | 6.72 | 23 | P | Pn | 01 09 02.7 | +0.9 |
| | SNR=24 | | | | | | |
| KBK | Karagaybulak | 6.89 | 26 | P | Pn | 01 09 05.0 | +1.1 |
| | SNR=28 | | | | | | |
| CHMS | Chumysh | 7.12 | 23 | P | Pn | 01 09 07.8 | +0.9 |
| | SNR=26 | | | | | | |
| TKM2 | Tokmak 2 | 7.35 | 28 | ⇓P | Pn | 01 09 10.6 | +0.6 |
| | 44nm,0.6s | | | | | | |
| TKM2 | | | | ⇑S | Sn | 01 10 30.3 | -2.9 |
| | 6.0nm,0.7s | | | | | | |
| TKM2 | Tokmak 2 | 7.35 | 28 | P | Pn | 01 09 11.0 | +0.9 |
| | SNR=14 | | | | | | |
| KKR | Kurukshetra | 8.19 | 141 | ex | x | 01 10 33.0 | |
| JOSI | Joshimath | 9.34 | 127 | eP | Pn | 01 09 36.9 | +0.7 |
| JOSI | | | | eS | Sn | 01 11 14.9 | -5.7 |
| JOSI | | | | AML | AML | 01 11 17.8 | |
| | comp=E,76nm,0.2s | | | | | | |
| JOSI | | | | AML | AML | 01 11 19.7 | |
| | comp=N,131nm,0.3s | | | | | | |
| KHET | Khetri | 9.37 | 152 | eP | Pn | 01 09 35.8 | -0.7 |
| KHET | | | | eS | Sn | 01 11 13.5 | -7.6 |
| KHET | | | | AML | AML | 01 11 16.6 | |
| | comp=N,15nm,0.7s | | | | | | |
| KHET | | | | AML | AML | 01 11 16.7 | |
| | comp=E,28nm,0.2s | | | | | | |
| GEYT | Alibeck | 10.31 | 282 | P | Pn | 01 09 48.0 | -0.6 |
| | comp=E,0.2nm,0.3s,baz=104,slow=12,SNR=3.1 | | | | | | |
| GEYT | | | | S | Sn | 01 11 40.0 | -3.4 |
| | comp=E,0.4nm,0.3s,baz=93,slow=12,SNR=3.8 | | | | | | |
| PYUN | Piuthan | 13.20 | 126 | eP | Pn | 01 10 26.5 | +0.7 |
| | comp=E,4.2nm,0.3s | | | | | | |
| MKAR | Makanchi Array | 13.33 | 36 | P | Pn | 01 10 26.6 | -0.4 |
| | comp=E,0.1nm,0.3s,baz=221,slow=11,SNR=4.4 | | | | | | |
| KOLN | Koldanda | 13.82 | 125 | eP | Pn | 01 10 33.2 | -0.4 |
| | comp=E,2.1nm,0.3s | | | | | | |
| AB31 | Akbulak array | 15.05 | 331 | ⇑P | P | 01 10 50.5 | +1.4 |
| | comp=E,2.3nm,0.6s,baz=145,slow=13,SNR=30 | | | | | | |
| AB31 | | | | ⇑S | Sn | 01 13 30.2 | -6.1 |
| | comp=E,0.6nm,0.5s,baz=160,slow=23,SNR=3.2 | | | | | | |
| KURBB | Kurchatov Arra | 15.14 | 19 | P | P | 01 10 50.2 | +0.1 |
| | comp=E,0.0nm,0.3s,baz=202,slow=12,SNR=4.0 | | | | | | |
| PKIN | Phulchoki | 15.15 | 122 | eP | P | 01 10 51.8 | +1.0 |
| | comp=E,12nm,0.5s | | | | | | |
| PKI | Pulchoki | 15.16 | 122 | eP | P | 01 10 52.0 | +1.0 |
| | comp=E,21nm,0.6s | | | | | | |
| GUN | Gumba | 15.28 | 120 | eP | P | 01 10 56.1 | +3.8 |
| JIRN | Jiri | 15.65 | 120 | eP | P | 01 10 58.9 | +2.5 |
| RAMN | Ramite | 16.38 | 121 | eP | P | 01 11 04.4 | +0.1 |
| | comp=E,11nm,0.6s | | | | | | |
| BVAR | Borovoye Array | 16.52 | 359 | P | Pn | 01 11 06.5 | +0.4 |
| | comp=E,0.2nm,0.3s,baz=164,slow=12,SNR=8.5 | | | | | | |
| AKTO | Aktyubinsk | 16.74 | 330 | P | Pn | 01 11 10.2 | +1.4 |
| | comp=E,1.1nm,0.3s,baz=136,slow=10.0,SNR=16 | | | | | | |
| AKTO | Aktyubinsk | 16.74 | 330 | ⇑P | Pn | 01 11 09.8 | +1.0 |
| | comp=E,5.0nm,0.9s | | | | | | |
| ZALV | Zalesovo Beam | 19.94 | 25 | P | P | 01 11 43.6 | +1.2 |
| | comp=E,1.7nm,0.7s,baz=219,slow=11,SNR=7.8 | | | | | | |
| AKASG | Malin Array Be | 32.89 | 309 | P | P | 01 13 43.2 | +1.9 |
| | comp=E,1.3nm,0.5s,baz=80,slow=7.2,SNR=7.2 | | | | | | |
| FINES | FINESS Array B | 37.44 | 326 | P | P | 01 14 21.7 | +1.8 |
| | comp=E,2.7nm,0.7s,baz=122,slow=9.3,SNR=7.8 | | | | | | |
| ARCES | ARCESS Array B | 41.11 | 338 | P | P | 01 14 51.8 | +1.5 |
| | comp=E,3.9nm,0.9s,baz=108,slow=6.5,SNR=9.5 | | | | | | |
| NB2 | NORSAR Subarra | 44.33 | 323 | P | P | 01 15 17.4 | +1.1 |
| | comp=Z,0.9nm,0.5s,baz=96,slow=7.9 | | | | | | |
| NOA | NORSAR Array B | 44.33 | 323 | P | P | 01 15 17.7 | +1.4 |
| | comp=Z,1.5nm,0.6s,baz=97,slow=7.9,SNR=6.0 | | | | | | |
| TORD | Torodi Ar. Bea | 65.65 | 269 | P | P | 01 17 49.1 | -0.4 |
| | comp=Z,0.5nm,0.6s,baz=50,slow=6.2,SNR=6.8 | | | | | | |
| INK | Inuvik | 73.91 | 9 | P | P | 01 18 39.5 | +0.4 |
| | comp=Z,0.7nm,0.5s,baz=0.6,slow=4.1,SNR=3.6 | | | | | | |
| ILAR | Eielson Array | 74.79 | 16 | P | P | 01 18 44.1 | -0.2 |
| | comp=Z,0.3nm,0.9s,baz=291,slow=5.7,SNR=3.5 | | | | | | |
| YKA | Yellowknife Ar | 81.24 | 3 | P | P | 01 19 20.9 | +1.2 |
| | comp=Z,0.6nm,0.5s,baz=349,slow=5.3,SNR=4.8 | | | | | | |
| WRA | Warramunga Arr | 82.05 | 122 | P | P | 01 19 24.7 | +0.1 |
| | comp=Z,0.4nm,0.8s,baz=323,slow=4.7,SNR=4.6 | | | | | | |
| ASAR | Alice Springs | 84.31 | 125 | P | P | 01 19 36.2 | +0.1 |
| | comp=Z,0.3nm,0.5s,baz=319,slow=5.0,SNR=5.2 | | | | | | |

*IASPEI **08** 01:07:42.5±0.8, 39.°12N±0.°02×29.°08E±0.°02, h11km±5km, Error ellipse: s-maj=3.1km s-min=2.8km az=150.8, GT5 selection from ISC bulletin GT5 identified by Bondˆ¡r and McLaughlin (2009) selection criteria Bondˆ¡r and McLaughlin, A new ground truth data set for seismic studies, <i>Seism. Res. Let.</i>, <b>80</b>, 465-472, 2009*
*ISCJB **08** 01:07:42.1±0.4, 39.°13N±0.°02×29.°10E±0.°02, h1km±4km, Error ellipse: s-maj=2.8km s-min=2.6km az=19.3*
*DDA **08** 01:07:42.1, 39.°13N×29.°09E, h14km, Ml3.8*
*ISK **08** 01:07:42.1, 39.°12N×29.°11E, h5km, ML3.4*
*CSEM **08** 01:07:43.3±0.1, 39.°11N×29.°09E, h10km, ML3.4, Error ellipse: s-maj=2.4km s-min=2.1km az=61.0*
**ISC 08 01:07:42.5**±0.8**, 39.°11N**±0.°02×**29.°07E**±0.°02**, h12**km±5km**, n185, σ1.s12**/207**, 10C-6D, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SIMA | Simav-Kutahya | 0.07 | 251 | PG | Pg | 01 07 45.2 | +0.2 |
| SIMA | | | | eSG | Sg | 01 07 47.0 | +0.1 |
| SIMA | Simav-Kutahya | 0.07 | 251 | i Pg | Pg | 01 07 45.2 | +0.2 |
| SIMA | | | | eSg | Sg | 01 07 47.0 | +0.1 |
| DEMI | Demirci | 0.29 | 257 | i P | Pg | 01 07 48.7 | +0.3 |
| DEMI | | | | i S | Sg | 01 07 53.0 | +0.7 |
| DEMI | Demirci | 0.29 | 257 | P | Pg | 01 07 48.7 | +0.3 |
| DEMI | | | | S | Sg | 01 07 53.0 | +0.7 |
| GDZ | Gediz | 0.32 | 93 | i P | Pg | 01 07 48.7 | -0.3 |
| GDZ | | | | i S | Sg | 01 07 53.1 | -0.2 |
| GDZ | Gediz | 0.32 | 93 | P | Pg | 01 07 48.7 | -0.3 |
| GDZ | | | | S | Sg | 01 07 53.1 | -0.2 |
| TVSB | Tavsanli | 0.46 | 41 | PG | Pg | 01 07 50.8 | -0.6 |
| TVSB | | | | eSG | Sg | 01 07 56.6 | -0.9 |
| TVSB | Tavsanli | 0.46 | 41 | i Pg | Pg | 01 07 50.8 | -0.6 |
| TVSB | | | | eSg | Sg | 01 07 56.6 | -0.9 |
| DST | Dursunbey | 0.61 | 325 | PG | Pg | 01 07 53.5 | -0.7 |
| DST | Dursunbey | 0.61 | 325 | i Pg | Pg | 01 07 53.6 | -0.7 |
| KULA | Kula-Manisa | 0.68 | 209 | PG | Pg | 01 07 55.7 | +0.1 |
| KULA | Kula-Manisa | 0.68 | 209 | i Pg | Pg | 01 07 55.7 | +0.1 |
| MANT | Manisa | 0.74 | 213 | i P | Pg | 01 07 56.8 | +0.1 |
| MANT | | | | i S | Sg | 01 08 06.5 | +0.1 |
| MANT | Manisa | 0.74 | 213 | P | Pg | 01 07 56.8 | +0.1 |
| MANT | | | | S | Sg | 01 08 06.5 | +0.1 |
| KHAL | Karahalli | 0.81 | 156 | i P | Pg | 01 07 58.1 | +0.1 |
| KHAL | | | | i S | Sg | 01 08 08.9 | +0.3 |
| KHAL | Karahalli | 0.81 | 156 | P | Pg | 01 07 58.1 | +0.1 |
| KHAL | | | | S | Sg | 01 08 08.9 | +0.3 |
| KHL | Karahalli | 0.86 | 156 | ePG | Pg | 01 07 59.2 | +0.1 |
| KHL | Karahalli | 0.86 | 156 | ePg | Pg | 01 07 59.2 | +0.1 |
| ORLT | Orhaneli | 0.95 | 352 | ePG | Pg | 01 08 00.7 | 0.0 |
| ORLT | Orhaneli | 0.95 | 352 | ePg | Pg | 01 08 00.7 | 0.0 |
| AKHS | Akhisar | 1.01 | 257 | i P | Pg | 01 08 02.0 | +0.1 |
| AKHS | | | | i S | Sn | 01 08 16.3 | -0.4 |
| AKHS | Akhisar | 1.01 | 257 | P | Pg | 01 08 02.0 | +0.1 |
| AKHS | | | | S | Sn | 01 08 16.3 | -0.4 |
| AKS | Akhisar | 1.01 | 257 | ePG | Pg | 01 08 02.0 | +0.1 |
| AKS | Akhisar | 1.01 | 257 | ePg | Pg | 01 08 02.0 | +0.1 |
| BALB | Balikesir | 1.07 | 300 | ePN | Pn | 01 08 03.7 | +0.4 |
| BALB | Balikesir | 1.07 | 300 | ePn | Pn | 01 08 03.7 | +0.4 |
| STEP | BALIKESIR_Sava | 1.09 | 285 | i P | Pn | 01 08 03.7 | +0.1 |
| STEP | | | | i S | Sn | 01 08 19.6 | +1.0 |
| STEP | BALIKESIR_Sava | 1.09 | 285 | P | Pn | 01 08 03.7 | +0.1 |
| STEP | | | | S | Sn | 01 08 19.6 | +1.0 |
| IGD | Bursa | 1.16 | 5 | i P | Pb | 01 08 03.5 | -1.0 |
| IGD | | | | i S | Sn | 01 08 20.2 | -0.1 |
| KZIL | AFYON_Kizioren | 1.19 | 135 | i P | Pb | 01 08 05.1 | 0.0 |
| KZIL | | | | i S | Sn | 01 08 21.9 | +0.6 |
| KZIL | AFYON_Kizioren | 1.19 | 135 | P | Pb | 01 08 05.1 | 0.0 |
| KZIL | | | | S | Sn | 01 08 21.9 | +0.6 |
| CAVI | Cavuskoy | 1.24 | 28 | ePN | Pb | 01 08 06.0 | +0.1 |
| CAVI | Cavuskoy | 1.24 | 28 | ePn | Pb | 01 08 06.0 | +0.1 |
| MDNY | Mudanya-Bursa | 1.27 | 353 | ePN | Pb | 01 08 06.4 | +0.1 |
| MDNY | Mudanya-Bursa | 1.27 | 353 | ePn | Pb | 01 08 06.4 | +0.1 |
| SHUT | Suhut-Afyon | 1.28 | 115 | ePN | Pg | 01 08 07.1 | +0.1 |
| SHUT | Suhut-Afyon | 1.28 | 115 | ePn | Pg | 01 08 07.1 | +0.1 |
| KCTX | Karacabey (Bur | 1.28 | 335 | ePN | Pb | 01 08 06.6 | 0.0 |
| KCTX | Karacabey (Bur | 1.28 | 335 | ePn | Pb | 01 08 06.6 | 0.0 |
| BALY | Balya | 1.29 | 300 | i P | Pb | 01 08 06.7 | -0.1 |
| BALY | | | | i S | Sg | 01 08 25.4 | +1.4 |
| BALY | Balya | 1.29 | 300 | P | Pb | 01 08 06.7 | -0.1 |
| BALY | | | | S | Sg | 01 08 25.5 | +1.4 |
| GEMT | Gemlik | 1.33 | 4 | ePN | Pg | 01 08 07.8 | -0.2 |
| GEMT | Gemlik | 1.33 | 4 | ePn | Pg | 01 08 07.8 | -0.2 |
| DENT | Denizli | 1.35 | 181 | ePN | Pg | 01 08 08.3 | -0.1 |
| DENT | Denizli | 1.35 | 181 | ePn | Pg | 01 08 08.3 | -0.1 |
| DNZL | Cakiroluk | 1.42 | 181 | i P | Pg | 01 08 09.9 | +0.2 |
| DNZL | Cakiroluk | 1.42 | 181 | P | Pg | 01 08 09.9 | +0.2 |
| ADVT | Abdulvahap | 1.42 | 21 | ePN | Pb | 01 08 09.3 | +0.4 |
| ADVT | Abdulvahap | 1.42 | 21 | ePn | Pb | 01 08 09.3 | +0.4 |
| GONE | Gonen-Balikesi | 1.42 | 312 | ePN | Pb | 01 08 08.9 | -0.1 |
| GONE | Gonen-Balikesi | 1.42 | 312 | ePn | Pb | 01 08 08.9 | -0.1 |
| ARMT | Armutlu | 1.47 | 354 | ePN | Pb | 01 08 09.9 | +0.3 |
| ARMT | Armutlu | 1.47 | 354 | ePn | Pb | 01 08 10.0 | +0.3 |
| YLV | Yalova | 1.48 | 9 | ePN | Pb | 01 08 09.9 | 0.0 |
| YLV | Yalova | 1.48 | 9 | ePn | Pb | 01 08 09.9 | 0.0 |
| BOLV | Bolvadin | 1.52 | 104 | i P | Pn | 01 08 10.1 | +0.5 |
| BOLV | Bolvadin | 1.52 | 104 | P | Pn | 01 08 10.1 | +0.5 |
| GPA | Golpazari | 1.52 | 39 | ePN | Pb | 01 08 10.4 | -0.2 |
| GPA | Golpazari | 1.52 | 39 | ePn | Pb | 01 08 10.4 | -0.2 |
| SBT5 | Esenkoy-Cinarc | 1.53 | 354 | ePN | Pb | 01 08 10.7 | 0.0 |
| SBT5 | Esenkoy-Cinarc | 1.53 | 354 | ePn | Pb | 01 08 10.7 | 0.0 |
| EDC | Edincik | 1.55 | 323 | ePN | Pb | 01 08 11.2 | +0.1 |
| EDC | Edincik | 1.55 | 323 | ePn | Pb | 01 08 11.3 | +0.1 |
| BRDR | BURDUR-Merkez | 1.61 | 151 | i P | Pn | 01 08 11.0 | +0.2 |
| BRDR | BURDUR-Merkez | 1.61 | 151 | P | Pn | 01 08 11.0 | +0.2 |
| TAVA | DENIZLI_Tavas | 1.65 | 184 | i P | Pn | 01 08 11.6 | +0.3 |
| TAVA | DENIZLI_Tavas | 1.65 | 184 | P | Pn | 01 08 11.6 | +0.3 |
| GEYV | SAKARYA_Geyve | 1.67 | 34 | i P | Pn | 01 08 11.8 | +0.3 |
| GEYV | SAKARYA_Geyve | 1.67 | 34 | P | Pn | 01 08 11.8 | +0.3 |
| KNL | Bal˜–kesir | 1.67 | 315 | i P | Pb | 01 08 13.4 | +0.3 |
| DKL | Dikili | 1.69 | 269 | ePN | Pb | 01 08 13.8 | +0.4 |
| DKL | Dikili | 1.69 | 269 | ePn | Pb | 01 08 13.8 | +0.4 |
| ISP | Isparta | 1.71 | 138 | ePN | Pb | 01 08 13.5 | -0.5 |
| ISP | Isparta | 1.71 | 138 | ⇑iP | Pg | 01 08 14.9 | -0.5 |
| ISP | | | | S | Sg | 01 08 40.1 | +2.5 |
| ISP | Isparta | 1.71 | 138 | ePn | Pb | 01 08 13.5 | -0.5 |
| ISP | Isparta | 1.71 | 138 | ⇑iP | Pg | 01 08 14.9 | -0.5 |
| GULT | Gulveren | 1.73 | 40 | ePN | Pb | 01 08 13.4 | -0.8 |
| GULT | Gulveren | 1.73 | 40 | ePn | Pb | 01 08 13.4 | -0.8 |
| HRT | Hereke | 1.77 | 15 | ePN | Pn | 01 08 13.8 | +0.8 |
| HRT | Hereke | 1.77 | 15 | ePn | Pn | 01 08 13.8 | +0.8 |
| SBT2 | Guzelce-Avcila | 1.82 | 347 | ePN | Pb | 01 08 14.7 | -0.9 |
| SBT2 | Guzelce-Avcila | 1.82 | 347 | ePn | Pb | 01 08 14.7 | -0.9 |
| SPNC | Sapanca-Adapaz | 1.84 | 31 | ePN | Pn | 01 08 14.7 | +0.8 |
| SPNC | Sapanca-Adapaz | 1.84 | 31 | ePn | Pn | 01 08 14.7 | +0.8 |
| KRBG | Karabiga-Canak | 1.88 | 314 | ePN | Pb | 01 08 15.9 | -0.7 |
| KRBG | Karabiga-Canak | 1.88 | 314 | ePn | Pb | 01 08 16.0 | -0.7 |
| SVRH | Sivrihisar-ESK | 1.93 | 79 | ePN | Pn | 01 08 16.0 | +0.7 |
| SVRH | Sivrihisar-ESK | 1.93 | 79 | ePn | Pn | 01 08 16.0 | +0.7 |
| KAVV | Kandilli-Istan | 1.95 | 360 | ePN | Pb | 01 08 16.7 | -1.3 |
| KAVV | Kandilli-Istan | 1.95 | 360 | ePn | Pb | 01 08 16.7 | -1.3 |
| ISK | Istanbul-Kandi | 1.96 | 360 | ePN | Pn | 01 08 16.6 | +1.2 |
| ISK | Istanbul-Kandi | 1.96 | 360 | ePn | Pn | 01 08 16.7 | +1.2 |
| SBT3 | Marmara-Eregli | 1.96 | 335 | ePN | Pb | 01 08 17.5 | -0.6 |
| SBT3 | Marmara-Eregli | 1.96 | 335 | ePn | Pb | 01 08 17.5 | -0.6 |
| GLHS | Glhisar (BURDU | 1.98 | 170 | ePN | Pb | 01 08 17.4 | -1.1 |
| GLHS | Glhisar (BURDU | 1.98 | 170 | ePn | Pb | 01 08 17.4 | -1.1 |
| DGB | ˜zmir | 2.02 | 239 | i P | Pb | 01 08 18.0 | -1.1 |
| GCAM | G?zelcaml? | 2.02 | 226 | ePN | Pb | 01 08 17.9 | -1.1 |
| GCAM | G?zelcaml? | 2.02 | 226 | ePn | Pb | 01 08 17.9 | -1.1 |
| URLA | Izmir | 2.08 | 250 | ePN | Pb | 01 08 19.1 | -1.0 |
| URLA | Izmir | 2.08 | 250 | ePn | Pb | 01 08 19.1 | -1.0 |
| MDUB | Mudurnu | 2.13 | 50 | ePN | Pn | 01 08 19.2 | +1.2 |
| MDUB | Mudurnu | 2.13 | 50 | ePn | Pn | 01 08 19.2 | +1.2 |
| KLYT | Kilyos | 2.14 | 359 | ePN | Pb | 01 08 19.7 | -1.5 |
| KLYT | Kilyos | 2.14 | 359 | ePn | Pb | 01 08 19.7 | -1.5 |
| RKY | Sarkoy-Tekirda | 2.15 | 318 | ePN | Pb | 01 08 20.1 | -1.3 |
| RKY | Sarkoy-Tekirda | 2.15 | 318 | ePn | Pb | 01 08 20.1 | -1.3 |
| CTKS | Kestanelik-??a | 2.17 | 349 | ePN | Pn | 01 08 19.7 | +1.3 |
| CTKS | Kestanelik-??a | 2.17 | 349 | ePn | Pn | 01 08 19.7 | +1.3 |
| LPK | Lapseki | 2.19 | 306 | ePN | Pn | 01 08 19.9 | +1.2 |
| LPK | Lapseki | 2.19 | 306 | ePn | Pn | 01 08 19.9 | +1.2 |
| KIZT | Kizilcal | 2.20 | 95 | ePN | Pn | 01 08 20.1 | +1.1 |
| KIZT | Kizilcal | 2.20 | 95 | ePn | Pn | 01 08 20.1 | +1.1 |
| SLVT | Silivri | 2.22 | 343 | ePN | Pb | 01 08 21.0 | -1.6 |
| SLVT | Silivri | 2.22 | 343 | ePn | Pb | 01 08 21.0 | -1.6 |
| TKR | Tekirdag | 2.22 | 328 | ePN | Pb | 01 08 21.0 | -1.6 |
| TKR | Tekirdag | 2.22 | 328 | ePn | Pb | 01 08 21.0 | -1.6 |
| SUTC | Sutluce-Ispart | 2.23 | 136 | ePN | Pb | 01 08 21.4 | -1.3 |
| SUTC | Sutluce-Ispart | 2.23 | 136 | ePn | Pb | 01 08 21.4 | -1.3 |
| EZN | Ezine | 2.25 | 289 | ePN | Pb | 01 08 21.4 | -1.6 |
| EZN | Ezine | 2.25 | 289 | ePn | Pb | 01 08 21.4 | -1.6 |
| TURN | Turunc | 2.26 | 190 | ePN | Pb | 01 08 22.9 | -0.4 |
| TURN | Turunc | 2.26 | 190 | ePn | Pb | 01 08 22.9 | -0.3 |
| CRLT | Corlu | 2.26 | 333 | ePN | Pn | 01 08 21.2 | +1.4 |
| CRLT | Corlu | 2.26 | 333 | ePn | Pn | 01 08 21.2 | +1.4 |
| DALY | Dalyan (Mu˜la | 2.31 | 188 | ePN | Pn | 01 08 21.6 | +1.2 |
| DALY | Dalyan (Mu˜la | 2.31 | 188 | ePn | Pn | 01 08 21.6 | +1.2 |
| KORT | Korkueli | 2.33 | 154 | ePN | Pn | 01 08 22.0 | +1.2 |
| KORT | Korkueli | 2.33 | 154 | ePn | Pn | 01 08 22.0 | +1.2 |
| GELI | Tayfur-Gelibol | 2.38 | 304 | ePN | Pn | 01 08 22.9 | +1.5 |
| GELI | Tayfur-Gelibol | 2.38 | 304 | ePn | Pn | 01 08 22.9 | +1.5 |
| CTYL | Yalikoy Yolu | 2.44 | 346 | ePN | Pb | 01 08 24.4 | -1.9 |
| CTYL | Yalikoy Yolu | 2.44 | 346 | ePn | Pb | 01 08 24.4 | -1.9 |
| ELL | Elmali | 2.45 | 164 | ePN | Pn | 01 08 24.0 | +1.6 |
| ELL | Elmali | 2.45 | 164 | ePn | Pn | 01 08 24.0 | +1.6 |
| KDHN | Kadinhani | 2.45 | 103 | i P | Pn | 01 08 22.9 | +0.5 |
| KDHN | Kadinhani | 2.45 | 103 | P | Pn | 01 08 22.9 | +0.5 |
| BOZC | Bozcaada | 2.45 | 288 | ePN | Pb | 01 08 24.3 | -2.2 |
| BOZC | Bozcaada | 2.45 | 288 | ePn | Pb | 01 08 24.3 | -2.2 |
| CHOS | Chios island | 2.47 | 254 | ePN | Pb | 01 08 25.1 | -1.7 |
| CHOS | Chios island | 2.47 | 254 | ePn | Pb | 01 08 25.1 | -1.7 |
| FETY | Fethiye | 2.47 | 180 | ePN | Pb | 01 08 24.6 | -2.2 |
| FETY | Fethiye | 2.47 | 180 | ePn | Pb | 01 08 24.6 | -2.2 |
| BODT | Bodrum | 2.47 | 215 | ePN | Pb | 01 08 24.7 | -2.1 |
| BODT | Bodrum | 2.47 | 215 | ePn | Pb | 01 08 24.7 | -2.1 |
| SIGR | SIGRI | 2.50 | 273 | ePN | Pb | 01 08 25.5 | -1.9 |
| SIGR | SIGRI | 2.50 | 273 | ePn | Pb | 01 08 25.5 | -1.9 |
| ERIK | Erikli-Kesan | 2.51 | 309 | ePN | Pn | 01 08 24.9 | +1.7 |
| ERIK | Erikli-Kesan | 2.51 | 309 | ePn | Pn | 01 08 24.9 | +1.7 |
| GADA | Gvkgeada | 2.68 | 295 | ePN | Pn | 01 08 27.4 | +2.0 |
| GADA | Gvkgeada | 2.68 | 295 | ePn | Pn | 01 08 27.4 | +2.0 |
| LADK | Ladik-KONYA | 2.73 | 108 | ePN | Pn | 01 08 27.4 | +1.1 |
| LADK | Ladik-KONYA | 2.73 | 108 | ePn | Pn | 01 08 27.4 | +1.1 |
| ENEZ | Enez | 2.77 | 307 | ePN | Pn | 01 08 28.3 | +1.6 |
| ENEZ | Enez | 2.77 | 307 | ePn | Pn | 01 08 28.3 | +1.6 |
| KONT | Konya--Tatoy | 2.83 | 113 | ePN | Pn | 01 08 28.5 | +1.0 |
| KONT | Konya--Tatoy | 2.83 | 113 | ePn | Pn | 01 08 28.5 | +1.0 |
| BCAM | Yenicaga | 2.86 | 52 | i P | Pn | 01 08 29.6 | +1.5 |
| BCAM | Yenicaga | 2.86 | 52 | P | Pn | 01 08 29.6 | +1.5 |
| ALN | Alexandroupoli | 2.93 | 308 | ePN | Pn | 01 08 30.9 | +2.0 |
| ALN | Alexandroupoli | 2.93 | 308 | ePn | Pn | 01 08 30.9 | +2.0 |
| LOD | Lodumlu | 2.96 | 74 | ePN | Pn | 01 08 30.9 | +1.5 |
| LOD | Lodumlu | 2.96 | 74 | ePn | Pn | 01 08 30.9 | +1.5 |
| CMDR | Camlidere-ANKA | 2.96 | 61 | i P | Pn | 01 08 32.4 | +2.9 |
| CMDR | Camlidere-ANKA | 2.96 | 61 | P | Pn | 01 08 32.4 | +2.9 |
| KKUL | Konya-Kulu | 2.99 | 88 | eP | Pb | 01 08 37.6 | +1.9 |
| AFSR | Af¯ar-Bala (A | 3.12 | 83 | ePN | Pn | 01 08 33.0 | +1.5 |
| AFSR | Af¯ar-Bala (A | 3.12 | 83 | ePn | Pn | 01 08 33.1 | +1.5 |
| EDRB | Edirne | 3.26 | 328 | ePN | Pn | 01 08 36.1 | +2.6 |
| EDRB | Edirne | 3.26 | 328 | ePn | Pn | 01 08 36.1 | +2.6 |
| TIRR | Tirgusor | 5.37 | 355 | ⇑iP | Pn | 01 09 02.5 | +0.1 |
| TIRR | Tirgusor | 5.37 | 355 | S | Sn | 01 10 00.5 | -3.6 |
| TIRR | Tirgusor | 5.37 | 355 | ⇑iP | Pn | 01 09 02.5 | +0.1 |
| VTS | Vitosha | 5.65 | 310 | ⇓iP | Pn | 01 09 07.6 | +1.2 |
| VTS | Vitosha | 5.65 | 310 | ⇓iP | Pn | 01 09 07.6 | +1.2 |
| CFR | Carcaliu | 6.11 | 354 | ⇓iP | Pn | 01 09 12.1 | -0.4 |
| CFR | Carcaliu | 6.11 | 354 | ⇓iP | Pn | 01 09 12.1 | -0.4 |
| VRI | Vrincioaia | 6.97 | 346 | ⇓iP | Pn | 01 09 25.4 | +1.0 |
| VRI | Vrincioaia | 6.97 | 346 | ⇓iP | Pn | 01 09 25.4 | +1.0 |
| VOIR | | 6.99 | 336 | ⇑iP | Pn | 01 09 25.5 | +0.7 |
| VOIR | | 6.99 | 336 | ⇑iP | Pn | 01 09 25.5 | +0.7 |
| DOPR | Dopca | 7.37 | 340 | ⇑iP | Pn | 01 09 31.0 | +1.0 |
| DOPR | Dopca | 7.37 | 340 | ⇑iP | Pn | 01 09 31.0 | +1.0 |
| MDVR | Moldovita | 7.89 | 318 | ⇑iP | Pn | 01 09 37.1 | +0.1 |
| MDVR | Moldovita | 7.89 | 318 | ⇑iP | Pn | 01 09 37.1 | +0.1 |

*SJA **08** 01:13:14.0±0.5, 27.°51S×71.°64W, h5km±7km, ML4.8, MW4.2*
*IDC **08** 01:13:19.5±0.8, 27.°91S×71.°22W, h0km, mb4.4/8, mb1 4.4/9, mb1mx4.1/33, mbtmp4.3/9, ML4.1/1, MS3.8/3, Ms1 3.8/3, ms1mx3.3/23, Error ellipse: s-maj=29.2km s-min=25.1km az=34.0*
*BJI **08** 01:13:20.4, 27.°63S×71.°19W, h20km, mB5.2/3, Ms4.8/3, Ms7 4.7/1*
*ISCJB **08** 01:13:20.8±1.1, 27.°72S±0.°03×71.°41W±0.°06, h20km±7km, mb4.7/18, MS4.3/2, Error ellipse: s-maj=8.2km s-min=4.3km az=3.9*
*NEIC **08** 01:13:24.0±0.0, 28.°02S×70.°80W, h58km, mb4.5/9, After GUC.*
*NEIC Felt at Copiapo.*
*GUC **08** 01:13:24.6±0.6, 28.°02S×70.°80W, h58km±4km, ML4.4*
**ISC 08 01:13:22.5**±1.1**, 27.°91S**±0.°03×**71.°38W**±0.°05**, h25**km±7km**, n77, σ2.s53**/97**, mb4.6**/18**, 1C-5D, Near coast of northern Chile**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VACH | Vallenar | 0.86 | 140 | ⇓iP | Pb | 01 13 37.6 | -1.2 |
| VACH | | | | i S | Sb | 01 13 47.7 | -2.2 |
| GO03 | Copiap | 1.06 | 73 | ⇓iP | Pn | 01 13 41.1 | -0.8 |
| GO03 | | | | i S | Sb | 01 13 52.0 | -3.9 |
| GO03 | | | | IAML | | 01 14 00.2 | |
| | comp=N,7μm,0.6s | | | | | | |
| CPCH | Copiapo | 1.07 | 59 | ⇓iP | Pn | 01 13 40.1 | -1.8 |
| CPCH | | | | i S | Sb | 01 13 52.8 | -3.0 |
| LCO | Las Campanas | 1.25 | 152 | ePn | Pn | 01 13 44.8 | +0.2 |
| LCO | | | | eSn | Sn | 01 13 58.4 | -2.4 |
| LCO | Las Campanas | 1.25 | 152 | ⇓iP | Pn | 01 13 44.2 | -0.5 |
| LCO | | | | i S | Sn | 01 13 58.6 | -2.2 |
| LCO | | | | IAML | | 01 14 02.4 | |
| | comp=E,16μm,0.4s | | | | | | |
| TLL | Tololo Astrono | 2.30 | 167 | ⇓iP | Pn | 01 14 00.3 | +1.1 |
| TLL | | | | i S | Sn | 01 14 27.5 | +0.7 |
| TLL | | | | IAML | | 01 14 39.8 | |
| | comp=E,20μm,0.5s | | | | | | |
| VCA | Vinchina | 2.92 | 107 | ⇑iP | Pb | 01 14 12.0 | -2.0 |
| VCA | | | | i S | Sb | 01 14 49.7 | +0.4 |
| VCA | | | | IAML | | 01 14 59.0 | |
| | comp=N,3μm,0.8s | | | | | | |
| AGUA | GUANDACOL | 2.98 | 122 | eP | Pn | 01 14 10.9 | +2.5 |
| AGUA | | | | eS | Sb | 01 14 53.2 | +2.1 |
| AMOG | MOGNA | 3.93 | 141 | eP | Pn | 01 14 25.0 | +3.7 |
| ACLC | CERRO LA CRUZ | 4.17 | 112 | eP | Pn | 01 14 27.0 | +2.1 |
| ACLC | | | | eS | Sb | 01 15 21.6 | -3.8 |
| RTLL | Cerro Villicun | 4.24 | 144 | eP | Pn | 01 14 29.5 | +3.9 |
| RTLS | Leoncito | 4.28 | 155 | eP | Pn | 01 14 30.2 | +3.9 |
| RTLS | | | | eS | Sb | 01 15 27.1 | -1.4 |
| AUSP | Uspallata | 4.63 | 159 | eP | Pn | 01 14 35.6 | +4.4 |
| RTCV | Cerro Valdivia | 4.65 | 149 | eP | Pn | 01 14 34.9 | +3.8 |
| APLL | PUNTA DE LOS L | 4.91 | 121 | eP | Pn | 01 14 38.2 | +3.3 |
| CYA | Choya | 4.95 | 97 | eP | Pn | 01 14 36.7 | +1.3 |
| CYA | | | | eS | Sn | 01 15 38.3 | +6.4 |
| FSA | Cafayete | 5.14 | 71 | eP | Pn | 01 14 37.5 | -0.7 |
| ASAL | Salagasta | 5.16 | 155 | eP | Pn | 01 14 42.4 | +4.1 |
| ASAL | | | | eS | Sb | 01 15 47.3 | -6.3 |
| PEL | Peldehue | 5.25 | 174 | ePn | Pn | 01 14 41.6 | +2.1 |
| PEL | | | | eSn | Sn | 01 15 39.6 | +0.4 |
| ARCO | CERRO ARCO | 5.35 | 157 | eP | Pn | 01 14 44.9 | +3.9 |
| ARCO | | | | IAML | | 01 16 13.0 | |
| | comp=Z,360nm,0.6s | | | | | | |
| AAGR | Agrelo | 5.61 | 158 | eP | Pn | 01 14 48.7 | +4.2 |
| PB04 | IPOC Station P | 5.67 | 12 | ePn | Pn | 01 14 43.6 | -1.8 |
| PB04 | | | | eSn | Sn | 01 15 47.0 | -2.6 |
| PB01 | IPOC Station P | 7.05 | 15 | ePn | Pn | 01 15 02.7 | -1.6 |
| PB01 | | | | eSn | Sn | 01 16 23.1 | -0.6 |
| GO05 | HualaæØ | 7.09 | 184 | ePn | Pn | 01 15 02.9 | -1.8 |
| GO05 | | | | eSn | Sn | 01 16 18.3 | -6.3 |
| PB11 | IPOC Station P | 8.27 | 11 | ePn | Pn | 01 15 18.3 | -2.8 |
| PB11 | | | | eSn | Sn | 01 16 50.4 | -3.3 |
| MNMC | Minye Minye | 8.89 | 11 | ePn | Pn | 01 15 27.2 | -2.6 |
| MNMC | | | | eSn | Sn | 01 17 04.8 | -4.5 |
| LPAZ | La Paz | 11.95 | 15 | Pn | Pn | 01 16 10.2 | -1.8 |
| | comp=Z,0.5nm,0.3s,baz=201,slow=6.4,SNR=12 | | | | | | |
| LPAZ | | | | LR | LR | 01 21 18.6 | |
| | comp=Z,200nm,19.7s,baz=94,slow=40 | | | | | | |
| LPAZ | La Paz | 11.95 | 15 | ePn | Pn | 01 16 11.2 | -0.8 |
| CPUP | Villa Florida | 12.62 | 86 | Pn | Pn | 01 16 22.2 | +1.7 |
| | comp=Z,0.2nm,0.3s,baz=238,slow=13,SNR=4.2 | | | | | | |
| CPUP | | | | Sn | Sn | 01 18 42.5 | +2.4 |
| | comp=Z,0.2nm,0.3s,baz=7.4,slow=19,SNR=1.5 | | | | | | |
| CPUP | | | | Lg | Lg | 01 19 56.9 | |
| | comp=Z,0.1nm,0.3s,baz=184,slow=19,SNR=2.8 | | | | | | |
| CPUP | | | | LR | LR | 01 21 37.6 | |
| | comp=Z,406nm,18.4s,baz=333,slow=40 | | | | | | |
| CPUP | Villa Florida | 12.62 | 86 | ePn | Pn | 01 16 22.5 | +2.1 |
| CPUP | | | | Sn | Sn | 01 18 42.5 | +2.4 |
| CPUP | | | | Lg | Lg | 01 19 56.9 | |
| PLCA | Paso Flores | 12.81 | 177 | Lg | Lg | 01 19 59.2 | |
| | comp=Z,0.2nm,0.3s,baz=236,slow=15,SNR=2.5 | | | | | | |
| TRQA | Tornquist | 12.82 | 144 | ePn | Pn | 01 16 21.7 | -1.5 |
| SAML | Samuel | 20.39 | 24 | eP | P | 01 17 58.7 | +1.1 |
| | comp=Z,7.8nm,0.9s | | | | | | |
| BDFB | Brasilia | 24.84 | 65 | P | P | 01 18 42.3 | -1.0 |
| | comp=Z,5.7nm,0.9s,baz=38,slow=9.9,SNR=6.6 | | | | | | |
| BDFB | | | | LR | LR | 01 29 46.8 | |
| | comp=Z,366nm,18.2s,baz=349,slow=40 | | | | | | |
| BDFB | Brasilia | 24.84 | 65 | eP | P | 01 18 42.3 | -1.0 |
| | comp=Z,23nm,1.3s | | | | | | |
| PTGA | Pitinga | 29.16 | 24 | P | P | 01 19 22.3 | +0.4 |
| | comp=Z,5.2nm,1.1s,baz=192,slow=8.3,SNR=5.1 | | | | | | |
| PTGA | Pitinga | 29.16 | 24 | eP | P | 01 19 22.8 | +0.9 |
| | comp=Z,5.7nm,1.2s | | | | | | |
| RUSC | La Rusia | 33.65 | 357 | eP | P | 01 20 03.4 | +1.5 |
| | comp=Z,3.3nm,1.0s | | | | | | |
| GRTK | Grand Turk | 49.13 | 0 | eP | P | 01 22 10.1 | +1.9 |
| | comp=Z,111nm,1.1s | | | | | | |
| PTCN | Pitcairn Islan | 52.19 | 259 | eP | P | 01 22 32.4 | +0.9 |
| | comp=Z,250nm,1.1s | | | | | | |
| VNA3 | Neumayer Olymp | 54.81 | 160 | P | P | 01 22 50.7 | +0.7 |
| VNA1 | Neumayer--Stat | 55.08 | 159 | P | P | 01 22 49.8 | -2.1 |
| VNA2 | Neumayer--Watz | 55.43 | 159 | P | P | 01 22 55.7 | +1.2 |
| | baz=287,slow=8.4 | | | | | | |
| SNAA | Sanae | 57.03 | 159 | P | P | 01 23 05.9 | -0.1 |
| SNAA | Sanae | 57.03 | 159 | eP | P | 01 23 06.5 | +0.5 |
| | comp=Z,9.3nm,1.0s | | | | | | |
| H06S1 | SOCORRO T | 60.15 | 316 | T | T | 02 28 58.9 | |
| | SNR=16 | | | | | | |
| H06E1 | SOCORRO T-PHAS | 60.16 | 316 | T | T | 02 29 02.4 | |
| | SNR=7.6 | | | | | | |
| HKT | Hockley | 62.10 | 336 | eP | P | 01 23 43.6 | +2.4 |
| | comp=Z,19nm,1.5s | | | | | | |
| QSPA | South Pole Qui | 62.31 | 180 | eP | P | 01 23 44.1 | +1.7 |
| | comp=Z,3.9nm,0.8s | | | | | | |
| TXAR | Lajitas Array | 64.77 | 329 | P | P | 01 23 59.6 | +0.5 |
| | comp=Z,1.2nm,0.8s,baz=134,slow=7.8,SNR=8.2 | | | | | | |
| LIC | Lamto | 72.38 | 73 | eP | P | 01 24 47.0 | +0.1 |
| | comp=Z,25nm,0.9s | | | | | | |
| TIC | Toumodi | 72.60 | 72 | eP | P | 01 24 48.3 | +0.1 |
| KIC | Kosan Boka | 72.69 | 73 | eP | P | 01 24 49.1 | +0.3 |
| | comp=Z,17nm,0.8s | | | | | | |
| DBIC | Dimbokro | 72.76 | 73 | P | P | 01 24 49.2 | +0.1 |
| | comp=Z,6.3nm,0.6s,baz=199,slow=7.3,SNR=13 | | | | | | |
| KOWA | Kowa | 77.64 | 66 | eP | P | 01 25 17.9 | +0.7 |
| | comp=Z,22nm,1.8s | | | | | | |
| PDAR | Pinedale Array | 78.62 | 332 | P | P | 01 25 24.6 | +2.2 |
| | comp=Z,0.3nm,0.5s,baz=126,slow=7.5,SNR=4.7 | | | | | | |
| SPUT | South Promonto | 78.67 | 330 | eP | P | 01 25 25.7 | +3.1 |
| | comp=Z,3.7nm,0.9s | | | | | | |
| ULM | Lac du Bonnet | 80.80 | 344 | P | P | 01 25 35.0 | +1.4 |
| | comp=Z,4.6nm,1.0s,baz=232,slow=3.1,SNR=3.6 | | | | | | |
| TOA0 | Torodi Ar. Sit | 81.62 | 70 | eP | P | 01 25 39.2 | +0.4 |
| TORD | Torodi Ar. Bea | 81.62 | 70 | P | P | 01 25 39.2 | +0.4 |
| | comp=Z,3.5nm,0.6s,baz=270,slow=4.5,SNR=32 | | | | | | |
| BOSA | Boshof | 82.42 | 118 | P | P | 01 25 43.4 | +0.3 |
| | comp=Z,5.7nm,0.9s,baz=279,slow=3.6,SNR=9.6 | | | | | | |
| ASAR | Alice Springs | 123.22 | 208 | PKP | PKPdf | 01 32 18.4 | +0.5 |
| | comp=Z,0.6nm,0.5s,baz=126,slow=1.3,SNR=6.4 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 126.21 | 273 | T | T | 03 51 34.1 | |
| | baz=113 | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| **H11S1** | **WAKE ISLAND Hy** | **126.22** | **273** | T | T | 03 51 37.0 | |
| | baz=113,slow=74,SNR=12 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **126.23** | **273** | T | T | 03 51 35.3 | |
| | baz=113,slow=74,SNR=11 | | | | | | |
| **WB2** | **Warramunga Arr** | **126.31** | **210** | *e*PKPdf | **PKPdf** | **01 32 24.6** | **+0.8** |
| **WRA** | **Warramunga Arr** | **126.31** | **210** | PKP | **PKPdf** | **01 32 24.7** | **+0.9** |
| | comp=Z,1.4nm,0.5s,baz=153,slow=1.7,SNR=35 | | | | | | |
| **ZAA0** | **Zalesovo Array** | **148.67** | **27** | *e*PKPdf | **PKPdf** | **01 33 05.2** | **+1.9** |
| **ZALV** | **Zalesovo Beam** | **148.67** | **27** | PKP | **PKPdf** | **01 33 03.9** | **+0.6** |
| | comp=Z,2.4nm,0.6s,baz=318,slow=1.9,SNR=6.9 | | | | | | |
| ZALV | | | | PKPbc | **PKiKP** | **01 33 08.5** | **0.0** |
| | comp=Z,6.2nm,0.7s,baz=300,slow=3.2,SNR=24 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **148.67** | **27** | *e*PKPdf | **PKPdf** | **01 33 04.7** | **+1.3** |
| **KSH** | **Kashi** | **150.63** | **58** | *e*PKPbc | **PKPdf** | **01 33 06.0** | **-1.1** |
| KSH | | | | pPKP | pPKPdf | 01 33 16.2 | +0.7 |
| KSH | | | | PP | **PP** | **01 36 49.6** | **+0.2** |
| KSH | | | | SKS | **SKSdf** | **01 40 07.7** | **-5.7** |
| KSH | | | | SKKS | **SKKSac** | **01 43 33.3** | **-5.4** |
| KSH | | | | SS | **SS** | **01 56 02.6** | **-6.0** |
| KSH | | | | AMB | AMB | | |
| | comp=Z,66nm,4.1s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,20nm,4.0s | | | | | | |
| **MKAR** | **Makanchi Array** | **152.04** | **41** | PKPbc | **PKPbc** | **01 33 16.5** | **+1.0** |
| | comp=Z,2.6nm,0.8s,baz=309,slow=2.1,SNR=11 | | | | | | |
| **MK01** | **Makanchi Array** | **152.06** | **41** | *e*PKPbc | **PKPbc** | **01 33 16.6** | **+1.0** |
| MK01 | | | | *e*PKPab | **pPKPbc** | **01 33 24.0** | **+0.1** |
| **WMQ** | **Urumqi** | **156.87** | **41** | *e*PKP | **PKPdf** | **01 33 15.6** | **-0.2** |
| WMQ | | | | LR | LR | | |
| | comp=Z,69nm,18.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,42nm,20.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,100nm,17.5s | | | | | | |
| **CN2** | **Changchun** | **159.15** | **324** | *e*PKP | **PKPdf** | **01 33 18.0** | **-0.4** |
| **HHC** | **Hu-ho-hao-te** | **166.87** | **350** | *e*PKP | **PKPdf** | **01 33 24.0** | **-2.1** |
| **NJ2** | **Nanjing** | **170.21** | **297** | *e*PKP | **PKPdf** | **01 33 29.2** | **+0.8** |

*IDC **08** 01:19:11.6±3.9, 52.°66N×160.°82E, h0km, mb4.0/4, mb1 4.1/4, mb1mx3.5/53, mbtmp4.0/4, Error ellipse: s-maj=79.9km s-min=34.4km az=165.0*
*KRSC **08** 01:19:14.8±1.3, 52.°70N×160.°59E, h0km±9km, ML4.2*
*MOS **08** 01:19:18.2±0.4, 52.°76N×160.°37E, h9km, mb4.3/2, Error ellipse: s-maj=9.0km s-min=5.7km az=110.7*
**ISC 08 01:19:14.1**±1.7**, 52.°68N**±0.°04×**160.°64E**±0.°05**, h6**km±10km**, n66,** σ**1.s77**/96**, mb4.1**/4**, 1D, Off east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SPN** | **Mys Shipunski** | **0.56** | **319** | PN | **Pb** | **01 19 27.7** | **+1.3** |
| SPN | | | | S | **Sb** | **01 19 34.1** | **-0.7** |
| **SPN** | **Mys Shipunski** | **0.56** | **319** | *i* P | **Pb** | **01 19 27.7** | **+1.3** |
| SPN | | | | *i* S | **Sb** | **01 19 34.1** | **-0.7** |
| **NLC** | **Nalytchevo** | **0.93** | **303** | PN | **Pb** | **01 19 33.3** | **+0.7** |
| NLC | | | | S | **Sn** | **01 19 47.4** | **+0.1** |
| **NLC** | **Nalytchevo** | **0.93** | **303** | *e*P | **Pb** | **01 19 33.3** | **+0.7** |
| NLC | | | | *e*S | **Sn** | **01 19 47.4** | **+0.1** |
| **DALK** | **Dalny** | **1.20** | **288** | PN | **Pb** | **01 19 37.8** | **+0.6** |
| DALK | | | | S | **Sn** | **01 19 54.8** | **+0.8** |
| **DALK** | **Dalny** | **1.20** | **288** | *i* P | **Pb** | **01 19 37.8** | **+0.6** |
| DALK | | | | *e*S | **Sn** | **01 19 54.8** | **+0.8** |
| **SDLR** | **Sedlovina** | **1.22** | **300** | PN | **Pb** | **01 19 38.2** | **+0.5** |
| **SDLR** | **Sedlovina** | **1.22** | **300** | *e*P | **Pb** | **01 19 38.2** | **+0.5** |
| **UGLR** | **Uglovaya** | **1.22** | **297** | PN | **Pb** | **01 19 38.4** | **+0.7** |
| **UGLR** | **Uglovaya** | **1.22** | **297** | *e*P | **Pb** | **01 19 38.4** | **+0.7** |
| **PET** | **Petropavlovsk** | **1.25** | **287** | ⇓*i*PN | **Pb** | **01 19 38.6** | **+0.4** |
| PET | | | | *e*S | **Sb** | **01 19 55.1** | **+0.6** |
| PET | | | | pmax | pmax | | |
| | comp=Z,340nm,0.8s | | | | | | |
| PET | | | | smax | smax | | |
| | comp=N,648nm,0.7s | | | | | | |
| PET | | | | smax | smax | | |
| | comp=E,1µm,0.8s | | | | | | |
| **PET** | **Petropavlovsk** | **1.25** | **287** | *e*P | **Pn** | **01 19 38.9** | **+0.7** |
| PET | | | | *e*S | **Sn** | **01 19 56.2** | **+0.8** |
| **AVH** | **Avacha** | **1.29** | **298** | PN | **Pb** | **01 19 39.5** | **+0.6** |
| **AVH** | **Avacha** | **1.29** | **298** | *e*P | **Pb** | **01 19 39.5** | **+0.6** |
| **KRER** | **Koryakskii** | **1.30** | **300** | PN | **Pn** | **01 19 39.9** | **+0.8** |
| **KRER** | **Koryakskii** | **1.30** | **300** | *e*P | **Pn** | **01 19 39.9** | **+0.8** |
| **RUS** | **Russkaya** | **1.32** | **260** | PN | **Pn** | **01 19 40.1** | **+1.0** |
| RUS | | | | S | **Sn** | **01 19 57.8** | **+0.8** |
| **RUS** | **Russkaya** | **1.32** | **260** | *e*P | **Pn** | **01 19 40.1** | **+1.0** |
| RUS | | | | *e*S | **Sn** | **01 19 57.8** | **+0.8** |
| **KOK** | **Koryaka** | **1.36** | **298** | PN | **Pn** | **01 19 40.9** | **+1.1** |
| **KOK** | **Koryaka** | **1.36** | **298** | *e*P | **Pn** | **01 19 40.9** | **+1.1** |
| **KRX** | **Arik** | **1.38** | **300** | PN | **Pg** | **01 19 40.5** | **-0.1** |
| KRX | | | | S | **Sn** | **01 19 59.4** | **+0.6** |
| **KRX** | **Arik** | **1.38** | **300** | *e*P | **Pg** | **01 19 40.5** | **-0.1** |
| KRX | | | | *e*S | **Sn** | **01 19 59.4** | **+0.6** |
| **MTVR** | **Mutnovka** | **1.51** | **264** | PN | **Pb** | **01 19 43.4** | **+0.8** |
| MTVR | | | | S | **Sn** | **01 20 03.0** | **+1.1** |
| **MTVR** | **Mutnovka** | **1.51** | **264** | *i* P | **Pb** | **01 19 43.4** | **+0.8** |
| MTVR | | | | *i* S | **Sn** | **01 20 03.0** | **+1.1** |
| **KRMR** | **Karymshinskiy** | **1.53** | **277** | PN | **Pn** | **01 19 42.8** | **+0.8** |
| KRMR | | | | S | **Sn** | **01 20 03.5** | **+1.3** |
| **KRMR** | **Karymshinskiy** | **1.53** | **277** | *e*P | **Pn** | **01 19 42.8** | **+0.8** |
| KRMR | | | | *e*S | **Sn** | **01 20 03.5** | **+1.3** |
| **GRL** | **Gorelyy** | **1.57** | **267** | PN | **Pg** | **01 19 44.5** | **+0.3** |
| **GRL** | **Gorelyy** | **1.57** | **267** | *e*P | **Pg** | **01 19 44.5** | **+0.3** |
| **ASAK** | **Asacha** | **1.70** | **261** | PN | **Pb** | **01 19 46.6** | **+0.8** |
| ASAK | | | | S | **Sg** | **01 20 09.8** | **+1.2** |
| **ASAK** | **Asacha** | **1.70** | **261** | *e*P | **Pb** | **01 19 46.6** | **+0.8** |
| ASAK | | | | *e*S | **Sg** | **01 20 09.8** | **+1.2** |
| **KDTR** | **Khodutka, Kamc** | **1.80** | **242** | *e*P | **Pb** | **01 19 47.6** | **+0.2** |
| KDTR | | | | *e*S | **Sb** | **01 20 10.8** | **+0.6** |
| **PETK** | **Petropavlovsk-** | **1.83** | **285** | Pn | **Pn** | **01 19 47.7** | **+1.5** |
| | comp=E,85nm,0.3s,baz=98,slow=18,SNR=230 | | | | | | |
| PETK | | | | Sn | **Sn** | **01 20 10.9** | **+1.2** |
| | comp=E,36nm,0.3s,baz=96,slow=13,SNR=6.9 | | | | | | |
| **GNL** | **Ganaly** | **1.92** | **303** | PN | **Pb** | **01 19 49.4** | **-0.2** |
| GNL | | | | S | **Sg** | **01 20 15.3** | **-0.4** |
| **GNL** | **Ganaly** | **1.92** | **303** | *e*P | **Pb** | **01 19 49.4** | **-0.2** |
| GNL | | | | *e*S | **Sg** | **01 20 15.3** | **-0.4** |
| **APC** | **Apacha** | **2.13** | **278** | PN | **Pb** | **01 19 53.0** | **-0.1** |
| APC | | | | S | **Sg** | **01 20 21.5** | **-0.9** |
| **APC** | **Apacha** | **2.13** | **278** | *e*P | **Pb** | **01 19 53.0** | **-0.1** |
| APC | | | | *e*S | **Sg** | **01 20 21.5** | **-0.9** |
| **KZV** | **Kizimen** | **2.45** | **355** | PN | **Pb** | **01 19 57.8** | **-0.9** |
| KZV | | | | S | **Sb** | **01 20 29.7** | **+0.5** |
| **KZV** | **Kizimen** | **2.45** | **355** | *e*P | **Pb** | **01 19 57.8** | **-0.9** |
| KZV | | | | *e*S | **Sb** | **01 20 29.7** | **+0.5** |
| **TUMR** | **Tumrok** | **2.63** | **354** | PN | **Pn** | **01 19 59.2** | **+2.0** |
| TUMR | | | | S | **Sb** | **01 20 33.5** | **-0.8** |
| **TUMR** | **Tumrok** | **2.63** | **354** | *e*P | **Pn** | **01 19 59.2** | **+2.0** |
| TUMR | | | | *e*S | **Sb** | **01 20 33.5** | **-0.8** |
| **KMNR** | **Kamenistaya** | **3.10** | **356** | PN | **Pn** | **01 20 06.8** | **+3.2** |
| KMNR | | | | S | **Sb** | **01 20 45.5** | **-2.2** |
| **KMNR** | **Kamenistaya** | **3.10** | **356** | *e*P | **Pn** | **01 20 06.8** | **+3.2** |
| KMNR | | | | *e*S | **Sb** | **01 20 45.5** | **-2.2** |
| **BZMR** | **Bezymyannaya** | **3.27** | **359** | PN | **Pb** | **01 20 10.8** | **-1.8** |
| BZMR | | | | S | **Sb** | **01 20 51.9** | **-0.8** |
| **BZMR** | **Bezymyannaya** | **3.27** | **359** | *e*P | **Pb** | **01 20 10.8** | **-1.8** |
| BZMR | | | | *e*S | **Sb** | **01 20 51.9** | **-0.8** |
| **KIRR** | **Kirishev** | **3.29** | **357** | PN | **Pn** | **01 20 10.1** | **+3.8** |
| **KIRR** | **Kirishev** | **3.29** | **357** | *e*P | **Pn** | **01 20 10.1** | **+3.8** |
| **KPT** | **Kopyto** | **3.31** | **356** | PN | **Pb** | **01 20 11.6** | **-1.6** |
| **KPT** | **Kopyto** | **3.31** | **356** | *e*P | **Pb** | **01 20 11.6** | **-1.6** |
| **ZLN** | **Zelenaya** | **3.35** | **2** | PN | **Pb** | **01 20 11.5** | **-2.5** |
| ZLN | | | | S | **Sb** | **01 20 53.1** | **-1.9** |
| **ZLN** | **Zelenaya** | **3.35** | **2** | *e*P | **Pb** | **01 20 11.5** | **-2.5** |
| ZLN | | | | *i* S | **Sb** | **01 20 53.1** | **-1.9** |
| **KRSR** | **Krestovskiy** | **3.55** | **359** | PN | **Pn** | **01 20 13.9** | **+4.0** |
| **KRSR** | **Krestovskiy** | **3.55** | **359** | *e*P | **Pn** | **01 20 13.9** | **+4.0** |
| **KBG** | **Krutoberegovo** | **3.79** | **18** | PN | **Pb** | **01 20 19.5** | **-1.8** |
| **KBG** | **Krutoberegovo** | **3.79** | **18** | *e*P | **Pb** | **01 20 19.5** | **-1.8** |
| **SRKR** | **Sorokina** | **4.00** | **4** | PN | **Pn** | **01 20 19.7** | **+3.7** |
| SRKR | | | | S | **Sn** | **01 21 09.3** | **+6.1** |
| **SRKR** | **Sorokina** | **4.00** | **4** | *e*P | **Pn** | **01 20 19.7** | **+3.7** |
| SRKR | | | | *e*S | **Sn** | **01 21 09.3** | **+6.1** |
| **H11N2** | **WAKE ISLAND Hy** | **33.24** | **169** | T | T | 02 01 17.5 | |
| | baz=353,slow=76,SNR=44 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **33.25** | **169** | T | T | 02 01 18.6 | |
| | baz=353,slow=76,SNR=34 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **33.26** | **169** | T | T | 02 01 15.8 | |
| | baz=353,slow=76,SNR=8.4 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **34.42** | **170** | T | T | 02 02 46.6 | |
| | baz=351,slow=76,SNR=6.6 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **34.44** | **170** | T | T | 02 02 47.2 | |
| | baz=351,slow=76,SNR=8.5 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **34.44** | **170** | T | T | 02 02 48.3 | |
| | baz=351,slow=76,SNR=5.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **48.63** | **296** | P | **P** | **01 27 56.8** | **-1.8** |
| | comp=E,0.5nm,0.5s,baz=56,slow=6.7,SNR=6.7 | | | | | | |
| **BVAR** | **Borovoye Array** | **50.91** | **309** | P | **P** | **01 28 13.6** | **-2.1** |
| | comp=E,0.5nm,0.4s,baz=62,slow=7.3,SNR=6.7 | | | | | | |
| **ARCES** | **ARCESS Array B** | **53.79** | **342** | P | **P** | **01 28 35.7** | **-1.1** |
| | comp=E,4.0nm,0.9s,baz=26,slow=9.0,SNR=3.6 | | | | | | |
| **FINES** | **FINESS Array B** | **60.63** | **337** | P | **P** | **01 29 24.8** | **-0.5** |
| | comp=E,2.0nm,0.5s,baz=43,slow=8.3,SNR=15 | | | | | | |

*ISCJB **08** 01:31:29.4±0.7, 50.°24N±0.°05×19.°22E±0.°04, h0km, Error ellipse: s-maj=6.7km s-min=3.2km az=8.3*
*CSEM **08** 01:31:30.2±0.5, 50.°27N×19.°25E, h2km, ML2.8/5, Error ellipse: s-maj=12.3km s-min=4.8km az=5.0*
*PRU **08** 01:31:30.9, 50.°23N×19.°24E, h0km*
*WAR **08** 01:31:32.0, 50.°18N×19.°36E, h1km, Mw2.3*
**ISC 08 01:31:30.7**±0.8**, 50.°16N**±0.°05×**19.°24E**±0.°02**, h0**km**, n22,** σ**0.s72**/37**, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OJC** | **Ojcow** | **0.37** | **80** | *e*Pg | **Pg** | **01 31 37.4** | **-0.3** |
| OJC | | | | *e*Sg | **Sg** | **01 31 41.7** | **-0.8** |
| **OJC** | **Ojcow** | **0.37** | **80** | *e*Pg | **Pg** | **01 31 37.4** | **-0.3** |
| OJC | | | | *e*Sg | **Sg** | **01 31 41.7** | **-0.8** |
| **OJC** | **Ojcow** | **0.37** | **80** | *e*Pg | **Pg** | **01 31 37.4** | **-0.3** |
| OJC | | | | *e*Sg | **Sg** | **01 31 41.7** | **-0.8** |
| **OKC** | **Ostrava-Krasne** | **0.77** | **246** | *e*PG | **Pb** | **01 31 47.6** | **+0.6** |
| OKC | | | | *e*SG | **Sb** | **01 31 58.2** | **+0.1** |
| | comp=Z,15nm,0.3s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **0.77** | **246** | Pg | **Pb** | **01 31 47.6** | **+0.6** |
| OKC | | | | Sg | **Sb** | **01 31 58.2** | **+0.1** |
| | 15nm,0.3s | | | | | | |
| **LANS** | **Liptovska Anna** | **1.02** | **171** | *e*PG | **Pb** | **01 31 51.4** | **+0.1** |
| LANS | | | | *e*SG | **Sb** | **01 32 05.4** | **+0.2** |
| **MORC** | **Moravsky Berou** | **1.16** | **251** | *e*Sg | **Sn** | **01 32 10.3** | **-0.5** |
| **STHS** | **Stebnicka Huta** | **1.50** | **119** | *e*Pg | **Pb** | **01 31 59.7** | **+0.3** |
| STHS | | | | *e*Sn | **Sn** | **01 32 20.6** | **+1.5** |
| **STHS** | **Stebnicka Huta** | **1.50** | **119** | *e*PG | **Pb** | **01 31 59.7** | **+0.3** |
| STHS | | | | *e*SN | **Sn** | **01 32 20.6** | **+1.5** |
| STHS | | | | *e*LG | Lg | 01 32 21.6 | |
| **VYHS** | **Vyhne** | **1.69** | **189** | *e*Pg | **Pn** | **01 32 01.6** | **+0.1** |
| VYHS | | | | *e*Sn | **Sn** | **01 32 23.8** | **0.0** |
| **VYHS** | **Vyhne** | **1.69** | **189** | *e*PG | **Pn** | **01 32 01.5** | **+0.1** |
| VYHS | | | | *e*SN | **Sn** | **01 32 23.8** | **0.0** |
| VYHS | | | | *e*LG | Lg | 01 32 27.0 | |
| **KECS** | **Kecovo** | **1.86** | **154** | *e*Sn | **Sb** | **01 32 29.3** | **-0.2** |
| **KECS** | **Kecovo** | **1.86** | **154** | *e*SN | **Sb** | **01 32 29.3** | **-0.2** |
| KECS | | | | *e*LG | Lg | 01 32 33.1 | |
| **DPC** | **Dobruska-Polom** | **1.88** | **277** | *e*PG | **Pn** | **01 32 04.4** | **+0.2** |
| DPC | | | | *e*SG | **Sb** | **01 32 30.2** | **+0.2** |
| | comp=Z,13nm,0.3s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.88** | **277** | Pg | **Pn** | **01 32 04.4** | **+0.2** |
| DPC | | | | Sg | **Sb** | **01 32 30.2** | **+0.2** |
| | 13nm,0.3s | | | | | | |
| **VRAC** | **Vranov** | **1.92** | **245** | *e*Pn | **Pb** | **01 32 06.2** | **-0.3** |
| VRAC | | | | *e*Sg | **Sg** | **01 32 33.2** | **+1.0** |
| **UPC** | **Upice** | **2.10** | **281** | *e*SG | **Sg** | **01 32 39.0** | **+1.0** |
| | comp=Z,7.0nm,0.5s | | | | | | |
| **UPC** | **Upice** | **2.10** | **281** | Sg | **Sg** | **01 32 39.0** | **+1.0** |
| | 7.0nm,0.5s | | | | | | |
| **PRU** | **Pruhonice** | **3.03** | **269** | *e*SG | **Sg** | **01 33 06.6** | **-1.4** |
| | comp=Z,4.4nm,0.3s | | | | | | |
| **PRU** | **Pruhonice** | **3.03** | **269** | Sg | **Sg** | **01 33 06.6** | **-1.4** |
| | 4.4nm,0.3s | | | | | | |
| **KHC** | **Kasperske Hory** | **3.82** | **257** | *e*PN | **Pn** | **01 32 30.5** | **-0.3** |
| KHC | | | | *e*SG | **Sg** | **01 33 32.2** | **-1.1** |
| | comp=Z,4.0nm,0.4s | | | | | | |
| **KHC** | **Kasperske Hory** | **3.82** | **257** | Pn | **Pn** | **01 32 30.5** | **-0.3** |
| KHC | | | | Sg | **Sg** | **01 33 32.2** | **-1.1** |
| | 4.0nm,0.4s | | | | | | |

*IDC **08** 01:36:06.6±2.6, 36.°36N×141.°41E, h0km, mb3.5/3, mb1 3.7/4, mb1mx3.4/42, mbtmp3.5/4, ML3.5/1, Error ellipse: s-maj=71.8km s-min=29.8km az=59.0*
*ISCJB **08** 01:36:11.6±1.1, 36.°35N±0.°04×141.°10E±0.°08, h33km±6km, mb3.5/3, Error ellipse: s-maj=10.4km s-min=6.4km az=178.9*
*JMA **08** 01:36:12.4±0.1, 36.°35N×141.°02E, h46km±2km, M3.3*
*JMA Felt I J1.*
**ISC 08 01:36:11.5**±1.4**, 36.°37N**±0.°04×**141.°13E**±0.°07**, h26**km±10km**, n17,** σ**0.s86**/19**, mb3.5**/3**, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JHO** | **Hitachi** | **0.51** | **298** | P | **Pb** | **01 36 22.5** | **+0.6** |
| JHO | | | | S | **Sb** | **01 36 29.4** | **+0.4** |
| **CHOJ** | **Chosi** | **0.70** | **198** | P | **Pb** | **01 36 25.5** | **+0.4** |
| CHOJ | | | | S | **Sb** | **01 36 34.2** | **-0.1** |
| **JYT** | **Yasato** | **0.77** | **260** | P | **Pb** | **01 36 25.7** | **-0.5** |
| JYT | | | | S | **Sb** | **01 36 34.8** | **-1.4** |
| **ONAJ** | **Iwakimizuishiy** | **0.78** | **340** | P | **Pb** | **01 36 26.6** | **+0.2** |
| ONAJ | | | | S | **Sb** | **01 36 36.3** | **-0.3** |
| **JFK** | **Kawauchi** | **1.01** | **349** | P | **Pn** | **01 36 29.8** | **-0.3** |
| JFK | | | | S | **Sb** | **01 36 42.0** | **-1.4** |
| **JFT** | **Otama** | **1.31** | **331** | P | **Pn** | **01 36 35.2** | **+1.1** |
| JFT | | | | S | **Sn** | **01 36 51.1** | **+0.3** |
| **MJAR** | **Matsushiro Arr** | **2.36** | **275** | Pn | **Pn** | **01 36 49.4** | **+0.8** |
| | 10nm,0.3s,baz=109,slow=9.0,SNR=50 | | | | | | |
| MJAR | | | | Sn | **Sn** | **01 37 17.1** | **+0.4** |
| | 3.1nm,0.3s,baz=70,slow=22,SNR=6.8 | | | | | | |
| **MAT** | **Matsushiro** | **2.36** | **275** | P | **Pn** | **01 36 49.4** | **+0.8** |
| MAT | | | | S | **Sn** | **01 37 15.4** | **-1.3** |
| **H11N2** | **WAKE ISLAND Hy** | **28.02** | **119** | T | T | 02 11 16.9 | |
| | baz=312 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.02** | **119** | T | T | 02 11 19.2 | |
| | baz=312 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.03** | **119** | T | T | 02 11 18.6 | |
| | baz=312 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.70** | **121** | T | T | 02 12 15.1 | |
| | baz=314,slow=75,SNR=9.7 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.70** | **122** | T | T | 02 12 21.0 | |
| | baz=314,slow=75,SNR=7.4 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.72** | **121** | T | T | 02 12 20.0 | |
| | baz=314,slow=75,SNR=7.4 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.19** | **313** | P | **P** | **01 44 01.9** | **+0.1** |
| | 0.4nm,0.4s,baz=80,slow=8.9,SNR=3.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.28** | **303** | P | **P** | **01 44 19.7** | **+0.8** |
| | 0.5nm,0.8s,baz=87,slow=8.8,SNR=2.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **56.37** | **188** | P | **P** | **01 45 49.7** | **-0.8** |
| | 0.2nm,0.3s,baz=0.0,slow=6.9,SNR=2.0 | | | | | | |

**IDC 08 01:46:42.9**±19.0**, 5.°75S**×**129.°99E, h129**km±198km**, mb3.2**/1**, mb1 3.4**/4**, mb1mx3.1**/36**, mbtmp3.7**/4**, ML3.7**/3**, Error ellipse: s-maj=154.1km s-min=58.2km az=46.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **12.99** | **199** | P | Pn | 01 49 41.8 | -0.8 |
| | 0.1nm,0.3s,baz=22,slow=12,SNR=10 | | | | | | |
| FITZ | | | | S | Sn | 01 51 55.3 | -11 |
| | 0.2nm,0.3s,baz=19,slow=18,SNR=3.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **14.72** | **164** | P | Pn | 01 50 03.6 | -1.3 |
| | 0.5nm,0.3s,baz=349,slow=12,SNR=20 | | | | | | |
| WRA | | | | S | Sn | 01 52 34.8 | -13 |
| | 0.9nm,0.3s,baz=344,slow=21,SNR=9.5 | | | | | | |
| **ASAR** | **Alice Springs** | **18.20** | **168** | P | Pn | 01 50 47.1 | -0.3 |
| | 0.4nm,0.3s,baz=348,slow=10,SNR=18 | | | | | | |
| ASAR | | | | S | S | 01 53 59.2 | -8.8 |
| | 0.1nm,0.3s,baz=352,slow=27,SNR=4.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.19** | **327** | P | P | 01 57 23.1 | 0.0 |
| | 0.3nm,0.4s,baz=112,slow=7.9,SNR=7.7 | | | | | | |

*GUC **08** 02:20:57.0±0.7, 27.°99S×71.°21W, h41km±7km, ML4.2*
*ISCJB **08** 02:20:58.9±1.4, 27.°96S±0.°05×71.°2W±0.°1, h38km±15km, mb3.9/4, MS3.5/3, Error ellipse: s-maj=18.1km s-min=6.5km az=15.1*
*IDC **08** 02:21:00.0±7.0, 28.°12S×71.°28W, h38km±53km, mb3.7/4, mb1 3.9/7, mb1mx3.7/27, mbtmp3.9/7, ML3.7/3, MS3.4/6, Ms1 3.4/6, ms1mx3.1/26, Error ellipse: s-maj=52.6km s-min=29.3km az=30.0*
**ISC 08 02:21:00.5**±1.6**, 27.°99S**±0.°06×**71.°1W**±0.°1**, h43**km±15km**, n20,** σ**1.s49**/21**, mb3.9**/4**, MS3.7**/3**, 3C-1D, Near coast of northern Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VACH** | **Vallenar** | **0.68** | **150** | ⇑*i*P | **Pn** | **02 21 11.7** | **-2.0** |
| VACH | | | | *i* S | **Sn** | **02 21 22.0** | **-1.2** |
| **GO03** | **Copiap** | **0.90** | **64** | *e*P | **Pn** | **02 21 15.9** | **-0.8** |
| GO03 | | | | *e*S | **Sn** | **02 21 29.4** | **+0.9** |
| GO03 | | | | IAML | | 02 21 34.5 | |
| | comp=E,5µm,0.5s | | | | | | |
| **CPCH** | **Copiapo** | **0.94** | **48** | ⇑*i*P | **Pn** | **02 21 15.3** | **-1.9** |
| CPCH | | | | *i* S | **Sn** | **02 21 29.6** | **+0.1** |
| **LCO** | **Las Campanas** | **1.09** | **159** | ⇓*i*P | **Pn** | **02 21 18.2** | **-1.3** |
| LCO | | | | *i* S | **Sn** | **02 21 34.3** | **+0.7** |
| LCO | | | | IAML | | 02 21 38.7 | |
| | comp=E,8µm,0.4s | | | | | | |
| **TLL** | **Tololo Astrono** | **2.19** | **172** | ⇑*i*P | **Pn** | **02 21 34.1** | **-0.6** |
| TLL | | | | *e*S | **Sn** | **02 22 02.6** | **+1.9** |
| TLL | | | | IAML | | 02 22 10.0 | |
| | comp=N,6µm,0.4s | | | | | | |
| **LPAZ** | **La Paz** | **11.97** | **14** | Pn | **Pn** | **02 23 50.7** | **+1.6** |
| | comp=N,0.2nm,0.3s,baz=208,slow=8.2,SNR=8.1 | | | | | | |
| **CPUP** | **Villa Florida** | **12.41** | **86** | Pn | **Pn** | **02 23 56.1** | **+1.6** |
| | comp=N,0.1nm,0.3s,baz=284,slow=12,SNR=4.1 | | | | | | |
| CPUP | | | | LR | LR | 02 29 14.4 | |
| | comp=N,298nm,19.0s,baz=247,slow=39 | | | | | | |
| **SIV** | **San Ignacio** | **15.15** | **40** | Pn | **P** | **02 24 34.0** | **-2.0** |
| | comp=N,0.3nm,0.3s,baz=241,slow=14,SNR=13 | | | | | | |
| SIV | | | | LR | LR | 02 31 19.4 | |
| | comp=N,89nm,18.8s,baz=182,slow=40 | | | | | | |
| **NNA** | **Nana** | **16.79** | **340** | LR | LR | 02 29 35.9 | |
| | comp=N,97nm,21.9s,baz=180,slow=31 | | | | | | |
| **BDFB** | **Brasilia** | **24.69** | **65** | LR | LR | 02 37 23.0 | |
| | comp=N,229nm,18.4s,baz=180,slow=40 | | | | | | |
| **ROSC** | **El Rosal** | **32.78** | **354** | LR | LR | 02 43 09.7 | |
| | comp=N,28nm,18.0s,baz=130,slow=40 | | | | | | |
| **TXAR** | **Lajitas Array** | **64.94** | **329** | P | **P** | **02 31 35.8** | **0.0** |
| | comp=N,0.4nm,0.7s,baz=155,slow=6.9,SNR=5.6 | | | | | | |
| **DBIC** | **Dimbokro** | **72.58** | **72** | P | **P** | **02 32 24.6** | **+0.9** |
| | comp=N,4.0nm,0.8s,baz=251,slow=5.8,SNR=4.3 | | | | | | |
| **PDAR** | **Pinedale Array** | **78.79** | **332** | P | **P** | **02 32 59.4** | **+0.6** |
| | comp=N,0.2nm,0.4s,baz=152,slow=4.0,SNR=3.1 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **81.45** | **70** | P | **P** | **02 33 14.0** | **+0.5** |
| | comp=N,1.7nm,0.8s,baz=279,slow=4.8,SNR=12 | | | | | | |
| **BOSA** | **Boshof** | **82.20** | **118** | LR | LR | 03 04 34.2 | |
| | comp=N,31nm,19.4s,baz=187,slow=32 | | | | | | |
| **ASAR** | **Alice Springs** | **123.25** | **208** | PKP | **PKPdf** | **02 39 52.7** | **-0.6** |
| | comp=N,0.3nm,0.6s,baz=144,slow=2.0,SNR=2.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **126.35** | **210** | PKP | **PKPdf** | **02 39 58.7** | **-0.5** |
| | comp=N,0.4nm,0.5s,baz=161,slow=1.5,SNR=11 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **148.65** | **28** | PKPbc | **PKPab** | **02 40 43.1** | **-3.1** |
| | comp=N,1.3nm,0.6s,baz=280,slow=2.9,SNR=6.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **151.96** | **41** | PKPbc | **PKPbc** | **02 40 51.2** | **+0.5** |
| | comp=N,0.5nm,0.6s,baz=322,slow=2.2,SNR=3.7 | | | | | | |

*ISCJB **08** 02:22:42.6±0.8, 51.°49N±0.°03×16.°20E±0.°05, h0km, Error ellipse: s-maj=5.2km s-min=3.9km az=147.9*
*CSEM **08** 02:22:44.1±0.4, 51.°49N×16.°18E, h1km, ML3.0/7, Error ellipse: s-maj=7.2km s-min=5.1km az=85.0*
*PRU **08** 02:22:45.7, 51.°44N×16.°20E, h0km*
*WAR **08** 02:22:46.0, 51.°44N×16.°19E, h1km, Mw2.3*
**ISC 08 02:22:44.0**±1.0**, 51.°51N**±0.°03×**16.°23E**±0.°04**, h0**km**, n25,** σ**0.s70**/45**, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KSP** | **Ksiaz** | **0.67** | **177** | *i* Pg | **Pg** | **02 22 57.2** | **+0.3** |
| KSP | | | | *e*Sg | **Sg** | **02 23 05.3** | **-0.3** |
| **KSP** | **Ksiaz** | **0.67** | **177** | *i* Pg | **Pg** | **02 22 57.2** | **+0.3** |
| KSP | | | | *e*Sg | **Sg** | **02 23 05.3** | **-0.3** |
| **KSP** | **Ksiaz** | **0.67** | **177** | *i* Pg | **Pg** | **02 22 57.2** | **+0.3** |
| KSP | | | | *e*Sg | **Sg** | **02 23 05.3** | **-0.3** |
| **UPC** | **Upice** | **1.02** | **188** | *e*PG | **Pg** | **02 23 03.5** | **0.0** |
| UPC | | | | *e*SG | **Sg** | **02 23 16.0** | **-0.6** |
| | comp=Z,34nm,0.3s | | | | | | |
| **UPC** | **Upice** | **1.02** | **188** | Pg | **Pg** | **02 23 03.5** | **0.0** |
| UPC | | | | Sg | **Sg** | **02 23 16.0** | **-0.6** |
| | 34nm,0.3s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.17** | **177** | *e*PG | **Pg** | **02 23 06.2** | **-0.1** |
| DPC | | | | *e*SG | **Sg** | **02 23 20.1** | **-1.3** |
| | comp=Z,9.1nm,0.2s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.17** | **177** | Pg | **Pg** | **02 23 06.2** | **-0.1** |
| DPC | | | | Sg | **Sg** | **02 23 20.1** | **-1.3** |
| | 9.1nm,0.2s | | | | | | |
| **PVCC** | **Panska Ves** | **1.44** | **227** | *e*PG | **Pb** | **02 23 11.9** | **+0.2** |
| PVCC | | | | *e*SG | **Sn** | **02 23 30.9** | **-0.1** |
| | comp=Z,64nm,0.3s | | | | | | |
| **PVCC** | **Panska Ves** | **1.44** | **227** | Pg | **Pb** | **02 23 11.9** | **+0.2** |
| PVCC | | | | Sg | **Sn** | **02 23 30.9** | **-0.1** |
| | 64nm,0.3s | | | | | | |
| **BRG** | **Berggiesshubel** | **1.58** | **247** | PG | **Pg** | **02 23 14.8** | **+0.6** |
| BRG | | | | SG | **Sb** | **02 23 34.6** | **+0.1** |
| | 12nm,0.4s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **1.85** | **210** | *e*PG | **Pb** | **02 23 18.5** | **-0.1** |
| GOPC | | | | *e*SG | **Sb** | **02 23 42.0** | **-0.3** |
| **GOPC** | **GO Pecny, Ondr** | **1.85** | **210** | Pg | **Pb** | **02 23 18.5** | **-0.1** |
| GOPC | | | | Sg | **Sb** | **02 23 42.0** | **-0.3** |
| **PRU** | **Pruhonice** | **1.87** | **216** | *e*PN | **Pn** | **02 23 17.7** | **+0.5** |
| PRU | | | | *e*PG | **Pb** | **02 23 18.8** | **-0.2** |
| PRU | | | | *e*SG | **Sb** | **02 23 42.3** | **-0.5** |
| | comp=Z,8.2nm,0.4s | | | | | | |
| **PRU** | **Pruhonice** | **1.87** | **216** | Pn | **Pn** | **02 23 17.7** | **+0.5** |
| **CLL** | **Collm** | **2.03** | **265** | *e*Pg | **Pg** | **02 23 23.0** | **+0.1** |
| CLL | | | | *e*Sg | **Sg** | **02 23 50.0** | **+0.7** |
| **OKC** | **Ostrava-Krasne** | **2.07** | **143** | *e*SG | **Sb** | **02 23 48.7** | **-0.1** |
| | comp=Z,13nm,0.8s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **2.07** | **143** | Sg | **Sb** | **02 23 48.7** | **-0.1** |
| | 13nm,0.8s | | | | | | |
| **NKC** | **Novy Kostel** | **2.72** | **243** | *e*SG | **Sg** | **02 24 10.3** | **-1.0** |
| | comp=Z,9.6nm,0.3s | | | | | | |
| **NKC** | **Novy Kostel** | **2.72** | **243** | Sg | **Sg** | **02 24 10.3** | **-1.0** |
| | 9.6nm,0.3s | | | | | | |
| **KHC** | **Kasperske Hory** | **2.93** | **217** | *e*PN | **Pn** | **02 23 31.7** | **-0.2** |
| KHC | | | | *e*PG | **Pb** | **02 23 37.9** | **+0.8** |
| KHC | | | | *e*SN | **Sn** | **02 24 06.7** | **-1.0** |
| KHC | | | | *e*SG | **Sb** | **02 24 15.1** | **+1.6** |
| | comp=Z,3.1nm,0.3s | | | | | | |
| **KHC** | **Kasperske Hory** | **2.93** | **217** | Pn | **Pn** | **02 23 31.7** | **-0.2** |
| **MODS** | **Modra-Piesok** | **3.21** | **167** | *e*Sg | **Sg** | **02 24 28.7** | **+1.5** |
| **MODS** | **Modra-Piesok** | **3.21** | **167** | *e*SG | **Sg** | **02 24 28.7** | **+1.5** |
| **BSD** | **Bornholm Skovb** | **3.69** | **348** | *i* P | **Pn** | **02 23 42.7** | **+0.4** |
| BSD | | | | *i* S | **Sn** | **02 24 25.3** | **-1.1** |
| **BSD** | **Bornholm Skovb** | **3.69** | **348** | *i* P | **Pn** | **02 23 42.7** | **+0.4** |
| | SNR=91 | | | | | | |
| BSD | | | | *i* S | **Sn** | **02 24 25.4** | **-1.0** |
| | SNR=91 | | | | | | |

*ATH **08** 02:51:22.9, 40.°42N×26.°01E, h26km±5km, ML1.8/6, Error ellipse: s-maj=6.3km s-min=0.9km az=300.0*
*ISCJB **08** 02:51:23.4±0.4, 40.°40N±0.°02×26.°02E±0.°03, h5km±4km, Error ellipse: s-maj=3.4km s-min=3.0km az=23.7*
*CSEM **08** 02:51:23.6±0.1, 40.°40N×26.°03E, h5km, MD2.4, Error ellipse: s-maj=1.8km s-min=1.5km az=99.0*
*DDA **08** 02:51:23.1, 40.°40N×26.°03E, h7km, Ml2.7*
*ISK **08** 02:51:23.4, 40.°39N×26.°05E, h8km, MD2.4*
**ISC 08 02:51:23.7**±0.9**, 40.°40N**±0.°02×**26.°02E**±0.°02**, h11**km±8km**, n52,** σ**0.s48**/85**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GADA** | **Gvkgeada** | **0.23** | **204** | *e*PG | **Pg** | **02 51 28.8** | **+0.3** |
| **GADA** | **Gvkgeada** | **0.23** | **204** | *e*Pg | **Pg** | **02 51 28.8** | **+0.3** |
| **GELI** | **Tayfur-Gelibol** | **0.34** | **91** | *e*PG | **Pg** | **02 51 30.5** | **-0.1** |
| GELI | | | | *e*SG | **Sg** | **02 51 35.6** | **+0.4** |
| **GELI** | **Tayfur-Gelibol** | **0.34** | **91** | *e*Pg | **Pg** | **02 51 30.5** | **-0.1** |
| GELI | | | | *e*Sg | **Sg** | **02 51 35.6** | **+0.4** |
| **ENEZ** | **Enez** | **0.35** | **17** | *e*PG | **Pg** | **02 51 30.9** | **+0.3** |
| ENEZ | | | | *e*SG | **Sb** | **02 51 36.4** | **-1.0** |
| **ENEZ** | **Enez** | **0.35** | **17** | *e*Pg | **Pg** | **02 51 30.9** | **+0.3** |
| ENEZ | | | | *e*Sg | **Sb** | **02 51 36.4** | **-1.0** |
| **SMTH** | **Samothraki Isl** | **0.38** | **280** | P | **Pg** | **02 51 30.8** | **-0.4** |
| SMTH | | | | S | **Sg** | **02 51 35.8** | **-0.5** |
| SMTH | | | | AML | AML | 02 51 37.6 | |
| | comp=E,314µm,0.2s | | | | | | |
| SMTH | | | | AML | AML | 02 51 40.3 | |
| | comp=N,380µm,0.1s | | | | | | |
| **SMTH** | **Samothraki Isl** | **0.38** | **280** | P | **Pg** | **02 51 30.8** | **-0.4** |
| SMTH | | | | S | **Sg** | **02 51 35.8** | **-0.5** |
| **ERIK** | **Erikli-Kesan** | **0.46** | **54** | *e*PG | **Pg** | **02 51 32.6** | **-0.1** |
| ERIK | | | | *e*SG | **Sg** | **02 51 38.8** | **+0.1** |
| **ERIK** | **Erikli-Kesan** | **0.46** | **54** | *e*Pg | **Pg** | **02 51 32.6** | **-0.1** |
| ERIK | | | | *e*Sg | **Sg** | **02 51 38.8** | **+0.1** |
| **ALN** | **Alexandroupoli** | **0.49** | **2** | *e*PG | **Pb** | **02 51 34.0** | **-0.4** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ALN | Alexandroupoli | 0.49 | 2 | P | Pg | 02 51 32.9 | -0.4 |
| ALN | | | | S | Sg | 02 51 40.2 | +0.4 |
| ALN | | | | AML | AML | 02 51 41.1 | |
| | comp=N,145µm,0.4s | | | | | | |
| ALN | | | | AML | AML | 02 51 42.1 | |
| | comp=E,64µm,0.2s | | | | | | |
| ALN | Alexandroupoli | 0.49 | 2 | P | Pg | 02 51 32.9 | -0.4 |
| ALN | Alexandroupoli | 0.49 | 2 | ePg | Pb | 02 51 34.0 | -0.4 |
| ALN | | | | S | Sg | 02 51 40.2 | +0.4 |
| BOZC | Bozcaada | 0.56 | 178 | ePG | Pg | 02 51 33.9 | -0.7 |
| BOZC | Bozcaada | 0.56 | 178 | iP | Pg | 02 51 34.4 | -0.2 |
| BOZC | | | | iS | Sg | 02 51 42.1 | +0.1 |
| BOZC | Bozcaada | 0.56 | 178 | ePg | Pg | 02 51 33.9 | -0.7 |
| LPK | Lapseki | 0.56 | 93 | ePG | Pb | 02 51 35.0 | -0.6 |
| LPK | Lapseki | 0.56 | 93 | ePg | Pb | 02 51 35.0 | -0.6 |
| EZN | Ezine | 0.62 | 158 | ePG | Pg | 02 51 35.8 | +0.1 |
| EZN | Ezine | 0.62 | 158 | ePg | Pg | 02 51 35.8 | +0.1 |
| KESN | Edirne-Kesan | 0.65 | 50 | iP | Pg | 02 51 35.6 | -0.8 |
| KESN | Edirne-Kesan | 0.65 | 50 | P | Pg | 02 51 35.6 | -0.8 |
| BAYC | CANAKKALE_Bayr | 0.78 | 149 | iP | Pg | 02 51 38.3 | -0.3 |
| BAYC | | | | iS | Sb | 02 51 49.3 | -0.4 |
| BAYC | CANAKKALE_Bayr | 0.78 | 149 | P | Pg | 02 51 38.3 | -0.3 |
| BAYC | | | | S | Sb | 02 51 49.3 | -0.4 |
| LIA | Limnos Island | 0.82 | 232 | P | Pg | 02 51 39.3 | -0.1 |
| LIA | | | | S | Sb | 02 51 51.6 | +0.7 |
| LIA | | | | AML | AML | 02 51 54.3 | |
| | comp=E,104µm,0.3s | | | | | | |
| LIA | | | | AML | AML | 02 51 55.6 | |
| | comp=N,101µm,0.7s | | | | | | |
| LIA | Limnos Island | 0.82 | 232 | P | Pg | 02 51 39.3 | -0.1 |
| LIA | | | | S | Sb | 02 51 51.6 | +0.7 |
| RDO | Rodhopi | 0.83 | 334 | P | Pg | 02 51 39.5 | -0.1 |
| RDO | | | | S | Sg | 02 51 50.2 | -0.3 |
| RDO | | | | AML | AML | 02 51 53.2 | |
| | comp=E,105µm,0.4s | | | | | | |
| RDO | | | | AML | AML | 02 51 53.6 | |
| | comp=N,150µm,0.2s | | | | | | |
| RDO | Rodhopi | 0.83 | 334 | P | Pg | 02 51 39.5 | -0.1 |
| RDO | | | | S | Sg | 02 51 50.2 | -0.3 |
| KRBG | Karabiga-Canak | 0.97 | 90 | ePG | Pg | 02 51 41.8 | -0.6 |
| KRBG | | | | eSG | Sg | 02 51 55.0 | -0.1 |
| KRBG | Karabiga-Canak | 0.97 | 90 | ePg | Pg | 02 51 41.8 | -0.6 |
| KRBG | | | | eSg | Sg | 02 51 55.0 | -0.1 |
| PRK | Paraskevi | 1.17 | 170 | P | Pg | 02 51 45.7 | -0.5 |
| PRK | | | | S | Sg | 02 52 00.7 | -0.7 |
| PRK | | | | AML | AML | 02 52 02.7 | |
| | comp=E,162µm,0.4s | | | | | | |
| PRK | | | | AML | AML | 02 52 04.6 | |
| | comp=N,195µm,0.5s | | | | | | |
| PRK | Paraskevi | 1.17 | 170 | P | Pg | 02 51 45.7 | -0.5 |
| PRK | | | | S | Sg | 02 52 00.7 | -0.7 |
| SIGR | SIGRI | 1.20 | 186 | ePN | Pn | 02 51 46.6 | +0.2 |
| SIGR | | | | eSN | Sn | 02 52 03.5 | +0.9 |
| SIGR | SIGRI | 1.20 | 186 | P | Pn | 02 51 46.4 | +0.1 |
| SIGR | | | | S | Sn | 02 52 02.4 | -0.2 |
| SIGR | | | | AML | AML | 02 52 06.9 | |
| | comp=N,157µm,1.0s | | | | | | |
| SIGR | | | | AML | AML | 02 52 10.0 | |
| | comp=E,94µm,1.0s | | | | | | |
| SIGR | SIGRI | 1.20 | 186 | ePn | Pn | 02 51 46.6 | +0.2 |
| SIGR | | | | S | Sn | 02 52 02.4 | -0.2 |
| SIGR | | | | eSn | Sn | 02 52 03.5 | +0.9 |
| TKR | Tekirdag | 1.29 | 63 | ePN | Pg | 02 51 48.1 | -0.3 |
| TKR | | | | eSN | Sn | 02 52 06.2 | +1.2 |
| TKR | Tekirdag | 1.29 | 63 | ePn | Pg | 02 51 48.1 | -0.3 |
| TKR | | | | eSn | Sn | 02 52 06.2 | +1.2 |
| BALY | Balya | 1.39 | 118 | iP | Pb | 02 51 49.7 | 0.0 |
| BALY | | | | iS | Sg | 02 52 08.2 | -0.3 |
| BALY | Balya | 1.39 | 118 | P | Pb | 02 51 49.7 | 0.0 |
| BALY | | | | S | Sg | 02 52 08.2 | -0.3 |
| EDC | Edincik | 1.41 | 92 | ePN | Pn | 02 51 49.5 | +0.2 |
| EDC | | | | eSN | Sg | 02 52 08.9 | -0.1 |
| EDC | Edincik | 1.41 | 92 | ePn | Pn | 02 51 49.5 | +0.2 |
| EDC | | | | eSn | Sg | 02 52 08.9 | -0.1 |
| CRLT | Corlu | 1.49 | 60 | ePN | Pb | 02 51 50.9 | -0.5 |
| CRLT | Corlu | 1.49 | 60 | ePn | Pb | 02 51 50.9 | -0.5 |
| EDRB | Edirne | 1.54 | 20 | ePN | Pn | 02 51 51.7 | +0.6 |
| EDRB | Edirne | 1.54 | 20 | ePn | Pn | 02 51 51.7 | +0.6 |
| OUR | Ouranopolis | 1.56 | 268 | ePN | Pb | 02 51 52.3 | -0.2 |
| OUR | Ouranopolis | 1.56 | 268 | ePn | Pb | 02 51 52.3 | -0.2 |
| BALB | Balikesir | 1.62 | 118 | ePN | Pn | 02 51 52.5 | +0.3 |
| BALB | Balikesir | 1.62 | 118 | ePn | Pn | 02 51 52.5 | +0.3 |
| STEP | BALIKESIR_Sava | 1.66 | 128 | iP | Pn | 02 51 53.2 | +0.4 |
| STEP | | | | iS | Sb | 02 52 15.6 | +0.4 |
| STEP | BALIKESIR_Sava | 1.66 | 128 | P | Pn | 02 51 53.2 | +0.4 |
| STEP | | | | S | Sb | 02 52 15.6 | +0.4 |

**MEX 08 02:54:21.4±0.4, 15°.43N×94°.70W, h32km±44km, MD3.8, Near coast of Oaxaca**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| HUIG | Huatulco | 1.40 | 284 | eP | Pn | 02 54 43.3 | -1.4 |
| HUIG | | | | eS | Sn | 02 54 59.0 | -3.0 |
| PCIG | | 1.46 | 79 | eP | Pn | 02 54 43.7 | -1.8 |
| CCIG | Comitan | 2.61 | 71 | eP | Pn | 02 55 00.1 | -1.5 |
| CCIG | | | | eS | Sn | 02 55 29.9 | -2.4 |

*NIED **08** 02:57:00, 33°.30N×142°.20E, h8km, Mw3.9 Best double couple: Mo9.07000×10^14 NP1:φs332.00000°, δ31.00000°, λ-89.00000°. NP2:φs151.00000°, δ59.00000°, λ-91.00000°.*
*IDC **08** 02:57:15.6±1.2, 33°.03N×142°.67E, h0km, mb3.5/5, mb1 3.7/8, mb1mx3.5/40, mbtmp3.6/8, ML3.8/3, Error ellipse: s-maj=28.5km s-min=22.8km az=71.0*
*ISCJB **08** 02:57:20.0±1.0, 33°.27N±0°.06×142°.51E±0°.08, h33km, mb3.5/5, Error ellipse: s-maj=9.4km s-min=8.0km az=15.2*
*JMA **08** 02:57:23.2±0.2, 33°.27N×142°.15E, h43km, M3.9*
**ISC 08 02:57:20.4±1.1, 33°.15N±0°.07×142°.51E±0°.09, h33km, n20, σ1.79/29, mb3.5/5, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BSO1 | Boso 1 | 1.97 | 320 | P | Pn | 02 57 51.1 | +0.1 |
| BSO1 | | | | S | Sn | 02 58 11.1 | -3.2 |
| JHJ2 | Mitsune | 2.26 | 270 | P | Pn | 02 57 55.0 | -0.5 |
| JHCJ | Hachijojimakas | 2.28 | 269 | P | Pn | 02 57 55.2 | -0.5 |
| JHCJ | | | | S | Sn | 02 58 18.9 | -3.8 |
| JHJ | Hachijo jima 2 | 2.29 | 270 | Pn | Pn | 02 57 55.6 | -0.2 |
| | 21nm,0.3s,baz=65,slow=22,SNR=10 | | | | | | |
| JHJ | | | | Sn | Sn | 02 58 23.3 | +0.4 |
| | 82nm,0.3s,baz=100,slow=23,SNR=9.6 | | | | | | |
| BSO3 | Boso 3 | 2.34 | 315 | P | Pn | 02 57 56.6 | +0.2 |
| BSO4 | Boso 4 | 2.58 | 316 | P | Pn | 02 57 59.8 | +0.1 |
| JOD2 | Odawara 2 | 3.54 | 308 | P | Pn | 02 58 12.8 | -0.2 |
| JYN | Shimob | 4.03 | 307 | P | Pn | 02 58 20.2 | +0.3 |
| JRY | Ryogami san | 4.13 | 315 | P | Pn | 02 58 21.7 | +0.5 |
| JRY | | | | eS | Sn | 02 59 05.8 | -2.6 |
| JFT | Otama | 4.71 | 338 | S | Sn | 02 59 21.1 | -1.5 |
| MJAR | Matsushiro Arr | 4.90 | 315 | Pn | Pn | 02 58 32.7 | +1.0 |
| | 1.8nm,0.3s,baz=274,slow=23,SNR=11 | | | | | | |
| MJAR | | | | Sn | Sn | 02 59 28.9 | +1.7 |
| | 1.8nm,0.3s,baz=124,slow=19,SNR=4.6 | | | | | | |
| MAT | Matsushiro | 4.90 | 315 | P | Pn | 02 58 33.7 | +1.9 |
| MAT | | | | S | Sn | 02 59 29.0 | +1.7 |
| MAT | Matsushiro | 4.90 | 315 | P | Pn | 02 58 32.2 | +0.4 |
| JYK | Kaneyama | 6.02 | 344 | P | Pn | 02 58 48.5 | +1.4 |
| JYK | | | | S | Sn | 02 59 53.5 | -1.3 |
| ASAJ | Asahikawa | 10.95 | 0 | Pn | Pn | 02 59 54.0 | -0.7 |
| | 1.4nm,0.3s,baz=163,slow=5.6,SNR=4.2 | | | | | | |
| ASAJ | | | | Sn | Sn | 03 01 51.2 | -4.9 |
| | 0.3nm,0.3s,baz=22,slow=17,SNR=2.9 | | | | | | |
| SONM | Songino Array | 30.82 | 309 | P | P | 03 03 35.6 | +2.3 |
| | 0.3nm,0.4s,baz=119,slow=9.1,SNR=2.2 | | | | | | |
| ZALV | Zalesovo Beam | 45.25 | 315 | P | P | 03 05 35.3 | +0.9 |
| | 0.5nm,0.5s,baz=96,slow=9.1,SNR=2.5 | | | | | | |
| MKAR | Makanchi Array | 47.02 | 305 | P | P | 03 05 49.9 | +1.4 |
| | 0.6nm,0.6s,baz=93,slow=11,SNR=3.8 | | | | | | |
| ILAR | Eielson Array | 52.33 | 31 | P | P | 03 06 28.9 | +0.2 |
| | 0.3nm,0.5s,baz=266,slow=6.0,SNR=9.5 | | | | | | |
| WRA | Warramunga Arr | 53.37 | 190 | P | P | 03 06 35.3 | -1.4 |
| | 0.5nm,0.8s,baz=8.1,slow=7.7,SNR=6.0 | | | | | | |
| WRA | | | | PcP | PcP | 03 07 44.7 | +0.9 |
| | 0.3nm,0.4s,baz=4.0,slow=4.2,SNR=3.7 | | | | | | |

*IDC **08** 03:03:41.9±1.0, 29°.68S×176°.27W, h0km, mb4.1/8, mb1 4.3/9, mb1mx4.1/30, mbtmp4.1/9, ML3.8/1, MS3.3/1, Ms1 3.3/1, ms1mx2.5/25, Error ellipse: s-maj=29.3km s-min=21.6km az=177.0*
*ISCJB **08** 03:03:44.1±0.9, 29°.96S±0°.05×176°.2W±0°.1, h33km, mb4.2/12, Error ellipse: s-maj=13.5km s-min=7.7km az=174.2*
*NEIC **08** 03:03:44.5±4.2, 29°.85S×176°.17W, h23km±28km, mb4.6/8, Error ellipse: s-maj=17.7km s-min=12.8km az=65.0*
**ISC 08 03:03:46.7±0.9, 29°.90S±0°.07×176°.26W±0°.10, h35km, n32, σ1.36/38, mb4.3/12, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RAO | Raoul Island | 1.58 | 294 | Pn | Pn | 03 04 12.2 | 0.0 |
| | 162nm,0.3s,baz=86,slow=13,SNR=12 | | | | | | |
| RAO | | | | LR | LR | 03 04 29.9 | |
| | comp=Z,155nm,18.8s,baz=170,slow=32 | | | | | | |
| RAO | | | | Sn | Sn | 03 04 31.1 | -0.2 |
| | 3µm,0.3s,baz=90,slow=20,SNR=23 | | | | | | |
| RAO | Raoul Island | 1.58 | 294 | ePn | Pn | 03 04 12.5 | +0.3 |
| RAO | | | | eSn | Sn | 03 04 32.6 | +1.3 |
| URZ | Urewera | 9.99 | 212 | Pn | Pn | 03 06 07.7 | +0.1 |
| | 0.8nm,0.3s,baz=351,slow=17,SNR=4.7 | | | | | | |
| URZ | | | | Sn | Sn | 03 08 01.3 | +2.9 |
| | 2.3nm,0.3s,baz=47,slow=19,SNR=8.0 | | | | | | |
| URZ | Urewera | 9.99 | 212 | ePn | Pn | 03 06 07.7 | +0.1 |
| URZ | | | | eSn | Sn | 03 07 59.6 | +1.2 |
| BKZ | Black Stump Fm | 11.01 | 211 | ePn | Pn | 03 06 21.1 | -0.5 |
| BKZ | | | | eSn | Sn | 03 08 11.1 | -12 |
| BFZ | Birch Farm | 12.37 | 208 | ePn | Pn | 03 06 40.1 | -0.1 |
| BFZ | | | | eSn | Sn | 03 08 52.6 | -4.2 |
| THZ | Tophouse | 14.73 | 214 | ePn | Pn | 03 07 12.7 | +0.3 |
| KHZ | Kahutara | 14.95 | 211 | ePn | Pn | 03 07 13.2 | -2.1 |
| | 59nm,1.5s | | | | | | |
| DZM | Mont Dzumac | 17.38 | 293 | LR | LR | 03 13 57.4 | |
| | comp=Z,93nm,18.5s,baz=196,slow=36 | | | | | | |
| WKZ | Wanaka | 18.90 | 214 | eP | Pn | 03 08 05.0 | 0.0 |
| | 57nm,1.4s | | | | | | |
| MLZ | Mavora Lakes | 19.73 | 214 | eP | Pn | 03 08 15.0 | 0.0 |
| | 44nm,1.5s | | | | | | |
| CTA | Charters Tower | 35.22 | 277 | P | P | 03 10 36.9 | -0.9 |
| | 2.3nm,0.5s,baz=110,slow=14,SNR=4.4 | | | | | | |
| STKA | Stephens Creek | 36.06 | 256 | P | P | 03 10 45.4 | +0.5 |
| | 2.6nm,0.5s,baz=95,slow=12,SNR=10 | | | | | | |
| STKA | Stephens Creek | 36.06 | 256 | eP | P | 03 10 45.4 | +0.5 |
| | 4.2nm,1.8s | | | | | | |
| AS01 | Alice Springs | 44.60 | 266 | eP | P | 03 11 55.3 | -0.5 |
| AS31 | Alice Springs | 44.64 | 266 | eP | P | 03 11 55.8 | -0.3 |
| | 1.3nm,1.3s | | | | | | |
| AS31 | | | | ePcP | PP | 03 13 39.6 | -1.0 |
| ASAR | Alice Springs | 44.64 | 266 | P | P | 03 11 55.8 | -0.3 |
| | 0.6nm,0.4s,baz=104,slow=7.6,SNR=13 | | | | | | |
| ASAR | | | | PcP | PP | 03 13 39.6 | -1.0 |
| | 0.3nm,0.5s,baz=125,slow=4.1,SNR=3.6 | | | | | | |
| WB2 | Warramunga Arr | 45.58 | 271 | eP | P | 03 12 03.7 | +0.1 |
| | 11nm,1.1s | | | | | | |
| WRAB | Tennant Creek | 45.58 | 271 | eP | P | 03 12 06.3 | +2.7 |
| | 14nm,0.8s | | | | | | |
| WR1 | Warramunga Arr | 45.59 | 271 | eP | P | 03 12 02.9 | -0.8 |
| | 11nm,1.1s | | | | | | |
| WRA | Warramunga Arr | 45.59 | 271 | P | P | 03 12 02.9 | -0.8 |
| | 2.4nm,0.6s,baz=109,slow=8.0,SNR=23 | | | | | | |
| FITZ | Fitzroy Crossi | 53.87 | 269 | P | P | 03 13 08.0 | +1.4 |
| | 1.2nm,0.7s,baz=90,slow=12,SNR=3.1 | | | | | | |
| MJAR | Matsushiro Arr | 78.70 | 324 | P | P | 03 15 44.5 | -0.8 |
| | 1.3nm,0.7s,baz=169,slow=7.4,SNR=3.3 | | | | | | |
| USRK | Ussuriysk Ar. | 87.58 | 326 | P | P | 03 16 31.2 | +0.4 |
| | 1.8nm,0.7s,baz=116,slow=5.3,SNR=3.1 | | | | | | |
| ILAR | Eielson Array | 97.11 | 12 | P | P | 03 17 13.7 | -0.8 |
| | 0.2nm,0.8s,baz=218,slow=5.6,SNR=3.7 | | | | | | |
| ILB | Eielson Array | 97.11 | 12 | eP | P | 03 17 13.7 | -0.8 |
| FIA0 | FINESS Array S | 145.17 | 341 | ePKPbc | PKPbc | 03 23 18.9 | -0.5 |
| FINES | FINESS Array B | 145.17 | 341 | PKP | PKPbc | 03 23 18.9 | -0.5 |
| | 1.7nm,0.5s,baz=64,slow=3.2,SNR=15 | | | | | | |
| AKASG | Malin Array Be | 151.79 | 325 | PKPbc | PKPbc | 03 23 37.6 | +0.4 |
| | 1.6nm,0.5s,baz=45,slow=2.7,SNR=11 | | | | | | |
| AKBB | Malin Array Si | 151.79 | 325 | ePKPbc | PKPbc | 03 23 37.6 | +0.4 |
| TORD | Torodi Ar. Bea | 163.23 | 173 | PKPab | PKPab | 03 24 38.9 | +2.6 |
| | 2.2nm,0.8s,baz=185,slow=3.9,SNR=17 | | | | | | |
| TOA1 | Torodi Ar. Sit | 163.23 | 173 | ePKPab | PKPab | 03 24 38.9 | +2.6 |

*CSEM **08** 03:10:53.9, 36°.19N×26°.24E, h42km, ML2.7/8*
**ATH 08 03:10:53.9, 36°.19N×26°.24E, h42km±6km, ML2.7/8, Error ellipse: s-maj=6.6km s-min=1.3km az=352.0, Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KARP | Karpathos | 0.98 | 130 | P | Pn | 03 11 13.1 | +1.8 |
| KARP | | | | S | Sn | 03 11 27.7 | +3.7 |
| KARP | | | | AML | AML | 03 11 28.0 | |
| | comp=N,3140µm,0.2s | | | | | | |
| KARP | | | | AML | AML | 03 11 28.1 | |
| | comp=E,3244µm,0.1s | | | | | | |
| KARP | Karpathos | 0.98 | 130 | P | Pn | 03 11 13.1 | +1.8 |
| KARP | | | | S | Sn | 03 11 27.7 | +3.7 |
| NPS | Neapolis | 1.05 | 209 | P | Pn | 03 11 13.7 | +1.5 |
| NPS | | | | S | Sn | 03 11 28.6 | +2.9 |
| NPS | | | | AML | AML | 03 11 28.7 | |
| | comp=N,590µm,0.1s | | | | | | |
| NPS | | | | AML | AML | 03 11 32.2 | |
| | comp=E,492µm,0.4s | | | | | | |
| NPS | Neapolis | 1.05 | 209 | P | Pn | 03 11 13.7 | +1.5 |
| NPS | | | | S | Sn | 03 11 28.6 | +2.9 |
| ZKR | Zakros | 1.07 | 181 | P | Pn | 03 11 13.1 | +0.7 |
| ZKR | | | | S | Sn | 03 11 28.7 | +2.6 |
| ZKR | | | | AML | AML | 03 11 29.6 | |
| | comp=N,367µm,0.2s | | | | | | |
| ZKR | | | | AML | AML | 03 11 29.7 | |
| | comp=E,798µm,0.3s | | | | | | |
| ZKR | Zakros | 1.07 | 181 | P | Pn | 03 11 13.1 | +0.7 |
| ZKR | | | | S | Sn | 03 11 28.7 | +2.6 |
| LAST | Lasithi | 1.20 | 211 | P | Pn | 03 11 15.3 | +1.1 |
| LAST | | | | S | Sn | 03 11 31.2 | +1.9 |
| LAST | | | | AML | AML | 03 11 34.5 | |
| | comp=E,295µm,0.4s | | | | | | |
| LAST | | | | AML | AML | 03 11 34.9 | |
| | comp=N,260µm,0.4s | | | | | | |
| LAST | Lasithi | 1.20 | 211 | P | Pn | 03 11 15.3 | +1.1 |
| LAST | | | | S | Sn | 03 11 31.2 | +1.9 |
| IDI | Anoyia | 1.42 | 231 | P | Pn | 03 11 17.6 | +0.4 |
| IDI | | | | S | Sn | 03 11 35.1 | +0.3 |
| IDI | | | | AML | AML | 03 11 36.9 | |
| | comp=E,304µm,0.2s | | | | | | |
| IDI | | | | AML | AML | 03 11 38.2 | |
| | comp=N,215µm,0.2s | | | | | | |
| IDI | Anoyia | 1.42 | 231 | P | Pn | 03 11 17.6 | +0.4 |
| IDI | | | | S | Sn | 03 11 35.1 | +0.4 |
| ARG | Arkhangelos | 1.53 | 88 | P | Pn | 03 11 20.8 | +2.1 |
| ARG | | | | S | Sn | 03 11 37.9 | +0.6 |
| ARG | | | | AML | AML | 03 11 39.9 | |
| | comp=N,892µm,0.3s | | | | | | |
| ARG | | | | AML | AML | 03 11 40.6 | |
| | comp=E,1230µm,0.3s | | | | | | |
| ARG | Arkhangelos | 1.53 | 88 | P | Pn | 03 11 20.8 | +2.1 |
| ARG | | | | S | Sn | 03 11 37.9 | +0.6 |
| SIVA | Sivas | 1.65 | 225 | P | Pn | 03 11 21.0 | +0.7 |
| SIVA | | | | S | Sn | 03 11 43.8 | +3.5 |
| SIVA | Sivas | 1.65 | 225 | P | Pn | 03 11 21.0 | +0.7 |
| SIVA | | | | S | Sn | 03 11 43.8 | +3.5 |
| IMMV | Iera Moni Meta | 1.97 | 249 | P | Pn | 03 11 27.2 | +2.4 |
| IMMV | | | | S | Sn | 03 11 49.2 | +0.9 |
| IMMV | | | | AML | AML | 03 11 55.4 | |
| | comp=N,296µm,0.7s | | | | | | |
| IMMV | | | | AML | AML | 03 11 56.3 | |
| | comp=E,326µm,0.3s | | | | | | |
| IMMV | Iera Moni Meta | 1.97 | 249 | P | Pn | 03 11 27.2 | +2.4 |
| IMMV | | | | S | Sn | 03 11 49.2 | +0.9 |
| VLI | Veliai | 2.71 | 282 | P | Pn | 03 11 37.7 | +2.7 |
| VLI | | | | S | Sn | 03 12 09.6 | +3.0 |
| VLI | | | | AML | AML | 03 12 10.5 | |
| | comp=E,132µm,0.3s | | | | | | |
| VLI | | | | AML | AML | 03 12 18.9 | |
| | comp=N,74µm,0.8s | | | | | | |
| VLI | Veliai | 2.71 | 282 | P | Pn | 03 11 37.7 | +2.7 |
| VLI | | | | S | Sn | 03 12 09.6 | +3.0 |

*ATA **08** 03:15:19.8±0.4, 38°.67N×43°.48E, h73km±5km, MW2.8*
*CSEM **08** 03:15:23.4±0.2, 38°.73N×43°.54E, h10km, ML2.4, Error ellipse: s-maj=5.6km s-min=3.9km az=109.0*
*DDA **08** 03:15:23.5, 38°.73N×43°.53E, h7km, Ml2.6*
*ISK **08** 03:15:23.3, 38°.73N×43°.49E, h8km, ML2.4*
*ISCJB **08** 03:15:24.1±0.5, 38°.75N±0°.02×43°.53E±0°.05, h7km±5km, Error ellipse: s-maj=6.1km s-min=3.6km az=15.8*
**ISC 08 03:15:24.2±0.9, 38°.77N±0°.02×43°.49E±0°.03, h15km±6km, n31, σ1.13/53, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.19 | 206 | ePG | Pg | 03 15 28.6 | -0.2 |
| VANB | Van | 0.19 | 206 | ePg | Pg | 03 15 28.6 | -0.2 |
| VMUR | Van-Muradiye | 0.23 | 15 | iP | Pg | 03 15 28.5 | -1.0 |
| VMUR | | | | iS | Sb | 03 15 34.3 | -0.1 |
| VMUR | Van-Muradiye | 0.23 | 15 | P | Pg | 03 15 28.5 | -1.0 |
| VMUR | | | | S | Sb | 03 15 34.3 | -0.1 |
| TVAN | Van | 0.25 | 196 | iP | Pg | 03 15 28.4 | -1.3 |
| TVAN | | | | iS | Sb | 03 15 33.7 | -1.0 |
| TVAN | Van | 0.25 | 196 | P | Pg | 03 15 28.5 | -1.3 |
| TVAN | | | | S | Sb | 03 15 33.7 | -1.0 |
| ERCV | ERCIS-VAN | 0.28 | 335 | ePG | Pg | 03 15 30.1 | -0.3 |
| ERCV | | | | eSG | Sg | 03 15 34.8 | +0.3 |
| ERCV | ERCIS-VAN | 0.28 | 335 | ePg | Pg | 03 15 30.1 | -0.3 |
| ERCV | | | | eSg | Sg | 03 15 34.8 | +0.3 |
| CLDR | Caldiran | 0.50 | 41 | ePG | Pg | 03 15 33.7 | -0.6 |
| CLDR | | | | eSG | Sb | 03 15 42.0 | -0.1 |
| CLDR | Caldiran | 0.50 | 41 | iP | Pg | 03 15 33.3 | -1.0 |
| CLDR | | | | iS | Sb | 03 15 42.6 | +0.5 |
| CLDR | Caldiran | 0.50 | 41 | P | Pg | 03 15 33.3 | -1.0 |
| CLDR | Caldiran | 0.50 | 41 | ePg | Pg | 03 15 33.7 | -0.6 |
| CLDR | | | | eSg | Sb | 03 15 42.0 | -0.1 |
| GEVA | Gevas | 0.57 | 217 | eP | Pg | 03 15 33.8 | -1.7 |
| GEVA | | | | eS | Sb | 03 15 45.0 | +1.1 |
| GEVA | Gevas | 0.57 | 217 | iP | Pg | 03 15 34.0 | -1.4 |
| GEVA | | | | iS | Sb | 03 15 43.5 | -0.4 |
| GEVA | Gevas | 0.57 | 217 | P | Pg | 03 15 34.0 | -1.4 |
| GEVA | | | | S | Sb | 03 15 43.5 | -0.4 |
| ADCV | BITLIS_Adilcev | 0.60 | 274 | iP | Pg | 03 15 35.5 | -0.6 |
| ADCV | | | | iS | Sb | 03 15 46.1 | +1.1 |
| ADCV | BITLIS_Adilcev | 0.60 | 274 | P | Pg | 03 15 35.5 | -0.6 |
| ADCV | | | | S | Sb | 03 15 46.1 | +1.1 |
| DYDN | Diyadin | 0.79 | 11 | eP | Pg | 03 15 38.7 | -1.0 |
| DYDN | | | | eS | Sn | 03 15 53.2 | +0.5 |
| TUTA | Tutak | 0.83 | 320 | eP | Pg | 03 15 38.8 | -1.5 |
| TUTA | | | | eS | Sn | 03 15 53.5 | -0.2 |
| TUTA | Tutak | 0.83 | 320 | iP | Pg | 03 15 39.5 | -0.8 |
| TUTA | | | | iS | Sb | 03 15 51.8 | +0.3 |
| TUTA | Tutak | 0.83 | 320 | P | Pg | 03 15 39.5 | -0.8 |
| TUTA | | | | S | Sb | 03 15 51.8 | +0.3 |
| AGRB | Hanur-Agry | 0.90 | 334 | ePG | Pg | 03 15 41.6 | -0.1 |
| AGRB | Hanur-Agry | 0.90 | 334 | ePg | Pg | 03 15 41.6 | -0.1 |
| HAKT | HAKKARI | 1.22 | 172 | iP | Pn | 03 15 45.1 | -1.8 |
| HAKT | | | | iS | Sn | 03 16 05.0 | +1.7 |
| HAKT | HAKKARI | 1.22 | 172 | P | Pn | 03 15 45.1 | -1.8 |
| HAKT | | | | S | Sn | 03 16 05.0 | +1.7 |
| YOVA | Hakkari_Yˆ…kse | 1.33 | 152 | iP | Pn | 03 15 47.6 | -0.9 |
| YOVA | | | | iS | Sg | 03 16 11.1 | +3.8 |
| YOVA | Hakkari_Yˆ…kse | 1.33 | 152 | P | Pn | 03 15 47.6 | -0.9 |
| TASB | TASBURUN-IGDIR | 1.35 | 25 | ePN | Pb | 03 15 49.5 | +0.3 |
| TASB | TASBURUN-IGDIR | 1.35 | 25 | ePn | Pb | 03 15 49.5 | +0.3 |
| SRTM | Siirt_Merkez | 1.46 | 238 | iP | Pg | 03 15 51.4 | -0.9 |
| SRTM | | | | iS | Sg | 03 16 13.3 | +2.0 |
| SRTM | Siirt_Merkez | 1.46 | 238 | P | Pg | 03 15 51.4 | -0.9 |

*NIED **08** 03:17:00, 28°.70N×142°.40E, h32km, Mw4.6 Best double couple: Mo7.94000×10^15 NP1:φs220.00000°, δ70.00000°, λ14.00000°. NP2:φs125.00000°, δ77.00000°, λ159.00000°.*
*IDC **08** 03:17:44.8±0.5, 28°.62N×142°.64E, h0km, mb4.4/27, mb1 4.5/33, mb1mx4.5/44, mbtmp4.4/33, ML3.8/5, MS3.6/20, Ms1 3.6/20, ms1mx3.4/44, Error ellipse: s-maj=17.0km s-min=10.4km az=79.0*
*NEIC **08** 03:17:45.5±2.0, 28°.65N×142°.72E, h6km±12km, mb4.9/25, Error ellipse: s-maj=5.6km s-min=3.5km az=87.0*
*MOS **08** 03:17:46.2±0.9, 28°.61N×142°.69E, h26km, mb4.9/40, Error ellipse: s-maj=11.3km s-min=5.0km az=116.2*
*ISCJB **08** 03:17:46.7±0.2, 28°.74N±0°.02×142°.63E±0°.04, h25km, mb4.7/87, MS3.8/24, Error ellipse: s-maj=5.4km s-min=2.9km az=174.1*
*BJI **08** 03:17:46.4, 28°.57N×142°.67E, h31km, mb4.8/52, mB5.0/37, Ms4.5/25, Ms7 4.1/22*
*JMA **08** 03:17:48.0±0.1, 28°.69N×142°.40E, h57km, M5.0*
**ISC 08 03:17:48.4±0.4, 28°.68N±0°.04×142°.70E±0°.05, h25km, n222, σ1.88/245, mb4.8/87, MS3.9/25, 23C-3D, Bonin Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CBIJ | Chichi jima | 1.64 | 196 | P | Pn | 03 18 14.6 | -1.1 |
| CBIJ | | | | eS | Sn | 03 18 33.9 | -2.1 |
| CBIJ | Chichi jima | 1.64 | 196 | ePn | Pn | 03 18 14.7 | -0.9 |
| CBIJ | | | | eSn | Sn | 03 18 34.9 | -1.1 |
| JHHJ | Haha-jima-NKT | 2.10 | 193 | P | Pn | 03 18 20.8 | -1.1 |
| JHHJ | | | | eS | Sn | 03 18 46.2 | -0.9 |
| JHCJ | Hachijojimakas | 5.04 | 331 | eS | Sn | 03 19 54.5 | -5.2 |
| JHJ2 | Mitsune | 5.06 | 331 | P | Pn | 03 19 02.2 | -0.5 |
| JHJ2 | | | | eS | Sn | 03 19 56.8 | -3.5 |
| JHJ2 | Mitsune | 5.06 | 331 | ePn | Pn | 03 19 01.3 | -1.3 |
| JHJ2 | | | | eSn | Sn | 03 19 58.6 | -1.7 |
| JHJ | Hachijo jima 2 | 5.08 | 331 | Pn | Pn | 03 19 02.1 | -0.9 |
| | 20nm,0.3s,baz=67,slow=22,SNR=4.4 | | | | | | |
| JHJ | | | | Sn | Sn | 03 19 57.0 | -3.9 |
| | 158nm,0.3s,baz=57,slow=23,SNR=9.8 | | | | | | |
| BSO1 | Boso 1 | 6.13 | 347 | P | Pn | 03 19 15.2 | -1.7 |
| BSO1 | | | | S | Sn | 03 20 21.7 | -4.2 |
| JKO | Kozu shima | 6.28 | 332 | eS | Sn | 03 20 28.1 | -2.1 |
| BSO3 | Boso 3 | 6.38 | 344 | P | Pn | 03 19 19.3 | -1.2 |
| BSO3 | | | | eS | Sn | 03 20 29.4 | -3.0 |
| BSO4 | Boso 4 | 6.60 | 343 | P | Pn | 03 19 22.8 | -0.9 |
| BSO4 | | | | eS | Sn | 03 20 36.0 | -2.1 |
| JOD2 | Odawara 2 | 7.24 | 336 | P | Pn | 03 19 32.2 | -0.4 |
| JOD2 | | | | eS | Sn | 03 20 49.4 | -4.7 |
| JHU | Hanno | 7.71 | 339 | P | Pn | 03 19 38.3 | -0.8 |
| JHU | | | | eS | Sn | 03 21 00.5 | -5.1 |
| JYT | Yasato | 7.82 | 345 | P | Pn | 03 19 40.7 | +0.2 |
| JYT | | | | eS | Sn | 03 21 02.1 | -6.0 |
| JNY | Yasuok | 7.82 | 330 | P | Pn | 03 19 42.9 | +2.3 |
| JNY | | | | eS | Sn | 03 21 07.4 | -1.0 |
| JRY | Ryogami san | 7.99 | 337 | P | Pn | 03 19 42.7 | -0.2 |
| JRY | | | | eS | Sn | 03 21 08.1 | -4.3 |
| JHO | Hitachi | 8.11 | 348 | P | Pn | 03 19 41.5 | -3.0 |
| INU | Inuyama | 8.21 | 325 | ePn | Pn | 03 19 44.3 | -1.6 |
| MJAR | Matsushiro Arr | 8.70 | 335 | Pn | Pn | 03 19 52.8 | +0.1 |
| | 6.7nm,0.3s,baz=147,slow=11,SNR=40 | | | | | | |
| MJAR | | | | Sn | Sn | 03 21 25.2 | -4.8 |
| | 3.8nm,0.3s,baz=154,slow=18,SNR=4.5 | | | | | | |
| MJAR | | | | LR | LR | 03 23 27.3 | |
| | comp=Z,189nm,19.7s,baz=185,slow=39 | | | | | | |
| MAJO | Matsushiro | 8.71 | 335c | iP | Pn | 03 19 52.9 | +0.2 |
| MAJO | Matsushiro | 8.71 | 335 | ePn | Pn | 03 19 52.4 | -0.3 |
| MAJO | | | | eSn | Sn | 03 21 27.3 | -2.8 |
| MAT | Matsushiro | 8.71 | 335 | P | Pn | 03 19 53.0 | +0.3 |
| MAT | | | | S | Sn | 03 21 26.1 | -3.9 |
| MJB9 | Matsu-Tunnel | 8.71 | 335 | ePn | Pn | 03 19 53.2 | +0.4 |
| MJB9 | | | | eSn | Sn | 03 21 27.7 | -2.5 |
| JYA | Atsumi | 10.19 | 347 | P | Pn | 03 20 13.0 | -0.1 |
| JNU | Nakatsue | 11.07 | 296 | Pn | Pn | 03 20 25.0 | -0.1 |
| | 0.1nm,0.3s,baz=96,slow=6.3,SNR=2.6 | | | | | | |
| JNU | Nakatsue | 11.07 | 296 | ePn | Pn | 03 20 28.8 | +3.6 |
| KSRS | Korea Array | 15.15 | 309 | Pn | Pn | 03 21 21.0 | +0.4 |
| | 2.0nm,0.3s,baz=116,slow=12,SNR=9.2 | | | | | | |
| KSRS | | | | LR | LR | 03 27 23.8 | |
| | comp=Z,249nm,18.8s,baz=120,slow=38 | | | | | | |
| GUMO | Guam | 15.15 | 172 | Pn | Pn | 03 21 18.8 | -2.1 |
| | 7.6nm,0.3s,baz=37,slow=15,SNR=1.9 | | | | | | |
| GUMO | | | | LR | LR | 03 24 55.0 | |
| | comp=Z,329nm,19.5s,baz=0.0,slow=28 | | | | | | |
| GUMO | Guam | 15.15 | 172 | Pn | Pn | 03 21 18.8 | -2.1 |
| GUMO | | | | eS | S | 03 24 21.4 | -3.2 |
| KSAR | Wonju Array Be | 15.17 | 309 | P | Pn | 03 21 21.1 | +0.1 |
| KSAR | Wonju Array Be | 15.17 | 309 | Pn | Pn | 03 21 21.1 | +0.1 |
| ASAJ | Asahikawa | 15.40 | 360 | Pn | Pn | 03 21 20.4 | -3.5 |
| | 1.3nm,0.3s,baz=195,slow=16,SNR=6.0 | | | | | | |
| ASAJ | | | | Sn | Sn | 03 24 00.5 | -13 |
| | 0.6nm,0.3s,baz=149,slow=34,SNR=3.9 | | | | | | |
| ASAJ | Asahikawa | 15.40 | 360 | ePn | Pn | 03 21 16.7 | -7.3 |
| | 21nm,1.2s | | | | | | |
| ASAJ | | | | Sn | Sn | 03 24 00.5 | -13 |
| INCN | Inchon | 16.06 | 307 | ePn | Pn | 03 21 32.9 | +0.5 |
| | 82nm,0.8s | | | | | | |
| MSHR | Mys Shultsa | 16.72 | 329c | eP | Pn | 03 21 41.2 | +0.4 |
| VLA | Vladivostok | 16.84 | 332 | eP | Pn | 03 21 42.5 | +0.2 |
| VLA | | | | pmax | pmax | | |
| | comp=Z,31nm,0.7s | | | | | | |

**KUR Kuril'sk 17.02 13** *eP* **Pn 03 21 44.5 -0.1**
**USRK Ussuriysk Ar. 17.70 334** P **Pn 03 21 52.3 -0.8**
comp=Z,2.6nm,0.3s,baz=148,slow=14,SNR=22
USRK LR LR 03 29 29.0
comp=Z,105nm,18.4s,baz=144,slow=40
**YSS Yuzh-Sakhalins 18.24 0⇓** *eP* **Pn 03 21 58.4 -1.3**
YSS pmax pmax
comp=Z,40nm,1.4s
**MDJ Mudanjiang 19.02 330** P **Pn 03 22 10.4 +1.2**
MDJ pP sP 03 22 18.6 +0.2
MDJ sP pP 03 22 22.6 +7.4
MDJ S **S 03 25 46.5 +3.8**
MDJ PcS **PcS 03 30 08.7 -1.0**
MDJ pmax pmax
comp=Z,27nm,0.8s
MDJ pmax pmax
comp=Z,94nm,5.4s
**TATO Taipei 19.28 264** *eP* **Pn 03 22 12.3 -0.1**
comp=Z,535nm,1.7s
**NACB Ninganchiao 19.42 262** *eP* **P 03 22 12.9 0.0**
comp=Z,221nm,2.0s
**YHNB Yeheng 19.46 263** *eP* **P 03 22 13.3 -0.1**
comp=Z,41nm,0.9s
**YULB Yu-li 19.93 260** *eP* **Pn 03 22 20.1 -0.2**
comp=Z,39nm,0.5s
**SSLB Suanglung 20.10 261** *eP* Pn 03 22 21.8 -0.4
comp=Z,48nm,0.6s
**TWG Pinlang 20.32 258** *eP* Pn 03 22 26.1 +1.3
comp=Z,424nm,1.6s
**TPUB Ta-pu 20.54 260** *eP* **P 03 22 24.8 -0.3**
comp=Z,75nm,1.2s
**NJ2 Nanjing 20.84 285** *eP* **P 03 22 27.7 -0.5**
NJ2 pmax pmax
comp=Z,52nm,0.6s
**KLR Kul'dur 22.17 341** P **P 03 22 42.6 +0.2**
comp=Z,0.9nm,0.5s,baz=158,slow=5.8,SNR=24
KLR LR LR 03 31 41.1
comp=Z,13nm,19.4s,baz=126,slow=38
**TIA Tai'an 22.81 296** *eP* **P 03 22 47.6 -1.7**
TIA pmax pmax
comp=Z,20nm,0.7s
**H11N2 WAKE ISLAND Hy 23.77 107** T T 03 48 19.6
baz=296,slow=74,SNR=34
**H11N1 WAKE ISLAND Hy 23.77 107** T T 03 48 06.7
baz=296,slow=74,SNR=26
**H11N3 WAKE ISLAND Hy 23.78 107** T T 03 48 12.3
baz=296,slow=74,SNR=35
**BJI Beijing 24.56 304** P **P 03 23 02.3 -3.9**
**WHN Wuhan 24.69 281** P **P 03 23 07.8 +0.4**
**HIA Hailar 27.03 326** *eP* **P 03 23 28.8 +0.3**
HIA pmax pmax
comp=Z,31nm,0.8s
**HIA Hailar 27.03 326** *eP* **P 03 23 28.8 +0.3**
comp=Z,30nm,0.8s
**HHC Hu-ho-hao-te 28.16 304** *eP* **P 03 23 40.7 +1.9**
HHC PP **PnPn 03 24 30.8 +3.8**
HHC S **S 03 28 22.5 -0.3**
HHC SS **SnSn 03 29 43.8 +4.3**
HHC pmax pmax
comp=Z,13nm,0.6s
HHC pmax pmax
comp=Z,110nm,4.8s
HHC LR LR
comp=Z,260nm,17.3s
HHC LR LR
comp=Z,300nm,16.0s
HHC LR LR
comp=Z,200nm,17.3s
**ENH Enshi 28.90 281** *eP* **P 03 23 43.8 -1.6**
comp=Z,31nm,0.6s
**XAN Xi'an 29.25 289** P **P 03 23 47.1 -1.4**
XAN pP pP 03 23 56.3 +0.4
XAN pmax pmax
comp=Z,20nm,0.5s
XAN pmax pmax
comp=Z,120nm,4.7s
**MA2 Magadan 31.38 8** LR LR 03 36 40.6
comp=Z,39nm,19.7s,baz=194,slow=36
**QIZ Qiongzhong 31.46 260** P **P 03 24 08.3 +0.2**
QIZ PP **PnPn 03 25 08.3 -3.0**
QIZ S **S 03 29 18.7 +4.0**
QIZ pmax pmax
comp=Z,270nm,3.5s
**GYA Guiyang 31.95 275** *eP* **P 03 24 14.0 +1.5**
GYA pP sP 03 24 24.2 +1.2
GYA S **S 03 29 21.0 -1.5**
GYA sS sS 03 29 38.7 +3.9
GYA SS **SnSn 03 31 15.0 +3.1**
GYA pmax pmax
comp=Z,20nm,0.8s
GYA pmax pmax
comp=Z,120nm,5.2s
GYA LR LR
comp=Z,520nm,15.2s
GYA LR LR
comp=Z,490nm,16.5s
GYA LR LR
comp=Z,470nm,16.4s
**LZH Lanzhou 33.46 293** *eP* P 03 24 18.7 -7.0
LZH pP pP 03 24 25.2 -8.0
LZH sP sP 03 24 29.6 -6.6
**ULN Ulaanbaatar 33.51 315** *ceP* **P 03 24 26.6 +0.7**
ULN pmax pmax
comp=Z,17nm,1.0s
**ULN Ulaanbaatar 33.51 315** *eP* **P 03 24 26.0 +0.1**
comp=Z,18nm,1.1s
**CD2 Chengdu 33.75 284** P **P 03 24 27.2 -0.9**
CD2 pP pP 03 24 32.2 -3.4
CD2 sP sP 03 24 42.9 +4.2
CD2 S **S 03 29 51.9 +1.6**
CD2 LR LR
comp=Z,450nm,15.2s
CD2 LR LR
comp=Z,310nm,14.3s
**SONA1 Songino Array 33.91 314** *eP* **P 03 24 29.4 0.0**
**SONM Songino Array 33.91 314** P **P 03 24 29.9 +0.5**
comp=Z,3.8nm,0.5s,baz=122,slow=8.5,SNR=24
SONM LR LR 03 38 47.5
comp=Z,98nm,19.7s,baz=358,slow=37
**YAK Yakutsk 34.45 349** *eP* P 03 24 25.3 -8.3
YAK pmax pmax
comp=Z,12nm,0.8s
**SEY Seymchan 34.84 8** P **P 03 24 37.4 +0.4**
comp=Z,3.3nm,0.6s,baz=163,slow=19,SNR=4.6
**BOD Bodaibo 35.33 334** *eP* **P 03 24 41.5 +0.1**
BOD pmax pmax
comp=Z,7.0nm,1.0s
**KMI Kunming 35.70 274** P **P 03 24 45.1 -0.1**
KMI pP sP 03 24 55.5 -0.2
KMI pmax pmax
comp=Z,25nm,0.8s
**ZAK Zakamensk 36.74 317** *eP* **P 03 24 54.2 +0.5**
ZAK pmax pmax
comp=Z,12nm,1.3s
**GTA Gaotai 36.80 298** *eP* **P 03 24 53.3 -1.1**
GTA pP pP 03 25 01.8 -0.1
GTA sP sP 03 25 05.9 +0.9
GTA S **S 03 30 32.9 -4.4**
GTA sS sS 03 30 49.3 -0.3
GTA SS **SnSn 03 33 00.8 -8.7**
GTA pmax pmax
comp=Z,11nm,1.1s
GTA pmax pmax
comp=Z,96nm,5.1s
GTA LR LR
comp=Z,160nm,14.7s
GTA LR LR
comp=Z,100nm,17.1s
**TLY Talaya 37.02 319** *eP* **P 03 24 57.2 +1.3**
TLY pmax pmax
comp=Z,27nm,1.5s
TLY MLR MLR
comp=Z,213nm,20.0s
**TLY Talaya 37.02 319** *eP* **P 03 24 54.9 -1.0**
comp=Z,28nm,1.2s
**NONG Nongkai 37.66 263** P **P 03 25 02.3 +0.6**
comp=Z,43nm,1.1s
**PMG Port Moresby 38.11 173** P **P 03 25 04.8 -0.6**
comp=Z,6.2nm,0.3s,baz=294,slow=12,SNR=3.1
**MOY Mondy 38.55 318** *eP* **P 03 25 10.6 +1.6**
MOY pmax pmax
comp=Z,22nm,1.3s
**CHAI Chaiyaphum 39.57 260** P **P 03 25 17.5 -0.3**
comp=Z,14nm,0.8s,comp=Z,274nm
**PHRA Phrae 40.04 265** P **P 03 25 21.7 +0.1**
comp=Z,18nm,2.0s,comp=Z,27μm

**PBKT Sadao Pong 40.16 262** P **P 03 25 23.1 +0.4**
comp=Z,20nm,1.1s,comp=Z,882nm
**SRAK Srakaew 40.37 258** P **P 03 25 20.8 -3.6**
comp=Z,113nm,0.8s,comp=Z,876nm
**NAYO Nakonayok 40.85 258** P **P 03 25 29.1 +0.7**
comp=Z,16nm,0.9s
**CMMT Chiang Mai 41.04 266** P **P 03 25 29.7 -0.3**
comp=Z,8.4nm,1.0s
**CHTO Chiang Mai 41.04 266** P **P 03 25 29.8 -0.2**
comp=Z,54nm,0.9s
**CHTO Chiang Mai 41.04 266** *eP* **P 03 25 29.3 -0.7**
CHTO pmax pmax
comp=Z,6.0nm,0.8s
**CHTO Chiang Mai 41.04 266** *eP* **P 03 25 29.3 -0.7**
comp=Z,6.4nm,0.8s
**CMAR Chiang Mai Arr 41.18 266** P **P 03 25 31.0 -0.1**
comp=Z,1.2nm,0.3s,baz=46,slow=6.6,SNR=6.0
CMAR LR LR 03 42 21.3
comp=Z,73nm,19.7s,baz=82,slow=36
**CMAR Chiang Mai Arr 41.18 266** P **P 03 25 31.0 -0.1**
CMAR pmax pmax
comp=Z,1.0nm,0.3s
CMAR MLR MLR
comp=Z,73nm,19.7s
**UTHA Uthaitani 41.92 261** P **P 03 25 38.0 +0.8**
comp=Z,4.4nm,0.7s
**SOEI Soe 42.16 208** P **P 03 25 40.4 +1.3**
**SOEI Soe 42.16 208** *eP* **P 03 25 38.6 -0.6**
comp=Z,37nm,0.8s
**COEN Coen 42.39 179** *eP* **P 03 25 41.2 +0.3**
comp=Z,15nm,0.8s
**MTN Manton Dam 42.77 197** *eP* **P 03 25 43.3 -0.6**
comp=Z,15nm,0.4s
**HVS Khovu-Aksy 42.78 316** *dP* **P 03 25 45.3 +1.4**
HVS pmax pmax
comp=Z,37nm,0.7s
**TIXI Tiksi 43.69 354** P **P 03 25 51.8 +1.0**
comp=Z,5.8nm,0.3s,baz=114,slow=8.0,SNR=4.3
**TIXI Tiksi 43.69 354** *eP* **P 03 25 51.4 +0.6**
TIXI pmax pmax
comp=Z,1.0nm,0.8s
**SHL Shillong 45.06 279** *eP* **P 03 26 00.0 -2.6**
**WMQ Urumqi 46.04 305** P **P 03 26 10.9 +0.9**
WMQ pP sP 03 26 19.1 -1.6
WMQ sP pP 03 26 25.2 +7.5
WMQ pmax pmax
comp=Z,48nm,0.9s
WMQ pmax pmax
comp=Z,180nm,3.7s
WMQ LR LR
comp=Z,320nm,28.1s
WMQ LR LR
comp=Z,89nm,18.3s
**KULM Kulim 46.09 248** *eP* **P 03 26 11.1 +0.4**
comp=Z,12nm,0.8s
**TAPN Taplejung 48.20 282** *eP* **P 03 26 27.2 -0.1**
comp=Z,16nm,0.5s
**KPJI Karang Pucung 48.39 228** P **P 03 26 27.6 -0.9**
**ODAN Odare 48.60 282** *eP* **P 03 26 30.0 -0.4**
comp=Z,41nm,0.7s
**ZALV Zalesovo Beam 48.60 318** P **P 03 26 30.3 +0.5**
comp=Z,6.9nm,0.4s,baz=93,slow=7.6,SNR=34
ZALV PcP **PcP 03 27 54.9 -0.2**
comp=Z,4.1nm,0.7s,baz=98,slow=3.8,SNR=5.2
ZALV LR LR 03 48 04.7
comp=Z,121nm,18.4s,baz=70,slow=37
**CTA Charters Tower 48.60 176** P **P 03 26 30.0 0.0**
comp=Z,3.3nm,0.5s,baz=358,slow=8.8,SNR=6.2
**PSI Prapat 48.94 246** *eP* **P 03 26 33.1 +0.1**
**PSI Prapat 48.94 246** *eP* **P 03 26 33.1 +0.1**
**WRAB Tennant Creek 49.00 190** *ceP* **P 03 26 32.5 -0.5**
WRAB pmax pmax
comp=Z,37nm,0.6s
**WRAB Tennant Creek 49.00 190** *eP* **P 03 26 32.6 -0.5**
comp=Z,50nm,0.6s
**WB2 Warramunga Arr 49.01 190** *eP* **P 03 26 32.7 -0.4**
**WRA Warramunga Arr 49.01 190** P **P 03 26 32.6 -0.6**
comp=Z,42nm,0.6s,baz=13,slow=8.6,SNR=220
WRA LR LR 03 44 56.2
comp=Z,60nm,20.5s,baz=315,slow=33
**WRA Warramunga Arr 49.01 190** *ceP* **P 03 26 30.2 -3.0**
WRA pmax pmax
comp=Z,42nm,0.6s
**RAMN Ramite 49.25 282** *eP* **P 03 26 34.7 -0.7**
comp=Z,94nm,0.9s
**FITZ Fitzroy Crossi 49.35 202** P **P 03 26 34.6 -1.1**
comp=Z,2.4nm,0.5s,baz=24,slow=6.0,SNR=10
**JIRN Jiri 49.42 283** *eP* **P 03 26 36.7 -0.1**
comp=Z,921nm,0.8s
**GUN Gumba 49.62 284** *eP* **P 03 26 38.2 -0.1**
comp=Z,128nm,0.8s
**NVS Novosibirsk 49.63 319** *eP* **P 03 26 38.3 +0.7**
NVS pmax pmax
comp=Z,7.0nm,0.7s
NVS pmax pmax
comp=E,9.0nm,0.8s
**MK01 Makanchi Array 49.83 309** *eP* **P 03 26 39.3 0.0**
**MK31 Makanchi Array 49.83 309** *ceP* **P 03 26 38.7 -0.6**
MK31 pmax pmax
comp=Z,8.0nm,0.8s
**MK31 Makanchi Array 49.83 309** *eP* **P 03 26 39.6 +0.3**
**MKAR Makanchi Array 49.83 309** P **P 03 26 39.4 +0.1**
comp=Z,2.7nm,0.4s,baz=86,slow=10,SNR=49
MKAR LR LR 03 49 04.7
comp=Z,110nm,18.5s,baz=113,slow=38
**PKI Pulchoki 50.11 283** *eP* **P 03 26 41.3 -0.7**
comp=Z,31nm,0.8s
**PKIN Phulchoki 50.12 283** *eP* **P 03 26 41.9 -0.1**
comp=Z,30nm,0.7s
**KKN Kakani 50.16 284** *eP* **P 03 26 42.2 -0.1**
comp=Z,67nm,0.9s
**DMN Daman 50.36 283** *eP* **P 03 26 43.5 -0.3**
comp=Z,38nm,0.8s
**KOLN Koldanda 51.60 284** *eP* **P 03 26 52.6 -0.5**
comp=Z,85nm,0.8s
**PDGK Podgornoye 52.01 304** *iP* **P 03 26 55.0 -0.9**
PDGK pmax pmax
comp=Z,21nm,0.6s
**PYUN Piuthan 52.03 285** *eP* **P 03 26 56.1 -0.2**
comp=Z,138nm,0.7s
**KURK Kurchatov 52.21 314** *ceP* **P 03 26 57.4 +0.3**
KURK pmax pmax
comp=Z,41nm,1.0s
**KURK Kurchatov 52.21 314** *eP* **P 03 26 57.2 +0.1**
comp=Z,259nm,0.8s
**AS01 Alice Springs 52.72 190** *eP* **P 03 27 00.2 -0.9**
**AS31 Alice Springs 52.73 190** *eP* **P 03 27 02.0 +0.9**
**ASAR Alice Springs 52.73 190** P **P 03 27 00.3 -0.9**
comp=Z,1.9nm,0.6s,baz=7.9,slow=5.3,SNR=27
ASAR LR LR 03 48 02.0
comp=Z,44nm,19.9s,baz=32,slow=34
**KDAK Kodiak Island 52.83 37** P **P 03 27 01.7 +0.3**
comp=Z,9.8nm,1.0s,baz=270,slow=7.1,SNR=5.4
**TKM2 Tokmak 2 54.89 304** P **P 03 27 18.0 +0.8**
SNR=6.7
**KSH Kashi 55.17 300** P **P 03 27 22.4 +3.3**
KSH pP sP 03 27 32.6 +2.7
KSH PcP **PcP 03 28 23.2 +3.1**
KSH PP **PP 03 29 28.8 +6.4**
KSH S **S 03 35 03.7 +2.8**
KSH ScS **ScS 03 37 05.1 -1.8**
KSH SS **SS 03 38 48.1 +3.2**
KSH pmax pmax
comp=Z,5.0nm,0.5s
KSH pmax pmax
comp=Z,97nm,3.6s
KSH LR LR
comp=Z,98nm,4.5s
KSH LR LR
comp=Z,120nm,4.8s
KSH LR LR
comp=Z,140nm,5.1s
**KBK Karagaybulak 55.41 304** P **P 03 27 21.4 +0.6**
SNR=11
**DZM Mont Dzumac 55.41 153** P **P 03 27 22.1 +1.3**
comp=Z,4.8nm,0.6s,baz=11,slow=16,SNR=3.2
**AAK Ala-Archa 55.74 304** *ceP* **P 03 27 23.2 0.0**
AAK pmax pmax
comp=Z,4.0nm,0.6s
**AAK Ala-Archa 55.74 304** P **P 03 27 23.6 +0.4**
SNR=7.1
**AAK Ala-Archa 55.74 304** *eP* **P 03 27 23.5 +0.4**
**UCH Uchtor 55.79 304** P **P 03 27 24.9 +1.0**
SNR=7.9
**ILAR Eielson Array 56.11 29** P **P 03 27 25.0 -0.3**
comp=Z,0.8nm,0.8s,baz=260,slow=6.3,SNR=11
**IL1 Eielson Array 56.11 29** *eP* **P 03 27 25.0 -0.3**

**AML Almayashu 56.41 304** P **P 03 27 29.3 +1.0**
SNR=16
**SFK Sufi-Kurgan 56.94 301** *i* P **P 03 27 31.6 -0.3**
SFK pmax pmax
comp=Z,15nm,0.8s
**THN Thein Dam 56.95 292** *eP* **P 03 27 28.0 -3.7**
**RAGM Ragged Mountai 56.99 34** *eP* **P 03 27 27.4 -4.3**
**BVA0 Borovoye Array 57.19 317** P **P 03 27 33.5 +0.3**
BVA0 pmax pmax
comp=Z,17nm,0.7s
**MNAS Manas 57.21 304** *i* P **P 03 27 33.6 -0.1**
MNAS pmax pmax
comp=Z,8.0nm,0.8s
**BRVK Borovoye 57.26 317** *ceP* **P 03 27 34.1 +0.5**
BRVK pmax pmax
comp=Z,15nm,0.8s
**BRVK Borovoye 57.26 317** *eP* **P 03 27 34.6 +1.0**
**KK31 Karatay Array 58.54 305** *ceP* **P 03 27 43.3 +0.5**
KK31 pmax pmax
comp=Z,18nm,0.5s
**STKA Stephens Creek 60.23 181** P **P 03 27 54.2 -0.2**
comp=Z,3.2nm,0.7s,baz=345,slow=8.0,SNR=6.6
**INK Inuvik 61.41 25** P **P 03 28 02.9 +0.9**
comp=Z,1.5nm,0.4s,baz=291,slow=5.1,SNR=6.5
**ARU Arti 63.46 322** *c iP* **P 03 28 16.1 +0.2**
ARU 03 30 34.1
ARU S **S 03 36 49.8 +2.5**
ARU SS **SS 03 40 51.7 -2.2**
ARU pmax pmax
comp=Z,14nm,1.0s
**ARU Arti 63.46 322** *eP* **P 03 28 16.1 +0.2**
**AB31 Akbulak array 64.32 314** *ceP* **P 03 28 22.1 +0.4**
AB31 pmax pmax
comp=Z,14nm,0.5s
**GEYT Alibeck 69.03 303** P **P 03 28 53.0 +0.9**
comp=Z,7.1nm,0.7s,baz=52,slow=5.8,SNR=12
GEYT LR LR 04 01 50.0
comp=Z,59nm,18.8s,baz=25,slow=38
**YKA Yellowknife Ar 70.54 29** P **P 03 29 02.9 +2.1**
comp=Z,1.8nm,0.9s,baz=299,slow=6.3,SNR=3.4
**TMCR Tamitsa 70.63 333** P **P 03 29 00.1 -1.2**
TMCR pmax pmax
comp=Z,10.0nm,0.6s
**ARCES ARCESS Array B 72.20 341** P **P 03 29 12.4 +1.6**
comp=Z,3.5nm,0.8s,baz=57,slow=6.8,SNR=3.7
**ARCES ARCESS Array B 72.20 341** P **P 03 29 12.4 +1.6**
ARCES pmax pmax
comp=Z,3.0nm,0.8s
**VRH Novokhopyorsk 74.58 320** *eP* **P 03 29 24.4 -0.7**
VRH pmax pmax
comp=Z,10.0nm,0.9s
**MAK Makhachkala 74.58 311** *eP* **P 03 29 25.0 -0.2**
MAK *eS* **S 03 38 57.8 -1.5**
MAK MLR MLR
comp=Z,380nm,19.0s
**OBN Obninsk 75.49 325** LR LR 04 05 36.6
comp=Z,94nm,18.1s,baz=92,slow=38
**OBN Obninsk 75.49 325** *i* P **P 03 29 29.8 -0.4**
OBN *i* 03 29 44.9
OBN pmax pmax
comp=Z,5.0nm,1.0s
OBN MLR MLR
comp=Z,91nm,19.0s
**LKRN Lenkeran, Azer 75.50 306** P **P 03 29 29.2 -1.4**
**SEKA Sheki 75.53 309** P **P 03 29 28.9 -2.0**
**ZKTA Zakatala 75.74 310** P **P 03 29 30.4 -1.6**
**MNGR Mingechevir, A 75.80 309** P **P 03 29 30.8 -1.5**
**VSR Storozhevoye 76.00 321** *eP* **P 03 29 32.1 -1.1**
VSR pmax pmax
comp=Z,10.0nm,1.1s
**GANJ Ganja 76.38 309** P **P 03 29 34.0 -1.7**
**FINES FINESS Array B 76.73 334** P **P 03 29 37.5 +0.3**
comp=Z,1.8nm,0.4s,baz=72,slow=5.0,SNR=17
FINES LR LR 04 05 24.0
comp=Z,27nm,19.1s,baz=25,slow=37
**FINES FINESS Array B 76.73 334** *ceP* **P 03 29 40.0 +2.8**
FINES pmax pmax
comp=Z,4.0nm,0.6s
**BMO Blue Mountains 76.87 46** *eP* **P 03 29 38.4 -0.1**
BMO pmax pmax
comp=Z,2.0nm,0.8s
**BMO Blue Mountains 76.87 46** *eP* **P 03 29 38.4 -0.1**
comp=Z,2.2nm,0.8s
**ZEI Tsey 77.04 312** *eP* **P 03 29 38.8 -0.8**
ZEI pmax pmax
comp=Z,3.0nm,0.6s
**KBZ Khabaz 77.26 313** P **P 03 29 41.2 +0.7**
comp=Z,8.8nm,0.7s,baz=132,slow=3.0,SNR=18
**KIV Kislovodsk 77.30 313** *eP* **P 03 29 41.0 +0.1**
KIV pmax pmax
comp=Z,8.0nm,0.9s
KIV MLR MLR
comp=Z,57nm,18.0s
**NAX Nakhchivan 77.60 308** P **P 03 29 41.0 -1.6**
**NEY Neytrino 77.60 313** *eP* **P 03 29 42.3 -0.4**
NEY pmax pmax
comp=Z,1.0nm,0.9s
**GNI Garni 77.68 309** *i* P **P 03 29 43.1 -0.1**
GNI pmax pmax
comp=Z,49nm,1.1s
**GNI Garni 77.68 309** *eP* **P 03 29 43.0 -0.2**
comp=Z,52nm,0.9s
**EGMT Eagleton 79.86 41** *eP* **P 03 29 53.6 -1.3**
comp=Z,14nm,0.6s
**PMOR Pomariorio Ree 79.87 113** *eT* T 04 57 28.6
comp=Z,4.5nm,0.2s
**PPT2 Papeete2 79.96 116** *eLR* LR 03 54 20.7
comp=Z,70nm,22.8s
**R11A Troy Canyon, C 81.10 51** *eP* **P 03 30 02.3 +0.4**
comp=Z,2.6nm,0.9s
**IMW Indian Meadow 81.32 45** *eP* **P 03 30 03.1 0.0**
comp=Z,4.0nm,0.8s
**TPAW Teton Pass 81.52 45** *eP* **P 03 30 04.2 0.0**
comp=Z,3.3nm,0.8s
**AKASG Malin Array Be 81.61 324** P **P 03 30 03.7 -0.4**
comp=Z,1.8nm,0.4s,baz=51,slow=5.3,SNR=7.1
**AKASG Malin Array Be 81.61 324** *ceP* **P 03 30 07.1 +3.0**
AKASG pmax pmax
comp=Z,2.0nm,0.4s
**KIEV Kiev 81.62 324** *eP* **P 03 30 04.1 0.0**
KIEV pmax pmax
comp=Z,4.0nm,0.6s
**KIEV Kiev 81.62 324** *eP* **P 03 30 04.1 0.0**
comp=Z,3.6nm,0.6s
**DUG Dugway, Tooele 82.04 48** *eP* **P 03 30 06.3 -0.4**
DUG pmax pmax
comp=Z,4.0nm,0.8s
**DUG Dugway, Tooele 82.04 48** *eP* **P 03 30 06.3 -0.4**
comp=Z,3.8nm,0.8s
**NB2 NORSAR Subarra 82.31 338** P **P 03 30 07.3 -0.3**
comp=Z,2.6nm,0.5s,baz=42,slow=5.3
**NOA NORSAR Array B 82.31 338** P **P 03 30 07.5 -0.1**
comp=Z,2.7nm,0.7s,baz=42,slow=5.2,SNR=8.2
NOA LR LR 04 11 50.8
comp=Z,33nm,18.9s,baz=35,slow=39
**PDAR Pinedale Array 82.77 45** P **P 03 30 11.7 +1.0**
comp=Z,0.3nm,0.5s,baz=290,slow=5.5,SNR=2.5
**RAYN Ar Rayn 84.92 294** *eP* **P 03 30 22.1 +0.3**
comp=Z,31nm,1.0s
**BRTR Keskin Array B 85.26 313** P **P 03 30 23.9 +0.6**
comp=Z,3.2nm,0.8s,baz=100,slow=4.2,SNR=19
BRTR LR LR 04 11 42.7
comp=Z,35nm,18.6s,baz=79,slow=38
**BRTR Keskin Array B 85.26 313** *ceP* **P 03 30 24.3 +1.0**
BRTR pmax pmax
comp=Z,3.0nm,0.8s
**CFR Carcaliu 85.46 320** ⇑ *iP* **P 03 30 28.2 +4.3**
**CFR Carcaliu 85.46 320** ⇑ P **P 03 30 28.2 +4.3**
**TESR Tescani 85.48 322** ⇑ *iP* **P 03 30 25.6 +1.5**
**BURAR Bucovina Array 85.57 323** ⇓ *iP* **P 03 30 26.5 +1.9**
**BURAR Bucovina Array 85.57 323** ⇓ P **P 03 30 26.5 +1.9**
**VRI Vrincioaia 85.83 321** ⇑ *iP* P 03 30 32.0 +6.2
**VRI Vrincioaia 85.83 321** ⇑ P P 03 30 32.0 +6.2
**MLR Muntele Rosu 86.49 321** LR LR 04 10 09.4
comp=Z,12nm,18.2s,baz=54,slow=36
**DOPR Dopca 86.50 322** ⇑ *iP* **P 03 30 32.6 +3.4**
**ARR Arges 87.29 321** ⇑ *iP* **P 03 30 32.3 -0.8**
**VRAC Vranov 88.73 328** LR LR 04 11 33.7
comp=Z,28nm,21.7s,baz=196,slow=36
**CLL Collm 88.89 331** *eP* **P 03 30 39.0 -1.4**
**GERES GERESS Array B 90.39 329** P **P 03 30 47.7 +0.1**
comp=Z,0.3nm,0.4s,baz=36,slow=7.3,SNR=3.9
GERES LR LR 04 14 19.8
comp=Z,48nm,20.8s,baz=279,slow=38
**DAVOX Davos/Dischmat 93.64 330** LR LR 04 15 08.9
comp=Z,23nm,20.2s,baz=83,slow=37

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| **TXAR** | **Lajitas Array** | **94.29** | **53** | P | **P** | **03 31 07.8** | **+1.8** |
| | comp=Z,0.2nm,0.6s,baz=292,slow=3.7,SNR=4.1 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **123.87** | **312** | PKP | **PKPdf** | **03 36 45.0** | **0.0** |
| | comp=Z,0.9nm,0.8s,baz=39,slow=1.8,SNR=6.5 | | | | | | |
| **LPAZ** | **La Paz** | **149.06** | **73** | PKPbc | **PKPbc** | **03 37 36.7** | **+0.9** |
| | comp=Z,2.0nm,0.7s,baz=287,slow=2.0,SNR=8.3 | | | | | | |
| **PLCA** | **Paso Flores** | **150.31** | **123** | PKPab | **PKPab** | **03 37 44.2** | **+0.3** |
| | comp=Z,1.2nm,0.7s,baz=270,slow=4.0,SNR=2.8 | | | | | | |

*ISCJB **08** 03:23:43.4±0.8, 12°.6N±0°.1×143°.5E±0°.1, h27km, mb3.4/5, MS3.3/1, Error ellipse: s-maj=22.1km s-min=11.6km az=41.2*

*IDC **08** 03:23:46.5±4.9, 12°.65N×143°.60E, h38km±48km, mb3.3/5, mb1 3.6/5, mb1mx3.3/37, mbtmp3.5/5, MS3.3/1, Ms1 3.2/1, ms1mx2.7/19, Error ellipse: s-maj=42.8km s-min=18.3km az=101.0*

**ISC 08 03:23:45.0**±1.1**, 12°.7N**±0°.2×**143°.6E**±0°.1**, h27**km**, n14, σ0s.84**/8**, mb3.4**/5**, South of Mariana Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GUMO** | **Guam** | **1.59** | **54** | Pn | **Pn** | **03 24 11.2** | **-0.1** |
| | 50nm,0.3s,baz=232,slow=19,SNR=9.9 | | | | | | |
| GUMO | | | | Sn | **Sn** | **03 24 31.3** | **+0.3** |
| | 33nm,0.3s,baz=273,slow=18,SNR=9.6 | | | | | | |
| **GUMO** | **Guam** | **1.59** | **54** | eSn | **Pn** | **03 24 11.0** | **-0.3** |
| **H11S3** | **WAKE ISLAND Hy** | **23.02** | **72** | T | T | 03 52 41.1 | |
| | baz=259,slow=75,SNR=5.0 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **23.04** | **72** | T | T | 03 52 42.6 | |
| | baz=259,slow=75,SNR=5.8 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **23.04** | **72** | T | T | 03 52 41.7 | |
| | baz=259,slow=75,SNR=9.6 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **23.47** | **70** | T | T | 03 53 15.3 | |
| | baz=256,slow=75,SNR=17 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **23.48** | **70** | T | T | 03 53 16.4 | |
| | baz=256,slow=75,SNR=8.8 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **23.49** | **70** | T | T | 03 53 17.1 | |
| | baz=256,slow=75,SNR=15 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **24.27** | **349** | P | **P** | **03 29 01.5** | **+1.5** |
| | 1.2nm,0.7s,baz=161,slow=8.5,SNR=3.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **33.63** | **196** | P | **P** | **03 30 23.9** | **+0.4** |
| | 1.1nm,0.7s,baz=18,slow=9.1,SNR=2.7 | | | | | | |
| **ASAR** | **Alice Springs** | **37.31** | **195** | P | **P** | **03 30 55.0** | **-0.1** |
| | 0.2nm,0.4s,baz=12,slow=12,SNR=3.0 | | | | | | |
| **STKA** | **Stephens Creek** | **44.31** | **182** | LR | LR | 03 51 41.6 | |
| | comp=Z,38nm,22.0s,baz=22,slow=38 | | | | | | |
| **SONM** | **Songino Array** | **46.77** | **326** | P | **P** | **03 32 11.4** | **-0.8** |
| | 0.1nm,0.3s,baz=135,slow=7.4,SNR=2.5 | | | | | | |
| **ILAR** | **Eielson Array** | **69.96** | **25** | P | **P** | **03 34 53.4** | **-0.3** |
| | 0.3nm,0.9s,baz=237,slow=5.0,SNR=2.5 | | | | | | |

*ATH **08** 03:39:48.3, 41°.99N×20°.48E, h3km±5km, ML2.3/3, Error ellipse: s-maj=5.1km s-min=1.2km az=350.0*

*SKO **08** 03:39:49.4, 41°.93N×20°.41E, h15km, M1.9, ML2.3*

*PDG **08** 03:39:50.6±0.4, 41°.93N×20°.40E, h4km±1km, ML2.4/10, Error ellipse: s-maj=0.6km s-min=0.8km az=0.0*

*BEO **08** 03:39:50.9±0.3, 41°.89N×20°.40E, h0km, M2.2/1*

*CSEM **08** 03:39:50.6±0.2, 41°.92N×20°.36E, h2km, ML2.8, Error ellipse: s-maj=4.3km s-min=3.3km az=52.0*

*TIR **08** 03:39:59.6, 41°.14N×20°.33E, h7km, ML2.5*

**ISC 08 03:39:50.2**±1.0**, 41°.89N**±0°.01×**20°.38E**±0°.02**, h9**km±9km**, n106, σ1s.23**/153**, 15C-12D, Albania**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TIR** | **Tirane** | **0.67** | **216** | i PG | **Pn** | **03 40 07.9** | **+2.2** |
| TIR | | | | i SG | **Sb** | **03 40 13.0** | **-0.2** |
| **TIR** | **Tirane** | **0.67** | **216** | ePg | **Pb** | **03 40 03.2** | **-0.7** |
| TIR | | | | eSg | **Sg** | **03 40 11.9** | **+0.2** |
| **TIR** | **Tirane** | **0.67** | **216** | ⇑iP | **Pb** | **03 40 03.2** | **-0.7** |
| **TIR** | **Tirane** | **0.67** | **216** | P | **Pb** | **03 40 03.4** | **-0.5** |
| TIR | | | | S | **Sn** | **03 40 14.9** | **-1.3** |
| TIR | | | | AML | AML | 03 40 17.3 | |
| | comp=N,458µm,0.4s | | | | | | |
| TIR | | | | AML | AML | 03 40 25.0 | |
| | comp=E,477µm,0.5s | | | | | | |
| **TIR** | **Tirane** | **0.67** | **216** | P | **Pb** | **03 40 03.4** | **-0.5** |
| TIR | | | | eSg | **Sg** | **03 40 11.9** | **+0.2** |
| TIR | | | | S | **Sn** | **03 40 14.9** | **-1.3** |
| **PEJK** | **Peje** | **0.76** | **354** | P | **Pg** | **03 40 04.2** | **-0.6** |
| **PVY** | **Plav** | **0.77** | **336** | ⇓iPg | **Pg** | **03 40 04.4** | **-0.7** |
| PVY | | | | eSg | **Sb** | **03 40 16.2** | **-0.2** |
| **PVY** | **Plav** | **0.77** | **336** | ⇓iPg | **Pg** | **03 40 04.4** | **-0.7** |
| PVY | | | | eSg | **Sb** | **03 40 16.2** | **-0.2** |
| **SKO** | **Skopje** | **0.79** | **84** | i Pg | **Pg** | **03 40 04.6** | **-0.8** |
| SKO | | | | i Sg | **Sb** | **03 40 16.4** | **-0.5** |
| **KRUS** | **Krusevo** | **0.83** | **128** | i Pg | **Pg** | **03 40 05.4** | **-0.8** |
| KRUS | | | | i Sg | **Sg** | **03 40 17.0** | **-0.1** |
| **OHR** | **Ohrid** | **0.84** | **158** | i Pg | **Pg** | **03 40 05.4** | **-0.9** |
| OHR | | | | i Sg | **Sb** | **03 40 18.1** | **-0.2** |
| OHR | | | | eLg | Lg | 03 40 19.6 | |
| | comp=E,77nm,0.4s | | | | | | |
| OHR | | | | eLg | Lg | 03 40 20.1 | |
| | comp=N,80nm,0.4s | | | | | | |
| **ULC** | **Ulcinj** | **0.85** | **275** | ⇓iPg | **Pg** | **03 40 06.3** | **-0.3** |
| ULC | | | | eSg | **Sn** | **03 40 19.9** | **-1.0** |
| **ULC** | **Ulcinj** | **0.85** | **275** | ⇓iPg | **Pg** | **03 40 06.3** | **-0.3** |
| **ULC** | **Ulcinj** | **0.85** | **275** | P | **Pb** | **03 40 06.7** | **-0.4** |
| ULC | | | | eSg | **Sn** | **03 40 19.9** | **-1.0** |
| **DRME** | **Dracevica, Mon** | **0.94** | **289** | ⇓iPg | **Pb** | **03 40 07.9** | **-0.7** |
| DRME | | | | eSg | **Sn** | **03 40 22.8** | **-0.2** |
| **DRME** | **Dracevica, Mon** | **0.94** | **289** | ⇓iPg | **Pb** | **03 40 07.9** | **-0.7** |
| DRME | | | | eSg | **Sn** | **03 40 22.8** | **-0.2** |
| **PDG** | **Podgorica** | **1.00** | **303** | ePg | **Pg** | **03 40 08.1** | **-1.2** |
| PDG | | | | eSg | **Sn** | **03 40 23.7** | **-0.7** |
| **PDG** | **Podgorica** | **1.00** | **303** | ⇑iP | **Pg** | **03 40 07.5** | **-1.9** |
| **PDG** | **Podgorica** | **1.00** | **303** | ePn | **Pg** | **03 40 07.4** | **-1.9** |
| **PDG** | **Podgorica** | **1.00** | **303** | ⇓iPg | **Pg** | **03 40 08.4** | **-0.9** |
| PDG | | | | eSg | **Sn** | **03 40 23.7** | **-0.7** |
| **TTG** | **Podgorica** | **1.00** | **303** | ⇓iPg | **Pg** | **03 40 08.4** | **-0.9** |
| TTG | | | | eSg | **Sn** | **03 40 24.3** | **-0.1** |
| **BEY** | **Berane** | **1.05** | **340** | ⇓iPg | **Pg** | **03 40 09.4** | **-0.9** |
| **BEY** | **Berane** | **1.05** | **340** | P | **Pn** | **03 40 10.4** | **-0.7** |
| BEY | | | | eSg | **Sn** | **03 40 25.7** | **-0.1** |
| **IVA** | **Berane** | **1.05** | **340** | ⇓iPg | **Pg** | **03 40 09.4** | **-0.9** |
| IVA | | | | eSg | **Sn** | **03 40 25.7** | **-0.1** |
| **SMRK** | **Smrekonice** | **1.07** | **23** | P | **Pn** | **03 40 12.3** | **+1.0** |
| **BIA** | **Bitola** | **1.12** | **140** | i Pg | **Pn** | **03 40 12.1** | **+0.1** |
| BIA | | | | i Sg | **Sn** | **03 40 29.1** | **+1.5** |
| **KOME** | **Kolasin** | **1.16** | **327** | ePg | **Pb** | **03 40 11.2** | **-1.1** |
| KOME | | | | eSg | **Sn** | **03 40 29.3** | **+0.8** |
| **KOME** | **Kolasin** | **1.16** | **327** | ePg | **Pb** | **03 40 11.2** | **-1.1** |
| KOME | | | | eSg | **Sn** | **03 40 29.3** | **+0.8** |
| **BUM** | **Brajici-Budva** | **1.18** | **291** | ⇑iPg | **Pb** | **03 40 12.1** | **-0.6** |
| BUM | | | | eSg | **Sn** | **03 40 31.0** | **+1.9** |
| **BUM** | **Brajici-Budva** | **1.18** | **291** | ⇑iPg | **Pb** | **03 40 12.1** | **-0.6** |
| BUM | | | | eSg | **Sn** | **03 40 31.0** | **+1.9** |
| **CEME** | **Cevo** | **1.27** | **302** | ⇑iPg | **Pg** | **03 40 13.9** | **-0.6** |
| CEME | | | | eSg | **Sn** | **03 40 33.8** | **+2.5** |
| **CEME** | **Cevo** | **1.27** | **302** | ⇑iPg | **Pg** | **03 40 13.9** | **-0.6** |
| CEME | | | | eSg | **Sn** | **03 40 33.8** | **+2.5** |
| **FNA** | **Florina** | **1.33** | **146** | P | **Pn** | **03 40 13.6** | **-1.4** |
| FNA | | | | S | **Sn** | **03 40 32.9** | **0.0** |
| FNA | | | | AML | AML | 03 40 37.1 | |
| | comp=N,391µm,0.6s | | | | | | |
| FNA | | | | AML | AML | 03 40 40.9 | |
| | comp=E,384µm,0.5s | | | | | | |
| **FNA** | **Florina** | **1.33** | **146** | P | **Pn** | **03 40 13.6** | **-1.4** |
| FNA | | | | S | **Sn** | **03 40 32.9** | **0.0** |
| **NKME** | **Niksic** | **1.38** | **310** | ⇑iPg | **Pn** | **03 40 15.2** | **-0.3** |
| NKME | | | | eSg | **Sg** | **03 40 37.2** | **+2.8** |
| **NKME** | **Niksic** | **1.38** | **310** | ⇑iPg | **Pn** | **03 40 15.2** | **-0.3** |
| NKME | | | | eSg | **Sg** | **03 40 37.2** | **+2.8** |
| **NKY** | **Niksic** | **1.38** | **312** | ⇓iPg | **Pb** | **03 40 15.8** | **-0.4** |
| NKY | | | | eSg | **Sg** | **03 40 37.6** | **+3.0** |
| **NKY** | **Niksic** | **1.38** | **312** | ⇓iPg | **Pb** | **03 40 15.8** | **-0.4** |
| NKY | | | | eSg | **Sg** | **03 40 37.6** | **+3.0** |
| **SJES** | **Sjenica** | **1.40** | **348** | ePg | **Pg** | **03 40 16.4** | **-0.7** |
| SJES | | | | eSg | **Sg** | **03 40 36.3** | **+1.0** |
| **BARS** | **Barje** | **1.41** | **48** | ePg | **Pb** | **03 40 16.3** | **-0.3** |
| BARS | | | | eSg | **Sg** | **03 40 35.7** | **+0.2** |
| **BARS** | **Barje** | **1.41** | **48** | ePg | **Pb** | **03 40 16.3** | **-0.3** |
| BARS | | | | eSg | **Sg** | **03 40 35.7** | **+0.2** |
| **SELS** | **Selova** | **1.44** | **22** | ePg | **Pb** | **03 40 16.9** | **-0.2** |
| **HCY** | **Herceg Novi** | **1.51** | **292** | ⇑iPg | **Pb** | **03 40 17.8** | **-0.5** |
| HCY | | | | eSg | **Sg** | **03 40 42.1** | **+3.4** |
| **HCY** | **Herceg Novi** | **1.51** | **292** | ePn | **Pb** | **03 40 17.3** | **-1.0** |
| **HCY** | **Herceg Novi** | **1.51** | **292** | ⇑iPg | **Pb** | **03 40 17.8** | **-0.5** |
| HCY | | | | eSg | **Sg** | **03 40 42.1** | **+3.4** |
| **NEST** | **Nestorio** | **1.56** | **161** | P | **Pb** | **03 40 19.0** | **-0.2** |
| NEST | | | | S | **Sg** | **03 40 41.7** | **+1.4** |
| NEST | | | | AML | AML | 03 40 47.4 | |
| | comp=N,100µm,0.4s | | | | | | |
| NEST | | | | AML | AML | 03 40 52.5 | |
| | comp=E,99µm,0.9s | | | | | | |
| **NEST** | **Nestorio** | **1.56** | **161** | P | **Pb** | **03 40 19.0** | **-0.2** |
| NEST | | | | S | **Sg** | **03 40 41.7** | **+1.4** |
| **PLE** | **Pljevlja** | **1.61** | **333** | ⇑iPn | **Pb** | **03 40 19.9** | **-0.3** |
| PLE | | | | eSn | **Sg** | **03 40 44.3** | **+2.2** |
| **PLE** | **Pljevlja** | **1.61** | **333** | ⇑iPn | **Pb** | **03 40 19.9** | **-0.3** |
| PLE | | | | eSn | **Sg** | **03 40 44.3** | **+2.2** |
| **IVAS** | **Ivanjica** | **1.69** | **354** | ePg | **Pn** | **03 40 20.0** | **+0.1** |
| IVAS | | | | eSg | **Sg** | **03 40 44.1** | **-0.5** |
| **IVAS** | **Ivanjica** | **1.69** | **354** | ePg | **Pn** | **03 40 20.0** | **+0.1** |
| IVAS | | | | eSg | **Sg** | **03 40 44.1** | **-0.5** |
| **UPM** | **Unac-Piva** | **1.71** | **321** | ePn | **Pg** | **03 40 21.9** | **-1.0** |
| UPM | | | | eSn | **Sg** | **03 40 46.4** | **+1.4** |
| **UPM** | **Unac-Piva** | **1.71** | **321** | ePn | **Pg** | **03 40 21.9** | **-1.0** |
| UPM | | | | eSn | **Sg** | **03 40 46.4** | **+1.4** |
| **TREB** | **Trebinje** | **1.72** | **299** | ePn | **Pb** | **03 40 21.4** | **-0.5** |
| **TREB** | **Trebinje** | **1.72** | **299** | ePn | **Pb** | **03 40 21.4** | **-0.5** |
| **VAY** | **Valandovo** | **1.74** | **108** | ePn | **Pb** | **03 40 22.3** | **+0.1** |
| **VAY** | **Valandovo** | **1.74** | **108** | ePn | **Pb** | **03 40 22.3** | **+0.1** |
| **VAY** | **Valandovo** | **1.74** | **108** | ePn | **Pb** | **03 40 22.4** | **+0.3** |
| VAY | | | | eLg | Lg | 03 40 47.2 | |
| | comp=E,16nm,0.5s | | | | | | |
| VAY | | | | eLg | Lg | 03 40 49.2 | |
| | comp=N,24nm,0.7s | | | | | | |
| **GRG** | **Griva** | **1.78** | **121** | P | **Pb** | **03 40 23.0** | **0.0** |
| GRG | | | | S | **Sb** | **03 40 45.2** | **-0.2** |
| **GRG** | **Griva** | **1.78** | **121** | P | **Pb** | **03 40 23.0** | **0.0** |
| GRG | | | | S | **Sb** | **03 40 45.2** | **-0.2** |
| **KZN** | **Kozani** | **1.90** | **146** | P | **Pb** | **03 40 25.4** | **+0.4** |
| **KZN** | **Kozani** | **1.90** | **146** | P | **Pb** | **03 40 25.4** | **+0.4** |
| **BOVS** | **Bovan** | **2.00** | **29** | ePn | **Pn** | **03 40 24.9** | **+0.8** |
| **BOVS** | **Bovan** | **2.00** | **29** | ePn | **Pn** | **03 40 24.9** | **+0.8** |
| **GRUS** | **Gruza** | **2.01** | **7** | ePn | **Pb** | **03 40 26.9** | **0.0** |
| **GRUS** | **Gruza** | **2.01** | **7** | ePn | **Pb** | **03 40 26.9** | **0.0** |
| **KNT** | **Kendrikon** | **2.02** | **110** | P | **Pn** | **03 40 25.6** | **+1.2** |
| **KNT** | **Kendrikon** | **2.02** | **110** | P | **Pn** | **03 40 25.6** | **+1.2** |
| **BBLS** | **Lazići** | **2.10** | **340** | ePn | **Pb** | **03 40 28.3** | **-0.2** |
| **BBLS** | **Lazići** | **2.10** | **340** | ePn | **Pb** | **03 40 28.3** | **-0.2** |
| **ZAPS** | **Zavoj** | **2.16** | **50** | ePn | **Pb** | **03 40 28.5** | **-1.0** |
| **ZAPS** | **Zavoj** | **2.16** | **50** | ePn | **Pb** | **03 40 28.5** | **-1.0** |
| **VTS** | **Vitosha** | **2.21** | **71** | ePn | **Pn** | **03 40 28.4** | **+1.2** |
| **VTS** | **Vitosha** | **2.21** | **71** | ⇑iP | **Pb** | **03 40 31.3** | **+0.9** |
| **VTS** | **Vitosha** | **2.21** | **71** | ePn | **Pn** | **03 40 28.4** | **+1.2** |
| **VTS** | **Vitosha** | **2.21** | **71** | ⇑iP | **Pb** | **03 40 31.3** | **+0.9** |
| **STON** | **Ston** | **2.21** | **297** | ePn | **Pb** | **03 40 30.5** | **+0.1** |
| STON | | | | Sn | **Sg** | **03 41 00.4** | **-0.9** |
| **STON** | **Ston** | **2.21** | **297** | ePn | **Pb** | **03 40 30.4** | **+0.1** |
| **KEK** | **Kerkira** | **2.22** | **192** | P | **Pb** | **03 40 30.7** | **+0.3** |
| **KEK** | **Kerkira** | **2.22** | **192** | P | **Pb** | **03 40 30.7** | **+0.3** |
| **DIVS** | **Divibare** | **2.23** | **353** | ePn | **Pn** | **03 40 27.8** | **+0.5** |
| **DIVS** | **Divibare** | **2.23** | **353** | ePn | **Pn** | **03 40 27.8** | **+0.5** |
| **SCTE** | **Santa Cesarea** | **2.32** | **219** | P | **Pn** | **03 40 29.7** | **+1.2** |
| **SCTE** | **Santa Cesarea** | **2.32** | **219** | P | **Pn** | **03 40 29.7** | **+1.2** |
| **ZAGS** | **Zajecar** | **2.36** | **35** | ePn | **Pb** | **03 40 30.9** | **-1.8** |
| **ZAGS** | **Zajecar** | **2.36** | **35** | ePn | **Pb** | **03 40 30.9** | **-1.8** |
| **LIT** | **Litokhoron** | **2.40** | **138** | P | **Pn** | **03 40 31.0** | **+1.5** |
| **LIT** | **Litokhoron** | **2.40** | **138** | P | **Pn** | **03 40 31.0** | **+1.5** |
| **HAPS** | **Han Pijesak,Bl** | **2.43** | **335** | ePn | **Pb** | **03 40 33.6** | **-0.5** |
| **SRS** | **Serrai** | **2.53** | **107** | P | **Pn** | **03 40 32.7** | **+1.3** |
| **SRS** | **Serrai** | **2.53** | **107** | P | **Pn** | **03 40 32.7** | **+1.3** |
| **THL** | **Klokotos Trika** | **2.63** | **151** | P | **Pb** | **03 40 35.6** | **-1.9** |
| **THL** | **Klokotos Trika** | **2.63** | **151** | P | **Pb** | **03 40 35.6** | **-1.9** |
| **NVR** | **Nevrokopi** | **2.67** | **101** | P | **Pn** | **03 40 33.8** | **+0.5** |
| **NVR** | **Nevrokopi** | **2.67** | **101** | P | **Pn** | **03 40 33.8** | **+0.5** |
| **KUBS** | **Kucevo** | **2.69** | **20** | ePn | **Pn** | **03 40 34.8** | **+1.2** |
| **KUBS** | **Kucevo** | **2.69** | **20** | ePn | **Pn** | **03 40 34.8** | **+1.2** |
| **NOCI** | **Noci** | **2.73** | **247** | P | **Pn** | **03 40 34.7** | **+0.6** |
| **NOCI** | **Noci** | **2.73** | **247** | P | **Pn** | **03 40 34.7** | **+0.6** |
| **DSL** | **Palaion Diasel** | **2.81** | **169** | P | **Pb** | **03 40 38.3** | **-2.1** |
| **DSL** | **Palaion Diasel** | **2.81** | **169** | P | **Pb** | **03 40 38.3** | **-2.1** |
| **MDVR** | **Moldovita** | **3.05** | **18** | ⇑iP | **Pg** | **03 40 47.9** | **-0.7** |
| **AGG** | **Agios Georgios** | **3.23** | **152** | P | **Pn** | **03 40 42.2** | **+1.2** |
| **AGG** | **Agios Georgios** | **3.23** | **152** | P | **Pn** | **03 40 42.2** | **+1.2** |
| **UDBI** | **Udbina** | **4.28** | **310** | ePn | Pb | 03 41 00.2 | -5.4 |
| UDBI | | | | Sn | **Sb** | **03 41 52.3** | **-5.1** |
| **UDBI** | **Udbina** | **4.28** | **310** | ePn | Pb | 03 41 00.1 | -5.5 |

*AZER **08** 03:58:09.7±0.5, 38°.85N×43°.20E, h10km±8km, Error ellipse: s-maj=8.9km s-min=1.9km az=69.0*

*ISN **08** 03:58:10.2±1.0, 38°.89N×43°.77E, h0km±53km, ML3.9*

*ATA **08** 03:58:10.4±2.0, 38°.81N×43°.63E, h13km±15km, ML4.5, MW4.1*

*DDA **08** 03:58:11.6, 38°.88N×43°.52E, h12km, Ml3.7*

*ISK **08** 03:58:11.2, 38°.90N×43°.60E, h5km, ML3.9*

*CSEM **08** 03:58:12.4±0.1, 38°.87N×43°.57E, h2km, ML3.7, Error ellipse: s-maj=3.5km s-min=2.7km az=147.0*

**ISC 08 03:58:12.4**±1.1**, 38°.86N**±0°.02×**43°.59E**±0°.01**, h1**km±9km**, n182, σ1s.82**/246**, 21C-21D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.13** | **355** | i P | **Pg** | **03 58 14.4** | **-0.5** |
| VMUR | | | | i S | **Sg** | **03 58 17.6** | **+0.9** |
| **VMUR** | **Van-Muradiye** | **0.13** | **355** | P | **Pg** | **03 58 14.4** | **-0.5** |
| VMUR | | | | S | **Sg** | **03 58 17.6** | **+0.9** |
| **ERCV** | **ERCIS-VAN** | **0.25** | **310** | PG | **Pg** | **03 58 16.0** | **-1.2** |
| ERCV | | | | eSG | **Sg** | **03 58 21.4** | **+0.9** |
| **ERCV** | **ERCIS-VAN** | **0.25** | **310** | i Pg | **Pg** | **03 58 16.0** | **-1.2** |
| ERCV | | | | eSg | **Sg** | **03 58 21.4** | **+0.9** |
| **VANB** | **Van** | **0.31** | **210** | PG | **Pb** | **03 58 19.6** | **-1.1** |
| **VANB** | **Van** | **0.31** | **210** | i Pg | **Pb** | **03 58 19.6** | **-1.1** |
| **TVAN** | **Van** | **0.36** | **203** | i P | **Pg** | **03 58 19.5** | **+0.2** |
| TVAN | | | | i S | **Sb** | **03 58 27.5** | **-0.4** |
| **TVAN** | **Van** | **0.36** | **203** | P | **Pg** | **03 58 19.5** | **+0.2** |
| **CLDR** | **Caldiran** | **0.38** | **42** | PG | **Pg** | **03 58 19.5** | **-0.3** |
| CLDR | | | | eSG | **Sg** | **03 58 25.4** | **+0.6** |
| **CLDR** | **Caldiran** | **0.38** | **42** | i P | **Pg** | **03 58 19.5** | **-0.3** |
| CLDR | | | | i S | **Sb** | **03 58 26.7** | **-2.0** |
| **CLDR** | **Caldiran** | **0.38** | **42** | P | **Pg** | **03 58 19.5** | **-0.3** |
| CLDR | | | | eSg | **Sg** | **03 58 25.4** | **+0.6** |
| CLDR | | | | S | **Sb** | **03 58 26.7** | **-2.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.68** | **266** | i P | **Pg** | **03 58 24.3** | **-1.0** |
| ADCV | | | | i S | **Sg** | **03 58 34.9** | **+0.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.68** | **266** | P | **Pg** | **03 58 24.3** | **-1.0** |
| ADCV | | | | S | **Sg** | **03 58 34.9** | **+0.8** |
| **GEVA** | **Gevas** | **0.69** | **217** | eP | **Pg** | **03 58 23.8** | **-1.7** |
| GEVA | | | | eS | **Sg** | **03 58 35.3** | **+0.9** |
| GEVA | | | | IAML | | 03 58 42.9 | |
| | comp=Z,1µm,0.4s | | | | | | |
| **GEVA** | **Gevas** | **0.69** | **217** | i P | **Pg** | **03 58 24.2** | **-1.3** |
| GEVA | | | | i S | **Sb** | **03 58 36.5** | **-0.8** |
| **GEVA** | **Gevas** | **0.69** | **217** | P | **Pg** | **03 58 24.2** | **-1.3** |
| GEVA | | | | S | **Sb** | **03 58 36.5** | **-0.8** |
| **DYDN** | **Diyadin** | **0.69** | **7** | eP | **Pg** | **03 58 25.6** | **0.0** |
| DYDN | | | | eS | **Sn** | **03 58 37.9** | **-3.1** |
| DYDN | | | | IAML | | 03 58 46.9 | |
| | comp=Z,977nm,0.5s | | | | | | |
| **DYDN** | **Diyadin** | **0.69** | **7** | i P | **Pg** | **03 58 24.4** | **-1.2** |
| DYDN | | | | i S | **Sb** | **03 58 36.5** | **-0.9** |
| **DYDN** | **Diyadin** | **0.69** | **7** | P | **Pg** | **03 58 24.4** | **-1.2** |
| DYDN | | | | S | **Sb** | **03 58 36.5** | **-0.9** |
| **TUTA** | **Tutak** | **0.81** | **312** | eP | **Pg** | **03 58 25.8** | **-2.1** |
| TUTA | | | | IAML | | 03 58 42.3 | |
| | comp=Z,1µm,0.4s | | | | | | |
| **TUTA** | **Tutak** | **0.81** | **312** | i P | **Pg** | **03 58 25.9** | **-2.0** |
| **TUTA** | **Tutak** | **0.81** | **312** | P | **Pg** | **03 58 25.9** | **-2.0** |
| **AGRB** | **Hanur-Agry** | **0.85** | **327** | PG | **Pg** | **03 58 27.5** | **-1.2** |
| AGRB | | | | eSG | **Sb** | **03 58 40.9** | **-1.2** |
| **AGRB** | **Hanur-Agry** | **0.85** | **327** | i Pg | **Pg** | **03 58 27.5** | **-1.2** |
| AGRB | | | | eSg | **Sb** | **03 58 40.9** | **-1.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.23** | **24** | ePN | **Pn** | **03 58 35.0** | **-1.8** |
| TASB | | | | eSN | **Sn** | **03 58 52.9** | **-1.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.23** | **24** | ePn | **Pn** | **03 58 35.0** | **-1.8** |
| TASB | | | | eSn | **Sn** | **03 58 52.9** | **-1.2** |
| **EKAR** | **Karacoban** | **1.25** | **289** | eP | **Pn** | **03 58 34.4** | **-2.8** |
| EKAR | | | | eS | **Sn** | **03 58 56.1** | **+1.3** |
| EKAR | | | | IAML | | 03 58 57.8 | |
| | comp=Z,467nm,0.4s | | | | | | |
| **EKAR** | **Karacoban** | **1.25** | **289** | i P | **Pn** | **03 58 34.5** | **-2.7** |
| **EKAR** | **Karacoban** | **1.25** | **289** | P | **Pn** | **03 58 34.5** | **-2.7** |
| **HAKT** | **HAKKARI** | **1.30** | **176** | i P | **Pn** | **03 58 35.8** | **-2.2** |
| **HAKT** | **HAKKARI** | **1.30** | **176** | P | **Pn** | **03 58 35.8** | **-2.2** |
| **HYR** | **Heyderabad** | **1.30** | **48** | ⇑P | **Pn** | **03 58 36.4** | **-1.4** |
| HYR | | | | ⇓S | **Sg** | **03 58 56.4** | **+2.1** |
| **HYR** | **Heyderabad** | **1.30** | **48** | P | **Pn** | **03 58 36.4** | **-1.4** |
| HYR | | | | S | **Sg** | **03 58 56.4** | **+2.1** |
| **EATA** | **Eleskirt** | **1.31** | **320** | eP | **Pn** | **03 58 36.3** | **-1.9** |
| **EATA** | **Eleskirt** | **1.31** | **320** | i P | **Pn** | **03 58 35.2** | **-3.0** |
| **EATA** | **Eleskirt** | **1.31** | **320** | P | **Pn** | **03 58 35.2** | **-3.0** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.39** | **156** | i P | **Pn** | **03 58 38.5** | **-0.6** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.39** | **156** | P | **Pn** | **03 58 38.5** | **-0.6** |
| **NAX** | **Nakhchivan** | **1.52** | **78** | ⇑P | **Pb** | **03 58 41.2** | **-0.2** |
| NAX | | | | ⇓S | **Sg** | **03 59 02.6** | **+1.4** |
| **NAX** | **Nakhchivan** | **1.52** | **78** | P | **Pb** | **03 58 41.2** | **-0.2** |
| NAX | | | | S | **Sg** | **03 59 02.6** | **+1.4** |
| **DIGO** | **Kars** | **1.56** | **354** | eP | **Pn** | **03 58 40.9** | **-0.7** |
| DIGO | | | | eS | **Sg** | **03 59 04.6** | **+2.1** |
| DIGO | | | | IAML | | 03 59 05.7 | |
| | comp=Z,110nm,0.4s | | | | | | |
| **DIGO** | **Kars** | **1.56** | **354** | i P | **Pb** | **03 58 41.2** | **-1.0** |
| **DIGO** | **Kars** | **1.56** | **354** | P | **Pb** | **03 58 41.2** | **-1.0** |
| **SRTM** | **Siirt_Merkez** | **1.57** | **237** | i P | **Pn** | **03 58 40.9** | **-0.6** |
| **SRTM** | **Siirt_Merkez** | **1.57** | **237** | P | **Pn** | **03 58 40.9** | **-0.6** |
| **CUKT** | **Cukurca** | **1.61** | **179** | ePN | **Pb** | **03 58 42.6** | **-0.4** |
| **CUKT** | **Cukurca** | **1.61** | **179** | i P | **Pn** | **03 58 41.8** | **-0.3** |
| **CUKT** | **Cukurca** | **1.61** | **179** | P | **Pn** | **03 58 41.8** | **-0.3** |
| **CUKT** | **Cukurca** | **1.61** | **179** | ePn | **Pb** | **03 58 42.6** | **-0.4** |
| **SBZ** | **Shahbuz** | **1.62** | **70** | ⇓P | **Pb** | **03 58 42.7** | **-0.5** |
| SBZ | | | | ⇑S | **Sg** | **03 59 08.5** | **+4.0** |
| **SBZ** | **Shahbuz** | **1.62** | **70** | P | **Pb** | **03 58 42.7** | **-0.5** |
| SBZ | | | | S | **Sg** | **03 59 08.5** | **+4.0** |
| **SIRT** | **Sirnak** | **1.63** | **214** | ePN | **Pb** | **03 58 43.2** | **-0.1** |
| **SIRT** | **Sirnak** | **1.63** | **214** | ePn | **Pb** | **03 58 43.2** | **-0.1** |
| **SIRN** | **S˜–rnak** | **1.65** | **215** | i P | **Pb** | **03 58 42.6** | **-1.0** |
| **SIRN** | **S˜–rnak** | **1.65** | **215** | P | **Pb** | **03 58 42.6** | **-1.0** |
| **VRTB** | **Varto-Mus** | **1.69** | **281** | ePN | **Pn** | **03 58 42.7** | **-0.4** |
| **VRTB** | **Varto-Mus** | **1.69** | **281** | i P | **Pn** | **03 58 42.2** | **-0.9** |
| **VRTB** | **Varto-Mus** | **1.69** | **281** | P | **Pn** | **03 58 42.2** | **-0.9** |
| **VRTB** | **Varto-Mus** | **1.69** | **281** | ePn | **Pn** | **03 58 42.7** | **-0.4** |
| **HOMI** | **Horasan** | **1.76** | **313** | eP | **Pn** | **03 58 43.5** | **-0.7** |
| HOMI | | | | IAML | | 03 59 11.6 | |
| | comp=Z,184nm,0.6s | | | | | | |
| HOMI | | | | eS | **Sg** | **03 59 12.8** | **+3.8** |
| **HOMI** | **Horasan** | **1.76** | **313** | i P | **Pn** | **03 58 43.5** | **-0.7** |
| **KARS** | **Kars** | **1.81** | **348** | ePN | **Pn** | **03 58 44.3** | **-0.5** |
| **KARS** | **Kars** | **1.81** | **348** | ePn | **Pn** | **03 58 44.3** | **-0.5** |
| **EAK** | **Akyaka** | **1.82** | **1** | eP | **Pg** | **03 58 47.4** | **0.0** |
| EAK | | | | IAML | | 03 59 01.1 | |
| | comp=Z,172nm,0.6s | | | | | | |
| EAK | | | | eS | **Sg** | **03 59 14.0** | **+2.9** |
| **EAK** | **Akyaka** | **1.82** | **1** | i P | **Pg** | **03 58 47.5** | **+0.2** |
| **ORD** | **Ordubad** | **1.88** | **87** | P | **Pb** | **03 58 47.2** | **-0.4** |
| ORD | | | | S | **Sg** | **03 59 13.2** | **+0.4** |
| **BNGL** | **BINGOL** | **1.90** | **274** | eP | **Pb** | **03 58 46.7** | **-1.4** |
| BNGL | | | | eS | **Sg** | **03 59 15.3** | **+1.8** |
| BNGL | | | | IAML | | 03 59 25.6 | |
| | comp=Z,782nm,0.4s | | | | | | |
| **BNGL** | **BINGOL** | **1.90** | **274** | i P | **Pn** | **03 58 46.0** | **-0.2** |
| **SENK** | **Senkaya-Erzuru** | **1.95** | **331** | ePN | **Pn** | **03 58 46.6** | **-0.2** |
| **SENK** | **Senkaya-Erzuru** | **1.95** | **331** | ePn | **Pn** | **03 58 46.6** | **-0.2** |
| **ERZM** | **Erzurum** | **2.01** | **302** | eP | **Pn** | **03 58 47.6** | **-0.2** |
| **ERZM** | **Erzurum** | **2.01** | **302** | i P | **Pn** | **03 58 47.7** | **0.0** |
| **ERZM** | **Erzurum** | **2.01** | **302** | P | **Pn** | **03 58 47.7** | **0.0** |
| **BTMN** | **Batman** | **2.06** | **243** | i P | **Pb** | **03 58 49.3** | **-1.4** |
| **BTMN** | **Batman** | **2.06** | **243** | P | **Pb** | **03 58 49.3** | **-1.4** |
| **ECAT** | **Cat-ERZURUM** | **2.16** | **291** | eP | **Pb** | **03 58 50.3** | **-2.1** |
| ECAT | | | | eS | **Sb** | **03 59 19.2** | **-0.6** |
| ECAT | | | | IAML | | 03 59 27.6 | |
| | comp=Z,84nm,0.5s | | | | | | |
| **ECAT** | **Cat-ERZURUM** | **2.16** | **291** | i P | **Pn** | **03 58 49.9** | **+0.2** |
| **ECAT** | **Cat-ERZURUM** | **2.16** | **291** | P | **Pn** | **03 58 49.9** | **+0.2** |
| **BNGB** | **Bingˆ¶l** | **2.27** | **274** | ePN | **Pn** | **03 58 51.5** | **+0.3** |
| **BGD** | **Bogdanovka** | **2.40** | **0** | P | **Pg** | **03 58 57.6** | **-0.8** |
| BGD | | | | S | **Sg** | **03 59 32.4** | **+2.8** |
| **BINT** | **Bingol** | **2.42** | **271** | ePn | **Pn** | **03 58 51.5** | **-1.7** |
| **YEDI** | **Yedisu-Bingol** | **2.43** | **285** | ePN | **Pn** | **03 58 54.0** | **+0.5** |
| **YEDI** | **Yedisu-Bingol** | **2.43** | **285** | ePn | **Pn** | **03 58 54.0** | **+0.5** |
| **DDEM** | **Demirkent** | **2.47** | **326** | i P | **Pb** | **03 58 56.5** | **-1.2** |
| **GDB** | **GEDABAY** | **2.50** | **41** | ⇑P | **Pn** | **03 58 53.3** | **-1.0** |
| GDB | | | | ⇓S | **Sb** | **03 59 27.3** | **-2.2** |
| **GDB** | **GEDABAY** | **2.50** | **41** | P | **Pn** | **03 58 53.3** | **-1.0** |
| GDB | | | | S | **Sb** | **03 59 27.3** | **-2.2** |
| **HANI** | **Diyarbakir_Han** | **2.54** | **261** | i P | **Pn** | **03 58 54.0** | **-0.7** |
| **HANI** | **Diyarbakir_Han** | **2.54** | **261** | P | **Pn** | **03 58 54.0** | **-0.7** |
| **AKH** | **Akhalkalaki** | **2.55** | **358** | ePN | **Pn** | **03 58 54.8** | **-0.3** |
| **AKH** | **Akhalkalaki** | **2.55** | **358** | P | **Pb** | **03 58 59.7** | **+0.7** |
| **AKH** | **Akhalkalaki** | **2.55** | **358** | ePn | **Pn** | **03 58 54.8** | **-0.3** |
| **DAGI** | **Agillar** | **2.56** | **330** | i P | **Pn** | **03 58 56.4** | **+1.2** |
| **QZX** | **Qazax, Azerbai** | **2.59** | **31** | ⇑P | **Pn** | **03 58 54.5** | **-0.9** |
| QZX | | | | ⇓S | **Sn** | **03 59 28.0** | **+0.4** |
| **QZX** | **Qazax, Azerbai** | **2.59** | **31** | P | **Pn** | **03 58 54.5** | **-0.9** |
| QZX | | | | S | **Sn** | **03 59 28.0** | **+0.4** |
| **ARTV** | **Artvin** | **2.65** | **332** | eP | **Pn** | **03 58 56.1** | **-0.4** |
| ARTV | | | | IAML | | 03 59 15.7 | |
| | comp=Z,19nm,0.6s | | | | | | |
| **ARTV** | **Artvin** | **2.65** | **332** | i P | **Pb** | **03 58 59.1** | **-1.7** |
| **KOPT** | **Kop Dagi** | **2.66** | **297** | eP | **Pb** | **03 58 59.3** | **-1.6** |
| KOPT | | | | IAML | | 03 59 13.6 | |
| | comp=Z,84nm,0.5s | | | | | | |
| **KOPT** | **Kop Dagi** | **2.66** | **297** | i P | **Pb** | **03 58 59.7** | **-1.2** |
| **MARD** | **Mardin** | **2.70** | **236** | i P | **Pn** | **03 58 57.4** | **+0.3** |
| **EPOS** | **Posof** | **2.72** | **346** | i P | **Pb** | **03 59 01.8** | **-0.1** |
| **GANJ** | **Ganja** | **2.76** | **49** | ⇓P | **Pn** | **03 58 57.8** | **0.0** |
| GANJ | | | | ⇓S | **Sb** | **03 59 36.0** | **-1.0** |
| **GANJ** | **Ganja** | **2.76** | **49** | P | **Pn** | **03 58 57.8** | **0.0** |
| GANJ | | | | S | **Sb** | **03 59 36.0** | **-1.0** |
| **DIY** | **Diyarbakir** | **2.81** | **251** | ePn | **Pb** | **03 59 00.6** | **-2.8** |
| **MAZI** | **Mazidag** | **2.84** | **241** | ePN | **Pn** | **03 59 00.2** | **+1.2** |
| **MAZI** | **Mazidag** | **2.84** | **241** | ePn | **Pn** | **03 59 00.2** | **+1.2** |
| **DYBB** | **Diyarbakir** | **2.85** | **253** | ePN | **Pn** | **03 59 00.6** | **+1.4** |
| **DIYA** | **Diyarbakir** | **2.88** | **252** | i P | **Pn** | **03 59 00.8** | **+1.3** |
| **DIYA** | **Diyarbakir** | **2.88** | **252** | P | **Pn** | **03 59 00.8** | **+1.3** |
| **TBLG** | **Delisi** | **3.00** | **17** | ePN | **Pn** | **03 59 01.6** | **+0.6** |
| **TBLG** | **Delisi** | **3.00** | **17** | P | **Pb** | **03 59 06.5** | **-0.1** |
| **TBLG** | **Delisi** | **3.00** | **17** | ePn | **Pn** | **03 59 01.7** | **+0.6** |
| **ERZN** | **Erzincan** | **3.09** | **285** | ePN | **Pn** | **03 59 03.5** | **+1.1** |
| **BRDA** | **Brd** | **3.11** | **62** | ⇓P | **Pn** | **03 59 02.6** | **0.0** |
| **BRDA** | **Brd** | **3.11** | **62** | P | **Pn** | **03 59 02.6** | **0.0** |
| **TNCL** | **Tunceli-Merkez** | **3.16** | **276** | eP | **Pb** | **03 59 08.1** | **-1.4** |
| TNCL | | | | IAML | | 03 59 27.4 | |
| | comp=Z,13nm,0.6s | | | | | | |
| **TNCL** | **Tunceli-Merkez** | **3.16** | **276** | i P | **Pb** | **03 59 06.0** | **-3.5** |
| **PTK** | **Pertek** | **3.27** | **272** | ePN | **Pn** | **03 59 05.8** | **+0.8** |
| **PTK** | **Pertek** | **3.27** | **272** | ePn | **Pn** | **03 59 05.8** | **+0.8** |
| **MNGR** | **Mingechevir, A** | **3.30** | **54** | ⇑P | **Pn** | **03 59 04.8** | **-0.4** |
| MNGR | | | | ⇑S | **Sb** | **03 59 48.1** | **-4.4** |
| **MNGR** | **Mingechevir, A** | **3.30** | **54** | P | **Pn** | **03 59 04.8** | **-0.4** |
| MNGR | | | | S | **Sb** | **03 59 48.1** | **-4.4** |
| **SVRC** | **Sivrice-ELAZID** | **3.39** | **263** | ePN | **Pn** | **03 59 08.2** | **+1.6** |
| **SVRC** | **Sivrice-ELAZID** | **3.39** | **263** | ePn | **Pn** | **03 59 08.2** | **+1.6** |
| **EZC** | **Erzincan** | **3.40** | **286** | ePn | **Pn** | **03 59 03.5** | **-3.3** |
| **ZRD** | **Zardab** | **3.47** | **65** | ⇑P | **Pn** | **03 59 08.0** | **+0.5** |
| ZRD | | | | ⇓S | **Sb** | **03 59 52.7** | **-4.5** |
| **ZRD** | **Zardab** | **3.47** | **65** | P | **Pn** | **03 59 08.0** | **+0.5** |
| ZRD | | | | S | **Sb** | **03 59 52.7** | **-4.5** |
| **KELT** | **Kelkit** | **3.59** | **292** | eP | **Pb** | **03 59 15.0** | **-1.7** |
| **KELT** | **Kelkit** | **3.59** | **292** | i P | **Pb** | **03 59 15.8** | **-0.9** |
| **ELZG** | **Elazig** | **3.62** | **266** | i P | **Pn** | **03 59 10.0** | **+0.3** |
| **ELZG** | **Elazig** | **3.62** | **266** | P | **Pn** | **03 59 10.0** | **+0.3** |
| **ZKTA** | **Zakatala** | **3.62** | **39** | ⇑P | **Pn** | **03 59 08.7** | **-0.9** |
| ZKTA | | | | ⇓S | **Sn** | **03 59 55.1** | **+2.1** |
| **KTUT** | **Trabzon** | **3.62** | **307** | ePN | **Pn** | **03 59 10.9** | **+1.3** |
| **KTUT** | **Trabzon** | **3.62** | **307** | ePn | **Pn** | **03 59 10.9** | **+1.3** |
| **SEKA** | **Sheki** | **3.63** | **49** | ⇑P | **Pn** | **03 59 09.8** | **0.0** |
| SEKA | | | | ⇑S | **Sb** | **03 59 57.2** | **-4.8** |
| **SEKA** | **Sheki** | **3.63** | **49** | P | **Pn** | **03 59 09.8** | **0.0** |
| SEKA | | | | S | **Sb** | **03 59 57.2** | **-4.8** |
| **GUDG** | **Gudauri** | **3.66** | **10** | P | **Pb** | **03 59 19.4** | **+1.3** |
| **LRK** | **Lerik** | **3.72** | **92** | ⇓P | **Pn** | **03 59 11.3** | **+0.1** |
| LRK | | | | ⇓S | **Sb** | **03 59 59.5** | **-5.3** |
| **LRK** | **Lerik** | **3.72** | **92** | P | **Pn** | **03 59 11.3** | **+0.1** |
| LRK | | | | S | **Sb** | **03 59 59.5** | **-5.3** |
| **ONI** | **Oni** | **3.73** | **358** | P | **Pb** | **03 59 20.3** | **+1.2** |
| **GLBA** | **Clilabad** | **3.76** | **83** | ⇑P | **Pn** | **03 59 11.8** | **+0.2** |
| GLBA | | | | ⇑S | **Sb** | **04 00 00.6** | **-5.1** |
| **GLBA** | **Clilabad** | **3.76** | **83** | P | **Pn** | **03 59 11.8** | **+0.2** |
| GLBA | | | | S | **Sb** | **04 00 00.6** | **-5.1** |
| **REFA** | **Refahiye_ERZ˜** | **3.79** | **280** | eP | **Pg** | **03 59 26.2** | **+1.2** |
| **REFA** | **Refahiye_ERZ˜** | **3.79** | **280** | i P | **Pb** | **03 59 21.8** | **+1.7** |
| **KDMR** | **Kurdemir** | **3.86** | **65** | ⇓P | **Pn** | **03 59 12.6** | **-0.3** |
| KDMR | | | | ⇓S | **Sb** | **04 00 02.6** | **-5.9** |
| **KDMR** | **Kurdemir** | **3.86** | **65** | P | **Pn** | **03 59 12.6** | **-0.3** |
| KDMR | | | | S | **Sb** | **04 00 02.6** | **-5.9** |
| **QBL** | **Gabala** | **3.88** | **56** | ⇑P | **Pn** | **03 59 12.8** | **-0.4** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| QBL | | | | ⇓S | Sn | 04 00 02.4 | +3.0 |
| **QBL** | **Gabala** | **3.88** | **56** | P | **Pn** | **03 59 12.8** | **-0.4** |
| QBL | | | | S | **Sn** | **04 00 02.4** | **+3.0** |
| **SAAT** | **Saatly** | **3.88** | **74** | ⇓P | **Pn** | **03 59 13.1** | **-0.1** |
| SAAT | | | | ⇑S | **Sn** | **04 00 02.5** | **+3.2** |
| **SAAT** | **Saatly** | **3.88** | **74** | P | **Pn** | **03 59 13.1** | **-0.1** |
| SAAT | | | | S | **Sn** | **04 00 02.5** | **+3.2** |
| **KEMA** | **Kemaliye** | **3.98** | **277** | *i* P | **Pb** | **03 59 23.4** | **0.0** |
| **URFA** | **Urfa** | **4.01** | **251** | *e*PN | **Pn** | **03 59 17.2** | **+2.1** |
| **URFA** | **Urfa** | **4.01** | **251** | *e*Pn | **Pn** | **03 59 17.2** | **+2.1** |
| **CHVG** | **Ch'k'valeri** | **4.02** | **344** | *e*PN | **Pn** | **03 59 16.0** | **+0.9** |
| **CHVG** | **Ch'k'valeri** | **4.02** | **344** | P | **Pg** | **03 59 31.5** | **+2.1** |
| **CHVG** | **Ch'k'valeri** | **4.02** | **344** | *e*Pn | **Pn** | **03 59 16.0** | **+0.9** |
| **IML** | **Ismayilli** | **4.03** | **60** | ⇑P | **Pn** | **03 59 15.1** | **-0.2** |
| IML | | | | ⇓S | **Sn** | **04 00 05.6** | **+2.4** |
| **IML** | **Ismayilli** | **4.03** | **60** | P | **Pn** | **03 59 15.1** | **-0.2** |
| IML | | | | S | **Sn** | **04 00 05.6** | **+2.4** |
| **LKRN** | **Lenkeran, Azer** | **4.06** | **90** | ⇓P | **Pn** | **03 59 16.0** | **+0.4** |
| LKRN | | | | ⇑S | **Sn** | **04 00 07.9** | **+4.1** |
| **LKRN** | **Lenkeran, Azer** | **4.06** | **90** | P | **Pn** | **03 59 16.0** | **+0.4** |
| LKRN | | | | S | **Sn** | **04 00 07.9** | **+4.1** |
| **ASTR** | **Astara** | **4.08** | **93** | ⇓P | **Pn** | **03 59 16.4** | **+0.4** |
| ASTR | | | | ⇑S | **Sn** | **04 00 08.3** | **+3.9** |
| **ASTR** | **Astara** | **4.08** | **93** | P | **Pn** | **03 59 16.4** | **+0.4** |
| ASTR | | | | S | **Sn** | **04 00 08.3** | **+3.9** |
| **XNQ** | **Khinaliq** | **4.19** | **55** | ⇑P | **Pn** | **03 59 17.6** | **0.0** |
| **XNQ** | **Khinaliq** | **4.19** | **55** | P | **Pn** | **03 59 17.6** | **0.0** |
| **ESPY** | **Espiye-Giresun** | **4.26** | **300** | *e*PN | **Pn** | **03 59 20.2** | **+1.7** |
| **ESPY** | **Espiye-Giresun** | **4.26** | **300** | *e*Pn | **Pn** | **03 59 20.2** | **+1.7** |
| **PQL** | **Pirkuli** | **4.31** | **62** | ⇑P | **Pn** | **03 59 18.8** | **-0.4** |
| **PQL** | **Pirkuli** | **4.31** | **62** | P | **Pn** | **03 59 18.8** | **-0.4** |
| **ALIB** | **Äli-Bayra** | **4.34** | **74** | ⇑P | **Pn** | **03 59 19.8** | **+0.3** |
| **ALIB** | **Äli-Bayra** | **4.34** | **74** | P | **Pn** | **03 59 19.8** | **+0.3** |
| **SUSE** | **Susehri** | **4.38** | **290** | *i* P | **Pb** | **03 59 30.7** | **+0.6** |
| **HEKM** | **Malatya_Hekimh** | **4.39** | **272** | *i* P | **Pg** | **03 59 35.7** | **-0.8** |
| **SURC** | **SANLIURFA_SURC** | **4.40** | **245** | *i* P | **Pb** | **03 59 29.5** | **-1.1** |
| **QSAR** | **Qusar** | **4.46** | **52** | ⇓P | **Pn** | **03 59 20.9** | **-0.2** |
| **QSAR** | **Qusar** | **4.46** | **52** | P | **Pn** | **03 59 20.9** | **-0.2** |
| **GBS** | **Qobustan** | **4.46** | **66** | ⇓P | **Pn** | **03 59 21.3** | **+0.1** |
| **GBS** | **Qobustan** | **4.46** | **66** | P | **Pn** | **03 59 21.3** | **+0.1** |
| **GRSN** | **GIRESUNGRSN** | **4.58** | **298** | *i* P | **Pb** | **03 59 36.5** | **+2.9** |
| **CUZAR** | **Zara_SIVAS** | **4.62** | **285** | *i* P | **Pb** | **03 59 35.7** | **+1.4** |
| **CUKAN** | **kangal_SIVAS** | **4.78** | **277** | *i* P | **Pb** | **03 59 39.6** | **+2.5** |
| **ORDU** | **Ordu-Boztepe** | **4.89** | **298** | *i* P | **Pb** | **03 59 41.0** | **+2.2** |
| **GZT** | **Gaziantep** | **4.98** | **254** | *i* P | **Pg** | **03 59 45.7** | **-2.2** |
| **RTB** | **Rutbah** | **6.40** | **206** | *e*Pn | **Pn** | **03 59 48.0** | **+0.2** |
| | SNR=3.0 | | | | | | |
| **NSR** | **Nassriya** | **8.11** | **164** | *e*Pn | **Pn** | **04 00 11.0** | **-0.2** |
| | SNR=3.0 | | | | | | |

*NIED **08** 04:13:00, 47°.10N×153°.10E, h35km, Mw4.2 Best double couple: $M_0$2.58000×$10^{15}$ NP1:$\phi_s$223.00000°, δ62.00000°, λ-171.00000°. NP2:$\phi_s$129.00000°, δ82.00000°, λ-29.00000°.*

*JMA **08** 04:13:11.8±0.6, 47°.08N×153°.11E, h30km, M4.9*

*ISCJB **08** 04:13:15.2±0.5, 46°.94N±0°.04×152°.82E±0°.04, h55km±4km, mb4.5/99, MS3.7/11, Error ellipse: s-maj=7.2km s-min=3.7km az=149.2*

*BJI **08** 04:13:15.0, 47°.20N×153°.14E, h74km, mb4.7/35, mB4.9/23, Ms4.6/10, Ms7 4.3/8*

*SKHL **08** 04:13:15.1±0.0, 46°.81N×153°.04E, h60km±3km, mb5.5/7, msh5.1/5*

*MOS **08** 04:13:15.5±1.1, 47°.07N×152°.70E, h52km, mb4.7/34, Error ellipse: s-maj=7.7km s-min=5.5km az=79.9*

*NEIC **08** 04:13:17.8±0.4, 46°.97N×152°.76E, h63km±3km, mb4.6/52, Error ellipse: s-maj=6.6km s-min=3.6km az=154.0*

*IDC **08** 04:13:18.6±2.2, 46°.97N×152°.85E, h75km±19km, mb4.1/25, mb1 4.2/31, mb1mx4.2/39, mbtmp4.4/31, MS3.5/14, Ms1 3.5/14, ms1mx3.3/31, Error ellipse: s-maj=15.7km s-min=10.2km az=140.0*

**ISC 08 04:13:16.0**±0.7, **46°.85N**±0°.06×**152°.96E**±0°.05, **h52**km±5km, **n310**, σ**1**s**.46**/325, **mb4.5**/100, **MS3.8**/12, **15C-16D, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KUR** | **Kuril'sk** | **3.89** | **247** | *d i*PN | **Pn** | **04 14 14.3** | **+1.1** |
| KUR | | | | *i* S | **Sn** | **04 14 59.0** | **+1.4** |
| KUR | | | | pmax | pmax | | |
| | comp=Z,165nm,0.4s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=N,41nm,0.2s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=E,75nm,0.5s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=N,1μm,0.5s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,476nm,0.7s | | | | | | |
| **KUR** | **Kuril'sk** | **3.89** | **247** | *e*P | **Pn** | **04 14 13.8** | **+0.6** |
| KUR | | | | AMB | AMB | 04 14 15.1 | |
| | comp=E,400nm,2.0s | | | | | | |
| KUR | | | | AMB | AMB | 04 14 16.9 | |
| | comp=E,154nm,0.5s | | | | | | |
| KUR | | | | *e*S | **Sn** | **04 14 57.8** | **+0.2** |
| KUR | | | | A | A | 04 15 00.3 | |
| | comp=E,1μm,2.0s | | | | | | |
| KUR | | | | A | A | 04 15 00.3 | |
| | comp=E,2μm,2.0s | | | | | | |
| KUR | | | | A | A | 04 15 17.1 | |
| | comp=E,1μm,0.4s | | | | | | |
| KUR | | | | A | A | 04 15 17.1 | |
| | comp=E,490nm,0.4s | | | | | | |
| **SKR** | **Severo-Kuril's** | **4.37** | **27** | *e*PN | **Pn** | **04 14 19.9** | **+0.2** |
| SKR | | | | *e*S | **Sn** | **04 15 06.2** | **-3.1** |
| SKR | | | | pmax | pmax | | |
| | comp=Z,123nm,0.3s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=N,391nm,0.3s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=E,743nm,0.5s | | | | | | |
| **SKR** | **Severo-Kuril's** | **4.37** | **27** | *e*P | **Pn** | **04 14 19.0** | **-0.7** |
| SKR | | | | AMB | AMB | 04 14 21.4 | |
| | comp=E,810nm,5.0s | | | | | | |
| SKR | | | | AMB | AMB | 04 14 25.1 | |
| | comp=E,123nm,0.3s | | | | | | |
| SKR | | | | *e*S | **Sn** | **04 15 06.9** | **-2.4** |
| SKR | | | | A | A | 04 15 10.4 | |
| | comp=E,390nm,0.4s | | | | | | |
| SKR | | | | A | A | 04 15 10.4 | |
| | comp=E,740nm,0.4s | | | | | | |
| **SHO** | **Shikotan** | **5.24** | **238** | *e*PN | **Pn** | **04 14 30.4** | **-1.3** |
| SHO | | | | pmax | pmax | | |
| | comp=Z,130nm,0.4s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=E,22nm,0.3s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=N,42nm,0.4s | | | | | | |
| **SHO** | **Shikotan** | **5.24** | **238** | *e*P | **Pn** | **04 14 30.4** | **-1.3** |
| SHO | | | | AMB | AMB | 04 14 32.2 | |
| | comp=N,130nm,0.4s | | | | | | |
| SHO | | | | AMB | AMB | 04 14 33.3 | |
| | comp=N,470nm,3.0s | | | | | | |
| SHO | | | | *e*S | **Sn** | **04 15 29.7** | **-1.1** |
| SHO | | | | A | A | 04 15 32.4 | |
| | comp=N,640nm,3.0s | | | | | | |
| SHO | | | | A | A | 04 15 32.4 | |
| | comp=N,510nm,3.0s | | | | | | |
| SHO | | | | A | A | 04 15 54.2 | |
| | comp=N,680nm,0.6s | | | | | | |
| SHO | | | | A | A | 04 15 54.2 | |
| | comp=N,550nm,0.6s | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **5.73** | **243** | *e*PN | **Pn** | **04 14 40.2** | **+1.8** |
| YUK | | | | *e*S | **Sn** | **04 15 47.2** | **+4.4** |
| YUK | | | | pmax | pmax | | |
| | comp=Z,234nm,0.2s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,155nm,0.5s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=E,893nm,0.6s | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **5.73** | **243** | *e*P | **Pn** | **04 14 39.5** | **+1.1** |
| YUK | | | | AMB | AMB | 04 14 40.5 | |
| | comp=E,234nm,0.2s | | | | | | |
| YUK | | | | *e*S | **Sn** | **04 15 40.9** | **-1.9** |
| YUK | | | | A | A | 04 15 47.5 | |
| | comp=E,2μm,3.0s | | | | | | |
| YUK | | | | A | A | 04 15 47.5 | |
| | comp=E,3μm,3.0s | | | | | | |
| YUK | | | | A | A | 04 16 06.7 | |
| | comp=E,160nm,0.5s | | | | | | |
| YUK | | | | A | A | 04 16 06.7 | |
| | comp=E,893nm,0.5s | | | | | | |
| **GRPR** | **Tuman** | **5.81** | **243** | *e*PN | **Pn** | **04 14 40.0** | **+0.6** |
| GRPR | | | | *e*S | **Sn** | **04 15 47.9** | **+3.2** |
| **GRPR** | **Tuman** | **5.81** | **243** | *e*P | **Pn** | **04 14 40.0** | **+0.6** |
| **NEM2** | **Nemuro 2** | **6.18** | **238** | P | **Pn** | **04 14 43.1** | **-1.4** |
| NEM2 | | | | *e*S | **Sn** | **04 15 50.5** | **-3.3** |
| **JRA** | **Rausu** | **6.24** | **245** | P | **Pn** | **04 14 47.3** | **+2.0** |
| **JNK** | **Nakash** | **6.67** | **244** | P | **Pn** | **04 14 52.0** | **+0.7** |
| **PEA0B** | **Petropavlovsk-** | **6.97** | **24** | *e*Pn | **Pn** | **04 14 57.1** | **+1.7** |
| **PETK** | **Petropavlovsk-** | **6.97** | **24** | P | **Pn** | **04 14 56.2** | **+0.8** |
| | comp=E,1.8nm,0.3s,baz=179,slow=11,SNR=13 | | | | | | |
| PETK | | | | S | Sn | 04 16 23.5 | +10 |
| | baz=146,slow=19,SNR=1.9 | | | | | | |
| **PETK** | **Petropavlovsk-** | **6.97** | **24** | *e*PN | **Pn** | **04 14 57.2** | **+1.8** |
| PETK | | | | S | Sn | 04 16 23.5 | +10 |
| **PETK** | **Petropavlovsk-** | **6.97** | **24** | *e*Pn | **Pn** | **04 14 57.2** | **+1.8** |
| PETK | | | | S | Sn | 04 16 23.5 | +10 |
| **JTKR** | **Abashiri--Toko** | **6.99** | **249** | P | **Pn** | **04 14 57.3** | **+1.7** |
| **YSS** | **Yuzh-Sakhalins** | **6.99** | **275** | *e*PN | **Pn** | **04 14 57.5** | **+1.8** |
| YSS | | | | pmax | pmax | | |
| | comp=Z,30nm,0.7s | | | | | | |
| YSS | | | | MLR | MLR | | |
| | comp=Z,500nm,14.0s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **6.99** | **275** | *e*P | **Pn** | **04 14 57.5** | **+1.8** |
| YSS | | | | AMB | AMB | 04 14 58.3 | |
| | comp=Z,30nm,0.7s | | | | | | |
| YSS | | | | *e*S | **Sn** | **04 16 12.5** | **-1.2** |
| YSS | | | | A | A | 04 16 16.9 | |
| | comp=Z,50nm,0.8s | | | | | | |
| YSS | | | | A | A | 04 16 28.9 | |
| | comp=Z,279nm,3.0s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **6.99** | **275** | *e*Pn | **Pn** | **04 14 58.1** | **+2.5** |
| **JAK** | **Akkeshi** | **7.01** | **240** | P | **Pn** | **04 14 54.1** | **-1.9** |
| JAK | | | | *e*S | **Sn** | **04 16 09.9** | **-4.4** |
| **PET** | **Petropavlovsk** | **7.19** | **29** | *e*PN | **Pn** | **04 15 01.0** | **+2.6** |
| **PET** | **Petropavlovsk** | **7.19** | **29** | *e*P | **Pn** | **04 15 00.5** | **+2.1** |
| PET | | | | AMB | AMB | 04 15 07.2 | |
| | comp=Z,25nm,0.6s | | | | | | |
| PET | | | | AMB | AMB | 04 15 12.4 | |
| | comp=Z,446nm,5.0s | | | | | | |
| PET | | | | *e*S | **Sn** | **04 16 15.8** | **-2.8** |
| PET | | | | A | A | 04 16 17.1 | |
| | comp=Z,183nm,0.5s | | | | | | |
| PET | | | | A | A | 04 16 17.1 | |
| | comp=Z,115nm,0.5s | | | | | | |
| PET | | | | A | A | 04 16 24.2 | |
| | comp=Z,603nm,3.0s | | | | | | |
| **JMP** | **Maruseppu** | **7.32** | **251** | P | **Pn** | **04 15 02.4** | **+2.1** |
| **JAR** | **Ashorobuto** | **7.41** | **245** | P | **Pn** | **04 15 01.9** | **+0.5** |
| JAR | | | | *e*S | **Sn** | **04 16 23.1** | **-0.9** |
| **JOB** | **Onbets** | **7.58** | **242** | *e*S | **Sn** | **04 16 25.3** | **-3.0** |
| **UGL** | **Uglegorsk** | **7.64** | **291** | *e*P | **Pn** | **04 15 04.9** | **+0.3** |
| UGL | | | | AMB | AMB | 04 15 08.9 | |
| | comp=Z,101nm,0.9s | | | | | | |
| UGL | | | | AMB | AMB | 04 15 25.8 | |
| | comp=Z,1μm,4.0s | | | | | | |
| **JKA** | **Kamikawa-asahi** | **7.77** | **253** | *e*P | **Pn** | **04 15 09.2** | **+2.8** |
| **ASAJ** | **Asahikawa** | **7.78** | **253** | P | **Pn** | **04 15 09.2** | **+2.8** |
| | comp=Z,5.2nm,0.3s,baz=77,slow=13,SNR=23 | | | | | | |
| **ASAJ** | **Asahikawa** | **7.78** | **253** | *e*Pn | **Pn** | **04 15 09.5** | **+3.0** |
| **JKK2** | **Kamakawa 2** | **7.78** | **251** | P | **Pn** | **04 15 08.6** | **+2.1** |
| **TYV** | **Tymovskoe** | **7.89** | **304** | *e*PN | **Pn** | **04 15 05.2** | **-2.8** |
| TYV | | | | pmax | pmax | | |
| | comp=Z,39nm,0.8s | | | | | | |
| **TYV** | **Tymovskoe** | **7.89** | **304** | *e*P | **Pn** | **04 15 07.7** | **-0.3** |
| TYV | | | | AMB | AMB | 04 15 16.5 | |
| | comp=Z,800nm,4.0s | | | | | | |
| **JCH** | **Churui** | **8.03** | **242** | P | **Pn** | **04 15 09.1** | **-0.9** |
| JCH | | | | *e*S | **Sn** | **04 16 35.7** | **-3.7** |
| **JFR** | **Furan** | **8.21** | **247** | P | **Pn** | **04 15 13.5** | **+1.0** |
| **ERM** | **Erimo** | **8.51** | **239** | *e*PN | **Pn** | **04 15 17.2** | **+0.7** |
| **ERM** | **Erimo** | **8.51** | **239** | *e*Pn | **Pn** | **04 15 17.2** | **+0.7** |
| **JNBK** | **Urakawa-nobuka** | **8.60** | **242** | P | **Pn** | **04 15 15.8** | **-1.8** |
| JNBK | | | | *e*S | **Sn** | **04 16 46.9** | **-6.2** |
| **JNB** | **Noboribetsu** | **9.55** | **247** | P | **Pn** | **04 15 30.6** | **-0.1** |
| **GRNR** | **Gornyy** | **11.59** | **296** | *e*P | **Pn** | **04 16 00.0** | **+1.5** |
| GRNR | | | | AMB | AMB | 04 16 03.7 | |
| | comp=Z,55nm,1.0s | | | | | | |
| **JRG** | **Rokugo** | **11.68** | **235** | P | **Pn** | **04 15 56.8** | **-3.0** |
| **HABR** | **Khabarovsk** | **12.19** | **284** | *e*PN | **Pn** | **04 16 03.4** | **-3.2** |
| HABR | | | | pmax | pmax | | |
| | comp=Z,57nm,2.0s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=E,70nm,2.0s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=N,30nm,2.0s | | | | | | |
| HABR | | | | MLR | MLR | | |
| | comp=Z,112nm,11.0s | | | | | | |
| **MA2** | **Magadan** | **12.82** | **355** | P | **Pn** | **04 16 15.3** | **0.0** |
| | comp=Z,4.3nm,0.3s,baz=172,slow=10,SNR=8.5 | | | | | | |
| MA2 | | | | LR | LR | 04 20 51.0 | |
| | comp=Z,112nm,20.8s,baz=162,slow=36 | | | | | | |
| **MA2** | **Magadan** | **12.82** | **355** | *e*PN | **Pn** | **04 16 13.5** | **-1.7** |
| **MA2** | **Magadan** | **12.82** | **355** | *e*P | **Pn** | **04 16 13.5** | **-1.7** |
| **EKMR** | **Ekimchan** | **14.28** | **303** | *e*P | **Pn** | **04 16 37.0** | **+1.9** |
| EKMR | | | | AMB | AMB | 04 16 48.9 | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| **KLR** | **Kul'dur** | **14.38** | **287** | LR | LR | 04 22 29.8 | |
| | comp=Z,20nm,18.1s,baz=101,slow=39 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **14.93** | **267** | P | **Pn** | **04 16 44.4** | **+0.8** |
| | comp=Z,1.2nm,0.3s,baz=68,slow=13,SNR=12 | | | | | | |
| USRK | | | | LR | LR | 04 22 11.1 | |
| | comp=Z,163nm,20.9s,baz=47,slow=36 | | | | | | |
| **MJA0** | **Matsu Arr-Jizo** | **15.03** | **232** | *e*P | **P** | **04 16 48.0** | **-1.4** |
| MJA0 | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.3s | | | | | | |
| **MAJO** | **Matsushiro** | **15.05** | **232** | *e*P | **Pn** | **04 16 41.9** | **-3.4** |
| MAJO | | | | pmax | pmax | | |
| | comp=Z,13nm,0.6s | | | | | | |
| **MAJO** | **Matsushiro** | **15.05** | **232** | *e*Pn | **Pn** | **04 16 41.9** | **-3.4** |
| | comp=Z,13nm,0.6s | | | | | | |
| **MAT** | **Matsushiro** | **15.05** | **232** | P | **Pn** | **04 16 46.2** | **+0.9** |
| **MJAR** | **Matsushiro Arr** | **15.05** | **232** | P | **P** | **04 16 48.7** | **-1.0** |
| | comp=Z,1.0nm,0.3s,baz=40,slow=8.6,SNR=5.3 | | | | | | |
| MJAR | | | | LR | LR | 04 22 43.4 | |
| | comp=Z,64nm,21.0s,baz=90,slow=38 | | | | | | |
| **SEY** | **Seymchan** | **16.13** | **359** | P | **Pn** | **04 16 59.2** | **+0.4** |
| | comp=Z,1.0nm,0.3s,baz=182,slow=13,SNR=5.6 | | | | | | |
| **MDJ** | **Mudanjiang** | **16.45** | **271** | P | **Pn** | **04 17 03.6** | **+0.5** |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.8s | | | | | | |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,77nm,3.5s | | | | | | |
| **MDJ** | **Mudanjiang** | **16.45** | **271** | *e*Pn | **Pn** | **04 17 01.6** | **-1.6** |
| | comp=Z,14nm,0.8s | | | | | | |
| **BMKR** | **Bomnak** | **17.10** | **306** | *e*P | **Pn** | **04 17 11.5** | **+0.4** |
| BMKR | | | | AMB | AMB | 04 17 17.0 | |
| | comp=Z,16nm,0.8s | | | | | | |
| **KROS** | **Kirovskiy** | **18.07** | **304** | *e*P | **Pn** | **04 17 23.1** | **+0.1** |
| KROS | | | | AMB | AMB | 04 17 25.9 | |
| | comp=Z,6.0nm,0.5s | | | | | | |
| **CN2** | **Changchun** | **19.54** | **271** | *e*P | **Pn** | **04 17 40.2** | **-0.5** |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.5s | | | | | | |
| **YAK** | **Yakutsk** | **20.18** | **327** | *e*P | **P** | **04 17 44.3** | **-1.5** |
| YAK | | | | pmax | pmax | | |
| | comp=Z,14nm,0.9s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,4.0nm,0.9s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,7.0nm,1.2s | | | | | | |
| **YAK** | **Yakutsk** | **20.18** | **327** | *e*P | **P** | **04 17 44.3** | **-1.5** |
| **KSRS** | **Korea Array** | **20.72** | **252** | P | Pn | 04 17 53.5 | -1.2 |
| | comp=E,4.1nm,0.6s,baz=58,slow=9.6,SNR=9.5 | | | | | | |
| KSRS | | | | LR | LR | 04 25 05.6 | |
| | comp=E,46nm,18.4s,baz=66,slow=34 | | | | | | |
| **KSRS** | **Korea Array** | **20.72** | **252** | P | Pn | 04 17 53.5 | -1.2 |
| KSRS | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.8s | | | | | | |
| KSRS | | | | MLR | MLR | | |
| | comp=Z,46nm,18.4s | | | | | | |
| **KSAR** | **Wonju Array Be** | **20.76** | **252** | P | **P** | **04 17 53.5** | **+1.2** |
| **KSAR** | **Wonju Array Be** | **20.76** | **252** | P | **P** | **04 17 53.5** | **+1.2** |
| **JNU** | **Nakatsue** | **21.68** | **239** | P | **P** | **04 18 02.9** | **+0.7** |
| | comp=Z,5.4nm,0.7s,baz=117,slow=2.3,SNR=4.6 | | | | | | |
| **JNU** | **Nakatsue** | **21.68** | **239** | *e*P | **P** | **04 18 02.1** | **-0.1** |
| **JNU** | **Nakatsue** | **21.68** | **239** | *e*P | **P** | **04 18 02.1** | **-0.1** |
| **TIK** | **Tiksi** | **27.33** | **344** | *e*P | **P** | **04 18 54.7** | **-0.7** |
| **TIXI** | **Tiksi** | **27.34** | **344** | *ce*P | **P** | **04 18 54.7** | **-0.8** |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.7s | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **29.35** | **152** | T | T | 04 50 33.6 | |
| | baz=340,slow=76,SNR=2992 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **29.37** | **152** | T | T | 04 50 34.1 | |
| | baz=340,slow=76,SNR=1510 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **29.37** | **152** | T | T | 04 50 34.1 | |
| | baz=340,slow=76,SNR=1678 | | | | | | |
| **NJ2** | **Nanjing** | **29.92** | **253** | *e*P | **P** | **04 19 18.7** | **-0.1** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,17nm,0.8s | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **30.18** | **274** | *e*P | **P** | **04 19 21.7** | **+0.5** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,13nm,0.5s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,89nm,4.8s | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **30.44** | **154** | T | T | 04 51 52.8 | |
| | baz=341,slow=76,SNR=2336 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **30.45** | **154** | T | T | 04 51 55.0 | |
| | baz=341,slow=76,SNR=1739 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **30.46** | **154** | T | T | 04 51 55.6 | |
| | baz=341,slow=76,SNR=1581 | | | | | | |
| **ULN** | **Ulaanbaatar** | **30.77** | **289** | *i* P | **P** | **04 19 27.7** | **+1.3** |
| ULN | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.1s | | | | | | |
| **ULN** | **Ulaanbaatar** | **30.77** | **289** | *e*P | **P** | **04 19 31.0** | **+4.6** |
| | comp=Z,7.1nm,1.1s | | | | | | |
| **SONM** | **Songino Array** | **31.20** | **289** | P | **P** | **04 19 29.7** | **-0.5** |
| | comp=Z,0.6nm,0.7s,baz=94,slow=11,SNR=4.0 | | | | | | |
| SONM | | | | PcP | **PcP** | **04 22 23.4** | **-0.3** |
| | comp=Z,0.4nm,0.6s,baz=85,slow=1.5,SNR=5.3 | | | | | | |
| SONM | | | | LR | LR | 04 33 06.0 | |
| | comp=Z,115nm,18.3s,baz=48,slow=38 | | | | | | |
| **SONM** | **Songino Array** | **31.20** | **289** | *e*P | **P** | **04 19 34.3** | **+4.1** |
| SONM | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.2s | | | | | | |
| **IMAR** | **Indian Mountai** | **33.75** | **36** | *e*P | **P** | **04 19 52.4** | **+0.3** |
| **CAST** | **Castle Rocks** | **34.23** | **41** | *e*P | **P** | **04 19 57.6** | **+1.3** |
| | comp=Z,41nm,2.0s | | | | | | |
| **BPAW** | **Bear Paw Mtn.** | **34.75** | **40** | *e*P | **P** | **04 20 01.9** | **+1.1** |
| | comp=Z,29nm,1.7s | | | | | | |
| **KTH** | **Kantishna Hill** | **34.76** | **41** | *e*P | **P** | **04 20 01.3** | **+0.4** |
| | comp=Z,17nm,1.0s | | | | | | |
| **MLY** | **Manley** | **34.91** | **38** | *e*P | **P** | **04 20 02.7** | **+0.5** |
| | comp=Z,25nm,1.9s | | | | | | |
| **COLD** | **Coldfoot** | **35.31** | **34** | *e*P | **P** | **04 20 06.4** | **+0.8** |
| | comp=Z,5.5nm,0.7s | | | | | | |
| **MDM** | **Murphy Dome** | **35.97** | **38** | *e*pP | pP | 04 20 26.0 | +1.2 |
| **COLA** | **College** | **36.13** | **38** | *e*P | **P** | **04 20 13.1** | **+0.6** |
| COLA | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.5s | | | | | | |
| **COLA** | **College** | **36.13** | **38** | *e*P | **P** | **04 20 13.4** | **+0.9** |
| **COLA** | **College** | **36.13** | **38** | *e*P | **P** | **04 20 13.1** | **+0.6** |
| | comp=Z,3.2nm,0.5s | | | | | | |
| **IL1** | **Eielson Array** | **36.54** | **39** | *e*P | **P** | **04 20 15.6** | **-0.5** |
| **ILAR** | **Eielson Array** | **36.54** | **39** | P | **P** | **04 20 16.3** | **+0.2** |
| | comp=Z,1.9nm,0.8s,baz=260,slow=8.1,SNR=25 | | | | | | |
| **ILB** | **Eielson Array** | **36.54** | **39** | *e*P | **P** | **04 20 16.3** | **+0.2** |
| ILB | | | | *e*pP | **pP** | **04 20 29.3** | **-0.3** |
| **EGAK** | **Eagle** | **38.99** | **38** | *e*P | **P** | **04 20 37.1** | **+0.3** |
| EGAK | | | | *e*pP | **pP** | **04 20 50.9** | **+0.6** |
| **CD2** | **Chengdu** | **40.78** | **265** | *e*P | **P** | **04 20 52.5** | **+0.4** |
| CD2 | | | | pP | pP | 04 21 07.3 | +1.6 |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,50nm,1.0s | | | | | | |
| **INK** | **Inuvik** | **41.63** | **32** | P | **P** | **04 20 56.9** | **-1.6** |
| | comp=Z,3.5nm,0.4s,baz=275,slow=4.9,SNR=34 | | | | | | |
| **INK** | **Inuvik** | **41.63** | **32** | *e*P | **P** | **04 20 59.0** | **+0.5** |
| INK | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.9s | | | | | | |
| **INK** | **Inuvik** | **41.63** | **32** | *e*P | **P** | **04 20 59.0** | **+0.5** |
| **INK** | **Inuvik** | **41.63** | **32** | *e*P | **P** | **04 20 59.0** | **+0.5** |
| | comp=Z,8.3nm,0.9s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.47** | **306** | P | **P** | **04 21 03.8** | **-1.7** |
| | comp=Z,1.6nm,0.4s,baz=64,slow=6.9,SNR=5.3 | | | | | | |
| ZALV | | | | PcP | **PcP** | **04 22 57.1** | **-0.3** |
| | comp=Z,1.8nm,0.3s,baz=108,slow=3.3,SNR=5.9 | | | | | | |
| ZALV | | | | LR | LR | 04 40 02.1 | |
| | comp=Z,128nm,18.8s,baz=70,slow=38 | | | | | | |
| **WMQ** | **Urumqi** | **44.79** | **291** | P | **P** | **04 21 24.7** | **+0.3** |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,13nm,0.6s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,140nm,3.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,170nm,25.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,120nm,16.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,180nm,18.7s | | | | | | |
| **KMI** | **Kunming** | **45.15** | **259** | P | **P** | **04 21 27.9** | **+0.2** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,11nm,0.6s | | | | | | |
| **MKAR** | **Makanchi Array** | **46.80** | **297** | P | **P** | **04 21 39.1** | **-1.1** |
| | comp=Z,2.5nm,0.8s,baz=66,slow=7.5,SNR=14 | | | | | | |
| MKAR | | | | PcP | **PcP** | **04 23 12.3** | **-0.2** |
| | comp=Z,1.2nm,0.6s,baz=66,slow=3.3,SNR=4.6 | | | | | | |
| MKAR | | | | LR | LR | 04 42 28.2 | |
| | comp=Z,174nm,18.8s,baz=23,slow=38 | | | | | | |
| **MK01** | **Makanchi Array** | **46.81** | **297** | *e*P | **P** | **04 21 39.3** | **-0.9** |
| **KURK** | **Kurchatov** | **47.22** | **303** | *ce*P | **P** | **04 21 43.4** | **+0.1** |
| KURK | | | | pmax | pmax | | |
| | comp=Z,11nm,1.0s | | | | | | |
| **KURK** | **Kurchatov** | **47.22** | **303** | *e*P | **P** | **04 21 43.4** | **+0.1** |
| **KURK** | **Kurchatov** | **47.22** | **303** | *e*P | **P** | **04 21 41.9** | **-1.4** |
| | comp=Z,3.6nm,0.8s | | | | | | |
| **BRVK** | **Borovoye** | **50.75** | **309** | *ce*P | **P** | **04 22 10.8** | **+0.5** |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.8s | | | | | | |
| **BRVK** | **Borovoye** | **50.75** | **309** | *e*P | **P** | **04 22 10.8** | **+0.5** |
| **RES** | **Resolute Bay** | **50.78** | **19** | P | **P** | **04 22 10.3** | **+0.1** |
| | comp=Z,3.6nm,0.8s,baz=347,slow=6.2,SNR=8.9 | | | | | | |
| **YKA** | **Yellowknife Ar** | **50.91** | **37** | P | **P** | **04 22 12.0** | **+0.7** |
| | comp=Z,2.8nm,0.8s,baz=296,slow=6.9,SNR=5.1 | | | | | | |
| YKA | | | | PcP | **PcP** | **04 23 26.0** | **-1.1** |
| | comp=Z,1.2nm,0.7s,baz=300,slow=3.5,SNR=4.1 | | | | | | |
| **CHTO** | **Chiang Mai** | **52.04** | **256** | *e*P | **P** | **04 22 21.4** | **+1.0** |
| CHTO | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| **CHTO** | **Chiang Mai** | **52.04** | **256** | *e*P | **P** | **04 22 21.4** | **+1.0** |
| | comp=Z,9.9nm,0.8s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **52.29** | **256** | P | **P** | **04 22 23.2** | **+1.0** |
| | comp=Z,3.5nm,0.6s,baz=37,slow=7.4,SNR=9.6 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **52.29** | **256** | *e*P | **P** | **04 22 23.5** | **+1.3** |
| CMAR | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.6s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **52.29** | **256** | *e*P | **P** | **04 22 23.5** | **+1.3** |
| **AAK** | **Ala-Archa** | **53.69** | **296** | *i* P | **P** | **04 22 32.2** | **-0.3** |
| AAK | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.1s | | | | | | |
| **AAK** | **Ala-Archa** | **53.69** | **296** | *e*P | **P** | **04 22 32.2** | **-0.3** |
| **TULEG** | **Thule** | **54.05** | **11** | *e*P | **P** | **04 22 33.5** | **-0.9** |
| | comp=Z,8.8nm,0.7s | | | | | | |
| **KSH** | **Kashi** | **54.52** | **292** | P | **P** | **04 22 42.0** | **+3.5** |
| KSH | | | | pP | sP | 04 23 00.7 | +2.1 |
| KSH | | | | PcP | **PcP** | **04 23 44.4** | **+3.1** |
| KSH | | | | PP | **PP** | **04 24 47.4** | **+6.5** |
| KSH | | | | S | **S** | **04 30 13.7** | **-0.1** |
| KSH | | | | ScS | **ScS** | **04 32 19.5** | **-3.6** |
| KSH | | | | SS | **SS** | **04 33 57.3** | **+0.9** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.4s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,180nm,4.6s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,97nm,4.5s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,98nm,5.2s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,130nm,6.0s | | | | | | |
| **JIRN** | **Jiri** | **54.83** | **274** | *e*P | **P** | **04 22 41.5** | **+0.3** |
| | comp=Z,161nm,0.6s | | | | | | |
| **ARU** | **Arti** | **54.87** | **317** | *d i*P | **P** | **04 22 40.8** | **+0.2** |
| ARU | | | | | | 04 23 39.1 | |
| ARU | | | | | | 04 24 38.6 | |
| ARU | | | | S | **S** | **04 30 19.0** | **+1.3** |
| ARU | | | | SS | **SS** | **04 33 58.0** | **-2.9** |
| ARU | | | | pmax | pmax | | |
| | comp=Z,12nm,2.5s | | | | | | |
| **ARU** | **Arti** | **54.87** | **317** | *e*P | **P** | **04 22 40.5** | **-0.1** |
| **GUN** | **Gumba** | **54.88** | **275** | *e*P | **P** | **04 22 41.8** | **+0.2** |
| | comp=Z,10nm,0.4s | | | | | | |
| **RAMN** | **Ramite** | **55.00** | **273** | *e*P | **P** | **04 22 42.4** | **+0.1** |
| | comp=Z,39nm,0.5s | | | | | | |
| **KKN** | **Kakani** | **55.37** | **275** | *e*P | **P** | **04 22 45.4** | **+0.5** |
| | comp=Z,20nm,0.6s | | | | | | |
| **PKI** | **Pulchoki** | **55.42** | **275** | *e*P | **P** | **04 22 45.4** | **0.0** |
| | comp=Z,8.3nm,0.6s | | | | | | |
| **KOLN** | **Koldanda** | **56.53** | **276** | *e*P | **P** | **04 22 53.4** | **+0.2** |
| | comp=Z,10nm,0.7s | | | | | | |
| **DAG** | **Danmarks Havn** | **56.54** | **358** | *i* P | **P** | **04 22 51.2** | **-1.1** |
| DAG | | | | pmax | pmax | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| | comp=Z,5.0nm,0.9s | | | | | | |
| DAG | Danmarks Havn | 56.54 | 358 | *i* P | P | 04 22 51.2 | -1.1 |
| | comp=Z,5.3nm,0.9s | | | | | | |
| PYUN | Piuthan | 56.74 | 277 | *e*P | P | 04 22 55.2 | +0.5 |
| ARCES | ARCESS Array B | 57.73 | 341 | P | P | 04 22 60.0 | -0.8 |
| | comp=Z,3.9nm,0.8s,baz=15,slow=5.8,SNR=8.5 | | | | | | |
| ARCES | | | | LR | LR | 04 51 22.9 | |
| | comp=Z,54nm,18.1s,baz=358,slow=40 | | | | | | |
| ARCES | ARCESS Array B | 57.73 | 341 | P | P | 04 23 00.0 | -0.8 |
| ARCES | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.9s | | | | | | |
| ARCES | | | | MLR | MLR | | |
| | comp=Z,54nm,18.1s | | | | | | |
| G08A | Pilot Rock | 57.91 | 56 | *e*P | P | 04 23 03.7 | +1.1 |
| | comp=Z,2.4nm,0.9s | | | | | | |
| WALA | Waterton Lakes | 58.46 | 50 | *e*P | P | 04 23 07.1 | +0.7 |
| | comp=Z,4.9nm,0.7s | | | | | | |
| BMO | Blue Mountains | 59.11 | 56 | *e*P | P | 04 23 12.3 | +1.4 |
| BMO | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.8s | | | | | | |
| BMO | Blue Mountains | 59.11 | 56 | *e*P | P | 04 23 12.3 | +1.4 |
| | comp=Z,2.3nm,0.8s | | | | | | |
| MOD | Modoc Plateau | 59.13 | 60 | *e*P | P | 04 23 12.6 | +1.4 |
| | comp=Z,3.2nm,0.8s | | | | | | |
| MSO | Missoula | 59.79 | 53 | *e*P | P | 04 23 16.6 | +1.0 |
| | comp=Z,3.3nm,0.8s | | | | | | |
| WVOR | Wild Horse Val | 59.80 | 59 | *e*P | P | 04 23 17.0 | +1.2 |
| WVOR | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.8s | | | | | | |
| WVOR | Wild Horse Val | 59.80 | 59 | *e*P | P | 04 23 17.0 | +1.2 |
| | comp=Z,3.4nm,0.8s | | | | | | |
| SUMG | Summit | 60.61 | 4 | *i* P | P | 04 23 21.4 | +0.2 |
| SUMG | | | | pmax | pmax | | |
| | comp=Z,19nm,0.8s | | | | | | |
| SUMG | Summit | 60.61 | 4 | *i* P | P | 04 23 21.4 | +0.2 |
| | comp=Z,19nm,0.8s | | | | | | |
| SUMG | Summit | 60.61 | 4 | *e*P | P | 04 23 20.3 | -0.8 |
| | comp=Z,21nm,0.9s | | | | | | |
| FFC | Flin Flon | 60.73 | 40 | *e*P | P | 04 23 23.0 | +1.2 |
| HRY | Holter Researc | 61.00 | 52 | *e*P | P | 04 23 26.1 | +2.2 |
| COEN | Coen | 61.16 | 191 | *e*pP | pP | 04 23 40.3 | +0.9 |
| LRM | Limekiln Ridge | 61.22 | 53 | *e*P | P | 04 23 26.7 | +1.2 |
| HLID | Hailey | 61.54 | 56 | *e*P | P | 04 23 29.0 | +1.3 |
| | comp=Z,2.6nm,1.0s | | | | | | |
| BOZ | Bozeman (W) | 61.81 | 52 | *e*P | P | 04 23 30.4 | +1.0 |
| BOZ | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.8s | | | | | | |
| BOZ | Bozeman (W) | 61.81 | 52 | *e*P | P | 04 23 30.4 | +1.0 |
| BOZ | Bozeman (W) | 61.81 | 52 | *e*P | P | 04 23 30.4 | +1.0 |
| | comp=Z,4.0nm,0.8s | | | | | | |
| YHB | Horse Butte | 62.59 | 53 | *e*P | P | 04 23 36.6 | +1.9 |
| | comp=Z,17nm,1.2s | | | | | | |
| YHH | Holmes Hill | 62.75 | 53 | *e*P | P | 04 23 37.5 | +1.7 |
| | comp=Z,3.2nm,0.9s | | | | | | |
| H17A | Grant Village | 63.15 | 53 | *e*P | P | 04 23 41.4 | +2.9 |
| | comp=Z,13nm,1.7s | | | | | | |
| IMW | Indian Meadow | 63.27 | 54 | *e*P | P | 04 23 41.2 | +1.8 |
| | comp=Z,3.9nm,1.1s | | | | | | |
| FXWY | Fox Creek | 63.39 | 54 | *e*P | P | 04 23 41.8 | +1.7 |
| | comp=Z,11nm,1.9s | | | | | | |
| MOOW | Moose Ponds | 63.48 | 54 | *e*P | P | 04 23 42.0 | +1.4 |
| | comp=Z,13nm,1.9s | | | | | | |
| TPAW | Teton Pass | 63.53 | 54 | *e*P | P | 04 23 42.9 | +1.8 |
| | comp=Z,4.4nm,0.8s | | | | | | |
| HVU | Hansel Valley | 63.61 | 56 | *e*P | P | 04 23 43.2 | +1.8 |
| HVU | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.1s | | | | | | |
| HVU | Hansel Valley | 63.61 | 56 | *e*P | P | 04 23 43.2 | +1.8 |
| | comp=Z,4.2nm,1.1s | | | | | | |
| REDW | Red Top Meadow | 63.67 | 54 | *e*P | P | 04 23 43.6 | +1.7 |
| | comp=Z,3.6nm,0.8s | | | | | | |
| FINES | FINESS Array B | 63.91 | 335 | P | P | 04 23 41.9 | -1.0 |
| | comp=Z,7.7nm,0.4s,baz=36,slow=7.0,SNR=82 | | | | | | |
| FINES | | | | PcP | PcP | 04 24 16.9 | -1.1 |
| | comp=Z,2.7nm,0.6s,baz=40,slow=5.4,SNR=3.1 | | | | | | |
| FINES | | | | LR | LR | 04 53 19.6 | |
| | comp=Z,59nm,18.2s,baz=42,slow=38 | | | | | | |
| FINES | FINESS Array B | 63.91 | 335 | *e*P | P | 04 23 46.5 | +3.7 |
| FINES | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.3s | | | | | | |
| LAO | LASA Array | 63.97 | 49 | *e*P | P | 04 23 45.2 | +1.6 |
| | comp=Z,8.3nm,0.8s | | | | | | |
| SPUT | South Promonto | 64.10 | 57 | *e*P | P | 04 23 46.4 | +1.8 |
| | comp=Z,3.3nm,0.9s | | | | | | |
| DUG | Dugway, Tooele | 64.61 | 58 | *e*P | P | 04 23 49.3 | +1.3 |
| DUG | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.0s | | | | | | |
| DUG | Dugway, Tooele | 64.61 | 58 | *e*P | P | 04 23 49.3 | +1.3 |
| DUG | Dugway, Tooele | 64.61 | 58 | *e*P | P | 04 23 49.3 | +1.3 |
| | comp=Z,3.6nm,1.0s | | | | | | |
| BW06 | Boulder Array | 64.78 | 54 | *e*P | P | 04 23 50.0 | +0.8 |
| | comp=Z,2.9nm,0.8s | | | | | | |
| PD31 | Pinedale Array | 64.78 | 54 | *e*P | P | 04 23 50.0 | +0.8 |
| PDAR | Pinedale Array | 64.78 | 54 | P | P | 04 23 49.9 | +0.8 |
| | comp=Z,2.6nm,0.7s,baz=284,slow=1.6,SNR=25 | | | | | | |
| PDAR | Pinedale Array | 64.78 | 54 | *e*P | P | 04 23 49.5 | +0.3 |
| OBN | Obninsk | 65.17 | 325 | *i* P | P | 04 23 50.4 | -0.7 |
| OBN | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.2s | | | | | | |
| OBN | Obninsk | 65.17 | 325 | *e*P | P | 04 23 50.4 | -0.7 |
| NLU | North Lily Min | 65.20 | 58 | *e*P | P | 04 23 53.0 | +1.1 |
| | comp=Z,3.3nm,0.9s | | | | | | |
| LCMT | Little Creek M | 66.45 | 61 | *e*P | P | 04 24 01.4 | +1.4 |
| GEYT | Alibeck | 66.46 | 301 | P | P | 04 23 59.1 | -0.7 |
| | comp=Z,2.5nm,0.7s,baz=35,slow=5.4,SNR=3.7 | | | | | | |
| GEYT | | | | LR | LR | 04 55 17.7 | |
| | comp=Z,73nm,18.3s,baz=185,slow=38 | | | | | | |
| ULM | Lac du Bonnet | 66.52 | 41 | P | P | 04 23 59.8 | -0.2 |
| | comp=Z,2.5nm,0.5s,baz=320,slow=4.9,SNR=5.3 | | | | | | |
| ULM | Lac du Bonnet | 66.52 | 41 | *e*P | P | 04 23 59.9 | -0.1 |
| ULM | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.5s | | | | | | |
| ULM | Lac du Bonnet | 66.52 | 41 | *e*P | P | 04 23 59.9 | -0.1 |
| SRU | San Rafael Swe | 66.66 | 57 | *e*P | P | 04 24 02.3 | +1.0 |
| SRU | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.8s | | | | | | |
| SRU | San Rafael Swe | 66.66 | 57 | *e*P | P | 04 24 02.3 | +1.0 |
| | comp=Z,4.1nm,0.8s | | | | | | |
| NC405 | NORSAR Array S | 67.92 | 341 | *e*P | P | 04 24 08.3 | -0.4 |
| NC204 | NORSAR Array S | 67.99 | 341 | *e*P | P | 04 24 07.7 | -1.5 |
| NB201 | NORSAR Array S | 68.08 | 341 | *e*P | P | 04 24 09.3 | -0.4 |
| NB2 | NORSAR Subarra | 68.10 | 341 | P | P | 04 24 09.0 | -0.8 |
| | comp=Z,9.9nm,0.6s,baz=28,slow=6.5 | | | | | | |
| NOA | NORSAR Array B | 68.10 | 341 | P | P | 04 24 09.2 | -0.6 |
| | comp=Z,8.8nm,0.6s,baz=31,slow=6.7,SNR=45 | | | | | | |
| NOA | | | | LR | LR | 04 57 38.6 | |
| | comp=Z,30nm,18.1s,baz=0.0,slow=39 | | | | | | |
| GLA | Glamis | 68.13 | 65 | *e*P | P | 04 24 11.6 | +1.1 |
| GLA | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.8s | | | | | | |
| GLA | Glamis | 68.13 | 65 | *e*P | P | 04 24 11.6 | +1.1 |
| | comp=Z,6.3nm,0.8s | | | | | | |
| NBO02 | NORSAR Array S | 68.17 | 341 | *e*P | P | 04 24 09.8 | -0.4 |
| WRA | Warramunga Arr | 68.57 | 199 | P | P | 04 24 12.7 | -0.5 |
| | comp=Z,1.0nm,0.7s,baz=12,slow=6.4,SNR=12 | | | | | | |
| SMCO | Snowmass | 68.64 | 55 | *e*P | P | 04 24 14.5 | +0.5 |
| | comp=Z,2.9nm,0.8s | | | | | | |
| MAK | Makhachkala | 68.93 | 311 | *e*P | P | 04 24 12.8 | -2.4 |
| MAK | | | | *e* | | 04 26 53.3 | |
| MAK | | | | *e*S | S | 04 33 15.1 | -0.4 |
| MAK | | | | *e*SS | SS | 04 37 46.8 | +6.0 |
| MAK | | | | MLR | MLR | | |
| | comp=Z,266nm,21.0s | | | | | | |
| S22A | 4UR Ranch, Cre | 69.71 | 56 | *e*P | P | 04 24 21.9 | +1.3 |
| | comp=Z,16nm,1.8s | | | | | | |
| OGNE | Ogallala | 70.12 | 51 | *e*P | P | 04 24 23.4 | +0.7 |
| | comp=Z,15nm,0.8s | | | | | | |
| KBZ | Khabaz | 70.72 | 314 | P | P | 04 24 26.0 | -0.1 |
| | comp=Z,2.8nm,0.5s,baz=342,slow=1.7,SNR=7.0 | | | | | | |
| ECSD | EROS Data Cent | 70.89 | 46 | *e*P | P | 04 24 27.4 | 0.0 |
| | comp=Z,6.0nm,1.0s | | | | | | |
| AKASG | Malin Array Be | 71.41 | 326 | P | P | 04 24 29.1 | -1.1 |
| | comp=Z,10nm,0.3s,baz=33,slow=6.3,SNR=48 | | | | | | |
| AKASG | | | | LR | LR | 04 57 51.5 | |
| | comp=Z,50nm,18.4s,baz=30,slow=38 | | | | | | |
| AKBB | Malin Array Si | 71.41 | 326 | *e*P | P | 04 24 29.4 | -0.9 |
| AKBB | | | | pmax | pmax | | |
| | comp=Z,13nm,0.6s | | | | | | |
| AKBB | Malin Array Si | 71.41 | 326 | *e*P | P | 04 24 29.4 | -0.9 |
| | comp=Z,13nm,0.6s | | | | | | |
| KIEV | Kiev | 71.42 | 326 | *e*P | P | 04 24 29.3 | -1.0 |
| KIEV | | | | pmax | pmax | | |
| | comp=Z,13nm,0.7s | | | | | | |
| KIEV | Kiev | 71.42 | 326 | *e*P | P | 04 24 29.3 | -1.0 |
| | comp=Z,13nm,0.7s | | | | | | |
| AK11 | Malin Array Si | 71.45 | 326 | *e*P | P | 04 24 29.2 | -1.3 |
| AS01 | Alice Springs | 72.25 | 198 | *e*P | P | 04 24 36.2 | +0.6 |
| AS01 | | | | *e*PcP | pP | 04 24 51.1 | +0.8 |
| ASAR | Alice Springs | 72.27 | 198 | P | P | 04 24 36.4 | +0.8 |
| | comp=Z,2.0nm,0.7s,baz=15,slow=6.0,SNR=18 | | | | | | |
| ASAR | Alice Springs | 72.27 | 198 | *e*P | P | 04 24 36.6 | +1.0 |
| ASAR | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | |
| SCHQ | Schefferville | 73.26 | 23 | P | P | 04 24 41.1 | -0.2 |
| | comp=Z,5.4nm,1.0s,baz=304,slow=7.2,SNR=5.4 | | | | | | |
| BEL | Belsk | 73.48 | 331 | *e*P | P | 04 24 42.0 | -0.6 |
| BEL | Belsk | 73.48 | 331 | *e*P | P | 04 24 42.0 | -0.6 |
| SORM | Soroca | 73.81 | 325 | ⇓*i*P | P | 04 24 43.6 | -1.0 |
| SCIA | State Center | 73.92 | 45 | *e*P | P | 04 24 44.8 | -0.6 |
| | comp=Z,9.2nm,0.4s | | | | | | |
| KWP | Kalwaria Pacla | 74.69 | 329 | *e*P | P | 04 24 49.8 | +0.1 |
| KWP | Kalwaria Pacla | 74.69 | 329 | *e*P | P | 04 24 49.8 | +0.1 |
| OJC | Ojcow | 75.18 | 331 | *e*P | P | 04 24 52.4 | -0.1 |
| OJC | Ojcow | 75.18 | 331 | *e*P | P | 04 24 52.4 | -0.1 |
| OJC | Ojcow | 75.18 | 331 | *e*P | P | 04 24 52.4 | -0.1 |
| OJC | Ojcow | 75.18 | 331 | *e*P | P | 04 24 52.3 | -0.1 |
| | comp=Z,6.9nm,0.5s | | | | | | |
| LEOM | Leova | 75.20 | 324 | ⇑*i*P | P | 04 24 51.4 | -1.2 |
| STHS | Stebnicka Huta | 75.38 | 330 | *e*P | P | 04 24 54.0 | +0.3 |
| STHS | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.7s | | | | | | |
| STHS | Stebnicka Huta | 75.38 | 330 | *e*P | P | 04 24 53.9 | +0.3 |
| BUR08 | Bucovina Ar. S | 75.43 | 326 | *e*P | P | 04 24 53.6 | -0.5 |
| BUR04 | Bucovina Ar. S | 75.45 | 326 | *e*P | P | 04 24 53.4 | -0.9 |
| BURAR | Bucovina Array | 75.45 | 326 | ⇑*i*P | P | 04 24 53.7 | -0.5 |
| CRVS | Cervenica-Dubn | 75.74 | 329 | *e*P | P | 04 24 55.4 | -0.4 |
| CRVS | Cervenica-Dubn | 75.74 | 329 | *e*P | P | 04 24 55.4 | -0.4 |
| KSP | Ksiaz | 75.77 | 333 | *e*P | P | 04 24 55.5 | -0.4 |
| KSP | Ksiaz | 75.77 | 333 | *e*P | P | 04 24 55.5 | -0.4 |
| TESR | Tescani | 75.80 | 325 | ⇓*i*P | P | 04 24 55.9 | -0.3 |
| TLCR | | 76.01 | 323 | ⇓*i*P | P | 04 24 56.9 | -0.4 |
| DPC | Dobruska-Polom | 76.19 | 333 | *e*P | P | 04 24 58.1 | -0.2 |
| DPC | Dobruska-Polom | 76.19 | 333 | *e*P | P | 04 24 58.1 | -0.2 |
| LANS | Liptovska Anna | 76.21 | 331 | *e*P | P | 04 24 59.2 | +0.7 |
| LANS | Liptovska Anna | 76.21 | 331 | *e*P | P | 04 24 59.2 | +0.7 |
| PETR | Petresti | 76.22 | 324 | ⇓*i*P | P | 04 24 58.9 | +0.4 |
| CFR | Carcaliu | 76.30 | 323 | ⇓*i*P | P | 04 24 58.0 | -0.9 |
| MORC | Moravsky Berou | 76.30 | 332 | ⇑*i*P | P | 04 24 58.9 | -0.1 |
| MORC | Moravsky Berou | 76.30 | 332 | *e*P | P | 04 24 58.9 | -0.1 |
| MORC | | | | pmax | pmax | | |
| | comp=Z,27nm,0.8s | | | | | | |
| MORC | Moravsky Berou | 76.30 | 332 | *e*P | P | 04 24 58.9 | -0.1 |
| | comp=Z,27nm,0.8s | | | | | | |
| VRI | Vrincioaia | 76.30 | 325 | ⇓*i*P | P | 04 24 58.9 | -0.1 |
| CLL | Collm | 76.33 | 335 | ⇑*i*P | P | 04 24 58.0 | -1.0 |
| CLL | | | | pmax | pmax | | |
| | comp=Z,12nm,1.0s | | | | | | |
| CLL | Collm | 76.33 | 335 | ⇑*i*P | P | 04 24 58.0 | -1.0 |
| | comp=Z,12nm,1.0s | | | | | | |
| CLL | Collm | 76.33 | 335 | *e*P | P | 04 24 58.1 | -1.0 |
| CLL | Collm | 76.33 | 335 | *e*P | P | 04 24 58.0 | -1.0 |
| | comp=Z,9.7nm,0.9s | | | | | | |
| KECS | Kecovo | 76.44 | 330 | *e*P | P | 04 24 58.2 | -1.5 |
| KECS | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.1s | | | | | | |
| KECS | Kecovo | 76.44 | 330 | *e*P | P | 04 24 58.2 | -1.5 |
| DOPR | Dopca | 76.75 | 325 | ⇓*i*P | P | 04 25 01.4 | -0.1 |
| CJR | Cluj-Napoca | 76.81 | 327 | ⇑*i*P | P | 04 25 02.6 | +0.7 |
| MLR | Muntele Rosu | 76.92 | 325 | ⇓*i*P | P | 04 25 03.1 | +0.4 |
| MLR | Muntele Rosu | 76.92 | 325 | *e*P | P | 04 25 02.8 | +0.1 |
| MLR | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.7s | | | | | | |
| MLR | Muntele Rosu | 76.92 | 325 | *e*P | P | 04 25 02.8 | +0.1 |
| | comp=Z,7.7nm,0.7s | | | | | | |
| VYHS | Vyhne | 76.99 | 331 | *e*P | P | 04 25 02.6 | -0.2 |
| VYHS | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.9s | | | | | | |
| VYHS | Vyhne | 76.99 | 331 | *e*P | P | 04 25 02.6 | -0.2 |
| VRAC | Vranov | 77.02 | 332 | ⇑*i*P | P | 04 25 03.0 | 0.0 |
| PRU | Pruhonice | 77.05 | 334 | ⇑*e*P | P | 04 25 02.9 | -0.2 |
| PRU | Pruhonice | 77.05 | 334 | *e*P | P | 04 25 02.9 | -0.2 |
| PRU | Pruhonice | 77.05 | 334 | *e*P | P | 04 25 02.9 | -0.2 |
| DRGR | | 77.08 | 327 | ⇓*i*P | P | 04 25 03.1 | -0.3 |
| ICOR | Ion Corvin | 77.30 | 323 | ⇓*i*P | P | 04 25 05.1 | +0.5 |
| VOIR | | 77.32 | 325 | ⇓*i*P | P | 04 25 05.2 | +0.4 |
| MTUR | Matau | 77.49 | 325 | ⇑*i*P | P | 04 25 05.3 | -0.5 |
| TX31 | Lajitas Ar. Si | 77.54 | 60 | *e*P | P | 04 25 07.0 | +0.6 |
| TXAR | Lajitas Array | 77.54 | 60 | P | P | 04 25 06.8 | +0.4 |
| | comp=Z,1.8nm,0.6s,baz=297,slow=4.9,SNR=36 | | | | | | |
| ARR | Arges | 77.54 | 326 | ⇓*i*P | P | 04 25 07.0 | +0.9 |
| MODS | Modra-Piesok | 77.61 | 332 | *e*P | P | 04 25 05.5 | -0.8 |
| MODS | Modra-Piesok | 77.61 | 332 | *e*P | P | 04 25 05.5 | -0.8 |
| KHC | Kasperske Hory | 78.10 | 334 | ⇑*i*P | P | 04 25 08.7 | -0.4 |
| KHC | Kasperske Hory | 78.10 | 334 | ⇑*i*P | P | 04 25 08.7 | -0.4 |
| KHC | Kasperske Hory | 78.10 | 334 | *e*P | P | 04 25 08.7 | -0.4 |
| BR131 | Keskin Array S | 78.25 | 317 | *e*P | P | 04 25 10.3 | +0.1 |
| BRTR | Keskin Array B | 78.25 | 317 | P | P | 04 25 09.9 | -0.2 |
| | comp=Z,3.7nm,0.8s,baz=65,slow=4.1,SNR=19 | | | | | | |
| BRTR | | | | LR | LR | 05 05 18.3 | |
| | comp=Z,19nm,18.6s,baz=342,slow=40 | | | | | | |
| BRTR | Keskin Array B | 78.25 | 317 | *e*P | P | 04 25 10.2 | +0.1 |
| BRTR | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.9s | | | | | | |
| GERES | GERESS Array B | 78.32 | 334 | P | P | 04 25 09.6 | -0.8 |
| | comp=Z,1.4nm,0.5s,baz=46,slow=7.6,SNR=7.1 | | | | | | |
| GERES | GERESS Array B | 78.32 | 334 | P | P | 04 25 09.6 | -0.8 |
| GERES | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.6s | | | | | | |
| GEA0 | GERESS Array S | 78.33 | 334 | *e*P | P | 04 25 09.6 | -0.8 |
| CONA | Conrad Observa | 78.46 | 332 | *i* P | P | 04 25 10.9 | -0.2 |
| | comp=Z,5.0nm,0.7s | | | | | | |
| BZS | Buzias | 78.47 | 327 | ⇓*i*P | P | 04 25 10.5 | -0.6 |
| BR231 | Keskin MP Arra | 78.56 | 317 | *e*P | P | 04 25 10.5 | -1.4 |
| MEM | Membach | 78.82 | 339 | P | P | 04 25 12.7 | -0.2 |
| MOA | Molln | 79.03 | 333 | *i* P | P | 04 25 13.7 | -0.5 |
| | comp=Z,3.4nm,1.0s | | | | | | |
| BCLA | Clavier | 79.16 | 340 | P | P | 04 25 14.4 | -0.4 |
| ARSA | Arzberg | 79.17 | 332 | *i* P | P | 04 25 14.9 | -0.1 |
| | comp=Z,7.5nm,1.3s | | | | | | |
| SOKA | Soboth | 79.83 | 332 | *i* P | P | 04 25 18.3 | -0.4 |
| | comp=Z,13nm,1.3s | | | | | | |
| KBA | Koelnbreinsper | 80.00 | 333 | *i* P | P | 04 25 19.0 | -0.7 |
| | comp=Z,14nm,0.9s | | | | | | |
| OBKA | Obir | 80.13 | 332 | *i* P | P | 04 25 13.7 | -6.6 |
| | comp=Z,10nm,1.3s | | | | | | |
| WATA | Walderalm | 80.31 | 334 | *i* P | P | 04 25 21.5 | +0.3 |
| | comp=Z,4.4nm,0.5s | | | | | | |
| BFO | Black Forest | 80.32 | 337 | *ce*P | P | 04 25 21.7 | +0.5 |
| WTTA | Wattenberg | 80.36 | 334 | *i* P | P | 04 25 22.0 | +0.4 |
| | comp=Z,7.9nm,0.5s | | | | | | |
| VTS | Vitosha | 80.43 | 325 | ⇓*i*P | P | 04 25 21.9 | -0.1 |
| VTS | Vitosha | 80.43 | 325 | *e*P | P | 04 25 21.1 | -1.0 |
| VTS | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.9s | | | | | | |
| VTS | Vitosha | 80.43 | 325 | *e*P | P | 04 25 21.1 | -1.0 |
| | comp=Z,8.7nm,0.9s | | | | | | |
| MOTA | Moosalm | 80.44 | 335 | *i* P | P | 04 25 21.7 | -0.3 |
| | comp=Z,10.0nm,1.0s | | | | | | |
| ABTA | Abfaltersbach | 80.56 | 334 | *i* PcP | P | 04 25 29.0 | +6.4 |
| | comp=Z,5.9nm,1.2s | | | | | | |
| FETA | Feichten | 80.84 | 335 | *i* P | P | 04 25 23.8 | -0.4 |
| | comp=Z,5.5nm,1.2s | | | | | | |
| DAVA | Damuels | 80.84 | 336 | *i* P | P | 04 25 24.1 | -0.1 |
| | comp=Z,8.1nm,1.0s | | | | | | |
| PMOR | Pomariorio Ree | 81.19 | 123 | *e*T | T | 05 54 48.8 | |
| | comp=Z,7.7nm,0.2s | | | | | | |
| TUE | Stuetta | 81.74 | 336 | *e*P | P | 04 25 29.5 | +0.5 |
| | comp=Z,6.6nm,0.9s | | | | | | |
| PPT2 | Papeete2 | 82.32 | 126 | *e*LR | LR | 04 51 30.7 | |
| | comp=Z,66nm,25.5s | | | | | | |
| RAYN | Ar Rayn | 84.28 | 298 | *e*P | P | 04 25 41.8 | -0.5 |
| | comp=Z,2.0nm,0.6s | | | | | | |
| ES19 | SONSECA Array | 91.39 | 342 | *e*P | P | 04 26 14.6 | -1.6 |
| ESDC | Sonseca Array | 91.43 | 342 | P | P | 04 26 14.9 | -1.5 |
| | comp=Z,0.1nm,0.4s,baz=355,slow=4.3,SNR=5.0 | | | | | | |
| TORD | Torodi Ar. Bea | 114.96 | 329 | PKP | PKPdf | 04 31 49.9 | -1.3 |
| | comp=Z,0.1nm,0.3s,baz=24,slow=1.8,SNR=6.1 | | | | | | |
| BDFB | Brasilia | 144.33 | 36 | PKP | PKPab | 04 32 43.7 | -0.9 |
| | comp=Z,4.8nm,0.8s,baz=41,slow=1.1,SNR=7.6 | | | | | | |
| PLCA | Paso Flores | 148.32 | 95 | PKPbc | PKPbc | 04 32 55.7 | -0.3 |
| | comp=Z,2.6nm,0.8s,baz=15,slow=6.7,SNR=4.6 | | | | | | |
| CPUP | Villa Florida | 148.51 | 60 | PKPbc | PKPbc | 04 32 56.1 | -0.6 |
| | comp=Z,2.6nm,0.7s,baz=278,slow=3.6,SNR=6.7 | | | | | | |
| SNAA | Sanae | 152.62 | 196 | PKP | PKPpre | 04 32 50.7 | |
| VNA2 | Neumayer--Watz | 154.07 | 195 | PKP | PKPdf | 04 32 59.7 | -0.6 |
| | baz=45,slow=1.7 | | | | | | |

---

*ISK **08** 04:17:30.8, 38°.77N×43°.26E, h2km, ML3.0*
*ATA **08** 04:17:30.1±1.2, 38°.76N×43°.14E, h33km±44km, ML3.6, MW3.4*
*CSEM **08** 04:17:31.9±0.1, 38°.77N×43°.25E, h5km, ML3.0, Error ellipse: s-maj=3.7km s-min=2.6km az=92.0*
*DDA **08** 04:17:31.1, 38°.76N×43°.25E, h5km, Ml3.1*
**ISC 08 04:17:32.4**±0.9, **38°.77N**±0°.01×**43°.25E**±0°.02, **h15**km±6km, **n61**, σ**1**§**34**/103, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.20 | 148 | PG | Pg | 04 17 37.5 | +0.2 |
| VANB | | | | *e*SG | Sg | 04 17 42.0 | +1.5 |
| VANB | Van | 0.20 | 148 | *i* Pg | Pg | 04 17 37.5 | +0.2 |
| ERCV | ERCIS-VAN | 0.26 | 15 | PG | Pg | 04 17 37.3 | -1.0 |
| ERCV | | | | *e*SG | Sb | 04 17 41.8 | -1.5 |
| ERCV | ERCIS-VAN | 0.26 | 15 | *i* Pg | Pg | 04 17 37.3 | -1.0 |
| ERCV | | | | *e*Sg | Sb | 04 17 41.8 | -1.5 |
| TVAN | Van | 0.27 | 153 | *i* P | Pb | 04 17 37.5 | -1.6 |
| TVAN | | | | *i* S | Sb | 04 17 42.5 | -1.0 |
| TVAN | Van | 0.27 | 153 | P | Pb | 04 17 37.5 | -1.6 |
| TVAN | | | | S | Sb | 04 17 42.5 | -1.0 |
| VMUR | Van-Muradiye | 0.33 | 48 | *i* P | Pb | 04 17 39.0 | -1.2 |
| VMUR | | | | *i* S | Sb | 04 17 45.3 | -0.1 |
| VMUR | Van-Muradiye | 0.33 | 48 | P | Pb | 04 17 39.0 | -1.2 |
| VMUR | | | | S | Sb | 04 17 45.3 | -0.1 |
| ADCV | BITLIS_Adilcev | 0.41 | 276 | *i* P | Pg | 04 17 39.9 | -1.0 |
| ADCV | | | | *i* S | Sb | 04 17 47.1 | -0.6 |
| ADCV | BITLIS_Adilcev | 0.41 | 276 | P | Pg | 04 17 39.9 | -1.0 |
| ADCV | | | | S | Sb | 04 17 47.1 | -0.6 |
| GEVA | Gevas | 0.48 | 199 | *e*P | Pg | 04 17 39.9 | -2.1 |
| GEVA | | | | *e*S | Sb | 04 17 49.2 | -0.3 |
| GEVA | | | | IAML | | 04 17 50.0 | |
| | comp=Z,274nm,0.5s | | | | | | |
| GEVA | Gevas | 0.48 | 199 | *i* P | Pg | 04 17 40.4 | -1.6 |
| GEVA | | | | *i* S | Sb | 04 17 48.3 | -1.2 |
| GEVA | Gevas | 0.48 | 199 | P | Pg | 04 17 40.4 | -1.6 |
| GEVA | | | | S | Sb | 04 17 48.3 | -1.2 |
| CLDR | Caldiran | 0.64 | 54 | *e*PG | Pg | 04 17 43.9 | -1.2 |
| CLDR | | | | *e*SG | Sb | 04 17 53.8 | -0.5 |
| CLDR | Caldiran | 0.64 | 54 | *i* P | Pg | 04 17 43.9 | -1.2 |
| CLDR | | | | *i* S | Sb | 04 17 54.0 | -0.2 |
| CLDR | Caldiran | 0.64 | 54 | P | Pg | 04 17 43.9 | -1.2 |
| CLDR | | | | *e*Sg | Sb | 04 17 53.8 | -0.5 |
| TUTA | Tutak | 0.72 | 332 | *e*P | Pg | 04 17 45.2 | -1.3 |
| TUTA | | | | *e*S | Sg | 04 17 55.5 | -0.7 |
| TUTA | | | | IAML | | 04 17 58.3 | |
| | comp=Z,319nm,0.4s | | | | | | |
| TUTA | Tutak | 0.72 | 332 | *i* P | Pg | 04 17 45.2 | -1.3 |
| TUTA | | | | *i* S | Sg | 04 17 55.4 | -0.7 |
| TUTA | Tutak | 0.72 | 332 | P | Pg | 04 17 45.2 | -1.3 |
| TUTA | | | | S | Sg | 04 17 55.4 | -0.7 |
| AGRB | Hanur-Agry | 0.83 | 346 | *e*PG | Pg | 04 17 47.4 | -1.3 |
| AGRB | | | | *e*SG | Sb | 04 18 00.0 | +0.2 |
| AGRB | Hanur-Agry | 0.83 | 346 | *e*Pg | Pg | 04 17 47.4 | -1.3 |
| AGRB | | | | *e*Sg | Sb | 04 18 00.0 | +0.2 |
| DYDN | Diyadin | 0.85 | 23 | *e*P | Pg | 04 17 47.8 | -1.1 |
| DYDN | | | | IAML | | 04 18 09.6 | |
| | comp=Z,41nm,0.4s | | | | | | |
| DYDN | Diyadin | 0.85 | 23 | *i* P | Pg | 04 17 47.8 | -1.1 |
| DYDN | | | | *i* S | Sb | 04 18 00.0 | -0.2 |
| DYDN | Diyadin | 0.85 | 23 | P | Pg | 04 17 47.8 | -1.1 |
| DYDN | | | | S | Sb | 04 18 00.0 | -0.2 |
| EKAR | Karacoban | 1.05 | 298 | *i* P | Pn | 04 17 53.2 | +0.5 |
| EKAR | | | | *i* S | Sn | 04 18 10.1 | +2.9 |
| EKAR | Karacoban | 1.05 | 298 | P | Pn | 04 17 53.2 | +0.5 |
| EKAR | | | | S | Sn | 04 18 10.1 | +2.9 |
| EATA | Eleskirt | 1.24 | 332 | *i* P | Pg | 04 17 54.8 | -1.7 |
| EATA | | | | *i* S | Sn | 04 18 12.9 | +0.8 |
| EATA | Eleskirt | 1.24 | 332 | P | Pg | 04 17 54.8 | -1.7 |
| EATA | | | | S | Sn | 04 18 12.9 | +0.8 |
| HAKT | HAKKARI | 1.26 | 163 | *i* P | Pg | 04 17 54.1 | -2.7 |
| HAKT | | | | *i* S | Sn | 04 18 14.5 | +2.1 |
| HAKT | HAKKARI | 1.26 | 163 | P | Pg | 04 17 54.1 | -2.7 |
| HAKT | | | | S | Sn | 04 18 14.5 | +2.1 |
| SRTM | Siirt_Merkez | 1.30 | 234 | *i* P | Pn | 04 17 55.7 | -0.4 |
| SRTM | | | | *i* S | Sn | 04 18 14.9 | +1.6 |
| SRTM | Siirt_Merkez | 1.30 | 234 | P | Pn | 04 17 55.7 | -0.4 |
| SRTM | | | | S | Sn | 04 18 14.9 | +1.6 |
| SIRT | Sirnak | 1.42 | 207 | *e*PN | Pg | 04 17 58.6 | -1.1 |
| SIRT | | | | *e*SN | Sn | 04 18 18.7 | +2.6 |
| SIRT | Sirnak | 1.42 | 207 | *e*Pn | Pg | 04 17 58.6 | -1.1 |
| SIRT | | | | *e*Sn | Sn | 04 18 18.7 | +2.6 |
| SIRN | S˜–rnak | 1.43 | 208 | *i* P | Pb | 04 17 58.4 | -0.4 |
| SIRN | | | | *i* S | Sg | 04 18 19.6 | +0.9 |
| SIRN | S˜–rnak | 1.43 | 208 | P | Pb | 04 17 58.4 | -0.4 |
| YOVA | Hakkari_Yˆ…kse | 1.43 | 145 | *i* P | Pn | 04 17 58.1 | 0.0 |
| YOVA | | | | *i* S | Sn | 04 18 19.1 | +2.3 |
| YOVA | Hakkari_Yˆ…kse | 1.43 | 145 | P | Pn | 04 17 58.1 | 0.0 |
| YOVA | | | | S | Sn | 04 18 19.0 | +2.3 |
| TASB | TASBURUN-IGDIR | 1.44 | 32 | *e*PN | Pg | 04 17 58.9 | -1.2 |
| TASB | TASBURUN-IGDIR | 1.44 | 32 | *e*Pn | Pg | 04 17 58.9 | -1.2 |
| VRTB | Varto-Mus | 1.46 | 286 | *e*PN | Pg | 04 17 59.7 | -0.8 |
| VRTB | Varto-Mus | 1.46 | 286 | *i* P | Pg | 04 17 59.6 | -0.8 |
| VRTB | | | | *i* S | Sg | 04 18 20.2 | +0.8 |
| VRTB | Varto-Mus | 1.46 | 286 | *e*Pn | Pg | 04 17 59.7 | -0.8 |
| VRTB | | | | S | Sg | 04 18 20.2 | +0.8 |
| CUKT | Cukurca | 1.54 | 169 | *e*PN | Pb | 04 18 00.3 | -0.5 |
| CUKT | Cukurca | 1.54 | 169 | *i* P | Pg | 04 18 01.1 | -1.0 |
| CUKT | Cukurca | 1.54 | 169 | *e*Pn | Pb | 04 18 00.3 | -0.5 |
| CUKT | Cukurca | 1.54 | 169 | P | Pg | 04 18 01.1 | -1.0 |
| DIGO | Kars | 1.65 | 3 | *i* P | Pb | 04 18 01.8 | -0.8 |
| DIGO | | | | *i* S | Sg | 04 18 29.9 | +4.3 |
| DIGO | Kars | 1.65 | 3 | P | Pb | 04 18 01.8 | -0.8 |
| HOMI | Horasan | 1.65 | 321 | *i* P | Pg | 04 18 02.5 | -1.6 |
| HOMI | | | | *i* S | Sg | 04 18 27.3 | +1.7 |
| BNGL | BINGOL | 1.65 | 277 | *i* P | Pb | 04 18 02.1 | -0.5 |
| BNGL | | | | *i* S | Sg | 04 18 25.0 | -0.7 |
| BTMN | Batman | 1.79 | 241 | *i* P | Pb | 04 18 03.8 | -1.1 |
| BTMN | | | | *i* S | Sb | 04 18 27.6 | +0.4 |
| BTMN | Batman | 1.79 | 241 | P | Pb | 04 18 03.8 | -1.1 |
| BTMN | | | | S | Sb | 04 18 27.6 | +0.4 |
| KARS | Kars | 1.86 | 356 | *e*PN | Pb | 04 18 04.8 | -1.4 |
| KARS | Kars | 1.86 | 356 | *e*Pn | Pb | 04 18 04.8 | -1.4 |
| SENK | Senkaya-Erzuru | 1.92 | 339 | *e*PN | Pn | 04 18 05.1 | +0.3 |
| SENK | Senkaya-Erzuru | 1.92 | 339 | *e*Pn | Pn | 04 18 05.1 | +0.3 |
| EAK | Akyaka | 1.94 | 8 | *i* P | Pg | 04 18 08.6 | -1.0 |
| EAK | Akyaka | 1.94 | 8 | P | Pg | 04 18 08.6 | -1.0 |
| ECAT | Cat-ERZURUM | 1.96 | 296 | *i* P | Pg | 04 18 09.4 | -0.7 |
| ECAT | Cat-ERZURUM | 1.96 | 296 | P | Pg | 04 18 09.4 | -0.7 |

---

*CSEM **08** 04:22:40.9±0.3, 45°.41N×21°.02E, h15km, ML1.7, Error ellipse: s-maj=6.3km s-min=4.0km az=128.0*
*BEO **08** 04:22:42.0±0.3, 45°.41N×21°.04E, h0km, M1.7/8*
**BUC 08 04:22:42.3**±0.7, **45°.45N**×**21°.10E**, **h16**km±3km, **MD2.1**/3, **6C-6D, Error ellipse: s-maj=7.5km s-min=3.6km az=99.0, Romania**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BANR | Banloc | 0.07 | 158 | ⇑*i*P | Pg | 04 22 45.1 | -0.3 |
| BANR | | | | S | Sg | 04 22 47.4 | 0.0 |
| BANR | Banloc | 0.07 | 158 | ⇑*i*P | Pg | 04 22 45.1 | -0.3 |
| BANR | | | | *i* S | Sg | 04 22 47.4 | 0.0 |
| BANR | Banloc | 0.07 | 158 | ⇑*i*P | Pg | 04 22 45.1 | -0.3 |
| BANR | | | | S | Sg | 04 22 47.4 | 0.0 |
| BZS | Buzias | 0.40 | 66 | *e*Pg | Pb | 04 22 50.9 | -0.1 |
| BZS | | | | *e*Sg | Sg | 04 22 56.4 | +0.4 |
| BZS | Buzias | 0.40 | 66 | ⇓*i*P | Pb | 04 22 50.9 | -0.1 |
| BZS | | | | S | Sb | 04 22 57.5 | +0.5 |
| BZS | Buzias | 0.40 | 66 | ⇓*i*P | Pb | 04 22 50.9 | -0.1 |
| BZS | | | | *i* S | Sb | 04 22 57.5 | +0.5 |
| BZS | Buzias | 0.40 | 66 | ⇓*i*P | Pb | 04 22 50.9 | -0.1 |
| BZS | | | | *e*Sg | Sg | 04 22 56.4 | +0.4 |
| BZS | | | | S | Sb | 04 22 57.5 | +0.5 |
| MDVR | Moldovita | 0.80 | 147 | ⇓*i*P | Pg | 04 22 58.3 | +0.4 |
| MDVR | Moldovita | 0.80 | 147 | ⇓*i*P | Pg | 04 22 58.3 | +0.4 |
| MDVR | | | | *i* S | Sn | 04 23 10.4 | -0.2 |
| MDVR | Moldovita | 0.80 | 147 | ⇓*i*P | Pg | 04 22 58.3 | +0.4 |
| MDVR | | | | S | Sn | 04 23 10.4 | -0.2 |
| SIRR | Siria | 0.91 | 26 | ⇑*i*P | Pn | 04 23 00.2 | -0.2 |
| SIRR | Siria | 0.91 | 26 | ⇑*i*P | Pn | 04 23 00.2 | -0.2 |
| SIRR | | | | *i* S | Sg | 04 23 12.0 | +0.2 |
| SIRR | Siria | 0.91 | 26 | ⇑*i*P | Pn | 04 23 00.2 | -0.2 |
| SIRR | | | | S | Sg | 04 23 12.0 | +0.2 |
| FGSL | Fruska Gora | 0.95 | 252 | *e*Pg | Pb | 04 22 58.9 | -1.6 |
| FGSL | | | | *e*Sg | Sb | 04 23 10.2 | -2.7 |
| FRGS | Fruska Gora | 0.95 | 252 | *e*Pg | Pb | 04 22 58.9 | -1.6 |
| FRGS | | | | *e*Sg | Sb | 04 23 10.2 | -2.7 |
| KUBS | Kucevo | 1.12 | 158 | *e*Pg | Pb | 04 23 01.6 | -1.7 |
| KUBS | | | | *e*Sg | Sb | 04 23 17.4 | -0.2 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| **KUBS** | **Kucevo** | **1.12** | **158** | *e*Pg | Pb | 04 23 01.6 | -1.7 |
| KUBS | | | | *e*Sg | Sb | 04 23 17.4 | -0.2 |
| **SVIS** | **Svilajnac** | **1.19** | **176** | *e*Sg | Sb | 04 23 19.2 | -0.4 |
| **TRUS** | **Trudelj** | **1.32** | **202** | *e*Pg | Pn | 04 23 04.2 | -1.9 |
| TRUS | | | | *e*Sg | Sn | 04 23 23.1 | -0.3 |
| **TRUS** | **Trudelj** | **1.32** | **202** | *e*Pg | Pn | 04 23 04.2 | -1.9 |
| TRUS | | | | *e*Sg | Sn | 04 23 23.1 | -0.3 |
| **TEKS** | **Tekeris** | **1.43** | **231** | *e*Pg | Pn | 04 23 06.7 | -1.0 |
| TEKS | | | | *e*Sg | Sn | 04 23 25.1 | -1.1 |
| **TEKS** | **Tekeris** | **1.43** | **231** | *e*Pg | Pn | 04 23 06.7 | -1.0 |
| TEKS | | | | *e*Sg | Sn | 04 23 25.1 | -1.1 |
| **DIVS** | **Divibare** | **1.57** | **211** | *e*Pg | Pn | 04 23 09.5 | -0.1 |
| **DIVS** | **Divibare** | **1.57** | **211** | *e*Pg | Pn | 04 23 09.5 | -0.1 |
| **DRGR** | | **1.75** | **39** | *e*Pg | Pb | 04 23 14.3 | +0.2 |
| DRGR | | | | *e*Sg | Sg | 04 23 39.1 | +0.5 |
| **DRGR** | | **1.75** | **39** | *e*Pg | Pb | 04 23 14.3 | +0.2 |
| DRGR | | | | *e*Sg | Sg | 04 23 39.1 | +0.5 |
| **ZAGS** | **Zajecar** | **1.83** | **153** | *e*Pg | Pb | 04 23 14.4 | -1.0 |
| ZAGS | | | | *e*Sg | Sb | 04 23 38.4 | +0.4 |
| **ZAGS** | **Zajecar** | **1.83** | **153** | *e*Pg | Pb | 04 23 14.4 | -1.0 |
| ZAGS | | | | *e*Sg | Sb | 04 23 38.4 | +0.4 |

*CSEM* ***08*** *04:36:06.7±0.1, 39.°08N×29.°09E, h2km, ML2.5, Error ellipse: s-maj=2.4km s-min=2.3km az=60.0*
*DDA* ***08*** *04:36:06.0, 39.°10N×29.°10E, h7km, Ml2.8*
*ISK* ***08*** *04:36:06.5, 39.°07N×29.°06E, h6km, ML2.5*
**ISC 08 04:36:06.6**±0.9**, 39.°09N**±0.°02×**29.°07E**±0.°02**, h6**km±6km**,**
**n49,** σ**0.s83**/76**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SIMA** | **Simav-Kutahya** | **0.07** | **263** | PG | **Pg** | **04 36 08.4** | **0.0** |
| SIMA | | | | *e*SG | **Sg** | **04 36 09.8** | **+0.2** |
| **SIMA** | **Simav-Kutahya** | **0.07** | **263** | *i* Pg | **Pg** | **04 36 08.4** | **0.0** |
| SIMA | | | | *e*Sg | **Sg** | **04 36 09.8** | **+0.2** |
| **DEMI** | **Demirci** | **0.28** | **260** | *i* P | **Pg** | **04 36 12.3** | **+0.3** |
| DEMI | | | | *i* S | **Sg** | **04 36 16.5** | **+0.7** |
| **DEMI** | **Demirci** | **0.28** | **260** | P | **Pg** | **04 36 12.4** | **+0.3** |
| DEMI | | | | S | **Sg** | **04 36 16.5** | **+0.7** |
| **GDZ** | **Gediz** | **0.32** | **90** | *i* P | **Pg** | **04 36 12.2** | **-0.7** |
| GDZ | | | | *i* S | **Sg** | **04 36 16.5** | **-0.7** |
| **GDZ** | **Gediz** | **0.32** | **90** | P | **Pg** | **04 36 12.2** | **-0.7** |
| GDZ | | | | S | **Sg** | **04 36 16.5** | **-0.7** |
| **TVSB** | **Tavsanli** | **0.47** | **40** | *e*PG | **Pg** | **04 36 16.3** | **+0.6** |
| **TVSB** | **Tavsanli** | **0.47** | **40** | *e*Pg | **Pg** | **04 36 16.3** | **+0.6** |
| **KULA** | **Kula-Manisa** | **0.66** | **209** | *e*PG | **Pg** | **04 36 19.4** | **+0.1** |
| KULA | | | | *e*SG | **Sg** | **04 36 28.4** | **+0.6** |
| **KULA** | **Kula-Manisa** | **0.66** | **209** | *e*Pg | **Pg** | **04 36 19.4** | **+0.1** |
| KULA | | | | *e*Sg | **Sg** | **04 36 28.4** | **+0.6** |
| **MANT** | **Manisa** | **0.72** | **214** | *i* P | **Pg** | **04 36 20.3** | **-0.2** |
| MANT | | | | *i* S | **Sg** | **04 36 29.9** | **+0.1** |
| **MANT** | **Manisa** | **0.72** | **214** | P | **Pg** | **04 36 20.3** | **-0.2** |
| MANT | | | | S | **Sg** | **04 36 29.9** | **+0.1** |
| **KHAL** | **Karahalli** | **0.79** | **155** | *i* P | **Pg** | **04 36 21.6** | **-0.2** |
| KHAL | | | | *i* S | **Sg** | **04 36 32.0** | **-0.1** |
| **KHAL** | **Karahalli** | **0.79** | **155** | P | **Pg** | **04 36 21.6** | **-0.2** |
| KHAL | | | | S | **Sg** | **04 36 32.0** | **-0.1** |
| **ORLT** | **Orhaneli** | **0.96** | **352** | *e*PG | **Pb** | **04 36 25.8** | **+0.1** |
| ORLT | | | | *e*SG | **Sb** | **04 36 39.7** | **+1.0** |
| **ORLT** | **Orhaneli** | **0.96** | **352** | *e*Pg | **Pb** | **04 36 25.8** | **+0.1** |
| ORLT | | | | *e*Sg | **Sb** | **04 36 39.7** | **+1.0** |
| **AKHS** | **Akhisar** | **1.00** | **258** | *i* P | **Pb** | **04 36 26.4** | **+0.1** |
| AKHS | | | | *i* S | **Sb** | **04 36 40.2** | **+0.4** |
| **AKHS** | **Akhisar** | **1.00** | **258** | P | **Pb** | **04 36 26.4** | **+0.1** |
| AKHS | | | | S | **Sb** | **04 36 40.2** | **+0.4** |
| **BALB** | **Balikesir** | **1.07** | **301** | *e*PN | **Pb** | **04 36 27.7** | **+0.1** |
| BALB | | | | *e*SN | **Sn** | **04 36 43.5** | **+0.1** |
| **BALB** | **Balikesir** | **1.07** | **301** | *e*Pn | **Pb** | **04 36 27.7** | **+0.1** |
| BALB | | | | *e*Sn | **Sn** | **04 36 43.5** | **+0.1** |
| **STEP** | **BALIKESIR_Sava** | **1.09** | **286** | *i* P | **Pb** | **04 36 28.1** | **+0.3** |
| STEP | | | | *i* S | **Sn** | **04 36 43.9** | **+0.1** |
| **STEP** | **BALIKESIR_Sava** | **1.09** | **286** | P | **Pb** | **04 36 28.1** | **+0.3** |
| STEP | | | | S | **Sn** | **04 36 43.9** | **+0.1** |
| **IGD** | **Bursa** | **1.18** | **5** | *i* P | **Pg** | **04 36 28.2** | **-1.0** |
| IGD | | | | *i* S | **Sg** | **04 36 43.9** | **-0.5** |
| **KZIL** | **AFYON_Kizioren** | **1.18** | **134** | *i* P | **Pb** | **04 36 29.3** | **-0.2** |
| KZIL | | | | *i* S | **Sn** | **04 36 45.7** | **-0.6** |
| **KZIL** | **AFYON_Kizioren** | **1.18** | **134** | P | **Pb** | **04 36 29.3** | **-0.2** |
| KZIL | | | | S | **Sn** | **04 36 45.7** | **-0.6** |
| **CAVI** | **Cavuskoy** | **1.26** | **28** | *e*PN | **Pb** | **04 36 31.1** | **+0.3** |
| **CAVI** | **Cavuskoy** | **1.26** | **28** | *e*Pn | **Pb** | **04 36 31.1** | **+0.3** |
| **SHUT** | **Suhut-Afyon** | **1.28** | **114** | *e*PN | **Pn** | **04 36 31.4** | **+0.3** |
| **SHUT** | **Suhut-Afyon** | **1.28** | **114** | *e*Pn | **Pn** | **04 36 31.4** | **+0.3** |
| **MDNY** | **Mudanya-Bursa** | **1.28** | **354** | *e*PN | **Pg** | **04 36 31.8** | **+0.5** |
| **MDNY** | **Mudanya-Bursa** | **1.28** | **354** | *e*Pn | **Pg** | **04 36 31.8** | **+0.5** |
| **KCTX** | **Karacabey (Bur** | **1.29** | **335** | *e*PN | **Pg** | **04 36 31.9** | **+0.4** |
| **KCTX** | **Karacabey (Bur** | **1.29** | **335** | *e*Pn | **Pg** | **04 36 31.9** | **+0.4** |
| **BALY** | **Balya** | **1.29** | **300** | *i* P | **Pn** | **04 36 27.6** | **-3.7** |
| BALY | | | | *i* S | **Sn** | **04 36 49.7** | **+0.7** |
| **BALY** | **Balya** | **1.29** | **300** | P | **Pn** | **04 36 27.6** | **-3.7** |
| BALY | | | | S | **Sn** | **04 36 49.7** | **+0.7** |
| **GONE** | **Gonen-Balikesi** | **1.43** | **312** | *e*PN | **Pg** | **04 36 34.2** | **+0.2** |
| **GONE** | **Gonen-Balikesi** | **1.43** | **312** | *e*Pn | **Pg** | **04 36 34.2** | **+0.2** |
| **ARMT** | **Armutlu** | **1.48** | **354** | *e*PN | **Pb** | **04 36 34.4** | **-0.2** |
| **ARMT** | **Armutlu** | **1.48** | **354** | *e*Pn | **Pb** | **04 36 34.4** | **-0.2** |
| **YLV** | **Yalova** | **1.49** | **9** | *e*PN | **Pb** | **04 36 34.6** | **-0.1** |
| **YLV** | **Yalova** | **1.49** | **9** | *e*Pn | **Pb** | **04 36 34.7** | **-0.1** |
| **EDC** | **Edincik** | **1.56** | **324** | *e*PN | **Pb** | **04 36 35.8** | **-0.1** |
| **EDC** | **Edincik** | **1.56** | **324** | *e*Pn | **Pb** | **04 36 35.8** | **-0.1** |
| **BRDR** | **BURDUR-Merkez** | **1.60** | **150** | *i* P | **Pg** | **04 36 37.5** | **+0.3** |
| BRDR | | | | *i* S | **Sg** | **04 37 00.0** | **+2.1** |
| **BRDR** | **BURDUR-Merkez** | **1.60** | **150** | P | **Pg** | **04 36 37.5** | **+0.3** |
| BRDR | | | | S | **Sg** | **04 37 00.0** | **+2.1** |
| **GULT** | **Gulveren** | **1.74** | **39** | *e*PN | **Pb** | **04 36 38.5** | **-0.5** |
| **GULT** | **Gulveren** | **1.74** | **39** | *e*Pn | **Pb** | **04 36 38.5** | **-0.5** |
| **HRT** | **Hereke** | **1.79** | **15** | *e*PN | **Pn** | **04 36 38.7** | **+0.6** |
| **HRT** | **Hereke** | **1.79** | **15** | *e*Pn | **Pn** | **04 36 38.7** | **+0.6** |

*CSEM* ***08*** *04:47:37.7±0.4, 35.°58N×44.°32E, h2km, ML2.5, Error ellipse: s-maj=10.6km s-min=7.0km az=35.0*
*ISN* ***08*** *04:47:37.2±1.8, 35.°52N×44.°49E, h35km, ML2.5*
**TEH 08 04:47:41.5, 35.°59N×44.°46E, h18km, ML2.5, Iraq**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **IDHR** | **Dehrash** | **1.81** | **119** | *e*Pn | Pn | 04 48 11.4 | -0.6 |
| IDHR | | | | *e*AMB | AMB | 04 48 13.1 | |
| | comp=Z,507nm,0.1s | | | | | | |
| IDHR | | | | *e*Sg | Sb | 04 48 38.1 | +1.5 |
| **IDHR** | **Dehrash** | **1.81** | **119** | *e*Pn | Pn | 04 48 11.4 | -0.6 |
| IDHR | | | | *e*Sg | Sb | 04 48 38.1 | +1.5 |
| **IGHG** | **Ghaleghazi** | **2.14** | **125** | *e*Pn | Pn | 04 48 16.4 | -0.1 |
| IGHG | | | | *e*Sg | Sg | 04 48 48.5 | -1.9 |
| IGHG | | | | *e*AMB | AMB | 04 49 02.5 | |
| | comp=Z,318nm,0.3s | | | | | | |
| **IGHG** | **Ghaleghazi** | **2.14** | **125** | *e*Pn | Pn | 04 48 16.4 | -0.1 |
| IGHG | | | | *e*Sg | Sg | 04 48 48.5 | -1.9 |
| **IVIS** | **Veis** | **2.23** | **118** | *e*Pn | Pn | 04 48 18.4 | +0.8 |
| IVIS | | | | *e*AMB | AMB | 04 48 57.7 | |
| | comp=Z,165nm,0.2s | | | | | | |
| **IVIS** | **Veis** | **2.23** | **118** | *e*Pn | Pn | 04 48 18.4 | +0.8 |

*ISCJB* ***08*** *04:54:54.4±0.8, 22.°56N±0.°03×122.°18E±0.°02, h15km±6km, Error ellipse: s-maj=4.8km s-min=2.6km az=159.5*
*JMA* ***08*** *04:54:54.7±0.1, 22.°63N×122.°06E, h36km*
*TAP* ***08*** *04:54:55.5, 22.°54N×122.°06E, h40km±1km, ML3.9, D*
**ISC 08 04:54:53.0**±1.2**, 22.°59N**±0.°03×**122.°10E**±0.°03**, h15**km±9km**,**
**n53,** σ**0.s74**/99**, 1C, Taiwan region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LAY** | **Lan-yu** | **0.75** | **223** | *i* P | **Pb** | **04 55 08.1** | **+0.3** |
| | baz=229 | | | | | | |
| LAY | | | | *i* S | **Sg** | **04 55 17.0** | **-0.6** |
| | baz=229 | | | | | | |
| **CHKT** | **Chengkung** | **0.84** | **307** | *e*P | **Pb** | **04 55 09.7** | **+0.3** |
| | baz=318 | | | | | | |
| CHKT | | | | *e*S | **Sg** | **04 55 19.5** | **-1.0** |
| | baz=318 | | | | | | |
| **TTN** | **Taitung** | **0.89** | **280** | *e*P | **Pn** | **04 55 10.9** | **-0.1** |
| | baz=284 | | | | | | |
| TTN | | | | *e*S | **Sn** | **04 55 23.6** | **-0.1** |
| | baz=284 | | | | | | |
| **TWG** | **Pinlang** | **0.97** | **284** | P | **Pg** | **04 55 11.9** | **0.0** |
| | baz=287 | | | | | | |
| TWG | | | | S | **Sg** | **04 55 24.7** | **0.0** |
| | baz=287 | | | | | | |
| **TWF1** | **Yuli** | **1.06** | **316** | P | **Pb** | **04 55 13.1** | **+0.1** |
| | baz=319 | | | | | | |
| TWF1 | | | | S | **Sg** | **04 55 27.6** | **+0.3** |
| | baz=319 | | | | | | |
| **ECL** | **Taimali** | **1.06** | **270** | P | **Pg** | **04 55 13.4** | **0.0** |
| | baz=285 | | | | | | |
| ECL | | | | S | **Sb** | **04 55 26.4** | **-0.3** |
| | baz=285 | | | | | | |
| **TAW** | **Tawu** | **1.14** | **258** | *e*P | **Pg** | **04 55 15.0** | **0.0** |
| | baz=260 | | | | | | |
| TAW | | | | *e*S | **Sb** | **04 55 27.6** | **-1.3** |
| | baz=260 | | | | | | |
| **EHY** | **Hungye** | **1.16** | **322** | *e*P | **Pb** | **04 55 14.8** | **+0.1** |
| | baz=330 | | | | | | |
| EHY | | | | *e*S | **Sb** | **04 55 29.5** | **0.0** |
| | baz=330 | | | | | | |
| **ELDTW** | **Lidau** | **1.16** | **301** | P | **Pn** | **04 55 14.7** | **-0.1** |
| | baz=313 | | | | | | |
| **EAST** | **Anshuo** | **1.18** | **260** | P | **Pg** | **04 55 15.5** | **-0.2** |
| | baz=262 | | | | | | |
| EAST | | | | S | **Sb** | **04 55 28.8** | **-1.3** |
| | baz=262 | | | | | | |
| **TSEB** | **Hengchuen, Pin** | **1.31** | **238** | *e*P | **Pg** | **04 55 18.4** | **+0.1** |
| | baz=248 | | | | | | |
| TSEB | | | | *e*S | **Sn** | **04 55 34.3** | **+0.4** |
| | baz=248 | | | | | | |
| **ESL** | **Shilin** | **1.36** | **333** | *e*P | **Pb** | **04 55 18.8** | **+0.5** |
| | baz=343 | | | | | | |
| ESL | | | | *e*S | **Sn** | **04 55 33.7** | **-1.5** |
| | baz=343 | | | | | | |
| **STYT** | **Tauyuan** | **1.36** | **295** | *e*P | **Pb** | **04 55 18.3** | **+0.1** |
| | baz=303 | | | | | | |
| STYT | | | | *e*S | **Sn** | **04 55 35.2** | **-0.2** |
| | baz=303 | | | | | | |
| **TWK1** | **Hengchun** | **1.36** | **242** | *e*P | **Pb** | **04 55 18.2** | **0.0** |
| | baz=242 | | | | | | |
| TWK1 | | | | S | **Sn** | **04 55 34.5** | **-0.7** |
| | baz=242 | | | | | | |
| **SSD** | **Sandimen** | **1.36** | **277** | P | **Pb** | **04 55 18.2** | **0.0** |
| | baz=284 | | | | | | |
| **YUS** | **Yu-Shan** | **1.38** | **310** | ⇑P | **Pb** | **04 55 19.0** | **+0.1** |
| | baz=313 | | | | | | |
| YUS | | | | *e*S | **Sn** | **04 55 36.2** | **-0.3** |
| | baz=313 | | | | | | |
| **SCZT** | **Fangliau** | **1.39** | **261** | *e*P | **Pb** | **04 55 18.8** | **+0.2** |
| | baz=252 | | | | | | |
| SCZT | | | | *e*S | **Sg** | **04 55 38.7** | **+1.0** |
| | baz=252 | | | | | | |
| **HEN** | **Hengchun** | **1.39** | **245** | *e*P | **Pg** | **04 55 19.5** | **-0.3** |
| | baz=240 | | | | | | |
| HEN | | | | S | **Sn** | **04 55 35.2** | **-0.8** |
| | baz=240 | | | | | | |
| **WDT** | **Danda** | **1.46** | **323** | P | **Pb** | **04 55 19.7** | **-0.3** |
| | baz=335 | | | | | | |
| WDT | | | | *e*S | **Sn** | **04 55 37.1** | **-1.1** |
| | baz=335 | | | | | | |
| **SGST** | **Jiashian** | **1.48** | **289** | P | **Pg** | **04 55 21.3** | **-0.2** |
| | baz=297 | | | | | | |
| SGST | | | | *e*S | **Sg** | **04 55 41.4** | **+0.6** |
| | baz=297 | | | | | | |
| **ALS** | **Alishan** | **1.50** | **308** | P | **Pb** | **04 55 21.3** | **+0.5** |
| | baz=316 | | | | | | |
| ALS | | | | *e*S | **Sb** | **04 55 40.3** | **+0.6** |
| | baz=316 | | | | | | |
| **WTP** | **Ta-pu** | **1.51** | **296** | P | **Pg** | **04 55 21.7** | **-0.4** |
| | baz=305 | | | | | | |
| WTP | | | | S | **Sg** | **04 55 42.2** | **+0.3** |
| | baz=305 | | | | | | |
| **TWD** | **Chiawan** | **1.55** | **343** | *e*P | **Pn** | **04 55 20.3** | **+0.2** |
| | baz=344 | | | | | | |
| TWD | | | | *e*S | **Sn** | **04 55 38.4** | **-1.5** |
| | baz=344 | | | | | | |
| **CHN1** | **Nanshi** | **1.56** | **292** | P | **Pg** | **04 55 22.8** | **-0.3** |
| | baz=298 | | | | | | |
| CHN1 | | | | S | **Sg** | **04 55 44.2** | **+0.7** |
| | baz=298 | | | | | | |
| **TWM1** | **Shoushan** | **1.56** | **279** | *e*P | **Pg** | **04 55 23.3** | **+0.2** |
| | baz=282 | | | | | | |
| **CHN4** | **Tsaushan** | **1.58** | **299** | P | **Pg** | **04 55 22.8** | **-0.6** |
| | baz=307 | | | | | | |
| CHN4 | | | | *e*S | **Sg** | **04 55 44.6** | **+0.7** |
| | baz=307 | | | | | | |
| **TWK** | **Hsinying** | **1.63** | **295** | P | **Pg** | **04 55 23.7** | **-0.7** |
| | baz=304 | | | | | | |
| TWK | | | | *e*S | **Sg** | **04 55 45.6** | **0.0** |
| | baz=304 | | | | | | |
| **CHN5** | **Tsauling** | **1.65** | **308** | P | **Pg** | **04 55 24.1** | **-0.6** |
| | baz=318 | | | | | | |
| CHN5 | | | | S | **Sg** | **04 55 45.9** | **-0.2** |
| | baz=318 | | | | | | |
| **SMLT** | **Sun Moon Lake** | **1.69** | **320** | P | **Pb** | **04 55 23.9** | **0.0** |
| | baz=327 | | | | | | |
| SMLT | | | | S | **Sb** | **04 55 45.2** | **+0.1** |
| | baz=327 | | | | | | |
| **WHF** | **Hehuan Shan** | **1.72** | **334** | P | **Pb** | **04 55 24.0** | **-0.6** |
| | baz=336 | | | | | | |
| **TYC** | **Yuchr** | **1.73** | **319** | P | **Pb** | **04 55 25.2** | **+0.7** |
| | baz=325 | | | | | | |
| TYC | | | | *e*S | **Sb** | **04 55 46.6** | **+0.4** |
| | baz=325 | | | | | | |
| **WGK** | **Gukeng** | **1.78** | **308** | *e*P | **Pg** | **04 55 27.0** | **-0.3** |
| | baz=310 | | | | | | |
| WGK | | | | *e*S | **Sg** | **04 55 49.7** | **-0.8** |
| | baz=310 | | | | | | |
| **CHY** | **Chiayi** | **1.79** | **301** | *e*P | **Pg** | **04 55 27.0** | **-0.3** |
| | baz=302 | | | | | | |
| CHY | | | | *e*S | **Sg** | **04 55 50.0** | **-0.5** |
| | baz=302 | | | | | | |
| **WNT** | **Mingjian** | **1.82** | **315** | *e*P | **Pb** | **04 55 27.0** | **+0.9** |
| | baz=317 | | | | | | |
| WNT | | | | S | **Sb** | **04 55 49.6** | **+0.9** |
| | baz=317 | | | | | | |
| **ENA** | **Nanau** | **1.85** | **350** | P | **Pn** | **04 55 25.4** | **+1.1** |
| | baz=351 | | | | | | |
| ENA | | | | *e*S | **Sn** | **04 55 46.7** | **-0.8** |
| | baz=351 | | | | | | |
| **TWT** | **Tachien** | **1.86** | **333** | *e*P | **Pb** | **04 55 27.2** | **+0.5** |
| | baz=342 | | | | | | |
| TWT | | | | *e*S | **Sn** | **04 55 48.1** | **+0.3** |
| | baz=342 | | | | | | |
| **NNS** | **Nan Shan** | **1.96** | **340** | *e*P | **Pb** | **04 55 28.7** | **+0.3** |
| | baz=342 | | | | | | |
| NNS | | | | *e*S | **Sn** | **04 55 50.1** | **0.0** |
| | baz=342 | | | | | | |
| **JYNG** | **Yonagunijimaku** | **2.01** | **23** | P | **Pn** | **04 55 27.7** | **+1.3** |
| **TWC** | **Suao** | **2.02** | **354** | *e*P | **Pb** | **04 55 30.6** | **+1.1** |
| | baz=354 | | | | | | |
| TWC | | | | *e*S | **Sn** | **04 55 51.8** | **+0.3** |
| | baz=354 | | | | | | |
| **TCU** | **Taichung** | **2.02** | **320** | *e*P | **Pg** | **04 55 31.6** | **-0.3** |
| | baz=310 | | | | | | |
| TCU | | | | *e*S | **Sb** | **04 55 55.0** | **+0.4** |
| | baz=310 | | | | | | |
| **ENTT** | **Nioudou** | **2.10** | **347** | *e*P | **Pg** | **04 55 32.5** | **-0.7** |
| | baz=355 | | | | | | |
| ENTT | | | | *e*S | **Sn** | **04 55 54.0** | **+0.6** |
| | baz=355 | | | | | | |
| **TWQ1** | **Liyutan** | **2.13** | **325** | *e*P | **Pb** | **04 55 31.5** | **+0.2** |
| | baz=337 | | | | | | |
| TWQ1 | | | | *e*S | **Sb** | **04 55 58.0** | **+0.4** |
| | baz=337 | | | | | | |
| **HATJ** | **Hateruma jima** | **2.14** | **47** | P | **Pn** | **04 55 29.4** | **+1.2** |
| HATJ | | | | S | **Sn** | **04 55 53.7** | **-0.8** |
| **NSK** | **Sanguang** | **2.18** | **342** | *e*P | **Pb** | **04 55 32.0** | **-0.3** |
| | baz=343 | | | | | | |
| NSK | | | | S | **Sn** | **04 55 55.9** | **+0.3** |
| | baz=343 | | | | | | |
| **NSTT** | **Nanjuang** | **2.26** | **334** | *e*P | **Pb** | **04 55 33.9** | **+0.2** |
| | baz=341 | | | | | | |
| NSTT | | | | *e*S | **Sn** | **04 55 59.1** | **+1.5** |
| | baz=341 | | | | | | |
| **IRIF** | **Iriomote-Funau** | **2.29** | **41** | P | **Pn** | **04 55 31.9** | **+1.6** |
| IRIF | | | | S | **Sn** | **04 55 58.0** | **-0.2** |
| **JKRS** | **Kuro-shima** | **2.40** | **47** | P | **Pn** | **04 55 33.2** | **+1.4** |
| JKRS | | | | S | **Sn** | **04 56 00.0** | **-0.9** |
| **NWF** | **Wu-fen Shan** | **2.48** | **353** | P | **Pb** | **04 55 36.0** | **-1.4** |
| | baz=344 | | | | | | |
| NWF | | | | S | **Sb** | **04 56 05.7** | **-2.1** |
| | baz=344 | | | | | | |
| **JIJ** | **Ishigaki jima** | **2.57** | **46** | P | **Pn** | **04 55 35.0** | **+0.8** |
| JIJ | | | | *e*S | **Sn** | **04 56 03.4** | **-1.8** |
| **JISG** | **Ishigakijimahi** | **2.84** | **45** | P | **Pn** | **04 55 38.5** | **+0.7** |
| JISG | | | | *e*S | **Sn** | **04 56 10.7** | **-1.0** |
| **JTJ** | **Tarama** | **3.14** | **49** | P | **Pn** | **04 55 43.0** | **+1.1** |
| JTJ | | | | S | **Sn** | **04 56 18.5** | **-0.7** |
| **JIRB** | **Irabujima** | **3.59** | **51** | *e*S | **Sn** | **04 56 29.6** | **-0.7** |
| **JIKM** | **Ikemajima** | **3.70** | **51** | *e*S | **Sn** | **04 56 33.3** | **+0.3** |

*SJA* ***08*** *05:12:14.2±0.9, 27.°74S×71.°66W, h20km, ML3.8, MW3.7*
*IDC* ***08*** *05:12:15.6±1.3, 27.°89S×71.°33W, h0km, mb3.8/3, mb1 3.9/4, mb1mx3.6/32, mbtmp3.8/4, ML3.7/1, MS3.1/3, Ms1 3.1/3, ms1mx2.7/22, Error ellipse: s-maj=47.0km s-min=38.5km az=29.0*
*ISCJB* ***08*** *05:12:17.1±1.2, 27.°84S±0.°03×71.°60W±0.°06, h24km±9km, mb4.1/5, MS2.9/1, Error ellipse: s-maj=9.5km s-min=5.2km az=174.9*
*GUC* ***08*** *05:12:20.8±0.7, 28.°04S×70.°99W, h53km±6km, ML3.8*
*NEIC* ***08*** *05:12:20.0±0.0, 27.°98S×71.°15W, h26km, mb4.1/2, ML3.8(GUC), After GUC.*
**ISC 08 05:12:17.5**±1.9**, 27.°84S**±0.°03×**71.°39W**±0.°05**, h9**km±12km**,**
**n48,** σ**2.s97**/62**, mb4.3**/5**, 5D, Near coast of northern Chile**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VACH** | **Vallenar** | **0.92** | **143** | ⇓*i*P | **Pb** | **05 12 33.8** | **-1.8** |
| VACH | | | | *i* S | **Sb** | **05 12 43.7** | **-4.2** |
| **CDCH** | **Caldera** | **0.92** | **33** | *e*P | **Pn** | **05 12 36.9** | **+0.3** |
| CDCH | | | | *i* S | **Sn** | **05 12 50.2** | **+0.3** |
| **GO03** | **Copiap** | **1.05** | **77** | ⇓*i*P | **Pb** | **05 12 37.3** | **-0.6** |
| GO03 | | | | *i* S | **Sb** | **05 12 49.1** | **-2.7** |
| GO03 | | | | IAML | | 05 12 57.8 | |
| | comp=N,2μm,0.6s | | | | | | |
| **LCO** | **Las Campanas** | **1.31** | **153** | *e*Pg | **Pn** | **05 12 40.3** | **-1.9** |
| LCO | | | | *e*Sg | **Sb** | **05 12 55.4** | **-4.1** |
| **LCO** | **Las Campanas** | **1.31** | **153** | *e*P | **Pn** | **05 12 40.5** | **-1.8** |
| **LCO** | **Las Campanas** | **1.31** | **153** | ⇓*i*P | **Pn** | **05 12 40.5** | **-1.8** |
| LCO | | | | *i* S | **Sb** | **05 12 55.5** | **-4.1** |
| LCO | | | | IAML | | 05 12 57.9 | |
| | comp=E,4μm,0.6s | | | | | | |
| **LSCH** | **La Serena** | **2.06** | **177** | ⇓*i*P | Pg | 05 13 05.8 | +8.7 |
| LSCH | | | | *i* S | **Sg** | **05 13 29.0** | **+5.2** |
| LSCH | | | | IAML | | 05 13 39.4 | |
| | comp=E,1μm,0.3s | | | | | | |
| **TLL** | **Tololo Astrono** | **2.37** | **168** | *e*P | **Pn** | **05 12 55.9** | **-0.9** |
| TLL | | | | *e*S | **Sn** | **05 13 23.9** | **-2.3** |
| TLL | | | | IAML | | 05 13 35.4 | |
| | comp=E,2μm,1.0s | | | | | | |
| **VCA** | **Vinchina** | **2.94** | **108** | *e*P | **Pb** | **05 13 08.4** | **-1.9** |
| VCA | | | | *e*S | **Sb** | **05 13 47.9** | **+1.5** |
| **AGUA** | **GUANDACOL** | **3.03** | **123** | *e*P | **Pb** | **05 13 09.3** | **-2.3** |
| AGUA | | | | *e*S | **Sb** | **05 13 49.3** | **+0.5** |
| **PB14** | **IPOC Station P** | **3.32** | **16** | ⇓*e*P | **Pn** | **05 13 10.0** | **+0.1** |
| PB14 | | | | *e*S | **Sg** | **05 14 02.5** | **-1.8** |
| **AMOG** | **MOGNA** | **3.99** | **141** | *e*P | **Pn** | **05 13 21.4** | **+2.6** |
| AMOG | | | | *e*S | **Sb** | **05 14 11.7** | **-4.7** |
| **ACLC** | **CERRO LA CRUZ** | **4.21** | **113** | *e*P | **Pn** | **05 13 23.8** | **+1.9** |
| **RTLL** | **Cerro Villicun** | **4.30** | **145** | *e*P | **Pn** | **05 13 25.4** | **+2.2** |
| RTLL | | | | *e*S | **Sn** | **05 14 17.4** | **+3.9** |
| **RTLS** | **Leoncito** | **4.34** | **156** | *e*P | **Pn** | **05 13 26.6** | **+2.7** |
| RTLS | | | | *e*S | **Sb** | **05 14 29.5** | **+2.7** |
| **AUSP** | **Uspallata** | **4.70** | **159** | *e*P | **Pn** | **05 13 31.4** | **+2.6** |
| AUSP | | | | *e*S | **Sn** | **05 14 29.8** | **+6.2** |
| **RTCV** | **Cerro Valdivia** | **4.71** | **149** | *e*P | **Pn** | **05 13 30.5** | **+1.8** |
| **APLL** | **PUNTA DE LOS L** | **4.95** | **122** | *e*P | **Pn** | **05 13 33.1** | **+1.0** |
| APLL | | | | *e*S | **Sn** | **05 14 32.2** | **+2.6** |
| **CYA** | **Choya** | **4.97** | **98** | *e*P | **Pn** | **05 13 34.1** | **+1.8** |
| CYA | | | | *e*P | **Pn** | **05 13 34.7** | **+2.4** |
| CYA | | | | IAML | | 05 13 37.8 | |
| | comp=Z,54nm,0.3s | | | | | | |
| CYA | | | | *e*S | **Sn** | **05 14 33.1** | **+3.2** |
| CYA | | | | *e*S | **Sn** | **05 14 34.7** | **+4.8** |
| **FSA** | **Cafayete** | **5.12** | **72** | *e*P | Pn | 05 13 39.8 | +5.2 |
| **ROC1** | **El Roble** | **5.13** | **177** | *e*P | **Pn** | **05 13 34.2** | **-0.5** |
| ROC1 | | | | *e*S | **Sb** | **05 14 48.5** | **-0.8** |
| **AHML** | **Horco Molle** | **5.49** | **80** | *e*P | **Pn** | **05 13 42.2** | **+2.8** |
| **ACAN** | **Cantantal** | **5.72** | **142** | *e*P | **Pn** | **05 13 45.0** | **+2.4** |
| ACAN | | | | *e*S | **Sn** | **05 14 51.7** | **+3.2** |
| **AZAP** | **Zapla** | **6.73** | **59** | *e*P | Pn | 05 14 03.8 | +7.1 |
| **TCA** | **Tanti** | **6.86** | **122** | *e*P | **Pn** | **05 13 57.8** | **-0.6** |
| TCA | | | | *e*S | **Sn** | **05 15 13.1** | **-3.6** |
| **HJA** | **Humahuaca** | **7.10** | **51** | *e*P | **Pn** | **05 14 04.5** | **+2.6** |
| **GO05** | **HualaæØ** | **7.16** | **184** | *e*P | **Sn** | **05 15 28.7** | **+4.8** |
| GO05 | | | | *e*S | **Sb** | **05 15 53.3** | **+5.8** |
| **RFA** | **San Rafael** | **7.35** | **161** | *e*P | **Pn** | **05 14 05.0** | **+0.1** |
| **YJA** | **Yavi** | **7.76** | **45** | *e*P | **Pn** | **05 14 13.0** | **+2.0** |
| **ALOL** | **LOMAS DE OLMED** | **7.78** | **61** | *e*P | **Pn** | **05 14 15.6** | **+4.6** |
| **LPAZ** | **La Paz** | **11.89** | **15** | Pn | **Pn** | **05 15 06.4** | **-1.4** |
| | comp=Z,0.2nm,0.3s,baz=224,slow=9.7,SNR=6.6 | | | | | | |
| **CPUP** | **Villa Florida** | **12.62** | **86** | Pn | **Pn** | **05 15 20.4** | **+3.2** |
| | comp=Z,0.1nm,0.3s,baz=247,slow=7.7,SNR=2.7 | | | | | | |
| CPUP | | | | LR | LR | 05 20 40.4 | |
| | comp=Z,108nm,18.0s,baz=226,slow=40 | | | | | | |
| **PLCA** | **Paso Flores** | **12.88** | **177** | LR | LR | 05 20 44.3 | |
| | comp=Z,64nm,20.2s,baz=160,slow=40 | | | | | | |
| **TRQA** | **Tornquist** | **12.88** | **145** | *e*Pn | **Pn** | **05 15 18.5** | **-2.2** |
| TRQA | | | | *e*Sn | **Sn** | **05 17 36.0** | **-8.2** |
| **SAML** | **Samuel** | **20.32** | **24** | *e*P | **P** | **05 16 53.2** | **-0.8** |
| | comp=Z,4.7nm,1.4s | | | | | | |
| **PTGA** | **Pitinga** | **29.09** | **24** | LR | LR | 05 32 02.0 | |
| | comp=Z,26nm,18.5s,baz=154,slow=41 | | | | | | |
| **H06E1** | **SOCORRO T-PHAS** | **60.11** | **316** | T | T | 06 27 53.6 | |
| | SNR=12 | | | | | | |
| **TXAR** | **Lajitas Array** | **64.70** | **329** | P | **P** | **05 22 56.1** | **+0.1** |
| | comp=Z,0.3nm,1.0s,baz=126,slow=6.1,SNR=3.5 | | | | | | |
| **AMTX** | **Amarillo** | **68.65** | **334** | *e*P | **P** | **05 23 24.7** | **+3.5** |
| | comp=Z,19nm,1.9s | | | | | | |
| **SDCO** | **Great Sand Dun** | **72.66** | **332** | *e*P | **P** | **05 23 45.2** | **-0.6** |
| | comp=Z,15nm,2.3s | | | | | | |
| **DBIC** | **Dimbokro** | **72.74** | **73** | P | **P** | **05 23 45.8** | **-0.7** |
| | comp=Z,2.1nm,0.7s,baz=192,slow=7.2,SNR=3.6 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **81.60** | **70** | P | **P** | **05 24 35.6** | **-0.6** |
| | comp=Z,0.8nm,0.6s,baz=265,slow=4.7,SNR=11 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **126.20** | **273** | T | T | 07 50 31.2 | |
| | baz=110 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **126.21** | **273** | T | T | 07 50 31.2 | |
| | baz=110 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **126.22** | **273** | T | T | 07 50 32.3 | |
| | baz=110 | | | | | | |
| **WRA** | **Warramunga Arr** | **126.37** | **210** | PKP | **PKPdf** | **05 31 20.1** | **-1.3** |
| | comp=Z,0.3nm,0.7s,baz=168,slow=1.2,SNR=2.2 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **148.61** | **27** | PKPbc | **PKPbc** | **05 32 04.9** | **+0.4** |
| | comp=Z,0.6nm,0.3s,baz=302,slow=3.3,SNR=6.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **151.99** | **40** | PKPbc | **PKPbc** | **05 32 12.7** | **-0.2** |
| | comp=Z,0.6nm,0.7s,baz=305,slow=2.6,SNR=2.8 | | | | | | |

**IDC 08 05:14:59.7**±2.7**, 30.°30S**×**138.°43E, h0**km**, mb1 3.4**/3**, mb1mx3.3**/23**, mbtmp3.1**/3**, ML2.6**/4**, Error ellipse: s-maj=70.5km s-min=14.4km az=42.0, South Australia**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **STKA** | **Stephens Creek** | **3.14** | **121** | Pn | Pn | 05 15 50.5 | +0.1 |
| | 0.1nm,0.3s,baz=297,slow=11,SNR=3.8 | | | | | | |
| STKA | | | | Pg | Pg | 05 15 58.1 | -1.7 |
| | 0.6nm,0.3s,baz=296,slow=15,SNR=7.5 | | | | | | |
| STKA | | | | Sn | Sn | 05 16 29.3 | +0.7 |
| | 1.4nm,0.3s,baz=292,slow=11,SNR=8.2 | | | | | | |
| STKA | | | | Lg | Lg | 05 16 38.1 | |
| | 1.2nm,0.3s,baz=351,slow=20,SNR=5.5 | | | | | | |
| **ASAR** | **Alice Springs** | **7.74** | **327** | Pn | Pn | 05 16 55.0 | +1.2 |
| | 0.1nm,0.3s,baz=148,slow=13,SNR=4.4 | | | | | | |
| ASAR | | | | Sn | Sn | 05 18 22.3 | +0.1 |
| | 0.1nm,0.3s,baz=150,slow=22,SNR=2.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **10.96** | **339** | Pn | Pn | 05 17 39.0 | +1.2 |
| | 0.1nm,0.3s,baz=158,slow=14,SNR=5.4 | | | | | | |
| WRA | | | | Sn | Sn | 05 19 40.7 | -0.5 |
| | 0.1nm,0.3s,baz=160,slow=23,SNR=4.2 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **16.82** | **313** | Pn | Pn | 05 18 54.6 | -2.2 |
| | 0.1nm,0.3s,baz=106,slow=8.0,SNR=7.2 | | | | | | |

*NEIC* ***08*** *05:19:12.1±0.0, 40.°42N×125.°59W, h14km, MW4.0(BRK), After NCEDC.*
*NEIC Felt at Arcata.*
*ISCJB* ***08*** *05:19:13.4±1.1, 40.°44N±0.°02×125.°46W±0.°06, h33km±12km, mb4.6/4, MS3.0/5, Error ellipse: s-maj=7.3km s-min=3.7km az=164.1*
*IDC* ***08*** *05:19:16.9±1.9, 40.°40N×124.°72W, h0km, mb3.5/3, mb1 3.7/5, mb1mx3.4/35, mbtmp3.5/5, ML3.6/2, MS2.7/8, Ms1 2.7/8, ms1mx2.6/28, Error ellipse: s-maj=33.3km s-min=21.7km az=148.0*
**ISC 08 05:19:15.0**±1.7**, 40.°45N**±0.°04×**125.°46W**±0.°07**, h34**km±4km**,**
**n98,** σ**1.s57**/102**, mb4.7**/4**, MS2.9**/5**, Off coast of northern California**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JCC** | **Jacoby Creek,** | **1.15** | **71** | *e*Pg | **Pn** | **05 19 33.1** | **-1.5** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| JCC | | | | eSg | Sn | 05 19 48.4 | -0.8 |
| KMRM | Mail Ridge | 1.36 | 99 | ePn | Pn | 05 19 37.0 | -0.6 |
| KMRM | | | | eSn | Sb | 05 19 55.7 | -1.2 |
| KHMM | Horse Mountain | 1.38 | 71 | ePn | Pn | 05 19 36.9 | -1.1 |
| KHMM | | | | eSn | Sn | 05 19 55.1 | -0.1 |
| KRMB | Red Mountain | 1.59 | 47 | ePn | Pn | 05 19 39.2 | -1.7 |
| KRMB | | | | eSn | Sb | 05 20 02.4 | -1.3 |
| KCPM | Cahto Peak | 1.63 | 117 | ePn | Pn | 05 19 39.8 | -1.5 |
| KCPM | | | | eSn | Sn | 05 20 00.6 | -0.6 |
| KBO | Bosley Butte | 1.99 | 27 | ePn | Pn | 05 19 44.9 | -1.4 |
| N02D | Trinity Center | 2.16 | 75 | P | Pn | 05 19 47.5 | -1.1 |
| | baz=257,SNR=95 | | | | | | |
| N02D | | | | S | Sn | 05 20 13.4 | -0.8 |
| | baz=257 | | | | | | |
| M02C | Callahan | 2.19 | 64 | P | Pn | 05 19 47.5 | -1.6 |
| | baz=246,SNR=35 | | | | | | |
| M02C | | | | S | Sn | 05 20 13.1 | -1.9 |
| | baz=246 | | | | | | |
| L02D | Cave Junction, | 2.21 | 39 | P | Pn | 05 19 48.0 | -1.3 |
| | baz=221,SNR=121 | | | | | | |
| L02D | | | | S | Sn | 05 20 13.8 | -1.6 |
| | baz=221 | | | | | | |
| WDC | Whiskeytown Da | 2.23 | 86 | ePn | Pn | 05 19 49.0 | -0.5 |
| HOPS | Hopland Field | 2.34 | 127 | ePn | Pn | 05 19 48.6 | -2.5 |
| YBH | Yreka Blue Hor | 2.44 | 57 | Pn | Pn | 05 19 51.9 | -0.6 |
| | 14nm,0.3s,baz=222,slow=9.8,SNR=236 | | | | | | |
| YBH | | | | Sn | Sn | 05 20 20.9 | -0.4 |
| | 13nm,0.3s,baz=143,slow=20,SNR=8.9 | | | | | | |
| YBH | | | | LR | LR | 05 20 21.4 | |
| | comp=Z,91nm,19.5s,baz=160,slow=32 | | | | | | |
| YBH | Yreka Blue Hor | 2.44 | 57 | ePn | Pn | 05 19 51.6 | -0.9 |
| YBH | | | | Sn | Sn | 05 20 20.9 | -0.4 |
| KEBM | Edson Butte | 2.57 | 19 | ePn | Pn | 05 19 52.9 | -1.3 |
| KEBM | | | | eSn | Sn | 05 20 25.4 | +1.1 |
| GDXM | Geysers | 2.63 | 128 | ePn | Pn | 05 19 54.6 | -0.5 |
| O03D | Paynes Creek | 2.80 | 92 | P | Pn | 05 19 56.6 | -0.8 |
| | baz=274,SNR=472 | | | | | | |
| O03D | | | | S | Sn | 05 20 29.2 | -0.9 |
| | baz=274 | | | | | | |
| HUMO | Hull Mountain | 2.86 | 40 | ePn | Pn | 05 19 57.6 | -0.7 |
| M04C | Macdoel | 3.04 | 63 | P | Pn | 05 20 00.7 | -0.1 |
| | baz=245,SNR=48 | | | | | | |
| M04C | | | | S | Sn | 05 20 33.5 | -2.6 |
| | baz=245 | | | | | | |
| MCCM | Marconi Confer | 3.05 | 138 | ePn | Pn | 05 19 58.8 | -1.9 |
| ORV | Oroville | 3.17 | 105 | ePn | Pn | 05 20 02.6 | +0.2 |
| K04D | Chiloquin, OR | 3.53 | 51 | P | Pn | 05 20 07.7 | +0.1 |
| | baz=234,SNR=118 | | | | | | |
| I03D | Drain, OR | 3.61 | 25 | P | Pn | 05 20 08.3 | -0.2 |
| | baz=208,SNR=13 | | | | | | |
| I03D | | | | S | Sn | 05 20 49.0 | -0.8 |
| | baz=208 | | | | | | |
| AFDM | Forest Hills D | 3.77 | 112 | ePn | Pn | 05 20 10.5 | -0.3 |
| BEKR | Beckworth | 3.95 | 97 | ePn | Pn | 05 20 13.5 | +0.2 |
| I04A | Tendick Farm, | 4.04 | 33 | P | Pn | 05 20 14.8 | +0.4 |
| | baz=216,SNR=50 | | | | | | |
| I04A | | | | S | Sn | 05 21 00.0 | -0.6 |
| | baz=216 | | | | | | |
| MOD | Modoc Plateau | 4.15 | 68 | ePn | Pn | 05 20 16.4 | +0.3 |
| J05D | Fort Rock, OR | 4.24 | 47 | P | Pn | 05 20 17.9 | +0.6 |
| | baz=230,SNR=149 | | | | | | |
| COR | Corvallis | 4.43 | 20 | ePn | Pn | 05 20 15.5 | -4.2 |
| COR | | | | eSn | Sn | 05 21 08.2 | -1.9 |
| CMB | Columbia Colle | 4.62 | 120 | ePn | Pn | 05 20 23.2 | +0.8 |
| CMB | | | | eSn | Sn | 05 21 16.0 | +1.1 |
| PNTR | Pine Nut | 4.71 | 105 | ePn | Pn | 05 20 24.2 | +0.3 |
| PAHR | Pah Rah Range | 4.72 | 97 | ePn | Pn | 05 20 23.4 | -0.4 |
| SAO | San Andreas Ge | 4.84 | 138 | ePn | Pn | 05 20 22.9 | -2.4 |
| SAO | | | | eSn | Sn | 05 21 19.6 | -0.6 |
| H04A | Detroit Lake | 4.88 | 29 | ePn | Pn | 05 20 26.6 | +0.7 |
| I05D | Terrebonne, OR | 4.94 | 37 | P | Pn | 05 20 27.3 | +0.5 |
| | baz=220,SNR=20 | | | | | | |
| YERR | Yerington | 5.01 | 105 | ePn | Pn | 05 20 29.1 | +1.1 |
| G03D | McMinnville, O | 5.03 | 18 | P | Pn | 05 20 29.1 | +1.2 |
| | baz=200 | | | | | | |
| G03D | | | | S | Sn | 05 21 24.2 | -0.7 |
| | baz=200 | | | | | | |
| WAKR | Walker | 5.05 | 111 | ePn | Pn | 05 20 29.8 | +1.4 |
| WVOR | Wild Horse Val | 5.50 | 67 | ePn | Pn | 05 20 34.5 | 0.0 |
| PMPB | Monarch Peak | 5.59 | 138 | ePn | Pn | 05 20 34.5 | -1.3 |
| G05D | Wamic, OR | 5.68 | 31 | P | Pn | 05 20 36.8 | -0.1 |
| | baz=214,SNR=12 | | | | | | |
| MDPB | Devils Postpil | 5.71 | 117 | ePn | Pn | 05 20 39.1 | +1.5 |
| I07A | Izee | 5.72 | 49 | ePn | Pn | 05 20 39.4 | +1.8 |
| F04A | Amboy | 5.92 | 21 | ePn | Pn | 05 20 41.9 | +1.8 |
| G06A | Carlson Farm, | 5.96 | 35 | ePn | Pn | 05 20 42.2 | +1.4 |
| J08A | Circle Bar Ran | 5.97 | 59 | ePn | Pn | 05 20 41.6 | +0.7 |
| PAGB | Antelope Grade | 6.25 | 137 | ePn | Pn | 05 20 43.3 | -1.4 |
| F07A | Phinny Hill Vi | 6.78 | 35 | ePn | Pn | 05 20 53.4 | +1.4 |
| G08A | Pilot Rock | 6.80 | 42 | ePn | Pn | 05 20 54.8 | +2.4 |
| LON | Longmire | 6.83 | 22 | ePn | Pn | 05 20 53.7 | +0.9 |
| ISA | Isabella, Lake | 7.29 | 129 | P | Pn | 05 21 00.5 | +1.4 |
| | baz=312 | | | | | | |
| ISA | Isabella, Lake | 7.29 | 129 | ePn | Pn | 05 21 00.2 | +1.1 |
| E07A | Sunnyside | 7.34 | 32 | ePn | Pn | 05 21 01.2 | +1.5 |
| HAWA | Hanford | 7.34 | 34 | ePn | Pn | 05 21 01.1 | +1.4 |
| BMO | Blue Mountains | 7.45 | 51 | ePn | Pn | 05 21 03.2 | +2.0 |
| E08A | Dider Farm, El | 7.62 | 35 | ePn | Pn | 05 21 05.0 | +1.4 |
| LTY | Liberty | 7.64 | 25 | ePn | Pn | 05 21 05.2 | +1.3 |
| MFID | Camas Ranch | 7.77 | 64 | ePn | Pn | 05 21 06.3 | +0.6 |
| E09A | Wood Farm, Sta | 8.06 | 39 | ePn | Pn | 05 21 10.5 | +0.9 |
| D08A | Wollman Farm, | 8.12 | 33 | ePn | Pn | 05 21 11.4 | +0.9 |
| F10A | Beach Ranch, E | 8.16 | 45 | ePn | Pn | 05 21 12.2 | +1.1 |
| PGC | Sidney | 8.33 | 9 | ePn | Pn | 05 21 15.8 | +2.6 |
| GSC | Goldstone, Bar | 8.55 | 124 | ePn | Pn | 05 21 17.2 | +0.7 |
| HLID | Hailey | 8.79 | 66 | ePn | Pn | 05 21 20.3 | +0.5 |
| SHPR | Sheep Range | 8.98 | 113 | ePn | Pn | 05 21 22.9 | +0.5 |
| B08A | Colville Reser | 9.04 | 27 | ePn | Pn | 05 21 24.7 | +1.7 |
| BGU | Big Grassy Mou | 9.46 | 83 | ePn | Pn | 05 21 32.0 | +3.1 |
| DUG | Dugway, Tooele | 9.66 | 87 | ePn | Pn | 05 21 32.3 | +0.6 |
| HVU | Hansel Valley | 9.67 | 78 | ePn | Pn | 05 21 35.0 | +3.2 |
| NEW | Newport | 9.83 | 35 | LR | LR | 05 25 15.8 | |
| | comp=Z,58nm,21.0s,baz=246,slow=38 | | | | | | |
| SPUT | South Promonto | 9.89 | 81 | ePn | Pn | 05 21 38.1 | +3.2 |
| PFO | Pinyon Flats O | 9.91 | 131 | LR | LR | 05 25 42.8 | |
| | comp=Z,57nm,20.8s,baz=239,slow=41 | | | | | | |
| MCMT | McKenzie Canyo | 10.27 | 61 | ePn | Pn | 05 21 42.1 | +2.1 |
| MSO | Missoula | 10.50 | 49 | ePn | Pn | 05 21 45.7 | +2.6 |
| DLMT | Dillon | 10.63 | 58 | ePn | Pn | 05 21 47.5 | +2.5 |
| JTMT | Jette | 10.85 | 44 | ePn | Pn | 05 21 51.2 | +3.3 |
| TMUT | Trail Mountain | 11.02 | 91 | ePn | Pn | 05 21 56.2 | +5.9 |
| IMW | Indian Meadow | 11.31 | 68 | ePn | Pn | 05 21 57.6 | +3.2 |
| BOZ | Bozeman (W) | 11.35 | 58 | ePn | Pn | 05 21 56.6 | +1.8 |
| MOOW | Moose Ponds | 11.42 | 68 | ePn | Pn | 05 21 59.4 | +3.6 |
| H17A | Grant Village | 11.68 | 65 | ePn | Pn | 05 22 04.3 | +4.8 |
| PDAR | Pinedale Array | 12.13 | 74 | Pn | Pn | 05 22 07.2 | +1.7 |
| | 0.1nm,0.3s,baz=263,slow=14,SNR=3.4 | | | | | | |
| SDCO | Great Sand Dun | 15.73 | 93 | ePn | Pn | 05 22 55.8 | +1.6 |
| | 7.1nm,1.3s | | | | | | |
| ANMO | Albuquerque | 16.00 | 104 | LR | LR | 05 28 23.5 | |
| | comp=Z,17nm,20.7s,baz=304,slow=35 | | | | | | |
| LPIG | La Paz | 20.68 | 137 | LR | LR | 05 31 35.8 | |
| | comp=Z,51nm,19.4s,baz=230,slow=36 | | | | | | |
| TXAR | Lajitas Array | 20.98 | 115 | P | Pn | 05 23 57.2 | -0.8 |
| | 0.6nm,0.9s,baz=294,slow=8.7,SNR=4.7 | | | | | | |
| TXAR | | | | LR | LR | 05 32 01.7 | |
| | comp=Z,15nm,21.5s,baz=0.0,slow=37 | | | | | | |
| FFC | Flin Flon | 21.18 | 40 | eP | P | 05 23 58.2 | +1.0 |
| ULM | Lac du Bonnet | 22.85 | 55 | P | P | 05 24 15.9 | +0.8 |
| | 2.9nm,0.7s,baz=247,slow=8.4,SNR=4.9 | | | | | | |
| ULM | | | | LR | LR | 05 32 04.1 | |
| | comp=Z,15nm,18.9s,baz=65,slow=34 | | | | | | |
| INK | Inuvik | 28.26 | 354 | LR | LR | 05 37 03.0 | |
| | comp=Z,39nm,21.4s,baz=98,slow=38 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 60.64 | 272 | T | T | 06 36 08.5 | |
| | baz=51 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 60.64 | 272 | T | T | 06 36 03.4 | |
| | baz=51 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 60.65 | 272 | T | T | 06 36 05.1 | |
| | baz=51 | | | | | | |
| ZALV | Zalesovo Beam | 82.44 | 343 | P | P | 05 31 42.6 | +9.1 |
| | 0.4nm,0.4s,baz=36,slow=5.4,SNR=2.1 | | | | | | |
| HHC | Hu-ho-hao-te | 83.92 | 320 | eP | P | 05 31 40.5 | -1.1 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.4s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,34nm,4.8s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,20nm,0.4s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,61nm,4.4s | | | | | | |
| WMQ | Urumqi | 90.95 | 337 | eP | P | 05 32 16.8 | +1.4 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,18nm,0.7s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,150nm,4.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,33nm,15.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,130nm,26.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,57nm,16.7s | | | | | | |
| VNA3 | Neumayer Olymp | 135.96 | 155 | PKP | PKPpre | 05 38 20.8 | |
| VNA1 | Neumayer--Stat | 136.51 | 154 | PKP | PKPpre | 05 38 25.2 | |
| VNA2 | Neumayer--Watz | 136.75 | 155 | PKP | PKPdf | 05 38 30.2 | -2.4 |
| | baz=355,slow=0.1 | | | | | | |
| SNAA | Sanae | 138.00 | 157 | PKP | PKPpre | 05 38 28.4 | |

*NEIC **08** 05:27:46.8±0.0, 14°.27N×59°.54W, h53km, MD4.0(TRN), After TRN.*

**TRN 08 05:27:46.9, 14°.26N×59°.54W, h59km, MD4.0, 1D, Windward Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| BBGH | Gun Hill | 1.11 | 181 | eP | Pn | 05 28 07.5 | +1.0 |
| BBGH | | | | eS | Sn | 05 28 22.8 | +1.8 |
| BBGH | Gun Hill | 1.11 | 181 | eP | Pn | 05 28 07.5 | +1.0 |
| BBGH | | | | eS | Sn | 05 28 22.8 | +1.8 |
| MVM | Montagne Vaucl | 1.34 | 283 | eP | Pn | 05 28 10.6 | +1.1 |
| SLW | Petit Monier | 1.38 | 260 | eP | Pn | 05 28 11.8 | +1.8 |
| SLW | | | | eS | Sn | 05 28 28.9 | +1.7 |
| SLW | Petit Monier | 1.38 | 260 | eP | Pn | 05 28 11.8 | +1.8 |
| SLW | | | | eS | Sn | 05 28 28.9 | +1.7 |
| MCLT | Moule a Chique | 1.47 | 248 | eP | Pn | 05 28 11.8 | +0.7 |
| MCLT | | | | eS | Sn | 05 28 30.7 | +1.4 |
| MCLT | Moule a Chique | 1.47 | 248 | eP | Pn | 05 28 14.5 | +3.3 |
| MCLT | | | | eS | Sn | 05 28 30.7 | +1.4 |
| ZAM | Aeronautique | 1.47 | 282 | eP | Pn | 05 28 12.1 | +0.9 |
| TRMF | Trois Ilets | 1.49 | 281 | eP | Pn | 05 28 12.7 | +1.3 |
| BIM | Bigot | 1.50 | 280 | ⇓iP | Pn | 05 28 13.0 | +1.3 |
| BIM | | | | eS | Sn | 05 28 33.4 | +3.0 |
| SLB | Belfond | 1.52 | 254 | eP | Pn | 05 28 13.8 | +1.9 |
| SLB | | | | eS | Sn | 05 28 31.8 | +1.1 |
| SLB | Belfond | 1.52 | 254 | eP | Pn | 05 28 15.6 | +3.7 |
| SLB | | | | eS | Sn | 05 28 33.2 | +2.4 |
| FDF | Fort de France | 1.63 | 287 | eP | Pn | 05 28 14.7 | +1.4 |
| FDF | | | | eS | Sn | 05 28 35.1 | +1.8 |
| FDF | Fort de France | 1.63 | 287 | eP | Pn | 05 28 14.7 | +1.4 |
| FDF | | | | eS | Sn | 05 28 32.2 | -1.1 |
| BAMF | Morne Balai | 1.65 | 290 | eP | Pn | 05 28 15.4 | +1.7 |
| CXM | Morne La Croix | 1.67 | 289 | eP | Pn | 05 28 15.6 | +1.6 |
| CXM | | | | eS | Sn | 05 28 37.7 | +3.3 |
| PML | Morne Lenard | 1.67 | 288 | eP | Pn | 05 28 15.7 | +1.8 |
| PCM | Pelee Case Pet | 1.71 | 289 | eP | Pn | 05 28 15.2 | +0.7 |
| PCM | Pelee Case Pet | 1.71 | 289 | eP | Pn | 05 28 16.0 | +1.6 |
| SVCV | St. Vincent, C | 1.84 | 238 | eP | Pn | 05 28 17.6 | +1.3 |
| SVCV | | | | eS | Sn | 05 28 40.5 | +1.9 |
| SVV | Soufriere Volc | 1.88 | 240 | eS | Sn | 05 28 41.2 | +1.8 |
| SVV | Soufriere Volc | 1.88 | 240 | eS | Sn | 05 28 41.2 | +1.8 |
| SVB | Belmont | 1.93 | 240 | eP | Pn | 05 28 18.6 | +1.1 |
| SVB | | | | eS | Sn | 05 28 42.0 | +1.3 |
| SVB | Belmont | 1.93 | 240 | eP | Pn | 05 28 18.6 | +1.1 |
| SVB | | | | eS | Sn | 05 28 42.0 | +1.3 |
| FCV | Fort Charlotte | 1.99 | 237 | eP | Pn | 05 28 19.6 | +1.4 |
| FCV | | | | eS | Sn | 05 28 43.0 | +0.9 |
| FCV | Fort Charlotte | 1.99 | 237 | eP | Pn | 05 28 19.6 | +1.4 |
| FCV | | | | eS | Sn | 05 28 43.0 | +0.9 |
| MDMP | Dominica, Moor | 2.24 | 306 | eS | Sn | 05 28 49.0 | +0.8 |
| BBL | Barber's Block | 2.25 | 304 | eP | Pn | 05 28 22.9 | +1.1 |
| BBL | | | | eS | Sn | 05 28 49.7 | +1.3 |
| BBL | Barber's Block | 2.25 | 304 | eP | Pn | 05 28 22.9 | +1.1 |
| BBL | | | | eS | Sn | 05 28 49.7 | +1.3 |
| MGG | Marie-Galante | 2.38 | 314 | eP | Pn | 05 28 24.4 | +0.8 |
| MGG | | | | eS | Sn | 05 28 52.9 | +1.3 |
| MGG | Marie-Galante | 2.38 | 314 | eP | Pn | 05 28 24.4 | +0.8 |
| MGG | | | | eS | Sn | 05 28 52.9 | +1.3 |
| GRGR | Grenville | 2.95 | 224 | eP | Pn | 05 28 33.4 | +2.0 |
| GRGR | | | | eS | Sn | 05 29 06.8 | +1.1 |
| GRGR | Grenville | 2.95 | 224 | eP | Pn | 05 28 33.4 | +2.0 |
| GRGR | | | | eS | Sn | 05 29 06.8 | +1.1 |

**GUC 08 05:49:08.5±0.6, 19°.77S×71°.18W, h27km±5km, ML3.5, 4C-2D, Off coast of northern Chile**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| PSGC | Pisagua | 1.01 | 80 | ⇑iP | Pn | 05 49 26.1 | -0.9 |
| PSGC | | | | eS | Sn | 05 49 40.1 | -0.2 |
| PB12 | IPOC Station P | 1.40 | 35 | ⇑iP | Pn | 05 49 32.7 | +0.3 |
| PB12 | | | | i S | Sb | 05 49 51.1 | -0.5 |
| MNMC | Minye Minye | 1.62 | 67 | ⇓iP | Pn | 05 49 36.5 | +1.0 |
| MNMC | | | | i S | Sb | 05 49 57.5 | -0.6 |
| MNMC | | | | IAML | | 05 50 00.8 | |
| | comp=E,2μm,0.7s | | | | | | |
| PB08 | IPOC Station P | 1.94 | 101 | ⇑iP | Pb | 05 49 42.0 | -1.4 |
| PB08 | | | | i S | Sb | 05 50 07.7 | +0.3 |
| PB01 | IPOC Station P | 2.03 | 129 | ⇑iP | Pb | 05 49 43.4 | -1.4 |
| PB01 | | | | i S | Sb | 05 50 08.9 | -0.7 |
| PB01 | | | | IAML | | 05 50 16.5 | |
| | comp=N,239nm,0.5s | | | | | | |
| PB07 | IPOC Station P | 2.29 | 148 | eP | Pn | 05 49 47.0 | +2.3 |
| PB07 | | | | IAML | | 05 50 30.0 | |
| | comp=E,152nm,0.7s | | | | | | |
| PB09 | IPOC Station P | 2.71 | 138 | eP | Pn | 05 49 53.0 | +2.6 |
| PB09 | | | | IAML | | 05 50 41.7 | |
| | comp=N,810nm,0.9s | | | | | | |
| PB04 | IPOC Station P | 2.73 | 160 | ⇓iP | Pn | 05 49 52.5 | +1.9 |
| PB06 | IPOC Station P | 3.28 | 153 | eP | Pn | 05 50 00.0 | +1.7 |
| PB06 | | | | IAML | | 05 51 00.0 | |
| | comp=N,71nm,0.9s | | | | | | |

**IDC 08 05:52:54.8±4.6, 29°.65S×177°.87W, h0km, mb4.0/3, mb1 4.1/3, mb1mx3.9/20, mbtmp4.0/3, Error ellipse: s-maj=196.2km s-min=69.6km az=159.0, Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| STKA | Stephens Creek | 34.77 | 256 | P | P | 05 59 47.1 | +0.1 |
| | 3.1nm,0.7s,baz=89,slow=10.0,SNR=6.8 | | | | | | |
| ASAR | Alice Springs | 43.27 | 266 | P | P | 06 00 57.5 | -1.0 |
| | 0.3nm,0.3s,baz=103,slow=7.0,SNR=6.4 | | | | | | |
| WRA | Warramunga Arr | 44.19 | 271 | P | P | 06 01 06.3 | +0.5 |
| | 0.8nm,0.4s,baz=112,slow=7.7,SNR=2.0 | | | | | | |
| FINES | FINESS Array B | 144.48 | 340 | PKP | PKPdf | 06 12 31.9 | -0.6 |
| | 2.8nm,0.8s,baz=76,slow=5.9,SNR=3.4 | | | | | | |

**IDC 08 06:16:35.7±2.4, 1°.05S×127°.62E, h0km, mb3.4/2, mb1 3.4/3, mb1mx3.2/39, mbtmp3.3/3, ML2.9/1, Error ellipse: s-maj=196.4km s-min=27.5km az=67.0, Halmahera**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 19.90 | 161 | P | P | 06 21 09.2 | +0.2 |
| | 0.0nm,0.3s,baz=340,slow=12,SNR=3.5 | | | | | | |
| ASAR | Alice Springs | 23.30 | 165 | P | P | 06 21 45.2 | -0.2 |
| | 0.4nm,0.6s,baz=333,slow=9.3,SNR=4.5 | | | | | | |
| MKAR | Makanchi Array | 61.98 | 326 | P | P | 06 26 57.7 | 0.0 |
| | 0.9nm,1.0s,baz=126,slow=7.8,SNR=4.5 | | | | | | |

**IDC 08 06:22:35.8±3.2, 54°.53N×86°.21E, h0km, mb1 2.9/2, mb1mx2.7/39, mbtmp2.9/2, ML2.1/2, Error ellipse: s-maj=23.5km s-min=13.1km az=50.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| I46RU | ZALESOVO INFRA | 1.00 | 235 | i | | 06 28 48.2 | |
| | baz=53,slow=338,SNR=14 | | | | | | |
| ZALV | Zalesovo Beam | 1.00 | 235 | Pg | Pg | 06 22 54.3 | -0.8 |
| | 0.4nm,0.3s,baz=55,slow=19,SNR=7.1 | | | | | | |
| ZALV | | | | Lg | Lg | 06 23 09.4 | |
| | 1.9nm,0.3s,baz=53,slow=28,SNR=18 | | | | | | |
| KURBB | Kurchatov Arra | 6.10 | 233 | Pn | Pn | 06 24 08.0 | +0.8 |
| | 0.0nm,0.3s,baz=51,slow=14,SNR=5.3 | | | | | | |
| KURBB | | | | Lg | Lg | 06 25 50.9 | |
| | 0.0nm,0.3s,baz=51,slow=33,SNR=2.9 | | | | | | |
| MKAR | Makanchi Array | 8.14 | 199 | Pn | Pn | 06 24 36.0 | +0.9 |
| | 0.1nm,0.3s,baz=18,slow=11,SNR=3.1 | | | | | | |
| MKAR | | | | Sn | Sn | 06 26 06.4 | -1.4 |
| | 0.1nm,0.3s,baz=275,slow=40,SNR=3.5 | | | | | | |

*ATA **08** 06:24:58.8±2.1, 38°.78N×43°.54E, h7km±64km, ML3.3, MW3.0*
*DDA **08** 06:24:60.0, 38°.78N×43°.51E, h7km, Ml2.9*
*ISK **08** 06:24:59.3, 38°.80N×43°.49E, h5km, ML2.8*
*ISCJB **08** 06:25:00.7±0.4, 38°.79N±0°.02×43°.49E±0°.04, h10km±4km, Error ellipse: s-maj=5.0km s-min=3.3km az=9.5*
*CSEM **08** 06:25:00.2±0.2, 38°.79N×43°.52E, h8km, ML2.8, Error ellipse: s-maj=5.4km s-min=3.8km az=88.0*

**ISC 08 06:25:00.6±0.8, 38°.78N±0°.02×43°.52E±0°.02, h15km±6km, n46, σ0.96/69, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.21 | 11 | i P | Pg | 06 25 04.9 | -0.7 |
| VMUR | | | | i S | Sg | 06 25 09.6 | +0.7 |
| VMUR | Van-Muradiye | 0.21 | 11 | P | Pg | 06 25 04.9 | -0.7 |
| VMUR | | | | S | Sg | 06 25 09.6 | +0.7 |
| VANB | Van | 0.21 | 209 | ePG | Pg | 06 25 06.2 | +0.6 |
| VANB | Van | 0.21 | 209 | ePg | Pg | 06 25 06.2 | +0.6 |
| TVAN | Van | 0.27 | 200 | i P | Pg | 06 25 06.0 | -0.6 |
| TVAN | | | | i S | Sb | 06 25 11.7 | 0.0 |
| TVAN | Van | 0.27 | 200 | P | Pg | 06 25 06.0 | -0.6 |
| TVAN | | | | S | Sb | 06 25 11.7 | 0.0 |
| CLDR | Caldiran | 0.47 | 40 | ePG | Pg | 06 25 09.5 | -0.6 |
| CLDR | | | | eSG | Sb | 06 25 18.0 | +0.3 |
| CLDR | Caldiran | 0.47 | 40 | i P | Pg | 06 25 09.5 | -0.6 |
| CLDR | | | | i S | Sb | 06 25 17.8 | +0.2 |
| CLDR | Caldiran | 0.47 | 40 | P | Pg | 06 25 09.5 | -0.6 |
| CLDR | | | | S | Sb | 06 25 17.8 | +0.2 |
| GEVA | Gevas | 0.59 | 218 | eP | Pg | 06 25 10.7 | -1.6 |
| GEVA | | | | eS | Sg | 06 25 19.8 | -0.5 |
| GEVA | | | | IAML | | 06 25 25.8 | |
| | comp=Z,65nm,0.4s | | | | | | |
| GEVA | Gevas | 0.59 | 218 | i P | Pg | 06 25 11.0 | -1.4 |
| GEVA | | | | i S | Sg | 06 25 19.8 | -0.5 |
| GEVA | Gevas | 0.59 | 218 | P | Pg | 06 25 11.0 | -1.4 |
| GEVA | | | | S | Sg | 06 25 19.8 | -0.5 |
| ADCV | BITLIS_Adilcev | 0.62 | 272 | i P | Pg | 06 25 11.9 | -1.0 |
| ADCV | | | | i S | Sg | 06 25 21.2 | 0.0 |
| ADCV | BITLIS_Adilcev | 0.62 | 272 | P | Pg | 06 25 11.9 | -1.0 |
| ADCV | | | | S | Sg | 06 25 21.2 | 0.0 |
| DYDN | Diyadin | 0.77 | 10 | eP | Pg | 06 25 14.7 | -0.9 |
| DYDN | | | | eS | Sb | 06 25 26.2 | 0.0 |
| DYDN | | | | IAML | | 06 25 35.6 | |
| | comp=Z,31nm,0.3s | | | | | | |
| DYDN | Diyadin | 0.77 | 10 | i P | Pg | 06 25 14.2 | -1.5 |
| DYDN | Diyadin | 0.77 | 10 | P | Pg | 06 25 14.2 | -1.5 |
| BASK | Baskale_VAN | 0.82 | 152 | i P | Pg | 06 25 15.4 | -1.2 |
| BASK | Baskale_VAN | 0.82 | 152 | P | Pg | 06 25 15.4 | -1.2 |
| TUTA | Tutak | 0.83 | 318 | eP | Pg | 06 25 15.0 | -1.7 |
| TUTA | | | | eS | Sg | 06 25 27.2 | -0.5 |
| TUTA | | | | IAML | | 06 25 30.7 | |
| | comp=Z,144nm,0.2s | | | | | | |
| TUTA | Tutak | 0.83 | 318 | i P | Pg | 06 25 15.0 | -1.7 |
| TUTA | | | | i S | Sg | 06 25 27.2 | -0.5 |
| TUTA | Tutak | 0.83 | 318 | P | Pg | 06 25 15.0 | -1.7 |
| TUTA | | | | S | Sg | 06 25 27.2 | -0.5 |
| AGRB | Hanur-Agry | 0.89 | 333 | ePG | Pg | 06 25 17.2 | -0.8 |
| AGRB | | | | eSG | Sb | 06 25 30.2 | +0.5 |
| AGRB | Hanur-Agry | 0.89 | 333 | ePg | Pg | 06 25 17.2 | -0.8 |
| AGRB | | | | eSg | Sb | 06 25 30.2 | +0.5 |
| EKAR | Karacoban | 1.23 | 293 | eP | Pg | 06 25 24.4 | 0.0 |
| EKAR | | | | eS | Sn | 06 25 42.7 | +2.8 |
| EKAR | | | | IAML | | 06 25 54.2 | |
| | comp=Z,39nm,0.4s | | | | | | |
| EKAR | Karacoban | 1.23 | 293 | i P | Pg | 06 25 24.5 | +0.2 |
| EKAR | | | | i S | Sn | 06 25 41.2 | +1.3 |
| EKAR | Karacoban | 1.23 | 293 | P | Pg | 06 25 24.5 | +0.2 |
| EKAR | | | | S | Sn | 06 25 41.2 | +1.3 |
| HAKT | HAKKARI | 1.23 | 173 | i P | Pb | 06 25 22.6 | -1.1 |
| HAKT | | | | i S | Sn | 06 25 41.6 | +1.7 |
| HAKT | HAKKARI | 1.23 | 173 | P | Pb | 06 25 22.6 | -1.1 |
| HAKT | | | | S | Sn | 06 25 41.6 | +1.7 |
| TASB | TASBURUN-IGDIR | 1.32 | 25 | ePN | Pg | 06 25 25.6 | -0.4 |
| TASB | TASBURUN-IGDIR | 1.32 | 25 | ePn | Pg | 06 25 25.7 | -0.4 |
| YOVA | Hakkari_Yˆ…kse | 1.34 | 153 | i P | Pn | 06 25 24.9 | 0.0 |
| YOVA | Hakkari_Yˆ…kse | 1.34 | 153 | P | Pn | 06 25 24.9 | 0.0 |
| EATA | Eleskirt | 1.34 | 324 | i P | Pn | 06 25 24.7 | -0.3 |
| EATA | Eleskirt | 1.34 | 324 | P | Pn | 06 25 24.7 | -0.3 |
| SRTM | Siirt_Merkez | 1.49 | 238 | i P | Pg | 06 25 28.4 | -0.8 |
| SRTM | Siirt_Merkez | 1.49 | 238 | P | Pg | 06 25 28.4 | -0.8 |
| CUKT | Cukurca | 1.54 | 177 | ePN | Pg | 06 25 29.9 | -0.2 |
| CUKT | Cukurca | 1.54 | 177 | ePn | Pg | 06 25 29.9 | -0.2 |
| SIRT | Sirnak | 1.54 | 214 | ePN | Pb | 06 25 28.8 | 0.0 |
| SIRT | Sirnak | 1.54 | 214 | ePn | Pb | 06 25 28.8 | 0.0 |
| DIGO | Kars | 1.63 | 356 | i P | Pb | 06 25 30.2 | -0.3 |
| DIGO | Kars | 1.63 | 356 | P | Pb | 06 25 30.2 | -0.3 |
| BNGL | BINGOL | 1.86 | 276 | i P | Pn | 06 25 30.5 | -1.5 |
| BNGB | Bingˆ¶l | 2.23 | 276 | ePN | Pn | 06 25 38.7 | +1.7 |
| BINT | Bingol | 2.37 | 273 | ePn | Pn | 06 25 38.7 | -0.3 |

**SCB 08 06:28:00.8±0.1, 17°.75S×66°.31W, h29km, Ml3.5/1, 4C-1D, Error ellipse: s-maj=4.9km s-min=2.5km az=28.0, Central Bolivia**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| BBOE | La Paz, Chanca | 1.86 | 300 | ⇓iPg | Pb | 06 28 35.2 | +0.8 |
| BBOJ | La Paz, Jacaqu | 1.96 | 293 | ⇑iPg | Pb | 06 28 37.0 | +0.8 |
| LPAZ | La Paz | 2.27 | 310 | ⇑iPg | Pb | 06 28 42.3 | +0.7 |
| LPAZ | | | | eSn | Sb | 06 29 13.8 | +4.3 |
| BBOB | La Paz, Bander | 2.37 | 312 | ⇑iPg | Pb | 06 28 44.4 | +1.2 |
| BBOB | | | | ⇑iSg | Sb | 06 29 16.3 | +4.1 |
| | 48nm,0.3s | | | | | | |
| MOCB | Mochara | 3.54 | 170 | ePn | Pb | 06 29 00.9 | -2.1 |
| SIV | San Ignacio | 5.31 | 72 | ePn | Pn | 06 29 24.7 | +6.5 |
| SIV | | | | eSn | Sn | 06 30 26.9 | +8.4 |

*ATA **08** 06:32:13.7±1.2, 39°.61N×39°.97E, h26km±5km, ML2.9, MW2.8*
*ISK **08** 06:32:14.4, 39°.57N×39°.90E, h24km, ML2.4*
*CSEM **08** 06:32:15.9±0.2, 39°.54N×39°.92E, h2km, ML2.4, Error ellipse: s-maj=5.5km s-min=3.8km az=152.0*
*DDA **08** 06:32:15.7, 39°.55N×39°.91E, h7km, Ml2.6*
*ISCJB **08** 06:32:16.0±0.5, 39°.55N±0°.04×39°.95E±0°.03, h9km±6km, Error ellipse: s-maj=6.0km s-min=3.6km az=167.5*

**ISC 08 06:32:15.7±0.9, 39°.57N±0°.03×39°.94E±0°.02, h15km±7km, n27, σ0.68/40, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| ERZN | Erzincan | 0.17 | 277 | ePG | Pg | 06 32 19.6 | -0.4 |
| ERZN | | | | eSG | Sg | 06 32 23.3 | +0.4 |
| YEDI | Yedisu-Bingol | 0.48 | 105 | ePG | Pg | 06 32 25.3 | -0.1 |
| YEDI | | | | eSG | Sb | 06 32 33.6 | +0.6 |
| YEDI | Yedisu-Bingol | 0.48 | 105 | ePg | Pg | 06 32 25.3 | -0.1 |
| YEDI | | | | eSg | Sb | 06 32 33.6 | +0.6 |
| TNCL | Tunceli-Merkez | 0.55 | 214 | eP | Pg | 06 32 26.5 | 0.0 |
| TNCL | | | | eS | Sb | 06 32 35.5 | +0.8 |
| TNCL | | | | IAML | | 06 32 37.2 | |
| | comp=Z,98nm,0.3s | | | | | | |
| TNCL | Tunceli-Merkez | 0.55 | 214 | i P | Pg | 06 32 26.2 | -0.3 |
| TNCL | Tunceli-Merkez | 0.55 | 214 | P | Pg | 06 32 26.2 | -0.3 |
| KOPT | Kop Dagi | 0.62 | 43 | i P | Pb | 06 32 28.7 | +0.3 |
| KOPT | | | | i S | Sb | 06 32 37.9 | +0.8 |
| KOPT | Kop Dagi | 0.62 | 43 | P | Pb | 06 32 28.7 | +0.3 |
| KOPT | | | | S | Sb | 06 32 37.9 | +0.8 |
| KELT | Kelkit | 0.79 | 318 | eP | Pg | 06 32 28.8 | -2.2 |
| KELT | | | | IAML | | 06 32 45.8 | |
| | comp=Z,8.8nm,0.4s | | | | | | |
| KELT | Kelkit | 0.79 | 318 | i P | Pg | 06 32 30.7 | -0.3 |
| KELT | Kelkit | 0.79 | 318 | P | Pg | 06 32 30.7 | -0.3 |
| PTK | Pertek | 0.80 | 212 | ePG | Pg | 06 32 30.3 | -0.9 |
| PTK | | | | eSG | Sb | 06 32 41.8 | -0.1 |
| PTK | Pertek | 0.80 | 212 | ePg | Pg | 06 32 30.3 | -0.9 |
| PTK | | | | eSg | Sb | 06 32 41.8 | -0.1 |
| ECAT | Cat-ERZURUM | 0.80 | 87 | eP | Pg | 06 32 29.2 | -2.1 |
| ECAT | | | | eS | Sg | 06 32 41.8 | -0.1 |
| ECAT | | | | IAML | | 06 32 47.2 | |
| | comp=Z,8.5nm,0.3s | | | | | | |
| REFA | Refahiye_ERZ˜ | 0.92 | 260 | i P | Pn | 06 32 34.3 | +0.1 |
| REFA | Refahiye_ERZ˜ | 0.92 | 260 | P | Pn | 06 32 34.3 | +0.1 |
| BNGL | BINGOL | 1.12 | 123 | eP | Pb | 06 32 36.4 | -0.5 |
| BNGL | | | | eS | Sn | 06 32 52.2 | 0.0 |
| BNGL | | | | IAML | | 06 32 55.3 | |
| | comp=Z,30nm,0.2s | | | | | | |
| BNGL | BINGOL | 1.12 | 123 | i P | Pg | 06 32 37.4 | 0.0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **KEMA** | **Kemaliye** | **1.16** | **256** | eP | **Pb** | **06 32 37.2** | **-0.3** |
| KEMA | | | | eS | **Sg** | **06 32 53.9** | **+0.6** |
| KEMA | | | | IAML | | 06 32 57.4 | |
| | comp=Z,16nm,0.9s | | | | | | |
| **KEMA** | **Kemaliye** | **1.16** | **256** | iP | **Pb** | **06 32 37.0** | **-0.4** |
| KEMA | | | | iS | **Sg** | **06 32 53.4** | **+0.2** |
| **KEMA** | **Kemaliye** | **1.16** | **256** | P | **Pb** | **06 32 37.0** | **-0.4** |
| KEMA | | | | S | **Sg** | **06 32 53.4** | **+0.2** |
| **ELZG** | **Elazig** | **1.30** | **215** | iP | **Pn** | **06 32 39.7** | **+0.3** |
| **ELZG** | **Elazig** | **1.30** | **215** | P | **Pn** | **06 32 39.7** | **+0.3** |
| **SUSE** | **Susehri** | **1.48** | **296** | iP | **Pb** | **06 32 43.6** | **+0.6** |
| **SUSE** | **Susehri** | **1.48** | **296** | P | **Pb** | **06 32 43.6** | **+0.6** |
| **CUKAN** | **kangal_SIVAS** | **1.93** | **263** | iP | **Pb** | **06 32 50.5** | **-0.1** |
| **CUKAN** | **kangal_SIVAS** | **1.93** | **263** | P | **Pb** | **06 32 50.5** | **-0.1** |

*IDC **08** 06:38:45.8±1.3, 1°.35S×126°.90E, h0km, mb3.8/4, mb1 3.9/5, mb1mx3.7/38, mbtmp3.8/5, ML3.6/1, MS3.1/1, Ms1 3.3/1, ms1mx2.5/31, Error ellipse: s-maj=145.1km s-min=20.8km az=69.0*

*ISCJB **08** 06:38:49.0±0.5, 1°.49S±0°.04×126°.44E±0°.03, h29km, mb3.9/4, MS3.0/1, Error ellipse: s-maj=6.0km s-min=4.8km az=2.2*

*DJA **08** 06:38:49.4±0.6, 2°S±3°×12°6E±°, h19km±5km, M4.2/7, mb4.4/2, MLv4.2/7*

**ISC 08 06:38:50.3**±0.8**, 1°.52S**±0°.05×**126°.48E**±0°.05**, h29km, n16, σ1s.30**/21**, mb3.8**/4**, Southern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SANI** | **Sanana** | **0.72** | **223** | P | **Pb** | **06 39 03.2** | **-1.2** |
| SANI | | | | S | **Sb** | **06 39 13.6** | **-0.3** |
| **LBMI** | **Labuha** | **1.34** | **49** | P | **Pn** | **06 39 13.2** | **0.0** |
| LBMI | | | | S | **Sn** | **06 39 31.2** | **+1.1** |
| **NLAI** | **Namlea** | **1.81** | **160** | P | **Pn** | **06 39 19.8** | **+0.1** |
| NLAI | | | | S | **Sn** | **06 39 42.7** | **+1.0** |
| **MSAI** | **Masohi** | **3.04** | **127** | P | **Pn** | **06 39 33.1** | **-3.5** |
| MSAI | | | | S | **Sn** | **06 40 13.5** | **+1.4** |
| **LUWI** | **Luwuk** | **3.74** | **277** | P | **Pn** | **06 39 46.8** | **+0.7** |
| **APSI** | **Ampana** | **4.87** | **277** | P | **Pn** | **06 40 02.0** | **+0.3** |
| APSI | | | | S | **Sn** | **06 40 56.5** | **-0.6** |
| **MRSI** | **Marisa** | **4.96** | **294** | P | **Pn** | **06 40 01.2** | **-1.7** |
| **FAKI** | **Fak Fak** | **5.93** | **104** | P | **Pn** | **06 40 16.1** | **-0.2** |
| | 19nm,0.7s,0.1nm | | | | | | |
| **MPSI** | **Mapaga** | **6.84** | **286** | P | **Pn** | **06 40 30.6** | **+1.9** |
| **SPSI** | **Sidrap Palu** | **7.13** | **250** | P | **Pn** | **06 40 34.4** | **+1.6** |
| SPSI | | | | S | **Sn** | **06 41 54.4** | **+1.5** |
| **WRA** | **Warramunga Arr** | **19.86** | **158** | P | **P** | **06 43 18.7** | **-0.5** |
| | 0.2nm,0.3s,baz=339,slow=12,SNR=11 | | | | | | |
| **ASAR** | **Alice Springs** | **23.16** | **162** | P | **P** | **06 43 54.5** | **-0.1** |
| | 1.6nm,0.7s,baz=340,slow=9.6,SNR=16 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **33.59** | **308** | LR | LR | 07 00 33.4 | |
| | comp=Z,29nm,18.3s,baz=149,slow=39 | | | | | | |
| **SONM** | **Songino Array** | **52.19** | **343** | P | **P** | **06 47 58.9** | **+0.3** |
| | 0.7nm,0.6s,baz=159,slow=8.4,SNR=3.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **61.75** | **327** | P | **P** | **06 49 06.5** | **+0.2** |
| | 2.3nm,0.8s,baz=118,slow=8.0,SNR=9.4 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **65.15** | **334** | P | **P** | **06 49 28.4** | **-0.1** |
| | 0.4nm,0.4s,baz=144,slow=5.4,SNR=3.5 | | | | | | |

*ISCJB **08** 06:44:17.4±0.8, 16°.6S±0°.2×174°.9W±0°.2, h200km, mb3.4/6, Error ellipse: s-maj=37.7km s-min=9.7km az=140.2*

*IDC **08** 06:44:18.4±1.6, 16°.65S×174°.71W, h199km±17km, mb3.2/6, mb1 3.5/7, mb1mx3.3/37, mbtmp3.8/7, Error ellipse: s-maj=37.4km s-min=14.8km az=138.0*

**ISC 08 06:44:18.5**±0.9**, 16°.6S**±0°.3×**174°.8W**±0°.2**, h200km, n8, σ0s.85**/9**, mb3.5**/6**, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AFI** | **Afiamalu** | **3.95** | **47** | P | **Pn** | **06 45 21.2** | **+1.3** |
| | 13nm,0.3s,baz=166,slow=3.0,SNR=23 | | | | | | |
| AFI | | | | S | **Sn** | **06 46 06.7** | **-1.2** |
| | 24nm,0.3s,baz=203,slow=3.3,SNR=11 | | | | | | |
| **URZ** | **Urewera** | **22.70** | **197** | P | **P** | **06 49 03.3** | **+0.2** |
| | 1.8nm,0.3s,baz=38,slow=18,SNR=4.1 | | | | | | |
| **STKA** | **Stephens Creek** | **42.29** | **241** | P | **P** | **06 51 52.5** | **-0.2** |
| | 1.6nm,0.5s,baz=88,slow=9.3,SNR=4.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **48.30** | **258** | P | **P** | **06 52 39.9** | **-0.2** |
| | 0.3nm,0.5s,baz=92,slow=6.6,SNR=6.7 | | | | | | |
| **ASAR** | **Alice Springs** | **48.49** | **253** | P | **P** | **06 52 41.4** | **-0.1** |
| | 2.1nm,0.5s,baz=87,slow=8.7,SNR=26 | | | | | | |
| **TXAR** | **Lajitas Array** | **82.38** | **56** | P | **P** | **06 56 17.9** | **-0.8** |
| | 0.1nm,0.5s,baz=197,slow=1.5,SNR=2.4 | | | | | | |
| **ILAR** | **Eielson Array** | **83.90** | **12** | P | **P** | **06 56 25.5** | **0.0** |
| | 0.7nm,1.1s,baz=228,slow=5.4,SNR=3.4 | | | | | | |
| **BRTR** | **Keskin Array B** | **146.25** | **319** | PKPbc | **PKPbc** | **07 03 36.5** | **+0.6** |
| | 0.3nm,0.4s,baz=132,slow=2.1,SNR=2.7 | | | | | | |

*ISCJB **08** 06:48:44.8±0.9, 10°.41S±0°.06×112°.53E±0°.05, h24km, mb3.5/4, Error ellipse: s-maj=9.3km s-min=7.7km az=6.4*

*IDC **08** 06:48:45.1±2.8, 9°.87S×113°.23E, h0km, mb3.5/4, mb1 3.7/5, mb1mx3.5/40, mbtmp3.6/5, ML3.7/1, Error ellipse: s-maj=128.9km s-min=21.6km az=49.0*

*DJA **08** 06:48:48.3±0.8, 10°S±6°×11°3E±°, h23km, M3.8/7, MLv3.8/7*

**ISC 08 06:48:45.1**±1.1**, 10°.49S**±0°.09×**112°.52E**±0°.06**, h24km, n12, σ1s.20**/16**, mb3.6**/4**, South of Jawa**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GMJI** | **Gumukmas** | **2.39** | **23** | P | **Pn** | **06 49 22.9** | **+0.1** |
| GMJI | | | | S | **Sn** | **06 49 49.8** | **-1.5** |
| **PWJI** | **Pagerwojo** | **2.56** | **344** | P | **Pn** | **06 49 24.4** | **-0.7** |
| **JAGI** | **Jajag, Banyuwa** | **2.58** | **39** | P | **Pn** | **06 49 25.9** | **+0.5** |
| JAGI | | | | S | **Sn** | **06 49 54.6** | **-1.4** |
| **PCJI** | **Pacitan** | **2.64** | **330** | P | **Pn** | **06 49 26.0** | **-0.3** |
| **BLJI** | **Banyuglugur** | **2.93** | **21** | P | **Pn** | **06 49 31.7** | **+1.5** |
| **UGM** | **Wanagama** | **3.24** | **322** | P | **Pn** | **06 49 34.9** | **+0.4** |
| UGM | | | | S | **Sn** | **06 50 11.8** | **-0.5** |
| **SRBI** | **Singaraja** | **3.58** | **48** | P | **Pn** | **06 49 40.3** | **+1.2** |
| SRBI | | | | S | **Sn** | **06 50 20.2** | **-0.5** |
| **FITZ** | **Fitzroy Crossi** | **14.79** | **122** | Pn | **Pn** | **06 52 10.6** | **-2.3** |
| | 0.3nm,0.3s,baz=302,slow=9.5,SNR=8.1 | | | | | | |
| FITZ | | | | Sn | Sn | 06 54 40.6 | -15 |
| | 0.2nm,0.3s,baz=346,slow=19,SNR=6.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **23.03** | **117** | P | **P** | **06 53 49.2** | **+0.4** |
| | 0.9nm,0.6s,baz=294,slow=12,SNR=14 | | | | | | |
| **ASAR** | **Alice Springs** | **24.23** | **125** | P | **P** | **06 54 01.9** | **+1.5** |
| | 1.2nm,0.8s,baz=304,slow=9.0,SNR=9.5 | | | | | | |
| **SONM** | **Songino Array** | **58.32** | **355** | P | **P** | **06 58 38.6** | **+0.3** |
| | 0.5nm,0.6s,baz=170,slow=8.8,SNR=3.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **63.10** | **337** | P | **P** | **06 59 12.1** | **+1.4** |
| | 0.4nm,0.6s,baz=137,slow=9.0,SNR=2.9 | | | | | | |

**MEX 08 06:58:32.4**±0.6**, 15°.78N×92°.42W, h213km**±6km**, MD3.8, Mexico-Guatemala border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CCIG** | **Comitan** | **0.57** | **29** | eP | Pn | 06 59 00.4 | -1.2 |
| CCIG | | | | eS | S | 06 59 21.5 | -2.8 |
| **PCIG** | | **0.77** | **264** | eP | Pn | 06 59 00.9 | -1.3 |
| PCIG | | | | eS | S | 06 59 22.9 | -2.4 |

**IDC 08 06:59:37.3**±31.0**, 7°.55S×126°.30E, h428km**±127km**, mb3.1**/1**, mb1 2.9**/4**, mb1mx2.7**/32**, mbtmp3.7**/4**, Error ellipse: s-maj=388.6km s-min=93.0km az=164.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **10.51** | **183** | P | P | 07 01 59.8 | -0.3 |
| | 0.1nm,0.3s,baz=1.0,slow=9.8,SNR=10 | | | | | | |
| **WRA** | **Warramunga Arr** | **14.57** | **148** | P | P | 07 02 44.2 | -0.2 |
| | 0.4nm,0.3s,baz=326,slow=12,SNR=12 | | | | | | |
| **ASAR** | **Alice Springs** | **17.61** | **156** | P | P | 07 03 16.6 | -0.1 |
| | 0.2nm,0.3s,baz=330,slow=8.7,SNR=13 | | | | | | |
| **STKA** | **Stephens Creek** | **28.09** | **152** | P | P | 07 04 52.5 | +0.1 |
| | 1.9nm,1.0s,baz=326,slow=16,SNR=2.1 | | | | | | |

*ISCJB **08** 07:09:04.3±0.6, 5°.69N±0°.07×77°.71W±0°.06, h19km, mb3.8/9, MS3.0/7, Error ellipse: s-maj=9.6km s-min=9.0km az=169.4*

*IDC **08** 07:09:12.1±3.2, 5°.69N×77°.55W, h68km±28km, mb3.5/9, mb1 3.7/12, mb1mx3.6/28, mbtmp3.8/12, ML2.9/3, MS3.2/11, Ms1 3.2/11, ms1mx3.0/26, Error ellipse: s-maj=24.5km s-min=18.1km az=56.0*

**ISC 08 07:09:05.9**±0.7**, 5°.61N**±0°.08×**77°.64W**±0°.07**, h19km, n31, σ1s.19**/23**, mb3.8**/9**, MS3.0**/7**, Near west coast of Colombia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MALC** | **Bahia Malaga** | **1.61** | **169** | eP | Pg | 07 09 46.4 | +9.4 |
| **HELC** | **Santa Helena** | **2.18** | **75** | eP | **Pn** | **07 09 40.9** | **-0.5** |
| **GUYC** | **Guyana, Colomb** | **2.27** | **100** | eP | **Pn** | **07 09 44.4** | **+1.6** |
| **NORC** | **Norcasia** | **2.76** | **91** | eP | **Pn** | **07 09 50.0** | **+0.9** |
| **CAPC** | **Capurgana** | **3.02** | **5** | eP | **Pn** | **07 09 54.5** | **+1.8** |
| **ROSC** | **El Rosal** | **3.39** | **103** | P | **Pb** | **07 10 04.0** | **-1.7** |
| | 3.9nm,0.3s,baz=302,slow=13,SNR=13 | | | | | | |
| **MOTC** | **Monteria, Cord** | **3.71** | **32** | eP | **Pn** | **07 10 02.1** | **0.0** |
| **CRUC** | **La Cruz** | **4.07** | **170** | eP | **Pn** | **07 10 08.7** | **+1.2** |
| **SDV** | **Santo Domingo** | **7.67** | **64** | P | **Pn** | **07 10 58.3** | **+1.5** |
| | 2.4nm,0.3s,baz=253,slow=12,SNR=11 | | | | | | |
| SDV | | | | S | **Sn** | **07 12 25.4** | **+2.0** |
| | 0.8nm,0.3s,baz=297,slow=18,SNR=1.5 | | | | | | |
| SDV | | | | LR | LR | 07 14 20.3 | |
| | comp=Z,304nm,19.3s,baz=246,slow=41 | | | | | | |
| **ATAH** | **Atahualpa** | **12.68** | **183** | LR | LR | 07 17 17.1 | |
| | comp=Z,217nm,20.1s,baz=6.1,slow=38 | | | | | | |
| **SJG** | **San Juan** | **16.74** | **41** | LR | LR | 07 20 32.4 | |
| | comp=Z,62nm,18.2s,baz=228,slow=41 | | | | | | |
| **NNA** | **Nana** | **17.50** | **177** | LR | LR | 07 21 01.5 | |
| | comp=Z,136nm,19.9s,baz=355,slow=40 | | | | | | |
| **PTGA** | **Pitinga** | **18.74** | **109** | P | **Pn** | **07 13 26.4** | **+2.2** |
| | 0.3nm,0.3s,baz=295,slow=14,SNR=3.3 | | | | | | |
| **CMIG** | **Matias Romero** | **20.38** | **305** | LR | LR | 07 22 57.3 | |
| | comp=Z,57nm,18.4s,baz=339,slow=40 | | | | | | |
| **LPAZ** | **La Paz** | **23.70** | **157** | P | **P** | **07 14 17.9** | **+0.5** |
| | 1.5nm,0.7s,baz=327,slow=8.9,SNR=5.7 | | | | | | |
| **SIV** | **San Ignacio** | **27.01** | **143** | P | **P** | **07 14 47.0** | **+0.1** |
| | 1.4nm,0.5s,baz=327,slow=8.7,SNR=5.5 | | | | | | |
| **TKL** | **Tuckaleechee C** | **30.43** | **350** | LR | LR | 07 28 57.2 | |
| | comp=Z,30nm,19.0s,baz=325,slow=39 | | | | | | |
| **TXAR** | **Lajitas Array** | **34.08** | **317** | P | **P** | **07 15 50.2** | **+0.7** |
| | 0.6nm,1.0s,baz=142,slow=13,SNR=4.1 | | | | | | |
| TXAR | | | | PcP | **PcP** | **07 18 27.9** | **+1.0** |
| | 0.5nm,0.7s,baz=122,slow=3.4,SNR=6.6 | | | | | | |
| TXAR | | | | LR | LR | 07 32 19.2 | |
| | comp=Z,12nm,19.0s,baz=0.0,slow=41 | | | | | | |
| **SADO** | **Sadowa** | **39.03** | **358** | LR | LR | 07 32 51.0 | |
| | comp=Z,33nm,19.6s,baz=288,slow=36 | | | | | | |
| **ANMO** | **Albuquerque** | **39.49** | **321** | LR | LR | 07 35 30.8 | |
| | comp=Z,19nm,18.4s,baz=170,slow=40 | | | | | | |
| **PFO** | **Pinyon Flats O** | **45.52** | **313** | LR | LR | 07 37 55.4 | |
| | comp=Z,33nm,18.9s,baz=324,slow=38 | | | | | | |
| **PDAR** | **Pinedale Array** | **46.55** | **328** | P | **P** | **07 17 31.7** | **-1.0** |
| | 0.1nm,0.3s,baz=116,slow=12,SNR=2.9 | | | | | | |
| PDAR | | | | LR | LR | 07 42 17.2 | |
| | comp=Z,13nm,18.4s,baz=350,slow=43 | | | | | | |
| **SUMG** | **Summit** | **71.03** | **12** | iP | **P** | **07 20 21.8** | **-0.9** |
| **DBIC** | **Dimbokro** | **72.31** | **85** | P | **P** | **07 20 30.4** | **-0.5** |
| | 3.6nm,0.8s,baz=243,slow=2.3,SNR=3.4 | | | | | | |
| **ESDC** | **Sonseca Array** | **73.88** | **50** | P | **P** | **07 20 39.0** | **-0.8** |
| | 0.3nm,0.6s,baz=255,slow=7.7,SNR=3.9 | | | | | | |
| **ILAR** | **Eielson Array** | **76.18** | **336** | P | **P** | **07 20 52.6** | **+0.1** |
| | 0.8nm,0.8s,baz=122,slow=4.2,SNR=13 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **78.38** | **78** | P | **P** | **07 21 05.3** | **-0.6** |
| | 0.6nm,0.6s,baz=272,slow=5.4,SNR=4.6 | | | | | | |
| **ARCES** | **ARCESS Array B** | **89.35** | **20** | P | **P** | **07 21 59.9** | **-0.9** |
| | 4.5nm,0.9s,baz=321,slow=7.1,SNR=7.0 | | | | | | |
| **ASAR** | **Alice Springs** | **144.74** | **236** | PKP | PKPbc | 07 28 41.6 | +0.3 |
| | 2.3nm,0.8s,baz=118,slow=3.9,SNR=20 | | | | | | |
| **WRA** | **Warramunga Arr** | **145.81** | **242** | PKPbc | **PKPdf** | **07 28 44.5** | **+0.2** |
| | 1.5nm,0.9s,baz=105,slow=2.6,SNR=13 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **154.10** | **239** | PKPbc | **PKPbc** | **07 29 05.8** | **+0.4** |
| | 2.2nm,0.8s,baz=135,slow=2.9,SNR=3.4 | | | | | | |

*IDC **08** 07:15:25.4±1.1, 28°.25S×71°.36W, h0km, mb3.6/2, mb1 3.8/4, mb1mx3.6/36, mbtmp3.6/4, ML3.4/2, MS3.2/2, Ms1 3.2/2, ms1mx2.8/16, Error ellipse: s-maj=50.8km s-min=37.1km az=168.0*

*GUC **08** 07:15:28.5±0.4, 27°.98S×71°.28W, h40km±3km, ML3.9*

*ISCJB **08** 07:15:30.2±1.0, 27°.93S±0°.05×71°.29W±0°.10, h38km, mb3.5/2, Error ellipse: s-maj=12.2km s-min=6.6km az=6.2*

**ISC 08 07:15:31.5**±0.9**, 27°.96S**±0°.06×**71°.2W**±0°.1**, h38km, n18, σ1s.16**/18**, 1C-2D, Near coast of northern Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VACH** | **Vallenar** | **0.72** | **148** | ⇓iP | **Pn** | **07 15 43.6** | **-1.6** |
| VACH | | | | iS | **Sn** | **07 15 55.0** | **-0.1** |
| **GO03** | **Copiap** | **0.92** | **67** | ⇓iP | **Pn** | **07 15 47.5** | **-0.5** |
| GO03 | | | | iS | **Sn** | **07 16 01.8** | **+1.8** |
| GO03 | | | | IAML | | 07 16 05.9 | |
| | comp=E,2μm,0.7s | | | | | | |
| **LCO** | **Las Campanas** | **1.13** | **158** | ⇑iP | **Pn** | **07 15 50.3** | **-0.8** |
| LCO | | | | iS | **Sn** | **07 16 06.7** | **+1.2** |
| LCO | | | | IAML | | 07 16 10.2 | |
| | comp=E,4μm,0.3s | | | | | | |
| **TLL** | **Tololo Astrono** | **2.23** | **171** | eP | **Pn** | **07 16 06.0** | **-0.2** |
| TLL | | | | iS | **Sn** | **07 16 34.8** | **+2.3** |
| TLL | | | | IAML | | 07 16 43.4 | |
| | comp=N,4μm,0.4s | | | | | | |
| **CPUP** | **Villa Florida** | **12.45** | **86** | Pn | **Pn** | **07 18 26.4** | **+0.3** |
| | comp=N,0.0nm,0.3s,baz=266,slow=13,SNR=2.0 | | | | | | |
| CPUP | | | | Lg | Lg | 07 21 50.8 | |
| | comp=N,0.1nm,0.3s,baz=330,slow=17,SNR=2.5 | | | | | | |
| CPUP | | | | LR | LR | 07 23 44.0 | |
| | comp=N,104nm,20.9s,baz=246,slow=40 | | | | | | |
| **PLCA** | **Paso Flores** | **12.75** | **178** | LR | LR | 07 23 10.2 | |
| | comp=N,113nm,19.2s,baz=326,slow=37 | | | | | | |
| **SIV** | **San Ignacio** | **15.15** | **40** | Pn | **P** | **07 19 05.6** | **-1.9** |
| | comp=N,0.3nm,0.3s,baz=210,slow=8.1,SNR=5.9 | | | | | | |
| **TXAR** | **Lajitas Array** | **64.89** | **329** | P | **P** | **07 26 07.5** | **+0.4** |
| | comp=N,0.2nm,0.8s,baz=159,slow=7.7,SNR=2.4 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **81.48** | **70** | P | **P** | **07 27 45.7** | **+0.4** |
| | comp=N,0.8nm,0.6s,baz=262,slow=4.8,SNR=7.3 | | | | | | |
| **ASAR** | **Alice Springs** | **123.25** | **208** | PKP | **PKPdf** | **07 34 23.9** | **-1.0** |
| | comp=N,0.3nm,0.7s,baz=121,slow=1.6,SNR=4.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **126.36** | **210** | PKP | **PKPdf** | **07 34 30.1** | **-0.8** |
| | comp=N,0.4nm,0.6s,baz=159,slow=1.6,SNR=9.6 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **126.38** | **273** | T | T | 09 53 36.9 | |
| | baz=112,slow=75,SNR=6.2 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **126.39** | **273** | T | T | 09 53 39.9 | |
| | baz=112,slow=75,SNR=10.0 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **126.40** | **273** | T | T | 09 53 42.1 | |
| | baz=112,slow=75,SNR=7.8 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **147.79** | **37** | PKPbc | **PKPbc** | **07 35 12.6** | **+0.6** |
| | comp=N,0.7nm,0.6s,baz=296,slow=3.1,SNR=7.2 | | | | | | |
| **AAK** | **Ala-Archa** | **148.64** | **53** | PKPbc | **PKPbc** | **07 35 15.4** | **+0.7** |
| | comp=N,1.2nm,0.4s,baz=198,slow=3.2,SNR=3.7 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **148.64** | **28** | PKPbc | **PKPbc** | **07 35 14.6** | **+0.5** |
| | comp=N,1.7nm,0.7s,baz=307,slow=3.8,SNR=7.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **151.97** | **41** | PKPbc | **PKPbc** | **07 35 22.7** | **+0.4** |
| | comp=N,1.2nm,0.7s,baz=297,slow=1.4,SNR=4.8 | | | | | | |

*DJA **08** 08:15:41.0±0.5, 8°S±3°×10°8E±°, h29km±4km, M4.3/14, mb4.2/1, MLv4.4/14*

*IDC **08** 08:15:52.7±15.0, 7°.28S×108°.78E, h148km±149km, mb3.3/4, mb1 3.5/5, mb1mx3.2/27, mbtmp3.8/5, ML3.5/1, MS2.9/1, Ms1 3.1/1, ms1mx2.5/15, Error ellipse: s-maj=134.0km s-min=27.5km az=55.0*

**ISC 08 08:15:39.3**±1.6**, 8°.14S**±0°.08×**107°.89E**±0°.04**, h27km**±13km**, n24, σ1s.57**/32**, mb3.7**/4**, Jawa**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CISI** | **Cisompet, Garu** | **0.59** | **353** | P | **Pn** | **08 15 53.1** | **+1.1** |
| CISI | | | | S | **Sn** | **08 16 00.9** | **+0.2** |
| **CNJI** | **Cibinong** | **1.12** | **318** | P | **Pb** | **08 16 00.3** | **+0.3** |
| CNJI | | | | S | **Sn** | **08 16 13.9** | **+0.2** |
| **KPJI** | **Karang Pucung** | **1.31** | **52** | P | **Pb** | **08 16 03.1** | **-0.2** |
| KPJI | | | | S | **Sb** | **08 16 19.6** | **-0.1** |
| **SKJI** | **Sukabumi** | **1.74** | **311** | P | **Pb** | **08 16 09.7** | **-0.9** |
| SKJI | | | | S | **Sb** | **08 16 30.7** | **-1.3** |
| **DBJI** | **Dramaga** | **1.94** | **324** | P | **Pn** | **08 16 12.2** | **+1.7** |
| DBJI | | | | S | **Sb** | **08 16 36.5** | **-1.3** |
| **UGM** | **Wanagama** | **2.62** | **85** | P | **Pn** | **08 16 21.3** | **+1.4** |
| UGM | | | | S | **Sn** | **08 16 50.2** | **-0.7** |
| **SBJI** | **Serang** | **2.66** | **319** | P | **Pn** | **08 16 22.8** | **+2.4** |
| SBJI | | | | S | **Sn** | **08 16 54.9** | **+3.1** |
| **SMRI** | **Semarang** | **2.76** | **67** | P | **Pn** | **08 16 24.5** | **+2.7** |
| SMRI | | | | S | **Sn** | **08 16 55.3** | **+1.1** |
| **PCJI** | **Pacitan** | **3.26** | **91** | P | **Pn** | **08 16 30.4** | **+1.7** |
| PCJI | | | | S | **Sn** | **08 17 05.6** | **-1.0** |
| **UWJI** | **Ujung Watu** | **3.49** | **61** | P | **Pn** | **08 16 33.5** | **+1.7** |
| UWJI | | | | S | **Sn** | **08 17 12.0** | **-0.2** |
| **PWJI** | **Pagerwojo** | **3.88** | **89** | P | **Pn** | **08 16 38.3** | **+1.1** |
| PWJI | | | | S | **Sn** | **08 17 21.5** | **-0.4** |
| **GRJI** | **Gresik** | **4.71** | **75** | P | **Pn** | **08 16 50.1** | **+1.4** |
| GRJI | | | | S | **Sn** | **08 17 42.4** | **-0.1** |
| **GMJI** | **Gumukmas** | **5.50** | **92** | P | **Pn** | **08 17 00.0** | **+0.5** |
| GMJI | | | | S | **Sn** | **08 18 03.2** | **+1.2** |
| **JAGI** | **Jajag, Banyuwa** | **6.21** | **93** | P | **Pn** | **08 17 12.5** | **+3.2** |
| **FITZ** | **Fitzroy Crossi** | **19.90** | **122** | P | **P** | **08 20 09.7** | **+0.7** |
| | 0.1nm,0.3s,baz=310,slow=12,SNR=3.8 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **27.86** | **342** | LR | LR | 08 34 21.9 | |
| | comp=Z,24nm,19.2s,baz=190,slow=41 | | | | | | |
| **WRA** | **Warramunga Arr** | **28.16** | **117** | P | **P** | **08 21 28.8** | **-0.9** |
| | 0.4nm,0.5s,baz=293,slow=12,SNR=5.3 | | | | | | |
| **ASAR** | **Alice Springs** | **29.32** | **125** | P | **P** | **08 21 40.0** | **0.0** |
| | 0.2nm,0.5s,baz=302,slow=9.1,SNR=3.5 | | | | | | |
| **H08S2** | **Diego Garcia H** | **35.05** | **268** | T | T | 08 59 25.7 | |
| | baz=93,slow=76,SNR=25 | | | | | | |
| **H08S3** | **Diego Garcia H** | **35.06** | **268** | T | T | 08 59 26.5 | |
| | baz=93,slow=76,SNR=28 | | | | | | |
| **H08S1** | **Diego Carcia H** | **35.07** | **268** | T | T | 08 59 28.5 | |
| | baz=93,slow=76,SNR=5.9 | | | | | | |
| **STKA** | **Stephens Creek** | **39.23** | **132** | P | **P** | **08 23 06.0** | **+0.4** |
| | 2.0nm,0.4s,baz=309,slow=8.7,SNR=14 | | | | | | |
| **MKAR** | **Makanchi Array** | **59.25** | **340** | P | **P** | **08 25 35.2** | **-3.1** |
| | 0.7nm,0.7s,baz=130,slow=8.9,SNR=3.5 | | | | | | |
| **TXAR** | **Lajitas Array** | **143.64** | **50** | PKP | PKPab | 08 35 06.7 | -2.4 |
| | 0.1nm,0.4s,baz=268,slow=1.1,SNR=4.3 | | | | | | |

*CSEM **08** 08:21:20.1, 38°.32N×22°.11E, h8km, ML1.2/2*

**ATH 08 08:21:20.1, 38°.32N×22°.11E, h8km**±2km**, ML1.2**/2**, Error ellipse: s-maj=2.9km s-min=0.9km az=345.0, Greece**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TRIZ** | **Trizonia** | **0.06** | **333** | P | Pg | 08 21 21.6 | -0.2 |
| TRIZ | | | | S | Sg | 08 21 23.0 | -0.1 |
| **TRIZ** | **Trizonia** | **0.06** | **333** | P | Pg | 08 21 21.6 | -0.3 |
| TRIZ | | | | S | Sg | 08 21 23.2 | 0.0 |
| **TRIZ** | **Trizonia** | **0.06** | **333** | P | Pg | 08 21 21.6 | -0.3 |
| TRIZ | | | | S | Sg | 08 21 23.2 | 0.0 |
| **KALE** | **Kalithea** | **0.08** | **20** | P | Pg | 08 21 22.2 | -0.1 |
| KALE | | | | AML | AML | 08 21 24.2 | |
| | comp=E,544μm,0.2s | | | | | | |
| KALE | | | | AML | AML | 08 21 24.2 | |
| | comp=N,881μm,0.2s | | | | | | |
| KALE | | | | S | Sg | 08 21 24.2 | +0.4 |
| **KALE** | **Kalithea** | **0.08** | **20** | P | Pg | 08 21 22.2 | -0.1 |
| KALE | | | | S | Sg | 08 21 24.0 | +0.1 |
| KALE | | | | AML | AML | 08 21 24.2 | |
| | comp=E,544μm,0.2s | | | | | | |
| KALE | | | | AML | AML | 08 21 24.2 | |
| | comp=N,881μm,0.2s | | | | | | |
| **KALE** | **Kalithea** | **0.08** | **20** | P | Pg | 08 21 22.2 | -0.1 |
| KALE | | | | S | Sg | 08 21 24.0 | +0.2 |
| **SERG** | **Sergoula** | **0.10** | **339** | P | Pg | 08 21 22.7 | +0.1 |
| SERG | | | | S | Sg | 08 21 24.3 | 0.0 |
| SERG | | | | AML | AML | 08 21 24.8 | |
| | comp=N,262μm,0.1s | | | | | | |
| SERG | | | | AML | AML | 08 21 25.1 | |
| | comp=E,222μm,0.2s | | | | | | |
| **SERG** | **Sergoula** | **0.10** | **339** | P | Pg | 08 21 22.4 | -0.1 |
| SERG | | | | S | Sg | 08 21 24.8 | +0.4 |
| SERG | | | | AML | AML | 08 21 24.8 | |
| | comp=N,262μm,0.1s | | | | | | |
| SERG | | | | AML | AML | 08 21 25.1 | |
| | comp=E,222μm,0.2s | | | | | | |
| **SERG** | **Sergoula** | **0.10** | **339** | P | Pg | 08 21 22.4 | -0.2 |
| SERG | | | | S | Sg | 08 21 24.8 | +0.4 |
| **LAKA** | **Lakka** | **0.12** | **233** | P | Pg | 08 21 22.8 | -0.1 |
| LAKA | | | | S | Sg | 08 21 25.2 | +0.4 |
| **LAKA** | **Lakka** | **0.12** | **233** | P | Pg | 08 21 23.1 | +0.2 |
| LAKA | | | | S | Sg | 08 21 24.9 | +0.1 |
| **LAKA** | **Lakka** | **0.12** | **233** | P | Pg | 08 21 23.1 | +0.2 |
| LAKA | | | | S | Sg | 08 21 25.0 | +0.2 |
| **EFP** | **Efpalio** | **0.19** | **306** | P | Pg | 08 21 24.0 | 0.0 |
| **EFP** | **Efpalio** | **0.19** | **306** | P | Pg | 08 21 24.0 | 0.0 |
| **KLV** | **Kalavryta, Ach** | **0.27** | **173** | P | Pg | 08 21 25.1 | -0.4 |
| **KLV** | **Kalavryta, Ach** | **0.27** | **173** | P | Pg | 08 21 25.0 | -0.5 |
| KLV | | | | S | Sg | 08 21 30.0 | +0.8 |
| **KLV** | **Kalavryta, Ach** | **0.27** | **173** | P | Pg | 08 21 25.0 | -0.5 |
| KLV | | | | S | Sg | 08 21 30.0 | +0.8 |
| **ANX** | **Ano Chora** | **0.31** | **333** | P | Pg | 08 21 26.6 | +0.3 |
| ANX | | | | S | Sg | 08 21 30.7 | +0.2 |
| **ANX** | **Ano Chora** | **0.31** | **333** | P | Pg | 08 21 26.6 | +0.3 |
| ANX | | | | S | Sg | 08 21 30.7 | +0.2 |

**WEL 08 08:31:50.6**±0.1**, 40°.20S×176°.64E, h56km**±1km**, ML3.5**/44**, 14C-15D, Error ellipse: s-maj=1.1km s-min=0.6km az=90.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PRHZ** | **Porangahau** | **0.07** | **186** | ⇑PN | Pn | 08 31 58.4 | -0.6 |
| PRHZ | | | | SN | Sn | 08 32 04.5 | -0.6 |
| PRHZ | | | | AML | AML | 08 32 05.7 | |
| **WPHZ** | **Waipukurau** | **0.21** | **311** | ⇓PN | Pn | 08 31 57.7 | -1.9 |
| WPHZ | | | | AML | AML | 08 32 03.0 | |
| WPHZ | | | | AML | AML | 08 32 03.2 | |
| **PXZ** | **Pawanui** | **0.24** | **45** | ⇓PN | Pn | 08 31 59.5 | -0.3 |
| PXZ | | | | SN | Sn | 08 32 05.9 | -0.5 |
| PXZ | | | | AML | AML | 08 32 07.0 | |
| PXZ | | | | AML | AML | 08 32 07.0 | |
| PXZ | | | | AML | AML | 08 32 08.1 | |
| **ANWZ** | **Angora Road** | **0.29** | **206** | ⇑PN | Pn | 08 32 00.3 | +0.1 |
| ANWZ | | | | AML | AML | 08 32 08.5 | |
| ANWZ | | | | AML | AML | 08 32 08.6 | |
| **DVHZ** | **Dannevirke** | **0.38** | **255** | ⇓PN | Pn | 08 31 59.7 | -1.3 |
| DVHZ | | | | AML | AML | 08 32 06.6 | |
| DVHZ | | | | AML | AML | 08 32 06.6 | |
| **KAHZ** | **Kahuranaki** | **0.44** | **24** | ⇓PN | Pn | 08 32 01.5 | -0.1 |
| KAHZ | | | | SN | Sn | 08 32 09.9 | +0.2 |
| KAHZ | | | | AML | AML | 08 32 12.0 | |
| **PNHZ** | **Pukenui** | **0.45** | **310** | AML | AML | 08 32 06.3 | |
| PNHZ | | | | AML | AML | 08 32 06.9 | |
| **TSZ** | **Takapari Road** | **0.54** | **285** | ⇓PN | Pn | 08 32 00.8 | -1.9 |
| TSZ | | | | AML | AML | 08 32 08.3 | |
| TSZ | | | | AML | AML | 08 32 08.8 | |
| **BFZ** | **Birch Farm** | **0.57** | **212** | PN | Pn | 08 32 03.2 | +0.2 |
| BFZ | | | | AML | AML | 08 32 12.7 | |
| BFZ | | | | AML | AML | 08 32 12.7 | |
| BFZ | | | | AML | AML | 08 32 13.7 | |
| BFZ | | | | AML | AML | 08 32 13.7 | |
| **KRHZ** | **Kereru** | **0.59** | **339** | ⇑PN | Pn | 08 32 01.7 | -1.7 |
| KRHZ | | | | AML | AML | 08 32 09.8 | |
| KRHZ | | | | AML | AML | 08 32 11.5 | |
| **PRWZ** | **Pori Road** | **0.62** | **235** | ⇓PN | Pn | 08 32 03.8 | +0.1 |
| PRWZ | | | | AML | AML | 08 32 13.8 | |
| PRWZ | | | | AML | AML | 08 32 14.4 | |
| **CKHZ** | **Cape Kidnapper** | **0.64** | **32** | ⇓PN | Pn | 08 32 03.7 | -0.1 |
| CKHZ | | | | AML | AML | 08 32 14.5 | |
| CKHZ | | | | AML | AML | 08 32 17.4 | |
| **POWZ** | **Post Office Ro** | **0.70** | **254** | ⇓PN | Pn | 08 32 03.9 | -0.7 |
| POWZ | | | | AML | AML | 08 32 18.6 | |
| POWZ | | | | AML | AML | 08 32 19.0 | |
| **MCHZ** | **McNeill Hill** | **0.76** | **3** | ⇑PN | Pn | 08 32 05.0 | -0.3 |
| MCHZ | | | | AML | AML | 08 32 17.9 | |
| MCHZ | | | | AML | AML | 08 32 18.5 | |
| **CPWZ** | **Castlepoint** | **0.79** | **205** | ⇑PN | Pn | 08 32 06.7 | +1.1 |
| CPWZ | | | | AML | AML | 08 32 19.3 | |
| CPWZ | | | | AML | AML | 08 32 20.0 | |
| **KWHZ** | **Kaweka Forest** | **0.79** | **348** | ⇑PN | Pn | 08 32 04.7 | -1.1 |
| KWHZ | | | | AML | AML | 08 32 16.8 | |
| KWHZ | | | | AML | AML | 08 32 16.8 | |
| **TIWZ** | **Tintock** | **0.81** | **225** | ⇑PN | Pn | 08 32 06.2 | +0.1 |
| TIWZ | | | | AML | AML | 08 32 19.9 | |
| TIWZ | | | | AML | AML | 08 32 20.3 | |
| **BHHZ** | **Black Hill Sta** | **0.84** | **328** | ⇑PN | Pn | 08 32 05.0 | -1.4 |
| BHHZ | | | | AML | AML | 08 32 15.2 | |
| BHHZ | | | | AML | AML | 08 32 15.3 | |
| **MRZ** | **Mangatainoka R** | **0.93** | **240** | PN | Pn | 08 32 07.2 | -0.4 |
| MRZ | | | | AML | AML | 08 32 19.8 | |
| MRZ | | | | AML | AML | 08 32 19.9 | |
| **ARHZ** | **Aropaoanui** | **0.97** | **16** | PN | Pn | 08 32 08.3 | +0.2 |
| ARHZ | | | | AML | AML | 08 32 22.4 | |
| ARHZ | | | | AML | AML | 08 32 22.8 | |
| **OHWZ** | **Ohakea** | **1.02** | **269** | PN | Pn | 08 32 08.9 | +0.3 |
| **BKZ** | **Black Stump Fm** | **1.04** | **354** | ⇓PN | Pn | 08 32 08.3 | -0.8 |
| BKZ | | | | AML | AML | 08 32 21.1 | |
| BKZ | | | | AML | AML | 08 32 21.3 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **MOVZ** | **Moawhango** | **1.05** | **319** | PN | Pn | 08 32 08.3 | -0.9 |
| **TMWZ** | **Te Maipa** | **1.07** | **212** | ⇑PN | Pn | 08 32 09.5 | 0.0 |
| TMWZ | | | | AML | AML | 08 32 24.6 | |
| TMWZ | | | | AML | AML | 08 32 24.7 | |
| **HOWZ** | **Holdsworth Sta** | **1.11** | **231** | PN | Pn | 08 32 09.6 | -0.4 |
| HOWZ | | | | AML | AML | 08 32 24.0 | |
| HOWZ | | | | AML | AML | 08 32 24.6 | |
| **NMHZ** | **Naumai** | **1.11** | **7** | ⇑PN | Pn | 08 32 09.9 | -0.1 |
| NMHZ | | | | AML | AML | 08 32 25.7 | |
| NMHZ | | | | AML | AML | 08 32 28.1 | |
| **WNVZ** | **Wahianoa** | **1.19** | **317** | ⇑PN | Pn | 08 32 10.7 | -0.4 |
| **TUVZ** | **Tukino** | **1.20** | **320** | ⇑PN | Pn | 08 32 11.1 | -0.2 |
| **MTVZ** | **Mangateitei** | **1.22** | **312** | PN | Pn | 08 32 11.1 | -0.4 |
| **WHVZ** | **Whangaehu Hut** | **1.23** | **318** | ⇑PN | Pn | 08 32 11.3 | -0.4 |
| **TRVZ** | **Turoa** | **1.23** | **316** | PN | Pn | 08 32 11.4 | -0.4 |
| **DRZ** | **Dome Shelter** | **1.24** | **318** | PN | Pn | 08 32 12.1 | +0.1 |
| **FWVZ** | **Far West T-bar** | **1.27** | **318** | PN | Pn | 08 32 11.7 | -0.5 |
| **OGWZ** | **Otaki Gorge** | **1.28** | **241** | ⇑PN | Pn | 08 32 11.8 | -0.4 |
| OGWZ | | | | AML | AML | 08 32 28.0 | |
| OGWZ | | | | AML | AML | 08 32 28.1 | |
| **OTVZ** | **Oturere** | **1.28** | **324** | PN | Pn | 08 32 12.0 | -0.4 |
| **MTW** | **Mount Morrison** | **1.29** | **222** | PN | Pn | 08 32 11.7 | -0.7 |
| MTW | | | | AML | AML | 08 32 28.6 | |
| MTW | | | | AML | AML | 08 32 28.8 | |
| **NGZ** | **Ngauruhoe** | **1.30** | **322** | PN | Pn | 08 32 12.3 | -0.3 |
| **KRVZ** | **Karewarewa** | **1.35** | **325** | ⇓PN | Pn | 08 32 13.1 | -0.1 |
| **WAZ** | **Wanganui** | **1.35** | **289** | ⇓PN | Pn | 08 32 13.5 | +0.3 |
| **PKVZ** | **Pokaka** | **1.35** | **312** | PN | Pn | 08 32 12.8 | -0.5 |
| **MTHZ** | **Maungataniwha** | **1.35** | **7** | ⇓PN | Pn | 08 32 12.8 | -0.5 |
| **WTVZ** | **West Tongariro** | **1.35** | **323** | PN | Pn | 08 32 12.9 | -0.4 |
| **MRHZ** | **Matea Rd** | **1.38** | **353** | PN | Pn | 08 32 13.5 | -0.1 |
| MRHZ | | | | AML | AML | 08 32 30.8 | |
| MRHZ | | | | AML | AML | 08 32 31.9 | |
| **TRWZ** | **Traveller** | **1.40** | **211** | PN | Pn | 08 32 13.4 | -0.4 |
| TRWZ | | | | AML | AML | 08 32 32.5 | |
| TRWZ | | | | AML | AML | 08 32 33.8 | |
| **KNZ** | **Kokohu** | **1.42** | **34** | ⇓PN | Pn | 08 32 13.7 | -0.3 |
| **MHGZ** | **Mahia Peninsul** | **1.43** | **43** | PN | Pn | 08 32 14.2 | 0.0 |
| **TWVZ** | **Taurewa** | **1.46** | **320** | PN | Pn | 08 32 14.8 | 0.0 |
| **KIW** | **Kapiti Island** | **1.48** | **243** | PN | Pn | 08 32 14.4 | -0.5 |
| KIW | | | | AML | AML | 08 32 32.6 | |
| KIW | | | | AML | AML | 08 32 33.2 | |
| **PAWZ** | **Paruwai Farm** | **1.50** | **218** | PN | Pn | 08 32 14.5 | -0.7 |
| PAWZ | | | | AML | AML | 08 32 34.3 | |
| PAWZ | | | | AML | AML | 08 32 34.4 | |
| **CAW** | **Cannon Point** | **1.50** | **232** | PN | Pn | 08 32 14.6 | -0.7 |
| CAW | | | | AML | AML | 08 32 33.2 | |
| CAW | | | | AML | AML | 08 32 36.7 | |
| **SNGZ** | **Shannon Statio** | **1.52** | **21** | PN | Pn | 08 32 15.4 | -0.1 |
| SNGZ | | | | AML | AML | 08 32 36.8 | |
| SNGZ | | | | AML | AML | 08 32 42.3 | |
| **PRGZ** | **Paritu Road** | **1.60** | **37** | PN | Pn | 08 32 16.2 | -0.3 |
| PRGZ | | | | AML | AML | 08 32 38.2 | |
| PRGZ | | | | AML | AML | 08 32 39.6 | |
| **MSWZ** | **Moikau Station** | **1.61** | **221** | PN | Pn | 08 32 15.5 | -1.2 |
| MSWZ | | | | AML | AML | 08 32 35.9 | |
| MSWZ | | | | AML | AML | 08 32 35.9 | |
| **ALRZ** | **Allen Road** | **1.65** | **352** | PN | Pn | 08 32 16.5 | -0.8 |
| **MUGZ** | **Murupara** | **1.72** | **3** | PN | Pn | 08 32 17.4 | -0.8 |
| **PLWZ** | **Palliser** | **1.73** | **217** | PN | Pn | 08 32 17.1 | -1.2 |
| PLWZ | | | | AML | AML | 08 32 39.1 | |
| PLWZ | | | | AML | AML | 08 32 39.2 | |
| **RIGZ** | **Rimuhau** | **1.73** | **30** | PN | Pn | 08 32 18.1 | -0.2 |
| RIGZ | | | | AML | AML | 08 32 40.9 | |
| RIGZ | | | | AML | AML | 08 32 42.2 | |
| **RAGZ** | **Rawiri** | **1.81** | **20** | PN | Pn | 08 32 18.8 | -0.6 |
| RAGZ | | | | AML | AML | 08 32 42.8 | |
| RAGZ | | | | AML | AML | 08 32 43.1 | |
| **BHW** | **Baring Head** | **1.81** | **228** | PN | Pn | 08 32 18.2 | -1.1 |
| BHW | | | | AML | AML | 08 32 40.4 | |
| BHW | | | | AML | AML | 08 32 40.5 | |
| **URZ** | **Urewera** | **1.97** | **11** | PN | Pn | 08 32 20.4 | -1.2 |
| **MWZ** | **Matawai** | **1.99** | **20** | ⇓PN | Pn | 08 32 21.0 | -0.9 |
| MWZ | | | | AML | AML | 08 32 46.1 | |
| MWZ | | | | AML | AML | 08 32 47.8 | |
| **TKGZ** | **Te Karaka** | **1.99** | **28** | PN | Pn | 08 32 21.1 | -0.8 |
| TKGZ | | | | AML | AML | 08 32 46.4 | |
| TKGZ | | | | AML | AML | 08 32 47.8 | |
| **TLZ** | **Tolley Road** | **2.06** | **335** | PN | Pn | 08 32 21.6 | -1.2 |
| **TCW** | **Tory Channel** | **2.06** | **240** | PN | Pn | 08 32 21.7 | -1.1 |
| TCW | | | | AML | AML | 08 32 47.1 | |
| TCW | | | | AML | AML | 08 32 47.1 | |
| **PREZ** | **Palmer Road** | **2.10** | **293** | PN | Pn | 08 32 24.5 | +1.1 |
| **CNGZ** | **Carnagh Statio** | **2.10** | **36** | PN | Pn | 08 32 22.6 | -0.8 |
| **DUWZ** | **D'Urville Isla** | **2.16** | **253** | PN | Pn | 08 32 23.2 | -1.0 |
| **NEZ** | **North Egmont** | **2.17** | **294** | PN | Pn | 08 32 24.9 | +0.5 |
| **HIZ** | **Hauiti** | **2.18** | **320** | PN | Pn | 08 32 24.0 | -0.4 |
| **TWGZ** | **Tauwhareparae** | **2.27** | **28** | PN | Pn | 08 32 25.4 | -0.4 |
| TWGZ | | | | AML | AML | 08 32 54.4 | |
| TWGZ | | | | AML | AML | 08 32 56.7 | |
| **NWEZ** | **Newall Road** | **2.33** | **292** | PN | Pn | 08 32 27.7 | +1.2 |
| **RUGZ** | **Raukumara Rang** | **2.37** | **20** | PN | Pn | 08 32 26.3 | -0.9 |
| **TUWZ** | **Tuamarina** | **2.39** | **238** | PN | Pn | 08 32 25.6 | -1.6 |
| TUWZ | | | | AML | AML | 08 32 54.4 | |
| TUWZ | | | | AML | AML | 08 32 54.6 | |
| **PUZ** | **Puketiti** | **2.47** | **31** | PN | Pn | 08 32 26.7 | -1.7 |
| **BSWZ** | **Blackbirch Sta** | **2.58** | **233** | PN | Pn | 08 32 28.5 | -1.4 |
| **HAZ** | **Te Kaha** | **2.60** | **20** | PN | Pn | 08 32 29.8 | -0.3 |
| **NNZ** | **Nelson** | **2.68** | **247** | PN | Pn | 08 32 30.2 | -1.0 |
| **WMGZ** | **Waiomatatini S** | **2.75** | **31** | PN | Pn | 08 32 31.2 | -1.0 |
| WMGZ | | | | AML | AML | 08 33 04.8 | |
| WMGZ | | | | AML | AML | 08 33 04.9 | |
| **MXZ** | **Matakaoa Point** | **2.94** | **27** | PN | Pn | 08 32 34.5 | -0.3 |
| **QRZ** | **Quartz Range** | **3.20** | **257** | PN | Pn | 08 32 37.2 | -1.1 |
| **THZ** | **Tophouse** | **3.23** | **240** | ⇓PN | Pn | 08 32 37.1 | -1.8 |
| **DSZ** | **Denniston Nort** | **3.98** | **246** | PN | Pn | 08 32 47.2 | -1.8 |
| **LTZ** | **Lake Taylor** | **4.17** | **230** | PN | Pn | 08 32 48.2 | -3.6 |
| **INZ** | **Inchbonnie** | **4.65** | **235** | PN | Pn | 08 32 55.6 | -2.6 |
| **CTZ** | **Chatham Island** | **6.14** | **127** | PN | Pn | 08 33 20.7 | +2.1 |
| **ODZ** | **Otahua Downs** | **6.56** | **220** | PN | Pn | 08 33 22.3 | -2.0 |

*ISCJB **08** 08:33:00.8±0.6, 17°.48S±0°.06×69°.57W±0°.08, h166km±4km, mb3.6/4, Error ellipse: s-maj=14.3km s-min=5.7km az=34.0*
*GUC **08** 08:33:01.1±0.7, 17°.46S×69°.37W, h138km±6km, ML4.0*
*SCB **08** 08:33:02.7±0.3, 17°.20S×69°.14W, h165km, Ml3.5/2, Error ellipse: s-maj=10.7km s-min=4.9km az=93.0*
*IDC **08** 08:33:04.7±3.2, 17°.26S×69°.27W, h177km±16km, mb3.5/4, mb1 3.7/6, mb1mx3.4/26, mbtmp4.1/6, Error ellipse: s-maj=53.0km s-min=22.1km az=22.0*

**ISC 08 08:33:01.6**±0.8**, 17°.50S**±0°.06×**69°.50W**±0°.08**, h161**km±7km**, n20,** σ1°.**06**/30**, mb3.7**/4**, 12C-1D, Peru-Bolivia border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BBOD** | **La Paz, Gloria** | **1.22** | **45** | ⇑*i*Pn | **Pn** | **08 33 31.0** | **+1.1** |
| BBOD | | | | ⇑*i*Sn | **Sn** | **08 33 51.8** | **+0.2** |
| | 169nm,0.6s | | | | | | |
| **ARCH** | **Arica** | **1.24** | **217** | *e*P | **Pn** | **08 33 29.3** | **-0.1** |
| ARCH | | | | *i* S | **Sn** | **08 33 50.4** | **-0.5** |
| **BBOJ** | **La Paz, Jacaqu** | **1.36** | **68** | ⇑*i*Pn | **Pn** | **08 33 32.5** | **+1.3** |
| BBOJ | | | | ⇑*i*Sn | **Sn** | **08 33 53.2** | **-0.6** |
| | 212nm,0.8s | | | | | | |
| **PB12** | **IPOC Station P** | **1.36** | **215** | ⇑*i*P | **Pn** | **08 33 30.3** | **-0.4** |
| PB12 | | | | *i* S | **Sn** | **08 33 51.9** | **-1.2** |
| PB12 | | | | IAML | | 08 33 52.8 | |
| | comp=E,5µm,0.3s | | | | | | |
| **BBOE** | **La Paz, Chanca** | **1.61** | **65** | ⇑*i*Pn | **Pn** | **08 33 35.1** | **+1.4** |
| BBOE | | | | ⇑*i*Sn | **Sn** | **08 33 57.5** | **-0.8** |
| **MNMC** | **Minye Minye** | **1.62** | **183** | ⇑*i*P | **Pn** | **08 33 34.0** | **+0.4** |
| MNMC | | | | *i* S | **Sn** | **08 33 58.3** | **0.0** |
| MNMC | | | | IAML | | 08 34 01.8 | |
| | comp=E,1µm,0.2s | | | | | | |
| **LPAZ** | **La Paz** | **1.78** | **48** | P | **Pn** | **08 33 36.7** | **+1.1** |
| | comp=E,36nm,0.3s,baz=228,slow=6.8,SNR=1333 | | | | | | |
| LPAZ | | | | S | **Sn** | **08 34 01.4** | **-0.4** |
| | comp=E,6.8nm,0.3s,baz=318,slow=23,SNR=11 | | | | | | |
| **LPAZ** | **La Paz** | **1.78** | **48** | ⇑*i*Pn | **Pn** | **08 33 36.3** | **+0.6** |
| LPAZ | | | | *e*Sn | **Sn** | **08 34 01.1** | **-0.7** |
| **LPAZ** | **La Paz** | **1.78** | **48** | ⇓*i*P | **Pn** | **08 33 36.7** | **+1.1** |
| LPAZ | | | | *i* S | **Sn** | **08 34 01.4** | **-0.4** |
| **BBOB** | **La Paz, Bander** | **1.88** | **44** | ⇑*i*Pn | **Pn** | **08 33 37.4** | **+0.8** |
| BBOB | | | | ⇑*i*Sn | **Sn** | **08 34 03.3** | **-0.3** |
| | comp=E,386nm,0.6s | | | | | | |
| **PSGC** | **Pisagua** | **2.17** | **196** | IAML | | 08 34 07.9 | |
| | comp=N,427nm,0.4s | | | | | | |
| **PB08** | **IPOC Station P** | **2.65** | **173** | ⇑*i*P | **Pn** | **08 33 46.3** | **+0.8** |
| PB08 | | | | *i* S | **Sn** | **08 34 19.4** | **0.0** |
| PB08 | | | | IAML | | 08 34 21.8 | |
| | comp=E,286nm,0.2s | | | | | | |
| **MOCB** | **Mochara** | **5.22** | **136** | *e*P | **Pn** | **08 34 20.7** | **+2.2** |
| **SIV** | **San Ignacio** | **8.22** | **81** | P | **Pn** | **08 34 57.7** | **-0.3** |
| | comp=E,3.0nm,0.3s,baz=284,slow=14,SNR=37 | | | | | | |
| **SIV** | **San Ignacio** | **8.22** | **81** | *e*P | **Pn** | **08 34 54.9** | **-3.0** |
| **PTGA** | **Pitinga** | **19.12** | **30** | P | **P** | **08 37 11.4** | **-1.1** |
| | comp=E,1.8nm,0.3s,baz=190,slow=19,SNR=11 | | | | | | |
| **TXAR** | **Lajitas Array** | **57.06** | **324** | P | **P** | **08 42 32.0** | **+0.8** |
| | comp=E,0.1nm,0.5s,baz=144,slow=7.8,SNR=3.1 | | | | | | |
| **DBIC** | **Dimbokro** | **68.20** | **75** | P | **P** | **08 43 44.9** | **-0.3** |
| | comp=E,4.3nm,0.5s,baz=256,slow=4.2,SNR=9.1 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **76.58** | **71** | P | **P** | **08 44 34.3** | **-0.6** |
| | comp=E,1.8nm,0.6s,baz=251,slow=5.8,SNR=12 | | | | | | |
| **YKA** | **Yellowknife Ar** | **87.25** | **341** | P | **P** | **08 45 29.9** | **+0.4** |
| | comp=E,0.2nm,0.5s,baz=134,slow=4.9,SNR=3.6 | | | | | | |

**NNC 08 08:51:46.8**±4.8**, 37°.06N**×**70°.36E, h4**km±134km**, mb3.5, mpv3.2, 4C-6D, Error ellipse: s-maj=138.5km s-min=22.2km az=17.0, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SFK** | **Sufi-Kurgan** | **3.84** | **39** | ⇑Pn | Pn | 08 52 47.9 | +1.0 |
| | 1.9nm,0.3s | | | | | | |
| SFK | | | | ⇑Sn | Sn | 08 53 34.2 | +1.6 |
| | 13nm,0.3s | | | | | | |
| **MNAS** | **Manas** | **5.66** | **16** | ⇓Pn | Pn | 08 53 13.0 | +1.1 |
| | 1.2nm,0.4s | | | | | | |
| MNAS | | | | ⇓Sn | Sn | 08 54 18.9 | +1.5 |
| | 7.7nm,0.5s | | | | | | |
| **KK31** | **Karatay Array** | **6.04** | **1** | ⇑Pn | Pn | 08 53 17.1 | +0.2 |
| | 0.4nm,0.3s,baz=181,slow=13,SNR=6.4 | | | | | | |
| KK31 | | | | ⇓Sn | Sn | 08 54 28.1 | +1.6 |
| | 2.7nm,0.5s,baz=187,slow=23,SNR=7.7 | | | | | | |
| **AAK** | **Ala-Archa** | **6.41** | **28** | ⇑Pn | Pn | 08 53 21.4 | -0.8 |
| | 2.4nm,0.8s | | | | | | |
| AAK | | | | ⇓Sn | Sn | 08 54 34.8 | -1.1 |
| | 4.6nm,0.7s | | | | | | |
| **TKM2** | **Tokmak 2** | **7.10** | **33** | ⇓Pn | Pn | 08 53 29.3 | -2.3 |
| | 2.3nm,1.1s | | | | | | |
| **AB31** | **Akbulak array** | **14.35** | **331** | ⇓Pn | Pn | 08 55 09.5 | -1.1 |
| | 0.2nm,0.3s,baz=146,slow=12,SNR=4.6 | | | | | | |

*ISCJB **08** 08:54:43.8±0.2, 38°.00N±0°.05×30°.83W±0°.02, h10km, mb4.8/145, MS4.3/52, Error ellipse: s-maj=6.6km s-min=2.1km az=178.8*
*BJI **08** 08:54:43.3, 38°.00N×30°.80W, h10km, mb5.0/14, mB5.2/9, Ms5.2/8, Ms7 4.9/7*
*IDC **08** 08:54:44.5±0.6, 38°.01N×30°.87W, h0km, mb4.2/25, mb1 4.3/25, mb1mx4.1/59, mbtmp4.2/25, MS4.2/43, Ms1 4.2/43, ms1mx4.2/55, Error ellipse: s-maj=16.7km s-min=12.8km az=174.0*
*MOS **08** 08:54:45.2±1.1, 38°.05N×30°.86W, h15km, mb5.0/39, Error ellipse: s-maj=8.9km s-min=7.6km az=150.1*
*CSEM **08** 08:54:45.7±0.1, 38°.04N×30°.67W, h10km, mb5.0/99*
*NEIC **08** 08:54:46.3±0.1, 38°.02N×30°.85W, h10km, mb5.0/110, Error ellipse: s-maj=5.4km s-min=2.7km az=182.0*
*PDA **08** 08:54:46.7±1.4, 38°.06N×30°.89W, h10km, ML4.1, Error ellipse: s-maj=6.5km s-min=3.9km az=46.0*
*GCMT **08** 08:54:46.3±0.2, 38°.11N×30°.89W, h12km, MW5.1/130, Moment Tensor Solution. s38,c45; s130,c204; Duration: 0 Moment tensor: Scale $10^{16}$Nm; $M_{rr}$-2.97±.12; $M_{\theta\theta}$2.61±.13; $M_{\phi\phi}$0.36±.12; $M_{r\theta}$0.28±.32; $M_{\theta\phi}$4.72±.09; $M_{\phi r}$-0.80±.33; Best double couple: $M_0$5.17400×$10^{16}$ NP1:$\phi_s$14.00000°, δ65.00000°, λ-150.00000°. NP2: $\phi_s$270.00000°, δ63.00000°, λ-28.00000°. Principal axes: T 6.3480, Plg2.0000°, Azm142.0000°; N -2.3420, Plg52.0000°, Azm49.0000°; P -3.9990, Plg38.0000°, Azm233.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*INMG **08** 08:54:46.7±7.9, 38°.06N×30°.89W, h10km, Mb4.5, MS3.8 Error ellipse: s-maj=43.6km s-min=10.4km az=170.0*

**ISC 08 08:54:45.1**±1.7**, 38°.07N**±0°.05×**30°.78W**±0°.04**, h4**km±10km**, n826,** σ1°.**50**/827**, mb5.0**/145**, MS4.3**/52**, 20C-13D, Azores Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **H07N1** | **FLORES T-PHASE** | **1.65** | **351** | ⇑*i*P | **Pn** | **08 55 11.2** | **-3.7** |
| H07N1 | | | | *e*S | **Sn** | **08 55 29.1** | **-7.4** |
| **CALA** | **Caldeira** | **1.71** | **72** | *e*P | **Pn** | **08 55 14.2** | **-1.7** |
| CALA | | | | *e*S | **Sn** | **08 55 33.0** | **-5.3** |
| **CALA** | **Caldeira** | **1.71** | **72** | *e*P | **Pn** | **08 55 14.2** | **-1.7** |
| CALA | | | | *e*S | **Sn** | **08 55 33.0** | **-5.3** |
| **PCED** | **Cedros** | **1.73** | **70** | *e*P | **Pn** | **08 55 13.1** | **-2.9** |
| PCED | | | | *e*S | **Sn** | **08 55 32.7** | **-5.9** |
| PCED | | | | A | A | 08 55 35.7 | |
| | 280nm,0.4s | | | | | | |
| **PCED** | **Cedros** | **1.73** | **70** | *e*P | **Pn** | **08 55 13.1** | **-2.9** |
| PCED | | | | *e*S | **Sn** | **08 55 32.7** | **-5.9** |
| | 280nm,0.4s | | | | | | |
| **HOR** | **Horta** | **1.75** | **74** | *e*P | **Pn** | **08 55 14.3** | **-2.1** |
| HOR | | | | *e*S | **Sn** | **08 55 33.8** | **-5.4** |
| HOR | | | | A | A | 08 55 37.2 | |
| | 370nm,0.6s | | | | | | |
| **HOR** | **Horta** | **1.75** | **74** | *e*P | **Pn** | **08 55 14.3** | **-2.1** |
| HOR | | | | *e*S | **Sn** | **08 55 33.8** | **-5.4** |
| | 370nm,0.6s | | | | | | |
| **PCAN** | **Candelaria** | **1.85** | **77** | *e*P | **Pn** | **08 55 15.4** | **-2.3** |
| PCAN | | | | *e*S | **Sn** | **08 55 36.0** | **-5.6** |
| PCAN | | | | A | A | 08 55 42.0 | |
| | 367nm,0.6s | | | | | | |
| **PCAN** | **Candelaria** | **1.85** | **77** | *e*P | **Pn** | **08 55 15.4** | **-2.3** |
| PCAN | | | | *e*S | **Sn** | **08 55 36.0** | **-5.6** |
| | 367nm,0.6s | | | | | | |
| **PICO** | **Pico** | **1.91** | **76** | *e*P | **Pn** | **08 55 16.0** | **-2.5** |
| PICO | | | | *e*S | **Sn** | **08 55 37.9** | **-5.1** |
| PICO | | | | A | A | 08 55 46.8 | |
| | 374nm,0.4s | | | | | | |
| **PICO** | **Pico** | **1.91** | **76** | *e*P | **Pn** | **08 55 16.0** | **-2.5** |
| PICO | | | | *e*S | **Sn** | **08 55 37.9** | **-5.1** |
| | 374nm,0.4s | | | | | | |
| **ROSA** | **Rosais** | **2.10** | **71** | *e*Pn | **Pn** | **08 55 22.1** | **+1.0** |
| ROSA | | | | *e*Sn | **Sn** | **08 55 47.5** | **-0.2** |
| **ROSA** | **Rosais** | **2.10** | **71** | *e*Pn | **Pn** | **08 55 22.1** | **+1.0** |
| ROSA | | | | *e*Sn | **Sn** | **08 55 47.5** | **-0.2** |
| **PID** | **Ribeirinha** | **2.13** | **79** | *e*P | **Pn** | **08 55 19.4** | **-2.2** |
| **PID** | **Ribeirinha** | **2.13** | **79** | *e*P | **Pn** | **08 55 19.4** | **-2.2** |
| **PMAN** | **Manadas** | **2.19** | **74** | *e*P | **Pn** | **08 55 20.0** | **-2.4** |
| PMAN | | | | *e*S | **Sn** | **08 55 45.0** | **-5.0** |
| PMAN | | | | A | A | 08 55 48.9 | |
| | 138nm,0.3s | | | | | | |
| **PMAN** | **Manadas** | **2.19** | **74** | *e*P | **Pn** | **08 55 20.0** | **-2.4** |
| PMAN | | | | *e*S | **Sn** | **08 55 45.0** | **-5.0** |
| | 138nm,0.3s | | | | | | |
| **PGRA** | **Graciosa** | **2.40** | **65** | *e*P | **Pn** | **08 55 22.5** | **-2.7** |
| PGRA | | | | *e*S | **Sn** | **08 55 49.2** | **-5.9** |
| PGRA | | | | A | A | 08 55 49.3 | |
| | 55nm,0.3s | | | | | | |
| **PGRA** | **Graciosa** | **2.40** | **65** | *e*P | **Pn** | **08 55 22.5** | **-2.7** |
| PGRA | | | | *e*S | **Sn** | **08 55 49.2** | **-5.9** |
| | 55nm,0.3s | | | | | | |
| **ADH** | **Angra Heroismo** | **2.85** | **77** | *e*P | **Pn** | **08 55 29.1** | **-2.3** |
| ADH | | | | *e*S | **Sn** | **08 56 01.2** | **-5.0** |
| ADH | | | | A | A | 08 56 04.3 | |
| | 193nm,0.5s | | | | | | |
| **ADH** | **Angra Heroismo** | **2.85** | **77** | *e*P | **Pn** | **08 55 29.1** | **-2.3** |
| ADH | | | | *e*S | **Sn** | **08 56 01.2** | **-5.0** |
| | 193nm,0.5s | | | | | | |
| **PSET** | **Sete Cidades** | **4.01** | **92** | *e*P | **Pn** | **08 55 44.8** | **-2.6** |
| PSET | | | | *e*S | **Sn** | **08 56 29.1** | **-5.7** |
| PSET | | | | A | A | 08 56 35.1 | |
| | 73nm,0.4s | | | | | | |
| **PSET** | **Sete Cidades** | **4.01** | **92** | *e*P | **Pn** | **08 55 44.8** | **-2.6** |
| PSET | | | | *e*S | **Sn** | **08 56 29.1** | **-5.7** |
| | 73nm,0.4s | | | | | | |
| **PDA** | **Ponta Delgada** | **4.06** | **93** | *e*P | **Pn** | **08 55 45.2** | **-2.9** |
| PDA | | | | *e*S | **Sn** | **08 56 30.5** | **-5.5** |
| PDA | | | | A | A | 08 56 32.0 | |
| | 59nm,0.3s | | | | | | |
| **PDA** | **Ponta Delgada** | **4.06** | **93** | *e*P | **Pn** | **08 55 45.2** | **-2.9** |
| PDA | | | | *e*S | **Sn** | **08 56 30.5** | **-5.5** |
| | 59nm,0.3s | | | | | | |
| **GRON** | **Grota Negra** | **4.16** | **92** | *e*P | **Pn** | **08 55 49.0** | **-0.5** |
| GRON | | | | *e*S | **Sn** | **08 56 35.8** | **-2.8** |
| **CMLA** | **Cha da Macela** | **4.17** | **93** | *i* P | **Pn** | **08 55 52.2** | **+2.6** |
| **CMLA** | **Cha da Macela** | **4.17** | **93** | *e*P | **Pn** | **08 55 47.2** | **-2.4** |
| CMLA | | | | *e*S | **Sn** | **08 56 33.3** | **-5.5** |
| CMLA | | | | A | A | 08 56 37.7 | |
| | 84nm,0.2s | | | | | | |
| **CMLA** | **Cha da Macela** | **4.17** | **93** | *e*P | **Pn** | **08 55 47.2** | **-2.4** |
| CMLA | | | | *e*S | **Sn** | **08 56 33.3** | **-5.5** |
| | 84nm,0.2s | | | | | | |
| CMLA | | | | *e*Sn | **Sn** | **08 56 35.2** | **-3.6** |
| **CMLA** | **Cha da Macela** | **4.17** | **93** | *e*Pn | **Pn** | **08 55 47.0** | **-2.6** |
| CMLA | | | | *e*Sn | **Sn** | **08 56 35.2** | **-3.6** |
| **BART** | **Pico Bartolome** | **4.45** | **92** | *e*P | **Pn** | **08 55 51.4** | **-2.1** |
| BART | | | | *e*S | **Sn** | **08 56 39.7** | **-6.0** |
| BART | | | | A | A | 08 56 44.5 | |
| | 55nm,0.3s | | | | | | |
| **BART** | **Pico Bartolome** | **4.45** | **92** | *e*P | **Pn** | **08 55 51.4** | **-2.1** |
| BART | | | | *e*S | **Sn** | **08 56 39.7** | **-6.0** |
| | 55nm,0.3s | | | | | | |
| **PSMA** | **Santa Maria** | **4.62** | **102** | *e*P | **Pn** | **08 55 52.9** | **-2.8** |
| PSMA | | | | *e*S | **Sn** | **08 56 43.3** | **-6.5** |
| PSMA | | | | A | A | 08 56 45.8 | |
| | 30nm,0.2s | | | | | | |
| **PSMN** | **Pico do Norte,** | **4.67** | **101** | *e*P | **Pn** | **08 55 53.9** | **-2.5** |
| PSMN | | | | *e*S | **Sn** | **08 56 44.5** | **-6.5** |
| PSMN | | | | A | A | 08 56 48.3 | |
| | 18nm,0.2s | | | | | | |
| **PSMN** | **Pico do Norte,** | **4.67** | **101** | *e*P | **Pn** | **08 55 53.9** | **-2.5** |
| PSMN | | | | *e*S | **Sn** | **08 56 44.5** | **-6.5** |
| | 18nm,0.2s | | | | | | |
| **PMOZ** | **Porto Moniz, M** | **12.25** | **111** | A | A | 09 03 01.9 | |
| | 244nm,14.0s | | | | | | |
| **PMTG** | **Montargil** | **17.67** | **80** | *e*P | **P** | **08 58 53.4** | **+0.3** |
| PMTG | | | | A | A | 08 59 02.3 | |
| | 44nm,1.6s | | | | | | |
| **PGAV** | **Gavieira, Arco** | **17.67** | **70** | A | A | 09 04 17.2 | |
| | 754nm,20.0s | | | | | | |
| **MTE** | **Manteigas** | **18.14** | **75** | A | A | 09 04 46.2 | |
| | 534nm,20.0s | | | | | | |
| **PESTR** | **Estremoz** | **18.18** | **80** | *e*P | **P** | **08 59 01.4** | **+2.7** |
| PESTR | | | | A | A | 09 04 58.5 | |
| | 399nm,18.0s | | | | | | |
| **PVAQ** | **Vaqueiros** | **18.25** | **85** | *e*P | **P** | **08 59 03.6** | **+4.0** |
| PVAQ | | | | A | A | 08 59 11.5 | |
| | 36nm,1.6s | | | | | | |
| PVAQ | | | | A | A | 09 04 48.5 | |
| | 448nm,18.0s | | | | | | |
| **PMRV** | **Marv??o** | **18.29** | **78** | A | A | 09 05 01.3 | |
| | 560nm,18.0s | | | | | | |
| **MVO** | **Moncorvo** | **18.55** | **73** | *e*P | **Pn** | **08 59 06.4** | **+3.4** |
| MVO | | | | A | A | 08 59 08.2 | |
| | 43nm,1.6s | | | | | | |
| MVO | | | | A | A | 09 05 23.6 | |
| | 503nm,18.0s | | | | | | |
| **PAB** | **San Pablo** | **20.63** | **78** | *e*P | Pn | 08 59 27.2 | -0.7 |
| PAB | | | | pmax | pmax | | |
| | comp=Z,39nm,1.8s | | | | | | |
| **PAB** | **San Pablo** | **20.63** | **78** | *e*P | Pn | 08 59 27.1 | -0.8 |
| | comp=Z,39nm,1.8s | | | | | | |
| **PAB** | **San Pablo** | **20.63** | **78** | *e*P | Pn | 08 59 27.1 | -0.8 |
| | comp=Z,39nm,1.8s | | | | | | |
| **ESDC** | **Sonseca Array** | **20.92** | **77** | P | Pn | 08 59 30.6 | -0.7 |
| | comp=Z,10nm,1.0s,baz=279,slow=8.3,SNR=19 | | | | | | |
| ESDC | | | | LR | LR | 09 05 55.5 | |
| | comp=Z,357nm,19.2s,baz=265,slow=32 | | | | | | |
| **ESLA** | **Sonseca Array** | **20.92** | **77** | *e*P | Pn | 08 59 30.5 | -0.8 |
| | comp=Z,21nm,1.3s | | | | | | |
| **ESLA** | **Sonseca Array** | **20.92** | **77** | *e*P | Pn | 08 59 30.6 | -0.7 |
| | comp=Z,21nm,1.3s | | | | | | |
| **ES19** | **SONSECA Array** | **20.97** | **77** | *e*P | **P** | **08 59 30.4** | **+1.1** |
| **ES19** | **SONSECA Array** | **20.97** | **77** | *e*P | **P** | **08 59 30.4** | **+1.1** |
| **MDT** | **Midelt** | **21.92** | **96** | P | **P** | **08 59 40.9** | **+1.2** |
| | comp=Z,0.9nm,0.6s,baz=291,slow=12,SNR=2.6 | | | | | | |
| MDT | | | | LR | LR | 09 06 25.0 | |
| | comp=Z,674nm,21.2s,baz=294,slow=32 | | | | | | |
| **EKA** | **Eskdalemuir Ar** | **25.38** | **38** | P | **P** | **09 00 13.2** | **-0.1** |
| | comp=Z,0.8nm,0.3s,baz=230,slow=6.3,SNR=4.0 | | | | | | |
| **BBTS** | **Babate** | **26.51** | **148** | LR | LR | 09 09 03.4 | |
| | comp=Z,758nm,18.9s,baz=340,slow=32 | | | | | | |
| **SCHQ** | **Schefferville** | **29.54** | **316** | LR | LR | 09 10 55.9 | |
| | comp=Z,2µm,21.3s,baz=130,slow=33 | | | | | | |
| **LMQ** | **La Malbaie** | **30.23** | **301** | *e*P | **P** | **09 00 55.2** | **-1.7** |
| | comp=Z,18nm,1.1s | | | | | | |
| **LMQ** | **La Malbaie** | **30.23** | **301** | *e*P | **P** | **09 00 55.2** | **-1.7** |
| | comp=Z,18nm,1.1s | | | | | | |
| **DAVOX** | **Davos/Dischmat** | **30.96** | **61** | LR | LR | 09 11 34.1 | |
| | comp=Z,280nm,20.9s,baz=268,slow=32 | | | | | | |
| **KEST** | **Kesra** | **32.01** | **82** | LR | LR | 09 13 26.1 | |
| | comp=Z,172nm,18.9s,baz=278,slow=35 | | | | | | |
| **NKC** | **Novy Kostel** | **32.86** | **54** | AMS | AMS | 09 13 20.0 | |
| | comp=Z,800nm,19.9s | | | | | | |
| **KOWA** | **Kowa** | **33.35** | **127** | *e*P | **P** | **09 01 24.4** | **-0.1** |
| | comp=Z,8.1nm,1.1s | | | | | | |
| **KOWA** | **Kowa** | **33.35** | **127** | *e*P | **P** | **09 01 24.4** | **-0.1** |
| | comp=Z,8.1nm,1.1s | | | | | | |
| **KONO** | **Kongsberg** | **33.46** | **37** | ⇓*e*P | **P** | **09 01 24.4** | **-0.6** |
| KONO | | | | pmax | pmax | | |
| | comp=Z,11nm,1.2s | | | | | | |
| **KONO** | **Kongsberg** | **33.46** | **37** | *e*P | **P** | **09 01 24.4** | **-0.6** |
| | comp=Z,11nm,1.2s | | | | | | |
| **GERES** | **GERESS Array B** | **33.60** | **57** | P | **P** | **09 01 27.3** | **+0.8** |
| | comp=Z,0.2nm,0.3s,baz=280,slow=7.7,SNR=3.6 | | | | | | |
| GERES | | | | LR | LR | 09 13 56.8 | |
| | comp=Z,198nm,19.8s,baz=252,slow=34 | | | | | | |
| **PRU** | **Pruhonice** | **34.19** | **55** | AMS | AMS | 09 14 10.0 | |
| | comp=Z,700nm,18.2s | | | | | | |
| **PVCC** | **Panska Ves** | **34.24** | **54** | AMS | AMS | 09 13 40.0 | |
| | comp=Z,700nm,16.7s | | | | | | |
| **N59A** | **State Game Lan** | **34.55** | **289** | P | **P** | **09 01 34.6** | **-0.2** |
| | baz=80 | | | | | | |
| **NB2** | **NORSAR Subarra** | **34.73** | **35** | P | **P** | **09 01 37.3** | **+1.2** |
| | comp=Z,9.6nm,1.0s,baz=242,slow=9.3 | | | | | | |
| **NB2** | **NORSAR Subarra** | **34.73** | **35** | P | **P** | **09 01 37.3** | **+1.2** |
| | comp=Z,9.6nm,1.0s,SNR=4.5 | | | | | | |
| **NOA** | **NORSAR Array B** | **34.73** | **35** | LR | LR | 09 14 08.1 | |
| | comp=Z,404nm,19.0s,baz=250,slow=33 | | | | | | |
| **SUMG** | **Summit** | **34.80** | **356** | *e*P | **P** | **09 01 37.5** | **+0.5** |
| SUMG | | | | pmax | pmax | | |
| | comp=Z,45nm,1.6s | | | | | | |
| **SUMG** | **Summit** | **34.80** | **356** | *e*P | **P** | **09 01 37.5** | **+0.5** |
| | comp=Z,45nm,1.6s | | | | | | |
| **SUMG** | **Summit** | **34.80** | **356** | *e*P | **P** | **09 01 37.5** | **+0.5** |
| | comp=Z,45nm,1.6s | | | | | | |
| **JMIC** | **Jan Mayen** | **34.97** | **13** | LR | LR | 09 12 09.1 | |
| | comp=Z,629nm,18.1s,baz=250,slow=30 | | | | | | |
| **UPC** | **Upice** | **35.16** | **54** | AMS | AMS | 09 14 40.0 | |
| | comp=Z,600nm,19.9s | | | | | | |
| **DPC** | **Dobruska-Polom** | **35.35** | **54** | AMS | AMS | 09 14 20.0 | |
| | comp=Z,500nm,18.0s | | | | | | |
| **VRAC** | **Vranov** | **35.51** | **56** | LR | LR | 09 14 46.3 | |
| | comp=Z,219nm,20.4s,baz=253,slow=34 | | | | | | |
| **HFS** | **Hagfors** | **35.57** | **37** | LR | LR | 09 14 56.1 | |
| | comp=Z,192nm,18.7s,baz=262,slow=34 | | | | | | |
| **MMNY** | **Mt. Morris Dam** | **35.82** | **293** | *e*P | **P** | **09 01 45.7** | **0.0** |
| | comp=Z,57nm,1.3s | | | | | | |
| **MMNY** | **Mt. Morris Dam** | **35.82** | **293** | *e*P | **P** | **09 01 45.6** | **0.0** |
| | comp=Z,57nm,1.3s | | | | | | |
| **O56A** | **Blue Knob Stat** | **36.76** | **289** | P | **P** | **09 01 53.4** | **-0.4** |
| | baz=78 | | | | | | |
| **M54A** | **Oil Creek Stat** | **37.33** | **291** | P | **P** | **09 01 57.4** | **-1.1** |
| | baz=79 | | | | | | |
| **N54A** | **Moraine State** | **37.67** | **290** | P | **P** | **09 02 00.7** | **-0.8** |
| | baz=78 | | | | | | |
| **PDG** | **Podgorica** | **37.99** | **67** | ⇑*i*P | P | 09 02 09.1 | +5.0 |
| **TOA1** | **Torodi Ar. Sit** | **38.05** | **122** | *e*P | **P** | **09 02 04.3** | **-0.6** |
| **TOA1** | **Torodi Ar. Sit** | **38.05** | **122** | *e*P | **P** | **09 02 04.3** | **-0.6** |
| **TOA0** | **Torodi Ar. Sit** | **38.05** | **122** | *e*P | **P** | **09 02 04.3** | **-0.6** |
| **TOA0** | **Torodi Ar. Sit** | **38.05** | **122** | *e*P | **P** | **09 02 04.3** | **-0.6** |
| **TORD** | **Torodi Ar. Bea** | **38.05** | **122** | P | **P** | **09 02 04.3** | **-0.6** |
| | comp=Z,7.4nm,1.1s,baz=318,slow=6.5,SNR=24 | | | | | | |
| TORD | | | | LR | LR | 09 17 05.4 | |
| | comp=Z,708nm,18.0s,baz=315,slow=35 | | | | | | |
| **CRVS** | **Cervenica-Dubn** | **38.72** | **57** | *e*P | **P** | **09 02 11.7** | **+1.5** |
| **CRVS** | **Cervenica-Dubn** | **38.72** | **57** | *e*P | **P** | **09 02 11.7** | **+1.5** |
| **DBIC** | **Dimbokro** | **39.10** | **136** | P | **P** | **09 02 13.0** | **-0.7** |
| | comp=Z,5.1nm,1.0s,baz=305,slow=7.9,SNR=5.1 | | | | | | |
| DBIC | | | | LR | LR | 09 16 39.5 | |
| | comp=Z,942nm,20.8s,baz=308,slow=34 | | | | | | |
| **DBIC** | **Dimbokro** | **39.10** | **136** | *e*P | **P** | **09 02 12.8** | **-0.9** |
| DBIC | | | | pmax | pmax | | |
| | comp=Z,42nm,1.8s | | | | | | |
| **DBIC** | **Dimbokro** | **39.10** | **136** | *e*P | **P** | **09 02 12.8** | **-0.9** |
| | comp=Z,42nm,1.8s | | | | | | |
| **DBIC** | **Dimbokro** | **39.10** | **136** | *e*P | **P** | **09 02 12.8** | **-0.9** |
| | comp=Z,42nm,1.8s | | | | | | |
| **BZS** | **Buzias** | **39.16** | **62** | ⇑*i*P | **P** | **09 02 16.6** | **+2.7** |
| **BZS** | **Buzias** | **39.16** | **62** | ⇑P | **P** | **09 02 16.6** | **+2.7** |
| **DRGR** | | **39.76** | **60** | ⇑*i*P | **P** | **09 02 19.7** | **+0.7** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| DRGR | | 39.76 | 60 | ⇑P | P | 09 02 19.7 | +0.7 |
| DRGR | | 39.76 | 60 | P | P | 09 02 19.7 | +0.7 |
| ACSO | Alum Creek Sta | 40.06 | 290 | P | P | 09 02 20.0 | -1.5 |
| | baz=76,SNR=8.2 | | | | | | |
| ACSO | Alum Creek Sta | 40.06 | 290 | eP | P | 09 02 21.5 | 0.0 |
| | comp=Z,37nm,0.8s | | | | | | |
| ACSO | Alum Creek Sta | 40.06 | 290 | eP | P | 09 02 21.6 | 0.0 |
| | comp=Z,37nm,0.8s | | | | | | |
| AAM | Ann Arbor | 40.08 | 293 | P | P | 09 02 21.7 | +0.1 |
| | baz=78 | | | | | | |
| KMSC | Kings Mountain | 40.28 | 282 | P | P | 09 02 23.3 | -0.1 |
| | baz=70 | | | | | | |
| ARR | Arges | 41.30 | 62 | ⇑iP | P | 09 02 34.6 | +2.9 |
| BUR04 | Bucovina Ar. S | 41.34 | 58 | eP | P | 09 02 32.8 | +0.7 |
| BUR04 | Bucovina Ar. S | 41.34 | 58 | eP | P | 09 02 32.8 | +0.7 |
| BURAR | Bucovina Array | 41.34 | 58 | ⇓iP | P | 09 02 34.1 | +2.0 |
| BURAR | Bucovina Array | 41.34 | 58 | ⇓P | P | 09 02 34.1 | +2.0 |
| TZTN | Tazewell | 41.53 | 285 | P | P | 09 02 32.1 | -1.6 |
| | baz=71 | | | | | | |
| VOIR | | 41.57 | 61 | ⇓iP | P | 09 02 38.4 | +4.4 |
| VOIR | | 41.57 | 61 | ⇓P | P | 09 02 38.4 | +4.4 |
| DOPR | Dopca | 41.71 | 61 | ⇑iP | P | 09 02 37.5 | +2.4 |
| FINES | FINESS Array B | 41.77 | 37 | LR | LR | 09 18 55.2 | |
| | comp=Z,532nm,18.8s,baz=266,slow=35 | | | | | | |
| TKL | Tuckaleechee C | 41.99 | 284 | P | P | 09 02 37.3 | -0.2 |
| | comp=Z,19nm,1.1s,baz=82,slow=6.4,SNR=4.4 | | | | | | |
| TKL | Tuckaleechee C | 41.99 | 284 | eP | P | 09 02 37.3 | -0.2 |
| TKL | | | | pmax | pmax | | |
| | comp=Z,38nm,1.4s | | | | | | |
| TKL | Tuckaleechee C | 41.99 | 284 | eP | P | 09 02 37.3 | -0.2 |
| | comp=Z,38nm,1.4s | | | | | | |
| TKL | Tuckaleechee C | 41.99 | 284 | eP | P | 09 02 37.3 | -0.2 |
| | comp=Z,38nm,1.4s | | | | | | |
| MLR | Muntele Rosu | 42.18 | 61 | P | P | 09 02 40.1 | +1.1 |
| | comp=Z,0.4nm,0.5s,baz=296,slow=9.8,SNR=3.3 | | | | | | |
| MLR | | | | LR | LR | 09 18 49.4 | |
| | comp=Z,49nm,18.9s,baz=286,slow=34 | | | | | | |
| MLR | Muntele Rosu | 42.18 | 61 | ⇓iP | P | 09 02 38.8 | -0.2 |
| MLR | Muntele Rosu | 42.18 | 61 | ⇓P | P | 09 02 38.8 | -0.2 |
| MLR | Muntele Rosu | 42.18 | 61 | P | P | 09 02 38.8 | -0.2 |
| O47A | Sheridan | 42.42 | 291 | P | P | 09 02 39.5 | -1.4 |
| | baz=74 | | | | | | |
| F42A | Maple Grove Fa | 42.56 | 299 | P | P | 09 02 41.1 | -0.9 |
| | baz=79 | | | | | | |
| PLOR | Plostina | 42.60 | 60 | ⇑iP | P | 09 02 40.3 | -2.0 |
| PLOR | Plostina | 42.60 | 60 | ⇑P | P | 09 02 40.3 | -2.0 |
| PLOR | Plostina | 42.60 | 60 | P | P | 09 02 40.3 | -2.0 |
| N46A | Monticello | 42.66 | 292 | P | P | 09 02 42.1 | -0.6 |
| | baz=75 | | | | | | |
| P47A | Martinsville | 42.70 | 290 | P | P | 09 02 42.3 | -0.9 |
| | baz=74 | | | | | | |
| G42A | Mountain | 42.87 | 299 | P | P | 09 02 43.3 | -1.1 |
| | baz=79 | | | | | | |
| M45A | Boilermakers S | 42.91 | 293 | P | P | 09 02 44.0 | -0.8 |
| | baz=75 | | | | | | |
| Q47A | Bedord North L | 42.97 | 289 | P | P | 09 02 44.9 | -0.5 |
| | baz=73 | | | | | | |
| BLO | Bloomington | 42.98 | 290 | eP | P | 09 02 45.7 | +0.3 |
| BLO | | | | pmax | pmax | | |
| | comp=Z,136nm,1.8s | | | | | | |
| BLO | Bloomington | 42.98 | 290 | eP | P | 09 02 45.7 | +0.3 |
| | comp=Z,136nm,1.8s | | | | | | |
| BLO | Bloomington | 42.98 | 290 | eP | P | 09 02 45.7 | +0.3 |
| | comp=Z,136nm,1.8s | | | | | | |
| E41A | Kenton | 43.00 | 301 | P | P | 09 02 44.8 | -0.7 |
| | baz=80 | | | | | | |
| SFIN | Lafayette | 43.06 | 291 | P | P | 09 02 45.0 | -1.0 |
| | baz=74 | | | | | | |
| WCI | Wyandotte Cave | 43.08 | 288 | P | P | 09 02 45.4 | -0.9 |
| | baz=72 | | | | | | |
| WCI | Wyandotte Cave | 43.08 | 288 | eP | P | 09 02 44.4 | -1.9 |
| WCI | | | | pmax | pmax | | |
| | comp=Z,17nm,0.9s | | | | | | |
| WCI | Wyandotte Cave | 43.08 | 288 | eP | P | 09 02 44.4 | -1.9 |
| | comp=Z,17nm,0.9s | | | | | | |
| WCI | Wyandotte Cave | 43.08 | 288 | eP | P | 09 02 44.4 | -1.9 |
| | comp=Z,17nm,0.9s | | | | | | |
| H42A | Shiocton | 43.09 | 298 | P | P | 09 02 45.3 | -1.0 |
| | baz=78 | | | | | | |
| L44A | Lake County Fo | 43.19 | 294 | P | P | 09 02 45.7 | -1.4 |
| | baz=76 | | | | | | |
| ARA0 | ARCESS Array S | 43.21 | 25 | eP | P | 09 02 48.0 | +1.1 |
| ARA0 | ARCESS Array S | 43.21 | 25 | eP | P | 09 02 48.0 | +1.1 |
| ARCES | ARCESS Array B | 43.21 | 25 | P | P | 09 02 48.0 | +1.0 |
| | comp=Z,8.5nm,1.0s,baz=279,slow=6.9,SNR=3.4 | | | | | | |
| ARCES | | | | LR | LR | 09 16 59.3 | |
| | comp=Z,392nm,19.3s,baz=266,slow=31 | | | | | | |
| F41A | Three Lakes | 43.23 | 300 | P | P | 09 02 45.6 | -1.9 |
| | baz=79 | | | | | | |
| N45A | Kentland | 43.24 | 292 | P | P | 09 02 46.7 | -0.8 |
| | baz=74 | | | | | | |
| R47A | Wooly Knot Far | 43.24 | 288 | P | P | 09 02 47.2 | -0.3 |
| | baz=72 | | | | | | |
| J43A | Natural Harves | 43.26 | 296 | P | P | 09 02 46.5 | -1.2 |
| | baz=77 | | | | | | |
| P46A | Rosedale | 43.35 | 290 | P | P | 09 02 47.8 | -0.7 |
| | baz=73 | | | | | | |
| M44A | Midewin, Midew | 43.48 | 293 | P | P | 09 02 50.1 | +0.6 |
| | baz=75 | | | | | | |
| I42A | Draeger Farm, | 43.49 | 297 | P | P | 09 02 49.1 | -0.4 |
| | baz=77 | | | | | | |
| KIEV | Kiev | 43.54 | 53 | ⇓iP | P | 09 02 49.7 | -0.1 |
| KIEV | | | | pmax | pmax | | |
| | comp=Z,17nm,1.5s | | | | | | |
| KIEV | Kiev | 43.54 | 53 | iP | P | 09 02 49.7 | -0.1 |
| | comp=Z,17nm,1.5s | | | | | | |
| KIEV | Kiev | 43.54 | 53 | eP | P | 09 02 50.2 | +0.5 |
| | comp=Z,14nm,1.2s | | | | | | |
| AKASG | Malin Array Be | 43.55 | 53 | P | P | 09 02 49.7 | -0.1 |
| | comp=Z,6.2nm,1.0s,baz=276,slow=7.7,SNR=18 | | | | | | |
| AKASG | | | | LR | LR | 09 20 38.7 | |
| | comp=Z,348nm,18.3s,baz=265,slow=36 | | | | | | |
| AKBB | Malin Array Si | 43.55 | 53 | eP | P | 09 02 50.2 | +0.3 |
| AKBB | | | | pmax | pmax | | |
| | comp=Z,17nm,1.3s | | | | | | |
| AKBB | Malin Array Si | 43.55 | 53 | eP | P | 09 02 50.2 | +0.3 |
| | comp=Z,17nm,1.3s | | | | | | |
| AKBB | Malin Array Si | 43.55 | 53 | eP | P | 09 02 50.2 | +0.3 |
| | comp=Z,17nm,1.3s | | | | | | |
| O45A | Potomac | 43.56 | 291 | P | P | 09 02 49.4 | -0.7 |
| | baz=74 | | | | | | |
| E40A | Wakefield | 43.64 | 301 | P | P | 09 02 50.3 | -0.4 |
| | baz=79 | | | | | | |
| N44A | Piper City | 43.71 | 292 | P | P | 09 02 50.1 | -1.2 |
| | baz=74 | | | | | | |
| PUL | Pulkovo | 43.73 | 40 | ⇑eP | P | 09 02 50.6 | -0.6 |
| PUL | | | | pmax | pmax | | |
| | comp=Z,50nm,0.7s | | | | | | |
| PUL | Pulkovo | 43.73 | 40 | eP | P | 09 02 50.6 | -0.6 |
| | comp=Z,50nm,0.7s | | | | | | |
| J42A | Columbus | 43.77 | 296 | P | P | 09 02 51.0 | -0.8 |
| | baz=76 | | | | | | |
| P45A | Graceland, Par | 43.78 | 290 | P | P | 09 02 51.2 | -0.7 |
| | baz=73 | | | | | | |
| SWET | Sewanee | 43.80 | 284 | eP | P | 09 02 52.9 | +0.7 |
| | comp=Z,40nm,1.3s | | | | | | |
| SWET | Sewanee | 43.80 | 284 | eP | P | 09 02 52.9 | +0.7 |
| | comp=Z,40nm,1.3s | | | | | | |
| H41A | Junction City | 43.85 | 298 | P | P | 09 02 51.6 | -0.8 |
| | baz=77 | | | | | | |
| F40A | Park Falls | 43.90 | 300 | P | P | 09 02 51.3 | -1.5 |
| | baz=78 | | | | | | |
| K42A | Prairie Point, | 44.06 | 295 | P | P | 09 02 53.7 | -0.5 |
| | baz=76 | | | | | | |
| G40A | Rib Lake | 44.09 | 299 | P | P | 09 02 54.0 | -0.3 |
| | baz=78 | | | | | | |
| T47A | Sharon Grove | 44.09 | 287 | P | P | 09 02 54.8 | +0.4 |
| | baz=71 | | | | | | |
| E39A | Mellen | 44.10 | 301 | P | P | 09 02 53.8 | -0.6 |
| | baz=79 | | | | | | |
| TIRR | Tirgusor | 44.11 | 62 | ⇑iP | P | 09 02 57.5 | +3.1 |
| TIRR | Tirgusor | 44.11 | 62 | ⇑P | P | 09 02 57.5 | +3.1 |
| O44A | Mansfield | 44.13 | 292 | P | P | 09 02 54.4 | -0.3 |
| | baz=73 | | | | | | |
| USIN | University of | 44.20 | 288 | eP | P | 09 02 54.9 | -0.4 |
| | comp=Z,184nm,1.9s | | | | | | |
| USIN | University of | 44.20 | 288 | eP | P | 09 02 54.9 | -0.4 |
| | comp=Z,184nm,1.9s | | | | | | |
| Q45A | Warren Harvey, | 44.27 | 290 | P | P | 09 02 55.7 | -0.1 |
| | baz=72 | | | | | | |
| OLIL | Olney | 44.28 | 289 | eP | P | 09 02 56.0 | +0.1 |
| | comp=Z,69nm,1.4s | | | | | | |
| OLIL | Olney | 44.28 | 289 | eP | P | 09 02 56.0 | +0.1 |
| | comp=Z,69nm,1.4s | | | | | | |
| S46A | Don Dixon Farm | 44.32 | 288 | P | P | 09 02 55.9 | -0.3 |
| | baz=71 | | | | | | |
| C38A | Sawbill Land. | 44.33 | 303 | P | P | 09 02 54.7 | -1.5 |
| | baz=80 | | | | | | |
| H40A | Chili | 44.36 | 298 | P | P | 09 02 55.9 | -0.6 |
| | baz=77 | | | | | | |
| J41A | Loganville | 44.39 | 296 | P | P | 09 02 56.1 | -0.7 |
| | baz=76 | | | | | | |
| EYMN | Ely | 44.43 | 303 | P | P | 09 02 55.0 | -2.0 |
| | baz=80 | | | | | | |
| F39A | Loretta | 44.44 | 300 | P | P | 09 02 55.8 | -1.3 |
| | baz=78 | | | | | | |
| P44A | Sand Creek, Wi | 44.44 | 291 | P | P | 09 02 56.5 | -0.7 |
| | baz=73 | | | | | | |
| L42A | Oliver, Polo | 44.49 | 294 | P | P | 09 02 56.9 | -0.7 |
| | baz=75 | | | | | | |
| R45A | Skylar, Fairfi | 44.55 | 289 | P | P | 09 02 57.4 | -0.7 |
| | baz=72 | | | | | | |
| HDIL | Hopedale | 44.62 | 292 | P | P | 09 02 57.4 | -1.2 |
| | baz=73 | | | | | | |
| SPITS | Spitsbergen Ar | 44.65 | 12 | LR | LR | 09 17 04.9 | |
| | comp=Z,285nm,18.7s,baz=230,slow=30 | | | | | | |
| T46A | Princeton | 44.67 | 287 | P | P | 09 02 59.2 | +0.2 |
| | baz=70 | | | | | | |
| JFWS | Jewell Farm | 44.67 | 296 | P | P | 09 02 58.1 | -0.9 |
| | baz=75 | | | | | | |
| I40A | Norwalk | 44.69 | 297 | P | P | 09 02 58.0 | -1.2 |
| | baz=76 | | | | | | |
| O43A | Sugar Creek Fa | 44.71 | 292 | P | P | 09 02 59.2 | -0.1 |
| | baz=73 | | | | | | |
| E38A | The Farm, Brul | 44.73 | 301 | P | P | 09 02 59.4 | 0.0 |
| | baz=78 | | | | | | |
| G39A | Holcombe | 44.75 | 299 | P | P | 09 02 58.8 | -0.8 |
| | baz=77 | | | | | | |
| K41A | Shullsburg | 44.79 | 295 | P | P | 09 02 59.5 | -0.5 |
| | baz=75 | | | | | | |
| Q44A | Meyer Farm, Va | 44.91 | 290 | P | P | 09 03 00.6 | -0.3 |
| | baz=72 | | | | | | |
| WVT | Waverly | 44.93 | 286 | P | P | 09 03 00.7 | -0.4 |
| | baz=70 | | | | | | |
| H39A | Augusta | 44.97 | 299 | P | P | 09 02 60.0 | -1.4 |
| | baz=76 | | | | | | |
| S45A | Carrier Mills | 44.97 | 288 | P | P | 09 03 00.4 | -1.1 |
| | baz=71 | | | | | | |
| P43A | Skaggs, Pawnee | 45.06 | 291 | P | P | 09 03 01.4 | -0.7 |
| | baz=72 | | | | | | |
| N42A | Yates City | 45.08 | 293 | P | P | 09 03 02.0 | -0.3 |
| | baz=73 | | | | | | |
| F38A | Pierce - Schro | 45.09 | 300 | P | P | 09 03 01.8 | -0.4 |
| | baz=77 | | | | | | |
| R44A | Waltonville | 45.16 | 289 | P | P | 09 03 02.6 | -0.3 |
| | baz=71 | | | | | | |
| D37A | Cotton | 45.20 | 302 | P | P | 09 03 03.1 | 0.0 |
| | baz=78 | | | | | | |
| G38A | Ridgeland | 45.25 | 299 | P | P | 09 03 02.8 | -0.8 |
| | baz=77 | | | | | | |
| M41A | Milan | 45.29 | 294 | P | P | 09 03 03.3 | -0.7 |
| | baz=74 | | | | | | |
| O42A | Bath | 45.30 | 292 | P | P | 09 03 04.3 | +0.2 |
| | baz=73 | | | | | | |
| I39A | Houston | 45.33 | 297 | P | P | 09 03 04.0 | -0.3 |
| | baz=76 | | | | | | |
| C36A | Pine Crest Far | 45.35 | 303 | P | P | 09 03 04.0 | -0.4 |
| | baz=79 | | | | | | |
| K40A | Colesburg | 45.36 | 296 | P | P | 09 03 04.0 | -0.5 |
| | baz=75 | | | | | | |
| Q43A | New Douglas | 45.40 | 290 | P | P | 09 03 04.5 | -0.3 |
| | baz=72 | | | | | | |
| LRAL | Lakeview Retre | 45.43 | 281 | P | P | 09 03 03.8 | -1.3 |
| | baz=67 | | | | | | |
| SIUC | Southern Illin | 45.44 | 288 | eP | P | 09 03 05.4 | +0.2 |
| | comp=Z,40nm,1.3s | | | | | | |
| SIUC | Southern Illin | 45.44 | 288 | eP | P | 09 03 05.4 | +0.2 |
| | comp=Z,40nm,1.3s | | | | | | |
| S44A | Carbondale | 45.47 | 288 | P | P | 09 03 04.9 | -0.5 |
| | baz=71 | | | | | | |
| U45A | Rockin P Farm, | 45.56 | 287 | P | P | 09 03 05.8 | -0.4 |
| | baz=70 | | | | | | |
| J39A | Decorah | 45.59 | 297 | P | P | 09 03 05.9 | -0.5 |
| | baz=75 | | | | | | |
| F37A | Hinrichs Farm, | 45.65 | 300 | P | P | 09 03 07.7 | +1.0 |
| | baz=77 | | | | | | |
| H38A | Maiden Rock | 45.66 | 299 | P | P | 09 03 06.0 | -0.8 |
| | baz=76 | | | | | | |
| P42A | Winchester | 45.68 | 291 | P | P | 09 03 05.8 | -1.2 |
| | baz=72 | | | | | | |
| D36A | Goodland | 45.69 | 302 | P | P | 09 03 04.5 | -2.6 |
| | baz=78 | | | | | | |
| N41A | Harden Midland | 45.71 | 293 | P | P | 09 03 06.4 | -0.9 |
| | baz=73 | | | | | | |
| Z48A | Northport | 45.73 | 282 | P | P | 09 03 07.8 | +0.4 |
| | baz=67 | | | | | | |
| Y47A | UCPARC, Winfie | 45.75 | 283 | P | P | 09 03 06.8 | -0.9 |
| | baz=68 | | | | | | |
| R43A | Red Bud | 45.79 | 289 | P | P | 09 03 07.2 | -0.7 |
| | baz=71 | | | | | | |
| B35A | Bob, Littlefor | 45.82 | 304 | P | P | 09 03 07.5 | -0.6 |
| | baz=79 | | | | | | |
| I38A | Scanlan Farm, | 45.85 | 298 | P | P | 09 03 07.7 | -0.7 |
| | baz=75 | | | | | | |
| SPMN | Marine on St. | 45.89 | 300 | P | P | 09 03 08.2 | -0.4 |
| | baz=76 | | | | | | |
| SPMN | Marine on St. | 45.89 | 300 | eP | P | 09 03 08.5 | -0.1 |
| | comp=Z,23nm,1.1s | | | | | | |
| SPMN | Marine on St. | 45.89 | 300 | eP | P | 09 03 08.5 | -0.1 |
| | comp=Z,23nm,1.1s | | | | | | |
| K39A | Oelwein | 45.89 | 296 | P | P | 09 03 06.6 | -2.1 |
| | baz=74 | | | | | | |
| E36A | McGregor | 45.89 | 301 | P | P | 09 03 08.6 | -0.1 |
| | baz=77 | | | | | | |
| O41A | Passleys Farm, | 45.91 | 292 | P | P | 09 03 08.3 | -0.5 |
| | baz=72 | | | | | | |
| T44A | Benton | 45.93 | 288 | P | P | 09 03 07.8 | -1.3 |
| | baz=70 | | | | | | |
| M40A | Post Highland | 45.98 | 294 | P | P | 09 03 08.2 | -1.2 |
| | baz=73 | | | | | | |
| U44B | Burton Farm, H | 46.01 | 287 | P | P | 09 03 08.8 | -0.9 |
| | baz=69 | | | | | | |
| Q42A | Golden Eagle | 46.03 | 291 | P | P | 09 03 08.9 | -0.9 |
| | baz=71 | | | | | | |
| C35A | Jirik Farms, M | 46.12 | 303 | P | P | 09 03 09.1 | -1.3 |
| | baz=78 | | | | | | |
| H37A | Dierke Farm, C | 46.12 | 299 | P | P | 09 03 10.2 | -0.3 |
| | baz=76 | | | | | | |
| S43A | Fulton Ridge, | 46.13 | 289 | P | P | 09 03 09.9 | -0.7 |
| | baz=70 | | | | | | |
| L39A | Vinton | 46.13 | 295 | P | P | 09 03 10.1 | -0.5 |
| | baz=74 | | | | | | |
| J38A | Wedel Dairy, R | 46.14 | 297 | P | P | 09 03 09.8 | -0.9 |
| | baz=75 | | | | | | |
| LVZ | Lovozero | 46.17 | 28 | ⇓eP | P | 09 03 11.5 | +0.9 |
| LVZ | | | | pmax | pmax | | |
| | comp=Z,90nm,2.7s | | | | | | |
| LVZ | Lovozero | 46.17 | 28 | eP | P | 09 03 11.5 | +0.9 |
| | comp=Z,90nm,2.7s | | | | | | |
| P41A | Barry, Barry | 46.18 | 292 | P | P | 09 03 10.5 | -0.5 |
| | baz=72 | | | | | | |
| N40A | Mertquake, Sal | 46.19 | 293 | P | P | 09 03 10.4 | -0.7 |
| | baz=73 | | | | | | |
| Z47A | Carrollton | 46.19 | 282 | P | P | 09 03 10.6 | -0.5 |
| | baz=67 | | | | | | |
| U44A | Portageville | 46.20 | 287 | P | P | 09 03 11.0 | -0.2 |
| | baz=70 | | | | | | |
| BRAL | Brewton | 46.22 | 279 | P | P | 09 03 11.3 | -0.1 |
| | baz=65 | | | | | | |
| F36A | Milaca | 46.23 | 301 | P | P | 09 03 10.3 | -1.0 |
| | baz=76 | | | | | | |
| FVM | French Village | 46.25 | 289 | eP | P | 09 03 11.1 | -0.5 |
| FVM | | | | pmax | pmax | | |
| | comp=Z,17nm,1.0s | | | | | | |
| FVM | French Village | 46.25 | 289 | eP | P | 09 03 11.1 | -0.5 |
| | comp=Z,17nm,1.0s | | | | | | |
| FVM | French Village | 46.25 | 289 | eP | P | 09 03 11.1 | -0.5 |
| | comp=Z,17nm,1.0s | | | | | | |
| D35A | Remer | 46.30 | 302 | P | P | 09 03 11.6 | -0.2 |
| | baz=77 | | | | | | |
| W45A | Hickory Valley | 46.31 | 285 | P | P | 09 03 11.7 | -0.4 |
| | baz=68 | | | | | | |
| B34A | Aery, Baudette | 46.40 | 304 | P | P | 09 03 12.4 | -0.2 |
| | baz=78 | | | | | | |
| R42A | Luebbering | 46.43 | 290 | P | P | 09 03 12.4 | -0.5 |
| | baz=71 | | | | | | |
| M39A | Webster | 46.44 | 294 | P | P | 09 03 12.5 | -0.5 |
| | baz=73 | | | | | | |
| T43A | Greenville | 46.45 | 288 | P | P | 09 03 12.4 | -0.7 |
| | baz=70 | | | | | | |
| Q41A | Truxton | 46.53 | 291 | P | P | 09 03 13.2 | -0.5 |
| | baz=71 | | | | | | |
| G36A | St. Michael | 46.53 | 300 | P | P | 09 03 12.5 | -1.2 |
| | baz=76 | | | | | | |
| Y46A | Houston | 46.53 | 283 | P | P | 09 03 12.9 | -0.9 |
| | baz=67 | | | | | | |
| 147A | Livingston | 46.55 | 282 | P | P | 09 03 12.9 | -1.1 |
| | baz=66 | | | | | | |
| S42A | Caledonia | 46.60 | 289 | P | P | 09 03 13.6 | -0.7 |
| | baz=70 | | | | | | |
| I37A | Lemond, Waseca | 46.60 | 298 | P | P | 09 03 13.6 | -0.7 |
| | baz=75 | | | | | | |
| O40A | La Belle | 46.63 | 293 | P | P | 09 03 13.7 | -0.9 |
| | baz=72 | | | | | | |
| E35A | Pequot Lakes | 46.66 | 302 | P | P | 09 03 14.2 | -0.4 |
| | baz=76 | | | | | | |
| PBMO | Poplar Bluff | 46.67 | 288 | eP | P | 09 03 14.6 | -0.2 |
| | comp=Z,70nm,1.5s | | | | | | |
| PBMO | Poplar Bluff | 46.67 | 288 | eP | P | 09 03 14.6 | -0.2 |
| | comp=Z,70nm,1.5s | | | | | | |
| OXF | Oxford | 46.72 | 284 | P | P | 09 03 14.6 | -0.7 |
| | baz=68 | | | | | | |
| OXF | Oxford | 46.72 | 284 | eP | P | 09 03 15.5 | +0.2 |
| OXF | | | | pmax | pmax | | |
| | comp=Z,47nm,1.0s | | | | | | |
| OXF | Oxford | 46.72 | 284 | eP | P | 09 03 15.5 | +0.2 |
| | comp=Z,47nm,1.0s | | | | | | |
| OXF | Oxford | 46.72 | 284 | eP | P | 09 03 15.5 | +0.2 |
| | comp=Z,47nm,1.0s | | | | | | |
| C34A | RKJ Ranch, Bem | 46.74 | 303 | P | P | 09 03 14.9 | -0.4 |
| | baz=77 | | | | | | |
| A33A | Warroad | 46.78 | 305 | P | P | 09 03 15.2 | -0.4 |
| | baz=78 | | | | | | |
| U43A | Rector | 46.79 | 287 | P | P | 09 03 15.5 | -0.4 |
| | baz=69 | | | | | | |
| L38A | Oak Wood Farm, | 46.81 | 296 | P | P | 09 03 14.9 | -1.1 |
| | baz=73 | | | | | | |
| H36A | Jessenland, He | 46.82 | 299 | P | P | 09 03 15.3 | -0.7 |
| | baz=75 | | | | | | |
| ULM | Lac du Bonnet | 46.83 | 307 | P | P | 09 03 14.7 | -1.2 |
| | comp=Z,3.6nm,0.8s,baz=78,slow=7.0,SNR=5.0 | | | | | | |
| ULM | | | | LR | LR | 09 22 04.1 | |
| | comp=Z,1µm,18.8s,baz=72,slow=35 | | | | | | |
| CCM | Cathedral Cave | 46.84 | 290 | P | P | 09 03 15.5 | -0.7 |
| | baz=70 | | | | | | |
| CCM | Cathedral Cave | 46.84 | 290 | eP | P | 09 03 16.0 | -0.2 |
| CCM | | | | pmax | pmax | | |
| | comp=Z,56nm,1.8s | | | | | | |
| CCM | Cathedral Cave | 46.84 | 290 | eP | P | 09 03 16.0 | -0.2 |
| | comp=Z,56nm,1.8s | | | | | | |
| CCM | Cathedral Cave | 46.84 | 290 | eP | P | 09 03 16.0 | -0.2 |
| | comp=Z,56nm,1.8s | | | | | | |
| N39A | Derby Farms, D | 46.86 | 294 | P | P | 09 03 15.4 | -0.9 |
| | baz=72 | | | | | | |
| R41A | Rosebud | 46.86 | 290 | P | P | 09 03 15.1 | -1.3 |
| | baz=70 | | | | | | |
| J37A | Redenius Farm, | 46.90 | 297 | P | P | 09 03 15.0 | -1.6 |
| | baz=74 | | | | | | |
| F35A | Swanville | 46.94 | 301 | P | P | 09 03 16.2 | -0.6 |
| | baz=76 | | | | | | |
| P40A | Paris | 46.95 | 292 | P | P | 09 03 16.3 | -0.7 |
| | baz=71 | | | | | | |
| I36A | Fitzsimmons Fa | 47.03 | 298 | P | P | 09 03 17.5 | -0.1 |
| | baz=74 | | | | | | |
| B33A | Robert and Kas | 47.05 | 304 | P | P | 09 03 15.9 | -1.9 |
| | baz=77 | | | | | | |
| PTGA | Pitinga | 47.06 | 222 | eP | P | 09 03 18.3 | +0.2 |
| | comp=Z,15nm,1.2s | | | | | | |
| PTGA | Pitinga | 47.06 | 222 | eP | P | 09 03 18.3 | +0.2 |
| | comp=Z,15nm,1.2s | | | | | | |
| SCIA | State Center | 47.06 | 295 | P | P | 09 03 17.1 | -0.8 |
| | baz=73 | | | | | | |
| D34A | Park Rapids | 47.06 | 303 | P | P | 09 03 17.4 | -0.4 |
| | baz=77 | | | | | | |
| Y45A | Yeager Farm, C | 47.07 | 284 | P | P | 09 03 17.6 | -0.4 |
| | baz=67 | | | | | | |
| T42A | Van Buren | 47.08 | 288 | P | P | 09 03 17.3 | -0.7 |
| | baz=70 | | | | | | |
| O39A | Kirksville | 47.08 | 293 | P | P | 09 03 17.3 | -0.7 |
| | baz=72 | | | | | | |
| Q40A | Laux Farm, Aux | 47.14 | 291 | P | P | 09 03 18.3 | -0.2 |
| | baz=71 | | | | | | |
| 146A | Union | 47.18 | 282 | P | P | 09 03 18.0 | -0.9 |
| | baz=66 | | | | | | |
| E34A | Wadena | 47.18 | 302 | P | P | 09 03 18.0 | -0.8 |
| | baz=76 | | | | | | |
| M38A | Pleasantville | 47.19 | 295 | P | P | 09 03 18.2 | -0.7 |
| | baz=72 | | | | | | |
| AGMN | Agassiz Nation | 47.23 | 304 | P | P | 09 03 18.5 | -0.5 |
| | baz=77 | | | | | | |
| AGMN | Agassiz Nation | 47.23 | 304 | eP | P | 09 03 18.8 | -0.3 |
| | comp=Z,55nm,1.7s | | | | | | |
| AGMN | Agassiz Nation | 47.23 | 304 | eP | P | 09 03 18.8 | -0.3 |
| | comp=Z,55nm,1.7s | | | | | | |
| C33A | Trail | 47.29 | 304 | P | P | 09 03 17.7 | -1.9 |
| | baz=77 | | | | | | |
| S41A | Jillco Farms, | 47.37 | 289 | P | P | 09 03 20.0 | -0.4 |
| | baz=70 | | | | | | |
| OBN | Obninsk | 47.38 | 46 | LR | LR | 09 23 06.1 | |
| | comp=Z,428nm,18.7s,baz=270,slow=36 | | | | | | |
| OBN | Obninsk | 47.38 | 46 | iP | P | 09 03 19.3 | -0.8 |
| OBN | | | | pmax | pmax | | |
| | comp=Z,14nm,1.2s | | | | | | |
| OBN | | | | MLR | MLR | | |
| | comp=Z,397nm,17.0s | | | | | | |
| OBN | Obninsk | 47.38 | 46 | iP | P | 09 03 19.3 | -0.8 |
| | comp=Z,397nm,17.0s | | | | | | |
| L37A | Phoenix Point, | 47.38 | 296 | P | P | 09 03 19.3 | -1.1 |
| | baz=73 | | | | | | |
| N38A | Joes South For | 47.41 | 294 | P | P | 09 03 19.6 | -1.1 |
| | baz=72 | | | | | | |
| H35A | Sunnyside Ranc | 47.41 | 299 | P | P | 09 03 20.1 | -0.5 |
| | baz=75 | | | | | | |
| F34A | Alexandria | 47.42 | 301 | P | P | 09 03 20.0 | -0.7 |
| | baz=75 | | | | | | |
| U42A | Revenden | 47.43 | 287 | P | P | 09 03 19.9 | -0.9 |
| | baz=69 | | | | | | |
| J36A | Seneca 1, Swea | 47.45 | 298 | P | P | 09 03 19.8 | -1.1 |
| | baz=74 | | | | | | |
| P39B | Salisbury | 47.48 | 292 | P | P | 09 03 20.6 | -0.5 |
| | baz=71 | | | | | | |
| D33A | AnnSam, Waubun | 47.48 | 303 | P | P | 09 03 20.1 | -1.0 |
| | baz=76 | | | | | | |
| A32A | Rocking H Ranc | 47.50 | 305 | P | P | 09 03 20.4 | -0.8 |
| | baz=77 | | | | | | |
| R40A | Maddies Statio | 47.52 | 290 | P | P | 09 03 20.2 | -1.3 |
| | baz=70 | | | | | | |
| B32A | Ashes, Strandq | 47.64 | 305 | P | P | 09 03 21.2 | -1.1 |
| | baz=77 | | | | | | |
| K36A | Gilmore City | 47.72 | 297 | P | P | 09 03 22.2 | -0.9 |
| | baz=73 | | | | | | |
| V42A | Cord | 47.74 | 287 | P | P | 09 03 21.6 | -1.7 |
| | baz=68 | | | | | | |
| E33A | Westby DABS, E | 47.74 | 302 | P | P | 09 03 23.1 | -0.1 |
| | baz=76 | | | | | | |
| Q39A | Willow Grove F | 47.78 | 292 | P | P | 09 03 22.6 | -0.9 |
| | baz=70 | | | | | | |
| O38A | Galt | 47.80 | 293 | P | P | 09 03 22.9 | -0.7 |
| | baz=71 | | | | | | |
| M37A | Trindle Farm, | 47.81 | 295 | P | P | 09 03 21.9 | -1.8 |
| | baz=72 | | | | | | |
| G34A | Benson | 47.82 | 300 | P | P | 09 03 23.3 | -0.5 |
| | baz=75 | | | | | | |
| X43A | Marvell | 47.84 | 285 | P | P | 09 03 23.3 | -0.7 |
| | baz=67 | | | | | | |
| S40A | Lebanon | 47.93 | 290 | P | P | 09 03 23.9 | -0.8 |
| | baz=70 | | | | | | |
| U41A | Viola | 47.94 | 288 | P | P | 09 03 23.7 | -1.1 |
| | baz=69 | | | | | | |
| Z44A | Pea Ridge, Bel | 47.98 | 283 | P | P | 09 03 24.0 | -1.1 |
| | baz=66 | | | | | | |
| P38A | Dawn | 48.00 | 292 | P | P | 09 03 23.8 | -1.5 |
| | baz=71 | | | | | | |
| L36A | Harm Buss Farm | 48.03 | 296 | P | P | 09 03 25.1 | -0.3 |
| | baz=72 | | | | | | |
| W42A | Bald Knob | 48.04 | 286 | P | P | 09 03 24.8 | -0.7 |
| | baz=68 | | | | | | |
| J35A | Milford | 48.04 | 298 | P | P | 09 03 24.4 | -1.1 |
| | baz=73 | | | | | | |
| 245A | Little AP, Sta | 48.07 | 282 | P | P | 09 03 24.9 | -0.9 |
| | baz=66 | | | | | | |
| H34A | Spellman Lake, | 48.07 | 300 | P | P | 09 03 25.0 | -0.7 |
| | baz=74 | | | | | | |
| R39A | Chumby, Stover | 48.08 | 291 | P | P | 09 03 24.9 | -0.9 |
| | baz=70 | | | | | | |
| T40A | Mansfield | 48.10 | 289 | P | P | 09 03 25.1 | -1.0 |
| | baz=69 | | | | | | |
| Y43A | Makayla and Ka | 48.11 | 284 | P | P | 09 03 25.0 | -1.1 |
| | baz=67 | | | | | | |
| H10N2 | ASCENSION HYDR | 48.12 | 158 | T | T | 09 54 29.3 | |
| | baz=343,slow=75,SNR=5.4 | | | | | | |
| N37A | Lee Faris, Mou | 48.12 | 294 | P | P | 09 03 25.8 | -0.4 |
| | baz=72 | | | | | | |

H10N3 **ASCENSION HYDR** 48.13 158 T T 09 54 35.4
baz=343,slow=75,SNR=4.7
H10N1 **ASCENSION HYDR** 48.14 158 T T 09 54 30.6
baz=343,slow=75,SNR=10
K35A **Storm Lake** 48.25 297 P P 09 03 26.4 -0.7
baz=73
KLMR **Klimovskoe** 48.27 38 P P
KLMR pmax pmax
comp=Z,11nm,1.5s
KLMR **Klimovskoe** 48.27 38 P P 09 03 25.9 -1.1
comp=Z,11nm,1.5s
O37A **Wolven Farm, M** 48.27 293 P P 09 03 26.4 -0.9
baz=71
Q38A **Cooks Store, C** 48.28 292 P P 09 03 26.3 -1.1
baz=70
I34A **Hadley** 48.30 299 P P 09 03 26.8 -0.7
baz=74
V41A **Mountainview** 48.33 287 P P 09 03 26.1 -1.7
baz=68
M36A **Felix, Anita** 48.33 295 P P 09 03 27.0 -0.7
baz=72
B31A **Greenbush Farm** 48.36 305 P P 09 03 26.9 -1.0
baz=76
G33A **Ortonville** 48.38 300 P P 09 03 27.8 -0.3
baz=74
VBMS **Vicksburg** 48.47 282 P P 09 03 28.8 -0.1
baz=66
S39A **Bolivar** 48.51 290 P P 09 03 27.9 -1.3
baz=69
BR231 **Keskin MP Arra** 48.52 67 eP P 09 03 30.9 +1.6
BR231 **Keskin MP Arra** 48.52 67 eP P 09 03 30.9 +1.6
C31A **Landman Farms,** 48.56 304 P P 09 03 28.9 -0.6
baz=76
J34A **George** 48.59 298 P P 09 03 28.7 -1.1
baz=73
P37A **Lathrop** 48.61 293 P P 09 03 28.6 -1.3
baz=70
W41B **Gary Mavity, V** 48.62 286 P P 09 03 28.8 -1.3
baz=68
U40A **Yellville** 48.64 288 P P 09 03 29.4 -0.8
baz=68
N36A **Muff Farm, Cla** 48.65 294 P P 09 03 28.9 -1.3
baz=71
L35A **Bielow Farm, R** 48.65 296 P P 09 03 29.2 -1.1
baz=72
244A **Avery, Jackson** 48.68 282 P P 09 03 29.8 -0.7
baz=65
H33A **Prehn Over Nor** 48.73 300 P P 09 03 30.1 -0.7
baz=74
D31A **Mcclaflin, Tow** 48.75 303 P P 09 03 29.7 -1.2
baz=75
CCAR **Cane Creek** 48.75 285 eP P 09 03 30.8 -0.3
comp=Z,181nm,1.7s
CCAR **Cane Creek** 48.75 285 eP P 09 03 30.8 -0.3
comp=Z,181nm,1.7s
R38A **Fenwick Farm,** 48.76 291 P P 09 03 30.4 -0.7
baz=69
T39A **Clever** 48.78 289 P P 09 03 30.7 -0.6
baz=69
Y42A **Garnett, Star** 48.80 285 P P 09 03 30.1 -1.3
baz=67
V40A **Witts Springs** 48.82 287 P P 09 03 30.7 -1.0
baz=68
K34A **Le Mars** 48.87 297 P P 09 03 30.2 -1.6
baz=72
O36A **Bolckow** 48.87 294 P P 09 03 30.1 -1.8
baz=71
ECSD **EROS Data Cent** 48.91 299 P P 09 03 30.9 -1.3
baz=73,SNR=8.4
ECSD **EROS Data Cent** 48.91 299 eP P 09 03 31.6 -0.6
comp=Z,54nm,1.8s
ECSD **EROS Data Cent** 48.91 299 eP P 09 03 31.6 -0.6
comp=Z,54nm,1.8s
Q37A **Longview Farm,** 48.92 292 P P 09 03 31.6 -0.8
baz=70
S38A **Stockton** 48.96 290 P P 09 03 31.2 -1.5
baz=69
M35A **Neola** 48.96 296 P P 09 03 31.2 -1.5
baz=71
E31A **Nome** 48.98 303 P P 09 03 32.1 -0.7
baz=75
G32A **Webster** 49.08 301 P P 09 03 32.4 -1.1
baz=74
X41A **Kaden, Bauxite** 49.09 286 P P 09 03 32.2 -1.5
baz=67
U39A **Green Forest** 49.10 288 P P 09 03 32.4 -1.3
baz=68
N35A **Tabor** 49.12 295 P P 09 03 32.6 -1.3
baz=71
H10S1 **ASCENSION HYDR** 49.13 159 T T 09 55 50.8
baz=344
H10S3 **ASCENSION HYDR** 49.14 159 T T 09 55 50.8
baz=344
H10S2 **ASCENSION HYDR** 49.15 159 T T 09 55 51.4
baz=344
BR101 **Keskin Array S** 49.18 67 eP P 09 03 35.4 +0.9
BR101 **Keskin Array S** 49.18 67 eP P 09 03 35.4 +0.9
BRTR **Keskin Array B** 49.18 67 P P 09 03 35.4 +0.9
comp=Z,1.5nm,0.9s,baz=280,slow=4.2,SNR=4.9
BRTR LR LR 09 23 23.2
comp=Z,87nm,21.0s,baz=278,slow=35
BRTR **Keskin Array B** 49.18 67 eP P 09 03 36.4 +1.9
BRTR pmax pmax
comp=Z,2.0nm,0.9s
P36A **Good Intent, A** 49.22 293 P P 09 03 34.2 -0.4
baz=70
H32A **Carlson Farm,** 49.25 300 P P 09 03 33.6 -1.3
baz=73
J33A **Davis** 49.28 298 P P 09 03 34.3 -0.7
baz=72
L34A **Svendsen Farm,** 49.29 296 P P 09 03 34.2 -0.9
baz=72
X40A **Basin Creek Fa** 49.34 286 P P 09 03 34.4 -1.1
baz=67
Y41A **Eaglette Beard** 49.41 285 P P 09 03 35.3 -0.8
baz=66
V39A **Pettigrew** 49.43 288 P P 09 03 35.7 -0.7
baz=68
T38A **Diamond** 49.46 290 P P 09 03 35.4 -1.1
baz=68
HHAR **Hobbs** 49.48 288 eP P 09 03 36.6 -0.1
comp=Z,55nm,1.9s
HHAR **Hobbs** 49.48 288 eP P 09 03 36.6 -0.1
comp=Z,55nm,1.9s
O35A **Humboldt** 49.51 294 P P 09 03 35.7 -1.1
baz=70
K33A **Hardington** 49.53 297 P P 09 03 35.5 -1.5
baz=72
G31A **Conde** 49.57 301 P P 09 03 36.4 -0.9
baz=73
S37A **Fort Scott** 49.59 291 P P 09 03 35.8 -1.7
baz=69
FFC **Flin Flon** 49.63 314 eP P 09 03 37.7 +0.2
FFC pmax pmax
comp=Z,15nm,1.0s
FFC **Flin Flon** 49.63 314 eP P 09 03 37.7 +0.2
comp=Z,15nm,1.0s
FFC **Flin Flon** 49.63 314 eP P 09 03 37.7 +0.2
comp=Z,15nm,1.0s
Q36A **Arnold C. Orve** 49.63 292 P P 09 03 36.5 -1.3
baz=70
N34A **Lincoln** 49.74 295 P P 09 03 37.7 -0.9
baz=70
U38A **Gravette** 49.75 289 P P 09 03 37.2 -1.5
baz=68
MDND **Maddock** 49.77 305 P P 09 03 37.0 -1.7
baz=75
W39A **Magazine** 49.78 287 P P 09 03 37.6 -1.3
baz=67
242A **Grayson** 49.80 283 P P 09 03 37.8 -1.3
baz=65
Z41A **Richland Creek** 49.80 284 P P 09 03 38.9 -0.2
baz=66
P35A **Duane Minner,** 49.84 293 P P 09 03 38.1 -1.3
baz=70
L33A **Hoskins** 49.86 297 P P 09 03 38.4 -1.1
baz=71
Y40A **Okolona** 49.86 285 P P 09 03 38.6 -0.9
baz=66
MIAR **Mount Ida** 49.88 286 P P 09 03 38.7 -1.0
baz=67,SNR=7.0
MIAR **Mount Ida** 49.88 286 eP P 09 03 39.4 -0.3
MIAR pmax pmax
comp=Z,28nm,1.3s
MIAR **Mount Ida** 49.88 286 eP P 09 03 39.4 -0.3
comp=Z,28nm,1.3s
MIAR **Mount Ida** 49.88 286 eP P 09 03 39.4 -0.3
comp=Z,28nm,1.3s
R36A **Gordon, Harris** 49.89 292 P P 09 03 39.0 -0.8
baz=69
RUSC **La Rusia** 49.96 241 eP P 09 03 40.5 -0.6
comp=Z,5.5nm,1.3s
H31A **Wolsey** 49.97 300 P P 09 03 39.4 -0.9
baz=72
V38A **Canehill** 49.99 288 P P 09 03 39.0 -1.5
baz=67
M33A **Taylor Creek F** 49.99 296 P P 09 03 39.6 -0.9
baz=71
Q35A **Mercer Eighty,** 50.09 292 P P 09 03 40.1 -1.1
baz=69
O34A **Beatrice** 50.10 294 P P 09 03 40.6 -0.8
baz=70
S36A **Lake Cedric, C** 50.17 291 P P 09 03 40.6 -1.3
baz=68
K32A **Verdigre** 50.19 298 P P 09 03 40.9 -1.1
baz=71
342A **Flagon Creek P** 50.22 282 P P 09 03 42.0 -0.4
baz=64
Z40A **Long Farm, Mag** 50.26 285 P P 09 03 41.1 -1.5
baz=66
X39A **Fountain Ranch** 50.30 286 P P 09 03 41.9 -1.0
baz=66
U37A **Salina** 50.31 289 P P 09 03 42.0 -0.9
baz=68
W38A **Poteau** 50.38 287 P P 09 03 42.7 -0.8
baz=67
R35A **Emporia Munici** 50.40 292 P P 09 03 41.8 -1.9
baz=69
241A **Mo Tay, Goldon** 50.41 283 P P 09 03 43.1 -0.6
baz=65
KSU1 **Kansas State U** 50.42 293 P P 09 03 42.7 -1.0
baz=69
KSU1 **Kansas State U** 50.42 293 eP P 09 03 42.9 -0.8
comp=Z,28nm,1.0s
KSU1 **Kansas State U** 50.42 293 eP P 09 03 42.9 -0.8
comp=Z,28nm,1.0s
P34A **Walnut Farm, R** 50.42 294 P P 09 03 43.0 -0.8
baz=69
Y39A **Lockesburg** 50.51 286 P P 09 03 43.6 -0.9
baz=66
V37A **Hulbert** 50.53 288 P P 09 03 43.3 -1.3
baz=67
T36A **Boggs Farm, Ca** 50.63 290 P P 09 03 44.1 -1.3
baz=68
140A **Cam and Jess,** 50.65 284 P P 09 03 44.2 -1.3
baz=65
S35A **Otter Creek Ra** 50.72 291 P P 09 03 44.2 -1.9
baz=68
BGNE **Belgrade** 50.73 296 P P 09 03 44.2 -1.9
baz=70
Q34A **Chapman** 50.73 293 P P 09 03 44.9 -1.1
baz=69
K31A **O'Neill** 50.75 298 P P 09 03 45.5 -0.8
baz=71
X38A **Whitesboro** 50.77 287 P P 09 03 46.1 -0.4
baz=66
341A **Kurthwood** 50.89 282 P P 09 03 47.4 0.0
baz=64
Y38A **Idabel** 51.00 286 P P 09 03 47.1 -1.1
baz=66
TUL1 **Leonard** 51.01 289 P P 09 03 47.1 -1.1
baz=67
TUL1 **Leonard** 51.01 289 eP P 09 03 47.1 -1.1
comp=Z,54nm,1.6s
TUL1 **Leonard** 51.01 289 eP P 09 03 47.1 -1.1
comp=Z,54nm,1.6s
W37B **Quinton** 51.04 288 P P 09 03 47.5 -1.0
baz=66
T35A **Sooner Cattle** 51.16 290 P P 09 03 48.6 -0.8
baz=68
V36A **Jenks** 51.17 289 P P 09 03 47.9 -1.5
baz=67
V36A **Jenks** 51.17 289 eP P 09 03 48.3 -1.2
comp=Z,15nm,1.0s
V36A **Jenks** 51.17 289 eP P 09 03 48.3 -1.2
comp=Z,15nm,1.0s
X37A **Clayton** 51.22 287 P P 09 03 49.4 -0.4
baz=66
X37A **Clayton** 51.22 287 eP P 09 03 49.9 +0.1
comp=Z,26nm,1.3s
X37A **Clayton** 51.22 287 eP P 09 03 49.9 +0.1
comp=Z,26nm,1.3s
S34A **Willow Spring** 51.30 291 P P 09 03 49.3 -1.1
baz=68
340A **Bronson** 51.41 283 P P 09 03 49.5 -1.8
baz=64
U35A **Pawnee** 51.53 290 P P 09 03 50.6 -1.5
baz=67
U35A **Pawnee** 51.53 290 eP P 09 03 51.1 -1.0
comp=Z,34nm,1.3s
U35A **Pawnee** 51.53 290 eP P 09 03 51.1 -1.0
comp=Z,34nm,1.3s
T34A **McClaskey Farm** 51.61 291 P P 09 03 51.3 -1.5
baz=67
W36A **Wetumka** 51.64 288 P P 09 03 51.8 -1.1
baz=66
W36A **Wetumka** 51.64 288 eP P 09 03 52.9 -0.1
comp=Z,19nm,1.8s
W36A **Wetumka** 51.64 288 eP P 09 03 52.9 -0.1
comp=Z,19nm,1.8s
Y37A **Hugo** 51.65 286 P P 09 03 52.7 -0.4
baz=66
OK021 **N3530 Road, Sp** 51.82 289 eP P 09 03 53.7 -0.6
comp=Z,12nm,0.4s
OK021 **N3530 Road, Sp** 51.82 289 eP P 09 03 53.7 -0.6
comp=Z,12nm,0.4s
V35A **Meyer Ranch, C** 51.85 289 P P 09 03 53.6 -1.0
baz=66
NATX **Nacogdoches** 51.86 283 P P 09 03 53.9 -0.8
baz=64
X36A **Centrahoma** 51.96 287 P P 09 03 54.1 -1.3
baz=66
Z37A **Pogue Cattle C** 51.98 286 P P 09 03 54.8 -0.8
baz=65
W35A **Tecumseh** 52.12 288 P P 09 03 55.6 -1.0
baz=66
W35A **Tecumseh** 52.12 288 eP P 09 03 56.3 -0.3
comp=Z,44nm,1.5s
W35A **Tecumseh** 52.12 288 eP P 09 03 56.3 -0.3
comp=Z,44nm,1.5s
Y36A **Durant** 52.19 287 P P 09 03 55.9 -1.1
baz=65
X35A **Drake** 52.50 288 P P 09 03 57.9 -1.5
baz=66
X35A **Drake** 52.50 288 eP P 09 03 58.9 -0.5
comp=Z,29nm,1.4s
X35A **Drake** 52.50 288 eP P 09 03 58.9 -0.5
comp=Z,29nm,1.4s
DGMT **Dagmar** 52.54 307 P P 09 03 59.8 +0.2
baz=72
DGMT **Dagmar** 52.54 307 eP P 09 04 00.6 +1.1
comp=Z,37nm,1.4s
DGMT **Dagmar** 52.54 307 eP P 09 04 00.6 +1.1
comp=Z,37nm,1.4s
Z36A **Blue Ridge** 52.56 286 P P 09 03 58.8 -1.1
baz=65
Y35A **Marietta** 52.75 287 P P 09 04 00.9 -0.4
baz=65
CBKS **Cedar Bluff** 52.79 294 P P 09 04 00.3 -1.2
baz=68
438A **Sam Houston St** 52.92 283 P P 09 04 02.2 -0.4
baz=63
136A **Ennis** 52.98 285 P P 09 04 02.2 -0.8
baz=64
437A **Phantom Ranch,** 53.40 283 P P 09 04 05.0 -1.1
baz=63
HKT **Hockley** 53.56 282⇑ iP P 09 04 07.7 +0.5
HKT pmax pmax
comp=Z,62nm,2.2s
HKT **Hockley** 53.56 282 i P P 09 04 07.7 +0.5
comp=Z,62nm,2.2s
OGNE **Ogallala** 53.63 297 P P 09 04 07.5 -0.2
baz=68
336A **Riesel** 53.69 284 P P 09 04 07.7 -0.6
baz=64
WMOK **Wichita Mounta** 53.72 289 P P 09 04 07.9 -0.5
baz=65
WMOK **Wichita Mounta** 53.72 289 eP P 09 04 07.5 -0.9
WMOK pmax pmax
comp=Z,24nm,1.6s
WMOK **Wichita Mounta** 53.72 289 eP P 09 04 07.5 -0.9
comp=Z,24nm,1.6s
WMOK **Wichita Mounta** 53.72 289 eP P 09 04 07.5 -0.9
comp=Z,24nm,1.6s
RSSD **Black Hills** 53.86 301 P P 09 04 08.4 -1.2
baz=69
WHTX **Lake Whitney,** 53.89 285 P P 09 04 09.5 -0.2
baz=64
WHTX **Lake Whitney,** 53.89 285 eP P 09 04 09.8 +0.1
comp=Z,35nm,1.3s
WHTX **Lake Whitney,** 53.89 285 eP P 09 04 09.8 +0.1
comp=Z,35nm,1.3s
KIV **Kislovodsk** 54.06 59 eP P 09 04 11.2 +0.3
KIV eS S 09 11 48.6 +0.8
KIV pmax pmax
comp=Z,6.0nm,0.9s
KIV MLR MLR
comp=Z,116nm,16.0s
KIV **Kislovodsk** 54.06 59 eP P 09 04 11.2 +0.3
comp=Z,6.0nm,0.9s
KBZ **Khabaz** 54.29 59 LR LR 09 29 02.1
comp=Z,86nm,18.7s,baz=313,slow=38
YKA **Yellowknife Ar** 54.32 325 LR LR 09 25 01.7
comp=Z,65nm,18.2s,baz=0.0,slow=34
NEY **Neytrino** 54.34 60⇑ eP P 09 04 11.3 -1.7
NEY pmax pmax
comp=Z,3.0nm,1.7s
NEY **Neytrino** 54.34 60 eP P 09 04 11.3 -1.7
comp=Z,3.0nm,1.7s
LAO **LASA Array** 54.41 305 P P 09 04 12.5 -0.9
baz=70,SNR=11
LAO **LASA Array** 54.41 305 eP P 09 04 13.6 +0.2
comp=Z,22nm,1.0s
LAO **LASA Array** 54.41 305 eP P 09 04 13.6 +0.2
comp=Z,22nm,1.0s
435B **Jarrell** 54.53 284 P P 09 04 13.4 -1.0
baz=63
KSCO **Kaye Shedlock'** 54.79 295 P P 09 04 15.6 -0.8
baz=67
ABTX **Abilene, Hawle** 55.27 287 P P 09 04 18.6 -1.2
baz=64
ABTX **Abilene, Hawle** 55.27 287 eP P 09 04 19.4 -0.4
comp=Z,23nm,1.4s
ABTX **Abilene, Hawle** 55.27 287 eP P 09 04 19.4 -0.4
comp=Z,23nm,1.4s
SAML **Samuel** 55.70 220 eP P 09 04 22.9 +0.1
comp=Z,6.3nm,1.1s
SAML **Samuel** 55.70 220 eP P 09 04 22.9 +0.1
comp=Z,6.3nm,1.1s
AMTX **Amarillo** 55.81 290 P P 09 04 23.4 -0.2
baz=64
AMTX **Amarillo** 55.81 290 eP P 09 04 23.5 -0.2
comp=Z,29nm,1.3s
AMTX **Amarillo** 55.81 290 eP P 09 04 23.5 -0.2
comp=Z,29nm,1.3s
BDFB **Brasilia** 55.82 200 P P 09 04 23.6 -0.2
comp=Z,1.6nm,0.4s,baz=141,slow=5.7,SNR=2.3
BDFB LR LR 09 25 23.2
comp=Z,200nm,19.4s,baz=270,slow=33
K22A **Casper** 56.09 301 P P 09 04 24.5 -1.1
baz=67
EGMT **Eagleton** 56.19 308 P P 09 04 25.1 -1.0
baz=69
EGMT **Eagleton** 56.19 308 eP P 09 04 26.4 +0.2
comp=Z,26nm,1.4s
EGMT **Eagleton** 56.19 308 eP P 09 04 26.4 +0.2
comp=Z,26nm,1.4s
JCT **Junction City** 56.37 285 P P 09 04 26.6 -1.1
baz=62
JCT **Junction City** 56.37 285 eP P 09 04 27.4 -0.3
JCT pmax pmax
comp=Z,18nm,1.4s
JCT **Junction City** 56.37 285 eP P 09 04 27.4 -0.3
comp=Z,18nm,1.4s
JCT **Junction City** 56.37 285 eP P 09 04 27.4 -0.3
comp=Z,18nm,1.4s
N23A **Red Feather La** 56.38 298 P P 09 04 27.5 -0.4
baz=66
N23A **Red Feather La** 56.38 298 eP P 09 04 28.5 +0.6
comp=Z,18nm,1.0s
N23A **Red Feather La** 56.38 298 eP P 09 04 28.5 +0.6
comp=Z,18nm,1.0s
ISCO **Idaho Springs** 56.59 297 P P 09 04 28.9 -0.5
baz=66
Q24A **Divide** 56.61 296 P P 09 04 29.0 -0.6
baz=66
T25A **Trinidad** 56.85 294 P P 09 04 30.1 -1.1
baz=65
T25A **Trinidad** 56.85 294 eP P 09 04 31.6 +0.4
comp=Z,32nm,1.6s
T25A **Trinidad** 56.85 294 eP P 09 04 31.6 +0.4
comp=Z,32nm,1.6s
GNI **Garni** 56.94 62 LR LR 09 31 29.0
comp=Z,72nm,18.1s,baz=269,slow=39
RLMT **Red Lodge** 56.96 304 P P 09 04 31.2 -0.7
baz=67
RLMT **Red Lodge** 56.96 304 eP P 09 04 32.5 +0.6
comp=Z,14nm,1.2s
RLMT **Red Lodge** 56.96 304 eP P 09 04 32.5 +0.6
comp=Z,14nm,1.2s
GCMT **Greycliff** 56.97 305 eP P 09 04 32.3 +0.5
GCMT **Greycliff** 56.97 305 eP P 09 04 32.4 +0.5
MSTX **Muleshoe** 57.02 290 P P 09 04 31.4 -1.0
baz=64
MSTX **Muleshoe** 57.02 290 eP P 09 04 31.4 -1.0
comp=Z,24nm,1.3s
MSTX **Muleshoe** 57.02 290 eP P 09 04 31.4 -1.0
comp=Z,24nm,1.3s
833A **Chaparral WMA,** 57.07 282 P P 09 04 32.1 -0.6
baz=61
SDCO **Great Sand Dun** 57.37 295 P P 09 04 34.5 -0.5
baz=65
OTAV **Otavalo** 57.72 241 eP P 09 04 37.4 -0.4
comp=Z,8.8nm,1.1s
OTAV **Otavalo** 57.72 241 eP P 09 04 37.4 -0.4
comp=Z,8.8nm,1.1s
BW06 **Boulder Array** 58.09 302 P P 09 04 38.8 -1.2
baz=66,SNR=10
BW06 **Boulder Array** 58.09 302 eP P 09 04 39.2 -0.7
comp=Z,10nm,1.0s
BW06 **Boulder Array** 58.09 302 eP P 09 04 39.2 -0.7
comp=Z,10nm,1.0s
PD31 **Pinedale Array** 58.09 302 eP P 09 04 39.0 -0.9
PD31 **Pinedale Array** 58.09 302 eP P 09 04 39.0 -0.9
PDAR **Pinedale Array** 58.09 302 P P 09 04 38.7 -1.2
comp=Z,1.8nm,0.8s,baz=41,slow=8.4,SNR=13
PDAR LR LR 09 28 21.0
comp=Z,992nm,21.3s,baz=76,slow=35
PDAR **Pinedale Array** 58.09 302 eP P 09 04 37.7 -2.2
PDAR **Pinedale Array** 58.09 302 eP P 09 04 37.7 -2.2
H17A **Grant Village** 58.11 304 P P 09 04 39.0 -1.1
baz=66
YMR **Madison River** 58.25 304 eP P 09 04 41.6 +0.6
comp=Z,33nm,1.5s
YMR **Madison River** 58.25 304 eP P 09 04 41.6 +0.6
comp=Z,33nm,1.5s
O20A **White River Ci** 58.29 298 P P 09 04 40.1 -1.2
baz=65
O20A **White River Ci** 58.29 298 eP P 09 04 42.1 +0.8
comp=Z,34nm,1.7s
O20A **White River Ci** 58.29 298 eP P 09 04 42.1 +0.8
comp=Z,34nm,1.7s
BOZ **Bozeman (W)** 58.31 305 P P 09 04 41.2 -0.1
baz=66
BOZ **Bozeman (W)** 58.31 305 eP P 09 04 41.6 +0.3
BOZ pmax pmax
comp=Z,17nm,1.6s
BOZ **Bozeman (W)** 58.31 305 eP P 09 04 41.6 +0.3
comp=Z,17nm,1.6s
BOZ **Bozeman (W)** 58.31 305 eP P 09 04 41.6 +0.3
comp=Z,17nm,1.6s
YPP **Pitchstone Pla** 58.31 304 eP P 09 04 42.4 +0.9
comp=Z,30nm,2.0s
YPP **Pitchstone Pla** 58.31 304 eP P 09 04 42.4 +0.9
comp=Z,30nm,2.0s
S22A **4UR Ranch, Cre** 58.32 295 P P 09 04 41.1 -0.6
baz=64
S22A **4UR Ranch, Cre** 58.32 295 eP P 09 04 42.5 +0.8
comp=Z,24nm,1.8s
S22A **4UR Ranch, Cre** 58.32 295 eP P 09 04 42.5 +0.8
comp=Z,24nm,1.8s
WALA **Waterton Lakes** 58.36 310 eP P 09 04 41.0 -0.6
comp=Z,11nm,0.9s
WALA **Waterton Lakes** 58.36 310 eP P 09 04 41.0 -0.6
comp=Z,11nm,0.9s
LOHW **Long Hollow** 58.45 303 eP P 09 04 41.9 -0.5
comp=Z,15nm,1.8s
LOHW **Long Hollow** 58.45 303 eP P 09 04 41.9 -0.5
comp=Z,15nm,1.8s
MOOW **Moose Ponds** 58.48 303 eP P 09 04 42.2 -0.4
comp=Z,6.9nm,1.3s
MOOW **Moose Ponds** 58.48 303 eP P 09 04 42.2 -0.4
comp=Z,6.9nm,1.3s
IMW **Indian Meadow** 58.55 303 eP P 09 04 43.9 +0.7

comp=Z,30nm,1.6s
**IMW Indian Meadow 58.55 303** *e*P **P** **09 04 43.9 +0.7**
comp=Z,30nm,1.6s
**SNOW Snow King Moun 58.61 303** *e*P **P** **09 04 44.1 +0.6**
comp=Z,12nm,1.2s
**SNOW Snow King Moun 58.61 303** *e*P **P** **09 04 44.1 +0.6**
comp=Z,12nm,1.2s
**REDW Red Top Meadow 58.71 303** *e*P **P** **09 04 44.3 +0.1**
comp=Z,28nm,1.4s
**REDW Red Top Meadow 58.71 303** *e*P **P** **09 04 44.3 +0.1**
comp=Z,28nm,1.4s
**FXWY Fox Creek 58.71 303** *e*P **P** **09 04 44.0 -0.2**
comp=Z,22nm,1.7s
**FXWY Fox Creek 58.71 303** *e*P **P** **09 04 44.0 -0.2**
comp=Z,22nm,1.7s
**TPAW Teton Pass 58.73 303** *e*P **P** **09 04 44.5 +0.1**
comp=Z,27nm,1.8s
**TPAW Teton Pass 58.73 303** *e*P **P** **09 04 44.5 +0.1**
comp=Z,27nm,1.8s
**ARU Arti 58.97 40** P **P** **09 04 45.5 +0.1**
comp=Z,4.5nm,0.2s,baz=290,slow=12,SNR=2.7
ARU LR LR 09 30 23.2
comp=Z,398nm,18.4s,baz=284,slow=36
**ARU Arti 58.97 40***c i*P **P** **09 04 45.6 +0.1**
ARU 09 06 52.4
ARU S **S** **09 12 52.4 +0.2**
ARU pmax pmax
comp=Z,15nm,1.7s
ARU MLR MLR
comp=Z,457nm,17.0s
**ARU Arti 58.97 40** *i*P **P** **09 04 45.6 +0.1**
comp=Z,15nm,1.7s
ARU S **S** **09 12 52.4 +0.2**
comp=Z,457nm,17.0s
**DLMT Dillon 59.02 306** *e*P **P** **09 04 46.6 +0.3**
comp=Z,20nm,1.5s
**DLMT Dillon 59.02 306** *e*P **P** **09 04 46.6 +0.3**
comp=Z,20nm,1.5s
**MSO Missoula 59.27 308** P **P** **09 04 46.9 -1.1**
baz=66
**ANMO Albuquerque 59.30 292** P **P** **09 04 48.0 -0.4**
baz=63
**ANMO Albuquerque 59.30 292**‖ *e*P **P** **09 04 49.3 +0.9**
ANMO pmax pmax
comp=Z,10.0nm,1.7s
**ANMO Albuquerque 59.30 292** *e*P **P** **09 04 49.1 +0.7**
comp=Z,20nm,1.8s
**ANMO Albuquerque 59.30 292** *e*P **P** **09 04 49.1 +0.7**
comp=Z,20nm,1.8s
**PV09 Paradox Valley 59.62 297** *e*P **P** **09 04 51.6 +0.9**
**PV09 Paradox Valley 59.62 297** *e*P **P** **09 04 51.6 +0.9**
**INK Inuvik 59.65 335** P **P** **09 04 50.3 +0.3**
comp=Z,1.9nm,0.8s,baz=53,slow=6.3,SNR=3.3
**INK Inuvik 59.65 335** *e*P **P** **09 04 50.3 +0.3**
INK pmax pmax
comp=Z,9.0nm,1.4s
**INK Inuvik 59.65 335** *e*P **P** **09 04 50.3 +0.3**
comp=Z,9.0nm,1.4s
**INK Inuvik 59.65 335** *e*P **P** **09 04 50.3 +0.3**
comp=Z,9.0nm,1.4s
**MVCO Mesa Verde 59.75 295** P **P** **09 04 51.3 -0.2**
baz=63,SNR=5.4
**MVCO Mesa Verde 59.75 295** *e*P **P** **09 04 51.9 +0.4**
comp=Z,16nm,1.4s
**MVCO Mesa Verde 59.75 295** *e*P **P** **09 04 51.9 +0.4**
comp=Z,16nm,1.4s
**BNM Barren Site 59.79 291** *e*P **P** **09 04 52.7 +0.9**
**BNM Barren Site 59.79 291** *e*P **P** **09 04 52.7 +0.9**
**LTX Lajitas 59.86 285** *e*P **P** **09 04 52.2 0.0**
**LTX Lajitas 59.86 285** *e*P **P** **09 04 52.2 0.0**
**LTX Lajitas 59.86 285** *e*P **P** **09 04 52.2 0.0**
**TXAR Lajitas Array 59.86 285** P **P** **09 04 52.2 0.0**
comp=Z,3.2nm,1.0s,baz=77,slow=5.6,SNR=13
**TX31 Lajitas Ar. Si 59.86 285** *e*P **P** **09 04 51.9 -0.3**
**TX31 Lajitas Ar. Si 59.86 285** *e*P **P** **09 04 51.9 -0.3**
**P18A Preston Nutter 59.90 299** *e*P **P** **09 04 52.8 +0.2**
comp=Z,7.2nm,0.8s
**P18A Preston Nutter 59.90 299** *e*P **P** **09 04 52.8 +0.2**
comp=Z,7.2nm,0.8s
**MNTX Cornudas Mount 60.02 288** P **P** **09 04 52.3 -0.9**
baz=61,SNR=6.0
**MNTX Cornudas Mount 60.02 288** *e*P **P** **09 04 53.0 -0.2**
comp=Z,11nm,1.4s
**MNTX Cornudas Mount 60.02 288** *e*P **P** **09 04 53.0 -0.2**
comp=Z,11nm,1.4s
**LAZ Ladron 60.05 292** *e*P **P** **09 04 54.4 +0.8**
**LAZ Ladron 60.05 292** *e*P **P** **09 04 54.4 +0.8**
**JLU Jordanelle 60.30 300** *e*P **P** **09 04 55.3 +0.1**
comp=Z,11nm,1.3s
**JLU Jordanelle 60.30 300** *e*P **P** **09 04 55.4 +0.1**
comp=Z,11nm,1.3s
**SRU San Rafael Swe 60.32 298** *e*P **P** **09 04 55.3 -0.1**
SRU pmax pmax
comp=Z,10.0nm,1.4s
**SRU San Rafael Swe 60.32 298** *e*P **P** **09 04 55.3 -0.1**
comp=Z,9.5nm,1.4s
**SRU San Rafael Swe 60.32 298** *e*P **P** **09 04 55.3 -0.1**
comp=Z,9.5nm,1.4s
**NEW Newport 60.63 310** P **P** **09 04 56.4 -0.7**
baz=65,SNR=12
**NEW Newport 60.63 310** *e*P **P** **09 04 56.7 -0.4**
NEW pmax pmax
comp=Z,13nm,1.1s
**NEW Newport 60.63 310** *e*P **P** **09 04 56.7 -0.4**
comp=Z,13nm,1.1s
**NEW Newport 60.63 310** *e*P **P** **09 04 56.7 -0.4**
comp=Z,13nm,1.1s
**SPUT South Promonto 60.66 301** *e*P **P** **09 04 58.6 +1.0**
comp=Z,15nm,1.6s
**SPUT South Promonto 60.66 301** *e*P **P** **09 04 58.6 +1.0**
comp=Z,15nm,1.6s
**HVU Hansel Valley 60.67 302** *e*P **P** **09 04 58.0 +0.3**
HVU pmax pmax
comp=Z,12nm,1.3s
**HVU Hansel Valley 60.67 302** *e*P **P** **09 04 58.0 +0.3**
comp=Z,12nm,1.3s
**HVU Hansel Valley 60.67 302** *e*P **P** **09 04 58.0 +0.3**
comp=Z,12nm,1.3s
**MPU Maple Canyon 60.69 300** *e*P **P** **09 04 57.9 0.0**
comp=Z,25nm,1.9s
**MPU Maple Canyon 60.69 300** *e*P **P** **09 04 57.9 0.0**
comp=Z,25nm,1.9s
**TMUT Trail Mountain 60.72 299** *e*P **P** **09 04 58.7 +0.5**
comp=Z,23nm,1.4s
**TMUT Trail Mountain 60.72 299** *e*P **P** **09 04 58.7 +0.5**
comp=Z,23nm,1.4s
**Q16A Castle Valley 60.86 298** *e*P **P** **09 04 59.8 +0.7**
comp=Z,33nm,1.9s
**Q16A Castle Valley 60.86 298** *e*P **P** **09 04 59.8 +0.7**
comp=Z,33nm,1.9s
**HLID Hailey 60.97 304** P **P** **09 04 59.0 -0.7**
baz=64
**HLID Hailey 60.97 304** *e*P **P** **09 05 00.2 +0.5**
comp=Z,7.5nm,1.4s
**HLID Hailey 60.97 304** *e*P **P** **09 05 00.2 +0.5**
comp=Z,7.5nm,1.4s
**NLU North Lily Min 61.02 300** *e*P **P** **09 05 00.5 +0.4**
comp=Z,8.0nm,1.1s
**NLU North Lily Min 61.02 300** *e*P **P** **09 05 00.5 +0.4**
comp=Z,8.0nm,1.1s
**AKTO Aktyubinsk 61.14 47** P **P** **09 05 01.2 +0.7**
comp=Z,1.8nm,0.5s,baz=296,slow=4.6,SNR=6.2
AKTO LR LR 09 31 43.5
comp=Z,345nm,18.5s,baz=312,slow=36
**BGU Big Grassy Mou 61.23 301** *e*P **P** **09 05 00.8 -0.7**
comp=Z,8.3nm,1.1s
**BGU Big Grassy Mou 61.23 301** *e*P **P** **09 05 00.8 -0.7**
comp=Z,8.3nm,1.1s
**121A Cookes Peak, D 61.41 290** P **P** **09 05 02.0 -0.8**
baz=61
**DUG Dugway, Tooele 61.41 300** P **P** **09 05 01.9 -0.8**
baz=63,SNR=10
**DUG Dugway, Tooele 61.41 300** *e*P **P** **09 05 02.7 0.0**
DUG pmax pmax
comp=Z,13nm,1.1s
**DUG Dugway, Tooele 61.41 300** *e*P **P** **09 05 02.7 0.0**
comp=Z,13nm,1.1s
**DUG Dugway, Tooele 61.41 300** *e*P **P** **09 05 02.7 0.0**
comp=Z,13nm,1.1s
**W18A Petrified Fore 61.60 294** P **P** **09 05 03.3 -0.8**
baz=62
**MSU Marysvale 61.74 298** *e*P **P** **09 05 05.7 +0.6**
**MSU Marysvale 61.74 298** *e*P **P** **09 05 05.7 +0.6**
**MSU Marysvale 61.74 298** *e*P **P** **09 05 05.7 +0.6**
**MTPU Mount Pierson 61.97 298** *e*P **P** **09 05 07.6 +0.8**
comp=Z,15nm,1.8s
**MTPU Mount Pierson 61.97 298** *e*P **P** **09 05 07.6 +0.8**
comp=Z,15nm,1.8s
**E09A Wood Farm, Sta 62.02 309** *e*P **P** **09 05 06.1 -0.4**
comp=Z,35nm,1.8s
**E09A Wood Farm, Sta 62.02 309** *e*P **P** **09 05 06.1 -0.4**
comp=Z,35nm,1.8s
**BMO Blue Mountains 62.25 307** *e*P **P** **09 05 08.3 +0.1**
BMO pmax pmax
comp=Z,18nm,1.9s
**BMO Blue Mountains 62.25 307** *e*P **P** **09 05 08.3 +0.1**
comp=Z,18nm,1.9s
**BMO Blue Mountains 62.25 307** *e*P **P** **09 05 08.3 +0.1**
comp=Z,18nm,1.9s
**WUAZ Wupatki 62.59 295** P **P** **09 05 10.3 -0.4**
baz=61,SNR=7.9
**WUAZ Wupatki 62.59 295** *e*P **P** **09 05 12.4 +1.7**
comp=Z,17nm,1.4s
**WUAZ Wupatki 62.59 295** *e*P **P** **09 05 12.4 +1.7**
comp=Z,17nm,1.4s
**E08A Dider Farm, El 62.59 309** *e*P **P** **09 05 10.4 +0.1**
comp=Z,23nm,1.8s
**E08A Dider Farm, El 62.59 309** *e*P **P** **09 05 10.4 +0.1**
comp=Z,23nm,1.8s
**SZCU Shurtz Canyon 62.81 298** *e*P **P** **09 05 13.1 +0.9**
**SZCU Shurtz Canyon 62.81 298** *e*P **P** **09 05 13.1 +0.9**
**KNB Kanab 62.90 297** *e*P **P** **09 05 12.9 +0.1**
KNB pmax pmax
comp=Z,12nm,1.5s
**KNB Kanab 62.90 297** *e*P **P** **09 05 12.9 +0.1**
comp=Z,12nm,1.5s
**KNB Kanab 62.90 297** *e*P **P** **09 05 12.9 +0.1**
comp=Z,12nm,1.5s
**CCUT Cedar City 63.02 298** *e*P **P** **09 05 14.7 +1.0**
comp=Z,25nm,1.9s
**CCUT Cedar City 63.02 298** *e*P **P** **09 05 14.7 +1.0**
comp=Z,25nm,1.9s
**C06D Leavenworth 63.04 311** P **P** **09 05 12.5 -0.9**
baz=62
**LTY Liberty 63.22 310** *e*P **P** **09 05 13.1 -1.5**
comp=Z,12nm,1.4s
**LTY Liberty 63.22 310** *e*P **P** **09 05 13.1 -1.5**
comp=Z,12nm,1.4s
**F07A Phinny Hill Vi 63.41 309** *e*P **P** **09 05 16.1 +0.3**
comp=Z,32nm,1.6s
**F07A Phinny Hill Vi 63.41 309** *e*P **P** **09 05 16.1 +0.3**
comp=Z,32nm,1.6s
**J08A Circle Bar Ran 63.69 306** *e*P **P** **09 05 18.3 +0.5**
comp=Z,29nm,1.4s
**J08A Circle Bar Ran 63.69 306** *e*P **P** **09 05 18.3 +0.5**
comp=Z,29nm,1.4s
**TUC Tucson 63.73 292** P **P** **09 05 17.1 -1.1**
baz=60
**TUC Tucson 63.73 292** *e*P **P** **09 05 18.2 0.0**
TUC pmax pmax
comp=Z,4.0nm,1.0s
**TUC Tucson 63.73 292** *e*P **P** **09 05 18.2 0.0**
comp=Z,3.8nm,1.0s
**TUC Tucson 63.73 292** *e*P **P** **09 05 18.2 0.0**
comp=Z,3.8nm,1.0s
**R11A Troy Canyon, C 64.18 300** P **P** **09 05 20.0 -1.2**
baz=61
**R11A Troy Canyon, C 64.18 300** *e*P **P** **09 05 20.6 -0.6**
comp=Z,18nm,1.9s
**R11A Troy Canyon, C 64.18 300** *e*P **P** **09 05 20.6 -0.6**
comp=Z,18nm,1.9s
**WVOR Wild Horse Val 64.24 305** *e*P **P** **09 05 22.3 +0.8**
WVOR pmax pmax
comp=Z,21nm,1.4s
**WVOR Wild Horse Val 64.24 305** *e*P **P** **09 05 22.2 +0.8**
comp=Z,20nm,1.4s
**WVOR Wild Horse Val 64.24 305** *e*P **P** **09 05 22.2 +0.8**
comp=Z,20nm,1.4s
**LPAZ La Paz 64.44 220** P **P** **09 05 23.2 -0.3**
comp=Z,2.1nm,0.9s,baz=32,slow=4.9,SNR=4.0
LPAZ LR LR 09 30 09.7
comp=Z,214nm,21.4s,baz=28,slow=33
**LPAZ La Paz 64.44 220** *e*P **P** **09 05 23.0 -0.5**
**LPAZ La Paz 64.44 220** *e*P **P** **09 05 23.0 -0.5**
comp=Z,19nm,1.4s
**LPAZ La Paz 64.44 220** *e*P **P** **09 05 23.0 -0.5**
comp=Z,19nm,1.4s
**SHPR Sheep Range 64.79 298** *e*P **P** **09 05 25.6 +0.4**
comp=Z,14nm,1.6s
**SHPR Sheep Range 64.79 298** *e*P **P** **09 05 25.6 +0.4**
comp=Z,14nm,1.6s
**TPNV Topopah Spring 65.33 298** P **P** **09 05 28.4 -0.3**
baz=60
**TPNV Topopah Spring 65.33 298** *e*P **P** **09 05 28.1 -0.6**
TPNV pmax pmax
comp=Z,14nm,1.5s
**TPNV Topopah Spring 65.33 298** *e*P **P** **09 05 28.1 -0.6**
comp=Z,14nm,1.5s
**TPNV Topopah Spring 65.33 298** *e*P **P** **09 05 28.1 -0.6**
comp=Z,14nm,1.5s
**214A Organ Pipe Nat 65.39 292** P **P** **09 05 28.6 -0.4**
baz=59
**J05D Fort Rock, OR 65.49 307** P **P** **09 05 29.1 -0.6**
baz=60
**KVN Kaiserville 65.54 301** *e*P **P** **09 05 29.2 -0.9**
KVN pmax pmax
comp=Z,17nm,1.3s
**KVN Kaiserville 65.54 301** *e*P **P** **09 05 29.2 -0.9**
comp=Z,17nm,1.3s
**KVN Kaiserville 65.54 301** *e*P **P** **09 05 29.2 -0.9**
comp=Z,17nm,1.3s
**MOD Modoc Plateau 65.58 305** *e*P **P** **09 05 30.0 -0.2**
comp=Z,8.6nm,1.3s
**MOD Modoc Plateau 65.58 305** *e*P **P** **09 05 30.0 -0.2**
comp=Z,8.6nm,1.3s
**Y12C Blythe 65.72 295** P **P** **09 05 31.1 0.0**
baz=59
**NNA Nana 65.84 231** LR LR 09 31 54.4
comp=Z,73nm,19.6s,baz=8.0,slow=34
**TUQ Tuquoise Moun 65.86 297** P **P** **09 05 31.6 -0.6**
baz=60
**IRM Iron Mountain 65.96 295** P **P** **09 05 34.0 +1.3**
baz=59
**FURC Furnace Creek, 66.00 298** P **P** **09 05 33.2 +0.4**
baz=60
**GMRC Granite Mounta 66.00 296** P **P** **09 05 32.7 -0.4**
baz=59
**ILAR Eielson Array 66.05 335** P **P** **09 05 32.9 +0.1**
comp=Z,0.8nm,0.9s,baz=53,slow=6.2,SNR=4.4
ILAR LR LR 09 31 42.7
comp=Z,700nm,19.3s,baz=77,slow=34
**ILB Eielson Array 66.05 335** *e*P **P** **09 05 32.8 +0.1**
**ILB Eielson Array 66.05 335** *e*P **P** **09 05 32.9 +0.1**
**GRAC Grapevine Rang 66.08 299** P **P** **09 05 33.2 -0.2**
baz=60
**PAHR Pah Rah Range 66.08 302** *e*P **P** **09 05 32.8 -0.7**
comp=Z,8.1nm,1.5s
**PAHR Pah Rah Range 66.08 302** *e*P **P** **09 05 32.8 -0.7**
comp=Z,8.1nm,1.5s
**K04D Chloquin, OR 66.15 306** P **P** **09 05 34.2 +0.4**
baz=60
**BC3 Big Chuckawall 66.43 295** P **P** **09 05 35.5 -0.4**
baz=59
**BRVK Borovoye 66.54 40***ce*P **P** **09 05 37.5 +1.5**
BRVK pmax pmax
comp=Z,13nm,1.0s
**BRVK Borovoye 66.54 40** *e*P **P** **09 05 37.3 +1.3**
comp=Z,8.3nm,1.3s
**BRVK Borovoye 66.54 40** *e*P **P** **09 05 37.3 +1.3**
comp=Z,8.3nm,1.3s
**GSC Goldstone, Bar 66.55 297** P **P** **09 05 37.1 +0.6**
baz=59
**BVAR Borovoye Array 66.61 40** P **P** **09 05 37.3 +0.8**
comp=Z,2.1nm,0.8s,baz=308,slow=5.1,SNR=8.4
BVAR LR LR 09 35 02.6
comp=Z,331nm,18.0s,baz=272,slow=36
**M04C Macdoel 66.63 305** P **P** **09 05 35.3 -1.7**
baz=59
**MPMC Manual Prospec 66.64 298** P **P** **09 05 38.1 +0.9**
baz=59,SNR=7.8
**TIN Tinemaha, Big 66.64 299** P **P** **09 05 37.1 0.0**
baz=59
**BEKR Beckworth 66.64 303** *e*P **P** **09 05 36.9 -0.3**
comp=Z,5.7nm,1.2s
**BEKR Beckworth 66.64 303** *e*P **P** **09 05 36.9 -0.3**
comp=Z,5.7nm,1.2s
**BELC Belle Mtn. Jos 66.64 296** P **P** **09 05 37.0 -0.2**
baz=59
**CWC Cottonwood Cre 66.85 299** P **P** **09 05 38.2 -0.3**
baz=59
**MDPB Devils Postpil 66.92 300** *e*P **P** **09 05 39.7 +0.6**
comp=Z,9.5nm,1.4s
**MDPB Devils Postpil 66.92 300** *e*P **P** **09 05 39.7 +0.6**
comp=Z,9.5nm,1.4s
**SWSC Sam W. Stewart 67.05 295** P **P** **09 05 39.8 +0.2**
baz=59
**LRMC Laurel Mtn Rad 67.07 298** P **P** **09 05 40.5 +0.6**
baz=59
**BBRC Big Bear Solar 67.16 296** P **P** **09 05 40.7 0.0**
baz=59
**PFO Pinyon Flats O 67.17 295** P **P** **09 05 40.9 +0.3**
baz=59
**GEYT Alibeck 67.18 59** LR LR 09 36 36.8
comp=Z,45nm,19.9s,baz=0.0,slow=37
**IKP In-Ko-Pah, Jac 67.42 294** P **P** **09 05 42.2 +0.1**
baz=58
**MONP2 Monument Peak 67.52 295** P **P** **09 05 42.8 -0.1**
baz=58
**PLM Palomar 67.59 295** *e*P **P** **09 05 44.9 +1.6**
**PLM Palomar 67.59 295** *e*P **P** **09 05 44.9 +1.6**
**PLM Palomar 67.59 295** *e*P **P** **09 05 44.9 +1.6**
**EDW2 Edwards Air Fo 67.60 297** P **P** **09 05 42.4 -0.8**
baz=58
**BFSC Mount Baldy Ra 67.70 297** P **P** **09 05 42.5 -1.4**
baz=58
**MURC Murrieta 67.70 296** P **P** **09 05 44.3 +0.5**
baz=58
**RCTC Rector, Farmer 67.72 299** P **P** **09 05 44.0 +0.2**
baz=58
**CPUP Villa Florida 68.73 205** LR LR 09 33 55.6
comp=Z,77nm,19.4s,baz=21,slow=34
**CPUP Villa Florida 68.73 205** *e*P **P** **09 05 51.2 +1.2**
CPUP pmax pmax
comp=Z,10.0nm,1.4s
**CPUP Villa Florida 68.73 205** *e*P **P** **09 05 51.2 +1.2**
comp=Z,9.9nm,1.4s
**CPUP Villa Florida 68.73 205** *e*P **P** **09 05 51.2 +1.2**
comp=Z,9.9nm,1.4s
**BLG Laguna Peak, P 68.76 297** P **P** **09 05 49.8 -0.6**
baz=58
**PKM Mcpherson Peak 68.86 298** P **P** **09 05 50.6 -0.6**
baz=58
**TIXI Tiksi 69.64 7** P **P** **09 05 56.2 +1.0**
comp=Z,2.6nm,0.8s,baz=7.3,slow=6.1,SNR=7.1
TIXI LR LR 09 34 15.3
comp=Z,75nm,18.5s,baz=351,slow=34
**TIXI Tiksi 69.64 7**‖ *e*P **P** **09 05 56.4 +1.3**
TIXI pmax pmax
comp=Z,6.0nm,1.2s
**NVS Novosibirsk 71.64 34** *e*P **P** **09 06 07.4 -0.2**
**NVS Novosibirsk 71.64 34** *e*P **P** **09 06 07.4 -0.2**
**KURK Kurchatov 72.11 39**‖ *e*P **P** **09 06 10.9 +0.4**
KURK pmax pmax
comp=Z,15nm,1.2s
**KURK Kurchatov 72.11 39** *e*P **P** **09 06 10.9 +0.4**
comp=Z,15nm,1.2s
**KURK Kurchatov 72.11 39** *e*P **P** **09 06 11.1 +0.6**
comp=Z,5.0nm,0.9s
**KDAK Kodiak Island 72.81 332** LR LR 09 34 41.5
comp=Z,233nm,21.8s,baz=50,slow=33
**ZAA1 Zalesovo Array 72.92 34** *e*P **P** **09 06 15.7 +0.4**
**ZAA1 Zalesovo Array 72.92 34** *e*P **P** **09 06 15.7 +0.4**
**ZAA0 Zalesovo Array 72.92 34** *e*P **P** **09 06 15.3 -0.1**
comp=Z,7.6nm,1.3s
**ZAA0 Zalesovo Array 72.92 34** *e*P **P** **09 06 15.3 -0.1**
comp=Z,7.6nm,1.3s
**ZALV Zalesovo Beam 72.92 34** P **P** **09 06 15.7 +0.4**
comp=Z,2.2nm,0.8s,baz=293,slow=7.9,SNR=7.9
ZALV LR LR 09 38 06.1
comp=Z,163nm,20.2s,baz=248,slow=36
**ZALV Zalesovo Beam 72.92 34** *e*P **P** **09 06 15.9 +0.6**
**ZALV Zalesovo Beam 72.92 34** *e*P **P** **09 06 15.9 +0.6**
**ZALV Zalesovo Beam 72.92 34** *e*P **P** **09 06 15.9 +0.6**
**MK32 Makanchi Array 76.49 41** *e*P **P** **09 06 36.5 +0.2**
**MK32 Makanchi Array 76.49 41** *e*P **P** **09 06 36.5 +0.2**
**MKAR Makanchi Array 76.49 41** P **P** **09 06 36.4 +0.2**
comp=Z,2.8nm,0.9s,baz=321,slow=5.0,SNR=6.5
MKAR LR LR 09 40 48.8
comp=Z,323nm,18.2s,baz=320,slow=36
**MKAR Makanchi Array 76.49 41***ce*P **P** **09 06 36.9 +0.7**
MKAR pmax pmax
comp=Z,3.0nm,0.9s
**MKAR Makanchi Array 76.49 41** *e*P **P** **09 06 36.9 +0.7**
comp=Z,3.0nm,0.9s
**KSH Kashi 77.70 49** P **P** **09 06 45.0 +1.7**
KSH pP PcP 09 06 49.8 -3.6
KSH PcP sP 09 06 56.3 +11
KSH PP **PP** **09 09 43.5 +5.6**
KSH S **S** **09 16 35.8 -0.3**
KSH ScS **SKKSac 09 16 59.8 +1.2**
KSH SS **SS** **09 21 37.6 +2.7**
KSH pmax pmax
comp=Z,22nm,2.1s
KSH LR LR
comp=Z,100nm,4.8s
KSH LR LR
comp=Z,160nm,6.1s
KSH LR LR
comp=Z,190nm,9.6s
**SEY Seymchan 79.31 359**‖ *e*P **P** **09 06 53.0 +1.4**
**SEY Seymchan 79.31 359** *e*P **P** **09 06 53.0 +1.4**
**BOD Bodaibo 80.01 18** *e*P **P** **09 06 54.0 -1.4**
BOD pmax pmax
comp=Z,6.0nm,1.8s
**BOD Bodaibo 80.01 18** *e*P **P** **09 06 54.0 -1.4**
comp=Z,6.0nm,1.8s
**WMQ Urumqi 81.30 40** P **P** **09 07 04.5 +1.7**
WMQ pP PcP 09 07 08.7 -0.2
WMQ sP sP 09 07 12.4 +7.9
WMQ S **S** **09 17 14.4 +0.3**
WMQ pmax pmax
comp=Z,13nm,0.8s
WMQ pmax pmax
comp=Z,160nm,4.1s
WMQ LR LR
comp=Z,690nm,15.5s
WMQ LR LR
comp=Z,500nm,6.7s
WMQ LR LR
comp=Z,490nm,20.5s
**BOSA Boshof 84.54 133** LR LR 09 42 56.7
comp=Z,257nm,20.0s,baz=322,slow=34
**SONA1 Songino Array 86.34 27** *e*P **P** **09 07 29.3 +0.7**
**SONA1 Songino Array 86.34 27** *e*P **P** **09 07 29.3 +0.7**
**SONA0 Songino Array 86.35 27** *e*P **P** **09 07 28.9 +0.3**
**SONA0 Songino Array 86.35 27** *e*P **P** **09 07 28.9 +0.3**
**SONM Songino Array 86.35 27** P **P** **09 07 28.9 +0.3**
comp=Z,2.5nm,1.2s,baz=329,slow=6.8,SNR=5.8
SONM LR LR 09 46 38.8
comp=Z,123nm,19.7s,baz=354,slow=36
**PLCA Paso Flores 86.45 209** LR LR 09 44 28.7
comp=Z,62nm,19.6s,baz=90,slow=35
**ULN Ulaanbaatar 86.56 27**‖ *e*P **P** **09 07 31.3 +1.6**
ULN pmax pmax
comp=Z,8.0nm,1.2s
**PETK Petropavlovsk- 88.90 355** LR LR 09 48 20.1
comp=Z,295nm,18.1s,baz=19,slow=36
**GTA Gaotai 90.55 36** *e*P **P** **09 07 49.1 +0.4**
GTA pP sP 09 07 53.9 +3.4
GTA sP pP 09 07 56.1 +6.1
GTA S **S** **09 18 43.4 -1.6**
GTA pmax pmax
comp=Z,4.0nm,0.9s
GTA pmax pmax
comp=Z,84nm,5.7s
GTA LR LR
comp=Z,180nm,17.6s
GTA LR LR
comp=Z,120nm,16.6s
**HHC Hu-ho-hao-te 94.25 28** *e*P **P** **09 08 04.7 -1.0**
HHC pmax pmax
comp=Z,15nm,0.5s
HHC pmax pmax
comp=Z,79nm,4.9s
**LZH Lanzhou 95.11 35** *e*P **P** **09 08 12.7 +2.8**
LZH pP sP 09 08 15.8 +4.2
LZH sP pP 09 08 17.6 +6.5
LZH sS sS 09 19 33.1 +5.2
LZH SS **SS** **09 25 50.1 +0.3**
LZH pmax pmax
comp=Z,13nm,1.0s
LZH pmax pmax
comp=Z,95nm,4.7s
LZH LR LR
comp=Z,440nm,14.3s
LZH LR LR
comp=Z,230nm,13.0s
LZH LR LR
comp=Z,1μm,14.6s
**CN2 Changchun 95.71 17** *e*P **P** **09 08 11.0 -1.2**
CN2 pmax pmax

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | comp=Z,10.0nm,0.7s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **96.64** | **12** | LR | LR | 09 52 36.5 | |
| | comp=Z,94nm,18.4s,baz=2.9,slow=36 | | | | | | |
| **QIZ** | **Qiongzhong** | **112.22** | **40** | Pdif | **Pdif** | **09 09 24.5** | **-1.8** |
| QIZ | | | | PP | **PP** | **09 14 06.7** | **+0.4** |
| QIZ | | | | PKS | **PKSdf** | **09 16 59.7** | **+0.2** |
| QIZ | | | | S | **Sdif** | **09 21 51.1** | **+1.4** |
| **PPT2** | **Papeete2** | **123.17** | **273** | *e*LR | LR | 09 51 43.2 | |
| | comp=Z,95nm,22.8s | | | | | | |
| **WR1** | **Warramunga Arr** | **157.80** | **40** | *e*PKPab | **PKPab** | **09 15 15.5** | **-0.4** |
| **WR1** | **Warramunga Arr** | **157.80** | **40** | *e*PKPab | **PKPab** | **09 15 15.5** | **-0.4** |
| **WRA** | **Warramunga Arr** | **157.80** | **40** | PKPab | **PKPab** | **09 15 15.5** | **-0.4** |
| | comp=Z,1.2nm,0.9s,baz=335,slow=4.2,SNR=6.4 | | | | | | |
| **ASAR** | **Alice Springs** | **160.58** | **47** | PKPab | **PKPab** | **09 15 27.4** | **-0.6** |
| | comp=Z,0.9nm,0.9s,baz=324,slow=4.6,SNR=6.6 | | | | | | |

*NNC **08** 08:56:28.0±2.3, 54.60N×86.78E, h3km±18km, mb3.3, mpv3.0, Error ellipse: s-maj=69.1km s-min=14.3km az=157.0*

**IDC 08 08:56:29.3**±2.9**, 54.33N×86.89E, h0km, mb1 3.2**/2**, mb1mx2.9**/59**, mbtmp3.2**/2**, ML2.8**/2**, 6C-2D, Error ellipse: s-maj=23.7km s-min=16.4km az=58.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **I46RU** | **ZALESOVO INFRA** | **1.28** | **253** | *i* | | 09 03 30.2 | |
| | baz=72,slow=339,SNR=11 | | | | | | |
| **ZAA0** | **Zalesovo Array** | **1.28** | **253** | ⇑P | Pg | 08 56 52.2 | -1.6 |
| | 0.2nm,0.2s | | | | | | |
| ZAA0 | | | | ⇑S | Sb | 08 57 10.9 | -0.3 |
| | 2.6nm,0.8s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **1.28** | **253** | Pg | Pg | 08 56 51.9 | -1.9 |
| | 1.6nm,0.3s,baz=71,slow=16,SNR=22 | | | | | | |
| ZALV | | | | Lg | Lg | 08 57 10.5 | |
| | 2.0nm,0.3s,baz=74,slow=32,SNR=5.4 | | | | | | |
| **KURK** | **Kurchatov** | **6.21** | **238** | ⇑Pn | Pn | 08 58 03.3 | +1.2 |
| | 3.0nm,1.2s | | | | | | |
| KURK | | | | ⇓Sn | Sn | 08 59 14.6 | +0.8 |
| | 1.8nm,0.7s | | | | | | |
| KURK | | | | ⇓Lg | Lg | 08 59 47.5 | |
| | 6.3nm,0.9s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **6.31** | **237** | Pn | Pn | 08 58 04.5 | +1.0 |
| | 0.2nm,0.3s,baz=54,slow=14,SNR=15 | | | | | | |
| KURBB | | | | Sn | Sn | 08 59 16.0 | -0.3 |
| | 0.1nm,0.3s,baz=38,slow=16,SNR=4.5 | | | | | | |
| KURBB | | | | Lg | Lg | 08 59 51.2 | |
| | 0.0nm,0.3s,baz=47,slow=30,SNR=5.6 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **6.31** | **237** | ⇑Pn | Pn | 08 58 04.6 | +1.1 |
| | 4.2nm,0.7s | | | | | | |
| KURBB | | | | ⇑Sn | Sn | 08 59 17.1 | +0.7 |
| | 2.5nm,0.5s | | | | | | |
| KURBB | | | | ⇑Lg | Lg | 08 59 51.4 | |
| | 11nm,1.1s | | | | | | |
| **MK31** | **Makanchi Array** | **8.09** | **203** | Pn | Pn | 08 58 29.8 | +1.7 |
| | 1.9nm,0.8s,baz=30,slow=14,SNR=6.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **8.09** | **203** | Pn | Pn | 08 58 29.5 | +1.4 |
| | 0.2nm,0.3s,baz=25,slow=13,SNR=5.6 | | | | | | |
| MKAR | | | | Sn | Sn | 08 59 58.9 | -1.3 |
| | 0.1nm,0.3s,baz=26,slow=25,SNR=4.6 | | | | | | |

*IDC **08** 09:00:30.2±1.5, 2.35S×141.33E, h0km, mb3.8/6, mb1 4.0/7, mb1mx3.7/36, mbtmp3.8/7, ML4.2/1, MS3.1/5, Ms1 3.1/5, ms1mx2.8/30, Error ellipse: s-maj=56.9km s-min=21.4km az=101.0*
*ISCJB **08** 09:00:33.7±0.9, 2.4S±0.1×141.10E±0.08, h31km, mb3.8/6, MS3.0/3, Error ellipse: s-maj=16.7km s-min=9.4km az=157.3*
*DJA **08** 09:00:33.4±1.9, 2°S±11'×14°1E±1°0, h13km, M4.2/2, MLv4.2/2*

**ISC 08 09:00:35.4**±1.1**, 2.4S**±0.1×**141.0E**±0.1**, h31km, n11, σ0.87**/11**, mb3.8**/6**, MS3.0**/3**, Near north coast of New Guinea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JAY** | **Jayapura** | **0.33** | **247** | P | **Pb** | **09 00 42.7** | **-0.8** |
| JAY | | | | S | **Sb** | **09 00 49.2** | **+0.3** |
| **GENI** | **Genyem** | **0.87** | **256** | P | **Pn** | **09 00 50.6** | **-0.9** |
| GENI | | | | S | **Sn** | **09 01 03.5** | **+0.4** |
| **GUMO** | **Guam** | **16.33** | **13** | LR | LR | 09 09 51.3 | |
| | comp=Z,31nm,21.3s,baz=184,slow=35 | | | | | | |
| **WRA** | **Warramunga Arr** | **18.63** | **200** | P | **Pn** | **09 04 50.9** | **-0.2** |
| | 0.8nm,0.3s,baz=24,slow=12,SNR=44 | | | | | | |
| WRA | | | | LR | LR | 09 12 30.9 | |
| | comp=Z,84nm,19.1s,baz=30,slow=38 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **21.71** | **223** | P | **P** | **09 05 24.8** | **+0.7** |
| | 2.3nm,0.7s,baz=56,slow=9.4,SNR=6.7 | | | | | | |
| FITZ | | | | LR | LR | 09 14 37.2 | |
| | comp=Z,51nm,20.2s,baz=95,slow=39 | | | | | | |
| **ASAR** | **Alice Springs** | **22.25** | **197** | P | **P** | **09 05 30.6** | **+0.7** |
| | 2.4nm,0.5s,baz=27,slow=11,SNR=47 | | | | | | |
| ASAR | | | | LR | LR | 09 15 16.4 | |
| | comp=Z,65nm,20.4s,baz=24,slow=40 | | | | | | |
| **RPZ** | **Rata Peaks** | **49.03** | **151** | LR | LR | 09 27 25.2 | |
| | comp=Z,24nm,21.1s,baz=256,slow=33 | | | | | | |
| **MKAR** | **Makanchi Array** | **70.95** | **322** | P | **P** | **09 11 51.0** | **+1.0** |
| | 0.9nm,0.8s,baz=106,slow=8.9,SNR=4.0 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **74.80** | **324** | P | **P** | **09 12 13.1** | **+0.4** |
| | 0.7nm,0.8s,baz=110,slow=5.3,SNR=4.2 | | | | | | |
| **BVAR** | **Borovoye Array** | **80.37** | **325** | P | **P** | **09 12 44.6** | **+0.8** |
| | 0.5nm,0.5s,baz=98,slow=7.4,SNR=3.6 | | | | | | |
| **ILAR** | **Eielson Array** | **84.59** | **24** | P | **P** | **09 13 04.2** | **-1.3** |
| | 0.6nm,0.9s,baz=244,slow=5.5,SNR=5.0 | | | | | | |

*ATH **08** 09:09:32.4, 37.79N×20.17E, h14km±2km, ML2.8/5, Error ellipse: s-maj=3.4km s-min=1.7km az=61.0*
*CSEM **08** 09:09:33.2±0.6, 37.78N×20.26E, h2km, ML2.7, Error ellipse: s-maj=10.9km s-min=7.8km az=64.0*
*THE **08** 09:09:35.7, 37.87N×20.38E, h16km±1km, ML2.7/5, Error ellipse: s-maj=2.5km s-min=1.3km az=316.0*

**ISC 08 09:09:33.3**±1.5**, 37.81N**±0.04×**20.25E**±0.05**, h17km**±9km**, n59, σ0.83**/78**, Ionian Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VLS** | **Valsamata** | **0.46** | **36** | P | **Pg** | **09 09 42.4** | **-0.3** |
| VLS | | | | S | **Sg** | **09 09 48.3** | **-0.6** |
| VLS | | | | AML | AML | 09 09 49.8 | |
| | comp=E,4696µm,0.1s | | | | | | |
| VLS | | | | AML | AML | 09 09 51.4 | |
| | comp=N,4730µm,0.1s | | | | | | |
| **VLS** | **Valsamata** | **0.46** | **36** | P | **Pg** | **09 09 42.3** | **-0.3** |
| VLS | | | | S | **Sg** | **09 09 48.3** | **-0.6** |
| **VLS** | **Valsamata** | **0.46** | **36** | P | **Pg** | **09 09 42.3** | **-0.3** |
| VLS | | | | S | **Sg** | **09 09 48.6** | **-0.3** |
| **VTN** | **Vitineika** | **0.75** | **81** | P | **Pg** | **09 09 46.4** | **-1.6** |
| **VTN** | **Vitineika** | **0.75** | **81** | P | **Pg** | **09 09 46.4** | **-1.6** |
| **AXS** | **Araxos** | **0.97** | **66** | P | **Pn** | **09 09 52.5** | **+0.2** |
| AXS | | | | S | **Sg** | **09 10 05.3** | **+0.3** |
| **AXS** | **Araxos** | **0.97** | **66** | P | **Pb** | **09 09 51.8** | **0.0** |
| AXS | | | | S | **Sg** | **09 10 05.3** | **+0.3** |
| **AXS** | **Araxos** | **0.97** | **66** | P | **Pb** | **09 09 51.8** | **0.0** |
| **RLS** | **Riolos of Patr** | **1.00** | **75** | P | **Pb** | **09 09 50.9** | **-1.3** |
| RLS | | | | S | **Sn** | **09 10 06.4** | **+0.1** |
| RLS | | | | AML | AML | 09 10 12.8 | |
| | comp=E,599µm,0.5s | | | | | | |
| RLS | | | | AML | AML | 09 10 13.9 | |
| | comp=N,582µm,0.5s | | | | | | |
| **RLS** | **Riolos of Patr** | **1.00** | **75** | P | **Pb** | **09 09 51.6** | **-0.6** |
| RLS | | | | S | **Sg** | **09 10 05.8** | **+0.1** |
| **RLS** | **Riolos of Patr** | **1.00** | **75** | P | **Pb** | **09 09 51.6** | **-0.6** |
| RLS | | | | S | **Sg** | **09 10 05.8** | **+0.1** |
| **PDO** | **Prodromos** | **1.08** | **43** | P | **Pg** | **09 09 55.3** | **+1.0** |
| **PDO** | **Prodromos** | **1.08** | **43** | P | **Pb** | **09 09 53.2** | **-0.4** |
| PDO | | | | S | **Sb** | **09 10 07.5** | **0.0** |
| **PDO** | **Prodromos** | **1.08** | **43** | P | **Pb** | **09 09 53.2** | **-0.4** |
| PDO | | | | S | **Sb** | **09 10 07.5** | **0.0** |
| **DRO** | **Drossia** | **1.17** | **82** | P | **Pg** | **09 09 56.3** | **+0.4** |
| DRO | | | | S | **Sg** | **09 10 13.8** | **+2.6** |
| DRO | | | | AML | AML | 09 10 17.4 | |
| | comp=E,904µm,0.2s | | | | | | |
| DRO | | | | AML | AML | 09 10 21.0 | |
| | comp=N,866µm,0.4s | | | | | | |
| **DRO** | **Drossia** | **1.17** | **82** | P | **Pn** | **09 09 55.0** | **0.0** |
| DRO | | | | S | **Sb** | **09 10 09.5** | **-0.5** |
| **DRO** | **Drossia** | **1.17** | **82** | P | **Pn** | **09 09 55.0** | **0.0** |
| DRO | | | | S | **Sb** | **09 10 09.5** | **-0.5** |
| **AMT** | **Artemida-Makis** | **1.19** | **103** | P | **Pn** | **09 09 54.8** | **-0.5** |
| AMT | | | | S | **Sg** | **09 10 13.6** | **+1.7** |
| AMT | | | | AML | AML | 09 10 20.4 | |
| | comp=E,718µm,0.7s | | | | | | |
| AMT | | | | AML | AML | 09 10 20.4 | |
| | comp=N,449µm,0.4s | | | | | | |
| **AMT** | **Artemida-Makis** | **1.19** | **103** | P | **Pn** | **09 09 54.8** | **-0.5** |
| AMT | | | | S | **Sg** | **09 10 13.6** | **+1.7** |
| **PVO** | **Paravola** | **1.29** | **51** | P | **Pg** | **09 09 58.9** | **+0.7** |
| **PVO** | **Paravola** | **1.29** | **51** | P | **Pb** | **09 09 57.2** | **0.0** |
| **PVO** | **Paravola** | **1.29** | **51** | P | **Pb** | **09 09 57.2** | **0.0** |
| PVO | | | | S | **Sb** | **09 10 12.1** | **-1.5** |
| **LAKA** | **Lakka** | **1.44** | **72** | P | **Pg** | **09 10 01.4** | **+0.4** |
| **LAKA** | **Lakka** | **1.44** | **72** | P | **Pg** | **09 10 01.4** | **+0.4** |
| **EFP** | **Efpalio** | **1.45** | **64** | P | **Pg** | **09 10 01.3** | **+0.1** |
| **EFP** | **Efpalio** | **1.45** | **64** | P | **Pg** | **09 10 01.3** | **+0.1** |
| **ITM** | **Ithomi** | **1.48** | **115** | P | **Pg** | **09 10 01.9** | **+0.2** |
| **ITM** | **Ithomi** | **1.48** | **115** | P | **Pg** | **09 10 01.9** | **+0.2** |
| **DSL** | **Palaion Diasel** | **1.48** | **26** | P | **Pb** | **09 10 00.2** | **-0.2** |
| **DSL** | **Palaion Diasel** | **1.48** | **26** | P | **Pb** | **09 10 00.3** | **-0.2** |
| **DSL** | **Palaion Diasel** | **1.48** | **26** | P | **Pb** | **09 10 00.3** | **-0.2** |
| **PYL** | **PYLOS** | **1.50** | **127** | P | **Pb** | **09 10 00.4** | **-0.3** |
| **PYL** | **PYLOS** | **1.50** | **127** | P | **Pb** | **09 10 00.4** | **-0.3** |
| **KLV** | **Kalavryta, Ach** | **1.52** | **80** | P | **Pg** | **09 10 02.0** | **-0.6** |
| **KLV** | **Kalavryta, Ach** | **1.52** | **80** | P | **Pn** | **09 09 59.8** | **-0.1** |
| **KLV** | **Kalavryta, Ach** | **1.52** | **80** | P | **Pn** | **09 09 59.8** | **-0.1** |
| **ANX** | **Ano Chora** | **1.54** | **59** | P | **Pg** | **09 10 02.6** | **-0.3** |
| ANX | | | | S | **Sg** | **09 10 25.1** | **+2.2** |
| ANX | | | | AML | AML | 09 10 27.4 | |
| | comp=E,585µm,0.4s | | | | | | |
| ANX | | | | AML | AML | 09 10 33.7 | |
| | comp=N,552µm,0.7s | | | | | | |
| **ANX** | **Ano Chora** | **1.54** | **59** | P | **Pg** | **09 10 02.6** | **-0.3** |
| ANX | | | | S | **Sg** | **09 10 25.1** | **+2.2** |
| **TRIZ** | **Trizonia** | **1.55** | **68** | P | **Pg** | **09 10 02.9** | **-0.2** |
| **TRIZ** | **Trizonia** | **1.55** | **68** | P | **Pg** | **09 10 02.9** | **-0.2** |
| **SERG** | **Sergoula** | **1.55** | **66** | P | **Pg** | **09 10 02.7** | **-0.5** |
| **SERG** | **Sergoula** | **1.55** | **66** | P | **Pg** | **09 10 02.7** | **-0.5** |
| **KALE** | **Kalithea** | **1.60** | **68** | P | **Pg** | **09 10 03.9** | **-0.3** |
| **KALE** | **Kalithea** | **1.60** | **68** | P | **Pg** | **09 10 03.9** | **-0.3** |
| **EVR** | **Evrytania** | **1.66** | **47** | P | **Pg** | **09 10 05.1** | **-0.1** |
| **EVR** | **Evrytania** | **1.66** | **47** | P | **Pg** | **09 10 05.1** | **-0.1** |
| **GUR** | **Goura** | **1.66** | **85** | P | **Pn** | **09 10 02.8** | **+1.0** |
| **GUR** | **Goura** | **1.66** | **85** | P | **Pn** | **09 10 02.8** | **+1.0** |
| **DSF** | **Desfina** | **1.90** | **71** | P | **Pn** | **09 10 06.1** | **+1.1** |
| **DSF** | **Desfina** | **1.90** | **71** | P | **Pn** | **09 10 06.1** | **+1.1** |
| **DSF** | **Desfina** | **1.90** | **71** | P | **Pn** | **09 10 05.2** | **+0.2** |
| **KEK** | **Kerkira** | **1.94** | **350** | P | **Pn** | **09 10 07.1** | **+1.6** |
| **KEK** | **Kerkira** | **1.94** | **350** | P | **Pn** | **09 10 07.1** | **+1.6** |
| **KEK** | **Kerkira** | **1.94** | **350** | P | **Pb** | **09 10 07.2** | **-1.0** |
| **AGG** | **Agios Georgios** | **2.04** | **53** | P | **Pb** | **09 10 09.2** | **-0.8** |
| **AGG** | **Agios Georgios** | **2.04** | **53** | P | **Pb** | **09 10 09.2** | **-0.8** |
| **DID** | **Didima** | **2.39** | **96** | P | **Pn** | **09 10 12.2** | **+0.4** |
| **DID** | **Didima** | **2.39** | **96** | P | **Pn** | **09 10 12.2** | **+0.4** |
| **STON** | **Ston** | **5.42** | **340** | *e*Pn | **Pn** | **09 10 53.7** | **+0.3** |
| STON | | | | Sn | **Sn** | **09 11 54.1** | **-1.3** |

**IDC 08 09:10:51.6**±303.0**, 54.35N×41.90E, h0km, Error ellipse: s-maj=139.6km s-min=68.3km az=138.0, Baltic States-Belarus-Northwestern Russia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **I43RU** | **DUBNA INFRASON** | **3.57** | **314** | *i* | | 09 34 40.0 | |
| | baz=131,slow=372,SNR=1.2 | | | | | | |
| **I31KZ** | **AKTYUBINSK INF** | **10.62** | **105** | *i* | | 10 11 50.0 | |
| | baz=302,slow=322,SNR=2.5 | | | | | | |
| **I46RU** | **ZALESOVO INFRA** | **24.86** | **73** | *i* | | 11 43 00.0 | |
| | baz=293,slow=373,SNR=0.8 | | | | | | |
| **I34MN** | **SONGINO INFRAS** | **39.77** | **72** | *i* | | 13 15 00.0 | |
| | baz=306,slow=340,SNR=0.2 | | | | | | |

**IDC 08 09:11:20.6**±2.9**, 53.72N×86.98E, h0km, mb1 2.8**/2**, mb1mx2.6**/53**, mbtmp2.8**/2**, ML2.3**/2**, Error ellipse: s-maj=27.6km s-min=16.2km az=69.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **I46RU** | **ZALESOVO INFRA** | **1.30** | **281** | *i* | | 09 18 21.3 | |
| | baz=102,slow=340,SNR=0.8 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **1.30** | **281** | Pg | Pg | 09 11 43.4 | -2.1 |
| | 0.9nm,0.3s,baz=97,slow=16,SNR=6.8 | | | | | | |
| ZALV | | | | Lg | Lg | 09 12 02.8 | |
| | 0.7nm,0.3s,baz=101,slow=31,SNR=6.2 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **6.05** | **243** | Pn | Pn | 09 12 52.9 | +1.6 |
| | 0.0nm,0.3s,baz=55,slow=13,SNR=4.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **7.55** | **205** | Pn | Pn | 09 13 12.9 | +1.0 |
| | 0.1nm,0.3s,baz=24,slow=12,SNR=4.4 | | | | | | |

*IDC **08** 09:16:09.2±1.3, 34.91N×26.23E, h0km, mb3.5/5, mb1 3.5/6, mb1mx3.3/48, mbtmp3.5/6, ML2.6/1, MS3.7/2, Ms1 3.8/2, ms1mx2.8/35, Error ellipse: s-maj=31.6km s-min=11.5km az=1.0*
*ISCJB **08** 09:16:10.6±0.8, 34.99N±0.04×26.25E±0.03, h10km±3km, mb3.4/5, MS3.8/1, Error ellipse: s-maj=6.7km s-min=4.2km az=170.8*
*THE **08** 09:16:10.2, 34.98N×26.19E, h2km±1km, ML3.3/7, Error ellipse: s-maj=1.8km s-min=0.8km az=159.0*
*ATH **08** 09:16:11.3, 35.09N×26.22E, h17km, ML3.2/15, Error ellipse: s-maj=1.4km s-min=0.8km az=158.0*
*CSEM **08** 09:16:11.4±0.4, 35.04N×26.22E, h5km, ML3.2, Error ellipse: s-maj=8.9km s-min=4.4km az=160.0*

**ISC 08 09:16:11.0**±0.9**, 35.00N**±0.04×**26.18E**±0.02**, h11km**±5km**, n87, σ1.18**/125**, mb3.6**/5**, Crete**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ZKR** | **Zakros** | **0.12** | **13** | P | **Pg** | **09 16 13.6** | **-0.6** |
| ZKR | | | | AML | AML | 09 16 17.2 | |
| | comp=N,10502µm,0.4s | | | | | | |
| ZKR | | | | S | **S** | **09 16 17.3** | **+0.9** |
| ZKR | | | | AML | AML | 09 16 17.3 | |
| | comp=E,41592µm,0.5s | | | | | | |
| **ZKR** | **Zakros** | **0.12** | **13** | P | **Pg** | **09 16 13.8** | **-0.3** |
| ZKR | | | | S | **Sg** | **09 16 16.4** | **0.0** |
| **ZKR** | **Zakros** | **0.12** | **13** | P | **Pg** | **09 16 13.8** | **-0.3** |
| ZKR | | | | S | **Sg** | **09 16 16.4** | **0.0** |
| **NPS** | **Neapolis** | **0.54** | **300** | P | **Pg** | **09 16 21.0** | **-0.5** |
| NPS | | | | S | **Sb** | **09 16 31.0** | **+0.8** |
| NPS | | | | AML | AML | 09 16 31.4 | |
| | comp=E,13835µm,0.3s | | | | | | |
| NPS | | | | AML | AML | 09 16 32.9 | |
| | comp=N,9700µm,0.3s | | | | | | |
| **NPS** | **Neapolis** | **0.54** | **300** | P | **Pb** | **09 16 21.4** | **-1.1** |
| NPS | | | | S | **Sb** | **09 16 29.9** | **-0.3** |
| **NPS** | **Neapolis** | **0.54** | **300** | P | **Pb** | **09 16 21.4** | **-1.1** |
| NPS | | | | S | **Sb** | **09 16 29.9** | **-0.3** |
| **LAST** | **Lasithi** | **0.60** | **286** | P | **Pg** | **09 16 20.7** | **-2.1** |
| LAST | | | | S | **Sb** | **09 16 31.3** | **-0.8** |
| LAST | | | | AML | AML | 09 16 33.4 | |
| | comp=N,5726µm,0.5s | | | | | | |
| LAST | | | | AML | AML | 09 16 33.9 | |
| | comp=E,7040µm,0.6s | | | | | | |
| **LAST** | **Lasithi** | **0.60** | **286** | P | **Pg** | **09 16 21.8** | **-1.0** |
| LAST | | | | S | **Sb** | **09 16 32.1** | **0.0** |
| **LAST** | **Lasithi** | **0.60** | **286** | P | **Pg** | **09 16 21.8** | **-1.0** |
| LAST | | | | S | **Sb** | **09 16 32.1** | **0.0** |
| **KARP** | **Karpathos** | **0.97** | **55** | P | **Pg** | **09 16 29.0** | **-0.8** |
| KARP | | | | S | **Sg** | **09 16 42.2** | **-0.2** |
| KARP | | | | AML | AML | 09 16 47.6 | |
| | comp=E,2677µm,0.7s | | | | | | |
| KARP | | | | AML | AML | 09 16 49.3 | |
| | comp=N,2210µm,0.7s | | | | | | |
| **KARP** | **Karpathos** | **0.97** | **55** | P | **Pg** | **09 16 28.7** | **-1.1** |
| KARP | | | | S | **Sg** | **09 16 42.2** | **-0.2** |
| **KARP** | **Karpathos** | **0.97** | **55** | P | **Pg** | **09 16 28.7** | **-1.1** |
| KARP | | | | S | **Sb** | **09 16 43.3** | **+0.6** |
| **IDI** | **Anoyia** | **1.10** | **286** | Pg | **Pb** | **09 16 31.2** | **-0.9** |
| | comp=N,5.2nm,0.3s,baz=106,slow=17,SNR=25 | | | | | | |
| IDI | | | | Lg | Lg | 09 16 47.2 | |
| | comp=N,76nm,0.3s,baz=352,slow=19,SNR=21 | | | | | | |
| **IDI** | **Anoyia** | **1.10** | **286** | P | **Pg** | **09 16 30.7** | **-1.5** |
| IDI | | | | S | **Sn** | **09 16 48.9** | **+1.4** |
| IDI | | | | AML | AML | 09 16 49.7 | |
| | comp=N,1623µm,0.7s | | | | | | |
| IDI | | | | AML | AML | 09 16 58.0 | |
| | comp=E,1011µm,0.4s | | | | | | |
| **IDI** | **Anoyia** | **1.10** | **286** | P | **Pb** | **09 16 31.3** | **-0.8** |
| IDI | | | | S | **Sn** | **09 16 47.6** | **0.0** |
| **IDI** | **Anoyia** | **1.10** | **286** | P | **Pb** | **09 16 31.3** | **-0.8** |
| IDI | | | | S | **Sn** | **09 16 47.6** | **0.0** |
| **SIVA** | **Sivas** | **1.13** | **272** | P | **Pb** | **09 16 31.8** | **-0.7** |
| SIVA | | | | S | **Sn** | **09 16 49.8** | **+1.7** |
| SIVA | | | | AML | AML | 09 16 53.7 | |
| | comp=N,4307µm,0.7s | | | | | | |
| SIVA | | | | AML | AML | 09 16 53.9 | |
| | comp=E,3999µm,0.5s | | | | | | |
| **SIVA** | **Sivas** | **1.13** | **272** | P | **Pb** | **09 16 31.8** | **-0.7** |
| SIVA | | | | S | **Sn** | **09 16 49.8** | **+1.7** |
| **SIVA** | **Sivas** | **1.13** | **272** | P | **Pg** | **09 16 31.2** | **-1.5** |
| SIVA | | | | S | **Sn** | **09 16 47.6** | **-0.5** |
| **SANT** | **Santorini** | **1.50** | **337** | P | **Pn** | **09 16 38.0** | **+0.2** |
| SANT | | | | S | **Sn** | **09 16 57.6** | **+0.3** |
| SANT | | | | AML | AML | 09 17 02.6 | |
| | comp=E,2249µm,0.3s | | | | | | |
| SANT | | | | AML | AML | 09 17 02.7 | |
| | comp=N,821µm,0.3s | | | | | | |
| **SANT** | **Santorini** | **1.50** | **337** | P | **Pn** | **09 16 38.0** | **+0.2** |
| SANT | | | | S | **Sn** | **09 16 57.6** | **+0.3** |
| **THR6** | **Thira Island,** | **1.50** | **335** | P | **Pg** | **09 16 38.9** | **-1.0** |
| **THR6** | **Thira Island,** | **1.50** | **335** | P | **Pg** | **09 16 38.9** | **-1.0** |
| **THR6** | **Thira Island,** | **1.50** | **335** | P | **Pn** | **09 16 36.9** | **-0.9** |
| **SAP1** | **Santorini-Akro** | **1.50** | **335** | P | **Pg** | **09 16 38.9** | **-1.0** |
| SAP1 | | | | S | **Sn** | **09 16 57.8** | **+0.3** |
| SAP1 | | | | AML | AML | 09 17 04.2 | |
| | comp=N,5614µm,0.6s | | | | | | |
| SAP1 | | | | AML | AML | 09 17 04.2 | |
| | comp=E,6325µm,0.4s | | | | | | |
| **SAP1** | **Santorini-Akro** | **1.50** | **335** | P | **Pg** | **09 16 38.9** | **-1.0** |
| SAP1 | | | | S | **Sn** | **09 16 57.8** | **+0.3** |
| **THT1** | **Athinios (Pele** | **1.52** | **336** | P | **Pn** | **09 16 38.1** | **0.0** |
| THT1 | | | | S | **Sn** | **09 16 57.4** | **-0.4** |
| THT1 | | | | AML | AML | 09 17 00.9 | |
| | comp=E,609µm,0.5s | | | | | | |
| THT1 | | | | AML | AML | 09 17 03.1 | |
| | comp=N,976µm,0.3s | | | | | | |
| **THT1** | **Athinios (Pele** | **1.52** | **336** | P | **Pn** | **09 16 38.1** | **0.0** |
| THT1 | | | | S | **Sn** | **09 16 57.4** | **-0.4** |
| **THR8** | **Santorini-Mono** | **1.52** | **338** | P | **Pb** | **09 16 38.7** | **-0.5** |
| **THR8** | **Santorini-Mono** | **1.52** | **338** | P | **Pb** | **09 16 38.7** | **-0.5** |
| **THR3** | **Thira Island,** | **1.55** | **336** | P | **Pn** | **09 16 38.8** | **+0.3** |
| **THR3** | **Thira Island,** | **1.55** | **336** | P | **Pn** | **09 16 38.8** | **+0.3** |
| **THR3** | **Thira Island,** | **1.55** | **336** | P | **Pn** | **09 16 37.7** | **-0.8** |
| **THR7** | **Fira-Santorini** | **1.55** | **337** | P | **Pn** | **09 16 39.0** | **+0.5** |
| **THR7** | **Fira-Santorini** | **1.55** | **337** | P | **Pn** | **09 16 39.0** | **+0.5** |
| **THR2** | **Thira island,** | **1.57** | **337** | P | **Pn** | **09 16 39.3** | **+0.5** |
| **THR2** | **Thira island,** | **1.57** | **337** | P | **Pn** | **09 16 39.3** | **+0.5** |
| **THR2** | **Thira island,** | **1.57** | **337** | P | **Pn** | **09 16 37.7** | **-1.1** |
| **THR5** | **Thira Island,** | **1.57** | **335** | P | **Pn** | **09 16 39.2** | **+0.3** |
| **THR5** | **Thira Island,** | **1.57** | **335** | P | **Pn** | **09 16 39.2** | **+0.3** |
| **THR5** | **Thira Island,** | **1.57** | **335** | P | **Pn** | **09 16 37.9** | **-0.9** |
| **VAM** | **Vamos** | **1.68** | **285** | P | **Pb** | **09 16 41.3** | **-0.5** |
| VAM | | | | S | **Sg** | **09 17 04.9** | **0.0** |
| VAM | | | | AML | AML | 09 17 09.6 | |
| | comp=N,1204µm,0.9s | | | | | | |
| VAM | | | | AML | AML | 09 17 11.7 | |
| | comp=E,955µm,0.9s | | | | | | |
| **VAM** | **Vamos** | **1.68** | **285** | P | **Pb** | **09 16 41.3** | **-0.5** |
| VAM | | | | S | **Sg** | **09 17 04.9** | **0.0** |
| **GVD** | **Gavdhos** | **1.73** | **265** | P | **Pg** | **09 16 43.2** | **-1.0** |
| GVD | | | | S | **Sg** | **09 17 07.3** | **+0.7** |
| GVD | | | | AML | AML | 09 17 18.0 | |
| | comp=N,668µm,0.3s | | | | | | |
| GVD | | | | AML | AML | 09 17 25.6 | |
| | comp=E,969µm,0.5s | | | | | | |
| **GVD** | **Gavdhos** | **1.73** | **265** | P | **Pg** | **09 16 43.2** | **-1.0** |
| GVD | | | | S | **Sg** | **09 17 07.3** | **+0.7** |
| **NIS1** | **Nisyros Isl.** | **1.80** | **26** | P | **Pb** | **09 16 43.3** | **-0.6** |
| **NIS1** | **Nisyros Isl.** | **1.80** | **26** | P | **Pb** | **09 16 43.3** | **-0.6** |
| **IMMV** | **Iera Moni Meta** | **1.86** | **285** | P | **Pg** | **09 16 45.6** | **-1.1** |
| IMMV | | | | S | **Sg** | **09 17 10.4** | **-0.4** |
| IMMV | | | | AML | AML | 09 17 20.1 | |
| | comp=E,1467µm,1.2s | | | | | | |
| IMMV | | | | AML | AML | 09 17 21.6 | |
| | comp=N,1023µm,0.5s | | | | | | |
| **IMMV** | **Iera Moni Meta** | **1.86** | **285** | P | **Pg** | **09 16 45.6** | **-1.1** |
| IMMV | | | | S | **Sn** | **09 17 06.3** | **0.0** |
| **IMMV** | **Iera Moni Meta** | **1.86** | **285** | P | **Pn** | **09 16 41.9** | **-0.9** |
| IMMV | | | | S | **Sn** | **09 17 06.3** | **0.0** |
| **APE** | **Apeiranthos** | **2.14** | **346** | P | **Pn** | **09 16 46.3** | **-0.4** |
| APE | | | | S | **Sn** | **09 17 12.8** | **-0.4** |
| APE | | | | AML | AML | 09 17 14.6 | |
| | comp=N,195µm,0.2s | | | | | | |
| APE | | | | AML | AML | 09 17 20.1 | |
| | comp=E,257µm,0.5s | | | | | | |
| **APE** | **Apeiranthos** | **2.14** | **346** | P | **Pn** | **09 16 46.3** | **-0.4** |
| APE | | | | S | **Sn** | **09 17 12.8** | **-0.4** |
| **MHLO** | **Agia Marina, M** | **2.23** | **320** | P | **Pb** | **09 16 49.4** | **-1.9** |
| MHLO | | | | S | **Sn** | **09 17 17.7** | **+2.4** |
| MHLO | | | | AML | AML | 09 17 30.1 | |
| | comp=E,1436µm,0.5s | | | | | | |
| MHLO | | | | AML | AML | 09 17 33.0 | |
| | comp=N,1432µm,0.7s | | | | | | |
| **MHLO** | **Agia Marina, M** | **2.23** | **320** | P | **Pb** | **09 16 49.3** | **-1.9** |
| MHLO | | | | S | **Sn** | **09 17 17.7** | **+2.4** |
| **MHLO** | **Agia Marina, M** | **2.23** | **320** | P | **Pn** | **09 16 46.7** | **-1.1** |
| **MHLA** | **Plaka, Milos I** | **2.26** | **321** | P | **Pb** | **09 16 50.5** | **-1.3** |
| **MHLA** | **Plaka, Milos I** | **2.26** | **321** | P | **Pb** | **09 16 50.5** | **-1.3** |
| **ANKY** | **Antikythira Is** | **2.51** | **291** | P | **Pb** | **09 16 55.9** | **-0.1** |
| **SMG** | **Samos** | **2.76** | **11** | P | **Pn** | **09 16 54.2** | **-1.0** |
| **SMG** | **Samos** | **2.76** | **11** | P | **Pn** | **09 16 54.2** | **-1.0** |
| **KYTH** | **Kithira** | **2.85** | **297** | P | **Pn** | **09 16 58.0** | **+1.6** |
| KYTH | | | | S | **Sb** | **09 17 34.5** | **-2.4** |
| **VLI** | **Veliai** | **3.15** | **304** | P | **Pn** | **09 17 00.9** | **+0.4** |
| VLI | | | | S | **Sn** | **09 17 38.2** | **+0.2** |
| VLI | | | | AML | AML | 09 17 44.0 | |
| | comp=E,209µm,0.6s | | | | | | |
| VLI | | | | AML | AML | 09 17 46.5 | |
| | comp=N,233µm,0.5s | | | | | | |
| **VLI** | **Veliai** | **3.15** | **304** | P | **Pn** | **09 17 00.9** | **+0.4** |
| VLI | | | | S | **Sn** | **09 17 38.2** | **+0.2** |
| **KARY** | **Karystos** | **3.34** | **336** | P | **Pn** | **09 17 03.8** | **+0.7** |
| **KARY** | **Karystos** | **3.34** | **336** | P | **Pn** | **09 17 03.8** | **+0.7** |
| **DID** | **Didima** | **3.46** | **317** | P | **Pn** | **09 17 07.4** | **+2.6** |
| **DID** | **Didima** | **3.46** | **317** | P | **Pn** | **09 17 07.4** | **+2.6** |
| **VILL** | **Villia** | **3.92** | **325** | P | **Pn** | **09 17 13.4** | **+2.3** |
| **VIL2** | **Platees** | **3.98** | **325** | P | **Pn** | **09 17 13.4** | **+1.5** |
| **LTK** | **Loutraki** | **3.98** | **320** | P | **Pn** | **09 17 15.4** | **+3.5** |
| **PYL** | **PYLOS** | **4.07** | **299** | P | **Pn** | **09 17 14.6** | **+1.4** |
| **PYL** | **PYLOS** | **4.07** | **299** | P | **Pn** | **09 17 14.6** | **+1.4** |
| **SIGR** | **SIGRI** | **4.22** | **357** | P | **Pn** | **09 17 15.2** | **0.0** |
| **SIGR** | **SIGRI** | **4.22** | **357** | P | **Pn** | **09 17 15.2** | **0.0** |
| **GUR** | **Goura** | **4.27** | **315** | P | **Pn** | **09 17 18.7** | **+2.7** |
| **GUR** | **Goura** | **4.27** | **315** | P | **Pn** | **09 17 18.7** | **+2.7** |
| **KLV** | **Kalavryta, Ach** | **4.45** | **314** | P | **Pn** | **09 17 19.9** | **+1.5** |
| KLV | | | | S | **Sn** | **09 18 11.9** | **+1.7** |
| **KLV** | **Kalavryta, Ach** | **4.45** | **314** | P | **Pn** | **09 17 19.9** | **+1.5** |
| KLV | | | | S | **Sn** | **09 18 11.9** | **+1.7** |
| **AGG** | **Agios Georgios** | **5.07** | **324** | P | **Pn** | **09 17 30.9** | **+4.0** |
| **BRTR** | **Keskin Array B** | **7.58** | **49** | Pn | **Pn** | **09 18 03.5** | **+1.9** |
| | comp=N,0.1nm,0.3s,baz=227,slow=15,SNR=3.5 | | | | | | |
| **GERES** | **GERESS Array B** | **16.64** | **330** | LR | LR | 09 26 26.7 | |
| | comp=N,186nm,19.3s,baz=83,slow=37 | | | | | | |
| **ESDC** | **Sonseca Array** | **24.36** | **290** | P | **P** | **09 21 30.3** | **+1.3** |
| | comp=N,0.2nm,0.4s,baz=95,slow=9.4,SNR=2.3 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **31.03** | **232** | P | **P** | **09 22 28.4** | **-0.5** |
| | comp=N,0.7nm,0.6s,baz=40,slow=8.6,SNR=6.1 | | | | | | |
| **BVAR** | **Borovoye Array** | **35.86** | **46** | P | **P** | **09 23 10.7** | **+0.2** |
| | comp=N,0.3nm,0.4s,baz=216,slow=7.1,SNR=2.6 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **40.57** | **51** | P | **P** | **09 23 50.0** | **-0.2** |
| | comp=N,0.6nm,0.5s,baz=277,slow=8.7,SNR=9.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.16** | **56** | P | **P** | **09 24 11.7** | **+0.1** |
| | comp=N,0.6nm,0.5s,baz=271,slow=8.6,SNR=6.5 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **65.76** | **84** | LR | LR | 10 01 46.8 | |
| | comp=N,62nm,19.1s,baz=320,slow=42 | | | | | | |

*ISCJB **08** 09:18:33.9±2.2, 13.2S±0.4×167.2E±0.4, h180km, mb3.9/7, Error ellipse: s-maj=80.6km s-min=23.2km az=44.3*
*IDC **08** 09:18:36.8±15.0, 13.08S×167.15E, h192km±141km, mb3.6/7, mb1 3.7/7, mb1mx3.4/42, mbtmp4.1/7, Error ellipse: s-maj=67.6km s-min=45.6km az=136.0*

**ISC 08 09:18:35.7**±2.3**, 13.0S**±0.4×**167.2E**±0.4**, h180km, n7, σ0.58**/7**, mb3.8**/7**, Vanuatu Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CTA** | **Charters Tower** | **21.21** | **248** | P | **P** | **09 23 08.3** | **+0.8** |
| | 2.1nm,0.6s,baz=82,slow=12,SNR=3.9 | | | | | | |
| **STKA** | **Stephens Creek** | **30.04** | **227** | P | **P** | **09 24 28.1** | **+0.2** |
| | 2.9nm,0.6s,baz=52,slow=11,SNR=10 | | | | | | |
| **WRA** | **Warramunga Arr** | **32.16** | **253** | P | **P** | **09 24 46.3** | **-0.4** |
| | 1.1nm,0.5s,baz=86,slow=9.2,SNR=19 | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ASAR** | **Alice Springs** | **33.20** | **247** | P | **P** | **09 24 55.0** | **-0.7** |
| | 2.2nm,0.6s,baz=76,slow=9.1,SNR=51 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **40.24** | **257** | P | **P** | **09 25 55.1** | **-0.1** |
| | 1.1nm,0.7s,baz=72,slow=6.4,SNR=3.1 | | | | | | |
| **ILAR** | **Eielson Array** | **84.94** | **18** | P | **P** | **09 30 50.1** | **0.0** |
| | 1.0nm,0.6s,baz=236,slow=5.6,SNR=33 | | | | | | |
| **MKAR** | **Makanchi Array** | **95.89** | **317** | P | **P** | **09 31 42.1** | **+0.2** |
| | 0.4nm,0.5s,baz=83,slow=7.8,SNR=4.3 | | | | | | |

*NNC **08** 09:23:29.2±2.2, 54°.64N×86°.15E, h0km, mb3.1, mpv2.9, Error ellipse: s-maj=84.0km s-min=12.1km az=140.0*

**IDC 08 09:23:35.6**±2.2**, 54°.19N×86°.05E, h0km, mb1 3.2**/2**, mb1mx2.9**/47**, mbtmp3.2**/2**, ML3.0**/2**, 6C-2D, Error ellipse: s-maj=17.5km s-min=11.4km az=52.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **I46RU** | **ZALESOVO INFRA** | **0.77** | **252** | *i* | | 09 28 26.3 | |
| | baz=69,slow=337,SNR=30 | | | | | | |
| **ZAA0** | **Zalesovo Array** | **0.77** | **252** | ⇓P | Pg | 09 23 48.7 | -1.6 |
| | 0.2nm,0.2s | | | | | | |
| ZAA0 | | | | ⇑S | Sb | 09 24 03.5 | +0.7 |
| | 1.1nm,0.3s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **0.77** | **252** | Pg | Pg | 09 23 48.9 | -1.4 |
| | 1.8nm,0.3s,baz=71,slow=18,SNR=13 | | | | | | |
| ZALV | | | | Lg | Lg | 09 24 01.3 | |
| | 6.6nm,0.3s,baz=76,slow=30,SNR=24 | | | | | | |
| **KURK** | **Kurchatov** | **5.72** | **236** | ⇑Pn | Pn | 09 25 01.0 | -0.8 |
| | 2.5nm,1.1s | | | | | | |
| KURK | | | | ⇑Sn | Sn | 09 26 10.9 | +2.8 |
| | 0.7nm,0.6s | | | | | | |
| KURK | | | | ⇑Lg | Lg | 09 26 44.0 | |
| | 2.4nm,1.0s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **5.83** | **235** | Pn | Pn | 09 25 04.5 | +1.3 |
| | 0.2nm,0.3s,baz=50,slow=13,SNR=18 | | | | | | |
| KURBB | | | | Sn | Sn | 09 26 14.4 | +3.7 |
| | 0.0nm,0.3s,baz=250,slow=42,SNR=3.3 | | | | | | |
| KURBB | | | | Lg | Lg | 09 26 42.1 | |
| | 0.0nm,0.3s,baz=55,slow=34,SNR=3.5 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **5.83** | **235** | ⇓Pn | Pn | 09 25 01.0 | -2.2 |
| | 1.0nm,0.3s | | | | | | |
| KURBB | | | | ⇑Sn | Sn | 09 26 15.5 | +4.8 |
| | 3.3nm,0.8s | | | | | | |
| KURBB | | | | ⇑Lg | Lg | 09 26 47.3 | |
| | 4.5nm,0.7s | | | | | | |
| **MK31** | **Makanchi Array** | **7.79** | **199** | Pn | Pn | 09 25 31.0 | +0.9 |
| | 2.5nm,0.8s,baz=26,slow=12,SNR=16 | | | | | | |
| **MKAR** | **Makanchi Array** | **7.79** | **199** | Pn | Pn | 09 25 30.8 | +0.7 |
| | 0.4nm,0.3s,baz=23,slow=12,SNR=13 | | | | | | |

*ISCJB **08** 09:25:22.7±0.2, 4°.18N±0°.02×125°.71E±0°.05, h150km, mb4.6/36, Error ellipse: s-maj=7.1km s-min=3.0km az=179.9*
*NEIC **08** 09:25:22.4±0.7, 4°.13N×125°.45E, h134km±6km, mb4.8/17, Error ellipse: s-maj=9.1km s-min=3.9km az=78.0*
*IDC **08** 09:25:22.9±1.9, 4°.16N×125°.46E, h137km±17km, mb4.1/23, mb1 4.2/23, mb1mx4.1/40, mbtmp4.5/23, Error ellipse: s-maj=23.8km s-min=8.6km az=85.0*
*DJA **08** 09:25:30.2±0.6, 4°N±5°×12°6E±°, h88km±6km, M5.0/12, mb5.1/12, mB5.5/9, MLv5.1/11, Mw(mB)5.0/9*
**ISC 08 09:25:23.9**±0.4**, 4°.12N**±0°.03×**125°.74E**±0°.07**, h150km, n115,** $\sigma$**1s.75**/126**, mb4.6**/36**, 4D, Talaud Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SGSI** | **Sangihe** | **0.48** | **206** | P | **Pn** | **09 25 42.3** | **-2.9** |
| SGSI | | | | S | **Sn** | **09 25 56.9** | **-4.5** |
| **GSPH** | **General Santos** | **2.11** | **338** | ⇓*e*P | **Pn** | **09 25 57.2** | **-3.3** |
| **MATI** | **Mati** | **2.86** | **10** | *e*P | **Pn** | **09 26 08.6** | **-0.9** |
| **DAV** | **Davao City (W)** | **2.94** | **357** | *e*Pn | **Pn** | **09 26 09.3** | **-1.2** |
| **KCP** | **Kidapawan** | **2.95** | **347** | ⇓*i*P | **Pn** | **09 26 09.6** | **-1.1** |
| KCP | | | | *i* S | **Sn** | **09 26 44.8** | **-2.0** |
| **CTBH** | **Cotabato--PC H** | **3.42** | **334** | ⇓*i*P | **Pn** | **09 26 14.6** | **-2.1** |
| **BUKP** | **Musuan** | **3.80** | **350** | *e*P | **Pn** | **09 26 19.6** | **-2.0** |
| BUKP | | | | *e*S | **Sn** | **09 27 04.2** | **-2.3** |
| **KMSI** | **Cibinong** | **3.93** | **207** | P | **Pn** | **09 26 23.7** | **+0.4** |
| **BIPH** | **Bislig** | **4.09** | **9** | ⇓*e*P | **Pn** | **09 26 27.3** | **+2.0** |
| BIPH | | | | *i* S | **Sn** | **09 27 12.6** | **-0.6** |
| **BUTP** | **Butuan** | **4.82** | **359** | *e*P | **Pn** | **09 26 36.2** | **+1.2** |
| **LBMI** | **Labuha** | **5.04** | **160** | P | **Pn** | **09 26 36.5** | **-1.4** |
| LBMI | | | | S | **Sn** | **09 27 31.3** | **-4.3** |
| **MRSI** | **Marisa** | **5.24** | **227** | P | **Pn** | **09 26 40.9** | **+0.3** |
| MRSI | | | | S | **Sn** | **09 27 40.4** | **0.0** |
| **LUWI** | **Luwuk** | **5.92** | **210** | P | **Pn** | **09 26 51.4** | **+1.8** |
| **LUWI** | **Luwuk** | **5.92** | **210** | *e*Pn | **Pn** | **09 26 51.6** | **+2.0** |
| **SANI** | **Sanana** | **6.13** | **178** | P | **Pn** | **09 26 48.9** | **-3.5** |
| | 688nm,0.7s,13µm2.8nm | | | | | | |
| SANI | | | | S | Sn | 09 27 51.5 | -10 |
| | 688nm,0.7s,13µm2.8nm | | | | | | |
| **APSI** | **Ampana** | **6.46** | **219** | P | **Pn** | **09 26 58.1** | **+1.4** |
| **MPSI** | **Mapaga** | **6.94** | **237** | P | Pn | 09 27 10.8 | +7.6 |
| **NLAI** | **Namlea** | **7.43** | **169** | P | **Pn** | **09 27 07.9** | **-1.9** |
| | 434nm,0.6s,10µm | | | | | | |
| NLAI | | | | S | **Sn** | **09 28 24.8** | **-8.1** |
| | 434nm,0.6s,10µm | | | | | | |
| **MSAI** | **Masohi** | **8.07** | **157** | P | **Pn** | **09 27 18.4** | **+0.1** |
| MSAI | | | | S | **Sn** | **09 28 45.0** | **-3.2** |
| **AAI** | **Ambon** | **8.13** | **162** | P | **Pn** | **09 27 18.1** | **-1.0** |
| AAI | | | | S | **Sn** | **09 28 43.7** | **-6.0** |
| **TTSI** | **Tana Toraja** | **9.25** | **220** | P | **Pn** | **09 27 36.4** | **+2.3** |
| **FAKI** | **Fak Fak** | **9.55** | **137** | P | **Pn** | **09 27 38.3** | **+0.3** |
| | 56nm,0.6s,962nm | | | | | | |
| **FAKI** | **Fak Fak** | **9.55** | **137** | *e*Pn | **Pn** | **09 27 38.6** | **+0.6** |
| **KKM** | **Kota Kinabalu** | **9.68** | **282** | *e*Pn | Pn | 09 27 34.5 | -5.3 |
| **SPSI** | **Sidrap Palu** | **10.00** | **217** | P | **Pn** | **09 27 45.1** | **+1.1** |
| **BNSI** | **Bone** | **10.16** | **214** | P | **Pn** | **09 27 47.2** | **+1.1** |
| **SOEI** | **Soe** | **13.86** | **186** | P | **P** | **09 28 36.2** | **-1.5** |
| **SOEI** | **Soe** | **13.86** | **186** | *e*P | **P** | **09 28 38.9** | **+1.3** |
| **WBSI** | **Waikabubak, Su** | **15.06** | **205** | P | **P** | **09 28 51.0** | **+0.1** |
| **PLAI** | **Plampang** | **15.11** | **212** | P | **P** | **09 28 50.6** | **-0.9** |
| **MTN** | **Manton Dam** | **17.68** | **162** | P | **Pn** | **09 29 19.4** | **-1.6** |
| | baz=18,SNR=12 | | | | | | |
| **MTN** | **Manton Dam** | **17.68** | **162** | *e*P | **Pn** | **09 29 19.4** | **-1.6** |
| | 26nm,0.6s | | | | | | |
| **KDU** | **Kakadu** | **17.98** | **158** | P | **Pn** | **09 29 24.3** | **-0.3** |
| | baz=18,SNR=11 | | | | | | |
| **KNRA** | **Kununurra** | **19.89** | **171** | P | **Pn** | **09 29 44.8** | **-2.2** |
| | baz=20,SNR=12 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **22.08** | **180** | P | **P** | **09 30 07.1** | **+0.1** |
| | 36nm,0.7s,baz=10,slow=8.6,SNR=73 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **22.08** | **180** | P | **P** | **09 30 06.6** | **-0.4** |
| | baz=22,SNR=43 | | | | | | |
| **WRAB** | **Tennant Creek** | **25.35** | **161** | *e*P | **P** | **09 30 37.8** | **+0.6** |
| | 42nm,1.0s | | | | | | |
| **WR1** | **Warramunga Arr** | **25.36** | **161** | *e*P | **P** | **09 30 38.0** | **+0.7** |
| | 53nm,1.1s | | | | | | |
| **WRA** | **Warramunga Arr** | **25.36** | **161** | P | **P** | **09 30 38.0** | **+0.7** |
| | 26nm,0.8s,baz=334,slow=11,SNR=230 | | | | | | |
| WRA | | | | ScP | **ScP** | **09 37 33.0** | **+1.5** |
| | 0.7nm,0.5s,baz=340,slow=2.9,SNR=7.2 | | | | | | |
| **WB2** | **Warramunga Arr** | **25.36** | **161** | *e*P | **P** | **09 30 38.0** | **+0.7** |
| | 56nm,1.1s | | | | | | |
| **MBWA** | **Marble Bar** | **25.80** | **193** | *e*P | **P** | **09 30 41.5** | **+0.3** |
| | 25nm,0.8s | | | | | | |
| **QIS** | **Mount Isa** | **28.04** | **151** | P | **P** | **09 31 02.7** | **+1.4** |
| | baz=28,SNR=5.9 | | | | | | |
| **AS31** | **Alice Springs** | **28.74** | **164** | *e*P | **P** | **09 31 08.4** | **+0.9** |
| | 4.9nm,0.4s | | | | | | |
| **ASAR** | **Alice Springs** | **28.74** | **164** | P | **P** | **09 31 08.5** | **+1.1** |
| | 5.3nm,0.5s,baz=345,slow=7.4,SNR=170 | | | | | | |
| ASAR | | | | ScP | **ScP** | **09 37 44.2** | **+2.6** |
| | 1.6nm,0.8s,baz=342,slow=2.9,SNR=8.6 | | | | | | |
| **AS01** | **Alice Springs** | **28.75** | **164** | *e*P | **P** | **09 31 08.2** | **+0.7** |
| **WRKA** | **Warakurna** | **29.09** | **175** | P | **P** | **09 31 11.8** | **+1.3** |
| | baz=29,SNR=39 | | | | | | |
| **JNU** | **Nakatsue** | **29.25** | **9** | P | **P** | **09 31 11.4** | **-0.5** |
| | 2.8nm,0.5s,baz=341,slow=4.6,SNR=5.5 | | | | | | |
| **JNU** | **Nakatsue** | **29.25** | **9** | *e*P | **P** | **09 31 11.4** | **-0.5** |
| | 13nm,1.1s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **29.83** | **301** | ScP | **ScP** | **09 37 46.2** | **+1.0** |
| | 0.8nm,0.3s,baz=130,slow=1.4,SNR=6.6 | | | | | | |
| **KS15** | **Wonju Array Si** | **33.23** | **3** | *e*P | **P** | **09 31 46.5** | **-0.2** |
| **KSAR** | **Wonju Array Be** | **33.23** | **3** | P | **P** | **09 31 46.5** | **-0.2** |
| **KSRS** | **Korea Array** | **33.24** | **3** | P | **P** | **09 31 46.5** | **-0.3** |
| | 6.8nm,0.7s,baz=182,slow=9.8,SNR=11 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **34.25** | **18** | P | **P** | **09 31 54.6** | **-0.9** |
| | 4.4nm,0.8s,baz=200,slow=8.9,SNR=10 | | | | | | |
| **FORT** | **Forrest** | **34.77** | **177** | P | **P** | **09 32 01.1** | **+1.0** |
| | baz=35,SNR=16 | | | | | | |
| **FORT** | **Forrest** | **34.77** | **177** | *e*P | **P** | **09 32 00.6** | **+0.6** |
| | 294nm,0.6s | | | | | | |
| **QLP** | **Quilpie** | **35.38** | **151** | P | **P** | **09 32 06.5** | **+1.2** |
| | baz=35,SNR=3.6 | | | | | | |
| **KMBL** | **Kambalda** | **35.48** | **186** | P | **P** | **09 32 06.7** | **+0.6** |
| | baz=35,SNR=17 | | | | | | |
| **BLDU** | **Ballidu** | **35.60** | **193** | P | **P** | **09 32 07.3** | **+0.2** |
| | baz=36,SNR=5.3 | | | | | | |
| **KLBR** | **Kellerberrin** | **36.32** | **192** | P | **P** | **09 32 13.6** | **+0.4** |
| | baz=36,SNR=6.7 | | | | | | |
| **MUN** | **Mundaring** | **37.02** | **194** | P | **P** | **09 32 19.7** | **+0.5** |
| | baz=37,SNR=4.5 | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **37.71** | **192** | P | **P** | **09 32 25.6** | **+0.6** |
| | 4.3nm,0.5s,baz=240,slow=7.0,SNR=6.9 | | | | | | |
| **BBOO** | **Buckleboo** | **38.01** | **166** | P | **P** | **09 32 29.0** | **+1.5** |
| | baz=38,SNR=60 | | | | | | |
| **BBOO** | **Buckleboo** | **38.01** | **166** | *e*P | **P** | **09 32 29.0** | **+1.5** |
| | 33nm,0.6s | | | | | | |
| **STKA** | **Stephens Creek** | **38.84** | **158** | P | **P** | **09 32 36.4** | **+1.9** |
| | 21nm,0.7s,baz=331,slow=9.0,SNR=48 | | | | | | |
| **STKA** | **Stephens Creek** | **38.84** | **158** | P | **P** | **09 32 36.4** | **+1.9** |
| | baz=39,SNR=36 | | | | | | |
| **STKA** | **Stephens Creek** | **38.84** | **158** | *e*P | **P** | **09 32 36.3** | **+1.9** |
| | 3.7nm,0.8s | | | | | | |
| **CMSA** | **Cobar Meteorol** | **40.23** | **153** | P | **P** | **09 32 48.4** | **+2.4** |
| | baz=40,SNR=5.1 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **40.30** | **7** | P | **P** | **09 32 47.3** | **+0.9** |
| | 14nm,0.8s,baz=191,slow=7.1,SNR=24 | | | | | | |
| **MDJ** | **Mudanjiang** | **40.48** | **4** | *e*P | **P** | **09 32 48.2** | **+0.4** |
| | 113nm,1.9s | | | | | | |
| **ASAJ** | **Asahikawa** | **42.52** | **18** | P | **P** | **09 33 05.8** | **+1.3** |
| | 12nm,0.7s,baz=220,slow=7.9,SNR=11 | | | | | | |
| **ASAJ** | **Asahikawa** | **42.52** | **18** | *e*P | **P** | **09 33 05.8** | **+1.3** |
| | 15nm,0.8s | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **42.99** | **65** | T | T | 10 19 12.5 | |
| | baz=255,slow=75,SNR=15 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **43.00** | **65** | T | T | 10 19 19.7 | |
| | baz=255,slow=75,SNR=9.4 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **43.01** | **65** | T | T | 10 19 17.0 | |
| | baz=255,slow=75,SNR=12 | | | | | | |
| **ARPS** | **Mount Arapiles** | **43.36** | **161** | P | **P** | **09 33 14.0** | **+2.6** |
| | baz=43,SNR=14 | | | | | | |
| **CAN** | **Canberra** | **44.90** | **153** | P | **P** | **09 33 26.9** | **+3.2** |
| | baz=45 | | | | | | |
| **TOO** | **Toolangi** | **45.36** | **158** | P | **P** | **09 33 30.5** | **+3.2** |
| | baz=45,SNR=4.8 | | | | | | |
| **SONA0** | **Songino Array** | **46.62** | **342** | *e*P | **P** | **09 33 35.7** | **-1.5** |
| SONA0 | | | | *e*PcP | **PcP** | **09 35 09.3** | **+0.7** |
| **SONM** | **Songino Array** | **46.62** | **342** | P | **P** | **09 33 35.7** | **-1.4** |
| | 0.5nm,0.5s,baz=160,slow=9.6,SNR=3.8 | | | | | | |
| SONM | | | | PcP | **PcP** | **09 35 09.4** | **+0.7** |
| | 2.7nm,0.7s,baz=161,slow=4.2,SNR=9.4 | | | | | | |
| **SONA1** | **Songino Array** | **46.63** | **342** | *e*PcP | **PcP** | **09 35 09.5** | **+0.8** |
| **PETK** | **Petropavlovsk-** | **55.45** | **23** | P | **P** | **09 34 44.4** | **+1.6** |
| | 5.1nm,0.7s,baz=197,slow=4.5,SNR=5.5 | | | | | | |
| **PEA1** | **Petropavlovsk-** | **55.45** | **23** | *e*P | **P** | **09 34 44.4** | **+1.6** |
| **MK01** | **Makanchi Array** | **56.66** | **326** | *e*P | **P** | **09 34 50.8** | **-0.8** |
| **MK32** | **Makanchi Array** | **56.68** | **326** | *e*P | **P** | **09 34 51.3** | **-0.4** |
| **MKAR** | **Makanchi Array** | **56.68** | **326** | P | **P** | **09 34 51.3** | **-0.4** |
| | 1.9nm,0.6s,baz=119,slow=7.8,SNR=23 | | | | | | |
| MKAR | | | | ScP | **ScP** | **09 39 30.6** | **-1.0** |
| | 0.8nm,0.7s,baz=144,slow=4.8,SNR=3.8 | | | | | | |
| **YAK** | **Yakutsk** | **57.86** | **2** | P | **P** | **09 35 00.3** | **+0.8** |
| | 48nm,0.6s,baz=316,slow=1.1,SNR=19 | | | | | | |
| **YAK** | **Yakutsk** | **57.86** | **2** | *e*P | **P** | **09 35 00.4** | **+0.8** |
| | 71nm,0.8s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **59.80** | **333** | P | **P** | **09 35 10.7** | **-2.5** |
| | 0.7nm,0.5s,baz=97,slow=6.0,SNR=3.5 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **59.80** | **333** | *e*P | **P** | **09 35 10.7** | **-2.5** |
| **KURK** | **Kurchatov** | **60.89** | **328** | *e*P | **P** | **09 35 20.7** | **+0.1** |
| | 4.4nm,0.8s | | | | | | |
| KURK | | | | *e*PcP | **PcP** | **09 36 02.5** | **-0.2** |
| **SEY** | **Seymchan** | **61.88** | **13** | P | **P** | **09 35 28.5** | **+1.4** |
| | 2.9nm,0.5s,baz=190,slow=7.0,SNR=10 | | | | | | |
| **BVAR** | **Borovoye Array** | **66.46** | **327** | P | **P** | **09 35 56.5** | **-0.6** |
| | baz=110,slow=8.4 | | | | | | |
| **TIXI** | **Tiksi** | **67.47** | **1** | P | **P** | **09 36 02.8** | **-0.3** |
| | 10nm,0.4s,baz=198,slow=4.9,SNR=56 | | | | | | |
| **TIXI** | **Tiksi** | **67.47** | **1** | *e*P | **P** | **09 36 02.8** | **-0.3** |
| TIXI | | | | *e*P | **P** | **09 36 02.9** | **-0.2** |
| **AKTO** | **Aktyubinsk** | **72.75** | **322** | P | **P** | **09 36 34.9** | **-0.8** |
| | 0.8nm,0.3s,baz=94,slow=9.9,SNR=3.8 | | | | | | |
| **IMAR** | **Indian Mountai** | **82.39** | **24** | *e*P | **P** | **09 37 30.7** | **+1.8** |
| **CAST** | **Castle Rocks** | **82.83** | **27** | *e*P | **P** | **09 37 33.2** | **+2.0** |
| | 56nm,2.0s | | | | | | |
| **MLY** | **Manley** | **83.55** | **25** | *e*P | **P** | **09 37 36.7** | **+1.8** |
| | 13nm,0.8s | | | | | | |
| **COLD** | **Coldfoot** | **83.92** | **23** | *e*P | **P** | **09 37 39.0** | **+2.3** |
| | 9.4nm,0.7s | | | | | | |
| **VNDA** | **Vanda** | **83.93** | **173** | P | **P** | **09 37 37.0** | **+0.4** |
| | 2.2nm,1.0s,baz=310,slow=9.1,SNR=4.5 | | | | | | |
| **VNDA** | **Vanda** | **83.93** | **173** | *e*P | **P** | **09 37 37.3** | **+0.8** |
| **ILAR** | **Eielson Array** | **85.18** | **25** | P | **P** | **09 37 42.8** | **-0.3** |
| | 0.7nm,0.6s,baz=246,slow=5.1,SNR=29 | | | | | | |
| **ILB** | **Eielson Array** | **85.18** | **25** | *e*P | **P** | **09 37 42.8** | **-0.3** |
| **ARA0** | **ARCESS Array S** | **89.75** | **340** | *e*P | **P** | **09 38 04.5** | **-0.4** |
| **ARCES** | **ARCESS Array B** | **89.75** | **340** | P | **P** | **09 38 04.5** | **-0.4** |
| | 2.2nm,0.6s,baz=85,slow=6.0,SNR=13 | | | | | | |
| **INK** | **Inuvik** | **90.17** | **21** | P | **P** | **09 38 07.2** | **+0.4** |
| | 1.3nm,0.7s,baz=324,slow=6.9,SNR=5.4 | | | | | | |
| **INK** | **Inuvik** | **90.17** | **21** | *e*P | **P** | **09 38 07.2** | **+0.4** |
| | 17nm,1.9s | | | | | | |
| **FIA0** | **FINESS Array S** | **91.03** | **332** | *e*P | **P** | **09 38 10.4** | **-0.6** |
| **FINES** | **FINESS Array B** | **91.03** | **332** | P | **P** | **09 38 10.4** | **-0.6** |
| | 4.8nm,1.1s,baz=120,slow=11,SNR=4.2 | | | | | | |
| **NB200** | **NORSAR Array S** | **98.00** | **333** | *e*P | **P** | **09 38 41.5** | **-1.4** |
| **NOA** | **NORSAR Array B** | **98.00** | **333** | P | **P** | **09 38 41.5** | **-1.4** |
| | 0.8nm,0.6s,baz=68,slow=4.7,SNR=3.0 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **121.86** | **288** | PKP | **PKPdf** | **09 44 01.4** | **0.0** |
| | 0.6nm,0.7s,baz=24,slow=1.9,SNR=3.6 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **121.86** | **288** | *e*PKPdf | **PKPdf** | **09 44 01.4** | **0.0** |
| **LTX** | **Lajitas** | **122.14** | **52** | *e*PKPdf | **PKPdf** | **09 44 02.7** | **+1.0** |
| **TXAR** | **Lajitas Array** | **122.14** | **52** | PKP | **PKPdf** | **09 44 02.7** | **+1.0** |
| | 0.3nm,0.7s,baz=250,slow=0.8,SNR=5.0 | | | | | | |

**IDC 08 09:27:24.9**±2.8**, 53°.71N×86°.77E, h0km, mb1 2.7**/2**, mb1mx2.6**/43**, mbtmp2.7**/2**, ML2.4**/2**, Error ellipse: s-maj=25.9km s-min=14.6km az=68.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **I46RU** | **ZALESOVO INFRA** | **1.18** | **282** | *i* | | 09 34 15.5 | |
| | baz=101,slow=340,SNR=4.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **1.18** | **282** | Pg | Pg | 09 27 47.2 | -0.3 |
| | 1.1nm,0.3s,baz=103,slow=13,SNR=11 | | | | | | |
| ZALV | | | | Lg | Lg | 09 28 03.7 | |
| | 0.6nm,0.3s,baz=101,slow=28,SNR=3.7 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **5.94** | **242** | Pn | Pn | 09 28 54.4 | +0.4 |
| | 0.1nm,0.3s,baz=59,slow=14,SNR=6.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **7.50** | **204** | Pn | Pn | 09 29 16.8 | +1.4 |
| | 0.1nm,0.3s,baz=26,slow=14,SNR=5.8 | | | | | | |

*ISCJB **08** 09:29:05.4±0.6, 26°.72S±0°.03×71°.01W±0°.09, h34km, mb3.5/2, Error ellipse: s-maj=11.8km s-min=3.7km az=3.6*
*GUC **08** 09:29:05.2±0.7, 26°.74S×70°.64W, h65km±26km, ML3.9*
*SJA **08** 09:29:07.5±0.7, 26°.87S×70°.73W, h44km±11km, ML3.7, MW3.7*
**ISC 08 09:29:06.7**±1.0**, 26°.74S**±0°.04×**71°.01W**±0°.09**, h34km, n32,** $\sigma$**1s.41**/37**, 4C, Off coast of northern Chile**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VACH** | **Vallenar** | **1.85** | **173** | ⇑*i*P | **Pn** | **09 29 36.8** | **+0.8** |
| VACH | | | | *i* S | **Sn** | **09 29 58.3** | **+0.1** |
| **PB14** | **IPOC Station P** | **2.17** | **15** | *e*P | **Pn** | **09 29 41.2** | **+0.5** |
| **PB14** | **IPOC Station P** | **2.17** | **15** | *e*P | **Pn** | **09 29 40.3** | **-0.4** |
| PB14 | | | | *i* S | **Sn** | **09 30 06.5** | **-0.1** |
| **LCO** | **Las Campanas** | **2.28** | **173** | *e*P | **Pn** | **09 29 42.6** | **+0.3** |
| LCO | | | | *e*S | **Sn** | **09 30 08.7** | **-0.6** |
| **LCO** | **Las Campanas** | **2.28** | **173** | ⇑*i*P | **Pn** | **09 29 42.6** | **+0.3** |
| LCO | | | | *i* S | **Sn** | **09 30 10.2** | **+0.9** |
| LCO | | | | IAML | | 09 30 16.1 | |
| | comp=N,438nm,0.7s | | | | | | |
| **ANCH** | **Antofagasta** | **3.09** | **10** | ⇑*i*P | **Pn** | **09 29 52.6** | **-0.4** |
| ANCH | | | | *i* S | **Sn** | **09 30 27.9** | **-0.9** |
| **VCA** | **Vinchina** | **3.19** | **129** | *e*P | **Pn** | **09 29 56.2** | **+1.6** |
| VCA | | | | *e*S | Sn | 09 30 16.9 | -15 |
| **TLL** | **Tololo Astrono** | **3.42** | **177** | ⇑*i*P | **Pn** | **09 29 57.9** | **0.0** |
| TLL | | | | *i* S | **Sn** | **09 30 37.9** | **+0.4** |
| TLL | | | | IAML | | 09 30 58.0 | |
| | comp=N,312nm,0.5s | | | | | | |
| **AGUA** | **GUANDACOL** | **3.53** | **141** | *e*P | **Pn** | **09 30 00.9** | **+1.7** |
| **ACLC** | **CERRO LA CRUZ** | **4.48** | **128** | *e*P | **Pn** | **09 30 12.1** | **-0.2** |
| **FSA** | **Cafayete** | **4.55** | **83** | *e*P | **Pn** | **09 30 14.4** | **+1.0** |
| **AMOG** | **MOGNA** | **4.74** | **153** | *e*P | **Pn** | **09 30 16.5** | **+0.7** |
| **CYA** | **Choya** | **4.93** | **111** | *e*P | **Pn** | **09 30 17.0** | **-1.4** |
| **AHML** | **Horco Molle** | **5.08** | **92** | *e*P | **Pn** | **09 30 20.7** | **+0.3** |
| **RTLL** | **Cerro Villicun** | **5.09** | **155** | *e*P | **Pn** | **09 30 21.5** | **+0.9** |
| RTLL | | | | *e*S | **Sn** | **09 31 14.6** | **-3.6** |
| **RTLS** | **Leoncito** | **5.26** | **164** | *e*P | **Pn** | **09 30 24.7** | **+1.5** |
| **APLL** | **PUNTA DE LOS L** | **5.37** | **134** | *e*P | **Pn** | **09 30 23.7** | **-0.7** |
| **RTCV** | **Cerro Valdivia** | **5.55** | **158** | *e*P | **Pn** | **09 30 27.6** | **+0.7** |
| **AUSP** | **Uspallata** | **5.65** | **166** | *e*P | **Pn** | **09 30 29.9** | **+1.4** |
| **ASAL** | **Salagasta** | **6.13** | **163** | *e*P | **Pn** | **09 30 35.9** | **+0.9** |
| **HJA** | **Humahuaca** | **6.18** | **57** | *e*P | **Pn** | **09 30 37.8** | **+1.9** |
| **ROC1** | **El Roble** | **6.22** | **180** | *e*P | **Pn** | **09 30 34.9** | **-1.4** |
| **ARCO** | **CERRO ARCO** | **6.35** | **164** | *e*P | **Pn** | **09 30 39.5** | **+1.6** |
| ARCO | | | | IAML | | 09 30 50.1 | |
| | comp=Z,22nm,0.6s | | | | | | |
| **ACAN** | **Cantantal** | **6.45** | **150** | *e*P | **Pn** | **09 30 38.9** | **-0.4** |
| **AAGR** | **Agrelo** | **6.61** | **164** | *e*P | **Pn** | **09 30 43.8** | **+2.3** |
| **TCA** | **Tanti** | **7.25** | **131** | *e*P | **Pn** | **09 30 47.9** | **-2.4** |
| **GO05** | **HualaæØ** | **8.29** | **185** | *e*P | **Pn** | **09 31 00.7** | **-3.7** |
| **LPAZ** | **La Paz** | **10.74** | **15** | P | **Pn** | **09 31 37.8** | **-0.8** |
| | comp=Z,0.3nm,0.3s,baz=214,slow=7.3,SNR=9.0 | | | | | | |
| **SIV** | **San Ignacio** | **14.13** | **43** | P | **Pn** | **09 32 25.5** | **+0.9** |
| | comp=Z,0.2nm,0.3s,baz=249,slow=8.2,SNR=2.0 | | | | | | |
| **TXAR** | **Lajitas Array** | **63.94** | **328** | P | **P** | **09 39 37.0** | **+0.4** |
| | comp=Z,0.1nm,0.6s,baz=156,slow=8.9,SNR=3.0 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **80.92** | **70** | P | P | 09 41 31.2 | +13 |
| | comp=Z,1.1nm,0.6s,baz=260,slow=4.8,SNR=5.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **150.93** | **39** | PKP | PKPab | 09 49 11.5 | +8.4 |
| | comp=Z,0.9nm,0.7s,baz=323,slow=1.6,SNR=4.2 | | | | | | |

**IDC 08 09:50:25.7**±12.0**, 14°.65N×119°.11E, h0km, mb3.5**/2**, mb1 3.8**/3**, mb1mx3.3**/36**, mbtmp3.5**/3**, ML4.0**/1**, MS2.9**/1**, Ms1 2.9**/1**, ms1mx2.5**/36**, Error ellipse: s-maj=418.1km s-min=33.2km az=37.0, Luzon**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TGY** | **Tagaytay City** | **1.85** | **107** | Sn | Sg | 09 51 29.2 | +4.0 |
| | 21nm,0.3s,baz=319,slow=14,SNR=2.7 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **19.70** | **284** | P | P | 09 54 56.7 | -0.1 |
| | 0.2nm,0.3s,baz=96,slow=7.8,SNR=4.4 | | | | | | |
| **KSRS** | **Korea Array** | **24.03** | **17** | LR | LR | 10 05 58.2 | |
| | comp=Z,24nm,18.1s,baz=60,slow=39 | | | | | | |
| **WRA** | **Warramunga Arr** | **37.50** | **156** | P | P | 09 57 41.0 | -0.5 |
| | 0.6nm,0.8s,baz=335,slow=9.4,SNR=9.4 | | | | | | |
| **ASAR** | **Alice Springs** | **40.73** | **159** | P | P | 09 58 08.8 | +0.2 |
| | 0.4nm,0.5s,baz=337,slow=6.7,SNR=13 | | | | | | |

*ISK **08** 09:54:27.7, 38°.80N×43°.65E, h10km, ML2.1*
*ISCJB **08** 09:54:28.9±0.8, 38°.83N±0°.03×43°.67E±0°.06, h15km±4km, Error ellipse: s-maj=8.6km s-min=4.4km az=19.2*
*CSEM **08** 09:54:28.6±0.2, 38°.84N×43°.62E, h15km, ML2.5, Error ellipse: s-maj=5.9km s-min=3.5km az=121.0*
*DDA **08** 09:54:29.4, 38°.81N×43°.59E, h7km, Ml2.5*
**ISC 08 09:54:28.5**±1.0**, 38°.81N**±0°.03×**43°.63E**±0°.04**, h13km**±9km**, n20,** $\sigma$**0s.55**/37**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.18** | **346** | *i* P | **Pg** | **09 54 32.8** | **0.0** |
| VMUR | | | | *i* S | **Sb** | **09 54 37.2** | **-0.3** |
| **VMUR** | **Van-Muradiye** | **0.18** | **346** | P | **Pg** | **09 54 32.8** | **0.0** |
| VMUR | | | | S | **Sb** | **09 54 37.2** | **-0.3** |
| **VANB** | **Van** | **0.29** | **221** | *e*PG | **Pb** | **09 54 35.1** | **-0.5** |
| VANB | | | | *e*SG | **Sb** | **09 54 40.5** | **+0.1** |
| **VANB** | **Van** | **0.29** | **221** | *e*Pg | **Pb** | **09 54 35.2** | **-0.5** |
| VANB | | | | *e*Sg | **Sb** | **09 54 40.5** | **+0.1** |
| **TVAN** | **Van** | **0.33** | **211** | *i* P | **Pb** | **09 54 36.4** | **-0.1** |
| TVAN | | | | *i* S | **Sb** | **09 54 43.1** | **+1.3** |
| **TVAN** | **Van** | **0.33** | **211** | P | **Pb** | **09 54 36.4** | **-0.1** |
| TVAN | | | | S | **Sb** | **09 54 43.1** | **+1.3** |
| **CLDR** | **Caldiran** | **0.40** | **34** | *e*PG | **Pg** | **09 54 35.9** | **-0.7** |
| CLDR | | | | *e*SG | **Sg** | **09 54 42.3** | **+0.2** |
| **CLDR** | **Caldiran** | **0.40** | **34** | *i* P | **Pb** | **09 54 37.7** | **0.0** |
| CLDR | | | | *i* S | **Sb** | **09 54 44.7** | **+0.9** |
| **CLDR** | **Caldiran** | **0.40** | **34** | *e*Pg | **Pg** | **09 54 35.9** | **-0.7** |
| **CLDR** | **Caldiran** | **0.40** | **34** | P | **Pb** | **09 54 37.7** | **0.0** |
| CLDR | | | | *e*Sg | **Sg** | **09 54 42.3** | **+0.2** |
| **GEVA** | **Gevas** | **0.67** | **222** | *i* P | **Pb** | **09 54 42.0** | **-0.2** |
| GEVA | | | | *i* S | **Sb** | **09 54 51.3** | **-0.2** |
| **GEVA** | **Gevas** | **0.67** | **222** | P | **Pb** | **09 54 42.0** | **-0.2** |
| GEVA | | | | S | **Sb** | **09 54 51.3** | **-0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.70** | **270** | *i* P | **Pg** | **09 54 42.1** | **-0.2** |
| ADCV | | | | *i* S | **Sb** | **09 54 53.2** | **+0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.70** | **270** | P | **Pg** | **09 54 42.1** | **-0.2** |
| ADCV | | | | S | **Sb** | **09 54 53.2** | **+0.7** |
| **TUTA** | **Tutak** | **0.86** | **313** | *i* P | **Pg** | **09 54 44.5** | **-0.8** |
| TUTA | | | | *i* S | **Sb** | **09 54 57.5** | **+0.3** |
| **TUTA** | **Tutak** | **0.86** | **313** | P | **Pg** | **09 54 44.5** | **-0.8** |
| TUTA | | | | S | **Sb** | **09 54 57.5** | **+0.3** |
| **AGRB** | **Hanur-Agry** | **0.91** | **327** | *e*PG | **Pg** | **09 54 45.9** | **-0.2** |
| AGRB | | | | *e*SG | **Sb** | **09 54 59.2** | **+0.8** |
| **AGRB** | **Hanur-Agry** | **0.91** | **327** | *e*Pg | **Pg** | **09 54 45.9** | **-0.2** |
| AGRB | | | | *e*Sg | **Sb** | **09 54 59.2** | **+0.8** |
| **TASB** | **TASBURUN-IGDIR** | **1.26** | **22** | *e*PN | **Pn** | **09 54 52.1** | **+0.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.26** | **22** | *e*Pn | **Pn** | **09 54 52.1** | **+0.1** |

*ATA **08** 10:03:09.6±1.1, 38°.67N×42°.80E, h10km±52km, ML3.5, MW3.4*
*ISCJB **08** 10:03:10.9±0.5, 38°.67N±0°.02×42°.81E±0°.03, h6km±4km, Error ellipse: s-maj=3.9km s-min=3.2km az=148.9*
*ISK **08** 10:03:10.1, 38°.68N×42°.81E, h5km, MD3.0*
*DDA **08** 10:03:10.7, 38°.67N×42°.82E, h7km, Ml3.0*
*CSEM **08** 10:03:10.7±0.2, 38°.69N×42°.81E, h10km, ML3.0, Error ellipse: s-maj=4.0km s-min=3.8km az=102.0*
**ISC 08 10:03:11.1**±0.9**, 38°.68N**±0°.02×**42°.83E**±0°.02**, h13km**±7km**, n49,** $\sigma$**0s.82**/79**, 1D, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ADCV** | **BITLIS_Adilcev** | **0.15** | **329** | *i* P | **Pg** | **10 03 15.0** | **-0.1** |
| ADCV | | | | *i* S | **Sb** | **10 03 18.6** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.15** | **329** | P | **Pg** | **10 03 15.0** | **-0.1** |
| ADCV | | | | S | **Sb** | **10 03 18.6** | **-0.6** |
| **GEVA** | **Gevas** | **0.41** | **153** | ⇓*i*P | **Pg** | **10 03 18.2** | **-1.1** |
| GEVA | | | | IAML | | 10 03 18.6 | |
| | comp=Z,157nm,0.4s | | | | | | |
| GEVA | | | | *e*S | **Sg** | **10 03 24.8** | **+0.1** |
| **GEVA** | **Gevas** | **0.41** | **153** | *i* P | **Pg** | **10 03 18.2** | **-1.1** |
| GEVA | | | | *i* S | **Sg** | **10 03 24.9** | **+0.1** |
| **GEVA** | **Gevas** | **0.41** | **153** | P | **Pg** | **10 03 18.2** | **-1.1** |
| GEVA | | | | S | **Sg** | **10 03 24.9** | **+0.1** |
| **VANB** | **Van** | **0.45** | **100** | *e*PG | **Pg** | **10 03 20.1** | **0.0** |
| VANB | | | | *e*SG | **Sb** | **10 03 27.7** | **+0.1** |
| **VANB** | **Van** | **0.45** | **100** | *e*Pg | **Pg** | **10 03 20.1** | **0.0** |
| VANB | | | | *e*Sg | **Sb** | **10 03 27.7** | **+0.1** |
| **TVAN** | **Van** | **0.48** | **108** | *i* P | **Pg** | **10 03 20.1** | **-0.5** |
| TVAN | | | | *i* S | **Sb** | **10 03 28.0** | **-0.5** |
| **TVAN** | **Van** | **0.48** | **108** | P | **Pg** | **10 03 20.1** | **-0.5** |
| TVAN | | | | S | **Sb** | **10 03 28.0** | **-0.5** |
| **VMUR** | **Van-Muradiye** | **0.66** | **62** | *i* P | **Pg** | **10 03 23.6** | **-0.5** |
| VMUR | | | | *i* S | **Sb** | **10 03 34.0** | **+0.2** |
| **VMUR** | **Van-Muradiye** | **0.66** | **62** | P | **Pg** | **10 03 23.6** | **-0.5** |
| VMUR | | | | S | **Sb** | **10 03 34.0** | **+0.2** |
| **TUTA** | **Tutak** | **0.72** | **359** | *e*P | **Pg** | **10 03 24.3** | **-1.0** |
| TUTA | | | | *e*S | **Sb** | **10 03 35.6** | **-0.1** |
| TUTA | | | | IAML | | 10 03 38.8 | |
| | comp=Z,134nm,0.2s | | | | | | |
| **TUTA** | **Tutak** | **0.72** | **359** | *i* P | **Pg** | **10 03 24.3** | **-1.0** |
| TUTA | | | | *i* S | **Sb** | **10 03 36.2** | **+0.5** |
| **TUTA** | **Tutak** | **0.72** | **359** | P | **Pg** | **10 03 24.3** | **-1.0** |
| TUTA | | | | S | **Sb** | **10 03 36.2** | **+0.5** |
| **EKAR** | **Karacoban** | **0.83** | **315** | *e*P | **Pg** | **10 03 25.8** | **-1.5** |
| EKAR | | | | *e*S | **Sb** | **10 03 39.2** | **+0.6** |
| EKAR | | | | IAML | | 10 03 44.8 | |
| | comp=Z,47nm,0.3s | | | | | | |
| **AGRB** | **Hanur-Agry** | **0.91** | **8** | *e*PG | **Pg** | **10 03 27.9** | **-0.8** |
| AGRB | | | | *e*SG | **Sb** | **10 03 40.9** | **0.0** |
| **AGRB** | **Hanur-Agry** | **0.91** | **8** | *e*Pg | **Pg** | **10 03 28.0** | **-0.8** |
| **CLDR** | **Caldiran** | **0.97** | **61** | *e*PG | **Pb** | **10 03 29.3** | **-0.7** |
| CLDR | | | | *e*SG | **Sb** | **10 03 43.5** | **+0.8** |
| **CLDR** | **Caldiran** | **0.97** | **61** | *i* P | **Pb** | **10 03 27.3** | **-2.6** |
| CLDR | | | | *i* S | **Sn** | **10 03 44.6** | **+0.2** |
| **CLDR** | **Caldiran** | **0.97** | **61** | P | **Pb** | **10 03 27.3** | **-2.6** |
| **CLDR** | **Caldiran** | **0.97** | **61** | *e*Pg | **Pb** | **10 03 29.3** | **-0.7** |
| CLDR | | | | S | **Sn** | **10 03 44.6** | **+0.2** |
| **SRTM** | **Siirt_Merkez** | **0.99** | **226** | *i* P | **Pb** | **10 03 29.7** | **-0.4** |
| SRTM | | | | *i* S | **Sb** | **10 03 42.9** | **-0.2** |

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SRTM | Siirt_Merkez | 0.99 | 226 | P | Pb | 10 03 29.7 | -0.4 |
| SRTM | | | | S | Sb | 10 03 42.9 | -0.2 |
| DYDN | Diyadin | 1.10 | 38 | *i* P | Pb | 10 03 32.0 | -0.1 |
| DYDN | | | | *i* S | Sb | 10 03 45.5 | -0.9 |
| DYDN | Diyadin | 1.10 | 38 | P | Pb | 10 03 32.0 | -0.1 |
| DYDN | | | | S | Sb | 10 03 45.5 | -0.9 |
| VRTB | Varto-Mus | 1.17 | 295 | *e*PN | Pb | 10 03 32.5 | -0.8 |
| VRTB | Varto-Mus | 1.17 | 295 | *e*Pn | Pb | 10 03 32.6 | -0.8 |
| SIRT | Sirnak | 1.21 | 195 | *e*PN | Pn | 10 03 33.9 | 0.0 |
| SIRT | Sirnak | 1.21 | 195 | *e*Pn | Pn | 10 03 33.9 | 0.0 |
| EATA | Eleskirt | 1.21 | 348 | *i* P | Pn | 10 03 34.0 | -0.1 |
| EATA | | | | *i* S | Sn | 10 03 51.2 | +0.7 |
| EATA | Eleskirt | 1.21 | 348 | P | Pn | 10 03 34.0 | -0.1 |
| EATA | | | | S | Sn | 10 03 51.2 | +0.7 |
| HAKT | HAKKARI | 1.31 | 148 | *i* P | Pg | 10 03 36.9 | +0.5 |
| HAKT | | | | *i* S | Sg | 10 03 54.9 | +1.3 |
| HAKT | HAKKARI | 1.31 | 148 | P | Pg | 10 03 36.9 | +0.5 |
| HAKT | | | | S | Sg | 10 03 54.9 | +1.3 |
| BNGL | BINGOL | 1.34 | 282 | *e*P | Pn | 10 03 35.6 | -0.1 |
| BNGL | | | | *e*S | Sg | 10 03 54.0 | -0.3 |
| BNGL | | | | IAML | | 10 03 57.1 | |
| | comp=Z,283nm,0.4s | | | | | | |
| HOMI | Horasan | 1.54 | 333 | *e*P | Pb | 10 03 39.5 | -0.2 |
| HOMI | | | | IAML | | 10 03 41.1 | |
| | comp=Z,21nm,0.4s | | | | | | |
| HOMI | | | | *e*S | Sg | 10 04 01.9 | +1.0 |
| HOMI | Horasan | 1.54 | 333 | *i* P | Pb | 10 03 39.2 | -0.5 |
| HOMI | | | | *i* S | Sg | 10 04 03.2 | +2.3 |
| CUKT | Cukurca | 1.55 | 156 | *e*PN | Pn | 10 03 39.1 | +0.5 |
| CUKT | Cukurca | 1.55 | 156 | *e*Pn | Pn | 10 03 39.1 | +0.5 |
| ERZM | Erzurum | 1.67 | 318 | *e*P | Pb | 10 03 42.1 | +0.2 |
| BNGB | Bingˆ¶l | 1.71 | 281 | *e*PN | Pn | 10 03 40.9 | +0.3 |
| TASB | TASBURUN-IGDIR | 1.71 | 40 | *e*PN | Pn | 10 03 41.4 | +0.8 |
| TASB | TASBURUN-IGDIR | 1.71 | 40 | *e*Pn | Pn | 10 03 41.4 | +0.8 |
| BINT | Bingol | 1.84 | 277 | *e*Pn | Pn | 10 03 40.9 | -1.6 |
| SENK | Senkaya-Erzuru | 1.92 | 349 | *e*PN | Pn | 10 03 43.9 | +0.2 |
| SENK | Senkaya-Erzuru | 1.92 | 349 | *e*Pn | Pn | 10 03 43.9 | +0.2 |
| YEDI | Yedisu-Bingol | 1.93 | 294 | *e*PN | Pn | 10 03 44.4 | +0.6 |
| YEDI | Yedisu-Bingol | 1.93 | 294 | *e*Pn | Pn | 10 03 44.4 | +0.6 |
| MAZI | Mazidag | 2.24 | 238 | *e*PN | Pn | 10 03 49.0 | +1.0 |
| MAZI | Mazidag | 2.24 | 238 | *e*Pn | Pn | 10 03 49.0 | +1.0 |

*IGQ **08** 10:04:49.7±1.2, 5°S±25°×7°7W±6°7, h12km, M4.8/7, MLv4.8/7*
*IDC **08** 10:04:50.4±7.5, 5.°06S×77.°88W, h30km±57km, mb3.6/7, mb1 3.9/10, mb1mx3.8/27, mbtmp3.9/10, ML4.1/3, MS3.2/2, Ms1 3.2/2, ms1mx2.8/18, Error ellipse: s-maj=29.9km s-min=21.7km az=80.0*
*ISCJB **08** 10:04:51.4±0.4, 5.°22S±0.°03×77.°87W±0.°09, h53km, mb4.1/11, Error ellipse: s-maj=12.3km s-min=4.7km az=177.8*
*NEIC **08** 10:04:52.7±1.0, 5.°13S×77.°94W, h47km±10km, mb4.4/7, Error ellipse: s-maj=16.8km s-min=9.0km az=85.0*
**ISC 08 10:04:53.2**±0.6**, 5.°23S**±0.°05×**77.°9W**±0.°1**, h53**km**, n53, σ1s37**/55**, mb4.2**/11**, Northern Peru**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ATAH | Atahualpa | 1.97 | 195 | Pn | Pn | 10 05 24.2 | -0.3 |
| | 54nm,0.3s,baz=23,slow=6.9,SNR=174 | | | | | | |
| ATAH | | | | Sn | Sn | 10 05 49.4 | +1.2 |
| | 46nm,0.3s,baz=53,slow=20,SNR=16 | | | | | | |
| BPAT | Tungurahua Vol | 3.74 | 351 | P | Pn | 10 05 48.2 | -0.7 |
| BPAT | | | | S | Sn | 10 06 34.5 | +2.5 |
| BMAS | Trigal station | 3.75 | 351 | P | Pn | 10 05 47.8 | -1.1 |
| BMAS | | | | S | Sn | 10 06 35.9 | +3.9 |
| BULB | Ulba Tungurahu | 3.80 | 352 | P | Pn | 10 05 48.0 | -1.7 |
| PISA | Pisayambo | 4.17 | 353 | P | Pn | 10 05 54.0 | -0.8 |
| BMOR | Cotopaxi Volca | 4.51 | 352 | P | Pn | 10 05 58.7 | -0.7 |
| ILLI | Illinizas Sur | 4.56 | 349 | P | Pn | 10 06 03.1 | +2.9 |
| BNAS | Cotopaxi Volca | 4.57 | 352 | P | Pn | 10 06 00.8 | +0.6 |
| BVC2 | Cotopaxi Volca | 4.57 | 353 | P | Pn | 10 06 01.0 | +0.6 |
| VC1 | Cotopaxi 1 | 4.59 | 353 | P | Pn | 10 05 59.7 | -0.8 |
| OTAV | Otavalo | 5.46 | 354 | *e*P | Pn | 10 06 11.9 | -0.5 |
| OTAV | Otavalo | 5.46 | 354 | *e*Pn | Pn | 10 06 12.4 | 0.0 |
| OTAV | Otavalo | 5.46 | 354 | *e*P | Pn | 10 06 11.9 | -0.5 |
| URCU | Urcuqui | 5.64 | 356 | P | Pn | 10 06 16.8 | +1.9 |
| NNA | Nana | 6.79 | 172 | Pn | Pn | 10 06 30.8 | +0.4 |
| | 5.0nm,0.3s,baz=332,slow=13,SNR=14 | | | | | | |
| NNA | | | | Sn | Sn | 10 07 47.4 | +1.0 |
| | 9.1nm,0.3s,baz=128,slow=12,SNR=8.0 | | | | | | |
| NNA | | | | LR | LR | 10 09 18.4 | |
| | comp=Z,155nm,20.3s,baz=336,slow=38 | | | | | | |
| NNA | Nana | 6.79 | 172 | *e*Pn | Pn | 10 06 30.8 | +0.4 |
| NNA | | | | *e*Pn | Pn | 10 06 31.0 | +0.6 |
| NNA | | | | *e*Sn | Sn | 10 07 47.4 | +1.0 |
| NNA | | | | *e* | | 10 09 18.4 | |
| SOTA | Rioblanco | 7.42 | 10 | *e*P | Pn | 10 06 39.3 | 0.0 |
| PRAC | Prado | 9.37 | 19 | *e*Pn | Pn | 10 07 00.3 | -5.3 |
| VILC | Villavicencio, | 10.17 | 24 | *e*P | Pn | 10 07 15.7 | -1.0 |
| VILC | Villavicencio, | 10.17 | 24 | *e*P | Pn | 10 07 15.7 | -1.0 |
| RREF | El Recreo | 10.37 | 14 | *e*P | Pn | 10 07 21.7 | +1.8 |
| ROSC | El Rosal | 10.61 | 20 | LR | LR | 10 12 25.7 | |
| | comp=Z,179nm,18.9s,baz=234,slow=44 | | | | | | |
| CHIC | Chingaza | 10.63 | 23 | *e*P | Pn | 10 07 23.9 | +0.8 |
| CHIC | Chingaza | 10.63 | 23 | *e*P | Pn | 10 07 23.9 | +0.8 |
| NORC | Norcasia | 11.13 | 16 | *e*S | Pn | 10 07 36.6 | +6.8 |
| RUSC | La Rusia | 12.03 | 23 | *e*P | Pn | 10 07 45.1 | +2.6 |
| RUSC | La Rusia | 12.03 | 23 | *e*Pn | Pn | 10 07 44.6 | +2.1 |
| RUSC | La Rusia | 12.03 | 23 | *e*P | Pn | 10 07 45.1 | +2.6 |
| MNMC | Minye Minye | 16.00 | 150 | *e*P | P | 10 08 38.1 | +0.3 |
| | 8.2nm,0.8s | | | | | | |
| PTGA | Pitinga | 18.42 | 77 | P | P | 10 09 02.6 | -1.7 |
| | 0.8nm,0.3s,baz=252,slow=23,SNR=9.5 | | | | | | |
| PTGA | Pitinga | 18.42 | 77 | *e*P | P | 10 09 03.9 | -0.4 |
| | 6.8nm,0.8s | | | | | | |
| LTX | Lajitas | 42.37 | 326 | *e*P | P | 10 12 41.8 | -0.8 |
| TXAR | Lajitas Array | 42.37 | 326 | P | P | 10 12 41.8 | -0.8 |
| | 0.4nm,0.8s,baz=147,slow=7.1,SNR=5.1 | | | | | | |
| PARMO | Parma | 43.13 | 346 | *e*P | P | 10 12 47.3 | -1.1 |
| | 47nm,0.7s | | | | | | |
| ANMO | Albuquerque | 48.18 | 328 | *e*P | P | 10 13 28.4 | -0.3 |
| | 2.3nm,0.9s | | | | | | |
| WUAZ | Wupatki | 51.31 | 325 | *e*P | P | 10 13 52.7 | +0.2 |
| | 4.3nm,0.9s | | | | | | |
| LMQ | La Malbaie | 52.97 | 6 | *e*P | P | 10 14 05.8 | +1.5 |
| PD31 | Pinedale Array | 55.75 | 332 | *e*P | P | 10 14 22.9 | -2.0 |
| PDAR | Pinedale Array | 55.75 | 332 | P | P | 10 14 22.9 | -2.0 |
| | 0.2nm,0.5s,baz=143,slow=12,SNR=3.0 | | | | | | |
| ULM | Lac du Bonnet | 57.41 | 346 | P | P | 10 14 34.5 | -1.7 |
| | 1.6nm,0.5s,baz=158,slow=10,SNR=6.7 | | | | | | |
| MFID | Camas Ranch | 59.32 | 329 | *e*P | P | 10 14 49.7 | -0.2 |
| | 3.8nm,1.0s | | | | | | |
| YKA | Yellowknife Ar | 73.12 | 343 | P | P | 10 16 16.5 | -1.1 |
| | 0.8nm,0.5s,baz=141,slow=6.1,SNR=7.1 | | | | | | |
| YKB5 | Yellowknife Ar | 73.12 | 343 | *e*P | P | 10 16 16.6 | -1.1 |
| TOA1 | Torodi Ar. Sit | 81.06 | 76 | *e*P | P | 10 17 03.5 | +0.2 |
| TORD | Torodi Ar. Bea | 81.06 | 76 | P | P | 10 17 03.5 | +0.1 |
| | 0.4nm,0.6s,baz=283,slow=5.9,SNR=6.7 | | | | | | |
| INK | Inuvik | 82.83 | 342 | P | P | 10 17 11.1 | -0.3 |
| | 1.1nm,0.8s,baz=107,slow=10,SNR=3.7 | | | | | | |
| INK | Inuvik | 82.83 | 342 | *e*P | P | 10 17 11.1 | -0.3 |
| | 16nm,1.8s | | | | | | |
| ILAR | Eielson Array | 85.93 | 336 | P | P | 10 17 26.1 | -1.1 |
| | 0.6nm,0.9s,baz=123,slow=3.5,SNR=7.0 | | | | | | |
| ILB | Eielson Array | 85.93 | 336 | *e*P | P | 10 17 26.1 | -1.1 |
| AS31 | Alice Springs | 137.75 | 226 | *e*PKPdf | PKPdf | 10 24 12.8 | +0.2 |
| ASAR | Alice Springs | 137.75 | 226 | PKP | PKPdf | 10 24 12.8 | +0.2 |
| | 0.2nm,0.6s,baz=114,slow=2.2,SNR=3.7 | | | | | | |
| WR1 | Warramunga Arr | 139.65 | 231 | *e*PKPdf | PKPdf | 10 24 17.5 | +1.5 |
| WRA | Warramunga Arr | 139.65 | 231 | PKP | PKPdf | 10 24 17.5 | +1.5 |
| | 0.5nm,0.4s,baz=118,slow=2.1,SNR=19 | | | | | | |

**RSNC 08 10:06:34.5**±0.9**, 6.°75N**×**73.°16W, h148**km±9km**, ML1.4, Northern Colombia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BARC | Barichara | 0.16 | 187 | *e*P | Pn | 10 06 54.0 | -0.7 |
| BARC | | | | *e*S | Sn | 10 07 09.3 | -0.8 |
| BARC | | | | *i* | | 10 07 12.6 | |
| | comp=Z,9.3nm,0.3s | | | | | | |
| BRRC | Barranca, Sant | 0.65 | 303 | *e*P | Pn | 10 06 56.4 | 0.0 |
| BRRC | | | | *e*S | Sn | 10 07 12.9 | -0.2 |
| BRRC | | | | *i* | | 10 07 16.1 | |
| | comp=Z,7.8nm,0.1s | | | | | | |
| PAMC | Pamplona, Colo | 0.74 | 38 | *e*P | Pn | 10 06 57.1 | -0.6 |
| PAMC | | | | *e*S | Sn | 10 07 14.5 | -0.7 |
| RUSC | La Rusia | 0.85 | 175 | *e*P | Pn | 10 06 58.1 | -0.4 |
| RUSC | | | | *e*S | Sn | 10 07 16.8 | +0.1 |
| RUSC | | | | *i* | | 10 07 18.5 | |
| | comp=Z,1.9nm,0.1s | | | | | | |

*ISK **08** 10:11:35.8, 38.°56N×42.°62E, h9km, ML2.8*
*CSEM **08** 10:11:36.6±0.3, 38.°56N×42.°59E, h10km, ML2.9, Error ellipse: s-maj=5.6km s-min=5.6km az=72.0*
*ISCJB **08** 10:11:37.1±0.6, 38.°55N±0.°03×42.°61E±0.°04, h15km±4km, Error ellipse: s-maj=5.1km s-min=5.0km az=29.1*
*DDA **08** 10:11:39.7, 38.°68N×42.°81E, h7km, Ml2.9*
**ISC 08 10:11:39.0**±1.0**, 38.°63N**±0.°03×**42.°76E**±0.°03**, h18**km±4km**, n35, σ1s62**/52**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ADCV | BITLIS_Adilcev | 0.18 | 351 | *i* P | Pg | 10 11 44.3 | +0.4 |
| ADCV | | | | *i* S | Sg | 10 11 48.1 | +0.9 |
| ADCV | BITLIS_Adilcev | 0.18 | 351 | P | Pg | 10 11 44.3 | +0.4 |
| ADCV | | | | S | Sg | 10 11 48.1 | +0.9 |
| GEVA | Gevas | 0.39 | 144 | *i* P | Pb | 10 11 47.6 | 0.0 |
| GEVA | | | | *i* S | Sb | 10 11 54.1 | +0.7 |
| GEVA | Gevas | 0.39 | 144 | P | Pb | 10 11 47.6 | 0.0 |
| GEVA | | | | S | Sb | 10 11 54.1 | +0.7 |
| VANB | Van | 0.49 | 94 | *e*PG | Pg | 10 11 48.6 | -0.4 |
| VANB | | | | *e*SG | Sb | 10 11 57.5 | +1.3 |
| VANB | Van | 0.49 | 94 | *e*Pg | Pg | 10 11 48.6 | -0.4 |
| VANB | | | | *e*Sg | Sb | 10 11 57.5 | +1.3 |
| TVAN | Van | 0.52 | 101 | *i* P | Pg | 10 11 49.6 | +0.1 |
| TVAN | | | | *i* S | Sb | 10 11 57.0 | +0.1 |
| TVAN | Van | 0.52 | 101 | P | Pg | 10 11 49.6 | +0.1 |
| TVAN | | | | S | Sb | 10 11 57.0 | +0.1 |
| VMUR | Van-Muradiye | 0.73 | 60 | *i* P | Pb | 10 11 52.9 | -0.4 |
| VMUR | | | | *i* S | Sg | 10 12 03.8 | +0.7 |
| VMUR | Van-Muradiye | 0.73 | 60 | P | Pb | 10 11 52.9 | -0.4 |
| VMUR | | | | S | Sg | 10 12 03.8 | +0.7 |
| TUTA | Tutak | 0.77 | 3 | *i* P | Pb | 10 11 53.7 | -0.4 |
| TUTA | | | | *i* S | Sg | 10 12 05.1 | +0.5 |
| TUTA | Tutak | 0.77 | 3 | P | Pb | 10 11 53.7 | -0.4 |
| TUTA | | | | S | Sg | 10 12 05.1 | +0.5 |
| SRTM | Siirt_Merkez | 0.92 | 226 | *i* P | Pn | 10 11 58.7 | +1.5 |
| SRTM | | | | *i* S | Sn | 10 12 13.3 | +3.4 |
| AGRB | Hanur-Agry | 0.96 | 11 | *e*PG | Pb | 10 11 56.4 | -0.9 |
| AGRB | | | | *e*SG | Sn | 10 12 11.5 | +0.3 |
| AGRB | Hanur-Agry | 0.96 | 11 | *e*Pg | Pb | 10 11 56.4 | -0.9 |
| AGRB | | | | *e*Sg | Sn | 10 12 11.5 | +0.3 |
| CLDR | Caldiran | 1.04 | 60 | *e*PN | Pb | 10 11 58.4 | -0.2 |
| CLDR | Caldiran | 1.04 | 60 | *i* P | Pb | 10 11 58.2 | -0.4 |
| CLDR | | | | *i* S | Sn | 10 12 13.7 | +0.7 |
| CLDR | Caldiran | 1.04 | 60 | P | Pb | 10 11 58.2 | -0.4 |
| CLDR | Caldiran | 1.04 | 60 | *e*Pn | Pb | 10 11 58.4 | -0.2 |
| CLDR | | | | S | Sn | 10 12 13.7 | +0.7 |
| SIRT | Sirnak | 1.16 | 193 | *e*PG | Pn | 10 11 56.8 | -3.6 |
| SIRT | Sirnak | 1.16 | 193 | *e*Pg | Pn | 10 11 56.8 | -3.6 |
| EATA | Eleskirt | 1.25 | 350 | *i* P | Pb | 10 12 02.7 | +0.5 |
| EATA | Eleskirt | 1.25 | 350 | P | Pb | 10 12 02.7 | +0.5 |
| HAKT | HAKKARI | 1.30 | 145 | *i* P | Pg | 10 12 06.6 | +2.3 |
| CUKT | Cukurca | 1.53 | 154 | *e*PN | Pn | 10 12 03.5 | -2.1 |
| CUKT | Cukurca | 1.53 | 154 | *e*Pn | Pn | 10 12 03.5 | -2.1 |
| HOMI | Horasan | 1.56 | 335 | *i* P | Pb | 10 12 08.0 | +0.4 |
| BNGB | Bingˆ¶l | 1.67 | 283 | *e*PN | Pn | 10 12 05.1 | -2.4 |
| BINT | Bingol | 1.79 | 279 | *e*Pn | Pn | 10 12 05.1 | -4.1 |
| YEDI | Yedisu-Bingol | 1.91 | 296 | *e*PN | Pn | 10 12 08.2 | -2.6 |
| YEDI | Yedisu-Bingol | 1.91 | 296 | *e*Pn | Pn | 10 12 08.2 | -2.6 |
| SENK | Senkaya-Erzuru | 1.96 | 351 | *e*PN | Pn | 10 12 11.6 | +0.1 |
| SENK | Senkaya-Erzuru | 1.96 | 351 | *e*Pn | Pn | 10 12 11.6 | +0.1 |
| MAZI | Mazidag | 2.17 | 238 | *e*PN | Pn | 10 12 10.9 | -3.5 |
| MAZI | Mazidag | 2.17 | 238 | *e*Pn | Pn | 10 12 10.9 | -3.5 |

*NIED **08** 10:17:00, 36.°20N×142.°00E, h11km, Mw3.8 Best double couple: Mo6.04000×10^14 NP1:φs181.00000°, δ30.00000°, λ56.00000°. NP2:φs39.00000°, δ66.00000°, λ108.00000°.*
*IDC **08** 10:17:35.2±0.9, 36.°08N×142.°05E, h0km, mb3.9/8, mb1 3.9/11, mb1mx3.7/48, mbtmp3.9/11, ML3.8/3, MS3.1/3, Ms1 3.1/3, ms1mx2.6/43, Error ellipse: s-maj=25.3km s-min=18.0km az=80.0*
*ISCJB **08** 10:17:37.2±1.8, 36.°15N±0.°03×142.°06E±0.°07, h30km±14km, mb3.8/8, MS3.2/2, Error ellipse: s-maj=9.7km s-min=5.0km az=9.5*
*JMA **08** 10:17:38.1±0.1, 36.°15N×141.°97E, h69km±2km, M3.6*
**ISC 08 10:17:37.6**±3.9**, 36.°16N**±0.°04×**141.°99E**±0.°08**, h16**km±24km**, n34, σ0s92**/34**, mb3.8**/8**, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CHOJ | Chosi | 1.03 | 244 | P | Pb | 10 17 56.8 | -0.2 |
| CHOJ | | | | *e*S | Sb | 10 18 10.5 | +0.2 |
| JHO | Hitachi | 1.23 | 292 | P | Pn | 10 17 59.3 | -0.9 |
| ONAJ | Iwakimizuishiy | 1.34 | 315 | P | Pn | 10 18 01.1 | -0.6 |
| ONAJ | | | | *e*S | Sb | 10 18 18.4 | -1.0 |
| JFK | Kawauchi | 1.50 | 324 | P | Pn | 10 18 03.5 | -0.4 |
| BSO1 | Boso 1 | 1.72 | 209 | P | Pn | 10 18 06.1 | -0.3 |
| BSO1 | | | | *e*S | Sn | 10 18 27.6 | -0.1 |
| BSO3 | Boso 3 | 1.82 | 222 | P | Pn | 10 18 07.6 | -0.4 |
| BSO3 | | | | S | Sn | 10 18 30.2 | -0.3 |
| JFT | Otama | 1.90 | 316 | P | Pn | 10 18 08.6 | -0.7 |
| JMM | Marumori | 1.95 | 331 | P | Pn | 10 18 09.5 | -0.6 |
| JMM | | | | *e*S | Sn | 10 18 33.3 | -0.9 |
| JAG | Ashikaga | 2.07 | 278 | P | Pn | 10 18 11.1 | -0.6 |
| JFY | Yanaizu | 2.22 | 305 | P | Pn | 10 18 13.9 | +0.2 |
| JKT | Katashina | 2.29 | 286 | P | Pn | 10 18 14.8 | 0.0 |
| JIO | Ouri | 2.34 | 348 | P | Pn | 10 18 15.0 | -0.4 |
| JIO | | | | *e*S | Sn | 10 18 43.3 | -0.5 |
| MJAR | Matsushiro Arr | 3.08 | 278 | Pn | Pn | 10 18 26.2 | +0.6 |
| | 9.8nm,0.3s,baz=102,slow=7.7,SNR=93 | | | | | | |
| MAT | Matsushiro | 3.08 | 278 | P | Pn | 10 18 26.7 | +1.1 |
| MAT | | | | *e*S | Sn | 10 19 01.4 | -0.7 |
| JHJ | Hachijo jima 2 | 3.54 | 212 | Pn | Pn | 10 18 31.4 | -0.5 |
| | 28nm,0.3s,baz=263,slow=23,SNR=4.5 | | | | | | |
| JHJ | | | | Sn | Sn | 10 19 10.3 | -3.1 |
| | 31nm,0.3s,baz=214,slow=22,SNR=4.4 | | | | | | |
| ASAJ | Asahikawa | 7.96 | 3 | Pn | Pn | 10 19 31.4 | -1.2 |
| | 1.1nm,0.3s,baz=236,slow=11,SNR=9.1 | | | | | | |
| ASAJ | | | | Sn | Sn | 10 21 01.0 | -1.1 |
| | 0.7nm,0.3s,baz=289,slow=3.5,SNR=3.4 | | | | | | |
| KSRS | Korea Array | 11.36 | 281 | LR | LR | 10 24 46.3 | |
| | comp=Z,42nm,19.3s,baz=95,slow=38 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 27.30 | 120 | T | T | 10 52 11.3 | |
| | baz=313,slow=74,SNR=11 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 27.31 | 120 | T | T | 10 52 09.0 | |
| | baz=313,slow=74,SNR=7.6 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 27.32 | 120 | T | T | 10 52 03.2 | |
| | baz=313 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 28.00 | 122 | T | T | 10 52 50.4 | |
| | baz=314,slow=76,SNR=11 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 28.00 | 122 | T | T | 10 52 44.2 | |
| | baz=314,slow=76,SNR=11 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 28.01 | 122 | T | T | 10 52 50.0 | |
| | baz=314,slow=76,SNR=6.0 | | | | | | |
| SONM | Songino Array | 28.66 | 305 | P | P | 10 23 34.7 | +1.0 |
| | 1.7nm,0.8s,baz=107,slow=8.4,SNR=7.8 | | | | | | |
| TLY | Talaya | 31.25 | 312 | LR | LR | 10 35 41.0 | |
| | comp=Z,30nm,20.4s,baz=8.5,slow=35 | | | | | | |
| ZALV | Zalesovo Beam | 42.85 | 313 | P | P | 10 25 35.6 | +0.9 |
| | 0.6nm,0.4s,baz=84,slow=6.1,SNR=4.5 | | | | | | |
| MKAR | Makanchi Array | 44.98 | 303 | P | P | 10 25 52.7 | +0.7 |
| | 0.8nm,0.6s,baz=79,slow=11,SNR=6.7 | | | | | | |
| KURBB | Kurchatov Arra | 46.91 | 309 | P | P | 10 26 07.2 | +0.1 |
| | 1.1nm,0.4s,baz=84,slow=7.7,SNR=8.1 | | | | | | |
| ILAR | Eielson Array | 49.98 | 32 | P | P | 10 26 31.4 | +0.8 |
| | 0.6nm,0.9s,baz=264,slow=5.9,SNR=6.7 | | | | | | |
| WRA | Warramunga Arr | 56.27 | 189 | P | P | 10 27 16.2 | -1.1 |
| | 0.3nm,0.4s,baz=4.5,slow=7.1,SNR=13 | | | | | | |
| AKTO | Aktyubinsk | 59.60 | 312 | P | P | 10 27 41.5 | +1.0 |
| | 0.5nm,0.3s,baz=72,slow=13,SNR=3.9 | | | | | | |
| ASAR | Alice Springs | 60.00 | 189 | P | P | 10 27 42.9 | -0.5 |
| | 0.3nm,0.7s,baz=7.3,slow=8.0,SNR=3.4 | | | | | | |
| NOA | NORSAR Array B | 75.17 | 338 | LR | LR | 11 05 42.2 | |
| | comp=Z,21nm,18.1s,baz=5.0,slow=38 | | | | | | |
| LPAZ | La Paz | 146.71 | 61 | PKPbc | PKPbc | 10 37 20.2 | +0.3 |
| | 0.4nm,0.4s,baz=280,slow=6.1,SNR=3.5 | | | | | | |

*ISN **08** 10:18:53.0±2.7, 38.°98N×42.°71E, h4km±114km, ML3.7*
*ISK **08** 10:18:58.9, 38.°68N×42.°84E, h4km, ML3.6*
*DDA **08** 10:18:58.7, 38.°67N×42.°80E, h7km, Ml3.7*
*ATA **08** 10:18:58.2±0.9, 38.°67N×42.°83E, h17km±6km, ML4.3, MW4.3*
*CSEM **08** 10:18:59.1±0.2, 38.°67N×42.°82E, h2km, ML3.7, Error ellipse: s-maj=3.7km s-min=3.3km az=152.0*
*ISCJB **08** 10:18:59.5±0.4, 38.°66N±0.°02×42.°84E±0.°02, h5km±4km, Error ellipse: s-maj=3.4km s-min=3.2km az=34.0*
**ISC 08 10:18:59.5**±0.9**, 38.°67N**±0.°02×**42.°84E**±0.°02**, h16**km±7km**, n72, σ1s07**/108**, 3D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ADCV | BITLIS_Adilcev | 0.16 | 327 | *i* P | Pg | 10 19 03.7 | -0.1 |
| ADCV | | | | *i* S | Sb | 10 19 07.4 | -0.1 |
| ADCV | BITLIS_Adilcev | 0.16 | 327 | P | Pg | 10 19 03.7 | -0.1 |
| GEVA | Gevas | 0.40 | 154⇓ | *e*P | Pg | 10 19 06.9 | -0.8 |
| GEVA | | | | *e*S | Sg | 10 19 13.7 | +0.4 |
| GEVA | | | | IAML | | 10 19 16.0 | |
| | comp=Z,2μm,0.4s | | | | | | |
| GEVA | Gevas | 0.40 | 154 | *i* P | Pg | 10 19 06.9 | -0.8 |
| GEVA | | | | *i* S | Sg | 10 19 13.1 | -0.1 |
| GEVA | Gevas | 0.40 | 154 | P | Pg | 10 19 06.9 | -0.8 |
| GEVA | | | | S | Sg | 10 19 13.1 | -0.1 |
| VANB | Van | 0.44 | 100 | PG | Pb | 10 19 08.9 | -0.1 |
| VANB | | | | *e*SG | Sb | 10 19 15.8 | +0.4 |
| VANB | Van | 0.44 | 100 | *i* Pg | Pb | 10 19 08.9 | -0.1 |
| VANB | | | | *e*Sg | Sb | 10 19 15.8 | +0.4 |
| TVAN | Van | 0.47 | 108 | *i* P | Pg | 10 19 08.8 | -0.1 |
| TVAN | | | | *i* S | Sb | 10 19 16.4 | +0.1 |
| TVAN | Van | 0.47 | 108 | P | Pg | 10 19 08.8 | -0.1 |
| TVAN | | | | S | Sb | 10 19 16.4 | +0.1 |
| VMUR | Van-Muradiye | 0.66 | 61 | *i* P | Pg | 10 19 12.0 | -0.4 |
| VMUR | | | | *i* S | Sb | 10 19 21.5 | -0.2 |
| VMUR | Van-Muradiye | 0.66 | 61 | P | Pg | 10 19 12.0 | -0.4 |
| VMUR | | | | S | Sb | 10 19 21.5 | -0.2 |
| TUTA | Tutak | 0.73 | 359 | *e*P | Pg | 10 19 13.0 | -0.8 |
| TUTA | | | | *e*S | Sb | 10 19 24.6 | +0.7 |
| TUTA | | | | IAML | | 10 19 27.5 | |
| | comp=Z,1μm,0.2s | | | | | | |
| TUTA | Tutak | 0.73 | 359 | *i* P | Pg | 10 19 13.0 | -0.8 |
| TUTA | | | | *i* S | Sb | 10 19 24.0 | +0.1 |
| TUTA | Tutak | 0.73 | 359 | P | Pg | 10 19 13.0 | -0.8 |
| TUTA | | | | S | Sb | 10 19 24.0 | +0.1 |
| EKAR | Karacoban | 0.84 | 314 | *e*P | Pb | 10 19 15.4 | -0.5 |
| EKAR | | | | *e*S | Sn | 10 19 28.0 | -1.0 |
| EKAR | | | | IAML | | 10 19 38.1 | |
| | comp=Z,592nm,0.4s | | | | | | |
| EKAR | Karacoban | 0.84 | 314 | *i* P | Pb | 10 19 15.2 | -0.7 |
| EKAR | | | | *i* S | Sn | 10 19 28.9 | -0.1 |
| EKAR | Karacoban | 0.84 | 314 | P | Pb | 10 19 15.2 | -0.7 |
| AGRB | Hanur-Agry | 0.91 | 8 | PG | Pb | 10 19 16.6 | -0.4 |
| AGRB | | | | *e*SG | Sn | 10 19 30.0 | -0.8 |
| AGRB | Hanur-Agry | 0.91 | 8 | *i* Pg | Pb | 10 19 16.6 | -0.4 |
| AGRB | | | | *e*Sg | Sn | 10 19 30.0 | -0.8 |
| CLDR | Caldiran | 0.96 | 61 | *e*PG | Pb | 10 19 17.6 | -0.4 |
| CLDR | | | | *e*SG | Sn | 10 19 31.9 | -0.3 |
| CLDR | Caldiran | 0.96 | 61 | *i* P | Pb | 10 19 17.1 | -1.0 |
| CLDR | | | | *i* S | Sn | 10 19 32.3 | +0.1 |
| CLDR | Caldiran | 0.96 | 61 | P | Pb | 10 19 17.0 | -1.0 |
| CLDR | Caldiran | 0.96 | 61 | *e*Pg | Pb | 10 19 17.6 | -0.4 |
| CLDR | | | | *e*Sg | Sn | 10 19 31.9 | -0.3 |
| CLDR | | | | S | Sn | 10 19 32.3 | +0.1 |
| SRTM | Siirt_Merkez | 0.99 | 227 | *i* P | Pb | 10 19 16.4 | -2.0 |
| SRTM | | | | *i* S | Sg | 10 19 31.7 | 0.0 |
| SRTM | Siirt_Merkez | 0.99 | 227 | P | Pb | 10 19 16.4 | -2.0 |
| SRTM | | | | S | Sg | 10 19 31.7 | 0.0 |
| DYDN | Diyadin | 1.09 | 37 | *e*P | Pb | 10 19 19.2 | -1.0 |
| DYDN | | | | IAML | | 10 19 41.6 | |
| | comp=Z,219nm,0.4s | | | | | | |
| DYDN | Diyadin | 1.09 | 37 | *i* P | Pb | 10 19 19.6 | -0.6 |
| DYDN | | | | *i* S | Sg | 10 19 34.7 | -0.3 |
| DYDN | Diyadin | 1.09 | 37 | P | Pb | 10 19 19.6 | -0.6 |
| DYDN | | | | S | Sg | 10 19 34.7 | -0.3 |
| VRTB | Varto-Mus | 1.18 | 295 | *e*PN | Pn | 10 19 21.4 | -0.2 |
| VRTB | | | | *e*SN | Sg | 10 19 39.1 | +1.3 |
| VRTB | Varto-Mus | 1.18 | 295 | *i* P | Pn | 10 19 20.8 | -0.8 |
| VRTB | | | | *i* S | Sb | 10 19 36.8 | 0.0 |
| VRTB | Varto-Mus | 1.18 | 295 | P | Pn | 10 19 20.8 | -0.8 |
| VRTB | Varto-Mus | 1.18 | 295 | *e*Pn | Pn | 10 19 21.4 | -0.2 |
| VRTB | | | | S | Sb | 10 19 36.8 | 0.0 |
| VRTB | | | | *e*Sn | Sg | 10 19 39.1 | +1.3 |
| SIRT | Sirnak | 1.21 | 195 | *e*PN | Pg | 10 19 23.2 | +0.4 |
| SIRT | Sirnak | 1.21 | 195 | *e*Pn | Pg | 10 19 23.2 | +0.4 |
| EATA | Eleskirt | 1.22 | 347⇓ | *i*P | Pn | 10 19 21.8 | -0.5 |
| EATA | | | | *e*S | Sg | 10 19 40.5 | +1.5 |
| EATA | Eleskirt | 1.22 | 347 | *i* P | Pn | 10 19 21.7 | -0.5 |
| EATA | | | | *i* S | Sg | 10 19 40.1 | +1.2 |
| EATA | Eleskirt | 1.22 | 347 | P | Pn | 10 19 21.7 | -0.5 |
| EATA | | | | S | Sg | 10 19 40.2 | +1.2 |
| BNGL | BINGOL | 1.35 | 282 | *e*P | Pb | 10 19 24.1 | -0.4 |
| BNGL | | | | *e*S | Sg | 10 19 43.1 | +0.1 |
| BNGL | | | | IAML | | 10 19 45.9 | |
| | comp=Z,3μm,0.4s | | | | | | |
| CUKT | Cukurca | 1.55 | 157 | *e*PN | Pb | 10 19 28.1 | +0.2 |
| CUKT | Cukurca | 1.55 | 157 | *e*Pn | Pb | 10 19 28.1 | +0.2 |
| HOMI | Horasan | 1.55 | 333 | *e*P | Pb | 10 19 27.9 | 0.0 |
| HOMI | | | | IAML | | 10 19 30.8 | |
| | comp=Z,208nm,0.6s | | | | | | |
| HOMI | | | | *e*S | Sg | 10 19 50.8 | +1.3 |
| ERZM | Erzurum | 1.68 | 318⇓ | *e*P | Pg | 10 19 31.4 | -0.4 |
| TASB | TASBURUN-IGDIR | 1.70 | 39 | *e*PN | Pb | 10 19 30.1 | -0.4 |
| TASB | TASBURUN-IGDIR | 1.70 | 39 | *e*Pn | Pb | 10 19 30.1 | -0.4 |
| BNGB | Bingˆ¶l | 1.71 | 281 | *e*PN | Pb | 10 19 30.1 | -0.6 |
| ECAT | Cat-ERZURUM | 1.72 | 303 | *e*P | Pb | 10 19 30.3 | -0.6 |
| ECAT | | | | IAML | | 10 19 59.2 | |
| | comp=Z,104nm,0.5s | | | | | | |
| DIGO | Kars | 1.79 | 13 | *e*P | Pb | 10 19 31.7 | -0.4 |
| DIGO | | | | IAML | | 10 20 16.0 | |
| | comp=Z,35nm,0.5s | | | | | | |
| BINT | Bingol | 1.85 | 277 | *e*Pn | Pn | 10 19 30.1 | -0.6 |
| SENK | Senkaya-Erzuru | 1.92 | 349 | *e*PN | Pb | 10 19 33.2 | -1.2 |
| SENK | Senkaya-Erzuru | 1.92 | 349 | *e*Pn | Pb | 10 19 33.2 | -1.2 |
| YEDI | Yedisu-Bingol | 1.94 | 294 | *e*PN | Pb | 10 19 33.6 | -1.0 |
| YEDI | Yedisu-Bingol | 1.94 | 294 | *e*Pn | Pb | 10 19 33.6 | -1.0 |
| KARS | Kars | 1.96 | 5 | *e*PN | Pn | 10 19 33.4 | +1.1 |
| KARS | Kars | 1.96 | 5 | *e*Pn | Pn | 10 19 33.4 | +1.1 |
| EAK | Akyaka | 2.10 | 16 | *e*P | Pb | 10 19 36.6 | -0.7 |
| EAK | | | | IAML | | 10 19 50.3 | |
| | comp=Z,52nm,0.5s | | | | | | |
| EAK | | | | *e*S | Sg | 10 20 07.2 | +0.2 |
| DIY | Diyarbakir | 2.20 | 250 | *e*Pn | Pb | 10 19 37.9 | -1.0 |
| DYBB | Diyarbakir | 2.24 | 252 | *e*PN | Pb | 10 19 37.9 | -1.8 |
| MAZI | Mazidag | 2.24 | 238 | *e*PN | Pb | 10 19 37.9 | -1.8 |
| MAZI | Mazidag | 2.24 | 238 | *e*Pn | Pb | 10 19 37.9 | -1.8 |
| KOPT | Kop Dagi | 2.26 | 307 | *e*P | Pb | 10 19 38.9 | -1.2 |
| KOPT | | | | *e*S | Sb | 10 20 09.2 | +1.3 |
| KOPT | | | | IAML | | 10 20 18.1 | |
| | comp=Z,52nm,0.6s | | | | | | |
| ERZN | Erzincan | 2.59 | 292 | *e*PN | Pn | 10 19 43.1 | +2.2 |
| TNCL | Tunceli-Merkez | 2.61 | 281 | *e*P | Pn | 10 19 42.5 | +1.3 |
| TNCL | | | | IAML | | 10 20 34.6 | |
| | comp=Z,16nm,0.6s | | | | | | |
| PTK | Pertek | 2.70 | 276 | *e*PN | Pn | 10 19 44.3 | +1.8 |
| PTK | Pertek | 2.70 | 276 | *e*Pn | Pn | 10 19 44.3 | +1.8 |
| SVRC | Sivrice-ELAZID | 2.78 | 265 | *e*PN | Pn | 10 19 45.9 | +2.3 |
| SVRC | Sivrice-ELAZID | 2.78 | 265 | *e*Pn | Pn | 10 19 45.9 | +2.3 |
| EZC | Erzincan | 2.91 | 293 | *e*Pn | Pn | 10 19 43.1 | -2.3 |
| URFA | Urfa | 3.40 | 250 | *e*PN | Pn | 10 19 54.9 | +2.9 |
| URFA | Urfa | 3.40 | 250 | *e*Pn | Pn | 10 19 54.9 | +2.9 |
| MALT | Malatya | 3.48 | 265 | *e*PN | Pn | 10 19 55.9 | +2.8 |
| MALT | Malatya | 3.48 | 265 | *e*Pn | Pn | 10 19 55.9 | +2.8 |
| RTB | Rutbah | 5.99 | 201 | *e*Pn | Pn | 10 20 27.0 | -0.6 |
| | SNR=3.0 | | | | | | |

*IDC **08** 10:22:39.9±5.6, 19.°94S×178.°12W, h555km±66km, mb3.4/10, mb1 3.6/11, mb1mx3.3/35, mbtmp4.3/11, Error ellipse: s-maj=31.3km s-min=26.4km az=154.0*
*ISCJB **08** 10:22:40.2±0.9, 19.°9S±0.°2×178.°2W±0.°2, h569km, mb3.8/10, Error ellipse: s-maj=27.6km s-min=17.2km az=29.6*
**ISC 08 10:22:41.0**±1.1**, 20.°0S**±0.°2×**178.°1W**±0.°2**, h569**km**, n14, σ0s77**/14**, mb3.8**/10**, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| URZ | Urewera | 18.70 | 192 | P | P | 10 26 24.4 | +0.3 |
| | 0.6nm,0.3s,baz=255,slow=1.9,SNR=5.4 | | | | | | |
| ASAR | Alice Springs | 44.53 | 256 | P | P | 10 30 03.0 | -0.1 |
| | 4.1nm,0.8s,baz=88,slow=7.7,SNR=47 | | | | | | |
| ASAR | | | | PcP | PcP | 10 31 33.6 | -0.3 |
| | 0.5nm,0.9s,baz=100,slow=4.5,SNR=4.6 | | | | | | |
| WRA | Warramunga Arr | 44.56 | 262 | P | P | 10 30 02.6 | -0.8 |
| | 1.7nm,0.5s,baz=97,slow=7.6,SNR=46 | | | | | | |
| FITZ | Fitzroy Crossi | 52.99 | 262 | P | P | 10 31 05.4 | -0.2 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| | 1.9nm,0.9s,baz=135,slow=8.6,SNR=4.2 | | | | | | |
| MJAR | Matsushiro Arr | 69.71 | 324 | P | P | 10 32 53.7 | -0.7 |
| | 1.5nm,0.5s,baz=157,slow=5.7,SNR=5.4 | | | | | | |
| PETK | Petropavlovsk- | 75.72 | 345 | P | P | 10 33 28.6 | +0.1 |
| | 3.0nm,0.7s,baz=111,slow=8.8,SNR=4.5 | | | | | | |
| USRK | Ussuriysk Ar. | 78.46 | 326 | P | P | 10 33 45.0 | +1.5 |
| | 3.3nm,0.8s,baz=139,slow=9.0,SNR=3.8 | | | | | | |
| SEY | Seymchan | 85.83 | 347 | P | P | 10 34 20.1 | -0.3 |
| | 3.3nm,0.8s,baz=149,slow=5.3,SNR=8.2 | | | | | | |
| ILAR | Eielson Array | 87.82 | 13 | P | P | 10 34 28.9 | -0.7 |
| | 1.6nm,0.8s,baz=218,slow=5.6,SNR=26 | | | | | | |
| PDAR | Pinedale Array | 88.65 | 43 | P | P | 10 34 34.7 | +0.3 |
| | 0.3nm,0.6s,baz=225,slow=4.0,SNR=3.6 | | | | | | |
| CMAR | Chiang Mai Arr | 89.83 | 290 | P | P | 10 34 41.3 | +1.2 |
| | 0.9nm,0.3s,baz=105,slow=2.7,SNR=5.8 | | | | | | |
| AKASG | Malin Array Be | 142.49 | 331 | PKhKP | PKPpre | 10 41 05.0 | |
| | 1.0nm,0.3s,baz=45,slow=4.7,SNR=9.9 | | | | | | |
| BRTR | Keskin Array B | 146.39 | 313 | PKPbc | PKPbc | 10 41 18.2 | -0.9 |
| | 0.9nm,0.5s,baz=123,slow=4.6,SNR=4.8 | | | | | | |
| GERES | GERESS Array B | 149.66 | 344 | PKPbc | PKPbc | 10 41 26.9 | -0.1 |
| | 1.0nm,0.8s,baz=69,slow=7.9,SNR=4.1 | | | | | | |

---

*IDC **08** 10:22:59.7±1.5, 36°.44N×140°.97E, h0km, mb3.2/2, mb1 3.4/3, mb1mx3.2/58, mbtmp3.0/3, ML2.4/1, Error ellipse: s-maj=35.5km s-min=26.7km az=155.0*
*ISCJB **08** 10:23:00.2±1.3, 36°.67N±0°.05×141°.08E±0°.08, h17km±9km, mb3.3/2, Error ellipse: s-maj=12.0km s-min=6.7km az=33.5*
*JMA **08** 10:23:01.6, 36°.71N×140°.97E, h31km±1km, M3.2*
*JMA Felt I J1.*
**ISC 08 10:23:01.9**±1.2**, 36°.71N**±0°.06×**140°.97E**±0°.10**, h21**km±3km**, n15, σ1s.46**/16**, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JHO | Hitachi | 0.34 | 254 | P | Pb | 10 23 09.5 | +0.4 |
| JHO | | | | S | Sb | 10 23 14.9 | +0.8 |
| ONAJ | Iwakimizuishiy | 0.42 | 341 | P | Pb | 10 23 10.4 | -0.2 |
| ONAJ | | | | S | Sb | 10 23 16.4 | -0.1 |
| JFK | Kawauchi | 0.66 | 353 | P | Pb | 10 23 13.8 | -1.1 |
| JFK | | | | S | Sb | 10 23 22.1 | -1.7 |
| JYT | Yasato | 0.79 | 233 | P | Pn | 10 23 16.2 | -1.6 |
| JYT | | | | S | Sb | 10 23 26.3 | -0.8 |
| JSB | Shiboa | 0.88 | 288 | P | Pb | 10 23 18.7 | +0.1 |
| JSB | | | | S | Sb | 10 23 30.6 | +0.7 |
| MJAR | Matsushiro Arr | 2.23 | 267 | Pn | Pn | 10 23 37.9 | +0.3 |
| | 1.2nm,0.3s,baz=87,slow=14,SNR=7.3 | | | | | | |
| MJAR | | | | Sn | Sb | 10 24 05.9 | -2.7 |
| | 1.7nm,0.3s,baz=79,slow=17,SNR=4.6 | | | | | | |
| MAT | Matsushiro | 2.23 | 267 | P | Pn | 10 23 38.1 | +0.4 |
| MAT | | | | S | Sb | 10 24 07.8 | -0.9 |
| H11N2 | WAKE ISLAND Hy | 28.29 | 120 | T | T | 10 58 24.7 | |
| | baz=313,slow=75,SNR=27 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 28.30 | 120 | T | T | 10 58 28.1 | |
| | baz=313,slow=75,SNR=24 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 28.31 | 120 | T | T | 10 58 29.3 | |
| | baz=313,slow=75,SNR=21 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 28.98 | 122 | T | T | 10 59 40.4 | |
| | baz=314,slow=76,SNR=15 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 28.98 | 122 | T | T | 10 59 40.5 | |
| | baz=314,slow=76,SNR=18 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 29.00 | 122 | T | T | 10 59 29.3 | |
| | baz=314,slow=76,SNR=16 | | | | | | |
| ILAR | Eielson Array | 49.96 | 32 | P | P | 10 31 56.7 | +2.7 |
| | 0.2nm,0.8s,baz=260,slow=6.3,SNR=3.3 | | | | | | |
| WRA | Warramunga Arr | 56.69 | 187 | P | P | 10 32 42.9 | -1.0 |
| | 0.2nm,0.5s,baz=4.4,slow=7.6,SNR=5.0 | | | | | | |

---

*ISK **08** 10:27:33.1, 38°.70N×42°.87E, h5km, MD2.9*
*ISCJB **08** 10:27:34.2±0.5, 38°.68N±0°.03×42°.83E±0°.03, h5km±5km, Error ellipse: s-maj=5.0km s-min=3.5km az=40.3*
*CSEM **08** 10:27:34.1±0.2, 38°.68N×42°.83E, h5km, ML2.8, Error ellipse: s-maj=4.2km s-min=3.6km az=32.0*
*DDA **08** 10:27:34.0, 38°.66N×42°.85E, h7km, Ml2.8*
**ISC 08 10:27:34.5**±0.9**, 38°.68N**±0°.03×**42°.85E**±0°.03**, h10**km±7km**, n29, σ0s.69**/51**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ADCV | BITLIS_Adilcev | 0.16 | 323 | i P | Pg | 10 27 38.2 | 0.0 |
| ADCV | | | | i S | Sg | 10 27 41.0 | +0.2 |
| ADCV | BITLIS_Adilcev | 0.16 | 323 | P | Pg | 10 27 38.2 | 0.0 |
| ADCV | | | | S | Sg | 10 27 41.0 | +0.2 |
| GEVA | Gevas | 0.40 | 156 | i P | Pg | 10 27 41.4 | -1.1 |
| GEVA | | | | i S | Sg | 10 27 47.8 | 0.0 |
| GEVA | Gevas | 0.40 | 156 | P | Pg | 10 27 41.4 | -1.1 |
| GEVA | | | | S | Sg | 10 27 47.8 | 0.0 |
| VANB | Van | 0.43 | 101 | ePG | Pg | 10 27 43.2 | +0.2 |
| VANB | | | | eSG | Sb | 10 27 50.4 | -0.4 |
| VANB | Van | 0.43 | 101 | ePg | Pg | 10 27 43.2 | +0.2 |
| VANB | | | | eSg | Sb | 10 27 50.4 | -0.4 |
| TVAN | Van | 0.46 | 109 | i P | Pg | 10 27 43.1 | -0.4 |
| TVAN | | | | i S | Sb | 10 27 51.2 | -0.6 |
| TVAN | Van | 0.46 | 109 | P | Pg | 10 27 43.1 | -0.4 |
| TVAN | | | | S | Sb | 10 27 51.2 | -0.6 |
| VMUR | Van-Muradiye | 0.64 | 61 | i P | Pg | 10 27 46.7 | -0.3 |
| VMUR | | | | i S | Sb | 10 27 56.8 | -0.3 |
| VMUR | Van-Muradiye | 0.64 | 61 | P | Pg | 10 27 46.7 | -0.3 |
| VMUR | | | | S | Sb | 10 27 56.8 | -0.3 |
| TUTA | Tutak | 0.72 | 358 | i P | Pg | 10 27 47.7 | -0.8 |
| TUTA | | | | i S | Sb | 10 27 58.9 | -0.5 |
| TUTA | Tutak | 0.72 | 358 | P | Pg | 10 27 47.7 | -0.8 |
| TUTA | | | | S | Sb | 10 27 58.9 | -0.5 |
| EKAR | Karacoban | 0.84 | 313 | i P | Pb | 10 27 51.2 | -0.1 |
| EKAR | | | | i S | Sb | 10 28 02.1 | -0.7 |
| EKAR | Karacoban | 0.84 | 313 | P | Pb | 10 27 51.2 | -0.1 |
| EKAR | | | | S | Sb | 10 28 02.1 | -0.7 |
| AGRB | Hanur-Agry | 0.90 | 7 | ePG | Pg | 10 27 51.1 | -0.8 |
| AGRB | | | | eSG | Sb | 10 28 04.2 | -0.3 |
| AGRB | Hanur-Agry | 0.90 | 7 | ePg | Pg | 10 27 51.1 | -0.8 |
| AGRB | | | | eSg | Sb | 10 28 04.2 | -0.3 |
| CLDR | Caldiran | 0.95 | 61 | ePG | Pg | 10 27 52.0 | -0.8 |
| CLDR | | | | eSG | Sb | 10 28 05.9 | -0.1 |
| CLDR | Caldiran | 0.95 | 61 | i P | Pg | 10 27 52.1 | -0.8 |
| CLDR | | | | i S | Sb | 10 28 06.8 | +0.8 |
| CLDR | Caldiran | 0.95 | 61 | P | Pg | 10 27 52.1 | -0.8 |
| CLDR | | | | eSg | Sb | 10 28 05.9 | -0.1 |
| CLDR | | | | S | Sb | 10 28 06.8 | +0.8 |
| VRTB | Varto-Mus | 1.19 | 294 | ePN | Pg | 10 27 56.7 | -0.7 |
| VRTB | | | | eSN | Sn | 10 28 14.6 | +0.9 |
| VRTB | Varto-Mus | 1.19 | 294 | ePn | Pg | 10 27 56.7 | -0.7 |
| VRTB | | | | eSn | Sn | 10 28 14.6 | +0.9 |
| SIRT | Sirnak | 1.22 | 196 | ePN | Pn | 10 27 57.9 | +0.2 |
| SIRT | Sirnak | 1.22 | 196 | ePn | Pn | 10 27 57.9 | +0.2 |
| CUKT | Cukurca | 1.55 | 157 | ePN | Pb | 10 28 03.2 | -0.1 |
| CUKT | Cukurca | 1.55 | 157 | ePn | Pb | 10 28 03.2 | -0.1 |
| BNGB | Bingˆ¶l | 1.72 | 281 | ePN | Pn | 10 28 05.2 | +0.5 |
| BINT | Bingol | 1.86 | 277 | ePn | Pn | 10 28 05.2 | -1.3 |
| MAZI | Mazidag | 2.25 | 238 | ePN | Pn | 10 28 13.6 | +1.7 |
| MAZI | Mazidag | 2.25 | 238 | ePn | Pn | 10 28 13.6 | +1.7 |

---

*IDC **08** 10:33:32.6±0.9, 51°.35N×160°.98E, h0km, mb3.8/7, mb1 4.0/9, mb1mx3.7/65, mbtmp3.8/9, ML3.6/2, MS2.5/1, Ms1 2.5/1, ms1mx2.2/39, Error ellipse: s-maj=22.4km s-min=20.9km az=177.0*
*KRSC **08** 10:33:33.1±2.0, 51°.44N×161°.18E, h80km±34km, ML4.3*
*ISCJB **08** 10:33:35.6±0.6, 51°.46N±0°.04×161°.12E±0°.06, h35km, mb3.7/7, Error ellipse: s-maj=5.5km s-min=4.8km az=42.4*
*MOS **08** 10:33:38.1±0.8, 51°.58N×160°.87E, h67km, mb4.0/4, Error ellipse: s-maj=14.3km s-min=5.1km az=109.8*
**ISC 08 10:33:36.9**±0.8**, 51°.40N**±0°.05×**161°.20E**±0°.05**, h35**km**, n67, σ1s.87**/100**, mb3.8**/7**, Off east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SPN | Mys Shipunski | 1.85 | 337 | PN | Pn | 10 34 03.6 | -2.4 |
| SPN | | | | S | Sn | 10 34 24.4 | -3.7 |
| SPN | Mys Shipunski | 1.85 | 337 | eP | Pn | 10 34 03.6 | -2.4 |
| SPN | | | | eS | Sn | 10 34 24.4 | -3.7 |
| RUS | Russkaya | 1.96 | 303 | PN | Pn | 10 34 05.9 | -1.6 |
| RUS | | | | S | Sn | 10 34 28.8 | -2.1 |
| RUS | Russkaya | 1.96 | 303 | eP | Pn | 10 34 05.9 | -1.6 |
| RUS | | | | eS | Sn | 10 34 28.8 | -2.1 |
| KDTR | Khodutka, Kamc | 1.99 | 283 | eP | Pn | 10 34 06.1 | -1.8 |
| KDTR | | | | eS | Sn | 10 34 28.8 | -2.8 |
| NLC | Nalytchevo | 2.11 | 328 | PN | Pn | 10 34 08.1 | -1.5 |
| NLC | | | | S | Sn | 10 34 32.5 | -2.0 |
| NLC | Nalytchevo | 2.11 | 328 | eP | Pn | 10 34 08.1 | -1.5 |
| NLC | | | | eS | Sn | 10 34 32.5 | -2.0 |
| MTVR | Mutnovka | 2.16 | 301 | PN | Pn | 10 34 09.0 | -1.4 |
| MTVR | | | | S | Sn | 10 34 34.3 | -1.7 |
| MTVR | Mutnovka | 2.16 | 301 | eP | Pn | 10 34 09.0 | -1.4 |
| MTVR | | | | eS | Sn | 10 34 34.3 | -1.7 |
| DALK | Dalny | 2.22 | 318 | PN | Pn | 10 34 09.9 | -1.2 |
| DALK | | | | S | Sn | 10 34 35.7 | -1.6 |
| DALK | Dalny | 2.22 | 318 | eP | Pn | 10 34 09.9 | -1.2 |
| DALK | | | | eS | Sn | 10 34 35.7 | -1.6 |
| GRL | Gorelyy | 2.25 | 302 | PN | Pn | 10 34 10.8 | -0.9 |
| GRL | Gorelyy | 2.25 | 302 | eP | Pn | 10 34 10.8 | -0.9 |
| PET | Petropavlovsk | 2.26 | 317 | ePN | Pn | 10 34 10.5 | -1.1 |
| PET | | | | eS | Sn | 10 34 36.8 | -1.4 |
| PET | | | | pmax | pmax | | |
| | comp=Z,171nm,0.5s | | | | | | |
| PET | | | | smax | smax | | |
| | comp=N,263nm,0.8s | | | | | | |
| PET | | | | smax | smax | | |
| | comp=E,181nm,0.6s | | | | | | |
| PET | Petropavlovsk | 2.26 | 317 | eP | Pn | 10 34 10.3 | -1.3 |
| PET | | | | eS | Sn | 10 34 36.8 | -1.4 |
| ASAK | Asacha | 2.27 | 297 | PN | Pn | 10 34 11.0 | -0.9 |
| ASAK | | | | S | Sn | 10 34 37.3 | -1.4 |
| ASAK | Asacha | 2.27 | 297 | eP | Pn | 10 34 11.0 | -0.9 |
| ASAK | | | | eS | Sn | 10 34 37.3 | -1.4 |
| UGLR | Uglovaya | 2.33 | 322 | PN | Pn | 10 34 11.7 | -1.0 |
| UGLR | | | | S | Sn | 10 34 38.6 | -1.5 |
| UGLR | Uglovaya | 2.33 | 322 | eP | Pn | 10 34 11.7 | -1.0 |
| UGLR | | | | eS | Sn | 10 34 38.6 | -1.5 |
| SDLR | Sedlovina | 2.36 | 324 | PN | Pn | 10 34 12.1 | -1.0 |
| SDLR | | | | S | Sn | 10 34 39.5 | -1.4 |
| SDLR | Sedlovina | 2.36 | 324 | eP | Pn | 10 34 12.1 | -1.0 |
| SDLR | | | | eS | Sn | 10 34 39.5 | -1.4 |
| KRMR | Karymshinskiy | 2.37 | 308 | PN | Pn | 10 34 11.9 | -1.3 |
| KRMR | | | | S | Sn | 10 34 39.0 | -2.1 |
| KRMR | Karymshinskiy | 2.37 | 308 | eP | Pn | 10 34 11.9 | -1.3 |
| KRMR | | | | eS | Sn | 10 34 39.0 | -2.1 |
| AVH | Avacha | 2.40 | 322 | PN | Pn | 10 34 12.9 | -0.8 |
| AVH | | | | S | Sn | 10 34 41.1 | -0.8 |
| AVH | Avacha | 2.40 | 322 | eP | Pn | 10 34 12.9 | -0.8 |
| AVH | | | | eS | Sn | 10 34 41.1 | -0.8 |
| KRER | Koryakskii | 2.43 | 323 | PN | Pn | 10 34 13.0 | -1.2 |
| KRER | Koryakskii | 2.43 | 323 | eP | Pn | 10 34 13.0 | -1.2 |
| KOK | Koryaka | 2.46 | 321 | PN | Pn | 10 34 13.3 | -1.3 |
| KOK | Koryaka | 2.46 | 321 | eP | Pn | 10 34 13.3 | -1.3 |
| KRX | Arik | 2.51 | 322 | PN | Pn | 10 34 14.4 | -0.8 |
| KRX | Arik | 2.51 | 322 | eP | Pn | 10 34 14.4 | -0.8 |
| PETK | Petropavlovsk- | 2.75 | 310 | Pn | Pn | 10 34 17.8 | -0.6 |
| | comp=E,35nm,0.3s,baz=112,slow=18,SNR=573 | | | | | | |
| PETK | | | | Sn | Sn | 10 34 50.3 | -0.1 |
| | comp=E,12nm,0.3s,baz=311,slow=50,SNR=6.4 | | | | | | |
| PETK | | | | LR | LR | 10 35 45.5 | |
| | comp=E,90nm,18.5s,baz=122,slow=50 | | | | | | |
| KII | Karymskiy | 2.85 | 339 | PN | Pn | 10 34 18.5 | -1.3 |
| KII | | | | S | Sn | 10 34 50.3 | -2.6 |
| KII | Karymskiy | 2.85 | 339 | eP | Pn | 10 34 18.5 | -1.3 |
| KII | | | | eS | Sn | 10 34 50.3 | -2.6 |
| APC | Apacha | 2.92 | 303 | PN | Pn | 10 34 19.6 | -1.1 |
| APC | | | | S | Sn | 10 34 51.7 | -2.8 |
| APC | Apacha | 2.92 | 303 | eP | Pn | 10 34 19.6 | -1.1 |
| APC | | | | eS | Sn | 10 34 51.7 | -2.8 |
| GNL | Ganaly | 3.04 | 320 | PN | Pn | 10 34 22.5 | 0.0 |
| GNL | | | | S | Sn | 10 34 56.0 | -1.7 |
| GNL | Ganaly | 3.04 | 320 | eP | Pn | 10 34 22.5 | 0.0 |
| GNL | | | | eS | Sn | 10 34 56.0 | -1.7 |
| SKR | Severo-Kuril's | 3.29 | 259 | ePN | Pn | 10 34 24.0 | -1.8 |
| SKR | | | | i S | Sn | 10 34 59.9 | -3.7 |
| SKR | | | | pmax | pmax | | |
| | comp=Z,62nm,0.5s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=E,454nm,0.3s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=N,684nm,0.5s | | | | | | |
| SKR | Severo-Kuril's | 3.29 | 259 | eP | Pn | 10 34 23.8 | -2.0 |
| SKR | | | | eS | Sn | 10 35 00.1 | -3.5 |
| TUMR | Tumrok | 3.94 | 351 | PN | Pn | 10 34 34.6 | -0.3 |
| TUMR | | | | S | Sn | 10 35 18.2 | -1.7 |
| TUMR | Tumrok | 3.94 | 351 | eP | Pn | 10 34 34.6 | -0.3 |
| TUMR | | | | eS | Sn | 10 35 18.2 | -1.7 |
| KMNR | Kamenistaya | 4.40 | 353 | PN | Pn | 10 34 41.7 | +0.5 |
| KMNR | Kamenistaya | 4.40 | 353 | eP | Pn | 10 34 41.7 | +0.5 |
| KPT | Kopyto | 4.61 | 353 | PN | Pn | 10 34 44.4 | +0.3 |
| KPT | Kopyto | 4.61 | 353 | eP | Pn | 10 34 44.4 | +0.3 |
| KOZ | Kozyrevsk | 4.73 | 351 | PN | Pn | 10 34 45.9 | +0.2 |
| KOZ | Kozyrevsk | 4.73 | 351 | eP | Pn | 10 34 45.9 | +0.2 |
| BKI | Bering | 4.76 | 35 | PN | Pn | 10 34 43.6 | -2.4 |
| BKI | Bering | 4.76 | 35 | eP | Pn | 10 34 43.6 | -2.4 |
| BKI | | | | eS | Sn | 10 35 33.9 | -6.1 |
| ESO | Esso | 4.77 | 343 | PN | Pn | 10 34 44.8 | -1.4 |
| ESO | Esso | 4.77 | 343 | eP | Pn | 10 34 44.8 | -1.4 |
| KBTR | Krutoberegovo | 4.91 | 11 | PN | Pn | 10 34 46.6 | -1.5 |
| KBTR | | | | S | Sn | 10 35 39.5 | -4.1 |
| KBTR | Krutoberegovo | 4.91 | 11 | eP | Pn | 10 34 46.6 | -1.5 |
| KBTR | | | | eS | Sn | 10 35 39.5 | -4.1 |
| KLY | Klyuchi | 4.93 | 356 | eS | Sn | 10 35 43.5 | -0.6 |
| ASAJ | Asahikawa | 14.46 | 247 | Pn | Pn | 10 36 57.7 | -1.1 |
| | comp=N,0.5nm,0.3s,baz=49,slow=15,SNR=5.3 | | | | | | |
| TIXI | Tiksi | 24.91 | 336 | P | P | 10 38 55.5 | -0.5 |
| | comp=N,2.0nm,0.5s,baz=120,slow=9.7,SNR=7.3 | | | | | | |
| ILAR | Eielson Array | 29.56 | 43 | eP | P | 10 39 48.7 | +11 |
| H11N2 | WAKE ISLAND Hy | 31.92 | 170 | T | T | 11 13 34.7 | |
| | baz=354,slow=76,SNR=5.1 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 31.94 | 170 | T | T | 11 13 40.1 | |
| | baz=354,slow=76,SNR=6.1 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 31.94 | 170 | T | T | 11 13 36.7 | |
| | baz=354,slow=76,SNR=6.6 | | | | | | |
| INK | Inuvik | 34.81 | 36 | P | P | 10 40 27.0 | +3.3 |
| | comp=N,1.2nm,0.9s,baz=288,slow=3.2,SNR=3.0 | | | | | | |
| MKAR | Makanchi Array | 49.52 | 298 | P | P | 10 42 23.8 | +0.1 |
| | comp=N,0.3nm,0.5s,baz=57,slow=8.3,SNR=3.9 | | | | | | |
| PDAR | Pinedale Array | 57.76 | 61 | P | P | 10 43 27.8 | +3.4 |
| | comp=N,0.3nm,0.6s,baz=310,slow=5.6,SNR=4.5 | | | | | | |
| TXAR | Lajitas Array | 70.67 | 67 | P | P | 10 44 49.6 | +0.6 |
| | comp=N,0.4nm,0.5s,baz=298,slow=4.6,SNR=9.8 | | | | | | |
| WRA | Warramunga Arr | 74.84 | 206 | P | P | 10 45 13.9 | +0.4 |
| | comp=N,1.6nm,0.9s,baz=28,slow=6.1,SNR=3.4 | | | | | | |
| ASAR | Alice Springs | 78.51 | 205 | P | P | 10 45 35.1 | +0.9 |
| | comp=N,0.5nm,0.5s,baz=24,slow=5.4,SNR=5.4 | | | | | | |

---

*ISCJB **08** 10:34:31.6±0.8, 6°.1S±0°.1×154°.8E±0°.1, h200km, mb4.0/10, Error ellipse: s-maj=15.3km s-min=15.1km az=0.9*
*IDC **08** 10:34:32.5±3.8, 6°.06S×154°.82E, h195km±35km, mb3.7/10, mb1 3.8/13, mb1mx3.6/42, mbtmp4.3/13, Error ellipse: s-maj=19.6km s-min=14.9km az=42.0*
**ISC 08 10:34:32.8**±0.8**, 6°.1S**±0°.1×**154°.9E**±0°.1**, h200**km**, n14, σ1s.12**/15**, mb4.0**/10**, Bougainville-Solomon Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PMG | Port Moresby | 8.37 | 246 | P | Pn | 10 36 29.4 | -1.5 |
| | 0.7nm,0.3s,baz=19,slow=11,SNR=4.4 | | | | | | |
| PMG | | | | S | Sn | 10 38 07.6 | +2.4 |
| | baz=16,slow=22,SNR=3.1 | | | | | | |
| CTA | Charters Tower | 16.29 | 210 | P | Pn | 10 38 11.1 | +0.4 |
| | 0.3nm,0.3s,baz=30,slow=12,SNR=6.7 | | | | | | |
| DZM | Mont Dzumac | 19.44 | 146 | P | P | 10 38 44.6 | +0.2 |
| | 8.4nm,0.3s,baz=265,slow=9.1,SNR=97 | | | | | | |
| WRA | Warramunga Arr | 24.29 | 233 | P | P | 10 39 31.9 | -0.3 |
| | 11nm,0.5s,baz=57,slow=10.0,SNR=226 | | | | | | |
| ASAR | Alice Springs | 26.74 | 227 | P | P | 10 39 53.2 | -0.9 |
| | 1.3nm,0.5s,baz=57,slow=9.2,SNR=34 | | | | | | |
| STKA | Stephens Creek | 28.55 | 204 | P | P | 10 40 09.7 | -0.4 |
| | 1.0nm,0.6s,baz=11,slow=11,SNR=2.6 | | | | | | |
| FITZ | Fitzroy Crossi | 30.96 | 245 | P | P | 10 40 30.2 | -1.3 |
| | 7.4nm,0.8s,baz=64,slow=8.1,SNR=14 | | | | | | |
| URZ | Urewera | 37.87 | 151 | P | P | 10 41 30.9 | +0.5 |
| | 8.0nm,0.7s,baz=262,slow=6.5,SNR=8.1 | | | | | | |
| RPZ | Rata Peaks | 40.11 | 162 | P | P | 10 41 49.8 | +0.8 |
| | 13nm,0.6s,baz=323,slow=2.0,SNR=13 | | | | | | |
| SONM | Songino Array | 68.50 | 327 | P | P | 10 45 15.0 | +1.3 |
| | 0.2nm,0.4s,baz=156,slow=5.6,SNR=3.0 | | | | | | |
| ILAR | Eielson Array | 82.54 | 22 | P | P | 10 46 32.4 | -0.5 |
| | 0.2nm,0.4s,baz=236,slow=4.9,SNR=10 | | | | | | |
| MKAR | Makanchi Array | 82.65 | 319 | P | P | 10 46 34.5 | +0.5 |
| | 1.2nm,0.8s,baz=98,slow=6.5,SNR=4.7 | | | | | | |
| MAW | Mawson | 85.23 | 203 | P | P | 10 46 46.9 | +0.4 |
| | 2.1nm,0.5s,baz=93,slow=2.4,SNR=6.1 | | | | | | |
| TORD | Torodi Ar. Bea | 152.68 | 287 | PKPbc | PKPbc | 10 54 06.1 | -0.8 |
| | 0.2nm,0.3s,baz=69,slow=2.2,SNR=4.2 | | | | | | |

---

**IDC 08 10:34:42.9**±809.0**, 53°.46N**×**33°.90E, h0**km**, Error ellipse: s-maj=315.4km s-min=76.7km az=32.0, Baltic States-Belarus-Northwestern Russia**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| I43RU | DUBNA INFRASON | 3.79 | 29 | i | | 10 59 20.0 | |
| | baz=212,slow=378,SNR=1.2 | | | | | | |
| I31KZ | AKTYUBINSK INF | 15.18 | 92 | i | | 12 03 40.0 | |
| | baz=291,slow=380,SNR=1.3 | | | | | | |
| I34MN | SONGINO INFRAS | 44.51 | 67 | i | | 15 08 20.0 | |
| | baz=309,slow=366,SNR=0.2 | | | | | | |

---

**IDC 08 10:35:39.6**±999.0**, 46°.63N**×**45°.66E, h0**km**, Error ellipse: s-maj=6840.0km s-min=186.5km az=61.0, Ukraine-Moldova-Southwestern Russia region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| I31KZ | AKTYUBINSK INF | 9.04 | 61 | i | | 11 26 10.0 | |
| | baz=249,slow=316,SNR=18 | | | | | | |
| I46RU | ZALESOVO INFRA | 25.80 | 59 | i | | 13 13 25.0 | |
| | baz=272,slow=324,SNR=5.4 | | | | | | |
| I34MN | SONGINO INFRAS | 40.34 | 65 | i | | 14 43 50.0 | |
| | baz=291,slow=341,SNR=1.5 | | | | | | |
| I45RU | USSURIYSK INFR | 57.64 | 58 | i | | 16 32 30.0 | |
| | baz=307,slow=326,SNR=1.2 | | | | | | |

---

*ISK **08** 10:35:48.6, 38°.76N×43°.22E, h5km, ML3.3*
*ISCJB **08** 10:35:49.9±0.4, 38°.78N±0°.02×43°.18E±0°.03, h3km±5km, Error ellipse: s-maj=4.3km s-min=3.1km az=178.7*
*CSEM **08** 10:35:49.5±0.2, 38°.77N×43°.19E, h2km, ML3.3, Error ellipse: s-maj=3.8km s-min=3.0km az=111.0*
*DDA **08** 10:35:49.2, 38°.77N×43°.19E, h7km, Ml3.5*
**ISC 08 10:35:49.6**±0.9**, 38°.78N**±0°.02×**43°.24E**±0°.02**, h14**km±7km**, n47, σ0s.89**/79**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.22 | 148 | PG | Pb | 10 35 55.8 | +0.4 |
| VANB | | | | eSG | Sb | 10 36 00.5 | +1.2 |
| VANB | Van | 0.22 | 148 | i Pg | Pb | 10 35 55.8 | +0.4 |
| ERCV | ERCIS-VAN | 0.25 | 17 | PG | Pb | 10 35 55.5 | -0.6 |
| ERCV | | | | eSG | Sb | 10 36 00.6 | +0.3 |
| ERCV | ERCIS-VAN | 0.25 | 17 | i Pg | Pb | 10 35 55.5 | -0.6 |
| ERCV | | | | eSg | Sb | 10 36 00.6 | +0.3 |
| TVAN | Van | 0.28 | 153 | i P | Pg | 10 35 55.7 | +0.1 |
| TVAN | | | | i S | Sg | 10 36 00.5 | +0.7 |
| TVAN | Van | 0.28 | 153 | P | Pg | 10 35 55.7 | +0.1 |
| TVAN | | | | S | Sg | 10 36 00.5 | +0.7 |
| VMUR | Van-Muradiye | 0.33 | 51 | i P | Pb | 10 35 57.4 | 0.0 |
| VMUR | | | | i S | Sb | 10 36 03.4 | +0.7 |
| VMUR | Van-Muradiye | 0.33 | 51 | P | Pb | 10 35 57.4 | 0.0 |
| VMUR | | | | S | Sb | 10 36 03.4 | +0.7 |
| ADCV | BITLIS_Adilcev | 0.41 | 274 | i P | Pg | 10 35 57.3 | -0.5 |
| ADCV | | | | i S | Sg | 10 36 03.6 | +0.3 |
| ADCV | BITLIS_Adilcev | 0.41 | 274 | P | Pg | 10 35 57.3 | -0.5 |
| ADCV | | | | S | Sg | 10 36 03.7 | +0.3 |
| GEVA | Gevas | 0.49 | 197 | i P | Pg | 10 35 58.1 | -1.2 |
| GEVA | | | | i S | Sg | 10 36 05.1 | -0.8 |
| GEVA | Gevas | 0.49 | 197 | P | Pg | 10 35 58.1 | -1.2 |
| GEVA | | | | S | Sg | 10 36 05.1 | -0.8 |
| CLDR | Caldiran | 0.64 | 55 | ePG | Pg | 10 36 02.3 | +0.1 |
| CLDR | | | | eSG | Sn | 10 36 13.0 | -1.5 |
| CLDR | Caldiran | 0.64 | 55 | i P | Pg | 10 36 02.0 | -0.2 |
| CLDR | | | | i S | Sb | 10 36 12.3 | +0.8 |
| CLDR | Caldiran | 0.64 | 55 | P | Pg | 10 36 02.0 | -0.2 |
| CLDR | Caldiran | 0.64 | 55 | ePg | Pg | 10 36 02.3 | +0.1 |
| CLDR | | | | S | Sb | 10 36 12.4 | +0.8 |
| CLDR | | | | eSg | Sn | 10 36 13.0 | -1.5 |
| TUTA | Tutak | 0.70 | 332 | i P | Pg | 10 36 03.0 | -0.4 |
| TUTA | | | | i S | Sg | 10 36 12.3 | -0.4 |
| TUTA | Tutak | 0.70 | 332 | P | Pg | 10 36 03.0 | -0.4 |
| TUTA | | | | S | Sg | 10 36 12.3 | -0.4 |
| AGRB | Hanur-Agry | 0.82 | 346 | ePG | Pg | 10 36 05.1 | -0.4 |
| AGRB | Hanur-Agry | 0.82 | 346 | ePg | Pg | 10 36 05.1 | -0.4 |
| DYDN | Diyadin | 0.84 | 24 | i P | Pg | 10 36 06.0 | +0.1 |
| DYDN | | | | i S | Sn | 10 36 18.1 | -1.4 |
| DYDN | Diyadin | 0.84 | 24 | P | Pg | 10 36 06.0 | +0.1 |
| DYDN | | | | S | Sn | 10 36 18.1 | -1.4 |
| EKAR | Karacoban | 1.03 | 298 | i P | Pg | 10 36 09.5 | -0.1 |
| EKAR | | | | i S | Sn | 10 36 26.6 | +2.4 |
| EKAR | Karacoban | 1.03 | 298 | P | Pg | 10 36 09.5 | -0.1 |
| EKAR | | | | S | Sn | 10 36 26.6 | +2.4 |
| EATA | Eleskirt | 1.23 | 332 | i P | Pn | 10 36 11.8 | -0.8 |
| EATA | | | | i S | Sg | 10 36 30.1 | +0.8 |
| EATA | Eleskirt | 1.23 | 332 | P | Pn | 10 36 11.8 | -0.8 |
| EATA | | | | S | Sg | 10 36 30.1 | +0.8 |
| HAKT | HAKKARI | 1.27 | 163 | i P | Pn | 10 36 11.7 | -1.5 |
| HAKT | | | | i S | Sg | 10 36 32.2 | +1.4 |
| HAKT | HAKKARI | 1.27 | 163 | P | Pn | 10 36 11.7 | -1.5 |
| HAKT | | | | S | Sg | 10 36 32.2 | +1.4 |
| SRTM | Siirt_Merkez | 1.30 | 233 | i P | Pn | 10 36 13.5 | +0.1 |
| SRTM | | | | i S | Sn | 10 36 30.5 | -0.2 |
| SRTM | Siirt_Merkez | 1.30 | 233 | P | Pn | 10 36 13.5 | +0.1 |
| SRTM | | | | S | Sn | 10 36 30.5 | -0.2 |
| SIRT | Sirnak | 1.43 | 207 | ePN | Pb | 10 36 16.3 | +0.3 |
| SIRT | | | | eSN | Sg | 10 36 36.4 | +0.9 |
| SIRT | Sirnak | 1.43 | 207 | ePn | Pb | 10 36 16.3 | +0.3 |
| SIRT | | | | eSn | Sg | 10 36 36.4 | +0.9 |
| VRTB | Varto-Mus | 1.44 | 286 | ePN | Pb | 10 36 16.1 | -0.2 |
| VRTB | Varto-Mus | 1.44 | 286 | ePn | Pb | 10 36 16.1 | -0.2 |
| CUKT | Cukurca | 1.56 | 169 | ePN | Pb | 10 36 17.9 | -0.4 |
| CUKT | Cukurca | 1.56 | 169 | ePn | Pb | 10 36 17.9 | -0.4 |
| HOMI | Horasan | 1.63 | 321 | i P | Pb | 10 36 19.5 | -0.2 |
| HOMI | | | | i S | Sg | 10 36 44.0 | +1.8 |
| BTMN | Batman | 1.79 | 241 | i P | Pb | 10 36 21.1 | -1.1 |
| BTMN | | | | i S | Sb | 10 36 43.8 | -0.6 |
| BTMN | Batman | 1.79 | 241 | P | Pb | 10 36 21.1 | -1.1 |
| BTMN | | | | S | Sb | 10 36 43.8 | -0.6 |
| KARS | Kars | 1.85 | 356 | ePN | Pb | 10 36 23.1 | -0.2 |
| KARS | Kars | 1.85 | 356 | ePn | Pb | 10 36 23.1 | -0.2 |
| SENK | Senkaya-Erzuru | 1.91 | 339 | ePN | Pb | 10 36 24.6 | +0.3 |
| SENK | Senkaya-Erzuru | 1.91 | 339 | ePn | Pb | 10 36 24.6 | +0.3 |
| BNGB | Bingˆ¶l | 2.01 | 277 | ePN | Pb | 10 36 25.1 | -0.9 |
| BINT | Bingol | 2.15 | 273 | ePn | Pn | 10 36 25.1 | -0.1 |
| MAZI | Mazidag | 2.57 | 240 | ePN | Pn | 10 36 32.8 | +1.9 |
| MAZI | Mazidag | 2.57 | 240 | ePn | Pn | 10 36 32.8 | +1.9 |

---

*IDC **08** 10:36:27.0±2.1, 0°.37S×132°.25E, h0km, mb4.0/3, mb1 4.1/5, mb1mx3.7/42, mbtmp3.9/5, ML4.1/2, MS2.7/1, Ms1 2.7/1, ms1mx2.3/30, Error ellipse: s-maj=89.5km s-min=25.4km az=74.0*
*ISCJB **08** 10:36:30.1±0.9, 0°.29S±0°.06×132°.28E±0°.05, h33km, mb4.0/3, Error ellipse: s-maj=9.2km s-min=6.5km az=6.5*
*DJA **08** 10:36:32.3±1.0, 0°S±4°×13°2E±°, h30km±10km, M4.5/11, mb4.6/4, MLv4.4/11*
**ISC 08 10:36:31.9**±1.2**, 0°.31S**±0°.09×**132°.30E**±0°.05**, h33**km**, n17, σ1s.00**/21**, mb4.0**/3**, Irian Jaya region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RKPI | Ransiki, Papua | 2.22 | 123 | P | Pn | 10 37 06.7 | +0.3 |
| RKPI | | | | S | Sb | 10 37 39.6 | +1.0 |
| FAKI | Fak Fak | 2.59 | 181 | P | Pn | 10 37 11.2 | -0.4 |
| FAKI | | | | S | Sn | 10 37 42.9 | +0.9 |
| KMPI | Kaimana, Papua | 3.61 | 157 | P | Pn | 10 37 25.5 | -0.1 |
| MSAI | Masohi | 4.53 | 228 | P | Pn | 10 37 39.4 | +1.3 |
| MSAI | | | | S | Sn | 10 38 28.2 | -1.5 |
| LBMI | Labuha | 4.81 | 266 | P | Pn | 10 37 41.6 | -0.5 |
| LBMI | | | | S | Sn | 10 38 37.5 | +0.7 |
| BNDI | Bandanaira | 4.82 | 210 | P | Pn | 10 37 42.0 | -0.2 |
| BNDI | | | | S | Sn | 10 38 38.4 | +1.4 |
| AAI | Ambon | 5.30 | 231 | P | Pn | 10 37 48.8 | 0.0 |
| | 83nm,0.7s,0.3nm | | | | | | |
| AAI | | | | S | Sn | 10 38 49.9 | +1.1 |
| | 83nm,0.7s,0.3nm | | | | | | |
| NLAI | Namlea | 5.96 | 241 | P | Pn | 10 37 58.4 | +0.5 |
| | 24nm,0.6s,0.1nm | | | | | | |
| NLAI | | | | S | Sn | 10 39 05.7 | +0.7 |
| | 24nm,0.6s,0.1nm | | | | | | |
| SANI | Sanana | 6.55 | 255 | P | Pn | 10 38 06.7 | +0.8 |
| FITZ | Fitzroy Crossi | 18.86 | 200 | P | P | 10 40 47.4 | -2.0 |
| | 0.4nm,0.3s,baz=37,slow=12,SNR=4.1 | | | | | | |
| FITZ | | | | LR | LR | 10 49 06.8 | |
| | comp=Z,22nm,18.1s,baz=116,slow=40 | | | | | | |
| WRA | Warramunga Arr | 19.61 | 174 | P | P | 10 40 56.3 | -1.3 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| | 0.6nm,0.3s,baz=354,slow=11,SNR=5.3 | | | | | | |
| **ASAR** | **Alice Springs** | **23.27** | **176** | P | **P** | **10 41 35.8** | **-1.0** |
| | 4.8nm,0.7s,baz=357,slow=10,SNR=18 | | | | | | |
| **STKA** | **Stephens Creek** | **32.61** | **165** | P | **P** | **10 43 00.9** | **+0.3** |
| | 1.5nm,0.8s,baz=357,slow=9.9,SNR=3.6 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **39.30** | **58** | T | T | 11 25 41.0 | |
| | baz=246,slow=75,SNR=11 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **39.32** | **58** | T | T | 11 25 42.6 | |
| | baz=246,slow=75,SNR=9.7 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **39.32** | **58** | T | T | 11 25 42.4 | |
| | baz=246,slow=75,SNR=14 | | | | | | |
| **MKAR** | **Makanchi Array** | **64.05** | **324** | P | **P** | **10 47 02.7** | **+0.2** |
| | 0.9nm,0.6s,baz=118,slow=7.0,SNR=4.4 | | | | | | |

---

*ISCJB **08** 10:38:45.1±0.7, 50°.25N±0°.05×19°.20E±0°.03, h0km, Error ellipse: s-maj=6.6km s-min=2.7km az=11.1*
*CSEM **08** 10:38:45.9±0.4, 50°.27N×19°.24E, h2km, ML2.7/5, Error ellipse: s-maj=9.6km s-min=3.7km az=9.0*
*PRU **08** 10:38:47.0, 50°.23N×19°.22E, h0km*
**ISC 08 10:38:46.5**±0.8**, 50°.16N**±0°.04×**19°.25E**±0°.02**, h0km, n26, σ0s.69**/43**, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OJC** | **Ojcow** | **0.36** | **80** | *e*Pg | **Pg** | **10 38 52.6** | **-0.7** |
| OJC | | | | *e*Sg | **Sg** | **10 38 57.3** | **-0.7** |
| **OJC** | **Ojcow** | **0.36** | **80** | *e*Pg | **Pg** | **10 38 52.6** | **-0.7** |
| OJC | | | | *e*Sg | **Sg** | **10 38 57.3** | **-0.7** |
| **OKC** | **Ostrava-Krasne** | **0.78** | **246** | *e*PG | **Pb** | **10 39 02.7** | **-0.2** |
| OKC | | | | *e*SG | **Sg** | **10 39 12.6** | **+1.1** |
| | comp=Z,12nm,0.4s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **0.78** | **246** | Pg | **Pb** | **10 39 02.7** | **-0.2** |
| OKC | | | | Sg | **Sg** | **10 39 12.6** | **+1.1** |
| | 12nm,0.4s | | | | | | |
| **NIE** | **Niedzica** | **1.00** | **137** | *e*Pg | **Pb** | **10 39 07.1** | **+0.3** |
| NIE | | | | *e*Sg | **Sn** | **10 39 22.6** | **-0.1** |
| **NIE** | **Niedzica** | **1.00** | **137** | *e*Pg | **Pb** | **10 39 07.1** | **+0.3** |
| NIE | | | | *e*Sg | **Sn** | **10 39 22.6** | **-0.1** |
| **LANS** | **Liptovska Anna** | **1.02** | **172** | *e*Pg | **Pb** | **10 39 06.7** | **-0.3** |
| LANS | | | | *e*Sg | **Sb** | **10 39 21.2** | **+0.3** |
| **LANS** | **Liptovska Anna** | **1.02** | **172** | *e*PG | **Pb** | **10 39 06.7** | **-0.3** |
| LANS | | | | *e*SG | **Sb** | **10 39 21.2** | **+0.3** |
| **MORC** | **Moravsky Berou** | **1.17** | **252** | *e*Pg | **Pb** | **10 39 09.4** | **-0.1** |
| MORC | | | | *e*Sg | **Sb** | **10 39 25.7** | **+0.5** |
| **STHS** | **Stebnicka Huta** | **1.49** | **119** | *e*Pg | **Pb** | **10 39 15.3** | **+0.3** |
| STHS | | | | *e*Sn | **Sn** | **10 39 36.4** | **+1.7** |
| **STHS** | **Stebnicka Huta** | **1.49** | **119** | *e*PG | **Pb** | **10 39 15.3** | **+0.3** |
| STHS | | | | *e*SN | **Sn** | **10 39 36.4** | **+1.7** |
| STHS | | | | *e*LG | Lg | 10 39 36.9 | |
| **KRLC** | **Kraliky** | **1.59** | **268** | *e*SG | **Sg** | **10 39 37.8** | **+0.3** |
| **KRLC** | **Kraliky** | **1.59** | **268** | Sg | **Sg** | **10 39 37.8** | **+0.3** |
| **VYHS** | **Vyhne** | **1.69** | **189** | *e*Pg | **Pn** | **10 39 17.2** | **0.0** |
| VYHS | | | | *e*Sn | **Sn** | **10 39 38.6** | **-0.9** |
| **VYHS** | **Vyhne** | **1.69** | **189** | *e*PG | **Pn** | **10 39 17.1** | **-0.1** |
| VYHS | | | | *e*SN | **Sn** | **10 39 38.6** | **-0.9** |
| VYHS | | | | *e*LG | Lg | 10 39 40.9 | |
| **KECS** | **Kecovo** | **1.86** | **154** | *e*Pn | **Pg** | **10 39 21.9** | **-0.2** |
| KECS | | | | *e*Sn | **Sg** | **10 39 46.2** | **0.0** |
| **KECS** | **Kecovo** | **1.86** | **154** | *e*PN | **Pg** | **10 39 21.9** | **-0.2** |
| KECS | | | | *e*SN | **Sg** | **10 39 46.2** | **0.0** |
| KECS | | | | *e*LG | Lg | 10 39 52.5 | |
| **DPC** | **Dobruska-Polom** | **1.89** | **277** | *e*PG | **Pn** | **10 39 20.4** | **+0.4** |
| DPC | | | | *e*SG | **Sb** | **10 39 46.1** | **+0.1** |
| | comp=Z,12nm,0.4s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.89** | **277** | Pg | **Pn** | **10 39 20.4** | **+0.4** |
| DPC | | | | Sg | **Sb** | **10 39 46.1** | **+0.1** |
| | 12nm,0.4s | | | | | | |
| **VRAC** | **Vranov** | **1.92** | **245** | *e*Sg | **Sg** | **10 39 47.8** | **-0.3** |
| **UPC** | **Upice** | **2.10** | **281** | *e*SG | **Sg** | **10 39 54.5** | **+0.5** |
| | comp=Z,9.9nm,0.6s | | | | | | |
| **UPC** | **Upice** | **2.10** | **281** | Sg | **Sg** | **10 39 54.5** | **+0.5** |
| | 9.9nm,0.6s | | | | | | |
| **PRU** | **Pruhonice** | **3.04** | **269** | *e*SG | **Sg** | **10 40 23.8** | **-0.2** |
| | comp=Z,5.3nm,0.6s | | | | | | |
| **PRU** | **Pruhonice** | **3.04** | **269** | Sg | **Sg** | **10 40 23.8** | **-0.2** |
| | 5.3nm,0.6s | | | | | | |
| **KHC** | **Kasperske Hory** | **3.83** | **257** | *e*SG | **Sg** | **10 40 47.8** | **-1.5** |
| | comp=Z,3.2nm,0.4s | | | | | | |
| **KHC** | **Kasperske Hory** | **3.83** | **257** | Sg | **Sg** | **10 40 47.8** | **-1.5** |
| | 3.2nm,0.4s | | | | | | |

---

**IDC 08 11:00:07.6**±999.0**, 56°.59N**×**27°.19E, h0km, Error ellipse: s-maj=1025.0km s-min=119.0km az=83.0, Baltic States-Belarus-Northwestern Russia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **I43RU** | **DUBNA INFRASON** | **5.54** | **84** | *i* | | 11 40 50.0 | |
| | baz=270,slow=304,SNR=1.1 | | | | | | |
| **I31KZ** | **AKTYUBINSK INF** | **19.25** | **96** | *i* | | 13 03 30.0 | |
| | baz=304,slow=331,SNR=0.4 | | | | | | |
| **I46RU** | **ZALESOVO INFRA** | **32.11** | **70** | *i* | | 14 12 10.0 | |
| | baz=301,slow=329,SNR=0.7 | | | | | | |
| **I34MN** | **SONGINO INFRAS** | **46.76** | **65** | *i* | | 15 42 10.0 | |
| | baz=310,slow=341,SNR=0.3 | | | | | | |

---

*ISK **08** 11:15:21.6, 38°.60N×43°.15E, h12km, MD2.8*
*ISCJB **08** 11:15:22.6±1.4, 38°.56N±0°.07×43°.24E±0°.06, h22km±11km, Error ellipse: s-maj=11.2km s-min=8.0km az=168.6*
*CSEM **08** 11:15:22.9±0.3, 38°.62N×43°.22E, h10km, ML2.7, Error ellipse: s-maj=7.0km s-min=6.0km az=34.0*
*DDA **08** 11:15:23.0, 38°.63N×43°.22E, h7km, Ml2.7*
**ISC 08 11:15:23.3**±1.2**, 38°.63N**±0°.04×**43°.22E**±0°.03**, h12km**±10km**, n16, σ0s.64**/26**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.14** | **104** | *e*PG | **Pg** | **11 15 26.7** | **-0.1** |
| VANB | | | | *e*SG | **Sg** | **11 15 30.4** | **+1.0** |
| **VANB** | **Van** | **0.14** | **104** | *e*Pg | **Pg** | **11 15 26.7** | **-0.1** |
| VANB | | | | *e*Sg | **Sg** | **11 15 30.4** | **+1.0** |
| **TVAN** | **Van** | **0.18** | **124** | *i* P | **Pg** | **11 15 26.7** | **-0.8** |
| TVAN | | | | *i* S | **Sg** | **11 15 29.8** | **-0.7** |
| **TVAN** | **Van** | **0.18** | **124** | P | **Pg** | **11 15 26.7** | **-0.8** |
| TVAN | | | | S | **Sg** | **11 15 29.8** | **-0.7** |
| **GEVA** | **Gevas** | **0.34** | **202** | *i* P | **Pg** | **11 15 30.1** | **-0.2** |
| **GEVA** | **Gevas** | **0.34** | **202** | P | **Pg** | **11 15 30.1** | **-0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.42** | **295** | *i* P | **Pg** | **11 15 31.9** | **+0.1** |
| ADCV | | | | *i* S | **Sb** | **11 15 39.6** | **+0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.42** | **295** | P | **Pg** | **11 15 31.9** | **+0.1** |
| ADCV | | | | S | **Sb** | **11 15 39.7** | **+0.4** |
| **VMUR** | **Van-Muradiye** | **0.45** | **37** | *i* P | **Pg** | **11 15 32.5** | **+0.2** |
| **VMUR** | **Van-Muradiye** | **0.45** | **37** | P | **Pg** | **11 15 32.5** | **+0.2** |
| **CLDR** | **Caldiran** | **0.75** | **47** | *e*PG | **Pg** | **11 15 37.5** | **-0.4** |
| CLDR | | | | *e*SG | **Sb** | **11 15 49.2** | **+0.5** |
| **CLDR** | **Caldiran** | **0.75** | **47** | *e*Pg | **Pg** | **11 15 37.5** | **-0.4** |
| CLDR | | | | *e*Sg | **Sb** | **11 15 49.2** | **+0.5** |
| **TUTA** | **Tutak** | **0.83** | **338** | *i* P | **Pg** | **11 15 38.8** | **-0.7** |
| TUTA | | | | *i* S | **Sb** | **11 15 51.3** | **+0.2** |
| **TUTA** | **Tutak** | **0.83** | **338** | P | **Pg** | **11 15 38.8** | **-0.7** |
| TUTA | | | | S | **Sb** | **11 15 51.3** | **+0.2** |
| **AGRB** | **Hanur-Agry** | **0.96** | **350** | *e*PG | **Pg** | **11 15 40.8** | **-1.1** |
| **AGRB** | **Hanur-Agry** | **0.96** | **350** | *e*Pg | **Pg** | **11 15 40.8** | **-1.1** |

---

*CSEM **08** 11:23:13.1±0.9, 51°.51N×16°.08E, h1km, ML2.8/4, Error ellipse: s-maj=13.5km s-min=7.0km az=26.0*
*PRU **08** 11:23:14.3, 51°.47N×16°.13E, h0km*
*WAR **08** 11:23:15.1, 51°.44N×16°.20E, h1km*
**ISC 08 11:23:14.5**±2.4**, 51°.5N**±0°.1×**16°.12E**±0°.06**, h0km, n18, σ0s.43**/34**, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KSP** | **Ksiaz** | **0.62** | **170** | *e*Pg | **Pg** | **11 23 26.3** | **-0.1** |
| KSP | | | | *e*Sg | **Sg** | **11 23 35.2** | **+0.8** |
| **KSP** | **Ksiaz** | **0.62** | **170** | *e*Pg | **Pg** | **11 23 26.3** | **-0.1** |
| KSP | | | | *e*Sg | **Sg** | **11 23 35.2** | **+0.8** |
| **KSP** | **Ksiaz** | **0.62** | **170** | *e*Pg | **Pg** | **11 23 26.3** | **-0.1** |
| KSP | | | | *e*Sg | **Sg** | **11 23 35.2** | **+0.8** |
| **UPC** | **Upice** | **0.95** | **184** | *e*PG | **Pg** | **11 23 33.1** | **+0.4** |
| UPC | | | | *e*SG | **Sg** | **11 23 45.5** | **+0.5** |
| | comp=Z,9.6nm,0.2s | | | | | | |
| **UPC** | **Upice** | **0.95** | **184** | Pg | **Pg** | **11 23 33.1** | **+0.4** |
| UPC | | | | Sg | **Sg** | **11 23 45.5** | **+0.5** |
| | 9.6nm,0.2s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.11** | **173** | *e*PG | **Pg** | **11 23 35.5** | **-0.3** |
| DPC | | | | *e*SG | **Sg** | **11 23 49.9** | **-0.3** |
| | comp=Z,4.1nm,0.3s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.11** | **173** | Pg | **Pg** | **11 23 35.5** | **-0.3** |
| DPC | | | | Sg | **Sg** | **11 23 49.9** | **-0.3** |
| | 4.1nm,0.3s | | | | | | |
| **PVCC** | **Panska Ves** | **1.35** | **227** | *e*PG | **Pg** | **11 23 40.2** | **-0.2** |
| PVCC | | | | *e*SG | **Sb** | **11 23 58.4** | **-0.1** |
| | comp=Z,20nm,0.2s | | | | | | |
| **PVCC** | **Panska Ves** | **1.35** | **227** | Pg | **Pg** | **11 23 40.2** | **-0.2** |
| PVCC | | | | Sg | **Sb** | **11 23 58.4** | **-0.1** |
| | 20nm,0.2s | | | | | | |
| **KRLC** | **Kraliky** | **1.44** | **163** | *e*SG | **Sg** | **11 24 01.0** | **+0.2** |
| **KRLC** | **Kraliky** | **1.44** | **163** | Sg | **Sg** | **11 24 01.0** | **+0.2** |
| **BRG** | **Berggiesshubel** | **1.49** | **248** | PG | **Pn** | **11 23 42.5** | **0.0** |
| BRG | | | | SG | **Sn** | **11 24 02.9** | **+0.2** |
| | 11nm,0.3s | | | | | | |
| **PRU** | **Pruhonice** | **1.78** | **215** | *e*PG | **Pb** | **11 23 47.3** | **-0.7** |
| PRU | | | | *e*SG | **Sb** | **11 24 11.0** | **+0.2** |
| **PRU** | **Pruhonice** | **1.78** | **215** | Pg | **Pb** | **11 23 47.3** | **-0.7** |
| PRU | | | | Sg | **Sb** | **11 24 11.0** | **+0.2** |
| **NKC** | **Novy Kostel** | **2.63** | **244** | *e*PG | **Pb** | **11 24 02.8** | **+0.3** |
| NKC | | | | *e*SG | **Sg** | **11 24 39.3** | **+0.3** |
| | comp=Z,6.1nm,0.4s | | | | | | |
| **NKC** | **Novy Kostel** | **2.63** | **244** | Pg | **Pb** | **11 24 02.8** | **+0.3** |
| NKC | | | | Sg | **Sg** | **11 24 39.3** | **+0.3** |
| | 6.1nm,0.4s | | | | | | |
| **KHC** | **Kasperske Hory** | **2.84** | **216** | *e*PN | **Pn** | **11 24 00.8** | **-0.4** |
| KHC | | | | *e*PG | **Pb** | **11 24 06.6** | **+0.5** |
| KHC | | | | *e*SG | **Sg** | **11 24 44.9** | **-0.8** |
| **KHC** | **Kasperske Hory** | **2.84** | **216** | Pn | **Pn** | **11 24 00.8** | **-0.4** |

---

**IDC 08 11:36:27.8**±1.8**, 3°.62N**×**125°.04E, h0km, mb3.8**/4**, mb1 4.0**/4**, mb1mx3.6**/57**, mbtmp3.8**/4**, Error ellipse: s-maj=117.3km s-min=24.6km az=68.0, Talaud Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **21.59** | **178** | P | P | 11 41 20.6 | +1.2 |
| | 1.4nm,0.3s,baz=353,slow=8.2,SNR=23 | | | | | | |
| **WRA** | **Warramunga Arr** | **25.14** | **159** | P | P | 11 41 54.5 | -0.2 |
| | 1.7nm,0.3s,baz=335,slow=10,SNR=92 | | | | | | |
| **ASAR** | **Alice Springs** | **28.46** | **163** | P | P | 11 42 24.0 | -0.8 |
| | 0.3nm,0.4s,baz=343,slow=7.1,SNR=12 | | | | | | |
| **MKAR** | **Makanchi Array** | **56.69** | **326** | P | P | 11 46 13.3 | +0.1 |
| | 0.3nm,0.4s,baz=124,slow=6.2,SNR=5.3 | | | | | | |

---

*ISK **08** 11:44:00.9, 38°.69N×42°.85E, h5km, MD2.9*
*ATA **08** 11:44:01.0±1.0, 38°.66N×42°.81E, h10km±50km, ML3.5, MW3.2*
*DDA **08** 11:44:01.9, 38°.67N×42°.85E, h7km, Ml2.7*
*ISCJB **08** 11:44:02.6±0.5, 38°.68N±0°.03×42°.85E±0°.03, h10km±5km, Error ellipse: s-maj=4.7km s-min=3.9km az=140.2*
*CSEM **08** 11:44:02.1±0.2, 38°.70N×42°.83E, h10km, ML2.7, Error ellipse: s-maj=4.0km s-min=3.7km az=51.0*
**ISC 08 11:44:02.4**±0.8**, 38°.68N**±0°.02×**42°.85E**±0°.02**, h14km**±6km**, n35, σ0s.65**/53**, 1D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ADCV** | **BITLIS_Adilcev** | **0.16** | **322** | *i* P | **Pg** | **11 44 06.3** | **-0.3** |
| ADCV | | | | *i* S | **Sg** | **11 44 09.9** | **+0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.16** | **322** | P | **Pg** | **11 44 06.3** | **-0.3** |
| ADCV | | | | S | **Sg** | **11 44 09.9** | **+0.6** |
| **GEVA** | **Gevas** | **0.41** | **156** | ⇓*i*P | **Pg** | **11 44 09.5** | **-1.1** |
| GEVA | | | | IAML | | 11 44 09.9 | |
| | comp=Z,106nm,0.4s | | | | | | |
| GEVA | | | | *e*S | **Sg** | **11 44 16.1** | **-0.1** |
| **GEVA** | **Gevas** | **0.41** | **156** | *i* P | **Pg** | **11 44 09.5** | **-1.1** |
| GEVA | | | | *i* S | **Sg** | **11 44 16.1** | **-0.1** |
| **GEVA** | **Gevas** | **0.41** | **156** | P | **Pg** | **11 44 09.5** | **-1.1** |
| GEVA | | | | S | **Sg** | **11 44 16.1** | **-0.1** |
| **VANB** | **Van** | **0.43** | **102** | *e*PG | **Pb** | **11 44 11.4** | **-0.4** |
| VANB | | | | *e*SG | **Sb** | **11 44 18.9** | **+0.7** |
| **VANB** | **Van** | **0.43** | **102** | *e*Pg | **Pb** | **11 44 11.4** | **-0.4** |
| VANB | | | | *e*Sg | **Sb** | **11 44 18.9** | **+0.7** |
| **TVAN** | **Van** | **0.46** | **109** | *i* P | **Pg** | **11 44 11.3** | **-0.3** |
| TVAN | | | | *i* S | **Sb** | **11 44 19.4** | **+0.2** |
| **TVAN** | **Van** | **0.46** | **109** | P | **Pg** | **11 44 11.4** | **-0.3** |
| TVAN | | | | S | **Sb** | **11 44 19.4** | **+0.2** |
| **VMUR** | **Van-Muradiye** | **0.64** | **61** | *i* P | **Pg** | **11 44 14.8** | **-0.2** |
| VMUR | | | | *i* S | **Sb** | **11 44 24.3** | **0.0** |
| **VMUR** | **Van-Muradiye** | **0.64** | **61** | P | **Pg** | **11 44 14.8** | **-0.2** |
| VMUR | | | | S | **Sb** | **11 44 24.3** | **0.0** |
| **TUTA** | **Tutak** | **0.72** | **358** | *e*P | **Pg** | **11 44 15.6** | **-0.9** |
| TUTA | | | | *e*S | **Sb** | **11 44 27.4** | **+0.8** |
| TUTA | | | | IAML | | 11 44 30.1 | |
| | comp=Z,83nm,0.2s | | | | | | |
| **TUTA** | **Tutak** | **0.72** | **358** | *i* P | **Pg** | **11 44 15.8** | **-0.7** |
| **TUTA** | **Tutak** | **0.72** | **358** | P | **Pg** | **11 44 15.8** | **-0.7** |
| **EKAR** | **Karacoban** | **0.84** | **313** | *i* P | **Pb** | **11 44 19.0** | **+0.1** |
| EKAR | | | | *i* S | **Sn** | **11 44 32.0** | **-0.2** |
| **EKAR** | **Karacoban** | **0.84** | **313** | P | **Pb** | **11 44 19.0** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **0.90** | **7** | *e*PG | **Pg** | **11 44 18.9** | **-0.9** |
| AGRB | | | | *e*SG | **Sb** | **11 44 32.8** | **+1.1** |
| **AGRB** | **Hanur-Agry** | **0.90** | **7** | *e*Pg | **Pg** | **11 44 18.9** | **-0.9** |
| AGRB | | | | *e*Sg | **Sb** | **11 44 32.8** | **+1.1** |
| **CLDR** | **Caldiran** | **0.95** | **61** | *e*PG | **Pg** | **11 44 20.4** | **-0.5** |
| CLDR | | | | *e*SG | **Sn** | **11 44 34.6** | **-0.4** |
| **CLDR** | **Caldiran** | **0.95** | **61** | *i* P | **Pg** | **11 44 20.3** | **-0.5** |
| **CLDR** | **Caldiran** | **0.95** | **61** | P | **Pg** | **11 44 20.3** | **-0.5** |
| CLDR | | | | *e*Sg | **Sn** | **11 44 34.6** | **-0.4** |
| **SRTM** | **Siirt_Merkez** | **1.00** | **227** | *i* P | **Pg** | **11 44 21.1** | **-0.7** |
| **SRTM** | **Siirt_Merkez** | **1.00** | **227** | P | **Pg** | **11 44 21.1** | **-0.7** |
| **EATA** | **Eleskirt** | **1.21** | **347** | *i* P | **Pb** | **11 44 24.8** | **-0.5** |
| **EATA** | **Eleskirt** | **1.21** | **347** | P | **Pb** | **11 44 24.8** | **-0.5** |
| **SIRT** | **Sirnak** | **1.22** | **196** | *e*PN | **Pg** | **11 44 25.7** | **-0.3** |
| **SIRT** | **Sirnak** | **1.22** | **196** | *e*Pn | **Pg** | **11 44 25.7** | **-0.3** |
| **HAKT** | **HAKKARI** | **1.31** | **149** | *i* P | **Pg** | **11 44 28.0** | **+0.3** |
| **HAKT** | **HAKKARI** | **1.31** | **149** | P | **Pg** | **11 44 28.0** | **+0.3** |
| **BNGL** | **BINGOL** | **1.36** | **282** | *e*P | **Pb** | **11 44 27.3** | **-0.4** |
| BNGL | | | | *e*S | **Sg** | **11 44 45.9** | **-0.2** |
| BNGL | | | | IAML | | 11 44 48.5 | |
| | comp=Z,146nm,0.4s | | | | | | |
| **BNGL** | **BINGOL** | **1.36** | **282** | *i* P | **Pb** | **11 44 27.3** | **-0.4** |
| **BNGB** | **Bingˆ¶l** | **1.72** | **281** | *e*PN | **Pb** | **11 44 33.1** | **-0.8** |
| **BINT** | **Bingol** | **1.86** | **277** | *e*Pn | **Pn** | **11 44 33.1** | **-0.8** |
| **MAZI** | **Mazidag** | **2.26** | **238** | *e*PN | **Pn** | **11 44 40.8** | **+1.4** |
| **MAZI** | **Mazidag** | **2.26** | **238** | *e*Pn | **Pn** | **11 44 40.8** | **+1.4** |

---

*ISCJB **08** 11:45:39.5±0.7, 51°.6N±0°.1×75°.3E±0°.1, h0km, Error ellipse: s-maj=21.1km s-min=5.9km az=29.3*
*NNC **08** 11:45:43.3±0.5, 51°.67N×75°.46E, h0km, mb3.1, mpv2.7, Error ellipse: s-maj=34.6km s-min=3.1km az=25.0, Suspected Mining explosion.*
*IDC **08** 11:45:45.3±1.0, 51°.75N×75°.66E, h0km, mb1 2.7/3, mb1mx2.6/50, mbtmp2.7/3, ML2.3/3, Error ellipse: s-maj=33.1km s-min=7.2km az=31.0*
**ISC 08 11:45:44.0**±1.0**, 51°.7N**±0°.1×**75°.44E**±0°.06**, h0km, n10, σ1s.34**/10**, 4C-4D, Eastern Kazakhstan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KURBB** | **Kurchatov Arra** | **2.21** | **117** | Pg | **Pn** | **11 46 23.4** | **+1.5** |
| | 0.4nm,0.3s,baz=308,slow=22,SNR=28 | | | | | | |
| KURBB | | | | Lg | Lg | 11 46 52.9 | |
| | 0.7nm,0.3s,baz=310,slow=32,SNR=13 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **2.21** | **117** | ⇓Pg | **Pb** | **11 46 23.8** | **-1.0** |
| | 2.2nm,0.3s | | | | | | |
| KURBB | | | | ⇑Lg | Lg | 11 46 52.7 | |
| | 20nm,0.8s | | | | | | |
| **KURK** | **Kurchatov** | **2.21** | **114** | ⇑Pg | **Pn** | **11 46 23.6** | **+1.7** |
| | 1.6nm,0.4s | | | | | | |
| KURK | | | | ⇓Lg | Lg | 11 46 52.1 | |
| | 5.5nm,0.5s | | | | | | |
| **BVA0** | **Borovoye Array** | **3.39** | **296** | ⇑Pg | **Pb** | **11 46 45.2** | **+0.3** |
| | 1.1nm,0.4s,baz=116,slow=15,SNR=9.2 | | | | | | |
| BVA0 | | | | ⇑Lg | Lg | 11 47 31.2 | |
| | 4.7nm,0.5s,baz=113,slow=28,SNR=9.3 | | | | | | |
| **BVAR** | **Borovoye Array** | **3.39** | **296** | Pn | **Pn** | **11 46 39.2** | **+1.1** |
| | 0.4nm,0.3s,baz=108,slow=15,SNR=6.1 | | | | | | |
| BVAR | | | | Pg | **Pg** | **11 46 47.1** | **-1.8** |
| | 1.2nm,0.3s,baz=113,slow=15,SNR=13 | | | | | | |
| BVAR | | | | Lg | Lg | 11 47 28.6 | |
| | 1.2nm,0.3s,baz=112,slow=28,SNR=4.6 | | | | | | |
| **BRVK** | **Borovoye** | **3.46** | **296** | ⇓Pg | **Pb** | **11 46 46.6** | **+0.5** |
| | 1.4nm,0.6s | | | | | | |
| BRVK | | | | ⇓Lg | Lg | 11 47 32.4 | |
| | 13nm,1.1s | | | | | | |
| **I46RU** | **ZALESOVO INFRA** | **6.13** | **64** | *i* | | 12 22 40.0 | |
| | baz=253,slow=334,SNR=1.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **6.13** | **64** | Pn | **Pn** | **11 47 16.8** | **+1.0** |
| | 0.3nm,0.3s,baz=259,slow=13,SNR=3.7 | | | | | | |
| **MK31** | **Makanchi Array** | **6.62** | **135** | Lg | Lg | 11 49 15.4 | |
| | 2.1nm,0.7s,baz=332,slow=26,SNR=4.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **6.62** | **135** | Pn | **Pn** | **11 47 23.5** | **+1.0** |
| | 0.1nm,0.3s,baz=311,slow=14,SNR=2.6 | | | | | | |
| MKAR | | | | Sn | **Sn** | **11 48 38.5** | **-0.2** |
| | 0.2nm,0.3s,baz=334,slow=22,SNR=4.2 | | | | | | |
| MKAR | | | | Lg | Lg | 11 49 12.7 | |
| | 0.4nm,0.3s,baz=335,slow=27,SNR=6.0 | | | | | | |

---

**NEIC 08 11:45:54.3**±0.0**, 67°.45N**×**158°.62W, h21km, ML3.0**(AEIC)**, After AEIC., Northern Alaska**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RDOG** | **Red Dog Mine** | **1.74** | **292** | P | Pn | 11 46 23.5 | +0.2 |
| RDOG | | | | S | Sb | 11 46 46.8 | 0.0 |
| **IM3** | **Indian Mountai** | **2.43** | **125** | P | Pn | 11 46 33.0 | +0.3 |
| **IMAR** | **Indian Mountai** | **2.43** | **125** | *e*Pn | Pn | 11 46 33.4 | +0.7 |
| **COLD** | **Coldfoot** | **3.27** | **90** | *e*Pn | Pn | 11 46 45.0 | +0.7 |
| **PS06** | **TAPS Pump Stn6** | **3.88** | **110** | P | Pn | 11 46 52.7 | 0.0 |
| PS06 | | | | S | Sn | 11 47 39.3 | +1.7 |
| **MLY** | **Manley** | **4.01** | **124** | *e*Pn | Pn | 11 46 56.7 | +2.2 |
| **PS01** | **TAPS Pump Stn** | **4.59** | **48** | P | Pn | 11 47 02.6 | +0.3 |
| **BPAW** | **Bear Paw Mtn.** | **4.60** | **133** | P | Pn | 11 47 04.2 | +1.6 |
| BPAW | | | | *e*Pn | Pb | 11 47 05.5 | -8.8 |
| **TT01** | **Tatalina** | **4.69** | **165** | P | Pn | 11 47 05.2 | +1.4 |
| **CAST** | **Castle Rocks** | **4.88** | **143** | *e*Pn | Pn | 11 47 09.7 | +3.3 |
| **MDM** | **Murphy Dome** | **4.89** | **116** | *e*Pn | Pn | 11 47 07.5 | +0.9 |
| **KTH** | **Kantishna Hill** | **5.06** | **137** | P | Pn | 11 47 10.6 | +1.8 |
| KTH | | | | *e*Pn | Pb | 11 47 12.2 | -10 |
| **COLA** | **College** | **5.08** | **116** | *e*Pn | Pn | 11 47 10.8 | +1.8 |
| **CCB** | **Clear Creek Bu** | **5.23** | **117** | *e*Pn | Pn | 11 47 12.0 | +0.9 |
| **TRF** | **Thorofare Moun** | **5.31** | **135** | *e*Pn | Pn | 11 47 15.7 | +3.3 |
| **PPLA** | **Purkeypile** | **5.31** | **146** | P | Pn | 11 47 13.9 | +1.4 |
| PPLA | | | | *e*Pn | Pb | 11 47 16.5 | -10 |
| **BM3** | **Burnt Mountain** | **5.40** | **84** | P | Pn | 11 47 14.0 | +0.5 |
| **IL1** | **Eielson Array** | **5.47** | **114** | *e*Pn | Pn | 11 47 14.8 | +0.3 |
| **ILB** | **Eielson Array** | **5.47** | **114** | *e*Pn | Pn | 11 47 14.9 | +0.4 |
| **DHY** | **Denali Highway** | **6.44** | **128** | P | Pn | 11 47 28.8 | +0.9 |
| **PAX** | **Paxson** | **7.12** | **123** | *e*Pn | Pn | 11 47 41.0 | +3.9 |
| **BCA3** | **Beaver Creek A** | **8.30** | **114** | P | Pn | 11 47 53.3 | -0.1 |
| **INK** | **Inuvik** | **9.48** | **73** | P | Pn | 11 48 08.7 | -0.6 |
| **YHH** | **Holmes Hill** | **33.66** | **108** | *e*P | P | 11 52 31.3 | -2.2 |
| | 7.4nm,0.6s | | | | | | |

---

*NNC **08** 11:49:04.5±2.4, 48°.55N×78°.14E, h0km, mb3.5, mpv3.0, Error ellipse: s-maj=31.8km s-min=8.3km az=68.0, Suspected Mining explosion.*
*IDC **08** 11:49:04.2±3.2, 48°.67N×77°.55E, h0km, mb1 3.0/2, mb1mx2.9/40, mbtmp3.0/2, ML2.3/2, Error ellipse: s-maj=39.1km s-min=13.6km az=77.0*
**ISC 08 11:49:04.9**±3.7**, 48°.6N**±0°.1×**77°.5E**±0°.3**, h0km, n7, σ0s.39**/9**, 2C-2D, Eastern Kazakhstan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KURBB** | **Kurchatov Arra** | **2.09** | **18** | Pg | **Pn** | **11 49 41.6** | **+0.4** |
| | 1.2nm,0.3s,baz=201,slow=16,SNR=27 | | | | | | |
| KURBB | | | | Lg | Lg | 11 50 08.2 | |
| | 0.8nm,0.3s,baz=200,slow=27,SNR=9.8 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **2.09** | **18** | ⇓Pn | **Pn** | **11 49 40.7** | **-0.5** |
| | 9.9nm,0.5s | | | | | | |
| KURBB | | | | ⇑Sn | **Sn** | **11 50 08.4** | **+0.4** |
| | 26nm,0.6s | | | | | | |
| **KURK** | **Kurchatov** | **2.20** | **18** | ⇑Pn | **Pn** | **11 49 42.5** | **-0.2** |
| | 7.6nm,0.5s | | | | | | |
| KURK | | | | ⇓Sn | **Sn** | **11 50 10.4** | **-0.1** |
| | 22nm,1.0s | | | | | | |
| **MK31** | **Makanchi Array** | **3.71** | **118** | Pg | **Pn** | **11 50 03.7** | **+0.3** |
| | 1.4nm,0.5s,baz=302,slow=12,SNR=4.1 | | | | | | |
| MK31 | | | | Lg | Lg | 11 50 52.3 | |
| | 2.8nm,0.5s,baz=305,slow=27,SNR=8.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **3.71** | **118** | Pn | **Pn** | **11 50 03.0** | **-0.4** |
| | 0.3nm,0.3s,baz=302,slow=12,SNR=4.8 | | | | | | |
| MKAR | | | | Lg | Lg | 11 50 54.6 | |
| | 0.9nm,0.3s,baz=310,slow=28,SNR=8.4 | | | | | | |
| **I46RU** | **ZALESOVO INFRA** | **7.01** | **38** | *i* | | 12 33 50.0 | |
| | baz=220,slow=332,SNR=1.6 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **7.01** | **38** | Pn | **Pn** | **11 50 48.8** | **+0.1** |
| | 0.3nm,0.3s,baz=228,slow=15,SNR=4.9 | | | | | | |
| ZALV | | | | Sn | **Sn** | **11 52 08.9** | **-0.2** |
| | 0.3nm,0.3s,baz=226,slow=25,SNR=4.7 | | | | | | |

---

**IDC 08 11:49:09.4**±3.3**, 48°.84S**×**123°.80E, h0km, mb3.8**/3**, mb1 4.1**/3**, mb1mx3.7**/30**, mbtmp3.8**/3**, MS3.5**/7**, Ms1 3.4**/7**, ms1mx3.2**/17**, Error ellipse: s-maj=83.0km s-min=57.5km az=145.0, Western Indian-Antarctic Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **H01W1** | **Cape Leeuwin H** | **15.66** | **329** | T | T | 12 08 60.0 | |
| | baz=157,slow=76,SNR=27 | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **15.66** | **329** | T | T | 12 09 04.8 | |
| | baz=157,slow=76,SNR=18 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **15.67** | **329** | T | T | 12 09 01.7 | |
| | baz=157,slow=76,SNR=26 | | | | | | |
| **STKA** | **Stephens Creek** | **21.61** | **45** | LR | LR | 12 01 00.2 | |
| | comp=Z,68nm,19.9s,baz=206,slow=33 | | | | | | |
| **ASAR** | **Alice Springs** | **26.36** | **21** | P | P | 11 54 47.6 | +0.4 |
| | 1.4nm,0.8s,baz=202,slow=7.9,SNR=18 | | | | | | |
| ASAR | | | | LR | LR | 12 04 17.2 | |
| | comp=Z,160nm,20.7s,baz=157,slow=34 | | | | | | |
| **WRA** | **Warramunga Arr** | **30.05** | **20** | P | P | 11 55 19.6 | -0.6 |
| | 0.3nm,0.8s,baz=192,slow=7.4,SNR=3.1 | | | | | | |
| WRA | | | | LR | LR | 12 06 22.2 | |
| | comp=Z,142nm,20.6s,baz=195,slow=34 | | | | | | |
| **VNDA** | **Vanda** | **32.24** | **165** | LR | LR | 12 07 44.8 | |
| | comp=Z,73nm,18.5s,baz=316,slow=35 | | | | | | |
| **MAW** | **Mawson** | **35.27** | **215** | LR | LR | 12 06 05.0 | |
| | comp=Z,76nm,20.4s,baz=63,slow=29 | | | | | | |
| **GUMO** | **Guam** | **64.90** | **23** | LR | LR | 12 28 45.9 | |
| | comp=Z,18nm,19.2s,baz=128,slow=37 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **70.56** | **335** | P | P | 12 00 26.1 | 0.0 |
| | 0.8nm,0.5s,baz=183,slow=4.9,SNR=9.5 | | | | | | |
| **PLCA** | **Paso Flores** | **89.91** | **169** | LR | LR | 12 40 34.4 | |
| | comp=Z,21nm,18.6s,baz=201,slow=34 | | | | | | |
| **YKA** | **Yellowknife Ar** | **145.65** | **44** | PKPbc | PKPdf | 12 08 47.8 | -0.5 |
| | 1.3nm,0.8s,baz=274,slow=2.9,SNR=5.6 | | | | | | |

---

*CSEM **08** 11:54:47.8±0.5, 50°.13N×19°.06E, h1km, ML2.2, Error ellipse: s-maj=9.7km s-min=5.3km az=6.0*
*PRU **08** 11:54:48.6, 50°.15N×19°.03E, h0km*
**WAR 08 11:54:49.5, 50°.09N**×**19°.15E, h1km, Mw2.2, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OJC** | **Ojcow** | **0.43** | **73** | *e*Pg | Pg | 11 54 57.7 | -0.1 |
| OJC | | | | *e*Sg | Sg | 11 55 03.6 | +0.2 |
| **OJC** | **Ojcow** | **0.43** | **73** | *e*Pg | Pg | 11 54 57.7 | -0.1 |
| OJC | | | | *e*Sg | Sg | 11 55 03.6 | +0.1 |
| **OJC** | **Ojcow** | **0.43** | **73** | *e*Pg | Pg | 11 54 57.7 | -0.1 |
| OJC | | | | *e*Sg | Sg | 11 55 03.6 | +0.1 |
| **OKC** | **Ostrava-Krasne** | **0.70** | **249** | *e*PG | Pg | 11 55 01.7 | -1.1 |
| OKC | | | | *e*SG | Sg | 11 55 10.0 | -1.9 |
| | comp=Z,9.4nm,0.4s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **0.70** | **249** | Pg | Pg | 11 55 01.7 | -1.1 |
| OKC | | | | Sg | Sg | 11 55 10.0 | -1.9 |
| | 9.4nm,0.4s | | | | | | |
| **LANS** | **Liptovska Anna** | **0.96** | **168** | *e*Pg | Pg | 11 55 07.5 | -0.4 |
| LANS | | | | *e*Sg | Sg | 11 55 21.1 | +0.7 |
| **LANS** | **Liptovska Anna** | **0.96** | **168** | *e*PG | Pg | 11 55 07.5 | -0.4 |
| LANS | | | | *e*SG | Sg | 11 55 21.1 | +0.7 |
| **MORC** | **Moravsky Berou** | **1.09** | **254** | *e*Pg | Pg | 11 55 09.5 | -0.8 |
| MORC | | | | *e*Sg | Sg | 11 55 23.4 | -1.0 |
| **KRLC** | **Kraliky** | **1.53** | **270** | *e*SG | Sn | 11 55 35.4 | -3.1 |
| **KRLC** | **Kraliky** | **1.53** | **270** | Sg | Sn | 11 55 35.4 | -3.1 |
| **VYHS** | **Vyhne** | **1.61** | **188** | *e*Pg | Pn | 11 55 17.6 | -1.5 |
| VYHS | | | | *e*Sn | Sn | 11 55 38.7 | -1.8 |
| **VYHS** | **Vyhne** | **1.61** | **188** | *e*PG | Pn | 11 55 17.6 | -1.5 |
| VYHS | | | | *e*SN | Sn | 11 55 38.7 | -1.8 |
| VYHS | | | | *e*LG | Lg | 11 55 39.8 | |
| **DPC** | **Dobruska-Polom** | **1.84** | **279** | *e*PG | Pn | 11 55 20.1 | -2.1 |
| DPC | | | | *e*SG | Sn | 11 55 43.9 | -2.2 |
| | comp=Z,15nm,0.7s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.84** | **279** | Pg | Pn | 11 55 20.1 | -2.1 |
| DPC | | | | Sg | Sn | 11 55 43.9 | -2.2 |
| | 15nm,0.7s | | | | | | |
| **VRAC** | **Vranov** | **1.84** | **246** | *e*Sg | Sn | 11 55 45.9 | -0.2 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| CRVS | Cervenica-Dubn | 1.92 | 127 | eSn | Sg | 11 55 51.5 | +0.4 |
| CRVS | Cervenica-Dubn | 1.92 | 127 | eSN | Sg | 11 55 51.5 | +0.4 |
| UPC | Upice | 2.06 | 283 | eSG | Sn | 11 55 52.0 | +0.5 |
| UPC | Upice | 2.06 | 283 | Sg | Sn | 11 55 52.0 | +0.5 |
| GOPC | GO Pecny, Ondr | 2.82 | 268 | eSG | Sb | 11 56 15.3 | -0.4 |
| GOPC | GO Pecny, Ondr | 2.82 | 268 | Sg | Sb | 11 56 15.3 | -0.4 |
| PRU | Pruhonice | 2.98 | 270 | eSG | Sb | 11 56 19.8 | -0.3 |
| PRU | Pruhonice | 2.98 | 270 | Sg | Sb | 11 56 19.8 | -0.3 |
| KHC | Kasperske Hory | 3.75 | 257 | eSG | Sg | 11 56 46.6 | -3.3 |
| KHC | Kasperske Hory | 3.75 | 257 | Sg | Sg | 11 56 46.6 | -3.3 |

**IDC 08 12:22:32.3**±781.0**,53°.56N×33°.89E,h0km,Error ellipse: s-maj=320.8km s-min=83.6km az=34.0,Baltic States-Belarus-Northwestern Russia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| I43RU | DUBNA INFRASON | 3.70 | 30 | i | | 12 46 10.0 | |
| | baz=212,slow=313,SNR=1.5 | | | | | | |
| I31KZ | AKTYUBINSK INF | 15.19 | 92 | i | | 13 53 20.0 | |
| | baz=292,slow=329,SNR=0.9 | | | | | | |
| I46RU | ZALESOVO INFRA | 29.59 | 68 | i | | 15 23 42.1 | |
| | baz=288,slow=336 | | | | | | |
| I34MN | SONGINO INFRAS | 44.48 | 67 | i | | 16 55 40.0 | |
| | baz=310,slow=367,SNR=0.2 | | | | | | |

*ATA **08** 12:25:01.2±0.4,38°.28N×42°.27E,h0km±7km,ML3.5, MW3.2*
*ISCJB **08** 12:25:10.6±0.6,38°.48N±0°.03×43°.34E±0°.05,h7km±5km, Error ellipse: s-maj=6.4km s-min=5.5km az=24.3*
*CSEM **08** 12:25:10.2,38°.48N×43°.33E,h11km,ML2.7*
*DDA **08** 12:25:10.2,38°.48N×43°.33E,h11km,Ml2.7*
**ISC 08 12:25:10.1**±0.9**,38°.45N**±0°.03×**43°.38E**±0°.04**,h10km**±6km**, n18,σ1s.03**/30**,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TVAN | Van | 0.08 | 15 | i P | Pg | 12 25 12.6 | -0.1 |
| TVAN | | | | i S | Sg | 12 25 14.6 | +0.1 |
| TVAN | Van | 0.08 | 15 | P | Pg | 12 25 12.6 | -0.1 |
| TVAN | | | | S | Sg | 12 25 14.6 | +0.1 |
| GEVA | Gevas | 0.29 | 241 | eP | Pg | 12 25 14.6 | -1.4 |
| GEVA | | | | IAML | | 12 25 25.7 | |
| | comp=Z,119nm,0.4s | | | | | | |
| GEVA | Gevas | 0.29 | 241 | i P | Pg | 12 25 15.1 | -0.9 |
| GEVA | | | | i S | Sg | 12 25 20.8 | +0.9 |
| GEVA | Gevas | 0.29 | 241 | P | Pg | 12 25 15.1 | -0.9 |
| GEVA | | | | S | Sg | 12 25 20.8 | +0.9 |
| VMUR | Van-Muradiye | 0.56 | 15 | i P | Pg | 12 25 13.8 | -7.1 |
| VMUR | Van-Muradiye | 0.56 | 15 | P | Pg | 12 25 13.8 | -7.1 |
| ADCV | BITLIS_Adilcev | 0.62 | 305 | i P | Pg | 12 25 21.4 | -0.7 |
| ADCV | | | | i S | Sg | 12 25 30.4 | -0.1 |
| ADCV | BITLIS_Adilcev | 0.62 | 305 | P | Pg | 12 25 21.5 | -0.7 |
| ADCV | | | | S | Sg | 12 25 30.4 | -0.1 |
| CLDR | Caldiran | 0.81 | 31 | i P | Pb | 12 25 26.0 | -0.3 |
| CLDR | | | | i S | Sb | 12 25 37.5 | +0.2 |
| CLDR | Caldiran | 0.81 | 31 | P | Pb | 12 25 26.0 | -0.3 |
| CLDR | | | | S | Sb | 12 25 37.5 | +0.2 |
| HAKT | HAKKARI | 0.93 | 164 | i P | Pg | 12 25 27.2 | -0.8 |
| HAKT | | | | i S | Sn | 12 25 43.9 | +1.0 |
| HAKT | HAKKARI | 0.93 | 164 | P | Pg | 12 25 27.2 | -0.8 |
| HAKT | | | | S | Sn | 12 25 43.9 | +1.0 |
| TUTA | Tutak | 1.04 | 335 | eP | Pg | 12 25 25.1 | -5.1 |
| TUTA | | | | eS | Sb | 12 25 44.2 | 0.0 |
| TUTA | | | | IAML | | 12 25 48.1 | |
| | comp=Z,19nm,0.5s | | | | | | |
| TUTA | Tutak | 1.04 | 335 | i P | Pg | 12 25 28.6 | -1.6 |
| TUTA | | | | i S | Sb | 12 25 43.5 | -0.8 |
| TUTA | Tutak | 1.04 | 335 | P | Pg | 12 25 28.6 | -1.6 |
| TUTA | | | | S | Sb | 12 25 43.5 | -0.8 |
| EKAR | Karacoban | 1.30 | 308 | i P | Pg | 12 25 34.9 | -0.2 |
| EKAR | | | | i S | Sg | 12 25 54.5 | +2.4 |
| EKAR | Karacoban | 1.30 | 308 | P | Pg | 12 25 34.9 | -0.2 |
| EKAR | | | | S | Sg | 12 25 54.5 | +2.4 |

**IDC 08 12:36:26.8**±11.0**,3°.06S×145°.20E,h0km,mb3.3**/2**, mb1 3.5**/3**,mb1mx3.3**/25**,mbtmp3.3**/3**,Error ellipse: s-maj=420.1km s-min=29.6km az=97.0,Near north coast of New Guinea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 19.85 | 211 | P | P | 12 40 58.4 | -1.1 |
| | baz=38,slow=11,SNR=4.6 | | | | | | |
| ASAR | Alice Springs | 23.21 | 207 | P | P | 12 41 36.7 | +0.9 |
| | 0.6nm,0.8s,baz=38,slow=12,SNR=4.2 | | | | | | |
| SONM | Songino Array | 60.98 | 331 | P | P | 12 46 42.0 | -0.1 |
| | 0.3nm,0.4s,baz=144,slow=5.4,SNR=2.7 | | | | | | |

**MEX 08 13:07:04.9**±0.6**,18°.82N×104°.42W,h2km,MD3.5,Near coast of Jalisco**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| R15V | | 0.54 | 50 | eP | Pg | 13 07 14.5 | -0.7 |
| R15V | | | | eS | Sg | 13 07 22.4 | +0.2 |
| CJM | Chamela | 0.90 | 319 | eP | Pg | 13 07 20.2 | -1.9 |
| CJM | | | | eS | Sg | 13 07 32.9 | -0.8 |
| EZ5V | | 1.01 | 50 | eP | Pg | 13 07 23.1 | -1.2 |
| EZ5V | | | | eS | Sg | 13 07 36.5 | -0.9 |
| MMIG | Aquila | 1.15 | 117 | eP | Pg | 13 07 24.5 | -2.4 |
| MMIG | | | | eS | Sg | 13 07 39.4 | -2.4 |

*NIED **08** 13:24:00,28°.20N×142°.10E,h5km,Mw4.4 Best double couple: M0 4.45000×10^15 NP1:φs273.00000°,δ22.00000°, λ173.00000°. NP2:φs9.00000°,δ87.00000°,λ68.00000°.*
*BJI **08** 13:24:25.8,28°.25N×142°.64E,h8km,mb4.7/45,mB5.0/30, Ms4.5/23,Ms7 4.2/22*
*IDC **08** 13:24:27.2±0.5,28°.33N×142°.67E,h0km,mb4.4/22, mb1 4.6/26,mb1mx4.5/37,mbtmp4.4/26,ML4.3/3,MS3.7/10, Ms1 3.7/10,ms1mx3.4/32,Error ellipse: s-maj=17.0km s-min=12.2km az=91.0*
*NEIC **08** 13:24:28.9±0.3,28°.33N×142°.57E,h10km,mb4.8/37,Error ellipse: s-maj=6.8km s-min=5.6km az=94.0*
*ISCJB **08** 13:24:28.5±1.1,28°.39N±0°.02×142°.55E±0°.05,h16km±7km, mb4.6/90,MS3.8/17,Error ellipse: s-maj=7.1km s-min=3.9km az=179.1*
*MOS **08** 13:24:30.3±1.2,28°.36N×142°.60E,h32km,mb4.8/45,Error ellipse: s-maj=12.4km s-min=5.8km az=115.5*
*JMA **08** 13:24:32.1±0.1,28°.16N×142°.10E,h100km,M4.4*
**ISC 08 13:24:27.6**±1.3**,28°.37N**±0°.04×**142°.68E**±0°.06**,h2km**±8km**, n189,σ1s.88**/215**,mb4.7**/90**,MS4.0**/17**,9C-5D,Bonin Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CBIJ | Chichi jima | 1.34 | 199 | P | Pg | 13 24 53.5 | +0.1 |
| CBIJ | | | | eS | Sb | 13 25 09.3 | -1.9 |
| CBIJ | Chichi jima | 1.34 | 199 | ePn | Pb | 13 24 53.1 | -0.5 |
| CBIJ | | | | eSn | Sb | 13 25 08.6 | -2.6 |
| JHHJ | Haha-jima-NKT | 1.79 | 195 | P | Pn | 13 24 58.9 | -0.7 |
| JHJ2 | Mitsune | 5.33 | 333 | P | Pn | 13 25 50.1 | +1.9 |
| JHJ2 | | | | eS | Sn | 13 26 47.0 | -3.2 |
| JHJ2 | Mitsune | 5.33 | 333 | ePn | Pn | 13 25 50.1 | +1.9 |
| JHJ | Hachijo jima 2 | 5.35 | 333 | Pn | Pn | 13 25 50.1 | +1.6 |
| | 23nm,0.3s,baz=250,slow=23,SNR=5.2 | | | | | | |
| JHJ | | | | Sn | Sn | 13 26 49.8 | -0.9 |
| | 19nm,0.3s,baz=78,slow=10,SNR=3.5 | | | | | | |
| JKO | Kozu shima | 6.54 | 333 | P | Pn | 13 26 06.3 | +1.4 |
| BSO4 | Boso 4 | 6.89 | 344 | P | Pn | 13 26 12.1 | +2.5 |
| JOD2 | Odawara 2 | 7.52 | 337 | P | Pn | 13 26 20.3 | +2.0 |
| JOD2 | | | | eS | Sn | 13 27 40.8 | -3.4 |
| JHMK | Hamakita | 7.67 | 328 | P | Pn | 13 26 24.2 | +3.9 |
| JHU | Hanno | 8.00 | 340 | P | Pn | 13 26 25.0 | +0.2 |
| JHU | | | | eS | Sn | 13 27 50.1 | -5.8 |
| JNY | Yasuok | 8.08 | 331 | P | Pn | 13 26 31.7 | +5.6 |
| JYT | Yasato | 8.11 | 346 | eS | Sn | 13 27 53.2 | -5.5 |
| JRY | Ryogami san | 8.27 | 338 | P | Pn | 13 26 29.3 | +0.7 |
| JRY | | | | eS | Sn | 13 27 58.0 | -4.6 |
| JHO | Hitachi | 8.41 | 348 | P | Pn | 13 26 30.1 | -0.4 |
| JHO | | | | eS | Sn | 13 27 56.6 | -9.4 |
| INU | Inuyama | 8.46 | 327 | ePn | Pn | 13 26 31.8 | +0.6 |
| JAG | Ashikaga | 8.48 | 342 | P | Pn | 13 26 33.4 | +1.9 |
| JAG | | | | eS | Sn | 13 28 00.5 | -7.3 |
| MJAR | Matsushiro Arr | 8.98 | 336 | Pn | Pn | 13 26 38.9 | +0.5 |
| | 8.2nm,0.3s,baz=158,slow=11,SNR=39 | | | | | | |
| MJAR | | | | LR | LR | 13 29 47.9 | |
| | comp=Z,169nm,20.3s,baz=165,slow=36 | | | | | | |
| MAJO | Matsushiro | 8.98 | 336⇓ | eP | Pn | 13 26 38.6 | +0.2 |
| MAJO | | | | pmax | pmax | | |
| | comp=Z,24nm,0.6s | | | | | | |
| MAJO | Matsushiro | 8.98 | 336 | ePn | Pn | 13 26 37.7 | -0.7 |
| MAJO | | | | eSn | Sn | 13 28 18.9 | -1.3 |
| MAT | Matsushiro | 8.98 | 336 | P | Pn | 13 26 38.8 | +0.4 |
| MAT | | | | S | Sn | 13 28 16.3 | -3.8 |
| MJB9 | Matsu-Tunnel | 8.98 | 336 | ePn | Pn | 13 26 39.4 | +1.0 |
| JOW | Kunigami | 12.87 | 267 | ePn | Pn | 13 27 33.2 | +1.6 |
| KSRS | Korea Array | 15.33 | 310 | Pn | P | 13 28 09.1 | -0.9 |
| | comp=Z,0.9nm,0.3s,baz=120,slow=11,SNR=20 | | | | | | |
| KSRS | | | | LR | LR | 13 33 57.3 | |
| | comp=Z,284nm,18.5s,baz=120,slow=37 | | | | | | |
| KSAR | Wonju Array Be | 15.35 | 310 | P | P | 13 28 09.1 | -1.1 |
| KSAR | Wonju Array Be | 15.35 | 310 | Pn | P | 13 28 09.1 | -1.1 |
| ASAJ | Asahikawa | 15.71 | 360 | Pn | Pn | 13 28 10.3 | +0.3 |
| | comp=Z,1.4nm,0.3s,baz=220,slow=12,SNR=8.2 | | | | | | |
| VLA | Vladivostok | 17.10 | 332⇑ | eP | P | 13 28 30.5 | +0.9 |
| VLA | | | | pmax | pmax | | |
| | comp=Z,107nm,1.5s | | | | | | |
| USRK | Ussuriysk Ar. | 17.97 | 334 | P | Pn | 13 28 37.8 | -0.8 |
| | comp=Z,0.5nm,0.3s,baz=141,slow=11,SNR=6.8 | | | | | | |
| MDJ | Mudanjiang | 19.29 | 331 | P | P | 13 28 53.0 | -0.7 |
| MDJ | | | | pP | pP | 13 28 56.1 | +2.0 |
| MDJ | | | | S | Sn | 13 32 29.6 | -1.7 |
| MDJ | | | | sS | sS | 13 32 36.3 | +2.9 |
| MDJ | | | | PcS | PcS | 13 36 52.5 | -0.9 |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,31nm,0.8s | | | | | | |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,220nm,3.7s | | | | | | |
| MDJ | Mudanjiang | 19.29 | 331 | eP | P | 13 28 51.4 | -2.3 |
| | comp=Z,15nm,0.8s | | | | | | |
| SSLB | Suanglung | 20.04 | 262 | eP | Pn | 13 29 04.3 | +0.6 |
| | comp=Z,120nm,1.4s | | | | | | |
| TWG | Pinlang | 20.25 | 259 | eP | Pn | 13 29 05.3 | -0.9 |
| | comp=Z,497nm,1.6s | | | | | | |
| TPUB | Ta-pu | 20.47 | 261 | eP | P | 13 29 05.8 | -1.0 |
| CN2 | Changchun | 20.70 | 323 | eP | Pn | 13 29 11.1 | -0.2 |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.5s | | | | | | |
| NJ2 | Nanjing | 20.90 | 286 | eP | P | 13 29 11.8 | +0.4 |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,28nm,1.3s | | | | | | |
| HABR | Khabarovsk | 20.92 | 346 | eP | P | 13 29 10.6 | -0.8 |
| HABR | | | | ePPP | PPP | 13 29 37.3 | |
| HABR | | | | eS | S | 13 33 05.5 | +0.3 |
| HABR | | | | e | | 13 33 17.2 | |
| HABR | | | | eSS | SnSn | 13 33 27.9 | +2.4 |
| HABR | | | | eSSS | SSS | 13 33 41.0 | |
| HABR | | | | | | 13 40 38.0 | |
| HABR | | | | pmax | pmax | | |
| | comp=Z,41nm,2.0s | | | | | | |
| HABR | | | | MLR | MLR | | |
| | comp=Z,53nm,13.0s | | | | | | |
| H11N2 | WAKE ISLAND Hy | 23.69 | 106 | T | T | 13 54 56.3 | |
| | baz=297,slow=74,SNR=13 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 23.70 | 106 | T | T | 13 54 45.5 | |
| | baz=297,slow=74,SNR=12 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 23.71 | 106 | T | T | 13 54 46.4 | |
| | baz=297,slow=74,SNR=17 | | | | | | |
| BJI | Beijing | 24.72 | 305 | P | P | 13 29 49.3 | -1.0 |
| BJI | | | | S | S | 13 34 12.4 | -0.7 |
| BJI | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.4s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,270nm,12.6s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,430nm,16.5s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,250nm,19.2s | | | | | | |
| WHN | Wuhan | 24.74 | 282 | P | P | 13 29 50.4 | -0.1 |
| PETK | Petropavlovsk- | 27.09 | 20 | LR | LR | 13 44 51.2 | |
| | comp=Z,46nm,18.0s,baz=192,slow=45 | | | | | | |
| HIA | Hailar | 27.28 | 326 | eP | P | 13 30 14.1 | +0.7 |
| HIA | | | | pmax | pmax | | |
| | comp=Z,19nm,0.9s | | | | | | |
| HIA | Hailar | 27.28 | 326 | eP | P | 13 30 14.1 | +0.7 |
| | comp=Z,19nm,0.9s | | | | | | |
| HHC | Hu-ho-hao-te | 28.32 | 304 | eP | P | 13 30 25.0 | +2.1 |
| HHC | | | | PP | PnPn | 13 31 16.4 | +5.3 |
| HHC | | | | S | S | 13 35 10.0 | -0.2 |
| HHC | | | | SS | SnSn | 13 36 34.5 | +7.8 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,13nm,0.4s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,62nm,4.7s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,200nm,14.8s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,400nm,14.8s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,470nm,19.7s | | | | | | |
| ENH | Enshi | 28.95 | 282 | eP | P | 13 30 24.6 | -3.9 |
| | comp=Z,18nm,0.7s | | | | | | |
| QIZ | Qiongzhong | 31.39 | 260 | P | P | 13 30 49.5 | -0.7 |
| QIZ | | | | S | S | 13 36 02.4 | +3.8 |
| GYA | Guiyang | 31.96 | 275 | eP | P | 13 30 56.4 | +1.2 |
| GYA | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.0s | | | | | | |
| LZH | Lanzhou | 33.57 | 293 | eP | P | 13 31 07.3 | -2.0 |
| LZH | | | | pP | pP | 13 31 11.5 | +1.6 |
| LZH | | | | sP | sP | 13 31 14.5 | +4.4 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,28nm,1.3s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,310nm,4.6s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,250nm,5.2s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,250nm,11.4s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,170nm,13.1s | | | | | | |
| ULN | Ulaanbaatar | 33.72 | 315 | deP | P | 13 31 10.7 | +0.2 |
| ULN | | | | pmax | pmax | | |
| | comp=Z,16nm,1.7s | | | | | | |
| ULN | Ulaanbaatar | 33.72 | 315 | eP | P | 13 31 08.7 | -1.8 |
| | comp=Z,25nm,1.6s | | | | | | |
| CD2 | Chengdu | 33.81 | 284 | P | P | 13 31 10.4 | -0.9 |
| CD2 | | | | sP | sP | 13 31 19.6 | +7.5 |
| CD2 | | | | S | S | 13 36 35.9 | -0.3 |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,40nm,0.8s | | | | | | |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,350nm,8.3s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,550nm,9.5s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,440nm,14.3s | | | | | | |
| SONA1 | Songino Array | 34.12 | 315 | eP | P | 13 31 13.6 | -0.3 |
| SONM | Songino Array | 34.12 | 315 | P | P | 13 31 13.6 | -0.3 |
| | comp=Z,1.7nm,0.5s,baz=124,slow=8.2,SNR=12 | | | | | | |
| SONM | | | | LR | LR | 13 46 01.1 | |
| | comp=Z,122nm,18.9s,baz=164,slow=38 | | | | | | |
| SONM | Songino Array | 34.12 | 315 | P | P | 13 31 13.6 | -0.3 |
| SONM | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.8s | | | | | | |
| SONM | | | | MLR | MLR | | |
| | comp=Z,122nm,18.9s | | | | | | |
| YAK | Yakutsk | 34.75 | 349 | eP | P | 13 31 17.6 | -1.4 |
| YAK | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.9s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,3.0nm,1.4s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,3.0nm,1.3s | | | | | | |
| SEY | Seymchan | 35.14 | 8 | P | P | 13 31 22.9 | +0.5 |
| | comp=N,3.6nm,0.8s,baz=191,slow=6.1,SNR=10 | | | | | | |
| SEY | Seymchan | 35.14 | 8⇑ | eP | P | 13 31 22.3 | -0.1 |
| BOD | Bodaibo | 35.60 | 334 | eP | P | 13 31 25.4 | -1.0 |
| BOD | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.0s | | | | | | |
| KMI | Kunming | 35.70 | 274 | P | P | 13 31 27.3 | -0.7 |
| KMI | | | | pP | sP | 13 31 31.9 | +3.2 |
| KMI | | | | sP | pP | 13 31 33.8 | +5.3 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,20nm,1.0s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,170nm,12.9s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,300nm,15.7s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,220nm,16.4s | | | | | | |
| GTA | Gaotai | 36.94 | 299 | eP | P | 13 31 37.0 | -1.3 |
| GTA | | | | pP | pP | 13 31 41.4 | +2.6 |
| GTA | | | | sP | sP | 13 31 44.0 | +5.0 |
| GTA | | | | S | S | 13 37 17.5 | -6.8 |
| GTA | | | | ScP | ScP | 13 37 46.8 | -0.9 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.1s | | | | | | |
| GTA | | | | pmax | pmax | | |
| | comp=Z,170nm,5.4s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,76nm,15.2s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,140nm,15.7s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,150nm,15.2s | | | | | | |
| ZAK | Zakamensk | 36.96 | 317 | eP | P | 13 31 37.9 | -0.4 |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,12nm,1.0s | | | | | | |
| TLY | Talaya | 37.24 | 320 | P | P | 13 31 41.9 | +1.4 |
| | comp=Z,14nm,0.7s,baz=217,slow=12,SNR=12 | | | | | | |
| TLY | Talaya | 37.24 | 320 | eP | P | 13 31 41.7 | +1.1 |
| TLY | | | | pmax | pmax | | |
| | comp=Z,49nm,1.6s | | | | | | |
| TLY | | | | MLR | MLR | | |
| | comp=Z,247nm,18.0s | | | | | | |
| TLY | Talaya | 37.24 | 320 | eP | P | 13 31 38.7 | -1.9 |
| | comp=Z,22nm,0.7s | | | | | | |
| NONG | Nongkai | 37.60 | 263 | P | P | 13 31 45.2 | +1.2 |
| | comp=Z,34nm,1.0s,comp=Z,4µm | | | | | | |
| MOY | Mondy | 38.77 | 319 | eP | P | 13 31 54.1 | +0.6 |
| MOY | | | | pmax | pmax | | |
| | comp=Z,26nm,1.9s | | | | | | |
| CHAI | Chaiyaphum | 39.50 | 261 | P | P | 13 32 02.4 | +2.5 |
| | comp=Z,5.4nm,1.0s | | | | | | |
| PHRA | Phrae | 39.99 | 265 | P | P | 13 32 04.7 | +0.7 |
| | comp=Z,15nm,0.8s,comp=Z,58µm | | | | | | |
| UTTA | Uttaradit | 40.00 | 264 | P | P | 13 32 04.2 | +0.1 |
| | comp=Z,5.7nm,0.8s | | | | | | |
| PBKT | Sadao Pong | 40.11 | 262 | P | P | 13 32 05.5 | +0.6 |
| | comp=Z,14nm,1.6s,comp=Z,807nm | | | | | | |
| SRAK | Srakaew | 40.29 | 258 | P | P | 13 32 03.7 | -2.8 |
| NAYO | Nakonayok | 40.77 | 259 | P | P | 13 32 13.6 | +3.1 |
| | comp=Z,17nm,0.9s,comp=Z,1µm | | | | | | |
| CMMT | Chiang Mai | 41.00 | 266 | P | P | 13 32 12.1 | -0.3 |
| | comp=Z,13nm,1.0s | | | | | | |
| CHTO | Chiang Mai | 41.01 | 266 | P | P | 13 32 12.2 | -0.2 |
| | comp=Z,59nm,1.0s | | | | | | |
| CHTO | Chiang Mai | 41.01 | 266 | eP | P | 13 32 11.0 | -1.5 |
| CHTO | | | | pmax | pmax | | |
| | comp=Z,12nm,1.0s | | | | | | |
| CHTO | Chiang Mai | 41.01 | 266 | eP | P | 13 32 10.9 | -1.5 |
| | comp=Z,12nm,1.0s | | | | | | |
| CM01 | Chiang Mai Arr | 41.14 | 266 | eP | P | 13 32 12.8 | -0.7 |
| CMAR | Chiang Mai Arr | 41.14 | 266 | P | P | 13 32 13.0 | -0.5 |
| | comp=Z,2.2nm,0.8s,baz=48,slow=9.2,SNR=19 | | | | | | |
| CMAR | | | | LR | LR | 13 49 48.0 | |
| | comp=Z,50nm,18.1s,baz=66,slow=37 | | | | | | |
| CMAR | Chiang Mai Arr | 41.14 | 266 | P | P | 13 32 13.0 | -0.5 |
| CMAR | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.8s | | | | | | |
| CMAR | | | | MLR | MLR | | |
| | comp=Z,50nm,18.1s | | | | | | |
| UTHA | Uthaitani | 41.86 | 262 | P | P | 13 32 22.8 | +3.4 |
| COEN | Coen | 42.08 | 179 | eP | P | 13 32 21.0 | -0.1 |
| | comp=Z,9.3nm,0.9s | | | | | | |
| MTN | Manton Dam | 42.47 | 197 | eP | P | 13 32 22.9 | -1.4 |
| | comp=Z,11nm,0.6s | | | | | | |
| HVS | Khovu-Aksy | 42.99 | 316⇓ | eP | P | 13 32 30.0 | +1.7 |
| HVS | | | | pmax | pmax | | |
| | comp=Z,24nm,0.7s | | | | | | |
| TIXI | Tiksi | 43.99 | 354 | P | P | 13 32 35.5 | -0.5 |
| | comp=Z,1.9nm,0.5s,baz=141,slow=6.7,SNR=8.6 | | | | | | |
| TIXI | Tiksi | 43.99 | 354 | eP | P | 13 32 35.2 | -0.8 |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.5s | | | | | | |
| TIXI | Tiksi | 43.99 | 354 | eP | P | 13 32 35.2 | -0.8 |
| | comp=Z,8.3nm,1.5s | | | | | | |
| IPM | Ipoh | 46.12 | 247 | eP | P | 13 32 51.9 | -1.9 |
| | comp=Z,9.2nm,0.8s | | | | | | |
| WMQ | Urumqi | 46.20 | 305 | P | P | 13 32 55.9 | +1.8 |
| WMQ | | | | LR | LR | | |
| | comp=Z,94nm,21.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,210nm,19.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,170nm,19.1s | | | | | | |
| TAPN | Taplejung | 48.24 | 282 | eP | P | 13 33 09.8 | -0.7 |
| ODAN | Odare | 48.65 | 282 | eP | P | 13 33 12.7 | -0.9 |
| | comp=Z,7.6nm,0.5s | | | | | | |
| WRAB | Tennant Creek | 48.69 | 190c | eP | P | 13 33 12.8 | -0.7 |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,45nm,0.9s | | | | | | |
| WRAB | Tennant Creek | 48.69 | 190 | eP | P | 13 33 11.0 | -2.5 |
| | comp=Z,40nm,0.8s | | | | | | |
| WB2 | Warramunga Arr | 48.70 | 190 | eP | P | 13 33 12.8 | -0.8 |
| WRA | Warramunga Arr | 48.70 | 190 | P | P | 13 33 12.8 | -0.8 |
| | comp=Z,36nm,0.8s,baz=11,slow=8.2,SNR=48 | | | | | | |
| WRA | | | | PcP | PcP | 13 34 40.0 | +1.1 |
| | comp=Z,1.8nm,0.5s,baz=4.6,slow=3.7,SNR=5.2 | | | | | | |
| WRA | | | | LR | LR | 13 51 53.6 | |
| | comp=Z,82nm,21.9s,baz=315,slow=34 | | | | | | |
| PSI | Prapat | 48.80 | 247 | P | P | 13 33 15.1 | +0.4 |
| | comp=Z,15nm,0.7s,baz=54,slow=3.0,SNR=16 | | | | | | |
| PSI | Prapat | 48.80 | 247 | eP | P | 13 33 14.8 | +0.1 |
| PSI | | | | pmax | pmax | | |
| | comp=Z,18nm,0.8s | | | | | | |
| PSI | Prapat | 48.80 | 247 | eP | P | 13 33 14.8 | +0.1 |
| | comp=Z,18nm,0.8s | | | | | | |
| ZAA0 | Zalesovo Array | 48.82 | 318 | eP | P | 13 33 14.4 | +0.2 |
| | comp=Z,8.4nm,1.0s | | | | | | |
| ZALV | Zalesovo Beam | 48.82 | 318 | P | P | 13 33 13.9 | -0.3 |
| | comp=Z,3.0nm,0.6s,baz=98,slow=6.7,SNR=17 | | | | | | |
| ZALV | | | | PcP | PcP | 13 34 38.4 | -0.6 |
| | comp=Z,4.9nm,0.8s,baz=106,slow=3.4,SNR=6.3 | | | | | | |
| ZALV | | | | LR | LR | 13 54 13.3 | |
| | comp=Z,114nm,18.2s,baz=70,slow=37 | | | | | | |
| RAMN | Ramite | 49.30 | 282 | eP | P | 13 33 18.0 | -0.6 |
| | comp=Z,8.6nm,0.6s | | | | | | |
| JIRN | Jiri | 49.47 | 283 | eP | P | 13 33 19.4 | -0.7 |
| | comp=Z,134nm,0.7s | | | | | | |
| GUN | Gumba | 49.67 | 284 | eP | P | 13 33 21.1 | -0.5 |
| | comp=Z,12nm,0.5s | | | | | | |
| MK01 | Makanchi Array | 50.01 | 309 | eP | P | 13 33 23.2 | -0.2 |
| MK31 | Makanchi Array | 50.01 | 309 | i P | P | 13 33 21.7 | -1.8 |
| MK31 | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.9s | | | | | | |
| MK31 | Makanchi Array | 50.01 | 309 | eP | P | 13 33 22.1 | -1.4 |
| MKAR | Makanchi Array | 50.01 | 309 | P | P | 13 33 22.7 | -0.8 |
| | comp=Z,4.6nm,0.7s,baz=92,slow=9.5,SNR=26 | | | | | | |
| MKAR | | | | PcP | PcP | 13 34 44.0 | +0.5 |
| | comp=Z,2.9nm,0.9s,baz=108,slow=4.0,SNR=3.7 | | | | | | |
| MKAR | | | | LR | LR | 13 55 29.6 | |
| | comp=Z,149nm,18.5s,baz=67,slow=37 | | | | | | |
| PKI | Pulchoki | 50.16 | 283 | eP | P | 13 33 24.2 | -1.1 |
| DMN | Daman | 50.41 | 284 | eP | P | 13 33 26.5 | -0.6 |
| | comp=Z,10nm,0.7s | | | | | | |
| GSI | Gunungsitoli | 50.77 | 246 | eP | P | 13 33 29.3 | -0.2 |
| | comp=Z,54nm,1.1s | | | | | | |
| KOLN | Koldanda | 51.66 | 284 | eP | P | 13 33 35.7 | -0.7 |
| | comp=Z,12nm,0.6s | | | | | | |
| PYUN | Piuthan | 52.09 | 285 | eP | P | 13 33 39.0 | -0.6 |
| | comp=Z,34nm,0.6s | | | | | | |
| PDGK | Podgornoye | 52.17 | 304 | i P | P | 13 33 39.0 | -0.9 |
| PDGK | | | | pmax | pmax | | |
| | comp=Z,17nm,0.8s | | | | | | |
| AS01 | Alice Springs | 52.41 | 190 | eP | P | 13 33 41.3 | -0.3 |
| KURK | Kurchatov | 52.41 | 314c | i P | P | 13 33 41.1 | -0.3 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,47nm,1.0s | | | | | | |
| KURK | Kurchatov | 52.41 | 314 | eP | P | 13 33 41.3 | -0.1 |
| | comp=Z,38nm,0.9s | | | | | | |
| AS31 | Alice Springs | 52.42 | 190 | eP | P | 13 33 41.5 | -0.2 |
| | comp=Z,1.0nm,0.6s | | | | | | |
| ASAR | Alice Springs | 52.42 | 190 | P | P | 13 33 40.5 | -1.2 |
| | comp=Z,1.3nm,0.5s,baz=8.4,slow=5.5,SNR=15 | | | | | | |
| ASAR | | | | PcP | PcP | 13 34 53.2 | +0.6 |
| | comp=Z,1.7nm,0.8s,baz=12,slow=4.0,SNR=6.7 | | | | | | |
| ASAR | | | | LR | LR | 13 54 32.5 | |
| | comp=Z,56nm,21.5s,baz=36,slow=34 | | | | | | |
| TKM2 | Tokmak 2 | 55.05 | 304 | i P | P | 13 34 00.5 | -0.7 |
| TKM2 | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.7s | | | | | | |
| KSH | Kashi | 55.31 | 300 | eP | P | 13 34 06.4 | +3.4 |
| KSH | | | | pP | sP | 13 34 10.6 | +6.9 |
| KSH | | | | PcP | PcP | 13 35 07.1 | +3.4 |
| KSH | | | | PP | PP | 13 36 12.6 | +6.2 |
| KSH | | | | S | S | 13 41 51.0 | +3.0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| KSH | | | | ScS | **ScS** | **13 43 53.5** | **-0.1** |
| KSH | | | | SS | **SS** | **13 45 35.4** | **+3.4** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.5s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,70nm,3.0s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,45nm,3.5s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,40nm,3.9s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,210nm,5.4s | | | | | | |
| **AAK** | **Ala-Archa** | **55.90** | **304⇑** | *e*P | **P** | **13 34 06.6** | **-0.6** |
| AAK | | | | pmax | pmax | | |
| | comp=Z,12nm,1.2s | | | | | | |
| **AAK** | **Ala-Archa** | **55.90** | **304** | *e*P | **P** | **13 34 06.8** | **-0.4** |
| | comp=Z,3.5nm,0.8s | | | | | | |
| **IL1** | **Eielson Array** | **56.39** | **29** | *e*P | **P** | **13 34 10.2** | **+0.1** |
| **ILAR** | **Eielson Array** | **56.39** | **29** | P | **P** | **13 34 09.2** | **-0.9** |
| | comp=Z,4.1nm,1.1s,baz=248,slow=5.9,SNR=12 | | | | | | |
| **ILB** | **Eielson Array** | **56.39** | **29** | *e*P | **P** | **13 34 11.0** | **+0.9** |
| **SFK** | **Sufi-Kurgan** | **57.09** | **301** | *i* P | **P** | **13 34 15.5** | **-0.3** |
| SFK | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.6s | | | | | | |
| **MNAS** | **Manas** | **57.37** | **304** | P | **P** | **13 34 17.8** | **+0.1** |
| **BVA0** | **Borovoye Array** | **57.41** | **317** | P | **P** | **13 34 17.7** | **+0.1** |
| BVA0 | | | | pmax | pmax | | |
| | comp=Z,14nm,0.7s | | | | | | |
| **BRVK** | **Borovoye** | **57.47** | **317c** | *e*P | **P** | **13 34 18.5** | **+0.5** |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,14nm,0.7s | | | | | | |
| **BRVK** | **Borovoye** | **57.47** | **317** | *e*P | **P** | **13 34 18.1** | **+0.2** |
| | comp=Z,14nm,0.7s | | | | | | |
| **KK31** | **Karatay Array** | **58.70** | **305** | *i* P | **P** | **13 34 26.8** | **0.0** |
| KK31 | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.4s | | | | | | |
| **STKA** | **Stephens Creek** | **59.92** | **181** | P | **P** | **13 34 34.3** | **-0.8** |
| | comp=Z,3.5nm,0.7s,baz=347,slow=6.7,SNR=12 | | | | | | |
| **INK** | **Inuvik** | **61.69** | **25** | P | **P** | **13 34 47.0** | **+0.2** |
| | comp=Z,3.3nm,0.6s,baz=292,slow=4.3,SNR=17 | | | | | | |
| **INK** | **Inuvik** | **61.69** | **25** | P | **P** | **13 34 47.0** | **+0.2** |
| INK | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.6s | | | | | | |
| **INK** | **Inuvik** | **61.69** | **25** | *e*P | **P** | **13 34 47.3** | **+0.5** |
| | comp=Z,18nm,1.5s | | | | | | |
| **SVE** | **Sverdlovsk** | **62.49** | **322⇑** | *e*P | **P** | **13 34 53.0** | **+0.6** |
| SVE | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.7s | | | | | | |
| **ARU** | **Arti** | **63.69** | **322c** | *i*P | **P** | **13 35 00.1** | **-0.3** |
| ARU | | | | | | 13 35 30.3 | |
| ARU | | | | | | 13 37 16.6 | |
| ARU | | | | S | **S** | **13 43 36.5** | **+1.0** |
| ARU | | | | SS | **SS** | **13 47 43.2** | **+0.7** |
| ARU | | | | pmax | pmax | | |
| | comp=Z,18nm,1.2s | | | | | | |
| **AB31** | **Akbulak array** | **64.53** | **314** | *i* P | **P** | **13 35 05.9** | **-0.1** |
| AB31 | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.5s | | | | | | |
| **GEYT** | **Alibeck** | **69.18** | **303** | P | **P** | **13 35 35.9** | **0.0** |
| | comp=Z,2.5nm,0.7s,baz=64,slow=3.4,SNR=4.7 | | | | | | |
| **YKA** | **Yellowknife Ar** | **70.81** | **29** | P | **P** | **13 35 45.1** | **-0.3** |
| | comp=Z,1.5nm,0.6s,baz=295,slow=6.3,SNR=6.3 | | | | | | |
| **ARCES** | **ARCESS Array B** | **72.48** | **341** | P | **P** | **13 35 55.8** | **+0.4** |
| | comp=Z,3.4nm,0.6s,baz=60,slow=7.2,SNR=9.5 | | | | | | |
| **VRH** | **Novokhopyorsk** | **74.81** | **320** | *e*P | **P** | **13 36 10.3** | **+0.9** |
| VRH | | | | pmax | pmax | | |
| | comp=N,10.0nm,0.8s | | | | | | |
| **LPSR** | **Galich'ya Gora** | **75.71** | **322** | *e*P | **P** | **13 36 13.2** | **-1.3** |
| LPSR | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.8s | | | | | | |
| **OBN** | **Obninsk** | **75.73** | **325** | *e*P | **P** | **13 36 13.7** | **-0.9** |
| OBN | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.0s | | | | | | |
| **VSR** | **Storozhevoye** | **76.23** | **321** | *e*P | **P** | **13 36 15.9** | **-1.6** |
| VSR | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.7s | | | | | | |
| **FINES** | **FINESS Array B** | **77.00** | **334** | P | **P** | **13 36 21.6** | **-0.1** |
| | comp=Z,2.5nm,0.6s,baz=69,slow=7.6,SNR=6.9 | | | | | | |
| **J08A** | **Circle Bar Ran** | **77.02** | **48** | *e*P | **P** | **13 36 22.9** | **+0.6** |
| | comp=Z,16nm,1.8s | | | | | | |
| **BMO** | **Blue Mountains** | **77.10** | **46** | *e*P | **P** | **13 36 24.6** | **+1.9** |
| BMO | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.4s | | | | | | |
| **BMO** | **Blue Mountains** | **77.10** | **46** | *e*P | **P** | **13 36 24.6** | **+1.9** |
| | comp=Z,7.5nm,1.4s | | | | | | |
| **ZEI** | **Tsey** | **77.23** | **312** | *e*P | **P** | **13 36 22.9** | **-0.8** |
| ZEI | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.6s | | | | | | |
| **BEKR** | **Beckworth** | **77.31** | **52** | *e*P | **P** | **13 36 24.4** | **+0.3** |
| | comp=Z,3.9nm,0.8s | | | | | | |
| **KBZ** | **Khabaz** | **77.46** | **313** | P | **P** | **13 36 25.8** | **+1.1** |
| | comp=Z,17nm,0.8s,baz=179,slow=3.5,SNR=23 | | | | | | |
| **KIV** | **Kislovodsk** | **77.50** | **313** | *e*P | **P** | **13 36 26.6** | **+1.6** |
| KIV | | | | pmax | pmax | | |
| | comp=Z,19nm,1.1s | | | | | | |
| **KIV** | **Kislovodsk** | **77.50** | **313** | *e*P | **P** | **13 36 25.6** | **+0.7** |
| | comp=Z,13nm,0.7s | | | | | | |
| **NEY** | **Neytrino** | **77.80** | **313⇓** | *e*P | **P** | **13 36 28.4** | **+1.6** |
| NEY | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.8s | | | | | | |
| **PAHR** | **Pah Rah Range** | **78.06** | **51** | *e*P | **P** | **13 36 29.6** | **+1.4** |
| | comp=Z,4.1nm,1.1s | | | | | | |
| **CMB** | **Columbia Colle** | **78.11** | **53** | *e*P | **P** | **13 36 28.0** | **-0.4** |
| CMB | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.6s | | | | | | |
| **CMB** | **Columbia Colle** | **78.11** | **53** | *e*P | **P** | **13 36 28.0** | **-0.4** |
| | comp=Z,2.7nm,0.6s | | | | | | |
| **YERR** | **Yerington** | **78.48** | **52** | *e*P | **P** | **13 36 30.4** | **-0.3** |
| | comp=Z,3.2nm,0.8s | | | | | | |
| **ARTV** | **Artvin** | **79.28** | **311** | *e*P | **P** | **13 36 35.4** | **+0.3** |
| | comp=Z,7.7nm,1.2s | | | | | | |
| **FFC** | **Flin Flon** | **80.43** | **32⇑** | *e*P | **P** | **13 36 43.9** | **+3.2** |
| FFC | | | | pmax | pmax | | |
| | comp=Z,32nm,2.5s | | | | | | |
| **FXWY** | **Fox Creek** | **81.63** | **45** | *e*P | **P** | **13 36 48.9** | **+1.2** |
| | comp=Z,12nm,1.5s | | | | | | |
| **AKASG** | **Malin Array Be** | **81.85** | **324** | P | **P** | **13 36 45.4** | **-2.9** |
| | comp=Z,2.0nm,0.6s,baz=53,slow=5.7,SNR=6.6 | | | | | | |
| AKASG | | | | LR | LR | 14 15 32.9 | |
| | comp=Z,86nm,18.1s,baz=35,slow=37 | | | | | | |
| **KIEV** | **Kiev** | **81.86** | **324⇓** | *e*P | **P** | **13 36 47.8** | **-0.6** |
| KIEV | | | | pmax | pmax | | |
| | comp=Z,17nm,2.5s | | | | | | |
| **DUG** | **Dugway, Tooele** | **82.25** | **48** | *e*P | **P** | **13 36 53.7** | **+2.8** |
| DUG | | | | pmax | pmax | | |
| | comp=Z,20nm,1.8s | | | | | | |
| **DUG** | **Dugway, Tooele** | **82.25** | **48** | *e*P | **P** | **13 36 53.7** | **+2.8** |
| | comp=Z,20nm,1.8s | | | | | | |
| **NB2** | **NORSAR Subarra** | **82.59** | **338** | P | **P** | **13 36 51.4** | **-0.7** |
| | comp=Z,7.3nm,1.0s,baz=40,slow=5.3 | | | | | | |
| **NOA** | **NORSAR Array B** | **82.59** | **338** | P | **P** | **13 36 51.1** | **-1.0** |
| | comp=Z,2.7nm,0.8s,baz=42,slow=5.3,SNR=5.4 | | | | | | |
| **PFO** | **Pinyon Flats O** | **83.00** | **56** | *i* P | **P** | **13 36 58.4** | **+3.5** |
| **PDAR** | **Pinedale Array** | **83.00** | **45** | P | **P** | **13 36 56.8** | **+1.9** |
| | comp=Z,0.6nm,0.7s,baz=270,slow=4.4,SNR=6.1 | | | | | | |
| **LCMT** | **Little Creek M** | **83.58** | **51** | *e*P | **P** | **13 37 00.4** | **+2.6** |
| | comp=Z,12nm,1.7s | | | | | | |
| **KNB** | **Kanab** | **83.87** | **51** | *e*P | **P** | **13 36 59.3** | **-0.1** |
| KNB | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.0s | | | | | | |
| **KNB** | **Kanab** | **83.87** | **51** | *e*P | **P** | **13 36 59.3** | **-0.1** |
| | comp=Z,4.9nm,1.0s | | | | | | |
| **Q16A** | **Castle Valley** | **84.00** | **49** | *e*P | **P** | **13 37 03.7** | **+3.7** |
| | comp=Z,16nm,1.7s | | | | | | |
| **SRU** | **San Rafael Swe** | **84.33** | **48** | *e*P | **P** | **13 37 02.2** | **+0.5** |
| SRU | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.0s | | | | | | |
| **SRU** | **San Rafael Swe** | **84.33** | **48** | *e*P | **P** | **13 37 02.2** | **+0.5** |
| | comp=Z,4.1nm,1.0s | | | | | | |
| **RAYN** | **Ar Rayn** | **85.03** | **294** | *e*P | **P** | **13 37 05.7** | **+0.4** |
| | comp=Z,30nm,0.8s | | | | | | |
| **BR131** | **Keskin Array S** | **85.46** | **313** | *e*P | **P** | **13 37 07.6** | **+0.3** |
| **BRTR** | **Keskin Array B** | **85.46** | **313** | P | **P** | **13 37 07.1** | **-0.2** |
| | comp=Z,6.1nm,0.8s,baz=106,slow=4.5,SNR=31 | | | | | | |
| **WUAZ** | **Wupatki** | **85.65** | **52** | *e*P | **P** | **13 37 11.7** | **+3.3** |
| | comp=Z,6.4nm,1.1s | | | | | | |
| **BUR04** | **Bucovina Ar. S** | **85.81** | **323** | *e*P | **P** | **13 37 10.1** | **+1.3** |
| **BR231** | **Keskin MP Arra** | **85.95** | **313** | *e*P | **P** | **13 37 08.7** | **-1.0** |
| **GERES** | **GERESS Array B** | **90.65** | **329** | P | **P** | **13 37 30.8** | **-1.1** |
| | comp=Z,0.8nm,0.7s,baz=60,slow=7.9,SNR=4.0 | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **94.49** | **53** | *e*P | **P** | **13 37 52.7** | **+2.7** |
| **TXAR** | **Lajitas Array** | **94.49** | **53** | P | **P** | **13 37 50.9** | **+0.8** |
| | comp=Z,1.2nm,0.8s,baz=312,slow=2.7,SNR=12 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **124.06** | **312** | PKP | **PKPdf** | **13 43 27.8** | **-0.6** |
| | comp=Z,1.2nm,0.9s,baz=19,slow=2.5,SNR=5.6 | | | | | | |
| **PTGA** | **Pitinga** | **145.00** | **42** | PKPbc | **PKPbc** | **13 44 06.5** | **-0.2** |
| | comp=Z,7.2nm,0.7s,baz=331,slow=5.7,SNR=10 | | | | | | |
| **LPAZ** | **La Paz** | **149.16** | **74** | PKPbc | **PKPbc** | **13 44 17.6** | **-1.6** |
| | comp=Z,6.0nm,0.8s,baz=314,slow=1.8,SNR=12 | | | | | | |

**MAN 08 13:35:20, 11°.47N×124°.52E, h21$^{km}$, mb4.3, ML3.1, MS2.9, 2D, Leyte**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OCLP** | **Ormoc** | **0.42** | **168** | *e*P | Pb | 13 35 29.7 | +0.9 |
| OCLP | | | | *e*S | Sn | 13 35 38.2 | +0.1 |
| **PLP** | **Palo** | **0.54** | **124⇓** | *e*P | Pn | 13 35 32.7 | +0.2 |
| PLP | | | | *e*S | Sn | 13 35 42.4 | +1.5 |
| **CNP** | **Catarman** | **1.04** | **8** | *e*P | Pb | 13 35 39.0 | -0.4 |
| CNP | | | | *e*S | Sn | 13 35 54.6 | +1.2 |
| **LLP** | **Lapu-Lapu** | **1.27** | **206⇓** | *i*P | Pn | 13 35 42.9 | +0.3 |
| LLP | | | | *i* S | Sb | 13 36 00.0 | +0.9 |
| **MSLP** | **Maasin** | **1.37** | **166** | *e*P | Pb | 13 35 45.6 | +0.7 |
| MSLP | | | | *e*S | Sb | 13 36 05.8 | +3.8 |

*ISCJB **08** 13:37:37.0±0.4, 11°.35N±0°.08×85°.69W±0°.08, h183$^{km}$±3$^{km}$, mb3.4/6, Error ellipse: s-maj=17.9km s-min=5.5km az=136.7*

*CASC **08** 13:37:38.0±1.5, 11°.38N×85°.63W, h175$^{km}$±6$^{km}$, MD4.1*

*IDC **08** 13:37:39.9±3.2, 11°.52N×85°.60W, h197$^{km}$±32$^{km}$, mb3.3/7, mb1 3.6/9, mb1mx3.4/29, mbtmp3.9/9, Error ellipse: s-maj=31.6km s-min=15.0km az=37.0*

**ISC 08 13:37:37.9**±0.7**, 11°.38N**±0°.07×**85°.66W**±0°.08**, h179**$^{km}$±5$^{km}$**, n36, σ1$^s$47**/45**, mb3.5**/6**, 4C-1D, Nicaragua**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CONN** | **Concepcion** | **0.18** | **9** | *e*P | **Pn** | **13 38 01.5** | **-0.1** |
| **CRZ1** | **La Cruz** | **0.31** | **176⇑** | *e*P | **Pn** | **13 38 01.3** | **-0.6** |
| **GPS3** | **Bodega del ICE** | **0.69** | **155** | *e*P | **Pn** | **13 38 03.4** | **-0.1** |
| GPS3 | | | | *e*S | **Sn** | **13 38 23.1** | **-0.1** |
| **ACON** | **Acoyapa** | **0.75** | **39** | *i* P | **Pn** | **13 38 03.8** | **0.0** |
| **MASN** | **Masaya** | **0.77** | **321** | *e*P | **Pn** | **13 38 03.6** | **-0.3** |
| **MESS** | **Mesas** | **0.78** | **145⇑** | *e*P | **Pn** | **13 38 03.9** | **-0.1** |
| MESS | | | | *e*S | **Sn** | **13 38 23.7** | **-0.6** |
| **COLC** | **Colonia** | **0.84** | **148** | *e*P | **Pn** | **13 38 04.3** | **-0.1** |
| COLC | | | | *e*S | **Sn** | **13 38 25.1** | **+0.2** |
| **CUI** | **Cuipilapa** | **0.87** | **146⇑** | *e*P | **Pn** | **13 38 04.6** | **+0.1** |
| CUI | | | | *e*S | **Sn** | **13 38 24.5** | **-0.7** |
| **MGAN** | **Managua** | **0.96** | **323** | *e*P | **Pn** | **13 38 05.2** | **+0.1** |
| MGAN | | | | *e*S | **Sn** | **13 38 26.5** | **+0.3** |
| **XAVN** | **Gruta Xavier** | **1.01** | **319** | *e*P | **Pn** | **13 38 05.6** | **+0.1** |
| **APYN** | **Apoyeque** | **1.09** | **321** | *e*P | **Pn** | **13 38 06.4** | **+0.3** |
| **CHPA** | **Chiripa** | **1.19** | **142** | *e*P | **Pn** | **13 38 04.0** | **-3.0** |
| CHPA | | | | *e*S | **Sn** | **13 38 24.3** | **-5.3** |
| **COPN** | **Copaltepe** | **1.21** | **311** | *e*P | **Pn** | **13 38 07.0** | **-0.2** |
| **VCR** | **Vista de Mar** | **1.25** | **179⇑** | *i*P | **Pn** | **13 38 07.1** | **-0.5** |
| **MOMN** | **Momotombo** | **1.34** | **320** | *e*P | **Pn** | **13 38 08.3** | **+0.1** |
| **BRAN** | **Las Pilas** | **1.49** | **333** | *e*P | **Pn** | **13 38 05.9** | **-3.7** |
| **ESPN** | **Las Esperanzas** | **1.55** | **59⇓** | *i*P | **Pn** | **13 38 10.3** | **+0.1** |
| **SRA1** | **San Ramˆ‡n** | **1.73** | **138** | *e*S | **Sn** | **13 38 38.1** | **-0.6** |
| **CGA2** | **Cerro Gallo 2** | **1.79** | **139** | *e*P | **Pn** | **13 38 13.0** | **+0.2** |
| **ESTN** | **Estel** | **1.85** | **338** | *e*P | **Pn** | **13 38 13.7** | **+0.4** |
| **CRIN** | **San Cristobal** | **1.89** | **314** | *e*P | **Pn** | **13 38 13.7** | **0.0** |
| **LCR2** | **La Lucha 2** | **2.30** | **135** | *e*P | **Pn** | **13 38 19.1** | **+0.7** |
| LCR2 | | | | *e*S | **Sn** | **13 38 49.6** | **-0.3** |
| **URSC** | **Urasca** | **2.40** | **130** | *e*P | **Pn** | **13 38 21.3** | **+1.7** |
| **QCR1** | **Quepos** | **2.43** | **143** | *e*P | **Pn** | **13 38 20.4** | **+0.6** |
| **DRK0** | **Durika** | **3.17** | **131** | *e*P | **Pn** | **13 38 29.7** | **+0.9** |
| DRK0 | | | | *e*S | **Sn** | **13 39 07.4** | **-1.0** |
| **CMIG** | **Matias Romero** | **10.59** | **303** | P | **Pn** | **13 40 05.4** | **+0.2** |
| | 0.6nm,0.3s,baz=147,slow=8.5,SNR=7.1 | | | | | | |
| **SDV** | **Santo Domingo** | **14.99** | **98** | P | **P** | **13 41 02.2** | **-0.2** |
| | 0.4nm,0.3s,baz=294,slow=10,SNR=3.6 | | | | | | |
| **PCRV** | **Puerto La Cruz** | **20.68** | **91** | P | **P** | **13 42 05.6** | **+1.3** |
| | 9.7nm,0.4s,baz=232,slow=4.6,SNR=6.1 | | | | | | |
| **TXAR** | **Lajitas Array** | **24.52** | **319** | P | **P** | **13 42 42.1** | **+1.1** |
| | 1.0nm,0.4s,baz=141,slow=10,SNR=35 | | | | | | |
| TXAR | | | | pP | **pP** | **13 43 20.9** | **+4.4** |
| | 1.0nm,0.7s,baz=139,slow=10,SNR=6.4 | | | | | | |
| **PDAR** | **Pinedale Array** | **37.55** | **331** | P | **P** | **13 44 35.0** | **-0.1** |
| | 0.2nm,0.6s,baz=148,slow=7.0,SNR=2.6 | | | | | | |
| **PLCA** | **Paso Flores** | **53.70** | **166** | P | **P** | **13 46 42.1** | **+0.7** |
| | 0.8nm,0.7s,baz=354,slow=10.0,SNR=3.6 | | | | | | |
| **YKA** | **Yellowknife Ar** | **55.11** | **344** | P | **P** | **13 46 49.4** | **-1.8** |
| | 0.4nm,0.4s,baz=137,slow=7.6,SNR=6.0 | | | | | | |
| **ILAR** | **Eielson Array** | **67.70** | **336** | P | **P** | **13 48 14.6** | **-1.1** |
| | 0.3nm,0.6s,baz=121,slow=4.6,SNR=12 | | | | | | |
| **ESDC** | **Sonseca Array** | **76.47** | **52** | P | **P** | **13 49 07.3** | **-1.0** |
| | 0.6nm,0.6s,baz=285,slow=5.6,SNR=4.9 | | | | | | |
| **ASAR** | **Alice Springs** | **140.48** | **247** | PKhKP | PKPpre | 13 56 39.9 | |
| | 0.3nm,0.5s,baz=117,slow=3.2,SNR=5.3 | | | | | | |
| ASAR | | | | PKP | **PKPdf** | **13 56 46.9** | **+0.2** |
| | 1.0nm,0.6s,baz=101,slow=2.2,SNR=14 | | | | | | |
| **WRA** | **Warramunga Arr** | **140.64** | **252** | PKhKP | PKPpre | 13 56 41.5 | |
| | 0.2nm,0.5s,baz=95,slow=3.3,SNR=8.8 | | | | | | |
| WRA | | | | PKP | **PKPdf** | **13 56 47.2** | **+0.2** |
| | 1.6nm,0.6s,baz=90,slow=2.0,SNR=32 | | | | | | |

*IDC **08** 13:48:56.5±2.6, 12°.04N×125°.52E, h0$^{km}$, mb3.7/3, mb1 3.8/3, mb1mx3.5/27, mbtmp3.7/3, MS3.0/1, Ms1 3.0/1, ms1mx2.4/30, Error ellipse: s-maj=98.5km s-min=29.9km az=57.0*

*ISCJB **08** 13:48:57.2±1.6, 12°.24N±0°.05×125°.91E±0°.09, h28$^{km}$±10$^{km}$, mb3.6/3, Error ellipse: s-maj=14.4km s-min=8.9km az=1.1*

*MAN **08** 13:48:57, 12°.19N×125°.84E, h20$^{km}$, mb4.7, ML3.6, MS3.6*

**ISC 08 13:48:59.9**±2.2**, 12°.16N**±0°.06×**125°.8E**±0°.1**, h27**$^{km}$±14$^{km}$**, n13, σ2$^s$19**/19**, mb3.5**/3**, 2D, Samar**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BESP** | **Borongan** | **0.66** | **212** | *e*P | **Pb** | **13 49 11.7** | **-1.1** |
| BESP | | | | *e*S | **Sn** | **13 49 23.1** | **+0.2** |
| **CNP** | **Catarman** | **1.15** | **287** | *e*P | **Pn** | **13 49 17.9** | **-2.3** |
| CNP | | | | *e*S | **Sb** | **13 49 36.1** | **+0.3** |
| **PLP** | **Palo** | **1.27** | **219⇓** | *e*P | **Pn** | **13 49 20.3** | **-1.6** |
| PLP | | | | *e*S | **Sn** | **13 49 37.7** | **-0.4** |
| **OCLP** | **Ormoc** | **1.60** | **226** | *e*P | **Pn** | **13 49 25.2** | **-1.2** |
| **PVCP** | **Virac** | **2.14** | **312** | *e*P | **Pn** | **13 49 31.8** | **-2.0** |
| PVCP | | | | *e*S | **Sb** | **13 50 10.3** | **+6.2** |
| **MSLP** | **Maasin** | **2.21** | **204** | *e*P | **Pn** | **13 49 35.2** | **+0.4** |
| MSLP | | | | *e*S | **Sn** | **13 50 03.4** | **+2.1** |
| **LLP** | **Lapu-Lapu** | **2.56** | **224** | *e*P | **Pn** | **13 49 41.8** | **+2.1** |
| LLP | | | | *e*S | **Sn** | **13 50 11.4** | **+1.4** |
| **RCP** | **Roxas** | **3.04** | **259⇓** | *e*P | **Pn** | **13 49 47.3** | **+1.1** |
| RCP | | | | *e*S | **Sb** | **13 50 27.9** | **-2.1** |
| **GUIM** | **Jordan** | **3.49** | **244** | *e*P | **Pn** | **13 49 53.1** | **+0.7** |
| **GUMO** | **Guam** | **18.65** | **84** | LR | LR | 13 59 03.2 | |
| | comp=Z,50nm,21.2s,baz=155,slow=32 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **26.62** | **287** | P | **P** | **13 54 35.1** | **-1.3** |
| | 1.0nm,0.8s,baz=93,slow=7.3,SNR=6.8 | | | | | | |
| **ASAR** | **Alice Springs** | **36.48** | **167** | P | **P** | **13 56 03.0** | **0.0** |
| | 0.3nm,0.6s,baz=338,slow=6.5,SNR=4.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **50.25** | **322** | P | **P** | **13 57 54.0** | **+0.2** |
| | 1.4nm,0.7s,baz=116,slow=8.2,SNR=5.2 | | | | | | |

*IDC **08** 14:02:51.7±0.9, 13°.28N×89°.93W, h0$^{km}$, mb4.2/15, mb1 4.4/17, mb1mx4.2/37, mbtmp4.2/17, ML3.4/2, MS4.0/15, Ms1 4.0/15, ms1mx3.7/42, Error ellipse: s-maj=35.6km s-min=13.9km az=44.0*

*ISCJB **08** 14:02:56.5±0.3, 13°.31N±0°.04×90°.04W±0°.04, h33$^{km}$, mb4.5/73, MS4.1/15, Error ellipse: s-maj=7.0km s-min=3.0km az=38.8*

*NEIC **08** 14:02:57.2±0.4, 13°.16N×89°.90W, h35$^{km}$, mb4.6/60, Error ellipse: s-maj=13.8km s-min=5.9km az=223.0*

*CASC **08** 14:02:57.9±1.6, 12°.95N×89°.92W, h0$^{km}$±174$^{km}$, ML3.6, mb4.6(NEIC)*

*BJI **08** 14:03:01.1, 13°.20N×89°.90W, h77$^{km}$, mB5.0/2, Ms5.1/3, Ms7 5.0/5*

**ISC 08 14:02:55.8**±0.6**, 13°.07N**±0°.09×**90°.23W**±0°.08**, h29**$^{km}$**, n350, σ1$^s$30**/343**, mb4.6**/73**, MS4.2**/16**, Near coast of Guatemala**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TGUH** | **Tegucigalpa,Un** | **3.04** | **71** | *e*Pn | **Pn** | **14 03 44.7** | **+2.8** |
| **CRIN** | **San Cristobal** | **3.12** | **96** | *e*P | **Pn** | **14 03 44.7** | **+1.6** |
| CRIN | | | | *e*S | **Sn** | **14 04 20.9** | **+1.3** |
| **COPN** | **Copaltepe** | **3.66** | **104** | *e*P | **Pn** | **14 03 50.7** | **+0.2** |
| COPN | | | | *e*S | **Sn** | **14 04 32.5** | **-0.3** |
| COPN | | | | AML | AML | 14 04 39.6 | |
| | comp=Z,271nm,0.3s | | | | | | |
| **MOMN** | **Momotombo** | **3.66** | **100** | *e*P | **Pn** | **14 03 50.6** | **+0.1** |
| **CCIG** | **Comitan** | **3.68** | **330** | *e*Pn | **Pn** | **14 03 54.2** | **+3.3** |
| **ESTN** | **Estel** | **3.76** | **89** | *e*P | **Pn** | **14 03 53.0** | **+1.1** |
| **XAVN** | **Gruta Xavier** | **3.92** | **103** | *e*P | **Pn** | **14 03 55.9** | **+1.8** |
| **JTS** | **JuntasAbangare** | **5.86** | **118** | *e*P | **Pn** | **14 04 22.6** | **+1.8** |
| **CMIG** | **Matias Romero** | **6.01** | **312** | Pn | **Pn** | **14 04 24.0** | **+1.1** |
| | comp=Z,1.2nm,0.3s,baz=110,slow=9.5,SNR=9.2 | | | | | | |
| CMIG | | | | Sn | **Sn** | **14 05 28.9** | **-1.8** |
| | comp=Z,1.7nm,0.3s,baz=60,slow=20,SNR=2.6 | | | | | | |
| **SJCC** | **San Jacinto, C** | **15.08** | **101** | *e*P | **Pn** | **14 06 29.2** | **+2.2** |
| **HELC** | **Santa Helena** | **16.02** | **114** | *e*P | **P** | **14 06 43.3** | **+0.6** |
| **HELC** | **Santa Helena** | **16.02** | **114** | *e*Pn | **P** | **14 06 42.1** | **-0.6** |
| | comp=Z,40nm,0.9s | | | | | | |
| **GUYC** | **Guyana, Colomb** | **16.59** | **117** | *e*P | **P** | **14 06 51.0** | **+1.8** |
| **NORC** | **Norcasia** | **16.89** | **115** | *e*P | **P** | **14 06 53.3** | **+1.2** |
| **HKT** | **Hockley** | **17.58** | **344** | *e*P | **P** | **14 07 00.9** | **+1.5** |
| | comp=Z,193nm,1.8s | | | | | | |
| **ROSC** | **El Rosal** | **17.71** | **116** | P | **P** | **14 07 04.4** | **+2.9** |
| | comp=Z,0.9nm,0.3s,baz=22,slow=11,SNR=9.2 | | | | | | |
| **ROSC** | **El Rosal** | **17.71** | **116** | *e*P | **P** | **14 07 04.5** | **+2.9** |
| **PRAC** | **Prado** | **17.79** | **120** | *e*P | **P** | **14 07 02.1** | **+0.1** |
| **BARC** | **Barichara** | **17.98** | **109** | *e*P | **P** | **14 07 06.2** | **+1.9** |
| **PAMC** | **Pamplona, Colo** | **18.16** | **107** | *e*P | **Pn** | **14 07 04.5** | **-2.0** |
| **CHIC** | **Chingaza** | **18.32** | **116** | *e*P | **Pn** | **14 07 09.2** | **+0.8** |
| **RUSC** | **La Rusia** | **18.35** | **111** | *e*P | **Pn** | **14 07 09.8** | **+1.0** |
| **340A** | **Bronson** | **18.56** | **350** | P | **Pn** | **14 07 12.7** | **+2.0** |
| | baz=168 | | | | | | |
| **339A** | **Huntington** | **18.60** | **348** | P | **Pn** | **14 07 13.2** | **+1.9** |
| | baz=166 | | | | | | |
| **245A** | **Little AP, Sta** | **18.87** | **1** | P | **Pn** | **14 07 16.5** | **+2.0** |
| | baz=180 | | | | | | |
| **241A** | **Mo Tay, Goldon** | **19.02** | **353** | P | **Pn** | **14 07 17.4** | **+1.1** |
| | baz=171 | | | | | | |
| **NATX** | **Nacogdoches** | **19.04** | **348** | P | **Pn** | **14 07 17.7** | **+1.2** |
| | baz=166 | | | | | | |
| **239A** | **Gary** | **19.25** | **349** | P | **Pn** | **14 07 19.3** | **+0.3** |
| | baz=166 | | | | | | |
| **SDV** | **Santo Domingo** | **19.68** | **100** | P | **P** | **14 07 21.9** | **-1.1** |
| | comp=Z,0.8nm,0.3s,baz=299,slow=7.6,SNR=5.0 | | | | | | |
| SDV | | | | LR | LR | 14 15 56.1 | |
| | comp=Z,347nm,21.7s,baz=248,slow=40 | | | | | | |
| **SDV** | **Santo Domingo** | **19.68** | **100** | *e*P | **P** | **14 07 22.1** | **-0.9** |
| **SDV** | **Santo Domingo** | **19.68** | **100** | *e*P | **P** | **14 07 20.1** | **-2.9** |
| | comp=Z,9.8nm,0.8s | | | | | | |
| **WHTX** | **Lake Whitney,** | **19.96** | **342** | P | **Pn** | **14 07 27.6** | **+0.1** |
| | baz=158 | | | | | | |
| **138A** | **Matatall Enter** | **20.00** | **348** | P | **Pn** | **14 07 27.5** | **-0.4** |
| | baz=165 | | | | | | |
| **Z40A** | **Long Farm, Mag** | **20.30** | **352** | P | Pn | 14 07 30.8 | -0.7 |
| | baz=170 | | | | | | |
| **TXAR** | **Lajitas Array** | **20.43** | **324** | P | Pn | 14 07 32.9 | -0.3 |
| | comp=Z,5.8nm,0.8s,baz=152,slow=12,SNR=68 | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **20.43** | **324** | *e*P | **P** | **14 07 28.9** | **-2.1** |
| **H06E1** | **SOCORRO T-PHAS** | **20.69** | **289** | T | T | 14 28 45.7 | |
| | SNR=7.2 | | | | | | |
| **Y47A** | **UCPARC, Winfie** | **20.85** | **6** | P | Pn | 14 07 36.8 | -1.1 |
| | baz=186 | | | | | | |
| **Y37A** | **Hugo** | **21.38** | **348** | P | **P** | **14 07 42.1** | **+1.0** |
| | baz=165 | | | | | | |
| **MIAR** | **Mount Ida** | **21.59** | **352** | P | **P** | **14 07 44.1** | **+0.9** |
| | baz=170 | | | | | | |
| **X39A** | **Fountain Ranch** | **21.63** | **351** | P | **P** | **14 07 45.0** | **+1.3** |
| | baz=169 | | | | | | |
| **Y35A** | **Marietta** | **21.64** | **344** | P | **P** | **14 07 45.2** | **+1.3** |
| | baz=161 | | | | | | |
| **UALR** | **University of** | **21.69** | **355** | *e*P | **P** | **14 07 41.5** | **-2.8** |
| | comp=Z,30nm,1.0s | | | | | | |
| **X38A** | **Whitesboro** | **21.90** | **350** | P | **P** | **14 07 47.9** | **+1.3** |
| | baz=167 | | | | | | |
| **X37A** | **Clayton** | **21.92** | **349** | P | **P** | **14 07 47.8** | **+0.9** |
| | baz=166 | | | | | | |
| **X35A** | **Drake** | **22.10** | **345** | P | **P** | **14 07 48.9** | **+0.2** |
| | baz=162 | | | | | | |
| **X36A** | **Centrahoma** | **22.11** | **346** | P | **P** | **14 07 49.1** | **+0.2** |
| | baz=163 | | | | | | |
| **W38A** | **Poteau** | **22.24** | **351** | P | **P** | **14 07 50.8** | **+0.5** |
| | baz=168 | | | | | | |
| **SWET** | **Sewanee** | **22.39** | **9** | *e*P | **P** | **14 07 53.1** | **+1.3** |
| | comp=Z,18nm,0.7s | | | | | | |
| **W37B** | **Quinton** | **22.47** | **349** | P | **P** | **14 07 52.4** | **-0.2** |
| | baz=166,SNR=6.2 | | | | | | |
| **W36A** | **Wetumka** | **22.63** | **347** | P | **P** | **14 07 53.5** | **-0.9** |
| | baz=164 | | | | | | |
| **V42A** | **Cord** | **22.66** | **358** | P | **P** | **14 07 53.7** | **-0.9** |
| | baz=176 | | | | | | |
| **V41A** | **Mountainview** | **22.68** | **356** | P | **P** | **14 07 54.3** | **-0.6** |
| | baz=174 | | | | | | |
| **V40A** | **Witts Springs** | **22.75** | **355** | P | **P** | **14 07 55.1** | **-0.7** |
| | baz=173 | | | | | | |
| **W35A** | **Tecumseh** | **22.79** | **346** | P | **P** | **14 07 55.4** | **-0.7** |
| | baz=162,SNR=6.5 | | | | | | |
| **WMOK** | **Wichita Mounta** | **22.92** | **342** | P | **P** | **14 07 57.5** | **0.0** |
| | baz=157 | | | | | | |
| **V38A** | **Canehill** | **23.00** | **351** | P | **P** | **14 07 57.8** | **-0.4** |
| | baz=169 | | | | | | |
| **WVT** | **Waverly** | **23.06** | **5** | P | **P** | **14 07 58.7** | **-0.2** |
| | baz=185 | | | | | | |
| **WVT** | **Waverly** | **23.06** | **5** | *e*P | **P** | **14 07 59.9** | **+1.1** |
| | comp=Z,35nm,1.4s | | | | | | |
| **V37A** | **Hulbert** | **23.14** | **350** | P | **P** | **14 07 59.8** | **+0.1** |
| | baz=167,SNR=5.3 | | | | | | |
| **MNTX** | **Cornudas Mount** | **23.18** | **326** | P | **P** | **14 08 01.6** | **+1.4** |
| | baz=139 | | | | | | |
| **MNTX** | **Cornudas Mount** | **23.18** | **326** | *e*P | **P** | **14 07 59.9** | **-0.3** |
| | comp=Z,23nm,1.0s | | | | | | |
| **U42A** | **Revenden** | **23.20** | **358** | P | **P** | **14 07 59.9** | **-0.3** |
| | baz=177 | | | | | | |
| **U41A** | **Viola** | **23.22** | **357** | P | **P** | **14 08 00.8** | **+0.3** |
| | baz=175 | | | | | | |
| **TKL** | **Tuckaleechee C** | **23.23** | **13** | P | **P** | **14 08 00.8** | **+0.2** |
| | comp=Z,14nm,0.9s,baz=174,slow=11,SNR=7.4 | | | | | | |
| TKL | | | | LR | LR | 14 18 08.6 | |
| | comp=Z,972nm,18.8s,baz=196,slow=40 | | | | | | |
| **TKL** | **Tuckaleechee C** | **23.23** | **13** | *e*P | **P** | **14 08 01.6** | **+0.9** |
| | comp=Z,29nm,1.1s | | | | | | |
| **ATAH** | **Atahualpa** | **23.27** | **149** | P | **P** | **14 08 04.1** | **+2.5** |
| | comp=Z,6.0nm,0.7s,baz=10,slow=6.7,SNR=3.5 | | | | | | |
| ATAH | | | | LR | LR | 14 14 08.9 | |
| | comp=Z,307nm,21.4s,baz=326,slow=29 | | | | | | |
| **TUL1** | **Leonard** | **23.28** | **349** | P | **P** | **14 08 01.9** | **+0.7** |
| | baz=165 | | | | | | |
| **U40A** | **Yellville** | **23.30** | **355** | P | **P** | **14 08 01.9** | **+0.6** |
| | baz=173 | | | | | | |
| **U39A** | **Green Forest** | **23.39** | **353** | P | **P** | **14 08 02.2** | **0.0** |
| | baz=171 | | | | | | |
| **U38A** | **Gravette** | **23.56** | **352** | P | **P** | **14 08 04.2** | **+0.3** |
| | baz=169 | | | | | | |
| **U37A** | **Salina** | **23.64** | **350** | P | **P** | **14 08 04.9** | **+0.2** |
| | baz=167,SNR=8.0 | | | | | | |
| **MSTX** | **Muleshoe** | **23.73** | **333** | P | **P** | **14 08 06.1** | **+0.5** |
| | baz=148 | | | | | | |
| **U36A** | **Oologah** | **23.74** | **349** | P | **P** | **14 08 04.9** | **-0.7** |
| | baz=166 | | | | | | |
| **T42A** | **Van Buren** | **23.87** | **358** | P | **P** | **14 08 06.8** | **+0.1** |
| | baz=177 | | | | | | |
| **T41A** | **Mountain View** | **23.91** | **357** | P | **P** | **14 08 06.9** | **-0.3** |
| | baz=176 | | | | | | |
| **T43A** | **Greenville** | **23.91** | **360** | P | **P** | **14 08 06.7** | **-0.4** |
| | baz=179 | | | | | | |
| **U35A** | **Pawnee** | **23.92** | **347** | P | **P** | **14 08 07.3** | **0.0** |
| | baz=164 | | | | | | |
| **T46A** | **Princeton** | **23.96** | **5** | P | **P** | **14 08 07.3** | **-0.3** |
| | baz=185 | | | | | | |
| **T47A** | **Sharon Grove** | **23.98** | **6** | P | **P** | **14 08 07.9** | **+0.2** |
| | baz=187,SNR=11 | | | | | | |
| **T39A** | **Clever** | **24.02** | **354** | P | **P** | **14 08 08.5** | **+0.3** |
| | baz=172 | | | | | | |
| **AMTX** | **Amarillo** | **24.06** | **336** | P | **P** | **14 08 09.2** | **+0.5** |
| | baz=151 | | | | | | |
| **AMTX** | **Amarillo** | **24.06** | **336** | *e*P | **P** | **14 08 09.8** | **+1.1** |
| | comp=Z,16nm,1.1s | | | | | | |
| **T40A** | **Mansfield** | **24.06** | **356** | P | **P** | **14 08 08.8** | **+0.2** |
| | baz=174 | | | | | | |
| **TZTN** | **Tazewell** | **24.13** | **13** | P | **P** | **14 08 08.8** | **-0.4** |
| | baz=195 | | | | | | |
| **T38A** | **Diamond** | **24.14** | **352** | P | **P** | **14 08 09.8** | **+0.5** |
| | baz=170 | | | | | | |
| **S43A** | **Fulton Ridge,** | **24.40** | **0** | P | **P** | **14 08 11.7** | **0.0** |
| | baz=180 | | | | | | |
| **T36A** | **Boggs Farm, Ca** | **24.42** | **349** | P | **P** | **14 08 12.2** | **+0.4** |
| | baz=166 | | | | | | |
| **S41A** | **Jillco Farms,** | **24.45** | **357** | P | **P** | **14 08 11.9** | **-0.2** |
| | baz=176 | | | | | | |
| **S40A** | **Lebanon** | **24.51** | **356** | P | **P** | **14 08 12.9** | **+0.2** |
| | baz=174 | | | | | | |
| **S44A** | **Carbondale** | **24.53** | **2** | P | **P** | **14 08 12.9** | **0.0** |
| | baz=182,SNR=7.4 | | | | | | |

SIUC **Southern Illin** 24.56 2 *e*P P 14 08 14.0 +0.9
comp=Z,40nm,1.0s
S42A **Caledonia** 24.60 359 P P 14 08 13.1 -0.4
baz=178
S46A **Don Dixon Farm** 24.61 5 P P 14 08 13.4 -0.1
baz=185
T34A **McClaskey Farm** 24.65 347 P P 14 08 13.7 -0.3
baz=163,SNR=5.6
S39A **Bolivar** 24.67 354 P P 14 08 14.1 0.0
baz=172,SNR=11
S38A **Stockton** 24.68 353 P P 14 08 14.2 +0.1
baz=171
CCM **Cathedral Cave** 24.90 358 P P 14 08 16.0 -0.1
baz=177
CCM **Cathedral Cave** 24.90 358 *e*P P 14 08 16.1 0.0
comp=Z,68nm,1.7s
S37A **Fort Scott** 24.92 351 P P 14 08 16.5 0.0
baz=169
S36A **Lake Cedric, C** 25.01 350 P P 14 08 17.4 +0.2
baz=167
R43A **Red Bud** 25.10 1 P P 14 08 17.8 -0.2
baz=180
R42A **Luebbering** 25.11 359 P P 14 08 18.2 +0.2
baz=178
R41A **Rosebud** 25.14 358 P P 14 08 18.7 +0.3
baz=177
R46A **Gibon Southern** 25.15 5 P P 14 08 18.7 +0.2
baz=186
121A **Cookes Peak, D** 25.17 323 P P 14 08 21.5 +2.6
baz=136
R40A **Maddies Statio** 25.18 356 P P 14 08 18.5 -0.2
baz=175
R38A **Fenwick Farm,** 25.22 353 P P 14 08 19.3 +0.2
baz=171,SNR=6.2
R39A **Chumby, Stover** 25.26 355 P P 14 08 19.7 +0.2
baz=173,SNR=5.1
WCI **Wyandotte Cave** 25.30 7 P P 14 08 19.9 +0.1
baz=188
WCI **Wyandotte Cave** 25.30 7 *e*P P 14 08 20.3 +0.5
comp=Z,46nm,0.8s
R47A **Wooly Knot Far** 25.33 7 P P 14 08 20.2 +0.1
baz=188
BNM **Barren Site** 25.73 327 *e*P P 14 08 26.6 +2.5
Q44A **Meyer Farm, Va** 25.75 2 P P 14 08 24.0 +0.2
baz=182
Q43A **New Douglas** 25.77 1 P P 14 08 23.8 -0.2
baz=180
Q45A **Warren Harvey,** 25.78 4 P P 14 08 24.0 -0.1
baz=184
Q41A **Truxton** 25.79 358 P P 14 08 24.6 +0.3
baz=177
Q40A **Laux Farm, Aux** 25.87 357 P P 14 08 24.2 -0.8
baz=175
R34A **Isabella, Hill** 25.89 347 P P 14 08 25.2 0.0
baz=164
Q38A **Cooks Store, C** 25.96 354 P P 14 08 26.1 +0.4
baz=172,SNR=8.3
Q39A **Willow Grove F** 25.98 355 P P 14 08 26.1 +0.1
baz=173,SNR=5.0
Q35A **Mercer Eighty,** 26.19 350 P P 14 08 28.9 +0.9
baz=166
ANMO **Albuquerque** 26.27 329 P P 14 08 29.9 +1.0
comp=Z,1.2nm,0.8s,baz=150,slow=14,SNR=4.6
ANMO **Albuquerque** 26.27 329 P P 14 08 29.8 +1.0
baz=141
P40A **Paris** 26.40 357 P P 14 08 29.3 -0.5
baz=175
P39B **Salisbury** 26.40 356 P P 14 08 29.6 -0.2
baz=174
P42A **Winchester** 26.41 360 P P 14 08 29.5 -0.3
baz=179
P41A **Barry, Barry** 26.51 359 P P 14 08 30.0 -0.7
baz=178
P47A **Martinsville** 26.54 7 P P 14 08 30.2 -0.9
baz=188
P46A **Rosedale** 26.57 5 P P 14 08 30.7 -0.6
baz=186
P38A **Dawn** 26.61 354 P P 14 08 31.4 -0.3
baz=172
P37A **Lathrop** 26.66 353 P P 14 08 31.8 -0.3
baz=170
P36A **Good Intent, A** 26.80 351 P P 14 08 32.9 -0.6
baz=168
O40A **La Belle** 26.98 357 P P 14 08 34.3 -0.7
baz=176
P34A **Walnut Farm, R** 27.00 349 P P 14 08 35.6 +0.3
baz=165
T25A **Trinidad** 27.12 335 P P 14 08 38.3 +1.8
baz=148
O45A **Potomac** 27.16 4 P P 14 08 36.0 -0.6
baz=185
O37A **Wolven Farm, M** 27.21 353 P P 14 08 37.3 +0.2
baz=171
O36A **Bolckow** 27.27 352 P P 14 08 37.8 +0.1
baz=169
O47A **Sheridan** 27.29 7 P P 14 08 37.3 -0.5
baz=188
SFIN **Lafayette** 27.34 5 P P 14 08 37.7 -0.5
baz=186
O34A **Beatrice** 27.60 349 P P 14 08 41.1 +0.5
baz=166
N39A **Derby Farms, D** 27.77 356 P P 14 08 41.9 -0.2
baz=175
ACSO **Alum Creek Sta** 27.79 12 P P 14 08 41.8 -0.5
baz=195
N37A **Lee Faris, Mou** 27.80 354 P P 14 08 42.3 -0.1
baz=171
N35A **Tabor** 28.09 351 P P 14 08 45.1 +0.2
baz=168
W18A **Petrified Fore** 28.15 325 P P 14 08 48.3 +2.4
baz=136
NNA **Nana** 28.22 151 LR LR 14 18 59.8
comp=Z,91nm,18.9s,baz=317,slow=34
M39A **Webster** 28.35 357 P P 14 08 47.4 +0.2
baz=175
M38A **Pleasantville** 28.36 355 P P 14 08 46.9 -0.4
baz=173
S22A **4UR Ranch, Cre** 28.69 332 P P 14 08 51.8 +1.2
baz=144,SNR=6.3
L42A **Oliver, Polo** 28.83 1 P P 14 08 51.1 -0.4
baz=180
M34A **Aspy Farms, Fr** 28.86 350 P P 14 08 52.0 +0.2
baz=166
L40A **Anamosa** 28.89 358 P P 14 08 52.1 0.0
baz=177
L41A **Preston** 28.89 360 P P 14 08 51.9 -0.2
baz=179
L43A **Garden Prairie** 29.03 2 P P 14 08 53.3 0.0
baz=182
L38A **Oak Wood Farm,** 29.06 356 P P 14 08 53.2 -0.3
baz=174
MVCO **Mesa Verde** 29.06 329 P P 14 08 56.2 +2.2
baz=140
MVCO **Mesa Verde** 29.06 329 *e*P P 14 08 56.1 +2.2
comp=Z,6.6nm,1.0s
L36A **Harm Buss Farm** 29.18 353 P P 14 08 55.0 +0.4
baz=170
L34A **Svendsen Farm,** 29.28 351 P P 14 08 55.7 +0.2
baz=167
WUAZ **Wupatki** 29.38 323 P P 14 08 58.6 +1.9
baz=134
WUAZ **Wupatki** 29.38 323 *e*P P 14 08 59.7 +3.0
comp=Z,10nm,1.1s
K41A **Shullsburg** 29.43 360 P P 14 08 56.9 +0.1
baz=179
K40A **Colesburg** 29.53 359 P P 14 08 57.5 -0.2
baz=178
K38A **Parkersburg** 29.55 356 P P 14 08 57.6 -0.3
baz=174
K39A **Oelwein** 29.56 358 P P 14 08 57.6 -0.4
baz=176
K36A **Gilmore City** 29.68 354 P P 14 08 59.7 +0.6
baz=171
K35A **Storm Lake** 29.86 353 P P 14 09 00.7 +0.1
baz=170
ISCO **Idaho Springs** 29.88 336 P P 14 09 02.3 +1.1
baz=148
COA **Coachella** 30.08 315 *e*P P 14 09 03.9 +1.1
J39A **Decorah** 30.18 358 P P 14 09 03.6 +0.2
baz=176
J41A **Loganville** 30.18 0 P P 14 09 03.7 +0.2
baz=180
PV04 **Paradox Valley** 30.19 330 *e*P P 14 09 04.2 +0.3
J38A **Wedel Dairy, R** 30.20 357 P P 14 09 03.8 +0.2
baz=175
K32A **Verdigre** 30.23 349 P P 14 09 04.6 +0.7
baz=164
PV10 **Paradox Valley** 30.24 330 *e*P P 14 09 05.8 +1.4

J37A **Redenius Farm,** 30.27 355 P P 14 09 04.4 +0.1
baz=173
PDMCI **Parker Dam,Lak** 30.29 318 P P 14 09 06.6 +2.1
baz=128
J36A **Seneca 1, Swea** 30.36 354 P P 14 09 04.4 -0.6
baz=171
J34A **George** 30.51 352 P P 14 09 06.3 0.0
baz=168
I42A **Draeger Farm,** 30.73 2 P P 14 09 08.2 -0.1
baz=182
I43A **Langenfeld Bro** 30.75 3 P P 14 09 08.5 0.0
baz=183
BC3 **Big Chuckawall** 30.77 316 P P 14 09 11.4 +2.5
baz=125
I38A **Scanlan Farm,** 30.91 357 P P 14 09 09.7 -0.2
baz=175
I35A **Creekview Farm** 30.95 353 P P 14 09 10.3 0.0
baz=170
I37A **Lemond, Waseca** 30.95 356 P P 14 09 10.4 +0.1
baz=173
MONP2 **Monument Peak** 31.00 314 P P 14 09 13.0 +1.8
baz=123
ECSD **EROS Data Cent** 31.04 351 P P 14 09 11.4 +0.3
baz=167
ECSD **EROS Data Cent** 31.04 351 *e*P P 14 09 10.9 -0.2
comp=Z,10nm,0.8s
O20A **White River Ci** 31.27 333 P P 14 09 14.6 +1.3
baz=144,SNR=5.2
PKCU **Pink Cliffs** 31.27 325 *e*P P 14 09 17.4 +3.8
comp=Z,25nm,0.3s
BELC **Belle Mtn. Jos** 31.34 316 P P 14 09 15.9 +1.9
baz=125
LDFC **Landfair** 31.39 319 *e*P P 14 09 18.9 +4.5
comp=Z,20nm,1.3s
LCMT **Little Creek M** 31.50 323 *e*P P 14 09 18.2 +2.8
comp=Z,5.0nm,1.0s
MTPU **Mount Pierson** 31.62 326 *e*P P 14 09 19.2 +2.5
comp=Z,9.6nm,0.7s
H35A **Sunnyside Ranc** 31.76 354 P P 14 09 17.0 -0.4
baz=171
P18A **Preston Nutter** 31.80 330 *e*P P 14 09 20.7 +2.5
comp=Z,4.4nm,0.9s
SZCU **Shurtz Canyon** 31.81 324 *e*P P 14 09 21.2 +2.9
comp=Z,8.4nm,0.9s
H32A **Carlson Farm,** 31.92 350 P P 14 09 18.8 0.0
baz=166
P17A **Butcher Ranch,** 31.93 329 *e*P P 14 09 21.4 +2.2
comp=Z,8.4nm,0.7s
CCUT **Cedar City** 31.94 324 *e*P P 14 09 22.4 +3.1
comp=Z,6.2nm,0.9s
MSU **Marysvale** 31.96 326 *e*P P 14 09 21.9 +2.4
H33A **Prehn Over Nor** 31.99 351 P P 14 09 19.1 -0.3
baz=167
G38A **Ridgeland** 32.02 358 P P 14 09 18.9 -0.7
baz=176
G42A **Mountain** 32.10 2 P P 14 09 19.6 -0.7
baz=183
G39A **Holcombe** 32.12 359 P P 14 09 20.0 -0.5
baz=178
SPMN **Marine on St.** 32.12 357 P P 14 09 20.0 -0.5
baz=175
TUQ **Turquoise Moun** 32.14 318 P P 14 09 23.4 +2.4
baz=127
G33A **Ortonville** 32.45 352 P P 14 09 22.9 -0.5
baz=168
F41A **Three Lakes** 32.57 1 P P 14 09 23.7 -0.8
baz=181
BFSC **Mount Baldy Ra** 32.61 315 P P 14 09 26.9 +1.8
baz=123
G32A **Webster** 32.67 350 P P 14 09 25.2 -0.2
baz=166
F40A **Park Falls** 32.74 0 P P 14 09 25.5 -0.4
baz=180
MPU **Maple Canyon** 32.79 329 *e*P P 14 09 29.0 +2.3
comp=Z,5.8nm,0.7s
F36A **Milaca** 32.80 356 P P 14 09 26.5 +0.1
baz=174
F38A **Pierce - Schro** 32.81 358 P P 14 09 25.9 -0.6
baz=176
F35A **Swanville** 32.88 354 P P 14 09 27.2 0.0
baz=172
F34A **Alexandria** 32.89 354 P P 14 09 27.3 0.0
baz=170
PTGA **Pitinga** 33.00 112 *e*P P 14 09 30.5 +1.9
comp=Z,11nm,0.9s
F33A **5 Mile Ranch,** 33.06 352 P P 14 09 28.1 -0.7
baz=169
RSSD **Black Hills** 33.13 342 P P 14 09 30.2 +0.5
baz=154
RSSD **Black Hills** 33.13 342 *e*P P 14 09 27.5 -2.2
comp=Z,3.3nm,0.7s
E39A **Mellen** 33.20 360 P P 14 09 30.1 +0.2
baz=179
TPNV **Topopah Spring** 33.28 320 P P 14 09 33.9 +2.9
baz=128
TPNV **Topopah Spring** 33.28 320 *e*P P 14 09 34.0 +3.0
comp=Z,27nm,1.7s
LRMC **Laurel Mtn Rad** 33.32 317 P P 14 09 33.0 +1.6
baz=125
E36A **McGregor** 33.43 356 P P 14 09 31.5 -0.6
baz=174
E38A **The Farm, Brul** 33.44 358 P P 14 09 31.6 -0.5
baz=177
TCUT **Toone Canyon** 33.52 330 *e*P P 14 09 35.4 +2.3
comp=Z,17nm,1.2s
DUG **Dugway, Tooele** 33.52 328 P P 14 09 34.7 +1.6
baz=137
DUG **Dugway, Tooele** 33.52 328 *e*P P 14 09 35.2 +2.2
comp=Z,8.2nm,1.5s
MPMC **Manual Prospec** 33.53 318 P P 14 09 35.3 +2.0
baz=126
E34A **Wadena** 33.59 354 P P 14 09 33.2 -0.2
baz=171
E33A **Westby DABS, E** 33.68 353 P P 14 09 33.6 -0.6
baz=169
R11A **Troy Canyon, C** 33.77 323 P P 14 09 37.0 +1.7
baz=131
ARVC **Arvin** 33.90 315 P P 14 09 38.1 +1.9
baz=123
PDAR **Pinedale Array** 33.98 334 P P 14 09 37.1 -0.1
comp=Z,0.5nm,0.6s,baz=121,slow=11,SNR=5.6
PDAR PcP PcP 14 12 15.2 +0.2
comp=Z,0.2nm,0.5s,baz=117,slow=5.2,SNR=3.7
BW06 **Boulder Array** 33.99 334 P P 14 09 37.4 +0.2
baz=144
D37A **Cotton** 34.03 357 P P 14 09 36.4 -0.8
baz=176
D35A **Remer** 34.05 355 P P 14 09 36.4 -1.0
baz=173
D36A **Goodland** 34.08 356 P P 14 09 36.4 -1.3
baz=174
D34A **Park Rapids** 34.16 354 P P 14 09 37.8 -0.5
baz=171
SPUT **South Promonto** 34.17 330 *e*P P 14 09 40.8 +2.1
comp=Z,5.0nm,0.9s
BGU **Big Grassy Mou** 34.17 328 *e*P P 14 09 40.6 +1.8
comp=Z,3.7nm,0.8s
PKM **McPherson Peak** 34.45 314 P P 14 09 42.3 +1.0
baz=121
VES **Vestal, Richgr** 34.47 316 P P 14 09 43.3 +2.2
baz=123
C37A **Embarrass** 34.59 358 P P 14 09 41.2 -0.8
baz=176
C39A **Grand Marais** 34.64 0 P P 14 09 41.7 -0.7
baz=180
C36A **Pine Crest Far** 34.65 357 P P 14 09 42.0 -0.5
baz=175
SAML **Samuel** 34.65 128 *e*P P 14 09 42.2 -0.7
comp=Z,6.8nm,0.7s
C35A **Jirik Farms, M** 34.66 356 P P 14 09 42.1 -0.6
baz=173
HVU **Hansel Valley** 34.69 330 *e*P P 14 09 44.7 +1.5
comp=Z,4.8nm,0.9s
C34A **RKJ Ranch, Bem** 34.69 354 P P 14 09 42.1 -0.8
baz=171
EYMN **Ely** 34.78 359 P P 14 09 42.6 -1.1
baz=177
REDW **Red Top Meadow** 35.02 333 *e*P P 14 09 47.5 +1.3
comp=Z,18nm,1.1s
SNOW **Snow King Moun** 35.06 334 *e*P P 14 09 48.0 +1.5
comp=Z,16nm,1.0s
TPAW **Teton Pass** 35.17 333 *e*P P 14 09 49.8 +2.3
comp=Z,9.1nm,1.0s
C31A **Landman Farms,** 35.17 351 P P 14 09 45.8 -1.3
baz=167
B35A **Bob, Littlefor** 35.30 356 P P 14 09 46.8 -1.4
baz=174
B33A **Robert and Kas** 35.37 354 P P 14 09 48.0 -0.8
baz=170
AGMN **Agassiz Nation** 35.43 354 P P 14 09 49.0 -0.2
baz=170
MDPB **Devils Postpil** 35.48 319 *e*P P 14 09 52.6 +2.4
comp=Z,5.9nm,0.9s
B34A **Aery, Baudette** 35.50 355 P P 14 09 49.1 -0.7
baz=172
MDND **Maddock** 35.54 349 P P 14 09 50.6 +0.3
baz=164
B32A **Ashes, Strandq** 35.60 353 P P 14 09 50.4 -0.3
baz=169
B31A **Greenbush Farm** 35.78 352 P P 14 09 52.1 -0.1
baz=167
RLMT **Red Lodge** 35.82 337 P P 14 09 53.3 +0.3
baz=147
A33A **Warroad** 36.01 354 P P 14 09 53.7 -0.5
baz=171
A32A **Rocking H Ranc** 36.11 353 P P 14 09 54.3 -0.8
baz=169
LAO **LASA Array** 36.11 341 P P 14 09 55.8 +0.5
baz=152
YMR **Madison River** 36.13 335 *e*P P 14 09 57.3 +1.7
comp=Z,11nm,1.2s
YHH **Holmes Hill** 36.17 335 *e*P P 14 09 57.0 +0.9
comp=Z,4.9nm,1.3s
WAKR **Walker** 36.23 320 *e*P P 14 09 59.6 +3.1
comp=Z,36nm,1.8s
YERR **Yerington** 36.39 320 *e*P P 14 09 58.5 +0.6
comp=Z,7.1nm,0.8s
PNTR **Pine Nut** 36.68 320 *e*P P 14 10 03.5 +3.2
comp=Z,6.6nm,0.8s
HLID **Hailey** 36.82 330 P P 14 10 02.7 +1.3
baz=138
HLID **Hailey** 36.82 330 *e*P P 14 10 02.5 +1.0
comp=Z,15nm,1.9s
MCMT **McKenzie Canyo** 37.06 333 *e*P P 14 10 05.5 +1.9
DGMT **Dagmar** 37.15 345 P P 14 10 04.9 +0.9
baz=157
DGMT **Dagmar** 37.15 345 *e*P P 14 10 02.1 -1.9
comp=Z,29nm,1.0s
BOZ **Bozeman (W)** 37.15 335 P P 14 10 05.7 +1.5
baz=144
BOZ **Bozeman (W)** 37.15 335 *e*P P 14 10 05.2 +1.0
comp=Z,20nm,1.9s
ULM **Lac du Bonnet** 37.36 354 P P 14 10 04.0 -1.6
comp=Z,9.8nm,0.7s,baz=168,slow=8.9,SNR=12
ULM LR LR 14 28 38.5
comp=Z,308nm,18.1s,baz=196,slow=42
ULM **Lac du Bonnet** 37.36 354 *e*P P 14 10 04.3 -1.4
comp=Z,15nm,0.8s
DLMT **Dillon** 37.37 334 *e*P P 14 10 07.1 +1.0
comp=Z,8.6nm,1.2s
BEKR **Beckworth** 37.61 321 *e*P P 14 10 09.3 +1.1
comp=Z,8.3nm,1.0s
WVOR **Wild Hse Val** 38.22 325 *e*P P 14 10 14.0 +0.7
comp=Z,7.6nm,1.0s
EGMT **Eagleton** 38.45 339 P P 14 10 16.0 +0.9
baz=148
EGMT **Eagleton** 38.45 339 *e*P P 14 10 15.5 +0.4
comp=Z,53nm,1.8s
J08A **Circle Bar Ran** 38.75 327 *e*P P 14 10 19.5 +1.8
comp=Z,24nm,1.2s
O03D **Paynes Creek** 38.76 320 P P 14 10 19.5 +1.7
baz=125
MOD **Modoc Plateau** 38.83 323 *e*P P 14 10 19.8 +1.3
comp=Z,11nm,1.3s
MSO **Missoula** 39.10 334 P P 14 10 21.6 +1.0
baz=141
BMO **Blue Mountains** 39.18 329 *e*P P 14 10 21.4 +0.1
comp=Z,4.3nm,0.9s
M04C **Macdoel** 39.66 322 P P 14 10 27.1 +1.7
baz=126
N02D **Trinity Center** 39.71 320 P P 14 10 27.4 +1.7
baz=125
I07A **Izee** 39.79 327 *e*P P 14 10 26.6 +0.2
comp=Z,5.8nm,1.0s
F10A **Beach Ranch, E** 39.95 330 *e*P P 14 10 28.3 +0.6
comp=Z,11nm,0.8s
M02C **Callahan** 40.05 321 P P 14 10 29.8 +1.3
baz=125
YBH **Yreka Blue Hor** 40.16 321 P P 14 10 28.9 -0.5
comp=Z,2.1nm,0.9s,baz=100,slow=7.1,SNR=4.6
J04D **Umpqua Nationa** 40.70 324 P P 14 10 36.1 +2.0
baz=128
SIV **San Ignacio** 40.81 134 P P 14 10 34.8 -0.2
comp=Z,4.4nm,0.8s,baz=313,slow=9.5,SNR=24
L02D **Cave Junction,** 40.94 321 P P 14 10 36.8 +0.9
baz=125
I04A **Tendick Farm,** 41.22 324 P P 14 10 39.1 +1.0
baz=128
G05D **Wamic, OR** 41.53 327 P P 14 10 42.8 +2.2
baz=130
FFC **Flin Flon** 42.57 350 *e*P P 14 10 48.9 0.0
comp=Z,7.5nm,0.6s
G03D **McMinnville, O** 42.57 325 P P 14 10 50.6 +1.5
baz=128
C06D **Leavenworth** 43.11 330 P P 14 10 54.6 +1.2
baz=133
SCHQ **Schefferville** 45.51 19 P P 14 11 11.3 -1.3
comp=Z,14nm,0.7s,baz=221,slow=5.0,SNR=10
SCHQ LR LR 14 31 51.9
comp=Z,289nm,18.0s,baz=222,slow=38
SCHQ **Schefferville** 45.51 19 *e*P P 14 11 10.3 -2.3
BDFB **Brasilia** 50.58 123 P P 14 11 51.4 -1.0
comp=Z,2.8nm,0.7s,baz=315,slow=16,SNR=2.5
BDFB LR LR 14 35 21.8
comp=Z,140nm,18.3s,baz=50,slow=39
CPUP **Villa Florida** 50.58 141 LR LR 14 34 30.7
comp=Z,98nm,19.5s,baz=320,slow=38
YKA **Yellowknife Ar** 52.33 346 P P 14 12 03.8 -0.8
comp=Z,3.8nm,0.7s,baz=143,slow=7.7,SNR=14
PLCA **Paso Flores** 56.56 162 LR LR 14 31 38.0
comp=Z,68nm,18.6s,baz=340,slow=30
RCBR **Riachuelo** 57.14 106 LR LR 14 40 14.8
comp=Z,186nm,18.5s,baz=294,slow=39
RCBR **Riachuelo** 57.14 106 *e*P P 14 12 38.6 -1.7
comp=Z,62nm,1.4s
INK **Inuvik** 61.81 343 *e*P P 14 13 11.5 -0.1
comp=Z,4.9nm,0.8s
IL1 **Eielson Array** 64.37 337 *e*P P 14 13 28.0 -0.7
ILAR **Eielson Array** 64.37 337 P P 14 13 27.9 -0.8
comp=Z,3.1nm,1.0s,baz=166,slow=4.9,SNR=21
ILB **Eielson Array** 64.37 337 *e*P P 14 13 28.8 +0.1
MLY **Manley** 65.97 336 *e*P P 14 13 39.3 +0.1
comp=Z,8.9nm,0.9s
PPT2 **Papeete2** 66.02 244 *e*LR LR 14 33 23.5
comp=Z,205nm,25.0s
COLD **Coldfoot** 66.62 338 *e*P P 14 13 44.2 +1.0
comp=Z,3.3nm,1.2s
ESDC **Sonseca Array** 78.94 52 P P 14 14 54.5 -2.5
comp=Z,0.7nm,0.6s,baz=284,slow=5.3,SNR=8.6
ES19 **SONSECA Array** 78.98 52 *e*P P 14 14 55.1 -2.1
MDT **Midelt** 79.40 59 LR LR 14 45 00.8
comp=Z,101nm,19.2s,slow=32
SPITS **Spitsbergen Ar** 80.65 12 LR LR 14 52 34.7
comp=Z,151nm,18.2s,baz=240,slow=37
TIC **Toumodi** 83.88 85 *e*P P 14 15 23.6 0.0
MEM **Membach** 83.93 40 P P 14 15 22.5 -0.6
LIC **Lamto** 83.96 85 *e*P P 14 15 24.3 +0.3
comp=Z,44nm,1.4s
DBIC **Dimbokro** 84.03 85 P P 14 15 24.1 -0.2
comp=Z,3.9nm,0.7s,baz=249,slow=4.6,SNR=6.5
NOA **NORSAR Array B** 84.13 29 P P 14 15 23.7 -0.3
comp=Z,0.4nm,0.7s,baz=293,slow=5.7,SNR=3.2
KIC **Kosan Boka** 84.21 85 *e*P P 14 15 25.7 +0.5
comp=Z,11nm,0.7s
HFS **Hagfors** 85.57 29 LR LR 14 54 25.2
comp=Z,43nm,18.2s,baz=252,slow=36
TORD **Torodi Ar. Bea** 88.92 77 P P 14 15 46.3 -2.0
comp=Z,0.6nm,0.6s,baz=285,slow=5.4,SNR=5.3
GERES **GERESS Array B** 89.21 40 P P 14 15 47.9 -1.2
comp=Z,0.9nm,0.8s,baz=303,slow=7.4,SNR=5.0
TIXI **Tiksi** 91.51 348 LR LR 15 02 26.6
comp=Z,130nm,18.9s,baz=25,slow=39
OBN **Obninsk** 98.71 28 LR LR 15 02 44.4
comp=Z,61nm,18.4s,baz=271,slow=36
ZALV **Zalesovo Beam** 113.11 3 PKiKP PKiKP 14 21 30.0 -0.3
comp=Z,0.7nm,0.5s,baz=329,slow=2.5,SNR=3.8
ZALV PP PP 14 22 18.2 -0.6
comp=Z,0.4nm,0.4s,baz=305,slow=8.5,SNR=3.5
SONM **Songino Array** 117.58 347 PKP PKPdf 14 21 39.9 +0.6
comp=Z,0.2nm,0.3s,baz=354,slow=4.3,SNR=2.4
MKAR **Makanchi Array** 120.03 6 PKP PKPdf 14 21 43.6 -0.3
comp=Z,0.6nm,0.7s,baz=302,slow=2.7,SNR=2.5
HHC **Hu-ho-hao-te** 122.68 340 *e*PKP PKPdf 14 21 47.3 -2.0
WMQ **Urumqi** 123.35 2 *e*PKP PKPdf 14 21 49.1 -1.3
WMQ LR LR
comp=Z,260nm,29.3s

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| WMQ | | | | LR | LR | | |
| | comp=Z,160nm,22.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,230nm,22.9s | | | | | | |
| **KSH** | **Kashi** | **126.12** | **13** | *e*PKP | **PKPdf** | **14 21 53.9** | **-2.1** |
| KSH | | | | PP | **PP** | **14 23 52.5** | **+3.9** |
| KSH | | | | PKS | **PKSdf** | **14 25 29.2** | **-3.5** |
| KSH | | | | SKS | SKSdf | 14 28 55.1 | -11 |
| KSH | | | | SKKS | SKKSac | 14 30 33.4 | -13 |
| KSH | | | | AMB | AMB | | |
| | comp=Z,59nm,4.1s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,180nm,6.9s | | | | | | |
| **NJ2** | **Nanjing** | **127.19** | **329** | *e*PKP | **PKPdf** | **14 21 59.0** | **+1.0** |
| **WRA** | **Warramunga Arr** | **136.82** | **255** | PKP | **PKPdf** | **14 22 17.4** | **+0.9** |
| | comp=Z,0.6nm,0.8s,baz=92,slow=2.5,SNR=7.0 | | | | | | |
| **ASAR** | **Alice Springs** | **136.97** | **249** | PKhKP | PKPpre | 14 22 14.1 | |
| | comp=Z,0.2nm,0.6s,baz=107,slow=3.6,SNR=5.7 | | | | | | |
| **QIZ** | **Qiongzhong** | **142.46** | **328** | PKP | **PKPdf** | **14 22 27.1** | **+0.3** |
| QIZ | | | | PP | **PP** | **14 25 34.4** | **+1.6** |
| QIZ | | | | SS | SS | 14 44 03.7 | -2.6 |
| QIZ | | | | LR | LR | | |
| | comp=Z,64nm,12.9s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **147.39** | **344** | PKPbc | **PKPbc** | **14 22 38.2** | **+0.6** |
| | comp=Z,5.3nm,0.6s,baz=342,slow=3.4,SNR=37 | | | | | | |

**IDC 08 14:06:31.4**±2.8**, 13°.68N**×**89°.55W, h0**km**, mb3.3**/3**, mb1 3.8**/4**, mb1mx3.5**/44**, mbtmp3.4**/4**, ML2.5**/1**, MS4.2**/1**, Ms1 4.2**/1**, ms1mx3.1**/19**, Error ellipse: s-maj=89.0km s-min=48.6km az=43.0, El Salvador**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CMIG** | **Matias Romero** | **6.17** | **304** | Pn | Pn | 14 08 02.4 | -1.4 |
| | 0.1nm,0.3s,baz=127,slow=15,SNR=1.3 | | | | | | |
| **TXAR** | **Lajitas Array** | **20.35** | **322** | P | P | 14 11 10.5 | +0.9 |
| | 0.6nm,0.8s,baz=151,slow=12,SNR=4.4 | | | | | | |
| **PDAR** | **Pinedale Array** | **33.74** | **333** | P | P | 14 13 15.5 | +0.5 |
| | 0.3nm,0.7s,baz=125,slow=10,SNR=2.5 | | | | | | |
| PDAR | | | | LR | LR | 14 28 33.9 | |
| | comp=Z,341nm,18.4s,baz=142,slow=39 | | | | | | |
| **YKA** | **Yellowknife Ar** | **51.91** | **346** | P | P | 14 15 41.1 | -0.5 |
| | 0.5nm,0.6s,baz=140,slow=6.7,SNR=3.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **137.62** | **255** | PKP | PKPdf | 14 25 59.4 | +0.9 |
| | 0.3nm,0.9s,baz=90,slow=3.7,SNR=4.0 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **146.99** | **345** | PKPbc | PKPdf | 14 26 15.8 | +0.7 |
| | 0.5nm,0.3s,baz=341,slow=3.1,SNR=4.6 | | | | | | |

**IDC 08 14:06:58.9**±3.1**, 14°.00N**×**88°.95W, h0**km**, mb3.3**/3**, mb1 3.8**/3**, mb1mx3.4**/43**, mbtmp3.4**/3**, Error ellipse: s-maj=141.1km s-min=64.5km az=55.0, El Salvador**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TXAR** | **Lajitas Array** | **20.46** | **321** | P | P | 14 11 38.3 | 0.0 |
| | 0.8nm,0.8s,baz=153,slow=12,SNR=3.7 | | | | | | |
| **YKA** | **Yellowknife Ar** | **51.75** | **345** | P | P | 14 16 09.0 | +1.1 |
| | 0.6nm,0.7s,baz=136,slow=7.9,SNR=3.6 | | | | | | |
| **ILAR** | **Eielson Array** | **64.02** | **336** | P | P | 14 17 33.2 | -0.9 |
| | 0.3nm,0.9s,baz=121,slow=5.4,SNR=4.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **138.27** | **256** | PKP | PKPdf | 14 26 27.0 | 0.0 |
| | 0.1nm,0.6s,baz=88,slow=2.5,SNR=2.9 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **146.82** | **346** | PKPbc | PKPbc | 14 26 43.2 | -0.8 |
| | 0.8nm,0.6s,baz=349,slow=3.2,SNR=4.0 | | | | | | |

**IDC 08 14:09:54.8**±2.3**, 12°.53N**×**90°.37W, h0**km**, mb3.8**/2**, mb1 4.0**/3**, mb1mx3.5**/42**, mbtmp3.8**/3**, Error ellipse: s-maj=118.5km s-min=33.2km az=37.0, Off coast of central America**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CMIG** | **Matias Romero** | **6.29** | **317** | Pn | Pn | 14 11 29.1 | +0.2 |
| | baz=138,slow=17,SNR=1.5 | | | | | | |
| CMIG | | | | Sn | Sn | 14 12 35.2 | -6.4 |
| | 0.6nm,0.3s,baz=108,slow=20,SNR=2.5 | | | | | | |
| **TXAR** | **Lajitas Array** | **20.79** | **326** | P | P | 14 14 37.5 | -0.4 |
| | 1.1nm,0.9s,baz=155,slow=12,SNR=6.7 | | | | | | |
| **DBIC** | **Dimbokro** | **84.22** | **84** | P | P | 14 22 28.9 | -0.2 |
| | 2.3nm,0.6s,baz=252,slow=20,SNR=5.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **136.54** | **254** | PKP | PKPdf | 14 29 19.5 | -0.3 |
| | 0.3nm,0.8s,baz=96,slow=1.1,SNR=3.0 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **147.87** | **343** | PKPbc | PKPbc | 14 29 42.5 | -0.4 |
| | 0.9nm,0.5s,baz=345,slow=2.9,SNR=6.6 | | | | | | |

*IDC **08** 14:31:34.2±1.6, 0°.25N×126°.13E, h0km, mb3.6/4, mb1 3.8/5, mb1mx3.4/41, mbtmp3.6/5, ML3.3/1, Error ellipse: s-maj=108.9km s-min=23.3km az=67.0*
*DJA **08** 14:31:38.0±0.4, 0°S±4°×12°6E±°, h10km, M3.5/4, MLv3.5/4*
*ISCJB **08** 14:31:39.6±0.8, 0°.00S±0°.08×125°.82E±0°.05, h44km, mb3.6/4, Error ellipse: s-maj=12.0km s-min=6.1km az=28.0*
**ISC 08 14:31:40.6**±1.0**, 0°.03N**±0°.09×**125°.81E**±0°.06**, h44**km**, n11, σ1§48**/14**, mb3.6**/4**, Northern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LBMI** | **Labuha** | **1.82** | **111** | P | **Pn** | **14 32 09.4** | **-0.1** |
| LBMI | | | | S | **Sn** | **14 32 30.9** | **-0.5** |
| **KMSI** | **Cibinong** | **1.90** | **287** | P | **Pn** | **14 32 10.7** | **+0.1** |
| KMSI | | | | S | **Sn** | **14 32 35.0** | **+1.6** |
| **SANI** | **Sanana** | **2.07** | **175** | P | **Pn** | **14 32 12.8** | **-0.1** |
| SANI | | | | S | **Sn** | **14 32 36.1** | **-1.4** |
| **LUWI** | **Luwuk** | **3.21** | **251** | P | **Pn** | **14 32 28.2** | **-0.4** |
| **MRSI** | **Marisa** | **3.89** | **277** | P | **Pn** | **14 32 34.4** | **-3.5** |
| **APSI** | **Ampana** | **4.26** | **257** | P | **Pn** | **14 32 44.0** | **+1.0** |
| **FITZ** | **Fitzroy Crossi** | **18.02** | **181** | P | **P** | **14 35 48.7** | **+0.8** |
| | 0.1nm,0.3s,baz=9.4,slow=14,SNR=2.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **21.54** | **158** | P | **P** | **14 36 24.6** | **-1.7** |
| | 0.7nm,0.4s,baz=338,slow=11,SNR=15 | | | | | | |
| **ASAR** | **Alice Springs** | **24.83** | **162** | P | **P** | **14 36 59.6** | **+0.6** |
| | 0.4nm,0.4s,baz=338,slow=8.0,SNR=18 | | | | | | |
| **STKA** | **Stephens Creek** | **35.07** | **156** | P | **P** | **14 38 30.9** | **+1.3** |
| | 2.2nm,1.1s,baz=319,slow=11,SNR=2.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **60.09** | **327** | P | **P** | **14 41 43.2** | **-0.3** |
| | 0.3nm,0.3s,baz=124,slow=8.5,SNR=6.4 | | | | | | |

*ISCJB **08** 14:32:20.9±0.9, 38°.12N±0°.04×141°.82E±0°.08, h59km±7km, mb3.4/4, Error ellipse: s-maj=11.6km s-min=5.5km az=23.1*
*IDC **08** 14:32:22.0±3.2, 38°.12N×141°.97E, h56km±29km, mb3.1/4, mb1 3.3/6, mb1mx3.2/46, mbtmp3.4/6, ML2.6/2, Error ellipse: s-maj=40.9km s-min=22.0km az=77.0*
*JMA **08** 14:32:22.3±0.1, 38°.11N×141°.73E, h52km±1km, M3.9*
*JMA Felt I J1.*
**ISC 08 14:32:21.7**±1.7**, 38°.11N**±0°.06×**141°.85E**±0°.10**, h44**km±15km**, n26, σ1§18**/34**, mb3.4**/4**, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JIO** | **Ouri** | **0.52** | **311** | P | **Pn** | **14 32 33.3** | **+0.5** |
| JIO | | | | S | **Sn** | **14 32 40.7** | **-0.1** |
| **JMM** | **Marumori** | **0.87** | **254** | P | **Pn** | **14 32 36.9** | **-0.6** |
| JMM | | | | S | **Sn** | **14 32 47.7** | **-1.3** |
| **JOU** | **Okura** | **0.96** | **285** | P | **Pn** | **14 32 38.7** | **-0.1** |
| JOU | | | | *e*S | **Sn** | **14 32 50.5** | **-0.9** |
| **JMK** | **Ichinoseki** | **0.97** | **330** | P | **Pn** | **14 32 39.4** | **+0.5** |
| JMK | | | | *e*S | **Sn** | **14 32 51.6** | **+0.1** |
| **JFK** | **Kawauchi** | **1.07** | **226** | P | **Pn** | **14 32 40.0** | **-0.3** |
| **JFT** | **Otama** | **1.33** | **244** | P | **Pn** | **14 32 44.0** | **+0.1** |
| JFT | | | | *e*S | **Sn** | **14 32 59.9** | **-0.5** |
| **JYS** | **Shirataka** | **1.41** | **275** | P | **Pn** | **14 32 44.8** | **-0.1** |
| JYS | | | | *e*S | **Sn** | **14 33 01.5** | **-0.7** |
| **JYK** | **Kaneyama** | **1.42** | **305** | P | **Pn** | **14 32 45.0** | **0.0** |
| JYK | | | | *e*S | **Sn** | **14 33 02.1** | **-0.3** |
| **JOM** | **Ohasama** | **1.42** | **343** | P | **Pn** | **14 32 45.9** | **+0.8** |
| JOM | | | | *e*S | **Sn** | **14 33 03.1** | **+0.5** |
| **JRG** | **Rokugo** | **1.59** | **324** | P | **Pn** | **14 32 48.2** | **+0.8** |
| JRG | | | | *e*S | **Sn** | **14 33 07.5** | **+0.7** |
| **JYA** | **Atsumi** | **1.74** | **287** | P | **Pn** | **14 32 49.3** | **-0.1** |
| JYA | | | | *e*S | **Sn** | **14 33 10.5** | **0.0** |
| **JFY** | **Yanaizu** | **1.84** | **248** | P | **Pn** | **14 32 51.1** | **+0.3** |
| JFY | | | | *e*S | **Sn** | **14 33 12.5** | **-0.3** |
| **MJAR** | **Matsushiro Arr** | **3.30** | **243** | P | **Pn** | **14 33 12.3** | **+1.5** |
| | 1.7nm,0.3s,baz=59,slow=9.9,SNR=24 | | | | | | |
| MJAR | | | | S | **Sn** | **14 33 53.6** | **+4.8** |
| | 2.2nm,0.3s,baz=112,slow=10,SNR=6.2 | | | | | | |
| **MAT** | **Matsushiro** | **3.30** | **243** | P | **Pn** | **14 33 13.3** | **+2.5** |
| MAT | | | | *e*S | **Sn** | **14 33 49.1** | **+0.3** |
| **ASAJ** | **Asahikawa** | **6.02** | **5** | P | **Pn** | **14 33 48.4** | **+0.2** |
| | baz=203,slow=13 | | | | | | |
| ASAJ | | | | S | **Sn** | **14 34 55.4** | **-0.5** |
| | 0.5nm,0.3s,baz=222,slow=18,SNR=2.6 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **9.60** | **312** | P | **Pn** | **14 34 38.1** | **+0.9** |
| | 0.2nm,0.3s,baz=120,slow=14,SNR=3.3 | | | | | | |
| **SONM** | **Songino Array** | **27.48** | **302** | P | **P** | **14 38 03.4** | **-0.3** |
| | 0.2nm,0.3s,baz=112,slow=9.7,SNR=2.6 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.43** | **123** | T | T | 15 08 30.5 | |
| | baz=316,slow=76 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.43** | **123** | T | T | 15 08 31.6 | |
| | baz=316,slow=76 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.45** | **123** | T | T | 15 08 31.8 | |
| | baz=316,slow=76 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.18** | **125** | T | T | 15 09 27.2 | |
| | baz=318,slow=76,SNR=42 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.18** | **125** | T | T | 15 09 27.0 | |
| | baz=318,slow=76,SNR=65 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.19** | **125** | T | T | 15 09 27.4 | |
| | baz=318,slow=76,SNR=48 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.84** | **301** | P | **P** | **14 40 23.4** | **0.0** |
| | 0.5nm,0.7s,baz=79,slow=9.2,SNR=3.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **58.18** | **188** | P | **P** | **14 42 09.8** | **-1.3** |
| | 0.4nm,0.6s,baz=5.2,slow=7.0,SNR=15 | | | | | | |
| **ASAR** | **Alice Springs** | **61.90** | **188** | P | **P** | **14 42 36.3** | **-0.4** |
| | 0.2nm,0.7s,baz=9.4,slow=4.9,SNR=5.7 | | | | | | |

*IDC **08** 14:33:59.0±0.5, 13°.22N×89°.94W, h0km, mb4.6/28, mb1 4.7/29, mb1mx4.7/40, mbtmp4.6/29, ML4.0/1, MS4.4/6, Ms1 4.4/6, ms1mx4.1/15, Error ellipse: s-maj=21.2km s-min=11.4km az=54.0*
*CASC **08** 14:34:00.4±1.3, 12°.82N×90°.46W, h16km±9km, ML4.5, mb4.8(NEIC)*
*ISCJB **08** 14:34:02.3±0.2, 13°.17N±0°.03×90°.08W±0°.03, h29km, mb4.8/154, MS4.4/7, Error ellipse: s-maj=4.8km s-min=2.6km az=39.0*
*NEIC **08** 14:34:04.5±0.3, 13°.17N×89°.97W, h35km, mb4.8/132, MD4.5(SNET), Error ellipse: s-maj=7.7km s-min=4.2km az=45.0*
*NEIC Felt [I] at San Salvador.*
*GCMT **08** 14:34:05.1±0.2, 12°.86N×90°.64W, h13km, MW5.1/100, Moment Tensor Solution. s74,c112; s100,c165; Duration: 0 Moment tensor: Scale $10^{16}$Nm; $M_{rr}$4.96±.14; $M_{\theta\theta}$-4.15±.11; $M_{\phi\phi}$-0.80±.11; $M_{r\theta}$2.23±.26; $M_{\theta\phi}$2.12±.08; $M_{\phi r}$-2.74±.31; Best double couple: $M_0$6.18100×$10^{16}$ NP1:$\phi_s$130.00000°,δ63.00000°,λ103.00000°. NP2: $\phi_s$282.00000°,δ30.00000°,λ66.00000°. Principal axes: T 6.2300, Plg69.0000°, Azm67.0000°; N -0.0920, Plg12.0000°, Azm303.0000°; P -6.1320, Plg17.0000°, Azm210.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*BJI **08** 14:34:10.1, 13°.30N×90°.00W, h80km, mB5.4/4, Ms5.3/3, Ms7 5.0/5*
**ISC 08 14:34:03.4**±0.3**, 13°.02N**±0°.05×**90°.18W**±0°.04**, h29**km**, n674, σ1§50**/680**, mb4.9**/155**, MS4.5**/7**, 1C, Near coast of Guatemala**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CUS1** | **Cusmapa** | **0.91** | **15** | *e*P | **Pb** | **14 34 21.7** | **+1.0** |
| **SBLS** | **San Blas** | **0.98** | **34** | *e*P | **Pb** | **14 34 23.7** | **+1.8** |
| **MONT** | **Ecomontaæa** | **0.98** | **32** | *e*P | **Pb** | **14 34 23.5** | **+1.6** |
| **SNJE** | **San Jose** | **1.01** | **34** | *e*P | **Pb** | **14 34 24.0** | **+1.6** |
| **RTR** | **El Retiro** | **1.01** | **31** | *e*P | **Pb** | **14 34 24.3** | **+1.9** |
| **COLS** | **Colinas** | **1.07** | **53** | *e*P | **Pb** | **14 34 25.7** | **+2.3** |
| COLS | | | | *e*S | **Sb** | **14 34 44.3** | **+7.2** |
| **BOQS** | **Boqueron** | **1.13** | **51** | *e*P | **Pb** | **14 34 26.2** | **+1.8** |
| **SNET** | **Serv Nac Est T** | **1.14** | **54** | *e*P | **Pb** | **14 34 26.1** | **+1.6** |
| SNET | | | | AML | AML | 14 34 53.3 | |
| | comp=Z,5µm,0.4s | | | | | | |
| **UEES** | **San Salvador** | **1.15** | **53** | *e*P | **Pb** | **14 34 26.9** | **+2.2** |
| UEES | | | | AML | AML | 14 34 58.9 | |
| | comp=Z,7µm,0.4s | | | | | | |
| **IXG** | **Ixpaco** | **1.17** | **347** | *e*P | **Pn** | **14 34 23.8** | **-0.2** |
| **OPAM** | **San Salvador** | **1.18** | **54** | *e*P | **Pb** | **14 34 27.0** | **+1.9** |
| OPAM | | | | AML | AML | 14 35 04.7 | |
| | comp=Z,7µm,0.6s | | | | | | |
| **RBDL** | **Robledal** | **1.19** | **24** | *e*P | **Pb** | **14 34 26.5** | **+1.1** |
| **LFRS** | **El Faro** | **1.24** | **61** | *e*P | **Pb** | **14 34 27.4** | **+1.1** |
| **LBRS** | **Las Brisas** | **1.32** | **57** | *e*P | **Pb** | **14 34 28.9** | **+1.4** |
| **UESV** | **Ojushtada** | **1.40** | **75** | *e*P | **Pb** | **14 34 30.7** | **+1.8** |
| UESV | | | | *e*S | Sb | 14 34 55.9 | +9.4 |
| UESV | | | | AML | AML | 14 35 04.0 | |
| | comp=Z,9µm,0.8s | | | | | | |
| **SNVI** | **San Vicente** | **1.43** | **66** | *e*P | **Pb** | **14 34 30.1** | **+0.5** |
| **VSM** | **San Miguel** | **1.90** | **78** | *e*P | **Pb** | **14 34 36.8** | **-0.8** |
| **CAHU** | **Cacacuatique** | **2.06** | **69** | *e*P | **Pb** | **14 34 39.2** | **-1.0** |
| **CNCH** | **Conchagua** | **2.30** | **83** | *e*P | **Pn** | **14 34 41.8** | **+2.3** |
| **TGUH** | **Tegucigalpa,Un** | **3.01** | **70** | *e*Pn | **Pn** | **14 34 52.2** | **+3.1** |
| **TGUH** | **Tegucigalpa,Un** | **3.01** | **70** | *e*P | **Pn** | **14 34 52.0** | **+2.9** |
| **CRIN** | **San Cristobal** | **3.07** | **96** | *e*P | **Pn** | **14 34 52.2** | **+2.1** |
| CRIN | | | | *e*S | **Sb** | **14 35 31.6** | **-2.9** |
| CRIN | | | | AML | AML | 14 35 42.5 | |
| | comp=E,2µm,0.6s | | | | | | |
| **COPN** | **Copaltepe** | **3.61** | **103** | *e*P | **Pn** | **14 34 58.1** | **+0.8** |
| **MOMN** | **Momotombo** | **3.61** | **99** | *e*P | **Pn** | **14 34 58.9** | **+1.5** |
| **ESTN** | **Estel** | **3.72** | **88** | *e*P | **Pn** | **14 35 00.9** | **+1.9** |
| **CCIG** | **Comitan** | **3.75** | **330** | *e*Pn | **Pn** | **14 35 01.4** | **+2.0** |
| **XAVN** | **Gruta Xavier** | **3.87** | **103** | *e*P | **Pn** | **14 35 01.1** | **+0.2** |
| **MGAN** | **Managua** | **3.94** | **102** | *e*P | **Pn** | **14 35 03.0** | **+1.1** |
| **PCIG** | | **3.97** | **313** | P | **Pn** | **14 35 02.0** | **-0.2** |
| PCIG | | | | S | **Sn** | **14 35 51.1** | **+3.2** |
| **JTS** | **JuntasAbangare** | **5.80** | **117** | *e*Pn | **Pn** | **14 35 27.6** | **+0.1** |
| | comp=E,108nm,0.7s | | | | | | |
| JTS | | | | Sn | **Sn** | **14 36 30.9** | **-2.3** |
| **CMIG** | **Matias Romero** | **6.08** | **312** | Pn | **Pn** | **14 35 30.3** | **-1.1** |
| | comp=E,3.4nm,0.3s,baz=122,slow=7.9,SNR=18 | | | | | | |
| CMIG | | | | Sn | **Sn** | **14 36 40.6** | **+0.7** |
| | comp=E,5.2nm,0.3s,baz=87,slow=19,SNR=2.7 | | | | | | |
| **CGA2** | **Cerro Gallo 2** | **6.35** | **117** | *e*P | **Pn** | **14 35 38.9** | **+3.7** |
| **QCR1** | **Quepos** | **6.90** | **121** | *e*P | **Pn** | **14 35 45.7** | **+3.1** |
| **URSC** | **Urasca** | **7.03** | **116** | *e*P | **Pn** | **14 35 48.7** | **+4.1** |
| **TLIG** | **Tlapa** | **9.26** | **300** | *e*Pn | **Pn** | **14 36 15.1** | **0.0** |
| **MTDJ** | **Mount Denham** | **13.23** | **65** | P | **Pn** | **14 37 12.4** | **+2.9** |
| | comp=E,88nm,0.7s | | | | | | |
| **MOTC** | **Monteria, Cord** | **14.87** | **105** | *e*P | **P** | **14 37 37.5** | **+0.3** |
| **SJCC** | **San Jacinto, C** | **15.03** | **100** | *e*P | **P** | **14 37 38.6** | **-0.4** |
| **ZAIG** | **Zacatecas** | **15.25** | **311** | *e*Pn | **Pn** | **14 37 39.2** | **+2.2** |
| | comp=E,90nm,1.4s | | | | | | |
| **HELC** | **Santa Helena** | **15.96** | **114** | *e*Pn | **P** | **14 37 49.7** | **+0.1** |
| | comp=E,75nm,0.7s | | | | | | |
| **CODC** | **Agust˘›n Codaz** | **16.69** | **99** | *e*P | **Pn** | **14 37 54.5** | **-0.8** |
| **NORC** | **Norcasia** | **16.82** | **115** | *e*P | **P** | **14 37 59.8** | **+0.8** |
| **POPC** | **Popayan, Colom** | **16.95** | **127** | *e*P | **P** | **14 38 00.9** | **+0.5** |
| **CMBC** | **Cumbal** | **17.15** | **133** | *e*P | **P** | **14 38 04.2** | **+1.2** |
| **HKT** | **Hockley** | **17.64** | **344** | Pn | **Pn** | **14 38 05.3** | **-1.6** |
| | comp=E,112nm,1.8s | | | | | | |
| **ROSC** | **El Rosal** | **17.64** | **116** | P | **P** | **14 38 11.5** | **+3.1** |
| | comp=E,0.6nm,0.3s,baz=260,slow=3.9,SNR=17 | | | | | | |
| **ROSC** | **El Rosal** | **17.64** | **116** | *e*P | **Pn** | **14 38 01.5** | **-6.1** |
| **ROSC** | **El Rosal** | **17.64** | **116** | *e*P | **P** | **14 38 11.8** | **+3.4** |
| | comp=E,35nm,1.0s | | | | | | |
| **446A** | **Poplarville** | **17.70** | **2** | P | **P** | **14 38 11.1** | **+2.7** |
| | baz=182 | | | | | | |
| **PRAC** | **Prado** | **17.72** | **120** | *e*P | **Pn** | **14 38 07.4** | **-0.9** |
| **PRAC** | **Prado** | **17.72** | **120** | *e*P | **P** | **14 38 12.0** | **+3.1** |
| | comp=E,42nm,1.0s | | | | | | |
| **441A** | **DeRidder** | **17.86** | **352** | P | **P** | **14 38 12.7** | **+2.5** |
| | baz=170 | | | | | | |
| **BARC** | **Barichara** | **17.92** | **109** | *e*P | **P** | **14 38 16.8** | **+5.5** |
| **PAMC** | **Pamplona, Colo** | **18.11** | **106** | *e*P | **P** | **14 38 14.4** | **+0.8** |
| **CHIC** | **Chingaza** | **18.26** | **116** | *e*P | **P** | **14 38 16.2** | **+1.0** |
| **RUSC** | **La Rusia** | **18.29** | **111** | *e*P | P | 14 38 02.7 | -13 |
| **RUSC** | **La Rusia** | **18.29** | **111** | *e*P | **Pn** | **14 38 19.5** | **+3.9** |
| | comp=E,8.2nm,0.8s | | | | | | |
| **438A** | **Sam Houston St** | **18.30** | **345** | P | **Pn** | **14 38 19.3** | **+4.1** |
| | baz=163 | | | | | | |
| **344A** | **Westbrook Farm** | **18.35** | **359** | P | **Pn** | **14 38 19.1** | **+3.4** |
| | baz=178 | | | | | | |
| **347A** | **Saraland** | **18.35** | **4** | P | **Pn** | **14 38 19.2** | **+3.5** |
| | baz=184 | | | | | | |
| **342A** | **Flagon Creek P** | **18.37** | **354** | P | **Pn** | **14 38 19.8** | **+3.8** |
| | baz=173 | | | | | | |
| **340A** | **Bronson** | **18.62** | **350** | P | **Pn** | **14 38 21.2** | **+2.2** |
| | baz=168 | | | | | | |
| **339A** | **Huntington** | **18.66** | **348** | P | **Pn** | **14 38 21.3** | **+1.8** |
| | baz=166 | | | | | | |
| **243A** | **Waterproof** | **18.81** | **357** | P | **Pn** | **14 38 23.2** | **+2.0** |
| | baz=175 | | | | | | |
| **338A** | **Crockett** | **18.85** | **346** | P | **Pn** | **14 38 24.8** | **+3.0** |
| | baz=164 | | | | | | |
| **245A** | **Little AP, Sta** | **18.92** | **1** | P | **Pn** | **14 38 24.0** | **+1.4** |
| | baz=180 | | | | | | |
| **244A** | **Avery, Jackson** | **18.94** | **359** | P | **Pn** | **14 38 24.6** | **+1.8** |
| | baz=178 | | | | | | |
| **337A** | **Centerville** | **18.95** | **345** | P | **Pn** | **14 38 24.7** | **+1.7** |
| | baz=162 | | | | | | |
| **435B** | **Jarrell** | **18.95** | **340** | P | **Pn** | **14 38 24.0** | **+0.9** |
| | baz=157 | | | | | | |
| **247A** | **Quitman** | **19.00** | **4** | P | **Pn** | **14 38 25.7** | **+2.1** |
| | baz=184 | | | | | | |
| **242A** | **Grayson** | **19.04** | **355** | P | **Pn** | **14 38 25.2** | **+1.2** |
| | baz=174 | | | | | | |
| **NATX** | **Nacogdoches** | **19.10** | **348** | P | **P** | **14 38 23.7** | **-0.1** |
| | baz=166,SNR=5.9 | | | | | | |
| **NATX** | **Nacogdoches** | **19.10** | **348** | *e*P | **Pn** | **14 38 25.6** | **+0.8** |
| | comp=E,64nm,0.8s | | | | | | |
| **240A** | **Hunter Patters** | **19.21** | **351** | P | **P** | **14 38 25.4** | **+0.3** |
| | baz=169 | | | | | | |
| **336A** | **Riesel** | **19.28** | **343** | P | **Pn** | **14 38 27.5** | **+0.5** |
| | baz=159 | | | | | | |
| **239A** | **Gary** | **19.31** | **349** | P | **Pn** | **14 38 27.4** | **+0.1** |
| | baz=167 | | | | | | |
| **JCT** | **Junction City** | **19.51** | **334** | P | **Pn** | **14 38 29.8** | **0.0** |
| | baz=150 | | | | | | |
| **JCT** | **Junction City** | **19.51** | **334** | *e*P | **P** | **14 38 26.7** | **-1.8** |
| | comp=E,22nm,0.9s | | | | | | |
| **237A** | **Washetta, Mont** | **19.58** | **346** | P | **Pn** | **14 38 31.0** | **+0.4** |
| | baz=163 | | | | | | |
| **SDV** | **Santo Domingo** | **19.63** | **100** | P | **P** | **14 38 30.3** | **+0.3** |
| | comp=E,1.1nm,0.3s,baz=288,slow=7.8,SNR=17 | | | | | | |
| SDV | | | | PcP | **PcP** | **14 42 50.3** | **+1.1** |
| | comp=E,0.4nm,0.3s,baz=323,slow=5.1,SNR=3.5 | | | | | | |
| **SDV** | **Santo Domingo** | **19.63** | **100** | *e*P | **P** | **14 38 30.3** | **+0.3** |
| **SDV** | **Santo Domingo** | **19.63** | **100** | *e*P | **P** | **14 38 28.0** | **-2.0** |
| | comp=E,24nm,0.8s | | | | | | |
| SDV | | | | PcP | **PcP** | **14 42 50.3** | **+1.1** |
| **147A** | **Livingston** | **19.64** | **5** | P | **Pn** | **14 38 30.9** | **-0.3** |
| | baz=185 | | | | | | |
| **236A** | **Katherine and** | **19.77** | **344** | P | **P** | **14 38 31.9** | **+0.7** |
| | baz=161 | | | | | | |
| **139A** | **Bunkhouse Ranc** | **19.94** | **350** | P | **P** | **14 38 33.8** | **+0.8** |
| | baz=167 | | | | | | |
| **WHTX** | **Lake Whitney,** | **20.02** | **342** | P | **P** | **14 38 35.0** | **+1.0** |
| | baz=158 | | | | | | |
| **138A** | **Matatall Enter** | **20.06** | **348** | P | Pn | 14 38 35.9 | -0.3 |
| | baz=165 | | | | | | |
| **Z46A** | **Louisville** | **20.11** | **3** | P | Pn | 14 38 36.3 | -0.5 |
| | baz=183 | | | | | | |
| **LRAL** | **Lakeview Retre** | **20.13** | **8** | P | Pn | 14 38 36.7 | -0.4 |
| | baz=188,SNR=8.0 | | | | | | |
| **LRAL** | **Lakeview Retre** | **20.13** | **8** | *e*P | **P** | **14 38 33.4** | **-1.7** |
| | comp=E,24nm,0.7s | | | | | | |
| **137A** | **Heron Place, G** | **20.14** | **346** | P | Pn | 14 38 36.5 | -0.7 |
| | baz=163 | | | | | | |
| **Z47A** | **Carrollton** | **20.18** | **5** | P | Pn | 14 38 37.7 | +0.1 |
| | baz=185 | | | | | | |
| **136A** | **Ennis** | **20.21** | **344** | P | **P** | **14 38 36.3** | **+0.3** |
| | baz=161 | | | | | | |
| **Z40A** | **Long Farm, Mag** | **20.36** | **352** | P | **P** | **14 38 38.2** | **+0.7** |
| | baz=170 | | | | | | |
| **TXAR** | **Lajitas Array** | **20.50** | **324** | P | **P** | **14 38 40.4** | **+1.1** |
| | comp=E,18nm,0.7s,baz=154,slow=13,SNR=231 | | | | | | |
| TXAR | | | | PcP | **PcP** | **14 42 51.3** | **+0.8** |
| | comp=E,1.5nm,0.8s,baz=157,slow=4.9,SNR=6.4 | | | | | | |
| TXAR | | | | ScP | **ScP** | **14 46 30.2** | **+5.0** |
| | comp=E,0.7nm,1.0s,baz=134,slow=5.1,SNR=3.0 | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **20.50** | **324** | *e*P | **P** | **14 38 40.6** | **+1.3** |
| **Z38A** | **Mt. Pleasant** | **20.62** | **349** | P | **P** | **14 38 40.5** | **+0.1** |
| | baz=166 | | | | | | |
| **Z37A** | **Pogue Cattle C** | **20.69** | **347** | P | **P** | **14 38 41.3** | **+0.2** |
| | baz=164 | | | | | | |
| **WLAR** | **White Oak Lake** | **20.74** | **353** | *e*P | **P** | **14 38 42.1** | **+0.4** |
| | comp=E,45nm,0.8s | | | | | | |
| **H06E1** | **SOCORRO T-PHAS** | **20.74** | **289** | T | T | 14 59 57.5 | |
| | SNR=13 | | | | | | |
| **H06S1** | **SOCORRO T** | **20.76** | **289** | T | T | 14 59 53.4 | |
| | SNR=5.0 | | | | | | |
| **Y44A** | **Strider, Charl** | **20.84** | **360** | P | Pn | 14 38 45.9 | +0.5 |
| | baz=179 | | | | | | |
| **Y47A** | **UCPARC, Winfie** | **20.89** | **5** | P | Pn | 14 38 45.6 | -0.4 |
| | baz=186 | | | | | | |
| **Z36A** | **Blue Ridge** | **20.95** | **345** | P | **P** | **14 38 44.2** | **+0.2** |
| | baz=162 | | | | | | |
| **Y40A** | **Okolona** | **21.08** | **353** | P | **P** | **14 38 45.5** | **+0.1** |
| | baz=171 | | | | | | |
| **Y39A** | **Lockesburg** | **21.12** | **351** | P | **P** | **14 38 46.1** | **+0.3** |
| | baz=169 | | | | | | |
| **GOGA** | **Godfrey** | **21.20** | **16** | *e*P | **P** | **14 38 44.0** | **-2.7** |
| | comp=E,13nm,0.6s | | | | | | |
| **Y38A** | **Idabel** | **21.22** | **350** | P | **P** | **14 38 48.2** | **+1.3** |
| | baz=167 | | | | | | |
| **X45A** | **UM Field Stati** | **21.32** | **2** | P | **P** | **14 38 48.8** | **+0.8** |
| | baz=182 | | | | | | |
| **ABTX** | **Abilene, Hawle** | **21.35** | **338** | P | **P** | **14 38 49.1** | **+0.8** |
| | baz=153 | | | | | | |
| **OXF** | **Oxford** | **21.41** | **2** | P | **P** | **14 38 49.2** | **+0.3** |
| | baz=182 | | | | | | |
| **OXF** | **Oxford** | **21.41** | **2** | *e*P | **P** | **14 38 49.3** | **+0.4** |
| | comp=E,59nm,0.9s | | | | | | |
| **Y37A** | **Hugo** | **21.44** | **348** | P | **P** | **14 38 50.3** | **+1.1** |
| | baz=165 | | | | | | |
| **X41A** | **Kaden, Bauxite** | **21.48** | **355** | P | **P** | **14 38 51.4** | **+1.7** |
| | baz=173 | | | | | | |
| **X40A** | **Basin Creek Fa** | **21.50** | **354** | P | **P** | **14 38 51.4** | **+1.4** |
| | baz=172 | | | | | | |
| **Y36A** | **Durant** | **21.51** | **346** | P | **P** | **14 38 51.2** | **+1.1** |
| | baz=163 | | | | | | |
| **MIAR** | **Mount Ida** | **21.65** | **352** | P | **P** | **14 38 51.1** | **-0.3** |
| | baz=170,SNR=15 | | | | | | |
| **MIAR** | **Mount Ida** | **21.65** | **352** | *e*P | **P** | **14 38 50.1** | **-1.3** |
| | comp=E,29nm,0.8s | | | | | | |
| **X39A** | **Fountain Ranch** | **21.69** | **351** | P | **P** | **14 38 53.4** | **+1.5** |
| | baz=169 | | | | | | |
| **Y35A** | **Marietta** | **21.70** | **344** | P | **P** | **14 38 52.7** | **+0.6** |
| | baz=161 | | | | | | |
| **UALR** | **University of** | **21.74** | **355** | *e*P | **P** | **14 38 53.4** | **+0.9** |
| | comp=E,40nm,0.7s | | | | | | |
| **PLAL** | **Pickwick Lake** | **21.95** | **5** | *e*P | **P** | **14 38 55.3** | **+0.6** |
| | comp=E,27nm,0.6s | | | | | | |
| **X38A** | **Whitesboro** | **21.96** | **350** | P | **P** | **14 38 55.8** | **+1.0** |
| | baz=167 | | | | | | |
| **X37A** | **Clayton** | **21.98** | **349** | P | **P** | **14 38 56.7** | **+1.6** |
| | baz=166 | | | | | | |
| **LPIG** | **La Paz** | **22.00** | **303** | LR | LR | 14 47 47.2 | |
| | comp=E,1µm,18.1s,baz=128,slow=38 | | | | | | |
| **W45A** | **Hickory Valley** | **22.05** | **2** | P | **P** | **14 38 57.2** | **+1.4** |
| | baz=182 | | | | | | |
| **W41B** | **Gary Mavity, V** | **22.13** | **356** | P | **P** | **14 38 57.4** | **+0.7** |
| | baz=174 | | | | | | |
| **X35A** | **Drake** | **22.16** | **345** | P | **P** | **14 38 57.1** | **+0.2** |
| | baz=162 | | | | | | |
| **X36A** | **Centrahoma** | **22.17** | **346** | P | **P** | **14 38 57.2** | **+0.1** |
| | baz=163 | | | | | | |
| **X301** | **Greenbrier Sit** | **22.21** | **355** | *e*P | **P** | **14 38 58.1** | **+0.7** |
| | comp=E,23nm,0.9s | | | | | | |
| **WHAR** | **Wooly Hollow** | **22.25** | **355** | *e*P | **P** | **14 38 58.9** | **+0.9** |
| | comp=E,147nm,1.8s | | | | | | |
| **W38A** | **Poteau** | **22.30** | **351** | P | **P** | **14 38 58.4** | **-0.1** |
| | baz=168 | | | | | | |
| **W39A** | **Magazine** | **22.31** | **352** | P | **P** | **14 38 58.5** | **-0.1** |
| | baz=170 | | | | | | |
| **SWET** | **Sewanee** | **22.43** | **9** | *e*P | **P** | **14 38 59.4** | **-0.5** |
| | comp=E,47nm,0.6s | | | | | | |
| **W37B** | **Quinton** | **22.52** | **349** | P | **P** | **14 39 00.9** | **0.0** |
| | baz=166 | | | | | | |
| **JSC** | **Jenkinsville** | **22.66** | **19** | *e*P | **P** | **14 39 03.2** | **+0.9** |
| | comp=E,80nm,1.6s | | | | | | |
| **W36A** | **Wetumka** | **22.69** | **347** | P | **P** | **14 39 01.7** | **-0.9** |
| | baz=164 | | | | | | |
| **V42A** | **Cord** | **22.71** | **357** | P | **P** | **14 39 03.1** | **+0.3** |
| | baz=176 | | | | | | |
| **V41A** | **Mountainview** | **22.73** | **356** | P | **P** | **14 39 02.8** | **-0.3** |
| | baz=174 | | | | | | |
| **V40A** | **Witts Springs** | **22.81** | **354** | P | **P** | **14 39 04.3** | **+0.3** |
| | baz=173 | | | | | | |
| **BG3** | **Lake Jocassee** | **22.84** | **15** | *e*P | **P** | **14 39 03.8** | **-0.4** |
| | comp=E,19nm,0.7s | | | | | | |
| **W35A** | **Tecumseh** | **22.85** | **346** | P | **P** | **14 39 03.2** | **-1.2** |
| | baz=162 | | | | | | |
| **CPCT** | **Cooper Cave** | **22.91** | **12** | *e*P | **P** | **14 39 04.6** | **-0.4** |
| | comp=E,23nm,0.7s | | | | | | |
| **V39A** | **Pettigrew** | **22.93** | **353** | P | **P** | **14 39 05.6** | **+0.4** |
| | baz=171 | | | | | | |
| **WMOK** | **Wichita Mounta** | **22.98** | **342** | P | **P** | **14 39 05.3** | **-0.4** |
| | baz=158,SNR=7.7 | | | | | | |

WMOK **Wichita Mounta** 22.98 342 *eP* P 14 39 03.9 -1.8
comp=E,11nm,0.8s
V38A **Canehill** 23.06 351 P P 14 39 05.8 -0.7
baz=169
WVT **Waverly** 23.11 5 P P 14 39 06.4 -0.6
baz=185
WVT **Waverly** 23.11 5 *eP* P 14 39 06.3 -0.6
comp=E,39nm,1.1s
V37A **Hulbert** 23.20 350 P P 14 39 07.1 -0.7
baz=167
ATAH **Atahualpa** 23.20 149 P P 14 39 11.6 +3.1
comp=E,10nm,0.8s,baz=18,slow=7.1,SNR=6.2
OK020 **N3440 Road, Me** 23.22 346 *eP* P 14 39 05.9 -2.2
comp=E,41nm,1.0s
OK021 **N3530 Road, Sp** 23.24 346 *eP* P 14 39 06.1 -2.2
comp=E,25nm,0.6s
U43A **Rector** 23.25 360 P P 14 39 09.1 +0.8
baz=179
U42A **Revenden** 23.25 358 P P 14 39 08.9 +0.5
baz=177
MNTX **Cornudas Mount** 23.25 326 P P 14 39 08.3 -0.2
baz=139,SNR=50
MNTX **Cornudas Mount** 23.25 326 *eP* P 14 39 08.2 -0.2
comp=E,31nm,0.8s
V36A **Jenks** 23.25 348 P P 14 39 07.9 -0.5
baz=165
U45A **Rockin P Farm,** 23.26 3 P P 14 39 08.8 +0.4
baz=183
TKL **Tuckaleechee C** 23.27 13 P P 14 39 08.4 -0.2
comp=E,20nm,0.6s,baz=176,slow=10,SNR=28
TKL LR LR 14 49 07.4
comp=E,3µm,19.5s,baz=198,slow=40
TKL **Tuckaleechee C** 23.27 13 *eP* P 14 39 09.0 +0.4
comp=E,112nm,1.5s
U41A **Viola** 23.27 356 P P 14 39 08.8 +0.2
baz=175
TUL1 **Leonard** 23.34 348 P P 14 39 09.3 0.0
baz=166
U40A **Yellville** 23.36 355 P P 14 39 09.1 -0.4
baz=173
U44A **Portageville** 23.39 1 P P 14 39 09.0 -0.7
baz=181
HHAR **Hobbs** 23.40 352 *eP* P 14 39 10.2 +0.2
comp=E,12nm,0.6s
V35A **Meyer Ranch, C** 23.42 346 P P 14 39 09.0 -1.1
baz=163
KMSC **Kings Mountain** 23.43 18 P P 14 39 09.5 -0.7
baz=202
U39A **Green Forest** 23.45 353 P P 14 39 10.2 -0.1
baz=171
U38A **Gravette** 23.62 352 P P 14 39 11.6 -0.5
baz=169
SJG **San Juan** 23.69 75 PcP PcP 14 42 57.8 +1.0
comp=E,6.0nm,0.3s,baz=332,slow=2.8,SNR=4.7
U37A **Salina** 23.70 350 P P 14 39 12.7 -0.1
baz=167
MSTX **Muleshoe** 23.79 333 P P 14 39 13.8 0.0
baz=148
U36A **Oologah** 23.80 349 P P 14 39 13.1 -0.6
baz=166
T42A **Van Buren** 23.92 358 P P 14 39 15.0 +0.2
baz=177
T43A **Greenville** 23.96 360 P P 14 39 15.1 -0.1
baz=179
T44A **Benton** 23.97 1 P P 14 39 14.7 -0.5
baz=181
U35A **Pawnee** 23.98 347 P P 14 39 15.3 -0.1
baz=164
T46A **Princeton** 24.00 5 P P 14 39 15.9 +0.3
baz=185
T47A **Sharon Grove** 24.02 6 P P 14 39 15.7 -0.1
baz=187
T39A **Clever** 24.07 354 P P 14 39 16.6 +0.3
baz=172
T40A **Mansfield** 24.12 355 P P 14 39 16.6 -0.1
baz=174
AMTX **Amarillo** 24.13 336 P P 14 39 16.4 -0.5
baz=151
AMTX **Amarillo** 24.13 336 *eP* P 14 39 14.5 -2.5
comp=E,27nm,0.7s
TZTN **Tazewell** 24.17 13 P P 14 39 16.2 -1.0
baz=196
TZTN **Tazewell** 24.17 13 *eP* P 14 39 16.1 -1.0
comp=E,70nm,1.4s
T38A **Diamond** 24.19 352 P P 14 39 17.1 -0.3
baz=170
S43A **Fulton Ridge,** 24.45 0 P P 14 39 19.1 -0.6
baz=180
T35A **Sooner Cattle** 24.46 348 P P 14 39 19.1 -0.7
baz=164
T36A **Boggs Farm, Ca** 24.47 349 P P 14 39 19.5 -0.4
baz=166
S41A **Jillco Farms,** 24.50 357 P P 14 39 19.5 -0.7
baz=176
S40A **Lebanon** 24.56 356 P P 14 39 20.4 -0.3
baz=174
U32A **Winter Ranch,** 24.57 343 P P 14 39 21.3 +0.4
baz=158
S44A **Carbondale** 24.58 2 P P 14 39 20.6 -0.3
baz=182
S45A **Carrier Mills** 24.59 3 P P 14 39 20.6 -0.4
baz=183
SIUC **Southern Illin** 24.61 2 *eP* P 14 39 20.8 -0.3
comp=E,54nm,0.7s
S42A **Caledonia** 24.65 359 P P 14 39 21.0 -0.6
baz=178
S46A **Don Dixon Farm** 24.66 5 P P 14 39 20.8 -0.8
baz=185
T34A **McClaskey Farm** 24.71 346 P P 14 39 21.3 -0.8
baz=163
S39A **Bolivar** 24.73 354 P P 14 39 21.9 -0.3
baz=172
S38A **Stockton** 24.73 353 P P 14 39 21.4 -0.9
baz=171
USIN **University of** 24.94 5 *eP* P 14 39 23.7 -0.5
comp=E,47nm,0.8s
CCM **Cathedral Cave** 24.95 358 P P 14 39 23.6 -0.6
baz=177
CCM **Cathedral Cave** 24.95 358 *eP* P 14 39 22.5 -1.7
comp=E,165nm,0.6s
S37A **Fort Scott** 24.98 351 P P 14 39 23.8 -0.7
baz=169
S36A **Lake Cedric, C** 25.07 350 P P 14 39 25.0 -0.3
baz=167
R44A **Waltonville** 25.14 2 P P 14 39 25.1 -0.8
baz=182
R43A **Red Bud** 25.15 0 P P 14 39 25.4 -0.7
baz=180
R42A **Luebbering** 25.16 359 P P 14 39 25.7 -0.4
baz=178
R41A **Rosebud** 25.19 358 P P 14 39 26.0 -0.5
baz=177
R46A **Gibon Southern** 25.20 5 P P 14 39 26.1 -0.4
baz=186
R40A **Maddies Statio** 25.23 356 P P 14 39 26.4 -0.4
baz=175
121A **Cookes Peak, D** 25.23 323 P P 14 39 28.6 +1.5
baz=136
R38A **Fenwick Farm,** 25.28 353 P P 14 39 26.5 -0.7
baz=171
R39A **Chumby, Stover** 25.32 355 P P 14 39 27.2 -0.4
baz=173
WCI **Wyandotte Cave** 25.34 7 P P 14 39 27.0 -0.8
baz=188
WCI **Wyandotte Cave** 25.34 7 *eP* P 14 39 26.1 -1.6
comp=E,443nm,0.6s
S34A **Willow Spring** 25.34 347 P P 14 39 27.4 -0.5
baz=164
R47A **Wooly Knot Far** 25.38 7 P P 14 39 27.5 -0.6
baz=188
R36A **Gordon, Harris** 25.64 350 P P 14 39 30.3 -0.2
baz=168
R35A **Emporia Munici** 25.76 349 P P 14 39 31.4 -0.2
baz=166
Q42A **Golden Eagle** 25.79 359 P P 14 39 31.4 -0.4
baz=179
Q44A **Meyer Farm, Va** 25.80 2 P P 14 39 31.1 -0.8
baz=182
BNM **Barren Site** 25.80 327 *eP* P 14 39 33.2 +0.9
Q43A **New Douglas** 25.82 1 P P 14 39 31.8 -0.3
baz=181
Q45A **Warren Harvey,** 25.83 4 P P 14 39 31.8 -0.4
baz=184
Q41A **Truxton** 25.84 358 P P 14 39 32.1 -0.2
baz=177
Q40A **Laux Farm, Aux** 25.92 357 P P 14 39 32.5 -0.5
baz=175
LPM **Los Pinos Moun** 25.93 328 *eP* P 14 39 34.2 +0.9

R34A **Isabella, Hill** 25.95 347 P P 14 39 33.2 -0.1
baz=164
Q38A **Cooks Store, C** 26.01 354 P P 14 39 33.8 -0.1
baz=172
Q46A **CEJHS Indians,** 26.02 5 P P 14 39 33.5 -0.4
baz=186
Q47A **Bedord North L** 26.02 7 P P 14 39 33.4 -0.5
baz=188
Q39A **Willow Grove F** 26.04 355 P P 14 39 33.8 -0.3
baz=173
Q35A **Mercer Eighty,** 26.25 350 P P 14 39 35.7 -0.3
baz=167
Q36A **Arnold C. Orve** 26.25 351 P P 14 39 36.5 +0.4
baz=168
ANMO **Albuquerque** 26.33 329 P P 14 39 37.9 +0.8
comp=E,3.4nm,0.7s,baz=162,slow=16,SNR=13
ANMO PcP PcP 14 43 03.7 +0.9
comp=E,1.6nm,0.7s,baz=166,slow=5.6,SNR=3.3
ANMO LR LR 14 52 05.6
comp=E,347nm,18.1s,baz=330,slow=41
ANMO **Albuquerque** 26.33 329 P P 14 39 37.9 +0.8
baz=142
ANMO **Albuquerque** 26.33 329 *eP* P 14 39 37.8 +0.8
comp=E,4.2nm,0.8s
ANMO PcP PcP 14 43 03.7 +0.9
P44A **Sand Creek, Wi** 26.38 3 P P 14 39 37.0 -0.2
baz=183
P40A **Paris** 26.45 357 P P 14 39 37.5 -0.3
baz=176
P39B **Salisbury** 26.46 356 P P 14 39 37.6 -0.3
baz=174
P42A **Winchester** 26.46 360 P P 14 39 37.1 -0.7
baz=179
Q34A **Chapman** 26.48 348 P P 14 39 38.2 0.0
baz=165
P45A **Graceland, Par** 26.49 4 P P 14 39 37.6 -0.6
baz=185
P43A **Skaggs, Pawnee** 26.52 1 P P 14 39 38.0 -0.5
baz=181
P41A **Barry, Barry** 26.56 358 P P 14 39 38.5 -0.3
baz=178
P47A **Martinsville** 26.59 7 P P 14 39 38.4 -0.6
baz=188
P46A **Rosedale** 26.62 5 P P 14 39 39.1 -0.3
baz=186
P38A **Dawn** 26.66 354 P P 14 39 39.4 -0.3
baz=172
P37A **Lathrop** 26.71 353 P P 14 39 39.9 -0.3
baz=170
P36A **Good Intent, A** 26.86 351 P P 14 39 41.3 -0.3
baz=169
P35A **Duane Minner,** 26.90 350 P P 14 39 41.7 -0.2
baz=167
TUC **Tucson** 26.92 319 P P 14 39 43.9 +1.6
baz=130
TUC **Tucson** 26.92 319 *eP* P 14 39 43.9 +1.6
comp=E,11nm,0.7s
O41A **Passleys Farm,** 26.99 359 P P 14 39 42.4 -0.3
baz=178
O40A **La Belle** 27.03 357 P P 14 39 42.4 -0.7
baz=176
CBKS **Cedar Bluff** 27.05 343 P P 14 39 43.0 -0.3
baz=159
P34A **Walnut Farm, R** 27.06 349 P P 14 39 43.2 -0.2
baz=165
O44A **Mansfield** 27.07 3 P P 14 39 42.8 -0.5
baz=183
O42A **Bath** 27.07 0 P P 14 39 42.7 -0.6
baz=180
O38A **Galt** 27.15 354 P P 14 39 43.6 -0.5
baz=172
T25A **Trinidad** 27.18 335 P P 14 39 45.1 +0.3
baz=148
O39A **Kirksville** 27.20 356 P P 14 39 44.2 -0.4
baz=174
O45A **Potomac** 27.21 4 P P 14 39 44.2 -0.4
baz=185
O37A **Wolven Farm, M** 27.26 353 P P 14 39 44.5 -0.7
baz=171
O36A **Bolckow** 27.33 352 P P 14 39 44.5 -1.3
baz=169
O47A **Sheridan** 27.34 7 P P 14 39 44.2 -1.6
baz=188
SFIN **Lafayette** 27.39 5 P P 14 39 45.4 -0.8
baz=186
HDIL **Hopedale** 27.44 1 P P 14 39 45.4 -1.3
baz=181
O35A **Humboldt** 27.60 351 P P 14 39 47.4 -0.8
baz=167
O34A **Beatrice** 27.65 349 P P 14 39 47.8 -0.9
baz=166
N42A **Yates City** 27.70 0 P P 14 39 48.5 -0.5
baz=180
N44A **Piper City** 27.72 3 P P 14 39 48.6 -0.6
baz=184
O33A **Hebron** 27.72 348 P P 14 39 49.0 -0.3
baz=164
N40A **Mertquake, Sal** 27.78 358 P P 14 39 49.4 -0.3
baz=177
N39A **Derby Farms, D** 27.82 356 P P 14 39 49.4 -0.7
baz=175
ACSO **Alum Creek Sta** 27.83 12 P P 14 39 49.2 -1.1
baz=195
ACSO **Alum Creek Sta** 27.83 12 *eP* P 14 39 47.0 -3.3
comp=E,25nm,0.7s
N37A **Lee Faris, Mou** 27.85 353 P P 14 39 50.2 -0.2
baz=171
N46A **Monticello** 27.93 6 P P 14 39 50.2 -0.9
baz=187
214A **Organ Pipe Nat** 28.04 316 P P 14 39 54.3 +2.0
baz=127
N35A **Tabor** 28.14 351 P P 14 39 52.6 -0.4
baz=168
NNA **Nana** 28.15 151 LR LR 14 49 01.6
comp=E,268nm,18.2s,baz=308,slow=32
SDCO **Great Sand Dun** 28.16 334 P P 14 39 53.1 -0.4
baz=146
N34A **Lincoln** 28.26 350 P P 14 39 54.0 0.0
baz=166
M40A **Post Highland** 28.30 358 P P 14 39 54.0 -0.4
baz=177
M42A **Sheffield** 28.33 1 P P 14 39 54.2 -0.4
baz=180
M43A **Waltham Townsh** 28.33 2 P P 14 39 54.5 -0.1
baz=182
M39A **Webster** 28.40 357 P P 14 39 54.8 -0.5
baz=176
M38A **Pleasantville** 28.41 355 P P 14 39 54.8 -0.6
baz=173
M37A **Trindle Farm,** 28.48 354 P P 14 39 55.9 0.0
baz=172
M36A **Felix, Anita** 28.61 353 P P 14 39 57.0 -0.2
baz=170
M35A **Neola** 28.74 351 P P 14 39 58.1 -0.3
baz=168
S22A **4UR Ranch, Cre** 28.75 332 P P 14 39 59.7 +0.9
baz=144
L42A **Oliver, Polo** 28.88 1 P P 14 39 58.9 -0.7
baz=181
SCIA **State Center** 28.90 355 P P 14 39 59.0 -0.7
baz=173
SCIA **State Center** 28.90 355 *eP* P 14 39 56.8 -2.9
comp=E,21nm,0.6s
M34A **Aspy Farms, Fr** 28.92 350 P P 14 39 59.0 -0.9
baz=167
L40A **Anamosa** 28.95 358 P P 14 39 59.5 -0.6
baz=178
L41A **Preston** 28.95 360 P P 14 39 59.3 -0.8
baz=179
O56A **Blue Knob Stat** 29.00 19 P P 14 39 60.0 -0.7
baz=204
L39A **Vinton** 29.04 357 P P 14 40 00.1 -0.9
baz=176
L43A **Garden Prairie** 29.08 2 P P 14 40 00.4 -0.9
baz=182
L38A **Oak Wood Farm,** 29.11 356 P P 14 40 00.9 -0.7
baz=174
BGNE **Belgrade** 29.12 348 P P 14 40 01.8 0.0
baz=164
MVCO **Mesa Verde** 29.13 329 P P 14 40 02.6 +0.5
baz=141,SNR=17
MVCO **Mesa Verde** 29.13 329 *eP* P 14 40 01.8 -0.3
comp=E,20nm,0.8s
N54A **Moraine State** 29.23 16 P P 14 40 01.7 -0.9
baz=200
L36A **Harm Buss Farm** 29.23 353 P P 14 40 02.3 -0.4
baz=171
L34A **Svendsen Farm,** 29.34 351 P P 14 40 03.2 -0.5
baz=167
L35A **Bielow Farm, R** 29.35 352 P P 14 40 03.2 -0.6
baz=169
WUAZ **Wupatki** 29.45 323 P P 14 40 06.2 +1.3
baz=134,SNR=13
WUAZ **Wupatki** 29.45 323 *eP* P 14 40 06.4 +1.5
comp=E,13nm,0.8s
K41A **Shullsburg** 29.48 360 P P 14 40 04.2 -0.6
baz=179
K40A **Colesburg** 29.58 359 P P 14 40 05.3 -0.5
baz=178
K38A **Parkersburg** 29.60 356 P P 14 40 04.9 -1.1
baz=174
K39A **Oelwein** 29.61 357 P P 14 40 05.4 -0.7
baz=176
L33A **Hoskins** 29.68 349 P P 14 40 06.5 -0.2
baz=166
AAM **Ann Arbor** 29.72 10 P P 14 40 06.7 -0.3
baz=192
K36A **Gilmore City** 29.74 354 P P 14 40 06.1 -1.1
baz=171
JFWS **Jewell Farm** 29.78 360 P P 14 40 06.1 -1.5
baz=180
JFWS **Jewell Farm** 29.78 360 *eP* P 14 40 06.3 -1.3
comp=E,20nm,0.7s
PV01 **Paradox Valley** 29.89 330 *eP* P 14 40 10.4 +1.5
K35A **Storm Lake** 29.91 353 P P 14 40 07.6 -1.1
baz=170
ISCO **Idaho Springs** 29.94 336 P P 14 40 08.5 -0.9
baz=148
SMCO **Snowmass** 29.99 333 *eP* P 14 40 09.7 -0.2
comp=E,6.0nm,1.0s
K34A **Le Mars** 30.00 351 P P 14 40 08.1 -1.4
baz=168
GLA **Glamis** 30.06 316 P P 14 40 11.0 +0.8
baz=125
GLA **Glamis** 30.06 316 *eP* P 14 40 11.7 +1.5
comp=E,14nm,0.9s
K33A **Hardington** 30.06 350 P P 14 40 09.8 -0.2
baz=166
PV05 **Paradox Valley** 30.10 329 *eP* P 14 40 11.2 +0.5
J42A **Columbus** 30.20 2 P P 14 40 10.1 -1.1
baz=182
J39A **Decorah** 30.23 358 P P 14 40 10.7 -0.8
baz=177
J41A **Loganville** 30.23 0 P P 14 40 10.7 -0.9
baz=180
J38A **Wedel Dairy, R** 30.25 357 P P 14 40 10.7 -1.0
baz=175
PV04 **Paradox Valley** 30.25 330 P P 14 40 10.7 -1.3
Y12C **Blythe** 30.27 317 P P 14 40 12.2 +0.3
baz=127
J40A **Soldiers Grove** 30.27 359 P P 14 40 11.2 -0.6
baz=178
J43A **Natural Harves** 30.29 3 P P 14 40 11.3 -0.7
baz=183
K32A **Verdigre** 30.29 349 P P 14 40 12.0 -0.1
baz=164
PV10 **Paradox Valley** 30.30 330 *eP* P 14 40 12.8 +0.3
J37A **Redenius Farm,** 30.32 355 P P 14 40 11.3 -1.0
baz=173
PDMCI **Parker Dam,Lak** 30.36 318 P P 14 40 13.3 +0.5
baz=128,SNR=5.3
J36A **Seneca 1, Swea** 30.41 354 P P 14 40 12.3 -0.8
baz=172
PV09 **Paradox Valley** 30.45 330 *eP* P 14 40 13.9 0.0
J35A **Milford** 30.54 353 P P 14 40 12.8 -1.5
baz=170
J34A **George** 30.56 352 P P 14 40 13.8 -0.6
baz=168
SWSC **Sam W. Stewart** 30.67 315 P P 14 40 16.8 +1.3
baz=124
IKP **In-Ko-Pah, Jac** 30.72 314 P P 14 40 17.6 +1.5
baz=123,SNR=6.8
I39A **Houston** 30.74 358 P P 14 40 15.0 -1.0
baz=177
J33A **Davis** 30.75 350 P P 14 40 15.5 -0.6
baz=167
I42A **Draeger Farm,** 30.78 2 P P 14 40 15.4 -0.9
baz=182
I43A **Langenfeld Bro** 30.80 3 P P 14 40 15.7 -0.8
baz=184
BC3 **Big Chuckawall** 30.84 316 P P 14 40 18.2 +1.1
baz=125,SNR=14
IRM **Iron Mountain** 30.93 317 P P 14 40 19.2 +1.4
baz=126,SNR=6.0
J32A **Parkston** 30.95 349 P P 14 40 16.9 -1.0
baz=165
I38A **Scanlan Farm,** 30.96 357 P P 14 40 16.9 -1.1
baz=176
I35A **Creekview Farm** 31.00 353 P P 14 40 17.4 -0.9
baz=170
I37A **Lemond, Waseca** 31.01 355 P P 14 40 17.6 -0.7
baz=174
N23A **Red Feather La** 31.01 336 P P 14 40 19.3 +0.5
baz=149
I36A **Fitzsimmons Fa** 31.06 355 P P 14 40 18.0 -0.8
baz=172
MONP2 **Monument Peak** 31.07 314 P P 14 40 20.2 +0.9
baz=123,SNR=16
ECSD **EROS Data Cent** 31.10 351 P P 14 40 18.2 -1.0
baz=167,SNR=22
ECSD **EROS Data Cent** 31.10 351 *eP* P 14 40 18.1 -1.0
comp=E,29nm,0.8s
BAR **Barrett** 31.13 313 *eP* P 14 40 20.8 +1.1
comp=E,6.8nm,1.0s
I34A **Hadley** 31.29 352 P P 14 40 19.9 -1.0
baz=169
MMU **Miners Mountai** 31.32 327 *eP* P 14 40 23.2 +1.6
KNB **Kanab** 31.33 324 *eP* P 14 40 22.3 +0.8
comp=E,16nm,0.8s
O20A **White River Ci** 31.33 333 P P 14 40 22.8 +1.2
baz=144
BELC **Belle Mtn. Jos** 31.40 316 P P 14 40 23.4 +1.2
baz=125
H43A **Windswept, Lux** 31.41 3 P P 14 40 20.9 -1.0
baz=184
I33A **Coleman** 31.43 351 P P 14 40 21.6 -0.5
baz=167
LDFC **Landfair** 31.46 319 *eP* P 14 40 25.5 +2.9
comp=E,24nm,0.8s
H41A **Junction City** 31.49 1 P P 14 40 21.8 -0.8
baz=181
H40A **Chili** 31.49 360 P P 14 40 21.8 -0.9
baz=179
XPFO **Piæon Flat** 31.49 315 *eP* P 14 40 24.1 +1.1
comp=E,13nm,1.0s
PFO **Pinyon Flats O** 31.50 315 P P 14 40 23.9 +0.9
baz=124,SNR=6.4
PFO **Pinyon Flats O** 31.50 315 *eP* P 14 40 24.4 +1.5
comp=E,11nm,0.9s
H37A **Dierke Farm, C** 31.54 356 P P 14 40 22.2 -0.9
baz=174
H39A **Augusta** 31.56 359 P P 14 40 22.1 -1.2
baz=178
LCMT **Little Creek M** 31.57 323 *eP* P 14 40 25.1 +1.5
comp=E,12nm,0.8s
H36A **Jessenland, He** 31.61 355 P P 14 40 22.6 -1.0
baz=173
SRU **San Rafael Swe** 31.61 329 *eP* P 14 40 24.8 +0.9
comp=E,7.7nm,0.7s
GMRC **Granite Mounta** 31.64 318 P P 14 40 25.1 +0.9
baz=127,SNR=8.3
MTPU **Mount Pierson** 31.69 326 *eP* P 14 40 26.5 +1.6
comp=E,41nm,0.7s
I31A **Royce, Wessing** 31.72 349 P P 14 40 24.0 -0.6
baz=164
Q16A **Castle Valley** 31.79 328 *eP* P 14 40 26.9 +1.3
comp=E,7.0nm,0.8s
H35A **Sunnyside Ranc** 31.82 354 P P 14 40 24.5 -1.0
baz=171
P18A **Preston Nutter** 31.87 330 *eP* P 14 40 27.0 +0.6
comp=E,14nm,0.8s
SZCU **Shurtz Canyon** 31.88 324 *eP* P 14 40 28.0 +1.6
comp=E,20nm,0.7s
H34A **Spellman Lake,** 31.90 352 P P 14 40 25.3 -0.9
baz=169
H32A **Carlson Farm,** 31.98 350 P P 14 40 25.5 -1.5
baz=166
P17A **Butcher Ranch,** 31.99 329 *eP* P 14 40 28.0 +0.7
comp=E,29nm,0.7s
CCUT **Cedar City** 32.01 324 *eP* P 14 40 29.2 +1.7
comp=E,9.1nm,0.9s
MSU **Marysvale** 32.03 326 *eP* P 14 40 29.4 +1.7
H33A **Prehn Over Nor** 32.04 351 P P 14 40 26.8 -0.8
baz=168
G38A **Ridgeland** 32.07 358 P P 14 40 26.4 -1.3
baz=176

| Code | Station | Dist | Az | Phase | ISC phase | Time | Res |
|---|---|---|---|---|---|---|---|
| G41A | Antigo | 32.09 | 1 | P | P | 14 40 26.5 | -1.4 |
| | baz=181 | | | | | | |
| TMUT | Trail Mountain | 32.10 | 328 | eP | P | 14 40 28.9 | +0.5 |
| | comp=E,8.0nm,0.8s | | | | | | |
| HEC | Hector,Ludlow | 32.11 | 317 | P | P | 14 40 29.5 | +1.2 |
| | baz=126 | | | | | | |
| H31A | Wolsey | 32.14 | 349 | P | P | 14 40 27.7 | -0.7 |
| | baz=164 | | | | | | |
| G42A | Mountain | 32.15 | 2 | P | P | 14 40 27.2 | -1.2 |
| | baz=183 | | | | | | |
| G39A | Holcombe | 32.17 | 359 | P | P | 14 40 27.1 | -1.4 |
| | baz=178 | | | | | | |
| SPMN | Marine on St. | 32.17 | 357 | P | P | 14 40 27.4 | -1.2 |
| | baz=175 | | | | | | |
| RWWY | Rawlins | 32.19 | 336 | eP | P | 14 40 29.5 | +0.5 |
| | comp=E,17nm,1.0s | | | | | | |
| G43A | Wallace | 32.20 | 3 | P | P | 14 40 27.2 | -1.6 |
| | baz=184 | | | | | | |
| TUQ | Turquoise Moun | 32.21 | 318 | P | P | 14 40 30.1 | +0.9 |
| | baz=127 | | | | | | |
| G36A | St. Michael | 32.25 | 355 | P | P | 14 40 28.5 | -0.7 |
| | baz=173 | | | | | | |
| G35A | Watkins | 32.30 | 354 | P | P | 14 40 28.8 | -0.9 |
| | baz=172 | | | | | | |
| SHPR | Sheep Range | 32.39 | 321 | eP | P | 14 40 33.0 | +2.2 |
| | comp=E,7.1nm,1.0s | | | | | | |
| G34A | Benson | 32.45 | 353 | P | P | 14 40 30.1 | -0.9 |
| | baz=170 | | | | | | |
| G33A | Ortonville | 32.50 | 352 | P | P | 14 40 30.9 | -0.6 |
| | baz=168 | | | | | | |
| F41A | Three Lakes | 32.62 | 1 | P | P | 14 40 31.7 | -0.9 |
| | baz=182 | | | | | | |
| F42A | Maple Grove Fa | 32.67 | 3 | P | P | 14 40 31.9 | -1.1 |
| | baz=183 | | | | | | |
| BFSC | Mount Baldy Ra | 32.67 | 315 | P | P | 14 40 33.4 | +0.1 |
| | baz=123,SNR=5.5 | | | | | | |
| GSC | Goldstone, Bar | 32.70 | 317 | P | P | 14 40 34.1 | +0.6 |
| | baz=126,SNR=5.6 | | | | | | |
| G32A | Webster | 32.72 | 350 | P | P | 14 40 32.6 | -0.9 |
| | baz=166 | | | | | | |
| K22A | Casper | 32.74 | 337 | P | P | 14 40 33.8 | 0.0 |
| | baz=149 | | | | | | |
| CIS | Catalina Islan | 32.76 | 313 | P | P | 14 40 34.9 | +1.0 |
| | baz=121 | | | | | | |
| F40A | Park Falls | 32.79 | 0 | P | P | 14 40 32.6 | -1.4 |
| | baz=180 | | | | | | |
| F39A | Loretta | 32.79 | 359 | P | P | 14 40 33.1 | -0.9 |
| | baz=178 | | | | | | |
| F43A | Flat Rock, Esc | 32.80 | 4 | P | P | 14 40 32.7 | -1.3 |
| | baz=185 | | | | | | |
| G31A | Conde | 32.81 | 350 | P | P | 14 40 33.2 | -1.0 |
| | baz=165 | | | | | | |
| F36A | Milaca | 32.85 | 356 | P | P | 14 40 33.3 | -1.2 |
| | baz=174 | | | | | | |
| MPU | Maple Canyon | 32.85 | 329 | eP | P | 14 40 36.1 | +1.2 |
| | comp=E,16nm,0.8s | | | | | | |
| F38A | Pierce - Schro | 32.86 | 358 | P | P | 14 40 33.6 | -1.0 |
| | baz=177 | | | | | | |
| PTGA | Pitinga | 32.94 | 112 | P | P | 14 40 36.2 | +0.5 |
| | comp=E,20nm,0.7s,baz=300,slow=9.5,SNR=40 | | | | | | |
| F35A | Swanville | 32.94 | 354 | P | P | 14 40 34.2 | -1.1 |
| | baz=172 | | | | | | |
| F34A | Alexandria | 32.95 | 353 | P | P | 14 40 33.9 | -1.5 |
| | baz=170 | | | | | | |
| F46A | Macinaw City C | 32.97 | 7 | P | P | 14 40 34.6 | -0.9 |
| | baz=189 | | | | | | |
| F44A | Big Bay de Noc | 33.00 | 5 | P | P | 14 40 34.0 | -1.8 |
| | baz=186 | | | | | | |
| SADO | Sadowa | 33.02 | 15 | P | P | 14 40 34.6 | -1.4 |
| | comp=E,12nm,0.7s,baz=215,slow=8.4,SNR=7.5 | | | | | | |
| NLU | North Lily Min | 33.03 | 328 | eP | P | 14 40 37.9 | +1.4 |
| | comp=E,7.6nm,0.8s | | | | | | |
| F33A | 5 Mile Ranch, | 33.12 | 352 | P | P | 14 40 35.5 | -1.3 |
| | baz=169 | | | | | | |
| RSSD | Black Hills | 33.19 | 342 | P | P | 14 40 37.7 | -0.1 |
| | baz=154 | | | | | | |
| RSSD | Black Hills | 33.19 | 342 | eP | P | 14 40 37.0 | -0.8 |
| | comp=E,12nm,0.6s | | | | | | |
| JLU | Jordanelle | 33.21 | 330 | eP | P | 14 40 38.8 | +0.8 |
| | comp=E,5.0nm,0.8s | | | | | | |
| E39A | Mellen | 33.25 | 360 | P | P | 14 40 37.2 | -0.8 |
| | baz=179 | | | | | | |
| EDW2 | Edwards Air Fo | 33.26 | 316 | P | P | 14 40 39.2 | +0.9 |
| | baz=124,SNR=7.4 | | | | | | |
| F32A | Veblen | 33.26 | 351 | P | P | 14 40 36.5 | -1.6 |
| | baz=167 | | | | | | |
| E40A | Wakefield | 33.31 | 0 | P | P | 14 40 37.1 | -1.5 |
| | baz=180 | | | | | | |
| TPNV | Topopah Spring | 33.34 | 320 | P | P | 14 40 40.6 | +1.4 |
| | baz=128,SNR=8.9 | | | | | | |
| TPNV | Topopah Spring | 33.34 | 320 | eP | P | 14 40 41.2 | +2.0 |
| | comp=E,11nm,1.0s | | | | | | |
| E41A | Kenton | 33.35 | 2 | P | P | 14 40 37.8 | -1.1 |
| | baz=182 | | | | | | |
| E43A | Lone Tree Farm | 33.35 | 4 | P | P | 14 40 38.1 | -0.8 |
| | baz=185 | | | | | | |
| LRMC | Laurel Mtn Rad | 33.39 | 317 | P | P | 14 40 41.2 | +1.7 |
| | baz=125,SNR=5.4 | | | | | | |
| CTU | Camp Tracy | 33.42 | 330 | eP | P | 14 40 40.6 | +0.8 |
| | comp=E,15nm,0.8s | | | | | | |
| F31A | Hecla | 33.44 | 350 | P | P | 14 40 38.5 | -1.2 |
| | baz=165 | | | | | | |
| FURC | Furnace Creek, | 33.44 | 319 | P | P | 14 40 41.4 | +1.7 |
| | baz=127,SNR=5.6 | | | | | | |
| E36A | McGregor | 33.49 | 356 | P | P | 14 40 39.0 | -1.1 |
| | baz=174 | | | | | | |
| E38A | The Farm, Brul | 33.49 | 358 | P | P | 14 40 39.2 | -1.0 |
| | baz=177 | | | | | | |
| TCUT | Toone Canyon | 33.58 | 330 | eP | P | 14 40 42.3 | +1.0 |
| | comp=E,29nm,0.8s | | | | | | |
| DUG | Dugway, Tooele | 33.59 | 328 | P | P | 14 40 41.6 | +0.3 |
| | baz=137 | | | | | | |
| DUG | Dugway, Tooele | 33.59 | 328 | eP | P | 14 40 42.2 | +0.9 |
| | comp=E,5.5nm,0.8s | | | | | | |
| MPMC | Manual Prospec | 33.60 | 318 | P | P | 14 40 42.8 | +1.4 |
| | baz=126,SNR=14 | | | | | | |
| E34A | Wadena | 33.65 | 354 | P | P | 14 40 40.9 | -0.6 |
| | baz=171 | | | | | | |
| E33A | Westby DABS, E | 33.73 | 353 | P | P | 14 40 40.6 | -1.6 |
| | baz=169 | | | | | | |
| D41A | Chassel | 33.96 | 2 | P | P | 14 40 43.1 | -1.1 |
| | baz=182 | | | | | | |
| ARVC | Arvin | 33.97 | 315 | P | P | 14 40 44.8 | +0.4 |
| | baz=123 | | | | | | |
| ISA | Isabella, Lake | 34.02 | 316 | P | P | 14 40 45.5 | +0.5 |
| | baz=124 | | | | | | |
| ISA | Isabella, Lake | 34.02 | 316 | eP | P | 14 40 46.9 | +1.9 |
| | comp=E,9.1nm,1.0s | | | | | | |
| BW06 | Boulder Array | 34.05 | 334 | P | P | 14 40 45.0 | -0.3 |
| | baz=144 | | | | | | |
| BW06 | Boulder Array | 34.05 | 334 | eP | P | 14 40 44.4 | -0.9 |
| | comp=E,21nm,1.9s | | | | | | |
| PD31 | Pinedale Array | 34.05 | 334 | eP | P | 14 40 43.8 | -1.6 |
| PDAR | Pinedale Array | 34.05 | 334 | P | P | 14 40 45.1 | -0.2 |
| | comp=E,2.0nm,0.7s,baz=123,slow=9.9,SNR=24 | | | | | | |
| PDAR | | | | PcP | PcP | 14 43 22.1 | -0.6 |
| | comp=E,1.8nm,0.6s,baz=140,slow=4.5,SNR=8.4 | | | | | | |
| PDAR | Pinedale Array | 34.05 | 334 | eP | P | 14 40 44.2 | -1.2 |
| PDAR | | | | PcP | PcP | 14 43 22.1 | -0.6 |
| E31A | Nome | 34.05 | 350 | P | P | 14 40 44.1 | -0.9 |
| | baz=166 | | | | | | |
| GRAC | Grapevine Rang | 34.08 | 319 | P | P | 14 40 47.2 | +1.8 |
| | baz=127 | | | | | | |
| D37A | Cotton | 34.08 | 357 | P | P | 14 40 43.8 | -1.4 |
| | baz=176 | | | | | | |
| D36A | Goodland | 34.14 | 356 | P | P | 14 40 44.4 | -1.4 |
| | baz=174 | | | | | | |
| CWC | Cottonwood Cre | 34.21 | 318 | P | P | 14 40 46.9 | +0.2 |
| | baz=126 | | | | | | |
| D34A | Park Rapids | 34.21 | 354 | P | P | 14 40 45.4 | -1.0 |
| | baz=171 | | | | | | |
| SBC | Santa Barbara | 34.22 | 314 | P | P | 14 40 46.8 | +0.2 |
| | baz=121 | | | | | | |
| SPUT | South Promonto | 34.23 | 330 | eP | P | 14 40 47.2 | +0.4 |
| | comp=E,14nm,1.0s | | | | | | |
| BGU | Big Grassy Mou | 34.24 | 328 | eP | P | 14 40 47.2 | +0.3 |
| | comp=E,12nm,0.8s | | | | | | |
| PKM | Mcpherson Peak | 34.52 | 314 | P | P | 14 40 50.5 | +1.1 |
| | baz=121 | | | | | | |
| VES | Vestal, Richgr | 34.53 | 316 | P | P | 14 40 50.8 | +1.4 |
| | baz=124,SNR=9.1 | | | | | | |
| SAML | Samuel | 34.58 | 128 | eP | P | 14 40 49.2 | -0.7 |
| | comp=E,20nm,0.8s | | | | | | |
| C38A | Sawbill Land. | 34.60 | 359 | P | P | 14 40 48.2 | -1.6 |
| | baz=178 | | | | | | |
| C37A | Embarrass | 34.64 | 358 | P | P | 14 40 48.9 | -1.2 |
| | baz=176 | | | | | | |
| C39A | Grand Marais | 34.69 | 0 | P | P | 14 40 48.8 | -1.7 |
| | baz=180 | | | | | | |
| C36A | Pine Crest Far | 34.70 | 357 | P | P | 14 40 49.3 | -1.3 |
| | baz=175 | | | | | | |
| C35A | Jirik Farms, M | 34.72 | 356 | P | P | 14 40 49.0 | -1.7 |
| | baz=173 | | | | | | |
| C34A | RKJ Ranch, Bem | 34.74 | 354 | P | P | 14 40 49.6 | -1.4 |
| | baz=172 | | | | | | |
| HVU | Hansel Valley | 34.75 | 330 | eP | P | 14 40 50.3 | -1.0 |
| | comp=E,12nm,1.0s | | | | | | |
| EYMN | Ely | 34.83 | 358 | P | P | 14 40 50.3 | -1.5 |
| | baz=177,SNR=5.8 | | | | | | |
| EYMN | Ely | 34.83 | 358 | eP | P | 14 40 48.3 | -3.5 |
| | comp=E,22nm,0.6s | | | | | | |
| C33A | Trail | 34.94 | 353 | P | P | 14 40 51.5 | -1.2 |
| | baz=170 | | | | | | |
| REDW | Red Top Meadow | 35.09 | 333 | eP | P | 14 40 53.5 | -0.8 |
| | comp=E,25nm,0.9s | | | | | | |
| SNOW | Snow King Moun | 35.13 | 334 | eP | P | 14 40 51.2 | -3.5 |
| | comp=E,38nm,0.8s | | | | | | |
| LOHW | Long Hollow | 35.18 | 334 | eP | P | 14 40 55.5 | +0.4 |
| | comp=E,13nm,0.8s | | | | | | |
| C31A | Landman Farms, | 35.23 | 351 | P | P | 14 40 53.7 | -1.5 |
| | baz=167 | | | | | | |
| TPAW | Teton Pass | 35.23 | 333 | eP | P | 14 40 56.0 | +0.4 |
| | comp=E,14nm,0.8s | | | | | | |
| PAGB | Antelope Grade | 35.27 | 315 | eP | P | 14 40 57.0 | +1.3 |
| | comp=E,45nm,1.4s | | | | | | |
| B35A | Bob, Littlefor | 35.35 | 356 | P | P | 14 40 54.9 | -1.3 |
| | baz=174 | | | | | | |
| MOOW | Moose Ponds | 35.35 | 334 | eP | P | 14 40 56.9 | +0.3 |
| | comp=E,6.7nm,0.8s | | | | | | |
| FXWY | Fox Creek | 35.39 | 334 | eP | P | 14 40 56.7 | -0.1 |
| | comp=E,3.9nm,0.8s | | | | | | |
| B33A | Robert and Kas | 35.43 | 354 | P | P | 14 40 55.2 | -1.6 |
| | baz=170 | | | | | | |
| AGMN | Agassiz Nation | 35.48 | 353 | P | P | 14 40 55.9 | -1.4 |
| | baz=170,SNR=26 | | | | | | |
| AGMN | Agassiz Nation | 35.48 | 353 | eP | P | 14 40 55.7 | -1.6 |
| | comp=E,61nm,0.6s | | | | | | |
| B34A | Aery, Baudette | 35.55 | 355 | P | P | 14 40 56.4 | -1.5 |
| | baz=172 | | | | | | |
| MDPB | Devils Postpil | 35.55 | 319 | eP | P | 14 40 59.6 | +1.2 |
| | comp=E,18nm,0.8s | | | | | | |
| IMW | Indian Meadow | 35.56 | 334 | eP | P | 14 40 58.0 | -0.4 |
| | comp=E,6.8nm,0.7s | | | | | | |
| MDND | Maddock | 35.60 | 349 | P | P | 14 40 57.7 | -0.7 |
| | baz=164 | | | | | | |
| B32A | Ashes, Strandq | 35.66 | 353 | P | P | 14 40 57.4 | -1.4 |
| | baz=169 | | | | | | |
| B31A | Greenbush Farm | 35.84 | 351 | P | P | 14 40 59.0 | -1.4 |
| | baz=167 | | | | | | |
| RLMT | Red Lodge | 35.88 | 337 | P | P | 14 41 00.8 | -0.2 |
| | baz=147,SNR=7.4 | | | | | | |
| RLMT | Red Lodge | 35.88 | 337 | eP | P | 14 41 00.3 | -0.8 |
| | comp=E,7.9nm,0.6s | | | | | | |
| A33A | Warroad | 36.07 | 354 | P | P | 14 41 01.0 | -1.3 |
| | baz=171 | | | | | | |
| A32A | Rocking H Ranc | 36.17 | 353 | P | P | 14 41 01.4 | -1.7 |
| | baz=169 | | | | | | |
| LAO | LASA Array | 36.17 | 341 | P | P | 14 41 02.9 | -0.5 |
| | baz=152 | | | | | | |
| WAKR | Walker | 36.30 | 320 | eP | P | 14 41 06.8 | +2.2 |
| | comp=E,14nm,0.8s | | | | | | |
| LPAZ | La Paz | 36.38 | 143 | P | P | 14 41 06.2 | +0.1 |
| | comp=E,1.2nm,0.7s,baz=325,slow=13,SNR=5.0 | | | | | | |
| LPAZ | La Paz | 36.38 | 143 | eP | P | 14 41 05.9 | -0.1 |
| | comp=E,3.2nm,0.8s | | | | | | |
| YERR | Yerington | 36.46 | 320 | eP | P | 14 41 07.9 | +1.8 |
| | comp=E,12nm,0.7s | | | | | | |
| GCMT | Greycliff | 36.60 | 337 | eP | P | 14 41 06.5 | -0.6 |
| CMB | Columbia Colle | 36.63 | 318 | eP | P | 14 41 09.1 | +1.8 |
| | comp=E,8.9nm,1.0s | | | | | | |
| PNTR | Pine Nut | 36.74 | 320 | eP | P | 14 41 09.8 | +1.2 |
| | comp=E,24nm,0.8s | | | | | | |
| HLID | Hailey | 36.89 | 330 | P | P | 14 41 09.7 | +0.1 |
| | baz=138,SNR=22 | | | | | | |
| HLID | Hailey | 36.89 | 330 | eP | P | 14 41 09.2 | -0.4 |
| | comp=E,8.2nm,0.8s | | | | | | |
| PAHR | Pah Rah Range | 36.99 | 321 | eP | P | 14 41 10.4 | -0.1 |
| | comp=E,60nm,1.9s | | | | | | |
| MCMT | McKenzie Canyo | 37.13 | 333 | eP | P | 14 41 13.0 | +1.3 |
| DGMT | Dagmar | 37.21 | 345 | P | P | 14 41 11.7 | -0.4 |
| | baz=157,SNR=17 | | | | | | |
| DGMT | Dagmar | 37.21 | 345 | eP | P | 14 41 11.9 | -0.2 |
| | comp=E,62nm,0.8s | | | | | | |
| BOZ | Bozeman (W) | 37.22 | 335 | P | P | 14 41 13.1 | +0.7 |
| | baz=144,SNR=19 | | | | | | |
| BOZ | Bozeman (W) | 37.22 | 335 | eP | P | 14 41 12.4 | 0.0 |
| | comp=E,11nm,0.7s | | | | | | |
| ULM | Lac du Bonnet | 37.41 | 354 | P | P | 14 41 11.6 | -2.2 |
| | comp=E,24nm,0.6s,baz=170,slow=9.1,SNR=50 | | | | | | |
| ULM | Lac du Bonnet | 37.41 | 354 | eP | P | 14 41 10.5 | -3.3 |
| | comp=E,24nm,0.7s | | | | | | |
| DLMT | Dillon | 37.44 | 334 | eP | P | 14 41 15.1 | +0.8 |
| | comp=E,7.4nm,0.9s | | | | | | |
| MFID | Camas Ranch | 37.48 | 329 | eP | P | 14 41 15.3 | +0.7 |
| | comp=E,7.1nm,0.8s | | | | | | |
| AFDM | Forest Hills D | 37.53 | 319 | eP | P | 14 41 16.6 | +1.7 |
| | comp=E,36nm,1.9s | | | | | | |
| BEKR | Beckworth | 37.68 | 321 | eP | P | 14 41 17.6 | +1.2 |
| | comp=E,17nm,0.9s | | | | | | |
| LRM | Limekiln Ridge | 37.74 | 334 | eP | P | 14 41 17.1 | +0.2 |
| HRY | Holter Researc | 38.20 | 336 | eP | P | 14 41 18.1 | -2.5 |
| ORV | Oroville | 38.21 | 319 | eP | P | 14 41 21.4 | +0.7 |
| | comp=E,43nm,1.7s | | | | | | |
| WVOR | Wild Horse Val | 38.29 | 325 | eP | P | 14 41 21.7 | +0.3 |
| | comp=E,16nm,0.9s | | | | | | |
| EGMT | Eagleton | 38.52 | 339 | P | P | 14 41 23.0 | -0.2 |
| | baz=148,SNR=11 | | | | | | |
| EGMT | Eagleton | 38.52 | 339 | eP | P | 14 41 22.2 | -1.0 |
| | comp=E,22nm,0.6s | | | | | | |
| J08A | Circle Bar Ran | 38.82 | 327 | eP | P | 14 41 26.6 | +0.7 |
| | comp=E,27nm,0.7s | | | | | | |
| O03D | Paynes Creek | 38.83 | 320 | P | P | 14 41 26.5 | +0.6 |
| | baz=125,SNR=8.5 | | | | | | |
| MOD | Modoc Plateau | 38.89 | 323 | eP | P | 14 41 27.8 | +1.2 |
| | comp=E,7.2nm,0.8s | | | | | | |
| MSO | Missoula | 39.17 | 334 | P | P | 14 41 28.3 | -0.5 |
| | baz=141 | | | | | | |
| MSO | Missoula | 39.17 | 334 | eP | P | 14 41 29.3 | +0.6 |
| | comp=E,29nm,1.6s | | | | | | |
| BMO | Blue Mountains | 39.25 | 329 | eP | P | 14 41 29.2 | -0.3 |
| | comp=E,6.9nm,0.8s | | | | | | |
| M04C | Macdoel | 39.73 | 322 | P | P | 14 41 34.0 | +0.5 |
| | baz=126 | | | | | | |
| N02D | Trinity Center | 39.78 | 320 | P | P | 14 41 34.0 | 0.0 |
| | baz=125 | | | | | | |
| F10A | Beach Ranch, E | 40.02 | 330 | eP | P | 14 41 35.8 | 0.0 |
| | comp=E,34nm,0.8s | | | | | | |
| M02C | Callahan | 40.11 | 321 | P | P | 14 41 36.5 | -0.1 |
| | baz=125 | | | | | | |
| YBH | Yreka Blue Hor | 40.22 | 321 | P | P | 14 41 37.2 | -0.4 |
| | comp=E,4.7nm,0.7s,baz=95,slow=4.7,SNR=20 | | | | | | |
| J05D | Fort Rock, OR | 40.30 | 324 | P | P | 14 41 38.5 | +0.3 |
| | baz=129 | | | | | | |
| SIV | San Ignacio | 40.74 | 134 | P | P | 14 41 42.4 | +0.3 |
| | comp=E,22nm,0.7s,baz=312,slow=8.4,SNR=54 | | | | | | |
| J04D | Umpqua Nationa | 40.77 | 324 | P | P | 14 41 42.3 | +0.1 |
| | baz=128 | | | | | | |
| L02D | Cave Junction, | 41.01 | 321 | P | P | 14 41 44.6 | +0.6 |
| | baz=125 | | | | | | |
| I04A | Tendick Farm, | 41.28 | 324 | P | P | 14 41 46.2 | -0.1 |
| | baz=128,SNR=5.8 | | | | | | |
| HAWA | Hanford | 41.44 | 329 | eP | P | 14 41 47.2 | -0.3 |
| | comp=E,5.9nm,0.6s | | | | | | |
| G05D | Wamic, OR | 41.59 | 327 | P | P | 14 41 49.0 | +0.2 |
| | baz=130,SNR=11 | | | | | | |
| D08A | Wollman Farm, | 41.61 | 330 | eP | P | 14 41 48.9 | +0.1 |
| | comp=E,11nm,0.7s | | | | | | |
| NEW | Newport | 41.66 | 333 | P | P | 14 41 48.9 | -0.4 |
| | baz=138 | | | | | | |
| NEW | Newport | 41.66 | 333 | eP | P | 14 41 46.0 | -3.2 |
| | comp=E,3.8nm,0.7s | | | | | | |
| I03D | Drain, OR | 41.76 | 323 | P | P | 14 41 50.6 | +0.5 |
| | baz=126 | | | | | | |
| C09A | Chrisman Ranch | 41.84 | 332 | eP | P | 14 41 51.4 | +0.7 |
| | comp=E,18nm,0.6s | | | | | | |
| LTY | Liberty | 42.61 | 329 | eP | P | 14 41 57.4 | +0.3 |
| | comp=E,8.6nm,0.7s | | | | | | |
| FFC | Flin Flon | 42.62 | 350 | eP | P | 14 41 56.2 | -0.7 |
| | comp=E,25nm,0.6s | | | | | | |
| G03D | McMinnville, O | 42.64 | 325 | P | P | 14 41 57.6 | +0.4 |
| | baz=128 | | | | | | |
| B08A | Colville Reser | 42.73 | 331 | eP | P | 14 41 58.1 | +0.1 |
| | comp=E,5.2nm,0.8s | | | | | | |
| F04D | Rainier, OR | 43.05 | 326 | P | P | 14 42 00.9 | +0.4 |
| | baz=129 | | | | | | |
| C06D | Leavenworth | 43.17 | 330 | P | P | 14 42 02.0 | +0.4 |
| | baz=133 | | | | | | |
| B05A | Bryant | 44.00 | 329 | P | P | 14 42 07.6 | -0.6 |
| | baz=132 | | | | | | |
| A04D | Lummi Island | 44.60 | 330 | P | P | 14 42 12.3 | -0.6 |
| | baz=132 | | | | | | |
| LLLB | Lillooet | 45.50 | 332 | eP | P | 14 42 19.1 | -1.0 |
| | comp=E,6.9nm,0.8s | | | | | | |
| SCHQ | Schefferville | 45.55 | 19 | P | P | 14 42 18.8 | -1.6 |
| | comp=E,39nm,0.6s,baz=217,slow=6.9,SNR=22 | | | | | | |
| CPUP | Villa Florida | 50.51 | 141 | P | P | 14 42 58.5 | -0.7 |
| | comp=E,3.3nm,1.0s,baz=343,slow=13,SNR=3.3 | | | | | | |
| BDFB | Brasilia | 50.51 | 123 | P | P | 14 43 01.9 | +2.4 |
| | comp=E,7.7nm,0.7s,baz=283,slow=9.7,SNR=11 | | | | | | |
| BDFB | Brasilia | 50.51 | 123 | eP | P | 14 43 02.0 | +2.5 |
| | comp=E,13nm,0.8s | | | | | | |
| YKA | Yellowknife Ar | 52.39 | 346 | P | P | 14 43 11.6 | -1.0 |
| | comp=E,12nm,0.7s,baz=146,slow=7.8,SNR=51 | | | | | | |
| YKA | | | | PcP | PcP | 14 44 23.3 | +0.1 |
| | comp=E,1.8nm,0.6s,baz=152,slow=4.0,SNR=4.9 | | | | | | |
| TAOE | Nuku Hiva Isla | 54.17 | 249 | eS | S | 14 51 02.5 | +0.1 |
| | comp=E,347nm,26.2s | | | | | | |
| TAOE | | | | eLR | LR | 14 58 42.0 | |
| | comp=E,483nm,28.2s | | | | | | |
| DLBC | Dease Lake | 54.27 | 335 | eP | P | 14 43 24.6 | -2.1 |
| | comp=E,9.2nm,0.8s | | | | | | |
| PLCA | Paso Flores | 56.49 | 162 | P | P | 14 43 43.4 | +0.5 |
| | comp=E,2.0nm,0.8s,baz=12,slow=9.3,SNR=4.3 | | | | | | |
| RKT | Rikitea | 56.68 | 231 | eS | S | 14 51 40.9 | +5.6 |
| | comp=E,439nm,26.8s | | | | | | |
| RKT | Rikitea | 56.68 | 231 | eT | T | 15 44 27.8 | |
| | comp=E,3.1nm,0.3s | | | | | | |
| RCBR | Riachuelo | 57.08 | 106 | P | P | 14 43 49.1 | +1.6 |
| | comp=E,33nm,0.7s,baz=275,slow=6.9,SNR=13 | | | | | | |
| RCBR | Riachuelo | 57.08 | 106 | eP | P | 14 43 49.5 | +1.9 |
| | comp=E,34nm,0.8s | | | | | | |
| INK | Inuvik | 61.87 | 343 | eP | P | 14 44 18.5 | -1.2 |
| | comp=E,10nm,0.8s | | | | | | |
| IL1 | Eielson Array | 64.43 | 337 | eP | P | 14 44 35.3 | -1.4 |
| ILAR | Eielson Array | 64.43 | 337 | P | P | 14 44 35.6 | -1.1 |
| | comp=E,3.7nm,0.7s,baz=170,slow=4.8,SNR=68 | | | | | | |
| ILB | Eielson Array | 64.43 | 337 | eP | P | 14 44 35.9 | -0.8 |
| CCB | Clear Creek Bu | 64.73 | 336 | eP | P | 14 44 37.4 | -1.3 |
| | comp=E,4.2nm,0.7s | | | | | | |
| TRF | Thorofare Moun | 65.27 | 335 | eP | P | 14 44 42.7 | +0.2 |
| | comp=E,11nm,0.8s | | | | | | |
| BPAW | Bear Paw Mtn. | 65.80 | 335 | eP | P | 14 44 44.2 | -1.4 |
| | comp=E,1.4nm,0.7s | | | | | | |
| PPT | Papeete | 66.03 | 244 | LR | LR | 15 06 48.0 | |
| | comp=E,290nm,19.0s,baz=60,slow=30 | | | | | | |
| MLY | Manley | 66.04 | 336 | eP | P | 14 44 46.0 | -1.2 |
| | comp=E,15nm,0.7s | | | | | | |
| PPT2 | Papeete2 | 66.04 | 244 | eS | S | 14 53 38.0 | +3.3 |
| | comp=E,660nm,37.8s | | | | | | |
| PPT2 | | | | eLQ | LQ | 15 01 45.3 | |
| | comp=E,332nm,27.0s | | | | | | |
| PPT2 | | | | eLR | LR | 15 04 30.9 | |
| | comp=E,552nm,26.2s,baz=62 | | | | | | |
| COLD | Coldfoot | 66.68 | 338 | eP | P | 14 44 50.1 | -1.1 |
| | comp=E,5.5nm,1.0s | | | | | | |
| SUMG | Summit | 66.71 | 15 | iP | P | 14 44 50.2 | -1.6 |
| | comp=E,16nm,0.7s | | | | | | |
| SUMG | Summit | 66.71 | 15 | eP | P | 14 44 49.4 | -2.5 |
| | comp=E,16nm,0.7s | | | | | | |
| TBI | Tubuai | 68.32 | 238 | eT | T | 15 59 05.6 | |
| | comp=E,2.1nm,0.3s | | | | | | |
| FALS | False Pass | 69.80 | 324 | eP | P | 14 45 09.2 | -1.8 |
| | comp=E,114nm,0.6s | | | | | | |
| DAG | Danmarks Havn | 73.20 | 13 | ⇑iP | P | 14 45 29.2 | -1.9 |
| | comp=E,7.5nm,0.7s | | | | | | |
| ESDC | Sonseca Array | 78.93 | 52 | P | P | 14 46 02.3 | -2.2 |
| | comp=E,3.5nm,0.7s,baz=288,slow=5.0,SNR=31 | | | | | | |
| ESLA | Sonseca Array | 78.93 | 52 | eP | P | 14 46 03.3 | -1.3 |
| | comp=E,6.5nm,1.1s | | | | | | |
| ES19 | SONSECA Array | 78.98 | 52 | eP | P | 14 46 02.3 | -2.5 |
| MDT | Midelt | 79.39 | 59 | P | P | 14 46 06.0 | -1.2 |
| | comp=E,1.5nm,0.7s,baz=310,slow=7.4,SNR=4.9 | | | | | | |
| SPITS | Spitsbergen Ar | 80.69 | 12 | P | P | 14 46 12.5 | -0.8 |
| | comp=E,9.2nm,0.6s,baz=346,slow=3.0,SNR=10 | | | | | | |
| KOWA | Kowa | 83.18 | 77 | eP | P | 14 46 27.0 | -0.5 |
| | comp=E,9.7nm,0.6s | | | | | | |
| TIC | Toumodi | 83.84 | 85 | eP | P | 14 46 30.7 | -0.3 |
| LIC | Lamto | 83.92 | 85 | eP | P | 14 46 31.1 | -0.3 |
| | comp=E,42nm,0.6s | | | | | | |
| DBIC | Dimbokro | 83.99 | 85 | P | P | 14 46 31.4 | -0.3 |
| | comp=E,12nm,0.6s,baz=274,slow=5.7,SNR=23 | | | | | | |
| DBIC | Dimbokro | 83.99 | 85 | eP | P | 14 46 31.5 | -0.3 |
| | comp=E,13nm,0.6s | | | | | | |
| NB2 | NORSAR Subarra | 84.15 | 29 | P | P | 14 46 31.1 | -0.6 |
| | comp=Z,2.7nm,0.7s,baz=289,slow=5.1 | | | | | | |
| NOA | NORSAR Array B | 84.15 | 29 | P | P | 14 46 30.9 | -0.8 |
| | comp=Z,3.1nm,0.7s,baz=290,slow=5.0,SNR=14 | | | | | | |
| NOA | | | | LR | LR | 15 24 52.3 | |
| | comp=Z,168nm,18.1s,baz=270,slow=36 | | | | | | |
| KIC | Kosan Boka | 84.17 | 85 | eP | P | 14 46 32.4 | -0.2 |
| | comp=Z,36nm,0.7s | | | | | | |
| HFS | Hagfors | 85.59 | 29 | P | P | 14 46 37.6 | -1.3 |
| | comp=Z,5.2nm,0.6s,baz=253,slow=2.4,SNR=8.6 | | | | | | |
| ARCES | ARCESS Array B | 86.50 | 19 | P | P | 14 46 41.7 | -1.5 |
| | comp=Z,3.1nm,0.7s,baz=286,slow=8.7,SNR=5.6 | | | | | | |
| TUE | Stuetta | 87.12 | 43 | eP | P | 14 46 44.8 | -2.2 |
| | comp=Z,5.4nm,0.8s | | | | | | |
| FUORN | Ofenpass-Fuorn | 87.68 | 43 | eP | P | 14 46 49.0 | -0.7 |
| | comp=Z,6.3nm,0.7s | | | | | | |
| RETA | Reutte | 87.76 | 42 | iP | P | 14 46 49.0 | -0.9 |
| | comp=Z,7.8nm,0.8s | | | | | | |
| FETA | Feichten | 87.88 | 42 | iP | P | 14 46 47.7 | -2.9 |
| | comp=Z,3.5nm,0.8s | | | | | | |
| CLL | Collm | 88.01 | 38 | iP | P | 14 46 49.8 | -1.0 |
| | comp=Z,9.0nm,0.7s | | | | | | |
| CLL | | | | LmV | | 15 23 00.0 | |
| | comp=Z,300nm,19.7s | | | | | | |
| MOTA | Moosalm | 88.03 | 42 | iP | P | 14 46 50.0 | -1.2 |
| | comp=Z,5.6nm,0.8s | | | | | | |
| BRG | Berggiesshubel | 88.71 | 38 | eP | P | 14 46 53.7 | -0.5 |
| | comp=Z,3.6nm,0.6s | | | | | | |
| TORD | Torodi Ar. Bea | 88.88 | 77 | P | P | 14 46 53.6 | -2.1 |
| | comp=Z,2.2nm,0.6s,baz=294,slow=5.0,SNR=18 | | | | | | |
| ABTA | Abfaltersbach | 89.12 | 42 | PcP | P | 14 46 55.3 | -1.0 |
| | comp=Z,4.9nm,0.8s | | | | | | |
| GERES | GERESS Array B | 89.22 | 40 | P | P | 14 46 54.9 | -1.9 |
| | comp=Z,2.0nm,0.7s,baz=298,slow=2.9,SNR=15 | | | | | | |
| GEA0 | GERESS Array S | 89.22 | 40 | eP | P | 14 46 55.4 | -1.4 |
| FINES | FINESS Array B | 90.62 | 26 | P | P | 14 47 01.6 | -1.3 |
| | comp=Z,6.3nm,1.1s,baz=336,slow=4.2,SNR=3.5 | | | | | | |
| VRAC | Vranov | 90.85 | 39 | P | P | 14 47 02.7 | -1.6 |
| | comp=Z,5.1nm,0.6s,baz=306,slow=17 | | | | | | |
| TIXI | Tiksi | 91.57 | 348 | P | P | 14 47 05.7 | -1.3 |
| | comp=Z,2.0nm,0.6s,baz=54,slow=6.3,SNR=5.9 | | | | | | |
| TIXI | Tiksi | 91.57 | 348 | eP | P | 14 47 05.6 | -1.5 |
| | comp=Z,2.8nm,0.8s | | | | | | |
| PETK | Petropavlovsk- | 92.44 | 326 | P | P | 14 47 11.6 | +0.1 |
| | comp=Z,5.1nm,0.8s,baz=77,slow=10,SNR=7.2 | | | | | | |
| AKASG | Malin Array Be | 97.56 | 34 | P | P | 14 47 32.4 | -2.5 |
| | comp=Z,0.2nm,0.3s,baz=290,slow=4.3,SNR=3.0 | | | | | | |
| BVAR | Borovoye Array | 112.13 | 13 | PKiKP | PKiKP | 14 52 36.3 | +0.2 |
| | comp=Z,0.6nm,0.6s,baz=0.0,slow=0.7,SNR=5.0 | | | | | | |
| ZALV | Zalesovo Beam | 113.16 | 3 | PKiKP | PKiKP | 14 52 37.7 | -0.3 |
| | comp=Z,1.6nm,0.7s,baz=308,slow=2.3,SNR=9.5 | | | | | | |
| ZALV | | | | PP | PP | 14 53 24.2 | -2.6 |
| | comp=Z,1.3nm,0.7s,baz=323,slow=6.0,SNR=4.1 | | | | | | |
| CN2 | Changchun | 114.78 | 332 | eP | PKPdf | 14 52 47.5 | +6.1 |
| KURK | Kurchatov | 115.78 | 8 | PKP | PKPdf | 14 52 43.1 | 0.0 |
| KURBB | Kurchatov Arra | 115.86 | 8 | PKP | PKPdf | 14 52 43.1 | -0.2 |
| | comp=Z,0.8nm,0.3s,baz=352,slow=1.6,SNR=6.4 | | | | | | |
| SONM | Songino Array | 117.64 | 347 | PKP | PKPdf | 14 52 47.2 | +0.2 |
| | comp=Z,1.2nm,0.7s,baz=313,slow=1.3,SNR=8.6 | | | | | | |
| KS01 | Wonju Array Si | 118.34 | 326 | ePKPdf | PKPdf | 14 52 49.5 | +1.0 |
| KSRS | Korea Array | 118.34 | 326 | PKP | PKPdf | 14 52 48.9 | +0.5 |
| | comp=Z,3.7nm,0.7s,baz=8.2,slow=2.2,SNR=9.6 | | | | | | |
| BOSA | Boshof | 118.34 | 116 | PKP | PKPdf | 14 52 49.2 | +0.3 |
| | comp=Z,5.9nm,0.7s,baz=262,slow=1.8,SNR=12 | | | | | | |
| KSAR | Wonju Array Be | 118.37 | 326 | PKP | PKPdf | 14 52 48.9 | +0.4 |
| MKAR | Makanchi Array | 120.08 | 6 | PKP | PKPdf | 14 52 50.3 | -1.3 |
| | comp=Z,0.9nm,0.6s,baz=36,slow=4.5,SNR=4.3 | | | | | | |
| GEYT | Alibeck | 121.24 | 29 | PKP | PKPdf | 14 52 54.4 | +0.3 |
| | comp=Z,1.2nm,0.6s,baz=259,slow=2.9,SNR=3.4 | | | | | | |
| HHC | Hu-ho-hao-te | 122.74 | 340 | ePKP | PKPdf | 14 52 55.0 | -2.0 |
| WMQ | Urumqi | 123.40 | 2 | ePKP | PKPdf | 14 52 58.7 | +0.6 |
| WMQ | | | | LR | LR | | |
| | comp=Z,280nm,39.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,450nm,24.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,350nm,34.7s | | | | | | |
| KSH | Kashi | 126.16 | 13 | ePKP | PKPdf | 14 53 01.5 | -2.1 |
| KSH | | | | sPKP | | 14 53 39.8 | |
| KSH | | | | PP | PP | 14 55 02.2 | +5.7 |
| KSH | | | | SKS | SKSdf | 15 00 03.3 | -11 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| KSH | | | | SKKS | SKKSac | 15 01 43.8 | -10 |
| KSH | | | | SS | SS | 15 11 52.6 | -4.0 |
| KSH | | | | AMB | AMB | | |
| | comp=Z,190nm,5.8s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,200nm,5.6s | | | | | | |
| GTA | Gaotai | 127.01 | 350 | ePKP | PKPdf | 14 53 05.7 | +0.4 |
| NJ2 | Nanjing | 127.25 | 329 | ePKP | PKPdf | 14 53 05.6 | -0.1 |
| STKA | Stephens Creek | 129.10 | 239 | PKP | PKPdf | 14 53 09.4 | +0.2 |
| | comp=Z,1.0nm,0.7s,baz=151,slow=3.6,SNR=2.9 | | | | | | |
| LZH | Lanzhou | 129.39 | 345 | ePKP | PKPdf | 14 53 09.1 | -0.8 |
| LZH | | | | sPKP | | 14 53 46.0 | |
| WRAB | Tennant Creek | 136.84 | 255 | ePKPdf | PKPdf | 14 53 25.3 | +1.2 |
| WRA | Warramunga Arr | 136.85 | 255 | PKhKP | PKPpre | 14 53 10.0 | |
| | comp=Z,0.2nm,0.8s,baz=79,slow=3.4,SNR=2.5 | | | | | | |
| WRA | | | | PKP | PKPdf | 14 53 23.1 | -1.1 |
| | comp=Z,1.1nm,0.8s,baz=90,slow=2.4,SNR=10 | | | | | | |
| WRA | | | | SKPab | SKPab | 14 57 07.9 | +6.5 |
| | comp=Z,1.5nm,1.1s,baz=89,slow=3.2,SNR=5.3 | | | | | | |
| ASAR | Alice Springs | 136.99 | 249 | PKhKP | PKPpre | 14 53 13.0 | |
| | comp=Z,0.2nm,0.6s,baz=92,slow=3.1,SNR=4.4 | | | | | | |
| ASAR | | | | PKP | PKPdf | 14 53 22.4 | -1.9 |
| | comp=Z,0.9nm,0.7s,baz=104,slow=3.5,SNR=13 | | | | | | |
| ASAR | | | | SKPab | SKPab | 14 57 06.8 | +4.8 |
| | comp=Z,0.6nm,0.8s,baz=120,slow=3.6,SNR=2.7 | | | | | | |
| ASAR | Alice Springs | 136.99 | 249 | PKP | PKPdf | 14 53 22.4 | -1.9 |
| ASAR | | | | SKPab | SKPab | 14 57 06.8 | +4.8 |
| PYUN | Piuthan | 138.59 | 9 | eP | PKPdf | 14 53 27.5 | +0.1 |
| KOLN | Koldanda | 139.00 | 8 | eP | PKPdf | 14 53 28.2 | 0.0 |
| | comp=Z,6.9nm,0.8s | | | | | | |
| GUN | Gumba | 139.13 | 5 | eP | PKPdf | 14 53 28.7 | +0.1 |
| | comp=Z,7.3nm,0.5s | | | | | | |
| KKN | Kakani | 139.19 | 6 | eP | PKPdf | 14 53 28.6 | 0.0 |
| | comp=Z,9.2nm,0.7s | | | | | | |
| DMN | Daman | 139.35 | 6 | eP | PKPdf | 14 53 28.8 | -0.1 |
| | comp=Z,4.7nm,0.5s | | | | | | |
| JIRN | Jiri | 139.41 | 5 | eP | PKPdf | 14 53 28.8 | -0.4 |
| | comp=Z,40nm,0.6s | | | | | | |
| PKIN | Phulchoki | 139.41 | 6 | eP | PKPdf | 14 53 28.9 | -0.1 |
| | comp=Z,5.5nm,0.6s | | | | | | |
| PKI | Pulchoki | 139.42 | 6 | eP | PKPdf | 14 53 28.9 | -0.2 |
| | comp=Z,8.2nm,0.7s | | | | | | |
| RAMN | Ramite | 140.14 | 4 | eP | PKPdf | 14 53 30.2 | -0.2 |
| | comp=Z,13nm,0.7s | | | | | | |
| FITZ | Fitzroy Crossi | 145.16 | 257 | PKPbc | PKPab | 14 53 38.8 | +0.1 |
| | comp=Z,5.3nm,0.9s,baz=162,slow=4.4,SNR=10 | | | | | | |
| NONG | Nongkai | 146.43 | 337 | P | PKPbc | 14 53 43.0 | +0.5 |
| | comp=Z,34nm,1.2s,comp=Z,4µm | | | | | | |
| PHRA | Phrae | 147.04 | 342 | P | PKPbc | 14 53 44.3 | 0.0 |
| | comp=Z,13nm,1.4s,comp=Z,31µm | | | | | | |
| SKNT | Sakolnakorn | 147.07 | 334 | P | PKPab | 14 53 46.3 | +0.4 |
| | comp=Z,63nm,1.2s | | | | | | |
| CHTO | Chiang Mai | 147.11 | 344 | ePKPdf | PKPbc | 14 53 43.7 | -0.8 |
| CMMT | Chiang Mai | 147.11 | 344 | P | PKPbc | 14 53 44.2 | -0.3 |
| | comp=Z,19nm,1.0s | | | | | | |
| CM31 | Chiang Mai Arr | 147.45 | 344 | ePKPbc | PKPbc | 14 53 46.1 | +0.6 |
| CMAR | Chiang Mai Arr | 147.45 | 344 | PKPbc | PKPbc | 14 53 46.0 | +0.5 |
| | comp=Z,18nm,0.6s,baz=342,slow=3.4,SNR=137 | | | | | | |
| CM01 | Chiang Mai Arr | 147.48 | 344 | ePKPdf | PKPbc | 14 53 45.6 | 0.0 |
| UTTA | Uttaradit | 147.64 | 341 | P | PKPbc | 14 53 46.4 | +0.4 |
| | comp=Z,9.4nm,0.7s,comp=Z,76nm | | | | | | |
| HYB | Hyderabad | 147.77 | 20 | i PKP | PKPdf | 14 53 45.0 | +1.4 |

*IDC **08** 14:35:33.8±1.3, 13°.43N×89°.93W, h0km, mb4.3/18, mb1 4.5/19, mb1mx4.3/45, mbtmp4.4/19, ML3.1/1, MS4.4/4, Ms1 4.4/4, ms1mx4.1/15, Error ellipse: s-maj=44.5km s-min=15.0km az=45.0*

*ISCJB **08** 14:35:35.4±0.6, 13°.7N±0°.1×89°.73W±0°.09, h12km, mb4.5/38, MS4.3/4, Error ellipse: s-maj=19.3km s-min=5.9km az=38.3*

*NEIC **08** 14:35:40.5±0.7, 13°.77N×89°.61W, h35km, mb4.6/26, Error ellipse: s-maj=22.8km s-min=7.1km az=221.0*

**ISC 08 14:35:37.2±0.7, 13°.8N±0°.1×89°.7W±0°.1, h12km, n64, σ1s.34/59, mb4.5/37, MS4.3/4, El Salvador**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TGUH | Tegucigalpa,Un | 2.38 | 82 | ePn | Pn | 14 36 13.8 | -2.2 |
| JTS | JuntasAbangare | 5.78 | 126 | Pn | Pn | 14 37 04.2 | +1.3 |
| CMIG | Matias Romero | 6.00 | 304 | Sn | Sn | 14 38 11.5 | -3.0 |
| | baz=151,slow=18,SNR=1.0 | | | | | | |
| TLIG | Tlapa | 9.34 | 295 | ePn | Pn | 14 37 46.5 | -5.4 |
| HELC | Santa Helena | 15.85 | 117 | ePn | Pn | 14 39 21.5 | +0.8 |
| | 17nm,0.7s | | | | | | |
| SDV | Santo Domingo | 19.31 | 102 | P | Pn | 14 40 03.3 | -0.3 |
| | 0.6nm,0.3s,baz=264,slow=8.0,SNR=2.3 | | | | | | |
| SDV | Santo Domingo | 19.31 | 102 | P | P | 14 40 02.1 | -0.5 |
| | 10nm,0.8s | | | | | | |
| LTX | Lajitas | 20.20 | 322 | eP | P | 14 40 13.7 | +1.6 |
| TX31 | Lajitas Ar. Si | 20.20 | 322 | eP | P | 14 40 11.6 | -0.5 |
| TXAR | Lajitas Array | 20.20 | 322 | P | P | 14 40 13.7 | +1.6 |
| | 4.2nm,0.7s,baz=156,slow=14,SNR=3.6 | | | | | | |
| TXAR | | | | LR | LR | 14 48 32.5 | |
| | comp=Z,410nm,18.4s,baz=0.0,slow=38 | | | | | | |
| MIAR | Mount Ida | 21.00 | 351 | eP | P | 14 40 18.7 | -1.9 |
| | 10nm,0.8s | | | | | | |
| W35A | Tecumseh | 22.27 | 344 | eP | P | 14 40 32.7 | -1.6 |
| | 18nm,0.6s | | | | | | |
| MNTX | Cornudas Mount | 22.93 | 324 | eP | P | 14 40 41.6 | +0.2 |
| | 44nm,1.5s | | | | | | |
| SJG | San Juan | 23.05 | 76 | LR | LR | 14 50 09.9 | |
| | comp=Z,2µm,18.8s,baz=274,slow=38 | | | | | | |
| CCM | Cathedral Cave | 24.25 | 357 | eP | P | 14 40 52.9 | -1.3 |
| | 55nm,0.7s | | | | | | |
| WCI | Wyandotte Cave | 24.57 | 6 | eP | P | 14 41 00.3 | +3.3 |
| | 130nm,0.7s | | | | | | |
| PCRV | Puerto La Cruz | 24.77 | 95 | LR | LR | 14 53 05.1 | |
| | comp=Z,567nm,18.0s,baz=295,slow=42 | | | | | | |
| 121A | Cookes Peak, D | 24.95 | 322 | eP | P | 14 40 58.8 | -2.0 |
| W18A | Petrified Fore | 27.91 | 323 | eP | P | 14 41 27.5 | 0.0 |
| | 11nm,1.0s | | | | | | |
| ECSD | EROS Data Cent | 30.46 | 350 | eP | P | 14 41 49.9 | 0.0 |
| | 7.6nm,0.8s | | | | | | |
| BELC | Belle Mtn. Jos | 31.22 | 315 | eP | P | 14 41 55.3 | -1.5 |
| RSSD | Black Hills | 32.66 | 341 | eP | P | 14 42 11.5 | +2.1 |
| | 3.5nm,0.6s | | | | | | |
| PTGA | Pitinga | 32.79 | 114 | P | P | 14 42 11.0 | +0.4 |
| | 5.7nm,0.7s,baz=308,slow=15,SNR=4.0 | | | | | | |
| PTGA | Pitinga | 32.79 | 114 | eP | P | 14 42 08.0 | -2.7 |
| PDAR | Pinedale Array | 33.61 | 333 | PcP | PcP | 14 44 57.6 | -0.5 |
| | 0.4nm,0.6s,baz=116,slow=4.1,SNR=3.3 | | | | | | |
| PDAR | | | | LR | LR | 14 59 50.6 | |
| | comp=Z,1µm,18.7s,baz=146,slow=43 | | | | | | |
| REDW | Red Top Meadow | 34.66 | 332 | eP | P | 14 42 27.3 | +0.4 |
| | 10nm,0.9s | | | | | | |
| SAML | Samuel | 34.66 | 129 | eP | P | 14 42 26.9 | -0.1 |
| | 5.1nm,0.8s | | | | | | |
| TPAW | Teton Pass | 34.80 | 332 | eP | P | 14 42 28.9 | +0.7 |
| | 7.9nm,1.2s | | | | | | |
| AGMN | Agassiz Nation | 34.82 | 353 | eP | P | 14 42 28.7 | +0.8 |
| | 14nm,0.7s | | | | | | |
| MDND | Maddock | 34.98 | 348 | eP | P | 14 42 30.2 | +0.9 |
| | 53nm,0.7s | | | | | | |
| KVN | Kaiserville | 35.53 | 320 | eP | P | 14 42 35.7 | +1.3 |
| | 8.0nm,1.1s | | | | | | |
| WAKR | Walker | 36.05 | 319 | eP | P | 14 42 41.1 | +2.1 |
| | 36nm,1.8s | | | | | | |
| HLID | Hailey | 36.50 | 329 | eP | P | 14 42 43.0 | +0.3 |
| | 9.6nm,1.6s | | | | | | |
| MCMT | McKenzie Canyo | 36.70 | 332 | eP | P | 14 42 44.7 | +0.3 |
| ULM | Lac du Bonnet | 36.75 | 353 | P | P | 14 42 45.7 | +1.3 |
| | 6.3nm,0.7s,baz=189,slow=11,SNR=3.6 | | | | | | |
| ULM | Lac du Bonnet | 36.75 | 353 | eP | P | 14 42 44.9 | +0.5 |
| | 6.8nm,0.6s | | | | | | |
| BOZ | Bozeman (W) | 36.77 | 334 | eP | P | 14 42 45.9 | +1.0 |
| | 2.8nm,0.7s | | | | | | |
| BEKR | Beckworth | 37.42 | 320 | eP | P | 14 42 52.5 | +2.0 |
| | 6.6nm,0.9s | | | | | | |
| WVOR | Wild Horse Val | 37.97 | 324 | eP | P | 14 42 55.1 | 0.0 |
| | 5.2nm,0.9s | | | | | | |
| F10A | Beach Ranch, E | 39.62 | 330 | eP | P | 14 43 09.3 | +0.4 |
| | 8.0nm,0.8s | | | | | | |
| YBH | Yreka Blue Hor | 39.95 | 321 | P | P | 14 43 11.0 | -0.7 |
| | 1.5nm,0.7s,baz=102,slow=8.5,SNR=2.6 | | | | | | |
| SIV | San Ignacio | 40.92 | 135 | P | P | 14 43 16.8 | -3.0 |
| | 2.9nm,0.6s,baz=313,slow=12,SNR=3.3 | | | | | | |
| FFC | Flin Flon | 42.00 | 349 | eP | P | 14 43 29.2 | +1.0 |
| | 5.2nm,0.6s | | | | | | |
| SCHQ | Schefferville | 44.71 | 19 | P | P | 14 43 52.5 | +2.4 |
| | 12nm,0.6s,baz=212,slow=7.9,SNR=4.2 | | | | | | |
| SCHQ | Schefferville | 44.71 | 19 | eP | P | 14 43 51.9 | +1.7 |
| | 14nm,0.7s | | | | | | |
| YKA | Yellowknife Ar | 51.80 | 346 | P | P | 14 44 45.1 | +0.4 |
| | 3.4nm,0.7s,baz=145,slow=7.5,SNR=4.4 | | | | | | |
| YKB5 | Yellowknife Ar | 51.80 | 346 | eP | P | 14 44 45.1 | +0.4 |
| RCBR | Riachuelo | 56.83 | 106 | P | P | 14 45 22.7 | +0.6 |
| | 12nm,0.8s,baz=285,slow=2.7,SNR=3.7 | | | | | | |
| RCBR | Riachuelo | 56.83 | 106 | eP | P | 14 45 22.8 | +0.6 |
| | 11nm,0.8s | | | | | | |
| INK | Inuvik | 61.32 | 343 | P | P | 14 45 52.2 | -0.1 |
| | 2.8nm,0.7s,baz=116,slow=6.4,SNR=4.6 | | | | | | |
| INK | Inuvik | 61.32 | 343 | eP | P | 14 45 51.9 | -0.4 |
| | 22nm,1.8s | | | | | | |
| ILAR | Eielson Array | 63.95 | 336 | P | P | 14 46 09.3 | -0.7 |
| | 2.4nm,1.1s,baz=160,slow=5.6,SNR=4.1 | | | | | | |
| EKA | Eskdalemuir Ar | 76.86 | 36 | P | P | 14 47 28.9 | -0.3 |
| | 1.6nm,0.6s,baz=279,slow=4.7,SNR=5.5 | | | | | | |
| ESDC | Sonseca Array | 78.12 | 52 | P | P | 14 47 36.5 | 0.0 |
| | 0.7nm,0.6s,baz=288,slow=6.5,SNR=4.4 | | | | | | |
| SPITS | Spitsbergen Ar | 79.89 | 12 | P | P | 14 47 46.6 | +1.1 |
| | 11nm,1.0s,baz=356,slow=5.8,SNR=3.5 | | | | | | |
| NOA | NORSAR Array B | 83.30 | 29 | P | P | 14 48 04.9 | +1.1 |
| | 1.3nm,0.7s,baz=288,slow=5.2,SNR=3.2 | | | | | | |
| DBIC | Dimbokro | 83.46 | 85 | P | P | 14 48 04.5 | -1.0 |
| | 3.0nm,0.6s,baz=245,slow=5.1,SNR=3.2 | | | | | | |
| HFS | Hagfors | 84.73 | 29 | P | P | 14 48 11.0 | -0.1 |
| | 2.6nm,0.8s,baz=246,slow=4.9,SNR=2.6 | | | | | | |
| TORD | Torodi Ar. Bea | 88.27 | 77 | P | P | 14 48 28.2 | -1.1 |
| | 0.7nm,0.6s,baz=294,slow=5.9,SNR=3.6 | | | | | | |
| GERES | GERESS Array B | 88.37 | 40 | P | P | 14 48 29.6 | +0.3 |
| | 0.7nm,0.7s,baz=255,slow=3.8,SNR=3.6 | | | | | | |
| ASAR | Alice Springs | 137.68 | 250 | PKhKP | PKPpre | 14 54 56.5 | |
| | 0.2nm,0.7s,baz=111,slow=3.1,SNR=2.6 | | | | | | |
| ASAR | Alice Springs | 137.68 | 250 | PKPpre | PKPpre | 14 54 56.5 | |
| CHTO | Chiang Mai | 146.54 | 345 | ePKPdf | PKPdf | 14 55 17.2 | -0.9 |
| CMAR | Chiang Mai Arr | 146.88 | 345 | PKPbc | PKPdf | 14 55 19.2 | +0.5 |
| | 3.4nm,0.6s,baz=341,slow=3.1,SNR=5.3 | | | | | | |

**IDC 08 14:39:08.3±1.3, 1°.32N×66°.60E, h0km, mb3.6/6, mb1 3.8/6, mb1mx3.5/54, mbtmp3.6/6, MS3.6/4, Ms1 3.7/4, ms1mx3.2/30, Error ellipse: s-maj=41.3km s-min=27.0km az=37.0, Carlsberg Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| H08N2 | Diego Garcia H | 8.77 | 150 | T | T | 14 51 08.6 | |
| | baz=332,slow=76,SNR=439 | | | | | | |
| H08N3 | Diego Garcia H | 8.78 | 150 | T | T | 14 51 01.2 | |
| | baz=332,slow=76,SNR=502 | | | | | | |
| H08N1 | Diego Carcia H | 8.79 | 150 | T | T | 14 51 03.5 | |
| | baz=332,slow=76,SNR=356 | | | | | | |
| PALK | Pallekele | 15.25 | 67 | LR | LR | 14 47 25.3 | |
| | comp=Z,197nm,18.2s,baz=296,slow=33 | | | | | | |
| CMAR | Chiang Mai Arr | 36.01 | 60 | P | P | 14 46 12.5 | +1.0 |
| | 0.2nm,0.3s,baz=256,slow=6.4,SNR=6.6 | | | | | | |
| CMAR | | | | LR | LR | 14 58 31.7 | |
| | comp=Z,35nm,21.9s,baz=150,slow=32 | | | | | | |
| BOSA | Boshof | 49.53 | 230 | LR | LR | 15 05 53.4 | |
| | comp=Z,84nm,20.8s,baz=25,slow=32 | | | | | | |
| ZALV | Zalesovo Beam | 54.57 | 13 | P | P | 14 48 37.0 | -1.2 |
| | 1.7nm,0.9s,baz=190,slow=7.2,SNR=5.8 | | | | | | |
| H01W3 | Cape Leeuwin H | 57.19 | 134 | T | T | 15 50 42.5 | |
| | baz=300,slow=75,SNR=9.4 | | | | | | |
| H01W2 | Cape Leeuwin H | 57.19 | 134 | T | T | 15 50 42.7 | |
| | baz=300,slow=75,SNR=8.8 | | | | | | |
| H01W1 | Cape Leeuwin H | 57.21 | 134 | T | T | 15 50 46.0 | |
| | baz=300,slow=75,SNR=8.8 | | | | | | |
| SONM | Songino Array | 57.70 | 31 | P | P | 14 49 00.6 | -0.4 |
| | 0.6nm,0.8s,baz=242,slow=6.1,SNR=5.1 | | | | | | |
| WRA | Warramunga Arr | 69.60 | 112 | P | P | 14 50 20.1 | +0.1 |
| | 0.8nm,0.8s,baz=285,slow=6.1,SNR=5.4 | | | | | | |
| ASAR | Alice Springs | 69.85 | 116 | P | P | 14 50 20.8 | -0.7 |
| | 0.5nm,0.9s,baz=282,slow=6.2,SNR=3.9 | | | | | | |
| ESDC | Sonseca Array | 74.26 | 311 | P | P | 14 50 47.4 | -0.2 |
| | 0.1nm,0.3s,baz=104,slow=5.9,SNR=2.9 | | | | | | |
| VNDA | Vanda | 92.42 | 167 | LR | LR | 15 27 48.2 | |
| | comp=Z,82nm,18.9s,baz=100,slow=32 | | | | | | |
| TXAR | Lajitas Array | 148.13 | 344 | PKPbc | PKPbc | 14 58 57.8 | +0.8 |
| | 1.1nm,0.8s,baz=70,slow=3.2,SNR=12 | | | | | | |

**WEL 08 14:46:46.1±0.5, 36°.50S×176°.64E, h216km±9km, ML3.7/17, 7C-7D, Error ellipse: s-maj=11.5km s-min=11.3km az=90.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| HAZ | Te Kaha | 1.55 | 144 | PN | Pn | 14 47 22.0 | +0.4 |
| HAZ | | | | SN | S | 14 47 48.6 | -0.6 |
| HAZ | | | | AML | AML | 14 47 59.8 | |
| HAZ | | | | AML | AML | 14 48 01.4 | |
| RUGZ | Raukumara Rang | 1.68 | 151 | PN | Pn | 14 47 22.6 | -0.2 |
| MXZ | Matakaoa Point | 1.70 | 129 | PN | Pn | 14 47 23.2 | +0.3 |
| URZ | Urewera | 1.79 | 168 | ⇑PN | Pn | 14 47 23.9 | +0.2 |
| URZ | | | | SN | S | 14 47 54.3 | +1.2 |
| PKGZ | Pakihiroa | 1.80 | 141 | PN | Pn | 14 47 24.3 | +0.4 |
| PKGZ | | | | AML | AML | 14 47 57.2 | |
| PKGZ | | | | AML | AML | 14 47 57.3 | |
| WMGZ | Waiomatatini S | 1.93 | 133 | ⇑PN | Pn | 14 47 25.2 | +0.1 |
| WMGZ | | | | AML | AML | 14 47 59.7 | |
| WMGZ | | | | AML | AML | 14 48 01.0 | |
| MWZ | Matawai | 1.96 | 159 | PN | Pn | 14 47 25.3 | -0.1 |
| MWZ | | | | AML | AML | 14 48 09.8 | |
| MUGZ | Murupara | 1.97 | 177 | PN | Pn | 14 47 25.8 | +0.3 |
| MUGZ | | | | SN | S | 14 47 58.5 | +2.3 |
| TWGZ | Tauwhareparae | 1.98 | 148 | ⇑PN | Pn | 14 47 26.0 | +0.3 |
| TWGZ | | | | AML | AML | 14 48 04.1 | |
| TWGZ | | | | AML | AML | 14 48 04.3 | |
| PUZ | Puketiti | 2.03 | 141 | ⇑PN | Pn | 14 47 25.7 | -0.4 |
| PUZ | | | | SN | S | 14 47 56.2 | -0.9 |
| RAGZ | Rawiri | 2.08 | 163 | PN | Pn | 14 47 26.8 | +0.1 |
| RAGZ | | | | AML | AML | 14 48 11.6 | |
| RAGZ | | | | AML | AML | 14 48 12.2 | |
| RTZ | Ruatahuna | 2.13 | 173 | PN | Pn | 14 47 27.1 | 0.0 |
| TKGZ | Te Karaka | 2.16 | 154 | ⇑PN | Pn | 14 47 26.9 | -0.4 |
| TKGZ | | | | AML | AML | 14 48 03.8 | |
| TKGZ | | | | AML | AML | 14 48 05.1 | |
| MRHZ | Matea Rd | 2.33 | 184 | PN | Pn | 14 47 29.3 | +0.1 |
| MRHZ | | | | AML | AML | 14 48 05.5 | |
| CNGZ | Carnagh Statio | 2.34 | 148 | PN | Pn | 14 47 28.8 | -0.4 |
| SNGZ | Shannon Statio | 2.34 | 166 | PN | Pn | 14 47 28.8 | -0.4 |
| SNGZ | | | | AML | AML | 14 48 07.7 | |
| SNGZ | | | | AML | AML | 14 48 07.8 | |
| MTHZ | Maungataniwha | 2.35 | 176 | PN | Pn | 14 47 29.0 | -0.4 |
| RIGZ | Rimuhau | 2.37 | 158 | PN | Pn | 14 47 29.0 | -0.6 |
| RIGZ | | | | AML | AML | 14 48 07.2 | |
| RIGZ | | | | AML | AML | 14 48 09.0 | |
| NMHZ | Naumai | 2.59 | 177 | PN | Pn | 14 47 31.9 | -0.1 |
| NMHZ | | | | AML | AML | 14 48 12.2 | |
| PRGZ | Paritu Road | 2.61 | 158 | PN | Pn | 14 47 31.3 | -0.9 |
| WHHZ | Waihua | 2.61 | 170 | ⇓PN | Pn | 14 47 31.5 | -0.6 |
| WHHZ | | | | AML | AML | 14 48 10.7 | |
| WHHZ | | | | AML | AML | 14 48 15.4 | |
| KNZ | Kokohu | 2.65 | 162 | PN | Pn | 14 47 31.1 | -1.4 |
| BKZ | Black Stump Fm | 2.66 | 182 | PN | Pn | 14 47 31.7 | -1.1 |
| OTVZ | Oturere | 2.77 | 196 | ⇓PN | Pn | 14 47 34.5 | +0.5 |
| ARHZ | Aropaoanui | 2.77 | 174 | ⇓PN | Pn | 14 47 33.2 | -0.7 |
| ARHZ | | | | AML | AML | 14 48 12.0 | |
| ARHZ | | | | AML | AML | 14 48 14.2 | |
| MHGZ | Mahia Peninsul | 2.83 | 160 | PN | Pn | 14 47 33.1 | -1.5 |
| KWHZ | Kaweka Forest | 2.92 | 183 | PN | Pn | 14 47 34.7 | -1.0 |
| KWHZ | | | | AML | AML | 14 48 15.0 | |
| KWHZ | | | | AML | AML | 14 48 16.0 | |
| MCHZ | McNeill Hill | 2.94 | 179 | ⇑PN | Pn | 14 47 34.9 | -0.9 |
| WNVZ | Wahianoa | 2.94 | 196 | ⇓PN | Pn | 14 47 35.8 | -0.2 |
| PKVZ | Pokaka | 2.96 | 200 | PN | Pn | 14 47 36.6 | +0.4 |
| MOVZ | Moawhango | 2.98 | 193 | PN | Pn | 14 47 35.4 | -1.0 |
| BHHZ | Black Hill Sta | 3.02 | 188 | PN | Pn | 14 47 35.5 | -1.2 |
| MTVZ | Mangateitei | 3.02 | 197 | PN | Pn | 14 47 36.5 | -0.3 |
| KRHZ | Kereru | 3.14 | 184 | PN | Pn | 14 47 36.5 | -1.7 |
| CKHZ | Cape Kidnapper | 3.17 | 174 | PN | Pn | 14 47 36.7 | -1.8 |
| KAHZ | Kahuranaki | 3.29 | 177 | PN | Pn | 14 47 38.0 | -2.0 |
| KAHZ | | | | AML | AML | 14 48 22.2 | |
| KAHZ | | | | AML | AML | 14 48 22.8 | |
| PNHZ | Pukenui | 3.42 | 186 | PN | Pn | 14 47 39.2 | -2.3 |
| WAZ | Wanganui | 3.50 | 201 | PN | Pn | 14 47 41.7 | -0.6 |
| PXZ | Pawanui | 3.53 | 177 | PN | Pn | 14 47 40.0 | -2.7 |
| WPHZ | Waipukurau | 3.56 | 182 | PN | Pn | 14 47 40.5 | -2.6 |
| TSZ | Takapari Road | 3.59 | 188 | ⇑PN | Pn | 14 47 41.0 | -2.5 |
| PRHZ | Porangahau | 3.76 | 180 | PN | Pn | 14 47 42.4 | -3.0 |
| OHWZ | Ohakea | 3.84 | 195 | PN | Pn | 14 47 44.8 | -1.6 |
| POWZ | Post Office Ro | 3.94 | 190 | PN | Pn | 14 47 44.9 | -2.8 |
| ANWZ | Angora Road | 3.95 | 182 | PN | Pn | 14 47 44.9 | -2.9 |
| ANWZ | | | | AML | AML | 14 48 33.4 | |
| ANWZ | | | | AML | AML | 14 48 36.9 | |
| PRWZ | Pori Road | 4.08 | 187 | PN | Pn | 14 47 46.7 | -2.7 |
| BFZ | Birch Farm | 4.18 | 184 | PN | Pn | 14 47 47.0 | -3.6 |
| MRZ | Mangatainoka R | 4.23 | 191 | ⇓PN | Pn | 14 47 47.7 | -3.5 |
| TIWZ | Tintock | 4.31 | 188 | PN | Pn | 14 47 48.9 | -3.3 |
| OGWZ | Otaki Gorge | 4.46 | 194 | PN | Pn | 14 47 50.4 | -3.6 |
| OGWZ | | | | AML | AML | 14 48 45.1 | |
| OGWZ | | | | AML | AML | 14 48 46.7 | |
| HOWZ | Holdsworth Sta | 4.47 | 191 | PN | Pn | 14 47 50.5 | -3.8 |
| KIW | Kapiti Island | 4.56 | 197 | PN | Pn | 14 47 51.7 | -3.5 |
| TMWZ | Te Maipa | 4.63 | 187 | PN | Pn | 14 47 52.9 | -3.3 |
| MTW | Mount Morrison | 4.73 | 190 | PN | Pn | 14 47 53.4 | -4.1 |
| CAW | Cannon Point | 4.76 | 194 | PN | Pn | 14 47 53.7 | -4.1 |
| PAWZ | Paruwai Farm | 4.96 | 191 | PN | Pn | 14 47 55.9 | -4.4 |
| MSWZ | Moikau Station | 5.02 | 192 | PN | Pn | 14 47 56.4 | -4.7 |
| TCW | Tory Channel | 5.05 | 201 | PN | Pn | 14 47 57.8 | -3.6 |
| PLWZ | Palliser | 5.17 | 192 | PN | Pn | 14 47 58.4 | -4.6 |
| TUWZ | Tuamarina | 5.35 | 202 | PN | Pn | 14 48 01.1 | -4.1 |
| NNZ | Nelson | 5.35 | 207 | PN | Pn | 14 48 01.2 | -4.0 |
| QRZ | Quartz Range | 5.38 | 215 | PN | Pn | 14 48 02.2 | -3.4 |
| THZ | Tophouse | 6.00 | 208 | PN | Pn | 14 48 10.3 | -3.2 |
| KHZ | Kahutara | 6.37 | 201 | ⇓PN | Pn | 14 48 13.8 | -4.4 |
| DSZ | Denniston Nort | 6.44 | 214 | PN | Pn | 14 48 15.5 | -3.7 |
| LTZ | Lake Taylor | 7.12 | 207 | PN | Pn | 14 48 22.8 | -5.1 |
| INZ | Inchbonnie | 7.39 | 211 | PN | Pn | 14 48 26.6 | -4.7 |
| OXZ | Oxford | 7.67 | 206 | PN | Pn | 14 48 28.9 | -6.1 |
| MQZ | McQueen's Vall | 7.81 | 202 | ⇓PN | Pn | 14 48 30.7 | -6.1 |

*CSEM **08** 14:54:10.3, 38°.20N×26°.58W, h1km, ML2.3*

**PDA 08 14:54:10.3±0.5, 38°.20N×26°.58W, h1km±3km, MD3.5, ML2.3, Error ellipse: s-maj=3.8km s-min=0.9km az=36.0, Azores Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ADH | Angra Heroismo | 0.69 | 312 | eP | Pg | 14 54 22.0 | -1.5 |
| ADH | | | | eS | Sg | 14 54 31.0 | -1.4 |
| ADH | | | | A | A | 14 54 33.1 | |
| | 117nm,0.3s | | | | | | |
| ADH | Angra Heroismo | 0.69 | 312 | eP | Pg | 14 54 22.0 | -1.5 |
| ADH | | | | eS | Sg | 14 54 31.0 | -1.4 |
| PSET | Sete Cidades | 0.78 | 119 | eP | Pg | 14 54 23.2 | -2.0 |
| PSET | | | | eS | Sg | 14 54 33.2 | -2.1 |
| PSET | | | | A | A | 14 54 34.7 | |
| | 75nm,0.3s | | | | | | |
| PSET | Sete Cidades | 0.78 | 119 | eP | Pg | 14 54 23.2 | -2.0 |
| PSET | | | | eS | Sg | 14 54 33.2 | -2.1 |
| PDA | Ponta Delgada | 0.85 | 122 | eS | Sg | 14 54 34.9 | -2.9 |
| PDA | | | | A | A | 14 54 36.8 | |
| | 48nm,0.1s | | | | | | |
| PDA | Ponta Delgada | 0.85 | 122 | eS | Sg | 14 54 34.9 | -2.9 |
| GRON | Grota Negra | 0.93 | 117 | eP | Pg | 14 54 27.1 | -1.1 |
| GRON | | | | eS | Sg | 14 54 39.7 | -0.6 |
| GRON | | | | A | A | 14 54 42.8 | |
| | 6.7nm,0.1s | | | | | | |
| PCALD | Caldeiras da R | 0.95 | 114 | eS | Sg | 14 54 37.4 | -3.5 |
| PCALD | | | | A | A | 14 54 39.6 | |
| | 34nm,0.1s | | | | | | |
| PCALD | Caldeiras da R | 0.95 | 114 | eS | Sg | 14 54 37.4 | -3.5 |
| PGRA | Graciosa | 1.37 | 308 | eS | Sg | 14 54 47.5 | -7.0 |
| PGRA | | | | A | A | 14 54 49.0 | |
| | 6.6nm,0.1s | | | | | | |
| PGRA | Graciosa | 1.37 | 308 | eS | Sg | 14 54 47.5 | -7.0 |
| PICO | Pico | 1.48 | 282 | eP | Pn | 14 54 33.3 | -4.8 |
| PICO | | | | eS | Sg | 14 54 50.4 | -7.5 |
| PICO | | | | A | A | 14 54 51.5 | |
| | 20nm,0.2s | | | | | | |
| PICO | Pico | 1.48 | 282 | eP | Pn | 14 54 33.3 | -4.8 |
| PICO | | | | eS | Sg | 14 54 50.4 | -7.5 |
| PSMA | Santa Maria | 1.67 | 136 | eS | Sn | 14 54 54.9 | -7.7 |
| PSMA | | | | A | A | 14 54 57.5 | |
| | 7.6nm,0.2s | | | | | | |
| PSMN | Pico do Norte, | 1.70 | 134 | eS | Sn | 14 54 55.5 | -7.8 |
| PSMN | | | | A | A | 14 54 56.6 | |
| | 7.4nm,0.2s | | | | | | |
| PSMN | Pico do Norte, | 1.70 | 134 | eS | Sn | 14 54 55.5 | -7.8 |
| CALA | Caldeira | 1.71 | 284 | eS | Sn | 14 54 55.9 | -7.9 |
| CALA | Caldeira | 1.71 | 284 | eS | Sn | 14 54 55.9 | -7.9 |

*CSEM **08** 14:56:58.9, 34°.44N×24°.36E, h12km, ML2.7/1*

**ATH 08 14:56:58.9, 34°.44N×24°.36E, h12km±6km, ML2.7/1, Error ellipse: s-maj=11.1km s-min=1.9km az=15.0, Crete**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GVD | Gavdhos | 0.46 | 331 | P | Pg | 14 57 08.0 | +0.1 |
| GVD | | | | S | Sb | 14 57 15.5 | -0.2 |
| GVD | | | | AML | AML | 14 57 23.1 | |
| | comp=N,2152µm,0.4s | | | | | | |
| GVD | | | | AML | AML | 14 57 23.9 | |
| | comp=E,1821µm,0.3s | | | | | | |
| GVD | Gavdhos | 0.46 | 331 | P | Pg | 14 57 08.3 | +0.3 |
| GVD | | | | S | Sg | 14 57 14.4 | +0.3 |
| GVD | | | | AML | AML | 14 57 26.6 | |
| | comp=E,2268µm,0.4s | | | | | | |
| GVD | | | | AML | AML | 14 57 26.6 | |
| | comp=N,2552µm,0.5s | | | | | | |
| GVD | Gavdhos | 0.46 | 331 | P | Pg | 14 57 08.3 | +0.4 |
| GVD | | | | S | Sg | 14 57 14.4 | +0.4 |
| SIVA | Sivas | 0.69 | 33 | P | Pb | 14 57 12.7 | -0.1 |
| SIVA | | | | S | Sn | 14 57 24.2 | -0.8 |
| SIVA | | | | AML | AML | 14 57 35.8 | |
| | comp=N,1408µm,0.8s | | | | | | |
| SIVA | | | | AML | AML | 14 57 36.8 | |
| | comp=E,1897µm,0.5s | | | | | | |
| SIVA | Sivas | 0.69 | 33 | P | Pb | 14 57 12.9 | +0.1 |
| SIVA | Sivas | 0.69 | 33 | P | Pb | 14 57 12.9 | +0.1 |
| IDI | Anoyia | 0.95 | 27 | P | Pg | 14 57 16.7 | -0.6 |
| IDI | Anoyia | 0.95 | 27 | P | Pg | 14 57 16.7 | -0.6 |
| IDI | Anoyia | 0.95 | 27 | P | Pg | 14 57 16.7 | -0.6 |
| VAM | Vamos | 0.97 | 352 | P | Pb | 14 57 17.8 | 0.0 |
| VAM | Vamos | 0.97 | 352 | P | Pg | 14 57 17.6 | -0.1 |
| VAM | Vamos | 0.97 | 352 | P | Pg | 14 57 17.6 | -0.1 |
| IMMV | Iera Moni Meta | 1.06 | 343 | P | Pb | 14 57 19.0 | -0.3 |
| IMMV | Iera Moni Meta | 1.06 | 343 | P | Pb | 14 57 18.3 | -1.0 |
| IMMV | Iera Moni Meta | 1.06 | 343 | P | Pb | 14 57 18.3 | -1.0 |
| LAST | Lasithi | 1.17 | 52 | P | Pb | 14 57 19.8 | -1.4 |
| LAST | Lasithi | 1.17 | 52 | P | Pb | 14 57 20.3 | -0.8 |
| LAST | Lasithi | 1.17 | 52 | P | Pb | 14 57 20.3 | -0.8 |
| KARP | Karpathos | 2.55 | 64 | P | Pb | 14 57 42.7 | -2.0 |
| KARP | Karpathos | 2.55 | 64 | P | Pb | 14 57 42.7 | -1.9 |

*ISK **08** 15:20:06.8, 38°.72N×43°.29E, h6km, ML2.4*

*ATA **08** 15:20:06.4±0.7, 38°.73N×43°.20E, h7km±29km, ML3.0, MW3.0*

*ISCJB **08** 15:20:07.7±0.4, 38°.73N±0°.02×43°.25E±0°.04, h10km±4km, Error ellipse: s-maj=5.0km s-min=3.9km az=10.0*

*CSEM **08** 15:20:07.4±0.2, 38°.73N×43°.27E, h10km, ML2.4, Error ellipse: s-maj=4.1km s-min=3.1km az=101.0*

*DDA **08** 15:20:07.5, 38°.72N×43°.25E, h7km, Ml2.9*

**ISC 08 15:20:07.5±0.9, 38°.73N±0°.02×43°.25E±0°.02, h13km±7km, n35, σ0s.57/53, 1D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.17 | 140 | PG | Pg | 15 20 11.8 | +0.2 |
| VANB | | | | eSG | Sb | 15 20 15.7 | -0.2 |
| VANB | Van | 0.17 | 140 | i Pg | Pg | 15 20 11.8 | +0.2 |
| VANB | | | | eSg | Sb | 15 20 15.7 | -0.2 |
| TVAN | Van | 0.23 | 148 | i P | Pg | 15 20 11.8 | -0.8 |
| TVAN | | | | i S | Sg | 15 20 16.2 | +0.1 |
| TVAN | Van | 0.23 | 148 | P | Pg | 15 20 11.9 | -0.8 |
| TVAN | | | | S | Sg | 15 20 16.2 | +0.1 |
| ERCV | ERCIS-VAN | 0.30 | 13 | ePG | Pg | 15 20 13.0 | -0.8 |
| ERCV | | | | eSG | Sg | 15 20 18.0 | -0.1 |
| ERCV | ERCIS-VAN | 0.30 | 13 | ePg | Pg | 15 20 13.0 | -0.8 |
| ERCV | | | | eSg | Sg | 15 20 18.0 | -0.1 |
| VMUR | Van-Muradiye | 0.36 | 43 | i P | Pg | 15 20 15.0 | 0.0 |
| VMUR | | | | i S | Sb | 15 20 21.4 | -0.2 |
| VMUR | Van-Muradiye | 0.36 | 43 | P | Pg | 15 20 15.0 | 0.0 |
| VMUR | | | | S | Sb | 15 20 21.4 | -0.2 |
| ADCV | BITLIS_Adilcev | 0.42 | 281 | i P | Pg | 15 20 15.8 | -0.2 |
| ADCV | | | | i S | Sb | 15 20 23.2 | 0.0 |
| ADCV | BITLIS_Adilcev | 0.42 | 281 | P | Pg | 15 20 15.8 | -0.2 |
| ADCV | | | | S | Sb | 15 20 23.2 | 0.0 |
| GEVA | Gevas | 0.44 | 200 | eP | Pg | 15 20 15.1 | -1.2 |
| GEVA | | | | eS | Sg | 15 20 22.6 | +0.4 |
| GEVA | | | | IAML | | 15 20 28.2 | |
| | comp=Z,70nm,0.8s | | | | | | |
| GEVA | Gevas | 0.44 | 200 | i P | Pg | 15 20 15.5 | -0.8 |
| GEVA | | | | i S | Sb | 15 20 23.3 | -0.4 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| GEVA | Gevas | 0.44 | 200 | P | Pg | 15 20 15.5 | -0.8 |
| GEVA | | | | S | Sb | 15 20 23.3 | -0.4 |
| CLDR | Caldiran | 0.67 | 51 | *e*PG | Pg | 15 20 19.6 | -1.0 |
| CLDR | Caldiran | 0.67 | 51 | *i* P | Pg | 15 20 20.1 | -0.4 |
| CLDR | | | | *i* S | Sb | 15 20 30.9 | +0.6 |
| CLDR | Caldiran | 0.67 | 51 | *e*Pg | Pg | 15 20 19.6 | -1.0 |
| CLDR | Caldiran | 0.67 | 51 | P | Pg | 15 20 20.1 | -0.4 |
| CLDR | | | | S | Sb | 15 20 30.9 | +0.6 |
| TUTA | Tutak | 0.76 | 333 | ⇓*e*P | Pg | 15 20 21.5 | -0.7 |
| TUTA | | | | *e*S | Sg | 15 20 32.5 | +0.2 |
| TUTA | | | | IAML | | 15 20 33.6 | |
| | comp=Z,79nm,0.1s | | | | | | |
| TUTA | Tutak | 0.76 | 333 | *i* P | Pg | 15 20 21.7 | -0.5 |
| TUTA | | | | *i* S | Sb | 15 20 32.9 | 0.0 |
| TUTA | Tutak | 0.76 | 333 | P | Pg | 15 20 21.7 | -0.5 |
| TUTA | | | | S | Sb | 15 20 32.9 | 0.0 |
| AGRB | Hanur-Agry | 0.87 | 347 | *e*PG | Pg | 15 20 24.1 | -0.3 |
| AGRB | Hanur-Agry | 0.87 | 347 | *e*Pg | Pg | 15 20 24.1 | -0.3 |
| EKAR | Karacoban | 1.07 | 300 | *e*P | Pb | 15 20 26.7 | -1.2 |
| EKAR | | | | IAML | | 15 20 54.9 | |
| | comp=Z,11nm,0.6s | | | | | | |
| EKAR | Karacoban | 1.07 | 300 | *i* P | Pn | 15 20 29.4 | +1.1 |
| EKAR | Karacoban | 1.07 | 300 | P | Pn | 15 20 29.4 | +1.1 |
| HAKT | HAKKARI | 1.22 | 163 | *i* P | Pn | 15 20 30.5 | +0.1 |
| HAKT | HAKKARI | 1.22 | 163 | P | Pn | 15 20 30.5 | +0.1 |
| SRTM | Siirt_Merkez | 1.28 | 235 | *i* P | Pb | 15 20 31.7 | +0.3 |
| SRTM | Siirt_Merkez | 1.28 | 235 | P | Pb | 15 20 31.7 | +0.3 |
| SIRT | Sirnak | 1.38 | 208 | *e*PN | Pb | 15 20 33.6 | +0.4 |
| SIRT | Sirnak | 1.38 | 208 | *e*Pn | Pb | 15 20 33.6 | +0.4 |
| TASB | TASBURUN-IGDIR | 1.47 | 31 | *e*PN | Pn | 15 20 34.2 | +0.5 |
| TASB | TASBURUN-IGDIR | 1.47 | 31 | *e*Pn | Pn | 15 20 34.2 | +0.5 |
| CUKT | Cukurca | 1.50 | 169 | *e*PN | Pn | 15 20 34.7 | +0.5 |
| CUKT | Cukurca | 1.50 | 169 | *e*Pn | Pn | 15 20 34.7 | +0.5 |

**IDC 08 15:25:43.1**±4.2**, 13°.54N×89°.34W, h0km, mb3.3**/3**, mb1 3.8**/3**, mb1mx3.5**/32**, mbtmp3.4**/3**, MS3.4**/1**, Ms1 3.4**/1**, ms1mx2.7**/12**, Error ellipse: s-maj=177.5km s-min=71.5km az=48.0, El Salvador**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TXAR | Lajitas Array | 20.58 | 322 | P | P | 15 30 24.5 | +0.7 |
| | 0.7nm,0.7s,baz=154,slow=12,SNR=6.7 | | | | | | |
| PFO | Pinyon Flats O | 31.73 | 314 | LR | LR | 15 46 59.2 | |
| | comp=Z,62nm,19.0s,baz=332,slow=40 | | | | | | |
| YKA | Yellowknife Ar | 52.09 | 345 | P | P | 15 34 54.3 | -0.4 |
| | 0.6nm,0.6s,baz=148,slow=6.7,SNR=3.0 | | | | | | |
| ILAR | Eielson Array | 64.28 | 336 | P | P | 15 36 19.4 | -0.6 |
| | 0.3nm,0.8s,baz=175,slow=5.0,SNR=5.1 | | | | | | |
| CMAR | Chiang Mai Arr | 147.17 | 345 | PKPbc | PKPbc | 15 45 29.1 | -0.2 |
| | 0.9nm,0.6s,baz=334,slow=3.4,SNR=5.8 | | | | | | |

**IDC 08 15:28:39.3**±2.4**, 52°.31N×174°.76E, h0km, mb3.2**/3**, mb1 3.7**/5**, mb1mx3.4**/48**, mbtmp3.5**/5**, ML3.1**/2**, Error ellipse: s-maj=78.2km s-min=23.9km az=178.0, Near Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PETK | Petropavlovsk- | 10.38 | 281 | Pn | Pn | 15 31 11.4 | +2.0 |
| | 0.2nm,0.3s,baz=87,slow=15,SNR=13 | | | | | | |
| PETK | | | | Sn | Sn | 15 32 58.9 | -7.5 |
| | 0.1nm,0.3s,baz=92,slow=21,SNR=3.6 | | | | | | |
| KDAK | Kodiak Island | 19.37 | 61 | P | Pn | 15 33 08.2 | +1.0 |
| | 0.1nm,0.3s,baz=262,slow=7.1,SNR=5.8 | | | | | | |
| ILAR | Eielson Array | 23.15 | 43 | P | P | 15 33 46.2 | -0.6 |
| | 0.2nm,0.7s,baz=234,slow=8.8,SNR=5.1 | | | | | | |
| MKAR | Makanchi Array | 56.27 | 304 | P | P | 15 38 20.5 | -0.7 |
| | 0.7nm,0.8s,baz=45,slow=5.7,SNR=3.4 | | | | | | |
| TXAR | Lajitas Array | 62.40 | 77 | P | P | 15 39 03.8 | -0.2 |
| | 0.1nm,0.3s,baz=305,slow=5.4,SNR=2.5 | | | | | | |

*IDC **08** 15:30:54.5±0.6, 18°.50N×121°.19E, h0km, mb4.1/19, mb1 4.2/21, mb1mx4.1/52, mbtmp4.1/21, ML3.8/2, MS3.5/2, Ms1 3.5/2, ms1mx2.9/49, Error ellipse: s-maj=20.9km s-min=12.4km az=71.0*
*MAN **08** 15:30:57, 18°.59N×120°.99E, h8km, mb5.4, ML4.4, MS4.7*
*MAN INTENSITY IV - SANCHEZ MIRA CAGAYAN.*
*ISCJB **08** 15:30:58.3±0.8, 18°.67N±0°.02×121°.03E±0°.03, h26km±6km, mb4.6/70, MS3.8/4, Error ellipse: s-maj=4.6km s-min=3.4km az=166.4*
*NEIC **08** 15:31:01.0±0.6, 18°.62N×121°.09E, h36km±5km, mb4.7/46, Error ellipse: s-maj=5.7km s-min=4.0km az=102.0*
*NEIC Felt [IV PIVS] at Sanchez-Mira. Also felt at Pagudpud.*
*BJI **08** 15:31:00.4, 18°.75N×120°.86E, h20km, mb4.4/37, mB4.8/23, Ms4.5/14, Ms7 4.0/13*
**ISC 08 15:30:59.6**±1.1**, 18°.62N**±0°.03×**121°.01E**±0°.04**, h27km**±8km**, n155, σ1s89**/174**, mb4.6**/70**, MS3.8**/4**, 2C-1D, Luzon**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| APYP | Conner | 0.79 | 163 | *e*P | Pb | 15 31 12.8 | -1.9 |
| APYP | | | | *e*S | Sb | 15 31 24.4 | -0.6 |
| ABRA | Dolores | 1.01 | 196 | *e*P | Pb | 15 31 15.1 | -3.3 |
| SGCP | Mt. Cagua | 1.06 | 111 | *e*P | Pb | 15 31 18.0 | -1.3 |
| SGCP | | | | *e*S | Sn | 15 31 33.2 | +0.7 |
| CVP | Callao Caves | 1.20 | 140 | ⇓*i*P | Pn | 15 31 19.8 | -0.9 |
| CVP | | | | *i* S | Sn | 15 31 36.9 | +0.8 |
| CAUP | Cauayan | 1.84 | 155 | *e*P | Pb | 15 31 31.5 | -1.1 |
| BOLP | Bolinao | 2.46 | 205 | *e*P | Pn | 15 31 37.1 | -0.9 |
| BOLP | | | | *e*S | Sb | 15 32 13.7 | +0.6 |
| BALP | Baler | 2.92 | 169 | *e*P | Pn | 15 31 46.7 | +2.4 |
| SCZP | Santa Cruz | 3.02 | 200 | *e*P | Pn | 15 31 46.3 | +0.6 |
| PCPH | Palayan | 3.04 | 178 | ⇑*e*P | Pb | 15 31 49.4 | -3.7 |
| TWG | Pinlang | 4.18 | 1 | *e*Pn | Pn | 15 32 01.3 | -0.4 |
| TWG | | | | *e*Sn | Sn | 15 32 48.6 | -1.1 |
| TGY | Tagaytay City | 4.49 | 181 | Pn | Pn | 15 32 08.0 | +1.9 |
| | 100nm,0.3s,baz=346,slow=19,SNR=4.6 | | | | | | |
| TGY | | | | Lg | Lg | 15 33 17.1 | |
| | baz=24,slow=20,SNR=3.2 | | | | | | |
| TPUB | Ta-pu | 4.67 | 356 | *e*Pn | Pn | 15 32 07.7 | -0.8 |
| TPUB | | | | *e*Sn | Sn | 15 32 55.8 | -6.0 |
| YULB | Yu-li | 4.76 | 3 | *e*Pn | Pn | 15 32 10.0 | +0.4 |
| YULB | | | | *e*Sn | Sn | 15 32 60.0 | -3.9 |
| GQP | Guinayangan | 4.89 | 163 | ⇑*e*P | Pn | 15 32 12.9 | +1.5 |
| GQP | | | | *e*S | Sn | 15 33 06.5 | -0.7 |
| SSLB | Suanglung | 5.14 | 359 | *e*Pn | Pn | 15 32 15.3 | +0.3 |
| SSLB | | | | *e*Sn | Sn | 15 33 09.4 | -4.1 |
| NACB | Ninganchiao | 5.55 | 6 | *e*Pn | Pn | 15 32 21.1 | +0.6 |
| NACB | | | | *e*Sn | Sn | 15 33 21.1 | -2.4 |
| YHNB | Yeheng | 6.03 | 3 | *e*Pn | Pn | 15 32 27.8 | +0.6 |
| YHNB | | | | *e*Sn | Sn | 15 33 32.7 | -2.7 |
| YOJ | Yonaguni jima | 6.10 | 17 | *e*Pn | Pn | 15 32 20.3 | -7.8 |
| SJMP | San Jose | 6.12 | 179 | *e*P | Pn | 15 32 18.1 | -10 |
| TATO | Taipei | 6.34 | 4 | *e*Pn | Pn | 15 32 33.6 | +2.3 |
| TATO | | | | *e*Sn | Sn | 15 33 45.3 | +2.4 |
| MCO | Taipa Grande | 7.81 | 298 | P | Pn | 15 32 50.0 | -1.5 |
| JOW | Kunigami | 10.57 | 38 | *e*Pn | Pn | 15 33 29.3 | -0.2 |
| QIZ | Qiongzhong | 10.58 | 274 | P | Pn | 15 33 30.3 | +0.7 |
| QIZ | | | | S | Sn | 15 35 28.2 | +0.9 |
| QIZ | | | | pmax | pmax | | |
| | comp=Z,46nm,1.2s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=N,660nm,6.5s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=Z,450nm,9.0s | | | | | | |
| QIZ | Qiongzhong | 10.58 | 274 | *e*Pn | Pn | 15 33 27.5 | -2.1 |
| QIZ | | | | *e*Sn | Sn | 15 35 21.5 | -5.8 |
| DAV | Davao City (W) | 12.31 | 158 | *e*Pn | Pn | 15 33 56.2 | +2.9 |
| KKM | Kota Kinabalu | 13.35 | 201 | *e*Pn | Pn | 15 34 09.0 | +1.5 |
| NJ2 | Nanjing | 13.51 | 352 | *e*P | Pn | 15 34 10.4 | +0.8 |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,18nm,1.0s | | | | | | |
| GYA | Guiyang | 15.37 | 303 | *e*P | Pn | 15 34 35.6 | +0.7 |
| GYA | | | | pP | pP | 15 34 43.0 | -3.5 |
| GYA | | | | S | Sn | 15 37 25.5 | +1.1 |
| GYA | | | | sS | S | 15 37 36.7 | -3.5 |
| GYA | | | | SS | SnSn | 15 37 44.0 | +6.6 |
| GYA | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| GYA | | | | pmax | pmax | | |
| | comp=Z,110nm,4.8s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=N,550nm,13.2s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=E,520nm,14.5s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,500nm,13.4s | | | | | | |
| ENH | Enshi | 15.62 | 320 | *e*Pn | Pn | 15 34 39.6 | +1.5 |
| ENH | | | | *e*pP | P | 15 34 41.1 | -1.0 |
| JNU | Nakatsue | 16.94 | 30 | Pn | Pn | 15 34 53.6 | -1.2 |
| | 0.2nm,0.3s,baz=252,slow=18,SNR=2.9 | | | | | | |
| JNU | Nakatsue | 16.94 | 30 | *e*Pn | Pn | 15 34 53.7 | -1.2 |
| | 13nm,0.9s | | | | | | |
| KMI | Kunming | 18.14 | 294 | P | P | 15 35 11.0 | +0.8 |
| KMI | | | | sP | sP | 15 35 23.2 | +2.4 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.5s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=N,570nm,14.4s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=E,480nm,13.9s | | | | | | |
| SBUM | Sibu | 18.23 | 209 | *e*P | P | 15 35 13.6 | +2.6 |
| | 15nm,1.2s | | | | | | |
| KS15 | Wonju Array Si | 19.70 | 16 | *e*P | P | 15 35 25.9 | -1.0 |
| KSAR | Wonju Array Be | 19.70 | 16 | P | P | 15 35 26.8 | -0.1 |
| KSRS | Korea Array | 19.72 | 16 | P | P | 15 35 26.8 | -0.4 |
| | 0.8nm,0.3s,baz=196,slow=11,SNR=14 | | | | | | |
| KS01 | Wonju Array Si | 19.73 | 16 | *e*P | P | 15 35 26.3 | -1.0 |
| CD2 | Chengdu | 19.84 | 311 | P | P | 15 35 29.6 | +1.0 |
| CD2 | | | | pP | pP | 15 35 36.6 | +0.7 |
| CD2 | | | | sP | sP | 15 35 42.8 | +3.5 |
| CD2 | | | | S | S | 15 39 05.6 | -5.2 |
| CD2 | | | | SS | SnSn | 15 39 34.1 | +6.8 |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,20nm,0.8s | | | | | | |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,260nm,7.1s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=N,670nm,10.8s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=E,600nm,11.9s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,360nm,10.7s | | | | | | |
| KSM | Kuching | 20.01 | 213 | *e*P | P | 15 35 31.1 | +0.6 |
| | 31nm,1.5s | | | | | | |
| CHTO | Chiang Mai | 20.90 | 274 | *e*P | P | 15 35 41.2 | +1.0 |
| | 5.8nm,0.9s | | | | | | |
| CM01 | Chiang Mai Arr | 20.91 | 273 | *e*P | P | 15 35 40.9 | +0.6 |
| CM31 | Chiang Mai Arr | 20.92 | 273 | *e*P | P | 15 35 41.6 | +1.2 |
| CMAR | Chiang Mai Arr | 20.92 | 273 | P | P | 15 35 41.9 | +1.5 |
| | 3.1nm,0.7s,baz=86,slow=8.8,SNR=35 | | | | | | |
| BJT | Baijiatuau | 21.73 | 350 | *e*P | P | 15 35 51.0 | +2.2 |
| | 17nm,0.7s | | | | | | |
| INU | Inuyama | 21.88 | 37 | *e*P | P | 15 35 50.9 | +0.3 |
| | 30nm,0.7s | | | | | | |
| LZH | Lanzhou | 23.07 | 322 | *e*P | P | 15 36 04.7 | +1.4 |
| LZH | | | | pP | sP | 15 36 12.4 | -1.7 |
| LZH | | | | sP | pP | 15 36 15.9 | +5.2 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,46nm,1.4s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,210nm,5.3s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=N,740nm,15.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=E,340nm,13.3s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,350nm,14.9s | | | | | | |
| HHC | Hu-ho-hao-te | 23.59 | 342 | *e*P | P | 15 36 09.6 | +1.2 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.6s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,220nm,4.5s | | | | | | |
| KULM | Kulim | 23.88 | 239 | *e*P | P | 15 36 12.3 | +1.0 |
| | 19nm,1.3s | | | | | | |
| IPM | Ipoh | 24.06 | 237 | *e*P | P | 15 36 14.5 | +1.5 |
| | 21nm,1.6s | | | | | | |
| FAKI | Fak Fak | 24.10 | 152 | *e*P | P | 15 36 13.9 | +0.7 |
| | 17nm,1.2s | | | | | | |
| CN2 | Changchun | 25.38 | 8 | *e*P | P | 15 36 28.0 | +3.3 |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.7s | | | | | | |
| PSI | Prapat | 26.73 | 237 | LR | LR | 15 47 23.2 | |
| | comp=Z,91nm,18.1s,baz=333,slow=37 | | | | | | |
| PSI | Prapat | 26.73 | 237 | *e*P | P | 15 36 39.2 | +1.9 |
| | 4.4nm,0.8s | | | | | | |
| MDJ | Mudanjiang | 26.90 | 14 | P | P | 15 36 41.8 | +3.4 |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,13nm,1.0s | | | | | | |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,63nm,3.5s | | | | | | |
| GTA | Gaotai | 27.67 | 323 | *e*P | P | 15 36 46.3 | +0.8 |
| GTA | | | | pP | sP | 15 36 56.0 | -0.6 |
| GTA | | | | sP | pP | 15 37 00.2 | +6.8 |
| GSI | Gunungsitoli | 28.71 | 236 | *e*P | P | 15 36 56.9 | +2.0 |
| | 12nm,1.0s | | | | | | |
| LSA | Lhasa | 29.31 | 298 | *e*P | P | 15 37 01.4 | +0.8 |
| | 2.8nm,0.8s | | | | | | |
| ULN | Ulaanbaatar | 31.31 | 342 | *e*P | P | 15 37 19.7 | +1.9 |
| | 7.7nm,1.4s | | | | | | |
| SONA0 | Songino Array | 31.48 | 341 | *e*P | P | 15 37 19.3 | 0.0 |
| SONM | Songino Array | 31.48 | 341 | P | P | 15 37 19.3 | 0.0 |
| | 1.1nm,0.7s,baz=161,slow=8.3,SNR=8.6 | | | | | | |
| SONA1 | Songino Array | 31.49 | 341 | *e*P | P | 15 37 19.7 | +0.4 |
| TAPN | Taplejung | 31.78 | 292 | *e*P | P | 15 37 23.1 | +0.7 |
| ODAN | Odare | 32.00 | 291 | *e*P | P | 15 37 24.9 | +0.7 |
| | 26nm,0.7s | | | | | | |
| RAMN | Ramite | 32.71 | 291 | *e*P | P | 15 37 31.3 | +0.9 |
| | 48nm,0.7s | | | | | | |
| JIRN | Jiri | 33.16 | 292 | *e*P | P | 15 37 35.3 | +0.8 |
| | 136nm,0.9s | | | | | | |
| GUN | Gumba | 33.47 | 293 | *e*P | P | 15 37 37.8 | +0.6 |
| | 45nm,0.8s | | | | | | |
| PKI | Pulchoki | 33.84 | 292 | *e*P | P | 15 37 40.4 | 0.0 |
| | 13nm,0.9s | | | | | | |
| PKIN | Phulchoki | 33.85 | 292 | *e*P | P | 15 37 40.9 | +0.5 |
| | 14nm,0.7s | | | | | | |
| KKN | Kakani | 33.98 | 292 | *e*P | P | 15 37 41.5 | 0.0 |
| | 24nm,0.9s | | | | | | |
| DMN | Daman | 34.11 | 292 | *e*P | P | 15 37 42.8 | +0.2 |
| KOLN | Koldanda | 35.45 | 292 | *e*P | P | 15 37 54.5 | +0.3 |
| | 26nm,0.8s | | | | | | |
| PYUN | Piuthan | 36.03 | 292 | *e*P | P | 15 37 59.2 | +0.1 |
| | 15nm,0.6s | | | | | | |
| FITZ | Fitzroy Crossi | 36.78 | 173 | P | P | 15 38 03.4 | -1.9 |
| | 1.9nm,0.8s,baz=329,slow=0.5 | | | | | | |
| WMQ | Urumqi | 37.57 | 319 | P | P | 15 38 12.8 | +0.9 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,16nm,0.7s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,170nm,4.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,650nm,23.1s | | | | | | |
| COEN | Coen | 39.06 | 144 | *e*P | P | 15 38 22.0 | -2.5 |
| | 18nm,1.5s | | | | | | |
| WRAB | Tennant Creek | 40.49 | 160 | *e*P | P | 15 38 32.5 | -3.9 |
| | 18nm,1.9s | | | | | | |
| WR1 | Warramunga Arr | 40.49 | 160 | *e*P | P | 15 38 33.0 | -3.5 |
| | 10nm,1.5s | | | | | | |
| WR1 | | | | *e*PcP | PcP | 15 40 38.3 | -0.6 |
| WRA | Warramunga Arr | 40.49 | 160 | P | P | 15 38 33.0 | -3.5 |
| | 1.2nm,1.1s,baz=334,slow=10,SNR=25 | | | | | | |
| WRA | | | | PcP | PcP | 15 40 38.3 | -0.6 |
| | 0.6nm,0.5s,baz=346,slow=3.3,SNR=6.1 | | | | | | |
| WB2 | Warramunga Arr | 40.50 | 160 | *e*P | P | 15 38 33.6 | -2.9 |
| | 3.0nm,0.9s | | | | | | |
| PALK | Pallekele | 40.77 | 259 | *e*P | P | 15 38 37.6 | -1.3 |
| | 83nm,1.9s | | | | | | |
| MK01 | Makanchi Array | 42.34 | 320 | *e*P | P | 15 38 52.5 | +1.1 |
| MK31 | Makanchi Array | 42.36 | 320 | *e*P | P | 15 38 52.5 | +1.0 |
| MK32 | Makanchi Array | 42.36 | 320 | *e*P | P | 15 38 52.6 | +1.1 |
| MKAR | Makanchi Array | 42.36 | 320 | P | P | 15 38 52.6 | +1.1 |
| | 1.8nm,0.6s,baz=116,slow=8.5,SNR=14 | | | | | | |
| MAKZ | Makanchi | 42.55 | 320 | *e*P | P | 15 38 53.7 | +0.6 |
| | 11nm,1.1s | | | | | | |
| H11S3 | WAKE ISLAND Hy | 43.21 | 83 | T | T | 16 24 22.3 | |
| | baz=276,slow=75,SNR=17 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 43.22 | 83 | T | T | 16 24 20.9 | |
| | baz=276,slow=75,SNR=7.7 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 43.23 | 83 | T | T | 16 24 23.3 | |
| | baz=276,slow=75,SNR=7.2 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 43.25 | 81 | T | T | 16 24 52.8 | |
| | baz=277,slow=75,SNR=21 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 43.26 | 81 | T | T | 16 24 52.4 | |
| | baz=277,slow=75,SNR=29 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 43.27 | 81 | T | T | 16 24 53.4 | |
| | baz=277,slow=75,SNR=11 | | | | | | |
| YAK | Yakutsk | 43.79 | 6 | *e*P | P | 15 39 01.0 | -1.9 |
| | 24nm,0.7s | | | | | | |
| AS31 | Alice Springs | 43.87 | 163 | *e*P | P | 15 39 05.0 | +1.0 |
| | 0.9nm,0.8s | | | | | | |
| ASAR | Alice Springs | 43.87 | 163 | P | P | 15 39 01.4 | -2.6 |
| | 0.5nm,0.6s,baz=338,slow=6.9,SNR=3.9 | | | | | | |
| AS01 | Alice Springs | 43.89 | 163 | *e*P | P | 15 39 04.5 | +0.4 |
| KSH | Kashi | 43.98 | 308 | P | P | 15 39 08.5 | +3.5 |
| KSH | | | | pP | sP | 15 39 18.4 | +2.2 |
| KSH | | | | PP | PcP | 15 40 51.8 | +1.4 |
| KSH | | | | PcP | PP | 15 40 53.2 | +5.6 |
| KSH | | | | S | S | 15 45 38.1 | +2.6 |
| KSH | | | | SS | SS | 15 48 47.3 | -5.4 |
| KSH | | | | ScS | ScS | 15 49 00.6 | -1.8 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.8s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,140nm,4.6s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,150nm,5.3s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,140nm,6.3s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,280nm,6.1s | | | | | | |
| PETK | Petropavlovsk- | 44.63 | 31 | P | P | 15 39 09.2 | -0.5 |
| | 3.5nm,0.7s,baz=216,slow=4.0,SNR=4.2 | | | | | | |
| PETK | | | | LR | LR | 15 57 03.8 | |
| | comp=Z,63nm,21.9s,baz=15,slow=35 | | | | | | |
| PETK | Petropavlovsk- | 44.63 | 31 | *e*P | P | 15 39 09.0 | -0.8 |
| PEA1 | Petropavlovsk- | 44.63 | 31 | *e*P | P | 15 39 09.2 | -0.6 |
| ZAA0 | Zalesovo Array | 44.90 | 330 | *e*P | P | 15 39 10.2 | -1.7 |
| | 2.0nm,0.8s | | | | | | |
| ZALV | Zalesovo Beam | 44.90 | 330 | P | P | 15 39 11.8 | 0.0 |
| | 0.5nm,0.4s,baz=103,slow=7.4,SNR=4.6 | | | | | | |
| ZALV | Zalesovo Beam | 44.90 | 330 | *e*P | P | 15 39 11.2 | -0.6 |
| ZAA1 | Zalesovo Array | 44.90 | 330 | *e*P | P | 15 39 11.8 | -0.1 |
| KZA | Kyzart | 45.21 | 311 | P | P | 15 39 16.9 | +1.8 |
| | SNR=8.7 | | | | | | |
| TKM2 | Tokmak 2 | 45.22 | 313 | P | P | 15 39 16.6 | +1.7 |
| | SNR=6.2 | | | | | | |
| KBK | Karagaybulak | 45.60 | 312 | P | P | 15 39 19.9 | +2.0 |
| | SNR=6.8 | | | | | | |
| UCH | Uchtor | 45.78 | 311 | P | P | 15 39 21.9 | +2.3 |
| | SNR=14 | | | | | | |
| AAK | Ala-Archa | 45.91 | 312 | P | P | 15 39 21.6 | +1.4 |
| | 2.4nm,0.8s,baz=113,slow=12 | | | | | | |
| KWAJ | Kwajalein Atol | 46.20 | 96 | *e*P | P | 15 39 22.8 | +0.2 |
| | 630nm,1.4s | | | | | | |
| AML | Almayashu | 46.34 | 311 | P | P | 15 39 26.0 | +2.0 |
| | SNR=9.7 | | | | | | |
| KURK | Kurchatov | 46.35 | 324 | *e*P | P | 15 39 23.4 | 0.0 |
| | 10nm,1.0s | | | | | | |
| KURBB | Kurchatov Arra | 46.36 | 324 | P | P | 15 39 24.3 | +0.8 |
| | 4.2nm,0.6s,baz=121,slow=7.8,SNR=13 | | | | | | |
| NWAO | Narrogin (SRO) | 51.38 | 184 | *e*P | P | 15 40 02.4 | +0.3 |
| | 79nm,1.8s | | | | | | |
| BVAR | Borovoye Array | 51.95 | 324 | P | P | 15 40 06.7 | +0.4 |
| | 1.6nm,0.6s,baz=122,slow=10,SNR=7.0 | | | | | | |
| BVAR | | | | PcP | PcP | 15 41 17.8 | -0.8 |
| | 1.1nm,0.6s,baz=106,slow=3.6,SNR=4.6 | | | | | | |
| BRVK | Borovoye | 52.02 | 324 | *e*P | P | 15 40 07.3 | +0.6 |
| | 4.8nm,0.8s | | | | | | |
| BBOO | Buckleboo | 53.13 | 164 | *e*P | P | 15 40 13.6 | -1.5 |
| | 23nm,1.3s | | | | | | |
| TIXI | Tiksi | 53.23 | 3 | P | P | 15 40 14.2 | -1.2 |
| | 1.4nm,0.4s,baz=182,slow=2.6,SNR=9.2 | | | | | | |
| TIXI | | | | PcP | PcP | 15 41 22.3 | -0.6 |
| | 2.3nm,0.6s,baz=137,slow=2.0,SNR=3.6 | | | | | | |
| STKA | Stephens Creek | 53.95 | 158 | P | P | 15 40 18.8 | -2.4 |
| | 1.0nm,0.9s,baz=297,slow=4.5,SNR=2.2 | | | | | | |
| STKA | Stephens Creek | 53.95 | 158 | *e*P | P | 15 40 19.7 | -1.4 |
| | 5.7nm,1.9s | | | | | | |
| GEYT | Alibeck | 57.59 | 304 | P | P | 15 40 47.4 | 0.0 |
| | 12nm,0.8s,baz=100,slow=4.4,SNR=3.7 | | | | | | |
| ARU | Arti | 59.50 | 325 | *e*P | P | 15 41 00.5 | +0.2 |
| | 29nm,1.8s | | | | | | |
| FUNA | Funafuti | 63.41 | 110 | *e*P | P | 15 41 26.7 | -0.6 |
| | 94nm,1.0s | | | | | | |
| RAYN | Ar Rayn | 69.89 | 289 | *e*P | P | 15 42 08.3 | -0.5 |
| | 4.7nm,1.0s | | | | | | |
| IMAR | Indian Mountai | 71.23 | 26 | *e*P | P | 15 42 16.3 | +0.2 |
| CAST | Castle Rocks | 72.16 | 28 | *e*P | P | 15 42 22.2 | +0.5 |
| | 7.5nm,0.8s | | | | | | |
| PPLA | Purkeypile | 72.16 | 29 | *e*P | P | 15 42 22.9 | +1.0 |
| | 78nm,1.9s | | | | | | |
| OHAK | Old Harbor | 72.25 | 35 | *e*P | P | 15 42 22.6 | +0.3 |
| | 165nm,1.9s | | | | | | |
| COLD | Coldfoot | 72.53 | 24 | *e*P | P | 15 42 24.9 | +1.0 |
| | 6.5nm,1.3s | | | | | | |
| KDAK | Kodiak Island | 72.55 | 34 | *e*P | P | 15 42 23.8 | -0.4 |
| | 285nm,1.9s | | | | | | |
| MLY | Manley | 72.56 | 26 | *e*P | P | 15 42 24.8 | +0.6 |
| | 11nm,1.4s | | | | | | |
| BPAW | Bear Paw Mtn. | 72.57 | 27 | *e*P | P | 15 42 25.5 | +1.3 |
| | 17nm,1.4s | | | | | | |
| KTH | Kantishna Hill | 72.66 | 28 | *e*P | P | 15 42 25.5 | +0.7 |
| | 22nm,1.3s | | | | | | |
| HOM | Homer | 72.80 | 32 | *e*P | P | 15 42 27.1 | +1.5 |
| | 369nm,1.2s | | | | | | |
| TRF | Thorofare Moun | 72.95 | 28 | *e*P | P | 15 42 27.7 | +1.0 |
| | 57nm,1.9s | | | | | | |
| SUA | Susitna One | 73.00 | 30 | *e*P | P | 15 42 26.9 | -0.1 |
| | 88nm,2.0s | | | | | | |
| BRLK | Bradley Lake | 73.17 | 32 | *e*P | P | 15 42 29.3 | +1.4 |
| | 119nm,1.6s | | | | | | |
| RND | Reindeer | 73.60 | 28 | *e*P | P | 15 42 30.1 | -0.3 |
| | 56nm,1.9s | | | | | | |
| MDM | Murphy Dome | 73.63 | 26 | *e*P | P | 15 42 31.1 | +0.6 |
| | 18nm,1.6s | | | | | | |
| AFI | Afiamalu | 73.69 | 111 | *e*P | P | 15 42 31.6 | -0.1 |
| | 46nm,1.0s | | | | | | |
| CCB | Clear Creek Bu | 73.86 | 27 | *e*P | P | 15 42 32.2 | +0.4 |
| | 20nm,1.8s | | | | | | |
| SML | Sawmill | 74.09 | 30 | *e*P | P | 15 42 33.8 | +0.6 |
| | 82nm,1.8s | | | | | | |
| IL1 | Eielson Array | 74.23 | 26 | *e*P | P | 15 42 34.5 | +0.5 |
| ILAR | Eielson Array | 74.23 | 26 | P | P | 15 42 32.8 | -1.2 |
| | 0.8nm,0.6s,baz=274,slow=4.7,SNR=14 | | | | | | |
| ILB | Eielson Array | 74.23 | 26 | *e*P | P | 15 42 34.1 | +0.1 |
| HDA | Harding Lake | 74.27 | 27 | *e*P | P | 15 42 34.3 | +0.1 |
| | 120nm,1.0s | | | | | | |
| SCM | Sheep Creek Mo | 74.56 | 29 | *e*P | P | 15 42 35.7 | -0.3 |
| | 122nm,1.7s | | | | | | |
| MENT | Mentasta | 75.97 | 28 | *e*P | P | 15 42 44.5 | +0.5 |
| | 37nm,2.0s | | | | | | |
| FIA1 | FINESS Array S | 76.16 | 330 | *e*P | P | 15 42 44.3 | -0.8 |
| FIA0 | FINESS Array S | 76.16 | 330 | *e*P | P | 15 42 44.2 | -0.9 |
| FINES | FINESS Array B | 76.16 | 330 | P | P | 15 42 44.2 | -0.9 |
| | 1.5nm,0.8s,baz=77,slow=8.4,SNR=5.2 | | | | | | |
| BR101 | Keskin Array S | 76.37 | 308 | *e*P | P | 15 42 46.5 | -0.4 |
| BRTR | Keskin Array B | 76.37 | 308 | P | P | 15 42 46.5 | -0.4 |
| | 0.5nm,0.9s,baz=51,slow=7.8,SNR=2.8 | | | | | | |
| INK | Inuvik | 78.43 | 21 | P | P | 15 42 57.5 | -0.1 |
| | 2.0nm,0.8s,baz=323,slow=4.7,SNR=6.3 | | | | | | |
| INK | Inuvik | 78.43 | 21 | *e*P | P | 15 42 57.8 | +0.1 |
| | 37nm,2.0s | | | | | | |
| YKA | Yellowknife Ar | 88.14 | 23 | P | P | 15 43 48.5 | +0.7 |
| | 1.9nm,0.7s,baz=307,slow=4.6,SNR=9.8 | | | | | | |

*NIED **08** 15:34:00, 40°.20N×142°.50E, h32km, Mw4.2 Best double couple: $M_0$2.26000×10^15 NP1:$\phi_s$160.00000°, δ21.00000°, λ50.00000°. NP2:$\phi_s$22.00000°, δ74.00000°, λ104.00000°.*
*BJI **08** 15:34:33.2, 40°.28N×142°.84E, h47km, mb4.6/42, mB5.1/22, Ms4.7/15, Ms7 4.3/12*
*JMA **08** 15:34:35.3±0.1, 40°.15N×142°.48E, h34km±1km, M4.2*
*JMA Felt II J1.*
*ISCJB **08** 15:34:35.0±0.4, 40°.19N±0°.02×142°.49E±0°.04, h47km±3km, mb4.6/81, MS4.1/3, Error ellipse: s-maj=5.2km s-min=3.3km az=34.5*
*MOS **08** 15:34:35.1±1.1, 40°.32N×142°.40E, h44km, mb4.8/38, Error ellipse: s-maj=7.5km s-min=5.4km az=96.6*
*IDC **08** 15:34:36.7±0.8, 40°.15N×142°.48E, h48km±6km, mb4.0/24, mb1 4.1/28, mb1mx4.0/55, mbtmp4.2/28, MS3.4/3, Ms1 3.4/3, ms1mx2.9/53, Error ellipse: s-maj=16.6km s-min=12.6km az=143.0*
*NEIC **08** 15:34:38.3±0.5, 40°.25N×142°.39E, h58km±4km, mb4.9/30, Error ellipse: s-maj=6.6km s-min=3.9km az=134.0*
*NEIC Recorded [2 JMA] in Aomori and Iwate.*
**ISC 08 15:34:35.7**±0.5**, 40°.17N**±0°.03×**142°.56E**±0°.04**, h37km**±1km**, n196, σ1s46**/226**, mb4.7**/81**, MS4.0**/3**, 17C-2D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JTH | Tanohata | 0.58 | 247 | P | Pn | 15 34 46.1 | -1.4 |
| JTH | | | | *e*S | Sn | 15 34 53.8 | -2.0 |
| JANG | Nango | 0.82 | 285 | P | Pn | 15 34 49.6 | -1.1 |
| JANG | | | | *e*S | Sn | 15 34 59.6 | -2.1 |
| MIYJ | Miyakonagasawa | 0.82 | 224 | P | Pn | 15 34 49.4 | -1.3 |
| MIYJ | | | | S | Sn | 15 34 59.4 | -2.2 |

**JKZ Kuzumaki 0.96 259** P **Pn** **15 34 51.9 -0.7**
JKZ eS **Sn** **15 35 03.7 -1.4**
**JOM Ohasama 1.20 235** P **Pn** **15 34 55.6 -0.2**
JOM eS **Sn** **15 35 10.6 -0.2**
**OFUJ Ofunato 1.29 212** P **Pn** **15 34 56.8 -0.3**
OFUJ eS **Sn** **15 35 12.2 -0.8**
**JTM Tenmabayashi 1.29 299** P **Pn** **15 34 57.1 0.0**
JTM eS **Sn** **15 35 13.0 -0.1**
**JAH Hinai 1.47 271** P **Pn** **15 34 59.7 +0.1**
JAH S **Sn** **15 35 17.8 +0.2**
**JMK Ichinoseki 1.60 221** P **Pn** **15 35 01.4 +0.1**
JMK eS **Sn** **15 35 21.4 +0.7**
**ERM Erimo 1.90 14** eP **Pn** **15 35 06.7 +1.3**
ERM e 15 35 30.5
**ERM Erimo 1.90 14** ePn **Pn** **15 35 06.7 +1.3**
ERM eSn **Sn** **15 35 30.5 +2.4**
**ASAJ Asahikawa 3.94 0** P **Pn** **15 35 35.1 +1.5**
12nm,0.3s,baz=202,slow=13,SNR=58
ASAJ S **Sn** **15 36 20.2 +1.7**
15nm,0.3s,baz=145,slow=16,SNR=4.0
**YUK Yuzh-Kuril'sk 4.58 31** eP **Pn** **15 35 42.2 0.0**
YUK eS **Sn** **15 36 30.4 -3.7**
YUK pmax pmax
comp=N,39nm,0.2s
YUK pmax pmax
comp=Z,139nm,0.2s
YUK pmax pmax
comp=E,35nm,0.1s
YUK smax smax
comp=N,224nm,0.4s
YUK smax smax
comp=E,661nm,0.4s
**SHO Shikotan 4.88 39** eP **Pn** **15 35 45.8 -0.6**
SHO eS **Sn** **15 36 36.1 -5.4**
SHO pmax pmax
comp=Z,65nm,0.4s
SHO smax smax
comp=E,612nm,0.6s
SHO smax smax
comp=N,328nm,0.4s
**MJB9 Matsu-Tunnel 4.98 225** ePn **Pn** **15 35 50.2 +2.3**
**MAJO Matsushiro 4.98 225** ceP **Pn** **15 35 50.0 +2.1**
**MAJO Matsushiro 4.98 225** ePn **Pn** **15 35 50.3 +2.4**
**MAT Matsushiro 4.98 225** P **Pn** **15 35 50.4 +2.5**
MAT eS **Sn** **15 36 45.3 +1.1**
**MJAR Matsushiro Arr 4.98 225** P **Pn** **15 35 50.0 +2.2**
comp=N,6.7nm,0.3s,baz=32,slow=13,SNR=82
MJAR S **Sn** **15 36 44.2 0.0**
baz=47,slow=27,SNR=2.2
MJAR LR LR 15 37 58.0
comp=N,290nm,20.9s,baz=55,slow=41
**KUR Kuril'sk 6.39 36** eP **Pn** **15 36 08.1 +0.9**
KUR eS **Sn** **15 37 16.3 -2.5**
KUR pmax pmax
comp=Z,63nm,0.6s
KUR pmax pmax
comp=N,25nm,0.2s
KUR pmax pmax
comp=E,31nm,0.4s
KUR smax smax
comp=N,70nm,0.4s
KUR smax smax
comp=E,207nm,0.4s
**INU Inuyama 6.51 224** ePn **Pn** **15 36 12.0 +3.2**
**YSS Yuzh-Sakhalins 6.78 1** eP **Pn** **15 36 09.5 -3.0**
YSS eS **Sn** **15 37 30.1 +1.7**
YSS smax smax
comp=N,30nm,1.4s
YSS MLR MLR
comp=Z,200nm,12.0s
**JHJ2 Mitsune 7.38 198** ePn Pn 15 36 28.3 +7.5
**VLA Vladivostok 8.52 294**⇑ eP **Pn** **15 36 34.2 -2.1**
**USRK Ussuriysk Ar. 8.81 301** P **Pn** **15 36 42.5 +2.1**
comp=Z,1.2nm,0.3s,baz=102,slow=18,SNR=27
USRK LR LR 15 39 59.7
comp=Z,290nm,18.6s,baz=29,slow=37
**MDJ Mudanjiang 10.56 299** P **Pn** **15 37 08.1 +3.7**
MDJ sP 15 37 26.3
MDJ S **Sn** **15 39 03.4 +2.1**
MDJ pmax pmax
comp=Z,17nm,0.9s
MDJ pmax pmax
comp=Z,190nm,5.0s
**MDJ Mudanjiang 10.56 299** ePn **Pn** **15 37 04.7 +0.3**
**JNU Nakatsue 11.72 237** ePn **Pn** **15 37 21.7 +1.4**
**KSRS Korea Array 11.73 261** P **Pn** **15 37 22.1 +1.7**
comp=Z,0.1nm,0.3s,baz=72,slow=14,SNR=3.1
KSRS LR LR 15 41 35.2
comp=Z,234nm,18.1s,baz=36,slow=36
**KS01 Wonju Array Si 11.75 261** ePn **Pn** **15 37 21.7 +1.1**
**KS15 Wonju Array Si 11.77 261** ePn **Pn** **15 37 22.4 +1.6**
**KSAR Wonju Array Be 11.77 261** P **Pn** **15 37 22.1 +1.2**
**KSAR Wonju Array Be 11.77 261** P **Pn** **15 37 22.1 +1.2**
**INCN Inchon 12.71 263** ePn **Pn** **15 37 34.1 +0.4**
**CN2 Changchun 13.23 291** eP **Pn** **15 37 42.4 +1.6**
CN2 esP P 15 37 59.0 +8.9
CN2 eS **Sn** **15 40 06.1 -0.5**
CN2 pmax pmax
comp=Z,10.0nm,0.6s
CN2 pmax pmax
comp=Z,100nm,3.0s
CN2 LR LR
comp=Z,500nm,13.0s
CN2 LR LR
comp=Z,500nm,13.0s
CN2 LR LR
comp=Z,700nm,14.0s
**PETK Petropavlovsk- 16.55 34** eP **Pn** **15 38 22.6 -2.2**
**PETK Petropavlovsk- 16.55 34** ePn **Pn** **15 38 22.6 -2.2**
**HIA Hailar 18.53 307**⇑ eP **P** **15 38 46.9 -1.9**
HIA pmax pmax
comp=Z,4.0nm,0.9s
**MA2 Magadan 20.10 12** P **P** **15 39 06.1 +0.3**
comp=Z,6.9nm,0.8s,baz=188,slow=19,SNR=3.5
**MA2 Magadan 20.10 12**‖ eP Pn 15 39 07.2 -0.7
**BJI Beijing 20.16 278** P **P** **15 39 06.1 -0.5**
BJI pmax pmax
comp=Z,11nm,0.8s
**NJ2 Nanjing 20.75 254** eP **P** **15 39 13.9 +0.8**
NJ2 pmax pmax
comp=Z,20nm,0.9s
**YAK Yakutsk 23.25 345** P **P** **15 39 36.7 -2.6**
comp=Z,15nm,0.5s,baz=181,slow=2.1,SNR=11
**YAK Yakutsk 23.25 345** eP **P** **15 39 36.0 -3.3**
YAK pmax pmax
comp=Z,23nm,0.9s
YAK pmax pmax
comp=N,7.0nm,0.9s
YAK pmax pmax
comp=E,2.0nm,0.9s
**YAK Yakutsk 23.25 345** eP **P** **15 39 36.3 -3.0**
comp=E,24nm,0.7s
**HHC Hu-ho-hao-te 23.52 282** eP **P** **15 39 42.1 -0.2**
HHC pmax pmax
comp=E,15nm,0.7s
HHC pmax pmax
comp=E,76nm,4.8s
**SEY Seymchan 23.54 11** P **P** **15 39 41.8 -0.4**
comp=E,5.3nm,0.7s,baz=189,slow=8.0,SNR=16
**SEY Seymchan 23.54 11**⇑ eP **P** **15 39 42.2 0.0**
**SSLB Suanglung 24.45 235** eP **P** **15 39 50.7 -0.3**
comp=E,107nm,1.5s
**TPUB Ta-pu 25.01 234** eP **P** **15 39 58.5 +2.4**
comp=E,251nm,1.8s
**TWG Pinlang 25.09 233** eP **P** **15 39 56.8 +0.1**
comp=E,790nm,1.9s
**BOD Bodaibo 25.45 323** eP **P** **15 39 58.3 -1.4**
BOD pmax pmax
comp=Z,16nm,1.0s
**ULN Ulaanbaatar 26.48 299**⇑ eP **P** **15 40 10.7 +1.3**
ULN pmax pmax
comp=Z,2.0nm,0.7s
**ULN Ulaanbaatar 26.48 299** eP **P** **15 40 08.7 -0.6**
comp=Z,3.8nm,0.9s
**SONA1 Songino Array 26.92 299** eP **P** **15 40 13.0 -0.3**
**SONA0 Songino Array 26.92 299** eP **P** **15 40 12.6 -0.7**
**SONM Songino Array 26.92 299** P **P** **15 40 12.6 -0.7**
comp=Z,2.4nm,0.5s,baz=106,slow=8.8,SNR=19
**SONM Songino Array 26.92 299** P **P** **15 40 12.6 -0.7**
SONM pmax pmax
comp=Z,3.0nm,0.5s
**TLY Talaya 29.07 306**‖ eP **P** **15 40 32.4 +0.1**
TLY pmax pmax
comp=Z,7.0nm,0.7s
**ZAK Zakamensk 29.15 304** eP **P** **15 40 31.7 -1.4**
ZAK pmax pmax
comp=Z,3.0nm,1.5s
**H11N2 WAKE ISLAND Hy 29.16 127** T T 16 11 30.7
baz=319,slow=75,SNR=213
**H11N1 WAKE ISLAND Hy 29.17 127** T T 16 11 30.6
baz=319,slow=75,SNR=227
**H11N3 WAKE ISLAND Hy 29.18 127** T T 16 11 32.1
baz=319,slow=75,SNR=267
**H11S1 WAKE ISLAND Hy 29.98 129** T T 16 12 37.2
baz=321,slow=76,SNR=63
**H11S3 WAKE ISLAND Hy 29.98 129** T T 16 12 28.1
baz=321,slow=76,SNR=49
**H11S2 WAKE ISLAND Hy 29.99 129** T T 16 12 30.6
baz=321,slow=76,SNR=42
**LZH Lanzhou 30.56 275** eP **P** **15 40 48.3 +2.5**
LZH pP sP 15 41 02.7 +1.8
LZH pmax pmax
comp=Z,38nm,1.3s
LZH pmax pmax
comp=Z,140nm,4.8s
LZH LR LR
comp=Z,740nm,15.0s
LZH LR LR
comp=Z,340nm,13.3s
LZH LR LR
comp=Z,350nm,14.9s
**TIXI Tiksi 32.30 352**⇑ eP **P** **15 40 59.2 -1.3**
TIXI pmax pmax
comp=Z,2.0nm,1.0s
**GTA Gaotai 32.62 283** eP **P** **15 41 03.9 0.0**
GTA pP pP 15 41 15.8 +1.3
GTA sP sP 15 41 21.4 +2.4
GTA PcP **PcP** **15 43 44.0 -5.3**
GTA S **S** **15 46 14.8 -2.4**
GTA sS sS 15 46 35.2 +0.4
GTA SS **SnSn** **15 48 12.1 -1.4**
GTA pmax pmax
comp=Z,4.0nm,1.0s
GTA pmax pmax
comp=Z,150nm,7.0s
GTA LR LR
comp=Z,230nm,18.5s
GTA LR LR
comp=Z,230nm,18.1s
GTA LR LR
comp=Z,310nm,19.5s
**GYA Guiyang 32.73 256** eP **P** **15 41 06.8 +1.9**
GYA pmax pmax
comp=Z,10.0nm,0.8s
**QIZ Qiongzhong 35.10 243** P **P** **15 41 26.9 +1.5**
QIZ S **S** **15 46 58.5 +2.9**
**HVS Khovu-Aksy 35.25 305**⇑ eP **P** **15 41 25.5 -1.0**
HVS pmax pmax
comp=Z,8.0nm,0.9s
**KMI Kunming 36.41 258** P **P** **15 41 37.5 +0.7**
KMI pP sP 15 41 51.7 -0.3
KMI pmax pmax
comp=Z,15nm,1.0s
**WMQ Urumqi 40.31 294** P **P** **15 42 09.9 +0.6**
WMQ pP pP 15 42 19.7 -0.4
WMQ pmax pmax
comp=Z,21nm,0.8s
WMQ pmax pmax
comp=Z,350nm,7.1s
WMQ LR LR
comp=Z,160nm,21.1s
WMQ LR LR
comp=Z,120nm,18.7s
WMQ LR LR
comp=Z,200nm,19.5s
**ZAA1 Zalesovo Array 40.53 310** eP **P** **15 42 10.3 -0.5**
ZAA1 ePcP **PcP** **15 44 12.4 -0.2**
**ZAA0 Zalesovo Array 40.53 310** eP **P** **15 42 10.2 -0.7**
comp=Z,4.9nm,0.8s
**ZALV Zalesovo Beam 40.53 310** P **P** **15 42 10.3 -0.5**
comp=Z,5.2nm,0.6s,baz=92,slow=7.6,SNR=17
ZALV PcP **PcP** **15 44 12.4 -0.2**
comp=Z,1.0nm,0.4s,baz=90,slow=2.9,SNR=4.2
**ZALV Zalesovo Beam 40.53 310** eP **P** **15 42 10.0 -0.8**
ZALV PcP **PcP** **15 44 12.4 -0.2**
**LSA Lhasa 42.89 272** eP **P** **15 42 32.3 +1.2**
LSA pmax pmax
comp=Z,14nm,1.8s
**LSA Lhasa 42.89 272** eP **P** **15 42 32.3 +1.2**
comp=Z,14nm,1.8s
**CHTO Chiang Mai 42.99 253** eP **P** **15 42 30.8 -0.6**
CHTO pmax pmax
comp=Z,6.0nm,1.2s
**CHTO Chiang Mai 42.99 253** eP **P** **15 42 30.8 -0.6**
comp=Z,5.6nm,1.2s
**CM31 Chiang Mai Arr 43.21 253** eP **P** **15 42 31.4 -1.8**
**CMAR Chiang Mai Arr 43.21 253** P **P** **15 42 32.6 -0.6**
comp=Z,0.7nm,0.5s,baz=49,slow=6.2,SNR=9.1
**CM01 Chiang Mai Arr 43.23 253** eP **P** **15 42 33.0 -0.3**
**MK01 Makanchi Array 43.28 299** eP **P** **15 42 32.5 -0.9**
**MK31 Makanchi Array 43.28 300** ceP **P** **15 42 32.9 -0.5**
MK31 pmax pmax
comp=Z,3.0nm,0.5s
**MK31 Makanchi Array 43.28 300** eP **P** **15 42 33.0 -0.5**
**MK32 Makanchi Array 43.28 300** eP **P** **15 42 33.0 -0.5**
**MKAR Makanchi Array 43.28 300** P **P** **15 42 33.0 -0.5**
comp=Z,3.6nm,0.6s,baz=85,slow=10,SNR=19
**MAKZ Makanchi 43.49 300** eP **P** **15 42 32.4 -2.8**
MAKZ pmax pmax
comp=Z,8.0nm,0.8s
**MAKZ Makanchi 43.49 300** eP **P** **15 42 32.4 -2.8**
comp=Z,8.2nm,0.8s
**IMAR Indian Mountai 43.51 32** eP **P** **15 42 36.8 +1.8**
**KURK Kurchatov 44.76 306** ceP **P** **15 42 44.6 -0.6**
KURK pmax pmax
comp=Z,52nm,0.6s
**KURK Kurchatov 44.76 306** eP **P** **15 42 44.4 -0.8**
comp=Z,18nm,0.6s
**KURBB Kurchatov Arra 44.84 306** P **P** **15 42 45.1 -0.8**
comp=Z,17nm,0.7s,baz=81,slow=8.6,SNR=52
**SML Sawmill 45.96 38** eP **P** **15 42 57.0 +2.4**
SML pmax pmax
comp=Z,78nm,1.8s
**SML Sawmill 45.96 38** eP **P** **15 42 57.0 +2.4**
comp=Z,78nm,1.8s
**COLA College 45.96 34**⇑ eP **P** **15 42 55.7 +1.2**
COLA pmax pmax
comp=Z,3.0nm,1.3s
**PDGK Podgornoye 46.16 296** i P **P** **15 42 55.3 -1.3**
PDGK pmax pmax
comp=Z,9.0nm,1.1s
**DHY Denali Highway 46.29 36** eP **P** **15 42 58.8 +1.4**
comp=Z,20nm,1.6s
**IL1 Eielson Array 46.38 34** eP **P** **15 42 58.6 +0.7**
**ILAR Eielson Array 46.38 34** P **P** **15 42 58.5 +0.6**
comp=Z,0.9nm,0.6s,baz=266,slow=5.9,SNR=11
**ILB Eielson Array 46.38 34** eP **P** **15 42 58.1 +0.3**
**SBUM Sibu 46.53 224** eP **P** **15 43 00.1 +0.6**
comp=Z,40nm,2.0s
**TAPN Taplejung 46.68 272** eP **P** **15 43 00.8 -0.3**
comp=Z,6.5nm,0.4s
**FYU Fort Yukon 46.96 31** eP **P** **15 43 02.8 +0.5**
comp=Z,51nm,1.9s
**KLU Klutina 47.13 38** eP **P** **15 43 05.5 +1.6**
comp=Z,47nm,1.6s
**ODAN Odare 47.17 271** eP **P** **15 43 03.9 -1.0**
comp=Z,13nm,0.7s
**JIRN Jiri 47.69 273** eP **P** **15 43 08.5 -0.5**
comp=Z,73nm,0.4s
**RAMN Ramite 47.73 272** eP **P** **15 43 08.1 -1.1**
comp=Z,20nm,0.6s
**GUN Gumba 47.80 273** eP **P** **15 43 09.5 -0.3**
comp=Z,28nm,0.4s
**KKN Kakani 48.32 274** eP **P** **15 43 13.3 -0.4**
comp=Z,27nm,0.7s
**PKI Pulchoki 48.33 273** eP **P** **15 43 13.1 -0.8**
comp=Z,4.9nm,0.4s
**PKIN Phulchoki 48.34 273** eP **P** **15 43 13.0 -0.9**
comp=Z,12nm,0.6s
**TKM2 Tokmak 2 48.98 296** i P **P** **15 43 18.1 -0.5**
TKM2 pmax pmax
comp=Z,8.0nm,0.9s
**BVAR Borovoye Array 49.17 311** P **P** **15 43 19.4 -0.2**
comp=Z,9.7nm,0.4s,baz=76,slow=8.8,SNR=104
**BRVK Borovoye 49.22 311** ceP **P** **15 43 19.8 -0.2**
BRVK pmax pmax
comp=Z,20nm,1.0s
**BRVK Borovoye 49.22 311** eP **P** **15 43 19.5 -0.5**
comp=Z,10nm,1.0s
**KOLN Koldanda 49.61 275** eP **P** **15 43 23.3 -0.3**
comp=Z,11nm,0.5s
**AAK Ala-Archa 49.84 296** P **P** **15 43 24.5 -0.6**
comp=Z,1.0nm,0.3s,baz=75,slow=5.6,SNR=6.9
**AAK Ala-Archa 49.84 296**⇑ eP **P** **15 43 24.4 -0.6**
AAK i *PP **sP** **15 43 39.7 -0.8**
AAK pmax pmax
comp=Z,4.0nm,1.1s
**AAK Ala-Archa 49.84 296** eP **P** **15 43 24.5 -0.6**
comp=Z,4.6nm,1.1s
**PYUN Piuthan 49.91 275** eP **P** **15 43 25.5 -0.4**
comp=Z,24nm,0.7s
**KSH Kashi 50.00 292** P **P** **15 43 29.1 +2.8**
KSH pP sP 15 43 43.8 +2.1
KSH PcP **PcP** **15 44 49.5 +3.6**
KSH PP **PP** **15 45 25.6 +4.3**
KSH S **S** **15 50 34.3 -0.2**
KSH ScS **ScS** **15 53 12.7 -2.0**
KSH SS **SS** **15 54 05.7 -1.7**
KSH pmax pmax
comp=Z,2.0nm,0.6s
KSH pmax pmax
comp=Z,170nm,5.0s
KSH LR LR
comp=Z,150nm,5.3s
KSH LR LR
comp=Z,140nm,6.3s
KSH LR LR
comp=Z,280nm,6.1s
**YKU2 Yakutat 50.54 40** eP **P** **15 43 33.1 +3.2**
comp=Z,2µm,1.2s
**KULM Kulim 51.19 239** eP **P** **15 43 35.6 +0.3**
comp=Z,18nm,1.6s
**INK Inuvik 51.20 28** P **P** **15 43 35.8 +1.1**
comp=Z,1.9nm,0.5s,baz=278,slow=5.6,SNR=9.4
**INK Inuvik 51.20 28** eP **P** **15 43 35.6 +0.9**
INK pmax pmax
comp=Z,37nm,2.0s
**INK Inuvik 51.20 28** eP **P** **15 43 35.6 +0.9**
comp=Z,37nm,2.0s
**MNAS Manas 51.26 297** i P **P** **15 43 34.9 -0.9**
MNAS pmax pmax
comp=Z,11nm,0.9s
**HYT Haines Junctio 51.27 38** eP **P** **15 43 37.4 +1.9**
comp=Z,14nm,1.3s
**SFK Sufi-Kurgan 51.55 294** i P **P** **15 43 36.9 -1.2**
SFK pmax pmax
comp=Z,6.0nm,0.9s
**IPM Ipoh 51.56 238** eP **P** **15 43 38.0 -0.1**
comp=Z,18nm,1.6s
**KK31 Karatay Array 52.37 298** ceP **P** **15 43 42.9 -1.0**
KK31 pmax pmax
comp=Z,5.0nm,0.8s
**SVE Sverdlovsk 53.42 317**⇑ iP **P** **15 43 52.1 +0.7**
SVE pmax pmax
comp=Z,24nm,0.8s
**ARU Arti 54.63 317** c iP **P** **15 44 00.0 -0.2**
ARU 15 45 00.4
ARU S **S** **15 51 37.2 0.0**
ARU SS **SS** **15 55 23.0 +3.3**
ARU pmax pmax
comp=Z,19nm,1.0s
**ARU Arti 54.63 317** eP **P** **15 44 00.2 0.0**
**GSI Gunungsitoli 56.19 238** eP **P** **15 44 12.9 +0.9**
comp=Z,18nm,1.2s
**AB31 Akbulak array 56.63 309** ceP **P** **15 44 14.3 -0.4**
AB31 pmax pmax
comp=Z,5.0nm,0.5s
**KBL Kabul 57.17 290** eP **P** **15 44 18.1 -0.9**
KBL pmax pmax
comp=Z,18nm,0.8s
**KBL Kabul 57.17 290** eP **P** **15 44 18.1 -0.9**
comp=Z,18nm,0.8s
**AKTO Aktyubinsk 57.27 311** i P **P** **15 44 17.8 -1.4**
AKTO pmax pmax
comp=Z,9.0nm,0.8s
**RES Resolute Bay 59.34 15** P **P** **15 44 33.1 -0.2**
comp=Z,1.6nm,0.5s,baz=307,slow=6.6,SNR=7.4
**WR1 Warramunga Arr 60.29 189** eP **P** **15 44 39.5 -1.0**
**WRA Warramunga Arr 60.29 189** P **P** **15 44 39.4 -1.0**
comp=Z,1.5nm,0.8s,baz=4.2,slow=7.0,SNR=7.3
WRA pP **pP** **15 44 53.1 +1.5**
comp=Z,2.0nm,0.6s,baz=7.6,slow=7.2,SNR=6.1
**ARA0 ARCESS Array S 61.38 339** eP **P** **15 44 47.0 -0.3**
**ARCES ARCESS Array B 61.38 339** P **P** **15 44 47.0 -0.3**
comp=Z,3.0nm,0.8s,baz=37,slow=8.2,SNR=6.3
**TULEG Thule 61.88 8** eP **P** **15 44 50.5 0.0**
comp=Z,35nm,2.0s
**DAG Danmarks Havn 62.73 355** eP **P** **15 44 56.1 -0.1**
DAG i 15 45 09.3
DAG pmax pmax
comp=Z,3.0nm,0.8s
**DAG Danmarks Havn 62.73 355** i P **P** **15 44 56.1 -0.1**
comp=Z,3.1nm,0.8s
DAG i 15 45 09.3
**GEYT Alibeck 63.12 298** P **P** **15 44 58.9 -0.7**
comp=Z,6.9nm,0.7s,baz=46,slow=4.3,SNR=14
**LLLB Lillooet 63.39 45** eP **P** **15 45 02.0 +0.9**
comp=Z,15nm,1.8s
**VRH Novokhopyorsk 65.87 317** eP **P** **15 45 15.8 -1.3**
VRH pmax pmax
comp=Z,9.0nm,0.7s
**OBN Obninsk 66.13 323** i P **P** **15 45 17.6 -1.1**
OBN i 15 45 29.8
OBN i 15 45 46.2
OBN pmax pmax
comp=Z,9.0nm,1.1s
**FIA1 FINESS Array S 66.46 332** eP **P** **15 45 20.6 -0.1**
**FIA0 FINESS Array S 66.46 332** eP **P** **15 45 20.3 -0.5**
**FIA0 FINESS Array S 66.46 332** eP **P** **15 45 20.3 -0.5**
**FINES FINESS Array B 66.46 332** P **P** **15 45 20.3 -0.5**
comp=Z,5.1nm,0.7s,baz=49,slow=8.0,SNR=17
**FINES FINESS Array B 66.46 332** i P **P** **15 45 20.8 0.0**
FINES pmax pmax
comp=Z,5.0nm,0.7s
**LPSR Galich'ya Gora 66.48 320** eP **P** **15 45 20.7 -0.3**
LPSR pmax pmax
comp=Z,10.0nm,0.8s
**VSR Storozhevoye 67.17 318** eP **P** **15 45 24.0 -1.5**
VSR pmax pmax
comp=Z,8.0nm,0.6s
**SUMG Summit 67.55 0** eP **P** **15 45 28.6 +0.6**
SUMG pmax pmax
comp=Z,7.0nm,0.8s
**SUMG Summit 67.55 0** i P **P** **15 45 28.1 +0.1**
SUMG i 15 45 42.6
**SUMG Summit 67.55 0** eP **P** **15 45 28.6 +0.6**
comp=Z,7.1nm,0.8s
**ZEI Tsey 69.51 309** eP **P** **15 45 39.2 -1.4**
ZEI pmax pmax
comp=Z,3.0nm,0.8s
**KIV Kislovodsk 69.54 311** eP **P** **15 45 41.5 +0.9**
KIV pmax pmax
comp=Z,17nm,1.0s
**KIV Kislovodsk 69.54 311** eP **P** **15 45 39.9 -0.6**
comp=Z,12nm,0.7s
**KBZ Khabaz 69.55 310** P **P** **15 45 40.8 +0.3**
comp=Z,6.3nm,0.9s,baz=117,slow=3.6,SNR=9.2
**AASM Arroyo Seco 70.65 56** eP **P** **15 45 47.8 +0.5**
**NB2 NORSAR Subarra 71.64 337** P **P** **15 45 52.7 -0.3**
comp=Z,4.2nm,0.7s,baz=42,slow=6.2
**NB200 NORSAR Array S 71.64 337** eP **P** **15 45 52.8 -0.2**
**NOA NORSAR Array B 71.64 337** P **P** **15 45 52.8 -0.2**
comp=Z,3.1nm,0.8s,baz=39,slow=5.9,SNR=10
NOA pP **pP** **15 46 06.3 +1.9**
comp=Z,2.7nm,0.7s,baz=39,slow=6.0,SNR=4.3
**ARTV Artvin 71.65 309** eP **P** **15 45 52.3 -1.4**
comp=Z,3.5nm,0.8s
**AKASG Malin Array Be 72.37 322** P **P** **15 45 57.0 -0.4**
comp=Z,2.7nm,0.6s,baz=40,slow=6.8,SNR=13
**AKBB Malin Array Si 72.37 322** eP **P** **15 45 56.9 -0.6**
AKBB pmax pmax
comp=Z,20nm,1.4s
**AKBB Malin Array Si 72.37 322** eP **P** **15 45 56.9 -0.6**
comp=Z,20nm,1.4s
**KIEV Kiev 72.38 322**⇑ eP **P** **15 45 56.7 -0.8**
KIEV pmax pmax
comp=Z,6.0nm,1.0s
**KIEV Kiev 72.38 322** eP **P** **15 45 56.5 -1.0**
comp=Z,16nm,1.3s
**FIGC Figueroa Mtn. 73.59 58** eP **P** **15 46 02.3 -2.8**
**PDAR Pinedale Array 74.85 47** P **P** **15 46 13.1 +0.6**
comp=Z,0.2nm,0.6s,baz=252,slow=0.9,SNR=2.0
PDAR pP **PcP** **15 46 26.8 +0.4**
comp=Z,0.5nm,0.7s,baz=9.6,slow=1.3,SNR=3.6
**PDAR Pinedale Array 74.85 47** eP **P** **15 46 13.2 +0.7**
**PSRC Puddingstone R 75.40 58** eP **P** **15 46 13.8 -1.7**
**VTV Victorville 75.42 57** eP **P** **15 46 15.5 -0.2**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **VTV** | **Victorville** | **75.42** | **57** | *e*P | **P** | **15 46 15.4** | **-0.2** |
| **BUR08** | **Bucovina Ar. S** | **76.39** | **322** | *e*P | **P** | **15 46 21.2** | **+0.2** |
| **BUR04** | **Bucovina Ar. S** | **76.40** | **322** | *e*P | **P** | **15 46 21.4** | **+0.3** |
| **BR101** | **Keskin Array S** | **77.44** | **312** | *e*P | **P** | **15 46 27.1** | **0.0** |
| **BRTR** | **Keskin Array B** | **77.44** | **312** | P | **P** | **15 46 27.1** | **0.0** |
| | comp=Z,0.7nm,0.5s,baz=80,slow=2.4,SNR=4.2 | | | | | | |
| **KHC** | **Kasperske Hory** | **80.33** | **329** | *i* P | **P** | **15 46 43.2** | **+0.5** |
| KHC | | | | *e*pP | **pP** | **15 46 56.0** | **+1.7** |
| **KHC** | **Kasperske Hory** | **80.33** | **329** | *i* P | **P** | **15 46 43.2** | **+0.5** |
| KHC | | | | *e* | | 15 46 56.0 | |
| **GERES** | **GERESS Array B** | **80.51** | **329** | P | **P** | **15 46 43.8** | **+0.1** |
| | comp=Z,0.9nm,0.6s,baz=38,slow=6.8,SNR=7.0 | | | | | | |
| **LTX** | **Lajitas** | **87.51** | **53** | *e*P | **P** | **15 47 19.8** | **0.0** |
| **LTX** | **Lajitas** | **87.51** | **53** | *e*P | **P** | **15 47 19.8** | **0.0** |
| **TXAR** | **Lajitas Array** | **87.51** | **53** | P | **P** | **15 47 19.8** | **0.0** |
| | comp=Z,0.1nm,0.5s,baz=270,slow=1.4,SNR=2.0 | | | | | | |
| **ESDC** | **Sonseca Array** | **94.86** | **335** | P | **P** | **15 47 53.2** | **-0.5** |
| | comp=Z,0.3nm,0.5s,baz=11,slow=4.3,SNR=2.7 | | | | | | |

**JMA 08 15:34:55.3, 36°.98N×138°.61E, h11km±1km, M0.5, Eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MAT** | **Matsushiro** | **0.54** | **217** | P | Pg | 15 35 05.6 | -0.3 |
| **JNG** | **Nsakai** | **0.70** | **216** | P | Pg | 15 35 08.6 | -0.3 |

*ISCJB **08** 15:39:37.3±0.3, 0°.12S±0°.04×123°.16E±0°.04, h150km, mb3.9/16, Error ellipse: s-maj=6.4km s-min=4.7km az=31.4*
*IDC **08** 15:39:38.5±4.3, 0°.02S×123°.17E, h151km±40km, mb3.7/16, mb1 3.8/17, mb1mx3.6/57, mbtmp4.1/17, Error ellipse: s-maj=23.5km s-min=9.5km az=66.0*
*DJA **08** 15:39:39.5±0.4, 0°S±3°×12°3E±°, h127km±5km, M4.3/10, mB5.0/1, mb4.2/2, MLv4.4/10, Mw(mB)4.2/1*
**ISC 08 15:39:38.4±0.5, 0°.11S±0°.05×123°.15E±0°.04, h150km, n42, σ1s.34/51, mb4.0/16, 1C, Minahassa Peninsula, Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LUWI** | **Luwuk** | **1.00** | **202** | P | **Pn** | **15 40 02.6** | **-0.6** |
| LUWI | | | | S | **Sn** | **15 40 19.5** | **-2.6** |
| **KMSI** | **Cibinong** | **1.07** | **51** | P | **Pn** | **15 40 04.8** | **+1.1** |
| KMSI | | | | S | **Sn** | **15 40 23.7** | **+0.6** |
| **MRSI** | **Marisa** | **1.34** | **296** | P | **Pn** | **15 40 05.5** | **-0.8** |
| MRSI | | | | S | **Sn** | **15 40 24.4** | **-3.2** |
| **APSI** | **Ampana** | **1.70** | **242** | P | **Pn** | **15 40 10.1** | **0.0** |
| APSI | | | | S | **Sn** | **15 40 31.0** | **-3.4** |
| **MPSI** | **Mapaga** | **3.28** | **278** | P | **Pn** | **15 40 30.0** | **+0.7** |
| MPSI | | | | S | **Sn** | **15 41 08.7** | **-0.1** |
| **SANI** | **Sanana** | **3.43** | **124** | P | **Pn** | **15 40 29.9** | **-1.3** |
| **LBMI** | **Labuha** | **4.38** | **97** | P | **Pn** | **15 40 43.2** | **-0.4** |
| **TTSI** | **Tana Toraja** | **4.43** | **229** | P | **Pn** | **15 40 45.0** | **+0.7** |
| **NLAI** | **Namlea** | **5.03** | **128** | P | **Pn** | **15 40 53.1** | **+1.0** |
| NLAI | | | | S | **Sn** | **15 41 48.7** | **-1.0** |
| **SPSI** | **Sidrap Palu** | **5.11** | **221** | P | **Pn** | **15 40 54.4** | **+1.1** |
| | 19nm,0.5s | | | | | | |
| **BNSI** | **Bone** | **5.24** | **215** | P | **Pn** | **15 40 58.7** | **+3.7** |
| **CTBH** | **Cotabato--PC H** | **7.36** | **9** | ⇑*i*P | **Pn** | **15 41 25.5** | **+2.2** |
| **FITZ** | **Fitzroy Crossi** | **18.05** | **172** | P | **P** | **15 43 39.3** | **+1.1** |
| | 1.0nm,0.3s,baz=9.3,slow=8.4,SNR=24 | | | | | | |
| **WRA** | **Warramunga Arr** | **22.55** | **152** | P | **P** | **15 44 26.1** | **-0.1** |
| | 3.9nm,0.5s,baz=331,slow=10,SNR=74 | | | | | | |
| WRA | | | | PcP | **PcP** | **15 48 14.5** | **0.0** |
| | 0.3nm,0.6s,baz=342,slow=2.6,SNR=3.9 | | | | | | |
| **PMG** | **Port Moresby** | **25.62** | **112** | P | **P** | **15 44 54.5** | **+0.3** |
| | 3.5nm,0.5s,baz=321,slow=4.0,SNR=3.7 | | | | | | |
| **ASAR** | **Alice Springs** | **25.64** | **157** | P | **P** | **15 44 54.5** | **+0.2** |
| | 1.4nm,0.7s,baz=335,slow=10,SNR=12 | | | | | | |
| ASAR | | | | PcP | **PcP** | **15 48 21.2** | **+0.1** |
| | 0.8nm,0.5s,baz=344,slow=2.0,SNR=9.9 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **30.10** | **309** | P | **P** | **15 45 35.4** | **+1.4** |
| | 1.8nm,0.8s,baz=136,slow=7.0,SNR=12 | | | | | | |
| **STKA** | **Stephens Creek** | **36.09** | **153** | P | **P** | **15 46 26.7** | **+0.8** |
| | 3.1nm,0.5s,baz=333,slow=11,SNR=8.6 | | | | | | |
| STKA | | | | PcP | **PcP** | **15 48 48.2** | **-0.5** |
| | 0.8nm,0.4s,baz=326,slow=4.8,SNR=3.2 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **39.05** | **19** | P | **P** | **15 46 48.9** | **-1.8** |
| | 2.0nm,0.7s,baz=179,slow=8.5,SNR=5.6 | | | | | | |
| **ODAN** | **Odare** | **43.61** | **311** | *e*P | **P** | **15 47 29.9** | **+1.6** |
| **TAPN** | **Taplejung** | **43.63** | **312** | *e*P | **P** | **15 47 29.4** | **+0.9** |
| | 8.3nm,0.7s | | | | | | |
| **RAMN** | **Ramite** | **44.26** | **310** | *e*P | **P** | **15 47 34.9** | **+1.5** |
| | 18nm,0.6s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **44.81** | **9** | P | **P** | **15 47 36.5** | **-0.7** |
| | 1.3nm,0.4s,baz=190,slow=6.4,SNR=4.8 | | | | | | |
| **JIRN** | **Jiri** | **44.94** | **311** | *e*P | **P** | **15 47 39.8** | **+0.8** |
| | 76nm,0.7s | | | | | | |
| **GUN** | **Gumba** | **45.30** | **311** | *e*P | **P** | **15 47 42.7** | **+0.9** |
| | 14nm,0.5s | | | | | | |
| **PKI** | **Pulchoki** | **45.48** | **310** | *e*P | **P** | **15 47 43.8** | **+0.6** |
| | 4.9nm,0.5s | | | | | | |
| **PKIN** | **Phulchoki** | **45.50** | **310** | *e*P | **P** | **15 47 44.6** | **+1.3** |
| **KKN** | **Kakani** | **45.69** | **311** | *e*P | **P** | **15 47 45.1** | **+0.3** |
| **DMN** | **Daman** | **45.73** | **310** | *e*P | **P** | **15 47 45.8** | **+0.7** |
| **KOLN** | **Koldanda** | **46.97** | **309** | *e*P | **P** | **15 47 55.5** | **+0.8** |
| | 15nm,0.6s | | | | | | |
| **DANN** | **Dangsing** | **47.13** | **310** | *e*P | **P** | **15 47 57.1** | **+1.0** |
| **PYUN** | **Piuthan** | **47.60** | **310** | *e*P | **P** | **15 48 00.6** | **+1.0** |
| | 30nm,0.7s | | | | | | |
| **SONM** | **Songino Array** | **49.93** | **345** | P | **P** | **15 48 16.5** | **-0.4** |
| | 1.2nm,0.5s,baz=161,slow=9.2,SNR=14 | | | | | | |
| **MKAR** | **Makanchi Array** | **58.78** | **328** | P | **P** | **15 49 20.1** | **-0.8** |
| | 0.8nm,0.5s,baz=121,slow=8.6,SNR=17 | | | | | | |
| **PETK** | **Petropavlovsk-** | **60.32** | **23** | P | **P** | **15 49 31.3** | **+0.1** |
| | 2.6nm,0.9s,baz=175,slow=1.5,SNR=4.0 | | | | | | |
| **RPZ** | **Rata Peaks** | **60.83** | **142** | P | **P** | **15 49 35.7** | **+0.9** |
| | 5.7nm,0.7s,baz=315,slow=1.4,SNR=3.3 | | | | | | |
| **URZ** | **Urewera** | **62.33** | **134** | P | **P** | **15 49 45.3** | **+0.3** |
| | 2.3nm,0.5s,baz=270,slow=6.0,SNR=3.8 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **62.47** | **336** | P | **P** | **15 49 44.1** | **-1.5** |
| | 0.5nm,0.4s,baz=126,slow=6.9,SNR=3.5 | | | | | | |
| **SEY** | **Seymchan** | **66.57** | **14** | P | **P** | **15 50 12.8** | **+0.8** |
| | 1.4nm,0.7s,baz=192,slow=7.9,SNR=4.4 | | | | | | |
| **BVAR** | **Borovoye Array** | **68.65** | **329** | P | **P** | **15 50 23.7** | **-1.6** |
| | 0.3nm,0.4s,baz=110,slow=8.3,SNR=4.5 | | | | | | |
| **VNDA** | **Vanda** | **80.12** | **172** | P | **P** | **15 51 31.6** | **+0.5** |
| | 0.6nm,0.5s,baz=332,slow=2.7,SNR=3.6 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **120.58** | **285** | PKP | **PKPdf** | **15 58 12.1** | **-1.2** |
| | 0.5nm,1.0s,baz=55,slow=2.4,SNR=3.0 | | | | | | |

*ISCJB **08** 15:44:49.2±0.9, 5°.2S±0°.1×153°.50E±0°.06, h56km, mb3.8/6, Error ellipse: s-maj=14.9km s-min=7.9km az=2.0*
*IDC **08** 15:44:51.8±3.5, 5°.18S×153°.53E, h68km±31km, mb3.6/7, mb1 3.9/9, mb1mx3.5/36, mbtmp4.1/9, ML2.7/1, MS2.9/1, Ms1 2.9/1, ms1mx2.5/32, Error ellipse: s-maj=28.8km s-min=21.0km az=160.0*
**ISC 08 15:44:50.6±0.9, 5°.1S±0°.1×153°.50E±0°.08, h56km, n13, σ0s.81/14, mb3.9/7, New Ireland region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **7.63** | **235** | P | **Pn** | **15 46 40.3** | **+1.1** |
| | 6.0nm,0.3s,baz=65,slow=4.4,SNR=16 | | | | | | |
| PMG | | | | S | **Sn** | **15 48 04.3** | **+0.1** |
| | 3.8nm,0.3s,baz=76,slow=15,SNR=4.4 | | | | | | |
| PMG | | | | LR | LR | 15 49 34.2 | |
| | comp=Z,103nm,21.5s,baz=48,slow=37 | | | | | | |
| **HNR** | **Honiara** | **7.74** | **125** | P | **Pn** | **15 46 40.6** | **0.0** |
| | 14nm,0.3s,baz=288,slow=15,SNR=5.0 | | | | | | |
| HNR | | | | S | **Sn** | **15 48 08.0** | **+1.2** |
| | 4.6nm,0.3s,baz=248,slow=19,SNR=2.2 | | | | | | |
| **DZM** | **Mont Dzumac** | **21.05** | **145** | P | **P** | **15 49 28.8** | **-1.4** |
| | 3.1nm,0.5s,baz=242,slow=6.8,SNR=13 | | | | | | |
| **WRA** | **Warramunga Arr** | **23.80** | **230** | P | **P** | **15 49 58.0** | **-0.4** |
| | 3.0nm,0.5s,baz=55,slow=10,SNR=33 | | | | | | |
| WRA | | | | PcP | **PcP** | **15 53 40.8** | **-0.1** |
| | 0.4nm,0.9s,baz=53,slow=2.7,SNR=3.0 | | | | | | |
| **ASAR** | **Alice Springs** | **26.44** | **224** | P | **P** | **15 50 22.0** | **-0.4** |
| | 1.2nm,0.4s,baz=55,slow=8.9,SNR=19 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **26.77** | **29** | T | T | 16 18 51.7 | |
| | baz=210,slow=74 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **26.78** | **29** | T | T | 16 18 50.9 | |
| | baz=210 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **26.79** | **29** | T | T | 16 18 46.2 | |
| | baz=210,slow=74 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **30.15** | **242** | P | **P** | **15 50 55.1** | **-0.5** |
| | 1.9nm,0.5s,baz=58,slow=8.1,SNR=10 | | | | | | |
| **MKAR** | **Makanchi Array** | **80.97** | **319** | P | **P** | **15 56 60.0** | **+0.7** |
| | 0.4nm,0.6s,baz=118,slow=6.3,SNR=4.0 | | | | | | |
| **ILAR** | **Eielson Array** | **82.13** | **22** | P | **P** | **15 57 05.5** | **+0.5** |
| | 0.1nm,0.8s,baz=250,slow=5.3,SNR=2.6 | | | | | | |
| **MAW** | **Mawson** | **85.60** | **203** | P | **P** | **15 57 22.4** | **-0.2** |
| | 1.3nm,0.5s,baz=60,slow=9.0,SNR=5.6 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **151.05** | **288** | PKPbc | **PKPbc** | **16 04 37.6** | **-0.8** |
| | 0.6nm,0.4s,baz=84,slow=2.0,SNR=7.0 | | | | | | |
| TORD | | | | PKPab | **PKPab** | **16 04 45.4** | **-0.7** |
| | 0.7nm,0.6s,baz=72,slow=2.4,SNR=3.9 | | | | | | |

*ATA **08** 15:49:55.9±1.1, 38°.61N×43°.68E, h12km±37km, ML3.9, MW3.6*
*ISCJB **08** 15:50:00.5±1.0, 38°.59N±0°.05×43°.4E±0°.1, h22km±12km, Error ellipse: s-maj=14.0km s-min=7.2km az=24.1*
*DDA **08** 15:50:00.1, 38°.61N×43°.16E, h7km, Ml2.9*
*CSEM **08** 15:50:00.1, 38°.61N×43°.16E, h7km, ML2.9*
**ISC 08 15:49:59.7±0.9, 38°.65N±0°.03×43°.32E±0°.04, h15km±7km, n15, σ2s.21/28, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TVAN** | **Van** | **0.14** | **150** | *i* P | **Pb** | **15 50 04.4** | **+0.3** |
| TVAN | | | | *i* S | **Sg** | **15 50 08.0** | **+1.7** |
| **TVAN** | **Van** | **0.14** | **150** | P | **Pb** | **15 50 04.4** | **+0.3** |
| TVAN | | | | S | **Sg** | **15 50 08.0** | **+1.7** |
| **GEVA** | **Gevas** | **0.39** | **212** | *e*P | **Pg** | **15 50 07.3** | **-0.4** |
| GEVA | | | | *e*S | **Sb** | **15 50 16.4** | **+2.1** |
| GEVA | | | | IAML | | 15 50 21.9 | |
| | comp=Z,518nm,0.4s | | | | | | |
| **GEVA** | **Gevas** | **0.39** | **212** | *i* P | **Pg** | **15 50 07.3** | **-0.4** |
| GEVA | | | | *i* S | **Sg** | **15 50 11.0** | **-2.2** |
| **GEVA** | **Gevas** | **0.39** | **212** | P | **Pg** | **15 50 07.3** | **-0.4** |
| GEVA | | | | S | **Sg** | **15 50 11.0** | **-2.2** |
| **VMUR** | **Van-Muradiye** | **0.40** | **30** | *i* P | **Pn** | **15 50 09.8** | **-1.2** |
| VMUR | | | | *i* S | **Sb** | **15 50 13.6** | **-0.9** |
| **VMUR** | **Van-Muradiye** | **0.40** | **30** | P | **Pn** | **15 50 09.9** | **-1.2** |
| VMUR | | | | S | **Sb** | **15 50 13.6** | **-0.9** |
| **ADCV** | **BITLIS_Adilcev** | **0.49** | **289** | *i* P | **Pg** | **15 50 09.1** | **-0.5** |
| ADCV | | | | *i* S | **Sg** | **15 50 12.6** | **-3.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.49** | **289** | P | **Pg** | **15 50 09.1** | **-0.5** |
| ADCV | | | | S | **Sg** | **15 50 12.6** | **-3.7** |
| **TUTA** | **Tutak** | **0.85** | **333** | *e*P | **Pb** | **15 50 16.0** | **-0.4** |
| TUTA | | | | IAML | | 15 50 23.1 | |
| | comp=Z,185nm,0.2s | | | | | | |
| TUTA | | | | *e*S | **Sn** | **15 50 31.2** | **+1.5** |
| **TUTA** | **Tutak** | **0.85** | **333** | *i* P | **Pb** | **15 50 15.9** | **-0.4** |
| TUTA | | | | *i* S | **Sn** | **15 50 30.5** | **+0.8** |
| **TUTA** | **Tutak** | **0.85** | **333** | P | **Pb** | **15 50 15.9** | **-0.4** |
| TUTA | | | | S | **Sn** | **15 50 30.5** | **+0.8** |
| **EKAR** | **Karacoban** | **1.15** | **302** | *e*P | **Pg** | **15 50 23.7** | **+1.7** |
| EKAR | | | | *e*S | **Sg** | **15 50 44.7** | **+7.5** |
| EKAR | | | | IAML | | 15 50 53.0 | |
| | comp=Z,57nm,0.5s | | | | | | |
| **EATA** | **Eleskirt** | **1.38** | **332** | *e*P | **Pg** | **15 50 25.9** | **-0.3** |
| EATA | | | | IAML | | 15 50 52.2 | |
| | comp=Z,12nm,0.3s | | | | | | |
| **BNGL** | **BINGOL** | **1.72** | **281** | *e*P | **Pb** | **15 50 32.1** | **+1.0** |
| BNGL | | | | IAML | | 15 51 01.6 | |
| | comp=Z,154nm,0.4s | | | | | | |

*ISK **08** 15:50:03.9, 38°.61N×43°.28E, h4km, ML2.7*
*ISCJB **08** 15:50:05.2±0.4, 38°.63N±0°.03×43°.26E±0°.05, h11km±5km, Error ellipse: s-maj=6.2km s-min=4.6km az=24.5*
*CSEM **08** 15:50:05.1±0.2, 38°.63N×43°.29E, h10km, ML2.7, Error ellipse: s-maj=6.0km s-min=5.0km az=115.0*
*DDA **08** 15:50:05.1, 38°.63N×43°.24E, h7km, Ml3.4*
**ISC 08 15:50:05.2±0.8, 38°.63N±0°.03×43°.30E±0°.03, h12km±7km, n30, σ0s.70/42, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.08** | **116** | *e*PG | **Pg** | **15 50 07.7** | **-0.3** |
| **VANB** | **Van** | **0.08** | **116** | *e*Pg | **Pg** | **15 50 07.7** | **-0.3** |
| **TVAN** | **Van** | **0.13** | **140** | *e*P | **Pg** | **15 50 08.6** | **-0.1** |
| TVAN | | | | *i* S | **Sg** | **15 50 11.3** | **+0.1** |
| **TVAN** | **Van** | **0.13** | **140** | P | **Pg** | **15 50 08.6** | **-0.1** |
| TVAN | | | | S | **Sg** | **15 50 11.3** | **+0.1** |
| **GEVA** | **Gevas** | **0.37** | **210** | *e*P | **Pb** | **15 50 14.1** | **+0.3** |
| GEVA | | | | *i* S | **Sg** | **15 50 17.9** | **+0.3** |
| **GEVA** | **Gevas** | **0.37** | **210** | P | **Pb** | **15 50 14.1** | **+0.3** |
| GEVA | | | | S | **Sg** | **15 50 17.9** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.42** | **31** | *e*P | **Pb** | **15 50 14.3** | **-0.2** |
| VMUR | | | | *i* S | **Sb** | **15 50 21.1** | **+0.1** |
| **VMUR** | **Van-Muradiye** | **0.42** | **31** | P | **Pb** | **15 50 14.4** | **-0.2** |
| VMUR | | | | S | **Sb** | **15 50 21.1** | **+0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.48** | **292** | *e*P | **Pg** | **15 50 13.6** | **-1.1** |
| ADCV | | | | *i* S | **Sg** | **15 50 20.5** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.48** | **292** | P | **Pg** | **15 50 13.6** | **-1.1** |
| ADCV | | | | S | **Sg** | **15 50 20.5** | **-0.6** |
| **CLDR** | **Caldiran** | **0.70** | **43** | *e*PG | **Pg** | **15 50 18.6** | **-0.3** |
| CLDR | | | | *e*SG | **Sb** | **15 50 29.8** | **+0.5** |
| **CLDR** | **Caldiran** | **0.70** | **43** | *e*Pg | **Pg** | **15 50 18.6** | **-0.3** |
| CLDR | | | | *e*Sg | **Sb** | **15 50 29.8** | **+0.5** |
| **TUTA** | **Tutak** | **0.86** | **334** | *i* P | **Pg** | **15 50 21.9** | **+0.1** |
| TUTA | | | | *i* S | **Sg** | **15 50 32.8** | **-0.2** |
| **TUTA** | **Tutak** | **0.86** | **334** | P | **Pg** | **15 50 21.9** | **+0.1** |
| TUTA | | | | S | **Sg** | **15 50 32.8** | **-0.2** |
| **AGRB** | **Hanur-Agry** | **0.97** | **346** | *e*PG | **Pg** | **15 50 23.3** | **-0.7** |
| **AGRB** | **Hanur-Agry** | **0.97** | **346** | *e*Pg | **Pg** | **15 50 23.3** | **-0.7** |
| **SIRT** | **Sirnak** | **1.32** | **211** | *e*PN | **Pn** | **15 50 28.9** | **-0.6** |
| **SIRT** | **Sirnak** | **1.32** | **211** | *e*Pn | **Pn** | **15 50 28.9** | **-0.6** |
| **CUKT** | **Cukurca** | **1.40** | **170** | *e*PN | **Pn** | **15 50 29.9** | **-0.8** |
| **CUKT** | **Cukurca** | **1.40** | **170** | *e*Pn | **Pn** | **15 50 29.9** | **-0.8** |
| **VRTB** | **Varto-Mus** | **1.53** | **291** | *e*PN | **Pn** | **15 50 33.2** | **+0.8** |
| **VRTB** | **Varto-Mus** | **1.53** | **291** | *e*Pn | **Pn** | **15 50 33.2** | **+0.8** |
| **SENK** | **Senkaya-Erzuru** | **2.06** | **340** | *e*PN | **Pn** | **15 50 40.2** | **+0.4** |
| **SENK** | **Senkaya-Erzuru** | **2.06** | **340** | *e*Pn | **Pn** | **15 50 40.2** | **+0.4** |
| **BNGB** | **Bingˆ¶l** | **2.08** | **281** | *e*PN | **Pn** | **15 50 40.4** | **+0.5** |
| **BINT** | **Bingol** | **2.21** | **277** | *e*Pn | **Pn** | **15 50 40.4** | **-1.4** |
| **PTK** | **Pertek** | **3.06** | **276** | *e*PN | **Pn** | **15 50 54.9** | **+1.3** |
| **PTK** | **Pertek** | **3.06** | **276** | *e*Pn | **Pn** | **15 50 54.9** | **+1.3** |
| **SVRC** | **Sivrice-ELAZID** | **3.14** | **267** | *e*PN | **Pn** | **15 50 56.0** | **+1.4** |
| **SVRC** | **Sivrice-ELAZID** | **3.14** | **267** | *e*Pn | **Pn** | **15 50 56.0** | **+1.4** |

*ISCJB **08** 16:00:01.9±0.3, 1°.46S±0°.03×126°.45E±0°.03, h35km, mb4.5/18, Error ellipse: s-maj=5.2km s-min=3.6km az=44.7*
*DJA **08** 16:00:02.7±0.6, 2°S±2°×12°6E±°, h16km±6km, M4.3/12, mB4.7/1, mb4.5/4, MLv4.3/12, Mw(mB)3.9/1*
*NEIC **08** 16:00:03.3±0.3, 1°.53S×126°.48E, h35km, mb4.6/8, Error ellipse: s-maj=9.4km s-min=5.1km az=68.0*
*IDC **08** 16:00:03.8±0.9, 1°.55S×126°.41E, h37km±6km, mb3.9/11, mb1 3.9/13, mb1mx3.6/52, mbtmp4.1/13, ML3.6/2, Error ellipse: s-maj=34.1km s-min=15.4km az=66.0*
**ISC 08 16:00:03.4±0.5, 1°.49S±0°.05×126°.46E±0°.04, h35km, n55, σ1s.34/66, mb4.5/18, Southern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SANI** | **Sanana** | **0.73** | **220** | P | **Pn** | **16 00 17.0** | **-0.2** |
| SANI | | | | S | **Sn** | **16 00 27.5** | **+0.3** |
| **LBMI** | **Labuha** | **1.34** | **51** | P | **Pn** | **16 00 26.0** | **+0.3** |
| LBMI | | | | S | **Sn** | **16 00 44.5** | **+2.2** |
| **NLAI** | **Namlea** | **1.85** | **160** | P | **Pn** | **16 00 32.8** | **+0.1** |
| NLAI | | | | S | **Sn** | **16 00 55.6** | **+0.7** |
| **AAI** | **Ambon** | **2.79** | **142** | P | **Pn** | **16 00 46.1** | **+0.5** |
| AAI | | | | S | **Sn** | **16 01 20.0** | **+2.0** |
| **MSAI** | **Masohi** | **3.08** | **127** | P | **Pn** | **16 00 51.0** | **+1.4** |
| MSAI | | | | S | **Sn** | **16 01 27.2** | **+2.0** |
| **KMSI** | **Cibinong** | **3.22** | **310** | P | **Pn** | **16 00 55.0** | **+3.5** |
| **LUWI** | **Luwuk** | **3.71** | **277** | P | **Pn** | **16 00 59.9** | **+1.6** |
| **LUWI** | **Luwuk** | **3.71** | **277** | *e*Pn | **Pn** | **16 00 58.8** | **+0.4** |
| LUWI | | | | *e*Sn | **Sn** | **16 01 39.3** | **-1.6** |
| **BNDI** | **Bandanaira** | **4.57** | **131** | P | **Pn** | **16 01 09.3** | **-0.8** |
| BNDI | | | | S | **Sn** | **16 02 03.5** | **+1.4** |
| **APSI** | **Ampana** | **4.84** | **277** | P | **Pn** | **16 01 15.3** | **+1.4** |
| **MRSI** | **Marisa** | **4.92** | **293** | P | **Pn** | **16 01 14.8** | **-0.2** |
| **FAKI** | **Fak Fak** | **5.96** | **104** | P | **Pn** | **16 01 29.1** | **-0.1** |
| | 21nm,0.7s,0.1nm | | | | | | |
| **FAKI** | **Fak Fak** | **5.96** | **104** | *e*Pn | **Pn** | **16 01 28.5** | **-0.7** |
| FAKI | | | | *e*Sn | **Sn** | **16 02 32.5** | **-3.7** |
| **MPSI** | **Mapaga** | **6.81** | **285** | P | **Pn** | **16 01 42.0** | **+1.1** |
| | 18nm,0.4s,0.1nm | | | | | | |
| **TTSI** | **Tana Toraja** | **6.81** | **257** | P | **Pn** | **16 01 42.6** | **+1.7** |
| | 28nm,0.9s,0.1nm | | | | | | |
| **SPSI** | **Sidrap Palu** | **7.12** | **250** | P | **Pn** | **16 01 47.9** | **+2.7** |
| **SOEI** | **Soe** | **8.50** | **195** | *e*Pn | **Pn** | **16 02 04.4** | **+0.2** |
| **MYLDM** | **Lahad Datu** | **10.35** | **310** | *e*Pn | **Pn** | **16 02 26.3** | **-3.2** |
| **MTN** | **Manton Dam** | **12.19** | **158** | *e*Pn | **Pn** | **16 02 51.4** | **-3.3** |
| **FITZ** | **Fitzroy Crossi** | **16.53** | **183** | Pn | **Pn** | **16 03 51.7** | **-0.9** |
| | 0.1nm,0.3s,baz=10,slow=11,SNR=2.2 | | | | | | |
| **WRAB** | **Tennant Creek** | **19.89** | **158** | *e*P | **P** | **16 04 31.5** | **-0.5** |
| | 29nm,2.0s | | | | | | |
| **WR1** | **Warramunga Arr** | **19.89** | **158** | *e*P | **P** | **16 04 31.6** | **-0.4** |
| | 7.5nm,1.3s | | | | | | |
| **WRA** | **Warramunga Arr** | **19.89** | **158** | P | **P** | **16 04 31.6** | **-0.4** |
| | 0.3nm,0.3s,baz=340,slow=12,SNR=34 | | | | | | |
| **WB2** | **Warramunga Arr** | **19.90** | **158** | *e*P | **P** | **16 04 30.7** | **-1.3** |
| **COEN** | **Coen** | **20.66** | **128** | *e*P | **P** | **16 04 40.6** | **+0.2** |
| | 19nm,1.5s | | | | | | |
| **PMG** | **Port Moresby** | **22.04** | **112** | P | **P** | **16 04 57.4** | **+2.2** |
| | 2.7nm,0.6s,baz=282,slow=6.7,SNR=3.7 | | | | | | |
| **AS31** | **Alice Springs** | **23.20** | **162** | *e*P | **P** | **16 05 07.1** | **-0.2** |
| | 1.6nm,0.7s | | | | | | |
| **ASAR** | **Alice Springs** | **23.20** | **162** | P | **P** | **16 05 06.8** | **-0.5** |
| | 6.3nm,0.8s,baz=338,slow=10,SNR=67 | | | | | | |
| **AS01** | **Alice Springs** | **23.21** | **162** | *e*P | **P** | **16 05 06.5** | **-0.9** |
| **GUMO** | **Guam** | **23.61** | **50** | *e*P | **P** | **16 05 11.3** | **-0.2** |
| | 530nm,1.5s | | | | | | |
| **TPUB** | **Ta-pu** | **25.29** | **347** | *e*P | **P** | **16 05 25.0** | **-1.7** |
| | 273nm,1.9s | | | | | | |
| **ENH** | **Enshi** | **35.49** | **334** | *e*P | **P** | **16 06 56.0** | **-0.9** |
| | 40nm,2.0s | | | | | | |
| **SONA0** | **Songino Array** | **52.15** | **343** | *e*P | **P** | **16 09 10.9** | **+0.4** |
| **SONM** | **Songino Array** | **52.15** | **343** | P | **P** | **16 09 10.9** | **+0.4** |
| | 1.0nm,0.7s,baz=154,slow=8.0,SNR=7.0 | | | | | | |
| SONM | | | | pP | **pP** | **16 09 21.8** | **+0.7** |
| | 0.8nm,0.6s,baz=161,slow=7.9,SNR=5.0 | | | | | | |
| **SONA1** | **Songino Array** | **52.16** | **343** | *e*P | **P** | **16 09 11.2** | **+0.6** |
| **PETK** | **Petropavlovsk-** | **60.35** | **21** | P | **P** | **16 10 09.1** | **+0.2** |
| | 4.2nm,1.0s,baz=164,slow=1.1,SNR=4.4 | | | | | | |
| **PETK** | **Petropavlovsk-** | **60.35** | **21** | *e*P | **P** | **16 10 09.2** | **+0.4** |
| **PEA1** | **Petropavlovsk-** | **60.35** | **21** | *e*P | **P** | **16 10 09.1** | **+0.2** |
| **MK01** | **Makanchi Array** | **61.69** | **327** | *e*P | **P** | **16 10 19.2** | **+1.1** |
| **MK32** | **Makanchi Array** | **61.71** | **327** | *e*P | **P** | **16 10 19.3** | **+1.1** |
| **MKAR** | **Makanchi Array** | **61.71** | **327** | P | **P** | **16 10 19.3** | **+1.1** |
| | 2.0nm,0.5s,baz=120,slow=8.4,SNR=2.3 | | | | | | |
| MKAR | | | | pP | **pP** | **16 10 29.9** | **+0.9** |
| | 1.1nm,0.5s,baz=119,slow=9.8,SNR=4.8 | | | | | | |
| **ZAA0** | **Zalesovo Array** | **65.12** | **334** | *e*P | **P** | **16 10 41.9** | **+1.4** |
| | 4.3nm,0.4s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **65.12** | **334** | *e*P | **P** | **16 10 39.9** | **-0.7** |
| **KURBB** | **Kurchatov Arra** | **66.00** | **329** | P | **P** | **16 10 46.9** | **+0.6** |
| | 2.5nm,0.7s,baz=132,slow=6.1,SNR=21 | | | | | | |
| KURBB | | | | pP | **pP** | **16 10 57.7** | **+0.6** |
| | 1.1nm,0.5s,baz=133,slow=6.3,SNR=6.6 | | | | | | |
| **SEY** | **Seymchan** | **67.15** | **13** | P | **P** | **16 10 54.8** | **+1.4** |
| | 3.0nm,0.9s,baz=188,slow=11,SNR=4.4 | | | | | | |
| **BVAR** | **Borovoye Array** | **71.55** | **328** | P | **P** | **16 11 21.3** | **+0.4** |
| | 0.7nm,0.7s,baz=147,slow=8.9,SNR=4.1 | | | | | | |
| **TIXI** | **Tiksi** | **73.03** | **1** | P | **P** | **16 11 29.1** | **-0.2** |
| | 2.7nm,0.5s,baz=206,slow=4.6,SNR=13 | | | | | | |
| **TIXI** | **Tiksi** | **73.03** | **1** | *e*P | **P** | **16 11 28.5** | **-0.8** |
| | 2.8nm,0.6s | | | | | | |
| **AKTO** | **Aktyubinsk** | **77.58** | **322** | P | **P** | **16 11 56.5** | **+0.5** |
| | 1.5nm,0.7s,baz=129,slow=7.4,SNR=4.3 | | | | | | |
| **HULD** | **Heiheiahulu Di** | **79.72** | **70** | *e*P | **P** | **16 12 08.3** | **0.0** |
| **CNPM** | **China Poot** | **87.36** | **30** | *e*P | **P** | **16 12 46.3** | **-0.5** |
| | 150nm,1.8s | | | | | | |
| **QSPA** | **South Pole Qui** | **88.45** | **180** | *e*P | **P** | **16 12 52.9** | **+0.9** |
| | 13nm,1.8s | | | | | | |
| **ILAR** | **Eielson Array** | **89.90** | **25** | P | **P** | **16 12 57.5** | **-1.1** |
| | 0.3nm,1.0s,baz=253,slow=5.0,SNR=4.3 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **124.13** | **285** | PKP | **PKPdf** | **16 18 59.1** | **-0.3** |
| | 0.4nm,0.7s,baz=82,slow=1.9,SNR=3.7 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **124.14** | **285** | *e*PKPdf | **PKPdf** | **16 18 59.1** | **-0.3** |

**NNC 08 16:06:36.0±3.1, 36°.52N×70°.29E, h109km±31km, mb2.9, mpv3.5, 7C-2D, Error ellipse: s-maj=24.6km s-min=23.5km az=45.0, Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SFK** | **Sufi-Kurgan** | **4.31** | **35** | ⇑P | Pn | 16 07 39.7 | +0.1 |
| | 5.6nm,0.3s | | | | | | |
| SFK | | | | ⇑S | Sn | 16 08 30.1 | +1.2 |
| | 12nm,0.3s | | | | | | |
| **MNAS** | **Manas** | **6.20** | **15** | ⇓P | Pn | 16 08 05.5 | +0.5 |
| | 1.2nm,0.5s | | | | | | |
| MNAS | | | | ⇑S | Sn | 16 09 14.7 | +0.1 |
| | 4.9nm,0.3s | | | | | | |
| **KK31** | **Karatay Array** | **6.57** | **1** | P | Pn | 16 08 10.2 | +0.2 |
| | 1.3nm,0.3s,baz=176,slow=12,SNR=31 | | | | | | |
| KK31 | | | | ⇑S | Sn | 16 09 25.4 | +1.9 |
| | 1.9nm,0.5s,baz=294,slow=36,SNR=5.7 | | | | | | |
| **AAK** | **Ala-Archa** | **6.92** | **27** | ⇑P | Pn | 16 08 14.6 | -0.2 |
| | 1.1nm,0.4s | | | | | | |
| AAK | | | | ⇓S | Sn | 16 09 31.1 | -0.9 |
| | 8.9nm,0.9s | | | | | | |
| **TKM2** | **Tokmak 2** | **7.58** | **31** | ⇑P | Pn | 16 08 22.8 | -1.1 |
| | 3.0nm,1.1s | | | | | | |
| **AB31** | **Akbulak array** | **14.79** | **333** | P | Pn | 16 09 59.9 | +0.4 |
| | 0.5nm,0.3s,baz=163,slow=12,SNR=23 | | | | | | |
| AB31 | | | | S | Sn | 16 12 40.6 | -2.0 |
| | 0.9nm,0.6s,baz=155,slow=24,SNR=2.9 | | | | | | |
| **ZAA0** | **Zalesovo Array** | **20.14** | **26** | ⇑P | P | 16 11 01.4 | +0.2 |
| | 0.3nm,0.4s | | | | | | |

*JMA **08** 16:12:32.8±0.3, 36°.70N×141°.90E, h20km±4km, M3.2*
*IDC **08** 16:12:33.8±1.4, 37°.13N×141°.82E, h0km, mb3.5/7, mb1 3.6/9, mb1mx3.4/50, mbtmp3.5/9, ML3.1/2, Error ellipse: s-maj=29.0km s-min=25.8km az=114.0*
**ISC 08 16:12:35.7±1.1, 36°.91N±0°.06×141°.84E±0°.08, h19km, n19, σ1s.51/21, mb3.5/7, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ONAJ** | **Iwakimizuishiy** | **0.85** | **284** | P | **Pb** | **16 12 50.7** | **-1.3** |
| **JFK** | **Kawauchi** | **0.90** | **301** | P | **Pb** | **16 12 52.4** | **-0.3** |
| **JHO** | **Hitachi** | **1.06** | **254** | P | **Pb** | **16 12 52.1** | **-3.3** |
| **JMM** | **Marumori** | **1.27** | **319** | P | **Pn** | **16 12 57.9** | **-0.5** |
| **JFT** | **Otama** | **1.34** | **297** | P | **Pb** | **16 12 59.8** | **-0.5** |
| **JIO** | **Ouri** | **1.59** | **346** | P | **Pn** | **16 13 02.6** | **-0.3** |
| **JOU** | **Okura** | **1.73** | **328** | P | **Pb** | **16 13 05.8** | **-1.1** |
| JOU | | | | *e*S | **Sg** | **16 13 30.2** | **-1.3** |
| **JYS** | **Shirataka** | **1.92** | **314** | P | **Pn** | **16 13 08.3** | **+0.8** |
| **JAG** | **Ashikaga** | **1.98** | **257** | P | **Pn** | **16 13 06.5** | **-1.6** |
| **MJAR** | **Matsushiro Arr** | **2.94** | **264** | Pn | **Pn** | **16 13 21.3** | **-0.1** |
| | 5.3nm,0.3s,baz=111,slow=10,SNR=90 | | | | | | |
| **MAT** | **Matsushiro** | **2.94** | **264** | P | **Pn** | **16 13 21.9** | **+0.5** |
| MAT | | | | S | **Sn** | **16 13 58.6** | **+2.4** |
| **ASAJ** | **Asahikawa** | **7.22** | **4** | Pn | **Pn** | **16 14 18.9** | **-1.4** |
| | 0.3nm,0.3s,baz=248,slow=19,SNR=2.7 | | | | | | |
| **SONM** | **Songino Array** | **28.14** | **304** | P | **P** | **16 18 27.5** | **+0.9** |
| | 1.1nm,0.7s,baz=98,slow=8.0,SNR=5.2 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.25** | **312** | P | **P** | **16 20 28.1** | **+0.6** |
| | 0.7nm,0.5s,baz=102,slow=9.2,SNR=3.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.47** | **302** | P | **P** | **16 20 45.2** | **-0.4** |
| | 0.4nm,0.7s,baz=96,slow=10,SNR=2.5 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **46.35** | **308** | P | **P** | **16 20 59.5** | **-0.8** |
| | 0.6nm,0.6s,baz=80,slow=7.8,SNR=3.5 | | | | | | |
| **ILAR** | **Eielson Array** | **49.42** | **32** | P | **P** | **16 21 23.2** | **-0.8** |
| | 0.4nm,1.0s,baz=266,slow=6.2,SNR=3.3 | | | | | | |
| **BVAR** | **Borovoye Array** | **50.91** | **312** | P | **P** | **16 21 34.1** | **-1.3** |
| | 0.2nm,0.4s,baz=90,slow=12,SNR=2.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **56.98** | **188** | P | **P** | **16 22 23.1** | **+3.0** |
| | 0.1nm,0.4s,baz=0.8,slow=7.3,SNR=4.8 | | | | | | |

*ISCJB **08** 16:12:36.3±1.0, 58°.62S±0°.04×26°.38W±0°.07, h150km±9km, mb5.1/79, Error ellipse: s-maj=7.6km s-min=4.3km az=138.2*
*NEIC **08** 16:12:36.9±0.1, 58°.64S×26°.38W, mb5.3/65, Error ellipse: s-maj=4.6km s-min=4.0km az=216.0*
*GCMT **08** 16:12:36.9±0.1, 58°.93S×25°.78W, h144km±1km, MW5.4/116, Moment Tensor Solution. s91,c134; s116,c193; Duration: 1s.2 Moment tensor: Scale $10^{17}$ Nm; $M_{rr}$-0.27±.02; $M_{\theta\theta}$1.23±.03; $M_{\phi\phi}$-0.96±.03; $M_{r\theta}$0.05±.02; $M_{\theta\phi}$-0.21±.02; $M_{\phi r}$0.86±.02; Best double couple: $M_0$1.40400×$10^{17}$ NP1:$\phi_s$135.00000°, δ68.00000°, λ-26.00000°. NP2:$\phi_s$236.00000°, δ66.00000°, λ-156.00000°. Principal axes: T 1.2510, Plg1.0000°, Azm186.0000°; N 0.3030, Plg56.0000°, Azm278.0000°; P -1.5560, Plg34.0000°, Azm95.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*MOS **08** 16:12:37.0±0.9, 58°.71S×26°.31W, h150km, mb5.3/17 Error ellipse: s-maj=20.9km s-min=10.0km az=101.9*
*IDC **08** 16:12:37.2±0.5, 58°.68S×26°.38W, h146km±3km, mb4.9/18, mb1 4.9/20, mb1mx4.9/25, mbtmp5.3/20, MS4.1/13,*

*Ms1 4.1/13,ms1mx4.0/19,Error ellipse: s-maj=10.6km s-min=9.4km az=43.0*

*BJI **08** 16:12:37.7,58°.60S×26°.40W,h151km,mB5.4/15*

**ISC 08 16:12:37.3**±0.3**,58°.72S**±0°.05×**26°.37W**±0°.05**,h149km**±2km**, h149km:pP-P,n411,**σ1s33/512**,mb5.2**/78**,5C-8D,South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HOPE** | **Hope Point** | **7.15** | **304** | *e*Pn | **Pn** | **16 14 20.9** | **+1.7** |
| HOPE | | | | *e*Sn | **Sn** | **16 15 39.2** | **+0.1** |
| **VNA1** | **Neumayer--Stat** | **14.16** | **155** | P | **Pn** | **16 15 51.2** | **+0.4** |
| **VNA3** | **Neumayer Olymp** | **14.33** | **158** | P | **Pn** | **16 15 52.4** | **-0.5** |
| **VNA2** | **Neumayer--Watz** | **14.56** | **155** | P | **Pn** | **16 15 55.2** | **-0.6** |
| | baz=318,slow=14 | | | | | | |
| **SNAA** | **Sanae** | **16.13** | **153** | P | **P** | **16 16 16.9** | **+1.2** |
| **SNAA** | **Sanae** | **16.13** | **153** | P | **P** | **16 16 16.7** | **+1.0** |
| | 6.1nm,0.3s,baz=303,slow=11,SNR=162 | | | | | | |
| SNAA | | | | S | **S** | **16 19 11.7** | **-2.7** |
| | 5.6nm,0.3s,baz=332,slow=16,SNR=7.9 | | | | | | |
| SNAA | | | | ScP | **ScP** | **16 24 21.1** | **+0.4** |
| | 0.6nm,0.3s,baz=184,slow=4.7,SNR=9.4 | | | | | | |
| **SNAA** | **Sanae** | **16.13** | **153** | *d i*P | **P** | **16 16 16.2** | **+0.5** |
| **SNAA** | **Sanae** | **16.13** | **153** | *e*Pn | **P** | **16 16 16.1** | **+0.5** |
| | 652nm,1.1s | | | | | | |
| SNAA | | | | *e*S | **S** | **16 19 11.7** | **-2.7** |
| SNAA | | | | *e*ScP | **ScP** | **16 24 21.2** | **+0.5** |
| **PMSA** | **Palmer Station** | **18.60** | **235** | P | **Pn** | **16 16 44.7** | **0.0** |
| | 18nm,0.3s,baz=69,slow=7.3,SNR=39 | | | | | | |
| PMSA | | | | ScP | **ScP** | **16 24 25.9** | **+0.1** |
| | 1.2nm,0.3s,baz=21,slow=5.4,SNR=4.4 | | | | | | |
| **EFI** | **East Falkland** | **19.27** | **278** | *c i*P | **Pn** | **16 16 51.8** | **-0.9** |
| EFI | | | | pmax | pmax | | |
| | comp=Z,235nm,1.0s | | | | | | |
| **EFI** | **East Falkland** | **19.27** | **278** | *e*P | **Pn** | **16 16 51.8** | **-0.9** |
| | comp=Z,213nm,0.9s | | | | | | |
| **NVL** | **N'lazarevskaya** | **19.82** | **143** | ⇓*i*P | **P** | **16 16 56.7** | **+0.9** |
| NVL | | | | *e*S | **S** | **16 20 30.0** | **-0.5** |
| **USHA** | **Ushuaia** | **23.09** | **261** | P | **P** | **16 17 30.9** | **+1.5** |
| | comp=Z,363nm,0.8s,baz=85,slow=7.9,SNR=21 | | | | | | |
| **H09N1** | **TRISTAN DA CUN** | **23.53** | **29** | T | T | 16 42 08.5 | |
| | SNR=14 | | | | | | |
| **TRIS** | **Tristan da Cun** | **23.53** | **29** | *e*P | **P** | **16 17 35.1** | **+1.3** |
| **SYO** | **Syowa Base** | **29.26** | **138** | ⇓*i*P | **P** | **16 18 23.0** | **-1.7** |
| **SYO** | **Syowa Base** | **29.26** | **138** | ⇓*i*pP | pP | 16 18 51.6 | -4.6 |
| **CHRN** | **Cochrane** | **29.49** | **272** | *e*P | **P** | **16 18 27.9** | **+0.9** |
| | comp=Z,12nm,0.9s | | | | | | |
| **TRQA** | **Tornquist** | **30.85** | **296** | *e*P | **P** | **16 18 39.6** | **+0.5** |
| | comp=Z,86nm,0.8s | | | | | | |
| **QSPA** | **South Pole Qui** | **31.52** | **180** | *e*P | **P** | **16 18 46.1** | **+1.3** |
| | comp=Z,57nm,0.6s | | | | | | |
| **PLCA** | **Paso Flores** | **32.98** | **283** | P | **P** | **16 18 58.1** | **+0.3** |
| | comp=Z,62nm,0.8s,baz=169,slow=8.4,SNR=139 | | | | | | |
| PLCA | | | | ScP | **ScP** | **16 25 07.7** | **-0.2** |
| | comp=Z,3.7nm,0.9s,baz=88,slow=1.4,SNR=5.0 | | | | | | |
| PLCA | | | | LR | LR | 16 31 31.3 | |
| | comp=Z,421nm,20.9s,baz=151,slow=34 | | | | | | |
| **PLCA** | **Paso Flores** | **32.98** | **283** | *e*P | **P** | **16 18 57.8** | **0.0** |
| | comp=Z,89nm,0.8s | | | | | | |
| PLCA | | | | ScP | **ScP** | **16 25 07.7** | **-0.2** |
| **PLCA** | **Paso Flores** | **32.98** | **283** | *e*P | **P** | **16 18 57.4** | **-0.4** |
| **TCA** | **Tanti** | **37.61** | **300** | *e*P | **P** | **16 19 36.9** | **-0.5** |
| **MAW** | **Mawson** | **37.75** | **141** | P | **P** | **16 19 38.9** | **+0.9** |
| | comp=Z,106nm,0.9s,baz=233,slow=8.2,SNR=107 | | | | | | |
| MAW | | | | ScP | **ScP** | **16 25 25.3** | **+0.7** |
| | comp=Z,6.6nm,0.8s,baz=251,slow=8.7,SNR=8.2 | | | | | | |
| MAW | | | | LR | LR | 16 33 11.1 | |
| | comp=Z,210nm,20.8s,baz=252,slow=33 | | | | | | |
| **MAW** | **Mawson** | **37.75** | **141** | *e*P | **P** | **16 19 38.7** | **+0.6** |
| MAW | | | | *e*S | **ScP** | **16 25 25.3** | **+0.7** |
| MAW | | | | pmax | pmax | | |
| | comp=Z,24nm,0.9s | | | | | | |
| **MAW** | **Mawson** | **37.75** | **141** | *e*P | **P** | **16 19 38.7** | **+0.6** |
| | comp=Z,24nm,0.9s | | | | | | |
| MAW | | | | *e*S | **ScP** | **16 25 25.3** | **+0.7** |
| **GO05** | **HualaæØ** | **38.09** | **288** | *e*P | **P** | **16 19 41.3** | **0.0** |
| | comp=Z,111nm,0.8s | | | | | | |
| **ASAL** | **Salagasta** | **38.54** | **294** | *e*P | **P** | **16 19 44.9** | **-0.3** |
| **CLCH** | **Cerro Calan** | **38.70** | **291** | *e*P | **P** | **16 19 47.6** | **+1.1** |
| **CPUP** | **Villa Florida** | **38.94** | **313** | P | **P** | **16 19 47.4** | **-1.0** |
| | comp=Z,20nm,0.9s,baz=158,slow=8.2,SNR=36 | | | | | | |
| CPUP | | | | ScP | **ScP** | **16 25 29.9** | **+0.1** |
| | comp=Z,1.6nm,0.5s,baz=232,slow=2.7,SNR=3.1 | | | | | | |
| CPUP | | | | LR | LR | 16 35 48.4 | |
| | comp=Z,198nm,19.3s,baz=156,slow=36 | | | | | | |
| **PEL** | **Peldehue** | **38.98** | **291** | *e*P | **P** | **16 19 49.4** | **+0.6** |
| PEL | | | | pmax | pmax | | |
| | comp=Z,262nm,0.9s | | | | | | |
| **PEL** | **Peldehue** | **38.98** | **291** | *e*P | **P** | **16 19 49.4** | **+0.6** |
| | comp=Z,262nm,0.9s | | | | | | |
| **PEL** | **Peldehue** | **38.98** | **291** | *i* P | **P** | **16 19 49.6** | **+0.8** |
| **AUSP** | **Uspallata** | **39.10** | **294** | *e*P | **P** | **16 19 50.1** | **0.0** |
| **ROC1** | **El Roble** | **39.27** | **291** | *e*P | **P** | **16 19 52.0** | **+0.6** |
| | comp=Z,88nm,0.8s | | | | | | |
| **ROC1** | **El Roble** | **39.27** | **291** | *e*P | **P** | **16 19 50.9** | **-0.6** |
| **ROCH** | **El Roble** | **39.27** | **291** | *e*P | **P** | **16 19 52.1** | **+0.7** |
| **APLL** | **PUNTA DE LOS L** | **39.29** | **298** | *e*P | **P** | **16 19 50.6** | **-0.8** |
| **RTLL** | **Cerro Villicun** | **39.41** | **295** | *e*P | **P** | **16 19 51.3** | **-1.1** |
| **RTLS** | **Leoncito** | **39.41** | **294** | *e*P | **P** | **16 19 52.6** | **-0.1** |
| **AMOG** | **MOGNA** | **39.74** | **296** | *e*P | **P** | **16 19 54.6** | **-0.6** |
| **ACLC** | **CERRO LA CRUZ** | **40.30** | **299** | *e*P | **P** | **16 19 59.2** | **-0.7** |
| **CYA** | **Choya** | **40.62** | **301** | *e*P | **P** | **16 20 01.6** | **-0.7** |
| **AGUA** | **GUANDACOL** | **40.96** | **297** | *e*P | **P** | **16 20 04.5** | **-0.7** |
| **SUR** | **Sutherland** | **41.00** | **71** | P | **P** | **16 20 06.3** | **+0.7** |
| | comp=Z,3.7nm,0.8s,baz=203,slow=9.2,SNR=29 | | | | | | |
| **SUR** | **Sutherland** | **41.00** | **71** | *e*P | **P** | **16 20 06.7** | **+1.0** |
| | comp=Z,516nm,1.9s | | | | | | |
| **VCA** | **Vinchina** | **41.46** | **298** | *e*P | **P** | **16 20 08.7** | **-0.7** |
| **LCO** | **Las Campanas** | **42.40** | **295** | *e*P | **P** | **16 20 16.8** | **-0.3** |
| | comp=Z,101nm,0.9s | | | | | | |
| **SBA** | **Scott Base** | **43.44** | **184** | *e*P | **P** | **16 20 26.0** | **+1.5** |
| SBA | | | | pmax | pmax | | |
| | comp=Z,69nm,1.7s | | | | | | |
| **SBA** | **Scott Base** | **43.44** | **184** | *e*P | **P** | **16 20 26.0** | **+1.5** |
| | comp=Z,70nm,1.7s | | | | | | |
| **VNDA** | **Vanda** | **43.91** | **183** | P | **P** | **16 20 30.0** | **+1.6** |
| | comp=Z,18nm,0.5s,baz=186,slow=7.2,SNR=125 | | | | | | |
| VNDA | | | | ScP | **ScP** | **16 25 49.8** | **+1.0** |
| | comp=Z,3.4nm,0.8s,baz=213,slow=5.3,SNR=6.3 | | | | | | |
| **VNDA** | **Vanda** | **43.91** | **183** | *e*P | **P** | **16 20 30.3** | **+1.9** |
| VNDA | | | | pmax | pmax | | |
| | comp=Z,24nm,0.6s | | | | | | |
| **VNDA** | **Vanda** | **43.91** | **183** | *e*P | **P** | **16 20 30.2** | **+1.9** |
| | comp=Z,24nm,0.6s | | | | | | |
| VNDA | | | | *e*ScP | **ScP** | **16 25 50.8** | **+1.9** |
| **ASTB** | **Santa Barbara** | **43.94** | **306** | *e*P | **P** | **16 20 28.6** | **-0.8** |
| **AZAP** | **Zapla** | **43.96** | **305** | *e*P | **P** | **16 20 29.2** | **-0.5** |
| **SHEL** | **Horse Pasture** | **45.35** | **28** | *e*P | **P** | **16 20 40.4** | **-0.1** |
| SHEL | | | | pmax | pmax | | |
| | comp=Z,98nm,0.9s | | | | | | |
| **SHEL** | **Horse Pasture** | **45.35** | **28** | *e*P | **P** | **16 20 40.4** | **-0.1** |
| | comp=Z,98nm,0.9s | | | | | | |
| **BDFB** | **Brasilia** | **45.91** | **330** | P | **P** | **16 20 45.5** | **+0.6** |
| | comp=Z,25nm,0.5s,baz=320,slow=3.9,SNR=34 | | | | | | |
| BDFB | | | | LR | LR | 16 37 49.8 | |
| | comp=Z,122nm,19.9s,baz=26,slow=33 | | | | | | |
| **BDFB** | **Brasilia** | **45.91** | **330** | *e*P | **P** | **16 20 45.1** | **+0.2** |
| | comp=Z,70nm,1.0s | | | | | | |
| BDFB | | | | *e* | | 16 37 49.8 | |
| **BOSA** | **Boshof** | **46.27** | **73** | P | **P** | **16 20 47.9** | **+0.1** |
| | comp=Z,167nm,0.8s,baz=208,slow=7.2,SNR=202 | | | | | | |
| BOSA | | | | ScP | **ScP** | **16 25 58.0** | **-1.5** |
| | comp=Z,17nm,1.2s,baz=202,slow=4.8,SNR=4.6 | | | | | | |
| BOSA | | | | LR | LR | 16 35 53.6 | |
| | comp=Z,143nm,18.5s,baz=221,slow=30 | | | | | | |
| **BOSA** | **Boshof** | **46.27** | **73** | *e*P | **P** | **16 20 47.5** | **-0.2** |
| | comp=Z,189nm,0.9s | | | | | | |
| BOSA | | | | *e*ScP | **ScP** | **16 25 58.0** | **-1.5** |
| BOSA | | | | *e* | | 16 35 53.6 | |
| **CRZF** | **Crozet Islands** | **46.39** | **111** | *e*P | **P** | **16 20 48.0** | **-0.2** |
| | comp=Z,142nm,0.7s | | | | | | |
| **MIR** | **Mirnyy** | **47.20** | **152** | *i* P | **P** | **16 20 54.0** | **-0.3** |
| MIR | | | | pmax | pmax | | |
| | comp=Z,11nm,1.0s | | | | | | |
| **PB04** | **IPOC Station P** | **47.85** | **300** | *e*P | **P** | **16 20 59.4** | **-0.7** |
| | comp=Z,56nm,0.8s | | | | | | |
| **PB01** | **IPOC Station P** | **48.68** | **302** | *e*P | **P** | **16 21 06.4** | **+0.1** |
| | comp=Z,36nm,0.7s | | | | | | |
| **LBTB** | **Lobatse** | **49.43** | **70** | *e*P | **P** | **16 21 11.6** | **-0.4** |
| LBTB | | | | pmax | pmax | | |
| | comp=Z,130nm,0.8s | | | | | | |
| **LBTB** | **Lobatse** | **49.43** | **70** | *e*P | **P** | **16 21 11.6** | **-0.4** |
| | comp=Z,130nm,0.8s | | | | | | |
| **PB11** | **IPOC Station P** | **49.88** | **302** | *e*P | **P** | **16 21 14.9** | **-0.6** |
| | comp=Z,34nm,0.8s | | | | | | |
| PB11 | | | | *e*pP | **pP** | **16 21 50.1** | **+0.8** |
| **MNMC** | **Minye Minye** | **50.41** | **303** | *e*P | **P** | **16 21 20.1** | **+0.5** |
| | comp=Z,76nm,0.7s | | | | | | |
| MNMC | | | | *e*pP | **pP** | **16 21 55.9** | **+2.4** |
| **H10S2** | **ASCENSION HYDR** | **50.46** | **15** | T | T | 17 16 16.1 | |
| | baz=188,slow=74,SNR=5.6 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **50.46** | **15** | T | T | 17 16 14.8 | |
| | baz=188,slow=74,SNR=26 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **50.47** | **15** | T | T | 17 16 16.4 | |
| | baz=188,slow=74,SNR=5.4 | | | | | | |
| **TSUM** | **Tsumeb** | **50.66** | **58** | *e*P | **P** | **16 21 21.6** | **+0.2** |
| | comp=Z,67nm,0.9s | | | | | | |
| **H10N1** | **ASCENSION HYDR** | **51.58** | **15** | T | T | 17 17 39.2 | |
| | baz=185,slow=79,SNR=4.3 | | | | | | |
| **H10N3** | **ASCENSION HYDR** | **51.58** | **15** | T | T | 17 17 38.7 | |
| | baz=185,slow=79,SNR=4.0 | | | | | | |
| **H10N2** | **ASCENSION HYDR** | **51.59** | **15** | T | T | 17 17 42.6 | |
| | baz=185,slow=79,SNR=6.1 | | | | | | |
| **LPAZ** | **La Paz** | **52.30** | **306** | P | **P** | **16 21 34.3** | **+0.2** |
| | comp=Z,25nm,0.6s,baz=142,slow=4.9,SNR=90 | | | | | | |
| LPAZ | | | | ScP | **ScP** | **16 26 25.2** | **-0.7** |
| | comp=Z,1.8nm,0.7s,baz=165,slow=6.0,SNR=3.2 | | | | | | |
| **LPAZ** | **La Paz** | **52.30** | **306** | *e*P | **P** | **16 21 34.0** | **-0.1** |
| LPAZ | | | | *e*pP | **pP** | **16 22 09.2** | **+1.0** |
| LPAZ | | | | *e*ScP | **ScP** | **16 26 24.4** | **-1.6** |
| **RCBR** | **Riachuelo** | **53.28** | **348** | *e*P | **P** | **16 21 40.1** | **-0.5** |
| | comp=Z,26nm,0.7s | | | | | | |
| **SAML** | **Samuel** | **57.01** | **315** | *e*P | **P** | **16 22 06.1** | **-1.2** |
| | comp=Z,38nm,0.8s | | | | | | |
| SAML | | | | *e*pP | **pP** | **16 22 40.4** | **-1.6** |
| **LSZ** | **Lusaka** | **58.98** | **67** | *e*P | **P** | **16 22 21.1** | **-0.1** |
| LSZ | | | | pmax | pmax | | |
| | comp=Z,92nm,0.9s | | | | | | |
| **LSZ** | **Lusaka** | **58.98** | **67** | *e*P | **P** | **16 22 21.1** | **-0.1** |
| | comp=Z,92nm,0.9s | | | | | | |
| **NNA** | **Nana** | **59.94** | **299** | *i* P | **P** | **16 22 28.5** | **+0.8** |
| **NNA** | **Nana** | **59.94** | **299** | *e*P | **P** | **16 22 27.2** | **-0.4** |
| NNA | | | | *e*pP | **pP** | **16 23 05.6** | **+2.9** |
| **PTGA** | **Pitinga** | **63.55** | **322** | *e*P | **P** | **16 22 50.2** | **-1.6** |
| | comp=Z,11nm,0.7s | | | | | | |
| **ABPO** | **Ambohimpanom** | **65.44** | **86** | *e*P | **P** | **16 23 05.6** | **+1.4** |
| ABPO | | | | pmax | pmax | | |
| | comp=Z,55nm,1.2s | | | | | | |
| **ABPO** | **Ambohimpanom** | **65.44** | **86** | *e*P | **P** | **16 23 05.6** | **+1.4** |
| | comp=Z,55nm,1.2s | | | | | | |
| **LIC** | **Lamto** | **66.97** | **23** | *e*P | **P** | **16 23 14.4** | **+0.7** |
| | comp=Z,73nm,0.5s | | | | | | |
| **KIC** | **Kosan Boka** | **67.16** | **23** | *e*P | **P** | **16 23 15.5** | **+0.6** |
| | comp=Z,31nm,0.6s | | | | | | |
| **TIC** | **Toumodi** | **67.38** | **23** | *e*P | **P** | **16 23 16.8** | **+0.5** |
| **DBIC** | **Dimbokro** | **67.44** | **23** | P | **P** | **16 23 17.2** | **+0.5** |
| | comp=Z,13nm,0.3s,baz=170,slow=6.0,SNR=45 | | | | | | |
| DBIC | | | | pP | **pP** | **16 23 50.0** | **-2.4** |
| | comp=Z,13nm,0.8s,baz=172,slow=8.3,SNR=3.9 | | | | | | |
| DBIC | | | | LR | LR | 16 46 53.3 | |
| | comp=Z,194nm,19.0s,baz=163,slow=30 | | | | | | |
| **DBIC** | **Dimbokro** | **67.44** | **23** | *e*P | **P** | **16 23 16.8** | **+0.2** |
| DBIC | | | | *e*pP | **pP** | **16 23 49.4** | **-3.1** |
| **RER** | **Riviere de l'E** | **68.10** | **95** | *e*P | **P** | **16 23 21.8** | **+0.8** |
| | comp=Z,288nm,1.5s | | | | | | |
| **MRIV** | **Mauritius Mete** | **69.72** | **96** | *e*P | **P** | **16 23 32.7** | **+1.8** |
| **OTAV** | **Otavalo** | **71.51** | **304** | *e*P | **P** | **16 23 43.3** | **+1.1** |
| **OTAV** | **Otavalo** | **71.51** | **304** | *e*P | **P** | **16 23 42.6** | **+0.4** |
| | comp=Z,73nm,1.6s | | | | | | |
| OTAV | | | | *e*pP | **pP** | **16 24 19.5** | **+1.0** |
| **CMBC** | **Cumbal** | **71.87** | **305** | *e*P | **P** | **16 23 46.1** | **+1.7** |
| **POPC** | **Popayan, Colom** | **72.82** | **306** | *e*P | **P** | **16 23 49.5** | **-0.3** |
| **PRAC** | **Prado** | **73.14** | **309** | *e*P | **P** | **16 23 50.1** | **-1.3** |
| **PRAC** | **Prado** | **73.14** | **309** | *e*P | **P** | **16 23 50.7** | **-0.7** |
| | comp=Z,39nm,0.8s | | | | | | |
| **SACV** | **Santiago Islan** | **73.46** | **3** | *e*P | **P** | **16 23 52.5** | **-0.7** |
| | comp=Z,49nm,1.0s | | | | | | |
| **CHIC** | **Chingaza** | **73.51** | **310** | *e*P | **P** | **16 23 53.1** | **-0.9** |
| **ROSC** | **El Rosal** | **73.94** | **310** | P | **P** | **16 23 56.9** | **+0.4** |
| | comp=Z,13nm,0.7s,baz=181,slow=9.7,SNR=8.2 | | | | | | |
| **ROSC** | **El Rosal** | **73.94** | **310** | *e*P | **P** | **16 23 57.2** | **+0.7** |
| **ROSC** | **El Rosal** | **73.94** | **310** | *e*P | **P** | **16 23 56.6** | **+0.1** |
| | comp=Z,11nm,0.8s | | | | | | |
| **RUSC** | **La Rusia** | **74.41** | **311** | *e*P | **P** | **16 23 55.2** | **-4.1** |
| **RUSC** | **La Rusia** | **74.41** | **311** | *e*P | **P** | **16 23 57.6** | **-1.7** |
| | comp=Z,15nm,1.2s | | | | | | |
| RUSC | | | | *e*pP | **pP** | **16 24 36.8** | **+1.1** |
| **GUYC** | **Guyana, Colomb** | **74.72** | **309** | *e*P | **P** | **16 23 59.9** | **-1.1** |
| **NORC** | **Norcasia** | **74.81** | **309** | *e*P | **P** | **16 23 58.1** | **-3.1** |
| **TOA0** | **Torodi Ar. Sit** | **75.19** | **28** | *e*P | **P** | **16 24 03.6** | **+0.5** |
| TOA0 | | | | *e*pP | **pP** | **16 24 38.0** | **-1.7** |
| **TORD** | **Torodi Ar. Bea** | **75.19** | **28** | P | **P** | **16 24 04.0** | **+0.8** |
| | comp=Z,30nm,0.4s,baz=198,slow=6.3,SNR=640 | | | | | | |
| TORD | | | | pP | **pP** | **16 24 38.2** | **-1.4** |
| | comp=Z,13nm,0.6s,baz=194,slow=6.3,SNR=3.6 | | | | | | |
| TORD | | | | S | **S** | **16 33 27.1** | **-2.4** |
| | comp=Z,1.7nm,1.1s,baz=193,slow=9.6,SNR=4.9 | | | | | | |
| TORD | | | | LR | LR | 16 49 44.3 | |
| | comp=Z,107nm,21.8s,baz=205,slow=30 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **75.19** | **28** | *e*P | **P** | **16 24 04.0** | **+0.8** |
| TOA1 | | | | *e*pP | **pP** | **16 24 38.2** | **-1.5** |
| TOA1 | | | | *e*S | **S** | **16 33 27.1** | **-2.5** |
| TOA1 | | | | *e* | | 16 49 44.3 | |
| **KOWA** | **Kowa** | **75.22** | **22** | *e*P | **P** | **16 24 04.1** | **+0.9** |
| | comp=Z,18nm,1.0s | | | | | | |
| KOWA | | | | *e*pP | **pP** | **16 24 37.3** | **-2.5** |
| **MLZ** | **Mavora Lakes** | **75.58** | **190** | *e*P | **P** | **16 24 06.2** | **+1.1** |
| | comp=Z,14nm,1.0s | | | | | | |
| **KMBO** | **Kilima Mbogo** | **75.62** | **68** | P | **P** | **16 24 07.7** | **+1.7** |
| | comp=Z,2.1nm,0.5s,baz=195,slow=4.4,SNR=14 | | | | | | |
| KMBO | | | | LR | LR | 16 55 13.6 | |
| | comp=Z,214nm,18.0s,baz=106,slow=34 | | | | | | |
| **KMBO** | **Kilima Mbogo** | **75.62** | **68** | *e*P | **P** | **16 24 07.9** | **+1.9** |
| **KMBO** | **Kilima Mbogo** | **75.62** | **68** | *e*P | **P** | **16 24 07.9** | **+1.9** |
| KMBO | | | | *e*PcP | **P** | **16 24 09.5** | **+3.5** |
| **ODZ** | **Otahua Downs** | **75.64** | **192** | *e*P | **P** | **16 24 07.0** | **+1.5** |
| | comp=Z,51nm,1.4s | | | | | | |
| **HELC** | **Santa Helena** | **75.65** | **309** | *e*P | **P** | **16 24 02.2** | **-4.0** |
| **HELC** | **Santa Helena** | **75.65** | **309** | *e*P | **P** | **16 24 04.6** | **-1.7** |
| | comp=Z,31nm,0.8s | | | | | | |
| **WKZ** | **Wanaka** | **76.03** | **191** | *e*P | **P** | **16 24 09.3** | **+1.6** |
| | comp=Z,65nm,1.4s | | | | | | |
| **PAYG** | **Puerto Ayora** | **76.15** | **292** | *e*P | **P** | **16 24 09.7** | **+0.9** |
| | comp=Z,51nm,1.1s | | | | | | |
| **GRGR** | **Grenville** | **76.21** | **324** | *e*P | **P** | **16 24 08.1** | **-0.8** |
| | comp=Z,108nm,1.1s | | | | | | |
| **SDV** | **Santo Domingo** | **76.22** | **315** | *e*P | **P** | **16 24 08.5** | **-0.7** |
| | comp=Z,20nm,0.8s | | | | | | |
| SDV | | | | *e*pP | **pP** | **16 24 48.0** | **+2.2** |
| **LBZ** | **Lake Benmore** | **76.34** | **192** | *e*P | **P** | **16 24 11.3** | **+1.9** |
| | comp=Z,43nm,1.3s | | | | | | |
| **MQZ** | **McQueen's Vall** | **76.72** | **194** | *e*P | **P** | **16 24 13.1** | **+1.6** |
| | comp=Z,77nm,1.6s | | | | | | |
| **RPZ** | **Rata Peaks** | **76.91** | **193** | P | **P** | **16 24 13.4** | **+0.8** |
| | comp=Z,13nm,0.9s,baz=69,slow=13,SNR=4.7 | | | | | | |
| **SVB** | **Belmont** | **77.17** | **325** | *e*P | **P** | **16 24 14.1** | **-0.2** |
| | comp=Z,42nm,1.0s | | | | | | |
| **OXZ** | **Oxford** | **77.17** | **194** | *e*P | **P** | **16 24 15.3** | **+1.1** |
| | comp=Z,58nm,1.5s | | | | | | |
| **FOZ** | **Fox Glacier** | **77.22** | **192** | *e*P | **P** | **16 24 15.0** | **+0.6** |
| | comp=Z,58nm,1.4s | | | | | | |
| **LTZ** | **Lake Taylor** | **77.68** | **194** | *e*P | **P** | **16 24 18.3** | **+1.3** |
| | comp=Z,42nm,1.1s | | | | | | |
| **FDF** | **Fort de France** | **78.52** | **326** | *e*P | **P** | **16 24 22.5** | **+0.7** |
| FDF | | | | pmax | pmax | | |
| | comp=Z,98nm,1.6s | | | | | | |
| **FDF** | **Fort de France** | **78.52** | **326** | *e*P | **P** | **16 24 22.5** | **+0.7** |
| | comp=Z,98nm,1.6s | | | | | | |
| **TAU** | **Tasmania Unive** | **78.59** | **175** | *e*P | **P** | **16 24 22.3** | **+0.4** |
| TAU | | | | pmax | pmax | | |
| | comp=Z,98nm,1.4s | | | | | | |
| **TAU** | **Tasmania Unive** | **78.59** | **175** | *e*P | **P** | **16 24 22.3** | **+0.4** |
| | comp=Z,98nm,1.4s | | | | | | |
| **THZ** | **Tophouse** | **78.60** | **195** | *e*P | **P** | **16 24 23.4** | **+1.3** |
| | comp=Z,25nm,0.9s | | | | | | |
| **SNZO** | **South Karori** | **78.80** | **196** | *e*P | **P** | **16 24 23.5** | **+0.5** |
| | comp=Z,129nm,1.4s | | | | | | |
| **SJCC** | **San Jacinto, C** | **78.88** | **311** | *e*P | **P** | **16 24 22.7** | **-1.1** |
| **BFZ** | **Birch Farm** | **79.18** | **197** | *e*P | **P** | **16 24 26.3** | **+1.1** |
| | comp=Z,21nm,0.9s | | | | | | |
| **GDHS** | **Morne Mazeau,** | **80.16** | **326** | *e*P | **P** | **16 24 31.0** | **+0.3** |
| | comp=Z,95nm,0.6s | | | | | | |
| **BKZ** | **Black Stump Fm** | **80.62** | **198** | *e*P | **P** | **16 24 34.1** | **+1.1** |
| | comp=Z,14nm,0.8s | | | | | | |
| **URZ** | **Urewera** | **81.41** | **198** | P | **P** | **16 24 37.6** | **+0.5** |
| | comp=Z,14nm,0.8s,baz=78,slow=2.0,SNR=8.6 | | | | | | |
| **HIZ** | **Hauiti** | **81.52** | **197** | *e*P | **P** | **16 24 38.2** | **+0.5** |
| | comp=Z,79nm,1.3s | | | | | | |
| **MSEY** | **Mahe Island** | **81.79** | **85** | *e*P | **P** | **16 24 39.5** | **0.0** |
| MSEY | | | | pmax | pmax | | |
| | comp=Z,78nm,1.4s | | | | | | |
| **MSEY** | **Mahe Island** | **81.79** | **85** | *e*P | **P** | **16 24 39.5** | **0.0** |
| | comp=Z,78nm,1.4s | | | | | | |
| **SABA** | **Saba** | **81.88** | **325** | *e*P | **P** | **16 24 39.3** | **-0.4** |
| | comp=Z,50nm,1.0s | | | | | | |
| **MTP** | **Monte Pirata** | **83.04** | **323** | *e*P | **P** | **16 24 44.5** | **-1.2** |
| | comp=Z,22nm,0.7s | | | | | | |
| **STVI** | **Saint Thomas** | **83.09** | **323** | *e*P | **P** | **16 24 44.5** | **-1.4** |
| | comp=Z,38nm,0.6s | | | | | | |
| **HUMP** | **Col San Antoni** | **83.17** | **322** | *e*P | **P** | **16 24 45.1** | **-1.3** |
| HUMP | | | | *e*pP | **pP** | **16 25 24.7** | **+1.2** |
| **JTS** | **JuntasAbangare** | **83.33** | **302** | *e*P | **P** | **16 24 47.2** | **-0.1** |
| **MPR** | **Mayaguez** | **83.65** | **321** | *e*P | **P** | **16 24 47.9** | **-0.9** |
| | comp=Z,78nm,1.6s | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **83.78** | **150** | P | **P** | **16 24 49.2** | **-0.3** |
| | comp=Z,18nm,0.8s,baz=57,slow=3.4,SNR=11 | | | | | | |
| **TAM** | **Tamanrasset** | **85.40** | **29** | *e*P | **P** | **16 24 59.3** | **+1.6** |
| TAM | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.0s | | | | | | |
| **TAM** | **Tamanrasset** | **85.40** | **29** | *e*P | **P** | **16 24 59.2** | **+1.6** |
| | comp=Z,5.5nm,1.0s | | | | | | |
| **DGAR** | **Diego Garcia** | **88.28** | **101** | *de*P | **P** | **16 25 11.9** | **+0.2** |
| **DGAR** | **Diego Garcia** | **88.28** | **101** | *e*P | **P** | **16 25 11.9** | **+0.2** |
| | comp=Z,135nm,0.9s | | | | | | |
| **FORT** | **Forrest** | **88.32** | **158** | *e*P | **P** | **16 25 12.6** | **+0.8** |
| | comp=Z,591nm,0.8s | | | | | | |
| **STKA** | **Stephens Creek** | **89.18** | **170** | P | **P** | **16 25 15.9** | **+0.1** |
| | comp=Z,8.5nm,1.0s,baz=172,slow=4.3,SNR=12 | | | | | | |
| STKA | | | | pP | **pP** | **16 25 51.2** | **-2.2** |
| | comp=Z,3.4nm,0.7s,baz=136,slow=7.0,SNR=3.4 | | | | | | |
| STKA | | | | LR | LR | 17 02 11.3 | |
| | comp=Z,136nm,21.8s,baz=202,slow=33 | | | | | | |
| **STKA** | **Stephens Creek** | **89.18** | **170** | *e*P | **P** | **16 25 16.1** | **+0.3** |
| STKA | | | | *e**PP | **pP** | **16 25 52.4** | **-1.0** |
| STKA | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.0s | | | | | | |
| **STKA** | **Stephens Creek** | **89.18** | **170** | *e*P | **P** | **16 25 16.1** | **+0.3** |
| | comp=Z,2.6nm,1.0s | | | | | | |
| STKA | | | | *e*pP | **pP** | **16 25 52.4** | **-1.0** |
| **PPT2** | **Papeete2** | **90.93** | **233** | *e*S | S | 16 36 31.8 | +23 |
| | comp=Z,197nm,25.0s | | | | | | |
| PPT2 | | | | *e*LR | LR | 16 54 43.3 | |
| | comp=Z,302nm,26.8s | | | | | | |
| **PPT** | **Papeete** | **90.95** | **233** | LR | LR | 16 57 38.4 | |
| | comp=Z,73nm,20.2s,baz=182,slow=30 | | | | | | |
| **ASAR** | **Alice Springs** | **96.30** | **162** | P | **P** | **16 25 48.5** | **-0.3** |
| | comp=Z,7.9nm,0.8s,baz=184,slow=4.1,SNR=110 | | | | | | |
| ASAR | | | | pP | **pP** | **16 26 24.7** | **-1.8** |
| | comp=Z,2.5nm,0.9s,baz=188,slow=3.5,SNR=3.0 | | | | | | |
| ASAR | | | | PP | **PP** | **16 29 41.9** | **-1.2** |
| | comp=Z,2.1nm,0.9s,baz=188,slow=6.1,SNR=5.9 | | | | | | |
| ASAR | | | | S | **SKSac** | **16 36 08.3** | **-3.0** |
| | comp=Z,1.7nm,1.0s,baz=172,slow=8.0,SNR=7.8 | | | | | | |
| ASAR | | | | PKKPbc | **PKKPbc** | **16 42 33.0** | **+2.3** |
| | comp=Z,3.2nm,0.6s,baz=14,slow=2.2,SNR=60 | | | | | | |
| ASAR | | | | SKKPbc | **SKKPbc** | **16 45 56.9** | **+4.9** |
| | comp=Z,0.5nm,0.8s,baz=348,slow=4.1,SNR=4.9 | | | | | | |
| ASAR | | | | LR | LR | 17 05 23.0 | |
| | comp=Z,204nm,21.7s,baz=200,slow=33 | | | | | | |
| **AS31** | **Alice Springs** | **96.30** | **162** | *e*P | **P** | **16 25 48.5** | **-0.3** |
| | comp=Z,2.5nm,0.8s | | | | | | |
| AS31 | | | | *e*pP | **pP** | **16 26 25.9** | **-0.6** |
| AS31 | | | | *e*PKKPbc | **PKKPbc** | **16 42 32.6** | **+1.8** |
| **AS01** | **Alice Springs** | **96.31** | **162** | *e*P | **P** | **16 25 48.3** | **-0.6** |
| AS01 | | | | *e*pP | **pP** | **16 26 25.2** | **-1.4** |
| **KEST** | **Kesra** | **98.71** | **29** | LR | LR | 17 05 20.9 | |
| | comp=Z,107nm,18.9s,baz=258,slow=32 | | | | | | |
| **ESDC** | **Sonseca Array** | **99.80** | **17** | P | **Pdif** | **16 26 04.7** | **+0.8** |
| | comp=Z,0.6nm,0.6s,baz=181,slow=5.3,SNR=6.3 | | | | | | |
| ESDC | | | | LR | LR | 17 05 28.7 | |
| | comp=Z,30nm,18.1s,baz=10.0,slow=32 | | | | | | |
| **WR1** | **Warramunga Arr** | **100.02** | **162** | *e*Pdif | **Pdif** | **16 26 04.6** | **-0.8** |
| WR1 | | | | *e*PP | **PP** | **16 30 09.3** | **-2.2** |
| WR1 | | | | *e*PKKPbc | **PKKPdf** | **16 42 23.2** | **-0.6** |
| WR1 | | | | *e* | | 16 45 46.4 | |
| **WRA** | **Warramunga Arr** | **100.02** | **162** | P | **Pdif** | **16 26 04.6** | **-0.8** |
| | comp=Z,2.1nm,1.0s,baz=195,slow=3.9,SNR=12 | | | | | | |
| WRA | | | | PP | **PP** | **16 30 09.3** | **-2.2** |
| | comp=Z,1.9nm,1.0s,baz=189,slow=6.8,SNR=7.0 | | | | | | |
| WRA | | | | PKKPbc | **PKKPdf** | **16 42 23.2** | **-0.6** |
| | comp=Z,2.4nm,0.6s,baz=356,slow=3.0,SNR=28 | | | | | | |
| WRA | | | | SKKPbc | SKKPbc | 16 45 46.4 | +3.6 |
| | comp=Z,1.1nm,0.9s,baz=359,slow=2.7,SNR=6.9 | | | | | | |
| **WRAB** | **Tennant Creek** | **100.03** | **162** | ⇑*e*P | **Pdif** | **16 26 04.9** | **-0.6** |
| **LTX** | **Lajitas** | **108.40** | **296** | *e*PKiKP | **PKiKP** | **16 30 47.4** | **-0.1** |
| LTX | | | | *e*PP | **PP** | **16 31 11.7** | **-3.2** |
| **TXAR** | **Lajitas Array** | **108.40** | **296** | PKiKP | **PKiKP** | **16 30 47.4** | **-0.1** |
| | comp=Z,0.6nm,0.9s,baz=184,slow=3.6,SNR=4.0 | | | | | | |
| TXAR | | | | PP | **PP** | **16 31 11.7** | **-3.2** |
| | comp=Z,0.9nm,0.9s,baz=171,slow=8.5,SNR=3.9 | | | | | | |
| **BR101** | **Keskin Array S** | **110.00** | **45** | *e*PP | PP | 16 31 27.0 | +0.6 |
| **BRTR** | **Keskin Array B** | **110.00** | **45** | PP | PP | 16 31 27.0 | +0.6 |
| | comp=Z,1.4nm,0.9s,baz=183,slow=4.3,SNR=3.6 | | | | | | |
| **GERES** | **GERESS Array B** | **112.13** | **27** | PP | PP | 16 31 40.9 | -0.6 |
| | comp=Z,0.9nm,0.8s,baz=193,slow=5.3,SNR=4.2 | | | | | | |
| **NEY** | **Neytrino** | **116.51** | **50** | ⇓*i*PKIKP | **PKPdf** | **16 31 05.9** | **+3.3** |
| **BAR** | **Barrett** | **117.44** | **288** | *e*PKPdf | **PKPdf** | **16 31 04.1** | **-0.4** |
| **EML** | **El Monte Cty P** | **117.69** | **288** | *e*PKPdf | **PKPdf** | **16 31 04.7** | **-0.3** |
| **SCHQ** | **Schefferville** | **117.79** | **335** | PKP | **PKPdf** | **16 31 04.4** | **-0.1** |
| | comp=Z,16nm,0.9s,baz=112,slow=3.8,SNR=4.7 | | | | | | |
| **SCHQ** | **Schefferville** | **117.79** | **335** | *e*PKPdf | **PKPdf** | **16 31 04.0** | **-0.4** |
| **AK11** | **Malin Array Si** | **118.06** | **36** | *e*PKPdf | **PKPdf** | **16 31 03.7** | **-1.4** |
| **KIEV** | **Kiev** | **118.08** | **36** | ⇓*i*PKIKP | **PKPdf** | **16 31 05.3** | **+0.2** |
| **AKASG** | **Malin Array Be** | **118.09** | **36** | PKP | **PKPdf** | **16 31 04.8** | **-0.4** |
| | comp=Z,0.5nm,0.3s,baz=238,slow=1.2,SNR=4.3 | | | | | | |
| **AKBB** | **Malin Array Si** | **118.09** | **36** | *e*PKIKP | **PKPdf** | **16 31 04.8** | **-0.3** |
| **AKBB** | **Malin Array Si** | **118.09** | **36** | *e*PKPdf | **PKPdf** | **16 31 04.8** | **-0.3** |
| **DEVC** | **Devers** | **118.40** | **289** | *e*PKPdf | **PKPdf** | **16 31 05.7** | **-0.6** |
| **KNB** | **Kanab** | **119.05** | **294** | *e*PKIKP | **PKPdf** | **16 31 07.3** | **-0.4** |
| **KNB** | **Kanab** | **119.05** | **294** | *e*PKPdf | **PKPdf** | **16 31 07.3** | **-0.4** |
| **SHPR** | **Sheep Range** | **119.77** | **292** | *e*PKPdf | **PKPdf** | **16 31 09.4** | **+0.4** |
| **TMUT** | **Trail Mountain** | **120.11** | **297** | *e*PKPdf | **PKPdf** | **16 31 10.1** | **+0.3** |
| **TPNV** | **Topopah Spring** | **120.65** | **291** | *e*PKIKP | **PKPdf** | **16 31 11.3** | **+0.5** |
| **TPNV** | **Topopah Spring** | **120.65** | **291** | *e*PKPdf | **PKPdf** | **16 31 11.3** | **+0.5** |
| **SRAK** | **Srakaew** | **121.32** | **117** | P | **PKPdf** | **16 31 15.0** | **+2.5** |
| | comp=Z,30nm,1.2s,comp=Z,0.1nm | | | | | | |
| **DUG** | **Dugway, Tooele** | **121.58** | **296** | *e*PKIKP | **PKPdf** | **16 31 12.3** | **-0.1** |
| **DUG** | **Dugway, Tooele** | **121.58** | **296** | *e*PKPdf | **PKPdf** | **16 31 12.2** | **-0.1** |
| **TCUT** | **Toone Canyon** | **121.65** | **298** | *e*PKPdf | **PKPdf** | **16 31 12.8** | **+0.1** |
| **PD31** | **Pinedale Array** | **122.11** | **300** | *e*PKPdf | **PKPdf** | **16 31 12.1** | **-1.4** |
| PD31 | | | | *e*PKKPbc | **PKKPbc** | **16 41 10.7** | **+1.5** |
| **PDAR** | **Pinedale Array** | **122.11** | **300** | PKP | **PKPdf** | **16 31 12.8** | **-0.6** |
| | comp=Z,1.2nm,0.4s,baz=120,slow=5.1,SNR=20 | | | | | | |
| PDAR | | | | PKKPbc | **PKKPbc** | **16 41 10.7** | **+1.5** |
| | comp=Z,1.2nm,0.9s,baz=48,slow=2.2,SNR=7.3 | | | | | | |
| **PDAR** | **Pinedale Array** | **122.11** | **300** | *e*PKPdf | **PKPdf** | **16 31 11.9** | **-1.6** |
| PDAR | | | | PKKPbc | **PKKPbc** | **16 41 10.7** | **+1.5** |
| **SPUT** | **South Promonto** | **122.29** | **297** | *e*PKPdf | **PKPdf** | **16 31 13.7** | **0.0** |
| **ULM** | **Lac du Bonnet** | **122.47** | **315** | PKP | **PKPdf** | **16 31 13.3** | **-0.3** |
| | comp=Z,6.0nm,0.8s,baz=142,slow=2.9,SNR=7.4 | | | | | | |
| ULM | | | | PKKPbc | **PKKPbc** | **16 41 09.7** | **+2.1** |
| | comp=Z,3.9nm,0.8s,baz=304,slow=3.5,SNR=4.6 | | | | | | |
| **HVU** | **Hansel Valley** | **122.81** | **297** | *e*PKIKP | **PKPdf** | **16 31 13.9** | **-0.8** |
| **HVU** | **Hansel Valley** | **122.81** | **297** | *e*PKPdf | **PKPdf** | **16 31 13.9** | **-0.8** |
| **NB2** | **NORSAR Subarra** | **122.96** | **21** | PKPdf | **PKPdf** | **16 31 14.7** | **+0.5** |
| | comp=Z,14nm,1.4s,baz=202,slow=1.9 | | | | | | |
| **NB2** | **NORSAR Subarra** | **122.96** | **21** | PKPdf | **PKPdf** | **16 31 14.7** | **+0.5** |
| | baz=202,slow=1.9 | | | | | | |
| **NB200** | **NORSAR Array S** | **122.96** | **21** | *e*PKPdf | **PKPdf** | **16 31 14.5** | **+0.3** |
| **NOA** | **NORSAR Array B** | **122.96** | **21** | PKP | **PKPdf** | **16 31 14.5** | **+0.3** |
| | comp=Z,3.2nm,0.6s,baz=193,slow=2.7,SNR=13 | | | | | | |
| **PBKT** | **Sadao Pong** | **123.04** | **115** | P | **PKPdf** | **16 31 17.4** | **+1.7** |
| | comp=Z,11nm,0.9s,comp=Z,0.1nm | | | | | | |
| **SUKH** | **Sukhothai** | **123.19** | **113** | P | **PKPdf** | **16 31 16.8** | **+0.8** |
| | comp=Z,3.5nm,0.9s,comp=Z,0.0nm | | | | | | |
| **KVN** | **Kaiserville** | **123.20** | **292** | *e*PKIKP | **PKPdf** | **16 31 16.5** | **+0.8** |
| **KVN** | **Kaiserville** | **123.20** | **292** | *e*PKPdf | **PKPdf** | **16 31 16.4** | **+0.8** |
| **LOHW** | **Long Hollow** | **123.25** | **300** | *e*PKPdf | **PKPdf** | **16 31 15.1** | **-0.6** |
| **TPAW** | **Teton Pass** | **123.31** | **300** | *e*PKPdf | **PKPdf** | **16 31 16.1** | **+0.3** |
| **MOOW** | **Moose Ponds** | **123.42** | **300** | *e*PKPdf | **PKPdf** | **16 31 16.2** | **+0.2** |
| **WAKR** | **Walker** | **123.43** | **290** | *e*PKPdf | **PKPdf** | **16 31 16.9** | **+0.8** |
| **FXWY** | **Fox Creek** | **123.46** | **300** | *e*PKPdf | **PKPdf** | **16 31 16.4** | **+0.3** |
| **CMB** | **Columbia Colle** | **123.53** | **289** | *e*PKIKP | **PKPdf** | **16 31 16.7** | **+0.6** |
| **CMB** | **Columbia Colle** | **123.53** | **289** | *e*PKPdf | **PKPdf** | **16 31 16.7** | **+0.6** |
| **PYUN** | **Piuthan** | **123.54** | **90** | *e*P | **PKPdf** | **16 31 16.2** | **-0.5** |
| | comp=Z,30nm,1.0s | | | | | | |
| **KOLN** | **Koldanda** | **123.59** | **91** | *e*P | **PKPdf** | **16 31 15.9** | **-0.9** |
| | comp=Z,18nm,0.9s | | | | | | |
| **IMW** | **Indian Meadow** | **123.63** | **300** | *e*PKPdf | **PKPdf** | **16 31 16.3** | **-0.1** |
| **CM01** | **Chiang Mai Arr** | **123.67** | **111** | *e*PKPdf | **PKPdf** | **16 31 16.6** | **-0.3** |
| CM01 | | | | *e*pPKPdf | **pPKPdf** | **16 31 54.8** | **-1.5** |
| **CM31** | **Chiang Mai Arr** | **123.69** | **111** | *e*PKPdf | **PKPdf** | **16 31 16.1** | **-0.8** |
| **CMAR** | **Chiang Mai Arr** | **123.69** | **111** | PKP | **PKPdf** | **16 31 17.4** | **+0.5** |
| | comp=Z,5.8nm,0.8s,baz=231,slow=3.7,SNR=37 | | | | | | |
| CMAR | | | | pPKP | **pPKPdf** | **16 31 54.7** | **-1.6** |
| | comp=Z,2.2nm,0.7s,baz=234,slow=3.5,SNR=3.3 | | | | | | |
| CMAR | | | | PP | **PP** | **16 33 00.7** | **-0.6** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| | comp=Z,5.3nm,1.1s,baz=227,slow=7.3,SNR=6.0 | | | | | | |
| **YERR** | **Yerington** | **123.70** | **291** | *e*PKPdf | **PKPdf** | **16 31 17.4** | **+0.8** |
| **LAO** | **LASA Array** | **123.75** | **305** | *e*PKPdf | **PKPdf** | **16 31 15.7** | **-0.5** |
| **UTTA** | **Uttaradit** | **123.86** | **113** | P | **PKPdf** | **16 31 19.2** | **+2.0** |
| **CHTO** | **Chiang Mai** | **124.00** | **111** | *e*PKIKP | **PKPdf** | **16 31 17.3** | **-0.2** |
| **CHTO** | **Chiang Mai** | **124.00** | **111** | *e*PKPdf | **PKPdf** | **16 31 17.3** | **-0.2** |
| **CMMT** | **Chiang Mai** | **124.00** | **111** | P | **PKPdf** | **16 31 18.6** | **+1.1** |
| | comp=Z,6.7nm,1.2s,comp=Z,0.0nm | | | | | | |
| **DANN** | **Dangsing** | **124.14** | **91** | *e*P | **PKPdf** | **16 31 17.7** | **-0.2** |
| | comp=Z,2.6nm,1.0s | | | | | | |
| **OBN** | **Obninsk** | **124.19** | **38** | *i* PKIKP | **PKPdf** | **16 31 17.3** | **+0.6** |
| OBN | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.0s | | | | | | |
| **YMR** | **Madison River** | **124.24** | **301** | *e*PKPdf | **PKPdf** | **16 31 17.8** | **+0.3** |
| **DMN** | **Daman** | **124.25** | **93** | *e*P | **PKPdf** | **16 31 17.8** | **-0.3** |
| **YHH** | **Holmes Hill** | **124.28** | **301** | *e*PKPdf | **PKPdf** | **16 31 18.4** | **+0.7** |
| **GKN** | **Gorkha** | **124.32** | **92** | *e*P | **PKPdf** | **16 31 17.5** | **-0.6** |
| | comp=Z,0.5nm,0.3s | | | | | | |
| **PHRA** | **Phrae** | **124.35** | **113** | P | **PKPdf** | **16 31 18.9** | **+0.7** |
| **PKIN** | **Phulchoki** | **124.37** | **93** | *e*P | **PKPdf** | **16 31 17.3** | **-1.1** |
| | comp=Z,7.9nm,0.6s | | | | | | |
| **PKI** | **Pulchoki** | **124.38** | **93** | *e*P | **PKPdf** | **16 31 17.9** | **-0.5** |
| **KKN** | **Kakani** | **124.48** | **93** | *e*P | **PKPdf** | **16 31 17.5** | **-1.0** |
| | comp=Z,6.4nm,0.5s | | | | | | |
| **RAMN** | **Ramite** | **124.49** | **94** | *e*P | **PKPdf** | **16 31 18.7** | **+0.1** |
| | comp=Z,22nm,0.5s | | | | | | |
| **AFDM** | **Forest Hills D** | **124.52** | **289** | *e*PKPdf | **PKPdf** | **16 31 18.0** | **+0.1** |
| **ODAN** | **Odare** | **124.83** | **95** | *e*P | **PKPdf** | **16 31 19.4** | **+0.2** |
| | comp=Z,21nm,0.8s | | | | | | |
| **JIRN** | **Jiri** | **124.85** | **93** | *e*P | **PKPdf** | **16 31 19.4** | **0.0** |
| | comp=Z,182nm,0.5s | | | | | | |
| **GUN** | **Gumba** | **124.89** | **93** | *e*P | **PKPdf** | **16 31 19.2** | **-0.2** |
| | comp=Z,10nm,0.5s | | | | | | |
| **BEKR** | **Beckworth** | **124.93** | **291** | *e*PKPdf | **PKPdf** | **16 31 19.8** | **+0.9** |
| **TAPN** | **Taplejung** | **125.39** | **95** | *e*P | **PKPdf** | **16 31 18.9** | **-1.5** |
| | comp=Z,3.6nm,0.2s | | | | | | |
| **DLMT** | **Dillon** | **125.51** | **300** | *e*PKPdf | **PKPdf** | **16 31 21.0** | **+1.2** |
| **WVOR** | **Wild Horse Val** | **126.07** | **294** | *e*PKIKP | **PKPdf** | **16 31 22.1** | **+1.1** |
| **WVOR** | **Wild Horse Val** | **126.07** | **294** | *e*PKPdf | **PKPdf** | **16 31 22.1** | **+1.1** |
| **SHL** | **Shillong** | **126.10** | **100** | *e*P | **PKPdf** | **16 31 24.0** | **+2.4** |
| **HRY** | **Holter Researc** | **126.20** | **302** | *e*PKPdf | **PKPdf** | **16 31 22.3** | **+1.3** |
| **EGMT** | **Eagleton** | **126.30** | **304** | *e*PKPdf | **PKPdf** | **16 31 21.4** | **+0.3** |
| **FRB** | **Frobisher Bay** | **126.31** | **338** | PKP | **PKPdf** | **16 31 20.3** | **-0.2** |
| | comp=Z,34nm,0.7s,baz=330,slow=4.0,SNR=23 | | | | | | |
| **MOD** | **Modoc Plateau** | **126.47** | **292** | *e*PKPdf | **PKPdf** | **16 31 22.7** | **+0.9** |
| **FIA0** | **FINESS Array S** | **126.54** | **28** | *e*PKIKP | **PKPdf** | **16 31 21.1** | **+0.1** |
| **FIA0** | **FINESS Array S** | **126.54** | **28** | *e*PKPdf | **PKPdf** | **16 31 21.1** | **+0.1** |
| FIA0 | | | | *e* | | 16 34 21.2 | |
| **FINES** | **FINESS Array B** | **126.54** | **28** | PKP | **PKPdf** | **16 31 21.1** | **+0.1** |
| | comp=Z,7.0nm,0.4s,baz=160,slow=2.4,SNR=72 | | | | | | |
| FINES | | | | SKPbc | SKPbc | 16 34 21.2 | |
| | comp=Z,2.7nm,0.6s,baz=183,slow=2.6,SNR=6.9 | | | | | | |
| **FIA1** | **FINESS Array S** | **126.54** | **28** | *e*PKPdf | **PKPdf** | **16 31 20.9** | **-0.1** |
| **SFJD** | **Kangerlussuaq** | **126.69** | **348** | PKP | **PKPdf** | **16 31 21.3** | **+0.2** |
| | comp=Z,17nm,0.7s,baz=189,slow=5.5,SNR=5.0 | | | | | | |
| **SFJD** | **Kangerlussuaq** | **126.69** | **348** | *i* PKIKP | **PKPdf** | **16 31 21.4** | **+0.3** |
| SFJD | | | | pmax | pmax | | |
| | comp=Z,17nm,0.7s | | | | | | |
| **SFJD** | **Kangerlussuaq** | **126.69** | **348** | *i* P | **PKPdf** | **16 31 21.4** | **+0.3** |
| | comp=Z,16nm,0.7s | | | | | | |
| **MSO** | **Missoula** | **127.23** | **301** | *e*PKPdf | **PKPdf** | **16 31 23.1** | **+0.1** |
| **BMO** | **Blue Mountains** | **127.28** | **297** | *e*PKIKP | **PKPdf** | **16 31 23.4** | **+0.3** |
| **BMO** | **Blue Mountains** | **127.28** | **297** | *e*PKPdf | **PKPdf** | **16 31 23.4** | **+0.3** |
| **YBH** | **Yreka Blue Hor** | **127.51** | **290** | PKP | **PKPdf** | **16 31 24.4** | **+0.7** |
| | comp=Z,2.1nm,0.8s,baz=98,slow=14,SNR=3.8 | | | | | | |
| **I07A** | **Izee** | **127.73** | **295** | *e*PKPdf | **PKPdf** | **16 31 24.4** | **+0.4** |
| **F10A** | **Beach Ranch, E** | **128.09** | **298** | *e*PKPdf | **PKPdf** | **16 31 24.6** | **-0.1** |
| **FFC** | **Flin Flon** | **128.29** | **314** | *i* PKIKP | **PKPdf** | **16 31 26.0** | **+1.4** |
| **G08A** | **Pilot Rock** | **128.38** | **296** | *e*PKPdf | **PKPdf** | **16 31 25.1** | **-0.1** |
| G08A | | | | *e*pPKPdf | **pPKPdf** | **16 32 02.7** | **-1.9** |
| **AKTO** | **Aktyubinsk** | **128.55** | **54** | PKP | **PKPdf** | **16 31 25.3** | **+0.1** |
| | comp=Z,3.8nm,0.4s,baz=180,slow=2.0,SNR=8.4 | | | | | | |
| AKTO | | | | SKPbc | SKPbc | 16 34 29.0 | |
| | comp=Z,3.8nm,0.8s,baz=217,slow=6.6,SNR=4.2 | | | | | | |
| **AKTO** | **Aktyubinsk** | **128.55** | **54** | PKIKP | **PKPdf** | **16 31 25.3** | **+0.1** |
| AKTO | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.4s | | | | | | |
| AKTO | | | | pmax | pmax | | |
| | comp=N,4.0nm,0.9s | | | | | | |
| **KSH** | **Kashi** | **128.82** | **76** | *e*PKP | **PKPdf** | **16 31 26.7** | **+0.4** |
| KSH | | | | sPKP | | 16 32 25.2 | |
| KSH | | | | PP | **PP** | **16 33 37.8** | **+2.2** |
| KSH | | | | SKS | **SKSdf** | **16 38 19.6** | **-4.0** |
| KSH | | | | SKKS | **SKKSac** | **16 40 11.0** | **-6.0** |
| KSH | | | | SS | **SS** | **16 50 37.7** | **-4.4** |
| KSH | | | | AMB | AMB | | |
| | comp=N,77nm,4.5s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,57nm,4.6s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,44nm,3.5s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,240nm,7.9s | | | | | | |
| **E09A** | **Wood Farm, Sta** | **128.91** | **297** | *e*PKPdf | **PKPdf** | **16 31 26.3** | **+0.2** |
| **LSA** | **Lhasa** | **129.07** | **96** | *e*PKIKP | **PKPdf** | **16 31 27.6** | **+0.1** |
| LSA | | | | *e* | | 16 32 04.8 | |
| **LSA** | **Lhasa** | **129.07** | **96** | *e*PKPdf | **PKPdf** | **16 31 27.6** | **+0.1** |
| LSA | | | | *e*pPKPdf | **pPKPdf** | **16 32 04.8** | **-2.1** |
| **QIZ** | **Qiongzhong** | **129.26** | **122** | PKP | **PKPdf** | **16 31 29.3** | **+1.7** |
| QIZ | | | | PP | **PP** | **16 33 38.8** | **+0.8** |
| QIZ | | | | SS | SS | 16 50 49.5 | +3.0 |
| **AML** | **Almayashu** | **129.64** | **72** | P | SKPbc | 16 34 34.8 | -1.4 |
| | SNR=23 | | | | | | |
| **NEW** | **Newport** | **129.74** | **300** | SKPbc | SKPab | 16 34 34.5 | -0.8 |
| | comp=N,1.5nm,0.6s,baz=131,slow=6.1,SNR=3.6 | | | | | | |
| **KLMR** | **Klimovskoe** | **129.76** | **36** | *e*PKIKP | **PKPdf** | **16 31 26.5** | **-0.6** |
| KLMR | | | | *e* | | 16 32 05.9 | |
| KLMR | | | | *e* | | 16 32 24.1 | |
| KLMR | | | | *e* | | 16 33 43.1 | |
| KLMR | | | | pmax | pmax | | |
| | comp=Z,17nm,1.1s | | | | | | |
| **EKS2** | **Erkin-Say** | **130.08** | **72** | P | **SKPbc** | **16 34 36.5** | **-0.9** |
| | SNR=12 | | | | | | |
| **UCH** | **Uchtor** | **130.12** | **73** | P | **SKPbc** | **16 34 36.9** | **-1.1** |
| | SNR=29 | | | | | | |
| **KZA** | **Kyzart** | **130.38** | **73** | P | **SKPbc** | **16 34 38.0** | **-0.8** |
| | SNR=14 | | | | | | |
| **AAK** | **Ala-Archa** | **130.41** | **72** | PKP | **PKPdf** | **16 31 30.4** | **+1.1** |
| | comp=Z,3.3nm,0.4s,baz=208,slow=3.9,SNR=4.7 | | | | | | |
| AAK | | | | SKPbc | **SKPab** | **16 34 37.8** | **-0.8** |
| | comp=Z,13nm,0.9s,baz=205,slow=4.0,SNR=16 | | | | | | |
| **AAK** | **Ala-Archa** | **130.41** | **72c** | *i* PKIKP | **PKPdf** | **16 31 30.6** | **+1.3** |
| **AAK** | **Ala-Archa** | **130.41** | **72** | P | **SKPbc** | **16 34 38.0** | **-0.6** |
| | SNR=12 | | | | | | |
| **AAK** | **Ala-Archa** | **130.41** | **72** | *e*PKPdf | **PKPdf** | **16 31 29.1** | **-0.1** |
| AAK | | | | *e*PKPdf | **PKPdf** | **16 31 30.4** | **+1.1** |
| **KBK** | **Karagaybulak** | **130.66** | **72** | P | **SKPbc** | **16 34 39.0** | **-0.4** |
| | SNR=16 | | | | | | |
| **CHMS** | **Chumysh** | **130.81** | **72** | P | **SKPbc** | **16 34 38.7** | **-1.1** |
| | SNR=21 | | | | | | |
| **B08A** | **Colville Reser** | **130.82** | **298** | *e*PKPdf | **PKPdf** | **16 31 29.8** | **+0.1** |
| **ULHL** | **Ulahol** | **131.00** | **74** | P | **SKPbc** | **16 34 40.9** | **+0.1** |
| | SNR=5.8 | | | | | | |
| **TKM2** | **Tokmak 2** | **131.17** | **73** | P | **SKPbc** | **16 34 40.8** | **-0.6** |
| | SNR=6.6 | | | | | | |
| **SUMG** | **Summit** | **131.28** | **355** | *e*PKIKP | **PKPdf** | **16 31 29.8** | **-0.5** |
| **SUMG** | **Summit** | **131.28** | **355** | *i* P | **PKPdf** | **16 31 28.7** | **-1.6** |
| | comp=Z,15nm,1.1s | | | | | | |
| **SUMG** | **Summit** | **131.28** | **355** | *i* P | **SKPbc** | **16 34 41.1** | **0.0** |
| | comp=Z,159nm,1.2s | | | | | | |
| **SUMG** | **Summit** | **131.28** | **355** | *e*PKPdf | **PKPdf** | **16 31 29.8** | **-0.5** |
| **JCW** | **Jim Creek** | **131.90** | **297** | *e*PKPpre | PKPpre | 16 31 23.3 | |
| **ARU** | **Arti** | **133.14** | **49** | PKP | **PKPdf** | **16 31 34.3** | **+0.6** |
| | comp=Z,1.2nm,0.4s,baz=132,slow=1.9,SNR=4.5 | | | | | | |
| ARU | | | | SKPbc | **SKPbc** | **16 34 45.7** | **-1.8** |
| | comp=Z,4.6nm,0.7s,baz=233,slow=2.1,SNR=9.3 | | | | | | |
| **ARU** | **Arti** | **133.14** | **49** | *i* PKIKP | **PKPdf** | **16 31 34.3** | **+0.6** |
| ARU | | | | | | 16 34 02.3 | |
| **ARA0** | **ARCESS Array S** | **133.26** | **22** | *e*PKPpre | PKPpre | 16 31 20.5 | |
| ARA0 | | | | *e*PKPdf | **PKPdf** | **16 31 33.8** | **+0.2** |
| ARA0 | | | | *e*SKPbc | **SKPbc** | **16 34 45.5** | **-2.1** |
| **ARCES** | **ARCESS Array B** | **133.26** | **22** | PKhKP | PKPpre | 16 31 20.5 | |
| | comp=Z,4.3nm,1.0s,baz=174,slow=1.2,SNR=7.0 | | | | | | |
| ARCES | | | | PKP | **PKPdf** | **16 31 33.8** | **+0.2** |
| | comp=Z,7.8nm,0.6s,baz=209,slow=1.7,SNR=22 | | | | | | |
| ARCES | | | | SKPbc | **SKPbc** | **16 34 45.5** | **-2.1** |
| | comp=Z,20nm,0.9s,baz=212,slow=2.9,SNR=12 | | | | | | |
| **KULLO** | **Kullorsuaq** | **134.60** | **349** | *i* P | **SKPbc** | **16 34 50.9** | **-0.8** |
| | comp=Z,54nm,1.2s | | | | | | |
| **DAG** | **Danmarks Havn** | **135.33** | **3** | *i* PKIKP | **PKPdf** | **16 31 37.5** | **+0.3** |
| DAG | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.8s | | | | | | |
| **DAG** | **Danmarks Havn** | **135.33** | **3** | *i* P | **PKPdf** | **16 31 37.5** | **+0.3** |
| | comp=Z,9.2nm,0.8s | | | | | | |
| **DAG** | **Danmarks Havn** | **135.33** | **3** | *i* P | **SKPbc** | **16 34 53.8** | **-0.2** |
| | comp=Z,18nm,1.2s | | | | | | |
| **BRVK** | **Borovoye** | **135.78** | **59⇑** | *e*PKIKP | **PKPdf** | **16 31 39.2** | **+0.4** |
| **BRVK** | **Borovoye** | **135.78** | **59** | *e*PKPdf | **PKPdf** | **16 31 38.8** | **0.0** |
| **BVAR** | **Borovoye Array** | **135.81** | **59** | PKhKP | PKPpre | 16 31 27.1 | |
| | comp=Z,1.2nm,0.8s,baz=187,slow=2.0,SNR=5.5 | | | | | | |
| BVAR | | | | PKP | **PKPdf** | **16 31 38.9** | **+0.1** |
| | comp=Z,2.7nm,0.4s,baz=162,slow=2.9,SNR=6.5 | | | | | | |
| BVAR | | | | SKPbc | **SKPbc** | **16 34 55.3** | **-0.9** |
| | comp=Z,17nm,0.9s,baz=239,slow=2.6,SNR=24 | | | | | | |
| **BVAR** | **Borovoye Array** | **135.81** | **59** | PKHKP | PKPpre | 16 31 27.1 | |
| BVAR | | | | | | 16 31 38.9 | |
| BVAR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.8s | | | | | | |
| BVAR | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.5s | | | | | | |
| BVAR | | | | pmax | pmax | | |
| | comp=N,17nm,0.9s | | | | | | |
| **CD2** | **Chengdu** | **136.47** | **107** | *e*PKP | **PKPdf** | **16 31 42.7** | **+1.8** |
| **MK01** | **Makanchi Array** | **137.26** | **74** | *e*PKPdf | **PKPdf** | **16 31 39.7** | **-2.1** |
| **MK32** | **Makanchi Array** | **137.27** | **74** | *e*PKPpre | PKPpre | 16 31 31.3 | |
| MK32 | | | | *e*PKPdf | **PKPdf** | **16 31 40.6** | **-1.1** |
| MK32 | | | | *e*SKPbc | **SKPbc** | **16 34 58.6** | **-2.2** |
| **MKAR** | **Makanchi Array** | **137.27** | **74** | PKhKP | PKPpre | 16 31 31.3 | |
| | comp=N,1.3nm,0.7s,baz=209,slow=2.2,SNR=6.8 | | | | | | |
| MKAR | | | | PKP | **PKPdf** | **16 31 40.6** | **-1.1** |
| | comp=N,2.8nm,0.8s,baz=229,slow=3.1,SNR=8.3 | | | | | | |
| MKAR | | | | SKPbc | **SKPbc** | **16 34 58.6** | **-2.2** |
| | comp=N,10nm,1.0s,baz=232,slow=2.8,SNR=13 | | | | | | |
| **TULEG** | **Thule** | **137.66** | **346** | *e*PKPdf | **PKPdf** | **16 31 40.8** | **-0.8** |
| **WMQ** | **Urumqi** | **137.96** | **81** | PKP | **PKPdf** | **16 31 44.5** | **+1.3** |
| WMQ | | | | sPKP | | 16 32 41.3 | |
| WMQ | | | | PP | **PP** | **16 34 38.5** | **+4.9** |
| WMQ | | | | AMB | AMB | | |
| | comp=N,310nm,3.8s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **138.00** | **67** | PKhKP | PKPpre | 16 31 33.1 | |
| | comp=N,1.6nm,0.8s,baz=229,slow=3.2,SNR=12 | | | | | | |
| KURBB | | | | PKP | **PKiKP** | **16 31 44.7** | **-0.3** |
| | comp=N,1.7nm,0.5s,baz=237,slow=3.1,SNR=10.0 | | | | | | |
| KURBB | | | | SKPbc | **SKPbc** | **16 35 00.6** | **-2.1** |
| | comp=N,7.0nm,0.9s,baz=228,slow=3.4,SNR=18 | | | | | | |
| **KURK** | **Kurchatov** | **138.10** | **67** | PKHKP | PKPpre | 16 31 33.1 | |
| KURK | | | | | | 16 31 44.7 | |
| KURK | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.8s | | | | | | |
| KURK | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.5s | | | | | | |
| KURK | | | | pmax | pmax | | |
| | comp=N,7.0nm,0.9s | | | | | | |
| **KURK** | **Kurchatov** | **138.10** | **67** | *e*PKPpre | PKPpre | 16 31 33.1 | |
| KURK | | | | *e*SKPbc | **SKPbc** | **16 35 00.6** | **-2.4** |
| **YKA** | **Yellowknife Ar** | **138.43** | **316** | PKhKP | PKPpre | 16 31 32.4 | |
| | comp=N,0.8nm,0.6s,baz=114,slow=3.7,SNR=5.2 | | | | | | |
| YKA | | | | PKP | **PKPdf** | **16 31 43.1** | **-0.2** |
| | comp=N,15nm,0.7s,baz=128,slow=2.4,SNR=43 | | | | | | |
| YKA | | | | SKPbc | **SKPbc** | **16 35 02.2** | **-1.3** |
| | comp=N,4.2nm,0.6s,baz=131,slow=3.2,SNR=14 | | | | | | |
| **YKW3** | **Yellowknife Ar** | **138.47** | **316** | *e*PKPdf | **PKPdf** | **16 31 42.1** | **-1.3** |
| **SPITS** | **Spitsbergen Ar** | **139.09** | **12** | PKhKP | PKPpre | 16 31 36.2 | |
| | comp=N,2.0nm,0.5s,baz=186,slow=4.1,SNR=19 | | | | | | |
| SPITS | | | | PKP | **PKPdf** | **16 31 45.3** | **+1.1** |
| | comp=N,4.6nm,0.5s,baz=197,slow=2.6,SNR=6.1 | | | | | | |
| **RES** | **Resolute Bay** | **140.51** | **337** | PKhKP | PKPpre | 16 31 39.2 | |
| | comp=N,4.7nm,0.9s,baz=181,slow=4.5,SNR=8.9 | | | | | | |
| RES | | | | PKP | **PKPdf** | **16 31 47.8** | **+1.0** |
| | comp=N,13nm,0.8s,baz=92,slow=1.8,SNR=17 | | | | | | |
| RES | | | | SKPbc | **SKPbc** | **16 35 08.4** | **-0.5** |
| | comp=N,16nm,0.8s,baz=151,slow=3.7,SNR=16 | | | | | | |
| **LZH** | **Lanzhou** | **140.64** | **103** | *e*PKP | **PKPdf** | **16 31 42.8** | **-5.7** |
| LZH | | | | sPKP | | 16 32 41.3 | |
| **GTA** | **Gaotai** | **141.08** | **96** | *e*PKP | **PKPdf** | **16 31 43.4** | **-5.7** |
| GTA | | | | sPKP | | 16 32 42.3 | |
| **WHN** | **Wuhan** | **141.24** | **119** | PKP | **PKPdf** | **16 31 53.6** | **+4.1** |
| **XAN** | **Xi'an** | **141.56** | **110** | PKPbc | **PKPdf** | **16 31 44.9** | **-5.2** |
| XAN | | | | pPKP | pPKPdf | 16 32 27.0 | -2.5 |
| XAN | | | | PP | **PP** | **16 34 55.5** | **0.0** |
| XAN | | | | SKKS | | 16 41 27.3 | |
| **XAN** | **Xi'an** | **141.56** | **110** | SS | SS | 16 53 39.5 | +26 |
| XAN | | | | AMB | AMB | | |
| | comp=Z,230nm,5.7s | | | | | | |
| **NVS** | **Novosibirsk** | **142.86** | **64⇓** | *i*PKIKP | **PKPdf** | **16 31 49.3** | **-2.3** |
| NVS | | | | *i* | | 16 32 30.9 | |
| NVS | | | | *i* | | 16 35 14.0 | |
| NVS | | | | pmax | pmax | | |
| | comp=Z,40nm,1.0s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=N,7.0nm,0.6s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=E,4.0nm,0.4s | | | | | | |
| **ZAA0** | **Zalesovo Array** | **143.09** | **67** | *e*PKPpre | PKPpre | 16 31 47.7 | |
| **ZALV** | **Zalesovo Beam** | **143.09** | **67** | PKhKP | PKPpre | 16 31 48.5 | |
| | comp=E,5.4nm,0.4s,baz=253,slow=3.4,SNR=27 | | | | | | |
| ZALV | | | | SKP | | 16 35 12.4 | |
| | comp=E,7.5nm,0.8s,baz=253,slow=4.1,SNR=11 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **143.09** | **67** | *e*PKPpre | PKPpre | 16 31 48.0 | |
| ZALV | | | | *e*pPKPdf | pPKPdf | 16 32 27.0 | -4.5 |
| ZALV | | | | SKP | | 16 35 12.4 | |
| **ZAA1** | **Zalesovo Array** | **143.09** | **67** | *e*PKPpre | PKPpre | 16 31 48.5 | |
| ZAA1 | | | | *e*PP | **PP** | **16 35 12.4** | **+7.7** |
| **NJ2** | **Nanjing** | **144.53** | **123** | *e*PKP | PKPbc | 16 31 54.7 | +0.4 |
| **SKAG** | **Skagway** | **145.09** | **302** | *e*PKPbc | **PKPbc** | **16 31 55.3** | **+0.1** |
| **WHY** | **Whitehorse** | **145.49** | **304** | *e*PKPdf | **PKPdf** | **16 31 56.4** | **+0.3** |
| **HVS** | **Khovu-Aksy** | **145.81** | **76⇑** | *e*PKP2 | **PKPab** | **16 31 58.7** | **+0.1** |
| **HYT** | **Haines Junctio** | **146.71** | **304** | *e*PKPdf | **PKPbc** | **16 32 00.5** | **+0.3** |
| **BTO** | **Baotou** | **147.21** | **104** | *e*PKPbc | **PKPbc** | **16 32 01.8** | **-0.4** |
| **TIA** | **Tai'an** | **147.24** | **117** | PKPbc | **PKPbc** | **16 32 02.5** | **+0.2** |
| **INK** | **Inuvik** | **148.12** | **318** | PKP | **PKPdf** | **16 31 58.2** | **-1.9** |
| | comp=E,3.4nm,0.9s,baz=94,slow=3.0,SNR=9.6 | | | | | | |
| INK | | | | PKPbc | **PKPbc** | **16 32 03.5** | **-0.1** |
| | comp=E,28nm,0.8s,baz=75,slow=2.6,SNR=67 | | | | | | |
| INK | | | | SKPbc | **SKPbc** | **16 35 25.9** | **-1.1** |
| | comp=E,2.6nm,0.5s,baz=54,slow=1.9,SNR=6.8 | | | | | | |
| **INK** | **Inuvik** | **148.12** | **318** | *e*PKPdf | **PKPdf** | **16 31 58.4** | **-1.8** |
| INK | | | | *e*PKPbc | **PKPbc** | **16 32 03.2** | **-0.4** |
| INK | | | | *e*SKPbc | **SKPbc** | **16 35 26.1** | **-0.9** |
| **HHC** | **Hu-ho-hao-te** | **148.18** | **105** | *e*PKPbc | **PKPdf** | **16 32 01.6** | **+0.3** |
| **DAWY** | **Dawson** | **148.86** | **308** | *e*PKPdf | **PKPdf** | **16 32 01.1** | **-0.5** |
| DAWY | | | | *e*PKPbc | **PKPbc** | **16 32 05.1** | **-0.6** |
| **BJT** | **Baijiatuau** | **149.82** | **112** | *e*PKP2 | **PKPbc** | **16 32 09.0** | **+0.3** |
| **BJT** | **Baijiatuau** | **149.82** | **112** | *e*PKPbc | **PKPbc** | **16 32 09.0** | **+0.3** |
| BJT | | | | *e*PKPab | **PKPab** | **16 32 15.1** | **+0.3** |
| BJT | | | | *e*pPKPab | **pPKPbc** | **16 32 49.0** | **+1.0** |
| **EGAK** | **Eagle** | **149.83** | **309** | *e*PKPdf | **PKPdf** | **16 32 03.0** | **0.0** |
| EGAK | | | | *e*PKPbc | **PKPbc** | **16 32 08.3** | **+0.3** |
| **MOY** | **Mondy** | **149.84** | **80** | *e*PKP2 | **PKPbc** | **16 32 09.0** | **+0.4** |
| MOY | | | | pmax | pmax | | |
| | comp=Z,78nm,2.3s | | | | | | |
| **BMRM** | **Bremner River** | **149.90** | **301** | *e*PKPbc | **PKPbc** | **16 32 09.5** | **+1.1** |
| **MENT** | **Mentasta** | **150.26** | **305** | *e*PKPdf | **PKPdf** | **16 32 04.5** | **+0.7** |
| MENT | | | | *e*PKPbc | **PKPbc** | **16 32 09.5** | **+0.3** |
| **ZAK** | **Zakamensk** | **150.28** | **84** | *e*PKIKP | **PKPbc** | **16 32 09.6** | **-0.1** |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,44nm,1.2s | | | | | | |
| **SONA0** | **Songino Array** | **150.35** | **91** | *e*PKPbc | **PKPbc** | **16 32 10.2** | **+0.2** |
| SONA0 | | | | *e*pPKPdf | **pPKPbc** | **16 32 49.6** | **+0.4** |
| **SONM** | **Songino Array** | **150.35** | **91** | PKPbc | **PKPbc** | **16 32 10.2** | **+0.2** |
| | comp=Z,13nm,0.5s,baz=217,slow=2.7,SNR=85 | | | | | | |
| SONM | | | | pPKPbc | **pPKPbc** | **16 32 49.6** | **+0.4** |
| | comp=Z,11nm,0.8s,baz=210,slow=3.3,SNR=4.7 | | | | | | |
| **SONA1** | **Songino Array** | **150.37** | **91** | *e*PKPdf | **PKPdf** | **16 32 04.5** | **-0.1** |
| SONA1 | | | | *e*PKPbc | **PKPbc** | **16 32 10.1** | **+0.1** |
| SONA1 | | | | *e*pPKPdf | **pPKPdf** | **16 32 46.4** | **+2.2** |
| SONA1 | | | | *e*pPKPab | **pPKPbc** | **16 32 49.9** | **+0.6** |
| **DIV** | **Divide** | **150.48** | **301** | *e*PKPbc | **PKPbc** | **16 32 10.1** | **+0.3** |
| DIV | | | | *e*PKPab | **PKPab** | **16 32 17.9** | **+0.9** |
| **KLU** | **Klutina** | **150.69** | **302** | *e*PKPbc | **PKPbc** | **16 32 11.4** | **+1.1** |
| KLU | | | | *e*pPKPdf | **pPKPbc** | **16 32 48.4** | **-1.1** |
| **ULN** | **Ulaanbaatar** | **150.72** | **91** | *e*PKIKP | **PKPbc** | **16 32 10.5** | **-0.3** |
| **ULN** | **Ulaanbaatar** | **150.72** | **91** | *e*PKPbc | **PKPbc** | **16 32 10.5** | **-0.3** |
| **PAX** | **Paxson** | **151.02** | **305** | *e*PKIKP | **PKPbc** | **16 32 09.3** | **-1.7** |
| **PAX** | **Paxson** | **151.02** | **305** | *e*PKPbc | **PKPbc** | **16 32 09.3** | **-1.7** |
| **TLY** | **Talaya** | **151.22** | **82** | *e*PKIKP | **PKPbc** | **16 32 12.3** | **+0.6** |
| TLY | | | | pmax | pmax | | |
| | comp=Z,40nm,1.3s | | | | | | |
| **SCM** | **Sheep Creek Mo** | **151.44** | **302** | *e*PKIKP | **PKPbc** | **16 32 12.5** | **+0.5** |
| **SCM** | **Sheep Creek Mo** | **151.44** | **302** | *e*PKPbc | **PKPbc** | **16 32 12.5** | **+0.5** |
| **DHY** | **Denali Highway** | **151.88** | **304** | *e*PKPbc | **PKPbc** | **16 32 13.6** | **+0.5** |
| **SML** | **Sawmill** | **151.88** | **301** | *e*PKIKP | **PKPbc** | **16 32 13.4** | **+0.5** |
| **SML** | **Sawmill** | **151.88** | **301** | *e*PKPbc | **PKPbc** | **16 32 13.4** | **+0.5** |
| **FYU** | **Fort Yukon** | **151.96** | **312** | *e*PKPdf | **PKPdf** | **16 32 06.3** | **+0.1** |
| FYU | | | | *e*PKPbc | **PKiKP** | **16 32 13.2** | **0.0** |
| FYU | | | | *e*PKPab | **PKPab** | **16 32 23.4** | **+0.4** |
| **PMR** | **Palmer** | **152.16** | **301** | *e*PKIKP | **PKPbc** | **16 32 13.2** | **-0.3** |
| **PMR** | **Palmer** | **152.16** | **301** | *e*PKPbc | **PKPbc** | **16 32 13.2** | **-0.3** |
| **ILAR** | **Eielson Array** | **152.17** | **308** | PKP | **PKPdf** | **16 32 06.2** | **-0.4** |
| | comp=Z,1.0nm,0.8s,baz=41,slow=0.5,SNR=12 | | | | | | |
| ILAR | | | | PKPbc | **PKPbc** | **16 32 13.5** | **0.0** |
| | comp=Z,12nm,0.4s,baz=148,slow=3.2,SNR=183 | | | | | | |
| ILAR | | | | pPKPbc | **pPKPbc** | **16 32 50.5** | **-2.2** |
| | comp=Z,12nm,1.0s,baz=142,slow=1.4,SNR=4.0 | | | | | | |
| **ILB** | **Eielson Array** | **152.17** | **308** | *e*PKPdf | **PKPdf** | **16 32 03.5** | **-3.2** |
| ILB | | | | *e*PKPbc | **PKPbc** | **16 32 13.2** | **-0.3** |
| ILB | | | | *e*pPKPdf | **pPKPbc** | **16 32 50.8** | **-2.0** |
| ILB | | | | *e*pPKPab | **sPKPdf** | **16 33 00.5** | **-0.9** |
| **RC01** | **Rabbit Creek A** | **152.26** | **299** | *e*PKPbc | **PKPbc** | **16 32 14.0** | **+0.3** |
| RC01 | | | | *e*PKPab | **PKPab** | **16 32 24.4** | **0.0** |
| **KDAK** | **Kodiak Island** | **152.31** | **292** | PKPbc | **PKPbc** | **16 32 14.5** | **+0.6** |
| | comp=Z,14nm,0.6s,baz=183,slow=1.6,SNR=50 | | | | | | |
| **KDAK** | **Kodiak Island** | **152.31** | **292** | *i* PKIKP | **PKPbc** | **16 32 14.2** | **+0.3** |
| **KDAK** | **Kodiak Island** | **152.31** | **292** | *e*PKPbc | **PKPbc** | **16 32 14.2** | **+0.3** |
| KDAK | | | | *e*pPKPab | **sPKPdf** | **16 32 58.2** | **-3.5** |
| **COLA** | **College** | **152.60** | **308** | *e*PKIKP | **PKPbc** | **16 32 14.3** | **-0.1** |
| COLA | | | | *e* | | 16 32 25.8 | |
| **COLA** | **College** | **152.60** | **308** | *e*PKPbc | **PKPbc** | **16 32 14.2** | **-0.1** |
| COLA | | | | *e*PKPab | **PKPab** | **16 32 25.8** | **+0.2** |
| **RND** | **Reindeer** | **152.62** | **304** | *e*PKIKP | **PKPbc** | **16 32 14.7** | **+0.1** |
| RND | | | | *e* | | 16 32 25.9 | |
| **RND** | **Reindeer** | **152.62** | **304** | *e*PKPbc | **PKPbc** | **16 32 14.7** | **+0.1** |
| RND | | | | *e*PKPab | **PKPab** | **16 32 25.9** | **-0.1** |
| **MCK** | **McKinley** | **152.74** | **305** | *e*PKIKP | **PKPbc** | **16 32 15.1** | **+0.3** |
| MCK | | | | *e* | | 16 32 52.6 | |
| **MCK** | **McKinley** | **152.74** | **305** | *e*PKPbc | **PKPbc** | **16 32 15.1** | **+0.3** |
| MCK | | | | *e*pPKPdf | **pPKPbc** | **16 32 52.6** | **-1.5** |
| **MDM** | **Murphy Dome** | **152.77** | **308** | *e*PKPbc | **PKPbc** | **16 32 14.1** | **-0.7** |
| MDM | | | | *e*PKPab | **PKPab** | **16 32 26.0** | **-0.6** |
| **SUA** | **Susitna One** | **152.84** | **300** | *e*PKPbc | **PKPbc** | **16 32 15.8** | **+0.6** |
| SUA | | | | *e*PKPab | **PKPab** | **16 32 28.1** | **+1.1** |
| **KSAR** | **Wonju Array Be** | **152.94** | **131** | PKIKP | **PKPbc** | **16 32 16.2** | **+0.2** |
| **KSAR** | **Wonju Array Be** | **152.94** | **131** | PKPbc | **PKPbc** | **16 32 16.2** | **+0.2** |
| KSAR | | | | PKPab | **PKPab** | **16 32 28.8** | **+1.0** |
| **KSRS** | **Korea Array** | **152.96** | **131** | PKPbc | **PKPbc** | **16 32 16.2** | **+0.2** |
| | comp=Z,4.6nm,0.8s,baz=249,slow=0.9,SNR=6.1 | | | | | | |
| KSRS | | | | PKPab | **PKPab** | **16 32 28.8** | **+0.9** |
| | comp=Z,19nm,0.9s,baz=216,slow=4.0,SNR=17 | | | | | | |
| **KS01** | **Wonju Array Si** | **152.97** | **131** | *e*PKPdf | **PKPdf** | **16 32 07.8** | **-0.9** |
| KS01 | | | | *e*PKPbc | **PKPbc** | **16 32 14.4** | **-1.7** |
| KS01 | | | | *e*PKPab | **PKPab** | **16 32 28.5** | **+0.5** |
| **TRF** | **Thorofare Moun** | **153.25** | **304** | *e*PKPbc | **PKPbc** | **16 32 16.1** | **+0.1** |
| **KTH** | **Kantishna Hill** | **153.55** | **304** | *e*PKPdf | **PKPdf** | **16 32 08.3** | **-0.4** |
| KTH | | | | *e*PKPbc | **PKPbc** | **16 32 16.7** | **+0.1** |
| **BPAW** | **Bear Paw Mtn.** | **153.72** | **305** | *e*PKPbc | **PKPbc** | **16 32 16.9** | **0.0** |
| BPAW | | | | *e*PKPab | **PKPab** | **16 32 29.8** | **-0.7** |
| **MLY** | **Manley** | **153.83** | **307** | *e*PKPbc | **PKPbc** | **16 32 16.4** | **-0.7** |
| MLY | | | | *e*PKPab | **PKPab** | **16 32 30.2** | **-0.8** |
| **PPLA** | **Purkeypile** | **153.92** | **302** | *e*PKPbc | **PKPbc** | **16 32 18.0** | **+0.5** |
| PPLA | | | | *e*PKPab | **PKPab** | **16 32 31.1** | **-0.5** |
| **COLD** | **Coldfoot** | **154.01** | **312** | *e*PKPdf | **PKPdf** | **16 32 06.6** | **-2.6** |
| COLD | | | | *e*PKPbc | **PKiKP** | **16 32 18.1** | **+0.6** |
| COLD | | | | *e*PKPab | **PKPab** | **16 32 31.9** | **+0.3** |
| **CAST** | **Castle Rocks** | **154.02** | **304** | *e*PKPbc | **PKPbc** | **16 32 17.4** | **-0.1** |
| CAST | | | | *e*PKPab | **PKPab** | **16 32 30.9** | **-0.9** |
| **MJAR** | **Matsushiro Arr** | **155.61** | **149** | PKPab | **PKPab** | **16 32 39.2** | **-0.1** |
| | comp=Z,4.4nm,0.8s,baz=178,slow=4.7,SNR=7.9 | | | | | | |
| **CN2** | **Changchun** | **157.13** | **118** | *e*PKP | **PKPdf** | **16 32 14.1** | **0.0** |
| **HIA** | **Hailar** | **158.17** | **101** | *e*PKIKP | **PKPdf** | **16 32 15.5** | **+0.2** |
| HIA | | | | *e* | | 16 32 50.4 | |
| **HIA** | **Hailar** | **158.17** | **101** | *e*PKPdf | **PKPdf** | **16 32 15.5** | **+0.2** |
| HIA | | | | *e*PKPab | **PKPab** | **16 32 50.4** | **+0.3** |
| **BOD** | **Bodaibo** | **159.34** | **75** | *e*PKIKP | **PKPdf** | **16 32 15.0** | **-1.3** |
| BOD | | | | *e* | | 16 32 53.1 | |
| BOD | | | | pmax | pmax | | |
| | comp=Z,29nm,1.2s | | | | | | |
| **MDJ** | **Mudanjiang** | **159.62** | **123** | P | **PKPab** | **16 32 56.2** | **-0.3** |
| **MDJ** | **Mudanjiang** | **159.62** | **123** | *e*PKPab | **PKPab** | **16 32 55.8** | **-0.7** |
| **USRK** | **Ussuriysk Ar.** | **160.31** | **128** | PKPab | **PKPab** | **16 32 58.3** | **-1.1** |
| | comp=Z,10.0nm,1.0s,baz=185,slow=2.0,SNR=6.2 | | | | | | |
| **TIXI** | **Tiksi** | **163.59** | **28** | *e*PKP2 | **PKPab** | **16 33 14.1** | **+1.0** |
| **TIXI** | **Tiksi** | **163.59** | **28** | *e*PKPab | **PKPab** | **16 33 14.1** | **+1.0** |
| **YAK** | **Yakutsk** | **167.73** | **64** | PKPab | **PKPab** | **16 33 31.0** | **-0.7** |
| | comp=Z,21nm,0.7s,baz=101,slow=1.3,SNR=15 | | | | | | |
| **YAK** | **Yakutsk** | **167.73** | **64** | *e*PKP2 | **PKPab** | **16 33 31.8** | **+0.2** |
| YAK | | | | pmax | pmax | | |
| | comp=Z,23nm,0.9s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,5.0nm,1.1s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,3.0nm,1.0s | | | | | | |
| **YAK** | **Yakutsk** | **167.73** | **64** | *e*PKPab | **PKPab** | **16 33 32.0** | **+0.4** |
| **PETK** | **Petropavlovsk-** | **173.93** | **204** | PKP | **PKPdf** | **16 32 26.7** | **-0.9** |
| | comp=N,3.9nm,0.8s,baz=116,slow=6.6,SNR=3.4 | | | | | | |
| PETK | | | | PKPab | **PKPab** | **16 33 58.9** | **-0.5** |
| | comp=N,6.3nm,0.8s,baz=120,slow=6.6,SNR=6.1 | | | | | | |
| **PETK** | **Petropavlovsk-** | **173.93** | **204** | PKIKP | **PKPdf** | **16 32 26.7** | **-0.9** |
| PETK | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.8s | | | | | | |
| **PEA1** | **Petropavlovsk-** | **173.93** | **204** | *e*PKPdf | **PKPdf** | **16 32 26.6** | **-0.9** |
| PEA1 | | | | *e*PKPab | **PKPab** | **16 33 58.9** | **-0.5** |
| **SEY** | **Seymchan** | **175.73** | **8** | PKPab | **PKPab** | **16 34 07.8** | **+0.7** |
| | comp=Z,2.4nm,0.7s,baz=13,slow=2.5,SNR=5.9 | | | | | | |

---

**MEX 08 16:17:18.2**±0.5**, 18°.06N×103°.32W, h3km, MD3.8, Near coast of Michoacan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MMIG** | **Aquila** | **0.23** | **355** | *e*P | Pg | 16 17 22.3 | -0.3 |
| MMIG | | | | *e*S | Sg | 16 17 25.5 | 0.0 |
| **R15V** | | **1.27** | **330** | *e*P | Pg | 16 17 38.9 | -3.6 |
| R15V | | | | *e*S | Sg | 16 17 55.8 | -3.2 |
| **EZ5V** | | **1.43** | **349** | *e*P | Pn | 16 17 42.1 | -3.3 |
| EZ5V | | | | *e*S | Sg | 16 18 00.5 | -3.8 |
| **ZIIG** | **Zihuatanejo** | **1.83** | **104** | *e*P | Pn | 16 17 47.1 | -3.4 |
| ZIIG | | | | *e*S | Sn | 16 18 09.3 | -4.8 |
| **CJM** | **Chamela** | **2.17** | **312** | *e*P | Pn | 16 17 51.4 | -3.8 |
| CJM | | | | *e*S | Sn | 16 18 18.2 | -4.4 |

---

*NIED **08** 16:20:00, 38°.00N×141°.50E, h68km, Mw3.8 Best double couple: $M_0$5.26000×10^14 NP1:$\phi_s$185.00000°, δ46.00000°, λ67.00000°. NP2:$\phi_s$36.00000°, δ49.00000°, λ112.00000°.*

*ISCJB **08** 16:20:56.3±0.7, 37°.95N±0°.04×141°.61E±0°.08, h65km±6km, mb3.5/7, Error ellipse: s-maj=11.2km s-min=5.3km az=17.2*

*IDC **08** 16:20:56.7±2.4, 37°.91N×141°.74E, h56km±22km, mb3.3/7, mb1 3.6/11, mb1mx3.4/63, mbtmp3.7/11, ML3.3/4, MS2.6/1, Ms1 2.6/1, ms1mx2.3/18, Error ellipse: s-maj=26.7km s-min=16.6km az=90.0*

*JMA **08** 16:20:57.9, 37°.99N×141°.49E, h62km±1km, M3.6*

*JMA Felt I J1.*

**ISC 08 16:20:56.9**±1.2**, 37°.93N**±0°.04×**141°.63E**±0°.08**, h56km**±10km**, n30, σ0s81**/37**, mb3.6**/7**, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JIO** | **Ouri** | **0.57** | **337** | P | **Pn** | **16 21 10.0** | **+0.7** |
| JIO | | | | S | **Sn** | **16 21 18.4** | **+0.1** |
| **JMM** | **Marumori** | **0.66** | **265** | P | **Pn** | **16 21 10.7** | **+0.2** |
| JMM | | | | *e*S | **Sn** | **16 21 19.9** | **-0.4** |
| **JFK** | **Kawauchi** | **0.82** | **227** | P | **Pn** | **16 21 13.4** | **+0.9** |
| JFK | | | | S | **Sn** | **16 21 24.7** | **+0.8** |
| **JOU** | **Okura** | **0.88** | **300** | P | **Pn** | **16 21 12.9** | **-0.3** |
| JOU | | | | *e*S | **Sn** | **16 21 24.3** | **-0.9** |
| **JMK** | **Ichinoseki** | **1.07** | **343** | P | **Pn** | **16 21 15.9** | **+0.2** |
| JMK | | | | *e*S | **Sn** | **16 21 29.4** | **-0.2** |
| **JFT** | **Otama** | **1.10** | **249** | P | **Pn** | **16 21 16.8** | **+0.6** |
| JFT | | | | *e*S | **Sn** | **16 21 30.3** | **-0.2** |
| **JYS** | **Shirataka** | **1.27** | **284** | P | **Pn** | **16 21 18.4** | **0.0** |
| JYS | | | | *e*S | **Sn** | **16 21 34.0** | **-0.4** |
| **JYK** | **Kaneyama** | **1.40** | **315** | P | **Pn** | **16 21 20.1** | **-0.1** |
| JYK | | | | S | **Sn** | **16 21 36.9** | **-0.8** |
| **JOM** | **Ohasama** | **1.56** | **350** | P | **Pn** | **16 21 22.8** | **+0.4** |
| JOM | | | | S | **Sn** | **16 21 41.3** | **-0.2** |
| **JFY** | **Yanaizu** | **1.61** | **252** | P | **Pn** | **16 21 23.6** | **+0.5** |
| JFY | | | | *e*S | **Sn** | **16 21 42.8** | **0.0** |
| **JYA** | **Atsumi** | **1.65** | **294** | P | **Pn** | **16 21 23.1** | **-0.4** |
| **JRG** | **Rokugo** | **1.66** | **332** | P | **Pn** | **16 21 24.1** | **+0.4** |
| JRG | | | | *e*S | **Sn** | **16 21 44.2** | **+0.3** |
| **MJAR** | **Matsushiro Arr** | **3.06** | **244** | P | **Pn** | **16 21 43.7** | **+0.8** |
| | 2.1nm,0.3s,baz=339,slow=15,SNR=17 | | | | | | |
| MJAR | | | | S | Sn | 16 22 27.7 | +9.5 |
| | 2.2nm,0.3s,baz=100,slow=29,SNR=4.2 | | | | | | |
| MJAR | | | | LR | LR | 16 23 14.9 | |
| | comp=Z,86nm,19.5s,baz=70,slow=44 | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| MAT | Matsushiro | 3.06 | 244 | P | Pn | 16 21 44.5 | +1.7 |
| MAT | | | | eS | Sn | 16 22 33.1 | +15 |
| JHJ | Hachijo jima 2 | 5.03 | 198 | P | Pn | 16 22 10.3 | +0.5 |
| | 11nm,0.3s,baz=229,slow=19,SNR=2.1 | | | | | | |
| JHJ | | | | S | Sn | 16 23 04.5 | -2.2 |
| | 14nm,0.3s,baz=68,slow=19,SNR=3.1 | | | | | | |
| ASAJ | Asahikawa | 6.22 | 6 | P | Pn | 16 22 25.3 | -0.8 |
| | 1.1nm,0.3s,baz=200,slow=13,SNR=11 | | | | | | |
| USRK | Ussuriysk Ar. | 9.60 | 314 | P | Pn | 16 23 13.2 | +0.9 |
| | 0.4nm,0.3s,baz=121,slow=14,SNR=7.1 | | | | | | |
| SONM | Songino Array | 27.44 | 302 | P | P | 16 26 38.0 | +0.5 |
| | 0.4nm,0.6s,baz=99,slow=8.9,SNR=2.8 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 28.47 | 122 | T | T | 16 57 04.6 | |
| | baz=315,slow=75,SNR=28 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 28.48 | 123 | T | T | 16 57 08.4 | |
| | baz=315,slow=75,SNR=28 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 28.49 | 122 | T | T | 16 57 08.6 | |
| | baz=315,slow=75,SNR=25 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 29.21 | 125 | T | T | 16 58 04.0 | |
| | baz=317,slow=76,SNR=14 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 29.21 | 125 | T | T | 16 57 57.3 | |
| | baz=317,slow=76,SNR=16 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 29.23 | 125 | T | T | 16 58 00.9 | |
| | baz=317,slow=76,SNR=11 | | | | | | |
| ZALV | Zalesovo Beam | 41.44 | 312 | P | P | 16 28 37.4 | -0.4 |
| | 0.4nm,0.3s,baz=99,slow=9.2,SNR=3.9 | | | | | | |
| ILAR | Eielson Array | 48.65 | 33 | P | P | 16 29 34.0 | -0.8 |
| | 0.4nm,0.8s,baz=264,slow=7.0,SNR=5.4 | | | | | | |
| BVAR | Borovoye Array | 50.10 | 312 | P | P | 16 29 47.8 | +1.7 |
| | 0.5nm,0.5s,baz=82,slow=7.6,SNR=4.4 | | | | | | |
| BVAR | | | | PcP | PcP | 16 31 03.7 | -1.2 |
| | 0.5nm,0.6s,baz=54,slow=2.6,SNR=3.8 | | | | | | |
| WRA | Warramunga Arr | 57.97 | 188 | P | P | 16 30 42.9 | -0.8 |
| | 0.3nm,0.3s,baz=5.7,slow=6.9,SNR=12 | | | | | | |
| ASAR | Alice Springs | 61.70 | 188 | P | P | 16 31 09.1 | -0.1 |
| | 0.2nm,0.6s,baz=14,slow=11,SNR=4.6 | | | | | | |
| TXAR | Lajitas Array | 89.44 | 52 | P | P | 16 33 48.9 | +0.8 |
| | 0.3nm,0.5s,baz=309,slow=3.3,SNR=3.8 | | | | | | |

*DJA **08** 17:12:15.8±1.0, 6°S±18°×10°4E±1°4, h114km±30km, M3.8/6, MLv3.8/6*
*IDC **08** 17:12:18.6±4.1, 5°.82S×102°.69E, h0km, mb3.5/6, mb1 3.6/6, mb1mx3.5/37, mbtmp3.5/6, Error ellipse: s-maj=170.3km s-min=21.1km az=54.0*
**ISC 08 17:12:19.4**±1.3**, 6°.30S**±0°.09×**103°.45E**±0°.07**, h33km, n17, σ1s.61**/17**, mb3.5**/6**, Southwest of Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KASI | Kota Agung | 1.29 | 53 | P | Pb | 17 12 43.4 | +0.2 |
| KASI | | | | S | Sb | 17 13 00.3 | +0.7 |
| LWLI | Liwa | 1.41 | 25 | P | Pb | 17 12 44.6 | -0.7 |
| LWLI | | | | S | Sb | 17 13 03.3 | +0.3 |
| MNAI | Manna | 1.99 | 346 | P | Pn | 17 12 50.8 | 0.0 |
| MNAI | | | | S | Sb | 17 13 20.0 | +0.5 |
| KLI | Kotabumi | 2.00 | 44 | P | Pn | 17 12 49.9 | -1.0 |
| BLSI | Bandar Lampung | 2.01 | 63 | P | Pn | 17 12 51.5 | +0.4 |
| SKJI | Sukabumi | 3.16 | 103 | P | Pn | 17 13 00.6 | -6.3 |
| DBJI | Dramaga | 3.29 | 95 | P | Pn | 17 13 04.9 | -3.8 |
| MASI | Maura Aman, Be | 3.36 | 339 | P | Pn | 17 13 07.8 | -1.9 |
| CBJI | Citeko | 3.38 | 92 | P | Pn | 17 13 07.3 | -2.6 |
| CNJI | Cibinong | 3.79 | 106 | P | Pn | 17 13 17.0 | +1.5 |
| CMAR | Chiang Mai Arr | 25.00 | 350 | P | P | 17 17 39.5 | -1.0 |
| | 0.5nm,0.7s,baz=182,slow=8.6,SNR=4.9 | | | | | | |
| WRA | Warramunga Arr | 32.91 | 117 | P | P | 17 19 02.3 | +11 |
| | 0.3nm,0.8s,baz=304,slow=9.3,SNR=4.0 | | | | | | |
| ASAR | Alice Springs | 33.98 | 124 | P | P | 17 19 13.3 | +13 |
| | 0.1nm,0.4s,baz=300,slow=8.2,SNR=5.5 | | | | | | |
| SONM | Songino Array | 53.96 | 2 | P | P | 17 21 41.3 | +1.1 |
| | 0.9nm,0.6s,baz=180,slow=9.3,SNR=7.3 | | | | | | |
| MKAR | Makanchi Array | 56.10 | 343 | P | P | 17 21 55.4 | -0.2 |
| | 1.1nm,1.0s,baz=153,slow=9.4,SNR=4.3 | | | | | | |
| ZALV | Zalesovo Beam | 62.04 | 348 | P | P | 17 22 36.3 | -0.2 |
| | 0.6nm,0.4s,baz=169,slow=3.9,SNR=6.4 | | | | | | |
| TXAR | Lajitas Array | 145.66 | 45 | PKPbc | PKPab | 17 31 58.1 | +2.1 |
| | 0.6nm,0.6s,baz=296,slow=0.8,SNR=9.2 | | | | | | |

**IDC 08 17:31:57.5**±1.1**, 12°.05N×143°.18E, h0km, mb3.5**/4**, mb1 3.8**/5**, mb1mx3.5**/59**, mbtmp3.6**/5**, ML4.0**/1**, MS2.5**/1**, Ms1 2.5**/1**, ms1mx2.2**/30**, Error ellipse: s-maj=40.3km s-min=19.3km az=117.0, South of Mariana Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GUMO | Guam | 2.25 | 47 | Pn | Pn | 17 32 37.3 | +1.3 |
| | 40nm,0.3s,baz=210,slow=3.3,SNR=12 | | | | | | |
| GUMO | | | | Sn | Sb | 17 33 07.0 | -0.4 |
| | 36nm,0.3s,baz=346,slow=22,SNR=6.2 | | | | | | |
| GUMO | | | | LR | LR | 17 33 38.0 | |
| | comp=Z,104nm,19.1s,baz=178,slow=45 | | | | | | |
| WRA | Warramunga Arr | 32.96 | 195 | P | P | 17 38 33.9 | -0.3 |
| | 0.5nm,0.9s,baz=19,slow=9.6,SNR=5.9 | | | | | | |
| ASAR | Alice Springs | 36.64 | 194 | P | P | 17 39 06.5 | +0.5 |
| | 0.3nm,0.8s,baz=20,slow=12,SNR=5.4 | | | | | | |
| KURBB | Kurchatov Arra | 64.74 | 320 | P | P | 17 42 38.1 | +0.4 |
| | 0.4nm,0.6s,baz=111,slow=6.8,SNR=3.0 | | | | | | |
| ILAR | Eielson Array | 70.66 | 25 | P | P | 17 43 13.8 | -0.9 |
| | 0.8nm,0.6s,baz=248,slow=5.9,SNR=20 | | | | | | |

*IDC **08** 17:40:33.8±1.0, 28°.26N×82°.95E, h0km, mb3.7/8, mb1 3.8/11, mb1mx3.5/53, mbtmp3.7/11, ML3.7/3, Error ellipse: s-maj=33.3km s-min=16.9km az=61.0*
**ISC 08 17:40:36.3**±0.8**, 28°.55N**±0°.07×**83°.1E**±0°.1**, h10km, n15, σ2s.36**/17**, mb3.7**/8**, 1D, Nepal**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JBP | Jabalpur | 6.07 | 209 | ⇓iP | Pb | 17 42 26.1 | +4.0 |
| JBP | | | | eS | Sn | 17 43 11.4 | -4.2 |
| CHCP | Chirah Chowk | 9.87 | 303 | P | Pn | 17 42 59.1 | +0.8 |
| THW | Thamme Wali | 10.68 | 296 | P | Pn | 17 43 08.4 | -1.0 |
| CEP | Cherat | 10.95 | 301 | P | Pn | 17 43 12.2 | -1.0 |
| AAK | Ala-Archa | 15.70 | 336 | Pn | Pn | 17 44 17.6 | -0.1 |
| | 0.2nm,0.3s,baz=171,slow=13,SNR=3.8 | | | | | | |
| CMAR | Chiang Mai Arr | 17.63 | 121 | P | Pn | 17 44 40.6 | -1.5 |
| | 0.1nm,0.3s,baz=308,slow=9.0,SNR=4.2 | | | | | | |
| MKAR | Makanchi Array | 18.22 | 358 | P | Pn | 17 44 51.1 | +1.8 |
| | 0.4nm,0.3s,baz=179,slow=11,SNR=15 | | | | | | |
| MKAR | | | | S | Sn | 17 48 08.8 | -3.9 |
| | 0.3nm,0.3s,baz=189,slow=23,SNR=11 | | | | | | |
| KURBB | Kurchatov Arra | 22.32 | 352 | P | P | 17 45 34.7 | +0.8 |
| | 2.8nm,0.7s,baz=177,slow=10,SNR=29 | | | | | | |
| ZALV | Zalesovo Beam | 25.40 | 2 | P | P | 17 46 05.3 | +1.5 |
| | 1.2nm,0.6s,baz=192,slow=9.9,SNR=6.6 | | | | | | |
| BVAR | Borovoye Array | 26.20 | 342 | P | P | 17 46 13.6 | +2.6 |
| | 0.5nm,0.5s,baz=260,slow=40,SNR=3.2 | | | | | | |
| SONM | Songino Array | 26.38 | 37 | P | P | 17 46 15.4 | +2.5 |
| | 0.4nm,0.6s,baz=214,slow=11,SNR=3.5 | | | | | | |
| ARCES | ARCESS Array B | 52.35 | 338 | P | P | 17 49 48.0 | -0.1 |
| | 4.5nm,1.0s,baz=5.6,slow=5.0,SNR=4.9 | | | | | | |
| WRA | Warramunga Arr | 69.07 | 128 | P | P | 17 51 41.7 | -1.0 |
| | 0.7nm,0.8s,baz=323,slow=6.1,SNR=7.5 | | | | | | |
| ASAR | Alice Springs | 71.32 | 131 | P | P | 17 51 55.0 | -1.5 |
| | 0.6nm,0.9s,baz=315,slow=6.2,SNR=12 | | | | | | |
| TORD | Torodi Ar. Bea | 76.40 | 278 | P | P | 17 52 25.0 | -1.5 |
| | 0.4nm,0.8s,baz=51,slow=4.9,SNR=2.7 | | | | | | |

**GUC 08 17:47:18.6**±0.3**, 28°.05S×71°.07W, h42km±3km, ML3.7, 2D, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GO03 | Copiap | 0.87 | 59 | ⇓iP | Pn | 17 47 35.5 | +1.1 |
| GO03 | | | | i S | Sn | 17 47 48.5 | +2.5 |
| GO03 | | | | IAML | | 17 47 52.4 | |
| | comp=N,3μm,0.6s | | | | | | |
| LCO | Las Campanas | 1.01 | 161 | ⇓iP | Pn | 17 47 38.3 | +1.7 |
| LCO | | | | i S | Sn | 17 47 53.3 | +3.5 |
| LCO | | | | IAML | | 17 47 55.6 | |
| | comp=E,3μm,0.5s | | | | | | |
| TLL | Tololo Astrono | 2.12 | 174 | i P | Pn | 17 47 54.9 | +3.0 |
| TLL | | | | eS | Sn | 17 48 22.2 | +5.0 |
| TLL | | | | IAML | | 17 48 27.4 | |
| | comp=E,2μm,0.5s | | | | | | |

*PGC **08** 17:53:34.2±3.6, 58°.70N×146°.43W, h10km, ML4.0/6, 270km south of Valdez, Ak Gulf Of Alaska*
*NEIC **08** 17:53:35.9±0.0, 58°.71N×146°.45W, h23km, ML3.8(AEIC), ML4.0(OTT), After AEIC.*
*IDC **08** 17:53:36.6±2.5, 58°.97N×145°.90W, h0km, mb3.6/2, mb1 3.8/5, mb1mx3.5/55, mbtmp3.6/5, ML3.2/3, Error ellipse: s-maj=31.9km s-min=27.8km az=29.0*
**ISC 08 17:53:33.7**±1.7**, 58°.66N**±0°.05×**146°.40W**±0°.04**, h26km**±15km**, n143, σ1s.28**/171**, Gulf of Alaska**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MID | Middleton Isla | 0.77 | 2 | ePg | Pb | 17 53 48.6 | +0.2 |
| MID | | | | S | Sn | 17 53 58.8 | -0.7 |
| KAIM | Kayak Island | 1.62 | 38 | ePn | Pn | 17 54 01.5 | +0.8 |
| HIN | Hinchinbrook I | 1.74 | 358 | ePn | Pn | 17 54 02.5 | +0.3 |
| HIN | | | | eSn | Sn | 17 54 23.2 | -0.4 |
| EYAK | Cordova Ski Ar | 1.92 | 10 | ePn | Pn | 17 54 05.1 | +0.4 |
| EYAK | | | | eSn | Sn | 17 54 27.5 | -0.5 |
| RAGM | Ragged Mountai | 1.94 | 26 | ePn | Pn | 17 54 05.8 | +0.8 |
| RAGM | | | | eSn | Sn | 17 54 28.8 | +0.3 |
| RAGM | | | | eSn | Sb | 17 54 29.8 | -2.3 |
| SGAM | Sherman Glacie | 1.94 | 18 | ePn | Pn | 17 54 06.0 | +1.0 |
| SGAM | | | | eSn | Sn | 17 54 28.9 | +0.3 |
| SUCK | Suckling Hills | 1.95 | 42 | P | Pn | 17 54 06.3 | +1.2 |
| HMT | Hamilton | 2.00 | 32 | ePn | Pn | 17 54 07.0 | +1.1 |
| HMT | | | | eSn | Sn | 17 54 30.4 | +0.3 |
| NICHA | Nichawak Mount | 2.01 | 37 | P | Pn | 17 54 07.0 | +1.1 |
| NICHA | | | | S | Sn | 17 54 30.8 | +0.6 |
| FID | Port Fidalgo | 2.10 | 359 | ePn | Pn | 17 54 07.2 | 0.0 |
| GOAT | Goat Mountain | 2.10 | 23 | P | Pn | 17 54 08.1 | +0.8 |
| SEW | Seward | 2.13 | 314 | ePn | Pn | 17 54 07.5 | -0.1 |
| SEW | | | | eSn | Sn | 17 54 31.4 | -1.7 |
| BGLC | Bering Glacier | 2.16 | 46 | ePn | Pn | 17 54 09.1 | +1.1 |
| BGLC | | | | eSn | Sn | 17 54 35.5 | +1.6 |
| BERG | Berg Lake | 2.21 | 37 | ePn | Pn | 17 54 09.6 | +0.9 |
| GLI | Glacier Island | 2.25 | 351 | ePn | Pn | 17 54 09.2 | 0.0 |
| GRIN | Grindle Hills | 2.26 | 43 | P | Pn | 17 54 10.7 | +1.3 |
| GRIN | | | | S | Sn | 17 54 37.7 | +1.3 |
| KHIT | Khitrov Hills | 2.40 | 41 | P | Pn | 17 54 12.2 | +0.8 |
| JPK | Jack Peak | 2.40 | 358 | ePn | Pn | 17 54 11.7 | +0.3 |
| VMT | TAPS Tl Valdez | 2.43 | 0 | ePn | Pn | 17 54 12.1 | +0.5 |
| KULT | Kultieth River | 2.46 | 48 | P | Pn | 17 54 13.2 | +1.1 |
| VLZ | Valdez | 2.48 | 1 | ePn | Pn | 17 54 12.9 | +0.6 |
| BMRM | Bremner River | 2.48 | 21 | ePn | Pn | 17 54 13.1 | +0.6 |
| BMRM | | | | eSn | Sn | 17 54 41.6 | -0.3 |
| DIV | Divide | 2.50 | 7 | Pn | Pn | 17 54 13.0 | +0.4 |
| DIV | | | | Sn | Sn | 17 54 41.6 | -0.7 |
| DIV | Divide | 2.50 | 7 | ePn | Pn | 17 54 13.0 | +0.4 |
| DIV | | | | eSn | Sn | 17 54 41.5 | -0.7 |
| WAX | Waxell Ridge | 2.54 | 44 | ePn | Pn | 17 54 14.2 | +0.9 |
| BRLK | Bradley Lake | 2.56 | 297 | ePn | Pn | 17 54 14.2 | +0.7 |
| BRLK | | | | ePn | Pb | 17 54 14.5 | -4.5 |
| CNPM | China Poot | 2.64 | 291 | ePn | Pn | 17 54 15.5 | +0.8 |
| BARK | Barkley Ridge | 2.65 | 47 | ePn | Pn | 17 54 15.9 | +1.2 |
| SLKM | Skilak Lake | 2.69 | 315 | ePn | Pn | 17 54 15.8 | +0.5 |
| MESA | MESA | 2.73 | 54 | P | Pn | 17 54 16.9 | +0.9 |
| ISLE | Juniper Island | 2.83 | 45 | P | Pn | 17 54 18.3 | +1.0 |
| KLU | Klutina | 2.85 | 5 | ePn | Pn | 17 54 18.1 | +0.6 |
| BAGL | Bagley Icefiel | 2.86 | 48 | ePn | Pn | 17 54 18.6 | +1.1 |
| HOM | Homer | 2.88 | 293 | ePn | Pn | 17 54 17.7 | -0.2 |
| PS12 | TAPS Pump St12 | 2.89 | 12 | ePn | Pn | 17 54 18.8 | +0.7 |
| KNK | Knik Glacier | 2.95 | 340 | ePn | Pn | 17 54 19.5 | +0.7 |
| RC01 | Rabbit Creek A | 2.96 | 327 | ePn | Pn | 17 54 19.4 | +0.4 |
| VRDI | Verde Repeater | 2.97 | 29 | P | Pn | 17 54 19.9 | +0.6 |
| KIAG | Kiagna River | 3.05 | 40 | P | Pn | 17 54 21.2 | +0.8 |
| RKAV | Rock Avalanche | 3.06 | 55 | P | Pn | 17 54 21.8 | +1.3 |
| BALM | Baldy | 3.14 | 39 | Pn | Pn | 17 54 22.4 | +0.8 |
| BALM | | | | Sn | Sn | 17 54 56.3 | -1.9 |
| BALM | Baldy | 3.14 | 39 | ePn | Pn | 17 54 22.5 | +1.0 |
| SCM | Sheep Creek Mo | 3.22 | 352 | ePn | Pn | 17 54 23.5 | +0.9 |
| SAMH | Samovar Hills | 3.23 | 60 | P | Pn | 17 54 24.4 | +1.7 |
| PMR | Palmer | 3.24 | 336 | ePn | Pn | 17 54 23.6 | +0.8 |
| SML | Sawmill | 3.30 | 344 | ePn | Pn | 17 54 24.8 | +1.1 |
| GHO | Glory Hole Cre | 3.37 | 339 | ePn | Pn | 17 54 25.5 | +0.9 |
| BARN | Barnard Glacie | 3.39 | 43 | ePn | Pn | 17 54 26.2 | +1.2 |
| KDAK | Kodiak Island | 3.39 | 258 | Pn | Pn | 17 54 25.7 | +0.8 |
| | 16nm,0.3s,baz=82,slow=14,SNR=250 | | | | | | |
| KDAK | | | | Sn | Sn | 17 55 01.7 | -2.4 |
| | 7.8nm,0.3s,baz=154,slow=20,SNR=10 | | | | | | |
| PCA | Pinnacle | 3.45 | 63 | ePn | Pn | 17 54 27.0 | +1.2 |
| PS11 | TAPS Pump St11 | 3.46 | 7 | ePn | Pn | 17 54 27.5 | +1.7 |
| SUA | Susitna One | 3.56 | 324 | ePn | Pn | 17 54 28.6 | +1.4 |
| YKU2 | Yakutat | 3.57 | 73 | ePn | Pn | 17 54 30.2 | +2.8 |
| INE | Iliamna NE | 3.69 | 295 | P | Pn | 17 54 30.9 | +1.7 |
| FOPK | Fourpeaked Vol | 3.69 | 275 | P | Pn | 17 54 30.9 | +1.8 |
| RED | Redoubt Volcan | 3.69 | 301 | P | Pn | 17 54 30.0 | +0.9 |
| BCPM | Bancas Point | 3.70 | 67 | ePn | Pn | 17 54 30.5 | +1.3 |
| RSO | Redoubt South | 3.71 | 302 | ePn | Pn | 17 54 30.4 | +1.0 |
| ILW | Iliamna West | 3.73 | 295 | ePn | Pn | 17 54 30.8 | +1.2 |
| DFR | Drift River | 3.73 | 304 | P | Pn | 17 54 30.5 | +0.8 |
| PNL | Peninsula | 3.74 | 71 | Pn | Pn | 17 54 30.6 | +0.9 |
| PNL | | | | Sn | Sn | 17 55 10.6 | -2.3 |
| PNL | Peninsula | 3.74 | 71 | ePn | Pn | 17 54 30.8 | +1.0 |
| RDWB | Redoubt West | 3.75 | 302 | P | Pn | 17 54 31.0 | +1.0 |
| CDD | Cape Douglas | 3.78 | 277 | P | Pn | 17 54 31.9 | +1.6 |
| RDJH | Redoubt Jeurge | 3.79 | 303 | P | Pn | 17 54 31.2 | +0.8 |
| HARP | HAARP | 3.81 | 9 | Pn | Pn | 17 54 31.9 | +1.3 |
| HARP | HAARP | 3.81 | 9 | ePn | Pn | 17 54 31.9 | +1.3 |
| SPU | Mount Spurr | 3.81 | 314 | ePn | Pn | 17 54 31.8 | +1.2 |
| SPCP | Crater Peak Br | 3.90 | 315 | P | Pn | 17 54 33.4 | +1.4 |
| CKL | Chakachamna La | 3.92 | 313 | P | Pn | 17 54 33.6 | +1.3 |
| STLK | Strandline Lak | 3.94 | 319 | P | Pn | 17 54 33.7 | +1.3 |
| OHAK | Old Harbor | 3.95 | 252 | ePn | Pn | 17 54 32.4 | -0.1 |
| SPWE | Spurr West | 4.06 | 313 | P | Pn | 17 54 35.6 | +1.5 |
| YUK2 | White River | 4.18 | 39 | Pn | Pn | 17 54 37.7 | +1.8 |
| YUK2 | | | | Sn | Sn | 17 55 22.6 | -1.3 |
| SKT | Skwentna | 4.20 | 325 | ePn | Pn | 17 54 36.8 | +0.9 |
| YUK3 | Moose Creek | 4.30 | 41 | Pn | Pn | 17 54 39.7 | +2.1 |
| YUK3 | | | | Sn | Sn | 17 55 26.4 | -0.6 |
| PAX | Paxson | 4.35 | 6 | Pn | Pn | 17 54 38.7 | +0.6 |
| PAX | | | | Sn | Sn | 17 55 27.7 | -0.3 |
| PAX | Paxson | 4.35 | 6 | ePn | Pn | 17 54 38.7 | +0.6 |
| KAWH | Katmai | 4.42 | 270 | P | Pn | 17 54 41.3 | +2.3 |
| DHY | Denali Highway | 4.46 | 354 | ePn | Pn | 17 54 40.5 | +0.9 |
| MENT | Mentasta | 4.49 | 16 | ePn | Pn | 17 54 40.9 | +0.9 |
| KAHC | Katmai Hardscr | 4.50 | 274 | P | Pn | 17 54 42.0 | +1.8 |
| YUK1 | Sand Pete Hill | 4.55 | 37 | Pn | Pn | 17 54 42.5 | +1.5 |
| YUK1 | | | | Sn | Sn | 17 55 30.5 | -2.5 |
| YUK7 | Dusty Glacier | 4.59 | 62 | Pn | Pn | 17 54 43.5 | +1.9 |
| YUK7 | | | | Sn | Sn | 17 55 34.0 | -0.1 |
| BVCY | Beaver Creek | 4.65 | 34 | Pn | Pn | 17 54 43.9 | +1.7 |
| BVCY | | | | Sn | Sn | 17 55 34.0 | -1.3 |
| BVCY | Beaver Creek | 4.65 | 34 | P | Pn | 17 54 44.1 | +1.9 |
| KVTA | Katmai Vly 10 | 4.67 | 270 | P | Pn | 17 54 43.8 | +1.2 |
| KABU | Katmai Buttres | 4.68 | 269 | P | Pn | 17 54 44.9 | +2.1 |
| KELA | Mount Kelaz | 4.90 | 271 | P | Pn | 17 54 47.4 | +1.7 |
| RND | Reindeer | 4.91 | 347 | ePn | Pn | 17 54 47.5 | +1.7 |
| BCA3 | Beaver Creek A | 4.96 | 25 | ePn | Pn | 17 54 47.4 | +0.9 |
| HYT | Haines Junctio | 4.99 | 60 | Pn | Pn | 17 54 48.4 | +1.4 |
| HYT | | | | Sn | Sn | 17 55 42.6 | -1.3 |
| HYT | Haines Junctio | 4.99 | 60 | ePn | Pn | 17 54 48.4 | +1.4 |
| PPLA | Purkeypile | 5.11 | 329 | ePn | Pn | 17 54 49.1 | +0.5 |
| TRF | Thorofare Moun | 5.16 | 340 | ePn | Pn | 17 54 50.9 | +1.5 |
| SVW2 | Sparrevohn | 5.23 | 302 | ePn | Pn | 17 54 51.0 | +0.8 |
| MCK | McKinley | 5.23 | 348 | ePn | Pn | 17 54 52.0 | +1.8 |
| PLBC | Pleasant Camp | 5.24 | 77 | Pn | Pn | 17 54 51.5 | +1.3 |
| PLBC | | | | Sn | Sn | 17 55 48.1 | -1.6 |
| PLBC | Pleasant Camp | 5.24 | 77 | ePn | Pn | 17 54 51.5 | +1.3 |
| KTH | Kantishna Hill | 5.38 | 338 | ePn | Pn | 17 54 53.8 | +1.6 |
| CAST | Castle Rocks | 5.51 | 332 | ePn | Pn | 17 54 54.3 | +0.3 |
| SKAG | Skagway | 5.77 | 77 | ePn | Pn | 17 54 58.6 | +1.1 |
| HDA | Harding Lake | 5.77 | 358 | ePn | Pn | 17 54 59.2 | +1.6 |
| BPAW | Bear Paw Mtn. | 5.88 | 340 | ePn | Pn | 17 55 00.1 | +0.9 |
| BESE | Bessie Mountai | 6.03 | 86 | Pn | Pn | 17 55 01.8 | +0.5 |
| BESE | | | | Sn | Sn | 17 56 08.3 | -1.0 |
| BESE | Bessie Mountai | 6.03 | 86 | ePn | Pn | 17 55 01.6 | +0.5 |
| CCB | Clear Creek Bu | 6.04 | 354 | ePn | Pn | 17 55 01.8 | +0.5 |
| ILAR | Eielson Array | 6.14 | 358 | Pn | Pn | 17 55 02.2 | -0.3 |
| | 1.3nm,0.3s,baz=180,slow=13,SNR=73 | | | | | | |
| ILAR | | | | Sn | Sn | 17 56 09.3 | -2.5 |
| | 1.0nm,0.3s,baz=192,slow=22,SNR=2.7 | | | | | | |
| ILB | Eielson Array | 6.14 | 358 | ePn | Pn | 17 55 02.4 | -0.3 |
| IL1 | Eielson Array | 6.14 | 358 | ePn | Pn | 17 55 02.4 | -0.2 |
| WHY | Whitehorse | 6.17 | 66 | Pn | Pn | 17 55 04.4 | +1.3 |
| WHY | | | | Sn | Sn | 17 56 10.3 | -2.5 |
| WHY | Whitehorse | 6.17 | 66 | ePn | Pn | 17 55 04.5 | +1.4 |
| COLA | College | 6.27 | 354 | ePn | Pn | 17 55 05.2 | +0.8 |
| JIS | Juneau Island | 6.32 | 88 | ePn | Pn | 17 55 05.8 | +0.8 |
| TT01 | Tatalina | 6.35 | 316 | ePn | Pn | 17 55 05.9 | +0.4 |
| DAWY | Dawson | 6.38 | 29 | Pn | Pn | 17 55 04.9 | -1.0 |
| DAWY | | | | Sn | Sn | 17 56 15.5 | -2.4 |
| DAWY | Dawson | 6.38 | 29 | ePn | Pn | 17 55 07.0 | +1.1 |
| MDM | Murphy Dome | 6.38 | 353 | ePn | Pn | 17 55 06.5 | +0.6 |
| EGAK | Eagle | 6.62 | 20 | ePn | Pn | 17 55 10.2 | +1.0 |
| MLY | Manley | 6.71 | 344 | ePn | Pn | 17 55 11.5 | +1.0 |
| CHGN | Chignik | 6.90 | 255 | ePn | Pn | 17 55 15.0 | +2.0 |
| VNNF | Veniaminof 3 | 7.36 | 257 | P | Pn | 17 55 21.3 | +1.8 |
| PS06 | TAPS Pump Stn6 | 7.38 | 349 | ePn | Pn | 17 55 21.1 | +1.4 |
| CRAG | Craig | 7.91 | 108 | ePn | Pn | 17 55 26.8 | -0.1 |
| FYU | Fort Yukon | 7.95 | 3 | ePn | Pn | 17 55 28.2 | +0.8 |
| IM3 | Indian Mountai | 8.10 | 338 | P | Pn | 17 55 29.7 | +0.2 |
| IMAR | Indian Mountai | 8.10 | 338 | ePn | Pn | 17 55 29.7 | +0.2 |
| SDPT | Sand Point | 8.37 | 253 | ePn | Pn | 17 55 33.4 | +0.2 |
| DLBC | Dease Lake | 8.56 | 85 | Pn | Pn | 17 55 37.8 | +1.8 |
| DLBC | Dease Lake | 8.56 | 85 | ePn | Pn | 17 55 38.0 | +2.1 |
| COLD | Coldfoot | 8.77 | 350 | Pn | Pn | 17 55 39.9 | +1.3 |
| COLD | Coldfoot | 8.77 | 350 | ePn | Pn | 17 55 39.5 | +0.9 |
| BM3 | Burnt Mountain | 8.83 | 5 | ePn | Pn | 17 55 39.8 | +0.3 |
| NDB | Naden | 8.84 | 116 | Pn | Pn | 17 55 40.0 | +0.4 |
| NDB | Naden | 8.84 | 116 | P | Pn | 17 55 40.3 | +0.7 |
| DIB | Dawson Inlet, | 9.53 | 119 | Pn | Pn | 17 55 49.4 | +0.4 |
| DIB | | | | Sn | Sn | 17 57 29.4 | -5.7 |
| INK | Inuvik | 11.23 | 25 | Pn | Pn | 17 56 12.6 | +0.4 |
| | 0.1nm,0.3s,baz=214,slow=11,SNR=3.5 | | | | | | |
| YKA | Yellowknife Ar | 15.98 | 63 | Pn | Pn | 17 57 16.8 | +0.4 |
| | 0.1nm,0.3s,baz=268,slow=9.8,SNR=13 | | | | | | |
| YKB5 | Yellowknife Ar | 15.98 | 63 | ePn | Pn | 17 57 16.8 | +0.4 |
| JCW | Jim Creek | 17.84 | 115 | ePn | Pn | 17 57 40.3 | +0.4 |
| RES | Resolute Bay | 24.72 | 30 | P | P | 17 58 53.5 | +1.3 |
| | 1.2nm,0.7s,baz=259,slow=10,SNR=3.8 | | | | | | |
| SONA0 | Songino Array | 58.28 | 311 | eP | P | 18 03 33.3 | +7.5 |
| SONM | Songino Array | 58.28 | 311 | P | P | 18 03 33.3 | +7.5 |
| | 0.7nm,0.9s,baz=38,slow=6.6,SNR=4.8 | | | | | | |

**WEL 08 17:57:15.5**±0.4**, 37°.39S×179°.69E, h12km, ML3.8**/17**, 1C-4D, Error ellipse: s-maj=4.0km s-min=3.6km az=90.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WMGZ | Waiomatatini S | 1.10 | 247 | ⇓P* | Pb | 17 57 35.7 | -0.7 |
| WMGZ | | | | S* | Sn | 17 57 51.8 | -0.1 |
| WMGZ | | | | AML | AML | 17 57 53.3 | |
| MXZ | Matakaoa Point | 1.12 | 261 | P* | Pb | 17 57 35.4 | -1.2 |
| MXZ | | | | AML | AML | 17 57 53.7 | |
| MXZ | | | | AML | AML | 17 57 55.4 | |
| PUZ | Puketiti | 1.32 | 239 | PN | Pn | 17 57 38.6 | -1.2 |
| PUZ | | | | SN | Sb | 17 57 56.8 | -0.4 |
| PUZ | | | | AML | AML | 17 58 04.7 | |
| PKGZ | Pakihiroa | 1.38 | 248 | ⇓PN | Pn | 17 57 39.3 | -1.2 |
| PKGZ | | | | SN | Sn | 17 57 57.4 | -1.3 |
| PKGZ | | | | AML | AML | 17 57 59.4 | |
| HAZ | Te Kaha | 1.56 | 256 | ⇓PN | Pn | 17 57 42.6 | -0.4 |
| HAZ | | | | AML | AML | 17 58 10.0 | |
| HAZ | | | | AML | AML | 17 58 13.9 | |
| HAZ | | | | AML | AML | 17 58 28.5 | |
| CNGZ | Carnagh Statio | 1.60 | 227 | PN | Pn | 17 57 42.7 | -0.9 |
| CNGZ | | | | AML | AML | 17 58 08.6 | |
| RUGZ | Raukumara Rang | 1.70 | 250 | ⇑PN | Pn | 17 57 44.2 | -0.8 |
| MWZ | Matawai | 1.96 | 241 | PN | Pn | 17 57 47.0 | -1.5 |
| MWZ | | | | AML | AML | 17 58 12.9 | |
| MWZ | | | | AML | AML | 17 58 20.1 | |
| RIGZ | Rimuhau | 2.01 | 229 | PN | Pn | 17 57 48.1 | -1.2 |
| RIGZ | | | | AML | AML | 17 58 15.4 | |
| RIGZ | | | | AML | AML | 17 58 17.5 | |
| RAGZ | Rawiri | 2.11 | 238 | PN | Pn | 17 57 50.0 | -0.6 |
| RAGZ | | | | AML | AML | 17 58 18.7 | |
| RAGZ | | | | AML | AML | 17 58 18.8 | |
| URZ | Urewera | 2.22 | 246 | PN | Pn | 17 57 51.4 | -0.7 |
| URZ | | | | AML | AML | 17 58 25.9 | |
| URZ | | | | AML | AML | 17 58 31.2 | |
| MHGZ | Mahia Peninsul | 2.25 | 218 | PN | Pn | 17 57 50.5 | -2.0 |
| KNZ | Kokohu | 2.27 | 224 | PN | Pn | 17 57 50.8 | -2.0 |
| RTZ | Ruatahuna | 2.47 | 240 | PN | Pn | 17 57 54.8 | -0.8 |
| RTZ | | | | SN | Sn | 17 58 25.0 | -0.7 |
| MUGZ | Murupara | 2.55 | 244 | PN | Pn | 17 57 55.8 | -0.9 |
| WHHZ | Waihua | 2.56 | 228 | PN | Pn | 17 57 55.5 | -1.4 |
| WHHZ | | | | AML | AML | 17 58 32.6 | |
| WHHZ | | | | AML | AML | 17 58 33.4 | |
| TARZ | Mount Tarawera | 2.66 | 251 | PN | Pn | 17 57 57.7 | -0.5 |
| TARZ | | | | AML | AML | 17 58 08.2 | |
| MTHZ | Maungataniwha | 2.68 | 236 | PN | Pn | 17 57 57.2 | -1.3 |
| ARHZ | Aropaoanui | 2.83 | 228 | PN | Pn | 17 57 59.5 | -1.0 |
| ARHZ | | | | AML | AML | 17 58 37.4 | |
| ARHZ | | | | AML | AML | 17 58 38.3 | |
| NMHZ | Naumai | 2.84 | 232 | PN | Pn | 17 57 59.4 | -1.3 |
| NMHZ | | | | AML | AML | 17 58 43.0 | |
| NMHZ | | | | AML | AML | 17 58 43.4 | |
| MRHZ | Matea Rd | 2.96 | 240 | PN | Pn | 17 58 01.1 | -1.2 |
| MRHZ | | | | AML | AML | 17 58 40.9 | |
| MRHZ | | | | AML | AML | 17 58 42.3 | |
| BKZ | Black Stump Fm | 3.08 | 234 | PN | Pn | 17 58 02.3 | -1.6 |
| BKZ | | | | AML | AML | 17 58 39.8 | |
| BKZ | | | | AML | AML | 17 58 47.7 | |
| MCHZ | McNeill Hill | 3.12 | 228 | PN | Pn | 17 58 02.8 | -1.7 |
| MCHZ | | | | AML | AML | 17 58 51.8 | |
| KUZ | Kuaotunu | 3.24 | 280 | PN | Pn | 17 58 05.0 | -1.1 |
| KAHZ | Kahuranaki | 3.26 | 222 | PN | Pn | 17 58 03.9 | -2.5 |
| BHHZ | Black Hill Sta | 3.54 | 233 | PN | Pn | 17 58 08.5 | -1.8 |
| MKAZ | Moumakai | 3.63 | 273 | PN | Pn | 17 58 11.1 | -0.4 |
| OTVZ | Oturere | 3.63 | 240 | PN | Pn | 17 58 09.9 | -1.7 |
| WNVZ | Wahianoa | 3.75 | 238 | PN | Pn | 17 58 11.5 | -1.8 |
| TSZ | Takapari Road | 3.95 | 226 | PN | Pn | 17 58 12.5 | -3.4 |
| BFZ | Birch Farm | 4.24 | 218 | ⇓PN | Pn | 17 58 15.5 | -4.4 |
| MRZ | Mangatainoka R | 4.57 | 223 | PN | Pn | 17 58 20.4 | -4.0 |

*IDC **08** 17:57:39.0±4.2, 13°.98N×89°.58W, h42km±36km, mb3.6/8, mb1 3.9/10, mb1mx3.6/46, mbtmp3.9/10, ML3.2/2, MS3.5/2, Ms1 3.5/2, ms1mx2.7/36, Error ellipse: s-maj=40.3km s-min=24.7km az=33.0*
**ISC 08 17:57:38.0**±1.3**, 13°.9N**±0°.2×**89°.7W**±0°.1**, h35km, n15, σ0s.86**/14**, mb4.0**/7**, El Salvador**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CMIG | Matias Romero | 5.88 | 303 | P | Pn | 17 59 02.9 | +0.2 |
| | 0.7nm,0.3s,baz=128,slow=9.8,SNR=4.7 | | | | | | |
| CMIG | | | | S | Sn | 18 00 07.5 | -1.5 |
| | 1.1nm,0.3s,baz=91,slow=9.6,SNR=3.8 | | | | | | |
| SDV | Santo Domingo | 19.37 | 103 | P | P | 18 02 00.4 | -0.7 |
| | 0.5nm,0.3s,baz=283,slow=8.7,SNR=3.8 | | | | | | |
| TXAR | Lajitas Array | 20.04 | 322 | P | Pn | 18 02 10.7 | +0.5 |
| | 2.5nm,0.8s,baz=142,slow=12,SNR=23 | | | | | | |
| TKL | Tuckaleechee C | 22.29 | 13 | LR | LR | 18 11 30.0 | |
| | comp=Z,136nm,19.3s,baz=200,slow=37 | | | | | | |
| PTGA | Pitinga | 32.88 | 114 | LR | LR | 18 17 48.0 | |
| | comp=Z,71nm,20.1s,baz=275,slow=37 | | | | | | |
| PDAR | Pinedale Array | 33.45 | 333 | P | P | 18 04 14.7 | +0.8 |
| | 0.3nm,0.6s,baz=154,slow=5.0,SNR=3.0 | | | | | | |
| ULM | Lac du Bonnet | 36.57 | 353 | P | P | 18 04 40.9 | +0.5 |
| | 4.2nm,0.7s,baz=174,slow=9.9,SNR=6.9 | | | | | | |
| YKA | Yellowknife Ar | 51.62 | 346 | P | P | 18 06 41.0 | +0.2 |
| | 1.4nm,0.7s,baz=140,slow=7.9,SNR=7.3 | | | | | | |
| RES | Resolute Bay | 60.82 | 358 | P | P | 18 07 46.5 | +0.3 |
| | 1.7nm,0.6s,baz=178,slow=9.4,SNR=9.3 | | | | | | |
| INK | Inuvik | 61.15 | 343 | P | P | 18 07 48.3 | -0.2 |
| | 1.4nm,0.8s,baz=127,slow=6.1,SNR=5.2 | | | | | | |
| ILAR | Eielson Array | 63.78 | 336 | P | P | 18 08 05.1 | -1.2 |
| | 0.8nm,1.0s,baz=158,slow=4.8,SNR=7.0 | | | | | | |
| ESDC | Sonseca Array | 78.03 | 52 | P | P | 18 09 32.6 | -0.7 |
| | 0.2nm,0.4s,baz=295,slow=6.6,SNR=3.6 | | | | | | |
| WRA | Warramunga Arr | 137.52 | 256 | PKP | PKPdf | 18 17 00.2 | +1.1 |
| | 0.4nm,0.8s,baz=80,slow=1.5,SNR=4.7 | | | | | | |
| FITZ | Fitzroy Crossi | 145.79 | 258 | PKPbc | PKPab | 18 17 15.3 | +0.5 |
| | 1.1nm,0.6s,baz=82,slow=7.7,SNR=4.5 | | | | | | |
| CMAR | Chiang Mai Arr | 146.71 | 345 | PKPbc | PKPdf | 18 17 14.6 | -0.9 |
| | 1.6nm,0.6s,baz=341,slow=2.9,SNR=18 | | | | | | |

**MEX 08 18:01:38.8**±0.8**, 18°.13N×103°.37W, h5km, MD3.6, Near coast of Michoacan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MMIG | Aquila | 0.16 | 7 | eP | Pg | 18 01 40.6 | -1.4 |
| MMIG | | | | eS | Sg | 18 01 43.9 | -0.2 |
| R15V | | 1.19 | 331 | eP | Pg | 18 01 57.8 | -3.8 |
| R15V | | | | eS | Sg | 18 02 14.1 | -2.9 |
| EZ5V | | 1.36 | 351 | eP | Pn | 18 02 00.5 | -4.2 |
| EZ5V | | | | eS | Sg | 18 02 19.1 | -3.5 |
| ZIIG | Zihuatanejo | 1.89 | 106 | eP | Pn | 18 02 08.5 | -3.2 |
| ZIIG | | | | eS | Sn | 18 02 31.6 | -4.3 |

**IDC 08 18:26:26.9±6.8, 20°.57S×178°.44W, h0km, mb3.4/2, mb1 3.7/2, mb1mx3.5/36, mbtmp3.4/2, MS3.9/1, Ms1 3.9/1, ms1mx2.6/17, Error ellipse: s-maj=306.4km s-min=104.2km az=155.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ASAR | Alice Springs | 44.10 | 257 | P | P | 18 34 36.6 | -0.7 |
| | 0.2nm,0.4s,baz=89,slow=7.2,SNR=13 | | | | | | |
| WRA | Warramunga Arr | 44.18 | 262 | P | P | 18 34 38.4 | +0.4 |
| | 0.3nm,0.3s,baz=97,slow=8.4,SNR=29 | | | | | | |
| NWAO | Narrogin (SRO) | 57.97 | 243 | LR | LR | 18 59 24.6 | |
| | comp=Z,103nm,19.6s,baz=265,slow=34 | | | | | | |
| AKASG | Malin Array Be | 142.87 | 331 | PKP | PKPdf | 18 46 01.8 | -0.6 |
| | 0.2nm,0.3s,baz=47,slow=4.8,SNR=5.7 | | | | | | |

---

*ISCJB 08 18:34:09.4±0.4, 43°.40N±0°.02×126°.73W±0°.05, h10km, mb4.2/12, MS3.3/8, Error ellipse: s-maj=5.0km s-min=2.7km az=163.9*

*NEIC 08 18:34:10.8±0.4, 43°.39N×126°.84W, h10km, mb4.3/14, Error ellipse: s-maj=5.5km s-min=3.1km az=70.0*

*IDC 08 18:34:10.6±1.8, 43°.53N×126°.41W, h0km, mb3.7/5, mb1 4.0/10, mb1mx3.7/61, mbtmp3.8/10, ML3.7/5, MS3.3/12, Ms1 3.3/12, ms1mx3.2/40, Error ellipse: s-maj=28.4km s-min=13.7km az=53.0*

**ISC 08 18:34:11.2±1.1, 43°.34N±0°.05×126°.71W±0°.09, h10km, n166, σ1s31/167, mb4.4/12, MS3.3/8, Off coast of Oregon**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KEBM | Edson Butte | 1.80 | 104 | ePn | Pn | 18 34 39.8 | -2.6 |
| KBO | Bosley Butte | 2.15 | 121 | ePn | Pn | 18 34 45.0 | -2.2 |
| I03D | Drain, OR | 2.47 | 81 | P | Pn | 18 34 49.8 | -1.6 |
| | baz=264,SNR=82 | | | | | | |
| I03D | | | | S | Sn | 18 35 20.5 | -1.2 |
| | baz=264 | | | | | | |
| DBO | Dodson Butte | 2.55 | 94 | ePn | Pn | 18 34 51.2 | -1.4 |
| L02D | Cave Junction, | 2.58 | 116 | P | Pn | 18 34 51.0 | -1.9 |
| | baz=299,SNR=13 | | | | | | |
| L02D | | | | S | Sn | 18 35 22.2 | -2.2 |
| | baz=299 | | | | | | |
| COR | Corvallis | 2.76 | 62 | ePn | Pn | 18 34 54.6 | -0.8 |
| KRMB | Red Mountain | 2.76 | 130 | ePn | Pn | 18 34 53.9 | -1.7 |
| HUMO | Hull Mountain | 2.85 | 104 | ePn | Pn | 18 34 55.0 | -1.7 |
| G03D | McMinnville, O | 3.10 | 52 | P | Pn | 18 34 59.1 | -1.0 |
| | baz=236 | | | | | | |
| G03D | | | | S | Sn | 18 35 37.2 | 0.0 |
| | baz=236 | | | | | | |
| I04A | Tendick Farm, | 3.16 | 80 | P | Pn | 18 35 00.3 | -0.7 |
| | baz=264,SNR=160 | | | | | | |
| I04A | | | | S | Sn | 18 35 38.3 | -0.4 |
| | baz=264 | | | | | | |
| KMOR | Kings Mountain | 3.25 | 44 | ePn | Pn | 18 35 01.1 | -1.2 |
| IRO | Indian Ridge | 3.30 | 77 | ePn | Pn | 18 35 02.6 | -0.4 |
| KHMM | Horse Mountain | 3.32 | 137 | ePn | Pn | 18 35 03.7 | +0.4 |
| J04D | Umpqua Nationa | 3.36 | 90 | P | Pn | 18 35 03.9 | 0.0 |
| | baz=274 | | | | | | |
| YBH | Yreka Blue Hor | 3.37 | 117 | Pn | Pn | 18 35 03.6 | -0.3 |
| | 3.1nm,0.3s,baz=296,slow=14,SNR=47 | | | | | | |
| YBH | | | | Sn | Sn | 18 35 46.1 | +2.1 |
| | 0.8nm,0.3s,baz=261,slow=20,SNR=5.6 | | | | | | |
| YBH | Yreka Blue Hor | 3.37 | 117 | ePn | Pn | 18 35 03.1 | -0.8 |
| YBH | | | | Sn | Sn | 18 35 46.1 | +2.1 |
| F03A | Seaside | 3.43 | 40 | ePn | Pn | 18 35 03.2 | -1.4 |
| M02C | Callahan | 3.46 | 123 | P | Pn | 18 35 03.4 | -1.7 |
| | baz=306 | | | | | | |
| M02C | | | | S | Sn | 18 35 44.2 | -2.1 |
| | baz=306 | | | | | | |
| H04A | Detroit Lake | 3.53 | 66 | ePn | Pn | 18 35 05.6 | -0.4 |
| G04A | Mulino | 3.57 | 57 | ePn | Pn | 18 35 06.6 | +0.1 |
| K04D | Chiloquin, OR | 3.71 | 99 | P | Pn | 18 35 07.5 | -1.1 |
| | baz=283 | | | | | | |
| K04D | | | | S | Sn | 18 35 51.3 | -1.2 |
| | baz=283 | | | | | | |
| MOON | Moon Mountain | 3.73 | 77 | ePn | Pn | 18 35 09.1 | +0.4 |
| B023 | Clatskanie | 3.79 | 42 | ePn | Pn | 18 35 08.9 | -0.7 |
| F04D | Rainier, OR | 3.80 | 43 | P | Pn | 18 35 09.0 | -0.8 |
| | baz=227,SNR=5.6 | | | | | | |
| F04D | | | | S | Sn | 18 35 55.6 | +1.1 |
| | baz=227 | | | | | | |
| KMRM | Mail Ridge | 3.84 | 143 | ePn | Pn | 18 35 10.8 | +0.4 |
| E03A | Lebam | 3.91 | 34 | ePn | Pn | 18 35 10.3 | -0.8 |
| M04C | Macdoel | 3.92 | 112 | P | Pn | 18 35 10.2 | -1.4 |
| | baz=295 | | | | | | |
| BMW | Boistfort Moun | 3.99 | 37 | ePn | Pn | 18 35 11.2 | -1.2 |
| J05D | Fort Rock, OR | 4.00 | 89 | P | Pn | 18 35 11.3 | -1.3 |
| | baz=274,SNR=14 | | | | | | |
| F04A | Amboy | 4.01 | 48 | ePn | Pn | 18 35 12.6 | 0.0 |
| I05D | Terrebonne, OR | 4.01 | 74 | P | Pn | 18 35 12.3 | -0.4 |
| | baz=258 | | | | | | |
| TDH | Tom, Dick, Har | 4.03 | 59 | ePn | Pn | 18 35 13.4 | +0.3 |
| LVP | Lakeview Peak | 4.10 | 47 | ePn | Pn | 18 35 14.0 | 0.0 |
| HOOD | Mount Hood Mea | 4.13 | 60 | ePn | Pn | 18 35 15.2 | +0.7 |
| MTMW | Mount Mitchell | 4.18 | 49 | ePn | Pn | 18 35 15.0 | -0.1 |
| B203 | Quarry, Mount | 4.21 | 46 | ePn | Pn | 18 35 15.5 | +0.1 |
| FL2 | Flat Top 2 | 4.22 | 46 | ePn | Pn | 18 35 15.8 | +0.2 |
| SWFL | Southwest Flan | 4.29 | 47 | ePn | Pn | 18 35 17.1 | +0.4 |
| ERK | Elk Rock | 4.29 | 45 | ePn | Pn | 18 35 16.6 | -0.1 |
| G05D | Wamic, OR | 4.31 | 62 | P | Pn | 18 35 16.8 | 0.0 |
| | baz=247,SNR=43 | | | | | | |
| VALT | Mount Saint He | 4.31 | 47 | ePn | Pn | 18 35 17.2 | +0.3 |
| B201 | Coldwater, Mou | 4.33 | 45 | ePn | Pn | 18 35 17.0 | -0.1 |
| TDL | Tradedollar La | 4.39 | 45 | ePn | Pn | 18 35 17.9 | -0.1 |
| ASR | Mount Adams--S | 4.60 | 51 | ePn | Pn | 18 35 20.1 | -0.8 |
| G06A | Carlson Farm, | 4.76 | 64 | ePn | Pn | 18 35 22.7 | -0.3 |
| B941 | Kapowsin | 4.83 | 40 | ePn | Pn | 18 35 23.5 | -0.4 |
| LON | Longmire | 4.87 | 44 | ePn | Pn | 18 35 24.7 | +0.3 |
| MOD | Modoc Plateau | 4.94 | 105 | ePn | Pn | 18 35 25.3 | -0.4 |
| OBSR | Observation Ro | 4.96 | 43 | ePn | Pn | 18 35 26.0 | 0.0 |
| GNW | Green Mountain | 5.03 | 32 | ePn | Pn | 18 35 25.7 | -0.9 |
| D05A | Enumclaw | 5.09 | 39 | ePn | Pn | 18 35 27.9 | +0.4 |
| B04A | Port Angeles | 5.22 | 24 | ePn | Pn | 18 35 28.5 | -0.7 |
| I07A | Izee | 5.28 | 79 | ePn | Pn | 18 35 30.1 | -0.1 |
| F07A | Phinny Hill Vi | 5.47 | 60 | ePn | Pn | 18 35 33.0 | +0.2 |
| C05A | Tolt Reservoir | 5.60 | 37 | ePn | Pn | 18 35 34.2 | -0.3 |
| HTW | Haystack Looko | 5.65 | 36 | ePn | Pn | 18 35 34.8 | -0.4 |
| PGC | Sidney | 5.77 | 22 | ePn | Pn | 18 35 35.9 | -0.9 |
| PGC | | | | eSn | Sn | 18 36 41.8 | -1.2 |
| LTY | Liberty | 5.79 | 45 | ePn | Pn | 18 35 37.2 | +0.1 |
| E07A | Sunnyside | 5.83 | 54 | ePn | Pn | 18 35 38.2 | +0.5 |
| B05A | Bryant | 5.88 | 32 | P | Pn | 18 35 37.4 | -1.0 |
| | baz=216 | | | | | | |
| B05A | | | | S | Sn | 18 36 46.1 | +0.3 |
| | baz=216 | | | | | | |
| G08A | Pilot Rock | 5.89 | 68 | ePn | Pn | 18 35 38.5 | -0.1 |
| BEKR | Beckworth | 5.89 | 124 | ePn | Pn | 18 35 39.4 | +0.7 |
| HAWA | Hanford | 5.94 | 57 | ePn | Pn | 18 35 39.4 | +0.2 |
| MCCM | Marconi Confer | 5.95 | 149 | ePn | Pn | 18 35 38.8 | -0.5 |
| WVOR | Wild Horse Val | 6.00 | 96 | ePn | Pn | 18 35 39.2 | -0.9 |
| J08A | Circle Bar Ran | 6.01 | 87 | ePn | Pn | 18 35 40.6 | +0.4 |
| A04D | Lummi Island | 6.06 | 26 | P | Pn | 18 35 39.8 | -0.9 |
| | baz=210 | | | | | | |
| A04D | | | | S | Sn | 18 36 49.8 | -0.2 |
| | baz=210 | | | | | | |
| GPW | Glacier Peak | 6.17 | 37 | ePn | Pn | 18 35 42.8 | +0.4 |
| AFDM | Forest Hills D | 6.17 | 133 | ePn | Pn | 18 35 43.9 | +1.6 |
| ETW | Entiat | 6.19 | 44 | ePn | Pn | 18 35 43.2 | +0.5 |
| RPW | Rockport | 6.26 | 34 | ePn | Pn | 18 35 43.5 | -0.1 |
| E08A | Dider Farm, El | 6.28 | 57 | ePn | Pn | 18 35 43.9 | +0.1 |
| B06A | Marblemount | 6.33 | 33 | ePn | Pn | 18 35 44.6 | +0.1 |
| PAHR | Pah Rah Range | 6.59 | 121 | ePn | Pn | 18 35 50.4 | +2.2 |
| D08A | Wollman Farm, | 6.64 | 53 | ePn | Pn | 18 35 49.1 | +0.4 |
| PNTR | Pine Nut | 6.84 | 126 | ePn | Pn | 18 35 52.6 | +0.9 |
| E09A | Wood Farm, Sta | 6.86 | 60 | ePn | Pn | 18 35 50.6 | -1.1 |
| BMO | Blue Mountains | 6.94 | 74 | ePn | Pn | 18 35 52.5 | -0.4 |
| YERR | Yerington | 7.12 | 125 | ePn | Pn | 18 35 57.0 | +1.4 |
| CMB | Columbia Colle | 7.16 | 136 | ePn | Pn | 18 35 59.2 | +3.3 |
| B08A | Colville Reser | 7.19 | 43 | ePn | Pn | 18 35 56.1 | -0.2 |
| F10A | Beach Ranch, E | 7.26 | 65 | ePn | Pn | 18 35 57.1 | -0.2 |
| WAKR | Walker | 7.33 | 129 | ePn | Pn | 18 36 00.4 | +2.0 |
| C09A | Chrisman Ranch | 7.41 | 50 | ePn | Pn | 18 35 59.4 | +0.1 |
| MFID | Camas Ranch | 7.93 | 86 | ePn | Pn | 18 36 08.0 | +1.4 |
| LLLB | Lillooet | 7.98 | 23 | ePn | Pn | 18 36 07.4 | +0.2 |
| NEW | Newport | 8.31 | 50 | Pn | Pn | 18 36 10.1 | -1.6 |
| | 1.2nm,0.3s,baz=230,slow=12,SNR=15 | | | | | | |
| NEW | | | | LR | LR | 18 38 53.2 | |
| | comp=Z,117nm,20.1s,baz=252,slow=35 | | | | | | |
| NEW | Newport | 8.31 | 50 | P | Pn | 18 36 11.0 | -0.7 |
| | baz=238 | | | | | | |
| NEW | Newport | 8.31 | 50 | ePn | Pn | 18 36 11.8 | +0.1 |
| BBB | Bella Bella | 8.90 | 354 | Pn | Pn | 18 36 19.6 | -0.1 |
| | 0.9nm,0.3s,baz=188,slow=15,SNR=6.8 | | | | | | |
| BBB | | | | LR | LR | 18 39 24.6 | |
| | comp=Z,126nm,18.8s,baz=171,slow=36 | | | | | | |
| HLID | Hailey | 8.95 | 84 | ePn | Pn | 18 36 22.9 | +2.2 |
| MSO | Missoula | 9.68 | 64 | P | Pn | 18 36 30.2 | -0.4 |
| | baz=254 | | | | | | |
| MSO | Missoula | 9.68 | 64 | ePn | Pn | 18 36 30.4 | -0.2 |
| JTMT | Jette | 9.77 | 59 | ePn | Pn | 18 36 32.0 | +0.2 |
| ISA | Isabella, Lake | 9.96 | 138 | ePn | Pn | 18 36 37.9 | +3.5 |
| MCMT | McKenzie Canyo | 10.09 | 77 | ePn | Pn | 18 36 37.4 | +1.1 |
| DLMT | Dillon | 10.31 | 74 | ePn | Pn | 18 36 40.7 | +1.5 |
| HVU | Hansel Valley | 10.40 | 94 | ePn | Pn | 18 36 42.3 | +1.8 |
| BGU | Big Grassy Mou | 10.45 | 99 | ePn | Pn | 18 36 42.3 | +1.2 |
| LRM | Limekiln Ridge | 10.47 | 71 | ePn | Pn | 18 36 42.0 | +0.5 |
| WALA | Waterton Lakes | 10.55 | 53 | ePn | Pn | 18 36 43.3 | +0.8 |
| DUG | Dugway, Tooele | 10.85 | 102 | ePn | Pn | 18 36 48.5 | +1.9 |
| BOZ | Bozeman (W) | 11.01 | 73 | ePn | Pn | 18 36 49.8 | +1.0 |
| YHB | Horse Butte | 11.26 | 77 | ePn | Pn | 18 36 55.0 | +2.7 |
| FXWY | Fox Creek | 11.40 | 83 | ePn | Pn | 18 36 56.7 | +2.5 |
| YMR | Madison River | 11.42 | 78 | ePn | Pn | 18 36 57.4 | +2.9 |
| AHID | Auburn Hatcher | 11.44 | 88 | ePn | Pn | 18 36 56.4 | +1.6 |
| IMW | Indian Meadow | 11.45 | 82 | ePn | Pn | 18 36 56.7 | +1.8 |
| TPAW | Teton Pass | 11.47 | 84 | ePn | Pn | 18 36 55.2 | 0.0 |
| YHH | Holmes Hill | 11.51 | 77 | ePn | Pn | 18 36 57.8 | +2.1 |
| YFT | Old Faithful | 11.51 | 79 | ePn | Pn | 18 36 55.9 | +0.2 |
| YPP | Pitchstone Pla | 11.54 | 80 | ePn | Pn | 18 36 56.2 | 0.0 |
| REDW | Red Top Meadow | 11.55 | 84 | ePn | Pn | 18 36 57.5 | +1.2 |
| MOOW | Moose Ponds | 11.60 | 83 | ePn | Pn | 18 36 59.6 | +2.7 |
| SNOW | Snow King Moun | 11.61 | 84 | ePn | Pn | 18 36 58.0 | +0.8 |
| YNR | Norris Junctio | 11.63 | 78 | ePn | Pn | 18 37 00.1 | +2.8 |
| CCUT | Cedar City | 11.70 | 115 | ePn | Pn | 18 37 00.7 | +2.4 |
| H17A | Grant Village | 11.70 | 79 | ePn | Pn | 18 37 01.6 | +3.3 |
| KNB | Kanab | 12.35 | 116 | ePn | Pn | 18 37 10.7 | +3.5 |
| BW06 | Boulder Array | 12.56 | 87 | ePn | Pn | 18 37 12.1 | +1.9 |
| PD31 | Pinedale Array | 12.56 | 87 | ePn | Pn | 18 37 12.1 | +1.9 |
| PDAR | Pinedale Array | 12.56 | 87 | Pn | Pn | 18 37 11.4 | +1.3 |
| | 0.1nm,0.3s,baz=270,slow=13,SNR=21 | | | | | | |
| PDAR | Pinedale Array | 12.56 | 87 | ePn | Pn | 18 37 11.1 | +1.0 |
| PFO | Pinyon Flats O | 12.60 | 137 | LR | LR | 18 41 59.0 | |
| | comp=Z,156nm,20.5s,baz=326,slow=37 | | | | | | |
| PFO | Pinyon Flats O | 12.60 | 137 | eSn | Sn | 18 39 28.2 | -2.7 |
| PLM | Palomar | 12.61 | 139 | ePn | Pn | 18 37 05.5 | -5.2 |
| PLM | | | | eSn | Sn | 18 39 56.8 | +26 |
| BORC | Borrego Spring | 12.89 | 138 | ePn | Pn | 18 37 14.4 | 0.0 |
| BORC | | | | eSn | Sn | 18 39 51.1 | +13 |
| EML | El Monte Cty P | 13.00 | 140 | ePn | Pn | 18 37 19.4 | +3.6 |
| EML | | | | eSn | Sn | 18 39 37.1 | -3.4 |
| BLYC | Blythe | 13.50 | 131 | ePn | Pn | 18 37 23.4 | +0.6 |
| BLYC | | | | eSn | Sn | 18 39 54.9 | +2.1 |
| COA | Coachella | 13.87 | 135 | ePn | Pn | 18 37 23.2 | -4.5 |
| COA | | | | eSn | Sn | 18 40 12.0 | +10 |
| ISCO | Idaho Springs | 16.18 | 95 | ePn | Pn | 18 37 59.0 | +0.2 |
| | 8.1nm,1.1s | | | | | | |
| Q24A | Divide | 16.81 | 98 | ePn | Pn | 18 38 05.7 | -1.2 |
| | 11nm,1.1s | | | | | | |
| SDCO | Great Sand Dun | 17.05 | 102 | ePn | Pn | 18 38 10.8 | +0.9 |
| | 12nm,1.1s | | | | | | |
| ANMO | Albuquerque | 17.78 | 111 | P | Pn | 18 38 18.9 | 0.0 |
| | 0.1nm,0.3s,baz=141,slow=13,SNR=6.6 | | | | | | |
| ANMO | | | | LR | LR | 18 44 00.9 | |
| | comp=Z,40nm,21.7s,baz=132,slow=34 | | | | | | |
| ANMO | Albuquerque | 17.78 | 111 | ePn | Pn | 18 38 19.9 | +1.1 |
| | 5.7nm,1.0s | | | | | | |
| FFC | Flin Flon | 19.70 | 46 | eP | P | 18 38 40.3 | -0.1 |
| | 8.3nm,0.9s | | | | | | |
| YKA | Yellowknife Ar | 20.46 | 16 | P | P | 18 38 47.9 | -0.6 |
| | 1.7nm,0.8s,baz=204,slow=10,SNR=4.3 | | | | | | |
| YKB5 | Yellowknife Ar | 20.46 | 16 | eP | P | 18 38 47.9 | -0.6 |
| AMTX | Amarillo | 21.12 | 105 | eP | P | 18 38 56.6 | +0.5 |
| | 35nm,1.6s | | | | | | |
| KDAK | Kodiak Island | 21.70 | 321 | LR | LR | 18 45 10.3 | |
| | comp=Z,178nm,18.4s,baz=124,slow=30 | | | | | | |
| ECSD | EROS Data Cent | 21.77 | 79 | eP | P | 18 39 03.7 | +0.7 |
| | 15nm,1.1s | | | | | | |
| AGMN | Agassiz Nation | 21.98 | 66 | eP | P | 18 39 04.7 | -0.4 |
| | 45nm,1.4s | | | | | | |
| DAWY | Dawson | 21.99 | 345 | eP | P | 18 39 04.3 | -0.9 |
| | 16nm,1.4s | | | | | | |
| ULM | Lac du Bonnet | 22.10 | 61 | P | P | 18 39 05.6 | -0.8 |
| | 10nm,0.7s,baz=272,slow=11,SNR=14 | | | | | | |
| ULM | | | | LR | LR | 18 48 20.2 | |
| | comp=Z,190nm,18.3s,baz=289,slow=39 | | | | | | |
| ULM | Lac du Bonnet | 22.10 | 61 | eP | P | 18 39 06.0 | -0.4 |
| | 19nm,0.9s | | | | | | |
| TX31 | Lajitas Ar. Si | 23.14 | 120 | eP | P | 18 39 18.8 | +1.1 |
| LTX | Lajitas | 23.14 | 120 | eP | P | 18 39 18.4 | +0.8 |
| TXAR | Lajitas Array | 23.14 | 120 | P | P | 18 39 18.5 | +0.8 |
| | 0.9nm,0.8s,baz=297,slow=8.3,SNR=7.9 | | | | | | |
| TXAR | | | | LR | LR | 18 47 54.8 | |
| | comp=Z,75nm,18.4s,baz=0.0,slow=36 | | | | | | |
| WMOK | Wichita Mounta | 23.25 | 102 | eP | P | 18 39 19.6 | +1.0 |
| | 40nm,1.4s | | | | | | |
| LPIG | La Paz | 23.47 | 140 | LR | LR | 18 47 50.8 | |
| | comp=Z,61nm,19.3s,baz=334,slow=35 | | | | | | |
| IL1 | Eielson Array | 24.30 | 339 | eP | P | 18 39 26.5 | -2.0 |
| ILAR | Eielson Array | 24.30 | 339 | P | P | 18 39 27.5 | -0.9 |
| | 1.9nm,0.8s,baz=152,slow=9.0,SNR=23 | | | | | | |
| ILAR | | | | LR | LR | 18 47 19.0 | |
| | comp=Z,72nm,19.8s,baz=150,slow=33 | | | | | | |
| ILB | Eielson Array | 24.30 | 339 | eP | P | 18 39 27.9 | -0.6 |
| PPLA | Purkeypile | 24.55 | 332 | eP | P | 18 39 30.0 | -0.9 |
| | 12nm,0.9s | | | | | | |
| X35A | Drake | 24.71 | 101 | eP | P | 18 39 33.3 | +0.8 |
| | 8.0nm,0.8s | | | | | | |
| INK | Inuvik | 25.28 | 354 | P | P | 18 39 35.9 | -1.4 |
| | 2.0nm,1.0s,baz=158,slow=7.6,SNR=4.7 | | | | | | |
| INK | | | | LR | LR | 18 50 31.0 | |
| | comp=Z,52nm,20.1s,baz=161,slow=39 | | | | | | |
| MLY | Manley | 25.57 | 336 | eP | P | 18 39 39.5 | -0.5 |
| | 17nm,1.4s | | | | | | |
| IMAR | Indian Mountai | 27.13 | 336 | eP | P | 18 39 52.9 | -1.1 |
| SCHQ | Schefferville | 39.68 | 52 | LR | LR | 18 58 18.6 | |
| | comp=Z,136nm,19.8s,baz=244,slow=37 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 59.68 | 269 | T | T | 19 48 44.1 | |
| | baz=50,slow=75,SNR=88 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 59.68 | 269 | T | T | 19 48 48.0 | |
| | baz=50,slow=75,SNR=58 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 59.70 | 269 | T | T | 19 48 39.1 | |
| | baz=50,slow=75,SNR=59 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 60.60 | 268 | T | T | 19 49 43.5 | |
| | baz=50,slow=75,SNR=595 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 60.61 | 268 | T | T | 19 49 42.6 | |
| | baz=50,slow=75,SNR=551 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 60.62 | 268 | T | T | 19 49 43.4 | |
| | baz=50,slow=75,SNR=525 | | | | | | |
| ZALV | Zalesovo Beam | 79.39 | 342 | LR | LR | 19 22 38.2 | |
| | comp=Z,18nm,18.4s,baz=68,slow=37 | | | | | | |

---

*GUC 08 18:36:42.5±0.4, 28°.03S×71°.00W, h53km±6km, ML4.2*

*ISCJB 08 18:36:43.3±0.7, 27°.93S±0°.04×71°.20W±0°.08, h38km, mb3.8/4, Error ellipse: s-maj=10.7km s-min=5.8km az=7.1*

*IDC 08 18:36:48.0±3.1, 28°.00S×71°.18W, h68km±25km, mb3.6/4, mb1 3.8/8, mb1mx3.6/32, mbtmp3.8/8, MS3.1/2, Ms1 3.0/2, ms1mx2.8/17, Error ellipse: s-maj=29.3km s-min=25.7km az=77.0*

**ISC 08 18:36:45.0±0.8, 27°.94S±0°.05×71°.19W±0°.10, h38km, n25, σ1s91/22, mb3.9/4, 2D, Near coast of northern Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GO03 | Copiap | 0.92 | 68 | iP | Pn | 18 36 59.9 | -1.6 |
| GO03 | | | | iS | Sn | 18 37 11.2 | -2.3 |
| GO03 | | | | IAML | | 18 37 18.4 | |
| | comp=N,6μm,0.6s | | | | | | |
| LCO | Las Campanas | 1.15 | 158 | ⇓iP | Pn | 18 37 02.2 | -2.6 |
| LCO | | | | iS | Sn | 18 37 17.5 | -2.0 |
| LCO | | | | IAML | | 18 37 20.7 | |
| | comp=N,8μm,0.4s | | | | | | |
| TLL | Tololo Astrono | 2.24 | 171 | eP | Pn | 18 37 18.5 | -1.4 |
| TLL | | | | iS | Sn | 18 37 45.5 | -0.9 |
| TLL | | | | IAML | | 18 37 58.0 | |
| | comp=E,5μm,0.6s | | | | | | |
| PB14 | IPOC Station P | 3.38 | 12 | ⇓iP | Pn | 18 37 33.2 | -2.4 |
| RTLL | Cerro Villicun | 4.12 | 146 | iP | Pn | 18 37 47.5 | +2.0 |
| LPAZ | La Paz | 11.94 | 14 | P | Pn | 18 39 37.1 | +3.8 |
| | comp=E,0.4nm,0.3s,baz=177,slow=8.2,SNR=8.8 | | | | | | |
| CPUP | Villa Florida | 12.45 | 86 | P | Pn | 18 39 42.0 | +2.3 |
| | comp=E,0.2nm,0.3s,baz=248,slow=12,SNR=3.1 | | | | | | |
| CPUP | | | | LR | LR | 18 45 26.4 | |
| | comp=E,49nm,21.2s,baz=268,slow=42 | | | | | | |
| PLCA | Paso Flores | 12.77 | 178 | P | Pn | 18 39 46.8 | +2.7 |
| | comp=E,0.1nm,0.3s,baz=0.0,slow=12,SNR=2.4 | | | | | | |
| PLCA | | | | LR | LR | 18 44 43.4 | |
| | comp=E,128nm,19.3s,baz=344,slow=37 | | | | | | |

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SIV | San Ignacio | 15.14 | 40 | P | Pn | 18 40 17.3 | +1.0 |
| | comp=E,0.3nm,0.3s,baz=216,slow=10.0,SNR=3.0 | | | | | | |
| TXAR | Lajitas Array | 64.88 | 329 | P | P | 18 47 20.5 | -0.1 |
| | comp=E,0.4nm,0.7s,baz=156,slow=9.6,SNR=4.5 | | | | | | |
| DBIC | Dimbokro | 72.61 | 72 | P | P | 18 48 08.4 | -0.5 |
| | comp=E,3.6nm,0.8s,baz=227,slow=7.7,SNR=5.9 | | | | | | |
| PDAR | Pinedale Array | 78.73 | 332 | P | P | 18 48 43.4 | -0.2 |
| | comp=E,0.2nm,0.5s,baz=122,slow=8.6,SNR=2.4 | | | | | | |
| TORD | Torodi Ar. Bea | 81.48 | 70 | P | P | 18 48 57.9 | -0.9 |
| | comp=E,1.5nm,0.6s,baz=266,slow=4.9,SNR=10 | | | | | | |
| ASAR | Alice Springs | 123.27 | 208 | PKP | PKPdf | 18 55 36.8 | -1.7 |
| | comp=E,0.3nm,0.6s,baz=137,slow=1.7,SNR=6.4 | | | | | | |
| WRA | Warramunga Arr | 126.37 | 210 | PKP | PKPdf | 18 55 42.9 | -1.6 |
| | comp=E,0.5nm,0.5s,baz=159,slow=1.8,SNR=14 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 126.38 | 273 | T | T | 21 14 48.8 | |
| | baz=112,slow=75,SNR=16 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 126.39 | 273 | T | T | 21 14 49.4 | |
| | baz=112,slow=75,SNR=17 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 126.40 | 273 | T | T | 21 14 52.7 | |
| | baz=112,slow=75,SNR=24 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 126.64 | 275 | T | T | 21 15 09.6 | |
| | baz=113 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 126.65 | 275 | T | T | 21 15 12.1 | |
| | baz=113 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 126.65 | 275 | T | T | 21 15 10.7 | |
| | baz=113 | | | | | | |
| KURBB | Kurchatov Arra | 147.78 | 37 | PKPbc | PKPbc | 18 56 24.2 | -1.3 |
| | comp=E,0.9nm,0.3s,baz=321,slow=3.5,SNR=4.3 | | | | | | |
| ZALV | Zalesovo Beam | 148.63 | 27 | PKPbc | PKPbc | 18 56 26.8 | -0.8 |
| | comp=E,3.0nm,0.7s,baz=291,slow=4.6,SNR=15 | | | | | | |
| AAK | Ala-Archa | 148.63 | 53 | PKPbc | PKPbc | 18 56 29.2 | +1.0 |
| | comp=E,1.8nm,0.6s,baz=261,slow=3.5,SNR=4.5 | | | | | | |
| MKAR | Makanchi Array | 151.96 | 41 | PKPbc | PKPbc | 18 56 35.3 | -0.6 |
| | comp=E,1.6nm,0.8s,baz=304,slow=2.4,SNR=2.1 | | | | | | |

---

*ISCJB 08 18:37:39.8±1.7, 19°.1S±0°.6×178°.1W±0°.4, h550km, mb3.3/5, Error ellipse: s-maj=98.2km s-min=12.1km az=150.0*

*IDC 08 18:37:40.0±2.5, 19°.18S×178°.02W, h544km±22km, mb2.9/5, mb1 3.3/6, mb1mx2.9/37, mbtmp3.9/6, Error ellipse: s-maj=94.6km s-min=15.2km az=152.0*

**ISC 08 18:37:40.6±1.8, 19°.1S±0°.6×178°.1W±0°.4, h550km, n9, σ0s77/10, mb3.2/5, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AFI | Afiamalu | 7.91 | 51 | P | P | 18 39 37.7 | +0.1 |
| | 4.8nm,0.3s,baz=232,slow=12,SNR=4.5 | | | | | | |
| AFI | | | | S | S | 18 41 12.5 | -1.0 |
| | 1.5nm,0.3s,baz=53,slow=20,SNR=2.9 | | | | | | |
| WRA | Warramunga Arr | 44.74 | 261 | P | P | 18 45 05.8 | +0.1 |
| | 0.7nm,0.3s,baz=98,slow=7.2,SNR=32 | | | | | | |
| ASAR | Alice Springs | 44.80 | 255 | P | P | 18 45 06.0 | 0.0 |
| | 1.4nm,0.6s,baz=87,slow=8.4,SNR=37 | | | | | | |
| ASAR | | | | PcP | PcP | 18 46 35.0 | -1.2 |
| | 0.4nm,0.5s,baz=107,slow=4.1,SNR=6.2 | | | | | | |
| TXAR | Lajitas Array | 86.34 | 57 | P | P | 18 49 25.6 | +0.5 |
| | 0.3nm,0.6s,baz=216,slow=6.2,SNR=5.8 | | | | | | |
| ILAR | Eielson Array | 86.92 | 13 | P | P | 18 49 27.7 | +0.8 |
| | 0.2nm,0.7s,baz=216,slow=5.1,SNR=3.7 | | | | | | |
| PDAR | Pinedale Array | 87.96 | 43 | P | P | 18 49 33.0 | +0.4 |
| | 0.2nm,0.5s,baz=232,slow=4.4,SNR=2.5 | | | | | | |
| AKASG | Malin Array Be | 141.71 | 332 | PKhKP | PKPpre | 18 56 04.8 | |
| | 0.3nm,0.3s,baz=41,slow=3.9,SNR=6.6 | | | | | | |
| BRTR | Keskin Array B | 145.80 | 314 | PKPbc | PKPbc | 18 56 18.3 | -0.6 |
| | 0.5nm,0.5s,baz=134,slow=3.9,SNR=3.0 | | | | | | |
| GERES | GERESS Array B | 148.79 | 345 | PKPbc | PKPbc | 18 56 26.0 | -0.4 |
| | 1.1nm,0.8s,baz=1.4,slow=3.9,SNR=3.9 | | | | | | |

---

**WEL 08 18:39:18.4±0.2, 45°.38S×167°.09E, h89km±1km, ML4.3/17, Mw3.8, 5C-5D, Error ellipse: s-maj=2.2km s-min=1.2km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DCZ | Deep Cove | 0.10 | 151 | PN | Pn | 18 39 30.3 | -0.7 |
| DCZ | | | | SN | Sn | 18 39 39.6 | -0.7 |
| DCZ | | | | AML | AML | 18 39 40.6 | |
| DCZ | | | | AML | AML | 18 39 40.7 | |
| DCZ | | | | AML | AML | 18 39 40.7 | |
| MLZ | Mavora Lakes | 0.73 | 89 | ⇓PN | Pn | 18 39 35.0 | -0.1 |
| MLZ | | | | SN | Sn | 18 39 47.7 | 0.0 |
| MLZ | | | | AML | AML | 18 39 48.3 | |
| WHZ | Wether Hill Ro | 0.79 | 131 | PN | Pn | 18 39 35.6 | -0.2 |
| WHZ | | | | SN | Sn | 18 39 48.5 | -0.3 |
| WHZ | | | | AML | AML | 18 39 48.6 | |
| PYZ | Puysegur Point | 0.83 | 200 | PN | Pn | 18 39 36.3 | +0.1 |
| PYZ | | | | SN | Sn | 18 39 49.5 | 0.0 |
| PYZ | | | | AML | AML | 18 39 53.8 | |
| PYZ | | | | AML | AML | 18 39 55.1 | |
| PYZ | | | | AML | AML | 18 39 55.1 | |
| MSZ | Milford Sound | 0.93 | 40 | ⇑PN | Pn | 18 39 37.0 | -0.2 |
| MSZ | | | | SN | Sn | 18 39 51.2 | 0.0 |
| MSZ | | | | AML | AML | 18 39 55.0 | |
| MSZ | | | | AML | AML | 18 39 55.0 | |
| MSZ | | | | AML | AML | 18 39 55.3 | |
| WKZ | Wanaka | 1.48 | 69 | ⇑PN | Pn | 18 39 43.9 | +0.1 |
| WKZ | | | | AML | AML | 18 40 02.6 | |
| WKZ | | | | AML | AML | 18 40 02.6 | |
| WKZ | | | | AML | AML | 18 40 04.3 | |
| WKZ | | | | AML | AML | 18 40 05.9 | |
| EAZ | Earnscleugh | 1.57 | 85 | PN | Pn | 18 39 44.9 | -0.2 |
| EAZ | | | | AML | AML | 18 40 04.3 | |
| EAZ | | | | AML | AML | 18 40 04.3 | |
| EAZ | | | | AML | AML | 18 40 05.4 | |
| EAZ | | | | AML | AML | 18 40 05.4 | |
| APZ | The Paps | 1.58 | 157 | ⇓PN | Pn | 18 39 44.8 | -0.4 |
| APZ | | | | AML | AML | 18 40 05.5 | |
| APZ | | | | AML | AML | 18 40 06.1 | |
| JCZ | Jackson Bay | 1.78 | 43 | ⇑PN | Pn | 18 39 47.1 | -0.7 |
| JCZ | | | | AML | AML | 18 40 13.3 | |
| JCZ | | | | AML | AML | 18 40 14.6 | |
| SYZ | Scrubby Hill | 1.84 | 130 | PN | Pn | 18 39 48.0 | -0.4 |
| SYZ | | | | AML | AML | 18 40 12.1 | |
| SYZ | | | | AML | AML | 18 40 14.1 | |
| SYZ | | | | AML | AML | 18 40 14.1 | |
| SYZ | | | | AML | AML | 18 40 15.2 | |
| TUZ | Tuapeka | 1.88 | 109 | ⇑PN | Pn | 18 39 48.4 | -0.5 |
| TUZ | | | | AML | AML | 18 40 10.4 | |
| TUZ | | | | AML | AML | 18 40 10.7 | |
| TUZ | | | | AML | AML | 18 40 10.7 | |
| TUZ | | | | AML | AML | 18 40 12.2 | |
| LBZ | Lake Benmore | 2.42 | 67 | ⇓PN | Pn | 18 39 54.3 | -1.8 |
| LBZ | | | | AML | AML | 18 40 22.8 | |
| LBZ | | | | AML | AML | 18 40 22.8 | |
| LBZ | | | | AML | AML | 18 40 22.8 | |
| LBZ | | | | AML | AML | 18 40 24.3 | |
| HHSZ | Highcliff Hill | 2.52 | 103 | ⇓PN | Pn | 18 39 56.7 | -0.7 |
| HHSZ | | | | AML | AML | 18 40 26.1 | |
| HHSZ | | | | AML | AML | 18 40 26.3 | |
| ODZ | Otahua Downs | 2.54 | 84 | ⇑PN | Pn | 18 39 55.7 | -1.9 |
| ODZ | | | | AML | AML | 18 40 25.6 | |
| ODZ | | | | AML | AML | 18 40 25.6 | |
| ODZ | | | | AML | AML | 18 40 26.0 | |
| ODZ | | | | AML | AML | 18 40 26.1 | |
| FOZ | Fox Glacier | 2.69 | 48 | PN | Pn | 18 39 57.9 | -1.8 |
| FOZ | | | | AML | AML | 18 40 29.7 | |
| FOZ | | | | AML | AML | 18 40 29.8 | |
| FOZ | | | | AML | AML | 18 40 30.9 | |
| FOZ | | | | AML | AML | 18 40 31.3 | |
| RPZ | Rata Peaks | 3.29 | 61 | ⇓PN | Pn | 18 40 05.3 | -2.5 |
| RPZ | | | | AML | AML | 18 40 42.4 | |
| RPZ | | | | AML | AML | 18 40 43.6 | |
| WVZ | Waitaha Valley | 3.49 | 50 | PN | Pn | 18 40 08.0 | -2.5 |
| WVZ | | | | AML | AML | 18 40 49.4 | |
| INZ | Inchbonnie | 4.11 | 51 | PN | Pn | 18 40 14.6 | -4.4 |

---

*NIED 08 18:39:00, 23°.80N×122°.50E, h8km, Mw4.4 Best double couple: $M_0$3.83000×10^15 NP1:$\phi_s$26.00000°, δ23.00000°, λ-107.00000°. NP2:$\phi_s$225.00000°, δ68.00000°, λ-83.00000°.*

*JMA 08 18:39:53.6±0.2, 23°.76N×122°.48E, h16km±4km, M3.7*

*ISCJB 08 18:39:54.2±0.4, 23°.74N±0°.02×122°.50E±0°.02, h20km±3km, mb3.7/14, MS3.4/2, Error ellipse: s-maj=3.1km s-min=2.1km az=150.4*

*TAP 08 18:39:54.5, 23°.77N×122°.36E, h6km, ML4.1, D*

*IDC 08 18:39:57.2±0.8, 24°.06N×122°.70E, h42km±5km, mb3.7/13, mb1 3.8/14, mb1mx3.6/62, mbtmp3.9/14, ML2.9/1, MS3.3/4, Ms1 3.3/4, ms1mx2.9/35, Error ellipse: s-maj=26.0km*

*s-min=14.7km az=66.0*

**ISC 08 18:39:54.8**±0.5,**23°.74N**±0°.02×**122°.49E**±0°.02,**h28**km±3km, **n83**,σ**1s16**/151,**mb4.0**/14,**Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JYNG** | **Yonagunijimaku** | **0.82** | **30** | P | **Pn** | **18 40 08.8** | **-1.7** |
| JYNG | | | | S | **Sb** | **18 40 19.1** | **-2.1** |
| **HWA** | **Hwalien** | **0.84** | **286** | *e*P | **Pn** | **18 40 09.5** | **-1.2** |
| | baz=287 | | | | | | |
| HWA | | | | *e*S | **Sb** | **18 40 20.5** | **-1.2** |
| | baz=287 | | | | | | |
| **YOJ** | **Yonaguni jima** | **0.86** | **34** | P | **Pn** | **18 40 10.0** | **-1.1** |
| YOJ | | | | *e*S | **Sb** | **18 40 20.4** | **-2.0** |
| **TWD** | **Chiawan** | **0.88** | **293** | P | **Pn** | **18 40 10.4** | **-0.9** |
| | baz=294 | | | | | | |
| TWD | | | | *i* S | **Sb** | **18 40 21.6** | **-1.4** |
| | baz=294 | | | | | | |
| **ENA** | **Nanau** | **0.97** | **315** | P | **Pn** | **18 40 12.3** | **-0.2** |
| | baz=319 | | | | | | |
| ENA | | | | *e*S | **Sn** | **18 40 24.8** | **-0.5** |
| | baz=319 | | | | | | |
| **ESL** | **Shilin** | **0.97** | **275** | *i* P | **Pn** | **18 40 11.7** | **-0.9** |
| | baz=273 | | | | | | |
| ESL | | | | S | **Sn** | **18 40 24.0** | **-1.3** |
| | baz=273 | | | | | | |
| **TWC** | **Suao** | **1.04** | **326** | P | **Pn** | **18 40 12.9** | **-0.6** |
| | baz=331 | | | | | | |
| TWC | | | | S | **Sb** | **18 40 27.4** | **-0.1** |
| | baz=331 | | | | | | |
| **EHY** | **Hungye** | **1.09** | **258** | *i* P | **Pn** | **18 40 14.0** | **-0.2** |
| | baz=254 | | | | | | |
| EHY | | | | S | **Sn** | **18 40 28.0** | **-0.4** |
| | baz=254 | | | | | | |
| **TWF1** | **Yuli** | **1.16** | **251** | P | **Pn** | **18 40 15.1** | **0.0** |
| | baz=246 | | | | | | |
| TWF1 | | | | S | **Sn** | **18 40 30.0** | **-0.1** |
| | baz=246 | | | | | | |
| **WHF** | **Hehuan Shan** | **1.19** | **290** | P | **Pn** | **18 40 15.6** | **-0.3** |
| | baz=290 | | | | | | |
| WHF | | | | *i* S | **Sn** | **18 40 30.7** | **-0.7** |
| | baz=290 | | | | | | |
| **CHKT** | **Chengkung** | **1.21** | **238** | *i* P | **Pn** | **18 40 15.3** | **-0.6** |
| | baz=233 | | | | | | |
| CHKT | | | | *e*S | **Sn** | **18 40 30.3** | **-1.0** |
| | baz=233 | | | | | | |
| **ILA** | **Ilan** | **1.22** | **327** | *e*P | **Pn** | **18 40 16.5** | **+0.5** |
| | baz=331 | | | | | | |
| ILA | | | | *e*S | **Sb** | **18 40 33.1** | **+0.4** |
| | baz=331 | | | | | | |
| **ENTT** | **Nioudou** | **1.23** | **317** | P | **Pb** | **18 40 16.7** | **-0.7** |
| | baz=320 | | | | | | |
| ENTT | | | | *e*S | **Sb** | **18 40 32.9** | **+0.1** |
| | baz=320 | | | | | | |
| **TWE** | **Neicheng** | **1.23** | **323** | *i* P | **Pn** | **18 40 16.3** | **+0.2** |
| | baz=327 | | | | | | |
| TWE | | | | *e*S | **Sb** | **18 40 32.8** | **-0.1** |
| | baz=327 | | | | | | |
| **NNS** | **Nan Shan** | **1.23** | **305** | *e*P | **Pn** | **18 40 16.5** | **+0.2** |
| | baz=306 | | | | | | |
| NNS | | | | S | **Sn** | **18 40 32.3** | **+0.2** |
| | baz=306 | | | | | | |
| **HATJ** | **Hateruma jima** | **1.25** | **75** | P | **Pn** | **18 40 16.5** | **+0.2** |
| HATJ | | | | S | **Sb** | **18 40 33.1** | **-0.2** |
| **IRIF** | **Iriomote-Funau** | **1.28** | **62** | P | **Pn** | **18 40 17.1** | **+0.3** |
| IRIF | | | | *e*S | **Sb** | **18 40 34.4** | **+0.1** |
| **TWT** | **Tachien** | **1.30** | **293** | *e*P | **Pn** | **18 40 17.9** | **+0.6** |
| | baz=293 | | | | | | |
| TWT | | | | S | **Sn** | **18 40 34.2** | **+0.3** |
| | baz=293 | | | | | | |
| **TWB1** | **Santiao Chiao** | **1.34** | **340** | P | **Pb** | **18 40 19.1** | **-0.2** |
| | baz=345 | | | | | | |
| TWB1 | | | | S | **Sb** | **18 40 37.3** | **+1.3** |
| | baz=345 | | | | | | |
| **NSK** | **Sanguang** | **1.39** | **312** | *e*P | **Pn** | **18 40 18.7** | **+0.3** |
| | baz=315 | | | | | | |
| NSK | | | | *e*S | **Sb** | **18 40 36.7** | **-0.8** |
| | baz=315 | | | | | | |
| **YUS** | **Yu-Shan** | **1.43** | **260** | P | **Pn** | **18 40 19.9** | **+0.6** |
| | baz=257 | | | | | | |
| YUS | | | | *i* S | **Sn** | **18 40 37.8** | **+0.4** |
| | baz=257 | | | | | | |
| **ELDTW** | **Lidau** | **1.46** | **248** | P | **Pn** | **18 40 19.2** | **-0.1** |
| | baz=244 | | | | | | |
| ELDTW | | | | S | **Sn** | **18 40 37.3** | **-0.3** |
| | baz=244 | | | | | | |
| **SMLT** | **Sun Moon Lake** | **1.46** | **276** | *e*P | **Pn** | **18 40 20.1** | **+0.7** |
| | baz=274 | | | | | | |
| SMLT | | | | S | **Sn** | **18 40 38.1** | **+0.5** |
| | baz=274 | | | | | | |
| **NWF** | **Wu-fen Shan** | **1.47** | **334** | *e*P | **Pn** | **18 40 19.4** | **-0.1** |
| | baz=338 | | | | | | |
| NWF | | | | S | **Sb** | **18 40 40.2** | **+0.3** |
| | baz=338 | | | | | | |
| **JKRS** | **Kuro-shima** | **1.48** | **70** | P | **Pn** | **18 40 20.2** | **+0.7** |
| JKRS | | | | *e*S | **Sb** | **18 40 39.5** | **-0.4** |
| **TWA** | **Mucha** | **1.48** | **326** | P | **Pb** | **18 40 20.9** | **-0.8** |
| | baz=330 | | | | | | |
| TWA | | | | S | **Sb** | **18 40 40.0** | **-0.2** |
| | baz=330 | | | | | | |
| **TYC** | **Yuchr** | **1.50** | **277** | *e*P | **Pn** | **18 40 20.6** | **+0.7** |
| | baz=275 | | | | | | |
| TYC | | | | *e*S | **Sn** | **18 40 38.7** | **+0.2** |
| | baz=275 | | | | | | |
| **ALS** | **Alishan** | **1.56** | **262** | *e*P | **Pb** | **18 40 21.9** | **-1.2** |
| | baz=259 | | | | | | |
| ALS | | | | S | **Sb** | **18 40 41.9** | **-0.7** |
| | baz=259 | | | | | | |
| **TAP1** | **Taipei** | **1.56** | **326** | *e*P | **Pn** | **18 40 21.2** | **+0.6** |
| | baz=328 | | | | | | |
| TAP1 | | | | *e*S | **Sb** | **18 40 41.5** | **-0.9** |
| | baz=328 | | | | | | |
| **TAP** | **Taipei** | **1.57** | **326** | *e*P | **Pb** | **18 40 22.8** | **-0.4** |
| | baz=328 | | | | | | |
| TAP | | | | *e*S | **Sb** | **18 40 42.4** | **-0.3** |
| | baz=328 | | | | | | |
| **TTN** | **Taitung** | **1.58** | **232** | P | **Pb** | **18 40 22.1** | **-1.1** |
| | baz=227 | | | | | | |
| TTN | | | | *e*S | **Sb** | **18 40 42.9** | **+0.2** |
| | baz=227 | | | | | | |
| **TWG** | **Pinlang** | **1.59** | **235** | P | **Pn** | **18 40 21.4** | **+0.3** |
| | baz=231 | | | | | | |
| TWG | | | | S | **Sn** | **18 40 41.3** | **+0.6** |
| | baz=231 | | | | | | |
| **NSTT** | **Nanjuang** | **1.62** | **303** | *e*P | **Pb** | **18 40 23.4** | **-0.7** |
| | baz=304 | | | | | | |
| NSTT | | | | *e*S | **Sn** | **18 40 42.4** | **+0.9** |
| | baz=304 | | | | | | |
| **JIJ** | **Ishigaki jima** | **1.64** | **67** | P | **Pn** | **18 40 21.6** | **-0.1** |
| JIJ | | | | *e*S | **Sn** | **18 40 41.5** | **-0.3** |
| **WNT** | **Mingjian** | **1.66** | **275** | *e*P | **Pb** | **18 40 23.6** | **-1.0** |
| | baz=274 | | | | | | |
| WNT | | | | *e*S | **Sb** | **18 40 44.0** | **-1.1** |
| | baz=274 | | | | | | |
| **CHN5** | **Tsauling** | **1.67** | **265** | *e*P | **Pb** | **18 40 24.0** | **-0.9** |
| | baz=263 | | | | | | |
| CHN5 | | | | S | **Sb** | **18 40 44.5** | **-0.9** |
| | baz=263 | | | | | | |
| **TWS1** | **Kuangyinshan** | **1.67** | **324** | *e*P | **Pn** | **18 40 23.1** | **+0.9** |
| | baz=327 | | | | | | |
| TWS1 | | | | *e*S | **Sn** | **18 40 43.6** | **+1.0** |
| | baz=327 | | | | | | |
| **TWQ1** | **Liyutan** | **1.68** | **291** | *e*P | **Pb** | **18 40 24.6** | **-0.5** |
| | baz=291 | | | | | | |
| TWQ1 | | | | *e*S | **Sb** | **18 40 45.6** | **-0.2** |
| | baz=291 | | | | | | |
| **STYT** | **Tauyuan** | **1.69** | **250** | P | **Pn** | **18 40 23.6** | **+1.1** |
| | baz=247 | | | | | | |
| STYT | | | | *i* S | **Sb** | **18 40 44.7** | **-1.4** |
| | baz=247 | | | | | | |
| **TCU** | **Taichung** | **1.71** | **284** | *e*P | **Pb** | **18 40 25.1** | **-0.3** |
| | baz=283 | | | | | | |
| TCU | | | | *e*S | **Sn** | **18 40 44.8** | **+1.2** |
| | baz=283 | | | | | | |
| **NSY** | **Sanyi** | **1.72** | **293** | *e*P | **Pb** | **18 40 25.3** | **-0.4** |
| | baz=294 | | | | | | |
| NSY | | | | *e*S | **Sn** | **18 40 45.0** | **+1.1** |
| | baz=294 | | | | | | |
| **WGK** | **Gukeng** | **1.77** | **269** | *e*P | **Pb** | **18 40 25.0** | **-1.4** |
| | baz=267 | | | | | | |
| WGK | | | | *e*S | **Sb** | **18 40 47.7** | **-0.5** |
| | baz=267 | | | | | | |
| **CHN4** | **Tsaushan** | **1.78** | **258** | P | **Pb** | **18 40 26.1** | **-0.7** |
| | baz=255 | | | | | | |
| CHN4 | | | | S | **Sn** | **18 40 46.6** | **+1.1** |
| | baz=255 | | | | | | |
| **WTP** | **Ta-pu** | **1.79** | **254** | *e*P | **Pb** | **18 40 25.9** | **-1.0** |
| | baz=251 | | | | | | |
| WTP | | | | *e*S | **Sb** | **18 40 47.2** | **-1.7** |
| | baz=251 | | | | | | |
| **ECL** | **Taimali** | **1.81** | **231** | *e*P | **Pn** | **18 40 24.0** | **-0.1** |
| | baz=227 | | | | | | |
| ECL | | | | S | **Sn** | **18 40 46.6** | **+0.4** |
| | baz=227 | | | | | | |
| **CHN2** | **Minshiung** | **1.86** | **264** | *e*P | **Pb** | **18 40 26.4** | **-1.6** |
| | baz=262 | | | | | | |
| CHN2 | | | | *e*S | **Sn** | **18 40 47.9** | **+0.6** |
| | baz=262 | | | | | | |
| **JISG** | **Ishigakijimahi** | **1.87** | **63** | P | **Pn** | **18 40 24.6** | **-0.3** |
| **SGST** | **Jiashian** | **1.87** | **250** | *e*P | **Pb** | **18 40 27.1** | **-1.1** |
| | baz=247 | | | | | | |
| SGST | | | | *e*S | **Sb** | **18 40 49.8** | **-1.3** |
| | baz=247 | | | | | | |
| **CHN1** | **Nanshi** | **1.88** | **253** | P | **Pb** | **18 40 27.5** | **-1.0** |
| | baz=250 | | | | | | |
| CHN1 | | | | *e*S | **Sb** | **18 40 49.8** | **-1.8** |
| | baz=250 | | | | | | |
| **TWK** | **Hsinying** | **1.90** | **256** | *e*P | **Pb** | **18 40 27.4** | **-1.3** |
| | baz=253 | | | | | | |
| TWK | | | | *e*S | **Sb** | **18 40 50.5** | **-1.4** |
| | baz=253 | | | | | | |
| **CHY** | **Chiayi** | **1.91** | **263** | *e*P | **Pn** | **18 40 25.9** | **+0.4** |
| | baz=261 | | | | | | |
| CHY | | | | *e*S | **Sn** | **18 40 49.1** | **+0.6** |
| | baz=261 | | | | | | |
| **PCYT** | **Pengchaiyu** | **1.92** | **349** | *e*P | **Pn** | **18 40 27.0** | **+1.4** |
| | baz=352 | | | | | | |
| PCYT | | | | *e*S | **Sb** | **18 40 51.4** | **-1.2** |
| | baz=352 | | | | | | |
| **SSD** | **Sandimen** | **1.97** | **240** | *e*P | **Pn** | **18 40 27.7** | **+1.3** |
| | baz=237 | | | | | | |
| SSD | | | | *e*S | **Sb** | **18 40 53.0** | **-1.1** |
| | baz=237 | | | | | | |
| **TAW** | **Tawu** | **2.01** | **227** | *e*P | **Pb** | **18 40 29.5** | **-1.1** |
| | baz=223 | | | | | | |
| TAW | | | | *e*S | **Sb** | **18 40 53.4** | **-1.8** |
| | baz=223 | | | | | | |
| **WTCT** | **Ta-ch'eng** | **2.02** | **274** | *e*P | **Pn** | **18 40 28.2** | **+1.2** |
| | baz=272 | | | | | | |
| WTCT | | | | *e*S | **Sn** | **18 40 51.6** | **+0.2** |
| | baz=272 | | | | | | |
| **EAST** | **Anshuo** | **2.03** | **229** | *e*P | **Pn** | **18 40 27.4** | **+0.3** |
| | baz=225 | | | | | | |
| EAST | | | | *e*S | **Sb** | **18 40 54.3** | **-1.5** |
| | baz=225 | | | | | | |
| **CHN3** | **Shinhua** | **2.06** | **252** | *e*P | **Pb** | **18 40 30.5** | **-0.9** |
| | baz=249 | | | | | | |
| CHN3 | | | | *e*S | **Sn** | **18 40 53.4** | **+1.1** |
| | baz=249 | | | | | | |
| **SGLT** | **Jiouru** | **2.10** | **242** | *e*P | **Pb** | **18 40 30.4** | **-1.7** |
| | baz=238 | | | | | | |
| SGLT | | | | *e*S | **Sb** | **18 40 56.6** | **-1.1** |
| | baz=238 | | | | | | |
| **TWM1** | **Shoushan** | **2.11** | **245** | *e*P | **Pn** | **18 40 29.8** | **+1.6** |
| | baz=242 | | | | | | |
| TWM1 | | | | *e*S | **Sb** | **18 40 55.7** | **-2.4** |
| | baz=242 | | | | | | |
| **CHN8** | **Yiju** | **2.13** | **260** | *e*P | **Pn** | **18 40 29.0** | **+0.6** |
| | baz=257 | | | | | | |
| CHN8 | | | | *e*S | **Sn** | **18 40 54.9** | **+1.0** |
| | baz=257 | | | | | | |
| **SCLT** | **Jiali** | **2.18** | **256** | *e*P | **Pn** | **18 40 29.8** | **+0.7** |
| | baz=253 | | | | | | |
| SCLT | | | | *e*S | **Sn** | **18 40 57.1** | **+1.9** |
| | baz=253 | | | | | | |
| **SCZT** | **Fangliau** | **2.19** | **232** | *e*P | **Pb** | **18 40 31.5** | **-2.2** |
| | baz=228 | | | | | | |
| SCZT | | | | *e*S | **Sb** | **18 41 00.1** | **-0.4** |
| | baz=228 | | | | | | |
| **JTJ** | **Tarama** | **2.21** | **66** | P | **Pn** | **18 40 31.0** | **+1.4** |
| **HEN** | **Hengchun** | **2.36** | **223** | *e*P | **Pn** | **18 40 33.2** | **+1.6** |
| | baz=220 | | | | | | |
| HEN | | | | *e*S | **Sb** | **18 41 03.0** | **-2.3** |
| | baz=220 | | | | | | |
| **TWP** | **Hsiaoliuchiu** | **2.40** | **235** | *e*P | **Pn** | **18 40 33.0** | **+0.9** |
| | baz=232 | | | | | | |
| TWP | | | | *e*S | **Sn** | **18 41 03.2** | **+2.5** |
| | baz=232 | | | | | | |
| **KSRS** | **Korea Array** | **14.44** | **18** | P | **Pn** | **18 43 15.2** | **-2.1** |
| | 0.1nm,0.3s,baz=202,slow=13,SNR=3.4 | | | | | | |
| KSRS | | | | LR | LR | 18 49 20.8 | |
| | comp=Z,103nm,18.9s,baz=166,slow=40 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **18.61** | **43** | LR | LR | 18 51 53.9 | |
| | comp=Z,47nm,18.6s,baz=130,slow=39 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **22.57** | **261** | P | **P** | **18 44 58.5** | **+5.4** |
| | 0.1nm,0.5s,baz=66,slow=9.0,SNR=3.1 | | | | | | |
| **SONM** | **Songino Array** | **27.25** | **336** | P | **P** | **18 45 36.2** | **-0.4** |
| | 1.6nm,0.6s,baz=155,slow=8.8,SNR=10 | | | | | | |
| SONM | | | | pP | **sP** | **18 45 46.8** | **-1.4** |
| | 5.8nm,1.1s,baz=153,slow=8.5,SNR=10 | | | | | | |
| **TLY** | **Talaya** | **31.44** | **337** | LR | LR | 18 59 33.6 | |
| | comp=Z,46nm,18.2s,baz=72,slow=38 | | | | | | |
| **MKAR** | **Makanchi Array** | **39.49** | **316** | P | **P** | **18 47 22.8** | **0.0** |
| | 2.7nm,0.9s,baz=107,slow=8.1,SNR=8.2 | | | | | | |
| MKAR | | | | pP | **sP** | **18 47 34.5** | **0.0** |
| | 1.4nm,0.6s,baz=105,slow=11,SNR=4.4 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.27** | **327** | P | **P** | **18 47 35.8** | **-1.6** |
| | 1.5nm,0.7s,baz=116,slow=6.7,SNR=7.2 | | | | | | |
| ZALV | | | | pP | **sP** | **18 47 47.9** | **-1.2** |
| | 2.0nm,0.6s,baz=108,slow=9.5,SNR=7.2 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **43.22** | **320** | P | **P** | **18 47 53.0** | **-0.3** |
| | 1.0nm,0.2s,baz=114,slow=8.2,SNR=3.9 | | | | | | |
| **AAK** | **Ala-Archa** | **43.72** | **308** | LR | LR | 19 08 28.7 | |
| | comp=Z,76nm,20.4s,baz=232,slow=39 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.93** | **164** | P | **P** | **18 48 08.7** | **+1.3** |
| | 0.5nm,0.7s,baz=346,slow=8.8,SNR=3.7 | | | | | | |
| **ASAR** | **Alice Springs** | **48.41** | **166** | P | **P** | **18 48 37.0** | **+2.4** |
| | 0.3nm,0.5s,baz=344,slow=7.6,SNR=7.8 | | | | | | |
| ASAR | | | | pP | **sP** | **18 48 50.5** | **+4.1** |
| | 0.3nm,0.5s,baz=353,slow=13,SNR=3.6 | | | | | | |
| **BVAR** | **Borovoye Array** | **48.77** | **321** | P | **P** | **18 48 36.6** | **-0.5** |
| | 0.7nm,0.6s,baz=101,slow=7.9,SNR=6.0 | | | | | | |
| BVAR | | | | pP | **sP** | **18 48 49.7** | **+0.8** |
| | 0.6nm,0.6s,baz=120,slow=7.8,SNR=4.2 | | | | | | |
| **KBZ** | **Khabaz** | **66.69** | **309** | P | **P** | **18 50 43.7** | **+0.6** |
| | 2.6nm,0.9s,baz=90,slow=12,SNR=3.6 | | | | | | |
| **ILAR** | **Eielson Array** | **69.06** | **27** | P | **P** | **18 50 56.5** | **-1.3** |
| | 0.2nm,0.7s,baz=271,slow=6.0,SNR=3.9 | | | | | | |
| **FINES** | **FINESS Array B** | **72.43** | **330** | P | **P** | **18 51 17.8** | **-0.4** |
| | 3.0nm,0.9s,baz=69,slow=7.6,SNR=4.2 | | | | | | |
| FINES | | | | pP | **sP** | **18 51 29.9** | **-0.4** |
| | 5.5nm,1.1s,baz=78,slow=4.7,SNR=1.9 | | | | | | |
| **BRTR** | **Keskin Array B** | **74.39** | **307** | P | **P** | **18 51 30.7** | **+0.2** |
| | 0.8nm,0.7s,baz=121,slow=5.4,SNR=4.6 | | | | | | |
| BRTR | | | | pP | **sP** | **18 51 42.6** | **+0.1** |
| | 0.9nm,0.9s,baz=76,slow=2.8,SNR=2.9 | | | | | | |
| **NOA** | **NORSAR Array B** | **79.17** | **332** | P | **P** | **18 51 55.9** | **-1.0** |
| | 1.8nm,1.0s,baz=60,slow=4.3,SNR=3.0 | | | | | | |
| **YKA** | **Yellowknife Ar** | **82.91** | **23** | P | **P** | **18 52 16.1** | **-0.6** |
| | 0.7nm,0.7s,baz=307,slow=5.0,SNR=3.6 | | | | | | |
| YKA | | | | pP | **sP** | **18 52 28.2** | **-0.7** |
| | 0.6nm,0.6s,baz=306,slow=5.2,SNR=3.2 | | | | | | |

---

**DJA 08 18:47:48.4**±0.6,**5°S**±9°×**10°4E**±°,**h41**km±11km,**M3.6**/7, **MLv3.6**/7,**Southern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LWLI** | **Liwa** | **0.45** | **33** | P | Pn | 18 48 00.3 | +1.6 |
| LWLI | | | | S | Sn | 18 48 08.9 | +3.0 |
| **KASI** | **Kota Agung** | **0.69** | **100** | P | Pn | 18 48 02.5 | +0.7 |
| KASI | | | | S | Sn | 18 48 12.9 | +1.5 |
| **KLI** | **Kotabumi** | **1.17** | **63** | P | Pn | 18 48 08.7 | +0.4 |
| **MNAI** | **Manna** | **1.34** | **320** | P | Pn | 18 48 11.3 | +0.7 |
| MNAI | | | | S | Sn | 18 48 28.4 | +1.2 |
| **BLSI** | **Bandar Lampung** | **1.43** | **89** | P | Pn | 18 48 12.3 | +0.4 |
| **MASI** | **Maura Aman, Be** | **2.74** | **325** | P | Pn | 18 48 27.9 | -2.0 |
| **TNG** | **Tangerang** | **2.92** | **105** | P | Pn | 18 48 31.2 | -1.2 |

---

*ISK **08** 19:11:44.4, 38°.60N×43°.04E, h5km, ML2.5*
*ATA **08** 19:11:46.0±0.4, 38°.64N×43°.22E, h28km±4km, ML2.8, MW2.9*
*DDA **08** 19:11:47.4, 38°.68N×43°.28E, h7km, Ml3.0*
*CSEM **08** 19:11:47.5±0.3, 38°.67N×43°.30E, h10km, ML3.0, Error ellipse: s-maj=6.9km s-min=5.4km az=92.0*
*ISCJB **08** 19:11:48.1±0.6, 38°.65N±0°.03×43°.33E±0°.05, h22km±6km, Error ellipse: s-maj=7.1km s-min=4.6km az=8.1*

**ISC 08 19:11:48.3**±0.8,**38°.67N**±0°.02×**43°.27E**±0°.03,**h15**km±6km, **n29**,σ**1s40**/54,**Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.12** | **129** | *e*PG | **Pg** | **19 11 51.3** | **-0.7** |
| VANB | | | | *e*SG | **Sg** | **19 11 56.6** | **+2.2** |
| **VANB** | **Van** | **0.12** | **129** | *e*Pg | **Pg** | **19 11 51.3** | **-0.7** |
| VANB | | | | *e*Sg | **Sg** | **19 11 56.6** | **+2.2** |
| **TVAN** | **Van** | **0.18** | **143** | *i* P | **Pg** | **19 11 51.1** | **-1.7** |
| TVAN | | | | *i* S | **Sg** | **19 11 56.0** | **+0.1** |
| **TVAN** | **Van** | **0.18** | **143** | P | **Pg** | **19 11 51.2** | **-1.7** |
| TVAN | | | | S | **Sg** | **19 11 56.0** | **+0.1** |
| **GEVA** | **Gevas** | **0.40** | **204** | *e*P | **Pg** | **19 11 54.7** | **-1.6** |
| GEVA | | | | *e*S | **Sg** | **19 12 01.2** | **-0.6** |
| GEVA | | | | | IAML | 19 12 03.9 | |
| | comp=Z,103nm,0.4s | | | | | | |
| **GEVA** | **Gevas** | **0.40** | **204** | *i* P | **Pg** | **19 11 54.9** | **-1.5** |
| GEVA | | | | *i* S | **Sb** | **19 12 03.2** | **+0.1** |
| **GEVA** | **Gevas** | **0.40** | **204** | P | **Pg** | **19 11 54.9** | **-1.5** |
| GEVA | | | | S | **Sb** | **19 12 03.2** | **+0.1** |
| **VMUR** | **Van-Muradiye** | **0.40** | **37** | *i* P | **Pg** | **19 11 55.3** | **-1.1** |
| VMUR | | | | *i* S | **Sb** | **19 12 03.2** | **0.0** |
| **VMUR** | **Van-Muradiye** | **0.40** | **37** | P | **Pg** | **19 11 55.3** | **-1.1** |
| VMUR | | | | S | **Sb** | **19 12 03.2** | **0.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.44** | **288** | *i* P | **Pg** | **19 11 56.4** | **-0.8** |
| ADCV | | | | *i* S | **Sb** | **19 12 04.5** | **0.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.44** | **288** | P | **Pg** | **19 11 56.4** | **-0.8** |
| ADCV | | | | S | **Sb** | **19 12 04.6** | **0.0** |
| **CLDR** | **Caldiran** | **0.69** | **47** | *e*PG | **Pb** | **19 12 02.2** | **-0.1** |
| CLDR | | | | *e*SG | **Sn** | **19 12 15.1** | **+0.6** |
| **CLDR** | **Caldiran** | **0.69** | **47** | *e*Pg | **Pb** | **19 12 02.2** | **-0.1** |
| CLDR | | | | *e*Sg | **Sn** | **19 12 15.1** | **+0.6** |
| **TUTA** | **Tutak** | **0.81** | **334** | *e*P | **Pg** | **19 12 02.6** | **-1.4** |
| TUTA | | | | *e*S | **Sb** | **19 12 15.8** | **+0.7** |
| TUTA | | | | | IAML | 19 12 17.6 | |
| | comp=Z,36nm,0.2s | | | | | | |
| **TUTA** | **Tutak** | **0.81** | **334** | *i* P | **Pg** | **19 12 02.6** | **-1.4** |
| TUTA | | | | *i* S | **Sg** | **19 12 14.6** | **-0.1** |
| **TUTA** | **Tutak** | **0.81** | **334** | P | **Pg** | **19 12 02.7** | **-1.4** |
| TUTA | | | | S | **Sg** | **19 12 14.6** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **0.93** | **347** | *e*PG | **Pg** | **19 12 04.1** | **-2.2** |
| AGRB | | | | *e*SG | **Sg** | **19 12 18.4** | **0.0** |
| **AGRB** | **Hanur-Agry** | **0.93** | **347** | *e*Pg | **Pg** | **19 12 04.1** | **-2.2** |
| AGRB | | | | *e*Sg | **Sg** | **19 12 18.4** | **0.0** |
| **EKAR** | **Karacoban** | **1.10** | **302** | *i* P | **Pn** | **19 12 10.0** | **+0.5** |
| EKAR | | | | *i* S | **Sn** | **19 12 28.4** | **+3.8** |
| **EKAR** | **Karacoban** | **1.10** | **302** | P | **Pn** | **19 12 10.0** | **+0.5** |
| **HAKT** | **HAKKARI** | **1.17** | **162** | *i* P | **Pb** | **19 12 08.3** | **-2.1** |
| HAKT | | | | *i* S | **Sn** | **19 12 30.8** | **+4.5** |
| **HAKT** | **HAKKARI** | **1.17** | **162** | P | **Pb** | **19 12 08.3** | **-2.1** |
| **SRTM** | **Siirt_Merkez** | **1.26** | **238** | *i* P | **Pn** | **19 12 11.1** | **-0.4** |
| SRTM | | | | *i* S | **Sn** | **19 12 30.2** | **+2.0** |
| **SRTM** | **Siirt_Merkez** | **1.26** | **238** | P | **Pn** | **19 12 11.1** | **-0.4** |
| SRTM | | | | S | **Sn** | **19 12 30.2** | **+2.0** |
| **EATA** | **Eleskirt** | **1.33** | **333** | *e*P | **Pn** | **19 12 11.7** | **-1.0** |
| EATA | | | | | IAML | 19 12 35.6 | |
| | comp=Z,2.8nm,0.4s | | | | | | |
| **EATA** | **Eleskirt** | **1.33** | **333** | *i* P | **Pn** | **19 12 13.0** | **+0.3** |
| EATA | | | | *i* S | **Sg** | **19 12 31.4** | **+0.1** |
| **EATA** | **Eleskirt** | **1.33** | **333** | P | **Pn** | **19 12 13.0** | **+0.3** |
| EATA | | | | S | **Sg** | **19 12 31.4** | **+0.1** |
| **BTMN** | **Batman** | **1.75** | **244** | *i* P | **Pb** | **19 12 19.9** | **-0.4** |
| BTMN | | | | *i* S | **Sg** | **19 12 45.2** | **+0.4** |
| **BTMN** | **Batman** | **1.75** | **244** | P | **Pb** | **19 12 19.9** | **-0.4** |

---

*ATA **08** 19:15:40.0±1.1, 38°.71N×43°.12E, h30km±32km, ML3.0, MW2.9*
*ISK **08** 19:15:41.7, 38°.72N×43°.10E, h5km, ML2.5*
*ISCJB **08** 19:15:42.6±0.4, 38°.74N±0°.02×43°.12E±0°.03, h6km±4km, Error ellipse: s-maj=4.1km s-min=3.2km az=169.1*
*CSEM **08** 19:15:42.3±0.2, 38°.72N×43°.11E, h8km, ML2.5, Error ellipse: s-maj=3.7km s-min=3.1km az=94.0*
*DDA **08** 19:15:42.2, 38°.72N×43°.13E, h7km, Ml3.2*

**ISC 08 19:15:42.7**±0.8,**38°.72N**±0°.02×**43°.11E**±0°.02,**h14**km±7km, **n37**,σ**0s96**/65,**1D,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.25** | **119** | *e*PG | **Pg** | **19 15 48.2** | **0.0** |
| VANB | | | | *e*SG | **Sg** | **19 15 53.5** | **+1.6** |
| **VANB** | **Van** | **0.25** | **119** | *e*Pg | **Pg** | **19 15 48.2** | **0.0** |
| VANB | | | | *e*Sg | **Sg** | **19 15 53.5** | **+1.6** |
| **TVAN** | **Van** | **0.30** | **129** | *i* P | **Pg** | **19 15 48.1** | **-1.0** |
| TVAN | | | | *i* S | **Sg** | **19 15 53.0** | **-0.4** |
| **TVAN** | **Van** | **0.30** | **129** | P | **Pg** | **19 15 48.1** | **-1.0** |
| TVAN | | | | S | **Sg** | **19 15 53.0** | **-0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.32** | **287** | *i* P | **Pg** | **19 15 49.1** | **-0.3** |
| ADCV | | | | *i* S | **Sg** | **19 15 53.7** | **-0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.32** | **287** | P | **Pg** | **19 15 49.1** | **-0.3** |
| ADCV | | | | S | **Sg** | **19 15 53.7** | **-0.2** |
| **GEVA** | **Gevas** | **0.41** | **186** | *e*P | **Pg** | **19 15 49.4** | **-1.5** |
| GEVA | | | | *e*S | **Sg** | **19 15 56.7** | **+0.1** |
| GEVA | | | | | IAML | 19 16 01.6 | |
| | comp=Z,107nm,0.5s | | | | | | |
| **GEVA** | **Gevas** | **0.41** | **186** | *i* P | **Pg** | **19 15 49.5** | **-1.5** |
| GEVA | | | | *i* S | **Sb** | **19 15 57.1** | **-0.8** |
| **GEVA** | **Gevas** | **0.41** | **186** | P | **Pg** | **19 15 49.5** | **-1.5** |
| GEVA | | | | S | **Sb** | **19 15 57.1** | **-0.8** |
| **VMUR** | **Van-Muradiye** | **0.45** | **53** | *i* P | **Pg** | **19 15 51.2** | **-0.6** |
| VMUR | | | | *i* S | **Sb** | **19 15 58.3** | **-0.9** |
| **VMUR** | **Van-Muradiye** | **0.45** | **53** | P | **Pg** | **19 15 51.2** | **-0.6** |
| VMUR | | | | S | **Sb** | **19 15 58.3** | **-0.9** |
| **TUTA** | **Tutak** | **0.72** | **341** | ⇓*i*P | **Pg** | **19 15 56.0** | **-0.9** |
| TUTA | | | | | IAML | 19 15 56.2 | |
| | comp=Z,111nm,0.2s | | | | | | |
| TUTA | | | | *e*S | **Sb** | **19 16 07.1** | **0.0** |
| **TUTA** | **Tutak** | **0.72** | **341** | *i* P | **Pg** | **19 15 56.0** | **-0.9** |
| TUTA | | | | *i* S | **Sg** | **19 16 06.3** | **-0.1** |
| **TUTA** | **Tutak** | **0.72** | **341** | P | **Pg** | **19 15 56.0** | **-0.9** |
| TUTA | | | | S | **Sg** | **19 16 06.3** | **-0.1** |
| **CLDR** | **Caldiran** | **0.76** | **56** | *e*PG | **Pg** | **19 15 57.2** | **-0.3** |
| CLDR | | | | *e*SG | **Sb** | **19 16 08.0** | **-0.1** |
| **CLDR** | **Caldiran** | **0.76** | **56** | *i* P | **Pg** | **19 15 56.3** | **-1.2** |
| CLDR | | | | *i* S | **Sb** | **19 16 07.7** | **-0.4** |
| **CLDR** | **Caldiran** | **0.76** | **56** | P | **Pg** | **19 15 56.3** | **-1.2** |
| **CLDR** | **Caldiran** | **0.76** | **56** | *e*Pg | **Pg** | **19 15 57.2** | **-0.3** |
| CLDR | | | | S | **Sb** | **19 16 07.7** | **-0.4** |
| CLDR | | | | *e*Sg | **Sb** | **19 16 08.0** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **0.86** | **354** | *e*PG | **Pg** | **19 15 58.5** | **-1.0** |
| AGRB | | | | *e*SG | **Sb** | **19 16 10.9** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **0.86** | **354** | *e*Pg | **Pg** | **19 15 58.5** | **-1.0** |
| AGRB | | | | *e*Sg | **Sb** | **19 16 10.9** | **-0.1** |
| **DYDN** | **Diyadin** | **0.94** | **28** | *e*P | **Pg** | **19 15 58.9** | **-2.0** |
| DYDN | | | | *e*S | **Sg** | **19 16 12.8** | **-0.5** |
| DYDN | | | | | IAML | 19 16 22.8 | |
| | comp=Z,13nm,0.4s | | | | | | |
| **EKAR** | **Karacoban** | **0.98** | **304** | *i* P | **Pb** | **19 16 01.7** | **+0.2** |
| EKAR | | | | *i* S | **Sn** | **19 16 17.3** | **+1.4** |
| **EKAR** | **Karacoban** | **0.98** | **304** | P | **Pb** | **19 16 01.7** | **+0.2** |
| EKAR | | | | S | **Sn** | **19 16 17.3** | **+1.4** |
| **SRTM** | **Siirt_Merkez** | **1.18** | **233** | *i* P | **Pn** | **19 16 05.2** | **+0.3** |
| SRTM | | | | *i* S | **Sn** | **19 16 22.1** | **+1.3** |
| **SRTM** | **Siirt_Merkez** | **1.18** | **233** | P | **Pn** | **19 16 05.2** | **+0.3** |
| SRTM | | | | S | **Sn** | **19 16 22.1** | **+1.3** |
| **EATA** | **Eleskirt** | **1.24** | **337** | *e*P | **Pg** | **19 16 03.5** | **-3.2** |
| EATA | | | | *e*S | **Sb** | **19 16 22.3** | **+0.3** |
| EATA | | | | | IAML | 19 16 26.0 | |
| | comp=Z,5.6nm,0.5s | | | | | | |
| **HAKT** | **HAKKARI** | **1.25** | **158** | *i* P | **Pb** | **19 16 04.8** | **-1.3** |
| HAKT | | | | *i* S | **Sn** | **19 16 23.9** | **+1.3** |
| **HAKT** | **HAKKARI** | **1.25** | **158** | P | **Pb** | **19 16 04.8** | **-1.3** |
| HAKT | | | | S | **Sn** | **19 16 24.0** | **+1.3** |
| **SIRT** | **Sirnak** | **1.32** | **204** | *e*PN | **Pb** | **19 16 07.5** | **+0.1** |
| **SIRT** | **Sirnak** | **1.32** | **204** | *e*Pn | **Pb** | **19 16 07.5** | **+0.1** |
| **CUKT** | **Cukurca** | **1.52** | **165** | *e*PN | **Pb** | **19 16 10.9** | **+0.2** |
| **CUKT** | **Cukurca** | **1.52** | **165** | *e*Pn | **Pb** | **19 16 10.9** | **+0.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.54** | **34** | *e*PN | **Pb** | **19 16 10.9** | **-0.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.54** | **34** | *e*Pn | **Pb** | **19 16 10.9** | **-0.1** |
| **DIGO** | **Kars** | **1.71** | **7** | *e*P | **Pn** | **19 16 12.1** | **-0.1** |
| DIGO | | | | | IAML | 19 16 16.8 | |
| | comp=Z,4.3nm,0.5s | | | | | | |
| **SENK** | **Senkaya-Erzuru** | **1.93** | **343** | *e*PN | **Pn** | **19 16 16.2** | **+0.9** |
| **SENK** | **Senkaya-Erzuru** | **1.93** | **343** | *e*Pn | **Pn** | **19 16 16.2** | **+0.9** |

---

*ATA **08** 19:24:17.8±1.1, 38°.81N×43°.50E, h1km±8km, ML3.1, MW3.5*
*CSEM **08** 19:24:18.9±0.2, 38°.80N×43°.54E, h2km, ML3.4, Error ellipse: s-maj=4.8km s-min=3.3km az=90.0*
*DDA **08** 19:24:18.6, 38°.79N×43°.55E, h7km, Ml3.4*
*ISK **08** 19:24:18.0, 38°.78N×43°.54E, h5km, ML2.8*
*ISCJB **08** 19:24:19.6±0.4, 38°.81N±0°.02×43°.55E±0°.04, h5km±4km, Error ellipse: s-maj=4.8km s-min=2.9km az=2.5*

**ISC 08 19:24:19.5±0.8, 38°.80N±0°.01×43°.56E±0°.02, h12$^{km}$±6$^{km}$, n51, σ1$^{s}$31/83, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.19 | 3 | *i* P | Pg | 19 24 22.5 | -1.4 |
| VMUR | | | | *i* S | Sg | 19 24 27.2 | +0.2 |
| VMUR | Van-Muradiye | 0.19 | 3 | P | Pg | 19 24 22.5 | -1.4 |
| VMUR | | | | S | Sg | 19 24 27.2 | +0.2 |
| VANB | Van | 0.24 | 213 | *e*PG | Pg | 19 24 24.6 | -0.1 |
| VANB | | | | *e*SG | Sg | 19 24 30.3 | +2.1 |
| VANB | Van | 0.24 | 213 | *e*Pg | Pg | 19 24 24.6 | -0.1 |
| VANB | | | | *e*Sg | Sg | 19 24 30.3 | +2.1 |
| ERCV | ERCIS-VAN | 0.28 | 322 | *e*PG | Pg | 19 24 25.0 | -0.4 |
| ERCV | | | | *e*SG | Sb | 19 24 30.1 | -1.3 |
| ERCV | ERCIS-VAN | 0.28 | 322 | *e*Pg | Pg | 19 24 25.0 | -0.4 |
| ERCV | | | | *e*Sg | Sb | 19 24 30.1 | -1.3 |
| TVAN | Van | 0.29 | 204 | *i* P | Pg | 19 24 24.2 | -1.4 |
| TVAN | | | | *i* S | Sb | 19 24 30.6 | -1.1 |
| TVAN | Van | 0.29 | 204 | P | Pg | 19 24 24.2 | -1.4 |
| TVAN | | | | S | Sb | 19 24 30.6 | -1.1 |
| CLDR | Caldiran | 0.44 | 39 | *e*PG | Pg | 19 24 28.2 | -0.2 |
| CLDR | | | | *e*SG | Sb | 19 24 36.0 | -0.1 |
| CLDR | Caldiran | 0.44 | 39 | *i* P | Pg | 19 24 27.1 | -1.2 |
| CLDR | | | | *i* S | Sb | 19 24 35.8 | -0.3 |
| CLDR | Caldiran | 0.44 | 39 | P | Pg | 19 24 27.1 | -1.2 |
| CLDR | Caldiran | 0.44 | 39 | *e*Pg | Pg | 19 24 28.2 | -0.2 |
| CLDR | | | | S | Sb | 19 24 35.8 | -0.3 |
| CLDR | | | | *e*Sg | Sb | 19 24 36.0 | -0.1 |
| GEVA | Gevas | 0.62 | 219 | *e*P | Pg | 19 24 29.9 | -1.8 |
| GEVA | | | | *e*S | Sb | 19 24 40.4 | -0.8 |
| GEVA | | | | IAML | | 19 24 48.5 | |
| | comp=Z,92nm,0.4s | | | | | | |
| GEVA | Gevas | 0.62 | 219 | *i* P | Pg | 19 24 29.9 | -1.8 |
| GEVA | | | | *i* S | Sb | 19 24 41.2 | 0.0 |
| GEVA | Gevas | 0.62 | 219 | P | Pg | 19 24 29.9 | -1.8 |
| GEVA | | | | S | Sb | 19 24 41.2 | 0.0 |
| ADCV | BITLIS_Adilcev | 0.65 | 271 | *i* P | Pg | 19 24 30.8 | -1.4 |
| ADCV | | | | *i* S | Sb | 19 24 41.2 | -0.8 |
| ADCV | BITLIS_Adilcev | 0.65 | 271 | P | Pg | 19 24 30.8 | -1.4 |
| ADCV | | | | S | Sb | 19 24 41.2 | -0.8 |
| DYDN | Diyadin | 0.75 | 8 | *e*P | Pg | 19 24 32.5 | -1.6 |
| DYDN | | | | IAML | | 19 24 48.0 | |
| | comp=Z,29nm,0.4s | | | | | | |
| DYDN | Diyadin | 0.75 | 8 | *i* P | Pg | 19 24 32.8 | -1.3 |
| DYDN | | | | *i* S | Sb | 19 24 45.4 | +0.4 |
| DYDN | Diyadin | 0.75 | 8 | P | Pg | 19 24 32.8 | -1.3 |
| DYDN | | | | S | Sb | 19 24 45.4 | +0.4 |
| BASK | Baskale_VAN | 0.82 | 155 | *e*P | Pb | 19 24 35.7 | -0.2 |
| BASK | | | | *e*S | Sn | 19 24 48.9 | -0.4 |
| BASK | | | | IAML | | 19 25 00.1 | |
| | comp=Z,53nm,0.5s | | | | | | |
| BASK | Baskale_VAN | 0.82 | 155 | *i* P | Pg | 19 24 33.2 | -2.2 |
| BASK | | | | *i* S | Sb | 19 24 46.9 | -0.1 |
| BASK | Baskale_VAN | 0.82 | 155 | P | Pg | 19 24 33.2 | -2.2 |
| BASK | | | | S | Sb | 19 24 46.8 | -0.1 |
| TUTA | Tutak | 0.84 | 316 | *e*P | Pg | 19 24 33.7 | -2.0 |
| TUTA | | | | IAML | | 19 24 49.6 | |
| | comp=Z,110nm,0.4s | | | | | | |
| TUTA | Tutak | 0.84 | 316 | *i* P | Pg | 19 24 33.7 | -2.0 |
| TUTA | | | | *i* S | Sb | 19 24 46.6 | -0.8 |
| TUTA | Tutak | 0.84 | 316 | P | Pg | 19 24 33.7 | -2.0 |
| TUTA | | | | S | Sb | 19 24 46.6 | -0.8 |
| AGRB | Hanur-Agry | 0.89 | 331 | *e*PG | Pg | 19 24 35.5 | -1.3 |
| AGRB | Hanur-Agry | 0.89 | 331 | *e*Pg | Pg | 19 24 35.5 | -1.3 |
| HAKT | HAKKARI | 1.24 | 175 | *i* P | Pg | 19 24 40.6 | -2.8 |
| HAKT | | | | *i* S | Sn | 19 25 00.9 | +1.2 |
| EKAR | Karacoban | 1.25 | 292 | *e*P | Pg | 19 24 42.1 | -1.5 |
| EKAR | | | | IAML | | 19 25 16.9 | |
| | comp=Z,22nm,0.5s | | | | | | |
| EKAR | Karacoban | 1.25 | 292 | *i* P | Pn | 19 24 42.8 | -0.2 |
| EKAR | | | | *i* S | Sn | 19 25 04.3 | +4.4 |
| EKAR | Karacoban | 1.25 | 292 | P | Pn | 19 24 42.8 | -0.2 |
| TASB | TASBURUN-IGDIR | 1.30 | 24 | *e*PN | Pb | 19 24 44.2 | +0.4 |
| TASB | TASBURUN-IGDIR | 1.30 | 24 | *e*Pn | Pb | 19 24 44.2 | +0.4 |
| YOVA | Hakkari_Yˆ…kse | 1.34 | 154 | *i* P | Pn | 19 24 43.9 | -0.4 |
| YOVA | | | | *i* S | Sn | 19 25 03.8 | +1.8 |
| YOVA | Hakkari_Yˆ…kse | 1.34 | 154 | P | Pn | 19 24 43.8 | -0.4 |
| YOVA | | | | S | Sn | 19 25 03.8 | +1.8 |
| EATA | Eleskirt | 1.35 | 322 | *e*P | Pn | 19 24 44.2 | -0.2 |
| EATA | | | | IAML | | 19 25 05.9 | |
| | comp=Z,7.0nm,0.6s | | | | | | |
| EATA | Eleskirt | 1.35 | 322 | *i* P | Pn | 19 24 44.1 | -0.2 |
| EATA | | | | *i* S | Sn | 19 25 04.6 | +2.2 |
| EATA | Eleskirt | 1.35 | 322 | P | Pn | 19 24 44.2 | -0.2 |
| SRTM | Siirt_Merkez | 1.52 | 238 | *i* P | Pb | 19 24 47.0 | -0.6 |
| SRTM | | | | *i* S | Sg | 19 25 10.7 | +2.3 |
| SRTM | Siirt_Merkez | 1.52 | 238 | P | Pb | 19 24 47.0 | -0.6 |
| CUKT | Cukurca | 1.55 | 179 | *e*PN | Pg | 19 24 48.5 | -0.7 |
| CUKT | Cukurca | 1.55 | 179 | *i* P | Pg | 19 24 48.2 | -1.0 |
| CUKT | | | | *i* S | Sg | 19 25 10.4 | +1.1 |
| CUKT | Cukurca | 1.55 | 179 | P | Pg | 19 24 48.2 | -1.0 |
| CUKT | Cukurca | 1.55 | 179 | *e*Pn | Pg | 19 24 48.6 | -0.7 |
| CUKT | | | | S | Sg | 19 25 10.4 | +1.1 |
| SIRT | Sirnak | 1.57 | 215 | *e*PN | Pb | 19 24 48.3 | -0.2 |
| SIRT | Sirnak | 1.57 | 215 | *e*Pn | Pb | 19 24 48.3 | -0.2 |
| DIGO | Kars | 1.62 | 355 | *e*P | Pb | 19 24 49.0 | -0.4 |
| DIGO | | | | IAML | | 19 24 58.0 | |
| | comp=Z,7.8nm,0.4s | | | | | | |
| SENK | Senkaya-Erzuru | 1.99 | 333 | *e*PN | Pb | 19 24 54.2 | -1.6 |
| SENK | Senkaya-Erzuru | 1.99 | 333 | *e*Pn | Pb | 19 24 54.2 | -1.6 |
| ERZM | Erzurum | 2.03 | 304 | *e*P | Pb | 19 24 56.5 | 0.0 |

*SJA **08** 19:24:10.5±0.5, 37°.35S×73°.60W, h5$^{km}$±6$^{km}$, ML4.3, MW3.3*
*GUC **08** 19:24:21.9±0.7, 37°.25S×72°.90W, h56$^{km}$±6$^{km}$, ML4.1*
*ISCJB **08** 19:24:22.4±0.5, 37°.17S±0°.03×72°.83W±0°.08, h59$^{km}$±4$^{km}$, mb4.3/10, Error ellipse: s-maj=10.0km s-min=5.5km az=4.1*
*NEIC **08** 19:24:23.5±0.6, 37°.11S×72°.75W, mb4.2/6, Error ellipse: s-maj=19.7km s-min=8.4km az=87.0*
*IDC **08** 19:24:23.8±1.0, 36°.99S×72°.49W, h40$^{km}$±5$^{km}$, mb3.9/6, mb1 4.1/9, mb1mx3.9/32, mbtmp4.2/9, ML4.3/2, Error ellipse: s-maj=29.0km s-min=21.7km az=70.0*
**ISC 08 19:24:23.7±0.7, 37°.18S±0°.04×72°.93W±0°.07, h52$^{km}$±5$^{km}$, h52$^{km}$:pP-P, n50, σ1$^{s}$49/64, mb4.2/10, Central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CCSP | San Pedro de C | 0.36 | 337 | *e*P | Pn | 19 24 32.2 | -1.3 |
| CCSP | | | | *i* S | Sn | 19 24 41.0 | +0.4 |
| CCSP | | | | IAML | | 19 24 42.4 | |
| | comp=N,13μm,0.2s | | | | | | |
| CCHI | Chillan | 0.89 | 50 | *e*P | Pn | 19 24 38.8 | -1.2 |
| CCHI | | | | *i* S | Sn | 19 24 50.9 | -1.1 |
| CCHI | | | | IAML | | 19 24 51.6 | |
| | comp=N,17μm,0.1s | | | | | | |
| COCH | Cobquecura | 1.05 | 6 | *e*P | Pn | 19 24 41.0 | -1.1 |
| COCH | | | | *i* S | Sn | 19 24 55.6 | -0.1 |
| COCH | | | | IAML | | 19 25 01.4 | |
| | comp=N,3μm,0.3s | | | | | | |
| TMU | Temuco | 1.58 | 171 | *e*P | Pn | 19 24 49.0 | -0.3 |
| TMU | | | | *i* S | Sn | 19 25 08.8 | +0.3 |
| CANA | Caviahue | 1.65 | 116 | *e*P | Pn | 19 24 48.6 | -1.7 |
| GO05 | HualaæØ | 2.31 | 21 | *e*Pn | Pn | 19 24 59.5 | +0.2 |
| GO05 | HualaæØ | 2.31 | 21 | *e*P | Pn | 19 24 59.1 | -0.2 |
| GO05 | | | | *i* S | Sn | 19 25 29.5 | +3.0 |
| GO05 | | | | IAML | | 19 25 38.8 | |
| | comp=E,2μm,0.2s | | | | | | |
| NICH | Los Niches | 2.57 | 33 | *e*P | Pn | 19 25 02.0 | -0.8 |
| NICH | | | | *i* S | Sn | 19 25 32.6 | -0.3 |
| PLCA | Paso Flores | 4.01 | 153 | Pn | Pn | 19 25 22.9 | +0.3 |
| | comp=E,4.2nm,0.3s,baz=348,slow=11,SNR=157 | | | | | | |
| PLCA | | | | Sn | Sn | 19 26 17.6 | +9.3 |
| | comp=E,1.8nm,0.3s,baz=109,slow=20,SNR=1.8 | | | | | | |
| PLCA | Paso Flores | 4.01 | 153 | *e*Pn | Pn | 19 25 22.4 | -0.2 |
| PLCA | | | | *e*Sn | Sn | 19 26 17.6 | +9.3 |
| PLCA | Paso Flores | 4.01 | 153 | *e*P | Pn | 19 25 17.5 | -5.1 |
| RFA | San Rafael | 4.34 | 58 | *e*P | Pn | 19 25 28.5 | +1.3 |
| RFA | | | | IAML | | 19 25 55.9 | |
| | comp=Z,95nm,0.6s | | | | | | |
| PEL | Peldehue | 4.42 | 25 | *e*Pn | Pn | 19 25 27.5 | -0.8 |
| ROC1 | El Roble | 4.47 | 21 | *e*Pn | Pn | 19 25 28.6 | -0.6 |
| AUSP | Uspallata | 5.74 | 32 | *e*P | Pn | 19 25 46.7 | +0.1 |
| AUSP | | | | *e*S | Sn | 19 26 57.3 | +6.1 |
| RTLS | Leoncito | 6.15 | 30 | *e*P | Pn | 19 25 52.3 | +0.1 |
| RTLS | | | | *e*S | Sn | 19 27 07.8 | +6.5 |
| RTCV | Cerro Valdivia | 6.42 | 36 | *e*P | Pn | 19 25 55.4 | -0.3 |
| RTCV | | | | *e*S | Sn | 19 27 13.2 | +5.6 |
| ACAN | Cantantal | 6.80 | 46 | *e*P | Pn | 19 26 01.1 | +0.2 |
| AMOG | MOGNA | 7.23 | 32 | *e*P | Pn | 19 26 05.8 | -0.9 |
| AGUA | GUANDACOL | 8.52 | 27 | *e*P | Pn | 19 26 23.1 | -1.4 |
| TRQA | Tornquist | 8.74 | 99 | *e*Pn | Pn | 19 26 26.7 | -0.6 |
| VCA | Vinchina | 9.30 | 27 | *e*P | Pn | 19 26 34.3 | -1.0 |
| VCA | | | | IAML | | 19 26 37.5 | |
| | comp=Z,20nm,0.2s | | | | | | |
| CHRN | Cochrane | 10.07 | 179 | *e*Pn | Pn | 19 26 45.8 | +0.3 |
| CPUP | Villa Florida | 17.09 | 55 | Pn | Pn | 19 28 15.7 | -3.3 |
| | comp=Z,0.3nm,0.3s,baz=255,slow=9.5,SNR=5.0 | | | | | | |
| PB11 | IPOC Station P | 17.59 | 10 | *e*Pn | Pn | 19 28 23.4 | -1.9 |
| | comp=Z,26nm,1.2s | | | | | | |
| USHA | Ushuaia | 17.93 | 172 | P | Pn | 19 28 32.8 | +3.8 |
| | comp=Z,19nm,0.3s,baz=326,slow=7.3,SNR=2.6 | | | | | | |
| MNMC | Minye Minye | 18.21 | 10 | *e*P | Pn | 19 28 32.9 | -0.1 |
| | comp=Z,17nm,0.7s | | | | | | |
| LPAZ | La Paz | 21.24 | 13 | P | P | 19 29 04.8 | -1.2 |
| | comp=Z,1.5nm,0.5s,baz=150,slow=4.9,SNR=9.5 | | | | | | |
| LPAZ | La Paz | 21.24 | 13 | *e*P | P | 19 29 07.8 | +1.8 |
| | comp=Z,6.0nm,0.8s | | | | | | |
| SIV | San Ignacio | 23.57 | 30 | P | P | 19 29 25.8 | -3.9 |
| | comp=Z,3.4nm,0.7s,baz=223,slow=7.0,SNR=6.0 | | | | | | |
| SAML | Samuel | 29.46 | 20 | *e*P | P | 19 30 21.9 | -0.7 |
| | comp=Z,3.3nm,0.8s | | | | | | |
| BDFB | Brasilia | 30.78 | 52 | P | P | 19 30 34.1 | -0.4 |
| | comp=Z,3.0nm,0.6s,baz=5.2,slow=7.9,SNR=4.5 | | | | | | |
| RUSC | La Rusia | 42.84 | 360 | *e*P | P | 19 32 18.4 | +1.1 |
| | comp=Z,2.7nm,0.6s | | | | | | |
| LTX | Lajitas | 72.17 | 332 | *e*P | P | 19 35 44.6 | +1.6 |
| LTX | | | | *e*pP | pP | 19 35 56.6 | -1.1 |
| TXAR | Lajitas Array | 72.17 | 332 | P | P | 19 35 44.6 | +1.6 |
| | comp=Z,0.4nm,0.5s,baz=150,slow=8.7,SNR=6.4 | | | | | | |
| TXAR | | | | pP | pP | 19 35 56.6 | -1.1 |
| | comp=Z,0.8nm,0.6s,baz=153,slow=8.5,SNR=8.5 | | | | | | |
| LIC | Lamto | 76.47 | 71 | *e*P | P | 19 36 07.6 | -0.7 |
| | comp=Z,33nm,1.5s | | | | | | |
| TIC | Toumodi | 76.75 | 71 | *e*P | P | 19 36 08.8 | -1.0 |
| KIC | Kosan Boka | 76.78 | 71 | *e*P | P | 19 36 09.4 | -0.6 |
| | comp=Z,11nm,0.5s | | | | | | |
| DBIC | Dimbokro | 76.89 | 71 | P | P | 19 36 09.9 | -0.7 |
| | comp=Z,3.9nm,0.6s,baz=202,slow=5.6,SNR=12 | | | | | | |
| DBIC | | | | pP | PcP | 19 36 22.5 | +0.9 |
| | comp=Z,4.6nm,0.7s,baz=197,slow=5.5,SNR=2.7 | | | | | | |
| DBIC | | | | sP | pP | 19 36 26.7 | +1.3 |
| | comp=Z,3.8nm,0.6s,baz=196,slow=7.1,SNR=3.0 | | | | | | |
| DBIC | Dimbokro | 76.89 | 71 | *e*P | P | 19 36 09.9 | -0.7 |
| | comp=Z,15nm,1.3s | | | | | | |
| DBIC | | | | pP | PcP | 19 36 22.5 | +0.9 |
| DBIC | | | | sP | pP | 19 36 26.7 | +1.3 |
| TORD | Torodi Ar. Bea | 85.97 | 70 | P | P | 19 36 57.4 | -1.2 |
| | comp=Z,1.6nm,0.9s,baz=227,slow=3.4,SNR=7.3 | | | | | | |
| TORD | | | | sP | pP | 19 37 14.6 | +1.0 |
| | comp=Z,1.2nm,0.8s,baz=234,slow=4.3,SNR=5.7 | | | | | | |
| TOA1 | Torodi Ar. Sit | 85.97 | 70 | *e*P | P | 19 36 57.4 | -1.2 |
| TOA1 | | | | *e*pP | pP | 19 37 14.6 | +1.0 |
| BR101 | Keskin Array S | 123.97 | 63 | *e*PKPdf | PKPdf | 19 43 15.3 | -0.6 |
| BRTR | Keskin Array B | 123.97 | 63 | PKP | PKPdf | 19 43 15.3 | -0.7 |
| | comp=Z,0.4nm,0.6s,baz=245,slow=2.2,SNR=2.9 | | | | | | |
| ZAA1 | Zalesovo Array | 157.26 | 35 | *e*PKPab | PKPab | 19 44 44.5 | +0.2 |
| ZALV | Zalesovo Beam | 157.26 | 35 | PKPab | PKPab | 19 44 44.5 | +0.2 |
| | comp=Z,0.7nm,0.5s,baz=305,slow=5.0,SNR=4.0 | | | | | | |
| MK32 | Makanchi Array | 159.30 | 55 | *e*PKPab | PKPab | 19 44 52.4 | -1.1 |
| MKAR | Makanchi Array | 159.30 | 55 | PKPab | PKPab | 19 44 52.4 | -1.1 |
| | comp=Z,0.3nm,0.4s,baz=273,slow=2.6,SNR=4.6 | | | | | | |
| SONA0 | Songino Array | 169.34 | 2 | *e*PKPab | PKPab | 19 45 38.2 | +0.7 |
| SONM | Songino Array | 169.34 | 2 | PKPab | PKPab | 19 45 38.2 | +0.7 |
| | comp=Z,0.6nm,0.9s,baz=214,slow=0.5,SNR=3.3 | | | | | | |

*JMA **08** 19:26:19.4±0.6, 44°.50N×149°.15E, h30$^{km}$, M4.0*
*SKHL **08** 19:26:21.8±0.8, 44°.21N×149°.00E, h41$^{km}$±1$^{km}$, mb4.0/3*
**ISC 08 19:26:19.5±4.5, 44°.27N±0°.09×149°.0E±0°.2, h9$^{km}$±22$^{km}$, n18, σ1$^{s}$48/27, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KUR | Kuril'sk | 1.24 | 322 | *i* P | Pn | 19 26 42.6 | -0.4 |
| KUR | | | | AMB | AMB | 19 26 43.1 | |
| | 32nm,0.1s | | | | | | |
| KUR | | | | *i* S | Sg | 19 26 58.6 | -0.8 |
| KUR | | | | A | A | 19 26 59.1 | |
| | 530nm,0.2s | | | | | | |
| KUR | | | | A | A | 19 26 59.1 | |
| | 480nm,0.2s | | | | | | |
| SHO | Shikotan | 1.58 | 256 | *e*P | Pn | 19 26 47.4 | -0.3 |
| SHO | | | | AMB | AMB | 19 26 49.8 | |
| | 11nm,0.2s | | | | | | |
| SHO | | | | *e*S | Sn | 19 27 05.9 | -2.3 |
| SHO | | | | A | A | 19 27 09.3 | |
| | 110nm,0.3s | | | | | | |
| SHO | | | | A | A | 19 27 09.3 | |
| | 246nm,0.3s | | | | | | |
| YUK | Yuzh-Kuril'sk | 2.24 | 265 | *e*P | Pn | 19 26 56.3 | -0.4 |
| YUK | | | | AMB | AMB | 19 26 58.7 | |
| | 48nm,0.4s | | | | | | |
| YUK | | | | *e*S | Sn | 19 27 22.5 | -1.9 |
| YUK | | | | A | A | 19 27 26.8 | |
| | 275nm,0.4s | | | | | | |
| YUK | | | | A | A | 19 27 26.8 | |
| | 199nm,0.4s | | | | | | |
| NEM2 | Nemuro 2 | 2.49 | 250 | P | Pn | 19 27 00.0 | -0.2 |
| NEM2 | | | | *e*S | Sn | 19 27 30.6 | -0.1 |
| JRA | Rausu | 2.78 | 265 | P | Pn | 19 27 05.5 | +1.4 |
| JRA | | | | *e*S | Sn | 19 27 39.5 | +1.7 |
| JNK | Nakash | 3.13 | 259 | P | Pn | 19 27 09.7 | +0.7 |
| JNK | | | | *e*S | Sn | 19 27 46.5 | 0.0 |
| JAK | Akkeshi | 3.34 | 249 | P | Pn | 19 27 12.0 | +0.2 |
| JTKR | Abashiri--Toko | 3.65 | 267 | P | Pn | 19 27 17.3 | +1.3 |
| JAR | Ashorobuto | 3.88 | 257 | P | Pn | 19 27 20.7 | +1.5 |
| JAR | | | | *e*S | Sn | 19 28 06.9 | +2.0 |
| JMP | Maruseppu | 4.04 | 268 | P | Pn | 19 27 23.8 | +2.4 |
| JCH | Churui | 4.39 | 250 | P | Pn | 19 27 27.0 | +0.7 |
| JNBK | Urakawa-nobuka | 4.94 | 248 | P | Pn | 19 27 34.2 | +0.3 |
| JBT2 | Biratori 2 | 5.02 | 255 | P | Pn | 19 27 36.5 | +1.6 |
| YSS | Yuzh-Sakhalins | 5.11 | 304 | *e*P | Pn | 19 27 37.3 | +1.1 |
| JNB | Noboribetsu | 6.04 | 255 | P | Pn | 19 27 50.2 | +1.2 |
| JNB | | | | *e*S | Sn | 19 28 57.7 | -0.5 |
| JKB | Kayabe | 6.27 | 250 | P | Pn | 19 27 52.4 | +0.3 |
| JKB | | | | *e*S | Sn | 19 29 00.3 | -3.5 |
| JYM2 | Yakumo 2 | 6.63 | 254 | P | Pn | 19 27 58.4 | +1.3 |
| JOSM | Okushiri--Mats | 7.26 | 256 | P | Pn | 19 28 06.9 | +1.2 |

**PRE 08 19:28:46.2±0.9, 32°.79S×17°.80E, h5$^{km}$, ML3.5, South Africa**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CER | Ceres | 1.38 | 115 | *e*P | Pg | 19 29 12.8 | +0.2 |
| CER | | | | *e*S | Sn | 19 29 31.3 | +0.7 |
| CER | | | | AML | AML | 19 29 35.5 | |
| | comp=Z,2μm,0.4s | | | | | | |
| CVNA | Calvinia | 2.12 | 52 | *e*P | Pn | 19 29 22.6 | +0.3 |
| CVNA | | | | *e*S | Sn | 19 29 49.1 | 0.0 |
| CVNA | | | | AML | AML | 19 29 57.3 | |
| | comp=Z,102nm,0.4s | | | | | | |
| UPI | Upington | 5.33 | 35 | *e*P | Pn | 19 30 06.7 | +0.2 |
| UPI | | | | *e*S | Sn | 19 31 07.0 | -1.2 |
| UPI | | | | AML | AML | 19 31 47.1 | |
| | comp=Z,18nm,0.7s | | | | | | |
| BUFB | Buffelsbos | 5.96 | 105 | *e*P | Pn | 19 30 12.6 | -2.4 |
| BUFB | | | | *e*S | Sn | 19 31 19.2 | -4.4 |
| BUFB | | | | AML | AML | 19 32 06.3 | |
| | comp=Z,10nm,0.4s | | | | | | |
| GRM | Grahamstown | 7.33 | 96 | *e*S | Sn | 19 31 55.4 | -2.2 |
| GRM | | | | AML | AML | 19 32 43.8 | |
| | comp=Z,12nm,0.6s | | | | | | |

*ISCJB **08** 19:34:20.3±1.3, 30°.05S±0°.08×176°.5W±0°.1, h24$^{km}$, mb4.0/4, Error ellipse: s-maj=16.5km s-min=10.7km az=159.5*
*IDC **08** 19:34:24.3±4.5, 29°.14S×176°.33W, h60$^{km}$±30$^{km}$, mb3.9/4, mb1 4.0/4, mb1mx3.7/21, mbtmp4.1/4, MS3.1/2, Ms1 3.1/2, ms1mx2.6/23, Error ellipse: s-maj=90.0km s-min=31.8km az=6.0*
**ISC 08 19:34:21.0±1.2, 29°.9S±0°.1×176°.4W±0°.1, h24$^{km}$, n10, σ1$^{s}$18/10, mb4.3/4, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RAO | Raoul Island | 1.50 | 294 | P | Pn | 19 34 46.7 | +0.3 |
| | 147nm,0.3s,baz=66,slow=22,SNR=6.3 | | | | | | |
| RAO | | | | S | Sn | 19 35 05.2 | 0.0 |
| | 271nm,0.3s,baz=85,slow=22,SNR=4.0 | | | | | | |
| URZ | Urewera | 9.96 | 211 | S | Sn | 19 38 32.7 | -0.7 |
| | 0.9nm,0.3s,baz=70,slow=23,SNR=5.3 | | | | | | |
| RPZ | Rata Peaks | 17.07 | 213 | LR | LR | 19 46 25.9 | |
| | comp=Z,49nm,19.2s,baz=1.0,slow=41 | | | | | | |
| RAR | Rarotonga | 17.26 | 64 | LR | LR | 19 43 00.1 | |
| | comp=Z,86nm,19.6s,baz=135,slow=30 | | | | | | |
| STKA | Stephens Creek | 35.98 | 256 | P | P | 19 41 21.7 | +1.6 |
| | 2.1nm,0.6s,baz=91,slow=9.6,SNR=8.3 | | | | | | |
| ASAR | Alice Springs | 44.56 | 266 | P | P | 19 42 30.6 | -0.6 |
| | 0.4nm,0.5s,baz=102,slow=6.5,SNR=12 | | | | | | |
| ASAR | | | | PcP | PcP | 19 44 13.2 | -1.0 |
| | 0.3nm,0.9s,baz=120,slow=3.7,SNR=3.0 | | | | | | |
| WRA | Warramunga Arr | 45.51 | 271 | P | P | 19 42 37.8 | -1.0 |
| | 2.7nm,0.7s,baz=110,slow=7.6,SNR=34 | | | | | | |
| LPAZ | La Paz | 97.05 | 113 | P | P | 19 47 52.3 | +0.1 |
| | 0.7nm,0.6s,baz=225,slow=4.3,SNR=2.9 | | | | | | |
| FINES | FINESS Array B | 145.13 | 341 | PKP | PKPbc | 19 53 53.9 | -1.3 |
| | 1.2nm,0.6s,baz=28,slow=8.6,SNR=3.4 | | | | | | |
| TORD | Torodi Ar. Bea | 163.25 | 173 | PKPab | PKPab | 19 55 13.8 | +1.5 |
| | 0.4nm,0.8s,baz=182,slow=2.3,SNR=3.0 | | | | | | |

*ISCJB **08** 19:38:04.7±0.9, 35°.60N±0°.04×140°.2E±0°.1, h71$^{km}$±9$^{km}$, mb3.5/2, Error ellipse: s-maj=15.8km s-min=6.3km az=166.0*
*IDC **08** 19:38:04.6±1.3, 34°.83N×138°.12E, h0$^{km}$, mb3.6/2, mb1 3.7/3, mb1mx3.2/34, mbtmp3.6/3, ML3.1/1, Error ellipse: s-maj=38.0km s-min=17.5km az=73.0*
*JMA **08** 19:38:06.6±0.1, 35°.69N×140°.09E, h62$^{km}$±2$^{km}$, M2.6*
**ISC 08 19:38:05.7±1.3, 35°.61N±0°.05×140°.16E±0°.10, h65$^{km}$±12$^{km}$, n11, σ1$^{s}$13/18, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BSO3 | Boso 3 | 0.86 | 160 | P | Pn | 19 38 23.3 | +1.4 |
| JOD2 | Odawara 2 | 0.94 | 249 | P | Pn | 19 38 23.5 | +0.2 |
| JOD2 | | | | S | Sn | 19 38 35.3 | -0.9 |
| JAG | Ashikaga | 0.99 | 325 | P | Pn | 19 38 23.7 | -0.2 |
| JAG | | | | S | Sn | 19 38 36.0 | -1.4 |
| JIM2 | Oshima 3 | 1.07 | 214 | P | Pn | 19 38 25.0 | 0.0 |
| JIM2 | | | | S | Sn | 19 38 38.8 | -0.4 |
| JRY | Ryogami san | 1.10 | 292 | P | Pn | 19 38 25.8 | +0.5 |
| JKT | Katashina | 1.37 | 328 | P | Pn | 19 38 28.8 | -0.1 |
| JKT | | | | S | Sn | 19 38 45.5 | -0.7 |
| MJAR | Matsushiro Arr | 1.83 | 301 | Pn | Pn | 19 38 34.2 | -0.8 |
| | 7.7nm,0.3s,baz=329,slow=23,SNR=54 | | | | | | |
| MJAR | | | | Sn | Sn | 19 38 59.9 | +2.7 |
| | 2.7nm,0.3s,baz=192,slow=32,SNR=5.7 | | | | | | |
| MAT | Matsushiro | 1.83 | 301 | P | Pn | 19 38 35.5 | +0.5 |
| MAT | | | | *e*S | Sn | 19 38 58.8 | +1.5 |
| JHJ | Hachijo jima 2 | 2.50 | 187 | Pn | Pn | 19 38 44.4 | +0.3 |
| | 13nm,0.3s,baz=52,slow=19,SNR=2.2 | | | | | | |
| JHJ | | | | Sn | Sn | 19 39 12.5 | -1.1 |
| | 9.3nm,0.3s,baz=68,slow=16,SNR=2.5 | | | | | | |
| MKAR | Makanchi Array | 44.03 | 303 | P | P | 19 46 07.3 | +0.5 |
| | 1.1nm,1.0s,baz=90,slow=12,SNR=3.3 | | | | | | |
| WRA | Warramunga Arr | 55.52 | 187 | P | P | 19 47 33.5 | -0.7 |
| | 0.3nm,0.6s,baz=1.4,slow=7.5,SNR=11 | | | | | | |

**IDC 08 19:46:20.6±2.6, 4°.47N×128°.58E, h0$^{km}$, mb3.2/3, mb1 3.4/3, mb1mx3.2/26, mbtmp3.2/3, Error ellipse: s-maj=187.3km s-min=25.8km az=68.0, North of Halmahera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 24.91 | 167 | P | P | 19 51 43.5 | -2.0 |
| | 0.4nm,0.6s,baz=346,slow=10,SNR=5.5 | | | | | | |
| ASAR | Alice Springs | 28.44 | 170 | P | P | 19 52 19.3 | +1.9 |
| | 0.2nm,0.6s,baz=356,slow=11,SNR=3.1 | | | | | | |
| MKAR | Makanchi Array | 58.03 | 324 | P | P | 19 56 15.3 | -0.1 |
| | 0.2nm,0.4s,baz=121,slow=9.0,SNR=3.3 | | | | | | |

*IPEC **08** 19:54:59.5±0.4, 49°.84N×18°.58E, h0$^{km}$±3$^{km}$, ML1.4/3, Error ellipse: s-maj=2.4km s-min=2.1km az=109.0*
*CSEM **08** 19:55:00.5±0.3, 49°.78N×18°.44E, h2$^{km}$, ML2.1/4, Error ellipse: s-maj=9.1km s-min=3.6km az=24.0*
**PRU 08 19:55:01.5, 49°.82N×18°.44E, h0$^{km}$, 2D, Czech and Slovak Republics**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| OKC | Ostrava-Krasne | 0.19 | 275 | ⇓*i*PG | Pg | 19 55 05.2 | +0.1 |
| OKC | | | | *e*SG | Sg | 19 55 08.5 | +0.9 |
| | comp=Z,12nm,0.4s | | | | | | |
| OKC | Ostrava-Krasne | 0.19 | 275 | Pg | Pg | 19 55 05.2 | +0.1 |
| OKC | | | | Sg | Sg | 19 55 08.5 | +0.9 |
| | 12nm,0.4s | | | | | | |
| MORC | Moravsky Berou | 0.58 | 266 | *e*Pg | Pg | 19 55 12.4 | -0.3 |
| MORC | | | | *e*Sg | Sg | 19 55 20.5 | +0.3 |
| | 7.3nm,0.4s,baz=84 | | | | | | |
| LANS | Liptovska Anna | 0.95 | 135 | *e*Pg | Pg | 19 55 17.6 | -2.0 |
| LANS | | | | *e*Sg | Sg | 19 55 31.2 | -0.7 |
| LANS | Liptovska Anna | 0.95 | 135 | *e*PG | Pg | 19 55 17.6 | -2.0 |
| LANS | | | | *e*SG | Sg | 19 55 31.2 | -0.7 |
| KRLC | Kraliky | 1.10 | 284 | *e*PG | Pg | 19 55 20.9 | -1.7 |
| KRLC | | | | *e*SG | Sg | 19 55 37.2 | +0.3 |
| | comp=Z,2.0nm,0.3s | | | | | | |
| KRLC | Kraliky | 1.10 | 284 | Pg | Pg | 19 55 20.9 | -1.7 |
| KRLC | | | | Sg | Sg | 19 55 37.2 | +0.3 |
| | 2.0nm,0.3s | | | | | | |
| VRAC | Vranov | 1.31 | 248 | *e*Pg | Pg | 19 55 25.4 | -1.1 |
| VRAC | | | | *e*Sg | Sg | 19 55 43.1 | -0.3 |
| | 5.1nm,0.3s,baz=67 | | | | | | |
| VYHS | Vyhne | 1.35 | 169 | *e*Pg | Pg | 19 55 25.0 | -2.4 |
| VYHS | | | | *e*Sn | Sg | 19 55 43.5 | -1.4 |
| VYHS | Vyhne | 1.35 | 169 | *e*PG | Pg | 19 55 25.0 | -2.4 |
| VYHS | | | | *e*SN | Sg | 19 55 43.5 | -1.4 |
| DPC | Dobruska-Polom | 1.46 | 292 | *e*PG | Pn | 19 55 27.4 | -1.8 |
| DPC | | | | *e*SG | Sg | 19 55 47.6 | -0.9 |
| DPC | Dobruska-Polom | 1.46 | 292 | Pg | Pn | 19 55 27.4 | -1.8 |
| DPC | | | | Sg | Sg | 19 55 47.6 | -0.9 |
| KRUC | Moravsky | 1.54 | 241 | *e*Sg | Sg | 19 55 50.2 | -0.6 |
| | 2.8nm,0.2s,baz=61 | | | | | | |
| STHS | Stebnicka Huta | 1.87 | 101 | *e*Pn | Pn | 19 55 34.8 | +0.1 |
| STHS | | | | *e*Sn | Sb | 19 56 00.9 | +0.5 |
| STHS | Stebnicka Huta | 1.87 | 101 | *e*PN | Pn | 19 55 34.8 | +0.1 |
| STHS | | | | *e*SN | Sb | 19 56 00.9 | +0.5 |
| KECS | Kecovo | 1.90 | 134 | *e*Sn | Sn | 19 55 56.2 | -3.5 |
| KECS | Kecovo | 1.90 | 134 | *e*SN | Sn | 19 55 56.2 | -3.5 |
| KECS | | | | *e*LG | Lg | 19 56 01.8 | |
| PRU | Pruhonice | 2.53 | 275 | ⇓*e*SG | Sb | 19 56 20.8 | +1.5 |
| PRU | Pruhonice | 2.53 | 275 | Sg | Sb | 19 56 20.8 | +1.5 |
| KHC | Kasperske Hory | 3.25 | 260 | *e*SG | Sg | 19 56 44.2 | -1.5 |
| KHC | Kasperske Hory | 3.25 | 260 | Sg | Sg | 19 56 44.2 | -1.5 |

*NNC **08** 20:04:27.9±1.2, 37°.11N×57°.04E, h0$^{km}$±7$^{km}$, mb4.5, mpv5.6, Error ellipse: s-maj=13.4km s-min=5.0km az=144.0*
*IDC **08** 20:04:31.6±0.7, 37°.24N×57°.35E, h0$^{km}$, mb4.2/20, mb1 4.5/27, mb1mx4.3/39, mbtmp4.4/27, ML3.9/5, MS3.9/32, Ms1 3.9/32, ms1mx3.7/50, Error ellipse: s-maj=11.6km s-min=7.6km az=166.0*
*ISCJB **08** 20:04:31.8±0.2, 37°.26N±0°.02×57°.49E±0°.02, h10$^{km}$, mb4.5/51, MS3.9/24, Error ellipse: s-maj=3.4km s-min=2.0km az=13.2*
*NEIC **08** 20:04:31.4±0.0, 37°.13N×57°.45E, h14$^{km}$, mb4.8/24, ML4.3(THR), After THR.*
*THR **08** 20:04:31.4±0.5, 37°.13N×57°.45E, h14$^{km}$±5$^{km}$, ML4.2*
*BJI **08** 20:04:31.0, 37°.20N×57°.60E, h5$^{km}$, mb4.5/12, mB4.9/7, Ms4.6/10, Ms7 4.2/8*
*CSEM **08** 20:04:32.1±0.1, 37°.19N×57°.53E, h2$^{km}$, mb4.8/20, Error ellipse: s-maj=4.9km s-min=3.2km az=12.0*
*TEH **08** 20:04:33.3, 37°.18N×57°.56E, h5$^{km}$, ML4.5*
*MOS **08** 20:04:35.9±1.6, 37°.51N×57°.58E, h33$^{km}$, mb4.8/23, Error ellipse: s-maj=6.2km s-min=4.8km az=123.9*
**ISC 08 20:04:32.6±0.3, 37°.19N±0°.03×57°.44E±0°.02, h10$^{km}$, n396, σ2$^{s}$08/410, mb4.6/51, MS3.9/24, 67C-27D, Iran-Turkmenistan border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ISFR | Sfrayin | 0.47 | 107 | *e*Sg | Sg | 20 04 45.6 | -2.4 |
| ISFR | | | | *e*AMB | AMB | 20 04 57.0 | |
| | comp=Z,7μm,0.3s | | | | | | |
| ISFR | Sfrayin | 0.47 | 107 | *e*Sg | Sg | 20 04 45.6 | -2.4 |
| BJRD | Bojnurd | 0.51 | 357 | *e*Pg | Pg | 20 04 42.7 | +0.2 |
| BJRD | Bojnurd | 0.51 | 357 | *e*Pg | Pg | 20 04 42.7 | +0.2 |

**IQHU Qucahn 0.89 97** *e*Pg **Pg** **20 04 47.8 -1.9**
IQHU *e*Sg **Sg** **20 04 58.0 -3.2**
IQHU eAMB AMB 20 05 21.6
comp=Z,100µm,0.5s
**IQHU Qucahn 0.89 97** *e*Pg **Pg** **20 04 47.8 -1.9**
IQHU *e*Sg **Sg** **20 04 58.0 -3.2**
**GEYT Alibeck 0.91 36** Pg **Pg** **20 04 48.9 -1.3**
comp=Z,1µm,0.3s,baz=217,slow=17,SNR=860
GEYT Lg Lg 20 05 03.1
comp=Z,624nm,0.3s,baz=219,slow=11,SNR=21
**IKRD Kardeh 0.95 115** *e*Pn Pn 20 05 02.7 +10
IKRD eAMB AMB 20 05 35.8
comp=Z,69µm,0.3s
**IKRD Kardeh 0.95 115** *e*Pn Pn 20 05 02.7 +10
**IEMG Emamgholi 0.99 77** *e*Pg **Pg** **20 04 49.7 -2.0**
IEMG eAMB AMB 20 05 11.0
comp=Z,63µm,0.1s
**IEMG Emamgholi 0.99 77** *e*Pg **Pg** **20 04 49.7 -2.0**
**ASHT Ashkhabad 1.06 45** ⇓P **Pn** **20 04 53.2 -0.3**
comp=Z,3µm,0.6s
ASHT ⇑S **Sn** **20 05 11.8 +3.5**
comp=Z,16µm,1.1s
**ASHT Ashkhabad 1.06 45** P **Pb** **20 04 53.0 0.0**
**ASHT Ashkhabad 1.06 45** P **Pb** **20 04 53.0 0.0**
**MRVT Maraveh tapeh 1.17 294** *e*Pg **Pn** **20 04 53.5 -1.6**
MRVT *e*Sg **Sb** **20 05 10.3 0.0**
MRVT AML AML 20 05 18.6
comp=E,3µm,0.6s
MRVT AML AML 20 05 23.6
comp=N,5µm,0.5s
**MRVT Maraveh tapeh 1.17 294** *e*Pg **Pn** **20 04 53.5 -1.6**
MRVT *e*Sg **Sb** **20 05 10.3 0.0**
**IAKL Akhelmad 1.21 119**⇑ *e*Pg **Pg** **20 04 53.4 -2.4**
IAKL eAMB AMB 20 05 20.8
comp=Z,75µm,0.2s
**IPAY Payeh 1.45 120** *e*Pg **Pn** **20 04 57.7 -1.4**
IPAY eAMB AMB 20 05 23.9
comp=Z,62µm,0.2s
**IPAY Payeh 1.45 120** *e*Pg **Pn** **20 04 57.7 -1.4**
**SHRO Shahrood 1.66 224** *e*Pg **Pn** **20 05 01.1 -0.8**
SHRO *e*Sg **Sn** **20 05 22.4 -1.0**
SHRO AML AML 20 05 27.4
comp=E,3µm,0.6s
SHRO AML AML 20 05 28.1
comp=N,2µm,0.7s
**SHRO Shahrood 1.66 224** *e*Pg **Pn** **20 05 01.1 -0.8**
SHRO *e*Sg **Sn** **20 05 22.4 -1.0**
**ISRO Mashad 1.85 118** *e*Pn **Pn** **20 05 04.7 +0.2**
**ISRO Mashad 1.85 118** *e*Pn **Pn** **20 05 04.7 +0.2**
**IMOG Moghan 1.87 125** eAMB AMB 20 05 41.9
comp=Z,45µm,0.3s
IMOG *e*Pn **Pb** **20 05 05.7 -1.3**
**IMYA Miami 2.30 111** eAMB AMB 20 05 53.1
comp=Z,33µm,0.3s
**IGLO Ghaloghah 2.98 258** *e*Pn **Pn** **20 05 20.9 +0.8**
IGLO eAMB AMB 20 06 22.1
comp=Z,54µm,0.3s
**IANJ Anjilo 3.33 240** *e*Pn **Pn** **20 05 26.9 +2.0**
IANJ eAMB AMB 20 06 37.0
comp=Z,14µm,0.4s
**IANJ Anjilo 3.33 240** *e*Pn **Pn** **20 05 26.9 +2.0**
**ISHM Shahmirzad 3.62 249** *e*Pn **Pn** **20 05 31.6 +2.7**
ISHM eAMB AMB 20 06 39.5
comp=Z,20µm,0.3s
**IALA Alasht 3.88 255** *e*Pn **Pn** **20 05 34.9 +2.3**
IALA eAMB AMB 20 06 52.4
comp=Z,12µm,0.3s
**IALA Alasht 3.88 255** *e*Pn **Pn** **20 05 34.9 +2.3**
**IPRN Peran 4.21 259** *e*Pn **Pn** **20 05 38.3 +1.4**
IPRN eAMB AMB 20 06 58.6
comp=Z,22µm,0.3s
**SHRT Shahrakht 4.23 146** *e*Pn **Pn** **20 05 36.8 -0.4**
**SHRT Shahrakht 4.23 146** *e*Pn **Pn** **20 05 36.8 -0.4**
**IMON Monand 4.39 155** *e*Pn **Pn** **20 05 39.9 +0.4**
IMON eAMB AMB 20 05 47.0
comp=Z,3µm,0.1s
**IMON Monand 4.39 155** *e*Pn **Pn** **20 05 39.9 +0.4**
**ITEG Tejag 4.42 166** *e*Pn **Pn** **20 05 40.7 +0.8**
ITEG eAMB AMB 20 05 45.1
comp=Z,6µm,0.4s
**ITEG Tejag 4.42 166** *e*Pn **Pn** **20 05 40.7 +0.8**
**IDMV Damavand 4.65 251** *e*Pn **Pn** **20 05 43.6 +0.4**
**IDMV Damavand 4.65 251** *e*Pn **Pn** **20 05 43.6 +0.4**
**IDAH Dahanechah 4.87 155** *e*Pn **Pn** **20 05 46.2 +0.1**
**IDAH Dahanechah 4.87 155** *e*Pn **Pn** **20 05 46.2 +0.1**
**IKOO Kooshah 4.93 164** *e*Pn **Pn** **20 05 47.3 +0.4**
IKOO eAMB AMB 20 07 46.5
comp=Z,7µm,0.7s
**IKOO Kooshah 4.93 164** *e*Pn **Pn** **20 05 47.3 +0.4**
**IVRN Varamin 5.12 246** *e*Pn **Pn** **20 05 50.7 +1.3**
**IVRN Varamin 5.12 246** *e*Pn **Pn** **20 05 50.7 +1.3**
**GHVR GHOM 5.68 243** *e*Pn **Pn** **20 05 57.7 +0.6**
GHVR AML AML 20 07 57.9
comp=N,87nm,0.7s
GHVR AML AML 20 08 14.7
comp=E,153nm,0.6s
**GHVR GHOM 5.68 243** *e*Pn **Pn** **20 05 57.7 +0.6**
**NASN Na'in 5.80 222** *e*Pn **Pn** **20 05 58.7 -0.3**
**NASN Na'in 5.80 222** *e*Pn **Pn** **20 05 58.7 -0.3**
**IRAZ Razeghan 6.32 256** *e*Pn **Pn** **20 06 07.3 +1.2**
**IRAZ Razeghan 6.32 256** *e*Pn **Pn** **20 06 07.3 +1.2**
**KHMZ Khomeyn 7.01 243** *e*Pn **Pn** **20 06 16.0 +0.5**
**KHMZ Khomeyn 7.01 243** *e*Pn **Pn** **20 06 16.0 +0.5**
**LKRN Lenkeran, Azer 7.01 285** P **Pn** **20 06 13.1 -2.2**
**MAK Makhachkala 9.55 310** *e*P **Pn** **20 06 48.8 -1.2**
MAK *e*S **Sn** **20 08 32.1 -5.2**
MAK pmax pmax
comp=Z,278nm,1.0s
MAK MLR MLR
comp=Z,543nm,16.0s
**DDFL Dedoflistskaro 9.75 299** P **Pn** **20 06 53.3 +0.4**
DDFL S **Sn** **20 08 44.7 +2.3**
**KBL Kabul 9.78 102** *e*P **Pn** **20 06 54.5 +1.0**
**KBL Kabul 9.78 102** *e*P **Pn** **20 06 54.5 +1.0**
**KBL Kabul 9.78 102** *e*Pn **Pn** **20 06 54.5 +1.0**
**GNI Garni 10.36 290** Pn **Pn** **20 07 02.1 +0.8**
comp=Z,2.8nm,0.3s,baz=41,slow=3.0,SNR=25
GNI Sn **Sn** **20 08 58.2 +0.6**
comp=Z,0.5nm,0.3s,baz=336,slow=20,SNR=1.5
GNI LR LR 20 12 47.2
comp=Z,571nm,18.4s,baz=106,slow=48
**GNI Garni 10.36 290***ce*P **Pn** **20 07 03.6 +2.2**
GNI pmax pmax
comp=Z,306nm,1.2s
**GNI Garni 10.36 290** *e*P **Pn** **20 07 03.6 +2.2**
comp=Z,306nm,1.2s
**GROC Groznyy 10.74 308** *e*P **Pn** **20 07 05.9 -0.4**
GROC *e*S **Sn** **20 09 06.1 -0.4**
GROC pmax pmax
comp=Z,104nm,1.2s
GROC smax smax
comp=E,236nm,1.2s
**GROC Groznyy 10.74 308** *e*P **Pn** **20 07 05.9 -0.4**
comp=E,104nm,1.2s
**TBLG Delisi 10.81 299** P **Pn** **20 07 06.5 -0.9**
TBLG S **Sn** **20 09 06.5 -2.0**
**TBLG Delisi 10.81 299** P **Pn** **20 07 06.5 -0.9**
TBLG S **Sn** **20 09 06.5 -2.0**
**DYDN Diyadin 11.05 286** *e*P **Pn** **20 07 12.5 +1.7**
**GUDG Gudauri 11.27 302** P **Pn** **20 07 13.5 -0.3**
GUDG S **Sn** **20 09 19.8 -0.1**
**EAK Akyaka 11.32 292** *e*P **Pn** **20 07 16.8 +2.2**
EAK IAML 20 07 51.4
comp=Z,15nm,0.6s
**DIGO Kars 11.44 291** *e*P **Pn** **20 07 17.4 +1.2**
DIGO IAML 20 07 27.6
comp=Z,6.1nm,0.6s
**AKH Akhalkalaki 11.60 296**⇑ *i*P **Pn** **20 07 18.6 +0.3**
**AKH Akhalkalaki 11.60 296**⇑ *i*P **Pn** **20 07 18.6 +0.3**
**KK31 Karatay Array 11.61 55** ⇓Pn **Pn** **20 07 19.0 +0.7**
comp=Z,1.3nm,0.3s,baz=248,slow=15,SNR=25
KK31 ⇑Lg Lg 20 10 47.5
comp=Z,63nm,1.1s
**KK31 Karatay Array 11.61 55** P **Pn** **20 07 14.0 -4.3**
**KK31 Karatay Array 11.61 55** Pn **Pn** **20 07 19.0 +0.7**
comp=Z,1.3nm,0.3s,SNR=25
KK31 Lg Lg 20 10 47.5
comp=Z,63nm,1.1s
**ZEI Tsey 11.79 302** *e*P **Pn** **20 07 19.1 -1.8**
ZEI pmax pmax
comp=Z,11nm,0.6s
**ONI Oni 12.02 301** P **Pn** **20 07 24.6 +0.7**
ONI S **Sn** **20 09 40.5 +2.5**
**ONI Oni 12.02 301** P **Pn** **20 07 24.6 +0.7**
ONI S **Sn** **20 09 40.5 +2.5**
**EPOS Posof 12.18 295** *e*P **Pn** **20 07 28.6 +2.4**
EPOS IAML 20 07 48.8
comp=Z,3.4nm,0.6s
**AB31 Akbulak array 12.20 8**⇑Pn **Pn** **20 07 22.4 -3.8**
comp=Z,10.0nm,0.7s,baz=199,slow=13,SNR=74
AB31 ⇑Sn **Sn** **20 09 43.4 +1.2**
comp=Z,36nm,0.8s,baz=188,slow=24,SNR=3.7
AB31 ⇑Lg Lg 20 11 00.0
comp=Z,43nm,1.1s,baz=194,slow=26,SNR=6.1
**AB31 Akbulak array 12.20 8** P **Pn** **20 07 23.0 -3.3**
**AB31 Akbulak array 12.20 8** Sn **Sn** **20 09 43.4 +1.2**
comp=Z,36nm,0.8s,SNR=3.7
AB31 Lg Lg 20 11 00.0
comp=Z,43nm,1.1s,SNR=6.1
**EKAR Karacoban 12.27 284** *e*P **Pn** **20 07 30.8 +3.2**
EKAR IAML 20 07 47.6
comp=Z,8.2nm,0.7s
**NCK Nalchik 12.29 305**⇓ *e*P **Pn** **20 07 26.3 -1.3**
**ARTV Artvin 12.68 293** *e*Pn **Pn** **20 07 34.0 +0.9**
**ARTV Artvin 12.68 293** *e*Pn **Pn** **20 07 34.0 +0.9**
**MNAS Manas 12.72 61**⇑Pn **Pn** **20 07 31.1 -2.6**
comp=Z,6.1nm,0.8s
MNAS ⇓Sn **Sn** **20 10 02.0 +6.5**
comp=Z,34nm,1.2s
MNAS ⇓Lg Lg 20 11 23.4
comp=Z,54nm,1.4s
**MNAS Manas 12.72 61** P **Pn** **20 07 31.4 -2.3**
**MNAS Manas 12.72 61** P **Pn** **20 07 31.4 -2.3**
MNAS Lg Lg 20 11 23.4
comp=Z,54nm,1.4s
**NEY Neytrino 12.77 303**⇓ *e*P **Pn** **20 07 35.2 +0.9**
**NEY Neytrino 12.77 303** *e*P **Pn** **20 07 35.2 +0.9**
**KBZ Khabaz 12.85 305** Pn **Pn** **20 07 32.5 -2.7**
comp=Z,2.6nm,0.3s,baz=248,slow=4.1,SNR=49
KBZ Sn **Sn** **20 09 53.5 -4.7**
comp=Z,0.5nm,0.3s,baz=142,slow=12,SNR=3.6
**SFK Sufi-Kurgan 12.88 72**⇑Pn **Pn** **20 07 35.8 0.0**
comp=Z,12nm,1.0s
SFK ⇓Sn **Sn** **20 10 04.8 +5.5**
comp=Z,52nm,1.4s
SFK ⇓Lg Lg 20 11 27.7
comp=Z,61nm,1.4s
**SFK Sufi-Kurgan 12.88 72** P **Pn** **20 07 34.0 -1.9**
**SFK Sufi-Kurgan 12.88 72** P **Pn** **20 07 34.0 -1.9**
**SFK Sufi-Kurgan 12.88 72** Pn **Pn** **20 07 35.8 0.0**
comp=Z,12nm,1.0s
SFK Lg Lg 20 11 27.7
comp=Z,61nm,1.4s
**KVAR Kislovodsk Arr 13.08 306** Pn **Pn** **20 07 35.8 -2.7**
baz=9.0,slow=1.5,SNR=32
KVAR Sn **Sn** **20 09 59.3 -4.8**
baz=202,slow=23,SNR=4.0
KVAR LR LR 20 14 10.6
comp=Z,192nm,18.1s,baz=130,slow=45
**KIV Kislovodsk 13.08 306** *e*P Pn 20 07 35.3 -3.2
KIV *e*S **Sn** **20 09 59.3 -4.8**
KIV pmax pmax
comp=Z,47nm,0.9s
KIV MLR MLR
comp=Z,80nm,10.0s
**KIV Kislovodsk 13.08 306** *e*Pn Pn 20 07 35.5 -3.0
**ECAT Cat-ERZURUM 13.14 286** *e*P **Pn** **20 07 42.1 +2.7**
**AKTO Aktyubinsk 13.25 2** Pn **Pn** **20 07 38.3 -2.3**
comp=Z,2.4nm,0.3s,baz=175,slow=14,SNR=29
AKTO Sn **Sn** **20 10 00.1 -7.8**
comp=Z,0.5nm,0.3s,baz=72,slow=20,SNR=4.9
AKTO LR LR 20 13 39.6
comp=Z,338nm,19.9s,baz=170,slow=42
**AKTO Aktyubinsk 13.25 2**⇓Pn **Pn** **20 07 38.1 -2.5**
comp=Z,14nm,0.7s
AKTO ⇑Sn **Sn** **20 10 07.8 -0.1**
comp=Z,33nm,0.7s
**GOF Gofitskoye 13.39 310**⇑ *i*P **Pn** **20 07 40.1 -2.5**
GOF *e*S Sn 20 10 02.0 -9.4
GOF pmax pmax
comp=Z,48nm,0.8s
GOF smax smax
comp=N,40nm,0.8s
GOF smax smax
comp=E,94nm,1.0s
**AML Almayashu 13.46 63** P **Pn** **20 07 40.4 -3.5**
SNR=15
**KOPT Kop Dagi 13.55 287** *e*Pn **Pn** **20 07 44.6 -0.5**
**KOPT Kop Dagi 13.55 287** *e*Pn **Pn** **20 07 44.6 -0.5**
**EKS2 Erkin-Say 13.67 61** P **Pn** **20 07 43.9 -2.7**
SNR=14
**WSAR Wadi Sarin 13.94 175** Pn **Pn** **20 07 49.2 -1.1**
comp=E,0.3nm,0.3s,baz=22,slow=14,SNR=3.9
WSAR LR LR 20 14 45.8
comp=E,375nm,18.5s,baz=318,slow=44
**UCH Uchtor 14.07 64** P **Pn** **20 07 48.7 -3.6**
SNR=7.3
**AAK Ala-Archa 14.17 62** Pn **Pn** **20 07 50.3 -3.1**
comp=E,1.0nm,0.3s,baz=218,slow=4.8,SNR=29
AAK LR LR 20 14 13.8
comp=E,788nm,21.7s,baz=248,slow=41
**AAK Ala-Archa 14.17 62**⇓Pn **Pn** **20 07 50.7 -2.7**
comp=E,12nm,0.8s
AAK ⇑Sn **Sn** **20 10 35.8 +5.1**
comp=E,20nm,0.9s
AAK ⇓Lg Lg 20 12 08.4
comp=E,48nm,1.4s
**AAK Ala-Archa 14.17 62***c i*P **Pn** **20 07 50.5 -2.9**
**AAK Ala-Archa 14.17 62** P **Pn** **20 07 50.5 -2.9**
SNR=12
**FRU Bishkek 14.31 62** *e*P **Pn** **20 07 51.5 -3.8**
FRU pmax pmax
comp=Z,40nm,2.0s
FRU pmax pmax
comp=E,570nm,2.5s
**KBK Karagaybulak 14.49 62** P **Pn** **20 07 55.7 -2.2**
SNR=13
**KZA Kyzart 14.56 65** P **Pn** **20 07 55.9 -3.1**
SNR=11
**KSH Kashi 14.73 75** P Pn 20 07 53.2 -7.8
KSH pP P 20 07 58.2 -9.0
KSH PP **PnPn** **20 08 04.8 -4.1**
KSH pmax pmax
comp=E,15nm,0.9s
KSH LR LR
comp=E,660nm,4.4s
KSH LR LR
comp=E,630nm,8.0s
KSH LR LR
comp=E,650nm,11.1s
**SOC Sochi 14.93 301** *e*P **P** **20 08 09.8 +0.6**
SOC pmax pmax
comp=Z,36nm,0.8s
**SOC Sochi 14.93 301** *e*P **P** **20 08 09.8 +0.6**
comp=Z,36nm,0.8s
**TKM2 Tokmak 2 15.03 62**⇑Pn **Pn** **20 08 06.1 +1.0**
comp=Z,13nm,0.9s
TKM2 ⇑Lg Lg 20 12 36.7
comp=Z,34nm,1.4s
**TKM2 Tokmak 2 15.03 62** P **Pn** **20 08 01.2 -3.9**
SNR=6.0
**TKM2 Tokmak 2 15.03 62** Pn **Pn** **20 08 06.1 +1.0**
comp=Z,13nm,0.9s
TKM2 Lg Lg 20 12 36.7
comp=Z,34nm,1.4s
**MDOK Medeo 16.11 62**⇓P **Pn** **20 08 19.3 0.0**
**TOKA Tokat 16.64 287** *e*Pn **Pn** **20 08 25.5 -0.4**
comp=Z,20nm,1.1s
**TOKA Tokat 16.64 287** *e*Pn **Pn** **20 08 25.5 -0.4**
comp=Z,20nm,1.1s
**ANN Anapa 16.88 303** *e*P **P** **20 08 34.1 +3.2**
ANN pmax pmax
comp=Z,128nm,1.3s
**ANN Anapa 16.88 303** *e*P **P** **20 08 34.1 +3.2**
comp=Z,128nm,1.3s
**RAYN Ar Rayn 17.06 220** *e*Pn **Pn** **20 08 29.6 -1.6**
comp=Z,26nm,0.9s
**ASF Jabal al Asfar 17.61 260** P **P** **20 08 40.7 +1.5**
comp=Z,0.2nm,0.3s,baz=38,slow=7.8,SNR=7.0
**PDGK Podgornoye 17.89 63**⇑P **P** **20 08 42.5 +0.3**
comp=Z,22nm,1.1s
**PDGK Podgornoye 17.89 63** P **P** **20 08 43.9 +1.7**
**PDGK Podgornoye 17.89 63** P **P** **20 08 43.9 +1.7**
**VRH Novokhopyorsk 17.92 326** *e*P **Pn** **20 08 39.5 -2.3**
VRH *e*S **Sn** **20 11 54.2 -7.3**
VRH pmax pmax
comp=Z,10.0nm,0.7s
VRH smax smax
comp=N,140nm,2.2s
**BRVK Borovoye 18.22 25***de*P **Pn** **20 08 42.4 -3.1**
BRVK pmax pmax
comp=Z,39nm,1.0s
**BRVK Borovoye 18.22 25** *e*Pn **Pn** **20 08 43.0 -2.4**
comp=Z,43nm,1.1s
**BVA0 Borovoye Array 18.23 26** P **Pn** **20 08 44.2 -1.4**
comp=Z,29nm,0.8s,baz=234,slow=35,SNR=110
**BVA0 Borovoye Array 18.23 26** P **Pn** **20 08 44.2 -1.4**
comp=Z,29nm,0.8s,SNR=110
**BVAR Borovoye Array 18.23 26** P **Pn** **20 08 43.3 -2.3**
comp=Z,2.0nm,0.3s,baz=216,slow=8.9,SNR=52
BVAR LR LR 20 16 45.2
comp=Z,521nm,19.3s,baz=227,slow=40
**MMAI Mount Meron Ar 18.50 264** LR LR 20 16 48.5
comp=Z,107nm,18.9s,baz=35,slow=40
**ILGA Ilgaz 18.79 289** *e*P **P** **20 08 53.4 +1.1**
comp=Z,99nm,1.5s
**ILGA Ilgaz 18.79 289** *e*P **P** **20 08 53.4 +1.1**
comp=Z,99nm,1.5s
**BR101 Keskin Array S 18.80 285** *e*P **P** **20 08 54.2 +1.9**
**BR101 Keskin Array S 18.80 285** *e*P **P** **20 08 54.1 +1.9**
**BR131 Keskin Array S 18.80 285** *e*P **P** **20 08 53.5 +1.2**
**BR131 Keskin Array S 18.80 285** *e*P **P** **20 08 53.5 +1.2**
**BRTR Keskin Array B 18.80 285** P **P** **20 08 54.1 +1.8**
comp=Z,0.2nm,0.3s,baz=100,slow=8.4,SNR=29
BRTR LR LR 20 17 59.1
comp=Z,148nm,19.2s,baz=74,slow=43
**BRTR Keskin Array B 18.80 285***ce*P **Pn** **20 08 55.0 +2.2**
BRTR pmax pmax
comp=Z,11nm,1.0s
**VSR Storozhevoye 19.11 323** *e*P **P** **20 08 54.7 -0.8**
VSR *e*S **Sn** **20 12 22.6 -7.7**
VSR pmax pmax
comp=Z,10.0nm,0.6s
VSR smax smax
comp=N,30nm,1.1s
**VSR Storozhevoye 19.11 323** *e*P **P** **20 08 54.7 -0.8**
comp=N,10.0nm,0.6s
**SIM Simferopol' 19.18 301***ce*P **P** **20 08 57.4 +1.2**
SIM pmax pmax
comp=Z,67nm,1.2s
SIM MLR MLR
comp=Z,170nm,15.5s
**SIM Simferopol' 19.18 301** *e*P **P** **20 08 57.4 +1.2**
comp=Z,170nm,15.5s
**ARU Arti 19.26 2** P **P** **20 08 56.5 -0.5**
comp=Z,0.0nm,0.3s,baz=162,slow=5.4,SNR=12
ARU LR LR 20 16 56.0
comp=Z,288nm,18.1s,baz=188,slow=39
**ARU Arti 19.26 2***c i*P **P** **20 08 55.0 -2.0**
ARU S **Sn** **20 12 26.5 -7.3**
ARU pmax pmax
comp=Z,15nm,1.2s
**VORR Voronezh 19.39 324** *e*P **P** **20 08 58.0 -0.5**
VORR pmax pmax
comp=Z,300nm,1.4s
**VORR Voronezh 19.39 324** *e*P **P** **20 08 58.0 -0.5**
comp=Z,300nm,1.4s
**ANTO Ankara 19.45 285** *e*P **P** **20 09 01.0 +1.6**
**ANTO Ankara 19.45 285** *e*P **P** **20 09 01.0 +1.6**
**ANTO Ankara 19.45 285** *e*P **P** **20 09 01.0 +1.6**
**BR231 Keskin MP Arra 19.47 285** *e*P **P** **20 08 54.8 -4.8**
**SVE Sverdlovsk 19.76 5** *e*P **P** **20 09 02.0 -0.5**
SVE *e*S S 20 12 34.7 -10
SVE pmax pmax
comp=Z,39nm,1.4s
**SVE Sverdlovsk 19.76 5** *e*P **P** **20 09 02.0 -0.5**
comp=Z,39nm,1.4s
**LPSR Galich'ya Gora 20.14 326** *e*P **P** **20 09 07.2 +0.5**
LPSR pmax pmax
comp=Z,10.0nm,0.6s
**LPSR Galich'ya Gora 20.14 326** *e*P **P** **20 09 07.2 +0.5**
comp=Z,10.0nm,0.6s
**KURBB Kurchatov Arra 20.18 42** P **P** **20 09 07.8 +0.6**
comp=Z,8.9nm,1.0s,baz=243,slow=12,SNR=17
**EIL Elat 20.18 255** P **P** **20 09 08.8 +1.4**
comp=Z,13nm,0.9s,baz=14,slow=6.3,SNR=8.6
EIL LR LR 20 18 18.2
comp=Z,449nm,18.2s,baz=74,slow=41
**KURK Kurchatov 20.28 41**⇓ *e*P **P** **20 09 08.9 +0.7**
KURK pmax pmax
comp=Z,71nm,1.2s
**KURK Kurchatov 20.28 41** *e*P **P** **20 09 08.9 +0.7**
comp=Z,71nm,1.2s
**KURK Kurchatov 20.28 41** *e*P **P** **20 09 07.8 -0.4**
**MK01 Makanchi Array 20.74 55** *e*P **P** **20 09 13.7 +0.5**
**MK01 Makanchi Array 20.74 55** *e*P **P** **20 09 13.7 +0.5**
**MK31 Makanchi Array 20.74 55** P **P** **20 09 13.8 +0.5**
comp=Z,13nm,0.8s,baz=242,slow=12,SNR=26
**MK31 Makanchi Array 20.74 55** *e*P **P** **20 09 13.8 +0.5**
**MK31 Makanchi Array 20.74 55** P **P** **20 09 13.8 +0.5**
comp=Z,13nm,0.8s,SNR=26
**MK31 Makanchi Array 20.74 55** *e*P **P** **20 09 13.8 +0.5**
**MK32 Makanchi Array 20.74 55** *e*P **P** **20 09 14.2 +1.0**
**MK32 Makanchi Array 20.74 55** *e*P **P** **20 09 14.2 +1.0**
**MKAR Makanchi Array 20.74 55** P **P** **20 09 14.2 +1.0**
comp=Z,8.6nm,0.8s,baz=242,slow=13,SNR=18
MKAR LR LR 20 18 09.9
comp=Z,373nm,19.1s,baz=248,slow=39
**MANT Manisa 22.81 282** *e*P **P** **20 09 37.2 +1.4**
comp=Z,177nm,1.6s
**MANT Manisa 22.81 282** *e*P **P** **20 09 37.2 +1.4**
comp=Z,177nm,1.6s
**OBN Obninsk 22.88 328** P **P** **20 09 35.9 -0.1**
comp=Z,49nm,1.0s,baz=151,slow=14,SNR=11
OBN LR LR 20 19 47.9
comp=Z,107nm,18.1s,baz=91,slow=40
**OBN Obninsk 22.88 328** *i* P **P** **20 09 35.6 -0.4**
OBN *i* 20 09 49.4
OBN *i* 20 10 02.0
OBN *i* S **S** **20 13 43.9 -1.6**
OBN pmax pmax
comp=Z,53nm,1.1s
OBN MLR MLR
comp=Z,206nm,15.0s
**OBN Obninsk 22.88 328** *e*P **P** **20 09 35.9 -0.1**
comp=Z,206nm,1.7s
**OBN Obninsk 22.88 328** *e*P **P** **20 09 35.9 -0.1**
comp=Z,206nm,1.7s
**MOS Moscow 22.89 330** *e*P **P** **20 09 37.3 +1.2**
MOS *e* 20 09 58.3
MOS *e*SS SS 20 14 32.2
MOS pmax pmax
comp=Z,65nm,1.2s
**MOS Moscow 22.89 330** *e*P **P** **20 09 37.3 +1.2**
comp=Z,65nm,1.2s
**TLCR 22.89 299**⇑ *i*P **P** **20 09 38.3 +2.1**
**TLCR 22.89 299**⇑ *i*P **P** **20 09 38.3 +2.1**
**TIRR Tirgusor 23.05 297**⇑ *i*P **P** **20 09 41.2 +3.2**
**TIRR Tirgusor 23.05 297**⇑ *i*P **P** **20 09 41.2 +3.2**
**KIS Kishinev 23.28 304** *e*P **P** **20 09 43.0 +2.8**
**KIS Kishinev 23.28 304** *e*P **P** **20 09 43.0 +2.8**
KIS *e* 20 09 57.0
**KIS Kishinev 23.28 304** *e*P **P** **20 09 43.0 +2.8**
**PYUN Piuthan 23.29 105** *e*P **P** **20 09 41.3 +0.5**
comp=Z,50nm,1.1s
**CFR Carcaliu 23.36 299**⇓ *i*P **P** **20 09 42.6 +1.5**
**CFR Carcaliu 23.36 299**⇓ *i*P **P** **20 09 42.6 +1.5**
**ICOR Ion Corvin 23.44 296**⇑ *i*P **P** **20 09 45.1 +3.2**
**ICOR Ion Corvin 23.44 296**⇑ *i*P **P** **20 09 45.1 +3.2**
**LEOM Leova 23.53 302**⇑ *i*P **P** **20 09 45.1 +2.3**
**LEOM Leova 23.53 302** P **P** **20 09 45.1 +2.3**
**LEOM Leova 23.53 302** P **P** **20 09 45.1 +2.3**
**DANN Dangsing 23.76 104** *e*P **P** **20 09 47.3 +1.7**
comp=Z,4.8nm,1.0s
**SORM Soroca 23.89 306**⇑ *i*P **P** **20 09 46.5 +0.3**
**SORM Soroca 23.89 306**⇑ *i*P **P** **20 09 46.5 +0.3**
**KOLN Koldanda 23.92 106** *e*P **P** **20 09 46.9 -0.1**
comp=Z,45nm,1.1s
**ODBI Odobesti 24.21 300**⇑ *i*P **P** **20 09 51.5 +2.3**
**ODBI Odobesti 24.21 300**⇑ *i*P **P** **20 09 51.5 +2.3**
**AKASG Malin Array Be 24.22 313** P **P** **20 09 49.5 +0.2**
comp=Z,21nm,0.8s,baz=112,slow=8.7,SNR=49
AKASG LR LR 20 21 54.3
comp=Z,189nm,18.3s,baz=110,slow=43
**AKBB Malin Array Si 24.22 313** *e*P **P** **20 09 49.6 +0.3**
AKBB pmax pmax
comp=Z,157nm,1.8s
**AKBB Malin Array Si 24.22 313** *e*P **P** **20 09 49.5 +0.3**
comp=Z,157nm,1.8s
**KIEV Kiev 24.22 313**⇑ *e*P **P** **20 09 50.0 +0.7**
KIEV pmax pmax
comp=Z,81nm,1.6s
**KIEV Kiev 24.22 313** *e*P **P** **20 09 49.3 0.0**

comp=Z,168nm,1.8s
**KIEV Kiev 24.22 313** *e*P P **20 09 49.3 0.0**
comp=Z,168nm,1.8s
**AK11 Malin Array Si 24.24 313** *e*P P **20 09 50.2 +0.7**
**VRI Vrincioaia 24.45 300**⇑*i*P P **20 09 54.1 +2.6**
**VRI Vrincioaia 24.45 300** *i*P P **20 09 54.1 +2.6**
**ISR Istrita 24.46 299**⇑*i*P P **20 09 55.3 +3.6**
**ISR Istrita 24.46 299** *i*P P **20 09 55.3 +3.6**
**PLOR Plostina 24.50 300**⇓*i*P P **20 09 54.1 +2.1**
**PLOR Plostina 24.50 300**⇓*i*P P **20 09 54.1 +2.1**
**GKN Gorkha 24.61 104** *e*P P **20 09 54.2 +0.9**
**TESR Tescani 24.62 302**⇑*i*P P **20 09 55.1 +2.1**
**TESR Tescani 24.62 302**⇑*i*P P **20 09 55.1 +2.1**
**NVS Novosibirsk 24.92 37** *e*P P **20 09 58.5 +2.9**
NVS *e*S S **20 14 13.5 -5.2**
NVS pmax pmax
comp=Z,9.0nm,0.8s
NVS pmax pmax
comp=N,2.0nm,0.5s
NVS pmax pmax
comp=E,3.0nm,0.5s
NVS smax smax
comp=E,3.0nm,0.5s
**MLR Muntele Rosu 24.93 299** P P **20 09 57.9 +1.9**
comp=E,4.4nm,0.8s,baz=290,slow=3.7,SNR=11
MLR LR LR 20 22 40.2
comp=E,86nm,18.6s,baz=346,slow=44
**MLR Muntele Rosu 24.93 299**⇑*i*P P **20 09 58.2 +2.2**
**MLR Muntele Rosu 24.93 299** *e*P P **20 09 57.8 +1.8**
MLR pmax pmax
comp=Z,135nm,1.8s
**MLR Muntele Rosu 24.93 299**⇑*i*P P **20 09 58.2 +2.2**
**MLR Muntele Rosu 24.93 299** *e*P P **20 09 57.8 +1.8**
comp=Z,135nm,1.8s
**PRAR RASCA 25.08 304**⇓*i*P P **20 09 58.7 +1.5**
**PRAR RASCA 25.08 304**⇓*i*P P **20 09 58.7 +1.5**
**DMN Daman 25.16 104** *e*P P **20 09 59.3 +0.9**
comp=Z,43nm,1.0s
**KKN Kakani 25.21 104** *e*P P **20 10 00.6 +1.9**
comp=Z,26nm,0.9s
**ZAA0 Zalesovo Array 25.22 40**⇑P P **20 09 58.5 +0.1**
comp=Z,1.3nm,0.8s
**ZAA0 Zalesovo Array 25.22 40** *e*P P **20 09 58.9 +0.6**
comp=Z,1.2nm,1.2s
**ZALV Zalesovo Beam 25.22 40** P P **20 09 58.6 +0.2**
comp=Z,4.4nm,0.5s,baz=251,slow=9.8,SNR=32
ZALV LR LR 20 21 15.8
comp=Z,466nm,20.0s,baz=247,slow=40
**ZALV Zalesovo Beam 25.22 40** *e*P P **20 09 58.4 0.0**
**ZALV Zalesovo Beam 25.22 40** *e*P P **20 09 58.4 0.0**
**ZAA1 Zalesovo Array 25.23 40** *e*P P **20 09 58.6 +0.2**
**DOPR Dopca 25.39 300**⇑*i*P P **20 10 01.9 +1.9**
**DOPR Dopca 25.39 300**⇑*i*P P **20 10 01.9 +1.9**
**PKIN Phulchoki 25.40 104** *e*P P **20 10 02.5 +1.9**
comp=Z,38nm,1.0s
**PKI Pulchoki 25.41 104** *e*P P **20 10 02.3 +1.6**
comp=Z,104nm,1.3s
**HUMR Humele 25.50 297**⇑*i*P P **20 10 04.0 +3.0**
**HUMR Humele 25.50 297**⇑*i*P P **20 10 04.0 +3.0**
**VOIR 25.55 299**⇓*i*P P **20 10 04.5 +3.0**
**VOIR 25.55 299**⇓*i*P P **20 10 04.5 +3.0**
**GUN Gumba 25.62 103** *e*P P **20 10 04.5 +1.9**
comp=Z,58nm,1.0s
**BURAR Bucovina Array 25.80 304**⇓*i*P P **20 10 05.5 +1.7**
**BURAR Bucovina Array 25.80 304**⇓*i*P P **20 10 05.5 +1.7**
**BUR04 Bucovina Ar. S 25.81 304** *e*P P **20 10 04.6 +0.7**
**BUR08 Bucovina Ar. S 25.82 304** *e*P P **20 10 05.1 +1.1**
**ARR Arges 25.83 299**⇑*i*P P **20 10 06.9 +2.8**
**ARR Arges 25.83 299**⇑*i*P P **20 10 06.9 +2.8**
**JIRN Jiri 25.98 103** *e*P P **20 10 07.7 +1.8**
comp=Z,316nm,0.9s
**IDI Anoyia 26.26 276** P P **20 10 09.0 +1.0**
comp=Z,4.9nm,0.5s,baz=77,slow=15,SNR=7.4
**KLMR Klimovskoe 26.26 340** *e*P P **20 10 06.8 -0.9**
KLMR *e* 20 10 44.4
KLMR pmax pmax
comp=Z,37nm,1.4s
**ARCR ARCALIA 26.28 303**⇑*i*P P **20 10 10.7 +2.7**
**ARCR ARCALIA 26.28 303**⇑*i*P P **20 10 10.7 +2.7**
**LOT Lotru 26.45 299**⇑*i*P P **20 10 12.0 +2.3**
**LOT Lotru 26.45 299**⇑*i*P P **20 10 12.0 +2.3**
**RAMN Ramite 26.64 104** *e*P P **20 10 12.3 +0.5**
comp=Z,40nm,0.8s
**VTS Vitosha 26.70 292**⇑*i*P P **20 10 15.2 +3.2**
**VTS Vitosha 26.70 292** *e*P P **20 10 12.7 +0.7**
VTS pmax pmax
comp=Z,40nm,1.8s
**VTS Vitosha 26.70 292**⇑*i*P P **20 10 15.2 +3.2**
**VTS Vitosha 26.70 292** *e*P P **20 10 12.7 +0.7**
comp=Z,40nm,1.8s
**CJR Cluj-Napoca 26.73 302**⇑*i*P P **20 10 14.7 +2.5**
**CJR Cluj-Napoca 26.73 302**⇑*i*P P **20 10 14.7 +2.5**
**BMR Baia Mare 26.96 304**⇓*i*P P **20 10 16.8 +2.7**
**BMR Baia Mare 26.96 304**⇓*i*P P **20 10 16.8 +2.7**
**LVV L'vov 27.08 308** *e*P P **20 10 14.9 -0.3**
**ODAN Odare 27.30 103** *e*P P **20 10 19.1 +1.4**
comp=Z,46nm,1.0s
**TAPN Taplejung 27.31 102** *e*P P **20 10 19.7 +1.8**
comp=Z,48nm,1.4s
**DRGR 27.34 302**⇑*i*P P **20 10 20.8 +3.1**
**DRGR 27.34 302**⇑*i*P P **20 10 20.8 +3.1**
**MDVR Moldovita 27.84 297**⇑*i*P P **20 10 16.9 -5.3**
**UZH Uzhgorod 27.93 305** *e*P P **20 10 24.0 +1.2**
UZH *e* 20 10 31.4
UZH *e* 20 10 39.4
**BZS Buzias 27.97 299**⇑*i*P P **20 10 26.1 +2.9**
**BZS Buzias 27.97 299**⇑*i*P P **20 10 26.1 +2.9**
**SIRR Siria 28.00 300**⇑*i*P P **20 10 26.8 +3.3**
**SIRR Siria 28.00 300**⇑*i*P P **20 10 26.8 +3.3**
**CRVS Cervenica-Dubn 28.52 306** *e*P P **20 10 31.2 +3.1**
**CRVS Cervenica-Dubn 28.52 306** *e*P P **20 10 31.2 +3.1**
**ATD Arta Tunnel 28.72 211** LR LR 20 23 02.1
comp=Z,92nm,21.9s,baz=26,slow=39
**KECS Kecovo 29.08 305** *e*P P 20 10 43.4 +10
**KECS Kecovo 29.08 305** *e* P 20 10 43.4 +10
**VSU Vasula 29.20 327**⇑*e*P P **20 10 35.0 +1.0**
VSU pmax pmax
comp=Z,33nm,0.8s
**NIE Niedzica 29.36 306** *e*P P **20 10 39.0 +3.4**
**NIE Niedzica 29.36 306** *e*P P **20 10 39.0 +3.4**
**OJC Ojcow 29.83 308** *e*P P **20 10 41.7 +2.0**
**OJC Ojcow 29.83 308** *e*P P **20 10 41.7 +2.0**
**OJC Ojcow 29.83 308** *e*P P **20 10 41.7 +2.0**
**VYHS Vyhne 30.17 304** *e*P P **20 10 45.2 +2.4**
**VYHS Vyhne 30.17 304** *e*P P **20 10 45.2 +2.4**
**VYHS Vyhne 30.17 304** *e*P P **20 10 45.2 +2.4**
**OKC Ostrava-Krasne 30.81 307** *e*P P **20 10 51.2 +2.8**
**OKC Ostrava-Krasne 30.81 307** *e*P P **20 10 51.2 +2.8**
**OKC Ostrava-Krasne 30.81 307** P P **20 10 51.2 +2.8**
**FIA0 FINESS Array S 31.18 331** *e*P P **20 10 52.6 +1.1**
**FIA0 FINESS Array S 31.18 331** *e*P P **20 10 52.6 +1.1**
**FINES FINESS Array B 31.18 331** P P **20 10 52.6 +1.1**
comp=Z,2.7nm,0.5s,baz=131,slow=10,SNR=18
FINES LR LR 20 24 01.0
comp=Z,134nm,19.0s,baz=124,slow=38
**FINES FINESS Array B 31.18 331** *i*P P **20 10 53.0 +1.5**
FINES pmax pmax
comp=Z,3.0nm,0.5s
**MORC Moravsky Berou 31.19 307** *e*P P **20 10 52.2 +0.4**
MORC pmax pmax
comp=Z,65nm,1.5s
**MORC Moravsky Berou 31.19 307** *e*P P **20 10 52.2 +0.4**
comp=Z,65nm,1.5s
**VRAC Vranov 31.74 306** LR LR 20 26 02.0
comp=Z,227nm,18.7s,baz=78,slow=41
**DPC Dobruska-Polom 32.05 307** *e*P P **20 11 01.9 +2.5**
**DPC Dobruska-Polom 32.05 307** *e*P P **20 11 01.9 +2.5**
**DPC Dobruska-Polom 32.05 307** P P **20 11 01.9 +2.5**
**SOKA Soboth 32.60 300** *i*pP P **20 11 06.4 +2.1**
comp=Z,11nm,1.3s
**SOKA Soboth 32.60 300** P P **20 11 06.4 +2.1**
comp=Z,11nm,1.3s
**GTA Gaotai 33.11 73** *e*P P **20 11 13.6 +4.7**
GTA pP sP 20 11 17.8 +4.6
GTA sP pP 20 11 20.7 +8.8
GTA S S **20 16 33.6 +5.5**
GTA pmax pmax
comp=Z,5.0nm,1.2s
GTA pmax pmax
comp=Z,130nm,5.1s
GTA LR LR
comp=Z,270nm,17.6s
GTA LR LR
comp=Z,400nm,16.2s
**GEA0 GERESS Array S 33.59 304** *e*P P **20 11 14.3 +1.5**
**GERES GERESS Array B 33.59 304** P P **20 11 14.3 +1.4**
comp=Z,0.8nm,0.5s,baz=90,slow=9.8,SNR=5.7
**BRG Berggiesshubel 33.62 308** *e*P P **20 11 15.8 +2.8**
comp=Z,26nm,1.8s
**BRG Berggiesshubel 33.62 308** *e*P P **20 11 15.8 +2.8**
BRG pmax pmax
comp=Z,26nm,1.8s
**KHC Kasperske Hory 33.69 305** *e*P P **20 11 15.2 +1.5**
KHC *ex* x 20 11 28.0
**KHC Kasperske Hory 33.69 305** *e*P P **20 11 15.2 +1.5**
KHC *e* 20 11 28.0
**KHC Kasperske Hory 33.69 305** P P **20 11 15.2 +1.5**
**KBA Koelnbreinsper 33.76 301** *i*pP P **20 11 16.9 +2.4**
comp=Z,12nm,1.4s
**KBA Koelnbreinsper 33.76 301** P P **20 11 16.9 +2.4**
comp=Z,12nm,1.4s
**WTTA Wattenberg 34.93 301** *i*pP P **20 11 26.0 +1.4**
comp=Z,18nm,1.7s
**WTTA Wattenberg 34.93 301** P P **20 11 26.0 +1.4**
comp=Z,18nm,1.7s
**WATA Walderalm 34.97 302** *e*pP P **20 11 27.3 +2.3**
comp=Z,12nm,1.3s
**WATA Walderalm 34.97 302** P P **20 11 27.3 +2.3**
comp=Z,12nm,1.3s
**RETA Reutte 35.52 302** pP P **20 11 31.1 +1.5**
comp=Z,10nm,1.4s
**RETA Reutte 35.52 302** P P **20 11 31.1 +1.5**
comp=Z,10nm,1.4s
**HFS Hagfors 35.92 324** LR LR 20 27 44.8
comp=Z,227nm,18.9s,baz=79,slow=39
**DAVA Damuels 36.12 302** *i*pP P **20 11 36.6 +1.7**
comp=Z,12nm,1.3s
**DAVA Damuels 36.12 302** P P **20 11 36.6 +1.7**
comp=Z,12nm,1.3s
**ARA0 ARCESS Array S 36.70 342** *e*P P **20 11 41.0 +1.7**
**ARCES ARCESS Array B 36.70 342** P P **20 11 41.0 +1.7**
comp=Z,2.3nm,0.6s,baz=145,slow=11,SNR=10
ARCES LR LR 20 29 15.4
comp=Z,305nm,18.5s,baz=134,slow=40
**SONA0 Songino Array 37.05 57** *e*P P **20 11 44.1 +1.3**
**SONM Songino Array 37.05 57** P P **20 11 44.1 +1.3**
comp=Z,1.0nm,0.9s,baz=268,slow=8.9,SNR=6.5
SONM LR LR 20 29 05.0
comp=Z,150nm,20.1s,baz=236,slow=40
**NC405 NORSAR Array S 37.17 325** *e*P P **20 11 43.9 +0.5**
**NB2 NORSAR Subarra 37.37 325** P P **20 11 44.9 -0.3**
comp=Z,6.7nm,0.7s,baz=109,slow=8.6
**NB2 NORSAR Subarra 37.37 325** P P **20 11 44.9 -0.3**
comp=Z,6.7nm,0.7s,SNR=7.5
**NB200 NORSAR Array S 37.37 325** *e*P P **20 11 45.2 0.0**
**NOA NORSAR Array B 37.37 325** P P **20 11 45.2 0.0**
comp=Z,6.6nm,0.7s,baz=115,slow=8.1,SNR=25
NOA LR LR 20 28 39.7
comp=Z,186nm,18.6s,baz=105,slow=39
**ULN Ulaanbaatar 37.49 57**⇓*e*P P **20 11 47.6 +1.1**
ULN pmax pmax
comp=Z,15nm,1.7s
**ULN Ulaanbaatar 37.49 57** *e*P P **20 11 47.8 +1.3**
comp=Z,7.9nm,1.0s
**CHTO Chiang Mai 40.58 105** *e*P P **20 12 13.1 +0.6**
CHTO pmax pmax
comp=Z,12nm,1.4s
**CHTO Chiang Mai 40.58 105** *e*P P **20 12 13.1 +0.6**
comp=Z,12nm,1.4s
**CM31 Chiang Mai Arr 40.79 106** *e*P P **20 12 14.3 0.0**
**CMAR Chiang Mai Arr 40.79 106** P P **20 12 14.9 +0.7**
comp=Z,3.9nm,0.6s,baz=301,slow=8.2,SNR=26
CMAR LR LR 20 32 52.6
comp=Z,94nm,18.9s,baz=302,slow=42
**CMAR Chiang Mai Arr 40.79 106** P P **20 12 15.0 +0.7**
CMAR pmax pmax
comp=Z,4.0nm,0.6s
CMAR MLR MLR
comp=Z,94nm,18.9s
**CM01 Chiang Mai Arr 40.83 106** *e*P P **20 12 15.1 +0.6**
**BOD Bodaibo 41.93 42** *e*P P **20 12 22.6 -0.5**
BOD pmax pmax
comp=Z,9.0nm,1.9s
**KMBO Kilima Mbogo 42.47 211** LR LR 20 31 23.3
comp=Z,197nm,18.4s,baz=102,slow=38
**TAM Tamanrasset 46.66 267** *e*P P **20 13 02.8 +1.2**
TAM pmax pmax
comp=Z,11nm,1.6s
**TAM Tamanrasset 46.66 267** *e*P P **20 13 02.8 +1.2**
comp=Z,11nm,1.6s
**ES19 SONSECA Array 47.28 293** *e*P P **20 13 05.9 -0.2**
**ESDC Sonseca Array 47.33 293** P P **20 13 07.3 +0.7**
comp=Z,1.4nm,0.6s,baz=67,slow=7.6,SNR=13
**TIXI Tiksi 49.35 23**⇓*e*P P **20 13 21.2 -0.3**
TIXI pmax pmax
comp=Z,12nm,1.7s
**TIXI Tiksi 49.35 23** *e*P P **20 13 21.3 -0.3**
comp=Z,7.9nm,1.1s
**YAK Yakutsk 49.78 36**⇑*e*P P **20 13 25.3 +0.3**
YAK pmax pmax
comp=Z,3.0nm,0.8s
**PSI Prapat 51.19 122** *e*P P **20 13 35.4 -1.0**
PSI pmax pmax
comp=Z,28nm,1.6s
**PSI Prapat 51.19 122** *e*P P **20 13 35.4 -1.0**
comp=Z,28nm,1.6s
**KSAR Wonju Array Be 54.75 67** P P **20 14 02.6 +0.3**
**KSAR Wonju Array Be 54.75 67** P P **20 14 02.6 +0.3**
**KSRS Korea Array 54.77 67** P P **20 14 02.6 +0.1**
comp=Z,2.9nm,0.8s,baz=286,slow=6.3,SNR=4.7
KSRS LR LR 20 40 25.1
comp=Z,100nm,19.5s,baz=295,slow=39
**TOA1 Torodi Ar. Sit 54.98 259** *e*P P **20 14 03.3 -0.9**
**TOA0 Torodi Ar. Sit 54.98 259** *e*P P **20 14 04.2 0.0**
**TORD Torodi Ar. Bea 54.98 259** P P **20 14 03.3 -0.9**
comp=Z,2.0nm,0.8s,baz=54,slow=6.9,SNR=15
**USRK Ussuriysk Ar. 55.17 58** LR LR 20 40 01.1
comp=Z,183nm,18.3s,baz=277,slow=39
**KOWA Kowa 58.72 265** *e*P P **20 14 30.7 -0.1**
comp=Z,6.8nm,0.8s
**MJAR Matsushiro Arr 62.61 64** LR LR 20 44 13.4
comp=Z,101nm,18.6s,baz=300,slow=38
**DBIC Dimbokro 64.01 258** LR LR 20 46 07.7
comp=Z,51nm,18.1s,baz=30,slow=39
**PETK Petropavlovsk- 66.77 40** LR LR 20 47 08.6
comp=Z,212nm,19.4s,baz=289,slow=38
**BOSA Boshof 72.09 209** LR LR 20 49 41.2
comp=Z,93nm,19.0s,baz=28,slow=38
**COLD Coldfoot 73.80 11** *e*P P **20 16 06.5 -0.2**
comp=Z,9.0nm,1.0s
**COLD Coldfoot 73.80 11** *e*P P **20 16 06.5 -0.2**
comp=Z,9.0nm,1.0s
**IMAR Indian Mountai 74.36 13** *e*P P **20 16 10.3 +0.3**
**IMAR Indian Mountai 74.36 13** *e*P P **20 16 10.3 +0.3**
**INK Inuvik 74.50 4** *e*P P **20 16 11.7 +1.0**
INK pmax pmax
comp=Z,23nm,2.0s
**INK Inuvik 74.50 4** *e*P P **20 16 11.7 +1.0**
comp=Z,22nm,2.0s
**INK Inuvik 74.50 4** *e*P P **20 16 11.7 +1.0**
comp=Z,22nm,2.0s
**MLY Manley 75.75 12** *e*P P **20 16 18.5 +0.4**
comp=Z,6.9nm,1.0s
**MLY Manley 75.75 12** *e*P P **20 16 18.4 +0.4**
comp=Z,6.9nm,1.0s
**COLA College 76.35 11**⇑*e*P P **20 16 22.6 +1.2**
COLA pmax pmax
comp=Z,5.0nm,1.0s
**COLA College 76.35 11** *e*P P **20 16 22.6 +1.2**
comp=Z,5.0nm,1.0s
**IL1 Eielson Array 76.59 10** *e*P P **20 16 23.2 +0.4**
**IL1 Eielson Array 76.59 10** *e*P P **20 16 23.2 +0.4**
**ILAR Eielson Array 76.59 10** P P **20 16 23.2 +0.4**
comp=Z,1.1nm,0.9s,baz=346,slow=4.5,SNR=11
ILAR LR LR 20 53 39.8
comp=Z,62nm,18.9s,baz=116,slow=38
**CAST Castle Rocks 77.00 13** *e*P P **20 16 25.3 +0.1**
comp=Z,20nm,1.4s
**CAST Castle Rocks 77.00 13** *e*P P **20 16 25.3 +0.1**
comp=Z,20nm,1.4s
**DAWY Dawson 78.20 7** *e*P P **20 16 32.2 +0.3**
comp=Z,5.3nm,0.8s
**DAWY Dawson 78.20 7** *e*P P **20 16 32.2 +0.3**
comp=Z,5.3nm,0.8s
**YKA Yellowknife Ar 80.45 356** P P **20 16 44.1 0.0**
comp=Z,1.7nm,0.7s,baz=0.7,slow=5.3,SNR=14
**YKB5 Yellowknife Ar 80.45 356** *e*P P **20 16 44.1 0.0**
**YKB5 Yellowknife Ar 80.45 356** *e*P P **20 16 44.1 0.0**
**WR1 Warramunga Arr 91.94 114** *e*P P **20 17 42.2 +0.7**
comp=Z,16nm,1.7s
**WR1 Warramunga Arr 91.94 114** *e*P P **20 17 42.2 +0.7**
comp=Z,16nm,1.7s
**WRA Warramunga Arr 91.94 114** P P **20 17 42.2 +0.7**
comp=Z,0.3nm,0.6s,baz=320,slow=4.1,SNR=5.6
**ASAR Alice Springs 93.95 117** P P **20 17 51.7 +0.9**
comp=Z,0.2nm,0.6s,baz=309,slow=4.9,SNR=5.3
**PDAR Pinedale Array 99.54 350** LR LR 21 08 33.0
comp=Z,54nm,19.0s,baz=342,slow=39

*ISCJB **08** 20:06:16.9±0.6, 43.65N±0.06×105.16W±0.07, h0km, Error ellipse: s-maj=8.5km s-min=7.7km az=169.1*
*IDC **08** 20:06:17.2±2.6, 43.53N×105.38W, h0km, mb1 3.6/3, mb1mx3.3/45, mbtmp3.3/3, ML2.7/2, Error ellipse: s-maj=58.5km s-min=8.1km az=151.0*
*NEIC **08** 20:06:18.4±0.5, 43.62N×105.17W, h0km, ML3.0, Error ellipse: s-maj=7.9km s-min=6.4km az=159.0, Suspected Mining explosion.*
*NEIC 80 km [49 miles] SSE of Gillette.*
**ISC 08 20:06:16.0±0.9, 43.65N±0.05×105.25W±0.05, h0km, n20, σ2ˢ55/21, Wyoming**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **RSSD** | **Black Hills** | **1.00** | **61** | *e*P | | **Pn** | **20 06 37.6** | **+0.1** |
| **K22A** | **Casper** | **1.36** | **224** | *e*P | | **Pg** | **20 06 41.3** | **-0.8** |
| **PHWY** | **Pilot Hill** | **2.35** | **184** | *e*P | | **Pb** | **20 06 57.6** | **-1.7** |
| **RWWY** | **Rawlins** | **2.43** | **217** | *e*P | | **Pb** | **20 06 59.8** | **-1.0** |
| **RLMT** | **Red Lodge** | **3.24** | **299** | *e*P | | **Pn** | **20 07 10.1** | **+1.8** |
| **BW06** | **Boulder Array** | **3.27** | **256** | *e*P | | **Pn** | **20 07 10.7** | **+2.0** |
| **PDAR** | **Pinedale Array** | **3.27** | **256** | P | n | **Pb** | **20 07 11.8** | **-3.2** |
| | 5.7nm,0.3s,baz=74,slow=20,SNR=46 | | | | | | | |
| PDAR | | | | Lg | | Lg | 20 07 54.8 | |
| | 17nm,0.3s,baz=229,slow=14,SNR=19 | | | | | | | |
| **OGNE** | **Ogallala** | **3.60** | **137** | *e*P | | **Pn** | **20 07 15.2** | **+2.1** |
| **LKWY** | **Lake** | **3.82** | **286** | P | n | **Pb** | **20 07 25.6** | **+1.1** |
| **ISCO** | **Idaho Springs** | **3.85** | **184** | *e*P | | **Pn** | **20 07 18.8** | **+2.0** |
| **LOHW** | **Long Hollow** | **3.89** | **271** | *e*P | | **Pn** | **20 07 21.2** | **+4.0** |
| **H17A** | **Grant Village** | **3.91** | **283** | *e*P | | **Pb** | **20 07 24.2** | **-1.8** |
| **MOOW** | **Moose Ponds** | **3.99** | **273** | *e*P | | **Pn** | **20 07 21.4** | **+2.8** |
| **SNOW** | **Snow King Moun** | **4.00** | **269** | *e*P | | **Pb** | **20 07 24.2** | **-3.4** |
| **IMW** | **Indian Meadow** | **4.13** | **275** | *e*P | | **Pn** | **20 07 23.0** | **+2.4** |
| **TPAW** | **Teton Pass** | **4.15** | **270** | *e*P | | **Pn** | **20 07 24.4** | **+3.6** |
| **O20A** | **White River Ci** | **4.16** | **213** | *e*P | | **Pn** | **20 07 22.6** | **+1.7** |
| **BOZ** | **Bozeman (W)** | **4.95** | **295** | *e*P | | **Pb** | **20 07 39.2** | **-4.5** |
| | 6.3nm,0.5s | | | | | | | |
| **ULM** | **Lac du Bonnet** | **9.20** | **41** | P | n | **Pn** | **20 08 30.5** | **+0.6** |
| | 0.9nm,0.3s,baz=226,slow=12,SNR=8.3 | | | | | | | |
| ULM | | | | | Sn | **Sn** | **20 10 13.3** | **-0.8** |
| | 0.2nm,0.3s,baz=285,slow=19,SNR=2.4 | | | | | | | |
| ULM | | | | Lg | | Lg | 20 11 03.4 | |
| | 0.3nm,0.3s,baz=142,slow=19,SNR=2.3 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **19.66** | **347** | P | | **Pn** | **20 10 49.4** | **+1.9** |
| | 0.0nm,0.3s,baz=154,slow=11,SNR=2.9 | | | | | | | |

*IDC **08** 20:26:44.4±2.4, 20.28S×177.60W, h476km±29km, mb3.2/6, mb1 3.5/8, mb1mx3.3/30, mbtmp4.2/8, Error ellipse: s-maj=36.6km s-min=17.2km az=144.0*
*ISCJB **08** 20:26:45.1±0.8, 20.3S±0.2×177.6W±0.2, h500km, mb3.5/6, Error ellipse: s-maj=31.2km s-min=15.0km az=137.1*
**ISC 08 20:26:45.9±0.9, 20.3S±0.2×177.6W±0.2, h500km, n11, σ1ˢ51/11, mb3.6/6, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **AFI** | **Afiamalu** | **8.43** | **42** | P | | **P** | **20 28 45.0** | **-1.9** |
| | 8.6nm,0.3s,baz=38,slow=8.9,SNR=3.8 | | | | | | | |
| **URZ** | **Urewera** | **18.50** | **193** | P | | **P** | **20 30 30.0** | **-0.6** |
| | 1.7nm,0.3s,baz=261,slow=3.3,SNR=7.7 | | | | | | | |
| **STKA** | **Stephens Creek** | **38.22** | **244** | P | | **P** | **20 33 22.1** | **-0.3** |
| | 1.3nm,0.9s,baz=91,slow=10,SNR=3.6 | | | | | | | |
| **ASAR** | **Alice Springs** | **44.93** | **256** | P | | **P** | **20 34 16.2** | **+0.4** |
| | 2.3nm,0.7s,baz=85,slow=8.5,SNR=24 | | | | | | | |
| ASAR | | | | PcP | | **pP** | **20 35 46.5** | **-2.3** |
| | 0.3nm,0.7s,baz=114,slow=3.0,SNR=4.4 | | | | | | | |
| **WRA** | **Warramunga Arr** | **45.00** | **262** | P | | **P** | **20 34 16.2** | **-0.2** |
| | 0.9nm,0.4s,baz=97,slow=7.9,SNR=34 | | | | | | | |
| **TXAR** | **Lajitas Array** | **86.62** | **57** | P | | **P** | **20 38 38.3** | **+2.1** |
| | 0.3nm,0.6s,baz=216,slow=6.2,SNR=4.2 | | | | | | | |
| **ILAR** | **Eielson Array** | **88.01** | **13** | P | | **P** | **20 38 41.6** | **-0.2** |
| | 0.3nm,0.5s,baz=216,slow=6.1,SNR=7.3 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **90.39** | **289** | P | | **P** | **20 38 56.0** | **+2.0** |
| | 0.9nm,0.6s,baz=114,slow=2.8,SNR=7.3 | | | | | | | |
| **AKASG** | **Malin Array Be** | **144.00** | **332** | PKhKP | | PKPpre | 20 45 19.2 | |
| | 2.0nm,0.6s,baz=42,slow=4.2,SNR=11 | | | | | | | |
| **BRTR** | **Keskin Array B** | **146.96** | **313** | PKPbc | | **PKPbc** | **20 45 32.2** | **-0.1** |
| | 0.6nm,0.5s,baz=134,slow=7.1,SNR=4.7 | | | | | | | |
| **GERES** | **GERESS Array B** | **150.08** | **345** | PKPbc | | **PKPbc** | **20 45 39.9** | **+0.1** |
| | 0.3nm,0.3s,baz=273,slow=1.8,SNR=4.7 | | | | | | | |

**IDC 08 20:30:04.8±10.0, 23.12S×180.00E, h481km±128km, mb3.1/3, mb1 3.4/4, mb1mx3.1/27, mbtmp4.1/4, Error ellipse: s-maj=112.6km s-min=28.2km az=4.0, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **URZ** | **Urewera** | **15.29** | **189** | P | | P | 20 33 16.6 | -1.7 |
| | 1.3nm,0.3s,baz=30,slow=8.1,SNR=5.5 | | | | | | | |
| **ASAR** | **Alice Springs** | **42.17** | **260** | P | | P | 20 37 14.9 | +0.4 |
| | 0.8nm,0.4s,baz=93,slow=7.4,SNR=9.9 | | | | | | | |
| **WRA** | **Warramunga Arr** | **42.46** | **265** | P | | P | 20 37 17.0 | +0.1 |
| | 1.4nm,0.3s,baz=92,slow=8.5,SNR=55 | | | | | | | |
| **TXAR** | **Lajitas Array** | **90.02** | **58** | P | | P | 20 42 14.0 | +1.1 |
| | 0.3nm,0.8s,baz=224,slow=5.0,SNR=2.5 | | | | | | | |
| **AKASG** | **Malin Array Be** | **144.31** | **328** | PKP | | PKPbc | 20 48 43.3 | -1.6 |
| | 0.4nm,0.3s,baz=46,slow=4.3,SNR=8.3 | | | | | | | |
| **BRTR** | **Keskin Array B** | **147.10** | **308** | PKPbc | | PKPdf | 20 48 51.9 | +1.3 |
| | 0.8nm,0.6s,baz=71,slow=2.5,SNR=5.0 | | | | | | | |

**MAN 08 20:31:20, 13.73N×120.59E, h95km, mb3.5, ML2.2, MS1.6, 1D, Mindoro**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **LUBP** | **Lubang** | **0.34** | **270** | *e*P | | Pn | 20 31 36.7 | +2.5 |
| LUBP | | | | *e*S | | Sn | 20 31 48.0 | +3.3 |
| **PGP** | **Puerto Galera** | **0.42** | **123**⇓*i*P | | | Pn | 20 31 36.8 | +2.0 |
| PGP | | | | *i* S | | Sn | 20 31 48.8 | +3.1 |
| **SJMP** | **San Jose** | **1.37** | **158** | *e*P | | Pn | 20 31 45.7 | +1.4 |
| SJMP | | | | *e*S | | Sn | 20 32 04.9 | +2.1 |
| **BUSP** | **Coron** | **1.76** | **193** | *e*P | | Pn | 20 31 49.6 | +0.2 |
| BUSP | | | | *e*S | | Sn | 20 32 12.5 | +0.9 |

*CSEM **08** 20:45:53.5±0.8, 38.70N×43.78E, h5km, ML2.5, Error ellipse: s-maj=14.9km s-min=7.1km az=119.0*
*ISK **08** 20:45:54.9, 38.77N×43.84E, h5km, ML2.0*
*DDA **08** 20:45:56.5, 38.84N×43.52E, h7km, Ml2.5*
**ISC 08 20:45:53.1±1.6, 38.67N±0.05×43.76E±0.06, h5km±11km, n15, σ1ˢ20/28, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **VANB** | **Van** | **0.30** | **256** | *e*PG | | **Pn** | **20 46 03.8** | **-0.4** |
| VANB | | | | *e*SG | | **Sb** | **20 46 10.3** | **+4.1** |
| **VANB** | **Van** | **0.30** | **256** | *e*Pg | | **Pn** | **20 46 03.8** | **-0.4** |
| **TVAN** | **Van** | **0.31** | **243** | *i* P | | **Pn** | **20 46 05.8** | **+1.4** |
| TVAN | | | | *i* S | | **Sb** | **20 46 08.7** | **+2.1** |
| **VMUR** | **Van-Muradiye** | **0.35** | **336** | *i* P | | **Pg** | **20 45 59.7** | **-0.2** |
| VMUR | | | | *i* S | | **Sg** | **20 46 05.7** | **+1.1** |
| **VMUR** | **Van-Muradiye** | **0.35** | **336** | P | | **Pg** | **20 45 59.7** | **-0.2** |
| VMUR | | | | S | | **Sg** | **20 46 05.7** | **+1.1** |
| **CLDR** | **Caldiran** | **0.49** | **15** | *e*PG | | **Pg** | **20 46 02.8** | **+0.2** |
| CLDR | | | | *e*SG | | **Sb** | **20 46 08.5** | **-0.5** |
| **CLDR** | **Caldiran** | **0.49** | **15** | *e*Pg | | **Pg** | **20 46 02.8** | **+0.2** |
| CLDR | | | | *e*Sg | | **Sg** | **20 46 08.5** | **-0.5** |
| **GEVA** | **Gevas** | **0.65** | **237** | *i* P | | **Pn** | **20 46 07.7** | **-1.4** |
| GEVA | | | | *i* S | | **Sb** | **20 46 16.2** | **-0.3** |
| **GEVA** | **Gevas** | **0.65** | **237** | P | | **Pn** | **20 46 07.7** | **-1.4** |
| GEVA | | | | S | | **Sb** | **20 46 16.2** | **-0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.82** | **280** | *i* P | | **Pg** | **20 46 08.9** | **+0.1** |
| ADCV | | | | *i* S | | **Sg** | **20 46 17.7** | **-1.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.82** | **280** | P | | **Pg** | **20 46 08.9** | **+0.1** |
| **TUTA** | **Tutak** | **1.04** | **315** | *i* P | | **Pg** | **20 46 12.3** | **-0.6** |
| TUTA | | | | *i* S | | **Sb** | **20 46 27.5** | **-0.1** |
| **TUTA** | **Tutak** | **1.04** | **315** | P | | **Pg** | **20 46 12.4** | **-0.6** |
| TUTA | | | | S | | **Sb** | **20 46 27.5** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **1.08** | **327** | *e*PG | | **Pn** | **20 46 15.2** | **+0.1** |
| AGRB | | | | *e*SG | | **Sn** | **20 46 30.1** | **-0.4** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| **AGRB** | **Hanur-Agry** | **1.08** | **327** | ePg | **Pn** | **20 46 15.2** | **+0.1** |
| AGRB | | | | eSg | **Sn** | **20 46 30.2** | **-0.4** |

*SJA **08** 20:55:45.6±0.6, 27°.76S×71°.72W, h8$^{km}$±9$^{km}$, ML4.6, MW3.8*
*IDC **08** 20:55:47.6±0.9, 28°.09S×70°.91W, h0$^{km}$, mb3.9/4, mb1 4.1/6, mb1mx3.8/37, mbtmp3.9/6, ML3.9/2, MS3.4/5, Ms1 3.4/5, ms1mx3.1/19, Error ellipse: s-maj=35.4km s-min=29.6km az=78.0*
*GUC **08** 20:55:50.9±0.7, 27°.94S×70°.63W, h65$^{km}$±29$^{km}$, ML4.5*
*NEIC **08** 20:55:54.1±1.4, 28°.20S×71°.27W, h44$^{km}$±13$^{km}$, mb4.7/1, Error ellipse: s-maj=16.9km s-min=11.0km az=136.0*
**ISC 08 20:55:47.9**±1.9**, 27°.96S**±0°.04×**71°.10W**±0°.07**, h6**$^{km}$±12$^{km}$**, n56, σ2$^{s}$50**/55**, mb3.8**/4**, MS3.6**/3**, 2D, Near coast of northern Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VACH** | **Vallenar** | **0.69** | **154** | ⇓iP | **Pn** | **20 56 05.3** | **+1.1** |
| VACH | | | | iS | **Sn** | **20 56 15.3** | **+0.2** |
| **LCO** | **Las Campanas** | **1.11** | **161** | ePn | **Pn** | **20 56 11.7** | **+1.5** |
| **LCO** | **Las Campanas** | **1.11** | **161** | ⇓iP | **Pn** | **20 56 11.6** | **+1.5** |
| LCO | | | | iS | **Sn** | **20 56 26.6** | **+0.8** |
| LCO | | | | IAML | | 20 56 30.4 | |
| | comp=N,9µm,0.3s | | | | | | |
| **TLL** | **Tololo Astrono** | **2.22** | **173** | eP | **Pn** | **20 56 27.3** | **+1.9** |
| TLL | | | | iS | **Sn** | **20 56 55.2** | **+1.9** |
| TLL | | | | IAML | | 20 57 05.2 | |
| | comp=E,7µm,0.6s | | | | | | |
| **VCA** | **Vinchina** | **2.67** | **108** | eP | **Pg** | **20 56 39.4** | **+0.3** |
| VCA | | | | eS | **Sg** | **20 57 20.0** | **+6.3** |
| VCA | | | | IAML | | 20 57 31.5 | |
| | comp=Z,2µm,0.5s | | | | | | |
| **AGUA** | **GUANDACOL** | **2.75** | **124** | eP | **Pg** | **20 56 40.9** | **+0.2** |
| AGUA | | | | eS | **Sg** | **20 57 21.6** | **+5.1** |
| **PB14** | **IPOC Station P** | **3.38** | **11** | iP | **Pn** | **20 56 42.2** | **+0.8** |
| PB14 | | | | iS | **Sn** | **20 57 21.1** | **-1.0** |
| PB14 | | | | IAML | | 20 57 47.4 | |
| | comp=E,966nm,0.5s | | | | | | |
| **AMOG** | **MOGNA** | **3.74** | **143** | eP | **Pb** | **20 56 54.1** | **-0.4** |
| AMOG | | | | eS | **Sg** | **20 57 44.4** | **-3.7** |
| **RTLL** | **Cerro Villicun** | **4.06** | **146** | iP | **Pb** | **20 56 56.9** | **-3.0** |
| RTLL | | | | iS | **Sn** | **20 57 36.8** | **-1.8** |
| **RTLS** | **Leoncito** | **4.14** | **158** | eP | **Pb** | **20 56 59.0** | **-2.3** |
| RTLS | | | | eS | **Sb** | **20 57 53.3** | **+1.7** |
| **RTCV** | **Cerro Valdivia** | **4.48** | **151** | eP | **Pb** | **20 57 03.5** | **-3.5** |
| RTCV | | | | eS | **Sb** | **20 58 00.9** | **-0.4** |
| **AUSP** | **Uspallata** | **4.50** | **161** | eP | **Pb** | **20 57 03.5** | **-4.0** |
| AUSP | | | | eS | **Sb** | **20 58 01.6** | **-0.6** |
| **CYA** | **Choya** | **4.70** | **97** | eP | **Pb** | **20 57 08.3** | **-2.5** |
| CYA | | | | eS | **Sb** | **20 58 09.5** | **+1.8** |
| **FSA** | **Cafayete** | **4.93** | **69** | eP | **Pb** | **20 57 09.9** | **-4.8** |
| **ROC1** | **El Roble** | **5.00** | **179** | ePn | **Pn** | **20 57 03.8** | **+0.1** |
| **PEL** | **Peldehue** | **5.18** | **176** | ePn | **Pn** | **20 57 07.4** | **+1.4** |
| **AHML** | **Horco Molle** | **5.26** | **78** | eP | Pb | 20 57 15.3 | -5.1 |
| **ACAN** | **Cantantal** | **5.48** | **143** | eP | Pb | 20 57 18.2 | -5.8 |
| **TCA** | **Tanti** | **6.59** | **122** | eP | Pb | 20 57 33.5 | -9.5 |
| TCA | | | | eS | **Sb** | **20 58 53.7** | **-8.2** |
| **PB01** | **IPOC Station P** | **7.04** | **12** | ePn | **Pn** | **20 57 30.9** | **-0.7** |
| **GO05** | **HualaæØ** | **7.06** | **186** | ePn | **Pn** | **20 57 29.8** | **-2.1** |
| **MNMC** | **Minye Minye** | **8.90** | **9** | ePn | **Pn** | **20 57 56.2** | **-1.0** |
| **LPAZ** | **La Paz** | **11.94** | **14** | Pn | **Pn** | **20 58 39.4** | **+0.2** |
| | comp=E,0.7nm,0.3s,baz=246,slow=5.8,SNR=9.7 | | | | | | |
| LPAZ | | | | LR | LR | 21 03 40.7 | |
| | comp=E,101nm,20.6s,baz=110,slow=39 | | | | | | |
| **LPAZ** | **La Paz** | **11.94** | **14** | ePn | **Pn** | **20 58 39.1** | **-0.1** |
| LPAZ | | | | e | | 20 58 39.4 | |
| **CPUP** | **Villa Florida** | **12.37** | **86** | Pn | **Pn** | **20 58 46.6** | **+2.0** |
| | comp=E,0.1nm,0.3s,baz=233,slow=5.1,SNR=3.5 | | | | | | |
| CPUP | | | | Lg | Lg | 21 02 10.0 | |
| | comp=E,0.2nm,0.3s,baz=160,slow=19,SNR=3.1 | | | | | | |
| **CPUP** | **Villa Florida** | **12.37** | **86** | ePn | Pn | 20 58 49.8 | +5.1 |
| CPUP | | | | Lg | Lg | 21 02 10.0 | |
| **TRQA** | **Tornquist** | **12.64** | **145** | ePn | Pn | 20 58 54.0 | +5.8 |
| **PLCA** | **Paso Flores** | **12.75** | **178** | Pn | **Pn** | **20 58 50.0** | **+0.2** |
| | comp=E,0.1nm,0.3s,baz=14,slow=4.7,SNR=3.8 | | | | | | |
| PLCA | | | | LR | LR | 21 03 52.3 | |
| | comp=E,158nm,21.1s,baz=16,slow=38 | | | | | | |
| **SIV** | **San Ignacio** | **15.10** | **40** | Pn | **Pn** | **20 59 18.5** | **-3.4** |
| | comp=E,0.8nm,0.3s,baz=246,slow=9.1,SNR=5.9 | | | | | | |
| **BDFB** | **Brasilia** | **24.64** | **65** | LR | LR | 21 12 26.9 | |
| | comp=E,194nm,19.4s,baz=350,slow=41 | | | | | | |
| **H06E1** | **SOCORRO T-PHAS** | **60.37** | **316** | T | T | 22 11 31.1 | |
| | SNR=25 | | | | | | |
| **LTX** | **Lajitas** | **64.93** | **329** | eP | **P** | **21 06 29.9** | **+1.5** |
| **TXAR** | **Lajitas Array** | **64.93** | **329** | P | **P** | **21 06 29.9** | **+1.5** |
| | comp=E,0.3nm,0.7s,baz=151,slow=8.0,SNR=3.5 | | | | | | |
| **DBIC** | **Dimbokro** | **72.54** | **72** | P | **P** | **21 07 14.3** | **-1.8** |
| | comp=E,3.5nm,0.7s,baz=222,slow=3.7,SNR=6.0 | | | | | | |
| DBIC | | | | LR | LR | 21 39 12.0 | |
| | comp=E,16nm,18.3s,baz=203,slow=36 | | | | | | |
| **DBIC** | **Dimbokro** | **72.54** | **72** | eP | **P** | **21 07 14.3** | **-1.8** |
| | comp=E,11nm,1.3s | | | | | | |
| **IRM** | **Iron Mountain** | **74.54** | **323** | eP | **P** | **21 07 24.9** | **-2.6** |
| **PASC** | **Pasadena Art C** | **76.19** | **321** | eP | **P** | **21 07 34.3** | **-2.6** |
| **FOXC** | **Fox Airport** | **76.64** | **322** | eP | **P** | **21 07 40.3** | **+0.8** |
| **PDAR** | **Pinedale Array** | **78.78** | **332** | P | **P** | **21 07 54.2** | **+2.6** |
| | comp=E,0.3nm,0.6s,baz=108,slow=5.8,SNR=1.4 | | | | | | |
| **TOA0** | **Torodi Ar. Sit** | **81.41** | **70** | eP | **P** | **21 08 07.2** | **+1.2** |
| **TOA1** | **Torodi Ar. Sit** | **81.41** | **70** | eP | **P** | **21 08 07.6** | **+1.5** |
| **TORD** | **Torodi Ar. Bea** | **81.41** | **70** | P | **P** | **21 08 07.6** | **+1.5** |
| | comp=E,0.9nm,0.5s,baz=272,slow=5.3,SNR=16 | | | | | | |
| **LSZ** | **Lusaka** | **90.90** | **108** | LR | LR | 21 47 33.6 | |
| | comp=E,38nm,19.2s,baz=243,slow=34 | | | | | | |
| **ASAR** | **Alice Springs** | **123.29** | **208** | PKP | **PKPdf** | **21 14 45.1** | **-1.3** |
| | comp=E,0.2nm,0.5s,baz=162,slow=1.6,SNR=3.6 | | | | | | |
| **WR1** | **Warramunga Arr** | **126.39** | **210** | ePKPdf | **PKPdf** | **21 14 52.7** | **+0.3** |
| **WRA** | **Warramunga Arr** | **126.39** | **210** | PKP | **PKPdf** | **21 14 52.7** | **+0.3** |
| | comp=E,0.6nm,0.7s,baz=152,slow=1.7,SNR=9.4 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **126.46** | **273** | T | T | 23 33 57.9 | |
| | baz=112,slow=75,SNR=9.5 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **126.47** | **273** | T | T | 23 33 57.3 | |
| | baz=112,slow=75,SNR=8.1 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **126.48** | **273** | T | T | 23 33 59.2 | |
| | baz=112,slow=75,SNR=9.4 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **126.72** | **275** | T | T | 23 34 17.1 | |
| | baz=118,SNR=4.6 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **126.73** | **275** | T | T | 23 34 23.0 | |
| | baz=118 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **126.73** | **275** | T | T | 23 34 18.6 | |
| | baz=118 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **148.60** | **28** | ePKPbc | **PKPbc** | **21 15 37.0** | **+1.6** |
| **ZALV** | **Zalesovo Beam** | **148.60** | **28** | PKPbc | **PKPbc** | **21 15 37.0** | **+1.6** |
| | comp=E,0.5nm,0.4s,baz=316,slow=4.1,SNR=5.1 | | | | | | |
| **MK32** | **Makanchi Array** | **151.92** | **41** | ePKPbc | **PKPbc** | **21 15 45.1** | **+1.4** |
| **MKAR** | **Makanchi Array** | **151.92** | **41** | PKPbc | **PKPbc** | **21 15 45.1** | **+1.4** |
| | comp=E,0.8nm,0.7s,baz=302,slow=1.8,SNR=3.2 | | | | | | |

*ISCJB **08** 20:56:36.8±0.5, 39°.58N±0°.03×39°.90E±0°.03, h10$^{km}$±5$^{km}$, Error ellipse: s-maj=5.8km s-min=4.2km az=16.2*
*CSEM **08** 20:56:36.5±0.1, 39°.59N×39°.88E, h10$^{km}$, ML2.7, Error ellipse: s-maj=3.0km s-min=2.3km az=6.0*
*DDA **08** 20:56:36.5, 39°.56N×39°.90E, h7$^{km}$, Ml2.7*
*ISK **08** 20:56:36.6, 39°.57N×39°.90E, h10$^{km}$, ML2.0*
**ISC 08 20:56:36.3**±0.9**, 39°.57N**±0°.04×**39°.90E**±0°.03**, h16**$^{km}$±6$^{km}$**, n17, σ0$^{s}$47**/32**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ERZN** | **Erzincan** | **0.14** | **277** | PG | **Pg** | **20 56 40.1** | **-0.2** |
| ERZN | | | | eSG | **Sg** | **20 56 42.7** | **-0.2** |
| **EUZM** | **Uzumlu** | **0.21** | **311** | iP | **Pg** | **20 56 41.3** | **+0.1** |
| EUZM | | | | iS | **Sg** | **20 56 44.7** | **+0.1** |
| **EUZM** | **Uzumlu** | **0.21** | **311** | P | **Pg** | **20 56 41.3** | **+0.1** |
| EUZM | | | | S | **Sg** | **20 56 44.7** | **+0.1** |
| **YEDI** | **Yedisu-Bingol** | **0.51** | **105** | ePG | **Pb** | **20 56 47.1** | **+0.1** |
| YEDI | | | | eSG | **Sb** | **20 56 54.8** | **+0.5** |
| **YEDI** | **Yedisu-Bingol** | **0.51** | **105** | ePg | **Pb** | **20 56 47.1** | **+0.1** |
| YEDI | | | | eSg | **Sb** | **20 56 54.8** | **+0.5** |
| **TNCL** | **Tunceli-Merkez** | **0.53** | **212** | iP | **Pg** | **20 56 46.7** | **-0.2** |
| TNCL | | | | iS | **Sb** | **20 56 54.8** | **0.0** |
| **TNCL** | **Tunceli-Merkez** | **0.53** | **212** | P | **Pg** | **20 56 46.7** | **-0.2** |
| TNCL | | | | S | **Sb** | **20 56 54.8** | **0.0** |
| **KELT** | **Kelkit** | **0.76** | **320** | iP | **Pg** | **20 56 50.8** | **-0.4** |
| KELT | | | | iS | **Sg** | **20 57 00.9** | **-0.4** |
| **KELT** | **Kelkit** | **0.76** | **320** | P | **Pg** | **20 56 50.8** | **-0.4** |
| KELT | | | | S | **Sg** | **20 57 00.9** | **-0.4** |
| **PTK** | **Pertek** | **0.78** | **211** | ePG | **Pb** | **20 56 52.1** | **+0.5** |
| PTK | | | | eSG | **Sn** | **20 57 03.4** | **-1.0** |
| **PTK** | **Pertek** | **0.78** | **211** | ePg | **Pb** | **20 56 52.1** | **+0.5** |
| PTK | | | | eSg | **Sn** | **20 57 03.4** | **-1.0** |
| **BINT** | **Bingol** | **0.83** | **146** | ePg | **Pn** | **20 56 53.3** | **-0.1** |
| **ECAT** | **Cat-ERZURUM** | **0.83** | **87** | iP | **Pg** | **20 56 52.6** | **+0.2** |
| ECAT | | | | iS | **Sn** | **20 57 05.2** | **-0.3** |
| **ECAT** | **Cat-ERZURUM** | **0.83** | **87** | P | **Pg** | **20 56 52.6** | **+0.2** |
| ECAT | | | | S | **Sn** | **20 57 05.2** | **-0.3** |
| **BNGB** | **Bingˆ¶l** | **0.83** | **133** | ePG | **Pn** | **20 56 53.3** | **-0.2** |
| **KEMA** | **Kemaliye** | **1.13** | **255** | iP | **Pg** | **20 56 58.0** | **-0.1** |
| KEMA | | | | iS | **Sn** | **20 57 13.8** | **+1.1** |
| **KEMA** | **Kemaliye** | **1.13** | **255** | P | **Pg** | **20 56 58.0** | **-0.1** |
| KEMA | | | | S | **Sn** | **20 57 13.9** | **+1.1** |

*ATH **08** 20:59:34.9, 38°.08N×23°.53E, h20$^{km}$±1$^{km}$, ML3.4/21, Error ellipse: s-maj=1.0km s-min=0.5km az=49.0*
*IDC **08** 20:59:34.9±1.4, 37°.96N×23°.65E, h0$^{km}$, mb3.5/3, mb1 3.5/4, mb1mx3.3/34, mbtmp3.5/4, ML2.5/1, Error ellipse: s-maj=57.8km s-min=22.9km az=159.0*
*ISCJB **08** 20:59:35.3±0.3, 38°.10N±0°.02×23°.54E±0°.02, h10$^{km}$±2$^{km}$, mb3.5/3, Error ellipse: s-maj=2.8km s-min=2.3km az=17.7*
*CSEM **08** 20:59:35.4±0.1, 38°.08N×23°.53E, h8$^{km}$, ML3.4, Error ellipse: s-maj=2.5km s-min=2.3km az=28.0*
*THE **08** 20:59:35.7, 38°.10N×23°.52E, h5$^{km}$±1$^{km}$, ML3.4/15, Error ellipse: s-maj=1.1km s-min=0.4km az=55.0*
**ISC 08 20:59:35.7**±0.8**, 38°.10N**±0°.01×**23°.51E**±0°.01**, h10**$^{km}$±5$^{km}$**, n144, σ0$^{s}$92**/203**, mb3.7**/3**, Greece**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VILL** | **Villia** | **0.17** | **293** | P | **Pg** | **20 59 39.7** | **+0.2** |
| VILL | | | | S | **Sg** | **20 59 42.4** | **+0.3** |
| **VILL** | **Villia** | **0.17** | **293** | P | **Pg** | **20 59 39.7** | **+0.2** |
| VILL | | | | S | **Sg** | **20 59 42.4** | **+0.3** |
| **ATH** | **Athens Observa** | **0.20** | **128** | P | **Pb** | **20 59 40.8** | **-0.7** |
| ATH | | | | S | **Sg** | **20 59 43.2** | **+0.3** |
| ATH | | | | AML | AML | 20 59 43.7 | |
| | comp=N,37082µm,0.3s | | | | | | |
| ATH | | | | AML | AML | 20 59 43.9 | |
| | comp=E,75761µm,0.3s | | | | | | |
| **ATH** | **Athens Observa** | **0.20** | **128** | P | **Pg** | **20 59 40.3** | **+0.3** |
| ATH | | | | S | **Sg** | **20 59 43.0** | **+0.1** |
| **ATH** | **Athens Observa** | **0.20** | **128** | P | **Pg** | **20 59 40.3** | **+0.3** |
| ATH | | | | S | **Sg** | **20 59 43.0** | **+0.1** |
| **VIL2** | **Platees** | **0.22** | **301** | P | **Pg** | **20 59 39.6** | **-0.8** |
| VIL2 | | | | S | **Sg** | **20 59 41.8** | **-1.7** |
| VIL2 | | | | AML | AML | 20 59 42.8 | |
| | comp=E,22154µm,0.3s | | | | | | |
| VIL2 | | | | AML | AML | 20 59 46.4 | |
| | comp=N,53046µm,1.1s | | | | | | |
| **ATHU** | **Athens Univers** | **0.25** | **121** | P | **Pg** | **20 59 41.0** | **+0.1** |
| ATHU | | | | S | **Sg** | **20 59 43.5** | **-0.8** |
| ATHU | | | | AML | AML | 20 59 44.8 | |
| | comp=E,5867µm,0.2s | | | | | | |
| ATHU | | | | AML | AML | 20 59 45.3 | |
| | comp=N,9258µm,0.2s | | | | | | |
| **ATHU** | **Athens Univers** | **0.25** | **121** | P | **Pg** | **20 59 41.0** | **+0.1** |
| ATHU | | | | S | **Sg** | **20 59 43.5** | **-0.8** |
| **PTL** | **Penteli** | **0.28** | **100** | P | **Pg** | **20 59 42.0** | **+0.6** |
| PTL | | | | S | **Sg** | **20 59 45.1** | **-0.1** |
| PTL | | | | AML | AML | 20 59 46.4 | |
| | comp=E,12509µm,0.3s | | | | | | |
| PTL | | | | AML | AML | 20 59 47.0 | |
| | comp=N,6605µm,0.1s | | | | | | |
| **PTL** | **Penteli** | **0.28** | **100** | P | **Pg** | **20 59 41.5** | **+0.1** |
| PTL | | | | S | **Sg** | **20 59 45.4** | **+0.1** |
| **PTL** | **Penteli** | **0.28** | **100** | P | **Pg** | **20 59 41.5** | **+0.1** |
| PTL | | | | S | **Sg** | **20 59 45.4** | **+0.1** |
| **VLY** | **Voula,Athens** | **0.33** | **138** | P | **Pg** | **20 59 42.8** | **+0.5** |
| VLY | | | | S | **Sg** | **20 59 45.8** | **-0.9** |
| VLY | | | | AML | AML | 20 59 48.8 | |
| | comp=E,22449µm,0.5s | | | | | | |
| VLY | | | | AML | AML | 20 59 51.7 | |
| | comp=N,14279µm,0.4s | | | | | | |
| **VLY** | **Voula,Athens** | **0.33** | **138** | P | **Pg** | **20 59 42.3** | **0.0** |
| VLY | | | | S | **Sg** | **20 59 46.7** | **0.0** |
| **VLY** | **Voula,Athens** | **0.33** | **138** | P | **Pg** | **20 59 42.3** | **0.0** |
| VLY | | | | S | **Sg** | **20 59 46.7** | **0.0** |
| **LTK** | **Loutraki** | **0.44** | **260** | P | **Pg** | **20 59 44.7** | **+0.4** |
| LTK | | | | S | **Sg** | **20 59 49.7** | **-0.3** |
| LTK | | | | AML | AML | 20 59 52.5 | |
| | comp=E,14623µm,0.5s | | | | | | |
| LTK | | | | AML | AML | 20 59 52.5 | |
| | comp=N,8544µm,0.4s | | | | | | |
| **LTK** | **Loutraki** | **0.44** | **260** | P | **Pg** | **20 59 44.1** | **-0.2** |
| LTK | | | | S | **Sg** | **20 59 49.7** | **-0.3** |
| **LTK** | **Loutraki** | **0.44** | **260** | P | **Pg** | **20 59 44.1** | **-0.2** |
| LTK | | | | S | **Sg** | **20 59 50.6** | **+0.6** |
| **LOUT** | **Loutraki** | **0.44** | **256** | P | **Pg** | **20 59 44.6** | **+0.3** |
| **EREA** | **Eretria** | **0.46** | **46** | P | **Pg** | **20 59 45.2** | **+0.5** |
| EREA | | | | S | **Sb** | **20 59 52.1** | **-0.6** |
| EREA | | | | AML | AML | 20 59 52.5 | |
| | comp=E,24783µm,0.3s | | | | | | |
| EREA | | | | AML | AML | 20 59 52.8 | |
| | comp=N,27090µm,0.3s | | | | | | |
| **EREA** | **Eretria** | **0.46** | **46** | P | **Pg** | **20 59 44.8** | **+0.1** |
| EREA | | | | S | **Sg** | **20 59 51.6** | **+0.8** |
| **EREA** | **Eretria** | **0.46** | **46** | P | **Pg** | **20 59 44.8** | **+0.1** |
| EREA | | | | S | **Sg** | **20 59 51.6** | **+0.8** |
| **PROD** | **Prodromos** | **0.51** | **289** | P | **Pg** | **20 59 45.5** | **-0.1** |
| PROD | | | | S | **Sb** | **20 59 54.4** | **+0.3** |
| PROD | | | | AML | AML | 20 59 56.6 | |
| | comp=E,9362µm,0.3s | | | | | | |
| PROD | | | | AML | AML | 20 59 57.7 | |
| | comp=N,9906µm,0.4s | | | | | | |
| **DID** | **Didima** | **0.63** | **200** | P | **Pg** | **20 59 47.4** | **-0.5** |
| DID | | | | S | **Sg** | **20 59 56.8** | **+0.6** |
| DID | | | | AML | AML | 20 59 59.7 | |
| | comp=N,8194µm,0.3s | | | | | | |
| DID | | | | AML | AML | 21 00 00.9 | |
| | comp=E,7465µm,0.6s | | | | | | |
| **DID** | **Didima** | **0.63** | **200** | P | **Pg** | **20 59 47.3** | **-0.6** |
| DID | | | | S | **Sg** | **20 59 56.6** | **+0.4** |
| **DID** | **Didima** | **0.63** | **200** | P | **Pg** | **20 59 47.3** | **-0.6** |
| DID | | | | S | **Sg** | **20 59 56.6** | **+0.4** |
| **THAL** | **Thalero** | **0.67** | **265** | P | **Pb** | **20 59 49.5** | **0.0** |
| **THAL** | **Thalero** | **0.67** | **265** | P | **Pg** | **20 59 48.6** | **-0.1** |
| THAL | | | | S | **Sb** | **20 59 58.8** | **0.0** |
| **THAL** | **Thalero** | **0.67** | **265** | P | **Pg** | **20 59 48.6** | **-0.1** |
| THAL | | | | S | **Sb** | **20 59 58.8** | **0.0** |
| **LKR** | **Lokris** | **0.68** | **324** | P | **Pg** | **20 59 47.8** | **-1.1** |
| LKR | | | | S | **Sg** | **20 59 58.4** | **+0.5** |
| LKR | | | | AML | AML | 21 00 01.5 | |
| | comp=E,6822µm,0.3s | | | | | | |
| LKR | | | | AML | AML | 21 00 01.8 | |
| | comp=N,7946µm,0.3s | | | | | | |
| **LKR** | **Lokris** | **0.68** | **324** | P | **Pg** | **20 59 48.1** | **-0.8** |
| LKR | | | | S | **Sg** | **20 59 58.4** | **+0.5** |
| **LKR** | **Lokris** | **0.68** | **324** | P | **Pg** | **20 59 48.1** | **-0.8** |
| LKR | | | | S | **Sg** | **20 59 58.6** | **+0.7** |
| **KARY** | **Karystos** | **0.73** | **95** | P | **Pg** | **20 59 50.0** | **+0.2** |
| KARY | | | | S | **Sg** | **20 59 59.9** | **+0.5** |
| KARY | | | | AML | AML | 21 00 03.0 | |
| | comp=E,18846µm,0.2s | | | | | | |
| KARY | | | | AML | AML | 21 00 03.0 | |
| | comp=N,23327µm,0.2s | | | | | | |
| **KARY** | **Karystos** | **0.73** | **95** | P | **Pg** | **20 59 50.0** | **+0.2** |
| KARY | | | | S | **Sg** | **20 59 59.9** | **+0.5** |
| **KRND** | **KRANIDI** | **0.77** | **202** | P | **Pg** | **20 59 49.6** | **-0.9** |
| KRND | | | | S | **Sg** | **20 59 60.0** | **-0.6** |
| KRND | | | | AML | AML | 21 00 03.6 | |
| | comp=N,5391µm,0.6s | | | | | | |
| KRND | | | | AML | AML | 21 00 04.3 | |
| | comp=E,4864µm,0.7s | | | | | | |
| **KRND** | **KRANIDI** | **0.77** | **202** | P | **Pg** | **20 59 49.6** | **-0.9** |
| KRND | | | | S | **Sg** | **21 00 00.0** | **-0.6** |
| **KRND** | **KRANIDI** | **0.77** | **202** | P | **Pg** | **20 59 49.6** | **-0.9** |
| KRND | | | | S | **Sb** | **21 00 01.4** | **-0.2** |
| **SMIA** | **Simia** | **0.81** | **343** | P | **Pg** | **20 59 50.7** | **-0.7** |
| **SMIA** | **Simia** | **0.81** | **343** | P | **Pg** | **20 59 50.7** | **-0.7** |
| **DSF** | **Desfina** | **0.84** | **292** | P | **Pg** | **20 59 50.3** | **-1.5** |
| DSF | | | | S | **Sb** | **21 00 04.5** | **+0.9** |
| DSF | | | | AML | AML | 21 00 05.8 | |
| | comp=E,4353µm,0.5s | | | | | | |
| DSF | | | | AML | AML | 21 00 06.8 | |
| | comp=N,4824µm,0.6s | | | | | | |
| **DSF** | **Desfina** | **0.84** | **292** | P | **Pg** | **20 59 50.8** | **-1.0** |
| DSF | | | | S | **Sb** | **21 00 04.5** | **+0.9** |
| **DSF** | **Desfina** | **0.84** | **292** | P | **Pg** | **20 59 50.8** | **-1.0** |
| DSF | | | | S | **Sb** | **21 00 04.5** | **+0.9** |
| **GUR** | **Goura** | **0.94** | **260** | P | **Pg** | **20 59 53.8** | **+0.1** |
| GUR | | | | S | **Sg** | **21 00 06.1** | **+0.1** |
| GUR | | | | AML | AML | 21 00 10.4 | |
| | comp=N,3369µm,0.4s | | | | | | |
| GUR | | | | AML | AML | 21 00 11.9 | |
| | comp=E,5006µm,0.4s | | | | | | |
| **GUR** | **Goura** | **0.94** | **260** | P | **Pg** | **20 59 53.1** | **-0.7** |
| GUR | | | | S | **Sg** | **21 00 06.1** | **+0.1** |
| **GUR** | **Goura** | **0.94** | **260** | P | **Pg** | **20 59 53.1** | **-0.7** |
| GUR | | | | S | **Sg** | **21 00 06.3** | **+0.3** |
| **KLV** | **Kalavryta, Ach** | **1.08** | **268** | P | **Pb** | **20 59 56.2** | **-0.2** |
| KLV | | | | AML | AML | 21 00 17.8 | |
| | comp=E,750µm,0.6s | | | | | | |
| KLV | | | | AML | AML | 21 00 19.2 | |
| | comp=N,922µm,0.8s | | | | | | |
| **KLV** | **Kalavryta, Ach** | **1.08** | **268** | P | **Pb** | **20 59 55.7** | **-0.7** |
| **KLV** | **Kalavryta, Ach** | **1.08** | **268** | P | **Pb** | **20 59 55.7** | **-0.7** |
| **KALE** | **Kalithea** | **1.12** | **286** | P | **Pb** | **20 59 55.9** | **-1.2** |
| **KALE** | **Kalithea** | **1.12** | **286** | P | **Pb** | **20 59 56.2** | **-0.9** |
| KALE | | | | S | **Sn** | **21 00 12.9** | **0.0** |
| **KALE** | **Kalithea** | **1.12** | **286** | P | **Pb** | **20 59 56.2** | **-0.9** |
| KALE | | | | S | **Sn** | **21 00 12.9** | **0.0** |
| **SKY** | **Skiros Island** | **1.13** | **46** | P | **Pb** | **20 59 56.6** | **-0.6** |
| SKY | | | | S | **Sb** | **21 00 11.4** | **-0.5** |
| SKY | | | | AML | AML | 21 00 16.0 | |
| | comp=N,9941µm,0.2s | | | | | | |
| SKY | | | | AML | AML | 21 00 16.2 | |
| | comp=E,9422µm,0.2s | | | | | | |
| **SKY** | **Skiros Island** | **1.13** | **46** | P | **Pb** | **20 59 56.6** | **-0.6** |
| SKY | | | | S | **Sb** | **21 00 11.4** | **-0.5** |
| **SKY** | **Skiros Island** | **1.13** | **46** | P | **Pb** | **20 59 56.5** | **-0.7** |
| SKY | | | | S | **Sg** | **21 00 12.3** | **+0.3** |
| **VLX** | **Vlachokerasia** | **1.16** | **231** | P | **Pb** | **20 59 57.6** | **-0.1** |
| **VLX** | **Vlachokerasia** | **1.16** | **231** | P | **Pb** | **20 59 57.2** | **-0.6** |
| VLX | | | | S | **Sn** | **21 00 14.5** | **+0.7** |
| **VLX** | **Vlachokerasia** | **1.16** | **231** | P | **Pb** | **20 59 57.2** | **-0.6** |
| VLX | | | | S | **Sn** | **21 00 14.5** | **+0.7** |
| **TRIZ** | **Trizonia** | **1.17** | **284** | P | **Pb** | **20 59 57.6** | **-0.2** |
| **TRIZ** | **Trizonia** | **1.17** | **284** | P | **Pb** | **20 59 57.6** | **-0.2** |
| **SERG** | **Sergoula** | **1.19** | **286** | P | **Pn** | **20 59 57.5** | **-0.8** |
| **SERI** | **Serifos** | **1.21** | **140** | P | **Pn** | **20 59 57.8** | **-0.9** |
| **SERI** | **Serifos** | **1.21** | **140** | P | **Pn** | **20 59 57.8** | **-0.9** |
| **LAKA** | **Lakka** | **1.22** | **277** | P | **Pn** | **20 59 58.8** | **+0.1** |
| LAKA | | | | AML | AML | 21 00 21.5 | |
| | comp=N,407µm,0.5s | | | | | | |
| LAKA | | | | AML | AML | 21 00 26.0 | |
| | comp=E,676µm,0.6s | | | | | | |
| **NEO** | **Neokhori** | **1.23** | **349** | P | **Pn** | **20 59 58.8** | **-0.1** |
| NEO | | | | S | **Sb** | **21 00 14.2** | **-0.7** |
| NEO | | | | AML | AML | 21 00 17.9 | |
| | comp=E,2559µm,0.4s | | | | | | |
| NEO | | | | AML | AML | 21 00 21.6 | |
| | comp=N,4761µm,0.4s | | | | | | |
| **NEO** | **Neokhori** | **1.23** | **349** | P | **Pn** | **20 59 58.8** | **-0.1** |
| NEO | | | | S | **Sb** | **21 00 14.2** | **-0.7** |
| **XOR** | **Xorichti** | **1.29** | **349** | P | **Pn** | **20 59 58.7** | **-1.1** |
| **XOR** | **Xorichti** | **1.29** | **349** | P | **Pn** | **20 59 59.2** | **-0.6** |
| **XOR** | **Xorichti** | **1.29** | **349** | P | **Pn** | **20 59 59.2** | **-0.6** |
| **EFP** | **Efpalio** | **1.31** | **285** | P | **Pn** | **21 00 00.1** | **+0.2** |
| **EFP** | **Efpalio** | **1.31** | **285** | P | **Pn** | **21 00 00.1** | **+0.2** |
| **AGG** | **Agios Georgios** | **1.31** | **315** | P | **Pn** | **20 59 58.7** | **-1.3** |
| AGG | | | | S | **Sg** | **21 00 19.4** | **+1.6** |
| AGG | | | | AML | AML | 21 00 22.1 | |
| | comp=E,2828µm,0.8s | | | | | | |
| AGG | | | | AML | AML | 21 00 26.6 | |
| | comp=N,1914µm,0.7s | | | | | | |
| **AGG** | **Agios Georgios** | **1.31** | **315** | P | **Pn** | **20 59 59.1** | **-0.9** |
| AGG | | | | S | **Sg** | **21 00 19.4** | **+1.6** |
| **AGG** | **Agios Georgios** | **1.31** | **315** | P | **Pn** | **20 59 59.1** | **-0.9** |
| **ANX** | **Ano Chora** | **1.34** | **292** | P | **Pn** | **20 59 60.0** | **-0.6** |
| **ANX** | **Ano Chora** | **1.34** | **292** | P | **Pn** | **21 00 00.0** | **-0.6** |
| **DRO** | **Drossia** | **1.43** | **265** | P | **Pn** | **21 00 02.0** | **+0.4** |
| DRO | | | | S | **Sg** | **21 00 22.4** | **+0.7** |
| DRO | | | | AML | AML | 21 00 26.4 | |
| | comp=N,1957µm,0.5s | | | | | | |
| DRO | | | | AML | AML | 21 00 26.6 | |
| | comp=E,2298µm,0.6s | | | | | | |
| **DRO** | **Drossia** | **1.43** | **265** | P | **Pn** | **21 00 01.6** | **0.0** |
| DRO | | | | S | **Sg** | **21 00 22.4** | **+0.7** |
| **DRO** | **Drossia** | **1.43** | **265** | P | **Pn** | **21 00 01.6** | **0.0** |
| **VLI** | **Veliai** | **1.45** | **199** | P | **Pn** | **21 00 00.1** | **-1.8** |
| VLI | | | | S | **Sg** | **21 00 22.2** | **-0.2** |
| VLI | | | | AML | AML | 21 00 30.1 | |
| | comp=N,1272µm,0.9s | | | | | | |
| VLI | | | | AML | AML | 21 00 31.3 | |
| | comp=E,923µm,0.8s | | | | | | |
| **VLI** | **Veliai** | **1.45** | **199** | P | **Pn** | **21 00 00.7** | **-1.2** |
| VLI | | | | S | **Sg** | **21 00 22.2** | **-0.2** |
| **VLI** | **Veliai** | **1.45** | **199** | P | **Pn** | **21 00 00.7** | **-1.2** |
| VLI | | | | S | **Sg** | **21 00 22.2** | **-0.2** |
| **MHLA** | **Plaka, Milos I** | **1.53** | **152** | P | **Pn** | **21 00 01.8** | **-1.2** |
| **MHLA** | **Plaka, Milos I** | **1.53** | **152** | P | **Pn** | **21 00 01.8** | **-1.2** |
| **AMT** | **Artemida-Makis** | **1.54** | **249** | P | **Pb** | **21 00 04.5** | **+0.3** |
| **AMT** | **Artemida-Makis** | **1.54** | **249** | P | **Pb** | **21 00 04.2** | **0.0** |
| AMT | | | | S | **Sb** | **21 00 24.1** | **+0.4** |
| **AMT** | **Artemida-Makis** | **1.54** | **249** | P | **Pb** | **21 00 04.2** | **0.0** |
| AMT | | | | S | **Sb** | **21 00 24.1** | **+0.4** |
| **ITM** | **Ithomi** | **1.56** | **234** | P | **Pn** | **21 00 03.6** | **+0.1** |
| **ITM** | **Ithomi** | **1.56** | **234** | P | **Pn** | **21 00 03.5** | **+0.1** |
| **ITM** | **Ithomi** | **1.56** | **234** | P | **Pn** | **21 00 03.5** | **+0.1** |
| **EVR** | **Evrytania** | **1.57** | **302** | P | **Pb** | **21 00 04.7** | **-0.1** |
| **EVR** | **Evrytania** | **1.57** | **302** | P | **Pn** | **21 00 04.2** | **+0.6** |
| **EVR** | **Evrytania** | **1.57** | **302** | P | **Pn** | **21 00 04.2** | **+0.6** |
| **MHLO** | **Agia Marina, M** | **1.57** | **153** | P | **Pn** | **21 00 02.9** | **-0.7** |
| **MHLO** | **Agia Marina, M** | **1.57** | **153** | P | **Pn** | **21 00 02.9** | **-0.7** |
| **RLS** | **Riolos of Patr** | **1.61** | **269** | P | **Pb** | **21 00 05.2** | **-0.3** |
| **RLS** | **Riolos of Patr** | **1.61** | **269** | P | **Pb** | **21 00 05.2** | **-0.3** |
| **PYL** | **PYLOS** | **1.85** | **230** | P | **Pn** | **21 00 08.0** | **+0.6** |
| **PYL** | **PYLOS** | **1.85** | **230** | P | **Pn** | **21 00 08.0** | **+0.6** |
| **KYTH** | **Kithira** | **1.87** | **192** | P | **Pn** | **21 00 06.8** | **-0.8** |
| **KYTH** | **Kithira** | **1.87** | **192** | P | **Pn** | **21 00 07.2** | **-0.5** |
| **THL** | **Klokotos Trika** | **1.87** | **322** | P | **Pn** | **21 00 07.1** | **-0.6** |
| **THL** | **Klokotos Trika** | **1.87** | **322** | P | **Pn** | **21 00 07.7** | **0.0** |
| **THL** | **Klokotos Trika** | **1.87** | **322** | P | **Pn** | **21 00 07.7** | **0.0** |
| **PDO** | **Prodromos** | **1.90** | **286** | P | **Pb** | **21 00 09.6** | **-0.8** |
| **PDO** | **Prodromos** | **1.90** | **286** | P | **Pb** | **21 00 09.6** | **-0.8** |
| **APE** | **Apeiranthos** | **1.90** | **122** | P | **Pn** | **21 00 07.1** | **-1.1** |
| **APE** | **Apeiranthos** | **1.90** | **122** | P | **Pn** | **21 00 07.5** | **-0.7** |
| **APE** | **Apeiranthos** | **1.90** | **122** | P | **Pn** | **21 00 07.5** | **-0.7** |
| **CHOS** | **Chios island** | **2.02** | **81** | P | **Pn** | **21 00 09.4** | **-0.4** |
| **CHOS** | **Chios island** | **2.02** | **81** | P | **Pn** | **21 00 09.4** | **-0.4** |
| **LIT** | **Litokhoron** | **2.15** | **339** | P | **Pn** | **21 00 11.3** | **-0.3** |
| **LIT** | **Litokhoron** | **2.15** | **339** | P | **Pn** | **21 00 11.3** | **-0.3** |
| **DSL** | **Palaion Diasel** | **2.16** | **299** | P | **Pb** | **21 00 14.3** | **-0.5** |
| **LIA** | **Limnos Island** | **2.22** | **35** | P | **Pn** | **21 00 11.6** | **-0.9** |
| **LIA** | **Limnos Island** | **2.22** | **35** | P | **Pn** | **21 00 11.6** | **-0.9** |
| **ANKY** | **Antikythira Is** | **2.23** | **184** | P | **Pn** | **21 00 10.4** | **-2.3** |
| **ANKY** | **Antikythira Is** | **2.23** | **184** | P | **Pn** | **21 00 12.3** | **-0.4** |
| **ANKY** | **Antikythira Is** | **2.23** | **184** | P | **Pn** | **21 00 12.3** | **-0.4** |
| **OUR** | **Ouranopolis** | **2.26** | **9** | P | **Pn** | **21 00 12.6** | **-0.5** |
| **OUR** | **Ouranopolis** | **2.26** | **9** | P | **Pn** | **21 00 12.6** | **-0.5** |
| **IMMV** | **Iera Moni Meta** | **2.66** | **172** | P | **Pn** | **21 00 16.6** | **-1.9** |
| **IMMV** | **Iera Moni Meta** | **2.66** | **172** | P | **Pn** | **21 00 18.2** | **-0.3** |
| **IMMV** | **Iera Moni Meta** | **2.66** | **172** | P | **Pn** | **21 00 18.2** | **-0.3** |
| **SMG** | **Samos** | **2.66** | **97** | P | **Pn** | **21 00 18.3** | **-0.2** |
| **SMG** | **Samos** | **2.66** | **97** | P | **Pn** | **21 00 18.3** | **-0.2** |
| **IDI** | **Anoyia** | **3.02** | **158** | P | **Pn** | **21 00 22.8** | **-0.7** |
| **IDI** | **Anoyia** | **3.02** | **158** | P | **Pn** | **21 00 22.8** | **-0.7** |
| **VAY** | **Valandovo** | **3.30** | **348** | ePn | **Pb** | **21 00 30.9** | **-3.3** |
| **MMB** | **Musomiste** | **3.49** | **3** | eP | **Pn** | **21 00 29.8** | **-0.2** |
| **OHR** | **Ohrid** | **3.67** | **326** | ePn | **Pb** | **21 00 40.3** | **-0.3** |
| **KRUS** | **Krusevo** | **3.70** | **333** | ePn | **Pn** | **21 00 36.8** | **+3.8** |
| **KKB** | **Krupnik** | **3.78** | **355** | eP | **Pn** | **21 00 33.5** | **-0.4** |
| **VTS** | **Vitosha** | **4.50** | **357** | eP | **Pn** | **21 00 45.0** | **+1.1** |
| **BARS** | **Barje** | **4.89** | **345** | ePn | **Pn** | **21 00 51.3** | **+2.1** |
| **BOVS** | **Bovan** | **5.70** | **347** | ePn | **Pn** | **21 01 00.1** | **-0.2** |
| **ZAGS** | **Zajecar** | **5.79** | **351** | ePn | **Pn** | **21 01 02.2** | **+0.7** |
| **KUBS** | **Kucevo** | **6.46** | **348** | ePn | **Pn** | **21 01 11.1** | **+0.4** |
| **STON** | **Ston** | **6.51** | **319** | ePn | **Pn** | **21 01 14.0** | **+2.7** |
| STON | | | | Sn | **Sn** | **21 02 21.6** | **-4.0** |
| **DIVS** | **Divibare** | **6.56** | **337** | ePn | **Pn** | **21 01 14.4** | **+2.2** |
| **TEKS** | **Tekeris** | **7.11** | **336** | ePn | **Pn** | **21 01 22.0** | **+2.4** |
| **BRTR** | **Keskin Array B** | **8.06** | **75** | Pn | **Pn** | **21 01 36.5** | **+3.6** |
| | comp=E,0.1nm,0.3s,baz=249,slow=16,SNR=3.0 | | | | | | |
| **UDBI** | **Udbina** | **8.67** | **320** | ePn | **Pn** | **21 01 41.4** | **+0.3** |
| **ESDC** | **Sonseca Array** | **21.42** | **283** | P | **P** | **21 04 26.5** | **+2.8** |
| | comp=E,0.7nm,0.8s,baz=71,slow=10,SNR=6.7 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **31.53** | **224** | P | **P** | **21 05 58.5** | **+0.4** |
| | comp=E,0.6nm,0.6s,baz=30,slow=8.7,SNR=7.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.33** | **59** | P | **P** | **21 07 37.4** | **-0.3** |
| | comp=E,1.8nm,1.0s,baz=271,slow=9.2,SNR=5.1 | | | | | | |

**MEX 08 21:24:03.0**±0.3**, 18°.62N×103°.17W, h48**$^{km}$±6$^{km}$**, MD3.5, Near coast of Michoacan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MMIG | Aquila | 0.37 | 207 | eP | Pn | 21 24 11.3 | -1.4 |
| MMIG | | | | eS | Sn | 21 24 17.8 | -1.8 |
| R15V | | 0.94 | 305 | eP | Pn | 21 24 18.4 | -1.6 |
| R15V | | | | eS | Sn | 21 24 30.4 | -2.1 |
| EZ5V | | 0.94 | 334 | eP | Pn | 21 24 18.6 | -1.6 |
| EZ5V | | | | eS | Sn | 21 24 30.7 | -2.1 |
| ZIIG | Zihuatanejo | 1.91 | 122 | eP | Pn | 21 24 35.3 | +2.2 |
| ZIIG | | | | eS | Sn | 21 25 00.5 | +4.5 |
| CJM | Chamela | 1.98 | 296 | eP | Pn | 21 24 29.5 | -4.5 |
| CJM | | | | eS | Sn | 21 24 56.6 | -0.9 |

*ISCJB **08** 21:27:28.4±0.5, 1°.95N±0°.04×97°.94E±0°.07, h46$^{km}$, mb3.6/6, Error ellipse: s-maj=9.8km s-min=5.3km az=167.1*

*IDC **08** 21:27:28.4±5.5, 1°.80N×97°.66E, h48$^{km}$±47$^{km}$, mb3.3/6, mb1 3.4/7, mb1mx3.2/46, mbtmp3.5/7, ML3.7/1, Error ellipse: s-maj=42.9km s-min=17.8km az=56.0*

*DJA **08** 21:27:29.9±0.4, 2°N±2°×9°8E±°, h53$^{km}$±9$^{km}$, M3.6/12, MLv3.6/12*

**ISC 08 21:27:29.3**±0.8**, 1°.94N**±0°.04×**97°.83E**±0°.06**, h46**$^{km}$**, n21,** σ1$^{s}$**29**/23**, mb3.6**/6**, Northern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GSI | Gunungsitoli | 0.68 | 202 | P | Pn | 21 27 43.8 | +1.2 |
| GSI | | | | S | Sn | 21 27 54.4 | +2.3 |
| PSI | Prapat | 1.39 | 52 | P | Pn | 21 27 53.6 | +1.2 |
| | 7.7nm,0.3s,baz=220,slow=5.6,SNR=46 | | | | | | |
| PSI | | | | S | Sn | 21 28 12.7 | +3.0 |
| | 8.0nm,0.3s,baz=329,slow=23,SNR=6.9 | | | | | | |
| TPTI | | 1.47 | 334 | P | Pn | 21 27 53.3 | 0.0 |
| TPTI | | | | S | Sn | 21 28 12.6 | +1.3 |
| SNSI | Sinabang, Aceh | 1.57 | 287 | P | Pn | 21 27 55.4 | +0.7 |
| KCSI | Kotacane, Aceh | 1.58 | 358 | P | Pn | 21 27 55.5 | +0.7 |
| KCSI | | | | S | Sn | 21 28 15.5 | +1.4 |
| PBSI | Pulau Batu | 2.03 | 167 | P | Pn | 21 28 03.0 | +2.0 |
| MLSI | Meulaboh, Aceh | 2.72 | 329 | P | Pn | 21 28 10.6 | +0.1 |
| LHMI | Lhok Sumawe | 3.39 | 345 | P | Pn | 21 28 20.6 | +0.9 |
| SISI | Saibi | 3.48 | 159 | P | Pn | 21 28 20.1 | -0.8 |
| BKNI | Bangkinang | 3.59 | 116 | P | Pn | 21 28 22.0 | -0.4 |
| CMAR | Chiang Mai Arr | 16.46 | 4 | P | Pn | 21 31 18.1 | +1.0 |
| | 0.1nm,0.3s,baz=195,slow=11,SNR=5.9 | | | | | | |
| H08S2 | Diego Garcia H | 27.00 | 249 | T | T | 22 00 16.8 | |
| | baz=72,slow=74,SNR=4.1 | | | | | | |
| H08S3 | Diego Garcia H | 27.01 | 249 | T | T | 22 00 09.5 | |
| | baz=72,slow=74,SNR=5.1 | | | | | | |
| H08S1 | Diego Carcia H | 27.02 | 249 | T | T | 22 00 17.9 | |
| | baz=72 | | | | | | |
| WRA | Warramunga Arr | 41.90 | 123 | P | P | 21 35 14.6 | -1.0 |
| | 0.9nm,0.6s,baz=303,slow=9.2,SNR=12 | | | | | | |
| WRA | | | | PcP | PcP | 21 37 10.6 | -0.2 |
| | 0.4nm,1.0s,baz=316,slow=2.6,SNR=5.2 | | | | | | |
| ASAR | Alice Springs | 43.34 | 128 | P | P | 21 35 26.1 | -1.2 |
| | 0.4nm,0.3s,baz=297,slow=7.2,SNR=7.8 | | | | | | |
| SONM | Songino Array | 46.32 | 8 | P | P | 21 35 49.9 | -0.8 |
| | 0.2nm,0.4s,baz=184,slow=10,SNR=4.2 | | | | | | |
| MKAR | Makanchi Array | 46.69 | 345 | P | P | 21 35 53.3 | -0.2 |
| | 0.6nm,0.7s,baz=160,slow=7.6,SNR=7.4 | | | | | | |
| ZALV | Zalesovo Beam | 52.94 | 350 | P | P | 21 36 40.3 | -0.5 |
| | 0.6nm,0.3s,baz=167,slow=7.2,SNR=4.7 | | | | | | |
| BVAR | Borovoye Array | 55.77 | 340 | P | P | 21 37 00.5 | -0.9 |
| | 0.3nm,0.5s,baz=146,slow=8.9,SNR=3.7 | | | | | | |
| PDAR | Pinedale Array | 129.11 | 26 | PKP | PKPdf | 21 46 32.4 | -0.6 |
| | 0.4nm,0.5s,baz=39,slow=3.7,SNR=2.6 | | | | | | |

*AZER **08** 21:52:26.1±0.2, 38°.36N×43°.44E, h3$^{km}$±4$^{km}$, Error ellipse: s-maj=4.5km s-min=1.1km az=62.0*

*ATA **08** 21:52:26.5±0.7, 38°.70N×43°.61E, h1$^{km}$±4$^{km}$, ML4.8, MW4.6*

*ISK **08** 21:52:27.8, 38°.73N×43°.66E, h5$^{km}$, ML3.9*

*NEIC **08** 21:52:28.2±0.0, 38°.69N×43°.68E, h5$^{km}$, mb4.1/4, ML4.0(ISK), After ISK.*

*DDA **08** 21:52:28.1, 38°.70N×43°.58E, h15$^{km}$, Ml4.4*

*IDC **08** 21:52:28.1±0.7, 38°.63N×43°.54E, h0$^{km}$, mb3.9/15, mb1 3.9/23, mb1mx3.8/52, mbtmp3.8/23, ML3.1/7, MS3.3/5, Ms1 3.4/5, ms1mx2.8/43, Error ellipse: s-maj=12.9km s-min=8.5km az=148.0*

*MOS **08** 21:52:28.1±1.6, 38°.52N×43°.61E, h8$^{km}$, mb4.2/13, Error ellipse: s-maj=8.8km s-min=6.1km az=93.8*

*CSEM **08** 21:52:29.3±0.1, 38°.66N×43°.60E, h2$^{km}$, mb4.1/9, Error ellipse: s-maj=3.5km s-min=3.0km az=154.0*

*ISN **08** 21:52:34.3±1.0, 38°.22N×43°.26E, h0$^{km}$±3$^{km}$, ML4.0*

**ISC 08 21:52:29.6**±0.9**, 38°.69N**±0°.01×**43°.59E**±0°.01**, h8**$^{km}$±6$^{km}$**, n277,** σ**2**$^{s}$**19**/369**, mb4.0**/28**, MS3.4**/3**, 45C-51D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.18 | 241 | PG | Pg | 21 52 34.3 | +0.9 |
| VANB | | | | eSG | Sg | 21 52 40.6 | +4.5 |
| VANB | Van | 0.18 | 241 | i Pg | Pg | 21 52 34.3 | +0.9 |
| TVAN | Van | 0.21 | 223 | ⇑iP | Pg | 21 52 33.2 | -0.8 |
| TVAN | | | | i S | Sg | 21 52 38.2 | +1.2 |
| TVAN | Van | 0.21 | 223 | P | Pg | 21 52 33.2 | -0.8 |
| TVAN | | | | S | Sg | 21 52 38.2 | +1.2 |
| VMUR | Van-Muradiye | 0.30 | 357 | ⇓iP | Pg | 21 52 33.9 | -1.8 |
| VMUR | | | | i S | Sg | 21 52 39.8 | +0.1 |
| VMUR | Van-Muradiye | 0.30 | 357 | P | Pg | 21 52 33.9 | -1.8 |
| VMUR | | | | S | Sg | 21 52 39.8 | +0.1 |
| ERCV | ERCIS-VAN | 0.39 | 329 | ePG | Pg | 21 52 36.8 | -0.5 |
| ERCV | | | | eSG | Sg | 21 52 42.9 | +0.5 |
| ERCV | ERCIS-VAN | 0.39 | 329 | ePg | Pg | 21 52 36.8 | -0.5 |
| ERCV | | | | eSg | Sg | 21 52 42.9 | +0.5 |
| CLDR | Caldiran | 0.52 | 29 | ePG | Pg | 21 52 37.9 | -1.8 |
| CLDR | Caldiran | 0.52 | 29 | ⇓iP | Pg | 21 52 38.0 | -1.7 |
| CLDR | | | | i S | Sg | 21 52 47.6 | +1.0 |
| CLDR | Caldiran | 0.52 | 29 | P | Pg | 21 52 38.0 | -1.7 |
| CLDR | | | | S | Sg | 21 52 47.6 | +1.0 |
| GEVA | Gevas | 0.56 | 229 | ⇑eP | Pg | 21 52 38.8 | -1.6 |
| GEVA | | | | eS | Sg | 21 52 48.0 | +0.1 |
| GEVA | | | | IAML | | 21 52 54.4 | |
| | comp=Z,3μm,0.4s | | | | | | |
| GEVA | Gevas | 0.56 | 229 | ⇑iP | Pg | 21 52 38.9 | -1.6 |
| GEVA | | | | i S | Sg | 21 52 47.9 | +0.1 |
| GEVA | Gevas | 0.56 | 229 | P | Pg | 21 52 38.9 | -1.6 |
| GEVA | | | | S | Sg | 21 52 47.9 | +0.1 |
| ADCV | BITLIS_Adilcev | 0.69 | 280 | i P | Pg | 21 52 41.4 | -1.5 |
| ADCV | | | | i S | Sg | 21 52 50.1 | -1.8 |
| ADCV | BITLIS_Adilcev | 0.69 | 280 | P | Pg | 21 52 41.4 | -1.5 |
| ADCV | | | | S | Sg | 21 52 50.1 | -1.8 |
| BASK | Baskale_VAN | 0.71 | 153 | eP | Pg | 21 52 41.6 | -1.7 |
| BASK | Baskale_VAN | 0.71 | 153 | ⇓iP | Pg | 21 52 41.4 | -1.9 |
| BASK | | | | i S | Sb | 21 52 54.2 | 0.0 |
| BASK | Baskale_VAN | 0.71 | 153 | P | Pg | 21 52 41.4 | -1.9 |
| BASK | | | | S | Sb | 21 52 54.2 | 0.0 |
| DYDN | Diyadin | 0.86 | 5 | eP | Pg | 21 52 43.7 | -2.5 |
| DYDN | Diyadin | 0.86 | 5 | ⇓iP | Pg | 21 52 43.6 | -2.5 |
| DYDN | | | | i S | Sg | 21 52 56.6 | -0.7 |
| TUTA | Tutak | 0.94 | 320 | ⇓eP | Pg | 21 52 44.9 | -2.7 |
| TUTA | | | | eS | Sg | 21 53 00.2 | +0.3 |
| TUTA | | | | IAML | | 21 53 07.0 | |
| | comp=Z,1μm,0.4s | | | | | | |
| TUTA | Tutak | 0.94 | 320 | ⇓iP | Pg | 21 52 44.8 | -2.8 |
| TUTA | | | | i S | Sg | 21 52 59.9 | +0.1 |
| AGRB | Hanur-Agry | 1.00 | 332 | ePG | Pg | 21 52 47.5 | -1.4 |
| AGRB | Hanur-Agry | 1.00 | 332 | ePg | Pg | 21 52 47.5 | -1.4 |
| HAKT | HAKKARI | 1.13 | 175 | ⇓iP | Pb | 21 52 48.9 | -2.5 |
| HAKT | | | | i S | Sn | 21 53 09.2 | +1.5 |
| HAKT | HAKKARI | 1.13 | 175 | P | Pb | 21 52 48.9 | -2.5 |
| YOVA | Hakkari_Yˆ…kse | 1.23 | 153 | i P | Pn | 21 52 51.1 | -2.0 |
| YOVA | | | | i S | Sn | 21 53 13.3 | +3.3 |
| YOVA | Hakkari_Yˆ…kse | 1.23 | 153 | P | Pn | 21 52 51.1 | -2.0 |
| EKAR | Karacoban | 1.32 | 296 | eP | Pn | 21 52 53.3 | -1.2 |
| EKAR | | | | eS | Sg | 21 53 13.1 | +1.0 |
| EKAR | | | | IAML | | 21 53 22.5 | |
| | comp=Z,620nm,0.6s | | | | | | |
| EKAR | Karacoban | 1.32 | 296 | i P | Pn | 21 52 53.1 | -1.4 |
| EKAR | | | | i S | Sg | 21 53 16.5 | +4.4 |
| EKAR | Karacoban | 1.32 | 296 | P | Pn | 21 52 53.1 | -1.4 |
| TASB | TASBURUN-IGDIR | 1.39 | 21 | ePN | Pn | 21 52 54.1 | -1.2 |
| TASB | TASBURUN-IGDIR | 1.39 | 21 | ePn | Pn | 21 52 54.1 | -1.2 |
| HYR | Heyderabad | 1.42 | 43 | ⇓P | Pb | 21 52 56.9 | +0.6 |
| HYR | | | | ⇑S | Sg | 21 53 20.0 | +4.7 |
| HYR | Heyderabad | 1.42 | 43 | P | Pb | 21 52 56.9 | +0.6 |
| HYR | | | | S | Sg | 21 53 20.0 | +4.7 |
| CUKT | Cukurca | 1.44 | 180 | ePN | Pb | 21 52 56.5 | -0.1 |
| CUKT | Cukurca | 1.44 | 180 | i P | Pn | 21 52 54.9 | -1.1 |
| CUKT | | | | i S | Sg | 21 53 17.4 | +1.6 |
| CUKT | Cukurca | 1.44 | 180 | P | Pn | 21 52 54.9 | -1.1 |
| CUKT | Cukurca | 1.44 | 180 | ePn | Pb | 21 52 56.5 | -0.1 |
| EATA | Eleskirt | 1.45 | 324 | ⇓eP | Pn | 21 52 54.5 | -1.9 |
| EATA | | | | IAML | | 21 52 57.7 | |
| | comp=Z,217nm,0.6s | | | | | | |
| EATA | | | | eS | Sg | 21 53 17.4 | +1.1 |
| EATA | Eleskirt | 1.45 | 324 | ⇓iP | Pn | 21 52 54.4 | -2.0 |
| EATA | | | | i S | Sg | 21 53 16.3 | -0.1 |
| EATA | Eleskirt | 1.45 | 324 | P | Pn | 21 52 54.4 | -2.0 |
| EATA | | | | S | Sg | 21 53 16.3 | -0.1 |
| SRTM | Siirt_Merkez | 1.49 | 243 | ⇑iP | Pn | 21 52 56.6 | 0.0 |
| SRTM | | | | i S | Sg | 21 53 19.4 | +2.0 |
| SRTM | Siirt_Merkez | 1.49 | 243 | P | Pn | 21 52 56.6 | 0.0 |
| SIRT | Sirnak | 1.49 | 218 | ePN | Pb | 21 52 57.4 | -0.2 |
| SIRT | Sirnak | 1.49 | 218 | ePn | Pb | 21 52 57.4 | -0.2 |
| SIRN | S˜–rnak | 1.51 | 218 | ⇑iP | Pn | 21 52 57.0 | +0.1 |
| SIRN | | | | i S | Sg | 21 53 20.8 | +2.7 |
| SIRN | S˜–rnak | 1.51 | 218 | P | Pn | 21 52 57.0 | +0.1 |
| NAX | Nakhchivan | 1.56 | 71 | ⇓P | Pb | 21 52 59.2 | +0.5 |
| | SNR=125 | | | | | | |
| NAX | | | | ⇓S | Sg | 21 53 23.6 | +3.9 |
| NAX | Nakhchivan | 1.56 | 71 | P | Pb | 21 52 59.2 | +0.5 |
| | SNR=125 | | | | | | |
| NAX | | | | S | Sg | 21 53 23.6 | +3.9 |
| SBZ | Shahbuz | 1.68 | 64 | ⇓P | Pn | 21 53 00.2 | +0.8 |
| SBZ | | | | ⇓S | Sg | 21 53 26.2 | +2.5 |
| SBZ | Shahbuz | 1.68 | 64 | P | Pn | 21 53 00.2 | +0.8 |
| SBZ | | | | S | Sg | 21 53 26.2 | +2.5 |
| GNI | Garni | 1.71 | 31 | Pn | Pn | 21 53 00.2 | +0.3 |
| | comp=Z,59nm,0.3s,baz=265,slow=3.0,SNR=266 | | | | | | |
| GNI | | | | Sn | Sg | 21 53 26.2 | +1.7 |
| | comp=Z,26nm,0.3s,baz=212,slow=19,SNR=5.7 | | | | | | |
| GNI | | | | LR | LR | 21 53 43.2 | |
| | comp=Z,231nm,19.0s,baz=221,slow=42 | | | | | | |
| GNI | Garni | 1.71 | 31 | eP | Pn | 21 53 00.1 | +0.3 |
| GNI | | | | S | Sn | 21 53 21.7 | -0.2 |
| GNI | Garni | 1.71 | 31 | eP | Pn | 21 53 00.1 | +0.3 |
| GNI | | | | S | Sn | 21 53 21.7 | -0.2 |
| GNI | Garni | 1.71 | 31 | ePn | Pn | 21 53 00.1 | +0.3 |
| GNI | | | | S | Sn | 21 53 21.7 | -0.2 |
| GNI | | | | Sn | Sg | 21 53 26.2 | +1.7 |
| VRTB | Varto-Mus | 1.73 | 287 | ePN | Pn | 21 53 00.7 | +0.6 |
| VRTB | Varto-Mus | 1.73 | 287 | i P | Pn | 21 53 00.5 | +0.4 |
| VRTB | | | | i S | Sg | 21 53 26.8 | +1.5 |
| VRTB | Varto-Mus | 1.73 | 287 | ePn | Pn | 21 53 00.7 | +0.6 |
| DIGO | Kars | 1.73 | 354 | eP | Pn | 21 52 59.8 | -0.4 |
| DIGO | Kars | 1.73 | 354 | ⇓iP | Pn | 21 53 00.2 | 0.0 |
| DIGO | | | | i S | Sg | 21 53 32.7 | +7.3 |
| DIGO | Kars | 1.73 | 354 | P | Pn | 21 53 00.2 | 0.0 |
| HOMI | Horasan | 1.89 | 317 | eP | Pn | 21 53 03.2 | +1.0 |
| HOMI | Horasan | 1.89 | 317 | ⇓iP | Pn | 21 53 02.3 | 0.0 |
| HOMI | | | | i S | Sg | 21 53 32.4 | +2.2 |
| ORD | Ordubad | 1.89 | 82 | P | Pn | 21 53 01.9 | -0.3 |
| ORD | | | | S | Sb | 21 53 29.3 | +1.2 |
| BNGL | BINGOL | 1.93 | 279 | eP | Pn | 21 53 02.9 | +0.1 |
| BNGL | BINGOL | 1.93 | 279 | ⇑iP | Pn | 21 53 02.7 | -0.1 |
| BNGL | | | | i S | Sb | 21 53 30.2 | +0.9 |
| KARS | Kars | 1.98 | 349 | ePN | Pn | 21 53 03.5 | 0.0 |
| KARS | Kars | 1.98 | 349 | ePn | Pn | 21 53 03.5 | 0.0 |
| BTMN | Batman | 1.99 | 247 | ⇑iP | Pn | 21 53 03.6 | 0.0 |
| BTMN | | | | i S | Sg | 21 53 33.9 | +0.2 |
| BTMN | Batman | 1.99 | 247 | P | Pn | 21 53 03.6 | 0.0 |
| EAK | Akyaka | 2.00 | 0 | eP | Pn | 21 53 04.5 | +0.8 |
| EAK | | | | IAML | | 21 53 14.4 | |
| | comp=Z,1μm,0.9s | | | | | | |
| EAK | | | | eS | Sg | 21 53 35.0 | +1.2 |
| SENK | Senkaya-Erzuru | 2.10 | 333 | ePN | Pn | 21 53 05.6 | +0.3 |
| SENK | Senkaya-Erzuru | 2.10 | 333 | ePn | Pn | 21 53 05.6 | +0.3 |
| ERZM | Erzurum | 2.12 | 306 | eP | Pn | 21 53 06.7 | +1.3 |
| ERZM | Erzurum | 2.12 | 306 | ⇓iP | Pn | 21 53 06.0 | +0.6 |
| ERZM | | | | i S | Sg | 21 53 38.4 | +0.8 |
| ERZM | Erzurum | 2.12 | 306 | P | Pn | 21 53 06.0 | +0.6 |
| ECAT | Cat-ERZURUM | 2.23 | 295 | eP | Pn | 21 53 07.4 | +0.4 |
| ECAT | Cat-ERZURUM | 2.23 | 295 | i P | Pn | 21 53 07.4 | +0.4 |
| ECAT | | | | i S | Sg | 21 53 40.8 | -0.5 |
| ECAT | Cat-ERZURUM | 2.23 | 295 | P | Pn | 21 53 07.4 | +0.4 |
| BNGB | Bingˆ¶l | 2.30 | 279 | ePN | Pn | 21 53 08.7 | +0.9 |
| BINT | Bingol | 2.43 | 275 | ePn | Pn | 21 53 08.7 | -1.0 |
| YEDI | Yedisu-Bingol | 2.49 | 288 | ePN | Pn | 21 53 12.2 | +1.7 |
| YEDI | Yedisu-Bingol | 2.49 | 288 | ePn | Pn | 21 53 12.2 | +1.7 |
| HANI | Diyarbakir_Han | 2.52 | 265 | i P | Pn | 21 53 12.0 | +1.2 |
| HANI | | | | i S | Sb | 21 53 47.9 | +1.6 |
| HANI | Diyarbakir_Han | 2.52 | 265 | P | Pn | 21 53 12.0 | +1.2 |
| GDB | GEDABAY | 2.63 | 39 | ⇓P | Pn | 21 53 14.9 | +2.5 |
| | SNR=12 | | | | | | |
| GDB | | | | ⇓S | Sg | 21 53 52.8 | -1.2 |
| GDB | GEDABAY | 2.63 | 39 | P | Pn | 21 53 14.9 | +2.5 |
| | SNR=12 | | | | | | |
| AKH | Akhalkalaki | 2.72 | 358 | ePN | Pn | 21 53 13.9 | +0.2 |
| AKH | Akhalkalaki | 2.72 | 358 | P | Pb | 21 53 19.3 | +0.7 |
| AKH | Akhalkalaki | 2.72 | 358 | P | Pb | 21 53 19.3 | +0.7 |
| AKH | Akhalkalaki | 2.72 | 358 | ePn | Pn | 21 53 13.9 | +0.2 |
| AKH | Akhalkalaki | 2.72 | 358 | P | Pb | 21 53 19.3 | +0.7 |
| QZX | Qazax, Azerbai | 2.74 | 29 | ⇑P | Pb | 21 53 16.6 | -2.1 |
| | SNR=58 | | | | | | |
| QZX | | | | ⇑S | Sg | 21 53 56.4 | -1.0 |
| QZX | Qazax, Azerbai | 2.74 | 29 | P | Pb | 21 53 16.6 | -2.1 |
| | SNR=58 | | | | | | |
| KOPT | Kop Dagi | 2.75 | 300 | eP | Pn | 21 53 15.5 | +1.4 |
| DIY | Diyarbakir | 2.77 | 254 | ePn | Pb | 21 53 16.9 | -2.3 |
| ARTV | Artvin | 2.81 | 333 | eP | Pn | 21 53 14.7 | -0.2 |
| DYBB | Diyarbakir | 2.81 | 256 | ePN | Pn | 21 53 16.9 | +2.1 |
| GANJ | Ganja | 2.88 | 46 | ⇑P | Pn | 21 53 17.4 | +1.8 |
| | SNR=30 | | | | | | |
| GANJ | | | | ⇑S | Sb | 21 53 57.2 | +0.8 |
| GANJ | Ganja | 2.88 | 46 | P | Pn | 21 53 17.4 | +1.8 |
| | SNR=30 | | | | | | |
| EPOS | Posof | 2.89 | 347 | eP | Pn | 21 53 16.5 | +0.5 |
| ERZN | Erzincan | 3.14 | 288 | ePN | Pn | 21 53 21.1 | +1.7 |
| TBLG | Delisi | 3.17 | 16 | ePN | Pn | 21 53 20.8 | +1.2 |
| TBLG | Delisi | 3.17 | 16 | P | Pb | 21 53 25.5 | -0.5 |
| TBLG | Delisi | 3.17 | 16 | P | Pb | 21 53 25.5 | -0.5 |
| TBLG | Delisi | 3.17 | 16 | ePn | Pn | 21 53 20.8 | +1.2 |
| TBLG | Delisi | 3.17 | 16 | P | Pb | 21 53 25.5 | -0.5 |
| BRDA | Brd | 3.19 | 59 | ⇑P | Pn | 21 53 21.1 | +1.1 |
| | SNR=6.7 | | | | | | |
| BRDA | | | | ⇑S | Sb | 21 54 03.7 | -1.7 |
| BRDA | Brd | 3.19 | 59 | P | Pn | 21 53 21.1 | +1.1 |
| | SNR=6.7 | | | | | | |
| BRDA | | | | S | Sb | 21 54 03.7 | -1.7 |
| TNCL | Tunceli-Merkez | 3.19 | 279 | eP | Pn | 21 53 20.5 | +0.4 |
| EUZM | Uzumlu | 3.19 | 290 | eP | Pn | 21 53 21.5 | +1.4 |
| PTK | Pertek | 3.29 | 275 | ePN | Pn | 21 53 24.0 | +2.5 |
| PTK | Pertek | 3.29 | 275 | ePn | Pn | 21 53 24.0 | +2.5 |
| DDFL | Dedoflistskaro | 3.37 | 34 | P | Pg | 21 53 32.8 | -1.3 |
| SVRC | Sivrice-ELAZID | 3.38 | 266 | ePN | Pn | 21 53 25.1 | +2.4 |
| SVRC | Sivrice-ELAZID | 3.38 | 266 | ePn | Pn | 21 53 25.1 | +2.4 |
| MNGR | Mingechevir, A | 3.40 | 51 | ⇑P | Pn | 21 53 24.4 | +1.5 |
| | SNR=8.2 | | | | | | |
| MNGR | | | | ⇓S | Sb | 21 54 09.6 | -2.0 |
| MNGR | Mingechevir, A | 3.40 | 51 | P | Pn | 21 53 24.4 | +1.5 |
| | SNR=8.2 | | | | | | |
| MNGR | | | | S | Sb | 21 54 09.6 | -2.0 |
| EZC | Erzincan | 3.46 | 289 | ePn | Pn | 21 53 21.1 | -2.7 |
| ZRD | Zardab | 3.54 | 62 | ⇓P | Pn | 21 53 25.7 | +1.0 |
| | SNR=4.1 | | | | | | |
| ZRD | | | | ⇑S | Sb | 21 54 12.1 | -3.5 |
| ZRD | Zardab | 3.54 | 62 | P | Pn | 21 53 25.7 | +1.0 |
| | SNR=4.1 | | | | | | |
| ZRD | | | | S | Sb | 21 54 12.1 | -3.5 |
| KELT | Kelkit | 3.66 | 295 | eP | Pn | 21 53 28.4 | +1.7 |
| LRK | Lerik | 3.71 | 89 | ⇑P | Pn | 21 53 26.2 | -1.1 |
| | SNR=9.1 | | | | | | |
| LRK | | | | ⇓S | Sn | 21 54 13.1 | +1.7 |
| LRK | Lerik | 3.71 | 89 | P | Pn | 21 53 26.2 | -1.1 |
| | SNR=9.1 | | | | | | |
| LRK | | | | S | Sn | 21 54 13.1 | +1.7 |
| KTUT | Trabzon | 3.74 | 309 | ePN | Pn | 21 53 29.0 | +1.5 |
| KTUT | Trabzon | 3.74 | 309 | ePn | Pn | 21 53 29.0 | +1.5 |
| SEKA | Sheki | 3.75 | 47 | ⇑P | Pn | 21 53 29.9 | +2.3 |
| | SNR=9.8 | | | | | | |
| SEKA | | | | ⇓S | Sb | 21 54 19.7 | -1.7 |
| SEKA | Sheki | 3.75 | 47 | P | Pn | 21 53 29.9 | +2.3 |
| | SNR=9.8 | | | | | | |
| ZKTA | Zakatala | 3.75 | 37 | ⇑P | Pn | 21 53 29.7 | +2.0 |
| | SNR=15 | | | | | | |
| ZKTA | | | | ⇓S | Sb | 21 54 19.2 | -2.4 |
| GLBA | Clilabad | 3.78 | 80 | ⇑P | Pn | 21 53 27.9 | -0.2 |
| | SNR=6.6 | | | | | | |
| GLBA | | | | ⇑S | Sn | 21 54 16.0 | +3.3 |
| GLBA | Clilabad | 3.78 | 80 | P | Pn | 21 53 27.9 | -0.2 |
| | SNR=6.6 | | | | | | |
| GLBA | | | | S | Sn | 21 54 16.0 | +3.3 |
| GUDG | Gudauri | 3.83 | 10 | P | Pb | 21 53 36.3 | -1.2 |
| ONI | Oni | 3.90 | 358 | P | Pb | 21 53 40.0 | +1.4 |
| ONI | Oni | 3.90 | 358 | P | Pb | 21 53 40.0 | +1.4 |
| SAAT | Saatly | 3.93 | 71 | ⇑P | Pn | 21 53 30.1 | +0.1 |
| | SNR=3.4 | | | | | | |
| SAAT | | | | ⇓S | Sn | 21 54 20.1 | +3.8 |
| SAAT | Saatly | 3.93 | 71 | P | Pn | 21 53 30.1 | +0.1 |
| | SNR=3.4 | | | | | | |
| SAAT | | | | S | Sn | 21 54 20.1 | +3.8 |
| KDMR | Kurdemir | 3.93 | 63 | ⇓P | Pn | 21 53 30.9 | +0.8 |
| | SNR=3.8 | | | | | | |
| KDMR | | | | ⇑S | Sn | 21 54 21.5 | +5.1 |
| KDMR | Kurdemir | 3.93 | 63 | P | Pn | 21 53 30.9 | +0.8 |
| | SNR=3.8 | | | | | | |
| KDMR | | | | S | Sn | 21 54 21.5 | +5.1 |
| URFA | Urfa | 3.97 | 253 | ePN | Pn | 21 53 33.3 | +2.6 |
| URFA | Urfa | 3.97 | 253 | ePn | Pn | 21 53 33.3 | +2.6 |
| QBL | Gabala | 3.97 | 54 | ⇓P | Pn | 21 53 32.1 | +1.3 |
| | SNR=16 | | | | | | |
| QBL | | | | ⇑S | Sb | 21 54 23.4 | -4.6 |
| QBL | Gabala | 3.97 | 54 | P | Pn | 21 53 32.1 | +1.3 |
| | SNR=16 | | | | | | |
| QBL | | | | S | Sb | 21 54 23.4 | -4.6 |
| LKRN | Lenkeran, Azer | 4.06 | 88 | ⇑P | Pn | 21 53 31.0 | -0.8 |
| | SNR=2.8 | | | | | | |
| LKRN | | | | ⇓S | Sn | 21 54 21.6 | +2.1 |
| LKRN | Lenkeran, Azer | 4.06 | 88 | P | Pn | 21 53 31.0 | -0.8 |
| | SNR=2.8 | | | | | | |
| LKRN | | | | S | Sn | 21 54 21.6 | +2.1 |
| ASTR | Astara | 4.07 | 90 | ⇓P | Pn | 21 53 31.1 | -1.0 |
| | SNR=4.8 | | | | | | |
| ASTR | | | | ⇓S | Sn | 21 54 21.8 | +1.9 |
| ASTR | Astara | 4.07 | 90 | P | Pn | 21 53 31.1 | -1.0 |
| | SNR=4.8 | | | | | | |
| ASTR | | | | S | Sn | 21 54 21.8 | +1.9 |
| ZEI | Tsey | 4.11 | 3 | eP | Pn | 21 53 33.7 | +1.0 |
| ZEI | | | | pmax | pmax | | |
| | comp=Z,17nm,0.7s | | | | | | |
| IML | Ismayilli | 4.12 | 58 | ⇑P | Pn | 21 53 33.8 | +1.1 |
| IML | | | | ⇓S | Sn | 21 54 26.6 | +5.6 |
| IML | Ismayilli | 4.12 | 58 | P | Pn | 21 53 33.8 | +1.1 |
| IML | | | | S | Sn | 21 54 26.6 | +5.6 |
| CHVG | Ch'k'valeri | 4.19 | 345 | ePN | Pn | 21 53 35.7 | +2.0 |
| CHVG | Ch'k'valeri | 4.19 | 345 | P | Pg | 21 53 50.3 | +0.5 |
| CHVG | Ch'k'valeri | 4.19 | 345 | ePn | Pn | 21 53 35.7 | +2.0 |
| XNQ | Khinaliq | 4.29 | 53 | ⇓P | Pn | 21 53 36.4 | +1.2 |
| XNQ | | | | ⇑S | Sn | 21 54 31.3 | +5.8 |
| XNQ | Khinaliq | 4.29 | 53 | P | Pn | 21 53 36.4 | +1.2 |
| XNQ | | | | S | Sn | 21 54 31.3 | +5.8 |
| ESPY | Espiye-Giresun | 4.36 | 302 | ePN | Pn | 21 53 37.8 | +1.7 |
| ESPY | Espiye-Giresun | 4.36 | 302 | ePn | Pn | 21 53 37.8 | +1.7 |
| ALIB | Äli-Bayra | 4.38 | 71 | ⇓P | Pn | 21 53 36.7 | +0.3 |
| ALIB | | | | ⇓S | Sn | 21 54 31.8 | +4.2 |
| ALIB | Äli-Bayra | 4.38 | 71 | P | Pn | 21 53 36.7 | +0.3 |
| ALIB | | | | S | Sn | 21 54 31.8 | +4.2 |
| PQL | Pirkuli | 4.39 | 60 | ⇑P | Pn | 21 53 37.4 | +0.8 |
| | SNR=12 | | | | | | |
| PQL | | | | ⇓S | Sn | 21 54 33.1 | +5.2 |
| PQL | Pirkuli | 4.39 | 60 | P | Pn | 21 53 37.4 | +0.8 |
| | SNR=12 | | | | | | |
| PQL | | | | S | Sn | 21 54 33.1 | +5.2 |
| GBS | Qobustan | 4.52 | 64 | ⇓P | Pn | 21 53 39.0 | +0.6 |
| GBS | | | | ⇑S | Sn | 21 54 36.0 | +4.9 |
| GBS | Qobustan | 4.52 | 64 | P | Pn | 21 53 39.0 | +0.6 |
| GBS | | | | S | Sn | 21 54 36.0 | +4.9 |
| QSAR | Qusar | 4.56 | 50 | ⇑P | Pn | 21 53 40.2 | +1.4 |
| QSAR | | | | ⇓S | Sn | 21 54 38.1 | +6.1 |
| QSAR | Qusar | 4.56 | 50 | P | Pn | 21 53 40.2 | +1.4 |
| QSAR | | | | S | Sn | 21 54 38.1 | +6.1 |
| QUBA | Quba, Azerbaij | 4.61 | 53 | ⇑P | Pn | 21 53 40.8 | +1.3 |
| QUBA | | | | ⇓S | Sn | 21 54 39.2 | +6.0 |
| QUBA | Quba, Azerbaij | 4.61 | 53 | P | Pn | 21 53 40.8 | +1.3 |
| QUBA | | | | S | Sn | 21 54 39.2 | +6.0 |
| ATGJ | Altiaghaj | 4.66 | 61 | ⇓P | Pn | 21 53 41.0 | +0.8 |
| ATGJ | | | | ⇑S | Sn | 21 54 39.6 | +5.2 |
| ATGJ | Altiaghaj | 4.66 | 61 | P | Pn | 21 53 41.0 | +0.8 |
| ATGJ | | | | S | Sn | 21 54 39.6 | +5.2 |
| SIZA | Siyzn | 4.73 | 58 | ⇓P | Pn | 21 53 42.2 | +1.0 |
| SIZA | | | | ⇑S | Sn | 21 54 41.7 | +5.5 |
| SIZA | Siyzn | 4.73 | 58 | P | Pn | 21 53 42.2 | +1.0 |
| SIZA | | | | S | Sn | 21 54 41.7 | +5.5 |
| GROC | Groznyy | 4.81 | 20 | eP | Pb | 21 53 53.1 | -0.9 |
| GROC | | | | pmax | pmax | | |
| | comp=Z,63nm,1.2s | | | | | | |
| GOBA | Gobu | 5.04 | 68 | ⇓P | Pn | 21 53 45.9 | +0.5 |
| GOBA | | | | ⇓S | Sn | 21 54 48.4 | +4.5 |
| GOBA | Gobu | 5.04 | 68 | P | Pn | 21 53 45.9 | +0.5 |
| GOBA | | | | S | Sn | 21 54 48.4 | +4.5 |
| KBZ | Khabaz | 5.07 | 354 | Pn | Pn | 21 53 49.2 | +3.5 |
| | comp=Z,0.1nm,0.3s,baz=175,slow=9.1,SNR=12 | | | | | | |
| MAK | Makhachkala | 5.20 | 34 | eP | Pn | 21 53 47.1 | -0.4 |
| MAK | | | | eS | Sn | 21 54 45.2 | -2.4 |
| MAK | | | | pmax | pmax | | |
| | comp=Z,362nm,1.1s | | | | | | |
| MAK | | | | MLR | MLR | | |
| | comp=Z,888nm,11.0s | | | | | | |
| MAK | Makhachkala | 5.20 | 34 | eP | Pn | 21 53 47.1 | -0.4 |
| | comp=Z,362nm,1.1s | | | | | | |
| MAK | | | | eS | Sn | 21 54 45.2 | -2.4 |
| | comp=Z,888nm,11.0s | | | | | | |
| NDR | Nardaran | 5.29 | 67 | ⇑P | Pn | 21 53 49.3 | +0.6 |
| NDR | | | | ⇑S | Sn | 21 54 54.4 | +4.7 |
| NDR | Nardaran | 5.29 | 67 | P | Pn | 21 53 49.3 | +0.6 |
| NDR | | | | S | Sn | 21 54 54.4 | +4.7 |
| KVAR | Kislovodsk Arr | 5.31 | 353 | Pn | Pn | 21 53 52.4 | +3.3 |
| | baz=270,slow=20,SNR=6.2 | | | | | | |
| KVAR | | | | LR | LR | 21 56 25.8 | |
| | comp=Z,217nm,19.4s,baz=319,slow=44 | | | | | | |
| KIV | Kislovodsk | 5.31 | 353 | eP | Pn | 21 53 49.9 | +0.7 |
| KIV | | | | pmax | pmax | | |
| | comp=Z,11nm,1.1s | | | | | | |
| KIV | | | | MLR | MLR | | |
| | comp=Z,46nm,7.0s | | | | | | |
| KIV | Kislovodsk | 5.31 | 353 | eP | Pn | 21 53 49.9 | +0.7 |
| | comp=Z,46nm,7.0s | | | | | | |
| KIV | Kislovodsk | 5.31 | 353 | ePn | Pn | 21 53 51.5 | +2.4 |
| | comp=Z,32nm,0.9s | | | | | | |
| KIV | | | | eSn | Sn | 21 54 52.5 | +2.0 |
| KIV | Kislovodsk | 5.31 | 353 | ePn | Pn | 21 53 51.5 | +2.4 |
| | comp=Z,32nm,0.9s | | | | | | |
| KIV | | | | eSn | Sn | 21 54 52.5 | +2.0 |
| GALA | Gala | 5.36 | 69 | ⇓P | Pn | 21 53 50.1 | +0.4 |
| GALA | | | | ⇓S | Sn | 21 54 56.0 | +4.5 |
| GALA | Gala | 5.36 | 69 | P | Pn | 21 53 50.1 | +0.4 |
| GALA | | | | S | Sn | 21 54 56.0 | +4.5 |
| RTB | Rutbah | 6.24 | 206 | ePn | Pn | 21 54 02.0 | 0.0 |
| | SNR=3.0 | | | | | | |
| BRTR | Keskin Array B | 7.80 | 281 | Pn | Pn | 21 54 25.4 | +2.0 |
| | comp=Z,0.1nm,0.3s,baz=112,slow=16,SNR=3.1 | | | | | | |
| NSR | Nassriya | 7.94 | 164 | ePn | Pn | 21 54 28.0 | +2.8 |
| | SNR=3.0 | | | | | | |
| ASF | Jabal al Asfar | 8.49 | 222 | Pn | Pn | 21 54 33.4 | +0.6 |
| | comp=Z,0.1nm,0.3s,baz=74,slow=15,SNR=2.3 | | | | | | |
| ASF | | | | Lg | Lg | 21 56 55.7 | |
| | comp=Z,0.1nm,0.3s,baz=0.0,slow=20,SNR=3.4 | | | | | | |
| MMAI | Mount Meron Ar | 8.73 | 232 | Pn | Pn | 21 54 36.4 | +0.3 |
| | comp=Z,0.9nm,0.3s,baz=75,slow=16,SNR=5.9 | | | | | | |
| EIL | Elat | 11.49 | 221 | LR | LR | 21 59 53.1 | |
| | comp=Z,78nm,18.4s,baz=358,slow=39 | | | | | | |
| VRI | Vrincioaia | 14.39 | 305 | ⇑iP | P | 21 56 08.0 | +7.6 |
| VRI | Vrincioaia | 14.39 | 305 | ⇑P | P | 21 56 08.0 | +7.6 |
| SORM | Soroca | 14.53 | 315 | ⇓iP | P | 21 55 59.1 | -2.9 |
| SORM | Soroca | 14.53 | 315 | ⇓P | P | 21 55 59.1 | -2.9 |
| TESR | Tescani | 14.71 | 308 | ⇑iP | P | 21 56 06.4 | +2.4 |
| MLR | Muntele Rosu | 14.75 | 303 | Pn | Pn | 21 55 57.9 | -0.5 |
| | comp=Z,0.1nm,0.3s,baz=112,slow=19,SNR=1.8 | | | | | | |
| HUMR | Humele | 15.09 | 299 | ⇑iP | P | 21 56 10.3 | +2.1 |
| RAYN | Ar Rayn | 15.20 | 173 | ePn | Pn | 21 56 00.7 | -3.9 |
| | comp=Z,8.9nm,0.8s | | | | | | |
| RAYN | Ar Rayn | 15.20 | 173 | ePn | Pn | 21 56 00.7 | -3.9 |
| | comp=Z,8.9nm,0.8s | | | | | | |
| DOPR | Dopca | 15.29 | 304 | ⇑iP | P | 21 56 12.7 | +2.3 |
| VOIR | | 15.32 | 302 | ⇓iP | P | 21 56 13.2 | +2.3 |
| VOIR | | 15.32 | 302 | ⇓P | P | 21 56 13.2 | +2.3 |
| VOIR | | 15.32 | 302 | P | P | 21 56 13.2 | +2.3 |
| AKTO | Aktyubinsk | 15.57 | 36 | Pn | Pn | 21 56 08.9 | -0.4 |
| | comp=Z,0.1nm,0.3s,baz=231,slow=14,SNR=4.1 | | | | | | |
| ARR | Arges | 15.57 | 301 | ⇑iP | P | 21 56 15.8 | +2.1 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AKASG** | **Malin Array Be** | **15.73** | **324** | Pn | **Pn** | **21 56 12.2** | **+0.9** |
| | baz=130,slow=12,SNR=8.7 | | | | | | |
| **VTS** | **Vitosha** | **15.95** | **291** | ⇓*i*P | **P** | **21 56 17.0** | **-1.0** |
| **VTS** | **Vitosha** | **15.95** | **291** | ⇓P | **P** | **21 56 17.0** | **-1.0** |
| **VTS** | **Vitosha** | **15.95** | **291** | P | **P** | **21 56 17.0** | **-1.0** |
| **BURAR** | **Bucovina Array** | **16.08** | **310** | ⇑*i*P | **P** | **21 56 20.5** | **+1.2** |
| **BURAR** | **Bucovina Array** | **16.08** | **310** | ⇑P | **P** | **21 56 20.5** | **+1.2** |
| **OBN** | **Obninsk** | **17.11** | **346** | *i* P | **Pn** | **21 56 25.9** | **-2.8** |
| OBN | | | | pmax | pmax | | |
| | comp=Z,14nm,1.1s | | | | | | |
| **MDVR** | **Moldovita** | **17.41** | **297** | ⇑*i*P | **P** | **21 56 34.6** | **+0.6** |
| **SIRR** | **Siria** | **17.83** | **302** | ⇑*i*P | **P** | **21 56 40.6** | **+2.0** |
| **PDG** | **Podgorica** | **18.85** | **289** | ⇓*i*P | Pn | 21 56 59.3 | +9.0 |
| **CRVS** | **Cervenica-Dubn** | **18.90** | **310** | *e*P | **Pn** | **21 56 53.6** | **+2.7** |
| **CRVS** | **Cervenica-Dubn** | **18.90** | **310** | *e*P | **Pn** | **21 56 53.6** | **+2.7** |
| **CRVS** | **Cervenica-Dubn** | **18.90** | **310** | *e*P | **Pn** | **21 56 53.5** | **+2.7** |
| **KECS** | **Kecovo** | **19.33** | **308** | *e*P | **Pn** | **21 56 58.5** | **+2.4** |
| KECS | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.2s | | | | | | |
| **KECS** | **Kecovo** | **19.33** | **308** | *e*P | **Pn** | **21 56 58.5** | **+2.4** |
| **ARU** | **Arti** | **20.34** | **24** | P | **P** | **21 57 04.5** | **-1.5** |
| **VYHS** | **Vyhne** | **20.36** | **307** | *e*P | Pn | 21 57 07.9 | -0.4 |
| VYHS | | | | *e* | | 21 57 12.1 | |
| VYHS | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.6s | | | | | | |
| **VYHS** | **Vyhne** | **20.36** | **307** | *e*P | Pn | 21 57 07.9 | -0.4 |
| | comp=Z,10.0nm,1.6s | | | | | | |
| **VYHS** | **Vyhne** | **20.36** | **307** | *e*PN | Pn | 21 57 07.9 | -0.4 |
| **VYHS** | **Vyhne** | **20.36** | **307** | *e*P | Pn | 21 57 12.1 | +3.8 |
| **SVE** | **Sverdlovsk** | **21.36** | **26** | *e*P | **P** | **21 57 20.3** | **+3.3** |
| SVE | | | | pmax | pmax | | |
| | comp=Z,18nm,1.3s | | | | | | |
| **VRAC** | **Vranov** | **22.02** | **308** | P | **P** | **21 57 24.7** | **+0.5** |
| | comp=Z,4.8nm,0.9s,baz=114,slow=12,SNR=5.6 | | | | | | |
| **CONA** | **Conrad Observa** | **22.09** | **304** | *i* P | **P** | **21 57 27.4** | **+2.3** |
| | comp=Z,7.1nm,1.3s | | | | | | |
| **CONA** | **Conrad Observa** | **22.09** | **304** | P | **P** | **21 57 27.4** | **+2.3** |
| | comp=Z,7.1nm,1.3s | | | | | | |
| **ARSA** | **Arzberg** | **22.16** | **302** | *i* pP | **P** | **21 57 26.8** | **+1.1** |
| | comp=Z,7.8nm,1.5s | | | | | | |
| **ARSA** | **Arzberg** | **22.16** | **302** | P | **P** | **21 57 26.8** | **+1.1** |
| | comp=Z,7.8nm,1.5s | | | | | | |
| **BRVK** | **Borovoye** | **23.31** | **43** | *e*P | **P** | **21 57 38.5** | **+0.8** |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.8s | | | | | | |
| **BRVK** | **Borovoye** | **23.31** | **43** | *e*P | **P** | **21 57 38.5** | **+0.8** |
| | comp=Z,3.1nm,0.8s | | | | | | |
| **BRVK** | **Borovoye** | **23.31** | **43** | *e*P | **P** | **21 57 38.5** | **+0.8** |
| | comp=Z,3.1nm,0.8s | | | | | | |
| **BVAR** | **Borovoye Array** | **23.35** | **43** | P | **P** | **21 57 39.0** | **+0.8** |
| | comp=Z,0.7nm,0.6s,baz=206,slow=16,SNR=5.3 | | | | | | |
| **KBA** | **Koelnbreinsper** | **23.58** | **301** | *i* pP | **P** | **21 57 43.2** | **+2.5** |
| | comp=Z,9.7nm,1.4s | | | | | | |
| **KBA** | **Koelnbreinsper** | **23.58** | **301** | P | **P** | **21 57 43.2** | **+2.5** |
| | comp=Z,9.7nm,1.4s | | | | | | |
| **AAK** | **Ala-Archa** | **23.70** | **71** | P | **P** | **21 57 43.8** | **+1.9** |
| | comp=Z,0.6nm,0.5s,baz=222,slow=14,SNR=4.0 | | | | | | |
| **GERES** | **GERESS Array B** | **23.72** | **305** | P | **P** | **21 57 41.9** | **-0.1** |
| | comp=Z,0.8nm,0.6s,baz=120,slow=12,SNR=5.8 | | | | | | |
| **KHC** | **Kasperske Hory** | **23.87** | **306** | *e*P | **P** | **21 57 42.0** | **-1.3** |
| **KHC** | **Kasperske Hory** | **23.87** | **306** | *e*P | **P** | **21 57 42.0** | **-1.3** |
| **WATA** | **Walderalm** | **24.82** | **301** | *i* pP | **P** | **21 57 55.1** | **+3.0** |
| | comp=Z,22nm,1.5s | | | | | | |
| **WATA** | **Walderalm** | **24.82** | **301** | P | **P** | **21 57 55.1** | **+3.0** |
| | comp=Z,22nm,1.5s | | | | | | |
| **CLL** | **Collm** | **24.84** | **311** | *e*(P) | **P** | **21 57 53.0** | **+0.8** |
| **MOTA** | **Moosalm** | **25.14** | **301** | *i* pP | **P** | **21 57 57.9** | **+2.9** |
| | comp=Z,3.7nm,0.7s | | | | | | |
| **MOTA** | **Moosalm** | **25.14** | **301** | P | **P** | **21 57 57.9** | **+2.9** |
| | comp=Z,3.7nm,0.7s | | | | | | |
| **FINES** | **FINESS Array B** | **25.24** | **340** | LR | LR | 22 08 38.2 | |
| | comp=Z,106nm,18.6s,baz=191,slow=38 | | | | | | |
| **RETA** | **Reutte** | **25.39** | **301** | *i* pP | **P** | **21 57 59.1** | **+1.9** |
| | comp=Z,13nm,1.9s | | | | | | |
| **RETA** | **Reutte** | **25.39** | **301** | P | **P** | **21 57 59.1** | **+1.9** |
| | comp=Z,13nm,1.9s | | | | | | |
| **DAVOX** | **Davos/Dischmat** | **25.90** | **299** | P | **P** | **21 58 01.3** | **-0.7** |
| | comp=Z,3.0nm,0.9s,baz=95,slow=11,SNR=4.1 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **27.31** | **53** | P | **P** | **21 58 15.6** | **+1.2** |
| | comp=Z,2.3nm,0.7s,baz=262,slow=9.0,SNR=15 | | | | | | |
| **KURK** | **Kurchatov** | **27.39** | **52** | P | **P** | **21 58 15.6** | **+0.5** |
| KURK | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | |
| **KURK** | **Kurchatov** | **27.39** | **52** | P | **P** | **21 58 15.6** | **+0.5** |
| **KURK** | **Kurchatov** | **27.39** | **52** | P | **P** | **21 58 15.6** | **+0.5** |
| **HFS** | **Hagfors** | **28.54** | **329** | P | **P** | **21 58 25.5** | **+0.1** |
| | comp=Z,3.9nm,1.0s,baz=146,slow=10,SNR=2.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **29.31** | **61** | P | **P** | **21 58 33.6** | **+1.2** |
| | comp=Z,1.2nm,0.8s,baz=284,slow=5.8,SNR=3.4 | | | | | | |
| **NOA** | **NORSAR Array B** | **30.06** | **329** | LR | LR | 22 12 02.8 | |
| | comp=Z,70nm,18.2s,baz=245,slow=39 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **31.78** | **48** | P | **P** | **21 58 54.3** | **+0.2** |
| | comp=Z,1.2nm,0.5s,baz=259,slow=8.9,SNR=7.1 | | | | | | |
| **TAM** | **Tamanrasset** | **36.06** | **255** | *e*P | **P** | **21 59 32.1** | **+0.3** |
| TAM | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.1s | | | | | | |
| **TAM** | **Tamanrasset** | **36.06** | **255** | *e*P | **P** | **21 59 32.1** | **+0.3** |
| | comp=Z,3.7nm,1.1s | | | | | | |
| **TAM** | **Tamanrasset** | **36.06** | **255** | *e*P | **P** | **21 59 32.1** | **+0.3** |
| | comp=Z,3.7nm,1.1s | | | | | | |
| **ESDC** | **Sonseca Array** | **36.54** | **287** | P | **P** | **21 59 33.9** | **-1.7** |
| | comp=Z,1.0nm,0.8s,baz=67,slow=8.7,SNR=11 | | | | | | |
| **LSA** | **Lhasa** | **39.97** | **88** | *e*P | **P** | **22 00 05.2** | **+0.1** |
| LSA | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.9s | | | | | | |
| **LSA** | **Lhasa** | **39.97** | **88** | *e*P | **P** | **22 00 05.2** | **+0.1** |
| | comp=Z,3.8nm,0.9s | | | | | | |
| **LSA** | **Lhasa** | **39.97** | **88** | *e*P | **P** | **22 00 05.2** | **+0.1** |
| | comp=Z,3.8nm,0.9s | | | | | | |
| **KMBO** | **Kilima Mbogo** | **40.05** | **190** | LR | LR | 22 17 18.5 | |
| | comp=Z,50nm,18.4s,baz=92,slow=37 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **44.92** | **247** | P | **P** | **22 00 42.8** | **-2.1** |
| | comp=Z,2.0nm,1.0s,baz=51,slow=8.7,SNR=12 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **51.81** | **97** | P | **P** | **22 01 37.6** | **-0.5** |
| | comp=Z,0.9nm,0.8s,baz=300,slow=7.9,SNR=7.1 | | | | | | |
| **KIC** | **Kosan Boka** | **54.15** | **246** | *e*P | **P** | **22 01 53.6** | **-1.8** |
| | comp=Z,18nm,1.1s | | | | | | |
| **TIC** | **Toumodi** | **54.16** | **247** | *e*P | **P** | **22 01 56.3** | **+0.8** |
| **LIC** | **Lamto** | **54.45** | **246** | *e*P | **P** | **22 01 54.4** | **-3.2** |
| | comp=Z,38nm,1.5s | | | | | | |
| **SEY** | **Seymchan** | **64.01** | **29** | P | **P** | **22 03 04.2** | **+1.1** |
| | comp=Z,2.8nm,0.6s,baz=15,slow=20,SNR=6.0 | | | | | | |
| **BOSA** | **Boshof** | **69.11** | **197** | P | **P** | **22 03 35.9** | **-0.2** |
| | comp=Z,3.1nm,0.8s,baz=354,slow=10,SNR=4.9 | | | | | | |
| **YKA** | **Yellowknife Ar** | **77.65** | **350** | P | **P** | **22 04 25.2** | **-0.8** |
| | comp=Z,0.8nm,0.9s,baz=27,slow=5.6,SNR=3.3 | | | | | | |

---

*ISCJB **08** 21:53:57.2±0.3, 4°.42S±0°.05×125°.93E±0°.05, h398km, mb3.4/6, Error ellipse: s-maj=7.8km s-min=5.8km az=138.7*
*IDC **08** 21:54:00.7±2.3, 4°.41S×126°.22E, h437km±27km, mb3.1/7, mb1 3.2/9, mb1mx3.0/45, mbtmp3.9/9, Error ellipse: s-maj=52.7km s-min=9.6km az=65.0*
*DJA **08** 21:54:02.9±0.5, 4°S±3°×12°6E±°, h363km±6km, M4.2/13, mb4.5/7, mB4.7/6, MLv4.3/13, Mw(mB)4.0/6*
**ISC 08 21:53:58.4**±0.6**, 4°.44S**±0°.06×**126°.13E**±0°.07**, h398**km**, n34,** σ**2.06**/43**, mb3.5**/6**, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AAI** | **Ambon** | **2.19** | **70** | P | **Pn** | **21 54 57.5** | **+2.0** |
| AAI | | | | S | **S** | **21 55 40.2** | **-1.3** |
| **SANI** | **Sanana** | **2.38** | **357** | P | **Pn** | **21 54 59.5** | **+2.7** |
| SANI | | | | S | **S** | **21 55 44.6** | **+0.7** |
| **MSAI** | **Masohi** | **3.00** | **69** | P | **Pn** | **21 55 03.4** | **+1.9** |
| MSAI | | | | S | **S** | **21 55 50.7** | **-1.7** |
| **BBSI** | **Bau Bau** | **3.70** | **254** | P | **Pn** | **21 55 06.8** | **-0.8** |
| **BNDI** | **Bandanaira** | **3.76** | **91** | P | **Pn** | **21 55 09.6** | **+1.4** |
| BNDI | | | | S | **S** | **21 56 07.4** | **+2.8** |
| **LBMI** | **Labuha** | **4.02** | **20** | P | **Pn** | **21 55 14.1** | **+3.5** |
| LBMI | | | | S | **S** | **21 56 11.2** | **+2.1** |
| **SOEI** | **Soe** | **5.59** | **199** | P | **Pn** | **21 55 29.8** | **+3.0** |
| SOEI | | | | S | **S** | **21 56 39.4** | **+0.8** |
| **MMRI** | **Maumere** | **5.69** | **223** | P | **Pn** | **21 55 31.4** | **+3.8** |
| | 81nm,0.8s,0.3nm | | | | | | |
| **BSSI** | **Bau Bau, Buton** | **5.87** | **253** | P | **Pn** | **21 55 32.7** | **+3.1** |
| | 47nm,0.7s,4µm | | | | | | |
| **BNSI** | **Bone** | **6.01** | **270** | P | **Pn** | **21 55 35.3** | **+4.2** |
| | 96nm,0.8s,820nm0.3nm | | | | | | |
| **EDFI** | **Ende, Flores** | **6.15** | **226** | P | **Pn** | **21 55 36.5** | **+3.8** |
| | 71nm,1.0s,652nm0.2nm | | | | | | |
| **FAKI** | **Fak Fak** | **6.29** | **76** | P | **Pn** | **21 55 37.6** | **+3.4** |
| | 113nm,0.7s,2µm0.6nm | | | | | | |
| **SPSI** | **Sidrap Palu** | **6.36** | **274** | P | **Pn** | **21 55 37.4** | **+2.4** |
| | 22nm,1.1s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **13.58** | **182** | P | **P** | **21 56 56.3** | **+0.7** |
| | 0.8nm,0.3s,baz=14,slow=12,SNR=19 | | | | | | |
| FITZ | | | | S | **S** | **21 59 20.1** | **-2.1** |
| | 0.0nm,0.3s,baz=246,slow=20,SNR=4.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **17.36** | **153** | P | **P** | **21 57 36.9** | **+0.5** |
| | 0.3nm,0.3s,baz=332,slow=10.0,SNR=18 | | | | | | |
| WRA | | | | S | **S** | **22 00 34.8** | **-2.0** |
| | 0.1nm,0.3s,baz=328,slow=18,SNR=6.5 | | | | | | |
| **ASAR** | **Alice Springs** | **20.53** | **159** | P | **P** | **21 58 08.7** | **+0.7** |
| | 1.9nm,0.6s,baz=334,slow=7.4,SNR=35 | | | | | | |
| ASAR | | | | S | **S** | **22 01 30.3** | **-1.3** |
| | 0.8nm,0.8s,baz=345,slow=17,SNR=3.6 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **35.16** | **311** | P | **P** | **22 00 17.1** | **+0.4** |
| | 1.1nm,0.6s,baz=134,slow=7.0,SNR=11 | | | | | | |
| **ODAN** | **Odare** | **48.69** | **312** | *e*P | **P** | **22 02 04.0** | **-0.9** |
| | 2.3nm,0.4s | | | | | | |
| **TAPN** | **Taplejung** | **48.73** | **313** | *e*P | **P** | **22 02 04.4** | **-0.9** |
| | 6.4nm,0.5s | | | | | | |
| **RAMN** | **Ramite** | **49.33** | **311** | *e*P | **P** | **22 02 09.1** | **-0.6** |
| | 14nm,0.6s | | | | | | |
| **JIRN** | **Jiri** | **50.02** | **312** | *e*P | **P** | **22 02 14.0** | **-1.0** |
| | 52nm,0.6s | | | | | | |
| **GUN** | **Gumba** | **50.39** | **312** | *e*P | **P** | **22 02 16.7** | **-1.0** |
| | 12nm,0.6s | | | | | | |
| **PKI** | **Pulchoki** | **50.55** | **311** | *e*P | **P** | **22 02 17.4** | **-1.5** |
| | 3.6nm,0.6s | | | | | | |
| **PKIN** | **Phulchoki** | **50.57** | **311** | *e*P | **P** | **22 02 17.6** | **-1.3** |
| | 4.4nm,0.6s | | | | | | |
| **KKN** | **Kakani** | **50.77** | **312** | *e*P | **P** | **22 02 19.3** | **-1.1** |
| | 1.5nm,0.3s | | | | | | |
| **DMN** | **Daman** | **50.80** | **311** | *e*P | **P** | **22 02 19.7** | **-0.9** |
| | 4.7nm,0.7s | | | | | | |
| **KOLN** | **Koldanda** | **52.02** | **311** | *e*P | **P** | **22 02 28.2** | **-1.3** |
| | 8.9nm,0.7s | | | | | | |
| **PYUN** | **Piuthan** | **52.65** | **311** | *e*P | **P** | **22 02 33.2** | **-0.9** |
| **SONM** | **Songino Array** | **54.87** | **344** | P | **P** | **22 02 49.0** | **-0.5** |
| | 0.4nm,0.6s,baz=156,slow=7.9,SNR=4.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **64.01** | **328** | P | **P** | **22 03 49.9** | **-1.2** |
| | 1.2nm,0.6s,baz=129,slow=7.4,SNR=12 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **67.63** | **335** | P | **P** | **22 04 10.9** | **-2.8** |
| | 0.6nm,0.5s,baz=145,slow=5.3,SNR=4.1 | | | | | | |
| **BVAR** | **Borovoye Array** | **73.88** | **329** | P | **P** | **22 04 49.4** | **-1.6** |
| | 0.2nm,0.4s,baz=106,slow=11,SNR=3.0 | | | | | | |
| **AKTO** | **Aktyubinsk** | **79.72** | **323** | P | **P** | **22 05 22.3** | **-1.0** |
| | 1.7nm,0.7s,baz=90,slow=2.0,SNR=5.0 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **124.52** | **283** | PKP | **PKPdf** | **22 12 10.5** | **-1.7** |
| | 0.4nm,0.7s,baz=95,slow=1.9,SNR=3.4 | | | | | | |

---

*IDC **08** 21:54:05.9±0.7, 16°.50S×172°.05W, h0km, mb4.3/10, mb1 4.6/12, mb1mx4.3/35, mbtmp4.4/12, ML4.0/2, MS3.3/8, Ms1 3.3/8, ms1mx3.1/31, Error ellipse: s-maj=29.5km s-min=16.0km az=151.0*
*NEIC **08** 21:54:07.6±0.4, 16°.44S×171°.97W, h10km, mb4.5/8, Error ellipse: s-maj=12.4km s-min=8.4km az=152.0*
*ISCJB **08** 21:54:08.6±0.6, 16°.40S±0°.07×172°.09W±0°.09, h26km, mb4.4/20, MS3.3/6, Error ellipse: s-maj=14.7km s-min=7.8km az=35.7*
**ISC 08 21:54:10.1**±0.5**, 16°.33S**±0°.06×**171°.96W**±0°.08**, h26**km**, n43,** σ**1.26**/42**, mb4.4**/20**, MS3.3**/6**, Samoa Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AFI** | **Afiamalu** | **2.41** | **4** | Pn | **Pn** | **21 54 49.3** | **+1.4** |
| | 37nm,0.3s,baz=43,slow=7.3,SNR=8.7 | | | | | | |
| AFI | | | | Sn | **Sn** | **21 55 17.1** | **+0.4** |
| | 264nm,0.3s,baz=0.0,slow=20,SNR=14 | | | | | | |
| AFI | | | | LR | LR | 21 55 40.1 | |
| | comp=Z,171nm,21.8s,baz=178,slow=36 | | | | | | |
| **AFI** | **Afiamalu** | **2.41** | **4** | Pn | **Pn** | **21 54 49.3** | **+1.4** |
| AFI | | | | Sn | **Sn** | **21 55 17.1** | **+0.4** |
| AFI | | | | *e*Sn | **Sb** | **21 55 17.6** | **-4.6** |
| **MSVF** | **Nonsavu** | **9.66** | **260** | *e*Pn | **Pn** | **21 56 28.6** | **+1.0** |
| | 25nm,1.0s | | | | | | |
| **RAR** | **Rarotonga** | **12.52** | **115** | Pn | **Pn** | **21 57 05.1** | **-1.5** |
| | 7.0nm,0.3s,baz=244,slow=7.9,SNR=18 | | | | | | |
| RAR | | | | Sn | Sn | 21 59 13.8 | -12 |
| | 1.7nm,0.3s,baz=50,slow=17,SNR=3.4 | | | | | | |
| RAR | | | | LR | LR | 22 00 46.7 | |
| | comp=Z,132nm,20.6s,baz=288,slow=32 | | | | | | |
| **RAR** | **Rarotonga** | **12.52** | **115** | Pn | **Pn** | **21 57 05.1** | **-1.5** |
| | 18nm,0.6s | | | | | | |
| RAR | | | | Sn | Sn | 21 59 13.8 | -12 |
| **DZM** | **Mont Dzumac** | **21.17** | **251** | P | **P** | **21 58 53.5** | **-0.2** |
| | 9.2nm,0.7s,baz=77,slow=18,SNR=8.0 | | | | | | |
| DZM | | | | LR | LR | 22 05 57.4 | |
| | comp=Z,97nm,20.9s,baz=92,slow=34 | | | | | | |
| **DZM** | **Mont Dzumac** | **21.17** | **251** | *e*LR | LR | 22 04 07.4 | |
| | 378nm,26.0s | | | | | | |
| **PPT** | **Papeete** | **21.45** | **97** | LR | LR | 22 05 58.7 | |
| | comp=Z,62nm,18.7s,baz=248,slow=33 | | | | | | |
| **PPT2** | **Papeete2** | **21.45** | **97** | *e*LR | LR | 22 03 44.8 | |
| | 240nm,26.0s,baz=264 | | | | | | |
| **URZ** | **Urewera** | **23.87** | **202** | P | **P** | **21 59 22.9** | **+1.5** |
| | 12nm,0.5s,baz=64,slow=5.7,SNR=17 | | | | | | |
| URZ | | | | S | **S** | **22 03 36.3** | **+0.2** |
| | 3.3nm,0.7s,baz=79,slow=16,SNR=2.9 | | | | | | |
| **HNR** | **Honiara** | **28.21** | **281** | LR | LR | 22 09 33.0 | |
| | comp=Z,223nm,21.9s,baz=122,slow=33 | | | | | | |
| **HNR** | **Honiara** | **28.21** | **281** | P | **P** | **22 00 01.4** | **+0.3** |
| | 33nm,0.5s | | | | | | |
| **RPZ** | **Rata Peaks** | **30.88** | **204** | P | P | 22 00 28.2 | +3.9 |
| | 5.4nm,0.8s,baz=6.1,slow=5.3,SNR=4.5 | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **31.89** | **80** | *e*LR | LR | 22 08 38.4 | |
| | 164nm,26.1s | | | | | | |
| **PMG** | **Port Moresby** | **40.39** | **275** | P | **P** | **22 01 45.0** | **-1.3** |
| | 2.9nm,0.4s,baz=75,slow=12,SNR=3.9 | | | | | | |
| **MIDW** | **Midway** | **44.59** | **353** | *e*P | **P** | **22 02 20.8** | **+0.7** |
| | 24nm,0.4s | | | | | | |
| **STKA** | **Stephens Creek** | **44.79** | **241** | P | **P** | **22 02 21.1** | **-0.8** |
| | 7.6nm,0.8s,baz=83,slow=6.8,SNR=13 | | | | | | |
| STKA | | | | LR | LR | 22 19 22.8 | |
| | comp=Z,41nm,18.8s,baz=27,slow=34 | | | | | | |
| **WRAB** | **Tennant Creek** | **50.98** | **257** | P | **P** | **22 03 08.2** | **-1.9** |
| | 3.7nm,1.1s | | | | | | |
| **WRA** | **Warramunga Arr** | **50.99** | **257** | P | **P** | **22 03 08.3** | **-1.8** |
| | 5.2nm,0.8s,baz=95,slow=7.4,SNR=20 | | | | | | |
| WRA | | | | LR | LR | 22 23 31.9 | |
| | comp=Z,41nm,20.1s,baz=340,slow=35 | | | | | | |
| **ASAR** | **Alice Springs** | **51.15** | **253** | P | **P** | **22 03 09.3** | **-2.0** |
| | 14nm,0.8s,baz=87,slow=8.4,SNR=67 | | | | | | |
| **MBWA** | **Marble Bar** | **64.44** | **254** | P | **P** | **22 04 44.4** | **-0.3** |
| | 4.5nm,0.6s | | | | | | |
| **MJAR** | **Matsushiro Arr** | **70.54** | **319** | LR | LR | 22 33 15.0 | |
| | comp=Z,11nm,19.6s,baz=40,slow=33 | | | | | | |
| **MAJO** | **Matsushiro** | **70.54** | **319** | P | **P** | **22 05 23.7** | **+0.8** |
| | 1.7nm,0.3s | | | | | | |
| **PETK** | **Petropavlovsk-** | **73.94** | **342** | P | **P** | **22 05 43.4** | **+0.5** |
| | 3.5nm,0.9s,baz=126,slow=6.1,SNR=4.0 | | | | | | |
| **TXAR** | **Lajitas Array** | **79.98** | **55** | P | **P** | **22 06 18.9** | **+1.3** |
| | 1.2nm,0.8s,baz=224,slow=7.4,SNR=12 | | | | | | |
| **MCK** | **McKinley** | **81.78** | **10** | *e*P | **P** | **22 06 27.2** | **+0.9** |
| | 2.3nm,0.7s | | | | | | |
| **PDAR** | **Pinedale Array** | **82.04** | **41** | P | **P** | **22 06 29.7** | **+1.3** |
| | 0.9nm,0.7s,baz=214,slow=3.1,SNR=8.9 | | | | | | |
| **SDCO** | **Great Sand Dun** | **82.31** | **47** | P | **P** | **22 06 30.6** | **+0.6** |
| | 0.2nm,0.5s | | | | | | |
| **WALA** | **Waterton Lakes** | **82.89** | **34** | P | **P** | **22 06 33.2** | **+0.7** |
| | 1.1nm,0.6s | | | | | | |
| **ILAR** | **Eielson Array** | **83.09** | **11** | P | **P** | **22 06 33.5** | **+0.4** |
| | 1.4nm,0.7s,baz=221,slow=5.7,SNR=25 | | | | | | |
| **YKA** | **Yellowknife Ar** | **90.40** | **23** | P | **P** | **22 07 10.0** | **+1.2** |
| | 0.8nm,0.8s,baz=235,slow=5.1,SNR=3.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **112.46** | **314** | PKiKP | **PKiKP** | **22 12 43.1** | **-0.9** |
| | 0.3nm,0.5s,baz=196,slow=1.2,SNR=4.8 | | | | | | |
| **BVAR** | **Borovoye Array** | **119.46** | **322** | PKP | **PKPdf** | **22 12 55.8** | **-1.4** |
| | 0.4nm,0.4s,baz=172,slow=1.0,SNR=4.4 | | | | | | |
| **ARCES** | **ARCESS Array B** | **125.71** | **353** | PKP | **PKPdf** | **22 13 08.7** | **-0.1** |
| | 4.8nm,0.9s,baz=22,slow=1.0,SNR=10 | | | | | | |
| **FINES** | **FINESS Array B** | **133.14** | **348** | PKP | **PKPdf** | **22 13 23.7** | **+0.7** |
| | 3.6nm,1.0s,baz=90,slow=3.8,SNR=7.1 | | | | | | |
| **AKASG** | **Malin Array Be** | **141.72** | **338** | PKP | **PKPdf** | **22 13 39.3** | **+0.1** |
| | 0.2nm,0.3s,baz=76,slow=2.1,SNR=2.9 | | | | | | |
| **CLL** | **Collm** | **144.88** | **355** | *e*PKPdf | **PKPab** | **22 13 44.0** | **+0.2** |
| CLL | | | | *e*PKiKP | **PKiKP** | **22 13 48.0** | **-0.5** |
| **KHC** | **Kasperske Hory** | **146.97** | **353** | *e*PKP | **PKPbc** | **22 13 50.5** | **+0.1** |
| KHC | | | | *e*x | x | 22 14 01.5 | |
| **GERES** | **GERESS Array B** | **147.24** | **353** | PKPbc | **PKPbc** | **22 13 52.1** | **+0.9** |
| | 1.7nm,0.8s,baz=23,slow=4.4,SNR=8.1 | | | | | | |
| **BRTR** | **Keskin Array B** | **147.75** | **321** | PKPbc | **PKPbc** | **22 13 53.3** | **+0.3** |
| | 1.4nm,0.6s,baz=128,slow=2.9,SNR=7.3 | | | | | | |
| **ABTA** | **Abfaltersbach** | **149.44** | **354** | *e*sPKPdf | **PKPbc** | **22 13 57.2** | **+0.1** |
| | 8.1nm,0.8s | | | | | | |
| **ESDC** | **Sonseca Array** | **154.49** | **22** | PKPbc | **PKPbc** | **22 14 09.6** | **+0.8** |
| | 0.2nm,0.6s,baz=343,slow=4.0,SNR=3.5 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **173.09** | **116** | PKP | **PKPdf** | **22 14 16.4** | **-1.5** |
| | 1.0nm,0.9s,baz=36,slow=0.8,SNR=5.4 | | | | | | |
| TORD | | | | PKPab | **PKPab** | **22 15 44.9** | **-0.5** |
| | 0.9nm,0.9s,baz=284,slow=2.8,SNR=4.9 | | | | | | |

---

*CSEM **08** 22:02:09.2, 38°.76N×43°.25E, h7km, ML2.5*
**DDA 08 22:02:09.2, 38°.76N×43°.25E, h7km, Ml2.5, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TVAN** | **Van** | **0.26** | **153** | *i* P | Pg | 22 02 14.4 | 0.0 |
| TVAN | | | | *i* S | Sg | 22 02 19.0 | +1.1 |
| **TVAN** | **Van** | **0.26** | **153** | P | Pg | 22 02 14.4 | 0.0 |
| TVAN | | | | S | Sg | 22 02 19.0 | +1.1 |
| **VMUR** | **Van-Muradiye** | **0.34** | **47** | *i* P | Pg | 22 02 16.6 | +0.8 |
| VMUR | | | | *i* S | Sb | 22 02 22.9 | -0.5 |
| **VMUR** | **Van-Muradiye** | **0.34** | **47** | P | Pg | 22 02 16.6 | +0.7 |
| VMUR | | | | S | Sb | 22 02 22.9 | -0.4 |
| **ADCV** | **BITLIS_Adilcev** | **0.41** | **277** | *i* P | Pg | 22 02 17.7 | +0.4 |
| ADCV | | | | *i* S | Sb | 22 02 25.0 | -0.5 |
| **ADCV** | **BITLIS_Adilcev** | **0.41** | **277** | P | Pg | 22 02 17.7 | +0.4 |
| ADCV | | | | S | Sb | 22 02 25.0 | -0.5 |
| **GEVA** | **Gevas** | **0.47** | **199** | *i* P | Pg | 22 02 18.1 | -0.3 |
| GEVA | | | | *i* S | Sb | 22 02 26.0 | -1.2 |
| **GEVA** | **Gevas** | **0.47** | **199** | P | Pg | 22 02 18.1 | -0.2 |
| GEVA | | | | S | Sb | 22 02 26.0 | -1.2 |
| **TUTA** | **Tutak** | **0.72** | **332** | *i* P | Pg | 22 02 23.1 | -0.1 |
| TUTA | | | | *i* S | Sg | 22 02 33.6 | +0.9 |
| **TUTA** | **Tutak** | **0.72** | **332** | P | Pg | 22 02 23.1 | -0.1 |
| TUTA | | | | S | Sb | 22 02 33.6 | -0.9 |

---

*ATA **08** 22:02:23.6±1.4, 39°.85N×39°.42E, h3km±11km, ML3.5, MW3.5*
*ISK **08** 22:02:24.2, 39°.88N×39°.53E, h3km, ML2.9*
*DDA **08** 22:02:24.4, 39°.84N×39°.40E, h8km, Ml3.7*
*CSEM **08** 22:02:24.8±0.2, 39°.87N×39°.50E, h2km, ML2.9, Error ellipse: s-maj=4.1km s-min=3.3km az=19.0*
**ISC 08 22:02:24.6**±1.0**, 39°.84N**±0°.02×**39°.42E**±0°.01**, h4**km±9km**,** **n84,** σ**1.25**/137**, 2C-1D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **EUZM** | **Uzumlu** | **0.25** | **121** | ⇑*i*P | **Pg** | **22 02 29.3** | **-0.1** |
| EUZM | | | | IAML | | 22 02 30.7 | |
| | comp=Z,420nm,0.2s | | | | | | |
| EUZM | | | | *e*S | **Sg** | **22 02 32.7** | **0.0** |
| **EUZM** | **Uzumlu** | **0.25** | **121** | *i* P | **Pg** | **22 02 29.4** | **-0.1** |
| EUZM | | | | *i* S | **Sg** | **22 02 33.0** | **+0.3** |
| **EUZM** | **Uzumlu** | **0.25** | **121** | P | **Pg** | **22 02 29.4** | **-0.1** |
| EUZM | | | | S | **Sg** | **22 02 33.0** | **+0.3** |
| **KELT** | **Kelkit** | **0.34** | **338** | ⇓*i*P | **Pg** | **22 02 30.9** | **-0.3** |
| KELT | | | | *e*S | **Sg** | **22 02 35.7** | **+0.1** |
| KELT | | | | IAML | | 22 02 39.3 | |
| | comp=Z,714nm,0.6s | | | | | | |
| **KELT** | **Kelkit** | **0.34** | **338** | *i* P | **Pg** | **22 02 30.9** | **-0.3** |
| KELT | | | | *i* S | **Sg** | **22 02 35.9** | **+0.3** |
| **KELT** | **Kelkit** | **0.34** | **338** | P | **Pg** | **22 02 30.9** | **-0.3** |
| KELT | | | | S | **Sg** | **22 02 35.9** | **+0.3** |
| **ERZN** | **Erzincan** | **0.34** | **137** | PG | **Pg** | **22 02 31.5** | **+0.3** |
| ERZN | | | | *e*SG | **Sg** | **22 02 37.0** | **+1.3** |
| **REFA** | **Refahiye_ERZ˜** | **0.67** | **229** | ⇑*i*P | **Pg** | **22 02 34.6** | **-2.9** |
| REFA | | | | IAML | | 22 02 49.9 | |
| | comp=Z,204nm,0.4s | | | | | | |
| **REFA** | **Refahiye_ERZ˜** | **0.67** | **229** | *i* P | **Pg** | **22 02 34.4** | **-3.1** |
| REFA | | | | *i* S | **Sg** | **22 02 42.3** | **-3.9** |
| **TNCL** | **Tunceli-Merkez** | **0.73** | **173** | *e*P | **Pg** | **22 02 38.9** | **+0.4** |
| TNCL | | | | *e*S | **Sb** | **22 02 49.5** | **-0.8** |
| TNCL | | | | IAML | | 22 02 51.8 | |
| | comp=Z,135nm,0.6s | | | | | | |
| **TNCL** | **Tunceli-Merkez** | **0.73** | **173** | *i* P | **Pg** | **22 02 38.1** | **-0.5** |
| TNCL | | | | *i* S | **Sb** | **22 02 50.1** | **-0.1** |
| **TNCL** | **Tunceli-Merkez** | **0.73** | **173** | P | **Pg** | **22 02 38.1** | **-0.5** |
| TNCL | | | | S | **Sb** | **22 02 50.1** | **-0.1** |
| **KOPT** | **Kop Dagi** | **0.85** | **77** | *e*P | **Pg** | **22 02 40.6** | **-0.2** |
| KOPT | | | | *e*S | **Sn** | **22 02 54.5** | **-2.2** |
| KOPT | | | | IAML | | 22 03 01.4 | |
| | comp=Z,154nm,0.8s | | | | | | |
| **KOPT** | **Kop Dagi** | **0.85** | **77** | *i* P | **Pb** | **22 02 40.9** | **-1.2** |
| KOPT | | | | *i* S | **Sn** | **22 02 55.9** | **-0.7** |
| **KOPT** | **Kop Dagi** | **0.85** | **77** | P | **Pb** | **22 02 40.9** | **-1.2** |
| **KEMA** | **Kemaliye** | **0.91** | **232** | *e*P | **Pg** | **22 02 42.0** | **-0.1** |
| KEMA | | | | *e*S | **Sb** | **22 02 55.5** | **-0.1** |
| KEMA | | | | IAML | | 22 03 01.4 | |
| | comp=Z,43nm,0.6s | | | | | | |
| **KEMA** | **Kemaliye** | **0.91** | **232** | *i* P | **Pg** | **22 02 41.1** | **-1.0** |
| KEMA | | | | *i* S | **Sg** | **22 02 54.9** | **+0.9** |
| **KEMA** | **Kemaliye** | **0.91** | **232** | P | **Pg** | **22 02 41.1** | **-1.0** |
| KEMA | | | | S | **Sg** | **22 02 54.9** | **+0.9** |
| **PTK** | **Pertek** | **0.94** | **181** | *e*PG | **Pn** | **22 02 44.2** | **-0.6** |
| PTK | | | | *e*SG | **Sn** | **22 02 58.6** | **-0.2** |
| **PTK** | **Pertek** | **0.94** | **181** | *e*Pg | **Pn** | **22 02 44.2** | **-0.6** |
| PTK | | | | *e*Sg | **Sn** | **22 02 58.7** | **-0.2** |
| **YEDI** | **Yedisu-Bingol** | **0.95** | **114** | *e*PG | **Pg** | **22 02 42.3** | **-0.6** |
| YEDI | | | | *e*SG | **Sg** | **22 02 55.5** | **+0.2** |
| **YEDI** | **Yedisu-Bingol** | **0.95** | **114** | *e*Pg | **Pg** | **22 02 42.3** | **-0.6** |
| YEDI | | | | *e*Sg | **Sg** | **22 02 55.5** | **+0.2** |
| **SUSE** | **Susehri** | **1.01** | **292** | *i* P | **Pg** | **22 02 43.8** | **-0.1** |
| SUSE | | | | *i* S | **Sn** | **22 03 00.0** | **-0.4** |
| **SUSE** | **Susehri** | **1.01** | **292** | P | **Pg** | **22 02 43.8** | **-0.1** |
| SUSE | | | | S | **Sn** | **22 03 00.0** | **-0.4** |
| **KTUT** | **Trabzon** | **1.18** | **13** | *e*PN | **Pb** | **22 02 46.7** | **-0.8** |
| KTUT | | | | *e*SN | **Sn** | **22 03 03.0** | **-1.4** |
| **KTUT** | **Trabzon** | **1.18** | **13** | *e*Pn | **Pb** | **22 02 46.7** | **-0.8** |
| KTUT | | | | *e*Sn | **Sn** | **22 03 03.0** | **-1.4** |
| **ESPY** | **Espiye-Giresun** | **1.20** | **334** | *e*PN | **Pg** | **22 02 48.0** | **+0.4** |
| **ESPY** | **Espiye-Giresun** | **1.20** | **334** | *e*Pn | **Pg** | **22 02 48.0** | **+0.4** |
| **ECAT** | **Cat-ERZURUM** | **1.22** | **100** | *e*P | **Pb** | **22 02 46.7** | **-1.7** |
| ECAT | | | | *e*S | **Sn** | **22 03 05.6** | **-0.2** |
| ECAT | | | | IAML | | 22 03 10.2 | |
| | comp=Z,83nm,0.8s | | | | | | |
| **ECAT** | **Cat-ERZURUM** | **1.22** | **100** | *i* P | **Pb** | **22 02 46.7** | **-1.7** |
| ECAT | | | | *i* S | **Sn** | **22 03 05.9** | **+0.2** |
| **ECAT** | **Cat-ERZURUM** | **1.22** | **100** | P | **Pb** | **22 02 46.7** | **-1.7** |
| ECAT | | | | S | **Sn** | **22 03 05.9** | **+0.2** |
| **BINT** | **Bingol** | **1.27** | **139** | *e*Pn | **Pb** | **22 02 48.8** | **-0.3** |
| **CUZAR** | **Zara_SIVAS** | **1.27** | **273** | *i* P | **Pn** | **22 02 48.2** | **-1.1** |
| CUZAR | | | | *i* S | **Sn** | **22 03 07.9** | **+1.0** |
| **CUZAR** | **Zara_SIVAS** | **1.27** | **273** | P | **Pn** | **22 02 48.2** | **-1.1** |
| CUZAR | | | | S | **Sn** | **22 03 07.9** | **+1.0** |
| **BNGB** | **Bing˜¶l** | **1.29** | **131** | *e*PN | **Pn** | **22 02 48.8** | **-0.7** |
| **ELZG** | **Elazig** | **1.38** | **194** | *i* P | **Pn** | **22 02 50.1** | **-0.6** |
| ELZG | | | | *i* S | **Sg** | **22 03 09.7** | **+0.8** |
| **ELZG** | **Elazig** | **1.38** | **194** | P | **Pn** | **22 02 50.2** | **-0.6** |
| ELZG | | | | S | **Sg** | **22 03 09.7** | **+0.8** |
| **GRSN** | **GIRESUNGRSN** | **1.40** | **321** | *i* P | **Pb** | **22 02 50.6** | **-0.7** |
| **GRSN** | **GIRESUNGRSN** | **1.40** | **321** | P | **Pb** | **22 02 50.6** | **-0.7** |
| **SVRC** | **Sivrice-ELAZID** | **1.46** | **184** | *e*PN | **Pg** | **22 02 53.1** | **+0.5** |
| **SVRC** | **Sivrice-ELAZID** | **1.46** | **184** | *e*Pn | **Pg** | **22 02 53.1** | **+0.5** |
| **HEKM** | **Malatya_Hekimh** | **1.48** | **230** | *i* P | **Pb** | **22 02 52.8** | **0.0** |
| HEKM | | | | *i* S | **Sg** | **22 03 12.8** | **+0.5** |
| **HEKM** | **Malatya_Hekimh** | **1.48** | **230** | P | **Pb** | **22 02 52.8** | **0.0** |
| HEKM | | | | S | **Sg** | **22 03 12.8** | **+0.5** |
| **ERZM** | **Erzurum** | **1.50** | **87** | *e*P | **Pg** | **22 02 53.1** | **-0.3** |
| **ERZM** | **Erzurum** | **1.50** | **87** | *i* P | **Pg** | **22 02 52.8** | **-0.5** |
| ERZM | | | | *i* S | **Sg** | **22 03 17.3** | **+4.5** |
| **ERZM** | **Erzurum** | **1.50** | **87** | P | **Pg** | **22 02 52.8** | **-0.5** |
| **CUKAN** | **kangal_SIVAS** | **1.60** | **252** | *i* P | **Pb** | **22 02 54.1** | **-0.7** |
| CUKAN | | | | *i* S | **Sg** | **22 03 17.2** | **+1.3** |
| **CUKAN** | **kangal_SIVAS** | **1.60** | **252** | P | **Pb** | **22 02 54.1** | **-0.7** |
| CUKAN | | | | S | **Sg** | **22 03 17.2** | **+1.3** |
| **BNGL** | **BINGOL** | **1.60** | **123** | *i* P | **Pg** | **22 02 55.0** | **-0.4** |
| BNGL | | | | *i* S | **Sg** | **22 03 21.2** | **+5.0** |
| **HANI** | **Diyarbakir_Han** | **1.61** | **151** | *i* P | **Pb** | **22 02 55.0** | **0.0** |
| HANI | | | | *i* S | **Sg** | **22 03 17.6** | **+1.3** |
| **HANI** | **Diyarbakir_Han** | **1.61** | **151** | P | **Pb** | **22 02 55.0** | **0.0** |
| HANI | | | | S | **Sg** | **22 03 17.6** | **+1.3** |
| **ORDU** | **Ordu-Boztepe** | **1.66** | **315** | *i* P | **Pg** | **22 02 56.1** | **-0.2** |
| **ORDU** | **Ordu-Boztepe** | **1.66** | **315** | P | **Pg** | **22 02 56.2** | **-0.2** |
| **RSDY** | **Resadiye-TOKAT** | **1.70** | **290** | *e*PN | **Pb** | **22 02 56.7** | **+0.2** |
| RSDY | | | | *e*SN | **Sg** | **22 03 20.4** | **+1.2** |
| **RSDY** | **Resadiye-TOKAT** | **1.70** | **290** | *e*Pn | **Pb** | **22 02 56.7** | **+0.2** |
| RSDY | | | | *e*Sn | **Sg** | **22 03 20.4** | **+1.2** |
| **MALT** | **Malatya** | **1.71** | **207** | *e*PN | **Pb** | **22 02 57.1** | **+0.5** |
| **MALT** | **Malatya** | **1.71** | **207** | *e*Pn | **Pb** | **22 02 57.1** | **+0.5** |
| **SCER** | **sogukcermik** | **1.76** | **272** | *i* P | **Pb** | **22 02 57.3** | **-0.3** |
| SCER | | | | *i* S | **Sg** | **22 03 21.8** | **+0.5** |
| **SCER** | **sogukcermik** | **1.76** | **272** | P | **Pb** | **22 02 57.3** | **-0.3** |
| SCER | | | | S | **Sg** | **22 03 21.8** | **+0.5** |
| **SVSK** | **Karacayir** | **1.87** | **273** | *e*PN | **Pb** | **22 02 59.4** | **+0.1** |
| SVSK | | | | *e*SN | **Sg** | **22 03 25.0** | **+0.5** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SVSK** | **Karacayir** | **1.87** | **273** | *e*Pn | **Pb** | **22 02 59.4** | **+0.1** |
| SVSK | | | | *e*Sn | **Sg** | **22 03 25.0** | **+0.5** |
| **AKCD** | **Akcadag** | **1.93** | **218** | *i* P | **Pn** | **22 02 59.1** | **+0.8** |
| AKCD | | | | *i* S | **Sb** | **22 03 25.6** | **+0.7** |
| **AKCD** | **Akcadag** | **1.93** | **218** | P | **Pn** | **22 02 59.2** | **+0.8** |
| AKCD | | | | S | **Sb** | **22 03 25.6** | **+0.7** |
| **DARE** | **Darende-Malaty** | **1.96** | **231** | *e*PN | **Pb** | **22 03 00.6** | **-0.4** |
| **DARE** | **Darende-Malaty** | **1.96** | **231** | *e*Pn | **Pb** | **22 03 00.6** | **-0.4** |
| **CUGUR** | **Gurin_S˜VAS** | **2.00** | **237** | *i* P | **Pb** | **22 03 00.7** | **-1.0** |
| CUGUR | | | | *i* S | **Sg** | **22 03 29.5** | **+0.5** |
| **CUGUR** | **Gurin_S˜VAS** | **2.00** | **237** | P | **Pb** | **22 03 00.7** | **-1.0** |
| CUGUR | | | | S | **Sg** | **22 03 29.5** | **+0.5** |
| **CUALT** | **Altinyayla-SIV** | **2.13** | **256** | *i* P | **Pb** | **22 03 02.8** | **-1.1** |
| CUALT | | | | *i* S | **Sg** | **22 03 33.3** | **+0.2** |
| **CUALT** | **Altinyayla-SIV** | **2.13** | **256** | P | **Pb** | **22 03 02.8** | **-1.1** |
| CUALT | | | | S | **Sg** | **22 03 33.3** | **+0.2** |
| **TOKA** | **Tokat** | **2.31** | **283** | *i* P | **Pb** | **22 03 05.0** | **-1.8** |
| TOKA | | | | *i* S | **Sg** | **22 03 40.0** | **+1.2** |
| **TOKA** | **Tokat** | **2.31** | **283** | P | **Pb** | **22 03 05.0** | **-1.8** |
| **SENK** | **Senkaya-Erzuru** | **2.36** | **71** | *e*PN | **Pn** | **22 03 03.7** | **-0.6** |
| **SENK** | **Senkaya-Erzuru** | **2.36** | **71** | *e*Pn | **Pn** | **22 03 03.7** | **-0.6** |
| **URFA** | **Urfa** | **2.44** | **191** | *e*PN | **Pb** | **22 03 07.5** | **-1.6** |
| **URFA** | **Urfa** | **2.44** | **191** | *e*Pn | **Pb** | **22 03 07.5** | **-1.6** |
| **CUSAR** | **Sarkisla-SIVAS** | **2.49** | **261** | *i* P | **Pb** | **22 03 07.9** | **-2.0** |
| CUSAR | | | | *i* S | **Sg** | **22 03 46.9** | **+2.4** |
| **CUSAR** | **Sarkisla-SIVAS** | **2.49** | **261** | P | **Pb** | **22 03 07.9** | **-2.0** |
| **SARI** | **SarD1z-Kayseri** | **2.74** | **240** | *e*PN | **Pb** | **22 03 11.9** | **-2.3** |
| **AGRB** | **Hanur-Agry** | **2.77** | **94** | *e*PN | **Pn** | **22 03 09.8** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **2.77** | **94** | *e*Pn | **Pn** | **22 03 09.8** | **-0.1** |
| **KVT** | **Kavak** | **2.86** | **297** | *e*PN | **Pn** | **22 03 13.2** | **+2.2** |
| **KVT** | **Kavak** | **2.86** | **297** | *e*Pn | **Pn** | **22 03 13.2** | **+2.2** |
| **KOZT** | **Kozan** | **3.67** | **231** | *e*PN | **Pn** | **22 03 25.7** | **+3.6** |
| **KOZT** | **Kozan** | **3.67** | **231** | *e*Pn | **Pn** | **22 03 25.7** | **+3.6** |

*ATA **08** 22:09:54.0±0.5, 38°.64N×43°.49E, h10km±44km, ML2.8, MW3.1*
*ISK **08** 22:09:56.6, 38°.75N×43°.52E, h5km, ML2.2*
*CSEM **08** 22:09:57.0±0.3, 38°.74N×43°.54E, h2km, ML2.2, Error ellipse: s-maj=7.1km s-min=5.4km az=114.0*
*DDA **08** 22:09:57.4, 38°.76N×43°.53E, h7km, Ml3.1*
*ISCJB **08** 22:09:58.1±0.5, 38°.77N±0°.02×43°.51E±0°.04, h7km±5km, Error ellipse: s-maj=5.7km s-min=3.6km az=14.3*
**ISC 08 22:09:58.0**±0.9**, 38°.77N**±0°.02×**43°.51E**±0°.03**, h12**km±7km**, n27,** σ1$^s$**44**/45**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.20** | **208** | *e*PG | **Pg** | **22 10 02.7** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.22** | **13** | *i* P | **Pg** | **22 10 02.0** | **-0.9** |
| VMUR | | | | *i* S | **Sg** | **22 10 07.5** | **+1.3** |
| **VMUR** | **Van-Muradiye** | **0.22** | **13** | P | **Pg** | **22 10 02.0** | **-0.9** |
| **TVAN** | **Van** | **0.26** | **198** | *i* P | **Pg** | **22 10 02.5** | **-0.9** |
| TVAN | | | | *i* S | **Sg** | **22 10 08.4** | **+1.3** |
| **TVAN** | **Van** | **0.26** | **198** | P | **Pg** | **22 10 02.5** | **-0.9** |
| **CLDR** | **Caldiran** | **0.49** | **40** | *e*PG | **Pg** | **22 10 07.4** | **-0.3** |
| CLDR | | | | *e*SG | **Sb** | **22 10 15.6** | **-0.4** |
| **CLDR** | **Caldiran** | **0.49** | **40** | *i* P | **Pg** | **22 10 06.8** | **-0.9** |
| CLDR | | | | *i* S | **Sb** | **22 10 15.6** | **-0.4** |
| **CLDR** | **Caldiran** | **0.49** | **40** | P | **Pg** | **22 10 06.8** | **-0.9** |
| **CLDR** | **Caldiran** | **0.49** | **40** | *e*Pg | **Pg** | **22 10 07.4** | **-0.3** |
| CLDR | | | | S | **Sb** | **22 10 15.6** | **-0.4** |
| **GEVA** | **Gevas** | **0.58** | **218** | *e*P | Pg | 22 10 03.6 | -5.7 |
| GEVA | | | | IAML | | 22 10 24.0 | |
| | comp=Z,26nm,0.6s | | | | | | |
| **GEVA** | **Gevas** | **0.58** | **218** | *i* P | **Pg** | **22 10 08.1** | **-1.3** |
| GEVA | | | | *i* S | **Sb** | **22 10 17.2** | **-1.3** |
| **GEVA** | **Gevas** | **0.58** | **218** | P | **Pg** | **22 10 08.1** | **-1.3** |
| GEVA | | | | S | **Sb** | **22 10 17.2** | **-1.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.61** | **274** | *i* P | **Pg** | **22 10 09.5** | **-0.5** |
| ADCV | | | | *i* S | **Sb** | **22 10 20.2** | **+0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.61** | **274** | P | **Pg** | **22 10 09.5** | **-0.5** |
| ADCV | | | | S | **Sb** | **22 10 20.2** | **+0.7** |
| **DYDN** | **Diyadin** | **0.78** | **10** | *e*P | **Pg** | **22 10 12.0** | **-1.2** |
| DYDN | | | | IAML | | 22 10 34.5 | |
| | comp=Z,12nm,0.5s | | | | | | |
| **TUTA** | **Tutak** | **0.83** | **320** | *e*P | **Pg** | **22 10 12.5** | **-1.7** |
| TUTA | | | | *e*S | **Sb** | **22 10 26.4** | **+0.6** |
| TUTA | | | | IAML | | 22 10 30.6 | |
| | comp=Z,40nm,0.2s | | | | | | |
| **TUTA** | **Tutak** | **0.83** | **320** | *i* P | **Pg** | **22 10 12.4** | **-1.7** |
| TUTA | | | | *i* S | **Sg** | **22 10 24.7** | **-0.3** |
| **TUTA** | **Tutak** | **0.83** | **320** | P | **Pg** | **22 10 12.4** | **-1.7** |
| TUTA | | | | S | **Sg** | **22 10 24.7** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **0.90** | **334** | *e*PG | **Pb** | **22 10 15.5** | **-0.2** |
| AGRB | | | | *e*SG | **Sn** | **22 10 29.3** | **-0.4** |
| **HAKT** | **HAKKARI** | **1.22** | **173** | *i* P | **Pg** | **22 10 18.9** | **-2.7** |
| HAKT | | | | *i* S | **Sn** | **22 10 41.0** | **+3.2** |
| **HAKT** | **HAKKARI** | **1.22** | **173** | P | **Pg** | **22 10 18.9** | **-2.7** |
| HAKT | | | | S | **Sn** | **22 10 41.0** | **+3.2** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.33** | **152** | *i* P | **Pn** | **22 10 21.6** | **-1.1** |
| YOVA | | | | *i* S | **Sn** | **22 10 41.9** | **+1.4** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.33** | **152** | P | **Pn** | **22 10 21.6** | **-1.1** |
| YOVA | | | | S | **Sn** | **22 10 41.9** | **+1.4** |
| **TASB** | **TASBURUN-IGDIR** | **1.34** | **25** | *e*PN | **Pg** | **22 10 23.5** | **-0.2** |
| TASB | | | | *e*SN | **Sn** | **22 10 43.4** | **+3.0** |
| **SRTM** | **Siirt_Merkez** | **1.47** | **238** | *i* P | **Pg** | **22 10 25.2** | **-1.0** |
| SRTM | | | | *i* S | **Sg** | **22 10 47.6** | **+2.3** |
| **SRTM** | **Siirt_Merkez** | **1.47** | **238** | P | **Pg** | **22 10 25.2** | **-1.0** |
| **SIRT** | **Sirnak** | **1.52** | **214** | *e*PN | **Pg** | **22 10 26.7** | **-0.5** |

*NIED **08** 22:11:00, 37°.50N×142°.80E, h8km, Mw3.7 Best double couple: M₀3.54000×10$^{14}$ NP1:φs225.00000°, δ26.00000°, λ-94.00000°. NP2:φs49.00000°, δ64.00000°, λ-88.00000°.*
*ISCJB **08** 22:11:01.6±0.7, 37°.54N±0°.06×142°.81E±0°.07, h24km, mb3.9/13, Error ellipse: s-maj=8.7km s-min=6.8km az=145.7*
*JMA **08** 22:11:01.8±0.2, 37°.51N×142°.76E, h27km, M4.0*
*IDC **08** 22:11:04.8±3.5, 37°.41N×142°.83E, h38km±29km, mb3.7/13, mb1 3.8/16, mb1mx3.7/44, mbtmp3.9/16, ML3.7/2, Error ellipse: s-maj=23.4km s-min=17.4km az=92.0*
**ISC 08 22:11:03.4**±0.8**, 37°.57N**±0°.07×**142°.79E**±0°.08**, h24**km**, n34,** σ1$^s$**34**/35**, mb3.8**/13**, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JIO** | **Ouri** | **1.44** | **308** | P | **Pn** | **22 11 26.9** | **-1.0** |
| JIO | | | | *e*S | **Sn** | **22 11 45.2** | **-0.8** |
| **JFK** | **Kawauchi** | **1.54** | **263** | P | **Pn** | **22 11 27.7** | **-1.7** |
| **JMM** | **Marumori** | **1.61** | **281** | P | **Pn** | **22 11 28.6** | **-1.7** |
| JMM | | | | *e*S | **Sn** | **22 11 48.4** | **-1.9** |
| **ONAJ** | **Iwakimizuishiy** | **1.65** | **254** | P | **Pn** | **22 11 29.2** | **-1.8** |
| **JMK** | **Ichinoseki** | **1.85** | **319** | P | **Pn** | **22 11 33.3** | **-0.3** |
| **JOU** | **Okura** | **1.85** | **296** | P | **Pn** | **22 11 33.1** | **-0.6** |
| **JFT** | **Otama** | **1.95** | **269** | P | **Pn** | **22 11 34.3** | **-0.7** |
| **JOM** | **Ohasama** | **2.23** | **329** | P | **Pn** | **22 11 38.9** | **0.0** |
| **JYK** | **Kaneyama** | **2.34** | **306** | P | **Pn** | **22 11 40.5** | **+0.2** |
| **JNS** | **Sasagawa** | **2.76** | **276** | P | **Pn** | **22 11 46.5** | **+0.3** |
| **JAG** | **Ashikaga** | **2.91** | **248** | P | **Pn** | **22 11 47.7** | **-0.5** |
| **JRY** | **Ryogami san** | **3.48** | **245** | P | **Pn** | **22 11 55.5** | **-0.7** |
| **MJAR** | **Matsushiro Arr** | **3.81** | **256** | Pn | **Pn** | **22 12 00.9** | **+0.4** |
| | 3.7nm,0.3s,baz=82,slow=15,SNR=20 | | | | | | |
| **MAT** | **Matsushiro** | **3.81** | **256** | P | **Pn** | **22 12 02.1** | **+1.5** |
| MAT | | | | S | **Sn** | **22 12 47.0** | **+2.4** |
| **ASAJ** | **Asahikawa** | **6.54** | **359** | Pn | **Pn** | **22 12 38.8** | **+0.7** |
| | 2.0nm,0.3s,baz=218,slow=12,SNR=7.5 | | | | | | |
| ASAJ | | | | Sn | **Sn** | **22 13 49.6** | **-2.1** |
| | 0.4nm,0.3s,baz=158,slow=19,SNR=3.0 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **10.51** | **312** | Pn | **Pn** | **22 13 34.8** | **+2.3** |
| | 0.3nm,0.3s,baz=117,slow=14,SNR=3.2 | | | | | | |
| **KLR** | **Kul'dur** | **14.13** | **329** | Pn | **Pn** | **22 14 21.6** | **-0.2** |
| | 0.0nm,0.3s,baz=139,slow=15,SNR=2.7 | | | | | | |
| **SEY** | **Seymchan** | **26.06** | **10** | P | **P** | **22 16 36.8** | **+2.2** |
| | 1.5nm,0.3s,baz=168,slow=5.4,SNR=4.9 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **27.51** | **124** | T | T | 22 45 38.3 | |
| | baz=315,slow=75,SNR=12 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **27.52** | **124** | T | T | 22 45 44.2 | |
| | baz=315,slow=75,SNR=6.6 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **27.52** | **124** | T | T | 22 45 51.6 | |
| | baz=315,slow=75,SNR=9.0 | | | | | | |
| **SONM** | **Songino Array** | **28.40** | **303** | P | **P** | **22 16 56.7** | **+0.6** |
| | 1.0nm,0.7s,baz=97,slow=7.3,SNR=5.8 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.36** | **312** | P | **P** | **22 18 56.0** | **+0.6** |
| | 0.9nm,0.7s,baz=70,slow=7.1,SNR=4.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.76** | **302** | P | **P** | **22 19 15.5** | **+0.6** |
| | 1.4nm,1.0s,baz=79,slow=7.9,SNR=4.1 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **46.53** | **308** | P | **P** | **22 19 29.1** | **+0.3** |
| | 2.7nm,0.7s,baz=82,slow=7.8,SNR=6.4 | | | | | | |
| **ILAR** | **Eielson Array** | **48.45** | **33** | P | **P** | **22 19 44.6** | **+1.1** |
| | 0.4nm,0.7s,baz=267,slow=6.2,SNR=7.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **57.76** | **189** | P | **P** | **22 20 51.7** | **-0.8** |
| | 0.3nm,0.5s,baz=7.9,slow=7.5,SNR=3.8 | | | | | | |
| **ASAR** | **Alice Springs** | **61.48** | **189** | P | **P** | **22 21 16.0** | **-2.2** |
| | 0.3nm,0.5s,baz=15,slow=7.7,SNR=3.0 | | | | | | |
| **GEYT** | **Alibeck** | **64.53** | **299** | P | **P** | **22 21 37.2** | **-1.2** |
| | 9.5nm,0.7s,baz=82,slow=10,SNR=2.8 | | | | | | |
| **FINES** | **FINESS Array B** | **68.84** | **333** | P | **P** | **22 22 05.9** | **+0.4** |
| | 2.1nm,0.6s,baz=54,slow=9.7,SNR=7.3 | | | | | | |
| **NOA** | **NORSAR Array B** | **74.11** | **338** | P | **P** | **22 22 38.0** | **+0.7** |
| | 1.0nm,0.6s,baz=41,slow=6.1,SNR=2.6 | | | | | | |
| **AKASG** | **Malin Array Be** | **74.53** | **323** | P | **P** | **22 22 39.7** | **-0.2** |
| | 1.1nm,0.4s,baz=46,slow=6.0,SNR=5.4 | | | | | | |
| **BRTR** | **Keskin Array B** | **79.31** | **312** | P | **P** | **22 23 08.4** | **+1.2** |
| | 0.9nm,0.9s,baz=25,slow=4.8,SNR=3.1 | | | | | | |
| **CPUP** | **Villa Florida** | **159.62** | **62** | PKPab | **PKPab** | **22 31 36.2** | **-2.5** |
| | 1.2nm,0.8s,baz=259,slow=5.6,SNR=3.0 | | | | | | |

**IDC 08 22:15:49.5**±1.7**, 10°.44S**×**124°.75E, h0**km**, mb3.7**/1**, mb1 3.6**/4**, mb1mx3.3**/38**, mbtmp3.5**/4**, ML3.4**/3**, Error ellipse: s-maj=98.9km s-min=26.7km az=64.0, Timor region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **7.67** | **174** | Pn | Pn | 22 17 43.0 | +0.5 |
| | 0.4nm,0.3s,baz=9.6,slow=13,SNR=12 | | | | | | |
| FITZ | | | | Sn | Sn | 22 19 04.7 | -5.5 |
| | 0.2nm,0.3s,baz=260,slow=18,SNR=2.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **13.22** | **137** | Pn | Pn | 22 18 57.7 | -0.9 |
| | 0.2nm,0.3s,baz=310,slow=15,SNR=13 | | | | | | |
| WRA | | | | Sn | Sn | 22 21 19.9 | -6.5 |
| | 0.2nm,0.3s,baz=312,slow=26,SNR=5.0 | | | | | | |
| **ASAR** | **Alice Springs** | **15.79** | **148** | Pn | Pn | 22 19 33.6 | +0.3 |
| | 0.3nm,0.3s,baz=321,slow=12,SNR=14 | | | | | | |
| ASAR | | | | Sn | Sn | 22 22 17.7 | -12 |
| | 0.1nm,0.3s,baz=314,slow=19,SNR=2.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **68.42** | **330** | P | P | 22 26 53.2 | 0.0 |
| | 0.6nm,0.7s,baz=138,slow=8.1,SNR=3.3 | | | | | | |

*NIED **08** 22:16:00, 37°.10N×141°.60E, h32km, Mw3.5 Best double couple: M₀2.36000×10$^{14}$ NP1:φs205.00000°, δ12.00000°, λ-92.00000°. NP2:φs28.00000°, δ78.00000°, λ-89.00000°.*
*ISCJB **08** 22:16:13.5±1.2, 37°.11N±0°.04×141°.67E±0°.06, h19km±6km, mb3.6/7, MS3.9/1, Error ellipse: s-maj=9.0km s-min=6.1km az=24.0*
*JMA **08** 22:16:16.5±0.2, 37°.11N×141°.47E, h44km±2km, M3.9*
*JMA Felt I J1.*
*IDC **08** 22:16:18.5±4.3, 37°.05N×141°.47E, h45km±40km, mb3.4/6, mb1 3.5/7, mb1mx3.4/40, mbtmp3.6/7, ML3.0/1, MS2.1/2, Ms1 2.1/2, ms1mx1.9/25, Error ellipse: s-maj=34.4km s-min=24.6km az=74.0*
**ISC 08 22:16:13.3**±1.9**, 37°.15N**±0°.05×**141°.51E**±0°.07**, h2**km±11km**, n28,** σ1$^s$**15**/31**, mb3.6**/7**, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JFK** | **Kawauchi** | **0.55** | **293** | P | **Pn** | **22 16 27.8** | **-0.4** |
| JFK | | | | S | **Sb** | **22 16 35.6** | **+1.5** |
| **ONAJ** | **Iwakimizuishiy** | **0.57** | **266** | P | **Pn** | **22 16 27.8** | **-0.7** |
| ONAJ | | | | S | **Sb** | **22 16 35.7** | **+1.0** |
| **JMM** | **Marumori** | **0.92** | **322** | P | **Pn** | **22 16 33.1** | **-0.1** |
| JMM | | | | S | **Sb** | **22 16 44.8** | **+0.3** |
| **JHO** | **Hitachi** | **0.93** | **235** | P | **Pb** | **22 16 32.2** | **+0.1** |
| JHO | | | | S | **Sg** | **22 16 43.5** | **+0.4** |
| **JFT** | **Otama** | **1.01** | **292** | S | **Sn** | **22 16 48.3** | **-0.9** |
| **JIO** | **Ouri** | **1.31** | **354** | P | **Pb** | **22 16 38.6** | **0.0** |
| JIO | | | | S | **Sg** | **22 16 53.8** | **-1.6** |
| **JOU** | **Okura** | **1.39** | **331** | P | **Pg** | **22 16 40.2** | **+0.3** |
| JOU | | | | *e*S | **Sb** | **22 16 57.8** | **-0.4** |
| **JFY** | **Yanaizu** | **1.46** | **281** | P | **Pg** | **22 16 41.6** | **+0.2** |
| JFY | | | | S | **Sg** | **22 17 00.6** | **+0.2** |
| **JYS** | **Shirataka** | **1.57** | **313** | P | **Pg** | **22 16 43.4** | **0.0** |
| JYS | | | | S | **Sg** | **22 17 03.9** | **+0.2** |
| **JAG** | **Ashikaga** | **1.80** | **247** | P | **Pn** | **22 16 45.5** | **+0.1** |
| JAG | | | | S | **Sn** | **22 17 06.7** | **-2.1** |
| **JKT** | **Katashina** | **1.85** | **259** | P | **Pb** | **22 16 47.2** | **-0.7** |
| **MJAR** | **Matsushiro Arr** | **2.72** | **258** | P | **Pn** | **22 16 58.6** | **+0.6** |
| | 3.0nm,0.3s,baz=75,slow=10,SNR=15 | | | | | | |
| MJAR | | | | S | **Sb** | **22 17 35.4** | **-1.1** |
| | 6.8nm,0.3s,baz=95,slow=15,SNR=5.8 | | | | | | |
| MJAR | | | | LR | LR | 22 17 45.9 | |
| | comp=Z,17nm,21.1s,baz=65,slow=33 | | | | | | |
| **MAT** | **Matsushiro** | **2.72** | **258** | P | **Pn** | **22 16 59.6** | **+1.6** |
| MAT | | | | S | **Sb** | **22 17 35.6** | **-0.8** |
| **KSRS** | **Korea Array** | **10.83** | **276** | LR | LR | 22 21 51.7 | |
| | comp=Z,18nm,20.6s,baz=127,slow=31 | | | | | | |
| **SONM** | **Songino Array** | **27.79** | **304** | P | **P** | **22 22 03.5** | **-0.2** |
| | 0.6nm,0.6s,baz=104,slow=8.1,SNR=5.0 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.14** | **121** | T | T | 22 51 39.1 | |
| | baz=317 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.15** | **121** | T | T | 22 51 39.8 | |
| | baz=317 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.16** | **121** | T | T | 22 51 40.5 | |
| | baz=317 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.86** | **123** | T | T | 22 52 27.8 | |
| | baz=314 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.86** | **123** | T | T | 22 52 28.1 | |
| | baz=314,slow=74 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.87** | **123** | T | T | 22 52 32.2 | |
| | baz=314,slow=74 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.90** | **312** | P | **P** | **22 24 04.4** | **-0.4** |
| | 1.7nm,0.7s,baz=89,slow=7.2,SNR=8.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.12** | **302** | P | **P** | **22 24 22.7** | **-0.3** |
| | 0.8nm,0.8s,baz=80,slow=6.8,SNR=4.1 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **45.99** | **308** | P | **P** | **22 24 37.0** | **-0.8** |
| | 0.9nm,0.4s,baz=84,slow=8.2,SNR=10 | | | | | | |
| **ILAR** | **Eielson Array** | **49.35** | **32** | P | **P** | **22 25 03.6** | **-0.1** |
| | 0.3nm,0.7s,baz=278,slow=6.9,SNR=3.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **57.19** | **188** | P | **P** | **22 26 00.1** | **-1.6** |
| | 0.2nm,0.4s,baz=6.0,slow=7.0,SNR=10 | | | | | | |
| **NEW** | **Newport** | **69.99** | **44** | LR | LR | 22 57 56.8 | |
| | comp=Z,64nm,18.8s,baz=250,slow=36 | | | | | | |
| **AKASG** | **Malin Array Be** | **74.25** | **322** | P | **P** | **22 27 55.4** | **+3.8** |
| | 0.5nm,0.4s,baz=48,slow=6.4,SNR=4.3 | | | | | | |

*NIED **08** 22:17:00, 38°.40N×141°.90E, h80km, Mw3.9 Best double couple: M₀7.50000×10$^{14}$ NP1:φs325.00000°, δ37.00000°, λ128.00000°. NP2:φs101.00000°, δ61.00000°, λ65.00000°.*
**JMA 08 22:17:24.5, 38°.41N**×**141°.85E, h55**km±1km**, M3.8, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JIO** | **Ouri** | **0.40** | **277** | P | Pn | 22 17 35.1 | +0.1 |
| JIO | | | | S | Sn | 22 17 42.3 | -0.2 |
| **OFUJ** | **Ofunato** | **0.68** | **348** | P | Pn | 22 17 38.3 | 0.0 |
| OFUJ | | | | S | Sn | 22 17 48.1 | -0.2 |
| **JMK** | **Ichinoseki** | **0.73** | **318** | P | Pn | 22 17 39.1 | +0.2 |
| JMK | | | | S | Sn | 22 17 49.4 | +0.1 |
| **JOU** | **Okura** | **0.93** | **268** | P | Pn | 22 17 41.6 | +0.1 |
| JOU | | | | S | Sn | 22 17 54.1 | +0.1 |
| **JMM** | **Marumori** | **0.99** | **237** | P | Pn | 22 17 42.1 | -0.2 |
| JMM | | | | S | Sn | 22 17 54.7 | -0.7 |
| **JOM** | **Ohasama** | **1.15** | **338** | P | Pn | 22 17 44.8 | +0.5 |
| JOM | | | | S | Sn | 22 17 59.7 | +0.6 |
| **JYK** | **Kaneyama** | **1.27** | **294** | P | Pn | 22 17 46.4 | +0.4 |
| JYK | | | | S | Sn | 22 18 02.5 | +0.4 |
| **JFK** | **Kawauchi** | **1.30** | **217** | P | Pn | 22 17 46.4 | 0.0 |
| JFK | | | | S | Sn | 22 18 02.3 | -0.4 |
| **JRG** | **Rokugo** | **1.37** | **316** | P | Pn | 22 17 47.7 | +0.4 |
| JRG | | | | S | Sn | 22 18 04.8 | +0.4 |
| **JYS** | **Shirataka** | **1.42** | **263** | P | Pn | 22 17 48.3 | +0.4 |
| JYS | | | | *e*S | Sn | 22 18 06.1 | +0.6 |
| **JFT** | **Otama** | **1.49** | **234** | P | Pn | 22 17 49.4 | +0.4 |
| JFT | | | | S | Sn | 22 18 07.5 | +0.1 |

*ATA **08** 22:24:09.8±1.0, 38°.75N×43°.48E, h0km±6km, ML3.3, MW3.3*
*ISK **08** 22:24:09.4, 38°.67N×43°.66E, h5km, ML2.7*
*CSEM **08** 22:24:10.5±0.2, 38°.71N×43°.62E, h2km, ML2.7, Error ellipse: s-maj=5.2km s-min=3.5km az=91.0*
*DDA **08** 22:24:26.9, 38°.72N×43°.58E, h3km, Ml3.3*
**ISC 08 22:24:11.7**±0.9**, 38°.74N**±0°.02×**43°.56E**±0°.02**, h12**km±6km**, n55,** σ1$^s$**32**/87**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.19** | **224** | *e*PG | **Pg** | **22 24 15.7** | **-0.3** |
| VANB | | | | *e*SG | **Sg** | **22 24 20.2** | **+1.2** |
| **VANB** | **Van** | **0.19** | **224** | *e*Pg | **Pg** | **22 24 15.7** | **-0.3** |
| VANB | | | | *e*Sg | **Sg** | **22 24 20.2** | **+1.2** |
| **TVAN** | **Van** | **0.24** | **211** | *i* P | **Pg** | **22 24 15.8** | **-1.0** |
| TVAN | | | | *i* S | **Sg** | **22 24 20.7** | **+0.4** |
| **TVAN** | **Van** | **0.24** | **211** | P | **Pg** | **22 24 15.8** | **-1.0** |
| TVAN | | | | S | **Sg** | **22 24 20.7** | **+0.4** |
| **VMUR** | **Van-Muradiye** | **0.25** | **2** | *i* P | **Pg** | **22 24 16.1** | **-1.0** |
| VMUR | | | | *i* S | **Sb** | **22 24 21.4** | **-1.5** |
| **VMUR** | **Van-Muradiye** | **0.25** | **2** | P | **Pg** | **22 24 16.1** | **-1.0** |
| VMUR | | | | S | **Sb** | **22 24 21.4** | **-1.5** |
| **CLDR** | **Caldiran** | **0.49** | **34** | *e*PG | **Pg** | **22 24 20.6** | **-0.8** |
| CLDR | | | | *e*SG | **Sb** | **22 24 28.9** | **-0.9** |
| **CLDR** | **Caldiran** | **0.49** | **34** | *i* P | **Pg** | **22 24 20.5** | **-0.9** |
| CLDR | | | | *i* S | **Sb** | **22 24 30.1** | **+0.3** |
| **CLDR** | **Caldiran** | **0.49** | **34** | P | **Pg** | **22 24 20.5** | **-0.9** |
| CLDR | | | | *e*Sg | **Sb** | **22 24 28.9** | **-0.9** |
| CLDR | | | | S | **Sb** | **22 24 30.1** | **+0.3** |
| **GEVA** | **Gevas** | **0.58** | **223** | *e*P | **Pg** | **22 24 21.1** | **-1.8** |
| GEVA | | | | *e*S | **Sb** | **22 24 31.4** | **-0.8** |
| GEVA | | | | IAML | | 22 24 36.8 | |
| | comp=Z,121nm,0.3s | | | | | | |
| **GEVA** | **Gevas** | **0.58** | **223** | *i* P | **Pg** | **22 24 21.2** | **-1.8** |
| GEVA | | | | *i* S | **Sb** | **22 24 31.3** | **-0.8** |
| **GEVA** | **Gevas** | **0.58** | **223** | P | **Pg** | **22 24 21.2** | **-1.8** |
| GEVA | | | | S | **Sb** | **22 24 31.3** | **-0.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.66** | **277** | *i* P | **Pg** | **22 24 23.1** | **-1.4** |
| ADCV | | | | *i* S | **Sg** | **22 24 33.5** | **+0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.66** | **277** | P | **Pg** | **22 24 23.1** | **-1.4** |
| ADCV | | | | S | **Sg** | **22 24 33.5** | **+0.3** |
| **BASK** | **Baskale_VAN** | **0.77** | **153** | *i* P | **Pg** | **22 24 24.5** | **-2.0** |
| BASK | | | | *i* S | **Sb** | **22 24 38.0** | **+0.4** |
| **BASK** | **Baskale_VAN** | **0.77** | **153** | P | **Pg** | **22 24 24.5** | **-2.0** |
| BASK | | | | S | **Sb** | **22 24 38.0** | **+0.4** |
| **DYDN** | **Diyadin** | **0.81** | **7** | *e*P | **Pg** | **22 24 26.8** | **-0.7** |
| **DYDN** | **Diyadin** | **0.81** | **7** | *i* P | **Pg** | **22 24 26.6** | **-0.9** |
| DYDN | | | | *i* S | **Sb** | **22 24 39.1** | **+0.2** |
| **DYDN** | **Diyadin** | **0.81** | **7** | P | **Pg** | **22 24 26.5** | **-0.9** |
| DYDN | | | | S | **Sb** | **22 24 39.2** | **+0.2** |
| **TUTA** | **Tutak** | **0.88** | **319** | *e*P | **Pg** | **22 24 26.8** | **-2.0** |
| TUTA | | | | *e*S | **Sg** | **22 24 40.2** | **-0.1** |
| TUTA | | | | IAML | | 22 24 41.4 | |
| | comp=Z,144nm,0.2s | | | | | | |
| **TUTA** | **Tutak** | **0.88** | **319** | *i* P | **Pg** | **22 24 26.6** | **-2.2** |
| TUTA | | | | *i* S | **Sg** | **22 24 39.8** | **-0.6** |
| **TUTA** | **Tutak** | **0.88** | **319** | P | **Pg** | **22 24 26.6** | **-2.2** |
| TUTA | | | | S | **Sg** | **22 24 39.8** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **0.95** | **332** | *e*PG | **Pb** | **22 24 30.2** | **0.0** |
| **AGRB** | **Hanur-Agry** | **0.95** | **332** | *e*Pg | **Pb** | **22 24 30.2** | **0.0** |
| **HAKT** | **HAKKARI** | **1.18** | **174** | *i* P | **Pg** | **22 24 32.0** | **-2.4** |
| HAKT | | | | *i* S | **Sn** | **22 24 52.3** | **+1.9** |
| **HAKT** | **HAKKARI** | **1.18** | **174** | P | **Pg** | **22 24 32.0** | **-2.4** |
| HAKT | | | | S | **Sn** | **22 24 52.3** | **+1.9** |
| **EKAR** | **Karacoban** | **1.28** | **294** | *e*P | **Pg** | **22 24 34.4** | **-1.8** |
| **EKAR** | **Karacoban** | **1.28** | **294** | *i* P | **Pg** | **22 24 34.5** | **-1.8** |
| EKAR | | | | *i* S | **Sn** | **22 24 54.2** | **+1.4** |
| **EKAR** | **Karacoban** | **1.28** | **294** | P | **Pg** | **22 24 34.5** | **-1.8** |
| EKAR | | | | S | **Sn** | **22 24 54.2** | **+1.4** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.28** | **153** | *i* P | **Pg** | **22 24 34.1** | **-2.2** |
| YOVA | | | | *i* S | **Sn** | **22 24 55.4** | **+2.5** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.28** | **153** | P | **Pg** | **22 24 34.1** | **-2.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.35** | **23** | *e*PN | **Pb** | **22 24 36.7** | **-0.3** |
| **TASB** | **TASBURUN-IGDIR** | **1.35** | **23** | *e*Pn | **Pb** | **22 24 36.7** | **-0.3** |
| **EATA** | **Eleskirt** | **1.40** | **324** | *e*P | **Pn** | **22 24 37.6** | **+0.2** |
| **EATA** | **Eleskirt** | **1.40** | **324** | *i* P | **Pn** | **22 24 37.1** | **-0.2** |
| EATA | | | | *i* S | **Sn** | **22 24 58.0** | **+2.1** |
| **EATA** | **Eleskirt** | **1.40** | **324** | P | **Pn** | **22 24 37.2** | **-0.2** |
| EATA | | | | S | **Sn** | **22 24 58.0** | **+2.1** |
| **CUKT** | **Cukurca** | **1.49** | **179** | *e*PN | **Pn** | **22 24 37.4** | **-1.0** |
| **CUKT** | **Cukurca** | **1.49** | **179** | *i* P | **Pn** | **22 24 38.3** | **-0.1** |
| CUKT | | | | *i* S | **Sn** | **22 25 02.0** | **+4.2** |
| **CUKT** | **Cukurca** | **1.49** | **179** | *e*Pn | **Pn** | **22 24 37.4** | **-1.0** |
| **CUKT** | **Cukurca** | **1.49** | **179** | P | **Pn** | **22 24 38.3** | **-0.1** |
| **SRTM** | **Siirt_Merkez** | **1.49** | **241** | *i* P | **Pn** | **22 24 38.7** | **+0.3** |
| SRTM | | | | *i* S | **Sg** | **22 25 00.3** | **+0.7** |
| **SRTM** | **Siirt_Merkez** | **1.49** | **241** | P | **Pn** | **22 24 38.7** | **+0.3** |
| SRTM | | | | S | **Sg** | **22 25 00.3** | **+0.7** |
| **SIRT** | **Sirnak** | **1.52** | **216** | *e*PN | **Pn** | **22 24 39.0** | **+0.2** |
| **SIRT** | **Sirnak** | **1.52** | **216** | *e*Pn | **Pn** | **22 24 39.0** | **+0.2** |
| **DIGO** | **Kars** | **1.68** | **355** | *e*P | **Pn** | **22 24 41.9** | **+0.7** |
| DIGO | | | | IAML | | 22 24 52.7 | |
| | comp=Z,4.9nm,0.6s | | | | | | |
| **VRTB** | **Varto-Mus** | **1.70** | **285** | *e*PN | **Pb** | **22 24 42.9** | **0.0** |
| **VRTB** | **Varto-Mus** | **1.70** | **285** | *e*Pn | **Pb** | **22 24 42.9** | **0.0** |
| **HOMI** | **Horasan** | **1.83** | **316** | *e*P | **Pn** | **22 24 44.5** | **+1.2** |
| **KARS** | **Kars** | **1.93** | **349** | *e*PN | **Pb** | **22 24 46.0** | **-0.8** |
| **KARS** | **Kars** | **1.93** | **349** | *e*Pn | **Pb** | **22 24 46.0** | **-0.9** |
| **EAK** | **Akyaka** | **1.95** | **1** | *e*P | **Pg** | **22 24 47.9** | **-1.2** |
| **SENK** | **Senkaya-Erzuru** | **2.05** | **333** | *e*PN | **Pb** | **22 24 48.3** | **-0.7** |
| **SENK** | **Senkaya-Erzuru** | **2.05** | **333** | *e*Pn | **Pb** | **22 24 48.3** | **-0.7** |
| **ERZM** | **Erzurum** | **2.06** | **305** | *e*P | **Pb** | **22 24 48.4** | **-0.9** |
| **ECAT** | **Cat-ERZURUM** | **2.19** | **294** | *e*P | **Pn** | **22 24 49.8** | **+1.6** |

*CSEM **08** 22:39:26.8±0.2, 50°.20N×7°.80E, h12km, ML2.3/6, Error ellipse: s-maj=3.2km s-min=2.8km az=30.0*
*BGR **08** 22:39:27.0±0.3, 50°.21N×7°.80E, h10km, ML1.7/2, Error ellipse: s-maj=3.3km s-min=3.3km az=59.0*
*BNS **08** 22:39:26.8±1.1, 50°.18N×7°.84E, h9km±9km, ML1.5*
*LDG **08** 22:39:27.3±0.1, 50°.21N×7°.82E, h8km, Md2.5/3, Ml2.5/7, Error ellipse: s-maj=1.8km s-min=1.7km az=159.0*
**ISC 08 22:39:27.0**±0.8**, 50°.21N**±0°.02×**7°.81E**±0°.02**, h14**km±6km**, n66,** σ**0**$^s$**80**/102**, 6C-1D, Germany**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FACH** | **Fachingen** | **0.19** | **38** | ⇑P* | **Pg** | **22 39 31.0** | **-0.4** |
| FACH | | | | S* | **Sg** | **22 39 33.7** | **-0.6** |
| **FACH** | **Fachingen** | **0.19** | **38** | Pb | **Pg** | **22 39 31.0** | **-0.4** |
| FACH | | | | Sb | **Sg** | **22 39 33.7** | **-0.6** |
| **BGG** | **Burgeitz** | **0.31** | **270** | ⇑*i*Pg | **Pg** | **22 39 33.6** | **+0.3** |
| BGG | | | | *e*Sg | **Sg** | **22 39 37.6** | **-0.1** |
| | 52nm,0.5s | | | | | | |
| **BGG** | **Burgeitz** | **0.31** | **270** | Pg | **Pg** | **22 39 33.6** | **+0.3** |
| BGG | | | | Sg | **Sg** | **22 39 37.6** | **-0.1** |
| | 52nm,0.5s | | | | | | |
| **ABH** | **Alteburg** | **0.37** | **208** | ⇑*i*P* | **Pg** | **22 39 34.6** | **+0.2** |
| **ABH** | **Alteburg** | **0.37** | **208** | Pb | **Pg** | **22 39 34.7** | **+0.2** |
| **TNS** | **Taunus Mts** | **0.41** | **88** | ⇑P* | **Pg** | **22 39 35.1** | **-0.1** |
| TNS | | | | S* | **Sg** | **22 39 40.4** | **-0.3** |
| **TNS** | **Taunus Mts** | **0.41** | **88** | Pb | **Pg** | **22 39 35.1** | **-0.1** |
| TNS | | | | Sb | **Sg** | **22 39 40.4** | **-0.3** |
| **FSH** | **Hochheid** | **0.47** | **254** | ⇑*i*P* | **Pg** | **22 39 36.6** | **+0.2** |
| FSH | | | | S* | **Sg** | **22 39 42.6** | **-0.1** |
| FSH | | | | SmS | | 22 39 47.2 | |
| **FSH** | **Hochheid** | **0.47** | **254** | Pb | **Pg** | **22 39 36.6** | **+0.2** |
| FSH | | | | Sb | **Sg** | **22 39 42.6** | **-0.1** |
| FSH | | | | S | **Sb** | **22 39 47.2** | **+3.3** |
| **BIW** | **Bindweide** | **0.52** | **2** | ⇑P* | **Pg** | **22 39 37.2** | **-0.1** |
| BIW | | | | S* | **Sg** | **22 39 44.0** | **-0.3** |
| **BIW** | **Bindweide** | **0.52** | **2** | Pb | **Pg** | **22 39 37.2** | **-0.1** |
| BIW | | | | Sb | **Sg** | **22 39 44.0** | **-0.3** |
| **AHRW** | **Bad Neuenahr-A** | **0.58** | **305** | P* | **Pg** | **22 39 38.6** | **+0.4** |
| AHRW | | | | *e*Sg | **Sg** | **22 39 45.2** | **-0.8** |
| **AHRW** | **Bad Neuenahr-A** | **0.58** | **305** | Pb | **Pg** | **22 39 38.7** | **+0.4** |
| AHRW | | | | Sg | **Sg** | **22 39 45.2** | **-0.8** |
| **IMS** | **Imsbach** | **0.62** | **175** | P* | **Pb** | **22 39 39.4** | **-0.1** |
| IMS | | | | PmP | | 22 39 41.1 | |
| IMS | | | | S* | **Sb** | **22 39 48.0** | **-0.1** |
| **IMS** | **Imsbach** | **0.62** | **175** | Pb | **Pb** | **22 39 39.4** | **-0.1** |
| **IMS** | **Imsbach** | **0.62** | **175** | P | **Pn** | **22 39 41.1** | **-0.2** |
| IMS | | | | Sb | **Sb** | **22 39 48.0** | **-0.1** |
| **WBB** | **Darmstadt** | **0.66** | **123** | P* | **Pb** | **22 39 41.2** | **+1.0** |
| **WBB** | **Darmstadt** | **0.66** | **123** | Pb | **Pb** | **22 39 41.2** | **+1.0** |
| **RUP** | **Ruppelstein** | **0.70** | **224** | P* | **Pb** | **22 39 41.4** | **+0.4** |
| RUP | | | | PmP | | 22 39 42.4 | |
| **RUP** | **Ruppelstein** | **0.70** | **224** | Pb | **Pb** | **22 39 41.4** | **+0.4** |
| **RUP** | **Ruppelstein** | **0.70** | **224** | P | **Pn** | **22 39 42.4** | **-0.1** |
| **HILG** | **Hillesheim** | **0.73** | **277** | *e*Pg | **Pg** | **22 39 41.3** | **0.0** |
| HILG | | | | *e*Sg | **Sg** | **22 39 51.3** | **+0.4** |
| **HILG** | **Hillesheim** | **0.73** | **277** | Pg | **Pg** | **22 39 41.3** | **0.0** |
| HILG | | | | Sg | **Sg** | **22 39 51.3** | **+0.4** |
| **HOBG** | **Hohbusch** | **0.83** | **339** | *e*Pg | **Pg** | **22 39 43.3** | **+0.1** |
| **HOBG** | **Hohbusch** | **0.83** | **339** | Pg | **Pg** | **22 39 43.3** | **+0.1** |
| **RIVT** | **Riveris** | **0.84** | **234** | ⇓P* | **Pg** | **22 39 42.2** | **-1.1** |
| **RIVT** | **Riveris** | **0.84** | **234** | Pb | **Pg** | **22 39 42.2** | **-1.1** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TOD** | **Tromm** | **0.88** | **133** | P* | **Pb** | **22 39 44.7** | **+0.7** |
| **TOD** | **Tromm** | **0.88** | **133** | Pb | **Pb** | **22 39 44.7** | **+0.7** |
| **SWS** | **Schriesheim-Wi** | **0.93** | **141** | S* | **Sb** | **22 39 57.1** | **+0.3** |
| SWS | | | | SmS | | 22 39 58.5 | |
| **SWS** | **Schriesheim-Wi** | **0.93** | **141** | Sb | **Sb** | **22 39 57.2** | **+0.3** |
| SWS | | | | S | **Sn** | **22 39 58.5** | **-0.1** |
| **BLI** | **Bleialf** | **0.98** | **272** | P* | **Pg** | **22 39 45.6** | **-0.3** |
| BLI | | | | PmP | | 22 39 46.8 | |
| BLI | | | | SmS | | 22 39 59.7 | |
| **BLI** | **Bleialf** | **0.98** | **272** | Pb | **Pg** | **22 39 45.6** | **-0.3** |
| **BLI** | **Bleialf** | **0.98** | **272** | P | **Pn** | **22 39 46.8** | **+0.5** |
| BLI | | | | S | **Sb** | **22 39 59.7** | **+1.2** |
| **WBG** | **Bieber** | **0.98** | **92** | P* | **Pg** | **22 39 45.9** | **-0.1** |
| WBG | | | | S* | **Sg** | **22 39 57.4** | **-1.5** |
| **WBG** | **Bieber** | **0.98** | **92** | Pb | **Pg** | **22 39 45.9** | **-0.1** |
| WBG | | | | Sb | **Sg** | **22 39 57.4** | **-1.5** |
| **PEB** | **Petersbachel** | **1.15** | **183** | P | **Pb** | **22 39 48.2** | **-0.3** |
| PEB | | | | Pg | **Pn** | **22 39 49.0** | **+0.5** |
| PEB | | | | Sg | **Sb** | **22 40 03.6** | **+0.4** |
| **PEB** | **Petersbachel** | **1.15** | **183** | P | **Pb** | **22 39 48.2** | **-0.3** |
| **WLF** | **Walferdange** | **1.20** | **244** | Pg | **Pb** | **22 39 49.0** | **-0.5** |
| WLF | | | | *e*Sg | **Sb** | **22 40 05.1** | **+0.2** |
| **WLF** | **Walferdange** | **1.20** | **244** | Pg | **Pb** | **22 39 49.0** | **-0.5** |
| WLF | | | | Sg | **Sb** | **22 40 05.1** | **+0.2** |
| **MEM** | **Membach** | **1.22** | **290** | *e*Sg | **Sb** | **22 40 05.6** | **+0.1** |
| **MEM** | **Membach** | **1.22** | **290** | Sg | **Sb** | **22 40 05.6** | **+0.1** |
| **LANF** | **Langenberg** | **1.23** | **180** | Sg | **Sn** | **22 40 06.7** | **+0.6** |
| **LANF** | **Langenberg** | **1.23** | **180** | Sg | **Sn** | **22 40 06.7** | **+0.6** |
| **BUG** | **Bochum--Univer** | **1.28** | **345** | *e*Pg | **Pg** | **22 39 51.5** | **-0.1** |
| BUG | | | | *e*Sg | **Sb** | **22 40 07.5** | **+0.4** |
| **SIND** | **Sindeldorf** | **1.45** | **126** | Sg | **Sg** | **22 40 13.5** | **0.0** |
| **SIND** | **Sindeldorf** | **1.45** | **126** | Sg | **Sg** | **22 40 13.5** | **0.0** |
| **OPP** | **Oppenau** | **1.73** | **172** | Sg | **Sg** | **22 40 22.2** | **-0.4** |
| **OPP** | **Oppenau** | **1.73** | **172** | Sg | **Sg** | **22 40 22.2** | **-0.4** |
| **CDF** | **Champ du Feu** | **1.83** | **191** | *e*Pn | **Pn** | **22 39 58.1** | **0.0** |
| **CDF** | **Champ du Feu** | **1.83** | **191** | *e*Pg | **Pb** | **22 40 00.7** | **+0.4** |
| CDF | | | | *e*Sg | **Sb** | **22 40 24.1** | **+1.0** |
| | 6.3nm,0.4s | | | | | | |
| **CDF** | **Champ du Feu** | **1.83** | **191** | *e*Pn | **Pn** | **22 39 58.1** | **0.0** |
| **CDF** | **Champ du Feu** | **1.83** | **191** | *e*Pg | **Pb** | **22 40 00.7** | **+0.4** |
| CDF | | | | *e*Sg | **Sb** | **22 40 24.1** | **+1.0** |
| | 3.2nm,0.4s | | | | | | |
| **BFO** | **Black Forest** | **1.91** | **170** | Sg | **Sg** | **22 40 27.8** | **-0.6** |
| **BFO** | **Black Forest** | **1.91** | **170** | Sg | **Sg** | **22 40 27.8** | **-0.6** |
| **GIVF** | **Givet** | **1.93** | **268** | *e*Sn | **Sn** | **22 40 22.7** | **-0.6** |
| GIVF | | | | *e*Sg | **Sg** | **22 40 28.2** | **-0.7** |
| | 6.4nm,0.2s | | | | | | |
| **GIVF** | **Givet** | **1.93** | **268** | *e*Sn | **Sn** | **22 40 22.7** | **-0.6** |
| GIVF | | | | *e*Sg | **Sg** | **22 40 28.2** | **-0.7** |
| | 3.2nm,0.2s | | | | | | |
| **ECH** | **Echery** | **2.04** | **192** | *e*Sg | **Sb** | **22 40 30.6** | **+1.6** |
| **ECH** | **Echery** | **2.04** | **192** | Sg | **Sb** | **22 40 30.6** | **+1.6** |
| **BAIF** | **Baives** | **2.33** | **268** | *e*Pg | **Pg** | **22 40 10.5** | **-1.0** |
| BAIF | | | | *e*Sg | **Sg** | **22 40 41.0** | **-0.7** |
| | 2.9nm,0.2s | | | | | | |
| **BAIF** | **Baives** | **2.33** | **268** | *e*Pg | **Pg** | **22 40 10.5** | **-1.0** |
| BAIF | | | | *e*Sg | **Sg** | **22 40 41.0** | **-0.7** |
| | 1.5nm,0.2s | | | | | | |
| **HAU** | **Haudompre** | **2.41** | **204** | *e*Pg | **Pb** | **22 40 10.1** | **+0.1** |
| HAU | | | | *e*Sg | **Sg** | **22 40 43.2** | **-1.1** |
| | 3.2nm,0.3s | | | | | | |
| **HAU** | **Haudompre** | **2.41** | **204** | *e*Pg | **Pb** | **22 40 10.1** | **+0.1** |
| HAU | | | | *e*Sg | **Sg** | **22 40 43.2** | **-1.1** |
| | 1.6nm,0.3s | | | | | | |
| **HINF** | **Hinteralfeld** | **2.48** | **195** | *e*Sn | **Sn** | **22 40 35.2** | **-1.7** |
| HINF | | | | *e*Sg | **Sb** | **22 40 44.1** | **+2.5** |
| | 3.6nm,0.3s | | | | | | |
| **HINF** | **Hinteralfeld** | **2.48** | **195** | *e*Sn | **Sn** | **22 40 35.2** | **-1.7** |
| HINF | | | | *e*Sg | **Sb** | **22 40 44.1** | **+2.5** |
| | 1.8nm,0.3s | | | | | | |

**IDC 08 22:50:46.1±7.3, 5°.00S×12°.87W, h0km, mb3.7/3, mb1 3.7/3, mb1mx3.5/28, mbtmp3.7/3, MS3.5/10, Ms1 3.5/10, ms1mx3.3/28, Error ellipse: s-maj=351.8km s-min=115.9km az=139.0, North of Ascension Island**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **H10N2** | **ASCENSION HYDR** | **3.24** | **210** | T | T | 22 55 15.3 | |
| | baz=66,slow=74,SNR=135 | | | | | | |
| **H10N1** | **ASCENSION HYDR** | **3.25** | **209** | T | T | 22 55 15.0 | |
| | baz=66,slow=74,SNR=163 | | | | | | |
| **H10N3** | **ASCENSION HYDR** | **3.26** | **210** | T | T | 22 55 15.1 | |
| | baz=66,slow=74,SNR=123 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **4.30** | **204** | T | T | 22 55 59.4 | |
| | baz=52,slow=75,SNR=43 | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **4.31** | **204** | T | T | 22 56 06.5 | |
| | baz=52,slow=75,SNR=38 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **4.32** | **204** | T | T | 22 56 00.8 | |
| | baz=52,slow=75,SNR=39 | | | | | | |
| **DBIC** | **Dimbokro** | **14.08** | **35** | LR | LR | 22 58 47.0 | |
| | comp=Z,54nm,18.6s,baz=203,slow=34 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **23.11** | **39** | P | P | 22 55 54.0 | 0.0 |
| | 2.7nm,0.9s,baz=214,slow=12,SNR=14 | | | | | | |
| TORD | | | | LR | LR | 23 04 03.9 | |
| | comp=Z,108nm,18.5s,baz=195,slow=34 | | | | | | |
| **BOSA** | **Boshof** | **43.09** | **127** | LR | LR | 23 12 00.7 | |
| | comp=Z,25nm,20.2s,baz=274,slow=30 | | | | | | |
| **KEST** | **Kesra** | **45.56** | **26** | LR | LR | 23 18 36.0 | |
| | comp=Z,92nm,18.5s,baz=312,slow=37 | | | | | | |
| **CPUP** | **Villa Florida** | **47.45** | **239** | LR | LR | 23 18 00.9 | |
| | comp=Z,72nm,18.6s,baz=65,slow=34 | | | | | | |
| **KMBO** | **Kilima Mbogo** | **50.18** | **87** | LR | LR | 23 19 25.4 | |
| | comp=Z,67nm,18.6s,baz=94,slow=34 | | | | | | |
| **LPAZ** | **La Paz** | **55.30** | **254** | LR | LR | 23 24 07.8 | |
| | comp=Z,58nm,18.6s,baz=100,slow=36 | | | | | | |
| **BRTR** | **Keskin Array B** | **61.72** | **39** | P | P | 23 01 06.7 | +0.1 |
| | 0.5nm,0.7s,baz=218,slow=9.1,SNR=3.2 | | | | | | |
| BRTR | | | | LR | LR | 23 28 32.8 | |
| | comp=Z,15nm,20.7s,baz=250,slow=37 | | | | | | |
| **ROSC** | **El Rosal** | **62.15** | **278** | LR | LR | 23 28 12.8 | |
| | comp=Z,44nm,19.4s,baz=221,slow=36 | | | | | | |
| **AKASG** | **Malin Array Be** | **66.21** | **28** | P | P | 23 01 35.5 | -0.2 |
| | 0.5nm,0.4s,baz=226,slow=6.4,SNR=4.7 | | | | | | |
| **GEYT** | **Alibeck** | **78.25** | **50** | LR | LR | 23 39 22.9 | |
| | comp=Z,33nm,18.2s,baz=15,slow=37 | | | | | | |

*CSEM **08** 22:55:41.5±0.2, 38°.85N×26°.39E, h8km, ML1.6, Error ellipse: s-maj=5.9km s-min=3.5km az=84.0*
*ATH **08** 22:55:41.1, 38°.87N×26°.38E, h21km±10km, ML1.6/4, Error ellipse: s-maj=10.5km s-min=1.1km az=294.0*
*DDA **08** 22:55:41.1, 38°.83N×26°.36E, h7km, Ml2.7*
**ISC 08 22:55:41.3±1.1, 38°.85N±0°.02×26°.39E±0°.04, h5km±11km, n16, σ0s.60/32, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PRK** | **Paraskevi** | **0.41** | **347** | P | **Pg** | **22 55 49.3** | **0.0** |
| PRK | | | | S | **Sg** | **22 55 55.3** | **+0.7** |
| PRK | | | | AML | AML | 22 55 56.2 | |
| | comp=E,179µm,0.2s | | | | | | |
| PRK | | | | AML | AML | 22 55 56.6 | |
| | comp=N,237µm,0.4s | | | | | | |
| **PRK** | **Paraskevi** | **0.41** | **347** | P | **Pg** | **22 55 49.3** | **0.0** |
| PRK | | | | S | **Sg** | **22 55 55.3** | **+0.7** |
| **URLA** | **Izmir** | **0.51** | **162** | *i* P | **Pg** | **22 55 51.1** | **-0.1** |
| URLA | | | | *i* S | **Sg** | **22 55 58.8** | **+1.0** |
| **URLA** | **Izmir** | **0.51** | **162** | P | **Pg** | **22 55 51.1** | **-0.1** |
| URLA | | | | S | **Sg** | **22 55 58.8** | **+1.0** |
| **CHOS** | **Chios island** | **0.53** | **210** | P | **Pb** | **22 55 52.6** | **-0.5** |
| CHOS | | | | S | **Sg** | **22 55 59.0** | **+0.6** |
| CHOS | | | | AML | AML | 22 56 00.1 | |
| | comp=N,103µm,0.2s | | | | | | |
| CHOS | | | | AML | AML | 22 56 02.7 | |
| | comp=E,161µm,0.2s | | | | | | |
| **CHOS** | **Chios island** | **0.53** | **210** | P | **Pb** | **22 55 52.6** | **-0.5** |
| CHOS | | | | S | **Sg** | **22 55 59.0** | **+0.6** |
| **SIGR** | **SIGRI** | **0.56** | **311** | P | **Pg** | **22 55 52.0** | **0.0** |
| SIGR | | | | S | **Sg** | **22 55 59.3** | **+0.1** |
| SIGR | | | | AML | AML | 22 56 01.8 | |
| | comp=N,88µm,0.4s | | | | | | |
| SIGR | | | | AML | AML | 22 56 02.0 | |
| | comp=E,118µm,0.5s | | | | | | |
| **SIGR** | **SIGRI** | **0.56** | **311** | P | **Pg** | **22 55 52.0** | **0.0** |
| SIGR | | | | S | **Sg** | **22 55 59.3** | **+0.1** |
| **ZEY** | **˜zmir** | **0.61** | **172** | *i* P | **Pg** | **22 55 53.0** | **-0.1** |
| ZEY | | | | *i* S | **Sg** | **22 56 01.4** | **+0.3** |
| **DGB** | **˜zmir** | **0.88** | **154** | *i* P | **Pg** | **22 55 57.8** | **-0.5** |
| DGB | | | | *i* S | **Sb** | **22 56 10.8** | **-0.3** |
| **BAYC** | **CANAKKALE_Bayr** | **0.90** | **8** | *i* P | **Pb** | **22 55 58.9** | **-0.6** |
| BAYC | | | | *i* S | **Sg** | **22 56 10.4** | **+0.1** |
| **BAYC** | **CANAKKALE_Bayr** | **0.90** | **8** | P | **Pb** | **22 55 58.9** | **-0.6** |
| BAYC | | | | S | **Sg** | **22 56 10.4** | **+0.1** |
| **STEP** | **BALIKESIR_Sava** | **1.16** | **62** | *i* P | **Pb** | **22 56 03.5** | **-0.4** |
| STEP | | | | *i* S | **Sn** | **22 56 20.8** | **+0.4** |
| **STEP** | **BALIKESIR_Sava** | **1.16** | **62** | P | **Pb** | **22 56 03.5** | **-0.4** |
| STEP | | | | S | **Sn** | **22 56 20.8** | **+0.4** |
| **SMG** | **Samos** | **1.19** | **163** | P | **Pb** | **22 56 03.2** | **-1.1** |
| SMG | | | | S | **Sn** | **22 56 22.1** | **+1.0** |
| SMG | | | | AML | AML | 22 56 22.6 | |
| | comp=E,87µm,0.4s | | | | | | |
| SMG | | | | AML | AML | 22 56 23.4 | |
| | comp=N,98µm,0.5s | | | | | | |
| **SMG** | **Samos** | **1.19** | **163** | P | **Pb** | **22 56 03.2** | **-1.1** |
| SMG | | | | S | **Sn** | **22 56 22.1** | **+1.0** |

**KRSC 08 22:59:04.7±1.5, 49°.02N×156°.52E, h16km±25km, ML3.7, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SKR** | **Severo-Kuril's** | **1.69** | **351** | *e*P | Pn | 22 59 34.3 | +0.8 |
| SKR | | | | *e*S | Sb | 22 59 55.9 | -0.4 |
| **KDTR** | **Khodutka, Kamc** | **2.97** | **19** | *e*P | Pn | 22 59 53.0 | +2.0 |
| KDTR | | | | *e*S | Sb | 23 00 30.1 | -3.0 |
| **ASAK** | **Asacha** | **3.48** | **14** | *e*P | Pb | 23 00 02.4 | -3.6 |
| **RUS** | **Russkaya** | **3.65** | **20** | *e*P | Pn | 23 00 03.1 | +2.7 |
| RUS | | | | *e*S | Sn | 23 00 46.9 | +3.9 |
| **UGLR** | **Uglovaya** | **4.44** | **18** | *e*P | Pn | 23 00 16.7 | +5.3 |
| **AVH** | **Avacha** | **4.48** | **17** | *e*P | Pn | 23 00 16.5 | +4.6 |
| **SDLR** | **Sedlovina** | **4.52** | **18** | *e*P | Pn | 23 00 16.4 | +3.9 |
| **GNL** | **Ganaly** | **4.77** | **10** | *e*P | Pn | 23 00 19.6 | +3.7 |

*ISK **08** 23:03:03.5, 38°.14N×42°.54E, h5km, ML2.2*
*ISCJB **08** 23:03:04.6±0.6, 38°.14N±0°.02×42°.56E±0°.04, h3km±6km, Error ellipse: s-maj=5.3km s-min=4.0km az=10.6*
*CSEM **08** 23:03:04.6±0.2, 38°.14N×42°.59E, h8km, ML2.9, Error ellipse: s-maj=4.2km s-min=3.3km az=100.0*
*DDA **08** 23:03:04.1, 38°.14N×42°.56E, h7km, Ml2.9*
**ISC 08 23:03:04.5±1.1, 38°.14N±0°.02×42°.56E±0°.03, h8km±9km, n22, σ0s.68/38, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GEVA** | **Gevas** | **0.43** | **67** | *i* P | **Pg** | **23 03 12.6** | **-0.3** |
| GEVA | | | | *i* S | **Sg** | **23 03 19.5** | **+0.9** |
| **GEVA** | **Gevas** | **0.43** | **67** | P | **Pg** | **23 03 12.6** | **-0.3** |
| GEVA | | | | S | **Sg** | **23 03 19.5** | **+0.9** |
| **SRTM** | **Siirt_Merkez** | **0.52** | **253** | *i* P | **Pb** | **23 03 16.2** | **+0.2** |
| SRTM | | | | *i* S | **Sg** | **23 03 22.1** | **+0.5** |
| **SRTM** | **Siirt_Merkez** | **0.52** | **253** | P | **Pb** | **23 03 16.2** | **+0.2** |
| SRTM | | | | S | **Sg** | **23 03 22.1** | **+0.5** |
| **SIRT** | **Sirnak** | **0.65** | **188** | *e*PG | **Pg** | **23 03 16.9** | **-0.1** |
| SIRT | | | | *e*SG | **Sb** | **23 03 27.1** | **-0.2** |
| **SIRT** | **Sirnak** | **0.65** | **188** | *e*Pg | **Pg** | **23 03 16.9** | **-0.1** |
| SIRT | | | | *e*Sg | **Sb** | **23 03 27.1** | **-0.2** |
| **SIRN** | **S˜–rnak** | **0.66** | **190** | *i* P | **Pg** | **23 03 16.9** | **-0.3** |
| SIRN | | | | *i* S | **Sb** | **23 03 26.6** | **-0.9** |
| **SIRN** | **S˜–rnak** | **0.66** | **190** | P | **Pg** | **23 03 16.9** | **-0.3** |
| SIRN | | | | S | **Sb** | **23 03 26.6** | **-0.9** |
| **ADCV** | **BITLIS_Adilcev** | **0.68** | **11** | *i* P | **Pg** | **23 03 17.9** | **+0.3** |
| ADCV | | | | *i* S | **Sb** | **23 03 27.4** | **-0.9** |
| **ADCV** | **BITLIS_Adilcev** | **0.68** | **11** | P | **Pg** | **23 03 17.9** | **+0.3** |
| ADCV | | | | S | **Sb** | **23 03 27.4** | **-0.9** |
| **HAKT** | **HAKKARI** | **1.08** | **122** | *i* P | **Pg** | **23 03 24.4** | **-0.9** |
| HAKT | | | | *i* S | **Sb** | **23 03 40.1** | **+0.2** |
| **HAKT** | **HAKKARI** | **1.08** | **122** | P | **Pg** | **23 03 24.4** | **-0.9** |
| HAKT | | | | S | **Sb** | **23 03 40.1** | **+0.2** |
| **CUKT** | **Cukurca** | **1.22** | **137** | *e*PN | **Pb** | **23 03 27.6** | **-0.3** |
| CUKT | | | | *e*SN | **Sn** | **23 03 46.4** | **+1.6** |
| **CUKT** | **Cukurca** | **1.22** | **137** | *e*Pn | **Pb** | **23 03 27.6** | **-0.3** |
| CUKT | | | | *e*Sn | **Sn** | **23 03 46.4** | **+1.6** |
| **TUTA** | **Tutak** | **1.27** | **9** | *i* P | **Pn** | **23 03 28.2** | **-0.7** |
| TUTA | | | | *i* S | **Sn** | **23 03 46.8** | **+0.6** |
| **TUTA** | **Tutak** | **1.27** | **9** | P | **Pn** | **23 03 28.2** | **-0.7** |
| TUTA | | | | S | **Sn** | **23 03 46.8** | **+0.6** |
| **VRTB** | **Varto-Mus** | **1.33** | **320** | *e*PN | **Pg** | **23 03 30.1** | **0.0** |
| **VRTB** | **Varto-Mus** | **1.33** | **320** | *e*Pn | **Pg** | **23 03 30.1** | **0.0** |
| **AGRB** | **Hanur-Agry** | **1.47** | **13** | *e*PN | **Pb** | **23 03 32.2** | **0.0** |
| **AGRB** | **Hanur-Agry** | **1.47** | **13** | *e*Pn | **Pb** | **23 03 32.2** | **0.0** |
| **BNGB** | **Bingˆ¶l** | **1.70** | **300** | *e*PN | **Pb** | **23 03 35.4** | **-0.7** |
| **BINT** | **Bingol** | **1.78** | **295** | *e*Pn | **Pn** | **23 03 35.4** | **-0.3** |

*SJA **08** 23:04:52.3±4.8, 27°.80S×72°.10W, h18km±115km, ML4.2, MW3.8*
*IDC **08** 23:04:56.1±1.2, 27°.86S×71°.45W, h0km, mb4.2/2, mb1 4.0/4, mb1mx3.7/32, mbtmp3.9/4, ML3.8/2, MS3.2/1, Ms1 3.2/1, ms1mx2.8/18, Error ellipse: s-maj=57.3km s-min=37.5km az=146.0*
*NEIC **08** 23:04:59.0±0.0, 27°.88S×70°.64W, h65km, MG4.2(GUC), After GUC.*
*GUC **08** 23:04:59.5±0.7, 27°.88S×70°.64W, h65km±28km, ML4.2*
**ISC 08 23:04:55.7±0.7, 27°.84S±0°.04×71°.54W±0°.07, h10km, n37, σ2s.58/42, mb4.2/4, 1D, Near coast of northern Chile**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VACH** | **Vallenar** | **1.01** | **137** | *i* P | **Pb** | **23 05 14.5** | **-0.8** |
| VACH | | | | *i* S | **Sg** | **23 05 25.4** | **-2.9** |
| **LCO** | **Las Campanas** | **1.38** | **148** | *e*Pn | **Pn** | **23 05 21.1** | **-0.3** |
| LCO | | | | *e*Sn | **Sb** | **23 05 36.6** | **-3.1** |
| **LCO** | **Las Campanas** | **1.38** | **148** | *e*P | **Pb** | **23 05 21.2** | **-0.6** |
| LCO | | | | *e*S | **Sb** | **23 05 37.8** | **-1.9** |
| **LCO** | **Las Campanas** | **1.38** | **148** | *i* P | **Pn** | **23 05 21.1** | **-0.3** |
| LCO | | | | *i* S | **Sb** | **23 05 37.0** | **-2.7** |
| LCO | | | | IAML | | 23 05 40.5 | |
| | comp=N,5µm,0.3s | | | | | | |
| **TLL** | **Tololo Astrono** | **2.41** | **165** | *i* P | **Pn** | **23 05 37.1** | **+1.6** |
| TLL | | | | *i* S | **Sn** | **23 06 04.6** | **-0.6** |
| TLL | | | | IAML | | 23 06 13.2 | |
| | comp=E,2µm,0.6s | | | | | | |
| **VCA** | **Vinchina** | **3.07** | **108** | *e*P | **Pb** | **23 05 50.2** | **-0.3** |
| VCA | | | | IAML | | 23 05 58.9 | |
| | comp=Z,419nm,0.3s | | | | | | |
| VCA | | | | *e*S | **Sg** | **23 06 32.1** | **-2.3** |
| **AGUA** | **GUANDACOL** | **3.14** | **122** | *e*P | **Pb** | **23 05 50.3** | **-1.4** |
| AGUA | | | | *e*S | **Sg** | **23 06 33.3** | **-3.4** |
| **PB14** | **IPOC Station P** | **3.35** | **18** | *i* P | **Pn** | **23 05 49.8** | **+1.3** |
| PB14 | | | | *i* S | **Sn** | **23 06 28.3** | **-0.2** |
| PB14 | | | | IAML | | 23 06 52.5 | |
| | comp=N,417nm,0.5s | | | | | | |
| **AMOG** | **MOGNA** | **4.08** | **140** | *e*P | Pb | 23 06 02.5 | -5.2 |
| AMOG | | | | *e*S | **Sb** | **23 06 55.0** | **-2.1** |
| **RTLL** | **Cerro Villicun** | **4.38** | **143** | *i* P | **Pn** | **23 06 06.7** | **+4.2** |
| RTLL | | | | *i* S | **Sn** | **23 06 56.4** | **+2.8** |
| **RTLS** | **Leoncito** | **4.40** | **154** | *e*P | **Pn** | **23 06 06.4** | **+3.5** |
| **AUSP** | **Uspallata** | **4.75** | **157** | *e*P | **Pn** | **23 06 11.8** | **+4.1** |
| **RTCV** | **Cerro Valdivia** | **4.78** | **148** | *e*P | **Pn** | **23 06 11.4** | **+3.5** |
| RTCV | | | | *e*S | **Sb** | **23 07 17.6** | **+0.2** |
| **CYA** | **Choya** | **5.10** | **98** | *e*P | **Pn** | **23 06 14.4** | **+2.2** |
| CYA | | | | *e*S | **Sn** | **23 07 12.3** | **+1.1** |
| **FSA** | **Cafayete** | **5.25** | **72** | *e*P | Pb | 23 06 21.9 | -5.8 |
| **AHML** | **Horco Molle** | **5.62** | **81** | *e*P | **Pn** | **23 06 23.3** | **+3.9** |
| **ACAN** | **Cantantal** | **5.81** | **141** | *e*P | **Pn** | **23 06 25.4** | **+3.4** |
| ACAN | | | | *e*S | **Sn** | **23 07 35.7** | **+6.9** |
| **AZAP** | **Zapla** | **6.84** | **60** | *e*P | Pn | 23 06 42.0 | +5.7 |
| **TCA** | **Tanti** | **6.98** | **122** | *e*P | **Pn** | **23 06 40.3** | **+2.2** |
| **GO05** | **HualaæØ** | **7.16** | **183** | *e*P | **Pn** | **23 06 39.4** | **-1.1** |
| **RFA** | **San Rafael** | **7.40** | **160**⇓ | *e*P | **Pn** | **23 06 45.2** | **+1.4** |
| **LPAZ** | **La Paz** | **11.91** | **16** | Pn | **Pn** | **23 07 47.2** | **+0.9** |
| | comp=N,0.3nm,0.3s,baz=196,slow=5.5,SNR=5.2 | | | | | | |
| **CPUP** | **Villa Florida** | **12.75** | **87** | Pn | **Pn** | **23 07 59.5** | **+2.5** |
| | comp=N,0.1nm,0.3s,baz=285,slow=16,SNR=2.3 | | | | | | |
| **PLCA** | **Paso Flores** | **12.89** | **177** | LR | LR | 23 13 23.1 | |
| | comp=N,93nm,18.4s,baz=20,slow=39 | | | | | | |
| **SAML** | **Samuel** | **20.37** | **24** | P | **P** | **23 09 28.0** | **-4.6** |
| | comp=N,1.9nm,0.6s | | | | | | |
| **TEIG** | **Tepich** | **50.45** | **339** | P | **P** | **23 13 53.0** | **-0.7** |
| | comp=N,0.1nm,0.6s | | | | | | |
| **H06E1** | **SOCORRO T-PHAS** | **60.01** | **316** | T | T | 00 20 28.4 | |
| **MIAR** | **Mount Ida** | **65.45** | **340** | P | **P** | **23 15 37.1** | **-1.7** |
| | comp=N,1.2nm,0.6s | | | | | | |
| **DBIC** | **Dimbokro** | **72.86** | **73** | P | **P** | **23 16 26.5** | **+1.2** |
| | comp=N,1.8nm,0.5s,baz=231,slow=9.4,SNR=6.3 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **81.72** | **70** | P | **P** | **23 17 16.3** | **+1.4** |
| | comp=N,1.1nm,0.6s,baz=266,slow=4.3,SNR=9.1 | | | | | | |
| **ASAR** | **Alice Springs** | **123.22** | **208** | PKP | **PKPdf** | **23 23 55.1** | **+1.7** |
| | comp=N,0.2nm,0.3s,baz=141,slow=4.5,SNR=3.5 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **126.07** | **273** | T | T | 01 43 07.8 | |
| | baz=100 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **126.08** | **273** | T | T | 01 43 07.2 | |
| | baz=100 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **126.09** | **273** | T | T | 01 43 08.3 | |
| | baz=100 | | | | | | |
| **WRA** | **Warramunga Arr** | **126.31** | **211** | PKP | **PKPdf** | **23 24 01.1** | **+1.7** |
| | comp=N,0.6nm,0.7s,baz=154,slow=1.6,SNR=8.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **148.67** | **27** | PKPbc | **PKPab** | **23 24 45.5** | **-0.9** |
| | comp=N,2.3nm,0.8s,baz=311,slow=4.0,SNR=9.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **152.07** | **40** | PKPbc | **PKPbc** | **23 24 53.1** | **+1.9** |
| | comp=N,0.8nm,0.7s,baz=337,slow=3.3,SNR=3.4 | | | | | | |

*ATA **08** 23:11:07.9±0.3, 39°.30N×42°.05E, h20km±7km, ML2.6, MW2.3*
*ISCJB **08** 23:11:18.8±0.8, 40°.18N±0°.05×42°.17E±0°.06, h12km±9km, Error ellipse: s-maj=9.0km s-min=7.3km az=163.3*
*DDA **08** 23:11:19.3, 40°.21N×42°.13E, h7km, Ml2.4*
**ISC 08 23:11:17.1±1.1, 40°.13N±0°.04×42°.21E±0°.04, h14km±9km, n8, σ1s.43/14, 1C, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HOMI** | **Horasan** | **0.25** | **251**⇑ | *i*P | **Pb** | **23 11 23.1** | **-0.4** |
| HOMI | | | | IAML | | 23 11 30.5 | |
| | comp=Z,67nm,0.2s | | | | | | |
| **HOMI** | **Horasan** | **0.25** | **251** | *i* P | **Pb** | **23 11 23.0** | **-0.4** |
| HOMI | | | | *i* S | **Sg** | **23 11 28.4** | **+2.1** |
| **EATA** | **Eleskirt** | **0.34** | **141** | *e*P | **Pg** | **23 11 21.5** | **-2.7** |
| EATA | | | | *e*S | **Sb** | **23 11 32.1** | **+1.6** |
| EATA | | | | IAML | | 23 11 38.0 | |
| | comp=Z,8.3nm,0.3s | | | | | | |
| **EATA** | **Eleskirt** | **0.34** | **141** | *i* P | **Pn** | **23 11 27.9** | **-0.1** |
| EATA | | | | *i* S | **Sn** | **23 11 35.5** | **+0.7** |
| **ERZM** | **Erzurum** | **0.69** | **252** | *i* P | **Pg** | **23 11 31.2** | **+0.7** |
| ERZM | | | | *i* S | **Sn** | **23 11 41.6** | **-1.7** |
| **DDEM** | **Demirkent** | **0.84** | **336** | *i* P | **Pb** | **23 11 33.2** | **-0.4** |
| DDEM | | | | *i* S | **Sb** | **23 11 44.5** | **-0.3** |
| **DIGO** | **Kars** | **0.94** | **72** | *e*P | **Pb** | **23 11 36.5** | **+1.3** |
| DIGO | | | | IAML | | 23 11 56.0 | |
| | comp=Z,2.1nm,0.2s | | | | | | |
| **DAGI** | **Agillar** | **0.98** | **347** | *i* P | **Pb** | **23 11 35.9** | **+0.1** |
| DAGI | | | | *i* S | **Sg** | **23 11 49.1** | **+0.3** |

**MEX 08 23:23:05.7±0.4, 17°.04N×95°.31W, h141km±12km, MD3.8, Oaxaca**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VHO** | **Vista Hermosa** | **1.36** | **272** | *e*P | Pn | 23 23 32.2 | -1.1 |
| VHO | | | | *e*S | Sn | 23 23 52.4 | -1.9 |
| **HUIG** | **Huatulco** | **1.47** | **211** | *e*P | Pn | 23 23 32.9 | -1.5 |
| HUIG | | | | *i* S | Sn | 23 23 54.4 | -1.7 |
| **PCIG** | | **2.41** | **123** | *e*P | Pn | 23 23 43.9 | -1.3 |
| PCIG | | | | *i* S | Sn | 23 24 13.1 | -2.6 |
| **CCIG** | **Comitan** | **3.14** | **103** | *e*P | Pn | 23 23 53.5 | -1.2 |
| CCIG | | | | *e*S | Sn | 23 24 30.7 | -1.7 |

*IDC **08** 23:28:56.6±2.0, 54°.94N×166°.90E, h0km, mb3.2/2, mb1 3.7/3, mb1mx3.2/33, mbtmp3.3/3, ML2.7/1, Error ellipse: s-maj=114.3km s-min=26.2km az=159.0*
*ISCJB **08** 23:28:59.0±0.9, 55°.44N±0°.06×166°.42E±0°.10, h20km, mb3.1/2, Error ellipse: s-maj=10.1km s-min=6.9km az=145.2*
*KRSC **08** 23:28:59.2±1.6, 55°.34N×166°.31E, h35km±9km, ML3.8*
**ISC 08 23:28:59.9±1.2, 55°.47N±0°.08×166°.45E±0°.09, h20km, n20, σ1s.35/22, Komandorsky Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BKI** | **Bering** | **0.38** | **226** | *i* P | **Pb** | **23 29 06.8** | **-1.1** |
| BKI | | | | *i* S | **Sb** | **23 29 12.4** | **-0.9** |
| **KBTR** | **Krutoberegovo** | **2.18** | **291** | *e*P | **Pn** | **23 29 33.9** | **-1.1** |
| KBTR | | | | *e*S | **Sn** | **23 29 59.8** | **-1.5** |
| **KLY** | **Klyuchi** | **3.37** | **287** | *e*P | **Pn** | **23 29 51.0** | **-0.4** |
| **KMNR** | **Kamenistaya** | **3.54** | **277** | *e*P | **Pn** | **23 29 55.2** | **+1.5** |
| KMNR | | | | *e*S | **Sn** | **23 30 36.7** | **+1.7** |
| **KPT** | **Kopyto** | **3.56** | **281** | *e*P | **Pn** | **23 29 56.5** | **+2.5** |
| **TUMR** | **Tumrok** | **3.60** | **270** | *e*P | **Pn** | **23 29 56.8** | **+2.1** |
| **SPN** | **Mys Shipunski** | **4.45** | **240** | *e*S | **Sn** | **23 30 57.3** | **-0.1** |
| **NLC** | **Nalytchevo** | **4.75** | **244** | *e*S | **Sn** | **23 31 02.7** | **-2.1** |
| **SDLR** | **Sedlovina** | **4.94** | **247** | *e*P | **Pn** | **23 30 13.4** | **+0.4** |
| **KRER** | **Koryakskii** | **5.00** | **247** | *e*P | **Pn** | **23 30 14.8** | **+0.9** |
| **UGLR** | **Uglovaya** | **5.00** | **246** | *e*P | **Pn** | **23 30 14.7** | **+0.8** |
| **AVH** | **Avacha** | **5.02** | **247** | *e*P | **Pn** | **23 30 14.7** | **+0.6** |
| **GNL** | **Ganaly** | **5.26** | **254** | *e*P | **Pn** | **23 30 19.0** | **+1.6** |
| **KRMR** | **Karymshinskiy** | **5.56** | **245** | *e*P | **Pn** | **23 30 22.7** | **+1.3** |
| KRMR | | | | *e*S | **Sn** | **23 31 25.2** | **+0.6** |
| **PETK** | **Petropavlovsk-** | **5.64** | **249** | Pn | **Pn** | **23 30 23.8** | **+1.1** |
| | 1.1nm,0.3s,baz=72,slow=18,SNR=18 | | | | | | |
| PETK | | | | Sn | **Sn** | **23 31 27.6** | **+0.9** |
| | 0.3nm,0.3s,baz=73,slow=18,SNR=2.7 | | | | | | |
| **ILAR** | **Eielson Array** | **24.47** | **49** | P | **P** | **23 34 17.6** | **+0.5** |
| | 0.4nm,0.9s,baz=257,slow=10,SNR=5.0 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **35.68** | **179** | T | T | 00 13 11.5 | |
| | baz=0.4,slow=76,SNR=20 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **35.69** | **179** | T | T | 00 13 12.2 | |
| | baz=0.4,slow=76,SNR=16 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **35.70** | **179** | T | T | 00 13 12.8 | |
| | baz=0.4,slow=76,SNR=16 | | | | | | |
| **TXAR** | **Lajitas Array** | **66.32** | **72** | P | **P** | **23 39 46.8** | **-0.1** |
| | 0.2nm,0.6s,baz=305,slow=6.5,SNR=3.5 | | | | | | |

*ISCJB **08** 23:57:50.9±0.5, 38°.52N±0°.02×43°.27E±0°.04, h2km±6km, Error ellipse: s-maj=5.0km s-min=4.1km az=7.8*
*CSEM **08** 23:57:50.4±0.2, 38°.49N×43°.28E, h2km, ML2.0, Error ellipse: s-maj=4.8km s-min=3.3km az=104.0*
*ISK **08** 23:57:50.5, 38°.53N×43°.30E, h3km, ML2.0*
*DDA **08** 23:58:43.7, 38°.50N×43°.28E, h5km, Ml2.9*
**ISC 08 23:57:50.9±1.1, 38°.50N±0°.02×43°.27E±0°.02, h4km±9km, n28, σ0s.74/48, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TVAN** | **Van** | **0.11** | **76** | *i* P | **Pg** | **23 57 53.0** | **-0.2** |
| TVAN | | | | *i* S | **Sg** | **23 57 55.4** | **+0.7** |
| **TVAN** | **Van** | **0.11** | **76** | P | **Pg** | **23 57 53.0** | **-0.2** |
| TVAN | | | | S | **Sg** | **23 57 55.4** | **+0.7** |
| **VANB** | **Van** | **0.13** | **45** | PG | **Pg** | **23 57 52.9** | **-0.7** |
| **VANB** | **Van** | **0.13** | **45** | *i* Pg | **Pg** | **23 57 52.9** | **-0.7** |
| **GEVA** | **Gevas** | **0.25** | **221** | *i* P | **Pg** | **23 57 55.1** | **-0.7** |
| GEVA | | | | *i* S | **Sg** | **23 58 00.0** | **+0.9** |
| **GEVA** | **Gevas** | **0.25** | **221** | P | **Pg** | **23 57 55.1** | **-0.7** |
| GEVA | | | | S | **Sg** | **23 58 00.0** | **+0.9** |
| **ERCV** | **ERCIS-VAN** | **0.52** | **6** | *e*PG | **Pg** | **23 58 00.7** | **-0.2** |
| ERCV | | | | *e*SG | **Sg** | **23 58 08.2** | **+0.5** |
| **ERCV** | **ERCIS-VAN** | **0.52** | **6** | *e*Pg | **Pg** | **23 58 00.7** | **-0.2** |
| ERCV | | | | *e*Sg | **Sg** | **23 58 08.2** | **+0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.53** | **306** | *i* P | **Pg** | **23 58 00.6** | **-0.4** |
| ADCV | | | | *i* S | **Sb** | **23 58 09.5** | **-1.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.53** | **306** | P | **Pg** | **23 58 00.6** | **-0.4** |
| ADCV | | | | S | **Sb** | **23 58 09.5** | **-1.4** |
| **VMUR** | **Van-Muradiye** | **0.54** | **26** | *i* P | **Pg** | **23 58 01.0** | **-0.3** |
| VMUR | | | | *i* S | **Sb** | **23 58 10.5** | **-0.8** |
| **VMUR** | **Van-Muradiye** | **0.54** | **26** | P | **Pg** | **23 58 01.0** | **-0.3** |
| VMUR | | | | S | **Sb** | **23 58 10.5** | **-0.8** |
| **CLDR** | **Caldiran** | **0.82** | **38** | *e*PG | **Pg** | **23 58 06.1** | **-0.4** |
| CLDR | | | | *e*SG | **Sg** | **23 58 17.8** | **+0.7** |
| **CLDR** | **Caldiran** | **0.82** | **38** | *e*Pg | **Pg** | **23 58 06.1** | **-0.4** |
| CLDR | | | | *e*Sg | **Sg** | **23 58 17.8** | **+0.7** |
| **TUTA** | **Tutak** | **0.97** | **339** | *i* P | **Pg** | **23 58 08.2** | **-1.2** |
| TUTA | | | | *i* S | **Sg** | **23 58 21.6** | **-0.4** |
| **TUTA** | **Tutak** | **0.97** | **339** | P | **Pg** | **23 58 08.2** | **-1.2** |
| TUTA | | | | S | **Sg** | **23 58 21.6** | **-0.4** |
| **HAKT** | **HAKKARI** | **1.00** | **160** | *i* P | **Pg** | **23 58 08.9** | **-1.2** |
| HAKT | | | | *i* S | **Sn** | **23 58 26.7** | **0.0** |
| **HAKT** | **HAKKARI** | **1.00** | **160** | P | **Pg** | **23 58 08.9** | **-1.2** |
| HAKT | | | | S | **Sn** | **23 58 26.7** | **0.0** |
| **AGRB** | **Hanur-Agry** | **1.09** | **349** | *e*PG | **Pg** | **23 58 11.3** | **-0.6** |
| AGRB | | | | *e*SG | **Sb** | **23 58 27.2** | **0.0** |
| **AGRB** | **Hanur-Agry** | **1.09** | **349** | *e*Pg | **Pg** | **23 58 11.3** | **-0.6** |
| AGRB | | | | *e*Sg | **Sb** | **23 58 27.2** | **0.0** |
| **SRTM** | **Siirt_Merkez** | **1.18** | **245** | *i* P | **Pg** | **23 58 13.0** | **-0.4** |
| SRTM | | | | *i* S | **Sn** | **23 58 32.4** | **+1.5** |
| **SRTM** | **Siirt_Merkez** | **1.18** | **245** | P | **Pg** | **23 58 13.0** | **-0.4** |
| SRTM | | | | S | **Sn** | **23 58 32.3** | **+1.5** |
| **SIRT** | **Sirnak** | **1.20** | **214** | *e*PN | **Pn** | **23 58 14.7** | **+0.2** |
| **SIRT** | **Sirnak** | **1.20** | **214** | *e*Pn | **Pn** | **23 58 14.7** | **+0.2** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CUKT** | **Cukurca** | **1.28** | **168** | *e*PN | **Pn** | **23 58 16.1** | **+0.4** |
| **CUKT** | **Cukurca** | **1.28** | **168** | *e*Pn | **Pn** | **23 58 16.1** | **+0.4** |
| **VRTB** | **Varto-Mus** | **1.56** | **295** | *e*PN | **Pg** | **23 58 20.6** | **-0.2** |
| **VRTB** | **Varto-Mus** | **1.56** | **295** | *e*Pn | **Pg** | **23 58 20.6** | **-0.2** |

*ISCJB **09** 00:00:18.5±0.6, 28°.97N±0°.07×127°.99E±0°.07, h10km, mb3.7/8, Error ellipse: s-maj=11.4km s-min=5.6km az=38.4*
*IDC **09** 00:00:20.2±0.9, 28°.73N×127°.14E, h0km, mb3.8/8, mb1 3.9/10, mb1mx3.6/48, mbtmp3.8/10, ML2.7/2, MS2.9/1, Ms1 2.9/1, ms1mx2.5/37, Error ellipse: s-maj=33.1km s-min=16.4km az=72.0*
*JMA **09** 00:00:20.3±0.4, 28°.94N×128°.01E, h24km, M2.8*
**ISC 09 00:00:19.4**±0.8**, 29°.00N**±0°.07×**128°.07E**±0°.07**, h10**km**, n17, σ1ˢ21**/19**, mb3.6**/8**, Ryukyu Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JTAJ** | **Takarajima** | **1.00** | **81** | P | **Pg** | **00 00 39.6** | **+0.9** |
| **JAMN** | **Amaminishikomi** | **1.23** | **127** | P | **Pn** | **00 00 42.6** | **0.0** |
| JAMN | | | | *e*S | **Sb** | **00 00 58.6** | **0.0** |
| **JTK** | **Tokunoshima** | **1.44** | **147** | P | **Pn** | **00 00 44.5** | **-1.0** |
| JTK | | | | *e*S | **Sn** | **00 01 03.0** | **-1.4** |
| **JAM** | **Amami Oshima** | **1.47** | **113** | P | **Pn** | **00 00 46.3** | **+0.4** |
| JAM | | | | *e*S | **Sn** | **00 01 04.6** | **-0.6** |
| **JOKE** | **Okinoerabujima** | **1.69** | **165** | P | **Pn** | **00 00 48.6** | **-0.4** |
| **JOW** | **Kunigami** | **2.17** | **175** | P | **Pn** | **00 00 55.8** | **+0.3** |
| **JNU** | **Nakatsue** | **4.76** | **30** | Pn | **Pb** | **00 01 41.4** | **-1.6** |
| | 0.1nm,0.3s,baz=270,slow=5.1,SNR=1.9 | | | | | | |
| **KSRS** | **Korea Array** | **8.43** | **359** | LR | LR | 00 05 26.7 | |
| | comp=Z,82nm,20.5s,baz=140,slow=35 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **11.37** | **46** | Pn | Pn | 00 03 16.0 | +14 |
| | 0.4nm,0.3s,baz=235,slow=11,SNR=3.4 | | | | | | |
| **SONM** | **Songino Array** | **25.19** | **324** | P | **P** | **00 05 46.4** | **+1.2** |
| | 1.2nm,0.8s,baz=134,slow=8.5,SNR=6.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **39.63** | **309** | P | **P** | **00 07 48.4** | **-2.7** |
| | 1.6nm,1.1s,baz=97,slow=12,SNR=2.7 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **39.99** | **321** | P | **P** | **00 07 55.2** | **+1.2** |
| | 0.2nm,0.4s,baz=112,slow=11,SNR=2.3 | | | | | | |
| ZALV | | | | PcP | **PcP** | **00 09 59.1** | **0.0** |
| | 0.3nm,0.4s,baz=67,slow=3.7,SNR=2.5 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **42.79** | **314** | P | **P** | **00 08 16.7** | **-0.3** |
| | 0.3nm,0.2s,baz=98,slow=6.8,SNR=4.5 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **46.88** | **183** | P | **P** | **00 08 49.6** | **-0.3** |
| | 2.1nm,0.8s,baz=0.0,slow=2.0,SNR=3.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **49.03** | **172** | P | **P** | **00 09 07.2** | **+0.6** |
| | 1.0nm,0.8s,baz=352,slow=8.2,SNR=4.1 | | | | | | |
| **ASAR** | **Alice Springs** | **52.66** | **173** | P | **P** | **00 09 36.2** | **+2.3** |
| | 0.1nm,0.3s,baz=3.8,slow=15,SNR=3.2 | | | | | | |
| **FINES** | **FINESS Array B** | **70.40** | **330** | P | **P** | **00 11 33.6** | **+0.3** |
| | 4.2nm,1.0s,baz=58,slow=5.0,SNR=5.0 | | | | | | |

**IDC 09 00:05:40.8**±23.0**, 18°.46S**×**178°.17W, h370**km±246km**, mb3.2**/8**, mb1 3.5**/8**, mb1mx3.2**/35**, mbtmp3.9**/8**, Error ellipse: s-maj=85.7km s-min=57.2km az=166.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CTA** | **Charters Tower** | **33.59** | **261** | P | P | 00 11 48.1 | +0.1 |
| | 1.8nm,0.4s,baz=79,slow=12,SNR=4.6 | | | | | | |
| **STKA** | **Stephens Creek** | **38.57** | **242** | P | P | 00 12 29.1 | -0.6 |
| | 0.7nm,0.3s,baz=88,slow=11,SNR=4.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.76** | **260** | P | P | 00 13 19.2 | -0.3 |
| | 1.2nm,0.5s,baz=96,slow=6.5,SNR=31 | | | | | | |
| **ASAR** | **Alice Springs** | **44.87** | **255** | P | P | 00 13 20.4 | +0.1 |
| | 5.0nm,0.5s,baz=88,slow=8.3,SNR=54 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **53.17** | **261** | P | P | 00 14 22.6 | 0.0 |
| | 1.5nm,0.6s,baz=62,slow=6.4,SNR=6.2 | | | | | | |
| **TXAR** | **Lajitas Array** | **86.10** | **57** | P | P | 00 17 41.8 | +0.4 |
| | 0.2nm,0.6s,baz=207,slow=7.8,SNR=3.4 | | | | | | |
| **ILAR** | **Eielson Array** | **86.37** | **13** | P | P | 00 17 41.5 | -0.2 |
| | 0.2nm,0.4s,baz=220,slow=4.6,SNR=8.9 | | | | | | |
| **PDAR** | **Pinedale Array** | **87.59** | **43** | P | P | 00 17 47.9 | -0.4 |
| | 0.2nm,0.6s,baz=129,slow=1.3,SNR=2.4 | | | | | | |

*SJA **09** 00:14:40.8±0.6, 31°.98S×72°.33W, h6km, ML3.5, MW3.0*
*GUC **09** 00:14:42.5±0.7, 31°.64S×71°.93W, h10km±122km, ML2.8*
**ISC 09 00:14:43.0**±1.9**, 31°.61S**±0°.04×**72°.06W**±0°.10**, h14**km**, n13, σ1ˢ77**/20**, Off coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TLL** | **Tololo Astrono** | **1.80** | **37** | *e*P | **Pb** | **00 15 15.6** | **-0.2** |
| TLL | | | | *i* S | **Sg** | **00 15 39.8** | **-1.1** |
| TLL | | | | IAML | | 00 15 44.9 | |
| | comp=N,189nm,0.4s | | | | | | |
| **PEL** | **Peldehue** | **1.92** | **143** | *e*P | **Pn** | **00 15 15.7** | **+0.4** |
| PEL | | | | *e*S | **Sb** | **00 15 41.5** | **-0.2** |
| PEL | | | | IAML | | 00 15 47.4 | |
| | comp=E,109nm,0.4s | | | | | | |
| **CLCH** | **Cerro Calan** | **2.19** | **145** | *e*P | **Pn** | **00 15 20.3** | **+1.2** |
| CLCH | | | | *e*S | **Sb** | **00 15 49.1** | **-0.5** |
| CLCH | | | | IAML | | 00 15 55.9 | |
| | comp=E,131nm,0.4s | | | | | | |
| **FCH** | **Farellones** | **2.27** | **139** | *e*P | **Pn** | **00 15 21.7** | **+1.3** |
| **AUSP** | **Uspallata** | **2.35** | **106** | *e*P | **Pb** | **00 15 25.3** | **-0.1** |
| AUSP | | | | *e*S | **Sg** | **00 15 57.8** | **-0.8** |
| **RTLS** | **Leoncito** | **2.36** | **95** | *e*P | **Pb** | **00 15 26.4** | **+0.9** |
| **LCO** | **Las Campanas** | **2.85** | **25** | *e*P | **Sb** | **00 16 10.2** | **+1.7** |
| **RTCV** | **Cerro Valdivia** | **3.01** | **96** | *e*P | **Pb** | **00 15 34.9** | **-1.4** |
| RTCV | | | | *e*S | **Sb** | **00 16 15.0** | **+2.0** |
| **RTLL** | **Cerro Villicun** | **3.08** | **86** | *e*P | **Pb** | **00 15 38.5** | **+1.0** |
| RTLL | | | | *e*S | **Sg** | **00 16 20.0** | **-1.8** |
| **AMOG** | **MOGNA** | **3.13** | **79** | *e*P | **Pb** | **00 15 38.4** | **0.0** |
| AMOG | | | | *e*S | **Sg** | **00 16 20.3** | **-3.1** |
| **AGUA** | **GUANDACOL** | **3.74** | **56** | *e*P | **Pb** | **00 15 47.9** | **-1.0** |
| AGUA | | | | *e*S | **Sb** | **00 16 37.6** | **+3.6** |
| **VCA** | **Vinchina** | **4.40** | **50** | *e*P | **Pb** | **00 15 57.0** | **-3.2** |
| VCA | | | | IAML | | 00 17 28.9 | |
| | comp=Z,39nm,0.4s | | | | | | |
| **TCA** | **Tanti** | **6.38** | **89** | *e*P | Pn | 00 16 23.1 | +6.4 |

*DDA **09** 00:53:22.8, 38°.74N×43°.55E, h7km, Ml3.2*
*ISK **09** 00:53:22.1, 38°.76N×43°.53E, h5km, ML2.6*
*ATA **09** 00:53:22.0±0.8, 38°.77N×43°.47E, h11km±10km, ML3.1, MW3.3*
*CSEM **09** 00:53:23.0±0.2, 38°.75N×43°.55E, h5km, ML2.6, Error ellipse: s-maj=5.0km s-min=3.3km az=100.0*
**ISC 09 00:53:23.3**±0.9**, 38°.78N**±0°.02×**43°.50E**±0°.02**, h17**km±7km**, n53, σ1ˢ20**/86**, 1D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.20** | **206** | *e*PG | **Pb** | **00 53 28.3** | **-0.4** |
| **VANB** | **Van** | **0.20** | **206** | *e*Pg | **Pb** | **00 53 28.3** | **-0.4** |
| **VMUR** | **Van-Muradiye** | **0.22** | **14** | *i* P | **Pg** | **00 53 27.7** | **-0.9** |
| VMUR | | | | *i* S | **Sb** | **00 53 33.1** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.22** | **14** | P | **Pg** | **00 53 27.7** | **-0.9** |
| VMUR | | | | S | **Sb** | **00 53 33.1** | **+0.3** |
| **TVAN** | **Van** | **0.26** | **197** | *i* P | **Pg** | **00 53 28.2** | **-1.1** |
| TVAN | | | | *i* S | **Sb** | **00 53 34.3** | **+0.2** |
| **TVAN** | **Van** | **0.26** | **197** | P | **Pg** | **00 53 28.2** | **-1.1** |
| TVAN | | | | S | **Sb** | **00 53 34.3** | **+0.2** |
| **ERCV** | **ERCIS-VAN** | **0.27** | **332** | *e*PG | **Pg** | **00 53 28.5** | **-1.0** |
| ERCV | | | | *e*SG | **Sb** | **00 53 34.6** | **+0.2** |
| **ERCV** | **ERCIS-VAN** | **0.27** | **332** | *e*Pg | **Pg** | **00 53 28.5** | **-1.0** |
| ERCV | | | | *e*Sg | **Sb** | **00 53 34.6** | **+0.2** |
| **CLDR** | **Caldiran** | **0.49** | **41** | *e*PG | **Pg** | **00 53 33.1** | **-0.1** |
| CLDR | | | | *e*SG | **Sb** | **00 53 40.6** | **0.0** |
| **CLDR** | **Caldiran** | **0.49** | **41** | *i* P | **Pg** | **00 53 32.2** | **-1.0** |
| CLDR | | | | *i* S | **Sb** | **00 53 41.3** | **+0.8** |
| **CLDR** | **Caldiran** | **0.49** | **41** | P | **Pg** | **00 53 32.2** | **-1.0** |
| **CLDR** | **Caldiran** | **0.49** | **41** | *e*Pg | **Pg** | **00 53 33.1** | **-0.1** |
| CLDR | | | | *e*Sg | **Sb** | **00 53 40.6** | **0.0** |
| CLDR | | | | S | **Sb** | **00 53 41.3** | **+0.8** |
| **GEVA** | **Gevas** | **0.58** | **217** | ⇓*e*P | **Pg** | **00 53 33.6** | **-1.3** |
| GEVA | | | | *e*S | **Sg** | **00 53 42.0** | **-0.8** |
| GEVA | | | | IAML | | 00 53 45.9 | |
| | comp=Z,68nm,0.4s | | | | | | |
| **GEVA** | **Gevas** | **0.58** | **217** | *i* P | **Pg** | **00 53 33.7** | **-1.2** |
| GEVA | | | | *i* S | **Sb** | **00 53 42.9** | **-0.3** |
| **GEVA** | **Gevas** | **0.58** | **217** | P | **Pg** | **00 53 33.7** | **-1.2** |
| GEVA | | | | S | **Sb** | **00 53 42.9** | **-0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.61** | **273** | *i* P | **Pb** | **00 53 35.2** | **-0.5** |
| ADCV | | | | *i* S | **Sn** | **00 53 45.7** | **-1.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.61** | **273** | P | **Pb** | **00 53 35.2** | **-0.5** |
| ADCV | | | | S | **Sn** | **00 53 45.7** | **-1.3** |
| **DYDN** | **Diyadin** | **0.78** | **11** | *e*P | **Pb** | **00 53 37.7** | **-0.9** |
| DYDN | | | | *e*S | **Sb** | **00 53 49.6** | **+0.7** |
| DYDN | | | | IAML | | 00 54 00.5 | |
| | comp=Z,43nm,0.8s | | | | | | |
| **DYDN** | **Diyadin** | **0.78** | **11** | *i* P | **Pb** | **00 53 37.5** | **-1.1** |
| DYDN | | | | *i* S | **Sn** | **00 53 50.5** | **-0.7** |
| **DYDN** | **Diyadin** | **0.78** | **11** | P | **Pb** | **00 53 37.5** | **-1.1** |
| DYDN | | | | S | **Sn** | **00 53 50.5** | **-0.7** |
| **TUTA** | **Tutak** | **0.82** | **319** | *e*P | **Pb** | **00 53 38.3** | **-1.1** |
| TUTA | | | | *e*S | **Sn** | **00 53 51.0** | **-1.3** |
| TUTA | | | | IAML | | 00 53 54.2 | |
| | comp=Z,108nm,0.2s | | | | | | |
| **TUTA** | **Tutak** | **0.82** | **319** | *i* P | **Pb** | **00 53 38.6** | **-0.7** |
| TUTA | | | | *i* S | **Sn** | **00 53 51.4** | **-0.9** |
| **TUTA** | **Tutak** | **0.82** | **319** | P | **Pb** | **00 53 38.6** | **-0.7** |
| TUTA | | | | S | **Sn** | **00 53 51.4** | **-0.9** |
| **AGRB** | **Hanur-Agry** | **0.89** | **334** | *e*PG | **Pn** | **00 53 41.1** | **-0.2** |
| AGRB | | | | *e*SG | **Sn** | **00 53 54.4** | **+0.5** |
| **AGRB** | **Hanur-Agry** | **0.89** | **334** | *e*Pg | **Pn** | **00 53 41.1** | **-0.2** |
| AGRB | | | | *e*Sg | **Sn** | **00 53 54.4** | **+0.5** |
| **EKAR** | **Karacoban** | **1.22** | **293** | *e*P | **Pb** | **00 53 45.7** | **-0.4** |
| EKAR | | | | *e*S | **Sg** | **00 54 03.2** | **+0.3** |
| EKAR | | | | IAML | | 00 54 13.2 | |
| | comp=Z,17nm,0.5s | | | | | | |
| **EKAR** | **Karacoban** | **1.22** | **293** | *i* P | **Pg** | **00 53 47.5** | **+0.6** |
| EKAR | | | | *i* S | **Sg** | **00 54 09.0** | **+6.1** |
| **EKAR** | **Karacoban** | **1.22** | **293** | P | **Pg** | **00 53 47.5** | **+0.6** |
| **HAKT** | **HAKKARI** | **1.23** | **172** | *i* P | **Pn** | **00 53 44.8** | **-1.2** |
| HAKT | | | | *i* S | **Sg** | **00 54 05.7** | **+2.4** |
| **HAKT** | **HAKKARI** | **1.23** | **172** | P | **Pn** | **00 53 44.8** | **-1.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.33** | **25** | *e*PN | **Pg** | **00 53 48.9** | **-0.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.33** | **25** | *e*Pn | **Pg** | **00 53 48.9** | **-0.1** |
| **EATA** | **Eleskirt** | **1.34** | **324** | *e*P | **Pb** | **00 53 47.5** | **-0.7** |
| EATA | | | | *e*S | **Sg** | **00 54 07.4** | **+0.7** |
| EATA | | | | IAML | | 00 54 21.4 | |
| | comp=Z,6.2nm,0.6s | | | | | | |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.34** | **152** | *i* P | **Pn** | **00 53 47.2** | **-0.3** |
| YOVA | | | | *i* S | **Sg** | **00 54 07.9** | **+1.1** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.34** | **152** | P | **Pn** | **00 53 47.2** | **-0.3** |
| YOVA | | | | S | **Sg** | **00 54 07.9** | **+1.1** |
| **SRTM** | **Siirt_Merkez** | **1.47** | **238** | *i* P | **Pg** | **00 53 50.9** | **-0.8** |
| SRTM | | | | *i* S | **Sg** | **00 54 13.1** | **+2.2** |
| **SRTM** | **Siirt_Merkez** | **1.47** | **238** | P | **Pg** | **00 53 50.9** | **-0.8** |
| SRTM | | | | S | **Sg** | **00 54 13.1** | **+2.2** |
| **SIRT** | **Sirnak** | **1.53** | **214** | *e*PN | **Pg** | **00 53 52.3** | **-0.4** |
| **SIRT** | **Sirnak** | **1.53** | **214** | *e*Pn | **Pg** | **00 53 52.3** | **-0.4** |
| **CUKT** | **Cukurca** | **1.53** | **177** | *e*PN | **Pb** | **00 53 51.5** | **+0.2** |
| **CUKT** | **Cukurca** | **1.53** | **177** | *i* P | **Pn** | **00 53 50.2** | **+0.2** |
| CUKT | | | | *i* S | **Sg** | **00 54 17.6** | **+4.8** |
| **CUKT** | **Cukurca** | **1.53** | **177** | P | **Pn** | **00 53 50.2** | **+0.2** |
| **CUKT** | **Cukurca** | **1.53** | **177** | *e*Pn | **Pb** | **00 53 51.5** | **+0.2** |
| **DIGO** | **Kars** | **1.64** | **357** | *e*P | **Pg** | **00 53 54.2** | **-0.7** |
| DIGO | | | | IAML | | 00 53 59.0 | |
| | comp=Z,4.1nm,0.5s | | | | | | |
| **BNGL** | **BINGOL** | **1.85** | **276** | *e*P | **Pb** | **00 53 57.0** | **+0.3** |
| BNGL | | | | IAML | | 00 54 04.2 | |
| | comp=Z,22nm,0.4s | | | | | | |
| BNGL | | | | *e*S | **Sg** | **00 54 22.7** | **-0.1** |
| **KARS** | **Kars** | **1.88** | **350** | *e*PN | **Pb** | **00 53 56.5** | **-0.8** |
| **KARS** | **Kars** | **1.88** | **350** | *e*Pn | **Pb** | **00 53 56.5** | **-0.8** |
| **SENK** | **Senkaya-Erzuru** | **1.99** | **334** | *e*PN | **Pb** | **00 53 58.9** | **-0.4** |
| **SENK** | **Senkaya-Erzuru** | **1.99** | **334** | *e*Pn | **Pb** | **00 53 58.9** | **-0.4** |
| **ERZM** | **Erzurum** | **2.00** | **305** | *e*P | **Pb** | **00 53 58.6** | **-0.9** |
| **ECAT** | **Cat-ERZURUM** | **2.13** | **294** | *e*P | **Pb** | **00 54 01.2** | **-0.5** |
| ECAT | | | | IAML | | 00 54 13.8 | |
| | comp=Z,3.6nm,0.4s | | | | | | |
| **BNGB** | **Bing˘¶l** | **2.21** | **276** | *e*PN | **Pb** | **00 54 02.0** | **-1.0** |
| **BINT** | **Bingol** | **2.36** | **273** | *e*Pn | **Pn** | **00 54 02.0** | **+0.6** |

**BUC 09 00:57:43.5**±0.1**, 47°.23N**×**24°.70E, h15**km**, MD2.3**/3**, 2C-10D, Error ellipse: s-maj=5.4km s-min=1.1km az=318.0, Romania**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ARCR** | **ARCALIA** | **0.28** | **238** | ⇓*i*P | Pg | 00 57 49.8 | +0.4 |
| ARCR | | | | S | Sb | 00 57 54.3 | -0.4 |
| **ARCR** | **ARCALIA** | **0.28** | **238** | ⇓*i*P | Pg | 00 57 49.8 | +0.4 |
| ARCR | | | | *i* S | Sb | 00 57 54.3 | -0.4 |
| **BURAR** | **Bucovina Array** | **0.52** | **42** | ⇑*i*P | Pb | 00 57 54.4 | 0.0 |
| **BURAR** | **Bucovina Array** | **0.52** | **42** | ⇑*i*P | Pb | 00 57 54.4 | 0.0 |
| BURAR | | | | *i* S | Sb | 00 58 02.7 | +0.9 |
| **CJR** | **Cluj-Napoca** | **0.92** | **236** | ⇓*i*P | Pn | 00 58 01.8 | -0.1 |
| **CJR** | **Cluj-Napoca** | **0.92** | **236** | ⇓*i*P | Pn | 00 58 01.8 | -0.1 |
| CJR | | | | *i* S | Sn | 00 58 14.4 | -0.4 |
| **DRGR** | | **1.43** | **253** | ⇓*i*P | Pb | 00 58 10.4 | +0.5 |
| **DRGR** | | **1.43** | **253** | ⇓*i*P | Pb | 00 58 10.4 | +0.5 |
| DRGR | | | | *i* S | Sb | 00 58 28.5 | +0.5 |
| **VOIR** | | **1.81** | **172** | ⇓*i*P | Pb | 00 58 16.2 | -0.2 |
| **VOIR** | | **1.81** | **172** | ⇓*i*P | Pb | 00 58 16.2 | -0.2 |
| VOIR | | | | *i* S | Sb | 00 58 38.5 | -0.4 |
| **LOT** | **Lotru** | **1.90** | **200** | ⇓*i*P | Pn | 00 58 16.3 | +0.8 |
| **LOT** | **Lotru** | **1.90** | **200** | ⇓*i*P | Pn | 00 58 16.3 | +0.8 |
| LOT | | | | *i* S | Sb | 00 58 40.8 | -0.7 |

*CSEM **09** 01:02:12.2, 37°.39N×24°.62W, h10km, ML1.8*
**PDA 09 01:02:12.2**±0.7**, 37°.39N**×**24°.62W, h10**km**, MD3.5, ML1.8, Error ellipse: s-maj=7.5km s-min=2.2km az=84.0, Azores Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PSMN** | **Pico do Norte,** | **0.53** | **223** | *e*P | Pg | 01 02 20.9 | -1.6 |
| PSMN | | | | *e*S | Sg | 01 02 27.8 | -1.6 |
| PSMN | | | | A | A | 01 02 32.0 | |
| | 9.1nm,0.3s | | | | | | |
| **PSMN** | **Pico do Norte,** | **0.53** | **223** | *e*P | Pg | 01 02 20.9 | -1.6 |
| PSMN | | | | *e*S | Sg | 01 02 27.8 | -1.6 |
| **PSMA** | **Santa Maria** | **0.57** | **226** | *e*P | Pg | 01 02 21.8 | -1.4 |
| PSMA | | | | *e*S | Sg | 01 02 28.4 | -2.3 |
| PSMA | | | | A | A | 01 02 30.8 | |
| | 6.5nm,0.2s | | | | | | |
| **BART** | **Pico Bartolome** | **0.58** | **312** | *e*P | Pg | 01 02 21.8 | -1.8 |
| BART | | | | *e*S | Sg | 01 02 29.0 | -2.3 |
| BART | | | | A | A | 01 02 30.1 | |
| | 13nm,0.2s | | | | | | |
| **BART** | **Pico Bartolome** | **0.58** | **312** | *e*P | Pg | 01 02 21.8 | -1.8 |
| BART | | | | *e*S | Sg | 01 02 29.0 | -2.3 |
| **PDA** | **Ponta Delgada** | **0.91** | **293** | *e*P | Pg | 01 02 26.6 | -3.0 |
| PDA | | | | *e*S | Sg | 01 02 36.9 | -4.5 |
| PDA | | | | A | A | 01 02 37.8 | |
| | 22nm,0.3s | | | | | | |
| **PDA** | **Ponta Delgada** | **0.91** | **293** | *e*P | Pg | 01 02 26.6 | -3.0 |
| PDA | | | | *e*S | Sg | 01 02 36.9 | -4.5 |
| **PSET** | **Sete Cidades** | **0.98** | **297** | *e*S | Sg | 01 02 38.8 | -5.0 |
| PSET | | | | A | A | 01 02 41.9 | |
| | 21nm,0.3s | | | | | | |
| **PSET** | **Sete Cidades** | **0.98** | **297** | *e*S | Sg | 01 02 38.8 | -5.0 |

*ISCJB **09** 01:14:02.5±0.5, 39°.40N±0°.03×28°.71E±0°.04, h7km±6km, Error ellipse: s-maj=6.0km s-min=4.4km az=159.1*
*ISK **09** 01:14:02.4, 39°.41N×28°.70E, h8km, MD2.5*
*DDA **09** 01:14:02.1, 39°.41N×28°.70E, h7km, Ml2.8*
*CSEM **09** 01:14:02.7±0.1, 39°.39N×28°.71E, h10km, MD2.5, Error ellipse: s-maj=2.5km s-min=2.2km az=80.0*
**ISC 09 01:14:02.5**±0.9**, 39°.41N**±0°.02×**28°.69E**±0°.03**, h12**km±8km**, n28, σ0ˢ21**/39**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DST** | **Dursunbey** | **0.21** | **345** | *e*PG | **Pg** | **01 14 06.9** | **-0.2** |
| DST | | | | *e*SG | **Sg** | **01 14 10.1** | **-0.1** |
| **DST** | **Dursunbey** | **0.21** | **345** | *e*Pg | **Pg** | **01 14 06.9** | **-0.2** |
| **DEMI** | **Demirci** | **0.36** | **177** | *i* P | **Pg** | **01 14 09.9** | **+0.1** |
| DEMI | | | | *i* S | **Sg** | **01 14 14.9** | **+0.2** |
| **DEMI** | **Demirci** | **0.36** | **177** | P | **Pg** | **01 14 09.9** | **+0.1** |
| DEMI | | | | S | **Sg** | **01 14 14.9** | **+0.2** |
| **SIMA** | **Simav-Kutahya** | **0.39** | **145** | *e*PG | **Pg** | **01 14 10.6** | **+0.2** |
| **SIMA** | **Simav-Kutahya** | **0.39** | **145** | *e*Pg | **Pg** | **01 14 10.6** | **+0.2** |
| **TVSB** | **Tavsanli** | **0.60** | **86** | *e*PG | **Pg** | **01 14 14.2** | **-0.1** |
| **TVSB** | **Tavsanli** | **0.60** | **86** | *e*Pg | **Pg** | **01 14 14.2** | **-0.1** |
| **BALB** | **Balikesir** | **0.67** | **291** | *e*PG | **Pb** | **01 14 16.5** | **+0.3** |
| **BALB** | **Balikesir** | **0.67** | **291** | *e*Pg | **Pb** | **01 14 16.5** | **+0.4** |
| **GDZ** | **Gediz** | **0.69** | **117** | *i* P | **Pg** | **01 14 15.9** | **-0.1** |
| GDZ | | | | *i* S | **Sg** | **01 14 24.8** | **-0.3** |
| **GDZ** | **Gediz** | **0.69** | **117** | P | **Pg** | **01 14 15.9** | **-0.1** |
| GDZ | | | | S | **Sg** | **01 14 24.8** | **-0.3** |
| **STEP** | **BALIKESIR_Sava** | **0.75** | **268** | *i* P | **Pg** | **01 14 17.0** | **-0.2** |
| STEP | | | | *i* S | **Sb** | **01 14 27.8** | **0.0** |
| **STEP** | **BALIKESIR_Sava** | **0.75** | **268** | P | **Pg** | **01 14 17.0** | **-0.2** |
| STEP | | | | S | **Sb** | **01 14 27.8** | **0.0** |
| **AKHS** | **Akhisar** | **0.86** | **233** | *i* P | **Pg** | **01 14 19.3** | **+0.1** |
| AKHS | | | | *i* S | **Sn** | **01 14 32.6** | **-0.3** |
| **AKHS** | **Akhisar** | **0.86** | **233** | P | **Pg** | **01 14 19.3** | **+0.1** |
| AKHS | | | | S | **Sn** | **01 14 32.6** | **-0.3** |
| **KULA** | **Kula-Manisa** | **0.89** | **181** | *e*PG | **Pg** | **01 14 19.7** | **-0.1** |
| **KULA** | **Kula-Manisa** | **0.89** | **181** | *e*Pg | **Pg** | **01 14 19.7** | **-0.1** |
| **KCTX** | **Karacabey (Bur** | **0.90** | **343** | *e*PG | **Pg** | **01 14 19.9** | **0.0** |
| **KCTX** | **Karacabey (Bur** | **0.90** | **343** | *e*Pg | **Pg** | **01 14 19.9** | **0.0** |
| **MANT** | **Manisa** | **0.92** | **186** | *i* P | **Pg** | **01 14 19.9** | **-0.4** |
| MANT | | | | *i* S | **Sg** | **01 14 32.1** | **-0.3** |
| **MANT** | **Manisa** | **0.92** | **186** | P | **Pg** | **01 14 19.9** | **-0.4** |
| MANT | | | | S | **Sg** | **01 14 32.1** | **-0.3** |
| **MDNY** | **Mudanya-Bursa** | **0.97** | **9** | *e*PG | **Pn** | **01 14 22.1** | **+0.1** |
| **MDNY** | **Mudanya-Bursa** | **0.97** | **9** | *e*Pg | **Pn** | **01 14 22.1** | **+0.1** |
| **CAVI** | **Cavuskoy** | **1.19** | **48** | *e*PN | **Pg** | **01 14 25.6** | **+0.1** |
| **CAVI** | **Cavuskoy** | **1.19** | **48** | *e*Pn | **Pg** | **01 14 25.6** | **+0.1** |
| **YLV** | **Yalova** | **1.27** | **24** | *e*PN | **Pg** | **01 14 26.9** | **-0.1** |
| **YLV** | **Yalova** | **1.27** | **24** | *e*Pn | **Pg** | **01 14 26.9** | **-0.1** |

*ATA **09** 01:16:15.3±1.1, 38°.83N×43°.31E, h7km±61km, ML2.5, MW2.8*
*ISK **09** 01:16:15.8, 38°.79N×43°.27E, h5km, ML1.9*
*ISCJB **09** 01:16:17.0±0.4, 38°.81N±0°.03×43°.25E±0°.04, h13km±4km, Error ellipse: s-maj=5.1km s-min=4.1km az=27.8*
*CSEM **09** 01:16:16.9±0.2, 38°.81N×43°.25E, h8km, ML1.9, Error ellipse: s-maj=4.7km s-min=3.6km az=96.0*
*DDA **09** 01:16:16.7, 38°.81N×43°.25E, h7km, Ml2.8*
**ISC 09 01:16:16.4**±0.9**, 38°.81N**±0°.02×**43°.25E**±0°.03**, h17**km±8km**, n29, σ0ˢ56**/47**, 2D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ERCV** | **ERCIS-VAN** | **0.22** | **18** | PG | **Pg** | **01 16 21.4** | **-0.4** |
| ERCV | | | | *e*SG | **Sb** | **01 16 25.8** | **-0.2** |
| **ERCV** | **ERCIS-VAN** | **0.22** | **18** | *i* Pg | **Pg** | **01 16 21.4** | **-0.4** |
| ERCV | | | | *e*Sg | **Sb** | **01 16 25.8** | **-0.2** |
| **VANB** | **Van** | **0.24** | **153** | PG | **Pb** | **01 16 22.9** | **+0.5** |
| **VANB** | **Van** | **0.24** | **153** | *i* Pg | **Pb** | **01 16 22.9** | **+0.5** |
| **TVAN** | **Van** | **0.30** | **156** | *i* P | **Pg** | **01 16 22.6** | **-0.4** |
| TVAN | | | | *i* S | **Sg** | **01 16 28.2** | **+0.6** |
| **TVAN** | **Van** | **0.30** | **156** | P | **Pg** | **01 16 22.6** | **-0.4** |
| TVAN | | | | S | **Sg** | **01 16 28.2** | **+0.6** |
| **VMUR** | **Van-Muradiye** | **0.31** | **54** | *i* P | **Pg** | **01 16 23.0** | **-0.1** |
| VMUR | | | | *i* S | **Sb** | **01 16 28.7** | **+0.2** |
| **VMUR** | **Van-Muradiye** | **0.31** | **54** | P | **Pg** | **01 16 23.0** | **-0.1** |
| VMUR | | | | S | **Sb** | **01 16 28.7** | **+0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.41** | **270** | *i* P | **Pg** | **01 16 25.3** | **+0.4** |
| ADCV | | | | *i* S | **Sb** | **01 16 31.9** | **+0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.41** | **270** | P | **Pg** | **01 16 25.3** | **+0.4** |
| ADCV | | | | S | **Sb** | **01 16 31.9** | **+0.5** |
| **GEVA** | **Gevas** | **0.52** | **197** | ⇓*i*P | **Pg** | **01 16 26.1** | **-0.6** |
| GEVA | | | | *e*S | **Sb** | **01 16 35.2** | **+0.8** |
| GEVA | | | | IAML | | 01 16 38.0 | |
| | comp=Z,16nm,0.6s | | | | | | |
| **GEVA** | **Gevas** | **0.52** | **197** | *i* P | **Pg** | **01 16 26.2** | **-0.6** |
| GEVA | | | | *e*S | **Sb** | **01 16 34.9** | **+0.5** |
| GEVA | | | | IAML | | 01 16 38.0 | |
| | comp=Z,16nm,0.6s | | | | | | |
| **GEVA** | **Gevas** | **0.52** | **197** | *i* P | **Pg** | **01 16 26.2** | **-0.6** |
| GEVA | | | | *i* S | **Sb** | **01 16 34.8** | **+0.4** |
| **GEVA** | **Gevas** | **0.52** | **197** | P | **Pg** | **01 16 26.2** | **-0.6** |
| **CLDR** | **Caldiran** | **0.62** | **57** | *e*PG | **Pg** | **01 16 28.8** | **0.0** |
| CLDR | | | | *e*SG | **Sb** | **01 16 38.1** | **+0.7** |
| **CLDR** | **Caldiran** | **0.62** | **57** | *i* P | **Pg** | **01 16 28.7** | **0.0** |
| CLDR | | | | *i* S | **Sb** | **01 16 38.0** | **+0.5** |
| **CLDR** | **Caldiran** | **0.62** | **57** | *e*Pg | **Pg** | **01 16 28.8** | **0.0** |
| CLDR | | | | S | **Sb** | **01 16 38.0** | **+0.5** |
| **TUTA** | **Tutak** | **0.68** | **330** | ⇓*i*P | **Pg** | **01 16 29.6** | **-0.3** |
| TUTA | | | | *e*S | **Sb** | **01 16 39.5** | **+0.2** |
| TUTA | | | | IAML | | 01 16 40.8 | |
| | comp=Z,34nm,0.2s | | | | | | |
| **TUTA** | **Tutak** | **0.68** | **330** | *i* P | **Pg** | **01 16 29.5** | **-0.3** |
| TUTA | | | | *e*S | **Sg** | **01 16 39.2** | **+0.1** |
| TUTA | | | | IAML | | 01 16 40.8 | |
| | comp=Z,34nm,0.2s | | | | | | |
| **TUTA** | **Tutak** | **0.68** | **330** | *i* P | **Pg** | **01 16 29.6** | **-0.3** |
| TUTA | | | | *i* S | **Sb** | **01 16 39.5** | **+0.2** |
| **TUTA** | **Tutak** | **0.68** | **330** | P | **Pg** | **01 16 29.6** | **-0.3** |
| TUTA | | | | S | **Sb** | **01 16 39.5** | **+0.2** |
| **AGRB** | **Hanur-Agry** | **0.79** | **345** | *e*PG | **Pg** | **01 16 32.5** | **+0.5** |
| **AGRB** | **Hanur-Agry** | **0.79** | **345** | *e*Pg | **Pg** | **01 16 32.5** | **+0.5** |
| **EKAR** | **Karacoban** | **1.03** | **296** | *e*P | **Pn** | **01 16 36.5** | **+0.3** |
| EKAR | | | | IAML | | 01 16 58.1 | |
| | comp=Z,4.9nm,0.3s | | | | | | |
| **SIRT** | **Sirnak** | **1.45** | **206** | *e*PN | **Pg** | **01 16 44.5** | **+0.1** |
| **SIRT** | **Sirnak** | **1.45** | **206** | *e*Pn | **Pg** | **01 16 44.5** | **+0.1** |
| **CUKT** | **Cukurca** | **1.58** | **170** | *e*PN | **Pb** | **01 16 45.5** | **+0.2** |
| **CUKT** | **Cukurca** | **1.58** | **170** | *e*Pn | **Pb** | **01 16 45.5** | **+0.2** |
| **BNGL** | **BINGOL** | **1.65** | **276** | *e*P | **Pn** | **01 16 42.5** | **-2.3** |

**JMA 09 01:18:27.5, 37°.01N**×**140°.67E, h7**km±1km**, M2.0, Eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ONAJ** | **Iwakimizuishiy** | **0.14** | **48** | P | Pg | 01 18 30.6 | +0.2 |
| ONAJ | | | | S | Sg | 01 18 32.9 | +0.4 |
| **JFK** | **Kawauchi** | **0.39** | **25** | P | Pg | 01 18 35.2 | 0.0 |
| **JHO** | **Hitachi** | **0.41** | **192** | P | Pg | 01 18 35.3 | -0.1 |
| JHO | | | | S | Sg | 01 18 40.9 | +0.2 |
| **JFT** | **Otama** | **0.57** | **332** | P | Pg | 01 18 38.8 | +0.2 |
| JFT | | | | S | Sg | 01 18 46.6 | +0.5 |

*IDC **09** 01:25:39.7±0.7, 62°.23N×146°.00W, h0km, mb3.9/22, mb1 4.0/25, mb1mx4.0/53, mbtmp3.9/25, ML3.7/3, MS3.7/17, Ms1 3.7/17, ms1mx3.5/49, Error ellipse: s-maj=13.0km s-min=11.5km az=37.0*
*ISCJB **09** 01:25:40.6±0.5, 62°.29N±0°.01×145°.82W±0°.03, h6km±3km, mb4.3/68, MS3.8/17, Error ellipse: s-maj=2.5km s-min=2.4km az=40.3*
*BJI **09** 01:25:40.1, 62°.30N×145°.80W, h10km, mb4.7/22, mB5.2/12, Ms4.7/2, Ms7 4.2/2*
*PGC **09** 01:25:41.3±0.0, 62°.21N×145°.73W, h13km, mb4.4, ML4.5, ML4.1/7, 124km Nne of Valdez, Ak Central Alaska*
*MOS **09** 01:25:42.0±2.3, 62°.28N×145°.77W, h22km, mb4.4/12, Error ellipse: s-maj=26.0km s-min=10.1km az=95.6*
*NEIC **09** 01:25:42.8±0.0, 62°.25N×145°.65W, h16km, mb4.5/29, MW4.4, ML4.4(AEIC), Moment Tensor Solution. s92 Moment tensor: Scale $10^{15}$Nm; $M_{rr}$5.68; $M_{\theta\theta}$-4.11; $M_{\phi\phi}$-1.57; $M_{r\theta}$-0.98; $M_{\theta\phi}$1.97; $M_{\phi r}$1.74; Best double couple: $M_0$5.80000×$10^{15}$ NP1:$\phi_s$110.00000°, δ37.00000°, λ76.00000°. NP2:$\phi_s$308.00000°, δ54.00000°, λ101.00000°. Principal axes: T 6.1000, Plg78.0000°, Azm256.0000°; N -0.6600, Plg9.0000°, Azm122.0000°; P -5.4500, Plg9.0000°, Azm30.0000°; After AEIC.*
*NEIC Felt [IV] at Copper Center and [III] at Glennallen. Also felt at Gakona.*
**ISC 09 01:25:42.4**±0.9**, 62°.24N**±0°.02×**145°.75W**±0°.02**, h13**km±5km**, n268, σ2ˢ07**/280**, mb4.4**/68**, MS3.7**/17**, 6C-4D, Central Alaska**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PS11** | **TAPS Pump St11** | **0.21** | **141** | P | **Pg** | **01 25 47.2** | **+0.2** |
| PS11 | | | | S | **Sg** | **01 25 52.0** | **+2.0** |
| **HARP** | **HAARP** | **0.33** | **59** | P | **Pg** | **01 25 48.3** | **-0.7** |
| **HARP** | **HAARP** | **0.33** | **59** | P | **Pg** | **01 25 48.4** | **-0.7** |
| **PAX** | **Paxson** | **0.74** | **10** | P | **Pg** | **01 25 55.1** | **-1.7** |
| PAX | | | | S | **Sg** | **01 26 04.9** | **-1.7** |
| **PAX** | **Paxson** | **0.74** | **10** | P | **Pg** | **01 25 55.2** | **-1.6** |
| PAX | | | | S | **Sg** | **01 26 05.0** | **-1.5** |
| **KLU** | **Klutina** | **0.76** | **186** | P | **Pg** | **01 25 55.5** | **-1.5** |
| KLU | | | | S | **Sg** | **01 26 07.0** | **+0.1** |
| **PS12** | **TAPS Pump St12** | **0.82** | **159** | P | **Pg** | **01 25 56.3** | **-1.9** |
| **SCM** | **Sheep Creek Mo** | **0.85** | **242** | P | **Pg** | **01 25 57.5** | **-1.2** |
| SCM | | | | S | **Sg** | **01 26 09.6** | **-0.2** |
| **DIV** | **Divide** | **1.12** | **180** | P | **Pg** | **01 26 00.4** | **-3.4** |
| DIV | | | | S | **Sg** | **01 26 14.3** | **-4.0** |
| **DIV** | **Divide** | **1.12** | **180** | P | **Pg** | **01 26 00.7** | **-3.1** |
| **DHY** | **Denali Highway** | **1.12** | **319** | P | **Pg** | **01 26 02.0** | **-2.0** |
| **VLZ** | **Valdez** | **1.15** | **194** | P | **Pb** | **01 26 00.9** | **-3.1** |
| **MENT** | **Mentasta** | **1.17** | **52** | P | **Pg** | **01 26 02.0** | **-2.9** |

MENT S Sg 01 26 17.5 -2.7
PS10 TAPS Pump St10 1.19 360 P Pb 01 26 03.0 -1.7
PS10 S Sg 01 26 18.5 -2.1
VMT TAPS TI Valdez 1.20 194 P Pb 01 26 01.9 -3.0
JPK Jack Peak 1.26 199 P Pn 01 26 02.7 -3.0
SML Sawmill 1.29 251 P Pn 01 26 04.1 -2.1
BMRM Bremner River 1.39 156 P Pn 01 26 04.7 -2.8
KNK Knik Glacier 1.53 238 P Pn 01 26 08.6 -0.8
KNK S Sn 01 26 27.7 -1.5
FID Port Fidalgo 1.54 193 P Pn 01 26 07.9 -1.6
GHO Glory Hole Cre 1.57 254 P Pn 01 26 08.6 -1.4
EYAK Cordova Ski Ar 1.70 180 P Pn 01 26 10.6 -1.0
EYAK S Sn 01 26 31.3 -1.9
PMR Palmer 1.73 249 P Pn 01 26 10.6 -1.4
SGAM Sherman Glacie 1.77 171 P Pn 01 26 11.1 -1.6
RND Reindeer 1.84 311 P Pn 01 26 13.6 -0.1
HIN Hinchinbrook I 1.89 191 P Pn 01 26 13.9 -0.4
RAGM Ragged Mountai 1.93 164 ePn Pn 01 26 15.3 +0.3
BCA3 Beaver Creek A 2.01 64 P Pn 01 26 13.8 -2.2
MCK McKinley 2.09 317 ePn Pn 01 26 18.0 +0.9
BERG Berg Lake 2.10 151 P Pn 01 26 16.9 -0.4
KHIT Khitrov Hills 2.17 145 P Pn 01 26 17.8 -0.5
RC01 Rabbit Creek A 2.22 240 ePn Pn 01 26 20.0 +1.1
RC01 ePg Pg 01 26 25.1 +0.1
RC01 eSn Sn 01 26 45.3 -1.0
RC01 eSg Sb 01 26 50.8 +0.9
HDA Harding Lake 2.24 347 P Pn 01 26 18.8 -0.3
BVCY Beaver Creek 2.29 83 Pn Pn 01 26 18.3 -1.6
BVCY Sg Sb 01 26 51.6 -0.1
BVCY Beaver Creek 2.29 83 P Pn 01 26 18.4 -1.4
ISLE Juniper Island 2.32 134 P Pn 01 26 18.8 -1.6
PS08 TAPS Pump Stn8 2.36 349 P Pn 01 26 20.2 -0.5
YUK2 White River 2.36 99 Pn Pn 01 26 19.0 -1.9
SUCK Suckling Hills 2.38 155 P Pn 01 26 20.6 -0.5
TRF Thorofare Moun 2.41 302 P Pn 01 26 22.2 +0.6
KAIM Kayak Island 2.41 164 P Pn 01 26 21.4 -0.1
BARK Barkley Ridge 2.42 138 P Pn 01 26 21.8 +0.1
YUK1 Sand Pete Hill 2.45 90 Pn Pn 01 26 20.8 -1.4
YUK1 Sg Sb 01 26 55.9 -0.6
KULT Kultieth River 2.48 142 P Pn 01 26 22.6 +0.1
SUA Susitna One 2.49 254 ePn Pn 01 26 23.9 +1.2
YUK3 Moose Creek 2.54 98 Pn Pn 01 26 21.9 -1.6
CCB Clear Creek Bu 2.58 340 P Pn 01 26 23.2 -0.7
ILAR Eielson Array 2.59 349 Pn Pn 01 26 22.6 -1.4
4.2nm,0.3s,baz=175,slow=13,SNR=221
ILAR Lg Lg 01 27 01.7
180nm,0.3s,baz=168,slow=29,SNR=15
ILB Eielson Array 2.59 349 P Pn 01 26 22.6 -1.4
IL1 Eielson Array 2.59 349 P Pn 01 26 22.8 -1.2
KTH Kantishna Hill 2.71 301 ePn Pn 01 26 25.7 +0.1
KTH eSn Sn 01 26 56.2 -2.1
KTH eSg Sb 01 27 06.4 +2.6
SKT Skwentna 2.73 267 P Pn 01 26 27.0 +1.1
SLKM Skilak Lake 2.77 233 P Pn 01 26 27.3 +0.9
SEW Seward 2.79 221 P Pn 01 26 28.1 +1.3
COLA College 2.81 341 iP Pn 01 26 26.1 -0.8
COLA College 2.81 341 P Pn 01 26 26.4 -0.4
MID Middleton Isla 2.84 186 P Pn 01 26 27.6 +0.3
MDM Murphy Dome 2.94 339 P Pn 01 26 28.3 -0.5
BPAW Bear Paw Mtn. 3.02 310 P Pn 01 26 30.5 +0.6
PPLA Purkeypile 3.05 285 P Pn 01 26 31.5 +1.1
CAST Castle Rocks 3.13 295 ePn Pn 01 26 32.7 +1.2
SPU Mount Spurr 3.18 253 ePn Pn 01 26 33.2 +1.0
SPCP Crater Peak Br 3.20 255 P Pn 01 26 33.8 +1.4
EGAK Eagle 3.27 37 P Pn 01 26 32.8 -0.5
CKL Chakachamna La 3.31 254 P Pn 01 26 34.7 +0.9
SPWE Spurr West 3.38 256 P Pn 01 26 36.2 +1.3
DAWY Dawson 3.42 55 Pn Pn 01 26 33.7 -1.6
DAWY Sg Sb 01 27 25.7 +1.6
DAWY Dawson 3.42 55 P Pn 01 26 34.0 -1.3
PCA Pinnacle 3.42 127 Pg Pb 01 26 42.3 -0.6
PCA Sg Sb 01 27 25.1 +0.7
BRLK Bradley Lake 3.52 227 P Pn 01 26 37.5 +0.7
MLY Manley 3.58 324 P Pn 01 26 38.0 +0.4
DFR Drift River 3.72 247 P Pn 01 26 40.2 +0.6
RDJH Redoubt Jeurge 3.77 247 P Pn 01 26 41.0 +0.7
RSO Redoubt South 3.81 245 ePn Pn 01 26 41.9 +1.0
CNPM China Poot 3.82 227 P Pn 01 26 41.3 +0.4
RDWB Redoubt West 3.84 246 P Pn 01 26 41.8 +0.6
RED Redoubt Volcan 3.84 245 P Pn 01 26 41.7 +0.5
HOM Homer 3.87 231 ePn Pn 01 26 47.7 -2.7
PNL Peninsula 4.03 127 Pn Pn 01 26 42.9 -0.9
PNL Peninsula 4.03 127 P Pn 01 26 43.3 -0.5
YUK7 Dusty Glacier 4.04 112 Pn Pn 01 26 43.2 -0.9
INE Iliamna NE 4.16 242 P Pn 01 26 46.3 +0.6
ILW Iliamna West 4.19 242 P Pn 01 26 46.4 +0.3
HYT Haines Junctio 4.20 106 Pn Pn 01 26 45.3 -0.9
HYT Haines Junctio 4.20 106 P Pn 01 26 45.2 -0.9
FYU Fort Yukon 4.35 3 P Pn 01 26 47.6 -0.4
AUH Augustine H 4.74 236 P Pn 01 26 54.3 +0.7
TTA Tatalina 4.79 283 P Pn 01 26 54.6 +0.3
TT01 Tatalina 4.80 283 P Pn 01 26 54.6 +0.4
SVW2 Sparrevohn 4.82 261 P Pn 01 26 54.9 +0.3
PS05 TAPS Pump Stn5 5.05 337 P Pn 01 26 58.0 +0.3
CDD Cape Douglas 5.11 233 P Pn 01 26 59.1 +0.4
IM3 Indian Mountai 5.13 320 P Pn 01 26 59.5 +0.6
IMAR Indian Mountai 5.13 320 ePn Pn 01 26 58.4 -0.5
BM3 Burnt Mountain 5.22 5 P Pn 01 26 59.4 -0.7
COLD Coldfoot 5.36 341 Pn Pn 01 27 01.8 -0.1
COLD Coldfoot 5.36 341 P Pn 01 27 01.9 +0.1
PLBC Pleasant Camp 5.37 117 Pg Pb 01 27 17.7 +1.7
WHY Whitehorse 5.45 102 Pn Pn 01 27 01.9 -1.5
WHY Whitehorse 5.45 102 ePn Pn 01 27 04.2 +0.8
KDAK Kodiak Island 5.63 220 Pn Pn 01 27 05.5 -0.2
3.1nm,0.3s,baz=52,slow=13,SNR=65
KDAK Sn Sn 01 28 06.0 -4.1
11nm,0.3s,baz=317,slow=19,SNR=8.1
KDAK Lg Lg 01 28 37.6
baz=308,slow=20,SNR=5.6
KDAK Kodiak Island 5.63 220 iP Pn 01 27 05.8 +0.1
KDAK Kodiak Island 5.63 220 P Pn 01 27 06.0 +0.4
SKAG Skagway 5.81 114 ePg Pg 01 27 30.7 -2.7
KELA Mount Kelaz 6.25 237 P Pn 01 27 14.4 +0.1
OHAK Old Harbor 6.31 220 ePn Pn 01 27 15.3 +0.3
OHAK eSg Sb 01 28 52.7 +5.4
INK Inuvik 7.95 35 Pn Pn 01 27 36.2 -1.1
2.4nm,0.3s,baz=220,slow=17,SNR=103
INK Sn Sn 01 29 08.7 +1.7
1.5nm,0.3s,baz=239,slow=19,SNR=3.3
INK Lg Lg 01 29 53.5
1.4nm,0.3s,baz=139,slow=32,SNR=7.0
INK Inuvik 7.95 35 iP Pn 01 27 35.5 -1.8
INK Inuvik 7.95 35 Pn Pn 01 27 35.8 -1.6
INK Inuvik 7.95 35 P Pn 01 27 35.6 -1.8
FNBB Fort Nelson 11.66 97 Pn Pn 01 28 26.1 -2.2
BBB Bella Bella 13.83 129 LR LR 01 33 51.3
comp=Z,252nm,21.7s,baz=344,slow=35
KUKN Kugluktuk,NWT 13.98 53 Pn Pn 01 28 57.1 -2.8
KUKN Sn Sn 01 31 20.5 -14
YKA Yellowknife Ar 14.38 75 Pn Pn 01 29 03.5 -1.9
0.3nm,0.3s,baz=281,slow=13,SNR=14
YKA LR LR 01 35 38.2
comp=Z,9.4nm,21.6s,baz=180,slow=41
YKA Yellowknife Ar 14.38 75 iP Pn 01 29 05.8 +0.4
YKA pmax pmax
comp=Z,3.0nm,0.7s
YKW1 Yellowknife Ar 14.43 75 Pn Pn 01 29 03.8 -2.2
B05A Bryant 19.27 126 P Pn 01 30 08.2 +0.8
baz=326
C06D Leavenworth 20.01 124 P Pn 01 30 17.5 +1.2
baz=325
NEW Newport 21.25 118 P P 01 30 27.0 -1.0
comp=Z,0.4nm,0.3s,baz=286,slow=18,SNR=2.1
NEW Newport 21.25 118 P P 01 30 30.2 +2.2
baz=322,SNR=9.2
NEW Newport 21.25 118 eP P 01 30 31.3 +3.3
comp=Z,11nm,1.0s
G03D McMinnville, O 21.44 132 P P 01 30 33.1 +3.2
baz=331
RES Resolute Bay 21.50 34 P P 01 30 29.1 -1.3
comp=Z,2.6nm,0.9s,baz=248,slow=17,SNR=4.4
RES LR LR 01 39 43.3
comp=Z,192nm,20.2s,baz=269,slow=39
WALA Waterton Lakes 22.00 112 eP P 01 30 37.6 +1.5
comp=Z,21nm,1.1s
G05D Wamic, OR 22.10 129 P P 01 30 39.9 +2.7
baz=329
I03D Drain, OR 22.74 134 P P 01 30 48.9 +5.0
baz=333
JTMT Jette 22.85 115 eP P 01 30 47.3 +2.2
comp=Z,22nm,1.2s
I04A Tendick Farm, 22.97 133 P P 01 30 50.7 +4.3
baz=332
J04D Umpqua Nationa 23.57 133 P P 01 30 56.3 +3.7
baz=332
FFC Flin Flon 23.67 88 eP P 01 30 54.7 +1.4
comp=Z,11nm,1.2s
MSO Missoula 23.71 116 P P 01 30 55.7 +1.9
baz=322
J05D Fort Rock, OR 23.83 131 P P 01 30 56.2 +1.1
baz=331
HUMO Hull Mountain 23.84 135 eP P 01 30 57.1 +2.1
comp=Z,25nm,0.9s
BMO Blue Mountains 23.95 123 iP P 01 30 57.1 +1.0
BMO Blue Mountains 23.95 123 eP P 01 30 56.1 0.0
comp=Z,13nm,1.4s
EGMT Eagleton 24.60 109 P P 01 31 04.7 +2.6
baz=319
YBH Yreka Blue Hor 24.71 135 P P 01 31 04.6 +1.5
comp=Z,1.2nm,0.8s,baz=270,slow=5.1,SNR=2.4
M04C Macdoel 24.95 134 P P 01 31 09.0 +3.6
baz=333
M02C Callahan 24.97 136 P P 01 31 08.8 +3.4
baz=335
MOD Modoc Plateau 25.37 132 eP P 01 31 10.6 +1.4
comp=Z,18nm,1.4s
N02D Trinity Center 25.39 136 P P 01 31 13.6 +4.4
baz=335
DLMT Dillon 25.44 116 eP P 01 31 10.0 +0.2
comp=Z,1.8nm,0.9s
BOZ Bozeman (W) 25.67 115 P P 01 31 14.1 +2.3
baz=323
MFID Camas Ranch 25.73 123 eP P 01 31 16.3 +3.9
comp=Z,14nm,1.3s
HLID Hailey 26.17 121 P P 01 31 19.1 +2.7
baz=327,SNR=5.2
HLID Hailey 26.17 121 eP P 01 31 18.6 +2.2
comp=Z,7.0nm,1.2s
O03D Paynes Creek 26.30 136 P P 01 31 18.1 +0.6
baz=335
YHH Holmes Hill 26.64 115 eP P 01 31 20.9 0.0
comp=Z,7.7nm,1.1s
RLMT Red Lodge 27.06 112 P P 01 31 26.6 +2.2
baz=322
H17A Grant Village 27.08 115 P P 01 31 26.9 +2.2
baz=324
H17A Grant Village 27.08 115 eP P 01 31 25.9 +1.3
comp=Z,4.7nm,1.0s
LAO LASA Array 27.19 106 P P 01 31 27.4 +1.9
baz=319
IMW Indian Meadow 27.32 116 eP P 01 31 27.6 +0.6
comp=Z,13nm,1.1s
MOOW Moose Ponds 27.53 116 eP P 01 31 29.2 +0.5
comp=Z,7.3nm,1.3s
SEY Seymchan 27.53 299 P P 01 31 27.5 -0.8
comp=Z,1.3nm,0.6s,baz=107,slow=19,SNR=2.2
SEY Senchan 27.53 299‖ eP P 01 31 28.1 -0.2
REDW Red Top Meadow 27.80 117 eP P 01 31 34.3 +3.2
comp=Z,28nm,1.4s
BW06 Boulder Array 28.83 116 P P 01 31 41.3 +1.0
baz=325
BW06 Boulder Array 28.83 116 eP P 01 31 42.1 +1.8
comp=Z,8.2nm,1.0s
PD31 Pinedale Array 28.83 116 eP P 01 31 41.7 +1.4
PDAR Pinedale Array 28.83 116 P P 01 31 40.9 +0.5
comp=Z,1.0nm,0.8s,baz=328,slow=5.3,SNR=7.1
PDAR LR LR 01 42 46.4
comp=Z,184nm,21.7s,baz=328,slow=36
PDAR Pinedale Array 28.83 116 eP P 01 31 41.3 +1.0
ULM Lac du Bonnet 29.40 91 LR LR 01 44 30.2
comp=Z,174nm,20.4s,baz=323,slow=38
DUG Dugway, Tooele 29.65 123 P P 01 31 50.0 +2.5
baz=329,SNR=5.6
DUG Dugway, Tooele 29.65 123 eP P 01 31 53.5 +5.9
comp=Z,4.7nm,1.0s
MLAC Mammoth, Mammo 29.69 133 P P 01 31 50.3 +2.3
baz=335
RSSD Black Hills 30.15 107 P P 01 31 53.4 +1.4
baz=322
R11A Troy Canyon, C 30.20 128 P P 01 31 56.9 +4.4
baz=332
R11A Troy Canyon, C 30.20 128 eP P 01 31 53.4 +1.0
comp=Z,8.5nm,1.3s
K22A Casper 30.22 112 P P 01 31 56.7 +4.1
baz=324
TIN Tinemaha, Big 30.42 133 P P 01 31 58.6 +4.3
baz=335
PETK Petropavlovsk- 30.62 279 P P 01 31 53.3 -2.5
comp=Z,1.8nm,0.7s,baz=65,slow=12,SNR=4.3
PETK LR LR 01 45 21.0
comp=Z,134nm,18.4s,baz=70,slow=39
GRAC Grapevine Rang 30.77 132 P P 01 32 00.4 +3.1
baz=334
CWC Cottonwood Cre 31.03 133 P P 01 32 01.4 +1.7
baz=335
TMUT Trail Mountain 31.06 121 eP P 01 31 59.6 -0.6
comp=Z,11nm,0.7s
TPNV Topopah Spring 31.21 130 P P 01 32 02.3 +1.0
baz=334,SNR=5.9
FURC Furnace Creek, 31.42 132 P P 01 32 05.2 +2.2
baz=334
SRU San Rafael Swe 31.49 121 iP P 01 32 04.6 +0.8
SRU San Rafael Swe 31.49 121 eP P 01 32 04.6 +0.8
comp=Z,1.1nm,1.0s
O20A White River Ci 31.56 117 P P 01 32 07.3 +2.9
baz=327
MPMC Manual Prospec 31.57 133 P P 01 32 07.2 +2.6
baz=335,SNR=6.3
TIXI Tiksi 31.78 323‖ eP P 01 32 08.2 +2.4
TIXI pmax pmax
comp=Z,1.0nm,0.9s
PKM Mcpherson Peak 31.87 137 P P 01 32 10.2 +3.0
baz=337
LRMC Laurel Mtn Rad 32.03 134 P P 01 32 11.5 +3.0
baz=336,SNR=7.0
SHOC Shoshone, Teco 32.14 131 P P 01 32 13.0 +3.7
baz=334
GSC Goldstone, Bar 32.49 133 P P 01 32 17.1 +4.6
baz=335,SNR=9.3
TUQ Turquoise Moun 32.68 131 P P 01 32 19.0 +4.8
baz=335,SNR=6.5
HEC Hector,Ludlow 33.08 132 P P 01 32 21.6 +4.0
baz=335
PV01 Paradox Valley 33.12 119 eP P 01 32 22.5 +4.3
comp=Z,777nm,1.0s
BFSC Mount Baldy Ra 33.17 135 P P 01 32 22.8 +4.3
baz=336,SNR=5.6
C38A Sawbill Land. 33.34 90 P P 01 32 22.3 +2.5
baz=316
GMRC Granite Mounta 33.36 131 P P 01 32 24.0 +3.9
baz=335,SNR=6.3
SNCC San Nicolas Is 33.48 138 P P 01 32 21.7 +0.7
baz=336
J32A Parkston 33.54 102 P P 01 32 25.5 +4.0
baz=321
MVCO Mesa Verde 33.94 120 P P 01 32 26.3 +1.0
baz=330
BELC Belle Mtn. Jos 33.95 132 P P 01 32 26.7 +1.4
baz=336
IRM Iron Mountain 34.11 131 P P 01 32 28.6 +2.1
baz=335,SNR=8.0
PFO Pinyon Flats O 34.15 133 P P 01 32 26.5 -0.5
baz=336
PFO Pinyon Flats O 34.15 133 iP P 01 32 29.2 +2.2
S22A 4UR Ranch, Cre 34.17 118 P P 01 32 28.2 +0.9
baz=329
WUAZ Wupatki 34.28 125 P P 01 32 31.9 +3.7
baz=332,SNR=9.1
WUAZ Wupatki 34.28 125 eP P 01 32 32.7 +4.5
comp=Z,12nm,0.9s
PDMCI Parker Dam,Lak 34.33 130 P P 01 32 29.3 +0.9
baz=334
BC3 Big Chuckawall 34.45 132 P P 01 32 32.3 +2.7
baz=336
109C Camp Elliot, M 34.59 135 P P 01 32 33.8 +3.2
baz=337
Y12C Blythe 34.69 131 P P 01 32 35.3 +3.7
baz=335
SDCO Great Sand Dun 34.72 116 P P 01 32 36.1 +4.0
baz=328
MONP2 Monument Peak 34.81 134 P P 01 32 37.3 +4.5
baz=336,SNR=7.5
IKP In-Ko-Pah, Jac 35.14 134 P P 01 32 39.5 +4.0
baz=336
GLA Glamis 35.22 132 P P 01 32 40.1 +4.0
baz=336
W18A Petrified Fore 35.27 123 P P 01 32 39.7 +3.0
baz=332
ANMO Albuquerque 36.73 120 P P 01 32 52.1 +2.9
baz=330
ANMO Albuquerque 36.73 120⇑ eP P 01 32 46.8 -2.4
ANMO pmax pmax
comp=Z,4.0nm,2.0s
SUMG Summit 36.81 29 iP P 01 32 55.9 +6.1
SUMG pmax pmax
comp=Z,20nm,1.1s
SUMG Summit 36.81 29 iP P 01 32 55.9 +6.1
comp=Z,20nm,1.1s
TUC Tucson 37.35 127 eP P 01 32 55.9 +1.4
comp=Z,5.4nm,1.0s
DAG Danmarks Havn 37.36 18 iP P 01 32 59.6 +5.7
DAG pmax pmax
comp=Z,10.0nm,1.2s
DAG Danmarks Havn 37.36 18 iP P 01 32 59.6 +5.7
comp=Z,10nm,1.2s
121A Cookes Peak, D 38.31 123 P P 01 33 03.7 +1.1
baz=332
SCHQ Schefferville 39.40 63 P P 01 33 15.3 +4.0
comp=Z,8.2nm,1.0s,baz=317,slow=15,SNR=3.1
SCHQ LR LR 01 50 13.8
comp=Z,152nm,18.3s,baz=277,slow=37
YSS Yuzh-Sakhalins 41.79 283 eP P 01 33 30.9 -0.2
comp=Z,18nm,0.6s
TXAR Lajitas Array 42.77 120 P P 01 33 40.6 +1.1
comp=Z,0.3nm,0.6s,baz=328,slow=8.5,SNR=4.8
TXAR LR LR 01 53 04.6
comp=Z,234nm,19.3s,baz=0.0,slow=38
BOD Bodaibo 45.42 312 eP P 01 33 57.3 -2.9
BOD pmax pmax
comp=Z,7.0nm,1.0s
USRK Ussuriysk Ar. 48.76 289 P P 01 34 23.1 -3.3
comp=Z,4.5nm,0.7s,baz=48,slow=9.9,SNR=9.4
USRK LR LR 01 54 53.4
comp=Z,98nm,18.6s,baz=49,slow=36
MDJ Mudanjiang 49.48 291 eP P 01 34 31.6 -0.5
comp=Z,10nm,0.8s
CN2 Changchun 51.93 293 eP P 01 34 49.4 -1.1
CN2 pmax pmax
comp=Z,10.0nm,0.6s
MAJO Matsushiro 52.06 278 eP P 01 34 52.7 +1.2
comp=Z,12nm,0.5s
MJAR Matsushiro Arr 52.06 278 P P 01 34 50.8 -0.8
comp=Z,1.0nm,0.3s,baz=13,slow=7.5,SNR=10
MJAR LR LR 01 58 57.5
comp=Z,49nm,19.2s,baz=70,slow=38
NOA NORSAR Array B 55.79 13 P P 01 35 17.7 -0.8
comp=Z,1.4nm,0.8s,baz=349,slow=6.9,SNR=2.5
NOA LR LR 02 02 39.6
comp=Z,31nm,18.2s,baz=225,slow=40
ULN Ulaanbaatar 55.94 309⇑ eP P 01 35 18.7 -1.2
ULN pmax pmax
comp=Z,3.0nm,1.4s
ULN Ulaanbaatar 55.94 309 eP P 01 35 19.9 0.0
comp=Z,6.9nm,1.0s
KS01 Wonju Array Si 56.01 287 eP P 01 35 19.9 -0.4
KSRS Korea Array 56.02 287 P P 01 35 20.1 -0.3
comp=Z,5.0nm,1.0s,baz=30,slow=5.4,SNR=5.3
KSRS LR LR 01 59 36.2
comp=Z,52nm,19.1s,baz=45,slow=36
KSAR Wonju Array Be 56.04 287 P P 01 35 20.1 -0.5
SONM Songino Array 56.20 309 P P 01 35 21.2 -0.6
comp=Z,1.4nm,0.9s,baz=29,slow=7.0,SNR=6.7
SONM LR LR 02 03 20.9
comp=Z,72nm,18.1s,baz=12,slow=40
KLMR Klimovskoe 57.16 357 eP P 01 35 31.1 +2.9
KLMR pmax pmax
comp=Z,21nm,1.4s
ZALV Zalesovo Beam 57.52 327 P P 01 35 29.9 -0.9
comp=Z,0.4nm,0.5s,baz=20,slow=4.6,SNR=2.7
ZALV LR LR 02 02 17.6
comp=Z,80nm,19.4s,baz=70,slow=38
EKA Eskdalemuir Ar 59.16 24 P P 01 35 43.2 +1.0
comp=Z,2.9nm,0.8s,baz=344,slow=18,SNR=2.8
HHC Hu-ho-hao-te 60.15 301 eP P 01 35 50.7 +1.3
HHC pmax pmax
comp=Z,14nm,0.5s
HHC pmax pmax
comp=Z,170nm,4.9s
ARU Arti 60.15 345 P P 01 35 46.6 -2.4
comp=Z,1.1nm,0.3s,baz=90,slow=20,SNR=2.0
ARU Arti 60.15 345 iP P 01 35 47.5 -1.6
ARU 01 36 33.4
ARU S S 01 44 00.7 -0.9
ARU pmax pmax
comp=Z,7.0nm,1.7s
BRVK Borovoye 61.58 336 eP P 01 35 57.9 -0.9
comp=Z,15nm,1.0s
BVAR Borovoye Array 61.59 336 P P 01 35 57.2 -1.6
comp=Z,0.5nm,0.4s,baz=37,slow=7.6,SNR=5.3
KURK Kurchatov 62.01 330‖ eP P 01 36 00.0 -1.7
KURK pmax pmax
comp=Z,1.0nm,1.0s
KURK Kurchatov 62.01 330 eP P 01 36 00.5 -1.2
MKAR Makanchi Array 64.72 326 P P 01 36 17.3 -2.6
comp=Z,0.6nm,0.4s,baz=186,slow=23,SNR=7.7
MKAR LR LR 02 06 07.6
comp=Z,60nm,18.3s,baz=12,slow=38
MKAR Makanchi Array 64.72 326 eP P 01 36 24.7 +4.9
MKAR pmax pmax
comp=Z,1.0nm,0.7s
LPSR Galich'ya Gora 65.44 357 eP P 01 36 26.3 +2.0
LPSR pmax pmax
comp=Z,5.0nm,1.1s
GTA Gaotai 65.88 309 eP P 01 36 33.6 +6.1
GTA pmax pmax
comp=Z,13nm,1.1s
GTA pmax pmax
comp=Z,190nm,5.2s
GTA LR LR
comp=Z,250nm,15.2s
GTA LR LR
comp=Z,130nm,16.6s
GTA LR LR
comp=Z,130nm,17.6s
WMQ Urumqi 65.93 320 P P 01 36 30.0 +2.3
WMQ pP sP 01 36 35.4 +2.0
WMQ sP pP 01 36 40.1 +8.2
WMQ pmax pmax
comp=Z,17nm,0.6s
VRH Novokhopyorsk 66.75 355 eP P 01 36 30.1 -2.6
VRH pmax pmax
comp=Z,8.0nm,0.5s
VSR Storozhevoye 66.82 357 eP P 01 36 34.3 +1.1
VSR pmax pmax
comp=Z,8.0nm,1.5s
LZH Lanzhou 67.30 305 eP P 01 36 42.8 +6.1
LZH pmax pmax
comp=Z,47nm,1.0s
LZH pmax pmax
comp=Z,150nm,4.5s
AKASG Malin Array Be 67.33 3 P P 01 36 32.4 -4.0
comp=Z,0.3nm,0.3s,baz=356,slow=6.0,SNR=3.6
AKASG Malin Array Be 67.33 3 ceP P 01 36 40.4 +3.9
AKASG pmax pmax
comp=Z,2.0nm,0.6s
WHN Wuhan 67.83 293 ⇑P P 01 36 36.8 -3.1
GERES GERESS Array B 68.05 14 P P 01 36 41.7 +0.5
comp=Z,0.2nm,0.4s,baz=331,slow=7.9,SNR=3.2
AAK Ala-Archa 70.57 330‖ eP P 01 36 55.8 -1.1
AAK pmax pmax
comp=Z,2.0nm,1.2s
AAK Ala-Archa 70.57 330 eP P 01 36 57.4 +0.4
comp=Z,3.0nm,0.9s
KSH Kashi 73.16 327 P P 01 37 13.0 +0.5
KSH pP sP 01 37 20.1 +1.9
KSH PcP PcP 01 37 28.9 -0.2
KSH PP PP 01 39 59.9 +5.2
KSH ScS ScS 01 47 16.1 -4.2
KSH pmax pmax
comp=Z,2.0nm,0.3s
KSH pmax pmax
comp=Z,180nm,4.8s
ES19 SONSECA Array 73.85 30 eP P 01 37 15.8 -0.6
ESDC Sonseca Array 73.86 30 P P 01 37 15.6 -1.0
comp=Z,0.8nm,0.9s,baz=326,slow=6.2,SNR=3.7
KVAR Kislovodsk Arr 73.94 354 P P 01 37 17.3 +0.3
comp=Z,2.6nm,0.7s,baz=313,slow=19,SNR=1.9
ROSC El Rosal 77.14 104 eP P 01 37 35.4 -0.6
comp=Z,4.0nm,0.6s
BRTR Keskin Array B 78.38 0 P P 01 37 40.5 -1.8
comp=Z,0.6nm,0.8s,baz=6.5,slow=4.5,SNR=2.8
BRTR LR LR 02 16 03.7
comp=Z,22nm,19.1s,baz=330,slow=39
MDT Midelt 80.23 32 P P 01 37 53.3 +0.8
comp=Z,0.7nm,0.8s,baz=330,slow=8.1,SNR=2.4
CMAR Chiang Mai Arr 84.94 301 LR LR 02 19 30.0
comp=Z,34nm,19.7s,baz=325,slow=38

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| LPAZ | La Paz | 98.62 | 108 | LR | LR | 02 29 43.1 | |
| | comp=Z,26nm,18.6s,baz=322,slow=39 | | | | | | |

**JMA 09 01:34:47.2±0.1, 36°.82N×138°.21E, h15km±1km, M1.2, Eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MAT | Matsushiro | 0.28 | 180 | P | Pg | 01 34 53.0 | -0.1 |
| MAT | | | | S | Sg | 01 34 57.2 | +0.1 |
| MAT | Matsushiro | 0.28 | 180 | P | Pg | 01 34 53.1 | 0.0 |
| MAT | | | | S | Sg | 01 34 57.2 | +0.1 |
| JJN | Nakama | 0.28 | 352 | P | Pg | 01 34 53.4 | +0.1 |
| JJN | | | | S | Sg | 01 34 57.7 | +0.3 |
| JNG | Nsakai | 0.42 | 192 | P | Pg | 01 34 55.6 | -0.1 |
| JNG | | | | S | Sg | 01 35 01.6 | +0.1 |

**IDC 09 01:35:31.8±394.0, 20°.75N×156°.62W, h0km, Error ellipse: s-maj=160.5km s-min=33.7km az=147.0, Hawaiian Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| I59US | HAWAII INFRASO | 1.34 | 149 | *i* | | 01 43 50.0 | |
| | baz=329,slow=319,SNR=1.3 | | | | | | |
| I57US | PINON FLAT INF | 37.73 | 62 | *i* | | 05 20 30.0 | |
| | baz=258,slow=314,SNR=0.9 | | | | | | |
| I56US | NEWPORT INFRAS | 41.87 | 40 | *i* | | 05 56 10.0 | |
| | baz=245,slow=328,SNR=0.5 | | | | | | |

*IDC **09** 02:12:53.6±3.3, 5°.78N×126°.42E, h84km±29km, mb3.8/12, mb1 4.0/12, mb1mx3.6/46, mbtmp4.1/12, MS2.8/1, Ms1 2.8/1, ms1mx2.4/33, Error ellipse: s-maj=52.9km s-min=12.0km az=70.0*
*DJA **09** 02:12:54.0±0.7, 6°N±4°×12°7E±°, h10km, M4.8/3, mB5.0/1, mb4.6/1, MLv4.8/3, Mw(mB)4.3/1*
*ISCJB **09** 02:12:55.2±0.7, 5°.86N±0°.04×126°.56E±0°.09, h118km±6km, mb4.2/19, Error ellipse: s-maj=14.9km s-min=5.7km az=171.9*
*NEIC **09** 02:12:56.5±0.8, 5°.80N×126°.54E, h113km±7km, mb4.4/6, Error ellipse: s-maj=12.1km s-min=5.6km az=71.0*
**ISC 09 02:12:55.8±1.0, 5°.89N±0°.05×126°.6E±0°.1, h105km±9km, n47, σ1s.63/49, mb4.2/19, 2C-2D, Mindanao**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DAV | Davao City (W) | 1.53 | 320 | *e*Pn | Pn | 02 13 24.4 | +1.7 |
| DAV | | | | *e*Sn | Sn | 02 13 44.8 | +1.6 |
| DMPH | Davao City--Mi | 1.59 | 318 | ⇑*e*P | Pn | 02 13 24.1 | +0.6 |
| DMPH | | | | *e*S | Sn | 02 13 45.4 | +1.0 |
| GSPH | General Santos | 1.63 | 277 | ⇓*e*P | Pn | 02 13 21.3 | -2.8 |
| GSPH | | | | *e*S | Sn | 02 13 42.0 | -3.6 |
| KCP | Kidapawan | 1.85 | 307 | ⇓*i*P | Pn | 02 13 26.5 | -0.2 |
| KCP | | | | *i* S | Sn | 02 13 50.1 | -0.2 |
| SGSI | Sangihe | 2.43 | 206 | P | Pn | 02 13 34.9 | +0.7 |
| SGSI | | | | S | Sn | 02 14 04.5 | +0.9 |
| BUKP | Musuan | 2.48 | 323 | *e*P | Pn | 02 13 35.6 | +0.7 |
| CTBH | Cotabato--PC H | 2.67 | 300 | ⇑*i*P | Pn | 02 13 37.9 | +0.7 |
| BUTP | Butuan | 3.20 | 343 | *e*P | Pn | 02 13 47.6 | +3.2 |
| MRSI | Marisa | 7.10 | 221 | P | Pn | 02 14 38.5 | +1.4 |
| LUWI | Luwuk | 7.87 | 209 | P | Pn | 02 14 48.5 | +0.9 |
| LUWI | Luwuk | 7.87 | 209 | *e*Pn | Pn | 02 14 48.7 | +1.1 |
| | 105nm,0.9s | | | | | | |
| SANI | Sanana | 7.91 | 184 | P | Pn | 02 14 43.7 | -4.5 |
| SANI | | | | S | Sn | 02 16 03.0 | -13 |
| APSI | Ampana | 8.36 | 216 | P | Pn | 02 14 57.9 | +3.6 |
| APSI | | | | S | Sn | 02 16 33.0 | +6.0 |
| KKM | Kota Kinabalu | 10.31 | 271 | *e*Pn | Pn | 02 15 19.9 | -0.9 |
| FAKI | Fak Fak | 10.43 | 147 | *e*Pn | Pn | 02 15 21.8 | -0.6 |
| TTSI | Tana Toraja | 11.15 | 217 | P | Pn | 02 15 33.5 | +1.3 |
| KAPI | Kappang | 12.80 | 212 | *e*Pn | Pn | 02 15 52.8 | -1.3 |
| | 36nm,1.0s | | | | | | |
| FITZ | Fitzroy Crossi | 23.86 | 182 | P | P | 02 17 57.9 | -1.8 |
| | 5.2nm,0.5s,baz=9.4,slow=8.3,SNR=40 | | | | | | |
| COEN | Coen | 25.70 | 140 | *e*P | P | 02 18 15.6 | -0.9 |
| | 1.9nm,0.4s | | | | | | |
| WRAB | Tennant Creek | 26.78 | 164 | *e*P | P | 02 18 24.1 | -2.1 |
| | 5.2nm,0.6s | | | | | | |
| WRA | Warramunga Arr | 26.79 | 164 | P | P | 02 18 25.5 | -0.7 |
| | 3.8nm,0.7s,baz=340,slow=10,SNR=48 | | | | | | |
| WRA | | | | PcP | PcP | 02 21 47.4 | +0.6 |
| | 0.3nm,0.6s,baz=318,slow=2.2,SNR=3.2 | | | | | | |
| WRA | | | | ScP | ScP | 02 25 18.6 | +1.1 |
| | 0.2nm,0.7s,baz=333,slow=3.4,SNR=2.8 | | | | | | |
| MBWA | Marble Bar | 27.71 | 194 | *e*P | P | 02 18 32.6 | -1.9 |
| | 14nm,0.6s | | | | | | |
| ASAR | Alice Springs | 30.24 | 167 | P | P | 02 18 55.0 | -1.9 |
| | 1.6nm,0.3s,baz=338,slow=6.8,SNR=25 | | | | | | |
| ASAR | | | | PcP | PcP | 02 21 55.8 | +0.4 |
| | 0.8nm,0.5s,baz=360,slow=2.6,SNR=6.6 | | | | | | |
| MJAR | Matsushiro Arr | 32.31 | 18 | LR | LR | 02 32 30.2 | |
| | comp=Z,16nm,20.1s,baz=155,slow=36 | | | | | | |
| FORT | Forrest | 36.49 | 178 | *e*P | P | 02 19 50.5 | -0.5 |
| BBOO | Buckleboo | 39.53 | 167 | *e*P | P | 02 20 16.4 | -0.1 |
| | 13nm,0.4s | | | | | | |
| STKA | Stephens Creek | 40.20 | 160 | P | P | 02 20 21.9 | -0.2 |
| | 2.7nm,0.5s,baz=345,slow=8.7,SNR=8.7 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 41.05 | 69 | T | T | 03 04 31.2 | |
| | baz=258,slow=75,SNR=8.0 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 41.06 | 69 | T | T | 03 04 32.1 | |
| | baz=258,slow=75,SNR=8.3 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 41.06 | 69 | T | T | 03 04 36.6 | |
| | baz=258,slow=75,SNR=9.7 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 41.51 | 67 | T | T | 03 05 29.2 | |
| | baz=268 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 41.52 | 67 | T | T | 03 05 42.4 | |
| | baz=268 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 41.53 | 67 | T | T | 03 05 33.5 | |
| | baz=268 | | | | | | |
| SONM | Songino Array | 45.22 | 341 | P | P | 02 21 02.9 | +0.3 |
| | 0.3nm,0.6s,baz=145,slow=8.0,SNR=3.1 | | | | | | |
| MKAR | Makanchi Array | 55.71 | 325 | P | P | 02 22 21.5 | 0.0 |
| | 0.5nm,0.4s,baz=118,slow=7.4,SNR=12 | | | | | | |
| MKAR | | | | PcP | PcP | 02 23 19.5 | -0.1 |
| | 1.2nm,0.8s,baz=108,slow=3.2,SNR=4.1 | | | | | | |
| ZALV | Zalesovo Beam | 58.61 | 333 | P | P | 02 22 42.2 | +0.5 |
| | 0.6nm,0.5s,baz=117,slow=5.4,SNR=3.1 | | | | | | |
| KURBB | Kurchatov Arra | 59.85 | 327 | P | P | 02 22 50.3 | 0.0 |
| | 1.1nm,0.5s,baz=122,slow=6.4,SNR=7.0 | | | | | | |
| KURK | Kurchatov | 59.85 | 327 | P | P | 02 22 50.3 | 0.0 |
| BVAR | Borovoye Array | 65.44 | 327 | P | P | 02 23 28.1 | +0.6 |
| | 1.0nm,0.6s,baz=128,slow=9.6,SNR=7.2 | | | | | | |
| BRVK | Borovoye | 65.51 | 327 | *e*P | P | 02 23 28.9 | +1.0 |
| | 4.7nm,0.7s | | | | | | |
| SEW | Seward | 81.92 | 30 | *e*P | P | 02 25 02.9 | -0.7 |
| | 26nm,1.1s | | | | | | |
| MCK | McKinley | 82.31 | 27 | *e*P | P | 02 25 06.0 | +0.4 |
| | 2.1nm,0.7s | | | | | | |
| ILAR | Eielson Array | 83.23 | 26 | P | P | 02 25 10.8 | +0.4 |
| | 0.5nm,0.8s,baz=245,slow=5.6,SNR=4.5 | | | | | | |
| ARCES | ARCESS Array B | 88.38 | 340 | P | P | 02 25 35.0 | -0.7 |
| | 1.8nm,0.8s,baz=76,slow=5.6,SNR=5.9 | | | | | | |
| FINES | FINESS Array B | 89.87 | 332 | P | P | 02 25 42.2 | -0.6 |
| | 7.1nm,1.1s,baz=45,slow=5.7,SNR=8.4 | | | | | | |
| TXAR | Lajitas Array | 120.38 | 51 | PKP | PKPdf | 02 31 36.9 | +1.2 |
| | 0.2nm,0.7s,baz=197,slow=2.8,SNR=3.5 | | | | | | |
| TORD | Torodi Ar. Bea | 122.08 | 289 | PKP | PKPdf | 02 31 39.2 | -0.1 |
| | 0.6nm,0.7s,baz=75,slow=0.8,SNR=5.2 | | | | | | |

*ISCJB **09** 02:13:17.4±0.5, 67°.84N±0°.02×20°.26E±0°.09, h0km, Error ellipse: s-maj=5.0km s-min=3.6km az=0.5*
*HEL **09** 02:13:17.2±0.3, 67°.91N×19°.95E, h0km, ML1.7, Explosion*
*UPP **09** 02:13:18.1±0.0, 67°.85N×20°.18E, h0km, ML2.5*
**ISC 09 02:13:17.4±0.9, 67°.80N±0°.03×20°.26E±0°.04, h0km, n19, σ0s.98/27, Sweden**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KUA | Kurravaara | 0.16 | 10 | P | Pg | 02 13 20.7 | +0.3 |
| KUA | | | | S | Sg | 02 13 22.5 | +0.1 |
| RATU | Laukkuluspa | 0.26 | 275 | P | Pg | 02 13 22.6 | +0.3 |
| NIKU | Nikkaluokta | 0.47 | 279 | P | Pg | 02 13 26.5 | +0.1 |
| DUNU | Dundret | 0.69 | 170 | P | Pb | 02 13 32.3 | 0.0 |
| LANU | Lannavaara | 0.70 | 68 | P | Pb | 02 13 31.5 | -1.0 |
| LANU | Lannavaara | 0.70 | 68 | PG | Pb | 02 13 31.5 | -1.0 |
| | baz=263 | | | | | | |
| LANU | | | | SG | Sb | 02 13 41.4 | -1.2 |
| KIF | Kilpisjarvi | 1.23 | 9 | *e*P | Pb | 02 13 41.1 | -0.3 |
| KIF | Kilpisjarvi | 1.23 | 9 | PN | Pb | 02 13 41.0 | -0.4 |
| KIF | | | | SN | Sb | 02 13 57.2 | -0.6 |
| PAJU | Pajala | 1.35 | 124 | P | Pn | 02 13 43.4 | -0.1 |
| HEF | Hetta | 1.41 | 63 | PN | Pb | 02 13 44.8 | +0.2 |
| HEF | | | | MSG | | 02 14 01.5 | |
| | comp=Z,5.9nm,0.2s | | | | | | |
| HEF | | | | SG | Sn | 02 14 03.5 | -0.2 |
| ERTU | Ertsjaerv | 1.46 | 148 | SN | Sn | 02 14 06.3 | +1.5 |
| KTK1 | Kautokeino | 1.64 | 41 | *e*P | Pg | 02 13 48.5 | -0.3 |
| HARU | Harads | 1.67 | 170 | P | Pg | 02 13 49.8 | +0.4 |
| KALU | Kalix | 2.30 | 146 | PB | Pb | 02 13 59.4 | -0.3 |
| KALU | | | | SB | Sg | 02 14 30.4 | -0.8 |
| TOF | Tornio | 2.35 | 135 | PB | Pb | 02 13 59.9 | -0.7 |
| TOF | | | | SB | Sb | 02 14 31.6 | +1.4 |
| SGF | Sodankyl | 2.42 | 96 | PG | Pb | 02 14 02.7 | +0.9 |
| SGF | | | | SG | Sg | 02 14 34.3 | -0.9 |
| ARE0 | ARCESS Array S | 2.59 | 45 | PB | Pn | 02 14 02.2 | +1.7 |
| | baz=236 | | | | | | |
| ARE0 | | | | SB | Sb | 02 14 36.0 | -1.0 |
| BURU | Burvik | 3.26 | 172 | PB | Pb | 02 14 13.4 | -2.7 |
| OUF | Merijarvi | 3.90 | 150 | SG | Sg | 02 15 22.9 | +0.4 |

**MAN 09 02:34:06, 13°.86N×120°.76E, h175km, mb3.8, ML2.6, MS2.2, 1C, Mindoro**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PGP | Puerto Galera | 0.40 | 152 | ⇑*e*P | Pn | 02 34 31.8 | +1.9 |
| PGP | | | | *i* S | Sn | 02 34 50.8 | +2.5 |
| LUBP | Lubang | 0.52 | 256 | *e*P | Pn | 02 34 32.1 | +1.8 |
| SJMP | San Jose | 1.44 | 166 | *e*P | Pn | 02 34 38.2 | +1.2 |
| SJMP | | | | *e*S | Sn | 02 35 02.8 | +1.9 |
| SCZP | Santa Cruz | 2.07 | 337 | *e*P | Pn | 02 34 44.8 | +1.3 |
| BOLP | Bolinao | 2.63 | 342 | *e*P | Pn | 02 34 51.2 | +1.2 |

**NNC 09 02:34:24.6±7.2, 37°.71N×70°.80E, h0km, mb3.8, mpv3.4, 5C-3D, Error ellipse: s-maj=54.3km s-min=42.7km az=0.0, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SFK | Sufi-Kurgan | 3.12 | 42 | ⇑Pn | Pn | 02 35 15.0 | -0.3 |
| | 2.9nm,0.3s | | | | | | |
| SFK | | | | ⇑Sn | Sn | 02 35 54.2 | +0.7 |
| | 7.4nm,0.3s | | | | | | |
| MNAS | Manas | 4.95 | 15 | ⇑Pn | Pn | 02 35 41.2 | +0.8 |
| | 2.9nm,0.5s | | | | | | |
| MNAS | | | | ⇓Sn | Sn | 02 36 39.6 | +1.3 |
| | 6.8nm,0.6s | | | | | | |
| KK31 | Karatay Array | 5.39 | 358 | ⇓Pn | Pn | 02 35 48.3 | +2.0 |
| | 2.8nm,0.3s,baz=180,slow=13,SNR=173 | | | | | | |
| KK31 | | | | ⇓Sn | Sn | 02 36 51.3 | +2.2 |
| | 2.0nm,0.3s,baz=187,slow=25,SNR=4.7 | | | | | | |
| AAK | Ala-Archa | 5.68 | 29 | ⇑Pn | Pn | 02 35 49.9 | -0.4 |
| | 3.4nm,0.8s | | | | | | |
| AAK | | | | ⇑Sn | Sn | 02 36 56.1 | -0.2 |
| | 6.3nm,0.6s | | | | | | |

*ATA **09** 02:35:28.1±0.6, 38°.36N×43°.38E, h38km±6km, ML2.9, MW3.1*
*ISK **09** 02:35:30.8, 38°.49N×43°.29E, h5km, ML2.3*
*ISCJB **09** 02:35:31.9±0.4, 38°.48N±0°.02×43°.34E±0°.03, h7km±3km, Error ellipse: s-maj=4.5km s-min=3.4km az=173.4*
*CSEM **09** 02:35:31.4±0.2, 38°.46N×43°.34E, h5km, ML3.3, Error ellipse: s-maj=4.5km s-min=3.1km az=80.0*
*IASPEI **09** 02:35:31.6±0.8, 38°.48N±0°.02×43°.38E±0°.03, h8km±5km, Error ellipse: s-maj=3.8km s-min=2.9km az=76.4, GT5 selection from ISC bulletin GT5 identified by Bondˆ¡r and McLaughlin (2009) selection criteria Bondˆ¡r and McLaughlin, A new ground truth data set for seismic studies, <i>Seism. Res. Let.</i>, <b>80</b>, 465-472, 2009*
*DDA **09** 02:35:31.7, 38°.46N×43°.36E, h7km, Ml3.3*
**ISC 09 02:35:31.4±0.9, 38°.48N±0°.02×43°.37E±0°.02, h7km±5km, n44, σ1s.05/69, 1C, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TVAN | Van | 0.06 | 28 | *i* P | Pg | 02 35 33.4 | +0.1 |
| TVAN | | | | *i* S | Sg | 02 35 35.2 | +0.5 |
| TVAN | Van | 0.06 | 28 | P | Pg | 02 35 33.4 | +0.1 |
| TVAN | | | | S | Sg | 02 35 35.2 | +0.5 |
| VANB | Van | 0.12 | 7 | PG | Pg | 02 35 33.2 | -0.9 |
| VANB | Van | 0.12 | 7 | *i* Pg | Pg | 02 35 33.2 | -0.9 |
| GEVA | Gevas | 0.29 | 236 | ⇑*i*P | Pg | 02 35 36.8 | -0.4 |
| GEVA | | | | *e*S | Sb | 02 35 42.8 | -1.6 |
| GEVA | | | | IAML | | 02 35 45.5 | |
| | comp=Z,143nm,0.3s | | | | | | |
| GEVA | Gevas | 0.29 | 236 | *i* P | Pg | 02 35 37.0 | -0.3 |
| GEVA | | | | *i* S | Sb | 02 35 43.1 | -1.2 |
| GEVA | Gevas | 0.29 | 236 | P | Pg | 02 35 37.0 | -0.3 |
| GEVA | | | | S | Sb | 02 35 43.1 | -1.2 |
| VMUR | Van-Muradiye | 0.54 | 17 | *i* P | Pg | 02 35 42.5 | +0.7 |
| VMUR | | | | *i* S | Sb | 02 35 51.9 | +0.6 |
| VMUR | Van-Muradiye | 0.54 | 17 | P | Pg | 02 35 42.5 | +0.7 |
| VMUR | | | | S | Sb | 02 35 51.9 | +0.6 |
| ERCV | ERCIS-VAN | 0.54 | 357 | *e*PG | Pg | 02 35 42.0 | 0.0 |
| ERCV | | | | *e*SG | Sb | 02 35 50.9 | -0.7 |
| ERCV | ERCIS-VAN | 0.54 | 357 | *e*Pg | Pg | 02 35 42.0 | 0.0 |
| ERCV | | | | *e*Sg | Sb | 02 35 50.9 | -0.7 |
| ADCV | BITLIS_Adilcev | 0.60 | 303 | *i* P | Pg | 02 35 43.3 | +0.2 |
| ADCV | | | | *i* S | Sb | 02 35 52.4 | -0.9 |
| ADCV | BITLIS_Adilcev | 0.60 | 303 | P | Pg | 02 35 43.3 | +0.2 |
| ADCV | | | | S | Sb | 02 35 52.4 | -0.9 |
| BASK | Baskale_VAN | 0.65 | 130 | *i* P | Pg | 02 35 43.8 | -0.3 |
| BASK | | | | *i* S | Sb | 02 35 55.0 | +0.3 |
| BASK | Baskale_VAN | 0.65 | 130 | P | Pg | 02 35 43.8 | -0.3 |
| BASK | | | | S | Sb | 02 35 55.0 | +0.3 |
| CLDR | Caldiran | 0.79 | 32 | *e*PG | Pb | 02 35 47.5 | -0.2 |
| CLDR | | | | *e*SG | Sn | 02 36 00.4 | -1.1 |
| CLDR | Caldiran | 0.79 | 32 | *i* P | Pg | 02 35 47.3 | +0.6 |
| CLDR | | | | *i* S | Sb | 02 35 58.7 | 0.0 |
| CLDR | Caldiran | 0.79 | 32 | P | Pg | 02 35 47.3 | +0.6 |
| CLDR | Caldiran | 0.79 | 32 | *e*Pg | Pb | 02 35 47.5 | -0.2 |
| CLDR | | | | S | Sb | 02 35 58.7 | 0.0 |
| CLDR | | | | *e*Sg | Sn | 02 36 00.4 | -1.1 |
| HAKT | HAKKARI | 0.95 | 164 | *i* P | Pg | 02 35 49.4 | -0.4 |
| HAKT | | | | *i* S | Sn | 02 36 04.2 | -1.3 |
| HAKT | HAKKARI | 0.95 | 164 | P | Pg | 02 35 49.4 | -0.4 |
| HAKT | | | | S | Sn | 02 36 04.2 | -1.3 |
| TUTA | Tutak | 1.02 | 335 | *e*P | Pg | 02 35 50.0 | -1.1 |
| TUTA | | | | *e*S | Sn | 02 36 07.0 | -0.2 |
| TUTA | | | | IAML | | 02 36 08.0 | |
| | comp=Z,25nm,0.6s | | | | | | |
| TUTA | Tutak | 1.02 | 335 | *i* P | Pg | 02 35 50.2 | -0.9 |
| TUTA | | | | *i* S | Sb | 02 36 05.4 | 0.0 |
| TUTA | Tutak | 1.02 | 335 | P | Pg | 02 35 50.2 | -0.9 |
| TUTA | | | | S | Sb | 02 36 05.4 | 0.0 |
| DYDN | Diyadin | 1.09 | 13 | *e*P | Pg | 02 35 51.0 | -1.5 |
| DYDN | | | | IAML | | 02 36 02.1 | |
| | comp=Z,6.4nm,0.4s | | | | | | |
| AGRB | Hanur-Agry | 1.14 | 345 | *e*PN | Pg | 02 35 53.3 | 0.0 |
| AGRB | Hanur-Agry | 1.14 | 345 | *e*Pn | Pg | 02 35 53.3 | 0.0 |
| YOVA | Hakkari_Yˆ…kse | 1.15 | 140 | *i* P | Pg | 02 35 53.3 | -0.1 |
| YOVA | | | | *i* S | Sn | 02 36 12.1 | +1.9 |
| YOVA | Hakkari_Yˆ…kse | 1.15 | 140 | P | Pg | 02 35 53.3 | -0.1 |
| SIRT | Sirnak | 1.22 | 217 | *e*PN | Pn | 02 35 55.4 | +0.3 |
| SIRT | Sirnak | 1.22 | 217 | *e*Pn | Pn | 02 35 55.4 | +0.3 |
| CUKT | Cukurca | 1.24 | 171 | *e*PN | Pn | 02 35 55.9 | +0.5 |
| CUKT | Cukurca | 1.24 | 171 | *i* P | Pn | 02 35 55.5 | +0.1 |
| CUKT | | | | *i* S | Sn | 02 36 14.3 | +1.9 |
| CUKT | Cukurca | 1.24 | 171 | P | Pn | 02 35 55.5 | +0.1 |
| CUKT | Cukurca | 1.24 | 171 | *e*Pn | Pn | 02 35 55.9 | +0.5 |
| EKAR | Karacoban | 1.28 | 308 | *i* P | Pg | 02 35 57.2 | +1.1 |
| EKAR | | | | *i* S | Sn | 02 36 19.1 | +5.5 |
| EKAR | Karacoban | 1.28 | 308 | P | Pg | 02 35 57.2 | +1.1 |
| EATA | Eleskirt | 1.54 | 334 | *e*P | Pn | 02 35 57.6 | -2.1 |
| EATA | | | | IAML | | 02 36 26.0 | |
| | comp=Z,3.6nm,0.6s | | | | | | |
| VRTB | Varto-Mus | 1.64 | 295 | *e*PN | Pn | 02 36 00.7 | -0.3 |
| VRTB | Varto-Mus | 1.64 | 295 | *e*Pn | Pn | 02 36 00.7 | -0.3 |
| TASB | TASBURUN-IGDIR | 1.65 | 24 | *e*PN | Pb | 02 36 01.9 | -0.3 |
| TASB | TASBURUN-IGDIR | 1.65 | 24 | *e*Pn | Pb | 02 36 01.9 | -0.3 |
| BNGB | Bingˆ¶l | 2.17 | 285 | *e*PN | Pn | 02 36 09.1 | +1.1 |
| BINT | Bingol | 2.29 | 281 | *e*Pn | Pn | 02 36 09.1 | -0.7 |

**IDC 09 02:40:31.2±1.9, 26°.12N×111°.87W, h0km, mb3.3/1, mb1 3.7/4, mb1mx3.5/37, mbtmp3.4/4, ML3.7/3, MS3.1/4, Ms1 3.1/4, ms1mx2.9/16, Error ellipse: s-maj=25.6km s-min=15.9km az=63.0, Gulf of California**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LPIG | La Paz | 2.46 | 145 | Pn | Pn | 02 41 14.0 | +1.4 |
| | 15nm,0.3s,baz=95,slow=1.9,SNR=11 | | | | | | |
| LPIG | | | | Lg | Lg | 02 41 48.2 | |
| | 24nm,0.3s,baz=269,slow=17,SNR=11 | | | | | | |
| TXAR | Lajitas Array | 7.94 | 64 | Pn | Pn | 02 42 28.0 | 0.0 |
| | 0.1nm,0.3s,baz=245,slow=13,SNR=12 | | | | | | |
| TXAR | | | | Sn | Sn | 02 43 59.0 | +0.4 |
| | 0.1nm,0.3s,baz=204,slow=22,SNR=2.3 | | | | | | |
| TXAR | | | | Lg | Lg | 02 44 42.6 | |
| | 0.1nm,0.3s,baz=270,slow=30,SNR=3.2 | | | | | | |
| TXAR | | | | LR | LR | 02 45 32.8 | |
| | comp=Z,171nm,19.4s,baz=0.0,slow=38 | | | | | | |
| PFO | Pinyon Flats O | 8.46 | 333 | Pn | Pn | 02 42 41.2 | +6.0 |
| | 0.1nm,0.3s,baz=160,slow=9.5,SNR=4.8 | | | | | | |
| PFO | | | | Lg | Lg | 02 44 50.5 | |
| | 0.1nm,0.3s,baz=286,slow=3.4,SNR=3.2 | | | | | | |
| PFO | | | | LR | LR | 02 45 59.0 | |
| | comp=Z,107nm,19.7s,baz=344,slow=39 | | | | | | |
| ANMO | Albuquerque | 9.95 | 27 | LR | LR | 02 46 22.3 | |
| | comp=Z,60nm,19.0s,baz=100,slow=35 | | | | | | |
| PDAR | Pinedale Array | 16.71 | 6 | Pn | P | 02 44 29.5 | 0.0 |
| | 0.1nm,0.3s,baz=169,slow=8.5,SNR=9.8 | | | | | | |
| CMIG | Matias Romero | 18.15 | 116 | LR | LR | 02 51 46.5 | |
| | comp=Z,69nm,18.4s,baz=259,slow=37 | | | | | | |
| ILAR | Eielson Array | 44.67 | 340 | P | P | 02 48 45.5 | 0.0 |
| | 0.3nm,0.7s,baz=146,slow=6.7,SNR=5.1 | | | | | | |

*THR **09** 02:43:33.3±0.5, 27°.01N×53°.41E, h37km±6km, ML3.9*
*ISCJB **09** 02:43:37.0±0.4, 27°.18N±0°.03×53°.10E±0°.05, h10km, mb3.9/9, MS3.4/4, Error ellipse: s-maj=6.8km s-min=3.3km az=154.3*
*IDC **09** 02:43:37.2±1.6, 27°.22N×52°.99E, h0km, mb3.9/8, mb1 4.1/10, mb1mx3.8/39, mbtmp4.0/10, ML3.6/2, MS3.4/5, Ms1 3.4/5, ms1mx3.0/38, Error ellipse: s-maj=32.9km s-min=26.0km az=5.0*
*CSEM **09** 02:43:39.8±0.8, 27°.19N×53°.15E, h20km, ML3.8, Error ellipse: s-maj=39.3km s-min=6.7km az=63.0*
*OMAN **09** 02:43:40.1, 27°.15N×53°.33E, h22km, Error ellipse: s-maj=1.0km s-min=1.0km az=1.0*
*TEH **09** 02:43:40.1, 27°.15N×53°.33E, h22km, ML3.8*
**ISC 09 02:43:38.2±0.6, 27°.21N±0°.03×53°.25E±0°.04, h10km, n64, σ1s.71/68, mb3.9/9, MS3.4/4, Southern Iran**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GHIR | Ghir-Karzin | 1.10 | 348 | *e*Pg | Pg | 02 43 57.8 | -1.6 |
| GHIR | | | | *e*Sg | Sn | 02 44 15.5 | +0.3 |
| GHIR | | | | AML | AML | 02 44 18.6 | |
| | comp=E,2μm,0.4s | | | | | | |
| GHIR | | | | AML | AML | 02 44 23.9 | |
| | comp=N,1μm,0.4s | | | | | | |
| GHIR | Ghir-Karzin | 1.10 | 348 | *e*Pg | Pg | 02 43 58.2 | -1.2 |
| ISRV | Sarvestan | 2.17 | 357 | *e*Pn | Pb | 02 44 16.1 | -1.7 |
| ISRV | | | | *e*Sg | Sg | 02 44 50.1 | +2.0 |
| ISRV | Sarvestan | 2.17 | 357 | *e*Pn | Pb | 02 44 16.1 | -1.7 |
| ISRV | | | | *e*Sg | Sg | 02 44 50.1 | +2.0 |
| AHBU | AHRAM | 2.39 | 314 | *e*Sg | Sb | 02 44 53.7 | +2.9 |
| BNDS | Bandar-Abbas | 2.61 | 85 | *e*Pn | Pn | 02 44 13.4 | -7.2 |
| BNDS | Bandar-Abbas | 2.61 | 85 | *e*Pn | Pn | 02 44 13.4 | -7.2 |
| IPAR | Pars | 2.63 | 356 | *e*Pn | Pn | 02 44 22.1 | +1.1 |
| IPAR | | | | *e*AMB | AMB | 02 45 17.9 | |
| | comp=Z,4μm,0.4s | | | | | | |
| IPAR | Pars | 2.63 | 356 | *e*Pn | Pn | 02 44 22.1 | +1.1 |
| BANOM | Banah | 3.02 | 114 | P | Pb | 02 44 29.5 | -2.5 |
| BANOM | Banah | 3.02 | 114 | pPn | Pb | 02 44 29.5 | -2.5 |
| BANOM | Banah | 3.02 | 114 | P | Pb | 02 44 29.5 | -2.5 |
| NAZ | Nazwa, Dubai | 3.10 | 135 | P | Pn | 02 44 29.8 | +2.7 |
| | SNR=6.6 | | | | | | |
| NAZ | Nazwa, Dubai | 3.10 | 135 | pPn | Pn | 02 44 29.8 | +2.7 |
| | SNR=6.6 | | | | | | |
| NAZ | Nazwa, Dubai | 3.10 | 135 | P | Pn | 02 44 29.8 | +2.7 |
| | SNR=6.6 | | | | | | |
| FAQ | Al Faqa, Dubai | 3.23 | 139 | Pb | Pb | 02 44 34.6 | -1.1 |
| FAQ | Al Faqa, Dubai | 3.23 | 139 | Pb | Pb | 02 44 34.6 | -1.1 |
| SLWS | | 3.35 | 225 | S | Sb | 02 45 16.8 | -1.7 |
| SLWS | | | | P | Pn | 02 44 31.6 | +1.0 |
| UOSS | Minazif | 3.48 | 130 | Pn | Pn | 02 44 33.3 | +0.8 |
| UOSS | Minazif | 3.48 | 130 | Pn | Pn | 02 44 33.3 | +0.8 |
| UOSS | Minazif | 3.48 | 130 | P | Pn | 02 44 33.3 | +0.8 |
| HATD | Hatta, Dubai | 3.51 | 132 | P | Pn | 02 44 34.3 | +1.4 |
| | SNR=6.4 | | | | | | |
| HATD | Hatta, Dubai | 3.51 | 132 | Pn | Pn | 02 44 34.3 | +1.4 |
| | SNR=6.4 | | | | | | |
| HATD | Hatta, Dubai | 3.51 | 132 | P | Pn | 02 44 34.3 | +1.4 |
| | SNR=6.4 | | | | | | |
| ASHO | Ashiyiah | 3.56 | 134 | P | Pn | 02 44 34.7 | +1.1 |
| | SNR=13 | | | | | | |
| ASHO | | | | S | Sn | 02 45 17.5 | +1.7 |
| ASHO | Ashiyiah | 3.56 | 134 | Pn | Pn | 02 44 34.7 | +1.1 |
| | SNR=13 | | | | | | |
| ASHO | | | | Sn | Sn | 02 45 17.5 | +1.7 |
| ASHO | Ashiyiah | 3.56 | 134 | P | Pn | 02 44 34.7 | +1.1 |
| | SNR=13 | | | | | | |
| ASHO | | | | S | Sn | 02 45 17.5 | +1.7 |
| BOQSS | | 3.71 | 250 | P | Pn | 02 44 37.1 | +1.5 |
| BTHS | | 3.82 | 215 | P | Pn | 02 44 37.8 | +0.7 |
| KRBR | Kerman | 4.15 | 47 | *e*Sg | Sb | 02 45 38.3 | -3.5 |
| IRAM | Ramesheh | 4.65 | 351 | *e*Pn | Pn | 02 44 49.5 | +0.8 |
| IRAM | | | | *e*AMB | AMB | 02 45 23.5 | |
| | comp=Z,591nm,0.4s | | | | | | |
| IRAM | Ramesheh | 4.65 | 351 | *e*Pn | Pn | 02 44 49.5 | +0.8 |
| ISAD | Sadrabad | 4.71 | 5 | *e*Pn | Pn | 02 44 50.8 | +1.2 |
| ISAD | | | | *e*AMB | AMB | 02 44 53.9 | |
| | comp=Z,950nm,0.2s | | | | | | |
| ISAD | Sadrabad | 4.71 | 5 | *e*Pn | Pn | 02 44 50.8 | +1.2 |
| IBAF | Bafgh | 4.82 | 24 | *e*Pn | Pn | 02 44 51.1 | +0.2 |
| IBAF | | | | *e*AMB | AMB | 02 44 55.4 | |
| | comp=Z,814nm,0.2s | | | | | | |
| IBAF | Bafgh | 4.82 | 24 | *e*Pn | Pn | 02 44 51.1 | +0.2 |
| ICHK | Chekchek | 5.12 | 11 | *e*Pn | Pn | 02 44 55.7 | +0.5 |
| ICHK | | | | *e*AMB | AMB | 02 44 59.3 | |
| | comp=Z,869nm,0.2s | | | | | | |
| ICHK | Chekchek | 5.12 | 11 | *e*Pn | Pn | 02 44 55.7 | +0.5 |
| NASN | Na'in | 5.59 | 356 | *e*Pn | Pn | 02 44 59.5 | -2.1 |
| NASN | Na'in | 5.59 | 356 | *e*Pn | Pn | 02 44 57.1 | -4.6 |
| BSY | Bisya | 5.71 | 140 | Pn | Pn | 02 45 05.0 | +1.9 |
| | SNR=7.0 | | | | | | |
| BSY | Bisya | 5.71 | 140 | P | Pn | 02 45 05.0 | +1.9 |
| | SNR=7.0 | | | | | | |
| IZEF | Zefreh | 5.73 | 352 | *e*Pn | Pn | 02 45 03.9 | +0.4 |
| IZEF | | | | *e*AMB | AMB | 02 45 34.0 | |
| | comp=Z,179nm,0.4s | | | | | | |
| IZEF | Zefreh | 5.73 | 352 | *e*Pn | Pn | 02 45 03.9 | +0.4 |
| BSYO | Bisya | 5.74 | 140 | P | Pn | 02 45 05.0 | +1.5 |
| | SNR=7.0 | | | | | | |
| IPIR | Pirpir | 5.83 | 340 | *e*Pn | Pn | 02 45 06.2 | +1.2 |
| IPIR | | | | *e*AMB | AMB | 02 46 11.9 | |
| | comp=Z,352nm,0.3s | | | | | | |
| IPIR | Pirpir | 5.83 | 340 | *e*Pn | Pn | 02 45 06.2 | +1.2 |
| IKLH | Kolahrood | 6.26 | 347 | *e*Pn | Pn | 02 45 11.3 | +0.4 |
| IKLH | | | | *e*AMB | AMB | 02 47 53.6 | |
| | comp=Z,605nm,0.7s | | | | | | |
| IKLH | Kolahrood | 6.26 | 347 | *e*Pn | Pn | 02 45 11.3 | +0.4 |
| WSAR | Wadi Sarin | 6.27 | 128 | Pn | Pn | 02 45 12.2 | +1.3 |
| | comp=Z,1.0nm,0.3s,baz=309,slow=6.9,SNR=5.0 | | | | | | |
| WSAR | | | | Sn | Sn | 02 46 22.6 | -0.1 |
| | comp=Z,0.5nm,0.3s,baz=164,slow=12,SNR=1.9 | | | | | | |
| WSAR | | | | LR | LR | 02 48 27.4 | |
| | comp=Z,123nm,19.5s,baz=326,slow=45 | | | | | | |
| LYLS | | 7.50 | 228 | P | Pn | 02 45 27.2 | -0.5 |
| MMAI | Mount Meron Ar | 16.48 | 295 | Pn | Pn | 02 47 27.4 | -2.3 |
| | comp=Z,0.4nm,0.3s,baz=99,slow=18,SNR=1.9 | | | | | | |
| KBZ | Khabaz | 18.49 | 336 | P | Pn | 02 47 55.7 | +1.3 |
| | comp=Z,0.1nm,0.3s,baz=196,slow=15,SNR=2.1 | | | | | | |
| BRTR | Keskin Array B | 20.53 | 312 | P | P | 02 48 15.8 | -1.1 |
| | comp=Z,1.5nm,0.7s,baz=133,slow=13,SNR=5.9 | | | | | | |
| BRTR | | | | LR | LR | 02 58 42.4 | |
| | comp=Z,37nm,18.1s,baz=114,slow=44 | | | | | | |
| AAK | Ala-Archa | 23.16 | 43 | P | P | 02 48 53.8 | +8.8 |
| | comp=Z,1.2nm,0.6s,baz=212,slow=7.3,SNR=2.8 | | | | | | |
| AKTO | Aktyubinsk | 23.48 | 8 | P | P | 02 48 51.2 | +3.3 |
| | comp=Z,1.8nm,0.9s,baz=182,slow=11,SNR=3.7 | | | | | | |
| BVAR | Borovoye Array | 28.78 | 22 | P | P | 02 49 38.3 | +2.2 |
| | comp=Z,0.6nm,0.5s,baz=232,slow=7.2,SNR=4.1 | | | | | | |
| AKASG | Malin Array Be | 29.74 | 329 | P | P | 02 49 43.0 | -1.5 |
| | comp=Z,0.6nm,0.3s,baz=118,slow=7.2,SNR=5.1 | | | | | | |
| KMBO | Kilima Mbogo | 32.10 | 211 | LR | LR | 03 03 57.5 | |
| | comp=Z,63nm,18.6s,baz=298,slow=38 | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| ZALV | Zalesovo Beam | 35.38 | 32 | P | P | 02 50 36.0 | +2.1 |
| | comp=Z,0.7nm,0.3s,baz=224,slow=8.3,SNR=4.1 | | | | | | |
| ZALV | | | | LR | LR | 03 07 12.4 | |
| | comp=Z,85nm,20.0s,baz=53,slow=40 | | | | | | |
| FINES | FINESS Array B | 38.78 | 339 | P | P | 02 51 01.6 | -1.1 |
| | comp=Z,6.7nm,1.1s,baz=140,slow=8.9,SNR=1.9 | | | | | | |
| ARCES | ARCESS Array B | 45.34 | 347 | P | P | 02 51 55.1 | -1.0 |
| | comp=Z,6.7nm,1.1s,baz=147,slow=7.2,SNR=2.4 | | | | | | |
| ARCES | | | | LR | LR | 03 15 04.0 | |
| | comp=Z,110nm,18.5s,baz=238,slow=42 | | | | | | |
| TORD | Torodi Ar. Bea | 50.04 | 264 | P | P | 02 52 32.8 | -0.5 |
| | comp=Z,0.8nm,0.7s,baz=56,slow=7.4,SNR=6.1 | | | | | | |
| YKA | Yellowknife Ar | 90.09 | 354 | P | P | 02 56 39.2 | +1.1 |
| | comp=Z,0.5nm,0.7s,baz=4.9,slow=6.2,SNR=3.2 | | | | | | |

**TRN 09 02:50:42.0, 17°.44N×61°.26W, h13km, MD3.6, 2C, Leeward Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ANWB | Willy Bob | 0.56 | 294 | eP | Pn | 02 50 54.8 | -0.8 |
| ANWB | | | | eS | Sn | 02 51 04.5 | -0.1 |
| BPA | Boggy Peak | 0.69 | 236 | eP | Pn | 02 50 58.4 | +0.9 |
| BPA | | | | eS | Sn | 02 51 10.0 | +1.9 |
| SEG | Port Louis | 1.06 | 193 | eP | Pn | 02 51 02.7 | +0.2 |
| MLYT | Lee's Yard | 1.15 | 232 | eP | Pg | 02 51 06.0 | +2.0 |
| MLYT | | | | eS | Sn | 02 51 23.5 | +4.2 |
| NEV | Hard Times | 1.29 | 257 | eP | Pg | 02 51 08.4 | +1.6 |
| NEV | | | | eS | Sg | 02 51 26.8 | +3.1 |
| SSG | Sans Toucher | 1.40 | 197 | ⇑iP | Pb | 02 51 08.2 | +0.1 |
| MLG | Mont-d'or | 1.44 | 198 | ⇑iP | Pb | 02 51 08.8 | +0.2 |
| ECG | Echelle | 1.44 | 195 | eP | Pb | 02 51 08.8 | 0.0 |
| MGG | Marie-Galante | 1.51 | 182 | eP | Pb | 02 51 09.9 | 0.0 |
| TBG | Guadaloupe-3 | 1.62 | 193 | eP | Pb | 02 51 11.4 | -0.4 |
| TBG | | | | eS | Sg | 02 51 33.8 | -0.4 |
| MDPV | Dominica, Penn | 1.81 | 185 | eP | Pb | 02 51 14.9 | 0.0 |
| MDVC | Dominica, Viel | 1.82 | 185 | eP | Pb | 02 51 15.3 | +0.2 |
| MDMP | Dominica, Moor | 1.84 | 185 | eP | Pb | 02 51 15.7 | +0.2 |
| MDMP | | | | eS | Sb | 02 51 38.8 | +0.5 |
| BBL | Barber's Block | 1.91 | 186 | eP | Pb | 02 51 16.2 | -0.6 |
| BBL | | | | eS | Sb | 02 51 40.5 | 0.0 |
| MDN | Morne-Daniel | 2.11 | 184 | eP | Pb | 02 51 19.9 | -0.2 |
| MDN | | | | eS | Sb | 02 51 46.3 | +0.1 |

*ISCJB **09** 02:54:01.6±0.5, 27°.96S±0°.04×66°.56W±0°.07, h175km±5km, mb3.3/2, Error ellipse: s-maj=11.6km s-min=4.5km az=29.1*
*SJA **09** 02:54:01.2±0.2, 27°.91S×66°.59W, h181km±1km, ML4.0, MW3.8*
*IDC **09** 02:54:08.5±7.3, 27°.37S×66°.18W, h193km±43km, mb3.1/2, mb1 3.2/4, mb1mx3.0/25, mbtmp3.7/4, Error ellipse: s-maj=86.8km s-min=27.2km az=41.0*
**ISC 09 02:54:01.6**±0.9, **27°.89S**±0°.05×**66°.64W**±0°.07, **h174**km±8km, **n20**, σ**1.55**/30, **Catamarca Province**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CYA | Choya | 0.92 | 127 | eP | Pn | 02 54 28.5 | +0.4 |
| CYA | | | | eS | Sn | 02 54 48.7 | 0.0 |
| AHML | Horco Molle | 1.60 | 47 | eP | Pn | 02 54 34.6 | +0.4 |
| AHML | | | | eS | Sn | 02 54 59.3 | 0.0 |
| VCA | Vinchina | 1.61 | 238 | eP | Pn | 02 54 35.4 | +1.1 |
| VCA | | | | eS | Sn | 02 55 00.7 | +1.0 |
| VCA | | | | IAML | | 02 55 04.3 | |
| | comp=Z,1µm,0.5s | | | | | | |
| FSA | Cafayete | 1.87 | 19 | eP | Pn | 02 54 38.0 | +1.0 |
| FSA | | | | eS | Sn | 02 55 05.3 | +0.7 |
| AGUA | GUANDACOL | 2.27 | 225 | eP | Pn | 02 54 42.1 | +0.8 |
| AGUA | | | | eS | Sn | 02 55 12.8 | +0.4 |
| AMOG | MOGNA | 3.44 | 208 | eP | Pn | 02 54 56.2 | +0.8 |
| AMOG | | | | eS | Sn | 02 55 36.9 | -0.6 |
| TCA | Tanti | 3.87 | 153 | eP | Pn | 02 55 01.1 | +0.2 |
| TCA | | | | IAML | | 02 55 02.7 | |
| | comp=Z,114nm,0.4s | | | | | | |
| AZAP | Zapla | 3.92 | 22 | eP | Pn | 02 55 02.8 | +1.0 |
| RTCV | Cerro Valdivia | 4.29 | 202 | eP | Pn | 02 55 06.7 | +0.5 |
| RTCV | | | | eS | Sn | 02 55 55.4 | -1.4 |
| ACAN | Cantantal | 4.39 | 186 | eP | Pn | 02 55 07.9 | +0.3 |
| ACAN | | | | eS | Sn | 02 55 57.4 | -1.9 |
| ASTB | Santa Barbara | 4.39 | 27 | eP | Pn | 02 55 08.5 | +0.7 |
| RTLS | Leoncito | 4.52 | 210 | eP | Pn | 02 55 10.7 | +1.2 |
| RTLS | | | | eS | Sn | 02 56 02.0 | -0.6 |
| ALOL | LOMAS DE OLMED | 4.72 | 31 | eP | Pn | 02 55 12.2 | +0.4 |
| HJA | Humahuaca | 4.80 | 14 | eP | Pn | 02 55 14.2 | +1.0 |
| AUSP | Uspallata | 4.93 | 208 | eP | Pn | 02 55 15.9 | +1.2 |
| CPUP | Villa Florida | 8.45 | 82 | P | Pn | 02 56 00.8 | 0.0 |
| | comp=Z,0.2nm,0.3s,baz=261,slow=11,SNR=9.9 | | | | | | |
| LPAZ | La Paz | 11.63 | 353 | P | Pn | 02 56 44.6 | +1.5 |
| | comp=Z,0.4nm,0.3s,baz=177,slow=8.2,SNR=9.9 | | | | | | |
| LPAZ | | | | S | Sn | 02 58 46.2 | -6.3 |
| | comp=Z,0.1nm,0.3s,baz=258,slow=21,SNR=1.4 | | | | | | |
| BDFB | Brasilia | 21.13 | 59 | P | P | 02 58 33.0 | 0.0 |
| | comp=Z,0.9nm,0.4s,baz=1.9,slow=7.3,SNR=4.5 | | | | | | |
| TORD | Torodi Ar. Bea | 77.70 | 68 | P | P | 03 05 40.6 | +1.2 |
| | comp=Z,0.4nm,0.7s,baz=246,slow=4.6,SNR=7.6 | | | | | | |
| ZALV | Zalesovo Beam | 146.62 | 31 | PKPbc | PKPab | 03 13 24.5 | +0.8 |
| | comp=Z,1.7nm,0.4s,baz=283,slow=3.1,SNR=4.5 | | | | | | |

*BJI **09** 03:03:17.7, 7°.75S×117°.31E, h620km, mb4.4/33, mB4.6/20*
*KLM **09** 03:03:23.4, 7°.30S×117°.22E, h613km, mb4.7*
*ISCJB **09** 03:03:23.6±0.2, 7°.09S±0°.03×117°.04E±0°.03, h611km, mb4.5/50, Error ellipse: s-maj=4.8km s-min=3.2km az=36.0*
*NEIC **09** 03:03:24.6±0.3, 7°.09S×117°.02E, h620km±5km, mb4.5/26, Error ellipse: s-maj=7.6km s-min=4.6km az=47.0*
*DJA **09** 03:03:25.2±0.2, 7°S±3°×11°7E±°, h610km±3km, M4.5/31, mb4.8/31, mB4.9/15, MLv4.8/24, Mw(mB)4.2/15*
*IDC **09** 03:03:26.6±1.6, 7°.05S×117°.17E, h646km±24km, mb3.7/17, mb1 3.8/18, mb1mx3.6/37, mbtmp4.8/18, Error ellipse: s-maj=15.4km s-min=7.2km az=66.0*
**ISC 09 03:03:24.1**±0.3, **7°.08S**±0°.05×**117°.06E**±0°.05, **h611**km, **n142**, σ**1.57**/157, **mb4.4**/50, **3C-4D**, **Bali Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PLAI | Plampang | 1.88 | 158 | P | P | 03 04 39.9 | +0.9 |
| PLAI | | | | S | S | 03 05 38.6 | -1.3 |
| SRBI | Singaraja | 2.08 | 241 | P | P | 03 04 40.6 | +0.8 |
| JAGI | Jajag, Banyuwa | 3.19 | 244 | P | P | 03 04 43.9 | -1.4 |
| JAGI | Jajag, Banyuwa | 3.19 | 244 | eP | P | 03 04 44.7 | -0.6 |
| JAGI | | | | eS | S | 03 05 48.4 | -3.0 |
| KAPI | Kappang | 3.38 | 53 | eP | P | 03 04 48.7 | +2.2 |
| WBSI | Waikabubak, Su | 3.44 | 138 | P | P | 03 04 47.7 | +0.9 |
| WBSI | | | | S | S | 03 05 53.8 | -0.4 |
| BLJI | Banyuglugur | 3.50 | 259 | P | P | 03 04 46.0 | -1.1 |
| BSSI | Bau Bau, Buton | 3.54 | 75 | P | P | 03 04 49.1 | +1.7 |
| GMJI | Gumukmas | 3.77 | 251 | P | P | 03 04 49.7 | +0.8 |
| KBKI | Kotabaru | 3.86 | 347 | P | P | 03 04 52.3 | +2.8 |
| BNSI | Bone | 4.04 | 49 | P | P | 03 04 53.6 | +2.9 |
| SPSI | Sidrap Palu | 4.11 | 41 | P | P | 03 04 53.5 | +2.3 |
| BASI | Baing, Sumba | 4.67 | 132 | P | P | 03 04 56.9 | +1.7 |
| TTSI | Tana Toraja | 4.86 | 35 | P | P | 03 05 00.1 | +3.4 |
| | 1µm,0.7s,11µm4.0nm | | | | | | |
| EDFI | Ende, Flores | 4.88 | 110 | P | P | 03 04 56.7 | -0.2 |
| EDFI | | | | S | S | 03 06 08.2 | -4.4 |
| PWJI | Pagerwojo | 5.29 | 259 | P | P | 03 05 00.8 | +0.8 |
| | 118nm,0.8s,2µm0.7nm | | | | | | |
| MMRI | Maumere | 5.36 | 107 | P | P | 03 05 00.4 | -0.2 |
| | 372nm,0.7s,4µm1.4nm | | | | | | |
| MMRI | Maumere | 5.36 | 107 | eP | P | 03 04 59.9 | -0.7 |
| MMRI | | | | eS | S | 03 06 18.4 | -1.0 |
| BBSI | Bau Bau | 5.70 | 74 | P | P | 03 05 06.8 | +3.4 |
| PCJI | Pacitan | 5.93 | 259 | P | P | 03 05 06.3 | +1.0 |
| | 262nm,0.6s,4µm1.4nm | | | | | | |
| PCJI | | | | S | S | 03 06 25.6 | -2.4 |
| | 262nm,0.6s,4µm1.4nm | | | | | | |
| MTKI | Muara Teweh, K | 6.47 | 340 | P | P | 03 05 12.8 | +2.8 |
| | 255nm,0.8s,1.0nm | | | | | | |
| UGM | Wanagama | 6.53 | 262 | P | P | 03 05 11.4 | +0.9 |
| UGM | Wanagama | 6.53 | 262 | eP | P | 03 05 11.5 | +0.9 |
| UGM | | | | eS | S | 03 06 35.8 | -1.7 |
| PBKI | Pangkalan Bun | 6.91 | 309 | P | P | 03 05 16.3 | +2.4 |
| SOEI | Soe | 7.61 | 111 | P | P | 03 05 20.4 | 0.0 |
| SOEI | Soe | 7.61 | 111 | eP | P | 03 05 20.3 | -0.1 |
| SOEI | | | | eS | S | 03 06 49.4 | -6.1 |
| APSI | Ampana | 7.65 | 37 | P | P | 03 05 23.1 | +2.5 |
| MPSI | Mapaga | 7.89 | 21 | P | P | 03 05 25.4 | +2.5 |
| KPJI | Karang Pucung | 8.07 | 268 | P | P | 03 05 25.7 | +1.2 |
| | 240nm,0.6s,3µm1.0nm | | | | | | |
| LUWI | Luwuk | 8.27 | 44 | P | P | 03 05 28.6 | +2.1 |
| | 439nm,0.8s,8µm1.4nm | | | | | | |
| LUWI | Luwuk | 8.27 | 44 | eP | P | 03 05 28.9 | +2.4 |
| MRSI | Marisa | 8.95 | 33 | P | P | 03 05 34.6 | +1.6 |
| STKI | Sintang | 9.02 | 322 | P | P | 03 05 36.2 | +2.5 |
| | 98nm,0.9s | | | | | | |
| CISI | Cisompet, Garu | 9.18 | 266 | eP | P | 03 05 35.4 | +0.1 |
| CNJI | Cibinong | 9.85 | 268 | P | P | 03 05 41.4 | -0.3 |
| | 190nm,0.9s,3µm | | | | | | |
| CBJI | Citeko | 10.16 | 273 | P | P | 03 05 44.7 | -0.1 |
| | 198nm,0.7s | | | | | | |
| SANI | Sanana | 10.21 | 61 | P | P | 03 05 45.8 | +0.6 |
| | 369nm,0.7s,3µm | | | | | | |
| DBJI | Dramaga | 10.25 | 272 | P | P | 03 05 47.3 | +1.6 |
| | 65nm,0.6s | | | | | | |
| KMSI | Cibinong | 10.27 | 43 | P | P | 03 05 48.6 | +2.7 |
| | 201nm,0.4s | | | | | | |
| SBUM | Sibu | 10.63 | 333 | eP | P | 03 05 51.1 | +1.7 |
| KSM | Kuching | 10.84 | 321 | ⇓P | P | 03 05 53.5 | +1.9 |
| KSM | Kuching | 10.84 | 321 | eP | P | 03 05 53.0 | +1.4 |
| BTM | Bintulu | 10.96 | 339 | ⇓P | P | 03 05 55.4 | +2.7 |
| TSM | Tawau | 11.33 | 4 | ⇑P | P | 03 05 58.4 | +2.1 |
| AAI | Ambon | 11.59 | 74 | P | P | 03 06 00.6 | +1.7 |
| | 92nm,0.5s | | | | | | |
| XMIS | Christmas Isla | 11.77 | 253 | eP | P | 03 06 00.5 | -0.2 |
| MYLDM | Lahad Datu | 12.26 | 7 | ⇑P | P | 03 06 07.6 | +2.0 |
| MYLDM | Lahad Datu | 12.26 | 7 | eP | P | 03 06 08.8 | +3.2 |
| MSAI | Masohi | 12.39 | 73 | P | P | 03 06 08.6 | +1.8 |
| | 16nm,0.5s | | | | | | |
| KASI | Kota Agung | 12.58 | 276 | P | P | 03 06 09.4 | +0.7 |
| SDKM | Sandakan | 12.64 | 1 | ⇑P | P | 03 06 11.2 | +1.9 |
| FITZ | Fitzroy Crossi | 13.78 | 143 | P | P | 03 06 20.7 | +0.2 |
| | 15nm,0.3s,baz=330,slow=8.8,SNR=468 | | | | | | |
| FITZ | | | | S | S | 03 08 44.9 | 0.0 |
| | 0.5nm,0.3s,baz=204,slow=12,SNR=2.8 | | | | | | |
| MBWA | Marble Bar | 14.23 | 170 | eP | P | 03 06 25.1 | +0.3 |
| | 331nm,0.6s | | | | | | |
| MNAI | Manna | 14.29 | 280 | eP | P | 03 06 24.6 | -0.9 |
| | 53nm,0.5s | | | | | | |
| MTN | Manton Dam | 14.99 | 114 | eP | P | 03 06 32.1 | +0.2 |
| FAKI | Fak Fak | 15.69 | 75 | P | P | 03 06 39.7 | +1.5 |
| | 83nm,0.7s,869nm | | | | | | |
| FAKI | Fak Fak | 15.69 | 75 | eP | P | 03 06 38.0 | -0.2 |
| | 45nm,0.6s | | | | | | |
| MYKOM | Kota Tinggi | 15.86 | 303 | ⇓P | P | 03 06 42.0 | +2.2 |
| FRIM | Kepong | 18.50 | 303 | ⇓P | P | 03 07 05.0 | +1.1 |
| IPM | Ipoh | 19.70 | 305 | eP | P | 03 07 15.3 | +0.5 |
| | 6.4nm,0.5s | | | | | | |
| KULM | Kulim | 20.47 | 306 | eP | P | 03 07 21.6 | -0.2 |
| | 5.3nm,0.7s | | | | | | |
| PSI | Prapat | 20.59 | 298 | eP | P | 03 07 22.1 | -0.8 |
| | 27nm,1.9s | | | | | | |
| WRA | Warramunga Arr | 21.08 | 129 | P | P | 03 07 27.7 | +0.5 |
| | 28nm,0.5s,baz=311,slow=9.4,SNR=576 | | | | | | |
| WRA | | | | S | S | 03 10 42.0 | -1.0 |
| | 2.9nm,0.7s,baz=317,slow=18,SNR=4.4 | | | | | | |
| WRAB | Tennant Creek | 21.09 | 129 | eP | P | 03 07 28.2 | +1.0 |
| | 34nm,0.6s | | | | | | |
| WB2 | Warramunga Arr | 21.09 | 129 | eP | P | 03 07 27.9 | +0.6 |
| | 36nm,0.6s | | | | | | |
| AS31 | Alice Springs | 23.10 | 137 | eP | P | 03 07 45.8 | +0.6 |
| | 19nm,0.4s | | | | | | |
| ASAR | Alice Springs | 23.10 | 137 | P | P | 03 07 45.8 | +0.7 |
| | 28nm,0.4s,baz=312,slow=8.2,SNR=480 | | | | | | |
| ASAR | | | | S | S | 03 11 12.1 | -2.6 |
| | 2.1nm,0.6s,baz=308,slow=16,SNR=4.0 | | | | | | |
| AS01 | Alice Springs | 23.13 | 137 | eP | P | 03 07 45.6 | +0.2 |
| SRAK | Srakaew | 25.71 | 325 | P | P | 03 08 06.0 | -2.2 |
| | 118nm,0.7s,1µm | | | | | | |
| NWAO | Narrogin (SRO) | 25.72 | 180 | P | P | 03 08 08.6 | +0.5 |
| | 8.7nm,0.4s,baz=242,slow=8.1,SNR=14 | | | | | | |
| NWAO | Narrogin (SRO) | 25.72 | 180 | eP | P | 03 08 08.5 | +0.5 |
| | 33nm,1.1s | | | | | | |
| FORT | Forrest | 25.73 | 158 | eP | P | 03 08 09.1 | +0.9 |
| COEN | Coen | 26.55 | 107 | eP | P | 03 08 15.6 | 0.0 |
| | 4.6nm,0.7s | | | | | | |
| KHON | Khomkaen | 27.20 | 329 | P | P | 03 08 23.2 | +2.0 |
| | 16nm,0.9s | | | | | | |
| CHAI | Chaiyaphum | 27.28 | 327 | P | P | 03 08 23.4 | +1.5 |
| | 11nm,0.8s | | | | | | |
| PBKT | Sadao Pong | 28.38 | 326 | P | P | 03 08 32.6 | +1.1 |
| | 32nm,0.8s | | | | | | |
| UTHA | Uthaitani | 28.47 | 322 | P | P | 03 08 33.5 | +1.3 |
| | 7.7nm,1.0s,106nm | | | | | | |
| SUKH | Sukhothai | 29.87 | 325 | P | P | 03 08 45.7 | +1.4 |
| | 7.4nm,0.8s,76nm | | | | | | |
| PMG | Port Moresby | 29.87 | 97 | P | P | 03 08 45.8 | +1.4 |
| | 3.8nm,0.3s,baz=293,slow=12,SNR=3.1 | | | | | | |
| CM01 | Chiang Mai Arr | 31.00 | 325 | eP | P | 03 08 54.9 | +1.0 |
| CMAR | Chiang Mai Arr | 31.04 | 325 | P | P | 03 08 55.4 | +1.1 |
| | 4.4nm,0.6s,baz=147,slow=6.2,SNR=12 | | | | | | |
| BBOO | Buckleboo | 31.10 | 148 | eP | P | 03 08 55.0 | +0.4 |
| | 24nm,0.6s | | | | | | |
| CTA | Charters Tower | 31.11 | 117 | P | P | 03 08 55.9 | +0.9 |
| | 1.3nm,0.3s,baz=282,slow=10.0,SNR=8.3 | | | | | | |
| CTAO | Charters Tower | 31.11 | 117 | eP | P | 03 08 55.6 | +0.7 |
| | 42nm,1.0s | | | | | | |
| CMMT | Chiang Mai | 31.32 | 325 | P | P | 03 08 58.0 | +1.3 |
| CHTO | Chiang Mai | 31.32 | 325 | P | P | 03 08 58.0 | +1.3 |
| | 98nm,1.7s | | | | | | |
| CHTO | Chiang Mai | 31.32 | 325 | eP | P | 03 08 57.9 | +1.2 |
| | 11nm,0.8s | | | | | | |
| YHNB | Yeheng | 31.84 | 7 | eP | P | 03 09 00.8 | -0.2 |
| | 263nm,1.7s | | | | | | |
| STKA | Stephens Creek | 33.65 | 140 | P | P | 03 09 17.1 | +1.0 |
| | 26nm,0.3s,baz=312,slow=8.8,SNR=73 | | | | | | |
| STKA | Stephens Creek | 33.65 | 140 | eP | P | 03 09 16.9 | +0.8 |
| | 6.3nm,0.7s | | | | | | |
| KMI | Kunming | 34.91 | 337 | P | P | 03 09 28.2 | +1.2 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,13nm,0.7s | | | | | | |
| SARN | Sarigan | 36.95 | 50 | eP | P | 03 09 41.5 | -2.1 |
| EIDS | Eidsvold | 37.22 | 123 | eP | P | 03 09 46.7 | +1.0 |
| | 15nm,1.4s | | | | | | |
| ENH | Enshi | 37.84 | 349 | eP | P | 03 09 50.1 | -0.5 |
| ARMA | Armidale | 39.86 | 130 | eP | P | 03 10 07.9 | +0.9 |
| | 34nm,1.6s | | | | | | |
| CD2 | Chengdu | 39.87 | 342 | eP | P | 03 10 07.2 | +0.3 |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,60nm,0.7s | | | | | | |
| CAN | Canberra | 40.61 | 138 | eP | P | 03 10 13.4 | +0.7 |
| | 14nm,0.9s | | | | | | |
| XAN | Xi'an | 41.62 | 350 | P | P | 03 10 20.1 | -0.6 |
| XAN | | | | pmax | pmax | | |
| | comp=Z,20nm,0.6s | | | | | | |
| XAN | | | | pmax | pmax | | |
| | comp=Z,360nm,6.0s | | | | | | |
| ODAN | Odare | 44.33 | 321 | eP | P | 03 10 42.0 | -0.1 |
| | 29nm,0.6s | | | | | | |
| TAPN | Taplejung | 44.48 | 322 | eP | P | 03 10 43.5 | +0.2 |
| | 42nm,0.6s | | | | | | |
| LZH | Lanzhou | 44.70 | 345 | eP | P | 03 10 45.7 | +1.1 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,12nm,1.0s | | | | | | |
| RAMN | Ramite | 44.89 | 320 | eP | P | 03 10 46.6 | +0.2 |
| | 48nm,0.5s | | | | | | |
| KSRS | Korea Array | 45.45 | 12 | P | P | 03 10 50.6 | +0.6 |
| | 5.3nm,0.8s,baz=194,slow=8.2,SNR=7.9 | | | | | | |
| JIRN | Jiri | 45.65 | 320 | eP | P | 03 10 52.3 | 0.0 |
| | 421nm,0.5s | | | | | | |
| GUN | Gumba | 46.02 | 320 | eP | P | 03 10 55.0 | 0.0 |
| | 57nm,0.7s | | | | | | |
| PKI | Pulchoki | 46.08 | 320 | eP | P | 03 10 55.0 | -0.5 |
| | 25nm,0.5s | | | | | | |
| PKIN | Phulchoki | 46.09 | 320 | eP | P | 03 10 55.0 | -0.5 |
| | 25nm,0.5s | | | | | | |
| DMN | Daman | 46.30 | 319 | eP | P | 03 10 56.8 | -0.3 |
| | 17nm,0.4s | | | | | | |
| GKN | Gorkha | 46.88 | 319 | eP | P | 03 11 01.0 | -0.3 |
| KOLN | Koldanda | 47.39 | 318 | eP | P | 03 11 04.8 | -0.4 |
| | 29nm,0.5s | | | | | | |
| DANN | Dangsing | 47.68 | 319 | eP | P | 03 11 07.1 | -0.3 |
| | 2.2nm,0.6s | | | | | | |
| MAJO | Matsushiro | 47.71 | 23 | eP | P | 03 11 06.6 | -0.5 |
| | 8.8nm,0.8s | | | | | | |
| MAT | Matsushiro | 47.71 | 23 | P | P | 03 11 05.9 | -1.3 |
| MJAR | Matsushiro Arr | 47.71 | 23 | P | P | 03 11 06.3 | -0.8 |
| | 4.8nm,0.7s,baz=193,slow=7.9,SNR=13 | | | | | | |
| HHC | Hu-ho-hao-te | 47.96 | 354 | eP | P | 03 11 12.8 | +3.8 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,15nm,0.5s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,69nm,4.8s | | | | | | |
| PYUN | Piuthan | 48.02 | 318 | eP | P | 03 11 09.6 | -0.2 |
| | 32nm,0.4s | | | | | | |
| GTA | Gaotai | 48.94 | 342 | eP | P | 03 11 17.3 | +1.0 |
| GTA | | | | pP | pP | 03 13 07.1 | +0.5 |
| GTA | | | | sP | sP | 03 14 11.5 | -2.0 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,11nm,1.1s | | | | | | |
| USRK | Ussuriysk Ar. | 52.80 | 13 | P | P | 03 11 43.6 | -0.3 |
| | 6.2nm,0.7s,baz=197,slow=6.6,SNR=9.7 | | | | | | |
| ULN | Ulaanbaatar | 55.42 | 352 | eP | P | 03 12 01.6 | -0.8 |
| | 6.3nm,0.7s | | | | | | |
| SONM | Songino Array | 55.48 | 351 | P | P | 03 12 02.7 | -0.1 |
| | 8.0nm,0.6s,baz=170,slow=8.8,SNR=41 | | | | | | |
| SONA1 | Songino Array | 55.49 | 351 | eP | P | 03 12 02.5 | -0.3 |
| WMQ | Urumqi | 57.21 | 335 | P | P | 03 12 15.6 | +1.0 |
| WMQ | | | | PcP | PcP | 03 13 00.9 | +0.6 |
| WMQ | | | | sP | sP | 03 15 16.7 | +1.0 |
| WMQ | | | | S | S | 03 19 18.7 | -6.4 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,17nm,0.7s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,740nm,6.1s | | | | | | |
| WHZ | Wether Hill Ro | 58.34 | 140 | eP | P | 03 12 22.9 | +0.7 |
| | 72nm,2.0s | | | | | | |
| RPZ | Rata Peaks | 59.51 | 137 | eP | P | 03 12 30.4 | +0.3 |
| | 14nm,0.7s | | | | | | |
| KSH | Kashi | 59.93 | 324 | P | P | 03 12 33.0 | 0.0 |
| KSH | | | | PcP | PcP | 03 13 11.6 | +0.2 |
| KSH | | | | PP | PP | 03 14 58.4 | +2.6 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,14nm,0.7s | | | | | | |
| MK01 | Makanchi Array | 61.87 | 334 | eP | P | 03 12 45.1 | -0.3 |
| MK31 | Makanchi Array | 61.89 | 334 | eP | P | 03 12 45.5 | -0.1 |
| MKAR | Makanchi Array | 61.89 | 334 | P | P | 03 12 45.4 | -0.1 |
| | 11nm,0.6s,baz=157,slow=7.0,SNR=107 | | | | | | |
| BKZ | Black Stump Fm | 62.01 | 131 | eP | P | 03 12 46.6 | 0.0 |
| | 20nm,1.5s | | | | | | |
| AAK | Ala-Archa | 62.82 | 326 | eP | P | 03 12 52.0 | +0.2 |
| | 8.8nm,1.3s | | | | | | |
| KURK | Kurchatov | 66.44 | 334 | eP | P | 03 13 13.6 | -0.5 |
| | 44nm,0.8s | | | | | | |
| ZAA0 | Zalesovo Array | 66.58 | 340 | eP | P | 03 13 13.8 | -1.1 |
| | 6.6nm,0.7s | | | | | | |
| ZALV | Zalesovo Beam | 66.58 | 340 | P | P | 03 13 13.7 | -1.2 |
| | 6.8nm,0.5s,baz=148,slow=4.8,SNR=32 | | | | | | |
| MAW | Mawson | 70.39 | 199 | P | P | 03 13 38.0 | +0.5 |
| | 3.0nm,0.6s,baz=73,slow=11,SNR=3.5 | | | | | | |
| GEYT | Alibeck | 70.73 | 314 | P | P | 03 13 40.4 | +0.1 |
| | 19nm,1.0s,baz=243,slow=1.7,SNR=3.6 | | | | | | |
| VNDA | Vanda | 74.17 | 171 | P | P | 03 13 59.5 | +0.3 |
| | 1.5nm,1.1s,baz=319,slow=7.6,SNR=5.2 | | | | | | |
| TIXI | Tiksi | 78.96 | 4 | eP | P | 03 14 24.3 | -0.9 |
| | 4.7nm,1.0s | | | | | | |
| KMBO | Kilima Mbogo | 79.75 | 270 | P | P | 03 14 30.8 | -0.2 |
| | 2.3nm,0.5s,baz=122,slow=4.7,SNR=6.2 | | | | | | |
| SNAA | Sanae | 92.31 | 196 | eP | P | 03 15 29.4 | -0.7 |
| TORD | Torodi Ar. Bea | 116.22 | 281 | PKP | PKPdf | 03 20 58.8 | -1.3 |
| | 0.5nm,0.6s,baz=35,slow=1.9,SNR=5.3 | | | | | | |
| CPUP | Villa Florida | 146.34 | 189 | PKPbc | PKPbc | 03 21 58.2 | -0.2 |
| | 3.0nm,0.7s,baz=160,slow=4.1,SNR=9.8 | | | | | | |
| BDFB | Brasilia | 153.01 | 213 | PKPab | PKPab | 03 22 29.3 | +0.3 |
| | 3.5nm,0.7s,baz=90,slow=2.0,SNR=6.1 | | | | | | |

*ISN **09** 03:23:22.7±0.8, 26°.74N×53°.47E, h0km±299km, ML4.9*
*THR **09** 03:23:30.9±0.6, 27°.09N×53°.21E, h18km±8km, ML4.7*
*IDC **09** 03:23:32.4±0.5, 27°.28N×53°.22E, h0km, mb4.7/31, mb1 4.8/39, mb1mx4.7/47, mbtmp4.7/39, ML4.2/8, MS4.4/33, Ms1 4.4/33, ms1mx4.2/52, Error ellipse: s-maj=12.5km s-min=10.5km az=178.0*
*ISCJB **09** 03:23:32.8±0.6, 27°.21N±0°.02×53°.13E±0°.02, h13km±3km, mb4.9/191, MS4.4/33, Error ellipse: s-maj=3.2km s-min=2.3km az=30.6*
*BJI **09** 03:23:32.6, 27°.20N×53°.10E, h15km, mb4.8/48, mB5.2/36, Ms4.9/33, Ms7 4.6/33*
*TEH **09** 03:23:33.2, 27°.21N×53°.08E, h25km, ML4.9*
*MOS **09** 03:23:33.4±1.1, 27°.18N×53°.14E, h19km, mb5.1/73, MS4.3/18, Error ellipse: s-maj=6.1km s-min=3.4km az=112.9*
*DSN **09** 03:23:34.5±0.5, 27°.16N×53°.01E, h15km, mb5.2/1, ML5.1/7, Error ellipse: s-maj=14.9km s-min=4.8km az=50.0*
*CSEM **09** 03:23:35.0±0.1, 27°.23N×53°.13E, h15km, mb4.9/78, Error ellipse: s-maj=3.6km s-min=2.5km az=44.0*
*OMAN **09** 03:23:35.7±99.0, 27°.20N×53°.07E, h14km±5km, Error ellipse: s-maj=6.6km s-min=3.1km az=248.0*
*NEIC **09** 03:23:35.5±0.2, 27°.19N×53°.15E, h20km, mb4.9/83, ML4.7(THR), MN4.9(TEH), Error ellipse: s-maj=3.3km s-min=2.9km az=21.0*
**ISC 09 03:23:35.9**±0.6, **27°.18N**±0°.03×**53°.16E**±0°.03, **h23**km±3km, **n798**, σ**1.51**/854, **mb4.9**/196, **MS4.4**/33, **50C-22D**, **Southern Iran**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GHIR | Ghir-Karzin | 1.11 | 352 | ePg | Pb | 03 23 53.2 | -3.3 |
| GHIR | | | | eSg | Sb | 03 24 09.9 | -0.7 |
| GHIR | | | | AML | AML | 03 24 15.5 | |
| | comp=E,19µm,0.4s | | | | | | |
| GHIR | | | | AML | AML | 03 24 16.1 | |
| | comp=N,14µm,0.5s | | | | | | |
| GHIR | Ghir-Karzin | 1.11 | 352 | ePg | Pb | 03 23 53.2 | -3.3 |
| GHIR | | | | eSg | Sb | 03 24 09.9 | -0.7 |
| GHIR | Ghir-Karzin | 1.11 | 352 | Pg | Pb | 03 23 53.0 | -3.5 |
| GHIR | | | | Sg | Sb | 03 24 09.0 | -1.6 |
| ISRV | Sarvestan | 2.19 | 359 | ePn | Pn | 03 24 11.8 | +0.5 |
| ISRV | | | | eAMB | AMB | 03 25 25.4 | |
| | comp=Z,3µm,0.6s | | | | | | |
| ISRV | Sarvestan | 2.19 | 359 | Pn | Pn | 03 24 11.7 | +0.5 |
| ISRV | Sarvestan | 2.19 | 359 | Pn | Pn | 03 24 11.7 | +0.5 |
| AHBU | AHRAM | 2.35 | 316 | ePn | Pn | 03 24 12.0 | -1.1 |
| AHBU | | | | eSg | Sb | 03 24 47.6 | +1.5 |
| IPAR | Pars | 2.65 | 358 | ePn | Pn | 03 24 17.6 | 0.0 |
| IPAR | | | | eSg | Sb | 03 25 01.0 | +5.9 |
| IPAR | | | | eAMB | AMB | 03 25 07.8 | |
| | comp=Z,30µm,0.4s | | | | | | |
| IPAR | Pars | 2.65 | 358 | Pn | Pn | 03 24 17.5 | 0.0 |
| IPAR | | | | eSg | Sb | 03 25 01.0 | +5.9 |
| IPAR | Pars | 2.65 | 358 | Pn | Pn | 03 24 17.5 | 0.0 |
| IPAR | | | | Sg | Sb | 03 25 01.0 | +5.9 |
| BANOM | Banah | 3.08 | 113 | iP | Pn | 03 24 23.7 | +0.6 |
| | SNR=25 | | | | | | |
| BANOM | Banah | 3.08 | 113 | P | Pn | 03 24 23.8 | +0.6 |
| | SNR=28 | | | | | | |
| BANOM | Banah | 3.08 | 113 | Pn | Pn | 03 24 23.8 | +0.6 |
| | SNR=28 | | | | | | |
| BANOM | Banah | 3.08 | 113 | Pn | Pn | 03 24 23.8 | +0.6 |
| | SNR=28 | | | | | | |
| BANOM | Banah | 3.08 | 113 | P | Pn | 03 24 23.8 | +0.6 |
| | SNR=28 | | | | | | |
| NAZ | Nazwa, Dubai | 3.14 | 134 | iP | Pn | 03 24 25.6 | +1.6 |
| | SNR=135 | | | | | | |
| NAZ | Nazwa, Dubai | 3.14 | 134 | P | Pn | 03 24 25.6 | +1.6 |
| | SNR=135 | | | | | | |
| NAZ | Nazwa, Dubai | 3.14 | 134 | pPn | Pn | 03 24 26.0 | +2.0 |
| | SNR=135 | | | | | | |
| NAZ | | | | Sb | Sb | 03 25 26.8 | +18 |
| NAZ | Nazwa, Dubai | 3.14 | 134 | pPn | Pn | 03 24 26.0 | +2.0 |
| | SNR=135 | | | | | | |
| NAZ | | | | Sg | Sb | 03 25 26.8 | +18 |
| NAZ | Nazwa, Dubai | 3.14 | 134 | P | Pn | 03 24 26.0 | +2.0 |
| | SNR=135 | | | | | | |
| FAQ | Al Faqa, Dubai | 3.27 | 137 | iP | Pn | 03 24 26.9 | +1.1 |
| | SNR=27 | | | | | | |
| FAQ | Al Faqa, Dubai | 3.27 | 137 | P | Pn | 03 24 26.9 | +1.1 |
| | SNR=27 | | | | | | |
| FAQ | Al Faqa, Dubai | 3.27 | 137 | pPn | Pn | 03 24 28.2 | +2.4 |
| | SNR=30 | | | | | | |
| FAQ | Al Faqa, Dubai | 3.27 | 137 | pPn | Pn | 03 24 28.2 | +2.4 |
| | SNR=30 | | | | | | |
| FAQ | Al Faqa, Dubai | 3.27 | 137 | P | Pn | 03 24 28.2 | +2.4 |
| | SNR=30 | | | | | | |
| SLWS | | 3.28 | 224 | S | Sb | 03 25 13.9 | +0.9 |
| SLWS | | | | P | Pn | 03 24 28.3 | +2.4 |
| UOSS | Minazif | 3.53 | 128 | ePn | Pn | 03 24 30.5 | +1.1 |
| UOSS | Minazif | 3.53 | 128 | ePn | Pn | 03 24 30.5 | +1.1 |
| UOSS | Minazif | 3.53 | 128 | pPn | Pn | 03 24 30.7 | +1.3 |
| | SNR=50 | | | | | | |
| UOSS | Minazif | 3.53 | 128 | pPn | Pn | 03 24 30.7 | +1.3 |
| | SNR=50 | | | | | | |
| UOSS | Minazif | 3.53 | 128 | P | Pn | 03 24 30.7 | +1.3 |
| | SNR=50 | | | | | | |
| HATD | Hatta, Dubai | 3.56 | 131 | iP | Pn | 03 24 30.8 | +1.0 |
| | SNR=95 | | | | | | |
| HATD | Hatta, Dubai | 3.56 | 131 | P | Pn | 03 24 30.8 | +1.0 |
| | SNR=95 | | | | | | |

HATD Hatta, Dubai 3.56 131 pPn Pn 03 24 31.6 +1.7
SNR=95
HATD Hatta, Dubai 3.56 131 pPn Pn 03 24 31.6 +1.7
SNR=95
HATD Hatta, Dubai 3.56 131 P Pn 03 24 31.6 +1.7
SNR=95
ASHO Ashiyiah 3.61 133 *i* P Pn 03 24 31.4 +0.9
SNR=127
ASHO Ashiyiah 3.61 133 P Pn 03 24 31.4 +0.9
SNR=127
ASHO Ashiyiah 3.61 133 pPn Pn 03 24 31.6 +1.1
SNR=126
ASHO Ashiyiah 3.61 133 pPn Pn 03 24 31.6 +1.1
SNR=126
ASHO Ashiyiah 3.61 133 P Pn 03 24 31.6 +1.1
SNR=126
BOOSS 3.63 250 P Pn 03 24 32.9 +2.1
BTHS 3.76 214 S Sb 03 25 22.8 -3.9
BTHS P Pn 03 24 34.4 +1.9
NGRK Negar Kerman 3.99 51 *e*Pn Pn 03 24 35.3 -0.7
NGRK Negar Kerman 3.99 51 *e*Pn Pn 03 24 35.3 -0.7
TVBK TV Kerman 4.22 48 *e*Pn Pn 03 24 40.0 +0.8
TVBK TV Kerman 4.22 48 *e*Pn Pn 03 24 40.0 +0.8
KHGB Koh Gabri 4.31 42 *e*Pn Pn 03 24 40.4 0.0
KHGB Koh Gabri 4.31 42 *e*Pn Pn 03 24 40.4 0.0
IMEH Mehriz 4.38 17 *e*Pn Pn 03 24 41.5 +0.1
IMEH *e*AMB AMB 03 24 47.6
comp=Z,7μm,0.3s
IMEH Mehriz 4.38 17 Pn Pn 03 24 41.4 +0.1
IMEH Mehriz 4.38 17 Pn Pn 03 24 41.4 +0.1
IRAM Rameseh 4.66 352 *e*Pn Pn 03 24 43.9 -1.2
IRAM *e*AMB AMB 03 26 28.2
comp=Z,10μm,0.5s
IRAM Ramesheh 4.66 352 *e*Pn Pn 03 24 43.9 -1.2
IRAM Ramesheh 4.66 352 Pn Pn 03 24 43.9 -1.2
CHMN Cheshme madani 4.69 54 *e*Pn Pn 03 24 46.5 +0.9
CHMN Cheshme madani 4.69 54 *e*Pn Pn 03 24 46.5 +0.9
ISAD Sadrabad 4.74 5 *e*Pn Pn 03 24 46.8 +0.5
ISAD *e*AMB AMB 03 24 50.8
comp=Z,14μm,0.2s
ISAD Sadrabad 4.74 5 Pn Pn 03 24 46.7 +0.5
ISAD Sadrabad 4.74 5 Pn Pn 03 24 46.7 +0.5
IBAF Bafgh 4.87 25 *e*Pn Pn 03 24 47.7 -0.2
IBAF *e*AMB AMB 03 24 53.3
comp=Z,12μm,0.2s
IBAF *e*AMB AMB 03 24 53.4
comp=N,7μm,0.1s
IBAF Bafgh 4.87 25 *e*Pn Pn 03 24 47.7 -0.2
IBAF Bafgh 4.87 25 Pn Pn 03 24 47.6 -0.3
ARQ Araqi 4.89 141 P Pn 03 24 50.5 +2.3
SNR=67
ARQ Araqi 4.89 141 pPn Pn 03 24 50.5 +2.3
SNR=67
ARQ Araqi 4.89 141 pPn Pn 03 24 50.5 +2.3
SNR=67
ARQ Araqi 4.89 141 P Pn 03 24 50.5 +2.3
SNR=67
ICHK Chekchek 5.16 12 *e*Pn Pn 03 24 51.6 -0.4
ICHK *e*AMB AMB 03 25 00.6
comp=Z,11μm,0.2s
ICHK Chekchek 5.16 12 *e*Pn Pn 03 24 51.6 -0.4
ICHK Chekchek 5.16 12 Pn Pn 03 24 51.6 -0.4
NASN Na'in 5.61 357 *e*Pn Pn 03 24 56.9 -1.3
NASN Na'in 5.61 357 *e*Pn Pn 03 24 56.9 -1.3
NASN Na'in 5.61 357 Pn Pn 03 24 56.0 -2.2
IZEF Zefreh 5.74 353 *e*Pn Pn 03 24 58.6 -1.4
IZEF *e*AMB AMB 03 25 29.2
comp=Z,4μm,0.5s
IZEF Zefreh 5.74 353 *e*Pn Pn 03 24 58.6 -1.4
IZEF Zefreh 5.74 353 Pn Pn 03 24 58.5 -1.4
BSY Bisya 5.74 139 pPn Pn 03 25 01.5 +1.7
SNR=139
BSY Bisya 5.74 139 pPn Pn 03 25 01.5 +1.7
SNR=139
BSY Bisya 5.74 139 P Pn 03 25 01.5 +1.7
SNR=139
BSYO Bisya 5.78 139 P Pn 03 25 01.5 +1.2
SNR=139
BIDO Bidbid 5.79 128 Pn Pn 03 25 01.2 +0.8
SNR=8.2
BIDO Sn Sn 03 26 07.6 +1.5
BIDO Bidbid 5.79 128 Pn Pn 03 25 01.2 +0.8
SNR=8.2
BIDO Sn Sn 03 26 07.6 +1.5
BIDO Bidbid 5.79 128 Pn Pn 03 25 01.2 +0.8
SNR=8.2
BIDO Sn Sn 03 26 07.6 +1.5
BIDO Bidbid 5.79 128 P Pn 03 25 01.2 +0.8
SNR=8.2
IPIR Pirpir 5.82 341 *e*Pn Pn 03 25 01.2 0.0
IPIR *e*AMB AMB 03 26 26.3
comp=Z,6μm,0.5s
IPIR Pirpir 5.82 341 *e*Pn Pn 03 25 01.2 0.0
SMDO Samad 6.04 132 P Pn 03 25 05.3 +1.3
SNR=36
SMDO Samad 6.04 132 pPn Pn 03 25 05.3 +1.3
SNR=36
SMDO Samad 6.04 132 pPn Pn 03 25 05.3 +1.3
SNR=36
SMDO Samad 6.04 132 P Pn 03 25 05.3 +1.3
SNR=36
IKLH Kolahrood 6.27 348 *e*Pn Pn 03 25 06.2 -1.0
IKLH *e*AMB AMB 03 27 21.6
comp=Z,10μm,0.8s
IKLH Kolahrood 6.27 348 *e*Pn Pn 03 25 06.2 -1.0
IKLH Kolahrood 6.27 348 Pn Pn 03 25 06.2 -1.0
WSAR Wadi Sarin 6.32 127 Pn Pn 03 25 08.8 +1.0
comp=Z,6.7nm,0.3s,baz=325,slow=10,SNR=66
WSAR Sn Sn 03 26 17.8 -1.5
comp=Z,15nm,0.3s,baz=130,slow=19,SNR=7.2
WSAR LR LR 03 28 04.7
comp=Z,3μm,21.0s,baz=330,slow=43
WSAR Wadi Sarin 6.32 127 P Pn 03 25 08.6 +0.8
SNR=85
WSAR Wadi Sarin 6.32 127 Pn Pn 03 25 08.8 +1.0
WSAR Sn Sn 03 26 17.8 -1.5
WSAR Wadi Sarin 6.32 127 Pn Pn 03 25 08.6 +0.8
SNR=85
WSAR Sn Sn 03 26 17.9 -1.5
WSAR Wadi Sarin 6.32 127 Pn Pn 03 25 08.6 +0.8
SNR=85
WSAR Sn Sn 03 26 17.9 -1.5
WSAR Wadi Sarin 6.32 127 P Pn 03 25 08.6 +0.8
SNR=85
JMDO Jabal Madar 6.57 136 P Pn 03 25 13.0 +1.8
SNR=17
JMDO Jabal Madar 6.57 136 pPn Pn 03 25 13.0 +1.8
SNR=17
JMDO Jabal Madar 6.57 136 pPn Pn 03 25 13.0 +1.8
SNR=17
JMDO Jabal Madar 6.57 136 P Pn 03 25 13.0 +1.8
SNR=17
QAM Ghamsar 6.72 348 *e*Pn Pn 03 25 13.0 -0.4
QAM *e*AMB AMB 03 26 52.5
comp=Z,2μm,0.2s
CHBR Chabahar 6.76 102 *e*Pn Pn 03 25 10.9 -2.9
WBK Wadi Bani Khal 6.97 130 P Pn 03 25 19.0 +2.3
SNR=25
WBK Wadi Bani Khal 6.97 130 pPn Pn 03 25 19.0 +2.3
SNR=25
WBK Wadi Bani Khal 6.97 130 pPn Pn 03 25 19.0 +2.3
SNR=25
WBK Wadi Bani Khal 6.97 130 P Pn 03 25 19.0 +2.3
SNR=25
KHMZ Khomeyn 7.09 338 *e*Pn Pn 03 25 17.7 -0.8
KHMZ Khomeyn 7.09 338 *e*Pn Pn 03 25 17.7 -0.8
KHMZ Khomeyn 7.09 338 Pn Pn 03 25 17.0 -1.5
NSR Nassriya 7.23 303 *e*Pn Pn 03 25 18.0 -2.2
SNR=4.0
NSR *i* Sn Sn 03 26 41.0 -0.5
SNR=4.0
IKOO Kooshah 7.28 43 *e*Pn Pn 03 25 21.4 +0.2
IKOO *e*AMB AMB 03 28 13.8
comp=Z,5μm,0.8s
IKOO Kooshah 7.28 43 *e*Pn Pn 03 25 21.4 +0.2
IKOO Kooshah 7.28 43 Pn Pn 03 25 21.4 +0.2
GHVR GHOM 7.45 348 *e*Pn Pn 03 25 23.4 +0.1
GHVR GHOM 7.45 348 Pn Pn 03 25 23.0 -0.3
GHVR GHOM 7.45 348 Pn Pn 03 25 23.0 -0.3
ITEG Tejag 7.47 39 *e*Pn Pn 03 25 24.4 +0.6
ITEG *e*AMB AMB 03 28 19.7
comp=Z,3μm,0.6s
ITEG Tejag 7.47 39 Pn Pn 03 25 24.3 +0.5
ITEG Tejag 7.47 39 Pn Pn 03 25 24.3 +0.5
RAYN Ar Rayn 7.83 244 *e*Pn Pn 03 25 27.6 -0.9
RAYN *e*Sn Sn 03 26 55.4 -1.0
RAYN Ar Rayn 7.83 244 *e*Pn Pn 03 25 27.6 -0.9
RAYN *e*Sn Sn 03 26 55.4 -1.0
IDAH Dahanechah 8.03 45 *e*Pn Pn 03 25 33.3 +1.8
IDAH *e*AMB AMB 03 28 42.9
comp=Z,872nm,0.5s
IDAH Dahanechah 8.03 45 *e*Pn Pn 03 25 33.3 +1.8
IDAH Dahanechah 8.03 45 Pn Pn 03 25 33.3 +1.8
WHFO Wadi Hawf 9.24 176 P Pn 03 25 49.2 +1.3
SNR=14
WHFO Wadi Hawf 9.24 176 pPn Pn 03 25 49.2 +1.3
SNR=14
WHFO Wadi Hawf 9.24 176 pPn Pn 03 25 49.2 +1.3
SNR=14
WHFO Wadi Hawf 9.24 176 P Pn 03 25 49.2 +1.3
SNR=14
SHAO Shalim 9.40 165 P Pn 03 25 49.9 -0.1
SNR=24
SHAO Shalim 9.40 165 Pn Pn 03 25 49.7 -0.3
SNR=23
SHAO Shalim 9.40 165 Pn Pn 03 25 49.7 -0.3
SNR=23
SHAO Shalim 9.40 165 P Pn 03 25 49.7 -0.3
SNR=23
RBK Rabkut 9.68 174 P Pn 03 25 55.2 +1.3
SNR=11
RBK Rabkut 9.68 174 pPn Pn 03 25 55.2 +1.3
SNR=11
RBK Rabkut 9.68 174 Pn Pn 03 25 55.2 +1.3
SNR=11
RBK Rabkut 9.68 174 P Pn 03 25 55.2 +1.3
SNR=11
BHD Baghdad 9.71 311 *e*Pn Pn 03 25 53.0 -1.3
SNR=4.0
GEYT Alibeck 11.50 20 Pn Pn 03 26 18.5 -0.3
comp=Z,2.0nm,0.3s,baz=202,slow=11,SNR=43
GEYT LR LR 03 31 46.1
comp=Z,5μm,19.1s,baz=205,slow=43
RTB Rutbah 12.55 301 *e*Pn Pn 03 26 32.0 -1.2
SNR=4.0
MARD Mardin 14.54 317 *e*Pn Pn 03 26 59.4 -1.0
MARD Mardin 14.54 317 *e*Pn Pn 03 26 59.4 -1.0
GNI Garni 14.70 334 Pn P 03 27 08.6 0.0
comp=Z,4.7nm,0.3s,baz=206,slow=2.9,SNR=23
GNI LR LR 03 33 28.4
comp=Z,2μm,18.0s,baz=142,slow=41
GNI Garni 14.70 334 *e*P Pn 03 27 00.7 -1.9
GNI Garni 14.70 334 P P 03 27 09.9 +1.3
SNR=13
GNI Garni 14.70 334 *e*Pn Pn 03 27 05.0 +2.4
GNI Garni 14.70 334 pP P 03 27 09.9 +1.3
SNR=13
GNI Garni 14.70 334 PnPn P 03 27 09.9 +1.3
SNR=13
GNI Garni 14.70 334 P P 03 27 09.9 +1.3
SNR=13
ASF Jabal al Asfar 14.98 293 Pn Pn 03 27 05.3 -1.1
comp=Z,1.0nm,0.3s,baz=352,slow=6.0,SNR=9.8
ASF Sn Sn 03 29 43.7 -7.9
comp=Z,0.7nm,0.3s,baz=268,slow=12,SNR=2.5
ASF Lg Lg 03 31 47.7
baz=289,slow=21,SNR=1.0
ASF LR LR 03 33 58.2
comp=Z,485nm,18.6s,baz=66,slow=42
ASF Jabal al Asfar 14.98 293 Pn Pn 03 27 05.3 -1.1
ASF Sn Sn 03 29 43.7 -7.9
ASF Lg Lg 03 31 47.7
KBL Kabul 15.48 58 *e*P Pn 03 27 14.8 +1.8
KBL pmax pmax
comp=Z,137nm,1.5s
KBL Kabul 15.48 58 *e*Pn Pn 03 27 14.8 +1.8
comp=Z,137nm,1.5s
KBL Kabul 15.48 58 *e*Pn Pn 03 27 14.8 +1.8
comp=Z,137nm,1.5s
TBLG Delisi 16.07 337 P Pn 03 27 19.7 -0.8
TBLG Delisi 16.07 337 P Pn 03 27 19.7 -0.8
EIL Elat 16.21 283 Pn Pn 03 27 22.8 +0.6
comp=Z,0.4nm,0.3s,baz=79,slow=4.1,SNR=11
EIL LR LR 03 35 03.1
comp=Z,906nm,20.8s,baz=100,slow=42
EIL Elat 16.21 283 Pn Pn 03 27 22.8 +0.6
EIL Elat 16.21 283 Pn Pn 03 27 22.8 +0.6
MAK Makhachkala 16.40 345 *e*P Pn 03 27 25.2 +0.6
MAK *e*S Sn 03 30 28.2 +2.3
MAK pmax pmax
comp=Z,694nm,1.7s
MAK MLR MLR
comp=Z,966nm,14.0s
MMAI Mount Meron Ar 16.42 295 Pn Pn 03 27 26.0 +1.0
comp=Z,1.0nm,0.3s,baz=110,slow=17,SNR=6.6
MMAI Sn Sn 03 30 25.4 -1.3
comp=Z,2.1nm,0.3s,baz=115,slow=24,SNR=6.2
MMAI LR LR 03 34 21.3
comp=Z,348nm,18.6s,baz=85,slow=40
MMAI Mount Meron Ar 16.42 295 Pn Pn 03 27 26.0 +1.0
MMAI Sn Sn 03 30 25.4 -1.3
MMAI Mount Meron Ar 16.42 295 Pn Pn 03 27 26.0 +1.0
MMAI Sn Sn 03 30 25.4 -1.3
KOPT Kop Dagi 16.56 324 *e*Pn Pn 03 27 27.6 +0.6
comp=Z,95nm,0.9s
KOPT Kop Dagi 16.56 324 *e*Pn Pn 03 27 27.6 +0.6
comp=Z,95nm,0.9s
ARTV Artvin 16.75 329 *e*Pn P 03 27 30.6 -0.8
comp=Z,50nm,1.4s
ARTV Artvin 16.75 329 *e*Pn P 03 27 30.6 -0.8
comp=Z,50nm,1.4s
GUDG Gudauri 16.81 337 P P 03 27 34.4 +2.4
THW Thamme Wali 17.04 66 P Pn 03 27 31.5 -1.2
GROC Groznyy 17.07 341 *e*P Pn 03 27 32.0 -1.0
GROC *e*S Sn 03 30 41.0 -1.0
GROC pmax pmax
comp=Z,66nm,1.3s
ONI Oni 17.29 335 P P 03 27 38.1 +0.9
ONI Oni 17.29 335 P P 03 27 38.1 +0.9
ZEI Tsey 17.30 337 *e*P Pn 03 27 34.4 -1.7
ZEI pmax pmax
comp=Z,41nm,0.9s
CEP Cherat 17.45 63 P Pn 03 27 36.8 -1.2
CHVG Ch'k'valeri 17.93 333 P P 03 27 46.9 +2.6
NCK Nalchik 18.03 337 *e*P Pn 03 27 44.8 -0.1
NCK pmax pmax
comp=Z,17nm,0.6s
NEY Neytrino 18.13 335 *e*P Pn 03 27 46.1 -0.3
NEY pmax pmax
comp=Z,2.0nm,0.8s
ATD Arta Tunnel 18.34 214 P Pn 03 27 51.5 +2.5
comp=Z,0.8nm,0.3s,baz=6.0,slow=6.7,SNR=9.4
ATD LR LR 03 35 56.5
comp=Z,3μm,18.2s,baz=24,slow=40
ATD Arta Tunnel 18.34 214 *e*P P 03 27 49.0 0.0
comp=Z,50nm,1.0s
ATD Arta Tunnel 18.34 214 *e*P P 03 27 49.0 0.0
comp=Z,50nm,1.0s
KBZ Khabaz 18.48 336 P Pn 03 27 50.6 +0.2
comp=Z,0.8nm,0.3s,baz=154,slow=10.0,SNR=28
KBZ LR LR 03 35 56.5
comp=Z,1μm,18.8s,baz=150,slow=40
KBZ Khabaz 18.48 336 P Pn 03 27 50.6 +0.2
KBZ Khabaz 18.48 336 P Pn 03 27 50.6 +0.2
CHCP Chirah Chowk 18.49 65 P P 03 27 50.2 -0.3
CHCP S Sn 03 31 15.0 -1.7
CSS Mathiatis 18.65 299 *e*P Pn 03 27 53.8 +1.2
comp=Z,13nm,1.0s
CSS Mathiatis 18.65 299 *e*P Pn 03 27 53.8 +1.2
comp=Z,13nm,1.0s
KVAR Kislovodsk Arr 18.75 336 P Pn 03 27 53.7 -0.1
baz=8.6,slow=0.3,SNR=9.5
KVAR LR LR 03 36 04.6
comp=Z,1μm,19.0s,baz=134,slow=40
KVAR Kislovodsk Arr 18.75 336 P Pn 03 27 53.7 -0.1
KVAR Kislovodsk Arr 18.75 336 P Pn 03 27 53.7 -0.1
KIV Kislovodsk 18.75 336 *i* P Pn 03 27 53.6 -0.3
SNR=8.5
KIV Kislovodsk 18.75 336 *d i* P Pn 03 27 53.4 -0.3
KIV *e*S Sn 03 31 21.8 -1.2
KIV pmax pmax
comp=Z,75nm,2.5s
KIV MLR MLR
comp=Z,820nm,19.0s
KIV Kislovodsk 18.75 336 *e*P Pn 03 27 53.5 -0.3
comp=Z,61nm,0.9s
KIV Kislovodsk 18.75 336 Pn Pn 03 27 53.5 -0.3
SNR=14
KIV Kislovodsk 18.75 336 Pn Pn 03 27 53.5 -0.3
SNR=14
KIV Kislovodsk 18.75 336 P Pn 03 27 53.5 -0.3
SNR=14
TOKA Tokat 19.04 318 *e*P P 03 27 56.4 -0.1
comp=Z,22nm,0.9s
TOKA Tokat 19.04 318 *e*P P 03 27 56.4 -0.1
comp=Z,22nm,0.9s
GOF Gofitskoye 19.59 338 *e*P Pn 03 28 04.0 +0.2
GOF pmax pmax
comp=Z,38nm,0.9s
SOC Sochi 19.65 330 *e*P P 03 28 02.2 -0.9
SOC *e* 03 31 42.4
SOC pmax pmax
comp=Z,28nm,0.7s
SOC MLR MLR
comp=Z,1μm,12.0s
IUG luzhnay 20.33 38 *i* P P 03 28 08.7 -1.9
comp=Z,326nm,0.7s
IUG *i* S S 03 31 56.8 -0.7
IUG LRM MLR 03 37 52.4
comp=Z,1μm,14.0s
BR131 Keskin Array S 20.48 313 *e*P P 03 28 12.3 -0.1
BR131 Keskin Array S 20.48 313 *e*P P 03 28 12.3 -0.1
BRTR Keskin Array B 20.48 313 P P 03 28 12.2 -0.1
comp=Z,7.3nm,0.7s,baz=135,slow=10,SNR=35
BRTR Keskin Array B 20.48 313 *ce*P P 03 28 12.1 -0.2
BRTR pmax pmax
comp=Z,7.0nm,0.7s
BRTR Keskin Array B 20.48 313 P P 03 28 12.2 -0.1
BRTR Keskin Array B 20.48 313 P P 03 28 12.2 -0.1
BRLS Boroldaу 20.82 36 *e*P P 03 28 10.0 -5.8
ANTO Ankara 21.11 312 *e*P P 03 28 19.2 +0.1
ANTO pmax pmax
comp=Z,57nm,1.0s
ANTO Ankara 21.11 312 *e*P P 03 28 19.2 +0.1
comp=Z,57nm,1.0s
ANTO Ankara 21.11 312 *e*P P 03 28 19.2 +0.1
comp=Z,57nm,1.0s
ANTO Ankara 21.11 312 P P 03 28 19.4 +0.3
SNR=8.2
ANTO Ankara 21.11 312 P P 03 28 19.4 +0.3
SNR=8.2
ANTO Ankara 21.11 312 P P 03 28 19.4 +0.3
SNR=8.2
ILGA Ilgaz 21.16 316 *e*P P 03 28 20.5 +0.8
comp=Z,142nm,1.5s
ILGA Ilgaz 21.16 316 *e*P P 03 28 20.4 +0.8
comp=Z,142nm,1.5s
SFK Sufi-Kurgan 21.17 48 *i* P P 03 28 20.6 +0.7
SFK pmax pmax
comp=Z,62nm,0.7s
KK31 Karatay Array 21.23 37 *i* P P 03 28 18.8 -1.5
KK31 pmax pmax
comp=Z,42nm,0.8s
DZA Taraz 21.54 39 *i* P P 03 28 22.4 -1.1
comp=Z,595nm,1.0s
ANN Anapa 21.63 328 *e*P P 03 28 25.0 +0.5
ANN *e*S S 03 32 24.2 +1.2
ANN pmax pmax
comp=Z,46nm,1.1s
ANN MLR MLR
comp=N,1μm,15.0s
ANN MLR MLR
comp=Z,1μm,15.0s
BOLV Bolvadin 21.84 307 *e*P P 03 28 27.7 +0.8
comp=Z,103nm,1.4s
BOLV Bolvadin 21.84 307 *e*P P 03 28 27.7 +0.8
comp=Z,103nm,1.4s
AKAS Kas 21.93 300 *e*P P 03 28 28.0 +0.1
comp=Z,39nm,1.0s
AKAS Kas 21.93 300 *e*P P 03 28 28.0 +0.1
comp=Z,39nm,1.0s
MNAS Manas 21.95 41 *i* P P 03 28 27.1 -1.0
MNAS pmax pmax
comp=Z,47nm,0.8s
KSH Kashi 22.61 51 P P 03 28 28.1 -7.1
KSH pP pP 03 28 32.7 -8.8
KSH PP PnPn 03 28 55.1 -3.9
KSH S S 03 32 24.8 -17
KSH SS Sn 03 33 03.9 +8.0
KSH pmax pmax
comp=Z,8.0nm,0.5s
KSH pmax pmax
comp=Z,220nm,4.6s
KSH LR LR
comp=Z,550nm,7.5s
KSH LR LR
comp=Z,880nm,9.0s
KSH LR LR
comp=Z,710nm,7.1s
AB31 Akbulak array 22.65 12 *ce*P P 03 28 35.4 0.0
AB31 pmax pmax
comp=Z,14nm,0.6s
FURI Furi 22.77 220 *e*P P 03 28 37.1 -0.1
comp=Z,54nm,1.0s
FURI Furi 22.77 220 *e*P P 03 28 37.1 -0.1
comp=Z,54nm,1.0s
AAK Ala-Archa 23.23 43 P P 03 28 45.6 +4.1
comp=Z,18nm,0.8s,baz=197,slow=5.0,SNR=17
AAK LR LR 03 39 43.9
comp=Z,2μm,18.4s,baz=235,slow=42
AAK Ala-Archa 23.23 43 *e*P P 03 28 42.2 +0.6
AAK pmax pmax
comp=Z,26nm,1.9s
AAK Ala-Archa 23.23 43 *e*P P 03 28 42.1 +0.5
comp=Z,33nm,1.0s
AAK Ala-Archa 23.23 43 *e*P P 03 28 42.1 +0.5
comp=Z,33nm,1.0s
AAK Ala-Archa 23.23 43 pP P 03 28 44.3 +2.8
SNR=29
AAK Ala-Archa 23.23 43 pP P 03 28 44.3 +2.8
SNR=29
AAK Ala-Archa 23.23 43 P P 03 28 44.3 +2.8
SNR=29
AAK P P 03 28 44.3 +2.8
SNR=29
SIM Simferopol' 23.38 324 *ce*P P 03 28 43.4 +0.5
SIM *e*S S 03 32 55.0 +0.4
SIM pmax pmax
comp=Z,230nm,2.5s
FRU Bishkek 23.41 43 *e*P P 03 28 44.0 +0.7
FRU *e* 03 33 45.0
FRU pmax pmax
comp=Z,135nm,2.5s
MANT Manisa 23.47 305 *e*P P 03 28 44.1 -0.1
comp=Z,231nm,1.3s
MANT Manisa 23.47 305 *e*P P 03 28 44.1 -0.1
comp=Z,231nm,1.3s
AKTO Aktyubinsk 23.51 8 P P 03 28 45.4 +1.2
comp=Z,7.2nm,0.3s,baz=155,slow=6.3,SNR=31
AKTO LR LR 03 40 07.2
comp=Z,3μm,18.0s,baz=171,slow=42
AKTO Aktyubinsk 23.51 8 P P 03 28 45.4 +1.2
AKTO Aktyubinsk 23.51 8 P P 03 28 45.4 +1.2
KARP Karpathos 23.66 297 *e*P P 03 28 45.1 -0.7
comp=Z,19nm,0.8s
KARP Karpathos 23.66 297 *e*P P 03 28 45.1 -0.7
comp=Z,19nm,0.8s
BTLS Baital 24.42 38 *i* P P 03 28 51.4 -1.4
comp=Z,112nm,1.0s
JBP Jabalpur 24.59 93 *e*P P 03 29 00.4 +6.0
JBP *e*S S 03 33 04.6 -10
KUU Kurty 25.05 42 *i* P P 03 28 57.3 -1.1
comp=Z,45nm,1.1s
KUU *e*S S 03 33 22.2 +0.7
KUU LR LR 03 39 18.2
comp=Z,444nm,11.0s
MDOK Medeo 25.08 44 *i* P P 03 28 57.8 -1.2
comp=Z,77nm,1.2s
MDOK *e*S S 03 33 22.7 +0.3
MDOK LR LR 03 38 17.0
comp=Z,720nm,11.7s
SANT Santorini 25.20 298 *e*P P 03 28 59.9 0.0
comp=Z,150nm,1.2s
SANT Santorini 25.20 298 *e*P P 03 28 59.9 0.0
comp=Z,150nm,1.2s
IDI Anoyia 25.42 296 P P 03 29 02.6 +0.6
comp=Z,28nm,0.8s,baz=103,slow=12,SNR=15
IDI Anoyia 25.42 296 P P 03 29 02.6 +0.6
IDI Anoyia 25.42 296 P P 03 29 02.6 +0.6
VRH Novokhopyorsk 25.51 343 *e*P P 03 29 02.3 -0.2
VRH *e*S S 03 33 34.9 +6.4
VRH pmax pmax
comp=Z,180nm,0.7s
VRH smax smax
comp=N,470nm,1.9s
SATY Saty 25.89 46 *e*P P 03 29 04.9 -1.4
comp=N,91nm,1.6s

SATY eS S 03 33 35.0 0.0
SATY LRM MLR 03 40 03.8
comp=N,306nm,9.2s
**ZHN Zhinishke** 25.96 46 eP P 03 29 05.4 -1.4
comp=N,57nm,1.5s
**VSR Storozhevoye** 26.24 340 eP P 03 29 07.5 -1.7
VSR eS S 03 33 40.8 +0.6
VSR pmax pmax
comp=Z,70nm,1.8s
VSR smax smax
comp=E,440nm,3.8s
**KPKS Kokpek** 26.26 45 i P P 03 29 08.0 -1.6
comp=E,197nm,1.6s
**TIRR Tirgusor** 26.30 317⇑ iP P 03 29 07.3 -2.4
**TIRR Tirgusor** 26.30 317 ⇑P P 03 29 07.3 -2.4
**TIRR Tirgusor** 26.30 317 eP P 03 29 10.1 +0.4
comp=E,80nm,1.8s
**TIRR Tirgusor** 26.30 317 eP P 03 29 10.1 +0.4
comp=E,80nm,1.8s
**PYUN Piuthan** 26.41 81 eP P 03 29 11.8 +0.6
**TLCR** 26.46 319⇑ iP P 03 29 12.9 +1.7
**TLCR** 26.46 319 ⇑P P 03 29 12.9 +1.7
**TLCR** 26.46 319⇑ iP P 03 29 12.9 +1.7
**SHLS Shalkode** 26.61 46 i P P 03 29 14.2 +1.5
comp=E,137nm,1.5s
**PDGK Podgornoye** 26.71 46 i P P 03 29 13.5 -0.2
PDGK pmax pmax
comp=Z,30nm,1.1s
**CFR Carcaliu** 26.86 319⇑ iP P 03 29 14.5 -0.2
**CFR Carcaliu** 26.86 319 ⇑P P 03 29 14.5 -0.2
**CFR Carcaliu** 26.86 319⇑ iP P 03 29 14.5 -0.2
**KOLN Koldanda** 26.98 82 eP P 03 29 16.5 +0.1
comp=Z,30nm,1.0s
**DANN Dangsing** 27.07 80 eP P 03 29 18.7 +1.5
**KIS Kishinev** 27.52 322 eP P 03 29 31.0 +10
KIS eS S 03 34 05.0 +4.5
**KIS Kishinev** 27.52 322 eP P 03 29 31.0 +10
KIS e 03 30 16.0
KIS e 03 34 05.0
**LEOM Leova** 27.53 321 ⇓iP P 03 29 20.3 -0.5
**LEOM Leova** 27.53 321 ⇓P P 03 29 20.3 -0.5
**LEOM Leova** 27.53 321 ⇓iP P 03 29 20.3 -0.5
**LPSR Galich'ya Gora** 27.53 341 eP P 03 29 21.2 +0.5
LPSR pmax pmax
comp=Z,20nm,0.7s
**VRI Vrincioaia** 28.06 319⇑ iP P 03 29 28.2 +2.6
**VRI Vrincioaia** 28.06 319 ⇑P P 03 29 28.2 +2.6
**PLOR Plostina** 28.10 319⇓ iP P 03 29 28.8 +2.8
**PLOR Plostina** 28.10 319 ⇓P P 03 29 28.8 +2.8
**DMN Daman** 28.33 82 eP P 03 29 27.7 -0.8
comp=Z,36nm,1.0s
**MLR Muntele Rosu** 28.33 317 P P 03 29 29.6 +1.5
comp=Z,2.5nm,0.7s,baz=129,slow=6.5,SNR=4.2
**MLR Muntele Rosu** 28.33 317⇑ iP P 03 29 34.0 +5.9
**MLR Muntele Rosu** 28.33 317 eP P 03 29 27.8 -0.3
MLR pmax pmax
comp=Z,20nm,0.9s
**MLR Muntele Rosu** 28.33 317 eP P 03 29 27.8 -0.3
comp=Z,20nm,0.9s
**MLR Muntele Rosu** 28.33 317 eP P 03 29 27.8 -0.3
comp=Z,20nm,0.9s
**TESR Tescani** 28.46 320⇓ iP P 03 29 29.3 +0.2
**SORM Soroca** 28.47 324⇑ iP P 03 29 26.9 -2.3
**SORM Soroca** 28.47 324 ⇑P P 03 29 26.9 -2.3
**SORM Soroca** 28.47 324⇑ iP P 03 29 26.9 -2.3
**PKIN Phulchoki** 28.59 82 eP P 03 29 30.8 0.0
**PKI Pulchoki** 28.60 82 eP P 03 29 31.0 0.0
comp=Z,66nm,1.2s
**VTS Vitosha** 28.79 310⇑ iP P 03 29 32.9 +0.6
**VTS Vitosha** 28.79 310 ⇑P P 03 29 32.9 +0.6
**VTS Vitosha** 28.79 310 eP P 03 29 32.0 -0.3
comp=Z,11nm,1.2s
**VTS Vitosha** 28.79 310 eP P 03 29 32.0 -0.3
comp=Z,11nm,1.2s
**BRVK Borovoye** 28.82 22⇓ eP P 03 29 31.4 -0.8
BRVK pmax pmax
comp=Z,61nm,1.7s
**BRVK Borovoye** 28.82 22 eP P 03 29 31.9 -0.4
comp=Z,17nm,1.0s
**BRVK Borovoye** 28.82 22 eP P 03 29 31.9 -0.4
comp=Z,17nm,1.0s
**BRVK Borovoye** 28.82 22 P P 03 29 31.7 -0.5
SNR=7.5
**BRVK Borovoye** 28.82 22 P P 03 29 31.7 -0.5
SNR=7.5
**BRVK Borovoye** 28.82 22 P P 03 29 31.7 -0.5
SNR=7.5
**BVA0 Borovoye Array** 28.83 22 P P 03 29 31.4 -0.9
BVA0 pmax pmax
comp=Z,20nm,0.8s
**BVAR Borovoye Array** 28.83 22 P P 03 29 31.9 -0.4
comp=Z,7.4nm,0.4s,baz=224,slow=8.1,SNR=31
BVAR PcP PcP 03 32 41.6 0.0
comp=Z,3.8nm,0.6s,baz=204,slow=2.4,SNR=6.1
BVAR ScP ScP 03 36 22.8 +1.1
comp=Z,4.4nm,1.1s,baz=222,slow=2.0,SNR=5.6
BVAR LR LR 03 42 55.2
comp=Z,2μm,19.5s,baz=235,slow=40
**BVAR Borovoye Array** 28.83 22 P P 03 29 31.9 -0.4
**BVAR Borovoye Array** 28.83 22 PcP PcP 03 32 41.6 0.0
**BVAR Borovoye Array** 28.83 22 P P 03 29 31.9 -0.4
BVAR PcP PcP 03 32 41.6 0.0
BVAR ScP ScP 03 36 22.8 +1.1
**VOIR** 28.85 317⇑ iP P 03 29 33.4 +0.7
**VOIR** 28.85 317 ⇑P P 03 29 33.4 +0.7
**GUN Gumba** 28.98 81 eP P 03 29 34.4 +0.1
comp=Z,65nm,1.0s
**ARR Arges** 29.07 316⇓ iP P 03 29 36.3 +1.7
**PRAR RASCA** 29.17 321⇑ iP P 03 29 35.0 -0.5
**JIRN Jiri** 29.28 81 eP P 03 29 37.3 +0.3
**ARU Arti** 29.48 6 P P 03 29 39.2 +1.2
comp=Z,4.0nm,0.2s,baz=192,slow=3.9,SNR=10
ARU LR LR 03 43 34.3
comp=Z,2μm,18.6s,baz=188,slow=41
**ARU Arti** 29.48 6c iP P 03 29 39.2 +1.2
ARU S S 03 34 35.7 +4.7
ARU SS SnSn 03 36 01.6 +2.5
ARU pmax pmax
comp=Z,9.0nm,0.8s
ARU MLR MLR
comp=Z,828nm,10.0s
**ARU Arti** 29.48 6 eP P 03 29 36.7 -1.3
**ARU Arti** 29.48 6 eP P 03 29 36.7 -1.3
**LOT Lotru** 29.64 316⇑ iP P 03 29 40.4 +0.6
**AKASG Malin Array Be** 29.72 329 P P 03 29 38.9 -1.3
comp=Z,5.5nm,0.4s,baz=133,slow=8.0,SNR=28
AKASG PcP PcP 03 32 43.9 0.0
comp=Z,0.8nm,0.5s,baz=97,slow=2.8,SNR=4.9
AKASG LR LR 03 43 09.8
comp=Z,418nm,20.6s,baz=135,slow=40
**AKASG Malin Array Be** 29.72 329 P P 03 29 38.9 -1.3
**AKASG Malin Array Be** 29.72 329 PcP PcP 03 32 43.8 0.0
**AKASG Malin Array Be** 29.72 329 P P 03 29 38.9 -1.3
AKASG PcP PcP 03 32 43.9 0.0
**AKBB Malin Array Si** 29.72 329 eP P 03 29 39.1 -1.2
AKBB pmax pmax
comp=Z,23nm,0.4s
**AKBB Malin Array Si** 29.72 329 eP P 03 29 39.0 -1.2
comp=Z,23nm,0.4s
**AKBB Malin Array Si** 29.72 329 eP P 03 29 39.0 -1.2
comp=Z,23nm,0.4s
**KIEV Kiev** 29.72 329 deP P 03 29 39.3 -0.9
KIEV pmax pmax
comp=Z,11nm,0.8s
**KIEV Kiev** 29.72 329 eP P 03 29 39.0 -1.2
comp=Z,21nm,0.5s
**KIEV Kiev** 29.72 329 eP P 03 29 39.0 -1.2
comp=Z,21nm,0.5s
**AK11 Malin Array Si** 29.73 329 eP P 03 29 39.0 -1.3
**AK11 Malin Array Si** 29.73 329 eP P 03 29 39.0 -1.3
**RAMN Ramite** 29.73 83 eP P 03 29 40.4 -0.5
comp=Z,24nm,0.6s
**BURAR Bucovina Array** 29.88 320⇑ iP P 03 29 42.5 +0.6
**BURAR Bucovina Array** 29.88 320 ⇑P P 03 29 42.5 +0.6
**BUR04 Bucovina Ar. S** 29.89 320 eP P 03 29 41.8 -0.1
**BUR04 Bucovina Ar. S** 29.89 320 eP P 03 29 41.8 -0.1
**BUR08 Bucovina Ar. S** 29.91 321 eP P 03 29 42.2 +0.1
**BUR08 Bucovina Ar. S** 29.91 321 eP P 03 29 42.1 +0.1
**MAKZ Makanchi** 29.96 42 eP P 03 29 42.0 -0.5
MAKZ pmax pmax
comp=Z,25nm,1.0s
**MAKZ Makanchi** 29.96 42 eP P 03 29 42.0 -0.5
comp=Z,25nm,1.0s
**MAKZ Makanchi** 29.96 42 eP P 03 29 42.0 -0.5
comp=Z,25nm,1.0s
**ARCR ARCALIA** 30.10 319⇓ iP P 03 29 43.3 -0.4
**MK01 Makanchi Array** 30.14 42 eP P 03 29 43.8 -0.3
**MK01 Makanchi Array** 30.14 42 eP P 03 29 43.8 -0.3
**MK31 Makanchi Array** 30.14 42 i P P 03 29 44.2 +0.1
MK31 pmax pmax
comp=Z,9.0nm,0.8s
**MK31 Makanchi Array** 30.14 42 eP P 03 29 44.6 +0.5
**MK31 Makanchi Array** 30.14 42 eP P 03 29 44.6 +0.5
**MKAR Makanchi Array** 30.14 42 P P 03 29 44.0 0.0
comp=Z,10nm,1.0s,baz=224,slow=8.4,SNR=16
MKAR LR LR 03 42 53.0
comp=Z,505nm,18.3s,baz=246,slow=39
**MKAR Makanchi Array** 30.14 42 P P 03 29 44.1 0.0
comp=Z,505nm,18.3s
**MKAR Makanchi Array** 30.14 42 P P 03 29 44.0 0.0
**HERR Herculane** 30.25 314⇑ iP P 03 29 47.0 +2.0
**CJR Cluj-Napoca** 30.36 318⇑ iP P 03 29 48.0 +2.0
**CJR Cluj-Napoca** 30.36 318 ⇑P P 03 29 48.0 +2.0
**CJR Cluj-Napoca** 30.36 318 P P 03 29 48.0 +2.0
**OBN Obninsk** 30.41 341⇑ iP P 03 29 47.3 +1.0
OBN e*SP pP 03 29 52.1 -0.9
OBN SS SS 03 36 22.0 -34
OBN pmax pmax
comp=Z,33nm,1.2s
OBN MLR MLR
comp=Z,517nm,18.0s
**OBN Obninsk** 30.41 341 eP P 03 29 46.6 +0.4
comp=Z,36nm,1.2s
**OBN Obninsk** 30.41 341 eP P 03 29 46.6 +0.4
comp=Z,36nm,1.2s
**ODAN Odare** 30.44 83 eP P 03 29 45.0 -2.2
**KURK Kurchatov** 30.45 33deP P 03 29 46.5 -0.2
KURK pmax pmax
comp=Z,59nm,1.7s
**KURK Kurchatov** 30.45 33 eP P 03 29 46.7 0.0
comp=Z,11nm,1.1s
**KURK Kurchatov** 30.45 33 eP P 03 29 46.7 0.0
comp=Z,11nm,1.1s
**MDVR Moldovita** 30.66 313⇓ iP P 03 29 48.7 0.0
**TIR Tirane** 30.72 306 eP P 03 29 49.3 +0.1
TIR pmax pmax
comp=Z,143nm,2.0s
**TIR Tirane** 30.72 306 eP P 03 29 49.3 +0.1
comp=Z,143nm,2.0s
**TIR Tirane** 30.72 306 eP P 03 29 49.3 +0.1
comp=Z,143nm,2.0s
**BMR Baia Mare** 30.90 319⇓ iP P 03 29 52.7 +2.0
**BMR Baia Mare** 30.90 319 ⇓P P 03 29 52.7 +2.0
**BMR Baia Mare** 30.90 319⇓ iP P 03 29 52.7 +2.0
**DRGR** 30.93 317⇑ iP P 03 29 51.6 +0.5
**DRGR** 30.93 317 ⇑P P 03 29 51.6 +0.5
**DRGR** 30.93 317 P P 03 29 51.6 +0.5
**SEM Semipalatinsk** 31.06 34 eP P 03 29 50.8 -1.6
comp=Z,64nm,0.8s
SEM eS S 03 34 56.3 -0.1
SEM LR LR 03 42 40.8
comp=Z,1μm,14.5s
**BZS Buzias** 31.07 315⇑ iP P 03 29 51.6 -0.7
**BZS Buzias** 31.07 315 ⇑P P 03 29 51.6 -0.7
**BZS Buzias** 31.07 315 P P 03 29 51.6 -0.7
**SIRR Siria** 31.33 316⇑ iP P 03 29 55.6 +1.0
**MSEY Mahe Island** 31.75 176 eP P 03 29 58.2 -0.3
MSEY pmax pmax
comp=Z,56nm,1.3s
**MSEY Mahe Island** 31.75 176 eP P 03 29 58.2 -0.3
comp=Z,56nm,1.3s
**MSEY Mahe Island** 31.75 176 eP P 03 29 58.2 -0.3
comp=Z,56nm,1.3s
**LVV L'vov** 31.76 323 eP P 03 30 00.3 +2.0
LVV e 03 31 14.5
**KMBO Kilima Mbogo** 32.04 211 P P 03 30 03.0 +1.7
comp=Z,3.8nm,0.8s,baz=36,slow=13,SNR=6.8
KMBO LR LR 03 44 06.9
comp=Z,2μm,19.6s,baz=34,slow=38
**KMBO Kilima Mbogo** 32.04 211ceP P 03 30 04.6 +3.3
KMBO pmax pmax
comp=Z,4.0nm,0.7s
**KMBO Kilima Mbogo** 32.04 211 eP P 03 30 04.4 +3.1
comp=Z,6.1nm,1.0s
**UZH Uzhgorod** 32.08 320 eP P 03 30 00.5 -0.6
UZH e 03 30 02.9
UZH i 03 30 09.7
**WMQ Urumqi** 32.36 50 P P 03 30 05.5 +1.8
WMQ pP pP 03 30 10.2 -0.3
WMQ sP sP 03 30 12.8 -0.5
WMQ S S 03 35 15.9 -0.7
WMQ SS SnSn 03 37 14.9 +5.4
WMQ ScS ScS 03 40 34.0 +1.3
WMQ pmax pmax
comp=Z,26nm,1.3s
WMQ pmax pmax
comp=Z,370nm,4.3s
WMQ LR LR
comp=Z,3μm,23.1s
WMQ LR LR
comp=Z,1μm,18.7s
WMQ LR LR
comp=Z,2μm,21.1s
**KWP Kalwaria Pacla** 32.38 322 eP P 03 30 03.6 -0.1
**KWP Kalwaria Pacla** 32.38 322 eP P 03 30 03.6 -0.1
**KWP Kalwaria Pacla** 32.38 322 eP P 03 30 03.6 -0.1
**CRVS Cervenica-Dubn** 32.70 320 eP P 03 30 06.8 +0.3
**CRVS Cervenica-Dubn** 32.70 320 eP P 03 30 06.8 +0.3
**CEL Celeste** 33.04 299 eP P 03 30 09.7 0.0
comp=Z,29nm,0.8s
**CEL Celeste** 33.04 299 eP P 03 30 09.7 0.0
comp=Z,29nm,0.8s
**KECS Kecovo** 33.06 319 eP P 03 30 10.1 +0.4
KECS pmax pmax
comp=Z,10.0nm,1.1s
**KECS Kecovo** 33.06 319 eP P 03 30 10.1 +0.4
**STHS Stebnicka Huta** 33.08 321 e P 03 30 20.9 +11
**PSZ Piszkesteto** 33.15 318⇑ iP P 03 30 14.4 +3.9
**PSZ Piszkesteto** 33.15 318 ⇑P P 03 30 14.4 +3.9
**PSZ Piszkesteto** 33.15 318 eP P 03 30 09.7 -0.8
comp=Z,6.9nm,0.8s
**PSZ Piszkesteto** 33.15 318 eP P 03 30 09.7 -0.8
comp=Z,6.9nm,0.8s
**CUC Castrocucco** 33.39 302 eP P 03 30 13.7 +1.0
comp=Z,20nm,0.8s
**CUC Castrocucco** 33.39 302 eP P 03 30 13.7 +1.0
comp=Z,20nm,0.8s
**NIE Niedzica** 33.61 320 eP P 03 30 16.5 +2.0
**NIE Niedzica** 33.61 320 eP P 03 30 16.5 +2.0
**NIE Niedzica** 33.61 320 eP P 03 30 16.5 +2.0
**BLY Banja Luka** 33.64 311 eP P 03 30 15.5 +0.7
comp=Z,7.6nm,0.9s
**BLY Banja Luka** 33.64 311 eP P 03 30 15.5 +0.7
comp=Z,7.6nm,0.9s
**LANS Liptovska Anna** 33.96 319 eP P 03 30 18.1 +0.5
**LANS Liptovska Anna** 33.96 319 eP P 03 30 18.1 +0.5
**IDID Didziasalis** 34.02 333 eP P 03 30 17.6 -0.3
IDID IAmb IAmb 03 30 22.9
comp=Z,16nm,0.9s
**IDID Didziasalis** 34.02 333 eP P 03 30 17.6 -0.3
SNR=26
**VYHS Vyhne** 34.04 318 eP P 03 30 18.8 +0.6
**VYHS Vyhne** 34.04 318 eP P 03 30 18.8 +0.6
**IIGN Ignalina** 34.25 333 eP P 03 30 19.5 -0.4
**IIGN Ignalina** 34.25 333 eP P 03 30 19.5 -0.4
SNR=26
**OJC Ojcow** 34.29 321 eP P 03 30 20.2 -0.2
**OJC Ojcow** 34.29 321 eP P 03 30 20.2 -0.2
**OJC Ojcow** 34.29 321 eP P 03 30 20.3 -0.1
comp=Z,34nm,0.9s
**OJC Ojcow** 34.29 321 eP P 03 30 20.3 -0.1
comp=Z,34nm,0.9s
**ISAL Salakas** 34.45 333 eP P 03 30 21.2 -0.4
ISAL IAmb IAmb 03 30 24.3
comp=Z,14nm,0.7s
**ISAL Salakas** 34.45 333 eP P 03 30 21.2 -0.4
SNR=26
**IZAR Zarasai** 34.52 333 eP P 03 30 21.9 -0.4
IZAR IAmb IAmb 03 30 27.4
comp=Z,17nm,0.8s
**IZAR Zarasai** 34.52 333 eP P 03 30 21.9 -0.4
SNR=26
**KOGS Kog** 34.84 313 eP P 03 30 26.6 +1.5
**KLMR Klimovskoe** 34.91 348 eP P 03 30 22.7 -2.9
KLMR pmax pmax
comp=Z,22nm,0.6s
**OKC Ostrava-Krasne** 35.05 320 eP P 03 30 26.8 -0.1
**OKC Ostrava-Krasne** 35.05 320 eP P 03 30 26.8 -0.1
**OKC Ostrava-Krasne** 35.05 320 P P 03 30 26.8 -0.1
**CLTB Caltabellotta** 35.06 297 eP P 03 30 27.9 +0.6
comp=Z,71nm,1.5s
**CLTB Caltabellotta** 35.06 297 eP P 03 30 27.9 +0.6
comp=Z,71nm,1.5s
**NVS Novosibirsk** 35.26 30 eP P 03 30 28.0 -0.6
**MORC Moravsky Berou** 35.37 319⇑ iP P 03 30 29.5 -0.2
**MORC Moravsky Berou** 35.37 319 ⇑P P 03 30 29.5 -0.2
**MORC Moravsky Berou** 35.37 319 eP P 03 30 29.3 -0.5
comp=Z,49nm,1.0s
**MORC Moravsky Berou** 35.37 319 eP P 03 30 29.3 -0.5
comp=Z,49nm,1.0s
**ZAA0 Zalesovo Array** 35.44 32 eP P 03 30 29.6 -0.6
**ZAA0 Zalesovo Array** 35.44 32 eP P 03 30 29.6 -0.6
**ZALV Zalesovo Beam** 35.44 32 P P 03 30 28.9 -1.3
comp=Z,8.1nm,0.4s,baz=242,slow=9.0,SNR=22
ZALV PcP PcP 03 32 59.7 +0.1
comp=Z,4.6nm,0.8s,baz=227,slow=5.7,SNR=3.7
ZALV LR LR 03 46 34.7
comp=Z,727nm,19.8s,baz=246,slow=39
**ZALV Zalesovo Beam** 35.44 32 eP P 03 30 28.8 -1.4
**ZALV Zalesovo Beam** 35.44 32 PcP PcP 03 32 59.7 +0.1
**ZALV Zalesovo Beam** 35.44 32 eP P 03 30 28.8 -1.4
ZALV PcP PcP 03 32 59.7 +0.1
**ARSA Arzberg** 35.59 314 i P P 03 30 31.4 -0.3
comp=Z,3.0nm,0.7s
**CONA Conrad Observa** 35.62 316 i pP P 03 30 34.5 +2.5
comp=Z,9.7nm,1.4s
**AQU L'Aquila** 35.65 306 eP P 03 30 32.1 -0.1
AQU pmax pmax
comp=Z,9.0nm,0.8s
**AQU L'Aquila** 35.65 306 eP P 03 30 32.1 -0.1
comp=Z,8.8nm,0.8s
**AQU L'Aquila** 35.65 306 eP P 03 30 32.1 -0.1
comp=Z,8.8nm,0.8s
**VRAC Vranov** 35.72 318 P P 03 30 32.9 +0.1
comp=Z,8.2nm,0.9s,baz=109,slow=9.7,SNR=8.5
**VRAC Vranov** 35.72 318⇓ iP P 03 30 32.2 -0.6
**VRAC Vranov** 35.72 318 ⇓P P 03 30 32.2 -0.6
**VRAC Vranov** 35.72 318 P P 03 30 32.9 +0.1
**VRAC Vranov** 35.72 318 P P 03 30 32.9 +0.1
**KRLC Kraliky** 35.94 319 eP P 03 30 35.6 +0.9
**KRLC Kraliky** 35.94 319 eP P 03 30 35.6 +0.9
**KRLC Kraliky** 35.94 319 P P 03 30 35.6 +0.9
**OBKA Obir** 35.97 313 i pP P 03 30 37.5 +2.6
comp=Z,5.3nm,0.8s
**CRNS Crni Vrh** 36.02 312 i P P 03 30 35.1 -0.2
**TRI Trieste** 36.24 311 eP P 03 30 37.3 +0.1
TRI pmax pmax
comp=Z,27nm,1.1s
**TRI Trieste** 36.24 311 eP P 03 30 37.3 +0.1
comp=Z,27nm,1.1s
**TRI Trieste** 36.24 311 eP P 03 30 37.3 +0.1
comp=Z,27nm,1.1s
**VSU Vasula** 36.30 337⇑ eP P 03 30 36.9 -0.6
VSU pmax pmax
comp=Z,53nm,1.1s
**DPC Dobruska-Polom** 36.33 320 eP P 03 30 38.1 +0.2
**DPC Dobruska-Polom** 36.33 320 eP P 03 30 38.1 +0.2
**DPC Dobruska-Polom** 36.33 320 P P 03 30 38.1 +0.2
**UPC Upice** 36.57 320 eP P 03 30 41.0 +1.0
**UPC Upice** 36.57 320 eP P 03 30 41.0 +1.0
**UPC Upice** 36.57 320 P P 03 30 41.0 +1.0
**MOA Molln** 36.59 315 i P P 03 30 40.5 +0.3
comp=Z,7.9nm,0.9s
**MYKA Terra Mystica** 36.60 313 i P P 03 30 42.0 +1.7
comp=Z,8.5nm,0.9s
**KBA Koelnbreinsper** 36.93 313 i P P 03 30 43.7 +0.4
comp=Z,16nm,0.8s,SNR=5.3
**GOPC GO Pecny, Ondr** 37.04 318 eP P 03 30 45.1 +1.1
**GOPC GO Pecny, Ondr** 37.04 318 eP P 03 30 45.1 +1.1
**GOPC GO Pecny, Ondr** 37.04 318 P P 03 30 45.1 +1.1
**PRU Pruhonice** 37.22 318 eP P 03 30 46.5 +1.0
**PRU Pruhonice** 37.22 318 eP P 03 30 46.5 +1.0
**PRU Pruhonice** 37.22 318 P P 03 30 46.5 +1.0
**GEA0 GERESS Array S** 37.30 316 eP P 03 30 45.8 -0.5
**GEA0 GERESS Array S** 37.30 316 eP P 03 30 45.8 -0.5
**GEC2 GERESS Array S** 37.30 316 eP P 03 30 46.8 +0.5
GEC2 pmax pmax
comp=Z,24nm,1.9s
**GEC2 GERESS Array S** 37.30 316 eP P 03 30 46.8 +0.5
comp=Z,24nm,1.9s
**GEC2 GERESS Array S** 37.30 316 eP P 03 30 46.8 +0.5
comp=Z,24nm,1.9s
**GERES GERESS Array B** 37.30 316 P P 03 30 45.2 -1.1
comp=Z,1.5nm,0.7s,baz=113,slow=7.5,SNR=9.6
GERES PcP PcP 03 33 06.0 +0.6
comp=Z,2.5nm,0.8s,baz=134,slow=3.9,SNR=5.9
**GERES GERESS Array B** 37.30 316 P P 03 30 45.2 -1.1
GERES 03 33 06.0
GERES pmax pmax
comp=Z,1.0nm,0.6s
GERES pmax pmax
comp=Z,3.0nm,0.8s
**GERES GERESS Array B** 37.30 316 P P 03 30 45.2 -1.1
**GERES GERESS Array B** 37.30 316 PcP PcP 03 33 06.0 +0.6
**GERES GERESS Array B** 37.30 316 P P 03 30 45.2 -1.1
GERES PcP PcP 03 33 06.0 +0.6
**ABTA Abfaltersbach** 37.37 312 i P P 03 30 46.9 0.0
comp=Z,14nm,0.8s,SNR=5.4
**PVCC Panska Ves** 37.42 319 eP P 03 30 48.3 +1.1
**PVCC Panska Ves** 37.42 319 eP P 03 30 48.3 +1.1
**PVCC Panska Ves** 37.42 319 P P 03 30 48.3 +1.1
**KHC Kasperske Hory** 37.48 317 eP P 03 30 46.8 -0.9
KHC epP sP 03 30 55.5 -1.9
**KHC Kasperske Hory** 37.48 317 eP P 03 30 46.8 -0.9
KHC e 03 30 55.5
**KHC Kasperske Hory** 37.48 317 eP P 03 30 47.0 -0.7
comp=Z,21nm,1.9s
**KHC Kasperske Hory** 37.48 317 eP P 03 30 47.0 -0.7
comp=Z,21nm,1.9s
**BRG Berggiesshubel** 37.92 319 i P P 03 30 52.4 +1.0
comp=Z,9.9nm,0.9s
BRG e 03 31 25.6
comp=Z,15nm,1.3s
**BRG Berggiesshubel** 37.92 319 i P P 03 30 52.4 +1.0
BRG pmax pmax
comp=Z,10.0nm,0.9s
BRG pmax pmax
comp=Z,15nm,1.3s
**KEST Kesra** 38.08 294 P P 03 30 54.8 +1.7
comp=Z,9.5nm,0.8s,baz=181,slow=2.1,SNR=9.4
**KEST Kesra** 38.08 294 eP P 03 30 52.3 -0.8
comp=Z,18nm,1.0s
**KEST Kesra** 38.08 294 eP P 03 30 52.3 -0.8
comp=Z,18nm,1.0s
**WTTA Wattenberg** 38.10 313 i P P 03 30 52.3 -0.9
comp=Z,32nm,1.1s,SNR=6.7
**WATA Walderalm** 38.16 313 i P P 03 30 52.5 -1.2
comp=Z,13nm,0.6s,SNR=11
**VLC Villacollemand** 38.18 308 eP P 03 30 54.1 +0.4
comp=Z,20nm,1.0s
**VLC Villacollemand** 38.18 308 eP P 03 30 54.1 +0.4
comp=Z,20nm,1.0s
**VSL Villasalto** 38.23 300 eP P 03 30 53.4 -0.8
comp=Z,29nm,0.9s
**VSL Villasalto** 38.23 300 eP P 03 30 53.4 -0.8
comp=Z,29nm,0.9s
**TMCR Tamitsa** 38.26 349 eP P 03 30 55.0 +1.0
TMCR pmax pmax
comp=Z,14nm,0.4s
**MOTA Moosalm** 38.47 313 i P P 03 30 54.8 -1.5
comp=Z,20nm,0.8s,SNR=16
**FETA Feichten** 38.62 312 i P P 03 30 56.6 -1.0
comp=Z,17nm,0.6s,SNR=8.9
**CLL Collm** 38.64 320 eP P 03 30 57.4 0.0
CLL pmax pmax
comp=Z,11nm,0.9s
**CLL Collm** 38.64 320 eP P 03 30 59.0 +1.6
comp=Z,10.0nm,0.8s
CLL LmV 03 50 00.0
comp=Z,300nm,19.5s
**CLL Collm** 38.64 320 eP P 03 30 57.4 0.0
comp=Z,11nm,0.9s
**CLL Collm** 38.64 320 eP P 03 30 57.4 0.0
comp=Z,11nm,0.9s
**RETA Reutte** 38.73 313 i P P 03 30 56.7 -1.7
comp=Z,16nm,0.6s
**FIA1 FINESS Array S** 38.77 340 eP P 03 30 58.4 0.0
comp=Z,57nm,1.3s
**FIA1 FINESS Array S** 38.77 340 eP P 03 30 58.4 0.0
comp=Z,57nm,1.3s
**FINES FINESS Array B** 38.77 340 P P 03 30 57.2 -1.2
comp=Z,12nm,0.5s,baz=146,slow=8.4,SNR=57
FINES LR LR 03 49 55.5

comp=Z,526nm,18.2s,baz=151,slow=41
**FINES FINESS Array B** 38.77 340 P **P** 03 30 57.2 -1.2
**FINES FINESS Array B** 38.77 340 P **P** 03 30 57.2 -1.2
**HVS Khovu-Aksy** 38.80 41‖ *e*P **P** 03 31 00.4 +1.5
HVS pmax pmax
comp=Z,12nm,0.9s
**FUORN Ofenpass-Fuorn** 38.83 312 *e*P **P** 03 30 59.2 -0.2
comp=Z,13nm,1.0s
**FUORN Ofenpass-Fuorn** 38.83 312 *e*P **P** 03 30 59.2 -0.2
comp=Z,13nm,1.0s
**GRFO Grafenberg** 39.12 317 *e*P **P** 03 31 00.6 -0.9
GRFO pmax pmax
comp=Z,15nm,0.7s
**GRFO Grafenberg** 39.12 317 *e*P **P** 03 31 00.6 -0.9
comp=Z,15nm,0.7s
**GRFO Grafenberg** 39.12 317 *e*P **P** 03 31 00.6 -0.9
comp=Z,15nm,0.7s
**DAVOX Davos/Dischmat** 39.12 312 P **P** 03 31 00.5 -1.3
comp=Z,16nm,0.9s,baz=156,slow=8.0,SNR=24
**DAVOX Davos/Dischmat** 39.12 312 P **P** 03 31 00.5 -1.3
**DAVOX Davos/Dischmat** 39.12 312 P **P** 03 31 00.5 -1.3
**DGAR Diego Garcia** 39.14 149 *e*P **P** 03 31 02.6 +0.6
DGAR pmax pmax
comp=Z,262nm,1.7s
**DGAR Diego Garcia** 39.14 149 *e*P **P** 03 31 02.6 +0.6
comp=Z,262nm,1.7s
**DGAR Diego Garcia** 39.14 149 *e*P **P** 03 31 02.6 +0.6
comp=Z,262nm,1.7s
**DAVA Damuels** 39.25 312 *i* P **P** 03 31 01.2 -1.7
comp=Z,49nm,0.5s,SNR=19
**BSD Bornholm Skovb** 39.30 326 *i* P **P** 03 31 01.3 -1.6
BSD pmax pmax
comp=Z,13nm,0.4s
**BSD Bornholm Skovb** 39.30 326 *i* P **P** 03 31 01.3 -1.6
comp=Z,13nm,0.4s
**TUE Stuetta** 39.40 311 *e*P **P** 03 31 02.5 -1.7
comp=Z,11nm,0.9s
**TUE Stuetta** 39.40 311 *e*P **P** 03 31 02.5 -1.7
comp=Z,11nm,0.9s
**RGN Rugen** 39.84 324 *e*P **P** 03 31 08.3 +0.9
comp=Z,245nm,1.1s
**RGN Rugen** 39.84 324 *e*P **P** 03 31 08.3 +0.9
comp=Z,245nm,1.1s
**STU Stuttgart** 40.10 315 *e*P **P** 03 31 09.0 -0.7
STU pmax pmax
comp=Z,10.0nm,0.8s
**STU Stuttgart** 40.10 315 *e*P **P** 03 31 09.0 -0.7
comp=Z,10nm,0.8s
**STU Stuttgart** 40.10 315 *e*P **P** 03 31 09.0 -0.7
comp=Z,10nm,0.8s
**GTA Gaotai** 40.45 60 P **P** 03 31 13.4 +0.5
GTA pP pP 03 31 17.9 -1.9
GTA sP sP 03 31 20.4 -2.1
GTA S **S** **03 37 22.2 +1.9**
GTA sS sS 03 37 30.2 -1.5
GTA SS **SS** **03 40 16.6 -3.2**
GTA pmax pmax
comp=Z,13nm,1.2s
GTA pmax pmax
comp=Z,140nm,5.5s
GTA LR LR
comp=Z,530nm,15.2s
GTA LR LR
comp=Z,550nm,14.7s
GTA LR LR
comp=Z,610nm,14.3s
**BFO Black Forest** 40.53 314 *e*P **P** 03 31 13.6 +0.3
BFO pmax pmax
comp=Z,20nm,1.4s
**BFO Black Forest** 40.53 314 *e*P **P** 03 31 13.6 +0.3
comp=Z,20nm,1.4s
**BFO Black Forest** 40.53 314 *e*P **P** 03 31 13.6 +0.3
comp=Z,20nm,1.4s
**SENIN Lac Senin/Sane** 40.76 310 *e*P **P** 03 31 14.4 -1.1
comp=Z,64nm,2.0s
**SENIN Lac Senin/Sane** 40.76 310 *e*P **P** 03 31 14.4 -1.1
comp=Z,64nm,2.0s
**BNI Bardonecchia** 40.95 308 *e*P **P** 03 31 15.9 -1.0
BNI pmax pmax
comp=Z,16nm,1.0s
**BNI Bardonecchia** 40.95 308 *e*P **P** 03 31 15.9 -1.0
comp=Z,16nm,1.0s
**BNI Bardonecchia** 40.95 308 *e*P **P** 03 31 15.9 -1.0
comp=Z,16nm,1.0s
**ECH Echery** 41.26 313 *e*P **P** 03 31 17.5 -1.8
ECH pmax pmax
comp=Z,14nm,0.9s
**ECH Echery** 41.26 313 *e*P **P** 03 31 17.5 -1.8
comp=Z,14nm,0.9s
**ECH Echery** 41.26 313 *e*P **P** 03 31 17.5 -1.8
comp=Z,14nm,0.9s
**WLF Walferdange** 42.26 315 P **P** 03 31 27.5 +0.1
comp=Z,37nm,1.9s
**WLF Walferdange** 42.26 315 *e*P **P** 03 31 27.4 0.0
WLF pmax pmax
comp=Z,133nm,1.7s
**WLF Walferdange** 42.26 315 *e*P **P** 03 31 27.4 0.0
comp=Z,133nm,1.7s
**WLF Walferdange** 42.26 315 *e*P **P** 03 31 27.4 0.0
comp=Z,133nm,1.7s
**HFS Hagfors** 42.47 332 P **P** 03 31 27.8 -1.2
comp=Z,7.1nm,0.4s,baz=120,slow=8.5,SNR=26
**HFS Hagfors** 42.47 332 P **P** 03 31 27.8 -1.2
**HFS Hagfors** 42.47 332 P **P** 03 31 27.8 -1.2
**SSB Saint Sauveur** 42.47 308 *e*P **P** 03 31 29.2 -0.1
SSB pmax pmax
comp=Z,56nm,2.0s
**SSB Saint Sauveur** 42.47 308 *e*P **P** 03 31 29.2 -0.1
comp=Z,56nm,2.0s
**SSB Saint Sauveur** 42.47 308 *e*P **P** 03 31 29.2 -0.1
comp=Z,56nm,2.0s
**CHTO Chiang Mai** 42.77 91 P P 03 31 36.8 +4.8
comp=Z,54nm,1.6s
**CHTO Chiang Mai** 42.77 91 *e*P **P** 03 31 31.8 -0.2
CHTO pmax pmax
comp=Z,32nm,1.6s
**CHTO Chiang Mai** 42.77 91 *e*P **P** 03 31 31.8 -0.2
comp=Z,32nm,1.6s
**CHTO Chiang Mai** 42.77 91 *e*P **P** 03 31 31.8 -0.2
comp=Z,32nm,1.6s
**CMMT Chiang Mai** 42.77 91 P **P** 03 31 36.8 +4.8
comp=Z,12nm,1.5s
**CMAR Chiang Mai Arr** 42.89 92 P **P** 03 31 33.1 +0.1
comp=Z,1.5nm,0.4s,baz=303,slow=8.4,SNR=4.1
CMAR LR LR 03 52 20.7
comp=Z,132nm,19.6s,baz=284,slow=40
**CMAR Chiang Mai Arr** 42.89 92 P **P** 03 31 33.1 +0.1
CMAR pmax pmax
comp=Z,1.0nm,0.4s
CMAR MLR MLR
comp=Z,132nm,19.6s
**CMAR Chiang Mai Arr** 42.89 92 P **P** 03 31 33.1 +0.1
**CMAR Chiang Mai Arr** 42.89 92 P **P** 03 31 33.1 +0.1
**BCLA Clavier** 42.98 316 P **P** 03 31 34.9 +1.6
**TAM Tamanrasset** 43.20 275 *e*P **P** 03 31 36.4 +0.8
TAM pmax pmax
comp=Z,14nm,1.0s
**TAM Tamanrasset** 43.20 275 *e*P **P** 03 31 36.4 +0.8
comp=Z,14nm,1.0s
**TAM Tamanrasset** 43.20 275 *e*P **P** 03 31 36.4 +0.8
comp=Z,14nm,1.0s
**MOY Mondy** 43.29 42 *e*P **P** 03 31 37.2 +1.3
MOY pmax pmax
comp=Z,36nm,2.1s
**DOU Dourbes** 43.34 315 P **P** 03 31 38.3 +2.1
**LZH Lanzhou** 43.65 65 *e*P **P** 03 31 39.9 +0.8
LZH pP pP 03 31 44.2 -1.8
LZH sP sP 03 31 46.7 -2.1
LZH PcP **PcP** **03 33 28.5 +2.3**
LZH sS sS 03 38 16.5 -2.6
LZH SS **SS** **03 41 14.0 -9.0**
LZH pmax pmax
comp=Z,24nm,1.3s
LZH pmax pmax
comp=Z,88nm,4.3s
LZH LR LR
comp=Z,740nm,13.5s
LZH LR LR
comp=Z,580nm,15.0s
LZH LR LR
comp=Z,740nm,16.0s
**SUKH Sukhothai** 43.85 93 P **P** 03 31 44.8 +4.1
comp=Z,3.5nm,0.9s
**NB2 NORSAR Subarra** 43.99 332 P **P** 03 31 39.2 -2.1
comp=Z,8.1nm,0.8s,baz=121,slow=8.6
**NB2 NORSAR Subarra** 43.99 332 P **P** 03 31 39.2 -2.1
baz=121,slow=8.6
**NB2 NORSAR Subarra** 43.99 332 P **P** 03 31 39.2 -2.1
comp=Z,8.1nm,0.8s,SNR=2.8
**NOA NORSAR Array B** 43.99 332 P **P** 03 31 39.6 -1.7
baz=121,slow=8.1,SNR=12
NOA LR LR 03 51 55.4
comp=Z,463nm,19.7s,baz=125,slow=39
**NOA NORSAR Array B** 43.99 332 P **P** 03 31 39.6 -1.7
**NOA NORSAR Array B** 43.99 332 P **P** 03 31 39.6 -1.7
**PHRA Phrae** 44.02 91 P P 03 31 49.5 +7.4
comp=Z,23nm,2.3s
**CD2 Chengdu** 44.09 73 *e*P **P** 03 31 42.4 -0.2
CD2 pmax pmax
comp=Z,10.0nm,0.8s
**KMI Kunming** 44.32 81 P **P** 03 31 45.3 +0.6
KMI pP pP 03 31 47.8 -3.8
KMI sP sP 03 31 49.6 -4.8
KMI pmax pmax
comp=Z,16nm,0.8s
KMI LR LR
comp=Z,500nm,15.9s
KMI LR LR
comp=Z,280nm,13.7s
KMI LR LR
comp=Z,290nm,19.7s
**ZAK Zakamensk** 44.38 45 *e*P **P** 03 31 44.0 -0.7
ZAK pmax pmax
comp=Z,5.0nm,1.2s
**UTHA Uthaitani** 44.40 95 P P 03 31 50.2 +5.1
comp=Z,5.3nm,1.0s
**UTTA Uttaradit** 44.58 92 P **P** 03 31 50.5 +4.0
comp=Z,4.3nm,1.0s
**HEF Hetta** 44.84 345 *e*P **P** 03 31 47.0 -0.9
**HEF Hetta** 44.84 345 *e*P **P** 03 31 47.0 -0.9
SNR=26
**TLY Talaya** 44.89 43 *e*P **P** 03 31 52.3 +3.7
TLY pmax pmax
comp=Z,14nm,1.4s
TLY MLR MLR
comp=Z,2µm,15.0s
**TLY Talaya** 44.89 43 *e*P **P** 03 31 49.3 +0.7
comp=Z,22nm,1.5s
**TLY Talaya** 44.89 43 *e*P **P** 03 31 49.3 +0.7
comp=Z,22nm,1.5s
**KEV Kevo** 45.23 348 *e*P **P** 03 31 51.7 +0.7
KEV pmax pmax
comp=Z,217nm,2.0s
**KEV Kevo** 45.23 348 *e*P **P** 03 31 51.7 +0.7
comp=Z,217nm,2.0s
**KEV Kevo** 45.23 348 *e*P **P** 03 31 51.7 +0.7
comp=Z,217nm,2.0s
**ARE0 ARCESS Array S** 45.34 347 *e*P **P** 03 31 50.3 -1.6
**ARE0 ARCESS Array S** 45.34 347 *e*P **P** 03 31 50.3 -1.6
SNR=26
**ARCES ARCESS Array B** 45.34 347 P **P** 03 31 50.3 -1.6
comp=Z,7.4nm,0.8s,baz=148,slow=8.2,SNR=44
ARCES PcP **PcP** 03 33 32.4 +1.3
comp=Z,6.8nm,0.8s,baz=5.0,slow=2.8,SNR=4.0
ARCES LR LR 03 51 54.0
comp=Z,442nm,19.1s,baz=146,slow=38
**ARCES ARCESS Array B** 45.34 347 *e*P **P** 03 31 52.5 +0.6
**ARCES ARCESS Array B** 45.34 347 PcP **PcP** 03 33 32.4 +1.3
**ARCES ARCESS Array B** 45.34 347 *e*P **P** 03 31 52.5 +0.6
ARCES PcP **PcP** 03 33 32.4 +1.3
**PBKT Sadao Pong** 45.37 93 P **P** 03 31 57.5 +4.7
comp=Z,16nm,0.9s
**KTK1 Kautokeino** 45.41 345 *e*P **P** 03 31 51.2 -1.2
**KTK1 Kautokeino** 45.41 345 *e*P **P** 03 31 51.2 -1.2
SNR=26
**KIF Kilpisjarvi** 45.97 344 *e*P **P** 03 31 55.9 -1.0
**KIF Kilpisjarvi** 45.97 344 *e*P **P** 03 31 55.8 -1.0
SNR=26
**SONM Songino Array** 45.97 49 P **P** 03 31 57.3 -0.1
comp=Z,4.3nm,1.0s,baz=257,slow=6.7,SNR=13
SONM LR LR 03 53 42.4
comp=Z,924nm,18.8s,baz=256,slow=40
**SONM Songino Array** 45.97 49 P **P** 03 31 57.3 -0.1
**SONM Songino Array** 45.97 49 P **P** 03 31 57.3 -0.1
**SONA1 Songino Array** 45.98 49 *e*P **P** 03 31 57.5 +0.1
**SONA1 Songino Array** 45.98 49 *e*P **P** 03 31 57.5 +0.1
**ABPO Ambohimpanom** 46.28 188 *e*P **P** 03 31 58.3 -1.8
ABPO pmax pmax
comp=Z,10.0nm,0.9s
**ABPO Ambohimpanom** 46.28 188 *e*P **P** 03 31 58.3 -1.8
comp=Z,9.5nm,0.9s
**ABPO Ambohimpanom** 46.28 188 *e*P **P** 03 31 58.3 -1.8
comp=Z,9.5nm,0.9s
**STOK Stokkvaagen** 46.32 339 *e*P **P** 03 32 00.1 +0.5
**STOK Stokkvaagen** 46.32 339 *e*P **P** 03 32 00.1 +0.5
SNR=25
**CART Cartagena** 46.34 297 *e*P **P** 03 31 59.8 -0.5
comp=Z,9.3nm,0.9s
**CART Cartagena** 46.34 297 *e*P **P** 03 31 59.8 -0.5
comp=Z,9.3nm,0.9s
**ULN Ulaanbaatar** 46.42 49 *de*P **P** 03 32 00.8 -0.1
ULN pmax pmax
comp=Z,3.0nm,0.9s
**ULN Ulaanbaatar** 46.42 49 *e*P **P** 03 31 59.7 -1.2
comp=Z,9.2nm,1.1s
**ULN Ulaanbaatar** 46.42 49 *e*P **P** 03 31 59.6 -1.2
comp=Z,9.2nm,1.1s
**NAYO Nanayok** 46.56 96 P **P** 03 32 05.9 +3.7
comp=Z,28nm,0.8s
**TRO Tromso** 46.88 344 *e*P **P** 03 32 06.8 +2.8
**TRO Tromso** 46.88 344 *e*P **P** 03 32 06.8 +2.8
SNR=25
**SRAK Srakaew** 47.32 96 P P 03 32 15.8 +7.6
comp=Z,83nm,1.0s
**MRIV Mauritius Mete** 47.39 174 *e*P **P** 03 32 08.4 -0.1
**MRIV Mauritius Mete** 47.39 174 *e*P **P** 03 32 08.4 -0.1
**XAN Xi'an** 47.98 68 P **P** 03 32 13.0 -0.2
XAN sP pP 03 32 19.8 -0.4
XAN pmax pmax
comp=Z,17nm,1.4s
XAN pmax pmax
comp=Z,250nm,6.5s
**TPTI** 48.30 112 P P 03 32 21.4 +5.6
**ES19 SONSECA Array** 48.48 300 *e*P **P** 03 32 16.5 -0.5
**ES19 SONSECA Array** 48.48 300 *e*P **P** 03 32 16.6 -0.5
**ESDC Sonseca Array** 48.53 300 P **P** 03 32 16.7 -0.7
comp=Z,5.9nm,0.8s,baz=67,slow=7.1,SNR=30
ESDC LR LR 03 54 50.2
comp=Z,94nm,20.8s,baz=125,slow=39
**ESDC Sonseca Array** 48.53 300 P **P** 03 32 16.7 -0.7
**ESDC Sonseca Array** 48.53 300 P **P** 03 32 16.7 -0.7
**ESLA Sonseca Array** 48.53 300 *e*P **P** 03 32 19.2 +1.8
comp=Z,8.0nm,0.8s
**ESLA Sonseca Array** 48.53 300 *e*P **P** 03 32 19.2 +1.8
comp=Z,8.0nm,0.8s
**LSZ Lusaka** 48.67 213 *e*P **P** 03 32 19.7 +1.0
LSZ pmax pmax
comp=Z,36nm,1.8s
**LSZ Lusaka** 48.67 213 *e*P **P** 03 32 19.7 +1.0
comp=Z,36nm,1.8s
**LSZ Lusaka** 48.67 213 *e*P **P** 03 32 19.7 +1.0
comp=Z,36nm,1.8s
**PAB San Pablo** 48.84 300 *e*P **P** 03 32 19.3 -0.5
PAB pmax pmax
comp=Z,9.0nm,0.8s
**PAB San Pablo** 48.84 300 *e*P **P** 03 32 19.3 -0.5
comp=Z,9.4nm,0.8s
**PAB San Pablo** 48.84 300 *e*P **P** 03 32 19.3 -0.5
comp=Z,9.4nm,0.8s
**HHC Hu-ho-hao-te** 49.45 58 *e*P **P** 03 32 25.2 +0.7
HHC PP **PP** **03 34 19.8 +1.2**
HHC S **S** **03 39 32.1 +1.5**
HHC SS **SS** **03 42 59.6 -2.8**
HHC pmax pmax
comp=Z,25nm,0.4s
HHC LR LR
comp=Z,280nm,16.0s
**GSI Gunungsitoli** 49.73 114 P P 03 32 32.3 +5.5
**GSI Gunungsitoli** 49.73 114 *e*P **P** 03 32 26.6 -0.2
comp=Z,55nm,1.6s
**GSI Gunungsitoli** 49.73 114 *e*P **P** 03 32 26.6 -0.2
comp=Z,55nm,1.6s
**TOA0 Torodi Ar. Sit** 49.96 264 *e*P **P** 03 32 28.0 -0.5
comp=Z,13nm,0.9s
**TOA0 Torodi Ar. Sit** 49.96 264 *e*P **P** 03 32 28.0 -0.5
comp=Z,13nm,0.9s
**TORD Torodi Ar. Bea** 49.96 264 P **P** 03 32 27.7 -0.8
comp=Z,12nm,1.0s,baz=59,slow=7.2,SNR=50
**TORD Torodi Ar. Bea** 49.96 264 P **P** 03 32 27.7 -0.8
**TORD Torodi Ar. Bea** 49.96 264 P **P** 03 32 27.7 -0.8
**PSI Prapat** 50.00 111 *e*P **P** 03 32 29.6 +0.6
PSI pmax pmax
comp=Z,7.0nm,0.7s
**PSI Prapat** 50.00 111 *e*P **P** 03 32 29.6 +0.6
comp=Z,6.7nm,0.7s
**KULM Kulim** 50.13 107 *e*P **P** 03 32 29.0 -0.8
comp=Z,12nm,1.0s
**KULM Kulim** 50.13 107 *e*P **P** 03 32 29.0 -0.8
comp=Z,12nm,1.0s
**PBRG Braganca** 50.52 303 *e*P **P** 03 32 31.1 -1.4
comp=Z,29nm,2.4s
**MVO Moncorvo** 50.78 302 *e*P **P** 03 32 34.5 0.0
comp=Z,27nm,0.9s
**IPM Ipoh** 50.87 108 *e*P **P** 03 32 35.2 -0.2
comp=Z,12nm,0.9s
**IPM Ipoh** 50.87 108 *e*P **P** 03 32 35.2 -0.2
comp=Z,12nm,0.9s
**PBAR Barrancos** 51.05 298 *e*P **P** 03 32 35.9 -0.6
comp=Z,42nm,1.2s
**PMRV Marv??o** 51.20 300 *e*P **P** 03 32 37.9 +0.3
comp=Z,16nm,1.4s
**PCBR Castelo Branco** 51.22 301 *e*P **P** 03 32 38.3 +0.6
comp=Z,27nm,1.6s
**MTE Manteigas** 51.23 301 *e*P **P** 03 32 37.9 +0.1
comp=Z,72nm,2.0s
**MTE Manteigas** 51.23 301 *e*P **P** 03 32 37.9 +0.1
comp=Z,72nm,2.0s
**MTE Manteigas** 51.23 301 *e*P **P** 03 32 37.2 -0.7
comp=Z,32nm,1.7s
**PVRL Vila Real** 51.29 302 *e*P **P** 03 32 38.4 +0.1
comp=Z,33nm,2.0s
**POLO Lamas de Olo** 51.34 303 *e*P **P** 03 32 38.8 +0.1
comp=Z,18nm,1.4s
**PESTR Estremoz** 51.41 299 *e*P **P** 03 32 38.5 -0.7
comp=Z,13nm,1.9s
**PVIS Viseu** 51.47 302 *e*P **P** 03 32 40.0 +0.4
comp=Z,28nm,2.3s
**PGAV Gavieira, Arco** 51.65 303 *e*P **P** 03 32 43.4 +2.3
comp=Z,42nm,1.7s
**PBEJ Beja** 51.72 298 *e*P **P** 03 32 41.2 -0.3
comp=Z,16nm,1.4s
**EVO Evora** 51.77 299 *e*P **P** 03 32 41.6 -0.3
comp=Z,19nm,2.1s
**PBDV Barranco-do-Ve** 51.87 297 *e*P **P** 03 32 41.9 -0.7
comp=Z,28nm,1.3s
**PCVE Castro Verde** 51.90 298 *e*P **P** 03 32 44.2 +1.3
comp=Z,16nm,1.2s
**COI Coimbra** 51.90 301 *e*P **P** 03 32 45.0 +2.2
comp=Z,35nm,1.1s
**PTOM Tomar** 51.96 300 *e*P **P** 03 32 43.3 0.0
comp=Z,36nm,1.2s
**BOD Bodaibo** 51.97 36 *e*P **P** 03 32 42.2 -0.8
BOD pmax pmax
comp=Z,42nm,2.0s
**PCAS Casmilo, Conde** 51.98 301 *e*P **P** 03 32 45.6 +2.1
**PNCL Nicolau / Gran** 52.23 299 *e*P **P** 03 32 46.0 +0.8
comp=Z,23nm,1.6s
**QIZ Qiongzhong** 52.40 86 P **P** 03 32 46.4 -0.4
QIZ sP **sP** **03 33 00.4 +3.8**
QIZ S **S** **03 40 13.8 +2.0**
QIZ ScS **ScS** **03 42 29.1 -6.8**
**PTEO Sao Teotonio** 52.45 298 *e*P **P** 03 32 48.9 +2.0
comp=Z,45nm,1.5s
**PFVI Vila Bisbo** 52.59 297 *e*P **P** 03 32 48.1 +0.1
comp=Z,22nm,0.9s
**PFVI Vila Bisbo** 52.59 297 *e*P **P** 03 32 48.1 +0.1
comp=Z,22nm,0.9s
**PFVI Vila Bisbo** 52.59 297 *e*P **P** 03 32 47.2 -0.8
comp=Z,42nm,1.5s
**WHN Wuhan** 53.12 71 P **P** 03 32 54.7 +2.7
**SPA0 Spitsbergen Ar** 53.72 351 *e*P **P** 03 32 56.1 +0.4
**SPA0 Spitsbergen Ar** 53.72 351 *e*P **P** 03 32 56.1 +0.4
**TIA Tai'an** 54.30 63 ⇑P **P** 03 33 00.9 +0.3
TIA pmax pmax
comp=Z,10.0nm,1.3s
**KOWA Kowa** 54.50 269 *e*P **P** 03 33 02.1 -0.2
comp=Z,11nm,0.7s
**KOWA Kowa** 54.50 269 *e*P **P** 03 33 02.1 -0.2
comp=Z,11nm,0.7s
**MYKOM Kota Tinggi** 54.68 109 *e*P **P** 03 33 03.0 -0.6
**MYKOM Kota Tinggi** 54.68 109 *e*P **P** 03 33 03.0 -0.6
**NJ2 Nanjing** 56.54 68 *e*P **P** 03 33 16.6 -0.1
NJ2 pmax pmax
comp=Z,16nm,0.6s
**LBTB Lobatse** 58.31 210 *e*P **P** 03 33 29.8 +0.6
**LBTB Lobatse** 58.31 210 *e*P **P** 03 33 29.8 +0.6
**LBTB Lobatse** 58.31 210 *e*P **P** 03 33 29.8 +0.6
**DBIC Dimbokro** 58.59 261 P **P** 03 33 31.1 -0.4
comp=Z,16nm,0.7s,baz=41,slow=8.2,SNR=20
**DBIC Dimbokro** 58.59 261 *e*P **P** 03 33 31.3 -0.1
**DBIC Dimbokro** 58.59 261 *e*P **P** 03 33 31.3 -0.1
**KIC Kon Boka** 58.63 260 *e*P **P** 03 33 31.2 -0.5
comp=Z,39nm,0.9s
**TIC Toumodi** 58.75 261 *e*P **P** 03 33 32.5 0.0
**LIC Lamto** 58.95 260 *e*P **P** 03 33 33.3 -0.6
comp=Z,78nm,0.9s
**CN2 Changchun** 59.36 53 *e*P **P** 03 33 37.2 +0.9
**DAG Danmarks Havn** 59.59 345 *i* P **P** 03 33 36.0 -1.4
DAG pmax pmax
comp=Z,4.0nm,0.7s
**DAG Danmarks Havn** 59.59 345 *i* P **P** 03 33 36.0 -1.4
comp=Z,4.2nm,0.7s
**TIXI Tiksi** 59.96 21⇑ *e*P **P** 03 33 39.4 -0.6
TIXI pmax pmax
comp=Z,3.0nm,0.9s
**TIXI Tiksi** 59.96 21 *e*P **P** 03 33 39.0 -1.0
**TIXI Tiksi** 59.96 21 *e*P **P** 03 33 39.0 -1.0
**YAK Yakutsk** 60.09 32 *e*P **P** 03 33 37.8 -3.2
YAK pmax pmax
comp=Z,13nm,1.4s
YAK pmax pmax
comp=N,4.0nm,1.1s
YAK pmax pmax
comp=E,8.0nm,1.3s
**BOSA Boshof** 61.60 208 P **P** 03 33 52.5 +0.7
comp=E,9.8nm,0.8s,baz=16,slow=6.5,SNR=11
BOSA LR LR 04 02 26.6
comp=E,366nm,18.0s,baz=22,slow=38
**BOSA Boshof** 61.60 208 *e*P **P** 03 33 51.1 -0.7
**BOSA Boshof** 61.60 208 *e*P **P** 03 33 51.1 -0.7
**BOSA Boshof** 61.60 208 *e*P **P** 03 33 51.1 -0.7
**KSAR Wonju Array Be** 62.49 60 P **P** 03 33 56.5 -1.2
**KSAR Wonju Array Be** 62.49 60 P **P** 03 33 56.5 -1.2
**KSAR Wonju Array Be** 62.49 60 P **P** 03 33 56.5 -1.2
**KSRS Korea Array** 62.52 60 P **P** 03 33 56.5 -1.4
comp=E,4.2nm,0.8s,baz=271,slow=6.2,SNR=6.5
KSRS LR LR 04 02 54.4
comp=E,97nm,21.9s,baz=290,slow=38
**KLR Kul'dur** 62.70 46 P **P** 03 33 57.8 -1.2
comp=E,0.3nm,0.9s,baz=265,slow=5.8,SNR=8.2
KLR LR LR 04 03 32.3
comp=E,43nm,18.3s,baz=283,slow=38
**KLR Kul'dur** 62.70 46 P **P** 03 33 57.8 -1.2
**KLR Kul'dur** 62.70 46 P **P** 03 33 57.8 -1.2
**USRK Ussuriysk Ar.** 63.91 52 P **P** 03 34 05.5 -1.5
comp=E,6.5nm,0.9s,baz=261,slow=7.5,SNR=7.4
USRK LR LR 04 03 46.4
comp=E,298nm,19.0s,baz=272,slow=38
**SUMG Summit** 64.80 341 *e*P **P** 03 34 12.9 0.0
**SUMG Summit** 64.80 341 *i* P **P** 03 34 13.1 +0.2
comp=E,24nm,1.1s
**SUMG Summit** 64.80 341 *e*P **P** 03 34 12.9 0.0
**SUMG Summit** 64.80 341 *e*P **P** 03 34 12.9 0.0
**INU Inuyama** 70.14 60 *e*P **P** 03 34 48.6 +1.8
**INU Inuyama** 70.14 60 *e*P **P** 03 34 48.6 +1.8
**SEY Seymchan** 70.20 29 P **P** 03 34 46.6 0.0
comp=E,19nm,1.0s,baz=276,slow=5.3,SNR=22
**SEY Seymchan** 70.20 29‖ *e*P **P** 03 34 49.1 +2.5
**SEY Seymchan** 70.20 29 P **P** 03 34 46.6 0.0
**SEY Seymchan** 70.20 29 P **P** 03 34 46.6 0.0
**SFJD Kangerlussuaq** 70.46 336 *e*P **P** 03 34 47.4 -0.7
SFJD pmax pmax
comp=Z,36nm,1.2s
**SFJD Kangerlussuaq** 70.46 336 *i* P **P** 03 34 47.4 -0.7
comp=Z,36nm,1.2s
**MAJO Matsushiro** 70.65 58 *e*P **P** 03 34 50.0 +0.1
MAJO pmax pmax
comp=Z,13nm,1.1s
**MAJO Matsushiro** 70.65 58 *e*P **P** 03 34 50.0 +0.1
comp=Z,13nm,1.1s
**MAJO Matsushiro** 70.65 58 *e*P **P** 03 34 50.0 +0.1
comp=Z,13nm,1.1s
**MJAR Matsushiro Arr** 70.65 58 LR LR 04 09 50.0
comp=Z,250nm,18.9s,baz=340,slow=39
**SHEL Horse Pasture** 71.43 240 *i* P **P** 03 34 58.0 +3.1
**SHEL Horse Pasture** 71.43 240 *e*P **P** 03 34 58.1 +3.3
**PETK Petropavlovsk-** 76.84 37 P **P** 03 35 25.6 -0.3
comp=Z,6.9nm,1.0s,baz=300,slow=3.3,SNR=3.7

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PETK | | | | LR | LR | 04 13 04.8 | |
| | comp=Z,463nm,19.5s,baz=299,slow=39 | | | | | | |
| PETK | Petropavlovsk- | 76.84 | 37 | P | P | 03 35 25.6 | -0.3 |
| PETK | Petropavlovsk- | 76.84 | 37 | P | P | 03 35 25.6 | -0.3 |
| SCHQ | Schefferville | 83.51 | 330 | P | P | 03 36 01.3 | -0.6 |
| | comp=Z,11nm,0.8s,baz=69,slow=4.0,SNR=8.3 | | | | | | |
| SCHQ | Schefferville | 83.51 | 330 | P | P | 03 36 01.3 | -0.6 |
| SCHQ | Schefferville | 83.51 | 330 | P | P | 03 36 01.3 | -0.6 |
| INK | Inuvik | 84.67 | 2 | eP | P | 03 36 07.0 | -0.4 |
| INK | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.1s | | | | | | |
| INK | Inuvik | 84.67 | 2 | eP | P | 03 36 07.0 | -0.4 |
| | comp=Z,6.4nm,1.1s | | | | | | |
| INK | Inuvik | 84.67 | 2 | eP | P | 03 36 07.0 | -0.4 |
| | comp=Z,6.4nm,1.1s | | | | | | |
| COLA | College | 86.80 | 9 | eP | P | 03 36 18.0 | -0.1 |
| COLA | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.0s | | | | | | |
| COLA | College | 86.80 | 9 | eP | P | 03 36 18.0 | -0.1 |
| | comp=Z,5.8nm,1.0s | | | | | | |
| COLA | College | 86.80 | 9 | eP | P | 03 36 18.0 | -0.1 |
| | comp=Z,5.8nm,1.0s | | | | | | |
| ILAR | Eielson Array | 87.02 | 8 | P | P | 03 36 18.1 | -1.2 |
| | comp=Z,2.2nm,0.7s,baz=322,slow=3.8,SNR=20 | | | | | | |
| ILAR | | | | LR | LR | 04 21 05.9 | |
| | comp=Z,78nm,18.9s,baz=326,slow=40 | | | | | | |
| ILAR | Eielson Array | 87.02 | 8 | P | P | 03 36 18.0 | -1.2 |
| ILAR | Eielson Array | 87.02 | 8 | P | P | 03 36 18.1 | -1.2 |
| BPAW | Bear Paw Mtn. | 87.06 | 10 | eP | P | 03 36 18.8 | -0.6 |
| | comp=Z,3.9nm,1.0s | | | | | | |
| BPAW | Bear Paw Mtn. | 87.06 | 10 | eP | P | 03 36 18.8 | -0.6 |
| | comp=Z,3.9nm,1.0s | | | | | | |
| KTH | Kantishna Hill | 87.58 | 11 | eP | P | 03 36 21.2 | -0.8 |
| | comp=Z,7.0nm,1.0s | | | | | | |
| KTH | Kantishna Hill | 87.58 | 11 | eP | P | 03 36 21.2 | -0.8 |
| | comp=Z,7.0nm,1.0s | | | | | | |
| EGAK | Eagle | 87.66 | 6 | eP | P | 03 36 21.9 | -0.4 |
| | comp=Z,8.0nm,0.9s | | | | | | |
| EGAK | Eagle | 87.66 | 6 | eP | P | 03 36 21.9 | -0.4 |
| | comp=Z,8.0nm,0.9s | | | | | | |
| MCK | McKinley | 87.72 | 10 | eP | P | 03 36 21.8 | -0.9 |
| MCK | | | | pmax | pmax | | |
| | comp=Z,12nm,1.0s | | | | | | |
| MCK | McKinley | 87.72 | 10 | eP | P | 03 36 21.8 | -0.9 |
| | comp=Z,12nm,1.0s | | | | | | |
| MCK | McKinley | 87.72 | 10 | eP | P | 03 36 21.8 | -0.9 |
| | comp=Z,12nm,1.0s | | | | | | |
| DAWY | Dawson | 88.52 | 5 | eP | P | 03 36 26.5 | +0.1 |
| | comp=Z,3.9nm,0.9s | | | | | | |
| DAWY | Dawson | 88.52 | 5 | eP | P | 03 36 26.6 | +0.1 |
| | comp=Z,3.9nm,0.9s | | | | | | |
| YKA | Yellowknife Ar | 90.10 | 354 | P | P | 03 36 33.4 | -0.4 |
| | comp=Z,4.1nm,0.6s,baz=4.6,slow=4.8,SNR=27 | | | | | | |
| YKA | | | | LR | LR | 04 23 38.7 | |
| | comp=Z,11nm,18.9s,baz=0.0,slow=40 | | | | | | |
| YKA | Yellowknife Ar | 90.10 | 354 | P | P | 03 36 33.4 | -0.4 |
| YKA | Yellowknife Ar | 90.10 | 354 | P | P | 03 36 33.4 | -0.4 |
| WRA | Warramunga Arr | 91.47 | 112 | P | P | 03 36 40.0 | -0.8 |
| | comp=Z,2.5nm,0.7s,baz=312,slow=4.0,SNR=13 | | | | | | |
| WRA | Warramunga Arr | 91.47 | 112 | i P | P | 03 36 40.7 | -0.2 |
| WRA | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.7s | | | | | | |
| WRA | Warramunga Arr | 91.47 | 112 | P | P | 03 36 40.0 | -0.8 |
| WRA | Warramunga Arr | 91.47 | 112 | P | P | 03 36 40.0 | -0.8 |
| WRAB | Tennant Creek | 91.47 | 112⇑ | eP | P | 03 36 40.9 | 0.0 |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.8s | | | | | | |
| WRAB | Tennant Creek | 91.47 | 112 | eP | P | 03 36 40.0 | -0.9 |
| | comp=Z,4.5nm,0.8s | | | | | | |
| WRAB | Tennant Creek | 91.47 | 112 | eP | P | 03 36 40.0 | -0.9 |
| | comp=Z,4.5nm,0.8s | | | | | | |
| KDAK | Kodiak Island | 92.64 | 13 | i P | P | 03 36 49.3 | +3.7 |
| ASAR | Alice Springs | 92.87 | 115 | P | P | 03 36 46.6 | -0.7 |
| | comp=Z,1.8nm,0.7s,baz=304,slow=4.8,SNR=11 | | | | | | |
| ASAR | | | | LR | LR | 04 20 46.5 | |
| | comp=Z,22nm,19.2s,baz=306,slow=37 | | | | | | |
| ASAR | Alice Springs | 92.87 | 115 | P | P | 03 36 46.7 | -0.7 |
| ASAR | Alice Springs | 92.87 | 115 | P | P | 03 36 46.6 | -0.7 |
| MAW | Mawson | 94.78 | 176 | LR | LR | 04 12 33.6 | |
| | comp=Z,308nm,21.2s,baz=58,slow=31 | | | | | | |
| SYO | Syowa Base | 96.42 | 185⇑ | epP | pP | 03 37 12.7 | +2.8 |
| ULM | Lac du Bonnet | 98.16 | 341 | LR | LR | 04 21 18.1 | |
| | comp=Z,115nm,20.6s,baz=332,slow=35 | | | | | | |
| CPUP | Villa Florida | 118.70 | 253 | PKP | PKPdf | 03 42 22.8 | +0.2 |
| | comp=Z,1.8nm,0.8s,baz=42,slow=4.0,SNR=2.9 | | | | | | |
| CPUP | Villa Florida | 118.70 | 253 | PKIKP | PKPdf | 03 42 22.8 | +0.2 |
| CPUP | Villa Florida | 118.70 | 253 | PKP | PKPdf | 03 42 22.8 | +0.2 |
| TXAR | Lajitas Array | 119.58 | 337 | PKP | PKPdf | 03 42 24.0 | -0.5 |
| | comp=Z,0.4nm,0.7s,baz=49,slow=1.4,SNR=5.5 | | | | | | |
| TXAR | Lajitas Array | 119.58 | 337 | PKIKP | PKPdf | 03 42 24.0 | -0.5 |
| TXAR | Lajitas Array | 119.58 | 337 | PKIKP | PKPdf | 03 42 24.0 | -0.5 |
| TXAR | Lajitas Array | 119.58 | 337 | PKP | PKPdf | 03 42 24.0 | -0.5 |
| LPAZ | La Paz | 124.82 | 268 | PKP | PKPdf | 03 42 36.9 | +1.4 |
| | comp=Z,0.8nm,0.7s,baz=273,slow=0.5,SNR=3.4 | | | | | | |
| LPAZ | La Paz | 124.82 | 268 | PKIKP | PKPdf | 03 42 36.8 | +1.4 |
| LPAZ | La Paz | 124.82 | 268 | PKP | PKPdf | 03 42 36.9 | +1.4 |

**SJA 09 03:26:49.0±0.9, 31°.85S×69°.52W, h105km±5km, ML4.0, MW2.5, San Juan Province**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RTLS | Leoncito | 0.20 | 75 | eP | Pn | 03 27 04.9 | +0.7 |
| RTLS | | | | eS | Sn | 03 27 17.2 | +1.6 |
| AUSP | Uspallata | 0.39 | 163 | eP | Pn | 03 27 05.8 | +0.7 |
| AUSP | | | | eS | Sn | 03 27 19.1 | +2.1 |
| RTCV | Cerro Valdivia | 0.83 | 91 | eP | Pn | 03 27 09.4 | +1.2 |
| RTCV | | | | eS | Sn | 03 27 24.1 | +1.4 |
| RTLL | Cerro Villicun | 1.03 | 60 | eP | Pn | 03 27 10.9 | +0.7 |
| RTLL | | | | eS | Sn | 03 27 27.7 | +1.5 |
| AMOG | MOGNA | 1.26 | 44 | IAML | | 03 27 13.6 | |
| | comp=Z,2μm,0.2s | | | | | | |
| AMOG | | | | eP | Pn | 03 27 13.6 | +0.8 |
| AMOG | | | | eS | Sn | 03 27 31.3 | +0.5 |
| ACAN | Cantantal | 2.02 | 103 | eP | Pn | 03 27 23.2 | +1.1 |
| ACAN | | | | eS | Sn | 03 27 48.5 | +1.1 |
| AGUA | GUANDACOL | 2.52 | 21 | eP | Pn | 03 27 30.2 | +1.6 |
| AGUA | | | | eS | Sn | 03 28 00.5 | +1.5 |

*IDC **09** 03:34:08.1±6.4, 27°.00N×53°.31E, h0km, mb3.7/4, mb1 3.8/4, mb1mx3.3/41, mbtmp3.7/4, Error ellipse: s-maj=128.1km s-min=48.4km az=116.0*
*ISCJB **09** 03:34:10.7±0.9, 27°.24N±0°.05×52°.97E±0°.10, h10km, mb3.8/3, Error ellipse: s-maj=12.7km s-min=7.8km az=179.6*
*TEH **09** 03:34:10.1, 27°.23N×53°.06E, h10km, ML3.4*
*CSEM **09** 03:34:14.0±0.9, 27°.38N×53°.24E, h2km, ML3.4, Error ellipse: s-maj=25.0km s-min=12.0km az=35.0*
**ISC 09 03:34:10.7±1.2, 27°.14N±0°.08×53°.16E±0°.07, h10km, n20, σ1s.49/21, mb3.8/3, Southern Iran**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GHIR | Ghir-Karzin | 1.15 | 352 | ePg | Pb | 03 34 31.0 | -1.8 |
| GHIR | | | | eSg | Sg | 03 34 45.0 | -2.9 |
| ISRV | Sarvestan | 2.23 | 359 | ePn | Pb | 03 34 50.7 | -0.7 |
| ISRV | | | | eAMB | AMB | 03 35 41.4 | |
| | comp=Z,2μm,0.4s | | | | | | |
| ISRV | Sarvestan | 2.23 | 359 | ePn | Pb | 03 34 50.7 | -0.7 |
| AHBU | AHRAM | 2.38 | 317 | ePn | Pb | 03 34 52.8 | -0.9 |
| BNDS | Bandar-Abbas | 2.69 | 84 | ePn | Pb | 03 34 57.3 | -1.8 |
| IPAR | Pars | 2.69 | 358 | ePn | Pb | 03 35 01.1 | +1.9 |
| IPAR | | | | eSg | Sg | 03 35 37.1 | -0.3 |
| IPAR | | | | eAMB | AMB | 03 35 45.8 | |
| | comp=N,2μm,0.4s | | | | | | |
| KRBR | Kerman | 4.25 | 47 | ePn | Pn | 03 35 17.0 | +1.2 |
| IMEH | Mehriz | 4.42 | 16 | ePn | Pn | 03 35 19.9 | +1.8 |
| IMEH | | | | eAMB | AMB | 03 36 14.5 | |
| | comp=Z,372nm,0.4s | | | | | | |
| IMEH | Mehriz | 4.42 | 16 | ePn | Pn | 03 35 19.9 | +1.8 |
| IRAM | Ramesheh | 4.70 | 352 | ePn | Pn | 03 35 21.8 | -0.2 |
| IRAM | | | | eAMB | AMB | 03 36 18.5 | |
| | comp=N,138nm,0.1s | | | | | | |
| IRAM | Ramesheh | 4.70 | 352 | ePn | Pn | 03 35 21.8 | -0.2 |
| ISAD | Sadrabad | 4.78 | 5 | ePn | Pn | 03 35 24.5 | +1.4 |
| ISAD | Sadrabad | 4.78 | 5 | ePn | Pn | 03 35 24.5 | +1.4 |
| IBAF | Bafgh | 4.91 | 25 | eAMB | AMB | 03 35 27.0 | |
| | comp=Z,354nm,0.1s | | | | | | |
| IBAF | | | | eAMB | AMB | 03 35 29.4 | |
| | comp=N,268nm,0.1s | | | | | | |
| ICHK | Chekchek | 5.20 | 12 | ePn | Pn | 03 35 29.6 | +0.8 |
| ICHK | | | | eAMB | AMB | 03 35 30.3 | |
| | comp=Z,633nm,0.3s | | | | | | |
| ICHK | Chekchek | 5.20 | 12 | ePn | Pn | 03 35 29.6 | +0.8 |
| BRTR | Keskin Array B | 20.52 | 313 | P | P | 03 38 50.0 | +0.7 |
| | comp=Z,0.8nm,0.6s,baz=136,slow=12,SNR=6.5 | | | | | | |
| FINES | FINESS Array B | 38.82 | 340 | P | P | 03 41 34.5 | -1.0 |
| | comp=Z,1.8nm,0.7s,baz=146,slow=10,SNR=6.0 | | | | | | |
| NOA | NORSAR Array B | 44.03 | 332 | P | P | 03 42 20.5 | +2.1 |
| | comp=Z,1.8nm,1.0s,baz=139,slow=6.5,SNR=3.3 | | | | | | |
| TORD | Torodi Ar. Bea | 49.96 | 264 | P | P | 03 43 04.9 | -0.4 |
| | comp=Z,0.6nm,0.9s,baz=58,slow=5.9,SNR=4.5 | | | | | | |

*CRAAG **09** 03:51:51.5, 36°.53N×1°.21E, Ml2.5*
*ISCJB **09** 03:51:52.8±0.6, 36°.94N±0°.04×1°.03E±0°.05, h10km, Error ellipse: s-maj=6.4km s-min=5.3km az=136.6*
*CSEM **09** 03:51:53.1±0.3, 36°.93N×1°.01E, h5km, ML1.9, Error ellipse: s-maj=10.5km s-min=6.2km az=59.0*
*MDD **09** 03:51:54.4±0.4, 36°.81N×1°.12E, h0km, mbLg1.9/4, Error ellipse: s-maj=4.2km s-min=3.3km az=169.0, PRXIMO*
**ISC 09 03:51:52.9±0.9, 36°.90N±0°.04×1°.06E±0°.04, h10km, n22, σ0s.87/34, Northern Algeria**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| EBNR | Beni Rached | 0.72 | 148 | P | Pn | 03 52 10.0 | +0.9 |
| EBNR | Beni Rached | 0.72 | 148 | P | Pn | 03 52 10.0 | +0.9 |
| ECHF | Ech Chlef | 0.78 | 163 | P | Pb | 03 52 08.1 | -0.4 |
| ECHF | Ech Chlef | 0.78 | 163 | P | Pb | 03 52 08.1 | -0.4 |
| ECHA | Ech Chlef | 0.79 | 161 | P | Pg | 03 52 08.1 | 0.0 |
| ECHA | Ech Chlef | 0.79 | 161 | P | Pg | 03 52 08.1 | 0.0 |
| EMUR | La Murta | 2.06 | 298 | P | Pn | 03 52 26.3 | -1.2 |
| | 0.5nm,0.1s,SNR=7.9 | | | | | | |
| EMUR | | | | S | Sn | 03 52 52.4 | -0.8 |
| | 1.7nm,0.4s,SNR=7.9 | | | | | | |
| EMUR | La Murta | 2.06 | 298 | P | Pn | 03 52 26.3 | -1.2 |
| | 0.5nm,0.1s,SNR=7.9 | | | | | | |
| EMUR | | | | S | Sn | 03 52 52.4 | -0.8 |
| | 1.7nm,0.4s,SNR=7.9 | | | | | | |
| EIBI | Ibiza | 2.13 | 6 | P | Pn | 03 52 29.1 | +0.5 |
| | 1.7nm,0.2s,SNR=7.9 | | | | | | |
| EIBI | | | | S | Sn | 03 52 54.9 | -0.2 |
| | 3.2nm,0.1s,SNR=6.6 | | | | | | |
| EIBI | Ibiza | 2.13 | 6 | P | Pn | 03 52 29.1 | +0.5 |
| | 1.7nm,0.2s,SNR=7.9 | | | | | | |
| EIBI | | | | S | Sn | 03 52 54.9 | -0.2 |
| | 3.2nm,0.1s,SNR=6.6 | | | | | | |
| ETOB | Tobarra | 2.70 | 311 | P | Pn | 03 52 36.9 | +0.5 |
| | 0.2nm,0.1s,SNR=8.8 | | | | | | |
| ETOB | | | | S | Sn | 03 53 09.8 | +0.6 |
| | 0.5nm,0.3s,SNR=7.9 | | | | | | |
| ETOB | Tobarra | 2.70 | 311 | P | Pn | 03 52 36.9 | +0.5 |
| | 0.2nm,0.1s,SNR=8.8 | | | | | | |
| ETOB | | | | S | Sn | 03 53 09.8 | +0.6 |
| | 0.5nm,0.3s,SNR=7.9 | | | | | | |
| SESP | Santiago Espad | 3.11 | 294 | P | Pn | 03 52 42.8 | +0.7 |
| | 0.9nm,0.1s,SNR=7.9 | | | | | | |
| SESP | | | | S | Sn | 03 53 20.2 | +0.8 |
| | 1.9nm,0.2s,SNR=7.9 | | | | | | |
| SESP | Santiago Espad | 3.11 | 294 | P | Pn | 03 52 42.8 | +0.7 |
| | 0.9nm,0.1s,SNR=7.9 | | | | | | |
| SESP | | | | S | Sn | 03 53 20.2 | +0.8 |
| | 1.9nm,0.2s,SNR=7.9 | | | | | | |
| ETOS | Mallorca | 3.18 | 25 | P | Pn | 03 52 42.3 | -0.7 |
| | 0.0nm,0.0s,SNR=7.9 | | | | | | |
| ETOS | | | | S | Sn | 03 53 20.1 | -0.9 |
| | 0.5nm,0.2s,SNR=7.9 | | | | | | |
| ETOS | Mallorca | 3.18 | 25 | P | Pn | 03 52 42.3 | -0.7 |
| | SNR=7.9 | | | | | | |
| ETOS | | | | S | Sn | 03 53 20.1 | -0.9 |
| | 0.5nm,0.2s,SNR=7.9 | | | | | | |
| EQES | Quesada | 3.41 | 287 | P | Pn | 03 52 46.4 | +0.2 |
| | 0.0nm,0.0s,SNR=4.0 | | | | | | |
| EQES | | | | S | Sn | 03 53 26.1 | -0.6 |
| | 1.1nm,0.2s,SNR=7.9 | | | | | | |
| EQES | Quesada | 3.41 | 287 | P | Pn | 03 52 46.4 | +0.2 |
| | SNR=4.0 | | | | | | |
| EQES | | | | S | Sn | 03 53 26.1 | -0.6 |
| | 1.1nm,0.2s,SNR=7.9 | | | | | | |
| EMOS | Mosqueruela | 3.66 | 341 | P | Pn | 03 52 51.4 | +1.7 |
| | 0.1nm,0.1s,SNR=7.9 | | | | | | |
| EMOS | Mosqueruela | 3.66 | 341 | P | Pn | 03 52 51.4 | +1.7 |
| | 0.1nm,0.1s,SNR=7.9 | | | | | | |
| ERTA | Horta de San J | 4.09 | 352 | P | Pn | 03 52 56.9 | +1.4 |
| | 0.1nm,0.1s,SNR=4.0 | | | | | | |
| ERTA | Horta de San J | 4.09 | 352 | P | Pn | 03 52 56.9 | +1.4 |
| | 0.1nm,0.1s,SNR=4.0 | | | | | | |

*CSEM **09** 03:52:35.2±0.1, 39°.14N×29°.09E, h2km, ML2.4, Error ellipse: s-maj=2.4km s-min=2.2km az=60.0*
*ISK **09** 03:52:35.0, 39°.16N×29°.09E, h5km, ML2.4*
*DDA **09** 03:53:17.2, 39°.17N×29°.10E, h8km, Ml2.9*
**ISC 09 03:52:35.5±0.9, 39°.15N±0°.02×29°.09E±0°.02, h8km±8km, n46, σ0s.61/72, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SIMA | Simav-Kutahya | 0.11 | 229 | PG | Pg | 03 52 38.2 | +0.2 |
| SIMA | Simav-Kutahya | 0.11 | 229 | i Pg | Pg | 03 52 38.2 | +0.2 |
| DEMI | Demirci | 0.31 | 249 | i P | Pg | 03 52 41.6 | 0.0 |
| DEMI | | | | i S | Sg | 03 52 45.9 | +0.2 |
| DEMI | Demirci | 0.31 | 249 | P | Pg | 03 52 41.6 | 0.0 |
| DEMI | | | | S | Sg | 03 52 45.9 | +0.2 |
| GDZ | Gediz | 0.31 | 102 | i P | Pg | 03 52 41.3 | -0.4 |
| GDZ | | | | i S | Sg | 03 52 45.8 | -0.1 |
| GDZ | Gediz | 0.31 | 102 | P | Pg | 03 52 41.3 | -0.4 |
| GDZ | | | | S | Sg | 03 52 45.8 | -0.1 |
| TVSB | Tavsanli | 0.42 | 44 | PG | Pg | 03 52 43.3 | -0.4 |
| TVSB | | | | eSG | Sg | 03 52 48.8 | -0.3 |
| TVSB | Tavsanli | 0.42 | 44 | i Pg | Pg | 03 52 43.3 | -0.4 |
| TVSB | | | | eSg | Sg | 03 52 48.8 | -0.3 |
| KULA | Kula-Manisa | 0.72 | 208 | ePG | Pg | 03 52 48.7 | -0.7 |
| KULA | Kula-Manisa | 0.72 | 208 | ePg | Pg | 03 52 48.7 | -0.7 |
| MANT | Manisa | 0.78 | 212 | i P | Pg | 03 52 49.7 | -0.8 |
| MANT | | | | i S | Sg | 03 52 59.7 | -1.0 |
| MANT | Manisa | 0.78 | 212 | P | Pg | 03 52 49.7 | -0.8 |
| MANT | | | | S | Sg | 03 52 59.7 | -1.0 |
| KHAL | Karahalli | 0.84 | 158 | i P | Pg | 03 52 50.9 | -0.9 |
| KHAL | | | | i S | Sg | 03 53 02.0 | -0.7 |
| KHAL | Karahalli | 0.84 | 158 | P | Pg | 03 52 50.9 | -0.9 |
| KHAL | | | | S | Sg | 03 53 02.0 | -0.7 |
| ORLT | Orhaneli | 0.90 | 351 | ePG | Pb | 03 52 53.4 | -0.2 |
| ORLT | | | | eSG | Sb | 03 53 05.8 | 0.0 |
| ORLT | Orhaneli | 0.90 | 351 | ePg | Pb | 03 52 53.4 | -0.2 |
| ORLT | | | | eSg | Sb | 03 53 05.8 | 0.0 |
| BALB | Balikesir | 1.05 | 298 | ePG | Pg | 03 52 55.5 | -0.2 |
| BALB | | | | eSG | Sb | 03 53 10.5 | +0.5 |
| BALB | Balikesir | 1.05 | 298 | ePg | Pg | 03 52 55.5 | -0.2 |
| BALB | | | | eSg | Sb | 03 53 10.5 | +0.5 |
| STEP | BALIKESIR_Sava | 1.08 | 282 | i P | Pg | 03 52 56.2 | -0.2 |
| STEP | | | | i S | Sb | 03 53 11.0 | 0.0 |
| STEP | BALIKESIR_Sava | 1.08 | 282 | P | Pg | 03 52 56.2 | -0.2 |
| STEP | | | | S | Sb | 03 53 11.0 | 0.0 |
| CAVI | Cavuskoy | 1.20 | 29 | ePN | Pn | 03 52 58.7 | 0.0 |
| CAVI | Cavuskoy | 1.20 | 29 | ePn | Pn | 03 52 58.7 | 0.0 |
| KZIL | AFYON_Kizioren | 1.22 | 137 | i P | Pg | 03 52 58.0 | -0.9 |
| KZIL | | | | i S | Sb | 03 53 14.7 | -0.1 |
| KZIL | AFYON_Kizioren | 1.22 | 137 | P | Pg | 03 52 58.0 | -0.9 |
| KZIL | | | | S | Sb | 03 53 14.7 | -0.1 |
| MDNY | Mudanya-Bursa | 1.23 | 353 | ePN | Pn | 03 52 59.0 | 0.0 |
| MDNY | | | | eSN | Sn | 03 53 16.4 | +0.6 |
| MDNY | Mudanya-Bursa | 1.23 | 353 | ePn | Pn | 03 52 59.0 | 0.0 |
| MDNY | | | | eSn | Sn | 03 53 16.4 | +0.6 |
| KCTX | Karacabey (Bur | 1.25 | 333 | ePN | Pg | 03 52 59.0 | -0.4 |
| KCTX | | | | eSN | Sn | 03 53 16.9 | +0.6 |
| KCTX | Karacabey (Bur | 1.25 | 333 | ePn | Pg | 03 52 59.0 | -0.4 |
| KCTX | | | | eSn | Sn | 03 53 16.9 | +0.6 |
| BALY | Balya | 1.28 | 298 | i P | Pg | 03 52 58.4 | -1.6 |
| BALY | | | | i S | Sb | 03 53 16.5 | 0.0 |
| BALY | Balya | 1.28 | 298 | P | Pg | 03 52 58.4 | -1.6 |
| BALY | | | | S | Sb | 03 53 16.5 | 0.0 |
| SHUT | Suhut-Afyon | 1.29 | 117 | ePN | Pb | 03 53 00.6 | +0.4 |
| SHUT | Suhut-Afyon | 1.29 | 117 | ePn | Pb | 03 53 00.6 | +0.4 |
| ADVT | Abdulvahap | 1.37 | 21 | ePN | Pg | 03 53 01.9 | 0.0 |
| ADVT | Abdulvahap | 1.37 | 21 | ePn | Pg | 03 53 01.9 | 0.0 |
| GONE | Gonen-Balikesi | 1.40 | 310 | ePN | Pb | 03 53 01.6 | -0.4 |
| GONE | Gonen-Balikesi | 1.40 | 310 | ePn | Pb | 03 53 01.6 | -0.4 |
| YLV | Yalova | 1.43 | 9 | ePN | Pb | 03 53 02.2 | -0.3 |
| YLV | Yalova | 1.43 | 9 | ePn | Pb | 03 53 02.2 | -0.3 |
| BRDR | BURDUR-Merkez | 1.64 | 152 | i P | Pg | 03 53 06.6 | -0.5 |
| BRDR | | | | i S | Sg | 03 53 29.7 | +1.3 |
| BRDR | BURDUR-Merkez | 1.64 | 152 | P | Pg | 03 53 06.6 | -0.5 |
| BRDR | | | | S | Sg | 03 53 29.7 | +1.3 |
| GULT | Gulveren | 1.69 | 40 | ePN | Pb | 03 53 06.1 | -0.8 |
| GULT | Gulveren | 1.69 | 40 | ePn | Pb | 03 53 06.1 | -0.8 |
| SVRH | Sivrihisar-ESK | 1.91 | 80 | ePN | Pn | 03 53 09.3 | +0.7 |
| SVRH | Sivrihisar-ESK | 1.91 | 80 | ePn | Pn | 03 53 09.3 | +0.7 |
| CTKS | Kestanelik-??a | 2.13 | 348 | ePN | Pn | 03 53 12.1 | +0.7 |
| CTKS | Kestanelik-??a | 2.13 | 348 | ePn | Pn | 03 53 12.1 | +0.7 |

*NEIC **09** 03:54:15.8±0.3, 37°.10N×104°.66W, h5km, ML3.4, Error ellipse: s-maj=4.4km s-min=4.1km az=213.0*
*NEIC Felt [III] at Trinidad. Also felt at Pueblo.*
**ISC 09 03:54:15.2±0.6, 37°.10N±0°.02×104°.63W±0°.02, h10km, n47, σ2s.77/97, Colorado**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| T25A | Trinidad | 0.18 | 77 | P | Pg | 03 54 19.7 | +0.4 |
| | baz=255 | | | | | | |
| SDCO | Great Sand Dun | 0.95 | 313 | ePg | Pg | 03 54 31.2 | -2.3 |
| SDCO | | | | eSg | Sg | 03 54 42.3 | -3.6 |
| S22A | 4UR Ranch, Cre | 1.86 | 291 | P | Pn | 03 54 48.1 | +0.6 |
| | baz=111 | | | | | | |
| Q24A | Divide | 1.91 | 348 | P | Pn | 03 54 49.3 | +1.2 |
| | baz=169 | | | | | | |
| KSCO | Kaye Shedlock' | 2.48 | 39 | P | Pn | 03 54 58.3 | +2.5 |
| | baz=221 | | | | | | |
| KSCO | Kaye Shedlock' | 2.48 | 39 | ePn | Pn | 03 54 57.8 | +1.9 |
| KSCO | | | | eSg | Sb | 03 55 32.5 | +1.8 |
| ANMO | Albuquerque | 2.61 | 215 | ePn | Pn | 03 54 58.4 | +0.7 |
| ANMO | | | | eSn | Sn | 03 55 29.9 | +0.4 |
| ANMO | | | | eSg | Sb | 03 55 36.8 | +2.4 |
| SMCO | Snowmass | 2.78 | 319 | ePn | Pn | 03 55 01.7 | +1.5 |
| SMCO | | | | ePg | Pb | 03 55 05.6 | +0.4 |
| SMCO | | | | eSn | Sn | 03 55 35.4 | +1.4 |
| SMCO | | | | eSg | Sg | 03 55 42.2 | -2.4 |
| ISCO | Idaho Springs | 2.81 | 344 | ePn | Pn | 03 55 01.7 | +1.2 |
| ISCO | | | | eSg | Sb | 03 55 41.5 | +1.3 |
| MVCO | Mesa Verde | 3.09 | 273 | ePn | Pn | 03 55 05.3 | +0.9 |
| MVCO | | | | ePg | Pb | 03 55 10.4 | 0.0 |
| MVCO | | | | eSg | Sb | 03 55 48.6 | +0.3 |
| LPM | Los Pinos Moun | 3.22 | 211 | ePn | Pn | 03 55 06.9 | +0.8 |
| AMTX | Amarillo | 3.26 | 132 | ePn | Pn | 03 55 07.4 | +0.9 |
| AMTX | | | | ePb | Pb | 03 55 13.1 | -0.1 |
| AMTX | | | | ePg | Pg | 03 55 16.6 | -1.1 |
| AMTX | | | | eSg | Sb | 03 55 53.8 | +0.8 |
| PV01 | Paradox Valley | 3.29 | 290 | ePn | Pn | 03 55 08.4 | +1.3 |
| PV01 | | | | ePg | Pb | 03 55 14.4 | +0.5 |
| PV01 | | | | eSn | Sn | 03 55 46.4 | 0.0 |
| PV01 | | | | eSg | Sg | 03 55 57.8 | -3.2 |
| BNM | Barren Site | 3.36 | 209 | ePn | Pn | 03 55 09.1 | +1.1 |
| LAZ | Ladron | 3.37 | 218 | ePn | Pn | 03 55 08.7 | +0.5 |
| MSTX | Muleshoe | 3.47 | 154 | P | Pn | 03 55 11.4 | +1.9 |
| | baz=334 | | | | | | |
| MSTX | Muleshoe | 3.47 | 154 | ePn | Pn | 03 55 10.5 | +1.1 |
| MSTX | | | | ePg | Pb | 03 55 19.3 | +2.4 |
| MSTX | | | | eSg | Sb | 03 56 02.8 | +3.6 |
| LENM | Lemitar | 3.49 | 214 | ePn | Pn | 03 55 11.9 | +2.1 |
| PV04 | Paradox Valley | 3.62 | 292 | ePn | Pn | 03 55 12.1 | +0.5 |
| PV04 | | | | ePg | Pb | 03 55 22.0 | +2.5 |
| PV04 | | | | eSn | Sn | 03 55 55.3 | +0.8 |
| PV04 | | | | eSg | Sg | 03 56 08.0 | -3.6 |
| PV05 | Paradox Valley | 3.68 | 287 | ePn | Pn | 03 55 14.8 | +2.4 |
| PV09 | Paradox Valley | 3.83 | 293 | ePn | Pn | 03 55 18.9 | +4.4 |
| O20A | White River Ci | 4.14 | 318 | ePn | Pn | 03 55 20.4 | +1.6 |
| O20A | | | | ePg | Pb | 03 55 31.2 | +2.8 |
| O20A | | | | eSg | Sg | 03 56 25.6 | -2.7 |
| CBKS | Cedar Bluff | 4.23 | 65 | ePn | Pn | 03 55 21.1 | +1.3 |
| CBKS | | | | ePg | Pb | 03 55 32.6 | +2.8 |
| CBKS | | | | eSg | Sb | 03 56 25.1 | +4.1 |
| PHWY | Pilot Hill | 4.25 | 352 | ePn | Pn | 03 55 21.7 | +1.4 |
| PHWY | | | | ePg | Pb | 03 55 33.6 | +3.4 |
| PHWY | | | | eSg | Sb | 03 56 24.9 | +3.2 |
| OGNE | Ogallala | 4.34 | 27 | ePn | Pn | 03 55 24.1 | +2.6 |
| OGNE | | | | ePg | Pb | 03 55 34.9 | +3.2 |
| OGNE | | | | eSg | Sg | 03 56 31.6 | -3.1 |
| W18A | Petrified Fore | 4.58 | 246 | ePg | Pb | 03 55 36.7 | +0.9 |
| W18A | | | | eSg | Sg | 03 56 37.4 | -4.9 |
| RWWY | Rawlins | 5.00 | 337 | ePn | Pn | 03 55 32.4 | +1.8 |
| RWWY | | | | ePg | Pg | 03 55 49.5 | -1.5 |
| RWWY | | | | eSg | Sg | 03 56 54.8 | -1.0 |
| SRU | San Rafael Swe | 5.06 | 295 | ePn | Pn | 03 55 30.2 | -1.2 |
| P18A | Preston Nutter | 5.08 | 302 | ePn | Pn | 03 55 34.4 | +2.7 |
| 121A | Cookes Peak, D | 5.24 | 211 | ePn | Pn | 03 55 34.5 | +0.7 |
| 121A | | | | ePg | Pb | 03 55 51.3 | +4.3 |
| WMOK | Wichita Mounta | 5.30 | 115 | ePn | Pn | 03 55 36.0 | +1.4 |
| WMOK | | | | ePg | Pb | 03 55 51.2 | +3.2 |
| WMOK | | | | eSn | Sn | 03 56 38.4 | +2.7 |
| WMOK | | | | eSg | Sg | 03 57 02.5 | -3.0 |
| MNTX | Cornudas Mount | 5.42 | 187 | ePg | Pb | 03 55 52.2 | +2.1 |
| MNTX | | | | eSn | Sn | 03 56 39.9 | +1.3 |
| MNTX | | | | eSg | Sb | 03 57 01.2 | +6.1 |
| WUAZ | Wupatki | 5.67 | 256 | ePn | Pn | 03 55 42.1 | +2.5 |
| WUAZ | | | | eSg | Sb | 03 57 07.7 | +5.3 |
| K22A | Casper | 5.73 | 346 | ePg | Pb | 03 55 58.9 | +3.4 |
| K22A | | | | eSg | Sb | 03 57 11.8 | +7.5 |
| ABTX | Abilene, Hawle | 6.06 | 136 | ePn | Pn | 03 55 45.6 | +0.7 |
| ABTX | | | | ePg | Pb | 03 56 06.3 | +5.3 |
| ABTX | | | | eSg | Sg | 03 57 24.1 | -5.8 |
| JLU | Jordanelle | 6.37 | 305 | ePn | Pn | 03 55 48.7 | -0.6 |
| BGNE | Belgrade | 6.62 | 47 | ePn | Pn | 03 55 54.1 | +1.5 |
| BGNE | | | | ePg | Pg | 03 56 18.0 | -4.0 |
| BGNE | | | | eSg | Sg | 03 57 43.5 | -4.2 |
| KSU1 | Kansas State U | 6.64 | 70 | ePn | Pn | 03 55 54.5 | +1.6 |
| KSU1 | | | | ePg | Pb | 03 56 17.1 | +6.3 |
| KSU1 | | | | eSg | Sg | 03 57 43.1 | -5.2 |
| BW06 | Boulder Array | 6.81 | 328 | ePn | Pn | 03 55 56.1 | +0.7 |
| BW06 | | | | ePg | Pg | 03 56 20.7 | -4.9 |
| BW06 | | | | eSn | Sn | 03 57 14.9 | +1.8 |
| BW06 | | | | eSg | Sg | 03 57 47.2 | -6.5 |
| RSSD | Black Hills | 7.03 | 4 | ePn | Pn | 03 55 59.2 | +0.8 |
| RSSD | | | | ePg | Pb | 03 56 23.7 | +6.1 |
| RSSD | | | | eSg | Sg | 03 57 57.2 | -3.6 |
| DUG | Dugway, Tooele | 7.11 | 298 | ePg | Pb | 03 56 25.3 | +6.5 |
| DUG | | | | eSg | Sg | 03 57 57.6 | -5.8 |
| TUL1 | Leonard | 7.22 | 97 | ePn | Pn | 03 56 02.6 | +1.8 |
| TUL1 | | | | ePg | Pg | 03 56 27.9 | -5.5 |
| TUL1 | | | | eSg | Sg | 03 58 01.7 | -5.2 |
| JCT | Junction City | 7.73 | 147 | ePg | Pg | 03 56 37.6 | -5.6 |
| JCT | | | | eSg | Sg | 03 58 20.4 | -2.9 |
| WHTX | Lake Whitney, | 7.81 | 129 | ePg | Pb | 03 56 37.7 | +7.0 |
| WHTX | | | | eSg | Sg | 03 58 22.3 | -3.6 |
| ECSD | EROS Data Cent | 9.02 | 40 | ePn | Pn | 03 56 25.9 | +0.5 |
| ECSD | | | | eSn | Sn | 03 58 06.1 | -0.9 |
| MIAR | Mount Ida | 9.33 | 103 | ePn | Pn | 03 56 30.2 | +0.4 |
| MIAR | | | | eSn | Sn | 03 58 15.6 | +0.8 |
| WALA | Waterton Lakes | 13.73 | 333 | ePn | Pn | 03 57 30.0 | 0.0 |

*NIED **09** 03:57:00, 38°.80N×142°.00E, h50km, Mw3.8 Best double couple: $M_0$5.83000×10[14] NP1:$\phi_s$86.00000°, δ31.00000°, λ154.00000°. NP2:$\phi_s$199.00000°, δ77.00000°, λ62.00000°.*
*ISCJB **09** 03:57:12.8±0.8, 38°.79N±0°.04×142°.08E±0°.09, h57km±7km, mb3.9/10, Error ellipse: s-maj=12.7km s-min=6.7km az=16.2*
*IDC **09** 03:57:13.9±0.7, 38°.82N×142°.30E, h54km±6km, mb3.6/10, mb1 3.9/14, mb1mx3.6/45, mbtmp3.9/14, Error ellipse: s-maj=15.8km s-min=10.7km az=129.0*
*JMA **09** 03:57:13.8±0.1, 38°.82N×142°.01E, h55km±1km, M4.0*
*JMA Felt II J1.*
**ISC 09 03:57:14.0±0.8, 38°.79N±0°.05×142°.07E±0°.07, h50km±6km, n30, σ1s.75/37, mb4.0/10, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| OFUJ | Ofunato | 0.42 | 313 | P | Pn | 03 57 24.2 | -0.2 |
| OFUJ | | | | S | Sn | 03 57 31.5 | -0.3 |
| JIO | Ouri | 0.66 | 239 | P | Pn | 03 57 26.8 | -0.4 |
| JIO | | | | S | Sn | 03 57 36.0 | -0.7 |
| JMK | Ichinoseki | 0.68 | 284 | P | Pn | 03 57 27.1 | -0.4 |
| JMK | | | | S | Sn | 03 57 36.5 | -0.8 |
| JOM | Ohasama | 0.91 | 319 | P | Pn | 03 57 30.4 | -0.1 |
| JOM | | | | S | Sn | 03 57 41.7 | -0.9 |
| JOU | Okura | 1.18 | 249 | P | Pn | 03 57 33.8 | -0.4 |
| JOU | | | | S | Sn | 03 57 48.6 | -0.6 |
| JRG | Rokugo | 1.27 | 299 | P | Pn | 03 57 34.6 | -0.8 |
| JRG | | | | S | Sn | 03 57 50.8 | -0.5 |
| JYK | Kaneyama | 1.34 | 276 | P | Pn | 03 57 35.7 | -0.6 |
| JMM | Marumori | 1.36 | 228 | P | Pn | 03 57 35.9 | -0.7 |

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JMM | | | | S | Sn | 03 57 53.3 | -0.3 |
| MAT | Matsushiro | 3.80 | 235 | P | Pn | 03 58 12.6 | +2.6 |
| MAT | | | | eS | Sn | 03 58 59.7 | +6.3 |
| MJAR | Matsushiro Arr | 3.80 | 235 | P | Pn | 03 58 11.7 | +1.7 |
| | 3.4nm,0.3s,baz=37,slow=12,SNR=45 | | | | | | |
| MJAR | | | | S | Sn | 03 59 01.8 | +8.4 |
| | 1.5nm,0.3s,baz=27,slow=19,SNR=3.2 | | | | | | |
| ASAJ | Asahikawa | 5.33 | 4 | P | Pn | 03 58 30.9 | -0.1 |
| | 1.7nm,0.3s,baz=215,slow=14,SNR=4.7 | | | | | | |
| ASAJ | | | | S | Sn | 03 59 35.5 | +4.4 |
| | 1.7nm,0.3s,baz=13,slow=28,SNR=4.2 | | | | | | |
| USRK | Ussuriysk Ar. | 9.29 | 309 | P | Pn | 03 59 27.4 | +2.2 |
| | 0.8nm,0.3s,baz=124,slow=14,SNR=14 | | | | | | |
| KSRS | Korea Array | 11.23 | 268 | P | Pn | 03 59 55.0 | +3.4 |
| | 0.4nm,0.3s,baz=77,slow=14,SNR=4.8 | | | | | | |
| SONM | Songino Array | 27.28 | 301 | P | P | 04 02 54.6 | +0.9 |
| | 0.5nm,0.7s,baz=98,slow=11,SNR=3.5 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 28.66 | 124 | T | T | 04 33 26.2 | |
| | baz=317,slow=75,SNR=236 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 28.67 | 124 | T | T | 04 33 28.2 | |
| | baz=317,slow=75,SNR=545 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 28.68 | 124 | T | T | 04 33 27.6 | |
| | baz=317,slow=75,SNR=280 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 29.43 | 126 | T | T | 04 34 24.6 | |
| | baz=318,slow=76,SNR=116 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 29.43 | 126 | T | T | 04 34 24.3 | |
| | baz=318,slow=76,SNR=114 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 29.45 | 126 | T | T | 04 34 25.8 | |
| | baz=318,slow=76,SNR=109 | | | | | | |
| ZALV | Zalesovo Beam | 41.14 | 311 | P | P | 04 04 51.5 | -1.4 |
| | 1.8nm,0.4s,baz=98,slow=8.6,SNR=9.0 | | | | | | |
| MKAR | Makanchi Array | 43.65 | 301 | P | P | 04 05 12.3 | -1.2 |
| | 0.5nm,0.4s,baz=84,slow=11,SNR=10 | | | | | | |
| MKAR | | | | pP | pP | 04 05 26.2 | -0.7 |
| | 1.5nm,0.8s,baz=91,slow=9.9,SNR=4.2 | | | | | | |
| ILAR | Eielson Array | 47.74 | 33 | P | P | 04 05 45.0 | -0.5 |
| | 1.5nm,0.7s,baz=266,slow=6.1,SNR=30 | | | | | | |
| ILAR | | | | pP | pP | 04 05 59.9 | +0.9 |
| | 0.3nm,0.6s,baz=264,slow=6.3,SNR=3.8 | | | | | | |
| INK | Inuvik | 52.59 | 28 | P | P | 04 06 22.1 | -0.1 |
| | 0.8nm,0.4s,baz=278,slow=4.2,SNR=9.2 | | | | | | |
| WRA | Warramunga Arr | 58.87 | 189 | P | P | 04 07 06.2 | -1.5 |
| | 1.8nm,0.5s,baz=6.2,slow=7.0,SNR=27 | | | | | | |
| WRA | | | | pP | pP | 04 07 21.0 | -0.6 |
| | 0.8nm,0.4s,baz=5.9,slow=7.3,SNR=4.8 | | | | | | |
| ASAR | Alice Springs | 62.60 | 188 | P | P | 04 07 31.7 | -1.3 |
| | 0.8nm,0.7s,baz=12,slow=5.8,SNR=9.1 | | | | | | |
| ASAR | | | | pP | pP | 04 07 47.1 | +0.2 |
| | 0.2nm,0.4s,baz=187,slow=14,SNR=2.5 | | | | | | |
| STKA | Stephens Creek | 70.31 | 180 | P | P | 04 08 22.5 | +0.5 |
| | 1.7nm,0.8s,baz=273,slow=7.7,SNR=3.3 | | | | | | |
| PDAR | Pinedale Array | 76.07 | 46 | P | P | 04 08 56.1 | -0.3 |
| | 0.5nm,0.7s,baz=244,slow=1.4,SNR=5.2 | | | | | | |
| TXAR | Lajitas Array | 88.64 | 53 | P | P | 04 10 01.6 | -0.4 |
| | 0.3nm,0.7s,baz=300,slow=3.2,SNR=5.2 | | | | | | |
| LPAZ | La Paz | 145.34 | 58 | PKPbc | PKPbc | 04 16 46.5 | -0.8 |
| | 0.6nm,0.5s,baz=26,slow=5.1,SNR=4.9 | | | | | | |

**IDC 09 04:11:09.0±2.6, 24.24°S×179.86°E, h484km±24km, mb3.4/4, mb1 3.6/5, mb1mx3.2/29, mbtmp4.3/5, Error ellipse: s-maj=41.4km s-min=24.0km az=165.0, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| URZ | Urewera | 14.17 | 189 | P | P | 04 14 10.4 | -0.1 |
| | 0.7nm,0.3s,baz=326,slow=7.3,SNR=2.5 | | | | | | |
| URZ | | | | S | S | 04 16 39.1 | -1.2 |
| | 0.3nm,0.3s,baz=152,slow=9.8,SNR=2.0 | | | | | | |
| STKA | Stephens Creek | 34.48 | 249 | P | P | 04 17 16.1 | +0.5 |
| | 1.4nm,0.5s,baz=105,slow=11,SNR=9.2 | | | | | | |
| ASAR | Alice Springs | 41.85 | 261 | P | P | 04 18 15.9 | -0.1 |
| | 1.9nm,0.6s,baz=96,slow=8.4,SNR=20 | | | | | | |
| ASAR | | | | ScP | ScP | 04 23 04.5 | -0.3 |
| | 0.1nm,0.3s,baz=119,slow=3.6,SNR=4.3 | | | | | | |
| WRA | Warramunga Arr | 42.26 | 267 | P | P | 04 18 18.6 | -0.6 |
| | 6.1nm,0.6s,baz=104,slow=8.2,SNR=40 | | | | | | |
| WRA | | | | ScP | ScP | 04 23 05.8 | -0.7 |
| | 1.5nm,0.9s,baz=104,slow=4.1,SNR=8.7 | | | | | | |
| TXAR | Lajitas Array | 90.72 | 58 | P | P | 04 23 19.9 | 0.0 |
| | 0.8nm,0.7s,baz=215,slow=6.2,SNR=12 | | | | | | |

**IDC 09 04:22:07.7±7.5, 3.31°S×148.31°E, h0km, mb3.1/2, mb1 3.5/2, mb1mx3.0/32, mbtmp3.2/2, Error ellipse: s-maj=323.8km s-min=54.5km az=107.0, Bismarck Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 21.43 | 218 | P | P | 04 26 57.3 | -0.2 |
| | 0.3nm,0.5s,baz=42,slow=11,SNR=5.5 | | | | | | |
| ASAR | Alice Springs | 24.56 | 213 | P | P | 04 27 29.7 | +0.2 |
| | 0.5nm,0.8s,baz=49,slow=8.2,SNR=6.4 | | | | | | |
| TORD | Torodi Ar. Bea | 145.59 | 288 | PKPbc | PKPdf | 04 41 48.4 | -0.8 |
| | 0.3nm,0.7s,baz=66,slow=2.9,SNR=1.6 | | | | | | |

*IDC 09 04:25:52.4±2.5, 38.54°N×143.28°E, h0km, mb3.6/4, mb1 3.7/5, mb1mx3.4/42, mbtmp3.6/5, ML3.2/1, Error ellipse: s-maj=68.5km s-min=30.1km az=64.0*
*ISCJB 09 04:25:57.0±1.6, 38.31°N±0.05°×142.25°E±0.10°, h22km±8km, mb3.7/4, Error ellipse: s-maj=12.9km s-min=8.7km az=12.7*
*JMA 09 04:25:59.0±0.1, 38.39°N×142.19°E, h31km±1km, M3.7*
**ISC 09 04:25:57.4±4.1, 38.34°N±0.05°×142.20°E±0.10°, h14km±26km, n17, σ0.93s/17, mb3.8/4, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JIO | Ouri | 0.68 | 280 | P | Pb | 04 26 11.8 | +0.8 |
| JIO | | | | S | Sb | 04 26 20.5 | +0.2 |
| OFUJ | Ofunato | 0.85 | 331 | P | Pb | 04 26 13.9 | -0.1 |
| OFUJ | | | | S | Sb | 04 26 24.4 | -0.9 |
| JMK | Ichinoseki | 0.98 | 309 | P | Pb | 04 26 16.3 | +0.1 |
| JMK | | | | eS | Sb | 04 26 28.6 | -0.5 |
| JMM | Marumori | 1.20 | 247 | P | Pn | 04 26 19.4 | -0.5 |
| JMM | | | | S | Sb | 04 26 34.1 | -1.4 |
| JOU | Okura | 1.21 | 272 | P | Pb | 04 26 20.2 | +0.1 |
| JOU | | | | S | Sb | 04 26 35.5 | -0.1 |
| JOM | Ohasama | 1.34 | 328 | P | Pn | 04 26 21.5 | -0.2 |
| JOM | | | | S | Sn | 04 26 38.3 | -1.1 |
| MJAR | Matsushiro Arr | 3.65 | 242 | Pn | Pb | 04 27 01.7 | 0.0 |
| | 1.2nm,0.3s,baz=70,slow=14,SNR=5.4 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 28.32 | 124 | T | T | 05 01 37.9 | |
| | baz=317,slow=75,SNR=26 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 28.33 | 124 | T | T | 05 01 40.4 | |
| | baz=317,slow=75,SNR=51 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 28.34 | 124 | T | T | 05 01 46.8 | |
| | baz=317,slow=75,SNR=53 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 29.08 | 126 | T | T | 05 02 46.4 | |
| | baz=318,slow=76,SNR=7.0 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 29.08 | 126 | T | T | 05 03 03.7 | |
| | baz=318,slow=76,SNR=8.7 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 29.10 | 126 | T | T | 05 03 03.9 | |
| | baz=318,slow=76,SNR=7.0 | | | | | | |
| MKAR | Makanchi Array | 43.97 | 301 | P | P | 04 34 05.6 | +1.5 |
| | 0.5nm,0.8s,baz=98,slow=8.9,SNR=1.3 | | | | | | |
| KURBB | Kurchatov Arra | 45.70 | 307 | P | P | 04 34 19.6 | +1.8 |
| | 0.7nm,0.5s,baz=79,slow=8.4,SNR=1.4 | | | | | | |
| WRA | Warramunga Arr | 58.44 | 189 | P | P | 04 35 52.0 | -0.9 |
| | 0.5nm,0.6s,baz=6.0,slow=6.8,SNR=5.2 | | | | | | |
| ASAR | Alice Springs | 62.16 | 189 | P | P | 04 36 18.0 | -0.3 |
| | 0.3nm,0.4s,baz=15,slow=7.7,SNR=3.6 | | | | | | |

*ATA 09 04:35:11.1±1.2, 38.71°N×43.18°E, h7km±52km, ML2.8, MW2.9*
*ISK 09 04:35:12.5, 38.76°N×43.17°E, h10km, ML2.3*
*ISCJB 09 04:35:13.5±0.6, 38.77°N±0.03°×43.25°E±0.05°, h22km±7km, Error ellipse: s-maj=5.9km s-min=4.6km az=172.5*
*CSEM 09 04:35:13.2±0.2, 38.80°N×43.26°E, h17km±2km, ML2.3, Error ellipse: s-maj=5.5km s-min=4.3km az=75.0*
*DDA 09 04:35:13.7, 38.77°N×43.27°E, h7km, Ml3.0*
**ISC 09 04:35:13.6±0.9, 38.77°N±0.02°×43.23°E±0.03°, h17km±6km, n27, σ1.40s/49, 1D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.21 | 145 | ePG | Pg | 04 35 19.1 | +0.3 |
| VANB | | | | eSG | Sg | 04 35 24.0 | +1.7 |
| VANB | Van | 0.21 | 145 | ePg | Pg | 04 35 19.1 | +0.3 |
| VANB | | | | eSg | Sg | 04 35 24.0 | +1.7 |
| ERCV | ERCIS-VAN | 0.26 | 18 | ePG | Pg | 04 35 18.8 | -0.8 |
| ERCV | | | | eSG | Sb | 04 35 23.6 | -0.6 |
| ERCV | ERCIS-VAN | 0.26 | 18 | ePg | Pg | 04 35 18.8 | -0.8 |
| ERCV | | | | eSg | Sb | 04 35 23.6 | -0.6 |
| TVAN | Van | 0.28 | 151 | i P | Pg | 04 35 19.1 | -0.7 |
| TVAN | | | | i S | Sb | 04 35 24.3 | -0.4 |
| TVAN | Van | 0.28 | 151 | P | Pg | 04 35 19.1 | -0.7 |
| TVAN | | | | S | Sb | 04 35 24.3 | -0.4 |
| VMUR | Van-Muradiye | 0.34 | 50 | i P | Pg | 04 35 20.3 | -0.6 |
| VMUR | | | | i S | Sb | 04 35 26.4 | -0.1 |
| VMUR | Van-Muradiye | 0.34 | 50 | P | Pg | 04 35 20.3 | -0.6 |
| VMUR | | | | S | Sb | 04 35 26.4 | -0.1 |
| ADCV | BITLIS_Adilcev | 0.40 | 275 | i P | Pg | 04 35 21.9 | 0.0 |
| ADCV | | | | i S | Sb | 04 35 28.6 | +0.4 |
| ADCV | BITLIS_Adilcev | 0.40 | 275 | P | Pg | 04 35 21.9 | 0.0 |
| ADCV | | | | S | Sb | 04 35 28.6 | +0.4 |
| GEVA | Gevas | 0.48 | 197 | eP | Pg | 04 35 19.2 | -4.1 |
| GEVA | | | | eS | Sg | 04 35 26.8 | -3.0 |
| GEVA | | | | IAML | | 04 35 34.7 | |
| | comp=Z,45nm,0.4s | | | | | | |
| CLDR | Caldiran | 0.65 | 55 | ePG | Pb | 04 35 26.4 | -0.2 |
| CLDR | Caldiran | 0.65 | 55 | i P | Pg | 04 35 25.1 | -1.4 |
| CLDR | | | | i S | Sb | 04 35 35.1 | -0.3 |
| CLDR | Caldiran | 0.65 | 55 | P | Pg | 04 35 25.1 | -1.4 |
| CLDR | Caldiran | 0.65 | 55 | ePg | Pb | 04 35 26.4 | -0.2 |
| CLDR | | | | S | Sb | 04 35 35.1 | -0.3 |
| TUTA | Tutak | 0.71 | 333⇓ | iP | Pg | 04 35 26.7 | -0.8 |
| TUTA | | | | IAML | | 04 35 27.0 | |
| | comp=Z,55nm,0.2s | | | | | | |
| TUTA | | | | eS | Sb | 04 35 37.3 | +0.1 |
| TUTA | Tutak | 0.71 | 333 | i P | Pg | 04 35 26.8 | -0.8 |
| TUTA | | | | i S | Sg | 04 35 34.6 | -2.5 |
| TUTA | Tutak | 0.71 | 333 | P | Pg | 04 35 26.8 | -0.8 |
| TUTA | | | | S | Sg | 04 35 34.6 | -2.5 |
| AGRB | Hanur-Agry | 0.82 | 347 | ePG | Pg | 04 35 28.9 | -0.9 |
| AGRB | | | | eSG | Sb | 04 35 40.8 | +0.4 |
| AGRB | Hanur-Agry | 0.82 | 347 | ePg | Pg | 04 35 28.9 | -0.9 |
| AGRB | | | | eSg | Sb | 04 35 40.8 | +0.4 |
| DYDN | Diyadin | 0.85 | 24 | eP | Pg | 04 35 29.2 | -1.0 |
| DYDN | | | | IAML | | 04 35 30.9 | |
| | comp=Z,11nm,0.6s | | | | | | |
| EKAR | Karacoban | 1.03 | 298 | i P | Pn | 04 35 34.3 | +0.9 |
| EKAR | | | | i S | Sn | 04 35 50.3 | +2.7 |
| EKAR | Karacoban | 1.03 | 298 | P | Pn | 04 35 34.3 | +0.9 |
| EKAR | | | | S | Sn | 04 35 50.3 | +2.7 |
| HAKT | HAKKARI | 1.27 | 163 | i P | Pn | 04 35 36.1 | -0.6 |
| HAKT | | | | i S | Sn | 04 35 56.0 | +2.6 |
| HAKT | HAKKARI | 1.27 | 163 | P | Pn | 04 35 36.1 | -0.6 |
| HAKT | | | | S | Sn | 04 35 56.0 | +2.6 |
| SIRT | Sirnak | 1.41 | 207 | ePN | Pn | 04 35 38.4 | -0.2 |
| SIRT | Sirnak | 1.41 | 207 | ePn | Pn | 04 35 38.4 | -0.2 |

**DJA 09 04:38:38.3±0.7, 10°S±8°×11°6E±°, h42km±71km, M4.3/11, mB5.3/1, mb4.3/3, MLv4.3/11, Mw(mB)4.7/1, Sumbawa region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| IGBI | Denpasar | 1.52 | 318 | P | Pn | 04 39 02.4 | -0.6 |
| IGBI | | | | S | Sn | 04 39 20.5 | -1.1 |
| DNP | Denpasar | 1.59 | 323 | P | Pn | 04 39 04.5 | +0.5 |
| DNP | | | | S | Sn | 04 39 24.2 | +0.9 |
| PLAI | Plampang | 1.94 | 55 | P | Pn | 04 39 08.1 | -0.8 |
| PLAI | | | | S | Sn | 04 39 31.5 | -0.6 |
| SRBI | Singaraja | 2.09 | 333 | P | Pn | 04 39 12.1 | +1.2 |
| JAGI | Jajag, Banyuwa | 2.48 | 306 | P | Pn | 04 39 15.5 | -0.8 |
| JAGI | | | | S | Sn | 04 39 44.9 | -0.5 |
| GMJI | Gumukmas | 3.17 | 302 | P | Pn | 04 39 25.5 | -0.2 |
| GMJI | | | | S | Sn | 04 40 02.3 | 0.0 |
| WBSI | Waikabubak, Su | 3.19 | 85 | P | Pn | 04 39 26.0 | 0.0 |
| BLJI | Banyuglugur | 3.36 | 311 | P | Pn | 04 39 28.8 | +0.4 |
| KMMI | Kalianget | 3.62 | 323 | P | Sn | 04 40 16.7 | +3.3 |
| PWJI | Pagerwojo | 4.72 | 294 | P | Pn | 04 39 47.0 | -0.1 |
| PCJI | Pacitan | 5.23 | 289 | P | Pn | 04 39 53.1 | -1.0 |
| EDFI | Ende, Flores | 5.58 | 78 | P | Pn | 04 39 58.5 | -0.4 |
| BSSI | Bau Bau, Buton | 5.72 | 49 | P | Pn | 04 40 01.6 | +0.9 |
| UGM | Wanagama | 5.94 | 290 | P | Pn | 04 40 04.0 | +0.2 |

*SJA 09 04:46:33.1±0.7, 27.29°S×71.98°W, h8km, ML3.7, MW3.5*
*IDC 09 04:46:40.6±2.2, 28.01°S×71.96°W, h0km, mb4.1/2, mb1 4.0/4, mb1mx3.7/28, mbtmp3.9/4, ML3.7/2, MS3.2/2, Ms1 3.2/2, ms1mx2.8/27, Error ellipse: s-maj=65.5km s-min=55.8km az=16.0*
*GUC 09 04:46:46.1±0.8, 28.01°S×71.32°W, h34km±5km, ML3.9*
**ISC 09 04:46:44.1±1.9, 28.00°S±0.04°×71.41°W±0.06°, h5km±11km, n32, σ2.99s/39, 3D, Near coast of northern Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VACH | Vallenar | 0.81 | 135⇓ | iP | Pb | 04 47 01.3 | +0.5 |
| VACH | | | | i S | Sb | 04 47 12.0 | -0.1 |
| GO03 | Copiap | 1.12 | 69⇓ | iP | Pg | 04 47 05.2 | -0.4 |
| GO03 | | | | i S | Sn | 04 47 20.8 | -1.5 |
| GO03 | | | | IAML | | 04 47 25.5 | |
| | comp=E,2μm,0.5s | | | | | | |
| LCO | Las Campanas | 1.19 | 148 | eP | Pg | 04 47 07.8 | +0.8 |
| LCO | Las Campanas | 1.19 | 148⇓ | iP | Pg | 04 47 07.8 | +0.8 |
| LCO | | | | i S | Sn | 04 47 23.8 | -0.6 |
| LCO | | | | IAML | | 04 47 28.7 | |
| | comp=E,4μm,0.3s | | | | | | |
| TLL | Tololo Astrono | 2.23 | 166 | eP | Pn | 04 47 23.6 | +1.6 |
| TLL | | | | eS | Sb | 04 47 52.4 | -0.6 |
| TLL | | | | IAML | | 04 48 03.5 | |
| | comp=N,3μm,0.5s | | | | | | |
| VCA | Vinchina | 2.92 | 105 | eP | Pb | 04 47 36.2 | -0.5 |
| VCA | | | | IAML | | 04 47 46.8 | |
| | comp=Z,387nm,0.4s | | | | | | |
| VCA | | | | eS | Sg | 04 48 16.9 | -1.1 |
| AGUA | GUANDACOL | 2.96 | 121 | eP | Pb | 04 47 37.0 | -0.5 |
| AGUA | | | | eS | Sg | 04 48 16.8 | -2.5 |
| AMOG | MOGNA | 3.88 | 140 | eP | Pn | 04 47 49.0 | +4.4 |
| AMOG | | | | eS | Sb | 04 48 37.7 | -2.8 |
| RTLL | Cerro Villicun | 4.19 | 143 | eP | Pn | 04 47 52.9 | +4.1 |
| RTLS | Leoncito | 4.21 | 155 | eP | Pn | 04 47 54.1 | +4.9 |
| RTLS | | | | eS | Sb | 04 48 54.9 | +4.7 |
| AUSP | Uspallata | 4.56 | 158 | eP | Pn | 04 47 58.6 | +4.5 |
| AUSP | | | | eS | Sb | 04 49 01.0 | +0.7 |
| RTCV | Cerro Valdivia | 4.59 | 148 | eP | Pn | 04 47 57.9 | +3.7 |
| RTCV | | | | eS | Sb | 04 49 01.9 | +1.1 |
| CYA | Choya | 4.97 | 96 | eP | Pn | 04 48 01.9 | +2.5 |
| CYA | | | | eS | Sb | 04 49 03.9 | -7.8 |
| CYA | | | | IAML | | 04 49 10.1 | |
| | comp=Z,66nm,0.7s | | | | | | |
| ROC1 | El Roble | 4.98 | 176 | eP | Pn | 04 48 01.5 | +1.7 |
| ROC1 | | | | eS | Sb | 04 49 08.4 | -3.7 |
| FSA | Cafayete | 5.19 | 70 | eP | Pn | 04 48 07.1 | +4.4 |
| FSA | | | | IAML | | 04 49 36.2 | |
| | comp=Z,7.4nm,0.5s | | | | | | |
| AHML | Horco Molle | 5.54 | 79 | eP | Pn | 04 48 12.0 | +4.8 |
| AHML | | | | eS | Sb | 04 49 33.3 | +5.2 |
| ACAN | Cantantal | 5.62 | 140 | eP | Pn | 04 48 12.4 | +4.0 |
| SLA | San Lorenzo | 6.22 | 60 | eP | Pn | 04 48 24.5 | +7.7 |
| TCA | Tanti | 6.80 | 121 | eP | Pn | 04 48 25.3 | +0.6 |
| TCA | | | | eS | Sn | 04 49 42.4 | -0.2 |
| GO05 | HualaæØ | 7.01 | 183 | eP | Pn | 04 48 25.1 | -2.3 |
| RFA | San Rafael | 7.21 | 160 | eP | Pn | 04 48 30.9 | +0.7 |
| ALOL | LOMAS DE OLMED | 7.88 | 60 | eP | Pn | 04 48 43.7 | +4.3 |
| LPAZ | La Paz | 12.04 | 15 | Pn | Pn | 04 49 36.5 | -0.6 |
| | comp=Z,0.3nm,0.3s,baz=226,slow=5.8,SNR=8.9 | | | | | | |
| CPUP | Villa Florida | 12.65 | 86 | Pn | Pn | 04 49 50.5 | +5.7 |
| | comp=Z,0.1nm,0.3s,baz=255,slow=14,SNR=2.2 | | | | | | |
| CPUP | | | | Sn | Sn | 04 52 25.2 | +19 |
| | comp=Z,0.1nm,0.3s,baz=158,slow=14,SNR=3.4 | | | | | | |
| CPUP | | | | LR | LR | 04 54 36.7 | |
| | comp=Z,52nm,21.3s,baz=267,slow=36 | | | | | | |
| H06E1 | SOCORRO T-PHAS | 60.20 | 316 | T | T | 06 02 19.1 | |
| | SNR=6.6 | | | | | | |
| DBIC | Dimbokro | 72.81 | 73 | P | P | 04 58 13.6 | -0.6 |
| | comp=Z,2.5nm,0.8s,baz=194,slow=6.6,SNR=4.7 | | | | | | |
| DBIC | | | | LR | LR | 05 28 11.9 | |
| | comp=Z,35nm,18.9s,baz=320,slow=34 | | | | | | |
| TORD | Torodi Ar. Bea | 81.67 | 70 | P | P | 04 59 03.2 | -0.7 |
| | comp=Z,1.0nm,0.8s,baz=270,slow=4.7,SNR=11 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 126.19 | 273 | T | T | 07 24 56.4 | |
| | baz=112,slow=75,SNR=7.4 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 126.20 | 273 | T | T | 07 24 57.2 | |
| | baz=112,slow=75,SNR=6.8 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 126.21 | 273 | T | T | 07 24 57.1 | |
| | baz=112,slow=75,SNR=6.5 | | | | | | |
| ZALV | Zalesovo Beam | 148.76 | 27 | PKPbc | PKPdf | 05 06 28.6 | +0.2 |
| | comp=Z,1.4nm,0.7s,baz=282,slow=2.9,SNR=5.5 | | | | | | |
| MKAR | Makanchi Array | 152.12 | 41 | PKPbc | PKPbc | 05 06 40.1 | -0.5 |
| | comp=Z,0.4nm,0.7s,baz=333,slow=2.3,SNR=2.8 | | | | | | |

**IDC 09 04:58:51.9±2.0, 3.39°N×126.74°E, h0km, mb3.7/4, mb1 3.8/4, mb1mx3.4/42, mbtmp3.7/4, Error ellipse: s-maj=156.3km s-min=26.2km az=65.0, Talaud Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 24.36 | 162 | P | P | 05 04 11.5 | -0.3 |
| | 2.6nm,0.7s,baz=342,slow=10,SNR=15 | | | | | | |
| ASAR | Alice Springs | 27.79 | 166 | P | P | 05 04 43.1 | +0.3 |
| | 0.2nm,0.3s,baz=338,slow=10,SNR=1.4 | | | | | | |
| STKA | Stephens Creek | 37.81 | 159 | P | P | 05 06 10.3 | +0.1 |
| | 0.5nm,0.4s,baz=326,slow=11,SNR=1.6 | | | | | | |
| MKAR | Makanchi Array | 57.84 | 325 | P | P | 05 08 45.2 | -0.1 |
| | 0.5nm,0.7s,baz=119,slow=8.5,SNR=4.4 | | | | | | |

*ISCJB 09 05:06:50.0±1.0, 6.0°S±0.2°×151.1°E±0.2°, h43km, mb3.8/8, Error ellipse: s-maj=38.2km s-min=10.4km az=38.5*
*IDC 09 05:06:51.7±4.9, 6.03°S×151.09°E, h45km±43km, mb3.7/8, mb1 3.9/9, mb1mx3.5/38, mbtmp4.0/9, ML1.7/1, Error ellipse: s-maj=48.5km s-min=27.2km az=118.0*
**ISC 09 05:06:51.4±1.3, 6.0°S±0.2°×151.1°E±0.3°, h43km, n10, σ0.89s/11, mb3.8/8, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PMG | Port Moresby | 5.18 | 229 | P | Pn | 05 08 07.8 | +1.3 |
| | 1.8nm,0.3s,baz=106,slow=7.4,SNR=2.8 | | | | | | |
| PMG | | | | S | Sn | 05 09 04.1 | -0.9 |
| | 4.8nm,0.3s,baz=57,slow=18,SNR=9.3 | | | | | | |
| WRA | Warramunga Arr | 21.40 | 228 | P | P | 05 11 35.1 | -0.6 |
| | 2.8nm,0.7s,baz=53,slow=10,SNR=14 | | | | | | |
| ASAR | Alice Springs | 24.14 | 222 | P | P | 05 12 03.7 | +0.1 |
| | 3.1nm,0.8s,baz=50,slow=9.0,SNR=16 | | | | | | |
| STKA | Stephens Creek | 27.25 | 198 | P | P | 05 12 31.7 | +0.1 |
| | 1.5nm,0.8s,baz=355,slow=12,SNR=3.0 | | | | | | |
| FITZ | Fitzroy Crossi | 27.62 | 242 | P | P | 05 12 34.3 | -0.7 |
| | 1.4nm,0.5s,baz=41,slow=9.7,SNR=4.4 | | | | | | |
| MKAR | Makanchi Array | 80.13 | 319 | P | P | 05 18 58.3 | +1.3 |
| | 0.7nm,0.9s,baz=136,slow=5.3,SNR=2.5 | | | | | | |
| KURBB | Kurchatov Arra | 83.71 | 322 | P | P | 05 19 15.1 | -0.6 |
| | 0.3nm,0.5s,baz=102,slow=5.1,SNR=2.9 | | | | | | |
| ILAR | Eielson Array | 83.89 | 22 | P | P | 05 19 15.8 | -0.6 |
| | 1.2nm,0.6s,baz=251,slow=5.2,SNR=18 | | | | | | |
| INK | Inuvik | 90.17 | 21 | P | P | 05 19 47.1 | +0.4 |
| | 1.2nm,1.0s,baz=284,slow=1.8,SNR=4.2 | | | | | | |
| TORD | Torodi Ar. Bea | 149.04 | 286 | PKPbc | PKPbc | 05 26 35.4 | -0.6 |
| | 1.2nm,0.6s,baz=88,slow=2.5,SNR=12 | | | | | | |

*ISCJB 09 05:22:22.9±0.9, 21.24°N±0.08°×108.78°W±0.07°, h10km, mb4.1/28, MS3.4/9, Error ellipse: s-maj=13.0km s-min=7.5km az=26.4*
*NEIC 09 05:22:24.7±0.8, 21.25°N×108.82°W, h10km, mb4.2/54, Error ellipse: s-maj=11.3km s-min=6.2km az=29.0*
*IDC 09 05:22:26.9±3.1, 21.76°N×109.13°W, h0km, mb3.5/5, mb1 3.9/8, mb1mx3.6/44, mbtmp3.7/8, ML3.3/3, MS3.4/12, Ms1 3.4/12, ms1mx3.3/21, Error ellipse: s-maj=60.1km s-min=32.0km az=36.0*
**ISC 09 05:22:25.6±1.4, 21.4°N±0.1°×108.8°W±0.1°, h10km, n97, σ1.35s/85, mb4.3/27, MS3.5/9, Revilla Gigedo Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SLBS | Sierra La Lagu | 2.48 | 335 | ePn | Pn | 05 23 01.4 | -4.8 |
| SLBS | | | | eSn | Sn | 05 23 32.5 | -4.2 |
| LPIG | La Paz | 3.00 | 333 | Pn | Pn | 05 23 08.6 | -4.7 |
| | 2.6nm,0.3s,baz=169,slow=0.6,SNR=6.4 | | | | | | |
| LPIG | | | | LR | LR | 05 23 34.3 | |
| | comp=Z,214nm,19.2s,baz=105,slow=26 | | | | | | |
| LPIG | | | | Sn | Sn | 05 23 42.9 | -6.5 |
| | 8.1nm,0.3s,baz=7.6,slow=9.7,SNR=4.3 | | | | | | |
| ZAIG | Zacatecas | 5.93 | 76 | ePn | Pn | 05 23 52.3 | -1.5 |
| HPIG | | 6.18 | 27 | ePn | Pn | 05 23 58.2 | +1.0 |
| TX31 | Lajitas Ar. Si | 9.13 | 29 | ePn | Pn | 05 24 39.4 | +1.8 |
| TXAR | Lajitas Array | 9.13 | 29 | Pn | Pn | 05 24 39.2 | +1.6 |
| | 0.1nm,0.3s,baz=208,slow=13,SNR=18 | | | | | | |
| TXAR | | | | LR | LR | 05 27 43.8 | |
| | comp=Z,231nm,19.1s,baz=0.0,slow=35 | | | | | | |
| TLIG | Tlapa | 10.38 | 110 | ePn | Pn | 05 24 56.0 | +1.1 |
| MNTX | Cornudas Mount | 10.68 | 16 | ePn | Pn | 05 25 00.7 | +2.1 |
| TUC | Tucson | 10.98 | 351 | ePn | Pn | 05 25 04.5 | +1.6 |
| GLA | Glamis | 12.76 | 336 | ePn | Pn | 05 25 28.8 | +1.6 |
| Y14A | Wickenburg | 13.01 | 344 | ePn | Pn | 05 25 32.3 | +1.8 |
| LAZ | Ladron | 13.01 | 6 | ePn | Pn | 05 25 30.3 | -0.5 |
| ANMO | Albuquerque | 13.62 | 8 | ePn | Pn | 05 25 41.1 | +1.9 |
| CMIG | Matias Romero | 13.82 | 106 | Pn | P | 05 25 49.8 | -0.5 |
| | 0.1nm,0.3s,baz=286,slow=11,SNR=7.2 | | | | | | |
| PFO | Pinyon Flats O | 13.90 | 332 | LR | LR | 05 29 32.5 | |
| | comp=Z,67nm,21.2s,baz=160,slow=32 | | | | | | |
| WUAZ | Wupatki | 14.22 | 351 | ePn | Pn | 05 25 50.2 | +2.9 |
| BBRC | Big Bear Solar | 14.66 | 332 | ePn | Pn | 05 25 56.0 | +2.6 |
| AMTX | Amarillo | 14.79 | 24 | ePn | Pn | 05 25 55.7 | +0.7 |
| PASC | Pasadena Art C | 15.16 | 329 | ePn | Pn | 05 26 01.0 | +1.1 |
| | 34nm,1.9s | | | | | | |
| U15A | North Rim | 15.26 | 349 | ePn | Pn | 05 26 04.0 | +2.7 |
| | 50nm,1.6s | | | | | | |
| GSC | Goldstone, Bar | 15.51 | 335 | ePn | Pn | 05 26 05.1 | +0.6 |
| | 27nm,1.7s | | | | | | |
| MVCO | Mesa Verde | 15.73 | 1 | ePn | Pn | 05 26 09.6 | +2.0 |
| | 65nm,1.8s | | | | | | |
| KNB | Kanab | 15.92 | 348 | ePn | Pn | 05 26 12.6 | +2.6 |
| | 76nm,1.8s | | | | | | |
| LCMT | Little Creek M | 16.00 | 347 | ePn | Pn | 05 26 13.2 | +2.3 |
| | 49nm,1.9s | | | | | | |
| SHPR | Sheep Range | 16.02 | 341 | ePn | Pn | 05 26 12.6 | +1.4 |
| | 15nm,1.6s | | | | | | |
| SDCO | Great Sand Dun | 16.51 | 9 | ePn | P | 05 26 20.7 | +0.4 |
| | 8.3nm,1.2s | | | | | | |
| SZCU | Shurtz Canyon | 16.54 | 348 | ePn | Pn | 05 26 19.7 | +1.8 |
| | 11nm,1.4s | | | | | | |
| CCUT | Cedar City | 16.55 | 347 | ePn | Pn | 05 26 19.7 | +1.7 |
| | 14nm,1.4s | | | | | | |
| PV05 | Paradox Valley | 16.60 | 359 | ePn | P | 05 26 21.3 | +0.1 |
| PV01 | Paradox Valley | 16.65 | 1 | ePn | Pn | 05 26 21.0 | +1.6 |
| TPNV | Topopah Spring | 16.77 | 339 | ePn | Pn | 05 26 22.1 | +1.4 |
| | 68nm,1.9s | | | | | | |
| MTPU | Mount Pierson | 16.81 | 351 | ePn | Pn | 05 26 23.7 | +2.1 |
| | 26nm,1.7s | | | | | | |
| PV10 | Paradox Valley | 16.89 | 359 | ePn | Pn | 05 26 23.1 | +0.7 |
| PV04 | Paradox Valley | 16.91 | 360 | eP | Pn | 05 26 24.0 | +1.5 |
| PV09 | Paradox Valley | 17.02 | 359 | ePn | Pn | 05 26 25.5 | +1.5 |
| PAGB | Antelope Grade | 17.42 | 327 | ePn | Pn | 05 26 29.9 | +1.1 |
| | 41nm,1.7s | | | | | | |
| Q16A | Castle Valley | 17.55 | 354 | ePn | Pn | 05 26 32.0 | +1.4 |
| | 9.3nm,1.2s | | | | | | |
| PSUT | Pine Spring | 17.60 | 347 | eP | P | 05 26 33.4 | +1.2 |
| | 8.8nm,0.9s | | | | | | |
| SMCO | Snowmass | 17.76 | 5 | ePn | Pn | 05 26 35.0 | +1.6 |
| | 13nm,1.4s | | | | | | |
| P18A | Preston Nutter | 18.18 | 356 | ePn | Pn | 05 26 38.0 | -0.6 |
| | 26nm,1.6s | | | | | | |
| MDPB | Devils Postpil | 18.44 | 333 | eP | Pn | 05 26 43.3 | +1.7 |
| | 13nm,1.5s | | | | | | |
| MPU | Maple Canyon | 18.69 | 353 | eP | P | 05 26 45.4 | +1.2 |
| | 12nm,1.4s | | | | | | |
| DUG | Dugway, Tooele | 19.02 | 351 | eP | P | 05 26 48.1 | +0.3 |
| | 9.9nm,1.3s | | | | | | |
| JLU | Jordanelle | 19.25 | 354 | eP | Pn | 05 26 52.7 | +1.3 |
| | 23nm,1.7s | | | | | | |
| WAKR | Walker | 19.33 | 334 | eP | P | 05 26 51.9 | +0.6 |
| | 17nm,1.5s | | | | | | |
| CTU | Camp Tracy | 19.37 | 353 | eP | Pn | 05 26 54.1 | +1.3 |
| | 18nm,1.7s | | | | | | |
| YERR | Yerington | 19.66 | 335 | eP | P | 05 26 55.2 | +0.3 |
| | 11nm,1.2s | | | | | | |
| HHAR | Hobbs | 19.67 | 38 | eP | Pn | 05 26 56.7 | +0.5 |
| | 28nm,1.6s | | | | | | |
| TCUT | Toone Canyon | 19.75 | 354 | eP | P | 05 26 57.1 | +1.1 |
| | 63nm,1.9s | | | | | | |
| BGU | Big Grassy Mou | 19.77 | 350 | eP | P | 05 26 55.9 | -0.1 |
| | 24nm,1.9s | | | | | | |
| PNTR | Pine Nut | 19.89 | 335 | eP | P | 05 26 58.1 | +0.6 |
| | 50nm,1.9s | | | | | | |
| SPUT | South Promonto | 20.06 | 352 | eP | P | 05 26 59.9 | +0.7 |
| | 5.9nm,1.1s | | | | | | |
| PAHR | Pah Rah Range | 20.34 | 336 | eP | P | 05 27 02.8 | +0.5 |
| | 9.8nm,1.1s | | | | | | |
| HVU | Hansel Valley | 20.57 | 352 | eP | P | 05 27 05.4 | +0.7 |
| | 6.3nm,1.1s | | | | | | |

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BEKR | Beckworth | 20.86 | 334 | eP | P | 05 27 08.4 | +0.4 |
| | 12nm,1.2s | | | | | | |
| ORV | Oroville | 21.08 | 332 | eP | P | 05 27 10.2 | 0.0 |
| | 16nm,1.4s | | | | | | |
| BW06 | Boulder Array | 21.29 | 358 | eP | P | 05 27 13.2 | +0.7 |
| | 5.8nm,1.0s | | | | | | |
| PD31 | Pinedale Array | 21.29 | 358 | eP | P | 05 27 12.3 | -0.3 |
| PDAR | Pinedale Array | 21.29 | 358 | P | P | 05 27 12.1 | -0.5 |
| | 1.5nm,0.8s,baz=174,slow=8.5,SNR=14 | | | | | | |
| PDAR | | | | LR | LR | 05 34 32.8 | |
| | comp=Z,105nm,19.8s,baz=264,slow=35 | | | | | | |
| REDW | Red Top Meadow | 21.94 | 356 | eP | P | 05 27 21.1 | +1.5 |
| | 28nm,1.3s | | | | | | |
| SNOW | Snow King Moun | 22.03 | 356 | eP | P | 05 27 21.0 | +0.4 |
| | 16nm,1.0s | | | | | | |
| TPAW | Teton Pass | 22.07 | 356 | eP | P | 05 27 21.2 | +0.2 |
| | 13nm,1.0s | | | | | | |
| LOHW | Long Hollow | 22.17 | 357 | eP | P | 05 27 22.0 | -0.1 |
| | 20nm,1.4s | | | | | | |
| FXWY | Fox Creek | 22.23 | 356 | eP | P | 05 27 22.4 | -0.2 |
| | 7.8nm,1.0s | | | | | | |
| MOOW | Moose Ponds | 22.32 | 356 | eP | P | 05 27 23.7 | +0.1 |
| | 20nm,1.8s | | | | | | |
| IMW | Indian Meadow | 22.48 | 356 | eP | P | 05 27 26.4 | +1.0 |
| | 19nm,1.7s | | | | | | |
| WVOR | Wild Horse Val | 22.52 | 341 | eP | P | 05 27 25.3 | -0.3 |
| | 24nm,1.2s | | | | | | |
| HLID | Hailey | 22.56 | 349 | eP | P | 05 27 26.8 | +0.7 |
| | 7.6nm,1.3s | | | | | | |
| MOD | Modoc Plateau | 22.60 | 337 | eP | P | 05 27 27.6 | +1.0 |
| | 11nm,1.1s | | | | | | |
| MFID | Camas Ranch | 22.70 | 347 | eP | P | 05 27 29.8 | +2.2 |
| | 9.8nm,1.4s | | | | | | |
| YMR | Madison River | 23.25 | 356 | eP | P | 05 27 33.8 | +0.4 |
| | 12nm,1.3s | | | | | | |
| J08A | Circle Bar Ran | 23.31 | 342 | eP | P | 05 27 34.8 | +0.9 |
| | 18nm,1.0s | | | | | | |
| YHH | Holmes Hill | 23.36 | 356 | eP | P | 05 27 35.7 | +1.1 |
| | 7.4nm,1.2s | | | | | | |
| YBH | Yreka Blue Hor | 23.40 | 333 | P | P | 05 27 34.8 | +0.1 |
| | 0.6nm,0.4s,baz=160,slow=12,SNR=3.8 | | | | | | |
| DLMT | Dillon | 24.08 | 353 | eP | P | 05 27 41.7 | +0.4 |
| | 24nm,1.8s | | | | | | |
| BOZ | Bozeman (W) | 24.22 | 355 | eP | P | 05 27 43.6 | +0.9 |
| | 3.5nm,0.9s | | | | | | |
| I07A | Izee | 24.28 | 341 | eP | P | 05 27 43.1 | -0.1 |
| | 8.7nm,1.0s | | | | | | |
| GCMT | Greycliff | 24.31 | 359 | eP | P | 05 27 44.0 | +0.5 |
| BMO | Blue Mountains | 24.40 | 345 | eP | P | 05 27 44.0 | -0.2 |
| | 13nm,1.3s | | | | | | |
| LRM | Limekiln Ridge | 24.52 | 354 | eP | P | 05 27 44.7 | -0.8 |
| HRY | Holter Researc | 25.34 | 355 | eP | P | 05 27 52.4 | -0.4 |
| TKL | Tuckaleechee C | 26.06 | 52 | LR | LR | 05 38 49.1 | |
| | comp=Z,124nm,18.4s,baz=280,slow=38 | | | | | | |
| LON | Longmire | 27.39 | 340 | eP | P | 05 28 12.1 | +0.9 |
| | 8.7nm,1.0s | | | | | | |
| OFR | Olym-F Res Ctr | 29.27 | 338 | eP | P | 05 28 29.3 | +1.4 |
| ROSC | El Rosal | 37.27 | 111 | LR | LR | 05 47 02.8 | |
| | comp=Z,44nm,18.8s,baz=34,slow=39 | | | | | | |
| SDV | Santo Domingo | 38.77 | 103 | eP | P | 05 29 49.4 | -1.5 |
| | 4.9nm,0.8s | | | | | | |
| YKA | Yellowknife Ar | 41.23 | 356 | P | P | 05 30 10.5 | +0.1 |
| | 0.4nm,0.8s,baz=180,slow=8.0,SNR=2.8 | | | | | | |
| YKA | | | | LR | LR | 05 47 36.5 | |
| | comp=Z,8.5nm,19.4s,baz=180,slow=37 | | | | | | |
| TAOE | Nuku Hiva Isla | 43.05 | 229 | eLR | LR | 05 41 55.8 | |
| | 144nm,24.4s | | | | | | |
| INK | Inuvik | 49.32 | 348 | P | P | 05 31 14.6 | +0.1 |
| | 1.8nm,0.9s,baz=170,slow=8.9,SNR=5.4 | | | | | | |
| ILAR | Eielson Array | 50.03 | 340 | P | P | 05 31 18.4 | -1.6 |
| | 1.7nm,0.9s,baz=146,slow=6.6,SNR=8.7 | | | | | | |
| RKT | Rikitea | 51.10 | 211 | eT | T | 06 25 34.0 | |
| | 2.0nm,0.3s | | | | | | |
| LPAZ | La Paz | 54.73 | 130 | LR | LR | 05 52 27.3 | |
| | comp=Z,44nm,18.8s,baz=307,slow=33 | | | | | | |
| PPT | Papeete | 55.66 | 229 | LR | LR | 05 50 16.2 | |
| | comp=Z,44nm,19.5s,baz=336,slow=30 | | | | | | |
| PPT2 | Papeete2 | 55.68 | 229 | eLR | LR | 05 47 47.0 | |
| | 124nm,25.8s | | | | | | |
| PETK | Petropavlovsk- | 75.20 | 322 | LR | LR | 06 01 53.3 | |
| | comp=Z,36nm,18.5s,baz=94,slow=32 | | | | | | |
| ESDC | Sonseca Array | 87.31 | 48 | LR | LR | 06 14 31.7 | |
| | comp=Z,50nm,18.1s,baz=0.0,slow=36 | | | | | | |
| MJAR | Matsushiro Arr | 94.46 | 312 | LR | LR | 06 09 19.9 | |
| | comp=Z,20nm,20.9s,baz=90,slow=30 | | | | | | |

*ISK **09** 05:38:55.2, 38.°78N×43.°21E, h5km, ML2.2*
*ATA **09** 05:38:55.5±0.4, 38.°76N×43.°10E, h8km±20km, ML2.6, MW2.8*
*ISCJB **09** 05:38:56.3±0.4, 38.°79N±0.°03×43.°24E±0.°03, h12km±5km, Error ellipse: s-maj=4.6km s-min=4.3km az=27.6*
*DDA **09** 05:38:56.0, 38.°78N×43.°25E, h7km, Ml3.0*
*CSEM **09** 05:38:56.0±0.2, 38.°78N×43.°26E, h10km, ML2.2, Error ellipse: s-maj=4.3km s-min=4.0km az=97.0*
**ISC 09 05:38:56.4**±0.9**, 38.°78N**±0.°02×**43.°25E**±0.°02**, h15**km±7km**, n27, σ0.s80**/48**, 2D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.22 | 149 | ePG | Pg | 05 39 01.8 | +0.4 |
| VANB | | | | eSG | Sb | 05 39 06.7 | +0.6 |
| VANB | Van | 0.22 | 149 | ePg | Pg | 05 39 01.8 | +0.4 |
| TVAN | Van | 0.28 | 154 | iP | Pg | 05 39 01.6 | -0.9 |
| TVAN | | | | iS | Sg | 05 39 06.9 | +0.1 |
| TVAN | Van | 0.28 | 154 | P | Pg | 05 39 01.6 | -0.9 |
| TVAN | | | | S | Sg | 05 39 06.9 | +0.1 |
| VMUR | Van-Muradiye | 0.33 | 51 | iP | Pg | 05 39 02.9 | -0.4 |
| VMUR | | | | iS | Sg | 05 39 08.9 | +0.9 |
| VMUR | Van-Muradiye | 0.33 | 51 | P | Pg | 05 39 02.9 | -0.4 |
| VMUR | | | | S | Sg | 05 39 08.9 | +0.9 |
| ADCV | BITLIS_Adilcev | 0.41 | 274 | iP | Pg | 05 39 04.4 | -0.3 |
| ADCV | | | | iS | Sg | 05 39 10.9 | +0.6 |
| ADCV | BITLIS_Adilcev | 0.41 | 274 | P | Pg | 05 39 04.4 | -0.3 |
| ADCV | | | | S | Sg | 05 39 10.9 | +0.6 |
| GEVA | Gevas | 0.49 | 197 | ⇓iP | Pg | 05 39 04.8 | -1.4 |
| GEVA | | | | IAML | | 05 39 06.0 | |
| | comp=Z,29nm,0.2s | | | | | | |
| GEVA | | | | eS | Sg | 05 39 12.4 | -0.5 |
| GEVA | Gevas | 0.49 | 197 | iP | Pg | 05 39 04.9 | -1.4 |
| GEVA | | | | iS | Sg | 05 39 13.2 | +0.3 |
| GEVA | Gevas | 0.49 | 197 | P | Pg | 05 39 04.9 | -1.3 |
| GEVA | | | | S | Sg | 05 39 13.2 | +0.3 |
| CLDR | Caldiran | 0.64 | 55 | ePG | Pg | 05 39 08.3 | -0.6 |
| CLDR | | | | eSG | Sb | 05 39 18.1 | 0.0 |
| CLDR | Caldiran | 0.64 | 55 | iP | Pg | 05 39 07.5 | -1.4 |
| CLDR | | | | iS | Sg | 05 39 17.9 | +0.5 |
| CLDR | Caldiran | 0.64 | 55 | P | Pg | 05 39 07.5 | -1.4 |
| CLDR | Caldiran | 0.64 | 55 | ePg | Pg | 05 39 08.3 | -0.6 |
| CLDR | | | | S | Sg | 05 39 17.9 | +0.5 |
| CLDR | | | | eSg | Sb | 05 39 18.1 | 0.0 |
| TUTA | Tutak | 0.70 | 332 | ⇓iP | Pg | 05 39 09.4 | -0.9 |
| TUTA | | | | IAML | | 05 39 09.6 | |
| | comp=Z,49nm,0.2s | | | | | | |
| TUTA | | | | eS | Sg | 05 39 19.8 | +0.3 |
| TUTA | Tutak | 0.70 | 332 | iP | Pg | 05 39 09.3 | -0.9 |
| TUTA | | | | iS | Sg | 05 39 19.7 | +0.1 |
| TUTA | Tutak | 0.70 | 332 | P | Pg | 05 39 09.3 | -0.9 |
| TUTA | | | | S | Sg | 05 39 19.7 | +0.1 |
| AGRB | Hanur-Agry | 0.81 | 346 | ePG | Pb | 05 39 11.1 | -1.3 |
| AGRB | | | | eSG | Sb | 05 39 23.2 | -0.1 |
| AGRB | Hanur-Agry | 0.81 | 346 | ePg | Pb | 05 39 11.1 | -1.3 |
| AGRB | | | | eSg | Sb | 05 39 23.2 | -0.1 |
| EKAR | Karacoban | 1.03 | 297 | iP | Pg | 05 39 16.7 | +0.3 |
| EKAR | | | | iS | Sn | 05 39 32.4 | +1.5 |
| EKAR | Karacoban | 1.03 | 297 | P | Pg | 05 39 16.7 | +0.3 |
| EKAR | | | | S | Sn | 05 39 32.4 | +1.5 |
| EATA | Eleskirt | 1.23 | 332 | eP | Pn | 05 39 18.9 | -0.4 |
| EATA | | | | IAML | | 05 39 40.0 | |
| | comp=Z,3.2nm,0.4s | | | | | | |
| TASB | TASBURUN-IGDIR | 1.42 | 32 | ePN | Pb | 05 39 22.6 | -0.1 |
| TASB | TASBURUN-IGDIR | 1.42 | 32 | ePn | Pb | 05 39 22.6 | -0.1 |
| CUKT | Cukurca | 1.56 | 169 | ePN | Pn | 05 39 24.3 | +0.6 |
| CUKT | Cukurca | 1.56 | 169 | ePn | Pn | 05 39 24.3 | +0.6 |

*IDC **09** 05:43:24.2±2.1, 5.°92S×130.°47E, h0km, mb4.0/2, mb1 4.1/5, mb1mx3.6/33, mbtmp4.0/5, ML4.1/3, Error ellipse: s-maj=112.3km s-min=25.2km az=78.0*
*ISCJB **09** 05:43:38.8±0.5, 6.°61S±0.°04×130.°11E±0.°05, h150km, mb3.8/2, Error ellipse: s-maj=6.8km s-min=5.0km az=175.7*
*NEIC **09** 05:43:41.6±0.9, 6.°65S×130.°11E, h167km±11km, mb4.0/3, Error ellipse: s-maj=13.6km s-min=10.3km az=87.0*
**ISC 09 05:43:40.2**±0.8**, 6.°69S**±0.°06×**130.°17E**±0.°07**, h150**km**, n21, σ2.s33**/28**, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SAUI | Saumlaki | 1.70 | 139 | ePn | Pn | 05 44 17.2 | +5.3 |
| SAUI | | | | eSn | Sn | 05 44 40.8 | +4.4 |
| FAKI | Fak Fak | 4.28 | 29 | ePn | Pn | 05 44 44.7 | +0.5 |
| FAKI | | | | eSn | Sn | 05 45 32.9 | -1.0 |
| MTN | Manton Dam | 6.19 | 171 | ePn | Pn | 05 45 12.2 | +2.8 |
| MTN | | | | eSn | Sn | 05 46 20.9 | +1.6 |
| SOEI | Soe | 6.59 | 242 | ePn | Pn | 05 45 15.8 | +0.9 |
| SOEI | | | | eSn | Sn | 05 46 27.6 | -1.5 |
| FITZ | Fitzroy Crossi | 12.17 | 201 | Pn | Pn | 05 46 29.1 | +0.3 |
| | 0.6nm,0.3s,baz=28,slow=9.0,SNR=14 | | | | | | |
| FITZ | | | | Sn | Sn | 05 48 33.9 | -10 |
| | 1.0nm,0.3s,baz=61,slow=13,SNR=4.8 | | | | | | |
| WRAB | Tennant Creek | 13.78 | 163 | ePn | Pn | 05 46 49.8 | +0.4 |
| WR1 | Warramunga Arr | 13.78 | 163 | ePn | Pn | 05 46 49.0 | -0.4 |
| WR1 | | | | eSn | Sn | 05 49 17.9 | -4.2 |
| WRA | Warramunga Arr | 13.78 | 163 | Pn | Pn | 05 46 49.0 | -0.4 |
| | 1.1nm,0.3s,baz=351,slow=14,SNR=18 | | | | | | |
| WRA | | | | Sn | Sn | 05 49 17.9 | -4.2 |
| | 2.1nm,0.3s,baz=345,slow=23,SNR=7.9 | | | | | | |
| WB2 | Warramunga Arr | 13.79 | 163 | ePn | Pn | 05 46 50.1 | +0.7 |
| COEN | Coen | 14.68 | 120 | ePn | P | 05 47 04.3 | +1.4 |
| COEN | | | | eSn | Sn | 05 49 40.4 | -3.4 |
| PMG | Port Moresby | 17.03 | 100 | eP | P | 05 47 29.0 | 0.0 |
| | 7.4nm,0.9s | | | | | | |
| AS31 | Alice Springs | 17.26 | 168 | eP | Pn | 05 47 35.4 | +3.1 |
| | 1.2nm,0.5s | | | | | | |
| ASAR | Alice Springs | 17.26 | 168 | P | Pn | 05 47 37.0 | +4.7 |
| | 0.5nm,0.3s,baz=346,slow=8.4,SNR=22 | | | | | | |
| ASAR | | | | S | S | 05 50 40.6 | -3.1 |
| | 0.3nm,0.3s,baz=354,slow=27,SNR=4.0 | | | | | | |
| AS01 | Alice Springs | 17.26 | 168 | eP | Pn | 05 47 34.9 | +2.6 |
| MBWA | Marble Bar | 17.58 | 214 | eP | P | 05 47 35.9 | +0.9 |
| | 22nm,1.4s | | | | | | |
| MK01 | Makanchi Array | 68.04 | 327 | eP | P | 05 54 22.6 | -0.8 |
| MK31 | Makanchi Array | 68.06 | 327 | eP | P | 05 54 23.0 | -0.6 |
| MK32 | Makanchi Array | 68.06 | 327 | eP | P | 05 54 22.9 | -0.6 |
| MKAR | Makanchi Array | 68.06 | 327 | P | P | 05 54 22.9 | -0.6 |
| | 1.7nm,0.5s,baz=120,slow=7.5,SNR=23 | | | | | | |
| KURBB | Kurchatov Arra | 72.34 | 328 | P | P | 05 54 48.7 | -0.8 |
| | 0.5nm,0.5s,baz=126,slow=4.9,SNR=7.0 | | | | | | |
| KURK | Kurchatov | 72.34 | 328 | eP | P | 05 54 48.7 | -0.8 |

**IDC 09 05:57:15.0**±3.0**, 6.°37S**×**147.°71E, h0**km**, mb3.7**/2**, mb1 3.7**/4**, mb1mx3.5**/24**, mbtmp3.5**/4**, ML3.4**/1**, Error ellipse: s-maj=64.9km s-min=34.3km az=94.0, Eastern New Guinea region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PMG | Port Moresby | 3.06 | 190 | Pn | Pn | 05 58 06.0 | +1.2 |
| | 3.0nm,0.3s,baz=10,slow=19,SNR=3.9 | | | | | | |
| PMG | | | | Sn | Sn | 05 58 43.5 | +1.3 |
| | 2.9nm,0.3s,baz=128,slow=23,SNR=2.1 | | | | | | |
| WRA | Warramunga Arr | 18.73 | 223 | P | Pn | 06 01 36.0 | +0.2 |
| | 0.1nm,0.3s,baz=47,slow=11,SNR=3.9 | | | | | | |
| ASAR | Alice Springs | 21.73 | 216 | P | P | 06 02 06.9 | -1.2 |
| | 0.8nm,0.6s,baz=53,slow=9.1,SNR=12 | | | | | | |
| FITZ | Fitzroy Crossi | 24.48 | 240 | P | P | 06 02 36.1 | -0.1 |
| | 2.8nm,0.5s,baz=51,slow=8.1,SNR=24 | | | | | | |
| TORD | Torodi Ar. Bea | 145.87 | 284 | PKPbc | PKPdf | 06 16 56.9 | -0.1 |
| | 0.2nm,0.4s,baz=69,slow=4.3,SNR=6.1 | | | | | | |

*IDC **09** 06:02:33.5±3.2, 51.°19N×175.°14W, h0km, mb3.7/2, mb1 3.8/3, mb1mx3.5/33, mbtmp3.6/3, ML3.6/1, MS2.4/1, Ms1 2.4/1, ms1mx2.3/36, Error ellipse: s-maj=91.2km s-min=34.1km az=1.0*
*ISCJB **09** 06:02:37.1±1.1, 51.°13N±0.°09×174.°95W±0.°07, h33km, mb3.7/2, MS2.4/1, Error ellipse: s-maj=12.4km s-min=6.3km az=169.4*
*NEIC **09** 06:02:37.5±0.0, 51.°22N×175.°00W, h17km, ML3.6(AEIC), After AEIC.*
**ISC 09 06:02:39.1**±1.5**, 51.°2N**±0.°1×**175.°00W**±0.°06**, h35**km**, n22, σ0.s57**/21**, Andreanof Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ETKA | Kagalaska Isla | 1.08 | 306 | P | Pn | 06 02 56.7 | -1.0 |
| GSTR | Great Sitkin T | 1.08 | 323 | P | Pn | 06 02 57.4 | -0.4 |
| ATKA | Atka Island | 1.08 | 27 | P | Pn | 06 02 56.8 | -0.9 |
| ATKA | | | | S | Sn | 06 03 12.5 | +0.9 |
| GSTD | Great Sitkin T | 1.08 | 319 | P | Pn | 06 02 57.2 | -0.7 |
| GSTD | | | | S | Sn | 06 03 12.6 | +0.9 |
| KOFP | Korovin Flat P | 1.18 | 28 | P | Pn | 06 02 58.8 | -0.3 |
| KOKL | Mount Kliuchef | 1.19 | 24 | P | Pn | 06 02 59.2 | -0.1 |
| KOWE | Korovin West | 1.22 | 22 | P | Pn | 06 02 59.5 | -0.2 |
| ADK | Adak | 1.23 | 302 | P | Pn | 06 02 59.1 | -0.8 |
| ADK | | | | S | Sn | 06 03 15.6 | +0.4 |
| ADAG | Mount Adagdak | 1.24 | 307 | P | Pn | 06 03 00.2 | +0.2 |
| KOSE | Korovin Southe | 1.25 | 28 | P | Pn | 06 03 00.3 | +0.2 |
| KIRH | Kanaga Island | 1.46 | 298 | P | Pn | 06 03 03.0 | -0.1 |
| KIKV | Kanaga Island | 1.50 | 296 | P | Pn | 06 03 03.1 | -0.4 |
| TAPA | Tanaga Point A | 1.85 | 289 | P | Pn | 06 03 08.3 | -0.1 |
| TAFP | Tanaga Falls P | 1.98 | 291 | P | Pn | 06 03 10.3 | +0.2 |
| GAEA | Gareloi East | 2.40 | 284 | P | Pn | 06 03 16.2 | +0.3 |
| ILAR | Eielson Array | 19.90 | 36 | P | P | 06 07 07.1 | -0.1 |
| | 0.2nm,0.3s,baz=226,slow=11,SNR=16 | | | | | | |
| YKA | Yellowknife Ar | 33.59 | 47 | LR | LR | 06 23 01.0 | |
| | comp=Z,7.0nm,20.4s,baz=180,slow=36 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 34.53 | 211 | T | T | 06 46 18.5 | |
| | baz=18,slow=76,SNR=10 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 34.54 | 211 | T | T | 06 46 19.2 | |
| | baz=18,slow=76,SNR=10 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 34.55 | 211 | T | T | 06 46 20.0 | |
| | baz=18,slow=76,SNR=8.8 | | | | | | |
| PDAR | Pinedale Array | 44.06 | 74 | P | P | 06 10 44.0 | +0.3 |
| | 0.3nm,0.5s,baz=305,slow=5.2,SNR=4.8 | | | | | | |
| MKAR | Makanchi Array | 61.96 | 311 | P | P | 06 12 54.6 | -0.6 |
| | 0.6nm,0.3s,baz=48,slow=6.8,SNR=7.2 | | | | | | |

*ATA **09** 06:08:10.7±0.6, 38.°85N×43.°42E, h1km±2km, ML3.4, MW3.7*
*DDA **09** 06:08:11.9, 38.°81N×43.°47E, h7km, Ml3.2*
*ISK **09** 06:08:12.6, 38.°85N×43.°40E, h5km, ML2.7*
*CSEM **09** 06:08:13.0±0.3, 38.°87N×43.°43E, h2km, ML2.7, Error ellipse: s-maj=6.4km s-min=4.6km az=104.0*
**ISC 09 06:08:13.1**±1.0**, 38.°85N**±0.°02×**43.°43E**±0.°02**, h4**km±10km**, n57, σ1.s18**/87**, 1D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.18 | 37 | iP | Pg | 06 08 15.8 | -0.9 |
| VMUR | | | | iS | Sg | 06 08 20.6 | +1.5 |
| VMUR | Van-Muradiye | 0.18 | 37 | P | Pg | 06 08 15.8 | -0.9 |
| VMUR | | | | S | Sg | 06 08 20.6 | +1.5 |
| ERCV | ERCIS-VAN | 0.19 | 337 | ePG | Pg | 06 08 16.2 | -0.6 |
| ERCV | ERCIS-VAN | 0.19 | 337 | ePg | Pg | 06 08 16.3 | -0.6 |
| VANB | Van | 0.25 | 188 | ePG | Pb | 06 08 20.4 | +0.1 |
| VANB | | | | eSG | Sb | 06 08 26.0 | +0.9 |
| VANB | Van | 0.25 | 188 | ePg | Pb | 06 08 20.5 | +0.1 |
| TVAN | Van | 0.32 | 184 | iP | Pg | 06 08 18.3 | -1.0 |
| TVAN | | | | iS | Sb | 06 08 25.4 | -1.7 |
| TVAN | Van | 0.32 | 184 | P | Pg | 06 08 18.3 | -1.0 |
| TVAN | | | | S | Sb | 06 08 25.4 | -1.7 |
| CLDR | Caldiran | 0.48 | 52 | iP | Pg | 06 08 21.2 | -1.2 |
| CLDR | | | | iS | Sg | 06 08 29.7 | +1.0 |
| CLDR | Caldiran | 0.48 | 52 | P | Pg | 06 08 21.2 | -1.2 |
| CLDR | | | | S | Sg | 06 08 29.7 | +1.0 |
| ADCV | BITLIS_Adilcev | 0.56 | 266 | iP | Pg | 06 08 23.0 | -0.8 |
| ADCV | | | | iS | Sg | 06 08 32.2 | +1.2 |
| ADCV | BITLIS_Adilcev | 0.56 | 266 | P | Pg | 06 08 23.0 | -0.8 |
| ADCV | | | | S | Sg | 06 08 32.2 | +1.2 |
| GEVA | Gevas | 0.61 | 209 | eP | Pg | 06 08 23.0 | -1.8 |
| GEVA | | | | eS | Sg | 06 08 33.6 | +0.8 |
| GEVA | | | | IAML | | 06 08 47.7 | |
| | comp=Z,69nm,0.4s | | | | | | |
| GEVA | Gevas | 0.61 | 209 | iP | Pg | 06 08 23.3 | -1.6 |
| GEVA | | | | iS | Sg | 06 08 32.5 | -0.2 |
| GEVA | Gevas | 0.61 | 209 | P | Pg | 06 08 23.3 | -1.6 |
| GEVA | | | | S | Sg | 06 08 32.5 | -0.2 |
| DYDN | Diyadin | 0.72 | 16 | eP | Pg | 06 08 25.9 | -1.2 |
| DYDN | | | | IAML | | 06 08 42.5 | |
| | comp=Z,43nm,0.3s | | | | | | |
| DYDN | Diyadin | 0.72 | 16 | iP | Pg | 06 08 26.2 | -0.9 |
| DYDN | | | | iS | Sg | 06 08 36.8 | +0.3 |
| DYDN | Diyadin | 0.72 | 16 | P | Pg | 06 08 26.2 | -0.9 |
| DYDN | | | | S | Sg | 06 08 36.8 | +0.3 |
| TUTA | Tutak | 0.73 | 319 | ⇓iP | Pg | 06 08 25.6 | -1.6 |
| TUTA | | | | IAML | | 06 08 26.5 | |
| | comp=Z,289nm,0.2s | | | | | | |
| TUTA | | | | eS | Sg | 06 08 37.6 | +0.8 |
| TUTA | Tutak | 0.73 | 319 | iP | Pg | 06 08 25.7 | -1.6 |
| TUTA | | | | iS | Sb | 06 08 38.0 | -1.2 |
| TUTA | Tutak | 0.73 | 319 | P | Pg | 06 08 25.7 | -1.6 |
| TUTA | | | | S | Sb | 06 08 38.0 | -1.2 |
| AGRB | Hanur-Agry | 0.81 | 335 | ePG | Pg | 06 08 28.6 | 0.0 |
| AGRB | Hanur-Agry | 0.81 | 335 | ePg | Pg | 06 08 28.6 | 0.0 |
| EKAR | Karacoban | 1.14 | 291 | eP | Pg | 06 08 33.4 | -1.6 |
| EKAR | | | | eS | Sb | 06 08 50.7 | -0.2 |
| EKAR | | | | IAML | | 06 09 04.0 | |
| | comp=Z,45nm,0.6s | | | | | | |
| EKAR | Karacoban | 1.14 | 291 | iP | Pg | 06 08 33.8 | -1.3 |
| EKAR | | | | iS | Sn | 06 08 52.8 | +0.4 |
| EKAR | Karacoban | 1.14 | 291 | P | Pg | 06 08 33.8 | -1.3 |
| EKAR | | | | S | Sn | 06 08 52.8 | +0.4 |
| EATA | Eleskirt | 1.25 | 325 | eP | Pg | 06 08 35.7 | -1.5 |
| EATA | | | | IAML | | 06 09 01.7 | |
| | comp=Z,10nm,0.6s | | | | | | |
| EATA | Eleskirt | 1.25 | 325 | iP | Pg | 06 08 35.8 | -1.3 |
| EATA | | | | iS | Sn | 06 08 55.8 | +0.6 |
| EATA | Eleskirt | 1.25 | 325 | P | Pg | 06 08 35.8 | -1.3 |
| EATA | | | | S | Sn | 06 08 55.8 | +0.6 |
| TASB | TASBURUN-IGDIR | 1.30 | 28 | ePN | Pb | 06 08 38.9 | +0.8 |
| TASB | TASBURUN-IGDIR | 1.30 | 28 | ePn | Pb | 06 08 38.9 | +0.8 |
| SRTM | Siirt_Merkez | 1.46 | 235 | iP | Pn | 06 08 40.0 | -0.4 |
| SRTM | | | | iS | Sg | 06 09 02.1 | +2.0 |
| SRTM | Siirt_Merkez | 1.46 | 235 | P | Pn | 06 08 40.0 | -0.4 |
| SRTM | | | | S | Sg | 06 09 02.1 | +2.0 |
| SIRT | Sirnak | 1.56 | 211 | ePN | Pb | 06 08 42.4 | -0.1 |
| SIRT | Sirnak | 1.56 | 211 | ePn | Pb | 06 08 42.4 | -0.1 |
| DIGO | Kars | 1.57 | 358 | eP | Pn | 06 08 41.7 | -0.3 |
| DIGO | | | | IAML | | 06 08 46.7 | |
| | comp=Z,9.3nm,0.6s | | | | | | |
| DIGO | | | | eS | Sg | 06 09 05.2 | +1.7 |
| VRTB | Varto-Mus | 1.57 | 282 | ePN | Pb | 06 08 42.9 | 0.0 |
| VRTB | Varto-Mus | 1.57 | 282 | iP | Pn | 06 08 41.6 | -0.4 |
| VRTB | | | | iS | Sg | 06 09 06.7 | +3.0 |
| VRTB | Varto-Mus | 1.57 | 282 | P | Pn | 06 08 41.6 | -0.4 |
| VRTB | Varto-Mus | 1.57 | 282 | ePn | Pb | 06 08 42.9 | 0.0 |
| VRTB | | | | S | Sg | 06 09 06.7 | +3.0 |
| CUKT | Cukurca | 1.60 | 175 | ePN | Pg | 06 08 43.7 | -0.1 |
| CUKT | Cukurca | 1.60 | 175 | ePn | Pg | 06 08 43.7 | -0.1 |
| HOMI | Horasan | 1.68 | 316 | eP | Pn | 06 08 43.5 | -0.1 |
| HOMI | | | | IAML | | 06 08 49.9 | |
| | comp=Z,22nm,0.6s | | | | | | |
| HOMI | | | | eS | Sg | 06 09 08.7 | +1.4 |
| BNGL | BINGOL | 1.79 | 274 | eP | Pn | 06 08 45.5 | +0.5 |
| BNGL | | | | eS | Sg | 06 09 12.4 | +1.9 |
| BNGL | | | | IAML | | 06 09 15.1 | |
| | comp=Z,51nm,0.4s | | | | | | |
| BNGL | BINGOL | 1.79 | 274 | iP | Pn | 06 08 45.4 | +0.5 |
| BNGL | | | | iS | Sg | 06 09 12.2 | +1.7 |
| SENK | Senkaya-Erzuru | 1.91 | 334 | ePN | Pb | 06 08 47.5 | -1.1 |
| SENK | Senkaya-Erzuru | 1.91 | 334 | ePn | Pb | 06 08 47.5 | -1.1 |
| ERZM | Erzurum | 1.92 | 304 | eP | Pb | 06 08 48.0 | -0.9 |
| ECAT | Cat-ERZURUM | 2.06 | 292 | eP | Pb | 06 08 49.8 | -1.4 |
| ECAT | | | | IAML | | 06 08 54.8 | |
| | comp=Z,13nm,0.4s | | | | | | |
| BNGB | Bingˆ¶l | 2.15 | 275 | ePN | Pn | 06 08 50.5 | +0.5 |
| BINT | Bingol | 2.30 | 272 | ePn | Pn | 06 08 50.5 | -1.5 |
| YEDI | Yedisu-Bingol | 2.32 | 286 | ePN | Pn | 06 08 52.8 | +0.5 |
| YEDI | Yedisu-Bingol | 2.32 | 286 | ePn | Pn | 06 08 52.8 | +0.5 |
| MAZI | Mazidag | 2.73 | 240 | ePN | Pn | 06 08 59.2 | +1.3 |
| MAZI | Mazidag | 2.73 | 240 | ePn | Pn | 06 08 59.2 | +1.3 |
| PTK | Pertek | 3.15 | 272 | ePN | Pn | 06 09 05.1 | +1.3 |
| PTK | Pertek | 3.15 | 272 | ePn | Pn | 06 09 05.1 | +1.3 |

*DDA **09** 06:21:28.4, 38.°86N×43.°66E, h16km, Ml4.0*
*ISK **09** 06:21:28.0, 38.°84N×43.°63E, h5km, ML3.6*
*ATA **09** 06:21:28.1±1.1, 38.°87N×43.°59E, h9km±24km, ML4.3, MW4.3*
*CSEM **09** 06:21:29.4±0.1, 38.°86N×43.°65E, h2km, ML4.0, Error ellipse: s-maj=3.2km s-min=2.4km az=159.0*
*TEH **09** 06:21:30.2, 39.°02N×43.°76E, h8km, ML3.5*
*AZER **09** 06:21:31.2±0.9, 38.°93N×43.°78E, h5km, Error ellipse: s-maj=7.6km s-min=4.7km az=80.0*
*ISN **09** 06:21:32.9±0.8, 38.°25N×43.°52E, h0km±4km, ML3.8*
**ISC 09 06:21:29.5**±1.0**, 38.°85N**±0.°02×**43.°65E**±0.°02**, h6**km±8km**, n109, σ1.s18**/162**, 8C-18D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.15 | 338 | ⇓iP | Pg | 06 21 31.9 | -0.8 |
| VMUR | | | | iS | Sg | 06 21 35.6 | +0.8 |
| VMUR | Van-Muradiye | 0.15 | 338 | P | Pg | 06 21 31.9 | -0.8 |
| VMUR | | | | S | Sg | 06 21 35.7 | +0.8 |
| ERCV | ERCIS-VAN | 0.29 | 306 | ePG | Pg | 06 21 34.9 | -0.4 |
| ERCV | | | | eSG | Sg | 06 21 40.1 | +0.8 |
| ERCV | ERCIS-VAN | 0.29 | 306 | ePg | Pg | 06 21 34.9 | -0.4 |
| ERCV | | | | eSg | Sg | 06 21 40.1 | +0.8 |
| VANB | Van | 0.32 | 219 | ePG | Pg | 06 21 36.0 | +0.2 |
| VANB | Van | 0.32 | 219 | ePg | Pg | 06 21 36.0 | +0.2 |
| CLDR | Caldiran | 0.36 | 36 | ePG | Pg | 06 21 36.6 | 0.0 |
| CLDR | Caldiran | 0.36 | 36 | ⇓iP | Pg | 06 21 35.8 | -0.9 |
| CLDR | | | | iS | Sg | 06 21 42.3 | +0.8 |
| CLDR | Caldiran | 0.36 | 36 | P | Pg | 06 21 35.8 | -0.9 |
| CLDR | Caldiran | 0.36 | 36 | ePg | Pg | 06 21 36.7 | 0.0 |
| CLDR | | | | S | Sg | 06 21 42.3 | +0.8 |
| TVAN | Van | 0.37 | 210 | ⇓iP | Pg | 06 21 35.9 | -0.8 |
| TVAN | | | | iS | Sb | 06 21 43.6 | -1.1 |
| TVAN | Van | 0.37 | 210 | P | Pg | 06 21 35.9 | -0.8 |
| TVAN | | | | S | Sb | 06 21 43.6 | -1.1 |
| DYDN | Diyadin | 0.70 | 3 | iP | Pg | 06 21 41.4 | -1.4 |
| DYDN | | | | eS | Sg | 06 21 52.0 | -0.1 |
| DYDN | | | | IAML | | 06 21 54.4 | |
| | comp=Z,1μm,0.3s | | | | | | |
| DYDN | Diyadin | 0.70 | 3 | ⇓iP | Pg | 06 21 41.5 | -1.4 |
| DYDN | | | | iS | Sg | 06 21 51.6 | -0.4 |
| DYDN | Diyadin | 0.70 | 3 | P | Pg | 06 21 41.5 | -1.4 |
| DYDN | | | | S | Sg | 06 21 51.6 | -0.4 |
| GEVA | Gevas | 0.70 | 221 | iP | Pg | 06 21 41.3 | -1.7 |
| GEVA | | | | eS | Sg | 06 21 52.3 | 0.0 |
| GEVA | | | | IAML | | 06 22 02.6 | |
| | comp=Z,591nm,0.6s | | | | | | |
| GEVA | Gevas | 0.70 | 221 | ⇓iP | Pg | 06 21 41.2 | -1.8 |
| GEVA | | | | iS | Sb | 06 21 54.7 | +0.4 |
| ADCV | BITLIS_Adilcev | 0.72 | 267 | ⇓iP | Pg | 06 21 42.2 | -1.2 |
| ADCV | | | | iS | Sg | 06 21 53.8 | +1.1 |
| ADCV | BITLIS_Adilcev | 0.72 | 267 | P | Pg | 06 21 42.2 | -1.2 |
| ADCV | | | | S | Sg | 06 21 53.8 | +1.1 |
| BASK | Baskale_VAN | 0.84 | 160 | iP | Pg | 06 21 45.7 | +0.1 |
| BASK | | | | IAML | | 06 21 52.8 | |
| | comp=Z,272nm,0.5s | | | | | | |
| BASK | | | | eS | Sb | 06 21 59.4 | +1.1 |
| BASK | Baskale_VAN | 0.84 | 160 | iP | Pg | 06 21 43.7 | -2.0 |
| BASK | | | | eS | Sb | 06 21 58.5 | +0.2 |
| TUTA | Tutak | 0.85 | 311 | ⇓iP | Pg | 06 21 43.9 | -1.9 |
| TUTA | | | | eS | Sg | 06 21 57.1 | +0.1 |
| TUTA | | | | IAML | | 06 21 59.7 | |
| | comp=Z,976nm,0.2s | | | | | | |
| TUTA | Tutak | 0.85 | 311 | ⇓iP | Pg | 06 21 44.0 | -1.9 |
| TUTA | | | | iS | Sg | 06 21 57.2 | +0.3 |
| AGRB | Hanur-Agry | 0.89 | 325 | ePG | Pg | 06 21 45.5 | -1.0 |
| AGRB | | | | eSG | Sb | 06 21 59.6 | 0.0 |
| AGRB | Hanur-Agry | 0.89 | 325 | ePg | Pg | 06 21 45.5 | -1.0 |
| AGRB | | | | eSg | Sb | 06 21 59.6 | 0.0 |
| TASB | TASBURUN-IGDIR | 1.22 | 22 | ePN | Pb | 06 21 52.9 | -0.2 |
| TASB | | | | eSN | Sn | 06 22 11.1 | +1.0 |
| TASB | TASBURUN-IGDIR | 1.22 | 22 | ePn | Pb | 06 21 52.9 | -0.2 |
| TASB | | | | eSn | Sn | 06 22 11.1 | +1.0 |
| HYR | Heyderabad | 1.28 | 47 | ⇓P | Pg | 06 21 53.0 | -1.1 |
| HYR | | | | ⇓S | Sn | 06 22 11.2 | -0.3 |
| HYR | Heyderabad | 1.28 | 47 | P | Pg | 06 21 53.0 | -1.1 |
| HYR | | | | S | Sn | 06 22 11.2 | -0.3 |
| HAKT | HAKKARI | 1.29 | 178 | ⇓iP | Pg | 06 21 51.1 | -3.2 |
| HAKT | | | | iS | Sn | 06 22 14.9 | +3.0 |
| EKAR | Karacoban | 1.30 | 289 | eP | Pg | 06 21 53.3 | -1.0 |
| EKAR | | | | IAML | | 06 22 21.6 | |
| | comp=Z,217nm,0.4s | | | | | | |
| EKAR | Karacoban | 1.30 | 289 | iP | Pg | 06 21 52.9 | -1.5 |
| EKAR | | | | iS | Sn | 06 22 13.8 | +1.7 |
| EKAR | Karacoban | 1.30 | 289 | P | Pg | 06 21 52.9 | -1.5 |
| EKAR | | | | S | Sn | 06 22 13.9 | +1.7 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| EATA | Eleskirt | 1.35 | 319 | eP | Pn | 06 21 53.3 | -1.8 |
| EATA | | | | IAML | | 06 21 59.8 | |
| | comp=Z,85nm,0.5s | | | | | | |
| EATA | Eleskirt | 1.35 | 319 | iP | Pn | 06 21 53.4 | -1.8 |
| EATA | | | | iS | Sn | 06 22 13.9 | +0.3 |
| EATA | Eleskirt | 1.35 | 319 | P | Pn | 06 21 53.4 | -1.8 |
| EATA | | | | S | Sn | 06 22 13.9 | +0.3 |
| NAX | Nakhchivan | 1.48 | 77 | P | Pn | 06 21 56.9 | +0.2 |
| | SNR=37 | | | | | | |
| NAX | | | | ⇑S | Sb | 06 22 15.9 | -0.6 |
| NAX | Nakhchivan | 1.48 | 77 | P | Pn | 06 21 56.9 | +0.2 |
| | SNR=37 | | | | | | |
| NAX | | | | S | Sb | 06 22 15.9 | -0.6 |
| DIGO | Kars | 1.58 | 352 | eP | Pn | 06 21 58.3 | 0.0 |
| DIGO | | | | IAML | | 06 22 17.3 | |
| | comp=Z,77nm,0.5s | | | | | | |
| DIGO | | | | eS | Sg | 06 22 21.5 | +1.2 |
| DIGO | Kars | 1.58 | 352 | ⇓iP | Pn | 06 21 58.3 | 0.0 |
| DIGO | | | | iS | Sg | 06 22 25.7 | +5.4 |
| DIGO | Kars | 1.58 | 352 | P | Pn | 06 21 58.3 | 0.0 |
| SBZ | Shahbuz | 1.58 | 69 | ⇑P | Pn | 06 21 58.0 | -0.2 |
| SBZ | | | | ⇑S | Sn | 06 22 18.8 | -0.2 |
| SBZ | Shahbuz | 1.58 | 69 | P | Pn | 06 21 58.0 | -0.2 |
| SBZ | | | | S | Sn | 06 22 18.8 | -0.2 |
| CUKT | Cukurca | 1.60 | 181 | ePN | Pn | 06 21 58.3 | -0.1 |
| CUKT | Cukurca | 1.60 | 181 | ePn | Pn | 06 21 58.3 | -0.1 |
| SRTM | Siirt_Merkez | 1.60 | 238 | iP | Pn | 06 21 58.3 | -0.1 |
| SRTM | | | | iS | Sg | 06 22 21.4 | +0.5 |
| SRTM | Siirt_Merkez | 1.60 | 238 | P | Pn | 06 21 58.3 | -0.1 |
| SRTM | | | | S | Sg | 06 22 21.4 | +0.5 |
| IMRD | Marand | 1.61 | 94 | ePn | Pn | 06 21 57.7 | -1.0 |
| IMRD | | | | eAMB | AMB | 06 22 11.6 | |
| | comp=Z,8μm,0.2s | | | | | | |
| IMRD | Marand | 1.61 | 94 | ePn | Pn | 06 21 57.7 | -1.0 |
| ISHB | Shabestar | 1.65 | 109 | ePn | Pn | 06 21 58.4 | -0.8 |
| ISHB | | | | eAMB | AMB | 06 22 06.0 | |
| | comp=Z,5μm,0.2s | | | | | | |
| ISHB | | | | eSg | Sn | 06 22 21.1 | +0.4 |
| SIRT | Sirnak | 1.65 | 216 | ePN | Pn | 06 21 59.0 | 0.0 |
| SIRT | Sirnak | 1.65 | 216 | ePn | Pn | 06 21 59.0 | 0.0 |
| VRTB | Varto-Mus | 1.73 | 281 | ePN | Pn | 06 22 00.4 | +0.1 |
| VRTB | Varto-Mus | 1.73 | 281 | ePn | Pn | 06 22 00.4 | +0.1 |
| HOMI | Horasan | 1.80 | 312 | eP | Pn | 06 22 01.5 | +0.2 |
| HOMI | | | | IAML | | 06 22 08.0 | |
| | comp=Z,158nm,0.5s | | | | | | |
| HOMI | | | | eS | Sg | 06 22 27.7 | +0.3 |
| HOMI | Horasan | 1.80 | 312 | iP | Pb | 06 22 02.6 | -0.4 |
| HOMI | | | | iS | Sg | 06 22 29.4 | +2.0 |
| KARS | Kars | 1.83 | 346 | ePN | Pn | 06 22 02.0 | +0.4 |
| KARS | Kars | 1.83 | 346 | ePn | Pn | 06 22 02.0 | +0.4 |
| ORD | Ordubad | 1.83 | 87 | P | Pn | 06 22 02.2 | +0.6 |
| ORD | | | | S | Sn | 06 22 25.4 | +0.2 |
| EAK | Akyaka | 1.84 | 359 | eP | Pb | 06 22 02.9 | -0.7 |
| EAK | | | | IAML | | 06 22 39.4 | |
| | comp=Z,118nm,0.5s | | | | | | |
| EAK | Akyaka | 1.84 | 359 | iP | Pb | 06 22 03.1 | -0.5 |
| EAK | | | | iS | Sg | 06 22 33.8 | +5.2 |
| EAK | Akyaka | 1.84 | 359 | P | Pb | 06 22 03.1 | -0.5 |
| BNGL | BINGOL | 1.95 | 274 | eP | Pn | 06 22 04.0 | +0.7 |
| BNGL | | | | IAML | | 06 22 43.2 | |
| | comp=Z,453nm,0.5s | | | | | | |
| SENK | Senkaya-Erzuru | 1.98 | 330 | ePN | Pn | 06 22 04.1 | +0.4 |
| SENK | Senkaya-Erzuru | 1.98 | 330 | ePn | Pn | 06 22 04.1 | +0.4 |
| ITBZ | Tabriz | 2.06 | 107 | eAMB | AMB | 06 22 39.0 | |
| | comp=N,2μm,0.3s | | | | | | |
| ITBZ | | | | ePn | Pn | 06 22 04.7 | 0.0 |
| ERZM | Erzurum | 2.06 | 302 | eP | Pb | 06 22 06.2 | -1.3 |
| ERZM | Erzurum | 2.06 | 302 | iP | Pb | 06 22 06.3 | -1.1 |
| ERZM | | | | iS | Sg | 06 22 35.6 | 0.0 |
| ERZM | Erzurum | 2.06 | 302 | P | Pb | 06 22 06.3 | -1.1 |
| BTMN | Batman | 2.10 | 244 | iP | Pn | 06 22 06.2 | +1.0 |
| BTMN | | | | iS | Sb | 06 22 35.0 | +0.7 |
| BTMN | Batman | 2.10 | 244 | P | Pn | 06 22 06.2 | +1.0 |
| BTMN | | | | S | Sb | 06 22 35.0 | +0.7 |
| ECAT | Cat-ERZURUM | 2.21 | 291 | eP | Pn | 06 22 08.2 | +1.3 |
| ECAT | | | | IAML | | 06 22 13.6 | |
| | comp=Z,75nm,0.4s | | | | | | |
| ECAT | Cat-ERZURUM | 2.21 | 291 | iP | Pn | 06 22 08.2 | +1.3 |
| ECAT | | | | iS | Sg | 06 22 39.6 | -0.8 |
| ECAT | Cat-ERZURUM | 2.21 | 291 | P | Pn | 06 22 08.2 | +1.3 |
| BNGB | Bingˆ¶l | 2.32 | 274 | ePN | Pn | 06 22 08.9 | +0.6 |
| BINT | Bingol | 2.46 | 272 | ePn | Pn | 06 22 08.9 | -1.4 |
| GDB | GEDABAY | 2.48 | 40 | ⇑P | Pn | 06 22 11.5 | +0.9 |
| | SNR=18 | | | | | | |
| GDB | | | | ⇑S | Sn | 06 22 41.2 | 0.0 |
| GDB | GEDABAY | 2.48 | 40 | P | Pn | 06 22 11.5 | +0.9 |
| | SNR=18 | | | | | | |
| GDB | | | | S | Sn | 06 22 41.2 | 0.0 |
| YEDI | Yedisu-Bingol | 2.48 | 285 | ePN | Pn | 06 22 11.5 | +0.9 |
| YEDI | Yedisu-Bingol | 2.48 | 285 | ePn | Pn | 06 22 11.5 | +0.9 |
| AKH | Akhalkalaki | 2.56 | 357 | P | Pg | 06 22 17.0 | -1.6 |
| QZX | Qazax, Azerbai | 2.58 | 30 | ⇓P | Pn | 06 22 12.8 | +1.0 |
| | SNR=19 | | | | | | |
| QZX | | | | ⇓S | Sn | 06 22 43.0 | -0.4 |
| QZX | Qazax, Azerbai | 2.58 | 30 | P | Pn | 06 22 12.8 | +1.0 |
| | SNR=19 | | | | | | |
| QZX | | | | S | Sn | 06 22 43.0 | -0.4 |
| KOPT | Kop Dagi | 2.70 | 297 | eP | Pn | 06 22 15.0 | +1.2 |
| KOPT | | | | IAML | | 06 22 26.9 | |
| | comp=Z,57nm,0.5s | | | | | | |
| KOPT | | | | eS | Sb | 06 22 51.6 | -0.3 |
| IHRS | Heris | 2.71 | 100 | ePn | Pn | 06 22 14.6 | +0.8 |
| IHRS | | | | eAMB | AMB | 06 22 25.0 | |
| | comp=Z,2μm,0.3s | | | | | | |
| IHRS | Heris | 2.71 | 100 | ePn | Pn | 06 22 14.6 | +0.8 |
| GANJ | Ganja | 2.74 | 48 | ⇑P | Pn | 06 22 14.6 | +0.6 |
| | SNR=9.8 | | | | | | |
| GANJ | | | | ⇓S | Sn | 06 22 47.1 | -0.3 |
| GANJ | Ganja | 2.74 | 48 | P | Pn | 06 22 14.6 | +0.6 |
| | SNR=9.8 | | | | | | |
| GANJ | | | | S | Sn | 06 22 47.1 | -0.3 |
| MAZI | Mazidag | 2.88 | 242 | ePN | Pn | 06 22 17.2 | +1.2 |
| MAZI | Mazidag | 2.88 | 242 | ePn | Pn | 06 22 17.2 | +1.2 |
| TBLG | Delisi | 3.00 | 16 | P | Pg | 06 22 24.9 | -2.0 |
| PTK | Pertek | 3.32 | 272 | ePN | Pn | 06 22 23.6 | +1.5 |
| PTK | Pertek | 3.32 | 272 | ePn | Pn | 06 22 23.6 | +1.5 |
| ISRB | Sarab | 3.32 | 107 | eAMB | AMB | 06 22 36.3 | |
| | comp=Z,1μm,0.3s | | | | | | |
| SVRC | Sivrice-ELAZID | 3.43 | 264 | ePN | Pn | 06 22 25.1 | +1.4 |
| SVRC | Sivrice-ELAZID | 3.43 | 264 | ePn | Pn | 06 22 25.1 | +1.4 |
| SEKA | Sheki | 3.61 | 48 | ⇓P | Pn | 06 22 27.0 | +1.0 |
| SEKA | Sheki | 3.61 | 48 | P | Pn | 06 22 27.0 | +1.0 |
| LRK | Lerik | 3.68 | 92 | ⇓P | Pn | 06 22 27.9 | +0.9 |
| | SNR=7.8 | | | | | | |
| LRK | Lerik | 3.68 | 92 | P | Pn | 06 22 27.9 | +0.9 |
| | SNR=7.8 | | | | | | |
| GLBA | Clilabad | 3.72 | 82 | ⇑P | Pn | 06 22 28.5 | +1.1 |
| GLBA | Clilabad | 3.72 | 82 | P | Pn | 06 22 28.5 | +1.1 |
| ONI | Oni | 3.74 | 358 | P | Pg | 06 22 38.5 | -2.7 |
| ASTR | Astara | 4.04 | 92 | ⇑P | Pn | 06 22 33.1 | +1.3 |
| ASTR | Astara | 4.04 | 92 | P | Pn | 06 22 33.1 | +1.3 |
| XNQ | Khinaliq | 4.16 | 55 | ⇓P | Pn | 06 22 34.4 | +0.7 |
| XNQ | Khinaliq | 4.16 | 55 | P | Pn | 06 22 34.4 | +0.7 |
| IDHR | Dehrash | 4.69 | 151 | ePn | Pn | 06 22 42.1 | +1.1 |
| IDHR | | | | eAMB | AMB | 06 24 20.6 | |
| | comp=Z,405nm,0.4s | | | | | | |
| IDHR | Dehrash | 4.69 | 151 | ePn | Pn | 06 22 42.1 | +1.1 |

*SJA **09** 06:23:00.2±1.6, 35˚.09S×71˚.38W, h24km±15km, ML3.0, MW3.1*
*ISCJB **09** 06:23:03.7±0.7, 34˚.82S±0˚.04×71˚.90W±0˚.07, h43km±9km, Error ellipse: s-maj=9.9km s-min=5.4km az=24.6*
*GUC **09** 06:23:03.8±0.7, 34˚.87S×71˚.84W, h47km±3km, ML3.6*
**ISC 09 06:23:04.6**±1.0**, 34˚.80S**±0˚.03×**71˚.87W**±0˚.05**, h33**km±5km**, n16,** σ**0ˢ.96**/29**, 3C-1D, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GO05 | HualaæØ | 0.21 | 193 | eP | Pb | 06 23 11.5 | +0.2 |
| GO05 | | | | iS | Sb | 06 23 17.3 | +1.4 |
| CHPI | Pichilemu | 0.43 | 345 | eP | Pb | 06 23 12.9 | -1.1 |
| CHPI | | | | eS | Sb | 06 23 20.4 | -0.1 |
| NICH | Los Niches | 0.56 | 111 | ⇓iP | Pb | 06 23 14.8 | -1.4 |
| NICH | | | | iS | Sb | 06 23 23.2 | -1.0 |
| COCH | Cobquecura | 1.52 | 209 | ⇑iP | Pn | 06 23 28.4 | -1.1 |
| COCH | | | | eS | Sn | 06 23 46.3 | -1.8 |
| ANTU | Antumapu | 1.60 | 40 | eP | Pn | 06 23 30.1 | -0.5 |
| ANTU | | | | iS | Sn | 06 23 50.9 | +0.6 |
| ANTU | | | | IAML | | 06 23 52.6 | |
| | comp=E,1μm,0.4s | | | | | | |
| SJCH | San Jose de Ma | 1.71 | 48 | eP | Pn | 06 23 31.7 | -0.5 |
| SJCH | | | | iS | Sn | 06 23 53.2 | +0.2 |
| CLCH | Cerro Calan | 1.79 | 39 | ⇑iP | Pn | 06 23 32.6 | -0.6 |
| CLCH | | | | iS | Sn | 06 23 55.3 | +0.4 |
| CLCH | | | | IAML | | 06 24 00.9 | |
| | comp=N,893nm,0.3s | | | | | | |
| CCHI | Chillan | 1.80 | 185 | eP | Pn | 06 23 34.6 | +1.2 |
| CCHI | | | | eS | Sb | 06 24 00.6 | +1.4 |
| PEL | Peldehue | 1.93 | 31 | eP | Pn | 06 23 34.7 | -0.4 |
| PEL | | | | eS | Sn | 06 23 58.5 | +0.3 |
| PEL | | | | IAML | | 06 24 04.3 | |
| | comp=E,425nm,0.6s | | | | | | |
| ROC1 | El Roble | 1.96 | 22 | eP | Pn | 06 23 35.8 | 0.0 |
| ROC1 | | | | eS | Sb | 06 24 04.6 | +0.7 |
| ROCH | El Roble | 1.96 | 22 | ⇑iP | Pn | 06 23 35.3 | -0.5 |
| ROCH | | | | iS | Sn | 06 23 59.9 | +0.6 |
| FCH | Farellones | 1.97 | 42 | eP | Pn | 06 23 35.4 | -0.6 |
| FCH | | | | eS | Sn | 06 24 00.2 | +0.4 |
| FCH | | | | IAML | | 06 24 03.2 | |
| | comp=N,943nm,0.2s | | | | | | |
| RFA | San Rafael | 2.80 | 90 | eP | Pn | 06 23 40.7 | -6.5 |
| RFA | | | | IAML | | 06 24 06.2 | |
| | comp=E,70nm,0.6s | | | | | | |
| AUSP | Uspallata | 3.31 | 40 | eP | Pn | 06 23 55.0 | +0.8 |
| AUSP | | | | eS | Sn | 06 24 33.5 | +0.9 |
| RTLS | Leoncito | 3.69 | 36 | eP | Pn | 06 24 01.0 | +1.4 |
| RTLS | | | | eS | Sn | 06 24 43.7 | +1.6 |
| AMOG | MOGNA | 4.79 | 37 | eP | Pn | 06 24 14.2 | -0.3 |

**MAN 09 06:39:41, 12˚.63N×120˚.73E, h23km, mb4.0, ML2.8, MS3.2, 2C, Mindoro**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SJMP | San Jose | 0.41 | 113 | eP | Pb | 06 39 50.0 | +0.3 |
| SJMP | | | | eS | Sb | 06 39 56.7 | +1.1 |
| BUSP | Coron | 0.81 | 220 | eP | Pn | 06 39 57.4 | +0.4 |
| BUSP | | | | eS | Sn | 06 40 09.0 | +0.7 |
| PGP | Puerto Galera | 0.90 | 14 | ⇑eP | Pb | 06 39 56.0 | -1.9 |
| PGP | | | | iS | Sb | 06 40 06.9 | -2.6 |
| LUBP | Lubang | 1.20 | 337 | eP | Pn | 06 40 01.7 | -0.7 |
| OTRP | Odiongan | 1.29 | 102 | eP | Pb | 06 40 04.7 | +0.1 |
| BOAC | Boac | 1.37 | 53 | eP | Pn | 06 40 04.8 | +0.1 |
| BOAC | | | | eS | Sb | 06 40 22.7 | -0.2 |
| LQP | Lukban | 1.67 | 28 | eP | Pn | 06 40 10.0 | +0.9 |
| GQP | Guinayangan | 2.10 | 53 | ⇑eP | Pn | 06 40 15.7 | +0.9 |

**IDC 09 06:40:25.5**±5.0**, 6˚.59S**×**146˚.33E, h137**km±47km**, mb3.0**/3**, mb1 3.1**/5**, mb1mx2.9**/33**, mbtmp3.3**/5**, Error ellipse: s-maj=62.8km s-min=29.7km az=127.0, Eastern New Guinea region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PMG | Port Moresby | 2.91 | 164 | P | Pn | 06 41 12.3 | +1.0 |
| | 19nm,0.3s,baz=53,slow=6.1,SNR=28 | | | | | | |
| PMG | | | | S | Sn | 06 41 46.9 | +0.3 |
| | 5.0nm,0.3s,baz=122,slow=22,SNR=14 | | | | | | |
| WRA | Warramunga Arr | 17.66 | 220 | P | P | 06 44 20.1 | -2.0 |
| | 0.0nm,0.3s,baz=46,slow=12,SNR=3.4 | | | | | | |
| ASAR | Alice Springs | 20.76 | 214 | P | P | 06 44 56.3 | +0.7 |
| | 0.2nm,0.5s,baz=43,slow=11,SNR=7.2 | | | | | | |
| STKA | Stephens Creek | 25.54 | 189 | P | P | 06 45 41.9 | +0.4 |
| | 0.6nm,0.5s,baz=354,slow=10,SNR=3.1 | | | | | | |
| ILAR | Eielson Array | 86.28 | 23 | P | P | 06 52 51.2 | -0.4 |
| | 0.3nm,0.8s,baz=259,slow=5.9,SNR=4.9 | | | | | | |
| TORD | Torodi Ar. Bea | 144.59 | 283 | PKP | PKPdf | 06 59 46.6 | -0.2 |
| | 0.6nm,0.9s,baz=78,slow=2.1,SNR=2.9 | | | | | | |

*NNC **09** 06:45:41.9±2.9, 44˚.25N×83˚.18E, h0km, mb3.1, mpv2.7, Error ellipse: s-maj=26.2km s-min=10.5km az=123.0*
*SOME **09** 06:45:46.5, 44˚.40N×82˚.70E, h0km*
**ISC 09 06:45:45.6**±1.5**, 44˚.36N**±0˚.07×**82˚.97E**±0˚.08**, h17**km**, n9,** σ**1ˢ.52**/15**, 6C-1D, Northern Xinjiang**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KTMS | Ketmen | 2.10 | 245 | eP | Pb | 06 46 23.4 | +0.2 |
| | 16nm,0.2s | | | | | | |
| KTMS | | | | eS | Sb | 06 46 49.9 | +0.9 |
| | 34nm,0.4s | | | | | | |
| DJR | Jarkent | 2.28 | 270 | eP | Pb | 06 46 26.5 | +0.2 |
| | 18nm,0.4s | | | | | | |
| DJR | | | | eS | Sb | 06 46 55.2 | +1.0 |
| | 13nm,0.5s | | | | | | |
| MK31 | Makanchi Array | 2.48 | 349 | ⇑Pg | Pb | 06 46 30.9 | +1.1 |
| | 0.4nm,0.2s,baz=168,slow=15,SNR=36 | | | | | | |
| MK31 | | | | ⇑Lg | Lg | 06 47 03.8 | |
| | 1.6nm,0.2s,baz=164,slow=28,SNR=12 | | | | | | |
| MAKZ | Makanchi | 2.55 | 345 | ⇑Pg | Pb | 06 46 30.8 | 0.0 |
| | 5.1nm,0.6s | | | | | | |
| MAKZ | | | | ⇓Lg | Lg | 06 47 06.7 | |
| | 4.2nm,0.6s | | | | | | |
| PDGK | Podgornoye | 2.72 | 249 | ⇑Pg | Pb | 06 46 33.4 | -0.4 |
| | 1.0nm,0.3s | | | | | | |
| PDGK | | | | ⇑Lg | Lg | 06 47 11.2 | |
| | 2.8nm,0.3s | | | | | | |
| KAPS | Kapalarasan | 2.73 | 291 | eP | Pb | 06 46 35.9 | +2.0 |
| | 2.3nm,0.1s | | | | | | |
| KAPS | | | | ⇑iS | Sg | 06 47 11.6 | -1.7 |
| | 5.3nm,0.3s | | | | | | |
| SHLS | Shalkode | 2.81 | 246 | eP | Pn | 06 46 31.1 | +1.4 |
| | 15nm,0.2s | | | | | | |
| SHLS | | | | eS | Sn | 06 47 03.1 | -0.2 |
| | 59nm,0.5s | | | | | | |
| UZB | Uzynbulak | 3.10 | 248 | eP | Pb | 06 46 42.3 | +2.0 |
| | 1.9nm,0.2s | | | | | | |
| UZB | | | | eS | Sg | 06 47 22.1 | -3.1 |
| | 7.0nm,0.4s | | | | | | |
| ZSN | Zaisan | 3.37 | 23 | eP | Pg | 06 46 48.7 | -1.4 |
| | 1.6nm,0.2s | | | | | | |
| ZSN | | | | eS | Sg | 06 47 33.1 | -0.6 |
| | 2.5nm,0.5s | | | | | | |

**DJA 09 06:47:41.7**±0.4**, 2˚S**±4˚×**12˚1E**±˚**, h10**km**, M3.8**/6**, MLv3.8**/6**, Sulawesi**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| APSI | Ampana | 1.34 | 55 | P | Pn | 06 48 05.4 | -1.1 |
| APSI | | | | S | Sn | 06 48 24.4 | +0.1 |
| TTSI | Tana Toraja | 1.54 | 208 | P | Pn | 06 48 07.6 | -1.6 |
| TTSI | | | | S | Sn | 06 48 29.4 | +0.1 |
| MPSI | Mapaga | 2.11 | 342 | P | Pn | 06 48 16.7 | -0.4 |
| MPSI | | | | S | Sn | 06 48 44.7 | +1.4 |
| LUWI | Luwuk | 2.31 | 74 | P | Pn | 06 48 19.6 | -0.2 |
| LUWI | | | | S | Sn | 06 48 49.0 | +0.7 |
| SPSI | Sidrap Palu | 2.40 | 199 | P | Pn | 06 48 21.9 | +0.8 |
| SPSI | | | | S | Sn | 06 48 50.6 | 0.0 |
| MRSI | Marisa | 2.55 | 33 | P | Pn | 06 48 23.4 | +0.2 |
| BNSI | Bone | 2.74 | 189 | P | Pn | 06 48 26.6 | +0.9 |

*IASPEI **09** 07:18:55.3±0.8, 38˚.37N±0˚.01×21˚.83E±0˚.01, h14km±3km, Error ellipse: s-maj=2.1km s-min=2.0km az=52.7, GT5 selection from ISC bulletin GT5 identified by Bondˆ¡r and McLaughlin (2009) selection criteria Bondˆ¡r and McLaughlin, A new ground truth data set for seismic studies, <i>Seism. Res. Let.</i>, <b>80</b>, 465-472, 2009*
*ISCJB **09** 07:18:55.9±0.2, 38˚.37N±0˚.01×21˚.83E±0˚.02, h9km±2km, Error ellipse: s-maj=2.5km s-min=2.2km az=137.9*
*THE **09** 07:18:55.5, 38˚.39N×21˚.83E, h9km, ML3.3/8, Error ellipse: s-maj=0.9km s-min=0.4km az=81.0*
*ATH **09** 07:18:55.9, 38˚.38N×21˚.85E, h12km±1km, ML3.1/28, Error ellipse: s-maj=1.2km s-min=0.5km az=166.0*
*CSEM **09** 07:18:56.1±0.1, 38˚.35N×21˚.85E, h10km, ML3.6, Error ellipse: s-maj=3.1km s-min=2.6km az=60.0*
**ISC 09 07:18:55.3**±0.7**, 38˚.37N**±0˚.01×**21˚.84E**±0˚.01**, h12**km±2km**, n130,** σ**0ˢ.87**/206**, 1D, Greece**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VVK | Vomvokou | 0.05 | 339 | P | Pg | 07 18 57.5 | -0.3 |
| EFP | Efpalio | 0.08 | 46 | P | Pg | 07 18 57.8 | -0.1 |
| EFP | | | | S | Sg | 07 18 59.5 | -0.4 |
| EFP | | | | AML | AML | 07 18 59.9 | |
| EFP | | | | AML | AML | 07 19 00.5 | |
| | comp=N,73424μm,0.3s | | | | | | |
| EFP | Efpalio | 0.08 | 46 | P | Pg | 07 18 58.0 | +0.1 |
| EFP | | | | S | Sg | 07 18 59.5 | -0.4 |
| EFP | Efpalio | 0.08 | 46 | P | Pg | 07 18 58.0 | +0.1 |
| EFP | | | | S | Sg | 07 18 59.8 | -0.1 |
| UPR | University Cam | 0.10 | 203 | P | Pg | 07 18 58.3 | +0.1 |
| UPR | | | | S | Sg | 07 18 60.0 | -0.2 |
| UPR | University Cam | 0.10 | 203 | P | Pg | 07 18 58.4 | +0.3 |
| UPR | | | | S | Sg | 07 19 00.0 | -0.2 |
| UPR | University Cam | 0.10 | 203 | P | Pg | 07 18 58.5 | +0.3 |
| UPR | | | | S | Sg | 07 19 00.7 | +0.5 |
| LAKA | Lakka | 0.17 | 140 | P | Pg | 07 18 59.9 | +0.5 |
| LAKA | | | | S | Sb | 07 19 03.3 | +1.2 |
| LAKA | | | | AML | AML | 07 19 03.9 | |
| | comp=E,6145μm,0.1s | | | | | | |
| LAKA | | | | AML | AML | 07 19 04.5 | |
| | comp=N,12290μm,0.3s | | | | | | |
| LAKA | Lakka | 0.17 | 140 | P | Pg | 07 18 59.8 | +0.5 |
| LAKA | | | | S | Sg | 07 19 02.6 | +0.5 |
| LAKA | Lakka | 0.17 | 140 | P | Pg | 07 18 59.7 | +0.4 |
| LAKA | | | | S | Sb | 07 19 03.0 | +0.9 |
| SERG | Sergoula | 0.18 | 77 | P | Pb | 07 19 00.1 | -0.5 |
| SERG | | | | S | Sb | 07 19 04.0 | +1.8 |
| SERG | | | | AML | AML | 07 19 05.3 | |
| | comp=N,19555μm,0.2s | | | | | | |
| SERG | | | | AML | AML | 07 19 05.4 | |
| | comp=E,16702μm,0.3s | | | | | | |
| SERG | Sergoula | 0.18 | 77 | P | Pg | 07 18 59.8 | +0.4 |
| SERG | | | | S | Sg | 07 19 03.0 | +0.8 |
| SERG | Sergoula | 0.18 | 77 | P | Pg | 07 18 59.8 | +0.4 |
| SERG | | | | S | Sg | 07 19 03.0 | +0.8 |
| TRIZ | Trizonia | 0.19 | 92 | P | Pb | 07 19 00.3 | -0.3 |
| TRIZ | | | | S | Sb | 07 19 04.6 | +2.3 |
| TRIZ | Trizonia | 0.19 | 92 | P | Pg | 07 19 00.0 | +0.5 |
| TRIZ | | | | S | Sg | 07 19 03.1 | +0.8 |
| ANX | Ano Chora | 0.23 | 17 | P | Pg | 07 19 00.8 | +0.5 |
| ANX | | | | AML | AML | 07 19 04.9 | |
| | comp=N,75775μm,0.4s | | | | | | |
| ANX | | | | S | Sb | 07 19 05.3 | +1.6 |
| ANX | | | | AML | AML | 07 19 06.3 | |
| | comp=E,49655μm,0.4s | | | | | | |
| ANX | Ano Chora | 0.23 | 17 | P | Pg | 07 19 00.8 | +0.5 |
| ANX | | | | S | Sg | 07 19 04.3 | +0.6 |
| ANX | Ano Chora | 0.23 | 17 | P | Pg | 07 19 00.7 | +0.4 |
| ANX | | | | S | Sg | 07 19 04.3 | +0.6 |
| KALE | Kalithea | 0.24 | 86 | P | Pb | 07 19 01.1 | -0.5 |
| KALE | | | | S | Sb | 07 19 04.9 | +1.0 |
| KALE | | | | AML | AML | 07 19 06.5 | |
| | comp=E,7386μm,0.2s | | | | | | |
| KALE | | | | AML | AML | 07 19 07.5 | |
| | comp=N,9270μm,0.2s | | | | | | |
| KALE | Kalithea | 0.24 | 86 | P | Pb | 07 19 01.1 | -0.5 |
| KALE | | | | S | Sb | 07 19 04.9 | +1.0 |
| KALE | Kalithea | 0.24 | 86 | P | Pg | 07 19 00.8 | +0.4 |
| KALE | | | | S | Sb | 07 19 05.2 | +1.3 |
| PVO | Paravola | 0.34 | 315 | P | Pg | 07 19 02.5 | +0.2 |
| PVO | | | | S | Sg | 07 19 07.3 | +0.4 |
| PVO | | | | AML | AML | 07 19 11.5 | |
| | comp=N,15161μm,0.5s | | | | | | |
| PVO | | | | AML | AML | 07 19 12.5 | |
| | comp=E,19252μm,0.2s | | | | | | |
| PVO | Paravola | 0.34 | 315 | P | Pg | 07 19 02.5 | +0.2 |
| PVO | | | | S | Sg | 07 19 07.3 | +0.4 |
| PVO | Paravola | 0.34 | 315 | P | Pg | 07 19 02.5 | +0.2 |
| AXS | Araxos | 0.40 | 244 | P | Pg | 07 19 03.5 | +0.2 |
| AXS | Araxos | 0.40 | 244 | P | Pg | 07 19 03.5 | +0.2 |
| AXS | | | | S | Sb | 07 19 10.2 | -0.2 |
| AXS | Araxos | 0.40 | 244 | P | Pg | 07 19 03.5 | +0.2 |
| KLV | Kalavryta, Ach | 0.41 | 143 | P | Pg | 07 19 03.9 | +0.4 |
| KLV | | | | S | Sg | 07 19 08.7 | -0.4 |
| KLV | | | | AML | AML | 07 19 11.2 | |
| | comp=N,2297μm,0.2s | | | | | | |
| KLV | | | | AML | AML | 07 19 12.6 | |
| | comp=E,2815μm,0.2s | | | | | | |
| KLV | Kalavryta, Ach | 0.41 | 143 | P | Pg | 07 19 03.9 | +0.4 |
| KLV | | | | S | Sb | 07 19 10.1 | -0.7 |
| KLV | Kalavryta, Ach | 0.41 | 143 | P | Pg | 07 19 03.9 | +0.4 |
| KLV | | | | S | Sb | 07 19 10.7 | -0.1 |
| RLS | Riolos of Patr | 0.43 | 223 | P | Pb | 07 19 04.3 | -0.4 |
| RLS | | | | S | Sb | 07 19 11.5 | +0.4 |
| RLS | | | | AML | AML | 07 19 13.1 | |
| | comp=E,11751μm,0.3s | | | | | | |
| RLS | | | | AML | AML | 07 19 13.2 | |
| | comp=N,5370μm,0.3s | | | | | | |
| RLS | Riolos of Patr | 0.43 | 223 | P | Pb | 07 19 04.3 | -0.4 |
| RLS | | | | S | Sb | 07 19 11.3 | +0.2 |
| RLS | Riolos of Patr | 0.43 | 223 | P | Pb | 07 19 04.4 | -0.4 |
| RLS | | | | S | Sb | 07 19 11.3 | +0.2 |
| DRO | Drossia | 0.43 | 193 | P | Pg | 07 19 04.0 | +0.1 |
| DRO | | | | AML | AML | 07 19 11.7 | |
| | comp=E,23605μm,0.3s | | | | | | |
| DRO | | | | AML | AML | 07 19 11.8 | |
| | comp=N,16504μm,0.4s | | | | | | |
| DRO | | | | S | Sb | 07 19 12.3 | +1.0 |
| DRO | Drossia | 0.43 | 193 | P | Pg | 07 19 04.2 | +0.3 |
| DRO | | | | S | Sb | 07 19 10.6 | -0.7 |
| DRO | Drossia | 0.43 | 193 | P | Pg | 07 19 04.2 | +0.3 |
| DRO | | | | S | Sb | 07 19 11.4 | +0.1 |
| EVR | Evrytania | 0.54 | 358 | P | Pg | 07 19 06.1 | +0.1 |
| EVR | | | | S | Sg | 07 19 13.0 | -0.3 |
| EVR | | | | AML | AML | 07 19 16.8 | |
| | comp=N,4948μm,0.2s | | | | | | |
| EVR | | | | AML | AML | 07 19 19.9 | |
| | comp=E,5872μm,0.5s | | | | | | |
| EVR | Evrytania | 0.54 | 358 | P | Pg | 07 19 06.1 | +0.1 |
| EVR | | | | S | Sg | 07 19 13.0 | -0.3 |
| EVR | Evrytania | 0.54 | 358 | P | Pg | 07 19 06.0 | 0.0 |
| EVR | | | | S | Sb | 07 19 14.5 | -0.1 |
| DSF | Desfina | 0.55 | 86 | P | Pg | 07 19 05.9 | -0.1 |
| DSF | | | | S | Sb | 07 19 15.2 | +0.6 |
| DSF | | | | AML | AML | 07 19 17.2 | |
| | comp=N,7863μm,0.1s | | | | | | |
| DSF | | | | AML | AML | 07 19 18.4 | |
| | comp=E,3807μm,0.1s | | | | | | |
| DSF | Desfina | 0.55 | 86 | P | Pg | 07 19 05.9 | -0.1 |
| DSF | | | | S | Sb | 07 19 15.2 | +0.6 |
| DSF | Desfina | 0.55 | 86 | P | Pg | 07 19 05.9 | -0.1 |
| PDO | Prodromos | 0.56 | 294 | P | Pb | 07 19 07.5 | +0.5 |
| PDO | | | | S | Sb | 07 19 15.3 | +0.4 |
| PDO | | | | AML | AML | 07 19 18.5 | |
| | comp=N,12199μm,0.2s | | | | | | |
| PDO | | | | AML | AML | 07 19 19.1 | |
| | comp=E,9637μm,0.3s | | | | | | |
| PDO | Prodromos | 0.56 | 294 | P | Pg | 07 19 05.8 | -0.4 |
| PDO | | | | S | Sb | 07 19 15.3 | +0.4 |
| PDO | Prodromos | 0.56 | 294 | P | Pg | 07 19 05.8 | -0.4 |
| GUR | Goura | 0.59 | 137 | P | Pg | 07 19 06.5 | -0.3 |
| GUR | | | | S | Sn | 07 19 17.1 | -2.1 |
| GUR | | | | AML | AML | 07 19 18.3 | |
| | comp=N,7918μm,0.3s | | | | | | |
| GUR | | | | AML | AML | 07 19 19.4 | |
| | comp=E,5756μm,0.2s | | | | | | |
| GUR | Goura | 0.59 | 137 | P | Pg | 07 19 06.8 | -0.1 |
| GUR | | | | S | Sb | 07 19 16.6 | +0.6 |
| GUR | Goura | 0.59 | 137 | P | Pg | 07 19 06.8 | -0.1 |
| GUR | | | | S | Sb | 07 19 16.6 | +0.6 |
| VTN | Vitineika | 0.69 | 229 | P | Pn | 07 19 10.9 | +0.2 |
| VTN | Vitineika | 0.69 | 229 | P | Pn | 07 19 10.9 | +0.2 |
| THAL | Thalero | 0.73 | 117 | P | Pb | 07 19 10.4 | +0.4 |
| THAL | | | | S | Sg | 07 19 18.9 | -0.2 |
| THAL | | | | AML | AML | 07 19 26.9 | |
| | comp=E,7773μm,0.2s | | | | | | |
| THAL | | | | AML | AML | 07 19 30.5 | |
| | comp=N,6583μm,0.3s | | | | | | |
| THAL | Thalero | 0.73 | 117 | P | Pb | 07 19 09.8 | -0.2 |
| THAL | | | | S | Sg | 07 19 18.9 | -0.2 |
| THAL | Thalero | 0.73 | 117 | P | Pb | 07 19 09.8 | -0.2 |
| AGG | Agios Georgios | 0.76 | 31 | P | Pg | 07 19 09.2 | -0.7 |
| AGG | | | | S | Sb | 07 19 20.7 | 0.0 |
| AGG | | | | AML | AML | 07 19 22.7 | |
| | comp=E,8245μm,0.3s | | | | | | |
| AGG | | | | AML | AML | 07 19 23.6 | |
| | comp=N,5327μm,0.2s | | | | | | |
| AGG | Agios Georgios | 0.76 | 31 | P | Pg | 07 19 09.5 | -0.5 |
| AGG | | | | S | Sb | 07 19 20.7 | 0.0 |
| AGG | Agios Georgios | 0.76 | 31 | P | Pg | 07 19 09.5 | -0.5 |
| AXAR | Agios Charalam | 0.76 | 58 | P | Pg | 07 19 10.1 | +0.1 |
| AXAR | | | | S | Sb | 07 19 21.1 | +0.4 |
| AXAR | | | | AML | AML | 07 19 25.3 | |
| | comp=E,5565μm,0.3s | | | | | | |
| AXAR | | | | AML | AML | 07 19 25.6 | |
| | comp=N,5463μm,0.3s | | | | | | |
| AXAR | Agios Charalam | 0.76 | 58 | P | Pg | 07 19 10.1 | +0.1 |
| AXAR | | | | S | Sb | 07 19 21.0 | +0.4 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **AMT** | **Artemida-Makis** | **0.84** | **187** | P | **Pn** | **07 19 12.9** | **-0.1** |
| AMT | | | | S | **Sg** | **07 19 23.0** | **+0.3** |
| AMT | | | | AML | AML | 07 19 32.6 | |
| | comp=E,2478μm,0.5s | | | | | | |
| AMT | | | | AML | AML | 07 19 33.6 | |
| | comp=N,2470μm,0.7s | | | | | | |
| **AMT** | **Artemida-Makis** | **0.84** | **187** | P | **Pg** | **07 19 11.8** | **+0.2** |
| AMT | | | | S | **Sg** | **07 19 23.0** | **+0.3** |
| **AMT** | **Artemida-Makis** | **0.84** | **187** | P | **Pg** | **07 19 11.8** | **+0.2** |
| **PROD** | **Prodromos** | **0.85** | **97** | P | **Pn** | **07 19 12.5** | **-0.5** |
| PROD | | | | S | **Sn** | **07 19 24.4** | **-0.9** |
| PROD | | | | AML | AML | 07 19 30.0 | |
| | comp=E,5660μm,0.3s | | | | | | |
| PROD | | | | AML | AML | 07 19 30.5 | |
| | comp=N,3944μm,0.2s | | | | | | |
| **PROD** | **Prodromos** | **0.85** | **97** | P | **Pn** | **07 19 12.5** | **-0.5** |
| PROD | | | | S | **Sn** | **07 19 24.4** | **-0.9** |
| **DSL** | **Palaion Diasel** | **0.95** | **323** | P | **Pn** | **07 19 15.1** | **+0.6** |
| DSL | | | | S | **Sn** | **07 19 27.3** | **-0.7** |
| DSL | | | | AML | AML | 07 19 36.2 | |
| | comp=E,2338μm,0.4s | | | | | | |
| DSL | | | | AML | AML | 07 19 37.8 | |
| | comp=N,1774μm,0.4s | | | | | | |
| **DSL** | **Palaion Diasel** | **0.95** | **323** | P | **Pn** | **07 19 15.1** | **+0.6** |
| DSL | | | | S | **Sn** | **07 19 27.3** | **-0.7** |
| **DSL** | **Palaion Diasel** | **0.95** | **323** | P | **Pb** | **07 19 12.6** | **-1.2** |
| **LKR** | **Lokris** | **0.95** | **73** | P | **Pb** | **07 19 13.2** | **-0.6** |
| LKR | | | | S | **Sb** | **07 19 25.2** | **-1.1** |
| LKR | | | | AML | AML | 07 19 31.1 | |
| | comp=N,1737μm,0.3s | | | | | | |
| LKR | | | | AML | AML | 07 19 31.9 | |
| | comp=E,2432μm,0.2s | | | | | | |
| **LKR** | **Lokris** | **0.95** | **73** | P | **Pb** | **07 19 13.2** | **-0.6** |
| LKR | | | | S | **Sb** | **07 19 25.2** | **-1.1** |
| **LKR** | **Lokris** | **0.95** | **73** | P | **Pb** | **07 19 12.8** | **-1.0** |
| **LTK** | **Loutraki** | **0.96** | **111** | P | **Pb** | **07 19 13.4** | **-0.4** |
| **LTK** | **Loutraki** | **0.96** | **111** | P | **Pb** | **07 19 13.4** | **-0.4** |
| **LOUT** | **Loutraki** | **0.98** | **113** | P | **Pn** | **07 19 15.2** | **+0.4** |
| LOUT | | | | S | **Sb** | **07 19 26.5** | **-0.5** |
| **LOUT** | **Loutraki** | **0.98** | **113** | P | **Pn** | **07 19 15.2** | **+0.4** |
| LOUT | | | | S | **Sb** | **07 19 26.5** | **-0.5** |
| **VLS** | **Valsamata** | **1.00** | **259** | P | **Pb** | **07 19 13.9** | **-0.6** |
| **VLS** | **Valsamata** | **1.00** | **259** | P | **Pb** | **07 19 13.9** | **-0.6** |
| **VLX** | **Vlachokerasia** | **1.09** | **157** | P | **Pb** | **07 19 15.4** | **-0.7** |
| VLX | | | | S | **Sn** | **07 19 30.8** | **-0.7** |
| VLX | | | | AML | AML | 07 19 37.7 | |
| | comp=E,1822μm,0.4s | | | | | | |
| VLX | | | | AML | AML | 07 19 40.4 | |
| | comp=N,1081μm,0.8s | | | | | | |
| **VLX** | **Vlachokerasia** | **1.09** | **157** | P | **Pb** | **07 19 15.6** | **-0.5** |
| VLX | | | | S | **Sn** | **07 19 30.8** | **-0.7** |
| **VLX** | **Vlachokerasia** | **1.09** | **157** | P | **Pb** | **07 19 15.6** | **-0.5** |
| **VIL2** | **Platees** | **1.14** | **98** | P | **Pg** | **07 19 18.9** | **+1.7** |
| VIL2 | | | | S | **Sg** | **07 19 34.8** | **+2.7** |
| VIL2 | | | | AML | AML | 07 19 40.7 | |
| | comp=E,1450μm,0.3s | | | | | | |
| VIL2 | | | | AML | AML | 07 19 43.0 | |
| | comp=N,1823μm,0.5s | | | | | | |
| **VILL** | **Villia** | **1.18** | **100** | P | **Pg** | **07 19 18.9** | **+0.9** |
| VILL | | | | S | **Sg** | **07 19 34.8** | **+1.4** |
| **SMIA** | **Simia** | **1.19** | **64** | P | **Pg** | **07 19 18.8** | **+0.6** |
| SMIA | | | | S | **Sg** | **07 19 33.6** | **-0.1** |
| SMIA | | | | AML | AML | 07 19 40.0 | |
| | comp=N,2034μm,0.5s | | | | | | |
| SMIA | | | | AML | AML | 07 19 40.6 | |
| | comp=E,1466μm,0.9s | | | | | | |
| **SMIA** | **Simia** | **1.19** | **64** | P | **Pg** | **07 19 18.8** | **+0.6** |
| SMIA | | | | S | **Sg** | **07 19 33.6** | **-0.1** |
| **ITM** | **Ithomi** | **1.19** | **176** | P | **Pb** | **07 19 17.7** | **-0.1** |
| **ITM** | **Ithomi** | **1.19** | **176** | P | **Pb** | **07 19 17.8** | **-0.1** |
| **ITM** | **Ithomi** | **1.19** | **176** | P | **Pb** | **07 19 17.8** | **-0.1** |
| **THL** | **Klokotos Trika** | **1.20** | **7** | P | **Pg** | **07 19 18.6** | **+0.2** |
| THL | | | | S | **Sn** | **07 19 33.7** | **-0.3** |
| THL | | | | AML | AML | 07 19 37.7 | |
| | comp=E,1133μm,0.7s | | | | | | |
| THL | | | | AML | AML | 07 19 41.0 | |
| | comp=N,670μm,0.6s | | | | | | |
| **THL** | **Klokotos Trika** | **1.20** | **7** | P | **Pg** | **07 19 18.6** | **+0.2** |
| THL | | | | S | **Sn** | **07 19 33.7** | **-0.3** |
| **FYTO** | **Fytoko, Volos** | **1.35** | **39** | P | **Pg** | **07 19 21.2** | **0.0** |
| **FYTO** | **Fytoko, Volos** | **1.35** | **39** | P | **Pg** | **07 19 21.2** | **0.0** |
| **DID** | **Didima** | **1.41** | **128** | P | **Pb** | **07 19 21.5** | **0.0** |
| DID | | | | S | **Sg** | **07 19 41.1** | **+0.5** |
| DID | | | | AML | AML | 07 19 44.5 | |
| | comp=N,1809μm,0.6s | | | | | | |
| DID | | | | AML | AML | 07 19 47.4 | |
| | comp=E,1181μm,0.5s | | | | | | |
| **DID** | **Didima** | **1.41** | **128** | P | **Pb** | **07 19 21.5** | **0.0** |
| DID | | | | S | **Sg** | **07 19 41.1** | **+0.5** |
| **NEO** | **Neokhori** | **1.43** | **49** | P | **Pb** | **07 19 21.7** | **-0.2** |
| **NEO** | **Neokhori** | **1.43** | **49** | P | **Pb** | **07 19 21.7** | **-0.2** |
| **KRND** | **KRANIDI** | **1.44** | **133** | P | **Pg** | **07 19 23.5** | **+0.6** |
| **KRND** | **KRANIDI** | **1.44** | **133** | P | **Pg** | **07 19 23.5** | **+0.6** |
| **PYL** | **PYLOS** | **1.48** | **183** | P | **Pb** | **07 19 22.1** | **-0.6** |
| **PYL** | **PYLOS** | **1.48** | **183** | P | **Pb** | **07 19 22.1** | **-0.6** |
| **ATHU** | **Athens Univers** | **1.59** | **104** | P | **Pn** | **07 19 23.5** | **+0.3** |
| ATHU | | | | S | **Sg** | **07 19 45.4** | **-1.1** |
| ATHU | | | | AML | AML | 07 19 47.4 | |
| | comp=N,458μm,0.4s | | | | | | |
| ATHU | | | | AML | AML | 07 19 51.0 | |
| | comp=E,158μm,0.4s | | | | | | |
| **ATHU** | **Athens Univers** | **1.59** | **104** | P | **Pn** | **07 19 23.5** | **+0.3** |
| ATHU | | | | S | **Sg** | **07 19 45.3** | **-1.1** |
| **KPRO** | **Kipourio** | **1.62** | **347** | P | **Pg** | **07 19 27.3** | **+0.9** |
| **KPRO** | **Kipourio** | **1.62** | **347** | P | **Pg** | **07 19 27.3** | **+0.9** |
| **EREA** | **Eretria** | **1.65** | **88** | P | **Pb** | **07 19 25.2** | **-0.4** |
| EREA | | | | S | **Sg** | **07 19 50.6** | **+2.2** |
| EREA | | | | AML | AML | 07 19 54.5 | |
| | comp=N,480μm,0.3s | | | | | | |
| EREA | | | | AML | AML | 07 19 56.5 | |
| | comp=E,527μm,0.4s | | | | | | |
| **EREA** | **Eretria** | **1.65** | **88** | P | **Pb** | **07 19 25.2** | **-0.4** |
| EREA | | | | S | **Sg** | **07 19 50.6** | **+2.2** |
| **LIT** | **Litokhoron** | **1.80** | **16** | P | **Pb** | **07 19 27.4** | **-0.8** |
| **LIT** | **Litokhoron** | **1.80** | **16** | P | **Pb** | **07 19 27.4** | **-0.8** |
| **VLI** | **Veliai** | **1.87** | **152** | P | **Pn** | **07 19 27.4** | **+0.3** |
| **VLI** | **Veliai** | **1.87** | **152** | P | **Pn** | **07 19 27.4** | **+0.3** |
| **PENT** | **Pentalofos** | **1.90** | **344** | P | **Pb** | **07 19 28.7** | **-1.2** |
| PENT | | | | S | **Sg** | **07 19 57.0** | **+0.6** |
| PENT | | | | AML | AML | 07 20 07.0 | |
| | comp=N,358μm,0.6s | | | | | | |
| PENT | | | | AML | AML | 07 20 07.2 | |
| | comp=E,282μm,0.6s | | | | | | |
| **PENT** | **Pentalofos** | **1.90** | **344** | P | **Pb** | **07 19 28.7** | **-1.2** |
| PENT | | | | S | **Sg** | **07 19 57.0** | **+0.6** |
| **KZN** | **Kozani** | **1.93** | **359** | P | **Pb** | **07 19 31.1** | **+0.6** |
| **KZN** | **Kozani** | **1.93** | **359** | P | **Pb** | **07 19 31.1** | **+0.6** |
| **NEST** | **Nestorio** | **2.13** | **344** | P | **Pb** | **07 19 34.9** | **+1.0** |
| **NEST** | **Nestorio** | **2.13** | **344** | P | **Pb** | **07 19 34.8** | **+1.0** |
| **FNA** | **Florina** | **2.43** | **352** | P | **Pb** | **07 19 38.3** | **-0.7** |
| **FNA** | **Florina** | **2.43** | **352** | P | **Pb** | **07 19 38.3** | **-0.7** |
| **BIA** | **Bitola** | **2.67** | **352** | *e*Pn | **Pg** | **07 19 45.1** | **-1.4** |
| **OHR** | **Ohrid** | **2.85** | **344** | *i* Pn | **Pb** | **07 19 45.2** | **-0.9** |
| **KNT** | **Kendrikon** | **2.90** | **16** | P | **Pb** | **07 19 44.0** | **-3.0** |
| **KNT** | **Kendrikon** | **2.90** | **16** | P | **Pb** | **07 19 44.0** | **-3.0** |
| **VAY** | **Valandovo** | **3.00** | **11** | *i* Pn | **Pb** | **07 19 48.2** | **-0.4** |
| **KRUS** | **Krusevo** | **3.03** | **352** | *i* Pn | **Pb** | **07 19 47.1** | **-2.0** |
| **BARS** | **Barje** | **4.44** | **360** | ⇓*i*Pn | **Pn** | **07 20 05.4** | **+3.0** |
| **SJES** | **Sjenica** | **5.08** | **344** | *e*Pn | **Pn** | **07 20 14.7** | **+3.4** |
| **BOVS** | **Bovan** | **5.26** | **359** | *e*Pn | **Pn** | **07 20 13.6** | **0.0** |
| **IVAS** | **Ivanjica** | **5.35** | **347** | *e*Pn | **Pn** | **07 20 16.7** | **+1.7** |
| **ZAGS** | **Zajecar** | **5.44** | **3** | *e*Pn | **Pn** | **07 20 17.9** | **+1.7** |
| **STON** | **Ston** | **5.49** | **326** | *e*Pn | **Pn** | **07 20 17.8** | **+1.0** |
| STON | | | | Sn | **Sn** | **07 21 18.9** | **-0.8** |
| **STON** | **Ston** | **5.49** | **326** | *e*Pn | **Pn** | **07 20 17.7** | **+1.0** |
| **GRUS** | **Gruza** | **5.58** | **352** | *e*Pn | **Pn** | **07 20 19.8** | **+1.8** |
| **NVLJ** | **Novalja** | **8.10** | **322** | *e*Pn | **Pn** | **07 20 54.3** | **+1.8** |
| NVLJ | | | | Sn | **Sn** | **07 22 22.4** | **-1.5** |

*KRNET **09** 07:26:45.2±0.1, 41.°17N×70.°73E, h17km, mb3.0*
*SOME **09** 07:26:49.5, 41.°23N×71.°02E, h0km*
*NNC **09** 07:26:50.1±1.2, 41.°20N×71.°02E, h0km, mb3.5, mpv3.1, Error ellipse: s-maj=9.1km s-min=6.2km az=66.0*
**ISC 09 07:26:49.2**±1.6**, 41.°24N**±0.°05×**71.°02E**±0.°04**, h4**km±12km**,**
**n24,** σ**1.°81**/40**, 19C-9D, Kyrgyzstan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ARK** | **Arkit** | **0.90** | **52** | ⇑*i*P | **Pg** | **07 27 06.8** | **+0.3** |
| | baz=57 | | | | | | |
| ARK | | | | ⇑*i*S | **Sn** | **07 27 23.2** | **+0.8** |
| | baz=57 | | | | | | |
| **IUG** | **Iuzhnay** | **1.17** | **321** | *e*P | **Pn** | **07 27 12.1** | **-0.3** |
| | 26nm,0.3s | | | | | | |
| IUG | | | | *e*S | **Sg** | **07 27 27.7** | **+1.1** |
| | 32nm,0.5s | | | | | | |
| **ARSB** | **Arslanbob** | **1.48** | **86** | ⇑*i*P | **Pb** | **07 27 17.3** | **-0.1** |
| | baz=84 | | | | | | |
| ARSB | | | | ⇑*i*S | **Sg** | **07 27 40.5** | **+3.6** |
| | baz=84 | | | | | | |
| **TOKL** | **Toktogul** | **1.56** | **63** | ⇑*i*P | **Pb** | **07 27 18.0** | **-0.6** |
| | baz=64 | | | | | | |
| TOKL | | | | ⇑*i*S | **Sg** | **07 27 42.2** | **+3.1** |
| | baz=64 | | | | | | |
| **MNAS** | **Manas** | **1.67** | **41** | ⇓*i*P | **Pb** | **07 27 20.8** | **+0.2** |
| | baz=45 | | | | | | |
| MNAS | | | | ⇓*e*S | **Sg** | **07 27 45.3** | **+2.6** |
| | baz=45 | | | | | | |
| **MNAS** | **Manas** | **1.67** | **41** | ⇑P | **Pg** | **07 27 21.1** | **0.0** |
| | 5.7nm,0.4s | | | | | | |
| MNAS | | | | ⇑S | **Sg** | **07 27 44.1** | **+1.4** |
| | 4.1nm,0.2s | | | | | | |
| **KK31** | **Karatay Array** | **1.90** | **349** | ⇓Pg | **Pb** | **07 27 24.9** | **+0.5** |
| | 10nm,0.3s,baz=169,slow=17,SNR=260 | | | | | | |
| KK31 | | | | ⇑Lg | Lg | 07 27 53.6 | |
| | 16nm,0.5s,baz=173,slow=26,SNR=15 | | | | | | |
| **BRLS** | **Borolday** | **1.99** | **334** | *e*P | **Pb** | **07 27 25.2** | **-0.7** |
| | 20nm,0.3s | | | | | | |
| BRLS | | | | *e*S | **Sb** | **07 27 51.3** | **+0.1** |
| | 32nm,0.4s | | | | | | |
| **AML** | **Almayashu** | **2.19** | **65** | ⇑*i*P | **Pb** | **07 27 29.8** | **+0.1** |
| | baz=66 | | | | | | |
| AML | | | | ⇑*i*S | **Sg** | **07 28 00.7** | **+1.1** |
| | baz=66 | | | | | | |
| **AML** | **Almayashu** | **2.19** | **65** | P | **Pb** | **07 27 29.9** | **+0.3** |
| | SNR=71 | | | | | | |
| **MRKS** | **Merke** | **2.23** | **47** | *e*P | **Pb** | **07 27 31.1** | **+1.1** |
| | 25nm,0.3s | | | | | | |
| MRKS | | | | *e*S | **Sg** | **07 28 00.4** | **-0.3** |
| | 14nm,0.2s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **2.26** | **122** | ⇑*i*P | **Pn** | **07 27 27.7** | **+0.2** |
| | baz=118 | | | | | | |
| SFK | | | | ⇑*i*S | **Sb** | **07 27 59.0** | **0.0** |
| | baz=118 | | | | | | |
| **SFK** | **Sufi-Kurgan** | **2.26** | **122** | ⇑Pg | **Pb** | **07 27 31.0** | **+0.4** |
| | 0.7nm,0.2s | | | | | | |
| SFK | | | | ⇑Lg | Lg | 07 28 01.8 | |
| | 5.0nm,0.3s | | | | | | |
| **EKS2** | **Erkin-Say** | **2.50** | **55** | ⇑*e*P | **Pb** | **07 27 33.1** | **-1.6** |
| | baz=56 | | | | | | |
| EKS2 | | | | ⇑*i*S | **Sb** | **07 28 06.3** | **+0.4** |
| | baz=56 | | | | | | |
| **EKS2** | **Erkin-Say** | **2.50** | **55** | P | **Pb** | **07 27 36.0** | **+1.2** |
| | SNR=7.7 | | | | | | |
| **UCH** | **Uchtor** | **2.80** | **68** | ⇑*e*P | **Pb** | **07 27 38.1** | **-1.9** |
| | baz=68 | | | | | | |
| UCH | | | | ⇑*i*S | **Sb** | **07 28 15.6** | **+0.8** |
| | baz=68 | | | | | | |
| **UCH** | **Uchtor** | **2.80** | **68** | P | **Pg** | **07 27 41.7** | **-1.0** |
| | SNR=9.4 | | | | | | |
| **AAK** | **Ala-Archa** | **2.94** | **61** | ⇓Pg | **Pb** | **07 27 43.6** | **+1.3** |
| | 4.7nm,0.4s | | | | | | |
| AAK | | | | ⇓Lg | Lg | 07 28 22.6 | |
| | 7.5nm,0.9s | | | | | | |
| **AAK** | **Ala-Archa** | **2.94** | **61** | P | **Pb** | **07 27 44.1** | **+1.8** |
| | SNR=12 | | | | | | |
| **KBK** | **Karagaybulak** | **3.25** | **63** | ⇓*i*P | **Pb** | **07 27 44.4** | **-3.2** |
| | baz=63 | | | | | | |
| KBK | | | | ⇓*i*S | **Sb** | **07 28 25.8** | **-1.9** |
| | baz=63 | | | | | | |
| **KZA** | **Kyzart** | **3.28** | **74** | P | **Pg** | **07 27 51.0** | **-1.0** |
| | SNR=6.7 | | | | | | |
| **TKM2** | **Tokmak 2** | **3.80** | **62** | ⇓*i*P | **Pn** | **07 27 51.7** | **+3.0** |
| | baz=63 | | | | | | |
| TKM2 | | | | ⇓*e*S | **Sb** | **07 28 38.6** | **-4.8** |
| | baz=63 | | | | | | |
| **DGS** | **Degeres** | **4.06** | **59** | *e*P | **Pg** | **07 28 04.3** | **-2.6** |
| | 3.5nm,0.6s | | | | | | |
| DGS | | | | *e*S | **Sg** | **07 28 58.0** | **-1.5** |
| | 2.5nm,0.4s | | | | | | |
| **KST** | **Kastek** | **4.09** | **62** | *e*P | **Pg** | **07 28 05.2** | **-2.4** |
| | 1.8nm,0.2s | | | | | | |
| KST | | | | *e*S | **Sg** | **07 28 58.7** | **-2.0** |
| | 2.9nm,0.3s | | | | | | |

*IDC **09** 07:35:37.2±1.9, 23.°46S×177.°61W, h0km, mb4.2/6, mb1 4.5/6, mb1mx4.1/21, mbtmp4.1/6, MS3.3/5, Ms1 3.3/5, ms1mx3.0/33, Error ellipse: s-maj=116.0km s-min=22.6km az=154.0*
*ISCJB **09** 07:35:48.3±0.6, 23.°5S±0.°1×177.°8W±0.°1, h100km, mb4.5/13, Error ellipse: s-maj=18.9km s-min=12.7km az=162.9*
*NEIC **09** 07:35:51.0±2.1, 23.°43S×177.°78W, h110km±17km, mb4.6/6, Error ellipse: s-maj=19.7km s-min=8.5km az=148.0*
**ISC 09 07:35:49.8**±0.8**, 23.°5S**±0.°2×**177.°8W**±0.°1**, h100**km**, n34,**
σ**0.°69**/22**, mb4.6**/13**, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MSVF** | **Nonsavu** | **6.94** | **325** | *e*Pn | **Pn** | **07 37 29.6** | **+0.6** |
| **DZM** | **Mont Dzumac** | **14.64** | **272** | *e*LR | LR | 07 43 03.0 | |
| | 174nm,24.4s | | | | | | |
| **RPZ** | **Rata Peaks** | **22.18** | **202** | LR | LR | 07 48 58.5 | |
| | comp=Z,77nm,19.1s,baz=22,slow=36 | | | | | | |
| **HNR** | **Honiara** | **25.49** | **300** | LR | LR | 07 50 06.5 | |
| | comp=Z,57nm,18.3s,baz=142,slow=34 | | | | | | |
| **TBI** | **Tubuai** | **25.95** | **95** | *e*T | T | 08 07 24.2 | |
| | 9.5nm,0.3s | | | | | | |
| **PAE** | **Paea** | **26.98** | **83** | *e*T | T | 08 08 48.7 | |
| | 6.5nm,0.3s | | | | | | |
| **PPT2** | **Papeete2** | **27.01** | **83** | *e*LR | LR | 07 48 02.5 | |
| | 102nm,25.5s | | | | | | |
| **PPT2** | **Papeete2** | **27.01** | **83** | *e*T | T | 08 08 51.3 | |
| | 3.7nm,0.4s | | | | | | |
| **PPT** | **Papeete** | **27.01** | **83** | LR | LR | 07 51 12.3 | |
| | comp=Z,52nm,18.5s,baz=297,slow=35 | | | | | | |
| **TVO** | **Taravao** | **27.25** | **83** | *e*T | T | 08 09 07.9 | |
| | 0.6nm,0.3s | | | | | | |
| **CTAO** | **Charters Tower** | **33.54** | **269** | *e*P | **P** | **07 42 19.6** | **-0.6** |
| | 11nm,0.9s | | | | | | |
| **STKA** | **Stephens Creek** | **36.78** | **248** | P | **P** | **07 42 47.9** | **0.0** |
| | 3.0nm,1.0s,baz=68,slow=13,SNR=4.6 | | | | | | |
| STKA | | | | LR | LR | 07 56 57.8 | |
| | comp=Z,30nm,18.9s,baz=25,slow=35 | | | | | | |
| **STKA** | **Stephens Creek** | **36.78** | **248** | *e*P | **P** | **07 42 47.9** | **0.0** |
| | 0.8nm,0.9s | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **38.80** | **74** | *e*LR | LR | 07 52 45.3 | |
| | 115nm,28.6s | | | | | | |
| **RKT** | **Rikitea** | **39.19** | **98** | *e*T | T | 08 23 55.6 | |
| | 4.2nm,0.3s | | | | | | |
| **AS01** | **Alice Springs** | **44.09** | **260** | *e*P | **P** | **07 43 48.5** | **+0.2** |
| **AS31** | **Alice Springs** | **44.13** | **260** | *e*P | **P** | **07 43 49.0** | **+0.3** |
| | 3.9nm,0.9s | | | | | | |
| **ASAR** | **Alice Springs** | **44.13** | **260** | P | **P** | **07 43 48.7** | **+0.1** |
| | 15nm,0.9s,baz=94,slow=8.2,SNR=87 | | | | | | |
| **WB2** | **Warramunga Arr** | **44.48** | **265** | *e*P | **P** | **07 43 51.6** | **+0.2** |
| | 11nm,0.9s | | | | | | |
| **WR1** | **Warramunga Arr** | **44.49** | **265** | *e*P | **P** | **07 43 51.4** | **-0.1** |
| | 11nm,0.8s | | | | | | |
| **WRA** | **Warramunga Arr** | **44.49** | **265** | P | **P** | **07 43 51.4** | **-0.1** |
| | 11nm,1.0s,baz=102,slow=8.1,SNR=34 | | | | | | |
| **JHJ2** | **Mitsune** | **69.31** | **323** | *e*P | **P** | **07 46 45.2** | **-1.2** |
| | 329nm,1.2s | | | | | | |
| **PMSA** | **Palmer Station** | **78.47** | **156** | *e*P | **P** | **07 47 39.9** | **+0.5** |
| | 121nm,1.5s | | | | | | |
| **PSUT** | **Pine Spring** | **85.93** | **45** | *e*P | **P** | **07 48 17.3** | **-1.7** |
| | 7.7nm,1.1s | | | | | | |
| **PLCA** | **Paso Flores** | **87.06** | **133** | LR | LR | 08 18 18.0 | |
| | comp=Z,24nm,19.8s,baz=158,slow=29 | | | | | | |
| **LTX** | **Lajitas** | **88.47** | **57** | *e*P | **P** | **07 48 31.3** | **0.0** |
| **TXAR** | **Lajitas Array** | **88.47** | **57** | P | **P** | **07 48 31.3** | **0.0** |
| | 0.6nm,1.0s,baz=222,slow=4.9,SNR=3.2 | | | | | | |
| **PD31** | **Pinedale Array** | **90.97** | **43** | *e*P | **P** | **07 48 42.6** | **-0.3** |
| **PDAR** | **Pinedale Array** | **90.97** | **43** | P | **P** | **07 48 42.6** | **-0.3** |
| | 0.2nm,0.6s,baz=242,slow=5.8,SNR=2.6 | | | | | | |
| **ILAR** | **Eielson Array** | **91.16** | **13** | P | **P** | **07 48 43.3** | **+0.4** |
| | 0.6nm,0.9s,baz=218,slow=5.7,SNR=3.0 | | | | | | |
| **ILB** | **Eielson Array** | **91.16** | **13** | *e*P | **P** | **07 48 43.3** | **+0.4** |
| **AKASG** | **Malin Array Be** | **145.71** | **329** | PKPbc | **PKPdf** | **07 55 17.1** | **+0.8** |
| | 1.1nm,0.6s,baz=38,slow=4.3,SNR=5.4 | | | | | | |
| **AKBB** | **Malin Array Si** | **145.71** | **329** | *e*PKPdf | **PKPdf** | **07 55 16.6** | **+0.3** |
| **CLL** | **Collm** | **151.01** | **346** | *e*PKPab | **PKPab** | **07 55 40.0** | **+1.5** |

**TAP 09 07:37:26.5, 21.°13N×121.°30E, h64**km±1km**, ML3.5, D,**
**Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TSEB** | **Hengchuen, Pin** | **0.85** | **334** | *e*P | Pn | 07 37 44.0 | +1.2 |
| | baz=324 | | | | | | |
| TSEB | | | | *e*S | Sn | 07 37 57.0 | +2.2 |
| | baz=324 | | | | | | |
| **TWK1** | **Hengchun** | **0.93** | **331** | *i* P | Pn | 07 37 44.2 | +0.4 |
| | baz=325 | | | | | | |
| TWK1 | | | | *i* S | Sn | 07 37 57.2 | +0.7 |
| | baz=325 | | | | | | |
| **LAY** | **Lan-yu** | **0.93** | **15** | *e*P | Pn | 07 37 42.7 | -1.1 |
| | baz=15 | | | | | | |
| LAY | | | | *e*S | Sn | 07 37 57.1 | +0.4 |
| | baz=15 | | | | | | |
| **HEN** | **Hengchun** | **1.01** | **329** | *e*P | Pn | 07 37 45.6 | +0.8 |
| | baz=330 | | | | | | |
| HEN | | | | *e*S | Sn | 07 38 00.2 | +1.8 |
| | baz=330 | | | | | | |
| **EAST** | **Anshuo** | **1.31** | **342** | *e*P | Pn | 07 37 48.7 | -0.1 |
| | baz=352 | | | | | | |
| EAST | | | | S | Sn | 07 38 06.9 | +1.4 |
| | baz=352 | | | | | | |
| **SCZT** | **Fangliau** | **1.38** | **333** | *e*P | Pn | 07 37 50.1 | +0.4 |
| | baz=325 | | | | | | |
| SCZT | | | | S | Sn | 07 38 07.0 | -0.1 |
| | baz=325 | | | | | | |
| **TWG** | **Pinlang** | **1.69** | **353** | *e*P | Pn | 07 37 54.6 | +0.7 |
| | baz=353 | | | | | | |
| TWG | | | | *e*S | Sn | 07 38 15.5 | +0.9 |
| | baz=353 | | | | | | |
| **SGST** | **Jiashian** | **2.05** | **341** | *e*P | Pn | 07 38 03.0 | +4.3 |
| | baz=341 | | | | | | |
| SGST | | | | *e*S | Sn | 07 38 28.3 | +5.1 |
| | baz=341 | | | | | | |
| **CHN1** | **Nanshi** | **2.16** | **341** | *e*P | Pn | 07 38 04.3 | +4.1 |
| | baz=353 | | | | | | |
| CHN1 | | | | *e*S | Sn | 07 38 27.0 | +1.0 |
| | baz=353 | | | | | | |
| **WTP** | **Ta-pu** | **2.19** | **343** | *e*P | Pn | 07 38 02.7 | +2.0 |
| | baz=344 | | | | | | |
| WTP | | | | *e*S | Sn | 07 38 28.0 | +1.1 |
| | baz=344 | | | | | | |
| **TWF1** | **Yuli** | **2.21** | **0** | *e*P | Pn | 07 38 01.0 | +0.1 |
| | baz=352 | | | | | | |
| TWF1 | | | | *e*S | Sn | 07 38 26.5 | -0.6 |
| | baz=352 | | | | | | |
| **CHN4** | **Tsaushan** | **2.30** | **344** | *e*P | Pn | 07 38 05.7 | +3.6 |
| | baz=344 | | | | | | |
| **EHY** | **Hungye** | **2.36** | **1** | *e*P | Pn | 07 38 04.2 | +1.2 |
| | baz=352 | | | | | | |
| EHY | | | | *e*S | Sn | 07 38 33.3 | +2.5 |
| | baz=352 | | | | | | |
| **ALS** | **Alishan** | **2.41** | **349** | *e*P | Pn | 07 38 06.9 | +3.0 |
| | baz=349 | | | | | | |
| ALS | | | | *e*S | Sn | 07 38 35.9 | +3.5 |
| | baz=349 | | | | | | |
| **WDT** | **Danda** | **2.61** | **357** | *e*P | Pn | 07 38 09.4 | +2.7 |
| | baz=347 | | | | | | |
| WDT | | | | *e*S | Sn | 07 38 39.3 | +1.8 |
| | baz=347 | | | | | | |
| **WHF** | **Hehuan Shan** | **3.00** | **359** | *e*P | Pn | 07 38 14.1 | +2.1 |
| | baz=8.0 | | | | | | |
| WHF | | | | *e*S | Sn | 07 38 48.4 | +1.5 |
| | baz=8.0 | | | | | | |

**KRSC 09 07:44:54.6**±0.5**, 54.°51N×161.°61E, h28**km±5km**, ML3.8,**
**Near east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MKZ** | **Mys Kozlova** | **0.08** | **59** | *e*P | Pb | 07 45 00.7 | +1.1 |
| MKZ | | | | *e*S | Sb | 07 45 04.3 | +1.3 |
| **KZV** | **Kizimen** | **0.97** | **309** | *e*P | Pn | 07 45 11.2 | -1.2 |
| **TUMR** | **Tumrok** | **1.14** | **313** | *e*P | Pn | 07 45 14.4 | -0.4 |
| **KII** | **Karymskiy** | **1.35** | **250** | *e*P | Pn | 07 45 18.3 | +0.7 |
| KII | | | | *e*S | Sb | 07 45 35.9 | -0.3 |
| **KMNR** | **Kamenistaya** | **1.47** | **328** | *e*P | Pn | 07 45 20.3 | +1.0 |
| KMNR | | | | *e*S | Sb | 07 45 39.0 | -0.7 |
| **BZMR** | **Bezymyannaya** | **1.56** | **336** | *e*P | Pn | 07 45 21.7 | +1.1 |
| **ZLN** | **Zelenaya** | **1.57** | **343** | *e*P | Pb | 07 45 22.2 | -0.9 |
| ZLN | | | | *e*S | Sb | 07 45 42.8 | +0.1 |
| **BZWR** | **Bezymyannyi-We** | **1.59** | **337** | *e*P | Pn | 07 45 22.1 | +1.2 |
| **KIRR** | **Kirishev** | **1.61** | **334** | *e*P | Pn | 07 45 22.3 | +1.0 |
| **KPT** | **Kopyto** | **1.66** | **332** | *e*P | Pb | 07 45 23.2 | -1.3 |
| **CIRR** | **Tsirk** | **1.68** | **343** | *e*P | Pb | 07 45 23.9 | -1.0 |
| CIRR | | | | *e*S | Sb | 07 45 45.7 | 0.0 |
| **SPN** | **Mys Shipunski** | **1.70** | **214** | *e*P | Pn | 07 45 23.5 | +1.2 |
| SPN | | | | *e*S | Sb | 07 45 45.1 | -1.0 |
| **KRSR** | **Krestovskiy** | **1.81** | **341** | *e*P | Pn | 07 45 25.2 | +1.3 |
| **KBTR** | **Krutoberegovo** | **1.83** | **22** | *e*P | Pb | 07 45 26.5 | -0.9 |
| KBTR | | | | *e*S | Sb | 07 45 50.6 | +0.6 |
| **KOZ** | **Kozyrevsk** | **1.84** | **328** | *e*P | Pb | 07 45 26.0 | -1.5 |
| KOZ | | | | *e*S | Sb | 07 45 49.9 | -0.2 |
| **KLY** | **Klyuchi** | **1.88** | **344** | *e*P | Pn | 07 45 26.4 | +1.6 |
| KLY | | | | *e*S | Sb | 07 45 49.5 | -1.9 |
| **NLC** | **Nalytchevo** | **1.90** | **226** | *e*P | Pn | 07 45 26.6 | +1.6 |
| NLC | | | | *e*S | Sb | 07 45 50.4 | -1.4 |
| **SDLR** | **Sedlovina** | **2.03** | **234** | *e*P | Pb | 07 45 29.2 | -1.7 |
| **BDR** | **Baidarnaya** | **2.07** | **354** | *e*P | Pn | 07 45 29.4 | +1.9 |
| **SMKR** | **Semkarok** | **2.08** | **358** | *e*P | Pn | 07 45 29.3 | +1.7 |
| SMKR | | | | *e*S | Sn | 07 45 54.6 | +2.1 |
| **KRER** | **Koryakskii** | **2.08** | **236** | *e*P | Pb | 07 45 30.3 | -1.4 |
| **KRX** | **Arik** | **2.10** | **238** | *e*P | Pb | 07 45 30.5 | -1.5 |
| **UGLR** | **Uglovaya** | **2.10** | **233** | *e*P | Pb | 07 45 30.4 | -1.7 |
| **AVH** | **Avacha** | **2.11** | **235** | *e*P | Pb | 07 45 30.7 | -1.5 |
| AVH | | | | *e*S | Sb | 07 45 57.1 | -0.8 |
| **KOK** | **Koryaka** | **2.14** | **236** | *e*P | Pb | 07 45 30.8 | -1.9 |
| **SRKR** | **Sorokina** | **2.16** | **354** | *e*P | Pn | 07 45 30.4 | +1.7 |
| SRKR | | | | *e*S | Sn | 07 45 56.2 | +1.6 |
| **ESO** | **Esso** | **2.19** | **312** | *e*P | Pb | 07 45 31.9 | -1.5 |
| **DALK** | **Dalny** | **2.25** | **230** | *e*P | Pn | 07 45 31.9 | +2.0 |
| DALK | | | | *e*S | Sb | 07 46 00.7 | -1.2 |
| **PET** | **Petropavlovsk** | **2.30** | **231** | *e*P | Pb | 07 45 33.3 | -2.1 |
| PET | | | | *e*S | Sb | 07 46 01.7 | -1.7 |
| **GNL** | **Ganaly** | **2.31** | **251** | *e*P | Pn | 07 45 32.6 | +1.8 |
| **BKI** | **Bering** | **2.62** | **73** | *e*P | Pn | 07 45 37.3 | +2.4 |
| BKI | | | | *e*S | Sn | 07 46 08.4 | +2.7 |
| **KRMR** | **Karymshinskiy** | **2.67** | **232** | *e*P | Pn | 07 45 38.4 | +2.8 |
| KRMR | | | | *e*S | Sb | 07 46 10.5 | -3.4 |
| **RUS** | **Russkaya** | **2.79** | **223** | *e*P | Pn | 07 45 39.3 | +2.1 |
| **MTVR** | **Mutnovka** | **2.88** | **227** | *e*P | Pn | 07 45 41.1 | +2.4 |
| MTVR | | | | *e*S | Sb | 07 46 16.9 | -3.4 |
| **ASAK** | **Asacha** | **3.08** | **228** | *e*P | Pn | 07 45 44.5 | +3.2 |
| **APC** | **Apacha** | **3.08** | **241** | *e*P | Pb | 07 45 45.4 | -3.3 |
| APC | | | | *e*S | Sn | 07 46 21.3 | +4.1 |
| **KDTR** | **Khodutka, Kamc** | **3.44** | **220** | *e*P | Pn | 07 45 49.1 | +2.9 |
| KDTR | | | | *e*S | Sn | 07 46 31.0 | +5.0 |

**JMA 09 07:49:55.1**±0.3**, 37.°21N×143.°66E, h48**km**, M3.6, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JIO** | **Ouri** | **2.21** | **305** | P | Pn | 07 50 30.5 | +1.2 |
| JIO | | | | S | Sn | 07 50 56.2 | +0.8 |
| **JFK** | **Kawauchi** | **2.23** | **275** | P | Pn | 07 50 30.6 | +1.0 |
| **ONAJ** | **Iwakimizuishiy** | **2.29** | **268** | P | Pn | 07 50 31.5 | +1.1 |
| ONAJ | | | | S | Sn | 07 50 58.7 | +1.3 |
| **JMM** | **Marumori** | **2.37** | **287** | P | Pn | 07 50 32.6 | +1.1 |
| JMM | | | | *e*S | Sn | 07 51 00.4 | +1.1 |
| **JMK** | **Ichinoseki** | **2.59** | **313** | P | Pn | 07 50 35.6 | +1.1 |
| JMK | | | | S | Sn | 07 51 06.3 | +1.5 |
| **JFT** | **Otama** | **2.67** | **278** | P | Pn | 07 50 37.8 | +2.2 |
| JFT | | | | S | Sn | 07 51 08.9 | +2.3 |
| **JOM** | **Ohasama** | **2.93** | **321** | S | Sn | 07 51 13.5 | +0.5 |
| **JYK** | **Kaneyama** | **3.11** | **304** | P | Pn | 07 50 44.4 | +2.7 |
| **BSO1** | **Boso 1** | **3.35** | **221** | P | Pn | 07 50 45.6 | +1.1 |
| **JAG** | **Ashikaga** | **3.46** | **258** | P | Pn | 07 50 48.1 | +1.6 |
| JAG | | | | S | Sn | 07 51 27.0 | +0.7 |
| **JANG** | **Nango** | **3.58** | **333** | P | Pn | 07 50 49.1 | +1.1 |
| JANG | | | | S | Sn | 07 51 28.9 | -0.1 |
| **JRY** | **Ryogami san** | **4.01** | **254** | P | Pn | 07 50 55.1 | +1.1 |
| JRY | | | | *e*S | Sn | 07 51 39.4 | -0.3 |
| **JOD2** | **Odawara 2** | **4.17** | **244** | P | Pn | 07 50 57.6 | +1.3 |
| **MAT** | **Matsushiro** | **4.42** | **263** | P | Pn | 07 51 02.7 | +3.0 |
| MAT | | | | *e*S | Sn | 07 51 52.9 | +3.0 |

*IDC **09** 08:02:35.4±0.7, 23.°80N×143.°49E, h0km, mb4.0/12, mb1 4.2/14, mb1mx3.9/61, mbtmp4.0/14, ML3.8/2, MS3.4/4, Ms1 3.4/4, ms1mx3.0/42, Error ellipse: s-maj=25.9km*

*s-min=17.0km az=80.0*
*ISCJB **09** 08:02:38.8±0.4, 23°.74N±0°.05×143°.41E±0°.08, h33km, mb4.4/32, MS3.7/2, Error ellipse: s-maj=10.4km s-min=6.4km az=174.6*
*NEIC **09** 08:02:43.1±1.1, 23°.75N×143°.36E, h55km±9km, mb4.7/21, Error ellipse: s-maj=9.3km s-min=6.5km az=108.0*
**ISC 09 08:02:40.9**±0.6, **23°.75N**±0°.07×**143°.4E**±0°.1, **h35**km, **n55**, σ**1.06**/55, **mb4.5**/32, **Volcano Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CBIJ | Chichi jima | 3.52 | 342 | ePn | Pn | 08 03 33.6 | +0.4 |
| CBIJ | | | | eSn | Sn | 08 04 13.2 | -0.4 |
| JHJ2 | Mitsune | 9.86 | 342 | ePn | Pn | 08 05 01.3 | +1.1 |
| GUMO | Guam | 10.19 | 172 | LR | LR | 08 08 18.8 | |
| | comp=Z,85nm,18.6s,baz=82,slow=34 | | | | | | |
| MJAR | Matsushiro Arr | 13.53 | 342 | Pn | Pn | 08 05 47.1 | -3.2 |
| | 0.5nm,0.3s,baz=167,slow=11,SNR=7.1 | | | | | | |
| MAJO | Matsushiro | 13.53 | 342 | ePn | Pn | 08 05 53.5 | +3.1 |
| MJB9 | Matsu-Tunnel | 13.53 | 342 | ePn | Pn | 08 05 53.3 | +2.8 |
| ERM | Erimo | 18.22 | 359 | eP | P | 08 06 50.6 | -0.4 |
| | 19nm,0.9s | | | | | | |
| KSRS | Korea Array | 19.07 | 319 | P | P | 08 06 59.2 | -1.1 |
| | 0.2nm,0.3s,baz=143,slow=12,SNR=3.5 | | | | | | |
| KSRS | | | | LR | LR | 08 13 25.9 | |
| | comp=Z,111nm,20.9s,baz=130,slow=34 | | | | | | |
| KSAR | Wonju Array Be | 19.08 | 319 | P | P | 08 06 59.2 | -1.3 |
| USRK | Ussuriysk Ar. | 22.46 | 338 | P | P | 08 07 37.6 | +0.6 |
| | 3.4nm,0.9s,baz=175,slow=9.6,SNR=4.6 | | | | | | |
| SONA0 | Songino Array | 37.94 | 319 | eP | P | 08 09 55.5 | +0.3 |
| SONM | Songino Array | 37.94 | 319 | P | P | 08 09 55.4 | +0.3 |
| | 0.2nm,0.4s,baz=113,slow=11,SNR=3.8 | | | | | | |
| TLY | Talaya | 41.26 | 323 | eP | P | 08 10 22.4 | -0.2 |
| | 23nm,1.3s | | | | | | |
| CHTO | Chiang Mai | 41.62 | 272 | eP | P | 08 10 27.0 | +1.0 |
| | 3.9nm,1.0s | | | | | | |
| WRAB | Tennant Creek | 44.31 | 192 | eP | P | 08 10 47.8 | +0.1 |
| | 3.5nm,0.6s | | | | | | |
| WB2 | Warramunga Arr | 44.32 | 192 | eP | P | 08 10 46.8 | -0.9 |
| | 3.0nm,0.6s | | | | | | |
| WR1 | Warramunga Arr | 44.32 | 192 | eP | P | 08 10 47.6 | -0.1 |
| | 3.8nm,0.7s | | | | | | |
| WR1 | | | | ePcP | PP | 08 12 31.2 | -0.4 |
| WRA | Warramunga Arr | 44.32 | 192 | P | P | 08 10 47.6 | -0.1 |
| | 1.0nm,0.5s,baz=15,slow=8.7,SNR=5.9 | | | | | | |
| WRA | | | | PcP | PP | 08 12 31.2 | -0.4 |
| | 1.0nm,0.7s,baz=7.1,slow=3.4,SNR=4.4 | | | | | | |
| AS31 | Alice Springs | 48.03 | 192 | eP | P | 08 11 16.8 | -0.1 |
| | 0.8nm,1.2s | | | | | | |
| ASAR | Alice Springs | 48.03 | 192 | P | P | 08 11 16.8 | -0.1 |
| | 0.2nm,0.5s,baz=12,slow=10,SNR=4.0 | | | | | | |
| GSI | Gunungsitoli | 49.68 | 250 | eP | P | 08 11 30.7 | +0.9 |
| | 11nm,0.8s | | | | | | |
| ZAA0 | Zalesovo Array | 52.77 | 321 | eP | P | 08 11 52.4 | 0.0 |
| | 7.0nm,0.8s | | | | | | |
| ZALV | Zalesovo Beam | 52.77 | 321 | eP | P | 08 11 52.5 | +0.1 |
| MK01 | Makanchi Array | 53.50 | 312 | eP | P | 08 11 57.0 | -0.9 |
| MK32 | Makanchi Array | 53.50 | 312 | eP | P | 08 11 57.5 | -0.5 |
| MKAR | Makanchi Array | 53.50 | 312 | P | P | 08 11 57.5 | -0.5 |
| | 0.7nm,0.8s,baz=88,slow=9.7,SNR=3.9 | | | | | | |
| IMAR | Indian Mountai | 57.54 | 26 | eP | P | 08 12 28.0 | +1.4 |
| CAST | Castle Rocks | 57.64 | 29 | eP | P | 08 12 28.9 | +1.5 |
| | 8.1nm,1.0s | | | | | | |
| BPAW | Bear Paw Mtn. | 58.26 | 28 | eP | P | 08 12 31.8 | +0.1 |
| | 6.1nm,1.0s | | | | | | |
| TRF | Thorofare Moun | 58.44 | 29 | eP | P | 08 12 33.7 | +0.5 |
| | 7.0nm,1.0s | | | | | | |
| MLY | Manley | 58.54 | 27 | eP | P | 08 12 34.8 | +1.1 |
| | 7.6nm,1.2s | | | | | | |
| PMR | Palmer | 58.68 | 31 | eP | P | 08 12 35.0 | +0.4 |
| | 11nm,1.1s | | | | | | |
| MCK | McKinley | 59.08 | 29 | eP | P | 08 12 37.8 | +0.3 |
| | 8.3nm,1.0s | | | | | | |
| SCM | Sheep Creek Mo | 59.56 | 31 | eP | P | 08 12 41.7 | +0.8 |
| | 22nm,1.3s | | | | | | |
| IL1 | Eielson Array | 60.12 | 28 | eP | P | 08 12 44.2 | -0.3 |
| ILAR | Eielson Array | 60.12 | 28 | P | P | 08 12 44.4 | -0.2 |
| | 3.8nm,0.9s,baz=259,slow=5.6,SNR=26 | | | | | | |
| ILB | Eielson Array | 60.12 | 28 | eP | P | 08 12 44.5 | -0.1 |
| KLU | Klutina | 60.20 | 31 | eP | P | 08 12 45.7 | +0.5 |
| | 20nm,1.4s | | | | | | |
| BVAR | Borovoye Array | 61.28 | 319 | P | P | 08 12 52.1 | -0.6 |
| | 3.0nm,0.9s,baz=86,slow=7.6,SNR=11 | | | | | | |
| BRVK | Borovoye | 61.34 | 319 | eP | P | 08 12 52.5 | -0.5 |
| | 9.2nm,1.4s | | | | | | |
| KBL | Kabul | 64.56 | 298 | eP | P | 08 13 15.4 | +0.3 |
| | 9.8nm,1.1s | | | | | | |
| INK | Inuvik | 65.61 | 24 | P | P | 08 13 20.2 | -0.7 |
| | 2.6nm,1.1s,baz=284,slow=4.8,SNR=4.6 | | | | | | |
| INK | Inuvik | 65.61 | 24 | eP | P | 08 13 20.2 | -0.7 |
| | 5.5nm,1.4s | | | | | | |
| ARU | Arti | 67.76 | 323 | P | P | 08 13 34.3 | -0.7 |
| | 1.3nm,0.3s,baz=113,slow=15,SNR=4.8 | | | | | | |
| ARU | Arti | 67.76 | 323 | eP | P | 08 13 34.7 | -0.2 |
| | 7.6nm,0.8s | | | | | | |
| GEYT | Alibeck | 72.29 | 304 | P | P | 08 14 03.5 | +0.3 |
| | 39nm,0.7s,baz=61,slow=8.9,SNR=3.3 | | | | | | |
| YKA | Yellowknife Ar | 74.55 | 28 | P | P | 08 14 14.6 | -1.2 |
| | 1.0nm,0.8s,baz=303,slow=5.7,SNR=3.6 | | | | | | |
| BEKR | Beckworth | 79.66 | 51 | eP | P | 08 14 46.8 | +1.4 |
| | 2.8nm,1.1s | | | | | | |
| KBZ | Khabaz | 81.12 | 314 | P | P | 08 14 53.2 | +0.4 |
| | 2.2nm,0.7s,baz=87,slow=6.7,SNR=3.8 | | | | | | |
| GNI | Garni | 81.32 | 310 | LR | LR | 08 53 19.1 | |
| | comp=Z,26nm,18.3s,baz=241,slow=37 | | | | | | |
| FIA0 | FINESS Array S | 81.44 | 334 | eP | P | 08 14 52.3 | -1.8 |
| FINES | FINESS Array B | 81.44 | 334 | P | P | 08 14 52.3 | -1.8 |
| | 6.1nm,1.0s,baz=82,slow=4.0,SNR=4.6 | | | | | | |
| MMAI | Mount Meron Ar | 91.21 | 307 | LR | LR | 08 57 45.9 | |
| | comp=Z,43nm,21.7s,baz=90,slow=36 | | | | | | |
| PLCA | Paso Flores | 146.89 | 129 | PKPbc | PKPab | 08 22 20.9 | -0.4 |
| | 1.4nm,0.8s,baz=292,slow=4.1,SNR=5.2 | | | | | | |
| PLCA | Paso Flores | 146.89 | 129 | ePKPdf | PKPdf | 08 22 18.6 | +0.6 |

---

*HLW **09** 08:13:55.0, 34°.94N×24°.05E, h20km±15km, Md4.2, Ml4.0*
*BJI **09** 08:13:55.2, 34°.56N×23°.60E, h26km, mb4.7/17, mB5.1/11, Ms5.1/6, Ms7 4.7/6*
*MOS **09** 08:13:58.7±1.2, 34°.62N×24°.10E, h29km, mb4.8/22, Error ellipse: s-maj=8.6km s-min=4.7km az=77.3*
*ISCJB **09** 08:13:58.0±0.5, 34°.57N±0°.02×24°.05E±0°.02, h30km±3km, mb4.6/56, MS3.7/14, Error ellipse: s-maj=3.4km s-min=2.4km az=41.1*
*BEO **09** 08:13:59.7±1.6, 34°.72N×22°.87E, h0km, M4.5/4*
*ATH **09** 08:14:00.3, 34°.73N×23°.94E, h30km±1km, ML4.4/11, Error ellipse: s-maj=2.7km s-min=1.2km az=24.0*
*NEIC **09** 08:14:00.3±0.0, 34°.73N×23°.94E, h30km, mb4.7/35, ML4.4(THE), ML4.4(ATH), After ATH.*
*IDC **09** 08:14:00.6±1.7, 34°.80N×23°.96E, h33km±12km, mb4.1/16, mb1 4.2/24, mb1mx4.1/45, mbtmp4.3/24, ML4.2/8, MS3.6/23, Ms1 3.7/23, ms1mx3.4/52, Error ellipse: s-maj=16.7km s-min=12.5km az=161.0*
*CSEM **09** 08:14:00.3±0.1, 34°.63N×24°.00E, h30km, mb4.9/28, Error ellipse: s-maj=4.2km s-min=2.9km az=37.0*
*THE **09** 08:14:01.0, 34°.79N×23°.83E, h21km, ML4.4/8, Error ellipse: s-maj=1.4km s-min=0.8km az=226.0*
*GII **09** 08:14:06.2±0.0, 34°.48N×24°.94E, h9km, mb4.2/4, MD4.0/4*
*DDA **09** 08:14:28.0, 36°.10N×26°.19E, h5km, Ml3.9*
**ISC 09 08:13:59.9**±0.6, **34°.63N**±0°.04×**23°.99E**±0°.03, **h32**km±3km, **n554**, σ**1.72**/596, **mb4.7**/56, **MS3.6**/14, **16C-11D, Crete**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GVD | Gavdhos | 0.23 | 21 | P | Pb | 08 14 06.5 | -0.3 |
| GVD | | | | S | Sb | 08 14 11.2 | -0.2 |
| GVD | | | | AML | AML | 08 14 11.3 | |
| GVD | | | | AML | AML | 08 14 13.0 | |
| GVD | Gavdhos | 0.23 | 21 | P | Pb | 08 14 06.4 | -0.3 |
| GVD | | | | S | Sb | 08 14 11.2 | -0.2 |
| GVD | Gavdhos | 0.23 | 21 | P | Pb | 08 14 06.4 | -0.3 |
| GVD | | | | S | Sb | 08 14 10.7 | -0.7 |
| SIVA | Sivas | 0.78 | 60 | P | Pb | 08 14 16.2 | +1.0 |
| SIVA | | | | S | Sb | 08 14 27.0 | +1.5 |
| SIVA | | | | AML | AML | 08 14 33.2 | |
| SIVA | | | | AML | AML | 08 14 33.9 | |
| SIVA | Sivas | 0.78 | 60 | P | Pb | 08 14 16.0 | +0.9 |
| SIVA | | | | S | Sb | 08 14 27.0 | +1.5 |
| SIVA | Sivas | 0.78 | 60 | P | Pb | 08 14 16.0 | +0.9 |
| SIVA | | | | S | Sb | 08 14 28.7 | +3.2 |
| VAM | Vamos | 0.80 | 13 | P | Pn | 08 14 13.3 | -1.7 |
| VAM | | | | S | Sn | 08 14 26.3 | +0.5 |
| VAM | | | | AML | AML | 08 14 28.5 | |
| | comp=E,80100µm,0.6s | | | | | | |
| VAM | | | | AML | AML | 08 14 31.6 | |
| | comp=N,87553µm,0.5s | | | | | | |
| VAM | Vamos | 0.80 | 13 | P | Pn | 08 14 13.8 | -1.2 |
| VAM | | | | S | Sn | 08 14 26.3 | +0.5 |
| VAM | Vamos | 0.80 | 13 | P | Pn | 08 14 13.8 | -1.2 |
| VAM | | | | S | Sn | 08 14 23.9 | -1.9 |
| IMMV | Iera Moni Meta | 0.83 | 360 | P | Pn | 08 14 13.9 | -1.6 |
| IMMV | | | | S | Sn | 08 14 25.2 | -1.5 |
| IMMV | | | | AML | AML | 08 14 29.2 | |
| | comp=N,81966µm,0.5s | | | | | | |
| IMMV | | | | AML | AML | 08 14 32.4 | |
| | comp=E,73922µm,0.5s | | | | | | |
| IMMV | Iera Moni Meta | 0.83 | 360 | P | Pn | 08 14 13.9 | -1.6 |
| IMMV | | | | S | Sn | 08 14 25.2 | -1.5 |
| IMMV | Iera Moni Meta | 0.83 | 360 | P | Pn | 08 14 13.9 | -1.6 |
| IMMV | | | | S | Sn | 08 14 24.1 | -2.6 |
| IDI | Anoyia | 0.99 | 48 | Pg | Pn | 08 14 18.2 | +0.4 |
| | comp=E,460nm,0.3s,baz=240,slow=16,SNR=438 | | | | | | |
| IDI | | | | Lg | Lg | 08 14 31.4 | |
| | comp=E,740nm,0.3s,baz=323,slow=20,SNR=23 | | | | | | |
| IDI | Anoyia | 0.99 | 48 | P | Pn | 08 14 17.8 | 0.0 |
| IDI | | | | S | Sb | 08 14 34.9 | +3.4 |
| IDI | | | | AML | AML | 08 14 35.1 | |
| | comp=N,33817µm,0.5s | | | | | | |
| IDI | | | | AML | AML | 08 14 39.8 | |
| | comp=E,26474µm,0.6s | | | | | | |
| IDI | Anoyia | 0.99 | 48 | P | Pn | 08 14 18.2 | +0.4 |
| IDI | | | | Lg | Lg | 08 14 31.4 | |
| IDI | | | | S | Sb | 08 14 32.6 | +1.0 |
| IDI | Anoyia | 0.99 | 48 | P | Pn | 08 14 18.2 | +0.4 |
| IDI | | | | S | Sb | 08 14 32.6 | +1.0 |
| IACM | Heraklion | 1.12 | 52 | P | Pb | 08 14 21.6 | +0.9 |
| IACM | | | | S | Sb | 08 14 36.0 | +1.0 |
| IACM | Heraklion | 1.12 | 52 | P | Pn | 08 14 20.5 | +1.1 |
| IACM | | | | S | Sb | 08 14 36.0 | +1.0 |
| IACM | Heraklion | 1.12 | 52 | P | Pn | 08 14 20.5 | +1.1 |
| LAST | Lasithi | 1.34 | 66 | P | Pb | 08 14 26.0 | +1.5 |
| LAST | Lasithi | 1.34 | 66 | P | Pb | 08 14 24.5 | 0.0 |
| LAST | | | | S | Sb | 08 14 42.8 | +1.4 |
| LAST | Lasithi | 1.34 | 66 | P | Pb | 08 14 24.5 | 0.0 |
| LAST | | | | S | Sb | 08 14 42.8 | +1.4 |
| ANKY | Antikythira Is | 1.36 | 336 | P | Pn | 08 14 24.3 | +1.6 |
| ANKY | | | | S | Sb | 08 14 41.7 | -0.2 |
| ANKY | | | | AML | AML | 08 14 52.0 | |
| | comp=N,10257µm,0.7s | | | | | | |
| ANKY | | | | AML | AML | 08 14 53.9 | |
| | comp=E,12573µm,0.6s | | | | | | |
| ANKY | Antikythira Is | 1.36 | 336 | P | Pn | 08 14 24.3 | +1.6 |
| ANKY | | | | S | Sb | 08 14 41.7 | -0.2 |
| NPS | Neapolis | 1.48 | 64 | P | Pb | 08 14 28.1 | +1.2 |
| NPS | | | | AML | AML | 08 15 00.1 | |
| | comp=N,8066µm,0.8s | | | | | | |
| NPS | | | | AML | AML | 08 15 00.5 | |
| | comp=E,11350µm,0.8s | | | | | | |
| NPS | Neapolis | 1.48 | 64 | P | Pb | 08 14 27.2 | +0.3 |
| NPS | Neapolis | 1.48 | 64 | P | Pb | 08 14 27.2 | +0.3 |
| KYTH | Kithira | 1.81 | 335 | P | Pn | 08 14 30.6 | +1.7 |
| KYTH | Kithira | 1.81 | 335 | P | Pn | 08 14 30.3 | +1.4 |
| ZKR | Zakros | 1.90 | 74 | P | Pn | 08 14 31.0 | +0.9 |
| ZKR | | | | AML | AML | 08 15 14.2 | |
| | comp=E,8047µm,0.6s | | | | | | |
| ZKR | | | | AML | AML | 08 15 15.1 | |
| | comp=N,3016µm,0.5s | | | | | | |
| ZKR | Zakros | 1.90 | 74 | P | Pn | 08 14 31.0 | +0.9 |
| THR6 | Thira Island, | 2.08 | 33 | P | Pn | 08 14 33.1 | +0.6 |
| THR6 | Thira Island, | 2.08 | 33 | P | Pn | 08 14 33.1 | +0.6 |
| MHLO | Agia Marina, M | 2.09 | 9 | P | Pn | 08 14 33.5 | +0.8 |
| MHLO | | | | AML | AML | 08 15 11.1 | |
| | comp=E,20998µm,0.7s | | | | | | |
| MHLO | | | | AML | AML | 08 15 14.5 | |
| | comp=N,29241µm,0.9s | | | | | | |
| MHLO | Agia Marina, M | 2.09 | 9 | P | Pn | 08 14 33.5 | +0.8 |
| MHLO | Agia Marina, M | 2.09 | 9 | P | Pn | 08 14 32.4 | -0.3 |
| THR5 | Thira Island, | 2.11 | 31 | P | Pn | 08 14 33.7 | +0.7 |
| THR5 | Thira Island, | 2.11 | 31 | P | Pn | 08 14 33.7 | +0.7 |
| SANT | Santorini | 2.12 | 34 | P | Pn | 08 14 34.5 | +1.3 |
| SANT | Santorini | 2.12 | 34 | ePn | Pn | 08 14 34.1 | +1.0 |
| SANT | Santorini | 2.12 | 34 | P | Pn | 08 14 34.5 | +1.3 |
| SANT | Santorini | 2.12 | 34 | ePn | Pn | 08 14 34.1 | +1.0 |
| THR3 | Thira Island, | 2.12 | 33 | P | Pn | 08 14 34.1 | +0.9 |
| THR3 | Thira Island, | 2.12 | 33 | P | Pn | 08 14 34.1 | +0.9 |
| MHLA | Plaka, Milos I | 2.15 | 9 | P | Pn | 08 14 35.1 | +1.6 |
| MHLA | | | | S | Sn | 08 14 58.1 | -0.9 |
| MHLA | | | | AML | AML | 08 15 18.7 | |
| | comp=E,17328µm,1.1s | | | | | | |
| MHLA | | | | AML | AML | 08 15 21.6 | |
| | comp=N,11394µm,1.0s | | | | | | |
| MHLA | Plaka, Milos I | 2.15 | 9 | P | Pn | 08 14 35.1 | +1.6 |
| MHLA | | | | S | Sn | 08 14 58.1 | -0.9 |
| THR2 | Thira island, | 2.17 | 33 | P | Pn | 08 14 34.5 | +0.7 |
| THR2 | Thira island, | 2.17 | 33 | P | Pn | 08 14 34.5 | +0.7 |
| CMBO | Columbo, Santo | 2.18 | 32 | P | Pn | 08 14 34.3 | +0.4 |
| CMBO | Columbo, Santo | 2.18 | 32 | P | Pn | 08 14 35.1 | +1.2 |
| CMBO | | | | S | Sn | 08 15 00.1 | +0.3 |
| CMBO | Columbo, Santo | 2.18 | 32 | P | Pn | 08 14 35.1 | +1.2 |
| CMBO | | | | S | Sn | 08 15 00.1 | +0.3 |
| VLI | Veliai | 2.26 | 338 | P | Pn | 08 14 37.6 | +2.6 |
| VLI | Veliai | 2.26 | 338 | P | Pn | 08 14 35.2 | +0.2 |
| VLI | Veliai | 2.26 | 338 | P | Pn | 08 14 35.2 | +0.2 |
| APE | Apeiranthos | 2.74 | 27 | ePN | Pn | 08 14 40.9 | -0.9 |
| APE | Apeiranthos | 2.74 | 27 | ⇑iP | Pn | 08 14 41.7 | -0.1 |
| APE | | | | S | Sb | 08 15 27.8 | +6.2 |
| APE | Apeiranthos | 2.74 | 27 | ⇑iP | Pn | 08 14 41.7 | -0.1 |
| APE | Apeiranthos | 2.74 | 27 | ePn | Pn | 08 14 40.9 | -0.9 |
| APE | Apeiranthos | 2.74 | 27 | iP | Pn | 08 14 41.7 | -0.1 |
| APE | | | | S | Sn | 08 15 12.9 | -0.9 |
| APE | Apeiranthos | 2.74 | 27 | P | Pn | 08 14 41.6 | -0.2 |
| APE | | | | S | Sn | 08 15 12.9 | -0.9 |
| KARP | Karpathos | 2.76 | 70 | ePN | Pn | 08 14 45.0 | +3.0 |
| KARP | Karpathos | 2.76 | 70 | P | Pn | 08 14 44.8 | +2.8 |
| KARP | | | | S | Sn | 08 15 16.6 | +2.2 |
| KARP | | | | AML | AML | 08 15 23.6 | |
| | comp=E,2398µm,0.5s | | | | | | |
| KARP | | | | AML | AML | 08 15 25.9 | |
| | comp=N,1973µm,0.5s | | | | | | |
| KARP | Karpathos | 2.76 | 70 | P | Pn | 08 14 44.8 | +2.8 |
| KARP | | | | S | Sn | 08 15 16.5 | +2.2 |
| KARP | Karpathos | 2.76 | 70 | ePn | Pn | 08 14 44.8 | +2.8 |
| KARP | Karpathos | 2.76 | 70 | P | Pn | 08 14 44.8 | +2.8 |
| DID | Didima | 2.94 | 348 | P | Pn | 08 14 43.8 | -0.6 |
| DID | Didima | 2.94 | 348 | P | Pn | 08 14 43.8 | -0.6 |
| VLX | Vlachokerasia | 3.03 | 335 | P | Pn | 08 14 48.3 | +2.5 |
| VLX | Vlachokerasia | 3.03 | 335 | P | Pn | 08 14 46.9 | +1.1 |
| VLX | Vlachokerasia | 3.03 | 335 | P | Pn | 08 14 46.9 | +1.1 |
| ITM | Ithomi | 3.05 | 327 | P | Pn | 08 14 46.2 | +0.3 |
| ITM | Ithomi | 3.05 | 327 | P | Pn | 08 14 46.2 | +0.3 |
| VLY | Voula,Athens | 3.23 | 357 | P | Pn | 08 14 47.7 | -0.6 |
| VLY | Voula,Athens | 3.23 | 357 | P | Pn | 08 14 47.7 | -0.6 |
| NIS1 | Nisyros Isl. | 3.27 | 52 | ePN | Pn | 08 14 48.7 | -0.2 |
| NIS1 | Nisyros Isl. | 3.27 | 52 | ePn | Pn | 08 14 48.7 | -0.2 |
| PTL | Penteli | 3.42 | 358 | P | Pn | 08 14 50.6 | -0.4 |
| PTL | Penteli | 3.42 | 358 | P | Pn | 08 14 50.6 | -0.4 |
| KARY | Karystos | 3.42 | 6 | P | Pn | 08 14 50.6 | -0.4 |
| KARY | Karystos | 3.42 | 6 | P | Pn | 08 14 50.6 | -0.4 |
| AMT | Artemida-Makis | 3.44 | 328 | P | Pn | 08 14 54.0 | +2.7 |
| AMT | Artemida-Makis | 3.44 | 328 | P | Pn | 08 14 54.0 | +2.7 |
| LTK | Loutraki | 3.49 | 347 | P | Pn | 08 14 52.1 | +0.1 |
| LTK | Loutraki | 3.49 | 347 | P | Pn | 08 14 52.1 | +0.1 |
| GUR | Goura | 3.56 | 339 | P | Pn | 08 14 53.5 | +0.4 |
| GUR | Goura | 3.56 | 339 | P | Pn | 08 14 53.9 | +0.8 |
| GUR | Goura | 3.56 | 339 | P | Pn | 08 14 53.9 | +0.8 |
| VILL | Villia | 3.57 | 351 | P | Pn | 08 14 52.4 | -0.8 |
| VILL | Villia | 3.57 | 351 | P | Pn | 08 14 52.4 | -0.8 |
| BODT | Bodrum | 3.63 | 47 | ePN | Pn | 08 14 53.7 | -0.3 |
| BODT | Bodrum | 3.63 | 47 | ePn | Pn | 08 14 53.7 | -0.3 |
| KLV | Kalavryta, Ach | 3.72 | 337 | P | Pn | 08 14 56.2 | +1.0 |
| KLV | Kalavryta, Ach | 3.72 | 337 | P | Pn | 08 14 56.2 | +1.0 |
| ARG | Arkhangelos | 3.73 | 64 | P | Pn | 08 14 56.0 | +0.7 |
| ARG | Arkhangelos | 3.73 | 64 | P | Pn | 08 14 56.0 | +0.7 |
| ARG | Arkhangelos | 3.73 | 64 | P | Pn | 08 14 57.0 | +1.6 |
| MRSB | Marmaris-Mugla | 4.01 | 57 | ePN | Pn | 08 14 59.9 | +0.7 |
| MRSB | Marmaris-Mugla | 4.01 | 57 | ePn | Pn | 08 14 59.9 | +0.7 |
| GCAM | G?zelcaml? | 4.04 | 40 | ePN | Pn | 08 15 00.7 | +1.1 |
| GCAM | G?zelcaml? | 4.04 | 40 | ePn | Pn | 08 15 00.6 | +1.1 |
| LKR | Lokris | 4.10 | 349 | P | Pn | 08 14 59.7 | -0.6 |
| LKR | Lokris | 4.10 | 349 | P | Pn | 08 14 59.7 | -0.6 |
| CHOS | Chios island | 4.11 | 23 | ePN | Pn | 08 14 59.3 | -1.3 |
| CHOS | Chios island | 4.11 | 23 | ePn | Pn | 08 14 59.3 | -1.3 |
| EFP | Efpalio | 4.15 | 337 | P | Pn | 08 15 01.0 | 0.0 |
| EFP | Efpalio | 4.15 | 337 | P | Pn | 08 15 01.0 | 0.0 |
| URLA | Izmir | 4.28 | 29 | ePN | Pn | 08 15 01.9 | -0.9 |
| URLA | Izmir | 4.28 | 29 | ePn | Pn | 08 15 02.0 | -0.9 |
| ANX | Ano Chora | 4.29 | 338 | P | Pn | 08 15 03.1 | 0.0 |
| ANX | Ano Chora | 4.29 | 338 | P | Pn | 08 15 03.8 | +0.7 |
| ANX | Ano Chora | 4.29 | 338 | P | Pn | 08 15 03.8 | +0.7 |
| AYDN | Tasoluk | 4.37 | 45 | iP | Pn | 08 15 05.5 | +1.3 |
| AYDN | Tasoluk | 4.37 | 45 | P | Pn | 08 15 05.5 | +1.3 |
| TURN | Turunc | 4.37 | 58 | ePN | Pn | 08 15 01.9 | -2.2 |
| TURN | Turunc | 4.37 | 58 | iP | Pn | 08 15 01.8 | -2.2 |
| TURN | Turunc | 4.37 | 58 | ePn | Pn | 08 15 01.9 | -2.2 |
| DALY | Dalyan (Mu˜la | 4.38 | 59 | ePN | Pn | 08 15 05.3 | +1.1 |
| DALY | Dalyan (Mu˜la | 4.38 | 59 | iP | Pn | 08 15 06.6 | +2.4 |
| DALY | Dalyan (Mu˜la | 4.38 | 59 | ePn | Pn | 08 15 05.3 | +1.1 |
| DALY | Dalyan (Mu˜la | 4.38 | 59 | P | Pn | 08 15 06.6 | +2.4 |
| AGG | Agios Georgios | 4.59 | 344 | eP | Pn | 08 15 07.4 | +0.3 |
| AGG | Agios Georgios | 4.59 | 344 | eP | Pn | 08 15 07.4 | +0.3 |
| AGG | Agios Georgios | 4.59 | 344 | ePn | Pn | 08 15 07.4 | +0.3 |
| AGG | Agios Georgios | 4.59 | 344 | P | Pn | 08 15 06.9 | -0.2 |
| FETY | Fethiye | 4.61 | 63 | ePN | Pn | 08 15 08.7 | +1.3 |
| FETY | Fethiye | 4.61 | 63 | ePn | Pn | 08 15 08.7 | +1.3 |
| SIGR | SIGRI | 4.82 | 18 | ePN | Pn | 08 15 09.9 | -0.2 |
| SIGR | SIGRI | 4.82 | 18 | ePn | Pn | 08 15 10.0 | -0.2 |
| KSL | Kastellorizon | 4.82 | 70 | P | Pn | 08 15 11.5 | +1.3 |
| KSL | Kastellorizon | 4.82 | 70 | P | Pn | 08 15 11.5 | +1.3 |
| AKAS | Kas | 4.86 | 69 | ePN | Pn | 08 15 11.8 | +0.8 |
| AKAS | Kas | 4.86 | 69 | iP | Pn | 08 15 12.2 | +1.3 |
| AKAS | | | | iS | Sn | 08 16 01.9 | -4.3 |
| AKAS | Kas | 4.86 | 69 | P | Pn | 08 15 12.2 | +1.3 |
| AKAS | Kas | 4.86 | 69 | ePn | Pn | 08 15 12.5 | +1.5 |
| AKAS | | | | eSn | Sn | 08 16 05.6 | -0.6 |
| AKAS | Kas | 4.86 | 69 | ePn | Pn | 08 15 12.5 | +1.5 |
| AKAS | | | | eSn | Sn | 08 16 05.5 | -0.6 |
| TAVA | DENIZLI_Tavas | 4.90 | 53 | iP | Pn | 08 15 13.5 | +2.1 |
| TAVA | DENIZLI_Tavas | 4.90 | 53 | P | Pn | 08 15 13.5 | +2.1 |
| DKL | Dikili | 5.02 | 27 | ePN | Pn | 08 15 12.6 | -0.4 |
| DKL | Dikili | 5.02 | 27 | ePn | Pn | 08 15 12.6 | -0.4 |
| DNZL | Cakiroluk | 5.11 | 52 | iP | Pn | 08 15 16.7 | +2.3 |
| DNZL | Cakiroluk | 5.11 | 52 | P | Pn | 08 15 16.7 | +2.3 |
| GLHS | Glhisar (BURDU | 5.14 | 59 | ePN | Pn | 08 15 16.7 | +2.0 |
| GLHS | Glhisar (BURDU | 5.14 | 59 | ePn | Pn | 08 15 16.7 | +2.0 |
| GOLH | Golhisar | 5.22 | 58 | iP | Pn | 08 15 18.0 | +2.1 |
| GOLH | | | | iS | Sn | 08 16 15.0 | 0.0 |
| GOLH | Golhisar | 5.22 | 58 | P | Pn | 08 15 18.0 | +2.1 |
| GOLH | | | | S | Sn | 08 16 15.0 | 0.0 |
| AKHS | Akhisar | 5.24 | 35 | iP | Pn | 08 15 17.2 | +1.1 |
| AKHS | Akhisar | 5.24 | 35 | P | Pn | 08 15 17.2 | +1.1 |
| ELL | Elmali | 5.26 | 65 | ePN | Pn | 08 15 18.5 | +2.0 |
| ELL | Elmali | 5.26 | 65 | ePn | Pn | 08 15 18.5 | +2.0 |
| MANT | Manisa | 5.33 | 42 | iP | Pn | 08 15 19.2 | +1.8 |
| MANT | Manisa | 5.33 | 42 | ePn | Pn | 08 15 19.5 | +2.0 |
| MANT | Manisa | 5.33 | 42 | ePn | Pn | 08 15 19.5 | +2.0 |
| KULA | Kula-Manisa | 5.41 | 43 | ePN | Pn | 08 15 18.5 | +0.1 |
| BAYC | CANAKKALE_Bayr | 5.50 | 21 | iP | Pn | 08 15 18.8 | -0.8 |
| SWA2 | | 5.51 | 166 | S | Sn | 08 16 23.1 | +1.1 |
| | baz=167 | | | | | | |
| SWA2 | | | | AMP | | 08 16 00.0 | |
| | comp=E,260µm,0.5s,logA/T=5.7,baz=167 | | | | | | |
| SWA2 | | 5.51 | 166 | S | Sn | 08 16 23.1 | +1.1 |
| EZN | Ezine | 5.52 | 19 | ePN | Pn | 08 15 19.3 | -0.5 |
| KORT | Korkueli | 5.69 | 64 | ePN | Pn | 08 15 24.8 | +2.5 |
| KORT | Korkueli | 5.69 | 64 | iP | Pn | 08 15 24.4 | +2.0 |
| OUR | Ouranopolis | 5.70 | 360 | ePN | Pn | 08 15 21.3 | -1.0 |
| GADA | Gvkgeada | 5.76 | 15 | ePN | Pn | 08 15 22.4 | -0.8 |
| BRDR | BURDUR-Merkez | 5.79 | 56 | iP | Pn | 08 15 24.9 | +1.2 |
| KHAL | Karahalli | 5.80 | 48 | iP | Pn | 08 15 25.9 | +2.1 |
| BALB | Balikesir | 5.89 | 31 | ePN | Pn | 08 15 24.7 | -0.3 |
| SIMA | Simav-Kutahya | 5.99 | 41 | ePN | Pn | 08 15 27.3 | +0.9 |
| BCK | Bucak | 6.05 | 60 | ePN | Pn | 08 15 29.3 | +2.0 |
| GELI | Tayfur-Gelibol | 6.09 | 18 | ePN | Pn | 08 15 27.8 | +0.1 |
| KZIL | AFYON_Kizioren | 6.14 | 52 | iP | Pn | 08 15 30.1 | +1.5 |
| LPK | Lapseki | 6.15 | 20 | ePN | Pn | 08 15 28.4 | -0.1 |
| GDZ | Gediz | 6.26 | 43 | iP | Pn | 08 15 32.3 | +2.1 |
| KRBG | Karabiga-Canak | 6.33 | 24 | ePN | Pn | 08 15 30.9 | 0.0 |
| SUTC | Sutluce-Ispart | 6.35 | 61 | ePN | Pn | 08 15 33.3 | +1.8 |
| TVSB | Tavsanli | 6.51 | 41 | ePN | Pn | 08 15 34.3 | +0.8 |
| SHUT | Suhut-Afyon | 6.58 | 52 | ePN | Pn | 08 15 36.1 | +1.6 |
| BIA | Bitola | 6.72 | 343 | ePn | Pn | 08 15 36.6 | +0.1 |
| VAY | Valandovo | 6.78 | 351 | ePn | Pn | 08 15 37.0 | -0.1 |
| VAY | Valandovo | 6.78 | 351 | ePn | Pn | 08 15 37.0 | -0.1 |
| VAY | Valandovo | 6.78 | 351 | ePn | Pn | 08 15 38.8 | +1.6 |
| OHR | Ohrid | 6.95 | 340 | ePn | Pn | 08 15 37.2 | -2.3 |
| OHR | Ohrid | 6.95 | 340 | ePn | Pn | 08 15 38.0 | -1.5 |
| MMB | Musomiste | 6.96 | 358 | eP | Pn | 08 15 38.3 | -1.3 |
| KRUS | Krusevo | 7.07 | 343 | ePn | Pn | 08 15 40.1 | -1.2 |
| KKB | Krupnik | 7.26 | 355 | eP | Pn | 08 15 40.5 | -3.3 |
| TIR | Tirane | 7.46 | 335 | eSn | Sn | 08 17 01.1 | -8.8 |
| CEL | Celeste | 7.46 | 301 | ePn | Pn | 08 15 46.8 | +0.2 |
| CEL | Celeste | 7.46 | 301 | ePn | Pn | 08 15 46.8 | +0.2 |
| HMYD | Mayadein | 7.52 | 128 | P | Pn | 08 15 46.7 | -0.6 |
| | baz=130 | | | | | | |
| HMYD | Mayadein | 7.52 | 128 | P | Pn | 08 15 46.7 | -0.6 |
| ERMK | Ermenek | 7.54 | 72 | iP | Pn | 08 15 49.0 | +1.2 |
| SKO | Skopje | 7.60 | 346 | ePn | Pn | 08 15 49.3 | +0.8 |
| KDHN | Kadinhani | 7.61 | 57 | iP | Pn | 08 15 49.0 | +0.3 |
| CSS | Mathiatis | 7.70 | 85 | Pn | Pn | 08 15 49.4 | -0.4 |
| CSS | Mathiatis | 7.70 | 85 | Pn | Pn | 08 15 49.4 | -0.4 |
| CSS | | | | eSn | Sn | 08 17 16.6 | +0.8 |
| CSS | Mathiatis | 7.70 | 85 | ePn | Pn | 08 15 49.2 | -0.6 |
| CSS | | | | eSn | Sn | 08 17 16.6 | +0.8 |
| SQR | Saqqara | 7.72 | 126 | P | Pn | 08 15 49.6 | -0.5 |
| | baz=127 | | | | | | |
| SQR | Saqqara | 7.72 | 126 | P | Pn | 08 15 49.6 | -0.5 |
| GULT | Gulveren | 7.78 | 40 | ePN | Pn | 08 15 51.4 | +0.5 |
| VTS | Vitosha | 7.98 | 356 | ⇓iP | Pn | 08 15 55.0 | +1.2 |
| VTS | Vitosha | 7.98 | 356 | eP | Pn | 08 15 55.7 | +1.9 |
| VTS | Vitosha | 7.98 | 356 | eP | Pn | 08 15 55.0 | +1.2 |
| VTS | Vitosha | 7.98 | 356 | eP | Pn | 08 15 55.7 | +1.9 |
| VTS | Vitosha | 7.98 | 356 | ePn | Pn | 08 15 55.7 | +1.9 |
| HSAF | As Saff | 8.13 | 126 | P | Pn | 08 15 55.3 | -0.4 |
| | baz=127 | | | | | | |
| HSAF | As Saff | 8.13 | 126 | P | Pn | 08 15 55.3 | -0.4 |
| GLL | Jalalah | 8.26 | 125 | P | Pn | 08 15 57.5 | -0.1 |
| | baz=127 | | | | | | |
| GLL | Jalalah | 8.26 | 125 | P | Pn | 08 15 57.5 | -0.1 |
| VAE | Valguarnera | 8.26 | 293 | Sn | Sn | 08 17 26.1 | -3.7 |
| | comp=E,14nm,0.3s,baz=324,slow=5.6,SNR=4.0 | | | | | | |
| HHAG | Hagoal | 8.30 | 122 | P | Pn | 08 15 57.1 | -1.0 |
| | baz=124 | | | | | | |
| HHAG | Hagoal | 8.30 | 122 | P | Pn | 08 15 57.1 | -1.0 |
| HFRF | Wahat Farafira | 8.33 | 152 | P | Pn | 08 15 59.2 | +0.7 |
| | baz=153 | | | | | | |
| HFRF | | | | S | Sn | 08 17 29.9 | -1.5 |
| | baz=153 | | | | | | |
| HFRF | Wahat Farafira | 8.33 | 152 | P | Pn | 08 15 59.2 | +0.7 |
| HFRF | | | | S | Sn | 08 17 29.9 | -1.5 |
| BARS | Barje | 8.35 | 349 | ePn | Pn | 08 15 59.6 | +0.8 |
| BARS | Barje | 8.35 | 349 | ePn | Pn | 08 15 59.6 | +0.8 |
| CUC | Castrocucco | 8.43 | 312 | ePn | Pn | 08 16 00.8 | +0.9 |
| CUC | Castrocucco | 8.43 | 312 | ePn | Pn | 08 16 00.8 | +0.9 |
| KIZK | Mersin | 8.48 | 74 | iP | Pn | 08 16 01.2 | +0.7 |
| PDG | Podgorica | 8.63 | 336 | ePn | Pn | 08 15 58.7 | -3.8 |
| PDG | | | | eSn | Sn | 08 17 28.1 | -11 |
| PDG | Podgorica | 8.63 | 336 | ⇓iP | Pn | 08 16 01.2 | -1.3 |
| NBNS | Bani Suef | 8.64 | 132 | P | Pn | 08 16 03.1 | +0.4 |
| | baz=133 | | | | | | |
| NBNS | Bani Suef | 8.64 | 132 | P | Pn | 08 16 03.1 | +0.4 |
| KERG | Konya-Eregli | 8.67 | 68 | iP | Pn | 08 16 03.7 | +0.4 |
| ZAPS | Zavoj | 8.70 | 353 | ePn | Pn | 08 16 03.4 | -0.2 |
| BR231 | Keskin MP Arra | 8.73 | 51 | ePn | Pn | 08 16 12.1 | +8.1 |
| BR231 | Keskin MP Arra | 8.73 | 51 | ePn | Pn | 08 16 12.1 | +8.0 |
| ANTO | Ankara | 8.76 | 51 | eP | Pn | 08 16 06.2 | +1.8 |
| ANTO | Ankara | 8.76 | 51 | eP | Pn | 08 16 06.2 | +1.8 |
| ANTO | Ankara | 8.76 | 51 | ePn | Pn | 08 16 06.2 | +1.8 |
| SELS | Selova | 8.87 | 346 | ePn | Pn | 08 16 01.7 | -4.1 |
| RSH | | 8.97 | 111 | P | Pn | 08 16 06.3 | -1.0 |
| | baz=113 | | | | | | |
| RSH | | 8.97 | 111 | P | Pn | 08 16 06.3 | -1.0 |
| SJES | Sjenica | 9.17 | 341 | ePn | Pn | 08 16 09.1 | -1.0 |
| BR131 | Keskin Array S | 9.23 | 54 | ePn | Pn | 08 16 12.3 | +1.4 |
| BR131 | Keskin Array S | 9.23 | 54 | ePn | Pn | 08 16 12.3 | +1.4 |
| BRTR | Keskin Array B | 9.23 | 54 | Pn | Pn | 08 16 12.3 | +1.4 |
| | comp=E,1.2nm,0.3s,baz=226,slow=14,SNR=40 | | | | | | |
| BRTR | | | | LR | LR | 08 20 37.5 | |
| | comp=E,538nm,18.6s,baz=250,slow=43 | | | | | | |
| ZAGS | Zajecar | 9.28 | 352 | ⇑iPn | Pn | 08 16 10.8 | -0.6 |
| ZAGS | Zajecar | 9.28 | 352 | ⇑iPn | Pn | 08 16 10.8 | -0.6 |
| OFRI | ‘Ofer | 9.39 | 99 | Pn | Pn | 08 16 12.7 | -0.3 |
| OFRI | ‘Ofer | 9.39 | 99 | Pn | Pn | 08 16 12.7 | -0.3 |
| IVAS | Ivanjica | 9.42 | 343 | ePn | Pn | 08 16 10.1 | -3.3 |
| KZIT | Kziot | 9.52 | 110 | Pn | Pn | 08 16 14.5 | -0.3 |
| KZIT | Kziot | 9.52 | 110 | Pn | Pn | 08 16 14.5 | -0.3 |

**SLTI Sal'it** 9.54 101 Pn **Pn** 08 16 13.4 -1.7
SLTI Sn **Sn** 08 17 54.7 -6.5
**SLTI Sal'it** 9.54 101 Pn **Pn** 08 16 13.4 -1.7
**STON Ston** 9.58 331 *e*Pn Pn 08 16 10.7 -4.9
STON Sn Sn 08 17 48.5 -14
**GRUS Gruza** 9.59 346 *e*Pn **Pn** 08 16 13.6 -2.1
**MMA0B Mount Meron ar** 9.63 96 Pn **Pn** 08 16 15.9 -0.5
MMA0B Sn **Sn** 08 17 58.2 -5.4
**MMA0B Mount Meron ar** 9.63 96 Pn **Pn** 08 16 15.9 -0.5
**MMAI Mount Meron Ar** 9.63 96 Pn **Pn** 08 16 15.4 -1.0
comp=E,9.3nm,0.3s,baz=304,slow=12,SNR=18
MMAI Sn **Sn** 08 17 58.2 -5.4
comp=E,18nm,0.3s,baz=272,slow=25,SNR=12
**AMAZ Amatzia** 9.67 106 Pn **Pn** 08 16 17.1 +0.2
**AMAZ Amatzia** 9.67 106 Pn **Pn** 08 16 17.1 +0.2
**MMLI Mount Malkishu** 9.79 100 Pn **Pn** 08 16 18.0 -0.6
**MMLI Mount Malkishu** 9.79 100 Pn **Pn** 08 16 18.0 -0.6
**KSDI Kefar Szold** 9.81 95 Pn **Pn** 08 16 17.6 -1.1
KSDI Sn **Sn** 08 18 02.0 -5.7
**KSDI Kefar Szold** 9.81 95 Pn **Pn** 08 16 17.6 -1.1
**GRB Gharib** 9.83 128 P **Pn** 08 16 19.2 +0.2
baz=129
**GRB Gharib** 9.83 128 P **Pn** 08 16 19.2 +0.2
**HWQ Hawqa** 9.88 89 *e*P **Pn** 08 16 18.9 -1.0
**BBLS Lazići** 9.89 340 ⇓*i*Pn **Pn** 08 16 16.4 -3.4
**RCY Rachaya** 9.90 93 *e*P **Pn** 08 16 18.3 -1.8
**YTIR Yattir** 9.90 106 Pn **Pn** 08 16 20.3 +0.3
**YTIR Yattir** 9.90 106 Pn **Pn** 08 16 20.3 +0.3
**HMDT Nahal Hemdat** 9.93 101 Pn **Pn** 08 16 19.8 -0.6
HMDT Sn **Sn** 08 18 05.2 -5.5
**HMDT Nahal Hemdat** 9.93 101 Pn **Pn** 08 16 19.8 -0.6
**RMNI Mount Ramon** 9.94 111 Pn **Pn** 08 16 21.5 +0.9
**RMNI Mount Ramon** 9.94 111 Pn **Pn** 08 16 21.5 +0.9
**DIVS Divibare** 9.95 343 ⇑*i*Pn **Pn** 08 16 17.4 -3.3
**BRBR Barbar** 10.01 94 *e*P **Pn** 08 16 20.3 -1.4
BRBR *e*S **Sn** 08 18 06.0 -6.8
BRBR AML AML 08 18 10.3
comp=N,73nm,0.7s
BRBR AML AML 08 18 11.0
comp=E,81nm,0.5s
**DSI Dead Sea** 10.03 105 Pn **Pn** 08 16 21.2 -0.6
**DSI Dead Sea** 10.03 105 Pn **Pn** 08 16 21.2 -0.6
**MZDA Masada** 10.11 106 Pn **Pn** 08 16 23.4 +0.6
**MZDA Masada** 10.11 106 Pn **Pn** 08 16 23.4 +0.6
**TCHB Talchebab** 10.18 98 *e*P **Pn** 08 16 23.3 -0.5
TCHB *e*S **Sn** 08 18 11.1 -5.7
TCHB AML AML 08 18 20.0
comp=E,245nm,0.5s
TCHB AML AML 08 18 20.4
comp=N,213nm,0.8s
**HDK1 Dakhla** 10.19 151 P **Pn** 08 16 25.6 +1.5
baz=152
**HDK1 Dakhla** 10.19 151 P **Pn** 08 16 25.6 +1.5
**PRNI Paran** 10.23 112 Pn **Pn** 08 16 24.7 +0.1
**PRNI Paran** 10.23 112 Pn **Pn** 08 16 24.7 +0.1
**HAWK Haweek** 10.24 87 *e*P **Pn** 08 16 23.3 -1.4
HAWK *e*S **Sn** 08 18 12.0 -6.5
HAWK AML AML 08 18 17.0
comp=N,46nm,0.6s
HAWK AML AML 08 18 20.4
comp=E,60nm,1.1s
**ZFRI Zfri** 10.28 110 Pn **Pn** 08 16 24.8 -0.3
**ZFRI Zfri** 10.28 110 Pn **Pn** 08 16 24.8 -0.3
**MDVR Moldovita** 10.29 351 ⇓*i*P **Pn** 08 16 24.5 -0.9
**HERR Herculane** 10.31 354 ⇓*i*P **Pn** 08 16 27.0 +1.4
**MARH Ras Al Marh** 10.35 90 *e*P **Pn** 08 16 26.3 -0.1
MARH AML AML 08 18 30.2
comp=E,30nm,0.5s
MARH AML AML 08 18 36.1
comp=N,80nm,0.7s
**HRFI Mount Harif** 10.41 113 Pn **Pn** 08 16 27.7 +0.7
HRFI Sn **Sn** 08 18 16.7 -5.8
**HRFI Mount Harif** 10.41 113 Pn **Pn** 08 16 27.7 +0.7
**MBRI Mt Berech** 10.43 114 Pn **Pn** 08 16 27.9 +0.5
MBRI Sn **Sn** 08 18 17.9 -5.3
**MBRI Mt Berech** 10.43 114 Pn **Pn** 08 16 27.9 +0.5
**TEKS Tekeris** 10.49 342 *e*Pn **Pn** 08 16 24.9 -3.1
**EIL Elat** 10.52 115 Pn **Pn** 08 16 28.6 0.0
comp=N,1.5nm,0.3s,baz=220,slow=2.0,SNR=80
EIL Sn Sn 08 18 16.2 -9.1
comp=N,6.0nm,0.3s,baz=148,slow=2.9,SNR=6.3
**EIL Elat** 10.52 115 Pn **Pn** 08 16 28.9 +0.4
**KFRA Kufra** 10.54 83 *e*P **Pn** 08 16 28.2 -0.6
KFRA *e*S Sn 08 18 16.8 -8.9
KFRA AML AML 08 18 28.4
comp=E,71nm,0.6s
KFRA AML AML 08 18 39.5
comp=N,157nm,0.6s
**HBST Basata** 10.60 118 P **Pn** 08 16 28.9 -0.7
baz=119
**HBST Basata** 10.60 118 P **Pn** 08 16 28.9 -0.7
**NUB** 10.64 119 P **Pn** 08 16 30.1 -0.1
baz=120
**ISR Istrita** 10.66 10 ⇑*i*P **Pn** 08 16 32.0 +1.6
**SALA Sala** 10.79 97 *e*P **Pn** 08 16 33.4 +1.0
SALA *e*S **Sn** 08 18 27.1 -5.1
SALA AML AML 08 18 40.6
comp=N,48nm,0.5s
SALA AML AML 08 18 41.7
comp=E,7.0nm,0.5s
**VOIR** 10.83 4 ⇓*i*P **Pn** 08 16 35.0 +2.2
**MLR Muntele Rosu** 10.96 7 LR LR 08 21 30.8
comp=E,62nm,21.0s,baz=188,slow=42
**MLR Muntele Rosu** 10.96 7 ⇑*i*P **Pn** 08 16 36.4 +1.9
**MLR Muntele Rosu** 10.96 7 *e*P **Pn** 08 16 38.2 +3.7
**MLR Muntele Rosu** 10.96 7 *e*P **Pn** 08 16 38.2 +3.7
**MLR Muntele Rosu** 10.96 7 *e*Pn **Pn** 08 16 38.2 +3.7
**ASF Jabal al Asfar** 11.07 99 Pn **Pn** 08 16 35.3 -0.8
comp=E,0.5nm,0.3s,baz=228,slow=12,SNR=7.1
ASF Sn **Sn** 08 18 35.1 -3.6
comp=E,2.9nm,0.3s,baz=180,slow=14,SNR=6.6
**BZS Buzias** 11.13 351 ⇑*i*P **Pn** 08 16 38.0 +1.3
**DOPR Dopca** 11.38 5 ⇓*i*P Pn 08 16 58.5 +18
**PLOR Plostina** 11.40 9 ⇓*i*P **Pn** 08 16 42.6 +2.1
**KEST Kesra** 12.03 279 LR LR 08 22 10.5
comp=E,147nm,21.0s,baz=170,slow=41
**TESR Tescani** 12.04 9 ⇑*i*P **Pn** 08 16 50.3 +1.0
**DRGR** 12.19 356 ⇓*i*P Pn 08 16 57.1 +5.7
**BURAR Bucovina Array** 13.01 4 ⇑*i*P **P** 08 17 12.5 -0.1
**OBKA Obir** 13.86 332 *i* Pn **Pn** 08 17 12.8 -1.3
comp=E,8.9nm,0.8s
**SORM Soroca** 13.89 12 ⇑*i*P **P** 08 17 25.7 +3.5
**UZH Uzhgorod** 14.05 355 *e*P **Pn** 08 17 18.5 +1.9
**KOPT Kop Dagi** 14.19 63 *e*Pn **Pn** 08 17 22.0 +3.1
**KOPT Kop Dagi** 14.19 63 *e*Pn **Pn** 08 17 22.0 +3.1
**CONA Conrad Observa** 14.61 338 *i* P **P** 08 17 32.8 +2.4
comp=E,11nm,1.8s
**CONA Conrad Observa** 14.61 338 P **P** 08 17 32.8 +2.4
comp=E,11nm,1.8s
**KBA Koelnbreinsper** 14.80 330 *i* P **P** 08 17 35.8 +3.2
comp=E,6.2nm,0.8s
**KBA Koelnbreinsper** 14.80 330 P **P** 08 17 35.8 +3.2
comp=E,6.2nm,0.8s
**ABTA Abfaltersbach** 14.89 328 *i* P **P** 08 17 35.5 +2.0
comp=E,8.7nm,0.9s
**ABTA Abfaltersbach** 14.89 328 P **P** 08 17 35.5 +2.0
comp=E,8.7nm,0.9s
**ARTV Artvin** 15.59 60 *e*Pn **P** 08 17 41.2 -0.2
comp=E,4.3nm,0.6s
**ARTV Artvin** 15.59 60 *e*Pn **P** 08 17 41.2 -0.2
comp=E,4.3nm,0.6s
**VRAC Vranov** 15.66 342 LR LR 08 25 28.1
comp=E,284nm,19.4s,baz=168,slow=44
**WTTA Wattenberg** 15.67 327 *i* P **P** 08 17 48.9 +6.6
comp=E,15nm,1.2s
**WATA Walderalm** 15.76 327 *e*P **P** 08 17 43.8 +0.7
comp=E,3.9nm,0.5s
**WATA Walderalm** 15.76 327 P **P** 08 17 43.8 +0.7
comp=E,3.9nm,0.5s
**FUORN Ofenpass-Fuorn** 15.85 323 *e*Pn **P** 08 17 47.1 +2.8
comp=E,22nm,0.8s
**FUORN Ofenpass-Fuorn** 15.85 323 *e*Pn **P** 08 17 47.1 +2.8
comp=E,22nm,0.8s
**FETA Feichten** 15.91 325 *i* P **P** 08 17 47.0 +2.1
comp=E,6.8nm,0.6s
**FETA Feichten** 15.91 325 P **P** 08 17 47.0 +2.1
comp=E,6.8nm,0.6s
**MOTA Moosalm** 15.97 327 *i* P **P** 08 17 48.6 +3.0
comp=E,9.0nm,1.0s
**MOTA Moosalm** 15.97 327 P **P** 08 17 48.6 +3.0
comp=E,9.0nm,1.0s
**GEA0 GERESS Array S** 16.12 335 *e*Pn **P** 08 17 47.1 0.0
**GEA0 GERESS Array S** 16.12 335 *e*Pn **P** 08 17 47.1 0.0
**GEC2 GERESS Array S** 16.13 335 *e*P **P** 08 17 47.1 -0.1
GEC2 pmax pmax
comp=Z,12nm,0.9s
**GEC2 GERESS Array S** 16.13 335 *e*P **P** 08 17 47.1 -0.1
comp=Z,12nm,0.9s
**GEC2 GERESS Array S** 16.13 335 *e*Pn **P** 08 17 47.1 -0.1
comp=Z,12nm,0.9s
**GERES GERESS Array B** 16.13 335 Pn **Pn** 08 17 41.9 -2.3
comp=Z,0.2nm,0.3s,baz=155,slow=12,SNR=2.5
GERES LR LR 08 25 24.5
comp=Z,311nm,18.0s,baz=214,slow=43
**DAVOX Davos/Dischmat** 16.15 323 LR LR 08 25 00.8
comp=Z,137nm,19.8s,baz=116,slow=41
**TUE Stuetta** 16.21 321 *e*Pn **Pn** 08 17 47.5 +2.1
comp=Z,13nm,0.9s
**TUE Stuetta** 16.21 321 *e*Pn **Pn** 08 17 47.5 +2.1
comp=Z,13nm,0.9s
**RETA Reutte** 16.23 326 *i* P **P** 08 17 51.7 +3.3
comp=Z,3.8nm,0.6s
**KRLC Kraliky** 16.32 343 *e*P **Pn** 08 17 48.6 +2.0
KRLC *e*pP **pP** 08 17 57.6 -0.1
**KRLC Kraliky** 16.32 343 *e*P **Pn** 08 17 48.6 +2.0
**KRLC Kraliky** 16.32 343 *e*P **Pn** 08 17 48.6 +2.0
**KHC Kasperske Hory** 16.41 335 *e*P **P** 08 17 51.6 +1.3
KHC *e*pP **pP** 08 17 58.7 0.0
**KHC Kasperske Hory** 16.41 335 *e*P **P** 08 17 51.6 +1.3
**KHC Kasperske Hory** 16.41 335 *e*P **P** 08 17 51.6 +1.3
**KHC Kasperske Hory** 16.41 335 *e*Pn **P** 08 17 52.0 +1.7
comp=Z,4.7nm,0.9s
**KHC Kasperske Hory** 16.41 335 *e*Pn **P** 08 17 52.0 +1.7
comp=Z,4.7nm,0.9s
**AK11 Malin Array Si** 16.48 12 *e*Pn **Pn** 08 17 48.7 +0.1
**AK11 Malin Array Si** 16.48 12 *e*Pn **Pn** 08 17 48.6 +0.1
**DAVA Damuels** 16.50 324 *e*P **P** 08 17 53.7 +2.2
comp=Z,4.6nm,0.6s
**DAVA Damuels** 16.50 324 P **P** 08 17 53.7 +2.2
comp=Z,4.6nm,0.6s
**KIEV Kiev** 16.51 12 *e*P **Pn** 08 17 48.8 -0.1
KIEV pmax pmax
comp=Z,15nm,0.9s
**KIEV Kiev** 16.51 12 *e*Pn **Pn** 08 17 48.8 -0.1
comp=Z,15nm,0.9s
**KIEV Kiev** 16.51 12 *e*Pn **Pn** 08 17 48.8 -0.1
comp=Z,15nm,0.9s
**AKASG Malin Array Be** 16.52 12 Pn **Pn** 08 17 44.9 -4.1
comp=Z,2.4nm,0.3s,baz=204,slow=11,SNR=6.2
**AKASG Malin Array Be** 16.52 12 *i* P **Pn** 08 17 48.0 -1.0
AKASG pmax pmax
comp=Z,2.0nm,0.4s
**AKBB Malin Array Si** 16.52 12 *e*P **Pn** 08 17 48.9 -0.1
AKBB pmax pmax
comp=Z,14nm,0.8s
**AKBB Malin Array Si** 16.52 12 *e*Pn **Pn** 08 17 48.9 -0.1
comp=Z,14nm,0.8s
**AKBB Malin Array Si** 16.52 12 *e*Pn **Pn** 08 17 48.9 -0.1
comp=Z,14nm,0.8s
**DPC Dobruska-Polom** 16.68 343 *e*P **P** 08 17 59.8 +6.5
**DPC Dobruska-Polom** 16.68 343 *e*P **P** 08 17 59.8 +6.5
**GOPC GO Pecny, Ondr** 16.70 339 *e*P **Pn** 08 17 50.6 -0.9
GOPC *e*pP **pP** 08 18 01.8 -0.2
**GOPC GO Pecny, Ondr** 16.70 339 *e*P **Pn** 08 17 50.6 -0.9
**PRU Pruhonice** 16.84 339 *e*P **Pn** 08 17 54.7 +1.5
**PRU Pruhonice** 16.84 339 *e*P **Pn** 08 17 54.7 +1.5
**PRU Pruhonice** 16.84 339 *e*P **Pn** 08 17 54.7 +1.5
**NEY Neytrino** 16.90 54 *e*P **Pn** 08 17 54.5 +0.3
**UPC Upice** 16.91 342 *e*P **Pn** 08 17 55.3 +1.3
UPC *e*pP **pP** 08 18 03.8 -0.4
**UPC Upice** 16.91 342 *e*P **Pn** 08 17 55.3 +1.3
**UPC Upice** 16.91 342 *e*P **Pn** 08 17 55.3 +1.3
**KIV Kislovodsk** 17.18 52 *d*P **P** 08 17 59.9 +1.0
KIV pmax pmax
comp=Z,35nm,0.8s
KIV MLR MLR
comp=Z,196nm,18.0s
**KIV Kislovodsk** 17.18 52 *e*Pn **Pn** 08 17 58.5 +0.9
comp=Z,38nm,0.9s
**KIV Kislovodsk** 17.18 52 *i* P **P** 08 17 59.9 +1.0
comp=Z,196nm,18.0s
**KIV Kislovodsk** 17.18 52 *e*Pn **Pn** 08 17 58.5 +0.9
comp=Z,38nm,0.9s
**KVAR Kislovodsk Arr** 17.19 52 Pn **P** 08 17 59.3 +0.3
baz=25,slow=1.2,SNR=12
KVAR LR LR 08 26 16.2
comp=Z,219nm,19.0s,baz=198,slow=43
**KBZ Khabaz** 17.22 53 Pn **Pn** 08 17 59.1 +1.1
comp=Z,0.8nm,0.3s,baz=230,slow=9.9,SNR=26
KBZ LR LR 08 26 10.0
comp=Z,169nm,20.5s,baz=247,slow=43
**SENIN Lac Senin/Sane** 17.24 318 *e*P **P** 08 18 01.0 +1.4
comp=Z,32nm,1.8s
**SENIN Lac Senin/Sane** 17.24 318 *e*P **P** 08 18 01.0 +1.4
comp=Z,32nm,1.8s
**GNI Garni** 17.38 65 LR LR 08 26 04.4
comp=Z,450nm,19.4s,baz=264,slow=42
**ZEI Tsey** 17.52 56 *e*P **Pn** 08 18 01.1 -0.8
ZEI pmax pmax
comp=Z,17nm,1.6s
**NCK Nalchik** 17.59 54 *i* P **Pn** 08 18 00.5 -2.0
NCK pmax pmax
comp=Z,60nm,0.5s
**NKC Novy Kostel** 17.74 335 *e*P **Pn** 08 18 03.0 -1.3
**NKC Novy Kostel** 17.74 335 *e*P **Pn** 08 18 03.0 -1.3
**GOF Gofitskoye** 17.92 49 ⇓*e*P P 08 18 18.2 +11
**CLL Collm** 18.47 338 *e*P **Pn** 08 18 15.0 +1.7
CLL pmax pmax
comp=Z,8.0nm,0.8s
**CLL Collm** 18.47 338 *e*(P) **Pn** 08 18 15.0 +1.7
comp=Z,8.0nm,0.8s
CLL *i* pP **pP** 08 18 20.5 -1.0
CLL *i* sP **sP** 08 18 23.9 -1.7
CLL Lm MLR 08 26 00.0
comp=Z,200nm,19.7s
**CLL Collm** 18.47 338 *e*P **Pn** 08 18 15.0 +1.7
comp=Z,8.0nm,0.8s
**VSR Storozhevoye** 19.90 29 *e*P **Pn** 08 18 30.2 -0.1
VSR pmax pmax
comp=Z,30nm,1.9s
**VSR Storozhevoye** 19.90 29 *e*P **Pn** 08 18 30.2 -0.1
comp=Z,30nm,1.9s
**TAM Tamanrasset** 19.99 239 *e*P Pn 08 18 33.5 +1.6
TAM pmax pmax
comp=Z,16nm,1.8s
**TAM Tamanrasset** 19.99 239 *e*P Pn 08 18 33.5 +1.6
comp=Z,16nm,1.8s
**TAM Tamanrasset** 19.99 239 *e*P Pn 08 18 33.5 +1.6
comp=Z,16nm,1.8s
**LPSR Galich'ya Gora** 20.90 26 *e*P **P** 08 18 39.0 -0.4
LPSR pmax pmax
comp=Z,10.0nm,0.8s
**LPSR Galich'ya Gora** 20.90 26 *e*P **P** 08 18 39.0 -0.4
comp=Z,10.0nm,0.8s
**VRH Novokhopyorsk** 20.96 32 *e*P **P** 08 18 38.0 -2.1
VRH pmax pmax
comp=Z,10.0nm,0.6s
**RAYN Ar Rayn** 21.77 115 *e*P **P** 08 18 51.1 +2.0
comp=Z,32nm,1.9s
**RAYN Ar Rayn** 21.77 115 *e*P **P** 08 18 51.1 +2.0
comp=Z,32nm,1.9s
**OBN Obninsk** 22.28 19 LR LR 08 27 08.0
comp=Z,224nm,19.1s,baz=273,slow=36
**OBN Obninsk** 22.28 19 ⇑*e*P **P** 08 18 56.1 +2.0
OBN *e* 08 18 59.2
OBN *e* 08 19 20.8
OBN PPP PPP 08 19 25.0
OBN 08 22 48.0
OBN *e* 08 22 52.2
OBN pmax pmax
comp=Z,21nm,1.2s
OBN MLR MLR
comp=Z,156nm,15.0s
**OBN Obninsk** 22.28 19 *e*P **P** 08 18 56.1 +2.0
comp=Z,21nm,1.2s
**ES19 SONSECA Array** 22.75 291 *e*P **P** 08 19 01.5 +2.1
**ES19 SONSECA Array** 22.75 291 *e*P **P** 08 19 01.6 +2.1
**ESDC Sonseca Array** 22.80 291 P **P** 08 19 00.6 +0.6
comp=Z,2.2nm,0.7s,baz=84,slow=9.4,SNR=19
**ESLA Sonseca Array** 22.80 291 *e*P **P** 08 19 01.5 +1.6
comp=Z,7.6nm,0.9s
**ESLA Sonseca Array** 22.80 291 *e*P **P** 08 19 01.5 +1.6
comp=Z,7.6nm,0.9s
**MDT Midelt** 23.83 274 P **P** 08 19 10.8 +0.5
comp=Z,0.9nm,0.6s,baz=84,slow=15,SNR=3.6
MDT LR LR 08 30 50.8
comp=Z,154nm,19.8s,baz=77,slow=42
**PBAR Barrancos** 25.16 287 *e*P **P** 08 19 21.5 -0.8
**MVO Moncorvo** 25.24 294 *e*P **P** 08 19 23.8 +0.7
**PMRV Marv??o** 25.43 290 *e*P **P** 08 19 26.3 +1.6
**PESTR Estremoz** 25.58 289 *e*P **P** 08 19 26.4 +0.3
**PVAQ Vaqueiros** 25.73 285 *e*P **P** 08 19 27.9 +0.5
**PBDV Barranco-do-Ve** 25.91 285 *e*P **P** 08 19 29.2 +0.1
**PCVE Castro Verde** 25.97 286 *e*P **P** 08 19 28.5 -1.2
**PMTG Montargil** 26.08 289 *e*P **P** 08 19 32.1 +1.5
**PNCL Nicolau / Gran** 26.34 287 *e*P **P** 08 19 35.0 +2.1
**HFS Hagfors** 26.39 348 P **P** 08 19 32.1 -1.0
comp=Z,4.1nm,0.4s,baz=155,slow=14,SNR=17
HFS LR LR 08 32 27.4
comp=Z,233nm,19.7s,baz=207,slow=42
**FINES FINESS Array B** 26.87 2 P **P** 08 19 35.1 -2.3
comp=Z,4.6nm,0.8s,baz=171,slow=12,SNR=5.4
FINES LR LR 08 31 13.1
comp=Z,164nm,19.4s,baz=204,slow=39
**FIA1 FINESS Array S** 26.87 2 *e*P **P** 08 19 36.6 -0.9
**FIA1 FINESS Array S** 26.87 2 *e*P **P** 08 19 36.6 -0.9
**NAO01 NORSAR Array S** 27.57 346 *e*P **P** 08 19 42.8 -1.0
**NAO01 NORSAR Array S** 27.57 346 *e*P **P** 08 19 42.8 -1.0
**NC405 NORSAR Array S** 27.66 347 *e*P **P** 08 19 44.0 -0.5
**NC405 NORSAR Array S** 27.66 347 *e*P **P** 08 19 44.0 -0.5
**NB201 NORSAR Array S** 27.68 347 *e*P **P** 08 19 44.7 -0.1
**NB201 NORSAR Array S** 27.68 347 *e*P **P** 08 19 44.7 -0.1
**NB2 NORSAR Subarra** 27.68 347 P **P** 08 19 42.9 -1.9
comp=Z,20nm,1.4s,baz=156,slow=9.3
**NB2 NORSAR Subarra** 27.68 347 P **P** 08 19 42.9 -1.9
comp=Z,20nm,1.4s,SNR=5.3
**NOA NORSAR Array B** 27.68 347 P **P** 08 19 43.5 -1.3
comp=Z,1.0nm,0.5s,baz=148,slow=9.4,SNR=6.8
NOA LR LR 08 31 13.4
comp=Z,116nm,21.2s,baz=175,slow=38
**NBO00 NORSAR Array S** 27.76 346 *e*P **P** 08 19 45.3 -0.1
**NBO00 NORSAR Array S** 27.76 346 *e*P **P** 08 19 45.4 -0.1
**NBO02 NORSAR Array S** 27.76 346 *e*P **P** 08 19 46.4 +0.9
**NBO02 NORSAR Array S** 27.76 346 *e*P **P** 08 19 46.4 +0.9
**NC303 NORSAR Array S** 27.82 347 *e*P **P** 08 19 46.0 0.0
**NC303 NORSAR Array S** 27.82 347 *e*P **P** 08 19 46.0 0.0
**EKA Eskdalemuir Ar** 27.93 326 P **P** 08 19 48.6 +1.5
comp=Z,0.3nm,0.3s,baz=131,slow=7.6,SNR=3.5
**KLMR Klimovskoe** 28.09 16 *e*P **P** 08 19 44.7 -3.7
KLMR pmax pmax
comp=Z,10.0nm,0.7s
**AKTO Aktyubinsk** 29.32 47 P **P** 08 19 58.9 -0.6
comp=Z,7.2nm,0.6s,baz=260,slow=8.0,SNR=24
**TOA0 Torodi Ar. Sit** 29.41 229 *e*P **P** 08 20 02.3 +1.8
**TOA0 Torodi Ar. Sit** 29.41 229 *e*P **P** 08 20 02.3 +1.8
**TORD Torodi Ar. Bea** 29.41 229 P **P** 08 20 01.8 +1.2
comp=Z,8.6nm,0.6s,baz=38,slow=8.8,SNR=84
TORD LR LR 08 34 28.9
comp=Z,94nm,20.1s,baz=10.0,slow=42
**UOSS Minazif** 29.47 100 *e*P **P** 08 20 02.7 +1.6
comp=Z,7.4nm,0.9s
**UOSS Minazif** 29.47 100 *e*P **P** 08 20 02.7 +1.6
comp=Z,7.4nm,0.9s
**ARU Arti** 32.06 36 *c i*P **P** 08 20 23.2 -0.3
ARU S **S** 08 25 33.9 +0.6
ARU SS **SnSn** 08 27 19.7 -4.5
ARU pmax pmax
comp=Z,7.0nm,0.6s
**ARU Arti** 32.06 36 *e*P **P** 08 20 21.7 -1.8
comp=Z,6.5nm,0.7s
**ARU Arti** 32.06 36 *e*P **P** 08 20 21.7 -1.8
comp=Z,6.5nm,0.7s
**KOWA Kowa** 32.23 239 *e*P **P** 08 20 27.2 +1.8
comp=Z,14nm,1.6s
**KOWA Kowa** 32.23 239 *e*P **P** 08 20 27.2 +1.8
comp=Z,14nm,1.6s
**ARCES ARCESS Array B** 34.97 1 P **P** 08 20 46.5 -2.3
comp=Z,2.8nm,0.6s,baz=178,slow=9.3,SNR=18
ARCES LR LR 08 36 06.5
comp=Z,160nm,18.8s,baz=180,slow=38
**ARCES ARCESS Array B** 34.97 1 *e*P **P** 08 20 46.8 -2.0
**ARCES ARCESS Array B** 34.97 1 *e*P **P** 08 20 46.8 -2.0
**ARCES ARCESS Array B** 34.97 1 *e*P **P** 08 20 46.8 -2.0
**ARE0 ARCESS Array S** 34.97 1 *e*P **P** 08 20 46.8 -2.0
comp=Z,136nm,1.9s
**ARE0 ARCESS Array S** 34.97 1 *e*P **P** 08 20 46.8 -2.0
comp=Z,136nm,1.9s
**BRVK Borovoye** 37.36 46 ⇓*i*P **P** 08 21 09.2 -0.1
BRVK pmax pmax
comp=Z,45nm,2.5s
**BRVK Borovoye** 37.36 46 *e*P **P** 08 21 09.3 -0.1
comp=Z,6.8nm,0.6s
**BRVK Borovoye** 37.36 46 *e*P **P** 08 21 09.3 -0.1
comp=Z,6.8nm,0.6s
**DBIC Dimbokro** 38.48 230 P **P** 08 21 20.1 +0.9
comp=Z,2.3nm,0.5s,baz=29,slow=6.4,SNR=4.7
DBIC LR LR 08 37 43.5
comp=Z,70nm,18.5s,baz=24,slow=37
**DBIC Dimbokro** 38.48 230 *e*P **P** 08 21 20.4 +1.2
DBIC pmax pmax
comp=Z,7.0nm,0.9s
**DBIC Dimbokro** 38.48 230 *e*P **P** 08 21 20.4 +1.2
comp=Z,6.5nm,0.9s
**DBIC Dimbokro** 38.48 230 *e*P **P** 08 21 20.4 +1.2
comp=Z,6.5nm,0.9s
**TIC Toumodi** 38.60 231 *e*P **P** 08 21 20.4 +0.1
**KIC Kosan Boka** 38.65 230 *e*P **P** 08 21 20.5 -0.1
comp=Z,36nm,1.5s
**LIC Lamto** 38.93 230 *e*P **P** 08 21 23.3 +0.3
comp=Z,26nm,1.0s
**AAK Ala-Archa** 39.76 63 *i* P **P** 08 21 29.6 -0.3
AAK pmax pmax
comp=Z,6.0nm,0.6s
**FRU Bishkek** 39.83 63 *e*P **P** 08 21 30.0 -0.3
**KSH Kashi** 41.30 67 P **P** 08 21 40.7 -1.8
KSH pP pP 08 21 49.1 -2.9
KSH PP **PP** 08 23 18.5 +0.4
KSH PcP **PcP** 08 23 40.3 -0.4
KSH S **S** 08 27 49.4 -5.3
KSH SS SS 08 30 48.2 -10
KSH ScS **ScS** 08 31 38.5 -5.8
KSH pmax pmax
comp=Z,17nm,0.9s
KSH pmax pmax
comp=Z,96nm,2.8s
KSH LR LR
comp=Z,71nm,4.6s
KSH LR LR
comp=Z,70nm,4.7s
KSH LR LR
comp=Z,320nm,5.9s
**KURK Kurchatov** 42.27 50 *e*P **P** 08 21 50.2 +0.1
KURK pmax pmax
comp=Z,15nm,0.7s
**KURK Kurchatov** 42.27 50 *e*P **P** 08 21 50.2 +0.1
comp=Z,15nm,0.7s
**KURK Kurchatov** 42.27 50 *e*P **P** 08 21 50.2 +0.1
comp=Z,15nm,0.7s
**MAKZ Makanchi** 44.66 56 *e*P **P** 08 22 10.1 +0.6
MAKZ pmax pmax
comp=Z,11nm,1.0s
**MAKZ Makanchi** 44.66 56 *e*P **P** 08 22 10.1 +0.6
comp=Z,11nm,1.0s
**MAKZ Makanchi** 44.66 56 *e*P **P** 08 22 10.1 +0.6
comp=Z,11nm,1.0s
**MK31 Makanchi Array** 44.87 56 *e*P **P** 08 22 11.6 +0.3
**MK31 Makanchi Array** 44.87 56 *e*P **P** 08 22 11.6 +0.3
**MK31 Makanchi Array** 44.87 56 *e*P **P** 08 22 11.6 +0.3
**MKAR Makanchi Array** 44.87 56 P **P** 08 22 11.5 +0.3
comp=Z,8.0nm,0.6s,baz=267,slow=7.2,SNR=43
**MK01 Makanchi Array** 44.88 56 *e*P **P** 08 22 11.6 +0.3
**MK01 Makanchi Array** 44.88 56 *e*P **P** 08 22 11.6 +0.3
**NVS Novosibirsk** 45.15 45 ⇑*i*P **P** 08 22 13.9 +0.7
NVS pmax pmax
comp=Z,13nm,0.6s
NVS pmax pmax
comp=N,3.0nm,0.6s
NVS pmax pmax
comp=E,5.0nm,0.4s
**ZAA0 Zalesovo Array** 46.07 46 *e*P **P** 08 22 20.0 -0.5
comp=E,9.7nm,0.6s
**ZAA0 Zalesovo Array** 46.07 46 *e*P **P** 08 22 20.0 -0.5
comp=E,9.7nm,0.6s
**ZALV Zalesovo Beam** 46.07 46 P **P** 08 22 19.9 -0.6
comp=E,9.6nm,0.6s,baz=265,slow=9.6,SNR=52
ZALV S **S** 08 28 59.6 -4.2
comp=E,0.4nm,0.3s,baz=236,slow=11,SNR=3.9
ZALV LR LR 08 44 32.1
comp=E,63nm,18.8s,baz=261,slow=40
**ZALV Zalesovo Beam** 46.07 46 *e*P **P** 08 22 20.0 -0.6
**DGZ Jazzator, Alta** 47.97 51 *i* P **P** 08 22 35.8 +0.1
DGZ pmax pmax
comp=Z,3.0nm,0.5s
**WMQ Urumqi** 49.11 59 P **P** 08 22 45.9 +1.5
WMQ pP pP 08 22 52.6 -1.4

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| WMQ | | | | sP | sP | 08 22 59.3 | +1.4 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,15nm,0.8s | | | | | | |
| PYUN | Piuthan | 50.19 | 80 | eP | P | 08 22 54.1 | +1.1 |
| DANN | Dangsing | 50.72 | 80 | eP | P | 08 22 58.7 | +1.6 |
| PKI | Pulchoki | 52.37 | 80 | eP | P | 08 23 10.1 | +0.6 |
| GUN | Gumba | 52.61 | 79 | eP | P | 08 23 12.1 | +0.8 |
| JIRN | Jiri | 52.97 | 79 | eP | P | 08 23 14.4 | +0.4 |
| TAPN | Taplejung | 54.32 | 79 | eP | P | 08 23 24.3 | +0.5 |
| ZAK | Zakamensk | 57.82 | 48 | eP | P | 08 23 52.9 | +4.6 |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.4s | | | | | | |
| GTA | Gaotai | 59.06 | 61 | eP | P | 08 24 05.6 | +8.4 |
| GTA | | | | pP | sP | 08 24 15.8 | +5.0 |
| GTA | | | | sP | pP | 08 24 19.8 | +13 |
| SONM | Songino Array | 60.57 | 50 | P | P | 08 24 07.8 | +0.4 |
| | comp=Z,2.2nm,0.6s,baz=282,slow=7.6,SNR=19 | | | | | | |
| SONM | | | | LR | LR | 08 53 48.6 | |
| | comp=Z,93nm,18.1s,baz=15,slow=40 | | | | | | |
| SONA1 | Songino Array | 60.57 | 50 | eP | P | 08 24 07.8 | +0.4 |
| SONA1 | Songino Array | 60.57 | 50 | eP | P | 08 24 07.8 | +0.4 |
| ULN | Ulaanbaatar | 60.98 | 50 | i P | P | 08 24 10.7 | +0.5 |
| ULN | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.7s | | | | | | |
| ULN | Ulaanbaatar | 60.98 | 50 | eP | P | 08 24 10.7 | +0.5 |
| | comp=Z,8.1nm,1.2s | | | | | | |
| ULN | Ulaanbaatar | 60.98 | 50 | eP | P | 08 24 10.7 | +0.5 |
| | comp=Z,8.1nm,1.2s | | | | | | |
| BOD | Bodaibo | 61.47 | 38 | eP | P | 08 24 09.7 | -3.4 |
| SCHQ | Schefferville | 62.97 | 319 | eP | P | 08 24 23.3 | +0.1 |
| | comp=Z,92nm,1.8s | | | | | | |
| SCHQ | Schefferville | 62.97 | 319 | eP | P | 08 24 23.3 | +0.1 |
| | comp=Z,92nm,1.8s | | | | | | |
| LZH | Lanzhou | 63.30 | 63 | eP | P | 08 24 23.7 | -2.3 |
| LZH | | | | pP | pP | 08 24 32.2 | -3.7 |
| LZH | | | | sP | sP | 08 24 35.4 | -4.2 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,19nm,1.0s | | | | | | |
| HHC | Hu-ho-hao-te | 66.74 | 56 | eP | P | 08 24 49.1 | +1.0 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,22nm,0.5s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,68nm,4.9s | | | | | | |
| CMAR | Chiang Mai Arr | 67.59 | 83 | P | P | 08 24 54.6 | +0.9 |
| | comp=Z,1.2nm,0.4s,baz=300,slow=7.7,SNR=6.4 | | | | | | |
| CMAR | | | | LR | LR | 09 00 38.9 | |
| | comp=Z,28nm,18.4s,baz=290,slow=41 | | | | | | |
| INK | Inuvik | 76.01 | 352 | eP | P | 08 25 43.9 | +0.5 |
| INK | | | | pmax | pmax | | |
| | comp=Z,17nm,1.8s | | | | | | |
| INK | Inuvik | 76.01 | 352 | eP | P | 08 25 43.9 | +0.5 |
| | comp=Z,17nm,1.8s | | | | | | |
| INK | Inuvik | 76.01 | 352 | eP | P | 08 25 43.9 | +0.5 |
| | comp=Z,17nm,1.8s | | | | | | |
| NJ2 | Nanjing | 76.16 | 61 | eP | P | 08 25 45.2 | +0.3 |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.5s | | | | | | |
| YKA | Yellowknife Ar | 77.66 | 342 | P | P | 08 25 52.6 | -0.2 |
| | comp=Z,0.4nm,0.6s,baz=31,slow=5.7,SNR=3.5 | | | | | | |
| USRK | Ussuriysk Ar. | 77.90 | 44 | P | P | 08 25 54.8 | +0.2 |
| | comp=Z,1.7nm,0.6s,baz=272,slow=5.7,SNR=4.9 | | | | | | |
| KSRS | Korea Array | 79.37 | 52 | LR | LR | 09 05 53.5 | |
| | comp=Z,38nm,18.9s,baz=335,slow=39 | | | | | | |
| MDM | Murphy Dome | 80.56 | 357 | eP | P | 08 26 09.5 | +0.8 |
| | comp=Z,5.5nm,1.0s | | | | | | |
| MDM | Murphy Dome | 80.56 | 357 | eP | P | 08 26 09.5 | +0.8 |
| | comp=Z,5.5nm,1.0s | | | | | | |
| MLY | Manley | 80.59 | 358 | eP | P | 08 26 10.4 | +1.5 |
| | comp=Z,5.1nm,1.1s | | | | | | |
| MLY | Manley | 80.59 | 358 | eP | P | 08 26 10.4 | +1.5 |
| | comp=Z,5.1nm,1.1s | | | | | | |
| AGP | Aguadilla | 80.67 | 286 | eP | P | 08 26 12.8 | +2.7 |
| | comp=Z,363nm,1.5s | | | | | | |
| AGP | Aguadilla | 80.67 | 286 | eP | P | 08 26 12.8 | +2.7 |
| | comp=Z,363nm,1.5s | | | | | | |
| IL1 | Eielson Array | 80.67 | 356 | eP | P | 08 26 09.7 | +0.4 |
| IL1 | Eielson Array | 80.67 | 356 | eP | P | 08 26 09.7 | +0.4 |
| ILAR | Eielson Array | 80.67 | 356 | P | P | 08 26 09.5 | +0.2 |
| | comp=Z,0.4nm,0.7s,baz=4.3,slow=2.8,SNR=6.0 | | | | | | |
| DAWY | Dawson | 80.76 | 353 | eP | P | 08 26 10.6 | +0.7 |
| | comp=Z,20nm,1.7s | | | | | | |
| DAWY | Dawson | 80.76 | 353 | eP | P | 08 26 10.6 | +0.7 |
| | comp=Z,20nm,1.7s | | | | | | |
| BPAW | Bear Paw Mtn. | 81.53 | 358 | eP | P | 08 26 13.6 | -0.3 |
| | comp=Z,24nm,1.8s | | | | | | |
| BPAW | Bear Paw Mtn. | 81.53 | 358 | eP | P | 08 26 13.7 | -0.3 |
| | comp=Z,24nm,1.8s | | | | | | |
| RND | Reindeer | 82.14 | 357 | eP | P | 08 26 19.1 | +1.9 |
| RND | | | | pmax | pmax | | |
| | comp=Z,34nm,1.8s | | | | | | |
| RND | Reindeer | 82.14 | 357 | eP | P | 08 26 19.1 | +1.9 |
| | comp=Z,34nm,1.8s | | | | | | |
| RND | Reindeer | 82.14 | 357 | eP | P | 08 26 19.1 | +1.9 |
| | comp=Z,34nm,1.8s | | | | | | |
| TRF | Thorofare Moun | 82.15 | 357 | eP | P | 08 26 18.0 | +0.6 |
| | comp=Z,55nm,2.0s | | | | | | |
| TRF | Thorofare Moun | 82.15 | 357 | eP | P | 08 26 18.0 | +0.6 |
| | comp=Z,55nm,2.0s | | | | | | |
| CAST | Castle Rocks | 82.24 | 358 | eP | P | 08 26 19.6 | +1.9 |
| | comp=Z,30nm,2.0s | | | | | | |
| CAST | Castle Rocks | 82.24 | 358 | eP | P | 08 26 19.6 | +1.9 |
| | comp=Z,30nm,2.0s | | | | | | |
| DHY | Denali Highway | 82.39 | 356 | eP | P | 08 26 21.7 | +3.1 |
| | comp=Z,33nm,1.8s | | | | | | |
| DHY | Denali Highway | 82.39 | 356 | eP | P | 08 26 21.7 | +3.1 |
| | comp=Z,33nm,1.8s | | | | | | |
| PPLA | Purkeypile | 82.77 | 358 | eP | P | 08 26 21.3 | +0.7 |
| | comp=Z,52nm,1.8s | | | | | | |
| PPLA | Purkeypile | 82.77 | 358 | eP | P | 08 26 21.3 | +0.7 |
| | comp=Z,52nm,1.8s | | | | | | |
| TTA | Tatalina | 82.78 | 360 | eP | P | 08 26 22.2 | +1.6 |
| TTA | | | | pmax | pmax | | |
| | comp=Z,22nm,1.8s | | | | | | |
| TTA | Tatalina | 82.78 | 360 | eP | P | 08 26 22.2 | +1.6 |
| | comp=Z,22nm,1.8s | | | | | | |
| TTA | Tatalina | 82.78 | 360 | eP | P | 08 26 22.2 | +1.6 |
| | comp=Z,22nm,1.8s | | | | | | |
| PETK | Petropavlovsk- | 83.82 | 26 | LR | LR | 09 06 29.0 | |
| | comp=Z,30nm,19.9s,baz=323,slow=38 | | | | | | |
| BW06 | Boulder Array | 92.05 | 328 | eP | P | 08 27 06.8 | +0.7 |
| | comp=Z,15nm,1.8s | | | | | | |
| BW06 | Boulder Array | 92.05 | 328 | eP | P | 08 27 06.8 | +0.7 |
| | comp=Z,15nm,1.8s | | | | | | |
| WVOR | Wild Horse Val | 96.02 | 333 | eP | P | 08 27 24.7 | +0.5 |
| WVOR | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.5s | | | | | | |
| WVOR | Wild Horse Val | 96.02 | 333 | eP | P | 08 27 24.7 | +0.5 |
| | comp=Z,7.8nm,1.5s | | | | | | |
| WVOR | Wild Horse Val | 96.02 | 333 | eP | P | 08 27 24.7 | +0.5 |
| | comp=Z,7.8nm,1.5s | | | | | | |
| TXAR | Lajitas Array | 99.45 | 316 | LR | LR | 09 13 23.7 | |
| | comp=Z,74nm,18.0s,baz=0.0,slow=36 | | | | | | |
| WC3 | Warramunga Arr | 117.53 | 96 | ePKIKP | PKPdf | 08 32 43.3 | +0.4 |
| WC3 | Warramunga Arr | 117.53 | 96 | ePKPdf | PKPdf | 08 32 43.3 | +0.4 |
| ASAR | Alice Springs | 118.91 | 100 | PKP | PKPdf | 08 32 45.9 | +0.3 |
| | comp=Z,0.4nm,0.7s,baz=296,slow=1.0,SNR=4.8 | | | | | | |
| AS01 | Alice Springs | 118.94 | 100 | ePKIKP | PKPdf | 08 32 45.8 | +0.2 |
| AS01 | Alice Springs | 118.94 | 100 | ePKPdf | PKPdf | 08 32 45.8 | +0.2 |

**IDC 09 08:17:03.8**±1.7**, 16°.47S**×**177°.90W, h0**km**, mb3.8**/6**, mb1 4.1**/6**, mb1mx3.8**/32**, mbtmp3.8**/6**, Error ellipse: s-maj=107.3km s-min=22.1km az=149.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| STKA | Stephens Creek | 39.76 | 240 | P | P | 08 24 38.5 | 0.0 |
| | 0.7nm,0.5s,baz=115,slow=9.2,SNR=3.1 | | | | | | |
| WRA | Warramunga Arr | 45.39 | 258 | P | P | 08 25 24.6 | +0.2 |
| | 0.6nm,0.4s,baz=94,slow=7.3,SNR=20 | | | | | | |
| ASAR | Alice Springs | 45.66 | 253 | P | P | 08 25 26.1 | -0.6 |
| | 1.4nm,0.5s,baz=90,slow=7.8,SNR=34 | | | | | | |
| ILAR | Eielson Array | 84.38 | 13 | P | P | 08 29 37.5 | 0.0 |
| | 0.3nm,0.4s,baz=219,slow=4.7,SNR=13 | | | | | | |
| TXAR | Lajitas Array | 84.82 | 58 | P | P | 08 29 40.7 | 0.0 |
| | 0.3nm,0.7s,baz=210,slow=7.0,SNR=4.4 | | | | | | |
| PDAR | Pinedale Array | 85.98 | 43 | P | P | 08 29 46.3 | 0.0 |
| | 0.5nm,0.8s,baz=203,slow=3.7,SNR=3.4 | | | | | | |

**MEX 09 08:17:10.8**±0.3**, 18°.16N**×**100°.73W, h68**km±10km**, MD3.5, Guerrero**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ARIG | Puente Sto Nin | 0.38 | 72 | eP | Pn | 08 17 21.0 | -1.5 |
| ARIG | | | | eS | Sn | 08 17 29.1 | -1.9 |
| ZIIG | Zihuatanejo | 0.89 | 232 | eP | Pn | 08 17 26.5 | -1.4 |
| ZIIG | | | | eS | Sn | 08 17 36.9 | -3.6 |
| CAIG | El Cayaco | 1.19 | 158 | eP | Pn | 08 17 31.2 | -0.4 |
| CAIG | | | | eS | Sn | 08 17 45.4 | -1.9 |
| YAIG | Yautepec | 1.73 | 66 | eP | Pn | 08 17 37.5 | -1.4 |
| YAIG | | | | eS | Sn | 08 18 00.1 | 0.0 |

*KRNET 09 08:20:31.1±0.1, 39°.60N×73°.82E, mb2.9*

**ISC 09 08:20:26.9**±2.1**, 39°.39N**±0°.10×**73°.97E**±0°.06**, h10**km**, n18,** σ2$^s$12/29**, 10C-10D, Tajikistan-Xinjiang border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SFK | Sufi-Kurgan | 0.72 | 330 | ⇓iP | Pg | 08 20 40.7 | -0.1 |
| | baz=330 | | | | | | |
| SFK | | | | ⇓iS | Sg | 08 20 47.6 | -2.7 |
| | baz=330 | | | | | | |
| KSH | Kashi | 1.56 | 85 | Pg | Pb | 08 20 57.0 | +1.1 |
| KSH | | | | Sg | Sn | 08 21 14.8 | -0.3 |
| KSH | | | | smax | smax | | |
| | comp=N,69nm,0.4s | | | | | | |
| KSH | | | | smax | smax | | |
| | comp=E,49nm,0.7s | | | | | | |
| ARSB | Arslanbob | 2.08 | 339 | ⇑iP | Pb | 08 21 05.5 | +0.8 |
| | baz=340 | | | | | | |
| ARSB | | | | ⇑iS | Sb | 08 21 30.5 | -0.1 |
| | baz=340 | | | | | | |
| TOKL | Toktogul | 2.68 | 342 | ⇓iP | Pb | 08 21 14.5 | -0.5 |
| | baz=343 | | | | | | |
| TOKL | | | | ⇓iS | Sn | 08 21 46.1 | +3.3 |
| | baz=343 | | | | | | |
| AML | Almayashu | 2.75 | 356 | ⇑iP | Pb | 08 21 15.9 | -0.4 |
| | baz=358 | | | | | | |
| AML | | | | ⇑iS | Sb | 08 21 49.6 | -0.6 |
| | baz=358 | | | | | | |
| AML | Almayashu | 2.75 | 356 | P | Pb | 08 21 16.4 | 0.0 |
| | SNR=7.7 | | | | | | |
| ARK | Arkit | 2.85 | 328 | ⇑eP | Pb | 08 21 16.6 | -1.3 |
| | baz=328 | | | | | | |
| ARK | | | | ⇑iS | Sn | 08 21 49.3 | +2.3 |
| | baz=328 | | | | | | |
| KZA | Kyzart | 2.86 | 20 | P | Pb | 08 21 19.4 | +1.1 |
| | SNR=6.2 | | | | | | |
| UCH | Uchtor | 2.87 | 8 | ⇑eP | Pb | 08 21 17.8 | -0.6 |
| | baz=11 | | | | | | |
| UCH | | | | ⇑iS | Sb | 08 21 52.6 | -1.1 |
| | baz=11 | | | | | | |
| UCH | Uchtor | 2.87 | 8 | P | Pb | 08 21 19.1 | +0.7 |
| | SNR=15 | | | | | | |
| AAK | Ala-Archa | 3.27 | 7 | ⇑iP | Pb | 08 21 23.5 | -1.6 |
| | baz=9.0 | | | | | | |
| AAK | | | | ⇑iS | Sn | 08 22 01.6 | +4.2 |
| | baz=9.0 | | | | | | |
| EKS2 | Erkin-Say | 3.27 | 358 | ⇓iP | Pb | 08 21 22.8 | -2.3 |
| | baz=360 | | | | | | |
| EKS2 | | | | ⇓iS | Sn | 08 22 00.8 | +3.4 |
| | baz=360 | | | | | | |
| EKS2 | Erkin-Say | 3.27 | 358 | P | Pb | 08 21 27.1 | +2.0 |
| | SNR=9.9 | | | | | | |
| ULHL | Ulahol | 3.34 | 30 | ⇓iP | Pb | 08 21 24.7 | -1.5 |
| | baz=34 | | | | | | |
| ULHL | | | | ⇓iS | Sb | 08 22 04.1 | -2.9 |
| | baz=34 | | | | | | |
| ULHL | Ulahol | 3.34 | 30 | P | Pb | 08 21 27.9 | +1.7 |
| | SNR=5.5 | | | | | | |
| CHMS | Chumysh | 3.66 | 9 | P | Pb | 08 21 32.1 | +0.5 |
| | SNR=5.6 | | | | | | |
| TKM2 | Tokmak 2 | 3.74 | 19 | ⇓eP | Pb | 08 21 30.0 | -3.1 |
| | baz=21 | | | | | | |
| TKM2 | | | | ⇓iS | Sn | 08 22 13.5 | +4.5 |
| | baz=21 | | | | | | |
| TKM2 | Tokmak 2 | 3.74 | 19 | P | Pg | 08 21 37.6 | -0.8 |
| | SNR=6.3 | | | | | | |

*ISCJB 09 08:23:40.2±0.5, 34°.60N±0°.04×23°.99E±0°.03, h41km±4km, mb4.1/11, MS3.2/1, Error ellipse: s-maj=6.8km s-min=3.5km az=27.0*
*CSEM 09 08:23:41.3±0.4, 34°.64N×23°.97E, h26km±3km, ML3.9, Error ellipse: s-maj=5.9km s-min=3.1km az=32.0*
*NEIC 09 08:23:41.9±0.0, 34°.82N×23°.94E, h32km, mb4.2/3, ML3.8(THE), ML3.9(ATH), After ATH.*
*ATH 09 08:23:42.0, 34°.82N×23°.94E, h32km, ML3.9/6, Error ellipse: s-maj=1.6km s-min=0.6km az=202.0*
*IDC 09 08:23:42.1±2.1, 34°.76N×24°.00E, h35km±15km, mb3.8/8, mb1 3.9/12, mb1mx3.7/40, mbtmp4.0/12, ML3.7/4, MS3.4/1, Ms1 3.4/1, ms1mx2.4/52, Error ellipse: s-maj=24.7km s-min=17.2km az=152.0*
*THE 09 08:23:42.4, 34°.77N×23°.87E, h22km, ML3.7/6, Error ellipse: s-maj=1.4km s-min=0.7km az=210.0*
*GII 09 08:23:50.1±0.1, 34°.38N×24°.75E, h32km, mb4.1/1, MD3.7/2*
*ISK 09 08:23:58.0, 35°.80N×25°.28E, h10km, ML3.1*
*DDA 09 08:24:26.9, 36°.69N×27°.24E, h34km, Ml3.1*

**ISC 09 08:23:40.8**±0.8**, 34°.66N**±0°.05×**23°.96E**±0°.03**, h30**km±4km**, n258,** σ1$^s$73/286**, mb4.1**/11**, Crete**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GVD | Gavdhos | 0.20 | 31 | P | Pb | 08 23 47.2 | +0.1 |
| GVD | | | | S | Sb | 08 23 52.2 | +0.9 |
| GVD | | | | AML | AML | 08 23 52.3 | |
| GVD | | | | AML | AML | 08 23 53.1 | |
| GVD | Gavdhos | 0.20 | 31 | P | Pb | 08 23 47.2 | +0.1 |
| GVD | | | | S | Sb | 08 23 51.7 | +0.3 |
| GVD | Gavdhos | 0.20 | 31 | P | Pb | 08 23 47.5 | +0.4 |
| GVD | | | | S | Sb | 08 23 51.7 | +0.3 |
| VAM | Vamos | 0.77 | 15 | P | Pb | 08 23 55.1 | -0.6 |
| VAM | | | | S | Sb | 08 24 03.9 | -2.0 |
| VAM | | | | AML | AML | 08 24 10.5 | |
| | comp=E,13104µm,0.7s | | | | | | |
| VAM | | | | AML | AML | 08 24 12.1 | |
| | comp=N,13183µm,0.3s | | | | | | |
| VAM | Vamos | 0.77 | 15 | P | Pb | 08 23 55.2 | -0.5 |
| VAM | | | | S | Sb | 08 24 05.6 | -0.2 |
| VAM | Vamos | 0.77 | 15 | P | Pb | 08 23 55.2 | -0.5 |
| VAM | | | | S | Sb | 08 24 05.6 | -0.2 |
| SIVA | Sivas | 0.79 | 63 | P | Pn | 08 23 57.1 | +1.3 |
| SIVA | | | | S | Sb | 08 24 07.3 | +1.0 |
| SIVA | | | | AML | AML | 08 24 16.4 | |
| | comp=E,49855µm,0.8s | | | | | | |
| SIVA | | | | AML | AML | 08 24 17.5 | |
| | comp=N,43618µm,0.7s | | | | | | |
| SIVA | Sivas | 0.79 | 63 | P | Pn | 08 23 57.0 | +1.1 |
| SIVA | | | | S | Sb | 08 24 07.3 | +1.0 |
| SIVA | Sivas | 0.79 | 63 | P | Pn | 08 23 57.0 | +1.1 |
| SIVA | | | | S | Sn | 08 24 08.7 | +2.1 |
| IMMV | Iera Moni Meta | 0.80 | 1 | P | Pb | 08 23 55.6 | -0.6 |
| IMMV | | | | S | Sb | 08 24 04.8 | -1.8 |
| IMMV | | | | AML | AML | 08 24 09.7 | |
| | comp=N,12799µm,0.4s | | | | | | |
| IMMV | | | | AML | AML | 08 24 12.5 | |
| | comp=E,26792µm,0.7s | | | | | | |
| IMMV | Iera Moni Meta | 0.80 | 1 | P | Pb | 08 23 55.6 | -0.6 |
| IMMV | | | | S | Sb | 08 24 04.8 | -1.8 |
| IMMV | Iera Moni Meta | 0.80 | 1 | P | Pb | 08 23 55.3 | -0.9 |
| IDI | Anoyia | 0.99 | 51 | Pg | Pn | 08 23 59.3 | +0.6 |
| | comp=E,116nm,0.3s,baz=241,slow=16,SNR=108 | | | | | | |
| IDI | | | | Lg | Lg | 08 24 13.1 | |
| | comp=E,209nm,0.3s,baz=348,slow=17,SNR=18 | | | | | | |
| IDI | | | | LR | LR | 08 24 15.6 | |
| | comp=E,131nm,18.9s,baz=272,slow=37 | | | | | | |
| IDI | Anoyia | 0.99 | 51 | P | Pn | 08 23 59.0 | +0.3 |
| IDI | | | | S | Sb | 08 24 12.4 | +0.3 |
| IDI | | | | AML | AML | 08 24 16.1 | |
| | comp=N,5873µm,0.5s | | | | | | |
| IDI | | | | AML | AML | 08 24 16.9 | |
| | comp=E,6372µm,0.6s | | | | | | |
| IDI | Anoyia | 0.99 | 51 | P | Pn | 08 23 59.0 | +0.3 |
| IDI | | | | S | Sb | 08 24 12.4 | +0.3 |
| IDI | | | | eSn | Sn | 08 24 13.1 | +1.4 |
| IDI | Anoyia | 0.99 | 51 | P | Pn | 08 23 59.3 | +0.6 |
| IDI | | | | S | Sb | 08 24 13.2 | +1.1 |
| IACM | Heraklion | 1.12 | 55 | P | Pb | 08 24 02.8 | +1.3 |
| IACM | Heraklion | 1.12 | 55 | P | Pb | 08 24 02.8 | +1.3 |
| ANKY | Antikythira Is | 1.32 | 336 | P | Pn | 08 24 04.0 | +0.8 |
| ANKY | Antikythira Is | 1.32 | 336 | P | Pn | 08 24 04.0 | +0.8 |
| ANKY | | | | S | Sb | 08 24 22.2 | +0.8 |
| ANKY | Antikythira Is | 1.32 | 336 | P | Pb | 08 24 05.5 | +0.6 |
| ANKY | | | | S | Sb | 08 24 22.2 | +0.8 |
| LAST | Lasithi | 1.34 | 68 | P | Pb | 08 24 06.7 | +1.3 |
| LAST | | | | S | Sb | 08 24 24.2 | +1.9 |
| LAST | | | | AML | AML | 08 24 30.9 | |
| | comp=E,2854µm,0.6s | | | | | | |
| LAST | | | | AML | AML | 08 24 36.6 | |
| | comp=N,2979µm,0.7s | | | | | | |
| LAST | Lasithi | 1.34 | 68 | P | Pb | 08 24 05.8 | +0.3 |
| LAST | | | | S | Sb | 08 24 23.5 | +1.2 |
| LAST | Lasithi | 1.34 | 68 | P | Pb | 08 24 05.8 | +0.3 |
| LAST | | | | S | Sb | 08 24 23.5 | +1.2 |
| NPS | Neapolis | 1.48 | 66 | P | Pb | 08 24 08.2 | +0.4 |
| NPS | Neapolis | 1.48 | 66 | P | Pb | 08 24 08.2 | +0.4 |
| NPS | Neapolis | 1.48 | 66 | P | Pb | 08 24 08.4 | +0.6 |
| KYTH | Kithira | 1.76 | 335 | P | Pn | 08 24 10.9 | +1.6 |
| ZKR | Zakros | 1.91 | 76 | P | Pn | 08 24 13.7 | +2.3 |
| ZKR | Zakros | 1.91 | 76 | P | Pn | 08 24 13.7 | +2.3 |
| MHLO | Agia Marina, M | 2.05 | 10 | P | Pn | 08 24 15.2 | +1.9 |
| MHLO | Agia Marina, M | 2.05 | 10 | P | Pn | 08 24 15.2 | +1.9 |
| THR6 | Thira Island, | 2.06 | 34 | P | Pn | 08 24 14.0 | +0.6 |
| THR6 | Thira Island, | 2.06 | 34 | P | Pn | 08 24 14.0 | +0.6 |
| SAP1 | Santorini-Akro | 2.06 | 34 | P | Pn | 08 24 14.8 | +1.4 |
| SAP1 | Santorini-Akro | 2.06 | 34 | P | Pn | 08 24 14.8 | +1.4 |
| THR5 | Thira Island, | 2.08 | 33 | P | Pn | 08 24 14.9 | +1.1 |
| THR5 | Thira Island, | 2.08 | 33 | P | Pn | 08 24 14.9 | +1.1 |
| THT1 | Athinios (Pele | 2.10 | 35 | P | Pn | 08 24 15.1 | +1.2 |
| THT1 | Athinios (Pele | 2.10 | 35 | P | Pn | 08 24 14.9 | +1.0 |
| THT1 | Athinios (Pele | 2.10 | 35 | P | Pn | 08 24 14.9 | +1.0 |
| SANT | Santorini | 2.10 | 35 | ePn | Pn | 08 24 15.6 | +1.6 |
| SANT | Santorini | 2.10 | 35 | ePn | Pn | 08 24 15.6 | +1.6 |
| THR3 | Thira Island, | 2.10 | 34 | P | Pn | 08 24 15.4 | +1.4 |
| THR3 | Thira Island, | 2.10 | 34 | P | Pn | 08 24 15.4 | +1.4 |
| MHLA | Plaka, Milos I | 2.11 | 10 | P | Pn | 08 24 15.2 | +1.1 |
| MHLA | Plaka, Milos I | 2.11 | 10 | P | Pn | 08 24 15.2 | +1.1 |
| THR8 | Santorini-Mono | 2.14 | 35 | P | Pn | 08 24 15.4 | +1.0 |
| THR8 | Santorini-Mono | 2.14 | 35 | P | Pn | 08 24 15.4 | +1.0 |
| VLI | Veliai | 2.21 | 338 | P | Pn | 08 24 16.7 | +1.2 |
| VLI | Veliai | 2.21 | 338 | P | Pn | 08 24 16.7 | +1.2 |
| APE | Apeiranthos | 2.72 | 28 | ePN | Pn | 08 24 22.6 | +0.1 |
| APE | | | | eSN | Sn | 08 24 40.4 | -14 |
| APE | Apeiranthos | 2.72 | 28 | P | Pn | 08 24 22.7 | +0.1 |
| APE | | | | S | Sn | 08 24 54.5 | +0.1 |
| APE | Apeiranthos | 2.72 | 28 | P | Pn | 08 24 22.7 | +0.1 |
| APE | | | | S | Sn | 08 24 54.5 | +0.1 |
| KARP | Karpathos | 2.77 | 71 | ePN | Pn | 08 24 26.4 | +3.2 |
| KARP | Karpathos | 2.77 | 71 | P | Pn | 08 24 26.6 | +3.4 |
| KARP | Karpathos | 2.77 | 71 | P | Pn | 08 24 25.8 | +2.6 |
| KARP | Karpathos | 2.77 | 71 | ePn | Pn | 08 24 26.4 | +3.2 |
| KARP | Karpathos | 2.77 | 71 | ePn | Pn | 08 24 26.6 | +3.4 |
| KARP | Karpathos | 2.77 | 71 | P | Pn | 08 24 25.8 | +2.6 |
| KRND | KRANIDI | 2.79 | 347 | P | Pn | 08 24 25.2 | +1.7 |
| KRND | KRANIDI | 2.79 | 347 | P | Pn | 08 24 25.2 | +1.7 |
| PYL | PYLOS | 2.87 | 322 | P | Pn | 08 24 25.1 | +0.5 |
| PYL | PYLOS | 2.87 | 322 | P | Pn | 08 24 25.0 | +0.5 |
| DID | Didima | 2.90 | 349 | P | Pn | 08 24 25.7 | +0.7 |
| DID | Didima | 2.90 | 349 | P | Pn | 08 24 25.7 | +0.7 |
| DID | Didima | 2.90 | 349 | P | Pn | 08 24 25.7 | +0.7 |
| VLX | Vlachokerasia | 2.99 | 335 | P | Pn | 08 24 27.4 | +1.1 |
| VLX | Vlachokerasia | 2.99 | 335 | P | Pn | 08 24 27.4 | +1.1 |
| ITM | Ithomi | 3.00 | 327 | P | Pn | 08 24 27.9 | +1.5 |
| ITM | Ithomi | 3.00 | 327 | P | Pn | 08 24 27.9 | +1.5 |
| VLY | Voula,Athens | 3.19 | 358 | P | Pn | 08 24 29.1 | +0.3 |
| VLY | Voula,Athens | 3.19 | 358 | P | Pn | 08 24 29.9 | +1.0 |
| VLY | Voula,Athens | 3.19 | 358 | P | Pn | 08 24 29.9 | +1.0 |
| ATHU | Athens Univers | 3.30 | 358 | P | Pn | 08 24 29.7 | -0.7 |
| ATHU | Athens Univers | 3.30 | 358 | P | Pn | 08 24 29.7 | -0.7 |
| PTL | Penteli | 3.38 | 359 | P | Pn | 08 24 32.1 | +0.5 |
| PTL | Penteli | 3.38 | 359 | P | Pn | 08 24 32.1 | +0.5 |
| KARY | Karystos | 3.38 | 6 | P | Pn | 08 24 32.7 | +1.1 |
| KARY | Karystos | 3.38 | 6 | P | Pn | 08 24 32.7 | +1.1 |
| AMT | Artemida-Makis | 3.39 | 328 | P | Pn | 08 24 34.9 | +3.1 |
| AMT | Artemida-Makis | 3.39 | 328 | P | Pn | 08 24 34.9 | +3.1 |
| LOUT | Loutraki | 3.41 | 347 | P | Pn | 08 24 34.0 | +2.0 |
| LOUT | Loutraki | 3.41 | 347 | P | Pn | 08 24 34.0 | +2.0 |
| LTK | Loutraki | 3.45 | 347 | P | Pn | 08 24 33.5 | +1.0 |
| LTK | Loutraki | 3.45 | 347 | P | Pn | 08 24 33.5 | +1.0 |
| LTK | Loutraki | 3.45 | 347 | P | Pn | 08 24 33.4 | +1.0 |
| GUR | Goura | 3.52 | 339 | P | Pn | 08 24 36.3 | +2.7 |
| GUR | Goura | 3.52 | 339 | P | Pn | 08 24 35.7 | +2.1 |
| GUR | Goura | 3.52 | 339 | P | Pn | 08 24 35.7 | +2.1 |
| THAL | Thalero | 3.52 | 343 | P | Pn | 08 24 34.7 | +1.2 |
| THAL | Thalero | 3.52 | 343 | P | Pn | 08 24 34.7 | +1.2 |
| VILL | Villia | 3.53 | 352 | P | Pn | 08 24 34.2 | +0.5 |
| VILL | Villia | 3.53 | 352 | P | Pn | 08 24 34.2 | +0.5 |
| VIL2 | Platees | 3.58 | 351 | P | Pn | 08 24 33.4 | -1.0 |
| KLV | Kalavryta, Ach | 3.67 | 337 | P | Pn | 08 24 37.9 | +2.2 |
| KLV | Kalavryta, Ach | 3.67 | 337 | P | Pn | 08 24 37.9 | +2.2 |
| PROD | Prodromos | 3.69 | 347 | P | Pn | 08 24 36.1 | +0.3 |
| PROD | Prodromos | 3.69 | 347 | P | Pn | 08 24 36.1 | +0.3 |
| ARG | Arkhangelos | 3.74 | 64 | P | Pn | 08 24 38.2 | +1.7 |
| ARG | Arkhangelos | 3.74 | 64 | P | Pn | 08 24 38.2 | +1.7 |
| EREA | Eretria | 3.75 | 360 | P | Pn | 08 24 36.4 | -0.2 |
| EREA | Eretria | 3.75 | 360 | P | Pn | 08 24 36.4 | -0.2 |
| LAKA | Lakka | 3.91 | 336 | P | Pn | 08 24 39.9 | +1.0 |
| LAKA | Lakka | 3.91 | 336 | P | Pn | 08 24 39.9 | +1.0 |
| DSF | Desfina | 3.91 | 343 | P | Pn | 08 24 40.1 | +1.1 |
| DSF | Desfina | 3.91 | 343 | P | Pn | 08 24 40.1 | +1.1 |
| RLS | Riolos of Patr | 3.94 | 330 | P | Pn | 08 24 41.2 | +2.0 |
| RLS | Riolos of Patr | 3.94 | 330 | P | Pn | 08 24 41.2 | +2.0 |
| TRIZ | Trizonia | 3.99 | 338 | P | Pn | 08 24 40.7 | +0.7 |
| TRIZ | Trizonia | 3.99 | 338 | P | Pn | 08 24 40.7 | +0.7 |
| KALE | Kalithea | 4.00 | 339 | P | Pn | 08 24 42.9 | +2.8 |
| KALE | Kalithea | 4.00 | 339 | P | Pn | 08 24 42.9 | +2.8 |
| SERG | Sergoula | 4.04 | 338 | P | Pn | 08 24 42.3 | +1.6 |
| SERG | Sergoula | 4.04 | 338 | P | Pn | 08 24 42.3 | +1.6 |
| LKR | Lokris | 4.05 | 349 | P | Pn | 08 24 40.8 | 0.0 |
| LKR | Lokris | 4.05 | 349 | P | Pn | 08 24 40.8 | 0.0 |
| CHOS | Chios island | 4.08 | 24 | ePN | Pn | 08 24 41.9 | +0.6 |
| CHOS | Chios island | 4.08 | 24 | P | Pn | 08 24 41.9 | +0.6 |
| CHOS | Chios island | 4.08 | 24 | ePn | Pn | 08 24 41.9 | +0.6 |
| EFP | Efpalio | 4.10 | 337 | P | Pn | 08 24 44.2 | +2.7 |
| EFP | Efpalio | 4.10 | 337 | P | Pn | 08 24 44.2 | +2.7 |
| ANX | Ano Chora | 4.25 | 338 | P | Pn | 08 24 45.9 | +2.3 |
| ANX | Ano Chora | 4.25 | 338 | P | Pn | 08 24 45.9 | +2.3 |
| URLA | Izmir | 4.26 | 29 | ePN | Pn | 08 24 43.6 | -0.1 |
| URLA | Izmir | 4.26 | 29 | i P | Pn | 08 24 44.0 | +0.3 |
| URLA | Izmir | 4.26 | 29 | ePn | Pn | 08 24 43.6 | -0.1 |
| URLA | Izmir | 4.26 | 29 | P | Pn | 08 24 44.0 | +0.3 |
| AYDN | Tasoluk | 4.36 | 46 | i P | Pn | 08 24 47.8 | +2.7 |
| AYDN | Tasoluk | 4.36 | 46 | P | Pn | 08 24 47.8 | +2.7 |
| TURN | Turunc | 4.37 | 58 | ePN | Pn | 08 24 41.2 | -4.0 |
| TURN | Turunc | 4.37 | 58 | i P | Pn | 08 24 43.0 | -2.2 |
| TURN | Turunc | 4.37 | 58 | ePn | Pn | 08 24 41.2 | -4.0 |
| TURN | Turunc | 4.37 | 58 | P | Pn | 08 24 43.0 | -2.2 |
| DALY | Dalyan (Mu˜la | 4.38 | 59 | ePN | Pn | 08 24 45.7 | +0.4 |
| DALY | Dalyan (Mu˜la | 4.38 | 59 | i P | Pn | 08 24 47.9 | +2.6 |
| DALY | Dalyan (Mu˜la | 4.38 | 59 | ePn | Pn | 08 24 45.7 | +0.4 |
| DALY | Dalyan (Mu˜la | 4.38 | 59 | P | Pn | 08 24 47.9 | +2.6 |
| PVO | Paravola | 4.40 | 334 | P | Pn | 08 24 48.6 | +3.0 |
| PVO | Paravola | 4.40 | 334 | P | Pn | 08 24 48.6 | +3.0 |
| PDO | Prodromos | 4.52 | 331 | P | Pn | 08 24 50.3 | +3.1 |
| PDO | Prodromos | 4.52 | 331 | P | Pn | 08 24 50.3 | +3.1 |
| AGG | Agios Georgios | 4.54 | 344 | P | Pn | 08 24 47.8 | +0.2 |
| AGG | Agios Georgios | 4.54 | 344 | P | Pn | 08 24 47.8 | +0.2 |
| AGG | Agios Georgios | 4.54 | 344 | ePn | Pn | 08 24 49.5 | +1.9 |
| AGG | Agios Georgios | 4.54 | 344 | ePn | Pn | 08 24 49.5 | +1.9 |
| EVR | Evrytania | 4.58 | 339 | P | Pn | 08 24 50.9 | +2.7 |
| EVR | Evrytania | 4.58 | 339 | P | Pn | 08 24 50.9 | +2.7 |
| FETY | Fethiye | 4.61 | 63 | ePN | Pn | 08 24 49.8 | +1.3 |
| FETY | Fethiye | 4.61 | 63 | ePn | Pn | 08 24 49.8 | +1.3 |
| NEO | Neokhori | 4.67 | 353 | P | Pn | 08 24 48.8 | -0.6 |
| NEO | Neokhori | 4.67 | 353 | P | Pn | 08 24 48.8 | -0.6 |
| XOR | Xorichti | 4.73 | 353 | P | Pn | 08 24 51.6 | +1.4 |
| XOR | Xorichti | 4.73 | 353 | P | Pn | 08 24 51.6 | +1.4 |
| SIGR | SIGRI | 4.79 | 18 | ePN | Pn | 08 24 53.1 | +2.2 |
| SIGR | SIGRI | 4.79 | 18 | P | Pn | 08 24 50.7 | -0.2 |
| SIGR | SIGRI | 4.79 | 18 | P | Pn | 08 24 50.7 | -0.2 |
| SIGR | SIGRI | 4.79 | 18 | ePn | Pn | 08 24 53.1 | +2.2 |
| AKAS | Kas | 4.87 | 70 | ePN | Pn | 08 24 54.2 | +2.1 |
| AKAS | Kas | 4.87 | 70 | i P | Pn | 08 24 53.3 | +1.1 |
| AKAS | Kas | 4.87 | 70 | P | Pn | 08 24 53.3 | +1.1 |
| AKAS | Kas | 4.87 | 70 | ePn | Pn | 08 24 53.7 | +1.5 |
| AKAS | | | | eSn | Sn | 08 25 46.5 | -1.1 |
| AKAS | Kas | 4.87 | 70 | ePn | Pn | 08 24 53.7 | +1.5 |
| AKAS | | | | eSn | Sn | 08 25 46.5 | -1.1 |
| TAVA | DENIZLI_Tavas | 4.89 | 54 | i P | Pn | 08 24 56.0 | +3.6 |
| TAVA | DENIZLI_Tavas | 4.89 | 54 | P | Pn | 08 24 56.0 | +3.6 |
| DSL | Palaion Diasel | 5.02 | 334 | P | Pn | 08 24 54.3 | +0.2 |
| DSL | Palaion Diasel | 5.02 | 334 | P | Pn | 08 24 54.3 | +0.2 |
| THL | Klokotos Trika | 5.13 | 343 | P | Pn | 08 24 55.4 | -0.2 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| THL | Klokotos Trika | 5.13 | 343 | P | Pn | 08 24 55.4 | -0.2 |
| GOLH | Golhisar | 5.22 | 59 | *i* P | Pn | 08 24 59.5 | +2.5 |
| GOLH | Golhisar | 5.22 | 59 | P | Pn | 08 24 59.5 | +2.5 |
| MANT | Manisa | 5.32 | 43 | *i* P | Pn | 08 25 00.4 | +2.0 |
| MANT | Manisa | 5.32 | 43 | P | Pn | 08 25 00.4 | +2.0 |
| KULA | Kula-Manisa | 5.39 | 43 | *e*PN | Pn | 08 24 58.6 | -0.7 |
| KULA | Kula-Manisa | 5.39 | 43 | *e*Pn | Pn | 08 24 58.6 | -0.7 |
| KPRO | Kipourio | 5.67 | 339 | P | Pn | 08 25 04.7 | +1.6 |
| KPRO | Kipourio | 5.67 | 339 | P | Pn | 08 25 04.7 | +1.6 |
| KORT | Korkueli | 5.69 | 64 | *i* P | Pn | 08 25 06.5 | +3.0 |
| SGD | Sagiada | 5.77 | 330 | P | Pn | 08 25 06.3 | +2.0 |
| SGD | Sagiada | 5.77 | 330 | P | Pn | 08 25 06.3 | +2.0 |
| KHAL | Karahalli | 5.79 | 49 | *i* P | Pn | 08 25 07.3 | +2.5 |
| PENT | Pentalofos | 5.96 | 339 | P | Pn | 08 25 07.0 | 0.0 |
| PENT | Pentalofos | 5.96 | 339 | P | Pn | 08 25 07.1 | 0.0 |
| CSS | Mathiatis | 7.71 | 85 | Pn | Pn | 08 25 30.9 | -0.2 |
| CSS | Mathiatis | 7.71 | 85 | Pn | Pn | 08 25 30.9 | -0.2 |
| BR231 | Keskin MP Arra | 8.72 | 51 | *e*Pn | Pn | 08 25 49.1 | +4.0 |
| BR101 | Keskin Array S | 9.23 | 54 | *e*Pn | Pn | 08 25 54.0 | +2.0 |
| BR101 | Keskin Array S | 9.23 | 54 | *e*Pn | Pn | 08 25 54.0 | +2.0 |
| BR131 | Keskin Array S | 9.23 | 54 | *e*Pn | Pn | 08 25 53.7 | +1.7 |
| BR131 | Keskin Array S | 9.23 | 54 | *e*Pn | Pn | 08 25 53.7 | +1.7 |
| BRTR | Keskin Array B | 9.23 | 54 | Pn | Pn | 08 25 54.0 | +2.0 |
| | comp=N,0.2nm,0.3s,baz=233,slow=13,SNR=6.8 | | | | | | |
| STON | Ston | 9.54 | 331 | *e*Pn | Pn | 08 25 52.4 | -3.7 |
| STON | | | | Sn | Sn | 08 27 31.0 | -11 |
| SLTI | Sal'it | 9.57 | 102 | Pn | Pn | 08 25 57.2 | +0.6 |
| SLTI | Sal'it | 9.57 | 102 | Pn | Pn | 08 25 57.2 | +0.6 |
| MMAI | Mount Meron Ar | 9.66 | 97 | Pn | Pn | 08 25 56.8 | -1.1 |
| | comp=N,2.3nm,0.3s,baz=310,slow=13,SNR=6.9 | | | | | | |
| AMAZ | Amatzia | 9.71 | 106 | Pn | Pn | 08 25 58.8 | +0.3 |
| AMAZ | Amatzia | 9.71 | 106 | Pn | Pn | 08 25 58.8 | +0.3 |
| YTIR | Yattir | 9.93 | 106 | Pn | Pn | 08 26 02.3 | +0.7 |
| YTIR | Yattir | 9.93 | 106 | Pn | Pn | 08 26 02.3 | +0.7 |
| HMDT | Nahal Hemdat | 9.96 | 101 | Pn | Pn | 08 26 02.6 | +0.7 |
| HMDT | Nahal Hemdat | 9.96 | 101 | Pn | Pn | 08 26 02.6 | +0.7 |
| RMNI | Mount Ramon | 9.97 | 111 | Pn | Pn | 08 26 02.5 | +0.4 |
| RMNI | Mount Ramon | 9.97 | 111 | Pn | Pn | 08 26 02.5 | +0.4 |
| DSI | Dead Sea | 10.06 | 105 | Pn | Pn | 08 26 02.9 | -0.4 |
| DSI | | | | Sn | Sn | 08 27 48.8 | -6.4 |
| DSI | Dead Sea | 10.06 | 105 | Pn | Pn | 08 26 02.9 | -0.4 |
| MZDA | Masada | 10.14 | 106 | Pn | Pn | 08 26 04.0 | -0.4 |
| MZDA | | | | Sn | Sn | 08 27 50.0 | -7.1 |
| MZDA | Masada | 10.14 | 106 | Pn | Pn | 08 26 04.0 | -0.4 |
| PRNI | Paran | 10.27 | 112 | Pn | Pn | 08 26 05.8 | -0.4 |
| PRNI | | | | Sn | Sn | 08 27 53.1 | -7.2 |
| PRNI | Paran | 10.27 | 112 | Pn | Pn | 08 26 05.8 | -0.4 |
| HRFI | Mount Harif | 10.44 | 113 | Pn | Pn | 08 26 09.1 | +0.5 |
| HRFI | | | | Sn | Sn | 08 27 56.8 | -7.8 |
| HRFI | Mount Harif | 10.44 | 113 | Pn | Pn | 08 26 09.1 | +0.5 |
| MBRI | Mt Berech | 10.47 | 115 | Pn | Pn | 08 26 09.1 | +0.1 |
| MBRI | Mt Berech | 10.47 | 115 | Pn | Pn | 08 26 09.1 | +0.1 |
| EIL | Elat | 10.56 | 115 | Pn | Pn | 08 26 09.8 | -0.4 |
| | comp=N,0.9nm,0.3s,baz=218,slow=2.1,SNR=34 | | | | | | |
| EIL | | | | Sn | Sn | 08 28 00.8 | -6.6 |
| | comp=N,1.5nm,0.3s,baz=173,slow=16,SNR=6.5 | | | | | | |
| EIL | Elat | 10.56 | 115 | Pn | Pn | 08 26 10.0 | -0.1 |
| EIL | Elat | 10.56 | 115 | Pn | Pn | 08 26 10.0 | -0.1 |
| GEA0 | GERESS Array S | 16.07 | 335 | *e*Pn | Pn | 08 27 26.3 | +1.7 |
| GEA0 | GERESS Array S | 16.07 | 335 | *e*Pn | Pn | 08 27 26.3 | +1.7 |
| KHC | Kasperske Hory | 16.37 | 335 | *e*P | Pn | 08 27 28.5 | +0.2 |
| KHC | | | | *e*pP | sP | 08 27 41.5 | -1.2 |
| AK11 | Malin Array Si | 16.45 | 12 | *e*Pn | Pn | 08 27 29.8 | +0.5 |
| AK11 | Malin Array Si | 16.45 | 12 | *e*Pn | Pn | 08 27 29.8 | +0.5 |
| AKASG | Malin Array Be | 16.48 | 12 | Pn | Pn | 08 27 31.0 | +1.3 |
| | comp=N,1.0nm,0.3s,baz=206,slow=10,SNR=6.8 | | | | | | |
| AKBB | Malin Array Si | 16.48 | 12 | *e*Pn | Pn | 08 27 30.1 | +0.4 |
| | comp=N,23nm,1.7s | | | | | | |
| AKBB | Malin Array Si | 16.48 | 12 | *e*Pn | Pn | 08 27 30.1 | +0.4 |
| | comp=N,23nm,1.7s | | | | | | |
| KBZ | Khabaz | 17.22 | 53 | Pn | P | 08 27 41.1 | +0.8 |
| | comp=N,0.1nm,0.3s,baz=227,slow=12,SNR=5.0 | | | | | | |
| ESDC | Sonseca Array | 22.76 | 291 | P | P | 08 28 42.5 | +1.7 |
| | comp=N,0.5nm,0.6s,baz=87,slow=9.4,SNR=6.1 | | | | | | |
| NB201 | NORSAR Array S | 27.63 | 347 | *e*P | P | 08 29 24.6 | -1.0 |
| NB200 | NORSAR Array S | 27.64 | 347 | *e*P | P | 08 29 24.6 | -1.0 |
| NOA | NORSAR Array B | 27.64 | 347 | P | P | 08 29 24.6 | -1.0 |
| | comp=N,0.4nm,0.4s,baz=154,slow=9.0,SNR=3.5 | | | | | | |
| AKTO | Aktyubinsk | 29.31 | 47 | P | P | 08 29 40.3 | -0.2 |
| | comp=N,1.2nm,0.5s,baz=257,slow=4.2,SNR=4.3 | | | | | | |
| AKTO | | | | LR | LR | 08 43 08.1 | |
| | comp=N,60nm,18.2s,baz=251,slow=40 | | | | | | |
| TOA1 | Torodi Ar. Sit | 29.41 | 229 | *e*P | P | 08 29 43.3 | +1.5 |
| TOA1 | Torodi Ar. Sit | 29.41 | 229 | *e*P | P | 08 29 43.3 | +1.5 |
| TOA0 | Torodi Ar. Sit | 29.42 | 229 | *e*P | P | 08 29 43.3 | +1.5 |
| TOA0 | Torodi Ar. Sit | 29.42 | 229 | *e*P | P | 08 29 43.4 | +1.5 |
| TORD | Torodi Ar. Bea | 29.42 | 229 | P | P | 08 29 43.3 | +1.5 |
| | comp=N,2.4nm,0.6s,baz=37,slow=8.8,SNR=22 | | | | | | |
| ARA0 | ARCESS Array S | 34.94 | 1 | *e*P | P | 08 30 28.2 | -1.4 |
| ARCES | ARCESS Array B | 34.94 | 1 | P | P | 08 30 28.2 | -1.4 |
| | comp=N,8.9nm,1.2s,baz=179,slow=9.2,SNR=7.3 | | | | | | |
| KURK | Kurchatov | 42.26 | 50 | *e*P | P | 08 31 31.7 | +0.4 |
| | comp=N,5.0nm,1.2s | | | | | | |
| KURK | Kurchatov | 42.26 | 50 | *e*P | P | 08 31 31.7 | +0.4 |
| | comp=N,5.0nm,1.2s | | | | | | |
| MK32 | Makanchi Array | 44.87 | 56 | *e*P | P | 08 31 52.6 | +0.2 |
| MK32 | Makanchi Array | 44.87 | 56 | *e*P | P | 08 31 52.6 | +0.2 |
| MKAR | Makanchi Array | 44.87 | 56 | P | P | 08 31 52.6 | +0.1 |
| | comp=N,1.5nm,0.4s,baz=271,slow=7.8,SNR=20 | | | | | | |
| MK01 | Makanchi Array | 44.88 | 56 | *e*P | P | 08 31 52.8 | +0.3 |
| MK01 | Makanchi Array | 44.88 | 56 | *e*P | P | 08 31 52.8 | +0.3 |
| ZAA0 | Zalesovo Array | 46.06 | 46 | *e*P | P | 08 32 01.6 | -0.1 |
| | comp=N,2.9nm,0.6s | | | | | | |
| ZAA0 | Zalesovo Array | 46.06 | 46 | *e*P | P | 08 32 01.6 | -0.1 |
| | comp=N,2.9nm,0.6s | | | | | | |
| ZAA1 | Zalesovo Array | 46.06 | 46 | *e*P | P | 08 32 01.4 | -0.3 |
| ZAA1 | Zalesovo Array | 46.06 | 46 | *e*P | P | 08 32 01.4 | -0.3 |
| ZALV | Zalesovo Beam | 46.06 | 46 | P | P | 08 32 01.4 | -0.2 |
| | comp=N,1.2nm,0.4s,baz=267,slow=10,SNR=6.2 | | | | | | |
| SONA0 | Songino Array | 60.56 | 50 | *e*P | P | 08 33 49.1 | +0.6 |
| SONA0 | Songino Array | 60.56 | 50 | *e*P | P | 08 33 49.1 | +0.6 |
| SONM | Songino Array | 60.56 | 50 | P | P | 08 33 49.1 | +0.6 |
| | comp=N,0.5nm,0.5s,baz=286,slow=9.2,SNR=4.2 | | | | | | |
| SONA1 | Songino Array | 60.56 | 50 | *e*P | P | 08 33 49.9 | +1.4 |
| SONA1 | Songino Array | 60.56 | 50 | *e*P | P | 08 33 49.9 | +1.4 |
| IMAR | Indian Mountai | 79.66 | 359 | *e*P | P | 08 35 46.3 | +1.2 |
| IMAR | Indian Mountai | 79.66 | 359 | *e*P | P | 08 35 46.3 | +1.2 |
| PPLA | Purkeypile | 82.73 | 358 | *e*P | P | 08 36 03.0 | +1.4 |
| | comp=N,47nm,1.7s | | | | | | |
| PPLA | Purkeypile | 82.73 | 358 | *e*P | P | 08 36 03.0 | +1.4 |
| | comp=N,47nm,1.7s | | | | | | |

---

*ISCJB **09** 08:38:31.5±1.1, 34.°70N±0.°06×23.°86E±0.°05, h30km±5km, mb3.7/4, Error ellipse: s-maj=11.2km s-min=6.9km az=18.1*
*THE **09** 08:38:31.6, 34.°73N×23.°80E, h18km, ML3.4/5, Error ellipse: s-maj=2.0km s-min=0.9km az=202.0*
*ATH **09** 08:38:32.0, 34.°79N×23.°91E, h31km±1km, ML3.3/6, Error ellipse: s-maj=2.3km s-min=1.1km az=33.0*
*IDC **09** 08:38:32.1±2.9, 34.°64N×24.°02E, h32km±19km, mb3.6/4, mb1 3.6/5, mb1mx3.2/45, mbtmp3.7/5, ML3.3/1, Error ellipse: s-maj=38.6km s-min=23.2km az=129.0*
*CSEM **09** 08:38:33.4±0.6, 34.°81N×23.°95E, h20km, ML3.3, Error ellipse: s-maj=15.6km s-min=7.2km az=20.0*
**ISC 09 08:38:32.0**±1.0**, 34.°78N**±0.°06×**23.°93E**±0.°04**, h21**km±1km**, n52,** σ**1.§23**/67**, mb3.7**/4**, Crete**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GVD | Gavdhos | 0.14 | 65 | P | Pb | 08 38 37.5 | -0.3 |
| GVD | | | | AML | AML | 08 38 42.9 | |
| GVD | | | | S | Sb | 08 38 43.5 | +1.5 |
| GVD | | | | AML | AML | 08 38 43.5 | |
| GVD | Gavdhos | 0.14 | 65 | P | Pb | 08 38 37.5 | -0.3 |
| GVD | | | | S | Sb | 08 38 42.2 | +0.3 |
| GVD | Gavdhos | 0.14 | 65 | P | Pb | 08 38 37.7 | -0.1 |
| GVD | | | | S | Sb | 08 38 42.2 | +0.3 |
| VAM | Vamos | 0.67 | 19 | P | Pb | 08 38 44.8 | -0.2 |
| VAM | | | | S | Sn | 08 38 55.5 | -0.6 |
| VAM | | | | AML | AML | 08 38 59.8 | |
| | comp=E,4307µm,0.6s | | | | | | |
| VAM | | | | AML | AML | 08 39 02.8 | |
| | comp=N,5400µm,0.4s | | | | | | |
| VAM | Vamos | 0.67 | 19 | P | Pb | 08 38 45.2 | +0.2 |
| VAM | | | | S | Sn | 08 38 55.5 | -0.6 |
| VAM | Vamos | 0.67 | 19 | P | Pb | 08 38 45.2 | +0.2 |
| VAM | | | | S | Sn | 08 38 56.4 | +0.3 |
| IMMV | Iera Moni Meta | 0.68 | 3 | P | Pb | 08 38 45.1 | -0.1 |
| IMMV | | | | S | Sn | 08 38 56.5 | -0.1 |
| IMMV | | | | AML | AML | 08 39 01.2 | |
| | comp=N,4706µm,0.4s | | | | | | |
| IMMV | | | | AML | AML | 08 39 01.7 | |
| | comp=E,4741µm,0.4s | | | | | | |
| IMMV | Iera Moni Meta | 0.68 | 3 | P | Pb | 08 38 45.4 | +0.1 |
| IMMV | | | | S | Sn | 08 38 56.0 | -0.5 |
| IMMV | Iera Moni Meta | 0.68 | 3 | P | Pb | 08 38 45.4 | +0.1 |
| IMMV | | | | S | Sn | 08 38 56.0 | -0.5 |
| SIVA | Sivas | 0.76 | 71 | P | Pb | 08 38 47.4 | +0.8 |
| SIVA | | | | S | Sn | 08 39 00.1 | +1.7 |
| SIVA | | | | AML | AML | 08 39 04.1 | |
| | comp=E,10302µm,0.7s | | | | | | |
| SIVA | | | | AML | AML | 08 39 05.2 | |
| | comp=N,9741µm,0.4s | | | | | | |
| SIVA | Sivas | 0.76 | 71 | P | Pb | 08 38 47.3 | +0.8 |
| SIVA | | | | S | Sn | 08 38 59.4 | +1.0 |
| SIVA | Sivas | 0.76 | 71 | P | Pb | 08 38 47.2 | +0.7 |
| SIVA | | | | S | Sn | 08 38 59.4 | +1.0 |
| IDI | Anoyia | 0.94 | 57 | Pg | Pb | 08 38 49.6 | +0.1 |
| | comp=N,44nm,0.3s,baz=255,slow=8.8,SNR=154 | | | | | | |
| IDI | | | | Lg | Lg | 08 39 04.9 | |
| | comp=N,67nm,0.3s,baz=326,slow=22,SNR=24 | | | | | | |
| IDI | Anoyia | 0.94 | 57 | P | Pb | 08 38 49.0 | -0.5 |
| IDI | | | | S | Sn | 08 39 03.6 | +0.7 |
| IDI | | | | AML | AML | 08 39 06.1 | |
| | comp=E,1301µm,0.4s | | | | | | |
| IDI | | | | AML | AML | 08 39 07.4 | |
| | comp=N,2042µm,0.5s | | | | | | |
| IDI | Anoyia | 0.94 | 57 | P | Pb | 08 38 49.7 | +0.1 |
| IDI | | | | S | Sn | 08 39 03.6 | +0.7 |
| IDI | Anoyia | 0.94 | 57 | P | Pb | 08 38 49.7 | +0.1 |
| IDI | | | | S | Sn | 08 39 03.8 | +0.9 |
| ANKY | Antikythira Is | 1.20 | 335 | P | Pb | 08 38 56.1 | +2.1 |
| ANKY | Antikythira Is | 1.20 | 335 | P | Pb | 08 38 56.1 | +2.1 |
| LAST | Lasithi | 1.33 | 73 | P | Pb | 08 38 57.6 | +1.4 |
| LAST | | | | AML | AML | 08 39 20.5 | |
| | comp=N,566µm,0.5s | | | | | | |
| LAST | | | | AML | AML | 08 39 21.2 | |
| | comp=E,636µm,0.5s | | | | | | |
| LAST | Lasithi | 1.33 | 73 | P | Pb | 08 38 57.6 | +1.4 |
| NPS | Neapolis | 1.46 | 70 | P | Pb | 08 38 59.6 | +1.1 |
| NPS | Neapolis | 1.46 | 70 | P | Pb | 08 38 59.6 | +1.1 |
| KYTH | Kithira | 1.65 | 334 | P | Pb | 08 39 02.1 | +0.4 |
| ZKR | Zakros | 1.91 | 79 | P | Pn | 08 39 03.7 | +0.4 |
| ZKR | Zakros | 1.91 | 79 | P | Pn | 08 39 03.7 | +0.4 |
| THR3 | Thira Island, | 2.02 | 36 | P | Pn | 08 39 05.7 | +0.8 |
| THR3 | Thira Island, | 2.02 | 36 | P | Pn | 08 39 05.7 | +0.8 |
| VLI | Veliai | 2.10 | 338 | P | Pn | 08 39 07.9 | +1.9 |
| VLI | Veliai | 2.10 | 338 | P | Pn | 08 39 07.9 | +1.9 |
| APE | Apeiranthos | 2.63 | 29 | P | Pn | 08 39 12.4 | -0.9 |
| APE | Apeiranthos | 2.63 | 29 | P | Pn | 08 39 12.4 | -0.9 |
| KARP | Karpathos | 2.76 | 73 | P | Pn | 08 39 17.0 | +2.0 |
| KARP | Karpathos | 2.76 | 73 | P | Pn | 08 39 17.0 | +2.0 |
| PYL | PYLOS | 2.76 | 321 | P | Pn | 08 39 15.7 | +0.6 |
| PYL | PYLOS | 2.76 | 321 | P | Pn | 08 39 15.7 | +0.6 |
| DID | Didima | 2.78 | 349 | P | Pn | 08 39 15.5 | +0.2 |
| DID | Didima | 2.78 | 349 | P | Pn | 08 39 15.5 | +0.2 |
| VLX | Vlachokerasia | 2.88 | 335 | P | Pn | 08 39 18.9 | +2.2 |
| VLX | Vlachokerasia | 2.88 | 335 | P | Pn | 08 39 18.9 | +2.2 |
| ITM | Ithomi | 2.90 | 326 | P | Pn | 08 39 18.1 | +1.2 |
| ITM | Ithomi | 2.90 | 326 | P | Pn | 08 39 18.1 | +1.2 |
| LTK | Loutraki | 3.33 | 347 | P | Pn | 08 39 22.5 | -0.4 |
| LTK | Loutraki | 3.33 | 347 | P | Pn | 08 39 22.5 | -0.4 |
| GUR | Goura | 3.40 | 338 | P | Pn | 08 39 27.1 | +3.1 |
| GUR | Goura | 3.40 | 338 | P | Pn | 08 39 27.1 | +3.1 |
| VILL | Villia | 3.42 | 352 | P | Pn | 08 39 23.1 | -1.0 |
| VIL2 | Platees | 3.47 | 351 | P | Pn | 08 39 23.1 | -1.7 |
| EIL | Elat | 10.63 | 116 | Pn | Pn | 08 41 00.7 | -2.4 |
| | comp=E,0.2nm,0.3s,baz=301,slow=2.6,SNR=15 | | | | | | |
| TORD | Torodi Ar. Bea | 29.48 | 229 | P | P | 08 44 33.4 | -1.3 |
| | comp=E,0.5nm,0.6s,baz=39,slow=8.4,SNR=5.3 | | | | | | |
| ARCES | ARCESS Array B | 34.82 | 1 | P | P | 08 45 20.9 | -0.1 |
| | comp=E,2.6nm,1.0s,baz=184,slow=11,SNR=2.5 | | | | | | |
| MKAR | Makanchi Array | 44.83 | 56 | P | P | 08 46 43.2 | -1.2 |
| | comp=E,0.3nm,0.3s,baz=268,slow=8.1,SNR=6.5 | | | | | | |
| ZALV | Zalesovo Beam | 45.99 | 46 | P | P | 08 46 51.9 | -1.7 |
| | comp=E,0.4nm,0.4s,baz=272,slow=5.5,SNR=2.8 | | | | | | |

---

*ATA **09** 08:45:48.3±0.8, 37.°74N×42.°47E, h0km±13km, ML3.8, MW3.7*
*ISK **09** 08:45:54.6, 38.°66N×43.°46E, h5km, ML2.9*
*CSEM **09** 08:45:55.8±0.3, 38.°68N×43.°45E, h2km, ML2.9, Error ellipse: s-maj=8.8km s-min=6.1km az=95.0*
*ISCJB **09** 08:45:56.7±0.4, 38.°70N±0.°03×43.°52E±0.°05, h10km, Error ellipse: s-maj=5.7km s-min=3.7km az=15.5*
*DDA **09** 08:45:56.2, 38.°71N×43.°63E, h4km, Ml3.0*
**ISC 09 08:45:56.4**±0.8**, 38.°69N**±0.°02×**43.°46E**±0.°02**, h10**km**, n62,** σ**1.§57**/68**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.11 | 212 | PG | Pg | 08 45 58.3 | -0.9 |
| VANB | Van | 0.11 | 212 | *i* Pg | Pg | 08 45 58.3 | -0.9 |
| TVAN | Van | 0.16 | 195 | *i* P | Pg | 08 45 58.2 | -1.9 |
| TVAN | Van | 0.16 | 195 | P | Pg | 08 45 58.2 | -1.9 |
| VMUR | Van-Muradiye | 0.32 | 16 | *i* P | Pg | 08 46 00.9 | -1.9 |
| VMUR | Van-Muradiye | 0.32 | 16 | P | Pg | 08 46 00.9 | -1.9 |
| GEVA | Gevas | 0.49 | 220 | *e*P | Pg | 08 46 03.1 | -2.8 |
| GEVA | | | | *e*S | Sb | 08 46 15.8 | +1.4 |
| GEVA | | | | IAML | | 08 46 22.9 | |
| | comp=Z,180nm,0.4s | | | | | | |
| GEVA | Gevas | 0.49 | 220 | *i* P | Pg | 08 46 02.6 | -3.3 |
| GEVA | Gevas | 0.49 | 220 | P | Pg | 08 46 02.6 | -3.3 |
| CLDR | Caldiran | 0.58 | 38 | *e*PG | Pg | 08 46 07.5 | -0.2 |
| CLDR | | | | *e*SG | Sb | 08 46 16.6 | -0.5 |
| CLDR | Caldiran | 0.58 | 38 | *i* P | Pg | 08 46 06.8 | -0.9 |
| CLDR | Caldiran | 0.58 | 38 | P | Pg | 08 46 06.8 | -0.9 |
| CLDR | Caldiran | 0.58 | 38 | *e*Pg | Pg | 08 46 07.5 | -0.2 |
| CLDR | | | | *e*Sg | Sb | 08 46 16.6 | -0.5 |
| ADCV | BITLIS_Adilcev | 0.59 | 282 | *i* P | Pg | 08 46 05.0 | -2.9 |
| ADCV | BITLIS_Adilcev | 0.59 | 282 | P | Pg | 08 46 04.9 | -2.9 |
| BASK | Baskale_VAN | 0.76 | 146 | *e*P | Pn | 08 46 13.5 | +0.1 |
| BASK | | | | IAML | | 08 46 31.8 | |
| | comp=Z,107nm,0.6s | | | | | | |
| BASK | Baskale_VAN | 0.76 | 146 | *i* P | Pg | 08 46 10.1 | -1.0 |
| BASK | Baskale_VAN | 0.76 | 146 | P | Pg | 08 46 10.1 | -1.0 |
| DYDN | Diyadin | 0.87 | 12 | *i* P | Pg | 08 46 12.4 | -0.9 |
| DYDN | Diyadin | 0.87 | 12 | P | Pg | 08 46 12.4 | -0.9 |
| TUTA | Tutak | 0.88 | 325 | *i* P | Pg | 08 46 09.8 | -3.5 |
| TUTA | Tutak | 0.88 | 325 | P | Pg | 08 46 09.8 | -3.5 |
| AGRB | Hanur-Agry | 0.96 | 338 | *e*PG | Pg | 08 46 14.6 | -0.3 |
| AGRB | | | | *e*SG | Sn | 08 46 29.1 | -0.8 |
| AGRB | Hanur-Agry | 0.96 | 338 | *e*Pg | Pg | 08 46 14.6 | -0.3 |
| AGRB | | | | *e*Sg | Sn | 08 46 29.1 | -0.8 |
| HAKT | HAKKARI | 1.14 | 170 | *i* P | Pn | 08 46 18.4 | -0.2 |
| HAKT | HAKKARI | 1.14 | 170 | P | Pn | 08 46 18.4 | -0.2 |
| EKAR | Karacoban | 1.23 | 298 | *e*P | Pb | 08 46 18.9 | -0.9 |
| EKAR | | | | *e*S | Sn | 08 46 42.5 | +5.9 |
| EKAR | | | | IAML | | 08 46 49.8 | |
| | comp=Z,48nm,0.4s | | | | | | |
| EKAR | Karacoban | 1.23 | 298 | *i* P | Pb | 08 46 19.1 | -0.7 |
| EKAR | Karacoban | 1.23 | 298 | P | Pb | 08 46 19.1 | -0.7 |
| YOVA | Hakkari_Yˆ…kse | 1.28 | 149 | *i* P | Pn | 08 46 19.1 | -1.3 |
| YOVA | Hakkari_Yˆ…kse | 1.28 | 149 | P | Pn | 08 46 19.1 | -1.3 |
| EATA | Eleskirt | 1.40 | 328 | *i* P | Pg | 08 46 24.2 | +1.0 |
| EATA | Eleskirt | 1.40 | 328 | P | Pg | 08 46 24.2 | +1.0 |
| SRTM | Siirt_Merkez | 1.40 | 241 | *i* P | Pg | 08 46 25.5 | +2.4 |
| TASB | TASBURUN-IGDIR | 1.43 | 25 | *e*PN | Pb | 08 46 23.1 | -0.1 |
| TASB | TASBURUN-IGDIR | 1.43 | 25 | *e*Pn | Pb | 08 46 23.1 | -0.1 |
| SIRT | Sirnak | 1.43 | 215 | *e*PN | Pb | 08 46 22.7 | -0.5 |
| SIRT | Sirnak | 1.43 | 215 | *e*Pn | Pb | 08 46 22.7 | -0.5 |
| CUKT | Cukurca | 1.44 | 175 | *e*PN | Pb | 08 46 22.7 | -0.7 |
| CUKT | Cukurca | 1.44 | 175 | *i* P | Pg | 08 46 25.0 | +1.0 |
| CUKT | Cukurca | 1.44 | 175 | *e*Pn | Pb | 08 46 22.7 | -0.7 |
| CUKT | Cukurca | 1.44 | 175 | P | Pg | 08 46 25.0 | +1.0 |
| SIRN | S˜–rnak | 1.45 | 215 | *i* P | Pg | 08 46 25.6 | +1.4 |
| SIRN | S˜–rnak | 1.45 | 215 | P | Pg | 08 46 25.6 | +1.4 |
| VRTB | Varto-Mus | 1.64 | 287 | *e*PN | Pn | 08 46 25.5 | +0.2 |
| VRTB | Varto-Mus | 1.64 | 287 | *e*Pn | Pn | 08 46 25.5 | +0.2 |
| DIGO | Kars | 1.73 | 358 | *i* P | Pg | 08 46 29.2 | -0.3 |
| DIGO | Kars | 1.73 | 358 | P | Pg | 08 46 29.2 | -0.3 |
| BNGL | BINGOL | 1.82 | 279 | *i* P | Pg | 08 46 32.2 | +0.8 |
| BTMN | Batman | 1.90 | 246 | *i* P | Pg | 08 46 32.4 | -0.4 |
| BTMN | Batman | 1.90 | 246 | P | Pg | 08 46 32.4 | -0.4 |
| EAK | Akyaka | 2.00 | 3 | *i* P | Pg | 08 46 35.7 | +1.0 |
| ERZM | Erzurum | 2.03 | 307 | *i* P | Pg | 08 46 35.3 | -0.1 |
| ERZM | Erzurum | 2.03 | 307 | P | Pg | 08 46 35.3 | -0.1 |
| SENK | Senkaya-Erzuru | 2.06 | 336 | *e*PN | Pn | 08 46 32.2 | +1.0 |
| SENK | Senkaya-Erzuru | 2.06 | 336 | *e*Pn | Pn | 08 46 32.2 | +1.0 |
| BNGB | Bingˆ¶l | 2.19 | 279 | *e*PN | Pn | 08 46 33.7 | +0.7 |
| BINT | Bingol | 2.33 | 276 | *e*Pn | Pn | 08 46 33.7 | -1.2 |
| HANI | Diyarbakir_Han | 2.42 | 265 | *i* P | Pb | 08 46 38.8 | -1.2 |
| HANI | Diyarbakir_Han | 2.42 | 265 | P | Pb | 08 46 38.8 | -1.2 |
| MAZI | Mazidag | 2.68 | 244 | *e*PN | Pn | 08 46 40.0 | +0.3 |
| MAZI | Mazidag | 2.68 | 244 | *e*Pn | Pn | 08 46 40.0 | +0.3 |

---

*DSN **09** 08:46:24.9±1.5, 27.°86N×51.°96E, h15km, ML4.6/6, Error ellipse: s-maj=31.1km s-min=8.6km az=11.0*
*THR **09** 08:46:32.0±0.3, 26.°92N×53.°27E, h15km±4km, ML3.9*
*ISCJB **09** 08:46:36.9±0.3, 27.°26N±0.°03×52.°95E±0.°04, h10km, mb4.2/25, MS2.7/1, Error ellipse: s-maj=5.2km s-min=2.9km az=144.3*
*NEIC **09** 08:46:36.6±0.0, 27.°27N×52.°93E, h17km, mb4.4/9, ML3.9(THR), MN3.9(TEH), After TEH.*
*TEH **09** 08:46:36.6, 27.°27N×52.°93E, h17km, ML3.9*
*CSEM **09** 08:46:39.3±0.1, 27.°29N×52.°98E, h15km, mb4.3/9, Error ellipse: s-maj=4.8km s-min=2.7km az=55.0*
*OMAN **09** 08:46:40.2±1.0, 27.°12N×52.°87E, h17km, Error ellipse: s-maj=10.8km s-min=9.3km az=31.0*
*IDC **09** 08:46:41.9±3.3, 27.°22N×53.°06E, h38km±29km, mb3.9/18, mb1 4.0/21, mb1mx3.8/47, mbtmp4.1/21, ML3.6/2, MS2.6/2, Ms1 2.6/2, ms1mx2.4/48, Error ellipse: s-maj=21.1km s-min=15.5km az=26.0*
**ISC 09 08:46:38.2**±0.5**, 27.°22N**±0.°04×**52.°98E**±0.°04**, h10**km**, n206,** σ**1.§19**/234**, mb4.2**/25**, Southern Iran**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GHIR | Ghir-Karzin | 1.06 | 0 | *e*Pg | Pg | 08 46 57.6 | -1.0 |
| GHIR | | | | *e*Sg | Sn | 08 47 16.2 | +2.1 |
| GHIR | | | | AML | AML | 08 47 23.0 | |
| | comp=E,2µm,0.6s | | | | | | |
| GHIR | Ghir-Karzin | 1.06 | 0 | *e*Pg | Pg | 08 46 57.6 | -1.0 |
| ISRV | Sarvestan | 2.15 | 3 | *e*Pn | Pn | 08 47 14.3 | -0.2 |
| ISRV | | | | *e*Sg | Sg | 08 47 47.7 | +0.2 |
| ISRV | | | | *e*AMB | AMB | 08 48 08.1 | |
| | comp=Z,14µm,0.6s | | | | | | |
| ISRV | Sarvestan | 2.15 | 3 | *e*Pn | Pn | 08 47 14.3 | -0.2 |
| ISRV | | | | Sg | Sg | 08 47 47.6 | +0.1 |
| ISRV | Sarvestan | 2.15 | 3 | Pn | Pn | 08 47 14.3 | -0.2 |
| ISRV | | | | Sg | Sg | 08 47 47.6 | +0.1 |
| AHBU | AHRAM | 2.21 | 318 | *e*Pn | Pn | 08 47 15.5 | +0.6 |
| IPAR | Pars | 2.61 | 1 | *e*Pn | Pn | 08 47 20.7 | 0.0 |
| IPAR | | | | *e*AMB | AMB | 08 48 11.5 | |
| | comp=Z,3µm,0.4s | | | | | | |
| IPAR | Pars | 2.61 | 1 | *e*Pn | Pn | 08 47 20.7 | 0.0 |
| IPAR | Pars | 2.61 | 1 | Pn | Pn | 08 47 20.6 | -0.1 |
| BNDS | Bandar-Abbas | 2.85 | 86 | *e*Pn | Pn | 08 47 16.1 | -7.8 |
| BNDS | | | | *e*Sg | Sn | 08 47 54.5 | -3.8 |
| BNDS | | | | AML | AML | 08 48 17.7 | |
| | comp=N,459nm,0.6s | | | | | | |
| IBND | Bandar-abas | 3.18 | 85 | *e*Pn | Pn | 08 47 28.3 | +0.1 |
| IBND | | | | *e*Sg | Sg | 08 48 22.5 | +2.2 |
| IBND | | | | *e*AMB | AMB | 08 48 50.5 | |
| | comp=Z,14µm,0.4s | | | | | | |
| IBND | Bandar-abas | 3.18 | 85 | *e*Pn | Pn | 08 47 28.3 | +0.1 |
| IBND | | | | *e*Sg | Sg | 08 48 22.5 | +2.2 |
| IBND | Bandar-abas | 3.18 | 85 | Pn | Pn | 08 47 28.2 | +0.1 |
| BANOM | Banah | 3.25 | 113 | P | Pn | 08 47 30.6 | +1.3 |
| BANOM | | | | S | Sg | 08 48 21.3 | -1.1 |
| BANOM | Banah | 3.25 | 113 | P | Pn | 08 47 30.5 | +1.3 |
| | SNR=9.0 | | | | | | |
| BANOM | | | | S | Sn | 08 48 10.3 | +2.4 |
| BANOM | Banah | 3.25 | 113 | pPn | Pn | 08 47 30.5 | +1.3 |
| | SNR=9.0 | | | | | | |
| BANOM | | | | Sn | Sn | 08 48 10.3 | +2.4 |
| BANOM | Banah | 3.25 | 113 | P | Pn | 08 47 30.5 | +1.3 |
| | SNR=9.0 | | | | | | |
| BANOM | | | | S | Sn | 08 48 10.3 | +2.4 |
| NAZ | Nazwa, Dubai | 3.28 | 132 | *i* P | Pn | 08 47 31.8 | +2.1 |
| | SNR=35 | | | | | | |
| NAZ | Nazwa, Dubai | 3.28 | 132 | P | Pn | 08 47 31.8 | +2.1 |
| | SNR=35 | | | | | | |
| NAZ | | | | Sn | Sn | 08 48 11.8 | +3.0 |
| NAZ | Nazwa, Dubai | 3.28 | 132 | pPn | Pn | 08 47 32.0 | +2.3 |
| | SNR=35 | | | | | | |
| NAZ | | | | Sn | Sn | 08 48 11.8 | +3.0 |
| NAZ | Nazwa, Dubai | 3.28 | 132 | P | Pn | 08 47 32.0 | +2.3 |
| | SNR=35 | | | | | | |
| NAZ | | | | S | Sn | 08 48 11.8 | +3.0 |
| FAQ | Al Faqa, Dubai | 3.41 | 136 | *i* P | Pn | 08 47 32.9 | +1.5 |
| | SNR=16 | | | | | | |
| FAQ | Al Faqa, Dubai | 3.41 | 136 | P | Pn | 08 47 32.9 | +1.5 |
| | SNR=16 | | | | | | |
| FAQ | Al Faqa, Dubai | 3.41 | 136 | pPn | Pn | 08 47 34.0 | +2.5 |
| | SNR=16 | | | | | | |
| FAQ | Al Faqa, Dubai | 3.41 | 136 | P | Pn | 08 47 34.0 | +2.5 |
| | SNR=16 | | | | | | |
| UOSS | Minazif | 3.68 | 127 | P | Pn | 08 47 36.1 | +0.9 |
| | SNR=13 | | | | | | |
| UOSS | | | | Sn | Sn | 08 48 20.7 | +2.0 |
| UOSS | Minazif | 3.68 | 127 | *e*Pn | Pn | 08 47 36.1 | +0.9 |
| UOSS | | | | *e*Sn | Sn | 08 48 21.4 | +2.6 |
| UOSS | Minazif | 3.68 | 127 | pPn | Pn | 08 47 36.1 | +0.9 |
| | SNR=13 | | | | | | |
| UOSS | | | | Sn | Sn | 08 48 20.7 | +2.0 |
| UOSS | Minazif | 3.68 | 127 | P | Pn | 08 47 36.1 | +0.9 |
| | SNR=13 | | | | | | |
| UOSS | | | | S | Sn | 08 48 20.7 | +2.0 |
| HATD | Hatta, Dubai | 3.71 | 129 | *i* P | Pn | 08 47 36.9 | +1.3 |
| | SNR=13 | | | | | | |
| HATD | Hatta, Dubai | 3.71 | 129 | P | Pn | 08 47 36.9 | +1.3 |
| | SNR=13 | | | | | | |
| HATD | | | | S | Sn | 08 48 20.3 | +0.9 |
| HATD | Hatta, Dubai | 3.71 | 129 | pPn | Pn | 08 47 37.2 | +1.6 |
| | SNR=9.2 | | | | | | |
| HATD | | | | Sn | Sn | 08 48 20.3 | +0.9 |
| HATD | Hatta, Dubai | 3.71 | 129 | P | Pn | 08 47 37.2 | +1.6 |
| | SNR=9.2 | | | | | | |
| HATD | | | | S | Sn | 08 48 20.3 | +0.9 |
| ASHO | Ashiyiah | 3.75 | 132 | *i* P | Pn | 08 47 37.8 | +1.6 |
| | SNR=19 | | | | | | |
| ASHO | Ashiyiah | 3.75 | 132 | P | Pn | 08 47 37.8 | +1.6 |
| | SNR=11 | | | | | | |
| ASHO | Ashiyiah | 3.75 | 132 | pPn | Pn | 08 47 37.8 | +1.6 |
| | SNR=19 | | | | | | |
| ASHO | | | | pPn | Pn | 08 47 37.8 | +1.6 |
| | SNR=11 | | | | | | |
| ASHO | Ashiyiah | 3.75 | 132 | P | Pn | 08 47 37.8 | +1.6 |
| | SNR=19 | | | | | | |
| ASHO | | | | P | Pn | 08 47 37.8 | +1.6 |
| | SNR=11 | | | | | | |
| IRAM | Ramesheh | 4.60 | 354 | *e*Pn | Pn | 08 47 47.6 | -0.4 |
| IRAM | | | | *e*AMB | AMB | 08 48 17.1 | |
| | comp=Z,524nm,0.4s | | | | | | |
| IRAM | Ramesheh | 4.60 | 354 | *e*Pn | Pn | 08 47 47.6 | -0.4 |
| IRAM | Ramesheh | 4.60 | 354 | Pn | Pn | 08 47 47.5 | -0.4 |
| ISAD | Sadrabad | 4.71 | 7 | *e*Pn | Pn | 08 47 51.2 | +1.6 |
| ISAD | | | | *e*AMB | AMB | 08 47 52.1 | |
| | comp=Z,1µm,0.2s | | | | | | |
| ISAD | Sadrabad | 4.71 | 7 | Pn | Pn | 08 47 51.1 | +1.5 |
| ISAD | Sadrabad | 4.71 | 7 | Pn | Pn | 08 47 51.1 | +1.5 |
| IBAF | Bafgh | 4.90 | 27 | *e*Pn | Pn | 08 47 52.5 | +0.3 |
| IBAF | | | | *e*AMB | AMB | 08 47 53.2 | |
| | comp=Z,1µm,0.3s | | | | | | |
| IBAF | | | | *e*AMB | AMB | 08 47 54.4 | |
| | comp=N,828nm,0.2s | | | | | | |
| IBAF | Bafgh | 4.90 | 27 | Pn | Pn | 08 47 52.4 | +0.3 |
| IBAF | Bafgh | 4.90 | 27 | Pn | Pn | 08 47 52.4 | +0.3 |
| ARQ | Araqi | 5.03 | 140 | P | Pn | 08 47 56.0 | +2.3 |
| | SNR=14 | | | | | | |
| ARQ | Araqi | 5.03 | 140 | pPn | Pn | 08 47 56.0 | +2.3 |
| | SNR=14 | | | | | | |
| ARQ | Araqi | 5.03 | 140 | P | Pn | 08 47 56.0 | +2.3 |
| | SNR=14 | | | | | | |
| ICHK | Chekchek | 5.16 | 14 | *e*Pn | Pn | 08 47 56.1 | +0.4 |
| ICHK | | | | *e*AMB | AMB | 08 48 02.4 | |
| | comp=Z,2µm,0.3s | | | | | | |
| ICHK | Chekchek | 5.16 | 14 | Pn | Pn | 08 47 56.0 | +0.4 |
| ICHK | Chekchek | 5.16 | 14 | Pn | Pn | 08 47 56.0 | +0.4 |
| NASN | Na'in | 5.56 | 359 | *e*Pn | Pn | 08 48 01.1 | -0.2 |
| NASN | Na'in | 5.56 | 359 | *e*Pn | Pn | 08 48 01.1 | -0.2 |
| IZEF | Zefreh | 5.68 | 354 | *e*Pn | Pn | 08 48 03.1 | +0.1 |
| IZEF | | | | *e*AMB | AMB | 08 48 32.1 | |
| | comp=Z,380nm,0.4s | | | | | | |
| IZEF | Zefreh | 5.68 | 354 | Pn | Pn | 08 48 03.0 | +0.1 |
| IZEF | Zefreh | 5.68 | 354 | Pn | Pn | 08 48 03.0 | +0.1 |
| IPIR | Pirpir | 5.74 | 342 | *e*Pn | Pn | 08 48 03.9 | +0.2 |
| IPIR | | | | *e*AMB | AMB | 08 49 15.9 | |
| | comp=Z,312nm,0.3s | | | | | | |
| IPIR | Pirpir | 5.74 | 342 | *e*Pn | Pn | 08 48 03.9 | +0.2 |
| IPIR | Pirpir | 5.74 | 342 | Pn | Pn | 08 48 03.8 | +0.1 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| BSY | Bisya | 5.88 | 138 | pPn | Pn | 08 48 07.2 | +1.8 |
| | SNR=35 | | | | | | |
| BSY | | | | Sn | Sn | 08 49 10.4 | -2.5 |
| BSY | Bisya | 5.88 | 138 | P | Pn | 08 48 07.2 | +1.8 |
| | SNR=35 | | | | | | |
| BSY | | | | S | Sn | 08 49 10.4 | -2.5 |
| BSYO | Bisya | 5.91 | 138 | P | Pn | 08 48 07.2 | +1.3 |
| | SNR=35 | | | | | | |
| SMDO | Samad | 6.19 | 131 | P | Pn | 08 48 11.1 | +1.4 |
| | SNR=12 | | | | | | |
| SMDO | Samad | 6.19 | 131 | pPn | Pn | 08 48 11.1 | +1.4 |
| | SNR=12 | | | | | | |
| SMDO | Samad | 6.19 | 131 | P | Pn | 08 48 11.1 | +1.4 |
| | SNR=12 | | | | | | |
| IKLH | Kolahrood | 6.20 | 349 | *e*AMB | AMB | 08 48 41.4 | |
| | comp=Z,459nm,0.4s | | | | | | |
| IKLH | | | | *e*Pn | Pn | 08 48 09.7 | -0.2 |
| WSAR | Wadi Sarin | 6.48 | 127 | Pn | Pn | 08 48 14.2 | +0.6 |
| | comp=Z,3.5nm,0.3s,baz=311,slow=13,SNR=29 | | | | | | |
| WSAR | | | | Sn | Sn | 08 49 25.5 | -2.1 |
| | comp=Z,1.7nm,0.3s,baz=247,slow=20,SNR=4.8 | | | | | | |
| WSAR | Wadi Sarin | 6.48 | 127 | *e*Pn | Pn | 08 48 14.2 | +0.6 |
| WSAR | Wadi Sarin | 6.48 | 127 | P | Pn | 08 48 14.5 | +0.9 |
| | SNR=6.9 | | | | | | |
| WSAR | Wadi Sarin | 6.48 | 127 | *e*Pn | Pn | 08 48 14.2 | +0.6 |
| WSAR | | | | *e*Sn | Sn | 08 49 25.5 | -2.1 |
| WSAR | Wadi Sarin | 6.48 | 127 | pPn | Pn | 08 48 14.5 | +0.9 |
| | SNR=6.9 | | | | | | |
| WSAR | | | | Sn | Sn | 08 49 26.1 | -1.5 |
| WSAR | Wadi Sarin | 6.48 | 127 | P | Pn | 08 48 14.5 | +0.9 |
| | SNR=6.9 | | | | | | |
| WSAR | | | | S | Sn | 08 49 26.1 | -1.5 |
| JMDO | Jabal Madar | 6.71 | 135 | P | Pn | 08 48 18.1 | +1.3 |
| | SNR=7.2 | | | | | | |
| JMDO | Jabal Madar | 6.71 | 135 | pPn | Pn | 08 48 18.1 | +1.3 |
| | SNR=7.2 | | | | | | |
| JMDO | Jabal Madar | 6.71 | 135 | P | Pn | 08 48 18.1 | +1.3 |
| | SNR=7.2 | | | | | | |
| RAYN | Ar Rayn | 7.70 | 243 | *e*Pn | Pn | 08 48 31.8 | +1.4 |
| RAYN | Ar Rayn | 7.70 | 243 | *e*Pn | Pn | 08 48 31.8 | +1.4 |
| SHRT | Shahrakht | 8.99 | 43 | *e*Pn | Pn | 08 48 44.7 | -3.4 |
| SHRO | Shahrood | 9.11 | 16 | *e*Pn | Pn | 08 48 49.0 | -1.0 |
| SHRO | Shahrood | 9.11 | 16 | *e*P | Pn | 08 48 48.9 | -1.0 |
| SHAO | Shalim | 9.48 | 165 | P | Pn | 08 48 55.4 | +0.6 |
| | SNR=8.5 | | | | | | |
| SHAO | Shalim | 9.48 | 165 | Pn | Pn | 08 48 55.4 | +0.6 |
| | SNR=8.5 | | | | | | |
| SHAO | | | | Sn | Sn | 08 50 40.0 | -1.5 |
| SHAO | Shalim | 9.48 | 165 | P | Pn | 08 48 55.4 | +0.6 |
| | SNR=8.5 | | | | | | |
| SHAO | | | | S | Sn | 08 50 40.0 | -1.5 |
| GEYT | Alibeck | 11.52 | 21 | Pn | Pn | 08 49 23.3 | +0.6 |
| | baz=198,slow=9.3,SNR=9.0 | | | | | | |
| GEYT | | | | LR | LR | 08 53 51.5 | |
| | comp=Z,13nm,20.6s,baz=355,slow=37 | | | | | | |
| KBL | Kabul | 15.59 | 58 | *e*Pn | Pn | 08 50 20.0 | +1.7 |
| KBL | Kabul | 15.59 | 58 | *e*Pn | Pn | 08 50 20.0 | +1.7 |
| KBZ | Khabaz | 18.38 | 336 | P | P | 08 50 53.8 | +0.8 |
| | comp=Z,0.1nm,0.3s,baz=146,slow=11,SNR=4.6 | | | | | | |
| KBZ | Khabaz | 18.38 | 336 | *e*P | P | 08 50 53.8 | +0.8 |
| KBZ | Khabaz | 18.38 | 336 | *e*P | P | 08 50 53.8 | +0.8 |
| BR101 | Keskin Array S | 20.34 | 313 | *e*P | P | 08 51 15.7 | +1.0 |
| BR101 | Keskin Array S | 20.34 | 313 | *e*P | P | 08 51 15.7 | +1.0 |
| BR131 | Keskin Array S | 20.34 | 313 | *e*P | Pn | 08 51 16.4 | -0.4 |
| BR131 | Keskin Array S | 20.34 | 313 | *e*P | Pn | 08 51 16.4 | -0.3 |
| BRTR | Keskin Array B | 20.34 | 313 | P | P | 08 51 15.7 | +1.0 |
| | comp=Z,1.6nm,0.7s,baz=131,slow=12,SNR=8.6 | | | | | | |
| BRTR | | | | LR | LR | 09 00 44.8 | |
| | comp=Z,34nm,20.9s,baz=61,slow=41 | | | | | | |
| BRTR | Keskin Array B | 20.34 | 313 | P | P | 08 51 15.7 | +1.0 |
| BRTR | Keskin Array B | 20.34 | 313 | P | P | 08 51 15.7 | +1.0 |
| ILGA | Ilgaz | 21.02 | 316 | *e*P | P | 08 51 21.8 | -0.4 |
| ILGA | Ilgaz | 21.02 | 316 | *e*P | P | 08 51 21.8 | -0.4 |
| AAK | Ala-Archa | 23.31 | 43 | *e*P | P | 08 51 47.5 | +1.1 |
| | comp=Z,4.4nm,0.7s | | | | | | |
| AAK | Ala-Archa | 23.31 | 43 | *e*P | P | 08 51 47.5 | +1.1 |
| | comp=Z,4.4nm,0.7s | | | | | | |
| AKTO | Aktyubinsk | 23.50 | 8 | P | P | 08 51 48.3 | +0.2 |
| | comp=Z,2.4nm,0.5s,baz=194,slow=11,SNR=9.5 | | | | | | |
| AKTO | Aktyubinsk | 23.50 | 8 | P | P | 08 51 48.3 | +0.2 |
| AKTO | Aktyubinsk | 23.50 | 8 | P | P | 08 51 48.3 | +0.2 |
| BVAR | Borovoye Array | 28.85 | 22 | P | P | 08 52 36.4 | -0.3 |
| | comp=Z,4.2nm,0.8s,baz=210,slow=14,SNR=14 | | | | | | |
| BVAR | Borovoye Array | 28.85 | 22 | P | P | 08 52 36.4 | -0.3 |
| BVAR | Borovoye Array | 28.85 | 22 | P | P | 08 52 36.4 | -0.3 |
| AKASG | Malin Array Be | 29.60 | 329 | P | P | 08 52 42.6 | -0.7 |
| | comp=Z,1.6nm,0.6s,baz=130,slow=7.8,SNR=9.3 | | | | | | |
| AKASG | Malin Array Be | 29.60 | 329 | P | P | 08 52 42.6 | -0.7 |
| AKASG | Malin Array Be | 29.60 | 329 | P | P | 08 52 42.6 | -0.7 |
| AKBB | Malin Array Si | 29.60 | 329 | *e*P | P | 08 52 43.5 | +0.2 |
| | comp=Z,10nm,1.3s | | | | | | |
| AKBB | Malin Array Si | 29.60 | 329 | *e*P | P | 08 52 43.5 | +0.2 |
| | comp=Z,10nm,1.3s | | | | | | |
| MK01 | Makanchi Array | 30.21 | 42 | *e*P | P | 08 52 48.8 | -0.1 |
| MK01 | Makanchi Array | 30.21 | 42 | *e*P | P | 08 52 48.8 | -0.1 |
| MK31 | Makanchi Array | 30.22 | 42 | *e*P | P | 08 52 48.7 | -0.2 |
| MK31 | Makanchi Array | 30.22 | 42 | *e*P | P | 08 52 48.7 | -0.2 |
| MK32 | Makanchi Array | 30.22 | 42 | *e*P | P | 08 52 48.6 | -0.3 |
| MK32 | Makanchi Array | 30.22 | 42 | *e*P | P | 08 52 48.6 | -0.3 |
| MKAR | Makanchi Array | 30.22 | 42 | P | P | 08 52 48.6 | -0.3 |
| | comp=Z,1.7nm,0.8s,baz=219,slow=7.5,SNR=5.9 | | | | | | |
| MKAR | Makanchi Array | 30.22 | 42 | P | P | 08 52 48.6 | -0.3 |
| MKAR | Makanchi Array | 30.22 | 42 | P | P | 08 52 48.6 | -0.3 |
| OJC | Ojcow | 34.16 | 321 | *e*P | P | 08 53 24.5 | +1.1 |
| | comp=Z,9.3nm,1.1s | | | | | | |
| OJC | Ojcow | 34.16 | 321 | *e*P | P | 08 53 24.5 | +1.1 |
| | comp=Z,9.3nm,1.1s | | | | | | |
| ZAA0 | Zalesovo Array | 35.49 | 32 | *e*P | P | 08 53 34.2 | -0.7 |
| | comp=Z,5.0nm,1.0s | | | | | | |
| ZAA0 | Zalesovo Array | 35.49 | 32 | *e*P | P | 08 53 34.1 | -0.7 |
| | comp=Z,5.0nm,1.0s | | | | | | |
| ZALV | Zalesovo Beam | 35.49 | 32 | P | P | 08 53 34.0 | -0.8 |
| | comp=Z,4.2nm,0.8s,baz=243,slow=8.9,SNR=17 | | | | | | |
| ZALV | Zalesovo Beam | 35.49 | 32 | *e*P | P | 08 53 34.1 | -0.8 |
| ZALV | Zalesovo Beam | 35.49 | 32 | *e*P | P | 08 53 34.1 | -0.8 |
| ZAA1 | Zalesovo Array | 35.50 | 32 | *e*P | P | 08 53 34.0 | -0.8 |
| ZAA1 | Zalesovo Array | 35.50 | 32 | *e*P | P | 08 53 34.0 | -0.8 |
| FIA0 | FINESS Array S | 38.68 | 340 | *e*P | P | 08 54 02.1 | +0.3 |
| FIA0 | FINESS Array S | 38.68 | 340 | *e*P | P | 08 54 02.1 | +0.3 |
| FIA1 | FINESS Array S | 38.68 | 340 | *e*P | P | 08 54 02.1 | +0.3 |
| FIA1 | FINESS Array S | 38.68 | 340 | *e*P | P | 08 54 02.1 | +0.3 |
| FINES | FINESS Array B | 38.68 | 340 | P | P | 08 54 02.1 | +0.3 |
| | comp=Z,2.7nm,0.6s,baz=142,slow=7.5,SNR=11 | | | | | | |
| FINES | FINESS Array B | 38.68 | 340 | P | P | 08 54 02.1 | +0.3 |
| FINES | FINESS Array B | 38.68 | 340 | P | P | 08 54 02.1 | +0.3 |
| ARA0 | ARCESS Array S | 45.27 | 347 | *e*P | P | 08 54 55.6 | +0.1 |
| ARA0 | ARCESS Array S | 45.27 | 347 | *e*P | P | 08 54 55.6 | +0.1 |
| ARCES | ARCESS Array B | 45.27 | 347 | P | P | 08 54 55.6 | +0.1 |
| | comp=Z,1.9nm,0.7s,baz=146,slow=8.3,SNR=5.2 | | | | | | |
| ARCES | ARCESS Array B | 45.27 | 347 | *e*P | P | 08 54 55.6 | +0.1 |
| ARCES | ARCESS Array B | 45.27 | 347 | *e*P | P | 08 54 55.6 | +0.1 |
| SONA0 | Songino Array | 46.07 | 49 | *e*P | P | 08 55 02.1 | -0.2 |
| SONA0 | Songino Array | 46.07 | 49 | *e*P | P | 08 55 02.1 | -0.2 |
| SONM | Songino Array | 46.07 | 49 | P | P | 08 55 02.1 | -0.2 |
| | comp=Z,0.7nm,0.7s,baz=262,slow=8.2,SNR=5.6 | | | | | | |
| SONM | Songino Array | 46.07 | 49 | P | P | 08 55 02.1 | -0.2 |
| SONM | Songino Array | 46.07 | 49 | P | P | 08 55 02.1 | -0.2 |
| ES19 | SONSECA Array | 48.32 | 300 | *e*P | P | 08 55 18.8 | -1.2 |
| ES19 | SONSECA Array | 48.32 | 300 | *e*P | P | 08 55 18.8 | -1.2 |
| ESDC | Sonseca Array | 48.38 | 300 | P | P | 08 55 20.6 | +0.2 |
| | comp=Z,0.3nm,0.4s,baz=60,slow=7.3,SNR=4.5 | | | | | | |
| ESDC | Sonseca Array | 48.38 | 300 | *e*P | P | 08 55 20.6 | +0.2 |
| ESDC | Sonseca Array | 48.38 | 300 | *e*P | P | 08 55 20.6 | +0.2 |
| TORD | Torodi Ar. Bea | 49.80 | 264 | P | P | 08 55 31.6 | +0.1 |
| | comp=Z,0.8nm,0.7s,baz=52,slow=7.3,SNR=6.1 | | | | | | |
| TORD | Torodi Ar. Bea | 49.80 | 264 | P | P | 08 55 31.6 | +0.1 |
| TORD | Torodi Ar. Bea | 49.80 | 264 | P | P | 08 55 31.6 | +0.1 |
| TOA1 | Torodi Ar. Sit | 49.80 | 264 | *e*P | P | 08 55 31.6 | +0.1 |
| TOA1 | Torodi Ar. Sit | 49.80 | 264 | *e*P | P | 08 55 31.6 | +0.1 |
| KS15 | Wonju Array Si | 62.61 | 60 | *e*P | P | 08 57 01.0 | -1.8 |
| KS15 | Wonju Array Si | 62.61 | 60 | *e*P | P | 08 57 01.0 | -1.8 |
| KSAR | Wonju Array Be | 62.61 | 60 | P | P | 08 57 01.0 | -1.8 |
| KSAR | Wonju Array Be | 62.61 | 60 | P | P | 08 57 01.0 | -1.8 |
| KSRS | Korea Array | 62.64 | 60 | P | P | 08 57 01.0 | -2.0 |
| | comp=Z,2.6nm,0.8s,baz=280,slow=6.4,SNR=8.2 | | | | | | |
| SEY | Seymchan | 70.24 | 29 | P | P | 08 57 51.0 | -0.2 |
| | comp=Z,4.7nm,0.7s,baz=277,slow=6.3,SNR=10.0 | | | | | | |
| SEY | Seymchan | 70.24 | 29 | *e*P | P | 08 57 51.0 | -0.2 |
| SEY | Seymchan | 70.24 | 29 | *e*P | P | 08 57 51.0 | -0.2 |
| INK | Inuvik | 84.64 | 2 | P | P | 08 59 11.0 | -0.6 |
| | comp=Z,1.0nm,0.8s,baz=321,slow=6.6,SNR=3.0 | | | | | | |
| INK | Inuvik | 84.64 | 2 | *e*P | P | 08 59 11.0 | -0.6 |
| | comp=Z,4.1nm,1.4s | | | | | | |
| INK | Inuvik | 84.64 | 2 | *e*P | P | 08 59 11.0 | -0.6 |
| | comp=Z,4.1nm,1.4s | | | | | | |
| IMAR | Indian Mountai | 84.86 | 11 | *e*P | P | 08 59 12.8 | 0.0 |
| IMAR | Indian Mountai | 84.86 | 11 | *e*P | P | 08 59 12.8 | 0.0 |
| MLY | Manley | 86.22 | 10 | *e*P | P | 08 59 20.1 | +0.4 |
| | comp=Z,4.3nm,1.3s | | | | | | |
| MLY | Manley | 86.22 | 10 | *e*P | P | 08 59 20.1 | +0.4 |
| | comp=Z,4.3nm,1.3s | | | | | | |
| MDM | Murphy Dome | 86.65 | 9 | *e*P | P | 08 59 21.6 | -0.2 |
| | comp=Z,4.9nm,1.2s | | | | | | |
| MDM | Murphy Dome | 86.65 | 9 | *e*P | P | 08 59 21.6 | -0.2 |
| | comp=Z,4.9nm,1.2s | | | | | | |
| IL1 | Eielson Array | 87.01 | 8 | *e*P | P | 08 59 22.8 | -0.7 |
| IL1 | Eielson Array | 87.01 | 8 | *e*P | P | 08 59 22.8 | -0.7 |
| ILAR | Eielson Array | 87.01 | 8 | P | P | 08 59 22.4 | -1.1 |
| | comp=Z,0.6nm,0.7s,baz=318,slow=4.1,SNR=8.5 | | | | | | |
| ILAR | Eielson Array | 87.01 | 8 | P | P | 08 59 22.4 | -1.1 |
| ILAR | Eielson Array | 87.01 | 8 | P | P | 08 59 22.4 | -1.1 |
| ILB | Eielson Array | 87.01 | 8 | *e*P | P | 08 59 22.4 | -1.1 |
| ILB | Eielson Array | 87.01 | 8 | *e*P | P | 08 59 22.4 | -1.1 |
| BPAW | Bear Paw Mtn. | 87.05 | 10 | *e*P | P | 08 59 24.3 | +0.6 |
| BPAW | Bear Paw Mtn. | 87.05 | 10 | *e*P | P | 08 59 24.3 | +0.6 |
| TTA | Tatalina | 87.23 | 13 | *e*P | P | 08 59 25.5 | +0.8 |
| TTA | Tatalina | 87.23 | 13 | *e*P | P | 08 59 25.5 | +0.8 |
| YKA | Yellowknife Ar | 90.04 | 354 | P | P | 08 59 37.8 | -0.1 |
| | comp=Z,1.1nm,0.7s,baz=8.3,slow=5.0,SNR=4.8 | | | | | | |
| YKA | Yellowknife Ar | 90.04 | 354 | P | P | 08 59 37.8 | -0.1 |
| YKA | Yellowknife Ar | 90.04 | 354 | P | P | 08 59 37.8 | -0.1 |
| YKB5 | Yellowknife Ar | 90.04 | 354 | *e*P | P | 08 59 37.8 | -0.1 |
| YKB5 | Yellowknife Ar | 90.04 | 354 | *e*P | P | 08 59 37.8 | -0.1 |
| WRA | Warramunga Arr | 91.63 | 111 | P | P | 08 59 45.2 | -0.8 |
| | comp=Z,0.6nm,0.6s,baz=313,slow=4.2,SNR=8.9 | | | | | | |
| WRA | Warramunga Arr | 91.63 | 111 | P | P | 08 59 45.2 | -0.8 |
| WRA | Warramunga Arr | 91.63 | 111 | P | P | 08 59 45.2 | -0.8 |
| WR1 | Warramunga Arr | 91.63 | 111 | *e*P | P | 08 59 45.2 | -0.8 |
| WR1 | Warramunga Arr | 91.63 | 111 | *e*P | P | 08 59 45.2 | -0.8 |
| WRAB | Tennant Creek | 91.64 | 111 | *e*P | P | 08 59 45.8 | -0.2 |
| | comp=Z,0.4nm,0.5s | | | | | | |
| WRAB | Tennant Creek | 91.64 | 111 | *e*P | P | 08 59 45.8 | -0.2 |
| | comp=Z,0.5nm,0.5s | | | | | | |
| ASAR | Alice Springs | 93.03 | 115 | P | P | 08 59 51.5 | -0.9 |
| | comp=Z,0.7nm,0.7s,baz=308,slow=4.7,SNR=12 | | | | | | |
| ASAR | Alice Springs | 93.03 | 115 | P | P | 08 59 51.5 | -0.9 |
| ASAR | Alice Springs | 93.03 | 115 | P | P | 08 59 51.5 | -0.9 |
| AS31 | Alice Springs | 93.03 | 115 | *e*P | P | 08 59 51.5 | -0.9 |
| | comp=Z,0.5nm,1.0s | | | | | | |
| AS31 | Alice Springs | 93.03 | 115 | *e*P | P | 08 59 51.5 | -0.9 |
| | comp=Z,0.5nm,1.0s | | | | | | |
| AS01 | Alice Springs | 93.07 | 115 | *e*P | P | 08 59 52.2 | -0.4 |
| AS01 | Alice Springs | 93.07 | 115 | *e*P | P | 08 59 52.2 | -0.4 |
| UNM | Universidad Na | 126.43 | 327 | *e*PKIKP | PKPdf | 09 05 41.3 | -1.2 |
| UNM | Universidad Na | 126.43 | 327 | *e*PKPdf | PKPdf | 09 05 41.3 | -1.2 |

**IDC 09 08:47:07.3**±3.9**, 13°.02S**×**98°.52W, h0**km**, mb4.0**/3**, mb1 4.3**/3**, mb1mx3.7**/28**, mbtmp4.0**/3**, MS3.4**/3**, Ms1 3.4**/3**, ms1mx3.0**/21**, Error ellipse: s-maj=100.9km s-min=54.3km az=12.0, Southwest of Galapagos Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ATAH | Atahualpa | 20.65 | 76 | LR | LR | 08 57 50.0 | |
| | comp=Z,63nm,20.5s,baz=320,slow=31 | | | | | | |
| NNA | Nana | 21.19 | 90 | LR | LR | 08 58 02.2 | |
| | comp=Z,49nm,19.5s,baz=283,slow=31 | | | | | | |
| PCRV | Puerto La Cruz | 40.78 | 57 | P | P | 08 54 50.7 | 0.0 |
| | 8.8nm,0.9s,baz=219,slow=6.5,SNR=3.3 | | | | | | |
| TXAR | Lajitas Array | 42.39 | 353 | P | P | 08 55 04.0 | +0.2 |
| | 0.7nm,0.9s,baz=171,slow=10,SNR=7.7 | | | | | | |
| SCHQ | Schefferville | 72.71 | 19 | LR | LR | 09 27 31.0 | |
| | comp=Z,66nm,19.4s,baz=282,slow=33 | | | | | | |
| ILAR | Eielson Array | 85.68 | 341 | P | P | 08 59 47.0 | -0.8 |
| | 0.9nm,0.9s,baz=140,slow=4.2,SNR=7.7 | | | | | | |
| MKAR | Makanchi Array | 146.32 | 359 | PKPbc | PKPbc | 09 06 50.2 | 0.0 |
| | 1.2nm,0.9s,baz=8.7,slow=1.9,SNR=3.6 | | | | | | |

**WEL 09 09:02:41.2**±0.2**, 37°.59S**×**179°.94E, h33**km**, ML3.8**/27**, 2C-4D, Error ellipse: s-maj=1.8km s-min=1.4km az=90.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WMGZ | Waiomatatini S | 1.23 | 259 | PN | Pn | 09 03 01.5 | -0.5 |
| WMGZ | | | | *e*SN | Sn | 09 03 17.1 | -0.4 |
| WMGZ | | | | AML | AML | 09 03 27.3 | |
| MXZ | Matakaoa Point | 1.30 | 271 | ⇑PN | Pn | 09 03 02.5 | -0.5 |
| MXZ | | | | *e*SN | Sn | 09 03 18.2 | -1.0 |
| MXZ | | | | AML | AML | 09 03 19.5 | |
| PUZ | Puketiti | 1.42 | 250 | ⇓PN | Pn | 09 03 03.8 | -0.9 |
| PUZ | | | | *e*SN | Sn | 09 03 21.0 | -1.2 |
| PUZ | | | | AML | AML | 09 03 22.8 | |
| PKGZ | Pakihiroa | 1.50 | 258 | PN | Pn | 09 03 05.1 | -0.8 |
| PKGZ | | | | AML | AML | 09 03 25.5 | |
| PKGZ | | | | AML | AML | 09 03 25.7 | |
| CNGZ | Carnagh Statio | 1.63 | 236 | PN | Pn | 09 03 07.3 | -0.3 |
| CNGZ | | | | AML | AML | 09 03 33.6 | |
| TWGZ | Tauwhareparae | 1.66 | 249 | ⇑PN | Pn | 09 03 07.4 | -0.6 |
| TWGZ | | | | AML | AML | 09 03 29.2 | |
| TWGZ | | | | AML | AML | 09 03 29.7 | |
| HAZ | Te Kaha | 1.72 | 264 | PN | Pn | 09 03 08.4 | -0.4 |
| HAZ | | | | AML | AML | 09 03 32.6 | |
| HAZ | | | | AML | AML | 09 03 32.6 | |
| HAZ | | | | AML | AML | 09 03 34.0 | |
| RUGZ | Raukumara Rang | 1.83 | 258 | PN | Pn | 09 03 09.8 | -0.7 |
| TKGZ | Te Karaka | 1.85 | 242 | PN | Pn | 09 03 10.1 | -0.6 |
| TKGZ | | | | AML | AML | 09 03 33.9 | |
| TKGZ | | | | AML | AML | 09 03 35.6 | |
| MWZ | Matawai | 2.04 | 248 | ⇓PN | Pn | 09 03 12.2 | -1.1 |
| MWZ | | | | AML | AML | 09 03 37.6 | |
| MWZ | | | | AML | AML | 09 03 38.3 | |
| RIGZ | Rimuhau | 2.04 | 236 | PN | Pn | 09 03 12.5 | -0.8 |
| RIGZ | | | | AML | AML | 09 03 38.9 | |
| RIGZ | | | | AML | AML | 09 03 39.4 | |
| PRGZ | Paritu Road | 2.09 | 230 | PN | Pn | 09 03 13.2 | -0.8 |
| PRGZ | | | | AML | AML | 09 03 42.7 | |
| PRGZ | | | | AML | AML | 09 03 43.3 | |
| RAGZ | Rawiri | 2.19 | 245 | PN | Pn | 09 03 14.3 | -1.0 |
| RAGZ | | | | AML | AML | 09 03 46.6 | |
| RAGZ | | | | AML | AML | 09 03 47.5 | |
| MHGZ | Mahia Peninsul | 2.23 | 225 | PN | Pn | 09 03 14.8 | -1.1 |
| MHGZ | | | | AML | AML | 09 03 44.6 | |
| KNZ | Kokohu | 2.28 | 231 | *e*PN | Pn | 09 03 15.2 | -1.4 |
| URZ | Urewera | 2.33 | 253 | PN | Pn | 09 03 17.1 | -0.2 |
| URZ | | | | *e*SN | Sn | 09 03 42.9 | -1.9 |
| URZ | | | | AML | AML | 09 03 45.2 | |
| SNGZ | Shannon Statio | 2.37 | 239 | PN | Pn | 09 03 17.2 | -0.6 |
| SNGZ | | | | AML | AML | 09 03 46.4 | |
| SNGZ | | | | AML | AML | 09 03 48.7 | |
| WHHZ | Waihua | 2.59 | 234 | PN | Pn | 09 03 20.0 | -0.8 |
| WHHZ | | | | AML | AML | 09 03 52.2 | |
| WHHZ | | | | AML | AML | 09 03 52.5 | |
| MUGZ | Murupara | 2.65 | 250 | PN | Pn | 09 03 21.0 | -0.7 |
| OPRZ | Ohinepanea | 2.69 | 264 | PN | Pn | 09 03 21.7 | -0.5 |
| MTHZ | Maungataniwha | 2.75 | 242 | PN | Pn | 09 03 22.2 | -0.7 |
| TARZ | Mount Tarawera | 2.79 | 256 | PN | Pn | 09 03 23.2 | -0.4 |
| TARZ | | | | AML | AML | 09 03 55.6 | |
| TARZ | | | | AML | AML | 09 03 59.7 | |
| ARHZ | Aropaoanui | 2.85 | 233 | PN | Pn | 09 03 23.5 | -0.9 |
| ARHZ | | | | AML | AML | 09 03 59.1 | |
| ARHZ | | | | AML | AML | 09 04 00.2 | |
| NMHZ | Naumai | 2.88 | 238 | PN | Pn | 09 03 24.2 | -0.8 |
| NMHZ | | | | AML | AML | 09 04 00.4 | |
| NMHZ | | | | AML | AML | 09 04 01.3 | |
| PRRZ | Plateau Road | 2.94 | 251 | PN | Pn | 09 03 24.9 | -0.7 |
| ALRZ | Allen Road | 3.00 | 250 | PN | Pn | 09 03 25.8 | -0.6 |
| MRHZ | Matea Rd | 3.04 | 245 | PN | Pn | 09 03 26.2 | -0.8 |
| MRHZ | | | | AML | AML | 09 04 02.6 | |
| MRHZ | | | | AML | AML | 09 04 03.6 | |
| CKHZ | Cape Kidnapper | 3.04 | 226 | PN | Pn | 09 03 25.4 | -1.6 |
| BKZ | Black Stump Fm | 3.13 | 239 | ⇓PN | Pn | 09 03 27.4 | -0.9 |
| BKZ | | | | AML | AML | 09 04 04.2 | |
| MCHZ | McNeill Hill | 3.14 | 233 | PN | Pn | 09 03 27.2 | -1.2 |
| MCHZ | | | | AML | AML | 09 04 07.4 | |
| KAHZ | Kahuranaki | 3.25 | 227 | PN | Pn | 09 03 28.4 | -1.6 |
| KWHZ | Kaweka Forest | 3.31 | 235 | PN | Pn | 09 03 29.4 | -1.4 |
| KWHZ | | | | AML | AML | 09 04 08.4 | |
| KWHZ | | | | AML | AML | 09 04 09.3 | |
| PXZ | Pawanui | 3.42 | 224 | PN | Pn | 09 03 29.7 | -2.5 |
| PXZ | | | | *e*SN | Sn | 09 04 08.2 | -3.4 |
| KRHZ | Kereru | 3.46 | 233 | PN | Pn | 09 03 31.1 | -1.8 |
| KRHZ | | | | AML | AML | 09 04 11.7 | |
| KRHZ | | | | AML | AML | 09 04 12.1 | |
| KUZ | Kuaotunu | 3.47 | 283 | *e*PN | Pn | 09 03 32.1 | -0.9 |
| BHHZ | Black Hill Sta | 3.58 | 237 | PN | Pn | 09 03 33.2 | -1.3 |
| WPHZ | Waipukurau | 3.68 | 227 | PN | Pn | 09 03 33.6 | -2.3 |
| KRVZ | Karewarewa | 3.70 | 245 | PN | Pn | 09 03 35.2 | -0.9 |
| OTVZ | Oturere | 3.71 | 244 | PN | Pn | 09 03 35.3 | -1.0 |
| PRHZ | Porangahau | 3.71 | 223 | PN | Pn | 09 03 33.4 | -2.8 |
| PNHZ | Pukenui | 3.73 | 230 | PN | Pn | 09 03 34.3 | -2.2 |
| MOVZ | Moawhango | 3.75 | 240 | *e*PN | Pn | 09 03 35.5 | -1.3 |
| NGZ | Ngauruhoe | 3.76 | 244 | *e*PN | Pn | 09 03 35.8 | -1.2 |
| WNVZ | Wahianoa | 3.82 | 242 | PN | Pn | 09 03 36.5 | -1.4 |
| ANWZ | Angora Road | 3.93 | 222 | PN | Pn | 09 03 36.5 | -2.8 |
| DVHZ | Dannevirke | 3.99 | 226 | PN | Pn | 09 03 37.3 | -2.8 |
| DVHZ | | | | AML | AML | 09 04 22.6 | |
| DVHZ | | | | AML | AML | 09 04 23.0 | |
| BFZ | Birch Farm | 4.21 | 222 | PN | Pn | 09 03 39.2 | -3.9 |
| BFZ | | | | SN | Sn | 09 04 26.3 | -4.9 |
| PRWZ | Pori Road | 4.28 | 225 | *e*PN | Pn | 09 03 41.3 | -2.7 |
| POWZ | Post Office Ro | 4.29 | 228 | PN | Pn | 09 03 41.8 | -2.3 |
| WAZ | Wanganui | 4.44 | 239 | *e*PN | Pn | 09 03 45.5 | -0.7 |
| TIWZ | Tintock | 4.47 | 223 | PN | Pn | 09 03 43.6 | -3.1 |
| MRZ | Mangatainoka R | 4.57 | 227 | PN | Pn | 09 03 45.0 | -3.0 |
| MRZ | | | | SN | Sn | 09 04 34.8 | -5.1 |
| MRZ | | | | AML | AML | 09 04 36.3 | |
| TMWZ | Te Maipa | 4.71 | 221 | PN | Pn | 09 03 45.6 | -4.3 |
| TMWZ | | | | AML | AML | 09 04 40.7 | |
| HOWZ | Holdsworth Sta | 4.76 | 225 | ⇓PN | Pn | 09 03 47.3 | -3.4 |
| OGWZ | Otaki Gorge | 4.91 | 228 | PN | Pn | 09 03 49.3 | -3.3 |
| KIW | Kapiti Island | 5.09 | 229 | PN | Pn | 09 03 51.7 | -3.4 |
| PAWZ | Paruwai Farm | 5.15 | 221 | PN | Pn | 09 03 51.2 | -4.7 |
| CAW | Cannon Point | 5.16 | 226 | *e*PN | Pn | 09 03 52.0 | -4.0 |
| PLWZ | Palliser | 5.37 | 221 | PN | Pn | 09 03 54.1 | -5.0 |
| DUWZ | D'Urville Isla | 5.67 | 234 | PN | Pn | 09 03 59.3 | -3.8 |
| TCW | Tory Channel | 5.68 | 229 | PN | Pn | 09 03 59.2 | -4.0 |
| NNZ | Nelson | 6.24 | 232 | PN | Pn | 09 04 06.9 | -4.0 |
| QRZ | Quartz Range | 6.60 | 238 | PN | Pn | 09 04 11.9 | -4.0 |
| CTZ | Chatham Island | 6.67 | 158 | PN | Pn | 09 04 16.5 | -0.4 |
| CTZ | | | | *e*SN | Sn | 09 05 21.9 | -10 |
| THZ | Tophouse | 6.84 | 230 | *e*PN | Pn | 09 04 14.6 | -4.7 |
| KHZ | Kahutara | 6.88 | 224 | *e*PN | Pn | 09 04 15.3 | -4.4 |
| MQZ | McQueen's Vall | 8.24 | 220 | *e*PN | Pn | 09 04 32.3 | -6.1 |
| MQZ | | | | *e*SN | Sn | 09 05 58.1 | -12 |

**IDC 09 09:04:13.9**±3.7**, 28°.56S**×**178°.07W, h0**km**, mb3.5**/2**, mb1 3.8**/2**, mb1mx3.5**/26**, mbtmp3.5**/2**, Error ellipse: s-maj=83.7km s-min=17.8km az=58.0, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RAO | Raoul Island | 0.70 | 169 | Pn | Pn | 09 04 31.6 | +0.5 |
| | 136nm,0.3s,baz=89,slow=11,SNR=16 | | | | | | |
| RAO | | | | Sn | Sn | 09 04 42.2 | -0.4 |
| | 541nm,0.3s,baz=123,slow=10,SNR=11 | | | | | | |
| ASAR | Alice Springs | 43.18 | 265 | P | P | 09 12 16.1 | -0.7 |
| | 0.3nm,0.6s,baz=102,slow=6.7,SNR=6.0 | | | | | | |
| WRA | Warramunga Arr | 44.00 | 270 | P | P | 09 12 23.8 | +0.4 |
| | 0.5nm,0.3s,baz=110,slow=7.9,SNR=8.4 | | | | | | |
| FINES | FINESS Array B | 143.40 | 341 | PKP | PKPbc | 09 23 47.6 | +0.8 |
| | 3.6nm,0.9s,baz=35,slow=5.1,SNR=4.2 | | | | | | |

*IDC **09** 09:05:14.1±5.8, 28°.10N×87°.71E, h0km, mb3.3/2, mb1 3.8/3, mb1mx3.1/52, mbtmp3.5/3, ML4.4/1, MS3.2/1, Ms1 3.2/1, ms1mx2.4/29, Error ellipse: s-maj=316.6km s-min=115.7km az=38.0*

*DMN **09** 09:06:16.9±0.3, 23°.18N×94°.21E, h247km±26km, Ml4.5/8, Error ellipse: s-maj=57.9km s-min=12.6km az=18.0*

**ISC 09 09:06:18.2**±1.5**, 22°.6N**±0°.4×**93°.7E**±0°.3**, h100**km**, n15, σ1s.37**/21**, Myanmar-India border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CMAR | Chiang Mai Arr | 6.38 | 129 | Pn | Pn | 09 08 35.8 | +46 |
| | 0.5nm,0.3s,baz=309,slow=16,SNR=2.3 | | | | | | |
| ODAN | Odare | 7.17 | 308 | *e*Pn | Pn | 09 08 02.5 | +2.0 |
| ODAN | | | | *e*Sn | Sn | 09 09 20.5 | 0.0 |
| | 40nm,0.3s | | | | | | |
| TAPN | Taplejung | 7.23 | 312 | *e*Pn | Pn | 09 08 02.8 | +1.3 |
| TAPN | | | | *e*Sn | Sn | 09 09 20.8 | -1.5 |
| | 21nm,0.2s | | | | | | |
| RAMN | Ramite | 7.80 | 305 | *e*Pn | Pn | 09 08 11.3 | +2.1 |
| JIRN | Jiri | 8.50 | 308 | *e*Pn | Pn | 09 08 19.9 | +1.1 |
| JIRN | | | | *e*Sn | Sn | 09 09 52.0 | -1.2 |
| | 282nm,0.3s | | | | | | |
| GUN | Gumba | 8.87 | 308 | *e*Pn | Pn | 09 08 24.4 | +0.6 |
| GUN | | | | *e*Sn | Sn | 09 10 00.4 | -1.7 |
| | 32nm,0.4s | | | | | | |
| PKI | Pulchoki | 9.03 | 305 | *e*Pn | Pn | 09 08 27.5 | +1.5 |
| PKI | | | | *e*Sn | Sn | 09 10 05.3 | -0.8 |
| PKIN | Phulchoki | 9.04 | 305 | *e*Pn | Pn | 09 08 27.6 | +1.5 |
| PKIN | | | | *e*Sn | Sn | 09 10 05.6 | -0.7 |
| | 11nm,0.2s | | | | | | |
| KKN | Kakani | 9.24 | 306 | *e*Pn | Pn | 09 08 29.7 | +0.9 |
| KKN | | | | *e*Sn | Sn | 09 10 10.7 | -0.4 |
| | 15nm,0.3s | | | | | | |
| DMN | Daman | 9.28 | 304 | *e*Pn | Pn | 09 08 30.8 | +1.5 |
| GKN | Gorkha | 9.84 | 305 | *e*Sn | Sn | 09 10 24.7 | -0.8 |
| KOLN | Koldanda | 10.53 | 301 | *e*Pn | Pn | 09 08 47.2 | +1.0 |
| KOLN | | | | *e*Sn | Sn | 09 10 40.1 | -2.2 |
| | 19nm,0.5s | | | | | | |
| KSRS | Korea Array | 32.90 | 55 | LR | LR | 09 27 05.6 | |
| | comp=Z,37nm,21.9s,baz=88,slow=38 | | | | | | |
| WRA | Warramunga Arr | 57.95 | 134 | P | P | 09 15 59.7 | -0.7 |
| | 0.2nm,0.5s,baz=322,slow=7.4,SNR=5.2 | | | | | | |
| ASAR | Alice Springs | 60.33 | 137 | P | P | 09 16 16.4 | -0.4 |
| | 0.2nm,0.5s,baz=321,slow=7.3,SNR=2.8 | | | | | | |

*IDC **09** 09:17:20.6±2.3, 5°.80S×145°.77E, h126km±25km, mb3.8/9, mb1 3.9/11, mb1mx3.7/33, mbtmp4.2/11, Error ellipse: s-maj=27.8km s-min=11.9km az=108.0*

*ISCJB **09** 09:17:21.2±0.5, 5°.86S±0°.05×145°.76E±0°.08, h150km, mb3.9/10, Error ellipse: s-maj=11.3km s-min=6.6km az=11.6*

*NEIC **09** 09:17:22.3±1.2, 5°.81S×145°.76E, h143km±14km, mb4.0/4, Error ellipse: s-maj=17.3km s-min=7.5km az=128.0*

**ISC 09 09:17:22.9**±0.6**, 5°.94S**±0°.06×**145°.88E**±0°.10**, h150**km**, n32, σ1s.53**/36**, mb4.0**/10**, Eastern New Guinea region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PMG | Port Moresby | 3.67 | 160 | P | Pn | 09 18 18.6 | -0.2 |
| | 45nm,0.3s,baz=332,slow=6.6,SNR=94 | | | | | | |
| PMG | | | | S | Sn | 09 19 02.8 | +0.6 |
| | 59nm,0.3s,baz=134,slow=20,SNR=22 | | | | | | |
| PMG | Port Moresby | 3.67 | 160 | *e*Pn | Pn | 09 18 18.6 | -0.2 |
| PMG | | | | *e*Sn | Sn | 09 18 57.4 | -4.8 |
| RABL | Rabaul | 6.49 | 75 | *e*Pn | Pn | 09 18 57.6 | +1.3 |
| COEN | Coen | 8.40 | 198 | *e*Pn | Pn | 09 19 23.6 | +2.0 |
| COEN | | | | *e*Sn | Sn | 09 20 53.8 | -1.4 |
| MTN | Manton Dam | 16.08 | 244 | *e*Pn | Pn | 09 20 59.3 | -1.4 |
| | 31nm,0.6s | | | | | | |
| WB2 | Warramunga Arr | 17.87 | 218 | *e*P | P | 09 21 20.9 | +0.1 |
| | 4.9nm,0.6s | | | | | | |
| WR1 | Warramunga Arr | 17.88 | 218 | *e*P | P | 09 21 20.6 | -0.3 |
| | 5.6nm,0.8s | | | | | | |
| WRA | Warramunga Arr | 17.88 | 218 | P | P | 09 21 20.6 | -0.3 |
| | 1.0nm,0.3s,baz=38,slow=12,SNR=33 | | | | | | |
| AS01 | Alice Springs | 21.03 | 212 | *e*P | P | 09 21 56.8 | +1.8 |
| AS31 | Alice Springs | 21.06 | 212 | *e*P | P | 09 21 56.5 | +1.2 |
| | 2.1nm,0.3s | | | | | | |
| ASAR | Alice Springs | 21.06 | 212 | P | P | 09 21 55.9 | +0.6 |
| | 1.9nm,0.6s,baz=40,slow=7.3,SNR=42 | | | | | | |
| ASAR | | | | S | S | 09 25 43.4 | +2.1 |
| | 1.3nm,0.8s,baz=33,slow=24,SNR=6.7 | | | | | | |
| FITZ | Fitzroy Crossi | 23.16 | 237 | P | P | 09 22 14.8 | -1.5 |
| | 12nm,0.6s,baz=55,slow=7.7,SNR=28 | | | | | | |
| STKA | Stephens Creek | 26.11 | 188 | P | P | 09 22 45.5 | +2.6 |
| | 1.5nm,0.5s,baz=23,slow=10,SNR=8.2 | | | | | | |
| STKA | Stephens Creek | 26.11 | 188 | *e*P | P | 09 22 44.9 | +2.0 |
| | 0.8nm,1.1s | | | | | | |
| CMAR | Chiang Mai Arr | 52.25 | 299 | P | P | 09 26 18.9 | -0.2 |
| | 2.4nm,0.7s,baz=131,slow=6.1,SNR=6.4 | | | | | | |
| PETK | Petropavlovsk- | 59.67 | 8 | P | P | 09 27 11.1 | -0.1 |
| | 2.2nm,0.7s,baz=148,slow=6.6,SNR=5.7 | | | | | | |
| PEA1 | Petropavlovsk- | 59.68 | 8 | *e*P | P | 09 27 11.1 | -0.2 |
| SONA0 | Songino Array | 63.82 | 331 | *e*P | P | 09 27 38.9 | -0.4 |
| SONM | Songino Array | 63.82 | 331 | P | P | 09 27 38.9 | -0.4 |
| | 0.5nm,0.7s,baz=143,slow=5.0,SNR=3.0 | | | | | | |
| MK32 | Makanchi Array | 76.75 | 321 | *e*P | P | 09 28 56.9 | -0.9 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| **MKAR** | **Makanchi Array** | **76.75** | **321** | P | **P** | **09 28 56.9** | **-0.9** |
| | 0.8nm,0.5s,baz=97,slow=7.7,SNR=7.9 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **78.38** | **328** | P | **P** | **09 29 04.8** | **-1.8** |
| | 1.2nm,0.5s,baz=108,slow=5.8,SNR=2.7 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **78.38** | **328** | *e*P | **P** | **09 29 04.8** | **-1.8** |
| **ILAR** | **Eielson Array** | **85.87** | **23** | P | **P** | **09 29 44.1** | **-1.3** |
| | 2.5nm,0.6s,baz=250,slow=5.0,SNR=55 | | | | | | |
| **ILB** | **Eielson Array** | **85.87** | **23** | *e*P | **P** | **09 29 44.1** | **-1.3** |
| **TORD** | **Torodi Ar. Bea** | **144.00** | **284** | PKP | **PKPdf** | **09 36 41.0** | **-0.6** |
| | 0.9nm,0.5s,baz=60,slow=3.1,SNR=11 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **144.00** | **284** | *e*PKPdf | **PKPdf** | **09 36 41.0** | **-0.6** |
| **KIC** | **Kosan Boka** | **150.79** | **272** | *e*PKP1 | **PKPbc** | **09 36 59.9** | **+1.2** |
| | 17nm,0.8s | | | | | | |
| **DBIC** | **Dimbokro** | **150.91** | **273** | PKPbc | **PKPbc** | **09 37 00.5** | **+1.6** |
| | 8.1nm,0.7s,baz=82,slow=2.8,SNR=9.4 | | | | | | |
| **DBIC** | **Dimbokro** | **150.91** | **273** | *e*PKPbc | **PKPbc** | **09 37 00.4** | **+1.4** |
| **TIC** | **Toumodi** | **151.07** | **273** | *e*PKP1 | **PKPbc** | **09 37 00.6** | **+1.3** |
| **LIC** | **Lamto** | **151.07** | **272** | *e*PKP1 | **PKPbc** | **09 37 00.5** | **+1.2** |
| | 28nm,0.6s | | | | | | |

**MEX 09 09:17:54.0**±0.5**,15.°82N×93.°59W,h99**km±5km**,MD3.8, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PCIG** | | **0.38** | **107** | *e*P | Pn | 09 18 07.6 | -1.2 |
| PCIG | | | | *e*S | Sn | 09 18 18.2 | -1.7 |
| **CCIG** | **Comitan** | **1.48** | **71** | *e*P | Pn | 09 18 18.7 | -1.3 |
| CCIG | | | | *e*S | Sn | 09 18 38.3 | -1.5 |

**JMA 09 09:39:58.2**±0.1**,38.°50N×142.°29E,h23**km±1km**,M3.6, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JIO** | **Ouri** | **0.74** | **267** | P | Pb | 09 40 12.2 | -0.2 |
| JIO | | | | *e*S | Sb | 09 40 21.6 | -0.5 |
| **OFUJ** | **Ofunato** | **0.76** | **320** | P | Pb | 09 40 12.6 | -0.1 |
| OFUJ | | | | *e*S | Sb | 09 40 22.7 | +0.1 |
| **JMK** | **Ichinoseki** | **0.95** | **299** | P | Pb | 09 40 15.6 | -0.4 |
| JMK | | | | *e*S | Sn | 09 40 28.8 | -0.2 |
| **JOM** | **Ohasama** | **1.24** | **322** | P | Pn | 09 40 20.4 | +0.2 |
| JOM | | | | *e*S | Sb | 09 40 37.0 | +0.4 |
| **JOU** | **Okura** | **1.28** | **264** | P | Pn | 09 40 21.1 | +0.4 |
| JOU | | | | *e*S | Sb | 09 40 38.2 | +0.4 |
| **JMM** | **Marumori** | **1.34** | **242** | P | Pn | 09 40 21.0 | -0.5 |
| JMM | | | | *e*S | Sn | 09 40 38.3 | -0.2 |
| **JYK** | **Kaneyama** | **1.57** | **286** | P | Pn | 09 40 25.4 | +0.8 |
| JYK | | | | *e*S | Sb | 09 40 45.5 | -0.4 |
| **JRG** | **Rokugo** | **1.57** | **305** | P | Pn | 09 40 25.6 | +0.9 |
| **JFK** | **Kawauchi** | **1.59** | **225** | P | Pn | 09 40 23.9 | -1.1 |
| JFK | | | | *e*S | Sn | 09 40 42.8 | -2.1 |

*IDC **09** 09:41:00.5±0.9, 44.°34N×80.°95E, h0km, mb3.4/3, mb1 3.4/9, mb1mx3.3/48, mbtmp3.3/9, ML3.1/5, MS2.7/2, Ms1 2.7/2, ms1mx2.3/36, Error ellipse: s-maj=15.4km s-min=10.7km az=121.0*
*SOME **09** 09:41:01.6, 44.°32N×80.°83E, h0km*
*NNC **09** 09:41:03.6±1.0, 44.°55N×80.°72E, h0km, mb3.7, mpv3.3, Error ellipse: s-maj=13.6km s-min=5.6km az=130.0*
**ISC 09 09:41:01.9**±1.4**,44.°31N**±0.°03×**80.°86E**±0.°04**,h6**km±10km**, n37,**σ**1.s56**/59**,mb3.5**/3**,11C-5D,Kazakhstan-Xinjiang border region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DJR** | **Jarkent** | **0.77** | **272** | *e*P | **Pb** | **09 41 17.5** | **-0.2** |
| | 220nm,0.4s | | | | | | |
| DJR | | | | *e*S | **Sb** | **09 41 28.9** | **+0.5** |
| | 137nm,0.2s | | | | | | |
| **KTMS** | **Ketmen** | **0.94** | **203** | *e*P | **Pb** | **09 41 21.6** | **+0.9** |
| | 90nm,0.3s | | | | | | |
| KTMS | | | | *e*S | **Sn** | **09 41 36.2** | **+0.6** |
| | 89nm,0.4s | | | | | | |
| **KAPS** | **Kapalarasan** | **1.44** | **313** | *e*P | **Pg** | **09 41 30.1** | **+0.5** |
| | 143nm,0.3s | | | | | | |
| KAPS | | | | *e*S | **Sn** | **09 41 50.0** | **+2.2** |
| | 410nm,0.4s | | | | | | |
| **SHLS** | **Shalkode** | **1.54** | **222** | *e*P | **Pn** | **09 41 28.8** | **-1.2** |
| | 125nm,0.2s | | | | | | |
| SHLS | | | | *e*S | **Sn** | **09 41 48.4** | **-1.9** |
| | 518nm,0.6s | | | | | | |
| **UZB** | **Uzynbulak** | **1.77** | **229** | *e*P | **Pg** | **09 41 35.4** | **-0.4** |
| | 113nm,0.2s | | | | | | |
| UZB | | | | *e*S | **Sg** | **09 41 59.6** | **+0.9** |
| | 150nm,0.6s | | | | | | |
| **MNBS** | **Baschi** | **1.78** | **263** | *e*P | **Pg** | **09 41 36.7** | **+0.6** |
| MNBS | | | | *e*S | **Sg** | **09 42 01.9** | **+2.7** |
| **KPKS** | **Kokpek** | **1.78** | **242** | *e*P | **Pg** | **09 41 36.0** | **-0.2** |
| | 302nm,0.2s | | | | | | |
| KPKS | | | | *e*S | **Sg** | **09 42 01.0** | **+1.7** |
| | 563nm,0.6s | | | | | | |
| **TDK** | **Taldyqorghan** | **1.88** | **292** | *e*P | **Pb** | **09 41 36.8** | **+0.2** |
| | 124nm,0.5s | | | | | | |
| TDK | | | | *e*S | **Sg** | **09 42 01.9** | **-0.4** |
| | 243nm,0.6s | | | | | | |
| **KURS** | **Kuram** | **2.11** | **248** | *e*P | **Pb** | **09 41 41.0** | **+0.4** |
| KURS | | | | *e*S | **Sg** | **09 42 09.2** | **-0.5** |
| **SATY** | **Saty** | **2.17** | **236** | *e*P | **Pg** | **09 41 43.4** | **-0.2** |
| | 130nm,0.1s | | | | | | |
| SATY | | | | *e*S | **Sg** | **09 42 13.2** | **+1.4** |
| | 328nm,0.3s | | | | | | |
| **ARXS** | **Arharly** | **2.18** | **268** | *e*P | **Pg** | **09 41 43.1** | **-0.5** |
| | 91nm,0.5s | | | | | | |
| ARXS | | | | *e*S | **Sg** | **09 42 13.0** | **+1.1** |
| **MAKZ** | **Makanchi** | **2.62** | **17** | ⇑Pn | **Pn** | **09 41 45.1** | **+0.4** |
| | 6.9nm,0.6s | | | | | | |
| MAKZ | | | | ⇓Lg | Lg | 09 42 20.1 | |
| | 20nm,0.4s | | | | | | |
| **MK31** | **Makanchi Array** | **2.68** | **22** | ⇑Pn | **Pn** | **09 41 45.8** | **+0.3** |
| | 1.3nm,0.2s,baz=199,slow=13,SNR=298 | | | | | | |
| MK31 | | | | ⇑Lg | Lg | 09 42 21.1 | |
| | 6.4nm,0.3s,baz=194,slow=29,SNR=11 | | | | | | |
| **MKAR** | **Makanchi Array** | **2.68** | **22** | Pn | **Pn** | **09 41 45.7** | **+0.2** |
| | 4.1nm,0.3s,baz=202,slow=14,SNR=201 | | | | | | |
| MKAR | | | | Sn | **Sn** | **09 42 19.8** | **+1.6** |
| | 10nm,0.3s,baz=354,slow=30,SNR=18 | | | | | | |
| MKAR | | | | LR | LR | 09 43 03.4 | |
| | comp=Z,60nm,20.2s,baz=30,slow=47 | | | | | | |
| **CHKK** | **Chushkaly** | **2.82** | **262** | *e*P | **Pb** | **09 41 53.3** | **+0.5** |
| | 52nm,0.7s | | | | | | |
| CHKK | | | | *e*S | **Sg** | **09 42 30.1** | **-2.5** |
| | 134nm,0.7s | | | | | | |
| **KOTS** | **Kotyrbulak** | **2.92** | **250** | *e*P | **Pb** | **09 41 55.7** | **+1.3** |
| KOTS | | | | *e*S | **Sg** | **09 42 34.5** | **-1.2** |
| **MDOK** | **Medeo** | **2.99** | **249** | *e*P | **Pb** | **09 41 57.1** | **+1.5** |
| | 48nm,0.7s | | | | | | |
| MDOK | | | | *e*S | **Sg** | **09 42 36.9** | **-1.1** |
| | 30nm,0.7s | | | | | | |
| **TNSS** | **Tian-Shan** | **3.11** | **247** | *e*P | **Pb** | **09 41 57.7** | **-0.2** |
| | 26nm,0.5s | | | | | | |
| TNSS | | | | *e*S | **Sb** | **09 42 37.9** | **+1.8** |
| | 47nm,0.7s | | | | | | |
| **IZV** | **Izvestkoviy** | **3.33** | **249** | *e*P | **Pb** | **09 42 02.6** | **+1.1** |
| | 16nm,0.6s | | | | | | |
| IZV | | | | *e*S | **Sg** | **09 42 46.5** | **-2.4** |
| | 80nm,0.7s | | | | | | |
| **MTBS** | **Maitube** | **3.42** | **251** | *e*P | **Pb** | **09 42 04.7** | **+1.8** |
| | 26nm,0.2s | | | | | | |
| MTBS | | | | *e*S | **Sg** | **09 42 49.8** | **-1.9** |
| | 58nm,0.3s | | | | | | |
| **KST** | **Kastek** | **3.77** | **252** | *e*P | **Pg** | **09 42 12.5** | **-1.7** |
| | 8.5nm,0.4s | | | | | | |
| KST | | | | *e*S | **Sg** | **09 43 03.3** | **+0.3** |
| | 19nm,0.7s | | | | | | |
| **DGS** | **Degeres** | **3.83** | **256** | *e*P | **Pb** | **09 42 11.1** | **+1.1** |
| | 28nm,0.4s | | | | | | |
| DGS | | | | *e*S | **Sg** | **09 43 01.0** | **-4.0** |
| | 37nm,0.7s | | | | | | |
| **TKM2** | **Tokmak 2** | **4.06** | **252** | ⇑Pn | **Pn** | **09 42 07.4** | **+2.6** |
| | 0.7nm,0.3s | | | | | | |
| TKM2 | | | | ⇑Pg | **Pg** | **09 42 17.1** | **-2.7** |
| | 15nm,0.5s | | | | | | |
| TKM2 | | | | ⇑Lg | Lg | 09 43 14.4 | |
| | 44nm,0.7s | | | | | | |
| **ZSN** | **Zaisan** | **4.20** | **40** | *e*P | **Pb** | **09 42 16.4** | **+0.2** |
| | 5.1nm,0.5s | | | | | | |
| ZSN | | | | *e*S | **Sb** | **09 43 09.7** | **+2.5** |
| | 12nm,0.8s | | | | | | |
| **AAK** | **Ala-Archa** | **4.92** | **252** | Pn | **Pn** | **09 42 19.7** | **+3.2** |
| | 0.3nm,0.3s,baz=106,slow=6.0,SNR=4.5 | | | | | | |
| AAK | | | | Lg | Lg | 09 43 40.4 | |
| | 1.5nm,0.3s,baz=216,slow=19,SNR=13 | | | | | | |
| **AAK** | **Ala-Archa** | **4.92** | **252** | ⇓Pg | **Pb** | **09 42 30.9** | **+2.3** |
| | 6.2nm,0.5s | | | | | | |
| AAK | | | | ⇑Lg | Lg | 09 43 40.6 | |
| | 29nm,0.8s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **6.50** | **347** | Pn | **Pn** | **09 42 37.9** | **-0.1** |
| | 0.2nm,0.3s,baz=168,slow=12,SNR=8.6 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **6.50** | **347** | ⇑Pn | **Pn** | **09 42 37.4** | **-0.6** |
| | 1.8nm,0.5s | | | | | | |
| KURBB | | | | ⇓Sn | **Sn** | **09 43 50.0** | **-2.5** |
| | 7.7nm,0.6s | | | | | | |
| KURBB | | | | ⇑Lg | Lg | 09 44 23.1 | |
| | 19nm,0.6s | | | | | | |
| **KURK** | **Kurchatov** | **6.58** | **348** | ⇑Pn | **Pn** | **09 42 37.4** | **-1.7** |
| | 5.0nm,1.3s | | | | | | |
| KURK | | | | ⇓Sn | **Sn** | **09 43 52.4** | **-1.9** |
| | 4.2nm,0.6s | | | | | | |
| KURK | | | | ⇑Lg | Lg | 09 44 24.1 | |
| | 17nm,0.7s | | | | | | |
| **KK31** | **Karatay Array** | **7.59** | **264** | ⇓Lg | Lg | 09 45 01.4 | |
| | 7.0nm,0.7s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **9.98** | **14** | Pn | **Pn** | **09 43 24.5** | **-1.3** |
| | 1.3nm,0.3s,baz=196,slow=12,SNR=10 | | | | | | |
| ZALV | | | | Lg | Lg | 09 46 16.8 | |
| | baz=198,slow=26,SNR=3.7 | | | | | | |
| **BVAR** | **Borovoye Array** | **11.12** | **325** | Pn | **Pn** | **09 43 40.1** | **-1.2** |
| | 0.3nm,0.3s,baz=142,slow=15,SNR=3.8 | | | | | | |
| BVAR | | | | Lg | Lg | 09 46 53.4 | |
| | 0.1nm,0.3s,baz=126,slow=31,SNR=3.9 | | | | | | |
| **TLY** | **Talaya** | **16.89** | **56** | LR | LR | 09 50 58.1 | |
| | comp=Z,50nm,18.1s,baz=346,slow=36 | | | | | | |
| **SONM** | **Songino Array** | **18.04** | **70** | P | **Pn** | **09 45 13.4** | **+0.3** |
| | baz=278,slow=10,SNR=3.9 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **73.21** | **272** | P | **P** | **09 52 33.8** | **-0.1** |
| | 0.2nm,0.5s,baz=46,slow=5.8,SNR=4.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **80.46** | **130** | P | **P** | **09 53 14.1** | **-0.5** |
| | 0.3nm,1.0s,baz=332,slow=5.0,SNR=2.9 | | | | | | |
| **ASAR** | **Alice Springs** | **83.24** | **132** | P | **P** | **09 53 28.5** | **-0.6** |
| | 0.3nm,0.8s,baz=325,slow=5.5,SNR=5.9 | | | | | | |

*ISK **09** 09:42:17.8, 39.°81N×30.°01E, h14km, ML2.2*
*ISCJB **09** 09:42:18.3±0.6, 39.°84N±0.°04×30.°04E±0.°05, h12km, Error ellipse: s-maj=5.6km s-min=5.0km az=160.4*
*DDA **09** 09:42:18.9, 39.°64N×30.°26E, h7km, Ml2.7*
*CSEM **09** 09:42:18.2±0.2, 39.°84N×30.°06E, h10km, ML2.2, Error ellipse: s-maj=6.1km s-min=5.1km az=120.0*
**ISC 09 09:42:17.9**±0.9**,39.°85N**±0.°03×**30.°06E**±0.°03**,h12**km**,n24,** σ**0.s63**/29**,Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BORA** | **Eskisehir** | **0.30** | **84** | *i* P | **Pg** | **09 42 24.3** | **+0.1** |
| BORA | | | | *i* S | **Sb** | **09 42 29.7** | **-0.6** |
| **BORA** | **Eskisehir** | **0.30** | **84** | P | **Pg** | **09 42 24.3** | **+0.1** |
| BORA | | | | S | **Sb** | **09 42 29.7** | **-0.6** |
| **CAVI** | **Cavuskoy** | **0.39** | **335** | *e*PG | **Pg** | **09 42 25.9** | **+0.2** |
| **CAVI** | **Cavuskoy** | **0.39** | **335** | *e*Pg | **Pg** | **09 42 25.9** | **+0.2** |
| **TVSB** | **Tavsanli** | **0.61** | **230** | *e*PG | **Pg** | **09 42 29.4** | **-0.4** |
| **TVSB** | **Tavsanli** | **0.61** | **230** | *e*Pg | **Pg** | **09 42 29.4** | **-0.4** |
| **GEYV** | **SAKARYA_Geyve** | **0.66** | **16** | *i* P | **Pg** | **09 42 30.6** | **-0.1** |
| **GEYV** | **SAKARYA_Geyve** | **0.66** | **16** | P | **Pg** | **09 42 30.6** | **-0.1** |
| **GULT** | **Gulveren** | **0.68** | **31** | *e*PG | **Pn** | **09 42 32.8** | **-0.6** |
| GULT | | | | *e*SG | **Sn** | **09 42 43.1** | **-1.0** |
| **GULT** | **Gulveren** | **0.68** | **31** | *e*Pg | **Pn** | **09 42 32.8** | **-0.6** |
| **GDZ** | **Gediz** | **0.88** | **211** | *i* P | **Pb** | **09 42 35.7** | **+0.5** |
| **GDZ** | **Gediz** | **0.88** | **211** | P | **Pb** | **09 42 35.7** | **+0.5** |
| **YLV** | **Yalova** | **0.89** | **324** | *e*PG | **Pg** | **09 42 35.4** | **+0.3** |
| YLV | | | | *e*SG | **Sn** | **09 42 48.9** | **-0.3** |
| **YLV** | **Yalova** | **0.89** | **324** | *e*Pg | **Pg** | **09 42 35.4** | **+0.3** |
| YLV | | | | *e*Sg | **Sn** | **09 42 48.9** | **-0.3** |
| **HRT** | **Hereke** | **1.02** | **343** | *e*PG | **Pb** | **09 42 37.8** | **+0.3** |
| **HRT** | **Hereke** | **1.02** | **343** | *e*Pg | **Pb** | **09 42 37.8** | **+0.3** |
| **MDUB** | **Mudurnu** | **1.07** | **54** | *e*PN | **Pn** | **09 42 40.5** | **+1.7** |
| **MDUB** | **Mudurnu** | **1.07** | **54** | *e*Pn | **Pn** | **09 42 40.5** | **+1.7** |
| **ARMT** | **Armutlu** | **1.17** | **308** | *e*PN | **Pn** | **09 42 39.9** | **-0.1** |
| **ARMT** | **Armutlu** | **1.17** | **308** | *e*Pn | **Pn** | **09 42 39.9** | **-0.1** |
| **SVRH** | **Sivrihisar-ESK** | **1.20** | **109** | *e*PN | **Pn** | **09 42 40.3** | **-0.3** |
| **SVRH** | **Sivrihisar-ESK** | **1.20** | **109** | *e*Pn | **Pn** | **09 42 40.3** | **-0.3** |
| **DEMI** | **Demirci** | **1.31** | **233** | *i* P | **Pg** | **09 42 43.5** | **+0.3** |
| **DEMI** | **Demirci** | **1.31** | **233** | P | **Pg** | **09 42 43.5** | **+0.3** |

*NAO **09** 09:57:00.4±1.5, 67.°27N×33.°53E, ML2.5*
*HEL **09** 09:57:01.1±0.5, 67.°62N×34.°06E, h0km, ML2.3, Explosion*
*CSEM **09** 09:57:01.8±0.9, 67.°38N×33.°70E, h2km, ML2.5, Error ellipse: s-maj=16.8km s-min=8.3km az=99.0, Mining explosion.*
**ISC 09 09:56:58.8**±1.9**,67.°50N**±0.°06×**34.°2E**±0.°1**,h0**km**,n35,** σ**1.s55**/47**,Baltic States-Belarus-Northwestern Russia**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **APZ9** | **Apatity** | **0.31** | **283** | Pg | **Pg** | **09 57 06.4** | **+1.7** |
| APZ9 | | | | Lg | Lg | 09 57 09.3 | |
| **APZ9** | **Apatity** | **0.31** | **283** | Pg | **Pg** | **09 57 06.4** | **+1.7** |
| APZ9 | | | | Lg | Lg | 09 57 09.3 | |
| **APZ9** | **Apatity** | **0.31** | **283** | Pg | **Pg** | **09 57 06.4** | **+1.7** |
| | SNR=90 | | | | | | |
| APZ9 | | | | Lg | Lg | 09 57 09.4 | |
| | SNR=90 | | | | | | |
| **APA0** | **Apatity Array** | **0.47** | **283** | Pg | **Pg** | **09 57 08.9** | **+1.1** |
| APA0 | | | | Lg | Lg | 09 57 13.6 | |
| APA0 | | | | Rg | Rg | 09 57 15.9 | |
| **APA0** | **Apatity Array** | **0.47** | **283** | Pg | **Pg** | **09 57 08.9** | **+1.1** |
| APA0 | | | | Lg | Lg | 09 57 13.6 | |
| APA0 | | | | Rg | Rg | 09 57 15.9 | |
| **APA0** | **Apatity Array** | **0.47** | **283** | Pg | **Pg** | **09 57 08.9** | **+1.1** |
| | SNR=90 | | | | | | |
| APA0 | | | | Lg | Lg | 09 57 13.6 | |
| | SNR=26 | | | | | | |
| **VRF** | **Varrio** | **1.77** | **280** | Pg | **Pn** | **09 57 31.4** | **+0.8** |
| VRF | | | | Sg | **Sn** | **09 57 53.0** | **-0.8** |
| **VRF** | **Varrio** | **1.77** | **280** | PG | **Pn** | **09 57 31.5** | **+0.8** |
| VRF | | | | MSG | | 09 57 51.9 | |
| | comp=Z,31nm,0.2s | | | | | | |
| VRF | | | | SG | **Sn** | **09 57 53.0** | **-0.8** |
| **KU6** | **Riekki** | **2.26** | **231** | Pg | **Pb** | **09 57 41.7** | **+1.3** |
| **KU6** | **Riekki** | **2.26** | **231** | PG | **Pb** | **09 57 41.7** | **+1.3** |
| | baz=47 | | | | | | |
| KU6 | | | | MSG | | 09 58 09.0 | |
| | comp=Z,15nm,0.2s | | | | | | |
| KU6 | | | | SG | **Sg** | **09 58 12.4** | **+1.1** |
| **MSF** | **Maaselka** | **2.60** | **234** | Pg | **Pb** | **09 57 48.2** | **+2.1** |
| MSF | | | | Sg | **Sg** | **09 58 21.5** | **-0.6** |
| **MSF** | **Maaselka** | **2.60** | **234** | PG | **Pb** | **09 57 48.2** | **+2.1** |
| MSF | | | | SG | **Sg** | **09 58 21.5** | **-0.6** |
| **SGF** | **Sodankyl** | **2.95** | **272** | Pn | **Pn** | **09 57 48.6** | **+1.8** |
| SGF | | | | Sb | **Sb** | **09 58 27.9** | **-0.8** |
| **SGF** | **Sodankyl** | **2.95** | **272** | PN | **Pn** | **09 57 48.7** | **+1.8** |
| SGF | | | | SB | **Sb** | **09 58 27.9** | **-0.8** |
| **RNF** | **Rovaniemi** | **3.33** | **258** | Pb | **Pb** | **09 57 58.0** | **-0.5** |
| RNF | | | | Sb | **Sb** | **09 58 38.9** | **-0.6** |
| **RNF** | **Rovaniemi** | **3.33** | **258** | PB | **Pb** | **09 57 58.0** | **-0.5** |
| RNF | | | | SB | **Sb** | **09 58 38.9** | **-0.6** |
| **ARA0** | **ARCESS Array S** | **3.79** | **307** | Pn | **Pn** | **09 57 59.9** | **+1.5** |
| | baz=122,slow=16 | | | | | | |
| ARA0 | | | | Sn | **Sn** | **09 58 41.0** | **-2.6** |
| | baz=127,slow=28 | | | | | | |
| ARA0 | | | | Lg | Lg | 09 58 54.7 | |
| | baz=113,slow=37 | | | | | | |
| **ARA0** | **ARCESS Array S** | **3.79** | **307** | Pn | **Pn** | **09 57 59.9** | **+1.5** |
| | baz=122,slow=16 | | | | | | |
| ARA0 | | | | Sn | **Sn** | **09 58 41.0** | **-2.6** |
| | baz=127,slow=28 | | | | | | |
| ARA0 | | | | Lg | Lg | 09 58 54.7 | |
| | baz=113,slow=37 | | | | | | |
| **ARA0** | **ARCESS Array S** | **3.79** | **307** | Pn | **Pn** | **09 57 59.9** | **+1.5** |
| | SNR=50 | | | | | | |
| ARA0 | | | | Sn | **Sn** | **09 58 41.0** | **-2.6** |
| | SNR=50 | | | | | | |
| ARA0 | | | | Lg | Lg | 09 58 54.7 | |
| **HEF** | **Hetta** | **4.07** | **288** | Pn | **Pn** | **09 58 03.8** | **+1.6** |
| HEF | | | | Sn | **Sn** | **09 58 50.4** | **-0.1** |
| **HEF** | **Hetta** | **4.07** | **288** | PN | **Pn** | **09 58 03.8** | **+1.6** |
| HEF | | | | SN | **Sn** | **09 58 50.5** | **-0.1** |
| **OUL** | **Oulu** | **4.13** | **238** | Pb | **Pb** | **09 58 10.6** | **-1.7** |
| **OUL** | **Oulu** | **4.13** | **238** | PB | **Pb** | **09 58 10.6** | **-1.7** |
| **TOF** | **Tornio** | **4.16** | **255** | Pg | **Pb** | **09 58 15.6** | **+2.9** |
| **TOF** | **Tornio** | **4.16** | **255** | PG | **Pb** | **09 58 15.6** | **+2.9** |
| **KALU** | **Kalix** | **4.61** | **254** | Pg | **Pg** | **09 58 24.9** | **-2.1** |
| **KALU** | **Kalix** | **4.61** | **254** | PG | **Pg** | **09 58 24.9** | **-2.1** |
| **LANU** | **Lannavaara** | **4.67** | **282** | Pn | **Pn** | **09 58 10.9** | **+0.5** |
| **LANU** | **Lannavaara** | **4.67** | **282** | PN | **Pn** | **09 58 11.0** | **+0.5** |
| **ERTU** | **Ertsjaerv** | **4.80** | **264** | Sn | **Sn** | **09 59 08.5** | **+0.1** |
| **ERTU** | **Ertsjaerv** | **4.80** | **264** | SN | **Sn** | **09 59 08.5** | **+0.1** |
| **FIA0** | **FINESS Array S** | **7.01** | **214** | Sn | Sn | 09 59 50.9 | -12 |
| **FIA0** | **FINESS Array S** | **7.01** | **214** | Sn | Sn | 09 59 50.9 | -12 |
| **SPA0** | **Spitsbergen Ar** | **11.85** | **342** | Pn | **Pn** | **09 59 47.6** | **-1.1** |
| | baz=135,slow=16 | | | | | | |
| **SPA0** | **Spitsbergen Ar** | **11.85** | **342** | Pn | **Pn** | **09 59 47.6** | **-1.1** |
| | baz=135,slow=16 | | | | | | |

**DJA 09 10:00:31.7**±0.8**,4.°S**±6°×**12.°8E**±°**,h10**km**,M3.7**/6**,MLv3.7**/6**, Banda Sea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AAI** | **Ambon** | **0.58** | **354** | P | Pb | 10 00 43.6 | -0.4 |
| **MSAI** | **Masohi** | **1.14** | **36** | P | Pb | 10 00 52.9 | -0.5 |
| MSAI | | | | S | Sg | 10 01 08.7 | +0.4 |
| **BNDI** | **Bandanaira** | **1.66** | **99** | P | Pn | 10 01 00.7 | -0.2 |
| **SANI** | **Sanana** | **3.16** | **314** | P | Pn | 10 01 21.6 | 0.0 |
| **LBMI** | **Labuha** | **3.69** | **348** | P | Pn | 10 01 30.9 | +2.1 |
| **FAKI** | **Fak Fak** | **4.20** | **72** | P | Pn | 10 01 36.2 | +0.3 |

*BKK **09** 10:02:32.1±0.7, 14°N±5°×12°1E±°, h10km, M3.9/20, mB4.6/11, mb4.4/20, Mw(mB)3.8/11*
*IDC **09** 10:02:34.7±0.5, 13.°72N×120.°78E, h106km±4km, mb4.1/34, mb1 4.2/34, mb1mx4.1/56, mbtmp4.4/34, MS3.1/7, Ms1 3.2/7, ms1mx2.9/38, Error ellipse: s-maj=14.3km s-min=8.1km az=66.0*
*ISCJB **09** 10:02:34.9±0.2, 13.°74N±0.°02×120.°73E±0.°04, h116km±2km, mb4.5/59, Error ellipse: s-maj=5.9km s-min=4.0km az=165.9*
*NEIC **09** 10:02:35.9±0.5, 13.°74N×120.°78E, h116km±4km, mb4.7/21, Error ellipse: s-maj=6.3km s-min=3.9km az=80.0*
*NEIC Felt [II PIVS] at Lubang and Puerto Galera.*
*MAN **09** 10:02:35, 13.°73N×120.°51E, h83km, mb4.9, ML3.9, MS4.0*
*MAN INTENSITY II - PUERTO GALERA AND LUBANG ORIENTAL MINDORO.*
*BJI **09** 10:02:35.4, 13.°80N×120.°94E, h129km, mb4.7/52, mB4.9/32*
**ISC 09 10:02:35.9**±0.5**,13.°75N**±0.°03×**120.°60E**±0.°04**,h110**km±4km**, n152,**σ**1.s75**/176**,mb4.6**/59**,5C-4D,Mindoro**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LUBP** | **Lubang** | **0.35** | **268** | *e*P | **Pn** | **10 02 49.9** | **-2.1** |
| LUBP | | | | *e*S | **Sn** | **10 02 59.6** | **-4.3** |
| **PGP** | **Puerto Galera** | **0.42** | **125** | ⇑*e*P | **Pn** | **10 02 50.6** | **-1.7** |
| PGP | | | | *i* S | **Sn** | **10 03 02.0** | **-2.7** |
| **TGY** | **Tagaytay City** | **0.48** | **42** | P | **Pn** | **10 02 51.9** | **-0.9** |
| | 4μm,0.3s,baz=244,slow=1.6,SNR=190 | | | | | | |
| TGY | | | | S | **Sn** | **10 03 04.3** | **-1.1** |
| | 12μm,0.3s,baz=198,slow=20,SNR=67 | | | | | | |
| **TGY** | **Tagaytay City** | **0.48** | **42** | ⇑*i*P | **Pn** | **10 02 51.9** | **-0.9** |
| TGY | | | | *i* S | **Sn** | **10 03 04.7** | **-0.8** |
| **LQP** | **Lukban** | **0.98** | **68** | ⇑*e*P | **Pn** | **10 02 56.5** | **-0.7** |
| **BOAC** | **Boac** | **1.24** | **103** | *e*P | **Pn** | **10 02 59.2** | **-0.5** |
| BOAC | | | | *e*S | **Sn** | **10 03 17.4** | **-0.4** |
| **SJMP** | **San Jose** | **1.37** | **158** | *e*P | **Pn** | **10 03 00.4** | **-0.9** |
| SJMP | | | | *e*S | **Sn** | **10 03 19.1** | **-1.4** |
| **BUSP** | **Coron** | **1.78** | **193** | *e*P | **Pn** | **10 03 04.2** | **-2.0** |
| BUSP | | | | *e*S | **Sn** | **10 03 25.8** | **-3.4** |
| **GQP** | **Guinayangan** | **1.80** | **85** | ⇓*e*P | **Pn** | **10 03 07.6** | **+1.2** |
| **PCPH** | **Palayan** | **1.87** | **15** | ⇑*e*P | **Pn** | **10 03 06.1** | **-1.2** |
| PCPH | | | | *e*S | **Sn** | **10 03 29.3** | **-2.0** |
| **OTRP** | **Odiongan** | **1.95** | **135** | *e*P | **Pn** | **10 03 07.9** | **-0.4** |
| OTRP | | | | *e*S | **Sn** | **10 03 31.5** | **-1.6** |
| **AUQP** | **San Andres** | **2.06** | **102** | *e*P | **Pn** | **10 03 12.1** | **+2.4** |
| **SCZP** | **Santa Cruz** | **2.13** | **342** | *e*P | **Pn** | **10 03 08.7** | **-1.9** |
| SCZP | | | | *e*S | **Sn** | **10 03 33.0** | **-4.1** |
| **BOLP** | **Bolinao** | **2.70** | **346** | *e*P | **Pn** | **10 03 17.1** | **-0.9** |
| **ENPP** | **El Nido** | **2.77** | **205** | *e*P | **Pn** | **10 03 17.4** | **-1.5** |
| **RCP** | **Roxas** | **3.02** | **136** | ⇑*e*P | **Pn** | **10 03 22.9** | **+0.7** |
| **JAP** | **San Jose, Anti** | **3.26** | **156** | ⇓*e*P | **Pn** | **10 03 25.4** | **0.0** |
| **CAUP** | **Cauayan** | **3.39** | **20** | *e*P | **Pn** | **10 03 28.4** | **+1.2** |
| **PVCP** | **Virac** | **3.46** | **92** | *e*P | **Pn** | **10 03 29.1** | **+1.1** |
| **GUIM** | **Jordan** | **3.66** | **148** | *e*P | **Pn** | **10 03 32.2** | **+1.5** |
| **APYP** | **Conner** | **4.14** | **8** | *e*P | **Pn** | **10 03 37.7** | **+0.5** |
| **CNP** | **Catarman** | **4.14** | **107** | *e*P | **Pn** | **10 03 39.5** | **+2.3** |
| **PPR** | **Puerto Princes** | **4.35** | **205** | ⇓*i*P | **Pn** | **10 03 40.0** | **0.0** |
| PPR | | | | *i* S | **Sn** | **10 04 26.7** | **-3.1** |
| **SNPH** | **Sibulan** | **5.08** | **149** | ⇓*e*P | **Pn** | **10 03 52.5** | **+2.6** |
| **PAGZ** | **Pagadian** | **6.46** | **155** | *e*P | **Pn** | **10 04 11.1** | **+2.4** |
| **MYLDM** | **Lahad Datu** | **8.76** | **194** | *e*Pn | **Pn** | **10 04 41.1** | **+1.3** |
| **KKM** | **Kota Kinabalu** | **8.79** | **210** | *e*Pn | **Pn** | **10 04 41.8** | **+1.5** |
| **QIZ** | **Qiongzhong** | **11.58** | **298** | P | **Pn** | **10 05 22.5** | **+4.6** |
| QIZ | | | | sP | sP | 10 05 59.5 | |
| QIZ | | | | S | **Sn** | **10 07 31.7** | **+6.3** |
| QIZ | | | | pmax | pmax | | |
| | comp=Z,70nm,1.8s | | | | | | |
| **SBUM** | **Sibu** | **13.95** | **217** | *e*Pn | **Pn** | **10 05 50.6** | **+1.6** |
| **KSM** | **Kuching** | **15.89** | **221** | *e*Pn | **P** | **10 06 14.7** | **-0.2** |
| | 14nm,0.8s | | | | | | |
| **WHN** | **Wuhan** | **17.68** | **342** | P | **Pn** | **10 06 36.3** | **+1.1** |
| WHN | | | | pmax | pmax | | |
| | comp=Z,58nm,1.2s | | | | | | |
| **CHBT** | **CHBT** | **17.82** | **269** | P | **Pn** | **10 06 41.5** | **+4.5** |
| | 172nm,0.7s,58μm | | | | | | |
| **CHAI** | **Chaiyaphum** | **18.12** | **279** | P | **Pn** | **10 06 42.1** | **+1.4** |
| | 25nm,0.7s,203nm | | | | | | |
| **GYA** | **Guiyang** | **18.18** | **316** | *e*P | **Pn** | **10 06 44.8** | **+3.4** |
| GYA | | | | PP | **pP** | **10 07 05.6** | **+5.1** |
| GYA | | | | sP | sP | 10 07 23.4 | +8.9 |
| GYA | | | | S | **S** | **10 10 02.0** | **-0.9** |
| GYA | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.7s | | | | | | |
| **NJ2** | **Nanjing** | **18.29** | **355** | *e*P | **Pn** | **10 06 42.7** | **+0.2** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,14nm,0.7s | | | | | | |
| **NAYO** | **Nakonayok** | **18.72** | **274** | P | **Pn** | **10 06 49.2** | **+1.5** |
| | 23nm,1.2s | | | | | | |
| **PBKT** | **Sadao Pong** | **19.16** | **281** | P | **Pn** | **10 06 59.2** | **+6.3** |
| **ENH** | **Enshi** | **19.39** | **330** | *e*P | **P** | **10 06 53.9** | **+0.7** |
| | 66nm,1.4s | | | | | | |
| **NANT** | **Nan** | **19.75** | **287** | P | **Pn** | **10 07 00.6** | **+0.8** |
| | 9.9nm,0.7s,280nm | | | | | | |
| **PHRA** | **Phrae** | **20.13** | **286** | P | Pn | 10 07 03.8 | -0.4 |
| | 19nm,2.7s,39μm | | | | | | |
| **KMI** | **Kunming** | **20.27** | **307** | P | Pn | 10 07 06.0 | 0.0 |
| KMI | | | | pP | sP | 10 07 33.0 | -4.6 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,22nm,1.4s | | | | | | |
| **SUKH** | **Sukhothai** | **20.53** | **283** | P | Pn | 10 07 08.1 | -0.8 |
| | 17nm,0.8s,137nm | | | | | | |
| **UTHA** | **Uthaitani** | **20.55** | **278** | P | Pn | 10 07 10.7 | +1.6 |
| | 3.9nm,0.6s | | | | | | |
| **CM01** | **Chiang Mai Arr** | **21.30** | **285** | *e*P | **P** | **10 07 15.7** | **+1.7** |
| **CMAR** | **Chiang Mai Arr** | **21.32** | **286** | P | **P** | **10 07 15.8** | **+1.6** |
| | 5.3nm,0.8s,baz=98,slow=7.6,SNR=27 | | | | | | |
| CMAR | | | | LR | LR | 10 15 25.5 | |
| | comp=Z,37nm,19.2s,baz=115,slow=36 | | | | | | |
| **CMMT** | **Chiang Mai** | **21.38** | **287** | P | **P** | **10 07 17.7** | **+2.9** |
| | 10nm,1.1s | | | | | | |
| **CHTO** | **Chiang Mai** | **21.39** | **287** | P | **P** | **10 07 17.8** | **+2.9** |
| | 123nm,0.8s | | | | | | |
| **CHTO** | **Chiang Mai** | **21.39** | **287** | *e*P | **P** | **10 07 16.2** | **+1.3** |
| | 9.7nm,1.0s | | | | | | |
| **JNU** | **Nakatsue** | **21.44** | **24** | P | **P** | **10 07 12.2** | **-3.2** |
| | 3.7nm,0.9s,baz=90,slow=20,SNR=2.4 | | | | | | |
| **XAN** | **Xi'an** | **22.82** | **334** | P | **P** | **10 07 28.8** | **-0.8** |
| XAN | | | | pP | pP | 10 07 54.6 | +3.5 |
| XAN | | | | sP | sP | 10 08 09.8 | +5.0 |
| XAN | | | | pmax | pmax | | |
| | comp=Z,27nm,1.2s | | | | | | |
| XAN | | | | pmax | pmax | | |
| | comp=Z,280nm,5.0s | | | | | | |
| **CD2** | **Chengdu** | **23.07** | **321** | P | **P** | **10 07 33.1** | **+1.1** |
| CD2 | | | | pP | sP | 10 08 02.7 | -4.8 |
| CD2 | | | | sP | pP | 10 08 14.4 | +21 |
| CD2 | | | | S | **S** | **10 11 31.9** | **-2.7** |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,110nm,0.9s | | | | | | |
| **PSI** | **Prapat** | **24.02** | **245** | LR | LR | 10 17 06.7 | |
| | comp=Z,38nm,18.9s,baz=50,slow=36 | | | | | | |
| **KS15** | **Wonju Array Si** | **24.48** | **14** | *e*P | **P** | **10 07 44.2** | **-0.5** |
| **KSRS** | **Korea Array** | **24.50** | **14** | P | **P** | **10 07 44.0** | **-0.9** |
| | 1.3nm,0.5s,baz=198,slow=10,SNR=6.3 | | | | | | |
| KSRS | | | | LR | LR | 10 17 38.9 | |
| | comp=Z,42nm,18.5s,baz=202,slow=37 | | | | | | |
| **LZH** | **Lanzhou** | **26.86** | **329** | *e*P | **P** | **10 08 07.2** | **+0.7** |
| LZH | | | | pP | sP | 10 08 38.3 | -5.2 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| LZH | | | | sP | PP | 10 08 53.6 | -16 |
| LZH | | | | PcP | PcP | 10 11 25.6 | -0.7 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,26nm,1.0s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,91nm,4.3s | | | | | | |
| MJAR | Matsushiro Arr | 27.64 | 32 | LR | LR | 10 21 07.8 | |
| | comp=Z,23nm,18.2s,baz=75,slow=40 | | | | | | |
| HHC | Hu-ho-hao-te | 28.14 | 345 | eP | P | 10 08 20.3 | +2.6 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.5s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,69nm,5.0s | | | | | | |
| BRDH | Bariadhala | 28.86 | 292 | P | P | 10 08 25.3 | +1.0 |
| | 94nm,0.3s,baz=73,slow=14,SNR=6.7 | | | | | | |
| GTA | Gaotai | 31.45 | 328 | eP | P | 10 08 48.1 | +1.0 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,20nm,1.1s | | | | | | |
| LSA | Lhasa | 31.51 | 305 | eP | P | 10 08 49.2 | +1.1 |
| | 22nm,0.6s | | | | | | |
| USRK | Ussuriysk Ar. | 31.88 | 16 | P | P | 10 08 50.1 | -0.4 |
| | 2.4nm,0.6s,baz=190,slow=7.4,SNR=5.3 | | | | | | |
| FITZ | Fitzroy Crossi | 32.03 | 171 | P | P | 10 08 51.6 | -0.6 |
| | 3.8nm,1.0s,baz=20,slow=12,SNR=4.3 | | | | | | |
| TAPN | Taplejung | 33.52 | 299 | eP | P | 10 09 06.6 | +1.0 |
| | 60nm,0.6s | | | | | | |
| ODAN | Odare | 33.66 | 298 | eP | P | 10 09 07.6 | +1.0 |
| | 148nm,0.7s | | | | | | |
| RAMN | Ramite | 34.36 | 298 | eP | P | 10 09 13.7 | +1.0 |
| | 191nm,1.0s | | | | | | |
| JIRN | Jiri | 34.91 | 299 | eP | P | 10 09 18.3 | +0.7 |
| GUN | Gumba | 35.24 | 299 | eP | P | 10 09 21.0 | +0.6 |
| | 86nm,0.4s | | | | | | |
| PKI | Pulchoki | 35.55 | 298 | eP | P | 10 09 23.5 | +0.5 |
| PKIN | Phulchoki | 35.56 | 298 | eP | P | 10 09 23.4 | +0.3 |
| | 28nm,0.4s | | | | | | |
| ASAJ | Asahikawa | 35.63 | 28 | P | P | 10 09 23.2 | +0.1 |
| | 7.8nm,1.2s,baz=232,slow=17,SNR=2.9 | | | | | | |
| KKN | Kakani | 35.72 | 299 | eP | P | 10 09 24.7 | +0.4 |
| DMN | Daman | 35.82 | 298 | eP | P | 10 09 25.7 | +0.4 |
| | 53nm,0.6s | | | | | | |
| ULN | Ulaanbaatar | 35.84 | 344 | eP | P | 10 09 25.4 | +0.4 |
| | 10nm,0.5s | | | | | | |
| SONA0 | Songino Array | 35.99 | 344 | eP | P | 10 09 26.1 | -0.2 |
| SONA0 | | | | ePcP | PcP | 10 11 52.2 | +1.6 |
| SONM | Songino Array | 35.99 | 344 | P | P | 10 09 26.1 | -0.2 |
| | 13nm,0.6s,baz=165,slow=9.6,SNR=83 | | | | | | |
| SONM | | | | PcP | PcP | 10 11 52.2 | +1.6 |
| | 0.2nm,0.5s,baz=176,slow=5.8,SNR=2.1 | | | | | | |
| SONM | | | | ScP | ScP | 10 15 26.0 | -0.9 |
| | 0.2nm,0.6s,baz=160,slow=4.6,SNR=2.3 | | | | | | |
| SONM | | | | LR | LR | 10 24 40.6 | |
| | comp=Z,48nm,20.9s,baz=76,slow=37 | | | | | | |
| SONA1 | Songino Array | 36.00 | 344 | eP | P | 10 09 26.1 | -0.2 |
| WRAB | Tennant Creek | 36.10 | 158 | eP | P | 10 09 25.7 | -1.6 |
| | 13nm,1.1s | | | | | | |
| WR1 | Warramunga Arr | 36.10 | 158 | eP | P | 10 09 25.6 | -1.8 |
| WR1 | | | | epP | pP | 10 09 49.4 | -2.8 |
| WRA | Warramunga Arr | 36.10 | 158 | P | P | 10 09 25.6 | -1.8 |
| | 2.1nm,0.4s,baz=333,slow=9.8,SNR=32 | | | | | | |
| WRA | | | | pP | pP | 10 09 49.4 | -2.8 |
| | 5.0nm,0.8s,baz=335,slow=9.6,SNR=11 | | | | | | |
| WRA | | | | S | S | 10 14 56.2 | -2.7 |
| | 0.4nm,0.6s,baz=338,slow=15,SNR=4.2 | | | | | | |
| WRA | | | | ScP | ScP | 10 15 26.2 | -1.3 |
| | 0.9nm,0.7s,baz=345,slow=4.0,SNR=9.9 | | | | | | |
| WB2 | Warramunga Arr | 36.11 | 158 | eP | P | 10 09 25.6 | -1.8 |
| | 12nm,1.1s | | | | | | |
| KLR | Kul'dur | 36.55 | 12 | P | P | 10 09 30.5 | -0.4 |
| | 0.4nm,0.5s,baz=214,slow=9.2,SNR=13 | | | | | | |
| KOLN | Koldanda | 37.15 | 298 | eP | P | 10 09 36.8 | +0.3 |
| | 12nm,0.4s | | | | | | |
| DANN | Dangsing | 37.16 | 299 | eP | P | 10 09 37.2 | +0.5 |
| PYUN | Piuthan | 37.75 | 298 | eP | P | 10 09 42.2 | +0.6 |
| AS31 | Alice Springs | 39.39 | 161 | eP | P | 10 09 54.1 | -1.0 |
| | 1.6nm,0.4s | | | | | | |
| ASAR | Alice Springs | 39.39 | 161 | P | P | 10 09 53.9 | -1.2 |
| | 2.4nm,0.4s,baz=336,slow=6.5,SNR=66 | | | | | | |
| ASAR | | | | pP | pP | 10 10 18.1 | -2.1 |
| | 3.0nm,0.9s,baz=331,slow=7.4,SNR=7.6 | | | | | | |
| ASAR | | | | ScP | ScP | 10 15 39.6 | -0.4 |
| | 0.5nm,0.8s,baz=322,slow=2.8,SNR=4.6 | | | | | | |
| AS01 | Alice Springs | 39.41 | 161 | eP | P | 10 09 54.1 | -1.1 |
| WMQ | Urumqi | 41.11 | 323 | P | P | 10 10 11.4 | +2.3 |
| WMQ | | | | pP | pP | 10 10 40.2 | +5.8 |
| WMQ | | | | sP | sP | 10 10 56.4 | +9.4 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,12nm,0.9s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,630nm,3.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,110nm,11.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,87nm,14.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,100nm,13.5s | | | | | | |
| CTA | Charters Tower | 42.04 | 143 | P | P | 10 10 15.8 | -1.1 |
| | 1.1nm,0.5s,baz=336,slow=10.0,SNR=3.6 | | | | | | |
| MK01 | Makanchi Array | 45.92 | 324 | eP | P | 10 10 48.1 | +0.5 |
| MK32 | Makanchi Array | 45.94 | 324 | eP | P | 10 10 48.4 | +0.6 |
| MKAR | Makanchi Array | 45.94 | 324 | P | P | 10 10 48.4 | +0.6 |
| | 4.2nm,0.3s,baz=109,slow=8.5,SNR=33 | | | | | | |
| NWAO | Narrogin (SRO) | 46.52 | 184 | P | P | 10 10 50.8 | -1.5 |
| | 3.5nm,0.4s,baz=212,slow=6.9,SNR=4.1 | | | | | | |
| KSH | Kashi | 46.80 | 312 | P | P | 10 10 57.4 | +2.7 |
| KSH | | | | pP | sP | 10 11 29.3 | -3.7 |
| KSH | | | | PcP | PcP | 10 12 27.1 | +0.9 |
| KSH | | | | PP | PP | 10 12 49.3 | +3.3 |
| KSH | | | | S | S | 10 17 35.8 | -1.0 |
| KSH | | | | ScS | ScS | 10 20 33.3 | -5.2 |
| KSH | | | | SS | SS | 10 21 01.2 | -3.5 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.6s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,220nm,4.7s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,97nm,5.6s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,89nm,5.2s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,220nm,6.2s | | | | | | |
| ULHL | Ulahol | 47.62 | 315 | P | P | 10 11 02.7 | +1.5 |
| | SNR=6.6 | | | | | | |
| KZA | Kyzart | 48.24 | 315 | P | P | 10 11 07.8 | +1.6 |
| | SNR=13 | | | | | | |
| TKM2 | Tokmak 2 | 48.33 | 316 | P | P | 10 11 07.5 | +0.9 |
| | SNR=14 | | | | | | |
| KBK | Karagaybulak | 48.66 | 315 | P | P | 10 11 10.5 | +1.4 |
| | SNR=10.0 | | | | | | |
| UCH | Uchtor | 48.80 | 315 | P | P | 10 11 12.0 | +1.5 |
| | SNR=22 | | | | | | |
| CHMS | Chumysh | 48.93 | 316 | P | P | 10 11 11.6 | +0.6 |
| | SNR=8.2 | | | | | | |
| AAK | Ala-Archa | 48.97 | 315 | P | P | 10 11 12.5 | +1.1 |
| | 3.8nm,0.5s,baz=130,slow=7.2,SNR=6.3 | | | | | | |
| AAK | Ala-Archa | 48.97 | 315 | eP | P | 10 11 12.3 | +0.9 |
| | 8.5nm,1.1s | | | | | | |
| ZAA0 | Zalesovo Array | 48.97 | 333 | eP | P | 10 11 10.5 | -0.6 |
| | 8.5nm,1.0s | | | | | | |
| ZALV | Zalesovo Beam | 48.97 | 333 | P | P | 10 11 10.5 | -0.5 |
| | 8.4nm,0.3s,baz=124,slow=6.1,SNR=29 | | | | | | |
| ZALV | | | | LR | LR | 10 32 06.3 | |
| | comp=Z,33nm,18.6s,baz=72,slow=36 | | | | | | |
| ZAA1 | Zalesovo Array | 48.98 | 333 | eP | P | 10 11 10.5 | -0.6 |
| USP | Ospenovka | 49.20 | 316 | P | P | 10 11 13.8 | +0.7 |
| | SNR=8.6 | | | | | | |
| AML | Almayashu | 49.34 | 314 | P | P | 10 11 15.8 | +1.3 |
| | SNR=18 | | | | | | |
| EKS2 | Erkin-Say | 49.47 | 315 | P | P | 10 11 16.4 | +1.2 |
| | SNR=9.0 | | | | | | |
| KURBB | Kurchatov Arra | 50.10 | 326 | P | P | 10 11 20.1 | +0.4 |
| | 24nm,0.8s,baz=123,slow=7.9,SNR=59 | | | | | | |
| KURK | Kurchatov | 50.10 | 326 | eP | P | 10 11 20.1 | +0.5 |
| BVAR | Borovoye Array | 55.68 | 326 | P | P | 10 12 00.7 | 0.0 |
| | 6.6nm,0.5s,baz=113,slow=9.8,SNR=30 | | | | | | |
| BRVK | Borovoye | 55.75 | 326 | eP | P | 10 12 01.5 | +0.3 |
| | 36nm,1.0s | | | | | | |
| TIXI | Tiksi | 58.09 | 3 | eP | P | 10 12 16.1 | -1.2 |
| | 9.8nm,1.0s | | | | | | |
| WSAR | Wadi Sarin | 59.16 | 289 | P | P | 10 12 25.5 | -0.1 |
| | 3.0nm,0.6s,baz=134,slow=7.0,SNR=4.6 | | | | | | |
| GEYT | Alibeck | 60.03 | 306 | P | P | 10 12 32.2 | +0.8 |
| | 19nm,0.4s,baz=128,slow=4.3,SNR=14 | | | | | | |
| AKTO | Aktyubinsk | 62.12 | 320 | P | P | 10 12 45.1 | -0.1 |
| | 4.0nm,0.5s,baz=94,slow=6.7,SNR=17 | | | | | | |
| ARU | Arti | 63.29 | 327 | P | P | 10 12 52.0 | -0.9 |
| | 7.5nm,0.3s,baz=105,slow=8.5,SNR=12 | | | | | | |
| ARU | Arti | 63.29 | 327 | eP | P | 10 12 52.2 | -0.6 |
| | 8.2nm,0.5s | | | | | | |
| RAYN | Ar Rayn | 71.15 | 290 | eP | P | 10 13 43.3 | +0.1 |
| | 13nm,1.0s | | | | | | |
| KBZ | Khabaz | 71.78 | 312 | P | P | 10 13 46.8 | +0.3 |
| | 3.8nm,1.0s,baz=175,slow=6.6,SNR=4.2 | | | | | | |
| KVAR | Kislovodsk Arr | 71.92 | 312 | P | P | 10 13 48.0 | +0.5 |
| | 8.1nm,0.8s,baz=205,slow=2.8,SNR=4.1 | | | | | | |
| KIV | Kislovodsk | 71.93 | 312 | eP | P | 10 13 47.7 | +0.2 |
| | 20nm,1.2s | | | | | | |
| CAST | Castle Rocks | 76.62 | 28 | eP | P | 10 14 14.3 | 0.0 |
| | 14nm,1.2s | | | | | | |
| BPAW | Bear Paw Mtn. | 77.06 | 27 | eP | P | 10 14 16.7 | -0.1 |
| | 18nm,1.2s | | | | | | |
| MLY | Manley | 77.09 | 26 | eP | P | 10 14 17.2 | +0.3 |
| | 8.4nm,1.2s | | | | | | |
| ASF | Jabal al Asfar | 77.56 | 300 | P | P | 10 14 21.7 | +1.4 |
| | 3.7nm,0.7s,baz=175,slow=0.2,SNR=4.3 | | | | | | |
| MCK | McKinley | 78.00 | 27 | eP | P | 10 14 21.3 | -0.6 |
| | 12nm,1.1s | | | | | | |
| ILAR | Eielson Array | 78.75 | 26 | P | P | 10 14 24.4 | -1.7 |
| | 0.5nm,0.6s,baz=269,slow=4.1,SNR=12 | | | | | | |
| ILB | Eielson Array | 78.75 | 26 | eP | P | 10 14 24.4 | -1.7 |
| ARA0 | ARCESS Array S | 79.01 | 339 | eP | P | 10 14 26.7 | -0.7 |
| ARCES | ARCESS Array B | 79.01 | 339 | P | P | 10 14 26.7 | -0.7 |
| | 2.0nm,0.5s,baz=78,slow=6.9,SNR=34 | | | | | | |
| BR101 | Keskin Array S | 79.05 | 308 | eP | P | 10 14 27.6 | -0.8 |
| BRTR | Keskin Array B | 79.05 | 308 | P | P | 10 14 27.6 | -0.8 |
| | 0.9nm,0.4s,baz=126,slow=4.1,SNR=10 | | | | | | |
| EIL | Elat | 79.61 | 298 | P | P | 10 14 32.3 | +0.9 |
| | 8.7nm,1.0s,baz=154,slow=6.4,SNR=4.5 | | | | | | |
| FIA0 | FINESS Array S | 80.20 | 331 | eP | P | 10 14 33.5 | -0.5 |
| FINES | FINESS Array B | 80.20 | 331 | P | P | 10 14 33.5 | -0.5 |
| | 1.9nm,0.5s,baz=80,slow=4.3,SNR=9.0 | | | | | | |
| AKASG | Malin Array Be | 80.37 | 320 | P | P | 10 14 34.1 | -1.0 |
| | 0.5nm,0.4s,baz=60,slow=6.1,SNR=6.3 | | | | | | |
| AKBB | Malin Array Si | 80.37 | 320 | eP | P | 10 14 34.6 | -0.4 |
| | 31nm,1.9s | | | | | | |
| MLR | Muntele Rosu | 83.55 | 315 | P | P | 10 14 51.5 | -0.5 |
| | 0.6nm,0.6s,baz=300,slow=5.2,SNR=3.7 | | | | | | |
| MLR | | | | LR | LR | 10 55 25.8 | |
| | comp=Z,12nm,18.5s,baz=44,slow=38 | | | | | | |
| MLR | Muntele Rosu | 83.55 | 315 | eP | P | 10 14 52.0 | 0.0 |
| | 44nm,2.0s | | | | | | |
| BUR04 | Bucovina Ar. S | 83.56 | 317 | eP | P | 10 14 50.9 | -1.2 |
| BUR08 | Bucovina Ar. S | 83.56 | 317 | eP | P | 10 14 51.6 | -0.4 |
| CRVS | Cervenica-Dubn | 85.67 | 319 | eP | P | 10 15 03.3 | +0.8 |
| IDI | Anoyia | 86.75 | 305 | P | P | 10 15 07.4 | -0.7 |
| | 24nm,1.0s,baz=18,slow=6.4,SNR=3.2 | | | | | | |
| NB200 | NORSAR Array S | 87.18 | 333 | eP | P | 10 15 08.5 | -1.1 |
| NOA | NORSAR Array B | 87.18 | 333 | P | P | 10 15 08.5 | -1.1 |
| | 1.4nm,0.8s,baz=70,slow=4.6,SNR=3.6 | | | | | | |
| YKA | Yellowknife Ar | 92.77 | 22 | P | P | 10 15 35.3 | -0.3 |
| | 0.4nm,0.5s,baz=305,slow=4.5,SNR=8.3 | | | | | | |
| YKB5 | Yellowknife Ar | 92.77 | 22 | eP | P | 10 15 35.4 | -0.3 |
| TOA1 | Torodi Ar. Sit | 113.84 | 291 | ePKiKP | PKiKP | 10 21 01.4 | -1.3 |
| TORD | Torodi Ar. Bea | 113.84 | 291 | PKP | PKiKP | 10 21 01.4 | -1.3 |
| | 0.2nm,0.4s,baz=88,slow=1.7,SNR=2.5 | | | | | | |
| LTX | Lajitas | 119.50 | 44 | ePKPdf | PKPdf | 10 21 13.0 | -0.5 |
| TXAR | Lajitas Array | 119.50 | 44 | PKP | PKPdf | 10 21 13.0 | -0.5 |
| | 0.1nm,0.5s,baz=311,slow=0.3,SNR=5.1 | | | | | | |

*ISCJB* ***09*** *10:11:09.9±0.6, 38°.22N±0°.04×38°.13E±0°.03, h9km±4km, Error ellipse: s-maj=5.9km s-min=3.8km az=1.8*
*DDA* ***09*** *10:11:09.8, 38°.27N×38°.12E, h2km, Ml2.8*
*ISK* ***09*** *10:11:09.7, 38°.29N×38°.14E, h17km, MD2.7*
*CSEM* ***09*** *10:11:10.0±0.2, 38°.26N×38°.13E, h10km, ML2.8, Error ellipse: s-maj=5.2km s-min=3.2km az=2.0*
**ISC 09 10:11:10.3**±0.9, **38°.30N**±0°.03×**38°.13E**±0°.02, **h10**km±7km, **n27**, σ**0s.74**/43, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AKCD | Akcadag | 0.16 | 269 | i P | Pg | 10 11 13.6 | -0.4 |
| AKCD | | | | i S | Sg | 10 11 16.4 | -0.1 |
| AKCD | Akcadag | 0.16 | 269 | P | Pg | 10 11 13.6 | -0.4 |
| AKCD | | | | S | Sg | 10 11 16.4 | -0.1 |
| MALT | Malatya | 0.24 | 86 | ePG | Pg | 10 11 15.5 | +0.2 |
| MALT | | | | eSG | Sg | 10 11 19.4 | +0.7 |
| MALT | Malatya | 0.24 | 86 | ePg | Pg | 10 11 15.5 | +0.2 |
| MALT | | | | eSg | Sg | 10 11 19.4 | +0.7 |
| DARE | Darende-Malaty | 0.57 | 299 | ePG | Pg | 10 11 21.5 | 0.0 |
| DARE | | | | eSG | Sb | 10 11 30.5 | -0.2 |
| DARE | Darende-Malaty | 0.57 | 299 | ePg | Pg | 10 11 21.5 | 0.0 |
| DARE | | | | eSg | Sb | 10 11 30.5 | -0.2 |
| HEKM | Malatya_Hekimh | 0.59 | 347 | i P | Pg | 10 11 22.1 | +0.2 |
| HEKM | | | | i S | Sn | 10 11 34.5 | -0.3 |
| HEKM | Malatya_Hekimh | 0.59 | 347 | P | Pg | 10 11 22.1 | +0.2 |
| ELZG | Elazig | 0.70 | 73 | i P | Pg | 10 11 23.8 | -0.2 |
| ELZG | | | | i S | Sb | 10 11 34.8 | +0.2 |
| ELZG | Elazig | 0.70 | 73 | P | Pg | 10 11 23.8 | -0.2 |
| ELZG | | | | S | Sb | 10 11 34.8 | +0.2 |
| ELBS | KAHRAMANMARAS | 0.78 | 272 | i P | Pg | 10 11 25.3 | -0.1 |
| ELBS | | | | i S | Sb | 10 11 36.8 | +0.1 |
| ELBS | KAHRAMANMARAS | 0.78 | 272 | P | Pg | 10 11 25.3 | -0.1 |
| ELBS | | | | S | Sb | 10 11 36.8 | +0.1 |
| SVRC | Sivrice-ELAZID | 0.93 | 85 | ePG | Pg | 10 11 27.3 | -1.0 |
| SVRC | | | | eSG | Sb | 10 11 41.4 | +0.2 |
| SVRC | Sivrice-ELAZID | 0.93 | 85 | ePg | Pg | 10 11 27.3 | -1.0 |
| SVRC | | | | eSg | Sb | 10 11 41.4 | +0.2 |
| KEMA | Kemaliye | 1.01 | 16 | i P | Pg | 10 11 27.5 | -2.3 |
| KEMA | | | | i S | Sb | 10 11 44.2 | +0.9 |
| URFA | Urfa | 1.02 | 147 | ePG | Pg | 10 11 29.6 | -0.4 |
| URFA | Urfa | 1.02 | 147 | ePg | Pg | 10 11 29.6 | -0.4 |
| CUKAN | kangal_SIVAS | 1.14 | 333 | i P | Pn | 10 11 32.6 | +0.2 |
| CUKAN | | | | i S | Sn | 10 11 49.3 | +1.1 |
| CUKAN | kangal_SIVAS | 1.14 | 333 | P | Pn | 10 11 32.6 | +0.2 |
| CUKAN | | | | S | Sn | 10 11 49.3 | +1.1 |
| PTK | Pertek | 1.16 | 59 | ePN | Pg | 10 11 31.6 | -1.0 |
| PTK | Pertek | 1.16 | 59 | ePn | Pg | 10 11 31.6 | -1.0 |
| KMRS | Kahramanmaras | 1.25 | 231 | ePN | Pn | 10 11 32.9 | -1.0 |
| KMRS | Kahramanmaras | 1.25 | 231 | ePn | Pn | 10 11 32.9 | -1.0 |
| HCB | Kahramanmara¯ | 1.36 | 226 | i P | Pn | 10 11 33.3 | -2.0 |
| SURC | SANLIURFA_SURC | 1.47 | 165 | i P | Pg | 10 11 39.1 | +0.6 |
| ANDN | Andirin | 1.58 | 244 | i P | Pn | 10 11 39.0 | +0.6 |
| ANDN | Andirin | 1.58 | 244 | P | Pn | 10 11 39.0 | +0.6 |

*IDC* ***09*** *10:47:19.8±1.5, 36°.74N×140°.64E, h0km, mb3.3/2, mb1 3.6/2, mb1mx3.2/31, mbtmp3.3/2, Error ellipse: s-maj=37.2km s-min=24.7km az=151.0*
*ISCJB* ***09*** *10:47:20.2±1.4, 36°.6N±0°.1×140°.72E±0°.10, h16km±9km, mb3.4/2, Error ellipse: s-maj=22.7km s-min=11.1km az=158.7*
*JMA* ***09*** *10:47:21.5, 36°.71N×140°.60E, h6km±1km, M3.1*
*JMA Felt I J1.*
**ISC 09 10:47:20.7**±1.7, **36°.8N**±0°.1×**140°.6E**±0°.1, **h7**km±14km, **n6**, σ**0s.46**/8, **Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JHO | Hitachi | 0.15 | 194 | P | Pg | 10 47 23.8 | +0.1 |
| ONAJ | Iwakimizuishiy | 0.38 | 23 | P | Pb | 10 47 29.8 | +0.1 |
| MJAR | Matsushiro Arr | 1.95 | 264 | Pn | Pn | 10 47 54.0 | -0.2 |
| | 13nm,0.3s,baz=83,slow=14,SNR=65 | | | | | | |
| MJAR | | | | Sn | Sn | 10 48 19.7 | +0.8 |
| | 14nm,0.3s,baz=56,slow=24,SNR=14 | | | | | | |
| MJAR | | | | LR | LR | 10 48 43.0 | |
| | comp=Z,52nm,20.7s,baz=135,slow=43 | | | | | | |
| MAT | Matsushiro | 1.95 | 264 | P | Pn | 10 47 53.9 | -0.3 |
| MAT | | | | S | Sn | 10 48 18.7 | -0.3 |
| ILAR | Eielson Array | 50.07 | 32 | P | P | 10 56 15.8 | 0.0 |
| | 0.4nm,0.9s,baz=264,slow=8.1,SNR=3.4 | | | | | | |
| WRA | Warramunga Arr | 56.70 | 187 | P | P | 10 57 05.0 | 0.0 |
| | 0.2nm,0.6s,baz=5.3,slow=7.5,SNR=4.7 | | | | | | |

**MEX 09 11:17:41.1**±0.5, **17°.05N**×**95°.17W**, **h165**km±8km, **MD3.9**, **Oaxaca**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VHO | Vista Hermosa | 1.49 | 271 | eP | Pn | 11 18 11.1 | -0.8 |
| VHO | | | | eS | Sn | 11 18 33.5 | -2.1 |
| HUIG | Huatulco | 1.56 | 215 | eP | Pn | 11 18 10.8 | -1.6 |
| HUIG | | | | eS | Sn | 11 18 34.9 | -1.7 |
| PCIG | | 2.31 | 125 | eP | Pn | 11 18 19.6 | -1.1 |
| PCIG | | | | eS | Sn | 11 18 49.2 | -2.0 |
| PNIG | Pinotepa | 2.91 | 257 | eP | Pn | 11 18 26.6 | -1.3 |
| PNIG | | | | eS | Sn | 11 19 02.2 | -2.1 |
| CCIG | Comitan | 3.01 | 104 | eP | Pn | 11 18 28.1 | -1.2 |
| CCIG | | | | i S | Sn | 11 19 04.6 | -2.1 |

*NIED* ***09*** *11:22:00, 45°.50N×150°.10E, h38km, Mw3.8 Best double couple: M0 6.68000×10^14 NP1: φs 244.00000°, δ34.00000°, λ-145.00000°. NP2: φs 124.00000°, δ71.00000°, λ-61.00000°.*
*ISCJB* ***09*** *11:22:24.7±0.6, 44°.98N±0°.08×150°.32E±0°.08, h61km, mb3.3/5, Error ellipse: s-maj=13.5km s-min=4.6km az=151.0*
*MOS* ***09*** *11:22:25.9±0.8, 45°.22N×150°.18E, h62km, mb4.5/1, Error ellipse: s-maj=18.9km s-min=11.0km az=150.9*
*JMA* ***09*** *11:22:25.4±0.5, 45°.50N×150°.07E, h30km, M4.5*
*SKHL* ***09*** *11:22:26.3±0.7, 45°.31N×150°.25E, h61km±8km, mb4.5/5*
*IDC* ***09*** *11:22:28.9±4.2, 45°.26N×150°.09E, h75km±42km, mb3.0/5, mb1 3.4/9, mb1mx3.1/48, mbtmp3.5/9, ML3.6/3, MS2.8/1, Ms1 2.8/1, ms1mx2.3/11, Error ellipse: s-maj=57.2km s-min=17.2km az=132.0*
**ISC 09 11:22:26.4**±0.8, **45°.00N**±0°.08×**150°.27E**±0°.07, **h61**km, **n53**, σ**1s.83**/65, **mb3.3**/5, **1C-1D**, **Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KUR | Kuril'sk | 1.71 | 279d | i PN | Pn | 11 22 52.3 | -1.7 |
| KUR | | | | i S | Sn | 11 23 11.3 | -3.5 |
| KUR | | | | pmax | pmax | | |
| | comp=Z,876nm,0.2s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=N,239nm,0.1s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=E,165nm,0.2s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=N,819nm,0.2s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,1μm,0.2s | | | | | | |
| KUR | Kuril'sk | 1.71 | 279 | eP | Pn | 11 22 52.3 | -1.7 |
| KUR | | | | AMB | AMB | 11 22 53.0 | |
| | comp=E,251nm,0.2s | | | | | | |
| KUR | | | | AMB | AMB | 11 22 53.0 | |
| | comp=E,178nm,0.2s | | | | | | |
| KUR | | | | AMB | AMB | 11 22 53.0 | |
| | comp=E,103nm,0.2s | | | | | | |
| KUR | | | | i S | Sn | 11 23 11.3 | -3.5 |
| KUR | | | | A | A | 11 23 12.6 | |
| | comp=E,930nm,0.2s | | | | | | |
| KUR | | | | A | A | 11 23 12.6 | |
| | comp=E,1μm,0.2s | | | | | | |
| SHO | Shikotan | 2.71 | 246 | eP | Pn | 11 23 08.2 | +0.7 |
| SHO | | | | AMB | AMB | 11 23 11.0 | |
| | comp=E,180nm,0.4s | | | | | | |
| SHO | | | | eS | Sn | 11 23 40.7 | +1.6 |
| SHO | | | | A | A | 11 23 47.0 | |
| | comp=E,660nm,0.4s | | | | | | |
| YUK | Yuzh-Kuril'sk | 3.29 | 254c | i PN | Pn | 11 23 16.7 | +1.2 |
| YUK | | | | eS | Sn | 11 23 54.6 | +1.1 |
| YUK | | | | pmax | pmax | | |
| | comp=Z,610nm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=N,90nm,0.1s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=E,115nm,0.1s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=E,717nm,0.5s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,707nm,0.4s | | | | | | |
| YUK | Yuzh-Kuril'sk | 3.29 | 254 | eP | Pn | 11 23 16.7 | +1.2 |
| YUK | | | | AMB | AMB | 11 23 18.1 | |
| | comp=N,91nm,0.4s | | | | | | |
| YUK | | | | AMB | AMB | 11 23 18.1 | |
| | comp=N,115nm,0.4s | | | | | | |
| YUK | | | | AMB | AMB | 11 23 18.1 | |
| | comp=N,61nm,0.4s | | | | | | |
| YUK | | | | eS | Sn | 11 23 54.5 | +1.1 |
| YUK | | | | A | A | 11 24 00.8 | |
| | comp=N,720nm,0.6s | | | | | | |
| YUK | | | | A | A | 11 24 00.8 | |
| | comp=N,710nm,0.6s | | | | | | |
| LAGR | Lagunnoye | 3.34 | 255 | ePN | Pn | 11 23 17.8 | +1.7 |
| LAGR | | | | eS | Sn | 11 23 56.3 | +1.8 |
| LAGR | Lagunnoye | 3.34 | 255 | eP | Pn | 11 23 17.8 | +1.7 |
| LAGR | | | | eS | Sn | 11 23 56.3 | +1.8 |
| GRPR | Tuman | 3.37 | 254 | ePN | Pn | 11 23 17.6 | +1.1 |
| GRPR | | | | eS | Sn | 11 23 55.8 | +0.5 |
| GRPR | Tuman | 3.37 | 254 | eP | Pn | 11 23 17.6 | +1.1 |
| GRPR | | | | eS | Sn | 11 23 55.8 | +0.5 |
| GLVR | Golovnino | 3.63 | 251 | ePN | Pn | 11 23 21.9 | +1.8 |
| GLVR | | | | eS | Sn | 11 24 03.6 | +2.0 |
| GLVR | Golovnino | 3.63 | 251 | eP | Pn | 11 23 21.9 | +1.8 |
| GLVR | | | | eS | Sn | 11 24 03.6 | +2.0 |
| NEM2 | Nemuro 2 | 3.64 | 245 | P | Pn | 11 23 20.1 | -0.1 |
| NEM2 | | | | eS | Sn | 11 24 00.3 | -1.6 |
| JRA | Rausu | 3.83 | 256 | P | Pn | 11 23 24.6 | +1.8 |
| JNK | Nakash | 4.23 | 252 | P | Pn | 11 23 29.5 | +1.2 |
| JNK | | | | eS | Sn | 11 24 16.5 | +0.2 |
| JAK | Akkeshi | 4.49 | 245 | P | Pn | 11 23 32.2 | +0.3 |
| JAK | | | | eS | Sn | 11 24 22.2 | -0.6 |
| JTKR | Abashiri--Toko | 4.66 | 259 | P | Pn | 11 23 35.3 | +1.1 |
| JMP | Maruseppu | 5.04 | 261 | P | Pn | 11 23 40.9 | +1.5 |
| JKK2 | Kamakawa 2 | 5.50 | 261 | P | Pn | 11 23 47.4 | +1.7 |
| JCH | Churui | 5.54 | 247 | P | Pn | 11 23 46.9 | +0.7 |
| JCH | | | | eS | Sn | 11 24 47.0 | -1.4 |
| JKA | Kamikawa-asahi | 5.55 | 264 | eP | Pn | 11 23 48.1 | +1.7 |
| ASAJ | Asahikawa | 5.55 | 264 | P | Pn | 11 23 48.1 | +1.7 |
| | comp=N,2.4nm,0.3s,baz=74,slow=8.0,SNR=22 | | | | | | |
| ASAJ | Asahikawa | 5.55 | 264 | P | Pn | 11 23 48.3 | +1.9 |
| YSS | Yuzh-Sakhalins | 5.59 | 293 | ePN | Pn | 11 23 45.6 | -1.2 |
| YSS | | | | pmax | pmax | | |
| | comp=Z,20nm,0.5s | | | | | | |
| YSS | Yuzh-Sakhalins | 5.59 | 293 | eP | Pn | 11 23 45.6 | -1.2 |
| YSS | | | | AMB | AMB | 11 23 46.2 | |
| | comp=Z,20nm,0.5s | | | | | | |
| JFR | Furan | 5.82 | 254 | P | Pn | 11 23 52.2 | +2.1 |
| JNBK | Urakawa-nobuka | 6.09 | 246 | P | Pn | 11 23 54.1 | +0.3 |
| JBT2 | Biratori 2 | 6.13 | 251 | P | Pn | 11 23 55.1 | +0.8 |
| JEW | Eniwo | 6.72 | 254 | P | Pn | 11 24 04.4 | +2.0 |
| SKR | Severo-Kuril's | 6.91 | 33 | eP | Pn | 11 24 02.5 | -2.5 |
| SKR | | | | AMB | AMB | 11 24 08.6 | |
| | comp=Z,31nm,0.7s | | | | | | |
| JNB | Noboribetsu | 7.15 | 252 | P | Pn | 11 24 09.0 | +0.8 |
| JKB | Kayabe | 7.40 | 248 | P | Pn | 11 24 12.1 | +0.4 |
| JKB | | | | eS | Sn | 11 25 30.8 | -3.5 |
| JYM2 | Yakumo 2 | 7.74 | 252 | P | Pn | 11 24 16.6 | +0.2 |
| JANG | Nango | 7.93 | 237 | P | Pn | 11 24 17.7 | -1.3 |
| JANG | | | | eS | Sn | 11 25 42.0 | -5.2 |
| JTM | Tenmabayashi | 7.96 | 241 | P | Pn | 11 24 19.6 | +0.3 |
| JTM | | | | eS | Sn | 11 25 43.2 | -4.6 |
| JSR | Shiriuchi | 7.98 | 248 | P | Pn | 11 24 19.9 | +0.3 |
| JTH | Tanohata | 8.01 | 234 | eS | Sn | 11 25 42.7 | -6.4 |
| JOSM | Okushiri--Mats | 8.36 | 253 | P | Pn | 11 24 25.1 | +0.2 |
| OFUJ | Ofunato | 8.71 | 230 | P | Pn | 11 24 28.7 | -0.9 |
| JIO | Ouri | 9.34 | 229 | P | Pn | 11 24 37.7 | -0.5 |
| JIO | | | | eS | Sn | 11 26 16.7 | -4.9 |
| PETK | Petropavlovsk- | 9.46 | 28 | P | Pn | 11 24 39.7 | -0.2 |
| | comp=Z,1.1nm,0.3s,baz=207,slow=11,SNR=25 | | | | | | |
| PETK | | | | LR | LR | 11 28 35.1 | |
| | comp=Z,54nm,18.4s,baz=154,slow=39 | | | | | | |
| KLR | Kul'dur | 13.29 | 295 | P | Pn | 11 25 32.4 | +0.2 |
| | comp=Z,0.0nm,0.3s,baz=103,slow=18,SNR=3.5 | | | | | | |
| KSRS | Korea Array | 18.38 | 254 | P | Pn | 11 26 36.9 | 0.0 |
| | comp=Z,0.1nm,0.3s,baz=69,slow=10,SNR=3.5 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 28.73 | 146 | T | T | 11 59 18.7 | |
| | baz=48 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 28.75 | 146 | T | T | 11 59 07.9 | |
| | baz=48,slow=74 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 28.75 | 146 | T | T | 11 59 18.9 | |
| | baz=48,slow=74 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 29.77 | 147 | T | T | 12 00 29.8 | |
| | baz=336,slow=76,SNR=249 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 29.77 | 147 | T | T | 12 00 23.9 | |
| | baz=336,slow=76,SNR=214 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 29.78 | 147 | T | T | 12 00 22.8 | |
| | baz=336,slow=76,SNR=198 | | | | | | |
| ILAR | Eielson Array | 39.15 | 37 | P | P | 11 29 47.4 | -0.3 |
| | comp=Z,0.2nm,0.5s,baz=265,slow=6.8,SNR=6.3 | | | | | | |
| INK | Inuvik | 44.19 | 31 | P | P | 11 30 28.9 | +0.2 |
| | comp=Z,0.5nm,0.6s,baz=285,slow=3.9 | | | | | | |
| YKA | Yellowknife Ar | 53.51 | 35 | P | P | 11 31 39.4 | -0.8 |
| | comp=Z,0.2nm,0.6s,baz=299,slow=6.4,SNR=3.0 | | | | | | |
| WRA | Warramunga Arr | 66.24 | 196 | P | P | 11 33 10.2 | +2.2 |
| | comp=Z,0.3nm,0.8s,baz=17,slow=6.3,SNR=3.8 | | | | | | |
| TXAR | Lajitas Array | 80.09 | 58 | P | P | 11 34 31.4 | +1.5 |
| | comp=Z,0.2nm,0.5s,baz=300,slow=4.5,SNR=4.8 | | | | | | |

**IDC 09 11:24:36.8**±2.4**,16.72S×178.24W,h0km,mb3.8**/3**, mb1 4.1**/3**,mb1mx3.5**/42**,mbtmp3.8**/3**,Error ellipse: s-maj=281.5km s-min=30.5km az=159.0,Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **45.02** | **258** | P | P | 11 32 54.7 | +0.2 |
| | 0.5nm,0.5s,baz=92,slow=7.4,SNR=16 | | | | | | |
| **ASAR** | **Alice Springs** | **45.28** | **253** | P | P | 11 32 56.2 | -0.4 |
| | 2.8nm,0.6s,baz=88,slow=8.6,SNR=50 | | | | | | |
| **TXAR** | **Lajitas Array** | **85.22** | **58** | P | P | 11 37 15.8 | 0.0 |
| | 0.2nm,0.7s,baz=229,slow=4.2,SNR=3.0 | | | | | | |

*ISK **09** 11:26:08.8,37.44N×42.68E,h5km,ML2.5*
*CSEM **09** 11:26:09.7±0.3,37.46N×42.68E,h5km,ML2.5,Error ellipse: s-maj=18.1km s-min=4.0km az=12.0*
*DDA **09** 11:26:10.5,37.28N×42.59E,h7km,Md2.6*
**ISC 09 11:26:09.7**±1.1**,37.44N**±0.07×**42.68E**±0.02**,h3**km±10km**, n25,**σ1**.**49/42**,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SIRT** | **Sirnak** | **0.20** | **288** | *e*PG | **Pg** | **11 26 13.3** | **-0.3** |
| SIRT | | | | *e*SG | **Sg** | **11 26 16.9** | **+0.7** |
| **SIRT** | **Sirnak** | **0.20** | **288** | *e*Pg | **Pg** | **11 26 13.3** | **-0.3** |
| SIRT | | | | *e*Sg | **Sg** | **11 26 16.9** | **+0.7** |
| **SIRN** | **S˜–rnak** | **0.22** | **285** | *i* P | **Pg** | **11 26 13.7** | **-0.2** |
| SIRN | | | | *i* S | **Sg** | **11 26 18.7** | **+1.9** |
| **SIRN** | **S˜–rnak** | **0.22** | **285** | P | **Pg** | **11 26 13.7** | **-0.2** |
| SIRN | | | | S | **Sg** | **11 26 18.7** | **+1.9** |
| **CUKT** | **Cukurca** | **0.77** | **104** | *e*PG | **Pg** | **11 26 23.9** | **-0.5** |
| CUKT | | | | *e*SG | **Sg** | **11 26 34.9** | **+0.5** |
| **CUKT** | **Cukurca** | **0.77** | **104** | *i* P | **Pb** | **11 26 26.3** | **+0.5** |
| CUKT | | | | *i* S | **Sn** | **11 26 38.2** | **-1.6** |
| **CUKT** | **Cukurca** | **0.77** | **104** | *e*Pg | **Pg** | **11 26 23.9** | **-0.5** |
| **CUKT** | **Cukurca** | **0.77** | **104** | P | **Pb** | **11 26 26.3** | **+0.5** |
| CUKT | | | | *e*Sg | **Sg** | **11 26 34.9** | **+0.5** |
| CUKT | | | | S | **Sn** | **11 26 38.2** | **-1.6** |
| **SRTM** | **Siirt_Merkez** | **0.81** | **313** | *i* P | **Pb** | **11 26 26.0** | **-0.6** |
| SRTM | | | | *i* S | **Sn** | **11 26 40.0** | **-0.9** |
| **SRTM** | **Siirt_Merkez** | **0.81** | **313** | P | **Pb** | **11 26 26.0** | **-0.6** |
| SRTM | | | | S | **Sn** | **11 26 40.0** | **-0.9** |
| **HAKT** | **HAKKARI** | **0.83** | **82** | *i* P | **Pb** | **11 26 26.2** | **-0.7** |
| HAKT | | | | *i* S | **Sn** | **11 26 41.5** | **0.0** |
| **HAKT** | **HAKKARI** | **0.83** | **82** | P | **Pb** | **11 26 26.2** | **-0.7** |
| HAKT | | | | S | **Sn** | **11 26 41.5** | **0.0** |
| **BTMN** | **Batman** | **1.20** | **292** | *i* P | **Pb** | **11 26 33.1** | **-0.1** |
| BTMN | | | | *i* S | **Sn** | **11 26 51.6** | **+1.1** |
| **BTMN** | **Batman** | **1.20** | **292** | P | **Pb** | **11 26 33.1** | **-0.1** |
| BTMN | | | | S | **Sn** | **11 26 51.6** | **+1.1** |
| **BASK** | **Baskale_VAN** | **1.22** | **59** | *i* P | Pn | 11 26 39.8 | +5.9 |
| **BASK** | **Baskale_VAN** | **1.22** | **59** | P | Pn | 11 26 39.8 | +5.9 |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.29** | **83** | *i* P | **Pg** | **11 26 33.0** | **-1.5** |
| YOVA | | | | *i* S | **Sn** | **11 26 58.2** | **+5.3** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.29** | **83** | P | **Pg** | **11 26 33.0** | **-1.5** |
| YOVA | | | | S | **Sn** | **11 26 58.2** | **+5.3** |
| **MARD** | **Mardin** | **1.52** | **266** | *i* P | **Pn** | **11 26 37.1** | **-0.9** |
| MARD | | | | *i* S | **Sg** | **11 26 58.7** | **+0.2** |
| **MAZI** | **Mazidag** | **1.77** | **271** | *e*PN | **Pn** | **11 26 40.8** | **-0.7** |
| MAZI | | | | *e*SN | **Sn** | **11 27 04.5** | **-0.2** |
| **MAZI** | **Mazidag** | **1.77** | **271** | *e*Pn | **Pn** | **11 26 40.8** | **-0.7** |
| MAZI | | | | *e*Sn | **Sn** | **11 27 04.5** | **-0.2** |
| **BNGB** | **Bingˆ¶l** | **2.21** | **315** | *e*PN | **Pn** | **11 26 47.1** | **-0.3** |
| **BINT** | **Bingol** | **2.24** | **310** | *e*Pn | **Pn** | **11 26 47.1** | **-0.8** |
| **SVRC** | **Sivrice-ELAZID** | **2.83** | **290** | *e*PN | **Pn** | **11 26 56.2** | **+0.3** |
| **SVRC** | **Sivrice-ELAZID** | **2.83** | **290** | *e*Pn | **Pn** | **11 26 56.3** | **+0.3** |

*NIED **09** 11:28:00,44.50N×149.30E,h38km,Mw4.1 Best double couple: M₀1.85000×10^15 NP1:φs147.00000°,δ80.00000°,λ4.00000°. NP2:φs57.00000°,δ86.00000°,λ170.00000°.*
*ISCJB **09** 11:28:11.4±0.7,44.35N±0.04×149.28E±0.05,h42km±6km, mb4.1/26,MS3.2/1,Error ellipse: s-maj=8.1km s-min=5.0km az=142.0*
*JMA **09** 11:28:12.5±0.4,44.49N×149.26E,h30km,M4.6*
*MOS **09** 11:28:12.0±1.0,44.44N×149.26E,h46km,mb4.2/17,Error ellipse: s-maj=7.9km s-min=7.1km az=47.3*
*IDC **09** 11:28:13.4±3.1,44.46N×149.26E,h39km±27km,mb3.8/17, mb1 4.0/22,mb1mx3.8/48,mbtmp4.0/22,ML3.4/5,MS3.1/2, Ms1 3.1/2,ms1mx2.6/43,Error ellipse: s-maj=20.3km s-min=12.9km az=142.0*
*NEIC **09** 11:28:14.2±0.8,44.40N×149.29E,h49km±6km,mb4.6/4, Error ellipse: s-maj=9.7km s-min=5.1km az=141.0*
*SKHL **09** 11:28:14.3±0.0,44.48N×149.22E,h77km±1km,mb4.7/5*
**ISC 09 11:28:12.4**±1.9**,44.24N**±0.05×**149.37E**±0.08**,h36**km±7km**, n130,**σ1**.**69/142**,mb4.0**/26**,2C-2D,Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KUR** | **Kuril'sk** | **1.46** | **313** | *d i*PN | **Pn** | **11 28 34.3** | **-1.9** |
| KUR | | | | *i* S | **Sn** | **11 28 50.3** | **-3.7** |
| KUR | | | | pmax | pmax | | |
| | comp=Z,1μm,0.5s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=N,386nm,0.6s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=E,331nm,0.4s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,3μm,0.7s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=N,2μm,0.6s | | | | | | |
| **KUR** | **Kuril'sk** | **1.46** | **313** | *i* P | **Pn** | **11 28 34.3** | **-1.9** |
| KUR | | | | AMB | AMB | 11 28 35.4 | |
| | comp=N,520nm,0.5s | | | | | | |
| KUR | | | | AMB | AMB | 11 28 35.4 | |
| | comp=N,234nm,0.5s | | | | | | |
| KUR | | | | AMB | AMB | 11 28 35.4 | |
| | comp=N,140nm,0.5s | | | | | | |
| KUR | | | | *i* S | **Sn** | **11 28 49.3** | **-4.7** |
| KUR | | | | A | A | 11 28 53.3 | |
| | comp=N,390nm,0.4s | | | | | | |
| KUR | | | | A | A | 11 28 53.3 | |
| | comp=N,200nm,0.4s | | | | | | |
| **SHO** | **Shikotan** | **1.87** | **259** | *e*PN | **Pn** | **11 28 41.5** | **-0.3** |
| SHO | | | | *i* S | **Sn** | **11 29 01.9** | **-2.3** |
| SHO | | | | pmax | pmax | | |
| | comp=Z,173nm,0.4s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=N,66nm,0.3s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=E,111nm,0.3s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=N,918nm,0.4s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=E,1μm,0.4s | | | | | | |
| **SHO** | **Shikotan** | **1.87** | **259** | *e*P | **Pn** | **11 28 41.5** | **-0.3** |
| SHO | | | | AMB | AMB | 11 28 43.3 | |
| | comp=E,173nm,0.4s | | | | | | |
| SHO | | | | *i* S | **Sn** | **11 29 01.9** | **-2.3** |
| SHO | | | | A | A | 11 29 07.2 | |
| | comp=E,112nm,0.4s | | | | | | |
| SHO | | | | A | A | 11 29 07.2 | |
| | comp=E,920nm,0.4s | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **2.54** | **266** | *d i*PN | **Pn** | **11 28 51.5** | **+0.5** |
| YUK | | | | *i* S | **Sn** | **11 29 19.5** | **-1.1** |
| YUK | | | | pmax | pmax | | |
| | comp=Z,477nm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=N,97nm,0.1s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=E,179nm,0.2s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=E,738nm,0.4s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,674nm,0.5s | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **2.54** | **266** | *i* P | **Pn** | **11 28 51.5** | **+0.5** |
| YUK | | | | AMB | AMB | 11 28 53.9 | |
| | comp=N,97nm,0.4s | | | | | | |
| YUK | | | | AMB | AMB | 11 28 53.9 | |
| | comp=N,179nm,0.4s | | | | | | |
| YUK | | | | AMB | AMB | 11 28 53.9 | |
| | comp=N,477nm,0.4s | | | | | | |
| YUK | | | | *i* S | **Sn** | **11 29 19.5** | **-1.1** |
| YUK | | | | A | A | 11 29 22.8 | |
| | comp=N,670nm,0.4s | | | | | | |
| YUK | | | | A | A | 11 29 22.8 | |
| | comp=N,740nm,0.4s | | | | | | |
| **LAGR** | **Lagunnoye** | **2.59** | **267** | *e*PN | **Pn** | **11 28 53.1** | **+1.4** |
| LAGR | | | | *e*S | **Sn** | **11 29 21.4** | **-0.5** |
| **LAGR** | **Lagunnoye** | **2.59** | **267** | *e*P | **Pn** | **11 28 53.1** | **+1.4** |
| LAGR | | | | *e*S | **Sn** | **11 29 21.4** | **-0.5** |
| **GRPR** | **Tuman** | **2.60** | **266** | PN | **Pn** | **11 28 52.1** | **+0.2** |
| GRPR | | | | *e*S | **Sn** | **11 29 20.2** | **-2.1** |
| **GRPR** | **Tuman** | **2.60** | **266** | *e*P | **Pn** | **11 28 52.1** | **+0.2** |
| GRPR | | | | *e*S | **Sn** | **11 29 20.2** | **-2.1** |
| **NEM2** | **Nemuro 2** | **2.77** | **253** | P | **Pn** | **11 28 53.8** | **-0.4** |
| NEM2 | | | | *e*S | **Sn** | **11 29 24.1** | **-2.3** |
| **GLVR** | **Golovnino** | **2.83** | **261** | *e*PN | **Pn** | **11 28 55.5** | **+0.5** |
| GLVR | | | | *e*S | **Sn** | **11 29 26.7** | **-1.0** |
| **GLVR** | **Golovnino** | **2.83** | **261** | *e*P | **Pn** | **11 28 55.5** | **+0.5** |
| GLVR | | | | *e*S | **Sn** | **11 29 26.7** | **-1.0** |
| **JNK** | **Nakash** | **3.43** | **261** | P | **Pn** | **11 29 03.6** | **+0.4** |
| JNK | | | | *e*S | **Sn** | **11 29 42.4** | **-0.2** |
| **JAK** | **Akkeshi** | **3.62** | **251** | P | **Pn** | **11 29 05.7** | **-0.1** |
| **JTKR** | **Abashiri--Toko** | **3.94** | **268** | P | **Pn** | **11 29 11.7** | **+1.4** |
| **JOB** | **Onbets** | **4.24** | **254** | P | **Pn** | **11 29 14.9** | **+0.5** |
| **JMP** | **Maruseppu** | **4.34** | **269** | P | **Pn** | **11 29 17.3** | **+1.5** |
| **JCH** | **Churui** | **4.67** | **252** | P | **Pn** | **11 29 20.9** | **+0.6** |
| **JKA** | **Kamikawa-asahi** | **4.87** | **271** | *e*P | **Pn** | **11 29 25.7** | **+2.6** |
| **ASAJ** | **Asahikawa** | **4.88** | **271** | Pn | **Pn** | **11 29 25.7** | **+2.6** |
| | comp=N,3.9nm,0.3s,baz=89,slow=12,SNR=22 | | | | | | |
| **ASAJ** | **Asahikawa** | **4.88** | **271** | P | **Pn** | **11 29 25.2** | **+2.1** |
| **ASAJ** | **Asahikawa** | **4.88** | **271** | *e*Pn | **Pn** | **11 29 25.2** | **+2.1** |
| ASAJ | | | | *e*Sn | **Sn** | **11 30 18.3** | **0.0** |
| **JFR** | **Furan** | **5.03** | **260** | P | **Pn** | **11 29 28.0** | **+2.7** |
| **ERM** | **Erimo** | **5.07** | **246** | *e*PN | **Pn** | **11 29 27.7** | **+2.0** |
| ERM | | | | *e* | | 11 30 24.7 | |
| **ERM** | **Erimo** | **5.07** | **246** | *e*Pn | **Pn** | **11 29 27.7** | **+2.0** |
| ERM | | | | *e*Sn | **Sn** | **11 30 24.7** | **+1.8** |
| **JNBK** | **Urakawa-nobuka** | **5.22** | **250** | P | **Pn** | **11 29 28.0** | **+0.2** |
| **JBT2** | **Biratori 2** | **5.30** | **256** | P | **Pn** | **11 29 30.0** | **+1.0** |
| **YSS** | **Yuzh-Sakhalins** | **5.38** | **303** | *e*PN | **Pn** | **11 29 30.0** | **-0.1** |
| YSS | | | | *e*S | **Sn** | **11 30 29.8** | **-0.8** |
| YSS | | | | pmax | pmax | | |
| | comp=Z,30nm,0.8s | | | | | | |
| YSS | | | | smax | smax | | |
| | comp=N,60nm,0.7s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **5.38** | **303** | *e*P | **Pn** | **11 29 29.9** | **-0.1** |
| YSS | | | | AMB | AMB | 11 29 30.5 | |
| | comp=N,30nm,0.8s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **5.38** | **303** | *e*Pn | **Pn** | **11 29 30.2** | **+0.2** |
| **JEW** | **Eniwo** | **5.93** | **259** | P | **Pn** | **11 29 39.5** | **+1.9** |
| **JNB** | **Noboribetsu** | **6.33** | **257** | P | **Pn** | **11 29 44.0** | **+0.9** |
| JNB | | | | *e*S | **Sn** | **11 30 52.8** | **-1.3** |
| **JKB** | **Kayabe** | **6.55** | **252** | P | **Pn** | **11 29 46.3** | **+0.2** |
| JKB | | | | *e*S | **Sn** | **11 30 55.0** | **-4.4** |
| **JYM2** | **Yakumo 2** | **6.92** | **255** | P | **Pn** | **11 29 51.8** | **+0.6** |
| **JSH** | **Shimam** | **6.98** | **260** | P | **Pn** | **11 29 53.8** | **+1.8** |
| **JANG** | **Nango** | **6.99** | **239** | P | **Pn** | **11 29 50.8** | **-1.4** |
| JANG | | | | *e*S | **Sn** | **11 31 03.9** | **-6.5** |
| **JTM** | **Tenmabayashi** | **7.04** | **243** | *e*S | **Sn** | **11 31 06.5** | **-5.1** |
| **JTH** | **Tanohata** | **7.05** | **235** | P | **Pn** | **11 29 51.5** | **-1.5** |
| JTH | | | | *e*S | Sn | 11 31 04.4 | -7.4 |
| **JSR** | **Shiriuchi** | **7.11** | **251** | P | **Pn** | **11 29 53.6** | **-0.3** |
| JSR | | | | *e*S | **Sn** | **11 31 08.8** | **-4.6** |
| **JOSM** | **Okushiri--Mats** | **7.55** | **257** | P | **Pn** | **11 30 00.5** | **+0.6** |
| **OFUJ** | **Ofunato** | **7.74** | **231** | P | **Pn** | **11 30 01.5** | **-0.9** |
| OFUJ | | | | *e*S | Sn | 11 31 21.5 | -7.2 |
| **SKR** | **Severo-Kuril's** | **7.89** | **33** | *e*PN | **Pn** | **11 30 03.9** | **-0.6** |
| **SKR** | **Severo-Kuril's** | **7.89** | **33** | *e*P | **Pn** | **11 30 04.1** | **-0.4** |
| SKR | | | | AMB | AMB | 11 30 06.1 | |
| | comp=N,73nm,0.5s | | | | | | |
| **JRG** | **Rokugo** | **8.12** | **236** | *e*S | **Sn** | **11 31 32.6** | **-5.7** |
| **JIO** | **Ouri** | **8.36** | **229** | P | **Pn** | **11 30 09.5** | **-1.4** |
| JIO | | | | *e*S | Sn | 11 31 36.1 | -7.9 |
| **PETK** | **Petropavlovsk-** | **10.43** | **29** | Pn | **Pn** | **11 30 39.5** | **+0.2** |
| | comp=N,0.7nm,0.3s,baz=205,slow=11,SNR=5.9 | | | | | | |
| **PEA1** | **Petropavlovsk-** | **10.44** | **29** | *e*Pn | **Pn** | **11 30 39.5** | **+0.1** |
| **HABR** | **Khabarovsk** | **10.76** | **298** | *e*PN | Pn | 11 30 40.5 | -3.3 |
| HABR | | | | pmax | pmax | | |
| | comp=N,21nm,1.4s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=Z,32nm,1.4s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=E,11nm,1.4s | | | | | | |
| HABR | | | | MLR | MLR | | |
| | comp=Z,35nm,12.0s | | | | | | |
| **MJA0** | **Matsu Arr-Jizo** | **11.44** | **232** | *e*PN | **Pn** | **11 30 54.4** | **+1.1** |
| MJA0 | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.3s | | | | | | |
| **MJAR** | **Matsushiro Arr** | **11.46** | **232** | Pn | **Pn** | **11 30 54.2** | **+0.6** |
| | comp=Z,0.6nm,0.3s,baz=28,slow=14,SNR=10 | | | | | | |
| **MAJO** | **Matsushiro** | **11.47** | **232** | *e*PN | **Pn** | **11 30 53.6** | **+0.1** |
| **MAJO** | **Matsushiro** | **11.47** | **232** | *e*P | **Pn** | **11 30 55.5** | **+2.0** |
| **USRK** | **Ussuriysk Ar.** | **12.48** | **276** | Pn | **Pn** | **11 31 08.5** | **+1.2** |
| | comp=Z,0.3nm,0.3s,baz=93,slow=14,SNR=5.2 | | | | | | |
| USRK | | | | LR | LR | 11 36 01.7 | |
| | comp=Z,78nm,18.0s,baz=137,slow=38 | | | | | | |
| **KLR** | **Kul'dur** | **13.07** | **299** | Pn | **Pn** | **11 31 16.9** | **+1.5** |
| | comp=Z,0.0nm,0.3s,baz=104,slow=15,SNR=11 | | | | | | |
| **EKMR** | **Ekimchan** | **13.96** | **315** | *e*rx | rx | 11 32 01.5 | |
| **KSRS** | **Korea Array** | **17.56** | **255** | P | **P** | **11 32 14.9** | **0.0** |
| | comp=Z,0.2nm,0.3s,baz=60,slow=11,SNR=4.7 | | | | | | |
| **KSRS** | **Korea Array** | **17.56** | **255** | P | **P** | **11 32 15.0** | **0.0** |
| **KSRS** | **Korea Array** | **17.56** | **255** | *e*P | **P** | **11 32 15.0** | **0.0** |
| **KSAR** | **Wonju Array Be** | **17.60** | **255** | P | **Pn** | **11 32 15.0** | **+0.3** |
| **KSAR** | **Wonju Array Be** | **17.60** | **255** | P | **Pn** | **11 32 14.9** | **+0.3** |
| **SEY** | **Seymchan** | **18.81** | **4** | P | **P** | **11 32 25.5** | **-3.0** |
| | comp=Z,0.6nm,0.3s,baz=186,slow=10,SNR=9.4 | | | | | | |
| **SEY** | **Seymchan** | **18.81** | **4** | ⇑*i*P | **P** | **11 32 28.0** | **-0.5** |
| **SEY** | **Seymchan** | **18.81** | **4** | *e*P | **P** | **11 32 28.0** | **-0.5** |
| **HIA** | **Hailar** | **20.84** | **294** | *e*P | **P** | **11 32 49.5** | **-1.3** |
| HIA | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.7s | | | | | | |
| **HIA** | **Hailar** | **20.84** | **294** | *e*P | **P** | **11 32 49.5** | **-1.3** |
| **YAK** | **Yakutsk** | **21.22** | **334** | *e*P | **P** | **11 32 51.9** | **-2.8** |
| YAK | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.8s | | | | | | |
| **YAK** | **Yakutsk** | **21.22** | **334** | *e*P | **P** | **11 32 51.9** | **-2.8** |
| **H11N2** | **WAKE ISLAND Hy** | **28.48** | **144** | T | T | 12 05 03.0 | |
| | baz=334,slow=76,SNR=117 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.50** | **144** | T | T | 12 05 04.2 | |
| | baz=334,slow=76,SNR=85 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.50** | **143** | T | T | 12 05 04.5 | |
| | baz=334,slow=76,SNR=116 | | | | | | |
| **ULN** | **Ulaanbaatar** | **29.32** | **292** | *ce*P | **P** | **11 34 10.9** | **-0.7** |
| ULN | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.7s | | | | | | |
| **ULN** | **Ulaanbaatar** | **29.32** | **292** | *e*P | **P** | **11 34 10.9** | **-0.7** |
| **H11S1** | **WAKE ISLAND Hy** | **29.49** | **145** | T | T | 12 06 12.3 | |
| | baz=334,slow=76,SNR=133 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.50** | **145** | T | T | 12 06 23.3 | |
| | baz=334,slow=76,SNR=105 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.51** | **145** | T | T | 12 06 23.0 | |
| | baz=334,slow=76,SNR=100 | | | | | | |
| **SONA0** | **Songino Array** | **29.76** | **292** | *e*P | **P** | **11 34 14.7** | **-0.8** |
| **SONM** | **Songino Array** | **29.76** | **292** | P | **P** | **11 34 14.7** | **-0.8** |
| | comp=Z,1.2nm,0.7s,baz=78,slow=8.1,SNR=8.7 | | | | | | |
| **IMAR** | **Indian Mountai** | **37.33** | **34** | *e*P | **P** | **11 35 20.6** | **-0.2** |
| **KDAK** | **Kodiak Island** | **37.73** | **48** | P | **P** | **11 35 23.3** | **-1.0** |
| | comp=Z,14nm,0.9s,baz=292,slow=1.5,SNR=9.8 | | | | | | |
| **KDAK** | **Kodiak Island** | **37.73** | **48** | *e*P | **P** | **11 35 24.2** | **0.0** |
| **COLD** | **Coldfoot** | **38.87** | **33** | *e*P | **P** | **11 35 33.8** | **0.0** |
| | comp=Z,11nm,1.8s | | | | | | |
| **COLA** | **College** | **39.73** | **36** | *e*P | **P** | **11 35 40.4** | **-0.5** |
| COLA | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.0s | | | | | | |
| **COLA** | **College** | **39.73** | **36** | *e*P | **P** | **11 35 40.4** | **-0.5** |
| **SCM** | **Sheep Creek Mo** | **40.07** | **41** | *e*P | **P** | **11 35 47.5** | **+3.6** |
| SCM | | | | pmax | pmax | | |
| | comp=Z,13nm,0.6s | | | | | | |
| **SCM** | **Sheep Creek Mo** | **40.07** | **41** | *e*P | **P** | **11 35 47.5** | **+3.6** |
| | comp=Z,12nm,0.6s | | | | | | |
| **ILAR** | **Eielson Array** | **40.14** | **37** | P | **P** | **11 35 44.2** | **-0.2** |
| | comp=Z,1.6nm,0.9s,baz=271,slow=9.2,SNR=20 | | | | | | |
| **ILB** | **Eielson Array** | **40.14** | **37** | *e*P | **P** | **11 35 44.9** | **+0.5** |
| **IL1** | **Eielson Array** | **40.14** | **37** | *e*P | **P** | **11 35 44.6** | **+0.2** |
| **INK** | **Inuvik** | **45.16** | **31** | P | **P** | **11 36 25.3** | **+0.3** |
| | comp=Z,1.1nm,0.4s,baz=296,slow=7.5,SNR=11 | | | | | | |
| **INK** | **Inuvik** | **45.16** | **31** | *e*P | **P** | **11 36 25.4** | **+0.4** |
| INK | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.3s | | | | | | |
| **INK** | **Inuvik** | **45.16** | **31** | *e*P | **P** | **11 36 25.4** | **+0.4** |
| **INK** | **Inuvik** | **45.16** | **31** | *e*P | **P** | **11 36 25.4** | **+0.4** |
| | comp=Z,8.3nm,1.3s | | | | | | |
| **MK32** | **Makanchi Array** | **45.77** | **298** | *e*P | **P** | **11 36 29.2** | **-1.0** |
| **MKAR** | **Makanchi Array** | **45.77** | **298** | P | **P** | **11 36 29.2** | **-1.0** |
| | comp=Z,1.7nm,0.8s,baz=76,slow=8.3,SNR=6.5 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **49.20** | **255** | P | **P** | **11 36 58.1** | **+0.9** |
| | comp=Z,0.9nm,0.3s,baz=51,slow=7.1,SNR=3.6 | | | | | | |
| **BRVK** | **Borovoye** | **50.47** | **310** | *e*P | **P** | **11 37 05.1** | **-1.2** |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,1.0nm,1.5s | | | | | | |
| **BRVK** | **Borovoye** | **50.47** | **310** | *e*P | **P** | **11 37 05.1** | **-1.2** |
| **AAK** | **Ala-Archa** | **52.58** | **296** | *e*P | **P** | **11 37 21.2** | **-1.3** |
| AAK | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.0s | | | | | | |
| **AAK** | **Ala-Archa** | **52.58** | **296** | *e*P | **P** | **11 37 21.2** | **-1.3** |
| **RES** | **Resolute Bay** | **54.03** | **17** | P | **P** | **11 37 31.6** | **-0.8** |
| | comp=Z,2.3nm,0.7s,baz=13,slow=5.5,SNR=12 | | | | | | |
| **YKA** | **Yellowknife Ar** | **54.49** | **35** | P | **P** | **11 37 35.1** | **-0.8** |
| | comp=Z,1.2nm,0.8s,baz=298,slow=6.3,SNR=4.6 | | | | | | |
| **YKA** | **Yellowknife Ar** | **54.49** | **35** | *e*P | **P** | **11 37 36.2** | **+0.2** |
| YKA | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.8s | | | | | | |
| **YKA** | **Yellowknife Ar** | **54.49** | **35** | *e*P | **P** | **11 37 36.2** | **+0.2** |
| **FIA0** | **FINESS Array S** | **65.15** | **334** | *e*P | **P** | **11 38 48.6** | **-0.6** |
| **FIA0** | **FINESS Array S** | **65.15** | **334** | *e*P | **P** | **11 38 48.5** | **-0.6** |
| **FINES** | **FINESS Array B** | **65.15** | **334** | P | **P** | **11 38 48.5** | **-0.6** |
| | comp=Z,6.8nm,1.1s,baz=318,slow=2.6,SNR=4.2 | | | | | | |
| **FINES** | **FINESS Array B** | **65.15** | **334** | *e*P | **P** | **11 38 48.9** | **-0.3** |
| **WR1** | **Warramunga Arr** | **65.34** | **196** | *e*P | **P** | **11 38 52.1** | **+1.3** |
| | comp=Z,17nm,1.8s | | | | | | |
| **WRA** | **Warramunga Arr** | **65.34** | **196** | P | **P** | **11 38 52.1** | **+1.3** |
| | comp=Z,0.4nm,0.7s,baz=12,slow=6.7,SNR=6.0 | | | | | | |
| **GEYT** | **Alibeck** | **65.60** | **300** | P | **P** | **11 38 51.9** | **-0.7** |
| | comp=Z,28nm,0.7s,baz=68,slow=3.9,SNR=4.0 | | | | | | |
| **ASAR** | **Alice Springs** | **69.05** | **195** | P | **P** | **11 39 16.6** | **+2.2** |
| | comp=Z,0.2nm,0.4s,baz=14,slow=6.3,SNR=5.6 | | | | | | |
| **ASAR** | **Alice Springs** | **69.05** | **195** | *e*P | **P** | **11 39 16.9** | **+2.6** |
| **NB2** | **NORSAR Subarra** | **69.71** | **340** | P | **P** | **11 39 17.0** | **-1.1** |
| | comp=Z,1.6nm,0.5s,baz=29,slow=6.5 | | | | | | |
| **NB200** | **NORSAR Array S** | **69.71** | **340** | *e*P | **P** | **11 39 16.9** | **-1.1** |
| **NOA** | **NORSAR Array B** | **69.71** | **340** | P | **P** | **11 39 16.9** | **-1.1** |
| | comp=Z,1.7nm,0.8s,baz=42,slow=6.7,SNR=9.0 | | | | | | |
| **NOA** | **NORSAR Array B** | **69.71** | **340** | P | **P** | **11 39 17.0** | **-1.1** |
| NOA | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.8s | | | | | | |
| **KBZ** | **Khabaz** | **70.66** | **313** | P | **P** | **11 39 25.0** | **+0.9** |
| | comp=Z,2.8nm,0.8s,baz=315,slow=3.1,SNR=4.8 | | | | | | |
| **AKASG** | **Malin Array Be** | **72.12** | **325** | P | **P** | **11 39 31.1** | **-1.7** |
| | comp=Z,0.7nm,0.4s,baz=36,slow=6.2,SNR=3.4 | | | | | | |
| **MLR** | **Muntele Rosu** | **77.54** | **323** | LR | LR | 12 18 13.5 | |
| | comp=Z,12nm,19.8s,baz=5.5,slow=39 | | | | | | |
| **BR101** | **Keskin Array S** | **78.35** | **315** | *e*P | **P** | **11 40 08.9** | **-0.2** |
| **BRTR** | **Keskin Array B** | **78.35** | **315** | P | **P** | **11 40 08.9** | **-0.2** |
| | comp=Z,0.6nm,0.6s,baz=100,slow=2.3,SNR=2.8 | | | | | | |
| **KHC** | **Kasperske Hory** | **79.29** | **332** | *e*P | **P** | **11 40 13.0** | **-0.9** |
| **KHC** | **Kasperske Hory** | **79.29** | **332** | *e*P | **P** | **11 40 13.0** | **-0.9** |
| **KHC** | **Kasperske Hory** | **79.29** | **332** | *e*P | **P** | **11 40 13.0** | **-0.9** |
| **GERES** | **GERESS Array B** | **79.49** | **332** | P | **P** | **11 40 14.4** | **-0.7** |
| | comp=Z,0.4nm,0.4s,baz=50,slow=9.1,SNR=3.3 | | | | | | |
| **LTX** | **Lajitas** | **81.03** | **58** | *e*P | **P** | **11 40 24.6** | **+0.8** |
| **LTX** | **Lajitas** | **81.03** | **58** | *e*P | **P** | **11 40 24.6** | **+0.8** |
| **TXAR** | **Lajitas Array** | **81.03** | **58** | P | **P** | **11 40 24.6** | **+0.8** |
| | comp=Z,0.4nm,0.5s,baz=301,slow=4.3,SNR=17 | | | | | | |
| **TXAR** | **Lajitas Array** | **81.03** | **58** | *e*P | **P** | **11 40 24.2** | **+0.5** |
| TXAR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.4s | | | | | | |

**MAN 09 11:30:05,9.05N×126.18E,h35km,mb4.1,ML2.9,MS2.7, 1C-1D,Mindanao**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BUTP** | **Butuan** | **0.56** | **262** | *e*P | Pn | 11 30 16.7 | +0.2 |
| BUTP | | | | *e*S | Sn | 11 30 26.6 | +2.1 |
| **BIPH** | **Bislig** | **0.88** | **168** | ⇑*e*P | Pn | 11 30 22.3 | +1.4 |
| BIPH | | | | *i* S | Sn | 11 30 32.3 | -0.1 |
| **SCPH** | **Surigao** | **1.00** | **317** | *e*P | Pn | 11 30 22.5 | 0.0 |
| SCPH | | | | *i* S | Sn | 11 30 36.4 | +1.0 |
| **BUKP** | **Musuan** | **1.60** | **224** | *e*P | Pn | 11 30 30.9 | 0.0 |
| BUKP | | | | *e*S | Sn | 11 30 51.2 | +0.9 |
| **TBP** | **Tagbilaran** | **2.37** | **286** | *e*P | Pn | 11 30 43.3 | +1.8 |
| TBP | | | | *i* S | Sn | 11 31 14.1 | +4.8 |
| **LLP** | **Lapu-Lapu** | **2.52** | **300** | ⇓*e*P | Pn | 11 30 44.9 | +1.4 |
| LLP | | | | *e*S | Sn | 11 31 17.6 | +4.6 |
| **CNP** | **Catarman** | **3.75** | **337** | *e*P | Pn | 11 31 00.5 | +0.1 |

*ISCJB **09** 11:34:32.6±0.3,53.07N±0.06×152.33E±0.05,h600km, mb3.7/23,Error ellipse: s-maj=7.8km s-min=3.7km az=179.5*
*MOS **09** 11:34:32.6±1.0,53.22N×152.08E,h595km,mb3.9/17, Error ellipse: s-maj=12.2km s-min=10.9km az=50.1*
*SKHL **09** 11:34:32.8±0.3,52.90N×152.24E,h596km±3km,mb4.7/5, msh5.1/4*
*KRSC **09** 11:34:32.4±1.8,52.87N×152.39E,h603km±24km,ML4.7*
*IDC **09** 11:34:34.3±1.1,52.92N×152.46E,h633km±14km, mb3.0/19,mb1 3.2/23,mb1mx3.1/39,mbtmp4.0/23,Error ellipse: s-maj=12.8km s-min=8.8km az=146.0*
**ISC 09 11:34:32.1**±0.5**,52.91N**±0.07×**152.42E**±0.05**,h600**km**, n104,**σ1**.**76/143**,mb3.7**/23**,1D,Northwest of Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **APC** | **Apacha** | **2.87** | **88** | P | **P** | **11 35 53.0** | **+2.7** |
| APC | | | | S | **S** | **11 36 55.2** | **+0.8** |
| **APC** | **Apacha** | **2.87** | **88** | *e*P | **P** | **11 35 53.0** | **+2.7** |
| APC | | | | *e*S | **S** | **11 36 55.2** | **+0.8** |
| **PETK** | **Petropavlovsk-** | **3.19** | **84** | P | **P** | **11 35 55.2** | **+3.0** |
| | 5.2nm,0.3s,baz=61,slow=1.9,SNR=96 | | | | | | |
| **SKR** | **Severo-Kuril's** | **3.20** | **133** | P | **P** | **11 35 53.9** | **+1.6** |
| SKR | | | | S | **S** | **11 36 58.5** | **+0.7** |
| **SKR** | **Severo-Kuril's** | **3.20** | **133** | *e*P | **P** | **11 35 54.0** | **+1.6** |
| SKR | | | | AMB | AMB | 11 35 54.6 | |
| | 36nm,0.4s | | | | | | |
| SKR | | | | *e*S | **S** | **11 36 57.1** | **-0.7** |
| SKR | | | | A | A | 11 37 12.0 | |
| | 72nm,0.2s | | | | | | |
| SKR | | | | A | A | 11 37 12.0 | |
| | 71nm,0.2s | | | | | | |
| **SKR** | **Severo-Kuril's** | **3.20** | **133** | *e*P | **P** | **11 35 53.9** | **+1.6** |
| SKR | | | | *e*S | **S** | **11 36 58.5** | **+0.7** |
| **ASAK** | **Asacha** | **3.38** | **97** | P | **P** | **11 35 55.7** | **+2.3** |
| **ASAK** | **Asacha** | **3.38** | **97** | *e*P | **P** | **11 35 55.7** | **+2.3** |
| **GNL** | **Ganaly** | **3.40** | **75** | P | **P** | **11 35 56.6** | **+3.0** |
| GNL | | | | S | **S** | **11 37 01.5** | **+1.2** |
| **GNL** | **Ganaly** | **3.40** | **75** | *e*P | **P** | **11 35 56.6** | **+3.0** |
| GNL | | | | *e*S | **S** | **11 37 01.5** | **+1.2** |
| **KRMR** | **Karymshinskiy** | **3.46** | **89** | *e*S | **S** | **11 37 00.7** | **0.0** |
| **MTVR** | **Mutnovka** | **3.53** | **95** | P | **P** | **11 35 55.3** | **+0.8** |
| MTVR | | | | S | **S** | **11 36 59.8** | **-2.1** |
| **MTVR** | **Mutnovka** | **3.53** | **95** | *e*P | **P** | **11 35 55.3** | **+0.8** |
| MTVR | | | | *e*S | **S** | **11 36 59.8** | **-2.1** |
| **KDTR** | **Khodutka, Kamc** | **3.64** | **105** | *e*P | **P** | **11 35 56.4** | **+1.4** |
| KDTR | | | | *e*S | **S** | **11 37 02.0** | **-0.8** |
| **RUS** | **Russkaya** | **3.74** | **95** | P | **P** | **11 35 57.2** | **+1.6** |
| RUS | | | | S | **S** | **11 37 04.2** | **+0.2** |
| **RUS** | **Russkaya** | **3.74** | **95** | *e*P | **P** | **11 35 57.2** | **+1.6** |
| **RUS** | **Russkaya** | **3.74** | **95** | *e*P | **P** | **11 35 57.2** | **+1.6** |
| RUS | | | | *e*S | **S** | **11 37 04.2** | **+0.2** |
| **KOK** | **Koryaka** | **3.77** | **82** | P | **P** | **11 35 57.2** | **+1.3** |
| **KOK** | **Koryaka** | **3.77** | **82** | *e*P | **P** | **11 35 57.2** | **+1.3** |
| **KOK** | **Koryaka** | **3.77** | **82** | *e*P | **P** | **11 35 57.2** | **+1.3** |
| **PET** | **Petropavlovsk** | **3.77** | **86** | *e*P | **P** | **11 35 58.3** | **+2.5** |
| PET | | | | *e*S | **S** | **11 37 06.6** | **+2.3** |
| PET | | | | pmax | pmax | | |
| | comp=Z,91nm,0.6s | | | | | | |
| PET | | | | smax | smax | | |
| | comp=N,28nm,0.6s | | | | | | |
| **PET** | **Petropavlovsk** | **3.77** | **86** | *e*P | **P** | **11 35 58.2** | **+2.5** |
| PET | | | | AMB | AMB | 11 36 00.7 | |
| | comp=N,90nm,0.6s | | | | | | |
| PET | | | | *e*S | **S** | **11 37 05.0** | **+0.7** |
| PET | | | | A | A | 11 37 08.0 | |
| | comp=N,38nm,0.5s | | | | | | |
| PET | | | | A | A | 11 37 08.0 | |
| | comp=N,15nm,0.5s | | | | | | |
| **PET** | **Petropavlovsk** | **3.77** | **86** | *e*P | **P** | **11 35 58.2** | **+2.5** |
| PET | | | | *e*S | **S** | **11 37 04.1** | **-0.2** |
| **AVH** | **Avacha** | **3.83** | **82** | P | **P** | **11 35 59.0** | **+2.7** |
| **AVH** | **Avacha** | **3.83** | **82** | *e*P | **P** | **11 35 59.0** | **+2.7** |
| **AVH** | **Avacha** | **3.83** | **82** | *e*P | **P** | **11 35 59.0** | **+2.7** |
| **DALK** | **Dalny** | **3.83** | **86** | P | **P** | **11 35 58.2** | **+2.0** |
| DALK | | | | S | **S** | **11 37 05.9** | **+0.9** |
| **DALK** | **Dalny** | **3.83** | **86** | *e*P | **P** | **11 35 58.2** | **+2.0** |
| DALK | | | | *e*S | **S** | **11 37 05.9** | **+0.9** |
| **KRER** | **Koryakskii** | **3.83** | **82** | P | **P** | **11 35 58.1** | **+1.6** |
| **KRER** | **Koryakskii** | **3.83** | **82** | *e*P | **P** | **11 35 58.1** | **+1.6** |
| **UGLR** | **Uglovaya** | **3.88** | **83** | P | **P** | **11 35 59.5** | **+2.9** |
| UGLR | | | | S | **S** | **11 37 07.3** | **+1.4** |
| **UGLR** | **Uglovaya** | **3.88** | **83** | *e*P | **P** | **11 35 59.5** | **+2.9** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| UGLR | | | | eS | S | 11 37 07.3 | +1.4 |
| SDLR | Sedlovina | 3.91 | 82 | P | P | 11 35 59.2 | +2.3 |
| SDLR | Sedlovina | 3.91 | 82 | eP | P | 11 35 59.2 | +2.3 |
| NLC | Nalytchevo | 4.19 | 84 | P | P | 11 36 01.1 | +2.5 |
| NLC | | | | S | S | 11 37 09.6 | +0.1 |
| NLC | Nalytchevo | 4.19 | 84 | eP | P | 11 36 01.1 | +2.5 |
| NLC | Nalytchevo | 4.19 | 84 | eP | P | 11 36 01.1 | +2.5 |
| NLC | | | | eS | S | 11 37 09.6 | +0.1 |
| SPN | Mys Shipunski | 4.60 | 85 | P | P | 11 36 02.8 | +1.2 |
| SPN | | | | S | S | 11 37 13.0 | -2.0 |
| SPN | Mys Shipunski | 4.60 | 85 | eP | P | 11 36 02.8 | +1.2 |
| SPN | Mys Shipunski | 4.60 | 85 | eP | P | 11 36 02.8 | +1.2 |
| SPN | | | | eS | S | 11 37 13.0 | -2.0 |
| ESO | Esso | 4.75 | 48 | P | P | 11 36 05.8 | +3.1 |
| ESO | | | | S | S | 11 37 17.5 | +0.3 |
| ESO | Esso | 4.75 | 48 | eP | P | 11 36 05.8 | +3.1 |
| ESO | | | | eS | S | 11 37 17.5 | +0.3 |
| TUMR | Tumrok | 5.13 | 59 | P | P | 11 36 07.6 | +1.7 |
| TUMR | Tumrok | 5.13 | 59 | eP | P | 11 36 07.6 | +1.7 |
| KMNR | Kamenistaya | 5.39 | 55 | P | P | 11 36 10.2 | +2.3 |
| KMNR | Kamenistaya | 5.39 | 55 | eP | P | 11 36 10.2 | +2.3 |
| MKZ | Mys Kozlova | 5.77 | 70 | P | P | 11 36 13.5 | +2.6 |
| MKZ | | | | S | S | 11 37 30.8 | -1.2 |
| MKZ | Mys Kozlova | 5.77 | 70 | eP | P | 11 36 13.5 | +2.6 |
| MKZ | Mys Kozlova | 5.77 | 70 | eP | P | 11 36 13.5 | +2.6 |
| MKZ | | | | eS | S | 11 37 30.8 | -1.2 |
| KBG | Krutoberegovo | 6.85 | 57 | eS | S | 11 37 50.4 | +1.0 |
| KBG | | | | A | A | 11 38 01.0 | |
| | comp=N,201nm,1.0s | | | | | | |
| KBTR | Krutoberegovo | 6.89 | 57 | P | P | 11 36 21.6 | +0.8 |
| KBTR | | | | S | S | 11 37 47.3 | -2.7 |
| KBTR | Krutoberegovo | 6.89 | 57 | eP | P | 11 36 21.6 | +0.8 |
| KBTR | | | | eS | S | 11 37 47.3 | -2.7 |
| NKL | Nikolayevsk | 7.09 | 277 | eP | P | 11 36 27.5 | +4.9 |
| NKL | | | | AMB | AMB | 11 36 28.5 | |
| | comp=N,151nm,0.8s | | | | | | |
| UGL | Uglegorsk | 7.58 | 244 | eP | P | 11 36 31.0 | +3.7 |
| UGL | | | | AMB | AMB | 11 36 33.7 | |
| | comp=N,50nm,0.8s | | | | | | |
| UGL | | | | AMB | AMB | 11 36 33.7 | |
| | comp=N,70nm,0.8s | | | | | | |
| BKI | Bering | 8.30 | 69 | eS | S | 11 38 17.0 | +3.0 |
| SEY | Seymchan | 10.05 | 360 | P | P | 11 36 54.3 | +3.4 |
| | comp=N,0.2nm,0.3s,baz=213,slow=16,SNR=3.8 | | | | | | |
| EKMR | Ekimchan | 11.73 | 279 | eP | P | 11 37 10.0 | +2.1 |
| EKMR | | | | AMB | AMB | 11 37 11.2 | |
| | comp=N,8.0nm,0.5s | | | | | | |
| EKMR | | | | AMB | AMB | 11 37 11.2 | |
| | comp=N,11nm,0.5s | | | | | | |
| EKMR | | | | AMB | AMB | 11 37 11.2 | |
| | comp=N,26nm,0.5s | | | | | | |
| HABR | Khabarovsk | 11.87 | 255 | eP | P | 11 37 08.4 | -0.9 |
| HABR | | | | eS | S | 11 39 17.7 | -0.9 |
| HABR | | | | pmax | pmax | | |
| | comp=E,23nm,1.4s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=Z,15nm,1.4s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=N,13nm,1.4s | | | | | | |
| HABR | | | | MLR | MLR | | |
| | comp=Z,8.0nm,11.0s | | | | | | |
| HABR | Khabarovsk | 11.87 | 255 | eP | P | 11 37 08.4 | -0.9 |
| KLR | Kul'dur | 13.50 | 262 | P | P | 11 37 27.7 | +1.9 |
| | comp=Z,0.2nm,0.3s,baz=67,slow=9.0,SNR=57 | | | | | | |
| BMKR | Bomnak | 14.03 | 287 | eP | P | 11 37 31.5 | +0.5 |
| BMKR | | | | AMB | AMB | 11 37 33.4 | |
| | comp=Z,19nm,0.5s | | | | | | |
| BMKR | | | | AMB | AMB | 11 37 33.4 | |
| | comp=Z,40nm,0.5s | | | | | | |
| ZEA | Zeya | 15.04 | 283 | eP | P | 11 37 40.0 | -0.3 |
| ZEA | | | | AMB | AMB | 11 37 42.6 | |
| | comp=Z,19nm,0.5s | | | | | | |
| KROS | Kirovskiy | 15.13 | 286 | eP | P | 11 37 41.1 | -0.1 |
| KROS | | | | AMB | AMB | 11 37 44.0 | |
| | comp=Z,6.0nm,0.4s | | | | | | |
| KROS | | | | AMB | AMB | 11 37 44.0 | |
| | comp=Z,36nm,0.4s | | | | | | |
| KROS | | | | AMB | AMB | 11 37 44.0 | |
| | comp=Z,29nm,0.4s | | | | | | |
| YAK | Yakutsk | 15.18 | 316 | i P | P | 11 37 42.7 | +1.3 |
| YAK | | | | pmax | pmax | | |
| | comp=Z,34nm,0.9s | | | | | | |
| USRK | Ussuriysk Ar. | 16.05 | 245 | P | P | 11 37 50.0 | +0.3 |
| | comp=Z,0.5nm,0.3s,baz=49,slow=13,SNR=6.4 | | | | | | |
| TIXI | Tiksi | 21.47 | 340 | P | P | 11 38 39.6 | +1.2 |
| | comp=Z,1.0nm,0.3s,baz=139,slow=7.7,SNR=5.3 | | | | | | |
| KSRS | Korea Array | 23.01 | 238 | P | P | 11 38 54.7 | +2.1 |
| | comp=Z,0.7nm,0.5s,baz=38,slow=9.8,SNR=3.2 | | | | | | |
| ULN | Ulaanbaatar | 28.98 | 278 | i P | P | 11 39 45.2 | +0.3 |
| ULN | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.1s | | | | | | |
| ULN | Ulaanbaatar | 28.98 | 278 | eP | P | 11 39 45.2 | +0.3 |
| SONM | Songino Array | 29.38 | 279 | P | P | 11 39 49.8 | +1.4 |
| | comp=Z,0.5nm,0.3s,baz=58,slow=7.7,SNR=10 | | | | | | |
| SONM | | | | PcP | sP | 11 42 33.2 | 0.0 |
| | comp=Z,0.2nm,0.4s,baz=102,slow=2.5,SNR=4.9 | | | | | | |
| ILAR | Eielson Array | 32.22 | 45 | P | P | 11 40 12.6 | +0.5 |
| | comp=Z,0.8nm,0.6s,baz=277,slow=9.7,SNR=18 | | | | | | |
| ILAR | Eielson Array | 32.22 | 45 | eP | P | 11 40 12.8 | +0.7 |
| ILAR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.6s | | | | | | |
| ILAR | Eielson Array | 32.22 | 45 | eP | P | 11 40 12.8 | +0.7 |
| INK | Inuvik | 36.82 | 37 | P | P | 11 40 50.7 | +0.5 |
| | comp=Z,2.7nm,0.4s,baz=287,slow=6.0,SNR=34 | | | | | | |
| INK | | | | PcP | PcP | 11 42 54.2 | -0.9 |
| | comp=Z,0.6nm,0.4s,baz=308,slow=1.7,SNR=4.7 | | | | | | |
| ZALV | Zalesovo Beam | 38.90 | 300 | PcP | PcP | 11 43 00.8 | -1.3 |
| | comp=Z,0.5nm,0.4s,baz=60,slow=5.7,SNR=3.7 | | | | | | |
| KURK | Kurchatov | 43.81 | 298 | i P | P | 11 41 46.5 | +0.6 |
| KURK | Kurchatov | 43.81 | 298 | eP | P | 11 41 46.5 | +0.6 |
| MKAR | Makanchi Array | 43.98 | 291 | P | P | 11 41 47.9 | +0.6 |
| | comp=Z,0.9nm,0.4s,baz=58,slow=6.5,SNR=21 | | | | | | |
| RES | Resolute Bay | 45.16 | 20 | P | P | 11 41 55.7 | -0.1 |
| | comp=Z,1.2nm,0.5s,baz=310,slow=3.2,SNR=8.4 | | | | | | |
| YKA | Yellowknife Ar | 46.35 | 40 | P | P | 11 42 05.1 | +0.1 |
| | comp=Z,1.5nm,0.4s,baz=304,slow=6.9,SNR=18 | | | | | | |
| YKA | | | | PcP | PcP | 11 43 25.3 | -2.0 |
| | comp=Z,0.5nm,0.5s,baz=309,slow=3.6,SNR=5.9 | | | | | | |
| BRVK | Borovoye | 46.81 | 305 | i P | P | 11 42 08.0 | -0.6 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.3s | | | | | | |
| BRVK | Borovoye | 46.81 | 305 | eP | P | 11 42 08.0 | -0.6 |
| ARU | Arti | 50.28 | 314 | d iP | P | 11 42 33.9 | -0.3 |
| ARU | | | | *PP | pP | 11 44 18.1 | -5.4 |
| ARU | | | | | | 11 44 36.1 | |
| ARU | | | | S | S | 11 49 03.7 | +0.9 |
| ARU | | | | SS | SS | 11 52 48.1 | +1.5 |
| ARU | | | | pmax | pmax | | |
| | comp=Z,21nm,2.5s | | | | | | |
| ARU | Arti | 50.28 | 314 | eP | P | 11 42 33.9 | -0.3 |
| ARCES | ARCESS Array B | 51.90 | 339 | P | P | 11 42 45.4 | -0.3 |
| | comp=Z,2.4nm,0.8s,baz=21,slow=8.7,SNR=4.9 | | | | | | |
| SUMG | Summit | 54.58 | 4 | i P | P | 11 43 05.1 | +0.1 |
| SUMG | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.7s | | | | | | |
| SUMG | Summit | 54.58 | 4 | i P | P | 11 43 05.1 | +0.1 |
| | comp=Z,5.2nm,0.7s | | | | | | |
| YBH | Yreka Blue Hor | 55.37 | 65 | P | P | 11 43 11.2 | +0.6 |
| | comp=Z,0.8nm,0.7s,baz=352,slow=7.1,SNR=2.7 | | | | | | |
| FINES | FINESS Array B | 58.30 | 333 | P | P | 11 43 29.8 | -0.4 |
| | comp=Z,16nm,1.2s,baz=33,slow=7.5,SNR=10.0 | | | | | | |
| FINES | FINESS Array B | 58.30 | 333 | i P | P | 11 43 29.7 | -0.4 |
| FINES | | | | pmax | pmax | | |
| | comp=Z,13nm,1.1s | | | | | | |
| PDAR | Pinedale Array | 61.57 | 56 | P | P | 11 43 52.1 | -0.2 |
| | comp=Z,0.9nm,0.5s,baz=348,slow=2.1,SNR=12 | | | | | | |
| ULM | Lac du Bonnet | 62.20 | 42 | P | P | 11 43 54.8 | -1.2 |
| | comp=Z,1.0nm,0.4s,baz=309,slow=6.5,SNR=2.7 | | | | | | |
| NB2 | NORSAR Subarra | 62.26 | 340 | P | P | 11 43 55.3 | -0.9 |
| | comp=Z,1.5nm,0.7s,baz=26,slow=6.5 | | | | | | |
| NOA | NORSAR Array B | 62.26 | 340 | P | P | 11 43 55.7 | -0.5 |
| | comp=Z,1.4nm,0.6s,baz=26,slow=6.4,SNR=5.2 | | | | | | |
| NOA | NORSAR Array B | 62.26 | 340 | eP | P | 11 43 55.8 | -0.5 |
| NOA | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.6s | | | | | | |
| MAK | Makhachkala | 64.79 | 308 | eP | P | 11 44 13.1 | +0.6 |
| MAK | | | | e*PP | pP | 11 46 10.2 | -0.4 |
| MAK | | | | e*SP | sP | 11 47 13.5 | 0.0 |
| MAK | | | | eS | S | 11 52 08.5 | +1.3 |
| MAK | | | | eSS | SS | 11 56 27.0 | -6.0 |
| GERES | GERESS Array B | 72.74 | 333 | P | P | 11 44 59.9 | -0.3 |
| | comp=Z,0.6nm,0.4s,baz=39,slow=6.3,SNR=4.1 | | | | | | |
| BRTR | Keskin Array B | 73.64 | 315 | P | P | 11 45 04.5 | -1.1 |
| | comp=Z,0.3nm,0.4s,baz=67,slow=2.9,SNR=3.1 | | | | | | |
| WRA | Warramunga Arr | 74.23 | 198 | P | P | 11 45 08.2 | -0.7 |
| | comp=Z,1.9nm,0.7s,baz=12,slow=5.8,SNR=23 | | | | | | |
| WRA | Warramunga Arr | 74.23 | 198 | i P | P | 11 45 07.5 | -1.3 |
| WRA | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | |
| TXAR | Lajitas Array | 74.89 | 61 | P | P | 11 45 12.6 | -0.1 |
| | comp=Z,0.7nm,0.5s,baz=297,slow=4.9,SNR=16 | | | | | | |
| TXAR | Lajitas Array | 74.89 | 61 | eP | P | 11 45 12.7 | 0.0 |
| TXAR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.5s | | | | | | |
| ASAR | Alice Springs | 77.94 | 197 | P | P | 11 45 28.9 | -0.3 |
| | comp=Z,3.2nm,0.8s,baz=10,slow=5.2,SNR=56 | | | | | | |
| PLCA | Paso Flores | 148.65 | 85 | PKPbc | PKPbc | 11 53 10.6 | -1.4 |
| | comp=Z,1.6nm,0.7s,baz=299,slow=5.7,SNR=8.1 | | | | | | |

**IDC 09 11:59:01.1**±581.0,**47°.50N×49°.63E,h0km,Error ellipse: s-maj=225.7km s-min=128.2km az=49.0,Western Kazakhstan**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| I31KZ | AKTYUBINSK INF | 6.25 | 59 | i | | 12 37 25.0 | |
| | baz=245,slow=302,SNR=2.0 | | | | | | |
| I43RU | DUBNA INFRASON | 11.96 | 325 | i | | 13 14 00.0 | |
| | baz=135,slow=319,SNR=0.8 | | | | | | |
| I46RU | ZALESOVO INFRA | 23.01 | 61 | i | | 14 17 25.0 | |
| | baz=269,slow=324,SNR=5.8 | | | | | | |
| I34MN | SONGINO INFRAS | 37.50 | 68 | i | | 15 53 00.0 | |
| | baz=290,slow=325,SNR=1.7 | | | | | | |

**IDC 09 12:10:57.8**±1.7,**2°.19N×125°.00E,h0km,mb3.4**/4,**mb1 3.7**/4,**mb1mx3.4**/32,**mbtmp3.5**/4,**Error ellipse: s-maj=119.8km s-min=22.7km az=67.0,Talaud Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| FITZ | Fitzroy Crossi | 20.18 | 178 | P | P | 12 15 34.0 | -0.1 |
| | 0.6nm,0.5s,baz=1.6,slow=8.9,SNR=4.6 | | | | | | |
| WRA | Warramunga Arr | 23.83 | 158 | P | P | 12 16 13.0 | +0.2 |
| | 0.7nm,0.3s,baz=336,slow=10,SNR=17 | | | | | | |
| ASAR | Alice Springs | 27.12 | 162 | P | P | 12 16 42.6 | -0.1 |
| | 0.1nm,0.4s,baz=341,slow=6.6,SNR=5.4 | | | | | | |
| MKAR | Makanchi Array | 57.85 | 327 | P | P | 12 20 51.2 | -0.1 |
| | 0.3nm,0.3s,baz=124,slow=8.0,SNR=10 | | | | | | |

**KRNET 09 12:34:32.6**±0.1,**40°.40N×72°.19E,h25km,mb2.1,12C-6D, Kyrgyzstan**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SFK | Sufi-Kurgan | 1.07 | 111 | ⇓iP | Pn | 12 34 47.4 | -4.9 |
| | baz=77 | | | | | | |
| SFK | | | | ⇓iS | Sn | 12 35 07.5 | +1.0 |
| | baz=77 | | | | | | |
| SFK | Sufi-Kurgan | 1.07 | 111 | ⇑iP | Pb | 12 34 52.7 | +0.1 |
| | baz=110 | | | | | | |
| SFK | | | | ⇑iS | Sn | 12 35 07.5 | +1.0 |
| | baz=110 | | | | | | |
| ARSB | Arslanbob | 1.10 | 33 | ⇑iP | Pb | 12 34 53.4 | +0.3 |
| | baz=32 | | | | | | |
| ARSB | | | | ⇑iS | Sb | 12 35 08.3 | +1.2 |
| | baz=32 | | | | | | |
| ARK | Arkit | 1.41 | 353 | ⇑iP | Pb | 12 34 58.0 | -0.3 |
| | baz=353 | | | | | | |
| ARK | | | | ⇑iS | Sb | 12 35 16.7 | +0.8 |
| | baz=353 | | | | | | |
| TOKL | Toktogul | 1.62 | 18 | ⇑iP | Pb | 12 35 02.2 | +0.3 |
| | baz=18 | | | | | | |
| TOKL | | | | ⇑iS | Sb | 12 35 23.6 | +1.6 |
| | baz=18 | | | | | | |
| AML | Almayashu | 2.07 | 33 | ⇑eP | Pn | 12 35 07.4 | +1.3 |
| | baz=33 | | | | | | |
| AML | | | | ⇑iS | Sb | 12 35 41.2 | +6.1 |
| | baz=33 | | | | | | |
| MNAS | Manas | 2.10 | 6 | i P | Pn | 12 35 07.4 | +1.1 |
| | baz=14 | | | | | | |
| MNAS | | | | i S | Sb | 12 35 41.2 | +5.4 |
| | baz=14 | | | | | | |
| UCH | Uchtor | 2.53 | 43 | ⇑eP | Pn | 12 35 13.5 | +1.0 |
| | baz=40 | | | | | | |
| UCH | | | | ⇑iS | Sb | 12 35 53.3 | +4.9 |
| | baz=40 | | | | | | |
| AAK | Ala-Archa | 2.83 | 37 | ⇓iP | Pn | 12 35 17.8 | +1.5 |
| | baz=36 | | | | | | |
| AAK | | | | ⇓iS | Sb | 12 35 59.2 | +2.5 |
| | baz=36 | | | | | | |
| KBK | Karagaybulak | 3.06 | 42 | ⇓eP | Pn | 12 35 20.5 | +1.0 |
| | baz=40 | | | | | | |
| KBK | | | | ⇓eS | Sb | 12 36 05.6 | +2.2 |
| | baz=40 | | | | | | |

*DDA **09** 12:37:15.8,38°.36N×38°.87E,h7km,Md2.5*
*ISCJB **09** 12:37:16.8±0.8,38°.36N±0°.05×38°.86E±0°.05,h9km±7km, Error ellipse: s-maj=9.7km s-min=5.2km az=148.5*
*CSEM **09** 12:37:16.8±0.3,38°.39N×38°.83E,h2km,MD2.5,Error ellipse: s-maj=7.4km s-min=6.3km az=157.0*
*ISK **09** 12:37:16.8,38°.36N×38°.86E,h8km,MD2.5*
**ISC 09 12:37:16.0**±1.0,**38°.38N**±0°.05×**38°.85E**±0°.03,**h14**km±7km, **n16**,σ0s.69/26,**Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ELZG | Elazig | 0.16 | 43 | i P | Pg | 12 37 20.0 | -0.1 |
| ELZG | | | | i S | Sg | 12 37 22.7 | -0.1 |
| ELZG | Elazig | 0.16 | 43 | P | Pg | 12 37 20.0 | -0.1 |
| ELZG | | | | S | Sg | 12 37 22.7 | -0.1 |
| MALT | Malatya | 0.34 | 258 | ePG | Pb | 12 37 24.1 | +0.2 |
| MALT | | | | eSG | Sb | 12 37 29.3 | +0.1 |
| MALT | Malatya | 0.34 | 258 | ePg | Pb | 12 37 24.1 | +0.2 |
| MALT | | | | eSg | Sb | 12 37 29.3 | +0.1 |
| SVRC | Sivrice-ELAZID | 0.36 | 90 | ePG | Pb | 12 37 24.2 | -0.1 |
| SVRC | Sivrice-ELAZID | 0.36 | 90 | ePg | Pb | 12 37 24.2 | -0.1 |
| PTK | Pertek | 0.66 | 40 | ePG | Pb | 12 37 30.3 | +0.8 |
| PTK | | | | eSG | Sn | 12 37 40.3 | -1.3 |
| PTK | Pertek | 0.66 | 40 | ePg | Pb | 12 37 30.3 | +0.8 |
| PTK | | | | eSg | Sn | 12 37 40.3 | -1.3 |
| HEKM | Malatya_Hekimh | 0.85 | 306 | i P | Pg | 12 37 32.4 | -0.2 |
| HEKM | | | | i S | Sn | 12 37 46.3 | 0.0 |
| HEKM | Malatya_Hekimh | 0.85 | 306 | P | Pg | 12 37 32.4 | -0.2 |
| HEKM | | | | S | Sn | 12 37 46.3 | 0.0 |
| TNCL | Tunceli-Merkez | 0.91 | 36 | i S | Sn | 12 37 48.2 | +0.6 |
| TNCL | Tunceli-Merkez | 0.91 | 36 | S | Sn | 12 37 48.2 | +0.6 |
| KEMA | Kemaliye | 0.93 | 343 | i P | Pb | 12 37 33.0 | -1.0 |
| KEMA | | | | i S | Sg | 12 37 47.4 | +1.2 |
| KEMA | Kemaliye | 0.93 | 343 | P | Pb | 12 37 33.0 | -1.0 |
| KEMA | | | | S | Sg | 12 37 47.4 | +1.2 |
| URFA | Urfa | 0.94 | 181 | ePG | Pn | 12 37 34.9 | 0.0 |
| URFA | Urfa | 0.94 | 181 | ePg | Pn | 12 37 34.9 | 0.0 |

*IDC **09** 12:47:50.6±7.2,14°.97S×179°.03W,h320km±71km, mb3.8/14,mb1 3.9/14,mb1mx3.7/30,mbtmp4.4/14,Error ellipse: s-maj=21.7km s-min=16.5km az=60.0*
*ISCJB **09** 12:47:57.1±0.3,15°.11S±0°.06×179°.16W±0°.08,h401km, mb4.3/30,Error ellipse: s-maj=12.0km s-min=7.1km az=31.0*
*NEIC **09** 12:48:00.0±1.1,15°.11S×179°.16W,h420km±12km, mb4.5/15,Error ellipse: s-maj=11.7km s-min=8.3km az=119.0*
**ISC 09 12:47:58.6**±0.6,**15°.0S**±0°.1×**179°.1W**±0°.1,**h401**km,**n50**, σ1s.25/49,**mb4.4**/30,**Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MSVF | Nonsavu | 3.84 | 225 | eP | P | 12 49 11.4 | +2.2 |
| MSVF | | | | eS | S | 12 50 14.2 | +7.4 |
| DZM | Mont Dzumac | 15.38 | 241 | P | P | 12 51 16.9 | +1.5 |
| | 1.2nm,0.3s,baz=52,slow=20,SNR=23 | | | | | | |
| URZ | Urewera | 23.41 | 187 | P | P | 12 52 31.0 | -2.9 |
| | 23nm,0.6s,baz=10,slow=4.7,SNR=22 | | | | | | |
| URZ | Urewera | 23.41 | 187 | eP | P | 12 52 31.9 | -2.0 |
| THZ | Tophouse | 27.55 | 193 | eP | P | 12 53 09.4 | -1.3 |
| | 69nm,1.8s | | | | | | |
| LTZ | Lake Taylor | 28.66 | 193 | eP | P | 12 53 18.7 | -1.8 |
| | 15nm,0.7s | | | | | | |
| OXZ | Oxford | 29.23 | 193 | eP | P | 12 53 23.4 | -2.0 |
| | 26nm,1.1s | | | | | | |
| RPZ | Rata Peaks | 29.82 | 194 | P | P | 12 53 29.1 | -1.6 |
| | 9.1nm,0.6s,baz=304,slow=0.7,SNR=9.5 | | | | | | |
| FOZ | Fox Glacier | 29.97 | 196 | eP | P | 12 53 30.0 | -1.9 |
| | 36nm,1.1s | | | | | | |
| WKZ | Wanaka | 31.39 | 196 | eP | P | 12 53 42.3 | -2.0 |
| | 20nm,0.9s | | | | | | |
| MLZ | Mavora Lakes | 32.13 | 197 | eP | P | 12 53 50.4 | -0.2 |
| | 20nm,0.8s | | | | | | |
| WHZ | Wether Hill Ro | 32.66 | 197 | eP | P | 12 53 53.9 | -1.3 |
| | 36nm,0.8s | | | | | | |
| CTA | Charters Tower | 33.36 | 256 | P | P | 12 54 01.4 | -0.2 |
| | 5.0nm,0.7s,baz=95,slow=9.6,SNR=11 | | | | | | |
| STKA | Stephens Creek | 39.51 | 238 | P | P | 12 54 52.9 | +0.2 |
| | 15nm,0.7s,baz=77,slow=8.8,SNR=40 | | | | | | |
| STKA | Stephens Creek | 39.51 | 238 | eP | P | 12 54 52.7 | 0.0 |
| | 3.2nm,0.7s | | | | | | |
| WB2 | Warramunga Arr | 44.55 | 257 | eP | P | 12 55 32.2 | -0.8 |
| WRAB | Tennant Creek | 44.55 | 257 | eP | P | 12 55 31.9 | -1.1 |
| | 10nm,0.8s | | | | | | |
| WR1 | Warramunga Arr | 44.56 | 257 | eP | P | 12 55 32.1 | -1.0 |
| | 14nm,0.8s | | | | | | |
| WRA | Warramunga Arr | 44.56 | 257 | P | P | 12 55 32.1 | -1.0 |
| | 2.1nm,0.3s,baz=95,slow=7.6,SNR=115 | | | | | | |
| AS01 | Alice Springs | 44.95 | 251 | eP | P | 12 55 35.5 | -0.6 |
| AS31 | Alice Springs | 44.99 | 251 | eP | P | 12 55 36.2 | -0.3 |
| | 25nm,0.3s | | | | | | |
| ASAR | Alice Springs | 44.99 | 251 | P | P | 12 55 36.2 | -0.3 |
| | 30nm,0.3s,baz=85,slow=8.8,SNR=1619 | | | | | | |
| FORT | Forrest | 50.69 | 242 | eP | P | 12 56 18.4 | -1.0 |
| | 331nm,0.6s | | | | | | |
| NWAO | Narrogin (SRO) | 60.01 | 240 | P | P | 12 57 24.1 | -0.9 |
| | 5.4nm,0.6s,baz=1.1,slow=8.7,SNR=10.0 | | | | | | |
| VNDA | Vanda | 63.27 | 185 | P | P | 12 57 46.6 | +0.8 |
| | 1.4nm,0.7s,baz=354,slow=8.4,SNR=8.8 | | | | | | |
| VNDA | Vanda | 63.27 | 185 | eP | P | 12 57 46.4 | +0.7 |
| MJAR | Matsushiro Arr | 65.18 | 323 | P | P | 12 57 58.1 | -0.5 |
| | 2.1nm,0.6s,baz=154,slow=6.1,SNR=8.0 | | | | | | |
| PETK | Petropavlovsk- | 70.71 | 345 | P | P | 12 58 32.2 | 0.0 |
| | 3.3nm,0.8s,baz=138,slow=11,SNR=3.5 | | | | | | |
| PEA1 | Petropavlovsk- | 70.71 | 345 | eP | P | 12 58 32.2 | 0.0 |
| QSPA | South Pole Qui | 75.04 | 180 | eP | P | 12 58 58.2 | +0.8 |
| | 17nm,0.8s | | | | | | |
| HWB | Hans Werner Br | 76.14 | 50 | eP | P | 12 59 03.4 | -0.6 |
| SRTC | Snort | 76.85 | 47 | eP | P | 12 59 10.2 | +2.2 |
| COA | Coachella | 77.43 | 51 | eP | P | 12 59 09.1 | -2.0 |
| NV01 | Mina Array Sit | 77.83 | 45 | eP | P | 12 59 13.9 | +0.4 |
| RND | Reindeer | 81.61 | 13 | eP | P | 12 59 32.1 | -0.7 |
| | 9.5nm,1.2s | | | | | | |
| CCB | Clear Creek Bu | 82.92 | 13 | eP | P | 12 59 38.4 | -0.9 |
| | 3.7nm,0.6s | | | | | | |
| IMAR | Indian Mountai | 82.95 | 10 | eP | P | 12 59 39.4 | -0.1 |
| IL1 | Eielson Array | 83.23 | 13 | eP | P | 12 59 39.7 | -1.2 |
| ILAR | Eielson Array | 83.23 | 13 | P | P | 12 59 40.0 | -0.9 |
| | 1.9nm,0.7s,baz=233,slow=5.6,SNR=32 | | | | | | |
| ILB | Eielson Array | 83.23 | 13 | eP | P | 12 59 40.3 | -0.6 |
| TCUT | Toone Canyon | 83.78 | 45 | eP | P | 12 59 46.0 | +1.5 |
| | 6.4nm,0.8s | | | | | | |
| LTX | Lajitas | 85.03 | 58 | eP | P | 12 59 52.1 | +1.2 |
| TXAR | Lajitas Array | 85.03 | 58 | P | P | 12 59 52.1 | +1.2 |
| | 0.2nm,0.9s,baz=223,slow=6.8,SNR=5.7 | | | | | | |
| PD31 | Pinedale Array | 85.73 | 44 | eP | P | 12 59 54.5 | +0.4 |
| PDAR | Pinedale Array | 85.73 | 44 | P | P | 12 59 54.3 | +0.2 |
| | 0.6nm,0.5s,baz=204,slow=2.2,SNR=6.3 | | | | | | |
| MAW | Mawson | 86.35 | 200 | P | P | 12 59 57.2 | +0.9 |
| | 8.7nm,0.6s,baz=135,slow=5.3,SNR=14 | | | | | | |
| SONA0 | Songino Array | 90.91 | 320 | eP | P | 13 00 19.0 | +0.8 |
| SONM | Songino Array | 90.91 | 320 | P | P | 13 00 19.0 | +0.8 |
| | 0.2nm,0.5s,baz=116,slow=4.7,SNR=3.0 | | | | | | |
| GERES | GERESS Array B | 144.64 | 345 | PKP | PKPdf | 13 06 46.6 | -1.8 |
| | 0.4nm,0.4s,baz=45,slow=4.0,SNR=4.3 | | | | | | |
| TORD | Torodi Ar. Bea | 178.00 | 203 | PKPab | PKPab | 13 09 12.7 | -0.3 |
| | 0.8nm,1.0s,baz=140,slow=3.5,SNR=3.4 | | | | | | |

*IDC **09** 12:53:03.3±6.3,6°.94S×129°.39E,h107km±63km,mb3.8/7, mb1 3.9/10,mb1mx3.7/29,mbtmp4.2/10,Error ellipse: s-maj=51.9km s-min=16.0km az=45.0*
*ISCJB **09** 12:53:04.5±0.3,7°.07S±0°.04×129°.30E±0°.06,h139km, mb3.9/6,Error ellipse: s-maj=9.5km s-min=4.2km az=150.0*
*DJA **09** 12:53:05.8±1.3,7°S±4°×13°0E±°,h22km±14km,M4.5/6, mB5.1/2,mb4.3/3,MLv4.6/6,Mw(mB)4.5/2*
*NEIC **09** 12:53:07.1±0.9,6°.99S×129°.42E,h145km±10km,mb4.3/5, Error ellipse: s-maj=12.4km s-min=8.7km az=64.0*
**ISC 09 12:53:06.0**±0.5,**7°.01S**±0°.05×**129°.41E**±0°.05,**h139**km,**n42**, σ2s.27/52,**mb3.9**/6,**Banda Sea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SAUI | Saumlaki | 2.11 | 118 | P | Pn | 12 53 43.3 | +1.5 |
| SAUI | | | | Pg | Pn | 12 53 44.7 | +2.9 |
| SAUI | | | | S | Sn | 12 54 08.6 | -0.7 |
| SAUI | | | | Sg | Sn | 12 54 09.5 | +0.2 |
| SAUI | Saumlaki | 2.11 | 118 | ePn | Pn | 12 53 44.8 | +2.9 |
| SAUI | | | | eSn | Sn | 12 54 09.4 | +0.2 |
| FAKI | Fak Fak | 4.95 | 35 | P | Pn | 12 54 18.3 | -0.3 |
| FAKI | Fak Fak | 4.95 | 35 | ePn | Pn | 12 54 18.1 | -0.5 |
| FAKI | | | | eSn | Sn | 12 55 09.3 | -5.8 |
| SOEI | Soe | 5.78 | 241 | P | Pn | 12 54 31.4 | +1.6 |
| SOEI | | | | S | Sn | 12 55 38.7 | +3.6 |
| SOEI | Soe | 5.78 | 241 | ePn | Pn | 12 54 32.1 | +2.3 |
| SOEI | | | | eSn | Sn | 12 55 28.7 | -6.4 |
| SANI | Sanana | 5.99 | 325 | P | Pn | 12 54 34.8 | +2.3 |
| MTN | Manton Dam | 6.04 | 164 | ePn | Pn | 12 54 34.3 | +1.1 |
| MTN | | | | eSn | Sn | 12 55 39.0 | -2.4 |
| LBMI | Labuha | 6.61 | 343 | P | Pn | 12 54 43.0 | +2.2 |
| FITZ | Fitzroy Crossi | 11.63 | 198 | P | Pn | 12 55 46.2 | -1.6 |
| | 0.5nm,0.3s,baz=21,slow=11,SNR=21 | | | | | | |
| FITZ | | | | S | Sn | 12 57 46.6 | -10 |
| | 1.5nm,0.3s,baz=16,slow=20,SNR=5.8 | | | | | | |
| WRAB | Tennant Creek | 13.72 | 160 | ePn | Pn | 12 56 13.3 | -1.6 |
| WRAB | | | | eSn | Sn | 12 58 36.8 | -10 |
| WR1 | Warramunga Arr | 13.72 | 160 | ePn | Pn | 12 56 12.4 | -2.5 |
| WR1 | | | | eSn | Sn | 12 58 37.0 | -10 |
| WRA | Warramunga Arr | 13.72 | 160 | P | Pn | 12 56 12.4 | -2.5 |
| | 1.5nm,0.3s,baz=339,slow=13,SNR=27 | | | | | | |
| WRA | | | | S | Sn | 12 58 37.0 | -10 |
| | 6.4nm,0.3s,baz=333,slow=22,SNR=12 | | | | | | |
| WB2 | Warramunga Arr | 13.73 | 160 | ePn | Pn | 12 56 12.5 | -2.5 |
| WB2 | | | | eSn | Sn | 12 58 36.4 | -10 |
| COEN | Coen | 15.19 | 118 | ePn | P | 12 56 34.3 | -0.9 |
| | 20nm,1.0s | | | | | | |
| COEN | | | | eSn | Sn | 12 59 10.3 | -12 |
| AS31 | Alice Springs | 17.12 | 166 | eP | Pn | 12 56 58.0 | +1.0 |
| | 5.2nm,0.5s | | | | | | |
| ASAR | Alice Springs | 17.12 | 166 | P | Pn | 12 56 57.3 | +0.3 |
| | 1.7nm,0.3s,baz=342,slow=9.7,SNR=46 | | | | | | |
| ASAR | | | | S | S | 12 59 53.8 | -14 |
| | 0.3nm,0.3s,baz=343,slow=16,SNR=4.2 | | | | | | |
| AS01 | Alice Springs | 17.13 | 166 | eP | Pn | 12 56 58.7 | +1.5 |
| AS01 | | | | eS | S | 13 00 00.3 | -7.9 |
| PMG | Port Moresby | 17.73 | 99 | P | Pn | 12 57 07.7 | +3.3 |
| | 0.4nm,0.3s,baz=290,slow=15,SNR=3.2 | | | | | | |
| SBUM | Sibu | 19.56 | 298 | eP | Pn | 12 57 25.9 | -0.1 |
| | 14nm,1.0s | | | | | | |
| SBUM | | | | eS | S | 13 00 59.1 | +2.4 |
| CTA | Charters Tower | 20.88 | 130 | P | P | 12 57 38.9 | +1.5 |
| | 2.7nm,0.6s,baz=297,slow=11,SNR=6.2 | | | | | | |
| STKA | Stephens Creek | 27.23 | 157 | P | P | 12 58 38.3 | +1.2 |
| | 3.3nm,0.5s,baz=321,slow=7.6,SNR=5.5 | | | | | | |
| STKA | Stephens Creek | 27.23 | 157 | eP | P | 12 58 38.3 | +1.2 |
| | 0.8nm,0.5s | | | | | | |
| PSI | Prapat | 31.95 | 287 | P | P | 12 59 19.3 | +0.1 |
| | 7.1nm,0.7s,baz=99,slow=6.3,SNR=4.4 | | | | | | |
| CMAR | Chiang Mai Arr | 39.29 | 311 | P | P | 13 00 22.1 | +0.5 |
| | 1.6nm,0.7s,baz=138,slow=7.3,SNR=11 | | | | | | |
| RPZ | Rata Peaks | 51.59 | 142 | P | P | 13 01 58.9 | +0.8 |
| | baz=328,slow=5.3 | | | | | | |
| ODAN | Odare | 52.82 | 311 | eP | P | 13 02 06.8 | -0.9 |
| | 6.0nm,0.5s | | | | | | |
| TAPN | Taplejung | 52.85 | 312 | eP | P | 13 02 07.6 | -0.4 |
| | 7.8nm,0.3s | | | | | | |
| RAMN | Ramite | 53.46 | 311 | eP | P | 13 02 11.9 | -0.5 |
| | 18nm,0.5s | | | | | | |
| GUN | Gumba | 54.52 | 312 | eP | P | 13 02 19.7 | -0.5 |
| | 15nm,0.5s | | | | | | |
| PKI | Pulchoki | 54.69 | 311 | eP | P | 13 02 20.7 | -0.7 |
| PKIN | Phulchoki | 54.70 | 311 | eP | P | 13 02 20.9 | -0.5 |
| KKN | Kakani | 54.90 | 311 | eP | P | 13 02 22.4 | -0.4 |
| | 7.6nm,0.6s | | | | | | |
| DMN | Daman | 54.93 | 311 | eP | P | 13 02 22.8 | -0.3 |
| KOLN | Koldanda | 56.16 | 310 | eP | P | 13 02 31.2 | -0.6 |
| PYUN | Piuthan | 56.79 | 310 | eP | P | 13 02 36.0 | -0.2 |
| SONA0 | Songino Array | 58.26 | 342 | eP | P | 13 02 47.1 | +1.0 |
| SONM | Songino Array | 58.26 | 342 | P | P | 13 02 47.1 | +1.0 |
| | 0.7nm,0.7s,baz=149,slow=6.0,SNR=4.5 | | | | | | |
| MK32 | Makanchi Array | 67.91 | 327 | eP | P | 13 03 49.7 | 0.0 |
| MKAR | Makanchi Array | 67.91 | 327 | P | P | 13 03 49.7 | 0.0 |
| | 1.2nm,0.5s,baz=115,slow=7.8,SNR=14 | | | | | | |

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ZALV** | **Zalesovo Beam** | **71.33** | **334** | P | **P** | **13 04 09.4** | **-1.0** |
| | 0.6nm,0.5s,baz=130,slow=6.0,SNR=4.5 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **71.33** | **334** | *e*P | **P** | **13 04 09.4** | **-1.0** |

*SOME **09** 12:53:28.6, 44°.25N×83°.23E, h5km*

**ISC 09 12:53:28.9**±2.4**, 44°.38N**±0°.09×**83°.2E**±0°.1**, h10**km**, n6, σ1s.60**/9**, 1C-2D, Northern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KTMS** | **Ketmen** | **2.27** | **247** | *e*P | **Pg** | **12 54 10.4** | **-1.9** |
| | 2.0nm,0.4s | | | | | | |
| KTMS | | | | *e*S | **Sg** | **12 54 39.6** | **-2.1** |
| | 14nm,0.4s | | | | | | |
| **DJR** | **Jarkent** | **2.45** | **270** | *e*P | **Pb** | **12 54 14.5** | **+1.4** |
| | 8.3nm,3.7s | | | | | | |
| DJR | | | | *e*S | **Sg** | **12 54 46.6** | **-1.0** |
| | 6.8nm,0.5s | | | | | | |
| **MK31** | **Makanchi Array** | **2.50** | **345** | ⇑Pg | **Pn** | **12 54 09.1** | **-0.4** |
| | 9.9nm,1.0s,baz=159,slow=17,SNR=17 | | | | | | |
| MK31 | | | | ⇓Lg | Lg | 12 54 43.4 | |
| | 2.5nm,0.3s,baz=154,slow=28,SNR=21 | | | | | | |
| **KAPS** | **Kapalarasan** | **2.88** | **290** | *e*P | **Pg** | **12 54 23.5** | **-0.6** |
| | 0.2nm,0.1s | | | | | | |
| KAPS | | | | *e*S | **Sg** | **12 55 01.7** | **+0.2** |
| | 1.6nm,0.2s | | | | | | |
| **PDGK** | **Podgornoye** | **2.89** | **250** | ⇓Lg | Lg | 12 55 01.5 | |
| | 2.6nm,0.4s,baz=154,slow=28 | | | | | | |
| **SHLS** | **Shalkode** | **2.98** | **247** | *e*P | **Pn** | **12 54 18.1** | **+1.9** |
| | 2.0nm,0.2s | | | | | | |
| SHLS | | | | *e*S | **Sn** | **12 54 52.6** | **+0.6** |
| | 13nm,0.4s | | | | | | |

*ISK **09** 12:54:14.0, 38°.71N×43°.23E, h6km, MD2.6*
*ISCJB **09** 12:54:15.7±0.4, 38°.75N±0°.02×43°.32E±0°.05, h13km±4km, Error ellipse: s-maj=6.5km s-min=3.8km az=3.6*
*DDA **09** 12:54:15.5, 38°.75N×43°.32E, h7km, Ml3.0*
*CSEM **09** 12:54:15.1±0.2, 38°.75N×43°.34E, h15km, MD2.6, Error ellipse: s-maj=5.7km s-min=4.2km az=97.0*

**ISC 09 12:54:15.8**±0.8**, 38°.75N**±0°.02×**43°.34E**±0°.03**, h13**km±7km**, n28, σ0s.96**/46**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.16** | **167** | *e*PG | **Pg** | **12 54 19.5** | **-0.2** |
| VANB | | | | *e*SG | **Sg** | **12 54 23.2** | **+0.7** |
| **VANB** | **Van** | **0.16** | **167** | *e*Pg | **Pg** | **12 54 19.5** | **-0.2** |
| VANB | | | | *e*Sg | **Sg** | **12 54 23.2** | **+0.7** |
| **TVAN** | **Van** | **0.23** | **168** | *i* P | **Pg** | **12 54 20.1** | **-0.8** |
| TVAN | | | | *i* S | **Sg** | **12 54 25.0** | **+0.6** |
| **TVAN** | **Van** | **0.23** | **168** | P | **Pg** | **12 54 20.1** | **-0.8** |
| TVAN | | | | S | **Sg** | **12 54 25.0** | **+0.6** |
| **ERCV** | **ERCIS-VAN** | **0.27** | **359** | *e*PG | **Pg** | **12 54 20.7** | **-0.8** |
| ERCV | | | | *e*SG | **Sg** | **12 54 26.0** | **+0.6** |
| **ERCV** | **ERCIS-VAN** | **0.27** | **359** | *e*Pg | **Pg** | **12 54 20.7** | **-0.8** |
| ERCV | | | | *e*Sg | **Sg** | **12 54 26.0** | **+0.6** |
| **VMUR** | **Van-Muradiye** | **0.30** | **37** | *i* P | **Pg** | **12 54 21.9** | **-0.1** |
| VMUR | | | | *i* S | **Sb** | **12 54 27.9** | **0.0** |
| **VMUR** | **Van-Muradiye** | **0.30** | **37** | P | **Pg** | **12 54 21.9** | **-0.1** |
| VMUR | | | | S | **Sb** | **12 54 27.9** | **0.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.49** | **277** | *i* P | **Pg** | **12 54 24.7** | **-0.8** |
| ADCV | | | | *i* S | **Sb** | **12 54 33.0** | **-0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.49** | **277** | P | **Pg** | **12 54 24.7** | **-0.8** |
| ADCV | | | | S | **Sb** | **12 54 33.0** | **-0.4** |
| **GEVA** | **Gevas** | **0.49** | **207** | *i* P | **Pg** | **12 54 24.4** | **-1.1** |
| GEVA | | | | *i* S | **Sg** | **12 54 32.5** | **+0.3** |
| **GEVA** | **Gevas** | **0.49** | **207** | P | **Pg** | **12 54 24.4** | **-1.1** |
| GEVA | | | | S | **Sg** | **12 54 32.5** | **+0.3** |
| **CLDR** | **Caldiran** | **0.59** | **49** | *e*PG | **Pb** | **12 54 27.9** | **-0.2** |
| **CLDR** | **Caldiran** | **0.59** | **49** | *i* P | **Pg** | **12 54 26.9** | **-0.6** |
| CLDR | | | | *i* S | **Sb** | **12 54 36.8** | **+0.3** |
| **CLDR** | **Caldiran** | **0.59** | **49** | P | **Pg** | **12 54 26.9** | **-0.6** |
| **CLDR** | **Caldiran** | **0.59** | **49** | *e*Pg | **Pb** | **12 54 27.9** | **-0.2** |
| CLDR | | | | S | **Sb** | **12 54 36.8** | **+0.3** |
| **TUTA** | **Tutak** | **0.77** | **328** | *i* P | **Pg** | **12 54 29.6** | **-1.1** |
| **TUTA** | **Tutak** | **0.77** | **328** | P | **Pg** | **12 54 29.6** | **-1.1** |
| **AGRB** | **Hanur-Agry** | **0.87** | **342** | *e*PG | **Pg** | **12 54 31.0** | **-1.6** |
| AGRB | | | | *e*SG | **Sb** | **12 54 44.4** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **0.87** | **342** | *e*Pg | **Pg** | **12 54 31.0** | **-1.6** |
| AGRB | | | | *e*Sg | **Sb** | **12 54 44.4** | **+0.1** |
| **EKAR** | **Karacoban** | **1.12** | **297** | *i* P | **Pg** | **12 54 38.2** | **+0.9** |
| EKAR | | | | *i* S | **Sn** | **12 54 56.2** | **+3.6** |
| **EKAR** | **Karacoban** | **1.12** | **297** | P | **Pg** | **12 54 38.2** | **+0.9** |
| **EATA** | **Eleskirt** | **1.29** | **329** | *i* P | **Pn** | **12 54 38.2** | **-1.6** |
| EATA | | | | *i* S | **Sg** | **12 54 57.4** | **-0.1** |
| **EATA** | **Eleskirt** | **1.29** | **329** | P | **Pn** | **12 54 38.2** | **-1.6** |
| **CUKT** | **Cukurca** | **1.52** | **172** | *e*PN | **Pn** | **12 54 41.9** | **-0.8** |
| **CUKT** | **Cukurca** | **1.52** | **172** | *e*Pn | **Pn** | **12 54 41.9** | **-0.8** |
| **SENK** | **Senkaya-Erzuru** | **1.96** | **337** | *e*PN | **Pn** | **12 54 48.9** | **0.0** |
| **SENK** | **Senkaya-Erzuru** | **1.96** | **337** | *e*Pn | **Pn** | **12 54 48.9** | **0.0** |

*TEH **09** 13:09:57.5, 27°.42N×53°.17E, h15km, ML3.4*
*OMAN **09** 13:09:57.5, 27°.42N×53°.17E, h15km, Error ellipse: s-maj=1.0km s-min=1.0km az=1.0*
*CSEM **09** 13:09:58.8±0.3, 27°.31N×53°.19E, h15km, ML3.4, Error ellipse: s-maj=11.8km s-min=3.1km az=64.0*

**ISC 09 13:09:56.8**±1.3**, 27°.20N**±0°.07×**53°.0E**±0°.1**, h10**km**, n33, σ0s.77**/44**, Southern Iran**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GHIR** | **Ghir-Karzin** | **1.08** | **360** | *e*Pg | **Pb** | **13 10 17.0** | **-0.7** |
| **ISRV** | **Sarvestan** | **2.18** | **3** | *e*Pn | **Pn** | **13 10 33.7** | **+0.3** |
| ISRV | | | | *e*AMB | AMB | 13 11 28.0 | |
| | comp=Z,4μm,0.6s | | | | | | |
| **ISRV** | **Sarvestan** | **2.18** | **3** | *e*Pn | **Pn** | **13 10 33.7** | **+0.3** |
| **AHBU** | **AHRAM** | **2.24** | **318** | *e*P | **Pb** | **13 10 36.4** | **-0.9** |
| **IPAR** | **Pars** | **2.63** | **1** | *e*Pn | **Pn** | **13 10 39.6** | **0.0** |
| IPAR | | | | *e*Sg | **Sb** | **13 11 18.5** | **+1.7** |
| **IPAR** | **Pars** | **2.63** | **1** | *e*Pn | **Pn** | **13 10 39.6** | **0.0** |
| IPAR | | | | *e*Sg | **Sb** | **13 11 18.5** | **+1.7** |
| **BANOM** | **Banah** | **3.22** | **113** | P | **Pn** | **13 10 48.0** | **+0.5** |
| **BANOM** | **Banah** | **3.22** | **113** | Pn | **Pn** | **13 10 48.0** | **+0.5** |
| **BANOM** | **Banah** | **3.22** | **113** | P | **Pn** | **13 10 48.0** | **+0.5** |
| **NAZ** | **Nazwa, Dubai** | **3.25** | **132** | P | **Pn** | **13 10 48.8** | **+0.9** |
| NAZ | | | | S | **Sn** | **13 11 27.1** | **+0.4** |
| **NAZ** | **Nazwa, Dubai** | **3.25** | **132** | Pn | **Pn** | **13 10 48.8** | **+0.9** |
| NAZ | | | | Sn | **Sn** | **13 11 27.1** | **+0.4** |
| **NAZ** | **Nazwa, Dubai** | **3.25** | **132** | P | **Pn** | **13 10 48.8** | **+0.9** |
| NAZ | | | | S | **Sn** | **13 11 27.1** | **+0.4** |
| **UOSS** | **Minazif** | **3.66** | **127** | P | **Pn** | **13 10 53.8** | **+0.4** |
| | SNR=19 | | | | | | |
| UOSS | | | | S | **Sn** | **13 11 36.1** | **-0.5** |
| **UOSS** | **Minazif** | **3.66** | **127** | Pn | **Pn** | **13 10 53.8** | **+0.4** |
| | SNR=19 | | | | | | |
| UOSS | | | | Sn | **Sn** | **13 11 36.1** | **-0.5** |
| **UOSS** | **Minazif** | **3.66** | **127** | P | **Pn** | **13 10 53.8** | **+0.4** |
| | SNR=19 | | | | | | |
| UOSS | | | | S | **Sn** | **13 11 36.1** | **-0.5** |
| **ASHO** | **Ashiyiah** | **3.73** | **132** | Pn | **Pn** | **13 10 54.4** | **0.0** |
| | SNR=8.5 | | | | | | |
| ASHO | | | | Sn | **Sn** | **13 11 37.8** | **-0.6** |
| **ASHO** | **Ashiyiah** | **3.73** | **132** | Pn | **Pn** | **13 10 54.4** | **0.0** |
| | SNR=8.5 | | | | | | |
| ASHO | | | | Sn | **Sn** | **13 11 37.8** | **-0.6** |
| **ASHO** | **Ashiyiah** | **3.73** | **132** | P | **Pn** | **13 10 54.4** | **0.0** |
| | SNR=8.5 | | | | | | |
| ASHO | | | | S | **Sn** | **13 11 37.8** | **-0.6** |
| **IMEH** | **Mehriz** | **4.41** | **18** | *e*AMB | AMB | 13 11 08.2 | |
| | comp=Z,321nm,0.1s | | | | | | |
| IMEH | | | | *e*Pn | **Pn** | **13 11 03.6** | **-0.4** |
| **ISAD** | **Sadrabad** | **4.74** | **7** | *e*Pn | **Pn** | **13 11 08.6** | **+0.1** |
| **ISAD** | **Sadrabad** | **4.74** | **7** | *e*Pn | **Pn** | **13 11 08.6** | **+0.1** |
| **IBAF** | **Bafgh** | **4.92** | **27** | *e*Pn | **Pn** | **13 11 10.3** | **-0.6** |
| IBAF | | | | *e*AMB | AMB | 13 11 15.7 | |
| | comp=Z,495nm,0.1s | | | | | | |
| **IBAF** | **Bafgh** | **4.92** | **27** | *e*Pn | **Pn** | **13 11 10.3** | **-0.6** |
| **ICHK** | **Chekchek** | **5.17** | **13** | *e*Pn | **Pn** | **13 11 14.5** | **0.0** |
| ICHK | | | | *e*AMB | AMB | 13 11 20.9 | |
| | comp=Z,740nm,0.2s | | | | | | |
| **ICHK** | **Chekchek** | **5.17** | **13** | *e*Pn | **Pn** | **13 11 14.5** | **0.0** |
| **IZEF** | **Zefreh** | **5.71** | **354** | *e*AMB | AMB | 13 11 48.4 | |
| | comp=Z,89nm,0.4s | | | | | | |
| **BSY** | **Bisya** | **5.85** | **138** | Pn | **Pn** | **13 11 24.7** | **+1.1** |
| | SNR=6.2 | | | | | | |
| **BSY** | **Bisya** | **5.85** | **138** | P | **Pn** | **13 11 24.7** | **+1.1** |
| | SNR=6.2 | | | | | | |
| **BSYO** | **Bisya** | **5.88** | **138** | P | **Pn** | **13 11 24.7** | **+0.6** |
| | SNR=6.2 | | | | | | |
| **IKLH** | **Kolahrood** | **6.22** | **349** | *e*Pn | **Pn** | **13 11 29.9** | **+1.0** |
| IKLH | | | | *e*AMB | AMB | 13 12 05.4 | |
| | comp=Z,78nm,0.2s | | | | | | |
| **WSAR** | **Wadi Sarin** | **6.45** | **126** | P | **Pn** | **13 11 31.7** | **-0.1** |
| | SNR=9.4 | | | | | | |
| **WSAR** | **Wadi Sarin** | **6.45** | **126** | Pn | **Pn** | **13 11 31.7** | **-0.1** |
| | SNR=9.4 | | | | | | |
| WSAR | | | | Sn | **Sn** | **13 12 43.1** | **-2.4** |
| **WSAR** | **Wadi Sarin** | **6.45** | **126** | P | **Pn** | **13 11 31.7** | **-0.1** |
| | SNR=9.4 | | | | | | |

*ISK **09** 13:27:41.5, 38°.69N×43°.24E, h5km, ML2.8*
*ATA **09** 13:27:41.3±1.2, 38°.70N×43°.19E, h8km±19km, ML3.5, MW3.5*
*ISCJB **09** 13:27:42.9±0.4, 38°.71N±0°.02×43°.20E±0°.03, h1km±5km, Error ellipse: s-maj=4.3km s-min=3.1km az=155.6*
*CSEM **09** 13:27:42.6±0.1, 38°.71N×43°.20E, h2km, ML2.8, Error ellipse: s-maj=3.7km s-min=2.9km az=67.0*
*DDA **09** 13:27:42.4, 38°.71N×43°.22E, h7km, Ml3.2*

**ISC 09 13:27:43.0**±0.9**, 38°.71N**±0°.02×**43°.20E**±0°.02**, h11**km±7km**, n54, σ0s.82**/83**, 3D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.18** | **128** | *e*PG | **Pg** | **13 27 46.9** | **-0.1** |
| VANB | | | | *e*SG | **Sg** | **13 27 50.9** | **+1.0** |
| **VANB** | **Van** | **0.18** | **128** | *e*Pg | **Pg** | **13 27 46.9** | **-0.1** |
| VANB | | | | *e*Sg | **Sg** | **13 27 50.9** | **+1.0** |
| **TVAN** | **Van** | **0.24** | **139** | *i* P | **Pg** | **13 27 47.1** | **-0.9** |
| TVAN | | | | *i* S | **Sg** | **13 27 51.6** | **+0.1** |
| **TVAN** | **Van** | **0.24** | **139** | P | **Pg** | **13 27 47.1** | **-0.9** |
| TVAN | | | | S | **Sg** | **13 27 51.6** | **+0.1** |
| **ERCV** | **ERCIS-VAN** | **0.33** | **19** | *e*PG | **Pg** | **13 27 49.4** | **-0.2** |
| **ERCV** | **ERCIS-VAN** | **0.33** | **19** | *e*Pg | **Pg** | **13 27 49.4** | **-0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.39** | **285** | *i* P | **Pg** | **13 27 50.1** | **-0.6** |
| ADCV | | | | *i* S | **Sb** | **13 27 57.6** | **-0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.39** | **285** | P | **Pg** | **13 27 50.1** | **-0.6** |
| ADCV | | | | S | **Sb** | **13 27 57.6** | **-0.4** |
| **VMUR** | **Van-Muradiye** | **0.40** | **46** | *i* P | **Pb** | **13 27 51.2** | **-1.0** |
| VMUR | | | | *i* S | **Sb** | **13 27 59.2** | **+0.8** |
| **VMUR** | **Van-Muradiye** | **0.40** | **46** | P | **Pb** | **13 27 51.2** | **-1.0** |
| VMUR | | | | S | **Sb** | **13 27 59.2** | **+0.8** |
| **GEVA** | **Gevas** | **0.41** | **196** | ⇓*i*P | **Pg** | **13 27 49.5** | **-1.6** |
| GEVA | | | | *e*S | **Sg** | **13 27 56.5** | **-0.2** |
| GEVA | | | | IAML | | 13 27 59.5 | |
| | comp=Z,544nm,0.4s | | | | | | |
| **GEVA** | **Gevas** | **0.41** | **196** | *i* P | **Pg** | **13 27 49.7** | **-1.4** |
| GEVA | | | | *i* S | **Sg** | **13 27 57.4** | **+0.8** |
| **GEVA** | **Gevas** | **0.41** | **196** | P | **Pg** | **13 27 49.7** | **-1.4** |
| GEVA | | | | S | **Sg** | **13 27 57.4** | **+0.8** |
| **CLDR** | **Caldiran** | **0.71** | **52** | *e*PG | **Pg** | **13 27 56.1** | **-0.6** |
| CLDR | | | | *e*SG | **Sb** | **13 28 07.2** | **-0.1** |
| **CLDR** | **Caldiran** | **0.71** | **52** | *i* P | **Pg** | **13 27 56.2** | **-0.5** |
| CLDR | | | | *i* S | **Sb** | **13 28 07.4** | **+0.1** |
| **CLDR** | **Caldiran** | **0.71** | **52** | P | **Pg** | **13 27 56.2** | **-0.5** |
| CLDR | | | | *e*Sg | **Sb** | **13 28 07.2** | **-0.1** |
| **TUTA** | **Tutak** | **0.76** | **336** | ⇓*i*P | **Pg** | **13 27 56.8** | **-0.8** |
| TUTA | | | | *e*S | **Sb** | **13 28 07.9** | **-0.8** |
| TUTA | | | | IAML | | 13 28 08.8 | |
| | comp=Z,193nm,0.4s | | | | | | |
| **TUTA** | **Tutak** | **0.76** | **336** | *i* P | **Pg** | **13 27 56.8** | **-0.8** |
| TUTA | | | | *i* S | **Sg** | **13 28 07.1** | **-0.5** |
| **TUTA** | **Tutak** | **0.76** | **336** | P | **Pg** | **13 27 56.8** | **-0.8** |
| TUTA | | | | S | **Sg** | **13 28 07.1** | **-0.5** |
| **AGRB** | **Hanur-Agry** | **0.88** | **349** | *e*PG | **Pg** | **13 27 59.2** | **-0.8** |
| **AGRB** | **Hanur-Agry** | **0.88** | **349** | *e*Pg | **Pg** | **13 27 59.2** | **-0.8** |
| **BASK** | **Baskale_VAN** | **0.91** | **136** | *e*P | **Pg** | **13 27 59.9** | **-0.6** |
| BASK | | | | *e*S | **Sb** | **13 28 12.7** | **-0.4** |
| BASK | | | | IAML | | 13 28 17.8 | |
| | comp=Z,58nm,0.6s | | | | | | |
| **BASK** | **Baskale_VAN** | **0.91** | **136** | *i* P | **Pg** | **13 27 59.2** | **-1.3** |
| BASK | | | | *i* S | **Sb** | **13 28 12.7** | **-0.4** |
| **BASK** | **Baskale_VAN** | **0.91** | **136** | P | **Pg** | **13 27 59.2** | **-1.3** |
| BASK | | | | S | **Sb** | **13 28 12.7** | **-0.4** |
| **EKAR** | **Karacoban** | **1.04** | **302** | *e*P | **Pg** | **13 28 02.6** | **-0.5** |
| EKAR | | | | IAML | | 13 28 27.6 | |
| | comp=Z,41nm,0.4s | | | | | | |
| **EKAR** | **Karacoban** | **1.04** | **302** | *i* P | **Pb** | **13 28 03.2** | **0.0** |
| **EKAR** | **Karacoban** | **1.04** | **302** | P | **Pb** | **13 28 03.2** | **0.0** |
| **HAKT** | **HAKKARI** | **1.22** | **161** | *i* P | **Pn** | **13 28 07.1** | **+1.0** |
| HAKT | | | | *i* S | **Sn** | **13 28 22.9** | **+0.2** |
| **HAKT** | **HAKKARI** | **1.22** | **161** | P | **Pn** | **13 28 07.1** | **+1.0** |
| HAKT | | | | S | **Sn** | **13 28 22.9** | **+0.2** |
| **SRTM** | **Siirt_Merkez** | **1.24** | **235** | *i* P | **Pn** | **13 28 06.8** | **+0.5** |
| SRTM | | | | *i* S | **Sn** | **13 28 24.4** | **+1.4** |
| **SRTM** | **Siirt_Merkez** | **1.24** | **235** | P | **Pn** | **13 28 06.8** | **+0.5** |
| SRTM | | | | S | **Sn** | **13 28 24.4** | **+1.4** |
| **EATA** | **Eleskirt** | **1.28** | **335** | ⇓*i*P | **Pg** | **13 28 06.2** | **-1.3** |
| EATA | | | | *e*S | **Sn** | **13 28 25.6** | **+1.3** |
| EATA | | | | IAML | | 13 28 28.5 | |
| | comp=Z,16nm,0.3s | | | | | | |
| **EATA** | **Eleskirt** | **1.28** | **335** | *i* P | **Pg** | **13 28 05.9** | **-1.6** |
| EATA | | | | *i* S | **Sn** | **13 28 25.1** | **+0.8** |
| **EATA** | **Eleskirt** | **1.28** | **335** | P | **Pg** | **13 28 05.9** | **-1.6** |
| EATA | | | | S | **Sn** | **13 28 25.1** | **+0.8** |
| **SIRT** | **Sirnak** | **1.35** | **207** | *e*PN | **Pg** | **13 28 08.5** | **-0.3** |
| **SIRT** | **Sirnak** | **1.35** | **207** | *e*Pn | **Pg** | **13 28 08.5** | **-0.3** |
| **VRTB** | **Varto-Mus** | **1.44** | **289** | *e*PN | **Pb** | **13 28 09.8** | **0.0** |
| **VRTB** | **Varto-Mus** | **1.44** | **289** | *e*Pn | **Pb** | **13 28 09.8** | **0.0** |
| **CUKT** | **Cukurca** | **1.49** | **168** | *e*PN | **Pn** | **13 28 10.1** | **+0.2** |
| **CUKT** | **Cukurca** | **1.49** | **168** | *e*Pn | **Pn** | **13 28 10.1** | **+0.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.50** | **32** | *e*PN | **Pg** | **13 28 10.9** | **-1.0** |
| **TASB** | **TASBURUN-IGDIR** | **1.50** | **32** | *e*Pn | **Pg** | **13 28 10.9** | **-1.0** |
| **BNGL** | **BINGOL** | **1.62** | **279** | *e*P | **Pb** | **13 28 12.7** | **-0.3** |
| BNGL | | | | *e*S | **Sg** | **13 28 35.5** | **+0.3** |
| BNGL | | | | IAML | | 13 28 37.9 | |
| | comp=Z,88nm,0.4s | | | | | | |
| **BNGL** | **BINGOL** | **1.62** | **279** | *i* P | **Pb** | **13 28 12.7** | **-0.3** |
| BNGL | | | | *i* S | **Sg** | **13 28 35.3** | **+0.2** |
| **DIGO** | **Kars** | **1.71** | **4** | *e*P | **Pb** | **13 28 14.2** | **-0.3** |
| DIGO | | | | IAML | | 13 28 17.0 | |
| | comp=Z,12nm,0.5s | | | | | | |
| **ERZM** | **Erzurum** | **1.86** | **311** | *e*P | **Pb** | **13 28 17.3** | **+0.2** |
| **KARS** | **Kars** | **1.92** | **357** | *e*PN | **Pb** | **13 28 16.9** | **-1.1** |
| **KARS** | **Kars** | **1.92** | **357** | *e*Pn | **Pb** | **13 28 16.9** | **-1.1** |
| **SENK** | **Senkaya-Erzuru** | **1.96** | **341** | *e*PN | **Pb** | **13 28 18.2** | **-0.7** |
| **SENK** | **Senkaya-Erzuru** | **1.96** | **341** | *e*Pn | **Pb** | **13 28 18.2** | **-0.7** |
| **BNGB** | **Bingˆ¶l** | **1.99** | **279** | *e*PN | **Pb** | **13 28 18.2** | **-1.0** |
| **BINT** | **Bingol** | **2.13** | **275** | *e*Pn | **Pn** | **13 28 18.2** | **-0.4** |
| **YEDI** | **Yedisu-Bingol** | **2.19** | **290** | *e*PN | **Pn** | **13 28 20.9** | **+1.4** |
| **YEDI** | **Yedisu-Bingol** | **2.19** | **290** | *e*Pn | **Pn** | **13 28 20.9** | **+1.4** |

**MAN 09 13:33:07, 10°.27N×125°.26E, h15**km**, mb3.8, ML2.6, MS2.2, 1C, Leyte**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MSLP** | **Maasin** | **0.42** | **251** | *e*P | Pb | 13 33 16.6 | +0.5 |
| MSLP | | | | *e*S | Sb | 13 33 22.7 | +0.4 |
| **SCPH** | **Surigao** | **0.54** | **155** | *e*P | Pn | 13 33 21.2 | +1.1 |
| **PLP** | **Palo** | **0.93** | **343** | ⇑*i*P | Pb | 13 33 24.2 | -0.7 |
| PLP | | | | *i* S | Sb | 13 33 36.5 | -0.5 |
| **LLP** | **Lapu-Lapu** | **1.28** | **272** | *e*P | Pn | 13 33 29.9 | -0.4 |
| LLP | | | | *i* S | Sg | 13 33 47.8 | -0.5 |

**IDC 09 13:44:37.7**±13.0**, 15°.31N×119°.71E, h0**km**, mb3.4**/3**, mb1 3.8**/3**, mb1mx3.3**/46**, mbtmp3.5**/3**, Error ellipse: s-maj=425.0km s-min=31.8km az=36.0, Luzon**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SCZP** | **Santa Cruz** | **0.50** | **22** | *e*P | Pn | 13 44 55.2 | +3.1 |
| SCZP | | | | *e*S | Sn | 13 45 07.2 | +5.7 |
| **BUSP** | **Coron** | **3.32** | **172** | *e*P | Pn | 13 45 34.2 | +3.2 |
| **CMAR** | **Chiang Mai Arr** | **20.12** | **282** | P | P | 13 49 13.3 | -0.1 |
| | 0.3nm,0.3s,baz=98,slow=6.6,SNR=4.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **37.87** | **157** | P | P | 13 51 55.9 | -0.7 |
| | 1.3nm,0.9s,baz=336,slow=9.4,SNR=7.9 | | | | | | |
| **ASAR** | **Alice Springs** | **41.15** | **160** | P | P | 13 52 24.4 | +0.5 |
| | 0.3nm,0.4s,baz=339,slow=7.3,SNR=14 | | | | | | |

**PRE 09 14:06:21.3**±2.0**, 27°.46S×30°.81E, h5**km**, ML3.5, South Africa**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **POGA** | **Pongola** | **0.81** | **82** | *e*P | Pg | 14 06 36.8 | 0.0 |
| POGA | | | | *e*S | Sg | 14 06 46.2 | -1.1 |
| POGA | | | | AML | AML | 14 06 52.5 | |
| | comp=Z,684nm,0.4s | | | | | | |
| **CNG** | **Changalane** | **1.70** | **47** | *e*P | Pn | 14 06 52.1 | +0.5 |
| CNG | | | | *e*S | Sn | 14 07 11.8 | -1.9 |
| CNG | | | | AML | AML | 14 07 18.4 | |
| | comp=Z,522nm,0.5s | | | | | | |
| **ERPM** | **east rand prop** | **2.55** | **295** | *e*P | Pn | 14 07 04.4 | +0.9 |
| ERPM | | | | *e*S | Sn | 14 07 35.5 | +0.5 |
| ERPM | | | | AML | AML | 14 07 52.7 | |
| | comp=Z,158nm,0.5s | | | | | | |
| **SEK** | **Senekal** | **2.94** | **252** | *e*P | Pn | 14 07 10.6 | +1.7 |
| SEK | | | | *e*S | Sn | 14 07 43.4 | -1.3 |
| SEK | | | | AML | AML | 14 07 56.6 | |
| | comp=Z,98nm,0.6s | | | | | | |
| **PRYS** | **Parys** | **3.12** | **279** | *e*P | Pn | 14 07 12.2 | +1.0 |
| PRYS | | | | *e*S | Sn | 14 07 47.2 | -1.8 |
| PRYS | | | | AML | AML | 14 08 03.1 | |
| | comp=Z,195nm,0.4s | | | | | | |
| **WDLM** | **Western Deep L** | **3.19** | **288** | *e*P | Pn | 14 07 13.8 | +1.4 |
| WDLM | | | | *e*S | Sn | 14 07 49.4 | -1.6 |
| WDLM | | | | AML | AML | 14 08 08.2 | |
| | comp=Z,144nm,0.4s | | | | | | |
| **KSR** | **Koster** | **3.85** | **294** | *e*P | Pn | 14 07 22.0 | +0.6 |
| KSR | | | | *e*S | Sn | 14 08 06.7 | -0.5 |
| KSR | | | | AML | AML | 14 08 26.3 | |
| | comp=Z,50nm,0.6s | | | | | | |
| **BOSA** | **Boshof** | **5.04** | **256** | *e*P | Pn | 14 07 38.7 | +1.0 |
| BOSA | | | | *e*S | Sn | 14 08 34.6 | -1.7 |
| BOSA | | | | AML | AML | 14 09 03.0 | |
| | comp=Z,32nm,0.7s | | | | | | |
| **LBTB** | **Lobatse** | **5.28** | **296** | *e*P | Pn | 14 07 42.1 | +1.1 |
| LBTB | | | | *e*S | Sn | 14 08 40.0 | -2.2 |
| LBTB | | | | AML | AML | 14 08 43.8 | |
| | comp=Z,18nm,0.3s | | | | | | |
| **UPI** | **Upington** | **8.50** | **262** | *e*P | Pn | 14 08 26.9 | +1.7 |
| UPI | | | | *e*S | Sn | 14 09 57.5 | -4.1 |
| UPI | | | | AML | AML | 14 09 59.9 | |
| | comp=Z,9.0nm,0.2s | | | | | | |

*IDC **09** 14:29:21.8±5.4, 17°.70S×178°.82W, h500km±60km, mb3.1/7, mb1 3.3/8, mb1mx3.1/30, mbtmp3.9/8, Error ellipse: s-maj=35.6km s-min=25.2km az=2.0*
*ISCJB **09** 14:29:26.2±1.0, 18°.0S±0°.2×178°.9W±0°.2, h562km, mb3.5/6, Error ellipse: s-maj=28.8km s-min=18.0km az=150.6*

**ISC 09 14:29:27.4**±1.0**, 17°.9S**±0°.2×**179°.0W**±0°.2**, h562**km**, n9, σ1s.73**/11**, mb3.4**/6**, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **14.33** | **251** | P | **P** | **14 32 27.5** | **-2.4** |
| | 0.1nm,0.3s,baz=129,slow=18,SNR=2.9 | | | | | | |
| **URZ** | **Urewera** | **20.56** | **189** | P | **P** | **14 33 26.7** | **-1.0** |
| | 2.6nm,0.3s,baz=117,slow=2.3,SNR=4.6 | | | | | | |
| **STKA** | **Stephens Creek** | **38.16** | **241** | P | **P** | **14 36 00.8** | **+1.4** |
| | 0.7nm,0.5s,baz=90,slow=11,SNR=5.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.11** | **260** | P | **P** | **14 36 45.9** | **-0.8** |
| | 0.7nm,0.6s,baz=93,slow=7.0,SNR=13 | | | | | | |
| **ASAR** | **Alice Springs** | **44.28** | **254** | P | **P** | **14 36 48.2** | **+0.2** |
| | 7.5nm,0.5s,baz=89,slow=7.9,SNR=300 | | | | | | |
| ASAR | | | | PcP | **PcP** | **14 38 20.8** | **+0.7** |
| | 0.6nm,0.4s,baz=103,slow=4.0,SNR=9.4 | | | | | | |
| ASAR | | | | S | **S** | **14 42 43.5** | **+1.8** |
| | 0.5nm,0.8s,baz=91,slow=15,SNR=5.0 | | | | | | |
| **ILAR** | **Eielson Array** | **86.01** | **13** | P | **P** | **14 41 05.9** | **-2.4** |
| | 0.2nm,0.4s,baz=224,slow=5.2,SNR=6.4 | | | | | | |
| **TXAR** | **Lajitas Array** | **86.44** | **58** | P | **P** | **14 41 12.2** | **+0.9** |
| | 0.3nm,0.7s,baz=216,slow=6.2,SNR=5.3 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **88.39** | **290** | P | **P** | **14 41 21.6** | **+1.1** |
| | 0.3nm,0.4s,baz=116,slow=6.1,SNR=3.9 | | | | | | |
| **GERES** | **GERESS Array B** | **147.48** | **344** | PKPbc | **PKPdf** | **14 48 07.0** | **+1.8** |
| | 1.1nm,0.6s,baz=8.1,slow=2.8,SNR=4.1 | | | | | | |

*NIED **09** 14:38:00, 38°.10N×143°.30E, h8km, Mw3.5 Best double couple: $M_0$1.94000×10^14 NP1:$\phi_s$72.00000°, δ83.00000°, λ-3.00000°. NP2:$\phi_s$162.00000°, δ87.00000°, λ-173.00000°.*

**JMA 09 14:38:13.9**±0.2**, 38°.06N×143°.26E, h37**km**, M3.5, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JIO** | **Ouri** | **1.56** | **285** | P | Pn | 14 38 40.1 | +1.1 |
| JIO | | | | *e*S | Sn | 14 38 59.2 | +1.3 |
| **OFUJ** | **Ofunato** | **1.61** | **310** | P | Pn | 14 38 40.7 | +1.0 |
| OFUJ | | | | *e*S | Sn | 14 39 00.7 | +1.4 |
| **JMK** | **Ichinoseki** | **1.83** | **300** | P | Pn | 14 38 44.2 | +1.4 |
| JMK | | | | *e*S | Sn | 14 39 06.6 | +1.9 |
| **JMM** | **Marumori** | **1.96** | **265** | P | Pn | 14 38 45.6 | +1.1 |
| JMM | | | | *e*S | Sn | 14 39 08.7 | +0.8 |
| **JFK** | **Kawauchi** | **2.01** | **251** | P | Pn | 14 38 46.2 | +0.9 |
| JFK | | | | *e*S | Sn | 14 39 09.0 | -0.3 |
| **JOU** | **Okura** | **2.07** | **279** | P | Pn | 14 38 48.0 | +1.9 |
| **JFT** | **Otama** | **2.38** | **258** | P | Pn | 14 38 52.8 | +2.5 |
| JFT | | | | *e*S | Sn | 14 39 20.4 | +2.2 |
| **JYK** | **Kaneyama** | **2.43** | **292** | P | Pn | 14 38 53.0 | +2.0 |

*ISCJB **09** 14:44:59.6±0.5, 24°.81N±0°.03×122°.28E±0°.02, h7km±4km, Error ellipse: s-maj=5.8km s-min=2.8km az=177.9*
*TAP **09** 14:45:00.3, 24°.80N×122°.15E, h3km±1km, ML3.0, D*
*JMA **09** 14:45:01.1, 24°.70N×122°.22E, h41km, M2.2*

**ISC 09 14:44:58.3**±1.2**, 24°.83N**±0°.04×**122°.32E**±0°.02**, h5**km±10km**, n32, σ0s.66**/62**, Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TWB1** | **Santiao Chiao** | **0.35** | **302** | *i* P | **Pb** | **14 45 06.5** | **-0.5** |
| | baz=326 | | | | | | |
| TWB1 | | | | S | **Sg** | **14 45 10.5** | **+0.9** |
| | baz=326 | | | | | | |
| **TWC** | **Suao** | **0.47** | **243** | *i* P | **Pg** | **14 45 07.9** | **+0.5** |
| | baz=234 | | | | | | |
| TWC | | | | S | **Sg** | **14 45 13.6** | **0.0** |
| | baz=234 | | | | | | |
| **NWF** | **Wu-fen Shan** | **0.54** | **297** | *e*P | **Pb** | **14 45 10.3** | **0.0** |
| | baz=309 | | | | | | |
| NWF | | | | *e*S | **Sb** | **14 45 17.6** | **-1.0** |
| | baz=309 | | | | | | |
| **TWE** | **Neicheng** | **0.60** | **260** | *e*P | **Pb** | **14 45 10.6** | **-0.7** |
| | baz=259 | | | | | | |
| TWE | | | | *e*S | **Sg** | **14 45 17.7** | **+0.2** |
| | baz=259 | | | | | | |
| **ENA** | **Nanau** | **0.66** | **233** | *e*P | **Pg** | **14 45 11.3** | **+0.4** |
| | baz=224 | | | | | | |
| ENA | | | | *e*S | **Sg** | **14 45 19.3** | **-0.1** |
| | baz=224 | | | | | | |
| **TWA** | **Mucha** | **0.68** | **283** | *e*P | **Pb** | **14 45 12.5** | **-0.2** |
| | baz=289 | | | | | | |
| TWA | | | | *e*S | **Sb** | **14 45 21.5** | **-1.0** |
| | baz=289 | | | | | | |
| **ENTT** | **Nioudou** | **0.71** | **255** | *e*P | **Pb** | **14 45 12.6** | **-0.4** |
| | baz=253 | | | | | | |
| ENTT | | | | *e*S | **Sg** | **14 45 21.4** | **+0.4** |
| | baz=253 | | | | | | |
| **YOJ** | **Yonaguni jima** | **0.73** | **120** | P | **Pn** | **14 45 15.4** | **+0.2** |
| YOJ | | | | S | **Sn** | **14 45 26.1** | **-0.7** |
| **NSK** | **Sanguang** | **0.88** | **261** | *e*P | **Pg** | **14 45 15.6** | **+0.4** |
| | baz=260 | | | | | | |
| NSK | | | | *e*S | **Sg** | **14 45 25.4** | **-1.3** |
| | baz=260 | | | | | | |
| **NNS** | **Nan Shan** | **0.94** | **246** | *e*P | **Pb** | **14 45 16.9** | **-0.2** |
| | baz=243 | | | | | | |
| NNS | | | | *e*S | **Sg** | **14 45 27.7** | **-0.8** |
| | baz=243 | | | | | | |
| **TWD** | **Chiawan** | **0.99** | **222** | *e*P | **Pb** | **14 45 17.9** | **0.0** |
| | baz=214 | | | | | | |
| TWD | | | | *e*S | **Sg** | **14 45 30.0** | **-0.1** |
| | baz=214 | | | | | | |
| **WHF** | **Hehuan Shan** | **1.17** | **235** | *e*P | **Pg** | **14 45 20.9** | **+0.1** |
| | baz=230 | | | | | | |
| WHF | | | | *e*S | **Sg** | **14 45 35.2** | **-0.8** |
| | baz=230 | | | | | | |
| **TWT** | **Tachien** | **1.18** | **242** | *e*P | **Pn** | **14 45 21.6** | **0.0** |
| | baz=238 | | | | | | |
| TWT | | | | *e*S | **Sg** | **14 45 35.4** | **-1.0** |
| | baz=238 | | | | | | |
| **NSTT** | **Nanjuang** | **1.21** | **261** | *e*P | **Pn** | **14 45 22.5** | **+0.6** |
| | baz=260 | | | | | | |
| NSTT | | | | *e*S | **Sb** | **14 45 37.5** | **-0.1** |
| | baz=260 | | | | | | |
| **ESL** | **Shilin** | **1.29** | **219** | *e*P | **Pg** | **14 45 23.3** | **+0.3** |
| | baz=213 | | | | | | |
| ESL | | | | *e*S | **Sb** | **14 45 39.9** | **0.0** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| | baz=213 | | | | | | |
| IRIF | Iriomote-Funau | 1.38 | 110 | P | Pg | 14 45 25.6 | +0.9 |
| IRIF | | | | S | Sn | 14 45 43.2 | +0.4 |
| TWQ1 | Liyutan | 1.48 | 252 | eP | Pn | 14 45 25.7 | +0.1 |
| | baz=250 | | | | | | |
| TWQ1 | | | | eS | Sn | 14 45 45.1 | -0.3 |
| | baz=250 | | | | | | |
| HATJ | Hateruma jima | 1.56 | 119 | eS | Sg | 14 45 48.4 | 0.0 |
| SMLT | Sun Moon Lake | 1.59 | 234 | eS | Sb | 14 45 48.6 | -0.2 |
| | baz=231 | | | | | | |
| EHY | Hungye | 1.60 | 215 | eP | Pb | 14 45 28.2 | 0.0 |
| | baz=210 | | | | | | |
| EHY | | | | eS | Sb | 14 45 48.7 | 0.0 |
| | baz=210 | | | | | | |
| TYC | Yuchr | 1.61 | 236 | eP | Pb | 14 45 28.6 | 0.0 |
| | baz=232 | | | | | | |
| TYC | | | | eS | Sb | 14 45 49.2 | -0.1 |
| | baz=232 | | | | | | |
| JKRS | Kuro-shima | 1.65 | 110 | P | Pb | 14 45 28.7 | -0.5 |
| JKRS | | | | S | Sb | 14 45 50.1 | -0.2 |
| JIJ | Ishigaki jima | 1.73 | 105 | P | Pg | 14 45 31.1 | -0.3 |
| JIJ | | | | S | Sn | 14 45 51.6 | +0.2 |
| TWF1 | Yuli | 1.74 | 213 | eP | Pb | 14 45 30.4 | -0.3 |
| | baz=208 | | | | | | |
| TWF1 | | | | eS | Sb | 14 45 52.2 | -0.6 |
| | baz=208 | | | | | | |
| YUS | Yu-Shan | 1.82 | 223 | eP | Pb | 14 45 32.1 | -0.3 |
| | baz=219 | | | | | | |
| YUS | | | | eS | Sn | 14 45 54.7 | +0.3 |
| | baz=219 | | | | | | |
| ALS | Alishan | 1.90 | 227 | eP | Pb | 14 45 33.0 | -0.7 |
| | baz=223 | | | | | | |
| ALS | | | | eS | Sn | 14 45 56.6 | +0.4 |
| | baz=223 | | | | | | |
| CHN5 | Tsauling | 1.93 | 231 | eP | Pb | 14 45 33.6 | -0.5 |
| | baz=228 | | | | | | |
| CHN5 | | | | eS | Sb | 14 45 57.6 | -0.8 |
| | baz=228 | | | | | | |
| ELDTW | Lidau | 2.02 | 216 | eP | Pb | 14 45 34.5 | -1.0 |
| | baz=212 | | | | | | |
| ELDTW | | | | eS | Sn | 14 45 59.5 | +0.8 |
| | baz=212 | | | | | | |
| CHN4 | Tsaushan | 2.15 | 227 | eP | Pb | 14 45 36.5 | -1.3 |
| | baz=224 | | | | | | |
| CHN4 | | | | eS | Sn | 14 46 03.0 | +1.0 |
| | baz=224 | | | | | | |
| STYT | Tauyuan | 2.18 | 221 | eP | Pb | 14 45 37.5 | -0.8 |
| | baz=217 | | | | | | |
| STYT | | | | eS | Sn | 14 46 03.6 | +0.8 |
| | baz=217 | | | | | | |
| WTP | Ta-pu | 2.21 | 225 | eP | Pn | 14 45 37.1 | +1.4 |
| | baz=222 | | | | | | |
| WTP | | | | eS | Sn | 14 46 03.4 | -0.1 |
| | baz=222 | | | | | | |
| CHN1 | Nanshi | 2.31 | 225 | eP | Pb | 14 45 38.8 | -1.6 |
| | baz=222 | | | | | | |
| CHN1 | | | | eS | Sn | 14 46 07.3 | +1.4 |
| | baz=222 | | | | | | |

**MEX 09 14:45:24.6±0.5, 16°.03N×97°.28W, h20km±11km, MD3.7, Oaxaca**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PANG | Puerto Angel | 0.85 | 115 | eP | Pb | 14 45 37.5 | -3.3 |
| PNIG | Pinotepa | 0.89 | 294 | eP | Pb | 14 45 38.6 | -2.8 |
| PNIG | | | | eS | Sb | 14 45 50.0 | -2.9 |
| HUIG | Huatulco | 1.16 | 103 | eP | Pn | 14 45 42.6 | -3.0 |
| OXBJ | Oaxaca | 1.16 | 27 | eS | Sb | 14 45 56.7 | -4.0 |
| VHO | Vista Hermosa | 1.16 | 27 | eP | Pn | 14 45 42.4 | -3.5 |
| VHO | | | | eS | Sb | 14 45 56.5 | -4.3 |

*ISK 09 14:57:45.2, 38°.09N×38°.10E, h9km, MD2.7*
*DDA 09 14:57:46.9, 38°.08N×38°.25E, h7km, Md2.4*
*ISCJB 09 14:57:47.2±0.8, 38°.07N±0°.04×38°.24E±0°.06, h9km±7km, Error ellipse: s-maj=8.9km s-min=5.6km az=138.8*
*CSEM 09 14:57:47.0±0.3, 38°.08N×38°.23E, h10km, MD2.7, Error ellipse: s-maj=6.0km s-min=4.2km az=52.0*
**ISC 09 14:57:47.3±1.1, 38°.08N±0°.03×38°.24E±0°.03, h9km±12km, n16, σ0s.52/26, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MALT | Malatya | 0.28 | 33 | ePG | Pg | 14 57 52.4 | -0.5 |
| MALT | | | | eSG | Sg | 14 57 57.7 | +1.0 |
| MALT | Malatya | 0.28 | 33 | ePg | Pg | 14 57 52.4 | -0.5 |
| MALT | | | | eSg | Sg | 14 57 57.7 | +1.0 |
| AKCD | Akcadag | 0.33 | 311 | i P | Pg | 14 57 53.7 | -0.2 |
| AKCD | | | | i S | Sg | 14 57 58.7 | +0.4 |
| AKCD | Akcadag | 0.33 | 311 | P | Pg | 14 57 53.7 | -0.2 |
| AKCD | | | | S | Sg | 14 57 58.7 | +0.4 |
| ELZG | Elazig | 0.72 | 54 | i P | Pg | 14 58 01.1 | -0.2 |
| ELZG | | | | i S | Sg | 14 58 10.7 | 0.0 |
| ELZG | Elazig | 0.72 | 54 | P | Pg | 14 58 01.1 | -0.2 |
| ELZG | | | | S | Sg | 14 58 10.7 | 0.0 |
| URFA | Urfa | 0.79 | 144 | ePG | Pg | 14 58 02.2 | -0.3 |
| URFA | | | | eSG | Sb | 14 58 14.7 | +0.6 |
| URFA | Urfa | 0.79 | 144 | ePg | Pg | 14 58 02.2 | -0.3 |
| URFA | | | | eSg | Sb | 14 58 14.7 | +0.6 |
| HEKM | Malatya_Hekimh | 0.83 | 345 | i P | Pg | 14 58 02.8 | -0.5 |
| HEKM | | | | i S | Sb | 14 58 15.7 | +0.3 |
| HEKM | Malatya_Hekimh | 0.83 | 345 | P | Pg | 14 58 02.8 | -0.5 |
| HEKM | | | | S | Sb | 14 58 15.7 | +0.3 |
| SVRC | Sivrice-ELAZID | 0.89 | 70 | ePG | Pb | 14 58 04.7 | -0.4 |
| SVRC | Sivrice-ELAZID | 0.89 | 70 | ePg | Pb | 14 58 04.7 | -0.4 |
| KEMA | Kemaliye | 1.20 | 9 | i P | Pg | 14 58 10.6 | +0.1 |
| KEMA | Kemaliye | 1.20 | 9 | P | Pg | 14 58 10.6 | +0.1 |
| PTK | Pertek | 1.22 | 48 | ePN | Pb | 14 58 10.0 | -0.6 |
| PTK | Pertek | 1.22 | 48 | ePn | Pb | 14 58 10.0 | -0.6 |

**NNC 09 15:04:12.3±5.4, 36°.98N×71°.21E, h0km, mb3.5, mpv3.1, 5C-5D, Error ellipse: s-maj=46.4km s-min=17.5km az=171.0, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DZET | Dzherino | 2.62 | 315 | ⇑Pn | Pn | 15 04 56.0 | 0.0 |
| | 2.9nm,0.4s | | | | | | |
| DZET | | | | ⇓Sn | Sn | 15 05 30.0 | +1.4 |
| | 13nm,0.4s | | | | | | |
| SFK | Sufi-Kurgan | 3.52 | 30 | ⇑Pn | Pn | 15 05 09.2 | +0.6 |
| | 5.3nm,0.3s | | | | | | |
| SFK | | | | ⇓Sn | Sn | 15 05 54.1 | +3.0 |
| | 17nm,0.6s | | | | | | |
| MNAS | Manas | 5.59 | 10 | ⇓Pn | Pn | 15 05 35.8 | -1.1 |
| | 1.1nm,0.5s | | | | | | |
| MNAS | | | | ⇑Sn | Sn | 15 06 40.9 | -1.0 |
| | 6.8nm,0.7s | | | | | | |
| KK31 | Karatay Array | 6.14 | 355 | ⇑Pn | Pn | 15 05 41.0 | -3.3 |
| | 0.3nm,0.3s,baz=0.0,slow=0.1,SNR=6.4 | | | | | | |
| KK31 | | | | ⇓Sn | Sn | 15 06 51.8 | -3.5 |
| | 0.9nm,0.4s,baz=188,slow=21,SNR=6.8 | | | | | | |
| AAK | Ala-Archa | 6.19 | 23 | ⇓Pn | Pn | 15 05 42.8 | -2.4 |
| | 1.9nm,0.7s | | | | | | |
| AAK | | | | ⇑Sn | Sn | 15 06 56.2 | -0.5 |
| | 6.5nm,1.3s | | | | | | |

**IDC 09 15:07:06.9±11.0, 15°.56N×119°.77E, h0km, mb3.4/3, mb1 3.7/3, mb1mx3.2/55, mbtmp3.4/3, Error ellipse: s-maj=366.6km s-min=32.7km az=36.0, Luzon**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CMAR | Chiang Mai Arr | 20.12 | 281 | P | P | 15 11 42.6 | -0.1 |
| | 0.4nm,0.4s,baz=95,slow=8.2,SNR=5.7 | | | | | | |
| WRA | Warramunga Arr | 38.08 | 157 | P | P | 15 14 27.2 | -0.4 |
| | 0.6nm,0.6s,baz=337,slow=9.2,SNR=7.9 | | | | | | |
| ASAR | Alice Springs | 41.36 | 160 | P | P | 15 14 55.0 | +0.1 |
| | 0.3nm,0.4s,baz=339,slow=6.7,SNR=12 | | | | | | |

**IDC 09 15:15:25.1±2.2, 14°.42N×118°.96E, h0km, mb3.7/3, mb1 3.9/4, mb1mx3.3/51, mbtmp3.7/4, Error ellipse: s-maj=55.7km s-min=28.4km az=23.0, Philippine Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TGY | Tagaytay City | 1.95 | 99 | Pn | Pn | 15 15 59.8 | +0.3 |
| | 39nm,0.3s,baz=274,slow=9.7,SNR=3.7 | | | | | | |
| TGY | | | | Sn | Sg | 15 16 30.6 | +2.9 |
| | 87nm,0.3s,baz=330,slow=23,SNR=4.4 | | | | | | |
| CMAR | Chiang Mai Arr | 19.61 | 285 | P | P | 15 19 55.1 | -0.1 |
| | baz=91,slow=8.0,SNR=7.2 | | | | | | |
| WRA | Warramunga Arr | 37.35 | 156 | P | P | 15 22 39.2 | -0.4 |
| | 1.1nm,0.7s,baz=337,slow=9.4,SNR=9.2 | | | | | | |
| ASAR | Alice Springs | 40.57 | 159 | P | P | 15 23 07.0 | +0.3 |
| | 0.5nm,0.4s,baz=338,slow=7.3,SNR=30 | | | | | | |
| STKA | Stephens Creek | 50.89 | 155 | P | P | 15 24 27.6 | -0.5 |
| | 0.6nm,0.6s,baz=321,slow=14,SNR=2.5 | | | | | | |

**IDC 09 15:16:05.9±12.0, 14°.94N×119°.39E, h0km, mb3.8/2, mb1 3.9/3, mb1mx3.2/49, mbtmp3.6/3, ML3.9/1, Error ellipse: s-maj=396.5km s-min=33.1km az=36.0, Luzon**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CMAR | Chiang Mai Arr | 19.89 | 283 | P | P | 15 20 39.1 | -0.1 |
| | 0.1nm,0.3s,baz=100,slow=7.4,SNR=5.1 | | | | | | |
| WRA | Warramunga Arr | 37.66 | 157 | P | P | 15 23 22.7 | -0.3 |
| | 1.2nm,0.7s,baz=337,slow=9.3,SNR=6.8 | | | | | | |
| ASAR | Alice Springs | 40.91 | 159 | P | P | 15 23 50.4 | +0.1 |
| | 0.5nm,0.4s,baz=338,slow=6.8,SNR=8.3 | | | | | | |

**WEL 09 15:16:57.5±1.1, 46°.18S×166°.23E, h33km, ML3.9/15, 1C, Error ellipse: s-maj=11.7km s-min=4.8km az=90.0, Off west coast of South Island**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PYZ | Puysegur Point | 0.32 | 88 | P* | Pb | 15 17 04.6 | -0.8 |
| PYZ | | | | eS* | Sb | 15 17 10.5 | -0.3 |
| PYZ | | | | S* | Sn | 15 17 10.6 | -0.3 |
| PYZ | | | | AML | AML | 15 17 11.9 | |
| PYZ | | | | AML | AML | 15 17 12.5 | |
| DCZ | Deep Cove | 0.97 | 43 | PN | Pn | 15 17 13.8 | -0.9 |
| DCZ | | | | eSN | Sn | 15 17 26.5 | -0.7 |
| DCZ | | | | eSN | Sb | 15 17 26.6 | -1.6 |
| WHZ | Wether Hill Ro | 1.23 | 77 | PN | Pn | 15 17 19.1 | +0.7 |
| WHZ | | | | eSN | Sn | 15 17 33.4 | -0.5 |
| WHZ | | | | AML | AML | 15 17 39.6 | |
| APZ | The Paps | 1.38 | 119 | PN | Pn | 15 17 20.0 | -0.4 |
| APZ | | | | eSN | Sn | 15 17 36.1 | -1.5 |
| APZ | | | | eSN | Sb | 15 17 36.2 | -3.9 |
| MLZ | Mavora Lakes | 1.56 | 59 | PN | Pb | 15 17 24.7 | -1.0 |
| MLZ | | | | AML | AML | 15 17 54.0 | |
| MLZ | | | | AML | AML | 15 17 57.5 | |
| MSZ | Milford Sound | 1.93 | 39 | ePN | Pn | 15 17 28.5 | +0.7 |
| MSZ | | | | AML | AML | 15 18 05.4 | |
| MSZ | | | | AML | AML | 15 18 16.8 | |
| MSZ | | | | AML | AML | 15 18 16.9 | |
| SYZ | Scrubby Hill | 2.05 | 101 | PN | Pn | 15 17 30.5 | +0.9 |
| SYZ | | | | AML | AML | 15 17 56.6 | |
| SYZ | | | | AML | AML | 15 17 59.6 | |
| SYZ | | | | AML | AML | 15 18 06.1 | |
| SYZ | | | | AML | AML | 15 18 09.3 | |
| EAZ | Earnscleugh | 2.36 | 67 | PN | Pn | 15 17 36.4 | +2.5 |
| EAZ | | | | AML | AML | 15 18 11.4 | |
| EAZ | | | | AML | AML | 15 18 11.4 | |
| EAZ | | | | AML | AML | 15 18 11.4 | |
| EAZ | | | | AML | AML | 15 18 11.4 | |
| TUZ | Tuapeka | 2.38 | 86 | PN | Pn | 15 17 35.6 | +1.5 |
| TUZ | | | | AML | AML | 15 18 11.2 | |
| TUZ | | | | AML | AML | 15 18 11.3 | |
| TUZ | | | | AML | AML | 15 18 27.5 | |
| TUZ | | | | AML | AML | 15 18 27.5 | |
| WKZ | Wanaka | 2.38 | 56 | PN | Pb | 15 17 38.2 | -1.6 |
| WKZ | | | | AML | AML | 15 18 13.0 | |
| WKZ | | | | AML | AML | 15 18 17.5 | |
| JCZ | Jackson Bay | 2.78 | 42 | PN | Pn | 15 17 42.9 | +3.2 |
| JCZ | | | | AML | AML | 15 18 32.7 | |
| JCZ | | | | AML | AML | 15 18 36.3 | |
| HHSZ | Highcliff Hill | 3.06 | 86 | PN | Pn | 15 17 45.5 | +2.0 |
| HHSZ | | | | AML | AML | 15 18 40.6 | |
| ODZ | Otahua Downs | 3.30 | 71 | ⇑PN | Pn | 15 17 47.6 | +0.8 |
| ODZ | | | | AML | AML | 15 18 31.7 | |
| ODZ | | | | AML | AML | 15 18 44.1 | |
| LBZ | Lake Benmore | 3.32 | 59 | PN | Pn | 15 17 48.8 | +1.7 |
| LBZ | | | | AML | AML | 15 18 48.2 | |
| LBZ | | | | AML | AML | 15 18 56.3 | |
| FOZ | Fox Glacier | 3.68 | 45 | PN | Pn | 15 17 56.1 | +4.2 |
| RPZ | Rata Peaks | 4.22 | 56 | PN | Pn | 15 18 00.1 | +0.7 |
| RPZ | | | | AML | AML | 15 19 10.0 | |
| RPZ | | | | AML | AML | 15 19 30.1 | |
| WVZ | Waitaha Valley | 4.47 | 48 | PN | Pn | 15 18 06.2 | +3.4 |
| OXZ | Oxford | 5.03 | 58 | PN | Pn | 15 18 12.0 | +1.5 |
| INZ | Inchbonnie | 5.09 | 49 | PN | Pn | 15 18 13.7 | +2.4 |
| LTZ | Lake Taylor | 5.50 | 54 | PN | Pn | 15 18 18.7 | +1.6 |
| DSZ | Denniston Nort | 5.99 | 44 | PN | Pn | 15 18 25.6 | +1.8 |
| THZ | Tophouse | 6.54 | 50 | PN | Pn | 15 18 33.9 | +2.6 |
| QRZ | Quartz Range | 7.04 | 43 | PN | Pn | 15 18 40.3 | +2.0 |
| NNZ | Nelson | 7.17 | 49 | PN | Pn | 15 18 44.0 | +4.0 |

*IDC 09 15:18:54.3±1.6, 23°.23S×179°.15W, h388km±16km, mb3.4/10, mb1 3.6/11, mb1mx3.3/38, mbtmp4.2/11, Error ellipse: s-maj=16.2km s-min=12.2km az=140.0*
**ISC 09 15:18:56.4±0.5, 23°.39S±0°.07×178°.94W±0°.10, h417km, n70, σ2s.08/80, mb3.7/12, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RAO | Raoul Island | 5.91 | 171 | P | P | 15 20 29.1 | +0.7 |
| | 198nm,0.3s,baz=212,slow=2.6,SNR=18 | | | | | | |
| RAO | | | | S | S | 15 21 34.0 | -10 |
| | 199nm,0.3s,baz=53,slow=18,SNR=5.7 | | | | | | |
| AFI | Afiamalu | 11.62 | 37 | P | P | 15 21 28.5 | -3.3 |
| | 9.4nm,0.3s,baz=188,slow=1.1,SNR=5.7 | | | | | | |
| AFI | | | | S | S | 15 23 27.9 | -12 |
| | 3.4nm,0.3s,baz=43,slow=19,SNR=4.6 | | | | | | |
| DZM | Mont Dzumac | 13.55 | 273 | P | P | 15 21 53.4 | +0.5 |
| | 0.9nm,0.3s,baz=81,slow=18,SNR=17 | | | | | | |
| MXZ | Matakaoa Point | 14.32 | 189 | ePN | P | 15 21 59.2 | -1.7 |
| MXZ | | | | eSN | S | 15 24 31.9 | -1.5 |
| WMGZ | Waiomatatini S | 14.56 | 188 | ePN | P | 15 22 01.8 | -1.7 |
| HAZ | Te Kaha | 14.59 | 190 | ePN | P | 15 22 03.5 | -0.3 |
| PKGZ | Pakihiroa | 14.67 | 189 | ePN | P | 15 22 02.4 | -2.4 |
| AWAZ | Awhitu Peninsu | 14.70 | 201 | ePN | P | 15 22 06.8 | +1.8 |
| RUGZ | Raukumara Rang | 14.81 | 190 | ePN | P | 15 22 05.9 | -0.4 |
| PUZ | Puketiti | 14.83 | 189 | ePN | P | 15 22 03.4 | -3.1 |
| PUZ | | | | eSN | S | 15 24 41.2 | -2.4 |
| OPRZ | Ohinepanea | 14.91 | 194 | ePN | P | 15 22 08.4 | +1.1 |
| TWGZ | Tauwhareparae | 14.97 | 189 | ePN | P | 15 22 06.1 | -1.9 |
| MWZ | Matawai | 15.20 | 191 | ePN | P | 15 22 07.8 | -2.6 |
| URZ | Urewera | 15.20 | 192 | P | P | 15 22 08.9 | -1.4 |
| | 33nm,0.3s,baz=305,slow=3.1,SNR=49 | | | | | | |
| URZ | | | | S | S | 15 24 53.1 | +2.3 |
| | 10nm,0.3s,baz=104,slow=23,SNR=13 | | | | | | |
| URZ | Urewera | 15.20 | 192 | ePN | P | 15 22 07.8 | -2.5 |
| URZ | | | | eSN | S | 15 24 52.7 | +1.9 |
| TKGZ | Te Karaka | 15.25 | 190 | ePN | P | 15 22 08.3 | -2.6 |
| RAGZ | Rawiri | 15.37 | 191 | ePN | P | 15 22 09.5 | -2.9 |
| MUGZ | Murupara | 15.48 | 193 | ePN | P | 15 22 11.3 | -2.1 |
| RIGZ | Rimuhau | 15.52 | 190 | ePN | P | 15 22 11.3 | -2.6 |
| SNGZ | Shannon Statio | 15.66 | 191 | ePN | P | 15 22 13.4 | -2.0 |
| PRGZ | Paritu Road | 15.72 | 189 | ePN | P | 15 22 14.5 | -1.5 |
| MTHZ | Maungataniwha | 15.82 | 192 | ePN | P | 15 22 14.7 | -2.4 |
| KNZ | Kokohu | 15.85 | 190 | ePN | P | 15 22 14.8 | -2.5 |
| KNZ | | | | eSN | S | 15 25 05.0 | +1.6 |
| MRHZ | Matea Rd | 15.89 | 193 | ePN | P | 15 22 15.4 | -2.5 |
| MHGZ | Mahia Peninsul | 15.94 | 189 | ePN | P | 15 22 18.0 | -0.3 |
| WHHZ | Waihua | 15.97 | 191 | ePN | P | 15 22 17.1 | -1.6 |
| HIZ | Hauiti | 15.98 | 198 | ePN | P | 15 22 19.8 | +1.1 |
| NMHZ | Naumai | 16.07 | 192 | ePN | P | 15 22 17.6 | -2.2 |
| BKZ | Black Stump Fm | 16.20 | 193 | ePN | P | 15 22 18.4 | -2.8 |
| OTVZ | Oturere | 16.38 | 195 | ePN | P | 15 22 20.4 | -2.8 |
| WNVZ | Wahianoa | 16.55 | 195 | ePN | P | 15 22 21.2 | -3.8 |
| BHHZ | Black Hill Sta | 16.60 | 194 | ePN | P | 15 22 21.7 | -3.7 |
| KAHZ | Kahuranaki | 16.73 | 191 | ePN | P | 15 22 24.7 | -2.1 |
| PXZ | Pawanui | 16.96 | 191 | ePN | P | 15 22 25.7 | -3.5 |
| PXZ | | | | eSN | S | 15 25 25.1 | -0.1 |
| MRZ | Mangatainoka R | 17.83 | 194 | ePN | P | 15 22 34.2 | -4.1 |
| MRZ | | | | eSN | S | 15 25 38.7 | -3.0 |
| CAW | Cannon Point | 18.37 | 194 | ePN | P | 15 22 42.1 | -1.9 |
| DUWZ | D'Urville Isla | 18.37 | 197 | ePN | P | 15 22 40.2 | -3.8 |
| TCW | Tory Channel | 18.66 | 196 | ePN | P | 15 22 44.1 | -2.8 |
| QRZ | Quartz Range | 18.80 | 200 | PN | P | 15 22 47.2 | -1.3 |
| NNZ | Nelson | 18.91 | 198 | ePN | P | 15 22 45.9 | -3.6 |
| THZ | Tophouse | 19.55 | 198 | ePN | P | 15 22 53.5 | -2.1 |
| THZ | | | | SN | S | 15 26 08.3 | -2.6 |
| DSZ | Denniston Nort | 19.87 | 201 | ePN | P | 15 22 57.7 | -0.8 |
| INZ | Inchbonnie | 20.87 | 200 | PN | P | 15 23 06.2 | -1.4 |
| OXZ | Oxford | 21.23 | 198 | ePN | P | 15 23 09.3 | -1.6 |
| WVZ | Waitaha Valley | 21.41 | 201 | ePN | P | 15 23 11.3 | -1.1 |
| MQZ | McQueen's Vall | 21.41 | 197 | ePN | P | 15 23 11.6 | -0.9 |
| RPZ | Rata Peaks | 21.88 | 200 | P | P | 15 23 15.4 | -1.4 |
| | 55nm,0.6s,baz=307,slow=2.1,SNR=33 | | | | | | |
| RPZ | Rata Peaks | 21.88 | 200 | ePN | P | 15 23 15.4 | -1.4 |
| FOZ | Fox Glacier | 22.13 | 202 | ePN | P | 15 23 17.3 | -1.6 |
| LBZ | Lake Benmore | 22.76 | 200 | ePN | P | 15 23 22.6 | -2.2 |
| JCZ | Jackson Bay | 22.96 | 203 | ePN | P | 15 23 25.5 | -1.2 |
| CTA | Charters Tower | 32.45 | 269 | P | P | 15 24 49.7 | -0.7 |
| | 2.1nm,0.4s,baz=91,slow=11,SNR=10.0 | | | | | | |
| STKA | Stephens Creek | 35.81 | 248 | P | P | 15 25 18.2 | -0.5 |
| | 0.9nm,0.5s,baz=92,slow=11,SNR=7.6 | | | | | | |
| ASAR | Alice Springs | 43.08 | 260 | P | P | 15 26 17.2 | -0.8 |
| | 1.0nm,0.7s,baz=93,slow=6.2,SNR=14 | | | | | | |
| ASAR | | | | S | S | 15 32 12.7 | +0.1 |
| | 0.4nm,0.8s,baz=91,slow=12,SNR=5.0 | | | | | | |
| WRA | Warramunga Arr | 43.41 | 265 | P | P | 15 26 18.9 | -1.7 |
| | 0.9nm,0.5s,baz=89,slow=5.8,SNR=34 | | | | | | |
| WRA | | | | ScP | ScP | 15 31 14.8 | +3.5 |
| | 0.7nm,1.1s,baz=114,slow=4.7,SNR=3.3 | | | | | | |
| VNDA | Vanda | 54.97 | 185 | P | P | 15 27 48.5 | +2.6 |
| | 0.9nm,0.5s,baz=24,slow=6.4,SNR=6.8 | | | | | | |
| MAW | Mawson | 78.56 | 200 | P | P | 15 30 14.5 | +1.7 |
| | 2.0nm,0.6s,baz=121,slow=12,SNR=3.7 | | | | | | |
| PETK | Petropavlovsk- | 78.84 | 346 | P | P | 15 30 13.9 | -0.5 |
| | 2.6nm,0.7s,baz=130,slow=5.6,SNR=5.5 | | | | | | |
| TXAR | Lajitas Array | 89.34 | 58 | P | P | 15 31 09.8 | +2.4 |
| | 2.1nm,0.7s,baz=213,slow=6.3,SNR=24 | | | | | | |
| CMAR | Chiang Mai Arr | 90.26 | 290 | P | P | 15 31 14.1 | +2.3 |
| | 1.4nm,0.8s,baz=139,slow=3.1,SNR=11 | | | | | | |
| ILAR | Eielson Array | 91.32 | 13 | P | P | 15 31 15.2 | -0.3 |
| | 0.5nm,0.7s,baz=228,slow=4.5,SNR=8.0 | | | | | | |
| PDAR | Pinedale Array | 91.66 | 44 | P | P | 15 31 19.2 | +1.3 |
| | 0.6nm,0.8s,baz=207,slow=1.7,SNR=6.9 | | | | | | |
| MKAR | Makanchi Array | 112.52 | 313 | PKiKP | PKiKP | 15 36 42.6 | -1.4 |
| | 0.3nm,0.6s,baz=179,slow=1.5,SNR=3.1 | | | | | | |
| ARCES | ARCESS Array B | 131.58 | 349 | PKP | PKPdf | 15 37 19.3 | -0.5 |
| | 1.4nm,0.5s,baz=34,slow=3.1,SNR=15 | | | | | | |
| FINES | FINESS Array B | 138.27 | 342 | PKhKP | PKPpre | 15 37 24.1 | |
| | 3.8nm,0.9s,baz=47,slow=2.5,SNR=2.3 | | | | | | |
| FINES | | | | PKP | PKPdf | 15 37 32.7 | +0.3 |
| | 7.6nm,1.0s,baz=146,slow=1.4,SNR=4.3 | | | | | | |
| NB2 | NORSAR Subarra | 141.72 | 352 | PKP | PKPpre | 15 37 33.6 | |
| | comp=Z,16nm,1.4s,baz=1.8,slow=2.4 | | | | | | |
| AKASG | Malin Array Be | 145.06 | 328 | PKP | PKPdf | 15 37 44.4 | -0.4 |
| | comp=Z,2.3nm,0.5s,baz=45,slow=4.0,SNR=13 | | | | | | |
| BRTR | Keskin Array B | 148.03 | 308 | PKPbc | PKPbc | 15 37 53.7 | -0.4 |
| | comp=Z,0.8nm,0.6s,baz=130,slow=5.3,SNR=4.6 | | | | | | |
| GERES | GERESS Array B | 152.70 | 342 | PKPbc | PKPbc | 15 38 04.5 | -0.2 |
| | comp=Z,0.5nm,0.5s,baz=15,slow=5.1,SNR=2.9 | | | | | | |
| TORD | Torodi Ar. Bea | 169.79 | 184 | PKP | PKPdf | 15 38 15.4 | -0.4 |
| | comp=Z,0.4nm,0.8s,baz=228,slow=3.7,SNR=3.1 | | | | | | |
| TORD | | | | PKPab | PKPab | 15 39 33.4 | +0.9 |
| | comp=Z,0.4nm,0.6s,baz=156,slow=4.6,SNR=4.8 | | | | | | |

*IDC 09 15:19:31.0±0.8, 15°.33N×119°.26E, h0km, mb4.0/11, mb1 4.1/12, mb1mx3.8/47, mbtmp4.0/12, ML3.9/1, MS3.0/3, Ms1 3.0/3, ms1mx2.6/40, Error ellipse: s-maj=29.4km s-min=13.9km az=76.0*
*ISCJB 09 15:19:33.7±0.5, 15°.38N±0°.04×119°.05E±0°.05, h29km, mb3.9/12, MS2.9/1, Error ellipse: s-maj=6.7km s-min=5.6km az=18.2*
*MAN 09 15:19:34, 15°.42N×119°.09E, h23km, mb4.8, ML3.7, MS3.7*
**ISC 09 15:19:35.2±0.7, 15°.38N±0°.04×119°.16E±0°.06, h29km, n27, σ1s.16/29, mb3.9/12, 2C, Luzon**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SCZP | Santa Cruz | 0.82 | 62 | eP | Pn | 15 19 49.9 | -0.9 |
| SCZP | | | | eS | Sn | 15 20 01.7 | -0.3 |
| BOLP | Bolinao | 1.23 | 36 | eP | Pn | 15 19 55.9 | -0.6 |
| PCPH | Palayan | 1.88 | 84 | ⇑eP | Pn | 15 20 06.0 | +0.7 |
| PCPH | | | | eS | Sb | 15 20 30.3 | -1.6 |
| LUBP | Lubang | 1.95 | 147 | eP | Pn | 15 20 06.8 | +0.5 |
| TGY | Tagaytay City | 2.14 | 126 | Pn | Pn | 15 20 09.4 | +0.4 |
| | 37nm,0.3s,baz=194,slow=8.3,SNR=1.8 | | | | | | |
| TGY | | | | Sn | Sb | 15 20 39.7 | +0.2 |
| | 66nm,0.3s,baz=83,slow=12,SNR=5.1 | | | | | | |
| TGY | | | | LR | LR | 15 21 09.1 | |
| | comp=Z,294nm,20.4s,baz=124,slow=48 | | | | | | |
| LQP | Lukban | 2.63 | 118 | eP | Pn | 15 20 06.3 | -10 |
| ABRA | Dolores | 2.70 | 33 | eP | Pn | 15 20 17.2 | +0.5 |
| ABRA | | | | eS | Sn | 15 20 49.8 | +1.4 |
| CAUP | Cauayan | 3.00 | 58 | eP | Pn | 15 20 23.7 | +3.0 |
| APYP | Conner | 3.17 | 39 | eP | Pn | 15 20 23.9 | +0.7 |
| SJMP | San Jose | 3.47 | 147 | eP | Pn | 15 20 29.4 | +2.0 |
| GQP | Guinayangan | 3.50 | 114 | ⇑eP | Pn | 15 20 30.1 | +2.4 |
| BUSP | Coron | 3.51 | 163 | eP | Pn | 15 20 28.7 | +0.9 |
| ENPP | El Nido | 4.16 | 176 | eP | Pn | 15 20 36.7 | -0.1 |
| CMAR | Chiang Mai Arr | 19.58 | 282 | P | Pn | 15 24 03.5 | +0.9 |
| | 0.2nm,0.3s,baz=100,slow=7.4,SNR=6.6 | | | | | | |
| CMAR | | | | LR | LR | 15 31 17.8 | |
| | comp=Z,33nm,19.7s,baz=94,slow=36 | | | | | | |
| KSRS | Korea Array | 23.32 | 18 | P | P | 15 24 41.9 | +1.1 |
| | 1.2nm,0.8s,baz=207,slow=8.7,SNR=4.0 | | | | | | |
| BRDH | Bariadhala | 26.97 | 290 | LR | LR | 15 35 58.2 | |
| | comp=Z,40nm,21.2s,baz=164,slow=36 | | | | | | |
| SONM | Songino Array | 34.04 | 345 | P | P | 15 26 17.1 | +0.3 |
| | 0.7nm,0.6s,baz=164,slow=8.6,SNR=5.1 | | | | | | |
| KLR | Kul'dur | 35.29 | 14 | P | P | 15 26 26.6 | -0.9 |
| | 0.1nm,0.7s,baz=193,slow=7.0,SNR=4.6 | | | | | | |
| WRA | Warramunga Arr | 38.15 | 156 | P | P | 15 26 51.5 | -0.6 |
| | 3.0nm,0.7s,baz=336,slow=9.3,SNR=16 | | | | | | |
| ASAR | Alice Springs | 41.40 | 159 | P | P | 15 27 18.9 | -0.3 |
| | 1.2nm,0.6s,baz=340,slow=7.0,SNR=19 | | | | | | |
| MKAR | Makanchi Array | 43.80 | 323 | P | P | 15 27 38.9 | +0.4 |
| | 1.4nm,0.9s,baz=116,slow=7.0,SNR=5.1 | | | | | | |
| CTA | Charters Tower | 44.18 | 142 | P | P | 15 27 40.2 | -1.6 |
| | 3.5nm,0.9s,baz=352,slow=7.1,SNR=3.4 | | | | | | |
| ZALV | Zalesovo Beam | 46.89 | 333 | P | P | 15 28 02.6 | -0.2 |
| | 0.4nm,0.3s,baz=130,slow=4.6,SNR=4.0 | | | | | | |
| PETK | Petropavlovsk- | 48.30 | 30 | P | P | 15 28 14.2 | +0.5 |
| | 2.9nm,0.7s,baz=240,slow=4.5,SNR=3.7 | | | | | | |
| MA2 | Magadan | 49.83 | 20 | P | P | 15 28 25.3 | 0.0 |
| | 5.6nm,0.8s,baz=185,slow=7.0,SNR=3.7 | | | | | | |
| STKA | Stephens Creek | 51.68 | 156 | P | P | 15 28 38.8 | -0.9 |
| | 1.4nm,0.7s,baz=343,slow=11,SNR=3.3 | | | | | | |
| SEY | Seymchan | 52.88 | 18 | P | P | 15 28 49.3 | +1.2 |
| | 4.5nm,0.8s,baz=27,slow=2.3,SNR=9.2 | | | | | | |

*IDC 09 15:20:02.5±2.6, 23°.69S×68°.42W, h0km, mb4.3/4, mb1 4.2/6, mb1mx3.9/24, mbtmp4.2/6, ML3.9/2, MS2.5/1, Ms1 2.5/1, ms1mx2.3/32, Error ellipse: s-maj=54.9km s-min=49.1km az=73.0*
*ISCJB 09 15:20:16.6±0.5, 22°.81S±0°.04×68°.70W±0°.05, h128km±6km, mb4.3/3, Error ellipse: s-maj=7.0km s-min=6.8km az=143.5*
*SJA 09 15:20:17.6±1.1, 23°.02S×68°.60W, h111km±46km, ML2.7, MW2.8*
*GUC 09 15:20:17.5±0.5, 22°.77S×68°.72W, h117km±4km, ML4.1*
**ISC 09 15:20:17.2±0.8, 22°.78S±0°.04×68°.68W±0°.05, h122km±9km, n26, σ1s.33/35, mb4.2/3, 2C-1D, Northern Chile**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PB06 | IPOC Station P | 0.83 | 275 | ⇑iP | Pn | 15 20 38.1 | +0.1 |
| PB06 | | | | i S | Sn | 15 20 53.4 | -0.3 |
| PB06 | | | | IAML | | 15 20 54.2 | |
| | comp=E,4μm,0.5s | | | | | | |
| PB09 | IPOC Station P | 1.11 | 332 | i P | Pn | 15 20 41.0 | +0.3 |
| PB09 | | | | i S | Sn | 15 20 58.8 | +0.2 |
| PB09 | | | | IAML | | 15 21 02.7 | |
| | comp=N,8μm,0.6s | | | | | | |
| PB04 | IPOC Station P | 1.43 | 288 | i P | Pn | 15 20 44.4 | +0.2 |
| PB04 | | | | i S | Sn | 15 21 05.1 | +0.5 |
| PB04 | | | | IAML | | 15 21 08.8 | |
| | comp=N,2μm,0.3s | | | | | | |
| PB07 | IPOC Station P | 1.53 | 313 | ⇑iP | Pn | 15 20 45.9 | +0.5 |
| PB07 | | | | i S | Sn | 15 21 07.3 | +0.6 |
| PB07 | | | | IAML | | 15 21 08.3 | |
| | comp=E,4μm,0.3s | | | | | | |
| PB02 | IPOC Station P | 1.84 | 322 | ⇓iP | Pn | 15 20 49.4 | +0.4 |
| PB02 | | | | i S | Sn | 15 21 13.4 | +0.2 |
| PB02 | | | | IAML | | 15 21 16.8 | |
| | comp=E,2μm,0.5s | | | | | | |
| PB10 | IPOC Station P | 1.87 | 247 | eP | Pn | 15 20 50.5 | +1.3 |
| PB10 | | | | eS | Sn | 15 21 13.3 | -0.3 |
| PB10 | IPOC Station P | 1.87 | 247 | i P | Pn | 15 20 49.7 | +0.5 |
| PB10 | | | | i S | Sn | 15 21 13.8 | +0.1 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| PB10 | | | | IAML | | 15 21 20.8 | |
| | comp=E,2µm,0.3s | | | | | | |
| PB01 | IPOC Station P | 1.89 | 336 | *i* P | Pn | 15 20 49.8 | +0.3 |
| PB01 | | | | *i* S | Sn | 15 21 14.5 | +0.4 |
| PB01 | | | | IAML | | 15 21 16.0 | |
| | comp=N,2µm,0.3s | | | | | | |
| PB14 | IPOC Station P | 2.42 | 220 | *e*P | Pn | 15 20 57.1 | +0.6 |
| PB14 | | | | *e*S | Sn | 15 21 24.5 | -1.9 |
| PB14 | IPOC Station P | 2.42 | 220 | *i* P | Pn | 15 20 57.0 | +0.6 |
| PB08 | IPOC Station P | 2.67 | 350 | *i* P | Pn | 15 21 00.3 | +0.6 |
| YJA | Yavi | 2.99 | 79 | *e*P | Pn | 15 21 04.5 | +0.6 |
| YJA | | | | IAML | | 15 21 05.6 | |
| | comp=Z,13nm,0.7s | | | | | | |
| YJA | | | | *e*S | Sn | 15 21 41.3 | +1.5 |
| HJA | Humahuaca | 3.04 | 99 | *e*P | Pn | 15 21 05.1 | +0.6 |
| HJA | | | | IAML | | 15 21 06.3 | |
| | comp=Z,41nm,0.7s | | | | | | |
| PB11 | IPOC Station P | 3.14 | 343 | *i* P | Pn | 15 21 03.1 | -2.5 |
| AZAP | Zapla | 3.62 | 114 | *e*P | Pn | 15 21 12.0 | +0.1 |
| AZAP | | | | IAML | | 15 21 12.7 | |
| | comp=Z,34nm,0.3s | | | | | | |
| ASTB | Santa Barbara | 4.05 | 107 | *e*P | Pn | 15 21 17.1 | -0.6 |
| FSA | Cafayete | 4.13 | 144 | *e*P | Pn | 15 21 19.9 | +1.2 |
| FSA | | | | *e*S | Sn | 15 21 55.3 | -11 |
| FSA | | | | IAML | | 15 21 55.9 | |
| | comp=Z,2.9nm,0.5s | | | | | | |
| ALOL | LOMAS DE OLMED | 4.44 | 104 | *e*P | Pn | 15 21 21.8 | -1.0 |
| LPAZ | La Paz | 6.48 | 5 | Pn | Pn | 15 21 52.5 | +1.6 |
| | comp=Z,0.6nm,0.3s,baz=176,slow=6.0,SNR=6.7 | | | | | | |
| SIV | San Ignacio | 9.86 | 48 | Pn | Pn | 15 22 31.1 | -4.7 |
| | comp=Z,1.9nm,0.3s,baz=251,slow=12,SNR=24 | | | | | | |
| NNA | Nana | 13.26 | 323 | LR | LR | 15 28 13.2 | |
| | comp=Z,17nm,19.6s,baz=107,slow=35 | | | | | | |
| BDFB | Brasilia | 20.75 | 74 | P | P | 15 24 46.1 | -2.5 |
| | comp=Z,2.7nm,0.6s,baz=22,slow=11,SNR=3.0 | | | | | | |
| RCBR | Riachuelo | 35.82 | 67 | P | P | 15 27 05.5 | +0.2 |
| | comp=Z,6.2nm,0.7s,baz=246,slow=12,SNR=2.9 | | | | | | |
| DBIC | Dimbokro | 68.90 | 73 | P | P | 15 31 10.2 | +0.8 |
| | comp=Z,2.8nm,0.8s,baz=225,slow=9.4,SNR=3.0 | | | | | | |
| TORD | Torodi Ar. Bea | 77.59 | 70 | P | P | 15 32 01.3 | +0.9 |
| | comp=Z,2.8nm,0.6s,baz=253,slow=5.5,SNR=23 | | | | | | |
| MKAR | Makanchi Array | 146.53 | 37 | PKPbc | PKPab | 15 39 46.7 | +1.2 |
| | comp=Z,0.6nm,0.4s,baz=327,slow=3.9,SNR=7.7 | | | | | | |

---

*NIED **09** 15:23:00, 36°.60N×141°.00E, h50km, Mw4.1 Best double couple: M0 1.56000×10^15 NP1:φs216.00000°, δ24.00000°, λ115.00000°. NP2:φs9.00000°, δ68.00000°, λ79.00000°.*
*ISCJB **09** 15:23:09.2±0.6, 36°.62N±0°.03×141°.01E±0°.06, h50km±4km, mb4.1/22, MS3.2/2, Error ellipse: s-maj=8.6km s-min=4.7km az=26.4*
*JMA **09** 15:23:10.2±0.1, 36°.64N×140°.94E, h50km±1km, M4.1*
*JMA Felt III J1.*
*IDC **09** 15:23:13.5±1.5, 36°.53N×140°.88E, h74km±14km, mb3.8/23, mb1 4.0/28, mb1mx3.9/44, mbtmp4.1/28, MS3.2/4, Ms1 3.2/4, ms1mx2.8/50, Error ellipse: s-maj=12.6km s-min=9.2km az=73.0*
**ISC 09 15:23:10.3**±1.1, **36°.63N**±0°.05×**141°.04E**±0°.07, **h44**km±9km, **n60**, σ1s**12**/63, **mb4.2**/22, **Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time (h m s) | Res ISC |
|---|---|---|---|---|---|---|---|
| JHO | Hitachi | 0.38 | 268 | P | Pn | 15 23 19.3 | -0.4 |
| JHO | | | | S | Sn | 15 23 25.5 | -0.9 |
| ONAJ | Iwakimizuishiy | 0.51 | 338 | P | Pn | 15 23 20.9 | -0.5 |
| ONAJ | | | | S | Sn | 15 23 28.2 | -1.1 |
| JFK | Kawauchi | 0.75 | 350 | P | Pn | 15 23 23.9 | -0.6 |
| JFK | | | | S | Sn | 15 23 33.3 | -1.5 |
| JYT | Yasato | 0.79 | 240 | P | Pn | 15 23 24.2 | -0.8 |
| JYT | | | | S | Sn | 15 23 34.0 | -1.7 |
| JFT | Otama | 1.05 | 328 | P | Pn | 15 23 28.7 | +0.1 |
| JFT | | | | S | Sn | 15 23 41.5 | -0.6 |
| JMM | Marumori | 1.25 | 351 | P | Pn | 15 23 31.1 | -0.2 |
| JMM | | | | S | Sn | 15 23 46.1 | -0.9 |
| JAG | Ashikaga | 1.29 | 261 | P | Pn | 15 23 31.0 | -0.9 |
| JAG | | | | S | Sn | 15 23 46.0 | -2.0 |
| JFY | Yanaizu | 1.32 | 306 | P | Pn | 15 23 31.7 | -0.6 |
| JKT | Katashina | 1.45 | 276 | P | Pn | 15 23 33.6 | -0.4 |
| MJAR | Matsushiro Arr | 2.28 | 269 | P | Pn | 15 23 45.3 | -0.1 |
| | 80nm,0.3s,baz=92,slow=13,SNR=274 | | | | | | |
| MJAR | | | | S | Sn | 15 24 13.7 | +1.4 |
| | 35nm,0.3s,baz=308,slow=37,SNR=13 | | | | | | |
| MAT | Matsushiro | 2.28 | 269 | P | Pn | 15 23 45.8 | +0.4 |
| MAT | | | | S | Sn | 15 24 14.8 | +2.5 |
| JHJ | Hachijo jima 2 | 3.65 | 197 | P | Pn | 15 24 05.1 | +0.9 |
| | 44nm,0.3s,baz=23,slow=21,SNR=5.8 | | | | | | |
| JHJ | | | | S | Sn | 15 24 45.8 | -0.3 |
| | 114nm,0.3s,baz=92,slow=23,SNR=8.1 | | | | | | |
| ASAJ | Asahikawa | 7.57 | 9 | P | Pn | 15 24 57.8 | -0.2 |
| | 3.6nm,0.3s,baz=206,slow=11,SNR=34 | | | | | | |
| ASAJ | | | | S | Sn | 15 26 21.6 | -1.0 |
| | 0.9nm,0.3s,baz=330,slow=20,SNR=4.2 | | | | | | |
| JNU | Nakatsue | 9.05 | 250 | P | Pn | 15 25 20.8 | +2.4 |
| | 0.5nm,0.3s,baz=290,slow=15,SNR=3.8 | | | | | | |
| USRK | Ussuriysk Ar. | 10.23 | 320 | P | Pn | 15 25 37.4 | +2.9 |
| | 0.3nm,0.3s,baz=137,slow=12,SNR=7.9 | | | | | | |
| USRK | | | | LR | LR | 15 29 14.5 | |
| | comp=Z,85nm,18.6s,baz=158,slow=35 | | | | | | |
| KSRS | Korea Array | 10.52 | 278 | P | Pn | 15 25 41.0 | +2.7 |
| | 0.2nm,0.3s,baz=89,slow=14,SNR=6.3 | | | | | | |
| KSRS | | | | LR | LR | 15 29 26.8 | |
| | comp=Z,99nm,19.8s,baz=90,slow=36 | | | | | | |
| KLR | Kul'dur | 14.30 | 335 | LR | LR | 15 31 32.7 | |
| | comp=Z,5.3nm,18.6s,baz=163,slow=35 | | | | | | |
| PETK | Petropavlovsk- | 20.19 | 30 | P | Pn | 15 27 44.4 | +1.1 |
| | 5.0nm,0.9s,baz=236,slow=17,SNR=3.5 | | | | | | |
| MA2 | Magadan | 23.81 | 12 | P | P | 15 28 20.3 | +1.4 |
| | 6.3nm,0.6s,baz=195,slow=11,SNR=4.9 | | | | | | |
| MA2 | | | | LR | LR | 15 39 21.0 | |
| | comp=Z,40nm,18.2s,baz=98,slow=40 | | | | | | |
| SONM | Songino Array | 27.77 | 305 | P | P | 15 28 55.8 | +0.9 |
| | 3.3nm,0.6s,baz=104,slow=9.1,SNR=18 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 28.20 | 120 | T | T | 15 58 58.3 | |
| | baz=313,slow=75,SNR=66 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 28.21 | 120 | T | T | 15 59 02.9 | |
| | baz=313,slow=75,SNR=270 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 28.22 | 120 | T | T | 15 58 59.7 | |
| | baz=313,slow=75,SNR=223 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 28.90 | 122 | T | T | 15 59 53.0 | |
| | baz=314,slow=76,SNR=625 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 28.90 | 122 | T | T | 15 59 50.5 | |
| | baz=314,slow=76,SNR=434 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 28.91 | 122 | T | T | 15 59 50.1 | |
| | baz=314,slow=76,SNR=396 | | | | | | |
| CMAR | Chiang Mai Arr | 41.10 | 255 | P | P | 15 30 49.1 | -1.0 |
| | 0.4nm,0.5s,baz=46,slow=5.5,SNR=3.3 | | | | | | |
| ZALV | Zalesovo Beam | 41.97 | 313 | P | P | 15 30 56.1 | -0.5 |
| | 4.4nm,0.6s,baz=96,slow=6.7,SNR=19 | | | | | | |
| ZALV | | | | PcP | PcP | 15 32 50.0 | -1.3 |
| | 1.0nm,0.7s,baz=116,slow=3.4,SNR=3.8 | | | | | | |
| MKAR | Makanchi Array | 44.08 | 302 | P | P | 15 31 13.2 | -0.7 |
| | 1.3nm,0.6s,baz=83,slow=9.4,SNR=8.5 | | | | | | |
| BRDH | Bariadhala | 44.66 | 266 | LR | LR | 15 53 45.4 | |
| | comp=Z,60nm,20.1s,baz=162,slow=41 | | | | | | |
| TAPN | Taplejung | 45.67 | 274 | *e*P | P | 15 31 26.4 | -0.7 |
| ODAN | Odare | 46.14 | 274 | *e*P | P | 15 31 29.9 | -0.9 |
| RAMN | Ramite | 46.73 | 274 | *e*P | P | 15 31 34.5 | -1.0 |
| | 29nm,0.7s | | | | | | |
| JIRN | Jiri | 46.76 | 275 | *e*P | P | 15 31 35.2 | -0.6 |
| | 125nm,0.8s | | | | | | |
| GUN | Gumba | 46.90 | 276 | *e*P | P | 15 31 36.4 | -0.4 |
| | 11nm,0.7s | | | | | | |
| PKI | Pulchoki | 47.42 | 276 | *e*P | P | 15 31 39.8 | -1.1 |
| PKIN | Phulchoki | 47.43 | 276 | *e*P | P | 15 31 39.7 | -1.2 |
| KKN | Kakani | 47.43 | 276 | *e*P | P | 15 31 39.9 | -0.9 |
| | 5.1nm,0.6s | | | | | | |
| KDAK | Kodiak Island | 47.60 | 42 | P | P | 15 31 42.5 | +1.1 |
| | 5.3nm,0.6s,baz=290,slow=6.2,SNR=23 | | | | | | |
| DANN | Dangsing | 48.40 | 277 | *e*P | P | 15 31 47.9 | -0.6 |
| | 1.7nm,0.8s | | | | | | |
| KOLN | Koldanda | 48.78 | 277 | *e*P | P | 15 31 50.1 | -1.1 |
| PYUN | Piuthan | 49.12 | 278 | *e*P | P | 15 31 53.2 | -0.7 |
| | 9.4nm,0.5s | | | | | | |
| ILAR | Eielson Array | 50.00 | 32 | P | P | 15 32 00.9 | +1.1 |
| | 2.5nm,0.7s,baz=269,slow=6.0,SNR=30 | | | | | | |
| AAK | Ala-Archa | 50.42 | 299 | P | P | 15 32 03.6 | +0.1 |
| | 1.4nm,0.7s,baz=98,slow=5.6,SNR=7.0 | | | | | | |
| INK | Inuvik | 54.88 | 27 | P | P | 15 32 37.0 | +1.2 |
| | 3.4nm,0.6s,baz=287,slow=4.8,SNR=20 | | | | | | |
| WRA | Warramunga Arr | 56.62 | 188 | P | P | 15 32 48.1 | -0.7 |
| | 3.3nm,0.5s,baz=4.5,slow=7.4,SNR=61 | | | | | | |
| ASAR | Alice Springs | 60.35 | 188 | P | P | 15 33 14.2 | -0.6 |
| | 1.2nm,0.7s,baz=16,slow=6.0,SNR=22 | | | | | | |
| ARCES | ARCESS Array B | 64.27 | 339 | P | P | 15 33 39.7 | -0.8 |
| | 2.5nm,0.9s,baz=55,slow=9.2,SNR=8.3 | | | | | | |
| YKA | Yellowknife Ar | 64.31 | 30 | P | P | 15 33 41.7 | +0.9 |
| | 0.4nm,0.6s,baz=305,slow=6.8,SNR=6.6 | | | | | | |
| STKA | Stephens Creek | 68.15 | 179 | P | P | 15 34 05.7 | 0.0 |
| | 1.1nm,0.6s,baz=346,slow=8.3,SNR=5.6 | | | | | | |
| FINES | FINESS Array B | 69.03 | 332 | P | P | 15 34 10.3 | -0.6 |
| | 4.7nm,0.7s,baz=29,slow=4.4,SNR=7.3 | | | | | | |
| AKASG | Malin Array Be | 74.43 | 322 | P | P | 15 34 42.8 | -0.8 |
| | 2.9nm,0.6s,baz=46,slow=6.1,SNR=18 | | | | | | |
| NB2 | NORSAR Subarra | 74.44 | 337 | P | P | 15 34 42.9 | -0.6 |
| | comp=Z,2.8nm,0.7s,baz=41,slow=6.2 | | | | | | |
| NOA | NORSAR Array B | 74.44 | 337 | P | P | 15 34 42.9 | -0.6 |
| | comp=Z,2.8nm,0.7s,baz=39,slow=5.8,SNR=6.7 | | | | | | |
| PDAR | Pinedale Array | 78.17 | 45 | P | P | 15 35 06.3 | +1.1 |
| | comp=Z,0.4nm,0.6s,baz=264,slow=2.8,SNR=4.2 | | | | | | |
| BRTR | Keskin Array B | 78.89 | 311 | P | P | 15 35 08.8 | -0.4 |
| | comp=Z,0.8nm,0.8s,baz=48,slow=2.1,SNR=3.2 | | | | | | |
| ULM | Lac du Bonnet | 80.01 | 33 | P | P | 15 35 15.1 | +0.3 |
| | comp=Z,2.2nm,0.7s,baz=0.0,slow=5.1,SNR=3.4 | | | | | | |
| GERES | GERESS Array B | 82.90 | 328 | P | P | 15 35 29.0 | -1.3 |
| | comp=Z,1.4nm,0.8s,baz=290,slow=8.4,SNR=4.8 | | | | | | |
| TXAR | Lajitas Array | 90.61 | 52 | P | P | 15 36 09.6 | +1.3 |
| | comp=Z,0.4nm,0.7s,baz=309,slow=3.1,SNR=5.7 | | | | | | |
| LPAZ | La Paz | 147.16 | 60 | PKPbc | PKPab | 15 42 51.2 | -0.2 |
| | comp=Z,0.7nm,0.6s,baz=45,slow=1.4,SNR=3.5 | | | | | | |

---

**IDC 09 15:39:07.0**±10.0, **16°.21N**×**120°.34E**, **h0**km, **mb3.4**/3, **mb1 3.8**/3, **mb1mx3.1**/43, **mbtmp3.5**/3, **Error ellipse: s-maj=302.7km s-min=32.7km az=35.0, Luzon**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time (h m s) | Res ISC |
|---|---|---|---|---|---|---|---|
| CMAR | Chiang Mai Arr | 20.55 | 279 | P | P | 15 43 47.1 | -0.2 |
| | 0.4nm,0.3s,baz=96,slow=7.5,SNR=5.3 | | | | | | |
| WRA | Warramunga Arr | 38.47 | 159 | P | P | 15 46 30.7 | -0.2 |
| | 0.6nm,0.7s,baz=340,slow=9.2,SNR=7.3 | | | | | | |
| ASAR | Alice Springs | 41.79 | 161 | P | P | 15 46 58.5 | 0.0 |
| | 0.4nm,0.5s,baz=340,slow=6.9,SNR=22 | | | | | | |

---

*IDC **09** 15:51:34.8±11.0, 15°.33N×119°.73E, h0km, mb3.3/3, mb1 3.7/3, mb1mx3.2/43, mbtmp3.4/3, Error ellipse: s-maj=372.5km s-min=32.3km az=36.0*
**ISC 09 15:51:29.2**±1.9, **16°.6N**±0°.2×**120°.7E**±0°.1, **h10**km, **n5**, σ1s**15**/6, **Luzon**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time (h m s) | Res ISC |
|---|---|---|---|---|---|---|---|
| SCZP | Santa Cruz | 1.10 | 223 | *e*P | Pg | 15 51 51.8 | +1.4 |
| SCZP | | | | *e*S | Sg | 15 52 03.6 | -1.2 |
| SJMP | San Jose | 4.12 | 174 | *e*P | Pn | 15 52 31.8 | -0.4 |
| CMAR | Chiang Mai Arr | 20.83 | 278 | P | P | 15 56 10.6 | -0.6 |
| | 0.3nm,0.4s,baz=92,slow=7.5,SNR=6.0 | | | | | | |
| WRA | Warramunga Arr | 38.70 | 159 | P | P | 15 58 53.5 | 0.0 |
| | 0.8nm,0.7s,baz=337,slow=9.3,SNR=9.1 | | | | | | |
| ASAR | Alice Springs | 42.04 | 162 | P | P | 15 59 21.3 | +0.1 |
| | 0.2nm,0.4s,baz=338,slow=7.1,SNR=18 | | | | | | |

---

*IDC **09** 16:22:28.0±11.0, 6°.49S×130°.09E, h102km±112km, mb3.6/2, mb1 3.7/4, mb1mx3.3/27, mbtmp4.0/4, ML3.9/2, Error ellipse: s-maj=140.5km s-min=38.3km az=61.0*
*ISCJB **09** 16:22:31.0±0.6, 6°.54S±0°.04×130°.15E±0°.07, h146km, mb3.7/2, Error ellipse: s-maj=9.7km s-min=5.5km az=169.7*
*DJA **09** 16:22:35.2±0.9, 6°S±4°×13°0E±°, h122km±17km, M4.1/6, mb3.9/1, MLv4.2/6*
**ISC 09 16:22:32.3**±0.9, **6°.50S**±0°.05×**130°.16E**±0°.08, **h146**km, **n10**, σ2s**77**/15, **Banda Sea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time (h m s) | Res ISC |
|---|---|---|---|---|---|---|---|
| SAUI | Saumlaki | 1.86 | 143 | P | Pn | 16 23 08.0 | +2.5 |
| SAUI | | | | S | Sn | 16 23 33.1 | +2.0 |
| BNDI | Bandanaira | 1.98 | 353 | P | Pn | 16 23 08.3 | +1.3 |
| MSAI | Masohi | 3.36 | 339 | P | Pn | 16 23 26.0 | +1.8 |
| MSAI | | | | S | Sn | 16 24 03.9 | -0.5 |
| FAKI | Fak Fak | 4.12 | 30 | P | Pn | 16 23 34.9 | +0.8 |
| FAKI | | | | S | Sn | 16 24 21.3 | -0.8 |
| KMPI | Kaimana, Papua | 4.52 | 52 | P | Pn | 16 23 40.3 | +1.0 |
| KMPI | | | | S | Sn | 16 24 31.3 | -0.1 |
| LBMI | Labuha | 6.40 | 335 | P | Pn | 16 24 06.1 | +1.8 |
| LBMI | | | | S | Sn | 16 25 15.5 | -0.9 |
| WRA | Warramunga Arr | 13.97 | 163 | P | Pn | 16 25 40.2 | -3.8 |
| | 0.5nm,0.3s,baz=346,slow=13,SNR=21 | | | | | | |
| WRA | | | | S | Sn | 16 28 08.5 | -10 |
| | 2.1nm,0.3s,baz=347,slow=22,SNR=9.3 | | | | | | |
| ASAR | Alice Springs | 17.45 | 168 | P | P | 16 26 26.9 | +1.0 |
| | 0.8nm,0.3s,baz=349,slow=11,SNR=72 | | | | | | |
| ASAR | | | | S | S | 16 29 31.8 | -8.3 |
| | 0.5nm,0.3s,baz=360,slow=27,SNR=7.3 | | | | | | |
| STKA | Stephens Creek | 27.42 | 159 | P | P | 16 28 04.2 | -0.2 |
| | 1.3nm,0.7s,baz=323,slow=9.9,SNR=4.8 | | | | | | |
| MKAR | Makanchi Array | 67.90 | 327 | P | P | 16 33 15.3 | +0.2 |
| | 0.8nm,0.5s,baz=115,slow=8.0,SNR=12 | | | | | | |

---

**MAN 09 16:22:41, 9°.37N×123°.16E, h0**km, **mb4.1, ML2.9, MS2.6, 2C, Negros**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time (h m s) | Res ISC |
|---|---|---|---|---|---|---|---|
| SNPH | Sibulan | 0.08 | 106⇑ | *i*P | Pg | 16 22 43.4 | +0.9 |
| SNPH | | | | *i* S | Sg | 16 22 45.4 | +1.9 |
| TBP | Tagbilaran | 0.77 | 65 | *e*P | Pb | 16 22 56.7 | -0.6 |
| TBP | | | | *e*S | Sb | 16 23 09.7 | +1.5 |
| LLP | Lapu-Lapu | 1.24 | 40⇑ | *e*P | Pg | 16 23 05.0 | +0.3 |
| LLP | | | | *e*S | Sb | 16 23 22.2 | +0.4 |
| GUIM | Jordan | 1.37 | 336 | *e*P | Pb | 16 23 07.7 | +0.1 |
| GUIM | | | | *e*S | Sn | 16 23 27.3 | +1.0 |
| MSLP | Maasin | 1.84 | 65 | *e*P | Pn | 16 23 14.4 | +0.5 |
| MSLP | | | | *e*S | Sg | 16 23 41.1 | +0.8 |

---

*ISK **09** 16:51:35.9, 38°.86N×43°.53E, h5km, ML2.3*
*ISCJB **09** 16:51:37.6±0.8, 38°.86N±0°.03×43°.58E±0°.07, h19km±9km, Error ellipse: s-maj=8.9km s-min=5.2km az=21.7*
*CSEM **09** 16:51:37.2±0.3, 38°.87N×43°.53E, h10km, ML2.9, Error ellipse: s-maj=7.4km s-min=5.9km az=114.0*
*DDA **09** 16:51:37.4, 38°.83N×43°.57E, h7km, Ml2.9*
*ATA **09** 16:51:45.8±0.3, 39°.22N×43°.04E, h4km±7km, ML2.1, MW2.2*
**ISC 09 16:51:38.1**±1.0, **38°.89N**±0°.02×**43°.50E**±0°.03, **h12**km±7km, **n20**, σ1s**53**/34, **Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time (h m s) | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.11 | 29 | *i* P | Pg | 16 51 40.7 | -0.6 |
| VMUR | | | | *i* S | Sg | 16 51 44.7 | +1.1 |
| VMUR | Van-Muradiye | 0.11 | 29 | P | Pg | 16 51 40.7 | -0.6 |
| VMUR | | | | S | Sg | 16 51 44.7 | +1.1 |
| VANB | Van | 0.31 | 196 | *e*PG | Pg | 16 51 44.0 | -0.4 |
| VANB | | | | *e*SG | Sb | 16 51 50.8 | +0.1 |
| VANB | Van | 0.31 | 196 | *e*Pg | Pg | 16 51 44.0 | -0.4 |
| VANB | | | | *e*Sg | Sb | 16 51 50.8 | +0.1 |
| TVAN | Van | 0.37 | 192 | *i* P | Pg | 16 51 43.8 | -1.8 |
| TVAN | | | | *i* S | Sg | 16 51 50.3 | -0.2 |
| TVAN | Van | 0.37 | 192 | P | Pg | 16 51 43.8 | -1.8 |
| TVAN | | | | S | Sg | 16 51 50.3 | -0.2 |
| CLDR | Caldiran | 0.41 | 52 | *e*PG | Pg | 16 51 45.1 | -1.2 |
| CLDR | Caldiran | 0.41 | 52 | *i* P | Pg | 16 51 45.2 | -1.1 |
| CLDR | | | | *i* S | Sb | 16 51 53.0 | -0.8 |
| CLDR | Caldiran | 0.41 | 52 | P | Pg | 16 51 45.2 | -1.1 |
| CLDR | | | | S | Sb | 16 51 53.0 | -0.8 |
| ADCV | BITLIS_Adilcev | 0.61 | 262 | *i* P | Pg | 16 51 49.1 | -0.9 |
| ADCV | | | | *i* S | Sb | 16 51 59.7 | +0.2 |
| ADCV | BITLIS_Adilcev | 0.61 | 262 | P | Pg | 16 51 49.1 | -0.9 |
| ADCV | | | | S | Sb | 16 51 59.7 | +0.2 |
| TUTA | Tutak | 0.74 | 314 | *e*P | Pg | 16 51 51.7 | -0.8 |
| TUTA | | | | *e*S | Sg | 16 51 56.2 | -5.9 |
| TUTA | | | | IAML | | 16 52 07.9 | |
| | comp=Z,28nm,0.4s | | | | | | |
| TUTA | Tutak | 0.74 | 314 | *i* P | Pg | 16 51 51.7 | -0.8 |
| TUTA | Tutak | 0.74 | 314 | P | Pg | 16 51 51.7 | -0.8 |
| AGRB | Hanur-Agry | 0.79 | 330 | *e*PG | Pg | 16 51 52.6 | -0.8 |
| AGRB | | | | *e*SG | Sb | 16 52 05.6 | +0.9 |
| AGRB | Hanur-Agry | 0.79 | 330 | *e*Pg | Pg | 16 51 52.6 | -0.8 |
| AGRB | | | | *e*Sg | Sb | 16 52 05.6 | +0.9 |
| EKAR | Karacoban | 1.18 | 289 | *e*P | Pn | 16 52 01.1 | +0.4 |
| EKAR | | | | IAML | | 16 52 23.3 | |
| | comp=Z,6.6nm,0.4s | | | | | | |
| EKAR | Karacoban | 1.18 | 289 | *i* P | Pn | 16 52 01.2 | +0.6 |
| EKAR | | | | *i* S | Sn | 16 52 20.2 | +3.5 |
| EKAR | Karacoban | 1.18 | 289 | P | Pn | 16 52 01.2 | +0.6 |
| EATA | Eleskirt | 1.25 | 321 | *e*P | Pg | 16 52 01.4 | -0.6 |
| EATA | | | | IAML | | 16 52 22.9 | |
| | comp=Z,2.5nm,0.6s | | | | | | |

---

**IDC 09 16:55:46.4**±1.6, **2°.11N**×**127°.00E**, **h0**km, **mb3.6**/5, **mb1 3.8**/5, **mb1mx3.4**/32, **mbtmp3.6**/5, **Error ellipse: s-maj=103.2km s-min=23.2km az=69.0, Northern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time (h m s) | Res ISC |
|---|---|---|---|---|---|---|---|
| FITZ | Fitzroy Crossi | 20.13 | 184 | P | Pn | 17 00 23.2 | -0.8 |
| | 0.6nm,0.3s,baz=354,slow=5.0,SNR=7.9 | | | | | | |
| WRA | Warramunga Arr | 23.07 | 162 | P | P | 17 00 53.7 | -0.1 |
| | 1.2nm,0.6s,baz=338,slow=10,SNR=35 | | | | | | |
| ASAR | Alice Springs | 26.49 | 166 | P | P | 17 01 25.4 | -0.2 |
| | 0.3nm,0.3s,baz=344,slow=8.2,SNR=20 | | | | | | |
| ASAR | | | | PcP | PcP | 17 04 49.8 | -1.2 |
| | 0.2nm,0.3s,baz=350,slow=1.9,SNR=5.5 | | | | | | |
| STKA | Stephens Creek | 36.53 | 159 | P | P | 17 02 53.6 | -0.3 |
| | 0.8nm,0.5s,baz=350,slow=13,SNR=3.2 | | | | | | |
| MKAR | Makanchi Array | 59.03 | 326 | P | P | 17 05 48.7 | +0.4 |
| | 0.2nm,0.3s,baz=124,slow=7.8,SNR=5.6 | | | | | | |

---

*IDC **09** 17:06:32.9±0.6, 0°.08N×125°.78E, h0km, mb4.2/15, mb1 4.4/16, mb1mx4.2/35, mbtmp4.3/16, ML4.1/1, MS3.8/16, Ms1 3.8/16, ms1mx3.5/42, Error ellipse: s-maj=27.2km s-min=12.6km az=68.0*
*BJI **09** 17:06:33.5, 0°.50S×126°.13E, h50km, mb4.5/35, mB5.1/24, Ms4.7/16, Ms7 4.4/16*
*MOS **09** 17:06:35.7±1.1, 0°.03N×125°.68E, h33km, mb5.0/28, Error ellipse: s-maj=15.8km s-min=6.9km az=115.4*
*ISCJB **09** 17:06:35.8±0.2, 0°.08N±0°.03×125°.89E±0°.03, h33km, mb4.8/79, MS4.0/21, Error ellipse: s-maj=4.3km s-min=3.8km az=144.2*
*DJA **09** 17:06:38.3±1.6, 0°N±4°×12°6E±°, h21km±15km, M4.4/10, mb4.5/4, mB4.7/3, MLv4.4/10, Mw(mB)3.9/3*
*NEIC **09** 17:06:39.4±0.8, 0°.04N×125°.84E, h50km±8km, mb4.9/46, Error ellipse: s-maj=7.7km s-min=4.6km az=56.0*
**ISC 09 17:06:35.3**±1.4, **0°.02N**±0°.05×**125°.90E**±0°.05, **h15**km±9km, **n177**, σ1s**80**/176, **mb4.8**/79, **MS4.0**/22, **3C-2D, Northern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time (h m s) | Res ISC |
|---|---|---|---|---|---|---|---|
| LBMI | Labuha | 1.73 | 112 | P | Pg | 17 07 09.9 | +1.4 |
| KMSI | Cibinong | 2.00 | 286 | P | Pn | 17 07 07.6 | -0.9 |
| KMSI | | | | S | Sn | 17 07 32.0 | -1.3 |
| SANI | Sanana | 2.06 | 178 | P | Pg | 17 07 14.1 | -0.7 |
| LUWI | Luwuk | 3.30 | 251 | P | Pn | 17 07 28.4 | +2.0 |
| LUWI | | | | S | Sn | 17 08 05.6 | +0.1 |
| LUWI | Luwuk | 3.30 | 251 | *e*Pn | Pn | 17 07 28.5 | +2.0 |
| SGSI | Sangihe | 3.66 | 354 | P | Pn | 17 07 31.7 | +0.3 |
| MRSI | Marisa | 3.99 | 277 | P | Pn | 17 07 36.4 | +0.5 |
| APSI | Ampana | 4.35 | 258 | P | Pn | 17 07 41.5 | +0.6 |
| MPSI | Mapaga | 6.01 | 273 | P | Pn | 17 08 04.4 | +0.7 |
| BBSI | Bau Bau | 6.40 | 211 | P | Pb | 17 08 21.1 | -5.4 |
| TTSI | Tana Toraja | 6.80 | 243 | P | Pn | 17 08 15.6 | +1.0 |
| | 44nm,0.7s,591nm | | | | | | |
| FAKI | Fak Fak | 6.98 | 115 | *e*Pn | Pn | 17 08 18.5 | +1.4 |
| BNSI | Bone | 7.26 | 233 | P | Pn | 17 08 22.5 | +1.5 |
| | 21nm,0.7s | | | | | | |
| SPSI | Sidrap Palu | 7.29 | 237 | P | Pn | 17 08 23.1 | +1.7 |
| MYLDM | Lahad Datu | 8.99 | 305 | *e*Pn | Pn | 17 08 46.4 | +1.7 |
| SOEI | Soe | 9.85 | 189 | *e*Pn | Pn | 17 08 59.4 | +2.9 |
| MTN | Manton Dam | 13.79 | 158 | *e*Pn | Pn | 17 09 52.5 | +2.1 |
| SBUM | Sibu | 13.89 | 280 | *e*Pn | Pn | 17 09 55.1 | +3.4 |
| KSM | Kuching | 15.66 | 275 | *e*Pn | P | 17 10 18.6 | -1.0 |
| | 31nm,1.0s | | | | | | |
| SMRI | Semarang | 16.95 | 245 | *e*Pn | P | 17 10 34.5 | +0.6 |
| | 94nm,1.2s | | | | | | |
| FITZ | Fitzroy Crossi | 18.01 | 181 | P | P | 17 10 46.7 | +1.0 |
| | 0.4nm,0.3s,baz=18,slow=8.7,SNR=14 | | | | | | |
| CISI | Cisompet, Garu | 19.54 | 247 | *e*P | P | 17 11 01.7 | -0.9 |
| | 105nm,1.5s | | | | | | |
| WRAB | Tennant Creek | 21.49 | 158*c* | *i*P | P | 17 11 23.7 | +0.1 |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,56nm,1.2s | | | | | | |
| WRAB | Tennant Creek | 21.49 | 158 | *e*P | P | 17 11 23.1 | -0.5 |
| | comp=Z,19nm,0.8s | | | | | | |
| WR1 | Warramunga Arr | 21.49 | 158 | *e*P | P | 17 11 23.3 | -0.4 |
| | comp=Z,20nm,0.8s | | | | | | |
| WRA | Warramunga Arr | 21.49 | 158 | P | P | 17 11 23.3 | -0.4 |
| | comp=Z,6.7nm,0.5s,baz=340,slow=9.3,SNR=58 | | | | | | |
| WB2 | Warramunga Arr | 21.50 | 158 | *e*P | P | 17 11 22.5 | -1.3 |
| MBWA | Marble Bar | 21.89 | 196 | *e*P | P | 17 11 26.7 | -1.3 |
| | comp=Z,31nm,1.1s | | | | | | |
| COEN | Coen | 22.03 | 130 | *e*P | P | 17 11 30.4 | +0.8 |
| | comp=Z,11nm,0.9s | | | | | | |
| PMG | Port Moresby | 23.14 | 114 | P | P | 17 11 42.3 | +1.0 |
| | comp=Z,9.3nm,1.0s,baz=15,slow=6.8,SNR=5.9 | | | | | | |
| PMG | Port Moresby | 23.14 | 114 | *e*P | P | 17 11 41.6 | +0.3 |
| PMG | | | | pmax | pmax | | |
| | comp=Z,75nm,2.0s | | | | | | |
| PMG | Port Moresby | 23.14 | 114 | *e*P | P | 17 11 41.6 | +0.3 |
| | comp=Z,74nm,2.0s | | | | | | |
| TPUB | Ta-pu | 23.70 | 348 | *e*P | P | 17 11 45.2 | -1.6 |
| | comp=Z,231nm,2.0s | | | | | | |
| SSLB | Suanglung | 24.11 | 349 | *e*P | P | 17 11 50.8 | +0.2 |
| | comp=Z,38nm,1.2s | | | | | | |
| QIZ | Qiongzhong | 24.60 | 321 | P | P | 17 11 56.4 | +1.2 |
| QIZ | | | | sP | sP | 17 12 11.3 | +10 |
| QIZ | | | | PP | PnPn | 17 12 32.8 | +6.1 |
| QIZ | | | | S | S | 17 16 15.5 | -0.5 |
| QIZ | | | | SS | SnSn | 17 17 13.7 | +12 |
| QIZ | | | | LR | LR | | |
| | comp=Z,730nm,6.0s | | | | | | |
| AS31 | Alice Springs | 24.79 | 162 | *e*P | P | 17 11 57.5 | +0.6 |
| | comp=Z,3.6nm,0.6s | | | | | | |
| ASAR | Alice Springs | 24.79 | 162 | P | P | 17 11 57.9 | +1.0 |
| | comp=Z,7.5nm,0.5s,baz=342,slow=7.1,SNR=90 | | | | | | |
| ASAR | | | | PcP | PcP | 17 15 33.9 | +0.4 |
| | comp=Z,0.8nm,0.7s,baz=349,slow=2.3,SNR=5.6 | | | | | | |
| AS01 | Alice Springs | 24.81 | 162 | *e*P | P | 17 11 57.4 | +0.3 |
| AS01 | | | | *e*PcP | PcP | 17 15 33.3 | -0.2 |
| IPM | Ipoh | 25.24 | 280 | *e*P | P | 17 12 00.6 | -0.5 |
| | comp=Z,39nm,1.7s | | | | | | |
| RABL | Rabaul | 26.57 | 99 | *e*P | P | 17 12 13.9 | +0.7 |
| | comp=Z,22nm,0.7s | | | | | | |
| FORT | Forrest | 30.70 | 176 | *e*P | P | 17 12 49.8 | +0.1 |
| | comp=Z,116nm,1.0s | | | | | | |
| CM01 | Chiang Mai Arr | 32.17 | 306 | *e*P | P | 17 13 00.3 | -2.6 |
| CM01 | | | | *e*PcP | PcP | 17 15 52.1 | +0.4 |
| CM31 | Chiang Mai Arr | 32.20 | 306 | *e*P | P | 17 13 00.8 | -2.3 |
| CMAR | Chiang Mai Arr | 32.20 | 306 | P | P | 17 13 01.1 | -2.0 |
| | comp=Z,2.1nm,1.1s,baz=125,slow=6.5,SNR=12 | | | | | | |
| CMAR | | | | PcP | PcP | 17 15 53.2 | +1.4 |
| | comp=Z,0.9nm,0.9s,baz=156,slow=1.3,SNR=5.5 | | | | | | |
| CMAR | Chiang Mai Arr | 32.20 | 306*c* | *e*P | P | 17 13 01.7 | -1.4 |
| CMAR | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.1s | | | | | | |
| CHTO | Chiang Mai | 32.39 | 307 | *e*P | P | 17 13 02.2 | -2.5 |
| CHTO | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.1s | | | | | | |
| CHTO | Chiang Mai | 32.39 | 307 | *e*P | P | 17 13 02.2 | -2.5 |
| | comp=Z,6.9nm,1.1s | | | | | | |
| NJ2 | Nanjing | 32.55 | 349 | *e*P | P | 17 13 06.2 | +0.3 |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,28nm,0.5s | | | | | | |
| KMI | Kunming | 33.53 | 320 | P | P | 17 13 17.2 | +2.3 |
| KMI | | | | pP | sP | 17 13 28.6 | +7.2 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,19nm,0.5s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,400nm,13.2s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,290nm,15.0s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,340nm,22.8s | | | | | | |
| ENH | Enshi | 33.90 | 334 | *e*PcP | PcP | 17 15 53.1 | -3.2 |
| BBOO | Buckleboo | 34.03 | 165 | *e*P | P | 17 13 18.7 | -0.1 |
| | comp=Z,24nm,0.9s | | | | | | |
| STKA | Stephens Creek | 35.03 | 156 | P | P | 17 13 28.4 | +0.8 |
| | comp=Z,14nm,0.8s,baz=329,slow=8.9,SNR=22 | | | | | | |
| STKA | Stephens Creek | 35.03 | 156 | *e*P | P | 17 13 28.2 | +0.7 |
| STKA | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.8s | | | | | | |
| STKA | Stephens Creek | 35.03 | 156 | *e*P | P | 17 13 28.2 | +0.7 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| | comp=Z,2.7nm,0.8s | | | | | | |
| **HNR** | **Honiara** | **35.17** | **106** | *e*P | **P** | **17 13 28.3** | **-0.6** |
| HNR | | | | pmax | pmax | | |
| | comp=Z,104nm,1.0s | | | | | | |
| **HNR** | **Honiara** | **35.17** | **106** | *e*P | **P** | **17 13 28.3** | **-0.6** |
| | comp=Z,104nm,1.0s | | | | | | |
| **INU** | **Inuyama** | **36.65** | **15** | *e*P | **P** | **17 13 42.2** | **+0.9** |
| | comp=Z,40nm,1.4s | | | | | | |
| **CD2** | **Chengdu** | **37.23** | **328** | *e*P | **P** | **17 13 44.8** | **-1.6** |
| CD2 | | | | S | **S** | **17 19 33.7** | **+0.6** |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.2s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,870nm,10.4s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,470nm,19.9s | | | | | | |
| **KS15** | **Wonju Array Si** | **37.28** | **3** | *e*P | **P** | **17 13 46.0** | **-0.7** |
| **KSAR** | **Wonju Array Be** | **37.28** | **3** | P | **P** | **17 13 45.9** | **-0.8** |
| **KSAR** | **Wonju Array Be** | **37.28** | **3** | P | **P** | **17 13 45.9** | **-0.8** |
| **KSRS** | **Korea Array** | **37.30** | **3** | P | **P** | **17 13 45.9** | **-0.9** |
| | comp=Z,2.1nm,0.8s,baz=176,slow=9.1,SNR=8.7 | | | | | | |
| **KS01** | **Wonju Array Si** | **37.32** | **3** | *e*P | **P** | **17 13 45.8** | **-1.2** |
| **MJAR** | **Matsushiro Arr** | **38.09** | **16** | P | **P** | **17 13 53.6** | **0.0** |
| | comp=Z,1.5nm,0.8s,baz=192,slow=9.6,SNR=4.1 | | | | | | |
| MJAR | | | | LR | LR | 17 29 36.9 | |
| | comp=Z,73nm,21.6s,baz=200,slow=36 | | | | | | |
| **ARMA** | **Armidale** | **38.92** | **143** | *e*P | **P** | **17 14 01.8** | **+1.0** |
| | comp=Z,74nm,1.9s | | | | | | |
| **CAN** | **Canberra** | **41.23** | **151** | *e*P | **P** | **17 14 21.7** | **+1.8** |
| CAN | | | | pmax | pmax | | |
| | comp=Z,25nm,1.3s | | | | | | |
| **CAN** | **Canberra** | **41.23** | **151** | *e*P | **P** | **17 14 21.7** | **+1.8** |
| | comp=Z,25nm,1.3s | | | | | | |
| **LZH** | **Lanzhou** | **41.33** | **333** | *e*P | **P** | **17 14 17.7** | **-3.1** |
| LZH | | | | pmax | pmax | | |
| | comp=Z,12nm,1.0s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,56nm,4.5s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,320nm,12.7s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,300nm,13.5s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,280nm,15.2s | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **42.68** | **344** | *e*P | **P** | **17 14 33.0** | **+1.4** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,15nm,0.5s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,75nm,5.0s | | | | | | |
| **LSA** | **Lhasa** | **44.35** | **315** | *e*P | **P** | **17 14 45.4** | **-0.4** |
| LSA | | | | pmax | pmax | | |
| | comp=Z,17nm,1.9s | | | | | | |
| **LSA** | **Lhasa** | **44.35** | **315** | *e*P | **P** | **17 14 45.4** | **-0.4** |
| | comp=Z,17nm,1.9s | | | | | | |
| **DZM** | **Mont Dzumac** | **45.19** | **122** | *e*LR | LR | 17 27 44.3 | |
| | comp=Z,287nm,25.6s | | | | | | |
| **GTA** | **Gaotai** | **45.89** | **332** | *e*P | **P** | **17 15 00.1** | **+2.6** |
| GTA | | | | pP | sP | 17 15 11.6 | +7.6 |
| GTA | | | | sP | pP | 17 15 16.6 | +14 |
| GTA | | | | S | **S** | **17 21 43.1** | **+1.6** |
| GTA | | | | SS | **ScS** | **17 24 57.9** | **+4.5** |
| GTA | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.3s | | | | | | |
| GTA | | | | pmax | pmax | | |
| | comp=Z,170nm,4.8s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,140nm,14.7s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,160nm,15.2s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,190nm,17.1s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **49.02** | **15** | *e*P | **P** | **17 15 21.5** | **+0.1** |
| YSS | | | | pmax | pmax | | |
| | comp=Z,40nm,1.4s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **49.02** | **15** | *e*P | **P** | **17 15 21.5** | **+0.1** |
| | comp=Z,40nm,1.4s | | | | | | |
| **HIA** | **Hailar** | **49.34** | **355** | *e*P | **P** | **17 15 23.4** | **-0.6** |
| HIA | | | | pmax | pmax | | |
| | comp=Z,25nm,1.3s | | | | | | |
| **HIA** | **Hailar** | **49.34** | **355** | *e*P | **P** | **17 15 23.4** | **-0.6** |
| | comp=Z,25nm,1.3s | | | | | | |
| **ULN** | **Ulaanbaatar** | **50.40** | **344** | *i* P | **P** | **17 15 31.1** | **-1.1** |
| ULN | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.2s | | | | | | |
| **ULN** | **Ulaanbaatar** | **50.40** | **344** | *e*P | **P** | **17 15 31.6** | **-0.6** |
| | comp=Z,5.9nm,1.1s | | | | | | |
| **SONA0** | **Songino Array** | **50.56** | **343** | *e*P | **P** | **17 15 31.4** | **-1.9** |
| **SONM** | **Songino Array** | **50.56** | **343** | P | **P** | **17 15 31.4** | **-1.9** |
| | comp=Z,2.7nm,0.8s,baz=163,slow=6.2,SNR=9.1 | | | | | | |
| **SONA1** | **Songino Array** | **50.56** | **343** | *e*P | **P** | **17 15 31.4** | **-2.1** |
| **TLY** | **Talaya** | **54.80** | **343** | *e*P | **P** | **17 16 05.8** | **+1.3** |
| TLY | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.9s | | | | | | |
| TLY | | | | MLR | MLR | | |
| | comp=Z,130nm,18.0s | | | | | | |
| **WMQ** | **Urumqi** | **55.32** | **327** | P | **P** | **17 16 09.0** | **+0.5** |
| WMQ | | | | pP | sP | 17 16 21.0 | +5.9 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,13nm,0.6s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,330nm,5.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,500nm,19.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,280nm,27.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,410nm,21.5s | | | | | | |
| **HVS** | **Khovu-Aksy** | **57.77** | **337** | *e*P | **P** | **17 16 25.2** | **-0.6** |
| HVS | | | | pmax | pmax | | |
| | comp=Z,17nm,1.1s | | | | | | |
| **BOD** | **Bodaibo** | **58.40** | **353** | *e*P | P | 17 16 22.3 | -7.7 |
| BOD | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.4s | | | | | | |
| **PEA0B** | **Petropavlovsk-** | **59.16** | **22** | *e*P | **P** | **17 16 35.3** | **-0.1** |
| | comp=Z,155nm,1.8s | | | | | | |
| **PETK** | **Petropavlovsk-** | **59.16** | **22** | P | **P** | **17 16 35.9** | **+0.5** |
| | comp=Z,2.1nm,0.6s,baz=205,slow=4.3,SNR=6.7 | | | | | | |
| **PETK** | **Petropavlovsk-** | **59.16** | **22** | *e*P | **P** | **17 16 36.2** | **+0.8** |
| **PETK** | **Petropavlovsk-** | **59.16** | **22** | *e*P | **P** | **17 16 36.2** | **+0.8** |
| **PEA1** | **Petropavlovsk-** | **59.16** | **22** | *e*P | **P** | **17 16 35.9** | **+0.5** |
| **DGZ** | **Jazzator, Alta** | **59.43** | **332** | *e*P | **P** | **17 16 36.5** | **-1.0** |
| DGZ | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.1s | | | | | | |
| **KHZ** | **Kahutara** | **60.08** | **141** | *e*P | **P** | **17 16 42.0** | **0.0** |
| | comp=Z,38nm,1.5s | | | | | | |
| **KSH** | **Kashi** | **60.12** | **317** | *e*P | **P** | **17 16 46.7** | **+4.2** |
| KSH | | | | pP | sP | 17 16 58.3 | +9.2 |
| KSH | | | | PP | **PP** | **17 19 01.5** | **+6.3** |
| KSH | | | | S | **S** | **17 24 55.8** | **+0.3** |
| KSH | | | | ScS | SKKSac | 17 26 29.8 | -3.0 |
| KSH | | | | SS | **SS** | **17 28 53.5** | **+0.8** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.3s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,69nm,4.8s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,230nm,6.2s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,190nm,6.9s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,220nm,6.6s | | | | | | |
| **MK01** | **Makanchi Array** | **60.13** | **327** | *e*P | **P** | **17 16 40.3** | **-2.0** |
| **MK31** | **Makanchi Array** | **60.15** | **327** | *e*P | **P** | **17 16 40.8** | **-1.6** |
| **MK31** | **Makanchi Array** | **60.15** | **327** | *e*P | **P** | **17 16 40.8** | **-1.6** |
| **MK32** | **Makanchi Array** | **60.15** | **327** | *e*P | **P** | **17 16 41.0** | **-1.5** |
| **MKAR** | **Makanchi Array** | **60.15** | **327** | P | **P** | **17 16 41.0** | **-1.4** |
| | comp=Z,1.9nm,0.4s,baz=120,slow=7.9,SNR=18 | | | | | | |
| MKAR | | | | LR | LR | 17 43 47.6 | |
| | comp=Z,180nm,21.7s,baz=126,slow=37 | | | | | | |
| **MKAR** | **Makanchi Array** | **60.15** | **327** *c* | *e*P | **P** | **17 16 41.5** | **-0.9** |
| MKAR | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.4s | | | | | | |
| **URZ** | **Urewera** | **60.46** | **135** | *e*P | **P** | **17 16 44.8** | **+0.1** |
| | comp=Z,61nm,1.8s | | | | | | |
| **YAK** | **Yakutsk** | **61.92** | **2** | *e*P | **P** | **17 16 51.3** | **-2.7** |
| YAK | | | | pmax | pmax | | |
| | comp=Z,14nm,0.9s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,7.0nm,1.5s | | | | | | |
| **YAK** | **Yakutsk** | **61.92** | **2** | *e*P | **P** | **17 16 53.9** | **-0.2** |
| | comp=N,16nm,0.9s | | | | | | |
| **AAK** | **Ala-Archa** | **62.58** | **319** | *i* P | **P** | **17 16 57.4** | **-1.7** |
| AAK | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.2s | | | | | | |
| **AAK** | **Ala-Archa** | **62.58** | **319** | *e*P | **P** | **17 16 58.5** | **-0.6** |
| | comp=Z,9.4nm,1.5s | | | | | | |
| **KBL** | **Kabul** | **63.16** | **309** | *e*P | **P** | **17 17 02.3** | **-0.9** |
| KBL | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.3s | | | | | | |
| **KBL** | **Kabul** | **63.16** | **309** | *e*P | **P** | **17 17 02.3** | **-0.9** |
| | comp=Z,9.2nm,1.3s | | | | | | |
| **ZAA0** | **Zalesovo Array** | **63.52** | **334** | *e*P | **P** | **17 17 03.6** | **-1.3** |
| | comp=Z,6.4nm,1.1s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **63.52** | **334** | P | **P** | **17 17 04.3** | **-0.6** |
| | comp=Z,1.5nm,0.5s,baz=116,slow=6.8,SNR=13 | | | | | | |
| ZALV | | | | LR | LR | 17 45 32.3 | |
| | comp=Z,108nm,21.4s,baz=70,slow=37 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **63.52** | **334** | *e*P | **P** | **17 17 02.9** | **-2.0** |
| **ZALV** | **Zalesovo Beam** | **63.52** | **334** | *e*P | **P** | **17 17 02.9** | **-2.0** |
| **ZAA1** | **Zalesovo Array** | **63.53** | **334** | *e*P | **P** | **17 17 04.3** | **-0.7** |
| **KURK** | **Kurchatov** | **64.44** | **329** | *e*P | **P** | **17 17 08.3** | **-2.7** |
| KURK | | | | pmax | pmax | | |
| | comp=Z,17nm,1.1s | | | | | | |
| **KURK** | **Kurchatov** | **64.44** | **329** | *e*P | **P** | **17 17 08.3** | **-2.7** |
| | comp=Z,17nm,1.1s | | | | | | |
| **NVS** | **Novosibirsk** | **64.81** | **334** | *e*P | **P** | **17 17 13.5** | **+0.2** |
| NVS | | | | pmax | pmax | | |
| | comp=N,3.0nm,0.9s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=E,2.0nm,0.9s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.9s | | | | | | |
| **SEY** | **Seymchan** | **65.81** | **13** | *i* P | **P** | **17 17 21.0** | **+1.3** |
| **BRVK** | **Borovoye** | **70.06** | **328** | *i* P | **P** | **17 17 44.4** | **-2.2** |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,19nm,1.2s | | | | | | |
| **BRVK** | **Borovoye** | **70.06** | **328** | *e*P | **P** | **17 17 44.5** | **-2.1** |
| | comp=Z,5.5nm,1.0s | | | | | | |
| **GSTR** | **Great Sitkin T** | **70.92** | **34** | *e*P | **P** | **17 17 51.3** | **-0.7** |
| **TIXI** | **Tiksi** | **71.54** | **1**⇓ | *i*P | **P** | **17 17 54.8** | **-0.5** |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.2s | | | | | | |
| **TIXI** | **Tiksi** | **71.54** | **1** | *e*P | **P** | **17 17 54.1** | **-1.1** |
| | comp=Z,5.8nm,1.1s | | | | | | |
| **GEYT** | **Alibeck** | **72.59** | **310** | P | **P** | **17 18 02.2** | **-0.1** |
| | comp=Z,1.9nm,0.4s,baz=108,slow=9.3,SNR=3.7 | | | | | | |
| **AKTO** | **Aktyubinsk** | **76.05** | **322** | LR | LR | 17 53 59.8 | |
| | comp=Z,81nm,19.4s,slow=38 | | | | | | |
| **SVE** | **Sverdlovsk** | **76.69** | **329** | *e*P | **P** | **17 18 24.4** | **-1.2** |
| SVE | | | | pmax | pmax | | |
| | comp=Z,15nm,1.3s | | | | | | |
| **ARU** | **Arti** | **77.62** | **328** *d* | *i*P | **P** | **17 18 29.2** | **-1.7** |
| ARU | | | | | | 17 21 19.9 | |
| ARU | | | | S | **S** | **17 28 22.7** | **+0.6** |
| ARU | | | | pmax | pmax | | |
| | comp=Z,12nm,1.0s | | | | | | |
| **ARU** | **Arti** | **77.62** | **328** | *e*P | **P** | **17 18 29.1** | **-1.8** |
| | comp=Z,14nm,1.1s | | | | | | |
| **VNDA** | **Vanda** | **79.88** | **173** | P | **P** | **17 18 42.2** | **-0.7** |
| | comp=Z,1.1nm,0.8s,baz=118,slow=2.8,SNR=3.6 | | | | | | |
| VNDA | | | | LR | LR | 17 54 18.9 | |
| | comp=Z,47nm,20.4s,baz=327,slow=36 | | | | | | |
| **VNDA** | **Vanda** | **79.88** | **173** | *e*P | **P** | **17 18 41.8** | **-1.1** |
| **VNDA** | **Vanda** | **79.88** | **173** | *e*P | **P** | **17 18 41.8** | **-1.1** |
| VNDA | | | | *e*PcP | **P** | **17 18 42.1** | **-0.8** |
| **MAW** | **Mawson** | **80.01** | **200** | LR | LR | 17 56 58.1 | |
| | comp=Z,41nm,18.7s,baz=66,slow=38 | | | | | | |
| **SDPT** | **Sand Point** | **80.72** | **34** | *e*P | **P** | **17 18 48.5** | **+0.7** |
| | comp=Z,91nm,1.4s | | | | | | |
| **SBA** | **Scott Base** | **80.80** | **172** | *e*P | **P** | **17 18 47.9** | **0.0** |
| SBA | | | | pmax | pmax | | |
| | comp=Z,26nm,1.5s | | | | | | |
| **SBA** | **Scott Base** | **80.80** | **172** | *e*P | **P** | **17 18 47.9** | **0.0** |
| | comp=Z,26nm,1.5s | | | | | | |
| **RAYN** | **Ar Rayn** | **81.19** | **294** | *e*P | **P** | **17 18 49.2** | **-1.9** |
| | comp=Z,20nm,1.9s | | | | | | |
| **MAK** | **Makhachkala** | **81.50** | **313** | *e*P | P | 17 18 44.8 | -7.5 |
| MAK | | | | *e*S | S | 17 28 53.3 | -10 |
| MAK | | | | *e*SSS | SSS | 17 37 36.1 | |
| **CHGN** | **Chignik** | **82.06** | **33** | *e*P | **P** | **17 18 54.3** | **-0.6** |
| | comp=Z,54nm,1.3s | | | | | | |
| **GNI** | **Garni** | **83.22** | **310** | LR | LR | 18 03 35.9 | |
| | comp=Z,26nm,18.1s,baz=86,slow=41 | | | | | | |
| **ZEI** | **Tsey** | **84.11** | **313** | *e*P | **P** | **17 19 03.3** | **-2.8** |
| ZEI | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.0s | | | | | | |
| **NCK** | **Nalchik** | **84.39** | **314** | *e*P | **P** | **17 19 05.3** | **-2.1** |
| NCK | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.7s | | | | | | |
| **PPT** | **Papeete** | **84.78** | **108** | LR | LR | 17 51 25.1 | |
| | comp=Z,46nm,21.8s,baz=212,slow=32 | | | | | | |
| **PPT2** | **Papeete2** | **84.78** | **108** | *e*LR | LR | 17 46 05.2 | |
| | comp=Z,134nm,24.5s | | | | | | |
| **KBZ** | **Khabaz** | **84.92** | **314** | P | **P** | **17 19 10.2** | **+0.3** |
| | comp=Z,3.8nm,1.0s,baz=242,slow=4.8,SNR=4.1 | | | | | | |
| **OHAK** | **Old Harbor** | **85.00** | **33** | *e*P | **P** | **17 19 11.8** | **+1.7** |
| | comp=Z,146nm,1.7s | | | | | | |
| **NEY** | **Neytrino** | **85.01** | **313** | *e*P | **P** | **17 19 10.1** | **-0.6** |
| NEY | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.2s | | | | | | |
| **KDAK** | **Kodiak Island** | **85.45** | **32** | *e*P | **P** | **17 19 14.0** | **+1.8** |
| **KDAK** | **Kodiak Island** | **85.45** | **32** | *e*P | **P** | **17 19 14.0** | **+1.8** |
| | comp=Z,433nm,2.0s | | | | | | |
| **IMAR** | **Indian Mountai** | **86.05** | **24** | *e*P | **P** | **17 19 16.2** | **+1.1** |
| **SPU** | **Mount Spurr** | **86.14** | **29** | *e*P | **P** | **17 19 14.0** | **-1.7** |
| **VRH** | **Novokhopyorsk** | **86.33** | **321** | *e*P | **P** | **17 19 14.6** | **-2.2** |
| VRH | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.1s | | | | | | |
| **BRLK** | **Bradley Lake** | **86.56** | **30** | *e*P | **P** | **17 19 19.1** | **+1.3** |
| | comp=Z,144nm,1.9s | | | | | | |
| **COLD** | **Coldfoot** | **87.61** | **23** | *e*P | **P** | **17 19 24.2** | **+1.5** |
| | comp=Z,11nm,1.6s | | | | | | |
| **MCK** | **McKinley** | **87.83** | **26** | *e*P | **P** | **17 19 23.5** | **-0.4** |
| MCK | | | | pmax | pmax | | |
| | comp=Z,36nm,1.9s | | | | | | |
| **MCK** | **McKinley** | **87.83** | **26** | *e*P | **P** | **17 19 23.5** | **-0.4** |
| | comp=Z,36nm,1.9s | | | | | | |
| **VSR** | **Storozhevoye** | **87.93** | **321** | *e*P | **P** | **17 19 22.2** | **-2.4** |
| VSR | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.0s | | | | | | |
| **SML** | **Sawmill** | **87.97** | **28** | *e*P | **P** | **17 19 24.1** | **-0.5** |
| SML | | | | pmax | pmax | | |
| | comp=Z,35nm,1.6s | | | | | | |
| **SML** | **Sawmill** | **87.97** | **28** | *e*P | **P** | **17 19 24.1** | **-0.5** |
| | comp=Z,35nm,1.6s | | | | | | |
| **LPSR** | **Galich'ya Gora** | **88.14** | **322** | *e*P | **P** | **17 19 23.8** | **-1.7** |
| LPSR | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.5s | | | | | | |
| **KLMR** | **Klimovskoe** | **88.21** | **331** | *e*P | **P** | **17 19 25.4** | **-0.3** |
| KLMR | | | | pmax | pmax | | |
| | comp=Z,19nm,1.3s | | | | | | |
| **KMBO** | **Kilima Mbogo** | **88.65** | **269** | LR | LR | 17 55 45.8 | |
| | comp=Z,86nm,20.9s,baz=90,slow=33 | | | | | | |
| **ILAR** | **Eielson Array** | **88.79** | **25** | P | **P** | **17 19 27.6** | **-0.7** |
| | comp=Z,0.3nm,0.6s,baz=232,slow=5.6,SNR=2.1 | | | | | | |
| **OBN** | **Obninsk** | **89.60** | **325** | LR | LR | 18 03 54.6 | |
| | comp=Z,56nm,18.2s,baz=98,slow=38 | | | | | | |
| **QSPA** | **South Pole Qui** | **89.95** | **180** | *e*P | **P** | **17 19 33.9** | **0.0** |
| | comp=Z,7.3nm,1.0s | | | | | | |
| **EIL** | **Elat** | **90.82** | **300** | LR | LR | 18 05 02.6 | |
| | comp=Z,31nm,20.4s,baz=80,slow=39 | | | | | | |
| **ARCES** | **ARCESS Array B** | **93.62** | **340** | LR | LR | 18 07 23.3 | |
| | comp=Z,66nm,18.0s,baz=90,slow=39 | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **93.91** | **99** | *e*LR | LR | 17 50 18.7 | |
| | comp=Z,111nm,23.0s | | | | | | |
| **SPITS** | **Spitsbergen Ar** | **93.93** | **349** | LR | LR | 18 07 18.5 | |
| | comp=Z,63nm,18.4s,baz=230,slow=39 | | | | | | |
| **AKASG** | **Malin Array Be** | **94.22** | **321** | LR | LR | 18 05 51.5 | |
| | comp=Z,31nm,21.5s,baz=315,slow=38 | | | | | | |
| **KIEV** | **Kiev** | **94.24** | **321** | *e*P | **P** | **17 19 52.9** | **-1.0** |
| KIEV | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.2s | | | | | | |
| **BOSA** | **Boshof** | **99.36** | **241** | LR | LR | 18 01 58.3 | |
| | comp=Z,51nm,19.4s,baz=80,slow=34 | | | | | | |
| **BBB** | **Bella Bella** | **99.75** | **37** | LR | LR | 17 58 23.6 | |
| | comp=Z,93nm,21.5s,baz=134,slow=31 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **123.20** | **286** | PKP | **PKPdf** | **17 25 32.5** | **-0.2** |
| | comp=Z,1.4nm,0.9s,baz=54,slow=2.7,SNR=6.5 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **123.20** | **286** | *e*PKPdf | **PKPdf** | **17 25 32.5** | **-0.2** |
| **LTX** | **Lajitas** | **124.48** | **54** | *e*PKIKP | **PKPdf** | **17 25 35.2** | **+0.3** |
| **LTX** | **Lajitas** | **124.48** | **54** | *e*PKPdf | **PKPdf** | **17 25 35.2** | **+0.3** |
| **TXAR** | **Lajitas Array** | **124.48** | **54** | PKP | **PKPdf** | **17 25 35.2** | **+0.3** |
| | comp=Z,0.4nm,0.8s,baz=318,slow=1.7,SNR=4.4 | | | | | | |
| **CPUP** | **Villa Florida** | **153.66** | **173** | *e*PKIKP | **PKPbc** | **17 26 34.3** | **-0.1** |
| **CPUP** | **Villa Florida** | **153.66** | **173** | *e*PKPbc | **PKPbc** | **17 26 34.3** | **-0.1** |

**MAN 09 17:07:34, 13°07N×120°58E, h8km, mb4.0, ML2.8, MS2.5, 1C, Mindoro**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PGP** | **Puerto Galera** | **0.56** | **40**⇑ | *e*P | Pg | 17 07 44.6 | -0.2 |
| PGP | | | | *i* S | Sg | 17 07 52.4 | +0.3 |
| **LUBP** | **Lubang** | **0.73** | **333** | *e*P | Pg | 17 07 48.3 | +0.1 |
| **SJMP** | **San Jose** | **0.80** | **139** | *e*P | Pb | 17 07 50.3 | +0.1 |
| SJMP | | | | *e*S | Sn | 17 08 03.0 | -0.7 |
| **BUSP** | **Coron** | **1.13** | **199** | *e*P | Pg | 17 07 55.6 | -0.1 |
| BUSP | | | | *e*S | Sn | 17 08 11.4 | -0.5 |
| **BOAC** | **Boac** | **1.28** | **73** | *e*P | Pg | 17 07 58.7 | 0.0 |
| **OTRP** | **Odiongan** | **1.57** | **117** | *e*P | Pn | 17 08 02.4 | +0.2 |
| OTRP | | | | *e*S | Sn | 17 08 22.6 | -0.2 |

**IDC 09 17:44:54.9±1.4, 2°25N×123°86E, h0km, mb3.6/5, mb1 3.7/5, mb1mx3.4/55, mbtmp3.6/5, MS3.7/1, Ms1 3.7/1, ms1mx2.7/35, Error ellipse: s-maj=197.8km s-min=19.4km az=63.0, Celebes Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **24.33** | **155** | P | P | 17 50 14.0 | -0.6 |
| | 0.7nm,0.7s,baz=333,slow=11,SNR=14 | | | | | | |
| **ASAR** | **Alice Springs** | **27.55** | **160** | P | P | 17 50 45.0 | +1.3 |
| | 0.2nm,0.8s,baz=335,slow=8.4,SNR=7.5 | | | | | | |
| **STKA** | **Stephens Creek** | **37.89** | **155** | P | P | 17 52 13.4 | -0.4 |
| | 1.4nm,0.7s,baz=328,slow=14,SNR=3.5 | | | | | | |
| **SONM** | **Songino Array** | **47.86** | **344** | LR | LR | 18 14 43.9 | |
| | comp=Z,80nm,19.3s,baz=281,slow=37 | | | | | | |
| **MKAR** | **Makanchi Array** | **57.18** | **327** | P | P | 17 54 44.1 | +0.3 |
| | 0.5nm,0.5s,baz=123,slow=7.9,SNR=4.1 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **61.48** | **329** | P | P | 17 55 12.5 | -0.8 |
| | 0.4nm,0.3s,baz=128,slow=6.3,SNR=6.3 | | | | | | |

*ISCJB **09** 17:54:59.7±0.4, 50°38N±0°03×18°73E±0°03, h0km, Error ellipse: s-maj=4.6km s-min=2.2km az=17.1*
*CSEM **09** 17:55:00.8±0.3, 50°39N×18°75E, h2km, ML3.3/8, Error ellipse: s-maj=7.0km s-min=3.0km az=17.0*
*BGR **09** 17:55:01.5±0.4, 50°36N×18°79E, h1km, ML3.0/5, Error ellipse: s-maj=10.0km s-min=4.4km az=4.0*
*VIE **09** 17:55:01.7±1.1, 50°29N×18°79E, h0km, mb2.7/2, ML2.9/4, Error ellipse: s-maj=9.4km s-min=6.6km az=119.0, Suspected Mining induced.*
*WAR **09** 17:55:02.1, 50°35N×18°83E, h1km, Mw3.1*
*PRU **09** 17:55:02.0, 50°36N×18°75E, h0km*
*IDC **09** 17:55:03.3±0.9, 50°38N×18°54E, h0km, mb1 3.5/4, mb1mx3.1/58, mbtmp3.3/4, ML3.1/4, Error ellipse: s-maj=20.0km s-min=7.9km az=144.0*
**ISC 09 17:55:00.7±0.7, 50°34N±0°03×18°74E±0°02, h0km, n72, σ1s00/112, 9C-1D, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RAC** | **Raciborz** | **0.44** | **234** | *e*Sg | **Sb** | **17 55 19.4** | **+1.1** |
| **OKC** | **Ostrava-Krasne** | **0.64** | **217** | *e*PG | **Pb** | **17 55 14.9** | **+0.3** |
| OKC | | | | *e*SG | **Sg** | **17 55 22.3** | **+1.3** |
| | comp=Z,102nm,0.4s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **0.64** | **217** | *e*Pg | **Pb** | **17 55 14.9** | **+0.3** |
| **OKC** | **Ostrava-Krasne** | **0.64** | **217** | Pg | **Pb** | **17 55 14.9** | **+0.3** |
| OKC | | | | Sg | **Sg** | **17 55 22.3** | **+1.3** |
| | 102nm,0.4s | | | | | | |
| **OJC** | **Ojcow** | **0.69** | **100** | *e*Pg | **Pg** | **17 55 14.1** | **+0.3** |
| OJC | | | | *e*Sg | **Sg** | **17 55 23.6** | **+0.8** |
| **OJC** | **Ojcow** | **0.69** | **100** | *e*Pg | **Pg** | **17 55 14.2** | **+0.3** |
| OJC | | | | *e*Sg | **Sg** | **17 55 23.6** | **+0.8** |
| **OJC** | **Ojcow** | **0.69** | **100** | Pg | **Pg** | **17 55 14.2** | **+0.3** |
| OJC | | | | *e*Sg | **Sg** | **17 55 23.6** | **+0.8** |
| **OJC** | **Ojcow** | **0.69** | **100** | *e*Pg | **Pg** | **17 55 14.1** | **+0.2** |
| OJC | | | | *e*Sg | **Sg** | **17 55 23.6** | **+0.8** |
| **MORC** | **Moravsky Berou** | **0.96** | **234**⇑ | *i*P | **Pn** | **17 55 21.0** | **-0.4** |
| **MORC** | **Moravsky Berou** | **0.96** | **234** | *e*Pn | **Pb** | **17 55 20.5** | **+0.3** |
| MORC | | | | *e*Sg | **Sb** | **17 55 34.5** | **+1.1** |
| **MORC** | **Moravsky Berou** | **0.96** | **234** | *e*Pg | **Pb** | **17 55 20.5** | **+0.3** |
| **MORC** | **Moravsky Berou** | **0.96** | **234**⇑ | *i*P | **Pn** | **17 55 21.0** | **-0.4** |
| MORC | | | | *e*Sg | **Sb** | **17 55 34.0** | **+0.6** |
| **LANS** | **Liptovska Anna** | **1.28** | **158** | *e*Pg | **Pn** | **17 55 26.2** | **+0.3** |
| LANS | | | | *e*Sg | **Sn** | **17 55 43.7** | **-0.1** |
| **LANS** | **Liptovska Anna** | **1.28** | **158** | *e*PG | **Pn** | **17 55 26.2** | **+0.3** |
| LANS | | | | *e*SG | **Sn** | **17 55 43.7** | **-0.1** |
| **KRLC** | **Kraliky** | **1.29** | **259** | *e*PG | **Pg** | **17 55 25.7** | **+0.4** |
| KRLC | | | | *e*SG | **Sb** | **17 55 43.1** | **+0.2** |
| | comp=Z,35nm,0.5s | | | | | | |
| **KRLC** | **Kraliky** | **1.29** | **259** | Pg | **Pg** | **17 55 25.7** | **+0.4** |
| KRLC | | | | Sg | **Sb** | **17 55 43.1** | **+0.2** |
| | 35nm,0.5s | | | | | | |
| **NIE** | **Niedzica** | **1.37** | **132** | *e*Pg | **Pb** | **17 55 27.2** | **0.0** |
| NIE | | | | *e*Sg | **Sb** | **17 55 45.3** | **+0.1** |
| **NIE** | **Niedzica** | **1.37** | **132** | *e*Pg | **Pb** | **17 55 27.2** | **0.0** |
| NIE | | | | *e*Sg | **Sb** | **17 55 45.3** | **+0.1** |
| **NIE** | **Niedzica** | **1.37** | **132** | *e*Pg | **Pb** | **17 55 27.2** | **0.0** |
| NIE | | | | *e*Sg | **Sb** | **17 55 45.3** | **+0.1** |
| **DPC** | **Dobruska-Polom** | **1.55** | **271** | *e*PG | **Pb** | **17 55 30.4** | **+0.1** |
| DPC | | | | *e*SG | **Sg** | **17 55 51.3** | **+0.9** |
| **DPC** | **Dobruska-Polom** | **1.55** | **271** | *e*Pn | **Pb** | **17 55 30.4** | **+0.1** |
| DPC | | | | *e*Sg | **Sg** | **17 55 51.4** | **+1.0** |
| **DPC** | **Dobruska-Polom** | **1.55** | **271** | Pg | **Pb** | **17 55 30.4** | **+0.1** |
| DPC | | | | Sg | **Sg** | **17 55 51.4** | **+1.0** |
| **KSP** | **Ksiaz** | **1.64** | **289** | *e*Pb | **Pn** | **17 55 31.2** | **+0.4** |
| KSP | | | | *e*Pg | **Pg** | **17 55 32.9** | **+0.9** |
| KSP | | | | *e*Sg | **Sg** | **17 55 55.5** | **+2.2** |
| **KSP** | **Ksiaz** | **1.64** | **289** | *e*Pn | **Pn** | **17 55 31.1** | **+0.4** |
| KSP | | | | *e*Sg | **Sg** | **17 55 54.9** | **+1.6** |
| **KSP** | **Ksiaz** | **1.64** | **289** | Pn | **Pn** | **17 55 31.1** | **+0.4** |
| **KSP** | **Ksiaz** | **1.64** | **289** | *e*Pb | **Pn** | **17 55 31.2** | **+0.4** |
| **KSP** | **Ksiaz** | **1.64** | **289** | *e*Pg | **Pg** | **17 55 32.9** | **+0.9** |
| KSP | | | | Sg | **Sg** | **17 55 54.9** | **+1.6** |
| **KSP** | **Ksiaz** | **1.64** | **289** | *e*Pb | **Pn** | **17 55 31.2** | **+0.4** |
| KSP | | | | *e*Pg | **Pg** | **17 55 32.9** | **+0.9** |
| KSP | | | | *e*Sg | **Sg** | **17 55 55.5** | **+2.2** |
| **VRAC** | **Vranov** | **1.73** | **234** | Pn | **Pg** | **17 55 33.8** | **-0.1** |
| | 11nm,0.3s,baz=48,slow=14,SNR=43 | | | | | | |
| VRAC | | | | Lg | Lg | 17 55 57.7 | |
| | 15nm,0.3s,baz=95,slow=23,SNR=18 | | | | | | |
| **VRAC** | **Vranov** | **1.73** | **234**⇑ | *i*P | **Pg** | **17 55 34.5** | **+0.6** |
| **VRAC** | **Vranov** | **1.73** | **234** | *e*Pn | **Pb** | **17 55 33.4** | **0.0** |
| **VRAC** | **Vranov** | **1.73** | **234**⇑ | *i*P | **Pg** | **17 55 34.5** | **+0.6** |
| VRAC | | | | *e*Sg | **Sg** | **17 55 57.0** | **+0.7** |
| **UPC** | **Upice** | **1.75** | **276** | *e*PG | **Pb** | **17 55 33.2** | **-0.5** |
| UPC | | | | *e*SG | **Sg** | **17 55 58.3** | **+1.4** |
| | comp=Z,36nm,0.6s | | | | | | |
| **UPC** | **Upice** | **1.75** | **276** | Pg | **Pb** | **17 55 33.2** | **-0.5** |
| UPC | | | | Sg | **Sg** | **17 55 58.3** | **+1.4** |
| | 36nm,0.6s | | | | | | |
| **VYHS** | **Vyhne** | **1.85** | **178** | *e*Pn | **Pn** | **17 55 34.0** | **+0.3** |
| VYHS | | | | *e*Sn | **Sn** | **17 55 57.0** | **-0.8** |
| **VYHS** | **Vyhne** | **1.85** | **178** | *e*PN | **Pn** | **17 55 34.0** | **+0.3** |
| VYHS | | | | *e*SN | **Sn** | **17 55 57.0** | **-0.8** |
| VYHS | | | | *e*LG | Lg | 17 56 01.5 | |
| **STHS** | **Stebnicka Huta** | **1.87** | **119** | *e*Pn | **Pb** | **17 55 35.9** | **+0.3** |
| STHS | | | | *e*Sg | **Sg** | **17 56 03.4** | **+2.8** |
| **STHS** | **Stebnicka Huta** | **1.87** | **119** | *e*PN | **Pb** | **17 55 35.9** | **+0.3** |
| STHS | | | | *e*SG | **Sg** | **17 56 03.4** | **+2.8** |
| STHS | | | | *e*LG | Lg | 17 56 09.0 | |
| **KECS** | **Kecovo** | **2.18** | **148** | *e*Pn | **Pn** | **17 55 38.1** | **-0.1** |
| **KECS** | **Kecovo** | **2.18** | **148** | *e*PN | **Pn** | **17 55 38.1** | **-0.1** |
| KECS | | | | *e*LG | Lg | 17 56 15.2 | |
| **MODS** | **Modra-Piesok** | **2.19** | **206** | *e*Pn | **Pn** | **17 55 38.9** | **+0.6** |
| **MODS** | **Modra-Piesok** | **2.19** | **206** | *e*PN | **Pn** | **17 55 38.8** | **+0.5** |
| **CRVS** | **Cervenica-Dubn** | **2.28** | **128** | *e*Pg | **Pg** | **17 55 43.7** | **-0.7** |
| **CRVS** | **Cervenica-Dubn** | **2.28** | **128** | *e*PG | **Pg** | **17 55 43.7** | **-0.7** |
| **PSZ** | **Piszkesteto** | **2.54** | **162**⇑ | *i*P | **Pb** | **17 55 46.9** | **-0.3** |
| **PSZ** | **Piszkesteto** | **2.54** | **162** | *e*x | **Pg** | **17 55 49.8** | **+0.4** |
| PSZ | | | | *e*x | **Sg** | **17 56 21.5** | **-0.8** |
| **PSZ** | **Piszkesteto** | **2.54** | **162**⇑ | *i*P | **Pb** | **17 55 46.9** | **-0.3** |
| **GOPC** | **GO Pecny, Ondr** | **2.58** | **262** | *e*PN | **Pn** | **17 55 43.9** | **+0.2** |
| GOPC | | | | *e*PG | **Pb** | **17 55 48.6** | **+0.8** |
| GOPC | | | | *e*SG | **Sg** | **17 56 23.8** | **+0.3** |
| | comp=Z,26nm,0.6s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **2.58** | **262** | Pn | **Pn** | **17 55 43.9** | **+0.2** |
| **PVCC** | **Panska Ves** | **2.67** | **276** | *e*SG | **Sg** | **17 56 27.7** | **+1.2** |
| | comp=Z,37nm,0.4s | | | | | | |
| **PVCC** | **Panska Ves** | **2.67** | **276** | Sg | **Sg** | **17 56 27.7** | **+1.2** |
| | 37nm,0.4s | | | | | | |
| **PRU** | **Pruhonice** | **2.72** | **264** | *e*PN | **Pn** | **17 55 44.9** | **-0.7** |
| PRU | | | | *e*PG | **Pg** | **17 55 51.7** | **-1.1** |
| PRU | | | | *e*SG | **Sg** | **17 56 28.0** | **-0.1** |
| | comp=Z,26nm,0.6s | | | | | | |
| **PRU** | **Pruhonice** | **2.72** | **264** | Pn | **Pn** | **17 55 44.9** | **-0.7** |
| **CONA** | **Conrad Observa** | **3.07** | **219** | Pn | **Pn** | **17 55 51.0** | **+0.5** |
| | 0.4nm,0.2s | | | | | | |
| **CONA** | **Conrad Observa** | **3.07** | **219** | Pg | **Pg** | **17 55 59.4** | **-0.1** |
| | 1.3nm,0.2s | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| CONA | | | | Sn | Sn | 17 56 28.3 | +0.4 |
| | 5.4nm,0.3s | | | | | | |
| BRG | Berggiesshubel | 3.10 | 282 | SG | Sg | 17 56 39.0 | -1.2 |
| | 20nm,0.5s | | | | | | |
| KHC | Kasperske Hory | 3.56 | 252 | ePN | Pn | 17 55 57.7 | +0.5 |
| KHC | | | | ex | x | 17 56 04.6 | |
| KHC | | | | ePG | Pg | 17 56 09.0 | +0.1 |
| KHC | | | | eSG | Sg | 17 56 52.7 | -2.3 |
| | comp=Z,33nm,0.6s | | | | | | |
| KHC | Kasperske Hory | 3.56 | 252 | Pn | Pn | 17 55 57.7 | +0.5 |
| KHC | Kasperske Hory | 3.56 | 252 | Pg | Pg | 17 56 09.0 | +0.1 |
| KHC | | | | Sg | Sg | 17 56 52.7 | -2.3 |
| | 33nm,0.6s | | | | | | |
| GERES | GERESS Array B | 3.60 | 247 | Pn | Pn | 17 55 58.5 | +0.7 |
| | 0.5nm,0.3s,baz=62,slow=15,SNR=10.0 | | | | | | |
| GERES | | | | Pg | Pb | 17 56 05.7 | +0.4 |
| | 1.9nm,0.3s,baz=64,slow=14,SNR=22 | | | | | | |
| GERES | | | | Lg | Lg | 17 56 56.2 | |
| | 4.6nm,0.3s,baz=66,slow=29,SNR=11 | | | | | | |
| CLL | Collm | 3.76 | 287 | ePg | Pg | 17 56 14.0 | +1.2 |
| CLL | | | | eSg | Sg | 17 57 04.0 | +2.5 |
| | comp=Z,29nm,0.7s | | | | | | |
| MOA | Molln | 3.86 | 231 | Pn | Pn | 17 56 03.6 | +2.4 |
| | comp=Z,0.8nm,0.3s | | | | | | |
| NKC | Novy Kostel | 4.04 | 271 | eSG | Sg | 17 57 10.5 | +0.2 |
| | comp=Z,26nm,0.4s | | | | | | |
| NKC | Novy Kostel | 4.04 | 271 | Sg | Sg | 17 57 10.5 | +0.2 |
| | comp=Z,26nm,0.4s | | | | | | |
| DRGR | | 4.42 | 142 | ⇓iP | Pg | 17 56 28.2 | +2.8 |
| BURAR | Bucovina Array | 5.06 | 120 | ⇑iP | Pn | 17 56 23.1 | +5.2 |
| BZS | Buzias | 5.11 | 157 | ⇑iP | Pn | 17 56 19.1 | +0.7 |
| BZS | Buzias | 5.11 | 157 | ⇑iP | Pn | 17 56 19.1 | +0.7 |
| AKASG | Malin Array Be | 6.70 | 83 | Pn | Pn | 17 56 41.0 | +0.8 |
| | comp=Z,1.0nm,0.3s,baz=270,slow=13,SNR=5.5 | | | | | | |
| AKASG | | | | Lg | Lg | 17 58 32.9 | |
| | comp=Z,0.9nm,0.3s,baz=279,slow=27,SNR=4.6 | | | | | | |
| DAVOX | Davos/Dischmat | 6.88 | 242 | Lg | Lg | 17 58 41.0 | |
| | comp=Z,0.4nm,0.3s,baz=319,slow=22,SNR=3.7 | | | | | | |
| FINES | FINESS Array B | 11.85 | 17 | Pn | Pn | 17 57 48.2 | -2.5 |
| | comp=Z,0.3nm,0.3s,baz=193,slow=11,SNR=14 | | | | | | |
| ARCES | ARCESS Array B | 19.52 | 7 | Pn | P | 17 59 27.7 | -1.5 |
| | comp=Z,0.2nm,0.3s,baz=185,slow=13,SNR=8.7 | | | | | | |

*DDA **09** 17:57:33.5, 37.°82N×36.°36E, h7km, Ml2.8*
*ISK **09** 17:57:33.7, 37.°83N×36.°35E, h7km, MD2.6*
*CSEM **09** 17:57:34.3±0.2, 37.°82N×36.°30E, h5km, ML2.8, Error ellipse: s-maj=5.6km s-min=5.2km az=49.0*
**ISC 09 17:57:34.1**±1.0, **37.°82N**±0.°02×**36.°35E**±0.°02, **h7**km±9km, **n29**, σ**0.s71**/47, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ANDN | Andirin | 0.24 | 182 | i P | Pg | 17 57 38.6 | -0.3 |
| ANDN | | | | i S | Sg | 17 57 42.7 | +0.5 |
| ANDN | Andirin | 0.24 | 182 | P | Pg | 17 57 38.6 | -0.3 |
| ANDN | | | | S | Sg | 17 57 42.7 | +0.5 |
| SAIM | ADANA | 0.26 | 306 | i P | Pg | 17 57 39.2 | -0.1 |
| SAIM | | | | i S | Sg | 17 57 43.7 | +0.8 |
| SAIM | ADANA | 0.26 | 306 | P | Pg | 17 57 39.2 | -0.1 |
| SAIM | | | | S | Sg | 17 57 43.7 | +0.8 |
| KMRS | Kahramanmaras | 0.54 | 126 | ePG | Pg | 17 57 44.5 | 0.0 |
| KMRS | | | | eSG | Sb | 17 57 52.4 | -1.4 |
| KMRS | Kahramanmaras | 0.54 | 126 | ePg | Pg | 17 57 44.5 | 0.0 |
| KMRS | | | | eSg | Sb | 17 57 52.4 | -1.4 |
| KOZT | Kozan | 0.54 | 231 | ePG | Pg | 17 57 44.7 | +0.2 |
| KOZT | | | | eSG | Sb | 17 57 52.8 | -1.0 |
| KOZT | Kozan | 0.54 | 231 | ePg | Pg | 17 57 44.7 | +0.2 |
| KOZT | | | | eSg | Sb | 17 57 52.8 | -1.0 |
| SARI | SarD1z-Kayseri | 0.59 | 5 | ePG | Pg | 17 57 45.6 | +0.1 |
| HCB | Kahramanmara¯ | 0.65 | 137 | i P | Pg | 17 57 46.0 | -0.6 |
| HCB | | | | i S | Sg | 17 57 54.8 | -0.2 |
| KAMA | Osmaniye | 0.68 | 158 | i P | Pg | 17 57 46.6 | -0.6 |
| ELBS | KAHRAMANMARAS | 0.79 | 51 | i P | Pn | 17 57 52.5 | +0.7 |
| ELBS | | | | i S | Sn | 17 58 05.9 | +2.0 |
| ELBS | KAHRAMANMARAS | 0.79 | 51 | P | Pn | 17 57 52.5 | +0.7 |
| YAHY | KAYSERI_Yahyal | 0.83 | 289 | i P | Pg | 17 57 49.2 | -0.8 |
| YAHY | | | | i S | Sb | 17 58 01.3 | -1.0 |
| YAHY | KAYSERI_Yahyal | 0.83 | 289 | P | Pg | 17 57 49.2 | -0.8 |
| YAHY | | | | S | Sb | 17 58 01.3 | -1.0 |
| GAZ | Gaziantep | 0.94 | 133 | ePG | Pb | 17 57 52.6 | -0.1 |
| GAZ | Gaziantep | 0.94 | 133 | ePg | Pb | 17 57 52.6 | -0.1 |
| BNN | Bunyan | 1.10 | 339 | ePN | Pg | 17 57 54.8 | -0.5 |
| BNN | Bunyan | 1.10 | 339 | ePn | Pg | 17 57 54.8 | -0.5 |
| DARE | Darende-Malaty | 1.16 | 50 | ePN | Pn | 17 57 56.6 | -0.3 |
| DARE | Darende-Malaty | 1.16 | 50 | ePn | Pn | 17 57 56.6 | -0.3 |
| KUZU | Kuzuini | 1.20 | 151 | i P | Pn | 17 57 58.0 | +0.8 |
| KUZU | | | | i S | Sn | 17 58 14.4 | +0.7 |
| KUZU | Kuzuini | 1.20 | 151 | P | Pn | 17 57 58.0 | +0.8 |
| KUZU | | | | S | Sn | 17 58 14.4 | +0.7 |
| TAHT | Tahtakopru-Hat | 1.45 | 185 | ePN | Pb | 17 58 01.1 | -0.3 |
| TAHT | Tahtakopru-Hat | 1.45 | 185 | ePn | Pb | 17 58 01.1 | -0.3 |
| HEKM | Malatya_Hekimh | 1.65 | 50 | i P | Pg | 17 58 05.1 | -0.5 |
| HEKM | | | | i S | Sg | 17 58 27.8 | +0.8 |
| HEKM | Malatya_Hekimh | 1.65 | 50 | P | Pg | 17 58 05.1 | -0.5 |
| HEKM | | | | S | Sg | 17 58 27.8 | +0.8 |
| CUKAN | kangal_SIVAS | 1.73 | 30 | i P | Pb | 17 58 05.8 | -0.4 |
| CUKAN | | | | i S | Sg | 17 58 29.7 | +0.1 |
| CUKAN | kangal_SIVAS | 1.73 | 30 | P | Pb | 17 58 05.8 | -0.4 |
| CUKAN | | | | S | Sg | 17 58 29.7 | +0.1 |

*CSEM **09** 17:57:38.1±0.6, 51.°47N×16.°11E, h2km, ML2.8/4, Error ellipse: s-maj=9.9km s-min=5.8km az=15.0*
*PRU **09** 17:57:40.3, 51.°41N×16.°11E, h0km*
**ISC 09 17:57:38.1**±2.2, **51.°5N**±0.°1×**16.°15E**±0.°05, **h0**km, **n20**, σ**0.s63**/41, **Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KSP | Ksiaz | 0.65 | 172 | ePg | Pg | 17 57 50.9 | +0.4 |
| KSP | | | | eSg | Sg | 17 57 59.6 | +0.7 |
| KSP | Ksiaz | 0.65 | 172 | ePg | Pg | 17 57 50.9 | +0.4 |
| KSP | | | | eSg | Sg | 17 57 59.6 | +0.7 |
| UPC | Upice | 0.98 | 185 | ePG | Pg | 17 57 57.0 | +0.1 |
| UPC | | | | eSG | Sg | 17 58 09.8 | +0.2 |
| | comp=Z,11nm,0.4s | | | | | | |
| UPC | Upice | 0.98 | 185 | Pg | Pg | 17 57 57.0 | +0.1 |
| UPC | | | | Sg | Sg | 17 58 09.8 | +0.2 |
| | 11nm,0.4s | | | | | | |
| DPC | Dobruska-Polom | 1.14 | 174 | ePG | Pg | 17 57 59.7 | -0.2 |
| DPC | | | | eSG | Sg | 17 58 14.5 | -0.2 |
| | comp=Z,4.6nm,0.2s | | | | | | |
| DPC | Dobruska-Polom | 1.14 | 174 | Pg | Pg | 17 57 59.7 | -0.2 |
| DPC | | | | Sg | Sg | 17 58 14.5 | -0.2 |
| | 4.6nm,0.2s | | | | | | |
| PVCC | Panska Ves | 1.38 | 227 | ePG | Pg | 17 58 04.5 | 0.0 |
| PVCC | | | | eSG | Sn | 17 58 23.2 | -0.4 |
| | comp=Z,28nm,0.2s | | | | | | |
| PVCC | Panska Ves | 1.38 | 227 | Pg | Pg | 17 58 04.5 | 0.0 |
| PVCC | | | | Sg | Sn | 17 58 23.2 | -0.4 |
| | 28nm,0.2s | | | | | | |
| KRLC | Kraliky | 1.47 | 164 | ePG | Pn | 17 58 05.7 | -0.1 |
| KRLC | | | | eSG | Sg | 17 58 24.2 | -1.0 |
| KRLC | Kraliky | 1.47 | 164 | Pg | Pn | 17 58 05.7 | -0.1 |
| KRLC | | | | Sg | Sg | 17 58 24.2 | -1.0 |
| BRG | Berggiesshubel | 1.52 | 247 | PG | Pn | 17 58 06.8 | +0.4 |
| BRG | | | | SG | Sb | 17 58 26.9 | +0.1 |
| | 9.1nm,0.3s | | | | | | |
| GOPC | GO Pecny, Ondr | 1.79 | 209 | ePN | Pn | 17 58 11.1 | +0.8 |
| GOPC | | | | ePG | Pg | 17 58 12.6 | +0.2 |
| GOPC | | | | eSG | Sg | 17 58 35.0 | -0.7 |
| GOPC | GO Pecny, Ondr | 1.79 | 209 | Pn | Pn | 17 58 11.1 | +0.8 |
| PRU | Pruhonice | 1.81 | 215 | ePG | Pn | 17 58 11.5 | +1.0 |
| PRU | | | | eSG | Sg | 17 58 36.2 | 0.0 |
| PRU | Pruhonice | 1.81 | 215 | Pg | Pn | 17 58 11.5 | +1.0 |
| PRU | | | | Sg | Sg | 17 58 36.2 | 0.0 |
| MORC | Moravsky Berou | 1.93 | 152 | ePn | Pn | 17 58 11.6 | -0.5 |
| MORC | | | | eSg | Sn | 17 58 36.9 | -0.2 |
| NKC | Novy Kostel | 2.66 | 243 | ePG | Pg | 17 58 28.6 | -0.4 |
| NKC | | | | eSG | Sg | 17 59 03.3 | -0.1 |
| | comp=Z,6.7nm,0.4s | | | | | | |
| NKC | Novy Kostel | 2.66 | 243 | Pg | Pg | 17 58 28.6 | -0.4 |
| NKC | | | | Sg | Sg | 17 59 03.3 | -0.1 |
| | 6.7nm,0.4s | | | | | | |
| KHC | Kasperske Hory | 2.88 | 216 | ePN | Pn | 17 58 25.2 | +0.1 |
| KHC | | | | ePG | Pb | 17 58 30.9 | +0.7 |
| KHC | | | | eSN | Sn | 17 58 58.7 | -1.7 |
| KHC | | | | eSG | Sg | 17 59 08.6 | -1.8 |
| KHC | Kasperske Hory | 2.88 | 216 | Pn | Pn | 17 58 25.2 | +0.1 |

*NIED **09** 18:01:00, 38.°40N×142.°30E, h26km, Mw3.7 Best double couple: $M_0$4.42000×10[14] NP1:$\phi_s$159.00000°, δ27.00000°, λ-46.00000°. NP2:$\phi_s$292.00000°, δ71.00000°, λ-109.00000°.*
*JMA **09** 18:01:12.8±0.1, 38.°46N×142.°25E, h27km±1km, M4.1*
*JMA Felt I J1.*
*IDC **09** 18:01:16.6±3.2, 38.°38N×142.°24E, h52km±30km, mb3.4/6, mb1 3.6/8, mb1mx3.2/51, mbtmp3.6/8, ML3.5/2, Error ellipse: s-maj=27.9km s-min=18.5km az=101.0*
**ISC 09 18:01:10.2**±2.8, **38.°35N**±0.°04×**142.°12E**±0.°07, **h2**km±17km, **n24**, σ**1.s18**/27, **mb3.5**/6, **Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JIO | Ouri | 0.61 | 280 | P | Pn | 18 01 26.3 | +0.4 |
| JIO | | | | S | Sn | 18 01 35.4 | -1.0 |
| OFUJ | Ofunato | 0.81 | 335 | P | Pb | 18 01 27.3 | +0.3 |
| OFUJ | | | | eS | Sb | 18 01 37.7 | -0.8 |
| JMK | Ichinoseki | 0.93 | 311 | P | Pn | 18 01 30.1 | -0.1 |
| JMK | | | | eS | Sn | 18 01 43.0 | -1.1 |
| JOU | Okura | 1.14 | 271 | P | Pn | 18 01 34.7 | +1.5 |
| JOU | | | | eS | Sn | 18 01 51.1 | +1.6 |
| JMM | Marumori | 1.15 | 246 | P | Pn | 18 01 34.3 | +1.0 |
| JMM | | | | eS | Sn | 18 01 50.4 | +0.8 |
| JOM | Ohasama | 1.29 | 330 | P | Pn | 18 01 35.0 | -0.3 |
| JOM | | | | eS | Sb | 18 01 50.9 | -1.5 |
| JFK | Kawauchi | 1.39 | 226 | P | Pn | 18 01 37.1 | +0.5 |
| JFK | | | | eS | Sn | 18 01 55.3 | -0.3 |
| JYK | Kaneyama | 1.49 | 293 | P | Pb | 18 01 39.2 | +0.6 |
| JYK | | | | eS | Sg | 18 01 58.5 | +0.4 |
| JRG | Rokugo | 1.56 | 313 | P | Pb | 18 01 39.9 | +0.1 |
| MJAR | Matsushiro Arr | 3.59 | 241 | P | Pb | 18 02 12.0 | -2.5 |
| | 1.6nm,0.3s,baz=60,slow=11,SNR=13 | | | | | | |
| MAT | Matsushiro | 3.59 | 241 | P | Pn | 18 02 09.7 | +2.7 |
| MAT | | | | eS | Sb | 18 02 56.9 | -1.7 |
| ASAJ | Asahikawa | 5.78 | 3 | P | Pn | 18 02 38.0 | +1.2 |
| | 2.0nm,0.3s,baz=192,slow=11,SNR=16 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 28.38 | 124 | T | T | 18 36 52.5 | |
| | baz=316,slow=75,SNR=263 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 28.39 | 124 | T | T | 18 36 50.5 | |
| | baz=316,slow=75,SNR=120 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 28.39 | 124 | T | T | 18 37 18.9 | |
| | baz=316,slow=75,SNR=184 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 29.14 | 126 | T | T | 18 37 49.3 | |
| | baz=318,slow=76,SNR=40 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 29.14 | 126 | T | T | 18 37 52.2 | |
| | baz=318,slow=76,SNR=79 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 29.16 | 126 | T | T | 18 37 50.5 | |
| | baz=318,slow=76,SNR=40 | | | | | | |
| ZALV | Zalesovo Beam | 41.45 | 311 | P | P | 18 08 58.6 | +0.4 |
| | 0.4nm,0.5s,baz=78,slow=7.5,SNR=2.6 | | | | | | |
| CMAR | Chiang Mai Arr | 42.38 | 254 | P | P | 18 09 06.9 | +0.8 |
| | 0.3nm,0.7s,baz=39,slow=7.2,SNR=4.0 | | | | | | |
| MKAR | Makanchi Array | 43.91 | 301 | P | P | 18 09 18.0 | -0.2 |
| | 0.6nm,0.8s,baz=80,slow=7.4,SNR=3.3 | | | | | | |
| ILAR | Eielson Array | 48.09 | 33 | P | P | 18 09 50.6 | -0.3 |
| | 0.4nm,1.0s,baz=262,slow=5.4,SNR=3.1 | | | | | | |
| WRA | Warramunga Arr | 58.44 | 189 | P | P | 18 11 07.0 | -0.5 |
| | 2.1nm,0.7s,baz=6.4,slow=7.1,SNR=18 | | | | | | |
| ASAR | Alice Springs | 62.17 | 189 | P | P | 18 11 32.9 | -0.1 |
| | 0.9nm,0.7s,baz=5.6,slow=5.1,SNR=17 | | | | | | |

*IDC **09** 18:01:23.6±3.2, 36.°37N×70.°90E, h166km±29km, mb3.2/6, mb1 3.3/12, mb1mx3.0/63, mbtmp3.7/12, Error ellipse: s-maj=25.2km s-min=21.7km az=177.0*
*ISCJB **09** 18:01:24.5±0.5, 36.°51N±0.°04×70.°90E±0.°07, h188km, mb3.4/5, Error ellipse: s-maj=8.6km s-min=4.2km az=154.5*
*NNC **09** 18:01:30.6±5.8, 36.°95N×71.°04E, h0km, mb4.1, mpv3.7, Error ellipse: s-maj=47.0km s-min=19.6km az=173.0*
**ISC 09 18:01:25.6**±0.8, **36.°50N**±0.°07×**70.°90E**±0.°07, **h188**km, **n28**, σ**1.s38**/35, **mb3.4**/5, **8C**, **Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DZET | Dzherino | 2.83 | 325 | Pn | Pn | 18 02 13.2 | +0.6 |
| | 35nm,0.5s | | | | | | |
| DZET | | | | Sn | Sn | 18 02 47.1 | -2.4 |
| | 207nm,0.5s | | | | | | |
| SFK | Sufi-Kurgan | 4.06 | 29 | ⇑Pn | Pn | 18 02 28.7 | +0.8 |
| | 9.4nm,0.5s | | | | | | |
| SFK | | | | ⇑Sn | Sn | 18 03 15.3 | -1.5 |
| | 28nm,0.3s | | | | | | |
| THN | Thein Dam | 5.68 | 134 | eP | Pn | 18 02 48.0 | -0.5 |
| THN | | | | eS | Sn | 18 03 51.4 | -2.4 |
| MNAS | Manas | 6.11 | 11 | ⇑Pn | Pn | 18 02 54.2 | +0.1 |
| | 5.5nm,0.5s | | | | | | |
| MNAS | | | | ⇑Sn | Sn | 18 04 00.2 | -3.9 |
| | 53nm,0.5s | | | | | | |
| KK31 | Karatay Array | 6.60 | 358 | ⇑Pn | Pn | 18 03 00.3 | -0.2 |
| | 3.0nm,0.3s,baz=183,slow=13,SNR=62 | | | | | | |
| KK31 | | | | ⇑Sn | Sn | 18 04 12.1 | -3.4 |
| | 16nm,0.5s,baz=184,slow=22,SNR=19 | | | | | | |
| AAK | Ala-Archa | 6.73 | 23 | P | Pn | 18 03 02.8 | +0.6 |
| | 0.9nm,0.3s,baz=177,slow=7.0,SNR=17 | | | | | | |
| AAK | | | | S | Sn | 18 04 17.3 | -1.4 |
| | 1.6nm,0.3s,baz=9.3,slow=21,SNR=11 | | | | | | |
| AAK | Ala-Archa | 6.73 | 23 | ⇑Pn | Pn | 18 03 02.5 | +0.2 |
| | 2.9nm,0.7s | | | | | | |
| AAK | | | | ⇑Sn | Sn | 18 04 16.9 | -1.8 |
| | 24nm,0.9s | | | | | | |
| GEYT | Alibeck | 10.30 | 282 | P | Pn | 18 03 48.1 | -0.8 |
| | 0.3nm,0.3s,baz=114,slow=10,SNR=4.4 | | | | | | |
| PYUN | Piuthan | 13.21 | 126 | eP | Pn | 18 04 25.1 | -1.2 |
| | 12nm,0.3s | | | | | | |
| MKAR | Makanchi Array | 13.34 | 36 | P | Pn | 18 04 28.1 | +0.5 |
| | 0.1nm,0.3s,baz=215,slow=9.9,SNR=5.7 | | | | | | |
| KOLN | Koldanda | 13.83 | 125 | eP | Pn | 18 04 33.0 | -1.1 |
| KKN | Kakani | 14.94 | 121 | eP | Pn | 18 04 47.3 | -0.6 |
| | 20nm,0.5s | | | | | | |
| KURBB | Kurchatov Arra | 15.15 | 19 | P | Pn | 18 04 50.8 | +0.9 |
| | 0.1nm,0.3s,baz=208,slow=11,SNR=4.0 | | | | | | |
| PKIN | Phulchoki | 15.16 | 122 | eP | Pn | 18 04 50.5 | 0.0 |
| | 26nm,0.4s | | | | | | |
| PKI | Pulchoki | 15.17 | 122 | eP | Pn | 18 04 50.6 | -0.2 |
| | 21nm,0.4s | | | | | | |
| GUN | Gumba | 15.29 | 120 | eP | Pn | 18 04 52.2 | 0.0 |
| | 19nm,0.5s | | | | | | |
| JIRN | Jiri | 15.65 | 120 | eP | Pn | 18 04 56.7 | 0.0 |
| | 180nm,0.4s | | | | | | |
| RAMN | Ramite | 16.38 | 121 | eP | Pn | 18 05 05.6 | +0.2 |
| | 12nm,0.4s | | | | | | |
| BVAR | Borovoye Array | 16.53 | 359 | P | Pn | 18 05 07.0 | +0.4 |
| | 0.1nm,0.3s,baz=171,slow=11,SNR=6.6 | | | | | | |
| AKTO | Aktyubinsk | 16.74 | 330 | P | P | 18 05 08.7 | +0.4 |
| | 0.2nm,0.3s,baz=143,slow=8.9,SNR=9.8 | | | | | | |
| TAPN | Taplejung | 16.91 | 118 | eP | Pn | 18 05 13.0 | +1.2 |
| | 14nm,0.5s | | | | | | |
| ODAN | Odare | 16.99 | 120 | eP | Pn | 18 05 12.8 | +0.2 |
| | 20nm,0.7s | | | | | | |
| ZALV | Zalesovo Beam | 19.95 | 25 | P | P | 18 05 43.5 | +0.5 |
| | 0.9nm,0.4s,baz=221,slow=10,SNR=8.1 | | | | | | |
| SONM | Songino Array | 28.40 | 55 | P | P | 18 07 04.3 | +1.9 |
| | 0.2nm,0.3s,baz=242,slow=8.0,SNR=3.4 | | | | | | |
| ARCES | ARCESS Array B | 41.12 | 338 | P | P | 18 08 51.5 | +0.9 |
| | 1.7nm,0.8s,baz=108,slow=8.0,SNR=3.7 | | | | | | |
| YKA | Yellowknife Ar | 81.25 | 3 | P | P | 18 13 21.4 | +1.3 |
| | 0.3nm,0.5s,baz=353,slow=5.3,SNR=5.3 | | | | | | |
| WRA | Warramunga Arr | 82.06 | 122 | P | P | 18 13 24.3 | -0.8 |
| | 0.6nm,0.8s,baz=326,slow=4.7,SNR=5.6 | | | | | | |
| ASAR | Alice Springs | 84.32 | 125 | P | P | 18 13 36.6 | 0.0 |
| | 0.6nm,0.6s,baz=307,slow=4.9,SNR=14 | | | | | | |

*ISCJB **09** 18:08:55.0±0.5, 35.°99N±0.°03×53.°20E±0.°03, h9km±4km, Error ellipse: s-maj=5.3km s-min=4.1km az=26.5*
*CSEM **09** 18:08:55.9±0.2, 35.°93N×53.°16E, h2km, ML3.3, Error ellipse: s-maj=4.5km s-min=3.4km az=60.0*
*AZER **09** 18:08:55.4±0.2, 36.°17N×53.°05E, h2km, Error ellipse: s-maj=13.7km s-min=7.1km az=234.0*
*TEH **09** 18:08:56.6, 35.°92N×53.°20E, h5km, ML3.3*
**ISC 09 18:08:55.9**±1.1, **35.°94N**±0.°03×**53.°19E**±0.°03, **h6**km±9km, **n51**, σ**1.s10**/70, **13C-9D**, **Northern and central Iran**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ISHM | Shahmirzad | 0.16 | 148 | ePg | Pg | 18 08 59.2 | 0.0 |
| ISHM | | | | eSg | Sg | 18 09 01.6 | +0.1 |
| ISHM | | | | eAMB | AMB | 18 09 02.2 | |
| | comp=Z,44μm,0.1s | | | | | | |
| IALA | Alasht | 0.34 | 295 | eAMB | AMB | 18 09 09.6 | |
| | comp=Z,54μm,0.1s | | | | | | |
| IALA | | | | eSg | Sg | 18 09 08.2 | +1.0 |
| IFIR | Firoozkooh | 0.46 | 230 | eSg | Sg | 18 09 10.4 | -0.6 |
| IFIR | | | | ePg | Pg | 18 09 04.4 | -0.5 |
| IFIR | | | | eAMB | AMB | 18 09 13.6 | |
| | comp=Z,66μm,0.1s | | | | | | |
| ILAS | Lasjerd | 0.59 | 199 | eAMB | AMB | 18 09 15.9 | |
| | comp=E,92μm,0.1s | | | | | | |
| ILAS | | | | ePg | Pg | 18 09 07.1 | -0.2 |
| IPRN | Peran | 0.75 | 294 | ePg | Pg | 18 09 10.0 | -0.4 |
| IPRN | | | | eAMB | AMB | 18 09 11.1 | |
| | comp=Z,13μm,0.1s | | | | | | |
| IPRN | | | | eSg | Sg | 18 09 20.6 | +0.4 |
| IANJ | Anjilo | 0.76 | 128 | eAMB | AMB | 18 09 23.4 | |
| | comp=Z,5μm,0.1s | | | | | | |
| IANJ | | | | ePg | Pg | 18 09 09.6 | -0.9 |
| IGLO | Ghaloghah | 0.76 | 43 | ePg | Pg | 18 09 10.2 | -0.4 |
| IGLO | | | | eAMB | AMB | 18 09 26.9 | |
| | comp=Z,7μm,0.1s | | | | | | |
| IDMV | Damavand | 1.01 | 249 | ePg | Pg | 18 09 14.5 | -0.8 |
| IDMV | | | | eAMB | AMB | 18 09 17.1 | |
| | comp=Z,12μm,0.1s | | | | | | |
| IDMV | Damavand | 1.01 | 249 | ePg | Pg | 18 09 14.5 | -0.8 |
| IVRN | Varamin | 1.52 | 232 | ePn | Pb | 18 09 24.3 | -0.3 |
| IVRN | | | | eAMB | AMB | 18 09 50.5 | |
| | comp=Z,38μm,0.1s | | | | | | |
| IVRN | Varamin | 1.52 | 232 | ePn | Pb | 18 09 24.3 | -0.3 |
| IR5 | Iran Long-Peri | 2.25 | 252 | ePn | Pn | 18 09 35.4 | +1.6 |
| IR5 | | | | eAMB | AMB | 18 09 39.9 | |
| | comp=Z,2μm,0.1s | | | | | | |
| IR5 | Iran Long-Peri | 2.25 | 252 | ePn | Pn | 18 09 35.4 | +1.6 |
| SHRO | Shahrood | 2.29 | 88 | ePn | Pn | 18 09 35.4 | +1.1 |
| SHRO | | | | eSg | Sg | 18 10 09.3 | -0.2 |
| IGZV | Ghazvin | 2.44 | 281 | ePn | Pb | 18 09 39.9 | -0.5 |
| IGZV | | | | eAMB | AMB | 18 09 42.1 | |
| | comp=Z,2μm,0.2s | | | | | | |
| IRAZ | Razeghan | 2.71 | 260 | ePn | Pn | 18 09 41.5 | +1.3 |
| IRAZ | | | | eAMB | AMB | 18 10 28.3 | |
| | comp=Z,1μm,0.2s | | | | | | |
| IRAZ | Razeghan | 2.71 | 260 | ePn | Pn | 18 09 41.5 | +1.3 |
| MRVT | Maraveh tapeh | 2.89 | 53 | eP | Pn | 18 09 43.7 | +1.1 |
| IKLH | Kolahrood | 2.93 | 207 | ePn | Pn | 18 09 44.0 | +0.7 |
| IKLH | | | | eAMB | AMB | 18 09 49.6 | |
| | comp=Z,1μm,0.2s | | | | | | |
| IKLH | Kolahrood | 2.93 | 207 | ePn | Pn | 18 09 44.0 | +0.7 |
| ASAO | Ashtian | 2.94 | 243 | ePn | Pn | 18 09 43.3 | -0.1 |
| ASAO | | | | eSg | Sb | 18 10 26.2 | +1.1 |
| IZEF | Zefreh | 3.12 | 193 | ePn | Pn | 18 09 46.1 | +0.2 |
| IZEF | | | | eAMB | AMB | 18 10 35.7 | |
| | comp=Z,623nm,0.1s | | | | | | |
| IZEF | Zefreh | 3.12 | 193 | ePn | Pn | 18 09 46.1 | +0.2 |
| NASN | Na'in | 3.15 | 186 | eP | Pn | 18 09 46.5 | +0.1 |
| KHMZ | Khomeyn | 3.45 | 231 | ePn | Pn | 18 09 50.4 | 0.0 |
| ASTR | Astara | 4.38 | 308 | ⇓P | Pn | 18 10 02.9 | 0.0 |
| ASTR | | | | ⇑S | Sn | 18 10 55.6 | +1.4 |
| ASTR | Astara | 4.38 | 308 | P | Pn | 18 10 02.9 | 0.0 |
| ASTR | | | | S | Sn | 18 10 55.6 | +1.4 |
| LKRN | Lenkeran, Azer | 4.47 | 309 | ⇑P | Pn | 18 10 03.9 | -0.3 |
| LKRN | | | | ⇑S | Sn | 18 10 55.5 | -1.1 |
| LKRN | Lenkeran, Azer | 4.47 | 309 | P | Pn | 18 10 03.9 | -0.3 |
| LKRN | | | | S | Sn | 18 10 55.5 | -1.1 |
| LRK | Lerik | 4.71 | 306 | ⇓P | Pn | 18 10 08.0 | +0.3 |
| LRK | | | | ⇓S | Sn | 18 11 04.1 | +1.3 |
| LRK | Lerik | 4.71 | 306 | P | Pn | 18 10 08.0 | +0.3 |
| LRK | | | | S | Sn | 18 11 04.1 | +1.3 |
| GLBA | Clilabad | 5.04 | 312 | ⇑P | Pn | 18 10 12.4 | +0.4 |
| GLBA | | | | ⇑S | Sn | 18 11 10.0 | -0.5 |
| GLBA | Clilabad | 5.04 | 312 | P | Pn | 18 10 12.4 | +0.4 |
| GLBA | | | | S | Sn | 18 11 10.0 | -0.5 |
| NDR | Nardaran | 5.27 | 332 | ⇑S | Sn | 18 11 17.0 | +0.7 |
| NDR | Nardaran | 5.27 | 332 | S | Sn | 18 11 17.0 | +0.7 |
| ATGJ | Altiaghaj | 5.94 | 327 | ⇓P | Pn | 18 10 25.7 | +1.2 |
| ATGJ | | | | ⇓S | Sn | 18 11 33.7 | +0.8 |
| ATGJ | Altiaghaj | 5.94 | 327 | P | Pn | 18 10 25.7 | +1.2 |
| ATGJ | | | | S | Sn | 18 11 33.7 | +0.8 |
| PQL | Pirkuli | 6.04 | 325 | ⇓P | Pn | 18 10 27.0 | +1.1 |
| PQL | | | | ⇑S | Sn | 18 11 34.8 | -0.6 |
| PQL | Pirkuli | 6.04 | 325 | P | Pn | 18 10 27.0 | +1.1 |
| PQL | | | | S | Sn | 18 11 34.8 | -0.6 |
| IML | Ismayilli | 6.24 | 322 | ⇑S | Sn | 18 11 40.4 | +0.2 |
| IML | Ismayilli | 6.24 | 322 | S | Sn | 18 11 40.4 | +0.2 |
| QBL | Gabala | 6.53 | 322 | ⇓S | Sn | 18 11 44.3 | -3.0 |
| QUBA | Quba, Azerbaij | 6.54 | 327 | ⇓S | Sn | 18 11 46.1 | -1.4 |
| QUBA | Quba, Azerbaij | 6.54 | 327 | S | Sn | 18 11 46.1 | -1.4 |
| XNQ | Khinaliq | 6.55 | 324 | ⇑S | Sn | 18 11 46.5 | -1.6 |
| XNQ | Khinaliq | 6.55 | 324 | S | Sn | 18 11 46.5 | -1.6 |
| SEKA | Sheki | 7.05 | 320 | ⇑P | Pn | 18 10 39.9 | +0.2 |
| SEKA | | | | ⇑S | Sn | 18 11 56.9 | -3.2 |
| SEKA | Sheki | 7.05 | 320 | P | Pn | 18 10 39.9 | +0.2 |
| GDB | GEDABAY | 7.54 | 311 | ⇑P | Pn | 18 10 47.7 | +1.1 |
| GDB | GEDABAY | 7.54 | 311 | P | Pn | 18 10 47.7 | +1.1 |
| ZKTA | Zakatala | 7.66 | 320 | ⇓P | Pn | 18 10 49.4 | +1.4 |
| ZKTA | | | | ⇑S | Sn | 18 12 12.1 | -3.0 |

*ISCJB **09** 18:12:24.9±0.4, 7.°35S±0.°03×129.°48E±0.°04, h200km, mb4.3/8, Error ellipse: s-maj=6.2km s-min=4.2km az=159.3*
*DJA **09** 18:12:24.5±0.5, 7°S±3°×13°0E±°, h214km±13km, M4.3/10, mB4.7/2, mb4.1/6, MLv4.4/10, Mw(mB)3.9/2*
*BJI **09** 18:12:26.7, 7.°52S×129.°26E, h185km, mb4.2/8, mB4.9/6*
*NEIC **09** 18:12:26.0±0.7, 7.°31S×129.°44E, h179km±12km, mb4.3/9, Error ellipse: s-maj=11.9km s-min=8.9km az=190.0*
*IDC **09** 18:12:41.1±8.0, 8.°12S×128.°20E, h297km±85km, mb2.9/2, mb1 3.4/4, mb1mx3.0/29, mbtmp3.9/4, Error ellipse: s-maj=91.0km s-min=29.4km az=59.0*
**ISC 09 18:12:25.6**±0.5, **7.°38S**±0.°04×**129.°62E**±0.°05, **h200**km, **n39**, σ**3.s19**/49, **mb4.5**/8, **Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SAUI | Saumlaki | 1.77 | 110 | P | Pn | 18 13 02.8 | +1.1 |
| SAUI | Saumlaki | 1.77 | 110 | ePn | Pn | 18 13 03.2 | +1.5 |
| SAUI | | | | eSn | Sn | 18 13 27.9 | -1.9 |
| BNDI | Bandanaira | 2.85 | 6 | P | Pn | 18 13 12.0 | -1.5 |
| AAI | Ambon | 3.94 | 339 | P | Pn | 18 13 25.3 | -1.3 |
| MSAI | Masohi | 4.07 | 350 | P | Pn | 18 13 26.9 | -1.3 |
| FAKI | Fak Fak | 5.14 | 31 | P | Pn | 18 13 40.0 | -1.9 |
| FAKI | | | | S | Sn | 18 14 37.3 | -4.8 |
| FAKI | Fak Fak | 5.14 | 31 | ePn | Pn | 18 13 41.5 | -0.4 |
| FAKI | | | | eSn | Sn | 18 14 34.0 | -8.2 |
| MTN | Manton Dam | 5.63 | 165 | ePn | Pn | 18 13 49.8 | +1.7 |
| MTN | | | | eSn | Sn | 18 14 49.3 | -4.0 |
| SOEI | Soe | 5.80 | 246 | P | Pn | 18 13 50.3 | -0.1 |
| SOEI | Soe | 5.80 | 246 | ePn | Pn | 18 13 49.2 | -1.2 |
| SOEI | | | | eSn | Sn | 18 14 48.9 | -8.5 |
| SANI | Sanana | 6.42 | 325 | P | Pn | 18 13 56.3 | -2.0 |
| LBMI | Labuha | 7.02 | 342 | P | Pn | 18 14 04.1 | -2.1 |
| | 34nm,0.8s,0.1nm | | | | | | |
| RKPI | Ransiki, Papua | 7.39 | 38 | P | Pn | 18 14 09.4 | -1.5 |
| MMRI | Maumere | 7.42 | 260 | P | Pn | 18 14 09.4 | -1.9 |
| | 21nm,1.3s,0.2nm | | | | | | |
| MMRI | Maumere | 7.42 | 260 | ePn | Pn | 18 14 09.7 | -1.7 |
| MMRI | | | | eSn | Sn | 18 15 16.3 | -19 |
| EDFI | Ende, Flores | 7.97 | 260 | P | Pn | 18 14 17.7 | -0.9 |
| FITZ | Fitzroy Crossi | 11.34 | 200 | P | Pn | 18 15 02.1 | -0.1 |
| | 3.7nm,0.3s,baz=32,slow=11,SNR=124 | | | | | | |
| FITZ | | | | S | Sn | 18 16 59.7 | -9.0 |
| | 2.1nm,0.3s,baz=123,slow=8.1,SNR=5.2 | | | | | | |
| WRAB | Tennant Creek | 13.29 | 160 | ePn | P | 18 15 30.2 | +0.6 |
| WRAB | | | | eSn | S | 18 17 44.8 | -10 |
| WRA | Warramunga Arr | 13.30 | 160 | P | P | 18 15 28.8 | -0.9 |
| | 0.8nm,0.3s,baz=336,slow=12,SNR=35 | | | | | | |
| WRA | | | | S | S | 18 17 49.3 | -5.9 |
| | 3.4nm,0.3s,baz=331,slow=23,SNR=13 | | | | | | |
| WB2 | Warramunga Arr | 13.30 | 160 | ePn | Pn | 18 15 27.7 | +0.8 |
| WB2 | | | | eSn | S | 18 17 44.5 | -11 |
| COEN | Coen | 14.83 | 117 | ePn | P | 18 15 51.1 | +4.4 |
| | 5.0nm,0.8s | | | | | | |
| COEN | | | | eS | S | 18 18 29.3 | -1.4 |
| JAGI | Jajag, Banyuwa | 15.36 | 265 | ePn | Pn | 18 15 50.0 | -2.4 |
| | 74nm,1.8s | | | | | | |
| JAGI | | | | eS | S | 18 18 28.0 | -15 |
| MYLDM | Lahad Datu | 16.70 | 318 | eP | Pn | 18 16 06.7 | -1.7 |
| | 14nm,1.1s | | | | | | |
| AS31 | Alice Springs | 16.71 | 166 | eP | Pn | 18 16 14.0 | +5.6 |
| | 1.2nm,0.6s | | | | | | |
| AS31 | | | | eS | S | 18 19 07.5 | -4.2 |
| MBWA | Marble Bar | 16.71 | 214 | eP | P | 18 16 07.5 | +0.1 |
| | 56nm,1.8s | | | | | | |
| MBWA | | | | eS | S | 18 19 04.2 | -7.6 |
| ASAR | Alice Springs | 16.71 | 166 | P | Pn | 18 16 13.2 | +4.8 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| | 0.4nm,0.3s,baz=336,slow=9.8,SNR=59 | | | | | | |
| ASAR | | | | S | S | 18 19 09.2 | -2.6 |
| | 0.4nm,0.3s,baz=332,slow=19,SNR=5.1 | | | | | | |
| AS01 | Alice Springs | 16.72 | 166 | eP | Pn | 18 16 14.5 | +5.9 |
| AS01 | | | | eS | S | 18 19 08.0 | -4.0 |
| PMG | Port Moresby | 17.46 | 98 | eP | Pn | 18 16 19.6 | +2.1 |
| | 9.7nm,1.0s | | | | | | |
| UGM | Wanagama | 18.94 | 267 | eP | Pn | 18 16 34.5 | -0.4 |
| | 187nm,1.8s | | | | | | |
| SBUM | Sibu | 19.92 | 299 | eP | Pn | 18 16 46.1 | -0.5 |
| | 7.7nm,0.8s | | | | | | |
| KSM | Kuching | 21.18 | 294 | eP | P | 18 16 59.9 | +4.2 |
| | 19nm,1.3s | | | | | | |
| RABL | Rabaul | 22.64 | 83 | eP | P | 18 17 13.7 | +3.8 |
| | 58nm,0.4s | | | | | | |
| CM01 | Chiang Mai Arr | 39.66 | 311 | eP | P | 18 19 39.7 | +1.3 |
| CMAR | Chiang Mai Arr | 39.69 | 311 | P | P | 18 19 39.6 | +1.0 |
| | 0.4nm,0.7s,baz=144,slow=6.0,SNR=5.0 | | | | | | |
| KMI | Kunming | 41.58 | 322 | P | P | 18 19 56.6 | +2.3 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,12nm,0.6s | | | | | | |
| HHC | Hu-ho-hao-te | 50.79 | 342 | eP | P | 18 21 11.8 | +6.2 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.5s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,53nm,4.8s | | | | | | |
| WMQ | Urumqi | 63.51 | 327 | eP | P | 18 22 38.8 | +4.2 |
| WMQ | | | | pP | pP | 18 23 19.6 | -1.3 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,20nm,0.7s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,350nm,9.1s | | | | | | |
| KSH | Kashi | 68.05 | 318 | eP | P | 18 23 07.4 | +3.6 |
| KSH | | | | PcP | PcP | 18 23 32.3 | +3.8 |
| KSH | | | | pP | pP | 18 23 49.4 | -1.3 |
| KSH | | | | PP | PP | 18 25 42.0 | +5.2 |
| KSH | | | | S | S | 18 31 47.2 | +0.1 |
| KSH | | | | ScS | ScS | 18 32 42.3 | -1.5 |
| KSH | | | | SS | SS | 18 36 14.5 | +0.7 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.2s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,94nm,4.5s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,200nm,7.4s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,160nm,4.5s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,230nm,6.6s | | | | | | |
| MKAR | Makanchi Array | 68.34 | 327 | P | P | 18 23 10.4 | +5.1 |
| | 0.4nm,0.4s,baz=134,slow=6.2,SNR=13 | | | | | | |

*ISK **09** 18:36:59.9, 37.°05N×43.°76E, h5km, MD3.1*
*ISCJB **09** 18:37:00.5±0.9, 37.°25N±0.°04×43.°93E±0.°06, h0km±8km, Error ellipse: s-maj=8.7km s-min=5.5km az=37.5*
*CSEM **09** 18:37:00.1±0.4, 37.°23N×43.°96E, h2km, ML3.1, Error ellipse: s-maj=8.5km s-min=6.9km az=107.0*
*ISN **09** 18:37:00.5±0.9, 37.°21N×43.°80E, h0km±4km, ML3.1*
*DDA **09** 18:37:00.8, 37.°30N×43.°88E, h7km, Ml3.1*
**ISC 09 18:37:00.6**±1.2, **37.°23N**±0.°05×**43.°91E**±0.°04, **h8**km±10km, **n20,** σ1.s**14**/31, **Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CUKT | Cukurca | 0.24 | 274 | ePG | Pg | 18 37 05.2 | -0.4 |
| CUKT | | | | eSG | Sg | 18 37 09.8 | +0.9 |
| CUKT | Cukurca | 0.24 | 274 | i P | Pg | 18 37 05.4 | -0.2 |
| CUKT | | | | i S | Sg | 18 37 09.4 | +0.5 |
| CUKT | Cukurca | 0.24 | 274 | ePg | Pg | 18 37 05.2 | -0.4 |
| CUKT | Cukurca | 0.24 | 274 | P | Pg | 18 37 05.4 | -0.2 |
| CUKT | | | | S | Sg | 18 37 09.4 | +0.5 |
| HAKT | HAKKARI | 0.37 | 334 | i P | Pg | 18 37 07.0 | -0.9 |
| HAKT | | | | i S | Sg | 18 37 11.5 | -1.3 |
| HAKT | HAKKARI | 0.37 | 334 | P | Pg | 18 37 07.0 | -0.9 |
| HAKT | | | | S | Sg | 18 37 11.5 | -1.3 |
| YOVA | Hakkari_Yˆ…kse | 0.47 | 40 | i P | Pg | 18 37 09.5 | -0.3 |
| YOVA | | | | i S | Sg | 18 37 16.3 | +0.3 |
| YOVA | Hakkari_Yˆ…kse | 0.47 | 40 | P | Pg | 18 37 09.5 | -0.3 |
| YOVA | | | | S | Sg | 18 37 16.3 | +0.3 |
| MSL | Mosul | 1.05 | 218 | ePg | Pn | 18 37 22.0 | +0.4 |
| | SNR=9.0 | | | | | | |
| MSL | | | | eSg | Sn | 18 37 37.0 | +0.7 |
| | SNR=9.0 | | | | | | |
| SIRT | Sirnak | 1.20 | 283 | ePN | Pg | 18 37 23.1 | -0.6 |
| SIRT | Sirnak | 1.20 | 283 | ePn | Pg | 18 37 23.1 | -0.6 |
| SIRN | S˜–rnak | 1.22 | 283 | i P | Pg | 18 37 23.4 | -0.7 |
| SIRN | S˜–rnak | 1.22 | 283 | P | Pg | 18 37 23.4 | -0.7 |
| SRTM | Siirt_Merkez | 1.75 | 296 | i P | Pb | 18 37 32.5 | -0.6 |
| SRTM | | | | i S | Sg | 18 37 57.5 | +0.5 |
| SRTM | Siirt_Merkez | 1.75 | 296 | P | Pb | 18 37 32.5 | -0.6 |
| SRTM | | | | S | Sg | 18 37 57.5 | +0.5 |
| MAZI | Mazidag | 2.77 | 276 | ePN | Pn | 18 37 46.2 | +0.8 |
| MAZI | Mazidag | 2.77 | 276 | ePn | Pn | 18 37 46.2 | +0.8 |
| BNGB | Bingˆ¶l | 3.10 | 306 | ePN | Pn | 18 37 52.8 | +2.9 |
| BINT | Bingol | 3.16 | 302 | ePn | Pn | 18 37 52.8 | +2.0 |
| RTB | Rutbah | 5.12 | 216 | ePn | Pn | 18 38 19.0 | +1.3 |
| | SNR=3.0 | | | | | | |
| RTB | | | | i Sn | Sn | 18 39 14.0 | -3.0 |
| | SNR=3.0 | | | | | | |

*MOS **09** 18:42:54.8±0.9, 46.°77N×153.°49E, h65km, mb4.5/9, Error ellipse: s-maj=26.1km s-min=9.3km az=49.0*
*SKHL **09** 18:42:55.0±0.0, 46.°57N×153.°66E, h70km±2km, mb4.7/5*
*IDC **09** 18:43:03.2±2.3, 47.°49N×152.°42E, h134km±21km, mb3.7/12, mb1 3.9/17, mb1mx3.6/54, mbtmp4.1/17, MS3.2/1, Ms1 3.2/1, ms1mx2.5/38, Error ellipse: s-maj=23.9km s-min=11.0km az=136.0*
**ISC 09 18:42:52.2**±0.7, **47.°2N**±0.°1×**153.°3E**±0.°1, **h31**km, **n58,** σ**2.s54**/53, **mb4.2**/12, **4C-1D, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SKR | Severo-Kuril's | 3.98 | 27 | ePN | Pb | 18 44 00.5 | -1.1 |
| SKR | | | | eS | Sb | 18 44 45.8 | -3.4 |
| SKR | | | | pmax | pmax | | |
| | comp=Z,38nm,0.3s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=N,232nm,0.5s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=E,208nm,0.9s | | | | | | |
| SKR | Severo-Kuril's | 3.98 | 27 | eP | Pb | 18 43 59.6 | -2.0 |
| SKR | | | | AMB | AMB | 18 44 03.6 | |
| | comp=E,70nm,0.3s | | | | | | |
| SKR | | | | eS | Sb | 18 44 48.0 | -1.2 |
| SKR | | | | A | A | 18 44 49.3 | |
| | comp=E,250nm,0.7s | | | | | | |
| KUR | Kuril'sk | 4.25 | 245c | i PN | Pn | 18 43 59.2 | +4.5 |
| KUR | | | | i S | Sn | 18 44 45.0 | +1.8 |
| KUR | | | | pmax | pmax | | |
| | comp=Z,93nm,0.4s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=E,27nm,0.3s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=N,40nm,0.2s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=N,115nm,0.3s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,49nm,0.3s | | | | | | |
| KUR | Kuril'sk | 4.25 | 245 | i P | Pn | 18 43 58.7 | +4.0 |
| KUR | | | | AMB | AMB | 18 44 01.2 | |
| | comp=E,55nm,0.5s | | | | | | |
| KUR | | | | AMB | AMB | 18 44 01.2 | |
| | comp=E,35nm,0.5s | | | | | | |
| KUR | | | | AMB | AMB | 18 44 01.2 | |
| | comp=E,100nm,0.5s | | | | | | |
| KUR | | | | i S | Sn | 18 44 44.5 | +1.3 |
| KUR | | | | A | A | 18 44 49.0 | |
| | comp=E,115nm,0.3s | | | | | | |
| KUR | | | | A | A | 18 44 49.0 | |
| | comp=E,50nm,0.3s | | | | | | |
| SHO | Shikotan | 5.62 | 237c | i PN | Pn | 18 44 15.4 | +1.8 |
| SHO | | | | pmax | pmax | | |
| | comp=E,13nm,0.4s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=Z,42nm,0.4s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=N,8.0nm,0.2s | | | | | | |
| SHO | Shikotan | 5.62 | 237 | eP | Pn | 18 44 15.4 | +1.8 |
| SHO | | | | AMB | AMB | 18 44 18.0 | |
| | comp=N,42nm,0.4s | | | | | | |
| SHO | | | | i S | Sn | 18 45 12.1 | -5.0 |
| SHO | | | | A | A | 18 45 19.3 | |
| | comp=N,69nm,0.4s | | | | | | |
| SHO | | | | A | A | 18 45 19.3 | |
| | comp=N,102nm,0.4s | | | | | | |
| YUK | Yuzh-Kuril'sk | 6.09 | 242c | i PN | Pn | 18 44 23.3 | +3.2 |
| YUK | | | | pmax | pmax | | |
| | comp=N,67nm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=Z,147nm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=E,62nm,0.1s | | | | | | |
| YUK | Yuzh-Kuril'sk | 6.09 | 242 | eP | Pn | 18 44 23.3 | +3.2 |
| YUK | | | | AMB | AMB | 18 44 25.6 | |
| | comp=E,67nm,0.3s | | | | | | |
| YUK | | | | AMB | AMB | 18 44 25.6 | |
| | comp=E,63nm,0.3s | | | | | | |
| YUK | | | | AMB | AMB | 18 44 25.6 | |
| | comp=E,15nm,0.3s | | | | | | |
| YUK | | | | i S | Sn | 18 45 26.4 | -2.3 |
| YUK | | | | A | A | 18 45 32.3 | |
| | comp=E,87nm,1.0s | | | | | | |
| YUK | | | | A | A | 18 45 32.3 | |
| | comp=E,102nm,1.0s | | | | | | |
| LAGR | Lagunnoye | 6.13 | 242⇑ | i PN | Pn | 18 44 24.0 | +3.5 |
| LAGR | Lagunnoye | 6.13 | 242 | eP | Pn | 18 44 24.0 | +3.5 |
| GRPR | Tuman | 6.17 | 242 | ePN | Pn | 18 44 24.5 | +3.4 |
| GRPR | Tuman | 6.17 | 242 | eP | Pn | 18 44 24.5 | +3.4 |
| GLVR | Golovnino | 6.46 | 241⇓ | i PN | Pn | 18 44 27.6 | +2.4 |
| GLVR | Golovnino | 6.46 | 241 | eP | Pn | 18 44 27.6 | +2.4 |
| PETK | Petropavlovsk- | 6.59 | 24 | P | Pb | 18 44 36.3 | -10 |
| | comp=E,0.5nm,0.3s,baz=203,slow=9.8,SNR=6.8 | | | | | | |
| PET | Petropavlovsk | 6.80 | 28 | eP | Pb | 18 44 40.2 | -9.3 |
| PET | | | | AMB | AMB | 18 44 45.3 | |
| | comp=E,20nm,0.8s | | | | | | |
| JNK | Nakash | 7.03 | 243 | P | Pn | 18 44 35.2 | +2.2 |
| JTKR | Abashiri--Toko | 7.33 | 248 | P | Pn | 18 44 40.1 | +3.0 |
| JAK | Akkeshi | 7.39 | 239 | P | Pn | 18 44 38.2 | +0.4 |
| JAK | | | | eS | Sn | 18 45 53.2 | -7.3 |
| JAR | Ashorobuto | 7.77 | 244 | P | Pn | 18 44 45.3 | +2.2 |
| JOB | Onbets | 7.95 | 241 | P | Pn | 18 44 46.8 | +1.2 |
| JKA | Kamikawa-asahi | 8.11 | 252 | eP | Pn | 18 44 51.8 | +4.1 |
| ASAJ | Asahikawa | 8.11 | 252 | P | Pn | 18 44 51.8 | +4.0 |
| | comp=E,9.1nm,0.3s,baz=70,slow=11,SNR=98 | | | | | | |
| ASAJ | Asahikawa | 8.11 | 252 | P | Pn | 18 44 51.6 | +3.9 |
| JKK2 | Kamakawa 2 | 8.12 | 250 | P | Pn | 18 44 51.0 | +3.1 |
| JCH | Churui | 8.40 | 241 | P | Pn | 18 44 52.1 | +0.3 |
| JCH | | | | eS | Sn | 18 46 17.0 | -8.5 |
| JAB | Ashibetsu | 8.63 | 249 | P | Pn | 18 44 58.1 | +3.2 |
| JEM | Erimo | 8.89 | 238 | P | Pn | 18 44 59.4 | +1.0 |
| JBT2 | Biratori 2 | 8.91 | 245 | P | Pn | 18 44 59.7 | +0.9 |
| JNB | Noboribetsu | 9.90 | 246 | P | Pn | 18 45 12.2 | -0.1 |
| JKB | Kayabe | 10.23 | 243 | P | Pn | 18 45 15.7 | -1.1 |
| JSH | Shimam | 10.44 | 249 | P | Pn | 18 45 21.3 | +1.6 |
| JYM2 | Yakumo 2 | 10.51 | 246 | P | Pn | 18 45 19.8 | -0.8 |
| JSR | Shiriuchi | 10.81 | 243 | P | Pn | 18 45 23.3 | -1.5 |
| JTM | Tenmabayashi | 10.88 | 239 | P | Pn | 18 45 23.6 | -2.1 |
| JANG | Nango | 10.90 | 236 | P | Pn | 18 45 23.0 | -2.9 |
| USRK | Ussuriysk Ar. | 15.20 | 267 | P | Pn | 18 46 23.4 | -1.0 |
| | comp=E,0.8nm,0.3s,baz=70,slow=13,SNR=9.8 | | | | | | |
| MJAR | Matsushiro Arr | 15.44 | 232 | P | Pn | 18 46 31.5 | +3.8 |
| | comp=E,1.0nm,0.3s,baz=77,slow=13,SNR=7.6 | | | | | | |
| SEY | Seymchan | 15.82 | 358 | P | P | 18 46 34.4 | -1.5 |
| | comp=E,0.6nm,0.3s,baz=183,slow=12,SNR=12 | | | | | | |
| KSRS | Korea Array | 21.06 | 252 | P | P | 18 47 32.0 | -1.5 |
| | comp=E,2.0nm,0.5s,baz=51,slow=11,SNR=8.9 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 29.52 | 153 | T | T | 19 20 53.5 | |
| | baz=341,slow=76,SNR=256 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 29.53 | 153 | T | T | 19 20 54.7 | |
| | baz=341,slow=76,SNR=187 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 29.54 | 153 | T | T | 19 20 48.1 | |
| | baz=341,slow=76,SNR=133 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 30.61 | 154 | T | T | 19 22 15.3 | |
| | baz=341,slow=76,SNR=341 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 30.62 | 154 | T | T | 19 21 49.8 | |
| | baz=341,slow=76,SNR=282 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 30.63 | 154 | T | T | 19 21 57.9 | |
| | baz=341,slow=76,SNR=159 | | | | | | |
| KDAK | Kodiak Island | 33.73 | 51 | P | P | 18 49 32.5 | +2.1 |
| | comp=E,8.1nm,0.8s,baz=286,slow=7.4,SNR=4.1 | | | | | | |
| GUMO | Guam | 34.21 | 195 | LR | LR | 19 00 59.4 | |
| | comp=E,41nm,21.6s,baz=101,slow=31 | | | | | | |
| ILAR | Eielson Array | 36.14 | 39 | P | P | 18 49 53.2 | +2.1 |
| | comp=E,4.1nm,1.0s,baz=266,slow=8.8,SNR=35 | | | | | | |
| INK | Inuvik | 41.23 | 33 | P | P | 18 50 35.7 | +2.0 |
| | comp=E,3.3nm,0.5s,baz=294,slow=6.8,SNR=22 | | | | | | |
| YKA | Yellowknife Ar | 50.51 | 37 | P | P | 18 51 48.4 | +1.5 |
| | comp=E,1.5nm,0.5s,baz=298,slow=6.9,SNR=18 | | | | | | |
| YKA | | | | PcP | PcP | 18 53 03.5 | -1.0 |
| | comp=E,0.4nm,0.6s,baz=305,slow=3.6,SNR=4.0 | | | | | | |
| CMAR | Chiang Mai Arr | 52.60 | 256 | P | P | 18 52 00.6 | -2.6 |
| | comp=E,1.0nm,0.8s,baz=35,slow=7.4,SNR=7.6 | | | | | | |
| FINES | FINESS Array B | 63.73 | 335 | P | P | 18 53 15.7 | -4.7 |
| | comp=E,5.8nm,1.0s,baz=24,slow=7.5,SNR=10 | | | | | | |
| WRA | Warramunga Arr | 68.94 | 199 | P | P | 18 53 53.6 | -0.6 |
| | comp=E,0.4nm,0.9s,baz=13,slow=6.7,SNR=3.8 | | | | | | |
| AKASG | Malin Array Be | 71.29 | 326 | P | P | 18 54 03.1 | -5.1 |
| | comp=E,0.5nm,0.3s,baz=34,slow=5.8,SNR=3.5 | | | | | | |
| ASAR | Alice Springs | 72.64 | 199 | P | P | 18 54 17.1 | +0.4 |
| | comp=E,0.4nm,0.8s,baz=9.8,slow=5.2,SNR=5.5 | | | | | | |
| TXAR | Lajitas Array | 77.17 | 61 | P | P | 18 54 44.5 | +1.5 |
| | comp=E,1.0nm,0.4s,baz=288,slow=6.6,SNR=2.4 | | | | | | |
| TKL | Tuckaleechee C | 82.97 | 44 | P | P | 18 55 13.7 | -0.5 |
| | comp=E,3.2nm,0.6s,baz=16,slow=1.4,SNR=4.2 | | | | | | |

*IDC **09** 18:47:30.9±2.0, 32.°93N×100.°60W, h0km, mb3.4/2, mb1 3.7/5, mb1mx3.5/34, mbtmp3.4/5, ML4.1/2, MS2.7/1, Ms1 2.7/1, ms1mx2.4/14, Error ellipse: s-maj=32.5km s-min=10.3km az=102.0*
*NEIC **09** 18:47:33.2±0.3, 32.°94N×100.°87W, h5km, MN3.5, Error ellipse: s-maj=4.7km s-min=2.9km az=177.0*
*NEIC Felt [III] at Snyder. Also felt at Big Spring, Colorado City, Lubbock and Roscoe.*
**ISC 09 18:47:32.2**±1.1, **32.°94N**±0.°03×**100.°88W**±0.°02, **h2**km±8km, **n219,** σ**1.s73**/250, **Western Texas**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ABTX | Abilene, Hawle | 1.09 | 107 | P | Pg | 18 47 53.9 | +0.8 |
| | baz=287 | | | | | | |
| ABTX | Abilene, Hawle | 1.09 | 107 | ePg | Pg | 18 47 53.9 | +0.8 |
| ABTX | | | | eSn | Sn | 18 48 12.4 | +2.1 |
| MSTX | Muleshoe | 1.88 | 303 | P | Pn | 18 48 06.7 | +1.1 |
| | baz=122 | | | | | | |
| MSTX | Muleshoe | 1.88 | 303 | ePn | Pn | 18 48 06.5 | +0.9 |
| MSTX | | | | eSn | Sn | 18 48 31.2 | +1.2 |
| AMTX | Amarillo | 2.05 | 341 | ePn | Pn | 18 48 09.7 | +1.9 |
| AMTX | | | | eSn | Sb | 18 48 37.1 | +0.9 |
| WMOK | Wichita Mounta | 2.50 | 44 | ePn | Pn | 18 48 15.5 | +1.4 |
| WMOK | | | | eSn | Sn | 18 48 47.1 | +1.9 |
| CPRX | Cap Rock | 2.51 | 273 | ePn | Pn | 18 48 16.6 | +2.4 |
| CPRX | | | | eSn | Sn | 18 48 48.3 | +2.7 |
| CLNB | Carlsbad | 2.62 | 256 | ePn | Pn | 18 48 16.9 | +1.2 |
| CLNB | | | | eSn | Sb | 18 48 52.1 | -0.5 |
| JCT | Junction City | 2.62 | 159 | ePn | Pn | 18 48 17.1 | +1.4 |
| JCT | | | | eSn | Sn | 18 48 49.8 | +1.6 |
| GDL2 | Guadalupe Moun | 3.03 | 257 | ePn | Pn | 18 48 16.4 | -5.0 |
| WHTX | Lake Whitney, | 3.05 | 107 | P | Pn | 18 48 22.7 | +1.2 |
| | baz=289 | | | | | | |
| WHTX | Lake Whitney, | 3.05 | 107 | ePn | Pn | 18 48 22.7 | +1.2 |
| WHTX | | | | ePg | Pb | 18 48 28.8 | +1.6 |
| Y35A | Marietta | 3.36 | 72 | P | Pn | 18 48 27.2 | +1.5 |
| | baz=254 | | | | | | |
| 435B | Jarrell | 3.54 | 127 | P | Pn | 18 48 29.7 | +1.5 |
| | baz=309 | | | | | | |
| X35A | Drake | 3.57 | 65 | P | Pn | 18 48 30.0 | +1.3 |
| | baz=247 | | | | | | |
| X35A | Drake | 3.57 | 65 | ePn | Pn | 18 48 29.8 | +1.1 |
| 136A | Ennis | 3.70 | 96 | P | Pn | 18 48 31.9 | +1.5 |
| | baz=278 | | | | | | |
| Z36A | Blue Ridge | 3.75 | 84 | P | Pn | 18 48 32.2 | +1.1 |
| | baz=266 | | | | | | |
| 336A | Riesel | 3.76 | 113 | P | Pn | 18 48 33.5 | +2.3 |
| | baz=296 | | | | | | |
| U32A | Winter Ranch, | 3.76 | 24 | P | Pn | 18 48 33.0 | +1.7 |
| | baz=204 | | | | | | |
| 236A | Katherine and | 3.80 | 103 | P | Pn | 18 48 33.8 | +2.1 |
| | baz=286 | | | | | | |
| Y36A | Durant | 3.96 | 75 | P | Pn | 18 48 35.9 | +1.8 |
| | baz=257 | | | | | | |
| W35A | Tecumseh | 3.99 | 55 | P | Pn | 18 48 35.4 | +0.9 |
| | baz=237,SNR=12 | | | | | | |
| W35A | Tecumseh | 3.99 | 55 | ePn | Pn | 18 48 35.4 | +0.9 |
| MNTX | Cornudas Mount | 4.01 | 253 | ePn | Pn | 18 48 35.9 | +1.2 |
| MNTX | | | | ePg | Pb | 18 48 45.5 | +1.9 |
| MNTX | | | | eSg | Sb | 18 49 36.1 | +3.6 |
| X36A | Centrahoma | 4.11 | 65 | P | Pn | 18 48 37.1 | +1.0 |
| | baz=248,SNR=21 | | | | | | |
| OK020 | N3440 Road, Me | 4.21 | 51 | ePn | Pn | 18 48 37.2 | -0.3 |
| OK020 | | | | eSg | Sg | 18 49 46.2 | -1.1 |
| LTX | Lajitas | 4.32 | 214 | ePn | Pn | 18 48 39.5 | +0.4 |
| LTX | | | | ePg | Pb | 18 48 49.6 | +0.7 |
| LTX | | | | eLg | Lg | 18 49 49.1 | |
| TX31 | Lajitas Ar. Si | 4.32 | 214 | ePn | Pn | 18 48 39.7 | +0.7 |
| TX31 | | | | ePg | Pb | 18 48 51.3 | +2.4 |
| TX31 | | | | ePg | Pg | 18 48 51.6 | -3.4 |
| TXAR | Lajitas Array | 4.32 | 214 | Pn | Pn | 18 48 39.5 | +0.4 |
| | 5.2nm,0.3s,baz=45,slow=11,SNR=351 | | | | | | |
| TXAR | | | | Pg | Pb | 18 48 49.6 | +0.7 |
| | 15nm,0.3s,baz=34,slow=16,SNR=56 | | | | | | |
| TXAR | | | | Lg | Lg | 18 49 49.1 | |
| | 29nm,0.3s,baz=42,slow=27,SNR=12 | | | | | | |
| OK022 | N3560 Road, Pr | 4.35 | 52 | ePn | Pn | 18 48 39.6 | +0.3 |
| OK021 | N3530 Road, Sp | 4.35 | 51 | ePn | Pn | 18 48 40.2 | +0.8 |
| OK021 | | | | eSg | Sg | 18 49 50.0 | -2.0 |
| V35A | Meyer Ranch, C | 4.37 | 49 | P | Pn | 18 48 40.6 | +1.0 |
| | baz=231 | | | | | | |
| V35A | Meyer Ranch, C | 4.37 | 49 | ePn | Pn | 18 48 40.7 | +1.0 |
| V35A | | | | eSg | Sg | 18 49 51.7 | -0.9 |
| 237A | Washetta, Mont | 4.39 | 101 | P | Pn | 18 48 40.9 | +1.0 |
| | baz=284 | | | | | | |
| Z37A | Pogue Cattle C | 4.42 | 85 | P | Pn | 18 48 41.5 | +1.1 |
| | baz=268 | | | | | | |
| W36A | Wetumka | 4.44 | 59 | P | Pn | 18 48 41.2 | +0.6 |
| | baz=242 | | | | | | |
| W36A | Wetumka | 4.44 | 59 | ePn | Pn | 18 48 41.4 | +0.7 |
| Y37A | Hugo | 4.52 | 75 | P | Pn | 18 48 43.5 | +1.9 |
| | baz=258 | | | | | | |
| 337A | Centerville | 4.54 | 110 | P | Pn | 18 48 43.5 | +1.5 |
| | baz=292 | | | | | | |
| 833A | Chaparral WMA, | 4.78 | 164 | P | Pn | 18 48 46.3 | +1.0 |
| | baz=345 | | | | | | |
| U35A | Pawnee | 4.84 | 44 | ePn | Pn | 18 48 45.4 | -0.7 |
| X37A | Clayton | 4.88 | 69 | P | Pn | 18 48 47.4 | +0.8 |
| | baz=252 | | | | | | |
| X37A | Clayton | 4.88 | 69 | ePn | Pn | 18 48 47.4 | +0.8 |
| X37A | | | | eSn | Sn | 18 49 42.9 | -0.7 |
| EPT | El Paso | 4.90 | 258 | ePn | Pn | 18 48 47.9 | +0.9 |
| BNM | Barren Site | 4.95 | 286 | ePn | Pn | 18 48 48.9 | +1.1 |
| 238A | Jacksonville | 4.96 | 99 | P | Pn | 18 48 49.6 | +1.8 |
| | baz=282 | | | | | | |
| Z38A | Mt. Pleasant | 4.96 | 85 | P | Pn | 18 48 49.0 | +1.2 |
| | baz=268 | | | | | | |
| V36A | Jenks | 4.97 | 54 | P | Pn | 18 48 48.1 | +0.2 |
| | baz=236 | | | | | | |
| V36A | Jenks | 4.97 | 54 | ePn | Pn | 18 48 48.2 | +0.2 |
| 338A | Crockett | 4.98 | 107 | P | Pn | 18 48 49.0 | +0.9 |
| | baz=290 | | | | | | |
| LPM | Los Pinos Moun | 4.99 | 287 | ePn | Pn | 18 48 49.0 | +0.7 |
| LPM | | | | eSg | Sb | 18 50 05.4 | +4.5 |
| W37B | Quinton | 5.03 | 63 | P | Pn | 18 48 49.4 | +0.7 |
| | baz=246 | | | | | | |
| W37B | Quinton | 5.03 | 63 | ePn | Pn | 18 48 49.4 | +0.7 |
| W37B | | | | eSn | Sn | 18 49 46.6 | -0.8 |
| ANMO | Albuquerque | 5.04 | 295 | Pn | Pn | 18 48 52.1 | +3.0 |
| | 0.3nm,0.3s,baz=283,slow=18,SNR=8.9 | | | | | | |
| ANMO | | | | Pg | Pb | 18 49 05.1 | +3.7 |
| | 2.8nm,0.3s,baz=306,slow=12,SNR=35 | | | | | | |
| ANMO | | | | Lg | Lg | 18 50 09.0 | |
| | 16nm,0.3s,baz=265,slow=17,SNR=12 | | | | | | |
| ANMO | | | | LR | LR | 18 51 03.4 | |
| | comp=Z,81nm,20.2s,baz=156,slow=40 | | | | | | |
| ANMO | Albuquerque | 5.04 | 295 | ePn | Pn | 18 48 50.5 | +1.3 |
| ANMO | | | | ePg | Pb | 18 49 05.1 | +3.7 |
| ANMO | | | | eLg | Lg | 18 50 08.2 | |
| ANMO | | | | e | | 18 51 03.4 | |
| T34A | McClaskey Farm | 5.08 | 36 | P | Pn | 18 48 50.6 | +1.3 |
| | baz=218 | | | | | | |
| T25A | Trinidad | 5.09 | 326 | P | Pn | 18 48 51.6 | +1.9 |
| | baz=144 | | | | | | |
| T25A | Trinidad | 5.09 | 326 | ePn | Pn | 18 48 51.7 | +2.0 |
| T25A | | | | eSg | Sg | 18 50 12.7 | -3.0 |
| TUL1 | Leonard | 5.14 | 53 | P | Pn | 18 48 50.7 | +0.4 |
| | baz=236,SNR=5.9 | | | | | | |
| TUL1 | Leonard | 5.14 | 53 | ePn | Pn | 18 48 50.8 | +0.4 |
| Y22D | IRIS PASSCAL I | 5.17 | 284 | ePn | Pn | 18 48 53.4 | +2.6 |
| HGTCO | Madrid Canyon | 5.19 | 324 | ePn | Pn | 18 48 50.6 | -0.6 |
| HGTCO | | | | ePg | Pb | 18 49 07.8 | +3.9 |
| HGTCO | | | | eSg | Sg | 18 50 16.2 | -2.7 |
| LENM | Lemitar | 5.23 | 285 | ePn | Pn | 18 48 50.7 | -0.9 |
| LENM | | | | ePg | Pb | 18 49 07.9 | +3.3 |
| HKT | Hockley | 5.25 | 123 | ePn | Pn | 18 48 53.3 | +1.7 |
| HKT | | | | ePg | Pg | 18 49 11.1 | -1.7 |
| X38A | Whitesboro | 5.33 | 69 | P | Pn | 18 48 53.7 | +0.9 |
| | baz=253 | | | | | | |
| NATX | Nacogdoches | 5.40 | 101 | ePn | Pn | 18 48 55.4 | +1.7 |
| NATX | | | | ePg | Pg | 18 49 16.1 | +0.5 |
| LAZ | Ladron | 5.42 | 287 | ePn | Pn | 18 48 51.6 | -2.6 |
| U36A | Oologah | 5.46 | 50 | P | Pn | 18 48 55.0 | +0.3 |
| | baz=232 | | | | | | |
| 239A | Gary | 5.50 | 98 | P | Pn | 18 48 56.5 | +1.4 |
| | baz=281 | | | | | | |
| V37A | Hulbert | 5.58 | 57 | P | Pn | 18 48 56.5 | +0.2 |
| | baz=240 | | | | | | |
| 339A | Huntington | 5.60 | 105 | P | Pn | 18 48 57.7 | +1.1 |
| | baz=288 | | | | | | |
| 439A | Center Grove, | 5.63 | 111 | P | Pn | 18 48 58.3 | +1.4 |
| | baz=294 | | | | | | |
| Z39A | Irene McRaven, | 5.63 | 85 | P | Pn | 18 48 58.5 | +1.5 |
| | baz=269 | | | | | | |
| S34A | Willow Spring | 5.66 | 32 | P | Pn | 18 48 58.3 | +0.9 |
| | baz=214 | | | | | | |
| W38A | Poteau | 5.70 | 66 | P | Pn | 18 48 58.7 | +0.9 |
| | baz=250 | | | | | | |
| Y39A | Lockesburg | 5.76 | 78 | P | Pn | 18 48 59.9 | +1.1 |
| | baz=262 | | | | | | |
| T36A | Boggs Farm, Ca | 5.81 | 44 | P | Pn | 18 49 00.3 | +0.9 |
| | baz=226 | | | | | | |
| 121A | Cookes Peak, D | 5.83 | 268 | P | Pn | 18 49 00.2 | +0.3 |
| | baz=84 | | | | | | |
| 121A | Cookes Peak, D | 5.83 | 268 | ePn | Pn | 18 49 00.6 | +0.7 |
| | 17nm,0.4s | | | | | | |
| 121A | | | | ePb | Pb | 18 49 10.4 | -4.4 |
| 121A | | | | eSb | Sb | 18 50 24.4 | -0.8 |
| 121A | | | | eSg | Sg | 18 50 39.2 | -0.4 |
| X39A | Fountain Ranch | 5.85 | 73 | P | Pn | 18 49 01.4 | +1.3 |
| | baz=256 | | | | | | |
| U37A | Salina | 5.87 | 52 | P | Pn | 18 49 00.5 | +0.2 |
| | baz=235 | | | | | | |
| CBKS | Cedar Bluff | 5.93 | 9 | ePn | Pn | 18 49 02.3 | +1.1 |
| S35A | Otter Creek Ra | 6.02 | 37 | P | Pn | 18 49 03.0 | +0.6 |
| | baz=219 | | | | | | |
| V38A | Canehill | 6.09 | 60 | P | Pn | 18 49 03.3 | 0.0 |
| | baz=243 | | | | | | |
| SDCO | Great Sand Dun | 6.10 | 323 | ePn | Pn | 18 49 05.8 | +2.1 |
| R34A | Isabella, Hill | 6.11 | 28 | P | Pn | 18 49 03.9 | +0.3 |
| | baz=210 | | | | | | |
| 340A | Bronson | 6.12 | 103 | P | Pn | 18 49 04.8 | +1.1 |
| | baz=286 | | | | | | |
| 140A | Cam and Jess, | 6.16 | 91 | P | Pn | 18 49 05.0 | +0.8 |
| | baz=275 | | | | | | |
| KSCO | Kaye Shedlock' | 6.22 | 347 | P | Pn | 18 49 06.3 | +1.1 |
| | baz=166 | | | | | | |
| KSCO | Kaye Shedlock' | 6.22 | 347 | ePn | Pn | 18 49 06.2 | +1.1 |
| KSCO | | | | ePg | Pb | 18 49 26.8 | +5.5 |
| KSCO | | | | eSn | Sn | 18 50 14.3 | -2.6 |
| Z40A | Long Farm, Mag | 6.29 | 85 | P | Pn | 18 49 06.7 | +0.7 |
| | baz=269 | | | | | | |
| MIAR | Mount Ida | 6.29 | 73 | ePn | Pn | 18 49 07.3 | +1.2 |
| MIAR | | | | eSn | Sn | 18 50 18.0 | -0.6 |
| W39A | Magazine | 6.30 | 67 | P | Pn | 18 49 06.9 | +0.6 |
| | baz=251 | | | | | | |
| U38A | Gravette | 6.39 | 55 | P | Pn | 18 49 07.6 | +0.2 |
| | baz=238 | | | | | | |
| S36A | Lake Cedric, C | 6.44 | 41 | P | Pn | 18 49 08.0 | -0.1 |
| | baz=224 | | | | | | |
| Y40A | Okolona | 6.44 | 78 | P | Pn | 18 49 08.5 | +0.4 |
| | baz=262 | | | | | | |
| WLAR | White Oak Lake | 6.55 | 81 | ePn | Pn | 18 49 09.7 | +0.1 |
| WLAR | | | | eSn | Sn | 18 50 22.3 | -2.5 |
| R35A | Emporia Munici | 6.58 | 34 | P | Pn | 18 49 10.4 | +0.3 |
| | baz=216 | | | | | | |
| HHAR | Hobbs | 6.62 | 58 | ePn | Pn | 18 49 10.5 | -0.1 |
| HHAR | | | | eSn | Sn | 18 50 23.5 | -3.3 |
| V39A | Pettigrew | 6.64 | 62 | P | Pn | 18 49 11.2 | +0.2 |
| | baz=246 | | | | | | |
| 341A | Kurthwood | 6.74 | 102 | P | Pn | 18 49 13.4 | +1.3 |
| | baz=286 | | | | | | |
| Q34A | Chapman | 6.77 | 27 | P | Pn | 18 49 13.6 | +1.0 |

baz=209
**T38A Diamond** 6.78 51 P Pn 18 49 12.7 0.0
baz=235
**Z41A Richland Creek** 6.79 85 P Pn 18 49 13.8 +0.9
baz=270
**S22A 4UR Ranch, Cre** 6.82 316 *e*Pn Pn 18 49 16.3 +2.6
S22A *e*Pg Pb 18 49 36.5 +4.8
**W40A Ferguson Farm,** 6.86 69 P Pn 18 49 14.9 +1.1
baz=253
**W40A Ferguson Farm,** 6.86 69 *e*Pn Pn 18 49 14.2 +0.3
**S37A Fort Scott** 6.90 44 P Pn 18 49 14.6 +0.3
baz=227
**R36A Gordon, Harris** 6.93 38 P Pn 18 49 14.9 +0.1
baz=221
**Q24A Divide** 6.93 331 *e*Pn Pn 18 49 18.4 +3.3
Q24A *e* 18 49 27.9
Q24A *e*Pg Pb 18 49 39.9 +6.3
**Y41A Eaglette Beard** 6.98 80 P Pn 18 49 15.5 0.0
baz=264
**U39A Green Forest** 7.00 59 P Pn 18 49 15.5 -0.3
baz=243
**KSU1 Kansas State U** 7.05 28 *e*Pn Pn 18 49 16.9 +0.4
KSU1 *e*Pg Pg 18 49 42.9 -4.4
**Q35A Mercer Eighty,** 7.09 32 P Pn 18 49 17.3 +0.2
baz=215
**X41A Kaden, Bauxite** 7.14 75 P Pn 18 49 18.1 +0.3
baz=260
**V40A Witts Springs** 7.25 65 P Pn 18 49 19.4 +0.1
baz=249
**HPIG** 7.28 216 *e*Pn Pn 18 49 19.8 -0.1
**319A Douglas** 7.29 260 *e*Pn Pn 18 49 20.1 +0.2
319A *e*Pg Pb 18 49 43.9 +4.3
**UALR University of** 7.33 73 *e*Pn Pn 18 49 21.3 +0.9
**P34A Walnut Farm, R** 7.36 25 P Pn 18 49 20.6 -0.2
baz=207
**S38A Stockton** 7.37 49 P Pn 18 49 20.7 -0.2
baz=232,SNR=17
**T39A Clever** 7.38 54 P Pn 18 49 21.0 0.0
baz=238
**X301 Greenbrier Sit** 7.40 70 *e*Pn Pn 18 49 21.9 +0.6
**U40A Yellville** 7.44 61 P Pn 18 49 21.6 -0.3
baz=245,SNR=9.3
**WHAR Wooly Hollow** 7.50 69 *e*Pn Pn 18 49 23.0 +0.4
**W41B Gary Mavity, V** 7.50 70 P Pn 18 49 23.3 +0.7
baz=255
**Z42A Norrel Spur, H** 7.50 85 P Pn 18 49 23.7 +1.0
baz=270
**MVCO Mesa Verde** 7.55 306 *e*Pn Pn 18 49 22.8 -0.8
MVCO *e*Pg Pb 18 49 49.0 +4.9
**P35A Duane Minner,** 7.66 29 P Pn 18 49 25.0 +0.2
baz=212
**Y42A Garnett, Star** 7.66 81 P Pn 18 49 25.3 +0.5
baz=266
**W18A Petrified Fore** 7.66 289 *e*Pn Pn 18 49 27.3 +2.2
W18A *e*Pg Pb 18 49 53.4 +7.4
**CCAR Cane Creek** 7.68 80 *e*Pn Pn 18 49 25.5 +0.4
**X18A Snowflake** 7.72 284 *e*Pn Pn 18 49 24.1 -1.7
X18A *e*Pg Pb 18 49 53.3 +6.4
**R38A Fenwick Farm,** 7.72 45 P Pn 18 49 26.0 +0.3
baz=229
**V41A Mountainview** 7.75 66 P Pn 18 49 26.3 +0.1
baz=251,SNR=25
**S39A Bolivar** 7.78 50 P Pn 18 49 26.1 -0.5
baz=234
**ISCO Idaho Springs** 7.83 332 *e*Pn Pn 18 49 26.4 -1.1
**X42A Stuttgart** 7.88 76 P Pn 18 49 28.1 +0.4
baz=261
**Q37A Longview Farm,** 7.89 40 P Pn 18 49 28.2 +0.2
baz=223
**SMCO Snowmass** 7.94 323 *e*Pn Pn 18 49 30.1 +1.1
SMCO *e*Pg Pb 18 49 55.2 +4.5
SMCO *e*Pg Pg 18 49 58.0 -6.2
**T40A Mansfield** 8.04 56 P Pn 18 49 29.5 -0.6
baz=241
**OGNE Ogallala** 8.04 354 *e*Pn Pn 18 49 30.8 +0.7
OGNE *e*Pg Pg 18 50 01.1 -5.1
**LNIG Linares** 8.11 171 *e*Pn Pn 18 49 31.4 +0.3
**U41A Viola** 8.13 63 P Pn 18 49 31.0 -0.3
baz=248
**PV01 Paradox Valley** 8.13 312 *e*Pn Pn 18 49 32.2 +0.7
PV01 *e*Pg Pg 18 50 02.2 -5.7
**S40A Lebanon** 8.28 54 P Pn 18 49 33.2 -0.2
baz=238
**R39A Chumby, Stover** 8.33 48 P Pn 18 49 33.5 -0.6
baz=232
**V42A Cord** 8.35 67 P Pn 18 49 33.7 -0.6
baz=253
**TUC Tucson** 8.38 268 *e*Pn Pn 18 49 35.0 +0.2
TUC *e*Sg Sg 18 51 57.3 -3.9
**Y43A Makayla and Ka** 8.38 81 P Pn 18 49 34.6 -0.1
baz=266
**PV05 Paradox Valley** 8.43 310 *e*Pn Pn 18 49 35.5 -0.2
PV05 *e*Pg Pg 18 50 08.2 -5.5
**P37A Lathrop** 8.47 37 P Pn 18 49 35.8 -0.2
baz=220
**PV04 Paradox Valley** 8.49 312 *e*Pn Pg 18 50 06.6 -8.3
**PV10 Paradox Valley** 8.57 312 *e*Pn Pn 18 49 36.9 -0.7
PV10 *e*Pg Pg 18 50 09.8 -6.5
**U42A Revenden** 8.64 64 P Pn 18 49 37.6 -0.7
baz=250
**BGNE Belgrade** 8.73 14 P Pn 18 49 39.2 -0.4
baz=195
**BGNE Belgrade** 8.73 14 *e*Pn Pn 18 49 39.1 -0.4
**R40A Maddies Statio** 8.81 50 P Pn 18 49 40.2 -0.4
baz=235
**Q39A Willow Grove F** 8.84 44 P Pn 18 49 41.1 +0.1
baz=229
**HBAR Harrisburg** 8.86 70 *e*Pn Pn 18 49 41.1 -0.2
**N23A Red Feather La** 8.91 334 *e*Pn Pn 18 49 44.4 +2.2
**T42A Van Buren** 9.01 60 P Pn 18 49 42.7 -0.7
baz=246
**O37A Wolven Farm, M** 9.02 35 P Pn 18 49 43.5 +0.1
baz=219
**WUAZ Wupatki** 9.06 289 *e*Pn Pn 18 50 04.5 +20
**U43A Rector** 9.28 65 P Pn 18 49 47.3 +0.2
baz=251
**O38A Galt** 9.32 38 P Pn 18 49 47.0 -0.6
baz=222
**CCM Cathedral Cave** 9.37 54 *e*Pn Pn 18 49 47.3 -1.0
**R41A Rosebud** 9.40 53 P Pn 18 49 47.6 -1.1
baz=238,SNR=6.4
**PBMO Poplar Bluff** 9.40 63 *e*Pn Pn 18 49 49.5 +0.8
PBMO *e*Sn Sn 18 51 31.7 -3.4
**N37A Lee Faris, Mou** 9.45 33 P Pn 18 49 49.3 -0.1
baz=216
**S42A Caledonia** 9.54 57 P Pn 18 49 49.9 -0.8
baz=242
**T43A Greenville** 9.62 62 P Pn 18 49 52.2 +0.5
baz=248
**P40A Paris** 9.70 45 P Pn 18 49 52.6 -0.2
baz=230
**R42A Luebbering** 9.79 54 P Pn 18 49 53.8 -0.2
baz=240
**K31A O'Neill** 9.81 9 P Pn 18 49 53.9 -0.4
baz=190
**Q41A Truxton** 9.85 50 P Pn 18 49 54.2 -0.7
baz=235
**FVM French Village** 9.90 57 *e*Pn Pn 18 49 52.7 -2.9
**Y46A Houston** 10.10 81 P Pn 18 49 58.4 +0.1
baz=268
**O40A La Belle** 10.19 43 P Pn 18 49 58.5 -1.0
baz=228
**N39A Derby Farms, D** 10.37 38 P Pn 18 50 01.6 -0.5
baz=223
**R43A Red Bud** 10.38 56 P Pn 18 50 01.8 -0.3
baz=242
**P41A Barry, Barry** 10.38 47 P Pn 18 50 01.4 -0.8
baz=232
**L36A Harm Buss Farm** 10.38 27 P Pn 18 50 01.8 -0.4
baz=210
**S44A Carbondale** 10.61 60 P Pn 18 50 05.0 -0.4
baz=247
**SIUC Southern Illin** 10.65 60 *e*Pn Pn 18 50 05.3 -0.5
**K22A Casper** 10.66 337 *e*Pn Pn 18 50 12.4 +6.2
15nm,0.8s
**J32A Parkston** 10.68 12 P Pn 18 50 05.9 -0.4
baz=194
**T45A Paducah** 10.83 65 P Pn 18 50 07.2 -1.1
baz=251
**K36A Gilmore City** 10.93 26 P Pn 18 50 08.3 -1.4
baz=210
**Y47A UCPARC, Winfie** 10.93 81 P Pn 18 50 09.2 -0.5
baz=268
**R44A Waltonville** 10.97 58 P Pn 18 50 09.6 -0.6
baz=244
**S45A Carrier Mills** 11.10 61 P Pn 18 50 11.0 -1.0
baz=248
**N41A Harden Midland** 11.16 43 P Pn 18 50 11.8 -0.9
baz=229
**Z48A Northport** 11.18 84 P Pn 18 50 12.5 -0.6
baz=271
**Q44A Meyer Farm, Va** 11.30 55 P Pn 18 50 14.2 -0.6
baz=242
**P43A Skaggs, Pawnee** 11.34 51 P Pn 18 50 14.2 -1.0
baz=237
**RSSD Black Hills** 11.43 348 *e*Pn Pn 18 50 10.1 -6.6
5.9nm,0.6s
**N42A Yates City** 11.71 45 P Pn 18 50 19.2 -1.2
baz=231
**PD31 Pinedale Array** 11.96 328 *e*Pn Pn 18 50 26.9 +3.0
PD31 *e*Lg Lg 18 53 48.9
**PDAR Pinedale Array** 11.96 328 Pn Pn 18 50 26.9 +3.0
0.1nm,0.3s,baz=121,slow=14,SNR=4.5
PDAR Lg Lg 18 53 48.9
baz=101,slow=34,SNR=2.6
**SFIN Lafayette** 13.31 52 *e*Pn Pn 18 50 44.0 +1.7
**EML El Monte Cty P** 13.41 274 *e*Pn Pn 18 50 37.6 -6.1
**P47A Martinsville** 13.48 57 P Pn 18 50 42.4 -2.1
baz=245
**VTV Victorville** 13.78 281 *e*Sn Sn 18 53 15.4 -7.1
**CCCA Chr Cany lake** 13.88 285 *e*Pn Pn 18 50 50.5 +0.4
CCCA *e*Sn Sn 18 53 29.4 +4.6
**CLC China Lake** 14.10 286 *e*P P 18 51 06.2 +5.2
**SRTC Snort** 14.21 286 *e*Sn Sn 18 53 24.4 -8.4
**PASC Pasadena Art C** 14.48 280 *e*Sn Sn 18 53 42.5 +2.9
**WLHM Little Horse** 14.72 287 *e*Pn Pn 18 50 56.2 -5.6
**NV01 Mina Array Sit** 15.17 296 *e*Pn Pn 18 51 10.7 +2.9
**SBI Santa Barbara** 15.20 277 *e*Sn Sn 18 53 50.0 -7.0
SBI *e*PcP PcP 18 56 15.8 +1.2
**GATR Gnd/Air Tx Cnt** 16.40 281 *e*Sn Sn 18 54 17.1 -9.1
**JSTM Santa Teresa H** 17.63 290 *e*Pn Pn 18 51 34.5 -4.6
**ALVY Alvey** 20.48 309 *e*P P 18 52 11.8 +0.5
**YKA Yellowknife Ar** 30.84 348 P P 18 53 48.5 -0.9
0.6nm,0.8s,baz=161,slow=8.0,SNR=3.6
**YKB5 Yellowknife Ar** 30.84 348 *e*P P 18 53 48.5 -0.9
**ILAR Eielson Array** 42.33 333 P P 18 55 27.9 +0.7
0.4nm,0.9s,baz=116,slow=5.7,SNR=4.1
**ILB Eielson Array** 42.33 333 *e*P P 18 55 27.9 +0.7

*DDA* ***09*** *19:08:04.8,38˚.74N×43˚.63E,h7km,Ml2.8*
*ATA* ***09*** *19:08:04.6±1.0,38˚.84N×43˚.60E,h27km±8km,ML2.5, MW2.9*
*ISK* ***09*** *19:08:04.8,38˚.83N×43˚.57E,h5km,MD2.6*
*ISCJB* ***09*** *19:08:06.3±0.7,38˚.82N±0˚.04×43˚.58E±0˚.06,h11km±5km, Error ellipse: s-maj=7.7km s-min=5.6km az=25.3*
*CSEM* ***09*** *19:08:06.3±0.3,38˚.84N×43˚.59E,h8km,ML2.8,Error ellipse: s-maj=7.1km s-min=4.9km az=128.0*

**ISC 09 19:08:05.9±1.0, 38˚.84N±0˚.03×43˚.59E±0˚.04, h17km±6km, n24, σ0s78/37, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VMUR** | **Van-Muradiye** | **0.15** | **356** | *i* P | **Pg** | **19 08 09.5** | **-0.8** |
| VMUR | | | | *i* S | **Sg** | **19 08 14.3** | **+1.0** |
| **VMUR** | **Van-Muradiye** | **0.15** | **356** | P | **Pg** | **19 08 09.5** | **-0.8** |
| VMUR | | | | S | **Sg** | **19 08 14.3** | **+1.0** |
| **VANB** | **Van** | **0.29** | **213** | *e*PG | **Pb** | **19 08 12.7** | **0.0** |
| **VANB** | **Van** | **0.29** | **213** | *e*Pg | **Pb** | **19 08 12.7** | **0.0** |
| **CLDR** | **Caldiran** | **0.40** | **40** | *e*PG | **Pb** | **19 08 13.9** | **-0.8** |
| **CLDR** | **Caldiran** | **0.40** | **40** | *i* P | **Pb** | **19 08 14.2** | **-0.5** |
| CLDR | | | | *i* S | **Sb** | **19 08 21.4** | **+0.7** |
| **CLDR** | **Caldiran** | **0.40** | **40** | *e*Pg | **Pb** | **19 08 13.9** | **-0.8** |
| **CLDR** | **Caldiran** | **0.40** | **40** | P | **Pb** | **19 08 14.2** | **-0.5** |
| CLDR | | | | S | **Sb** | **19 08 21.4** | **+0.7** |
| **GEVA** | **Gevas** | **0.67** | **218** | *e*P | **Pb** | **19 08 18.6** | **-0.6** |
| GEVA | | | | IAML | | 19 08 41.3 | |
| comp=Z,19nm,0.6s | | | | | | | |
| **ADCV** | **BITLIS_Adilcev** | **0.67** | **268** | *i* P | **Pb** | **19 08 18.8** | **-0.5** |
| ADCV | | | | *i* S | **Sb** | **19 08 29.4** | **+0.9** |
| **ADCV** | **BITLIS_Adilcev** | **0.67** | **268** | P | **Pb** | **19 08 18.8** | **-0.5** |
| ADCV | | | | S | **Sb** | **19 08 29.4** | **+0.9** |
| **DYDN** | **Diyadin** | **0.71** | **6** | *e*P | **Pb** | **19 08 19.3** | **-0.7** |
| DYDN | | | | *e*S | **Sb** | **19 08 30.2** | **+0.7** |
| DYDN | | | | IAML | | 19 08 33.6 | |
| comp=Z,10.0nm,0.5s | | | | | | | |
| **DYDN** | **Diyadin** | **0.71** | **6** | *i* P | **Pb** | **19 08 19.8** | **-0.2** |
| DYDN | | | | *i* S | **Sb** | **19 08 30.8** | **+1.3** |
| **DYDN** | **Diyadin** | **0.71** | **6** | P | **Pb** | **19 08 19.8** | **-0.2** |
| DYDN | | | | S | **Sb** | **19 08 30.8** | **+1.3** |
| **TUTA** | **Tutak** | **0.82** | **313** | *e*P | **Pg** | **19 08 20.7** | **-1.3** |
| TUTA | | | | IAML | | 19 08 26.7 | |
| comp=Z,24nm,0.2s | | | | | | | |
| TUTA | | | | *e*S | **Sn** | **19 08 34.6** | **-0.2** |
| **TUTA** | **Tutak** | **0.82** | **313** | *i* P | **Pb** | **19 08 21.9** | **0.0** |
| TUTA | | | | *i* S | **Sn** | **19 08 35.6** | **+0.7** |
| **TUTA** | **Tutak** | **0.82** | **313** | P | **Pb** | **19 08 21.9** | **0.0** |
| TUTA | | | | S | **Sn** | **19 08 35.6** | **+0.7** |
| **AGRB** | **Hanur-Agry** | **0.87** | **328** | *e*PG | **Pb** | **19 08 22.5** | **-0.2** |
| AGRB | | | | *e*SG | **Sn** | **19 08 35.9** | **-0.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.25** | **24** | *e*PN | **Pg** | **19 08 30.0** | **-0.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.25** | **24** | *e*Pn | **Pg** | **19 08 30.0** | **-0.1** |
| **EATA** | **Eleskirt** | **1.33** | **321** | *e*P | **Pn** | **19 08 29.6** | **-0.4** |
| EATA | | | | IAML | | 19 08 44.1 | |
| comp=Z,1.9nm,0.5s | | | | | | | |
| **DIGO** | **Kars** | **1.58** | **354** | *e*P | **Pg** | **19 08 34.8** | **-1.6** |
| DIGO | | | | IAML | | 19 08 52.5 | |
| comp=Z,2.4nm,0.6s | | | | | | | |
| **CUKT** | **Cukurca** | **1.59** | **179** | *e*PN | **Pg** | **19 08 35.8** | **-0.7** |
| **CUKT** | **Cukurca** | **1.59** | **179** | *e*Pn | **Pg** | **19 08 35.8** | **-0.7** |

*ISCJB* ***09*** *19:10:01.2±0.5, 1˚.81S±0˚.05×100˚.28E±0˚.04,h56km, mb3.8/6,MS3.6/1,Error ellipse: s-maj=7.2km s-min=6.0km az=23.3*
*DJA* ***09*** *19:10:02.3±1.1,2˚S±3˚×10˚0E±˚,h29km±12km,M4.0/9, MLv4.0/9*
*IDC* ***09*** *19:10:05.5±4.6, 1˚.63S×100˚.73E,h84km±36km,mb3.5/7, mb1 3.6/8,mb1mx3.3/41,mbtmp3.8/8,MS3.6/1,Ms1 3.6/1, ms1mx2.6/39,Error ellipse: s-maj=117.9km s-min=14.9km az=57.0*

**ISC 09 19:10:01.6±0.8, 1˚.82S±0˚.05×100˚.28E±0˚.05, h56km, n20, σ1s29/22, mb3.7/6, Southern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PDSI** | **Padang** | **0.92** | **11** | P | **Pn** | **19 10 18.7** | **+0.2** |
| PDSI | | | | S | **Sn** | **19 10 30.9** | **0.0** |
| **PPSI** | **Pulau Pagai** | **0.98** | **196** | P | **Pn** | **19 10 20.5** | **+1.2** |
| **SISI** | **Saibi** | **1.29** | **292** | P | **Pn** | **19 10 24.2** | **+0.8** |
| SISI | | | | S | **Sn** | **19 10 40.6** | **+1.0** |
| **SDSI** | **Sungai Dareh** | **1.44** | **53** | P | **Pn** | **19 10 27.0** | **+1.5** |
| SDSI | | | | S | **Sn** | **19 10 44.4** | **+1.0** |
| **BKNI** | **Bangkinang** | **2.26** | **20** | P | **Pn** | **19 10 37.2** | **+0.6** |
| **MASI** | **Maura Aman, Be** | **2.36** | **124** | P | **Pn** | **19 10 39.2** | **+1.2** |
| **RGRI** | **Rengat** | **2.52** | **55** | P | **Pn** | **19 10 40.6** | **+0.5** |
| **PBSI** | **Pulau Batu** | **2.66** | **311** | P | **Pn** | **19 10 43.1** | **+1.0** |
| **MNAI** | **Manna** | **3.68** | **133** | P | **Pn** | **19 10 57.7** | **+1.7** |
| **GSI** | **Gunungsitoli** | **4.11** | **319** | P | **Pn** | **19 11 01.8** | **-0.2** |
| **DSRI** | **Dabo** | **4.50** | **73** | P | **Pn** | **19 11 08.5** | **+1.2** |
| **PSI** | **Prapat** | **4.78** | **344** | P | **Pn** | **19 11 14.2** | **+2.9** |
| 0.5nm,0.3s,baz=143,slow=9.8,SNR=4.5 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **20.19** | **356** | P | **P** | **19 14 31.1** | **-0.7** |
| 2.1nm,0.5s,baz=186,slow=10,SNR=27 | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **29.68** | **125** | P | **P** | **19 15 59.8** | **-2.7** |
| 1.0nm,0.9s,baz=333,slow=6.8,SNR=2.4 | | | | | | | |
| **WRA** | **Warramunga Arr** | **37.84** | **121** | P | **P** | **19 17 12.2** | **-1.0** |
| 0.1nm,0.4s,baz=306,slow=9.1,SNR=5.3 | | | | | | | |
| **ASAR** | **Alice Springs** | **39.13** | **126** | P | **P** | **19 17 24.1** | **+0.1** |
| 0.5nm,0.6s,baz=301,slow=7.7,SNR=11 | | | | | | | |
| **PMG** | **Port Moresby** | **47.21** | **101** | LR | LR | 19 41 28.2 | |
| comp=Z,60nm,18.9s,baz=358,slow=40 | | | | | | | |
| **SONM** | **Songino Array** | **49.73** | **5** | P | **P** | **19 18 48.4** | **0.0** |
| 0.6nm,0.4s,baz=192,slow=11,SNR=7.0 | | | | | | | |
| **MKAR** | **Makanchi Array** | **50.93** | **344** | P | **P** | **19 18 57.9** | **+0.6** |
| 2.1nm,0.6s,baz=158,slow=8.7,SNR=26 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **57.04** | **349** | P | **P** | **19 19 41.5** | **-0.2** |
| 2.5nm,0.7s,baz=177,slow=6.3,SNR=13 | | | | | | | |

*IDC* ***09*** *19:13:18.6±4.2,37˚.24S×179˚.95E,h0km,mb3.7/2, mb1 3.9/3,mb1mx3.7/20,mbtmp3.7/3,ML3.7/1,Error ellipse: s-maj=114.0km s-min=51.0km az=148.0*
*ISCJB* ***09*** *19:13:22.9±1.1,37˚.74S±0˚.08×179˚.87E±0˚.08,h33km, mb3.5/2,Error ellipse: s-maj=12.6km s-min=8.2km az=22.7*
*WEL* ***09*** *19:13:23.1±0.4,37˚.55S×179˚.91E,h33km,ML3.5/11,Error ellipse: s-maj=4.9km s-min=4.3km az=0.0*

**ISC 09 19:13:24.1±1.5, 37˚.66S±0˚.10×179˚.78E±0˚.08, h33km, n31, σ0s86/36, 6C-1D, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WMGZ** | **Waiomatatini S** | **1.09** | **261** | ⇑PN | **Pn** | **19 13 43.1** | **+0.1** |
| WMGZ | | | | *e*SN | **Sn** | **19 13 57.5** | **+0.5** |
| WMGZ | | | | AML | AML | 19 14 02.0 | |
| **MXZ** | **Matakaoa Point** | **1.17** | **274** | ⇑PN | **Pn** | **19 13 43.8** | **-0.3** |
| MXZ | | | | *e*SN | **Sb** | **19 14 00.5** | **-0.1** |
| MXZ | | | | AML | AML | 19 14 04.8 | |
| **PUZ** | **Puketiti** | **1.27** | **251** | ⇑PN | **Pn** | **19 13 45.5** | **0.0** |
| PUZ | | | | *e*SN | **Sn** | **19 14 02.6** | **+1.2** |
| PUZ | | | | AML | AML | 19 14 12.9 | |
| **PKGZ** | **Pakihiroa** | **1.36** | **260** | ⇑PN | **Pn** | **19 13 46.8** | **-0.1** |
| PKGZ | | | | AML | AML | 19 14 07.4 | |
| PKGZ | | | | AML | AML | 19 14 08.0 | |
| **CNGZ** | **Carnagh Statio** | **1.48** | **236** | *e*PN | **Pn** | **19 13 49.6** | **+1.1** |
| **HAZ** | **Te Kaha** | **1.58** | **266** | PN | **Pn** | **19 13 50.2** | **+0.4** |
| HAZ | | | | AML | AML | 19 14 17.5 | |
| HAZ | | | | AML | AML | 19 14 23.8 | |
| **RUGZ** | **Raukumara Rang** | **1.69** | **259** | *e*PN | **Pn** | **19 13 51.3** | **-0.1** |
| **MWZ** | **Matawai** | **1.90** | **249** | PN | **Pn** | **19 13 54.2** | **0.0** |
| MWZ | | | | AML | AML | 19 14 20.5 | |
| MWZ | | | | AML | AML | 19 14 29.4 | |
| **RIGZ** | **Rimuhau** | **1.90** | **236** | ⇑PN | **Pn** | **19 13 55.0** | **+0.7** |
| RIGZ | | | | AML | AML | 19 14 23.4 | |
| RIGZ | | | | AML | AML | 19 14 26.2 | |
| **PRGZ** | **Paritu Road** | **1.95** | **229** | PN | **Pn** | **19 13 55.3** | **+0.4** |
| **RAGZ** | **Rawiri** | **2.04** | **245** | *e*PN | **Pn** | **19 13 56.8** | **+0.6** |
| RAGZ | | | | AML | AML | 19 14 28.9 | |
| RAGZ | | | | AML | AML | 19 14 33.3 | |
| **MHGZ** | **Mahia Peninsul** | **2.09** | **224** | PN | **Pn** | **19 13 57.2** | **+0.4** |
| **KNZ** | **Kokohu** | **2.14** | **230** | ⇑PN | **Pn** | **19 13 57.5** | **0.0** |
| **URZ** | **Urewera** | **2.19** | **253** | Pn | **Pn** | **19 13 59.0** | **+0.9** |
| 17nm,0.3s,baz=3.4,slow=16,SNR=92 | | | | | | | |
| URZ | | | | Sn | **Sn** | **19 14 25.9** | **+1.8** |
| 7.7nm,0.3s,baz=240,slow=22,SNR=10 | | | | | | | |
| **URZ** | **Urewera** | **2.19** | **253** | PN | **Pn** | **19 13 59.1** | **+0.9** |
| URZ | | | | AML | AML | 19 14 31.9 | |
| URZ | | | | AML | AML | 19 14 36.0 | |
| **RTZ** | **Ruatahuna** | **2.40** | **246** | PN | **Pn** | **19 14 01.9** | **+0.8** |
| **MUGZ** | **Murupara** | **2.51** | **250** | ⇓PN | **Pn** | **19 14 02.9** | **+0.3** |
| **MTHZ** | **Maungataniwha** | **2.60** | **242** | PN | **Pn** | **19 14 04.2** | **+0.4** |
| **TARZ** | **Mount Tarawera** | **2.65** | **257** | PN | **Pn** | **19 14 05.0** | **+0.5** |
| **ARHZ** | **Aropaoanui** | **2.70** | **233** | PN | **Pn** | **19 14 05.7** | **+0.5** |
| ARHZ | | | | AML | AML | 19 14 12.3 | |
| ARHZ | | | | AML | AML | 19 14 45.9 | |
| **BKZ** | **Black Stump Fm** | **2.98** | **239** | PN | **Pn** | **19 14 09.2** | **0.0** |
| **MCHZ** | **McNeill Hill** | **3.00** | **233** | PN | **Pn** | **19 14 09.4** | **+0.1** |
| **KWHZ** | **Kaweka Forest** | **3.16** | **235** | PN | **Pn** | **19 14 11.5** | **-0.2** |
| KWHZ | | | | AML | AML | 19 14 19.7 | |
| **OTVZ** | **Oturere** | **3.56** | **244** | PN | **Pn** | **19 14 17.4** | **+0.2** |
| **WNVZ** | **Wahianoa** | **3.67** | **242** | PN | **Pn** | **19 14 18.6** | **-0.1** |
| **BFZ** | **Birch Farm** | **4.08** | **221** | PN | **Pn** | **19 14 21.9** | **-2.2** |
| **MRZ** | **Mangatainoka R** | **4.43** | **226** | *e*PN | **Pn** | **19 14 27.0** | **-1.9** |
| MRZ | | | | SN | **Sn** | **19 15 18.5** | **-0.8** |
| **CTZ** | **Chatham Island** | **6.66** | **157** | *e*PN | **Pn** | **19 15 00.8** | **+1.3** |
| **ASAR** | **Alice Springs** | **41.45** | **276** | P | **P** | **19 21 08.5** | **+0.6** |
| 0.8nm,0.6s,baz=123,slow=8.0,SNR=23 | | | | | | | |
| **WRA** | **Warramunga Arr** | **43.10** | **281** | P | **P** | **19 21 21.0** | **-0.3** |
| 0.5nm,0.6s,baz=121,slow=8.0,SNR=8.0 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **145.19** | **344** | PKP | **PKPbc** | **19 32 55.2** | **-1.6** |
| 1.7nm,0.8s,baz=5.7,slow=3.7,SNR=5.2 | | | | | | | |

*NIED* ***09*** *19:42:00,46˚.80N×144˚.90E,h540km,Mw5.9 Best double couple: M0 8.59000×10^17 NP1:φs314.00000°, δ41.00000°,λ-5.00000°. NP2:φs47.00000°,δ87.00000°, λ-131.00000°.*
*JMA* ***09*** *19:42:52.4±0.3,46˚.76N×144˚.89E,h431km,M5.7*
*JMA Felt III J1.*
*BJI* ***09*** *19:42:54.9,46˚.98N×144˚.64E,h383km,mb5.7/74, mB5.6/54*
*MOS* ***09*** *19:42:54.8±0.9,46˚.99N×144˚.63E,h379km,mb5.7/107, Error ellipse: s-maj=5.8km s-min=4.0km az=96.0*
*SKHL* ***09*** *19:42:55.3±0.3,46˚.86N×144˚.83E,h379km±15km,mb6.2/7, mbh5.9/2,Ms5.5/1,msh6.2/9*
*ISCJB* ***09*** *19:42:55.3±0.1,46˚.98N±0˚.01×144˚.61E±0˚.01, h381km±1km,mb5.7/656,Error ellipse: s-maj=2.3km s-min=1.5km az=158.3*
*IDC* ***09*** *19:42:56.2±0.4,47˚.04N×144˚.66E,h378km±4km,mb5.2/39, mb1 5.3/48,mb1mx5.3/49,mbtmp6.0/48,Error ellipse: s-maj=6.7km s-min=5.1km az=87.0*
*NEIC* ***09*** *19:42:56.0±0.0,47˚.00N×144˚.77E,h410km,Moment Tension Solution. s14 Moment tensor: Scale 10^17Nm; Mrr0.12; Mθθ1.18; Mφφ-1.31; Mrθ-2.37; Mθφ-1.22; Mφr-2.52; Best double couple: M0 3.90000×10^17 NP1:φs231.00000°, δ86.00000°,λ113.00000°. NP2:φs330.00000°,δ23.00000°, λ9.00000°. Principal axes: T 3.2100, Plg44.0000°, Azm163.0000°; N 1.0900, Plg22.0000°, Azm49.0000°; P -4.3100, Plg37.0000°, Azm301.0000°;*
*NEIC* ***09*** *19:42:57.3±0.1,47˚.01N×144˚.55E,mb5.7/300,MW5.8, MW5.7 Error ellipse: s-maj=2.2km s-min=1.4km az=152.0, Moment Tensor Solution. s44 Moment tensor: Scale 10^17Nm; Mrr0.81; Mθθ1.19; Mφφ-2.00; Mrθ-3.23; Mθφ-1.01; Mφr-3.95; Best double couple: M0 5.50000×10^17 NP1: φs221.00000°,δ84.00000°,λ105.00000°. NP2: φs334.00000°,δ16.00000°,λ23.00000°. Principal axes: T 4.9800, Plg49.0000°, Azm148.0000°; N 0.9000, Plg15.0000°, Azm40.0000°; P -5.8800, Plg37.0000°, Azm298.0000°;*
*NEIC Felt at Misawa, Japan. Recorded [3 JMA] in Aomori.*
*GCMT* ***09*** *19:42:57.3±0.1,46˚.93N×144˚.60E,h390km,MW5.8/123, Moment Tensor Solution. s123,c242; s71,c76; Duration: 1s8 Moment tensor: Scale 10^17Nm; Mrr0.69±.04; Mθθ2.34±.07; Mφφ-3.03±.07; Mrθ-2.90±.06; Mθφ-2.19±.06; Mφr-3.32±.05; Best double couple: M0 5.42700×10^17 NP1:φs234.00000°,δ86.00000°, λ126.00000°. NP2:φs331.00000°,δ36.00000°,λ8.00000°. Principal axes: T 4.5430, Plg39.0000°, Azm176.0000°; N 1.7680, Plg35.0000°, Azm51.0000°; P -6.3110, Plg31.0000°, Azm296.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to mantle waves, cutoff=125s.*

**ISC 09 19:42:56.5±0.2, 46˚.95N±0˚.02×144˚.68E±0˚.02, h383km±1km, h383km:pP-P, n2282, σ1s27/2685, mb5.8/692, 125C-100D, Sea of Okhotsk**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **YSS** | **Yuzh-Sakhalins** | **1.32** | **271** | *ce*PN | **Pn** | **19 43 47.9** | **+0.8** |
| YSS | | | | *e*S | **S** | **19 44 28.1** | **+0.2** |
| YSS | | | | pmax | pmax | | |
| comp=Z,35μm,3.0s | | | | | | | |
| YSS | | | | pmax | pmax | | |
| comp=Z,13μm,1.0s | | | | | | | |
| YSS | | | | smax | smax | | |
| comp=E,65μm,3.0s | | | | | | | |
| YSS | | | | smax | smax | | |
| comp=E,18μm,1.1s | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **1.32** | **271** | *e*P | **Pn** | **19 43 47.8** | **+0.8** |
| YSS | | | | AMB | AMB | 19 43 50.6 | |
| comp=E,35μm,3.0s | | | | | | | |
| YSS | | | | AMB | AMB | 19 43 50.7 | |
| comp=E,13μm,1.0s | | | | | | | |
| YSS | | | | *e*S | **S** | **19 44 28.6** | **+0.7** |
| YSS | | | | A | A | 19 44 30.9 | |
| comp=E,65μm,3.0s | | | | | | | |
| YSS | | | | A | A | 19 44 31.0 | |
| comp=E,18μm,1.0s | | | | | | | |
| YSS | | | | AMS | AMS | 19 45 42.1 | |
| comp=E,7μm,10.0s | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **1.32** | **271** | *e*Pn | **Pn** | **19 43 47.8** | **+0.8** |
| YSS | | | | *e*S | **S** | **19 44 24.5** | **-3.4** |
| **JSE** | **Soyaes** | **2.47** | **217** | ⇓P | **Pn** | **19 43 53.8** | **-0.4** |
| JSE | | | | *e*S | **S** | **19 44 41.2** | **+0.5** |
| **JWK2** | **Keihoku** | **2.53** | **231** | ⇑P | **Pn** | **19 43 55.2** | **+0.6** |
| JWK2 | | | | *e*S | **S** | **19 44 42.9** | **+1.3** |
| **UGL** | **Uglegorsk** | **2.76** | **321** | *e*P | **Pn** | **19 43 57.7** | **+1.4** |
| UGL | | | | AMB | AMB | 19 43 58.5 | |
| comp=E,65nm,0.3s | | | | | | | |
| UGL | | | | AMB | AMB | 19 43 59.2 | |
| comp=E,5μm,0.9s | | | | | | | |
| UGL | | | | *i* S | **S** | **19 44 46.0** | **+1.3** |
| UGL | | | | A | A | 19 44 47.1 | |

comp=E,8µm,1.0s
UGL A A 19 44 47.1
comp=E,4µm,1.0s
UGL A A 19 44 48.2
comp=E,2µm,0.8s
UGL A A 19 44 48.2
comp=E,2µm,0.8s
KUR Kuril'sk 2.80 127 d iPN Pn 19 43 55.5 -1.3
KUR iS S 19 44 44.8 -0.6
KUR pmax pmax
comp=Z,3µm,1.2s
KUR pmax pmax
comp=E,494nm,1.1s
KUR pmax pmax
comp=N,284nm,0.9s
KUR pmax pmax
comp=Z,35µm,4.0s
KUR smax smax
comp=E,9µm,4.7s
KUR smax smax
comp=N,47µm,4.6s
KUR smax smax
comp=E,999nm,0.6s
KUR smax smax
comp=N,669nm,0.4s
KUR Kuril'sk 2.80 127 eP Pn 19 43 55.9 -0.9
KUR AMB AMB 19 43 58.1
comp=N,3µm,1.2s
KUR AMB AMB 19 43 58.9
comp=N,35µm,4.0s
KUR iS S 19 44 44.0 -1.4
KUR A A 19 44 48.0
comp=N,9µm,5.0s
KUR A A 19 44 48.0
comp=N,47µm,5.0s
KUR A A 19 45 01.5
comp=N,999nm,0.6s
KUR A A 19 45 01.5
comp=N,669nm,0.6s
LAGR Lagunnoye 3.00 165 ⇓ iPN Pn 19 43 57.1 -1.3
LAGR iS S 19 44 47.3 -1.1
LAGR Lagunnoye 3.00 165 eP Pn 19 43 57.1 -1.3
LAGR eS S 19 44 47.3 -1.1
JRA Rausu 3.03 174 ⇓P Pn 19 43 57.2 -1.5
JRA eS S 19 44 48.8 -0.1
JTKR Abashiri--Toko 3.03 191 ⇓P Pn 19 43 57.5 -1.2
JTKR eS S 19 44 47.8 -1.1
YUK Yuzh-Kuril'sk 3.03 164 d iPN Pn 19 43 56.6 -2.1
YUK iS S 19 44 47.5 -1.4
YUK pmax pmax
comp=Z,7µm,0.7s
YUK pmax pmax
comp=N,565nm,0.3s
YUK pmax pmax
comp=E,1µm,0.3s
YUK smax smax
comp=E,56µm,1.7s
YUK smax smax
comp=N,45µm,2.0s
YUK smax smax
comp=E,11µm,0.6s
YUK smax smax
comp=N,12µm,0.7s
YUK Yuzh-Kuril'sk 3.03 164 iP Pn 19 43 57.2 -1.5
YUK AMB AMB 19 43 59.8
comp=N,7µm,0.7s
YUK iS S 19 44 47.3 -1.6
YUK A A 19 44 49.5
comp=N,45µm,2.0s
YUK A A 19 44 49.5
comp=N,56µm,2.0s
YUK A A 19 44 59.4
comp=N,1µm,0.6s
YUK A A 19 44 59.4
comp=N,1µm,0.6s
GRPR Tuman 3.05 165 ePN Pn 19 43 57.7 -1.2
GRPR eS S 19 44 47.6 -1.7
GRPR Tuman 3.05 165 eP Pn 19 43 57.7 -1.2
GRPR eS S 19 44 47.6 -1.7
ASAJ Asahikawa 3.19 208 P Pn 19 43 59.6 -0.4
comp=N,194nm,0.3s,baz=257,slow=4.3,SNR=876
ASAJ S S 19 44 51.9 +0.4
comp=N,74nm,0.3s,baz=198,slow=13,SNR=1.6
ASAJ ScP ScP 19 53 37.0 +2.3
comp=N,0.9nm,0.3s,baz=184,slow=0.4,SNR=4.6
ASAJ Asahikawa 3.19 208 ⇑P Pn 19 43 59.6 -0.4
ASAJ Asahikawa 3.19 208 ePn Pn 19 43 59.7 -0.4
ASAJ eS S 19 44 51.2 -0.3
ASAJ ScP ScP 19 53 37.0 +2.3
JSS Shosan 3.23 219 ⇑P Pn 19 44 00.4 0.0
GLVR Golovnino 3.26 169 ePN Pn 19 43 59.3 -1.4
GLVR eS S 19 44 52.1 -0.5
GLVR Golovnino 3.26 169 eP Pn 19 43 59.3 -1.4
GLVR eS S 19 44 52.1 -0.5
JKK2 Kamakawa 2 3.36 205 ⇑P Pn 19 44 00.8 -0.9
JKK2 eS S 19 44 55.4 +1.1
JYG Yagishiri 3.40 223 P Pn 19 44 01.6 -0.3
JYG eS S 19 44 55.6 +0.8
SHO Shikotan 3.43 153 d iPN Pn 19 43 57.9 -4.3
SHO iS S 19 44 49.2 -6.1
SHO pmax pmax
comp=Z,9µm,0.8s
SHO pmax pmax
comp=N,2µm,0.7s
SHO pmax pmax
comp=E,1µm,0.2s
SHO smax smax
comp=N,17µm,0.6s
SHO smax smax
comp=E,58nm,0.6s
SHO Shikotan 3.43 153 eP Pn 19 43 58.6 -3.6
SHO AMB AMB 19 44 00.7
comp=E,9µm,0.8s
SHO iS S 19 44 49.8 -5.5
SHO A A 19 44 52.6
comp=E,2µm,0.6s
NEM2 Nemuro 2 3.66 168 P Pn 19 44 00.2 -4.1
NEM2 eS S 19 44 52.7 -6.5
JAR Ashorobuto 3.71 190 ⇑P Pn 19 44 03.1 -1.7
JAR eS S 19 44 59.3 -0.7
JHR Hokuryu 3.82 214 P Pn 19 44 05.2 -0.7
JAK Akkeshi 3.95 180 P Pn 19 44 03.7 -3.4
JAK eS S 19 44 58.2 -6.0
JFR Furan 4.06 202 ⇑P Pn 19 44 07.1 -1.1
JFR eS S 19 45 06.0 -0.3
TYV Tymovskoe 4.14 342 ePN Pn 19 44 09.3 +0.6
TYV eS S 19 45 07.9 +0.6
TYV pmax pmax
comp=Z,13µm,0.6s
TYV smax smax
comp=E,4µm,1.6s
TYV Tymovskoe 4.14 342 iP Pn 19 44 09.7 +1.0
TYV AMB AMB 19 44 11.0
comp=E,1µm,0.6s
TYV eS S 19 45 07.9 +0.6
TYV A A 19 45 09.8
comp=E,26µm,2.0s
TYV A A 19 45 10.7
comp=E,3µm,0.8s
TYV A A 19 45 10.7
comp=E,2µm,0.8s
JCH Churui 4.43 193 ⇑P Pn 19 44 08.5 -3.4
JCH eS S 19 45 07.1 -5.9
JSK Shakotan 4.67 221 P Pn 19 44 13.7 -0.5
JSK eS S 19 45 19.0 +1.8
JEW Eniwo 4.71 210 ⇑P Pn 19 44 13.5 -1.2
JEW eS S 19 45 16.9 -1.1
JNBK Urakawa-nobuka 4.87 197 ⇑P Pn 19 44 13.1 -3.2
JNBK eS S 19 45 15.4 -5.7
ERM Erimo 5.05 193 ePN Pn 19 44 16.1 -2.2
ERM Erimo 5.05 193 ePn Pn 19 44 16.1 -2.2
ERM eS S 19 45 16.6 -8.0
JKB Kayabe 5.69 209 ⇑P Pn 19 44 22.3 -2.9
JKB eS S 19 45 30.9 -6.3
TEY Ternei 5.95 254 eP Pn 19 44 30.2 +2.4
TEY AMB AMB 19 44 30.7
comp=E,42nm,0.7s
TEY AMB AMB 19 44 30.7
comp=E,47nm,0.7s
TEY AMB AMB 19 44 31.1
comp=E,2µm,2.0s
TEY AMB AMB 19 44 31.1
comp=E,2µm,2.0s
TEY eS S 19 45 43.0 +0.8
TEY A A 19 45 45.0
comp=E,12µm,3.0s
TEY A A 19 45 45.0
comp=E,2µm,3.0s
JOSM Okushiri--Mats 6.12 219 P Pn 19 44 27.9 -2.0
JOSM eS S 19 45 42.5 -3.4
JOT Ohata 6.15 206 P Pn 19 44 26.4 -3.8
JOT eS S 19 45 39.2 -7.2
GRNR Gornyy 6.66 308 eP P 19 44 36.7 +0.1
GRNR AMB AMB 19 44 37.2
comp=E,590nm,1.0s
GRNR AMB AMB 19 44 37.2
comp=E,460nm,1.0s
GRNR AMB AMB 19 44 37.2
comp=E,250nm,1.0s
GRNR eS S 19 45 59.0 +2.4
HABR Khabarovsk 6.68 287 d iPN Pn 19 44 34.0 -1.9
HABR eS S 19 45 55.7 -1.3
HABR pmax pmax
comp=N,50nm,1.0s
HABR pmax pmax
comp=E,602nm,1.0s
HABR pmax pmax
comp=Z,770nm,1.0s
HABR MLR MLR
comp=Z,1µm,11.0s
OKH Okha 6.71 351 ⇑ iPN P 19 44 38.7 +1.7
OKH iS S 19 45 58.0 +0.6
OKH pmax pmax
comp=Z,4µm,7.7s
OKH smax smax
comp=N,21µm,7.0s
OKH Okha 6.71 351 eP P 19 44 38.7 +1.7
OKH AMB AMB 19 44 40.7
comp=N,4µm,8.0s
OKH iS S 19 46 01.4 +4.0
OKH A A 19 46 03.4
comp=N,18µm,7.0s
OKH A A 19 46 03.4
comp=N,21µm,7.0s
NKL Nikolayevsk 6.72 339 eP P 19 44 38.0 +0.8
NKL AMB AMB 19 44 39.0
comp=N,720nm,0.8s
NKL AMB AMB 19 44 39.0
comp=N,3µm,0.8s
NKL AMB AMB 19 44 40.0
comp=N,4µm,5.0s
NKL AMB AMB 19 44 40.0
comp=N,2µm,5.0s
NKL AMB AMB 19 44 40.0
comp=N,6µm,5.0s
NKL eS S 19 45 58.0 +0.2
NKL A A 19 46 00.0
comp=N,33µm,5.0s
NKL A A 19 46 00.0
comp=N,54µm,5.0s
NKL AMS AMS 19 46 54.0
comp=N,9µm,6.0s
NKL AMS AMS 19 46 54.0
comp=N,6µm,6.0s
JANG Nango 6.96 200 P Pn 19 44 34.8 -4.5
JANG eS S 19 45 54.4 -8.8
JOM Ohasama 7.87 200 P Pn 19 44 46.6 -3.1
JOM eS S 19 46 15.8 -6.5
JRG Rokugo 8.11 203 ⇑P Pn 19 44 49.9 -2.5
JMK Ichinoseki 8.38 199 P Pn 19 44 52.9 -2.8
JMK eS S 19 46 27.7 -5.6
SKR Severo-Kuril's 8.42 59 ePN Pn 19 44 55.9 +0.1
SKR eS S 19 46 28.4 -5.3
SKR pmax pmax
comp=Z,900nm,2.9s
SKR pmax pmax
comp=Z,1µm,0.7s
SKR pmax pmax
comp=Z,3µm,2.3s
SKR smax smax
comp=N,2µm,1.2s
SKR smax smax
comp=E,14µm,7.8s
SKR smax smax
comp=N,18µm,8.2s
SKR MLR MLR
comp=Z,3µm,13.0s
SKR MLR MLR
comp=Z,4µm,13.0s
SKR Severo-Kuril's 8.42 59 eP Pn 19 44 55.3 -0.5
SKR AMB AMB 19 44 57.7
comp=Z,1µm,0.7s
SKR AMB AMB 19 44 58.1
comp=Z,3µm,2.0s
SKR eS S 19 46 28.4 -5.3
SKR A A 19 46 36.8
comp=Z,2µm,1.0s
SKR A A 19 46 38.1
comp=Z,18µm,8.0s
SKR A A 19 46 38.1
comp=Z,14µm,8.0s
JYK Kaneyama 8.63 203 P Pn 19 44 56.2 -2.3
JYK eS S 19 46 33.8 -4.7
KLR Kul'dur 8.95 290 P P 19 45 03.4 +0.6
comp=Z,2.7nm,0.3s,baz=100,slow=12,SNR=817
KLR S S 19 46 46.6 +1.4
comp=Z,0.3nm,0.3s,baz=258,slow=18,SNR=6.0
KLR ScP ScP 19 53 40.4 +1.4
comp=Z,0.4nm,0.3s,baz=177,slow=0.0,SNR=20
USRK Ussuriysk Ar. 9.32 257 P P 19 45 06.8 -0.1
comp=Z,26nm,0.3s,baz=68,slow=9.7,SNR=276
USRK S S 19 46 51.5 -1.6
baz=64,slow=18,SNR=6.9
USRK PcP PcP 19 50 46.0 +1.4
comp=Z,0.8nm,0.3s,baz=274,slow=3.6,SNR=4.4
USRK ScP ScP 19 53 40.7 +1.2
comp=Z,1.1nm,0.3s,baz=116,slow=2.4,SNR=9.1
EKMR Ekimchan 9.72 313 eP P 19 45 12.2 +0.9
EKMR AMB AMB 19 45 15.2
comp=Z,220nm,0.6s
EKMR AMB AMB 19 45 15.2
comp=Z,150nm,0.6s
EKMR AMB AMB 19 45 15.2
comp=Z,260nm,0.6s
VLA Vladivostok 9.83 252 d iPN Pn 19 45 11.5 -1.0
JNS Sasagawa 9.95 205 P Pn 19 45 13.1 -0.8
PEA0B Petropavlovsk- 10.39 49 ePn P 19 45 18.6 -0.1
PETK Petropavlovsk- 10.39 49 P Pn 19 45 18.8 -0.1
comp=Z,11nm,0.3s,baz=225,slow=6.7,SNR=102
PETK ScP ScP 19 53 40.4 -0.3
comp=Z,1.1nm,0.3s,baz=142,slow=1.8,SNR=7.2
PETK Petropavlovsk- 10.39 49 ePn P 19 45 18.2 -0.5
PETK ScP ScP 19 53 40.4 -0.3
PEA1 Petropavlovsk- 10.39 49 ePn Pn 19 45 18.8 -0.1
PEA1 eScP ScP 19 53 40.4 -0.3
MSHR Mys Shultsa 10.56 250 ⇓ iPN Pn 19 45 21.1 +0.1
JHK Hiroka 10.56 205 P P 19 45 19.9 -0.9
JHO Hitachi 10.77 198 P P 19 45 21.1 -2.1
MDJ Mudanjiang 10.80 263 P P 19 45 23.2 -0.1
MDJ S S 19 47 18.2 -5.9
MDJ pmax pmax
comp=Z,510nm,0.8s
MDJ pmax pmax
comp=Z,3µm,5.3s
MDJ LR LR
comp=Z,3µm,9.2s
MDJ LR LR
comp=Z,3µm,6.9s
MDJ LR LR
comp=Z,3µm,6.9s
MDJ Mudanjiang 10.80 263 eP P 19 45 22.8 -0.6
MDJ eScP ScP 19 53 42.5 +1.1
PET Petropavlovsk 10.85 51 ePN P 19 45 22.1 -1.6
PET eS S 19 47 19.7 -5.2
PET pmax pmax
comp=Z,2µm,4.0s
PET pmax pmax
comp=Z,1µm,9.1s
PET pmax pmax
comp=Z,308nm,1.1s
PET smax smax
comp=N,693nm,0.8s
PET smax smax
comp=E,839nm,0.9s
PET MLR MLR
comp=Z,2µm,13.0s
PET MLR MLR
comp=Z,3µm,12.0s
PET Petropavlovsk 10.85 51 eP Pn 19 45 24.3 +0.2
PET AMB AMB 19 45 24.8
comp=Z,2µm,4.0s
PET AMB AMB 19 45 27.1
comp=Z,310nm,1.0s
PET eS S 19 47 19.7 -5.2
PET A A 19 47 22.1
comp=Z,4µm,5.0s
PET A A 19 47 22.1
comp=Z,2µm,5.0s
PET A A 19 47 32.1
comp=Z,690nm,0.8s
PET A A 19 47 32.1
comp=Z,840nm,0.8s
PET AMS AMS 19 48 48.1
comp=Z,4µm,15.0s
PET Petropavlovsk 10.85 51 eP Pn 19 45 24.6 +0.5
JJN Nakama 10.96 209 P P 19 45 25.1 -0.2
JAG Ashikaga 11.21 202 P P 19 45 27.2 -0.9
MJB9 Matsu-Tunnel 11.46 207 eP P 19 45 30.4 -0.4
MAJO Matsushiro 11.46 207 c iPN P 19 45 30.2 -0.6
MAJO Matsushiro 11.46 207 eP P 19 45 30.3 -0.6
MAT Matsushiro 11.46 207 P P 19 45 30.2 -0.6
MAT S S 19 47 37.5 -0.7
MAT Matsushiro 11.46 207 P P 19 45 30.2 -0.6
MJAR Matsushiro Arr 11.46 207 P P 19 45 30.4 -0.4
comp=Z,78nm,0.3s,baz=12,slow=12,SNR=454
MJAR ScP ScP 19 53 42.9 +0.5
comp=Z,1.2nm,0.3s,baz=124,slow=0.9,SNR=14
JNG Nsakai 11.62 207 P P 19 45 32.3 -0.3
JRY Ryogami san 11.74 204 P P 19 45 33.3 -0.7
JGN Niukaw 12.04 210 P P 19 45 37.4 +0.1
JYN Shimob 12.33 204 P P 19 45 39.9 -0.6
BMKR Bomnak 12.65 314 eP Pn 19 45 44.5 -0.7
BMKR AMB AMB 19 45 46.8
comp=Z,280nm,0.6s
JAO Obara 12.93 208 P P 19 45 47.2 +0.1
INU Inuyama 12.94 209 eP P 19 45 46.9 -0.2
ZEA Zeya 13.02 308 eP P 19 45 48.4 +0.6
ZEA AMB AMB 19 45 52.8
comp=Z,620nm,1.0s
ZEA AMB AMB 19 45 52.8
comp=Z,850nm,1.0s
ZEA AMB AMB 19 45 52.8
comp=Z,2µm,1.0s
ZEA AMB AMB 19 45 57.0
comp=Z,3µm,9.0s
ZEA AMB AMB 19 45 57.0
comp=Z,5µm,9.0s
ZEA eS S 19 48 08.0 -1.6
ZEA A A 19 48 17.0
comp=Z,4µm,8.0s
ZEA A A 19 48 17.0
comp=Z,2µm,8.0s
ZEA AMS AMS 19 52 42.1
comp=Z,2µm,10.0s
MA2 Magadan 13.16 14 P Pn 19 45 51.0 +0.1
comp=Z,37nm,0.3s,baz=196,slow=9.1,SNR=166
KROS Kirovskiy 13.47 310 eP P 19 45 53.2 +0.5
KROS AMB AMB 19 45 59.2
comp=Z,70nm,0.5s
KROS AMB AMB 19 45 59.2
comp=Z,140nm,0.5s
KROS AMB AMB 19 45 59.2
comp=Z,110nm,0.5s
TSUJ Tsu 2 13.72 210 P P 19 45 55.8 +0.2
CN2 Changchun 13.88 264 eP P 19 45 56.9 -0.4
CN2 eS S 19 48 23.0 -4.0
CN2 ScP ScP 19 53 46.4 +0.3
CN2 ScS ScS 19 57 22.9 -0.4
CN2 pmax pmax
comp=Z,1µm,0.6s
CN2 LR LR
comp=Z,3µm,6.0s
CN2 LR LR
comp=Z,2µm,6.0s
CN2 LR LR
comp=Z,900nm,7.0s
JHJ Hachijo jima 2 14.31 197 P Pn 19 46 03.7 -0.7
comp=Z,127nm,0.3s,baz=263,slow=1.4,SNR=27
JHJ2 Mitsune 14.31 197 eP P 19 46 02.8 +0.7
KSRS Korea Array 15.60 239 P P 19 46 16.9 +0.8
comp=Z,12nm,0.3s,baz=43,slow=9.7,SNR=281
KSRS PcP PcP 19 50 53.4 +1.1
comp=Z,0.5nm,0.3s,baz=26,slow=1.0,SNR=8.4
KSRS ScP ScP 19 53 50.6 +1.3
comp=Z,2.0nm,0.3s,baz=25,slow=1.0,SNR=32
KS01 Wonju Array Si 15.60 239 eP P 19 46 16.2 +0.1
KS15 Wonju Array Si 15.63 239 eP P 19 46 16.4 +0.1
KS15 ePcP PcP 19 50 54.0 +1.7
KS15 eScP ScP 19 53 50.7 +1.3
KSAR Wonju Array Be 15.63 239 P P 19 46 16.9 +0.5
KSAR Wonju Array Be 15.63 239 eP P 19 46 16.9 +0.5
KSAR Wonju Array Be 15.63 239 P P 19 46 16.9 +0.5
KSAR PcP PcP 19 50 53.4 +1.0
KSAR ScP ScP 19 53 50.6 +1.2
CLNS Chul'man 15.66 316 eP P 19 46 17.6 +1.1
CLNS eS S 19 49 03.6 +1.4
CLNS pmax pmax
comp=Z,883nm,1.1s
CLNS pmax pmax
comp=E,480nm,1.0s
CLNS pmax pmax
comp=N,561nm,1.2s
CLNS smax smax
comp=E,406nm,1.3s
CLNS smax smax
comp=N,314nm,1.3s
CLNS Chul'man 15.66 316 eP P 19 46 17.6 +1.1
SNY Shenyang 15.92 259 ⇓P P 19 46 19.2 -0.2
SNY sP sP 19 47 52.2 -9.2
SNY S S 19 49 06.0 -1.4
SNY pmax pmax
comp=N,81nm,1.5s
SNY pmax pmax
comp=N,3µm,5.3s
INCN Inchon 16.34 241 eP P 19 46 24.1 0.0
comp=N,772nm,0.8s
INCN Inchon 16.34 241 P P 19 46 24.9 +0.8
SNR=14
INCN Inchon 16.34 241 P P 19 46 24.9 +0.8
SNR=14
SEY Seymchan 16.60 12 P P 19 46 27.5 +1.1
comp=N,80nm,0.3s,baz=190,slow=7.3,SNR=796
SEY Seymchan 16.60 12 d iP P 19 46 26.2 -0.2
SEY Seymchan 16.60 12 eP P 19 46 26.2 -0.2
TJN Taejon 16.67 237 iP P 19 46 28.7 +1.2
HIA Hailar 16.80 287 d iP P 19 46 27.2 -1.6
HIA Hailar 16.80 287 eP P 19 46 27.2 -1.6
HIA Hailar 16.80 287 eP P 19 46 27.3 -1.5
comp=N,869nm,1.0s
JNU Nakatsue 17.35 222 P P 19 46 34.9 -0.1
comp=N,15nm,0.3s,baz=43,slow=7.3,SNR=170
JNU ScP ScP 19 53 53.6 +0.7
comp=N,0.5nm,0.3s,baz=74,slow=16,SNR=4.4
JNU Nakatsue 17.35 222 eP P 19 46 34.8 -0.1
comp=N,771nm,0.9s
JNU ScP ScP 19 53 53.6 +0.7
YAK Yakutsk 17.37 336 P P 19 46 33.4 -1.2
comp=N,0.0nm,0.3s,baz=271,slow=6.8,SNR=2.2
YAK Yakutsk 17.37 336 eP P 19 46 33.4 -1.2
YAK eS S 19 49 33.3 -2.1
YAK pmax pmax
comp=Z,972nm,0.9s
YAK pmax pmax
comp=N,201nm,1.4s
YAK pmax pmax
comp=E,185nm,1.4s
YAK smax smax
comp=N,4µm,2.1s
YAK smax smax
comp=E,2µm,1.6s
YAK Yakutsk 17.37 336 eP P 19 46 32.7 -2.0
comp=E,1µm,0.6s
DL2 Dalian 18.65 253 P P 19 46 48.4 -0.2
DL2 S S 19 49 55.3 -4.9
DL2 ScP ScP 19 53 56.6 +1.0
DL2 ScS ScS 19 57 34.4 -2.7
DL2 pmax pmax
comp=E,1µm,1.1s
DL2 pmax pmax
comp=E,2µm,6.6s
SMY Shemya 19.75 62 eP P 19 46 58.9 -0.5
SMY pmax pmax
comp=Z,1µm,0.9s
SMY Shemya 19.75 62 eP P 19 46 58.9 -0.5
comp=Z,1µm,0.9s
CBIJ Chichi jima 19.91 187 eP P 19 46 59.8 -1.4

comp=Z,622nm,1.0s
**CIT Chita 20.75 296** *e*P **P 19 47 09.4 +0.6**
CIT *e*S **S 19 50 40.6 +5.9**
CIT pmax pmax
comp=Z,3μm,1.4s
**BOD Bodaibo 21.46 312** *e*P **P 19 47 13.7 -1.3**
BOD pmax pmax
comp=Z,527nm,0.8s
**BJI Beijing 21.72 262** P **P 19 47 17.8 +0.2**
BJI S **S 19 50 51.2 +0.8**
BJI ScS **ScS 19 57 45.6 -2.1**
BJI LR LR
comp=Z,3μm,10.9s
BJI LR LR
comp=Z,1μm,11.6s
BJI LR LR
comp=Z,2μm,22.9s
**BJT Baijiatuau 21.74 262** *e*P **P 19 47 17.7 -0.1**
BJT pmax pmax
comp=Z,2μm,1.7s
**BJT Baijiatuau 21.74 262** *e*P **P 19 47 17.7 -0.1**
comp=Z,2μm,1.7s
BJT *e*ScP **ScP 19 54 03.7 +0.8**
**TIA Tai'an 23.12 252** ⇑P **P 19 47 30.9 +0.5**
TIA S **S 19 51 13.0 +0.2**
TIA pmax pmax
comp=Z,2μm,5.8s
TIA LR LR
comp=Z,2μm,6.7s
TIA LR LR
comp=Z,2μm,9.6s
TIA LR LR
comp=Z,1μm,14.2s
**JOW Kunigami 23.89 219** *e*P **P 19 47 37.0 -0.4**
comp=Z,333nm,1.1s
**SSE Sheshan 24.03 237** P **P 19 47 37.3 -1.2**
SSE PP PP 19 48 46.3 +3.6
SSE S **S 19 51 27.6 +0.5**
SSE pmax pmax
comp=Z,320nm,4.6s
SSE LR LR
comp=Z,2μm,9.4s
SSE LR LR
comp=Z,1μm,9.4s
SSE LR LR
comp=Z,1μm,7.2s
**HHC Hu-ho-hao-te 24.51 268** *e*P **P 19 47 44.2 +1.3**
HHC sP sP 19 49 35.0 -0.8
HHC S **S 19 51 34.5 -0.2**
HHC pmax pmax
comp=Z,850nm,0.8s
HHC pmax pmax
comp=Z,4μm,4.1s
**NJ2 Nanjing 24.72 242** *e*P **P 19 47 45.1 +0.4**
NJ2 S **S 19 51 36.3 -1.7**
NJ2 ScP **ScP 19 54 12.3 +1.2**
NJ2 ScS **ScS 19 57 58.7 -1.1**
NJ2 pmax pmax
comp=Z,220nm,0.9s
NJ2 pmax pmax
comp=Z,700nm,3.5s
NJ2 LR LR
comp=Z,2μm,12.6s
NJ2 LR LR
comp=Z,1μm,9.0s
NJ2 LR LR
comp=Z,1μm,12.8s
**ULN Ulaanbaatar 25.32 286** *d i*P **P 19 47 49.3 -0.8**
ULN pmax pmax
comp=Z,896nm,1.2s
**ULN Ulaanbaatar 25.32 286** *e*P **P 19 47 49.3 -0.8**
**ULN Ulaanbaatar 25.32 286** *e*P **P 19 47 49.5 -0.6**
comp=Z,2μm,1.4s
**ULN Ulaanbaatar 25.32 286** P **P 19 47 49.9 -0.3**
SNR=362
**ULN Ulaanbaatar 25.32 286** P **P 19 47 49.9 -0.3**
SNR=362
**ADK Adak 25.40 64** *e*P **P 19 47 50.9 +0.4**
ADK pmax pmax
comp=Z,499nm,0.9s
**ADK Adak 25.40 64** *e*P **P 19 47 50.9 +0.4**
comp=Z,499nm,0.9s
**TIY Taiyuan 25.41 260** *e*P **P 19 47 53.2 +2.3**
TIY sP **sP 19 49 43.9 -1.0**
TIY S **S 19 51 50.7 +1.8**
TIY PcS **PcS 19 54 50.6 -1.5**
TIY pmax pmax
comp=Z,310nm,0.7s
TIY LR LR
comp=Z,2μm,7.6s
TIY LR LR
comp=Z,1μm,4.9s
TIY LR LR
comp=Z,630nm,7.5s
**BTO Baotou 25.67 268** *e*P **P 19 47 52.5 -0.7**
**SONA1 Songino Array 25.75 286** *e*P **P 19 47 53.6 -0.3**
**SONA0 Songino Array 25.76 286** *e*P **P 19 47 54.4 +0.4**
SONA0 *e*ScP **ScP 19 54 14.4 +0.3**
**SONM Songino Array 25.76 286** P **P 19 47 54.4 +0.4**
comp=Z,330nm,0.9s,baz=77,slow=7.5,SNR=146
SONM ScP **ScP 19 54 14.4 +0.3**
comp=Z,101nm,1.1s,baz=117,slow=2.3,SNR=22
**TIXI Tiksi 25.88 349** P **P 19 47 52.8 -1.7**
comp=Z,48nm,0.7s,baz=143,slow=7.4,SNR=129
**TIXI Tiksi 25.88 349** *d i*P **P 19 47 52.9 -1.7**
TIXI pmax pmax
comp=Z,45nm,0.8s
**TIXI Tiksi 25.88 349** *e*P **P 19 47 52.8 -1.7**
comp=Z,58nm,0.9s
**IRK Irkutsk 26.46 297** *e*P **P 19 47 58.1 -1.9**
IRK pmax pmax
comp=Z,564nm,2.4s
**TLY Talaya 26.90 295** P **P 19 48 04.6 +0.6**
comp=Z,92nm,0.6s,baz=85,slow=5.4,SNR=82
**TLY Talaya 26.90 295** *d i*P **P 19 48 03.4 -0.5**
TLY pmax pmax
comp=Z,293nm,1.0s
**TLY Talaya 26.90 295** *e*P **P 19 48 03.4 -0.5**
**TLY Talaya 26.90 295** *e*P **P 19 48 03.0 -1.0**
comp=Z,219nm,0.9s
**TLY Talaya 26.90 295** P **P 19 48 04.0 +0.1**
SNR=60
**TLY Talaya 26.90 295** P **P 19 48 04.0 +0.1**
SNR=60
**ZAK Zakamensk 27.30 293** *e*P **P 19 48 08.4 +0.8**
ZAK *e* 19 49 20.4
ZAK pmax pmax
comp=Z,222nm,1.4s
**WHN Wuhan 28.54 246** ⇓P **P 19 48 18.5 0.0**
WHN S **S 19 52 36.8 -1.1**
WHN LR LR
comp=Z,4μm,10.4s
WHN LR LR
comp=Z,2μm,10.6s
WHN LR LR
comp=Z,2μm,21.1s
**MOY Mondy 28.54 296** *e*P **P 19 48 18.1 -0.4**
MOY pmax pmax
comp=Z,300nm,1.8s
**TATO Taipei 28.67 228** *e*P **P 19 48 20.1 +0.4**
comp=Z,200nm,1.0s
**YHNB Yeheng 28.98 228** *e*P **P 19 48 22.3 -0.3**
comp=Z,74nm,0.8s
**SPIA Saint Paul Isl 29.02 53** *e*P **P 19 48 22.1 -0.4**
comp=Z,385nm,1.2s
**GAMB Gambell 29.20 39** *e*P **P 19 48 23.7 -0.2**
comp=Z,48nm,1.1s
**NACB Ninganchiao 29.28 227** *e*P **P 19 48 22.9 -2.2**
comp=Z,65nm,0.8s
**XAN Xi'an 29.83 257** P **P 19 48 30.7 +0.8**
XAN pP pP 19 49 39.6 -0.7
XAN PP **PnPn 19 49 48.9 +1.1**
XAN sP sP 19 50 25.1 +0.3
XAN PcP **PcP 19 51 23.5 +1.4**
XAN S **S 19 52 56.7 -1.4**
XAN SS **SS 19 55 18.6 -6.6**
XAN pmax pmax
comp=Z,220nm,1.4s
XAN pmax pmax
comp=Z,980nm,8.4s
XAN LR LR
comp=Z,440nm,11.3s
XAN LR LR
comp=Z,780nm,13.8s
XAN LR LR
comp=Z,1μm,13.6s

**SSLB Suanglung 29.92 228** *e*P **P 19 48 29.5 -1.3**
comp=Z,121nm,1.1s
**YULB Yu-li 30.08 227** *e*P **P 19 48 31.5 -0.7**
comp=Z,67nm,0.9s
**SARN Sarigan 30.18 178** *e*P P 19 48 22.2 -11
**TPUB Ta-pu 30.49 228** *e*P **P 19 48 34.8 -1.0**
comp=Z,186nm,0.8s
**TWG Pinlang 30.67 226** *e*P **P 19 48 36.5 -0.8**
comp=Z,898nm,0.9s
**AKUT Akutan 31.73 58** *e*P **P 19 48 45.2 -0.9**
comp=Z,151nm,1.0s
**ENH Enshi 31.82 251** *e*P **P 19 48 47.1 -0.1**
comp=Z,292nm,1.4s
**LZH Lanzhou 32.11 265** *e*P **P 19 48 50.7 +0.9**
LZH pP pP 19 50 00.4 -0.4
LZH PP **PP 19 50 13.4 +1.3**
LZH sP sP 19 50 43.7 -1.5
LZH PcP **PcP 19 51 31.9 +3.5**
LZH ScP **ScP 19 54 36.7 +2.1**
LZH sS sS 19 55 43.7 0.0
LZH SS **SS 19 56 07.1 -4.3**
LZH ScS **ScS 19 58 35.8 +1.3**
LZH pmax pmax
comp=Z,840nm,1.4s
LZH pmax pmax
comp=Z,2μm,4.9s
**WAKE Wake Island 32.94 139** *e*P **P 19 48 55.3 -1.5**
comp=Z,349nm,1.4s
**HVS Khovu-Aksy 33.13 296** *c i*P **P 19 48 59.1 +0.8**
HVS pmax pmax
comp=Z,326nm,1.0s
**GTA Gaotai 33.20 273** ⇓P **P 19 48 59.3 +0.2**
GTA pP pP 19 50 12.1 +1.7
GTA PP **PnPn 19 50 27.3 -0.3**
GTA sP sP 19 50 54.4 -0.3
GTA PcP **PcP 19 51 33.4 +2.1**
GTA S **S 19 53 50.9 +0.8**
GTA ScP **ScP 19 54 39.9 +1.6**
GTA sS sS 19 56 01.2 +0.6
GTA SS **SS 19 56 31.0 -2.0**
GTA ScS **ScS 19 58 41.4 +1.4**
GTA pmax pmax
comp=Z,70nm,1.4s
GTA pmax pmax
comp=Z,2μm,5.6s
GTA LR LR
comp=Z,1μm,13.3s
GTA LR LR
comp=Z,1μm,13.8s
GTA LR LR
comp=Z,1μm,13.3s
**GUMO Guam 33.25 180** P **P 19 49 00.7 +1.2**
comp=Z,152nm,1.0s,baz=4.8,slow=13,SNR=4.2
**GUMO Guam 33.25 180** *e*P **P 19 48 57.1 -2.5**
comp=Z,607nm,1.5s
**SDPT Sand Point 34.59 55** *e*P **P 19 49 08.0 -2.5**
comp=Z,121nm,0.7s
SDPT *e*PcP **PcP 19 51 34.9 0.0**
**GZH Guangzhou 34.63 237** P **P 19 49 06.6 -4.6**
**APYP Conner 34.84 222** *e*P **P 19 49 12.2 -0.9**
**MIDW Midway 34.98 109** *e*P **P 19 49 13.3 -0.8**
comp=Z,58nm,0.8s
**CD2 Chengdu 35.19 258** ⇓ *i*P **P 19 49 15.8 -0.2**
CD2 PP **PP 19 50 47.3 +1.6**
CD2 sP sP 19 51 15.7 +3.6
CD2 S **S 19 54 19.8 -0.6**
CD2 SS **SS 19 57 07.7 -5.3**
CD2 ScS **ScS 19 58 50.1 -0.7**
CD2 pmax pmax
comp=Z,790nm,1.0s
CD2 pmax pmax
comp=Z,1μm,4.8s
**ABRA Dolores 35.27 222** *e*P **P 19 49 16.4 -0.3**
**CAUP Cauayan 35.39 220** *e*P **P 19 49 19.2 +1.6**
**CHGN Chignik 35.58 53** *e*P **P 19 49 18.1 -0.8**
comp=Z,66nm,0.8s
**TTA Tatalina 36.12 42** *e*P **P 19 49 22.7 -0.8**
TTA pmax pmax
comp=Z,184nm,1.1s
**TTA Tatalina 36.12 42** *e*P **P 19 49 22.7 -0.8**
comp=Z,184nm,1.1s
**GYA Guiyang 36.23 249** ⇓ *i*P **P 19 49 24.2 -0.6**
GYA pP pP 19 50 38.0 +0.8
GYA PP **PnPn 19 51 00.2 -2.4**
GYA PcP **PcP 19 51 42.4 +2.0**
GYA S **S 19 54 35.2 -1.2**
GYA ScP **ScP 19 54 51.8 +2.4**
GYA PcS **PcS 19 55 29.4 +0.5**
GYA SS **SS 19 57 29.6 -4.3**
GYA ScS **ScS 19 58 58.3 +1.5**
GYA pmax pmax
comp=Z,290nm,0.8s
GYA pmax pmax
comp=Z,450nm,7.8s
GYA LR LR
comp=Z,2μm,11.9s
GYA LR LR
comp=Z,1μm,10.4s
GYA LR LR
comp=Z,490nm,10.6s
**SVW2 Sparrevohn 36.44 45** *e*P **P 19 49 25.9 -0.1**
comp=Z,209nm,0.9s
**IMAR Indian Mountai 37.05 37** *e*P **P 19 49 30.0 -1.0**
IMAR *e*PcP **PcP 19 51 40.5 -1.6**
IMAR *e*S **S 19 54 52.2 +4.7**
**SCZP Santa Cruz 37.27 222** *e*P **P 19 49 32.5 -1.0**
**DGZ Jazzator, Alta 37.38 296** *i* P **P 19 49 34.8 +0.6**
DGZ pmax pmax
comp=Z,51nm,0.9s
**ZAA1 Zalesovo Array 37.73 303** *e*P **P 19 49 36.4 -0.4**
ZAA1 *e*PcP **PcP 19 51 45.0 +0.6**
ZAA1 *e*ScP **ScP 19 54 55.2 +0.8**
ZAA1 *e*ScS **ScS 19 59 05.8 +1.6**
ZAA1 *e*SKKSdf P3KPbc 20 19 46.0
**ZAA0 Zalesovo Array 37.73 303** *e*P **P 19 49 35.8 -1.0**
comp=Z,158nm,1.1s
**ZALV Zalesovo Beam 37.73 303** P **P 19 49 36.4 -0.5**
comp=Z,42nm,0.5s,baz=55,slow=6.9,SNR=234
ZALV PcP **PcP 19 51 45.0 +0.6**
comp=Z,116nm,0.8s,baz=71,slow=2.2,SNR=22
ZALV ScP **ScP 19 54 55.2 +0.8**
comp=Z,77nm,0.9s,baz=64,slow=3.4,SNR=22
ZALV ScS **ScS 19 59 05.8 +1.6**
comp=Z,4.8nm,1.0s,baz=156,slow=11,SNR=3.5
ZALV P3KPbc 20 19 46.0
comp=Z,0.8nm,0.6s,baz=278,slow=5.7,SNR=4.6
**ZALV Zalesovo Beam 37.73 303** *e*P **P 19 49 35.1 -1.8**
ZALV PcP **PcP 19 51 45.0 +0.6**
ZALV ScP **ScP 19 54 55.2 +0.8**
ZALV ScS **ScS 19 59 05.8 +1.6**
ZALV *e* 20 19 46.0
**CAST Castle Rocks 37.87 41** *e*P **P 19 49 37.7 -0.2**
comp=Z,369nm,0.8s
**PPLA Purkeypile 37.87 42** *e*P **P 19 49 37.6 -0.5**
comp=Z,279nm,1.0s
**RSO Redoubt South 37.89 46** *e*P **P 19 49 38.8 +0.5**
**SPU Mount Spurr 38.13 44** *e*P **P 19 49 40.2 +0.1**
**OHAK Old Harbor 38.18 51** *e*P **P 19 49 39.8 -0.7**
comp=Z,289nm,0.9s
**CNP Catarman 38.24 213** *e*P **P 19 49 42.8 +1.4**
**AUQP San Andres 38.27 216** *e*P **P 19 49 43.0 +1.3**
**TGY Tagaytay City 38.30 219** P **P 19 49 43.5 +1.5**
comp=Z,1μm,0.9s,baz=226,slow=1.3,SNR=33
TGY ScP **ScP 19 55 00.1 +2.9**
comp=Z,124nm,0.3s,baz=252,slow=3.7,SNR=6.9
**BPAW Bear Paw Mtn. 38.30 40** *e*P **P 19 49 41.0 -0.5**
comp=Z,188nm,0.9s
**MLY Manley 38.34 38** *e*P **P 19 49 41.3 -0.4**
comp=Z,234nm,1.0s
**KTH Kantishna Hill 38.38 41** *e*P **P 19 49 42.0 -0.2**
comp=Z,545nm,0.9s
**NVS Novosibirsk 38.41 305** *e*P **P 19 49 42.4 0.0**
NVS *e* 19 51 20.6
NVS *e*PPP PPP 19 51 46.8
NVS *e* 19 59 07.7
NVS pmax pmax
comp=E,179nm,1.2s
NVS pmax pmax
comp=Z,254nm,1.2s
NVS pmax pmax
comp=N,103nm,1.2s
NVS pmax pmax
comp=N,71nm,1.7s
NVS pmax pmax
comp=E,151nm,1.7s

NVS pmax pmax
comp=Z,178nm,1.7s
**NVS Novosibirsk 38.41 305** *e*P **P 19 49 42.4 0.0**
**KDAK Kodiak Island 38.44 50** *e*P **P 19 49 42.0 -0.6**
KDAK pmax pmax
comp=Z,220nm,0.9s
**KDAK Kodiak Island 38.44 50** *e*P **P 19 49 41.8 -0.7**
comp=Z,216nm,0.8s
KDAK *e*PcP **PcP 19 51 47.3 +0.8**
**COLD Coldfoot 38.45 35** *e*P **P 19 49 41.5 -1.1**
comp=Z,460nm,0.9s
**BOAC Boac 38.49 217** *e*P **P 19 49 44.4 +0.9**
**HOM Homer 38.57 47** *e*P **P 19 49 43.1 -0.5**
comp=Z,314nm,1.0s
**TRF Thorofare Moun 38.67 41** *e*P **P 19 49 43.9 -0.8**
comp=Z,107nm,0.9s
**SUA Susitna One 38.72 44** *e*P **P 19 49 44.3 -0.7**
comp=Z,143nm,0.6s
**CNPM China Poot 38.80 47** *e*P **P 19 49 45.4 -0.2**
comp=Z,381nm,0.8s
**BRLK Bradley Lake 38.93 47** *e*P **P 19 49 46.1 -0.5**
comp=Z,260nm,0.7s
**MCK McKinley 39.24 40** *e*P **P 19 49 48.4 -0.7**
MCK pmax pmax
comp=Z,256nm,0.9s
**MCK McKinley 39.24 40** *e*P **P 19 49 48.4 -0.7**
**MCK McKinley 39.24 40** *e*P **P 19 49 48.4 -0.7**
comp=Z,256nm,0.9s
**RC01 Rabbit Creek A 39.26 44** *e*P **P 19 49 48.8 -0.5**
comp=Z,253nm,0.9s
**RND Reindeer 39.32 41** *e*P **P 19 49 48.6 -1.2**
RND pmax pmax
comp=Z,248nm,0.9s
**RND Reindeer 39.32 41** *e*P **P 19 49 48.6 -1.2**
comp=Z,248nm,0.9s
**WMQ Urumqi 39.40 287** P **P 19 49 51.4 +0.7**
WMQ sP sP 19 51 42.6 -5.5
WMQ ScP **ScP 19 55 02.1 +1.0**
WMQ S **S 19 55 22.4 -0.7**
WMQ ScS **ScS 19 59 15.7 +1.1**
WMQ pmax pmax
comp=Z,440nm,0.9s
WMQ pmax pmax
comp=Z,4μm,4.5s
WMQ LR LR
comp=Z,3μm,10.9s
WMQ LR LR
comp=Z,3μm,12.5s
WMQ LR LR
comp=Z,3μm,16.3s
**OTRP Odiongan 39.40 216** *e*P **P 19 49 52.7 +1.7**
**MDM Murphy Dome 39.40 38** *e*P **P 19 49 49.7 -0.7**
comp=Z,385nm,0.9s
**PMR Palmer 39.46 44** *e*P **P 19 49 49.9 -1.0**
PMR pmax pmax
comp=Z,140nm,0.9s
**PMR Palmer 39.46 44** *e*P **P 19 49 49.7 -1.2**
comp=Z,143nm,0.9s
**COLA College 39.57 38** *e*P **P 19 49 51.9 +0.2**
COLA pmax pmax
comp=Z,660nm,0.8s
**COLA College 39.57 38** *e*P **P 19 49 50.8 -0.9**
**COLA College 39.57 38** *e*P **P 19 49 51.3 -0.4**
comp=Z,660nm,0.8s
**SEW Seward 39.58 46** *e*P **P 19 49 51.0 -0.9**
comp=Z,440nm,0.8s
**OCLP Ormoc 39.61 212** *e*P **P 19 49 53.3 +0.7**
**CCB Clear Creek Bu 39.62 39** *e*P **P 19 49 51.2 -0.9**
comp=Z,591nm,1.8s
**SJMP San Jose 39.69 218** *e*P **P 19 49 53.6 +0.3**
**KMI Kunming 39.69 252** P **P 19 49 54.1 +0.6**
KMI pP pP 19 51 05.8 -1.4
KMI PP **PP 19 51 32.3 -2.1**
KMI ScP **ScP 19 55 05.3 +2.5**
KMI S **S 19 55 27.1 -1.0**
KMI sS sS 19 57 38.6 -3.1
KMI ScS **ScS 19 59 18.6 +1.4**
KMI pmax pmax
comp=Z,380nm,0.9s
KMI pmax pmax
comp=Z,1μm,5.8s
KMI LR LR
comp=Z,820nm,14.1s
KMI LR LR
comp=Z,610nm,10.9s
KMI LR LR
comp=Z,440nm,18.6s
**SML Sawmill 39.80 43** *e*P **P 19 49 53.1 -0.7**
SML pmax pmax
comp=Z,480nm,0.9s
**SML Sawmill 39.80 43** *e*P **P 19 49 53.0 -0.7**
comp=Z,483nm,0.9s
**QIZ Qiongzhong 39.82 238** P **P 19 49 54.8 +0.4**
QIZ sP **PcP 19 51 49.9 -1.7**
QIZ S **S 19 55 31.2 +1.5**
QIZ ScS **ScS 19 59 15.2 -2.4**
QIZ pmax pmax
comp=Z,800nm,4.6s
**QIZ Qiongzhong 39.82 238** *e*P **P 19 49 56.9 +2.5**
comp=Z,77nm,0.9s
**RCP Roxas 39.84 215** ⇓ *e*P **P 19 49 55.6 +1.0**
**IL1 Eielson Array 40.00 38** *e*P **P 19 49 53.3 -1.9**
**ILAR Eielson Array 40.00 38** P **P 19 49 54.8 -0.5**
comp=Z,388nm,0.9s,baz=273,slow=6.6,SNR=607
ILAR pP **pP 19 51 07.5 -1.5**
comp=Z,20nm,0.7s,baz=284,slow=7.8,SNR=1.8
ILAR ScP **ScP 19 55 02.5 -0.5**
comp=Z,7.5nm,0.9s,baz=286,slow=3.5,SNR=5.0
**ILB Eielson Array 40.00 38** *e*P **P 19 54.0 -1.3**
ILB *e*ScP **ScP 19 55 02.5 -0.5**
**HDA Harding Lake 40.02 39** *e*P **P 19 49 54.3 -1.1**
comp=Z,163nm,0.9s
**DHY Denali Highway 40.03 41** *e*P **P 19 49 54.7 -1.1**
comp=Z,395nm,0.8s
**SCM Sheep Creek Mo 40.27 43** *e*P **P 19 49 57.1 -0.5**
SCM pmax pmax
comp=Z,260nm,0.8s
**SCM Sheep Creek Mo 40.27 43** *e*P **P 19 49 57.0 -0.6**
comp=Z,257nm,0.8s
**MSLP Maasin 40.37 211** *e*P **P 19 49 58.7 -0.1**
**FYU Fort Yukon 40.45 35** *e*P **P 19 49 58.6 -0.2**
comp=Z,649nm,0.8s
**BUSP Coron 40.49 219** *e*P **P 19 49 60.0 +0.2**
**GLI Glacier Island 40.56 44** *e*P **P 19 49 58.9 -1.0**
comp=Z,241nm,0.8s
**FID Port Fidalgo 40.89 44** *e*P **P 19 50 01.6 -0.9**
comp=Z,351nm,1.3s
**PAX Paxson 40.90 41** *e*P **P 19 50 01.8 -0.9**
PAX pmax pmax
comp=Z,53nm,0.8s
**PAX Paxson 40.90 41** *e*P **P 19 50 01.6 -1.1**
comp=Z,52nm,0.8s
**KLU Klutina 40.99 43** *e*P **P 19 50 03.0 -0.4**
comp=Z,469nm,0.8s
**DIV Divide 41.14 44** *e*P **P 19 50 04.2 -0.4**
**DIV Divide 41.14 44** *e*P **P 19 50 04.2 -0.4**
comp=Z,372nm,0.9s
**HARP HAARP 41.16 42** *e*P **P 19 50 04.4 -0.3**
comp=Z,764nm,0.8s
**BUTP Butuan 41.19 209** *e*P **P 19 50 05.5 +0.1**
**MID Middleton Isla 41.26 46** *e*P **P 19 50 07.0 +1.5**
MID pmax pmax
comp=Z,500nm,1.0s
**MID Middleton Isla 41.26 46** *e*P **P 19 50 06.3 +0.8**
comp=Z,501nm,1.0s
**EYAK Cordova Ski Ar 41.28 45** *e*P **P 19 50 05.6 0.0**
comp=Z,383nm,0.9s
**SEM Semipalatinsk 41.50 299** *i* P **P 19 50 05.9 -1.9**
comp=Z,3μm,1.1s
**MK31 Makanchi Array 41.63 294** *e*P **P 19 50 08.2 -0.5**
**MK31 Makanchi Array 41.63 294** *e*P **P 19 50 07.9 -0.8**
**MK32 Makanchi Array 41.63 294** *e*P **P 19 50 09.0 +0.3**
MK32 *e*PP **PcP 19 51 57.7 +0.5**
MK32 *e*ScP **ScP 19 55 11.0 +1.1**
MK32 *e*SKKSdf P3KPbc 20 19 30.4
**MKAR Makanchi Array 41.63 294** P **P 19 50 09.0 +0.3**
comp=Z,142nm,0.6s,baz=75,slow=7.5,SNR=761
MKAR PcP **PcP 19 51 57.7 +0.5**
comp=Z,27nm,0.7s,baz=86,slow=3.8,SNR=4.0
MKAR ScP **ScP 19 55 11.0 +1.1**
comp=Z,35nm,0.6s,baz=64,slow=3.5,SNR=21
MKAR P3KPbc 20 19 30.4
comp=Z,0.9nm,0.8s,baz=241,slow=2.5,SNR=5.2
**MKAR Makanchi Array 41.63 294** P **P 19 50 09.0 +0.3**
MKAR 19 51 57.7
MKAR pmax pmax

MKAR pmax pmax
comp=Z,144nm,0.6s
**MK01 Makanchi Array 41.64 294** *e*P **P** 19 50 07.4 -1.3
**MENT Mentasta 41.70 41** *e*P **P** 19 50 08.4 -0.6
comp=Z,179nm,0.8s
**BMRM Bremner River 41.73 44** *e*P **P** 19 50 09.0 -0.3
comp=Z,233nm,1.0s
**MAKZ Makanchi 41.82 294** *e*P **P** 19 50 09.7 -0.5
MAKZ pmax pmax
comp=Z,240nm,0.6s
**MAKZ Makanchi 41.82 294** *e*P **P** 19 50 09.5 -0.7
comp=Z,241nm,0.6s
**RAGM Ragged Mountai 41.84 45** *e*P **P** 19 50 10.4 +0.3
comp=Z,240nm,0.9s
**KURK Kurchatov 42.35 300***d i*P **P** 19 50 13.6 -0.8
KURK pmax pmax
comp=Z,211nm,0.9s
**KURK Kurchatov 42.35 300** *e*P **P** 19 50 13.6 -0.8
**KURK Kurchatov 42.35 300** *e*P **P** 19 50 13.5 -0.8
comp=Z,242nm,0.6s
**KURK Kurchatov 42.35 300** P **P** 19 50 13.4 -0.9
SNR=83
**KURK Kurchatov 42.35 300** P **P** 19 50 13.4 -0.9
SNR=83
**BUKP Musuan 42.40 210** *e*P **P** 19 50 14.6 -0.6
**EGAK Eagle 42.41 38** *e*P **P** 19 50 13.4 -1.2
comp=Z,551nm,0.8s
**DAV Davao City (W) 42.98 208** *e*P **P** 19 50 20.4 +0.7
comp=Z,187nm,0.4s
**CTBH Cotabato--PC H 43.29 210**⇓ *i*P **P** 19 50 24.0 +1.8
**DAWY Dawson 43.32 38** *e*P **P** 19 50 21.0 -1.0
comp=Z,39nm,0.8s
**PCA Pinnacle 44.04 44** *e*P **P** 19 50 27.7 +0.1
comp=Z,178nm,0.8s
**LSA Lhasa 44.49 267** P **P** 19 50 33.2 +1.2
LSA S **S** 19 56 40.4 +2.2
LSA pmax pmax
comp=Z,160nm,0.6s
LSA pmax pmax
comp=Z,840nm,4.0s
LSA LR LR
comp=Z,330nm,13.1s
LSA LR LR
comp=Z,2μm,15.1s
LSA LR LR
comp=Z,980nm,22.7s
**LSA Lhasa 44.49 267** *e*P **P** 19 50 32.9 +0.8
LSA pmax pmax
comp=Z,236nm,0.8s
**LSA Lhasa 44.49 267** *e*P **P** 19 50 32.8 +0.8
**LSA Lhasa 44.49 267** *e*P **P** 19 50 32.9 +0.8
comp=Z,236nm,0.8s
**INK Inuvik 44.56 32** *e*P **P** 19 50 30.5 -0.9
INK pmax pmax
comp=Z,375nm,0.9s
**INK Inuvik 44.56 32** *e*P **P** 19 50 30.5 -0.9
**INK Inuvik 44.56 32** *e*P **P** 19 50 30.5 -0.9
comp=Z,375nm,0.9s
**NONG Nongkai 44.57 244** P **P** 19 50 33.5 +1.3
comp=Z,217nm,1.0s
**TDK Taldyqorghan 44.85 293** *i*P **P** 19 50 32.6 -1.5
comp=Z,1μm,0.7s
TDK *e*S **S** 19 56 41.4 -0.7
**SKNT Sakolnakorn 44.89 242** P **P** 19 50 36.7 +1.9
comp=Z,306nm,0.9s
**PDGK Podgornoye 44.94 290** *i*P **P** 19 50 34.6 -0.4
PDGK pmax pmax
comp=Z,64nm,0.5s
**HYT Haines Junctio 45.10 43** *e*P **P** 19 50 36.6 +0.7
comp=Z,786nm,0.8s
**UBPT Khong Chiam 45.33 239** P **P** 19 50 40.2 +2.1
comp=Z,182nm,1.1s
**UZB Uzynbulak 45.33 290** *i*P **P** 19 50 36.2 -1.8
comp=Z,1μm,0.7s
**ZHN Zhinishke 45.70 291** *i*P **P** 19 50 39.2 -1.7
comp=Z,2μm,0.7s
**SATY Saty 45.77 291** *i*P **P** 19 50 39.5 -1.9
comp=Z,2μm,0.8s
**PHRA Phrae 46.07 247** P **P** 19 50 44.3 +0.5
comp=Z,12nm,3.4s,comp=Z,41μm
**KHON Khomkaen 46.09 243** P **P** 19 50 45.5 +1.5
comp=Z,130nm,0.8s,comp=Z,1μm
**BRZS Berezniki 46.14 302** *i*P **P** 19 50 42.4 -1.6
BRZS *i*S **S** 19 56 59.2 -0.9
**BVA0 Borovoye Array 46.17 306** P **P** 19 50 43.5 -0.7
BVA0 pmax pmax
comp=Z,225nm,1.4s
**BVAR Borovoye Array 46.17 306** P **P** 19 50 43.8 -0.3
comp=Z,120nm,0.9s,baz=66,slow=8.3,SNR=226
BVAR PcP **PcP** 19 52 13.3 +0.7
comp=Z,55nm,0.7s,baz=52,slow=2.4,SNR=11
BVAR ScP **ScP** 19 55 28.3 0.0
comp=Z,69nm,0.8s,baz=64,slow=3.8,SNR=15
**SGSI Sangihe 46.18 207** P **P** 19 50 45.6 +0.9
**BRVK Borovoye 46.21 306***d i*P **P** 19 50 44.1 -0.4
BRVK pmax pmax
comp=Z,184nm,1.1s
**BRVK Borovoye 46.21 306** *e*P **P** 19 50 44.1 -0.4
**BRVK Borovoye 46.21 306** *e*P **P** 19 50 43.8 -0.7
comp=Z,356nm,1.4s
**BRVK Borovoye 46.21 306** P **P** 19 50 43.6 -0.8
SNR=69
**BRVK Borovoye 46.21 306** P **P** 19 50 43.6 -0.8
SNR=69
**WHY Whitehorse 46.37 42** *e*P **P** 19 50 46.3 +0.5
comp=Z,161nm,0.8s
**KDM Kudat 46.48 220**⇓ P **P** 19 50 48.9 +1.9
**MDOK Medeo 46.59 291** *i*P **P** 19 50 45.9 -1.8
comp=Z,1μm,0.7s
MDOK *i*sP **PP** 19 52 44.2 +2.5
MDOK *i*S **S** 19 57 06.2 -0.7
MDOK *e*SS **SS** 20 00 39.2 +0.9
MDOK LRM MLR 20 12 37.2
comp=Z,270nm,15.7s
**SKAG Skagway 46.60 44** *e*P **P** 19 50 48.5 +1.1
comp=Z,158nm,1.0s
**SHL Shillong 46.62 262**⇓ *i*P **P** 19 50 50.0 +1.8
SHL *ex* x 19 57 10.5
**AAA Alma-Ata 46.65 291** *i*P **P** 19 50 49.5 +1.4
AAA *i*S S 19 57 28.7 +21
AAA pmax pmax
comp=Z,2μm,1.8s
AAA MLR MLR
comp=Z,800nm,9.0s
**CHTO Chiang Mai 46.65 249** P **P** 19 50 48.5 +0.2
comp=Z,2μm,0.7s,comp=Z,19μm
**CHTO Chiang Mai 46.65 249** *e*P **P** 19 50 48.5 +0.2
CHTO pmax pmax
comp=Z,378nm,0.7s
**CHTO Chiang Mai 46.65 249** *e*P **P** 19 50 48.5 +0.2
comp=Z,378nm,0.7s
**CHTO Chiang Mai 46.65 249** P **P** 19 50 48.6 +0.3
**CHTO Chiang Mai 46.65 249** P **P** 19 50 48.6 +0.3
**KUU Kurty 46.68 293** *i*P **P** 19 50 46.7 -1.5
comp=Z,2μm,0.7s
KUU *i*sP **sP** 19 52 45.4 -2.2
KUU *e*S **S** 19 57 07.1 -0.8
**CM31 Chiang Mai Arr 46.91 249** *e*P **P** 19 50 50.7 +0.4
CM31 *e*ScP **ScP** 19 55 34.4 +2.4
CM31 *e*P'P'ab P'P'df 20 22 16.5 +17
**CMAR Chiang Mai Arr 46.91 249** P **P** 19 50 50.9 +0.5
comp=Z,99nm,0.7s,baz=29,slow=7.0,SNR=359
CMAR ScP **ScP** 19 55 34.4 +2.4
comp=Z,39nm,0.9s,baz=16,slow=3.7,SNR=26
CMAR PKPPKP P'P'df 20 22 16.5 +17
comp=Z,0.5nm,0.3s,baz=259,slow=2.9,SNR=4.1
**CM01 Chiang Mai Arr 46.93 249** *e*P **P** 19 50 50.1 -0.3
**CHAI Chaiyaphum 46.93 243** P **P** 19 50 50.9 +0.4
comp=Z,70nm,0.7s,comp=Z,669nm
**PBKT Sadao Pong 47.05 245** P **P** 19 50 52.3 +1.0
comp=Z,126nm,0.7s,comp=Z,2μm
**PBKT Sadao Pong 47.05 245** P **ScP** 19 55 35.6 +3.1
comp=Z,2μmcomp=Z,52nm,1.4s
**BESE Bessie Mountai 47.16 45** *e*P **P** 19 50 52.6 +0.9
comp=Z,159nm,0.8s
**SUKH Sukhothai 47.20 247** P **P** 19 50 53.2 +0.7
comp=Z,85nm,0.7s,comp=Z,766nm
**SUKH Sukhothai 47.20 247** P **ScP** 19 55 36.6 +3.4
comp=Z,142nmcomp=Z,14nm,1.3s
**MYLDM Lahad Datu 47.34 217** *e*P **P** 19 50 55.1 +1.5
comp=Z,198nm,1.2s
**SDKM Sandakan 47.47 219**⇑ P **P** 19 50 55.9 +1.3
**KKM Kota Kinabalu 47.53 220**⇓ P **P** 19 50 56.8 +1.7
**KKM Kota Kinabalu 47.53 220** *e*P **P** 19 50 55.8 +0.7
comp=Z,101nm,1.0s
**SIT Sitka 47.53 47** *e*P **P** 19 50 56.1 +1.6
SIT pmax pmax
comp=Z,184nm,0.8s
**SIT Sitka 47.53 47** *e*P **P** 19 50 56.1 +1.6
comp=Z,184nm,0.8s
**ULHL Ulahol 47.56 291** P **P** 19 50 55.5 +0.3
SNR=129
**BTLS Baital 47.56 295** *i*P **P** 19 50 53.5 -1.5
comp=Z,536nm,0.9s
**TKM2 Tokmak 2 47.63 292** P **P** 19 50 55.9 +0.1
SNR=124
**CHMS Chumysh 48.13 292** P **P** 19 50 59.6 +0.3
SNR=45
**USP Ospenovka 48.15 293** P **P** 19 50 59.6 +0.2
SNR=273
**KBK Karagaybulak 48.18 292** P **P** 19 50 59.8 -0.1
SNR=157
**JOHN Johnston Islan 48.23 113** *e*P **P** 19 51 01.4 +1.2
comp=Z,293nm,1.0s
**KZA Kyzart 48.28 291** P **P** 19 51 01.7 +0.8
SNR=240
**FRU Bishkek 48.30 292** *i*P **P** 19 51 00.0 -0.6
FRU *e* 19 52 22.0
FRU *e* 19 52 58.0
FRU *e*S **S** 19 57 32.0 +1.5
FRU pmax pmax
comp=Z,500nm,2.0s
FRU smax smax
comp=E,100nm,2.3s
**TAPN Taplejung 48.31 267** *e*P **P** 19 51 01.7 +0.5
comp=E,2μm,1.3s
**SRAK Srakaew 48.36 242** P **P** 19 50 59.7 -1.6
comp=E,922nm,0.8s,comp=E,7μm
**SRAK Srakaew 48.36 242** P **ScP** 19 55 40.4 +2.3
**AAK Ala-Archa 48.47 292** *e*P **P** 19 51 01.8 -0.3
AAK *e**PP **PcP** 19 52 22.4 +1.0
AAK pmax pmax
comp=Z,119nm,1.2s
**AAK Ala-Archa 48.47 292** P **P** 19 51 02.3 +0.2
SNR=63
**AAK Ala-Archa 48.47 292** *e*P **P** 19 51 02.3 +0.2
**AAK Ala-Archa 48.47 292** *e*P **P** 19 51 01.8 -0.3
comp=Z,119nm,1.2s
AAK *e*pP **PcP** 19 52 22.4 +1.0
**UCH Uchtor 48.67 291** P P 19 50 58.0 -5.9
SNR=6.3
**BRDH Bariadhala 48.72 259** P **P** 19 51 06.0 +2.0
comp=Z,717nm,0.6s,baz=31,slow=4.3,SNR=12
BRDH ScP **ScP** 19 55 41.9 +2.3
comp=Z,67nm,0.3s,baz=328,slow=3.3,SNR=3.8
**UTHA Uthaitani 48.77 246** P **P** 19 51 05.3 +1.0
comp=Z,76nm,1.0s,comp=Z,718nm
**UTHA Uthaitani 48.77 246** P **ScP** 19 55 43.9 +4.1
comp=Z,116nmcomp=Z,12nm,1.1s
**ODAN Odare 48.85 267** *e*P **P** 19 51 05.5 +0.3
**EKS2 Erkin-Say 48.92 292** P **P** 19 51 05.3 0.0
SNR=184
**KSH Kashi 49.15 288** P **P** 19 51 10.9 +3.8
KSH pP pP 19 52 28.0 +3.5
KSH PcP **PcP** 19 52 29.0 +5.2
KSH PP **sP** 19 53 09.9 +2.7
KSH S **S** 19 57 45.9 +3.3
KSH ScS **ScS** 20 00 19.0 +1.7
KSH SS **SS** 20 01 22.9 +3.9
KSH pmax pmax
comp=Z,51nm,0.8s
KSH LR LR
comp=Z,750nm,11.2s
KSH LR LR
comp=Z,1μm,12.5s
KSH LR LR
comp=Z,1μm,16.6s
**JIRN Jiri 49.16 268** *e*P **P** 19 51 08.1 +0.5
**GUN Gumba 49.21 269** *e*P **P** 19 51 08.1 +0.1
**AML Almayashu 49.24 292** P **P** 19 51 08.5 +0.4
SNR=99
**CRAG Craig 49.32 48** *e*P **P** 19 51 09.9 +1.9
comp=Z,117nm,0.9s
**RAMN Ramite 49.33 267** *e*P **P** 19 51 09.0 +0.2
**JAY Jayapura 49.38 185** P **P** 19 51 09.1 +0.2
comp=Z,786nm,1.3s,comp=Z,8μm
**GENI Genyem 49.49 186** P **P** 19 51 09.8 +0.1
**DLBC Dease Lake 49.52 44** *e*P **P** 19 51 10.4 +0.9
comp=Z,150nm,0.8s
**SVE Sverdlovsk 49.64 314***c i*P **P** 19 51 10.2 -0.2
SVE *e* 19 53 04.0
SVE *e*S **S** 19 57 45.3 -3.3
SVE pmax pmax
comp=Z,446nm,0.9s
**SVE Sverdlovsk 49.64 314** *e*P **P** 19 51 10.2 -0.2
**KKN Kakani 49.70 269** *e*P **P** 19 51 11.8 +0.3
**PKI Pulchoki 49.75 269** *e*P **P** 19 51 12.1 +0.1
comp=Z,358nm,0.6s
**PKIN Phulchoki 49.76 269** *e*P **P** 19 51 11.9 -0.1
**MNAS Manas 49.81 293** *i*P **P** 19 51 12.4 +0.4
MNAS pmax pmax
comp=Z,104nm,0.7s
**SRDT SRDT 49.89 245** P **P** 19 51 13.6 +0.9
comp=Z,453nm,0.7s
**SRDT SRDT 49.89 245** P **ScP** 19 55 48.2 +3.6
comp=Z,4μmcomp=Z,145nm,1.4s
**DMN Daman 49.93 269** *e*P **P** 19 51 14.0 +0.7
comp=Z,2μm,1.3s
**GKN Gorkha 50.01 270** *e*P **P** 19 51 14.0 +0.3
**MRSI Marisa 50.37 210** P **P** 19 51 17.4 +1.2
**DANN Dangsing 50.39 271** *e*P **P** 19 51 17.5 +0.8
**SFK Sufi-Kurgan 50.49 290** *i*P **P** 19 51 17.3 +0.1
SFK pmax pmax
comp=Z,138nm,0.8s
**PHET Kaeng Krachan 50.68 243** P **P** 19 51 20.2 +1.6
comp=Z,122nm,0.8s,comp=Z,896nm
**PHET Kaeng Krachan 50.68 243** P **ScP** 19 55 52.9 +4.8
comp=Z,183nmcomp=Z,13nm,1.2s
**DIB Dawson Inlet, 50.71 50** *e*P **P** 19 51 18.9 +0.7
comp=Z,284nm,1.0s
**ARU Arti 50.84 314***d i*P **P** 19 51 18.5 -0.8
ARU 19 52 29.0
ARU *e**PP **pP** 19 52 38.2 +1.0
ARU 19 53 16.9
ARU PPP PPP 19 54 33.0
ARU S **S** 19 58 04.6 -0.4
ARU 20 00 26.3
ARU pmax pmax
comp=Z,414nm,1.0s
**ARU Arti 50.84 314** *e*P **P** 19 51 18.4 -0.8
**ARU Arti 50.84 314** *e*P **P** 19 51 18.0 -1.2
comp=Z,510nm,1.1s
**FAKI Fak Fak 50.85 196** P **P** 19 51 19.9 +0.1
**FAKI Fak Fak 50.85 196** *e*P P 19 51 11.7 -8.2
comp=Z,220nm,0.8s
**KOLN Koldanda 50.86 270** *e*P **P** 19 51 20.4 +0.3
comp=Z,819nm,0.8s
**HOPEN Hopen 51.06 345** *e*P **P** 19 51 19.8 -0.8
**PYUN Piuthan 51.07 271** *e*P **P** 19 51 22.4 +0.8
comp=Z,3μm,1.0s
**MPSI Mapaga 51.23 213** P **P** 19 51 23.0 +0.4
**SPA0 Spitsbergen Ar 51.30 348** *e*P **P** 19 51 21.1 -1.3
SPA0 *e* 19 52 31.3
**SPA0 Spitsbergen Ar 51.30 348** *e*P **P** 19 51 21.0 -1.3
**KBS Kingsbay 51.33 350** *e*P **P** 19 51 22.2 -0.3
KBS pmax pmax
comp=Z,64nm,0.8s
**KBS Kingsbay 51.33 350** *e*P **P** 19 51 21.8 -0.7
**KBS Kingsbay 51.33 350** *e*P **P** 19 51 21.6 -0.9
comp=Z,64nm,0.8s
**RABL Rabaul 51.35 170** *e*P **P** 19 51 23.4 -0.1
comp=Z,364nm,0.8s
**IUG Iuzhnay 51.55 294** *i*P **P** 19 51 23.2 -1.6
comp=Z,2μm,0.8s
**CHM Chinat 51.72 294** *i*P **P** 19 51 24.2 -1.8
comp=Z,1μm,0.8s
CHM *e*S **S** 19 58 16.8 -0.6
**PTH Pithoragarh 52.07 275** *ex* **P** 19 51 28.9 +0.1
PTH *ex* **pP** 19 52 47.9 +0.6
**HSPB Hornsund (broa 52.29 347** *e*P **P** 19 51 30.2 +0.7
**HSPB Hornsund (broa 52.29 347** *e*P **P** 19 51 29.0 -0.6
**KIP Kipapa 52.46 99** *e*P **P** 19 51 34.2 +2.7
KIP pmax pmax
comp=Z,670nm,1.8s
**KIP Kipapa 52.46 99** *e*P **P** 19 51 33.1 +1.6
comp=Z,674nm,1.8s
**SBUM Sibu 52.52 223** *e*P **P** 19 51 32.7 +0.7
comp=Z,179nm,1.0s
**DDI Dehra Dun 53.06 277** *ex* **P** 19 51 33.0 -2.9
**JWA Jwalamukhi 53.29 279** *ex* **P** 19 51 36.0 -1.4
JWA *ex* **P** 19 51 40.0 +2.6
**AB31 Akbulak array 53.74 306** *i*P **P** 19 51 39.8 -0.6
AB31 pmax pmax
comp=Z,187nm,0.7s
**YKW3 Yellowknife Ar 54.08 34** *e*P **P** 19 51 42.0 -0.6
comp=Z,253nm,0.7s
YKW3 *e*PcP **PcP** 19 52 42.2 +0.4
**YKA Yellowknife Ar 54.12 34** P **P** 19 51 41.8 -1.1
comp=Z,257nm,0.7s,baz=304,slow=6.8,SNR=503
YKA PcP **PcP** 19 52 42.6 +0.6
comp=Z,20nm,0.5s,baz=308,slow=3.7,SNR=11
YKA ScP **ScP** 19 56 03.1 +0.8
comp=Z,6.4nm,0.8s,baz=306,slow=4.4,SNR=4.7
YKA PKP2bc 20 22 06.8
comp=Z,0.4nm,0.7s,baz=132,slow=3.5,SNR=3.6
YKA P4KPbc 20 28 59.0
comp=Z,1.3nm,0.8s,baz=302,slow=4.4,SNR=10.0
**YKB5 Yellowknife Ar 54.12 34** *e*P **P** 19 51 41.9 -1.0
YKB5 *e*PcP **PcP** 19 52 42.6 +0.7
YKB5 *e*ScP **ScP** 19 56 03.1 +0.8
YKB5 ⇑*e* 20 22 06.8
YKB5 *e* 20 28 59.0
**AKTO Aktyubinsk 54.16 308** P **P** 19 51 42.8 -0.6
comp=Z,54nm,0.6s,baz=75,slow=7.2,SNR=99
AKTO PcP **PcP** 19 52 42.8 +0.4
comp=Z,64nm,0.7s,baz=359,slow=2.8,SNR=9.9
AKTO PP **PP** 19 53 49.5 +0.1
comp=Z,28nm,0.8s,baz=84,slow=6.2,SNR=4.4
AKTO ScP **ScP** 19 56 03.1 +0.4
comp=Z,38nm,0.8s,baz=61,slow=6.2,SNR=8.1
**LVZ Lovozero 54.16 334** *i*P **P** 19 51 41.7 -1.5
LVZ pmax pmax
comp=Z,145nm,0.8s
**LVZ Lovozero 54.16 334** *e*P **P** 19 51 41.9 -1.3
comp=Z,173nm,0.8s
**KSM Kuching 54.27 224** *e*P **P** 19 51 45.4 +0.7
comp=Z,182nm,1.0s
**SURT Suratani 54.28 241** P **P** 19 51 46.9 +2.2
comp=Z,40nm,0.9s,comp=Z,366nm
**MTKI Muara Teweh, K 54.37 218** P **P** 19 51 46.2 +0.9
**TRTT Trang 54.64 239** P **P** 19 51 48.9 +1.7
comp=Z,159nm,0.9s,comp=Z,2μm
**APA Apatity 54.74 334**⇑ *i*P **P** 19 51 45.8 -1.4
APA *i* *PP **pP** 19 53 08.8 +2.3
APA *i* 19 53 44.0
APA *i*S **S** 19 58 54.0 -2.9
APA *i* 20 00 53.0
APA pmax pmax
comp=Z,148nm,0.7s
APA MLR MLR
comp=Z,2μm,16.0s
**TULEG Thule 54.95 9** *e*P **P** 19 51 46.9 -1.7
comp=Z,148nm,0.8s
**STKI Sintang 54.97 222** P **P** 19 51 50.4 +0.9
**HPAH Hawaii Prepara 54.98 98** *e*P **P** 19 51 49.8 +0.1
comp=Z,164nm,0.8s
**KEV Kevo 55.10 338** *e*P **P** 19 51 49.0 -0.7
KEV pmax pmax
comp=Z,210nm,0.7s
**KEV Kevo 55.10 338** *e*P **P** 19 51 49.0 -0.7
comp=Z,210nm,0.7s
**POHA Pohakuloa 55.28 98** *e*P **P** 19 51 53.3 +1.3
comp=Z,400nm,0.8s
**HAMF Hammerfest 55.31 340** *e*P **P** 19 51 50.2 -1.0
**TMCR Tamitsa 55.33 329** *e*P **P** 19 51 50.9 -0.5
TMCR pmax pmax
comp=Z,338nm,0.8s
**PKDT Phuket 55.40 241** P **P** 19 51 54.7 +2.1
comp=Z,260nm,0.8s,comp=Z,2μm
**MLOA Mauna Loa Obse 55.41 98** *e*P **P** 19 51 55.0 +1.8
comp=Z,250nm,1.0s
**BNSI Bone 55.55 210** P **P** 19 51 54.3 +0.7
**ARA0 ARCESS Array S 55.64 338** *e*P **P** 19 51 52.5 -1.0
ARA0 *e*S **S** 19 59 08.2 -0.4
**ARCES ARCESS Array B 55.64 338** P **P** 19 51 52.5 -1.0
comp=Z,65nm,0.6s,baz=42,slow=8.0,SNR=248
ARCES S **S** 19 59 08.2 -0.4
comp=Z,13nm,1.1s,baz=42,slow=13,SNR=5.3
**ARCES ARCESS Array B 55.64 338** *e*P **P** 19 51 52.6 -1.0
ARCES *e* 19 52 48.4
ARCES S **S** 19 59 08.3 -0.4
**ARCES ARCESS Array B 55.64 338** *e*P **P** 19 51 52.6 -1.0
ARCES *e*PcP **PcP** 19 52 48.4 +0.6
ARCES S **S** 19 59 08.2 -0.4
**ARE0 ARCESS Array S 55.64 338** *e*P **P** 19 51 52.9 -0.6
**ARE0 ARCESS Array S 55.64 338** *e*P **P** 19 51 52.8 -0.7
comp=Z,102nm,0.9s
**SAUI Saumlaki 55.97 196** P **P** 19 51 56.9 +0.4
**SAUI Saumlaki 55.97 196** *e*P **P** 19 51 56.8 +0.2
comp=Z,1μm,1.2s
**KBKI Kotabaru 55.99 215** P **P** 19 51 56.5 -0.2
**DAG Danmarks Havn 56.10 355**⇓ *i*P **P** 19 51 55.5 -1.2
DAG *i* 19 52 48.4
DAG pmax pmax
comp=Z,86nm,0.8s
**DAG Danmarks Havn 56.10 355**⇓ *i*P **P** 19 51 55.5 -1.2
comp=Z,86nm,0.8s
DAG *i* 19 52 48.4
**KULM Kulim 56.14 236** *e*P **P** 19 51 58.4 +0.6
comp=Z,149nm,0.7s
**PMG Port Moresby 56.14 177** P **P** 19 51 57.9 +0.2
comp=Z,80nm,0.8s,baz=3.5,slow=7.1,SNR=50
**PMG Port Moresby 56.14 177***c i*P **P** 19 51 57.1 -0.6
PMG pmax pmax
comp=Z,408nm,1.0s
**PMG Port Moresby 56.14 177** *e*P **P** 19 51 57.5 -0.2
comp=Z,103nm,0.9s
**KTK1 Kautokeino 56.58 338**⇓ *i*P **P** 19 51 59.5 -0.6
**IPM Ipoh 56.59 236**⇑ P **P** 19 52 02.0 +1.1
**IPM Ipoh 56.59 236** *e*P **P** 19 52 00.8 -0.1
comp=Z,81nm,0.8s
**CHLP Challavanipeta 56.72 262** *e*P **P** 19 52 01.8 0.0
CHLP IAmb IAmb 19 52 04.5
comp=Z,234nm,1.1s
CHLP *e*S **S** 19 59 24.5 +0.4
**KLMR Klimovskoe 56.81 326** *e*P **P** 19 52 00.4 -1.4
KLMR *e**PP **pP** 19 53 23.2 +1.4
KLMR *e*S S 19 59 20.3 -3.7
KLMR *e*SSS SSS 20 06 03.1
KLMR pmax pmax
comp=Z,174nm,0.9s
**TRO Tromso 57.17 340** *e*P **P** 19 52 07.3 +3.1
**MYKOM Kota Tinggi 57.27 231** *e*P **P** 19 52 06.5 +0.8
comp=Z,64nm,0.8s
**FRIM Kepong 57.27 234**⇓ P **P** 19 52 06.8 +1.1
**PBKI Pangkalan Bun 57.34 220** P **P** 19 52 06.7 +0.6
**LLLB Lillooet 57.64 49** *e*P **P** 19 52 08.7 +0.9
comp=Z,213nm,0.8s
**TPRI Tanjung Pinang 57.65 230** P **P** 19 52 08.9 +0.7
**HNR Honiara 57.76 162** *e*P **P** 19 52 10.0 +1.1
**HNR Honiara 57.76 162** P **P** 19 52 09.8 +0.9
comp=Z,113nm,0.7s,baz=247,slow=1.3,SNR=5.9
**HNR Honiara 57.76 162** *e*P **P** 19 52 10.4 +1.5
HNR pmax pmax
comp=Z,390nm,1.3s
**KULLO Kullorsuaq 57.87 7**⇓ *i*P **P** 19 52 07.7 -1.2
KULLO pmax pmax
comp=Z,150nm,0.7s
**KULLO Kullorsuaq 57.87 7**⇓ *i*P **P** 19 52 07.7 -1.2
comp=Z,146nm,0.7s
**PGC Sidney 57.97 51** *e*P **P** 19 52 10.8 +0.9
comp=Z,218nm,0.8s
**A04D Lummi Island 58.32 51** P **P** 19 52 12.9 +0.5
baz=307
**LHMI Lhok Sumawe 58.34 240** P **P** 19 52 14.2 +1.2
**LHMI Lhok Sumawe 58.34 240** *e*P **P** 19 52 14.6 +1.6
comp=Z,245nm,1.0s
**BLN Blyn Mountain 58.60 52** *e*P **P** 19 52 15.7 +1.2
**MMRI Maumere 58.84 206** P **P** 19 52 16.5 +0.2
comp=Z,203nm,1.4s,comp=Z,4μm
**MMRI Maumere 58.84 206** *e*P **P** 19 52 15.9 -0.5
comp=Z,349nm,1.3s
**B05A Bryant 58.92 51** P **P** 19 52 17.0 +0.5
baz=307
**JCW Jim Creek 59.05 51** *e*P **P** 19 52 18.4 +1.0
**B06A Marblemount 59.09 51** *e*P **P** 19 52 18.3 +0.7
comp=Z,435nm,1.0s
B06A *e*PcP **PcP** 19 53 02.1 +0.4
**EDFI Ende, Flores 59.11 207** P **P** 19 52 17.6 -0.7
comp=Z,144nm,1.0s,comp=Z,1μm
**RPW Rockport 59.12 51** *e*P **P** 19 52 18.6 +0.6
**PSI Prapat 59.15 236** P **P** 19 52 17.8 -0.8
comp=Z,85nm,0.8s,baz=10,slow=5.1,SNR=54
PSI ScP **ScP** 19 56 26.4 +1.0

comp=Z,8.0nm,0.7s,baz=348,slow=3.4,SNR=9.0
**PSI Prapat 59.15 236** *e*P **P 19 52 19.5 +0.8**
PSI pmax pmax
comp=Z,105nm,0.9s
**PSI Prapat 59.15 236** *e*P **P 19 52 19.5 +0.8**
comp=Z,105nm,0.9s
PSI *e*ScP **ScP 19 56 27.1 +1.7**
**E03A Lebam 59.16 53** *e*P **P 19 52 18.9 +0.8**
comp=Z,663nm,0.9s
**KCSI Kotacane, Aceh 59.23 238** P **P 19 52 18.7 -0.4**
comp=Z,36nm,0.8s
**PVM Polavaram 59.25 262** *e*P **P 19 52 19.0 -0.2**
PVM IAmb IAmb 19 52 21.7
comp=Z,135nm,0.7s
PVM *e*S **S 19 59 54.7 -1.8**
**SOEI Soe 59.32 204** P **P 19 52 19.7 0.0**
comp=Z,161nm,1.1s,comp=Z,2µm
**STEI Steigen 59.34 340** *e*P **P 19 52 17.9 -1.1**
**MLSI Meulaboh, Aceh 59.43 240** P **P 19 52 20.8 +0.4**
comp=Z,230nm,0.8s
**PPBI Pangkal Pinang 59.46 226** P **P 19 52 22.9 +2.3**
comp=Z,0.6nm,0.9s
**F03A Seaside 59.53 54** *e*P **P 19 52 21.3 +0.5**
comp=Z,671nm,1.1s
**LOF Lofoten 59.57 341** *e*P **P 19 52 19.4 -1.1**
**D05A Enumclaw 59.63 52** *e*P **P 19 52 22.6 +1.3**
comp=Z,461nm,1.0s
**RPR Rampur 59.72 266** *e*P **P 19 52 22.6 +0.2**
RPR IAmb IAmb 19 52 24.6
comp=Z,111nm,0.7s
RPR *e*S **S 20 00 02.0 -0.4**
**F04D Rainier, OR 59.75 54** P **P 19 52 22.9 +0.8**
baz=308
**KMOR Kings Mountain 59.75 54** *e*P **P 19 52 23.7 +1.4**
**C06D Leavenworth 59.77 51** P **P 19 52 22.6 +0.3**
baz=308
**TPTI 59.78 238** P **P 19 52 22.5 -0.3**
comp=Z,64nm,0.6s
**OBSR Observation Ro 59.90 52** *e*P **P 19 52 25.1 +1.6**
**LON Longmire 59.99 52** *e*P **P 19 52 24.8 +0.9**
LON pmax pmax
comp=Z,123nm,1.0s
**LON Longmire 59.99 52** *e*P **P 19 52 24.8 +0.9**
comp=Z,123nm,1.0s
**BKNI Bangkinang 60.01 233** P **P 19 52 26.1 +1.8**
comp=Z,513nm,0.9s,comp=Z,4µm
**BKNI Bangkinang 60.01 233** *e*P **P 19 52 25.1 +0.8**
comp=Z,414nm,0.9s
**FL2 Flat Top 2 60.04 53** *e*P **P 19 52 25.7 +1.4**
**B203 Quarry, Mount 60.07 53** *e*P **P 19 52 26.4 +2.0**
**G03D McMinnville, O 60.14 55** P **P 19 52 25.7 +0.9**
baz=308
**F04A Amboy 60.16 53** *e*P **P 19 52 25.9 +1.0**
comp=Z,575nm,0.9s
F04A *e*PcP **PcP 19 53 08.3 +2.2**
**SBSI Sibolga 60.19 236** P **P 19 52 25.7 +0.2**
**ETW Entiat 60.26 51** *e*P **P 19 52 26.5 +0.7**
**JMBI JAMBI 60.27 229** P **P 19 52 27.2 +1.2**
**KMMI Kalianget 60.28 216** P **P 19 52 27.8 +1.8**
comp=Z,137nm,0.9s,comp=Z,2µm
**LTY Liberty 60.30 51** *e*P **P 19 52 26.3 +0.4**
comp=Z,204nm,1.1s
**SRSP Sriramsagar 60.32 266** *e*P **P 19 52 25.3 -1.1**
SRSP IAmb IAmb 19 52 28.2
comp=Z,166nm,0.7s
SRSP *e*S **S 20 00 08.8 -1.3**
**B08A Colville Reser 60.32 50** *e*P **P 19 52 26.6 +0.6**
comp=Z,510nm,1.4s
B08A *e*PcP **PcP 19 53 09.0 +2.2**
**PLAI Plampang 60.48 211** P **P 19 52 28.1 +0.7**
**COR Corvallis 60.50 55** *e*P **P 19 52 29.2 +2.0**
COR pmax pmax
comp=Z,690nm,0.9s
**COR Corvallis 60.50 55** *e*P **P 19 52 28.4 +1.2**
comp=Z,689nm,0.8s
**G04A Mulino 60.58 54** *e*P **P 19 52 29.5 +1.7**
**COEN Coen 60.64 182** *e*P **P 19 52 28.1 -0.3**
comp=Z,135nm,0.9s
COEN *e*PcP **PcP 19 53 07.8 -0.5**
**WBSI Waikabubak, Su 60.69 209** P **P 19 52 29.6 +0.8**
**SRBI Singaraja 60.73 214** P **P 19 52 29.5 +0.4**
comp=Z,262nm,1.1s,comp=Z,2µm
**SUMG Summit 60.76 1** ⇓ *i*P **P 19 52 29.2 +0.2**
SUMG pmax pmax
comp=Z,470nm,0.7s
**SUMG Summit 60.76 1** ⇓ *i*P **P 19 52 29.2 +0.2**
comp=Z,471nm,0.7s
**SUMG Summit 60.76 1** *e*P **P 19 52 29.2 +0.2**
comp=Z,509nm,0.8s
**PMBI Palembang 60.80 227** P **P 19 52 32.6 +3.0**
comp=Z,626nm,1.0s
**BASI Baing, Sumba 60.84 207** P **P 19 52 29.1 -0.7**
comp=Z,263nm,1.0s,comp=Z,3µm
**MOS Moscow 60.85 322** *e*P **P 19 52 28.3 -1.0**
MOS *e**PP **pP 19 53 52.5 +1.8**
MOS *e* 19 54 45.7
MOS *e*PPP PPP 19 56 18.8
MOS *e*S **S 20 00 12.6 -3.1**
MOS *e* 20 01 37.9
MOS pmax pmax
comp=N,118nm,1.0s
MOS pmax pmax
comp=Z,142nm,1.0s
**MOR8 Moi Rana 60.94 339** *e*P **P 19 52 27.5 -2.3**
**HOOD Mount Hood Mea 60.97 54** *e*P **P 19 52 32.2 +1.7**
**UWJI Ujung Watu 60.97 219** P P 19 52 36.9 +6.3
**PUL Pulkovo 60.97 328** *i*P **P 19 52 29.4 -0.7**
PUL pmax pmax
comp=Z,334nm,0.7s
**PUL Pulkovo 60.97 328** *e*P **P 19 52 29.4 -0.7**
**KEBM Edson Butte 60.98 57** *e*P **P 19 52 32.1 +1.6**
comp=Z,436nm,0.9s
KEBM *e*PcP **PcP 19 53 08.3 -1.2**
**KONS Konsvik 60.99 340** *e*P **P 19 52 29.3 -0.7**
**I03D Drain, OR 61.03 56** P **P 19 52 32.0 +1.3**
baz=309
**BLJI Banyuglugur 61.06 216** P **P 19 52 31.6 +0.4**
comp=Z,98nm,1.2s,comp=Z,2µm
**H04A Detroit Lake 61.07 54** *e*P **P 19 52 32.4 +1.4**
comp=Z,511nm,0.8s
**GSI Gunungsitoli 61.14 237** P **P 19 52 33.2 +1.3**
comp=Z,143nm,0.7s,comp=Z,1µm
**GSI Gunungsitoli 61.14 237** *e*P **P 19 52 32.3 +0.4**
comp=Z,96nm,0.5s
**STOK Stokkvaagen 61.15 340** *e*P **P 19 52 30.3 -0.8**
**E07A Sunnyside 61.17 52** *e*P **P 19 52 32.1 +0.4**
comp=Z,315nm,1.0s
**G05D Wamic, OR 61.20 54** P **P 19 52 32.8 +0.9**
baz=309
**HYB Hyderabad 61.22 265** *i*P **P 19 52 32.5 0.0**
comp=Z,192nm,0.8s
HYB *e*PP **PP 19 54 52.0 -0.6**
HYB *e*S **S 20 00 21.5 0.0**
HYB *e*ScS **ScS 20 01 43.5 -1.3**
HYB *e*sS **sS 20 02 50.0 +3.4**
HYB *e*SS **SS 20 04 28.0 -1.3**
**HYBB Hyderabad (bro 61.22 265** *e*P **P 19 52 31.8 -0.7**
HYBB IAmb IAmb 19 52 34.2
comp=Z,146nm,0.7s
HYBB *e*S **S 20 00 19.1 -2.4**
**C09A Chrisman Ranch 61.23 50** *e*P **P 19 52 32.6 +0.6**
comp=Z,291nm,1.0s
**FIA1 FINESS Array S 61.23 331** *e*P **P 19 52 30.8 -1.0**
FIA1 *e*PcP **PcP 19 53 10.8 +0.7**
**FIA0 FINESS Array S 61.23 331** *e*P **P 19 52 30.7 -1.1**
FIA0 *e* 19 53 09.8
FIA0 *e*S **S 20 00 18.7 -1.6**
**FIA0 FINESS Array S 61.23 331** *e*P **P 19 52 30.7 -1.1**
FIA0 *e*PcP **PcP 19 53 09.8 -0.3**
FIA0 ⇑ *e*S **S 20 00 18.7 -1.6**
FIA0 ⇑ *e* 20 21 42.4
**FINES FINESS Array B 61.23 331** P **P 19 52 30.7 -1.1**
comp=Z,447nm,0.7s,baz=46,slow=6.3,SNR=430
FINES PcP **PcP 19 53 09.8 -0.3**
comp=Z,48nm,0.7s,baz=67,slow=5.0,SNR=4.5
FINES S **S 20 00 18.7 -1.6**
comp=Z,14nm,0.9s,baz=37,slow=17,SNR=7.0
FINES PKPPKP **P'P'df 20 21 42.4 -2.5**
comp=Z,8.3nm,1.0s,baz=241,slow=7.9,SNR=3.3
**FINES FINESS Array B 61.23 331** P **P 19 52 30.7 -1.1**
FINES 19 53 09.8
FINES S **S 20 00 18.7 -1.6**
FINES pmax pmax
comp=Z,448nm,0.7s
FINES smax smax
comp=N,14nm,0.9s
**FINES FINESS Array B 61.23 331** *e*P **P 19 52 30.6 -1.2**
**NJS Nagarjunasagar 61.31 264** *e*P **P 19 52 32.4 -0.6**
NJS IAmb IAmb 19 52 34.9
comp=Z,116nm,0.7s
NJS *e*S **S 20 00 21.6 -0.9**
**PDSI Padang 61.35 233** P **P 19 52 33.1 -0.2**
comp=Z,48nm,1.0s
**D08A Wollman Farm, 61.35 51** *e*P **P 19 52 33.3 +0.4**
comp=Z,185nm,1.0s
D08A *e*PcP **PcP 19 53 12.7 +1.7**
**ADKI Addanki 61.36 263** *e*P **P 19 52 33.0 -0.3**
ADKI IAmb IAmb 19 52 35.9
comp=Z,86nm,0.8s
ADKI *e*S **S 20 00 20.4 -2.7**
**GEYT Alibeck 61.42 296** P **P 19 52 33.6 +0.1**
comp=Z,119nm,0.7s,baz=24,slow=3.2,SNR=257
GEYT PKP2bc 20 21 43.2
comp=Z,1.9nm,0.9s,baz=257,slow=2.7,SNR=4.0
**HAWA Hanford 61.45 52** *e*P **P 19 52 34.1 +0.6**
comp=Z,254nm,1.0s
**KBO Bosley Butte 61.45 58** *e*P **P 19 52 34.8 +1.1**
comp=Z,427nm,1.1s
**IRO Indian Ridge 61.45 55** *e*P **P 19 52 35.1 +1.3**
**I04A Tendick Farm, 61.50 55** P **P 19 52 34.7 +0.8**
baz=309
**JAGI Jajag, Banyuwa 61.50 215** *e*P **P 19 52 33.0 -1.2**
comp=Z,68nm,1.1s
**NEW Newport 61.53 49** *e*P **P 19 52 34.7 +0.6**
NEW pmax pmax
comp=Z,244nm,0.9s
**NEW Newport 61.53 49** *e*P **P 19 52 34.7 +0.6**
**NEW Newport 61.53 49** *e*P **P 19 52 34.7 +0.6**
comp=Z,244nm,0.9s
**F07A Phinny Hill Vi 61.55 52** *e*P **P 19 52 35.3 +1.1**
comp=Z,567nm,1.0s
**G06A Carlson Farm, 61.58 53** *e*P **P 19 52 35.5 +1.0**
comp=Z,442nm,1.4s
**GMJI Gumukmas 61.60 216** P **P 19 52 34.9 +0.1**
comp=Z,84nm,1.2s
**E08A Dider Farm, El 61.64 51** *e*P **P 19 52 35.6 +0.9**
comp=Z,317nm,0.9s
**OBN Obninsk 61.72 322** *d i*P **P 19 52 34.1 -1.0**
OBN *i* 19 53 10.4
OBN *i* *PP **pP 19 53 59.0 +2.3**
OBN *e* 19 54 56.1
OBN *i* S **S 20 00 25.0 -1.4**
OBN *e* 20 01 43.5
OBN *e*SS **SS 20 04 32.9 -2.1**
OBN pmax pmax
comp=Z,169nm,0.9s
OBN MLR MLR
comp=Z,315nm,15.0s
**OBN Obninsk 61.72 322** *e*P **P 19 52 34.7 -0.4**
**OBN Obninsk 61.72 322** *e*P **P 19 52 34.7 -0.4**
comp=Z,189nm,0.9s
**SMRI Semarang 61.75 219** P **P 19 52 37.1 +1.3**
**SMRI Semarang 61.75 219** *e*P **P 19 52 36.0 +0.2**
comp=Z,302nm,1.1s
**I05D Terrebonne, OR 61.76 54** P **P 19 52 36.4 +0.7**
baz=309
**L02D Cave Junction, 61.84 57** P **P 19 52 37.2 +1.0**
baz=309
**PBSI Pulau Batu 61.85 235** P P 19 52 44.1 +7.6
**SRLM Srisailam 61.91 264** *e*P **P 19 52 36.1 -0.9**
SRLM IAmb IAmb 19 52 38.7
comp=Z,141nm,0.7s
SRLM *e*S **S 20 00 28.6 -1.5**
**HUMO Hull Mountain 61.93 57** *e*P **P 19 52 38.1 +1.3**
comp=Z,146nm,1.1s
**VRH Novokhopyorsk 61.99 316** *e*P **P 19 52 35.6 -1.4**
VRH *e*S **S 20 00 26.7 -3.4**
VRH *e* 20 01 46.7
VRH pmax pmax
comp=Z,300nm,0.7s
**J04D Umpqua Nationa 62.02 56** P **P 19 52 38.5 +0.9**
baz=309
**KRMB Red Mountain 62.07 58** *e*P **P 19 52 38.8 +1.0**
comp=Z,168nm,1.1s
**KLRI Killari 62.11 267** *e*P **P 19 52 37.6 -0.7**
KLRI IAmb IAmb 19 52 39.9
comp=Z,266nm,0.7s
KLRI *e*S **S 20 00 29.6 -2.9**
**E09A Wood Farm, Sta 62.11 51** *e*P **P 19 52 38.4 +0.6**
comp=Z,430nm,0.9s
**LPSR Galich'ya Gora 62.37 319** *e*P **P 19 52 38.4 -1.0**
LPSR *e*S **S 20 00 32.4 -2.2**
LPSR *e* 20 01 50.4
LPSR pmax pmax
comp=Z,260nm,0.8s
LPSR smax smax
comp=N,70nm,1.5s
**KLI Kotabumi 62.42 226** P **P 19 52 40.6 +0.3**
comp=N,274nm,0.9s,comp=N,3µm
**JCC Jacoby Creek, 62.44 59** *e*P **P 19 52 41.0 +1.0**
comp=N,256nm,1.0s
**SISI Saibi 62.45 234** P **P 19 52 41.2 +0.7**
comp=N,104nm,0.8s
**G08A Pilot Rock 62.46 52** *e*P **P 19 52 40.8 +0.5**
comp=N,141nm,1.0s
**PCJI Pacitan 62.46 218** P **P 19 52 41.3 +0.8**
**SCO Scoresbysund 62.48 355** ⇓ *i*P **P 19 52 39.7 -0.1**
SCO pmax pmax
comp=Z,110nm,0.9s
**SCO Scoresbysund 62.48 355** ⇓ *i*P **P 19 52 39.7 -0.1**
comp=Z,112nm,0.9s
**J05D Fort Rock, OR 62.48 55** P **P 19 52 41.6 +1.1**
baz=310
**UGM Wanagama 62.49 219** P **P 19 52 41.1 +0.4**
comp=Z,119nm,1.2s
**UGM Wanagama 62.49 219** *e*P **P 19 52 39.9 -0.8**
comp=Z,192nm,1.3s
**KHMM Horse Mountain 62.58 59** *e*P **P 19 52 42.4 +1.1**
comp=Z,320nm,1.0s
**K04D Chiloquin, OR 62.61 56** P **P 19 52 42.3 +1.0**
baz=310
**YBH Yreka Blue Hor 62.63 57** *e*P **P 19 52 42.6 +1.1**
**YBH Yreka Blue Hor 62.63 57** *e*P **P 19 52 42.4 +1.0**
comp=Z,234nm,0.9s
**WALA Waterton Lakes 62.64 47** *e*P **P 19 52 41.8 +0.3**
comp=Z,354nm,0.8s
**BLSI Bandar Lampung 62.67 225** P **P 19 52 42.6 +0.7**
comp=Z,104nm,0.4s
**TNG Talgerng 62.70 224** P **P 19 52 43.2 +1.2**
**M02C Callahan 62.76 58** P **P 19 52 43.5 +1.2**
baz=310
**VORR Voronezh 62.86 318** *e*P **P 19 52 41.0 -1.7**
VORR pmax pmax
comp=Z,400nm,1.4s
**I07A Izee 62.94 54** *e*P **P 19 52 43.7 +0.2**
comp=Z,180nm,0.9s
**F10A Beach Ranch, E 62.95 51** *e*P **P 19 52 44.0 +0.5**
comp=Z,263nm,1.1s
**LWLI Liwa 62.95 227** P **P 19 52 43.4 -0.5**
**LHEM Herd Peak 62.98 57** *e*P **P 19 52 45.3 +1.4**
**DBJI Dramaga 62.98 223** P **P 19 52 43.4 -0.5**
comp=Z,184nm,1.0s
**BSMT Bassoo Peak 62.99 48** *e*P **P 19 52 45.0 +1.1**
**KMRM Mail Ridge 63.01 59** *e*P **P 19 52 45.1 +1.2**
comp=Z,255nm,0.9s
**SKHT Srikalahasti 63.03 261** *e*P **P 19 52 44.4 +0.1**
SKHT IAmb IAmb 19 52 47.0
comp=Z,127nm,0.6s
SKHT *e*S **S 20 00 41.7 -2.1**
**M04C Macdoel 63.10 57** P **P 19 52 45.6 +1.0**
baz=310
**N02D Trinity Center 63.12 58** P **P 19 52 45.7 +1.1**
baz=310
**PPSI Pulau Pagai 63.14 232** P **P 19 52 46.5 +1.5**
comp=Z,316nm,1.0s,comp=Z,3µm
**KASI Kota Agung 63.17 226** P **P 19 52 44.9 -0.2**
**LGBM Gray Butte 63.17 57** *e*P **P 19 52 46.9 +1.7**
**VSR Storozhevoye 63.19 317** *e*P **P 19 52 43.9 -0.9**
VSR *e*S **S 20 00 42.2 -2.6**
VSR *e* 20 01 56.6
VSR pmax pmax
comp=Z,290nm,0.6s
**VSU Vasula 63.20 329** *c i*P **P 19 52 43.9 -0.8**
VSU pmax pmax
comp=Z,586nm,0.8s
**LGMM Garner Mountai 63.22 57** *e*P **P 19 52 47.0 +1.6**
**JTMT Jette 63.32 48** *e*P **P 19 52 46.3 +0.4**
comp=Z,624nm,1.4s
**CISI Cisompet, Garu 63.37 222** P **P 19 52 49.7 +3.2**
**CISI Cisompet, Garu 63.37 222** *e*P **P 19 52 45.6 -0.9**
comp=Z,39nm,0.8s
**KCPM Cahto Peak 63.43 60** *e*P **P 19 52 46.2 -0.5**
comp=Z,263nm,1.0s
**WDC Whiskeytown Da 63.47 58** *e*P **P 19 52 47.2 +0.4**
WDC *e* 19 53 22.3
WDC pmax pmax
comp=Z,180nm,0.9s
**WDC Whiskeytown Da 63.47 58** *e*P **P 19 52 47.2 +0.4**
comp=Z,180nm,0.9s
WDC *e*PcP **PcP 19 53 22.3 +2.6**
**ILULI Ilulissat 63.57 6** *e*P **P 19 52 45.9 -1.0**
ILULI *e* 19 53 20.4
ILULI pmax pmax
comp=Z,333nm,0.8s
**ILULI Ilulissat 63.57 6** *i*P **P 19 52 46.2 -0.8**
comp=Z,331nm,0.8s
**ILULI Ilulissat 63.57 6** *e*P **P 19 52 45.9 -1.0**
comp=Z,333nm,0.8s
ILULI *e*PcP **PcP 19 53 20.4 +0.8**
**BMO Blue Mountains 63.63 52** *e*P **P 19 52 48.5 +0.6**
**BMO Blue Mountains 63.63 52** *e*P **P 19 52 47.9 0.0**
comp=Z,246nm,1.1s
**URV Uravakonda 63.84 264** *e*P **P 19 52 48.8 -0.8**
URV IAmb IAmb 19 52 51.1
comp=Z,89nm,0.8s
URV *e*S **S 20 00 51.6 -2.1**
**MOD Modoc Plateau 63.90 56** *e*P **P 19 52 50.1 +0.3**
comp=Z,183nm,0.8s
**GASB Alder Springs 63.96 59** *e*P **P 19 52 51.5 +1.3**
**J08A Circle Bar Ran 63.97 54** *e*P **P 19 52 51.1 +0.9**
comp=Z,390nm,0.9s
**LBCM Butte Creek Ri 63.99 57** *e*P **P 19 52 51.4 +1.0**
**O03D Paynes Creek 64.08 58** P **P 19 52 51.2 +0.3**
baz=311
**MSO Missoula 64.10 48** *e*P **P 19 52 51.1 +0.2**
comp=Z,410nm,1.0s
**FFC Flin Flon 64.16 36** *e*P **P 19 52 50.8 -0.2**
FFC *e* 19 53 23.7
FFC pmax pmax
comp=Z,450nm,0.9s
**FFC Flin Flon 64.16 36** *e*P **P 19 52 51.0 0.0**
**FFC Flin Flon 64.16 36** *e*P **P 19 52 50.8 -0.2**
comp=Z,450nm,0.9s
FFC *e*PcP **PcP 19 53 23.7 +1.4**
**HOPS Hopland Field 64.18 60** *e*P **P 19 52 52.0 +0.5**
comp=Z,193nm,1.1s
**TBLU Trondheim 64.37 339** *e*P **P 19 52 50.5 -1.7**
**MAK Makhachkala 64.42 306** *e*P **P 19 52 50.2 -2.6**
MAK *e**PP **pP 19 54 11.3 -4.0**
MAK *e**SP **sP 19 54 53.2 -3.4**
MAK *e* 19 55 15.4
MAK *e*S **S 20 00 59.2 -0.8**
MAK *e*SS **SS 20 05 12.7 -4.8**
MAK pmax pmax
comp=Z,350nm,1.4s
**WVOR Wild Horse Val 64.49 55** *e*P **P 19 52 54.1 +0.6**
**WVOR Wild Horse Val 64.49 55** *e*P **P 19 52 54.1 +0.6**
comp=Z,402nm,1.0s
**ORV Oroville 64.74 59** *e*P **P 19 52 54.6 -0.4**
ORV pmax pmax
comp=Z,163nm,0.9s
**ORV Oroville 64.74 59** *e*P **P 19 52 54.6 -0.4**
comp=Z,163nm,0.9s
**MCCM Marconi Confer 64.84 60** *e*P **P 19 52 56.5 +0.8**
comp=Z,157nm,0.9s
**BEKR Beckworth 65.20 58** *e*P **P 19 52 58.4 +0.3**
comp=Z,313nm,0.9s
**HRY Holter Researc 65.25 47** *e*P **P 19 52 59.1 +0.8**
**MFID Camas Ranch 65.38 52** *e*P **P 19 52 59.4 +0.3**
comp=Z,336nm,1.1s
**EGMT Eagleton 65.39 45** *e*P **P 19 52 59.3 +0.3**
comp=Z,680nm,0.9s
**IZAR Zarasai 65.39 327** *e*P **P 19 52 58.4 -0.4**
IZAR IAmb IAmb 19 53 00.1
comp=Z,76nm,0.7s
**GOF Gofitskoye 65.42 310** ⇑ *e*P **P 19 52 59.7 +0.4**
GOF *e*S **S 20 01 14.2 +2.1**
GOF pmax pmax
comp=Z,813nm,0.8s
GOF smax smax
comp=N,72nm,0.9s
GOF smax smax
comp=E,167nm,1.5s
**AFDM Forest Hills D 65.44 59** *e*P **P 19 52 59.5 0.0**
comp=E,200nm,1.1s
**IDID Didziasalis 65.53 326** *e*P **P 19 52 59.4 -0.4**
IDID IAmb IAmb 19 53 01.1
comp=Z,116nm,0.8s
**LRM Limekiln Ridge 65.54 48** *e*P **P 19 53 00.6 +0.2**
**MOL Molde 65.60 340** *e*P **P 19 52 59.7 -0.3**
**DOMB Dombas 65.69 339** *e*P **P 19 53 00.1 -0.6**
**MICGM Minsk 65.70 325** ⇑ *e*P **P 19 53 01.0 +0.2**
MICGM PM 19 53 02.0
comp=Z,0.6nm,1.0s
MICGM *e* 19 54 20.0
**MNK Minsk 65.70 325** ⇑ *e*P **P 19 53 01.0 +0.2**
MNK *e* 19 54 26.0
MNK pmax pmax
comp=Z,590nm,1.0s
**IIGN Ignalina 65.70 327** *e*P **P 19 53 00.4 -0.4**
IIGN IAmb IAmb 19 53 02.2
comp=Z,155nm,0.7s
**DLMT Dillon 65.78 49** *e*P **P 19 53 02.0 +0.3**
comp=Z,610nm,0.9s
**SFJD Kangerlussuaq 65.79 7** *e*P **P 19 53 00.5 -0.7**
**SFJD Kangerlussuaq 65.79 7** *i*P **P 19 53 00.4 -0.7**
comp=Z,209nm,0.8s
**SFJD Kangerlussuaq 65.79 7** *e*P **P 19 53 00.2 -0.9**
comp=Z,213nm,0.8s
**NC303 NORSAR Array S 65.79 337** *e*P **P 19 53 00.5 -0.8**
**NC405 NORSAR Array S 65.79 337** *e*P **P 19 53 00.5 -0.9**
**LCCM Lewis and Clar 65.82 48** *e*P **P 19 53 02.7 +0.7**
**NACGM Naroch 65.83 326** *e*P **P 19 53 01.0 -0.6**
NACGM PM 19 53 02.0
comp=Z,2.1nm,1.0s
NACGM *e*S **S 20 01 14.0 -2.6**
**PAHR Pah Rah Range 65.86 57** *e*P **P 19 53 02.5 +0.1**
comp=Z,358nm,0.9s
PAHR *e*PcP **PcP 19 53 31.5 +1.6**
**NC204 NORSAR Array S 65.91 338** *e*P **P 19 53 00.8 -1.3**
**NB201 NORSAR Array S 65.96 337** *e*P **P 19 53 01.4 -1.0**
**NB2 NORSAR Subarra 65.99 337** P **P 19 53 01.6 -1.0**
comp=Z,351nm,0.7s,baz=32,slow=6.5
**NB2 NORSAR Subarra 65.99 337** P **P 19 53 01.6 -1.0**
baz=32,slow=6.5
**NB200 NORSAR Array S 65.99 337** *e*P **P 19 53 01.6 -1.0**
NB200 *e*PcP **PcP 19 53 28.6 -1.3**
**NOA NORSAR Array B 65.99 337** P **P 19 53 01.6 -1.0**
comp=Z,318nm,0.7s,baz=34,slow=6.2,SNR=581
NOA PcP **PcP 19 53 28.6 -1.3**
comp=Z,23nm,0.8s,baz=28,slow=4.1,SNR=3.9
**NOA NORSAR Array B 65.99 337** P **P 19 53 01.6 -1.0**
NOA 19 53 28.6
NOA pmax pmax
comp=Z,321nm,0.7s
**MCMT McKenzie Canyo 66.01 50** *e*P **P 19 53 03.5 +0.2**
**HLID Hailey 66.05 51** *e*P **P 19 53 03.8 +0.4**
comp=Z,90nm,0.9s
**AKN Aaknes 66.07 340** *e*P **P 19 53 02.8 -0.3**
**NBO02 NORSAR Array S 66.07 337** *e*P **P 19 53 02.1 -1.0**
NBO02 *e*PcP **PcP 19 53 29.9 -0.3**
**NBO00 NORSAR Array S 66.11 337** *e*P **P 19 53 02.3 -1.0**
NBO00 *e*PcP **PcP 19 53 30.9 +0.6**
**BOZ Bozeman (W) 66.12 48** *e*P **P 19 53 04.3 +0.5**
**BOZ Bozeman (W) 66.12 48** *e*P **P 19 53 04.3 +0.5**
**BOZ Bozeman (W) 66.12 48** *e*P **P 19 53 04.1 +0.3**
comp=Z,431nm,0.9s
**PNTR Pine Nut 66.15 58** *e*P **P 19 53 05.0 +0.8**
comp=Z,214nm,0.9s
**BGMT Barton Gulch 66.16 49** *e*P **P 19 53 04.7 +0.5**
**NC602 NORSAR Array S 66.16 337** *e*P **P 19 53 02.3 -1.3**
**NC602 NORSAR Array S 66.16 337** *e*P **P 19 53 02.4 -1.3**
**NCK Nalchik 66.19 309** *i*P **P 19 53 04.2 +0.1**
NCK pmax pmax
comp=Z,221nm,0.9s
**DDFL Dedoflistskaro 66.19 306** P **P 19 53 06.4 +2.1**
**NAO01 NORSAR Array S 66.24 337** *e*P **P 19 53 03.2 -0.9**
**KIV Kislovodsk 66.36 310** *i*P **P 19 53 05.5 +0.2**
SNR=27
**KIV Kislovodsk 66.36 310** *d i*P **P 19 53 05.9 +0.6**
KIV 19 53 31.0
KIV *i* *PP **pP 19 54 31.7 +3.4**
KIV *i* 19 55 36.4
KIV *i* PPP PPP 19 57 21.6
KIV *i* S **S 20 01 25.0 +1.4**

KIV *i* 20 02 24.5
KIV pmax pmax
comp=Z,409nm,0.8s
KIV MLR MLR
comp=Z,452nm,18.0s
**KIV Kislovodsk** 66.36 310 *e*P P 19 53 05.8 +0.6
comp=Z,529nm,0.8s
**KIV Kislovodsk** 66.36 310 P P 19 53 05.9 +0.6
SNR=51
**KIV Kislovodsk** 66.36 310 P P 19 53 05.9 +0.6
SNR=51
**CMB Columbia Colle** 66.39 59 *e*P P 19 53 06.3 +0.7
**CMB Columbia Colle** 66.39 59 *e*P P 19 53 05.8 +0.3
comp=Z,280nm,1.0s
**KBZ Khabaz** 66.40 309 P P 19 53 06.2 +0.8
comp=Z,223nm,0.8s,baz=42,slow=5.3,SNR=278
**GUDG Gudauri** 66.41 307 P P 19 53 06.4 +0.6
**YERR Yerington** 66.43 58 *e*P P 19 53 06.4 +0.5
comp=Z,489nm,0.9s
**DUS Dusheti** 66.54 307 P P 19 53 08.8 +2.3
**DUS Dusheti** 66.54 307 P P 19 53 08.7 +2.3
**COMI Craters of Moo** 66.55 51 *e*P P 19 53 07.9 +1.2
**SFJWR San Luis Fatjo** 66.58 60 *e*P P 19 53 08.4 +1.7
**DGRG David-gareji** 66.61 306 P P 19 53 06.9 +0.1
**DGRG David-gareji** 66.61 306 P P 19 53 06.9 +0.1
**SAO San Andreas Ge** 66.61 61 *e*P P 19 53 07.3 +0.4
**SAO San Andreas Ge** 66.61 61 *e*P P 19 53 06.9 0.0
comp=Z,215nm,1.6s
**WAKR Walker** 66.64 58 *e*P P 19 53 07.8 +0.5
comp=Z,207nm,0.9s
**TPMT Tepee Creek** 66.69 49 *e*P P 19 53 08.8 +1.2
**SEAG Tbilisi Sea** 66.71 307 P P 19 53 08.6 +1.2
**CTA Charters Tower** 66.73 178 P P 19 53 06.8 -0.9
comp=Z,45nm,1.1s,baz=357,slow=6.6,SNR=17
**CTAO Charters Tower** 66.73 178 *e*P P 19 53 07.1 -0.6
**CTAO Charters Tower** 66.73 178 *e*P P 19 53 07.1 -0.6
comp=Z,125nm,1.4s
**QLMT Earthquake Lak** 66.75 49 *e*P P 19 53 07.8 0.0
**TBLG Delisi** 66.77 307 P P 19 53 08.1 +0.3
**TBLG Delisi** 66.77 307 P P 19 53 08.1 +0.3
**NEY Neytrino** 66.82 309*c* *i*P P 19 53 08.1 -0.2
NEY pmax pmax
comp=Z,24nm,0.9s
**ONI Oni** 66.88 308 P P 19 53 09.2 +0.6
**ONI Oni** 66.88 308 P P 19 53 09.1 +0.6
**YHB Horse Butte** 66.92 49 *e*P P 19 53 09.5 +0.6
comp=Z,502nm,0.9s
**XMIS Christmas Isla** 66.93 222 *e*P P 19 53 08.7 -0.3
comp=Z,217nm,1.0s
**CRMT Chrome Mountai** 66.97 48 *e*P P 19 53 09.9 +0.5
**GCMT Greycliff** 66.98 47 *e*P P 19 53 09.9 +0.7
**FITZ Fitzroy Crossi** 66.98 200 P P 19 53 09.5 +0.3
comp=Z,116nm,0.8s,baz=16,slow=4.2,SNR=75
**YMV Mammoth Vault** 67.03 48 *e*P P 19 53 10.8 +1.2
**FOO Floro** 67.03 340 *e*P P 19 53 08.8 -0.2
**KVN Kaiserville** 67.04 57 *e*P P 19 53 10.1 +0.3
KVN pmax pmax
comp=Z,472nm,0.9s
**KVN Kaiserville** 67.04 57 *e*P P 19 53 10.1 +0.3
comp=Z,472nm,0.9s
**OSL Oslo** 67.05 337 *e*P P 19 53 09.1 0.0
**XMAS Kiritimati** 67.05 113 *e*P P 19 53 10.5 +0.7
comp=Z,204nm,0.9s
**PALK Pallekele** 67.06 255 P P 19 53 09.8 -0.2
comp=Z,100nm,0.7s,baz=116,slow=0.8,SNR=85
**PALK Pallekele** 67.06 255 *i* P P 19 53 09.6 -0.4
SNR=28
**PALK Pallekele** 67.06 255 *i* P P 19 53 10.9 +0.9
**PALK Pallekele** 67.06 255 *e*P P 19 53 09.3 -0.7
comp=Z,125nm,0.8s
**PALK Pallekele** 67.06 255 P P 19 53 10.4 +0.4
SNR=7.5
**PALK Pallekele** 67.06 255 P P 19 53 10.4 +0.4
SNR=7.5
**YHH Holmes Hill** 67.07 48 *e*P P 19 53 10.2 +0.2
comp=Z,288nm,1.0s
**YMR Madison River** 67.10 49 *e*P P 19 53 10.3 +0.2
comp=Z,372nm,1.1s
**HYA Hoyanger** 67.14 340 *e*P P 19 53 09.3 -0.4
**YPM Purple Mountai** 67.15 49 *e*P P 19 53 11.9 +1.5
**YNR Norris Junctio** 67.21 48 *e*P P 19 53 11.3 +0.5
comp=Z,304nm,1.4s
**WRAB Tennant Creek** 67.22 191*c* *i*P P 19 53 09.9 -0.8
WRAB pmax pmax
comp=Z,116nm,1.2s
**WRAB Tennant Creek** 67.22 191 *e*P P 19 53 09.5 -1.2
comp=Z,103nm,1.0s
WRAB *e*PcP PcP 19 53 36.0 +0.7
**WB2 Warramunga Arr** 67.23 191 *e*P P 19 53 07.8 -3.0
WB2 *e*PcP PcP 19 53 36.2 +0.8
WB2 *e*pP pP 19 54 33.2 -0.9
**WR1 Warramunga Arr** 67.23 191 *e*P P 19 53 09.6 -1.2
comp=Z,79nm,0.7s
WR1 *e*pP pP 19 54 34.1 0.0
WR1 *e*S S 20 01 36.1 +2.1
WR1 ⇑*e* 20 21 30.2
**WRA Warramunga Arr** 67.23 191 P P 19 53 09.6 -1.2
comp=Z,49nm,0.5s,baz=8.4,slow=6.6,SNR=152
WRA pP pP 19 54 34.1 0.0
comp=Z,20nm,1.0s,baz=10,slow=6.9,SNR=5.3
WRA S S 20 01 36.1 +2.1
comp=Z,2.8nm,1.2s,baz=6.8,slow=12,SNR=4.7
WRA PKP2bc 20 21 30.2
comp=Z,3.0nm,0.8s,baz=193,slow=2.7,SNR=14
**YFT Old Faithful** 67.31 49 *e*P P 19 53 12.7 +1.2
comp=Z,388nm,0.9s
**MCID Moose Creek** 67.32 49 *e*P P 19 53 12.8 +1.4
**PMPB Monarch Peak** 67.36 61 *e*P P 19 53 11.8 +0.1
comp=Z,106nm,1.0s
**MDPB Devils Postpil** 67.43 59 *e*P P 19 53 12.7 +0.4
comp=Z,121nm,0.8s
**YPP Pitchstone Pla** 67.46 49 *e*P P 19 53 12.9 +0.5
comp=Z,433nm,1.7s
**LKWY Lake** 67.46 48 *e*P P 19 53 13.9 +1.6
LKWY pmax pmax
comp=Z,271nm,0.9s
**LKWY Lake** 67.46 48 *e*P P 19 53 13.9 +1.6
comp=Z,271nm,0.9s
**H17A Grant Village** 67.49 49 P P 19 53 14.5 +2.0
baz=314
**H17A Grant Village** 67.49 49 *e*P P 19 53 14.5 +2.0
comp=Z,547nm,1.0s
**CHVG Ch'k'valeri** 67.53 309 P P 19 53 13.1 +0.6
**MLAC Mammoth, Mammo** 67.57 59 P P 19 53 14.3 +1.1
baz=313
**SUE Sulen** 67.58 340 *e*P P 19 53 12.2 -0.2
**KONO Kongsberg** 67.59 337 *e*P P 19 53 12.2 -0.3
**KONO Kongsberg** 67.59 337 *e*P P 19 53 12.3 -0.3
**KONO Kongsberg** 67.59 337 *e*P P 19 53 12.2 -0.3
comp=Z,63nm,0.7s
**YTP The Promontory** 67.64 48 *e*P P 19 53 15.0 +1.5
**RLMT Red Lodge** 67.64 47 *e*P P 19 53 14.0 +0.6
comp=Z,898nm,1.6s
**IMW Indian Meadow** 67.65 49 *e*P P 19 53 14.2 +0.6
comp=Z,246nm,0.9s
**AKH Akhalkalaki** 67.67 307 P P 19 53 14.1 +0.5
**AKH Akhalkalaki** 67.67 307 ⇑*i*P P 19 53 15.2 +1.6
**AKH Akhalkalaki** 67.67 307 P P 19 53 14.1 +0.5
**DGMT Dagmar** 67.70 42 *e*P P 19 53 13.3 -0.2
comp=Z,948nm,0.8s
**BGD Bogdanovka** 67.71 307 P P 19 53 14.6 +0.8
**FXWY Fox Creek** 67.78 49 *e*P P 19 53 14.9 +0.5
comp=Z,228nm,0.9s
**GNI Garni** 67.84 305 *i* P P 19 53 12.7 -2.0
SNR=9.8
**GNI Garni** 67.84 305*d* *i*P P 19 53 15.6 +0.9
GNI pmax pmax
comp=Z,419nm,1.1s
**GNI Garni** 67.84 305 *e*P P 19 53 13.8 -0.9
comp=Z,225nm,1.2s
**GNI Garni** 67.84 305 P P 19 53 14.4 -0.3
SNR=12
**GNI Garni** 67.84 305 P P 19 53 14.4 -0.3
SNR=12
**MOOW Moose Ponds** 67.85 49 *e*P P 19 53 15.0 +0.2
comp=Z,327nm,1.0s
**SUW Suwalki** 67.87 327 *e*P P 19 53 13.3 -1.0
**SUW Suwalki** 67.87 327 *e*P P 19 53 13.3 -1.0
**TPAW Teton Pass** 67.92 50 *e*P P 19 53 15.9 +0.6
comp=Z,450nm,1.0s
**ASK Askoy** 67.98 340 *e*P P 19 53 14.9 0.0
**AKASG Malin Array Be** 67.98 322 P P 19 53 14.0 -1.1
comp=Z,188nm,0.7s,baz=38,slow=6.6,SNR=436
AKASG pP pP 19 54 38.0 -0.5
comp=Z,18nm,0.5s,baz=35,slow=6.2,SNR=4.8
AKASG S S 20 01 40.9 -1.4
comp=Z,4.9nm,0.9s,baz=38,slow=13,SNR=14
AKASG PKP2bc 20 21 30.9
comp=Z,0.2nm,0.3s,baz=240,slow=2.8,SNR=6.1
**AKBB Malin Array Si** 67.98 322 *e*P P 19 53 14.1 -1.0
AKBB *e**PP pP 19 54 38.0 -0.5
AKBB *e*S S 20 01 40.9 -1.4
AKBB pmax pmax
comp=Z,211nm,0.8s
**AKBB Malin Array Si** 67.98 322 *e*P P 19 53 14.1 -1.0
comp=Z,211nm,0.8s
AKBB *e*pP pP 19 54 38.0 -0.5
AKBB *e*S S 20 01 40.9 -1.4
AKBB *e*P'P'df P'P'df 20 21 30.9 -2.4
**KIEV Kiev** 67.99 322*d* *i*P P 19 53 14.5 -0.7
KIEV pmax pmax
comp=Z,216nm,0.9s
**KIEV Kiev** 67.99 322 *e*P P 19 53 14.5 -0.7
**KIEV Kiev** 67.99 322 *e*P P 19 53 14.1 -1.1
comp=Z,210nm,0.8s
**LOHW Long Hollow** 68.02 49 *e*P P 19 53 16.4 +0.6
comp=Z,354nm,1.3s
**PAGB Antelope Grade** 68.02 61 *e*P P 19 53 16.5 +0.8
comp=Z,484nm,1.3s
**AK11 Malin Array Si** 68.02 322 *e*P P 19 53 14.2 -1.1
**LAO LASA Array** 68.03 45 *e*P P 19 53 16.1 +0.5
comp=Z,428nm,1.0s
**BER Bergen** 68.03 340 *e*P P 19 53 15.3 0.0
**SNOW Snow King Moun** 68.05 49 *e*P P 19 53 16.7 +0.7
comp=Z,253nm,1.0s
**GRRI Grays Lake** 68.06 50 *e*P P 19 53 17.3 +1.2
**REDW Red Top Meadow** 68.06 50 *e*P P 19 53 16.6 +0.5
comp=Z,296nm,1.0s
**BORG Borgarnes** 68.11 354 *e*P P 19 53 16.8 +1.2
**BORG Borgarnes** 68.11 354 *e*P P 19 53 15.9 +0.3
comp=Z,194nm,0.8s
**ODD1 Odda** 68.13 339 *e*P P 19 53 15.7 -0.2
**HVU Hansel Valley** 68.15 52 *e*P P 19 53 17.5 +1.0
**HVU Hansel Valley** 68.15 52 *e*P P 19 53 17.1 +0.6
comp=Z,165nm,1.0s
**SOC Sochi** 68.17 311 *e*P P 19 53 15.8 -0.6
SOC *e* 19 53 39.6
SOC *e**PP pP 19 54 35.2 -4.7
SOC *e* 19 55 56.9
SOC *e*S S 20 01 45.3 +0.6
SOC pmax pmax
comp=Z,163nm,0.7s
**RCTC Rector, Farmer** 68.23 60 P P 19 53 17.7 +0.8
baz=313
**TIN Tinemaha, Big** 68.32 59 P P 19 53 18.6 +1.0
baz=313
**AHID Auburn Hatcher** 68.35 50 *e*P P 19 53 17.7 -0.1
comp=Z,221nm,0.9s
**MTUT Morton Thiokol** 68.37 52 *e*P P 19 53 19.1 +1.2
**BEI Bear River Ran** 68.44 51 *e*P P 19 53 19.5 +1.2
**SMMC Simmler** 68.45 61 P P 19 53 19.2 +0.9
baz=313
**ANN Anapa** 68.47 313 *e*P P 19 53 17.7 -0.5
ANN *e**PP pP 19 54 42.5 +0.7
ANN *e*S S 20 01 48.0 -0.2
ANN pmax pmax
comp=Z,178nm,0.7s
**LTU Little Mountai** 68.56 52 *e*P P 19 53 20.0 +0.9
**BGU Big Grassy Mou** 68.60 53 *e*P P 19 53 20.0 +0.7
comp=Z,80nm,0.9s
**BLS5 Blasjo** 68.60 339 *e*P P 19 53 18.9 +0.1
**VES Vestal, Richgr** 68.64 60 P P 19 53 20.3 +0.9
baz=313
**SPUT South Promonto** 68.65 52 *e*P P 19 53 20.3 +0.7
comp=Z,235nm,1.0s
**HDU Hyde Park** 68.67 51 *e*P P 19 53 20.5 +0.8
**ARTV Artvin** 68.67 308 *e*P P 19 53 20.4 +0.6
comp=Z,153nm,1.7s
**GZU Grizzly Peak** 68.82 52 *e*P P 19 53 21.7 +0.9
**CWC Cottonwood Cre** 68.83 59 P P 19 53 21.3 +0.6
baz=313
**BMUT Black Mountain** 68.85 51 *e*P P 19 53 21.7 +0.8
**PKM Mcpherson Peak** 68.85 61 P P 19 53 21.7 +0.7
baz=313
**GRAC Grapevine Rang** 68.86 58 P P 19 53 21.7 +0.9
baz=314
**SNUT Stansbury Nort** 68.91 52 *e*P P 19 53 22.3 +1.1
**R11A Troy Canyon, C** 68.96 56 P P 19 53 22.0 +0.4
baz=314
**R11A Troy Canyon, C** 68.96 56 *e*P P 19 53 21.6 +0.1
comp=Z,463nm,1.7s
**NAIU Northern Antel** 68.97 52 *e*P P 19 53 22.4 +0.9
**RSUT Red Spur Mount** 68.97 51 *e*P P 19 53 23.1 +1.3
**MCU Monte Cristo P** 69.05 51 *e*P P 19 53 23.1 +0.9
**HOMB Homborsund** 69.07 337 *e*P P 19 53 21.8 +0.2
**KMY Karmoy** 69.09 339 *e* P 19 53 22.4 +0.8
**SAIU Southern Antel** 69.11 52 *e*P P 19 53 22.9 +0.5
**ISA Isabella, Lake** 69.12 60 P P 19 53 22.0 -0.5
baz=314
**ISA Isabella, Lake** 69.12 60 *e*P P 19 53 22.3 -0.2
**ISA Isabella, Lake** 69.12 60 *e*P P 19 53 21.8 -0.7
comp=Z,108nm,0.9s
**BW06 Boulder Array** 69.16 49 *e*P P 19 53 22.7 -0.1
comp=Z,416nm,0.9s
**PD31 Pinedale Array** 69.16 49 *e*P P 19 53 22.8 0.0
**PDAR Pinedale Array** 69.16 49 P P 19 53 22.7 0.0
comp=Z,328nm,0.8s,baz=313,slow=1.2,SNR=420
**SBC Santa Barbara** 69.22 62 P P 19 53 23.6 +0.7
baz=313
**STAV Stavanger** 69.22 339 *e*P P 19 53 22.8 +0.3
**DUG Dugway, Tooele** 69.23 53 *e*P P 19 53 23.9 +0.8
**DUG Dugway, Tooele** 69.23 53 *e*P P 19 53 23.9 +0.8
**DUG Dugway, Tooele** 69.23 53 *e*P P 19 53 23.8 +0.6
comp=Z,325nm,1.0s
**FSU Fish Springs** 69.24 54 *e*P P 19 53 23.9 +0.7
**ARVC Arvin** 69.28 61 P P 19 53 23.9 +0.6
baz=314
**TCUT Toone Canyon** 69.34 52 *e*P P 19 53 24.5 +0.6
comp=Z,446nm,0.9s
**SNART Snartemo** 69.36 338 *e*P P 19 53 23.2 -0.1
**RCWM Renegade Canyo** 69.42 59 *e*P P 19 53 25.2 +0.9
**MPMC Manual Prospec** 69.44 59 P P 19 53 24.8 +0.3
baz=314
**CTU Camp Tracy** 69.46 52 *e*P P 19 53 24.8 +0.3
comp=Z,177nm,1.0s
**FURC Furnace Creek,** 69.52 58 P P 19 53 25.4 +0.7
baz=314
**TPNV Topopah Spring** 69.54 58 *e*P P 19 53 25.6 +0.5
**TPNV Topopah Spring** 69.54 58 *e*P P 19 53 25.5 +0.3
comp=Z,514nm,0.9s
**SCZ2 Santa Cruz Isl** 69.57 62 P P 19 53 25.6 +0.4
baz=314
**JLU Jordanelle** 69.68 52 *e*P P 19 53 26.3 +0.3
comp=Z,270nm,1.2s
**OSI Osito Audit: C** 69.69 61 P P 19 53 26.3 +0.4
baz=314
**LRW Lerwick** 69.70 343⇑*e*P P 19 53 25.4 0.0
**LRMC Laurel Mtn Rad** 69.72 60 P P 19 53 26.3 +0.1
baz=314
**HTU Hoyt Peak** 69.76 52 *e*P P 19 53 27.2 +0.7
**NLU North Lily Min** 69.80 53 *e*P P 19 53 27.3 +0.6
comp=Z,267nm,0.9s
**PSUT Pine Spring** 69.81 55 *e*P P 19 53 27.1 +0.4
comp=Z,210nm,0.9s
**BLG Laguna Peak, P** 69.84 61 P P 19 53 26.8 0.0
baz=314
**BSD Bornholm Skovb** 69.85 332⇓*i*P P 19 53 25.6 -0.8
BSD pmax pmax
comp=Z,330nm,0.7s
**BSD Bornholm Skovb** 69.85 332⇓*i*P P 19 53 25.6 -0.8
comp=Z,328nm,0.7s
**EDW2 Edwards Air Fo** 69.95 60 P P 19 53 27.9 +0.4
baz=314
**ULM Lac du Bonnet** 69.98 37 P P 19 53 26.8 -0.5
comp=Z,318nm,0.8s,baz=317,slow=6.9,SNR=202
ULM PKP2bc 20 21 29.7
comp=Z,3.4nm,0.8s,baz=179,slow=2.3,SNR=3.4
**ULM Lac du Bonnet** 69.98 37 *e*P P 19 53 26.5 -0.8
comp=Z,353nm,0.8s
ULM ⇑*e* 20 21 29.7
**MPU Maple Canyon** 70.00 53 *e*P P 19 53 28.3 +0.4
comp=Z,254nm,0.9s
**SNCC San Nicolas Is** 70.15 62 P P 19 53 29.6 +1.0
baz=314
**SNCC San Nicolas Is** 70.15 62 *e*P P 19 53 29.6 +1.0
comp=Z,328nm,1.1s
**FLU Fool Peak** 70.15 53 *e*P P 19 53 29.6 +0.9
**COP Copenhagen** 70.15 334⇓*i*P P 19 53 27.9 -0.3
COP pmax pmax
comp=Z,270nm,0.8s
**COP Copenhagen** 70.15 334⇓*i*P P 19 53 27.9 -0.3
comp=Z,272nm,0.8s
**DECC Green Verdugo** 70.18 61 P P 19 53 29.0 +0.3
baz=314
**MDND Maddock** 70.23 40 P P 19 53 29.1 +0.2
baz=319
**MDND Maddock** 70.23 40 *e*P P 19 53 29.2 +0.2
comp=Z,1µm,0.8s
**SHOC Shoshone, Teco** 70.25 58 P P 19 53 29.6 +0.4
baz=314
**LEVU Levan** 70.26 53 *e*P P 19 53 30.6 +1.1
**KOPT Kop Dagi** 70.27 308 *e*P P 19 53 30.1 +0.5
comp=Z,120nm,0.8s
**SORM Soroca** 70.29 320⇓*i*P P 19 53 28.6 -0.5
**SORM Soroca** 70.29 320 ⇓P P 19 53 28.6 -0.5
**SBI Santa Barbara** 70.29 62 *e*P P 19 53 28.0 -1.4
**PASC Pasadena Art C** 70.32 61 *e*P P 19 53 29.4 -0.2
comp=Z,149nm,1.1s
**GSC Goldstone, Bar** 70.36 59 P P 19 53 30.3 +0.4
baz=314
**GSC Goldstone, Bar** 70.36 59 *e*P P 19 53 30.4 +0.4
**GSC Goldstone, Bar** 70.36 59 *e*P P 19 53 30.3 +0.4
comp=Z,195nm,1.0s
**MWC Mount Wilson** 70.36 61 *e*P P 19 53 30.5 +0.4
**MWC Mount Wilson** 70.36 61 *e*P P 19 53 30.2 +0.1
comp=Z,312nm,1.3s
**A31A Linda, St. Vin** 70.45 38 P P 19 53 29.6 -0.5
baz=320
**MUD Monsted U'grnd** 70.46 336 *i* P P 19 53 30.1 +0.1
MUD pmax pmax
comp=Z,130nm,0.6s
**MUD Monsted U'grnd** 70.46 336 *i* P P 19 53 30.1 +0.1
comp=Z,125nm,0.6s
**BEL Belsk** 70.48 327 *e*P P 19 53 30.5 +0.3
**BEL Belsk** 70.48 327⇓*e*P P 19 53 30.5 +0.3
**BANOM Banah** 70.48 287 *i* P P 19 53 30.7 0.0
SNR=286
**BANOM Banah** 70.48 287 P P 19 53 30.5 -0.3
SNR=72
**BANOM Banah** 70.48 287 P P 19 53 30.5 -0.3
SNR=72
**SHPR Sheep Range** 70.48 57 *e*P P 19 53 31.5 +0.8
comp=Z,271nm,0.9s
**LLD Lille Linde** 70.52 333 *i* P P P 19 53 30.3 -0.1
LLD pmax pmax
comp=Z,270nm,0.8s
**LLD Lille Linde** 70.52 333 *i* P P 19 53 30.3 -0.1
comp=Z,273nm,0.8s
**RRX Edison Barstow** 70.54 60 P P 19 53 31.7 +0.7
baz=314
**SNO Snow College** 70.55 53 *e*P P 19 53 32.7 +1.5
**ARUT Antelope Range** 70.56 55 *e*P P 19 53 32.3 +1.0
**ARUT Antelope Range** 70.56 55 *e*P P 19 53 32.3 +1.0
**FMP Fort Macarthur** 70.57 61 P P 19 53 31.6 +0.5
baz=314
**SGU Sterling** 70.58 53 *e*P P 19 53 32.8 +1.3
**DWU Dry Willow Pea** 70.59 55 *e*P P 19 53 32.6 +1.1
**BFSC Mount Baldy Ra** 70.59 61 P P 19 53 31.6 +0.2
baz=314
**GKP Gorka Klasztor** 70.60 330 *e*P P 19 53 30.6 -0.3
**GKP Gorka Klasztor** 70.60 330⇓*e*P P 19 53 30.6 -0.3
**B31A Greenbush Farm** 70.65 39 P P 19 53 31.0 -0.3
baz=320
**CIAC Catalina I. Ai** 70.72 62 *e*P P 19 53 29.2 -2.9
**CIS Catalina Islan** 70.72 62 P P 19 53 32.3 +0.3
baz=314
**ARGU Argyle Ridge** 70.72 52 *e*P P 19 53 33.4 +1.0
**A32A Rocking H Ranc** 70.76 38 P P 19 53 31.4 -0.6
baz=321
**MSU Marysvale** 70.76 54 *e*P P 19 53 33.6 +1.1
**MSU Marysvale** 70.76 54 *e*P P 19 53 33.5 +1.0
**CCUT Cedar City** 70.77 55 *e*P P 19 53 33.2 +0.6
comp=Z,103nm,0.9s
**TUQ Turquoise Moun** 70.78 59 P P 19 53 33.1 +0.6
baz=314
**K22A Casper** 70.80 48 P P 19 53 32.4 -0.1
baz=317
**K22A Casper** 70.80 48 *e*P P 19 53 32.5 -0.1
comp=Z,525nm,1.6s
**LVV L'vov** 70.81 324 *e*P P 19 53 32.0 -0.2
LVV *e* 19 54 59.0
LVV *e*S S 20 02 15.0 0.0
**RGN Rugen** 70.84 332 *e*P P 19 53 32.7 +0.5
comp=Z,274nm,0.8s
**P17A Butcher Ranch,** 70.87 52 *e*P P 19 53 33.4 +0.4
comp=Z,398nm,1.1s
**SZCU Shurtz Canyon** 70.90 55 *e*P P 19 53 33.9 +0.6
comp=Z,132nm,1.1s
**BIDO Bidbid** 70.92 284 P P 19 53 33.9 +0.5
SNR=27
**BIDO Bidbid** 70.92 284 P P 19 53 33.9 +0.5
SNR=27
**SCI2 San Clemente I** 70.93 62 P P 19 53 33.7 +0.5
baz=314
**KIS Kishinev** 70.94 319⇓*i*P P 19 53 33.0 -0.1
comp=Z,600nm,1.0s
KIS *e*pP pP 19 55 02.0 +4.7
KIS *e*S S 20 02 16.0 -0.7
KIS *e*L L 20 12 10.0
KIS LRM MLR 20 12 40.0
comp=Z,1µm,22.0s
**KIS Kishinev** 70.94 319⇓*i*P P 19 53 33.0 -0.1
KIS *e**PP pP 19 55 02.0 +4.7
KIS *e*S S 20 02 16.0 -0.7
KIS *e* 20 02 43.0
KIS pmax pmax
comp=Z,570nm,1.0s
**AS01 Alice Springs** 70.95 190 *e*P P 19 53 33.7 +0.4
**AS31 Alice Springs** 70.95 190 *e*P P 19 53 33.6 +0.2
comp=Z,26nm,0.8s
**ASAR Alice Springs** 70.95 190 P P 19 53 33.5 +0.1
comp=Z,81nm,0.8s,baz=4.5,slow=5.3,SNR=299
ASAR pP pP 19 54 58.4 +0.7
comp=Z,27nm,1.1s,baz=2.8,slow=5.3,SNR=4.0
ASAR PKP2bc 20 21 19.1
comp=Z,1.2nm,0.8s,baz=167,slow=2.7,SNR=6.9
**ASAR Alice Springs** 70.95 190 P P 19 53 33.5 +0.1
ASAR *PP pP 19 54 58.4 +0.7
ASAR pmax pmax
comp=Z,82nm,0.8s
**RSSD Black Hills** 70.96 45 *e*P P 19 53 33.4 -0.1
**RSSD Black Hills** 70.96 45 *e*P P 19 53 33.3 -0.2
comp=Z,320nm,0.9s
**HEC Hector,Ludlow** 70.96 59 P P 19 53 34.0 +0.5
baz=314
**WBK Wadi Bani Khal** 70.99 283 P P 19 53 35.6 +1.8
SNR=7.0
**BBRC Big Bear Solar** 71.01 60 P P 19 53 33.7 -0.3
baz=314
**P18A Preston Nutter** 71.03 52 *e*P P 19 53 34.4 +0.3
comp=Z,293nm,1.0s
**MSVF Nonsavu** 71.05 146 *e*P P 19 53 35.1 +1.0
**MSVF Nonsavu** 71.05 146 *e*P P 19 53 34.9 +0.8
comp=Z,156nm,1.8s
**MTPU Mount Pierson** 71.09 54 *e*P P 19 53 35.5 +0.9
comp=Z,992nm,2.0s
**C31A Landman Farms,** 71.09 39 P P 19 53 33.6 -0.3
baz=320
**B32A Ashes, Strandq** 71.14 38 P P 19 53 33.5 -0.8
baz=321
**RWWY Rawlins** 71.14 49 *e*P P 19 53 35.1 +0.3
comp=Z,463nm,1.0s
**A33A Warroad** 71.20 37 P P 19 53 34.1 -0.5
baz=321
**UOSS Minazif** 71.21 287 *e*P P 19 53 35.0 -0.1
comp=Z,1µm,1.5s
**LCMT Little Creek M** 71.22 56 *e*P P 19 53 35.8 +0.7
comp=Z,487nm,1.7s
**SRU San Rafael Swe** 71.24 53 *e*P P 19 53 35.7 +0.4
SRU pmax pmax
comp=Z,411nm,0.9s
**SRU San Rafael Swe** 71.24 53 *e*P P 19 53 35.7 +0.4
comp=Z,411nm,0.9s
**SMDO Samad** 71.29 284 P P 19 53 36.5 +0.8
SNR=15
**SMDO Samad** 71.29 284 P P 19 53 36.5 +0.8
SNR=15
**MURC Murrieta** 71.31 61 P P 19 53 35.5 -0.1
baz=314
**HATD Hatta, Dubai** 71.34 287 *i* P P 19 53 35.9 0.0
SNR=198
**HATD Hatta, Dubai** 71.34 287 P P 19 53 35.8 -0.1
SNR=90
**HATD Hatta, Dubai** 71.34 287 P P 19 53 35.8 -0.1
SNR=90
**IAS Iasi** 71.35 320⇑*i*P P 19 53 35.7 +0.2

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| IAS | Iasi | 71.35 | 320 | ⇑P | P | 19 53 35.7 | +0.2 |
| DGR | Domenigoni Val | 71.39 | 61 | eP | P | 19 53 36.4 | +0.4 |
| GMRC | Granite Mounta | 71.39 | 59 | P | P | 19 53 36.5 | +0.4 |
| | baz=315 | | | | | | |
| MBWA | Marble Bar | 71.43 | 205 | eP | P | 19 53 36.3 | +0.1 |
| | comp=Z,268nm,1.5s | | | | | | |
| MBWA | Marble Bar | 71.43 | 205 | P | P | 19 53 36.4 | +0.2 |
| | SNR=6.9 | | | | | | |
| PKCU | Pink Cliffs | 71.44 | 55 | eP | P | 19 53 37.7 | +1.1 |
| | comp=Z,109nm,0.9s | | | | | | |
| DZM | Mont Dzumac | 71.45 | 159 | P | P | 19 53 38.3 | +2.0 |
| | comp=Z,22nm,0.8s,baz=0.5,slow=6.5,SNR=17 | | | | | | |
| DZM | Mont Dzumac | 71.45 | 159 | eP | P | 19 53 38.4 | +2.0 |
| | comp=Z,169nm,1.4s | | | | | | |
| DZM | Mont Dzumac | 71.45 | 159 | eP | P | 19 53 37.9 | +1.4 |
| | comp=Z,124nm,1.4s | | | | | | |
| KNB | Kanab | 71.46 | 56 | eP | P | 19 53 37.8 | +1.2 |
| KNB | Kanab | 71.46 | 56 | eP | P | 19 53 37.5 | +0.9 |
| | comp=Z,296nm,1.2s | | | | | | |
| MMU | Miners Mountai | 71.47 | 54 | eP | P | 19 53 37.6 | +0.9 |
| KWP | Kalwaria Pacla | 71.49 | 324 | eP | P | 19 53 36.8 | +0.5 |
| KWP | Kalwaria Pacla | 71.49 | 324 | ⇓eP | P | 19 53 36.8 | +0.5 |
| ASHO | Ashiyiah | 71.49 | 286 | iP | P | 19 53 36.7 | -0.1 |
| | SNR=106 | | | | | | |
| ASHO | Ashiyiah | 71.49 | 286 | P | P | 19 53 36.7 | -0.1 |
| | SNR=75 | | | | | | |
| ASHO | Ashiyiah | 71.49 | 286 | P | P | 19 53 36.7 | -0.1 |
| | SNR=75 | | | | | | |
| AGMN | Agassiz Nation | 71.50 | 38 | eP | P | 19 53 35.4 | -1.0 |
| | comp=Z,177nm,0.9s | | | | | | |
| LDFC | Landfair | 71.51 | 58 | eP | P | 19 53 37.4 | +0.5 |
| | comp=Z,538nm,0.8s | | | | | | |
| NAZ | Nazwa, Dubai | 71.54 | 287 | iP | P | 19 53 37.0 | 0.0 |
| | SNR=48 | | | | | | |
| NAZ | Nazwa, Dubai | 71.54 | 287 | P | P | 19 53 37.0 | 0.0 |
| | SNR=21 | | | | | | |
| NAZ | Nazwa, Dubai | 71.54 | 287 | P | P | 19 53 37.0 | 0.0 |
| | SNR=21 | | | | | | |
| C32A | Crookston | 71.59 | 38 | P | P | 19 53 36.2 | -0.7 |
| | baz=321 | | | | | | |
| EKU | East Kanab | 71.60 | 55 | eP | P | 19 53 38.6 | +1.2 |
| LEOM | Leova | 71.60 | 319 | ⇑iP | P | 19 53 37.4 | +0.5 |
| LEOM | Leova | 71.60 | 319 | ⇑P | P | 19 53 37.4 | +0.5 |
| B33A | Robert and Kas | 71.64 | 38 | P | P | 19 53 36.3 | -0.9 |
| | baz=321 | | | | | | |
| D31A | Mcclaflin, Tow | 71.67 | 40 | P | P | 19 53 37.0 | -0.4 |
| | baz=320 | | | | | | |
| JMDO | Jabal Madar | 71.73 | 283 | P | P | 19 53 39.1 | +0.9 |
| | SNR=7.6 | | | | | | |
| JMDO | Jabal Madar | 71.73 | 283 | P | P | 19 53 39.1 | +0.9 |
| | SNR=7.6 | | | | | | |
| O20A | White River Ci | 71.73 | 51 | P | P | 19 53 38.3 | +0.1 |
| | baz=317 | | | | | | |
| O20A | White River Ci | 71.73 | 51 | eP | P | 19 53 38.3 | +0.1 |
| | comp=Z,366nm,1.0s | | | | | | |
| PFO | Pinyon Flats O | 71.74 | 60 | P | P | 19 53 38.1 | -0.2 |
| | baz=315 | | | | | | |
| PFO | Pinyon Flats O | 71.74 | 60 | eP | P | 19 53 38.4 | +0.2 |
| PFO | Pinyon Flats O | 71.74 | 60 | eP | P | 19 53 38.0 | -0.2 |
| | comp=Z,156nm,1.1s | | | | | | |
| BELC | Belle Mtn. Jos | 71.74 | 60 | P | P | 19 53 37.9 | -0.4 |
| | baz=315 | | | | | | |
| XPFO | Piæon Flat | 71.74 | 60 | eP | P | 19 53 37.9 | -0.3 |
| | comp=Z,166nm,1.1s | | | | | | |
| FAQ | Al Faqa, Dubai | 71.75 | 287 | iP | P | 19 53 37.9 | -0.3 |
| | SNR=85 | | | | | | |
| FAQ | Al Faqa, Dubai | 71.75 | 287 | P | P | 19 53 37.6 | -0.6 |
| | SNR=22 | | | | | | |
| FAQ | Al Faqa, Dubai | 71.75 | 287 | P | P | 19 53 37.6 | -0.6 |
| | SNR=22 | | | | | | |
| PRAR | RASCA | 71.80 | 321 | ⇑iP | P | 19 53 37.8 | -0.4 |
| MLA1 | Latheron | 71.83 | 343 | eP | P | 19 53 38.1 | 0.0 |
| B34A | Aery, Baudette | 71.86 | 37 | P | P | 19 53 37.7 | -0.8 |
| | baz=322 | | | | | | |
| 109C | Camp Elliot, M | 71.86 | 61 | P | P | 19 53 39.4 | +0.7 |
| | baz=315 | | | | | | |
| D32A | Dogwood Acres, | 71.91 | 39 | P | P | 19 53 38.0 | -0.8 |
| | baz=321 | | | | | | |
| NRS | Narsarsuaq | 71.94 | 5 | eP | P | 19 53 38.5 | -0.2 |
| NRS | | | | pmax | pmax | | |
| | comp=Z,110nm,0.8s | | | | | | |
| NRS | Narsarsuaq | 71.94 | 5 | iP | P | 19 53 38.5 | -0.2 |
| | comp=Z,108nm,0.8s | | | | | | |
| NRS | Narsarsuaq | 71.94 | 5 | eP | P | 19 53 38.0 | -0.7 |
| | comp=Z,108nm,0.7s | | | | | | |
| C33A | Trail | 71.96 | 38 | P | P | 19 53 38.3 | -0.8 |
| | baz=321 | | | | | | |
| E31A | Nome | 71.97 | 40 | P | P | 19 53 39.1 | -0.1 |
| | baz=320 | | | | | | |
| NEE2 | Needles Airpor | 72.01 | 58 | P | P | 19 53 40.1 | +0.4 |
| | baz=315 | | | | | | |
| BUR08 | Bucovina Ar. S | 72.02 | 322 | eP | P | 19 53 39.5 | -0.1 |
| MARD | Mardin | 72.03 | 306 | eP | P | 19 53 40.6 | +0.7 |
| | comp=Z,412nm,0.8s | | | | | | |
| BUR04 | Bucovina Ar. S | 72.04 | 322 | eP | P | 19 53 38.9 | -0.8 |
| BURAR | Bucovina Array | 72.04 | 322 | ⇓iP | P | 19 53 40.1 | +0.4 |
| BURAR | Bucovina Array | 72.04 | 322 | ⇓P | P | 19 53 40.1 | +0.4 |
| AFI | Afiamalu | 72.05 | 135 | P | P | 19 53 41.2 | +1.1 |
| | comp=Z,31nm,0.2s,baz=226,slow=7.7,SNR=4.8 | | | | | | |
| AFI | Afiamalu | 72.05 | 135 | eP | P | 19 53 41.5 | +1.5 |
| AFI | | | | pmax | pmax | | |
| | comp=Z,77nm,1.0s | | | | | | |
| AFI | Afiamalu | 72.05 | 135 | eP | P | 19 53 41.5 | +1.5 |
| | comp=Z,76nm,1.0s | | | | | | |
| BSY | Bisya | 72.07 | 284 | P | P | 19 53 41.1 | +0.9 |
| | SNR=27 | | | | | | |
| BSY | Bisya | 72.07 | 284 | P | P | 19 53 41.1 | +0.9 |
| | SNR=27 | | | | | | |
| ARQ | Araqi | 72.11 | 285 | P | P | 19 53 41.5 | +1.1 |
| | SNR=19 | | | | | | |
| ARQ | Araqi | 72.11 | 285 | P | P | 19 53 41.5 | +1.1 |
| | SNR=19 | | | | | | |
| IRM | Iron Mountain | 72.14 | 59 | P | P | 19 53 40.8 | +0.4 |
| | baz=315 | | | | | | |
| OJC | Ojcow | 72.15 | 326 | eP | P | 19 53 40.1 | -0.1 |
| OJC | Ojcow | 72.15 | 326 | eP | P | 19 53 40.1 | -0.1 |
| OJC | Ojcow | 72.15 | 326 | eP | P | 19 53 40.1 | -0.1 |
| OJC | Ojcow | 72.15 | 326 | eP | P | 19 53 36.2 | -3.9 |
| RSC | Scourie | 72.15 | 344 | eP | P | 19 53 40.1 | +0.1 |
| U15A | North Rim | 72.17 | 56 | eP | P | 19 53 41.6 | +0.7 |
| | comp=Z,288nm,0.9s | | | | | | |
| W13A | Hualapai Mount | 72.20 | 58 | eP | P | 19 53 41.0 | -0.1 |
| | comp=Z,161nm,0.9s | | | | | | |
| EIDS | Eidsvold | 72.21 | 174 | eP | P | 19 53 41.3 | +0.6 |
| | comp=Z,50nm,0.8s | | | | | | |
| STHS | Stebnicka Huta | 72.24 | 325 | eP | P | 19 53 41.1 | +0.4 |
| STHS | | | | pmax | pmax | | |
| | comp=Z,127nm,0.8s | | | | | | |
| STHS | Stebnicka Huta | 72.24 | 325 | eP | P | 19 53 41.1 | +0.4 |
| BAR | Barrett | 72.27 | 61 | eP | P | 19 53 41.3 | +0.1 |
| | comp=Z,131nm,1.1s | | | | | | |
| MONP2 | Monument Peak | 72.27 | 61 | P | P | 19 53 41.4 | -0.1 |
| | baz=315 | | | | | | |
| TESR | Tescani | 72.28 | 320 | ⇑iP | P | 19 53 40.8 | -0.2 |
| BC3 | Big Chuckawall | 72.31 | 60 | P | P | 19 53 41.6 | +0.1 |
| | baz=315 | | | | | | |
| E32A | Braaten, Kindr | 72.31 | 40 | P | P | 19 53 40.8 | -0.4 |
| | baz=321 | | | | | | |
| TLCR | | 72.32 | 318 | ⇑iP | P | 19 53 41.7 | +0.5 |
| TLCR | | 72.32 | 318 | ⇑P | P | 19 53 41.7 | +0.5 |
| PHWY | Pilot Hill | 72.33 | 48 | eP | P | 19 53 41.4 | -0.3 |
| | comp=Z,132nm,1.1s | | | | | | |
| B35A | Bob, Littlefor | 72.34 | 37 | P | P | 19 53 40.8 | -0.5 |
| | baz=322 | | | | | | |
| F31A | Hecla | 72.35 | 41 | P | P | 19 53 41.0 | -0.4 |
| | baz=320 | | | | | | |
| N23A | Red Feather La | 72.38 | 49 | P | P | 19 53 42.3 | +0.2 |
| | baz=318 | | | | | | |
| N23A | Red Feather La | 72.38 | 49 | eP | P | 19 53 42.2 | +0.2 |
| | comp=Z,194nm,1.0s | | | | | | |
| C34A | RKJ Ranch, Bem | 72.41 | 38 | P | P | 19 53 41.1 | -0.7 |
| | baz=322 | | | | | | |
| D33A | AnnSam, Waubun | 72.41 | 39 | P | P | 19 53 41.1 | -0.6 |
| | baz=322 | | | | | | |
| PV09 | Paradox Valley | 72.44 | 52 | eP | P | 19 53 42.9 | +0.5 |
| UZH | Uzhgorod | 72.45 | 324 | eP | P | 19 53 40.9 | -1.0 |
| UZH | | | | i | | 19 54 00.7 | |
| MCD | Coleburn Disti | 72.48 | 343 | eP | P | 19 53 41.4 | -0.6 |
| CRVS | Cervenica-Dubn | 72.56 | 325 | eP | P | 19 53 42.8 | +0.2 |
| CRVS | Cervenica-Dubn | 72.56 | 325 | eP | P | 19 53 42.8 | +0.2 |
| PV10 | Paradox Valley | 72.58 | 52 | eP | P | 19 53 44.0 | +0.8 |
| SWSC | Sam W. Stewart | 72.60 | 60 | P | P | 19 53 43.1 | 0.0 |
| | baz=315 | | | | | | |
| NIE | Niedzica | 72.60 | 326 | eP | P | 19 53 43.7 | +0.8 |
| NIE | Niedzica | 72.60 | 326 | ⇓eP | P | 19 53 43.7 | +0.8 |
| PDMCI | Parker Dam,Lak | 72.62 | 58 | P | P | 19 53 43.6 | +0.4 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | baz=316 | | | | | | |
| IKP | In-Ko-Pah, Jac | 72.62 | 61 | P | P | 19 53 43.7 | +0.3 |
| | baz=315 | | | | | | |
| PETR | Petresti | 72.63 | 319 | ⇓iP | P | 19 53 44.5 | +1.5 |
| CFR | Carcaliu | 72.64 | 318 | ⇑iP | P | 19 53 43.5 | +0.4 |
| CFR | Carcaliu | 72.64 | 318 | ⇑P | P | 19 53 43.5 | +0.4 |
| MME1 | Meikle Cairn | 72.67 | 342 | eP | P | 19 53 42.2 | -0.9 |
| ODBI | Odobesti | 72.67 | 319 | ⇓iP | P | 19 53 45.2 | +1.9 |
| BMR | Baia Mare | 72.71 | 323 | ⇑iP | P | 19 53 44.5 | +1.0 |
| BMR | Baia Mare | 72.71 | 323 | ⇑P | P | 19 53 44.5 | +1.0 |
| RRR | Rubha Reidh | 72.73 | 344 | eP | P | 19 53 43.3 | -0.1 |
| D34A | Park Rapids | 72.73 | 38 | P | P | 19 53 43.0 | -0.6 |
| | baz=322 | | | | | | |
| VRI | Vrincioaia | 72.74 | 320 | ⇑iP | P | 19 53 44.6 | +0.9 |
| VRI | Vrincioaia | 72.74 | 320 | ⇑iP | S | 20 02 40.8 | +3.7 |
| VRI | Vrincioaia | 72.74 | 320 | ⇑P | P | 19 53 44.6 | +0.9 |
| TRPA | Tarpa | 72.75 | 324 | ⇓ex | P | 19 53 44.4 | +0.8 |
| C35A | Jirik Farms, M | 72.76 | 37 | P | P | 19 53 43.0 | -0.7 |
| | baz=322 | | | | | | |
| PV05 | Paradox Valley | 72.76 | 53 | eP | P | 19 53 44.7 | +0.4 |
| PLOR | Plostina | 72.79 | 320 | ⇑iP | P | 19 53 44.8 | +0.8 |
| PLOR | Plostina | 72.79 | 320 | ⇓iP | S | 20 02 43.9 | +6.3 |
| PLOR | Plostina | 72.79 | 320 | ⇑P | P | 19 53 44.8 | +0.8 |
| Y12C | Blythe | 72.79 | 59 | P | P | 19 53 44.7 | +0.6 |
| | baz=315 | | | | | | |
| Y12C | Blythe | 72.79 | 59 | eP | P | 19 53 44.8 | +0.6 |
| | comp=Z,360nm,0.8s | | | | | | |
| ARCR | ARCALIA | 72.82 | 322 | ⇑iP | P | 19 53 45.7 | +1.6 |
| RRH | Rhenigidale | 72.84 | 344 | eP | P | 19 53 43.6 | -0.4 |
| E33A | Westby DABS, E | 72.84 | 39 | P | P | 19 53 44.0 | -0.3 |
| | baz=322 | | | | | | |
| MDO | Dochfour | 72.84 | 343 | eP | P | 19 53 43.7 | -0.3 |
| F32A | Veblen | 72.84 | 40 | P | P | 19 53 43.9 | -0.4 |
| | baz=321 | | | | | | |
| G31A | Conde | 72.86 | 41 | P | P | 19 53 44.1 | -0.3 |
| | baz=321 | | | | | | |
| RAC | Raciborz | 72.86 | 327 | eP | P | 19 53 44.8 | +0.5 |
| KSP | Ksiaz | 72.93 | 329 | eP | P | 19 53 45.0 | +0.3 |
| KSP | Ksiaz | 72.93 | 329 | ⇓eP | P | 19 53 45.0 | +0.3 |
| DRUM | Mains of Drumt | 72.94 | 342 | ⇑eP | P | 19 53 44.5 | -0.1 |
| DRUM | | | | IAmb | IAmb | 19 53 45.6 | |
| | comp=Z,226nm,0.8s | | | | | | |
| KAC | Achnashellach | 72.97 | 344 | ⇑eP | P | 19 53 44.3 | -0.5 |
| PV01 | Paradox Valley | 73.01 | 52 | eP | P | 19 53 46.0 | +0.4 |
| GRER | | 73.01 | 319 | ⇑iP | P | 19 53 47.4 | +2.2 |
| TIRR | Tirgusor | 73.06 | 318 | ⇑iP | P | 19 53 46.3 | +0.7 |
| TIRR | Tirgusor | 73.06 | 318 | ⇑P | P | 19 53 46.3 | +0.7 |
| TIRR | Tirgusor | 73.06 | 318 | eP | P | 19 53 45.5 | 0.0 |
| | comp=Z,149nm,0.9s | | | | | | |
| ILGA | Ilgaz | 73.07 | 312 | eP | P | 19 53 47.2 | +1.2 |
| | comp=Z,591nm,1.5s | | | | | | |
| OKC | Ostrava-Krasne | 73.08 | 327 | eP | P | 19 53 45.8 | +0.2 |
| OKC | | | | epP | pP | 19 55 13.5 | +3.1 |
| OKC | | | | ePKKP | PKKPdf | 20 13 08.5 | +7.0 |
| OKC | Ostrava-Krasne | 73.08 | 327 | eP | P | 19 53 45.8 | +0.2 |
| OKC | | | | e*PP | pP | 19 55 13.5 | +3.1 |
| SMCO | Snowmass | 73.10 | 50 | eP | P | 19 53 46.5 | +0.1 |
| | comp=Z,214nm,0.9s | | | | | | |
| GLA | Glamis | 73.10 | 60 | P | P | 19 53 46.4 | +0.3 |
| | baz=316 | | | | | | |
| GLA | Glamis | 73.10 | 60 | eP | P | 19 53 47.0 | +0.9 |
| GLA | Glamis | 73.10 | 60 | eP | P | 19 53 46.5 | +0.5 |
| | comp=Z,293nm,1.1s | | | | | | |
| HARR | Harsova | 73.11 | 318 | ⇑iP | P | 19 53 46.5 | +0.7 |
| HARR | Harsova | 73.11 | 318 | ⇑P | P | 19 53 46.6 | +0.7 |
| SUSD | Miller | 73.12 | 42 | P | P | 19 53 46.0 | 0.0 |
| | baz=320 | | | | | | |
| LANS | Liptovska Anna | 73.14 | 326 | eP | P | 19 53 46.6 | +0.6 |
| LANS | Liptovska Anna | 73.14 | 326 | eP | P | 19 53 46.6 | +0.6 |
| G32A | Webster | 73.15 | 41 | P | P | 19 53 46.0 | -0.2 |
| | baz=321 | | | | | | |
| C36A | Pine Crest Far | 73.18 | 36 | P | P | 19 53 46.0 | -0.2 |
| | baz=323 | | | | | | |
| KPL | Plockton | 73.19 | 344 | ⇑eP | P | 19 53 45.5 | -0.5 |
| KPL | | | | IAmb | IAmb | 19 53 47.5 | |
| | comp=Z,327nm,0.8s | | | | | | |
| E34A | Wadena | 73.19 | 39 | P | P | 19 53 45.9 | -0.4 |
| | baz=322 | | | | | | |
| D35A | Remer | 73.22 | 38 | P | P | 19 53 45.7 | -0.7 |
| | baz=322 | | | | | | |
| F33A | 5 Mile Ranch, | 73.23 | 40 | P | P | 19 53 46.2 | -0.3 |
| | baz=322 | | | | | | |
| DOPR | Dopca | 73.25 | 321 | ⇑iP | P | 19 53 48.0 | +1.3 |
| EFOR | EFORIE | 73.25 | 317 | ⇓iP | P | 19 53 47.5 | +0.8 |
| KECS | Kecovo | 73.28 | 325 | eP | P | 19 53 46.7 | -0.1 |
| KECS | | | | pmax | pmax | | |
| | comp=Z,76nm,0.8s | | | | | | |
| KECS | Kecovo | 73.28 | 325 | eP | P | 19 53 46.7 | -0.1 |
| UPC | Upice | 73.31 | 329 | eP | P | 19 53 47.3 | +0.4 |
| UPC | | | | epP | pP | 19 55 14.0 | +2.2 |
| UPC | | | | eS | SKiKP | 20 02 38.6 | +2.2 |
| UPC | Upice | 73.31 | 329 | eP | P | 19 53 47.3 | +0.4 |
| UPC | | | | e*PP | pP | 19 55 14.0 | +2.2 |
| UPC | | | | eS | SKiKP | 20 02 38.6 | +2.2 |
| H31A | Wolsey | 73.31 | 42 | P | P | 19 53 46.8 | -0.2 |
| | baz=321 | | | | | | |
| DPC | Dobruska-Polom | 73.33 | 328 | eP | P | 19 53 47.4 | +0.3 |
| DPC | | | | epP | pP | 19 55 14.7 | +2.8 |
| DPC | Dobruska-Polom | 73.33 | 328 | eP | P | 19 53 47.4 | +0.3 |
| DPC | | | | e*PP | pP | 19 55 14.7 | +2.8 |
| CVDA | Cernavoda | 73.33 | 318 | ⇑iP | P | 19 53 47.9 | +0.8 |
| WUAZ | Wupatki | 73.34 | 56 | eP | P | 19 53 48.3 | +0.7 |
| | comp=Z,233nm,1.0s | | | | | | |
| ISCO | Idaho Springs | 73.35 | 49 | eP | P | 19 53 48.6 | +0.8 |
| ISCO | Idaho Springs | 73.35 | 49 | eP | P | 19 53 48.2 | +0.5 |
| | comp=Z,149nm,1.0s | | | | | | |
| MORC | Moravsky Berou | 73.35 | 327 | ⇑iP | P | 19 53 47.6 | +0.4 |
| MORC | Moravsky Berou | 73.35 | 327 | ⇑P | P | 19 53 47.6 | +0.4 |
| MORC | Moravsky Berou | 73.35 | 327 | eP | P | 19 53 47.0 | -0.2 |
| | comp=Z,870nm,0.8s | | | | | | |
| PGOR | Pogoanele | 73.37 | 319 | ⇑iP | P | 19 53 48.7 | +1.4 |
| MLR | Muntele Rosu | 73.38 | 320 | ⇑iP | P | 19 53 48.3 | +0.7 |
| MLR | Muntele Rosu | 73.38 | 320 | ⇑iP | S | 20 02 49.8 | +5.4 |
| MLR | Muntele Rosu | 73.38 | 320 | ⇑P | P | 19 53 48.3 | +0.7 |
| MLR | Muntele Rosu | 73.38 | 320 | eP | P | 19 53 47.6 | 0.0 |
| | comp=Z,172nm,0.7s | | | | | | |
| KRLC | Kraliky | 73.39 | 328 | eP | P | 19 53 47.6 | +0.2 |
| KRLC | | | | epP | pP | 19 55 15.1 | +2.8 |
| KRLC | Kraliky | 73.39 | 328 | eP | P | 19 53 47.6 | +0.2 |
| KRLC | | | | e*PP | pP | 19 55 15.1 | +2.8 |
| EDU | Dundee | 73.39 | 342 | ⇑eP | P | 19 53 47.0 | -0.2 |
| ISR | Istrita | 73.40 | 319 | ⇑iP | P | 19 53 49.0 | +1.4 |
| ISR | Istrita | 73.40 | 319 | ⇑P | P | 19 53 49.0 | +1.4 |
| CJR | Cluj-Napoca | 73.43 | 322 | ⇑iP | P | 19 53 48.6 | +0.9 |
| CJR | Cluj-Napoca | 73.43 | 322 | ⇑P | P | 19 53 48.6 | +0.9 |
| AMRR | Amara | 73.44 | 319 | ⇑iP | P | 19 53 49.1 | +1.4 |
| AMRR | Amara | 73.44 | 319 | ⇑P | P | 19 53 49.1 | +1.4 |
| C37A | Embarrass | 73.47 | 36 | P | P | 19 53 47.4 | -0.5 |
| | baz=323 | | | | | | |
| E35A | Pequot Lakes | 73.48 | 38 | P | P | 19 53 47.4 | -0.6 |
| | baz=322 | | | | | | |
| D36A | Goodland | 73.51 | 37 | P | P | 19 53 47.5 | -0.6 |
| | baz=323 | | | | | | |
| Y14A | Wickenburg | 73.54 | 58 | eP | P | 19 53 48.8 | +0.2 |
| | comp=Z,1μm,0.9s | | | | | | |
| EYMN | Ely | 73.57 | 36 | eP | P | 19 53 47.7 | -0.7 |
| | comp=Z,729nm,0.8s | | | | | | |
| ICOR | Ion Corvin | 73.61 | 318 | ⇓iP | P | 19 53 49.8 | +1.1 |
| I31A | Royce, Wessing | 73.63 | 42 | P | P | 19 53 48.7 | -0.2 |
| | baz=321 | | | | | | |
| G33A | Ortonville | 73.67 | 40 | P | P | 19 53 48.8 | -0.3 |
| | baz=322 | | | | | | |
| CLL | Collm | 73.67 | 331 | iP | P | 19 53 48.5 | -0.5 |
| CLL | | | | e*PP | pP | 19 55 15.0 | +1.1 |
| CLL | | | | eS | S | 20 02 46.0 | -1.2 |
| CLL | | | | pmax | pmax | | |
| | comp=Z,370nm,0.7s | | | | | | |
| CLL | Collm | 73.67 | 331 | iP | P | 19 53 48.5 | -0.5 |
| | comp=Z,370nm,0.7s | | | | | | |
| CLL | | | | e | | 19 53 59.0 | |
| CLL | | | | epP | pP | 19 55 15.0 | +1.1 |
| CLL | | | | e | | 19 55 29.0 | |
| CLL | | | | esP | sP | 19 55 55.0 | +0.3 |
| CLL | | | | ePP | PP | 19 56 38.0 | -0.6 |
| CLL | | | | ePPP | PPP | 19 58 24.0 | |
| CLL | | | | e | | 19 59 52.0 | |
| CLL | | | | eS | S | 20 02 46.0 | -1.2 |
| CLL | | | | eSKSac | SKSac | 20 03 18.0 | +0.1 |
| CLL | | | | esSSS | | 20 13 08.0 | |
| CLL | Collm | 73.67 | 331 | eP | P | 19 53 48.1 | -0.9 |
| CLL | Collm | 73.67 | 331 | eP | P | 19 53 48.1 | -0.9 |
| | comp=Z,417nm,0.9s | | | | | | |
| SECR | | 73.68 | 320 | ⇑iP | P | 19 53 49.3 | +0.2 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| F34A | Alexandria | 73.72 | 39 | P | P | 19 53 48.7 | -0.6 |
| | baz=322 | | | | | | |
| MVCO | Mesa Verde | 73.72 | 53 | eP | P | 19 53 49.8 | 0.0 |
| | comp=Z,288nm,0.9s | | | | | | |
| BRG | Berggiesshubel | 73.72 | 330 | iP | P | 19 53 49.1 | -0.2 |
| | comp=Z,86nm,0.9s | | | | | | |
| BRG | | | | PCP | PcP | 19 53 58.5 | -4.3 |
| | comp=Z,38nm,0.8s | | | | | | |
| BRG | | | | e | | 19 56 18.6 | |
| | comp=Z,22nm,1.1s | | | | | | |
| BRG | | | | PP | PP | 19 56 40.2 | +1.2 |
| | comp=Z,93nm,2.0s | | | | | | |
| BRG | | | | S | S | 20 02 45.0 | -2.8 |
| BRG | Berggiesshubel | 73.72 | 330 | iP | P | 19 53 49.1 | -0.2 |
| BRG | | | | | | 19 53 58.5 | |
| BRG | | | | | | 19 56 40.2 | |
| BRG | | | | S | S | 20 02 45.0 | -2.8 |
| BRG | | | | pmax | pmax | | |
| | comp=Z,86nm,0.9s | | | | | | |
| BRG | | | | pmax | pmax | | |
| | comp=Z,93nm,2.0s | | | | | | |
| BRG | Berggiesshubel | 73.72 | 330 | eP | P | 19 53 49.1 | -0.2 |
| DRGR | | 73.74 | 323 | ⇑iP | P | 19 53 49.8 | +0.3 |
| DRGR | | 73.74 | 323 | ⇑P | P | 19 53 49.8 | +0.3 |
| H32A | Carlson Farm, | 73.76 | 41 | P | P | 19 53 49.2 | -0.4 |
| | baz=321 | | | | | | |
| PVCC | Panska Ves | 73.80 | 329 | eP | P | 19 53 49.7 | 0.0 |
| PVCC | Panska Ves | 73.80 | 329 | eP | P | 19 53 49.7 | 0.0 |
| VOIR | | 73.81 | 320 | ⇓iP | P | 19 53 50.8 | +0.8 |
| VOIR | | 73.81 | 320 | ⇓iP | S | 20 02 56.9 | +7.8 |
| VOIR | | 73.81 | 320 | ⇓P | P | 19 53 50.8 | +0.8 |
| D37A | Cotton | 73.83 | 37 | P | P | 19 53 49.3 | -0.7 |
| | baz=323 | | | | | | |
| C38A | Sawbill Land. | 73.84 | 36 | P | P | 19 53 49.5 | -0.5 |
| | baz=324 | | | | | | |
| SULR | | 73.87 | 319 | ⇑iP | P | 19 53 51.1 | +0.9 |
| ESY | Stoneypath | 73.89 | 342 | ⇑eP | P | 19 53 49.7 | -0.5 |
| VYHS | Vyhne | 73.92 | 326 | eP | P | 19 53 50.8 | +0.3 |
| VYHS | | | | pmax | pmax | | |
| | comp=Z,86nm,0.9s | | | | | | |
| VYHS | Vyhne | 73.92 | 326 | eP | P | 19 53 50.8 | +0.3 |
| 113A | Mohawk Valley, | 73.93 | 59 | eP | P | 19 53 51.1 | +0.3 |
| | comp=Z,204nm,1.0s | | | | | | |
| H33A | Prehn Over Nor | 73.94 | 41 | P | P | 19 53 50.6 | -0.1 |
| | baz=321 | | | | | | |
| F35A | Swanville | 73.96 | 39 | P | P | 19 53 50.3 | -0.5 |
| | baz=322 | | | | | | |
| MTUR | Matau | 73.97 | 320 | ⇑iP | P | 19 53 51.5 | +0.6 |
| MTUR | Matau | 73.97 | 320 | ⇑P | P | 19 53 51.5 | +0.6 |
| PSZ | Piszkesteto | 73.97 | 325 | ⇓iP | P | 19 53 51.6 | +0.7 |
| PSZ | Piszkesteto | 73.97 | 325 | ⇓P | P | 19 53 51.6 | +0.7 |
| PSZ | Piszkesteto | 73.97 | 325 | ⇓ex | P | 19 53 51.6 | +0.7 |
| PSZ | Piszkesteto | 73.97 | 325 | eP | P | 19 53 51.2 | +0.3 |
| | comp=Z,231nm,0.9s | | | | | | |
| G34A | Benson | 73.99 | 40 | P | P | 19 53 50.6 | -0.3 |
| | baz=322 | | | | | | |
| E36A | McGregor | 74.00 | 38 | P | P | 19 53 50.6 | -0.3 |
| | baz=323 | | | | | | |
| EAB | Aberfoyle | 74.00 | 343 | ⇑eP | P | 19 53 50.8 | +0.1 |
| EDI | Edinburgh | 74.01 | 342 | ⇑eP | P | 19 53 50.6 | -0.2 |
| EDI | | | | IAmb | IAmb | 19 53 52.1 | |
| | comp=Z,141nm,0.8s | | | | | | |
| VRAC | Vranov | 74.09 | 328 | ⇑iP | P | 19 53 51.9 | +0.5 |
| VRAC | Vranov | 74.09 | 328 | ⇑P | P | 19 53 51.9 | +0.5 |
| X16A | Lo Mia Camp, P | 74.10 | 57 | eP | P | 19 53 52.9 | +0.9 |
| | comp=Z,307nm,0.9s | | | | | | |
| BR101 | Keskin Array S | 74.10 | 312 | eP | P | 19 53 51.8 | -0.1 |
| BR101 | | | | ePP | PP | 19 56 41.2 | -1.5 |
| BR131 | Keskin Array S | 74.10 | 312 | eP | P | 19 53 51.8 | 0.0 |
| BRTR | Keskin Array B | 74.10 | 312 | P | P | 19 53 51.8 | 0.0 |
| | comp=Z,89nm,0.7s,baz=76,slow=3.8,SNR=283 | | | | | | |
| BRTR | | | | PP | PP | 19 56 41.2 | -1.5 |
| | comp=Z,11nm,0.8s,baz=60,slow=5.9,SNR=4.6 | | | | | | |
| J31A | Geddes | 74.10 | 43 | P | P | 19 53 51.5 | -0.2 |
| | baz=321 | | | | | | |
| I32A | Karley and Nic | 74.12 | 42 | P | P | 19 53 51.2 | -0.5 |
| | baz=321 | | | | | | |
| BUC | Bucharest | 74.15 | 319 | ⇑iP | P | 19 53 52.9 | +1.1 |
| Q24A | Divide | 74.21 | 50 | P | P | 19 53 52.8 | +0.1 |
| | baz=318 | | | | | | |
| Q24A | Divide | 74.21 | 50 | eP | P | 19 53 52.9 | +0.2 |
| | comp=Z,230nm,1.0s | | | | | | |
| C39A | Grand Marais | 74.21 | 35 | P | P | 19 53 51.4 | -0.7 |
| | baz=325 | | | | | | |
| S22A | 4UR Ranch, Cre | 74.23 | 51 | P | P | 19 53 53.2 | +0.4 |
| | baz=318 | | | | | | |
| S22A | 4UR Ranch, Cre | 74.23 | 51 | eP | P | 19 53 53.2 | +0.4 |
| | comp=Z,227nm,1.0s | | | | | | |
| PRA | Prague | 74.23 | 329 | eP | P | 19 53 52.6 | +0.4 |
| PRA | Prague | 74.23 | 329 | eP | P | 19 53 52.6 | +0.4 |
| GOPC | GO Pecny, Ondr | 74.24 | 329 | eP | P | 19 53 52.3 | 0.0 |
| GOPC | | | | epP | pP | 19 55 20.1 | +2.7 |
| GOPC | | | | eS | S | 20 02 52.7 | -0.8 |
| GOPC | GO Pecny, Ondr | 74.24 | 329 | eP | P | 19 53 52.3 | 0.0 |
| GOPC | | | | e*PP | pP | 19 55 20.1 | +2.7 |
| GOPC | | | | eS | S | 20 02 52.7 | -0.8 |
| PRU | Pruhonice | 74.26 | 329 | eP | P | 19 53 52.2 | -0.2 |
| PRU | | | | ePP | PP | 19 56 44.8 | +1.3 |
| PRU | | | | eS | S | 20 02 53.0 | -0.7 |
| PRU | | | | ex | x | 20 13 28.8 | |
| PRU | Pruhonice | 74.26 | 329 | eP | P | 19 53 52.2 | -0.2 |
| PRU | | | | e | | 19 56 44.8 | |
| PRU | | | | eS | S | 20 02 53.0 | -0.7 |
| PRU | Pruhonice | 74.26 | 329 | eP | P | 19 53 52.2 | -0.2 |
| E37A | Wrenshall | 74.31 | 37 | P | P | 19 53 52.6 | -0.1 |
| | baz=324 | | | | | | |
| OGNE | Ogallala | 74.31 | 46 | eP | P | 19 53 52.8 | -0.1 |
| | comp=Z,689nm,0.9s | | | | | | |
| SGRR | Singureni | 74.35 | 319 | ⇑iP | P | 19 53 53.2 | +0.2 |
| LOT | Lotru | 74.36 | 321 | ⇑iP | P | 19 53 53.7 | +0.5 |
| H34A | Spellman Lake, | 74.38 | 40 | P | P | 19 53 52.8 | -0.3 |
| | baz=322 | | | | | | |
| DEV | Deva | 74.38 | 322 | ⇑iP | P | 19 53 54.8 | +1.7 |
| DEV | Deva | 74.38 | 322 | ⇑P | P | 19 53 54.8 | +1.7 |
| PGBU | Glenifferbraes | 74.38 | 343 | eP | P | 19 53 53.2 | +0.3 |
| PGBU | | | | IAmb | IAmb | 19 53 54.3 | |
| | comp=Z,326nm,0.8s | | | | | | |
| F36A | Milaca | 74.41 | 38 | P | P | 19 53 52.4 | -0.9 |
| | baz=323 | | | | | | |
| I33A | Coleman | 74.41 | 41 | P | P | 19 53 53.1 | -0.2 |
| | baz=322 | | | | | | |
| ANTO | Ankara | 74.42 | 312 | eP | P | 19 53 54.6 | +1.0 |
| ANTO | Ankara | 74.42 | 312 | eP | P | 19 53 53.9 | +0.4 |
| | comp=Z,307nm,0.8s | | | | | | |
| ANTO | Ankara | 74.42 | 312 | P | P | 19 53 54.4 | +0.8 |
| | SNR=22 | | | | | | |
| ANTO | Ankara | 74.42 | 312 | P | P | 19 53 54.4 | +0.8 |
| | SNR=22 | | | | | | |
| SMOL | Smolenice | 74.44 | 327 | eP | P | 19 53 54.2 | +0.8 |
| SMOL | Smolenice | 74.44 | 327 | eP | P | 19 53 54.2 | +0.8 |
| BR231 | Keskin MP Arra | 74.45 | 312 | eP | P | 19 53 52.7 | -1.1 |
| J32A | Parkston | 74.45 | 42 | P | P | 19 53 53.1 | -0.5 |
| | baz=321 | | | | | | |
| G35A | Watkins | 74.50 | 39 | P | P | 19 53 53.6 | -0.3 |
| | baz=323 | | | | | | |
| C40A | Isle Royale Na | 74.51 | 34 | P | P | 19 53 52.8 | -1.1 |
| | baz=325 | | | | | | |
| W18A | Petrified Fore | 74.56 | 55 | P | P | 19 53 55.0 | +0.4 |
| | baz=317 | | | | | | |
| W18A | Petrified Fore | 74.56 | 55 | eP | P | 19 53 55.5 | +0.9 |
| | comp=Z,128nm,1.0s | | | | | | |
| ESK | Eskdalemuir | 74.58 | 342 | ⇑eP | P | 19 53 53.7 | -0.4 |
| ESK | | | | IAmb | IAmb | 19 53 55.5 | |
| | comp=Z,190nm,0.7s | | | | | | |
| ESK | Eskdalemuir | 74.58 | 342 | eP | P | 19 53 54.0 | 0.0 |
| ESK | Eskdalemuir | 74.58 | 342 | eP | P | 19 53 53.8 | -0.2 |
| | comp=Z,195nm,0.7s | | | | | | |
| SIRR | Siria | 74.59 | 323 | ⇑iP | P | 19 53 55.2 | +0.8 |
| MODS | Modra-Piesok | 74.61 | 327 | eP | P | 19 53 54.2 | -0.2 |
| MODS | Modra-Piesok | 74.61 | 327 | eP | P | 19 53 54.2 | -0.2 |
| K31A | O'Neill | 74.61 | 43 | P | P | 19 53 54.5 | 0.0 |
| | baz=321 | | | | | | |
| E38A | The Farm, Brul | 74.63 | 36 | P | P | 19 53 53.8 | -0.7 |
| | baz=324 | | | | | | |
| BUD | Budapest | 74.67 | 325 | ⇓ex | P | 19 53 55.4 | +0.7 |
| SRO | Srobarova | 74.68 | 326 | eP | P | 19 53 56.3 | +1.6 |
| SRO | Srobarova | 74.68 | 326 | eP | P | 19 53 56.3 | +1.6 |
| LCP | Cassop | 74.72 | 340 | eP | P | 19 53 54.9 | 0.0 |
| ECSD | EROS Data Cent | 74.73 | 41 | eP | P | 19 53 54.9 | -0.3 |
| | comp=Z,391nm,0.8s | | | | | | |
| ECSD | | | | eS | S | 20 02 58.5 | -0.8 |
| H35A | Sunnyside Ranc | 74.77 | 40 | P | P | 19 53 55.4 | 0.0 |
| | baz=322 | | | | | | |
| NKC | Novy Kostel | 74.77 | 330 | eP | P | 19 53 55.3 | 0.0 |
| NKC | | | | eS | S | 20 02 58.0 | -1.4 |

NKC **Novy Kostel** 74.77 330 *e*P **P** 19 53 55.3 0.0
NKC *e*S **S** 20 02 58.0 -1.4
BHH **Howats Hill** 74.78 342 *e*P **P** 19 53 55.3 +0.1
G36A **St. Michael** 74.81 39 P **P** 19 53 55.2 -0.3
baz=323
ZST **Bratislava** 74.82 327 *e*P **P** 19 53 55.8 +0.2
ZST pmax pmax
comp=Z,91nm,0.9s
ZST **Bratislava** 74.82 327 *e*P **P** 19 53 55.8 +0.2
I34A **Hadley** 74.83 41 P **P** 19 53 55.7 -0.1
baz=322
X18A **Snowflake** 74.86 56 *e*P **P** 19 53 57.0 +0.7
comp=Z,202nm,1.0s
F37A **Hinrichs Farm,** 74.89 38 P **P** 19 53 55.6 -0.5
baz=324
J33A **Davis** 74.90 42 P **P** 19 53 55.9 -0.2
baz=322
SDCO **Great Sand Dun** 74.93 51 *e*P **P** 19 53 57.1 +0.3
comp=Z,187nm,1.0s
K32A **Verdigre** 74.95 43 P **P** 19 53 56.0 -0.4
baz=321
F38A **Pierce - Schro** 75.02 37 P **P** 19 53 56.8 0.0
baz=324
GMK **Mull of Kintyr** 75.05 343 *e*P **P** 19 53 56.1 -0.5
WTSB **Winterswijk** 75.06 335 *e*P **P** 19 53 56.4 -0.4
comp=Z,182nm,0.7s
CSKK **Cs˙‡kako** 75.07 326⇓*ex* **P** 19 53 57.8 +0.8
ZIMR 75.07 319⇑*i*P **P** 19 53 57.5 +0.5
ZIMR 75.07 319 ⇑P **P** 19 53 57.5 +0.5
214A **Organ Pipe Nat** 75.07 59 P **P** 19 53 57.9 +0.6
baz=316
BZS **Buzias** 75.14 323⇓*i*P **P** 19 53 57.6 +0.2
BZS **Buzias** 75.14 323 ⇓P **P** 19 53 57.6 +0.2
SCHQ **Schefferville** 75.15 18 P **P** 19 53 56.7 -0.7
comp=Z,150nm,0.8s,baz=351,slow=5.4,SNR=58
SCHQ **Schefferville** 75.15 18 *e*P **P** 19 53 56.7 -0.7
comp=Z,137nm,0.7s
E39A **Mellen** 75.22 36 P **P** 19 53 57.6 -0.3
baz=325
SPMN **Marine on St.** 75.22 38 P **P** 19 53 57.5 -0.4
baz=324
SPMN **Marine on St.** 75.22 38 *e*P **P** 19 53 56.9 -1.0
comp=Z,243nm,0.9s
SRE **Strehaia** 75.23 321⇓*i*P **P** 19 53 58.7 +0.8
SRE **Strehaia** 75.23 321 ⇓P **P** 19 53 58.7 +0.8
KESW **Keswick, Cumbr** 75.23 341⇑*e*P **P** 19 53 58.2 +0.4
KESW IAmb IAmb 19 53 59.6
comp=Z,373nm,0.8s
H36A **Jessenland, He** 75.26 39 P **P** 19 53 58.0 -0.1
baz=323
GAL1 **Galloway** 75.31 342⇑*e*P **P** 19 53 57.8 -0.4
GAL1 IAmb IAmb 19 53 59.6
comp=Z,180nm,0.7s
KHC **Kasperske Hory** 75.32 329 *e*P **P** 19 53 58.4 0.0
KHC *ex* x 19 54 04.5
KHC *ex* x 19 54 17.5
KHC *e*S **S** 20 03 00.8 -4.7
KHC **Kasperske Hory** 75.32 329 *e*P **P** 19 53 58.4 0.0
KHC *e* 19 54 04.5
KHC *e*S **S** 20 03 00.8 -4.7
KHC **Kasperske Hory** 75.32 329 *e*P **P** 19 53 58.4 0.0
KHC **Kasperske Hory** 75.32 329 *e*P **P** 19 53 58.5 +0.1
comp=Z,92nm,0.7s
I35A **Creekview Farm** 75.37 40 P **P** 19 53 58.2 -0.5
baz=322
J34A **George** 75.38 41 P **P** 19 53 58.5 -0.3
baz=322
E40A **Wakefield** 75.42 36 P **P** 19 53 59.2 +0.1
baz=325
PVL **Pavlikeni** 75.43 319 *e*P **P** 19 54 00.1 +1.0
K33A **Hardington** 75.44 42 P **P** 19 53 59.2 0.0
baz=322
L32A **Elgin** 75.44 43 P **P** 19 53 59.1 -0.1
baz=321
D41A **Chassel** 75.44 34 P **P** 19 53 58.8 -0.3
baz=326
F39A **Loretta** 75.44 37 P **P** 19 53 58.9 -0.2
baz=324
SOP **Sopron** 75.45 327⇓*ex* **P** 19 54 00.3 +1.2
HPK **Haverah Park** 75.48 340⇑*e*P **P** 19 53 59.0 -0.1
HPK IAmb IAmb 19 54 01.0
comp=Z,479nm,0.8s
KSCO **Kaye Shedlock'** 75.48 48 P **P** 19 53 59.6 0.0
baz=320
KSCO **Kaye Shedlock'** 75.48 48 *e*P **P** 19 53 59.6 0.0
comp=Z,246nm,1.1s
CONA **Conrad Observa** 75.51 327 *i*P **P** 19 54 00.5 +0.9
comp=Z,136nm,0.7s,SNR=55
CONA *e*S **S** 20 03 12.3 +4.6
comp=Z,7.4nm,1.5s
GEC2 **GERESS Array S** 75.52 329 *e*P **P** 19 53 59.5 -0.1
GEC2 **GERESS Array S** 75.52 329 *e*P **P** 19 53 59.3 -0.3
comp=Z,94nm,0.7s
GERES **GERESS Array B** 75.52 329 P **P** 19 53 59.3 -0.3
comp=Z,92nm,0.7s,baz=35,slow=5.1,SNR=354
GERES PKKP **PKKPdf** 20 12 51.4 -6.6
comp=Z,0.2nm,0.3s,baz=179,slow=6.1,SNR=4.3
BANR **Banloc** 75.53 323⇑*i*P **P** 19 54 00.6 +1.0
GEA0 **GERESS Array S** 75.53 329 *e*P **P** 19 53 59.1 -0.5
GRFO **Grafenberg** 75.65 331 *e*P **P** 19 54 00.6 +0.4
GRFO **Grafenberg** 75.65 331 *e*P **P** 19 54 00.5 +0.2
comp=Z,278nm,0.8s
J35A **Milford** 75.66 41 P **P** 19 54 00.1 -0.3
baz=322
L33A **Hoskins** 75.66 43 P **P** 19 53 60.0 -0.5
baz=322
G38A **Ridgeland** 75.66 38 P **P** 19 53 59.6 -0.8
baz=324
I36A **Fitzsimmons Fa** 75.66 40 P **P** 19 54 00.3 -0.1
baz=323
H37A **Dierke Farm, C** 75.69 39 P **P** 19 54 00.3 -0.2
baz=324
F40A **Park Falls** 75.76 36 P **P** 19 54 00.6 -0.3
baz=325
MDVR **Moldovita** 75.77 322⇑*i*P **P** 19 54 00.9 -0.1
E41A **Kenton** 75.78 35 P **P** 19 54 00.6 -0.4
baz=326
K34A **Le Mars** 75.79 42 P **P** 19 54 00.9 -0.3
baz=322
BGNE **Belgrade** 75.84 44 P **P** 19 54 01.4 -0.1
baz=321
BGNE **Belgrade** 75.84 44 *e*P **P** 19 54 00.8 -0.7
comp=Z,976nm,0.8s
G39A **Holcombe** 75.85 37 P **P** 19 54 00.8 -0.7
baz=324
H38A **Maiden Rock** 75.88 38 P **P** 19 54 01.2 -0.4
baz=324
LHO **Holmfirth** 75.91 340⇑*e*P **P** 19 54 01.7 +0.1
I37A **Lemond, Waseca** 75.93 39 P **P** 19 54 02.0 +0.1
baz=323
T25A **Trinidad** 75.96 50 P **P** 19 54 02.6 +0.1
baz=319
T25A **Trinidad** 75.96 50 *e*P **P** 19 54 02.5 -0.1
comp=Z,287nm,0.9s
WIM **Isle of Man** 75.98 342⇑*e*P **P** 19 54 01.6 -0.3
TUC **Tucson** 76.00 58 *e*P **P** 19 54 03.2 +0.6
TUC **Tucson** 76.00 58 *e*P **P** 19 54 03.0 +0.4
comp=Z,178nm,1.0s
WACR **West Acre** 76.06 338⇑*e*P **P** 19 54 02.2 -0.2
WACR IAmb IAmb 19 54 04.1
comp=Z,648nm,0.9s
J36A **Seneca 1, Swea** 76.07 40 P **P** 19 54 02.3 -0.5
baz=323
K35A **Storm Lake** 76.15 41 P **P** 19 54 02.5 -0.7
baz=323
GMM **Mts of Mourne** 76.16 343 *e*P **P** 19 54 02.3 -0.6
M33A **Taylor Creek F** 76.16 43 P **P** 19 54 03.0 -0.2
baz=322
MOA **Molln** 76.16 328 *i*P **P** 19 54 03.6 +0.4
comp=Z,147nm,0.7s,SNR=56
MOA *e*S **S** 20 03 20.1 +5.6
comp=Z,9.3nm,1.7s
ARSA **Arzberg** 76.20 327 *i*P **P** 19 54 03.9 +0.5
comp=Z,48nm,0.6s,SNR=27
E42A **Champion** 76.22 34 P **P** 19 54 03.1 -0.4
baz=326
BOLV **Bolvadin** 76.23 312 *e*P **P** 19 54 04.2 +0.3
comp=Z,274nm,0.8s
L34A **Svendsen Farm,** 76.23 42 P **P** 19 54 03.2 -0.5
baz=322
DIM **Dimitrovgrad** 76.26 318 *e*P **P** 19 54 05.0 +1.2
G40A **Rib Lake** 76.26 36 P **P** 19 54 03.5 -0.3
baz=325
BEO **Beograd** 76.27 323 *e*P **P** 19 54 04.2 +0.5
BEO **Beograd** 76.27 323 *e*P **P** 19 54 03.9 +0.2
H39A **Augusta** 76.30 37 P **P** 19 54 03.5 -0.5
baz=324
F41A **Three Lakes** 76.32 36 P **P** 19 54 04.0 -0.1
baz=326
I38A **Scanlan Farm,** 76.37 38 P **P** 19 54 03.9 -0.5
baz=324
HGN **Heimansgroeve** 76.38 334 *i*P **P** 19 54 03.8 -0.4
comp=Z,165nm,0.8s
BEHE **Beesehely** 76.38 326⇑*ex* **P** 19 54 05.0 +0.7
BEBN **Eben Emael** 76.42 335 P **P** 19 54 04.1 -0.4
comp=Z,105nm,0.8s
SHAO **Shalim** 76.42 282 P **P** 19 54 05.7 +0.6
SNR=9.5
SHAO **Shalim** 76.42 282 P **P** 19 54 05.7 +0.6
SNR=9.5
J37A **Redenius Farm,** 76.43 40 P **P** 19 54 04.4 -0.3
baz=323
PGB **Panagyurishte** 76.48 319 *e*P **P** 19 54 05.9 +0.8
PGB **Panagyurishte** 76.48 319 *i*P **S** 20 03 20.3 +2.0
MEM **Membach** 76.49 334 P **P** 19 54 04.8 -0.1
comp=Z,146nm,0.9s
L35A **Bielow Farm, R** 76.49 42 P **P** 19 54 04.4 -0.7
baz=322
M34A **Aspy Farms, Fr** 76.50 43 P **P** 19 54 05.0 -0.2
baz=322
ANMO **Albuquerque** 76.50 53*d i*P **P** 19 54 03.4 -2.1
ANMO pmax pmax
comp=Z,150nm,1.1s
ANMO **Albuquerque** 76.50 53 *e*P **P** 19 54 05.9 +0.4
comp=Z,288nm,1.3s
CWF **Charnwood Fore** 76.53 340⇑*e*P **P** 19 54 04.6 -0.5
CWF IAmb IAmb 19 54 06.1
comp=Z,100nm,0.7s
CWF **Charnwood Fore** 76.53 340 *e*P **P** 19 54 04.8 -0.2
comp=Z,101nm,0.7s
LAZ **Ladron** 76.53 54 *e*P **P** 19 54 06.9 +1.2
K36A **Gilmore City** 76.57 41 P **P** 19 54 05.1 -0.4
baz=323
PLD **Plovdiv** 76.59 318 *i*P **S** 20 03 21.3 +2.0
KOGS **Kog** 76.60 326 *i*P **P** 19 54 05.4 -0.2
WME **Myndd Eilian** 76.60 342⇑*e*P **P** 19 54 04.8 -0.6
E43A **Lone Tree Farm** 76.61 34 P **P** 19 54 05.1 -0.6
baz=327
KDZ **Kurdzhali** 76.63 318 *e*P **P** 19 54 07.1 +1.3
WPM1 **Penmaenmawr** 76.64 341⇑*e*P **P** 19 54 05.2 -0.5
F42A **Maple Grove Fa** 76.69 35 P **P** 19 54 05.8 -0.3
baz=326
N33A **J Bar K, Exete** 76.69 44 P **P** 19 54 05.6 -0.6
baz=322
H40A **Chili** 76.71 37 P **P** 19 54 06.0 -0.3
baz=325
WLF1 **Llynfaes** 76.72 342⇑*e*P **P** 19 54 05.9 -0.2
WLF1 IAmb IAmb 19 54 07.3
comp=Z,228nm,0.6s
G41A **Antigo** 76.72 36 P **P** 19 54 05.9 -0.4
baz=326
E44A **Grand Marais A** 76.82 33 P **P** 19 54 06.6 -0.2
baz=327
FOEL **Foel Wylfa** 76.83 341⇑*e*P **P** 19 54 06.8 +0.1
FOEL IAmb IAmb 19 54 08.6
comp=Z,634nm,0.8s
K37A **Belmond** 76.83 40 P **P** 19 54 06.5 -0.4
baz=323
SOKA **Soboth** 76.86 327 *i*P **P** 19 54 07.4 +0.3
comp=Z,152nm,0.8s,SNR=60
I39A **Houston** 76.86 38 P **P** 19 54 06.5 -0.6
baz=324
BCLA **Clavier** 76.87 335 P **P** 19 54 06.5 -0.5
comp=Z,95nm,0.9s
LPM **Los Pinos Moun** 76.88 54 *e*P **P** 19 54 08.5 +1.0
VTS **Vitosha** 76.88 320⇑*i*P **P** 19 54 07.9 +0.5
VTS **Vitosha** 76.88 320 ⇑P **P** 19 54 07.9 +0.5
VTS **Vitosha** 76.88 320 *e*P **P** 19 54 08.1 +0.7
VTS **Vitosha** 76.88 320 *i*P **S** 20 03 24.1 +1.4
VTS **Vitosha** 76.88 320 *e*P **P** 19 54 06.9 -0.5
comp=Z,299nm,0.7s
VTS **Vitosha** 76.88 320 P **P** 19 54 07.2 -0.2
J38A **Wedel Dairy, R** 76.89 39 P **P** 19 54 06.6 -0.6
baz=324
Y22D **IRIS PASSCAL I** 76.89 54 P **P** 19 54 06.9 -0.8
baz=318
Y22E **IRIS PASSCAL I** 76.89 54 P **P** 19 54 09.0 +1.4
baz=318
L36A **Harm Buss Farm** 76.90 41 P **P** 19 54 07.2 -0.1
baz=323
RZN **Rozhen** 76.92 318 *i*P **S** 20 03 24.9 +1.6
ALN **Alexandroupoli** 76.93 317 P **P** 19 54 07.5 0.0
ALN **Alexandroupoli** 76.93 317 P **P** 19 54 07.5 0.0
ALN **Alexandroupoli** 76.93 317 P **P** 19 54 07.5 0.0
M35A **Neola** 76.94 42 P **P** 19 54 07.6 +0.1
baz=322
RDO **Rodhopi** 76.97 317 P **P** 19 54 08.0 +0.3
BNM **Barren Site** 77.00 54 *e*P **P** 19 54 09.3 +0.9
G42A **Mountain** 77.00 35 P **P** 19 54 07.7 -0.1
baz=326
F43A **Flat Rock, Esc** 77.00 34 P **P** 19 54 07.5 -0.3
baz=327
ENEZ **Enez** 77.00 317 P **P** 19 54 07.9 0.0
H41A **Junction City** 77.02 37 P **P** 19 54 07.5 -0.4
baz=325
N34A **Lincoln** 77.06 43 P **P** 19 54 07.5 -0.7
baz=322
CBKS **Cedar Bluff** 77.08 46 *e*P **P** 19 54 07.9 -0.6
CBKS **Cedar Bluff** 77.08 46 *e*P **P** 19 54 07.8 -0.6
comp=Z,308nm,0.8s
SNF **Seneffe** 77.08 335 P **P** 19 54 08.0 -0.1
HLM1 **Long Mynd** 77.10 340⇑*e*P **P** 19 54 07.9 -0.4
HLM1 IAmb IAmb 19 54 09.6
comp=Z,185nm,0.7s
STU **Stuttgart** 77.11 332 *e*P **P** 19 54 08.5 +0.1
STU **Stuttgart** 77.11 332 *e*P **P** 19 54 08.2 -0.1
comp=Z,309nm,0.9s
KBA **Koelnbreinsper** 77.14 328 *i*P **P** 19 54 09.5 +0.7
comp=Z,322nm,0.6s,SNR=183
O33A **Hebron** 77.14 44 P **P** 19 54 07.8 -1.0
baz=322
F44A **Big Bay de Noc** 77.17 34 P **P** 19 54 08.2 -0.5
baz=327
DSB **Dublin** 77.18 343 *e*P **P** 19 54 08.7 +0.1
comp=Z,145nm,0.9s
OBKA **Obir** 77.19 327 *i*P **P** 19 54 09.1 +0.1
comp=Z,114nm,0.7s,SNR=36
J39A **Decorah** 77.21 39 P **P** 19 54 08.1 -1.0
baz=324
I40A **Norwalk** 77.22 38 P **P** 19 54 08.6 -0.4
baz=325
ARMA **Armidale** 77.26 174 *e*P **P** 19 54 10.2 +0.8
comp=Z,71nm,0.9s
G43A **Wallace** 77.28 35 P **P** 19 54 09.0 -0.4
baz=326
WLF **Walferdange** 77.28 334 P **P** 19 54 09.3 +0.1
comp=Z,45nm,0.8s
WLF **Walferdange** 77.28 334 *e*P **P** 19 54 09.4 +0.1
WLF **Walferdange** 77.28 334 *e*P **P** 19 54 09.3 +0.1
comp=Z,114nm,0.9s
L37A **Phoenix Point,** 77.29 41 P **P** 19 54 09.0 -0.5
baz=324
K38A **Parkersburg** 77.31 40 P **P** 19 54 08.8 -0.7
baz=324
E45A **Wooded Hills,** 77.32 33 P **P** 19 54 09.0 -0.6
baz=328
M36A **Felix, Anita** 77.36 42 P **P** 19 54 09.7 -0.2
baz=323
DOU **Dourbes** 77.36 335 P **P** 19 54 09.2 -0.5
comp=Z,36nm,1.0s
SSW **Stow on the Wo** 77.37 340 *e*P **P** 19 54 09.8 +0.1
LANF **Langenberg** 77.38 333⇓*e*P **P** 19 54 10.0 +0.2
I41A **Arkdale** 77.39 37 P **P** 19 54 09.5 -0.5
baz=325
MYKA **Terra Mystica** 77.42 328 *i*P **P** 19 54 10.0 -0.2
comp=Z,128nm,0.7s,SNR=46
MYKA *e*SKSac **SKSac** 20 03 43.5 -2.3
comp=Z,13nm,1.1s
PHNC **Paralimni** 77.43 308 P P 19 54 03.1 -7.3
N35A **Tabor** 77.44 42 P **P** 19 54 10.4 0.0
baz=323
MMB **Musomiste** 77.45 319 *e*P **P** 19 54 11.2 +0.8
MMB **Musomiste** 77.45 319 *i*P **S** 20 03 30.1 +1.5
O34A **Beatrice** 77.48 44 P **P** 19 54 09.8 -0.8
baz=322
SMTH **Samothraki Isl** 77.50 317 *e*P **P** 19 54 10.2 -0.5
SMTH **Samothraki Isl** 77.50 317 P **P** 19 54 10.2 -0.5
WATA **Walderalm** 77.55 329 *i*P **P** 19 54 11.0 0.0
comp=Z,241nm,0.5s,SNR=162
121A **Cookes Peak, D** 77.55 56 P **P** 19 54 12.7 +1.4
baz=318
GADA **Gvkgeada** 77.55 317 *e*P **P** 19 54 10.9 0.0
GADA **Gvkgeada** 77.55 317 P **P** 19 54 10.9 0.0
319A **Douglas** 77.55 57 *e*P **P** 19 54 12.1 +0.8
comp=Z,476nm,0.9s
KAVA **Kavala** 77.56 318 P **P** 19 54 10.9 0.0
H42A **Shiocton** 77.56 36 P **P** 19 54 10.5 -0.5
baz=326
J40A **Soldiers Grove** 77.57 38 P **P** 19 54 09.9 -1.1
baz=325
NVR **Nevrokopi** 77.58 319 P **P** 19 54 11.0 -0.1
NVR **Nevrokopi** 77.58 319 P **P** 19 54 11.0 -0.1
LJU **Ljubljana** 77.59 327 *e*P **P** 19 54 10.6 -0.4
OZLJ **Ozalj** 77.59 326 *i*P **P** 19 54 11.1 +0.1
WTTA **Wattenberg** 77.59 329 *i*P **P** 19 54 11.3 +0.1
comp=Z,250nm,0.7s,SNR=81
MANT **Manisa** 77.60 314 *e*P **P** 19 54 11.7 +0.2
comp=Z,875nm,0.7s
MCH1 **Michaelchurch** 77.61 340⇑*e*P **P** 19 54 10.8 -0.2
MCH1 IAmb IAmb 19 54 12.7
comp=Z,500nm,0.7s
STRD **Stroud** 77.62 340⇑*e*P **P** 19 54 11.0 -0.1
STRD IAmb IAmb 19 54 12.4
comp=Z,555nm,0.8s
L38A **Oak Wood Farm,** 77.63 40 P **P** 19 54 10.8 -0.6
baz=324
EZN **Ezine** 77.64 316 *e*P **P** 19 54 11.3 -0.1
EZN **Ezine** 77.64 316 *e*P **P** 19 54 11.3 -0.1
EZN **Ezine** 77.64 316 P **P** 19 54 11.3 -0.1
K39A **Oelwein** 77.64 39 P **P** 19 54 10.4 -1.0
baz=324
BLY **Banja Luka** 77.65 325 *e*P **P** 19 54 11.2 -0.2
comp=Z,64nm,0.8s
RETA **Reutte** 77.70 330 *i*P **P** 19 54 11.9 +0.2
comp=Z,135nm,1.1s,SNR=36
SCIA **State Center** 77.70 40 *e*P **P** 19 54 12.1 +0.4
comp=Z,687nm,0.9s
MOTA **Moosalm** 77.71 330 *i*P **P** 19 54 11.7 -0.1
comp=Z,293nm,0.7s,SNR=221
MONM **Monmouth** 77.71 340⇑*e*P **P** 19 54 11.4 -0.1
MONM IAmb IAmb 19 54 13.3
comp=Z,349nm,1.0s
ABTA **Abfaltersbach** 77.73 329 *i*P **P** 19 54 11.3 -0.6
comp=Z,80nm,1.0s,SNR=25
ABTA *e*SKSac **SKSac** 20 03 43.5 -4.5
comp=Z,8.1nm,0.8s
M37A **Trindle Farm,** 77.73 41 P **P** 19 54 11.8 -0.1
baz=323
MAMC **Mammari** 77.74 309 P **P** 19 54 12.0 -0.1
LPW **Lampeter** 77.75 341⇑*e*P **P** 19 54 11.4 -0.3
LPW IAmb IAmb 19 54 13.5
comp=Z,388nm,0.8s
F45A **CMU Biological** 77.76 33 P **P** 19 54 11.5 -0.4
baz=328
BOJS **Bojanci** 77.77 326 *i*P **P** 19 54 11.8 -0.2
SWN1 **Swindon** 77.77 339⇑*e*P **P** 19 54 12.2 +0.2
SWN1 IAmb IAmb 19 54 13.9
comp=Z,1μm,0.7s
BFO **Black Forest** 77.78 332 *i*P **P** 19 54 12.1 0.0
BFO **Black Forest** 77.78 332 *e*P **P** 19 54 11.7 -0.4
comp=Z,163nm,0.8s
O35A **Humboldt** 77.79 43 P **P** 19 54 11.7 -0.6
baz=323
N36A **Muff Farm, Cla** 77.79 42 P **P** 19 54 12.3 +0.1
baz=323
OLDB **Oldbury-Upon-S** 77.82 340 *e*P **P** 19 54 11.6 -0.5
OLDB IAmb IAmb 19 54 13.2
comp=Z,146nm,0.7s
WOL **Wolverton** 77.82 339⇑*e*P **P** 19 54 11.9 -0.3
WOL IAmb IAmb 19 54 13.6
comp=Z,1μm,0.7s
HMNX **Herstmonceux** 77.83 338⇑*e*P **P** 19 54 13.2 +1.0
HMNX IAmb IAmb 19 54 14.6
comp=Z,1μm,0.8s
CSS **Mathiatis** 77.84 309 *e*P **P** 19 54 12.6 0.0
comp=Z,42nm,0.7s
CSS **Mathiatis** 77.84 309 P **P** 19 54 13.3 +0.7
CSS **Mathiatis** 77.84 309 P **P** 19 54 12.0 -0.6
SRS **Serrai** 77.88 319 *e*P **P** 19 54 12.2 -0.6
SRS **Serrai** 77.88 319 *e*P **P** 19 54 12.2 -0.6
SRS **Serrai** 77.88 319 P **P** 19 54 12.2 -0.6
HGH **Gray Hill** 77.90 340⇑*e*P **P** 19 54 12.4 -0.2
J41A **Loganville** 77.90 37 P **P** 19 54 12.2 -0.6
baz=325
H43A **Windswept, Lux** 77.90 35 P **P** 19 54 12.5 -0.2
baz=326
I42A **Draegen Farm,** 77.92 37 P **P** 19 54 12.6 -0.3
baz=326
P34A **Walnut Farm, R** 77.92 44 P **P** 19 54 12.2 -0.8
baz=322
PLE **Pljevlja** 77.92 322⇓*i*P **P** 19 54 13.1 0.0
BATH **Bath** 77.97 340 *e*P **P** 19 54 13.0 0.0
BATH IAmb IAmb 19 54 15.4
comp=Z,250nm,0.7s
F46A **Macinaw City C** 77.97 33 P **P** 19 54 12.7 -0.4
baz=328
K40A **Colesburg** 77.97 39 P **P** 19 54 12.4 -0.8
baz=325
L39A **Vinton** 78.06 39 P **P** 19 54 13.1 -0.6
baz=324
IWEX **Carrickbyrne,** 78.08 343 *e*P **P** 19 54 14.1 +0.6
ALFC **Alefka** 78.08 309 P **P** 19 54 13.7 -0.3
IVA **Berane** 78.09 322⇓*i*P **P** 19 54 14.4 +0.5
M38A **Pleasantville** 78.11 41 P **P** 19 54 13.8 -0.1
baz=324
FETA **Feichten** 78.12 330 *i*P **P** 19 54 14.4 +0.3
comp=Z,134nm,0.8s,SNR=45
FETA *e*S **S** 20 03 36.7 +1.0
comp=Z,10nm,1.3s
LIA **Limnos Island** 78.12 317 P **P** 19 54 13.9 -0.1
LIA **Limnos Island** 78.12 317 P **P** 19 54 13.9 -0.1
PRK **Paraskevi** 78.12 316 P **P** 19 54 13.2 -0.8
PRK **Paraskevi** 78.12 316 P **P** 19 54 13.2 -0.8
PRK **Paraskevi** 78.12 316 P **P** 19 54 13.2 -0.8
SKO **Skopje** 78.15 320 *e*P **P** 19 54 14.3 +0.1
SKO **Skopje** 78.15 320 *e*P **P** 19 54 14.3 +0.1
SKO **Skopje** 78.15 320 P **P** 19 54 14.3 +0.1
SKO **Skopje** 78.15 320 *i*P **P** 19 54 14.9 +0.7
TRI **Trieste** 78.15 327 *e*P **P** 19 54 13.2 -0.9
TRI **Trieste** 78.15 327 *e*P **P** 19 54 13.1 -1.0
comp=Z,147nm,0.7s
KNT **Kendrikon** 78.16 319 P **P** 19 54 14.2 -0.1
KNT **Kendrikon** 78.16 319 P **P** 19 54 14.2 -0.1
KNT **Kendrikon** 78.16 319 P **P** 19 54 14.2 -0.1
JFWS **Jewell Farm** 78.17 38 *e*P **P** 19 54 13.4 -0.9
JFWS **Jewell Farm** 78.17 38 *e*P **P** 19 54 13.2 -1.1
comp=Z,164nm,0.7s
DAVA **Damuels** 78.18 330 *i*P **P** 19 54 14.6 +0.2
comp=Z,316nm,0.8s,SNR=85
N37A **Lee Faris, Mou** 78.18 42 P **P** 19 54 14.4 +0.1
baz=323
VAY **Valandovo** 78.18 319 *e*P **P** 19 54 14.5 +0.2
VAY **Valandovo** 78.18 319 *e*P **P** 19 54 14.5 +0.2
VAY **Valandovo** 78.18 319 P **P** 19 54 14.5 +0.2
VAY **Valandovo** 78.18 319 *i*P **P** 19 54 14.9 +0.6
SOH **Sokhos** 78.23 319 *e*P **P** 19 54 14.4 -0.3
SOH **Sokhos** 78.23 319 *e*P **P** 19 54 14.4 -0.3
SOH **Sokhos** 78.23 319 P **P** 19 54 14.4 -0.3
UPM **Unac-Piva** 78.23 323⇓*i*P **P** 19 54 14.4 -0.4
I43A **Langenfeld Bro** 78.24 36 P **P** 19 54 14.3 -0.3
baz=326
SZAC **Souni** 78.24 309 P **P** 19 54 15.3 +0.5
ECH **Echery** 78.25 333⇓*e*P **P** 19 54 13.9 -0.8
ECH **Echery** 78.25 333 *e*P **P** 19 54 14.2 -0.4
ECH pmax pmax
comp=Z,287nm,0.8s
ECH **Echery** 78.25 333 *e*P **P** 19 54 14.2 -0.4
comp=Z,287nm,0.8s
KOME **Kolasin** 78.26 322⇓*i*P **P** 19 54 14.3 -0.6
PVY **Plav** 78.28 322⇓*i*P **P** 19 54 14.6 -0.5
J42A **Columbus** 78.31 37 P **P** 19 54 14.4 -0.6
baz=326
HSIG 78.31 60 *e*P **P** 19 54 15.4 +0.2
comp=Z,135nm,1.2s
P35A **Duane Minner,** 78.32 44 P **P** 19 54 14.5 -0.6
baz=323
OUR **Ouranopolis** 78.33 318 *e*P **P** 19 54 14.8 -0.3
OUR **Ouranopolis** 78.33 318 *e*P **P** 19 54 14.8 -0.3
OUR **Ouranopolis** 78.33 318 P **P** 19 54 14.8 -0.3
O36A **Bolckow** 78.33 42 P **P** 19 54 15.2 0.0
baz=323
SIGR **SIGRI** 78.35 316 P **P** 19 54 15.0 -0.2
Q34A **Chapman** 78.36 44 P **P** 19 54 14.8 -0.6
baz=322
KSU1 **Kansas State U** 78.38 44 *e*P **P** 19 54 14.4 -1.0
comp=Z,200nm,0.9s
UDBI **Udbina** 78.39 325 *i*P **P** 19 54 14.9 -0.6

K41A **Shullsburg** 78.40 38 P P 19 54 14.9 -0.6
baz=325
PPCY **Paphos** 78.42 309 P P 19 54 15.9 +0.1
L40A **Anamosa** 78.45 39 P P 19 54 15.0 -0.7
baz=325
VLDQ **Val d'Or** 78.45 27 *e*P P 19 54 14.3 -1.3
comp=Z,2µm,0.7s
STKA **Stephens Creek** 78.51 183 P P 19 54 16.4 +0.4
comp=Z,40nm,0.8s,baz=342,slow=7.5,SNR=78
STKA **Stephens Creek** 78.51 183 *e*P P 19 54 16.6 +0.6
STKA **Stephens Creek** 78.51 183 *e*P P 19 54 16.5 +0.5
comp=Z,12nm,0.9s
M39A **Webster** 78.51 40 P P 19 54 15.9 -0.2
baz=324
NKY **Niksic** 78.51 322⇓ *i*P P 19 54 15.8 -0.5
HORT **Hortiatis** 78.52 319 P P 19 54 15.9 -0.4
HORT **Hortiatis** 78.52 319 P P 19 54 15.9 -0.4
J43A **Natural Harves** 78.54 37 P P 19 54 15.8 -0.5
baz=326
PLG **Polygyros** 78.55 318 P P 19 54 15.8 -0.6
PLG **Polygyros** 78.55 318 P P 19 54 15.8 -0.6
PLG **Polygyros** 78.55 318 P P 19 54 15.8 -0.6
GRG **Griva** 78.55 319 *e*P P 19 54 16.0 -0.4
GRG **Griva** 78.55 319 *e*P P 19 54 16.0 -0.4
GRG **Griva** 78.55 319 P P 19 54 16.0 -0.4
THE **Thessaloniki** 78.56 319 *e*P P 19 54 15.9 -0.5
THE **Thessaloniki** 78.56 319 *e*P P 19 54 15.9 -0.5
THE **Thessaloniki** 78.56 319 P P 19 54 15.9 -0.5
NKME **Niksic** 78.57 322⇓ *i*P P 19 54 15.9 -0.6
MOF **Molkenrain** 78.58 332⇓ *e*P P 19 54 16.3 -0.2
N38A **Joes South For** 78.59 41 P P 19 54 16.6 0.0
baz=324
THEF **They Montfort** 78.61 333⇓ *e*P P 19 54 16.6 0.0
FUORN **Ofenpass-Fuorn** 78.62 330 *e*P P 19 54 16.4 -0.6
comp=Z,208nm,0.8s
P36A **Good Intent, A** 78.63 43 P P 19 54 16.5 -0.3
baz=323
K42A **Prairie Point,** 78.66 37 P P 19 54 16.3 -0.6
baz=326
HEX **Exmoor** 78.66 340 *e*P P 19 54 16.6 -0.1
O37A **Wolven Farm, M** 78.68 42 P P 19 54 17.0 0.0
baz=324
R34A **Isabella, Hill** 78.70 45 P P 19 54 16.8 -0.5
baz=322
NVLJ **Novalja** 78.71 326 *i*P P 19 54 15.8 -1.2
PDG **Podgorica** 78.72 322⇓ *i*P P 19 54 17.5 +0.3
PDG **Podgorica** 78.72 322 P P 19 54 16.6 -0.6
TTG **Podgorica** 78.72 322⇓ *i*P P 19 54 17.1 -0.1
TTG **Podgorica** 78.72 322 P P 19 54 16.6 -0.6
TTG **Podgorica** 78.72 322 P P 19 54 16.6 -0.6
KRUS **Krusevo** 78.73 320 *i*P P 19 54 17.8 +0.4
L41A **Preston** 78.75 39 P P 19 54 16.7 -0.8
baz=325
CEME **Cevo** 78.76 322⇓ *i*P P 19 54 17.0 -0.6
FETY **Fethiye** 78.77 312 P P 19 54 17.4 -0.3
PAIG **Paliouri** 78.80 318 *e*P P 19 54 17.3 -0.4
PAIG **Paliouri** 78.80 318 *e*P P 19 54 17.3 -0.4
PAIG **Paliouri** 78.80 318 P P 19 54 17.3 -0.4
FORT **Forrest** 78.81 195 *e*P P 19 54 17.9 +0.3
comp=Z,2µm,0.8s
AKAS **Kas** 78.82 312 *e*P P 19 54 18.0 -0.1
comp=Z,82nm,0.8s
GLMI **Grayling** 78.82 33 *e*P P 19 54 17.7 -0.1
comp=Z,891nm,0.8s
Q35A **Mercer Eighty,** 78.84 44 P P 19 54 17.4 -0.6
baz=323
EPT **El Paso** 78.84 55 *e*P P 19 54 18.8 +0.5
comp=Z,253nm,1.1s
N39A **Derby Farms, D** 78.85 41 P P 19 54 17.8 -0.2
baz=324
M40A **Post Highland** 78.86 40 P P 19 54 17.4 -0.6
baz=325
HTL **Hartland** 78.89 341⇑ *e*P P 19 54 18.0 +0.1
HTL IAmb IAmb 19 54 19.4
comp=Z,79nm,0.6s
CHOS **Chios island** 78.90 315 P P 19 54 18.1 -0.3
CHOS **Chios island** 78.90 315 P P 19 54 18.1 -0.3
DRME **Dracevica, Mon** 78.95 322⇓ *i*P P 19 54 18.6 +0.1
BUM **Brajici-Budva** 78.98 322⇓ *i*P P 19 54 18.4 -0.3
BIA **Bitola** 78.98 320 *i*P P 19 54 18.9 +0.2
STON **Ston** 79.00 323 *i*P P 19 54 17.4 -1.3
HCY **Herceg Novi** 79.02 323⇓ *i*P P 19 54 18.1 -0.8
O38A **Galt** 79.03 42 P P 19 54 18.7 -0.3
baz=324
Q36A **Arnold C. Orve** 79.03 44 P P 19 54 18.4 -0.6
baz=323
P37A **Lathrop** 79.05 42 P P 19 54 18.8 -0.3
baz=324
SMG **Samos** 79.06 314 P P 19 54 18.4 -0.7
SMG **Samos** 79.06 314 P P 19 54 18.4 -0.7
TUE **Stuetta** 79.06 330 *e*P P 19 54 19.0 -0.3
comp=Z,207nm,0.8s
ULC **Ulcinj** 79.11 322⇓ *i*P P 19 54 18.9 -0.5
AMTX **Amarillo** 79.11 50 *e*P P 19 54 19.6 0.0
comp=Z,268nm,0.9s
RAYN **Ar Rayn** 79.12 293 *e*P P 19 54 19.9 +0.1
comp=Z,158nm,0.8s
KTI **Kastanea** 79.13 319 P P 19 54 19.3 -0.4
OHR **Ohrid** 79.13 320 *i*P P 19 54 19.3 -0.3
K43A **Burlington** 79.14 37 P P 19 54 18.8 -0.7
baz=326
FNA **Florina** 79.14 320 P P 19 54 19.0 -0.6
FNA **Florina** 79.14 320 P P 19 54 19.0 -0.6
FNA **Florina** 79.14 320 P P 19 54 19.0 -0.6
L42A **Oliver, Polo** 79.16 38 P P 19 54 18.7 -0.9
baz=326
VAL **Valentia** 79.17 345 *e*S S 20 03 49.7 +3.5
R35A **Emporia Munici** 79.19 44 P P 19 54 19.9 0.0
baz=323
LIT **Litokhoron** 79.20 319 *e*P P 19 54 18.9 -1.0
LIT **Litokhoron** 79.20 319 *e*P P 19 54 18.9 -1.0
LIT **Litokhoron** 79.20 319 P P 19 54 18.9 -1.0
SKY **Skiros Island** 79.23 317 *e*P P 19 54 19.9 -0.1
SKY **Skiros Island** 79.23 317 P P 19 54 19.9 -0.1
MSTX **Muleshoe** 79.23 51 P P 19 54 20.2 -0.1
baz=320
MSTX **Muleshoe** 79.23 51 *e*P P 19 54 20.1 -0.1
comp=Z,123nm,0.9s
S34A **Willow Spring** 79.24 45 P P 19 54 20.0 -0.1
baz=322
N40A **Mertquake, Sal** 79.25 40 P P 19 54 19.8 -0.3
baz=325
DYA **Yadsworthy** 79.28 340⇑ *e*P P 19 54 19.8 -0.3
DYA IAmb IAmb 19 54 21.3
comp=Z,221nm,0.8s
DYA **Yadsworthy** 79.28 340 *e*P P 19 54 19.9 -0.1
comp=Z,221nm,0.8s
M41A **Milan** 79.31 39 P P 19 54 19.7 -0.7
baz=325
BODT **Bodrum** 79.33 314 *e*P P 19 54 20.6 0.0
BODT **Bodrum** 79.33 314 P P 19 54 20.6 0.0
U32A **Winter Ranch,** 79.33 47 P P 19 54 20.9 +0.2
baz=322
O39A **Kirksville** 79.34 41 P P 19 54 20.4 -0.2
baz=324
TIR **Tirane** 79.35 321⇑ *i*P P 19 54 21.3 +0.7
TIR **Tirane** 79.35 321⇑ P P 19 54 21.3 +0.7
TIR **Tirane** 79.35 321 *e*P P 19 54 20.5 -0.1
comp=Z,540nm,0.8s
KZN **Kozani** 79.36 319 P P 19 54 20.1 -0.7
KZN **Kozani** 79.36 319 P P 19 54 20.1 -0.7
KZN **Kozani** 79.36 319 P P 19 54 20.1 -0.7
P38A **Dawn** 79.40 42 P P 19 54 20.8 -0.1
baz=324
L43A **Garden Prairie** 79.40 37 P P 19 54 19.8 -1.1
baz=326
XOR **Xorichti** 79.47 318 P P 19 54 20.3 -1.1
XOR **Xorichti** 79.47 318 P P 19 54 20.3 -1.1
NEO **Neokhori** 79.50 318 P P 19 54 20.6 -0.9
NEO **Neokhori** 79.50 318 P P 19 54 20.6 -0.9
SKIA **Skiathos** 79.50 317 P P 19 54 20.8 -0.7
R36A **Gordon, Harris** 79.52 44 P P 19 54 21.4 -0.3
baz=323
MNTX **Cornudas Mount** 79.53 55 *e*P P 19 54 21.9 +0.1
comp=Z,199nm,1.1s
FYTO **Fytoko, Volos** 79.55 318 *e*P P 19 54 21.4 -0.3
FYTO **Fytoko, Volos** 79.55 318 P P 19 54 21.4 -0.3
Q37A **Longview Farm,** 79.57 43 P P 19 54 21.4 -0.4
baz=324
M42A **Sheffield** 79.58 38 P P 19 54 21.0 -0.8
baz=326
ARG **Arkhangelos** 79.58 313 P P 19 54 21.9 -0.1
ARG **Arkhangelos** 79.58 313 P P 19 54 21.9 -0.1
ARG **Arkhangelos** 79.58 313 P P 19 54 21.9 -0.1

NEST **Nestorio** 79.59 320 P P 19 54 21.5 -0.6
S35A **Otter Creek Ra** 79.64 45 P P 19 54 22.3 0.0
baz=323
N41A **Harden Midland** 79.72 40 P P 19 54 22.0 -0.6
baz=325
PENT **Pentalofos** 79.73 320 P P 19 54 21.9 -0.9
T34A **McClaskey Farm** 79.73 46 P P 19 54 23.0 +0.2
baz=322
O40A **La Belle** 79.75 41 P P 19 54 22.8 0.0
baz=325
L44A **Lake County Fo** 79.75 37 P P 19 54 22.2 -0.5
baz=327
NIS1 **Nisyros Isl.** 79.75 314 P P 19 54 22.2 -0.7
BBOO **Buckleboo** 79.77 187 *e*P P 19 54 22.9 +0.2
comp=Z,56nm,0.8s
CCA1 **Carnmenellis** 79.81 341 *e*P P 19 54 22.8 -0.1
CCA1 IAmb IAmb 19 54 24.6
comp=Z,240nm,0.9s
KPRO **Kipourio** 79.82 319 P P 19 54 22.4 -0.9
SENIN **Lac Senin/Sane** 79.84 332 *e*P P 19 54 23.1 -0.3
comp=Z,163nm,0.7s
THL **Klokotos Trika** 79.85 319 P P 19 54 20.6 -2.7
SMIA **Simia** 79.85 317 P P 19 54 22.7 -0.7
P39B **Salisbury** 79.86 41 P P 19 54 23.2 -0.2
baz=324
EREA **Eretria** 79.88 317 P P 19 54 22.5 -1.1
Q38A **Cooks Store, C** 79.89 42 P P 19 54 23.4 -0.1
baz=324
M43A **Waltham Townsh** 79.93 38 P P 19 54 23.2 -0.5
baz=326
S36A **Lake Cedric, C** 79.95 44 P P 19 54 23.8 -0.1
baz=323
KARY **Karystos** 79.96 316 P P 19 54 23.2 -0.7
N42A **Yates City** 79.97 39 P P 19 54 23.5 -0.5
baz=326
JDG **Jersey Dam (Ga** 79.98 339 *e*P P 19 54 23.3 -0.5
Q39A **Willow Grove F** 80.12 42 P P 19 54 24.8 +0.1
baz=324
LKR **Lokris** 80.13 317 P P 19 54 23.5 -1.3
LKR **Lokris** 80.13 317 P P 19 54 23.5 -1.3
AGG **Agios Georgios** 80.14 318 *e*P P 19 54 23.9 -1.0
AGG **Agios Georgios** 80.14 318 P P 19 54 23.2 -1.7
AGG **Agios Georgios** 80.14 318 P P 19 54 23.2 -1.7
P40A **Paris** 80.15 41 P P 19 54 25.0 +0.1
baz=325
T35A **Sooner Cattle** 80.15 45 P P 19 54 25.3 +0.3
baz=323
O41A **Passleys Farm,** 80.19 40 P P 19 54 24.9 -0.2
baz=325
APE **Apeiranthos** 80.20 315 *d* *i*P P 19 54 23.8 -1.5
APE pmax pmax
comp=Z,107nm,0.8s
APE **Apeiranthos** 80.20 315 *e*P P 19 54 23.6 -1.7
APE **Apeiranthos** 80.20 315 P P 19 54 23.6 -1.7
PTL **Penteli** 80.21 317 P P 19 54 23.9 -1.4
N43A **Stutzman Famil** 80.25 38 P P 19 54 25.1 -0.3
baz=326
S37A **Fort Scott** 80.29 44 P P 19 54 25.4 -0.3
baz=323
JAN **Janina** 80.30 319 P P 19 54 25.6 -0.1
JAN **Janina** 80.30 319 P P 19 54 25.6 -0.1
JAN **Janina** 80.30 319 P P 19 54 25.6 -0.1
ATHU **Athens Univers** 80.32 317 P P 19 54 23.9 -1.9
T36A **Boggs Farm, Ca** 80.34 45 P P 19 54 26.2 +0.2
baz=323
ATH **Athens Observa** 80.34 317 P P 19 54 24.4 -1.5
ATH **Athens Observa** 80.34 317 P P 19 54 24.4 -1.5
ATH **Athens Observa** 80.34 317 P P 19 54 24.4 -1.5
M44A **Midewin, Midew** 80.35 37 P P 19 54 25.6 -0.3
baz=327
VILL **Villia** 80.38 317 P P 19 54 24.9 -1.3
R38A **Fenwick Farm,** 80.38 43 P P 19 54 25.3 -0.8
baz=324
VLY **Voula,Athens** 80.40 316 *e*P P 19 54 24.6 -1.7
VLY **Voula,Athens** 80.40 316 P P 19 54 24.6 -1.7
EVR **Evrytania** 80.47 318 P P 19 54 25.4 -1.3
EVR **Evrytania** 80.47 318 P P 19 54 25.4 -1.3
P41A **Barry, Barry** 80.47 40 P P 19 54 26.6 0.0
baz=325
O42A **Bath** 80.47 39 P P 19 54 26.1 -0.5
baz=326
U35A **Pawnee** 80.47 46 P P 19 54 27.0 +0.3
baz=323
U35A **Pawnee** 80.47 46 *e*P P 19 54 26.8 +0.1
comp=Z,545nm,0.9s
HDIL **Hopedale** 80.52 39 *e*P P 19 54 26.4 -0.4
comp=Z,512nm,0.9s
DSF **Desfina** 80.55 318 P P 19 54 25.3 -1.8
Q40A **Laux Farm, Aux** 80.57 41 P P 19 54 27.2 0.0
baz=325
KARP **Karpathos** 80.59 313 *e*P P 19 54 27.0 -0.3
comp=Z,91nm,0.7s
KARP **Karpathos** 80.59 313 P P 19 54 26.4 -1.0
SGD **Sagiada** 80.61 320 P P 19 54 26.7 -0.6
DSL **Palaion Diasel** 80.61 319 *e*P P 19 54 26.8 -0.6
DSL **Palaion Diasel** 80.61 319 P P 19 54 26.8 -0.6
LTK **Loutraki** 80.66 317 P P 19 54 25.3 -2.3
ANX **Ano Chora** 80.68 318 P P 19 54 26.6 -1.2
LOUT **Loutraki** 80.68 317 P P 19 54 25.6 -2.1
M45A **Boilermakers S** 80.68 37 P P 19 54 27.2 -0.5
baz=327
R39A **Chumby, Stover** 80.68 42 P P 19 54 27.3 -0.5
baz=324
KEK **Kerkira** 80.72 320 P P 19 54 27.1 -0.8
KEK **Kerkira** 80.72 320 P P 19 54 27.1 -0.8
VLC **Villacollemand** 80.72 329 *e*P P 19 54 28.1 +0.3
comp=Z,242nm,0.8s
WMOK **Wichita Mounta** 80.73 48 *e*P P 19 54 27.4 -0.7
WMOK pmax pmax
comp=Z,252nm,1.3s
WMOK **Wichita Mounta** 80.73 48 *e*P P 19 54 27.4 -0.7
comp=Z,252nm,1.3s
O43A **Sugar Creek Fa** 80.73 39 P P 19 54 27.6 -0.3
baz=326
CMBO **Columbo, Santo** 80.73 315 P P 19 54 25.8 -2.2
KALE **Kalithea** 80.74 318 *e*P P 19 54 26.6 -1.5
KALE **Kalithea** 80.74 318 P P 19 54 26.6 -1.5
T37A **Cheneyville 18** 80.75 44 P P 19 54 28.1 0.0
baz=323
SERG **Sergoula** 80.76 318 P P 19 54 27.8 -0.4
THR3 **Thira Island,** 80.78 315 P P 19 54 26.0 -2.3
SANT **Santorini** 80.78 314 *e*P P 19 54 26.5 -1.9
comp=Z,111nm,0.8s
THAL **Thalero** 80.78 317 P P 19 54 26.4 -1.9
THT1 **Athinios (Pele** 80.79 315 P P 19 54 25.8 -2.5
THR5 **Thira Island,** 80.80 315 P P 19 54 26.5 -1.9
N44A **Piper City** 80.81 38 P P 19 54 28.1 -0.2
baz=327
EFP **Efpalio** 80.82 318 P P 19 54 27.5 -0.9
S38A **Stockton** 80.83 43 P P 19 54 27.8 -0.7
baz=324
SAP1 **Santorini-Akro** 80.83 315 P P 19 54 26.6 -1.9
THR6 **Thira Island,** 80.83 315 *e*P P 19 54 26.6 -1.9
THR6 **Thira Island,** 80.83 315 P P 19 54 26.6 -1.9
PVO **Paravola** 80.84 318 P P 19 54 27.8 -0.7
SADO **Sadowa** 80.84 30 *e*P P 19 54 27.8 -0.7
P42A **Winchester** 80.86 40 P P 19 54 28.4 -0.2
baz=326
V35A **Meyer Ranch, C** 80.90 46 P P 19 54 29.2 +0.2
baz=323
V35A **Meyer Ranch, C** 80.90 46 *e*P P 19 54 29.1 +0.2
comp=Z,361nm,1.4s
LAKA **Lakka** 80.94 318 *e*P P 19 54 28.1 -1.0
LAKA **Lakka** 80.94 318 P P 19 54 28.1 -1.0
DID **Didima** 80.94 317 P P 19 54 26.4 -2.8
U36A **Oologah** 80.94 45 P P 19 54 29.5 +0.4
baz=323
Q41A **Truxton** 80.98 41 P P 19 54 29.4 +0.1
baz=325
PDO **Prodromos** 81.01 319 P P 19 54 28.6 -0.8
GUR **Goura** 81.02 317 P P 19 54 27.7 -1.9
KLV **Kalavryta, Ach** 81.02 318 P P 19 54 28.0 -1.6
N45A **Kentland** 81.02 37 P P 19 54 29.3 -0.2
baz=327
M46A **Old House Fiel** 81.03 36 P P 19 54 29.5 0.0
baz=328
TRQ **Mont Tremblant** 81.03 26 *e*P P 19 54 28.8 -0.8
TRQ *e*S S 20 04 04.2 -1.7
LMQ **La Malbaie** 81.04 23 *e*P P 19 54 28.7 -0.8
MHLO **Agia Marina, M** 81.04 315 P P 19 54 27.5 -2.2
S39A **Bolivar** 81.05 43 P P 19 54 29.0 -0.7
baz=324
R40A **Maddies Statio** 81.05 42 P P 19 54 29.4 -0.2
baz=325
OK020 **N3440 Road, Me** 81.06 47 *e*P P 19 54 29.8 0.0
comp=Z,603nm,1.9s
KRND **KRANIDI** 81.08 317 P P 19 54 27.6 -2.2
OK021 **N3530 Road, Sp** 81.09 46 *e*P P 19 54 30.1 +0.1
comp=Z,252nm,1.0s
T38A **Diamond** 81.12 44 P P 19 54 29.9 -0.2
baz=324
AQU **L'Aquila** 81.15 326 *e*P P 19 54 30.7 +0.5
AQU **L'Aquila** 81.15 326 *e*P P 19 54 30.1 0.0
comp=Z,195nm,0.8s
P43A **Skaggs, Pawnee** 81.17 39 P P 19 54 29.9 -0.3
baz=326
O44A **Mansfield** 81.20 38 P P 19 54 30.1 -0.3
baz=326
BNI **Bardonecchia** 81.20 331 *e*P P 19 54 30.8 +0.3
BNI **Bardonecchia** 81.20 331 *e*P P 19 54 30.5 0.0
comp=Z,125nm,0.8s
U37A **Salina** 81.23 45 P P 19 54 30.8 +0.1
baz=323
DRO **Drossia** 81.29 318 P P 19 54 30.3 -0.7
PLVO **Plevna** 81.29 29 *e*P P 19 54 30.0 -0.8
comp=Z,308nm,0.7s
TUL1 **Leonard** 81.30 46 P P 19 54 31.3 +0.3
baz=323
TUL1 **Leonard** 81.30 46 *e*P P 19 54 31.0 0.0
comp=Z,1µm,1.8s
N46A **Monticello** 81.31 37 P P 19 54 30.5 -0.4
baz=327
RLS **Riolos of Patr** 81.32 318 P P 19 54 30.6 -0.4
RLS **Riolos of Patr** 81.32 318 P P 19 54 30.6 -0.4
V36A **Jenks** 81.32 46 P P 19 54 31.5 +0.3
baz=323
V36A **Jenks** 81.32 46 *e*P P 19 54 31.4 +0.3
comp=Z,398nm,1.0s
Q42A **Golden Eagle** 81.33 40 P P 19 54 31.3 +0.2
baz=326
AAM **Ann Arbor** 81.34 34 *e*P P 19 54 30.8 -0.3
AAM **Ann Arbor** 81.34 34 *e*P P 19 54 30.7 -0.3
comp=Z,386nm,0.8s
PLDF **La Plaende** 81.35 334 *e*P P 19 54 31.7 +0.5
W35A **Tecumseh** 81.36 47 P P 19 54 31.7 +0.4
baz=323
W35A **Tecumseh** 81.36 47 *e*P P 19 54 31.2 -0.1
comp=Z,377nm,1.2s
ZKR **Zakros** 81.41 313 P P 19 54 31.2 -0.4
AGO **Saint Agoulin** 81.43 334 *e*P P 19 54 32.3 +0.8
O45A **Potomac** 81.44 38 P P 19 54 31.4 -0.2
baz=327
R41A **Rosebud** 81.45 41 P P 19 54 31.6 -0.1
baz=325
VLX **Vlachokerasia** 81.46 317 P P 19 54 30.5 -1.4
S40A **Lebanon** 81.51 42 P P 19 54 31.8 -0.2
baz=325
U38A **Gravette** 81.56 44 P P 19 54 32.1 -0.2
baz=324
T39A **Clever** 81.57 43 P P 19 54 31.8 -0.5
baz=324
SFIN **Lafayette** 81.59 37 P P 19 54 31.8 -0.6
baz=327
SFIN **Lafayette** 81.59 37 *e*P P 19 54 32.0 -0.4
comp=Z,254nm,0.9s
NPS **Neapolis** 81.59 314 P P 19 54 31.3 -1.2
NPS **Neapolis** 81.59 314 P P 19 54 31.3 -1.2
NPS **Neapolis** 81.59 314 P P 19 54 31.3 -1.2
VLS **Valsamata** 81.62 319 P P 19 54 32.1 -0.6
VLS **Valsamata** 81.62 319 P P 19 54 32.1 -0.6
VLS **Valsamata** 81.62 319 P P 19 54 32.1 -0.6
AMT **Artemida-Makis** 81.64 318 P P 19 54 31.7 -1.1
V37A **Hulbert** 81.64 45 P P 19 54 32.9 +0.1
baz=324
Q43A **New Douglas** 81.67 40 P P 19 54 32.7 -0.2
baz=326
SLM **Saint Louis** 81.69 40 *e*P P 19 54 33.2 +0.2
SLM **Saint Louis** 81.69 40 *e*P P 19 54 32.7 -0.2
comp=Z,335nm,0.8s
SSB **Saint Sauveur** 81.69 333 *e*P P 19 54 33.1 +0.2
SSB **Saint Sauveur** 81.69 333 *e*P P 19 54 32.9 0.0
SSB pmax pmax
comp=Z,96nm,0.8s
SSB **Saint Sauveur** 81.69 333 *e*P P 19 54 32.9 0.0
comp=Z,96nm,0.8s
W36A **Wetumka** 81.70 46 P P 19 54 33.4 +0.3
baz=323
W36A **Wetumka** 81.70 46 *e*P P 19 54 33.1 0.0
comp=Z,216nm,1.6s
P44A **Sand Creek, Wi** 81.71 39 P P 19 54 33.0 0.0
baz=326
CCM **Cathedral Cave** 81.71 41 *e*P P 19 54 32.7 -0.4
CCM *e*S S 20 04 10.7 -2.2
CCM pmax pmax
comp=Z,368nm,0.9s
CCM **Cathedral Cave** 81.71 41 *e*P P 19 54 32.7 -0.4
comp=Z,368nm,0.9s
CCM *e*S S 20 04 10.7 -2.2
VLI **Veliai** 81.72 316 *e*P P 19 54 30.6 -2.6
VLI **Veliai** 81.72 316 P P 19 54 30.6 -2.6
R42A **Luebbering** 81.73 41 P P 19 54 33.1 0.0
baz=325
PYM **Petit Puy Mans** 81.73 334⇓ *e*P P 19 54 33.8 +0.6
LAST **Lasithi** 81.74 314 P P 19 54 32.9 -0.5
LAST **Lasithi** 81.74 314 P P 19 54 32.9 -0.5
ITM **Ithomi** 81.82 317 P P 19 54 32.6 -1.1
ITM **Ithomi** 81.82 317 P P 19 54 32.6 -1.1
T40A **Mansfield** 81.86 43 P P 19 54 33.5 -0.5
baz=325
S41A **Jillco Farms,** 81.87 42 P P 19 54 33.8 -0.2
baz=325
VERF **Verneugheol** 81.89 334 *e*P P 19 54 34.3 +0.3
HHAR **Hobbs** 81.90 44 *e*P P 19 54 33.6 -0.5
comp=Z,679nm,1.8s
X35A **Drake** 81.91 47 P P 19 54 34.1 -0.1
baz=323
X35A **Drake** 81.91 47 *e*P P 19 54 33.9 -0.4
comp=Z,168nm,0.7s
IDI **Anoyia** 81.93 314 *e*P P 19 54 32.6 -1.7
IDI **Anoyia** 81.93 314 P P 19 54 32.6 -1.7
ABTX **Abilene, Hawle** 81.93 50 P P 19 54 34.4 +0.1
baz=322
ABTX **Abilene, Hawle** 81.93 50 *e*P P 19 54 33.9 -0.5
comp=Z,263nm,1.2s
CAN **Canberra** 81.99 176 *e*P P 19 54 35.0 +0.7
CAN pmax pmax
comp=Z,121nm,1.6s
CAN **Canberra** 81.99 176 *e*P P 19 54 35.0 +0.7
comp=Z,121nm,1.6s
Q44A **Meyer Farm, Va** 82.00 39 P P 19 54 34.1 -0.4
baz=326
V38A **Canehill** 82.01 45 P P 19 54 34.8 +0.1
baz=324
P45A **Graceland, Par** 82.03 38 P P 19 54 34.5 -0.2
baz=327
KYTH **Kithira** 82.03 316 P P 19 54 33.4 -1.4
U39A **Green Forest** 82.03 44 P P 19 54 34.7 -0.1
baz=324
X36A **Centrahoma** 82.09 47 P P 19 54 35.3 +0.2
baz=323
O47A **Sheridan** 82.09 37 P P 19 54 34.5 -0.5
baz=328
W37B **Quinton** 82.09 46 P P 19 54 35.7 +0.6
baz=323
W37B **Quinton** 82.09 46 *e*P P 19 54 35.4 +0.3
comp=Z,259nm,0.7s
R43A **Red Bud** 82.12 40 P P 19 54 34.8 -0.4
baz=326
LBL **Lubilhac** 82.13 334 *e*P P 19 54 36.0 +0.8
PYL **PYLOS** 82.14 317 P P 19 54 33.7 -1.6
FVM **French Village** 82.14 41 *e*P P 19 54 35.3 0.0
FVM **French Village** 82.14 41 *e*P P 19 54 34.9 -0.5
comp=Z,133nm,0.8s
S42A **Caledonia** 82.15 41 P P 19 54 35.3 -0.1
baz=326
TMBK **Timbaki Herakl** 82.16 314 P P 19 54 39.0 +3.6
VAM **Vamos** 82.17 315 P P 19 54 35.2 -0.3
VAM **Vamos** 82.17 315 P P 19 54 35.2 -0.3
VAM **Vamos** 82.17 315 P P 19 54 35.2 -0.3
CUC **Castrocucco** 82.18 323 *e*P P 19 54 34.3 -1.2
comp=Z,37nm,0.7s
P46A **Rosedale** 82.18 38 P P 19 54 35.3 -0.1
baz=327
SIVA **Sivas** 82.18 314 P P 19 54 35.3 -0.3
SIVA **Sivas** 82.18 314 P P 19 54 35.3 -0.3
FRNF **Fournols** 82.20 334 *e*P P 19 54 36.3 +0.8
IMMV **Iera Moni Meta** 82.23 315 P P 19 54 34.6 -1.2
ANKY **Antikythira Is** 82.23 316 P P 19 54 34.7 -1.1
Y35A **Marietta** 82.27 48 P P 19 54 36.4 +0.4
baz=323
TX31 **Lajitas Ar. Si** 82.28 55 *e*P P 19 54 36.5 +0.2

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| LTX | Lajitas | 82.28 | 55 | eP | P | 19 54 36.7 | +0.4 |
| LTX | Lajitas | 82.28 | 55 | eP | P | 19 54 36.6 | +0.4 |
| LTX | | | | ePKKPdf | PKKPdf | 20 12 43.6 | -4.2 |
| LTX | | | | ePKKPbc | PKKPbc | 20 12 59.9 | +1.6 |
| TXAR | Lajitas Array | 82.28 | 55 | P | P | 19 54 36.6 | +0.3 |
| | comp=Z,222nm,0.9s,baz=296,slow=2.7,SNR=345 | | | | | | |
| TXAR | | | | PKKP | PKKPdf | 20 12 43.6 | -4.2 |
| | comp=Z,0.4nm,0.8s,baz=108,slow=0.4,SNR=3.9 | | | | | | |
| TXAR | | | | PKKPbc | PKKPbc | 20 12 59.9 | +1.6 |
| | comp=Z,1.6nm,0.8s,baz=150,slow=5.8,SNR=12 | | | | | | |
| T41A | Mountain View | 82.30 | 42 | P | P | 19 54 35.9 | -0.3 |
| | baz=325 | | | | | | |
| U40A | Yellville | 82.35 | 43 | P | P | 19 54 36.3 | -0.1 |
| | baz=325 | | | | | | |
| Q45A | Warren Harvey, | 82.38 | 39 | P | P | 19 54 36.6 | +0.1 |
| | baz=327 | | | | | | |
| V39A | Pettigrew | 82.39 | 44 | P | P | 19 54 36.5 | -0.2 |
| | baz=324 | | | | | | |
| PQI | Presque Isle | 82.46 | 22 | eP | P | 19 54 36.3 | -0.4 |
| | comp=Z,118nm,0.8s | | | | | | |
| LONY | Lake Ozonia | 82.47 | 27 | eP | P | 19 54 36.0 | -0.9 |
| | comp=Z,134nm,0.9s | | | | | | |
| R44A | Waltonville | 82.52 | 40 | P | P | 19 54 37.1 | -0.1 |
| | baz=326 | | | | | | |
| OLIL | Olney | 82.54 | 39 | eP | P | 19 54 37.2 | -0.2 |
| | comp=Z,249nm,1.0s | | | | | | |
| X37A | Clayton | 82.56 | 46 | P | P | 19 54 37.8 | +0.3 |
| | baz=324 | | | | | | |
| X37A | Clayton | 82.56 | 46 | eP | P | 19 54 37.4 | -0.1 |
| | comp=Z,137nm,1.1s | | | | | | |
| FRNY | Flat Rock | 82.58 | 26 | eP | P | 19 54 36.4 | -1.0 |
| | comp=Z,110nm,0.8s | | | | | | |
| W38A | Poteau | 82.59 | 45 | P | P | 19 54 38.1 | +0.5 |
| | baz=324 | | | | | | |
| Q46A | CEJHS Indians, | 82.62 | 38 | P | P | 19 54 37.6 | -0.1 |
| | baz=327 | | | | | | |
| T42A | Van Buren | 82.62 | 42 | P | P | 19 54 37.7 | -0.1 |
| | baz=325 | | | | | | |
| S43A | Fulton Ridge, | 82.64 | 41 | P | P | 19 54 37.7 | -0.2 |
| | baz=326 | | | | | | |
| Y36A | Durant | 82.65 | 47 | P | P | 19 54 38.2 | +0.2 |
| | baz=323 | | | | | | |
| GVD | Gavdhos | 82.68 | 314 | eP | P | 19 54 37.8 | -0.3 |
| GVD | Gavdhos | 82.68 | 314 | P | P | 19 54 37.8 | -0.3 |
| P47A | Martinsville | 82.68 | 37 | P | P | 19 54 37.9 | -0.2 |
| | baz=328 | | | | | | |
| X38A | Whitesboro | 82.76 | 46 | P | P | 19 54 38.8 | +0.3 |
| | baz=324 | | | | | | |
| U41A | Viola | 82.80 | 43 | P | P | 19 54 38.6 | -0.2 |
| | baz=325 | | | | | | |
| V40A | Witts Springs | 82.81 | 44 | P | P | 19 54 38.5 | -0.4 |
| | baz=325 | | | | | | |
| R45A | Skylar, Fairfi | 82.83 | 39 | P | P | 19 54 38.8 | 0.0 |
| | baz=327 | | | | | | |
| BLO | Bloomington | 82.84 | 38 | eP | P | 19 54 39.1 | +0.2 |
| BLO | Bloomington | 82.84 | 38 | eP | P | 19 54 38.8 | -0.1 |
| | comp=Z,95nm,0.8s | | | | | | |
| W39A | Magazine | 82.85 | 45 | P | P | 19 54 38.9 | 0.0 |
| | baz=324 | | | | | | |
| SLBS | Sierra La Lagu | 82.85 | 63 | eP | P | 19 54 39.2 | -0.1 |
| | comp=Z,217nm,1.3s | | | | | | |
| ERPA | Erie | 82.86 | 32 | eP | P | 19 54 38.6 | -0.4 |
| | comp=Z,432nm,0.8s | | | | | | |
| SIUC | Southern Illin | 82.90 | 40 | eP | P | 19 54 38.8 | -0.3 |
| | comp=Z,548nm,0.9s | | | | | | |
| S44A | Carbondale | 82.90 | 40 | P | P | 19 54 39.3 | +0.2 |
| | baz=326 | | | | | | |
| Y37A | Hugo | 82.92 | 47 | P | P | 19 54 39.7 | +0.3 |
| | baz=323 | | | | | | |
| T43A | Greenville | 82.94 | 41 | P | P | 19 54 39.3 | -0.1 |
| | baz=326 | | | | | | |
| HPIG | | 82.96 | 58 | eP | P | 19 54 40.1 | +0.1 |
| | comp=Z,224nm,1.0s | | | | | | |
| MMNY | Mt. Morris Dam | 83.06 | 30 | eP | P | 19 54 39.2 | -0.7 |
| | comp=Z,400nm,0.7s | | | | | | |
| Z36A | Blue Ridge | 83.08 | 48 | P | P | 19 54 40.3 | +0.2 |
| | baz=323 | | | | | | |
| Q47A | Bedord North L | 83.08 | 38 | P | P | 19 54 40.1 | +0.1 |
| | baz=328 | | | | | | |
| U42A | Revenden | 83.11 | 42 | P | P | 19 54 40.0 | -0.3 |
| | baz=325 | | | | | | |
| PBMO | Poplar Bluff | 83.13 | 42 | eP | P | 19 54 40.0 | -0.3 |
| | comp=Z,502nm,0.9s | | | | | | |
| V41A | Mountainview | 83.14 | 43 | P | P | 19 54 40.3 | -0.2 |
| | baz=325 | | | | | | |
| NCB | Newcomb | 83.16 | 27 | eP | P | 19 54 39.9 | -0.6 |
| | comp=Z,172nm,0.8s | | | | | | |
| W40A | Ferguson Farm, | 83.19 | 44 | P | P | 19 54 41.0 | +0.3 |
| | baz=324 | | | | | | |
| W40A | Ferguson Farm, | 83.19 | 44 | eP | P | 19 54 40.6 | -0.1 |
| | comp=Z,376nm,0.9s | | | | | | |
| S45A | Carrier Mills | 83.21 | 40 | P | P | 19 54 40.9 | +0.2 |
| | baz=327 | | | | | | |
| ALLY | Alegheny Colle | 83.22 | 32 | eP | P | 19 54 40.6 | -0.1 |
| | comp=Z,664nm,0.9s | | | | | | |
| R46A | Gibon Southern | 83.23 | 39 | P | P | 19 54 41.0 | +0.1 |
| | baz=327 | | | | | | |
| X39A | Fountain Ranch | 83.24 | 45 | P | P | 19 54 41.4 | +0.4 |
| | baz=324 | | | | | | |
| T44A | Benton | 83.25 | 41 | P | P | 19 54 41.1 | +0.1 |
| | baz=326 | | | | | | |
| NWAO | Narrogin (SRO) | 83.27 | 203 | P | P | 19 54 41.0 | +0.1 |
| | comp=Z,86nm,1.0s,baz=264,slow=5.6,SNR=24 | | | | | | |
| NWAO | Narrogin (SRO) | 83.27 | 203 | eP | P | 19 54 41.0 | +0.1 |
| | comp=Z,106nm,1.1s | | | | | | |
| NWAO | | | | epP | pP | 19 56 11.0 | +2.7 |
| VT1 | Waterbury | 83.29 | 26 | eP | P | 19 54 41.0 | -0.1 |
| | comp=Z,411nm,0.8s | | | | | | |
| USIN | University of | 83.37 | 39 | eP | P | 19 54 41.5 | 0.0 |
| | comp=Z,312nm,1.0s | | | | | | |
| ACSO | Alum Creek Sta | 83.37 | 35 | eP | P | 19 54 41.2 | -0.4 |
| | comp=Z,345nm,0.8s | | | | | | |
| Y38A | Idabel | 83.41 | 46 | P | P | 19 54 41.8 | 0.0 |
| | baz=324 | | | | | | |
| PKME | Peaks-Kenny Pk | 83.43 | 23 | eP | P | 19 54 41.3 | -0.4 |
| | comp=Z,120nm,0.8s | | | | | | |
| DGAR | Diego Garcia | 83.45 | 252 | eP | P | 19 54 43.2 | +1.0 |
| DGAR | Diego Garcia | 83.45 | 252 | eP | P | 19 54 42.7 | +0.5 |
| | comp=Z,132nm,1.0s | | | | | | |
| MIAR | Mount Ida | 83.47 | 45 | eP | P | 19 54 42.5 | +0.4 |
| MIAR | Mount Ida | 83.47 | 45 | eP | P | 19 54 42.1 | 0.0 |
| | comp=Z,276nm,1.0s | | | | | | |
| X301 | Greenbrier Sit | 83.47 | 44 | eP | P | 19 54 41.9 | -0.2 |
| | comp=Z,256nm,1.0s | | | | | | |
| U43A | Rector | 83.48 | 42 | P | P | 19 54 42.4 | +0.3 |
| | baz=326 | | | | | | |
| WHAR | Wooly Hollow | 83.48 | 44 | eP | P | 19 54 42.1 | -0.1 |
| | comp=Z,487nm,0.9s | | | | | | |
| V42A | Cord | 83.49 | 43 | P | P | 19 54 41.9 | -0.2 |
| | baz=325 | | | | | | |
| M54A | Oil Creek Stat | 83.51 | 32 | P | P | 19 54 42.2 | -0.1 |
| | baz=331 | | | | | | |
| JCT | Junction City | 83.52 | 52 | eP | P | 19 54 42.8 | +0.3 |
| JCT | Junction City | 83.52 | 52 | eP | P | 19 54 42.5 | 0.0 |
| | comp=Z,203nm,0.8s | | | | | | |
| PARMO | Parma | 83.53 | 41 | eP | P | 19 54 42.3 | -0.1 |
| | comp=Z,1µm,0.8s | | | | | | |
| Z37A | Pogue Cattle C | 83.55 | 47 | P | P | 19 54 43.0 | +0.4 |
| | baz=323 | | | | | | |
| WHTX | Lake Whitney, | 83.57 | 49 | P | P | 19 54 43.1 | +0.4 |
| | baz=323 | | | | | | |
| WHTX | Lake Whitney, | 83.57 | 49 | eP | P | 19 54 42.8 | +0.1 |
| | comp=Z,432nm,1.3s | | | | | | |
| R47A | Wooly Knot Far | 83.58 | 38 | P | P | 19 54 42.6 | 0.0 |
| | baz=328 | | | | | | |
| S46A | Don Dixon Farm | 83.58 | 39 | P | P | 19 54 42.6 | 0.0 |
| | baz=327 | | | | | | |
| W41B | Gary Mavity, V | 83.60 | 44 | P | P | 19 54 42.8 | 0.0 |
| | baz=325 | | | | | | |
| CEL | Celeste | 83.61 | 322 | eP | P | 19 54 41.4 | -1.5 |
| | comp=Z,203nm,0.9s | | | | | | |
| LBNH | Lisbon | 83.62 | 26 | eP | P | 19 54 43.3 | +0.6 |
| LBNH | Lisbon | 83.62 | 26 | eP | P | 19 54 43.2 | +0.5 |
| | comp=Z,138nm,0.8s | | | | | | |
| 136A | Ennis | 83.66 | 48 | P | P | 19 54 43.4 | +0.3 |
| | baz=323 | | | | | | |
| U44A | Portageville | 83.69 | 41 | P | P | 19 54 43.4 | +0.2 |
| | baz=326 | | | | | | |
| Y39A | Lockesburg | 83.71 | 46 | P | P | 19 54 43.7 | +0.4 |
| | baz=324 | | | | | | |
| T45A | Paducah | 83.73 | 40 | P | P | 19 54 43.7 | +0.3 |
| | baz=327 | | | | | | |
| WCI | Wyandotte Cave | 83.73 | 38 | eP | P | 19 54 43.4 | 0.0 |
| WCI | Wyandotte Cave | 83.73 | 38 | eP | P | 19 54 43.3 | -0.1 |
| | comp=Z,244nm,0.9s | | | | | | |
| PVMO | Portageville | 83.76 | 41 | eP | P | 19 54 43.7 | +0.1 |
| | comp=Z,668nm,1.1s | | | | | | |
| Z38A | Mt. Pleasant | 83.82 | 47 | P | P | 19 54 44.1 | +0.2 |
| | baz=324 | | | | | | |
| W42A | Bald Knob | 83.86 | 43 | P | P | 19 54 44.1 | +0.1 |
| | baz=325 | | | | | | |
| ACCN | Adirondack Com | 83.86 | 27 | eP | P | 19 54 43.5 | -0.5 |
| | comp=Z,218nm,0.8s | | | | | | |
| N54A | Moraine State | 83.87 | 32 | P | P | 19 54 44.1 | 0.0 |
| | baz=331 | | | | | | |
| X40A | Basin Creek Fa | 83.88 | 44 | P | P | 19 54 44.6 | +0.4 |
| | baz=325 | | | | | | |
| UALR | University of | 83.88 | 44 | eP | P | 19 54 44.0 | -0.2 |
| | comp=Z,58nm,0.8s | | | | | | |
| V43A | Jonesboro | 83.89 | 42 | P | P | 19 54 44.8 | +0.6 |
| | baz=326 | | | | | | |
| 137A | Heron Place, G | 83.96 | 48 | P | P | 19 54 45.2 | +0.6 |
| | baz=323 | | | | | | |
| WVL | Waterville | 83.97 | 24 | eP | P | 19 54 44.2 | -0.2 |
| | comp=Z,131nm,0.8s | | | | | | |
| U44B | Burton Farm, H | 83.98 | 41 | P | P | 19 54 45.1 | +0.5 |
| | baz=326 | | | | | | |
| GNAR | Gosnell | 83.99 | 42 | eP | P | 19 54 45.0 | +0.3 |
| | comp=Z,599nm,1.0s | | | | | | |
| HNH | Hanover | 84.00 | 26 | eP | P | 19 54 44.6 | +0.1 |
| | comp=Z,154nm,0.8s | | | | | | |
| LMN | Caledonia Moun | 84.02 | 20 | eP | P | 19 54 44.6 | -0.1 |
| | comp=Z,499nm,0.8s | | | | | | |
| X41A | Kaden, Bauxite | 84.03 | 44 | P | P | 19 54 45.0 | +0.1 |
| | baz=325 | | | | | | |
| HBAR | Harrisburg | 84.03 | 42 | eP | P | 19 54 45.5 | +0.6 |
| | comp=Z,1µm,1.2s | | | | | | |
| 236A | Katherine and | 84.04 | 48 | P | P | 19 54 45.3 | +0.3 |
| | baz=323 | | | | | | |
| T46A | Princeton | 84.04 | 40 | P | P | 19 54 45.3 | +0.4 |
| | baz=327 | | | | | | |
| Y40A | Okolona | 84.05 | 45 | P | P | 19 54 45.3 | +0.3 |
| | baz=324 | | | | | | |
| GLAT | Glass | 84.07 | 41 | eP | P | 19 54 45.4 | +0.3 |
| | comp=Z,969nm,1.0s | | | | | | |
| V44A | Blytheville | 84.16 | 42 | P | P | 19 54 45.4 | -0.1 |
| | baz=326 | | | | | | |
| BINY | Binghamton | 84.18 | 29 | eP | P | 19 54 45.0 | -0.6 |
| | comp=Z,229nm,0.8s | | | | | | |
| UTMT | University of | 84.20 | 41 | eP | P | 19 54 45.8 | +0.1 |
| | comp=Z,679nm,1.0s | | | | | | |
| GGN | Saint George | 84.21 | 22 | eP | P | 19 54 45.3 | -0.3 |
| | comp=Z,259nm,0.8s | | | | | | |
| Z39A | Irene McRaven, | 84.23 | 46 | P | P | 19 54 46.3 | +0.4 |
| | baz=324 | | | | | | |
| U45A | Rockin P Farm, | 84.24 | 41 | P | P | 19 54 46.2 | +0.3 |
| | baz=327 | | | | | | |
| 138A | Matatall Enter | 84.24 | 47 | P | P | 19 54 46.9 | +0.9 |
| | baz=324 | | | | | | |
| RAR | Rarotonga | 84.28 | 129 | eP | P | 19 54 46.9 | +0.8 |
| RAR | | | | e*PP | pP | 19 56 17.1 | +3.3 |
| RAR | | | | pmax | pmax | | |
| | comp=Z,60nm,1.3s | | | | | | |
| RAR | Rarotonga | 84.28 | 129 | eP | P | 19 54 46.9 | +0.8 |
| | comp=Z,60nm,1.3s | | | | | | |
| RAR | | | | epP | pP | 19 56 17.1 | +3.3 |
| HALT | Halls | 84.34 | 41 | eP | P | 19 54 46.8 | +0.4 |
| | comp=Z,1µm,1.7s | | | | | | |
| 336A | Riesel | 84.36 | 49 | P | P | 19 54 46.9 | +0.2 |
| | baz=323 | | | | | | |
| WLAR | White Oak Lake | 84.39 | 45 | eP | P | 19 54 47.4 | +0.7 |
| | comp=Z,316nm,0.8s | | | | | | |
| W43A | Forest City | 84.39 | 43 | P | P | 19 54 47.1 | +0.4 |
| | baz=326 | | | | | | |
| X42A | Stuttgart | 84.40 | 44 | P | P | 19 54 46.9 | +0.1 |
| | baz=325 | | | | | | |
| FFD | Franklin Falls | 84.40 | 26 | eP | P | 19 54 46.6 | +0.1 |
| | comp=Z,213nm,0.8s | | | | | | |
| FFD | | | | epP | pP | 19 56 17.9 | +3.7 |
| 237A | Washetta, Mont | 84.41 | 48 | P | P | 19 54 47.2 | +0.4 |
| | baz=323 | | | | | | |
| EMMW | East Machias | 84.43 | 22 | eP | P | 19 54 46.6 | 0.0 |
| | comp=Z,208nm,0.8s | | | | | | |
| T47A | Sharon Grove | 84.43 | 39 | P | P | 19 54 47.1 | +0.3 |
| | baz=328 | | | | | | |
| TRY | Troy | 84.46 | 27 | eP | P | 19 54 46.4 | -0.4 |
| | comp=Z,136nm,0.8s | | | | | | |
| 435B | Jarrell | 84.46 | 50 | P | P | 19 54 47.1 | 0.0 |
| | baz=323 | | | | | | |
| Y41A | Eaglette Beard | 84.48 | 45 | P | P | 19 54 47.6 | +0.4 |
| | baz=325 | | | | | | |
| 139A | Bunkhouse Ranc | 84.58 | 47 | P | P | 19 54 47.7 | 0.0 |
| | baz=324 | | | | | | |
| Z40A | Long Farm, Mag | 84.60 | 46 | P | P | 19 54 48.4 | +0.6 |
| | baz=324 | | | | | | |
| V45A | Humboldt | 84.65 | 41 | P | P | 19 54 48.1 | +0.1 |
| | baz=327 | | | | | | |
| 238A | Jacksonville | 84.75 | 48 | P | P | 19 54 49.6 | +1.1 |
| | baz=324 | | | | | | |
| CARF | Carcanieres | 84.76 | 333 | eP | P | 19 54 49.4 | +0.9 |
| FILF | Fillols | 84.76 | 333 | eP | P | 19 54 49.3 | +0.8 |
| W44A | Shelby Farms P | 84.76 | 42 | P | P | 19 54 48.9 | +0.4 |
| | baz=326 | | | | | | |
| X43A | Marvell | 84.78 | 43 | P | P | 19 54 49.1 | +0.5 |
| | baz=326 | | | | | | |
| WVT | Waverly | 84.83 | 40 | eP | P | 19 54 48.9 | 0.0 |
| WVT | Waverly | 84.83 | 40 | eP | P | 19 54 48.9 | 0.0 |
| | comp=Z,200nm,0.7s | | | | | | |
| CCAR | Cane Creek | 84.85 | 44 | eP | P | 19 54 49.7 | +0.7 |
| | comp=Z,497nm,1.0s | | | | | | |
| Z41A | Richland Creek | 84.89 | 45 | P | P | 19 54 49.6 | +0.4 |
| | baz=325 | | | | | | |
| Y42A | Garnett, Star | 84.91 | 44 | P | P | 19 54 50.1 | +0.8 |
| | baz=325 | | | | | | |
| 337A | Centerville | 84.92 | 48 | P | P | 19 54 49.9 | +0.5 |
| | baz=323 | | | | | | |
| SSPA | Standing Stone | 84.92 | 31 | eP | P | 19 54 49.0 | -0.2 |
| | comp=Z,271nm,0.8s | | | | | | |
| SALF | Salau | 85.00 | 334 | eP | P | 19 54 50.1 | +0.4 |
| O56A | Blue Knob Stat | 85.00 | 32 | P | P | 19 54 49.6 | -0.1 |
| | baz=332 | | | | | | |
| 140A | Cam and Jess, | 85.01 | 46 | P | P | 19 54 50.6 | +0.8 |
| | baz=324 | | | | | | |
| MELF | Melles | 85.02 | 334 | eP | P | 19 54 50.1 | +0.3 |
| W45A | Hickory Valley | 85.03 | 42 | P | P | 19 54 49.9 | 0.0 |
| | baz=326 | | | | | | |
| LABF | Labassere | 85.06 | 335 | eP | P | 19 54 50.2 | +0.2 |
| MCWV | Mont Chateau | 85.07 | 33 | eP | P | 19 54 50.2 | +0.3 |
| | comp=Z,240nm,0.8s | | | | | | |
| 239A | Gary | 85.07 | 47 | P | P | 19 54 50.8 | +0.7 |
| | baz=324 | | | | | | |
| VALF | Valcebollere | 85.07 | 333⇓ | eP | P | 19 54 51.2 | +1.0 |
| X44A | Crenshaw | 85.14 | 43 | P | P | 19 54 50.5 | +0.2 |
| | baz=326 | | | | | | |
| VSL | Villasalto | 85.15 | 327 | eP | P | 19 54 50.0 | -0.3 |
| | comp=Z,84nm,0.9s | | | | | | |
| 338A | Crockett | 85.18 | 48 | P | P | 19 54 51.3 | +0.6 |
| | baz=324 | | | | | | |
| REYF | Montagne du Re | 85.18 | 335 | eP | P | 19 54 50.6 | 0.0 |
| NATX | Nacogdoches | 85.18 | 47 | eP | P | 19 54 51.0 | +0.3 |
| | comp=Z,577nm,0.9s | | | | | | |
| ORDF | Ordiarp | 85.20 | 336 | eP | P | 19 54 51.1 | +0.5 |
| RESF | Ens | 85.21 | 335⇓ | eP | P | 19 54 52.2 | +1.4 |
| VIEF | Viey | 85.23 | 335⇓ | eP | P | 19 54 52.1 | +1.3 |
| ATE | Arette | 85.25 | 335 | eP | P | 19 54 51.1 | +0.2 |
| Y43A | Makayla and Ka | 85.25 | 44 | P | P | 19 54 51.8 | +0.8 |
| | baz=326 | | | | | | |
| QUA2 | Belchertown | 85.28 | 27 | eP | P | 19 54 50.5 | -0.4 |
| | comp=Z,64nm,0.8s | | | | | | |
| Z42A | Norrel Spur, H | 85.29 | 45 | P | P | 19 54 51.8 | +0.7 |
| | baz=325 | | | | | | |
| CLTB | Caltabellotta | 85.30 | 323 | eP | P | 19 54 50.0 | -1.3 |
| | comp=Z,24nm,0.7s | | | | | | |
| HRV | Adam Dziewonsk | 85.31 | 26 | eP | P | 19 54 51.2 | +0.1 |
| HRV | | | | e*PP | pP | 19 56 21.8 | +2.9 |
| HRV | | | | pmax | pmax | | |
| | comp=Z,156nm,0.8s | | | | | | |
| HRV | Adam Dziewonsk | 85.31 | 26 | eP | P | 19 54 51.2 | +0.1 |
| | comp=Z,156nm,0.8s | | | | | | |
| HRV | | | | epP | pP | 19 56 21.8 | +2.9 |
| 141A | Papa Simpson, | 85.37 | 46 | P | P | 19 54 52.3 | +0.7 |
| | baz=325 | | | | | | |
| N59A | State Game Lan | 85.40 | 30 | P | P | 19 54 51.5 | -0.1 |
| | baz=334 | | | | | | |
| 240A | Hunter Patters | 85.41 | 47 | P | P | 19 54 52.7 | +0.9 |
| | baz=324 | | | | | | |
| 833A | Chaparral WMA, | 85.42 | 53 | P | P | 19 54 52.7 | +0.8 |
| | baz=322 | | | | | | |
| OXF | Oxford | 85.47 | 42 | eP | P | 19 54 51.4 | -0.6 |
| OXF | | | | e*PP | pP | 19 56 22.0 | +2.2 |
| OXF | | | | pmax | pmax | | |
| | comp=Z,612nm,1.1s | | | | | | |
| OXF | Oxford | 85.47 | 42 | eP | P | 19 54 51.4 | -0.6 |
| | comp=Z,612nm,1.1s | | | | | | |
| OXF | | | | epP | pP | 19 56 22.0 | +2.2 |
| WES | Weston | 85.49 | 26 | eP | P | 19 54 51.9 | 0.0 |
| WES | | | | e*PP | pP | 19 56 19.8 | 0.0 |
| WES | | | | pmax | pmax | | |
| | comp=Z,273nm,0.8s | | | | | | |
| WES | Weston | 85.49 | 26 | eP | P | 19 54 51.9 | 0.0 |
| | comp=Z,273nm,0.8s | | | | | | |
| WES | | | | epP | pP | 19 56 19.8 | 0.0 |
| X45A | UM Field Stati | 85.55 | 42 | P | P | 19 54 52.5 | +0.1 |
| | baz=326 | | | | | | |
| Y44A | Strider, Charl | 85.55 | 43 | P | P | 19 54 53.0 | +0.6 |
| | baz=326 | | | | | | |
| 339A | Huntington | 85.58 | 48 | P | P | 19 54 53.0 | +0.4 |
| | baz=324 | | | | | | |
| 438A | Sam Houston St | 85.58 | 49 | P | P | 19 54 53.6 | +1.0 |
| | baz=324 | | | | | | |
| BCX | Boston College | 85.58 | 26 | eP | P | 19 54 52.6 | +0.2 |
| | comp=Z,141nm,0.9s | | | | | | |
| BCX | | | | epP | pP | 19 56 23.6 | +3.3 |
| ODNJ | Ogdensburg | 85.64 | 29 | eP | P | 19 54 52.8 | +0.1 |
| | comp=Z,109nm,0.8s | | | | | | |
| Z43A | Armstrong Fami | 85.68 | 44 | P | P | 19 54 53.7 | +0.6 |
| | baz=326 | | | | | | |
| PLAL | Pickwick Lake | 85.68 | 41 | eP | P | 19 54 52.6 | -0.4 |
| | comp=Z,406nm,1.5s | | | | | | |
| LUPA | Lehigh Univers | 85.82 | 29 | eP | P | 19 54 53.4 | -0.2 |
| | comp=Z,26nm,1.5s | | | | | | |
| LUPA | | | | epP | pP | 19 56 24.1 | +2.5 |
| 241A | Mo Tay, Goldon | 85.84 | 46 | P | P | 19 54 54.7 | +0.8 |
| | baz=325 | | | | | | |
| 340A | Bronson | 85.85 | 47 | P | P | 19 54 54.3 | +0.4 |
| | baz=324 | | | | | | |
| BRYW | Bryant College | 85.85 | 26 | eP | P | 19 54 53.7 | -0.1 |
| | comp=Z,154nm,0.8s | | | | | | |
| 142A | Monroe | 85.89 | 45 | P | P | 19 54 54.8 | +0.7 |
| | baz=325 | | | | | | |
| 439A | Center Grove, | 85.91 | 48 | P | P | 19 54 54.7 | +0.5 |
| | baz=324 | | | | | | |
| PAL | Palisades | 85.94 | 28 | eP | P | 19 54 53.6 | -0.5 |
| PAL | | | | e*PP | pP | 19 56 25.3 | +3.2 |
| PAL | | | | pmax | pmax | | |
| | comp=Z,132nm,0.8s | | | | | | |
| PAL | Palisades | 85.94 | 28 | eP | P | 19 54 53.6 | -0.5 |
| | comp=Z,132nm,0.8s | | | | | | |
| PAL | | | | epP | pP | 19 56 25.3 | +3.2 |
| Y45A | Yeager Farm, C | 85.94 | 43 | P | P | 19 54 54.8 | +0.5 |
| | baz=326 | | | | | | |
| YLE | Yale | 85.97 | 27 | eP | P | 19 54 53.7 | -0.6 |
| | comp=Z,106nm,0.9s | | | | | | |
| Z44A | Pea Ridge, Bel | 86.01 | 44 | P | P | 19 54 55.3 | +0.7 |
| | baz=326 | | | | | | |
| BRNJ | Basking Ridge | 86.01 | 29 | eP | P | 19 54 54.4 | -0.1 |
| | comp=Z,246nm,0.9s | | | | | | |
| BRNJ | | | | epP | pP | 19 56 26.1 | +3.6 |
| 143A | Socs Landing, | 86.02 | 45 | P | P | 19 54 55.6 | +0.9 |
| | baz=326 | | | | | | |
| MVL | Millersville | 86.02 | 30 | eP | P | 19 54 54.1 | -0.5 |
| | comp=Z,107nm,0.9s | | | | | | |
| MVL | | | | epP | pP | 19 56 23.7 | +1.2 |
| HKT | Hockley | 86.03 | 49 | eP | P | 19 54 55.6 | +0.8 |
| HKT | | | | pmax | pmax | | |
| | comp=Z,129nm,1.6s | | | | | | |
| HKT | Hockley | 86.03 | 49 | eP | P | 19 54 55.6 | +0.8 |
| | comp=Z,129nm,1.6s | | | | | | |
| CPNY | Central Park | 86.11 | 28 | eP | P | 19 54 54.8 | -0.2 |
| | comp=Z,239nm,1.3s | | | | | | |
| PMOR | Pomariorio Ree | 86.17 | 117 | eP | P | 19 54 57.1 | +1.6 |
| | comp=Z,181nm,1.5s | | | | | | |
| PMOR | | | | epP | pP | 19 56 23.3 | -0.3 |
| | comp=Z,166nm,1.2s | | | | | | |
| 242A | Grayson | 86.18 | 45 | P | P | 19 54 56.4 | +0.9 |
| | baz=325 | | | | | | |
| WDD | Wied Dalam | 86.24 | 322 | eP | P | 19 54 55.1 | -0.6 |
| | comp=Z,154nm,0.7s | | | | | | |
| Y46A | Houston | 86.24 | 42 | P | P | 19 54 56.3 | +0.5 |
| | baz=327 | | | | | | |
| 341A | Kurthwood | 86.27 | 47 | P | P | 19 54 56.8 | +0.8 |
| | baz=325 | | | | | | |
| Z45A | Winona | 86.28 | 43 | P | P | 19 54 56.8 | +0.9 |
| | baz=326 | | | | | | |
| TZTN | Tazewell | 86.31 | 37 | eP | P | 19 54 56.1 | 0.0 |
| | comp=Z,130nm,0.8s | | | | | | |
| SDMD | Soldier's Deli | 86.38 | 31 | eP | P | 19 54 56.0 | -0.3 |
| | comp=Z,90nm,1.0s | | | | | | |
| PSUB | Penn St. - Bra | 86.39 | 30 | eP | P | 19 54 55.8 | -0.5 |
| | comp=Z,128nm,0.9s | | | | | | |
| SWET | Sewanee | 86.43 | 39 | eP | P | 19 54 56.2 | -0.5 |
| | comp=Z,316nm,0.9s | | | | | | |
| TAOE | Nuku Hiva Isla | 86.45 | 107 | eP | P | 19 54 58.4 | +1.3 |
| | comp=Z,183nm,0.8s | | | | | | |
| VAH | Vaihoa | 86.51 | 117 | eP | P | 19 54 58.7 | +1.5 |
| | comp=Z,104nm,1.4s | | | | | | |
| VAH | | | | epP | pP | 19 56 24.7 | -0.6 |
| | comp=Z,104nm,1.2s | | | | | | |
| 144A | Alexander Plac | 86.55 | 44 | P | P | 19 54 58.3 | +1.1 |
| | baz=326 | | | | | | |
| 243A | Waterproof | 86.66 | 45 | P | P | 19 54 58.8 | +1.1 |
| | baz=326 | | | | | | |
| 342A | Flagon Creek P | 86.66 | 46 | P | P | 19 54 59.0 | +1.2 |
| | baz=325 | | | | | | |
| Y47A | UCPARC, Winfie | 86.69 | 41 | P | P | 19 54 57.7 | -0.2 |
| | baz=327 | | | | | | |
| 441A | DeRidder | 86.74 | 47 | P | P | 19 55 00.1 | +1.9 |
| | baz=325 | | | | | | |
| Z46A | Louisville | 86.78 | 43 | P | P | 19 54 59.2 | +0.8 |
| | baz=327 | | | | | | |
| 145A | Houston Renfro | 86.81 | 44 | P | P | 19 54 59.6 | +1.1 |
| | baz=326 | | | | | | |
| CPCT | Cooper Cave | 86.84 | 38 | eP | P | 19 54 58.6 | 0.0 |
| | comp=Z,296nm,0.9s | | | | | | |
| VBMS | Vicksburg | 86.84 | 44 | eP | P | 19 54 59.4 | +0.7 |
| | comp=Z,565nm,1.1s | | | | | | |
| 244A | Avery, Jackson | 86.91 | 44 | P | P | 19 54 59.9 | +0.9 |
| | baz=326 | | | | | | |
| TKL | Tuckaleechee C | 86.98 | 38 | eP | P | 19 54 59.2 | -0.1 |
| TKL | | | | pmax | pmax | | |
| | comp=Z,231nm,0.8s | | | | | | |
| TKL | Tuckaleechee C | 86.98 | 38 | eP | P | 19 54 59.2 | -0.1 |
| | comp=Z,231nm,0.8s | | | | | | |
| BLA | Blacksburg | 86.99 | 34 | eP | P | 19 54 59.3 | 0.0 |
| BLA | | | | pmax | pmax | | |
| | comp=Z,260nm,1.0s | | | | | | |
| BLA | Blacksburg | 86.99 | 34 | eP | P | 19 54 59.3 | 0.0 |
| | comp=Z,260nm,1.0s | | | | | | |
| 343A | Vidalia | 87.08 | 45 | P | P | 19 55 00.6 | +0.8 |
| | baz=325 | | | | | | |
| IP04 | Greensprings | 87.09 | 32 | eP | P | 19 54 59.9 | +0.2 |
| | comp=Z,152nm,0.8s | | | | | | |
| IP04 | | | | epP | pP | 19 56 29.2 | +1.3 |
| VWCC | Virginia Weste | 87.13 | 34 | eP | P | 19 54 60.0 | 0.0 |
| PPT | Papeete | 87.14 | 119 | P | P | 19 55 03.1 | +3.0 |
| | comp=Z,34nm,0.8s,baz=241,slow=8.3,SNR=5.0 | | | | | | |
| 442A | Mamou | 87.14 | 46 | P | P | 19 55 01.0 | +0.9 |
| | baz=325 | | | | | | |
| PPT2 | Papeete2 | 87.15 | 119 | eP | P | 19 55 02.0 | +1.7 |
| | comp=Z,97nm,1.3s | | | | | | |
| PPT2 | | | | epP | pP | 19 56 28.2 | -0.4 |
| | comp=Z,85nm,1.3s | | | | | | |
| PPT2 | Papeete2 | 87.15 | 119 | eLR | LR | 20 23 35.3 | |
| | comp=Z,463nm,22.0s | | | | | | |
| PPTF | Pamatai, Papee | 87.16 | 119 | eP | P | 19 55 01.2 | +0.9 |
| PPTF | | | | epP | pP | 19 56 31.5 | +2.9 |
| Z47A | Carrollton | 87.17 | 42 | P | P | 19 55 00.4 | +0.1 |
| | baz=327 | | | | | | |
| IP03 | Louisa | 87.18 | 32 | eP | P | 19 55 00.1 | 0.0 |
| | comp=Z,129nm,0.8s | | | | | | |
| IP03 | | | | epP | pP | 19 56 31.0 | +2.6 |
| 146A | Union | 87.19 | 43 | P | P | 19 55 01.5 | +1.2 |
| | baz=327 | | | | | | |
| PAE | Paea | 87.20 | 120 | eP | P | 19 55 02.0 | +1.6 |
| | comp=Z,10nm,1.1s | | | | | | |
| PAE | | | | epP | pP | 19 56 28.2 | -0.5 |
| | comp=Z,20nm,1.2s | | | | | | |
| CVRD | Centerville Ro | 87.22 | 32 | eP | P | 19 55 00.3 | 0.0 |
| | comp=Z,228nm,0.9s | | | | | | |
| CVRD | | | | epP | pP | 19 56 32.1 | +3.5 |
| SPRD | Spring Road, M | 87.23 | 32 | eP | P | 19 55 00.3 | -0.1 |
| | comp=Z,129nm,1.0s | | | | | | |
| SPRD | | | | epP | pP | 19 56 32.5 | +3.8 |
| CBN | Corbin Frederi | 87.25 | 32 | eP | P | 19 55 00.7 | +0.2 |
| | comp=Z,180nm,0.8s | | | | | | |
| Z48A | Northport | 87.26 | 41 | P | P | 19 55 00.1 | -0.5 |
| | baz=327 | | | | | | |
| TIAR | Tiarei | 87.26 | 119 | eP | P | 19 55 02.5 | +1.8 |
| | comp=Z,31nm,0.9s | | | | | | |
| TIAR | | | | epP | pP | 19 56 28.5 | -0.6 |
| | comp=Z,41nm,1.1s | | | | | | |
| IP07 | Quail | 87.27 | 32 | eP | P | 19 55 00.4 | -0.2 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | comp=Z,96nm,0.9s | | | | | | |
| IP07 | | | | epP | pP | 19 56 30.1 | +1.2 |
| **IP06** | **Yanceyville** | **87.27** | **32** | eP | **P** | **19 55 00.6** | **0.0** |
| | comp=Z,85nm,0.9s | | | | | | |
| IP06 | | | | epP | pP | 19 56 32.1 | +3.2 |
| **IP01** | **Cuckoo** | **87.28** | **32** | eP | **P** | **19 55 00.5** | **-0.1** |
| | comp=Z,86nm,0.9s | | | | | | |
| IP01 | | | | epP | pP | 19 56 31.6 | +2.7 |
| **245A** | **Little AP, Sta** | **87.29** | **44** | P | **P** | **19 55 01.9** | **+1.1** |
| | baz=326 | | | | | | |
| **344A** | **Westbrook Farm** | **87.37** | **45** | P | **P** | **19 55 02.5** | **+1.3** |
| | baz=326 | | | | | | |
| **IP05** | **Hopewell Churc** | **87.45** | **32** | eP | **P** | **19 55 01.2** | **-0.2** |
| | comp=Z,129nm,0.8s | | | | | | |
| **TVO** | **Taravao** | **87.50** | **119** | eP | **P** | **19 55 03.8** | **+1.9** |
| | comp=Z,36nm,1.3s | | | | | | |
| TVO | | | | epP | pP | 19 56 30.0 | -0.3 |
| | comp=Z,23nm,1.1s | | | | | | |
| **147A** | **Livingston** | **87.52** | **42** | P | **P** | **19 55 02.6** | **+0.7** |
| | baz=327 | | | | | | |
| **JSRW** | **J. Sargeant Re** | **87.52** | **32** | eP | **P** | **19 55 01.4** | **-0.3** |
| **542A** | **Morse** | **87.56** | **47** | P | **P** | **19 55 03.7** | **+1.6** |
| | baz=325 | | | | | | |
| **246A** | **Jackson Lee, B** | **87.67** | **43** | P | **P** | **19 55 03.9** | **+1.4** |
| | baz=327 | | | | | | |
| **LRAL** | **Lakeview Retre** | **87.80** | **41** | eP | **P** | **19 55 03.0** | **-0.2** |
| | comp=Z,87nm,0.8s | | | | | | |
| **345A** | **Thompson Farm,** | **87.83** | **44** | P | **P** | **19 55 04.2** | **+0.9** |
| | baz=326 | | | | | | |
| **247A** | **Quitman** | **87.88** | **43** | P | **P** | **19 55 04.7** | **+1.1** |
| | baz=327 | | | | | | |
| **BG3** | **Lake Jocassee** | **87.90** | **37** | eP | **P** | **19 55 03.8** | **+0.1** |
| | comp=Z,297nm,0.8s | | | | | | |
| **ZAIG** | **Zacatecas** | **87.95** | **58** | eP | **P** | **19 55 05.3** | **+0.9** |
| | comp=Z,36nm,1.1s | | | | | | |
| **346A** | **Big Creek Wild** | **88.03** | **44** | P | **P** | **19 55 05.2** | **+0.9** |
| | baz=326 | | | | | | |
| **PBRG** | **Braganca** | **88.06** | **339** | eP | **P** | **19 55 03.4** | **-0.9** |
| | comp=Z,32nm,2.1s | | | | | | |
| **LNIG** | **Linares** | **88.07** | **55** | eP | **P** | **19 55 03.5** | **-1.1** |
| | comp=Z,34nm,0.9s | | | | | | |
| **445A** | **Amite** | **88.16** | **45** | P | **P** | **19 55 06.1** | **+1.3** |
| | baz=326 | | | | | | |
| **248A** | **Dixon Mills** | **88.25** | **42** | P | **P** | **19 55 06.4** | **+1.1** |
| | baz=327 | | | | | | |
| **544A** | **White Castle** | **88.27** | **46** | P | **P** | **19 55 06.4** | **+1.1** |
| | baz=326 | | | | | | |
| **PGAV** | **Gavieira, Arco** | **88.27** | **340** | eP | **P** | **19 55 04.6** | **-0.7** |
| | comp=Z,57nm,2.4s | | | | | | |
| **CMAH** | **Djebel Manchou** | **88.40** | **327** | P | **P** | **19 55 05.0** | **-1.0** |
| **KMSC** | **Kings Mountain** | **88.42** | **36** | P | **P** | **19 55 06.2** | **+0.1** |
| | baz=331 | | | | | | |
| **KMSC** | **Kings Mountain** | **88.42** | **36** | eP | **P** | **19 55 05.8** | **-0.2** |
| | comp=Z,168nm,1.0s | | | | | | |
| **KEST** | **Kesra** | **88.45** | **325** | P | **P** | **19 55 06.0** | **-0.3** |
| | comp=Z,42nm,0.9s,baz=294,slow=2.0,SNR=38 | | | | | | |
| **KEST** | **Kesra** | **88.45** | **325** | eP | **P** | **19 55 05.6** | **-0.7** |
| | comp=Z,38nm,0.8s | | | | | | |
| KEST | | | | epP | **pP** | **19 56 35.8** | **+1.0** |
| **PCAB** | **Cabril** | **88.45** | **340** | eP | **P** | **19 55 05.6** | **-0.5** |
| **347A** | **Saraland** | **88.45** | **43** | P | **P** | **19 55 07.3** | **+1.1** |
| | baz=327 | | | | | | |
| **446A** | **Poplarville** | **88.57** | **44** | P | **P** | **19 55 07.9** | **+1.1** |
| | baz=326 | | | | | | |
| **545A** | **Edgard** | **88.65** | **45** | P | **P** | **19 55 08.2** | **+1.0** |
| | baz=326 | | | | | | |
| **ABSA** | **Djebel Ababsia** | **88.69** | **327** | P | **P** | **19 55 07.5** | **+0.1** |
| **POLO** | **Lamas de Olo** | **88.72** | **340** | eP | **P** | **19 55 06.7** | **-0.8** |
| | comp=Z,43nm,0.8s | | | | | | |
| **MVO** | **Moncorvo** | **88.73** | **339** | eP | **P** | **19 55 06.6** | **-0.9** |
| | comp=Z,51nm,0.9s | | | | | | |
| **348A** | **Jackson** | **88.75** | **43** | P | **P** | **19 55 08.7** | **+1.1** |
| | baz=327 | | | | | | |
| **PVRL** | **Vila Real** | **88.79** | **340** | eP | **P** | **19 55 07.0** | **-0.7** |
| | comp=Z,72nm,0.8s | | | | | | |
| **HODGE** | **Hodges** | **88.83** | **37** | eP | **P** | **19 55 08.2** | **+0.2** |
| | comp=Z,123nm,0.8s | | | | | | |
| **447A** | **Lucedale** | **88.91** | **44** | P | **P** | **19 55 09.8** | **+1.4** |
| | baz=327 | | | | | | |
| **GOGA** | **Godfrey** | **89.03** | **39** | eP | **P** | **19 55 09.2** | **+0.3** |
| GOGA | | | | pmax | pmax | | |
| | comp=Z,127nm,0.8s | | | | | | |
| **GOGA** | **Godfrey** | **89.03** | **39** | eP | **P** | **19 55 09.2** | **+0.3** |
| | comp=Z,127nm,0.8s | | | | | | |
| **DFRA** | **Djebel Bou Aff** | **89.04** | **328** | P | **P** | **19 55 08.7** | **-0.4** |
| **CASM** | **Ain Smara** | **89.07** | **327** | P | **P** | **19 55 08.7** | **-0.4** |
| **645A** | **Chauvin** | **89.08** | **46** | P | **P** | **19 55 11.0** | **+1.8** |
| | baz=326 | | | | | | |
| **448A** | **Bay Minette** | **89.17** | **43** | P | **P** | **19 55 10.9** | **+1.4** |
| | baz=327 | | | | | | |
| **JSC** | **Jenkinsville** | **89.20** | **37** | eP | **P** | **19 55 09.9** | **+0.2** |
| JSC | | | | pmax | pmax | | |
| | comp=Z,97nm,0.7s | | | | | | |
| **JSC** | **Jenkinsville** | **89.20** | **37** | eP | **P** | **19 55 09.9** | **+0.2** |
| | comp=Z,97nm,0.7s | | | | | | |
| **HIZ** | **Hauiti** | **89.26** | **157** | eP | **P** | **19 55 11.9** | **+2.4** |
| | comp=Z,72nm,0.9s | | | | | | |
| **CTEI** | **Djebel Teioual** | **89.28** | **327** | P | **P** | **19 55 11.1** | **+0.9** |
| **ES19** | **SONSECA Array** | **89.29** | **336** | eP | **P** | **19 55 09.2** | **-0.8** |
| ES19 | | | | epP | **pP** | **19 56 40.0** | **+1.2** |
| **ESDC** | **Sonseca Array** | **89.33** | **336** | P | **P** | **19 55 10.0** | **-0.3** |
| | comp=Z,40nm,0.8s,baz=21,slow=4.0,SNR=195 | | | | | | |
| ESDC | | | | PP | PP | 19 58 37.7 | -8.6 |
| | comp=Z,7.2nm,0.8s,baz=5.5,slow=5.2,SNR=5.7 | | | | | | |
| **ESLA** | **Sonseca Array** | **89.33** | **336** | eP | **P** | **19 55 09.6** | **-0.7** |
| | comp=Z,38nm,0.8s | | | | | | |
| ESLA | | | | epP | **pP** | **19 56 40.6** | **+1.6** |
| **BRAL** | **Brewton** | **89.34** | **42** | eP | **P** | **19 55 10.9** | **+0.5** |
| | comp=Z,202nm,0.8s | | | | | | |
| **PVIS** | **Viseu** | **89.36** | **340** | eP | **P** | **19 55 08.7** | **-1.7** |
| | comp=Z,32nm,0.7s | | | | | | |
| **TAU** | **Tasmania Unive** | **89.50** | **178** | eP | **P** | **19 55 11.3** | **+0.7** |
| TAU | | | | pmax | pmax | | |
| | comp=Z,32nm,0.8s | | | | | | |
| **TAU** | **Tasmania Unive** | **89.50** | **178** | eP | **P** | **19 55 11.3** | **+0.7** |
| | comp=Z,32nm,0.8s | | | | | | |
| **SET** | **Setif** | **89.52** | **328** | P | **P** | **19 55 12.0** | **+0.7** |
| **PAB** | **San Pablo** | **89.56** | **337** | eP | **P** | **19 55 10.9** | **-0.5** |
| PAB | | | | pmax | pmax | | |
| | comp=Z,28nm,0.9s | | | | | | |
| **PAB** | **San Pablo** | **89.56** | **337** | eP | **P** | **19 55 10.9** | **-0.5** |
| | comp=Z,28nm,0.9s | | | | | | |
| **MTE** | **Manteigas** | **89.58** | **339** | eP | **P** | **19 55 10.0** | **-1.5** |
| | comp=Z,55nm,0.8s | | | | | | |
| **MTE** | **Manteigas** | **89.58** | **339** | eP | **P** | **19 55 10.6** | **-0.8** |
| | comp=Z,69nm,0.8s | | | | | | |
| **ATD** | **Arta Tunnel** | **89.60** | **286** | eP | **P** | **19 55 11.4** | **-0.5** |
| | comp=Z,81nm,0.8s | | | | | | |
| **CKHR** | **Kef el Ahmar** | **89.65** | **328** | P | **P** | **19 55 11.1** | **-0.8** |
| **URZ** | **Urewera** | **89.65** | **155** | eP | **P** | **19 55 11.0** | **-0.4** |
| | comp=Z,36nm,0.8s | | | | | | |
| URZ | | | | epP | **pP** | **19 56 42.3** | **+2.1** |
| **COI** | **Coimbra** | **89.97** | **340** | eP | **P** | **19 55 12.7** | **-0.5** |
| **PCBR** | **Castelo Branco** | **90.09** | **339** | eP | **P** | **19 55 12.5** | **-1.2** |
| | comp=Z,30nm,2.8s | | | | | | |
| **PCAS** | **Casmilo, Conde** | **90.14** | **340** | eP | **P** | **19 55 12.9** | **-1.1** |
| | comp=Z,47nm,0.9s | | | | | | |
| **BKZ** | **Black Stump Fm** | **90.32** | **156** | eP | **P** | **19 55 14.6** | **+0.1** |
| | comp=Z,23nm,0.8s | | | | | | |
| BKZ | | | | epP | **pP** | **19 56 41.7** | **-1.7** |
| **CART** | **Cartagena** | **90.41** | **333** | eP | **P** | **19 55 12.6** | **-2.6** |
| | comp=Z,33nm,1.1s | | | | | | |
| **PMRV** | **Marv??o** | **90.46** | **339** | eP | **P** | **19 55 14.3** | **-1.2** |
| | comp=Z,26nm,1.1s | | | | | | |
| **PTOM** | **Tomar** | **90.53** | **340** | eP | **P** | **19 55 14.7** | **-1.1** |
| | comp=Z,27nm,0.8s | | | | | | |
| **NHSC** | **New Hope** | **90.67** | **36** | eP | **P** | **19 55 16.7** | **+0.2** |
| | comp=Z,268nm,1.1s | | | | | | |
| **TIGA** | **Tifton** | **90.67** | **40** | P | **P** | **19 55 17.3** | **+0.8** |
| | baz=330 | | | | | | |
| **TIGA** | **Tifton** | **90.67** | **40** | eP | **P** | **19 55 17.0** | **+0.5** |
| | comp=Z,180nm,0.8s | | | | | | |
| **JRQG** | **Juriquilla Cam** | **90.79** | **58** | eP | **P** | **19 55 18.4** | **+0.8** |
| | comp=Z,298nm,0.9s | | | | | | |
| **PMTG** | **Montargil** | **91.01** | **339** | eP | **P** | **19 55 16.3** | **-1.7** |
| | comp=Z,18nm,2.1s | | | | | | |
| **ALMR** | **Almeirim** | **91.01** | **340** | eP | **P** | **19 55 17.0** | **-1.0** |
| ALMR | | | | AMb | AMB | 19 55 18.7 | |
| | comp=Z,379nm,1.2s | | | | | | |
| **ALMR** | **Almeirim** | **91.01** | **340** | eP | **P** | **19 55 16.9** | **-1.0** |
| ALMR | | | | pmax | pmax | | |
| | comp=Z,379nm,1.2s | | | | | | |
| **PESTR** | **Estremoz** | **91.04** | **339** | eP | **P** | **19 55 16.8** | **-1.4** |
| | comp=Z,29nm,1.2s | | | | | | |
| **PMAFR** | **Mafra** | **91.37** | **340** | eP | **P** | **19 55 18.0** | **-1.7** |
| | comp=Z,66nm,0.7s | | | | | | |
| **PBAR** | **Barrancos** | **91.56** | **338** | eP | **P** | **19 55 19.7** | **-0.8** |
| | comp=Z,46nm,0.9s | | | | | | |
| **THZ** | **Tophouse** | **91.82** | **159** | eP | **P** | **19 55 20.6** | **-0.8** |
| | comp=Z,110nm,2.0s | | | | | | |
| **PBEJ** | **Beja** | **91.91** | **339** | eP | **P** | **19 55 21.2** | **-1.0** |
| **PNCL** | **Nicolau / Gran** | **91.99** | **339** | eP | **P** | **19 55 21.5** | **-1.0** |
| | comp=Z,29nm,0.8s | | | | | | |
| **MESJ** | **Messejana** | **92.17** | **339** | eP | **P** | **19 55 22.5** | **-0.9** |
| MESJ | | | | AMb | AMB | 19 55 24.2 | |
| | comp=Z,35nm,0.8s | | | | | | |
| **MESJ** | **Messejana** | **92.17** | **339** | eP | **P** | **19 55 22.5** | **-0.9** |
| MESJ | | | | pmax | pmax | | |
| | comp=Z,35nm,0.8s | | | | | | |
| **PCVE** | **Castro Verde** | **92.32** | **339** | eP | **P** | **19 55 22.3** | **-1.8** |
| | comp=Z,26nm,2.2s | | | | | | |
| **PVAQ** | **Vaqueiros** | **92.46** | **338** | eP | **P** | **19 55 23.9** | **-0.8** |
| | comp=Z,32nm,0.8s | | | | | | |
| **PTEO** | **Sao Teotonio** | **92.57** | **339** | eP | **P** | **19 55 24.3** | **-0.9** |
| | comp=Z,50nm,0.8s | | | | | | |
| **PBDV** | **Barranco-do-Ve** | **92.67** | **338** | eP | **P** | **19 55 22.6** | **-3.1** |
| | comp=Z,19nm,1.3s | | | | | | |
| **MORF** | **Marmelete** | **92.78** | **339** | eP | **P** | **19 55 25.6** | **-0.7** |
| MORF | | | | AMb | AMB | 19 55 27.6 | |
| | comp=Z,26nm,0.9s | | | | | | |
| MORF | | | | eS | **SKSac** | **20 05 21.8** | **-0.7** |
| **MORF** | **Marmelete** | **92.78** | **339** | eP | **P** | **19 55 25.5** | **-0.7** |
| MORF | | | | eS | **SKSac** | **20 05 21.8** | **-0.7** |
| MORF | | | | pmax | pmax | | |
| | comp=Z,27nm,0.9s | | | | | | |
| **MORF** | **Marmelete** | **92.78** | **339** | eP | **P** | **19 55 25.7** | **-0.6** |
| | comp=Z,28nm,1.9s | | | | | | |
| **PFVI** | **Vila Bisbo** | **92.99** | **339** | eP | **P** | **19 55 25.1** | **-2.1** |
| | comp=Z,38nm,0.8s | | | | | | |
| **PFVI** | **Vila Bisbo** | **92.99** | **339** | eP | **P** | **19 55 26.3** | **-0.9** |
| | comp=Z,55nm,2.2s | | | | | | |
| **OXZ** | **Oxford** | **93.09** | **160** | eP | **P** | **19 55 27.7** | **+0.5** |
| | comp=Z,88nm,1.5s | | | | | | |
| OXZ | | | | epP | **pP** | **19 56 57.3** | **+1.2** |
| **RPZ** | **Rata Peaks** | **93.24** | **161** | P | **P** | **19 55 30.8** | **+3.0** |
| | comp=Z,3.6nm,0.6s,baz=99,slow=19,SNR=3.4 | | | | | | |
| **LBZ** | **Lake Benmore** | **93.69** | **162** | eP | **P** | **19 55 31.1** | **+1.2** |
| LBZ | | | | epP | **pP** | **19 56 57.2** | **-1.7** |
| **LVIG** | **Laguna Verde** | **93.87** | **56** | eP | **P** | **19 55 30.3** | **-1.2** |
| | comp=Z,31nm,0.9s | | | | | | |
| **TAM** | **Tamanrasset** | **101.41** | **322** | eP | **Pdif** | **19 56 04.2** | **-1.2** |
| **TAM** | **Tamanrasset** | **101.41** | **322** | ePdif | **Pdif** | **19 56 04.2** | **-1.2** |
| **KMBO** | **Kilima Mbogo** | **102.67** | **282** | P | **Pdif** | **19 56 12.9** | **+1.6** |
| | comp=Z,2.4nm,0.8s,baz=315,slow=1.8,SNR=3.9 | | | | | | |
| KMBO | | | | PP | **PKiKP** | **20 00 28.1** | **-1.8** |
| | comp=Z,2.1nm,0.4s,baz=55,slow=12,SNR=6.1 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **111.61** | **321** | ePdif | **Pdif** | **19 56 50.3** | **-0.4** |
| TOA1 | | | | ePKiKP | **PKiKP** | **20 00 44.9** | **-1.4** |
| TOA1 | | | | ePP | **PP** | **20 01 30.4** | **-3.3** |
| TOA1 | | | | ePKKPbc | **PKKPbc** | **20 11 38.8** | **-0.4** |
| **TOA0** | **Torodi Ar. Sit** | **111.61** | **321** | ePdif | **Pdif** | **19 56 50.8** | **+0.1** |
| **TORD** | **Torodi Ar. Bea** | **111.61** | **321** | Pdiff | **Pdif** | **19 56 50.3** | **-0.4** |
| | comp=Z,1.9nm,0.7s,baz=7.3,slow=5.1,SNR=16 | | | | | | |
| TORD | | | | PKiKP | **PKiKP** | **20 00 44.9** | **-1.4** |
| | comp=Z,3.9nm,0.4s,baz=15,slow=2.4,SNR=47 | | | | | | |
| TORD | | | | PP | **PP** | **20 01 30.4** | **-3.3** |
| | comp=Z,7.0nm,0.8s,baz=17,slow=8.0,SNR=8.1 | | | | | | |
| TORD | | | | PKKPbc | **PKKPbc** | **20 11 38.8** | **-0.4** |
| | comp=Z,2.6nm,0.7s,baz=191,slow=3.0,SNR=9.1 | | | | | | |
| **MOTC** | **Monteria, Cord** | **113.93** | **44** | eP | **PKiKP** | **20 00 50.1** | **-0.7** |
| **SDV** | **Santo Domingo** | **116.14** | **40** | PKP | **PKPdf** | **20 00 54.9** | **-0.3** |
| | comp=Z,46nm,1.0s,baz=35,slow=1.5,SNR=21 | | | | | | |
| SDV | | | | PP | **PP** | **20 02 03.7** | **-2.1** |
| | comp=Z,19nm,0.8s,baz=351,slow=1.9,SNR=7.1 | | | | | | |
| **SDV** | **Santo Domingo** | **116.14** | **40** | eP | **PKPdf** | **20 00 53.2** | **-2.1** |
| **SDV** | **Santo Domingo** | **116.14** | **40** | ePKPdf | **PKPdf** | **20 00 54.2** | **-1.1** |
| SDV | | | | ePP | **PP** | **20 02 02.2** | **-3.5** |
| **GRGC** | **Isla de Gorgon** | **117.63** | **50** | eP | **PKPdf** | **20 00 55.0** | **-2.9** |
| **RUSC** | **La Rusia** | **117.68** | **43** | eP | **PKPdf** | **20 00 58.5** | **-0.1** |
| **RUSC** | **La Rusia** | **117.68** | **43** | ePKPdf | **PKPdf** | **20 00 57.8** | **-0.8** |
| RUSC | | | | ePP | **PP** | **20 02 15.5** | **-1.3** |
| **ROSC** | **El Rosal** | **118.00** | **45** | PKP | **PKPdf** | **20 00 58.2** | **-0.9** |
| | comp=Z,7.2nm,0.4s,baz=136,slow=9.2,SNR=5.2 | | | | | | |
| ROSC | | | | PP | **PP** | **20 02 17.9** | **-1.1** |
| | comp=Z,6.4nm,0.3s,baz=55,slow=8.7,SNR=6.8 | | | | | | |
| **ROSC** | **El Rosal** | **118.00** | **45** | ePKPdf | **PKPdf** | **20 00 58.0** | **-1.1** |
| ROSC | | | | ePP | **PP** | **20 02 16.9** | **-2.0** |
| **VILC** | **Villavicencio,** | **118.94** | **45** | eP | **PKPdf** | **20 00 57.4** | **-3.2** |
| **LSZ** | **Lusaka** | **119.06** | **279** | ePKIKP | **PKPdf** | **20 01 00.0** | **-0.6** |
| LSZ | | | | e | | 20 02 23.3 | |
| **LSZ** | **Lusaka** | **119.06** | **279** | ePKPdf | **PKPdf** | **20 01 00.0** | **-0.6** |
| LSZ | | | | ePP | **PP** | **20 02 23.3** | **-3.3** |
| **DBIC** | **Dimbokro** | **120.17** | **324** | PKP | **PKPdf** | **20 01 02.0** | **-0.7** |
| | comp=Z,24nm,0.7s,baz=20,slow=1.9,SNR=31 | | | | | | |
| DBIC | | | | PP | **PP** | **20 02 27.8** | **-5.3** |
| | comp=Z,13nm,0.8s,baz=8.8,slow=7.9,SNR=3.9 | | | | | | |
| **DBIC** | **Dimbokro** | **120.17** | **324** | ePKPdf | **PKPdf** | **20 01 00.6** | **-2.1** |
| DBIC | | | | ePP | PP | 20 02 22.8 | -10 |
| **VNDA** | **Vanda** | **124.65** | **176** | PKP | **PKPdf** | **20 01 10.8** | **+1.4** |
| | comp=Z,12nm,0.7s,baz=318,slow=4.7,SNR=40 | | | | | | |
| **VNDA** | **Vanda** | **124.65** | **176** | ePKIKP | **PKPdf** | **20 01 10.2** | **+0.8** |
| **VNDA** | **Vanda** | **124.65** | **176** | ePKPdf | **PKPdf** | **20 01 10.2** | **+0.8** |
| **ATAH** | **Atahualpa** | **125.91** | **57** | PKP | **PKPdf** | **20 01 15.2** | **+1.0** |
| | comp=Z,68nm,0.8s,baz=336,slow=2.7,SNR=24 | | | | | | |
| **LBTB** | **Lobatse** | **127.48** | **272** | ePKIKP | **PKPdf** | **20 01 16.7** | **+0.2** |
| **LBTB** | **Lobatse** | **127.48** | **272** | ePKPdf | **PKPdf** | **20 01 16.7** | **+0.2** |
| **TSUM** | **Tsumeb** | **128.95** | **284** | ePKPdf | **PKPdf** | **20 01 19.7** | **+0.2** |
| **PTGA** | **Pitinga** | **129.19** | **33** | PKP | **PKPdf** | **20 01 20.1** | **+0.1** |
| | comp=Z,32nm,0.8s,baz=12,slow=1.5,SNR=35 | | | | | | |
| PTGA | | | | PP | **sPKPdf** | **20 03 26.6** | **-5.7** |
| | comp=Z,13nm,0.8s,baz=5.0,slow=5.8,SNR=5.9 | | | | | | |
| PTGA | | | | SKPbc | SKPbc | 20 04 04.3 | -0.2 |
| | comp=Z,64nm,1.0s,baz=350,slow=4.9,SNR=18 | | | | | | |
| **MAW** | **Mawson** | **129.45** | **209** | PKP | **PKPdf** | **20 01 20.2** | **+1.5** |
| | comp=Z,15nm,0.6s,baz=63,slow=2.6,SNR=16 | | | | | | |
| MAW | | | | SKPbc | SKPbc | 20 04 05.2 | +1.6 |
| | comp=Z,23nm,0.9s,baz=40,slow=4.3,SNR=12 | | | | | | |
| **MAW** | **Mawson** | **129.45** | **209** | ePKPdf | **PKPdf** | **20 01 20.2** | **+1.5** |
| MAW | | | | eSKPdf | SKPbc | 20 04 05.6 | +2.0 |
| **BOSA** | **Boshof** | **130.01** | **269** | PKhKP | PKPpre | 20 01 14.4 | |
| | comp=Z,4.1nm,0.9s,baz=131,slow=0.1,SNR=5.9 | | | | | | |
| BOSA | | | | PKP | **PKPdf** | **20 01 20.7** | **-0.5** |
| | comp=Z,8.7nm,0.8s,baz=65,slow=1.4,SNR=11 | | | | | | |
| BOSA | | | | PP | **PP** | **20 03 36.8** | **-2.6** |
| | comp=Z,3.1nm,0.5s,baz=53,slow=7.4,SNR=4.6 | | | | | | |
| BOSA | | | | SKPbc | **SKPab** | **20 04 08.0** | **+0.6** |
| | comp=Z,96nm,1.0s,baz=40,slow=4.3,SNR=27 | | | | | | |
| **NNA** | **Nana** | **130.71** | **59** | PKP | **PKPdf** | **20 01 22.9** | **+0.1** |
| | comp=Z,51nm,0.8s,baz=327,slow=5.1,SNR=18 | | | | | | |
| NNA | | | | SKPbc | **SKPbc** | **20 04 10.1** | **0.0** |
| | comp=Z,14nm,0.4s,baz=326,slow=2.0,SNR=7.8 | | | | | | |
| **NNA** | **Nana** | **130.71** | **59** | PKIKP | **PKPdf** | **20 01 22.9** | **+0.1** |
| NNA | | | | pmax | pmax | | |
| | comp=Z,54nm,0.8s | | | | | | |
| NNA | | | | pmax | pmax | | |
| | comp=N,14nm,0.4s | | | | | | |
| **NNA** | **Nana** | **130.71** | **59** | ePKPdf | **PKPdf** | **20 01 22.1** | **-0.7** |
| NNA | | | | ePKPdf | **PKPdf** | **20 01 22.9** | **+0.1** |
| **SAML** | **Samuel** | **135.31** | **41** | ePKPpre | PKPpre | 20 01 17.1 | |
| SAML | | | | ePKPdf | **PKPdf** | **20 01 31.2** | **-0.2** |
| **RCBR** | **Riachuelo** | **139.03** | **1** | SKPbc | **SKPbc** | **20 04 35.9** | **-0.6** |
| | comp=N,13nm,1.1s,baz=10,slow=2.2,SNR=3.9 | | | | | | |
| **LPAZ** | **La Paz** | **139.11** | **53** | PKhKP | PKPpre | 20 01 30.8 | |
| | comp=N,6.0nm,0.7s,baz=4.8,slow=7.3,SNR=20 | | | | | | |
| LPAZ | | | | PKP | **PKiKP** | **20 01 40.3** | **-1.2** |
| | comp=N,26nm,0.8s,baz=29,slow=7.1,SNR=25 | | | | | | |
| LPAZ | | | | SKPbc | **SKPbc** | **20 04 36.3** | **-1.0** |
| | comp=N,14nm,0.9s,baz=42,slow=7.7,SNR=6.5 | | | | | | |
| **LPAZ** | **La Paz** | **139.11** | **53** | ePKHKP | PKPpre | 20 01 30.4 | |
| LPAZ | | | | e | | 20 01 39.9 | |
| LPAZ | | | | e | | 20 04 32.9 | |
| **LPAZ** | **La Paz** | **139.11** | **53** | ePKPpre | PKPpre | 20 01 30.4 | |
| LPAZ | | | | e | | 20 01 30.6 | |
| LPAZ | | | | ePKPdf | **PKPdf** | **20 01 39.9** | **+0.8** |
| LPAZ | | | | ePKiKP | **PKiKP** | **20 01 40.3** | **-1.2** |
| LPAZ | | | | ePP | **PP** | **20 04 32.9** | **-3.6** |
| **MNMC** | **Minye Minye** | **140.58** | **57** | ePKPpre | PKPpre | 20 01 34.1 | |
| MNMC | | | | ePKPdf | **PKPdf** | **20 01 42.4** | **+1.1** |
| **PB11** | **IPOC Station P** | **141.04** | **58** | ePKPpre | PKPpre | 20 01 35.6 | |
| PB11 | | | | ePKPdf | **PKiKP** | **20 01 43.8** | **-1.0** |
| **PB01** | **IPOC Station P** | **142.14** | **59** | ePKPpre | PKPpre | 20 01 40.0 | |
| PB01 | | | | ePKPdf | **PKiKP** | **20 01 45.5** | **-1.4** |
| **SIV** | **San Ignacio** | **142.46** | **43** | PKhKP | PKPpre | 20 01 40.9 | |
| | comp=N,23nm,0.7s,baz=312,slow=4.1,SNR=32 | | | | | | |
| SIV | | | | SKPbc | **SKPbc** | **20 04 44.3** | **-0.9** |
| | comp=N,9.1nm,0.8s,baz=326,slow=3.0,SNR=4.6 | | | | | | |
| SIV | | | | PP | **PP** | **20 04 57.3** | **+1.5** |
| | comp=N,36nm,1.0s,baz=344,slow=7.2,SNR=14 | | | | | | |
| **PB04** | **IPOC Station P** | **142.74** | **61** | ePKPdf | **PKPdf** | **20 01 43.3** | **-1.6** |
| **PB10** | **IPOC Station P** | **143.38** | **63** | ePKPdf | **PKPdf** | **20 01 44.9** | **-1.0** |
| **YJA** | **Yavi** | **145.31** | **55** | eP | **PKPbc** | **20 01 50.1** | **-0.3** |
| **BDFB** | **Brasilia** | **147.04** | **23** | PKPbc | **PKPdf** | **20 01 53.2** | **+0.8** |
| | comp=N,127nm,0.8s,baz=39,slow=1.2,SNR=36 | | | | | | |
| **BDFB** | **Brasilia** | **147.04** | **23** | ePKIKP | **PKPdf** | **20 01 52.8** | **+0.4** |
| BDFB | | | | e | | 20 01 56.2 | |
| **BDFB** | **Brasilia** | **147.04** | **23** | ePKPdf | **PKPdf** | **20 01 52.8** | **+0.4** |
| BDFB | | | | ePKPbc | **PKiKP** | **20 01 56.2** | **-1.0** |
| **AZAP** | **Zapla** | **147.17** | **57** | eP | **PKPdf** | **20 01 53.2** | **+0.6** |
| **LCO** | **Las Campanas** | **147.22** | **70** | ePKPdf | **PKPdf** | **20 01 53.3** | **+0.7** |
| LCO | | | | ePKPbc | **PKiKP** | **20 01 56.8** | **-0.6** |
| **SLA** | **San Lorenzo** | **147.30** | **58** | eP | **PKPdf** | **20 01 52.6** | **-0.1** |
| **ASTB** | **Santa Barbara** | **147.30** | **56** | eP | **PKPdf** | **20 01 53.1** | **+0.4** |
| **NVL** | **N'lazarevskaya** | **147.32** | **207** | ePKIKP | **PKPdf** | **20 01 52.3** | **+1.2** |
| NVL | | | | e | | 20 03 28.5 | |
| **ALOL** | **LOMAS DE OLMED** | **147.46** | **55** | eP | **PKPdf** | **20 01 53.1** | **+0.3** |
| **FSA** | **Cafayete** | **148.07** | **60** | eP | **PKPdf** | **20 01 54.2** | **+0.3** |
| **VCA** | **Vinchina** | **148.61** | **66** | eP | **PKPdf** | **20 01 54.9** | **+0.1** |
| **AGUA** | **GUANDACOL** | **148.95** | **68** | eP | **PKPdf** | **20 01 55.6** | **+0.4** |
| **ROC1** | **El Roble** | **149.57** | **76** | ePKPdf | **PKPdf** | **20 01 57.5** | **+1.3** |
| **ROCH** | **El Roble** | **149.57** | **76** | eP | **PKPdf** | **20 01 58.5** | **+2.3** |
| **PEL** | **Peldehue** | **149.90** | **76** | ePKPdf | **PKPdf** | **20 01 58.3** | **+1.8** |
| PEL | | | | ePKPbc | **PKiKP** | **20 02 02.5** | **0.0** |
| **PEL** | **Peldehue** | **149.90** | **76** | eP | **PKPbc** | **20 02 01.3** | **-0.5** |
| **AMOG** | **MOGNA** | **149.93** | **70** | eP | **PKPdf** | **20 01 57.1** | **+0.4** |
| **RTLS** | **Leoncito** | **149.97** | **72** | eP | **PKPdf** | **20 01 57.9** | **+0.9** |
| **CLCH** | **Cerro Calan** | **150.15** | **76** | ⇑iP | **PKPbc** | **20 02 03.5** | **+1.1** |
| **GO05** | **HualaæØ** | **150.16** | **80** | ePKPdf | **PKPdf** | **20 01 57.5** | **+0.7** |
| GO05 | | | | ePKPbc | **PKiKP** | **20 02 02.8** | **-0.2** |
| GO05 | | | | ePKPab | **PKPab** | **20 02 12.1** | **+2.1** |
| **AUSP** | **Uspallata** | **150.18** | **73** | eP | **PKPdf** | **20 01 58.1** | **+0.9** |
| **RTCV** | **Cerro Valdivia** | **150.50** | **71** | eP | **PKPdf** | **20 01 58.0** | **+0.5** |
| **SNAA** | **Sanae** | **150.91** | **200** | PKP | **PKPbc** | **20 02 02.9** | **-0.1** |
| **SNAA** | **Sanae** | **150.91** | **200** | ePKIKP | **PKPdf** | **20 01 56.7** | **-0.2** |
| SNAA | | | | e | | 20 02 12.6 | |
| **SNAA** | **Sanae** | **150.91** | **200** | ePKPdf | **PKPdf** | **20 01 56.7** | **-0.2** |
| SNAA | | | | ePKPbc | **PKPbc** | **20 02 03.0** | **0.0** |
| SNAA | | | | ePKPab | **PKPab** | **20 02 12.6** | **+0.5** |
| **ACAN** | **Cantantal** | **151.64** | **70** | eP | **PKPdf** | **20 01 59.7** | **+0.5** |
| **VNA2** | **Neumayer--Watz** | **152.49** | **199** | PKP | **PKPbc** | **20 02 07.7** | **+1.2** |
| | baz=89,slow=1.1 | | | | | | |
| **TCA** | **Tanti** | **152.66** | **66** | eP | **PKPdf** | **20 02 01.4** | **+0.7** |
| **VNA3** | **Neumayer Olymp** | **152.76** | **198** | PKP | **PKPbc** | **20 02 07.8** | **+0.8** |
| **VNA1** | **Neumayer--Stat** | **152.89** | **199** | PKP | **PKPbc** | **20 02 09.5** | **+2.2** |
| **CPUP** | **Villa Florida** | **153.05** | **48** | PKP | **PKPdf** | **20 02 02.9** | **+1.5** |
| | comp=N,14nm,1.1s,baz=1.2,slow=1.8,SNR=13 | | | | | | |
| CPUP | | | | PKPbc | **PKiKP** | **20 02 09.1** | **0.0** |
| | comp=N,31nm,0.9s,baz=339,slow=2.4,SNR=30 | | | | | | |
| CPUP | | | | PKPab | **PKPab** | **20 02 22.1** | **-0.1** |
| | comp=N,80nm,0.9s,baz=342,slow=4.9,SNR=27 | | | | | | |
| CPUP | | | | PP | **PP** | **20 05 56.3** | **-0.9** |
| | comp=N,18nm,0.9s,baz=333,slow=6.1,SNR=7.4 | | | | | | |
| **CPUP** | **Villa Florida** | **153.05** | **48** | ePKIKP | **PKPdf** | **20 02 01.7** | **+0.3** |
| CPUP | | | | e | | 20 02 21.7 | |
| CPUP | | | | e | | 20 05 55.5 | |
| **CPUP** | **Villa Florida** | **153.05** | **48** | ePKPdf | **PKPdf** | **20 02 01.6** | **+0.3** |
| CPUP | | | | ePKPbc | **PKiKP** | **20 02 09.3** | **+0.2** |
| CPUP | | | | ePKPab | **PKPab** | **20 02 21.7** | **-0.5** |
| CPUP | | | | ePP | **PP** | **20 05 55.5** | **-1.7** |
| **CPUP** | **Villa Florida** | **153.05** | **48** | eP | **PKPdf** | **20 02 01.4** | **+0.1** |
| **PLCA** | **Paso Flores** | **153.99** | **89** | PKP | **PKPdf** | **20 02 02.7** | **+0.3** |
| | comp=N,4.6nm,0.9s,baz=251,slow=3.6,SNR=11 | | | | | | |
| PLCA | | | | PKPbc | **PKiKP** | **20 02 12.3** | **+1.5** |
| | comp=N,27nm,0.7s,baz=312,slow=2.3,SNR=55 | | | | | | |
| PLCA | | | | PKPab | **PKPab** | **20 02 27.9** | **+1.7** |
| | comp=N,80nm,1.1s,baz=305,slow=4.5,SNR=12 | | | | | | |
| **PLCA** | **Paso Flores** | **153.99** | **89** | ePKIKP | **PKPdf** | **20 02 02.0** | **-0.4** |
| **PLCA** | **Paso Flores** | **153.99** | **89** | ePKPdf | **PKPdf** | **20 02 02.0** | **-0.4** |
| PLCA | | | | ePKPbc | **PKiKP** | **20 02 12.1** | **+1.3** |
| PLCA | | | | ePKPab | **PKPab** | **20 02 28.1** | **+2.0** |
| **GO09** | **Cerro Castillo** | **155.56** | **114** | ePKPdf | **PKPdf** | **20 02 04.7** | **+0.7** |
| GO09 | | | | ePKPab | **PKPab** | **20 02 33.0** | **+0.6** |
| **USHA** | **Ushuaia** | **157.84** | **123** | PKPab | **PKPab** | **20 02 43.4** | **+1.2** |
| **TRQA** | **Tornquist** | **158.51** | **75** | ePKPdf | **PKPdf** | **20 02 07.3** | **-1.0** |
| TRQA | | | | ePKPab | **PKPab** | **20 02 45.8** | **+0.2** |

*ISCJB **09** 19:45:12.9±0.6, 0°.85S±0°.05×126°.85E±0°.03, h34km, mb3.6/3, MS4.0/4, Error ellipse: s-maj=7.6km s-min=4.7km az=6.4*

*DJA **09** 19:45:13.7±0.7, 1°S±6°×12°7E±°, h30km±10km, M4.4/11, mb4.6/3, mB5.0/3, MLv4.4/11, Mw(mB)4.3/3*

*NEIC **09** 19:45:16.1±1.4, 1°.41S×126°.76E, h35km, mb4.0/6, Error ellipse: s-maj=23.4km s-min=12.7km az=194.0*

*IDC **09** 19:45:20.1±11.0, 1°.67S×128°.04E, h0km, mb3.7/2, mb1 3.9/3, mb1mx3.6/41, mbtmp3.7/3, ML3.6/1, MS4.0/4, Ms1 4.1/4, ms1mx3.3/40, Error ellipse: s-maj=175.2km s-min=144.0km az=127.0*

**ISC 09 19:45:13.9**±0.9**, 0°.87S**±0°.06×**126°.85E**±0°.04**, h34**km**, n28, σ2s.20**/30**, mb3.5**/3**, MS4.0**/4**, Southern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LBMI** | **Labuha** | **0.69** | **71** | P | **Pn** | **19 45 26.6** | **-0.7** |
| LBMI | | | | S | **Sn** | **19 45 36.5** | **-0.4** |
| **SANI** | **Sanana** | **1.45** | **216** | P | **Pb** | **19 45 38.5** | **-1.9** |
| SANI | | | | S | **Sb** | **19 45 57.5** | **-1.1** |
| **AAI** | **Ambon** | **3.11** | **154** | P | **Pn** | **19 46 01.1** | **+0.5** |
| AAI | | | | S | **Sn** | **19 46 37.8** | **+1.3** |
| **KMSI** | **Cibinong** | **3.20** | **297** | P | **Pn** | **19 46 02.8** | **+0.9** |
| **MSAI** | **Masohi** | **3.22** | **140** | P | **Pn** | **19 46 03.0** | **+0.8** |
| MSAI | | | | S | **Sn** | **19 46 40.7** | **+1.3** |
| **LUWI** | **Luwuk** | **4.08** | **268** | P | **Pn** | **19 46 14.8** | **+0.9** |
| LUWI | | | | S | **Sn** | **19 46 59.5** | **-1.0** |
| **LUWI** | **Luwuk** | **4.08** | **268** | ePn | **Pn** | **19 46 15.0** | **+1.1** |
| LUWI | | | | eSn | **Sn** | **19 47 02.3** | **+1.8** |
| **BNDI** | **Bandanaira** | **4.74** | **140** | P | **Pn** | **19 46 24.1** | **+1.0** |
| **APSI** | **Ampana** | **5.20** | **270** | P | **Pn** | **19 46 30.0** | **+0.7** |
| **FAKI** | **Fak Fak** | **5.77** | **111** | P | **Pn** | **19 46 38.3** | **+1.1** |
| | 38nm,0.6s,625nm | | | | | | |
| **FAKI** | **Fak Fak** | **5.77** | **111** | ePn | **Pn** | **19 46 37.7** | **+0.5** |
| FAKI | | | | eSn | **Sn** | **19 47 47.6** | **+5.3** |
| **BBSI** | **Bau Bau** | **6.26** | **223** | P | **Pn** | **19 46 45.6** | **+1.6** |
| **SPSI** | **Sidrap Palu** | **7.71** | **246** | P | **Pn** | **19 47 05.7** | **+1.9** |
| **SOEI** | **Soe** | **9.19** | **196** | ePn | Pn | 19 47 19.1 | -5.2 |
| **WRAB** | **Tennant Creek** | **20.32** | **159** | eP | **P** | **19 49 41.8** | **-5.5** |
| | 24nm,1.9s | | | | | | |
| **WRA** | **Warramunga Arr** | **20.32** | **159** | P | **P** | **19 49 44.7** | **-2.7** |
| | 0.2nm,0.3s,baz=341,slow=11,SNR=10 | | | | | | |
| **WR1** | **Warramunga Arr** | **20.33** | **159** | eP | **P** | **19 49 44.7** | **-2.7** |
| | 4.4nm,0.8s | | | | | | |
| **WB2** | **Warramunga Arr** | **20.33** | **159** | eP | **P** | **19 49 43.5** | **-3.9** |
| | 4.4nm,0.6s | | | | | | |
| **COEN** | **Coen** | **20.74** | **130** | eP | **P** | **19 49 52.0** | **+0.1** |
| | 9.4nm,0.8s | | | | | | |
| **GUMO** | **Guam** | **22.92** | **51** | LR | LR | 19 58 20.8 | |
| | comp=Z,754nm,21.6s,baz=24,slow=35 | | | | | | |
| **AS31** | **Alice Springs** | **23.67** | **164** | eP | **P** | **19 50 20.2** | **-2.4** |
| | 1.3nm,0.8s | | | | | | |
| **ASAR** | **Alice Springs** | **23.67** | **164** | P | **P** | **19 50 21.4** | **-1.2** |
| | 1.8nm,1.0s,baz=345,slow=12,SNR=14 | | | | | | |
| **AS01** | **Alice Springs** | **23.68** | **164** | eP | **P** | **19 50 20.9** | **-1.9** |
| **NWAO** | **Narrogin (SRO)** | **33.15** | **195** | LR | LR | 20 04 47.9 | |
| | comp=Z,168nm,20.2s,baz=76,slow=36 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **33.49** | **306** | LR | LR | 20 09 03.9 | |
| | comp=Z,244nm,18.2s,baz=352,slow=41 | | | | | | |
| **STKA** | **Stephens Creek** | **33.84** | **157** | P | **P** | **19 51 55.4** | **+2.1** |
| | 1.3nm,0.7s,baz=331,slow=11,SNR=4.9 | | | | | | |
| **STKA** | **Stephens Creek** | **33.84** | **157** | eP | **P** | **19 51 54.6** | **+1.3** |
| | 3.9nm,1.9s | | | | | | |
| **BBB** | **Bella Bella** | **99.88** | **37** | LR | LR | 20 32 57.2 | |
| | comp=Z,79nm,21.9s,baz=303,slow=29 | | | | | | |

**SJA 09 19:45:27.4**±0.8**, 32°.58S**×**68°.96W, h126**km±5km**, ML4.1, MW2.6, Mendoza Province**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AUSP** | **Uspallata** | **0.51** | **314** | eP | Pn | 19 45 47.7 | +1.3 |
| AUSP | | | | eS | Sn | 19 46 02.5 | +1.8 |
| **RTCV** | **Cerro Valdivia** | **0.80** | **26** | eP | Pn | 19 45 48.7 | +0.5 |
| RTCV | | | | eS | Sn | 19 46 04.1 | +0.2 |
| **RTLS** | **Leoncito** | **0.83** | **340** | eP | Pn | 19 45 50.1 | +1.4 |
| RTLS | | | | eS | Sn | 19 46 06.2 | +1.4 |
| **RTLL** | **Cerro Villicun** | **1.31** | **18** | eP | Pn | 19 45 54.0 | +0.7 |
| RTLL | | | | eS | Sn | 19 46 13.7 | +0.9 |
| **AMOG** | **MOGNA** | **1.68** | **14** | eP | Pn | 19 45 58.6 | +1.1 |
| AMOG | | | | eS | Sn | 19 46 21.2 | +0.9 |
| AMOG | | | | IAML | | 19 46 23.4 | |
| | comp=Z,1μm,0.2s | | | | | | |
| **ROC1** | **El Roble** | **1.78** | **257** | eP | Pn | 19 45 59.8 | +1.1 |
| ROC1 | | | | eS | Sn | 19 46 23.1 | +0.6 |
| **AGUA** | **GUANDACOL** | **3.11** | **8** | eP | Pn | 19 46 16.2 | +0.8 |

*IDC 09 19:48:33.6±1.5, 0°.90S×126°.90E, h0km, mb4.4/11, mb1 4.4/12, mb1mx4.1/51, mbtmp4.4/12, ML3.9/1, Error ellipse: s-maj=49.1km s-min=28.6km az=109.0*
*ISCJB 09 19:48:37.0±0.2, 0°.87S±0°.03×126°.87E±0°.03, h34km, mb4.7/24, Error ellipse: s-maj=4.4km s-min=4.1km az=143.3*
*DJA 09 19:48:37.4±0.2, 1°S±2°×12°7E±°, h10km, M4.9/18, mb5.0/13, mB5.3/8, MLv5.0/18, Mw(mB)4.7/8*
*NEIC 09 19:48:39.0±1.0, 0°.86S×126°.91E, h37km±12km, mb5.0/15, Error ellipse: s-maj=9.0km s-min=8.3km az=224.0*
**ISC 09 19:48:38.6±0.5, 0°.87S±0°.05×126°.85E±0°.05, h34km, n67, σ1ˢ24/70, mb4.8/24, 2D, Southern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LBMI | Labuha | 0.69 | 70 | P | Pn | 19 48 51.1 | -0.8 |
| LBMI | | | | S | Sn | 19 49 00.4 | -1.0 |
| SANI | Sanana | 1.45 | 217 | P | Pn | 19 49 03.1 | +0.6 |
| SANI | | | | S | Sn | 19 49 19.2 | -1.2 |
| AAI | Ambon | 3.10 | 154 | P | Pn | 19 49 25.2 | 0.0 |
| KMSI | Cibinong | 3.21 | 297 | P | Pn | 19 49 28.3 | +1.6 |
| MSAI | Masohi | 3.21 | 140 | P | Pn | 19 49 27.2 | +0.5 |
| LUWI | Luwuk | 4.08 | 268 | P | Pn | 19 49 38.7 | 0.0 |
| LUWI | Luwuk | 4.08 | 268 | ePn | Pn | 19 49 38.0 | -0.7 |
| LUWI | | | | eSn | Sn | 19 50 22.0 | -3.3 |
| SGSI | Sangihe | 4.72 | 344 | P | Pn | 19 49 49.7 | +2.3 |
| BNDI | Bandanaira | 4.74 | 140 | P | Pn | 19 49 47.4 | -0.3 |
| MRSI | Marisa | 5.09 | 285 | P | Pn | 19 49 53.7 | +1.1 |
| APSI | Ampana | 5.21 | 270 | P | Pn | 19 49 55.3 | +1.2 |
| FAKI | Fak Fak | 5.76 | 111 | P | Pn | 19 50 01.9 | +0.1 |
| | 104nm,0.8s,1μm | | | | | | |
| FAKI | Fak Fak | 5.76 | 111 | ePn | Pn | 19 50 01.5 | -0.3 |
| FAKI | | | | eSn | Sn | 19 51 09.0 | +2.2 |
| BBSI | Bau Bau | 6.27 | 223 | P | Pn | 19 50 10.0 | +1.3 |
| | 42nm,0.8s,538nm | | | | | | |
| MPSI | Mapaga | 7.06 | 280 | P | Pn | 19 50 21.7 | +2.1 |
| RKPI | Ransiki, Papua | 7.35 | 95 | P | Pn | 19 50 24.7 | +1.1 |
| TTSI | Tana Toraja | 7.35 | 253 | P | Pn | 19 50 24.3 | +0.6 |
| | 103nm,0.5s,2μm | | | | | | |
| BNSI | Bone | 7.59 | 242 | P | Pn | 19 50 27.5 | +0.5 |
| | 51nm,0.6s | | | | | | |
| SPSI | Sidrap Palu | 7.71 | 246 | P | Pn | 19 50 30.1 | +1.5 |
| | 371nm,0.5s,5μm | | | | | | |
| SAUI | Saumlaki | 8.34 | 148 | P | Pn | 19 50 37.3 | +0.1 |
| SAUI | Saumlaki | 8.34 | 148 | ePn | Pn | 19 50 38.4 | +1.3 |
| MMRI | Maumere | 8.98 | 211 | P | Pn | 19 50 46.2 | +0.2 |
| MMRI | Maumere | 8.98 | 211 | ePn | Pn | 19 50 47.6 | +1.7 |
| SOEI | Soe | 9.19 | 196 | P | Pn | 19 50 49.2 | +0.2 |
| SOEI | Soe | 9.19 | 196 | ePn | Pn | 19 50 51.8 | +2.8 |
| EDFI | Ende, Flores | 9.36 | 213 | P | Pn | 19 50 53.7 | +2.4 |
| | 59nm,0.6s,794nm | | | | | | |
| MTN | Manton Dam | 12.63 | 161 | ePn | Pn | 19 51 34.4 | -1.6 |
| JAGI | Jajag, Banyuwa | 14.73 | 239 | ePn | Pn | 19 52 06.7 | +2.0 |
| FITZ | Fitzroy Crossi | 17.16 | 184 | P | Pn | 19 52 35.8 | -0.1 |
| | 0.3nm,0.3s,baz=14,slow=9.9,SNR=8.2 | | | | | | |
| COEN | Coen | 20.73 | 130 | eP | P | 19 53 14.9 | -1.5 |
| | 24nm,0.8s | | | | | | |
| MBWA | Marble Bar | 21.33 | 199 | eP | P | 19 53 21.7 | -1.1 |
| | 268nm,1.5s | | | | | | |
| MNAI | Manna | 24.12 | 261 | eP | P | 19 53 51.6 | 0.0 |
| | 85nm,0.9s | | | | | | |
| YULB | Yu-li | 24.72 | 348 | eP | P | 19 53 56.8 | -0.1 |
| | 152nm,2.0s | | | | | | |
| TPUB | Ta-pu | 24.78 | 346 | eP | P | 19 53 57.3 | -0.2 |
| | 47nm,1.1s | | | | | | |
| SSLB | Suanglung | 25.18 | 347 | eP | P | 19 54 00.1 | -1.0 |
| | 58nm,1.4s | | | | | | |
| YHNB | Yeheng | 25.94 | 349 | eP | P | 19 54 08.7 | +0.6 |
| | 63nm,1.1s | | | | | | |
| ARMA | Armidale | 37.64 | 144 | eP | P | 19 55 51.1 | +0.4 |
| | 20nm,1.2s | | | | | | |
| KS15 | Wonju Array Si | 38.14 | 1 | eP | P | 19 55 54.3 | -0.3 |
| KSAR | Wonju Array Be | 38.14 | 1 | P | P | 19 55 55.7 | +1.1 |
| KSRS | Korea Array | 38.15 | 1 | P | P | 19 55 55.7 | +1.0 |
| | 3.1nm,0.6s,baz=180,slow=9.6,SNR=10 | | | | | | |
| MAJO | Matsushiro | 38.69 | 15 | eP | P | 19 55 57.9 | -1.5 |
| | 23nm,1.4s | | | | | | |
| MJAR | Matsushiro Arr | 38.69 | 15 | P | P | 19 55 58.2 | -1.1 |
| | 1.2nm,0.4s,baz=188,slow=9.8,SNR=7.2 | | | | | | |
| MJB9 | Matsu-Tunnel | 38.70 | 15 | eP | P | 19 55 58.0 | -1.4 |
| | 25nm,1.4s | | | | | | |
| USRK | Ussuriysk Ar. | 45.11 | 5 | P | P | 19 56 50.9 | -0.8 |
| | 3.6nm,0.6s,baz=182,slow=7.4,SNR=6.2 | | | | | | |
| ASAJ | Asahikawa | 46.95 | 16 | P | P | 19 57 06.2 | +0.1 |
| | 9.8nm,1.0s,baz=244,slow=15,SNR=4.8 | | | | | | |
| ASAJ | Asahikawa | 46.95 | 16 | eP | P | 19 57 06.1 | 0.0 |
| | 17nm,1.1s | | | | | | |
| KLR | Kul'dur | 50.09 | 4 | P | P | 19 57 30.6 | +0.4 |
| | 0.5nm,0.8s,baz=195,slow=7.3,SNR=5.5 | | | | | | |
| SONA0 | Songino Array | 51.69 | 343 | eP | P | 19 57 42.6 | +0.2 |
| SONM | Songino Array | 51.69 | 343 | P | P | 19 57 42.6 | +0.2 |
| | 3.6nm,0.9s,baz=152,slow=6.5,SNR=2.4 | | | | | | |
| PEA0B | Petropavlovsk- | 59.64 | 21 | eP | P | 19 58 40.4 | +1.1 |
| | 88nm,1.9s | | | | | | |
| PETK | Petropavlovsk- | 59.64 | 21 | P | P | 19 58 40.1 | +0.8 |
| | 4.7nm,0.8s,baz=175,slow=4.4,SNR=5.1 | | | | | | |
| PETK | Petropavlovsk- | 59.64 | 21 | eP | P | 19 58 40.5 | +1.3 |
| PEA1 | Petropavlovsk- | 59.64 | 21 | eP | P | 19 58 40.1 | +0.8 |
| MK31 | Makanchi Array | 61.41 | 327 | eP | P | 19 58 51.4 | -0.1 |
| MK32 | Makanchi Array | 61.41 | 327 | eP | P | 19 58 53.5 | +1.9 |
| MKAR | Makanchi Array | 61.41 | 327 | P | P | 19 58 53.5 | +1.9 |
| | 2.6nm,0.6s,baz=118,slow=7.3,SNR=8.9 | | | | | | |
| MAKZ | Makanchi | 61.60 | 327 | eP | P | 19 58 51.8 | -1.0 |
| | 6.0nm,1.0s | | | | | | |
| YAK | Yakutsk | 62.78 | 1 | P | P | 19 59 00.7 | +0.4 |
| | 0.1nm,0.3s,baz=2.5,slow=5.8,SNR=5.1 | | | | | | |
| YAK | Yakutsk | 62.78 | 1 | eP | P | 19 59 00.4 | +0.1 |
| | 20nm,0.8s | | | | | | |
| MA2 | Magadan | 63.12 | 13 | P | P | 19 59 03.8 | +1.1 |
| | 8.1nm,0.6s,baz=187,slow=8.0,SNR=5.3 | | | | | | |
| BVAR | Borovoye Array | 71.24 | 328 | P | P | 19 59 53.7 | -0.6 |
| | 6.1nm,0.9s,baz=114,slow=6.5,SNR=5.6 | | | | | | |
| BRVK | Borovoye | 71.31 | 328 | eP | P | 19 59 55.5 | +0.7 |
| | 8.4nm,1.0s | | | | | | |
| TIXI | Tiksi | 72.41 | 1 | P | P | 20 00 00.7 | -0.3 |
| | 3.3nm,0.4s,baz=158,slow=6.9,SNR=11 | | | | | | |
| SYO | Syowa Base | 88.20 | 201 | ⇓iX | P | 20 01 23.0 | -2.9 |
| SYO | Syowa Base | 88.20 | 201 | ⇓ipP | pP | 20 01 37.0 | +0.3 |
| TORD | Torodi Ar. Bea | 124.35 | 285 | PKP | PKPdf | 20 07 34.8 | -0.4 |
| | 0.7nm,0.8s,baz=54,slow=3.7,SNR=2.5 | | | | | | |
| TOA1 | Torodi Ar. Sit | 124.36 | 285 | ePKPdf | PKPdf | 20 07 34.8 | -0.4 |

*ISCJB 09 19:50:18.9±0.4, 38°.95N±0°.03×40°.50E±0°.03, h10km±3km, Error ellipse: s-maj=5.1km s-min=3.6km az=137.3*
*DDA 09 19:50:18.3, 38°.94N×40°.50E, h7km, Ml2.8*
*CSEM 09 19:50:18.7±0.2, 38°.95N×40°.53E, h10km, ML2.4, Error ellipse: s-maj=4.3km s-min=2.9km az=132.0*
*ISK 09 19:50:18.6, 38°.95N×40°.54E, h14km, ML2.4*
**ISC 09 19:50:19.0±0.9, 38°.94N±0°.02×40°.53E±0°.02, h15km±6km, n27, σ0ˢ61/43, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BINT | Bingol | 0.07 | 206 | iPg | Pg | 19 50 22.1 | 0.0 |
| BINT | | | | eSg | Sg | 19 50 24.7 | +0.6 |
| BNGB | Bingˆ¶l | 0.13 | 66 | PG | Pg | 19 50 22.1 | -0.6 |
| BNGB | | | | eSG | Sg | 19 50 24.7 | -0.5 |
| BNGL | BINGOL | 0.48 | 88 | iP | Pg | 19 50 28.5 | -0.2 |
| BNGL | | | | iS | Sb | 19 50 36.4 | -0.1 |
| YEDI | Yedisu-Bingol | 0.50 | 1 | ePG | Pg | 19 50 28.8 | -0.2 |
| YEDI | | | | eSG | Sg | 19 50 36.0 | +0.3 |
| YEDI | Yedisu-Bingol | 0.50 | 1 | ePg | Pg | 19 50 28.8 | -0.2 |
| YEDI | | | | eSg | Sg | 19 50 36.0 | +0.3 |
| HANI | Diyarbakir_Han | 0.53 | 191 | iP | Pg | 19 50 28.4 | -1.2 |
| HANI | | | | iS | Sg | 19 50 36.7 | 0.0 |
| HANI | Diyarbakir_Han | 0.53 | 191 | P | Pg | 19 50 28.4 | -1.2 |
| HANI | | | | S | Sg | 19 50 36.7 | 0.0 |
| ECAT | Cat-ERZURUM | 0.75 | 27 | iP | Pg | 19 50 33.2 | -0.5 |
| ECAT | | | | iS | Sb | 19 50 44.1 | -0.1 |
| ECAT | Cat-ERZURUM | 0.75 | 27 | P | Pg | 19 50 33.2 | -0.5 |
| ECAT | | | | S | Sb | 19 50 44.1 | -0.1 |
| VRTB | Varto-Mus | 0.76 | 73 | ePG | Pg | 19 50 33.1 | -0.7 |
| VRTB | Varto-Mus | 0.76 | 73 | iP | Pg | 19 50 32.5 | -1.3 |
| VRTB | | | | iS | Sg | 19 50 44.1 | +0.3 |
| VRTB | Varto-Mus | 0.76 | 73 | P | Pg | 19 50 32.5 | -1.3 |
| VRTB | Varto-Mus | 0.76 | 73 | ePg | Pg | 19 50 33.1 | -0.7 |
| VRTB | | | | S | Sg | 19 50 44.1 | +0.3 |
| TNCL | Tunceli-Merkez | 0.79 | 283 | iP | Pg | 19 50 33.2 | -1.2 |
| TNCL | | | | iS | Sg | 19 50 44.3 | -0.5 |
| TNCL | Tunceli-Merkez | 0.79 | 283 | P | Pg | 19 50 33.2 | -1.2 |
| TNCL | | | | S | Sg | 19 50 44.3 | -0.5 |
| PTK | Pertek | 0.89 | 267 | ePG | Pg | 19 50 36.2 | -0.1 |
| PTK | Pertek | 0.89 | 267 | ePg | Pg | 19 50 36.2 | -0.1 |
| ERZN | Erzincan | 0.90 | 316 | ePG | Pg | 19 50 35.9 | -0.6 |
| DYBB | Diyarbakir | 1.03 | 197 | ePG | Pn | 19 50 39.3 | +0.2 |
| DIYA | Diyarbakir | 1.06 | 198 | iP | Pn | 19 50 40.0 | +0.5 |
| DIYA | | | | iS | Sg | 19 50 54.0 | +0.6 |
| DIYA | Diyarbakir | 1.06 | 198 | P | Pn | 19 50 40.0 | +0.5 |
| DIYA | | | | S | Sg | 19 50 54.0 | +0.6 |
| DIY | Diyarbakir | 1.07 | 193 | ePg | Pb | 19 50 39.3 | 0.0 |
| SVRC | Sivrice-ELAZID | 1.11 | 240 | ePN | Pg | 19 50 40.5 | +0.1 |
| SVRC | Sivrice-ELAZID | 1.11 | 240 | ePn | Pg | 19 50 40.5 | +0.1 |
| EZC | Erzincan | 1.22 | 312 | ePg | Pn | 19 50 35.9 | -5.9 |
| EKAR | Karacoban | 1.24 | 75 | iP | Pb | 19 50 42.6 | +0.3 |
| EKAR | | | | iS | Sg | 19 50 59.7 | +0.6 |
| EKAR | Karacoban | 1.24 | 75 | P | Pb | 19 50 42.6 | +0.3 |
| EKAR | | | | S | Sg | 19 50 59.7 | +0.6 |

*ISCJB 09 19:54:39.8±0.4, 38°.86N±0°.02×26°.31E±0°.03, h11km±3km, Error ellipse: s-maj=3.7km s-min=2.4km az=154.1*
*CSEM 09 19:54:39.9±0.1, 38°.85N×26°.34E, h10km, ML3.0, Error ellipse: s-maj=2.8km s-min=2.1km az=47.0*
*ATH 09 19:54:39.4, 38°.85N×26°.31E, h26km±1km, ML3.0/6, Error ellipse: s-maj=2.5km s-min=0.9km az=72.0*
*DDA 09 19:54:39.4, 38°.87N×26°.34E, h23km, Ml3.8*
*ISK 09 19:54:39.4, 38°.86N×26°.34E, h13km, ML3.4*
**ISC 09 19:54:40.1±0.9, 38°.85N±0°.02×26°.34E±0°.02, h13km±8km, n107, σ0ˢ65/147, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PRK | Paraskevi | 0.40 | 353 | P | Pg | 19 54 47.7 | -0.3 |
| PRK | | | | S | Sg | 19 54 53.6 | +0.2 |
| PRK | | | | AML | AML | 19 54 58.1 | |
| | comp=E,5190μm,0.2s | | | | | | |
| PRK | | | | AML | AML | 19 54 59.4 | |
| | comp=N,8468μm,0.5s | | | | | | |
| PRK | Paraskevi | 0.40 | 353 | P | Pg | 19 54 47.7 | -0.3 |
| PRK | | | | S | Sg | 19 54 53.6 | +0.2 |
| DKL | Dikili | 0.49 | 64 | ePG | Pg | 19 54 49.8 | 0.0 |
| DKL | | | | eSG | Sg | 19 54 56.8 | +0.4 |
| DKL | Dikili | 0.49 | 64 | ePg | Pg | 19 54 49.8 | 0.0 |
| DKL | | | | eSg | Sg | 19 54 56.8 | +0.4 |
| SIGR | SIGRI | 0.52 | 314 | ePG | Pg | 19 54 50.4 | +0.2 |
| SIGR | | | | eSG | Sg | 19 54 57.5 | +0.3 |
| SIGR | SIGRI | 0.52 | 314 | P | Pb | 19 54 50.9 | -0.1 |
| SIGR | | | | S | Sg | 19 54 56.8 | -0.4 |
| SIGR | | | | AML | AML | 19 54 58.7 | |
| | comp=E,8279μm,0.4s | | | | | | |
| SIGR | | | | AML | AML | 19 54 59.6 | |
| | comp=N,5098μm,0.7s | | | | | | |
| SIGR | SIGRI | 0.52 | 314 | ePg | Pg | 19 54 50.4 | +0.2 |
| SIGR | SIGRI | 0.52 | 314 | P | Pb | 19 54 50.9 | -0.1 |
| SIGR | | | | S | Sg | 19 54 56.8 | -0.4 |
| SIGR | | | | eSg | Sg | 19 54 57.5 | +0.3 |
| URLA | Izmir | 0.53 | 157 | ePG | Pg | 19 54 50.4 | -0.1 |
| URLA | | | | eSG | Sb | 19 54 58.3 | -0.5 |
| URLA | Izmir | 0.53 | 157 | iP | Pg | 19 54 50.4 | -0.1 |
| URLA | | | | iS | Sb | 19 54 58.3 | -0.5 |
| URLA | Izmir | 0.53 | 157 | P | Pg | 19 54 50.4 | -0.1 |
| URLA | | | | eSg | Sb | 19 54 58.3 | -0.5 |
| ZEY | ˜zmir | 0.63 | 168 | iP | Pg | 19 54 52.1 | -0.2 |
| ZEY | | | | iS | Sb | 19 55 02.9 | +1.4 |
| BAYC | CANAKKALE_Bayr | 0.90 | 10 | iP | Pg | 19 54 56.7 | -0.8 |
| BAYC | | | | iS | Sg | 19 55 09.2 | -0.1 |
| BAYC | CANAKKALE_Bayr | 0.90 | 10 | P | Pg | 19 54 56.7 | -0.8 |
| BAYC | | | | S | Sg | 19 55 09.2 | -0.1 |
| DGB | ˜zmir | 0.91 | 152 | iP | Pg | 19 54 56.9 | -0.7 |
| DGB | | | | iS | Sg | 19 55 09.5 | +0.1 |
| EZN | Ezine | 0.97 | 359 | ePG | Pg | 19 54 58.4 | -0.4 |
| EZN | | | | eSG | Sn | 19 55 12.3 | -0.7 |
| EZN | Ezine | 0.97 | 359 | ePg | Pg | 19 54 58.4 | -0.4 |
| EZN | | | | eSg | Sn | 19 55 12.3 | -0.7 |
| BOZC | Bozcaada | 1.01 | 348 | ePG | Pb | 19 54 58.9 | -0.5 |
| BOZC | Bozcaada | 1.01 | 348 | iP | Pb | 19 54 59.2 | -0.2 |
| BOZC | | | | iS | Sn | 19 55 13.4 | -0.6 |
| BOZC | Bozcaada | 1.01 | 348 | ePg | Pb | 19 54 58.9 | -0.5 |
| AKHS | Akhisar | 1.15 | 88 | iP | Pb | 19 55 01.7 | -0.1 |
| AKHS | | | | iS | Sn | 19 55 18.3 | +0.8 |
| AKHS | Akhisar | 1.15 | 88 | P | Pb | 19 55 01.7 | -0.1 |
| AKHS | | | | S | Sn | 19 55 18.3 | +0.8 |
| AKS | Akhisar | 1.15 | 88 | ePN | Pb | 19 55 01.5 | -0.3 |
| AKS | Akhisar | 1.15 | 88 | ePn | Pb | 19 55 01.5 | -0.3 |
| STEP | BALIKESIR_Sava | 1.20 | 64 | iP | Pn | 19 55 02.2 | -0.3 |
| STEP | | | | iS | Sg | 19 55 18.5 | -0.2 |
| STEP | BALIKESIR_Sava | 1.20 | 64 | P | Pn | 19 55 02.2 | -0.3 |
| STEP | | | | S | Sg | 19 55 18.5 | -0.2 |
| SMG | Samos | 1.21 | 161 | P | Pg | 19 55 03.2 | -0.1 |
| SMG | | | | S | Sn | 19 55 20.5 | +1.6 |
| SMG | | | | AML | AML | 19 55 22.2 | |
| | comp=E,3641μm,0.2s | | | | | | |
| SMG | | | | AML | AML | 19 55 22.6 | |
| | comp=N,4386μm,0.3s | | | | | | |
| SMG | Samos | 1.21 | 161 | P | Pg | 19 55 03.2 | -0.1 |
| SMG | | | | S | Sn | 19 55 20.5 | +1.6 |
| BALY | Balya | 1.33 | 48 | iP | Pn | 19 55 04.4 | 0.0 |
| BALY | | | | iS | Sg | 19 55 23.0 | -0.1 |
| BALY | Balya | 1.33 | 48 | P | Pn | 19 55 04.4 | 0.0 |
| BALY | | | | S | Sg | 19 55 23.0 | -0.1 |
| GCAM | G?zelcaml? | 1.35 | 148 | ePN | Pb | 19 55 05.1 | 0.0 |
| GCAM | G?zelcaml? | 1.35 | 148 | iP | Pb | 19 55 05.2 | +0.1 |
| GCAM | | | | iS | Sg | 19 55 23.8 | +0.3 |
| GCAM | G?zelcaml? | 1.35 | 148 | ePn | Pb | 19 55 05.1 | 0.0 |
| GCAM | | | | S | Sg | 19 55 23.8 | +0.3 |
| LIA | Limnos Island | 1.38 | 320 | P | Pn | 19 55 04.8 | -0.1 |
| LIA | | | | S | Sn | 19 55 22.8 | -0.2 |
| LIA | | | | AML | AML | 19 55 26.3 | |
| | comp=E,1069μm,0.4s | | | | | | |
| LIA | | | | AML | AML | 19 55 27.4 | |
| | comp=N,656μm,0.4s | | | | | | |
| LIA | Limnos Island | 1.38 | 320 | P | Pn | 19 55 04.8 | -0.1 |
| LIA | | | | S | Sn | 19 55 22.8 | -0.2 |
| GADA | Gvkgeada | 1.38 | 346 | ePN | Pn | 19 55 04.7 | -0.3 |
| GADA | Gvkgeada | 1.38 | 346 | ePn | Pn | 19 55 04.7 | -0.3 |
| SKY | Skiros Island | 1.40 | 272 | P | Pb | 19 55 06.4 | +0.4 |
| SKY | Skiros Island | 1.40 | 272 | P | Pb | 19 55 06.4 | +0.4 |
| BALB | Balikesir | 1.43 | 56 | ePN | Pn | 19 55 05.6 | -0.1 |
| BALB | Balikesir | 1.43 | 56 | ePn | Pn | 19 55 05.6 | -0.1 |
| GELI | Tayfur-Gelibol | 1.55 | 4 | ePN | Pn | 19 55 07.4 | +0.1 |
| GELI | Tayfur-Gelibol | 1.55 | 4 | ePn | Pn | 19 55 07.4 | +0.1 |
| LPK | Lapseki | 1.55 | 12 | ePN | Pn | 19 55 07.5 | +0.1 |
| LPK | Lapseki | 1.55 | 12 | ePn | Pn | 19 55 07.5 | +0.1 |
| GONE | Gonen-Balikesi | 1.59 | 41 | ePN | Pn | 19 55 07.8 | 0.0 |
| GONE | Gonen-Balikesi | 1.59 | 41 | ePn | Pn | 19 55 07.8 | 0.0 |
| AYDN | Tasoluk | 1.70 | 134 | iP | Pn | 19 55 10.1 | +0.7 |
| AYDN | | | | iS | Sn | 19 55 30.9 | -0.2 |
| AYDN | Tasoluk | 1.70 | 134 | P | Pn | 19 55 10.1 | +0.7 |
| AYDN | | | | S | Sn | 19 55 30.9 | -0.2 |
| KRBG | Karabiga-Canak | 1.71 | 25 | ePN | Pn | 19 55 09.4 | -0.1 |
| KRBG | Karabiga-Canak | 1.71 | 25 | ePn | Pn | 19 55 09.4 | -0.1 |
| SMTH | Samothraki Isl | 1.73 | 339 | P | Pn | 19 55 09.8 | 0.0 |
| SMTH | | | | S | Sn | 19 55 31.9 | +0.1 |
| SMTH | | | | AML | AML | 19 55 38.7 | |
| | comp=N,346μm,0.3s | | | | | | |
| SMTH | | | | AML | AML | 19 55 39.0 | |
| | comp=E,255μm,0.4s | | | | | | |
| SMTH | Samothraki Isl | 1.73 | 339 | P | Pn | 19 55 09.8 | 0.0 |
| SMTH | | | | S | Sn | 19 55 31.9 | +0.1 |
| MANT | Manisa | 1.77 | 101 | iP | Pn | 19 55 10.7 | +0.1 |
| MANT | | | | iS | Sb | 19 55 35.8 | +1.0 |
| MANT | Manisa | 1.77 | 101 | P | Pn | 19 55 10.7 | +0.1 |
| MANT | | | | S | Sb | 19 55 35.8 | +1.0 |
| ERIK | Erikli-Kesan | 1.82 | 4 | ePN | Pn | 19 55 11.5 | +0.4 |
| ERIK | Erikli-Kesan | 1.82 | 4 | ePn | Pn | 19 55 11.5 | +0.4 |
| KULA | Kula-Manisa | 1.85 | 100 | ePN | Pn | 19 55 11.7 | +0.2 |
| KULA | Kula-Manisa | 1.85 | 100 | ePn | Pn | 19 55 11.7 | +0.2 |
| DEMI | Demirci | 1.86 | 83 | iP | Pn | 19 55 11.9 | +0.2 |
| DEMI | | | | iS | Sn | 19 55 33.7 | -1.5 |
| DEMI | Demirci | 1.86 | 83 | P | Pn | 19 55 11.9 | +0.2 |
| DEMI | | | | S | Sn | 19 55 33.7 | -1.5 |
| ENEZ | Enez | 1.89 | 356 | ePN | Pn | 19 55 12.4 | +0.4 |
| ENEZ | Enez | 1.89 | 356 | ePn | Pn | 19 55 12.4 | +0.4 |
| APE | Apeiranthos | 1.89 | 200 | P | Pn | 19 55 10.4 | -1.6 |
| APE | | | | S | Sn | 19 55 35.3 | -0.5 |
| APE | | | | AML | AML | 19 55 41.4 | |
| | comp=E,268μm,0.4s | | | | | | |
| APE | | | | AML | AML | 19 55 43.6 | |
| | comp=N,541μm,0.3s | | | | | | |
| APE | Apeiranthos | 1.89 | 200 | P | Pn | 19 55 10.4 | -1.6 |
| APE | | | | S | Sn | 19 55 35.3 | -0.5 |
| EDC | Edincik | 1.90 | 38 | ePN | Pn | 19 55 12.3 | +0.1 |
| EDC | Edincik | 1.90 | 38 | ePn | Pn | 19 55 12.3 | +0.1 |
| RKY | Sarkoy-Tekirda | 1.94 | 19 | ePN | Pn | 19 55 13.6 | +0.8 |
| RKY | Sarkoy-Tekirda | 1.94 | 19 | ePn | Pn | 19 55 13.6 | +0.8 |
| ALN | Alexandroupoli | 2.06 | 354 | P | Pn | 19 55 14.7 | +0.4 |
| ALN | Alexandroupoli | 2.06 | 354 | P | Pn | 19 55 14.7 | +0.4 |
| SIMA | Simav-Kutahya | 2.08 | 83 | ePN | Pn | 19 55 14.8 | +0.1 |
| SIMA | Simav-Kutahya | 2.08 | 83 | ePn | Pn | 19 55 14.8 | +0.1 |
| KCTX | Karacabey (Bur | 2.10 | 47 | ePN | Pn | 19 55 14.7 | -0.3 |
| KCTX | Karacabey (Bur | 2.10 | 47 | ePn | Pn | 19 55 14.7 | -0.3 |
| PAIG | Paliouri | 2.32 | 298 | P | Pn | 19 55 19.1 | +1.2 |
| PAIG | Paliouri | 2.32 | 298 | P | Pn | 19 55 19.1 | +1.2 |
| OUR | Ouranopolis | 2.35 | 310 | P | Pn | 19 55 18.6 | +0.4 |
| OUR | Ouranopolis | 2.35 | 310 | P | Pn | 19 55 18.6 | +0.4 |
| RDO | Rodhopi | 2.37 | 345 | P | Pn | 19 55 19.0 | +0.4 |
| RDO | Rodhopi | 2.37 | 345 | P | Pn | 19 55 19.0 | +0.4 |
| TVSB | Tavsanli | 2.50 | 75 | ePN | Pn | 19 55 20.8 | +0.3 |
| TVSB | Tavsanli | 2.50 | 75 | ePn | Pn | 19 55 20.8 | +0.3 |
| CRLT | Corlu | 2.52 | 25 | ePN | Pn | 19 55 21.7 | +1.1 |
| CRLT | Corlu | 2.52 | 25 | ePn | Pn | 19 55 21.7 | +1.1 |
| KAVA | Kavala | 2.56 | 327 | P | Pn | 19 55 20.7 | -0.5 |
| KAVA | Kavala | 2.56 | 327 | P | Pn | 19 55 20.7 | -0.5 |
| SANT | Santorini | 2.57 | 196 | P | Pn | 19 55 19.6 | -1.8 |
| SANT | Santorini | 2.57 | 196 | P | Pn | 19 55 19.6 | -1.8 |
| SBT2 | Guzelce-Avcila | 2.63 | 39 | ePN | Pn | 19 55 22.1 | +0.1 |
| SBT2 | Guzelce-Avcila | 2.63 | 39 | ePn | Pn | 19 55 22.1 | +0.1 |
| SBT5 | Esenkoy-Cinarc | 2.65 | 47 | ePN | Pn | 19 55 22.6 | +0.3 |
| SBT5 | Esenkoy-Cinarc | 2.65 | 47 | ePn | Pn | 19 55 22.6 | +0.3 |
| SLVT | Silivri | 2.78 | 31 | ePN | Pn | 19 55 24.8 | +0.6 |
| SLVT | Silivri | 2.78 | 31 | ePn | Pn | 19 55 24.8 | +0.6 |
| EDRB | Edirne | 3.01 | 6 | ePN | Pn | 19 55 27.6 | +0.2 |
| EDRB | Edirne | 3.01 | 6 | ePn | Pn | 19 55 27.6 | +0.2 |
| HORT | Hortiatis | 3.04 | 306 | P | Pn | 19 55 27.5 | -0.5 |
| HORT | Hortiatis | 3.04 | 306 | P | Pn | 19 55 27.5 | -0.5 |
| SRS | Serrai | 3.09 | 318 | P | Pn | 19 55 28.6 | 0.0 |
| SRS | Serrai | 3.09 | 318 | P | Pn | 19 55 28.5 | 0.0 |
| NVR | Nevrokopi | 3.13 | 324 | P | Pn | 19 55 29.2 | 0.0 |
| NVR | Nevrokopi | 3.13 | 324 | P | Pn | 19 55 29.2 | 0.0 |
| KNT | Kendrikon | 3.51 | 312 | P | Pn | 19 55 35.9 | +1.7 |
| KNT | Kendrikon | 3.51 | 312 | P | Pn | 19 55 35.9 | +1.7 |
| GRG | Griva | 3.69 | 306 | P | Pn | 19 55 38.8 | +2.1 |
| GRG | Griva | 3.69 | 306 | P | Pn | 19 55 38.8 | +2.1 |

**SJA 09 19:57:05.1±0.4, 31°.36S×68°.81W, h99km±3km, ML4.1, MW2.8, San Juan Province**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RTLL | Cerro Villicun | 0.29 | 84 | eP | Pn | 19 57 19.9 | +0.3 |
| RTLL | | | | eS | Sn | 19 57 31.6 | +1.2 |
| AMOG | MOGNA | 0.50 | 33 | eP | Pn | 19 57 21.7 | +0.8 |
| AMOG | | | | IAML | | 19 57 21.9 | |
| | comp=Z,5μm,0.1s | | | | | | |
| AMOG | | | | eS | Sn | 19 57 33.6 | +1.0 |
| RTCV | Cerro Valdivia | 0.55 | 155 | eP | Pn | 19 57 21.9 | +0.7 |
| RTCV | | | | eS | Sn | 19 57 34.4 | +1.1 |
| RTLS | Leoncito | 0.60 | 223 | eP | Pn | 19 57 23.3 | +1.3 |
| RTLS | | | | eS | Sn | 19 57 36.3 | +1.8 |
| AUSP | Uspallata | 0.99 | 210 | eP | Pn | 19 57 27.1 | +1.4 |
| AUSP | | | | eS | Sn | 19 57 43.0 | +1.9 |
| AGUA | GUANDACOL | 1.89 | 8 | eP | Pn | 19 57 37.4 | +1.1 |

*ATA 09 20:04:15.2±2.2, 38°.55N×42°.52E, h10km±563km, ML3.2, MW2.9*
*ISK 09 20:04:19.4, 38°.66N×43°.02E, h6km, MD2.6*
*ISCJB 09 20:04:20.4±0.4, 38°.66N±0°.02×43°.05E±0°.03, h11km±4km, Error ellipse: s-maj=4.4km s-min=4.0km az=12.7*
*CSEM 09 20:04:20.0±0.2, 38°.65N×43°.06E, h10km, MD2.6, Error ellipse: s-maj=5.0km s-min=4.5km az=110.0*
*DDA 09 20:04:20.1, 38°.64N×43°.06E, h7km, Ml2.8*
**ISC 09 20:04:20.2±0.9, 38°.64N±0°.02×43°.05E±0°.03, h14km±8km, n31, σ0ˢ70/49, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.27 | 99 | ePG | Pb | 20 04 26.5 | -0.4 |
| VANB | | | | eSG | Sb | 20 04 31.8 | +0.4 |
| VANB | Van | 0.27 | 99 | ePg | Pb | 20 04 26.5 | -0.4 |
| VANB | | | | eSg | Sb | 20 04 31.8 | +0.4 |
| TVAN | Van | 0.30 | 111 | iP | Pg | 20 04 26.4 | -0.1 |
| TVAN | | | | iS | Sb | 20 04 31.7 | -0.7 |
| TVAN | Van | 0.30 | 111 | P | Pg | 20 04 26.4 | -0.1 |
| TVAN | | | | S | Sb | 20 04 31.7 | -0.7 |
| ADCV | BITLIS_Adilcev | 0.31 | 304 | iP | Pg | 20 04 26.6 | 0.0 |
| ADCV | | | | iS | Sb | 20 04 32.1 | -0.5 |
| ADCV | BITLIS_Adilcev | 0.31 | 304 | P | Pg | 20 04 26.6 | 0.0 |
| ADCV | | | | S | Sb | 20 04 32.1 | -0.5 |
| GEVA | Gevas | 0.32 | 179 | eP | Pg | 20 04 25.7 | -1.1 |
| GEVA | | | | eS | Sg | 20 04 32.2 | +0.7 |
| GEVA | | | | IAML | | 20 04 38.2 | |
| | comp=Z,73nm,0.3s | | | | | | |
| GEVA | Gevas | 0.32 | 179 | iP | Pg | 20 04 25.8 | -1.1 |
| GEVA | | | | iS | Sg | 20 04 32.1 | +0.7 |
| GEVA | Gevas | 0.32 | 179 | P | Pg | 20 04 25.8 | -1.1 |
| GEVA | | | | S | Sg | 20 04 32.1 | +0.7 |
| VMUR | Van-Muradiye | 0.54 | 49 | iP | Pg | 20 04 30.5 | -0.3 |
| VMUR | | | | iS | Sb | 20 04 39.2 | -0.1 |
| VMUR | Van-Muradiye | 0.54 | 49 | P | Pg | 20 04 30.5 | -0.3 |
| VMUR | | | | S | Sb | 20 04 39.2 | -0.1 |
| TUTA | Tutak | 0.79 | 347 | eP | Pg | 20 04 34.2 | -1.3 |
| TUTA | | | | IAML | | 20 04 35.4 | |
| | comp=Z,50nm,0.2s | | | | | | |
| TUTA | | | | eS | Sg | 20 04 45.4 | -0.5 |
| TUTA | Tutak | 0.79 | 347 | iP | Pg | 20 04 34.6 | -0.9 |
| TUTA | Tutak | 0.79 | 347 | P | Pg | 20 04 34.6 | -0.9 |
| CLDR | Caldiran | 0.84 | 53 | ePG | Pg | 20 04 35.9 | -0.7 |
| CLDR | | | | eSG | Sb | 20 04 48.5 | +0.4 |
| CLDR | Caldiran | 0.84 | 53 | iP | Pg | 20 04 35.5 | -1.1 |
| CLDR | | | | iS | Sb | 20 04 48.4 | +0.3 |
| CLDR | Caldiran | 0.84 | 53 | P | Pg | 20 04 35.5 | -1.1 |
| CLDR | Caldiran | 0.84 | 53 | ePg | Pg | 20 04 35.9 | -0.7 |
| CLDR | | | | S | Sb | 20 04 48.4 | +0.3 |
| AGRB | Hanur-Agry | 0.94 | 357 | ePG | Pg | 20 04 37.4 | -1.0 |
| AGRB | | | | eSG | Sb | 20 04 50.6 | -0.2 |
| AGRB | Hanur-Agry | 0.94 | 357 | ePg | Pg | 20 04 37.4 | -1.0 |
| AGRB | | | | eSg | Sb | 20 04 50.6 | -0.2 |
| EKAR | Karacoban | 0.99 | 309 | iP | Pn | 20 04 41.2 | +1.3 |
| EKAR | Karacoban | 0.99 | 309 | P | Pn | 20 04 41.2 | +1.3 |
| SRTM | Siirt_Merkez | 1.10 | 234 | iP | Pn | 20 04 41.5 | +0.3 |
| SRTM | | | | iS | Sn | 20 04 56.7 | +0.4 |
| SRTM | Siirt_Merkez | 1.10 | 234 | P | Pn | 20 04 41.5 | +0.3 |
| SRTM | | | | S | Sn | 20 04 56.7 | +0.4 |
| HAKT | HAKKARI | 1.20 | 154 | iP | Pb | 20 04 42.2 | -0.5 |
| HAKT | HAKKARI | 1.20 | 154 | P | Pb | 20 04 42.2 | -0.5 |
| SIRT | Sirnak | 1.23 | 203 | ePN | Pn | 20 04 43.5 | +0.4 |
| SIRT | Sirnak | 1.23 | 203 | ePn | Pn | 20 04 43.5 | +0.4 |
| CUKT | Cukurca | 1.46 | 162 | ePN | Pb | 20 04 47.3 | +0.1 |
| CUKT | Cukurca | 1.46 | 162 | ePn | Pb | 20 04 47.3 | +0.1 |
| BNGL | BINGOL | 1.52 | 283 | eP | Pn | 20 04 37.1 | -10 |
| BNGL | | | | IAML | | 20 05 11.7 | |
| | comp=Z,37nm,0.4s | | | | | | |

**MEX 09 20:20:08.9±0.4, 14°.43N×92°.69W, h30km±15km, MD3.8, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PCIG | | 1.36 | 338 | eP | Pn | 20 20 29.9 | -2.0 |
| PCIG | | | | eS | Sn | 20 20 45.8 | -3.1 |
| CCIG | Comitan | 1.92 | 16 | eP | Pn | 20 20 37.5 | -2.1 |
| CCIG | | | | eS | Sn | 20 21 00.2 | -2.7 |

*AZER 09 20:28:43.1±5.9, 38°.48N×42°.28E, h0km, Error ellipse: s-maj=62.0km s-min=35.8km az=176.0*
*ISK 09 20:28:48.9, 38°.68N×43°.08E, h5km, ML3.1*
*ATA 09 20:28:48.6±1.5, 38°.68N×43°.09E, h10km±16km, ML3.8, MW3.7*
*CSEM 09 20:28:49.8±0.1, 38°.65N×43°.05E, h2km, ML3.1, Error ellipse: s-maj=3.3km s-min=3.2km az=59.0*
*DDA 09 20:28:49.4, 38°.66N×43°.06E, h7km, Ml3.2*
*ISCJB 09 20:28:50.1±0.4, 38°.66N±0°.02×43°.06E±0°.02, h3km±4km, Error ellipse: s-maj=3.2km s-min=2.5km az=138.4*
*TEH 09 20:28:51.3, 38°.70N×43°.06E, h18km, ML2.7*
**ISC 09 20:28:50.1±0.9, 38°.65N±0°.01×43°.04E±0°.02, h11km±8km,**

**n87,σ1s21/129,4C-4D,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.28 | 100 | ePG | Pg | 20 28 56.3 | +0.5 |
| VANB | | | | eSG | Sb | 20 29 01.7 | -0.3 |
| VANB | Van | 0.28 | 100 | ePg | Pg | 20 28 56.3 | +0.5 |
| ADCV | BITLIS_Adilcev | 0.29 | 304 | iP | Pg | 20 28 56.5 | +0.4 |
| ADCV | | | | iS | Sb | 20 29 01.8 | -0.7 |
| ADCV | BITLIS_Adilcev | 0.29 | 304 | P | Pg | 20 28 56.5 | +0.4 |
| ADCV | | | | S | Sb | 20 29 01.8 | -0.7 |
| TVAN | Van | 0.31 | 112 | iP | Pg | 20 28 56.2 | -0.3 |
| TVAN | | | | iS | Sb | 20 29 02.0 | -1.1 |
| TVAN | Van | 0.31 | 112 | P | Pg | 20 28 56.2 | -0.3 |
| TVAN | | | | S | Sb | 20 29 02.0 | -1.1 |
| GEVA | Gevas | 0.33 | 177 | ⇓iP | Pg | 20 28 55.9 | -0.9 |
| GEVA | | | | eS | Sg | 20 29 02.0 | +0.8 |
| GEVA | | | | IAML | | 20 29 03.6 | |
| | comp=Z,577nm,0.4s | | | | | | |
| GEVA | Gevas | 0.33 | 177 | iP | Pg | 20 28 55.9 | -0.9 |
| GEVA | | | | iS | Sg | 20 29 02.1 | +0.8 |
| GEVA | Gevas | 0.33 | 177 | P | Pg | 20 28 55.9 | -0.9 |
| GEVA | | | | S | Sg | 20 29 02.1 | +0.8 |
| VMUR | Van-Muradiye | 0.54 | 50 | iP | Pg | 20 29 00.4 | -0.3 |
| VMUR | | | | iS | Sb | 20 29 09.1 | -0.5 |
| VMUR | Van-Muradiye | 0.54 | 50 | P | Pg | 20 29 00.4 | -0.3 |
| VMUR | | | | S | Sb | 20 29 09.1 | -0.5 |
| TUTA | Tutak | 0.78 | 347 | ⇓iP | Pg | 20 29 04.3 | -0.8 |
| TUTA | | | | eS | Sg | 20 29 14.7 | -0.5 |
| TUTA | | | | IAML | | 20 29 18.2 | |
| | comp=Z,439nm,0.4s | | | | | | |
| TUTA | Tutak | 0.78 | 347 | iP | Pg | 20 29 04.3 | -0.8 |
| TUTA | | | | iS | Sg | 20 29 15.1 | -0.2 |
| TUTA | Tutak | 0.78 | 347 | P | Pg | 20 29 04.3 | -0.8 |
| TUTA | | | | S | Sg | 20 29 15.1 | -0.2 |
| CLDR | Caldiran | 0.85 | 54 | ePG | Pg | 20 29 05.5 | -1.0 |
| CLDR | Caldiran | 0.85 | 54 | iP | Pg | 20 29 05.1 | -1.4 |
| CLDR | | | | iS | Sg | 20 29 17.6 | 0.0 |
| CLDR | Caldiran | 0.85 | 54 | P | Pg | 20 29 05.1 | -1.4 |
| CLDR | Caldiran | 0.85 | 54 | ePg | Pg | 20 29 05.5 | -1.0 |
| CLDR | | | | S | Sg | 20 29 17.6 | 0.0 |
| AGRB | Hanur-Agry | 0.93 | 358 | ePG | Pg | 20 29 07.2 | -0.8 |
| AGRB | | | | eSG | Sb | 20 29 20.6 | -0.2 |
| AGRB | Hanur-Agry | 0.93 | 358 | ePg | Pg | 20 29 07.2 | -0.8 |
| AGRB | | | | eSg | Sb | 20 29 20.6 | -0.2 |
| BASK | Baskale_VAN | 0.96 | 128 | eP | Pg | 20 29 07.2 | -1.5 |
| BASK | | | | eS | Sb | 20 29 22.2 | +0.3 |
| BASK | | | | IAML | | 20 29 29.3 | |
| | comp=Z,137nm,0.6s | | | | | | |
| BASK | Baskale_VAN | 0.96 | 128 | iP | Pg | 20 29 08.0 | -0.6 |
| BASK | | | | iS | Sb | 20 29 22.1 | +0.3 |
| BASK | Baskale_VAN | 0.96 | 128 | P | Pg | 20 29 08.0 | -0.6 |
| BASK | | | | S | Sb | 20 29 22.1 | +0.3 |
| EKAR | Karacoban | 0.97 | 309 | eP | Pg | 20 29 08.8 | -0.1 |
| EKAR | | | | eS | Sn | 20 29 23.6 | -0.3 |
| EKAR | | | | IAML | | 20 29 33.4 | |
| | comp=Z,156nm,0.4s | | | | | | |
| EKAR | Karacoban | 0.97 | 309 | iP | Pg | 20 29 08.9 | +0.1 |
| EKAR | Karacoban | 0.97 | 309 | P | Pg | 20 29 08.9 | +0.1 |
| DYDN | Diyadin | 1.03 | 29 | eP | Pg | 20 29 08.8 | -1.2 |
| DYDN | | | | IAML | | 20 29 11.4 | |
| | comp=Z,89nm,0.4s | | | | | | |
| DYDN | | | | eS | Sg | 20 29 22.1 | -1.2 |
| DYDN | Diyadin | 1.03 | 29 | iP | Pg | 20 29 08.9 | -1.1 |
| DYDN | | | | iS | Sg | 20 29 22.6 | -0.8 |
| DYDN | Diyadin | 1.03 | 29 | P | Pg | 20 29 08.9 | -1.1 |
| DYDN | | | | S | Sg | 20 29 22.6 | -0.8 |
| SRTM | Siirt_Merkez | 1.09 | 234 | iP | Pb | 20 29 10.4 | -0.7 |
| SRTM | | | | iS | Sn | 20 29 26.7 | 0.0 |
| SRTM | Siirt_Merkez | 1.09 | 234 | P | Pb | 20 29 10.4 | -0.7 |
| SRTM | | | | S | Sn | 20 29 26.7 | 0.0 |
| HAKT | HAKKARI | 1.21 | 154 | iP | Pb | 20 29 10.9 | -2.2 |
| HAKT | | | | iS | Sn | 20 29 30.1 | +0.4 |
| HAKT | HAKKARI | 1.21 | 154 | P | Pb | 20 29 10.9 | -2.2 |
| HAKT | | | | S | Sn | 20 29 30.1 | +0.4 |
| SIRT | Sirnak | 1.24 | 203 | ePN | Pg | 20 29 14.3 | +0.5 |
| SIRT | Sirnak | 1.24 | 203 | ePn | Pg | 20 29 14.3 | +0.5 |
| SIRN | S˜–rnak | 1.25 | 203 | iP | Pn | 20 29 13.5 | -0.1 |
| SIRN | | | | iS | Sn | 20 29 31.4 | +1.0 |
| SIRN | S˜–rnak | 1.25 | 203 | P | Pn | 20 29 13.5 | -0.1 |
| SIRN | | | | S | Sn | 20 29 31.4 | +1.0 |
| EATA | Eleskirt | 1.29 | 341 | eP | Pn | 20 29 13.5 | -0.9 |
| EATA | | | | IAML | | 20 29 15.6 | |
| | comp=Z,30nm,0.5s | | | | | | |
| EATA | | | | eS | Sn | 20 29 32.0 | +0.2 |
| EATA | Eleskirt | 1.29 | 341 | iP | Pn | 20 29 13.7 | -0.7 |
| EATA | | | | iS | Sn | 20 29 32.4 | +0.6 |
| EATA | Eleskirt | 1.29 | 341 | P | Pn | 20 29 13.7 | -0.7 |
| EATA | | | | S | Sn | 20 29 32.4 | +0.6 |
| VRTB | Varto-Mus | 1.34 | 293 | ePN | Pg | 20 29 15.9 | +0.2 |
| VRTB | Varto-Mus | 1.34 | 293 | iP | Pn | 20 29 14.4 | -0.4 |
| VRTB | | | | iS | Sn | 20 29 32.7 | 0.0 |
| VRTB | Varto-Mus | 1.34 | 293 | P | Pn | 20 29 14.4 | -0.4 |
| VRTB | Varto-Mus | 1.34 | 293 | ePn | Pg | 20 29 15.9 | +0.2 |
| VRTB | | | | S | Sn | 20 29 32.7 | 0.0 |
| YOVA | Hakkari_Yˆ…kse | 1.45 | 137 | iP | Pn | 20 29 15.9 | -0.5 |
| YOVA | | | | iS | Sg | 20 29 36.7 | 0.0 |
| YOVA | Hakkari_Yˆ…kse | 1.45 | 137 | P | Pn | 20 29 15.9 | -0.5 |
| YOVA | | | | S | Sg | 20 29 36.7 | 0.0 |
| CUKT | Cukurca | 1.47 | 162 | ePN | Pb | 20 29 17.6 | +0.1 |
| CUKT | Cukurca | 1.47 | 162 | iP | Pn | 20 29 16.6 | 0.0 |
| CUKT | Cukurca | 1.47 | 162 | P | Pn | 20 29 16.6 | 0.0 |
| CUKT | Cukurca | 1.47 | 162 | ePn | Pb | 20 29 17.6 | +0.1 |
| BNGL | BINGOL | 1.50 | 282 | eP | Pb | 20 29 18.6 | +0.4 |
| BNGL | | | | IAML | | 20 29 41.7 | |
| | comp=Z,472nm,0.5s | | | | | | |
| TASB | TASBURUN-IGDIR | 1.63 | 35 | ePN | Pn | 20 29 19.3 | +0.5 |
| TASB | TASBURUN-IGDIR | 1.63 | 35 | ePn | Pn | 20 29 19.3 | +0.5 |
| HOMI | Horasan | 1.65 | 328 | eP | Pb | 20 29 20.2 | -0.4 |
| HOMI | | | | eS | Sg | 20 29 43.0 | -0.2 |
| HOMI | | | | IAML | | 20 29 54.1 | |
| | comp=Z,41nm,0.6s | | | | | | |
| HYR | Heyderabad | 1.77 | 52 | ⇑P | Pb | 20 29 23.1 | +0.5 |
| HYR | | | | ⇑S | Sg | 20 29 54.0 | +6.9 |
| HYR | Heyderabad | 1.77 | 52 | P | Pb | 20 29 23.1 | +0.5 |
| DIGO | Kars | 1.79 | 8 | eP | Pb | 20 29 22.1 | -0.8 |
| DIGO | | | | IAML | | 20 29 25.5 | |
| | comp=Z,12nm,0.5s | | | | | | |
| ERZM | Erzurum | 1.81 | 315 | eP | Pb | 20 29 22.8 | -0.5 |
| ECAT | Cat-ERZURUM | 1.87 | 302 | eP | Pb | 20 29 23.7 | -0.7 |
| ECAT | | | | IAML | | 20 29 38.2 | |
| | comp=Z,24nm,0.4s | | | | | | |
| BNGB | Bingˆ¶l | 1.87 | 281 | ePN | Pb | 20 29 23.9 | -0.5 |
| KARS | Kars | 1.98 | 1 | ePN | Pn | 20 29 24.5 | +0.8 |
| KARS | Kars | 1.98 | 1 | ePn | Pn | 20 29 24.5 | +0.8 |
| SENK | Senkaya-Erzuru | 1.99 | 345 | ePN | Pn | 20 29 24.9 | +1.1 |
| SENK | Senkaya-Erzuru | 1.99 | 345 | ePn | Pn | 20 29 24.9 | +1.1 |
| NAX | Nakhchivan | 1.99 | 74 | ⇓P | Pb | 20 29 26.2 | -0.1 |
| NAX | | | | ⇓S | Sg | 20 30 00.4 | +6.3 |
| NAX | Nakhchivan | 1.99 | 74 | P | Pb | 20 29 26.2 | -0.1 |
| BINT | Bingol | 2.00 | 277 | ePn | Pn | 20 29 23.9 | -0.1 |
| ISHB | Shabestar | 2.06 | 99 | ePn | Pn | 20 29 25.0 | +0.1 |
| ISHB | | | | eAMB | AMB | 20 29 38.6 | |
| | comp=Z,532nm,0.2s | | | | | | |
| ISHB | | | | eSg | Sg | 20 29 55.6 | -0.6 |
| EAK | Akyaka | 2.08 | 12 | eP | Pb | 20 29 26.6 | -1.4 |
| EAK | | | | IAML | | 20 30 13.9 | |
| | comp=Z,24nm,0.7s | | | | | | |
| IMRD | Marand | 2.09 | 87 | ePn | Pn | 20 29 25.3 | +0.1 |
| IMRD | | | | eAMB | AMB | 20 30 05.2 | |
| | comp=Z,1μm,0.2s | | | | | | |
| IMRD | Marand | 2.09 | 87 | ePn | Pn | 20 29 25.3 | +0.1 |
| YEDI | Yedisu-Bingol | 2.10 | 293 | ePN | Pb | 20 29 26.9 | -1.3 |
| YEDI | Yedisu-Bingol | 2.10 | 293 | ePn | Pb | 20 29 26.9 | -1.3 |
| SBZ | Shahbuz | 2.10 | 68 | ⇑P | Pb | 20 29 26.7 | -1.5 |
| SBZ | | | | ⇑S | Sg | 20 30 01.0 | +3.4 |
| SBZ | Shahbuz | 2.10 | 68 | P | Pb | 20 29 26.7 | -1.5 |
| ORD | Ordubad | 2.33 | 82 | P | Pb | 20 29 31.0 | -1.1 |
| DIY | Diyarbakir | 2.33 | 252 | ePn | Pb | 20 29 31.4 | -0.8 |
| MAZI | Mazidag | 2.36 | 241 | ePN | Pb | 20 29 31.2 | -1.5 |
| MAZI | Mazidag | 2.36 | 241 | ePn | Pb | 20 29 31.2 | -1.5 |
| DYBB | Diyarbakir | 2.38 | 254 | ePN | Pb | 20 29 31.4 | -1.6 |
| KOPT | Kop Dagi | 2.40 | 306 | eP | Pn | 20 29 31.4 | +1.8 |
| KOPT | | | | IAML | | 20 29 42.6 | |
| | comp=Z,18nm,0.6s | | | | | | |
| ITBZ | Tabriz | 2.48 | 99 | ePn | Pn | 20 29 30.8 | +0.2 |
| ITBZ | | | | eAMB | AMB | 20 29 42.3 | |
| | comp=Z,147nm,0.2s | | | | | | |
| ITBZ | Tabriz | 2.48 | 99 | ePn | Pn | 20 29 30.8 | +0.2 |
| SVRC | Sivrice-ELAZID | 2.94 | 266 | ePN | Pn | 20 29 39.1 | +2.2 |
| SVRC | Sivrice-ELAZID | 2.94 | 266 | ePn | Pn | 20 29 39.1 | +2.2 |
| IHRS | Heris | 3.16 | 95 | ePn | Pn | 20 29 40.1 | +0.1 |

IHRS Heris 3.16 95 ePn Pn 20 29 40.1 +0.1

**IDC 09 20:34:39.0±8.6,15.67N×119.62E,h0km,mb4.0/2, mb1 4.1/3,mb1mx3.3/47,mbtmp3.8/3,ML3.6/1,Error ellipse: s-maj=269.9km s-min=31.7km az=35.0,Luzon**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TGY | Tagaytay City | 2.01 | 141 | Pn | Pg | 20 35 19.1 | +1.4 |
| | 83nm,0.3s,baz=193,slow=14,SNR=2.5 | | | | | | |
| TGY | | | | Sn | Sg | 20 35 46.4 | +2.6 |
| | 43nm,0.3s,baz=134,slow=12,SNR=3.5 | | | | | | |
| CMAR | Chiang Mai Arr | 19.96 | 281 | P | P | 20 39 12.8 | -0.2 |
| | 0.1nm,0.3s,baz=96,slow=7.6,SNR=9.5 | | | | | | |
| WRA | Warramunga Arr | 38.24 | 157 | P | P | 20 42 00.6 | -0.4 |
| | 2.1nm,0.8s,baz=340,slow=9.2,SNR=13 | | | | | | |
| ASAR | Alice Springs | 41.52 | 160 | P | P | 20 42 28.6 | +0.3 |
| | 1.0nm,0.6s,baz=340,slow=7.8,SNR=20 | | | | | | |

*ISK 09 20:34:49.7,38.66N×43.02E,h6km,MD2.8*
*ISCJB 09 20:34:50.6±0.4,38.67N±0.02×43.04E±0.03,h11km±4km, Error ellipse: s-maj=4.5km s-min=4.1km az=176.5*
*CSEM 09 20:34:50.1±0.2,38.67N×43.03E,h12km,MD2.8,Error ellipse: s-maj=4.4km s-min=3.9km az=98.0*
*DDA 09 20:34:50.1,38.66N×43.05E,h7km,Ml2.8*
**ISC 09 20:34:50.1±1.0,38.66N±0.02×43.03E±0.03,h10km±9km, n27,σ0s57/45,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ADCV | BITLIS_Adilcev | 0.28 | 302 | iP | Pb | 20 34 56.9 | -0.6 |
| ADCV | | | | iS | Sb | 20 35 02.1 | -0.3 |
| ADCV | BITLIS_Adilcev | 0.28 | 302 | P | Pb | 20 34 56.9 | -0.6 |
| ADCV | | | | S | Sb | 20 35 02.1 | -0.3 |
| VANB | Van | 0.28 | 102 | ePG | Pb | 20 34 56.8 | -0.6 |
| VANB | | | | eSG | Sb | 20 35 02.2 | 0.0 |
| VANB | Van | 0.28 | 102 | ePg | Pb | 20 34 56.8 | -0.6 |
| VANB | | | | eSg | Sb | 20 35 02.3 | 0.0 |
| TVAN | Van | 0.32 | 114 | iP | Pg | 20 34 56.7 | +0.1 |
| TVAN | | | | iS | Sb | 20 35 02.3 | -1.1 |
| TVAN | Van | 0.32 | 114 | P | Pg | 20 34 56.7 | +0.1 |
| TVAN | | | | S | Sb | 20 35 02.3 | -1.1 |
| GEVA | Gevas | 0.34 | 177 | iP | Pg | 20 34 56.3 | -0.8 |
| GEVA | | | | iS | Sg | 20 35 02.6 | +0.9 |
| GEVA | Gevas | 0.34 | 177 | P | Pg | 20 34 56.3 | -0.8 |
| GEVA | | | | S | Sg | 20 35 02.6 | +0.9 |
| VMUR | Van-Muradiye | 0.54 | 51 | iP | Pg | 20 35 00.2 | -0.4 |
| VMUR | | | | iS | Sb | 20 35 09.4 | -0.2 |
| VMUR | Van-Muradiye | 0.54 | 51 | P | Pg | 20 35 00.2 | -0.4 |
| VMUR | | | | S | Sb | 20 35 09.4 | -0.2 |
| TUTA | Tutak | 0.76 | 347 | iP | Pg | 20 35 04.6 | -0.4 |
| TUTA | | | | iS | Sg | 20 35 15.3 | +0.3 |
| TUTA | Tutak | 0.76 | 347 | P | Pg | 20 35 04.6 | -0.4 |
| TUTA | | | | S | Sg | 20 35 15.3 | +0.3 |
| CLDR | Caldiran | 0.84 | 55 | ePG | Pg | 20 35 06.1 | -0.3 |
| CLDR | Caldiran | 0.84 | 55 | iP | Pg | 20 35 06.2 | -0.3 |
| CLDR | | | | iS | Sb | 20 35 18.7 | +0.2 |
| CLDR | Caldiran | 0.84 | 55 | P | Pg | 20 35 06.2 | -0.3 |
| CLDR | | | | S | Sb | 20 35 18.7 | +0.2 |
| AGRB | Hanur-Agry | 0.92 | 358 | ePG | Pg | 20 35 07.6 | -0.3 |
| AGRB | | | | eSG | Sb | 20 35 20.9 | +0.3 |
| AGRB | Hanur-Agry | 0.92 | 358 | ePg | Pg | 20 35 07.6 | -0.3 |
| AGRB | | | | eSg | Sb | 20 35 20.9 | +0.3 |
| SRTM | Siirt_Merkez | 1.10 | 233 | iP | Pn | 20 35 12.0 | +0.3 |
| SRTM | | | | iS | Sn | 20 35 27.6 | +0.6 |
| SRTM | Siirt_Merkez | 1.10 | 233 | P | Pn | 20 35 12.0 | +0.3 |
| SRTM | | | | S | Sn | 20 35 27.6 | +0.6 |
| HAKT | HAKKARI | 1.22 | 154 | iP | Pg | 20 35 12.7 | -0.9 |
| HAKT | HAKKARI | 1.22 | 154 | P | Pg | 20 35 12.7 | -0.9 |
| SIRT | Sirnak | 1.25 | 202 | ePN | Pb | 20 35 13.9 | +0.1 |
| SIRT | Sirnak | 1.25 | 202 | ePn | Pb | 20 35 13.9 | +0.1 |
| CUKT | Cukurca | 1.48 | 162 | ePN | Pn | 20 35 17.5 | +0.6 |
| CUKT | Cukurca | 1.48 | 162 | ePn | Pn | 20 35 17.5 | +0.6 |
| BNGB | Bingˆ¶l | 1.87 | 281 | ePN | Pn | 20 35 23.1 | +0.8 |
| BINT | Bingol | 2.00 | 277 | ePn | Pn | 20 35 23.1 | -1.0 |

*JMA 09 20:36:29.8±0.1,23.25N×121.86E,h35km±3km,M3.1*
*TAP 09 20:36:30.3,23.27N×121.84E,h12km±1km,ML3.1,D*
**ISC 09 20:36:29.9±1.2,23.25N±0.03×121.89E±0.03,h23km±13km, n46,σ0s76/81,Taiwan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CHKT | Chengkung | 0.50 | 252 | iP | Pb | 20 36 40.1 | 0.0 |
| | baz=247 | | | | | | |
| CHKT | | | | S | Sb | 20 36 46.4 | -0.6 |
| | baz=247 | | | | | | |
| TWF1 | Yuli | 0.55 | 280 | iP | Pb | 20 36 41.2 | +0.2 |
| | baz=279 | | | | | | |
| TWF1 | | | | eS | Sb | 20 36 48.8 | +0.3 |
| | baz=279 | | | | | | |
| EHY | Hungye | 0.57 | 296 | iP | Pb | 20 36 41.5 | +0.1 |
| | baz=296 | | | | | | |
| EHY | | | | eS | Sn | 20 36 50.3 | -1.2 |
| | baz=296 | | | | | | |
| ESL | Shilin | 0.69 | 323 | iP | Pb | 20 36 43.3 | -0.2 |
| | baz=326 | | | | | | |
| ESL | | | | eS | Sn | 20 36 53.0 | -1.4 |
| | baz=326 | | | | | | |
| ELDTW | Lidau | 0.80 | 266 | iP | Pb | 20 36 44.6 | -0.6 |
| | baz=263 | | | | | | |
| ELDTW | | | | eS | Sb | 20 36 54.2 | -1.5 |
| | baz=263 | | | | | | |
| TWD | Chiawan | 0.86 | 342 | eP | Pb | 20 36 46.3 | 0.0 |
| | baz=345 | | | | | | |
| TWD | | | | eS | Sb | 20 36 56.8 | -0.6 |
| | baz=345 | | | | | | |
| TWG | Pinlang | 0.86 | 240 | P | Pb | 20 36 45.7 | -0.6 |
| | baz=236 | | | | | | |
| TWG | | | | eS | Sb | 20 36 56.5 | -1.0 |
| | baz=236 | | | | | | |
| YUS | Yu-Shan | 0.89 | 285 | iP | Pn | 20 36 47.2 | -0.2 |
| | baz=284 | | | | | | |
| YUS | | | | eS | Sb | 20 36 58.2 | -0.4 |
| | baz=284 | | | | | | |
| ALS | Alishan | 1.02 | 285 | P | Pn | 20 36 49.5 | +0.3 |
| | baz=284 | | | | | | |
| ALS | | | | eS | Sn | 20 37 02.5 | -0.4 |
| | baz=284 | | | | | | |
| STYT | Tauyuan | 1.04 | 265 | eP | Pn | 20 36 48.9 | -0.3 |
| | baz=263 | | | | | | |
| STYT | | | | eS | Sb | 20 37 01.7 | -0.9 |
| | baz=263 | | | | | | |
| WHF | Hehuan Shan | 1.05 | 327 | eP | Pn | 20 36 49.2 | -0.4 |
| | baz=329 | | | | | | |
| WHF | | | | eS | Sb | 20 37 03.0 | -0.3 |
| | baz=329 | | | | | | |
| ECL | Taimali | 1.08 | 233 | eP | Pn | 20 36 48.3 | -1.3 |
| | baz=230 | | | | | | |
| SMLT | Sun Moon Lake | 1.10 | 305 | eP | Pb | 20 36 50.3 | -0.1 |
| | baz=305 | | | | | | |
| SMLT | | | | eS | Sn | 20 37 04.5 | 0.0 |
| | baz=305 | | | | | | |
| TYC | Yuchr | 1.14 | 305 | eP | Pb | 20 36 51.0 | 0.0 |
| | baz=305 | | | | | | |
| TYC | | | | eS | Sn | 20 37 06.1 | +0.7 |
| | baz=305 | | | | | | |
| CHN5 | Tsauling | 1.16 | 287 | iP | Pb | 20 36 52.2 | +0.8 |
| | baz=286 | | | | | | |
| CHN5 | | | | S | Sn | 20 37 07.1 | +1.1 |
| | baz=286 | | | | | | |
| WTP | Ta-pu | 1.17 | 270 | iP | Pb | 20 36 52.0 | +0.5 |
| | baz=268 | | | | | | |
| WTP | | | | S | Sn | 20 37 06.7 | +0.5 |
| | baz=268 | | | | | | |
| ENA | Nanau | 1.18 | 354 | P | Pn | 20 36 50.9 | -0.1 |
| | baz=356 | | | | | | |
| TWT | Tachien | 1.19 | 327 | eP | Pb | 20 36 51.8 | -0.1 |
| | baz=327 | | | | | | |
| TWT | | | | eS | Sn | 20 37 05.8 | -1.1 |
| | baz=327 | | | | | | |
| CHN4 | Tsaushan | 1.19 | 275 | P | Pb | 20 36 52.7 | +0.8 |
| | baz=273 | | | | | | |
| CHN4 | | | | S | Sb | 20 37 08.3 | +1.5 |
| | baz=273 | | | | | | |
| SGST | Jiashian | 1.21 | 262 | eP | Pb | 20 36 52.3 | +0.1 |
| | baz=260 | | | | | | |
| SGST | | | | S | Sb | 20 37 08.1 | +0.7 |
| | baz=260 | | | | | | |
| CHN1 | Nanshi | 1.25 | 267 | P | Pb | 20 36 53.5 | +0.6 |
| | baz=265 | | | | | | |
| CHN1 | | | | S | Sb | 20 37 09.8 | +1.3 |
| | baz=265 | | | | | | |
| SSD | Sandimen | 1.26 | 247 | eP | Pn | 20 36 51.9 | -0.2 |
| | baz=244 | | | | | | |
| WNT | Mingjian | 1.27 | 300 | eP | Pb | 20 36 53.2 | +0.2 |
| | baz=299 | | | | | | |
| WNT | | | | S | Sb | 20 37 10.3 | +1.4 |
| | baz=299 | | | | | | |
| NNS | Nan Shan | 1.27 | 338 | P | Pn | 20 36 52.7 | +0.3 |
| | baz=340 | | | | | | |
| TWK | Hsinying | 1.28 | 271 | P | Pb | 20 36 53.8 | +0.3 |
| | baz=269 | | | | | | |
| TWK | | | | eS | Sb | 20 37 10.6 | +1.0 |
| | baz=269 | | | | | | |
| WGK | Gukeng | 1.29 | 290 | eP | Pb | 20 36 53.4 | -0.1 |
| | baz=289 | | | | | | |
| WGK | | | | eS | Sb | 20 37 10.4 | +0.8 |
| | baz=289 | | | | | | |
| EAST | Anshuo | 1.29 | 228 | eP | Pn | 20 36 51.6 | -0.9 |
| | baz=225 | | | | | | |
| CHN2 | Minshiung | 1.32 | 282 | eS | Sb | 20 37 12.1 | +1.4 |
| | baz=281 | | | | | | |
| TWC | Suao | 1.35 | 359 | eP | Pb | 20 36 54.5 | 0.0 |
| TWC | | | | eS | Sn | 20 37 10.5 | -0.1 |
| SGLT | Jiouru | 1.39 | 248 | eP | Pb | 20 36 55.3 | +0.1 |
| | baz=246 | | | | | | |
| CHN3 | Shinhua | 1.41 | 263 | eP | Pb | 20 36 55.9 | +0.4 |
| | baz=261 | | | | | | |
| CHN3 | | | | eS | Sb | 20 37 15.4 | +2.3 |
| | baz=261 | | | | | | |
| ENTT | Nioudou | 1.41 | 348 | eP | Pb | 20 36 55.1 | -0.5 |
| | baz=349 | | | | | | |
| ENTT | | | | eS | Sn | 20 37 12.1 | +0.1 |
| | baz=349 | | | | | | |
| TWM1 | Shoushan | 1.41 | 253 | eP | Pb | 20 36 56.3 | +0.7 |
| | baz=250 | | | | | | |
| SCZT | Fangliau | 1.46 | 233 | eP | Pb | 20 36 55.6 | -0.8 |
| | baz=231 | | | | | | |
| SCZT | | | | eS | Sb | 20 37 15.4 | +0.8 |
| | baz=231 | | | | | | |
| TWE | Neicheng | 1.47 | 352 | eP | Pb | 20 36 56.3 | -0.4 |
| | baz=354 | | | | | | |
| TWE | | | | eS | Sn | 20 37 13.3 | -0.3 |
| | baz=354 | | | | | | |
| TWQ1 | Liyutan | 1.49 | 317 | eP | Pb | 20 36 57.4 | +0.5 |
| | baz=317 | | | | | | |
| TWQ1 | | | | eS | Sb | 20 37 16.7 | +1.2 |
| | baz=317 | | | | | | |
| NSK | Sanguang | 1.50 | 341 | P | Pb | 20 36 56.4 | -0.6 |
| | baz=342 | | | | | | |
| NSK | | | | eS | Sn | 20 37 13.9 | -0.4 |
| | baz=342 | | | | | | |
| CHN8 | Yiju | 1.54 | 274 | eP | Pb | 20 36 57.0 | -0.8 |
| | baz=272 | | | | | | |
| CHN8 | | | | eS | Sb | 20 37 17.0 | +0.1 |
| | baz=272 | | | | | | |
| NSTT | Nanjuang | 1.59 | 330 | eP | Pb | 20 36 58.6 | -0.1 |
| | baz=330 | | | | | | |
| NSTT | | | | eS | Sb | 20 37 17.4 | -1.0 |
| | baz=330 | | | | | | |
| NWF | Wu-fen Shan | 1.81 | 357 | eP | Pb | 20 37 02.0 | -0.5 |
| | baz=358 | | | | | | |
| NWF | | | | eS | Sb | 20 37 23.6 | -1.2 |
| | baz=358 | | | | | | |
| HATJ | Hateruma jima | 1.93 | 65 | eS | Sn | 20 37 24.7 | -0.2 |
| IRIF | Iriomote-Funau | 2.00 | 57 | P | Pn | 20 37 03.0 | +0.7 |
| JKRS | Kuro-shima | 2.18 | 63 | P | Pn | 20 37 05.7 | +1.0 |
| JKRS | | | | S | Sn | 20 37 31.6 | +0.6 |
| JIJ | Ishigaki jima | 2.34 | 61 | P | Pn | 20 37 07.7 | +0.7 |
| JIJ | | | | eS | Sn | 20 37 34.3 | -0.8 |
| JISG | Ishigakijimahi | 2.59 | 59 | P | Pn | 20 37 10.8 | +0.5 |
| JTJ | Tarama | 2.92 | 61 | P | Pn | 20 37 15.8 | +0.8 |
| JTJ | | | | eS | Sn | 20 37 49.5 | +0.1 |

*CSEM 09 20:57:09.2,38.67N×20.61E,h30km,ML1.7/4*
**ATH 09 20:57:09.2,38.67N×20.61E,h30km±1km,ML1.7/4,Error ellipse: s-maj=1.6km s-min=1.2km az=68.0,Greece**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PDO | Prodromos | 0.45 | 99 | P | Pb | 20 57 18.4 | -0.6 |
| PDO | | | | S | Sn | 20 57 28.0 | +1.2 |
| PDO | | | | AML | AML | 20 57 31.3 | |
| | comp=N,198μm,0.7s | | | | | | |
| PDO | | | | AML | AML | 20 57 32.2 | |
| | comp=E,200μm,0.4s | | | | | | |
| PDO | Prodromos | 0.45 | 99 | P | Pn | 20 57 19.3 | -0.4 |
| PDO | | | | S | Sn | 20 57 27.1 | +0.3 |
| PDO | | | | AML | AML | 20 57 31.3 | |
| | comp=N,198μm,0.7s | | | | | | |
| PDO | | | | AML | AML | 20 57 32.2 | |
| | comp=E,200μm,0.4s | | | | | | |
| PDO | Prodromos | 0.45 | 99 | P | Pn | 20 57 19.3 | -0.4 |
| PDO | | | | S | Sn | 20 57 27.1 | +0.3 |
| VLS | Valsamata | 0.49 | 182 | P | Pb | 20 57 19.8 | +0.2 |
| VLS | | | | S | Sb | 20 57 27.1 | +0.4 |
| VLS | | | | AML | AML | 20 57 28.6 | |
| | comp=E,224μm,0.2s | | | | | | |
| VLS | | | | AML | AML | 20 57 29.2 | |
| | comp=N,188μm,0.1s | | | | | | |
| VLS | Valsamata | 0.49 | 182 | P | Pb | 20 57 19.4 | -0.2 |
| VLS | | | | S | Sn | 20 57 27.6 | -0.2 |
| VLS | | | | AML | AML | 20 57 28.6 | |
| | comp=E,224μm,0.2s | | | | | | |
| VLS | | | | AML | AML | 20 57 29.3 | |
| | comp=N,188μm,0.1s | | | | | | |
| VLS | Valsamata | 0.49 | 182 | P | Pb | 20 57 19.4 | -0.2 |
| VLS | | | | S | Sn | 20 57 27.6 | -0.2 |
| KFL | Anninata | 0.58 | 166 | P | Pn | 20 57 21.3 | -0.1 |
| KFL | | | | S | Sn | 20 57 32.4 | +2.5 |
| DSL | Palaion Diasel | 0.60 | 39 | P | Pn | 20 57 21.9 | +0.2 |
| DSL | | | | S | Sb | 20 57 29.6 | +0.2 |
| DSL | Palaion Diasel | 0.60 | 39 | P | Pb | 20 57 20.7 | -0.5 |
| DSL | | | | S | Sb | 20 57 29.8 | +0.3 |
| DSL | Palaion Diasel | 0.60 | 39 | P | Pb | 20 57 20.7 | -0.6 |
| DSL | | | | S | Sb | 20 57 29.8 | +0.3 |
| PVO | Paravola | 0.72 | 94 | P | Pb | 20 57 22.8 | -0.5 |
| PVO | | | | S | Sn | 20 57 36.5 | +3.2 |
| PVO | Paravola | 0.72 | 94 | P | Pn | 20 57 24.2 | +0.9 |
| PVO | | | | S | Sn | 20 57 35.0 | +1.7 |
| PVO | | | | AML | AML | 20 57 37.4 | |
| | comp=N,112μm,0.7s | | | | | | |
| PVO | | | | AML | AML | 20 57 37.8 | |
| | comp=E,160μm,0.4s | | | | | | |
| PVO | Paravola | 0.72 | 94 | P | Pn | 20 57 24.2 | +0.9 |
| PVO | | | | S | Sn | 20 57 35.0 | +1.7 |
| RLS | Riolos of Patr | 0.91 | 132 | P | Pb | 20 57 26.6 | +0.1 |
| RLS | Riolos of Patr | 0.91 | 132 | P | Pb | 20 57 26.8 | +0.3 |
| RLS | | | | S | Sb | 20 57 40.4 | +2.2 |
| RLS | | | | AML | AML | 20 57 49.2 | |
| | comp=N,60μm,0.7s | | | | | | |
| RLS | | | | AML | AML | 20 57 50.9 | |
| | comp=E,68μm,0.5s | | | | | | |
| RLS | Riolos of Patr | 0.91 | 132 | P | Pb | 20 57 26.8 | +0.4 |
| RLS | | | | S | Sb | 20 57 40.4 | +2.2 |
| EVR | Evrytania | 0.97 | 75 | P | Pb | 20 57 27.2 | -0.3 |
| EVR | Evrytania | 0.97 | 75 | P | Pb | 20 57 27.2 | -0.3 |
| EFP | Efpalio | 1.04 | 103 | P | Pb | 20 57 28.8 | +0.1 |
| EFP | Efpalio | 1.04 | 103 | P | Pb | 20 57 28.8 | +0.1 |
| DRO | Drossia | 1.12 | 129 | P | Pb | 20 57 30.7 | +0.7 |
| DRO | Drossia | 1.12 | 129 | P | Pb | 20 57 30.7 | +0.6 |
| LAKA | Lakka | 1.16 | 111 | P | Pb | 20 57 30.3 | -0.3 |
| LAKA | Lakka | 1.16 | 111 | P | Pb | 20 57 30.3 | -0.3 |
| TRIZ | Trizonia | 1.19 | 105 | P | Pb | 20 57 32.0 | +1.0 |
| TRIZ | Trizonia | 1.19 | 105 | P | Pb | 20 57 32.0 | +0.9 |
| KEK | Kerkira | 1.22 | 329 | P | Pb | 20 57 32.5 | +0.9 |
| KEK | Kerkira | 1.22 | 329 | P | Pb | 20 57 32.5 | +0.9 |
| KALE | Kalithea | 1.23 | 103 | P | Pb | 20 57 32.6 | +0.7 |
| KALE | Kalithea | 1.23 | 103 | P | Pb | 20 57 32.6 | +0.7 |
| KLV | Kalavryta, Ach | 1.36 | 117 | P | Pb | 20 57 34.0 | -0.1 |
| KLV | Kalavryta, Ach | 1.36 | 117 | P | Pb | 20 57 34.0 | -0.1 |

*IDC 09 21:03:37.3±2.2,43.35N×105.19W,h0km,mb4.2/1, mb1 3.9/4,mb1mx3.4/41,mbtmp3.7/4,ML3.0/2,Error ellipse: s-maj=47.1km s-min=8.7km az=154.0*
*ISCJB 09 21:03:39.8±0.5,43.67N±0.03×105.27W±0.04,h0km, mb4.4/1,Error ellipse: s-maj=4.9km s-min=3.4km az=37.3*
*NEIC 09 21:03:40.8±0.5,43.68N×105.24W,h0km,ML3.2,Error ellipse: s-maj=7.0km s-min=6.4km az=158.0,Suspected Mining explosion.*
*NEIC 70 km [43 miles] SSE of Gillette.*
**ISC 09 21:03:40.1±0.7,43.70N±0.03×105.26W±0.03,h0km,n26,**

σ1$^s$68/48, **Wyoming**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **K22A** | **Casper** | **1.40** | **222** | P | **Pn** | **21 04 05.6** | **-1.5** |
| | baz=42 | | | | | | |
| **K22A** | **Casper** | **1.40** | **222** | *e*Pg | **Pn** | **21 04 05.5** | **-1.5** |
| **PHWY** | **Pilot Hill** | **2.40** | **184** | *e*Pn | **Pn** | **21 04 21.5** | **+0.5** |
| **RWWY** | **Rawlins** | **2.47** | **216** | *e*Pn | **Pn** | **21 04 23.2** | **+1.4** |
| RWWY | | | | *e*Sn | **Sn** | **21 04 53.2** | **+0.4** |
| **N23A** | **Red Feather La** | **2.85** | **191** | P | **Pn** | **21 04 27.7** | **+0.6** |
| | baz=10 | | | | | | |
| **LAO** | **LASA Array** | **3.06** | **347** | *e*Pn | **Pn** | **21 04 32.0** | **+2.2** |
| LAO | | | | *e*Sn | **Sb** | **21 05 12.6** | **-0.8** |
| **RLMT** | **Red Lodge** | **3.20** | **298** | *e*Pn | **Pn** | **21 04 32.5** | **+0.6** |
| RLMT | | | | *e*Sn | **Sn** | **21 05 13.3** | **+2.5** |
| **PDAR** | **Pinedale Array** | **3.28** | **255** | Pn | **Pn** | **21 04 33.5** | **+0.7** |
| | 6.3nm,0.3s,baz=72,slow=15,SNR=39 | | | | | | |
| PDAR | | | | Lg | Lg | 21 05 18.2 | |
| | 26nm,0.3s,baz=85,slow=31,SNR=11 | | | | | | |
| **OGNE** | **Ogallala** | **3.65** | **138** | *e*Pn | **Pn** | **21 04 38.7** | **+0.8** |
| OGNE | | | | *e*Pg | **Pg** | **21 04 50.0** | **0.0** |
| OGNE | | | | *e*Sg | **Sg** | **21 05 39.8** | **+2.6** |
| **LOHW** | **Long Hollow** | **3.88** | **271** | *e*Pn | **Pn** | **21 04 42.2** | **+1.0** |
| LOHW | | | | *e*Pb | **Pb** | **21 04 50.4** | **+0.9** |
| LOHW | | | | *e*Sn | **Sn** | **21 05 28.9** | **+1.4** |
| **H17A** | **Grant Village** | **3.90** | **282** | P | **Pn** | **21 04 43.8** | **+2.4** |
| | baz=99 | | | | | | |
| **H17A** | **Grant Village** | **3.90** | **282** | *e*Pn | **Pn** | **21 04 42.0** | **+0.6** |
| H17A | | | | Pg | **Pg** | **21 04 53.6** | **-1.1** |
| H17A | | | | *e*Sg | **Sg** | **21 05 46.0** | **+0.8** |
| **ISCO** | **Idaho Springs** | **3.91** | **184** | *e*Pn | **Pn** | **21 04 42.5** | **+0.9** |
| ISCO | | | | *e*Pb | **Pb** | **21 04 50.6** | **+0.6** |
| ISCO | | | | *e*Sn | **Sn** | **21 05 28.2** | **-0.1** |
| ISCO | | | | *e*Sb | **Sb** | **21 05 39.7** | **+1.7** |
| **MOOW** | **Moose Ponds** | **3.98** | **273** | *e*Pn | **Pn** | **21 04 43.6** | **+1.1** |
| **SNOW** | **Snow King Moun** | **4.00** | **268** | *e*Pn | **Pn** | **21 04 44.2** | **+1.4** |
| SNOW | | | | *e*Sn | **Sn** | **21 05 31.3** | **+0.8** |
| **REDW** | **Red Top Meadow** | **4.08** | **267** | *e*Pn | **Pn** | **21 04 43.9** | **0.0** |
| REDW | | | | *e*Sb | **Sb** | **21 05 42.3** | **-0.5** |
| REDW | | | | *e*Sg | **Sg** | **21 05 52.4** | **+1.2** |
| **IMW** | **Indian Meadow** | **4.12** | **275** | *e*Pn | **Pn** | **21 04 45.8** | **+1.4** |
| IMW | | | | *e*Sn | **Sn** | **21 05 31.6** | **-1.9** |
| **TPAW** | **Teton Pass** | **4.14** | **269** | *e*Pn | **Pn** | **21 04 45.9** | **+1.2** |
| TPAW | | | | Pg | **Pb** | **21 04 57.0** | **+3.1** |
| TPAW | | | | *e*Sb | **Sb** | **21 05 43.3** | **-1.3** |
| **DGMT** | **Dagmar** | **4.83** | **8** | *e*Pn | **Pn** | **21 04 56.2** | **+2.2** |
| DGMT | | | | *e*Pb | **Pb** | **21 05 08.0** | **+2.5** |
| DGMT | | | | *e*Sb | **Sb** | **21 06 08.3** | **+4.3** |
| **BOZ** | **Bozeman (W)** | **4.92** | **295** | *e*Pn | **Pn** | **21 04 55.4** | **-0.1** |
| BOZ | | | | *e*Sn | **Sn** | **21 05 55.7** | **+2.5** |
| **ECSD** | **EROS Data Cent** | **6.26** | **87** | *e*Pn | **Pn** | **21 05 14.0** | **+0.3** |
| | 6.3nm,0.4s | | | | | | |
| ECSD | | | | *e*Pg | **Pg** | **21 05 36.4** | **-3.7** |
| ECSD | | | | *e*Sg | **Sg** | **21 06 58.6** | **-2.6** |
| **DUG** | **Dugway, Tooele** | **6.63** | **241** | *e*Pn | **Pn** | **21 05 18.9** | **0.0** |
| | 3.9nm,0.4s | | | | | | |
| **I10CA** | **LAC DU BONNET** | **9.06** | **41** | *i* | | 22 00 30.0 | |
| | baz=217,slow=324,SNR=2.5 | | | | | | |
| **ULM** | **Lac du Bonnet** | **9.16** | **41** | Pn | **Pn** | **21 05 51.6** | **-1.8** |
| | 1.8nm,0.3s,baz=230,slow=12,SNR=20 | | | | | | |
| ULM | | | | Lg | Lg | 21 08 27.6 | |
| | 0.4nm,0.3s,baz=353,slow=16,SNR=2.8 | | | | | | |
| **YKA** | **Yellowknife Ar** | **19.60** | **347** | P | **P** | **21 08 08.7** | **-0.8** |
| | 0.1nm,0.3s,baz=154,slow=11,SNR=4.8 | | | | | | |
| **ARCES** | **ARCESS Array B** | **61.45** | **18** | P | **P** | **21 13 56.7** | **-1.0** |
| | 2.6nm,0.9s,baz=335,slow=6.1,SNR=4.4 | | | | | | |

*IDC **09** 21:09:54.4±0.9, 23°.72N×143°.47E, h0km, mb3.6/8, mb1 3.8/9, mb1mx3.6/35, mbtmp3.6/9, ML3.7/1, MS3.2/2, Ms1 3.2/2, ms1mx2.7/42, Error ellipse: s-maj=30.4km s-min=18.1km az=95.0*

*ISCJB **09** 21:09:57.5±0.8, 23°.7N±0°.1×143°.5E±0°.2, h33km, mb3.6/9, MS3.1/1, Error ellipse: s-maj=27.7km s-min=16.3km az=4.4*

**ISC 09 21:09:59.8**±1.0, **23°.8N**±0°.1×**143°.4E**±0°.2, **h35**km, **n12**, σ**1$^s$18**/11, **mb3.5**/9, **Volcano Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MJAR** | **Matsushiro Arr** | **13.46** | **342** | Pn | **Pn** | **21 13 06.3** | **-2.0** |
| | 0.4nm,0.3s,baz=160,slow=12,SNR=4.4 | | | | | | |
| **KSRS** | **Korea Array** | **19.00** | **319** | LR | LR | 21 21 42.1 | |
| | comp=Z,47nm,18.1s,baz=100,slow=37 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **22.39** | **338** | LR | LR | 21 23 14.2 | |
| | comp=Z,74nm,18.4s,baz=202,slow=36 | | | | | | |
| **KLR** | **Kul'dur** | **26.99** | **343** | P | **P** | **21 15 39.0** | **+0.8** |
| | 0.2nm,0.7s,baz=150,slow=14,SNR=11 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **41.68** | **271** | P | **P** | **21 17 45.7** | **+0.5** |
| | 0.2nm,0.6s,baz=54,slow=9.1,SNR=2.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.37** | **192** | P | **P** | **21 18 05.8** | **-1.1** |
| | 0.8nm,0.5s,baz=15,slow=8.3,SNR=21 | | | | | | |
| WRA | | | | PcP | **PcP** | **21 19 50.0** | **-0.6** |
| | 0.3nm,0.4s,baz=3.4,slow=3.2,SNR=5.8 | | | | | | |
| **ASAR** | **Alice Springs** | **48.08** | **192** | P | **P** | **21 18 35.3** | **-0.7** |
| | 0.2nm,0.5s,baz=13,slow=13,SNR=3.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **53.44** | **312** | P | **P** | **21 19 16.6** | **+0.3** |
| | 0.3nm,0.6s,baz=85,slow=10,SNR=3.6 | | | | | | |
| **ILAR** | **Eielson Array** | **60.09** | **28** | P | **P** | **21 20 03.4** | **+0.2** |
| | 1.1nm,0.9s,baz=261,slow=5.5,SNR=10 | | | | | | |
| **GEYT** | **Alibeck** | **72.22** | **304** | P | **P** | **21 21 23.3** | **+1.7** |
| | 3.6nm,0.8s,baz=128,slow=9.3,SNR=4.6 | | | | | | |
| **YKA** | **Yellowknife Ar** | **74.52** | **28** | P | **P** | **21 21 35.4** | **+0.9** |
| | 0.3nm,0.5s,baz=292,slow=5.9,SNR=5.8 | | | | | | |
| **FINES** | **FINESS Array B** | **81.38** | **334** | P | **P** | **21 22 12.0** | **-0.6** |
| | 12nm,1.2s,baz=72,slow=4.5,SNR=3.4 | | | | | | |

*ATA **09** 21:23:17.8±0.3, 38°.62N×43°.59E, h60km±12km, ML2.8, MW2.8*

*CSEM **09** 21:23:20.1±0.4, 38°.71N×43°.66E, h2km, ML2.5, Error ellipse: s-maj=10.6km s-min=6.3km az=84.0*

*DDA **09** 21:23:20.1, 38°.70N×43°.64E, h7km, Ml2.5*

*ISK **09** 21:23:20.4, 38°.74N×43°.41E, h8km, MD2.5*

**ISC 09 21:23:19.9**±1.3, **38°.71N**±0°.02×**43°.65E**±0°.04, **h9**km±12km, **n27**, σ**0$^s$97**/40, **Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.23** | **242** | *e*PG | **Pg** | **21 23 25.5** | **+0.9** |
| **VANB** | **Van** | **0.23** | **242** | *e*Pg | **Pg** | **21 23 25.5** | **+0.9** |
| **TVAN** | **Van** | **0.26** | **228** | *i* P | **Pg** | **21 23 24.9** | **-0.2** |
| TVAN | | | | *i* S | **Sb** | **21 23 30.6** | **-1.1** |
| **TVAN** | **Van** | **0.26** | **228** | P | **Pg** | **21 23 25.0** | **-0.2** |
| TVAN | | | | S | **Sb** | **21 23 30.6** | **-1.1** |
| **VMUR** | **Van-Muradiye** | **0.29** | **347** | *i* P | **Pg** | **21 23 25.6** | **-0.1** |
| VMUR | | | | *i* S | **Sb** | **21 23 32.3** | **-0.2** |
| **VMUR** | **Van-Muradiye** | **0.29** | **347** | P | **Pg** | **21 23 25.6** | **-0.1** |
| VMUR | | | | S | **Sb** | **21 23 32.3** | **-0.2** |
| **GEVA** | **Gevas** | **0.61** | **230** | *e*P | **Pg** | **21 23 31.2** | **-0.5** |
| GEVA | | | | *e*S | **Sb** | **21 23 41.7** | **0.0** |
| GEVA | | | | IAML | | 21 23 45.7 | |
| | comp=Z,19nm,0.3s | | | | | | |
| **GEVA** | **Gevas** | **0.61** | **230** | *i* P | **Pg** | **21 23 31.1** | **-0.5** |
| GEVA | | | | *i* S | **Sb** | **21 23 43.1** | **+1.5** |
| **GEVA** | **Gevas** | **0.61** | **230** | P | **Pg** | **21 23 31.1** | **-0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.73** | **278** | *i* P | **Pg** | **21 23 34.2** | **+0.2** |
| ADCV | | | | *i* S | **Sb** | **21 23 44.5** | **-0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.73** | **278** | P | **Pg** | **21 23 34.2** | **+0.2** |
| ADCV | | | | S | **Sb** | **21 23 44.5** | **-0.7** |
| **DYDN** | **Diyadin** | **0.84** | **2** | *e*P | **Pg** | **21 23 36.5** | **+0.5** |
| DYDN | | | | IAML | | 21 23 37.9 | |
| | comp=Z,7.5nm,0.5s | | | | | | |
| **TUTA** | **Tutak** | **0.95** | **317** | *e*P | **Pg** | **21 23 37.4** | **-0.8** |
| TUTA | | | | IAML | | 21 23 41.6 | |
| | comp=Z,31nm,0.2s | | | | | | |
| **TUTA** | **Tutak** | **0.95** | **317** | *i* P | **Pg** | **21 23 37.8** | **-0.5** |
| TUTA | | | | *i* S | **Sb** | **21 23 51.3** | **-0.3** |
| **TUTA** | **Tutak** | **0.95** | **317** | P | **Pg** | **21 23 37.8** | **-0.5** |
| TUTA | | | | S | **Sb** | **21 23 51.3** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **1.01** | **330** | *e*PG | **Pg** | **21 23 38.2** | **-1.1** |
| AGRB | | | | *e*SG | **Sg** | **21 23 51.0** | **-1.5** |
| **AGRB** | **Hanur-Agry** | **1.01** | **330** | *e*Pg | **Pg** | **21 23 38.2** | **-1.1** |
| AGRB | | | | *e*Sg | **Sg** | **21 23 51.0** | **-1.5** |
| **HAKT** | **HAKKARI** | **1.15** | **178** | *i* P | **Pg** | **21 23 41.7** | **-0.2** |
| **HAKT** | **HAKKARI** | **1.15** | **178** | P | **Pg** | **21 23 41.7** | **-0.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.35** | **19** | *e*PN | **Pg** | **21 23 46.7** | **+0.8** |
| **TASB** | **TASBURUN-IGDIR** | **1.35** | **19** | *e*Pn | **Pg** | **21 23 46.7** | **+0.8** |
| **EKAR** | **Karacoban** | **1.36** | **294** | *i* P | **Pg** | **21 23 48.0** | **+2.1** |
| **EKAR** | **Karacoban** | **1.36** | **294** | P | **Pg** | **21 23 48.0** | **+2.1** |
| **CUKT** | **Cukurca** | **1.46** | **181** | *e*PN | **Pg** | **21 23 48.3** | **+0.5** |
| **CUKT** | **Cukurca** | **1.46** | **181** | *e*Pn | **Pg** | **21 23 48.3** | **+0.5** |
| **EATA** | **Eleskirt** | **1.47** | **322** | *i* P | **Pg** | **21 23 48.4** | **+0.4** |
| EATA | | | | *i* S | **Sg** | **21 24 09.6** | **+2.6** |
| **EATA** | **Eleskirt** | **1.47** | **322** | P | **Pg** | **21 23 48.4** | **+0.4** |

**IDC 09 21:23:40.5**±1.9, **0°.74S**×**127°.05E**, **h0**km, **mb3.3**/4, **mb1 3.4**/4, **mb1mx3.1**/31, **mbtmp3.3**/4, **Error ellipse: s-maj=197.3km s-min=23.1km az=66.0**, **Halmahera**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **20.38** | **160** | P | P | 21 28 18.9 | -0.1 |
| | 0.3nm,0.6s,baz=339,slow=11,SNR=3.8 | | | | | | |
| **ASAR** | **Alice Springs** | **23.74** | **164** | P | P | 21 28 54.8 | +0.1 |
| | 0.4nm,0.7s,baz=330,slow=9.0,SNR=5.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **61.41** | **327** | P | P | 21 33 58.8 | +0.1 |
| | 0.3nm,0.3s,baz=120,slow=7.8,SNR=7.1 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **65.67** | **328** | P | P | 21 34 26.6 | -0.1 |
| | 0.3nm,0.4s,baz=134,slow=6.4,SNR=4.3 | | | | | | |

**KRSC 09 21:27:49.7**±0.9, **55°.05N**×**162°.93E**, **h67**km±19km, **ML3.6**, **Near east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MKZ** | **Mys Kozlova** | **0.85** | **235** | *e*P | Pn | 21 28 07.8 | +1.6 |
| MKZ | | | | *e*S | Sn | 21 28 20.1 | +1.8 |
| **KBTR** | **Krutoberegovo** | **1.16** | **357** | *e*P | Pn | 21 28 11.1 | +1.0 |
| KBTR | | | | *e*S | Sn | 21 28 25.9 | +0.6 |
| **KZV** | **Kizimen** | **1.52** | **273** | *e*P | Pn | 21 28 16.9 | +2.0 |
| KZV | | | | *e*S | Sn | 21 28 35.1 | +1.2 |
| **ZLN** | **Zelenaya** | **1.55** | **310** | *e*P | Pn | 21 28 18.1 | +2.8 |
| ZLN | | | | *e*S | Sn | 21 28 37.7 | +3.2 |
| **TUMR** | **Tumrok** | **1.61** | **279** | *e*P | Pn | 21 28 18.7 | +2.5 |
| **BZMR** | **Bezymyannaya** | **1.65** | **304** | *e*P | Pn | 21 28 18.6 | +2.0 |
| **BZWR** | **Bezymyannyi-We** | **1.66** | **304** | *e*P | Pn | 21 28 18.2 | +1.4 |
| **KMNR** | **Kamenistaya** | **1.69** | **296** | *e*P | Pn | 21 28 19.6 | +2.4 |
| KMNR | | | | *e*S | Sn | 21 28 41.1 | +3.2 |
| **KIRR** | **Kirishev** | **1.73** | **303** | *e*P | Pn | 21 28 18.7 | +1.0 |
| KIRR | | | | *e*S | Sn | 21 28 41.2 | +2.3 |
| **SMKR** | **Semkarok** | **1.74** | **332** | *e*P | Pn | 21 28 18.3 | +0.5 |
| **BKI** | **Bering** | **1.75** | **84** | *e*P | Pn | 21 28 19.9 | +2.0 |
| BKI | | | | *e*S | Sn | 21 28 40.8 | +1.5 |
| **KPT** | **Kopyto** | **1.79** | **302** | *e*P | Pn | 21 28 20.2 | +1.7 |
| KPT | | | | *e*S | Sn | 21 28 41.9 | +1.5 |
| **BDR** | **Baidarnaya** | **1.80** | **328** | *e*P | Pn | 21 28 22.0 | +3.3 |
| **KLY** | **Klyuchi** | **1.81** | **315** | *e*P | Pn | 21 28 19.6 | +1.0 |
| KLY | | | | *e*S | Sn | 21 28 40.7 | +0.2 |
| **SRKR** | **Sorokina** | **1.89** | **329** | *e*P | Pn | 21 28 22.4 | +2.6 |
| **KOZ** | **Kozyrevsk** | **2.01** | **301** | *e*P | Pn | 21 28 24.0 | +2.6 |
| KOZ | | | | *e*S | Sn | 21 28 48.7 | +3.2 |
| **ESO** | **Esso** | **2.56** | **292** | *e*P | Pn | 21 28 30.9 | +2.0 |
| ESO | | | | *e*S | Sn | 21 29 00.3 | +1.4 |
| **SPN** | **Mys Shipunski** | **2.60** | **222** | *e*P | Pn | 21 28 30.8 | +1.4 |
| SPN | | | | *e*S | Sn | 21 29 00.0 | +0.2 |
| **NLC** | **Nalytchevo** | **2.83** | **230** | *e*P | Pn | 21 28 35.4 | +2.9 |
| NLC | | | | *e*S | Sn | 21 29 07.1 | +1.7 |
| **SDLR** | **Sedlovina** | **2.97** | **235** | *e*P | Pn | 21 28 37.7 | +3.2 |
| **KRER** | **Koryakskii** | **3.02** | **236** | *e*P | Pn | 21 28 39.0 | +3.8 |
| KRER | | | | *e*S | Sn | 21 29 14.4 | +4.1 |
| **UGLR** | **Uglovaya** | **3.04** | **234** | *e*P | Pn | 21 28 39.1 | +3.6 |
| **AVH** | **Avacha** | **3.05** | **236** | *e*P | Pn | 21 28 39.7 | +4.2 |
| **DALK** | **Dalny** | **3.19** | **232** | *e*P | Pn | 21 28 41.0 | +3.6 |
| DALK | | | | *e*S | Sn | 21 29 16.6 | +2.5 |
| **GNL** | **Ganaly** | **3.22** | **247** | *e*P | Pn | 21 28 41.7 | +3.8 |
| GNL | | | | *e*S | Sn | 21 29 16.9 | +1.8 |
| **PET** | **Petropavlovsk** | **3.24** | **233** | *e*S | Sn | 21 29 18.6 | +3.2 |
| **RUS** | **Russkaya** | **3.71** | **227** | *e*P | Pn | 21 28 47.6 | +3.1 |
| **KDTR** | **Khodutka, Kamc** | **4.36** | **224** | *e*S | Sn | 21 29 43.7 | +1.0 |

*RSPR **09** 21:33:42.6, 19°.10N×64°.57W, h59km±3km, MD3.5/13*

*NEIC **09** 21:33:42.6±0.0, 19°.10N×64°.57W, h60km, MD3.5(RSPR), After RSPR.*

**ISC 09 21:33:43.6**±1.8, **19°.07N**±0°.10×**64°.64W**±0°.05, **h42**km, **n49**, σ**0$^s$61**/71, **24C-15D**, **Virgin Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ABV** | **Anegada** | **0.45** | **139**⇓ | *e*P | **Pn** | **21 33 53.2** | **-0.5** |
| ABV | | | | *e*S | **Sn** | **21 34 01.6** | **+0.8** |
| **ABV** | **Anegada** | **0.45** | **139**⇓ | *e*P | **Pn** | **21 33 53.2** | **-0.5** |
| ABV | | | | *e*S | **Sn** | **21 34 01.6** | **+0.8** |
| **ABVI** | **Anegada Island** | **0.45** | **139**⇓ | *e*P | **Pn** | **21 33 53.2** | **-0.5** |
| **TBVI** | **Tortola** | **0.65** | **178**⇑ | *e*P | **Pn** | **21 33 55.8** | **-0.5** |
| **TBVI** | **Tortola** | **0.65** | **178**⇑ | *e*P | **Pn** | **21 33 55.8** | **-0.5** |
| **TBVI** | **Tortola** | **0.65** | **178**⇑ | *e*P | **Pn** | **21 33 55.8** | **-0.5** |
| **STVI** | **Saint Thomas** | **0.77** | **203**⇓ | *e*P | **Pn** | **21 33 57.2** | **-0.8** |
| **STVI** | **Saint Thomas** | **0.77** | **203** | *e*S | **Sn** | **21 34 08.9** | **+0.5** |
| **STVI** | **Saint Thomas** | **0.77** | **203**⇓ | *e*P | **Pn** | **21 33 57.2** | **-0.8** |
| STVI | | | | *e*S | **Sn** | **21 34 08.9** | **+0.5** |
| **STVI** | **Saint Thomas** | **0.77** | **203**⇓ | *e*P | **Pn** | **21 33 57.2** | **-0.8** |
| STVI | | | | *e*S | **Sn** | **21 34 08.9** | **+0.5** |
| **MTP** | **Monte Pirata** | **1.30** | **222** | *e*S | **Sn** | **21 34 21.8** | **+0.4** |
| **MTP** | **Monte Pirata** | **1.30** | **222**⇑ | *e*P | **Pn** | **21 34 04.9** | **-0.4** |
| **MTP** | **Monte Pirata** | **1.30** | **222**⇑ | *e*P | **Pn** | **21 34 04.9** | **-0.4** |
| MTP | | | | *e*S | **Sn** | **21 34 21.8** | **+0.4** |
| **MTP** | **Monte Pirata** | **1.30** | **222**⇑ | *e*P | **Pn** | **21 34 04.9** | **-0.4** |
| MTP | | | | *e*S | **Sn** | **21 34 21.8** | **+0.4** |
| **HUMP** | **Col San Antoni** | **1.47** | **231** | *e*S | **Sn** | **21 34 25.8** | **+0.1** |
| **HUMP** | **Col San Antoni** | **1.47** | **231**⇑ | *e*P | **Pn** | **21 34 07.1** | **-0.5** |
| **HUMP** | **Col San Antoni** | **1.47** | **231**⇑ | *e*P | **Pn** | **21 34 07.1** | **-0.5** |
| HUMP | | | | *e*S | **Sn** | **21 34 25.8** | **+0.1** |
| **HUMP** | **Col San Antoni** | **1.47** | **231**⇑ | *e*P | **Pn** | **21 34 07.1** | **-0.5** |
| HUMP | | | | *e*S | **Sn** | **21 34 25.8** | **+0.1** |
| **SJG** | **San Juan** | **1.72** | **237**⇓ | *e*P | **Pn** | **21 34 10.5** | **-0.5** |
| **SJG** | **San Juan** | **1.72** | **237** | *e*S | **Sn** | **21 34 32.2** | **+0.5** |
| **SJG** | **San Juan** | **1.72** | **237**⇓ | *e*P | **Pn** | **21 34 10.5** | **-0.5** |
| SJG | | | | *e*S | **Sn** | **21 34 32.2** | **+0.5** |
| **SJG** | **San Juan** | **1.72** | **237**⇓ | *e*P | **Pn** | **21 34 10.5** | **-0.5** |
| SJG | | | | *e*S | **Sn** | **21 34 32.2** | **+0.5** |
| **CELP** | **Cerrillos** | **2.09** | **242**⇑ | *e*P | **Pn** | **21 34 15.5** | **-0.6** |
| **CELP** | **Cerrillos** | **2.09** | **242**⇑ | *e*P | **Pn** | **21 34 15.5** | **-0.6** |
| **CELP** | **Cerrillos** | **2.09** | **242**⇑ | *e*P | **Pn** | **21 34 15.5** | **-0.6** |
| **OBIP** | **Obispado Ponce** | **2.12** | **242**⇑ | *e*P | **Pn** | **21 34 16.1** | **-0.5** |
| **OBIP** | **Obispado Ponce** | **2.12** | **242** | *e*S | **Sn** | **21 34 42.4** | **+0.6** |
| **OBIP** | **Obispado Ponce** | **2.12** | **242**⇑ | *e*P | **Pn** | **21 34 16.1** | **-0.5** |
| OBIP | | | | *e*S | **Sn** | **21 34 42.4** | **+0.6** |
| **OBIP** | **Obispado Ponce** | **2.12** | **242**⇑ | *e*P | **Pn** | **21 34 16.1** | **-0.5** |
| OBIP | | | | *e*S | **Sn** | **21 34 42.4** | **+0.6** |
| **AOPR** | **Arecibo Observ** | **2.13** | **251**⇓ | *e*P | **Pn** | **21 34 15.7** | **-0.9** |
| **AOPR** | **Arecibo Observ** | **2.13** | **251** | *e*S | **Sn** | **21 34 42.3** | **+0.4** |
| **AOPR** | **Arecibo Observ** | **2.13** | **251**⇓ | *e*P | **Pn** | **21 34 15.7** | **-0.9** |
| AOPR | | | | *e*S | **Sn** | **21 34 42.3** | **+0.4** |
| **AOPR** | **Arecibo Observ** | **2.13** | **251**⇓ | *e*P | **Pn** | **21 34 15.7** | **-0.9** |
| AOPR | | | | *e*S | **Sn** | **21 34 42.3** | **+0.4** |
| **GBPR** | **Guanica, Bosqu** | **2.38** | **243**⇑ | *e*P | **Pn** | **21 34 19.8** | **-0.4** |
| **GBPR** | **Guanica, Bosqu** | **2.38** | **243** | *e*S | **Sn** | **21 34 48.5** | **+0.4** |
| **GBPR** | **Guanica, Bosqu** | **2.38** | **243**⇑ | *e*P | **Pn** | **21 34 19.8** | **-0.4** |
| GBPR | | | | *e*S | **Sn** | **21 34 48.5** | **+0.4** |
| **GBPR** | **Guanica, Bosqu** | **2.38** | **243**⇑ | *e*P | **Pn** | **21 34 19.8** | **-0.4** |
| GBPR | | | | *e*S | **Sn** | **21 34 48.5** | **+0.4** |
| **LSP** | **Las Mesas** | **2.48** | **249**⇓ | *e*P | **Pn** | **21 34 21.8** | **+0.3** |
| **LSP** | **Las Mesas** | **2.48** | **249** | *e*S | **Sn** | **21 34 51.9** | **+1.2** |
| **LSP** | **Las Mesas** | **2.48** | **249**⇓ | *e*P | **Pn** | **21 34 21.8** | **+0.3** |
| LSP | | | | *e*S | **Sn** | **21 34 51.9** | **+1.2** |
| **LSP** | **Las Mesas** | **2.48** | **249**⇓ | *e*P | **Pn** | **21 34 21.8** | **+0.3** |
| LSP | | | | *e*S | **Sn** | **21 34 51.9** | **+1.2** |
| **CRPR** | **Cabo Rojo, PR** | **2.57** | **246**⇑ | *e*P | **Pn** | **21 34 22.3** | **-0.4** |
| **CRPR** | **Cabo Rojo, PR** | **2.57** | **246** | *e*S | **Sn** | **21 34 53.6** | **+0.9** |
| **CRPR** | **Cabo Rojo, PR** | **2.57** | **246**⇑ | *e*P | **Pn** | **21 34 22.3** | **-0.4** |
| CRPR | | | | *e*S | **Sn** | **21 34 53.6** | **+0.9** |
| **CRPR** | **Cabo Rojo, PR** | **2.57** | **246**⇑ | *e*P | **Pn** | **21 34 22.3** | **-0.4** |
| CRPR | | | | *e*S | **Sn** | **21 34 53.6** | **+0.9** |
| **IDE** | **Isla Desecheo** | **2.77** | **256**⇑ | *e*P | **Pn** | **21 34 24.7** | **-0.7** |
| **IDE** | **Isla Desecheo** | **2.77** | **256** | *e*S | **Sn** | **21 34 58.0** | **+0.3** |
| **IDE** | **Isla Desecheo** | **2.77** | **256**⇑ | *e*P | **Pn** | **21 34 24.7** | **-0.7** |
| IDE | | | | *e*S | **Sn** | **21 34 58.0** | **+0.3** |
| **IDE** | **Isla Desecheo** | **2.77** | **256**⇑ | *e*P | **Pn** | **21 34 24.7** | **-0.7** |
| IDE | | | | *e*S | **Sn** | **21 34 58.0** | **+0.3** |

*NEIC **09** 21:35:53.0±0.8, 1°.82N×127°.63E, h81km±8km, mb4.6/24, Error ellipse: s-maj=6.5km s-min=4.4km az=52.0*

*BJI **09** 21:35:52.1, 1°.91N×127°.66E, h71km, mb4.4/19, mB4.8/5, Ms5.0/2, Ms7 4.8/5*

*ISCJB **09** 21:35:54.5±0.3, 1°.73N±0°.03×127°.46E±0°.04, h112km, mb4.6/43, Error ellipse: s-maj=5.2km s-min=4.6km az=6.9*

*IDC **09** 21:35:55.0±5.5, 1°.80N×127°.49E, h98km±50km, mb4.1/11, mb1 4.2/12, mb1mx3.7/50, mbtmp4.4/12, Error ellipse: s-maj=33.3km s-min=14.8km az=75.0*

*DJA **09** 21:35:56.7±0.6, 2°N±4°×12°7E±°, h93km±8km, M4.7/7, mb4.9/7, mB5.1/6, MLv4.7/7, Mw(mB)4.5/6*

**ISC 09 21:35:56.1**±0.4, **1°.74N**±0°.05×**127°.53E**±0°.05, **h112**km, **n74**, σ**1$^s$95**/85, **mb4.6**/43, **Halmahera**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LBMI** | **Labuha** | **2.36** | **181** | P | **Pn** | **21 36 36.0** | **+2.2** |
| **SGSI** | **Sangihe** | **2.78** | **314** | P | **Pn** | **21 36 37.2** | **-2.1** |
| SGSI | | | | S | **Sn** | **21 37 06.7** | **-5.8** |
| **KMSI** | **Cibinong** | **3.73** | **252** | P | **Pn** | **21 36 50.2** | **-1.6** |
| KMSI | | | | S | **Sn** | **21 37 31.3** | **-3.7** |
| **SANI** | **Sanana** | **4.06** | **202** | P | **Pn** | **21 36 55.3** | **-1.1** |
| SANI | | | | S | **Sn** | **21 37 37.6** | **-5.5** |
| **LUWI** | **Luwuk** | **5.50** | **240** | P | **Pn** | **21 37 13.4** | **-2.3** |
| **LUWI** | **Luwuk** | **5.50** | **240** | *e*Pn | **Pn** | **21 37 14.3** | **-1.4** |
| LUWI | | | | *e*Sn | **Sn** | **21 38 18.8** | **+1.1** |
| **MRSI** | **Marisa** | **5.72** | **257** | P | **Pn** | **21 37 15.9** | **-2.8** |
| **APSI** | **Ampana** | **6.44** | **246** | P | **Pn** | **21 37 26.0** | **-2.4** |
| **FAKI** | **Fak Fak** | **6.61** | **134** | P | **Pn** | **21 37 34.9** | **+4.2** |
| **FAKI** | **Fak Fak** | **6.61** | **134** | *e*Pn | **Pn** | **21 37 27.6** | **-3.2** |
| **TTSI** | **Tana Toraja** | **9.05** | **238** | P | **Pn** | **21 38 01.5** | **-2.4** |
| **BNSI** | **Bone** | **9.60** | **231** | P | **Pn** | **21 38 09.8** | **-1.5** |
| **SPSI** | **Sidrap Palu** | **9.60** | **234** | P | **Pn** | **21 38 09.5** | **-1.8** |
| **MYLDM** | **Lahad Datu** | **9.64** | **291** | *e*Pn | **Pn** | **21 38 08.3** | **-3.5** |
| **KAPI** | **Kappang** | **10.26** | **229** | *e*Pn | **Pn** | **21 38 19.5** | **-0.8** |
| | 21nm,0.4s | | | | | | |
| **SOEI** | **Soe** | **11.87** | **196** | *e*Pn | **Pn** | **21 38 40.9** | **-1.1** |
| **MTN** | **Manton Dam** | **14.92** | **166** | *e*Pn | **Pn** | **21 39 21.4** | **0.0** |
| **SBUM** | **Sibu** | **15.31** | **273** | *e*Pn | **P** | **21 39 27.3** | **-1.3** |
| | 14nm,0.7s | | | | | | |
| **KSM** | **Kuching** | **17.21** | **269** | *e*Pn | **Pn** | **21 39 49.3** | **-0.5** |
| | 11nm,0.9s | | | | | | |
| **SMRI** | **Semarang** | **19.16** | **243** | *e*P | **P** | **21 40 09.7** | **-1.2** |
| | 74nm,1.1s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **19.80** | **185** | P | **P** | **21 40 18.0** | **+0.2** |
| | 0.9nm,0.3s,baz=15,slow=7.6,SNR=23 | | | | | | |
| **GUMO** | **Guam** | **20.81** | **55** | *e*P | **P** | **21 40 25.3** | **-3.4** |
| | 306nm,1.3s | | | | | | |
| **CISI** | **Cisompet, Garu** | **21.72** | **245** | *e*P | **P** | **21 40 40.2** | **+1.6** |
| | 24nm,1.2s | | | | | | |
| **COEN** | **Coen** | **21.99** | **136** | *e*P | **P** | **21 40 39.5** | **-1.8** |
| | 3.3nm,0.7s | | | | | | |
| **YULB** | **Yu-li** | **22.36** | **345** | *e*P | **P** | **21 40 44.1** | **-0.9** |
| | 51nm,1.3s | | | | | | |
| **PMG** | **Port Moresby** | **22.47** | **120** | P | **P** | **21 40 46.6** | **+0.3** |
| | 11nm,0.8s,baz=344,slow=5.5,SNR=4.1 | | | | | | |
| **WRAB** | **Tennant Creek** | **22.55** | **163** | *e*P | **P** | **21 40 44.3** | **-2.8** |
| | 25nm,0.4s | | | | | | |
| **WRA** | **Warramunga Arr** | **22.56** | **163** | P | **P** | **21 40 47.9** | **+0.8** |
| | 14nm,0.4s,baz=331,slow=12,SNR=234 | | | | | | |
| WRA | | | | PcP | **PcP** | **21 44 37.3** | **+0.4** |
| | 0.5nm,0.5s,baz=326,slow=2.4,SNR=5.2 | | | | | | |
| **WB2** | **Warramunga Arr** | **22.56** | **163** | *e*P | **P** | **21 40 47.9** | **+0.7** |
| | 25nm,0.9s | | | | | | |
| **YOJ** | **Yonaguni jima** | **23.01** | **349** | *e*P | **P** | **21 40 51.4** | **0.0** |
| | 837nm,1.8s | | | | | | |
| **AS31** | **Alice Springs** | **26.00** | **167** | *e*P | **P** | **21 41 19.4** | **+0.7** |
| | 3.2nm,0.4s | | | | | | |
| **ASAR** | **Alice Springs** | **26.00** | **167** | P | **P** | **21 41 19.4** | **+0.7** |
| | 2.9nm,0.4s,baz=348,slow=7.4,SNR=71 | | | | | | |
| ASAR | | | | PcP | **PcP** | **21 44 45.1** | **+0.8** |
| | 1.0nm,0.7s,baz=353,slow=2.5,SNR=4.9 | | | | | | |
| **AS01** | **Alice Springs** | **26.01** | **166** | *e*P | **P** | **21 41 19.4** | **+0.6** |
| **IPM** | **Ipoh** | **26.60** | **276** | *e*P | **P** | **21 41 24.8** | **+0.5** |
| | 14nm,1.2s | | | | | | |
| **PSI** | **Prapat** | **28.60** | **273** | *e*P | **P** | **21 41 44.0** | **+1.8** |
| | 18nm,1.7s | | | | | | |
| **GSI** | **Gunungsitoli** | **29.94** | **270** | *e*P | **P** | **21 41 53.9** | **0.0** |
| | 10nm,1.2s | | | | | | |
| **LHMI** | **Lhok Sumawe** | **30.71** | **277** | *e*P | **P** | **21 42 01.1** | **+0.4** |
| | 40nm,1.0s | | | | | | |
| **NJ2** | **Nanjing** | **31.24** | **346** | *e*P | **P** | **21 42 03.6** | **-1.5** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,14nm,0.6s | | | | | | |
| **JNU** | **Nakatsue** | **31.38** | **5** | *e*P | **P** | **21 42 05.0** | **-1.4** |
| | 20nm,1.3s | | | | | | |
| **FORT** | **Forrest** | **32.34** | **179** | *e*P | **P** | **21 42 15.0** | **+0.2** |
| | 232nm,1.1s | | | | | | |
| **CHTO** | **Chiang Mai** | **32.75** | **303** | *e*P | **P** | **21 42 18.1** | **-0.5** |
| | 13nm,1.8s | | | | | | |
| **KMI** | **Kunming** | **33.35** | **316** | P | **P** | **21 42 25.8** | **+1.8** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,13nm,0.5s | | | | | | |
| **COCO** | **West Island** | **33.48** | **245** | *e*P | **P** | **21 42 26.1** | **+1.2** |
| | 144nm,1.1s | | | | | | |
| **KS01** | **Wonju Array Si** | **35.57** | **1** | *e*P | **P** | **21 42 41.8** | **-0.8** |
| **STKA** | **Stephens Creek** | **36.00** | **159** | P | **P** | **21 42 47.9** | **+1.5** |
| | 24nm,0.6s,baz=335,slow=8.5,SNR=84 | | | | | | |
| **STKA** | **Stephens Creek** | **36.00** | **159** | *e*P | **P** | **21 42 47.4** | **+1.0** |
| | 4.9nm,0.7s | | | | | | |
| **CD2** | **Chengdu** | **36.72** | **325** | *e*P | **P** | **21 42 53.4** | **+0.8** |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.2s | | | | | | |
| **BJT** | **Baijiatuau** | **39.48** | **346** | *e*P | **P** | **21 43 15.2** | **-0.4** |
| | 31nm,1.8s | | | | | | |
| **KWAJ** | **Kwajalein Atol** | **40.50** | **79** | *e*P | **P** | **21 43 23.7** | **-0.7** |
| | 302nm,0.9s | | | | | | |
| **LZH** | **Lanzhou** | **40.61** | **330** | *e*P | **P** | **21 43 26.8** | **+1.6** |
| LZH | | | | pP | pP | 21 43 44.8 | -6.0 |
| LZH | | | | sP | sP | 21 43 54.6 | -8.9 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,12nm,1.0s | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **41.53** | **342** | *e*P | **P** | **21 43 34.0** | **+1.4** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.5s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,51nm,4.7s | | | | | | |
| **LSA** | **Lhasa** | **44.35** | **312** | *e*P | **P** | **21 43 55.8** | **-0.2** |
| | 2.2nm,0.8s | | | | | | |
| **TAU** | **Tasmania Unive** | **47.89** | **160** | *e*P | **P** | **21 44 23.4** | **+0.5** |
| | 42nm,1.2s | | | | | | |
| **ULN** | **Ulaanbaatar** | **49.25** | **342** | *e*P | **P** | **21 44 32.9** | **-0.5** |
| | 12nm,2.0s | | | | | | |
| **SONM** | **Songino Array** | **49.43** | **341** | P | **P** | **21 44 35.3** | **+0.5** |
| | 0.4nm,0.5s,baz=158,slow=10.0,SNR=3.6 | | | | | | |
| **SONA1** | **Songino Array** | **49.44** | **341** | *e*P | **P** | **21 44 34.9** | **+0.1** |
| **FUNA** | **Funafuti** | **52.50** | **102** | *e*P | **P** | **21 44 56.2** | **-2.0** |
| | 226nm,1.5s | | | | | | |
| **MSVF** | **Nonsavu** | **53.38** | **114** | *e*P | **P** | **21 45 03.2** | **-1.5** |
| | 36nm,1.6s | | | | | | |
| **TLY** | **Talaya** | **53.66** | **342** | *e*P | **P** | **21 45 06.9** | **+0.8** |
| | 10nm,1.0s | | | | | | |
| **WMQ** | **Urumqi** | **54.80** | **325** | P | **P** | **21 45 16.1** | **+1.5** |
| WMQ | | | | pP | pP | 21 45 35.1 | -6.3 |
| WMQ | | | | sP | sP | 21 45 42.9 | -11 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,15nm,0.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,620nm,14.1s | | | | | | |
| **MK01** | **Makanchi Array** | **59.62** | **326** | *e*P | **P** | **21 45 48.6** | **+0.3** |
| **MK31** | **Makanchi Array** | **59.64** | **326** | *e*P | **P** | **21 45 49.1** | **+0.6** |
| **MKAR** | **Makanchi Array** | **59.64** | **326** | P | **P** | **21 45 48.9** | **+0.4** |
| | 1.7nm,0.5s,baz=115,slow=7.5,SNR=30 | | | | | | |
| **KSH** | **Kashi** | **60.01** | **316** | *e*P | **P** | **21 45 54.0** | **+2.7** |
| KSH | | | | pP | pP | 21 46 14.0 | -4.6 |
| KSH | | | | PcP | **PcP** | **21 46 38.2** | **+1.9** |
| KSH | | | | PP | **PP** | **21 48 09.2** | **+4.2** |
| KSH | | | | S | **S** | **21 53 59.2** | **+3.7** |
| KSH | | | | ScS | **ScS** | **21 55 33.3** | **+1.9** |
| KSH | | | | SS | **SS** | **21 57 59.1** | **+5.0** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.7s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,150nm,5.5s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,180nm,5.0s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,290nm,6.0s | | | | | | |
| **YAK** | **Yakutsk** | **60.17** | **1** | P | **P** | **21 45 51.0** | **-0.7** |
| | 0.6nm,0.5s,baz=108,slow=6.4,SNR=6.4 | | | | | | |
| **KURK** | **Kurchatov** | **63.84** | **328** | *e*P | **P** | **21 46 16.7** | **+0.2** |
| | 7.6nm,0.6s | | | | | | |
| **VNDA** | **Vanda** | **81.36** | **173** | P | **P** | **21 48 00.6** | **+0.8** |
| | 1.0nm,0.5s,baz=316,slow=6.6,SNR=8.5 | | | | | | |
| **KDAK** | **Kodiak Island** | **83.14** | **32** | P | **P** | **21 48 11.2** | **+1.8** |
| | 7.2nm,0.7s,baz=260,slow=5.5,SNR=4.4 | | | | | | |
| **ILAR** | **Eielson Array** | **86.55** | **25** | P | **P** | **21 48 25.5** | **-0.9** |
| | 0.2nm,0.5s,baz=249,slow=5.0,SNR=4.5 | | | | | | |
| **INK** | **Inuvik** | **91.71** | **22** | P | **P** | **21 48 50.8** | **+0.2** |
| | 0.5nm,0.6s,baz=310,slow=3.1,SNR=3.7 | | | | | | |
| **ARCES** | **ARCESS Array B** | **92.58** | **340** | P | **P** | **21 48 53.1** | **-1.5** |
| | 2.8nm,0.9s,baz=80,slow=6.5,SNR=3.2 | | | | | | |
| **YKA** | **Yellowknife Ar** | **100.97** | **25** | P | **Pdif** | **21 49 33.7** | **+1.1** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| | 0.1nm,0.5s,baz=292,slow=4.2,SNR=2.7 | | | | | | |
| TXAR | Lajitas Array | 122.16 | 53 | PKP | PKPdf | 21 54 39.2 | +0.7 |
| | 0.4nm,0.7s,baz=321,slow=1.6,SNR=3.9 | | | | | | |
| TORD | Torodi Ar. Bea | 124.28 | 287 | PKP | PKPdf | 21 54 42.7 | -0.1 |
| | 0.8nm,0.8s,baz=96,slow=2.7,SNR=5.1 | | | | | | |

*CSEM **09** 21:52:25.4±0.4, 37.°24N×43.°94E, h2km, ML2.9, Error ellipse: s-maj=10.1km s-min=7.0km az=102.0*
*ISN **09** 21:52:25.1±3.2, 37.°07N×43.°94E, h0km±999km, ML2.2*
**DDA 09 21:52:26.1, 37.°29N×43.°89E, h7km, Ml2.9, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CUKT | Cukurca | 0.23 | 259 | *i* P | Pg | 21 52 30.8 | +0.2 |
| CUKT | | | | *i* S | Sg | 21 52 34.8 | +1.1 |
| CUKT | Cukurca | 0.23 | 259 | P | Pg | 21 52 30.8 | +0.2 |
| CUKT | | | | S | Sg | 21 52 34.8 | +1.1 |
| HAKT | HAKKARI | 0.30 | 332 | *i* P | Pg | 21 52 32.4 | +0.4 |
| HAKT | | | | *i* S | Sg | 21 52 37.0 | +0.8 |
| HAKT | HAKKARI | 0.30 | 332 | P | Pg | 21 52 32.4 | +0.3 |
| HAKT | | | | S | Sg | 21 52 37.0 | +0.9 |
| YOVA | Hakkari_Yˆ…kse | 0.44 | 47 | *i* P | Pg | 21 52 34.9 | +0.3 |
| YOVA | | | | *i* S | Sg | 21 52 41.3 | +1.0 |
| YOVA | Hakkari_Yˆ…kse | 0.44 | 47 | P | Pg | 21 52 34.9 | +0.3 |
| YOVA | | | | S | Sg | 21 52 41.3 | +1.0 |
| MSL | Mosul | 1.09 | 215 | *e*Pg | Pb | 21 52 47.4 | +0.2 |
| | SNR=100 | | | | | | |
| MSL | | | | *e*Sg | Sb | 21 53 02.0 | +0.5 |
| | 76nm,0.4s,SNR=10.0 | | | | | | |
| SIRN | S˜–rnak | 1.19 | 280 | *i* P | Pg | 21 52 48.6 | -0.3 |
| SIRN | | | | *i* S | Sn | 21 53 06.1 | +0.4 |
| SIRN | S˜–rnak | 1.19 | 280 | P | Pg | 21 52 48.7 | -0.2 |
| SIRN | | | | S | Sn | 21 53 06.1 | +0.4 |

*ATA **09** 21:52:55.1±1.7, 38.°84N×41.°12E, h5km±165km, ML4.0, MW3.7*
*ISK **09** 21:53:04.6, 39.°08N×41.°52E, h5km, ML2.9*
*DDA **09** 21:53:04.8, 39.°14N×41.°56E, h5km, Ml3.2*
*IASPEI **09** 21:53:05.2±0.9, 39.°15N±0.°03×41.°56E±0.°02, h7km±6km, Error ellipse: s-maj=4.3km s-min=3.3km az=22.5, GT5 selection from ISC bulletin GT5 identified by Bondˆ¡r and McLaughlin (2009) selection criteria Bondˆ¡r and McLaughlin, A new ground truth data set for seismic studies, <i>Seism. Res. Let.</i>, <b>80</b>, 465-472, 2009*
*CSEM **09** 21:53:05.1±0.1, 39.°13N×41.°53E, h2km, ML3.2, Error ellipse: s-maj=3.5km s-min=3.0km az=39.0*
**ISC 09 21:53:05.4±0.8, 39.°15N±0.°02×41.°54E±0.°02, h7km±5km, n54, σ1.°03/78, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VRTB | Varto-Mus | 0.07 | 275 | *e*PG | Pg | 21 53 07.0 | -0.3 |
| VRTB | | | | *e*SG | Sg | 21 53 09.4 | +0.7 |
| VRTB | Varto-Mus | 0.07 | 275 | *i* P | Pg | 21 53 06.9 | -0.5 |
| VRTB | | | | *i* S | Sg | 21 53 09.5 | +0.7 |
| VRTB | Varto-Mus | 0.07 | 275 | P | Pg | 21 53 06.9 | -0.5 |
| VRTB | | | | S | Sg | 21 53 09.5 | +0.7 |
| BNGL | BINGOL | 0.37 | 237 | *i* P | Pg | 21 53 12.1 | -0.5 |
| BNGL | | | | *i* S | Sb | 21 53 18.7 | -1.7 |
| EKAR | Karacoban | 0.42 | 76 | *e*P | Pg | 21 53 11.6 | -2.0 |
| EKAR | | | | IAML | | 21 53 34.7 | |
| | comp=Z,678nm,0.6s | | | | | | |
| EKAR | Karacoban | 0.42 | 76 | *i* P | Pb | 21 53 14.6 | -0.6 |
| EKAR | Karacoban | 0.42 | 76 | P | Pb | 21 53 14.6 | -0.6 |
| ECAT | Cat-ERZURUM | 0.63 | 316 | *e*P | Pg | 21 53 09.7 | -8.0 |
| ECAT | | | | IAML | | 21 53 34.0 | |
| | comp=Z,162nm,0.4s | | | | | | |
| ECAT | Cat-ERZURUM | 0.63 | 316 | *i* P | Pg | 21 53 17.6 | 0.0 |
| ECAT | | | | *i* S | Sb | 21 53 27.3 | -0.7 |
| ECAT | Cat-ERZURUM | 0.63 | 316 | P | Pg | 21 53 17.6 | 0.0 |
| ECAT | | | | S | Sb | 21 53 27.3 | -0.7 |
| BNGB | Bingˆ¶l | 0.69 | 257 | *e*PG | Pg | 21 53 17.5 | -1.2 |
| ERZM | Erzurum | 0.76 | 350 | *e*P | Pg | 21 53 16.8 | -3.3 |
| ERZM | Erzurum | 0.76 | 350 | *i* P | Pg | 21 53 19.7 | -0.4 |
| ERZM | | | | *i* S | Sb | 21 53 31.5 | -0.4 |
| ERZM | Erzurum | 0.76 | 350 | P | Pg | 21 53 19.7 | -0.4 |
| ERZM | | | | S | Sb | 21 53 31.5 | -0.4 |
| YEDI | Yedisu-Bingol | 0.83 | 290 | *e*PG | Pg | 21 53 21.6 | +0.3 |
| HOMI | Horasan | 0.93 | 17 | *e*P | Pg | 21 53 22.3 | -1.1 |
| HOMI | | | | IAML | | 21 53 49.9 | |
| | comp=Z,145nm,0.5s | | | | | | |
| HOMI | Horasan | 0.93 | 17 | *i* P | Pg | 21 53 23.0 | -0.3 |
| HOMI | | | | *i* S | Sn | 21 53 39.5 | +0.6 |
| ADCV | BITLIS_Adilcev | 0.98 | 110 | *i* P | Pg | 21 53 23.5 | -0.8 |
| ADCV | | | | *i* S | Sg | 21 53 36.4 | -0.6 |
| ADCV | BITLIS_Adilcev | 0.98 | 110 | P | Pg | 21 53 23.5 | -0.8 |
| ADCV | | | | S | Sg | 21 53 36.4 | -0.6 |
| TUTA | Tutak | 1.02 | 75 | *e*P | Pg | 21 53 22.5 | -2.4 |
| TUTA | | | | IAML | | 21 53 45.0 | |
| | comp=Z,256nm,0.3s | | | | | | |
| TUTA | Tutak | 1.02 | 75 | *i* P | Pg | 21 53 24.7 | -0.2 |
| TUTA | | | | *i* S | Sg | 21 53 38.8 | +0.7 |
| TUTA | Tutak | 1.02 | 75 | P | Pg | 21 53 24.7 | -0.2 |
| TUTA | | | | S | Sg | 21 53 38.8 | +0.7 |
| EATA | Eleskirt | 1.02 | 46 | *e*P | Pg | 21 53 24.5 | -0.5 |
| EATA | | | | *e*S | Sn | 21 53 45.5 | +4.4 |
| EATA | | | | IAML | | 21 53 51.4 | |
| | comp=Z,28nm,0.5s | | | | | | |
| EATA | Eleskirt | 1.02 | 46 | *i* P | Pg | 21 53 24.7 | -0.3 |
| EATA | | | | *i* S | Sn | 21 53 40.5 | -0.6 |
| EATA | Eleskirt | 1.02 | 46 | P | Pg | 21 53 24.7 | -0.3 |
| EATA | | | | S | Sn | 21 53 40.5 | -0.6 |
| KOPT | Kop Dagi | 1.18 | 317 | *i* P | Pg | 21 53 27.6 | -0.5 |
| KOPT | | | | *i* S | Sn | 21 53 45.5 | +0.4 |
| KOPT | Kop Dagi | 1.18 | 317 | P | Pg | 21 53 27.6 | -0.5 |
| KOPT | | | | S | Sn | 21 53 45.5 | +0.4 |
| SRTM | Siirt_Merkez | 1.20 | 166 | *i* P | Pg | 21 53 27.3 | -1.1 |
| SRTM | | | | *i* S | Sn | 21 53 47.7 | +2.5 |
| SRTM | Siirt_Merkez | 1.20 | 166 | P | Pg | 21 53 27.3 | -1.1 |
| AGRB | Hanur-Agry | 1.20 | 69 | *e*PN | Pn | 21 53 28.8 | 0.0 |
| AGRB | Hanur-Agry | 1.20 | 69 | *e*Pn | Pn | 21 53 28.8 | 0.0 |
| BTMN | Batman | 1.28 | 190 | *i* P | Pg | 21 53 29.9 | 0.0 |
| BTMN | | | | *i* S | Sn | 21 53 48.5 | +1.3 |
| BTMN | Batman | 1.28 | 190 | P | Pg | 21 53 29.9 | 0.0 |
| ERZN | Erzincan | 1.48 | 288 | *e*PN | Pn | 21 53 32.2 | -0.3 |
| SENK | Senkaya-Erzuru | 1.54 | 24 | *e*PN | Pb | 21 53 34.1 | -0.1 |
| SENK | Senkaya-Erzuru | 1.54 | 24 | *e*Pn | Pb | 21 53 34.2 | -0.1 |
| VANB | Van | 1.54 | 111 | *e*PN | Pb | 21 53 34.1 | -0.2 |
| VANB | Van | 1.54 | 111 | *e*Pn | Pb | 21 53 34.2 | -0.2 |
| VMUR | Van-Muradiye | 1.59 | 95 | *i* P | Pb | 21 53 34.6 | -0.5 |
| VMUR | | | | *i* S | Sg | 21 53 58.8 | +2.4 |
| VMUR | Van-Muradiye | 1.59 | 95 | P | Pb | 21 53 34.6 | -0.5 |
| PTK | Pertek | 1.70 | 262 | *e*PN | Pn | 21 53 35.6 | 0.0 |
| PTK | Pertek | 1.70 | 262 | *e*Pn | Pn | 21 53 35.6 | 0.0 |
| DYDN | Diyadin | 1.71 | 76 | *i* P | Pb | 21 53 37.5 | +0.3 |
| DYDN | | | | *i* S | Sb | 21 53 58.8 | -0.2 |
| DYDN | Diyadin | 1.71 | 76 | P | Pb | 21 53 37.5 | +0.3 |
| DYDN | | | | S | Sb | 21 53 58.8 | -0.2 |
| SIRN | S˜–rnak | 1.79 | 157 | *i* P | Pb | 21 53 37.8 | -0.7 |
| SIRN | | | | *i* S | Sb | 21 54 01.4 | +0.2 |
| SIRN | S˜–rnak | 1.79 | 157 | P | Pb | 21 53 37.8 | -0.7 |
| SIRN | | | | S | Sb | 21 54 01.4 | +0.2 |
| SIRT | Sirnak | 1.79 | 157 | *e*PN | Pn | 21 53 36.4 | -0.4 |
| SIRT | Sirnak | 1.79 | 157 | *e*Pn | Pn | 21 53 36.4 | -0.4 |
| KARS | Kars | 1.89 | 38 | *e*PN | Pb | 21 53 39.5 | -0.7 |
| KARS | Kars | 1.89 | 38 | *e*Pn | Pb | 21 53 39.5 | -0.7 |
| SVRC | Sivrice-ELAZID | 1.91 | 247 | *e*PN | Pn | 21 53 38.2 | -0.3 |
| SVRC | Sivrice-ELAZID | 1.91 | 247 | *e*Pn | Pn | 21 53 38.2 | -0.3 |
| TASB | TASBURUN-IGDIR | 2.24 | 67 | *e*PN | Pn | 21 53 44.1 | +1.2 |
| TASB | TASBURUN-IGDIR | 2.24 | 67 | *e*Pn | Pn | 21 53 44.1 | +1.2 |

*NEIC **09** 21:53:07.5±2.4, 23.°78S×177.°42W, h60km±22km, mb4.3/2, Error ellipse: s-maj=31.8km s-min=12.2km az=176.0*
*IDC **09** 21:53:08.8±8.7, 24.°04S×177.°35W, h73km±90km, mb3.9/6, mb1 4.1/7, mb1mx3.6/40, mbtmp4.2/7, ML3.1/1, MS3.6/10, Ms1 3.6/10, ms1mx3.3/34, Error ellipse: s-maj=123.6km s-min=21.5km az=165.0*
*ISCJB **09** 21:53:09.9±0.8, 23.°5S±0.°2×177.°46W±0.°10, h100km, mb4.1/8, Error ellipse: s-maj=25.3km s-min=12.8km az=177.0*
**ISC 09 21:53:11.2±1.2, 23.°4S±0.°2×177.°4W±0.°1, h100km, n24, σ1.°36/8, mb4.2/8, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MSVF | Nonsavu | 7.09 | 322 | *e*Pn | Pn | 21 54 52.2 | -0.3 |
| | 44nm,0.9s | | | | | | |
| DZM | Mont Dzumac | 14.99 | 272 | LR | LR | 22 01 30.0 | |
| | comp=Z,198nm,18.5s,baz=34,slow=33 | | | | | | |
| DZM | Mont Dzumac | 14.99 | 272 | *e*LR | LR | 22 00 27.5 | |
| | 496nm,26.4s | | | | | | |
| RAR | Rarotonga | 16.44 | 86 | P | P | 21 56 55.4 | -1.6 |
| | 0.7nm,0.3s,baz=254,slow=7.7,SNR=3.8 | | | | | | |
| RPZ | Rata Peaks | 22.38 | 202 | LR | LR | 22 05 49.3 | |
| | comp=Z,120nm,21.4s,baz=26,slow=35 | | | | | | |
| TBI | Tubuai | 25.61 | 95 | *e*LR | LR | 22 04 43.6 | |
| | 543nm,29.0s | | | | | | |
| TBI | Tubuai | 25.61 | 95 | *e*T | T | 22 24 46.6 | |
| | 6.8nm,0.3s | | | | | | |
| PAE | Paea | 26.63 | 83 | *e*T | T | 22 26 05.2 | |
| | 2.6nm,0.3s | | | | | | |
| PPT2 | Papeete2 | 26.65 | 83 | *e*LR | LR | 22 05 09.8 | |
| | 454nm,28.5s,baz=271 | | | | | | |
| PPT | Papeete | 26.66 | 83 | LR | LR | 22 08 53.7 | |
| | comp=Z,81nm,18.2s,baz=192,slow=35 | | | | | | |
| CTA | Charters Tower | 33.88 | 268 | P | P | 21 59 45.5 | +0.8 |
| | 2.5nm,0.7s,baz=103,slow=12,SNR=3.4 | | | | | | |
| STKA | Stephens Creek | 37.13 | 248 | LR | LR | 22 12 56.3 | |
| | comp=Z,79nm,20.3s,baz=35,slow=32 | | | | | | |
| RKT | Rikitea | 38.85 | 98 | *e*T | T | 22 41 18.4 | |
| | 2.4nm,0.2s | | | | | | |
| ASAR | Alice Springs | 44.48 | 260 | P | P | 22 01 12.3 | -0.6 |
| | 3.9nm,1.0s,baz=91,slow=8.4,SNR=26 | | | | | | |
| ASAR | | | | LR | LR | 22 18 39.4 | |
| | comp=Z,86nm,19.6s,baz=108,slow=34 | | | | | | |
| WRAB | Tennant Creek | 44.83 | 265 | *e*P | P | 22 01 14.2 | -1.5 |
| | 3.5nm,0.9s | | | | | | |
| WRA | Warramunga Arr | 44.84 | 265 | P | P | 22 01 15.2 | -0.6 |
| | 1.8nm,0.6s,baz=103,slow=8.1,SNR=22 | | | | | | |
| WRA | | | | LR | LR | 22 18 18.7 | |
| | comp=Z,97nm,21.8s,baz=195,slow=34 | | | | | | |
| GUMO | Guam | 52.12 | 311 | LR | LR | 22 21 54.8 | |
| | comp=Z,72nm,19.7s,baz=128,slow=33 | | | | | | |
| FITZ | Fitzroy Crossi | 53.26 | 264 | P | P | 22 02 20.4 | +0.4 |
| | 2.1nm,0.9s,baz=101,slow=5.2,SNR=3.9 | | | | | | |
| VNDA | Vanda | 55.07 | 185 | LR | LR | 22 25 10.6 | |
| | comp=Z,22nm,18.1s,baz=288,slow=35 | | | | | | |
| TGY | Tagaytay City | 70.91 | 295 | LR | LR | 22 32 03.7 | |
| | comp=Z,52nm,18.6s,baz=144,slow=33 | | | | | | |
| PLCA | Paso Flores | 86.86 | 133 | LR | LR | 22 35 40.6 | |
| | comp=Z,33nm,21.1s,baz=316,slow=30 | | | | | | |
| TXAR | Lajitas Array | 88.14 | 57 | P | P | 22 05 53.0 | +1.8 |
| | 0.9nm,1.0s,baz=205,slow=5.5,SNR=5.1 | | | | | | |
| MVCO | Mesa Verde | 88.49 | 48 | P | P | 22 05 53.5 | +0.7 |
| | 1.6nm,0.6s | | | | | | |
| ILAR | Eielson Array | 91.02 | 13 | P | P | 22 06 07.7 | +4.0 |
| | 1.8nm,1.2s,baz=214,slow=6.2,SNR=5.2 | | | | | | |

*ISCJB **09** 21:56:39.3±0.4, 12.°99S±0.°06×169.°50E±0.°10, h645km, mb4.0/20, Error ellipse: s-maj=12.4km s-min=7.3km az=163.8*
*IDC **09** 21:56:40.0±1.4, 12.°86S×169.°46E, h629km±17km, mb3.6/18, mb1 3.7/18, mb1mx3.5/40, mbtmp4.5/18, Error ellipse: s-maj=13.7km s-min=11.4km az=110.0*
**ISC 09 21:56:41.2±0.6, 12.°93S±0.°10×169.°4E±0.°1, h645km, n38, σ1.°23/42, mb4.1/20, Santa Cruz Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PMG | Port Moresby | 22.08 | 277 | P | P | 22 00 52.8 | +1.2 |
| | 6.3nm,0.5s,baz=129,slow=4.7,SNR=5.3 | | | | | | |
| MXZ | Matakaoa Point | 25.79 | 164 | *e*PN | P | 22 01 22.7 | -1.4 |
| HAZ | Te Kaha | 25.84 | 165 | *e*PN | P | 22 01 23.8 | -0.6 |
| RUGZ | Raukumara Rang | 26.01 | 165 | *e*PN | P | 22 01 25.2 | -0.8 |
| PKGZ | Pakihiroa | 26.04 | 164 | *e*PN | P | 22 01 25.2 | -1.0 |
| WMGZ | Waiomatatini S | 26.06 | 164 | *e*PN | P | 22 01 25.2 | -1.2 |
| URZ | Urewera | 26.15 | 166 | P | P | 22 01 26.9 | -0.2 |
| | 9.7nm,0.6s,baz=344,slow=1.9,SNR=6.5 | | | | | | |
| URZ | Urewera | 26.15 | 166 | *e*PN | P | 22 01 26.9 | -0.2 |
| PUZ | Puketiti | 26.26 | 164 | *e*PN | P | 22 01 26.2 | -1.9 |
| MUGZ | Murupara | 26.28 | 167 | *e*PN | P | 22 01 28.4 | +0.1 |
| MWZ | Matawai | 26.32 | 165 | *e*PN | P | 22 01 27.9 | -0.8 |
| RAGZ | Rawiri | 26.45 | 166 | PN | P | 22 01 28.8 | -1.1 |
| RIGZ | Rimuhau | 26.73 | 165 | *e*PN | P | 22 01 31.1 | -1.2 |
| THZ | Tophouse | 28.89 | 175 | *e*PN | P | 22 01 50.2 | -0.8 |
| KHZ | Kahutara | 29.60 | 174 | PN | P | 22 01 56.1 | -0.8 |
| RPZ | Rata Peaks | 30.71 | 178 | P | P | 22 02 07.2 | +0.8 |
| | 8.5nm,0.7s,baz=344,slow=1.0,SNR=8.2 | | | | | | |
| STKA | Stephens Creek | 31.72 | 229 | P | P | 22 02 16.2 | +1.1 |
| | 7.5nm,0.5s,baz=54,slow=8.7,SNR=30 | | | | | | |
| STKA | | | | ScP | ScP | 22 07 31.1 | +1.5 |
| | 1.7nm,0.6s,baz=80,slow=4.0,SNR=6.7 | | | | | | |
| WRA | Warramunga Arr | 34.28 | 254 | P | P | 22 02 36.5 | -0.3 |
| | 18nm,0.5s,baz=84,slow=8.6,SNR=261 | | | | | | |
| WRA | | | | S | S | 22 07 17.1 | -3.7 |
| | 0.9nm,0.5s,baz=83,slow=14,SNR=6.6 | | | | | | |
| WRA | | | | ScP | ScP | 22 07 41.0 | +2.2 |
| | 1.4nm,0.8s,baz=84,slow=4.1,SNR=7.5 | | | | | | |
| ASAR | Alice Springs | 35.24 | 247 | P | P | 22 02 44.8 | 0.0 |
| | 24nm,0.4s,baz=75,slow=9.5,SNR=208 | | | | | | |
| ASAR | | | | PcP | PcP | 22 04 56.0 | -0.4 |
| | 1.5nm,0.7s,baz=80,slow=3.7,SNR=7.1 | | | | | | |
| ASAR | | | | S | S | 22 07 33.1 | -2.0 |
| | 2.0nm,0.9s,baz=78,slow=16,SNR=8.3 | | | | | | |
| ASAR | | | | ScP | ScP | 22 07 44.8 | +2.4 |
| | 1.4nm,0.6s,baz=85,slow=3.8,SNR=15 | | | | | | |
| FITZ | Fitzroy Crossi | 42.39 | 257 | P | P | 22 03 42.3 | +0.4 |
| | 4.9nm,0.6s,baz=84,slow=7.1,SNR=28 | | | | | | |
| MJAR | Matsushiro Arr | 57.32 | 330 | P | P | 22 05 29.4 | -0.6 |
| | 1.0nm,0.5s,baz=174,slow=7.7,SNR=5.8 | | | | | | |
| VNDA | Vanda | 64.71 | 182 | P | P | 22 06 18.2 | +0.9 |
| | 1.2nm,0.6s,baz=357,slow=9.0,SNR=7.0 | | | | | | |
| USRK | Ussuriysk Ar. | 66.26 | 331 | P | P | 22 06 28.2 | +0.8 |
| | 2.0nm,0.8s,baz=160,slow=14,SNR=4.6 | | | | | | |
| PETK | Petropavlovsk- | 66.53 | 352 | P | P | 22 06 29.5 | +0.5 |
| | 4.0nm,0.7s,baz=146,slow=6.3,SNR=5.3 | | | | | | |
| KLR | Kul'dur | 70.23 | 335 | P | P | 22 06 51.6 | +0.4 |
| | 0.2nm,0.6s,baz=146,slow=3.6,SNR=9.8 | | | | | | |
| CMAR | Chiang Mai Arr | 76.12 | 293 | P | P | 22 07 26.9 | +1.5 |
| | 1.7nm,0.7s,baz=125,slow=3.6,SNR=9.8 | | | | | | |
| KDAK | Kodiak Island | 77.08 | 20 | P | P | 22 07 28.3 | -1.3 |
| | 7.6nm,0.7s,baz=261,slow=4.6,SNR=4.6 | | | | | | |
| SONM | Songino Array | 82.30 | 323 | P | P | 22 07 56.8 | -0.4 |
| | 0.3nm,0.6s,baz=132,slow=8.0,SNR=3.7 | | | | | | |
| YBH | Yreka Blue Hor | 82.70 | 44 | P | P | 22 08 00.6 | +1.2 |
| | 4.4nm,0.9s,baz=341,slow=0.2,SNR=11 | | | | | | |
| ILAR | Eielson Array | 84.20 | 17 | P | P | 22 08 04.7 | -1.5 |
| | 7.9nm,0.9s,baz=237,slow=5.6,SNR=36 | | | | | | |
| PDAR | Pinedale Array | 92.22 | 47 | P | P | 22 08 44.0 | -0.5 |
| | 0.3nm,0.5s,baz=252,slow=4.4,SNR=3.7 | | | | | | |
| TXAR | Lajitas Array | 93.61 | 61 | P | P | 22 08 50.9 | 0.0 |
| | 0.5nm,0.4s,baz=278,slow=14,SNR=8.3 | | | | | | |
| YKA | Yellowknife Ar | 95.02 | 27 | P | P | 22 08 55.4 | -0.9 |
| | 2.7nm,0.8s,baz=255,slow=4.6,SNR=28 | | | | | | |
| ARCES | ARCESS Array B | 119.02 | 346 | PKP | PKPdf | 22 14 16.7 | -1.0 |
| | 3.4nm,0.9s,baz=47,slow=2.1,SNR=9.2 | | | | | | |
| NB2 | NORSAR Subarra | 129.40 | 346 | SKPa | SKPab | 22 17 02.2 | +1.5 |
| | comp=Z,5.0nm,0.8s,baz=30,slow=3.0 | | | | | | |
| NB2 | NORSAR Subarra | 129.40 | 346 | SKPa | SKPab | 22 17 02.2 | +1.5 |
| | baz=30,slow=3.0 | | | | | | |
| ESDC | Sonseca Array | 152.72 | 349 | PKPab | PKPab | 22 15 40.8 | -0.2 |
| | comp=Z,0.5nm,0.6s,baz=8.2,slow=3.9,SNR=7.6 | | | | | | |
| TORD | Torodi Ar. Bea | 168.00 | 272 | PKPab | PKPab | 22 16 48.7 | -0.1 |
| | comp=Z,0.6nm,0.8s,baz=79,slow=5.6,SNR=4.0 | | | | | | |

**MAN 09 21:58:51, 13.°25N×120.°14E, h33km, mb4.2, ML3.0, MS2.8, 1C, Mindoro**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LUBP | Lubang | 0.49 | 12 | *e*P | Pn | 21 59 02.5 | +0.8 |
| LUBP | | | | *e*S | Sn | 21 59 11.6 | +2.5 |
| PGP | Puerto Galera | 0.83 | 73⇑ | *e*P | Pb | 21 59 07.6 | +0.6 |
| PGP | | | | *e*S | Sb | 21 59 18.3 | +0.3 |
| SJMP | San Jose | 1.24 | 129 | *e*P | Pn | 21 59 12.9 | +0.9 |
| SJMP | | | | *e*S | Sn | 21 59 28.5 | +0.9 |
| BUSP | Coron | 1.24 | 177 | *e*P | Pb | 21 59 13.1 | -0.9 |
| BUSP | | | | *e*S | Sn | 21 59 28.1 | +0.4 |

**MAN 09 22:03:25, 11.°50N×124.°46E, h22km, mb4.0, ML2.8, MS2.4, 2C-1D, Leyte**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| OCLP | Ormoc | 0.47 | 162 | *e*P | Pb | 22 03 35.3 | +0.6 |
| OCLP | | | | *e*S | Sn | 22 03 44.4 | +0.3 |
| PLP | Palo | 0.61 | 124⇓ | *e*P | Pb | 22 03 37.7 | +0.6 |
| PLP | | | | *i* S | Sn | 22 03 48.4 | +0.9 |
| LLP | Lapu-Lapu | 1.28 | 202⇑ | *e*P | Pn | 22 03 46.9 | -0.7 |
| LLP | | | | *e*S | Sb | 22 04 04.7 | +0.4 |
| MSLP | Maasin | 1.42 | 164 | *e*P | Pb | 22 03 51.4 | +0.6 |
| MSLP | | | | *e*S | Sb | 22 04 13.6 | +5.3 |
| RCP | Roxas | 1.68 | 272⇑ | *e*P | Pn | 22 03 53.4 | +0.2 |
| RCP | | | | *e*S | Sn | 22 04 14.7 | +0.6 |

*ISK **09** 22:07:55.7, 38.°85N×43.°51E, h5km, ML3.3*
*ATA **09** 22:07:55.3±0.7, 38.°86N×43.°43E, h0km±2km, ML3.8, MW3.8*
*DDA **09** 22:07:57.0, 38.°85N×43.°43E, h7km, Ml3.2*
*CSEM **09** 22:07:57.1±0.2, 38.°86N×43.°49E, h5km, ML3.2, Error ellipse: s-maj=5.1km s-min=3.1km az=78.0*
**ISC 09 22:07:57.5±0.9, 38.°85N±0.°01×43.°43E±0.°02, h8km±7km, n76, σ1.°07/114, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.18 | 38 | *i* P | Pg | 22 08 00.8 | -0.5 |
| VMUR | | | | *i* S | Sg | 22 08 04.8 | +0.9 |
| VMUR | Van-Muradiye | 0.18 | 38 | P | Pg | 22 08 00.8 | -0.5 |
| VMUR | | | | S | Sg | 22 08 04.8 | +0.9 |
| ERCV | ERCIS-VAN | 0.18 | 338 | *e*PG | Pg | 22 08 01.0 | -0.5 |
| ERCV | | | | *e*SG | Sg | 22 08 05.0 | +0.9 |
| ERCV | ERCIS-VAN | 0.18 | 338 | *e*Pg | Pg | 22 08 01.0 | -0.5 |
| ERCV | | | | *e*Sg | Sg | 22 08 05.0 | +0.9 |
| VANB | Van | 0.25 | 187 | *e*PG | Pb | 22 08 03.9 | -0.6 |
| VANB | Van | 0.25 | 187 | *e*Pg | Pb | 22 08 03.9 | -0.6 |
| TVAN | Van | 0.32 | 183 | *i* P | Pg | 22 08 03.7 | -0.2 |
| TVAN | | | | *i* S | Sb | 22 08 10.2 | -0.8 |
| TVAN | Van | 0.32 | 183 | P | Pg | 22 08 03.7 | -0.2 |
| TVAN | | | | S | Sb | 22 08 10.2 | -0.8 |
| ADCV | BITLIS_Adilcev | 0.55 | 266 | *i* P | Pg | 22 08 08.0 | -0.2 |
| ADCV | | | | *i* S | Sb | 22 08 17.5 | -0.2 |
| ADCV | BITLIS_Adilcev | 0.55 | 266 | P | Pg | 22 08 08.0 | -0.2 |
| ADCV | | | | S | Sb | 22 08 17.5 | -0.2 |
| GEVA | Gevas | 0.61 | 209 | *e*P | Pg | 22 08 08.3 | -1.0 |
| GEVA | | | | *e*S | Sb | 22 08 19.0 | -0.4 |
| GEVA | | | | IAML | | 22 08 22.5 | |
| | comp=Z,427nm,0.4s | | | | | | |
| GEVA | Gevas | 0.61 | 209 | *i* P | Pg | 22 08 08.3 | -1.0 |
| GEVA | | | | *i* S | Sb | 22 08 19.1 | -0.2 |
| GEVA | Gevas | 0.61 | 209 | P | Pg | 22 08 08.3 | -1.0 |
| GEVA | | | | S | Sb | 22 08 19.1 | -0.2 |
| DYDN | Diyadin | 0.72 | 16 | *e*P | Pg | 22 08 10.3 | -1.2 |
| DYDN | | | | IAML | | 22 08 27.5 | |
| | comp=Z,110nm,0.4s | | | | | | |
| DYDN | Diyadin | 0.72 | 16 | *i* P | Pg | 22 08 10.7 | -0.8 |
| DYDN | | | | *i* S | Sb | 22 08 22.0 | -0.8 |
| DYDN | Diyadin | 0.72 | 16 | P | Pg | 22 08 10.7 | -0.8 |
| DYDN | | | | S | Sb | 22 08 22.0 | -0.8 |
| TUTA | Tutak | 0.73 | 319 | *e*P | Pg | 22 08 10.3 | -1.4 |
| TUTA | | | | IAML | | 22 08 30.4 | |
| | comp=Z,459nm,0.8s | | | | | | |
| TUTA | Tutak | 0.73 | 319 | *i* P | Pg | 22 08 10.7 | -1.0 |
| TUTA | | | | *i* S | Sb | 22 08 22.0 | -1.0 |
| TUTA | Tutak | 0.73 | 319 | P | Pg | 22 08 10.7 | -1.0 |
| TUTA | | | | S | Sb | 22 08 22.0 | -1.0 |
| AGRB | Hanur-Agry | 0.80 | 335 | *e*PG | Pg | 22 08 12.0 | -1.0 |
| AGRB | | | | *e*SG | Sb | 22 08 25.6 | +0.6 |
| AGRB | Hanur-Agry | 0.80 | 335 | *e*Pg | Pg | 22 08 12.0 | -1.0 |
| AGRB | | | | *e*Sg | Sb | 22 08 25.6 | +0.6 |
| BASK | Baskale_VAN | 0.91 | 150 | *i* P | Pg | 22 08 13.9 | -1.2 |
| BASK | Baskale_VAN | 0.91 | 150 | P | Pg | 22 08 13.9 | -1.2 |
| EKAR | Karacoban | 1.14 | 291 | *e*P | Pg | 22 08 18.6 | -0.8 |
| EKAR | | | | IAML | | 22 08 48.8 | |
| | comp=Z,159nm,0.4s | | | | | | |
| EKAR | Karacoban | 1.14 | 291 | *i* P | Pn | 22 08 19.5 | -0.5 |
| EKAR | | | | *i* S | Sn | 22 08 37.7 | +1.8 |
| EKAR | Karacoban | 1.14 | 291 | P | Pn | 22 08 19.5 | -0.5 |
| EKAR | | | | S | Sn | 22 08 37.7 | +1.8 |
| EATA | Eleskirt | 1.25 | 325 | *e*P | Pg | 22 08 20.1 | -1.5 |
| EATA | | | | *e*S | Sn | 22 08 39.6 | +0.9 |
| EATA | | | | IAML | | 22 08 44.0 | |
| | comp=Z,33nm,0.5s | | | | | | |
| EATA | Eleskirt | 1.25 | 325 | *i* P | Pg | 22 08 20.0 | -1.5 |
| EATA | | | | *i* S | Sn | 22 08 38.1 | -0.6 |
| EATA | Eleskirt | 1.25 | 325 | P | Pg | 22 08 20.0 | -1.5 |
| EATA | | | | S | Sn | 22 08 38.1 | -0.6 |
| TASB | TASBURUN-IGDIR | 1.30 | 29 | *e*PN | Pn | 22 08 21.2 | -0.8 |
| TASB | TASBURUN-IGDIR | 1.30 | 29 | *e*Pn | Pn | 22 08 21.2 | -0.8 |
| HAKT | HAKKARI | 1.31 | 170 | *i* P | Pn | 22 08 20.8 | -1.5 |
| HAKT | | | | *i* S | Sn | 22 08 42.7 | +2.6 |
| HAKT | HAKKARI | 1.31 | 170 | P | Pn | 22 08 20.8 | -1.5 |
| YOVA | Hakkari_Yˆ…kse | 1.43 | 151 | *i* P | Pn | 22 08 23.8 | -0.2 |
| YOVA | | | | *i* S | Sg | 22 08 45.1 | +1.6 |
| YOVA | Hakkari_Yˆ…kse | 1.43 | 151 | P | Pn | 22 08 23.8 | -0.2 |
| SRTM | Siirt_Merkez | 1.46 | 235 | *i* P | Pb | 22 08 24.7 | -0.3 |
| SRTM | | | | *i* S | Sg | 22 08 46.1 | +1.6 |
| SRTM | Siirt_Merkez | 1.46 | 235 | P | Pb | 22 08 24.7 | -0.3 |
| SRTM | | | | S | Sg | 22 08 46.1 | +1.6 |
| SIRT | Sirnak | 1.55 | 210 | *e*PN | Pb | 22 08 26.1 | -0.5 |
| SIRT | Sirnak | 1.55 | 210 | *e*Pn | Pb | 22 08 26.1 | -0.5 |
| DIGO | Kars | 1.56 | 358 | *e*P | Pb | 22 08 26.3 | -0.6 |
| DIGO | | | | IAML | | 22 08 38.6 | |
| | comp=Z,20nm,0.5s | | | | | | |
| DIGO | | | | *e*S | Sg | 22 08 49.5 | +1.6 |
| DIGO | Kars | 1.56 | 358 | *i* P | Pb | 22 08 26.3 | -0.6 |
| DIGO | Kars | 1.56 | 358 | P | Pb | 22 08 26.3 | -0.6 |
| VRTB | Varto-Mus | 1.57 | 282 | *e*PN | Pb | 22 08 26.7 | -0.2 |
| VRTB | Varto-Mus | 1.57 | 282 | *i* P | Pb | 22 08 26.2 | -0.7 |
| VRTB | | | | *i* S | Sg | 22 08 47.7 | -0.3 |
| VRTB | Varto-Mus | 1.57 | 282 | P | Pb | 22 08 26.2 | -0.7 |
| VRTB | Varto-Mus | 1.57 | 282 | *e*Pn | Pb | 22 08 26.7 | -0.2 |
| VRTB | | | | S | Sg | 22 08 47.7 | -0.3 |
| SIRN | S˜–rnak | 1.57 | 211 | *i* P | Pb | 22 08 26.4 | -0.5 |
| SIRN | | | | *i* S | Sg | 22 08 48.8 | +0.8 |
| SIRN | S˜–rnak | 1.57 | 211 | P | Pb | 22 08 26.4 | -0.5 |
| SIRN | | | | S | Sg | 22 08 48.8 | +0.8 |
| CUKT | Cukurca | 1.60 | 175 | *e*PN | Pn | 22 08 26.2 | -0.1 |
| CUKT | Cukurca | 1.60 | 175 | *i* P | Pb | 22 08 27.0 | -0.5 |
| CUKT | | | | *i* S | Sg | 22 08 49.9 | +0.8 |
| CUKT | Cukurca | 1.60 | 175 | *e*Pn | Pn | 22 08 26.2 | -0.1 |
| CUKT | Cukurca | 1.60 | 175 | P | Pb | 22 08 27.0 | -0.5 |
| CUKT | | | | S | Sg | 22 08 49.9 | +0.8 |
| HOMI | Horasan | 1.68 | 316 | *e*P | Pn | 22 08 27.6 | +0.1 |
| HOMI | | | | IAML | | 22 08 41.2 | |
| | comp=Z,62nm,0.6s | | | | | | |
| HOMI | | | | *e*S | Sg | 22 08 54.1 | +2.5 |
| HOMI | Horasan | 1.68 | 316 | *i* P | Pb | 22 08 27.7 | -1.1 |
| BNGL | BINGOL | 1.78 | 274 | *e*P | Pb | 22 08 29.9 | -0.7 |
| BNGL | | | | *e*S | Sg | 22 08 56.5 | +1.7 |
| BNGL | | | | IAML | | 22 09 08.2 | |
| | comp=Z,193nm,0.6s | | | | | | |
| BNGL | BINGOL | 1.78 | 274 | *i* P | Pb | 22 08 30.2 | -0.4 |
| BNGL | | | | *i* S | Sg | 22 08 56.5 | +1.7 |
| KARS | Kars | 1.80 | 351 | *e*PN | Pn | 22 08 29.3 | +0.3 |
| KARS | Kars | 1.80 | 351 | *e*Pn | Pn | 22 08 29.3 | +0.3 |
| EAK | Akyaka | 1.84 | 4 | *i* P | Pg | 22 08 32.5 | -0.3 |
| SENK | Senkaya-Erzuru | 1.90 | 334 | *e*PN | Pb | 22 08 31.2 | -1.5 |
| SENK | Senkaya-Erzuru | 1.90 | 334 | *e*Pn | Pb | 22 08 31.2 | -1.5 |
| ERZM | Erzurum | 1.92 | 304 | *e*P | Pb | 22 08 32.8 | -0.1 |
| ERZM | Erzurum | 1.92 | 304 | *i* P | Pg | 22 08 33.2 | -1.1 |
| ERZM | | | | *i* S | Sg | 22 09 00.2 | +1.0 |
| ERZM | Erzurum | 1.92 | 304 | P | Pg | 22 08 33.2 | -1.1 |
| ECAT | Cat-ERZURUM | 2.05 | 292 | *e*P | Pb | 22 08 34.5 | -0.7 |
| ECAT | | | | IAML | | 22 08 40.8 | |
| | comp=Z,41nm,0.4s | | | | | | |
| ECAT | | | | *e*S | Sg | 22 09 03.9 | +0.4 |
| BNGB | Bingˆ¶l | 2.15 | 275 | *e*PN | Pb | 22 08 35.1 | -1.7 |
| BINT | Bingol | 2.29 | 272 | *e*Pn | Pn | 22 08 35.1 | -0.7 |
| YEDI | Yedisu-Bingol | 2.32 | 286 | *e*PN | Pn | 22 08 37.4 | +1.2 |
| YEDI | Yedisu-Bingol | 2.32 | 286 | *e*Pn | Pn | 22 08 37.4 | +1.2 |
| BGD | Bogdanovka | 2.42 | 3 | P | Pg | 22 08 47.4 | +3.5 |
| AKH | Akhalkalaki | 2.56 | 1 | P | Pg | 22 08 45.5 | -1.1 |
| DGRG | David-gareji | 3.00 | 29 | P | Pg | 22 08 53.4 | -1.6 |
| TBLG | Delisi | 3.05 | 19 | P | Pg | 22 08 55.1 | -0.9 |
| DDFL | Dedoflistskaro | 3.31 | 38 | P | Pg | 22 09 02.3 | +1.3 |
| DUS | Dusheti | 3.38 | 16 | P | Pg | 22 09 04.6 | +2.2 |
| ONI | Oni | 3.74 | 0 | P | Pg | 22 09 07.6 | -1.6 |

*CSEM **09** 22:08:17.2, 34.°82N×23.°84E, h31km, ML1.9/1*
**ATH 09 22:08:17.2, 34.°82N×23.°84E, h31km±1km, ML1.9/1, Error ellipse: s-maj=7.2km s-min=1.8km az=223.0, Crete**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GVD | Gavdhos | 0.20 | 85 | P | Pb | 22 08 23.7 | +0.1 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| GVD | | | | S | Sn | 22 08 28.3 | -0.3 |
| GVD | | | | AML | AML | 22 08 35.1 | |
| | comp=N,606µm,0.3s | | | | | | |
| GVD | | | | AML | AML | 22 08 36.2 | |
| | comp=E,486µm,0.2s | | | | | | |
| GVD | Gavdhos | 0.20 | 85 | P | Pb | 22 08 23.6 | 0.0 |
| GVD | | | | S | Sn | 22 08 28.5 | -0.1 |
| GVD | | | | AML | AML | 22 08 28.7 | |
| | comp=E,479µm,0.3s | | | | | | |
| GVD | | | | AML | AML | 22 08 34.9 | |
| | comp=N,606µm,0.3s | | | | | | |
| GVD | Gavdhos | 0.20 | 85 | P | Pb | 22 08 23.6 | 0.0 |
| GVD | | | | S | Sn | 22 08 28.5 | -0.1 |
| IMMV | Iera Moni Meta | 0.65 | 10 | P | Pn | 22 08 30.3 | -0.1 |
| IMMV | | | | S | Sn | 22 08 41.8 | +2.3 |
| IMMV | | | | AML | AML | 22 08 44.6 | |
| | comp=E,240µm,0.5s | | | | | | |
| IMMV | | | | AML | AML | 22 08 48.8 | |
| | comp=N,226µm,0.4s | | | | | | |
| IMMV | Iera Moni Meta | 0.65 | 10 | P | Pb | 22 08 30.2 | +0.1 |
| IMMV | Iera Moni Meta | 0.65 | 10 | P | Pb | 22 08 30.2 | +0.1 |
| VAM | Vamos | 0.65 | 27 | P | Pn | 22 08 30.5 | +0.1 |
| VAM | Vamos | 0.65 | 27 | P | Pn | 22 08 30.7 | +0.3 |
| VAM | Vamos | 0.65 | 27 | P | Pn | 22 08 30.7 | +0.3 |
| SIVA | Sivas | 0.82 | 76 | P | Pb | 22 08 33.7 | +0.7 |
| SIVA | | | | S | Sn | 22 08 46.3 | +2.5 |
| SIVA | | | | AML | AML | 22 08 54.8 | |
| | comp=E,358µm,0.5s | | | | | | |
| SIVA | | | | AML | AML | 22 08 56.6 | |
| | comp=N,305µm,0.7s | | | | | | |
| SIVA | Sivas | 0.82 | 76 | P | Pb | 22 08 33.4 | +0.3 |
| SIVA | Sivas | 0.82 | 76 | P | Pb | 22 08 33.3 | +0.3 |
| IDI | Anoyia | 0.98 | 61 | P | Pb | 22 08 36.1 | +0.4 |
| IDI | Anoyia | 0.98 | 61 | P | Pb | 22 08 36.1 | +0.4 |
| IDI | Anoyia | 0.98 | 61 | P | Pb | 22 08 36.1 | +0.4 |
| ANKY | Antikythira Is | 1.13 | 337 | P | Pb | 22 08 38.9 | +0.7 |
| ANKY | Antikythira Is | 1.13 | 337 | P | Pb | 22 08 38.9 | +0.7 |

**JMA 09 22:15:33.0±0.1, 35.79N×140.89E, h13km±1km, M1.3, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CHOJ | Chosi | 0.09 | 196 | P | Pg | 22 15 35.9 | 0.0 |
| CHOJ | | | | S | Sg | 22 15 38.2 | +0.3 |
| JYT | Yasato | 0.71 | 308 | P | Pg | 22 15 46.8 | -0.1 |

*NIED **09** 22:15:00, 35.10N×142.40E, h5km, Mw4.4 Best double couple: $M_0$5.06000×10^15 NP1:$\phi_s$358.00000°, δ22.00000°, λ-76.00000°. NP2:$\phi_s$163.00000°, δ68.00000°, λ-96.00000°.*
*IDC **09** 22:15:48.8±0.6, 35.09N×142.42E, h0km, mb4.2/23, mb1 4.4/28, mb1mx4.2/45, mbtmp4.2/28, ML3.9/3, MS3.5/11, Ms1 3.5/11, ms1mx3.3/43, Error ellipse: s-maj=15.0km s-min=14.2km az=92.0*
*ISCJB **09** 22:15:50.5±1.0, 35.14N±0.03×142.29E±0.02, h15km±6km, mb4.6/127, MS3.9/15, Error ellipse: s-maj=4.3km s-min=3.3km az=5.8*
*JMA **09** 22:15:50.8±0.3, 35.12N×142.39E, h69km, M3.8*
*BJI **09** 22:15:52.6, 35.12N×142.31E, h35km, mb4.5/48, mB5.1/37, Ms4.6/22, Ms7 4.2/23*
*MOS **09** 22:15:52.8±1.1, 35.06N×142.25E, h36km, mb4.8/56, Error ellipse: s-maj=8.3km s-min=5.4km az=122.9*
*NEIC **09** 22:15:54.8±0.2, 35.12N×142.29E, h35km, mb4.8/74, Error ellipse: s-maj=4.5km s-min=3.3km az=150.0*
*NEIC Felt at Yokohama.*

**ISC 09 22:15:53.4±0.9, 35.16N±0.04×142.38E±0.05, h26km±5km, n274, σ1.33/293, mb4.7/127, MS3.9/15, 10C-5D, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BSO1 | Boso 1 | 1.26 | 247 | P | Pn | 22 16 12.5 | -2.3 |
| CHOJ | Chosi | 1.36 | 294 | P | Pn | 22 16 14.7 | -1.9 |
| CHOJ | | | | eS | Sn | 22 16 31.5 | -2.3 |
| JHO | Hitachi | 2.07 | 315 | P | Pn | 22 16 23.7 | -2.7 |
| JHO | | | | eS | Sn | 22 16 48.1 | -3.2 |
| JAG | Ashikaga | 2.69 | 299 | P | Pn | 22 16 33.2 | -1.8 |
| JAG | | | | eS | Sn | 22 17 05.5 | -1.3 |
| JOD2 | Odawara 2 | 2.70 | 273 | P | Pn | 22 16 33.0 | -2.1 |
| JOD2 | | | | eS | Sn | 22 17 03.1 | -3.8 |
| JFT | Otama | 2.88 | 326 | P | Pn | 22 16 36.0 | -1.6 |
| JFT | | | | S | Sn | 22 17 08.7 | -2.6 |
| JHJ2 | Mitsune | 2.95 | 227 | ePn | Pn | 22 16 37.3 | -1.1 |
| JRY | Ryogami san | 2.96 | 288 | P | Pn | 22 16 37.4 | -1.3 |
| JYN | Shimob | 3.15 | 277 | P | Pn | 22 16 39.6 | -1.8 |
| JYN | | | | eS | Sn | 22 17 15.6 | -2.7 |
| JNS | Sasagawa | 3.63 | 318 | P | Pn | 22 16 47.0 | -0.8 |
| JNS | | | | S | Sn | 22 17 28.4 | -1.4 |
| MJAR | Matsushiro Arr | 3.66 | 293 | Pn | Pn | 22 16 47.8 | -0.5 |
| | 6.2nm,0.3s,baz=105,slow=11,SNR=51 | | | | | | |
| MJAR | | | | LR | LR | 22 18 32.8 | |
| | comp=Z,676nm,19.6s,baz=120,slow=44 | | | | | | |
| MAJO | Matsushiro | 3.66 | 293 | eP | Pn | 22 16 47.6 | -0.7 |
| MAJO | Matsushiro | 3.66 | 293 | ePn | Pn | 22 16 47.6 | -0.7 |
| MAT | Matsushiro | 3.66 | 293 | P | Pn | 22 16 47.6 | -0.7 |
| MAT | | | | S | Sn | 22 17 31.8 | +1.1 |
| MAT | Matsushiro | 3.66 | 293 | P | Pn | 22 16 48.0 | -0.3 |
| JMK | Ichinoseki | 3.90 | 347 | P | Pn | 22 16 49.6 | -2.0 |
| JMK | | | | eS | Sn | 22 17 33.9 | -2.6 |
| JYK | Kaneyama | 4.09 | 337 | P | Pn | 22 16 52.8 | -1.4 |
| JYK | | | | eS | Sn | 22 17 40.4 | -0.8 |
| INU | Inuyama | 4.39 | 274 | ePn | Pn | 22 16 58.2 | -0.2 |
| ERM | Erimo | 6.88 | 5 | eP | Pn | 22 17 29.8 | -2.7 |
| ERM | Erimo | 6.88 | 5 | ePn | Pn | 22 17 29.8 | -2.7 |
| ASAJ | Asahikawa | 8.95 | 1 | Pn | Pn | 22 17 58.3 | -2.6 |
| | 4.2nm,0.3s,baz=218,slow=11,SNR=17 | | | | | | |
| ASAJ | | | | Sn | Sn | 22 19 35.3 | -5.5 |
| | 1.4nm,0.3s,baz=286,slow=31,SNR=3.3 | | | | | | |
| JNU | Nakatsue | 9.75 | 261 | Pn | Pn | 22 18 11.1 | -0.8 |
| | 0.4nm,0.3s,baz=55,slow=11,SNR=3.9 | | | | | | |
| JNU | Nakatsue | 9.75 | 261 | ePn | Pn | 22 18 11.3 | -0.6 |
| VLA | Vladivostok | 11.38 | 317 | eP | Pn | 22 18 35.6 | +1.5 |
| MSHR | Mys Shultsa | 11.46 | 314 | eP | Pn | 22 18 36.5 | +1.2 |
| YSS | Yuzh-Sakhalins | 11.79 | 1 | eP | Pn | 22 18 37.1 | -2.7 |
| YSS | | | | e | | 22 20 45.6 | |
| YSS | | | | pmax | pmax | | |
| | comp=Z,30nm,0.9s | | | | | | |
| YSS | Yuzh-Sakhalins | 11.79 | 1 | ePn | Pn | 22 18 37.3 | -2.4 |
| KSRS | Korea Array | 11.89 | 285 | Pn | Pn | 22 18 41.8 | +0.6 |
| | baz=99,slow=13,SNR=4.1 | | | | | | |
| KSRS | | | | LR | LR | 22 23 19.6 | |
| | comp=Z,273nm,20.4s,baz=102,slow=38 | | | | | | |
| KS01 | Wonju Array Si | 11.91 | 285 | ePn | Pn | 22 18 42.2 | +0.6 |
| KSAR | Wonju Array Be | 11.92 | 285 | P | Pn | 22 18 41.8 | +0.2 |
| KSAR | Wonju Array Be | 11.92 | 285 | Pn | Pn | 22 18 41.8 | +0.2 |
| USRK | Ussuriysk Ar. | 12.06 | 322 | Pn | Pn | 22 18 43.2 | -0.3 |
| | comp=Z,0.2nm,0.3s,baz=131,slow=12,SNR=6.2 | | | | | | |
| USRK | | | | LR | LR | 22 23 42.5 | |
| | comp=Z,164nm,19.1s,baz=138,slow=39 | | | | | | |
| TJN | Taejon | 12.26 | 280 | eP | Pn | 22 18 44.4 | -1.9 |
| INCN | Inchon | 12.91 | 285 | ePn | Pn | 22 18 55.2 | 0.0 |
| MDJ | Mudanjiang | 13.61 | 318 | ePn | Pn | 22 19 05.5 | +0.9 |
| HABR | Khabarovsk | 14.37 | 340 | eP | Pn | 22 19 14.0 | -1.0 |
| HABR | | | | eS | Sn | 22 21 54.0 | +0.5 |
| HABR | | | | pmax | pmax | | |
| | comp=N,18nm,1.4s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=Z,40nm,1.4s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=E,13nm,1.3s | | | | | | |
| HABR | | | | MLR | MLR | | |
| | comp=Z,292nm,16.0s | | | | | | |
| KLR | Kul'dur | 16.09 | 334 | Pn | Pn | 22 19 38.1 | +0.4 |
| | comp=Z,0.0nm,0.3s,baz=141,slow=4.0,SNR=4.3 | | | | | | |
| KLR | | | | LR | LR | 22 26 11.0 | |
| | comp=Z,13nm,18.5s,baz=148,slow=38 | | | | | | |
| SARN | Sarigan | 18.63 | 170 | eP | P | 22 20 07.4 | -1.7 |
| ANA2 | Anatahan | 18.97 | 170 | eP | P | 22 20 12.2 | -0.7 |
| NJ2 | Nanjing | 19.83 | 268 | eP | P | 22 20 22.7 | +0.6 |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.5s | | | | | | |
| YOJ | Yonaguni jima | 19.87 | 243 | eP | P | 22 20 21.7 | -0.9 |
| YOJ | | | | pmax | pmax | | |
| | comp=Z,1µm,2.0s | | | | | | |
| YOJ | Yonaguni jima | 19.87 | 243 | eP | P | 22 20 21.7 | -0.9 |
| | comp=Z,1µm,2.0s | | | | | | |
| PETK | Petropavlovsk- | 20.97 | 26 | LR | LR | 22 30 37.6 | |
| | comp=Z,53nm,19.1s,baz=196,slow=42 | | | | | | |
| PETK | Petropavlovsk- | 20.97 | 26 | eP | P | 22 20 35.2 | +0.9 |
| PETK | Petropavlovsk- | 20.97 | 26 | eP | P | 22 20 35.2 | +0.9 |
| BJT | Baijiatuau | 21.30 | 291 | eP | P | 22 20 38.4 | +0.4 |
| BJT | | | | pmax | pmax | | |
| | comp=Z,26nm,1.5s | | | | | | |
| BJT | Baijiatuau | 21.30 | 291 | eP | P | 22 20 38.4 | +0.4 |
| | comp=Z,26nm,1.5s | | | | | | |
| HIA | Hailar | 21.80 | 317 | eP | P | 22 20 44.5 | +1.2 |
| HIA | | | | pmax | pmax | | |
| | comp=Z,14nm,0.9s | | | | | | |
| HIA | Hailar | 21.80 | 317 | eP | P | 22 20 44.5 | +1.2 |
| | comp=Z,14nm,0.9s | | | | | | |
| TWG | Pinlang | 22.27 | 242 | eP | P | 22 20 48.5 | -0.1 |
| | comp=Z,406nm,1.6s | | | | | | |
| WHN | Wuhan | 23.96 | 267 | ⇓P | P | 22 21 03.0 | -2.6 |
| HHC | Hu-ho-hao-te | 24.86 | 292 | eP | P | 22 21 14.3 | +0.4 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,12nm,0.5s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,150nm,4.7s | | | | | | |
| MA2 | Magadan | 25.04 | 10 | P | P | 22 21 15.6 | +0.4 |
| | comp=Z,16nm,0.7s,baz=191,slow=9.7,SNR=10 | | | | | | |
| MA2 | | | | LR | LR | 22 32 01.7 | |
| | comp=Z,56nm,18.2s,baz=217,slow=39 | | | | | | |
| BTO | Baotou | 26.02 | 292 | eP | P | 22 21 23.6 | -0.8 |
| XAN | Xi'an | 27.50 | 277 | P | P | 22 21 36.5 | -1.2 |
| XAN | | | | sP | sP | 22 21 48.4 | -0.1 |
| XAN | | | | pmax | pmax | | |
| | comp=Z,19nm,1.1s | | | | | | |
| XAN | | | | pmax | pmax | | |
| | comp=Z,280nm,8.1s | | | | | | |
| ENH | Enshi | 28.02 | 269 | eP | P | 22 21 40.7 | -1.7 |
| | comp=Z,15nm,0.7s | | | | | | |
| YAK | Yakutsk | 28.07 | 347 | eP | P | 22 21 43.5 | +1.1 |
| YAK | | | | pmax | pmax | | |
| | comp=Z,25nm,1.2s | | | | | | |
| YAK | Yakutsk | 28.07 | 347 | eP | P | 22 21 43.5 | +1.1 |
| | comp=Z,25nm,1.2s | | | | | | |
| SEY | Seymchan | 28.49 | 10 | P | P | 22 21 45.8 | -0.4 |
| | comp=Z,3.3nm,0.8s,baz=207,slow=9.3,SNR=3.4 | | | | | | |
| SEY | Seymchan | 28.49 | 10 | eP | P | 22 21 46.7 | +0.5 |
| ULN | Ulaanbaatar | 29.08 | 307 | eP | P | 22 21 52.7 | +0.9 |
| ULN | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.2s | | | | | | |
| ULN | Ulaanbaatar | 29.08 | 307 | eP | P | 22 21 52.3 | +0.5 |
| | comp=Z,11nm,1.2s | | | | | | |
| SONA1 | Songino Array | 29.50 | 307 | eP | P | 22 21 56.5 | +1.0 |
| SONM | Songino Array | 29.50 | 307 | P | P | 22 21 56.5 | +1.0 |
| | comp=Z,3.0nm,0.9s,baz=106,slow=7.6,SNR=17 | | | | | | |
| SONM | | | | LR | LR | 22 32 59.2 | |
| | comp=Z,77nm,18.3s,baz=116,slow=35 | | | | | | |
| SONM | Songino Array | 29.50 | 307 | P | P | 22 21 56.5 | +1.0 |
| SONM | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.0s | | | | | | |
| SONM | | | | MLR | MLR | | |
| | comp=Z,77nm,18.3s | | | | | | |
| BOD | Bodaibo | 29.54 | 329 | eP | P | 22 21 58.6 | +3.1 |
| BOD | | | | pmax | pmax | | |
| | comp=Z,22nm,1.6s | | | | | | |
| LZH | Lanzhou | 31.20 | 283 | eP | P | 22 22 10.8 | +0.1 |
| LZH | | | | pP | sP | 22 22 20.9 | -0.6 |
| LZH | | | | sP | pP | 22 22 25.8 | +7.4 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,21nm,1.0s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,95nm,4.9s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,290nm,14.7s | | | | | | |
| ZAK | Zakamensk | 32.06 | 310 | eP | P | 22 22 31.1 | +13 |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.3s | | | | | | |
| TLY | Talaya | 32.16 | 313 | eP | P | 22 22 18.1 | -0.7 |
| TLY | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.9s | | | | | | |
| TLY | Talaya | 32.16 | 313 | eP | P | 22 22 18.1 | -0.7 |
| | comp=Z,7.5nm,0.9s | | | | | | |
| CD2 | Chengdu | 32.52 | 274 | eP | P | 22 22 22.2 | 0.0 |
| CD2 | | | | sP | sP | 22 22 33.3 | +0.3 |
| CD2 | | | | S | S | 22 27 32.6 | -3.3 |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,20nm,1.0s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,670nm,10.4s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,450nm,14.2s | | | | | | |
| GTA | Gaotai | 33.90 | 290 | P | P | 22 22 34.8 | +0.5 |
| GTA | | | | pP | pP | 22 22 43.1 | +1.2 |
| GTA | | | | sP | sP | 22 22 46.7 | +1.6 |
| GTA | | | | S | S | 22 27 56.8 | -0.6 |
| GTA | | | | sS | sS | 22 28 13.0 | +3.0 |
| GTA | | | | SS | SnSn | 22 30 05.1 | +1.2 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.9s | | | | | | |
| GTA | | | | pmax | pmax | | |
| | comp=Z,73nm,4.8s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,140nm,12.4s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,160nm,14.7s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,150nm,15.7s | | | | | | |
| KMI | Kunming | 35.51 | 265 | P | P | 22 22 51.4 | +3.0 |
| KMI | | | | sP | sP | 22 22 59.6 | +0.3 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.6s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,340nm,7.4s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,270nm,12.8s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,240nm,10.8s | | | | | | |
| TIXI | Tiksi | 37.24 | 353 | eP | P | 22 23 01.3 | -1.1 |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.9s | | | | | | |
| AKUT | Akutan | 40.42 | 46 | eP | P | 22 23 29.6 | +0.4 |
| | comp=Z,479nm,1.7s | | | | | | |
| PHRA | Phrae | 40.78 | 257 | P | P | 22 23 32.3 | -0.3 |
| | comp=Z,14nm,2.8s,comp=Z,54µm | | | | | | |
| CHAI | Chaiyaphum | 40.84 | 252 | P | P | 22 23 32.7 | -0.4 |
| | comp=Z,5.8nm,1.0s | | | | | | |
| UTTA | Uttaradit | 40.93 | 256 | P | P | 22 23 33.7 | -0.1 |
| | comp=Z,3.3nm,0.8s | | | | | | |
| PBKT | Sadao Pong | 41.25 | 254 | P | P | 22 23 36.4 | -0.1 |
| | comp=Z,27nm,0.8s,comp=Z,2µm | | | | | | |
| CHTO | Chiang Mai | 41.64 | 259 | P | P | 22 23 40.4 | +0.7 |
| | comp=Z,87nm,1.1s | | | | | | |
| CHTO | Chiang Mai | 41.64 | 259 | eP | P | 22 23 39.0 | -0.7 |
| CHTO | | | | pmax | pmax | | |
| | comp=Z,28nm,1.9s | | | | | | |
| CHTO | Chiang Mai | 41.64 | 259 | eP | P | 22 23 39.0 | -0.7 |
| | comp=Z,28nm,1.9s | | | | | | |
| SUKH | Sukhothai | 41.80 | 256 | P | P | 22 23 41.4 | +0.4 |
| | comp=Z,2.7nm,0.8s | | | | | | |
| CMAR | Chiang Mai Arr | 41.83 | 258 | P | P | 22 23 40.6 | -0.6 |
| | comp=Z,2.0nm,0.7s,baz=47,slow=7.2,SNR=16 | | | | | | |
| CM01 | Chiang Mai Arr | 41.84 | 258 | eP | P | 22 23 40.2 | -1.1 |
| FALS | False Pass | 41.86 | 45 | eP | P | 22 23 41.8 | +0.8 |
| | comp=Z,304nm,0.8s | | | | | | |
| DGZ | Jazzator, Alta | 42.14 | 308 | i P | P | 22 23 44.2 | +0.6 |
| DGZ | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.9s | | | | | | |
| WMQ | Urumqi | 42.41 | 299 | P | P | 22 23 47.5 | +1.7 |
| WMQ | | | | pP | sP | 22 23 58.6 | +1.9 |
| WMQ | | | | sP | pP | 22 24 00.6 | +7.0 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,28nm,1.1s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,360nm,4.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,410nm,19.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,360nm,14.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,380nm,15.9s | | | | | | |
| LSA | Lhasa | 43.20 | 278 | eP | P | 22 23 54.4 | +1.6 |
| LSA | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.9s | | | | | | |
| LSA | Lhasa | 43.20 | 278 | eP | P | 22 23 54.4 | +1.6 |
| | comp=Z,3.4nm,0.9s | | | | | | |
| SDPT | Sand Point | 43.58 | 44 | eP | P | 22 23 56.4 | +1.5 |
| | comp=Z,275nm,1.8s | | | | | | |
| ZAA0 | Zalesovo Array | 43.77 | 314 | eP | P | 22 23 56.9 | +0.4 |
| | comp=Z,5.7nm,1.0s | | | | | | |
| ZALV | Zalesovo Beam | 43.77 | 314 | P | P | 22 23 55.9 | -0.7 |
| | comp=Z,1.2nm,0.7s,baz=77,slow=6.2,SNR=6.7 | | | | | | |
| ZALV | | | | PcP | PcP | 22 25 43.1 | +0.3 |
| | comp=Z,1.5nm,0.7s,baz=67,slow=3.7,SNR=3.5 | | | | | | |
| NVS | Novosibirsk | 44.71 | 315 | eP | P | 22 24 12.5 | +8.5 |
| NVS | | | | pmax | pmax | | |
| | comp=E,6.0nm,1.2s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.2s | | | | | | |
| KSM | Kuching | 44.87 | 229 | eP | P | 22 24 05.5 | -0.2 |
| | comp=Z,12nm,1.1s | | | | | | |
| MK01 | Makanchi Array | 45.79 | 304 | eP | P | 22 24 12.3 | -0.5 |
| MK31 | Makanchi Array | 45.80 | 304 | eP | P | 22 24 13.5 | +0.6 |
| MK31 | Makanchi Array | 45.80 | 304 | eP | P | 22 24 13.4 | +0.6 |
| MKAR | Makanchi Array | 45.80 | 304 | P | P | 22 24 12.7 | -0.1 |
| | comp=Z,2.3nm,0.8s,baz=89,slow=7.8,SNR=14 | | | | | | |
| MKAR | | | | LR | LR | 22 45 02.3 | |
| | comp=Z,61nm,18.6s,baz=16,slow=38 | | | | | | |
| MKAR | Makanchi Array | 45.80 | 304 | i P | P | 22 24 12.6 | -0.2 |
| MKAR | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.8s | | | | | | |
| MAKZ | Makanchi | 46.01 | 304 | eP | P | 22 24 14.8 | +0.3 |
| MAKZ | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.0s | | | | | | |
| MAKZ | Makanchi | 46.01 | 304 | eP | P | 22 24 14.8 | +0.3 |
| | comp=Z,6.0nm,1.0s | | | | | | |
| SVW2 | Sparrevohn | 46.55 | 36 | eP | P | 22 24 19.3 | +0.7 |
| | comp=Z,21nm,1.3s | | | | | | |
| TAPN | Taplejung | 46.89 | 276 | eP | P | 22 24 23.7 | +1.7 |
| | comp=Z,14nm,0.9s | | | | | | |
| ODAN | Odare | 47.35 | 276 | eP | P | 22 24 25.7 | +0.2 |
| KURK | Kurchatov | 47.72 | 310 | eP | P | 22 24 26.8 | -1.0 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,14nm,0.8s | | | | | | |
| KURK | Kurchatov | 47.72 | 310 | eP | P | 22 24 26.8 | -1.0 |
| | comp=Z,14nm,0.8s | | | | | | |
| KURBB | Kurchatov Arra | 47.78 | 309 | P | P | 22 24 27.9 | -0.4 |
| | comp=Z,7.8nm,0.8s,baz=86,slow=8.1,SNR=21 | | | | | | |
| SOEI | Soe | 47.84 | 204 | eP | P | 22 24 29.0 | -0.2 |
| | comp=Z,21nm,1.1s | | | | | | |
| RAMN | Ramite | 47.95 | 276 | eP | P | 22 24 30.7 | +0.5 |
| | comp=Z,43nm,1.0s | | | | | | |
| JIRN | Jiri | 48.00 | 277 | eP | P | 22 24 31.8 | +1.1 |
| | comp=Z,348nm,1.1s | | | | | | |
| GUN | Gumba | 48.15 | 278 | eP | P | 22 24 33.0 | +1.1 |
| | comp=Z,47nm,1.1s | | | | | | |
| SPU | Mount Spurr | 48.27 | 36 | eP | P | 22 24 33.0 | +1.1 |
| PPLA | Purkeypile | 48.27 | 34 | eP | P | 22 24 33.6 | +1.6 |
| | comp=Z,66nm,1.9s | | | | | | |
| HOM | Homer | 48.45 | 38 | eP | P | 22 24 34.1 | +0.8 |
| | comp=Z,302nm,1.0s | | | | | | |
| KULM | Kulim | 48.59 | 242 | eP | P | 22 24 34.5 | -0.4 |
| | comp=Z,28nm,1.4s | | | | | | |
| CNPM | China Poot | 48.66 | 38 | eP | P | 22 24 35.4 | +0.5 |
| | comp=Z,92nm,1.5s | | | | | | |
| PKI | Pulchoki | 48.67 | 278 | eP | P | 22 24 36.4 | +0.5 |
| | comp=Z,19nm,1.0s | | | | | | |
| PKIN | Phulchoki | 48.68 | 278 | eP | P | 22 24 36.3 | +0.5 |
| | comp=Z,7.2nm,0.7s | | | | | | |
| KKN | Kakani | 48.69 | 278 | eP | P | 22 24 36.9 | +1.1 |
| | comp=Z,14nm,0.8s | | | | | | |
| MYKOM | Kota Tinggi | 48.82 | 236 | eP | P | 22 24 36.0 | -0.6 |
| | comp=Z,35nm,1.3s | | | | | | |
| BRLK | Bradley Lake | 48.84 | 38 | eP | P | 22 24 36.5 | +0.2 |
| | comp=Z,58nm,1.4s | | | | | | |
| COEN | Coen | 48.85 | 179 | eP | P | 22 24 36.7 | 0.0 |
| | comp=Z,7.7nm,0.9s | | | | | | |
| BPAW | Bear Paw Mtn. | 48.88 | 32 | eP | P | 22 24 37.1 | +0.6 |
| | comp=Z,17nm,1.4s | | | | | | |
| IPM | Ipoh | 48.88 | 241 | eP | P | 22 24 36.2 | -1.0 |
| | comp=Z,25nm,1.4s | | | | | | |
| KTH | Kantishna Hill | 48.88 | 33 | eP | P | 22 24 37.5 | +0.8 |
| | comp=Z,16nm,1.4s | | | | | | |
| SUA | Susitna One | 48.90 | 36 | eP | P | 22 24 37.5 | +0.6 |
| | comp=Z,46nm,1.8s | | | | | | |
| MTN | Manton Dam | 48.91 | 195 | eP | P | 22 24 37.2 | 0.0 |
| | comp=Z,18nm,1.4s | | | | | | |
| MLY | Manley | 49.04 | 31 | eP | P | 22 24 38.7 | +0.9 |
| | comp=Z,15nm,1.8s | | | | | | |
| GKN | Gorkha | 49.12 | 279 | eP | P | 22 24 40.1 | +1.0 |
| TRF | Thorofare Moun | 49.16 | 33 | eP | P | 22 24 40.6 | +1.7 |
| | comp=Z,24nm,1.8s | | | | | | |
| RC01 | Rabbit Creek A | 49.39 | 36 | eP | P | 22 24 40.7 | +0.2 |
| | comp=Z,31nm,1.7s | | | | | | |
| COLD | Coldfoot | 49.42 | 28 | eP | P | 22 24 42.3 | +1.6 |
| | comp=Z,8.2nm,1.4s | | | | | | |
| SEW | Seward | 49.55 | 38 | eP | P | 22 24 42.9 | +1.2 |
| | comp=Z,78nm,1.7s | | | | | | |
| PMR | Palmer | 49.67 | 36 | eP | P | 22 24 43.7 | +1.1 |
| PMR | | | | pmax | pmax | | |
| | comp=Z,21nm,1.5s | | | | | | |
| PMR | Palmer | 49.67 | 36 | eP | P | 22 24 43.7 | +1.1 |
| | comp=Z,20nm,1.5s | | | | | | |
| DANN | Dangsing | 49.70 | 279 | eP | P | 22 24 44.8 | +1.2 |
| MCK | McKinley | 49.77 | 33 | eP | P | 22 24 44.3 | +0.9 |
| MCK | | | | pmax | pmax | | |
| | comp=Z,38nm,1.9s | | | | | | |
| MCK | McKinley | 49.77 | 33 | eP | P | 22 24 44.2 | +0.9 |
| | comp=Z,38nm,1.9s | | | | | | |
| RND | Reindeer | 49.80 | 33 | eP | P | 22 24 43.3 | -0.4 |
| RND | | | | pmax | pmax | | |
| | comp=Z,21nm,1.6s | | | | | | |
| RND | Reindeer | 49.80 | 33 | eP | P | 22 24 43.3 | -0.4 |
| | comp=Z,21nm,1.6s | | | | | | |
| SML | Sawmill | 50.05 | 35 | eP | P | 22 24 46.3 | +0.7 |
| SML | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.9s | | | | | | |
| SML | Sawmill | 50.05 | 35 | eP | P | 22 24 46.2 | +0.7 |
| | comp=Z,10.0nm,0.9s | | | | | | |
| MDM | Murphy Dome | 50.10 | 31 | eP | P | 22 24 47.1 | +1.2 |
| | comp=Z,8.6nm,1.0s | | | | | | |
| COLA | College | 50.26 | 31 | eP | P | 22 24 49.0 | +2.0 |
| COLA | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.2s | | | | | | |
| COLA | College | 50.26 | 31 | eP | P | 22 24 49.0 | +2.0 |
| | comp=Z,9.3nm,1.2s | | | | | | |
| CCB | Clear Creek Bu | 50.27 | 32 | eP | P | 22 24 47.8 | +0.6 |
| | comp=Z,17nm,2.0s | | | | | | |
| PYUN | Piuthan | 50.42 | 279 | eP | P | 22 24 49.7 | +0.7 |
| | comp=Z,28nm,0.9s | | | | | | |
| DHY | Denali Highway | 50.47 | 34 | eP | P | 22 24 50.1 | +1.2 |
| | comp=Z,21nm,1.7s | | | | | | |
| IL1 | Eielson Array | 50.67 | 32 | eP | P | 22 24 49.7 | -0.4 |
| ILAR | Eielson Array | 50.67 | 32 | P | P | 22 24 49.7 | -0.4 |
| | comp=Z,2.1nm,0.8s,baz=268,slow=6.6,SNR=24 | | | | | | |
| ILB | Eielson Array | 50.67 | 32 | eP | P | 22 24 49.8 | -0.4 |
| KLU | Klutina | 51.22 | 36 | eP | P | 22 24 54.8 | +0.4 |
| | comp=Z,6.5nm,0.9s | | | | | | |
| DIV | Divide | 51.31 | 36 | eP | P | 22 24 56.4 | +1.2 |
| | comp=Z,14nm,1.0s | | | | | | |
| HARP | HAARP | 51.52 | 35 | eP | P | 22 24 58.1 | +1.5 |
| | comp=Z,71nm,1.9s | | | | | | |
| PSI | Prapat | 51.54 | 241 | eP | P | 22 24 56.8 | -0.7 |
| PSI | | | | pmax | pmax | | |
| | comp=Z,20nm,1.7s | | | | | | |
| PSI | Prapat | 51.54 | 241 | eP | P | 22 24 56.8 | -0.7 |
| | comp=Z,20nm,1.7s | | | | | | |
| KSH | Kashi | 51.91 | 296 | eP | P | 22 25 02.8 | +2.9 |
| KSH | | | | pP | sP | 22 25 12.6 | +1.6 |
| KSH | | | | PcP | PcP | 22 26 14.0 | +1.6 |
| KSH | | | | PP | PP | 22 27 02.5 | +4.7 |
| KSH | | | | S | S | 22 32 22.7 | +1.4 |
| KSH | | | | ScS | ScS | 22 34 46.5 | -2.0 |
| KSH | | | | SS | SS | 22 35 58.3 | +0.3 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.0s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,210nm,4.7s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,250nm,5.8s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,180nm,5.5s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,370nm,6.4s | | | | | | |
| FRU | Bishkek | 51.95 | 300 | eP | P | 22 25 11.0 | +11 |
| AAK | Ala-Archa | 52.09 | 300 | P | P | 22 25 01.4 | +0.2 |
| | comp=Z,1.7nm,0.8s,baz=69,slow=4.1,SNR=7.4 | | | | | | |
| AAK | Ala-Archa | 52.09 | 300 | eP | P | 22 25 01.5 | +0.2 |
| | comp=Z,6.0nm,1.3s | | | | | | |
| BVAR | Borovoye Array | 52.42 | 314 | P | P | 22 25 03.4 | -0.1 |
| | comp=Z,0.6nm,0.8s,baz=101,slow=4.6,SNR=2.8 | | | | | | |
| BVAR | | | | PcP | PcP | 22 26 14.2 | +0.2 |
| | comp=Z,2.4nm,0.8s,baz=70,slow=1.7,SNR=6.2 | | | | | | |
| BRVK | Borovoye | 52.48 | 314 | eP | P | 22 25 03.0 | -0.8 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.1s | | | | | | |
| BRVK | Borovoye | 52.48 | 314 | eP | P | 22 25 04.6 | +0.7 |
| | comp=Z,5.6nm,1.3s | | | | | | |
| MNAS | Manas | 53.54 | 300 | P | P | 22 25 13.4 | +1.4 |
| GSI | Gunungsitoli | 53.55 | 241 | eP | P | 22 25 12.2 | +0.1 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | comp=Z,33nm,1.1s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **53.57** | **297** | P | **P** | **22 25 13.4** | **+1.0** |
| **WRAB** | **Tennant Creek** | **55.31** | **189** | eP | **P** | **22 25 22.9** | **-1.9** |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.9s | | | | | | |
| **WRAB** | **Tennant Creek** | **55.31** | **189** | eP | **P** | **22 25 23.8** | **-1.1** |
| | comp=Z,12nm,0.6s | | | | | | |
| **WB2** | **Warramunga Arr** | **55.32** | **189** | eP | **P** | **22 25 24.1** | **-0.8** |
| | comp=Z,7.4nm,0.9s | | | | | | |
| **WRA** | **Warramunga Arr** | **55.33** | **189** | P | **P** | **22 25 23.5** | **-1.4** |
| | comp=Z,8.4nm,0.4s,baz=6.9,slow=7.5,SNR=26 | | | | | | |
| **INK** | **Inuvik** | **55.70** | **27** | P | **P** | **22 25 27.2** | **+0.1** |
| | comp=Z,1.4nm,0.9s,baz=288,slow=5.8,SNR=4.8 | | | | | | |
| **ARU** | **Arti** | **58.29** | **320** | LR | LR | 22 51 05.6 | |
| | comp=Z,42nm,20.2s,baz=28,slow=36 | | | | | | |
| **ARU** | **Arti** | **58.29** | **320**c | iP | **P** | **22 25 44.7** | **-0.9** |
| ARU | | | | | | 22 26 34.0 | |
| ARU | | | | | | 22 27 53.3 | |
| ARU | | | | S | **S** | **22 33 46.8** | **+0.8** |
| ARU | | | | SS | **SS** | **22 37 38.2** | **+0.7** |
| ARU | | | | pmax | pmax | | |
| | comp=Z,17nm,2.5s | | | | | | |
| **AS01** | **Alice Springs** | **59.04** | **189** | eP | **P** | **22 25 49.7** | **-1.5** |
| **ASAR** | **Alice Springs** | **59.05** | **189** | P | **P** | **22 25 50.3** | **-0.9** |
| | comp=Z,2.9nm,0.9s,baz=5.4,slow=5.3,SNR=24 | | | | | | |
| **AKTO** | **Aktyubinsk** | **60.52** | **313** | P | **P** | **22 26 01.3** | **+0.2** |
| | comp=Z,2.6nm,0.8s,baz=85,slow=13,SNR=8.3 | | | | | | |
| **YKA** | **Yellowknife Ar** | **65.04** | **30** | P | **P** | **22 26 28.5** | **-2.4** |
| | comp=Z,0.7nm,0.9s,baz=303,slow=6.6,SNR=4.7 | | | | | | |
| **YKA** | **Yellowknife Ar** | **65.04** | **30**c | eP | **P** | **22 26 30.8** | **-0.2** |
| YKA | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.9s | | | | | | |
| **GEYT** | **Alibeck** | **65.44** | **300** | P | **P** | **22 26 33.6** | **-0.5** |
| | comp=Z,2.0nm,0.4s,baz=61,slow=12,SNR=3.2 | | | | | | |
| **KLMR** | **Klimovskoe** | **65.76** | **328** | eP | **P** | **22 26 32.1** | **-3.6** |
| KLMR | | | | pmax | pmax | | |
| | comp=Z,12nm,1.4s | | | | | | |
| **STKA** | **Stephens Creek** | **66.68** | **181** | P | **P** | **22 26 40.5** | **-1.3** |
| | comp=Z,1.3nm,0.7s,baz=344,slow=3.8,SNR=3.4 | | | | | | |
| **VRH** | **Novokhopyorsk** | **69.50** | **319** | eP | **P** | **22 26 58.6** | **-0.8** |
| VRH | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.9s | | | | | | |
| **B08A** | **Colville Reser** | **69.61** | **45** | eP | **P** | **22 27 00.6** | **+0.3** |
| | comp=Z,5.5nm,1.0s | | | | | | |
| **MAK** | **Makhachkala** | **70.24** | **309** | eP | **P** | **22 27 02.1** | **-2.0** |
| MAK | | | | eS | **S** | **22 36 14.3** | **+0.1** |
| MAK | | | | eSS | **SS** | **22 40 48.4** | **+4.4** |
| MAK | | | | MLR | MLR | | |
| | comp=Z,159nm,15.0s | | | | | | |
| **LPSR** | **Galich'ya Gora** | **70.25** | **321** | eP | **P** | **22 27 03.0** | **-1.0** |
| LPSR | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.8s | | | | | | |
| **HAWA** | **Hanford** | **70.49** | **47** | eP | **P** | **22 27 06.3** | **+0.7** |
| | comp=Z,21nm,1.6s | | | | | | |
| HAWA | | | | eS | **S** | **22 36 16.2** | **-0.9** |
| **FINES** | **FINESS Array B** | **70.84** | **333** | P | **P** | **22 27 06.5** | **-1.0** |
| | comp=Z,7.0nm,0.9s,baz=90,slow=7.6,SNR=4.6 | | | | | | |
| **VSR** | **Storozhevoye** | **70.86** | **320** | eP | **P** | **22 27 05.8** | **-2.0** |
| VSR | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.0s | | | | | | |
| **J08A** | **Circle Bar Ran** | **72.71** | **49** | eP | **P** | **22 27 20.2** | **+1.0** |
| | comp=Z,6.6nm,1.2s | | | | | | |
| **KBZ** | **Khabaz** | **72.72** | **312** | P | **P** | **22 27 19.2** | **+0.1** |
| | comp=Z,4.6nm,0.9s,baz=8.1,slow=2.3,SNR=8.3 | | | | | | |
| **KIV** | **Kislovodsk** | **72.73** | **312**⇓ | eP | **P** | **22 27 21.7** | **+2.4** |
| KIV | | | | e*SP | **sP** | **22 27 31.5** | **+0.9** |
| KIV | | | | | | 22 27 36.0 | |
| KIV | | | | SS | SS | 22 41 20.0 | -2.3 |
| KIV | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.9s | | | | | | |
| KIV | | | | MLR | MLR | | |
| | comp=Z,77nm,17.0s | | | | | | |
| **JTMT** | **Jette** | **72.82** | **43** | eP | **P** | **22 27 20.7** | **+0.9** |
| | comp=Z,6.5nm,0.9s | | | | | | |
| **NEY** | **Neytrino** | **73.09** | **311** | eP | **P** | **22 27 21.8** | **+0.3** |
| NEY | | | | pmax | pmax | | |
| | comp=Z,1.0nm,1.0s | | | | | | |
| **GNI** | **Garni** | **73.46** | **308** | eP | **P** | **22 27 23.4** | **-0.4** |
| GNI | | | | pmax | pmax | | |
| | comp=Z,13nm,1.0s | | | | | | |
| **MFID** | **Camas Ranch** | **74.30** | **48** | eP | **P** | **22 27 29.6** | **+1.0** |
| | comp=Z,5.3nm,1.1s | | | | | | |
| **CMB** | **Columbia Colle** | **74.32** | **54** | eP | **P** | **22 27 29.8** | **+1.1** |
| CMB | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.1s | | | | | | |
| **CMB** | **Columbia Colle** | **74.32** | **54** | eP | **P** | **22 27 29.8** | **+1.1** |
| | comp=Z,6.5nm,1.1s | | | | | | |
| **YERR** | **Yerington** | **74.57** | **53** | eP | **P** | **22 27 30.7** | **+0.4** |
| | comp=Z,7.5nm,1.1s | | | | | | |
| **LRM** | **Limekiln Ridge** | **74.94** | **44** | eP | **P** | **22 27 33.3** | **+0.9** |
| **DLMT** | **Dillon** | **75.12** | **45** | eP | **P** | **22 27 33.1** | **-0.2** |
| | comp=Z,8.0nm,1.2s | | | | | | |
| **NV01** | **Mina Array Sit** | **75.48** | **53** | eP | **P** | **22 27 36.0** | **+0.3** |
| **BOZ** | **Bozeman (W)** | **75.54** | **44** | eP | **P** | **22 27 36.2** | **+0.4** |
| BOZ | | | | pmax | pmax | | |
| | comp=Z,16nm,1.9s | | | | | | |
| **BOZ** | **Bozeman (W)** | **75.54** | **44** | eP | **P** | **22 27 36.1** | **+0.4** |
| | comp=Z,16nm,1.9s | | | | | | |
| **NB2** | **NORSAR Subarra** | **76.22** | **338** | P | **P** | **22 27 38.8** | **-0.4** |
| | comp=Z,2.1nm,0.8s,baz=40,slow=5.9 | | | | | | |
| **NOA** | **NORSAR Array B** | **76.22** | **338** | P | **P** | **22 27 39.1** | **-0.1** |
| | comp=Z,3.6nm,0.8s,baz=40,slow=5.7,SNR=7.9 | | | | | | |
| **AKASG** | **Malin Array Be** | **76.26** | **323** | P | **P** | **22 27 38.6** | **-0.9** |
| | comp=Z,3.1nm,0.7s,baz=46,slow=5.8,SNR=19 | | | | | | |
| **AKASG** | **Malin Array Be** | **76.26** | **323**c | eP | **P** | **22 27 39.2** | **-0.3** |
| AKASG | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.7s | | | | | | |
| **AKBB** | **Malin Array Si** | **76.26** | **323** | eP | **P** | **22 27 39.4** | **-0.1** |
| AKBB | | | | pmax | pmax | | |
| | comp=Z,15nm,1.3s | | | | | | |
| **AKBB** | **Malin Array Si** | **76.26** | **323** | eP | **P** | **22 27 39.4** | **-0.1** |
| | comp=Z,15nm,1.3s | | | | | | |
| **KIEV** | **Kiev** | **76.27** | **323** | eP | **P** | **22 27 38.5** | **-1.1** |
| KIEV | | | | pmax | pmax | | |
| | comp=Z,15nm,1.3s | | | | | | |
| **KIEV** | **Kiev** | **76.27** | **323** | eP | **P** | **22 27 38.5** | **-1.1** |
| | comp=Z,15nm,1.3s | | | | | | |
| **AK11** | **Malin Array Si** | **76.30** | **323** | eP | **P** | **22 27 39.6** | **-0.1** |
| **IMW** | **Indian Meadow** | **76.94** | **45** | eP | **P** | **22 27 45.3** | **+1.4** |
| | comp=Z,5.5nm,1.0s | | | | | | |
| **HVU** | **Hansel Valley** | **77.09** | **48** | eP | **P** | **22 27 46.2** | **+1.6** |
| HVU | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.0s | | | | | | |
| **HVU** | **Hansel Valley** | **77.09** | **48** | eP | **P** | **22 27 46.2** | **+1.6** |
| | comp=Z,4.1nm,1.0s | | | | | | |
| **R11A** | **Troy Canyon, C** | **77.30** | **52** | eP | **P** | **22 27 46.2** | **+0.3** |
| | comp=Z,4.8nm,1.4s | | | | | | |
| **TPNV** | **Topopah Spring** | **77.66** | **54** | eP | **P** | **22 27 48.9** | **+1.0** |
| TPNV | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.1s | | | | | | |
| **TPNV** | **Topopah Spring** | **77.66** | **54** | eP | **P** | **22 27 48.9** | **+1.0** |
| | comp=Z,5.7nm,1.1s | | | | | | |
| **DUG** | **Dugway, Tooele** | **77.99** | **49** | eP | **P** | **22 27 51.0** | **+1.3** |
| DUG | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.0s | | | | | | |
| **DUG** | **Dugway, Tooele** | **77.99** | **49** | eP | **P** | **22 27 51.0** | **+1.3** |
| | comp=Z,6.1nm,1.0s | | | | | | |
| **BLKC** | **Black Mountain** | **78.07** | **56** | eP | **P** | **22 27 51.8** | **+1.7** |
| **SORM** | **Soroca** | **78.34** | **321**⇑ | iP | **P** | **22 27 51.0** | **-0.2** |
| **PD31** | **Pinedale Array** | **78.42** | **46** | eP | **P** | **22 27 52.5** | **+0.4** |
| **PDAR** | **Pinedale Array** | **78.42** | **46** | P | **P** | **22 27 52.3** | **+0.2** |
| | comp=Z,1.3nm,0.8s,baz=267,slow=3.0,SNR=11 | | | | | | |
| **PDAR** | **Pinedale Array** | **78.42** | **46** | eP | **P** | **22 27 51.9** | **-0.2** |
| **RAR** | **Rarotonga** | **78.42** | **126** | LR | LR | 22 57 59.8 | |
| | comp=Z,90nm,18.8s,baz=255,slow=32 | | | | | | |
| **SHPR** | **Sheep Range** | **78.63** | **53** | eP | **P** | **22 27 54.8** | **+1.5** |
| | comp=Z,2.4nm,0.9s | | | | | | |
| **CCUT** | **Cedar City** | **79.19** | **52** | eP | **P** | **22 27 58.4** | **+1.9** |
| | comp=Z,3.0nm,1.0s | | | | | | |
| **LVV** | **L'vov** | **79.36** | **325** | eP | P | 22 28 06.3 | +10 |
| **LCMT** | **Little Creek M** | **79.59** | **52** | eP | **P** | **22 28 00.0** | **+1.5** |
| | comp=Z,6.9nm,1.1s | | | | | | |
| **MTPU** | **Mount Pierson** | **79.66** | **51** | eP | **P** | **22 28 01.2** | **+2.1** |
| | comp=Z,6.8nm,1.4s | | | | | | |
| **URZ** | **Urewera** | **79.83** | **153** | LR | LR | 23 00 00.9 | |
| | comp=Z,46nm,18.7s,baz=18,slow=33 | | | | | | |
| **KNB** | **Kanab** | **79.86** | **52** | eP | **P** | **22 28 02.2** | **+2.2** |
| KNB | | | | pmax | pmax | | |
| | comp=Z,12nm,1.2s | | | | | | |
| **KNB** | **Kanab** | **79.86** | **52** | eP | **P** | **22 28 02.1** | **+2.2** |
| | comp=Z,12nm,1.2s | | | | | | |
| **BUR08** | **Bucovina Ar. S** | **80.26** | **322** | eP | **P** | **22 28 02.3** | **+0.4** |
| **BUR04** | **Bucovina Ar. S** | **80.27** | **322** | eP | **P** | **22 28 01.9** | **0.0** |
| **BURAR** | **Bucovina Array** | **80.27** | **322**⇑ | iP | **P** | **22 28 02.2** | **+0.3** |
| **TESR** | **Tescani** | **80.28** | **321**⇑ | iP | **P** | **22 28 02.3** | **+0.4** |
| **U15A** | **North Rim** | **80.55** | **52** | eP | **P** | **22 28 05.3** | **+1.4** |
| | comp=Z,19nm,1.9s | | | | | | |
| **VRI** | **Vrincioaia** | **80.67** | **320**⇓ | iP | **P** | **22 28 03.9** | **-0.1** |
| **BR131** | **Keskin Array S** | **80.69** | **312** | eP | **P** | **22 28 05.4** | **+1.0** |
| **BRTR** | **Keskin Array B** | **80.69** | **312** | P | **P** | **22 28 05.2** | **+0.9** |
| | comp=Z,2.3nm,0.8s,baz=87,slow=4.7,SNR=9.6 | | | | | | |
| **STHS** | **Stebnicka Huta** | **80.94** | **326** | eP | **P** | **22 28 07.2** | **+1.8** |
| STHS | | | | pmax | pmax | | |
| | comp=Z,19nm,2.5s | | | | | | |
| **STHS** | **Stebnicka Huta** | **80.94** | **326** | eP | **P** | **22 28 07.2** | **+1.8** |
| **BR231** | **Keskin MP Arra** | **81.13** | **313** | eP | **P** | **22 28 05.9** | **-0.8** |
| **ICOR** | **Ion Corvin** | **81.25** | **318**⇑ | iP | **P** | **22 28 08.1** | **+1.0** |
| **DOPR** | **Dopca** | **81.29** | **321**⇑ | iP | **P** | **22 28 08.5** | **+1.2** |
| **PV10** | **Paradox Valley** | **81.42** | **49** | eP | **P** | **22 28 09.9** | **+1.5** |
| **ARR** | **Arges** | **82.09** | **321**⇑ | iP | **P** | **22 28 12.5** | **+0.9** |
| **RAYN** | **Ar Rayn** | **82.10** | **293** | eP | **P** | **22 28 13.5** | **+1.5** |
| | comp=Z,15nm,1.4s | | | | | | |
| **DPC** | **Dobruska-Polom** | **82.46** | **329** | eP | **P** | **22 28 14.3** | **+0.9** |
| **DPC** | **Dobruska-Polom** | **82.46** | **329** | eP | **P** | **22 28 14.3** | **+0.9** |
| **PPT** | **Papeete** | **83.09** | **117** | LR | LR | 22 59 09.5 | |
| | comp=Z,45nm,20.7s,baz=189,slow=31 | | | | | | |
| **CLL** | **Collm** | **83.11** | **331** | eP | **P** | **22 28 17.0** | **+0.3** |
| **CLL** | **Collm** | **83.11** | **331** | eP | **P** | **22 28 17.0** | **+0.3** |
| **VRAC** | **Vranov** | **83.12** | **328**⇓ | iP | **P** | **22 28 18.0** | **+1.2** |
| **PRU** | **Pruhonice** | **83.49** | **329** | eP | **P** | **22 28 18.7** | **0.0** |
| **PRU** | **Pruhonice** | **83.49** | **329** | eP | **P** | **22 28 18.7** | **0.0** |
| **MDVR** | **Moldovita** | **83.98** | **322**⇑ | iP | **P** | **22 28 21.5** | **+0.1** |
| **KHC** | **Kasperske Hory** | **84.55** | **329** | eP | **P** | **22 28 24.0** | **-0.2** |
| **KHC** | **Kasperske Hory** | **84.55** | **329** | eP | **P** | **22 28 24.0** | **-0.2** |
| **GERES** | **GERESS Array B** | **84.72** | **329** | P | **P** | **22 28 24.4** | **-0.6** |
| | comp=Z,2.0nm,0.9s,baz=354,slow=8.7,SNR=5.5 | | | | | | |
| **GEA0** | **GERESS Array S** | **84.72** | **329** | eP | **P** | **22 28 24.3** | **-0.8** |
| **VTS** | **Vitosha** | **84.75** | **320**⇓ | iP | **P** | **22 28 25.5** | **+0.1** |
| **VTS** | **Vitosha** | **84.75** | **320** | eP | **P** | **22 28 25.2** | **-0.3** |
| VTS | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| **VTS** | **Vitosha** | **84.75** | **320** | eP | **P** | **22 28 25.1** | **-0.3** |
| | comp=Z,10nm,0.8s | | | | | | |
| **ANMO** | **Albuquerque** | **85.19** | **50** | eP | **P** | **22 28 29.2** | **+1.3** |
| ANMO | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.1s | | | | | | |
| **ANMO** | **Albuquerque** | **85.19** | **50** | eP | **P** | **22 28 29.2** | **+1.3** |
| | comp=Z,9.4nm,1.1s | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **90.63** | **53** | eP | **P** | **22 28 55.0** | **+1.0** |
| **TXAR** | **Lajitas Array** | **90.64** | **53** | P | **P** | **22 28 53.7** | **-0.3** |
| | comp=Z,1.5nm,0.9s,baz=302,slow=2.4,SNR=9.2 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **119.21** | **315** | PKP | **PKPdf** | **22 34 39.9** | **-0.8** |
| | comp=Z,0.4nm,0.8s,baz=18,slow=4.0,SNR=2.8 | | | | | | |
| **BOSA** | **Boshof** | **126.98** | **258** | PKP | **PKPdf** | **22 34 59.1** | **+3.8** |
| | comp=Z,10.0nm,1.1s,baz=56,slow=1.6,SNR=3.8 | | | | | | |
| **LPAZ** | **La Paz** | **146.90** | **63** | PKPbc | **PKPbc** | **22 35 34.7** | **0.0** |
| | comp=Z,3.2nm,0.9s,baz=296,slow=3.3,SNR=9.8 | | | | | | |

*DDA **09** 22:21:12.1, 35°.90N×28°.14E, h7km, Ml2.8*
*ATH **09** 22:21:14.7, 36°.01N×28°.23E, h45km±1km, ML2.3/5, Error ellipse: s-maj=2.1km s-min=1.1km az=359.0*
*ISK **09** 22:21:14.1, 35°.96N×28°.23E, h17km, MD2.7*
*CSEM **09** 22:21:15.7±0.3, 35°.98N×28°.22E, h34km±4km, ML2.3, Error ellipse: s-maj=5.8km s-min=3.4km az=154.0*
**ISC 09 22:21:11.4**±1.2**, 35°.93N**±0°.03×**28°.20E**±0°.02**, h3**km±10km**, n51, σ1s.50**/80**, Eastern Mediterranean Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ARG** | **Arkhangelos** | **0.29** | **349** | P | **Pn** | **22 21 23.3** | **+0.7** |
| ARG | | | | S | **Sb** | **22 21 28.8** | **+4.3** |
| ARG | | | | AML | AML | 22 21 29.1 | |
| | comp=N,360µm,0.3s | | | | | | |
| ARG | | | | AML | AML | 22 21 29.2 | |
| | comp=E,644µm,0.3s | | | | | | |
| **ARG** | **Arkhangelos** | **0.29** | **349** | P | **Pn** | **22 21 23.3** | **+0.7** |
| ARG | | | | S | **Sb** | **22 21 28.8** | **+4.3** |
| **MRSB** | **Marmaris-Mugla** | **0.78** | **0** | ePG | **Pn** | **22 21 29.6** | **+0.2** |
| MRSB | | | | eSG | **Sb** | **22 21 40.4** | **+1.7** |
| **MRSB** | **Marmaris-Mugla** | **0.78** | **0** | ePg | **Pn** | **22 21 29.6** | **+0.2** |
| MRSB | | | | eSg | **Sb** | **22 21 40.4** | **+1.7** |
| **KARP** | **Karpathos** | **0.93** | **246** | ePG | **Pn** | **22 21 33.6** | **+2.2** |
| KARP | | | | eSG | **Sn** | **22 21 46.9** | **+1.6** |
| **KARP** | **Karpathos** | **0.93** | **246** | P | **Pn** | **22 21 33.7** | **+2.3** |
| KARP | | | | S | **Sn** | **22 21 46.1** | **+1.0** |
| KARP | | | | AML | AML | 22 21 50.3 | |
| | comp=N,280µm,0.3s | | | | | | |
| KARP | | | | AML | AML | 22 21 50.7 | |
| | comp=E,275µm,0.4s | | | | | | |
| **KARP** | **Karpathos** | **0.93** | **246** | ePg | **Pn** | **22 21 33.6** | **+2.2** |
| KARP | | | | S | **Sn** | **22 21 46.2** | **+1.0** |
| **DALY** | **Dalyan (Mu˜la** | **0.96** | **23** | ePG | **Pn** | **22 21 32.2** | **+0.4** |
| DALY | | | | eSG | **Sn** | **22 21 45.7** | **-0.2** |
| **DALY** | **Dalyan (Mu˜la** | **0.96** | **23** | i P | **Pn** | **22 21 31.9** | **+0.2** |
| DALY | | | | i S | **Sb** | **22 21 45.1** | **+1.4** |
| **DALY** | **Dalyan (Mu˜la** | **0.96** | **23** | P | **Pn** | **22 21 31.9** | **+0.2** |
| **DALY** | **Dalyan (Mu˜la** | **0.96** | **23** | ePg | **Pn** | **22 21 32.2** | **+0.4** |
| DALY | | | | S | **Sb** | **22 21 45.1** | **+1.4** |
| **TURN** | **Turunc** | **0.99** | **19** | i P | **Pg** | **22 21 30.6** | **+0.2** |
| TURN | | | | i S | **Sg** | **22 21 41.5** | **-1.9** |
| **TURN** | **Turunc** | **0.99** | **19** | P | **Pg** | **22 21 30.6** | **+0.2** |
| TURN | | | | S | **Sg** | **22 21 41.5** | **-1.9** |
| **FETY** | **Fethiye** | **1.00** | **45** | ePG | **Pn** | **22 21 33.0** | **+0.6** |
| **FETY** | **Fethiye** | **1.00** | **45** | P | **Pg** | **22 21 32.4** | **+1.8** |
| **FETY** | **Fethiye** | **1.00** | **45** | ePg | **Pn** | **22 21 33.0** | **+0.6** |
| FETY | | | | S | **Sn** | **22 21 48.6** | **+1.5** |
| **NIS1** | **Nisyros Isl.** | **1.06** | **309** | ePG | **Pn** | **22 21 34.8** | **+1.6** |
| **NIS1** | **Nisyros Isl.** | **1.06** | **309** | P | **Pn** | **22 21 34.0** | **+0.8** |
| NIS1 | | | | S | **Sn** | **22 21 47.9** | **-0.6** |
| NIS1 | | | | AML | AML | 22 21 51.2 | |
| | comp=N,535µm,0.6s | | | | | | |
| NIS1 | | | | AML | AML | 22 21 56.1 | |
| | comp=E,806µm,0.8s | | | | | | |
| **NIS1** | **Nisyros Isl.** | **1.06** | **309** | P | **Pn** | **22 21 34.0** | **+0.8** |
| **NIS1** | **Nisyros Isl.** | **1.06** | **309** | ePg | **Pn** | **22 21 34.8** | **+1.6** |
| NIS1 | | | | S | **Sn** | **22 21 47.9** | **-0.6** |
| **KSL** | **Kastellorizon** | **1.15** | **79** | P | **Pg** | **22 21 35.0** | **+1.6** |
| KSL | | | | S | **Sb** | **22 21 48.7** | **-0.4** |
| KSL | | | | AML | AML | 22 22 05.9 | |
| | comp=N,219µm,1.7s | | | | | | |
| KSL | | | | AML | AML | 22 22 13.1 | |
| | comp=E,259µm,1.6s | | | | | | |
| **KSL** | **Kastellorizon** | **1.15** | **79** | P | **Pg** | **22 21 35.0** | **+1.6** |
| KSL | | | | S | **Sb** | **22 21 48.7** | **-0.4** |
| **AKAS** | **Kas** | **1.18** | **75** | ePN | **Pn** | **22 21 35.4** | **+0.5** |
| **AKAS** | **Kas** | **1.18** | **75** | i P | **Pn** | **22 21 35.2** | **+0.2** |
| AKAS | | | | i S | **Sb** | **22 21 49.0** | **-1.3** |
| **AKAS** | **Kas** | **1.18** | **75** | ePn | **Pn** | **22 21 35.4** | **+0.5** |
| AKAS | | | | S | **Sb** | **22 21 49.0** | **-1.3** |
| **BDRM** | **Kayabasi** | **1.28** | **332** | i P | **Pg** | **22 21 37.4** | **+1.4** |
| BDRM | | | | i S | **Sb** | **22 21 52.6** | **-0.5** |
| **BDRM** | **Kayabasi** | **1.28** | **332** | P | **Pg** | **22 21 37.4** | **+1.4** |
| BDRM | | | | S | **Sb** | **22 21 52.6** | **-0.5** |
| **BODT** | **Bodrum** | **1.33** | **328** | ePN | **Pg** | **22 21 38.4** | **+1.4** |
| **BODT** | **Bodrum** | **1.33** | **328** | ePn | **Pg** | **22 21 38.4** | **+1.4** |
| **ELL** | **Elmali** | **1.60** | **59** | ePN | **Pb** | **22 21 42.2** | **+0.4** |
| **ELL** | **Elmali** | **1.60** | **59** | ePn | **Pb** | **22 21 42.2** | **+0.4** |
| **TAVA** | **DENIZLI_Tavas** | **1.64** | **20** | i P | **Pn** | **22 21 41.4** | **+0.2** |
| TAVA | | | | i S | **Sn** | **22 22 00.2** | **-2.6** |
| **TAVA** | **DENIZLI_Tavas** | **1.64** | **20** | P | **Pn** | **22 21 41.4** | **+0.2** |
| TAVA | | | | S | **Sn** | **22 22 00.2** | **-2.6** |
| **GOLH** | **Golhisar** | **1.70** | **40** | i P | **Pn** | **22 21 43.4** | **+1.3** |
| **GOLH** | **Golhisar** | **1.70** | **40** | P | **Pn** | **22 21 43.4** | **+1.3** |
| **AYDN** | **Tasoluk** | **1.74** | **352** | i P | **Pn** | **22 21 43.8** | **+1.1** |
| AYDN | | | | i S | **Sn** | **22 22 02.0** | **-3.5** |
| **AYDN** | **Tasoluk** | **1.74** | **352** | P | **Pn** | **22 21 43.8** | **+1.1** |
| AYDN | | | | S | **Sn** | **22 22 02.0** | **-3.5** |
| **ZKR** | **Zakros** | **1.81** | **244** | P | **Pg** | **22 21 46.1** | **+0.1** |
| ZKR | | | | S | **Sg** | **22 22 07.9** | **-1.6** |
| ZKR | | | | AML | AML | 22 22 32.7 | |
| | comp=N,50µm,1.0s | | | | | | |
| ZKR | | | | AML | AML | 22 22 40.4 | |
| | comp=E,151µm,1.5s | | | | | | |
| **ZKR** | **Zakros** | **1.81** | **244** | P | **Pg** | **22 21 46.2** | **+0.1** |
| ZKR | | | | S | **Sg** | **22 22 07.9** | **-1.6** |
| **GCAM** | **G?zelcaml?** | **1.93** | **337** | ePN | **Pb** | **22 21 47.0** | **-0.2** |
| **GCAM** | **G?zelcaml?** | **1.93** | **337** | ePn | **Pb** | **22 21 47.0** | **-0.2** |
| **KORT** | **Korkueli** | **2.04** | **58** | ePN | **Pn** | **22 21 48.3** | **+1.5** |
| **KORT** | **Korkueli** | **2.04** | **58** | ePn | **Pn** | **22 21 48.3** | **+1.5** |
| **SMG** | **Samos** | **2.08** | **329** | P | **Pn** | **22 21 47.1** | **-0.1** |
| **SMG** | **Samos** | **2.08** | **329** | P | **Pn** | **22 21 47.2** | **-0.1** |
| **NPS** | **Neapolis** | **2.21** | **253** | P | **Pb** | **22 21 49.9** | **-2.1** |
| NPS | | | | S | **Sn** | **22 22 15.9** | **-1.0** |
| **NPS** | **Neapolis** | **2.21** | **253** | P | **Pb** | **22 21 49.9** | **-2.1** |
| NPS | | | | S | **Sn** | **22 22 15.9** | **-1.0** |
| **SANT** | **Santorini** | **2.26** | **282** | P | **Pn** | **22 21 49.9** | **+0.2** |
| **SANT** | **Santorini** | **2.26** | **282** | P | **Pn** | **22 21 49.9** | **+0.2** |
| **IDI** | **Anoyia** | **2.77** | **258** | P | **Pn** | **22 21 57.1** | **+0.3** |
| **IDI** | **Anoyia** | **2.77** | **258** | P | **Pn** | **22 21 57.1** | **+0.3** |

*KRNET **09** 22:36:32.8±0.1, 40°.64N×72°.23E, h21km, mb2.6*
*NNC **09** 22:36:32.7±2.3, 40°.64N×72°.28E, h0km, mb2.9, mpv2.7, Error ellipse: s-maj=26.2km s-min=5.9km az=59.0*
*SOME **09** 22:36:36.3, 40°.92N×72°.22E, h0km*
**ISC 09 22:36:34.1**±1.4**, 40°.64N**±0°.05×**72°.25E**±0°.04**, h24**km±16km**, n21, σ2s.00**/38**, 18C-12D, Kyrgyzstan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ARSB** | **Arslanbob** | **0.88** | **39**⇓ | iP | **Pn** | **22 36 50.2** | **-0.9** |
| | baz=39 | | | | | | |
| ARSB | | | ⇓ | iS | **Sn** | **22 37 02.8** | **-0.4** |
| | baz=39 | | | | | | |
| **SFK** | **Sufi-Kurgan** | **1.14** | **123**⇑ | iP | **Pb** | **22 36 54.8** | **-0.5** |
| | baz=122 | | | | | | |
| SFK | | | ⇑ | iS | **Sn** | **22 37 10.7** | **+1.0** |
| | baz=122 | | | | | | |
| **SFK** | **Sufi-Kurgan** | **1.14** | **123** | ⇓P | **Pb** | **22 36 54.5** | **-0.8** |
| | 6.1nm,0.3s | | | | | | |
| SFK | | | | ⇑S | **Sn** | **22 37 09.7** | **0.0** |
| | 26nm,0.3s | | | | | | |
| **ARK** | **Arkit** | **1.18** | **349**⇓ | iP | **Pb** | **22 36 54.8** | **-1.1** |
| | baz=351 | | | | | | |
| ARK | | | ⇓ | iS | **Sn** | **22 37 10.8** | **+0.3** |
| | baz=351 | | | | | | |
| **TOKL** | **Toktogul** | **1.38** | **19**⇑ | iP | **Pb** | **22 36 59.0** | **-0.3** |
| | baz=20 | | | | | | |
| TOKL | | | ⇑ | iS | **Sb** | **22 37 18.1** | **+1.5** |
| | baz=20 | | | | | | |
| **AML** | **Almayashu** | **1.85** | **36**⇓ | eP | **Pb** | **22 37 06.9** | **-0.5** |
| | baz=36 | | | | | | |
| AML | | | ⇓ | iS | **Sb** | **22 37 31.6** | **+1.4** |
| | baz=36 | | | | | | |
| **MNAS** | **Manas** | **1.86** | **6**⇑ | eP | **Pb** | **22 37 07.0** | **-0.4** |
| | baz=6.0 | | | | | | |
| MNAS | | | ⇑ | iS | **Sb** | **22 37 32.1** | **+1.8** |
| | baz=6.0 | | | | | | |
| **MNAS** | **Manas** | **1.86** | **6** | ⇑P | **Pb** | **22 37 07.2** | **-0.3** |
| | 3.6nm,0.5s | | | | | | |
| MNAS | | | | ⇑S | **Sb** | **22 37 30.1** | **-0.2** |
| | 5.4nm,0.4s | | | | | | |
| **MRKS** | **Merke** | **2.23** | **19** | eP | **Pb** | **22 37 13.6** | **-0.1** |
| | 7.2nm,0.2s | | | | | | |
| MRKS | | | | eS | **Sb** | **22 37 40.2** | **-0.8** |
| | 30nm,0.3s | | | | | | |
| **IUG** | **Iuzhnay** | **2.25** | **313** | eP | **Pb** | **22 37 14.2** | **+0.1** |
| | 7.7nm,0.1s | | | | | | |
| IUG | | | | eS | **Sb** | **22 37 41.3** | **-0.3** |
| | 20nm,0.2s | | | | | | |
| **EKS2** | **Erkin-Say** | **2.32** | **29**⇑ | iP | **Pb** | **22 37 14.1** | **-1.3** |
| | baz=29 | | | | | | |
| EKS2 | | | ⇑ | iS | **Sb** | **22 37 44.0** | **+0.3** |
| | baz=29 | | | | | | |
| **UCH** | **Uchtor** | **2.33** | **46**⇑ | iP | **Pb** | **22 37 15.0** | **-0.6** |
| | baz=46 | | | | | | |
| UCH | | | ⇑ | iS | **Sb** | **22 37 44.2** | **+0.1** |
| | baz=46 | | | | | | |
| **AAK** | **Ala-Archa** | **2.61** | **39**⇓ | iP | **Pb** | **22 37 18.0** | **-2.3** |
| | baz=40 | | | | | | |
| AAK | | | ⇓ | iS | **Sb** | **22 37 50.6** | **-1.4** |
| | baz=40 | | | | | | |
| **AAK** | **Ala-Archa** | **2.61** | **39** | ⇑Pg | **Pb** | **22 37 22.0** | **+1.7** |
| | 3.3nm,0.7s | | | | | | |
| AAK | | | | ⇑Lg | Lg | 22 37 55.1 | |
| | 6.3nm,0.5s | | | | | | |
| **KZA** | **Kyzart** | **2.68** | **56**⇓ | iP | **Pb** | **22 37 18.9** | **-2.6** |
| | baz=57 | | | | | | |
| KZA | | | ⇓ | iS | **Sb** | **22 37 52.5** | **-1.6** |
| | baz=57 | | | | | | |
| **KK31** | **Karatay Array** | **2.79** | **333** | ⇑Pg | **Pb** | **22 37 23.8** | **+0.6** |
| | 0.6nm,0.3s,baz=159,slow=16,SNR=10 | | | | | | |
| KK31 | | | | ⇓Lg | Lg | 22 37 59.2 | |
| | 1.3nm,0.2s,baz=156,slow=30,SNR=5.8 | | | | | | |
| **BRLS** | **Borolday** | **3.00** | **324** | eP | **Pb** | **22 37 26.9** | **+0.2** |
| | 1.7nm,0.3s | | | | | | |
| BRLS | | | | eS | **Sb** | **22 38 03.8** | **+0.9** |
| | 7.5nm,0.2s | | | | | | |
| **USP** | **Ospenovka** | **3.12** | **32**⇑ | iP | **Pb** | **22 37 25.0** | **-3.8** |
| | baz=32 | | | | | | |
| USP | | | ⇑ | iS | **Sb** | **22 38 02.6** | **-3.8** |
| | baz=32 | | | | | | |
| **KST** | **Kastek** | **3.67** | **48** | eP | **Pb** | **22 37 40.9** | **+2.6** |
| | 1.9nm,0.1s | | | | | | |
| KST | | | | eS | **Sb** | **22 38 27.1** | **+4.7** |
| | 5.2nm,0.4s | | | | | | |
| **DGS** | **Degeres** | **3.70** | **44** | eP | **Pb** | **22 37 41.8** | **+3.1** |
| | 1.5nm,0.2s | | | | | | |
| DGS | | | | eS | **Sb** | **22 38 28.9** | **+5.7** |
| | 5.0nm,0.5s | | | | | | |
| **MDOK** | **Medeo** | **4.38** | **53** | eP | Pb | 22 37 55.0 | +4.6 |
| | 2.5nm,0.6s | | | | | | |
| MDOK | | | | eS | Sb | 22 38 51.0 | +8.2 |
| | 2.2nm,0.3s | | | | | | |

*ISCJB **09** 22:40:19.5±0.4, 36°.43N±0°.03×71°.55E±0°.07, h114km, mb3.8/8, Error ellipse: s-maj=7.8km s-min=4.0km az=163.6*
*IDC **09** 22:40:20.1±5.1, 36°.27N×71°.70E, h117km±47km, mb3.6/7, mb1 3.6/11, mb1mx3.2/50, mbtmp4.0/11, Error ellipse: s-maj=54.3km s-min=31.9km az=136.0*
*NNC **09** 22:40:22.9±3.3, 36°.97N×71°.05E, h0km, mb4.6, mpv4.2, Error ellipse: s-maj=27.0km s-min=11.2km az=173.0*
**ISC 09 22:40:20.7**±0.7**, 36°.45N**±0°.06×**71°.61E**±0°.08**, h114**km**, n46, σ1s.44**/50**, mb3.9**/8**, 4C-6D, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CEP** | **Cherat** | **2.63** | **175** | P | **Pn** | **22 41 03.9** | **+1.7** |
| **DZET** | **Dzherino** | **3.23** | **318** | ⇓Pn | Pn | 22 41 05.4 | -4.5 |
| | 58nm,0.4s | | | | | | |
| DZET | | | | ⇓Sn | Sn | 22 41 38.5 | -9.3 |
| | 176nm,0.5s | | | | | | |
| **THW** | **Thamme Wali** | **3.65** | **178** | P | **Pn** | **22 41 16.6** | **+1.1** |
| **SFK** | **Sufi-Kurgan** | **3.86** | **22** | ⇓Pn | **Pn** | **22 41 20.2** | **+1.8** |
| | 19nm,0.6s | | | | | | |
| SFK | | | | ⇑Sn | **Sn** | **22 42 05.9** | **+2.9** |
| | 38nm,0.2s | | | | | | |
| **SARP** | **Sargodha** | **4.60** | **169** | P | **Pn** | **22 41 28.9** | **+0.7** |
| **AML** | **Almayashu** | **5.90** | **15** | P | **Pn** | **22 41 46.3** | **+0.3** |
| | SNR=185 | | | | | | |
| **MNAS** | **Manas** | **6.07** | **6** | ⇓Pn | **Pn** | **22 41 47.5** | **-0.6** |
| | 23nm,0.5s | | | | | | |
| MNAS | | | | ⇑Sn | **Sn** | **22 42 52.9** | **-3.3** |
| | 16nm,0.4s | | | | | | |
| **UCH** | **Uchtor** | **6.19** | **20** | P | **Pn** | **22 41 51.2** | **+1.1** |
| | SNR=25 | | | | | | |
| **KZA** | **Kyzart** | **6.29** | **26** | P | **Pn** | **22 41 52.9** | **+1.5** |
| | SNR=10 | | | | | | |
| **EKS2** | **Erkin-Say** | **6.42** | **14** | P | **Pn** | **22 41 53.3** | **+0.4** |
| | SNR=29 | | | | | | |
| **AAK** | **Ala-Archa** | **6.57** | **19** | P | **Pn** | **22 41 55.9** | **+1.0** |
| | 13nm,0.3s,baz=171,slow=5.8,SNR=184 | | | | | | |
| AAK | | | | S | **Sn** | **22 43 07.3** | **-1.1** |
| | 1.7nm,0.3s,baz=316,slow=23,SNR=8.3 | | | | | | |
| **AAK** | **Ala-Archa** | **6.57** | **19** | ⇑Pn | **Pn** | **22 41 55.6** | **+0.7** |
| | 22nm,0.4s | | | | | | |
| AAK | | | | ⇓Sn | **Sn** | **22 43 07.3** | **-1.1** |
| | 27nm,1.0s | | | | | | |
| **AAK** | **Ala-Archa** | **6.57** | **19** | P | **Pn** | **22 41 55.7** | **+0.8** |
| | SNR=44 | | | | | | |
| **SDNR** | **Sundarnagar** | **6.65** | **136** | eP | **Pn** | **22 41 56.0** | **+0.1** |
| SDNR | | | | eS | **Sn** | **22 43 07.5** | **-2.7** |
| **KK31** | **Karatay Array** | **6.70** | **353** | ⇓Pn | **Pn** | **22 41 54.8** | **-1.7** |
| | 14nm,0.5s,baz=186,slow=15,SNR=97 | | | | | | |
| KK31 | | | | ⇑Sn | **Sn** | **22 43 07.2** | **-4.1** |
| | 7.4nm,0.4s,baz=181,slow=22,SNR=6.2 | | | | | | |
| **KBK** | **Karagaybulak** | **6.71** | **22** | P | **Pn** | **22 41 58.3** | **+1.4** |
| | SNR=15 | | | | | | |
| **CHMS** | **Chumysh** | **6.97** | **19** | P | **Pn** | **22 42 01.1** | **+0.9** |
| | SNR=13 | | | | | | |
| **TKM2** | **Tokmak 2** | **7.16** | **24** | P | **Pn** | **22 42 04.2** | **+1.3** |
| | SNR=5.6 | | | | | | |
| **USP** | **Ospenovka** | **7.16** | **17** | P | **Pn** | **22 42 03.1** | **+0.3** |
| | SNR=18 | | | | | | |
| **GEYT** | **Alibeck** | **10.87** | **282** | P | Pn | 22 42 46.1 | -6.9 |
| | 2.6nm,0.3s,baz=90,slow=8.9,SNR=24 | | | | | | |
| GEYT | | | | S | Sn | 22 44 37.3 | -15 |
| | 4.9nm,0.3s,baz=91,slow=17,SNR=12 | | | | | | |
| **PYUN** | **Piuthan** | **12.72** | **128** | eP | **Pn** | **22 43 16.6** | **-1.1** |
| | 38nm,0.5s | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| MKAR | Makanchi Array | 13.05 | 34 | P | Pn | 22 43 22.6 | +1.0 |
| | 0.1nm,0.3s,baz=224,slow=13,SNR=5.8 | | | | | | |
| DANN | Dangsing | 13.05 | 125 | eP | Pn | 22 43 21.9 | -0.2 |
| | 2.8nm,1.0s | | | | | | |
| KOLN | Koldanda | 13.34 | 127 | eP | Pn | 22 43 24.8 | -0.9 |
| | 17nm,0.4s | | | | | | |
| GKN | Gorkha | 13.86 | 124 | eP | Pn | 22 43 31.9 | -0.6 |
| KKN | Kakani | 14.43 | 123 | eP | Pn | 22 43 39.2 | -0.7 |
| PKIN | Phulchoki | 14.65 | 123 | eP | Pn | 22 43 42.7 | 0.0 |
| | 12nm,0.5s | | | | | | |
| PKI | Pulchoki | 14.66 | 123 | eP | Pn | 22 43 42.8 | -0.1 |
| GUN | Gumba | 14.77 | 121 | eP | Pn | 22 43 43.6 | -0.6 |
| KURBB | Kurchatov Arra | 15.02 | 17 | P | P | 22 43 49.5 | +0.1 |
| | 0.1nm,0.3s,baz=207,slow=10,SNR=11 | | | | | | |
| JIRN | Jiri | 15.14 | 121 | eP | Pn | 22 43 48.3 | -0.6 |
| RAMN | Ramite | 15.87 | 122 | eP | Pn | 22 43 57.3 | -0.6 |
| | 12nm,0.5s | | | | | | |
| TAPN | Taplejung | 16.39 | 119 | eP | Pn | 22 44 04.8 | +0.4 |
| | 25nm,0.8s | | | | | | |
| ODAN | Odare | 16.47 | 121 | eP | Pn | 22 44 04.9 | -0.4 |
| | 11nm,0.5s | | | | | | |
| BVAR | Borovoye Array | 16.60 | 357 | P | Pn | 22 44 05.0 | -1.4 |
| | 0.4nm,0.3s,baz=171,slow=14,SNR=13 | | | | | | |
| AKTO | Aktyubinsk | 17.07 | 329 | P | P | 22 44 10.8 | -1.4 |
| | 1.9nm,0.3s,baz=136,slow=11,SNR=24 | | | | | | |
| ZALV | Zalesovo Beam | 19.76 | 24 | P | P | 22 44 42.6 | +1.1 |
| | 1.1nm,0.3s,baz=223,slow=11,SNR=22 | | | | | | |
| ARU | Arti | 21.84 | 340 | P | P | 22 45 04.2 | +0.4 |
| | 3.6nm,0.5s,baz=140,slow=5.4,SNR=9.4 | | | | | | |
| KBZ | Khabaz | 23.06 | 297 | P | P | 22 45 19.8 | +3.7 |
| | 1.7nm,0.8s,baz=107,slow=11,SNR=7.9 | | | | | | |
| BRTR | Keskin Array B | 29.92 | 288 | P | P | 22 46 18.4 | +0.4 |
| | 0.4nm,0.7s,baz=99,slow=8.9,SNR=2.7 | | | | | | |
| AKASG | Malin Array Be | 33.36 | 309 | P | P | 22 46 48.7 | +0.9 |
| | 1.0nm,0.5s,baz=82,slow=6.9,SNR=9.1 | | | | | | |
| FINES | FINESS Array B | 37.80 | 326 | P | P | 22 47 27.0 | +1.4 |
| | 1.4nm,0.3s,baz=116,slow=7.9,SNR=12 | | | | | | |
| ARCES | ARCESS Array B | 41.38 | 337 | P | P | 22 47 54.7 | -0.5 |
| | 1.6nm,0.5s,baz=118,slow=8.4,SNR=12 | | | | | | |
| NB2 | NORSAR Subarra | 44.72 | 323 | P | P | 22 48 23.1 | +0.9 |
| | comp=Z,2.6nm,0.8s,baz=93,slow=7.9 | | | | | | |
| NOA | NORSAR Array B | 44.72 | 323 | P | P | 22 48 23.1 | +0.9 |
| | comp=Z,2.7nm,0.7s,baz=95,slow=7.8,SNR=6.5 | | | | | | |
| TORD | Torodi Ar. Bea | 66.21 | 269 | P | P | 22 50 55.9 | -0.7 |
| | comp=Z,0.3nm,0.4s,baz=50,slow=5.8,SNR=9.2 | | | | | | |

---

*IDC **09** 22:52:54.8±3.5, 21°.63S×179°.66E, h0km, mb4.1/2, mb1 4.4/3, mb1mx3.8/27, mbtmp4.2/3, ML4.2/1, Error ellipse: s-maj=71.3km s-min=57.2km az=82.0*
*NEIC **09** 22:53:46.5±1.6, 24°.04S×179°.22E, h491km±26km, mb4.1/2, Error ellipse: s-maj=29.0km s-min=18.5km az=135.0*
*ISCJB **09** 22:53:47.3±1.0, 24°.1S±0°.2×179°.4E±0°.2, h537km, mb3.9/4, Error ellipse: s-maj=23.0km s-min=17.1km az=143.0*
**ISC 09 22:53:47.9**±1.1**, 24°.1S**±0°.1×**179°.5E**±0°.2**, h537km, n14, σ0s.66**/12**, mb3.8**/4**, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AFI | Afiamalu | 13.09 | 41 | eP | P | 22 56 37.8 | -0.2 |
| URZ | Urewera | 14.24 | 188 | Pn | P | 22 56 49.5 | 0.0 |
| | 0.9nm,0.3s,baz=33,slow=9.2,SNR=6.0 | | | | | | |
| URZ | Urewera | 14.24 | 188 | Pn | P | 22 56 49.5 | 0.0 |
| CTAO | Charters Tower | 30.99 | 271 | eP | P | 22 59 22.3 | +0.5 |
| PMG | Port Moresby | 34.11 | 290 | eP | P | 22 59 48.0 | -0.3 |
| | 7.9nm,0.6s | | | | | | |
| ASAR | Alice Springs | 41.52 | 261 | P | P | 23 00 48.5 | -0.2 |
| | 0.8nm,0.4s,baz=91,slow=8.4,SNR=13 | | | | | | |
| ASAR | Alice Springs | 41.52 | 261 | P | P | 23 00 48.5 | -0.2 |
| WRAB | Tennant Creek | 41.90 | 267 | eP | P | 23 00 50.7 | -1.0 |
| | 1.6nm,0.4s | | | | | | |
| WRA | Warramunga Arr | 41.91 | 267 | P | P | 23 00 51.1 | -0.6 |
| | 0.9nm,0.3s,baz=92,slow=8.3,SNR=60 | | | | | | |
| WRA | Warramunga Arr | 41.91 | 267 | P | P | 23 00 51.1 | -0.6 |
| AKASG | Malin Array Be | 144.89 | 327 | PKhKP | PKPpre | 23 12 25.1 | |
| | 1.0nm,0.6s,baz=40,slow=4.0,SNR=4.3 | | | | | | |
| AKASG | Malin Array Be | 144.89 | 327 | PKPpre | PKPpre | 23 12 25.1 | |
| BRTR | Keskin Array B | 147.32 | 307 | PKPbc | PKPab | 23 12 36.2 | +0.9 |
| | 0.6nm,0.6s,baz=76,slow=1.5,SNR=3.8 | | | | | | |
| BRTR | Keskin Array B | 147.32 | 307 | PKPbc | PKPab | 23 12 36.2 | +0.9 |

---

**NDI 09 22:56:58.1**±2.4**, 27°.97N×88°.16E, h33km, ML3.7, Sikkim**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GTK | Tadong | 0.76 | 149 | eP | Pb | 22 57 14.6 | +1.5 |
| GTK | | | | eS | Sb | 22 57 25.6 | +2.4 |
| GTK | | | | AML | AML | 22 57 26.8 | |
| | comp=E,1μm,0.1s | | | | | | |
| GTK | | | | AML | AML | 22 57 27.0 | |
| | comp=N,2μm,0.1s | | | | | | |
| DHUB | DHUBRI | 2.54 | 139 | eP | Pn | 22 57 38.5 | +1.4 |
| DHUB | | | | eS | Sn | 22 58 07.1 | +0.2 |
| DHUB | | | | AML | AML | 22 58 10.2 | |
| | comp=E,454nm,0.2s | | | | | | |
| DHUB | | | | AML | AML | 22 58 10.3 | |
| | comp=N,356nm,0.3s | | | | | | |
| TURI | Tura | 3.10 | 141 | eP | Pn | 22 57 45.0 | +0.2 |
| TURI | | | | eS | Sn | 22 58 17.4 | -3.2 |
| TURI | | | | AML | AML | 22 58 23.4 | |
| | comp=E,505nm,0.2s | | | | | | |
| TURI | | | | AML | AML | 22 58 23.5 | |
| | comp=N,478nm,0.3s | | | | | | |
| GUWA | GUWAHATI | 3.62 | 119 | eP | Pn | 22 57 52.0 | +0.2 |
| GUWA | | | | ex | Sn | 22 58 27.2 | -6.1 |
| SHL | Shillong | 4.10 | 125 | eP | Pn | 22 57 58.7 | 0.0 |
| SHL | | | | eS | Sn | 22 58 42.7 | -3.0 |
| TEZP | TEZPUR | 4.35 | 107 | eP | Pn | 22 58 01.4 | -0.5 |
| TEZP | | | | eS | Sn | 22 58 47.7 | -3.6 |
| TEZP | | | | AML | AML | 22 58 50.9 | |
| | comp=E,341nm,0.1s | | | | | | |
| TEZP | | | | AML | AML | 22 58 51.0 | |
| | comp=N,172nm,0.2s | | | | | | |
| BOK | Bokaro | 4.63 | 207 | eP | Pn | 22 58 04.8 | -1.0 |
| BOK | | | | eS | Sn | 22 58 53.5 | -5.1 |
| BOK | | | | AML | AML | 22 58 56.5 | |
| | comp=N,204nm,0.1s | | | | | | |
| BOK | | | | AML | AML | 22 58 57.1 | |
| | comp=E,180nm,0.2s | | | | | | |
| BOK | | | | AML | AML | 22 58 57.5 | |
| | comp=E,219nm,0.1s | | | | | | |
| BOK | | | | AML | AML | 22 58 57.6 | |
| | comp=N,281nm,0.1s | | | | | | |
| ITAN | ITANAGAR | 5.01 | 98 | eP | Pn | 22 58 11.4 | +0.4 |
| ITAN | | | | eS | Sn | 22 59 04.2 | -3.6 |
| ITAN | | | | AML | AML | 22 59 10.8 | |
| | comp=E,59nm,0.2s | | | | | | |
| ITAN | | | | AML | AML | 22 59 10.9 | |
| | comp=N,113nm,0.2s | | | | | | |
| ZIRO | ZIRO | 5.07 | 94 | eP | Pn | 22 58 12.0 | +0.1 |
| ZIRO | | | | eS | Sn | 22 59 04.6 | -4.8 |
| ZIRO | | | | AML | AML | 22 59 09.8 | |
| | comp=E,207nm,0.3s | | | | | | |
| ZIRO | | | | AML | AML | 22 59 10.4 | |
| | comp=N,392nm,0.3s | | | | | | |
| MOKO | MOKOCHONG | 5.90 | 105 | eP | Pn | 22 58 22.5 | -0.8 |
| MOKO | | | | eS | Sn | 22 59 23.4 | -6.5 |
| MOKO | | | | AML | AML | 22 59 31.3 | |
| | comp=N,123nm,0.4s | | | | | | |
| MOKO | | | | AML | AML | 22 59 31.5 | |
| | comp=E,59nm,0.2s | | | | | | |
| DDI | Dehra Dun | 9.14 | 287 | eS | Sn | 23 00 42.1 | -7.3 |
| SMLA | Simla | 10.07 | 291 | eS | Sn | 23 01 02.2 | -10 |
| SMLA | | | | AML | AML | 23 01 08.9 | |
| | comp=N,18nm,0.4s | | | | | | |
| SMLA | | | | AML | AML | 23 01 09.1 | |
| | comp=E,24nm,0.4s | | | | | | |
| BHPL | Bhopal | 10.77 | 246 | ex | Pn | 22 59 26.7 | -3.3 |
| BHPL | | | | eS | Sn | 23 01 18.7 | -11 |
| BHPL | | | | AML | AML | 23 01 20.6 | |
| | comp=E,12nm,0.2s | | | | | | |
| BHPL | | | | AML | AML | 23 01 20.6 | |
| | comp=N,17nm,0.2s | | | | | | |
| DHRM | DHARAMSHALA | 11.11 | 295 | eS | Sn | 23 01 28.6 | -10 |
| DHRM | | | | AML | AML | 23 01 35.1 | |
| | comp=N,21nm,0.6s | | | | | | |
| DHRM | | | | AML | AML | 23 01 36.0 | |
| | comp=E,17nm,0.5s | | | | | | |

---

**DJA 09 23:07:30.2**±1.0**, 2°S**±6°×**12°1E**±°**, h14km**±8km**, M3.6**/7**, MLv3.6**/7**, Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| APSI | Ampana | 1.23 | 58 | P | Pn | 23 07 53.0 | 0.0 |
| TTSI | Tana Toraja | 1.67 | 208 | P | Pn | 23 07 56.8 | -2.2 |
| TTSI | | | | S | Pn | 23 07 57.0 | -2.0 |
| LUWI | Luwuk | 2.22 | 76 | P | Pn | 23 08 06.6 | -0.1 |
| LUWI | | | | S | Sn | 23 08 34.1 | +0.1 |
| MRSI | Marisa | 2.43 | 33 | P | Pn | 23 08 10.0 | +0.5 |
| SPSI | Sidrap Palu | 2.52 | 199 | P | Pn | 23 08 10.9 | +0.1 |
| SPSI | | | | S | Sn | 23 08 42.5 | +1.1 |
| BNSI | Bone | 2.86 | 190 | P | Pn | 23 08 15.6 | +0.2 |
| BNSI | | | | S | Sn | 23 08 51.1 | +1.5 |

---

*BJI **09** 23:11:19.3, 24°.82N×99°.22E, h5km, ML3.7/8, Ms3.3/2*
*IDC **09** 23:11:21.6±1.6, 24°.93N×99°.42E, h0km, mb3.2/3, mb1 3.3/4, mb1mx3.0/59, mbtmp3.2/4, ML3.9/1, MS2.5/2, Ms1 2.6/2, ms1mx2.5/15, Error ellipse: s-maj=49.4km s-min=18.3km az=89.0*
*BKK **09** 23:11:40.9±1.0, 25°N±27°×9°7E±9°3, h10km, M4.5/6, mb4.8/6, mB4.8/6, MLv4.6/6, Mw(mB)4.0/6*
**ISC 09 23:11:21.8**±1.0**, 24°.74N**±0°.06×**99°.33E**±0°.07**, h10km, n11, σ1s.09**/16**, mb3.1**/3**, 1C, Yunnan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KMI | Kunming | 3.12 | 82 | ⇑Pn | Pn | 23 12 12.6 | +1.3 |
| KMI | | | | Pg | Pg | 23 12 20.8 | -0.8 |
| KMI | | | | Sn | Sn | 23 12 47.7 | -1.0 |
| KMI | | | | Sg | Sg | 23 13 02.2 | +0.2 |
| KMI | | | | smax | smax | | |
| | comp=N,170nm,1.1s | | | | | | |
| KMI | | | | smax | smax | | |
| | comp=E,150nm,0.7s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=N,590nm,8.5s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=E,360nm,5.6s | | | | | | |
| CHTO | Chiang Mai | 5.91 | 184 | P | Pg | 23 13 13.7 | -1.3 |
| | 264nm,0.8s,3μm | | | | | | |
| CHTO | Chiang Mai | 5.91 | 184 | P | Pg | 23 13 13.8 | -1.3 |
| | 264nm,0.8s,3μm0.9nm | | | | | | |
| CHTO | | | | S | Sg | 23 14 32.3 | +0.6 |
| | 264nm,0.8s,3μm0.9nm | | | | | | |
| CMMT | Chiang Mai | 5.91 | 184 | P | Pg | 23 13 13.8 | -1.3 |
| | 59nm,0.8s,614nm0.2nm | | | | | | |
| CMMT | | | | S | Sg | 23 14 30.7 | -1.0 |
| | 59nm,0.8s,614nm0.2nm | | | | | | |
| CMAR | Chiang Mai Arr | 6.26 | 183 | Pn | Pn | 23 12 56.4 | +2.0 |
| | 0.7nm,0.3s,baz=357,slow=13,SNR=14 | | | | | | |
| CMAR | | | | Pg | Pg | 23 13 20.9 | -0.9 |
| | 6.9nm,0.3s,baz=358,slow=17,SNR=46 | | | | | | |
| CMAR | | | | Lg | Lg | 23 14 48.0 | |
| | 1.5nm,0.3s,baz=3.5,slow=31,SNR=7.5 | | | | | | |
| CMAR | | | | LR | LR | 23 15 53.7 | |
| | comp=Z,30nm,18.7s,baz=350,slow=42 | | | | | | |
| SUKH | Sukhothai | 7.23 | 178 | P | Pg | 23 13 40.2 | -0.1 |
| WMQ | Urumqi | 21.28 | 336 | eP | P | 23 16 07.9 | -0.6 |
| SONM | Songino Array | 23.72 | 12 | P | P | 23 16 34.5 | +0.5 |
| | 0.4nm,0.7s,baz=192,slow=13,SNR=3.4 | | | | | | |
| MKAR | Makanchi Array | 25.88 | 333 | P | P | 23 16 53.5 | -0.3 |
| | 0.7nm,0.9s,baz=145,slow=10,SNR=6.2 | | | | | | |
| KSRS | Korea Array | 27.45 | 56 | LR | LR | 23 27 30.7 | |
| | comp=Z,13nm,21.7s,baz=5.0,slow=36 | | | | | | |
| KURBB | Kurchatov Arra | 30.43 | 333 | P | P | 23 17 34.0 | -0.2 |
| | 0.2nm,0.7s,baz=134,slow=9.2,SNR=2.8 | | | | | | |

---

**GUC 09 23:14:36.7**±0.5**, 21°.77S×67°.71W, h230km**±8km**, ML3.8, 2C-1D, Chile-Bolivia border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PB09 | IPOC Station P | 1.43 | 269 | i P | Pn | 23 15 13.9 | +1.1 |
| PB09 | | | | i S | S | 23 15 42.8 | +1.8 |
| PB09 | | | | IAML | | 23 15 47.3 | |
| | comp=N,377nm,0.2s | | | | | | |
| PB01 | IPOC Station P | 1.81 | 293 | ⇑iP | Pn | 23 15 17.2 | +1.2 |
| PB01 | | | | i S | S | 23 15 47.8 | +1.3 |
| PB01 | | | | IAML | | 23 15 49.4 | |
| | comp=N,636nm,0.3s | | | | | | |
| PB06 | IPOC Station P | 1.97 | 241 | i S | S | 23 15 50.1 | +0.9 |
| PB07 | IPOC Station P | 2.03 | 271 | i P | Pn | 23 15 19.7 | +1.6 |
| PB07 | | | | i S | S | 23 15 52.0 | +1.7 |
| PB07 | | | | IAML | | 23 15 52.7 | |
| | comp=N,453nm,0.4s | | | | | | |
| PB02 | IPOC Station P | 2.09 | 282 | i P | Pn | 23 15 20.2 | +1.7 |
| PB02 | | | | i S | S | 23 15 53.2 | +2.0 |
| PB02 | | | | IAML | | 23 15 54.5 | |
| | comp=N,419nm,0.1s | | | | | | |
| PB08 | IPOC Station P | 2.11 | 320 | i P | Pn | 23 15 21.0 | +1.9 |
| PB08 | | | | i S | S | 23 15 54.4 | +2.2 |
| PB08 | | | | IAML | | 23 15 55.8 | |
| | comp=N,73nm,0.6s | | | | | | |
| PB11 | IPOC Station P | 2.70 | 317 | ⇑iP | Pn | 23 15 26.5 | +1.5 |
| PB11 | | | | i S | S | 23 16 04.5 | +1.8 |
| PB10 | IPOC Station P | 3.15 | 236 | ⇓iP | Pn | 23 15 31.3 | +1.6 |
| PB10 | | | | i S | S | 23 16 11.2 | -0.2 |
| MNMC | Minye Minye | 3.17 | 326 | i P | Pn | 23 15 32.3 | +2.1 |
| MNMC | | | | i S | S | 23 16 14.8 | +2.6 |
| MNMC | | | | IAML | | 23 16 18.6 | |
| | comp=E,130nm,0.2s | | | | | | |
| MNMC | | | | IAML | | 23 16 18.9 | |
| | comp=N,136nm,0.2s | | | | | | |

---

*JMA **09** 23:17:37.7±0.7, 34°.88N×143°.02E, h88km, M3.1*
*IDC **09** 23:17:49.4±1.4, 34°.90N×142°.57E, h0km, mb3.5/3, mb1 3.6/4, mb1mx3.2/49, mbtmp3.4/4, ML2.9/1, Error ellipse: s-maj=37.2km s-min=31.6km az=85.0*
*ISCJB **09** 23:17:50.4±1.4, 35°.0N±0°.2×142°.0E±0°.2, h29km, mb3.6/3, Error ellipse: s-maj=30.9km s-min=17.3km az=166.6*
**ISC 09 23:17:52.3**±1.4**, 35°.1N**±0°.1×**141°.7E**±0°.1**, h29km, n7, σ0s.61**/6**, mb3.6**/3**, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BSO1 | Boso 1 | 0.77 | 235 | P | Pb | 23 18 06.2 | -0.5 |
| BSO3 | Boso 3 | 1.05 | 254 | P | Pb | 23 18 11.4 | -0.3 |
| BSO4 | Boso 4 | 1.15 | 265 | P | Pb | 23 18 13.8 | +0.3 |
| MJAR | Matsushiro Arr | 3.21 | 298 | Pn | Pb | 23 18 48.4 | -0.2 |
| | 0.9nm,0.3s,baz=149,slow=15,SNR=7.5 | | | | | | |
| KURBB | Kurchatov Arra | 47.41 | 309 | P | P | 23 26 31.3 | +7.4 |
| | 0.7nm,0.8s,baz=84,slow=8.4,SNR=5.9 | | | | | | |
| ILAR | Eielson Array | 50.99 | 32 | P | P | 23 26 50.7 | -0.4 |
| | 0.3nm,0.8s,baz=270,slow=6.3,SNR=3.2 | | | | | | |
| WRA | Warramunga Arr | 55.19 | 188 | P | P | 23 27 23.1 | +0.7 |
| | 0.5nm,0.7s,baz=7.6,slow=7.1,SNR=5.5 | | | | | | |

---

*CSEM **09** 23:23:02.3, 38°.17N×26°.60W, h2km, ML3.0*
**PDA 09 23:23:02.3**±1.2**, 38°.17N×26°.60W, h2km**±4km**, MD3.6, ML3.0, 2C, Error ellipse: s-maj=7.2km s-min=1.6km az=33.0, Azores Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ADH | Angra Heroismo | 0.69 | 314 | eP | Pg | 23 23 13.8 | -1.8 |
| ADH | | | | eS | Sg | 23 23 22.9 | -1.6 |
| ADH | | | | A | A | 23 23 23.5 | |
| | 756nm,0.3s | | | | | | |
| ADH | Angra Heroismo | 0.69 | 314 | eP | Pg | 23 23 13.8 | -1.8 |
| ADH | | | | eS | Sg | 23 23 22.9 | -1.6 |
| PSET | Sete Cidades | 0.78 | 116 | eP | Pg | 23 23 15.2 | -2.0 |
| PSET | | | | eS | Sg | 23 23 25.2 | -2.1 |
| PSET | | | | A | A | 23 23 26.9 | |
| | 476nm,0.3s | | | | | | |
| PSET | Sete Cidades | 0.78 | 116 | eP | Pg | 23 23 15.2 | -2.0 |
| PSET | | | | eS | Sg | 23 23 25.2 | -2.1 |
| PDA | Ponta Delgada | 0.86 | 120 | eP | Pg | 23 23 16.3 | -2.4 |
| PDA | | | | eS | Sg | 23 23 26.9 | -2.9 |
| PDA | | | | A | A | 23 23 29.1 | |
| | 289nm,0.2s | | | | | | |
| PDA | Ponta Delgada | 0.86 | 120 | eP | Pg | 23 23 16.3 | -2.4 |
| PDA | | | | eS | Sg | 23 23 26.9 | -2.9 |
| CMLA | Cha da Macela | 0.94 | 115 | ⇑iP | Pg | 23 23 17.6 | -2.8 |
| CMLA | | | | eS | Sg | 23 23 29.5 | -3.2 |
| CMLA | | | | A | A | 23 23 36.4 | |
| | 222nm,0.4s | | | | | | |
| CMLA | Cha da Macela | 0.94 | 115 | ⇑iP | Pg | 23 23 17.6 | -2.8 |
| CMLA | | | | eS | Sg | 23 23 29.5 | -3.2 |
| PCALD | Caldeiras da R | 0.96 | 113 | eP | Pg | 23 23 17.6 | -3.1 |
| PCALD | | | | eS | Sg | 23 23 29.4 | -3.7 |
| PCALD | | | | A | A | 23 23 31.7 | |
| | 272nm,0.4s | | | | | | |
| PCALD | Caldeiras da R | 0.96 | 113 | eP | Pg | 23 23 17.6 | -3.1 |
| PCALD | | | | eS | Sg | 23 23 29.4 | -3.7 |
| BART | Pico Bartolome | 1.20 | 109 | eP | Pg | 23 23 20.7 | -4.6 |
| BART | | | | eS | Sg | 23 23 34.9 | -6.0 |
| BART | | | | A | A | 23 23 39.0 | |
| | 103nm,0.3s | | | | | | |
| BART | Pico Bartolome | 1.20 | 109 | eP | Pg | 23 23 20.7 | -4.6 |
| BART | | | | eS | Sg | 23 23 34.9 | -6.0 |
| PMAN | Manadas | 1.25 | 292 | eP | Pg | 23 23 21.9 | -4.4 |
| PMAN | | | | eS | Sg | 23 23 36.1 | -6.5 |
| PMAN | | | | A | A | 23 23 41.1 | |
| | 71nm,0.5s | | | | | | |
| PMAN | Manadas | 1.25 | 292 | eP | Pg | 23 23 21.9 | -4.4 |
| PMAN | | | | eS | Sg | 23 23 36.1 | -6.5 |
| PGRA | Graciosa | 1.38 | 309 | eP | Pn | 23 23 23.5 | -5.0 |
| PGRA | | | | eS | Sg | 23 23 39.6 | -7.0 |
| PGRA | | | | A | A | 23 23 43.0 | |
| | 61nm,0.3s | | | | | | |
| PGRA | Graciosa | 1.38 | 309 | eP | Pn | 23 23 23.5 | -5.0 |
| PGRA | | | | eS | Sg | 23 23 39.6 | -7.0 |
| ROSA | Rosais | 1.40 | 293 | eP | Pn | 23 23 11.2 | -18 |
| ROSA | | | | eS | Sg | 23 23 27.2 | -20 |
| ROSA | Rosais | 1.40 | 293 | eP | Pn | 23 23 11.2 | -18 |
| ROSA | | | | eS | Sg | 23 23 27.2 | -20 |
| PICO | Pico | 1.47 | 283 | eP | Pn | 23 23 24.9 | -4.9 |
| PICO | | | | eS | Sb | 23 23 41.6 | -7.9 |
| PICO | | | | A | A | 23 23 48.6 | |
| | 61nm,0.2s | | | | | | |
| PICO | Pico | 1.47 | 283 | eP | Pn | 23 23 24.9 | -4.9 |
| PICO | | | | eS | Sb | 23 23 41.6 | -7.9 |
| PCAN | Candelaria | 1.51 | 282 | eP | Pn | 23 23 25.7 | -4.6 |
| PCAN | | | | eS | Sn | 23 23 43.0 | -7.5 |
| PCAN | | | | A | A | 23 23 50.8 | |
| | 48nm,0.3s | | | | | | |
| PCAN | Candelaria | 1.51 | 282 | eP | Pn | 23 23 25.7 | -4.6 |
| PCAN | | | | eS | Sn | 23 23 43.0 | -7.5 |
| HOR | Horta | 1.63 | 283 | eS | Sn | 23 23 45.8 | -7.7 |
| HOR | | | | A | A | 23 23 50.8 | |
| | 62nm,0.2s | | | | | | |
| HOR | Horta | 1.63 | 283 | eS | Sn | 23 23 45.8 | -7.7 |
| PSMA | Santa Maria | 1.66 | 135 | eP | Pn | 23 23 27.7 | -4.6 |
| PSMA | | | | eS | Sn | 23 23 46.1 | -8.1 |
| PSMA | | | | A | A | 23 23 48.8 | |
| | 39nm,0.1s | | | | | | |
| PSMN | Pico do Norte, | 1.69 | 133 | eP | Pn | 23 23 27.9 | -4.9 |
| PSMN | | | | eS | Sn | 23 23 47.0 | -8.0 |
| PSMN | | | | A | A | 23 23 48.9 | |
| | 28nm,0.4s | | | | | | |
| PSMN | Pico do Norte, | 1.69 | 133 | eP | Pn | 23 23 27.9 | -4.9 |
| PSMN | | | | eS | Sn | 23 23 47.0 | -8.0 |
| PCED | Cedros | 1.71 | 286 | eP | Pn | 23 23 28.4 | -4.7 |
| PCED | | | | eS | Sn | 23 23 47.2 | -8.3 |
| PCED | | | | A | A | 23 23 56.8 | |
| | 20nm,0.4s | | | | | | |
| PCED | Cedros | 1.71 | 286 | eP | Pn | 23 23 28.4 | -4.7 |
| PCED | | | | eS | Sn | 23 23 47.2 | -8.3 |

---

*CSEM **09** 23:27:59.5±0.6, 38°.99N×41°.45E, h2km, MD2.9, Error ellipse: s-maj=15.9km s-min=9.1km az=176.0*
*ATA **09** 23:28:00.1±0.5, 39°.11N×41°.41E, h38km±8km, ML2.3, MW2.3*
*ISK **09** 23:28:00.6, 39°.14N×41°.52E, h5km, MD2.4*
*ISCJB **09** 23:28:01.7±0.8, 39°.17N±0°.07×41°.50E±0°.06, h9km±6km, Error ellipse: s-maj=12.0km s-min=7.0km az=163.9*
*DDA **09** 23:28:01.8, 39°.18N×41°.46E, h5km, Md2.9*
**ISC 09 23:28:00.3**±1.1**, 39°.12N**±0°.05×**41°.52E**±0°.06**, h13km**±6km**, n18, σ0s.93**/26**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VRTB | Varto-Mus | 0.07 | 305 | ePG | Pg | 23 28 02.3 | -0.7 |
| VRTB | Varto-Mus | 0.07 | 305 | i P | Pg | 23 28 02.5 | -0.5 |
| VRTB | | | | i S | Sg | 23 28 05.1 | +0.1 |
| VRTB | Varto-Mus | 0.07 | 305 | ePg | Pg | 23 28 02.3 | -0.7 |
| VRTB | Varto-Mus | 0.07 | 305 | P | Pg | 23 28 02.5 | -0.5 |
| VRTB | | | | S | Sg | 23 28 05.1 | +0.1 |
| BNGL | BINGOL | 0.34 | 240 | eP | Pb | 23 28 08.4 | +0.1 |
| BNGL | | | | eS | Sb | 23 28 15.3 | +1.6 |
| BNGL | | | | IAML | | 23 28 24.4 | |
| | comp=Z,32nm,0.4s | | | | | | |
| BNGL | BINGOL | 0.34 | 240 | i P | Pb | 23 28 08.3 | 0.0 |
| BNGL | | | | i S | Sb | 23 28 14.8 | +1.0 |
| EKAR | Karacoban | 0.44 | 72 | eP | Pn | 23 28 12.2 | -0.4 |
| EKAR | | | | IAML | | 23 28 34.6 | |
| | comp=Z,20nm,0.8s | | | | | | |
| EKAR | Karacoban | 0.44 | 72 | i P | Pn | 23 28 11.9 | -0.7 |
| EKAR | | | | i S | Sb | 23 28 24.4 | +7.7 |
| EKAR | Karacoban | 0.44 | 72 | P | Pn | 23 28 11.9 | -0.7 |
| ECAT | Cat-ERZURUM | 0.64 | 319 | eP | Pb | 23 28 13.5 | -0.1 |
| ECAT | | | | eS | Sb | 23 28 23.4 | +0.8 |
| ECAT | | | | IAML | | 23 28 31.3 | |
| | comp=Z,3.4nm,0.3s | | | | | | |
| ECAT | Cat-ERZURUM | 0.64 | 319 | i P | Pb | 23 28 13.4 | -0.1 |
| ECAT | | | | i S | Sb | 23 28 22.9 | +0.3 |
| ECAT | Cat-ERZURUM | 0.64 | 319 | P | Pb | 23 28 13.4 | -0.1 |
| ECAT | | | | S | Sb | 23 28 22.9 | +0.3 |
| BNGB | Bingˆ¶l | 0.67 | 259 | ePG | Pb | 23 28 14.0 | +0.1 |
| BNGB | | | | eSG | Sg | 23 28 23.8 | +1.6 |
| YEDI | Yedisu-Bingol | 0.82 | 293 | ePG | Pb | 23 28 16.7 | +0.1 |
| YEDI | Yedisu-Bingol | 0.82 | 293 | ePg | Pb | 23 28 16.7 | +0.1 |
| BINT | Bingol | 0.84 | 253 | ePg | Pg | 23 28 14.0 | -2.6 |
| AGRB | Hanur-Agry | 1.23 | 68 | ePN | Pn | 23 28 24.4 | +1.0 |
| AGRB | Hanur-Agry | 1.23 | 68 | ePn | Pn | 23 28 24.4 | +1.0 |

---

**DJA 09 23:31:43.4**±1.1**, 4°S**±8°×**13°4E**±°**, h11km**±5km**, M3.8**/5**, MLv3.8**/5**, Irian Jaya region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KMPI | Kaimana, Papua | 0.19 | 1 | P | Pb | 23 31 48.4 | -0.5 |
| FAKI | Fak Fak | 1.72 | 303 | P | Pn | 23 32 12.9 | -0.4 |
| FAKI | | | | S | Sn | 23 32 35.4 | +0.1 |
| RKPI | Ransiki, Papua | 2.37 | 12 | P | Pn | 23 32 22.1 | -0.2 |
| BNDI | Bandanaira | 3.84 | 260 | P | Pn | 23 32 42.5 | 0.0 |

---

*NIED **10** 00:00:00, 35°.70N×141°.00E, h5km, Mw3.4 Best double couple: M0 1.39000×10^14 NP1:φs25.00000°, δ39.00000°, λ-43.00000°. NP2:φs151.00000°, δ65.00000°, λ-120.00000°.*
**JMA 10 00:00:25.2**±0.1**, 35°.71N×140°.95E, h11km**±1km**, M3.5, 1C-1D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CHOJ | Chosi | 0.07 | 264 | ⇑P | Pg | 00 00 27.5 | -0.1 |
| CHOJ | | | | S | Sg | 00 00 29.4 | +0.1 |
| JYT | Yasato | 0.80 | 310 | P | Pg | 00 00 40.3 | -0.4 |
| JYT | | | | S | Sg | 00 00 50.8 | -0.4 |
| BSO4 | Boso 4 | 0.88 | 215 | P | Pb | 00 00 42.6 | +0.3 |
| JHO | Hitachi | 0.95 | 341 | ⇓P | Pg | 00 00 42.3 | -1.2 |
| BSO3 | Boso 3 | 0.97 | 202 | P | Pg | 00 00 43.8 | -0.1 |
| MAT | Matsushiro | 2.37 | 291 | P | Pn | 00 01 03.8 | -0.3 |
| MAT | | | | eS | Sb | 00 01 37.4 | +0.2 |

---

*BJI **10** 00:05:58.7, 51°.90N×172°.10W, h25km, mb4.7/32, mB5.2/24, Ms5.0/13, Ms7 4.6/17*
*NEIC **10** 00:06:00.3±0.0, 51°.87N×172°.03W, h43km, mb5.0/251, ML4.8(AEIC), After AEIC.*
*NEIC Felt on Atka.*
*GCMT **10** 00:06:00.3±0.4, 52°.02N×172°.19W, h25km±1km, MW4.9/82, Moment Tensor Solution. s20,c23; s82,c105; Duration: 0 Moment tensor: Scale 10^16Nm; Mrr-0.89±.14; Mθθ-1.52±.10; Mφφ2.41±.11; Mrθ1.28±.28; Mθφ0.64±.08; Mφr-0.81±.20; Best double couple: M0 2.67600×10^16 NP1:φs330.00000°, δ72.00000°, λ-143.00000°. NP2: φs227.00000°, δ55.00000°, λ-22.00000°. Principal axes: T 2.6300, Plg11.0000°, Azm95.0000°; N 0.0920, Plg50.0000°, Azm352.0000°; P -2.7220, Plg38.0000°, Azm194.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*MOS **10** 00:06:01.3±1.3, 51°.93N×172°.08W, h39km, mb5.1/61 Error ellipse: s-maj=7.4km s-min=5.9km az=59.6*
*IDC **10** 00:06:02.3±2.5, 52°.11N×172°.09W, h30km±16km, mb4.2/32, mb1 4.4/34, mb1mx4.2/47, mbtmp4.4/34, ML4.1/2, MS3.9/22,*

Ms1 3.9/22, ms1mx3.7/49, Error ellipse: s-maj=17.1km s-min=9.6km az=177.0

ISCJB **10** 00:06:02.3±0.4, 52°.05N±0°.03×172°.08W±0°.02, h52km±3km, mb4.9/274, MS4.0/26, Error ellipse: s-maj=5.1km s-min=2.4km az=172.8

**ISC 10 00:06:03.4**±0.4**, 51°.88N**±0°.06×**172°.02W**±0°.03**, h37**km±1km**, n879, σ1s.41**/898**, mb5.0**/274**, MS4.0**/26**, 1C-1D, Andreanof Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KOSE | Korovin Southe | 1.33 | 291 | P | Pn | 00 06 23.2 | -2.3 |
| KOFP | Korovin Flat P | 1.34 | 288 | P | Pn | 00 06 23.2 | -2.4 |
| ATKA | Atka Island | 1.38 | 284 | ePn | Pn | 00 06 23.1 | -3.0 |
| KOKL | Mount Kliuchef | 1.41 | 289 | P | Pn | 00 06 24.3 | -2.3 |
| NIKH | Nikolski High | 2.23 | 59 | ePn | Pn | 00 06 34.5 | -3.2 |
| GSTR | Great Sitkin T | 2.50 | 276 | ePn | Pn | 00 06 39.5 | -2.1 |
| GSTD | Great Sitkin T | 2.56 | 275 | P | Pn | 00 06 39.8 | -2.5 |
| OKSP | Okmok Steeple | 2.66 | 57 | P | Pn | 00 06 41.2 | -2.5 |
| ADAG | Mount Adagdak | 2.84 | 274 | P | Pn | 00 06 44.5 | -1.6 |
| ADK | Adak | 2.89 | 272 | eP | Pn | 00 06 44.3 | -2.5 |
| ADK | Adak | 2.89 | 272 | ePn | Pn | 00 06 44.3 | -2.5 |
| ADK | | | | S | Sn | 00 07 15.4 | -4.8 |
| OKFG | Magazine Ridge | 2.94 | 57 | P | Pn | 00 06 45.9 | -1.5 |
| OKFG | | | | S | Sn | 00 07 18.8 | -2.6 |
| KIKV | Kanaga Island | 3.19 | 272 | P | Pn | 00 06 49.2 | -1.8 |
| KICM | Kanaga Island | 3.20 | 273 | P | Pn | 00 06 49.7 | -1.5 |
| TAPA | Tanaga Point A | 3.59 | 271 | P | Pn | 00 06 55.0 | -1.5 |
| TAFP | Tanaga Falls P | 3.69 | 273 | P | Pn | 00 06 56.5 | -1.4 |
| TAFP | | | | S | Sn | 00 07 37.4 | -2.7 |
| MCIR | Makushin Cirqu | 3.73 | 54 | P | Pn | 00 06 58.1 | -0.4 |
| MREP | Makushin Rep't | 3.74 | 57 | P | Pn | 00 06 55.9 | -2.6 |
| MSW | Makushin Switc | 3.77 | 55 | P | Pn | 00 06 58.5 | -0.5 |
| GAEA | Gareloi East | 4.17 | 271 | P | Pn | 00 07 03.8 | -0.7 |
| GALAA | Gareloi Lava P | 4.19 | 271 | P | Pn | 00 07 04.0 | -0.7 |
| AKMO | Akutan Morgan | 4.25 | 56 | P | Pn | 00 07 05.3 | -0.3 |
| AKGG | Akutan Green G | 4.32 | 55 | P | Pn | 00 07 06.5 | +0.1 |
| AKUT | Akutan | 4.40 | 57 | ePn | Pn | 00 07 08.7 | +1.1 |
| SPIA | Saint Paul Isl | 5.41 | 10 | ePn | Pn | 00 07 23.2 | +1.9 |
| ISLZ | Isanotski Laza | 5.74 | 57 | P | Pn | 00 07 25.7 | -0.3 |
| FALS | False Pass | 5.95 | 57 | ePn | Pn | 00 07 29.8 | +1.0 |
| DT1 | Dutton Round H | 6.65 | 57 | P | Pn | 00 07 37.7 | -0.8 |
| SDPT | Sand Point | 7.69 | 59 | ePn | Pn | 00 07 51.8 | -0.9 |
| SMY | Shemya | 8.55 | 281 | eP | Pn | 00 08 02.7 | -1.8 |
| SMY | Shemya | 8.55 | 281 | ePn | Pn | 00 08 02.7 | -1.8 |
| CHGN | Chignik | 9.13 | 56 | ePn | Pn | 00 08 12.1 | -0.4 |
| GAMB | Gambell | 11.93 | 1 | ePn | Pn | 00 08 50.3 | -0.3 |
| OHAK | Old Harbor | 12.10 | 56 | ePn | Pn | 00 08 53.8 | +0.8 |
| KDAK | Kodiak Island | 12.64 | 55 | Pn | Pn | 00 08 56.4 | -4.0 |
| | 1.1nm,0.3s,baz=225,slow=3.1,SNR=18 | | | | | | |
| KDAK | | | | Sn | Sn | 00 11 13.7 | -6.0 |
| | baz=142,slow=19,SNR=2.0 | | | | | | |
| SVW2 | Sparrevohn | 12.91 | 38 | ePn | Pn | 00 09 05.1 | +1.0 |
| RSO | Redoubt South | 13.70 | 44 | ePn | Pn | 00 09 15.4 | +0.3 |
| HOM | Homer | 13.82 | 48 | ePn | Pn | 00 09 17.0 | +0.6 |
| CNPM | China Poot | 13.95 | 49 | ePn | Pn | 00 09 19.6 | +1.3 |
| BRLK | Bradley Lake | 14.21 | 48 | ePn | Pn | 00 09 23.3 | +1.5 |
| SPU | Mount Spurr | 14.36 | 42 | ePn | Pn | 00 09 25.5 | +1.6 |
| SEW | Seward | 15.01 | 48 | ePn | Pn | 00 09 33.5 | +1.0 |
| | 25nm,0.7s | | | | | | |
| SUA | Susitna One | 15.05 | 42 | ePn | Pn | 00 09 35.2 | +2.0 |
| | 30nm,1.0s | | | | | | |
| PPLA | Purkeypile | 15.28 | 36 | ePn | Pn | 00 09 38.0 | +1.8 |
| | 87nm,1.5s | | | | | | |
| RC01 | Rabbit Creek A | 15.30 | 44 | ePn | Pn | 00 09 36.6 | +0.3 |
| | 42nm,1.3s | | | | | | |
| CAST | Castle Rocks | 15.64 | 35 | ePn | Pn | 00 09 41.9 | +1.1 |
| | 25nm,1.0s | | | | | | |
| PMR | Palmer | 15.79 | 43 | eP | Pn | 00 09 43.6 | +0.9 |
| PMR | | | | pmax | pmax | | |
| | comp=Z,16nm,1.0s | | | | | | |
| PMR | Palmer | 15.79 | 43 | ePn | Pn | 00 09 43.6 | +0.9 |
| | comp=Z,16nm,1.0s | | | | | | |
| KTH | Kantishna Hill | 16.14 | 35 | ePn | Pn | 00 09 47.5 | +0.4 |
| | comp=Z,74nm,1.0s | | | | | | |
| SML | Sawmill | 16.23 | 43 | eP | Pn | 00 09 48.8 | +0.5 |
| SML | | | | pmax | pmax | | |
| | comp=Z,28nm,0.9s | | | | | | |
| SML | Sawmill | 16.23 | 43 | ePn | Pn | 00 09 48.8 | +0.5 |
| | comp=Z,28nm,0.9s | | | | | | |
| TRF | Thorofare Moun | 16.31 | 36 | ePn | P | 00 09 50.9 | -1.1 |
| | comp=Z,189nm,1.8s | | | | | | |
| BPAW | Bear Paw Mtn. | 16.45 | 34 | ePn | Pn | 00 09 52.0 | +0.9 |
| | comp=Z,52nm,1.0s | | | | | | |
| FID | Port Fidalgo | 16.62 | 48 | ePn | Pn | 00 09 51.5 | -1.7 |
| | comp=Z,19nm,0.8s | | | | | | |
| SCM | Sheep Creek Mo | 16.67 | 44 | eP | Pn | 00 09 52.4 | -1.5 |
| SCM | | | | pmax | pmax | | |
| | comp=Z,45nm,1.1s | | | | | | |
| SCM | Sheep Creek Mo | 16.67 | 44 | ePn | Pn | 00 09 52.4 | -1.5 |
| | comp=Z,45nm,1.1s | | | | | | |
| RND | Reindeer | 16.82 | 38 | eP | Pn | 00 09 55.5 | -0.3 |
| RND | | | | pmax | pmax | | |
| | comp=Z,17nm,0.8s | | | | | | |
| RND | Reindeer | 16.82 | 38 | ePn | Pn | 00 09 55.5 | -0.3 |
| | comp=Z,17nm,0.8s | | | | | | |
| IMAR | Indian Mountai | 16.88 | 26 | ePn | Pn | 00 09 55.6 | -0.9 |
| EYAK | Cordova Ski Ar | 16.89 | 49 | ePn | Pn | 00 09 56.6 | +0.1 |
| | comp=Z,17nm,1.0s | | | | | | |
| MCK | McKinley | 16.96 | 37 | eP | Pn | 00 09 57.6 | 0.0 |
| MCK | | | | pmax | pmax | | |
| | comp=Z,66nm,1.5s | | | | | | |
| MCK | McKinley | 16.96 | 37 | ePn | Pn | 00 09 57.6 | 0.0 |
| | comp=Z,66nm,1.6s | | | | | | |
| DIV | Divide | 17.08 | 47 | ePn | Pn | 00 09 59.3 | +0.3 |
| | comp=Z,32nm,1.3s | | | | | | |
| MLY | Manley | 17.12 | 32 | ePn | Pn | 00 09 59.6 | +0.1 |
| | comp=Z,25nm,1.0s | | | | | | |
| KLU | Klutina | 17.14 | 46 | ePn | Pn | 00 09 57.3 | -2.5 |
| | comp=Z,16nm,0.7s | | | | | | |
| DHY | Denali Highway | 17.22 | 40 | ePn | Pn | 00 10 00.7 | -0.2 |
| | comp=Z,59nm,1.6s | | | | | | |
| RAGM | Ragged Mountai | 17.34 | 50 | ePn | P | 00 10 02.9 | -0.5 |
| | comp=Z,44nm,0.7s | | | | | | |
| BMRM | Bremner River | 17.56 | 48 | ePn | Pn | 00 10 04.9 | 0.0 |
| | comp=Z,53nm,1.2s | | | | | | |
| HARP | HAARP | 17.84 | 43 | ePn | Pn | 00 10 08.2 | -0.2 |
| | comp=Z,41nm,1.0s | | | | | | |
| PET | Petropavlovsk | 17.86 | 285 | eP | P | 00 10 11.1 | +2.1 |
| PET | | | | eS | Sn | 00 13 23.9 | -2.5 |
| PET | | | | MLR | MLR | | |
| | comp=Z,600nm,13.0s | | | | | | |
| CCB | Clear Creek Bu | 17.89 | 35 | ePn | Pn | 00 10 07.6 | -1.3 |
| | comp=Z,11nm,0.7s | | | | | | |
| MDM | Murphy Dome | 17.92 | 34 | ePn | Pn | 00 10 08.8 | -0.6 |
| | comp=Z,92nm,1.6s | | | | | | |
| PAX | Paxson | 17.94 | 42 | eP | Pn | 00 10 09.2 | -0.5 |
| PAX | | | | pmax | pmax | | |
| | comp=Z,25nm,1.1s | | | | | | |
| PAX | Paxson | 17.94 | 42 | ePn | Pn | 00 10 09.2 | -0.5 |
| | comp=Z,25nm,1.2s | | | | | | |
| COLA | College | 18.00 | 34 | eP | Pn | 00 10 10.3 | 0.0 |
| COLA | | | | e | | 00 13 19.0 | |
| COLA | | | | pmax | pmax | | |
| | comp=Z,56nm,1.5s | | | | | | |
| COLA | College | 18.00 | 34 | ePn | Pn | 00 10 10.3 | 0.0 |
| | comp=Z,56nm,1.5s | | | | | | |
| COLA | | | | eSn | Sn | 00 13 19.0 | -11 |
| HDA | Harding Lake | 18.07 | 36 | ePn | Pn | 00 10 10.8 | -0.3 |
| | comp=Z,42nm,1.5s | | | | | | |
| IL1 | Eielson Array | 18.29 | 35 | eP | P | 00 10 11.6 | -2.1 |
| ILAR | Eielson Array | 18.29 | 35 | P | P | 00 10 10.4 | -3.3 |
| | comp=Z,1.0nm,0.3s,baz=227,slow=9.8,SNR=46 | | | | | | |
| ILAR | | | | LR | LR | 00 17 58.0 | |
| | comp=Z,611nm,19.8s,baz=238,slow=40 | | | | | | |
| ILAR | | | | ScP | ScP | 00 18 16.1 | -0.1 |
| | comp=Z,0.0nm,0.3s,baz=243,slow=4.0,SNR=3.4 | | | | | | |
| ILB | Eielson Array | 18.29 | 35 | eP | P | 00 10 11.8 | -1.8 |
| PETK | Petropavlovsk- | 18.41 | 286 | P | P | 00 10 15.0 | -0.2 |
| | comp=Z,1.7nm,0.3s,baz=78,slow=14,SNR=23 | | | | | | |
| PETK | | | | LR | LR | 00 18 01.5 | |
| | comp=Z,132nm,18.8s,baz=90,slow=39 | | | | | | |
| PETK | Petropavlovsk- | 18.41 | 286 | eP | P | 00 10 13.9 | -1.3 |
| PETK | Petropavlovsk- | 18.41 | 286 | eP | P | 00 10 13.9 | -1.3 |
| MENT | Mentasta | 18.66 | 43 | eP | P | 00 10 17.1 | -0.7 |
| | comp=Z,9.3nm,0.6s | | | | | | |
| COLD | Coldfoot | 18.77 | 27 | eP | Pn | 00 10 19.7 | +0.1 |
| | comp=Z,23nm,1.0s | | | | | | |
| PCA | Pinnacle | 19.41 | 53 | eP | P | 00 10 26.4 | +0.3 |
| | comp=Z,48nm,0.6s | | | | | | |
| FYU | Fort Yukon | 19.86 | 32 | eP | P | 00 10 31.0 | +0.2 |
| | comp=Z,64nm,1.2s | | | | | | |
| EGAK | Eagle | 20.44 | 39 | eP | P | 00 10 36.1 | -1.1 |
| | comp=Z,21nm,0.8s | | | | | | |
| DAWY | Dawson | 20.88 | 42 | eP | P | 00 10 41.1 | -0.9 |
| | comp=Z,25nm,1.3s | | | | | | |
| HYT | Haines Junctio | 20.88 | 51 | eP | P | 00 10 42.4 | +0.3 |
| | comp=Z,34nm,0.8s | | | | | | |
| SKAG | Skagway | 21.80 | 55 | eP | P | 00 10 50.4 | -1.4 |
| | comp=Z,44nm,0.7s | | | | | | |
| SEY | Seymchan | 21.82 | 314 | P | P | 00 10 51.3 | -0.7 |
| | comp=Z,7.5nm,0.8s,baz=110,slow=13,SNR=4.3 | | | | | | |
| BESE | Bessie Mountai | 22.00 | 58 | eP | P | 00 10 54.5 | +0.4 |
| | comp=Z,48nm,1.3s | | | | | | |
| WHY | Whitehorse | 22.13 | 52 | eP | P | 00 10 56.9 | +1.3 |
| | comp=Z,15nm,0.6s | | | | | | |
| DIB | Dawson Inlet, | 23.88 | 71 | eP | P | 00 11 14.1 | +1.0 |
| | comp=Z,79nm,1.4s | | | | | | |
| MIDW | Midway | 23.98 | 192 | eP | P | 00 11 14.3 | +0.1 |
| | comp=Z,44nm,0.7s | | | | | | |
| DLBC | Dease Lake | 24.54 | 58 | eP | P | 00 11 20.2 | +1.0 |
| | comp=Z,41nm,0.8s | | | | | | |
| INK | Inuvik | 24.66 | 34 | P | P | 00 11 17.7 | -2.4 |
| | comp=Z,9.0nm,0.4s,baz=241,slow=8.3,SNR=39 | | | | | | |
| INK | | | | PcP | PcP | 00 14 56.3 | -0.1 |
| | comp=Z,2.5nm,0.7s,baz=260,slow=1.0,SNR=5.8 | | | | | | |
| INK | Inuvik | 24.66 | 34 | eP | P | 00 11 17.7 | -2.4 |
| | comp=Z,14nm,0.6s | | | | | | |
| INK | | | | PcP | PcP | 00 14 56.3 | -0.1 |
| BBB | Bella Bella | 26.71 | 72 | P | P | 00 11 38.9 | +0.1 |
| | comp=Z,29nm,0.9s,baz=291,slow=6.0,SNR=8.2 | | | | | | |
| PGC | Sidney | 30.76 | 76 | eP | P | 00 12 16.0 | +1.2 |
| | comp=Z,12nm,0.9s | | | | | | |
| ASAJ | Asahikawa | 30.91 | 274 | eP | P | 00 12 16.8 | +0.5 |
| | comp=Z,20nm,1.1s | | | | | | |
| LLLB | Lillooet | 30.91 | 72 | eP | P | 00 12 17.3 | +1.0 |
| | comp=Z,24nm,0.8s | | | | | | |
| A04D | Lummi Island | 31.18 | 76 | P | P | 00 12 19.0 | +0.5 |
| | baz=295 | | | | | | |
| E03A | Lebam | 31.62 | 80 | eP | P | 00 12 23.9 | +1.5 |
| | comp=Z,36nm,0.8s | | | | | | |
| B05A | Bryant | 31.74 | 76 | P | P | 00 12 24.4 | +0.9 |
| | baz=296,SNR=16 | | | | | | |
| YKA | Yellowknife Ar | 31.79 | 48 | P | P | 00 12 21.8 | -2.0 |
| | comp=Z,2.1nm,0.5s,baz=274,slow=8.8,SNR=50 | | | | | | |
| YKA | | | | PcP | PcP | 00 15 13.8 | -0.2 |
| | comp=Z,1.2nm,0.6s,baz=284,slow=3.0,SNR=8.6 | | | | | | |
| YKA | | | | ScP | ScP | 00 18 54.9 | +0.8 |
| | comp=Z,0.6nm,0.7s,baz=284,slow=3.6,SNR=5.5 | | | | | | |
| YKA | | | | LR | LR | 00 26 56.3 | |
| | comp=Z,66nm,20.5s,baz=0.0,slow=40 | | | | | | |
| F03A | Seaside | 31.91 | 81 | eP | P | 00 12 25.7 | +0.6 |
| | comp=Z,31nm,0.9s | | | | | | |
| B06A | Marblemount | 32.00 | 76 | eP | P | 00 12 26.5 | +0.7 |
| | comp=Z,12nm,0.7s | | | | | | |
| KIP | Kipapa | 32.30 | 155 | eP | P | 00 12 28.9 | +0.3 |
| KIP | | | | pmax | pmax | | |
| | comp=Z,420nm,1.7s | | | | | | |
| KIP | Kipapa | 32.30 | 155 | eP | P | 00 12 28.9 | +0.3 |
| | comp=Z,424nm,1.8s | | | | | | |
| TIXI | Tiksi | 32.31 | 329 | ScP | ScP | 00 18 55.2 | -0.6 |
| | comp=Z,3.2nm,0.7s,baz=97,slow=3.2,SNR=7.0 | | | | | | |
| TIXI | Tiksi | 32.31 | 329 | eP | P | 00 12 30.2 | +1.9 |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,1.0nm,1.0s | | | | | | |
| TIXI | Tiksi | 32.31 | 329 | eP | P | 00 12 29.8 | +1.5 |
| | comp=Z,2.7nm,0.8s | | | | | | |
| TIXI | | | | ScP | ScP | 00 18 55.2 | -0.6 |
| G03D | McMinnville, O | 32.45 | 82 | P | P | 00 12 30.8 | +1.1 |
| | baz=300 | | | | | | |
| LON | Longmire | 32.59 | 79 | eP | P | 00 12 32.0 | +0.9 |
| LON | | | | pmax | pmax | | |
| | comp=Z,12nm,0.7s | | | | | | |
| LON | Longmire | 32.59 | 79 | eP | P | 00 12 32.0 | +0.9 |
| | comp=Z,12nm,0.7s | | | | | | |
| F04A | Amboy | 32.61 | 80 | eP | P | 00 12 32.4 | +1.2 |
| | comp=Z,33nm,0.8s | | | | | | |
| COR | Corvallis | 32.73 | 83 | eP | P | 00 12 31.5 | -0.8 |
| COR | | | | pmax | pmax | | |
| | comp=Z,65nm,1.2s | | | | | | |
| COR | Corvallis | 32.73 | 83 | eP | P | 00 12 31.5 | -0.8 |
| | comp=Z,64nm,1.2s | | | | | | |
| LTY | Liberty | 33.05 | 77 | eP | P | 00 12 35.4 | +0.3 |
| | comp=Z,30nm,1.6s | | | | | | |
| I03D | Drain, OR | 33.16 | 85 | P | P | 00 12 36.5 | +0.5 |
| | baz=302 | | | | | | |
| H04A | Detroit Lake | 33.37 | 82 | eP | P | 00 12 38.8 | +0.8 |
| | comp=Z,38nm,0.9s | | | | | | |
| G05D | Wamic, OR | 33.62 | 81 | P | P | 00 12 41.1 | +1.0 |
| | baz=300,SNR=8.1 | | | | | | |
| I04A | Tendick Farm, | 33.69 | 84 | P | P | 00 12 41.9 | +1.1 |
| | baz=302,SNR=11 | | | | | | |
| L02D | Cave Junction, | 33.84 | 87 | P | P | 00 12 43.0 | +1.1 |
| | baz=304,SNR=6.0 | | | | | | |
| HUMO | Hull Mountain | 33.99 | 86 | eP | P | 00 12 44.7 | +1.4 |
| | comp=Z,8.8nm,0.8s | | | | | | |
| KRMB | Red Mountain | 34.01 | 88 | eP | P | 00 12 44.8 | +1.3 |
| | comp=Z,20nm,1.3s | | | | | | |
| G06A | Carlson Farm, | 34.04 | 80 | eP | P | 00 12 44.2 | +0.5 |
| | comp=Z,12nm,1.0s | | | | | | |
| I05D | Terrebonne, OR | 34.07 | 82 | P | P | 00 12 44.6 | +0.6 |
| | baz=301,SNR=12 | | | | | | |
| HAWA | Hanford | 34.15 | 78 | eP | P | 00 12 45.3 | +0.7 |
| | comp=Z,29nm,0.7s | | | | | | |
| F07A | Phinny Hill Vi | 34.15 | 79 | eP | P | 00 12 45.8 | +1.2 |
| | comp=Z,34nm,1.1s | | | | | | |
| J04D | Umpqua Nationa | 34.17 | 85 | P | P | 00 12 45.4 | +0.3 |
| | baz=302,SNR=5.9 | | | | | | |
| D08A | Wollman Farm, | 34.20 | 77 | eP | P | 00 12 45.2 | +0.2 |
| | comp=Z,18nm,0.7s | | | | | | |
| C09A | Chrisman Ranch | 34.24 | 75 | eP | P | 00 12 45.6 | +0.2 |
| | comp=Z,29nm,0.8s | | | | | | |
| HPAH | Hawaii Prepara | 34.26 | 152 | eP | P | 00 12 45.4 | -0.4 |
| | comp=Z,289nm,1.6s | | | | | | |
| E08A | Dider Farm, El | 34.38 | 78 | eP | P | 00 12 47.0 | +0.4 |
| | comp=Z,10nm,0.7s | | | | | | |
| KHMM | Horse Mountain | 34.48 | 89 | eP | P | 00 12 48.6 | +0.8 |
| | comp=Z,19nm,0.9s | | | | | | |
| POHA | Pohakuloa | 34.57 | 152 | eP | P | 00 12 49.0 | +0.4 |
| | comp=Z,407nm,1.8s | | | | | | |
| YBH | Yreka Blue Hor | 34.63 | 87 | P | P | 00 12 50.6 | +1.7 |
| | comp=Z,9.8nm,0.7s,baz=298,slow=8.0,SNR=39 | | | | | | |
| YBH | | | | LR | LR | 00 25 11.9 | |
| | comp=Z,204nm,19.1s,baz=306,slow=33 | | | | | | |
| YBH | Yreka Blue Hor | 34.63 | 87 | eP | P | 00 12 49.5 | +0.6 |
| | comp=Z,11nm,0.8s | | | | | | |
| J05D | Fort Rock, OR | 34.69 | 84 | P | P | 00 12 50.0 | +0.5 |
| | baz=302,SNR=7.6 | | | | | | |
| NEW | Newport | 34.72 | 74 | P | P | 00 12 49.6 | +0.1 |
| | comp=Z,41nm,0.7s,baz=295,slow=8.1,SNR=64 | | | | | | |
| NEW | | | | LR | LR | 00 26 06.6 | |
| | comp=Z,209nm,20.1s,baz=255,slow=35 | | | | | | |
| NEW | Newport | 34.72 | 74 | eP | P | 00 12 49.7 | +0.1 |
| NEW | | | | pmax | pmax | | |
| | comp=Z,43nm,0.8s | | | | | | |
| NEW | Newport | 34.72 | 74 | eP | P | 00 12 49.7 | +0.1 |
| | comp=Z,43nm,0.8s | | | | | | |
| K04D | Chiloquin, OR | 34.73 | 85 | P | P | 00 12 51.2 | +1.4 |
| | baz=303 | | | | | | |
| M02C | Callahan | 34.73 | 88 | P | P | 00 12 50.2 | +0.4 |
| | baz=305,SNR=8.7 | | | | | | |
| KMRM | Mail Ridge | 34.88 | 90 | eP | P | 00 12 53.4 | +2.3 |
| | comp=Z,24nm,0.7s | | | | | | |
| E09A | Wood Farm, Sta | 34.93 | 77 | eP | P | 00 12 51.4 | +0.1 |
| | comp=Z,21nm,0.8s | | | | | | |
| G08A | Pilot Rock | 35.04 | 79 | eP | P | 00 12 52.6 | +0.2 |
| | comp=Z,14nm,1.2s | | | | | | |
| N02D | Trinity Center | 35.06 | 88 | P | P | 00 12 54.3 | +1.6 |
| | baz=305,SNR=11 | | | | | | |
| JOHN | Johnston Islan | 35.13 | 176 | eP | P | 00 12 53.1 | -0.1 |
| | comp=Z,213nm,1.0s | | | | | | |
| M04C | Macdoel | 35.14 | 86 | P | P | 00 12 54.6 | +1.2 |
| | baz=304,SNR=14 | | | | | | |
| KCPM | Cahto Peak | 35.27 | 91 | eP | P | 00 12 55.0 | +0.4 |
| | comp=Z,26nm,1.0s | | | | | | |
| I07A | Izee | 35.33 | 81 | eP | P | 00 12 55.8 | +0.9 |
| | comp=Z,27nm,0.8s | | | | | | |
| WDC | Whiskeytown Da | 35.39 | 89 | eP | P | 00 12 55.5 | +0.1 |
| WDC | | | | pmax | pmax | | |
| | comp=Z,15nm,0.9s | | | | | | |
| WDC | Whiskeytown Da | 35.39 | 89 | eP | P | 00 12 55.5 | +0.1 |
| | comp=Z,15nm,0.8s | | | | | | |
| F10A | Beach Ranch, E | 35.75 | 77 | eP | P | 00 12 57.9 | -0.6 |
| | comp=Z,9.2nm,0.7s | | | | | | |
| HOPS | Hopland Field | 36.00 | 91 | eP | P | 00 13 02.1 | +1.4 |
| | comp=Z,29nm,1.1s | | | | | | |
| O03D | Paynes Creek | 36.02 | 89 | P | P | 00 13 01.5 | +0.6 |
| | baz=306,SNR=22 | | | | | | |
| MOD | Modoc Plateau | 36.02 | 85 | eP | P | 00 13 01.6 | +0.6 |
| | comp=Z,19nm,0.7s | | | | | | |
| H11N2 | WAKE ISLAND Hy | 36.08 | 215 | T | T | 00 51 20.9 | |
| | baz=21,slow=76,SNR=2570 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 36.09 | 215 | T | T | 00 51 29.1 | |
| | baz=21,slow=76,SNR=3342 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 36.10 | 215 | T | T | 00 51 26.2 | |
| | baz=21,slow=76,SNR=1501 | | | | | | |
| WALA | Waterton Lakes | 36.25 | 71 | eP | P | 00 13 02.8 | 0.0 |
| | comp=Z,37nm,1.0s | | | | | | |
| BMO | Blue Mountains | 36.27 | 79 | eP | P | 00 13 03.2 | +0.2 |
| BMO | | | | pmax | pmax | | |
| | comp=Z,12nm,1.2s | | | | | | |
| BMO | Blue Mountains | 36.27 | 79 | eP | P | 00 13 03.2 | +0.2 |
| | comp=Z,12nm,1.2s | | | | | | |
| GDXM | Geysers | 36.29 | 91 | eP | P | 00 13 03.4 | +0.2 |
| | comp=Z,16nm,0.9s | | | | | | |
| J08A | Circle Bar Ran | 36.35 | 82 | eP | P | 00 13 04.4 | +0.8 |
| | comp=Z,32nm,0.9s | | | | | | |
| ORV | Oroville | 36.64 | 89 | eP | P | 00 13 06.5 | +0.4 |
| ORV | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.9s | | | | | | |
| ORV | Oroville | 36.64 | 89 | eP | P | 00 13 06.5 | +0.4 |
| | comp=Z,8.7nm,0.8s | | | | | | |
| JTMT | Jette | 36.65 | 73 | eP | P | 00 13 06.1 | 0.0 |
| | comp=Z,20nm,0.8s | | | | | | |
| WVOR | Wild Horse Val | 36.75 | 83 | eP | P | 00 13 08.0 | +0.8 |
| WVOR | | | | pmax | pmax | | |
| | comp=Z,31nm,1.0s | | | | | | |
| WVOR | Wild Horse Val | 36.75 | 83 | eP | P | 00 13 08.0 | +0.8 |
| | comp=Z,31nm,1.0s | | | | | | |
| BEKR | Beckworth | 37.16 | 88 | eP | P | 00 13 11.4 | +0.7 |
| | comp=Z,14nm,0.8s | | | | | | |
| H11S1 | WAKE ISLAND Hy | 37.28 | 215 | T | T | 00 52 53.3 | |
| | baz=20,slow=76,SNR=1903 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 37.30 | 215 | T | T | 00 52 50.4 | |
| | baz=20,slow=76,SNR=1152 | | | | | | |
| MSO | Missoula | 37.30 | 74 | eP | P | 00 13 11.5 | -0.2 |
| | comp=Z,51nm,1.3s | | | | | | |
| H11S3 | WAKE ISLAND Hy | 37.30 | 215 | T | T | 00 52 51.4 | |
| | baz=20,slow=76,SNR=1038 | | | | | | |
| AFDM | Forest Hills D | 37.33 | 90 | eP | P | 00 13 12.0 | 0.0 |
| | comp=Z,14nm,1.4s | | | | | | |
| USRK | Ussuriysk Ar. | 37.38 | 281 | P | P | 00 13 10.6 | -1.7 |
| | comp=Z,1.1nm,0.4s,baz=50,slow=10,SNR=4.1 | | | | | | |
| USRK | | | | LR | LR | 00 27 48.1 | |
| | comp=Z,128nm,21.3s,baz=64,slow=35 | | | | | | |
| RES | Resolute Bay | 37.51 | 25 | LR | LR | 00 32 46.0 | |
| | comp=Z,319nm,18.1s,baz=281,slow=43 | | | | | | |
| PAHR | Pah Rah Range | 37.86 | 87 | eP | P | 00 13 17.4 | +0.8 |
| | comp=Z,31nm,0.7s | | | | | | |
| MFID | Camas Ranch | 37.94 | 80 | eP | P | 00 13 17.6 | +0.5 |
| | comp=Z,12nm,0.8s | | | | | | |
| VLA | Vladivostok | 38.03 | 279 | eP | P | 00 13 18.0 | +0.2 |
| VLA | | | | pmax | pmax | | |
| | comp=Z,31nm,1.2s | | | | | | |
| MJAR | Matsushiro Arr | 38.04 | 266 | P | P | 00 13 17.4 | -0.5 |
| | comp=Z,4.1nm,0.5s,baz=40,slow=6.3,SNR=14 | | | | | | |
| MJAR | | | | LR | LR | 00 28 03.2 | |
| | comp=Z,190nm,20.9s,baz=40,slow=35 | | | | | | |
| MAJO | Matsushiro | 38.04 | 266 | eP | P | 00 13 17.8 | -0.1 |
| MAJO | | | | pmax | pmax | | |
| | comp=Z,25nm,1.0s | | | | | | |
| MAJO | Matsushiro | 38.04 | 266 | eP | P | 00 13 17.8 | -0.1 |
| | comp=Z,25nm,0.9s | | | | | | |
| PNTR | Pine Nut | 38.10 | 88 | eP | P | 00 13 20.0 | +1.3 |
| | comp=Z,53nm,0.8s | | | | | | |
| CMB | Columbia Colle | 38.26 | 90 | eP | P | 00 13 20.6 | +0.8 |
| CMB | | | | pmax | pmax | | |
| | comp=Z,20nm,1.3s | | | | | | |
| CMB | Columbia Colle | 38.26 | 90 | eP | P | 00 13 20.6 | +0.8 |
| | comp=Z,20nm,1.3s | | | | | | |
| YERR | Yerington | 38.38 | 88 | eP | P | 00 13 22.1 | +1.0 |
| | comp=Z,32nm,0.8s | | | | | | |
| SAO | San Andreas Ge | 38.40 | 93 | eP | P | 00 13 21.4 | +0.5 |
| SAO | | | | pmax | pmax | | |
| | comp=Z,11nm,1.0s | | | | | | |
| SAO | San Andreas Ge | 38.40 | 93 | eP | P | 00 13 21.4 | +0.5 |
| | comp=Z,11nm,0.9s | | | | | | |
| WAKR | Walker | 38.55 | 89 | eP | P | 00 13 23.9 | +1.4 |
| | comp=Z,24nm,0.8s | | | | | | |
| HRY | Holter Researc | 38.61 | 73 | eP | P | 00 13 22.6 | -0.2 |
| MDJ | Mudanjiang | 38.62 | 283 | P | P | 00 13 22.7 | 0.0 |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.1s | | | | | | |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,130nm,5.8s | | | | | | |
| LRM | Limekiln Ridge | 38.70 | 75 | eP | P | 00 13 23.5 | -0.2 |
| HLID | Hailey | 38.72 | 79 | eP | P | 00 13 23.8 | 0.0 |
| | comp=Z,19nm,1.1s | | | | | | |
| HLID | | | | eS | S | 00 19 20.4 | +2.3 |
| DLMT | Dillon | 38.85 | 75 | eP | P | 00 13 24.7 | -0.2 |
| | comp=Z,9.3nm,0.9s | | | | | | |
| MCMT | McKenzie Canyo | 38.98 | 76 | eP | P | 00 13 26.0 | -0.1 |
| PMPB | Monarch Peak | 39.15 | 93 | eP | P | 00 13 27.5 | +0.2 |
| | comp=Z,22nm,0.9s | | | | | | |
| EGMT | Eagleton | 39.17 | 70 | eP | P | 00 13 27.4 | -0.1 |
| | comp=Z,52nm,0.8s | | | | | | |
| BOZ | Bozeman (W) | 39.30 | 75 | eP | P | 00 13 28.3 | -0.3 |
| BOZ | | | | pmax | pmax | | |
| | comp=Z,22nm,0.7s | | | | | | |
| BOZ | Bozeman (W) | 39.30 | 75 | eP | P | 00 13 28.3 | -0.3 |
| | comp=Z,22nm,0.7s | | | | | | |
| MDPB | Devils Postpil | 39.31 | 90 | eP | P | 00 13 30.2 | +1.3 |
| | comp=Z,30nm,0.8s | | | | | | |
| MLAC | Mammoth, Mammo | 39.47 | 90 | P | P | 00 13 30.8 | +0.6 |
| | baz=309 | | | | | | |
| INU | Inuyama | 39.54 | 266 | eP | P | 00 13 30.5 | 0.0 |
| | comp=Z,75nm,1.8s | | | | | | |
| PAGB | Antelope Grade | 39.80 | 93 | eP | P | 00 13 33.7 | +1.0 |
| | comp=Z,28nm,0.8s | | | | | | |
| QLMT | Earthquake Lak | 39.83 | 75 | eP | P | 00 13 33.2 | +0.1 |
| YHB | Horse Butte | 40.02 | 75 | eP | P | 00 13 34.6 | -0.1 |
| | comp=Z,28nm,0.8s | | | | | | |
| RCTC | Rector, Farmer | 40.05 | 92 | P | P | 00 13 34.7 | 0.0 |
| | baz=310 | | | | | | |
| YMR | Madison River | 40.20 | 75 | eP | P | 00 13 36.4 | +0.3 |
| | comp=Z,28nm,0.8s | | | | | | |
| YHH | Holmes Hill | 40.20 | 75 | eP | P | 00 13 36.1 | -0.1 |
| | comp=Z,37nm,0.7s | | | | | | |
| TIN | Tinemaha, Big | 40.20 | 90 | P | P | 00 13 37.5 | +1.3 |
| | baz=309,SNR=8.7 | | | | | | |
| SMMC | Simmler | 40.23 | 93 | P | P | 00 13 37.3 | +1.0 |
| | baz=311 | | | | | | |
| YNR | Norris Junctio | 40.34 | 75 | eP | P | 00 13 38.3 | +0.9 |
| | comp=Z,35nm,0.9s | | | | | | |
| FFC | Flin Flon | 40.37 | 57 | eP | P | 00 13 36.2 | -1.0 |
| FFC | | | | pmax | pmax | | |
| | comp=Z,17nm,0.8s | | | | | | |
| FFC | Flin Flon | 40.37 | 57 | eP | P | 00 13 36.2 | -1.0 |
| | comp=Z,17nm,0.8s | | | | | | |
| GCMT | Greycliff | 40.37 | 73 | eP | P | 00 13 37.9 | +0.4 |
| YFT | Old Faithful | 40.39 | 76 | eP | P | 00 13 39.2 | +1.4 |
| | comp=Z,14nm,0.7s | | | | | | |
| VES | Vestal, Richgr | 40.45 | 92 | P | P | 00 13 38.7 | +0.6 |
| | baz=310 | | | | | | |
| H17A | Grant Village | 40.58 | 75 | P | P | 00 13 39.8 | +0.4 |
| | baz=303,SNR=21 | | | | | | |
| H17A | Grant Village | 40.58 | 75 | eP | P | 00 13 39.6 | +0.2 |
| | comp=Z,42nm,1.1s | | | | | | |
| LKWY | Lake | 40.59 | 75 | eP | P | 00 13 40.6 | +1.1 |
| LKWY | | | | pmax | pmax | | |
| | comp=Z,39nm,0.8s | | | | | | |
| LKWY | Lake | 40.59 | 75 | eP | P | 00 13 40.6 | +1.1 |
| | comp=Z,40nm,0.8s | | | | | | |
| PKM | Mcpherson Peak | 40.62 | 94 | P | P | 00 13 40.8 | +1.1 |
| | baz=311,SNR=10 | | | | | | |
| IMW | Indian Meadow | 40.64 | 76 | eP | P | 00 13 40.1 | +0.2 |
| | comp=Z,18nm,0.8s | | | | | | |
| CWC | Cottonwood Cre | 40.69 | 91 | P | P | 00 13 41.4 | +1.2 |
| | baz=310 | | | | | | |
| HVU | Hansel Valley | 40.72 | 80 | eP | P | 00 13 40.8 | +0.4 |
| HVU | | | | pmax | pmax | | |
| | comp=Z,16nm,0.8s | | | | | | |
| HVU | Hansel Valley | 40.72 | 80 | eP | P | 00 13 40.8 | +0.4 |
| | comp=Z,16nm,0.8s | | | | | | |
| FXWY | Fox Creek | 40.73 | 77 | eP | P | 00 13 40.7 | +0.2 |
| | comp=Z,6.0nm,0.8s | | | | | | |
| GRAC | Grapevine Rang | 40.78 | 89 | P | P | 00 13 41.7 | +0.9 |
| | baz=309,SNR=13 | | | | | | |
| MOOW | Moose Ponds | 40.84 | 76 | eP | P | 00 13 41.8 | +0.4 |
| | comp=Z,7.4nm,1.0s | | | | | | |
| TPAW | Teton Pass | 40.85 | 77 | eP | P | 00 13 42.0 | +0.4 |
| | comp=Z,67nm,1.9s | | | | | | |
| ISA | Isabella, Lake | 40.94 | 92 | P | P | 00 13 42.9 | +0.6 |
| | baz=311,SNR=5.3 | | | | | | |
| RLMT | Red Lodge | 40.97 | 74 | eP | P | 00 13 42.3 | -0.2 |
| | comp=Z,51nm,0.8s | | | | | | |
| SBC | Santa Barbara | 40.98 | 94 | P | P | 00 13 42.8 | +0.4 |
| | baz=312 | | | | | | |
| REDW | Red Top Meadow | 40.99 | 77 | eP | P | 00 13 43.0 | +0.3 |

comp=Z,26nm,1.3s
SNOW **Snow King Moun** 40.99 77 eP P 00 13 43.1 +0.4
comp=Z,9.3nm,0.7s
LOHW **Long Hollow** 41.00 76 eP P 00 13 43.2 +0.4
comp=Z,6.6nm,0.8s
R11A **Troy Canyon, C** 41.03 86 P P 00 13 43.2 +0.1
baz=308,SNR=23
BGU **Big Grassy Mou** 41.06 81 eP P 00 13 43.8 +0.5
comp=Z,8.3nm,1.0s
ARVC **Arvin** 41.07 93 P P 00 13 43.1 -0.1
baz=311
AHID **Auburn Hatcher** 41.17 78 eP P 00 13 44.8 +0.5
comp=Z,20nm,1.0s
SPUT **South Promonto** 41.19 81 eP P 00 13 45.0 +0.7
comp=Z,7.1nm,0.9s
MPMC **Manual Prospec** 41.30 90 P P 00 13 45.7 +0.4
baz=310,SNR=14
SCZ2 **Santa Cruz Isl** 41.32 95 P P 00 13 45.9 +0.6
baz=312
FURC **Furnace Creek,** 41.42 90 P P 00 13 46.9 +0.9
baz=310,SNR=12
OSI **Osito Audit: C** 41.47 93 P P 00 13 47.0 +0.4
baz=312
OSI **Osito Audit: C** 41.47 93 eP P 00 13 48.3 +1.7
comp=Z,19nm,0.9s
TPNV **Topopah Spring** 41.50 88 eP P 00 13 47.6 +0.7
TPNV pmax pmax
comp=Z,24nm,0.8s
TPNV **Topopah Spring** 41.50 88 eP P 00 13 47.6 +0.7
comp=Z,24nm,0.8s
LRMC **Laurel Mtn Rad** 41.55 91 P P 00 13 47.5 +0.1
baz=311,SNR=7.8
CN2 **Changchun** 41.56 284 eP P 00 13 48.2 +1.1
CN2 esP pP 00 13 55.4 -2.5
CN2 pmax pmax
comp=Z,10.0nm,0.8s
BLG **Laguna Peak, P** 41.60 94 P P 00 13 48.2 +0.6
baz=312
DUG **Dugway, Tooele** 41.62 82 eP P 00 13 48.3 +0.4
DUG pmax pmax
comp=Z,28nm,1.1s
DUG **Dugway, Tooele** 41.62 82 eP P 00 13 48.2 +0.4
comp=Z,28nm,1.1s
EDW2 **Edwards Air Fo** 41.75 92 P P 00 13 49.1 +0.3
baz=311,SNR=11
SNCC **San Nicolas Is** 41.89 95 P P 00 13 50.4 +0.5
baz=313
LAO **LASA Array** 41.92 70 eP P 00 13 50.2 +0.1
comp=Z,28nm,0.8s
DECC **Green Verdugo** 41.95 93 P P 00 13 51.6 +1.1
baz=312
CTU **Camp Tracy** 41.98 81 eP P 00 13 51.2 +0.4
comp=Z,16nm,1.1s
PASC **Pasadena Art C** 42.10 93 eP P 00 13 51.9 +0.2
comp=Z,9.1nm,0.7s
BW06 **Boulder Array** 42.10 77 eP P 00 13 51.7 -0.2
comp=Z,36nm,0.8s
PD31 **Pinedale Array** 42.10 77 eP P 00 13 51.6 -0.2
PDAR **Pinedale Array** 42.10 77 P P 00 13 51.6 -0.2
comp=Z,32nm,0.8s,baz=302,slow=4.2,SNR=252
PDAR LR LR 00 31 35.9
comp=Z,141nm,18.2s,baz=358,slow=36
PDAR **Pinedale Array** 42.10 77 eP P 00 13 51.4 -0.4
DGMT **Dagmar** 42.15 67 eP P 00 13 51.7 -0.2
comp=Z,54nm,1.5s
SHOC **Shoshone, Teco** 42.15 90 P P 00 13 52.5 +0.4
baz=310,SNR=9.1
CBIJ **Chichi jima** 42.20 252 eP P 00 13 52.9 +0.4
comp=Z,249nm,1.2s
GSC **Goldstone, Bar** 42.21 91 P P 00 13 53.3 +0.7
baz=311,SNR=34
GSC **Goldstone, Bar** 42.21 91 eP P 00 13 53.3 +0.7
GSC pmax pmax
comp=Z,38nm,1.0s
GSC **Goldstone, Bar** 42.21 91 eP P 00 13 53.3 +0.7
comp=Z,38nm,1.0s
JLU **Jordanelle** 42.22 81 eP P 00 13 53.3 +0.5
comp=Z,16nm,1.0s
NLU **North Lily Min** 42.22 82 eP P 00 13 53.3 +0.5
comp=Z,15nm,0.9s
FMP **Fort Macarthur** 42.34 94 P P 00 13 53.5 -0.1
baz=312
RRX **Edison Barstow** 42.37 91 P P 00 13 53.6 -0.2
baz=311
BFSC **Mount Baldy Ra** 42.38 93 P P 00 13 54.8 +0.7
baz=312,SNR=18
SHPR **Sheep Range** 42.45 88 eP P 00 13 55.3 +0.6
comp=Z,5.0nm,1.1s
MPU **Maple Canyon** 42.46 82 eP P 00 13 55.3 +0.5
comp=Z,13nm,0.9s
CIS **Catalina Islan** 42.47 94 P P 00 13 55.1 +0.4
baz=312
TUQ **Turquoise Moun** 42.67 90 P P 00 13 56.7 +0.2
baz=311,SNR=8.1
SCI2 **San Clemente I** 42.67 95 P P 00 13 56.4 +0.1
baz=313
HEC **Hector,Ludlow** 42.81 91 P P 00 13 58.0 +0.5
baz=311,SNR=11
BBRC **Big Bear Solar** 42.82 92 P P 00 13 57.5 -0.2
baz=312
CCUT **Cedar City** 42.91 86 eP P 00 13 59.0 +0.6
comp=Z,8.4nm,0.7s
MSU **Marysvale** 43.04 84 eP P 00 13 59.1 -0.4
MSU **Marysvale** 43.04 84 eP P 00 13 59.0 -0.4
SZCU **Shurtz Canyon** 43.05 85 eP P 00 14 00.0 +0.4
comp=Z,4.2nm,0.7s
MURC **Murrieta** 43.09 93 P P 00 13 59.8 +0.1
baz=312
TULEG **Thule** 43.13 19 eP P 00 14 00.9 +1.4
comp=Z,16nm,1.4s
TMUT **Trail Mountain** 43.15 82 eP P 00 14 01.3 +0.8
comp=Z,22nm,0.9s
GMRC **Granite Mounta** 43.26 90 P P 00 14 01.5 +0.3
baz=311,SNR=14
LCMT **Little Creek M** 43.32 86 eP P 00 14 02.4 +0.7
comp=Z,12nm,0.8s
MTPU **Mount Pierson** 43.33 84 eP P 00 14 03.0 +1.0
comp=Z,9.3nm,0.9s
P17A **Butcher Ranch,** 43.33 82 eP P 00 14 02.5 +0.7
comp=Z,14nm,0.8s
LDFC **Landfair** 43.41 90 eP P 00 14 02.6 +0.2
comp=Z,37nm,0.7s
Q16A **Castle Valley** 43.41 83 eP P 00 14 03.3 +0.8
comp=Z,26nm,1.0s
P18A **Preston Nutter** 43.54 81 eP P 00 14 04.3 +0.7
comp=Z,24nm,0.9s
PFO **Pinyon Flats O** 43.54 92 P P 00 14 03.4 -0.1
baz=312,SNR=8.3
PFO **Pinyon Flats O** 43.54 92 eP P 00 14 03.8 +0.3
PFO pmax pmax
comp=Z,13nm,1.1s
PFO **Pinyon Flats O** 43.54 92 eP P 00 14 03.8 +0.3
comp=Z,13nm,1.1s
XPFO **Piæon Flat** 43.54 92 eP P 00 14 03.8 +0.3
comp=Z,15nm,1.1s
BELC **Belle Mtn. Jos** 43.57 92 P P 00 14 03.5 -0.2
baz=312,SNR=10
KNB **Kanab** 43.58 86 eP P 00 14 04.9 +1.1
KNB pmax pmax
comp=Z,10.0nm,0.7s
KNB **Kanab** 43.58 86 eP P 00 14 04.9 +1.1
comp=Z,10.0nm,0.7s
PKCU **Pink Cliffs** 43.62 85 eP P 00 14 05.4 +1.1
comp=Z,7.6nm,0.9s
109C **Camp Elliot, M** 43.63 94 P P 00 14 04.3 +0.3
baz=313
SRU **San Rafael Swe** 43.69 82 eP P 00 14 05.2 +0.5
SRU pmax pmax
comp=Z,20nm,0.8s
SRU **San Rafael Swe** 43.69 82 eP P 00 14 05.2 +0.5
comp=Z,20nm,0.8s
KSRS **Korea Array** 43.83 275 P P 00 14 05.4 -0.1
comp=Z,3.8nm,0.7s,baz=53,slow=7.9,SNR=9.2
KSRS LR LR 00 31 10.9
comp=Z,79nm,20.2s,baz=49,slow=34
KS01 **Wonju Array Si** 43.83 275 eP P 00 14 05.0 -0.6
KS15 **Wonju Array Si** 43.86 275 eP P 00 14 06.2 +0.4
KSAR **Wonju Array Be** 43.86 275 P P 00 14 05.4 -0.4
KSAR **Wonju Array Be** 43.86 275 P P 00 14 05.4 -0.4
IRM **Iron Mountain** 43.99 91 P P 00 14 07.1 +0.1
baz=312,SNR=11
K22A **Casper** 44.00 75 P P 00 14 06.8 -0.3
baz=306,SNR=10
BAR **Barrett** 44.04 94 eP P 00 14 08.3 +0.9
comp=Z,22nm,1.1s
MONP2 **Monument Peak** 44.05 93 P P 00 14 07.9 +0.3
baz=313,SNR=9.8
BC3 **Big Chuckawall** 44.13 92 P P 00 14 08.1 -0.1
baz=312
RWWY **Rawlins** 44.15 77 eP P 00 14 07.6 -0.8
comp=Z,22nm,0.9s
W13A **Hualapai Mount** 44.15 89 eP P 00 14 08.5 +0.1
comp=Z,14nm,0.8s
U15A **North Rim** 44.28 86 eP P 00 14 09.2 -0.3
comp=Z,21nm,0.8s
SWSC **Sam W. Stewart** 44.40 93 P P 00 14 10.2 +0.1
baz=313
IKP **In-Ko-Pah, Jac** 44.41 93 P P 00 14 10.6 +0.3
baz=313,SNR=8.5
O20A **White River Ci** 44.46 79 P P 00 14 10.3 -0.5
baz=308,SNR=24
O20A **White River Ci** 44.46 79 eP P 00 14 09.9 -0.9
comp=Z,71nm,1.1s
PDMCI **Parker Dam,Lak** 44.52 90 P P 00 14 11.1 0.0
baz=312,SNR=7.2
RSSD **Black Hills** 44.62 72 eP P 00 14 11.6 -0.6
RSSD pmax pmax
comp=Z,15nm,0.7s
RSSD **Black Hills** 44.62 72 eP P 00 14 11.6 -0.6
comp=Z,15nm,0.6s
Y12C **Blythe** 44.65 91 P P 00 14 12.2 +0.1
baz=312,SNR=5.9
TJN **Taejon** 44.86 274 eP P 00 14 13.2 -0.6
PV09 **Paradox Valley** 44.92 82 eP P 00 14 14.4 -0.3
GLA **Glamis** 44.93 92 P P 00 14 14.7 +0.2
baz=313,SNR=8.3
GLA **Glamis** 44.93 92 eP P 00 14 15.0 +0.5
GLA pmax pmax
comp=Z,17nm,1.0s
GLA **Glamis** 44.93 92 eP P 00 14 15.0 +0.5
comp=Z,17nm,0.9s
PV10 **Paradox Valley** 45.05 82 eP P 00 14 16.0 +0.3
MDND **Maddock** 45.08 65 P P 00 14 14.7 -0.8
baz=304
PV04 **Paradox Valley** 45.12 82 eP P 00 14 15.8 -0.3
PV05 **Paradox Valley** 45.20 82 eP P 00 14 16.9 +0.1
N23A **Featherlake** 45.39 77 P P 00 14 17.9 -0.4
baz=307,SNR=11
PHWY **Pilot Hill** 45.44 76 eP P 00 14 18.0 -0.7
comp=Z,11nm,0.9s
WUAZ **Wupatki** 45.44 86 eP P 00 14 19.2 +0.6
comp=Z,24nm,0.8s
Y14A **Wickenburg** 45.46 89 eP P 00 14 18.9 +0.2
comp=Z,57nm,0.9s
PV01 **Paradox Valley** 45.49 82 eP P 00 14 18.8 -0.3
113A **Mohawk Valley,** 45.78 91 eP P 00 14 21.5 +0.4
comp=Z,8.1nm,1.0s
SMCO **Snowmass** 45.82 79 eP P 00 14 21.2 -0.6
comp=Z,9.9nm,1.2s
ULM **Lac du Bonnet** 45.82 60 P P 00 14 19.8 -1.5
comp=Z,9.4nm,0.7s,baz=304,slow=7.4,SNR=16
ULM LR LR 00 34 19.0
comp=Z,254nm,18.0s,baz=14,slow=37
ULM **Lac du Bonnet** 45.82 60 eP P 00 14 19.9 -1.4
ULM **Lac du Bonnet** 45.82 60 eP P 00 14 19.9 -1.4
ULM esP P 00 14 20.7 -0.5
A31A **Linda, St. Vin** 45.83 63 P P 00 14 20.5 -0.9
baz=304
B31A **Greenbush Farm** 45.85 63 P P 00 14 20.4 -1.1
baz=304,SNR=6.6
X16A **Lo Mia Camp, P** 46.12 88 eP P 00 14 24.6 +0.6
comp=Z,10nm,0.9s
MVCO **Mesa Verde** 46.12 83 eP P 00 14 24.0 -0.1
comp=Z,8.7nm,0.9s
C31A **Landman Farms,** 46.16 64 P P 00 14 22.9 -1.1
baz=304
A32A **Rocking H Ranc** 46.22 62 P P 00 14 23.3 -1.1
baz=304,SNR=8.3
ISCO **Idaho Springs** 46.26 78 eP P 00 14 24.9 -0.3
ISCO pmax pmax
comp=Z,28nm,1.7s
ISCO **Idaho Springs** 46.26 78 eP P 00 14 24.9 -0.3
comp=Z,28nm,1.8s
B32A **Ashes, Strandq** 46.48 63 P P 00 14 25.3 -1.2
baz=304,SNR=15
W18A **Petrified Fore** 46.71 86 P P 00 14 27.7 -1.0
baz=311
E31A **Nome** 46.77 66 P P 00 14 27.2 -1.6
baz=305
S22A **4UR Ranch, Cre** 46.80 81 P P 00 14 29.4 -0.1
baz=310,SNR=9.5
A33A **Warroad** 46.81 62 P P 00 14 27.8 -1.3
baz=304,SNR=10
AGMN **Agassiz Nation** 46.91 63 eP P 00 14 28.7 -1.1
comp=Z,26nm,0.9s
214A **Morgan Pipe Nat** 46.92 91 P P 00 14 29.9 -0.2
baz=313,SNR=15
214A **Organ Pipe Nat** 46.92 91 eP P 00 14 28.9 -1.3
comp=Z,77nm,1.0s
X18A **Snowflake** 46.97 86 eP P 00 14 31.3 +0.6
comp=Z,8.8nm,0.7s
F31A **Hecla** 46.97 67 P P 00 14 29.4 -1.0
baz=306
Q24A **Divide** 47.06 78 P P 00 14 29.6 -1.9
baz=309
B33A **Robert and Kas** 47.08 62 P P 00 14 29.2 -1.9
baz=305,SNR=5.9
C33A **Trail** 47.27 63 P P 00 14 31.4 -1.3
baz=305,SNR=6.7
G31A **Conde** 47.37 67 P P 00 14 32.2 -1.2
baz=306
SUSD **Miller** 47.40 69 P P 00 14 32.8 -0.9
baz=306
B34A **Aery, Baudette** 47.47 62 P P 00 14 32.4 -1.8
baz=305,SNR=15
D33A **AnnSam, Waubun** 47.58 64 P P 00 14 33.3 -1.8
baz=305,SNR=8.7
F32A **Veblen** 47.60 66 P P 00 14 33.3 -1.9
baz=306
SDCO **Great Sand Dun** 47.61 80 eP P 00 14 35.7 -0.1
comp=Z,19nm,1.0s
H31A **Wolsey** 47.65 68 P P 00 14 34.0 -1.7
baz=306
OGNE **Ogallala** 47.70 74 eP P 00 14 36.2 -0.1
comp=Z,46nm,1.0s
G32A **Webster** 47.75 67 P P 00 14 34.5 -2.0
baz=306
C34A **RKJ Ranch, Bem** 47.80 63 P P 00 14 34.9 -1.9
baz=305
E33A **Westby DABS, E** 47.86 65 P P 00 14 35.4 -1.9
baz=306
I31A **Royce, Wessing** 47.89 69 P P 00 14 36.4 -1.1
baz=307
TUC **Tucson** 47.94 89 eP P 00 14 38.5 +0.4
TUC pmax pmax
comp=Z,14nm,0.9s
TUC **Tucson** 47.94 89 eP P 00 14 38.5 +0.4
comp=Z,14nm,0.9s
D34A **Park Rapids** 47.98 64 P P 00 14 36.5 -1.6
baz=306,SNR=12
B35A **Bob, Littlefor** 48.04 61 P P 00 14 37.2 -1.5
baz=305,SNR=6.4
F33A **5 Mile Ranch,** 48.09 66 P P 00 14 37.1 -1.9
baz=306
J31A **Geddes** 48.21 70 P P 00 14 38.5 -1.6
baz=307
H32A **Carlson Farm,** 48.24 68 P P 00 14 38.4 -1.8
baz=307,SNR=6.5
C35A **Jirik Farms, M** 48.29 62 P P 00 14 38.7 -1.9
baz=306,SNR=6.7
E34A **Wadena** 48.33 64 P P 00 14 39.6 -1.3
baz=306
G33A **Ortonville** 48.39 66 P P 00 14 39.8 -1.6
baz=307
I32A **Karley and Nic** 48.51 68 P P 00 14 41.0 -1.3
baz=307
H33A **Prehn Over Nor** 48.53 67 P P 00 14 40.7 -1.8
baz=307,SNR=11
HGTCO **Madrid Canyon** 48.53 80 eP P 00 14 43.0 +0.2
comp=Z,30nm,1.0s
KSCO **Kaye Shedlock'** 48.55 77 P P 00 14 42.3 -0.6
baz=309
KSCO **Kaye Shedlock'** 48.55 77 eP P 00 14 42.3 -0.6
comp=Z,59nm,0.9s
D35A **Remer** 48.61 63 P P 00 14 41.3 -1.7
baz=306,SNR=9.2
K31A **O'Neill** 48.61 70 P P 00 14 42.4 -0.7
baz=308
T25A **Trinidad** 48.67 80 P P 00 14 43.3 -0.6
baz=310,SNR=36
J32A **Parkston** 48.68 69 P P 00 14 41.9 -1.8
baz=308
F34A **Alexandria** 48.70 65 P P 00 14 42.6 -1.2
baz=307
E35A **Pequot Lakes** 48.73 64 P P 00 14 42.7 -1.3
baz=306,SNR=7.0
LAZ **Ladron** 48.79 84 eP P 00 14 45.3 +0.5
G34A **Benson** 48.82 66 P P 00 14 42.9 -1.8
baz=307
ANMO **Albuquerque** 48.84 83 LR LR 00 32 13.2
comp=Z,190nm,21.1s,baz=168,slow=32
ANMO **Albuquerque** 48.84 83 eP P 00 14 45.4 +0.2
ANMO pmax pmax
comp=Z,19nm,1.6s
ANMO **Albuquerque** 48.84 83 eP P 00 14 45.4 +0.2
comp=Z,19nm,1.6s
I33A **Coleman** 48.88 68 P P 00 14 43.6 -1.6
baz=307
C36A **Pine Crest Far** 48.88 62 P P 00 14 43.1 -2.0
baz=306,SNR=5.7
D36A **Goodland** 49.04 62 P P 00 14 44.8 -1.6
baz=306
K32A **Verdigre** 49.04 70 P P 00 14 44.9 -1.6
baz=306
F35A **Swanville** 49.05 65 P P 00 14 45.2 -1.2
baz=307
H34A **Spellman Lake,** 49.09 67 P P 00 14 45.1 -1.6
baz=307
LPM **Los Pinos Moun** 49.16 84 eP P 00 14 47.6 0.0
ECSD **EROS Data Cent** 49.17 68 eP P 00 14 45.7 -1.7
comp=Z,12nm,0.8s
J33A **Davis** 49.22 69 P P 00 14 46.0 -1.8
baz=308,SNR=6.2
C37A **Embarrass** 49.25 61 P P 00 14 46.0 -2.0
baz=306,SNR=8.2
BNM **Barren Site** 49.27 84 eP P 00 14 48.9 +0.4
TLY **Talaya** 49.29 305 eP P 00 14 48.9 +0.7
TLY pmax pmax
comp=Z,8.0nm,0.5s
TLY **Talaya** 49.29 305 eP P 00 14 48.9 +0.7
comp=Z,7.7nm,0.5s
E36A **McGregor** 49.39 63 P P 00 14 47.7 -1.3
baz=307,SNR=7.2
L32A **Elgin** 49.43 71 P P 00 14 48.7 -0.7
baz=308
KBS **Kingsbay** 49.43 359 eP P 00 14 50.8 +1.9
KBS pmax pmax
comp=Z,90nm,1.7s
KBS **Kingsbay** 49.43 359 eP P 00 14 50.8 +1.9
comp=Z,90nm,1.7s
D37A **Cotton** 49.46 62 P P 00 14 48.0 -1.5
baz=307
G35A **Watkins** 49.48 65 P P 00 14 48.2 -1.5
baz=307
EYMN **Ely** 49.50 61 eP P 00 14 48.6 -1.2
comp=Z,12nm,0.7s
319A **Douglas** 49.51 89 eP P 00 14 50.7 +0.5
comp=Z,10nm,1.0s
H35A **Sunnyside Ranc** 49.60 66 P P 00 14 49.1 -1.5
baz=308
121A **Cookes Peak, D** 49.64 87 P P 00 14 51.2 -0.2
baz=313,SNR=6.0
121A **Cookes Peak, D** 49.64 87 eP P 00 14 48.7 -2.6
comp=Z,8.6nm,0.7s
K33A **Hardington** 49.64 69 P P 00 14 50.0 -1.0
baz=308
BGNE **Belgrade** 49.72 71 P P 00 14 49.8 -1.8
baz=309,SNR=5.4
BGNE **Belgrade** 49.72 71 eP P 00 14 50.1 -1.5
comp=Z,80nm,0.9s
C38A **Sawbill Land.** 49.75 61 P P 00 14 49.7 -2.1
baz=307
L33A **Hoskins** 49.76 70 P P 00 14 49.7 -2.2
baz=308
ULN **Ulaanbaatar** 49.76 299 eP P 00 14 52.4 +0.4
ULN pmax pmax
comp=Z,3.0nm,0.9s
ULN **Ulaanbaatar** 49.76 299 eP P 00 14 52.4 +0.4
comp=Z,2.9nm,0.9s
J34A **George** 49.83 68 P P 00 14 50.7 -1.7
baz=308
G36A **St. Michael** 49.88 65 P P 00 14 50.8 -2.0
baz=308
I35A **Creekview Farm** 50.03 67 P P 00 14 51.9 -2.0
baz=308
SPA0 **Spitsbergen Ar** 50.10 358 eP P 00 14 55.2 +1.2
HSIG 50.11 92 eP P 00 14 54.5 -0.2
comp=Z,6.1nm,0.7s
K34A **Le Mars** 50.12 69 P P 00 14 53.4 -1.2
baz=308,SNR=14
SONA1 **Songino Array** 50.12 300 eP P 00 14 55.0 +0.2
SONM **Songino Array** 50.13 300 P P 00 14 53.5 -1.3
comp=Z,0.7nm,0.5s,baz=58,slow=6.6,SNR=4.7
SONM PcP PcP 00 16 14.3 +0.5
comp=Z,2.3nm,0.9s,baz=47,slow=3.0,SNR=5.1
SONM ScP ScP 00 20 06.5 +0.2
comp=Z,0.8nm,0.7s,baz=55,slow=3.7,SNR=4.6
SONM LR LR 00 37 55.2
comp=Z,180nm,18.5s,baz=20,slow=38
M33A **Taylor Creek F** 50.17 71 P P 00 14 54.0 -1.0
baz=309,SNR=6.8
H36A **Jessenland, He** 50.19 66 P P 00 14 54.0 -1.0
baz=308,SNR=10.0
F37A **Hinrichs Farm,** 50.21 64 P P 00 14 54.0 -1.3
baz=308
ZAK **Zakamensk** 50.24 304 eP P 00 15 05.9 +10
ZAK pmax pmax
comp=Z,3.0nm,1.2s
E38A **The Farm, Brul** 50.27 62 P P 00 14 54.0 -1.7
baz=307
C39A **Grand Marais** 50.31 60 P P 00 14 54.0 -1.9
baz=307
L34A **Svendsen Farm,** 50.40 70 P P 00 14 55.3 -1.5
baz=309
CBKS **Cedar Bluff** 50.42 75 eP P 00 14 56.6 -0.4
CBKS pmax pmax
comp=Z,69nm,0.8s
CBKS **Cedar Bluff** 50.42 75 eP P 00 14 56.6 -0.4
comp=Z,69nm,0.8s
SPMN **Marine on St.** 50.42 64 P P 00 14 55.6 -1.3
baz=308
I36A **Fitzsimmons Fa** 50.48 66 P P 00 14 56.2 -1.2
baz=308
F38A **Pierce - Schro** 50.49 63 P P 00 14 56.2 -1.2
baz=308,SNR=7.4
DAG **Danmarks Havn** 50.50 8 i P P 00 14 54.5 -2.5
DAG pmax pmax
comp=Z,5.0nm,1.0s
DAG **Danmarks Havn** 50.50 8 i P P 00 14 54.5 -2.5
comp=Z,4.7nm,1.0s
SRIG **Santa Rosalia** 50.52 95 eP P 00 14 58.6 +0.8
comp=Z,38nm,0.8s
N33A **J Bar K, Exete** 50.55 72 P P 00 14 57.1 -0.8
baz=309
M34A **Aspy Farms, Fr** 50.57 70 P P 00 14 57.0 -1.1
baz=309
K35A **Storm Lake** 50.59 68 P P 00 14 56.4 -1.8
baz=309
J36A **Seneca 1, Swea** 50.73 67 P P 00 14 57.2 -2.0
baz=309
H37A **Dierke Farm, C** 50.75 65 P P 00 14 58.5 -0.9
baz=308
L35A **Bielow Farm, R** 50.79 69 P P 00 14 57.7 -2.0
baz=309
JOW **Kunigami** 50.82 264 eP P 00 15 00.5 +0.4
comp=Z,108nm,1.3s
I37A **Lemond, Waseca** 50.83 66 P P 00 14 59.2 -0.8
baz=308,SNR=12
O33A **Hebron** 50.89 72 P P 00 14 59.1 -1.4
baz=310,SNR=13
EPT **El Paso** 50.95 86 eP P 00 15 01.6 +0.4
comp=Z,19nm,0.8s
E39A **Mellen** 50.95 62 P P 00 14 58.8 -2.1
baz=308
G38A **Ridgeland** 50.98 64 P P 00 14 59.1 -2.0
baz=308
F39A **Loreto** 51.04 62 P P 00 14 59.7 -1.8
baz=308
N34A **Lincoln** 51.04 71 P P 00 14 59.9 -1.7
baz=310
H38A **Maiden Rock** 51.05 65 P P 00 15 00.2 -1.4
baz=308,SNR=10.0
K36A **Gilmore City** 51.09 68 P P 00 15 00.1 -1.8
baz=309,SNR=5.4
M35A **Neola** 51.11 70 P P 00 15 00.9 -1.2
baz=309,SNR=7.8
J37A **Redenius Farm,** 51.19 67 P P 00 15 01.2 -1.5
baz=309,SNR=7.8
E40A **Wakefield** 51.27 61 P P 00 15 02.2 -1.1
baz=308
G39A **Holcombe** 51.29 63 P P 00 15 01.4 -2.0
baz=308
L36A **Harm Buss Farm** 51.31 68 P P 00 15 01.6 -1.9
baz=309

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| O34A | **Beatrice** baz-310,SNR=11 | 51.35 | 72 | P | | P | 00 15 02.3 | -1.6 |
| I38A | **Scanlan Farm,** baz-309 | 51.42 | 65 | P | | P | 00 15 03.1 | -1.3 |
| F40A | **Park Falls** baz-308 | 51.48 | 62 | P | | P | 00 15 02.9 | -1.9 |
| K37A | **Belmond** baz-309,SNR=7.5 | 51.48 | 67 | P | | P | 00 15 03.1 | -1.7 |
| N35A | **Tabor** baz-310,SNR=14 | 51.53 | 70 | P | | P | 00 15 04.3 | -1.0 |
| HHC | **Hu-ho-hao-te** | 51.55 | 290 | *e*P | | P | 00 15 04.7 | -0.9 |
| HHC | | | | S | | S | 00 22 20.3 | -3.2 |
| HHC | | | | ScS | | ScS | 00 24 48.1 | -4.6 |
| HHC | | | | SS | | SS | 00 25 52.8 | -6.5 |
| HHC | comp=Z,10.0nm,1.0s | | | pmax | | pmax | | |
| HHC | comp=Z,120nm,5.3s | | | pmax | | pmax | | |
| HHC | comp=Z,260nm,14.9s | | | LR | | LR | | |
| HHC | comp=Z,160nm,14.9s | | | LR | | LR | | |
| HHC | comp=Z,200nm,15.7s | | | LR | | LR | | |
| H39A | **Augusta** baz-309 | 51.61 | 64 | P | | P | 00 15 04.6 | -1.2 |
| D41A | **Chassel** baz-308 | 51.61 | 60 | P | | P | 00 15 03.8 | -1.9 |
| P34A | **Walnut Farm, R** baz-310,SNR=6.1 | 51.68 | 72 | P | | P | 00 15 05.3 | -1.1 |
| MNTX | **Cornudas Mount** comp=Z,7.7nm,0.8s | 51.70 | 86 | *e*P | | P | 00 15 06.7 | +0.1 |
| SUMG | **Summit** | 51.72 | 16 | *e*P | | P | 00 15 08.3 | +1.6 |
| SUMG | | | | pmax | | pmax | | |
| SUMG | comp=Z,21nm,1.3s **Summit** | 51.72 | 16 | *i* P | | P | 00 15 10.5 | +3.8 |
| SUMG | **Summit** comp=Z,21nm,1.3s | 51.72 | 16 | *e*P | | P | 00 15 08.3 | +1.6 |
| O35A | **Humboldt** baz-310 | 51.75 | 71 | P | | P | 00 15 05.2 | -1.7 |
| MSTX | **Muleshoe** baz-313,SNR=8.5 | 51.76 | 82 | P | | P | 00 15 06.9 | -0.3 |
| E41A | **Kenton** baz-308 | 51.77 | 61 | P | | P | 00 15 05.6 | -1.3 |
| J38A | **Wedel Dairy, R** baz-309,SNR=7.0 | 51.79 | 66 | P | | P | 00 15 06.0 | -1.2 |
| AMTX | **Amarillo** comp=Z,40nm,1.6s | 51.82 | 80 | *e*P | | P | 00 15 07.2 | -0.4 |
| L37A | **Phoenix Point,** baz-310,SNR=9.5 | 51.82 | 68 | P | | P | 00 15 06.1 | -1.3 |
| G40A | **Rib Lake** baz-309 | 51.84 | 63 | P | | P | 00 15 05.7 | -1.8 |
| N36A | **Muff Farm, Cla** baz-310 | 51.95 | 70 | P | | P | 00 15 07.5 | -1.0 |
| I39A | **Houston** baz-309 | 51.99 | 65 | P | | P | 00 15 07.0 | -1.7 |
| Q34A | **Chapman** baz-311,SNR=16 | 52.01 | 73 | P | | P | 00 15 07.8 | -1.1 |
| K38A | **Parkersburg** baz-310 | 52.05 | 67 | P | | P | 00 15 07.9 | -1.2 |
| KSU1 | **Kansas State U** comp=Z,27nm,0.9s | 52.09 | 73 | *e*P | | P | 00 15 08.3 | -1.1 |
| M37A | **Trindle Farm,** baz-310,SNR=10 | 52.10 | 69 | P | | P | 00 15 08.5 | -1.0 |
| H40A | **Chili** baz-309 | 52.14 | 63 | P | | P | 00 15 08.4 | -1.3 |
| F41A | **Three Lakes** baz-309 | 52.14 | 62 | P | | P | 00 15 07.9 | -1.8 |
| P35A | **Duane Minner,** baz-310 | 52.16 | 72 | P | | P | 00 15 08.4 | -1.6 |
| J39A | **Decorah** baz-309,SNR=12 | 52.22 | 66 | P | | P | 00 15 08.3 | -2.0 |
| R34A | **Isabella, Hill** baz-311,SNR=5.2 | 52.23 | 74 | P | | P | 00 15 09.0 | -1.5 |
| L38A | **Oak Wood Farm,** baz-310,SNR=8.6 | 52.26 | 67 | P | | P | 00 15 08.8 | -1.9 |
| SCIA | **State Center** comp=Z,75nm,1.4s | 52.27 | 68 | *e*P | | P | 00 15 09.9 | -0.8 |
| E42A | **Champion** baz-309 | 52.36 | 60 | P | | P | 00 15 09.6 | -1.7 |
| O36A | **Bolckow** baz-310,SNR=8.4 | 52.39 | 71 | P | | P | 00 15 10.4 | -1.3 |
| N37A | **Lee Faris, Mou** baz-310,SNR=15 | 52.43 | 70 | P | | P | 00 15 10.8 | -1.1 |
| U32A | **Winter Ranch,** baz-312,SNR=5.3 | 52.45 | 77 | P | | P | 00 15 11.4 | -0.8 |
| I40A | **Norwalk** baz-310 | 52.47 | 64 | P | | P | 00 15 10.7 | -1.5 |
| K39A | **Oelwein** baz-310,SNR=8.9 | 52.51 | 66 | P | | P | 00 15 10.3 | -2.2 |
| H41A | **Junction City** baz-309 | 52.55 | 63 | P | | P | 00 15 11.3 | -1.5 |
| P36A | **Good Intent, A** baz-311,SNR=12 | 52.58 | 71 | P | | P | 00 15 11.6 | -1.5 |
| Q35A | **Mercer Eighty,** baz-311 | 52.59 | 72 | P | | P | 00 15 11.4 | -1.7 |
| M38A | **Pleasantville** baz-310,SNR=6.3 | 52.59 | 68 | P | | P | 00 15 11.7 | -1.4 |
| S34A | **Willow Spring** baz-311,SNR=5.4 | 52.71 | 74 | P | | P | 00 15 12.5 | -1.6 |
| J40A | **Soldiers Grove** baz-310 | 52.72 | 65 | P | | P | 00 15 12.1 | -1.9 |
| I41A | **Arkdale** baz-310,SNR=5.3 | 52.78 | 64 | P | | P | 00 15 12.8 | -1.7 |
| L39A | **Vinton** baz-310,SNR=11 | 52.82 | 67 | P | | P | 00 15 13.0 | -1.8 |
| G42A | **Mountain** baz-309 | 52.83 | 62 | P | | P | 00 15 12.8 | -2.1 |
| R35A | **Emporia Munici** baz-311,SNR=5.9 | 52.84 | 73 | P | | P | 00 15 14.0 | -1.0 |
| O37A | **Wolven Farm, M** baz-311,SNR=23 | 52.85 | 70 | P | | P | 00 15 13.7 | -1.4 |
| Q36A | **Arnold C. Orve** baz-311 | 52.86 | 72 | P | | P | 00 15 13.3 | -1.9 |
| E43A | **Lone Tree Farm** baz-309 | 52.88 | 60 | P | | P | 00 15 13.1 | -2.1 |
| K40A | **Colesburg** baz-310 | 52.94 | 66 | P | | P | 00 15 13.6 | -2.1 |
| N38A | **Joes South For** baz-310,SNR=15 | 52.97 | 69 | P | | P | 00 15 14.3 | -1.7 |
| NJ2 | **Nanjing** | 52.99 | 276 | *e*P | | P | 00 15 18.1 | +2.0 |
| NJ2 | comp=Z,11nm,0.5s | | | pmax | | pmax | | |
| P37A | **Lathrop** baz-311,SNR=19 | 53.11 | 71 | P | | P | 00 15 15.0 | -1.9 |
| T34A | **McClaskey Farm** baz-312,SNR=20 | 53.11 | 75 | P | | P | 00 15 15.5 | -1.5 |
| M39A | **Webster** baz-310,SNR=25 | 53.14 | 68 | P | | P | 00 15 15.5 | -1.7 |
| J41A | **Loganville** baz-310,SNR=5.7 | 53.15 | 64 | P | | P | 00 15 15.1 | -2.1 |
| S35A | **Otter Creek Ra** baz-312,SNR=17 | 53.19 | 74 | P | | P | 00 15 16.1 | -1.5 |
| G43A | **Wallace** baz-310 | 53.22 | 61 | P | | P | 00 15 15.8 | -1.9 |
| R36A | **Gordon, Harris** baz-311,SNR=21 | 53.26 | 73 | P | | P | 00 15 16.5 | -1.5 |
| O38A | **Galt** baz-311,SNR=14 | 53.27 | 70 | P | | P | 00 15 16.4 | -1.8 |
| E44A | **Grand Marais A** baz-310 | 53.30 | 59 | P | | P | 00 15 16.4 | -1.9 |
| L40A | **Anamosa** baz-310,SNR=6.2 | 53.30 | 66 | P | | P | 00 15 16.2 | -2.2 |
| JFWS | **Jewell Farm** comp=Z,15nm,0.7s | 53.31 | 65 | *e*P | | P | 00 15 16.4 | -2.0 |
| JFWS | | | | pmax | | pmax | | |
| JFWS | **Jewell Farm** comp=Z,15nm,0.7s | 53.31 | 65 | *e*P | | P | 00 15 16.4 | -2.0 |
| N39A | **Derby Farms, D** baz-311,SNR=18 | 53.34 | 68 | P | | P | 00 15 16.8 | -1.8 |
| I42A | **Draeger Farm,** baz-310 | 53.42 | 63 | P | | P | 00 15 17.3 | -1.9 |
| F44A | **Big Bay de Noc** baz-310 | 53.45 | 60 | P | | P | 00 15 17.4 | -2.0 |
| K41A | **Shullsburg** baz-310,SNR=7.4 | 53.47 | 65 | P | | P | 00 15 17.5 | -2.0 |
| Q37A | **Longview Farm,** baz-311 | 53.51 | 71 | P | | P | 00 15 18.1 | -1.9 |
| P38A | **Dawn** baz-311,SNR=17 | 53.56 | 70 | P | | P | 00 15 18.4 | -1.9 |
| M40A | **Post Highland** baz-311 | 53.56 | 67 | P | | P | 00 15 18.5 | -1.8 |
| T35A | **Sooner Cattle** baz-312,SNR=7.6 | 53.59 | 75 | P | | P | 00 15 18.9 | -1.7 |
| S36A | **Lake Cedric, C** baz-312,SNR=7.1 | 53.60 | 73 | P | | P | 00 15 18.9 | -1.6 |
| J42A | **Columbus** baz-310 | 53.67 | 64 | P | | P | 00 15 19.1 | -2.0 |
| WMOK | **Wichita Mounta** | 53.68 | 78 | *e*P | | P | 00 15 20.6 | -0.7 |
| WMOK | comp=Z,17nm,0.9s | | | pmax | | pmax | | |
| WMOK | **Wichita Mounta** comp=Z,17nm,0.9s | 53.68 | 78 | *e*P | | P | 00 15 20.6 | -0.7 |
| L41A | **Preston** baz-311,SNR=7.0 | 53.71 | 66 | P | | P | 00 15 19.3 | -2.0 |
| O39A | **Kirksville** baz-311,SNR=9.2 | 53.72 | 69 | P | | P | 00 15 19.9 | -1.6 |
| U35A | **Pawnee** baz-312 | 53.82 | 75 | P | | P | 00 15 21.3 | -1.0 |
| I43A | **Langenfeld Bro** baz-310 | 53.85 | 63 | P | | P | 00 15 20.9 | -1.4 |
| N40A | **Mertquake, Sal** baz-311 | 53.86 | 68 | P | | P | 00 15 20.7 | -1.8 |
| E45A | **Wooded Hills,** baz-310 | 53.87 | 59 | P | | P | 00 15 21.3 | -1.1 |
| T36A | **Boggs Farm, Ca** baz-312,SNR=7.4 | 53.87 | 74 | P | | P | 00 15 21.1 | -1.5 |
| K42A | **Prairie Point,** baz-310 | 53.90 | 65 | P | | P | 00 15 20.9 | -1.8 |
| Q38A | **Cooks Store, C** baz-311,SNR=12 | 53.95 | 71 | P | | P | 00 15 20.9 | -2.2 |
| J43A | **Natural Harves** baz-310 | 54.03 | 64 | P | | P | 00 15 21.6 | -2.1 |
| S37A | **Fort Scott** baz-312,SNR=27 | 54.03 | 73 | P | | P | 00 15 22.0 | -1.8 |
| P39B | **Salisbury** baz-311,SNR=27 | 54.10 | 70 | P | | P | 00 15 22.5 | -1.7 |
| F45A | **CMU Biological** baz-310 | 54.12 | 60 | P | | P | 00 15 22.4 | -1.9 |
| M41A | **Milan** baz-311,SNR=5.6 | 54.14 | 67 | P | | P | 00 15 22.7 | -1.8 |
| V35A | **Meyer Ranch, C** baz-312 | 54.16 | 76 | P | | P | 00 15 23.3 | -1.5 |
| O40A | **La Belle** baz-311,SNR=36 | 54.20 | 69 | P | | P | 00 15 23.2 | -1.7 |
| L42A | **Oliver, Polo** baz-311 | 54.22 | 66 | P | | P | 00 15 23.2 | -1.9 |
| Q39A | **Willow Grove F** baz-312,SNR=15 | 54.27 | 70 | P | | P | 00 15 23.5 | -2.0 |
| R38A | **Fenwick Farm,** baz-312,SNR=14 | 54.29 | 72 | P | | P | 00 15 23.0 | -2.6 |
| OK020 | **N3440 Road, Me** comp=Z,30nm,1.2s | 54.29 | 76 | *e*P | | P | 00 15 24.9 | -0.8 |
| OK021 | **N3530 Road, Sp** comp=Z,49nm,1.5s | 54.34 | 76 | *e*P | | P | 00 15 25.2 | -0.8 |
| N41A | **Harden Midland** baz-311 | 54.40 | 68 | P | | P | 00 15 24.6 | -1.8 |
| T37A | **Cheneyville 18** baz-312,SNR=16 | 54.40 | 73 | P | | P | 00 15 24.8 | -1.7 |
| TX31 | **Lajitas Ar. Si** | 54.40 | 87 | *e*P | | P | 00 15 26.2 | -0.4 |
| TXAR | **Lajitas Array** comp=Z,13nm,0.8s,baz=297,slow=5.1,SNR=84 | 54.40 | 87 | P | | P | 00 15 26.3 | -0.4 |
| TXAR | comp=Z,1.6nm,0.9s,baz=282,slow=5.3,SNR=6.3 | | | ScP | | ScP | 00 20 25.4 | +0.3 |
| TXAR | comp=Z,96nm,20.2s,baz=0.0,slow=34 | | | LR | | LR | 00 36 26.0 | |
| U36A | **Oologah** baz-312 | 54.40 | 75 | P | | P | 00 15 24.8 | -1.7 |
| P40A | **Paris** baz-312,SNR=41 | 54.48 | 69 | P | | P | 00 15 25.3 | -1.8 |
| W35A | **Tecumseh** baz-313,SNR=11 | 54.55 | 76 | P | | P | 00 15 26.6 | -1.0 |
| SLBS | **Sierra La Lagu** comp=Z,11nm,1.0s | 54.58 | 96 | *e*P | | P | 00 15 28.9 | +0.9 |
| ABTX | **Abilene, Hawle** baz-314,SNR=5.4 | 54.59 | 81 | P | | P | 00 15 27.3 | -0.7 |
| S38A | **Stockton** baz-312,SNR=25 | 54.66 | 72 | P | | P | 00 15 25.9 | -2.5 |
| V36A | **Jenks** baz-313,SNR=6.7 | 54.68 | 75 | P | | P | 00 15 27.0 | -1.5 |
| TUL1 | **Leonard** baz-313 | 54.69 | 75 | P | | P | 00 15 27.4 | -1.1 |
| R39A | **Chumby, Stover** baz-312 | 54.71 | 71 | P | | P | 00 15 26.2 | -2.5 |
| U37A | **Salina** baz-312,SNR=25 | 54.76 | 74 | P | | P | 00 15 27.5 | -1.5 |
| O41A | **Passleys Farm,** baz-312,SNR=11 | 54.77 | 68 | P | | P | 00 15 27.1 | -2.0 |
| N42A | **Yates City** baz-311 | 54.78 | 67 | P | | P | 00 15 27.3 | -1.9 |
| Q40A | **Laux Farm, Aux** baz-312,SNR=17 | 54.82 | 70 | P | | P | 00 15 27.8 | -1.7 |
| T38A | **Diamond** baz-312,SNR=13 | 54.83 | 73 | P | | P | 00 15 27.8 | -1.8 |
| HPIG | comp=Z,9.8nm,1.0s | 54.87 | 90 | *e*P | | P | 00 15 29.8 | -0.4 |
| W36A | **Wetumka** baz-313,SNR=5.9 | 54.95 | 76 | P | | P | 00 15 29.6 | -0.9 |
| P41A | **Barry, Barry** baz-312,SNR=8.2 | 54.96 | 69 | P | | P | 00 15 28.5 | -1.9 |
| S39A | **Bolivar** baz-312,SNR=13 | 54.96 | 72 | P | | P | 00 15 27.6 | -2.9 |
| M43A | **Waltham Townsh** baz-311 | 54.99 | 66 | P | | P | 00 15 27.8 | -2.9 |
| X35A | **Drake** baz-313,SNR=6.2 | 55.00 | 77 | P | | P | 00 15 30.0 | -0.9 |
| V37A | **Hulbert** baz-313,SNR=14 | 55.10 | 75 | P | | P | 00 15 29.8 | -1.7 |
| U38A | **Gravette** baz-313,SNR=13 | 55.17 | 74 | P | | P | 00 15 30.3 | -1.8 |
| R40A | **Maddies Statio** baz-312,SNR=21 | 55.18 | 71 | P | | P | 00 15 29.4 | -2.7 |
| X36A | **Centrahoma** baz-313,SNR=5.5 | 55.26 | 77 | P | | P | 00 15 31.9 | -0.8 |
| Y35A | **Marietta** baz-313,SNR=6.4 | 55.30 | 78 | P | | P | 00 15 32.8 | -0.2 |
| Q41A | **Truxton** baz-312,SNR=10 | 55.34 | 69 | P | | P | 00 15 31.4 | -1.8 |
| T39A | **Clever** baz-312,SNR=22 | 55.38 | 72 | P | | P | 00 15 31.3 | -2.2 |
| HDIL | **Hopedale** comp=Z,34nm,0.8s | 55.39 | 67 | *e*P | | P | 00 15 32.0 | -1.5 |
| W37B | **Quinton** baz-313,SNR=13 | 55.43 | 76 | P | | P | 00 15 33.3 | -0.6 |
| P42A | **Winchester** baz-312,SNR=5.9 | 55.43 | 68 | P | | P | 00 15 31.9 | -2.0 |
| S40A | **Lebanon** baz-312 | 55.51 | 71 | P | | P | 00 15 31.9 | -2.6 |
| M44A | **Midewin, Midew** baz-312 | 55.54 | 65 | P | | P | 00 15 32.6 | -2.0 |
| HHAR | **Hobbs** comp=Z,16nm,0.7s | 55.55 | 73 | *e*P | | P | 00 15 33.0 | -1.8 |
| R41A | **Rosebud** baz-312,SNR=14 | 55.69 | 70 | P | | P | 00 15 33.5 | -2.3 |
| U39A | **Green Forest** baz-313,SNR=12 | 55.75 | 73 | P | | P | 00 15 34.1 | -2.1 |
| Y36A | **Durant** baz-314,SNR=11 | 55.76 | 77 | P | | P | 00 15 35.7 | -0.6 |
| Q42A | **Golden Eagle** baz-312,SNR=24 | 55.77 | 69 | P | | P | 00 15 34.6 | -1.7 |
| T40A | **Mansfield** baz-313,SNR=13 | 55.80 | 72 | P | | P | 00 15 34.1 | -2.5 |
| X37A | **Clayton** baz-313,SNR=17 | 55.84 | 76 | P | | P | 00 15 36.2 | -0.6 |
| P43A | **Skaggs, Pawnee** baz-312 | 55.87 | 68 | P | | P | 00 15 35.4 | -1.6 |
| N44A | **Piper City** baz-312 | 55.89 | 66 | P | | P | 00 15 35.2 | -1.9 |
| CCM | **Cathedral Cave** comp=Z,15nm,1.0s | 55.94 | 70 | *e*P | | P | 00 15 35.2 | -2.3 |
| CCM | | | | pmax | | pmax | | |
| CCM | **Cathedral Cave** comp=Z,15nm,0.9s | 55.94 | 70 | *e*P | | P | 00 15 35.2 | -2.3 |
| S41A | **Jillco Farms,** baz-313,SNR=22 | 55.96 | 71 | P | | P | 00 15 35.2 | -2.5 |
| JCT | **Junction City** comp=Z,9.0nm,0.7s | 55.98 | 83 | *e*P | | P | 00 15 36.9 | -1.1 |
| JCT | | | | pmax | | pmax | | |
| JCT | **Junction City** comp=Z,8.8nm,0.6s | 55.98 | 83 | *e*P | | P | 00 15 36.9 | -1.1 |
| V39A | **Pettigrew** baz-313,SNR=11 | 56.02 | 74 | P | | P | 00 15 36.3 | -1.9 |
| W38A | **Poteau** baz-313,SNR=18 | 56.02 | 75 | P | | P | 00 15 36.5 | -1.7 |
| R42A | **Luebbering** baz-312,SNR=7.2 | 56.05 | 70 | P | | P | 00 15 36.2 | -2.1 |
| Z36A | **Blue Ridge** baz-314 | 56.10 | 78 | P | | P | 00 15 37.8 | -1.0 |
| Y37A | **Hugo** baz-314 | 56.11 | 77 | P | | P | 00 15 38.4 | -0.4 |
| X38A | **Whitesboro** baz-313,SNR=7.8 | 56.11 | 76 | P | | P | 00 15 38.0 | -0.8 |
| O44A | **Mansfield** baz-312 | 56.13 | 67 | P | | P | 00 15 36.6 | -2.2 |
| U40A | **Yellville** baz-313,SNR=14 | 56.14 | 73 | P | | P | 00 15 36.7 | -2.3 |
| N45A | **Kentland** baz-312 | 56.20 | 65 | P | | P | 00 15 38.2 | -1.2 |
| Q43A | **New Douglas** baz-312,SNR=14 | 56.23 | 68 | P | | P | 00 15 37.7 | -1.9 |
| T41A | **Mountain View** baz-313,SNR=5.9 | 56.31 | 71 | P | | P | 00 15 37.4 | -2.8 |
| WHTX | **Lake Whitney,** baz-314,SNR=6.3 | 56.37 | 80 | P | | P | 00 15 39.3 | -1.4 |
| W39A | **Magazine** baz-313,SNR=8.5 | 56.38 | 74 | P | | P | 00 15 39.0 | -1.7 |
| S42A | **Caledonia** baz-313,SNR=9.0 | 56.39 | 70 | P | | P | 00 15 38.2 | -2.6 |
| FVM | **French Village** | 56.46 | 70 | *e*P | | P | 00 15 39.2 | -2.1 |
| FVM | | | | pmax | | pmax | | |
| FVM | comp=Z,25nm,0.7s **French Village** comp=Z,25nm,0.6s | 56.46 | 70 | *e*P | | P | 00 15 39.1 | -2.1 |
| O45A | **Potomac** baz-312,SNR=6.6 | 56.48 | 66 | P | | P | 00 15 40.0 | -1.3 |
| P44A | **Sand Creek, Wi** baz-312,SNR=13 | 56.50 | 67 | P | | P | 00 15 39.7 | -1.7 |
| V40A | **Witts Springs** baz-313,SNR=16 | 56.53 | 73 | P | | P | 00 15 39.6 | -2.2 |
| R43A | **Red Bud** baz-313,SNR=19 | 56.55 | 69 | P | | P | 00 15 39.9 | -1.9 |
| 136A | **Ennis** baz-314 | 56.59 | 79 | P | | P | 00 15 40.6 | -1.6 |
| N46A | **Monticello** baz-312 | 56.61 | 65 | P | | P | 00 15 40.3 | -1.9 |
| X39A | **Fountain Ranch** baz-314,SNR=18 | 56.65 | 75 | P | | P | 00 15 41.8 | -0.8 |
| Q44A | **Meyer Farm, Va** baz-313 | 56.65 | 68 | P | | P | 00 15 40.8 | -1.8 |
| ZALV | **Zalesovo Beam** comp=Z,0.3nm,0.3s,baz=54,slow=8.5,SNR=3.3 | 56.66 | 316 | P | | P | 00 15 41.8 | -0.6 |
| ZALV | comp=Z,1.0nm,0.6s,baz=34,slow=2.3,SNR=3.5 | | | PcP | | PcP | 00 16 37.8 | -0.5 |
| ZALV | comp=Z,104nm,18.9s,baz=66,slow=40 | | | LR | | LR | 00 43 22.9 | |
| VLDQ | **Val d'Or** comp=Z,15nm,0.8s | 56.68 | 53 | *e*P | | P | 00 15 39.6 | -3.0 |
| U41A | **Viola** baz-313,SNR=9.2 | 56.70 | 72 | P | | P | 00 15 40.6 | -2.4 |
| T42A | **Van Buren** baz-313,SNR=9.4 | 56.72 | 71 | P | | P | 00 15 40.3 | -2.8 |
| SFIN | **Lafayette** baz-312,SNR=6.2 | 56.75 | 65 | P | | P | 00 15 42.0 | -1.3 |
| WHN | **Wuhan** | 56.80 | 278 | P | | P | 00 15 43.0 | -0.7 |
| W40A | **Ferguson Farm,** baz-314,SNR=11 | 56.80 | 74 | P | | P | 00 15 42.1 | -1.6 |
| SCHQ | **Schefferville** comp=Z,6.5nm,0.7s,baz=322,slow=8.3,SNR=4.0 | 56.90 | 42 | P | | P | 00 15 41.6 | -2.5 |
| SCHQ | comp=Z,328nm,18.3s,baz=13,slow=39 | | | LR | | LR | 00 43 02.0 | |
| 236A | **Katherine and** baz-314,SNR=5.3 | 56.92 | 79 | P | | P | 00 15 44.4 | -0.2 |
| V41A | **Mountainview** baz-313,SNR=16 | 56.94 | 73 | P | | P | 00 15 42.3 | -2.4 |
| S43A | **Fulton Ridge,** baz-313,SNR=30 | 56.94 | 70 | P | | P | 00 15 42.7 | -2.0 |
| MIAR | **Mount Ida** | 56.95 | 75 | *e*P | | P | 00 15 43.8 | -0.9 |
| MIAR | comp=Z,42nm,0.9s | | | pmax | | pmax | | |
| MIAR | **Mount Ida** comp=Z,42nm,0.9s | 56.95 | 75 | *e*P | | P | 00 15 43.8 | -0.9 |
| P45A | **Graceland, Par** baz-313 | 56.96 | 67 | P | | P | 00 15 42.8 | -1.9 |
| 137A | **Heron Place, G** baz-314 | 56.98 | 78 | P | | P | 00 15 44.2 | -0.8 |
| Z38A | **Mt. Pleasant** baz-314 | 56.99 | 77 | P | | P | 00 15 44.3 | -0.8 |
| Y39A | **Lockesburg** baz-314 | 57.05 | 76 | P | | P | 00 15 44.5 | -1.0 |
| R44A | **Waltonville** baz-313,SNR=5.2 | 57.06 | 69 | P | | P | 00 15 43.3 | -2.1 |
| U42A | **Revenden** baz-313,SNR=5.9 | 57.09 | 72 | P | | P | 00 15 43.1 | -2.6 |
| 435B | **Jarrell** baz-315 | 57.13 | 81 | P | | P | 00 15 45.5 | -0.6 |
| T43A | **Greenville** baz-313,SNR=36 | 57.15 | 70 | P | | P | 00 15 44.1 | -2.0 |
| Q45A | **Warren Harvey,** baz-313,SNR=17 | 57.15 | 67 | P | | P | 00 15 44.5 | -1.6 |
| 336A | **Riesel** baz-315 | 57.16 | 80 | P | | P | 00 15 45.7 | -0.6 |
| X301 | **Greenbrier Sit** comp=Z,23nm,0.9s | 57.17 | 73 | *e*P | | P | 00 15 44.7 | -1.6 |
| WHAR | **Wooly Hollow** comp=Z,44nm,1.5s | 57.20 | 73 | *e*P | | P | 00 15 44.9 | -1.7 |
| P46A | **Rosedale** baz-313 | 57.20 | 66 | P | | P | 00 15 45.1 | -1.3 |
| PBMO | **Poplar Bluff** comp=Z,17nm,1.0s | 57.28 | 71 | *e*P | | P | 00 15 44.5 | -2.5 |
| OLIL | **Olney** comp=Z,33nm,0.8s | 57.30 | 68 | *e*P | | P | 00 15 45.9 | -1.3 |
| W41B | **Gary Mavity, V** baz-314,SNR=10.0 | 57.30 | 73 | P | | P | 00 15 45.4 | -1.9 |
| S44A | **Carbondale** baz-313,SNR=8.3 | 57.34 | 69 | P | | P | 00 15 45.3 | -2.1 |
| 138A | **Matatall Enter** baz-314 | 57.34 | 77 | P | | P | 00 15 45.7 | -1.9 |
| SIUC | **Southern Illin** comp=Z,23nm,0.7s | 57.34 | 69 | *e*P | | P | 00 15 45.8 | -1.7 |
| 237A | **Washetta, Mont** baz-314 | 57.36 | 78 | P | | P | 00 15 46.9 | -0.8 |
| O47A | **Sheridan** baz-313,SNR=5.6 | 57.37 | 65 | P | | P | 00 15 45.3 | -2.3 |
| V42A | **Cord** baz-314,SNR=5.2 | 57.38 | 72 | P | | P | 00 15 45.2 | -2.5 |
| X40A | **Basin Creek Fa** baz-314,SNR=8.8 | 57.43 | 74 | P | | P | 00 15 47.2 | -1.0 |
| Z39A | **Irene McRaven,** baz-314 | 57.48 | 76 | P | | P | 00 15 47.6 | -0.9 |
| R45A | **Skylar, Fairfi** baz-313,SNR=11 | 57.49 | 68 | P | | P | 00 15 46.8 | -1.7 |
| Y40A | **Okolona** baz-314 | 57.49 | 75 | P | | P | 00 15 47.1 | -1.5 |
| UALR | **University of** comp=Z,17nm,0.9s | 57.52 | 74 | *e*P | | P | 00 15 47.7 | -1.1 |
| T44A | **Benton** baz-313,SNR=6.1 | 57.56 | 70 | P | | P | 00 15 47.0 | -2.0 |
| H06N1 | **SOCORRO T-PHAS** SNR=16 | 57.56 | 101 | T | | T | 01 18 12.6 | |
| U43A | **Rector** baz-314 | 57.57 | 71 | P | | P | 00 15 47.5 | -1.7 |
| X41A | **Kaden, Bauxite** baz-314 | 57.62 | 74 | P | | P | 00 15 48.6 | -0.9 |
| H06E1 | **SOCORRO T-PHAS** SNR=14 | 57.66 | 101 | T | | T | 01 18 17.6 | |
| S45A | **Carrier Mills** baz-313,SNR=7.8 | 57.74 | 69 | P | | P | 00 15 48.7 | -1.6 |
| 139A | **Bunkhouse Ranc** baz-314 | 57.75 | 77 | P | | P | 00 15 48.8 | -1.6 |
| PARMO | **Parma** comp=Z,103nm,0.7s | 57.75 | 70 | *e*P | | P | 00 15 49.3 | -1.1 |
| 833A | **Chaparral WMA,** baz-316,SNR=8.1 | 57.76 | 84 | P | | P | 00 15 50.0 | -0.5 |
| 238A | **Jacksonville** baz-315 | 57.78 | 78 | P | | P | 00 15 49.2 | -1.4 |
| 337A | **Centerville** baz-315 | 57.79 | 79 | P | | P | 00 15 49.2 | -1.6 |
| WLAR | **White Oak Lake** comp=Z,88nm,0.8s | 57.82 | 75 | *e*P | | P | 00 15 50.5 | -0.3 |
| P47A | **Martinsville** baz-313,SNR=12 | 57.82 | 66 | P | | P | 00 15 49.1 | -1.8 |
| BLO | **Bloomington** | 57.90 | 66 | *e*P | | P | 00 15 49.9 | -1.5 |
| BLO | comp=Z,34nm,1.1s | | | pmax | | pmax | | |
| BLO | **Bloomington** comp=Z,34nm,1.1s | 57.90 | 66 | *e*P | | P | 00 15 49.9 | -1.5 |
| Z40A | **Long Farm, Mag** baz-314 | 57.94 | 76 | P | | P | 00 15 51.1 | -0.6 |
| Y41A | **Eaglette Beard** baz-314,SNR=9.9 | 57.98 | 75 | P | | P | 00 15 50.9 | -1.1 |
| HBAR | **Harrisburg** comp=Z,46nm,1.0s | 57.98 | 72 | *e*P | | P | 00 15 51.0 | -1.0 |
| USIN | **University of** comp=Z,62nm,0.7s | 58.07 | 68 | *e*P | | P | 00 15 51.3 | -1.3 |
| X42A | **Stuttgart** baz-314 | 58.10 | 73 | P | | P | 00 15 51.8 | -1.0 |
| Q47A | **Bedord North L** baz-313,SNR=6.5 | 58.11 | 66 | P | | P | 00 15 51.2 | -1.6 |
| ARCES | **ARCESS Array B** comp=Z,1.7nm,0.7s,baz=16,slow=6.6,SNR=6.9 | 58.22 | 353 | P | | P | 00 15 50.0 | -3.1 |
| S46A | **Don Dixon Farm** baz-314 | 58.23 | 68 | P | | P | 00 15 51.9 | -1.8 |
| Z41A | **Richland Creek** baz-314 | 58.30 | 75 | P | | P | 00 15 53.3 | -1.0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **438A** | **Sam Houston St** | **58.44** | **79** | P | **P** | **00 15 54.6** | **-0.6** |
| | baz=315 | | | | | | |
| **DGZ** | **Jazzator, Alta** | **58.45** | **311** | *e*P | **P** | **00 15 55.9** | **+0.6** |
| DGZ | | | | pmax | pmax | | |
| | comp=Z,1.0nm,1.1s | | | | | | |
| **CCAR** | **Cane Creek** | **58.46** | **74** | *e*P | **P** | **00 15 55.2** | **-0.2** |
| | comp=Z,36nm,0.8s | | | | | | |
| **R47A** | **Wooly Knot Far** | **58.49** | **67** | P | **P** | **00 15 53.8** | **-1.7** |
| | baz=314,SNR=6.5 | | | | | | |
| **Y42A** | **Garnett, Star** | **58.51** | **74** | P | **P** | **00 15 54.8** | **-0.9** |
| | baz=314 | | | | | | |
| **U45A** | **Rockin P Farm,** | **58.55** | **70** | P | **P** | **00 15 54.7** | **-1.2** |
| | baz=314 | | | | | | |
| **X43A** | **Marvell** | **58.57** | **73** | P | **P** | **00 15 55.0** | **-1.1** |
| | baz=314 | | | | | | |
| **T46A** | **Princeton** | **58.57** | **69** | P | **P** | **00 15 54.8** | **-1.3** |
| | baz=314,SNR=7.3 | | | | | | |
| **339A** | **Huntington** | **58.59** | **78** | P | **P** | **00 15 54.8** | **-1.5** |
| | baz=315 | | | | | | |
| **WCI** | **Wyandotte Cave** | **58.67** | **67** | *e*P | **P** | **00 15 55.4** | **-1.4** |
| WCI | | | | pmax | pmax | | |
| | comp=Z,25nm,0.9s | | | | | | |
| **WCI** | **Wyandotte Cave** | **58.67** | **67** | *e*P | **P** | **00 15 55.4** | **-1.4** |
| | comp=Z,25nm,0.8s | | | | | | |
| **141A** | **Papa Simpson,** | **58.70** | **76** | P | **P** | **00 15 55.6** | **-1.4** |
| | baz=315 | | | | | | |
| **HKT** | **Hockley** | **58.79** | **80** | *e*P | **P** | **00 15 56.9** | **-0.7** |
| HKT | | | | pmax | pmax | | |
| | comp=Z,31nm,1.3s | | | | | | |
| **Z42A** | **Norrel Spur, H** | **58.80** | **75** | P | **P** | **00 15 56.8** | **-0.9** |
| | baz=315 | | | | | | |
| **439A** | **Center Grove,** | **58.84** | **79** | P | **P** | **00 15 57.2** | **-0.8** |
| | baz=315 | | | | | | |
| **V45A** | **Humboldt** | **58.85** | **71** | P | **P** | **00 15 56.4** | **-1.7** |
| | baz=314 | | | | | | |
| **340A** | **Bronson** | **58.93** | **78** | P | **P** | **00 15 57.8** | **-0.8** |
| | baz=315 | | | | | | |
| **Y43A** | **Makayla and Ka** | **58.96** | **74** | P | **P** | **00 15 57.8** | **-1.0** |
| | baz=314 | | | | | | |
| **X44A** | **Crenshaw** | **59.02** | **72** | P | **P** | **00 15 57.8** | **-1.5** |
| | baz=314 | | | | | | |
| **T47A** | **Sharon Grove** | **59.06** | **68** | P | **P** | **00 15 58.3** | **-1.3** |
| | baz=314,SNR=14 | | | | | | |
| **241A** | **Mo Tay, Goldon** | **59.09** | **76** | P | **P** | **00 15 58.8** | **-1.0** |
| | baz=315 | | | | | | |
| **W45A** | **Hickory Valley** | **59.12** | **71** | P | **P** | **00 15 59.0** | **-1.0** |
| | baz=314 | | | | | | |
| **GTA** | **Gaotai** | **59.23** | **296** | *e*P | **P** | **00 15 59.5** | **-1.3** |
| GTA | | | | pP | pP | 00 16 05.8 | -6.2 |
| GTA | | | | sP | sP | 00 16 08.4 | -8.0 |
| GTA | | | | S | **S** | **00 24 03.4** | **-2.6** |
| GTA | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.9s | | | | | | |
| GTA | | | | pmax | pmax | | |
| | comp=Z,160nm,6.4s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,320nm,15.7s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,260nm,15.2s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,310nm,14.7s | | | | | | |
| **LZH** | **Lanzhou** | **59.23** | **290** | *e*P | **P** | **00 16 02.8** | **+1.9** |
| LZH | | | | pP | pP | 00 16 09.7 | -2.4 |
| LZH | | | | sP | sP | 00 16 12.1 | -4.4 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.0s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,56nm,4.8s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,620nm,17.7s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,330nm,17.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,310nm,19.1s | | | | | | |
| **WVT** | **Waverly** | **59.24** | **70** | *e*P | **P** | **00 15 59.6** | **-1.2** |
| WVT | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| **WVT** | **Waverly** | **59.24** | **70** | *e*P | **P** | **00 15 59.6** | **-1.2** |
| | comp=Z,10nm,0.8s | | | | | | |
| **Y44A** | **Strider, Charl** | **59.35** | **73** | P | **P** | **00 15 59.9** | **-1.7** |
| | baz=315 | | | | | | |
| **341A** | **Kurthwood** | **59.43** | **77** | P | **P** | **00 16 00.7** | **-1.4** |
| | baz=315 | | | | | | |
| **OXF** | **Oxford** | **59.44** | **72** | *e*P | **P** | **00 16 00.8** | **-1.4** |
| OXF | | | | pmax | pmax | | |
| | comp=Z,77nm,0.9s | | | | | | |
| **OXF** | **Oxford** | **59.44** | **72** | *e*P | **P** | **00 16 00.8** | **-1.4** |
| | comp=Z,77nm,0.8s | | | | | | |
| **X45A** | **UM Field Stati** | **59.51** | **72** | P | **P** | **00 16 01.0** | **-1.7** |
| | baz=315 | | | | | | |
| **143A** | **Socs Landing,** | **59.53** | **75** | P | **P** | **00 16 01.4** | **-1.4** |
| | baz=315 | | | | | | |
| **242A** | **Grayson** | **59.53** | **76** | P | **P** | **00 16 01.3** | **-1.5** |
| | baz=315 | | | | | | |
| **Z44A** | **Pea Ridge, Bel** | **59.70** | **74** | P | **P** | **00 16 03.0** | **-1.0** |
| | baz=315 | | | | | | |
| **Y45A** | **Yeager Farm, C** | **59.82** | **73** | P | **P** | **00 16 03.6** | **-1.2** |
| | baz=315,SNR=5.3 | | | | | | |
| **PLAL** | **Pickwick Lake** | **59.90** | **71** | *e*P | **P** | **00 16 03.7** | **-1.6** |
| | comp=Z,34nm,0.7s | | | | | | |
| **342A** | **Flagon Creek P** | **59.91** | **77** | P | **P** | **00 16 04.6** | **-0.8** |
| | baz=315 | | | | | | |
| **M54A** | **Oil Creek Stat** | **60.07** | **60** | P | **P** | **00 16 04.7** | **-1.7** |
| | baz=314 | | | | | | |
| **Z45A** | **Winona** | **60.08** | **73** | P | **P** | **00 16 04.8** | **-1.7** |
| | baz=315 | | | | | | |
| **LNIG** | **Linares** | **60.18** | **87** | *e*P | **P** | **00 16 05.4** | **-2.0** |
| | comp=Z,6.0nm,0.8s | | | | | | |
| **Y46A** | **Houston** | **60.21** | **72** | P | **P** | **00 16 06.2** | **-1.3** |
| | baz=315,SNR=16 | | | | | | |
| **N54A** | **Moraine State** | **60.28** | **61** | P | **P** | **00 16 06.0** | **-1.9** |
| | baz=315 | | | | | | |
| **VBMS** | **Vicksburg** | **60.40** | **75** | *e*P | **P** | **00 16 08.4** | **-0.3** |
| | comp=Z,39nm,0.9s | | | | | | |
| **244A** | **Avery, Jackson** | **60.42** | **75** | P | **P** | **00 16 08.3** | **-0.6** |
| | baz=315,SNR=10 | | | | | | |
| **145A** | **Houston Renfro** | **60.48** | **74** | P | **P** | **00 16 08.4** | **-0.8** |
| | baz=315 | | | | | | |
| **Z46A** | **Louisville** | **60.65** | **73** | P | **P** | **00 16 09.4** | **-1.0** |
| | baz=315 | | | | | | |
| **Y47A** | **UCPARC, Winfie** | **60.79** | **71** | P | **P** | **00 16 09.7** | **-1.7** |
| | baz=315,SNR=18 | | | | | | |
| **344A** | **Westbrook Farm** | **60.81** | **75** | P | **P** | **00 16 10.1** | **-1.5** |
| | baz=316 | | | | | | |
| **245A** | **Little AP, Sta** | **60.90** | **74** | P | **P** | **00 16 10.7** | **-1.5** |
| | baz=316,SNR=5.3 | | | | | | |
| **146A** | **Union** | **60.97** | **73** | P | **P** | **00 16 11.8** | **-0.9** |
| | baz=315,SNR=11 | | | | | | |
| **SWET** | **Sewanee** | **60.98** | **69** | *e*P | **P** | **00 16 11.0** | **-1.8** |
| | comp=Z,52nm,2.0s | | | | | | |
| **Z47A** | **Carrollton** | **61.16** | **72** | P | **P** | **00 16 12.3** | **-1.6** |
| | baz=315,SNR=16 | | | | | | |
| **444A** | **Pine Grove** | **61.33** | **76** | P | **P** | **00 16 13.6** | **-1.5** |
| | baz=316 | | | | | | |
| **345A** | **Thompson Farm,** | **61.34** | **75** | P | **P** | **00 16 14.3** | **-0.9** |
| | baz=316 | | | | | | |
| **Z48A** | **Northport** | **61.34** | **72** | P | **P** | **00 16 13.3** | **-1.8** |
| | baz=315,SNR=15 | | | | | | |
| **147A** | **Livingston** | **61.41** | **73** | P | **P** | **00 16 14.5** | **-1.1** |
| | baz=316,SNR=7.8 | | | | | | |
| **TZTN** | **Tazewell** | **61.41** | **66** | *e*P | **P** | **00 16 14.7** | **-0.9** |
| | comp=Z,17nm,0.8s | | | | | | |
| **O56A** | **Blue Knob Stat** | **61.53** | **60** | P | **P** | **00 16 15.0** | **-1.4** |
| | baz=315 | | | | | | |
| **CPCT** | **Cooper Cave** | **61.63** | **68** | *e*P | **P** | **00 16 15.6** | **-1.5** |
| | comp=Z,6.3nm,0.6s | | | | | | |
| **KURK** | **Kurchatov** | **61.63** | **317** | *e*P | **P** | **00 16 17.1** | **+0.3** |
| KURK | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.8s | | | | | | |
| **KURK** | **Kurchatov** | **61.63** | **317** | *e*P | **P** | **00 16 17.1** | **+0.3** |
| | comp=Z,4.5nm,0.8s | | | | | | |
| **SSPA** | **Standing Stone** | **61.64** | **60** | *e*P | **P** | **00 16 16.1** | **-0.9** |
| | comp=Z,56nm,1.6s | | | | | | |
| **VT1** | **Waterbury** | **61.65** | **54** | *e*P | **P** | **00 16 15.8** | **-1.4** |
| | comp=Z,95nm,1.9s | | | | | | |
| **247A** | **Quitman** | **61.65** | **73** | P | **P** | **00 16 16.5** | **-0.8** |
| | baz=316,SNR=7.0 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **61.74** | **317** | P | **P** | **00 16 15.8** | **-1.8** |
| | comp=Z,1.7nm,0.6s,baz=46,slow=7.1,SNR=12 | | | | | | |
| **ACCN** | **Adirondack Com** | **61.87** | **55** | *e*P | **P** | **00 16 17.5** | **-1.1** |
| | comp=Z,30nm,1.3s | | | | | | |
| **LRAL** | **Lakeview Retre** | **61.91** | **72** | *e*P | **P** | **00 16 17.1** | **-1.8** |
| | comp=Z,13nm,0.7s | | | | | | |
| **TKL** | **Tuckaleechee C** | **61.91** | **67** | *e*P | **P** | **00 16 17.6** | **-1.4** |
| TKL | | | | pmax | pmax | | |
| | comp=Z,54nm,1.7s | | | | | | |
| **TKL** | **Tuckaleechee C** | **61.91** | **67** | *e*P | **P** | **00 16 17.6** | **-1.4** |
| | comp=Z,54nm,1.8s | | | | | | |
| **446A** | **Poplarville** | **62.10** | **75** | P | **P** | **00 16 18.8** | **-1.5** |
| | baz=316 | | | | | | |
| **248A** | **Dixon Mills** | **62.14** | **73** | P | **P** | **00 16 19.6** | **-0.9** |
| | baz=316,SNR=13 | | | | | | |
| **347A** | **Saraland** | **62.16** | **74** | P | **P** | **00 16 20.0** | **-0.6** |
| | baz=316,SNR=9.1 | | | | | | |
| **PQI** | **Presque Isle** | **62.24** | **49** | *e*P | **P** | **00 16 19.1** | **-1.9** |
| | comp=Z,145nm,2.0s | | | | | | |
| **645A** | **Chauvin** | **62.32** | **77** | P | **P** | **00 16 20.8** | **-1.0** |
| | baz=316 | | | | | | |
| **WMQ** | **Urumqi** | **62.52** | **307** | P | **P** | **00 16 24.5** | **+1.4** |
| WMQ | | | | pP | pP | 00 16 36.4 | +2.1 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,15nm,0.6s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,600nm,9.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,570nm,17.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,510nm,17.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,250nm,18.9s | | | | | | |
| **447A** | **Lucedale** | **62.52** | **74** | P | **P** | **00 16 22.4** | **-0.8** |
| | baz=316 | | | | | | |
| **348A** | **Jackson** | **62.53** | **73** | P | **P** | **00 16 22.4** | **-0.8** |
| | baz=316 | | | | | | |
| **N59A** | **State Game Lan** | **62.56** | **58** | P | **P** | **00 16 22.2** | **-1.1** |
| | baz=316 | | | | | | |
| **BLA** | **Blacksburg** | **62.70** | **64** | *e*P | **P** | **00 16 23.7** | **-0.6** |
| BLA | | | | pmax | pmax | | |
| | comp=Z,30nm,0.8s | | | | | | |
| **BLA** | **Blacksburg** | **62.70** | **64** | *e*P | **P** | **00 16 23.7** | **-0.6** |
| | comp=Z,30nm,0.8s | | | | | | |
| **BG3** | **Lake Jocassee** | **62.87** | **67** | *e*P | **P** | **00 16 24.4** | **-1.0** |
| | comp=Z,16nm,0.8s | | | | | | |
| **MKAR** | **Makanchi Array** | **62.93** | **312** | P | **P** | **00 16 23.4** | **-2.2** |
| | comp=Z,0.6nm,0.4s,baz=47,slow=6.1,SNR=15 | | | | | | |
| MKAR | | | | LR | LR | 00 44 58.7 | |
| | comp=Z,78nm,19.5s,baz=26,slow=37 | | | | | | |
| **MK01** | **Makanchi Array** | **62.95** | **312** | *e*P | **P** | **00 16 24.2** | **-1.6** |
| **BVAR** | **Borovoye Array** | **63.13** | **323** | P | **P** | **00 16 25.4** | **-1.5** |
| | comp=Z,3.0nm,0.5s,baz=53,slow=6.1,SNR=35 | | | | | | |
| **BRVK** | **Borovoye** | **63.14** | **323** | *e*P | **P** | **00 16 27.4** | **+0.5** |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.2s | | | | | | |
| **BRVK** | **Borovoye** | **63.14** | **323** | *e*P | **P** | **00 16 27.4** | **+0.5** |
| | comp=Z,6.8nm,1.2s | | | | | | |
| **BRAL** | **Brewton** | **63.21** | **73** | *e*P | **P** | **00 16 27.2** | **-0.5** |
| | comp=Z,45nm,0.9s | | | | | | |
| **IP04** | **Greensprings** | **63.35** | **62** | *e*P | **P** | **00 16 28.6** | **+0.1** |
| | comp=Z,31nm,1.2s | | | | | | |
| **IP03** | **Louisa** | **63.44** | **62** | *e*P | **P** | **00 16 28.4** | **-0.7** |
| | comp=Z,34nm,1.3s | | | | | | |
| **IP07** | **Quail** | **63.51** | **62** | *e*P | **P** | **00 16 29.3** | **-0.3** |
| | comp=Z,28nm,1.1s | | | | | | |
| **SPRD** | **Spring Road, M** | **63.51** | **62** | *e*P | **P** | **00 16 28.9** | **-0.7** |
| | comp=Z,66nm,2.0s | | | | | | |
| **CVRD** | **Centerville Ro** | **63.52** | **62** | *e*P | **P** | **00 16 29.1** | **-0.5** |
| | comp=Z,34nm,1.5s | | | | | | |
| **IP06** | **Yanceyville** | **63.52** | **62** | *e*P | **P** | **00 16 29.2** | **-0.4** |
| | comp=Z,15nm,0.8s | | | | | | |
| **KMSC** | **Kings Mountain** | **63.67** | **66** | P | **P** | **00 16 29.4** | **-1.3** |
| | baz=316,SNR=10 | | | | | | |
| **KMSC** | **Kings Mountain** | **63.67** | **66** | *e*P | **P** | **00 16 28.8** | **-1.9** |
| | comp=Z,47nm,1.1s | | | | | | |
| **GOGA** | **Godfrey** | **63.70** | **69** | *e*P | **P** | **00 16 28.9** | **-2.0** |
| GOGA | | | | pmax | pmax | | |
| | comp=Z,17nm,0.8s | | | | | | |
| **GOGA** | **Godfrey** | **63.70** | **69** | *e*P | **P** | **00 16 28.9** | **-2.0** |
| | comp=Z,17nm,0.8s | | | | | | |
| **IP05** | **Hopewell Churc** | **63.72** | **62** | *e*P | **P** | **00 16 30.3** | **-0.6** |
| | comp=Z,12nm,0.8s | | | | | | |
| **HODGE** | **Hodges** | **63.80** | **67** | *e*P | **P** | **00 16 30.1** | **-1.4** |
| | comp=Z,19nm,0.7s | | | | | | |
| **ARU** | **Arti** | **64.29** | **332** | P | **P** | **00 16 33.0** | **-1.4** |
| | comp=Z,5.1nm,0.4s,baz=53,slow=3.0,SNR=15 | | | | | | |
| **ARU** | **Arti** | **64.29** | **332** | *d i*P | **P** | **00 16 34.4** | **0.0** |
| ARU | | | | | | 00 17 03.9 | |
| ARU | | | | S | **S** | **00 25 11.8** | **+2.6** |
| ARU | | | | SS | **SS** | **00 29 13.8** | **-4.3** |
| ARU | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.7s | | | | | | |
| **ARU** | **Arti** | **64.29** | **332** | *e*P | **P** | **00 16 33.2** | **-1.2** |
| | comp=Z,4.8nm,0.6s | | | | | | |
| **JSC** | **Jenkinsville** | **64.33** | **67** | *e*P | **P** | **00 16 34.2** | **-0.8** |
| JSC | | | | pmax | pmax | | |
| | comp=Z,22nm,0.8s | | | | | | |
| **JSC** | **Jenkinsville** | **64.33** | **67** | *e*P | **P** | **00 16 34.2** | **-0.8** |
| | comp=Z,22nm,0.8s | | | | | | |
| **LMN** | **Caledonia Moun** | **64.34** | **48** | *e*P | **P** | **00 16 33.6** | **-1.3** |
| **GYA** | **Guiyang** | **64.42** | **281** | P | **P** | **00 16 37.2** | **+1.3** |
| GYA | | | | PP | **PP** | **00 19 00.4** | **+2.8** |
| GYA | | | | ScP | | 00 21 11.5 | |
| GYA | | | | S | **S** | **00 25 12.0** | **0.0** |
| GYA | | | | SKS | **SKKSac** | **00 26 24.8** | **-2.5** |
| GYA | | | | SS | **SS** | **00 29 23.0** | **+1.1** |
| GYA | | | | pmax | pmax | | |
| | comp=Z,20nm,0.9s | | | | | | |
| GYA | | | | pmax | pmax | | |
| | comp=Z,120nm,6.2s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,530nm,18.9s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,490nm,18.4s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,460nm,19.0s | | | | | | |
| **TIGA** | **Tifton** | **65.05** | **70** | P | **P** | **00 16 38.1** | **-1.6** |
| | baz=317 | | | | | | |
| **NHSC** | **New Hope** | **65.80** | **67** | *e*P | **P** | **00 16 44.5** | **-0.1** |
| | comp=Z,97nm,1.1s | | | | | | |
| **FINES** | **FINESS Array B** | **66.10** | **351** | P | **P** | **00 16 44.4** | **-1.6** |
| | comp=Z,2.8nm,0.9s,baz=20,slow=8.3,SNR=4.6 | | | | | | |
| FINES | | | | LR | LR | 00 48 38.6 | |
| | comp=Z,107nm,18.3s,baz=31,slow=39 | | | | | | |
| **NB2** | **NORSAR Subarra** | **67.40** | **358** | P | **P** | **00 16 52.0** | **-2.4** |
| | comp=Z,4.5nm,1.0s,baz=5.0,slow=6.9 | | | | | | |
| **NOA** | **NORSAR Array B** | **67.40** | **358** | P | **P** | **00 16 52.4** | **-2.0** |
| | comp=Z,2.3nm,1.1s,baz=4.6,slow=6.7,SNR=4.4 | | | | | | |
| **KMI** | **Kunming** | **67.79** | **283** | P | **P** | **00 16 57.1** | **-0.6** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.5s | | | | | | |
| **HFS** | **Hagfors** | **68.24** | **357** | P | **P** | **00 16 56.5** | **-3.2** |
| | comp=Z,2.9nm,0.4s,baz=29,slow=3.3,SNR=24 | | | | | | |
| **AKTO** | **Aktyubinsk** | **69.59** | **328** | P | **P** | **00 17 06.8** | **-1.4** |
| | comp=Z,4.6nm,0.5s,baz=50,slow=6.9,SNR=20 | | | | | | |
| **AAK** | **Ala-Archa** | **69.67** | **314** | P | **P** | **00 17 08.6** | **-0.5** |
| | comp=Z,2.4nm,0.5s,baz=151,slow=5.1,SNR=10 | | | | | | |
| **AAK** | **Ala-Archa** | **69.67** | **314** | *e*P | **P** | **00 17 08.2** | **-0.8** |
| | comp=Z,3.9nm,0.6s | | | | | | |
| **PMG** | **Port Moresby** | **70.40** | **223** | *i* P | **P** | **00 17 10.7** | **-2.8** |
| PMG | | | | pmax | pmax | | |
| | comp=Z,65nm,1.1s | | | | | | |
| **OBN** | **Obninsk** | **70.75** | **343** | *e*P | **P** | **00 17 14.5** | **-0.7** |
| OBN | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.0s | | | | | | |
| OBN | | | | MLR | MLR | | |
| | comp=Z,161nm,17.0s | | | | | | |
| **LSA** | **Lhasa** | **71.17** | **294** | *e*P | **P** | **00 17 16.9** | **-1.9** |
| LSA | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.7s | | | | | | |
| **LSA** | **Lhasa** | **71.17** | **294** | *e*P | **P** | **00 17 16.9** | **-1.9** |
| | comp=Z,6.7nm,0.7s | | | | | | |
| **KSH** | **Kashi** | **71.48** | **311** | P | **P** | **00 17 22.3** | **+2.2** |
| KSH | | | | pP | pP | 00 17 28.1 | -3.4 |
| KSH | | | | PcP | **PcP** | **00 17 41.4** | **+2.0** |
| KSH | | | | PP | **PP** | **00 20 03.2** | **+4.9** |
| KSH | | | | S | **S** | **00 26 38.5** | **+2.6** |
| KSH | | | | ScS | **ScS** | **00 27 21.4** | **-0.6** |
| KSH | | | | SS | **SS** | **00 31 15.5** | **+5.3** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.5s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,130nm,6.0s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,280nm,7.2s | | | | | | |
| **EKA** | **Eskdalemuir Ar** | **72.75** | **7** | P | **P** | **00 17 25.3** | **-1.9** |
| | comp=Z,2.4nm,0.8s,baz=348,slow=4.9,SNR=4.7 | | | | | | |
| **VRH** | **Novokhopyorsk** | **73.40** | **339** | *e*P | **P** | **00 17 29.0** | **-2.1** |
| VRH | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.5s | | | | | | |
| **VSR** | **Storozhevoye** | **73.94** | **340** | *e*P | **P** | **00 17 32.5** | **-1.8** |
| VSR | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.5s | | | | | | |
| **CHTO** | **Chiang Mai** | **74.84** | **281** | *e*P | **P** | **00 17 40.5** | **+0.4** |
| **CHTO** | **Chiang Mai** | **74.84** | **281** | *e*P | **P** | **00 17 40.5** | **+0.4** |
| **CMAR** | **Chiang Mai Arr** | **75.11** | **281** | P | **P** | **00 17 41.0** | **-0.6** |
| | comp=Z,4.7nm,0.8s,baz=27,slow=6.8,SNR=22 | | | | | | |
| CMAR | | | | LR | LR | 00 54 11.5 | |
| | comp=Z,28nm,19.0s,baz=57,slow=38 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **75.11** | **281** | P | **P** | **00 17 41.0** | **-0.6** |
| CMAR | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.8s | | | | | | |
| CMAR | | | | MLR | MLR | | |
| | comp=Z,28nm,19.0s | | | | | | |
| **COEN** | **Coen** | **76.18** | **225** | *e*P | **P** | **00 17 47.2** | **-0.3** |
| **AKASG** | **Malin Array Be** | **76.22** | **346** | P | **P** | **00 17 45.6** | **-1.8** |
| | comp=Z,0.4nm,0.3s,baz=19,slow=5.8,SNR=4.5 | | | | | | |
| **AKASG** | **Malin Array Be** | **76.22** | **346** | *ce*P | **P** | **00 17 47.5** | **+0.1** |
| **KIEV** | **Kiev** | **76.22** | **346** | *e*P | **P** | **00 17 48.5** | **+1.1** |
| KIEV | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.9s | | | | | | |
| **KHC** | **Kasperske Hory** | **79.25** | **356** | *e*P | P | 00 18 00.0 | -4.4 |
| **KHC** | **Kasperske Hory** | **79.25** | **356** | *e*P | P | 00 18 00.0 | -4.4 |
| **MAK** | **Makhachkala** | **79.52** | **332** | *e*P | **P** | **00 18 05.7** | **-0.2** |
| MAK | | | | *e* | | 00 21 07.4 | |
| MAK | | | | *e*PPP | PPP | 00 22 56.5 | |
| MAK | | | | *e*S | **S** | **00 28 04.6** | **+0.2** |
| MAK | | | | *e*SS | **SS** | **00 33 13.8** | **+2.6** |
| MAK | | | | pmax | pmax | | |
| | comp=Z,171nm,1.7s | | | | | | |
| **GERES** | **GERESS Array B** | **79.53** | **356** | P | **P** | **00 18 05.4** | **-0.6** |
| | comp=Z,0.8nm,0.7s,baz=312,slow=6.4,SNR=3.4 | | | | | | |
| **BUR08** | **Bucovina Ar. S** | **79.76** | **348** | *e*P | **P** | **00 18 06.5** | **-0.7** |
| **KIV** | **Kislovodsk** | **79.93** | **335** | *e*P | **P** | **00 18 09.1** | **+0.8** |
| KIV | | | | *e* | | 00 21 07.5 | |
| KIV | | | | *e*PPP | PPP | 00 23 03.3 | |
| KIV | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.9s | | | | | | |
| **KBZ** | **Khabaz** | **80.09** | **335** | P | **P** | **00 18 10.1** | **+1.1** |
| | comp=Z,1.1nm,0.7s,baz=349,slow=5.2,SNR=4.3 | | | | | | |
| **KBZ** | **Khabaz** | **80.09** | **335** | P | **P** | **00 18 10.1** | **+1.1** |
| KBZ | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.8s | | | | | | |
| **NCK** | **Nalchik** | **80.12** | **335** | *e*P | **P** | **00 18 08.6** | **-0.6** |
| NCK | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.9s | | | | | | |
| **MTN** | **Manton Dam** | **80.95** | **236** | *e*P | **P** | **00 18 13.1** | **-0.7** |
| **WRAB** | **Tennant Creek** | **85.42** | **229** | *i* P | **P** | **00 18 34.6** | **-2.2** |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,29nm,1.7s | | | | | | |
| **WRA** | **Warramunga Arr** | **85.43** | **229** | P | **P** | **00 18 35.8** | **-1.1** |
| | comp=Z,3.2nm,0.8s,baz=33,slow=5.7,SNR=20 | | | | | | |
| **WRA** | **Warramunga Arr** | **85.43** | **229** | *i* P | **P** | **00 18 35.7** | **-1.2** |
| WRA | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.8s | | | | | | |
| **BRTR** | **Keskin Array B** | **86.06** | **340** | P | **P** | **00 18 39.1** | **-1.0** |
| | comp=Z,0.6nm,0.6s,baz=12,slow=1.6,SNR=4.7 | | | | | | |
| BRTR | | | | LR | LR | 01 03 32.4 | |
| | comp=Z,27nm,18.2s,baz=360,slow=40 | | | | | | |
| **HYB** | **Hyderabad** | **87.90** | **296** | *i* P | **P** | **00 18 49.5** | **+0.3** |
| **ESDC** | **Sonseca Array** | **88.22** | **9** | P | **P** | **00 18 48.3** | **-2.2** |
| | comp=Z,0.5nm,0.7s,baz=351,slow=3.1,SNR=4.9 | | | | | | |
| **AS31** | **Alice Springs** | **88.84** | **228** | *e*P | **P** | **00 18 53.1** | **-0.3** |
| **ASAR** | **Alice Springs** | **88.84** | **228** | P | **P** | **00 18 52.9** | **-0.5** |
| | comp=Z,15nm,0.8s,baz=33,slow=4.8,SNR=136 | | | | | | |
| ASAR | | | | LR | LR | 00 58 25.6 | |
| | comp=Z,14nm,18.9s,baz=48,slow=35 | | | | | | |
| **GSI** | **Gunungsitoli** | **89.23** | **271** | *e*P | **P** | **00 18 55.0** | **-0.5** |
| | comp=Z,7.0nm,0.6s | | | | | | |
| **RUSC** | **La Rusia** | **90.91** | **79** | *e*P | **P** | **00 19 03.6** | **-0.3** |
| **STKA** | **Stephens Creek** | **92.79** | **218** | P | **P** | **00 19 11.3** | **-0.2** |
| | comp=Z,5.0nm,0.9s,baz=9.9,slow=8.7,SNR=8.9 | | | | | | |
| STKA | | | | LR | LR | 00 53 41.1 | |
| | comp=Z,88nm,21.8s,baz=25,slow=31 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **115.01** | **7** | PKP | PKPdf | 00 24 39.1 | -1.4 |
| | comp=Z,0.3nm,0.4s,baz=344,slow=2.7,SNR=6.1 | | | | | | |
| **DBIC** | **Dimbokro** | **120.65** | **15** | PKP | **PKPdf** | **00 24 49.9** | **-1.4** |
| | comp=Z,1.3nm,0.5s,baz=337,slow=3.0,SNR=5.8 | | | | | | |
| **BOSA** | **Boshof** | **153.41** | **324** | PKPbc | **PKPbc** | **00 25 57.2** | **-0.3** |
| | comp=Z,2.4nm,0.5s,baz=8.1,slow=2.7,SNR=14 | | | | | | |

---

*CSEM **10** 00:11:41.3, 39°.49N×29°.79W, h10km, ML2.7*

**PDA 10 00:11:41.3**±0.5**, 39°.49N×29°.79W, h10km, MD3.6, ML2.7, Error ellipse: s-maj=12.8km s-min=4.5km az=49.0, Azores Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PCED** | **Cedros** | **1.21** | **135** | *e*P | Pb | 00 11 59.4 | -4.8 |
| PCED | | | | *e*S | Sb | 00 12 13.2 | -6.7 |
| PCED | | | | A | A | 00 12 15.5 | |
| | 34nm,0.4s | | | | | | |
| **PCED** | **Cedros** | **1.21** | **135** | *e*P | Pb | 00 11 59.4 | -4.8 |
| PCED | | | | *e*S | Sb | 00 12 13.2 | -6.7 |
| **HOR** | **Horta** | **1.32** | **136** | *e*S | Sb | 00 12 15.9 | -7.2 |
| HOR | | | | A | A | 00 12 17.6 | |
| | 107nm,0.2s | | | | | | |
| **HOR** | **Horta** | **1.32** | **136** | *e*S | Sb | 00 12 15.9 | -7.2 |
| **PCAN** | **Candelaria** | **1.44** | **135** | *e*P | Pn | 00 12 02.9 | -4.6 |
| PCAN | | | | *e*S | Sn | 00 12 19.1 | -7.4 |
| PCAN | | | | A | A | 00 12 25.3 | |
| | 59nm,0.3s | | | | | | |
| **PCAN** | **Candelaria** | **1.44** | **135** | *e*P | Pn | 00 12 02.9 | -4.6 |
| PCAN | | | | *e*S | Sn | 00 12 19.1 | -7.4 |
| **PICO** | **Pico** | **1.45** | **132** | *e*P | Pn | 00 12 03.2 | -4.4 |
| PICO | | | | *e*S | Sn | 00 12 19.4 | -7.4 |
| PICO | | | | A | A | 00 12 22.2 | |
| | 131nm,0.3s | | | | | | |
| **PICO** | **Pico** | **1.45** | **132** | *e*P | Pn | 00 12 03.2 | -4.4 |
| PICO | | | | *e*S | Sn | 00 12 19.4 | -7.4 |
| **PMAN** | **Manadas** | **1.58** | **122** | *e*S | Sn | 00 12 22.2 | -7.6 |
| PMAN | | | | A | A | 00 12 32.4 | |
| | 22nm,0.4s | | | | | | |
| **PMAN** | **Manadas** | **1.58** | **122** | *e*S | Sn | 00 12 22.2 | -7.6 |

---

*IDC **10** 00:29:20.6±1.1, 14°.85S×166°.93E, h0km, mb4.2/9, mb1 4.4/10, mb1mx4.0/41, mbtmp4.2/10, ML4.3/1, MS3.2/1, Ms1 3.2/1, ms1mx2.7/26, Error ellipse: s-maj=38.6km s-min=22.1km az=130.0*

*NEIC **10** 00:29:25.5±0.8, 14°.96S×167°.14E, h35km, mb4.6/2, Error ellipse: s-maj=19.5km s-min=14.6km az=130.0*

*ISCJB **10** 00:29:26.2±0.6, 15°.18S±0°.07×167°.09E±0°.09, h57km, mb4.2/11, Error ellipse: s-maj=11.8km s-min=9.3km az=175.5*

**ISC 10 00:29:27.9**±0.7**, 15°.11S**±0°.08×**167°.08E**±0°.10**, h57km, n24, σ1§15/23, mb4.2/11, Vanuatu Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **6.95** | **185** | Pn | **Pn** | **00 31 08.1** | **+0.9** |
| | 5.5nm,0.3s,baz=347,slow=12,SNR=66 | | | | | | |
| DZM | | | | Sn | **Sn** | **00 32 23.8** | **-1.1** |
| | 1.5nm,0.3s,baz=342,slow=20,SNR=2.4 | | | | | | |
| **DZM** | **Mont Dzumac** | **6.95** | **185** | Pn | **Pn** | **00 31 08.1** | **+0.9** |
| | 3.3nm,0.4s | | | | | | |
| DZM | | | | Sn | **Sn** | **00 32 23.8** | **-1.1** |
| **HNR** | **Honiara** | **8.97** | **308** | LR | LR | 00 34 49.5 | |
| | comp=Z,140nm,19.9s,baz=118,slow=38 | | | | | | |
| **MSVF** | **Nonsavu** | **10.84** | **105** | Pn | **Pn** | **00 32 00.9** | **+0.4** |
| **PMG** | **Port Moresby** | **20.27** | **284** | P | **P** | **00 34 00.5** | **+1.5** |
| | 5.9nm,0.5s,baz=103,slow=2.8,SNR=5.0 | | | | | | |
| **CTA** | **Charters Tower** | **20.45** | **253** | P | **P** | **00 34 03.1** | **+2.2** |
| | 7.5nm,0.6s,baz=85,slow=11,SNR=11 | | | | | | |
| **CTAO** | **Charters Tower** | **20.45** | **253** | *e*P | **P** | **00 34 02.5** | **+1.6** |
| **COEN** | **Coen** | **23.17** | **270** | *e*P | **P** | **00 34 30.2** | **+0.4** |
| | 15nm,1.3s | | | | | | |
| **STKA** | **Stephens Creek** | **28.61** | **230** | P | **P** | **00 35 19.0** | **+0.1** |
| | 1.8nm,0.4s,baz=51,slow=8.1,SNR=8.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **31.56** | **256** | P | **P** | **00 35 44.1** | **-1.1** |
| | 5.0nm,0.7s,baz=85,slow=9.0,SNR=56 | | | | | | |
| **ASAR** | **Alice Springs** | **32.37** | **250** | P | **P** | **00 35 51.2** | **-1.1** |
| | 3.5nm,0.4s,baz=78,slow=8.9,SNR=62 | | | | | | |
| **BBOO** | **Buckleboo** | **33.20** | **232** | *e*P | **P** | **00 35 59.1** | **-0.4** |
| | 8.1nm,0.5s | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **33.39** | **359** | T | T | 01 09 40.7 | |
| | baz=174,slow=76,SNR=19 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **33.40** | **359** | T | T | 01 09 44.4 | |
| | baz=174,slow=76,SNR=17 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **33.41** | **359** | T | T | 01 09 45.4 | |
| | baz=174,slow=76,SNR=16 | | | | | | |
| **MBWA** | **Marble Bar** | **45.27** | **255** | *e*P | **P** | **00 37 39.8** | **-0.4** |
| **CMAR** | **Chiang Mai Arr** | **74.94** | **294** | P | **P** | **00 41 04.3** | **+0.8** |
| | 1.5nm,0.8s,baz=124,slow=3.3,SNR=7.1 | | | | | | |
| **SONM** | **Songino Array** | **82.69** | **324** | P | **P** | **00 41 44.9** | **-0.6** |
| | 0.3nm,0.4s,baz=144,slow=4.6,SNR=3.7 | | | | | | |
| **ILAR** | **Eielson Array** | **86.94** | **18** | P | **P** | **00 42 05.4** | **-1.0** |
| | 0.7nm,0.8s,baz=242,slow=5.0,SNR=5.1 | | | | | | |
| **PDAR** | **Pinedale Array** | **95.34** | **47** | P | **P** | **00 42 47.5** | **+1.2** |
| | 0.2nm,0.6s,baz=249,slow=4.7,SNR=3.3 | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MKAR | Makanchi Array | 97.35 | 316 | P | P | 00 42 54.7 | -0.4 |
| | 0.6nm,0.7s,baz=97,slow=5.8,SNR=5.3 | | | | | | |
| ZALV | Zalesovo Beam | 97.59 | 324 | P | P | 00 42 54.2 | -1.7 |
| | 0.3nm,0.2s,baz=132,slow=4.3,SNR=2.7 | | | | | | |
| ARCES | ARCESS Array B | 120.57 | 345 | PKP | PKPdf | 00 48 11.9 | -0.7 |
| | 3.5nm,1.0s,baz=46,slow=3.9,SNR=8.3 | | | | | | |
| TORD | Torodi Ar. Bea | 165.69 | 264 | PKP | PKPdf | 00 49 28.6 | +1.4 |
| | 0.4nm,0.6s,baz=35,slow=1.6,SNR=3.0 | | | | | | |
| TORD | | | | PKPab | PKPab | 00 50 25.5 | -1.0 |
| | 0.9nm,0.9s,baz=87,slow=4.1,SNR=4.7 | | | | | | |

*NIED **10** 00:30:00, 35.°90N×141.°70E, h11km, Mw3.6 Best double couple: Mo3.23000×10^14 NP1:φs270.00000°, δ47.00000°, λ138.00000°. NP2:φs31.00000°, δ61.00000°, λ51.00000°.*
*ISCJB **10** 00:30:37.1±0.6, 35.°80N±0.°05×141.°75E±0.°06, h26km, mb3.6/9, Error ellipse: s-maj=7.2km s-min=6.6km az=21.2*
*JMA **10** 00:30:38.2±0.2, 35.°90N×141.°67E, h36km±2km, M3.5*
*IDC **10** 00:30:41.2±3.0, 35.°73N×141.°64E, h44km±27km, mb3.4/9, mb1 3.6/11, mb1mx3.4/43, mbtmp3.7/11, ML3.7/2, Error ellipse: s-maj=25.6km s-min=10.7km az=72.0*
**ISC 10 00:30:39.0±0.9, 35.°83N±0.°05×141.°67E±0.°07, h26km, n23, σ0.s82/24, mb3.6/9, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CHOJ | Chosi | 0.67 | 259 | P | Pb | 00 30 51.4 | -0.7 |
| CHOJ | | | | S | Sb | 00 31 00.8 | -0.3 |
| JYT | Yasato | 1.26 | 289 | P | Pn | 00 31 00.0 | -0.9 |
| BSO1 | Boso 1 | 1.30 | 206 | P | Pn | 00 31 01.0 | 0.0 |
| BSO3 | Boso 3 | 1.40 | 223 | P | Pn | 00 31 02.3 | -0.3 |
| JFK | Kawauchi | 1.66 | 338 | P | Pn | 00 31 05.4 | -1.1 |
| JAG | Ashikaga | 1.89 | 289 | P | Pn | 00 31 08.5 | -1.1 |
| JFT | Otama | 2.00 | 328 | P | Pn | 00 31 10.9 | -0.2 |
| JMM | Marumori | 2.15 | 341 | P | Pn | 00 31 13.0 | -0.2 |
| MJAR | Matsushiro Arr | 2.89 | 285 | P | Pn | 00 31 24.0 | +0.6 |
| | 8.4nm,0.3s,baz=301,slow=27,SNR=46 | | | | | | |
| MJAR | | | | S | Sn | 00 31 58.2 | +1.0 |
| | 2.6nm,0.3s,baz=22,slow=20,SNR=5.6 | | | | | | |
| MAT | Matsushiro | 2.89 | 285 | P | Pn | 00 31 24.1 | +0.7 |
| MAT | | | | S | Sn | 00 31 58.8 | +1.5 |
| JHJ | Hachijo jima 2 | 3.12 | 210 | P | Pn | 00 31 27.8 | +1.2 |
| | 31nm,0.3s,baz=17,slow=19,SNR=6.4 | | | | | | |
| JHJ | | | | S | Sn | 00 32 01.3 | -1.6 |
| | 84nm,0.3s,baz=286,slow=21,SNR=15 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 28.05 | 121 | T | T | 01 05 46.0 | |
| | baz=314,slow=74 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 28.05 | 121 | T | T | 01 05 42.4 | |
| | baz=314 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 28.06 | 121 | T | T | 01 05 41.5 | |
| | baz=314,slow=74 | | | | | | |
| SONM | Songino Array | 28.64 | 306 | P | P | 00 36 33.7 | +0.2 |
| | 0.3nm,0.4s,baz=105,slow=8.5,SNR=4.3 | | | | | | |
| ZALV | Zalesovo Beam | 42.88 | 313 | P | P | 00 38 35.2 | +0.2 |
| | 0.5nm,0.4s,baz=101,slow=6.5,SNR=4.3 | | | | | | |
| MKAR | Makanchi Array | 44.94 | 303 | P | P | 00 38 52.1 | +0.5 |
| | 0.4nm,0.6s,baz=83,slow=8.4,SNR=5.4 | | | | | | |
| KURBB | Kurchatov Arra | 46.91 | 309 | P | P | 00 39 07.2 | +0.1 |
| | 1.9nm,0.5s,baz=84,slow=7.8,SNR=6.7 | | | | | | |
| ILAR | Eielson Array | 50.40 | 32 | P | P | 00 39 34.5 | +0.7 |
| | 0.4nm,0.7s,baz=269,slow=6.4,SNR=6.8 | | | | | | |
| BVAR | Borovoye Array | 51.54 | 313 | P | P | 00 39 42.9 | +0.5 |
| | 0.4nm,0.5s,baz=90,slow=7.2,SNR=4.8 | | | | | | |
| WRA | Warramunga Arr | 55.90 | 188 | P | P | 00 40 13.8 | -0.9 |
| | 0.3nm,0.4s,baz=7.2,slow=7.3,SNR=8.1 | | | | | | |
| ASAR | Alice Springs | 59.63 | 188 | P | P | 00 40 40.5 | -0.3 |
| | 0.4nm,0.6s,baz=17,slow=9.7,SNR=4.7 | | | | | | |
| YKA | Yellowknife Ar | 64.75 | 30 | P | P | 00 41 14.8 | +0.2 |
| | 0.4nm,0.8s,baz=300,slow=6.5,SNR=5.1 | | | | | | |

*ATA **10** 00:32:21.2±1.3, 38.°90N×43.°78E, h1km±9km, ML2.7, MW2.8*
*ISCJB **10** 00:32:24.7±0.6, 38.°93N±0.°03×43.°64E±0.°06, h8km±5km, Error ellipse: s-maj=7.7km s-min=4.8km az=17.7*
*CSEM **10** 00:32:24.5±0.3, 38.°94N×43.°62E, h5km, ML3.1, Error ellipse: s-maj=7.3km s-min=5.5km az=102.0*
*DDA **10** 00:32:24.8, 38.°95N×43.°60E, h11km, Ml3.1*
*ISK **10** 00:32:24.1, 38.°92N×43.°58E, h7km, MD2.7*
**ISC 10 00:32:24.6±0.9, 38.°93N±0.°03×43.°63E±0.°03, h8km±6km, n31, σ1.s27/40, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.08 | 327 | *i* P | Pg | 00 32 26.4 | -0.5 |
| VMUR | | | | *i* S | Sg | 00 32 28.9 | +0.4 |
| VMUR | Van-Muradiye | 0.08 | 327 | P | Pg | 00 32 26.4 | -0.5 |
| VMUR | | | | S | Sg | 00 32 28.9 | +0.4 |
| ERCV | ERCIS-VAN | 0.24 | 293 | *e*PG | Pg | 00 32 29.1 | -0.5 |
| ERCV | ERCIS-VAN | 0.24 | 293 | *e*Pg | Pg | 00 32 29.1 | -0.5 |
| CLDR | Caldiran | 0.31 | 46 | *e*PG | Pg | 00 32 30.7 | -0.2 |
| CLDR | | | | *e*SG | Sb | 00 32 36.9 | -1.0 |
| CLDR | Caldiran | 0.31 | 46 | *i* P | Pg | 00 32 30.7 | -0.2 |
| CLDR | | | | *i* S | Sb | 00 32 37.0 | -1.0 |
| CLDR | Caldiran | 0.31 | 46 | P | Pg | 00 32 30.7 | -0.2 |
| CLDR | | | | S | Sb | 00 32 37.0 | -1.0 |
| VANB | Van | 0.38 | 209 | *e*PG | Pb | 00 32 33.2 | -0.4 |
| VANB | Van | 0.38 | 209 | *e*Pg | Pb | 00 32 33.2 | -0.4 |
| TVAN | Van | 0.43 | 204 | *i* P | Pg | 00 32 32.7 | -0.3 |
| TVAN | | | | *i* S | Sb | 00 32 41.6 | +0.4 |
| TVAN | Van | 0.43 | 204 | P | Pg | 00 32 32.7 | -0.3 |
| DYDN | Diyadin | 0.62 | 5 | *e*P | Pg | 00 32 35.2 | -1.4 |
| DYDN | | | | *e*S | Sg | 00 32 45.1 | +0.4 |
| DYDN | | | | IAML | | 00 32 47.4 | |
| | comp=Z,41nm,0.2s | | | | | | |
| DYDN | Diyadin | 0.62 | 5 | *i* P | Pg | 00 32 36.5 | -0.1 |
| DYDN | Diyadin | 0.62 | 5 | P | Pg | 00 32 36.5 | -0.1 |
| GEVA | Gevas | 0.76 | 216 | *e*P | Pg | 00 32 38.0 | -1.2 |
| GEVA | | | | IAML | | 00 32 52.7 | |
| | comp=Z,14nm,0.4s | | | | | | |
| TUTA | Tutak | 0.79 | 307 | *e*P | Pg | 00 32 39.0 | -0.8 |
| TUTA | | | | *e*S | Sn | 00 32 53.5 | -0.8 |
| TUTA | | | | IAML | | 00 32 54.4 | |
| | comp=Z,50nm,0.2s | | | | | | |
| TUTA | Tutak | 0.79 | 307 | *i* P | Pg | 00 32 38.6 | -1.3 |
| TUTA | Tutak | 0.79 | 307 | P | Pg | 00 32 38.6 | -1.3 |
| AGRB | Hanur-Agry | 0.81 | 323 | *e*PG | Pg | 00 32 39.8 | -0.5 |
| AGRB | Hanur-Agry | 0.81 | 323 | *e*Pg | Pg | 00 32 39.8 | -0.5 |
| TASB | TASBURUN-IGDIR | 1.16 | 24 | *e*PN | Pn | 00 32 47.4 | +0.3 |
| TASB | TASBURUN-IGDIR | 1.16 | 24 | *e*Pn | Pn | 00 32 47.4 | +0.3 |
| EKAR | Karacoban | 1.26 | 286 | *i* P | Pn | 00 32 49.9 | +1.2 |
| EKAR | Karacoban | 1.26 | 286 | P | Pn | 00 32 49.9 | +1.2 |
| EATA | Eleskirt | 1.28 | 317 | *e*P | Pg | 00 32 48.7 | -0.6 |
| EATA | | | | IAML | | 00 32 52.7 | |
| | comp=Z,2.5nm,0.6s | | | | | | |
| EATA | | | | *e*S | Sn | 00 33 11.1 | +4.4 |
| EATA | Eleskirt | 1.28 | 317 | *i* P | Pg | 00 32 44.7 | -4.6 |
| DIGO | Kars | 1.50 | 353 | *e*P | Pn | 00 32 51.9 | -0.1 |
| DIGO | | | | IAML | | 00 33 12.2 | |
| | comp=Z,2.5nm,0.5s | | | | | | |
| CUKT | Cukurca | 1.68 | 180 | *e*PN | Pn | 00 32 54.2 | -0.1 |
| CUKT | Cukurca | 1.68 | 180 | *e*Pn | Pn | 00 32 54.2 | -0.1 |
| SENK | Senkaya-Erzuru | 1.91 | 329 | *e*PN | Pn | 00 32 58.3 | +0.7 |
| SENK | Senkaya-Erzuru | 1.91 | 329 | *e*Pn | Pn | 00 32 58.3 | +0.7 |

**DJA 10 00:41:31.3±0.5, 1°S±4°×12°3E±°, h11km±4km, M3.9/7, MLv3.9/7, Minahassa Peninsula, Sulawesi**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LUWI | Luwuk | 0.42 | 143 | P | Pb | 00 41 40.4 | -0.4 |
| APSI | Ampana | 0.90 | 256 | P | Pg | 00 41 47.7 | -0.9 |
| APSI | | | | S | Sb | 00 42 01.3 | +0.5 |
| MRSI | Marisa | 1.30 | 334 | P | Pn | 00 41 54.7 | -0.8 |
| KMSI | Cibinong | 1.93 | 49 | P | Pn | 00 42 03.4 | -0.7 |
| MPSI | Mapaga | 2.82 | 291 | P | Pn | 00 42 16.8 | +0.5 |
| TTSI | Tana Toraja | 3.57 | 229 | P | Pn | 00 42 27.1 | +0.5 |
| SPSI | Sidrap Palu | 4.25 | 220 | P | Pn | 00 42 36.7 | +0.7 |
| SPSI | | | | S | Sn | 00 43 25.1 | -0.6 |
| BNSI | Bone | 4.40 | 213 | P | Pn | 00 42 38.8 | +0.8 |

*JMA **10** 00:43:08.5±0.7, 32.°37N×141.°97E, h0km, M3.8*
*IDC **10** 00:43:11.1±3.5, 31.°85N×141.°20E, h0km, mb3.6/3, mb1 3.8/4, mb1mx3.4/40, mbtmp3.6/4, ML3.3/1, Error ellipse: s-maj=121.4km s-min=20.0km az=66.0*
**ISC 10 00:43:12.3±1.5, 32.°15N±0.°09×141.°9E±0.°1, h26km, n13, σ1.s72/17, mb3.8/3, Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JHJ2 | Mitsune | 1.96 | 300 | P | Pn | 00 43 43.8 | -0.1 |
| JHJ | Hachijo jima 2 | 1.99 | 299 | Pn | Pn | 00 43 44.2 | -0.2 |
| | 20nm,0.3s,baz=136,slow=23,SNR=4.4 | | | | | | |
| JHJ | | | | Sn | Sn | 00 44 04.2 | -4.2 |
| | 16nm,0.3s,baz=311,slow=23,SNR=2.9 | | | | | | |
| BSO1 | Boso 1 | 2.60 | 344 | P | Pn | 00 43 50.7 | -1.5 |
| BSO3 | Boso 3 | 2.87 | 337 | P | Pn | 00 43 54.5 | -1.7 |
| BSO3 | | | | S | Sn | 00 44 30.0 | +0.3 |
| BSO4 | Boso 4 | 3.10 | 336 | P | Pn | 00 43 58.1 | -1.4 |
| BSO4 | | | | *e*S | Sn | 00 44 36.5 | +0.9 |
| JHU | Hanno | 4.26 | 331 | *e*S | Sn | 00 45 03.7 | -0.8 |
| JYN | Shimob | 4.33 | 321 | P | Pn | 00 44 19.1 | +2.6 |
| JRY | Ryogami san | 4.57 | 328 | P | Pn | 00 44 19.6 | -0.1 |
| JAG | Ashikaga | 4.70 | 336 | P | Pn | 00 44 20.3 | -1.3 |
| MJAR | Matsushiro Arr | 5.31 | 326 | Pn | Pn | 00 44 29.3 | -0.7 |
| | 1.1nm,0.3s,baz=154,slow=12,SNR=6.0 | | | | | | |
| MJAR | | | | Sn | Sn | 00 45 32.1 | +1.7 |
| | 0.7nm,0.3s,baz=234,slow=33,SNR=3.5 | | | | | | |
| SONM | Songino Array | 31.03 | 311 | P | P | 00 49 29.8 | +1.8 |
| | 0.3nm,0.6s,baz=122,slow=11,SNR=3.1 | | | | | | |
| MKAR | Makanchi Array | 47.15 | 306 | P | P | 00 51 42.4 | 0.0 |
| | 0.7nm,0.5s,baz=88,slow=7.8,SNR=6.2 | | | | | | |
| WRA | Warramunga Arr | 52.30 | 189 | P | P | 00 52 21.4 | -0.4 |
| | 0.7nm,0.6s,baz=5.4,slow=7.7,SNR=12 | | | | | | |

*ATA **10** 00:43:51.9±0.7, 38.°86N×43.°47E, h0km±6km, ML2.8, MW3.1*
*ISK **10** 00:43:52.3, 38.°87N×43.°55E, h5km, MD2.9*
*ISCJB **10** 00:43:54.0±0.5, 38.°88N±0.°03×43.°52E±0.°05, h3km±6km, Error ellipse: s-maj=6.9km s-min=4.1km az=17.6*
*CSEM **10** 00:43:53.2±0.2, 38.°88N×43.°55E, h2km, ML2.6, Error ellipse: s-maj=6.9km s-min=4.7km az=106.0*
*DDA **10** 00:43:53.4, 38.°88N×43.°54E, h7km, Ml2.6*
**ISC 10 00:43:53.4±0.9, 38.°86N±0.°02×43.°55E±0.°03, h12km±7km, n38, σ0.s95/49, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.13 | 8 | *i* P | Pg | 00 43 56.0 | -0.9 |
| VMUR | | | | *i* S | Sg | 00 44 00.1 | +0.9 |
| VMUR | Van-Muradiye | 0.13 | 8 | P | Pg | 00 43 56.0 | -0.9 |
| ERCV | ERCIS-VAN | 0.23 | 313 | *e*PG | Pg | 00 43 57.9 | -0.5 |
| ERCV | ERCIS-VAN | 0.23 | 313 | *e*Pg | Pg | 00 43 57.9 | -0.5 |
| VANB | Van | 0.30 | 205 | *e*PG | Pb | 00 44 00.6 | -0.2 |
| VANB | Van | 0.30 | 205 | *e*Pg | Pb | 00 44 00.6 | -0.2 |
| TVAN | Van | 0.35 | 199 | *i* P | Pg | 00 44 00.4 | -0.2 |
| TVAN | | | | *i* S | Sb | 00 44 07.2 | -0.2 |
| TVAN | Van | 0.35 | 199 | P | Pg | 00 44 00.4 | -0.2 |
| TVAN | | | | S | Sb | 00 44 07.2 | -0.2 |
| CLDR | Caldiran | 0.40 | 46 | *e*PG | Pg | 00 44 00.7 | -0.8 |
| CLDR | | | | *e*SG | Sb | 00 44 08.4 | -0.4 |
| CLDR | Caldiran | 0.40 | 46 | *i* P | Pg | 00 44 00.5 | -1.0 |
| CLDR | | | | *i* S | Sb | 00 44 08.4 | -0.4 |
| CLDR | Caldiran | 0.40 | 46 | P | Pg | 00 44 00.5 | -1.0 |
| CLDR | Caldiran | 0.40 | 46 | *e*Pg | Pg | 00 44 00.7 | -0.8 |
| CLDR | | | | *e*Sg | Sb | 00 44 08.4 | -0.4 |
| GEVA | Gevas | 0.67 | 215 | *e*P | Pg | 00 44 05.0 | -1.6 |
| GEVA | | | | *e*S | Sb | 00 44 16.4 | -0.1 |
| GEVA | | | | IAML | | 00 44 33.2 | |
| | comp=Z,36nm,0.6s | | | | | | |
| GEVA | Gevas | 0.67 | 215 | *i* P | Pg | 00 44 04.3 | -2.2 |
| GEVA | | | | *i* S | Sn | 00 44 19.2 | -0.2 |
| GEVA | Gevas | 0.67 | 215 | P | Pg | 00 44 04.3 | -2.2 |
| TUTA | Tutak | 0.79 | 313 | *e*P | Pg | 00 44 07.5 | -1.2 |
| TUTA | | | | *e*S | Sb | 00 44 19.7 | -0.2 |
| TUTA | | | | IAML | | 00 44 24.3 | |
| | comp=Z,68nm,0.2s | | | | | | |
| TUTA | Tutak | 0.79 | 313 | *i* P | Pg | 00 44 07.3 | -1.4 |
| TUTA | | | | *i* S | Sb | 00 44 20.1 | +0.2 |
| TUTA | Tutak | 0.79 | 313 | P | Pg | 00 44 07.3 | -1.4 |
| TUTA | | | | S | Sb | 00 44 20.1 | +0.2 |
| AGRB | Hanur-Agry | 0.83 | 329 | *e*PG | Pg | 00 44 08.9 | -0.7 |
| AGRB | Hanur-Agry | 0.83 | 329 | *e*Pg | Pg | 00 44 08.9 | -0.7 |
| TASB | TASBURUN-IGDIR | 1.24 | 25 | *e*PN | Pn | 00 44 17.2 | +0.6 |
| TASB | TASBURUN-IGDIR | 1.24 | 25 | *e*Pn | Pn | 00 44 17.2 | +0.6 |
| EATA | Eleskirt | 1.29 | 321 | *e*P | Pg | 00 44 17.1 | -1.2 |
| EATA | | | | IAML | | 00 44 46.6 | |
| | comp=Z,3.1nm,0.6s | | | | | | |
| DIGO | Kars | 1.56 | 355 | *e*P | Pg | 00 44 23.0 | -0.3 |
| DIGO | | | | IAML | | 00 44 27.4 | |
| | comp=Z,2.9nm,0.4s | | | | | | |
| CUKT | Cukurca | 1.61 | 178 | *e*PN | Pn | 00 44 23.2 | +1.3 |
| CUKT | Cukurca | 1.61 | 178 | *e*Pn | Pn | 00 44 23.2 | +1.3 |
| SIRT | Sirnak | 1.62 | 213 | *e*PN | Pb | 00 44 23.4 | +0.1 |
| SIRT | Sirnak | 1.62 | 213 | *e*Pn | Pb | 00 44 23.4 | +0.1 |
| VRTB | Varto-Mus | 1.66 | 281 | *e*PN | Pb | 00 44 23.7 | -0.3 |
| VRTB | Varto-Mus | 1.66 | 281 | *e*Pn | Pb | 00 44 23.7 | -0.3 |
| KARS | Kars | 1.80 | 348 | *e*PN | Pn | 00 44 25.5 | +1.1 |
| KARS | Kars | 1.80 | 348 | *e*Pn | Pn | 00 44 25.5 | +1.1 |
| EAK | Akyaka | 1.82 | 1 | *e*P | Pg | 00 44 28.2 | -0.2 |
| EAK | | | | IAML | | 00 44 37.5 | |
| | comp=Z,5.0nm,0.5s | | | | | | |
| SENK | Senkaya-Erzuru | 1.93 | 332 | *e*PN | Pb | 00 44 27.8 | -0.9 |
| SENK | Senkaya-Erzuru | 1.93 | 332 | *e*Pn | Pb | 00 44 27.8 | -0.9 |
| ECAT | Cat-ERZURUM | 2.13 | 291 | *e*P | Pb | 00 44 32.3 | +0.1 |
| ECAT | | | | IAML | | 00 44 35.5 | |
| | comp=Z,4.1nm,0.6s | | | | | | |
| YEDI | Yedisu-Bingol | 2.41 | 285 | *e*PN | Pn | 00 44 34.3 | +1.5 |
| YEDI | Yedisu-Bingol | 2.41 | 285 | *e*Pn | Pn | 00 44 34.3 | +1.5 |

*SKHL **10** 00:53:08.8±0.0, 54.°60N×141.°65E, h10km, mb4.7/3, Ms4.0/2*
*ISCJB **10** 00:53:09.0±0.6, 54.°55N±0.°04×141.°77E±0.°05, h10km, mb3.7/5, Error ellipse: s-maj=5.6km s-min=4.2km az=176.0*
*MOS **10** 00:53:09.3±2.8, 54.°40N×141.°83E, h11km, mb4.0/4, Error ellipse: s-maj=42.8km s-min=13.0km az=88.3*
*IDC **10** 00:53:10.9±1.4, 54.°25N×142.°71E, h0km, mb3.8/5, mb1 4.0/6, mb1mx3.6/42, mbtmp3.8/6, Error ellipse: s-maj=66.6km s-min=21.6km az=120.0*
**ISC 10 00:53:10.8±0.8, 54.°46N±0.°05×141.°88E±0.°05, h10km, n21, σ1.s88/24, mb3.8/5, 2C, Sakhalin Island**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| OKH | Okha | 1.10 | 145⇑ | *i*PN | Pn | 00 53 32.1 | -0.2 |
| OKH | | | | *e*S | Sn | 00 53 49.1 | +1.6 |
| OKH | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.5s | | | | | | |
| OKH | | | | smax | smax | | |
| | comp=N,8.0nm,0.4s | | | | | | |
| OKH | | | | smax | smax | | |
| | comp=E,12nm,0.4s | | | | | | |
| OKH | Okha | 1.10 | 145⇑ | *i*Pg | Pn | 00 53 32.5 | +0.2 |
| OKH | | | | AMB | AMB | 00 53 33.4 | |
| | comp=E,3μm,0.5s | | | | | | |
| OKH | | | | *e*Sg | Sn | 00 53 49.1 | +1.6 |
| OKH | | | | A | A | 00 53 51.3 | |
| | comp=E,8μm,0.4s | | | | | | |
| OKH | | | | A | A | 00 53 51.3 | |
| | comp=E,12μm,0.4s | | | | | | |
| OKH | | | | AMS | AMS | 00 54 47.0 | |
| | comp=E,2μm,2.0s | | | | | | |
| OKH | | | | AMS | AMS | 00 54 47.0 | |
| | comp=E,4μm,2.0s | | | | | | |
| NKL | Nikolayevsk | 1.49 | 209 | *i* PN | Pg | 00 53 37.0 | -2.4 |
| NKL | | | | *e*S | Sg | 00 54 01.0 | +2.2 |
| NKL | | | | pmax | pmax | | |
| | comp=N,60nm,0.9s | | | | | | |
| NKL | | | | pmax | pmax | | |
| | comp=Z,100nm,0.9s | | | | | | |
| NKL | | | | pmax | pmax | | |
| | comp=E,2μm,0.6s | | | | | | |
| NKL | Nikolayevsk | 1.49 | 209 | *i* P | Pg | 00 53 37.0 | -2.4 |
| | comp=Z,50nm,0.8s | | | | | | |
| NKL | | | | AMB | AMB | 00 53 38.0 | |
| | comp=Z,100nm,0.9s | | | | | | |
| NKL | | | | *e*Pg | Pb | 00 53 39.5 | +0.9 |
| NKL | | | | AMB | AMB | 00 53 44.2 | |
| | comp=Z,174nm,0.5s | | | | | | |
| NKL | | | | *e*Sg | Sg | 00 54 01.0 | +2.2 |
| NKL | | | | A | A | 00 54 09.0 | |
| | comp=Z,2μm,0.6s | | | | | | |
| NKL | | | | AMS | AMS | 00 55 36.0 | |
| | comp=Z,2μm,5.0s | | | | | | |
| TYV | Tymovskoe | 3.63 | 172 | *e*PN | Pn | 00 54 05.9 | -1.2 |
| TYV | Tymovskoe | 3.63 | 172 | *e*P | Pb | 00 54 08.8 | -6.3 |
| TYV | | | | *e*Pg | Pg | 00 54 24.7 | +4.3 |
| TYV | | | | AMB | AMB | 00 54 29.5 | |
| | comp=Z,40nm,0.9s | | | | | | |
| TYV | | | | *e*Sg | Sg | 00 55 17.9 | +10 |
| TYV | | | | A | A | 00 55 23.9 | |
| | comp=Z,70nm,1.3s | | | | | | |
| GRNR | Gornyy | 4.97 | 224 | *e*Pg | Pg | 00 54 47.3 | +1.3 |
| GRNR | | | | AMB | AMB | 00 54 49.5 | |
| | comp=Z,10.0nm,0.4s | | | | | | |
| GRNR | | | | *e*Sg | Sg | 00 55 56.0 | +5.6 |
| GRNR | | | | A | A | 00 55 59.5 | |
| | comp=Z,42nm,0.6s | | | | | | |
| GRNR | | | | A | A | 00 55 59.5 | |
| | comp=Z,63nm,0.6s | | | | | | |
| EKMR | Ekimchan | 5.48 | 259 | *e*P | Pn | 00 54 31.2 | -1.3 |
| EKMR | | | | *e*Pg | Pg | 00 54 55.0 | -0.7 |
| EKMR | | | | AMB | AMB | 00 55 16.5 | |
| | comp=Z,12nm,0.5s | | | | | | |
| EKMR | | | | AMB | AMB | 00 55 16.5 | |
| | comp=Z,11nm,0.5s | | | | | | |
| EKMR | | | | AMB | AMB | 00 55 16.5 | |
| | comp=Z,15nm,0.5s | | | | | | |
| EKMR | | | | *e*Sg | Sg | 00 56 09.1 | +2.5 |
| EKMR | | | | A | A | 00 56 28.0 | |
| | comp=Z,170nm,0.8s | | | | | | |
| EKMR | | | | A | A | 00 56 28.0 | |
| | comp=Z,100nm,0.8s | | | | | | |
| EKMR | | | | A | A | 00 56 28.0 | |
| | comp=Z,56nm,0.8s | | | | | | |
| YSS | Yuzh-Sakhalins | 7.54 | 175 | *e*PN | Pn | 00 54 55.6 | -5.0 |
| BMKR | Bomnak | 7.58 | 277 | *e*P | Pn | 00 55 01.8 | +0.5 |
| BMKR | | | | *e*Pg | Pg | 00 55 45.5 | +10 |
| BMKR | | | | AMB | AMB | 00 55 46.5 | |
| | comp=Z,3.0nm,0.7s | | | | | | |
| BMKR | | | | *e*Sg | Sg | 00 57 28.0 | +14 |
| BMKR | | | | A | A | 00 57 28.9 | |
| | comp=Z,12nm,0.6s | | | | | | |
| KLR | Kul'dur | 8.17 | 234 | Pg | Pg | 00 55 41.1 | -6.0 |
| | comp=Z,0.0nm,0.3s,baz=32,slow=18,SNR=16 | | | | | | |
| KLR | | | | Lg | Lg | 00 57 32.4 | |
| | comp=Z,0.1nm,0.3s,baz=324,slow=22,SNR=8.7 | | | | | | |
| ZEA | Zeya | 8.63 | 271 | *e*Sg | Sg | 00 58 04.0 | +16 |
| ZEA | | | | A | A | 00 58 05.5 | |
| | comp=Z,71nm,1.0s | | | | | | |
| KROS | Kirovskiy | 8.69 | 276 | *e*Pg | Pg | 00 56 10.0 | +13 |
| KROS | | | | AMB | AMB | 00 56 11.0 | |
| | comp=Z,3.0nm,0.5s | | | | | | |
| KROS | | | | *e*S | Sn | 00 56 55.5 | +1.0 |
| KROS | | | | *e*Sg | Sg | 00 58 10.5 | +21 |
| KROS | | | | A | A | 00 58 12.5 | |
| | comp=Z,23nm,0.4s | | | | | | |
| PETK | Petropavlovsk- | 9.46 | 92 | Pn | Pn | 00 55 22.9 | -4.2 |
| | baz=306,slow=10,SNR=2.8 | | | | | | |
| PETK | | | | Sn | Sn | 00 57 16.8 | +3.4 |
| | comp=Z,0.5nm,0.3s,baz=139,slow=27,SNR=3.0 | | | | | | |
| TEY | Ternei | 10.03 | 202 | *e*Sg | | 00 58 53.3 | |
| TEY | | | | A | A | 00 58 54.0 | |
| | comp=Z,34nm,0.9s | | | | | | |
| ILAR | Eielson Array | 35.51 | 44 | P | P | 01 00 07.2 | -0.1 |
| | comp=Z,1.1nm,0.7s,baz=280,slow=8.3,SNR=15 | | | | | | |
| INK | Inuvik | 39.28 | 36 | P | P | 01 00 39.9 | +0.8 |
| | comp=Z,1.5nm,0.9s,baz=312,slow=6.4,SNR=4.7 | | | | | | |
| YKA | Yellowknife Ar | 49.03 | 37 | P | P | 01 01 57.5 | +0.2 |
| | comp=Z,0.4nm,0.8s,baz=307,slow=7.4,SNR=4.2 | | | | | | |
| WRA | Warramunga Arr | 74.38 | 187 | P | P | 01 04 49.4 | +0.8 |
| | comp=Z,1.1nm,0.8s,baz=5.7,slow=6.6,SNR=7.8 | | | | | | |
| ASAR | Alice Springs | 78.11 | 187 | P | P | 01 05 10.9 | +1.3 |
| | comp=Z,0.6nm,0.6s,baz=0.9,slow=5.3,SNR=6.8 | | | | | | |
| ASAR | Alice Springs | 78.11 | 187 | P | P | 01 05 11.0 | +1.3 |
| ASAR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.6s | | | | | | |

**IDC 10 00:58:13.8±4.0, 20.°56S×176.°76W, h0km, mb4.2/7, mb1 4.4/7, mb1mx4.1/27, mbtmp4.2/7, Error ellipse: s-maj=125.0km s-min=31.2km az=136.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ASAR | Alice Springs | 45.64 | 257 | P | P | 01 06 37.0 | +0.5 |
| | 1.5nm,0.5s,baz=97,slow=7.8,SNR=23 | | | | | | |
| WRA | Warramunga Arr | 45.75 | 262 | P | P | 01 06 37.1 | -0.2 |
| | 1.1nm,0.8s,baz=96,slow=8.1,SNR=12 | | | | | | |
| MJAR | Matsushiro Arr | 70.96 | 323 | P | P | 01 09 33.1 | -0.1 |
| | 1.6nm,0.6s,baz=142,slow=6.2,SNR=4.6 | | | | | | |
| PETK | Petropavlovsk- | 76.64 | 345 | P | P | 01 10 06.6 | +0.4 |
| | 3.7nm,0.7s,baz=148,slow=7.3,SNR=3.6 | | | | | | |
| USRK | Ussuriysk Ar. | 79.68 | 325 | P | P | 01 10 23.4 | +0.2 |
| | 2.1nm,0.7s,baz=63,slow=1.5,SNR=4.8 | | | | | | |
| ILAR | Eielson Array | 88.12 | 12 | P | P | 01 11 06.1 | +0.2 |
| | 0.5nm,0.4s,baz=215,slow=5.3,SNR=6.5 | | | | | | |
| CMAR | Chiang Mai Arr | 91.24 | 289 | P | P | 01 11 19.9 | -1.7 |
| | 1.0nm,0.4s,baz=134,slow=4.0,SNR=4.7 | | | | | | |

*ISCJB **10** 01:01:08.9±0.6, 24.°89N±0.°04×122.°46E±0.°02, h4km±4km, Error ellipse: s-maj=7.2km s-min=3.6km az=12.3*
*JMA **10** 01:01:08.3±0.1, 24.°86N×122.°44E, h0km*
*TAP **10** 01:01:08.9, 24.°94N×122.°45E, h18km, ML3.3, C*
**ISC 10 01:01:08.8±1.3, 24.°88N±0.°05×122.°44E±0.°03, h7km±11km, n30, σ0.s80/50, Taiwan region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TWB1 | Santiao Chiao | 0.43 | 287 | *i* P | Pb | 01 01 18.2 | -0.6 |
| | baz=279 | | | | | | |
| TWB1 | | | | *i* S | Sb | 01 01 24.1 | -1.3 |
| | baz=279 | | | | | | |
| TWC | Suao | 0.60 | 243 | *i* P | Pb | 01 01 21.1 | -0.6 |
| | baz=238 | | | | | | |
| TWC | | | | *i* S | Sb | 01 01 29.9 | -0.4 |
| | baz=238 | | | | | | |
| NWF | Wu-fen Shan | 0.63 | 288 | *i* P | Pb | 01 01 21.9 | -0.2 |
| | baz=282 | | | | | | |
| NWF | | | | *i* S | Sb | 01 01 30.9 | -0.3 |
| | baz=282 | | | | | | |
| YOJ | Yonaguni jima | 0.67 | 129 | P | Pg | 01 01 21.5 | -0.2 |
| YOJ | | | | *e*S | Sg | 01 01 30.9 | +0.5 |
| TWE | Neicheng | 0.72 | 257 | P | Pb | 01 01 23.2 | -0.5 |
| | baz=244 | | | | | | |
| TWE | | | | S | Sb | 01 01 33.7 | -0.1 |
| | baz=244 | | | | | | |
| ENA | Nanau | 0.78 | 235 | P | Pb | 01 01 24.5 | -0.3 |
| | baz=230 | | | | | | |
| ENA | | | | *e*S | Sb | 01 01 35.7 | +0.1 |
| | baz=230 | | | | | | |
| TWA | Mucha | 0.78 | 277 | *e*P | Pb | 01 01 24.6 | -0.2 |
| | baz=272 | | | | | | |
| TWA | | | | *e*S | Sb | 01 01 36.5 | +0.8 |
| | baz=272 | | | | | | |
| ENTT | Nioudou | 0.83 | 253 | *e*P | Pb | 01 01 25.5 | -0.1 |
| | baz=248 | | | | | | |
| ENTT | | | | *e*S | Sb | 01 01 37.2 | +0.3 |
| | baz=248 | | | | | | |
| TWY | Chenhua | 0.86 | 297 | P | Pb | 01 01 25.4 | -0.7 |
| | baz=293 | | | | | | |
| TWY | | | | S | Sb | 01 01 38.2 | +0.5 |
| | baz=293 | | | | | | |
| NSK | Sanguang | 1.00 | 258 | *e*P | Pb | 01 01 28.3 | -0.3 |
| | baz=268 | | | | | | |
| NSK | | | | *e*S | Sn | 01 01 42.9 | -0.9 |
| | baz=268 | | | | | | |
| NNS | Nan Shan | 1.07 | 246 | P | Pb | 01 01 29.4 | -0.3 |
| | baz=242 | | | | | | |
| NNS | | | | *e*S | Sb | 01 01 44.3 | +0.4 |
| | baz=242 | | | | | | |
| TWD | Chiawan | 1.11 | 224 | *e*P | Pn | 01 01 30.9 | +0.1 |
| | baz=231 | | | | | | |
| IRIF | Iriomote-Funau | 1.29 | 115 | P | Pb | 01 01 33.4 | -0.1 |
| IRIF | | | | S | Sn | 01 01 50.7 | -0.2 |
| WHF | Hehuan Shan | 1.30 | 236 | *e*P | Pg | 01 01 33.8 | 0.0 |
| | baz=232 | | | | | | |
| WHF | | | | *e*S | Sb | 01 01 49.3 | -1.6 |
| | baz=232 | | | | | | |
| TWT | Tachien | 1.31 | 242 | *e*P | Pg | 01 01 34.1 | +0.1 |
| | baz=238 | | | | | | |
| TWT | | | | *e*S | Sn | 01 01 52.5 | +1.0 |
| | baz=238 | | | | | | |
| NSTT | Nanjuang | 1.33 | 259 | *e*P | Pg | 01 01 34.1 | -0.2 |
| | baz=255 | | | | | | |
| NSTT | | | | *e*S | Sg | 01 01 52.7 | +1.0 |
| | baz=255 | | | | | | |
| TWQ1 | Liyutan | 1.61 | 251 | *e*P | Pn | 01 01 36.6 | -1.0 |
| | baz=263 | | | | | | |
| WDT | Danda | 1.64 | 227 | *e*P | Pn | 01 01 38.1 | -0.3 |
| | baz=206 | | | | | | |
| WDT | | | | *e*S | Sb | 01 02 00.8 | +0.3 |
| | baz=206 | | | | | | |
| EHY | Hungye | 1.71 | 217 | *e*P | Pb | 01 01 40.3 | -0.2 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| | baz=214 | | | | | | |
| **SMLT** | **Sun Moon Lake** | **1.72** | **235** | *e*P | **Pb** | **01 01 40.1** | **-0.8** |
| | baz=232 | | | | | | |
| SMLT | | | | *e*S | **Sb** | **01 02 03.1** | **+0.4** |
| | baz=232 | | | | | | |
| **TYC** | **Yuchr** | **1.74** | **236** | *e*P | **Pb** | **01 01 40.3** | **-0.8** |
| | baz=233 | | | | | | |
| TYC | | | | *e*S | **Sb** | **01 02 03.1** | **-0.1** |
| | baz=233 | | | | | | |
| **TWF1** | **Yuli** | **1.85** | **215** | *e*P | **Pn** | **01 01 41.1** | **+0.1** |
| | baz=212 | | | | | | |
| **YUS** | **Yu-Shan** | **1.94** | **225** | *e*P | **Pb** | **01 01 43.8** | **-1.1** |
| | baz=222 | | | | | | |
| **ALS** | **Alishan** | **2.02** | **228** | *e*P | **Pb** | **01 01 45.9** | **-0.2** |
| | baz=209 | | | | | | |
| **CHN5** | **Tsauling** | **2.06** | **232** | *e*P | **Pn** | **01 01 44.9** | **+1.0** |
| | baz=229 | | | | | | |
| **CHN4** | **Tsaushan** | **2.27** | **228** | *e*P | **Pb** | **01 01 48.8** | **-1.4** |
| | baz=210 | | | | | | |
| CHN4 | | | | *e*S | **Sn** | **01 02 16.7** | **+1.6** |
| | baz=210 | | | | | | |
| **STYT** | **Tauyuan** | **2.30** | **222** | *e*P | **Pn** | **01 01 48.0** | **+0.8** |
| | baz=204 | | | | | | |
| **WTP** | **Ta-pu** | **2.33** | **226** | *e*P | **Pb** | **01 01 49.6** | **-1.7** |
| | baz=208 | | | | | | |
| **TWK** | **Hsinying** | **2.40** | **228** | *e*P | **Pn** | **01 01 49.4** | **+0.8** |
| | baz=210 | | | | | | |
| **CHN1** | **Nanshi** | **2.43** | **226** | *e*P | **Pn** | **01 01 50.5** | **+1.5** |
| | baz=209 | | | | | | |
| CHN1 | | | | *e*S | **Sb** | **01 02 21.2** | **-1.9** |
| | baz=209 | | | | | | |

*BJI **10** 01:02:00.9, 24°.86N×99°.23E, h10km, ML3.5/7, Ms7 3.1/1*
*BKK **10** 01:02:24.0±1.4, 25°N±12°×9°8E±4°7, h10km, mB4.6/6, mb4.7/10, MLv4.5/9, Mw(mB)3.8/6*
**ISC 10 01:02:02.7**±4.4**, 24°.7N**±0°.2×**98°.8E**±0°.3**, h6**km**, n5, σ0.97**/7**, Myanmar-China border region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KMI** | **Kunming** | **3.61** | **82** | Pg | **Pn** | **01 03 00.2** | **+0.8** |
| KMI | | | | Sg | **Sn** | **01 03 41.6** | **-0.9** |
| KMI | | | | smax | smax | | |
| | comp=N,63nm,0.7s | | | | | | |
| KMI | | | | smax | smax | | |
| | comp=E,130nm,0.8s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,170nm,6.3s | | | | | | |
| **CHTO** | **Chiang Mai** | **5.81** | **179** | P | **Pg** | **01 03 53.1** | **-0.9** |
| | 141nm,0.9s,0.5nm | | | | | | |
| **CMMT** | **Chiang Mai** | **5.81** | **179** | P | **Pg** | **01 03 53.1** | **-0.9** |
| | 31nm,0.9s | | | | | | |
| CMMT | | | | S | **Sg** | **01 05 10.0** | **+0.7** |
| | 31nm,0.9s | | | | | | |
| **PHRA** | **Phrae** | **6.26** | **167** | P | **Pg** | **01 04 02.3** | **-0.4** |
| | 24nm,0.7s,0.4nm | | | | | | |
| **SUKH** | **Sukhothai** | **7.17** | **174** | P | **Pg** | **01 04 20.4** | **+0.3** |

*ISK **10** 01:12:11.7, 38°.52N×43°.18E, h5km, ML2.5*
*ISCJB **10** 01:12:12.8±0.7, 38°.51N±0°.04×43°.16E±0°.06, h2km±10km, Error ellipse: s-maj=9.2km s-min=5.0km az=39.2*
*CSEM **10** 01:12:12.5±0.2, 38°.49N×43°.17E, h2km, ML2.5, Error ellipse: s-maj=7.8km s-min=5.5km az=142.0*
*DDA **10** 01:12:13.3, 38°.41N×43°.26E, h3km, Ml2.5*
**ISC 10 01:12:12.9**±1.0**, 38°.50N**±0°.03×**43°.21E**±0°.03**, h4**km±10km**, n28, σ0.91**/37**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TVAN** | **Van** | **0.16** | **79** | *i* P | **Pg** | **01 12 15.8** | **-0.3** |
| TVAN | | | | *i* S | **Sg** | **01 12 19.5** | **+1.3** |
| **TVAN** | **Van** | **0.16** | **79** | P | **Pg** | **01 12 15.8** | **-0.3** |
| TVAN | | | | S | **Sg** | **01 12 19.5** | **+1.3** |
| **VANB** | **Van** | **0.17** | **56** | *e*PG | **Pg** | **01 12 15.4** | **-0.9** |
| VANB | | | | *e*SG | **Sg** | **01 12 19.0** | **+0.4** |
| **VANB** | **Van** | **0.17** | **56** | *e*Pg | **Pg** | **01 12 15.4** | **-0.9** |
| VANB | | | | *e*Sg | **Sg** | **01 12 19.0** | **+0.4** |
| **GEVA** | **Gevas** | **0.22** | **212** | *i* P | **Pg** | **01 12 16.2** | **-1.0** |
| GEVA | | | | *i* S | **Sg** | **01 12 21.1** | **+1.0** |
| **GEVA** | **Gevas** | **0.22** | **212** | P | **Pg** | **01 12 16.2** | **-1.0** |
| GEVA | | | | S | **Sg** | **01 12 21.1** | **+1.0** |
| **CLDR** | **Caldiran** | **0.85** | **41** | *i* P | **Pn** | **01 12 31.9** | **+0.1** |
| CLDR | | | | *i* S | **Sn** | **01 12 44.1** | **-0.8** |
| **CLDR** | **Caldiran** | **0.85** | **41** | P | **Pn** | **01 12 31.9** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **1.09** | **351** | *e*PG | **Pg** | **01 12 33.2** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **1.09** | **351** | *e*Pg | **Pg** | **01 12 33.2** | **-0.6** |
| **SRTM** | **Siirt_Merkez** | **1.13** | **244** | *i* P | **Pb** | **01 12 34.4** | **-0.7** |
| SRTM | | | | *i* S | **Sn** | **01 12 53.0** | **+1.3** |
| **SRTM** | **Siirt_Merkez** | **1.13** | **244** | P | **Pb** | **01 12 34.3** | **-0.7** |
| **SIRT** | **Sirnak** | **1.17** | **212** | *e*PN | **Pb** | **01 12 35.3** | **-0.4** |
| **SIRT** | **Sirnak** | **1.17** | **212** | *e*Pn | **Pb** | **01 12 35.3** | **-0.4** |
| **CUKT** | **Cukurca** | **1.29** | **166** | *e*PN | **Pn** | **01 12 38.1** | **+0.3** |
| **CUKT** | **Cukurca** | **1.29** | **166** | *e*Pn | **Pn** | **01 12 38.1** | **+0.3** |
| **VRTB** | **Varto-Mus** | **1.52** | **296** | *e*PN | **Pn** | **01 12 40.8** | **-0.2** |
| **VRTB** | **Varto-Mus** | **1.52** | **296** | *i* P | **Pn** | **01 12 39.9** | **-1.1** |
| VRTB | | | | *i* S | **Sg** | **01 13 04.7** | **+3.0** |
| **VRTB** | **Varto-Mus** | **1.52** | **296** | P | **Pn** | **01 12 39.9** | **-1.1** |
| **VRTB** | **Varto-Mus** | **1.52** | **296** | *e*Pn | **Pn** | **01 12 40.8** | **-0.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.69** | **28** | *e*PN | **Pn** | **01 12 43.6** | **+0.4** |
| **TASB** | **TASBURUN-IGDIR** | **1.69** | **28** | *e*Pn | **Pn** | **01 12 43.6** | **+0.4** |
| **BNGB** | **Bing˜¶l** | **2.04** | **285** | *e*PN | **Pn** | **01 12 48.6** | **+0.6** |
| **BINT** | **Bingol** | **2.16** | **281** | *e*Pn | **Pn** | **01 12 48.6** | **-1.2** |
| **SENK** | **Senkaya-Erzuru** | **2.16** | **342** | *e*PN | **Pn** | **01 12 49.8** | **-0.1** |
| **SENK** | **Senkaya-Erzuru** | **2.16** | **342** | *e*Pn | **Pn** | **01 12 49.8** | **-0.1** |
| **YEDI** | **Yedisu-Bingol** | **2.28** | **295** | *e*PN | **Pn** | **01 12 51.8** | **+0.4** |
| **YEDI** | **Yedisu-Bingol** | **2.28** | **295** | *e*Pn | **Pn** | **01 12 51.8** | **+0.4** |

*ISCJB **10** 01:14:23.9±0.9, 37°.52N±0°.05×26°.85E±0°.07, h8km±8km, Error ellipse: s-maj=10.2km s-min=6.1km az=141.4*
*DDA **10** 01:14:23.8, 37°.52N×26°.84E, h7km, Ml2.7*
*ISK **10** 01:14:24.1, 37°.53N×26°.89E, h14km, MD2.4*
*CSEM **10** 01:14:24.2±0.2, 37°.52N×26°.85E, h10km, ML2.7, Error ellipse: s-maj=4.2km s-min=2.4km az=51.0*
**ISC 10 01:14:23.8**±1.7**, 37°.53N**±0°.04×**26°.90E**±0°.05**, h8**km±16km**, n17, σ0.30**/26**, Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GCAM** | **G?zelcaml?** | **0.31** | **57** | *e*PG | **Pb** | **01 14 31.3** | **-0.4** |
| GCAM | | | | *e*SG | **Sb** | **01 14 36.7** | **-0.2** |
| **GCAM** | **G?zelcaml?** | **0.31** | **57** | *i* P | **Pb** | **01 14 31.5** | **-0.2** |
| GCAM | | | | *i* S | **Sb** | **01 14 36.5** | **-0.5** |
| **GCAM** | **G?zelcaml?** | **0.31** | **57** | *e*Pg | **Pb** | **01 14 31.3** | **-0.4** |
| **GCAM** | **G?zelcaml?** | **0.31** | **57** | P | **Pb** | **01 14 31.5** | **-0.2** |
| GCAM | | | | S | **Sb** | **01 14 36.5** | **-0.5** |
| **DGB** | **˜zmir** | **0.52** | **358** | *i* P | **Pg** | **01 14 34.2** | **+0.4** |
| **BODT** | **Bodrum** | **0.57** | **145** | *e*PG | **Pb** | **01 14 35.6** | **-0.4** |
| **BODT** | **Bodrum** | **0.57** | **145** | *e*Pg | **Pb** | **01 14 35.6** | **-0.4** |
| **BDRM** | **Kayabasi** | **0.64** | **137** | *i* P | **Pb** | **01 14 37.1** | **-0.1** |
| BDRM | | | | *i* S | **Sb** | **01 14 46.1** | **-0.1** |
| **BDRM** | **Kayabasi** | **0.64** | **137** | P | **Pb** | **01 14 37.1** | **-0.1** |
| BDRM | | | | S | **Sb** | **01 14 46.2** | **-0.1** |
| **AYDN** | **Tasoluk** | **0.79** | **80** | *i* P | **Pb** | **01 14 39.9** | **+0.1** |
| AYDN | | | | *i* S | **Sb** | **01 14 50.8** | **+0.1** |
| **AYDN** | **Tasoluk** | **0.79** | **80** | P | **Pb** | **01 14 39.9** | **+0.1** |
| AYDN | | | | S | **Sb** | **01 14 50.8** | **+0.1** |
| **URLA** | **Izmir** | **0.86** | **344** | *e*PG | **Pb** | **01 14 40.8** | **-0.3** |
| **URLA** | **Izmir** | **0.86** | **344** | *i* P | **Pg** | **01 14 40.2** | **-0.2** |
| URLA | | | | *i* S | **Sb** | **01 14 52.8** | **0.0** |
| **URLA** | **Izmir** | **0.86** | **344** | P | **Pg** | **01 14 40.2** | **-0.2** |
| **URLA** | **Izmir** | **0.86** | **344** | *e*Pg | **Pb** | **01 14 40.8** | **-0.3** |
| URLA | | | | S | **Sb** | **01 14 52.8** | **0.0** |
| **CHOS** | **Chios island** | **1.08** | **322** | *e*PN | **Pn** | **01 14 45.8** | **+0.4** |
| **CHOS** | **Chios island** | **1.08** | **322** | *e*Pn | **Pn** | **01 14 45.8** | **+0.4** |

*ISK **10** 01:15:20.6, 38°.88N×43°.65E, h5km, ML2.3*
*CSEM **10** 01:15:22.8±0.3, 38°.86N×43°.43E, h5km, MD2.9, Error ellipse: s-maj=6.6km s-min=4.6km az=93.0*
*DDA **10** 01:15:23.0, 38°.86N×43°.41E, h7km, Md2.9*
*ISCJB **10** 01:15:23.0±0.5, 38°.86N±0°.03×43°.44E±0°.05, h14km±5km, Error ellipse: s-maj=6.9km s-min=4.5km az=2.0*
**ISC 10 01:15:22.9**±0.9**, 38°.86N**±0°.02×**43°.43E**±0°.03**, h13**km±7km**, n18, σ0.75**/34**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.17** | **40** | *i* P | **Pg** | **01 15 26.4** | **-0.8** |
| VMUR | | | | *i* S | **Sg** | **01 15 30.7** | **+0.6** |
| **VMUR** | **Van-Muradiye** | **0.17** | **40** | P | **Pg** | **01 15 26.4** | **-0.8** |
| VMUR | | | | S | **Sg** | **01 15 30.7** | **+0.6** |
| **ERCV** | **ERCIS-VAN** | **0.18** | **337** | *e*PG | **Pg** | **01 15 26.4** | **-0.9** |
| ERCV | | | | *e*SG | **Sg** | **01 15 31.1** | **+1.0** |
| **ERCV** | **ERCIS-VAN** | **0.18** | **337** | *e*Pg | **Pg** | **01 15 26.4** | **-0.9** |
| ERCV | | | | *e*Sg | **Sg** | **01 15 31.2** | **+1.0** |
| **VANB** | **Van** | **0.26** | **186** | *e*PG | **Pb** | **01 15 29.4** | **-0.2** |
| **VANB** | **Van** | **0.26** | **186** | *e*Pg | **Pb** | **01 15 29.4** | **-0.2** |
| **TVAN** | **Van** | **0.33** | **183** | *i* P | **Pg** | **01 15 29.0** | **-0.7** |
| TVAN | | | | *i* S | **Sg** | **01 15 35.4** | **+1.1** |
| **TVAN** | **Van** | **0.33** | **183** | P | **Pg** | **01 15 29.0** | **-0.7** |
| TVAN | | | | S | **Sg** | **01 15 35.4** | **+1.1** |
| **CLDR** | **Caldiran** | **0.48** | **53** | *i* P | **Pg** | **01 15 32.1** | **-0.4** |
| CLDR | | | | *i* S | **Sb** | **01 15 40.3** | **0.0** |
| **CLDR** | **Caldiran** | **0.48** | **53** | P | **Pg** | **01 15 32.1** | **-0.4** |
| CLDR | | | | S | **Sb** | **01 15 40.3** | **0.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.55** | **265** | *i* P | **Pg** | **01 15 33.5** | **-0.3** |
| ADCV | | | | *i* S | **Sb** | **01 15 42.0** | **-0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.55** | **265** | P | **Pg** | **01 15 33.5** | **-0.3** |
| ADCV | | | | S | **Sb** | **01 15 42.0** | **-0.4** |
| **GEVA** | **Gevas** | **0.61** | **208** | *i* P | **Pg** | **01 15 33.7** | **-1.3** |
| GEVA | | | | *i* S | **Sb** | **01 15 45.1** | **+0.9** |
| **GEVA** | **Gevas** | **0.61** | **208** | P | **Pg** | **01 15 33.7** | **-1.3** |
| GEVA | | | | S | **Sb** | **01 15 45.1** | **+0.9** |
| **TUTA** | **Tutak** | **0.72** | **319** | *i* P | **Pg** | **01 15 36.4** | **-0.7** |
| TUTA | | | | *i* S | **Sb** | **01 15 47.4** | **0.0** |
| **TUTA** | **Tutak** | **0.72** | **319** | P | **Pg** | **01 15 36.4** | **-0.7** |
| TUTA | | | | S | **Sb** | **01 15 47.4** | **0.0** |
| **AGRB** | **Hanur-Agry** | **0.79** | **335** | *e*PG | **Pg** | **01 15 37.8** | **-0.6** |
| AGRB | | | | *e*SG | **Sb** | **01 15 49.9** | **+0.5** |
| **AGRB** | **Hanur-Agry** | **0.79** | **335** | *e*Pg | **Pg** | **01 15 37.8** | **-0.6** |
| AGRB | | | | *e*Sg | **Sb** | **01 15 49.9** | **+0.5** |

*ISCJB **10** 01:24:20.4±0.4, 39°.10N±0°.02×28°.15E±0°.03, h8km±4km, Error ellipse: s-maj=3.8km s-min=3.7km az=137.6*
*CSEM **10** 01:24:20.8±0.1, 39°.10N×28°.15E, h8km, ML2.9, Error ellipse: s-maj=2.1km s-min=1.9km az=39.0*
*ISK **10** 01:24:20.2, 39°.11N×28°.15E, h6km, ML2.7*
*DDA **10** 01:24:20.2, 39°.09N×28°.15E, h7km, Ml2.9*
**ISC 10 01:24:20.5**±0.9**, 39°.10N**±0°.02×**28°.15E**±0°.02**, h13**km±8km**, n47, σ0.44**/65**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AKHS** | **Akhisar** | **0.34** | **230** | *i* P | **Pg** | **01 24 27.5** | **0.0** |
| AKHS | | | | *i* S | **Sg** | **01 24 32.4** | **+0.3** |
| **AKHS** | **Akhisar** | **0.34** | **230** | P | **Pg** | **01 24 27.5** | **0.0** |
| AKHS | | | | S | **Sg** | **01 24 32.4** | **+0.3** |
| **AKS** | **Akhisar** | **0.34** | **231** | *e*PG | **Pg** | **01 24 27.2** | **-0.2** |
| **AKS** | **Akhisar** | **0.34** | **231** | *e*Pg | **Pg** | **01 24 27.2** | **-0.2** |
| **STEP** | **BALIKESIR_Sava** | **0.44** | **310** | *i* P | **Pg** | **01 24 29.0** | **-0.2** |
| STEP | | | | *i* S | **Sg** | **01 24 35.3** | **+0.2** |
| **STEP** | **BALIKESIR_Sava** | **0.44** | **310** | P | **Pg** | **01 24 29.0** | **-0.2** |
| STEP | | | | S | **Sg** | **01 24 35.3** | **+0.2** |
| **DEMI** | **Demirci** | **0.44** | **97** | *i* P | **Pb** | **01 24 29.7** | **-0.6** |
| DEMI | | | | *i* S | **Sg** | **01 24 35.6** | **+0.3** |
| **DEMI** | **Demirci** | **0.44** | **97** | P | **Pb** | **01 24 29.7** | **-0.6** |
| DEMI | | | | S | **Sg** | **01 24 35.6** | **+0.3** |
| **BALB** | **Balikesir** | **0.58** | **339** | *e*PG | **Pb** | **01 24 32.2** | **-0.4** |
| BALB | | | | *e*SG | **Sb** | **01 24 40.4** | **-0.4** |
| **BALB** | **Balikesir** | **0.58** | **339** | *e*Pg | **Pb** | **01 24 32.2** | **-0.4** |
| BALB | | | | *e*Sg | **Sb** | **01 24 40.4** | **-0.4** |
| **SIMA** | **Simav-Kutahya** | **0.65** | **91** | *e*PG | **Pb** | **01 24 33.6** | **-0.2** |
| SIMA | | | | *e*SG | **Sb** | **01 24 42.3** | **-0.5** |
| **SIMA** | **Simav-Kutahya** | **0.65** | **91** | *e*Pg | **Pb** | **01 24 33.6** | **-0.2** |
| SIMA | | | | *e*Sg | **Sb** | **01 24 42.3** | **-0.5** |
| **MANT** | **Manisa** | **0.68** | **152** | *i* P | **Pb** | **01 24 34.1** | **-0.4** |
| MANT | | | | *i* S | **Sg** | **01 24 42.4** | **-0.5** |
| **MANT** | **Manisa** | **0.68** | **152** | P | **Pb** | **01 24 34.1** | **-0.4** |
| MANT | | | | S | **Sg** | **01 24 42.4** | **-0.5** |
| **KULA** | **Kula-Manisa** | **0.70** | **145** | *e*PG | **Pb** | **01 24 34.5** | **-0.2** |
| **KULA** | **Kula-Manisa** | **0.70** | **145** | *e*Pg | **Pb** | **01 24 34.5** | **-0.2** |
| **BALY** | **Balya** | **0.76** | **328** | *i* P | **Pb** | **01 24 35.8** | **0.0** |
| BALY | | | | *i* S | **Sg** | **01 24 45.1** | **-0.3** |
| **BALY** | **Balya** | **0.76** | **328** | P | **Pb** | **01 24 35.8** | **0.0** |
| BALY | | | | S | **Sg** | **01 24 45.1** | **-0.3** |
| **GONE** | **Gonen-Balikesi** | **1.01** | **339** | *e*PG | **Pb** | **01 24 39.9** | **-0.1** |
| **GONE** | **Gonen-Balikesi** | **1.01** | **339** | *e*Pg | **Pb** | **01 24 39.9** | **-0.1** |
| **TVSB** | **Tavsanli** | **1.08** | **70** | *e*PG | **Pb** | **01 24 41.2** | **+0.1** |
| **TVSB** | **Tavsanli** | **1.08** | **70** | *e*Pg | **Pb** | **01 24 41.2** | **+0.1** |
| **ORLT** | **Orhaneli** | **1.11** | **31** | *e*PN | **Pb** | **01 24 41.8** | **+0.1** |
| **ORLT** | **Orhaneli** | **1.11** | **31** | *e*Pn | **Pb** | **01 24 41.8** | **+0.1** |
| **KCTX** | **Karacabey (Bur** | **1.18** | **8** | *e*PN | **Pg** | **01 24 42.8** | **-0.4** |
| **KCTX** | **Karacabey (Bur** | **1.18** | **8** | *e*Pn | **Pg** | **01 24 42.8** | **-0.4** |
| **EDC** | **Edincik** | **1.27** | **350** | *e*PN | **Pb** | **01 24 44.4** | **+0.1** |
| **EDC** | **Edincik** | **1.27** | **350** | *e*Pn | **Pb** | **01 24 44.4** | **+0.1** |
| **MDNY** | **Mudanya-Bursa** | **1.39** | **24** | *e*PN | **Pg** | **01 24 46.7** | **-0.6** |
| **MDNY** | **Mudanya-Bursa** | **1.39** | **24** | *e*Pn | **Pg** | **01 24 46.7** | **-0.6** |
| **URLA** | **Izmir** | **1.42** | **239** | *e*PN | **Pb** | **01 24 46.9** | **0.0** |
| **URLA** | **Izmir** | **1.42** | **239** | *i* P | **Pb** | **01 24 47.0** | **+0.1** |
| URLA | | | | *i* S | **Sb** | **01 25 05.3** | **+0.3** |
| **URLA** | **Izmir** | **1.42** | **239** | *e*Pn | **Pb** | **01 24 46.9** | **0.0** |
| URLA | | | | S | **Sb** | **01 25 05.3** | **+0.3** |
| **DGB** | **˜zmir** | **1.44** | **224** | *i* P | **Pn** | **01 24 46.6** | **+0.3** |
| DGB | | | | *i* S | **Sn** | **01 25 05.6** | **+0.5** |
| **KRBG** | **Karabiga-Canak** | **1.45** | **333** | *e*PN | **Pn** | **01 24 46.8** | **+0.3** |
| **KRBG** | **Karabiga-Canak** | **1.45** | **333** | *e*Pn | **Pn** | **01 24 46.8** | **+0.3** |
| **ZEY** | **˜zmir** | **1.55** | **237** | *i* P | **Pb** | **01 24 48.9** | **-0.1** |
| ZEY | | | | *i* S | **Sn** | **01 25 06.9** | **-0.9** |
| **GCAM** | **G?zelcaml?** | **1.57** | **208** | *e*PN | **Pb** | **01 24 49.2** | **-0.2** |
| **GCAM** | **G?zelcaml?** | **1.57** | **208** | *e*Pn | **Pb** | **01 24 49.2** | **-0.2** |
| **SBT5** | **Esenkoy-Cinarc** | **1.63** | **20** | *e*PN | **Pb** | **01 24 50.3** | **-0.2** |
| **SBT5** | **Esenkoy-Cinarc** | **1.63** | **20** | *e*Pn | **Pb** | **01 24 50.3** | **-0.2** |
| **CHOS** | **Chios island** | **1.79** | **247** | *e*PN | **Pb** | **01 24 52.9** | **-0.2** |
| **CHOS** | **Chios island** | **1.79** | **247** | *e*Pn | **Pb** | **01 24 52.9** | **-0.2** |
| **SIGR** | **SIGRI** | **1.79** | **274** | *e*PN | **Pb** | **01 24 52.5** | **-0.7** |
| **SIGR** | **SIGRI** | **1.79** | **274** | *e*Pn | **Pb** | **01 24 52.5** | **-0.7** |
| **GULT** | **Gulveren** | **2.26** | **53** | *e*PN | **Pn** | **01 24 59.2** | **+1.5** |
| **GULT** | **Gulveren** | **2.26** | **53** | *e*Pn | **Pn** | **01 24 59.2** | **+1.5** |

**IDC 10 01:34:29.1**±2.2**, 6°.85S**×**129°.41E, h0**km**, mb3.7**/1**, mb1 3.7**/3**, mb1mx3.2**/34**, mbtmp3.5**/3**, ML3.7**/2**, Error ellipse: s-maj=140.8km s-min=31.9km az=68.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **13.87** | **160** | Pn | Pn | 01 37 46.2 | -0.9 |
| | 0.4nm,0.3s,baz=342,slow=14,SNR=5.0 | | | | | | |
| WRA | | | | Sn | Sn | 01 40 08.2 | -14 |
| | 1.2nm,0.3s,baz=332,slow=23,SNR=13 | | | | | | |
| **ASAR** | **Alice Springs** | **17.27** | **166** | P | Pn | 01 38 32.6 | +0.7 |
| | 0.2nm,0.3s,baz=345,slow=10,SNR=8.6 | | | | | | |
| ASAR | | | | S | Sn | 01 41 33.0 | -12 |
| | 0.4nm,0.3s,baz=358,slow=26,SNR=6.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.78** | **327** | P | P | 01 45 28.9 | 0.0 |
| | 0.4nm,0.5s,baz=134,slow=7.9,SNR=6.8 | | | | | | |

*IDC **10** 01:39:35.7±9.4, 35°.16N×70°.81E, h74km±39km, mb3.4/2, mb1 3.4/8, mb1mx3.0/45, mbtmp3.7/8, ML3.4/6, Error ellipse: s-maj=130.8km s-min=31.4km az=160.0*
*NNC **10** 01:39:48.3±2.4, 36°.42N×70°.34E, h172km±30km, mb2.6, mpv3.6, Error ellipse: s-maj=24.7km s-min=13.9km az=154.0*
**ISC 10 01:39:49.6**±2.4**, 36°.4N**±0°.2×**70°.46E**±0°.09**, h110**km**, n13, σ1.31**/18**, 6C-3D, Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZET** | **Dzherino** | **2.76** | **332** | ⇓P | **Pn** | **01 40 31.8** | **-0.8** |
| | 2.3nm,0.3s | | | | | | |
| DZET | | | | ⇑S | **Sn** | **01 41 07.8** | **+2.2** |
| | 82nm,0.3s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **4.36** | **32** | ⇑P | **Pn** | **01 40 54.1** | **+0.2** |
| | 7.8nm,0.2s | | | | | | |
| SFK | | | | ⇑S | **Sn** | **01 41 46.3** | **+2.4** |
| | 4.9nm,0.2s | | | | | | |
| **MNAS** | **Manas** | **6.32** | **14** | ⇓P | **Pn** | **01 41 19.9** | **-0.4** |
| | 4.9nm,0.7s | | | | | | |
| MNAS | | | | ⇑S | **Sn** | **01 42 31.6** | **+0.5** |
| | 3.4nm,0.4s | | | | | | |
| **KK31** | **Karatay Array** | **6.73** | **0** | P | **Pn** | **01 41 25.1** | **-0.7** |
| | 1.8nm,0.3s,baz=192,slow=15,SNR=22 | | | | | | |
| KK31 | | | | ⇑S | **Sn** | **01 42 39.3** | **-1.8** |
| | 1.9nm,0.3s,baz=188,slow=25,SNR=7.0 | | | | | | |
| **AAK** | **Ala-Archa** | **7.00** | **25** | P | **Pn** | **01 41 29.0** | **-0.6** |
| | 1.4nm,0.3s,baz=176,slow=4.7,SNR=22 | | | | | | |
| AAK | | | | S | **Sn** | **01 42 49.4** | **+1.7** |
| | 0.4nm,0.3s,baz=315,slow=19,SNR=4.8 | | | | | | |
| **AAK** | **Ala-Archa** | **7.00** | **25** | ⇑P | **Pn** | **01 41 29.3** | **-0.2** |
| | 3.0nm,0.5s | | | | | | |
| AAK | | | | ⇓S | **Sn** | **01 42 45.9** | **-1.8** |
| | 2.2nm,0.5s | | | | | | |
| **GEYT** | **Alibeck** | **9.98** | **283** | P | Pn | 01 42 04.8 | -5.2 |
| | 0.6nm,0.3s,baz=116,slow=13,SNR=8.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **13.66** | **37** | P | **Pn** | **01 42 57.8** | **-0.7** |
| | 0.0nm,0.3s,baz=227,slow=12,SNR=2.7 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **15.39** | **20** | P | **P** | **01 43 22.1** | **-0.7** |
| | 0.0nm,0.3s,baz=206,slow=11,SNR=5.5 | | | | | | |
| **BVAR** | **Borovoye Array** | **16.66** | **360** | P | **P** | **01 43 37.4** | **+0.6** |
| | 0.2nm,0.3s,baz=163,slow=10,SNR=3.7 | | | | | | |
| **AKTO** | **Aktyubinsk** | **16.69** | **331** | P | **P** | **01 43 38.5** | **+1.4** |
| | 0.3nm,0.3s,baz=146,slow=13,SNR=4.1 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **20.22** | **25** | P | **P** | **01 44 14.8** | **-0.8** |
| | 1.1nm,0.4s,baz=213,slow=12,SNR=6.0 | | | | | | |
| **ARCES** | **ARCESS Array B** | **41.11** | **338** | P | **P** | **01 47 22.1** | **-0.1** |
| | 0.9nm,0.7s,baz=116,slow=8.1,SNR=3.6 | | | | | | |

**MEX 10 01:40:00.2**±0.3**, 27°.48N**×**111°.40W, h13**km±6km**, MD3.7, Gulf of California**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GUYB** | **Guaymas** | **0.63** | **48** | *e*P | Pg | 01 40 10.8 | -1.7 |
| GUYB | | | | *e*S | Sg | 01 40 19.1 | -1.8 |
| **SRIG** | **Santa Rosalia** | **0.76** | **258** | *e*P | Pg | 01 40 12.7 | -2.3 |
| SRIG | | | | *i* S | Sg | 01 40 22.4 | -2.6 |
| **HSIG** | | **1.59** | **14** | *e*P | Pn | 01 40 24.6 | -3.5 |
| HSIG | | | | *i* S | Sn | 01 40 43.4 | -5.1 |

**WEL 10 01:46:11.8**±0.4**, 39°.64S**×**174°.37E, h218**km±3km**, ML3.6**/26**, 24C-1D, Error ellipse: s-maj=3.0km s-min=1.8km az=90.0, North Island**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LREZ** | **Lake Rotokare** | **0.18** | **8** | PN | Pn | 01 46 40.1 | -0.2 |
| LREZ | | | | SN | S | 01 47 02.3 | -0.2 |
| **WAZ** | **Wanganui** | **0.49** | **104** | ⇑PN | Pn | 01 46 41.4 | +0.4 |
| WAZ | | | | SN | S | 01 47 03.8 | +0.1 |
| **PKVZ** | **Pokaka** | **0.83** | **66** | PN | Pn | 01 46 42.0 | -0.5 |
| **MTVZ** | **Mangateitei** | **0.89** | **74** | PN | Pn | 01 46 42.5 | -0.3 |
| MTVZ | | | | SN | S | 01 47 05.7 | -1.3 |
| **OHWZ** | **Ohakea** | **0.92** | **128** | PN | Pn | 01 46 43.6 | +0.7 |
| **TRVZ** | **Turoa** | **0.97** | **70** | ⇑PN | Pn | 01 46 43.1 | -0.4 |
| **FWVZ** | **Far West T-bar** | **0.99** | **68** | ⇑PN | Pn | 01 46 43.2 | -0.5 |
| **WNVZ** | **Wahianoa** | **1.00** | **72** | ⇑PN | Pn | 01 46 43.3 | -0.4 |
| WNVZ | | | | SN | S | 01 47 06.7 | -1.6 |
| **TWVZ** | **Taurewa** | **1.00** | **56** | PN | Pn | 01 46 42.8 | -0.8 |
| **TUVZ** | **Tukino** | **1.06** | **70** | PN | Pn | 01 46 43.8 | -0.2 |
| **MOVZ** | **Moawhango** | **1.09** | **78** | PN | Pn | 01 46 43.5 | -0.6 |
| MOVZ | | | | SN | S | 01 47 06.6 | -2.6 |
| **OTVZ** | **Oturere** | **1.11** | **65** | PN | Pn | 01 46 44.1 | -0.3 |
| **DUWZ** | **D’Urville Isla** | **1.21** | **196** | ⇑PN | Pn | 01 46 44.6 | -0.2 |
| **KIW** | **Kapiti Island** | **1.29** | **161** | PN | Pn | 01 46 45.2 | -0.2 |
| KIW | | | | AML | AML | 01 47 12.6 | |
| KIW | | | | AML | AML | 01 47 12.8 | |
| **POWZ** | **Post Office Ro** | **1.31** | **125** | ⇑PN | Pn | 01 46 45.6 | +0.1 |
| POWZ | | | | AML | AML | 01 47 12.8 | |
| POWZ | | | | AML | AML | 01 47 19.0 | |
| **BHHZ** | **Black Hill Sta** | **1.32** | **84** | PN | Pn | 01 46 45.2 | -0.5 |
| BHHZ | | | | AML | AML | 01 47 10.6 | |
| BHHZ | | | | AML | AML | 01 47 13.0 | |
| **OGWZ** | **Otaki Gorge** | **1.33** | **153** | ⇑PN | Pn | 01 46 45.8 | +0.2 |
| OGWZ | | | | AML | AML | 01 47 13.3 | |
| OGWZ | | | | AML | AML | 01 47 13.3 | |
| **MRZ** | **Mangatainoka R** | **1.38** | **138** | ⇑PN | Pn | 01 46 46.1 | 0.0 |
| MRZ | | | | SN | S | 01 47 11.5 | -1.3 |
| MRZ | | | | AML | AML | 01 47 12.6 | |
| **PNHZ** | **Pukenui** | **1.44** | **102** | ⇑PN | Pn | 01 46 46.7 | +0.1 |
| PNHZ | | | | AML | AML | 01 47 13.4 | |
| PNHZ | | | | AML | AML | 01 47 14.5 | |
| **DVHZ** | **Dannevirke** | **1.53** | **116** | ⇑PN | Pn | 01 46 47.4 | +0.1 |
| DVHZ | | | | AML | AML | 01 47 15.2 | |
| DVHZ | | | | AML | AML | 01 47 16.3 | |
| **PRWZ** | **Pori Road** | **1.53** | **127** | PN | Pn | 01 46 47.8 | +0.4 |
| PRWZ | | | | AML | AML | 01 47 16.6 | |
| PRWZ | | | | AML | AML | 01 47 19.8 | |
| **HOWZ** | **Holdsworth Sta** | **1.53** | **146** | ⇑PN | Pn | 01 46 47.3 | -0.1 |
| HOWZ | | | | AML | AML | 01 47 13.9 | |
| **KRHZ** | **Kereru** | **1.54** | **91** | ⇓PN | Pn | 01 46 47.6 | +0.1 |
| KRHZ | | | | AML | AML | 01 47 16.6 | |
| KRHZ | | | | AML | AML | 01 47 17.5 | |
| **CAW** | **Cannon Point** | **1.56** | **160** | PN | Pn | 01 46 47.5 | -0.1 |
| CAW | | | | AML | AML | 01 47 16.7 | |
| CAW | | | | AML | AML | 01 47 22.6 | |
| **TCW** | **Tory Channel** | **1.57** | **183** | PN | Pn | 01 46 47.6 | -0.1 |
| TCW | | | | AML | AML | 01 47 16.1 | |
| TCW | | | | AML | AML | 01 47 16.5 | |
| **KWHZ** | **Kaweka Forest** | **1.60** | **83** | ⇑PN | Pn | 01 46 48.2 | +0.1 |
| KWHZ | | | | AML | AML | 01 47 16.3 | |
| KWHZ | | | | AML | AML | 01 47 17.2 | |
| **TIWZ** | **Tintock** | **1.62** | **135** | ⇑PN | Pn | 01 46 48.3 | +0.1 |
| TIWZ | | | | AML | AML | 01 47 17.5 | |
| TIWZ | | | | AML | AML | 01 47 18.1 | |
| **WPHZ** | **Waipukurau** | **1.65** | **106** | ⇑PN | Pn | 01 46 48.7 | +0.3 |
| WPHZ | | | | AML | AML | 01 47 22.0 | |
| **BKZ** | **Black Stump Fm** | **1.71** | **75** | ⇑PN | Pn | 01 46 48.4 | -0.6 |
| BKZ | | | | AML | AML | 01 47 15.4 | |
| BKZ | | | | AML | AML | 01 47 15.5 | |
| **MTW** | **Mount Morrison** | **1.75** | **151** | PN | Pn | 01 46 49.1 | -0.1 |
| MTW | | | | AML | AML | 01 47 19.1 | |
| MTW | | | | AML | AML | 01 47 19.7 | |
| **NNZ** | **Nelson** | **1.75** | **205** | ⇑PN | Pn | 01 46 48.8 | -0.4 |
| **BFZ** | **Birch Farm** | **1.78** | **127** | ⇑PN | Pn | 01 46 49.5 | 0.0 |
| **BHW** | **Baring Head** | **1.81** | **168** | PN | Pn | 01 46 49.4 | -0.4 |
| **MCHZ** | **McNeill Hill** | **1.81** | **85** | PN | Pn | 01 46 50.4 | +0.6 |
| MCHZ | | | | AML | AML | 01 47 21.0 | |
| **ANWZ** | **Angora Road** | **1.81** | **118** | PN | Pn | 01 46 50.2 | +0.4 |
| ANWZ | | | | AML | AML | 01 47 21.4 | |
| ANWZ | | | | AML | AML | 01 47 23.9 | |
| **TUWZ** | **Tuamarina** | **1.82** | **190** | ⇑PN | Pn | 01 46 49.4 | -0.4 |
| TUWZ | | | | AML | AML | 01 47 19.3 | |
| TUWZ | | | | AML | AML | 01 47 19.6 | |
| **QRZ** | **Quartz Range** | **1.84** | **229** | PN | Pn | 01 46 48.6 | -1.5 |
| **PRHZ** | **Porangahau** | **1.85** | **111** | ⇑PN | Pn | 01 46 50.6 | +0.4 |
| PRHZ | | | | AML | AML | 01 47 22.5 | |
| PRHZ | | | | AML | AML | 01 47 22.9 | |
| **TMWZ** | **Te Maipa** | **1.87** | **142** | ⇑PN | Pn | 01 46 50.4 | 0.0 |
| TMWZ | | | | AML | AML | 01 47 21.1 | |
| TMWZ | | | | AML | AML | 01 47 22.7 | |
| **MSWZ** | **Moikau Station** | **1.90** | **160** | ⇑PN | Pn | 01 46 50.3 | -0.3 |
| **PAWZ** | **Paruwai Farm** | **1.92** | **156** | ⇑PN | Pn | 01 46 50.6 | -0.3 |
| **KAHZ** | **Kahuranaki** | **1.94** | **95** | PN | Pn | 01 46 51.6 | +0.5 |
| KAHZ | | | | AML | AML | 01 47 23.0 | |
| **PXZ** | **Pawanui** | **1.96** | **102** | ⇑PN | Pn | 01 46 51.5 | +0.3 |
| PXZ | | | | AML | AML | 01 47 22.2 | |
| PXZ | | | | AML | AML | 01 47 23.6 | |
| PXZ | | | | AML | AML | 01 47 24.9 | |
| PXZ | | | | AML | AML | 01 47 24.9 | |
| **TRWZ** | **Traveller** | **2.02** | **151** | PN | Pn | 01 46 51.8 | -0.1 |
| **PLWZ** | **Palliser** | **2.04** | **161** | PN | Pn | 01 46 51.6 | -0.5 |
| **ARHZ** | **Aropaoanui** | **2.07** | **80** | PN | Pn | 01 46 52.5 | +0.2 |
| ARHZ | | | | AML | AML | 01 47 23.8 | |
| ARHZ | | | | AML | AML | 01 47 26.5 | |
| **BSWZ** | **Blackbirch Sta** | **2.11** | **190** | PN | Pn | 01 46 52.3 | -0.4 |
| **THZ** | **Tophouse** | **2.40** | **207** | ⇑PN | Pn | 01 46 54.9 | -0.9 |
| THZ | | | | SN | S | 01 47 27.7 | -2.2 |
| **MWZ** | **Matawai** | **2.78** | **63** | PN | Pn | 01 46 58.5 | -1.5 |
| **RIGZ** | **Rimuhau** | **2.80** | **72** | PN | Pn | 01 46 59.5 | -0.6 |
| RIGZ | | | | AML | AML | 01 47 37.2 | |
| RIGZ | | | | AML | AML | 01 47 38.4 | |
| **DSZ** | **Denniston Nort** | **2.87** | **222** | PN | Pn | 01 46 59.4 | -1.5 |
| **RUGZ** | **Raukumara Rang** | **3.08** | **58** | PN | Pn | 01 47 00.9 | -2.5 |
| **HAZ** | **Te Kaha** | **3.27** | **56** | PN | Pn | 01 47 03.0 | -2.5 |
| **LTZ** | **Lake Taylor** | **3.52** | **206** | PN | Pn | 01 47 07.2 | -1.2 |
| **WMGZ** | **Waiomatatini S** | **3.65** | **61** | PN | Pn | 01 47 08.2 | -1.8 |
| **INZ** | **Inchbonnie** | **3.79** | **215** | PN | Pn | 01 47 09.8 | -1.9 |
| INZ | | | | SN | S | 01 47 53.2 | -5.4 |
| **OXZ** | **Oxford** | **4.08** | **205** | PN | Pn | 01 47 12.9 | -2.2 |
| **MQZ** | **McQueen’s Vall** | **4.26** | **197** | PN | Pn | 01 47 13.8 | -3.5 |
| MQZ | | | | SN | S | 01 48 03.4 | -5.5 |
| **RPZ** | **Rata Peaks** | **4.77** | **210** | PN | Pn | 01 47 21.6 | -2.1 |
| **ODZ** | **Otahua Downs** | **6.07** | **206** | PN | Pn | 01 47 38.5 | -1.6 |
| **JCZ** | **Jackson Bay** | **6.08** | **221** | PN | Pn | 01 47 38.2 | -2.2 |

**MEX 10 02:03:28.2±0.7, 17.°95N×99.°42W, h53km±6km, MD3.7, Guerrero**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MEIG** | **Mezcala** | **0.19** | **264** | *e*P | Pn | 02 03 35.2 | -1.7 |
| MEIG | | | | *e*S | Sn | 02 03 41.6 | -1.6 |
| **PLIG** | **Platanillo** | **0.45** | **350** | *e*P | Pn | 02 03 37.5 | -1.7 |
| PLIG | | | | *e*S | Sn | 02 03 45.3 | -1.8 |
| **TLIG** | **Tlapa** | **0.90** | **115** | *e*P | Pn | 02 03 43.4 | -1.4 |
| TLIG | | | | *i* S | Sn | 02 03 55.3 | -1.7 |
| **ARIG** | **Puente Sto Nin** | **0.94** | **291** | *i* P | Pn | 02 03 44.0 | -1.2 |
| ARIG | | | | *i* S | Sn | 02 03 56.6 | -1.3 |
| **YAIG** | **Yautepec** | **0.97** | **20** | *e*P | Pn | 02 03 43.9 | -1.9 |
| YAIG | | | | *e*S | Sn | 02 03 56.2 | -2.5 |
| **CAIG** | **El Cayaco** | **1.21** | **222** | *e*P | Pn | 02 03 46.6 | -2.1 |
| CAIG | | | | *e*S | Sn | 02 04 01.8 | -2.3 |

*ISK **10** 02:17:46.4, 38.°96N×43.°72E, h17km, MD2.2*
*ISCJB **10** 02:17:47.5±1.2, 39.°00N±0.°09×43.°68E±0.°08, h11km±8km, Error ellipse: s-maj=16.3km s-min=7.3km az=152.9*
*DDA **10** 02:17:47.4, 39.°00N×43.°69E, h7km, Md2.5*
*CSEM **10** 02:17:47.7±0.2, 39.°02N×43.°69E, h2km, MD2.5, Error ellipse: s-maj=6.4km s-min=4.9km az=154.0*
**ISC 10 02:17:47.3±1.2, 38.°98N±0.°06×43.°69E±0.°04, h9km±9km, n13, $\sigma 0^{s}57$/18, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.09** | **276** | *i* P | **Pg** | **02 17 49.4** | **-0.5** |
| VMUR | | | | *i* S | **Sg** | **02 17 52.2** | **+0.5** |
| **VMUR** | **Van-Muradiye** | **0.09** | **276** | P | **Pg** | **02 17 49.4** | **-0.5** |
| VMUR | | | | S | **Sg** | **02 17 52.2** | **+0.5** |
| **CLDR** | **Caldiran** | **0.24** | **47** | *e*PG | **Pg** | **02 17 52.0** | **-0.3** |
| CLDR | | | | *e*SG | **Sg** | **02 17 56.4** | **+0.9** |
| **CLDR** | **Caldiran** | **0.24** | **47** | *i* P | **Pg** | **02 17 51.8** | **-0.5** |
| CLDR | | | | *i* S | **Sg** | **02 17 56.5** | **+0.9** |
| **CLDR** | **Caldiran** | **0.24** | **47** | *e*Pg | **Pg** | **02 17 52.0** | **-0.3** |
| CLDR | | | | S | **Sg** | **02 17 56.5** | **+0.9** |
| **ERCV** | **ERCIS-VAN** | **0.28** | **278** | *e*PG | **Pg** | **02 17 53.2** | **+0.2** |
| **ERCV** | **ERCIS-VAN** | **0.28** | **278** | *e*Pg | **Pg** | **02 17 53.2** | **+0.2** |
| **VANB** | **Van** | **0.45** | **212** | *e*PG | **Pb** | **02 17 57.3** | **-0.3** |
| **VANB** | **Van** | **0.45** | **212** | *e*Pg | **Pb** | **02 17 57.3** | **-0.3** |
| **TUTA** | **Tutak** | **0.80** | **302** | *i* P | **Pg** | **02 18 02.9** | **0.0** |
| **TUTA** | **Tutak** | **0.80** | **302** | P | **Pg** | **02 18 02.8** | **0.0** |
| **AGRB** | **Hanur-Agry** | **0.81** | **318** | *e*PG | **Pb** | **02 18 03.1** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **0.81** | **318** | *e*Pg | **Pb** | **02 18 03.1** | **-0.6** |

*GUC **10** 02:17:47.7±0.4, 38.°43S×74.°08W, h34km±3km, ML3.9*
*ISCJB **10** 02:17:48.6±1.0, 38.°42S±0.°04×74.°1W±0.°1, h33km, mb3.9/4, MS3.5/1, Error ellipse: s-maj=13.4km s-min=6.1km az=170.7*
*IDC **10** 02:17:50.9±6.6, 38.°62S×73.°93W, h35km±47km, mb3.8/4, mb1 3.9/6, mb1mx3.7/23, mbtmp3.9/6, ML3.9/2, MS3.4/4, Ms1 3.3/4, ms1mx3.1/23, Error ellipse: s-maj=60.2km s-min=28.6km az=62.0*
**ISC 10 02:17:50.8±1.2, 38.°43S±0.°05×74.°0W±0.°1, h35km, n17, $\sigma 1^{s}50$/15, mb3.9/4, 2C-1D, Off coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TMU** | **Temuco** | **1.15** | **106** | ⇓*i*P | **Pn** | **02 18 09.4** | **-0.9** |
| TMU | | | | *i* S | **Sn** | **02 18 25.4** | **+0.5** |
| TMU | | | | IAML | | 02 18 34.6 | |
| | comp=N,2μm,0.7s | | | | | | |
| **VLCH** | **Valdivia** | **1.50** | **157** | ⇑*i*P | **Pn** | **02 18 13.2** | **-1.9** |
| VLCH | | | | *i* S | **Sn** | **02 18 32.0** | **-1.5** |
| VLCH | | | | IAML | | 02 18 43.0 | |
| | comp=E,15μm,0.8s | | | | | | |
| **CCSP** | **San Pedro de C** | **1.74** | **25** | *e*P | **Pn** | **02 18 16.6** | **-1.8** |
| **CCHI** | **Chillan** | **2.39** | **41** | *e*P | **Pn** | **02 18 25.6** | **-1.8** |
| **COCH** | **Cobquecura** | **2.50** | **24** | ⇑*i*P | **Pn** | **02 18 27.0** | **-1.9** |
| COCH | | | | *e*S | **Sn** | **02 18 56.9** | **-1.2** |
| COCH | | | | IAML | | 02 19 22.9 | |
| | comp=N,378nm,1.3s | | | | | | |
| **PLCA** | **Paso Flores** | **3.53** | **132** | Pn | **Pn** | **02 18 42.3** | **-0.9** |
| | comp=N,2.8nm,0.3s,baz=327,slow=12,SNR=23 | | | | | | |
| PLCA | | | | LR | LR | 02 19 34.2 | |
| | comp=N,91nm,21.6s,baz=307,slow=31 | | | | | | |
| PLCA | | | | Lg | Lg | 02 19 36.9 | |
| | comp=N,11nm,0.3s,baz=80,slow=21,SNR=7.1 | | | | | | |
| **PLCA** | **Paso Flores** | **3.53** | **132** | *e*P | **Pn** | **02 18 42.1** | **-1.0** |
| **USHA** | **Ushuaia** | **16.84** | **169** | LR | LR | 02 28 18.3 | |
| | comp=N,728nm,18.9s,baz=346,slow=38 | | | | | | |
| **CPUP** | **Villa Florida** | **18.52** | **54** | P | **Pn** | **02 22 04.9** | **+0.4** |
| | comp=N,0.1nm,0.3s,baz=240,slow=9.5,SNR=4.0 | | | | | | |
| CPUP | | | | LR | LR | 02 28 37.2 | |
| | comp=N,75nm,18.6s,baz=258,slow=35 | | | | | | |
| **LPAZ** | **La Paz** | **22.66** | **15** | P | **P** | **02 22 51.6** | **+2.0** |
| | comp=N,2.8nm,0.8s,baz=173,slow=6.4,SNR=11 | | | | | | |
| **SIV** | **San Ignacio** | **25.09** | **31** | LR | LR | 02 35 32.9 | |
| | comp=N,128nm,18.6s,baz=62,slow=42 | | | | | | |
| **TXAR** | **Lajitas Array** | **72.89** | **333** | P | **P** | **02 29 17.6** | **+1.4** |
| | comp=N,0.4nm,0.6s,baz=158,slow=9.7,SNR=2.8 | | | | | | |
| **DBIC** | **Dimbokro** | **78.11** | **72** | P | **P** | **02 29 47.1** | **+0.7** |
| | comp=N,2.5nm,0.6s,baz=188,slow=5.7,SNR=4.9 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **87.20** | **71** | P | **P** | **02 30 33.2** | **-0.5** |
| | comp=N,1.1nm,0.9s,baz=229,slow=5.2,SNR=8.9 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **124.03** | **267** | T | T | 04 52 59.5 | |
| | baz=125 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **124.04** | **267** | T | T | 04 53 02.3 | |
| | baz=125 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **124.05** | **267** | T | T | 04 53 02.1 | |
| | baz=125 | | | | | | |

*CSEM **10** 02:31:55.6±0.1, 36.°89N×3.°76W, h5km, ML3.2/5, Error ellipse: s-maj=3.9km s-min=2.9km az=154.0*
*ISCJB **10** 02:31:55.2±0.4, 36.°96N±0.°02×3.°78W±0.°02, h11km±2km, Error ellipse: s-maj=3.8km s-min=2.6km az=166.4*
*LDG **10** 02:31:56.4±0.2, 36.°96N×3.°73W, h2km, Ml3.2/3, Error ellipse: s-maj=4.4km s-min=3.3km az=169.0*
*CNRM **10** 02:31:56.9, 36.°97N×3.°68W, h30km, MD3.7*
*INMG **10** 02:31:56.3±1.3, 36.°93N×3.°74W, h0km±3km, ML2.8, Error ellipse: s-maj=2.0km s-min=1.7km az=5.0*
*MDD **10** 02:31:56.5±0.4, 36.°99N×3.°74W, h4km±4km, mbLg3.0/27, Error ellipse: s-maj=3.4km s-min=2.8km az=44.0, PRXIMO*
*MDD EMS: III INTENSIDAD MAXIMA.*
*SFS **10** 02:31:56.0, 36.°99N×3.°75W, h0km, ML3.0*
**ISC 10 02:31:55.2±1.2, 36.°87N±0.°02×3.°81W±0.°02, h2km±10km, n126, $\sigma 1^{s}88$/178, 5C-2D, Strait of Gibraltar**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ELGU** | **Los Guajares,** | **0.15** | **90** | ⇓Pg | **Pg** | **02 31 60.0** | **+1.9** |
| | 2μm,0.1s,SNR=18 | | | | | | |
| ELGU | | | | Lg | Lg | 02 32 02.4 | |
| | 7μm,0.1s,SNR=7.9 | | | | | | |
| **ELGU** | **Los Guajares,** | **0.15** | **90** | Pg | **Pg** | **02 32 00.0** | **+1.9** |
| | 2μm,0.1s,SNR=18 | | | | | | |
| ELGU | | | | Lg | Lg | 02 32 02.4 | |
| | 7μm,0.1s,SNR=7.9 | | | | | | |
| **EGOR** | **Sierra Gorda,** | **0.34** | **316** | ⇓Pg | **Pg** | **02 32 02.5** | **+0.7** |
| | 284nm,0.2s,SNR=18 | | | | | | |
| EGOR | | | | Lg | Lg | 02 32 07.6 | |
| | 2μm,0.2s,SNR=7.9 | | | | | | |
| **EGOR** | **Sierra Gorda,** | **0.34** | **316** | Pg | **Pg** | **02 32 02.5** | **+0.7** |
| | 284nm,0.2s,SNR=18 | | | | | | |
| EGOR | | | | Lg | Lg | 02 32 07.6 | |
| | 2μm,0.2s,SNR=7.9 | | | | | | |
| **SELV** | **Sierra Elvira** | **0.38** | **10** | ⇑Pg | **Pg** | **02 32 01.1** | **-1.3** |
| | 112nm,0.2s,SNR=18 | | | | | | |
| SELV | | | | Lg | Lg | 02 32 04.9 | |
| | 777nm,0.2s,SNR=7.9 | | | | | | |
| **SELV** | **Sierra Elvira** | **0.38** | **10** | Pg | **Pg** | **02 32 01.1** | **-1.3** |
| | 112nm,0.2s,SNR=18 | | | | | | |
| SELV | | | | Lg | Lg | 02 32 04.9 | |
| | 777nm,0.2s,SNR=7.9 | | | | | | |
| **EQUE** | **Quentar** | **0.45** | **41** | ⇑Pg | **Pg** | **02 32 02.3** | **-1.6** |
| | 294nm,0.1s,SNR=18 | | | | | | |
| EQUE | | | | Lg | Lg | 02 32 07.4 | |
| | 812nm,0.1s,SNR=5.0 | | | | | | |
| **EQUE** | **Quentar** | **0.45** | **41** | Pg | **Pg** | **02 32 02.3** | **-1.6** |
| | 294nm,0.1s,SNR=18 | | | | | | |
| EQUE | | | | Lg | Lg | 02 32 07.4 | |
| | 812nm,0.1s,SNR=5.0 | | | | | | |
| **EMAL** | **Malaga-Limoner** | **0.51** | **258** | *e*P | **Pb** | **02 32 07.1** | **+0.3** |
| EMAL | | | | *e*S | **Sb** | **02 32 15.2** | **+0.6** |
| **EBER** | **Berja** | **0.74** | **87** | ⇑Pg | **Pg** | **02 32 09.7** | **+0.3** |
| | 70nm,0.2s,SNR=18 | | | | | | |
| EBER | | | | Lg | Lg | 02 32 17.8 | |
| | 336nm,0.3s,SNR=16 | | | | | | |
| **EBER** | **Berja** | **0.74** | **87** | Pg | **Pg** | **02 32 09.7** | **+0.3** |
| | 70nm,0.2s,SNR=18 | | | | | | |
| EBER | | | | Lg | Lg | 02 32 17.8 | |
| | 336nm,0.3s,SNR=16 | | | | | | |
| **EMIJ** | **Mijas** | **0.83** | **249** | Pg | **Pb** | **02 32 12.7** | **+0.4** |
| | 17nm,0.1s,SNR=250 | | | | | | |
| EMIJ | | | | Lg | Lg | 02 32 24.7 | |
| | 394nm,0.3s,SNR=5.0 | | | | | | |
| **EMIJ** | **Mijas** | **0.83** | **249** | Pg | **Pb** | **02 32 12.7** | **+0.4** |
| | 17nm,0.1s,SNR=250 | | | | | | |
| EMIJ | | | | Lg | Lg | 02 32 24.7 | |
| | 394nm,0.3s,SNR=5.0 | | | | | | |
| **GORA** | **Gorafe** | **0.87** | **45** | Pg | **Pg** | **02 32 10.2** | **-1.7** |
| | 45nm,0.2s,SNR=7.9 | | | | | | |
| GORA | | | | Lg | Lg | 02 32 21.6 | |
| | 219nm,0.2s,SNR=7.9 | | | | | | |
| **GORA** | **Gorafe** | **0.87** | **45** | Pg | **Pg** | **02 32 10.2** | **-1.7** |
| | 45nm,0.2s,SNR=7.9 | | | | | | |
| GORA | | | | Lg | Lg | 02 32 21.6 | |
| | 219nm,0.2s,SNR=7.9 | | | | | | |
| **EQES** | **Quesada** | **1.10** | **32** | ⇑Pg | **Pg** | **02 32 14.7** | **-1.7** |
| | 28nm,0.4s,SNR=18 | | | | | | |
| EQES | | | | Lg | Lg | 02 32 28.4 | |
| | 79nm,0.3s,SNR=5.0 | | | | | | |
| **EQES** | **Quesada** | **1.10** | **32** | Pg | **Pg** | **02 32 14.7** | **-1.7** |
| | 28nm,0.4s,SNR=18 | | | | | | |
| EQES | | | | Lg | Lg | 02 32 28.4 | |
| | 79nm,0.3s,SNR=5.0 | | | | | | |
| **EALB** | **Alboran** | **1.12** | **146** | Pg | **Pg** | **02 32 17.2** | **+0.6** |
| | 6.2nm,0.1s,SNR=11 | | | | | | |
| EALB | | | | Lg | Lg | 02 32 32.8 | |
| | 68nm,0.2s,SNR=5.0 | | | | | | |
| **EALB** | **Alboran** | **1.12** | **146** | Pg | **Pg** | **02 32 17.2** | **+0.6** |
| | 6.2nm,0.1s,SNR=11 | | | | | | |
| EALB | | | | Lg | Lg | 02 32 32.8 | |
| | 68nm,0.2s,SNR=5.0 | | | | | | |
| **ENIJ** | **Nijar** | **1.29** | **85** | ⇑Pg | **Pn** | **02 32 18.9** | **-1.4** |
| | 17nm,0.2s,SNR=18 | | | | | | |
| ENIJ | | | | Lg | Lg | 02 32 34.9 | |
| | 143nm,0.3s,SNR=7.9 | | | | | | |
| **ENIJ** | **Nijar** | **1.29** | **85** | Pg | **Pn** | **02 32 18.9** | **-1.4** |
| | 17nm,0.2s,SNR=18 | | | | | | |
| ENIJ | | | | Lg | Lg | 02 32 34.9 | |
| | 143nm,0.3s,SNR=7.9 | | | | | | |
| **EJIF** | **Jimena Fronter** | **1.40** | **253** | Pn | **Pn** | **02 32 22.1** | **+0.4** |
| | 1.9nm,0.1s,SNR=7.9 | | | | | | |
| **EJIF** | **Jimena Fronter** | **1.40** | **253** | Pn | **Pn** | **02 32 22.1** | **+0.4** |
| | 1.9nm,0.1s,SNR=7.9 | | | | | | |
| **EADA** | **Adamuz** | **1.43** | **335** | Pg | **Pn** | **02 32 21.7** | **-0.6** |
| | 7.9nm,0.1s,SNR=277 | | | | | | |
| EADA | | | | Lg | Lg | 02 32 40.1 | |
| | 143nm,0.3s,SNR=5.0 | | | | | | |
| **EADA** | **Adamuz** | **1.43** | **335** | Pg | **Pn** | **02 32 21.7** | **-0.6** |
| | 7.9nm,0.1s,SNR=277 | | | | | | |
| EADA | | | | Lg | Lg | 02 32 40.1 | |
| | 143nm,0.3s,SNR=5.0 | | | | | | |
| **SESP** | **Santiago Espad** | **1.61** | **38** | Pg | **Pn** | **02 32 23.7** | **-1.1** |
| | 22nm,0.3s,SNR=7.9 | | | | | | |
| SESP | | | | Lg | Lg | 02 32 44.7 | |
| | 292nm,0.3s,SNR=7.9 | | | | | | |
| **SESP** | **Santiago Espad** | **1.61** | **38** | Pg | **Pn** | **02 32 23.7** | **-1.1** |
| | 22nm,0.3s,SNR=7.9 | | | | | | |
| SESP | | | | Lg | Lg | 02 32 44.7 | |
| | 292nm,0.3s,SNR=7.9 | | | | | | |
| **MPAL** | **Palemas** | **1.64** | **184** | *i* P | **Pn** | **02 32 24.0** | **-1.1** |
| MPAL | | | | *i* S | **Sn** | **02 32 44.0** | **-2.8** |
| **PVLZ** | **Peæn de** | **1.74** | **193** | *e*P | **Pn** | **02 32 26.9** | **+0.5** |
| PVLZ | | | | *e*S | **Sb** | **02 32 49.9** | **-0.1** |
| **ECAB** | **El Cabril** | **1.76** | **314** | Pg | **Pb** | **02 32 28.3** | **+0.1** |
| | 14nm,0.4s,SNR=133 | | | | | | |
| ECAB | | | | Lg | Lg | 02 32 51.1 | |
| | 56nm,0.4s,SNR=15 | | | | | | |
| **ECAB** | **El Cabril** | **1.76** | **314** | Pg | **Pb** | **02 32 28.3** | **+0.1** |
| | 14nm,0.4s,SNR=133 | | | | | | |
| ECAB | | | | Lg | Lg | 02 32 51.1 | |
| | 56nm,0.4s,SNR=15 | | | | | | |
| **EMUR** | **La Murta** | **2.27** | **64** | Pn | **Pn** | **02 32 33.3** | **-0.5** |
| | 3.4nm,0.3s,SNR=13 | | | | | | |
| EMUR | | | | Pg | **Pb** | **02 32 36.5** | **-0.4** |
| | 12nm,0.3s,SNR=17 | | | | | | |
| **EMUR** | **La Murta** | **2.27** | **64** | Pn | **Pn** | **02 32 33.3** | **-0.5** |
| | 3.4nm,0.3s,SNR=13 | | | | | | |
| **CART** | **Cartagena** | **2.36** | **71** | Pn | **Pn** | **02 32 35.4** | **+0.5** |
| **CART** | **Cartagena** | **2.36** | **71** | *e*P | **Pn** | **02 32 35.4** | **+0.5** |
| **EMIN** | **Mina Concepcio** | **2.45** | **292** | Pn | **Pn** | **02 32 36.6** | **+0.4** |
| | 0.5nm,0.1s,SNR=18 | | | | | | |
| EMIN | | | | Pg | **Pb** | **02 32 41.9** | **+1.9** |
| | 2.2nm,0.2s,SNR=16 | | | | | | |
| EMIN | | | | Lg | Lg | 02 33 15.0 | |
| | 18nm,0.4s,SNR=5.9 | | | | | | |
| **EMIN** | **Mina Concepcio** | **2.45** | **292** | Pn | **Pn** | **02 32 36.6** | **+0.4** |
| | 0.5nm,0.1s,SNR=18 | | | | | | |
| **EMIN** | **Mina Concepcio** | **2.45** | **292** | Pg | **Pb** | **02 32 41.9** | **+1.9** |
| | 2.2nm,0.2s,SNR=16 | | | | | | |
| EMIN | | | | Lg | Lg | 02 33 15.0 | |
| | 18nm,0.4s,SNR=5.9 | | | | | | |
| **ETOB** | **Tobarra** | **2.52** | **45** | Pn | **Pn** | **02 32 36.9** | **-0.4** |
| | 2.3nm,0.3s,SNR=17 | | | | | | |
| ETOB | | | | Pg | **Pb** | **02 32 40.6** | **-0.7** |
| | 3.6nm,0.2s,SNR=11 | | | | | | |
| ETOB | | | | Lg | Lg | 02 33 14.8 | |
| | 25nm,0.3s,SNR=5.6 | | | | | | |
| **ETOB** | **Tobarra** | **2.52** | **45** | Pn | **Pn** | **02 32 36.9** | **-0.4** |
| | 2.3nm,0.3s,SNR=17 | | | | | | |
| ETOB | | | | Lg | Lg | 02 33 14.8 | |
| | 25nm,0.3s,SNR=5.6 | | | | | | |
| **RSA** | **Sarsar** | **2.57** | **220** | Pn | **Pn** | **02 32 38.0** | **0.0** |
| RSA | | | | Sn | **Sn** | **02 33 08.0** | **-1.9** |
| **RSA** | **Sarsar** | **2.57** | **220** | Pn | **Pn** | **02 32 38.0** | **0.0** |
| RSA | | | | *i* S | **Sn** | **02 33 08.0** | **-1.9** |
| **ESDC** | **Sonseca Array** | **2.81** | **358** | Pn | **Pn** | **02 32 41.3** | **+0.1** |
| | 1.1nm,0.2s,baz=175,slow=12,SNR=19 | | | | | | |
| ESDC | | | | Pg | **Pb** | **02 32 46.4** | **+0.3** |
| | 2.2nm,0.1s,baz=174,slow=15,SNR=7.8 | | | | | | |
| ESDC | | | | Sn | **Sn** | **02 33 16.6** | **+1.0** |
| | 5.6nm,0.2s,baz=179,slow=27,SNR=9.9 | | | | | | |
| ESDC | | | | Lg | Lg | 02 33 22.0 | |
| | 14nm,0.3s,baz=177,slow=28,SNR=11 | | | | | | |
| **ESDC** | **Sonseca Array** | **2.81** | **358** | Pn | **Pn** | **02 32 41.3** | **+0.1** |
| | 1.1nm,0.2s,SNR=19 | | | | | | |
| ESDC | | | | Sn | **Sn** | **02 33 16.6** | **+1.0** |
| | 5.6nm,0.2s,SNR=9.9 | | | | | | |
| ESDC | | | | Lg | Lg | 02 33 22.0 | |
| | 14nm,0.3s,SNR=11 | | | | | | |
| **PBAR** | **Barrancos** | **2.88** | **298** | *e*Pn | **Pn** | **02 32 42.3** | **+0.2** |
| PBAR | | | | *e*Sn | **Sn** | **02 33 17.4** | **+0.1** |
| PBAR | | | | *e*Sg | **Sg** | **02 33 29.2** | **+1.5** |
| PBAR | | | | A | A | 02 33 45.8 | |
| | 36nm,0.5s | | | | | | |
| **EGRO** | **El Granado** | **3.00** | **284** | Pn | **Pn** | **02 32 45.3** | **+1.5** |
| | 1.1nm,0.1s,SNR=14 | | | | | | |
| EGRO | | | | Sn | **Sn** | **02 33 21.4** | **+1.0** |
| | 2.6nm,0.2s,SNR=5.5 | | | | | | |
| EGRO | | | | Lg | Lg | 02 33 34.5 | |
| | 4.9nm,0.2s,SNR=7.9 | | | | | | |
| **EGRO** | **El Granado** | **3.00** | **284** | Pn | **Pn** | **02 32 45.3** | **+1.5** |
| | 1.1nm,0.1s,SNR=14 | | | | | | |
| EGRO | | | | Sn | **Sn** | **02 33 21.4** | **+1.0** |
| | 2.6nm,0.2s,SNR=5.5 | | | | | | |
| EGRO | | | | Lg | Lg | 02 33 34.5 | |
| | 4.9nm,0.2s,SNR=7.9 | | | | | | |
| **AFON** | **Font Roja** | **3.15** | **54** | Pn | **Pn** | **02 32 46.2** | **+0.2** |
| | 6.9nm,0.3s,SNR=7.9 | | | | | | |
| AFON | | | | Lg | Lg | 02 33 35.5 | |
| | SNR=7.9 | | | | | | |
| **AFON** | **Font Roja** | **3.15** | **54** | Pn | **Pn** | **02 32 46.2** | **+0.2** |
| | 6.9nm,0.3s,SNR=7.9 | | | | | | |
| AFON | | | | Lg | Lg | 02 33 35.5 | |
| | SNR=7.9 | | | | | | |
| **EBAD** | **Badajoz** | **3.16** | **308** | Pn | **Pn** | **02 32 46.5** | **+0.5** |
| | 0.5nm,0.1s,SNR=8.2 | | | | | | |
| EBAD | | | | Lg | Lg | 02 33 37.7 | |
| | 16nm,0.2s,SNR=5.0 | | | | | | |
| **EBAD** | **Badajoz** | **3.16** | **308** | Pn | **Pn** | **02 32 46.5** | **+0.5** |
| | 0.5nm,0.1s,SNR=8.2 | | | | | | |
| EBAD | | | | Lg | Lg | 02 33 37.7 | |
| | 16nm,0.2s,SNR=5.0 | | | | | | |
| **PVAQ** | **Vaqueiros** | **3.17** | **281** | *e*Pn | **Pn** | **02 32 46.6** | **+0.5** |
| PVAQ | | | | *e*Sn | **Sn** | **02 33 24.3** | **-0.1** |
| PVAQ | | | | A | A | 02 33 54.4 | |
| | 13nm,0.5s | | | | | | |
| **PBDV** | **Barranco-do-Ve** | **3.32** | **278** | *e*Pn | **Pn** | **02 32 49.6** | **+1.4** |
| PBDV | | | | *e*Sn | **Sn** | **02 33 28.0** | **-0.2** |
| PBDV | | | | A | A | 02 34 04.5 | |
| | 13nm,0.5s | | | | | | |
| **PBEJ** | **Beja** | **3.43** | **291** | *e*Pn | **Pn** | **02 32 50.8** | **+1.1** |
| PBEJ | | | | *e*Sn | **Sn** | **02 33 30.6** | **-0.3** |
| PBEJ | | | | A | A | 02 33 50.9 | |
| | 9.9nm,0.4s | | | | | | |
| **PCVE** | **Castro Verde** | **3.46** | **284** | *e*Pn | **Pn** | **02 32 51.0** | **+0.9** |
| PCVE | | | | *e*Sn | **Sn** | **02 33 31.6** | **0.0** |
| PCVE | | | | A | A | 02 34 01.8 | |
| | 11nm,0.4s | | | | | | |
| **UCM** | **Universidad Co** | **3.46** | **7** | *e*P | **Pn** | **02 32 49.5** | **-0.7** |
| UCM | | | | *e*S | **Sn** | **02 33 35.7** | **+3.9** |
| **PESTR** | **Estremoz** | **3.59** | **305** | *e*Pn | **Pn** | **02 32 53.0** | **+1.0** |
| PESTR | | | | *e*Sn | **Sn** | **02 33 34.2** | **-0.8** |
| PESTR | | | | A | A | 02 34 00.9 | |
| | 22nm,0.6s | | | | | | |
| **EPLA** | **Plasencia** | **3.66** | **332** | Pn | **Pn** | **02 32 53.1** | **+0.3** |
| | 1.2nm,0.1s,SNR=7.9 | | | | | | |
| EPLA | | | | Lg | Lg | 02 33 49.1 | |
| | 3.8nm,0.2s,SNR=7.9 | | | | | | |
| **EPLA** | **Plasencia** | **3.66** | **332** | Pn | **Pn** | **02 32 53.1** | **+0.3** |
| | 1.2nm,0.1s,SNR=7.9 | | | | | | |
| EPLA | | | | Lg | Lg | 02 33 49.1 | |
| | 3.8nm,0.2s,SNR=7.9 | | | | | | |
| **RTC** | **Rabat Centre** | **3.80** | **222** | Pn | **Pn** | **02 32 54.0** | **-0.7** |
| RTC | | | | Sn | **Sn** | **02 33 36.0** | **-4.0** |
| **RTC** | **Rabat Centre** | **3.80** | **222** | Pn | **Pn** | **02 32 54.0** | **-0.7** |
| **PMRV** | **Marv??o** | **3.81** | **313** | *e*Pn | **Pn** | **02 32 55.2** | **+0.3** |
| PMRV | | | | *e*Sn | **Sn** | **02 33 39.5** | **-0.8** |
| PMRV | | | | *e*Sg | **Sg** | **02 33 55.8** | **-1.7** |
| PMRV | | | | A | A | 02 34 09.8 | |
| | 18nm,0.4s | | | | | | |
| **MORF** | **Marmelete** | **3.89** | **278** | *e*Pn | **Pn** | **02 32 57.1** | **+1.0** |
| MORF | | | | *e*Sn | **Sn** | **02 33 41.9** | **-0.5** |
| MORF | | | | A | A | 02 34 11.4 | |
| | 6.4nm,0.4s | | | | | | |
| **PNCL** | **Nicolau / Gran** | **3.95** | **290** | *e*Pn | **Pn** | **02 32 57.6** | **+0.8** |
| PNCL | | | | *e*Sn | **Sn** | **02 33 43.5** | **-0.3** |
| PNCL | | | | A | A | 02 34 10.5 | |
| | 11nm,0.5s | | | | | | |
| **PTEO** | **Sao Teotonio** | **3.98** | **281** | *e*Pn | **Pn** | **02 32 58.1** | **+0.9** |
| PTEO | | | | *e*Sn | **Sn** | **02 33 44.1** | **-0.4** |
| PTEO | | | | A | A | 02 34 08.7 | |
| | 12nm,0.6s | | | | | | |
| **PFVI** | **Vila Bisbo** | **4.02** | **275** | Pn | **Pn** | **02 32 59.5** | **+1.7** |
| | 3.7nm,0.2s,SNR=7.9 | | | | | | |
| PFVI | | | | Sn | **Sn** | **02 33 44.8** | **-0.7** |
| | 3.5nm,0.2s,SNR=6.5 | | | | | | |
| **PFVI** | **Vila Bisbo** | **4.02** | **275** | Pn | **Pn** | **02 32 59.5** | **+1.7** |
| | 3.7nm,0.2s,SNR=7.9 | | | | | | |
| PFVI | | | | Sn | **Sn** | **02 33 44.8** | **-0.7** |
| | 3.5nm,0.2s,SNR=6.5 | | | | | | |
| **PFVI** | **Vila Bisbo** | **4.02** | **275** | *e*Pn | **Pn** | **02 32 59.3** | **+1.5** |
| PFVI | | | | *e*Sn | **Sn** | **02 33 45.4** | **-0.1** |
| PFVI | | | | A | A | 02 34 20.2 | |
| | 11nm,0.6s | | | | | | |
| **PMTG** | **Montargil** | **4.12** | **304** | *e*Pn | **Pn** | **02 32 59.7** | **+0.5** |
| PMTG | | | | *e*Sn | **Sn** | **02 33 46.4** | **-1.6** |
| PMTG | | | | A | A | 02 34 23.9 | |
| | 15nm,0.4s | | | | | | |
| **PCBR** | **Castelo Branco** | **4.14** | **317** | *e*Pn | **Pn** | **02 33 00.2** | **+0.8** |
| PCBR | | | | *e*Sn | **Sn** | **02 33 46.7** | **-1.6** |
| PCBR | | | | A | A | 02 34 25.5 | |
| | 11nm,0.4s | | | | | | |
| **EMOS** | **Mosqueruela** | **4.36** | **36** | Pn | **Pn** | **02 33 02.6** | **-0.1** |
| | 2.9nm,0.4s,SNR=7.9 | | | | | | |
| EMOS | | | | Pg | **Pb** | **02 33 16.5** | **+3.8** |
| | 0.5nm,0.1s,SNR=8.9 | | | | | | |
| EMOS | | | | Sn | **Sn** | **02 33 50.1** | **-4.1** |
| | 2.4nm,0.3s,SNR=7.9 | | | | | | |
| EMOS | | | | Lg | Lg | 02 34 12.0 | |
| | 16nm,0.6s,SNR=7.9 | | | | | | |
| **EMOS** | **Mosqueruela** | **4.36** | **36** | Pn | **Pn** | **02 33 02.6** | **-0.1** |
| | 2.9nm,0.4s,SNR=7.9 | | | | | | |
| **EMOS** | **Mosqueruela** | **4.36** | **36** | Pg | **Pb** | **02 33 16.5** | **+3.8** |
| | 0.5nm,0.1s,SNR=8.9 | | | | | | |
| EMOS | | | | Lg | Lg | 02 34 12.0 | |
| | 16nm,0.6s,SNR=7.9 | | | | | | |
| **PTOM** | **Tomar** | **4.54** | **309** | *e*Pn | **Pn** | **02 33 06.0** | **+1.0** |
| PTOM | | | | A | A | 02 34 45.5 | |
| | 16nm,0.5s | | | | | | |
| **MTE** | **Manteigas** | **4.58** | **322** | *e*Pn | **Pn** | **02 33 06.0** | **+0.4** |
| MTE | | | | *e*Sn | **Sn** | **02 33 57.8** | **-1.6** |
| MTE | | | | A | A | 02 34 30.5 | |
| | 22nm,0.6s | | | | | | |
| **EIBI** | **Ibiza** | **4.61** | **61** | Pn | **Pn** | **02 33 06.1** | **+0.2** |
| | 12nm,0.5s,SNR=7.9 | | | | | | |
| EIBI | | | | Sn | **Sn** | **02 33 58.1** | **-2.0** |
| | 3.1nm,0.3s,SNR=7.9 | | | | | | |
| **EIBI** | **Ibiza** | **4.61** | **61** | Pn | **Pn** | **02 33 06.1** | **+0.2** |
| | 12nm,0.5s,SNR=7.9 | | | | | | |
| EIBI | | | | Sn | **Sn** | **02 33 58.1** | **-2.0** |
| | 3.1nm,0.3s,SNR=7.9 | | | | | | |
| **PMAFR** | **Mafra** | **4.80** | **297** | Pn | **Pn** | **02 33 09.9** | **+1.4** |
| | 5.5nm,0.2s,SNR=7.9 | | | | | | |
| PMAFR | | | | Sn | **Sn** | **02 34 03.1** | **-1.7** |
| | 57nm,0.7s,SNR=5.0 | | | | | | |
| **PMAFR** | **Mafra** | **4.80** | **297** | Pn | **Pn** | **02 33 09.9** | **+1.4** |
| | 5.5nm,0.2s,SNR=7.9 | | | | | | |
| PMAFR | | | | Sn | **Sn** | **02 34 03.1** | **-1.7** |
| | 57nm,0.7s,SNR=5.0 | | | | | | |
| **PMAFR** | **Mafra** | **4.80** | **297** | *e*Pn | **Pn** | **02 33 10.0** | **+1.4** |
| PMAFR | | | | *e*Sn | **Sn** | **02 34 03.9** | **-0.9** |
| PMAFR | | | | A | A | 02 34 56.5 | |
| | 15nm,0.6s | | | | | | |
| **PCAS** | **Casmilo, Conde** | **4.86** | **312** | *e*Pn | **Pn** | **02 33 10.4** | **+1.0** |
| PCAS | | | | *e*Sn | **Sn** | **02 34 04.2** | **-2.1** |
| PCAS | | | | A | A | 02 34 47.2 | |
| | 15nm,0.7s | | | | | | |
| **MVO** | **Moncorvo** | **4.97** | **331** | Pn | **Pn** | **02 33 11.2** | **+0.3** |
| | 2.4nm,0.2s,SNR=16 | | | | | | |
| MVO | | | | Sn | **Sn** | **02 34 05.0** | **-4.0** |
| | 0.4nm,0.4s,SNR=5.6 | | | | | | |
| MVO | | | | Lg | Lg | 02 34 32.1 | |
| | 20nm,0.5s,SNR=5.0 | | | | | | |
| **MVO** | **Moncorvo** | **4.97** | **331** | Pn | **Pn** | **02 33 11.2** | **+0.3** |
| | 2.4nm,0.2s,SNR=16 | | | | | | |
| MVO | | | | Lg | Lg | 02 34 32.1 | |
| | 20nm,0.5s,SNR=5.0 | | | | | | |
| **MVO** | **Moncorvo** | **4.97** | **331** | *e*Pn | **Pn** | **02 33 11.1** | **+0.2** |
| MVO | | | | *e*Sn | **Sn** | **02 34 06.8** | **-2.2** |
| MVO | | | | *e*Sg | **Sg** | **02 34 32.3** | **-2.5** |
| MVO | | | | A | A | 02 34 44.6 | |
| | 18nm,0.5s | | | | | | |
| **PVIS** | **Viseu** | **4.99** | **322** | *e*Pn | **Pn** | **02 33 11.5** | **+0.3** |
| PVIS | | | | *e*Sn | **Sn** | **02 34 07.9** | **-1.7** |
| PVIS | | | | A | A | 02 34 54.5 | |
| | 8.2nm,0.5s | | | | | | |
| **TZC** | **Tazercounte** | **5.20** | **206** | *e*P | **Pn** | **02 33 14.0** | **-0.2** |
| TZC | | | | *e*S | **Sn** | **02 34 12.0** | **-2.9** |
| **ERTA** | **Horta de San J** | **5.21** | **37** | Pn | **Pn** | **02 33 14.1** | **-0.1** |
| | 1.0nm,0.2s,SNR=7.9 | | | | | | |
| ERTA | | | | Lg | Lg | 02 34 36.1 | |
| | 13nm,0.6s,SNR=7.9 | | | | | | |
| **ERTA** | **Horta de San J** | **5.21** | **37** | Pn | **Pn** | **02 33 14.1** | **-0.1** |
| | 1.0nm,0.2s,SNR=7.9 | | | | | | |
| ERTA | | | | Lg | Lg | 02 34 36.1 | |
| | 13nm,0.6s,SNR=7.9 | | | | | | |
| **PBRG** | **Braganca** | **5.43** | **336** | *e*Pn | **Pn** | **02 33 17.9** | **+0.7** |
| PBRG | | | | *e*Sg | **Sg** | **02 34 45.8** | **-3.7** |
| PBRG | | | | A | A | 02 34 49.0 | |
| | 8.7nm,0.6s | | | | | | |
| **POLO** | **Lamas de Olo** | **5.46** | **327** | *e*Pn | **Pn** | **02 33 18.2** | **+0.5** |
| POLO | | | | *e*Sn | **Sn** | **02 34 19.0** | **-2.2** |
| POLO | | | | A | A | 02 35 06.0 | |
| | 5.1nm,0.5s | | | | | | |
| **ESAC** | **San Caprasio** | **5.50** | **27** | Lg | Lg | 02 34 48.9 | |
| | 20nm,0.5s,SNR=7.9 | | | | | | |
| **ESAC** | **San Caprasio** | **5.50** | **27** | Lg | Lg | 02 34 48.9 | |
| | 20nm,0.5s,SNR=7.9 | | | | | | |
| **ECAL** | **Calabor** | **5.55** | **337** | Pn | **Pn** | **02 33 20.2** | **+1.3** |
| | 0.9nm,0.2s,SNR=7.9 | | | | | | |
| ECAL | | | | Lg | Lg | 02 34 50.3 | |
| | 22nm,0.5s,SNR=7.9 | | | | | | |
| **ECAL** | **Calabor** | **5.55** | **337** | Pn | **Pn** | **02 33 20.2** | **+1.3** |
| | 0.9nm,0.2s,SNR=7.9 | | | | | | |
| ECAL | | | | Lg | Lg | 02 34 50.3 | |
| | 22nm,0.5s,SNR=7.9 | | | | | | |
| **EPOB** | **Poblet** | **5.88** | **39** | Pn | **Pn** | **02 33 23.3** | **-0.1** |
| | 9.7nm,0.5s,SNR=7.9 | | | | | | |
| **EPOB** | **Poblet** | **5.88** | **39** | Pn | **Pn** | **02 33 23.3** | **-0.1** |
| | 9.7nm,0.5s,SNR=7.9 | | | | | | |
| **ETOS** | **Mallorca** | **5.96** | **59** | Pn | **Pn** | **02 33 25.0** | **+0.5** |
| | 2.3nm,0.4s,SNR=4.0 | | | | | | |
| **ETOS** | **Mallorca** | **5.96** | **59** | Pn | **Pn** | **02 33 25.0** | **+0.5** |
| | 2.3nm,0.4s,SNR=4.0 | | | | | | |
| **ELOB** | **Lobios** | **5.98** | **328** | Pn | **Pn** | **02 33 25.2** | **+0.4** |
| | 0.4nm,0.1s,SNR=7.9 | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ELOB | | | | Sn | Sn | 02 34 28.2 | -5.7 |
| | 1.7nm,0.2s,SNR=7.9 | | | | | | |
| ELOB | | | | Lg | Lg | 02 35 06.0 | |
| | 8.8nm,0.5s,SNR=7.9 | | | | | | |
| ELOB | Lobios | 5.98 | 328 | Pn | Pn | 02 33 25.2 | +0.4 |
| | 0.4nm,0.1s,SNR=7.9 | | | | | | |
| ELOB | | | | Lg | Lg | 02 35 06.0 | |
| | 8.8nm,0.5s,SNR=7.9 | | | | | | |
| PGAV | Gavieira, Arco | 6.15 | 327 | ePn | Pn | 02 33 28.3 | +1.1 |
| PGAV | | | | eSg | Sg | 02 35 07.5 | -5.2 |
| PGAV | | | | A | A | 02 35 29.3 | |
| | 9.2nm,0.5s | | | | | | |
| IELO | Elcoad | 6.29 | 18 | Pn | Pn | 02 33 29.5 | +0.4 |
| | 1.3nm,0.2s,SNR=7.9 | | | | | | |
| IELO | | | | Sn | Sn | 02 34 36.4 | -5.1 |
| | 2.9nm,0.5s,SNR=7.9 | | | | | | |
| IELO | | | | Lg | Lg | 02 35 14.1 | |
| | 6.5nm,0.5s,SNR=7.9 | | | | | | |
| IELO | Elcoad | 6.29 | 18 | Pn | Pn | 02 33 29.5 | +0.4 |
| | 1.3nm,0.2s,SNR=7.9 | | | | | | |
| IELO | | | | Lg | Lg | 02 35 14.1 | |
| | 6.5nm,0.5s,SNR=7.9 | | | | | | |
| EORO | Oroz-Betelu | 6.32 | 17 | Pn | Pn | 02 33 31.2 | +1.7 |
| | 5.0nm,0.5s,SNR=8.3 | | | | | | |
| EORO | | | | Lg | Lg | 02 35 14.2 | |
| | 26nm,0.9s,SNR=7.9 | | | | | | |
| EORO | Oroz-Betelu | 6.32 | 17 | Pn | Pn | 02 33 31.2 | +1.7 |
| | 5.0nm,0.5s,SNR=8.3 | | | | | | |
| EORO | | | | Lg | Lg | 02 35 14.2 | |
| | 26nm,0.9s,SNR=7.9 | | | | | | |
| ELAN | Lanestosa | 6.36 | 2 | Pn | Pn | 02 33 30.1 | +0.1 |
| | 1.0nm,0.2s,SNR=5.5 | | | | | | |
| ELAN | | | | Lg | Lg | 02 35 16.2 | |
| | 17nm,0.7s,SNR=7.9 | | | | | | |
| ELAN | Lanestosa | 6.36 | 2 | Pn | Pn | 02 33 30.1 | +0.1 |
| | 1.0nm,0.2s,SNR=5.5 | | | | | | |
| ELAN | | | | Lg | Lg | 02 35 16.2 | |
| | 17nm,0.7s,SNR=7.9 | | | | | | |
| ETSF | Etsaut | 6.52 | 22 | ePn | Pn | 02 33 31.9 | -0.3 |
| ETSF | | | | eSn | Sn | 02 34 38.7 | -8.6 |
| ETSF | | | | eSg | Sb | 02 35 15.8 | +8.0 |
| | 2.2nm,0.4s | | | | | | |
| ETSF | Etsaut | 6.52 | 22 | ePn | Pn | 02 33 31.9 | -0.3 |
| SJPF | Ste Jean | 6.55 | 17 | ePn | Pn | 02 33 32.5 | 0.0 |
| SJPF | | | | eSg | Sb | 02 35 17.2 | +8.7 |
| | 10nm,0.6s | | | | | | |
| SJPF | Ste Jean | 6.55 | 17 | ePn | Pn | 02 33 32.5 | 0.0 |
| EALK | Alkurruntz | 6.59 | 15 | Pn | Pn | 02 33 33.3 | +0.2 |
| | 4.5nm,0.5s,SNR=5.4 | | | | | | |
| EALK | Alkurruntz | 6.59 | 15 | Pn | Pn | 02 33 33.3 | +0.2 |
| | 4.5nm,0.5s,SNR=5.4 | | | | | | |
| ATE | Arette | 6.65 | 20 | Pn | Pn | 02 33 34.7 | +0.7 |
| | 1.6nm,0.3s,SNR=7.9 | | | | | | |
| ATE | Arette | 6.65 | 20 | Pn | Pn | 02 33 34.7 | +0.7 |
| | 1.6nm,0.3s,SNR=7.9 | | | | | | |
| CSOR | Sort | 6.70 | 33 | Pn | Pn | 02 33 34.6 | -0.1 |
| | 1.3nm,0.3s,SNR=6.1 | | | | | | |
| CSOR | Sort | 6.70 | 33 | Pn | Pn | 02 33 34.6 | -0.1 |
| | 1.3nm,0.3s,SNR=6.1 | | | | | | |
| CFON | Fontmartina | 6.88 | 43 | Pn | Pn | 02 33 36.3 | -0.9 |
| | 1.1nm,0.2s,SNR=7.9 | | | | | | |
| CFON | Fontmartina | 6.88 | 43 | Pn | Pn | 02 33 36.3 | -0.9 |
| | 1.1nm,0.2s,SNR=7.9 | | | | | | |
| EPF | Esparros | 6.93 | 26 | ePn | Pn | 02 33 37.2 | -0.7 |
| EPF | | | | eSn | Sn | 02 34 47.8 | -10 |
| EPF | | | | eSg | Sb | 02 35 28.8 | +9.2 |
| | 6.1nm,0.6s | | | | | | |
| EPF | Esparros | 6.93 | 26 | ePn | Pn | 02 33 37.2 | -0.7 |
| LFF | La Frestale | 8.77 | 22 | eP | Pn | 02 34 04.9 | +1.9 |
| LFF | La Frestale | 8.77 | 22 | eP | Pn | 02 34 04.9 | +1.9 |
| QUIF | Quistinic | 11.05 | 2 | ePn | Pn | 02 34 31.5 | -2.7 |
| SGMF | Saint Gilles | 11.42 | 4 | ePn | Pn | 02 34 36.4 | -2.8 |
| ROSF | Rostrenen | 11.47 | 2 | ePn | Pn | 02 34 36.4 | -3.6 |

*SOME **10** 02:35:51.8, 42.63N×72.82E, h15km*
*KRNET **10** 02:35:51.6±0.1, 42.48N×72.94E, h9km, mb2.9*
*NNC **10** 02:35:52.1±0.7, 42.49N×72.91E, h0km, mb3.3, mpv3.1, Error ellipse: s-maj=16.8km s-min=3.5km az=178.0*
*KNET **10** 02:35:54.6±0.5, 42.44N×73.10E, h16km±1km, ml2.4, Error ellipse: s-maj=3.5km s-min=2.6km az=129.0*
**ISC 10 02:35:51.6**±1.1, **42.50N**±0.02×**72.96E**±0.02, **h4**km±10km, **n39**, σ1s03/71, **31C-17D, Kyrgyzstan**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MRKS | Merke | 0.31 | 39 | eP | Pb | 02 35 59.4 | -0.6 |
| | 194nm,0.1s | | | | | | |
| MRKS | | | | eS | Sb | 02 36 04.4 | -1.1 |
| | 483nm,0.1s | | | | | | |
| MNAS | Manas | 0.34 | 267 | ⇓iP | Pg | 02 35 58.2 | 0.0 |
| | baz=272 | | | | | | |
| MNAS | | | | ⇓iS | Sg | 02 36 02.2 | -0.3 |
| | baz=272 | | | | | | |
| MNAS | Manas | 0.34 | 267 | ⇓P | Pg | 02 35 58.1 | 0.0 |
| | 26nm,0.2s | | | | | | |
| MNAS | | | | ⇑S | Sg | 02 36 02.3 | -0.3 |
| | 146nm,0.5s | | | | | | |
| TOKL | Toktogul | 0.57 | 187 | ⇑eP | Pg | 02 36 02.2 | -0.3 |
| | baz=186 | | | | | | |
| TOKL | | | | ⇑iS | Sg | 02 36 09.6 | -0.2 |
| | baz=186 | | | | | | |
| EKS2 | Erkin-Say | 0.63 | 75 | P | Pb | 02 36 04.9 | -0.3 |
| | 10nm,0.1s,SNR=70 | | | | | | |
| EKS2 | | | | ⇓S | Sb | 02 36 14.0 | -0.5 |
| | 28nm,0.1s | | | | | | |
| AML | Almayashu | 0.66 | 124 | ⇓iP | Pg | 02 36 04.9 | +0.6 |
| | baz=122 | | | | | | |
| AML | | | | ⇓iS | Sb | 02 36 14.0 | -1.7 |
| | baz=122 | | | | | | |
| AML | Almayashu | 0.66 | 124 | P | Pg | 02 36 04.9 | +0.6 |
| | 17nm,0.1s,SNR=129 | | | | | | |
| AML | | | | ⇓S | Sb | 02 36 14.0 | -1.7 |
| | 85nm,0.2s | | | | | | |
| ARK | Arkit | 1.02 | 227 | ⇑eP | Pg | 02 36 11.5 | +0.3 |
| | baz=226 | | | | | | |
| ARK | | | | ⇑iS | Sb | 02 36 25.9 | +0.1 |
| | baz=226 | | | | | | |
| AAK | Ala-Archa | 1.14 | 83 | ⇑iP | Pn | 02 36 14.1 | -0.5 |
| | baz=82 | | | | | | |
| AAK | | | | ⇑iS | Sn | 02 36 30.1 | -0.8 |
| | baz=82 | | | | | | |
| AAK | Ala-Archa | 1.14 | 83 | ⇓P | Pn | 02 36 14.4 | -0.2 |
| | 5.6nm,0.3s | | | | | | |
| AAK | | | | ⇑S | Sb | 02 36 29.2 | -0.2 |
| | 16nm,0.5s | | | | | | |
| AAK | Ala-Archa | 1.14 | 83 | P | Pn | 02 36 14.4 | -0.2 |
| | 8.3nm,0.2s,SNR=24 | | | | | | |
| AAK | | | | ⇓S | Sn | 02 36 30.0 | -0.8 |
| | 16nm,0.3s | | | | | | |
| ARSB | Arslanbob | 1.18 | 179 | ⇓eP | Pb | 02 36 14.0 | -0.7 |
| | baz=179 | | | | | | |
| ARSB | | | | ⇓eS | Sb | 02 36 29.8 | -0.6 |
| | baz=179 | | | | | | |
| UCH | Uchtor | 1.19 | 103 | ⇑iP | Pb | 02 36 14.7 | -0.3 |
| | baz=102 | | | | | | |
| UCH | | | | ⇑iS | Sn | 02 36 31.3 | -1.0 |
| | baz=102 | | | | | | |
| UCH | Uchtor | 1.19 | 103 | P | Pb | 02 36 14.8 | -0.3 |
| | 7.6nm,0.1s,SNR=15 | | | | | | |
| UCH | | | | ⇑S | Sn | 02 36 31.0 | -1.3 |
| | 39nm,0.3s | | | | | | |
| FRU1 | Bishkek | 1.27 | 75 | ⇑eP | Pg | 02 36 17.0 | +1.0 |
| | baz=75 | | | | | | |
| FRU1 | | | | ⇑iS | Sn | 02 36 35.1 | +1.2 |
| | baz=75 | | | | | | |
| USP | Ospenovka | 1.37 | 56 | ⇑iP | Pg | 02 36 18.2 | +0.4 |
| | baz=55 | | | | | | |
| USP | | | | ⇑iS | Sg | 02 36 36.7 | +1.1 |
| | baz=55 | | | | | | |
| USP | Ospenovka | 1.37 | 56 | P | Pg | 02 36 18.2 | +0.4 |
| | 7.6nm,0.2s,SNR=28 | | | | | | |
| CHMS | Chumysh | 1.41 | 69 | ⇑iP | Pg | 02 36 18.9 | +0.2 |
| | baz=68 | | | | | | |
| CHMS | | | | ⇑iS | Sg | 02 36 38.1 | +1.1 |
| | baz=68 | | | | | | |
| CHMS | Chumysh | 1.41 | 69 | P | Pg | 02 36 19.1 | +0.4 |
| | 4.8nm,0.1s,SNR=18 | | | | | | |
| KBK | Karagaybulak | 1.48 | 83 | ⇑iP | Pg | 02 36 20.7 | +0.7 |
| | baz=83 | | | | | | |
| KBK | | | | ⇑iS | Sg | 02 36 40.9 | +1.8 |
| | baz=83 | | | | | | |
| KBK | Karagaybulak | 1.48 | 83 | ⇑P | Pg | 02 36 20.9 | +0.9 |
| | 18nm,0.1s,SNR=12 | | | | | | |
| KZA | Kyzart | 1.75 | 103 | ⇑iP | Pg | 02 36 25.2 | -0.1 |
| | baz=102 | | | | | | |
| KZA | | | | ⇑iS | Sg | 02 36 48.9 | +0.9 |
| | baz=102 | | | | | | |
| KZA | Kyzart | 1.75 | 103 | P | Pg | 02 36 25.1 | -0.1 |
| | 6.1nm,0.2s,SNR=20 | | | | | | |
| KK31 | Karatay Array | 1.90 | 289 | ⇑Pn | Pb | 02 36 26.5 | -0.4 |
| | 5.9nm,0.3s,baz=111,slow=13,SNR=344 | | | | | | |
| KK31 | | | | ⇓Sn | Sb | 02 36 52.3 | +1.4 |
| | 10nm,0.3s,baz=109,slow=29,SNR=12 | | | | | | |
| TKM2 | Tokmak 2 | 1.99 | 77 | ⇑iP | Pb | 02 36 28.8 | +0.2 |
| | baz=76 | | | | | | |
| TKM2 | | | | ⇑iS | Sg | 02 36 55.6 | +0.1 |
| | baz=76 | | | | | | |
| TKM2 | Tokmak 2 | 1.99 | 77 | ⇑Pn | Pb | 02 36 28.9 | +0.4 |
| | 11nm,0.7s | | | | | | |
| TKM2 | | | | ⇑Sn | Sg | 02 36 55.7 | +0.1 |
| | 30nm,0.4s | | | | | | |
| TKM2 | Tokmak 2 | 1.99 | 77 | ⇑P | Pg | 02 36 29.4 | -0.4 |
| | 5.8nm,0.1s,SNR=14 | | | | | | |
| DGS | Degeres | 2.20 | 69 | eP | Pb | 02 36 32.3 | +0.2 |
| | 18nm,0.2s | | | | | | |
| DGS | | | | eS | Sg | 02 37 01.5 | -0.7 |
| | 44nm,0.3s | | | | | | |
| KST | Kastek | 2.28 | 75 | eP | Pb | 02 36 34.1 | +0.7 |
| | 4.0nm,0.3s | | | | | | |
| KST | | | | eS | Sg | 02 37 05.3 | +0.5 |
| | 26nm,0.3s | | | | | | |
| ULHL | Ulahol | 2.45 | 95 | ⇓iP | Pb | 02 36 37.3 | +0.9 |
| | baz=95 | | | | | | |
| ULHL | | | | ⇓iS | Sb | 02 37 07.9 | +0.9 |
| | baz=95 | | | | | | |
| SFK | Sufi-Kurgan | 2.52 | 170 | ⇑iP | Pb | 02 36 37.4 | -0.2 |
| | baz=170 | | | | | | |
| SFK | | | | ⇑iS | Sb | 02 37 09.1 | 0.0 |
| | baz=170 | | | | | | |
| SFK | Sufi-Kurgan | 2.52 | 170 | ⇑Pg | Pb | 02 36 37.5 | -0.2 |
| | 0.9nm,0.2s | | | | | | |
| SFK | | | | ⇓Lg | Lg | 02 37 11.3 | |
| | 9.7nm,0.3s | | | | | | |
| BTLS | Baital | 2.66 | 17 | eP | Pb | 02 36 38.2 | -1.6 |
| | 1.3nm,0.2s | | | | | | |
| BTLS | | | | eS | Sb | 02 37 12.7 | -0.1 |
| | 8.8nm,0.2s | | | | | | |
| IZV | Izvestkoviy | 2.74 | 78 | eP | Pb | 02 36 42.3 | +0.9 |
| | 9.3nm,0.1s | | | | | | |
| IZV | | | | eS | Sg | 02 37 18.9 | -0.9 |
| | 39nm,0.3s | | | | | | |
| MDOK | Medeo | 3.08 | 76 | eP | Pb | 02 36 48.3 | +1.2 |
| | 4.9nm,0.6s | | | | | | |
| MDOK | | | | eS | Sg | 02 37 29.6 | -1.0 |
| | 12nm,0.3s | | | | | | |
| KOTS | Kotyrbulak | 3.14 | 75 | eP | Pb | 02 36 50.0 | +1.8 |
| KOTS | | | | eS | Sg | 02 37 31.8 | -0.7 |
| CHKK | Chushkaly | 3.24 | 64 | eP | Pb | 02 36 51.2 | +1.4 |
| | 4.1nm,0.3s | | | | | | |
| CHKK | | | | eS | Sg | 02 37 33.7 | -2.1 |
| | 42nm,0.3s | | | | | | |
| ARXS | Arharly | 3.94 | 63 | eP | Pb | 02 37 03.9 | +2.2 |
| | 9.6nm,0.5s | | | | | | |
| ARXS | | | | eS | Sg | 02 37 55.5 | -2.7 |
| | 12nm,0.4s | | | | | | |
| DZET | Dzherino | 4.85 | 222 | ⇓Pn | Pn | 02 37 10.2 | +4.6 |
| | 3.8nm,0.5s | | | | | | |
| DZET | | | | ⇓Sn | Sn | 02 38 05.7 | +3.5 |
| | 9.1nm,0.5s | | | | | | |

**IDC 10 02:49:06.7**±13.0, **26.38S**×**111.23W**, **h0**km, **mb3.9**/2, **mb1 4.4**/2, **mb1mx3.8**/23, **mbtmp3.9**/2, **MS3.6**/1, **Ms1 3.6**/1, **ms1mx3.1**/15, **Error ellipse: s-maj=1348.0km s-min=118.1km az=105.0, Easter Island region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CPUP | Villa Florida | 47.98 | 103 | LR | LR | 03 14 42.2 | |
| | comp=Z,58nm,18.5s,baz=358,slow=32 | | | | | | |
| PDAR | Pinedale Array | 68.82 | 1 | P | P | 03 00 12.9 | -0.1 |
| | 0.7nm,0.8s,baz=163,slow=6.6,SNR=6.1 | | | | | | |
| YKA | Yellowknife Ar | 88.61 | 358 | P | P | 03 02 01.2 | +0.2 |
| | 1.1nm,0.9s,baz=172,slow=4.8,SNR=9.7 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 91.25 | 290 | T | T | 04 41 47.7 | |
| | baz=118,slow=75,SNR=20 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 91.27 | 290 | T | T | 04 41 48.7 | |
| | baz=118,slow=75,SNR=17 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 91.27 | 290 | T | T | 04 41 45.7 | |
| | baz=118,slow=75,SNR=12 | | | | | | |
| ZALV | Zalesovo Beam | 150.00 | 341 | PKPbc | PKPbc | 03 08 58.3 | -0.5 |
| | 0.9nm,0.4s,baz=31,slow=2.3,SNR=5.5 | | | | | | |

*ISCJB **10** 02:50:24.6±0.5, 23.93N±0.03×122.53E±0.02, h18km±5km, Error ellipse: s-maj=5.5km s-min=2.6km az=168.1*
*JMA **10** 02:50:24.6±0.3, 23.96N×122.51E, h20km±5km, M2.4*
*TAP **10** 02:50:25.3, 23.99N×122.51E, h28km±1km, ML3.1, C*
**ISC 10 02:50:24.6**±1.9, **23.94N**±0.04×**122.52E**±0.02, **h20**km±6km, **n36**, σ0s61/62, **2C, Taiwan region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JYNG | Yonagunijimaku | 0.65 | 37 | P | Pb | 02 50 36.8 | -0.3 |
| JYNG | | | | eS | Sb | 02 50 44.5 | -1.2 |
| YOJ | Yonaguni jima | 0.69 | 41 | P | Pb | 02 50 37.6 | -0.3 |
| YOJ | | | | eS | Sb | 02 50 45.9 | -1.1 |
| TWD | Chiawan | 0.85 | 280 | eP | Pb | 02 50 40.6 | -0.1 |
| | baz=276 | | | | | | |
| TWD | | | | eS | Sb | 02 50 51.5 | -0.3 |
| | baz=276 | | | | | | |
| ENA | Nanau | 0.86 | 305 | eP | Pb | 02 50 40.9 | 0.0 |
| | baz=302 | | | | | | |
| ENA | | | | eS | Sg | 02 50 52.7 | -0.2 |
| | baz=302 | | | | | | |
| TWC | Suao | 0.91 | 318 | ⇑P | Pb | 02 50 41.2 | -0.4 |
| | baz=316 | | | | | | |
| TWC | | | | eS | Sb | 02 50 52.8 | -0.5 |
| | baz=316 | | | | | | |
| ESL | Shilin | 1.00 | 263 | eP | Pb | 02 50 42.5 | -0.8 |
| | baz=260 | | | | | | |
| TWE | Neicheng | 1.10 | 315 | eP | Pb | 02 50 44.9 | -0.1 |
| | baz=314 | | | | | | |
| TWE | | | | eS | Sn | 02 50 59.6 | +0.1 |
| | baz=314 | | | | | | |
| ENTT | Nioudou | 1.12 | 309 | eP | Pn | 02 50 45.2 | +0.1 |
| | baz=293 | | | | | | |
| ENTT | | | | eS | Sn | 02 51 00.1 | +0.1 |
| | baz=293 | | | | | | |
| NNS | Nan Shan | 1.16 | 296 | eP | Pn | 02 50 45.5 | -0.4 |
| | baz=293 | | | | | | |
| NNS | | | | eS | Sb | 02 51 01.0 | +0.3 |
| | baz=293 | | | | | | |
| WHF | Hehuan Shan | 1.16 | 281 | eP | Pn | 02 50 45.7 | -0.5 |
| | baz=264 | | | | | | |
| WHF | | | | eS | Sb | 02 51 00.9 | -0.2 |
| | baz=264 | | | | | | |
| IRIF | Iriomote-Funau | 1.18 | 70 | P | Pb | 02 50 46.2 | 0.0 |
| IRIF | | | | eS | Sb | 02 51 01.4 | +0.3 |
| EHY | Hungye | 1.18 | 249 | eP | Pn | 02 50 45.5 | -0.5 |
| | baz=246 | | | | | | |
| EHY | | | | eS | Sb | 02 51 00.9 | -0.2 |
| | baz=246 | | | | | | |
| HATJ | Hateruma jima | 1.18 | 84 | eS | Sn | 02 51 01.8 | +0.2 |
| TWF1 | Yuli | 1.26 | 243 | P | Pn | 02 50 47.1 | 0.0 |
| | baz=240 | | | | | | |
| TWF1 | | | | eS | Sb | 02 51 03.4 | -0.2 |
| | baz=240 | | | | | | |
| TWT | Tachien | 1.27 | 285 | eP | Pb | 02 50 47.8 | -0.1 |
| | baz=269 | | | | | | |
| TWT | | | | eS | Sn | 02 51 04.3 | +0.4 |
| | baz=269 | | | | | | |
| WDT | Danda | 1.28 | 262 | eP | Pn | 02 50 47.3 | -0.3 |
| | baz=259 | | | | | | |
| WDT | | | | eS | Sb | 02 51 03.7 | -0.7 |
| | baz=259 | | | | | | |
| NSK | Sanguang | 1.29 | 305 | ⇑P | Pn | 02 50 47.9 | +0.3 |
| | baz=290 | | | | | | |
| NSK | | | | eS | Sn | 02 51 04.8 | +0.4 |
| | baz=290 | | | | | | |
| NWF | Wu-fen Shan | 1.31 | 329 | eP | Pn | 02 50 48.1 | +0.1 |
| | baz=328 | | | | | | |
| TWA | Mucha | 1.34 | 321 | eP | Pb | 02 50 49.2 | +0.1 |
| | baz=320 | | | | | | |
| TWA | | | | eS | Sg | 02 51 08.0 | -0.2 |
| | baz=320 | | | | | | |
| JKRS | Kuro-shima | 1.40 | 77 | P | Pb | 02 50 50.0 | 0.0 |
| JKRS | | | | S | Sb | 02 51 08.1 | +0.7 |
| SMLT | Sun Moon Lake | 1.48 | 268 | eP | Pn | 02 50 50.6 | +0.3 |
| | baz=255 | | | | | | |
| YUS | Yu-Shan | 1.50 | 253 | eP | Pn | 02 50 51.3 | +0.4 |
| | baz=250 | | | | | | |
| YUS | | | | eS | Sn | 02 51 09.6 | -0.6 |
| | baz=250 | | | | | | |
| TYC | Yuchr | 1.52 | 269 | eP | Pb | 02 50 51.7 | -0.4 |
| | baz=267 | | | | | | |
| JIJ | Ishigaki jima | 1.54 | 74 | P | Pn | 02 50 50.7 | -0.3 |
| JIJ | | | | eS | Sn | 02 51 10.1 | -0.4 |
| NSTT | Nanjuang | 1.55 | 297 | eP | Pn | 02 50 51.3 | +0.3 |
| | baz=295 | | | | | | |
| NSTT | | | | eS | Sb | 02 51 11.8 | 0.0 |
| | baz=295 | | | | | | |
| ELDTW | Lidau | 1.56 | 242 | eP | Pn | 02 50 51.2 | -0.2 |
| | baz=239 | | | | | | |
| ALS | Alishan | 1.63 | 255 | eP | Pn | 02 50 53.2 | +0.8 |
| | baz=253 | | | | | | |
| ALS | | | | eS | Sn | 02 51 13.0 | +0.1 |
| | baz=253 | | | | | | |
| TWQ1 | Liyutan | 1.65 | 285 | eP | Pn | 02 50 53.2 | +0.8 |
| | baz=282 | | | | | | |
| CHN5 | Tsauling | 1.72 | 259 | eP | Pn | 02 50 54.5 | +1.0 |
| | baz=246 | | | | | | |
| CHN5 | | | | eS | Sn | 02 51 16.1 | +1.1 |
| | baz=246 | | | | | | |
| JISG | Ishigakijimahi | 1.76 | 68 | S | Sn | 02 51 15.9 | +0.1 |
| STYT | Tauyuan | 1.79 | 245 | eP | Pb | 02 50 55.8 | -1.0 |
| | baz=233 | | | | | | |
| STYT | | | | eS | Sn | 02 51 17.7 | +1.1 |
| | baz=233 | | | | | | |
| CHN4 | Tsaushan | 1.86 | 252 | eP | Pn | 02 50 56.4 | +1.1 |
| | baz=250 | | | | | | |
| CHN4 | | | | eS | Sb | 02 51 20.6 | -0.2 |
| | baz=250 | | | | | | |
| WTP | Ta-pu | 1.88 | 249 | eP | Pn | 02 50 56.7 | +1.1 |
| | baz=237 | | | | | | |
| WTP | | | | eS | Sb | 02 51 20.4 | -0.9 |
| | baz=237 | | | | | | |
| SGST | Jiashian | 1.97 | 245 | eP | Pn | 02 50 57.8 | +0.9 |
| | baz=233 | | | | | | |
| CHN1 | Nanshi | 1.97 | 248 | eP | Pb | 02 50 58.6 | -1.2 |
| | baz=246 | | | | | | |
| CHN1 | | | | eS | Sb | 02 51 23.2 | -0.9 |
| | baz=246 | | | | | | |
| SSD | Sandimen | 2.10 | 236 | eP | Pn | 02 50 59.8 | +1.2 |
| | baz=226 | | | | | | |

*ATA **10** 02:53:41.0±1.7, 39.11N×43.68E, h50km±37km, ML2.8, MW3.4*
*ISK **10** 02:53:42.4, 39.05N×43.71E, h5km, MD2.7*
*ISCJB **10** 02:53:43.5±0.6, 39.06N±0.04×43.71E±0.05, h9km±5km, Error ellipse: s-maj=7.8km s-min=5.2km az=32.6*
*DDA **10** 02:53:43.2, 39.01N×43.73E, h7km, Ml2.6*
*CSEM **10** 02:53:43.5±0.2, 39.05N×43.73E, h2km, ML2.6, Error ellipse: s-maj=5.7km s-min=4.0km az=119.0*
**ISC 10 02:53:43.1**±0.9, **39.06N**±0.03×**43.69E**±0.03, **h11**km±7km, **n25**, σ0s67/35, **Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.12 | 232 | i P | Pg | 02 53 45.5 | -0.6 |
| VMUR | | | | i S | Sg | 02 53 48.8 | +0.5 |
| VMUR | Van-Muradiye | 0.12 | 232 | P | Pg | 02 53 45.5 | -0.6 |
| VMUR | | | | S | Sg | 02 53 48.8 | +0.5 |
| CLDR | Caldiran | 0.20 | 65 | ePG | Pg | 02 53 46.9 | -0.5 |
| CLDR | | | | eSG | Sg | 02 53 50.4 | 0.0 |
| CLDR | Caldiran | 0.20 | 65 | i P | Pg | 02 53 46.7 | -0.7 |
| CLDR | | | | i S | Sg | 02 53 51.7 | +1.3 |
| CLDR | Caldiran | 0.20 | 65 | P | Pg | 02 53 46.7 | -0.7 |
| CLDR | Caldiran | 0.20 | 65 | ePg | Pg | 02 53 46.9 | -0.5 |
| CLDR | | | | eSg | Sg | 02 53 50.4 | 0.0 |
| CLDR | | | | S | Sg | 02 53 51.7 | +1.3 |
| DYDN | Diyadin | 0.48 | 0 | eP | Pg | 02 53 52.9 | +0.3 |
| DYDN | | | | eS | Sb | 02 54 01.4 | +0.4 |
| DYDN | | | | | IAML | 02 54 05.7 | |
| | comp=Z,28nm,0.4s | | | | | | |
| DYDN | Diyadin | 0.48 | 0 | i P | Pb | 02 53 53.6 | -0.1 |
| DYDN | Diyadin | 0.48 | 0 | P | Pb | 02 53 53.7 | -0.1 |
| VANB | Van | 0.52 | 207 | ePG | Pb | 02 53 54.9 | +0.6 |
| VANB | Van | 0.52 | 207 | ePg | Pb | 02 53 54.9 | +0.6 |
| TVAN | Van | 0.57 | 203 | i P | Pg | 02 53 54.2 | -0.1 |
| TVAN | Van | 0.57 | 203 | P | Pg | 02 53 54.2 | -0.1 |
| AGRB | Hanur-Agry | 0.75 | 314 | ePG | Pb | 02 53 58.4 | +0.2 |
| AGRB | Hanur-Agry | 0.75 | 314 | ePg | Pb | 02 53 58.4 | +0.2 |
| TUTA | Tutak | 0.76 | 297 | eP | Pg | 02 53 56.1 | -1.6 |
| TUTA | | | | eS | Sb | 02 54 09.7 | +0.7 |
| TUTA | | | | | IAML | 02 54 13.7 | |
| | comp=Z,22nm,0.4s | | | | | | |
| TUTA | Tutak | 0.76 | 297 | i P | Pb | 02 53 59.2 | +0.7 |
| TUTA | | | | i S | Sb | 02 54 09.5 | +0.5 |
| TUTA | Tutak | 0.76 | 297 | P | Pb | 02 53 59.2 | +0.7 |
| TUTA | | | | S | Sb | 02 54 09.5 | +0.5 |
| TASB | TASBURUN-IGDIR | 1.02 | 25 | ePG | Pn | 02 54 03.4 | 0.0 |
| TASB | TASBURUN-IGDIR | 1.02 | 25 | ePg | Pn | 02 54 03.4 | 0.0 |
| EAK | Akyaka | 1.63 | 358 | eP | Pn | 02 54 10.7 | -1.2 |
| EAK | | | | | IAML | 02 54 20.6 | |
| | comp=Z,6.2nm,0.8s | | | | | | |
| CUKT | Cukurca | 1.81 | 182 | ePN | Pb | 02 54 15.9 | -0.4 |
| CUKT | Cukurca | 1.81 | 182 | ePn | Pb | 02 54 15.9 | -0.4 |
| SIRT | Sirnak | 1.84 | 213 | ePN | Pb | 02 54 16.5 | -0.3 |
| SIRT | Sirnak | 1.84 | 213 | ePn | Pb | 02 54 16.5 | -0.3 |

*AZER **10** 03:01:43.3±15.0, 37.43N×48.84E, h10km, Error ellipse: s-maj=8.9km s-min=5.1km az=307.0*
*CSEM **10** 03:01:47.8±0.1, 37.49N×48.78E, h10km, ML3.1, Error ellipse: s-maj=6.1km s-min=2.7km az=56.0*
*TEH **10** 03:01:48.1, 37.54N×48.84E, h10km, ML3.4*
**ISC 10 03:01:43.8**±1.1, **37.44N**±0.03×**48.83E**±0.03, **h7**km±10km, **n67**, σ2s72/92, **15C-15D, Northwestern Iran**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ASTR | Astara | 1.12 | 358 | ⇑P | Pn | 03 02 07.3 | +1.3 |
| | SNR=5.5 | | | | | | |
| ASTR | | | | ⇓S | Sn | 03 02 24.7 | +3.0 |
| ASTR | Astara | 1.12 | 358 | P | Pn | 03 02 07.3 | +1.3 |
| | SNR=5.5 | | | | | | |
| LRK | Lerik | 1.27 | 342 | ⇓P | Pg | 03 02 09.8 | +1.6 |
| | SNR=215 | | | | | | |
| LRK | | | | ⇓S | Sn | 03 02 27.9 | +2.4 |
| LRK | Lerik | 1.27 | 342 | P | Pg | 03 02 09.8 | +1.6 |
| | SNR=215 | | | | | | |
| LRK | | | | S | Sn | 03 02 27.9 | +2.4 |
| LKRN | Lenkeran, Azer | 1.27 | 358 | ⇑P | Pg | 03 02 10.2 | +1.9 |
| | SNR=4.6 | | | | | | |
| LKRN | | | | ⇑S | Sg | 03 02 28.5 | +3.7 |
| LKRN | Lenkeran, Azer | 1.27 | 358 | P | Pg | 03 02 10.2 | +1.9 |
| | SNR=4.6 | | | | | | |
| LKRN | | | | S | Sg | 03 02 28.5 | +3.7 |
| IGZV | Ghazvin | 1.53 | 133 | ePn | Pg | 03 02 13.2 | +0.1 |
| IGZV | | | | eAMB | AMB | 03 02 38.3 | |
| | comp=Z,6µm,0.2s | | | | | | |
| IGZV | Ghazvin | 1.53 | 133 | ePn | Pg | 03 02 13.2 | +0.1 |
| GRMI | Germi | 1.56 | 332 | ePn | Pg | 03 02 15.1 | +1.4 |
| GRMI | | | | eSg | Sg | 03 02 35.5 | +1.6 |
| IHRS | Heris | 1.67 | 302 | ePn | Pg | 03 02 16.3 | +0.5 |
| IHRS | | | | eAMB | AMB | 03 02 18.7 | |
| | comp=Z,4µm,0.2s | | | | | | |
| IHRS | | | | eSg | Sg | 03 02 39.3 | +1.8 |
| IHRS | Heris | 1.67 | 302 | ePn | Pg | 03 02 16.3 | +0.5 |
| IHRS | | | | eSg | Sg | 03 02 39.3 | +1.8 |
| GLBA | Clilabad | 1.84 | 349 | ⇓P | Pg | 03 02 18.6 | -0.5 |
| | SNR=3.9 | | | | | | |
| GLBA | | | | ⇓S | Sg | 03 02 44.0 | +1.1 |
| GLBA | Clilabad | 1.84 | 349 | P | Pg | 03 02 18.6 | -0.5 |
| | SNR=3.9 | | | | | | |
| GLBA | | | | S | Sg | 03 02 44.0 | +1.1 |
| THKV | Tehran--Karaj | 2.24 | 132 | ePn | Pg | 03 02 25.7 | -1.0 |
| THKV | | | | eSg | Sg | 03 02 57.4 | +1.6 |
| ITBZ | Tabriz | 2.27 | 291 | ePn | Pb | 03 02 25.4 | +0.1 |
| ITBZ | | | | eAMB | AMB | 03 02 30.5 | |
| | comp=Z,1µm,0.2s | | | | | | |
| ITBZ | | | | eSg | Sg | 03 02 57.2 | +0.4 |
| ITBZ | Tabriz | 2.27 | 291 | ePn | Pb | 03 02 25.4 | +0.1 |
| ITBZ | | | | eSg | Sg | 03 02 57.2 | +0.4 |
| CHTH | Charan | 2.39 | 129 | ePn | Pg | 03 02 28.3 | -1.4 |
| SNGE | Sanandaj | 2.63 | 208 | ePn | Pb | 03 02 30.8 | -0.6 |
| IR5 | Iran Long-Peri | 2.63 | 147 | ePn | Pb | 03 02 30.9 | -0.5 |
| IR5 | | | | eAMB | AMB | 03 03 12.2 | |
| | comp=Z,2µm,0.1s | | | | | | |
| IR5 | Iran Long-Peri | 2.63 | 147 | ePn | Pb | 03 02 30.9 | -0.5 |
| ISHB | Shabestar | 2.68 | 289 | ePn | Pb | 03 02 31.1 | -1.2 |
| ISHB | | | | eAMB | AMB | 03 03 15.1 | |
| | comp=Z,1µm,0.2s | | | | | | |
| ORD | Ordubad | 2.69 | 305 | P | Pb | 03 02 31.5 | -0.8 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ORD | | | | S | Sb | 03 03 04.0 | -1.5 |
| IMRD | Marand | 2.78 | 298 | ePn | Pg | 03 02 35.8 | -1.3 |
| IMRD | | | | eAMB | AMB | 03 02 46.7 | |
| | comp=Z,2μm,0.4s | | | | | | |
| IMRD | Marand | 2.78 | 298 | ePn | Pg | 03 02 35.8 | -1.3 |
| ASAO | Ashtian | 3.04 | 161 | ePn | Pb | 03 02 36.7 | -1.7 |
| IPRN | Peran | 3.05 | 112 | ePn | Pb | 03 02 36.4 | -2.2 |
| IPRN | | | | eAMB | AMB | 03 03 16.7 | |
| | comp=Z,3μm,0.1s | | | | | | |
| GBS | Qobustan | 3.10 | 2 | ⇑P | Pn | 03 02 35.3 | +2.1 |
| GBS | Qobustan | 3.10 | 2 | P | Pn | 03 02 35.3 | +2.1 |
| NAX | Nakhchivan | 3.15 | 305 | ⇑P | Pb | 03 02 36.6 | -3.6 |
| NAX | | | | ⇑S | Sb | 03 03 16.4 | -2.4 |
| NAX | Nakhchivan | 3.15 | 305 | P | Pb | 03 02 36.6 | -3.6 |
| NAX | | | | S | Sb | 03 03 16.4 | -2.4 |
| IDMV | Damavand | 3.18 | 125 | ePn | Pb | 03 02 41.1 | +0.3 |
| IDMV | | | | eAMB | AMB | 03 03 29.0 | |
| | comp=Z,580nm,0.2s | | | | | | |
| IDMV | Damavand | 3.18 | 125 | ePn | Pb | 03 02 41.1 | +0.3 |
| SBZ | Shahbuz | 3.23 | 308 | ⇑P | Pb | 03 02 37.7 | -4.0 |
| SBZ | | | | ⇑S | Sb | 03 03 18.4 | -3.0 |
| SBZ | Shahbuz | 3.23 | 308 | P | Pb | 03 02 37.7 | -4.0 |
| SBZ | | | | S | Sb | 03 03 18.4 | -3.0 |
| PQL | Pirkuli | 3.35 | 357 | ⇑P | Pn | 03 02 39.0 | +2.2 |
| PQL | | | | ⇑S | Sb | 03 03 20.4 | -4.4 |
| PQL | Pirkuli | 3.35 | 357 | P | Pn | 03 02 39.0 | +2.2 |
| PQL | | | | S | Sb | 03 03 20.4 | -4.4 |
| IVRN | Varamin | 3.38 | 135 | ePn | Pb | 03 02 42.0 | -2.1 |
| IVRN | Varamin | 3.38 | 135 | ePn | Pb | 03 02 42.0 | -2.1 |
| IML | Ismayilli | 3.39 | 352 | ⇓P | Pb | 03 02 40.1 | -4.2 |
| IML | | | | ⇓S | Sb | 03 03 21.2 | -4.6 |
| IML | Ismayilli | 3.39 | 352 | P | Pb | 03 02 40.1 | -4.2 |
| IML | | | | S | Sb | 03 03 21.2 | -4.6 |
| IALA | Alasht | 3.47 | 112 | ePn | Pb | 03 02 42.2 | -3.6 |
| IALA | | | | eAMB | AMB | 03 02 53.3 | |
| | comp=Z,616nm,0.1s | | | | | | |
| IALA | Alasht | 3.47 | 112 | ePn | Pb | 03 02 42.2 | -3.6 |
| QBL | Gabala | 3.59 | 348 | ⇓S | Sn | 03 03 25.6 | +2.9 |
| QBL | Gabala | 3.59 | 348 | S | Sn | 03 03 25.6 | +2.9 |
| IFIR | Firoozkooh | 3.63 | 118 | ePn | Pb | 03 02 46.0 | -2.5 |
| IFIR | | | | eAMB | AMB | 03 03 00.7 | |
| | comp=Z,364nm,0.1s | | | | | | |
| IFIR | Firoozkooh | 3.63 | 118 | ePn | Pb | 03 02 46.0 | -2.5 |
| GANJ | Ganja | 3.75 | 329 | ⇓P | Pn | 03 02 44.5 | +2.3 |
| GANJ | | | | ⇓S | Sn | 03 03 29.7 | +3.0 |
| GANJ | Ganja | 3.75 | 329 | P | Pn | 03 02 44.5 | +2.3 |
| GANJ | | | | S | Sn | 03 03 29.7 | +3.0 |
| XNQ | Khinaliq | 3.77 | 352 | ⇓P | Pn | 03 02 44.9 | +2.3 |
| XNQ | | | | ⇑S | Sb | 03 03 31.5 | -5.3 |
| XNQ | Khinaliq | 3.77 | 352 | P | Pn | 03 02 44.9 | +2.3 |
| XNQ | | | | S | Sb | 03 03 31.5 | -5.3 |
| KHMZ | Khomeyn | 3.80 | 166 | ePn | Pb | 03 02 47.3 | -4.1 |
| HYR | Heyderabad | 3.86 | 307 | ⇑P | Pn | 03 02 46.3 | +2.5 |
| HYR | | | | ⇓S | Sb | 03 03 33.8 | -5.6 |
| HYR | Heyderabad | 3.86 | 307 | P | Pn | 03 02 46.3 | +2.5 |
| HYR | | | | S | Sb | 03 03 33.8 | -5.6 |
| ISHM | Shahmirzad | 3.94 | 113 | ePn | Pb | 03 02 48.7 | -5.1 |
| ISHM | | | | eAMB | AMB | 03 03 03.2 | |
| | comp=Z,540nm,0.2s | | | | | | |
| SEKA | Sheki | 3.98 | 342 | ⇓P | Pn | 03 02 46.9 | +1.6 |
| SEKA | | | | ⇑S | Sn | 03 03 35.3 | +3.1 |
| SEKA | Sheki | 3.98 | 342 | P | Pn | 03 02 46.9 | +1.6 |
| SEKA | | | | S | Sn | 03 03 35.3 | +3.1 |
| GDB | GEDABAY | 4.06 | 325 | ⇓P | Pn | 03 02 48.6 | +2.0 |
| GDB | | | | ⇑S | Sb | 03 03 40.1 | -5.1 |
| GDB | GEDABAY | 4.06 | 325 | P | Pn | 03 02 48.6 | +2.0 |
| IGLO | Ghaloghah | 4.11 | 102 | ePn | Pn | 03 02 50.5 | +3.2 |
| IGLO | | | | eAMB | AMB | 03 03 49.6 | |
| | comp=Z,598nm,0.1s | | | | | | |
| QAM | Ghamsar | 4.24 | 149 | ePn | Pb | 03 02 53.6 | -5.2 |
| QAM | | | | eAMB | AMB | 03 04 05.4 | |
| | comp=Z,343nm,0.2s | | | | | | |
| QZX | Qazax, Azerbai | 4.50 | 324 | ⇓P | Pn | 03 02 54.3 | +1.7 |
| QZX | Qazax, Azerbai | 4.50 | 324 | P | Pn | 03 02 54.3 | +1.7 |
| ZKTA | Zakatala | 4.53 | 339 | ⇑P | Pn | 03 02 55.0 | +2.1 |
| IKLH | Kolahrood | 4.68 | 151 | ePn | Pb | 03 03 00.1 | -6.3 |
| IKLH | | | | eAMB | AMB | 03 03 14.8 | |
| | comp=Z,204nm,0.3s | | | | | | |
| IKLH | Kolahrood | 4.68 | 151 | ePn | Pb | 03 03 00.1 | -6.3 |
| IPIR | Pirpir | 5.03 | 160 | ePn | Pn | 03 03 04.4 | +4.4 |
| IPIR | | | | eAMB | AMB | 03 04 34.4 | |
| | comp=Z,128nm,0.4s | | | | | | |
| IPIR | Pirpir | 5.03 | 160 | ePn | Pn | 03 03 04.4 | +4.4 |

*ISK **10** 03:23:47.7, 38°.01N×27°.25E, h5km, MD2.4*
*DDA **10** 03:23:47.8, 37°.98N×27°.20E, h7km, Ml2.6*
*ISCJB **10** 03:23:48.1±0.5, 37°.95N±0°.05×27°.19E±0°.06, h10km±10km, Error ellipse: s-maj=10.9km s-min=4.1km az=39.4*
*CSEM **10** 03:23:48.4±0.2, 37°.97N×27°.22E, h10km, ML2.6, Error ellipse: s-maj=3.8km s-min=3.2km az=72.0*
**ISC 10 03:23:47.9**±0.9**, 37°.98N**±0°.03×**27°.23E**±0°.03**, h10**km±9km**, n22, σ0s49**/36**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GCAM | G?zelcaml? | 0.28 | 180 | ePG | Pg | 03 23 53.9 | +0.3 |
| GCAM | G?zelcaml? | 0.28 | 180 | iP | Pg | 03 23 53.7 | 0.0 |
| GCAM | | | | iS | Sg | 03 23 57.5 | 0.0 |
| GCAM | G?zelcaml? | 0.28 | 180 | P | Pg | 03 23 53.7 | 0.0 |
| GCAM | G?zelcaml? | 0.28 | 180 | ePg | Pg | 03 23 53.9 | +0.3 |
| GCAM | | | | S | Sg | 03 23 57.5 | 0.0 |
| DGB | ˜zmir | 0.28 | 284 | iP | Pg | 03 23 53.5 | -0.2 |
| DGB | | | | iS | Sg | 03 23 56.8 | -0.7 |
| AYDN | Tasoluk | 0.61 | 122 | iP | Pb | 03 24 00.6 | -0.1 |
| AYDN | | | | iS | Sb | 03 24 08.7 | -0.6 |
| AYDN | Tasoluk | 0.61 | 122 | P | Pb | 03 24 00.6 | -0.1 |
| AYDN | | | | S | Sb | 03 24 08.7 | -0.6 |
| URLA | Izmir | 0.63 | 307 | ePG | Pg | 03 24 00.1 | 0.0 |
| URLA | Izmir | 0.63 | 307 | ePg | Pg | 03 24 00.1 | 0.0 |
| ZEY | ˜zmir | 0.63 | 294 | iP | Pg | 03 23 59.8 | -0.3 |
| ZEY | | | | iS | Sg | 03 24 08.3 | -0.1 |
| BODT | Bodrum | 0.92 | 176 | ePG | Pb | 03 24 06.2 | +0.2 |
| BODT | Bodrum | 0.92 | 176 | ePg | Pb | 03 24 06.2 | +0.2 |
| AKHS | Akhisar | 1.00 | 27 | iP | Pb | 03 24 07.8 | +0.4 |
| AKHS | | | | iS | Sn | 03 24 22.0 | -0.3 |
| AKHS | Akhisar | 1.00 | 27 | P | Pb | 03 24 07.8 | +0.4 |
| AKHS | | | | S | Sn | 03 24 22.0 | -0.3 |
| CHOS | Chios island | 1.01 | 294 | ePG | Pb | 03 24 07.8 | +0.2 |
| CHOS | | | | eSG | Sn | 03 24 22.2 | -0.4 |
| CHOS | Chios island | 1.01 | 294 | ePg | Pb | 03 24 07.8 | +0.2 |
| CHOS | | | | eSg | Sn | 03 24 22.2 | -0.4 |
| MANT | Manisa | 1.16 | 64 | iP | Pn | 03 24 11.7 | +1.3 |
| MANT | | | | iS | Sg | 03 24 24.5 | -0.9 |
| MANT | Manisa | 1.16 | 64 | P | Pn | 03 24 11.7 | +1.3 |
| MANT | | | | S | Sg | 03 24 24.5 | -0.9 |
| KULA | Kula-Manisa | 1.24 | 64 | ePN | Pn | 03 24 11.4 | 0.0 |
| KULA | Kula-Manisa | 1.24 | 64 | ePn | Pn | 03 24 11.5 | 0.0 |
| STEP | BALIKESIR_Sava | 1.44 | 15 | iP | Pb | 03 24 14.9 | 0.0 |
| STEP | | | | iS | Sg | 03 24 35.0 | +0.6 |
| STEP | BALIKESIR_Sava | 1.44 | 15 | P | Pb | 03 24 14.9 | 0.0 |
| STEP | | | | S | Sg | 03 24 35.0 | +0.6 |

*ISCJB **10** 04:09:23.7±0.7, 39°.39N±0°.06×34°.14E±0°.05, h8km, Error ellipse: s-maj=9.1km s-min=4.5km az=149.7*
*CSEM **10** 04:09:23.5±0.2, 39°.42N×34°.15E, h10km, ML2.5, Error ellipse: s-maj=6.5km s-min=3.9km az=147.0*
*DDA **10** 04:09:23.9, 39°.40N×34°.11E, h7km, Ml2.5*
*ISK **10** 04:09:23.8, 39°.38N×34°.10E, h7km, MD2.5*
**ISC 10 04:09:23.2**±1.1**, 39°.44N**±0°.05×**34°.15E**±0°.04**, h8**km**, n18, σ0s32**/26**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CDAG | Cicekdag | 0.26 | 43 | iP | Pb | 04 09 30.1 | 0.0 |
| CDAG | | | | iS | Sb | 04 09 34.8 | +0.1 |
| CDAG | Cicekdag | 0.26 | 43 | P | Pb | 04 09 30.1 | 0.0 |
| CDAG | | | | S | Sb | 04 09 34.8 | +0.1 |
| KAMT | Kaman | 0.34 | 259 | ePG | Pg | 04 09 30.3 | +0.3 |
| KAMT | | | | eSG | Sg | 04 09 35.1 | +0.6 |
| KAMT | Kaman | 0.34 | 259 | ePg | Pg | 04 09 30.3 | +0.3 |
| KAMT | | | | eSg | Sg | 04 09 35.1 | +0.6 |
| SERE | Sereflikochisa | 0.67 | 223 | ePG | Pg | 04 09 35.5 | -0.5 |
| SERE | Sereflikochisa | 0.67 | 223 | ePg | Pg | 04 09 35.5 | -0.5 |
| BBAL | Bala | 0.80 | 278 | iP | Pb | 04 09 39.1 | -0.3 |
| BBAL | | | | iS | Sb | 04 09 50.1 | -0.4 |
| BBAL | Bala | 0.80 | 278 | P | Pb | 04 09 39.1 | -0.3 |
| BBAL | | | | S | Sb | 04 09 50.1 | -0.4 |
| AFSR | Af¯ar-Bala (A | 0.83 | 271 | ePG | Pb | 04 09 39.7 | -0.3 |
| AFSR | Af¯ar-Bala (A | 0.83 | 271 | ePg | Pb | 04 09 39.7 | -0.3 |
| AKSY | AKSARAY - Alti | 0.84 | 201 | iP | Pg | 04 09 39.3 | 0.0 |
| AKSY | AKSARAY - Alti | 0.84 | 201 | P | Pg | 04 09 39.3 | 0.0 |
| KKUL | Konya-Kulu | 0.99 | 255 | iP | Pb | 04 09 42.4 | -0.2 |
| KKUL | | | | iS | Sb | 04 09 55.9 | 0.0 |
| KKUL | Konya-Kulu | 0.99 | 255 | P | Pb | 04 09 42.4 | -0.2 |
| KKUL | | | | S | Sb | 04 09 55.9 | 0.0 |
| COAL | Corum-Alaca | 1.04 | 38 | iP | Pg | 04 09 43.0 | -0.2 |
| COAL | Corum-Alaca | 1.04 | 38 | P | Pg | 04 09 43.0 | -0.2 |
| SULT | Sultanhani-AKS | 1.33 | 202 | ePN | Pg | 04 09 48.9 | +0.2 |
| SULT | Sultanhani-AKS | 1.33 | 202 | ePn | Pg | 04 09 48.9 | +0.2 |

*NIED **10** 04:19:00, 35°.70N×140°.10E, h65km, Mw4.1 Best double couple: M₀1.60000×10^15 NP1:φs219.00000°, δ28.00000°, λ101.00000°. NP2:φs27.00000°, δ63.00000°, λ84.00000°.*
*MOS **10** 04:19:25.8±0.9, 35°.61N×140°.17E, h64km, mb4.4/26, Error ellipse: s-maj=10.9km s-min=6.9km az=108.9*
*NEIC **10** 04:19:26.2±0.5, 35°.53N×140°.19E, h53km±5km, mb4.2/9, Error ellipse: s-maj=6.6km s-min=4.7km az=90.0*
*NEIC Recorded [2 JMA] in Chiba, Ibaraki, Kanagawa, Saitama and Tokyo.*
*ISCJB **10** 04:19:27.1±0.4, 35°.55N±0°.03×140°.11E±0°.05, h77km±3km, mb4.2/36, Error ellipse: s-maj=7.0km s-min=4.7km az=166.3*
*JMA **10** 04:19:28.1±0.2, 35°.66N×140°.09E, h67km±2km, M4.1 Broadband fault plane solution: P waves. NP1: φs38.00000°, δ76.00000°, λ102.00000°. NP2: φs179.00000°, δ18.00000°, λ52.00000°. Principal axes: T Plg58.0000°, Azm324.0000°; N Plg11.0000°, Azm216.0000°; P Plg30.0000°, Azm119.0000°;*
*JMA Felt II J1.*
*IDC **10** 04:19:28.6±1.1, 35°.52N×140°.14E, h74km±10km, mb3.8/21, mb1 4.0/24, mb1mx3.8/48, mbtmp4.1/24, MS3.2/1, Ms1 3.2/1, ms1mx2.5/50 Error ellipse: s-maj=14.8km s-min=6.3km az=71.0*
**ISC 10 04:19:28.2**±0.6**, 35°.57N**±0°.04×**140°.13E**±0°.05**, h71**km±5km**, n99, σ1s03**/103**, mb4.2**/36**, 4C-6D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JCN | Nagara | 0.16 | 158 | ⇑P | Pn | 04 19 39.3 | +0.6 |
| TOK | Tokyo | 0.33 | 292 | P | Pn | 04 19 39.9 | +0.4 |
| BSO3 | Boso 3 | 0.82 | 158 | ⇑P | Pn | 04 19 44.9 | +0.6 |
| JOD2 | Odawara 2 | 0.90 | 251 | ⇓P | Pn | 04 19 45.1 | -0.4 |
| JOD2 | | | | S | Sn | 04 19 57.3 | -1.1 |
| JAG | Ashikaga | 1.02 | 328 | ⇓P | Pn | 04 19 45.8 | -1.1 |
| JIM2 | Oshima 3 | 1.02 | 214 | P | Pn | 04 19 46.7 | -0.3 |
| JIM2 | | | | S | Sn | 04 20 00.8 | -0.2 |
| JRY | Ryogami san | 1.10 | 295 | ⇓P | Pn | 04 19 47.6 | -0.3 |
| BSO1 | Boso 1 | 1.15 | 142 | ⇑P | Pn | 04 19 48.4 | +0.4 |
| JYN | Shimob | 1.29 | 267 | ⇓P | Pn | 04 19 50.1 | -0.4 |
| JYN | | | | S | Sn | 04 20 06.9 | -0.4 |
| JIZS | Izushimoda | 1.33 | 231 | ⇓P | Pn | 04 19 50.9 | 0.0 |
| JIZS | | | | eS | Sn | 04 20 07.6 | -0.4 |
| JKT | Katashina | 1.40 | 330 | P | Pn | 04 19 50.6 | -1.3 |
| JKT | | | | S | Sn | 04 20 07.8 | -1.9 |
| MJAR | Matsushiro Arr | 1.84 | 303 | P | Pn | 04 19 57.0 | -0.7 |
| | 120nm,0.3s,baz=133,slow=15,SNR=454 | | | | | | |
| MJAR | | | | S | Sn | 04 20 21.8 | +1.8 |
| | 67nm,0.3s,baz=122,slow=32,SNR=7.5 | | | | | | |
| MJAR | | | | LR | LR | 04 20 36.8 | |
| | comp=Z,174nm,18.9s,baz=185,slow=37 | | | | | | |
| MAJO | Matsushiro | 1.84 | 303 | d iP | Pn | 04 19 57.5 | -0.2 |
| MAJO | Matsushiro | 1.84 | 303 | ePn | Pn | 04 19 57.5 | -0.2 |
| MAT | Matsushiro | 1.84 | 303 | P | Pn | 04 19 57.5 | -0.2 |
| MAT | | | | S | Sn | 04 20 22.1 | +2.0 |
| JHJ | Hachijo jima 2 | 2.46 | 187 | P | Pn | 04 20 05.2 | -0.9 |
| | 106nm,0.3s,baz=328,slow=22,SNR=24 | | | | | | |
| JHJ | | | | S | Sn | 04 20 34.8 | -0.2 |
| | 475nm,0.3s,baz=262,slow=23,SNR=12 | | | | | | |
| JHJ2 | Mitsune | 2.46 | 186 | ePn | Pn | 04 20 01.6 | -4.5 |
| JHJ2 | | | | eSn | Sn | 04 20 32.9 | -2.2 |
| ERM | Erimo | 6.86 | 19 | eP | Pn | 04 21 03.4 | -2.6 |
| ERM | Erimo | 6.86 | 19 | ePn | Pn | 04 21 03.4 | -2.6 |
| JNU | Nakatsue | 8.03 | 255 | ePn | Pn | 04 21 21.5 | -0.7 |
| CBIJ | Chichi jima | 8.62 | 168 | ePn | Pn | 04 21 26.9 | -3.4 |
| ASAJ | Asahikawa | 8.75 | 12 | P | Pn | 04 21 29.6 | -2.3 |
| | 1.4nm,0.3s,baz=209,slow=9.0,SNR=5.3 | | | | | | |
| SHO | Shikotan | 9.77 | 30 | eP | Pn | 04 21 46.3 | +0.6 |
| SHO | | | | pmax | pmax | | |
| | comp=Z,49nm,0.8s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=E,29nm,1.0s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=N,22nm,0.6s | | | | | | |
| KSRS | Korea Array | 10.01 | 284 | P | Pn | 04 21 49.6 | +0.6 |
| | comp=N,0.8nm,0.3s,baz=97,slow=14,SNR=9.6 | | | | | | |
| KSRS | | | | LR | LR | 04 25 22.1 | |
| | comp=N,123nm,19.6s,baz=32,slow=35 | | | | | | |
| KSAR | Wonju Array Be | 10.04 | 284 | P | Pn | 04 21 49.7 | +0.2 |
| KSAR | Wonju Array Be | 10.04 | 284 | P | Pn | 04 21 49.6 | +0.2 |
| USRK | Ussuriysk Ar. | 10.65 | 327 | P | Pn | 04 21 57.6 | -0.1 |
| | comp=N,0.1nm,0.3s,baz=114,slow=14,SNR=3.7 | | | | | | |
| KUR | Kuril'sk | 11.31 | 29 | iP | Pn | 04 22 03.2 | -3.6 |
| KLR | Kul'dur | 14.98 | 338 | P | Pn | 04 22 54.9 | -0.9 |
| | comp=N,0.0nm,0.3s,baz=164,slow=6.0,SNR=7.5 | | | | | | |
| PETK | Petropavlovsk- | 21.48 | 30 | P | P | 04 24 11.0 | +0.3 |
| | comp=N,4.9nm,1.0s,baz=196,slow=9.8,SNR=3.0 | | | | | | |
| PETK | Petropavlovsk- | 21.48 | 30 | P | P | 04 24 11.0 | +0.3 |
| PETK | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.7s | | | | | | |
| SONM | Songino Array | 27.79 | 307 | P | P | 04 25 09.8 | -0.7 |
| | comp=Z,1.1nm,0.7s,baz=108,slow=9.4,SNR=7.4 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 28.35 | 117 | T | T | 04 54 56.2 | |
| | baz=309,slow=75,SNR=60 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 28.36 | 117 | T | T | 04 54 54.8 | |
| | baz=309,slow=75,SNR=39 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 28.37 | 117 | T | T | 04 55 00.9 | |
| | baz=309,slow=75,SNR=39 | | | | | | |
| SEY | Seymchan | 28.43 | 12 | P | P | 04 25 16.0 | +0.1 |
| | comp=Z,1.6nm,0.8s,baz=345,slow=3.7,SNR=3.6 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 29.00 | 119 | T | T | 04 55 43.2 | |
| | baz=311,slow=76,SNR=20 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 29.00 | 119 | T | T | 04 55 24.3 | |
| | baz=311,slow=76,SNR=20 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 29.01 | 119 | T | T | 04 55 29.3 | |
| | baz=311,slow=76,SNR=13 | | | | | | |
| TIXI | Tiksi | 36.63 | 354 | P | P | 04 26 26.5 | -0.8 |
| | comp=Z,1.3nm,0.3s,baz=146,slow=4.1,SNR=7.2 | | | | | | |
| TIXI | Tiksi | 36.63 | 354 | eP | P | 04 26 25.0 | -2.3 |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.0s | | | | | | |
| TIXI | Tiksi | 36.63 | 354 | eP | P | 04 26 26.1 | -1.2 |
| | comp=Z,2.2nm,0.6s | | | | | | |
| DGZ | Jazzator, Alta | 40.43 | 307 | eP | P | 04 26 58.0 | -1.6 |
| ZALV | Zalesovo Beam | 42.16 | 314 | P | P | 04 27 13.6 | +0.1 |
| | comp=Z,1.7nm,0.4s,baz=103,slow=6.1,SNR=12 | | | | | | |
| ZALV | | | | PcP | PcP | 04 29 06.8 | +0.2 |
| | comp=Z,1.8nm,0.5s,baz=98,slow=2.4,SNR=6.6 | | | | | | |
| NVS | Novosibirsk | 43.12 | 315 | eP | P | 04 27 21.7 | +0.4 |
| MKAR | Makanchi Array | 44.04 | 303 | P | P | 04 27 29.0 | +0.2 |
| | comp=Z,2.9nm,0.6s,baz=85,slow=9.4,SNR=42 | | | | | | |
| KURK | Kurchatov | 46.04 | 309 | iP | P | 04 27 44.4 | -0.1 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,18nm,0.7s | | | | | | |
| KURK | Kurchatov | 46.04 | 309 | eP | P | 04 27 43.9 | -0.6 |
| KDAK | Kodiak Island | 48.88 | 41 | P | P | 04 28 07.0 | +0.5 |
| | comp=Z,10nm,1.1s,baz=269,slow=6.2,SNR=4.1 | | | | | | |
| KDAK | Kodiak Island | 48.88 | 41 | iP | P | 04 28 07.5 | +1.0 |
| COEN | Coen | 49.34 | 176 | eP | P | 04 28 11.0 | +0.7 |
| | comp=Z,1.2nm,0.5s | | | | | | |
| AAK | Ala-Archa | 50.28 | 299 | eP | P | 04 28 17.9 | +0.3 |
| AAK | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.5s | | | | | | |
| AAK | Ala-Archa | 50.28 | 299 | eP | P | 04 28 17.9 | +0.3 |
| | comp=Z,1.5nm,0.5s | | | | | | |
| BRVK | Borovoye | 50.86 | 313 | eP | P | 04 28 21.2 | -0.4 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.4s | | | | | | |
| BRVK | Borovoye | 50.86 | 313 | eP | P | 04 28 21.2 | -0.4 |
| | comp=Z,3.4nm,0.4s | | | | | | |
| ILAR | Eielson Array | 51.29 | 32 | P | P | 04 28 24.9 | +0.4 |
| | comp=Z,0.8nm,0.7s,baz=266,slow=6.2,SNR=14 | | | | | | |
| ILAR | Eielson Array | 51.29 | 32 | P | P | 04 28 25.0 | +0.4 |
| ILAR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.7s | | | | | | |
| FITZ | Fitzroy Crossi | 55.11 | 197 | P | P | 04 28 53.5 | +0.4 |
| | comp=Z,2.6nm,0.6s,baz=4.7,slow=9.0,SNR=5.5 | | | | | | |
| WRAB | Tennant Creek | 55.47 | 187 | eP | P | 04 28 55.3 | -0.4 |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | |
| WRAB | Tennant Creek | 55.47 | 187 | eP | P | 04 28 55.3 | -0.4 |
| | comp=Z,2.3nm,0.7s | | | | | | |
| WRA | Warramunga Arr | 55.48 | 187 | P | P | 04 28 55.6 | -0.1 |
| | comp=Z,2.6nm,0.5s,baz=0.8,slow=7.4,SNR=57 | | | | | | |
| INK | Inuvik | 56.16 | 27 | P | P | 04 29 00.3 | +0.2 |
| | comp=Z,0.8nm,0.6s,baz=306,slow=6.8,SNR=5.1 | | | | | | |
| ARU | Arti | 56.78 | 319 | eP | P | 04 29 04.2 | -0.5 |
| ARU | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.5s | | | | | | |
| ARU | Arti | 56.78 | 319 | eP | P | 04 29 04.2 | -0.5 |
| | comp=Z,3.0nm,0.5s | | | | | | |
| ASAR | Alice Springs | 59.20 | 187 | P | P | 04 29 22.3 | +0.3 |
| | comp=Z,0.6nm,0.4s,baz=18,slow=12,SNR=16 | | | | | | |
| MBWA | Marble Bar | 59.64 | 202 | eP | P | 04 29 24.6 | -0.4 |
| | comp=Z,24nm,0.6s | | | | | | |
| ARCES | ARCESS Array B | 65.00 | 339 | P | P | 04 30 00.3 | 0.0 |
| | comp=Z,1.7nm,0.8s,baz=41,slow=4.7,SNR=5.0 | | | | | | |
| YKA | Yellowknife Ar | 65.59 | 29 | P | P | 04 30 04.7 | +0.5 |
| | comp=Z,0.5nm,0.7s,baz=308,slow=7.0,SNR=4.8 | | | | | | |
| FORT | Forrest | 66.96 | 191 | eP | P | 04 30 13.9 | +0.7 |
| OBN | Obninsk | 68.65 | 323 | eP | P | 04 30 25.5 | +1.9 |
| OBN | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.9s | | | | | | |
| FINES | FINESS Array B | 69.63 | 332 | P | P | 04 30 29.6 | +0.1 |
| | comp=Z,5.2nm,0.7s,baz=59,slow=6.5,SNR=23 | | | | | | |
| KBZ | Khabaz | 71.07 | 311 | P | P | 04 30 38.7 | +0.1 |
| | comp=Z,1.7nm,0.8s,baz=52,slow=4.3,SNR=4.2 | | | | | | |
| KIV | Kislovodsk | 71.08 | 311 | eP | P | 04 30 40.0 | +1.1 |
| KIV | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.4s | | | | | | |
| BMO | Blue Mountains | 73.69 | 46 | eP | P | 04 30 55.2 | +0.8 |
| BMO | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.6s | | | | | | |
| BMO | Blue Mountains | 73.69 | 46 | eP | P | 04 30 55.2 | +0.8 |
| | comp=Z,0.9nm,0.6s | | | | | | |
| AKASG | Malin Array Be | 74.82 | 322 | P | P | 04 31 00.5 | -0.2 |
| | comp=Z,2.0nm,0.4s,baz=47,slow=6.0,SNR=15 | | | | | | |
| KIEV | Kiev | 74.83 | 322 | eP | P | 04 31 00.3 | -0.5 |
| KIEV | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.5s | | | | | | |
| KIEV | Kiev | 74.83 | 322 | eP | P | 04 31 00.3 | -0.5 |
| | comp=Z,4.4nm,0.5s | | | | | | |
| NB2 | NORSAR Subarra | 75.13 | 337 | P | P | 04 31 02.2 | -0.2 |
| | comp=Z,1.8nm,0.6s,baz=41,slow=5.9 | | | | | | |
| NOA | NORSAR Array B | 75.13 | 337 | P | P | 04 31 02.7 | +0.3 |
| | comp=Z,0.9nm,0.7s,baz=61,slow=8.3,SNR=4.2 | | | | | | |
| NOA | NORSAR Array B | 75.13 | 337 | P | P | 04 31 02.7 | +0.3 |
| NOA | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.2s | | | | | | |
| R11A | Troy Canyon, C | 78.49 | 51 | eP | P | 04 31 22.0 | +0.1 |
| | comp=Z,0.5nm,0.5s | | | | | | |
| BRTR | Keskin Array B | 79.04 | 311 | P | P | 04 31 24.8 | -0.1 |
| | comp=Z,0.8nm,0.7s,baz=79,slow=6.4,SNR=5.0 | | | | | | |
| BRTR | Keskin Array B | 79.04 | 311 | ceP | P | 04 31 25.8 | +0.9 |
| BRTR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.7s | | | | | | |
| PDAR | Pinedale Array | 79.44 | 45 | P | P | 04 31 28.2 | +1.1 |
| | comp=Z,0.7nm,0.5s,baz=246,slow=1.6,SNR=9.2 | | | | | | |
| MORC | Moravsky Berou | 81.01 | 326 | eP | P | 04 31 36.0 | +0.8 |
| MORC | | | | pmax | pmax | | |
| | comp=Z,13nm,1.0s | | | | | | |
| MORC | Moravsky Berou | 81.01 | 326 | eP | P | 04 31 36.0 | +0.8 |
| | comp=Z,13nm,1.0s | | | | | | |
| PSZ | Piszkesteto | 81.24 | 324 | eP | P | 04 31 36.5 | 0.0 |
| PSZ | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | |
| PSZ | Piszkesteto | 81.24 | 324 | eP | P | 04 31 36.5 | 0.0 |
| | comp=Z,2.1nm,0.7s | | | | | | |
| CLL | Collm | 81.84 | 330 | iP | P | 04 31 39.6 | +0.1 |
| CLL | | | | e*SP | sP | 04 32 09.0 | +2.6 |
| CLL | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.0s | | | | | | |
| CLL | Collm | 81.84 | 330 | iP | P | 04 31 39.6 | +0.1 |
| | comp=Z,6.0nm,1.0s | | | | | | |
| GERES | GERESS Array B | 83.40 | 328 | P | P | 04 31 47.3 | -0.5 |
| | comp=Z,0.5nm,0.6s,baz=46,slow=7.6,SNR=5.5 | | | | | | |
| AQU | L'Aquila | 88.44 | 324 | eP | P | 04 32 12.0 | -0.6 |
| AQU | L'Aquila | 88.44 | 324 | eP | P | 04 32 12.0 | -0.6 |
| TORD | Torodi Ar. Bea | 117.60 | 313 | PKP | PKPdf | 04 38 06.2 | -0.4 |
| | comp=Z,0.3nm,0.4s,baz=47,slow=1.6,SNR=11 | | | | | | |
| SAML | Samuel | 146.02 | 44 | ePKPbc | PKPbc | 04 39 00.5 | 0.0 |
| LPAZ | La Paz | 148.33 | 60 | PKPbc | PKPbc | 04 39 08.9 | +1.3 |
| | comp=Z,0.8nm,0.6s,baz=247,slow=22,SNR=4.1 | | | | | | |
| LCO | Las Campanas | 153.20 | 85 | ePKPbc | PKPbc | 04 39 19.3 | +0.8 |
| BDFB | Brasilia | 158.86 | 22 | PKP | PKPdf | 04 39 17.8 | -0.7 |
| | comp=Z,1.6nm,0.8s,baz=273,slow=5.0,SNR=3.3 | | | | | | |

**IDC 10 04:29:05.3**±10.0**, 53°.86S**×**133°.50W, h0**km**, mb4.0**/2**, mb1 4.3**/2**, mb1mx3.8**/23**, mbtmp4.0**/2**, MS3.6**/2**, Ms1 3.6**/2**, ms1mx3.1**/26**, Error ellipse: s-maj=849.2km s-min=61.3km az=148.0, Pacific-Antarctic Ridge**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PPT | Papeete | 38.31 | 335 | LR | LR | 04 47 23.9 | |
| | comp=Z,71nm,21.9s,baz=142,slow=29 | | | | | | |
| VNA3 | Neumayer Olymp | 49.03 | 159 | P | P | 04 37 56.2 | +2.9 |
| VNA2 | Neumayer--Watz | 49.75 | 160 | P | P | 04 37 56.5 | -2.3 |
| | baz=219,slow=9.9 | | | | | | |
| NNA | Nana | 60.99 | 69 | LR | LR | 04 58 40.7 | |
| | comp=Z,71nm,20.7s,baz=285,slow=29 | | | | | | |
| ASAR | Alice Springs | 72.73 | 254 | P | P | 04 40 35.0 | -0.1 |
| | 1.3nm,0.7s,baz=137,slow=6.2,SNR=16 | | | | | | |
| WRA | Warramunga Arr | 75.40 | 256 | P | P | 04 40 51.1 | +0.3 |
| | 1.0nm,0.7s,baz=144,slow=5.2,SNR=5.4 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 88.35 | 305 | T | T | 06 20 16.8 | |
| | baz=148,slow=76,SNR=12 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 88.36 | 305 | T | T | 06 20 17.6 | |
| | baz=148,slow=76,SNR=12 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 88.37 | 305 | T | T | 06 20 20.1 | |
| | baz=148,slow=76,SNR=9.1 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 89.30 | 306 | T | T | 06 21 25.5 | |
| | baz=154 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 89.30 | 306 | T | T | 06 21 23.6 | |
| | baz=154,slow=74,SNR=3.7 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 89.32 | 306 | T | T | 06 21 27.0 | |
| | baz=154,slow=74,SNR=3.9 | | | | | | |
| ILAR | Eielson Array | 118.75 | 353 | PKP | PKPdf | 04 47 53.6 | -0.2 |
| | 0.9nm,0.7s,baz=189,slow=2.1,SNR=14 | | | | | | |

*ISCJB **10** 04:36:37.6±0.5, 38°.86N±0°.03×30°.19E±0°.03, h1km±6km, Error ellipse: s-maj=4.5km s-min=3.4km az=31.5*
*CSEM **10** 04:36:37.9±0.1, 38°.86N×30°.19E, h5km, ML2.5, Error ellipse: s-maj=2.6km s-min=2.0km az=30.0*
*DDA **10** 04:36:37.6, 38°.84N×30°.22E, h7km, Ml2.6*
*ISK **10** 04:36:37.5, 38°.85N×30°.19E, h6km, ML2.5*
**ISC 10 04:36:37.8**±1.0**, 38°.86N**±0°.02×**30°.19E**±0°.02**, h7**km±10km**, n31, σ0s40**/52**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SHUT | Suhut-Afyon | 0.42 | 137 | ePG | Pg | 04 36 46.3 | +0.3 |
| SHUT | | | | eSG | Sg | 04 36 52.0 | +0.5 |
| SHUT | Suhut-Afyon | 0.42 | 137 | ePg | Pg | 04 36 46.3 | +0.3 |
| SHUT | | | | eSg | Sg | 04 36 52.0 | +0.5 |
| GDZ | Gediz | 0.60 | 293 | iP | Pb | 04 36 50.5 | -0.1 |
| GDZ | | | | iS | Sg | 04 36 58.1 | +0.9 |
| GDZ | Gediz | 0.60 | 293 | P | Pb | 04 36 50.5 | -0.1 |
| GDZ | | | | S | Sg | 04 36 58.1 | +0.9 |
| KZIL | AFYON_Kizioren | 0.60 | 183 | iP | Pg | 04 36 49.5 | +0.1 |
| KZIL | | | | iS | Sg | 04 36 56.8 | -0.5 |
| KZIL | AFYON_Kizioren | 0.60 | 183 | P | Pg | 04 36 49.5 | +0.1 |
| KZIL | | | | S | Sg | 04 36 56.8 | -0.5 |
| BOLV | Bolvadin | 0.61 | 103 | iP | Pg | 04 36 49.1 | -0.5 |
| BOLV | | | | iS | Sg | 04 36 57.9 | +0.2 |
| BOLV | Bolvadin | 0.61 | 103 | P | Pg | 04 36 49.2 | -0.5 |
| BOLV | | | | S | Sg | 04 36 57.9 | +0.2 |
| KHAL | Karahalli | 0.73 | 228 | iP | Pg | 04 36 51.8 | -0.1 |
| KHAL | | | | iS | Sg | 04 37 01.7 | +0.2 |
| TVSB | Tavsanli | 0.82 | 316 | ePG | Pg | 04 36 53.6 | +0.1 |
| TVSB | | | | eSG | Sb | 04 37 05.5 | -0.1 |
| TVSB | Tavsanli | 0.82 | 316 | ePg | Pg | 04 36 53.6 | +0.1 |
| TVSB | | | | eSg | Sb | 04 37 05.5 | -0.1 |
| SIMA | Simav-Kutahya | 0.96 | 284 | ePG | Pb | 04 36 56.7 | -0.2 |
| SIMA | Simav-Kutahya | 0.96 | 284 | ePg | Pb | 04 36 56.7 | -0.2 |
| BORA | Eskisehir | 1.04 | 11 | iP | Pg | 04 36 57.6 | -0.2 |
| BORA | | | | iS | Sb | 04 37 11.8 | -0.3 |
| BORA | Eskisehir | 1.04 | 11 | P | Pg | 04 36 57.6 | -0.2 |
| BORA | | | | S | Sb | 04 37 11.8 | -0.3 |
| BRDR | BURDUR-Merkez | 1.17 | 185 | iP | Pg | 04 36 59.9 | -0.3 |
| BRDR | | | | iS | Sn | 04 37 17.4 | +0.6 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **BRDR** | **BURDUR-Merkez** | **1.17** | **185** | P | **Pg** | **04 36 59.9** | **-0.3** |
| BRDR | | | | S | **Sn** | **04 37 17.4** | **+0.6** |
| **SVRH** | **Sivrihisar-ESK** | **1.19** | **60** | *e*PN | **Pb** | **04 37 00.7** | **-0.1** |
| **SVRH** | **Sivrihisar-ESK** | **1.19** | **60** | *e*Pn | **Pb** | **04 37 00.7** | **-0.1** |
| **KULA** | **Kula-Manisa** | **1.24** | **254** | *e*PN | **Pn** | **04 37 01.9** | **+0.2** |
| **KULA** | **Kula-Manisa** | **1.24** | **254** | *e*Pn | **Pn** | **04 37 01.9** | **+0.2** |
| **KIZT** | **Kizilcal** | **1.32** | **89** | *e*PN | **Pg** | **04 37 03.1** | **-0.1** |
| **KIZT** | **Kizilcal** | **1.32** | **89** | *e*Pn | **Pg** | **04 37 03.1** | **-0.1** |
| **MANT** | **Manisa** | **1.33** | **254** | *i* P | **Pn** | **04 37 03.0** | **+0.1** |
| MANT | | | | *i* S | **Sg** | **04 37 19.6** | **-0.9** |
| **MANT** | **Manisa** | **1.33** | **254** | P | **Pn** | **04 37 03.0** | **+0.1** |
| MANT | | | | S | **Sg** | **04 37 19.6** | **-0.9** |
| **DOGA** | **KONYA_Doganhis** | **1.39** | **122** | *i* P | **Pg** | **04 37 04.4** | **0.0** |
| DOGA | | | | *i* S | **Sb** | **04 37 21.8** | **-0.2** |
| **DOGA** | **KONYA_Doganhis** | **1.39** | **122** | P | **Pg** | **04 37 04.4** | **0.0** |
| DOGA | | | | S | **Sb** | **04 37 21.8** | **-0.2** |
| **KDHN** | **Kadinhani** | **1.55** | **102** | *i* P | **Pg** | **04 37 07.0** | **-0.5** |
| KDHN | | | | *i* S | **Sb** | **04 37 26.7** | **0.0** |
| **KDHN** | **Kadinhani** | **1.55** | **102** | P | **Pg** | **04 37 07.0** | **-0.5** |
| KDHN | | | | S | **Sb** | **04 37 26.7** | **0.0** |
| **GULT** | **Gulveren** | **1.59** | **9** | *e*PN | **Pb** | **04 37 07.2** | **-0.4** |
| **GULT** | **Gulveren** | **1.59** | **9** | *e*Pn | **Pb** | **04 37 07.2** | **-0.4** |

---

*ISCJB **10** 04:37:47.4±0.7, 40°.90N±0°.03×34°.49E±0°.04, h2km±7km, Error ellipse: s-maj=5.5km s-min=4.6km az=164.2*
*CSEM **10** 04:37:47.5±0.2, 40°.89N×34°.50E, h2km, ML2.8, Error ellipse: s-maj=5.2km s-min=4.0km az=158.0*
*DDA **10** 04:37:47.2, 40°.87N×34°.49E, h7km, Ml2.8*
*ISK **10** 04:37:47.5, 40°.91N×34°.49E, h10km, MD2.8*
**ISC 10 04:37:47.8**±1.0, **40°.88N**±0°.03×**34°.49E**±0°.02, **h11**km±10km, **n29**, σ**0s.62**/40, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CTAK** | **Corum_Osmancik** | **0.32** | **135** | *i* P | **Pg** | **04 37 54.1** | **-0.2** |
| CTAK | | | | *i* S | **Sg** | **04 37 59.6** | **+0.8** |
| **CTAK** | **Corum_Osmancik** | **0.32** | **135** | P | **Pg** | **04 37 54.2** | **-0.2** |
| CTAK | | | | S | **Sg** | **04 37 59.6** | **+0.8** |
| **ILGA** | **Ilgaz** | **0.61** | **287** | *i* P | **Pg** | **04 37 59.6** | **-0.2** |
| ILGA | | | | *i* S | **Sg** | **04 38 08.0** | **+0.1** |
| **ILGA** | **Ilgaz** | **0.61** | **287** | P | **Pg** | **04 37 59.6** | **-0.2** |
| ILGA | | | | S | **Sg** | **04 38 08.0** | **+0.1** |
| **CANT** | **Cankiri** | **0.72** | **248** | *e*PG | **Pb** | **04 38 01.9** | **-0.4** |
| CANT | | | | *e*SG | **Sb** | **04 38 12.4** | **+0.2** |
| **COAL** | **Corum-Alaca** | **0.73** | **149** | *i* P | **Pg** | **04 38 01.0** | **-0.9** |
| **COAL** | **Corum-Alaca** | **0.73** | **149** | P | **Pg** | **04 38 01.0** | **-0.9** |
| **HAVZ** | **Havza** | **0.95** | **78** | *i* P | **Pg** | **04 38 04.8** | **-1.3** |
| HAVZ | | | | *i* S | **Sb** | **04 38 19.3** | **+0.5** |
| **HAVZ** | **Havza** | **0.95** | **78** | P | **Pg** | **04 38 04.8** | **-1.3** |
| HAVZ | | | | S | **Sb** | **04 38 19.3** | **+0.5** |
| **DIKM** | **Dikmen** | **0.96** | **37** | *e*PG | **Pg** | **04 38 05.8** | **-0.5** |
| **BZK** | **Bozkurt** | **1.14** | **341** | *e*PN | **Pb** | **04 38 09.6** | **+0.1** |
| **BZK** | **Bozkurt** | **1.14** | **341** | *e*Pn | **Pb** | **04 38 09.6** | **+0.1** |
| **KVT** | **Kavak** | **1.19** | **80** | *e*PN | **Pn** | **04 38 10.8** | **+0.3** |
| **KVT** | **Kavak** | **1.19** | **80** | *e*Pn | **Pn** | **04 38 10.8** | **+0.3** |
| **CDAG** | **Cicekdag** | **1.26** | **184** | *i* P | **Pn** | **04 38 10.7** | **-0.7** |
| CDAG | | | | *i* S | **Sb** | **04 38 28.5** | **+0.8** |
| **CDAG** | **Cicekdag** | **1.26** | **184** | P | **Pn** | **04 38 10.7** | **-0.7** |
| CDAG | | | | S | **Sb** | **04 38 28.5** | **+0.8** |
| **SINO** | **SINOP_Merkez** | **1.26** | **25** | *i* P | **Pn** | **04 38 11.4** | **+0.1** |
| **SINO** | **SINOP_Merkez** | **1.26** | **25** | P | **Pn** | **04 38 11.4** | **+0.1** |
| **SNOP** | **Sinop** | **1.26** | **25** | *e*PN | **Pn** | **04 38 10.4** | **-0.9** |
| **SAMS** | **Samsun-Alacam** | **1.37** | **69** | *i* P | **Pn** | **04 38 13.0** | **+0.2** |
| SAMS | | | | *i* S | **Sg** | **04 38 32.4** | **+0.6** |
| **SAMS** | **Samsun-Alacam** | **1.37** | **69** | P | **Pn** | **04 38 13.0** | **+0.2** |
| SAMS | | | | S | **Sg** | **04 38 32.4** | **+0.6** |
| **KAMT** | **Kaman** | **1.62** | **202** | *e*PN | **Pb** | **04 38 17.3** | **-0.4** |
| **KAMT** | **Kaman** | **1.62** | **202** | *e*Pn | **Pb** | **04 38 17.3** | **-0.4** |
| **ERBA** | **Erbaa** | **1.73** | **96** | *i* P | **Pg** | **04 38 20.7** | **-0.3** |
| **ERBA** | **Erbaa** | **1.73** | **96** | P | **Pg** | **04 38 20.7** | **-0.3** |
| **AFSR** | **Af¯ar-Bala (A** | **1.80** | **218** | *e*PN | **Pb** | **04 38 20.1** | **-0.6** |
| **AFSR** | **Af¯ar-Bala (A** | **1.80** | **218** | *e*Pn | **Pb** | **04 38 20.1** | **-0.6** |
| **SERE** | **Sereflikochisa** | **2.06** | **201** | *e*PN | **Pn** | **04 38 23.2** | **+0.8** |
| **SERE** | **Sereflikochisa** | **2.06** | **201** | *e*Pn | **Pn** | **04 38 23.2** | **+0.8** |

---

*IDC **10** 04:40:56.9±1.9, 38°.08N×144°.45E, h0km, mb3.7/5, mb1 3.9/7, mb1mx3.5/47, mbtmp3.7/7, ML4.0/2, MS3.0/1, Ms1 3.0/1, ms1mx2.5/44, Error ellipse: s-maj=54.6km s-min=21.0km az=73.0*
*ISCJB **10** 04:40:59.7±0.7, 38°.20N±0°.04×144°.22E±0°.05, h33km, mb3.7/5, Error ellipse: s-maj=6.3km s-min=5.3km az=35.4*
*NIED **10** 04:41:00, 38°.20N×144°.10E, h5km, Mw3.8 Best double couple: $M_0$5.56000×$10^{14}$ NP1:$\phi_s$356.00000°, δ32.00000°, λ-145.00000°. NP2:$\phi_s$235.00000°, δ72.00000°, λ-63.00000°.*
*JMA **10** 04:41:01.1±0.2, 38°.18N×144°.10E, h38km, M4.0*
**ISC 10 04:41:01.8**±1.1, **38°.21N**±0°.06×**144°.22E**±0°.08, **h35**km, **n23**, σ**1s.52**/36, **mb3.6**/5, **Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OFUJ** | **Ofunato** | **2.18** | **294** | P | **Pn** | **04 41 35.4** | **-0.2** |
| OFUJ | | | | S | **Sn** | **04 42 00.5** | **-0.8** |
| **JIO** | **Ouri** | **2.27** | **277** | P | **Pn** | **04 41 36.4** | **-0.4** |
| JIO | | | | S | **Sn** | **04 42 01.9** | **-1.7** |
| **MIYJ** | **Miyakonagasawa** | **2.32** | **307** | P | **Pn** | **04 41 37.1** | **-0.4** |
| MIYJ | | | | S | **Sn** | **04 42 03.9** | **-0.9** |
| **JMK** | **Ichinoseki** | **2.47** | **288** | P | **Pn** | **04 41 39.4** | **-0.1** |
| JMK | | | | S | **Sn** | **04 42 07.6** | **-0.8** |
| **JOM** | **Ohasama** | **2.61** | **300** | P | **Pn** | **04 41 41.7** | **+0.2** |
| JOM | | | | *e*S | **Sn** | **04 42 11.5** | **-0.5** |
| **JANG** | **Nango** | **3.01** | **317** | P | **Pn** | **04 41 47.7** | **+0.7** |
| **JYK** | **Kaneyama** | **3.11** | **284** | P | **Pn** | **04 41 49.1** | **+0.7** |
| JYK | | | | *e*S | **Sn** | **04 42 25.0** | **+0.7** |
| **JFT** | **Otama** | **3.15** | **259** | P | **Pn** | **04 41 48.9** | **-0.1** |
| JFT | | | | *e*S | **Sn** | **04 42 24.2** | **-1.1** |
| **JKB** | **Kayabe** | **4.41** | **327** | P | **Pn** | **04 42 08.1** | **+1.8** |
| JKB | | | | *e*S | **Sn** | **04 42 54.5** | **-1.9** |
| **JCH** | **Churui** | **4.45** | **352** | P | **Pn** | **04 42 06.9** | **+0.2** |
| JCH | | | | *e*S | **Sn** | **04 42 56.1** | **-1.2** |
| **JRY** | **Ryogami san** | **4.78** | **244** | P | **Pn** | **04 42 10.3** | **-1.1** |
| JRY | | | | S | **Sn** | **04 43 01.8** | **-3.8** |
| **JOD2** | **Odawara 2** | **5.06** | **236** | P | **Pn** | **04 42 15.6** | **+0.3** |
| **MJAR** | **Matsushiro Arr** | **5.07** | **253** | Pn | **Pn** | **04 42 15.4** | **+0.1** |
| | 4.3nm,0.3s,baz=92,slow=15,SNR=22 | | | | | | |
| MJAR | | | | Sn | **Sn** | **04 43 11.2** | **-1.4** |
| | 0.6nm,0.3s,baz=75,slow=22,SNR=2.8 | | | | | | |
| **MAT** | **Matsushiro** | **5.07** | **253** | P | **Pn** | **04 42 15.9** | **+0.5** |
| MAT | | | | S | **Sn** | **04 43 11.1** | **-1.6** |
| **NEM2** | **Nemuro 2** | **5.28** | **12** | P | **Pn** | **04 42 17.2** | **-0.9** |
| NEM2 | | | | *e*S | **Sn** | **04 43 13.1** | **-4.6** |
| **JTKR** | **Abashiri--Toko** | **5.76** | **358** | P | **Pn** | **04 42 24.7** | **-0.1** |
| JTKR | | | | *e*S | **Sn** | **04 43 27.3** | **-2.3** |
| **ASAJ** | **Asahikawa** | **6.03** | **349** | Pn | **Pn** | **04 42 29.2** | **+0.7** |
| | 3.9nm,0.3s,baz=229,slow=3.1,SNR=10 | | | | | | |
| **KSRS** | **Korea Array** | **12.91** | **272** | LR | LR | 04 49 02.5 | |
| | comp=Z,53nm,18.0s,baz=350,slow=37 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.79** | **311** | P | **P** | **04 48 59.0** | **+3.2** |
| | 0.3nm,0.3s,baz=71,slow=9.6,SNR=1.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **45.39** | **302** | P | **P** | **04 49 17.4** | **+0.6** |
| | 0.4nm,0.8s,baz=87,slow=9.9,SNR=2.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **58.58** | **191** | P | **P** | **04 50 54.6** | **-0.5** |
| | 0.9nm,0.5s,baz=9.9,slow=7.1,SNR=19 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **58.67** | **201** | P | **P** | **04 50 56.4** | **+0.7** |
| | 1.6nm,0.7s,baz=8.7,slow=13,SNR=3.8 | | | | | | |
| **ASAR** | **Alice Springs** | **62.31** | **191** | P | **P** | **04 51 19.7** | **-0.8** |
| | 0.2nm,0.4s,baz=1.0,slow=6.6,SNR=4.7 | | | | | | |

---

*IDC **10** 04:43:23.5±1.7, 37°.18N×135°.59E, h371km±28km, mb2.7/1, mb1 3.1/4, mb1mx2.6/51, mbtmp3.6/4, Error ellipse: s-maj=59.9km s-min=27.9km az=75.0*
*JMA **10** 04:43:24.2±0.1, 37°.10N×135°.57E, h356km, M2.9*
*ISCJB **10** 04:43:25.0±1.9, 37°.4N±0°.2×135°.6E±0°.3, h350km, mb2.8/1, Error ellipse: s-maj=37.2km s-min=17.2km az=146.4*
**ISC 10 04:43:23.9**±1.3, **37°.2N**±0°.1×**135°.5E**±0°.2, **h350**km, **n7**, σ**1s.71**/7, **Sea of Japan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JNG** | **Nsakai** | **2.21** | **110** | P | **Pn** | **04 44 18.4** | **+1.6** |
| **MAT** | **Matsushiro** | **2.25** | **106** | P | **Pn** | **04 44 17.8** | **+0.8** |
| **MJAR** | **Matsushiro Arr** | **2.25** | **106** | P | **Pn** | **04 44 18.5** | **+1.4** |
| | 3.4nm,0.3s,baz=281,slow=9.1,SNR=16 | | | | | | |
| **JMM** | **Marumori** | **4.24** | **79** | P | **Pn** | **04 44 36.0** | **+0.7** |
| **USRK** | **Ussuriysk Ar.** | **7.50** | **340** | P | **Pn** | **04 45 12.3** | **+0.4** |
| | 0.5nm,0.3s,baz=145,slow=11,SNR=5.7 | | | | | | |
| **ASAJ** | **Asahikawa** | **8.76** | **36** | P | **Pn** | **04 45 26.4** | **-0.5** |
| | 1.4nm,0.3s,baz=220,slow=8.6,SNR=4.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **56.83** | **181** | P | **P** | **04 52 30.6** | **-2.4** |
| | 0.2nm,0.4s,baz=360,slow=7.6,SNR=4.6 | | | | | | |

---

*SJA **10** 05:05:59.8±0.5, 36°.65S×70°.93W, h137km±18km, ML3.8, MW3.3*
*ISCJB **10** 05:06:02.9±1.0, 36°.15S±0°.06×71°.7W±0°.1, h97km±10km, Error ellipse: s-maj=18.7km s-min=7.1km az=22.9*
*GUC **10** 05:06:04.5±0.7, 36°.15S×71°.69W, h85km±6km, ML4.0*
**ISC 10 05:06:03.3**±2.3, **36°.17S**±0°.09×**71°.7W**±0°.1, **h96**km±19km, **n16**, σ**0s.82**/28, **6C-1D**, **Central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CCHI** | **Chillan** | **0.51** | **212** | ⇑*i*P | **Pn** | **05 06 18.6** | **-0.2** |
| CCHI | | | | *i* S | **Sn** | **05 06 29.9** | **-0.4** |
| **COCH** | **Cobquecura** | **0.85** | **272** | ⇑*i*P | **Pn** | **05 06 22.4** | **+0.5** |
| COCH | | | | *i* S | **Sn** | **05 06 35.9** | **+0.2** |
| **GO05** | **HualaæØ** | **1.17** | **352** | ⇑*i*P | **Pn** | **05 06 26.0** | **+0.6** |
| GO05 | | | | *i* S | **Sn** | **05 06 41.9** | **-0.2** |
| GO05 | | | | IAML | | 05 06 43.9 | |
| | comp=E,3µm,0.2s | | | | | | |
| **NICH** | **Los Niches** | **1.24** | **20** | ⇑*i*P | **Pn** | **05 06 26.7** | **+0.5** |
| NICH | | | | *e*S | **Sn** | **05 06 43.6** | **+0.1** |
| **CHPI** | **Pichilemu** | **1.79** | **353** | *i* P | **Pn** | **05 06 32.7** | **-0.4** |
| CHPI | | | | *i* S | **Sn** | **05 06 54.9** | **-0.7** |
| **ANTU** | **Antumapu** | **2.75** | **20** | *e*P | **Pn** | **05 06 46.5** | **+0.7** |
| ANTU | | | | *i* S | **Sn** | **05 07 17.7** | **-0.6** |
| ANTU | | | | IAML | | 05 07 22.5 | |
| | comp=E,493nm,0.4s | | | | | | |
| **RCDM** | **Rinconada Maip** | **2.79** | **16** | *e*P | **Pn** | **05 06 46.1** | **0.0** |
| RCDM | | | | *e*S | **Sn** | **05 07 18.1** | **-0.9** |
| **CLCH** | **Cerro Calan** | **2.94** | **20** | ⇑*i*P | **Pn** | **05 06 48.8** | **+0.5** |
| CLCH | | | | *i* S | **Sn** | **05 07 22.1** | **-0.8** |
| CLCH | | | | IAML | | 05 07 26.5 | |
| | comp=E,411nm,0.3s | | | | | | |
| **FCH** | **Farellones** | **3.08** | **23** | ⇓*i*P | **Pn** | **05 06 51.2** | **+0.9** |
| FCH | | | | *i* S | **Sn** | **05 07 26.2** | **-0.3** |
| FCH | | | | IAML | | 05 07 29.7 | |
| | comp=N,400nm,0.1s | | | | | | |
| **PEL** | **Peldehue** | **3.14** | **16** | ⇑*i*P | **Pn** | **05 06 51.6** | **+0.6** |
| PEL | | | | *i* S | **Sn** | **05 07 27.4** | **-0.3** |
| PEL | | | | IAML | | 05 07 46.6 | |
| | comp=E,378nm,0.6s | | | | | | |
| **AUSP** | **Uspallata** | **4.39** | **27** | *e*P | **Pn** | **05 07 09.2** | **+1.1** |
| **RTLS** | **Leoncito** | **4.81** | **26** | *e*P | **Pn** | **05 07 15.3** | **+1.6** |
| RTLS | | | | *e*S | **Sn** | **05 08 10.5** | **+2.0** |
| **RTCV** | **Cerro Valdivia** | **5.05** | **33** | *e*P | **Pn** | **05 07 16.3** | **-0.5** |
| **AMOG** | **MOGNA** | **5.88** | **28** | *e*P | **Pn** | **05 07 27.7** | **-0.3** |
| AMOG | | | | *e*S | **Sn** | **05 08 33.2** | **-1.0** |
| **AGUA** | **GUANDACOL** | **7.21** | **23** | *e*P | **Pn** | **05 07 45.9** | **-0.3** |
| AGUA | | | | *e*S | **Sn** | **05 09 05.4** | **-1.0** |
| **VCA** | **Vinchina** | **7.99** | **23** | IAML | | 05 09 28.4 | |
| | comp=Z,7.0nm,0.3s | | | | | | |

---

*ISCJB **10** 05:06:49.0±0.7, 5°.68S±0°.06×148°.9E±0°.1, h150km, mb4.0/11, Error ellipse: s-maj=20.0km s-min=7.8km az=12.9*
*IDC **10** 05:06:50.7±1.4, 5°.78S×148°.97E, h155km±13km, mb3.7/12, mb1 3.8/14, mb1mx3.7/34, mbtmp4.2/14, Error ellipse: s-maj=22.3km s-min=8.8km az=114.0*
**ISC 10 05:06:50.1**±0.8, **5°.77S**±0°.09×**149°.0E**±0°.2, **h150**km, **n15**, σ**1s.09**/20, **mb3.9**/11, **New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **4.04** | **207** | P | **Pn** | **05 07 52.1** | **+1.1** |
| | 27nm,0.3s,baz=336,slow=5.4,SNR=30 | | | | | | |
| PMG | | | | S | **Sn** | **05 08 38.6** | **+0.3** |
| | 39nm,0.3s,baz=314,slow=22,SNR=22 | | | | | | |
| **CTA** | **Charters Tower** | **14.48** | **190** | P | **P** | **05 10 09.8** | **-0.8** |
| | 0.4nm,0.3s,baz=16,slow=10.0,SNR=4.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **20.04** | **224** | P | **P** | **05 11 12.1** | **+0.4** |
| | 2.2nm,0.3s,baz=48,slow=9.9,SNR=47 | | | | | | |
| WRA | | | | pP | **pP** | **05 11 37.1** | **-0.9** |
| | 1.9nm,0.6s,baz=50,slow=11,SNR=5.8 | | | | | | |
| WRA | | | | S | **S** | **05 14 48.2** | **-0.6** |
| | 1.6nm,1.0s,baz=47,slow=19,SNR=6.3 | | | | | | |
| **ASAR** | **Alice Springs** | **22.97** | **218** | P | **P** | **05 11 42.4** | **+0.6** |
| | 1.3nm,0.6s,baz=50,slow=8.3,SNR=22 | | | | | | |
| ASAR | | | | pP | **pP** | **05 12 08.4** | **-1.6** |
| | 2.6nm,0.7s,baz=49,slow=9.8,SNR=9.5 | | | | | | |
| ASAR | | | | S | **S** | **05 15 42.1** | **+1.4** |
| | 0.5nm,0.6s,baz=28,slow=21,SNR=3.8 | | | | | | |
| **DZM** | **Mont Dzumac** | **23.40** | **136** | P | **P** | **05 11 46.3** | **+0.5** |
| | 2.2nm,0.7s,baz=325,slow=14,SNR=5.8 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **25.88** | **240** | P | **P** | **05 12 07.6** | **-0.7** |
| | 14nm,0.5s,baz=73,slow=7.2,SNR=46 | | | | | | |
| **JNU** | **Nakatsue** | **42.33** | **337** | P | **P** | **05 14 29.7** | **+0.4** |
| | 6.3nm,0.6s,baz=81,slow=3.7,SNR=6.1 | | | | | | |
| **KSRS** | **Korea Array** | **47.28** | **337** | P | **P** | **05 15 09.0** | **+0.6** |
| | 2.7nm,0.4s,baz=154,slow=8.4,SNR=8.9 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **52.05** | **345** | P | **P** | **05 15 45.1** | **+0.8** |
| | 4.0nm,0.8s,baz=162,slow=8.1,SNR=5.7 | | | | | | |
| **PETK** | **Petropavlovsk-** | **59.12** | **6** | P | **P** | **05 16 35.3** | **+0.6** |
| | 2.4nm,0.5s,baz=155,slow=5.6,SNR=9.2 | | | | | | |
| **SONM** | **Songino Array** | **65.18** | **330** | P | **P** | **05 17 16.9** | **+1.5** |
| | 0.8nm,0.6s,baz=149,slow=5.3,SNR=4.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **78.59** | **320** | P | **P** | **05 18 33.5** | **-1.7** |
| | 0.3nm,0.5s,baz=98,slow=7.1,SNR=4.8 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **79.88** | **327** | P | **P** | **05 18 40.5** | **-1.5** |
| | 0.8nm,0.4s,baz=110,slow=5.5,SNR=5.4 | | | | | | |
| **ILAR** | **Eielson Array** | **84.50** | **23** | P | **P** | **05 19 04.5** | **-1.4** |
| | 1.2nm,0.6s,baz=253,slow=4.8,SNR=22 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **146.95** | **285** | PKPbc | **PKPdf** | **05 26 14.9** | **+0.9** |
| | 0.6nm,0.3s,baz=84,slow=2.8,SNR=28 | | | | | | |

---

*AZER **10** 05:07:50.4±0.2, 38°.98N×43°.10E, h15km, Error ellipse: s-maj=1.9km s-min=1.7km az=123.0*
*NEIC **10** 05:07:51.8±0.0, 38°.92N×43°.56E, h5km, mb4.1/7, ML4.4(ISK), After ISK.*
*ISK **10** 05:07:51.8, 38°.92N×43°.56E, h5km, ML4.4*
*ATA **10** 05:07:51.5±0.8, 38°.93N×43°.50E, h1km±3km, ML4.8, MW4.8*
*IDC **10** 05:07:52.6±1.0, 38°.92N×43°.63E, h0km, mb3.9/11, mb1 3.9/18, mb1mx3.7/41, mbtmp3.8/18, ML2.8/6, MS3.4/10, Ms1 3.4/10, ms1mx3.1/55, Error ellipse: s-maj=18.1km s-min=10.3km az=156.0*
*DDA **10** 05:07:52.4, 38°.91N×43°.57E, h10km, Ml4.2*
*TEH **10** 05:07:53.1, 39°.18N×43°.37E, h18km, ML4.0*
*MOS **10** 05:07:54.1±1.8, 38°.64N×43°.66E, h12km, mb4.2/11, Error ellipse: s-maj=8.2km s-min=5.0km az=96.1*
*CSEM **10** 05:07:54.3±0.1, 38°.89N×43°.60E, h10km, ML4.2, Error ellipse: s-maj=4.0km s-min=3.0km az=156.0*
**ISC 10 05:07:53.2**±0.4, **39°.05N**±0°.01×**43°.45E**±0°.01, **h8**km±2km, **n315**, σ**2s.17**/324, **mb4.0**/18, **MS3.3**/5, **53C-40D**, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ERCV** | **ERCIS-VAN** | **0.10** | **253** | *e*PG | **Pb** | **05 07 56.2** | **+0.5** |
| ERCV | | | | *e*SG | **Sg** | **05 08 00.7** | **+3.3** |
| **ERCV** | **ERCIS-VAN** | **0.10** | **253** | *e*Pg | **Pb** | **05 07 56.2** | **+0.5** |
| ERCV | | | | *e*Sg | **Sg** | **05 08 00.7** | **+3.3** |
| **VMUR** | **Van-Muradiye** | **0.11** | **123** | ⇑*i*P | **Pg** | **05 07 54.7** | **-1.2** |
| VMUR | | | | *i* S | **Sg** | **05 07 57.2** | **-0.5** |
| **VMUR** | **Van-Muradiye** | **0.11** | **123** | P | **Pg** | **05 07 54.7** | **-1.2** |
| VMUR | | | | S | **Sg** | **05 07 57.2** | **-0.5** |
| **CLDR** | **Caldiran** | **0.37** | **75** | *e*PG | **Pg** | **05 07 59.9** | **-0.7** |
| CLDR | | | | *e*SG | **Sg** | **05 08 06.5** | **+0.9** |
| **CLDR** | **Caldiran** | **0.37** | **75** | ⇑*i*P | **Pg** | **05 07 59.9** | **-0.7** |
| CLDR | | | | *i* S | **Sg** | **05 08 06.5** | **+0.9** |
| **CLDR** | **Caldiran** | **0.37** | **75** | P | **Pg** | **05 07 59.9** | **-0.7** |
| CLDR | | | | S | **Sg** | **05 08 06.4** | **+0.9** |
| **VANB** | **Van** | **0.46** | **186** | *e*PG | **Pg** | **05 08 01.3** | **-0.8** |
| **VANB** | **Van** | **0.46** | **186** | *e*Pg | **Pg** | **05 08 01.3** | **-0.8** |
| **TVAN** | **Van** | **0.52** | **184** | ⇑*i*P | **Pb** | **05 08 01.5** | **-3.2** |
| TVAN | | | | *i* S | **Sg** | **05 08 09.9** | **-0.3** |
| **TVAN** | **Van** | **0.52** | **184** | P | **Pb** | **05 08 01.5** | **-3.2** |
| **DYDN** | **Diyadin** | **0.53** | **20** | *e*P | **Pn** | **05 08 04.2** | **-3.0** |
| DYDN | | | | IAML | | 05 08 17.2 | |
| | comp=Z,2µm,0.5s | | | | | | |
| **DYDN** | **Diyadin** | **0.53** | **20** | ⇑*i*P | **Pn** | **05 08 04.6** | **-2.6** |
| DYDN | | | | *i* S | **Sn** | **05 08 14.6** | **-1.9** |
| **DYDN** | **Diyadin** | **0.53** | **20** | P | **Pn** | **05 08 04.6** | **-2.6** |
| DYDN | | | | S | **Sn** | **05 08 14.6** | **-1.9** |
| **TUTA** | **Tutak** | **0.61** | **306** | ⇓*i*P | **Pn** | **05 08 06.4** | **-2.0** |
| TUTA | | | | *i* S | **Sn** | **05 08 18.1** | **-0.4** |
| **TUTA** | **Tutak** | **0.61** | **306** | P | **Pn** | **05 08 06.4** | **-2.0** |
| TUTA | | | | S | **Sn** | **05 08 18.1** | **-0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.62** | **247** | ⇑*i*P | **Pg** | **05 08 05.4** | **+0.2** |
| ADCV | | | | *i* S | **Sn** | **05 08 15.9** | **-2.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.62** | **247** | P | **Pg** | **05 08 05.4** | **+0.2** |
| ADCV | | | | S | **Sn** | **05 08 15.9** | **-2.7** |
| **AGRB** | **Hanur-Agry** | **0.64** | **326** | *e*PG | **Pn** | **05 08 07.2** | **-1.6** |
| AGRB | | | | *e*SG | **Sn** | **05 08 19.4** | **+0.2** |
| **AGRB** | **Hanur-Agry** | **0.64** | **326** | *e*Pg | **Pn** | **05 08 07.2** | **-1.6** |
| AGRB | | | | *e*Sg | **Sn** | **05 08 19.4** | **+0.2** |
| **GEVA** | **Gevas** | **0.80** | **203** | ⇑*i*P | **Pb** | **05 08 06.1** | **-3.3** |
| GEVA | | | | *e*S | **Sb** | **05 08 17.7** | **-2.7** |
| **GEVA** | **Gevas** | **0.80** | **203** | ⇑*i*P | **Pb** | **05 08 06.3** | **-3.1** |
| GEVA | | | | *i* S | **Sb** | **05 08 18.0** | **-2.4** |
| **GEVA** | **Gevas** | **0.80** | **203** | P | **Pb** | **05 08 06.3** | **-3.1** |
| GEVA | | | | S | **Sb** | **05 08 18.0** | **-2.4** |
| **BASK** | **Baskale_VAN** | **1.08** | **156** | *e*P | Pn | 05 08 10.7 | -4.1 |
| **BASK** | **Baskale_VAN** | **1.08** | **156** | ⇓*i*P | Pn | 05 08 10.0 | -4.9 |
| BASK | | | | *i* S | **Sb** | **05 08 27.2** | **-1.5** |
| **BASK** | **Baskale_VAN** | **1.08** | **156** | P | Pn | 05 08 10.0 | -4.9 |
| **EKAR** | **Karacoban** | **1.10** | **281** | *e*P | **Pg** | **05 08 15.0** | **+0.7** |
| EKAR | | | | IAML | | 05 08 47.4 | |
| | comp=Z,1µm,0.8s | | | | | | |
| **EKAR** | **Karacoban** | **1.10** | **281** | ⇓*i*P | **Pg** | **05 08 15.4** | **+1.0** |
| EKAR | | | | *i* S | Sn | 05 08 37.4 | +6.7 |
| **EKAR** | **Karacoban** | **1.10** | **281** | P | **Pg** | **05 08 15.4** | **+1.0** |
| **EATA** | **Eleskirt** | **1.10** | **318** | *e*P | **Pn** | **05 08 15.7** | **+0.4** |
| EATA | | | | *e*S | **Sn** | **05 08 34.3** | **+3.4** |
| EATA | | | | IAML | | 05 08 36.3 | |
| | comp=Z,337nm,0.4s | | | | | | |
| **EATA** | **Eleskirt** | **1.10** | **318** | ⇓*i*P | **Pn** | **05 08 15.7** | **+0.4** |
| EATA | | | | *i* S | Sn | 05 08 35.0 | +4.2 |
| **EATA** | **Eleskirt** | **1.10** | **318** | P | **Pn** | **05 08 15.7** | **+0.4** |
| EATA | | | | S | Sn | 05 08 35.0 | +4.2 |
| **TASB** | **TASBURUN-IGDIR** | **1.11** | **33** | *e*PN | **Pg** | **05 08 15.0** | **+0.4** |
| **TASB** | **TASBURUN-IGDIR** | **1.11** | **33** | *e*Pn | **Pg** | **05 08 15.0** | **+0.4** |
| **HYR** | **Heyderabad** | **1.27** | **58** | ⇑P | **Pg** | **05 08 17.2** | **-0.5** |
| HYR | | | | ⇓S | **Sg** | **05 08 37.8** | **+3.6** |
| **HYR** | **Heyderabad** | **1.27** | **58** | P | **Pg** | **05 08 17.2** | **-0.5** |
| HYR | | | | S | **Sg** | **05 08 37.8** | **+3.6** |
| **DIGO** | **Kars** | **1.37** | **357** | ⇓*e*P | **Pg** | **05 08 21.3** | **+1.8** |
| DIGO | | | | IAML | | 05 08 28.2 | |
| | comp=Z,271nm,0.6s | | | | | | |
| DIGO | | | | *e*S | Sg | 05 08 43.7 | +6.5 |
| **DIGO** | **Kars** | **1.37** | **357** | ⇓*i*P | **Pg** | **05 08 21.3** | **+1.8** |
| DIGO | | | | *i* S | Sg | 05 08 50.1 | +13 |
| **DIGO** | **Kars** | **1.37** | **357** | P | **Pg** | **05 08 21.3** | **+1.8** |
| **GNI** | **Garni** | **1.48** | **42** | Pn | **Pg** | **05 08 20.8** | **-0.9** |
| | comp=Z,149nm,0.3s,baz=224,slow=2.2,SNR=282 | | | | | | |
| **GNI** | **Garni** | **1.48** | **42***c* | *i*P | **Pg** | **05 08 21.6** | **-0.1** |
| **GNI** | **Garni** | **1.48** | **42** | *i* P | **Pg** | **05 08 21.6** | **-0.1** |
| **GNI** | **Garni** | **1.48** | **42** | *e*Pn | **Pg** | **05 08 21.9** | **+0.2** |
| **GNI** | **Garni** | **1.48** | **42** | *e*Pn | **Pg** | **05 08 21.9** | **+0.2** |
| **HAKT** | **HAKKARI** | **1.50** | **172** | ⇓*i*P | **Pn** | **05 08 17.8** | **-2.8** |
| HAKT | | | | *i* S | **Sn** | **05 08 40.6** | **0.0** |
| **HAKT** | **HAKKARI** | **1.50** | **172** | P | **Pn** | **05 08 17.8** | **-2.8** |
| **HOMI** | **Horasan** | **1.56** | **310** | *e*P | **Pg** | **05 08 23.7** | **+0.6** |
| HOMI | | | | IAML | | 05 08 28.8 | |
| | comp=Z,553nm,0.5s | | | | | | |
| HOMI | | | | *e*S | Sg | 05 08 48.5 | +5.2 |
| **HOMI** | **Horasan** | **1.56** | **310** | *i* P | **Pg** | **05 08 25.1** | **+2.0** |
| HOMI | | | | *i* S | Sg | 05 08 52.9 | +10 |
| **VRTB** | **Varto-Mus** | **1.56** | **275** | *e*PN | **Pg** | **05 08 23.1** | **0.0** |
| **VRTB** | **Varto-Mus** | **1.56** | **275** | ⇑*i*P | **Pg** | **05 08 23.2** | **+0.1** |
| VRTB | | | | *i* S | **Sg** | **05 08 47.3** | **+4.0** |
| **VRTB** | **Varto-Mus** | **1.56** | **275** | P | **Pg** | **05 08 23.2** | **+0.1** |
| VRTB | | | | S | **Sg** | **05 08 47.3** | **+4.0** |
| **NAX** | **Nakhchivan** | **1.59** | **85** | ⇑P | **Pb** | **05 08 22.3** | **-0.6** |
| NAX | | | | ⇓S | **Sg** | **05 08 45.8** | **+1.4** |
| **NAX** | **Nakhchivan** | **1.59** | **85** | P | **Pb** | **05 08 22.3** | **-0.6** |
| NAX | | | | S | **Sg** | **05 08 45.8** | **+1.4** |
| **SRTM** | **Siirt_Merkez** | **1.60** | **229** | ⇑*i*P | **Pn** | **05 08 21.6** | **-0.3** |
| SRTM | | | | *i* S | **Sg** | **05 08 46.1** | **+1.5** |
| **SRTM** | **Siirt_Merkez** | **1.60** | **229** | P | **Pn** | **05 08 21.6** | **-0.3** |
| SRTM | | | | S | **Sg** | **05 08 46.1** | **+1.5** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.60** | **155** | ⇓*i*P | **Pn** | **05 08 19.8** | **-2.2** |
| YOVA | | | | *i* S | **Sn** | **05 08 43.6** | **+0.6** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.60** | **155** | P | **Pn** | **05 08 19.8** | **-2.2** |
| **KARS** | **Kars** | **1.60** | **350** | *e*PN | **Pg** | **05 08 24.6** | **+0.6** |
| **KARS** | **Kars** | **1.60** | **350** | *e*P | **Pg** | **05 08 24.6** | **+0.6** |
| **KARS** | **Kars** | **1.60** | **350** | *e*Pn | **Pg** | **05 08 24.6** | **+0.6** |
| **KARS** | **Kars** | **1.60** | **350** | *e*Pn | **Pg** | **05 08 24.6** | **+0.6** |
| **EAK** | **Akyaka** | **1.64** | **4** | *e*P | **Pg** | **05 08 26.3** | **+1.6** |
| EAK | | | | IAML | | 05 08 37.1 | |
| | comp=Z,372nm,0.6s | | | | | | |
| EAK | | | | *e*S | Sg | 05 08 53.1 | +7.2 |
| **EAK** | **Akyaka** | **1.64** | **4** | *i* P | Pg | 05 08 27.3 | +2.6 |
| EAK | | | | *i* S | Sg | 05 08 55.4 | +9.4 |
| **EAK** | **Akyaka** | **1.64** | **4** | P | Pg | 05 08 27.3 | +2.6 |
| **SBZ** | **Shahbuz** | **1.67** | **77** | ⇑P | **Pn** | **05 08 23.0** | **+0.2** |
| SBZ | | | | ⇑S | **Sg** | **05 08 48.0** | **+1.2** |
| **SBZ** | **Shahbuz** | **1.67** | **77** | P | **Pn** | **05 08 23.0** | **+0.2** |
| SBZ | | | | S | **Sg** | **05 08 48.0** | **+1.2** |
| **SENK** | **Senkaya-Erzuru** | **1.73** | **331** | *e*PN | **Pg** | **05 08 26.8** | **+0.3** |
| **SENK** | **Senkaya-Erzuru** | **1.73** | **331** | *e*Pn | **Pg** | **05 08 26.8** | **+0.3** |
| **SIRT** | **Sirnak** | **1.74** | **208** | *e*PN | **Pn** | **05 08 22.5** | **-1.3** |
| **SIRT** | **Sirnak** | **1.74** | **208** | *e*Pn | **Pn** | **05 08 22.5** | **-1.3** |
| **SIRN** | **S˜–rnak** | **1.75** | **208** | *i* P | **Pn** | **05 08 23.6** | **-0.3** |
| SIRN | | | | *i* S | **Sg** | **05 08 56.1** | **+6.6** |
| **SIRN** | **S˜–rnak** | **1.75** | **208** | P | **Pn** | **05 08 23.6** | **-0.3** |
| **IMRD** | **Marand** | **1.79** | **100** | *e*Pn | **Pn** | **05 08 23.8** | **-0.7** |
| IMRD | | | | *e*AMB | AMB | 05 08 58.8 | |
| | comp=Z,59µm,0.4s | | | | | | |
| **IMRD** | **Marand** | **1.79** | **100** | *e*Pn | **Pn** | **05 08 23.8** | **-0.7** |
| **BNGL** | **BINGOL** | **1.80** | **268** | *e*P | **Pg** | **05 08 25.9** | **-1.8** |
| BNGL | | | | *e*S | **Sg** | **05 08 54.8** | **+3.8** |
| BNGL | | | | IAML | | 05 09 05.3 | |
| | comp=Z,2µm,0.6s | | | | | | |
| **BNGL** | **BINGOL** | **1.80** | **268** | ⇑*i*P | **Pg** | **05 08 26.5** | **-1.2** |
| BNGL | | | | *i* S | **Sg** | **05 08 54.5** | **+3.5** |
| **CUKT** | **Cukurca** | **1.80** | **176** | *e*PN | **Pn** | **05 08 23.5** | **-1.2** |
| **CUKT** | **Cukurca** | **1.80** | **176** | ⇓*i*P | **Pn** | **05 08 23.5** | **-1.2** |
| CUKT | | | | *i* S | **Sn** | **05 08 48.9** | **+1.1** |
| **CUKT** | **Cukurca** | **1.80** | **176** | P | **Pn** | **05 08 23.5** | **-1.2** |
| **ERZM** | **Erzurum** | **1.83** | **299** | *e*P | **Pg** | **05 08 28.4** | **+0.1** |
| **ERZM** | **Erzurum** | **1.83** | **299** | ⇑*i*P | **Pg** | **05 08 28.0** | **-0.3** |
| ERZM | | | | *i* S | Sg | 05 09 02.0 | +10 |
| **ERZM** | **Erzurum** | **1.83** | **299** | P | **Pg** | **05 08 28.0** | **-0.3** |
| **ISHB** | **Shabestar** | **1.86** | **114** | *e*Pn | **Pn** | **05 08 24.5** | **-1.0** |
| ISHB | | | | *e*AMB | AMB | 05 08 29.5 | |
| | comp=Z,26µm,0.3s | | | | | | |
| **ORD** | **Ordubad** | **1.98** | **93** | P | **Pn** | **05 08 27.9** | **+0.8** |
| **ECAT** | **Cat-ERZURUM** | **2.00** | **287** | *e*P | **Pg** | **05 08 30.9** | **-0.7** |
| ECAT | | | | IAML | | 05 08 38.5 | |
| | comp=Z,220nm,0.4s | | | | | | |
| ECAT | | | | *e*S | **Sg** | **05 09 02.1** | **+4.5** |
| **ECAT** | **Cat-ERZURUM** | **2.00** | **287** | *i* P | **Pg** | **05 08 30.3** | **-1.3** |
| ECAT | | | | *i* S | **Sg** | **05 09 02.1** | **+4.5** |
| **ECAT** | **Cat-ERZURUM** | **2.00** | **287** | P | **Pg** | **05 08 30.3** | **-1.3** |
| **BTMN** | **Batman** | **2.07** | **237** | *i* P | **Pb** | **05 08 30.2** | **-0.8** |
| BTMN | | | | *i* S | **Sg** | **05 08 58.6** | **-1.0** |
| **BTMN** | **Batman** | **2.07** | **237** | P | **Pb** | **05 08 30.2** | **-0.8** |
| **BNGB** | **Bingˆ¶l** | **2.16** | **269** | *e*PN | **Pb** | **05 08 31.4** | **-1.2** |
| **BGD** | **Bogdanovka** | **2.22** | **3** | P | **Pg** | **05 08 36.2** | **+0.5** |
| **DDEM** | **Demirkent** | **2.26** | **325** | *i* P | **Pg** | **05 08 36.2** | **-0.3** |
| DDEM | | | | *i* S | Sg | 05 09 11.7 | +5.8 |
| **DDEM** | **Demirkent** | **2.26** | **325** | P | **Pg** | **05 08 36.2** | **-0.3** |
| **ITBZ** | **Tabriz** | **2.26** | **110** | ⇑*e*Pn | **Pn** | **05 08 31.2** | **+0.2** |
| ITBZ | | | | *e*AMB | AMB | 05 09 15.1 | |
| | comp=Z,6µm,0.4s | | | | | | |
| **ITBZ** | **Tabriz** | **2.26** | **110** | ⇑*e*Pn | **Pn** | **05 08 31.2** | **+0.2** |
| **YEDI** | **Yedisu-Bingol** | **2.29** | **281** | *e*PN | **Pb** | **05 08 34.0** | **-0.9** |
| **YEDI** | **Yedisu-Bingol** | **2.29** | **281** | *e*Pn | **Pb** | **05 08 34.0** | **-0.9** |
| **BINT** | **Bingol** | **2.32** | **267** | *e*Pn | **Pn** | **05 08 31.4** | **-0.4** |
| **DAGI** | **Agillar** | **2.35** | **330** | *i* P | **Pg** | **05 08 37.6** | **-0.6** |
| DAGI | | | | *i* S | Sg | 05 09 18.9 | +10 |
| **AKH** | **Akhalkalaki** | **2.36** | **1** | *e*PN | Pg | 05 08 35.0 | -3.4 |
| **AKH** | **Akhalkalaki** | **2.36** | **1** | P | **Pg** | **05 08 38.6** | **+0.1** |
| **AKH** | **Akhalkalaki** | **2.36** | **1** | ⇑*i*P | **Pg** | **05 08 39.4** | **+1.0** |
| **AKH** | **Akhalkalaki** | **2.36** | **1** | P | **Pg** | **05 08 38.5** | **+0.1** |
| **AKH** | **Akhalkalaki** | **2.36** | **1** | *e*Pn | Pg | 05 08 35.0 | -3.4 |
| **AKH** | **Akhalkalaki** | **2.36** | **1** | P | **Pg** | **05 08 38.5** | **+0.1** |
| **GDB** | **GEDABAY** | **2.43** | **46** | ⇑P | **Pb** | **05 08 34.2** | **-3.1** |
| GDB | | | | ⇓S | **Sb** | **05 09 06.6** | **-0.9** |
| **GDB** | **GEDABAY** | **2.43** | **46** | P | **Pb** | **05 08 34.2** | **-3.1** |
| GDB | | | | S | **Sb** | **05 09 06.6** | **-0.9** |
| **ARTV** | **Artvin** | **2.43** | **332** | *e*P | **Pg** | **05 08 37.6** | **-2.2** |
| ARTV | | | | IAML | | 05 08 50.0 | |
| | comp=Z,50nm,0.6s | | | | | | |
| **ARTV** | **Artvin** | **2.43** | **332** | *i* P | **Pg** | **05 08 38.9** | **-1.0** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| ARTV | | | | i S | Sg | 05 09 26.2 | +15 |
| ARTV | Artvin | 2.43 | 332 | ePn | Pg | 05 08 38.8 | -1.1 |
| ARTV | Artvin | 2.43 | 332 | ePn | Pg | 05 08 38.8 | -1.1 |
| HANI | Diyarbakir_Han | 2.47 | 256 | i P | Pb | 05 08 35.5 | -2.4 |
| HANI | | | | i S | Sg | 05 09 10.6 | -2.0 |
| HANI | Diyarbakir_Han | 2.47 | 256 | P | Pb | 05 08 35.5 | -2.4 |
| KOPT | Kop Dagi | 2.48 | 294 | eP | Pg | 05 08 37.8 | -3.0 |
| KOPT | | | | IAML | | 05 08 50.8 | |
| | comp=Z,277nm,0.6s | | | | | | |
| KOPT | Kop Dagi | 2.48 | 294 | ePn | Pg | 05 08 41.4 | +0.6 |
| KOPT | Kop Dagi | 2.48 | 294 | ePn | Pg | 05 08 41.4 | +0.6 |
| QZX | Qazax, Azerbai | 2.49 | 36 | ⇑P | Pn | 05 08 33.8 | -0.2 |
| QZX | | | | ⇑S | Sb | 05 09 07.0 | -2.0 |
| QZX | Qazax, Azerbai | 2.49 | 36 | P | Pn | 05 08 33.8 | -0.2 |
| QZX | | | | S | Sb | 05 09 07.0 | -2.0 |
| EPOS | Posof | 2.52 | 347 | eP | Pg | 05 08 38.2 | -3.3 |
| EPOS | | | | IAML | | 05 08 54.0 | |
| | comp=Z,57nm,0.7s | | | | | | |
| GANJ | Ganja | 2.72 | 53 | ⇑P | Pn | 05 08 37.4 | +0.1 |
| GANJ | | | | ⇓S | Sb | 05 09 13.7 | -2.1 |
| GANJ | Ganja | 2.72 | 53 | P | Pn | 05 08 37.4 | +0.1 |
| GANJ | | | | S | Sb | 05 09 13.7 | -2.1 |
| MARD | Mardin | 2.73 | 231 | ePn | Pn | 05 08 38.0 | +0.6 |
| MARD | Mardin | 2.73 | 231 | ePn | Pn | 05 08 38.0 | +0.6 |
| MAZI | Mazidag | 2.85 | 237 | ePN | Pn | 05 08 39.5 | +0.4 |
| MAZI | Mazidag | 2.85 | 237 | ePn | Pn | 05 08 39.5 | +0.4 |
| TBLG | Delisi | 2.85 | 20 | ePN | Pb | 05 08 41.1 | -3.3 |
| TBLG | Delisi | 2.85 | 20 | P | Pg | 05 08 46.8 | -1.1 |
| TBLG | Delisi | 2.85 | 20 | P | Pg | 05 08 46.8 | -1.1 |
| TBLG | Delisi | 2.85 | 20 | ePn | Pb | 05 08 41.1 | -3.3 |
| IHRS | Heris | 2.90 | 103 | ePn | Pn | 05 08 40.4 | +0.5 |
| IHRS | | | | eSg | Sg | 05 09 26.6 | +0.2 |
| IHRS | Heris | 2.90 | 103 | ePn | Pn | 05 08 40.4 | +0.5 |
| IHRS | | | | eSg | Sg | 05 09 26.6 | +0.2 |
| SEAG | Tbilisi Sea | 2.90 | 20 | P | Pg | 05 08 49.4 | +0.6 |
| ERZN | Erzincan | 2.94 | 282 | ePN | Pb | 05 08 43.9 | -2.1 |
| EUZM | Uzumlu | 2.98 | 284 | eP | Pb | 05 08 44.6 | -2.1 |
| EUZM | | | | IAML | | 05 08 56.4 | |
| | comp=Z,54nm,0.5s | | | | | | |
| TNCL | Tunceli-Merkez | 3.04 | 272 | eP | Pb | 05 08 45.0 | -2.8 |
| TNCL | | | | IAML | | 05 10 15.2 | |
| | comp=Z,46nm,0.6s | | | | | | |
| KBSD | Kabsdagh | 3.08 | 229 | eP | Pn | 05 08 43.4 | +1.3 |
| KBSD | | | | AML | AML | 05 09 40.5 | |
| | comp=Z,371nm,0.6s | | | | | | |
| BRDA | Brd | 3.12 | 66 | ⇑P | Pn | 05 08 43.0 | +0.3 |
| BRDA | | | | ⇓S | Sb | 05 09 23.4 | -3.7 |
| BRDA | Brd | 3.12 | 66 | P | Pn | 05 08 43.0 | +0.3 |
| BRDA | | | | S | Sb | 05 09 23.4 | -3.7 |
| DDFL | Dedoflistskaro | 3.15 | 40 | P | Pg | 05 08 51.6 | -1.9 |
| PTK | Pertek | 3.17 | 268 | ePN | Pb | 05 08 46.8 | -3.1 |
| PTK | Pertek | 3.17 | 268 | ePn | Pb | 05 08 46.8 | -3.1 |
| DUS | Dusheti | 3.18 | 17 | P | Pg | 05 08 55.0 | +0.8 |
| DUS | Dusheti | 3.18 | 17 | P | Pg | 05 08 55.0 | +0.8 |
| EZC | Erzincan | 3.25 | 284 | ePn | Pn | 05 08 43.9 | -0.8 |
| MNGR | Mingechevir, A | 3.28 | 57 | ⇓P | Pn | 05 08 45.1 | +0.2 |
| MNGR | | | | ⇑S | Sb | 05 09 27.6 | -4.1 |
| MNGR | Mingechevir, A | 3.28 | 57 | P | Pn | 05 08 45.1 | +0.2 |
| MNGR | | | | S | Sb | 05 09 27.6 | -4.1 |
| SVRC | Sivrice-ELAZID | 3.31 | 260 | ePN | Pb | 05 08 48.1 | -4.2 |
| SVRC | Sivrice-ELAZID | 3.31 | 260 | ePn | Pb | 05 08 48.1 | -4.2 |
| KTUT | Trabzon | 3.43 | 306 | ePN | Pb | 05 08 51.0 | -3.1 |
| KTUT | Trabzon | 3.43 | 306 | ePn | Pb | 05 08 51.1 | -3.1 |
| ZRD | Zardab | 3.49 | 68 | ⇑P | Pn | 05 08 48.0 | +0.3 |
| ZRD | | | | ⇑S | Sb | 05 09 32.6 | -5.1 |
| ZRD | Zardab | 3.49 | 68 | P | Pn | 05 08 48.0 | +0.3 |
| ZRD | | | | S | Sb | 05 09 32.6 | -5.1 |
| ONI | Oni | 3.54 | 360 | P | Pg | 05 09 02.2 | +1.2 |
| ONI | Oni | 3.54 | 360 | P | Pg | 05 09 02.2 | +1.2 |
| ZKTA | Zakatala | 3.54 | 42 | ⇑P | Pn | 05 08 48.5 | 0.0 |
| ZKTA | | | | ⇑S | Sb | 05 09 33.6 | -5.7 |
| SEKA | Sheki | 3.59 | 52 | ⇓P | Pn | 05 08 49.9 | +0.7 |
| SEKA | | | | ⇓S | Sb | 05 09 36.7 | -4.0 |
| SEKA | Sheki | 3.59 | 52 | P | Pn | 05 08 49.9 | +0.7 |
| SEKA | | | | S | Sb | 05 09 36.7 | -4.0 |
| SFNV | Sufian | 3.73 | 226 | eP | Pn | 05 08 51.8 | +0.6 |
| SFNV | | | | eS | Sb | 05 09 41.0 | -3.7 |
| SFNV | | | | AML | AML | 05 10 10.1 | |
| | comp=Z,1μm,0.7s | | | | | | |
| SFNV | Sufian | 3.73 | 226 | eP | Pn | 05 08 51.8 | +0.6 |
| CHVG | Ch'k'valeri | 3.81 | 345 | ePN | Pb | 05 08 56.8 | -3.9 |
| CHVG | Ch'k'valeri | 3.81 | 345 | P | Pg | 05 09 08.3 | +2.1 |
| CHVG | Ch'k'valeri | 3.81 | 345 | ePn | Pb | 05 08 56.8 | -3.9 |
| LRK | Lerik | 3.84 | 95 | ⇑P | Pn | 05 08 52.4 | -0.3 |
| LRK | Lerik | 3.84 | 95 | P | Pn | 05 08 52.4 | -0.3 |
| GLBA | Clilabad | 3.84 | 86 | ⇓P | Pn | 05 08 53.0 | +0.4 |
| GLBA | | | | ⇓S | Sn | 05 09 41.6 | +3.6 |
| GLBA | Clilabad | 3.84 | 86 | P | Pn | 05 08 53.0 | +0.4 |
| GLBA | | | | S | Sn | 05 09 41.6 | +3.6 |
| QBL | Gabala | 3.86 | 59 | ⇑P | Pn | 05 08 52.9 | 0.0 |
| QBL | | | | ⇓S | Sb | 05 09 42.1 | -6.5 |
| QBL | Gabala | 3.86 | 59 | P | Pn | 05 08 52.9 | 0.0 |
| QBL | | | | S | Sb | 05 09 42.1 | -6.5 |
| KDMR | Kurdemir | 3.88 | 69 | ⇓P | Pn | 05 08 53.1 | 0.0 |
| KDMR | | | | ⇓S | Sn | 05 09 42.5 | +3.7 |
| KDMR | Kurdemir | 3.88 | 69 | P | Pn | 05 08 53.1 | 0.0 |
| KDMR | | | | S | Sn | 05 09 42.5 | +3.7 |
| MZRK | Al-Mazaregh | 3.91 | 216 | eP | Pn | 05 08 56.5 | +2.9 |
| MZRK | | | | eS | Sb | 05 09 52.8 | +2.9 |
| MZRK | | | | AML | AML | 05 10 15.7 | |
| | comp=Z,470nm,0.7s | | | | | | |
| SAAT | Saatly | 3.93 | 77 | ⇑P | Pn | 05 08 53.4 | -0.4 |
| SAAT | | | | ⇓S | Sn | 05 09 43.4 | +3.3 |
| SAAT | Saatly | 3.93 | 77 | P | Pn | 05 08 53.4 | -0.4 |
| SAAT | | | | S | Sn | 05 09 43.4 | +3.3 |
| URFA | Urfa | 3.98 | 248 | ePN | Pn | 05 08 57.7 | +3.0 |
| URFA | Urfa | 3.98 | 248 | ePn | Pn | 05 08 57.7 | +3.0 |
| MALT | Malatya | 4.00 | 261 | ePN | Pb | 05 08 57.9 | -6.1 |
| MALT | Malatya | 4.00 | 261 | eP | Pb | 05 08 57.9 | -6.1 |
| MALT | Malatya | 4.00 | 261 | ePn | Pb | 05 08 57.9 | -6.1 |
| MALT | Malatya | 4.00 | 261 | ePn | Pb | 05 08 57.9 | -6.1 |
| ESPY | Espiye-Giresun | 4.08 | 299 | ePN | Pb | 05 09 00.1 | -5.3 |
| ESPY | Espiye-Giresun | 4.08 | 299 | ePn | Pb | 05 09 00.1 | -5.3 |
| LKRN | Lenkeran, Azer | 4.17 | 93 | ⇓P | Pn | 05 08 57.3 | +0.2 |
| LKRN | | | | ⇓S | Sn | 05 09 49.5 | +3.5 |
| LKRN | Lenkeran, Azer | 4.17 | 93 | P | Pn | 05 08 57.3 | +0.2 |
| XNQ | Khinaliq | 4.17 | 58 | ⇓P | Pn | 05 08 57.3 | -0.1 |
| XNQ | | | | ⇑S | Sn | 05 09 49.4 | +3.0 |
| XNQ | Khinaliq | 4.17 | 58 | P | Pn | 05 08 57.3 | -0.1 |
| XNQ | | | | S | Sn | 05 09 49.4 | +3.0 |
| ASTR | Astara | 4.20 | 95 | ⇓P | Pn | 05 08 57.5 | 0.0 |
| ASTR | | | | ⇓S | Sn | 05 09 50.2 | +3.5 |
| ASTR | Astara | 4.20 | 95 | P | Pn | 05 08 57.5 | 0.0 |
| NEY | Neytrino | 4.23 | 353 | ⇓eP | Pb | 05 09 05.1 | -2.9 |
| NEY | Neytrino | 4.23 | 353 | eP | Pb | 05 09 05.1 | -2.9 |
| PQL | Pirkuli | 4.32 | 65 | ⇓P | Pn | 05 08 59.0 | -0.3 |
| PQL | Pirkuli | 4.32 | 65 | P | Pn | 05 08 59.0 | -0.3 |
| ALIB | Äli-Bayra | 4.39 | 76 | ⇓P | Pn | 05 09 00.4 | +0.3 |
| ALIB | Äli-Bayra | 4.39 | 76 | P | Pn | 05 09 00.4 | +0.3 |
| QSAR | Qusar | 4.43 | 55 | ⇓P | Pn | 05 09 00.7 | 0.0 |
| QSAR | Qusar | 4.43 | 55 | P | Pn | 05 09 00.7 | 0.0 |
| GBS | Qobustan | 4.48 | 69 | ⇑P | Pn | 05 09 01.4 | 0.0 |
| GBS | Qobustan | 4.48 | 69 | P | Pn | 05 09 01.4 | 0.0 |
| QUBA | Quba, Azerbaij | 4.49 | 58 | ⇑P | Pn | 05 09 01.3 | -0.3 |
| QUBA | Quba, Azerbaij | 4.49 | 58 | P | Pn | 05 09 01.3 | -0.3 |
| GROC | Groznyy | 4.51 | 22 | eP | Pb | 05 09 13.1 | +0.5 |
| GROC | | | | pmax | pmax | | |
| | comp=Z,69nm,1.1s | | | | | | |
| ATGJ | Altiaghaj | 4.59 | 65 | ⇓P | Pn | 05 09 02.9 | -0.1 |
| ATGJ | Altiaghaj | 4.59 | 65 | P | Pn | 05 09 02.9 | -0.1 |
| SIZA | Siyzn | 4.64 | 62 | ⇑P | Pn | 05 09 03.6 | -0.1 |
| SIZA | Siyzn | 4.64 | 62 | P | Pn | 05 09 03.6 | -0.1 |
| KBZ | Khabaz | 4.70 | 355 | Pn | Pb | 05 09 10.2 | -5.6 |
| | comp=Z,0.1nm,0.3s,baz=184,slow=13,SNR=2.5 | | | | | | |
| KBZ | | | | LR | LR | 05 10 55.7 | |
| | comp=Z,128nm,20.4s,baz=240,slow=38 | | | | | | |
| KSRV | Kasrt alli | 4.76 | 229 | eP | Pn | 05 09 05.5 | +0.3 |
| KSRV | | | | eS | Sb | 05 10 07.5 | -6.8 |
| KSRV | | | | AML | AML | 05 10 40.9 | |
| | comp=Z,163nm,0.6s | | | | | | |
| IDHR | Dehrash | 4.94 | 151 | ePn | Pn | 05 09 08.2 | +0.4 |
| IDHR | | | | eAMB | AMB | 05 10 52.0 | |
| | comp=Z,3μm,0.7s | | | | | | |
| IDHR | Dehrash | 4.94 | 151 | ePn | Pn | 05 09 08.2 | +0.4 |
| KVAR | Kislovodsk Arr | 4.94 | 354 | Pn | Pb | 05 09 11.9 | -8.0 |
| | baz=343,slow=11,SNR=1.8 | | | | | | |
| KIV | Kislovodsk | 4.94 | 354 | eP | Pb | 05 09 19.6 | -0.3 |
| KIV | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.3s | | | | | | |
| MAK | Makhachkala | 4.97 | 37 | eP | Pn | 05 09 10.3 | +2.3 |
| MAK | | | | eS | Sn | 05 10 08.4 | +2.8 |
| MAK | | | | pmax | pmax | | |
| | comp=Z,99nm,0.9s | | | | | | |
| MAK | | | | MLR | MLR | | |
| | comp=Z,701nm,14.0s | | | | | | |
| MAK | Makhachkala | 4.97 | 37 | eP | Pn | 05 09 10.3 | +2.3 |
| | comp=Z,99nm,0.9s | | | | | | |
| MAK | | | | eS | Sn | 05 10 08.4 | +2.8 |
| | comp=Z,701nm,14.0s | | | | | | |
| GOF | Gofitskoye | 6.01 | 357 | ⇑eP | Pb | 05 09 32.4 | -5.8 |
| GOF | | | | eS | Sb | 05 10 46.5 | -3.8 |
| GOF | | | | pmax | pmax | | |
| | comp=Z,19nm,0.6s | | | | | | |
| GOF | | | | smax | smax | | |
| | comp=N,45nm,0.9s | | | | | | |
| ROOS | tl_alroos | 6.95 | 227 | eP | Pn | 05 09 40.3 | +4.9 |
| HAWK | Haweek | 7.24 | 234 | eP | Pb | 05 09 53.3 | -5.9 |
| MARH | Ras Al Marh | 7.52 | 230 | eP | Pn | 05 09 48.0 | +4.5 |
| BR131 | Keskin Array S | 7.63 | 278 | ePn | Pn | 05 09 51.3 | +6.5 |
| BRTR | Keskin Array B | 7.63 | 278 | Pn | Pn | 05 09 49.7 | +4.9 |
| | comp=N,0.1nm,0.3s,baz=96,slow=12,SNR=4.3 | | | | | | |
| BRBR | Barbar | 8.27 | 229 | eP | Pn | 05 09 56.6 | +3.0 |
| BR231 | Keskin MP Arra | 8.30 | 279 | ePn | Pn | 05 09 58.7 | +4.7 |
| BR231 | Keskin MP Arra | 8.30 | 279 | ePn | Pn | 05 09 58.7 | +4.7 |
| IGLO | Ghaloghah | 8.60 | 104 | ePn | Pn | 05 09 57.6 | -0.6 |
| IGLO | | | | eAMB | AMB | 05 10 05.8 | |
| | comp=Z,253nm,0.2s | | | | | | |
| MMAI | Mount Meron Ar | 8.87 | 230 | Pn | Pn | 05 10 04.2 | +2.4 |
| | comp=Z,0.6nm,0.3s,baz=64,slow=15,SNR=5.9 | | | | | | |
| MMAI | | | | LR | LR | 05 14 05.5 | |
| | comp=Z,339nm,18.7s,baz=40,slow=42 | | | | | | |
| IANJ | Anjilo | 9.07 | 110 | eAMB | AMB | 05 10 17.5 | |
| | comp=Z,57nm,0.3s | | | | | | |
| IANJ | | | | ePn | Pn | 05 10 09.9 | +5.2 |
| GEYT | Alibeck | 11.55 | 91 | LR | LR | 05 14 59.5 | |
| | comp=Z,113nm,21.5s,baz=310,slow=37 | | | | | | |
| EIL | Elat | 11.69 | 219 | LR | LR | 05 15 41.9 | |
| | comp=Z,296nm,19.3s,baz=48,slow=40 | | | | | | |
| SORM | Soroca | 14.20 | 315 | ⇓iP | P | 05 11 26.1 | +4.1 |
| SORM | Soroca | 14.20 | 315 | ⇓P | P | 05 11 26.1 | +4.1 |
| SORM | Soroca | 14.20 | 315 | P | P | 05 11 26.1 | +4.1 |
| DOPR | Dopca | 14.99 | 303 | ⇑iP | P | 05 11 35.1 | +4.2 |
| DOPR | Dopca | 14.99 | 303 | ⇑iP | P | 05 11 35.1 | +4.2 |
| VOIR | | 15.04 | 301 | ⇑iP | P | 05 11 36.3 | +4.8 |
| VOIR | | 15.04 | 301 | ⇑P | P | 05 11 36.3 | +4.8 |
| VOIR | | 15.04 | 301 | P | P | 05 11 36.3 | +4.8 |
| IDI | Anoyia | 15.27 | 262 | Pn | P | 05 11 32.4 | -1.6 |
| | comp=Z,0.0nm,0.3s,baz=166,slow=10.0,SNR=2.2 | | | | | | |
| ARR | Arges | 15.29 | 300 | ⇑iP | P | 05 11 38.1 | +3.8 |
| ARR | Arges | 15.29 | 300 | ⇑iP | P | 05 11 38.1 | +3.8 |
| AKTO | Aktyubinsk | 15.35 | 37 | Pn | Pn | 05 11 29.3 | -0.7 |
| | comp=Z,0.1nm,0.3s,baz=225,slow=10,SNR=9.0 | | | | | | |
| AKTO | | | | LR | LR | 05 18 58.9 | |
| | comp=Z,262nm,18.5s,baz=222,slow=43 | | | | | | |
| AKASG | Malin Array Be | 15.38 | 324 | Pn | P | 05 11 33.3 | -1.8 |
| | baz=141,slow=11,SNR=2.5 | | | | | | |
| AKASG | Malin Array Be | 15.38 | 324 | eP | P | 05 11 38.7 | +3.6 |
| AKASG | Malin Array Be | 15.38 | 324 | eP | P | 05 11 38.7 | +3.6 |
| KIEV | Kiev | 15.38 | 324 | ⇓eP | P | 05 11 38.1 | +3.0 |
| KIEV | Kiev | 15.38 | 324 | eP | P | 05 11 38.1 | +3.0 |
| RAYN | Ar Rayn | 15.58 | 173 | ePn | Pn | 05 11 30.0 | -3.2 |
| | comp=Z,15nm,1.2s | | | | | | |
| RAYN | Ar Rayn | 15.58 | 173 | ePn | Pn | 05 11 30.0 | -3.2 |
| | comp=Z,15nm,1.2s | | | | | | |
| VTS | Vitosha | 15.73 | 289 | eP | P | 05 11 40.6 | +1.4 |
| VTS | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.2s | | | | | | |
| VTS | Vitosha | 15.73 | 289 | eP | P | 05 11 40.6 | +1.4 |
| | comp=Z,10.0nm,1.2s | | | | | | |
| VTS | Vitosha | 15.73 | 289 | ePn | P | 05 11 40.6 | +1.4 |
| | comp=Z,10nm,1.2s | | | | | | |
| BURAR | Bucovina Array | 15.76 | 309 | ⇑iP | P | 05 11 42.4 | +2.9 |
| BURAR | Bucovina Array | 15.76 | 309 | ⇑P | P | 05 11 42.4 | +2.9 |
| BURAR | Bucovina Array | 15.76 | 309 | ⇑iP | P | 05 11 42.4 | +2.9 |
| BUR04 | Bucovina Ar. S | 15.77 | 309 | ePn | P | 05 11 42.9 | +3.3 |
| BUR08 | Bucovina Ar. S | 15.79 | 309 | ePn | P | 05 11 42.0 | +2.2 |
| LOT | Lotru | 15.90 | 300 | ⇑iP | P | 05 11 43.6 | +2.5 |
| LOT | Lotru | 15.90 | 300 | ⇑iP | P | 05 11 43.6 | +2.5 |
| OBN | Obninsk | 16.73 | 346 | eP | P | 05 11 54.7 | +4.7 |
| OBN | | | | pmax | pmax | | |
| | comp=Z,14nm,1.0s | | | | | | |
| OBN | Obninsk | 16.73 | 346 | eP | P | 05 11 54.7 | +4.7 |
| | comp=Z,14nm,1.0s | | | | | | |
| UOSS | Minazif | 17.71 | 139 | ePn | Pn | 05 11 59.2 | -1.0 |
| | comp=Z,18nm,1.3s | | | | | | |
| UOSS | Minazif | 17.71 | 139 | ePn | Pn | 05 11 59.2 | -1.0 |
| | comp=Z,18nm,1.3s | | | | | | |
| PSZ | Piszkesteto | 19.20 | 305 | eP | Pn | 05 12 24.1 | +5.8 |
| PSZ | | | | pmax | pmax | | |
| | comp=Z,15nm,1.3s | | | | | | |
| PSZ | Piszkesteto | 19.20 | 305 | eP | Pn | 05 12 24.1 | +5.8 |
| | comp=Z,15nm,1.3s | | | | | | |
| VYHS | Vyhne | 20.05 | 306 | eP | Pn | 05 12 32.9 | +4.4 |
| VYHS | Vyhne | 20.05 | 306 | eP | Pn | 05 12 32.9 | +4.4 |
| ARU | Arti | 20.06 | 25 | P | Pn | 05 12 28.5 | +0.1 |
| | comp=Z,5.2nm,0.7s,baz=207,slow=6.0,SNR=11 | | | | | | |
| ARU | | | | LR | LR | 05 20 40.9 | |
| | comp=Z,132nm,19.5s,baz=272,slow=38 | | | | | | |
| ARU | Arti | 20.06 | 25c | iP | Pn | 05 12 32.0 | +3.6 |
| ARU | | | | S | Sn | 05 16 20.6 | +6.6 |
| ARU | | | | pmax | pmax | | |
| | comp=Z,16nm,1.2s | | | | | | |
| ARU | Arti | 20.06 | 25 | eP | Pn | 05 12 29.1 | +0.7 |
| | comp=Z,16nm,1.1s | | | | | | |
| ARU | Arti | 20.06 | 25 | eP | Pn | 05 12 29.1 | +0.7 |
| | comp=Z,16nm,1.1s | | | | | | |
| WSAR | Wadi Sarin | 20.38 | 136 | LR | LR | 05 21 57.0 | |
| | comp=Z,115nm,20.8s,baz=346,slow=42 | | | | | | |
| OKC | Ostrava-Krasne | 20.94 | 309 | eP | Pn | 05 12 42.9 | +4.1 |
| OKC | Ostrava-Krasne | 20.94 | 309 | ⇓eP | Pn | 05 12 42.9 | +4.1 |
| SVE | Sverdlovsk | 21.08 | 27 | eP | P | 05 12 42.7 | +5.0 |
| SVE | | | | pmax | pmax | | |
| | comp=Z,18nm,1.3s | | | | | | |
| VRAC | Vranov | 21.72 | 307 | LR | LR | 05 23 10.0 | |
| | comp=Z,140nm,18.1s,baz=297,slow=42 | | | | | | |
| KLMR | Klimovskoe | 21.97 | 355 | eP | P | 05 12 50.0 | +2.8 |
| KLMR | | | | pmax | pmax | | |
| | comp=Z,32nm,1.4s | | | | | | |
| KLMR | Klimovskoe | 21.97 | 355 | eP | P | 05 12 50.0 | +2.8 |
| | comp=Z,32nm,1.4s | | | | | | |
| UPC | Upice | 22.46 | 310 | eP | P | 05 12 59.8 | +7.2 |
| UPC | Upice | 22.46 | 310 | eP | P | 05 12 59.8 | +7.2 |
| BRVK | Borovoye | 23.12 | 44 | ⇓eP | P | 05 13 02.8 | +3.3 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,18nm,4.2s | | | | | | |
| BRVK | Borovoye | 23.12 | 44 | eP | P | 05 13 02.8 | +3.3 |
| | comp=Z,18nm,4.2s | | | | | | |
| BVAR | Borovoye Array | 23.17 | 44 | P | P | 05 13 02.2 | +2.2 |
| | comp=Z,0.3nm,0.6s,baz=224,slow=10.0,SNR=2.2 | | | | | | |
| PRU | Pruhonice | 23.19 | 308 | eP | P | 05 13 06.7 | +6.4 |
| PRU | Pruhonice | 23.19 | 308 | eP | P | 05 13 06.7 | +6.4 |
| GEA0 | GERESS Array S | 23.42 | 304 | eP | P | 05 13 08.3 | +5.6 |
| GERES | GERESS Array B | 23.42 | 304 | P | P | 05 13 06.3 | +3.6 |
| | comp=Z,0.8nm,0.8s,baz=116,slow=6.2,SNR=6.6 | | | | | | |
| KHC | Kasperske Hory | 23.57 | 305 | eP | P | 05 13 08.8 | +4.7 |
| KHC | Kasperske Hory | 23.57 | 305 | eP | P | 05 13 08.8 | +4.7 |
| KHC | Kasperske Hory | 23.57 | 305 | eP | P | 05 13 08.8 | +4.7 |
| KHC | Kasperske Hory | 23.57 | 305 | eP | P | 05 13 10.2 | +6.1 |
| | comp=Z,7.7nm,1.5s | | | | | | |
| AAK | Ala-Archa | 23.68 | 71 | P | P | 05 13 06.4 | +0.9 |
| | comp=Z,0.6nm,0.3s,baz=273,slow=18,SNR=2.4 | | | | | | |
| AAK | Ala-Archa | 23.68 | 71 | ⇑eP | P | 05 13 07.6 | +2.2 |
| AAK | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.5s | | | | | | |
| FRU | Bishkek | 23.77 | 71 | eP | P | 05 13 14.0 | +7.9 |
| FRU | | | | i | | 05 13 17.0 | |
| FRU | | | | e | | 05 13 40.0 | |
| CLL | Collm | 24.53 | 310 | eP | P | 05 13 17.0 | +4.0 |
| CLL | Collm | 24.53 | 310 | e(sP) | P | 05 13 17.0 | +4.0 |
| CLL | | | | e | | 05 13 32.0 | |
| CLL | Collm | 24.53 | 310 | eP | P | 05 13 17.0 | +4.0 |
| KURBB | Kurchatov Arra | 27.18 | 53 | P | P | 05 13 37.9 | +0.9 |
| | comp=Z,1.0nm,0.6s,baz=264,slow=9.1,SNR=6.3 | | | | | | |
| KURK | Kurchatov | 27.25 | 53 | ⇑eP | P | 05 13 42.2 | +4.6 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,13nm,4.0s | | | | | | |
| KURK | Kurchatov | 27.25 | 53 | P | P | 05 13 37.9 | +0.3 |
| HFS | Hagfors | 28.18 | 328 | P | P | 05 13 49.1 | +3.3 |
| | comp=Z,4.9nm,0.8s,baz=134,slow=14,SNR=5.8 | | | | | | |
| MKAR | Makanchi Array | 29.23 | 62 | P | P | 05 13 55.4 | 0.0 |
| | comp=Z,0.9nm,0.8s,baz=270,slow=4.9,SNR=6.8 | | | | | | |
| MKAR | Makanchi Array | 29.23 | 62 | eP | P | 05 13 59.2 | +3.8 |
| MKAR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.8s | | | | | | |
| MK01 | Makanchi Array | 29.24 | 62 | eP | P | 05 13 57.1 | +1.6 |
| NOA | NORSAR Array B | 29.70 | 328 | LR | LR | 05 27 09.3 | |
| | comp=Z,58nm,21.3s,baz=290,slow=39 | | | | | | |
| ZALV | Zalesovo Beam | 31.62 | 48 | P | P | 05 14 18.2 | +1.9 |
| | comp=Z,0.7nm,0.5s,baz=245,slow=9.2,SNR=4.6 | | | | | | |
| ZALV | | | | LR | LR | 05 28 55.9 | |
| | comp=Z,80nm,19.6s,baz=264,slow=40 | | | | | | |
| DGZ | Jazzator, Alta | 32.75 | 56 | ⇓eP | P | 05 14 28.8 | +2.2 |
| DGZ | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.9s | | | | | | |
| ES19 | SONSECA Array | 36.28 | 286 | eP | P | 05 15 00.6 | +3.6 |
| ESDC | Sonseca Array | 36.33 | 286 | P | P | 05 14 58.0 | +0.4 |
| | comp=Z,2.1nm,0.8s,baz=66,slow=8.9,SNR=14 | | | | | | |
| TLY | Talaya | 42.95 | 52 | ⇑eP | P | 05 15 56.5 | +4.1 |
| TLY | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.4s | | | | | | |
| TOA0 | Torodi Ar. Sit | 44.96 | 247 | eP | P | 05 16 10.8 | +1.9 |
| | comp=Z,14nm,1.9s | | | | | | |
| TORD | Torodi Ar. Bea | 44.96 | 247 | P | P | 05 16 08.5 | -0.4 |
| | comp=Z,1.4nm,0.8s,baz=64,slow=6.9,SNR=12 | | | | | | |
| ULN | Ulaanbaatar | 45.81 | 57 | ⇓eP | P | 05 16 17.6 | +2.0 |
| TIXI | Tiksi | 52.06 | 24 | ⇑eP | P | 05 17 08.8 | +5.9 |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.4s | | | | | | |
| YOJ | Yonaguni jima | 67.23 | 76 | eP | P | 05 18 49.8 | +1.6 |
| YOJ | Yonaguni jima | 67.23 | 76 | eP | P | 05 18 49.8 | +1.6 |
| | comp=Z,406nm,1.5s | | | | | | |
| YOJ | Yonaguni jima | 67.23 | 76 | eP | P | 05 18 49.8 | +1.6 |
| | comp=Z,406nm,1.5s | | | | | | |
| YKA | Yellowknife Ar | 77.27 | 350 | P | P | 05 19 50.0 | +2.4 |
| | comp=Z,0.6nm,0.8s,baz=13,slow=5.9,SNR=4.7 | | | | | | |
| YKA | Yellowknife Ar | 77.27 | 350 | eP | P | 05 19 52.7 | +5.1 |

**TRN 10 05:12:06.0, 15°.86N×61°.52W, h21km, MD3.6, 6C-2D, Leeward Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TBG | Guadaloupe-3 | 0.12 | 266 | eP | Pb | 05 12 10.7 | -1.4 |
| DOG | Dongo Capester | 0.20 | 330 | ⇑iP | Pb | 05 12 12.7 | +0.9 |
| MGG | Marie-Galante | 0.20 | 73 | ⇓iP | Pb | 05 12 13.9 | +2.1 |
| MGG | | | | eS | Sb | 05 12 16.3 | +0.5 |
| MDPV | Dominica, Penn | 0.25 | 158 | eP | Pb | 05 12 14.1 | +2.0 |
| MDPV | | | | eS | Sb | 05 12 18.2 | +1.9 |
| MDVC | Dominica, Viel | 0.27 | 156 | eP | Pn | 05 12 14.3 | -0.4 |
| MDVC | | | | eS | Sn | 05 12 18.7 | -1.5 |
| MDMP | Dominica, Moor | 0.28 | 159 | i P | Pn | 05 12 14.5 | -0.4 |
| MDMP | | | | eS | Sn | 05 12 19.1 | -1.5 |
| BBL | Barber's Block | 0.34 | 172 | i P | Pn | 05 12 15.2 | -0.5 |
| BBL | | | | eS | Sn | 05 12 20.4 | -1.5 |
| MDN | Morne-Daniel | 0.55 | 167 | ⇑iP | Pn | 05 12 19.5 | +0.8 |
| MDN | | | | eS | Sn | 05 12 27.6 | +0.4 |
| DLPL | La Plaine | 0.59 | 154 | eP | Pn | 05 12 20.0 | +0.9 |
| DLPL | La Plaine | 0.59 | 154 | eP | Pn | 05 12 23.4 | +4.2 |
| DBCT | Belle View Cho | 0.61 | 164 | eP | Pn | 05 12 20.4 | +0.9 |
| DBCT | | | | eS | Sn | 05 12 30.9 | +2.2 |
| DEG | La Desirade | 0.63 | 44 | eP | Pn | 05 12 20.3 | +0.5 |
| DEG | La Desirade | 0.63 | 44 | eP | Pn | 05 12 20.5 | +0.7 |
| DEG | La Desirade | 0.63 | 44 | e | Pn | 05 12 22.8 | +3.1 |
| DEG | | | | eS | Sn | 05 12 31.0 | +1.8 |
| DSHT | Scott's Head | 0.66 | 168 | eP | Pn | 05 12 21.1 | +1.0 |
| DSHT | | | | eS | Sn | 05 12 31.8 | +2.0 |
| MLYT | Lee's Yard | 1.07 | 323 | eP | Pb | 05 12 27.6 | +1.8 |
| MLYT | | | | eS | Sn | 05 12 43.0 | +2.9 |
| PCM | Pelee Case Pet | 1.08 | 164 | ⇑eP | Pb | 05 12 27.4 | +1.4 |
| PCM | Pelee Case Pet | 1.08 | 164 | ⇑eP | Pb | 05 12 28.0 | +2.0 |
| CXM | Morne La Croix | 1.10 | 162 | ⇑eP | Pb | 05 12 27.7 | +1.4 |
| CXM | | | | eS | Sn | 05 12 42.9 | +2.1 |
| BAMF | Morne Balai | 1.10 | 161 | ⇓eP | Pb | 05 12 27.9 | +1.6 |
| PML | Morne Lenard | 1.12 | 163 | ⇑eP | Pb | 05 12 27.9 | +1.2 |
| FDF | Fort de France | 1.18 | 162 | eP | Pb | 05 12 28.5 | +0.9 |
| FDF | | | | eS | Sn | 05 12 45.6 | +2.9 |
| BPA | Boggy Peak | 1.22 | 345 | eP | Pb | 05 12 30.5 | +2.1 |
| BPA | | | | eS | Sn | 05 12 46.6 | +2.7 |
| ZAM | Aeronautique | 1.36 | 160 | eP | Pb | 05 12 31.8 | +1.1 |
| TRMF | Trois Ilets | 1.39 | 161 | eP | Pb | 05 12 31.8 | +0.6 |
| BIM | Bigot | 1.40 | 162 | eP | Pb | 05 12 32.2 | +0.7 |
| BIM | | | | eS | Sb | 05 12 51.0 | +2.1 |
| MVM | Montagne Vaucl | 1.43 | 155 | eP | Pb | 05 12 33.2 | +1.2 |
| NEV | Hard Times | 1.62 | 322 | eP | Pb | 05 12 36.1 | +0.9 |
| NEV | | | | eS | Sb | 05 12 57.4 | +2.1 |
| ANWB | Willy Bob | 1.82 | 352 | eP | Pb | 05 12 38.1 | -0.4 |
| ANWB | | | | eS | Sb | 05 13 00.3 | -0.5 |
| ANWB | | | | eS | Sn | 05 13 00.7 | +2.2 |
| MCLT | Moule a Chique | 2.21 | 165 | eP | Pb | 05 12 43.9 | -1.3 |
| MCLT | | | | eS | Sb | 05 13 10.4 | -1.7 |

*DDA **10** 05:15:01.9, 38°.86N×30°.19E, h13km, Ml4.2*
*NEIC **10** 05:15:01.9±0.0, 38°.87N×30°.20E, h5km, mb4.1/6, ML4.4(ISK), After ISK.*
*IDC **10** 05:15:01.1±0.8, 38°.85N×30°.18E, h0km, mb4.0/9, mb1 3.9/17, mb1mx3.8/45, mbtmp3.8/17, ML3.5/8, MS3.2/3, Ms1 3.2/3, ms1mx2.7/52, Error ellipse: s-maj=14.3km s-min=11.7km az=166.0*
*ISK **10** 05:15:01.8, 38°.84N×30°.21E, h5km, ML4.1*
*MOS **10** 05:15:02.7±1.1, 38°.87N×30°.23E, h12km, mb4.3/9, Error ellipse: s-maj=8.7km s-min=4.7km az=92.1*
*ISCJB **10** 05:15:02.2±0.4, 38°.87N±0°.01×30°.19E±0°.02, h5km±3km, mb4.1/15, MS3.9/1, Error ellipse: s-maj=2.4km s-min=2.2km az=27.3*
*CSEM **10** 05:15:03.1±0.1, 38°.84N×30°.21E, h5km, mb4.1/9, Error ellipse: s-maj=2.3km s-min=2.2km az=25.0*
*THE **10** 05:15:06.4, 38°.83N×30°.05E, h6km±3km, Error ellipse: s-maj=5.2km s-min=1.0km az=79.0*

**ISC 10 05:15:02.8**±1.0**, 38°.85N**±0°.02**×30°.21E**±0°.01**, h5**km±7km**, n352, σ1s.19**/396**, mb4.1**/15**, 47C-18D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SHUT | Suhut-Afyon | 0.40 | 138 | ePG | Pg | 05 15 10.5 | -0.1 |
| SHUT | | | | eSG | Sg | 05 15 16.9 | +1.0 |
| SHUT | Suhut-Afyon | 0.40 | 138 | ePg | Pg | 05 15 10.5 | -0.1 |
| SHUT | | | | eSg | Sg | 05 15 16.9 | +1.0 |
| BOLV | Bolvadin | 0.59 | 103 | ⇑iP | Pg | 05 15 13.7 | -0.6 |
| BOLV | | | | i S | Sg | 05 15 22.5 | +0.5 |
| BOLV | Bolvadin | 0.59 | 103 | ePg | Pg | 05 15 13.8 | -0.5 |
| BOLV | | | | eSg | Sg | 05 15 19.7 | -2.3 |
| BOLV | | | | S | Sg | 05 15 22.5 | +0.5 |
| BOLV | Bolvadin | 0.59 | 103 | ePg | Pg | 05 15 13.8 | -0.5 |
| BOLV | | | | eSg | Sg | 05 15 19.7 | -2.3 |
| KZIL | AFYON_Kizioren | 0.60 | 185 | ⇑iP | Pg | 05 15 13.9 | -0.4 |
| KZIL | | | | i S | Sg | 05 15 22.0 | -0.1 |
| KZIL | AFYON_Kizioren | 0.60 | 185 | P | Pg | 05 15 13.9 | -0.4 |
| KZIL | | | | S | Sg | 05 15 22.0 | -0.1 |
| GDZ | Gediz | 0.61 | 293 | ⇑iP | Pg | 05 15 13.3 | -1.4 |
| GDZ | | | | i S | Sg | 05 15 22.5 | -0.1 |
| GDZ | Gediz | 0.61 | 293 | P | Pg | 05 15 13.3 | -1.4 |
| GDZ | | | | S | Sg | 05 15 22.5 | -0.1 |
| KHAL | Karahalli | 0.74 | 230 | ⇑iP | Pg | 05 15 16.1 | -1.0 |
| KHAL | | | | i S | Sg | 05 15 26.0 | -0.7 |
| KHAL | Karahalli | 0.74 | 230 | P | Pg | 05 15 16.0 | -1.0 |
| KHAL | | | | S | Sg | 05 15 26.0 | -0.7 |
| KHL | Karahalli | 0.75 | 226 | ePG | Pg | 05 15 16.9 | -0.4 |
| KHL | Karahalli | 0.75 | 226 | ePg | Pg | 05 15 16.9 | -0.4 |
| ESKT | Eskisehir | 0.83 | 37 | ePG | Pg | 05 15 18.7 | -0.1 |
| ESKT | Eskisehir | 0.83 | 37 | ePg | Pg | 05 15 18.7 | -0.1 |
| ESKT | Eskisehir | 0.83 | 37 | ePg | Pg | 05 15 18.3 | -0.5 |
| TVSB | Tavsanli | 0.83 | 316 | ePG | Pg | 05 15 18.9 | +0.1 |
| TVSB | Tavsanli | 0.83 | 316 | ePg | Pg | 05 15 18.9 | +0.1 |
| BAGO | Egridir - ISPA | 0.97 | 152 | ⇑iP | Pg | 05 15 20.6 | -0.9 |
| BAGO | | | | i S | Sb | 05 15 35.8 | +0.4 |
| SIMA | Simav-Kutahya | 0.98 | 284 | ePG | Pg | 05 15 21.4 | -0.3 |
| SIMA | Simav-Kutahya | 0.98 | 284 | ePg | Pg | 05 15 21.4 | -0.3 |
| BORA | Eskisehir | 1.04 | 10 | ⇑iP | Pg | 05 15 21.6 | -1.2 |
| BORA | | | | i S | Sg | 05 15 36.2 | -0.2 |
| BORA | Eskisehir | 1.04 | 10 | P | Pg | 05 15 21.6 | -1.2 |
| BORA | | | | S | Sg | 05 15 36.2 | -0.2 |
| BRDR | BURDUR-Merkez | 1.16 | 186 | ⇑iP | Pg | 05 15 23.9 | -1.2 |
| BRDR | | | | i S | Sn | 05 15 42.5 | +0.4 |
| BRDR | BURDUR-Merkez | 1.16 | 186 | P | Pg | 05 15 23.9 | -1.2 |
| BRDR | | | | S | Sn | 05 15 42.5 | +0.4 |
| DEMI | Demirci | 1.18 | 280 | ⇑iP | Pg | 05 15 24.6 | -0.8 |
| DEMI | | | | i S | Sg | 05 15 40.4 | -0.3 |
| DEMI | Demirci | 1.18 | 280 | P | Pg | 05 15 24.6 | -0.8 |
| DEMI | | | | S | Sg | 05 15 40.4 | -0.3 |
| SVRH | Sivrihisar-ESK | 1.18 | 59 | ePN | Pg | 05 15 24.8 | -0.7 |
| SVRH | Sivrihisar-ESK | 1.18 | 59 | ePn | Pg | 05 15 24.8 | -0.7 |
| KULA | Kula-Manisa | 1.26 | 255 | ePN | Pg | 05 15 26.2 | -0.8 |
| KULA | Kula-Manisa | 1.26 | 255 | ePn | Pg | 05 15 26.2 | -0.8 |
| KIZT | Kizilcal | 1.30 | 88 | ePN | Pn | 05 15 27.6 | -0.2 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| KIZT | Kizilcal | 1.30 | 88 | *e*Pn | Pn | 05 15 27.6 | -0.2 |
| MANT | Manisa | 1.34 | 255⇑ | *i*P | Pn | 05 15 27.6 | -0.8 |
| MANT | | | | *i* S | Sg | 05 15 44.5 | -1.5 |
| MANT | Manisa | 1.34 | 255 | P | Pn | 05 15 27.6 | -0.8 |
| MANT | Manisa | 1.34 | 255 | *e*Pg | Pn | 05 15 27.9 | -0.5 |
| MANT | | | | S | Sg | 05 15 44.5 | -1.5 |
| MANT | | | | *e*Sg | Sb | 05 15 46.1 | -0.1 |
| MANT | Manisa | 1.34 | 255 | *e*Pg | Pn | 05 15 27.9 | -0.5 |
| MANT | | | | *e*Sg | Sb | 05 15 46.1 | -0.1 |
| DOGA | KONYA_Doganhis | 1.37 | 123 | *i* P | Pn | 05 15 28.1 | -0.6 |
| DOGA | KONYA_Doganhis | 1.37 | 123 | P | Pn | 05 15 28.1 | -0.6 |
| CAVI | Cavuskoy | 1.38 | 348 | *e*PN | Pn | 05 15 29.0 | +0.3 |
| CAVI | Cavuskoy | 1.38 | 348 | *e*Pn | Pn | 05 15 29.0 | +0.3 |
| BCK | Bucak | 1.42 | 168 | *e*PN | Pn | 05 15 29.4 | 0.0 |
| BCK | Bucak | 1.42 | 168 | *e*Pn | Pn | 05 15 29.4 | 0.0 |
| DENT | Denizli | 1.44 | 220 | *e*PN | Pn | 05 15 29.2 | -0.3 |
| DENT | Denizli | 1.44 | 220 | *e*Pn | Pn | 05 15 29.2 | -0.3 |
| GPA | Golpazari | 1.44 | 3 | *e*PN | Pn | 05 15 29.6 | +0.1 |
| GPA | Golpazari | 1.44 | 3 | *e*Pn | Pn | 05 15 29.6 | +0.1 |
| DST | Dursunbey | 1.44 | 302 | *e*PN | Pb | 05 15 30.3 | +0.1 |
| DST | Dursunbey | 1.44 | 302 | *e*Pn | Pb | 05 15 30.3 | +0.1 |
| DNZL | Cakiroluk | 1.48 | 219⇑ | *i*P | Pn | 05 15 29.1 | -1.1 |
| DNZL | | | | *i* S | Sg | 05 15 52.9 | +2.5 |
| DNZL | Cakiroluk | 1.48 | 219 | P | Pn | 05 15 29.1 | -1.1 |
| DNZL | | | | S | Sg | 05 15 52.9 | +2.5 |
| SUTC | Sutluce-Ispart | 1.51 | 155 | *e*PN | Pb | 05 15 31.1 | -0.3 |
| SUTC | Sutluce-Ispart | 1.51 | 155 | *e*Pn | Pb | 05 15 31.1 | -0.3 |
| KDHN | Kadinhani | 1.53 | 102 | *i* P | Pn | 05 15 30.3 | -0.6 |
| KDHN | Kadinhani | 1.53 | 102 | P | Pn | 05 15 30.3 | -0.6 |
| ORLT | Orhaneli | 1.57 | 320 | *e*PN | Pb | 05 15 32.6 | +0.3 |
| ORLT | Orhaneli | 1.57 | 320 | *e*Pn | Pb | 05 15 32.6 | +0.3 |
| GULT | Gulveren | 1.59 | 8 | *e*PN | Pn | 05 15 31.6 | -0.2 |
| GULT | Gulveren | 1.59 | 8 | *e*Pn | Pn | 05 15 31.6 | -0.2 |
| IGD | Bursa | 1.61 | 331⇑ | *i*P | Pn | 05 15 31.5 | -0.4 |
| IGD | | | | *i* S | Sg | 05 15 54.8 | +0.2 |
| ADVT | Abdulvahap | 1.62 | 347 | *e*PN | Pn | 05 15 32.3 | +0.3 |
| ADVT | Abdulvahap | 1.62 | 347 | *e*Pn | Pn | 05 15 32.3 | +0.3 |
| GEYV | SAKARYA_Geyve | 1.63 | 2⇑ | *i*P | Pn | 05 15 31.8 | -0.4 |
| GEYV | | | | *i* S | Sg | 05 15 56.6 | +1.4 |
| GEYV | SAKARYA_Geyve | 1.63 | 2 | P | Pn | 05 15 31.8 | -0.4 |
| GEYV | | | | S | Sg | 05 15 56.6 | +1.4 |
| GEMT | Gemlik | 1.77 | 334 | *e*PN | Pb | 05 15 35.3 | -0.4 |
| GEMT | Gemlik | 1.77 | 334 | *e*Pn | Pb | 05 15 35.3 | -0.4 |
| GLHS | Glhisar (BURDU | 1.79 | 199 | *e*PN | Pn | 05 15 34.8 | +0.4 |
| GLHS | Glhisar (BURDU | 1.79 | 199 | *e*Pn | Pn | 05 15 34.8 | +0.4 |
| MDUB | Mudurnu | 1.79 | 25 | *e*PN | Pn | 05 15 34.8 | +0.4 |
| MDUB | Mudurnu | 1.79 | 25 | *e*Pn | Pn | 05 15 34.8 | +0.4 |
| LADK | Ladik-KONYA | 1.81 | 110 | *e*PN | Pn | 05 15 35.3 | +0.5 |
| LADK | Ladik-KONYA | 1.81 | 110 | *e*Pn | Pn | 05 15 35.3 | +0.5 |
| MDNY | Mudanya-Bursa | 1.83 | 326 | *e*PN | Pn | 05 15 34.7 | -0.2 |
| MDNY | Mudanya-Bursa | 1.83 | 326 | *e*Pn | Pn | 05 15 34.7 | -0.2 |
| YLV | Yalova | 1.83 | 340 | *e*PN | Pb | 05 15 36.1 | -0.7 |
| YLV | Yalova | 1.83 | 340 | *e*Pn | Pb | 05 15 36.1 | -0.7 |
| SPNC | Sapanca-Adapaz | 1.83 | 2 | *e*PN | Pb | 05 15 36.1 | -0.7 |
| SPNC | Sapanca-Adapaz | 1.83 | 2 | *e*Pn | Pb | 05 15 36.1 | -0.7 |
| KORT | Korkueli | 1.85 | 176 | *e*PN | Pn | 05 15 35.5 | +0.2 |
| KORT | Korkueli | 1.85 | 176 | *e*Pn | Pn | 05 15 35.5 | +0.2 |
| AKHS | Akhisar | 1.87 | 272⇓ | *i*P | Pn | 05 15 34.8 | -0.7 |
| AKHS | | | | *i* S | Sg | 05 16 02.6 | -0.3 |
| AKHS | Akhisar | 1.87 | 272 | P | Pn | 05 15 34.8 | -0.7 |
| AKHS | | | | S | Sg | 05 16 02.6 | -0.3 |
| AKS | Akhisar | 1.87 | 272 | *e*PN | Pb | 05 15 36.9 | -0.6 |
| AKS | Akhisar | 1.87 | 272 | *e*Pn | Pb | 05 15 36.9 | -0.6 |
| KONT | Konya--Tatoy | 1.92 | 118 | *e*PN | Pn | 05 15 36.3 | +0.2 |
| KONT | Konya--Tatoy | 1.92 | 118 | *i* P | Pn | 05 15 36.4 | +0.3 |
| KONT | Konya--Tatoy | 1.92 | 118 | *e*Pn | Pn | 05 15 36.3 | +0.2 |
| BALB | Balikesir | 1.97 | 294 | *e*PN | Pb | 05 15 38.5 | -0.7 |
| BALB | Balikesir | 1.97 | 294 | *e*Pn | Pb | 05 15 38.5 | -0.7 |
| ANTB | Antalya | 1.98 | 170 | *e*PN | Pb | 05 15 38.2 | -1.1 |
| ANTB | Antalya | 1.98 | 170 | *e*Pn | Pb | 05 15 38.2 | -1.1 |
| STEP | BALIKESIR_Sava | 2.01 | 286⇓ | *i*P | Pn | 05 15 36.9 | -0.6 |
| STEP | | | | *i* S | Sg | 05 16 08.3 | +1.0 |
| STEP | BALIKESIR_Sava | 2.01 | 286 | P | Pn | 05 15 36.8 | -0.6 |
| STEP | | | | S | Sg | 05 16 08.3 | +1.0 |
| HRT | Hereke | 2.01 | 348 | *e*PN | Pn | 05 15 37.4 | 0.0 |
| HRT | Hereke | 2.01 | 348 | *e*Pn | Pn | 05 15 37.4 | 0.0 |
| KCTX | Karacabey (Bur | 2.01 | 315 | *e*PN | Pb | 05 15 39.0 | -0.9 |
| KCTX | Karacabey (Bur | 2.01 | 315 | *e*Pn | Pb | 05 15 39.0 | -0.9 |
| KMER | Konya-Meram | 2.02 | 122 | *i* P | Pn | 05 15 38.4 | +0.8 |
| KMER | Konya-Meram | 2.02 | 122 | P | Pn | 05 15 38.3 | +0.8 |
| SBT5 | Esenkoy-Cinarc | 2.05 | 330 | *e*PN | Pb | 05 15 39.2 | -1.2 |
| SBT5 | Esenkoy-Cinarc | 2.05 | 330 | *e*Pn | Pb | 05 15 39.2 | -1.2 |
| CHBY | Cihanbeyli | 2.12 | 97 | *e*PN | Pn | 05 15 39.5 | +0.5 |
| CHBY | Cihanbeyli | 2.12 | 97 | *e*Pn | Pn | 05 15 39.5 | +0.5 |
| ELL | Elmali | 2.12 | 187 | *e*PN | Pn | 05 15 39.5 | +0.5 |
| ELL | Elmali | 2.12 | 187 | *e*Pn | Pn | 05 15 39.5 | +0.5 |
| KKUL | Konya-Kulu | 2.13 | 81 | *i* P | Pn | 05 15 40.1 | +0.9 |
| KKUL | Konya-Kulu | 2.13 | 81 | P | Pn | 05 15 40.1 | +0.9 |
| BUY | Buyukada | 2.17 | 338 | *e*PN | Pb | 05 15 41.1 | -1.4 |
| BUY | Buyukada | 2.17 | 338 | *e*Pn | Pb | 05 15 41.1 | -1.4 |
| BALY | Balya | 2.20 | 295 | *i* P | Pn | 05 15 39.9 | -0.1 |
| BALY | Balya | 2.20 | 295 | P | Pn | 05 15 39.9 | -0.1 |
| BR231 | Keskin MP Arra | 2.22 | 63 | *e*Pn | Pg | 05 15 46.2 | +0.8 |
| LOD | Lodumlu | 2.23 | 62 | *e*PN | Pn | 05 15 41.9 | +1.3 |
| LOD | Lodumlu | 2.23 | 62 | *e*Pn | Pn | 05 15 41.9 | +1.3 |
| ANTO | Ankara | 2.25 | 62 | *e*P | Pb | 05 15 43.2 | -0.7 |
| ANTO | Ankara | 2.25 | 62 | *e*P | Pb | 05 15 43.2 | -0.7 |
| ANTO | Ankara | 2.25 | 62 | *e*Pn | Pb | 05 15 43.2 | -0.7 |
| GONE | Gonen-Balikesi | 2.29 | 302 | *e*PN | Pn | 05 15 42.4 | +1.2 |
| GONE | Gonen-Balikesi | 2.29 | 302 | *e*Pn | Pn | 05 15 42.4 | +1.2 |
| AFSR | Af¯ar-Bala (A | 2.30 | 74 | *e*PN | Pn | 05 15 43.2 | +1.7 |
| AFSR | Af¯ar-Bala (A | 2.30 | 74 | *e*Pn | Pn | 05 15 43.2 | +1.7 |
| EDC | Edincik | 2.35 | 310 | *e*PN | Pn | 05 15 43.5 | +1.5 |
| EDC | Edincik | 2.35 | 310 | *e*Pn | Pn | 05 15 43.5 | +1.5 |
| TURN | Turunc | 2.35 | 213 | *e*PN | Pb | 05 15 46.2 | +0.6 |
| DALY | Dalyan (Mu˜la | 2.38 | 212 | *e*PN | Pn | 05 15 43.5 | +1.1 |
| DALY | Dalyan (Mu˜la | 2.38 | 212 | *e*Pn | Pn | 05 15 43.5 | +1.1 |
| FETY | Fethiye | 2.39 | 202 | *e*PN | Pn | 05 15 43.1 | +0.5 |
| FETY | Fethiye | 2.39 | 202 | P | Pn | 05 15 43.0 | +0.4 |
| FETY | Fethiye | 2.39 | 202 | P | Pn | 05 15 43.0 | +0.4 |
| SBT2 | Guzelce-Avcila | 2.41 | 328 | *e*PN | Pn | 05 15 44.3 | +1.6 |
| SBT2 | Guzelce-Avcila | 2.41 | 328 | *e*Pn | Pn | 05 15 44.3 | +1.6 |
| DKL | Dikili | 2.58 | 276 | *e*PN | Pn | 05 15 46.9 | +1.7 |
| DKL | Dikili | 2.58 | 276 | *e*Pn | Pn | 05 15 46.9 | +1.7 |
| GCAM | G?zelcaml? | 2.61 | 245 | *e*PN | Pn | 05 15 46.3 | +0.7 |
| GCAM | G?zelcaml? | 2.61 | 245 | *e*Pn | Pn | 05 15 46.3 | +0.7 |
| SERE | Sereflikochisa | 2.62 | 87 | *e*PN | Pn | 05 15 47.2 | +1.3 |
| SERE | Sereflikochisa | 2.62 | 87 | *e*Pn | Pn | 05 15 47.2 | +1.3 |
| SBT3 | Marmara-Eregli | 2.66 | 320 | *e*PN | Pn | 05 15 48.2 | +2.1 |
| SBT3 | Marmara-Eregli | 2.66 | 320 | *e*Pn | Pn | 05 15 48.3 | +2.1 |
| AKAS | Kas | 2.66 | 191 | *e*PN | Pn | 05 15 47.5 | +1.0 |
| AKAS | Kas | 2.66 | 191 | *e*Pn | Pn | 05 15 47.5 | +1.0 |
| AKAS | Kas | 2.66 | 191 | *e*Pn | Pn | 05 15 48.1 | +1.7 |
| KRBG | Karabiga-Canak | 2.72 | 305 | *e*PN | Pn | 05 15 49.0 | +1.9 |
| KRBG | Karabiga-Canak | 2.72 | 305 | *e*Pn | Pn | 05 15 49.1 | +1.9 |
| KSL | Kastellorizon | 2.74 | 191 | P | Pn | 05 15 48.6 | +1.1 |
| KAMT | Kaman | 2.77 | 78 | *e*PN | Pn | 05 15 49.8 | +1.8 |
| KAMT | Kaman | 2.77 | 78 | *e*Pn | Pn | 05 15 49.8 | +1.8 |
| BRTR | Keskin Array B | 2.80 | 71 | Pn | Pn | 05 15 48.5 | +0.1 |
| | 2.0nm,0.3s,baz=246,slow=14,SNR=31 | | | | | | |
| BRTR | | | | Pg | Pg | 05 15 55.7 | -0.8 |
| | 5.9nm,0.3s,baz=252,slow=14,SNR=65 | | | | | | |
| BRTR | | | | Lg | Lg | 05 16 35.7 | |
| | 3.5nm,0.3s,baz=263,slow=19,SNR=3.4 | | | | | | |
| BR131 | Keskin Array S | 2.80 | 71 | *e*Pn | Pn | 05 15 48.5 | +0.1 |
| BR131 | Keskin Array S | 2.80 | 71 | *e*Pn | Pn | 05 15 48.5 | +0.1 |
| URLA | Izmir | 2.87 | 261 | *e*PN | Pn | 05 15 49.9 | +0.6 |
| URLA | Izmir | 2.87 | 261 | *e*Pn | Pn | 05 15 49.9 | +0.6 |
| SMG | Samos | 2.89 | 248 | P | Pn | 05 15 50.1 | +0.6 |
| SMG | Samos | 2.89 | 248 | P | Pn | 05 15 50.1 | +0.6 |
| BODT | Bodrum | 2.91 | 233 | *e*PN | Pn | 05 15 51.0 | +1.3 |
| BODT | Bodrum | 2.91 | 233 | P | Pn | 05 15 49.2 | -0.5 |
| BODT | Bodrum | 2.91 | 233 | *e*Pn | Pn | 05 15 51.0 | +1.3 |
| BODT | | | | S | Sn | 05 16 23.0 | -2.0 |
| BODT | Bodrum | 2.91 | 233 | P | Pn | 05 15 49.2 | -0.5 |
| BODT | | | | S | Sn | 05 16 23.0 | -2.0 |
| PRK | Paraskevi | 3.09 | 279 | P | Pn | 05 15 51.7 | -0.5 |
| PRK | Paraskevi | 3.09 | 279 | P | Pn | 05 15 51.7 | -0.5 |
| ARG | Arkhangelos | 3.11 | 213 | P | Pn | 05 15 53.0 | +0.5 |
| ARG | Arkhangelos | 3.11 | 213 | P | Pn | 05 15 53.0 | +0.5 |
| EZN | Ezine | 3.16 | 289 | *e*PN | Pn | 05 15 54.3 | +1.1 |
| EZN | Ezine | 3.16 | 289 | P | Pn | 05 15 53.9 | +0.7 |
| EZN | Ezine | 3.16 | 289 | *e*Pn | Pn | 05 15 54.3 | +1.1 |
| EZN | Ezine | 3.16 | 289 | P | Pn | 05 15 53.9 | +0.7 |
| CHOS | Chios island | 3.29 | 263 | P | Pn | 05 15 55.1 | +0.1 |
| CHOS | Chios island | 3.29 | 263 | P | Pn | 05 15 55.1 | +0.1 |
| SIGR | SIGRI | 3.41 | 277 | P | Pn | 05 15 56.6 | 0.0 |
| SIGR | SIGRI | 3.41 | 277 | P | Pn | 05 15 56.6 | 0.0 |
| ILGA | Ilgaz | 3.48 | 50 | *e*Pn | Pn | 05 16 01.3 | +3.5 |
| ILGA | Ilgaz | 3.48 | 50 | *e*Pn | Pn | 05 16 01.3 | +3.5 |
| GADA | Gvkgeada | 3.59 | 293 | P | Pn | 05 15 59.1 | 0.0 |
| GADA | Gvkgeada | 3.59 | 293 | P | Pn | 05 15 59.1 | 0.0 |
| ENEZ | Enez | 3.65 | 302 | P | Pn | 05 16 00.3 | +0.4 |
| ENEZ | | | | S | Sn | 05 16 42.1 | -1.1 |
| ENEZ | Enez | 3.65 | 302 | P | Pn | 05 16 00.3 | +0.4 |
| ENEZ | | | | S | Sn | 05 16 42.1 | -1.1 |
| ALN | Alexandroupoli | 3.80 | 304 | P | Pn | 05 16 02.0 | 0.0 |
| ALN | | | | S | Sn | 05 16 46.5 | -0.5 |
| ALN | Alexandroupoli | 3.80 | 304 | P | Pn | 05 16 02.0 | 0.0 |
| ALN | | | | S | Sn | 05 16 46.5 | -0.5 |
| SMTH | Samothraki Isl | 3.96 | 296 | P | Pn | 05 16 03.7 | -0.4 |
| SMTH | Samothraki Isl | 3.96 | 296 | P | Pn | 05 16 03.7 | -0.4 |
| LIA | Limnos Island | 4.03 | 287 | P | Pn | 05 16 05.2 | 0.0 |
| LIA | Limnos Island | 4.03 | 287 | P | Pn | 05 16 05.2 | 0.0 |
| KARP | Karpathos | 4.10 | 217 | P | Pn | 05 16 06.5 | +0.3 |
| KARP | Karpathos | 4.10 | 217 | *e*Pn | Pn | 05 16 07.0 | +0.8 |
| KARP | Karpathos | 4.10 | 217 | *e*Pn | Pn | 05 16 07.0 | +0.8 |
| KARP | Karpathos | 4.10 | 217 | P | Pn | 05 16 06.5 | +0.3 |
| APE | Apeiranthos | 4.10 | 246⇑ | *i*P | Pn | 05 16 07.1 | +0.9 |
| APE | Apeiranthos | 4.10 | 246 | ⇑P | Pn | 05 16 07.1 | +0.9 |
| APE | Apeiranthos | 4.10 | 246 | P | Pn | 05 16 07.1 | +0.9 |
| RDO | Rodhopi | 4.26 | 304 | P | Pn | 05 16 08.4 | +0.2 |
| RDO | Rodhopi | 4.26 | 304 | P | Pn | 05 16 08.4 | +0.2 |
| SANT | Santorini | 4.51 | 238 | *e*Pn | Pn | 05 16 13.2 | +1.4 |
| SANT | Santorini | 4.51 | 238 | *e*Pn | Pn | 05 16 13.2 | +1.4 |
| CSS | Mathiatis | 4.62 | 146 | *e*Pn | Pn | 05 16 14.2 | +0.9 |
| CSS | Mathiatis | 4.62 | 146 | *e*Pn | Pn | 05 16 14.2 | +0.9 |
| KAVA | Kavala | 4.87 | 298 | P | Pn | 05 16 16.9 | +0.2 |
| KAVA | Kavala | 4.87 | 298 | P | Pn | 05 16 16.9 | +0.2 |
| TOKA | Tokat | 5.06 | 71 | *e*Pn | Pn | 05 16 19.9 | +0.5 |
| TOKA | Tokat | 5.06 | 71 | *e*Pn | Pn | 05 16 19.9 | +0.5 |
| PLG | Polygyros | 5.44 | 288 | P | Pn | 05 16 24.8 | +0.2 |
| PLG | Polygyros | 5.44 | 288 | P | Pn | 05 16 24.8 | +0.2 |
| NVR | Nevrokopi | 5.47 | 299 | P | Pn | 05 16 25.4 | +0.4 |
| NVR | Nevrokopi | 5.47 | 299 | P | Pn | 05 16 25.4 | +0.4 |
| IDI | Anoyia | 5.54 | 232 | Pn | Pn | 05 16 26.0 | 0.0 |
| | 2.8nm,0.3s,baz=59,slow=15,SNR=24 | | | | | | |
| ICOR | Ion Corvin | 5.56 | 342⇑ | *i*P | Pn | 05 16 29.7 | +3.5 |
| SRS | Serrai | 5.56 | 296 | P | Pn | 05 16 26.5 | +0.3 |
| SRS | Serrai | 5.56 | 296 | P | Pn | 05 16 26.5 | +0.3 |
| TIRR | Tirgusor | 5.76 | 347⇓ | *i*P | Pn | 05 16 30.9 | +2.0 |
| TIRR | Tirgusor | 5.76 | 347 | ⇓P | Pn | 05 16 30.9 | +2.0 |
| TIRR | Tirgusor | 5.76 | 347 | *e*Pn | Pn | 05 16 29.0 | +0.1 |
| TIRR | Tirgusor | 5.76 | 347 | P | Pn | 05 16 30.9 | +2.0 |
| TIRR | Tirgusor | 5.76 | 347 | *e*Pn | Pn | 05 16 29.0 | +0.1 |
| ZIMR | | 6.03 | 324⇑ | *i*P | Pn | 05 16 32.9 | +0.3 |
| ZIMR | | 6.03 | 324 | P | Pn | 05 16 32.9 | +0.3 |
| KNT | Kendrikon | 6.07 | 295 | P | Pn | 05 16 33.7 | +0.5 |
| KNT | Kendrikon | 6.07 | 295 | P | Pn | 05 16 33.7 | +0.5 |
| HARR | Harsova | 6.08 | 344⇑ | *i*P | Pn | 05 16 35.8 | +2.6 |
| HARR | Harsova | 6.08 | 344 | ⇑P | Pn | 05 16 35.8 | +2.6 |
| HARR | Harsova | 6.08 | 344 | P | Pn | 05 16 35.8 | +2.6 |
| AGG | Agios Georgios | 6.14 | 274 | *e*P | Pn | 05 16 35.2 | +1.0 |
| AGG | Agios Georgios | 6.14 | 274 | *e*P | Pn | 05 16 35.2 | +1.0 |
| AGG | Agios Georgios | 6.14 | 274 | *e*Pn | Pn | 05 16 35.2 | +1.0 |
| GUR | Goura | 6.25 | 264 | P | Pn | 05 16 36.6 | +0.9 |
| GUR | Goura | 6.25 | 264 | P | Pn | 05 16 36.6 | +0.9 |
| SEV | Sevastopol' | 6.25 | 23 | *e*P | Pn | 05 16 34.7 | -0.9 |
| SEV | | | | *e*S | Sn | 05 17 42.5 | -4.8 |
| SEV | Sevastopol' | 6.25 | 23 | *e*P | Pn | 05 16 34.7 | -0.9 |
| YAL | Yalta | 6.36 | 26 | *e*P | Pn | 05 16 39.6 | +2.5 |
| YAL | | | | *e*S | Sn | 05 17 50.0 | 0.0 |
| YAL | Yalta | 6.36 | 26 | *e*P | Pn | 05 16 39.6 | +2.5 |
| YAL | | | | *e*S | Sn | 05 17 50.0 | 0.0 |
| THL | Klokotos Trika | 6.40 | 279 | P | Pn | 05 16 38.6 | +0.8 |
| THL | Klokotos Trika | 6.40 | 279 | P | Pn | 05 16 38.6 | +0.8 |
| VTS | Vitosha | 6.50 | 307⇓ | *i*P | Pn | 05 16 40.2 | +1.0 |
| VTS | Vitosha | 6.50 | 307 | ⇓P | Pn | 05 16 40.2 | +1.0 |
| VTS | Vitosha | 6.50 | 307 | P | Pn | 05 16 39.8 | +0.6 |
| VTS | Vitosha | 6.50 | 307 | *e*Pn | Pn | 05 16 40.3 | +1.0 |
| VTS | Vitosha | 6.50 | 307 | *e*Pn | Pn | 05 16 40.3 | +1.1 |
| VTS | Vitosha | 6.50 | 307 | P | Pn | 05 16 39.8 | +0.6 |
| CFR | Carcaliu | 6.50 | 347⇑ | *i*P | Pn | 05 16 40.7 | +1.6 |
| CFR | Carcaliu | 6.50 | 347 | ⇑P | Pn | 05 16 40.7 | +1.6 |
| CFR | Carcaliu | 6.50 | 347 | P | Pn | 05 16 40.7 | +1.6 |
| SIM | Simferopol' | 6.75 | 24 | *e*P | Pn | 05 16 43.6 | +1.1 |
| SIM | | | | *e*S | Sn | 05 17 59.7 | -0.1 |
| SIM | | | | pmax | pmax | | |
| | comp=Z,29nm,1.0s | | | | | | |
| SIM | Simferopol' | 6.75 | 24 | *e*P | Pn | 05 16 43.6 | +1.1 |
| | comp=Z,29nm,1.0s | | | | | | |
| SIM | | | | *e*S | Sn | 05 17 59.7 | -0.1 |
| ISR | Istrita | 6.83 | 338⇑ | *i*P | Pn | 05 16 46.3 | +2.6 |
| ISR | Istrita | 6.83 | 338 | ⇑P | Pn | 05 16 46.3 | +2.6 |
| ISR | Istrita | 6.83 | 338 | P | Pn | 05 16 46.3 | +2.6 |
| SECR | | 6.91 | 335⇑ | *i*P | Pn | 05 16 50.1 | +5.5 |
| MMAI | Mount Meron Ar | 7.19 | 143 | Pn | Pn | 05 16 49.5 | +0.9 |
| | comp=Z,1.6nm,0.3s,baz=310,slow=13,SNR=9.2 | | | | | | |
| MLR | Muntele Rosu | 7.35 | 336 | Pn | Pn | 05 16 51.5 | +0.7 |
| | comp=Z,0.1nm,0.3s,baz=202,slow=3.3,SNR=9.3 | | | | | | |
| MLR | | | | LR | LR | 05 19 45.8 | |
| | comp=Z,47nm,18.3s,baz=140,slow=39 | | | | | | |
| MLR | Muntele Rosu | 7.35 | 336⇑ | *i*P | Pn | 05 16 52.5 | +1.6 |
| MLR | Muntele Rosu | 7.35 | 336 | *e*P | Pn | 05 16 52.4 | +1.6 |
| MLR | Muntele Rosu | 7.35 | 336 | *e*P | Pn | 05 16 52.4 | +1.6 |
| MLR | Muntele Rosu | 7.35 | 336 | *e*Pn | Pn | 05 16 52.4 | +1.5 |
| VRI | Vrincioaia | 7.47 | 341⇑ | *i*P | Pn | 05 16 53.7 | +1.3 |
| VRI | Vrincioaia | 7.47 | 341 | ⇑P | Pn | 05 16 53.7 | +1.3 |
| VRI | Vrincioaia | 7.47 | 341 | P | Pn | 05 16 53.7 | +1.3 |
| PLOR | Plostina | 7.47 | 341⇑ | *i*P | Pn | 05 16 53.9 | +1.4 |
| PLOR | Plostina | 7.47 | 341 | ⇑P | Pn | 05 16 53.9 | +1.4 |
| PLOR | Plostina | 7.47 | 341 | P | Pn | 05 16 53.9 | +1.4 |
| BARS | Barje | 7.49 | 305⇑ | *i*Pn | Pn | 05 16 53.6 | +0.9 |
| VOIR | | 7.61 | 331⇓ | *i*P | Pn | 05 16 55.0 | +0.6 |
| VOIR | | 7.61 | 331 | ⇓P | Pn | 05 16 55.0 | +0.6 |
| VOIR | | 7.61 | 331 | P | Pn | 05 16 55.0 | +0.6 |
| ARR | Arges | 7.71 | 329⇑ | *i*P | Pn | 05 16 56.3 | +0.5 |
| ARR | Arges | 7.71 | 329⇑ | *i*P | Pn | 05 16 56.3 | +0.5 |
| LEOM | Leova | 7.75 | 350⇑ | *i*P | Pn | 05 16 56.6 | +0.4 |
| LEOM | Leova | 7.75 | 350 | ⇑P | Pn | 05 16 56.6 | +0.4 |
| LEOM | Leova | 7.75 | 350 | P | Pn | 05 16 56.6 | +0.4 |
| ZAGS | Zajecar | 7.78 | 312⇓ | *i*Pn | Pn | 05 16 56.5 | -0.1 |
| DOPR | Dopca | 7.95 | 335⇓ | *i*P | Pn | 05 17 00.1 | +1.1 |
| DOPR | Dopca | 7.95 | 335⇓ | *i*P | Pn | 05 17 00.1 | +1.1 |
| BOVS | Bovan | 7.99 | 309 | *e*Pn | Pn | 05 17 00.2 | +0.7 |
| LOT | Lotru | 8.14 | 326⇓ | *i*P | Pn | 05 17 02.2 | +0.5 |
| LOT | Lotru | 8.14 | 326⇓ | *i*P | Pn | 05 17 02.2 | +0.5 |
| KIS | Kishinev | 8.20 | 353 | *e* | Sn | 05 18 29.0 | -6.5 |
| MDVR | Moldovita | 8.68 | 316⇑ | *i*P | Pn | 05 17 08.4 | -0.6 |
| MDVR | Moldovita | 8.68 | 316⇑ | *i*P | Pn | 05 17 08.4 | -0.6 |
| GRUS | Gruza | 8.73 | 308⇓ | *i*Pn | Pn | 05 17 10.1 | +0.4 |
| BZS | Buzias | 9.28 | 319⇑ | *i*P | Pn | 05 17 15.4 | -1.9 |
| BZS | Buzias | 9.28 | 319 | ⇑P | Pn | 05 17 15.4 | -1.9 |
| BZS | Buzias | 9.28 | 319 | P | Pn | 05 17 15.4 | -1.9 |
| DIVS | Divibare | 9.28 | 308 | *e*Pn | Pn | 05 17 15.6 | -1.8 |
| SORM | Soroca | 9.38 | 352⇑ | *i*P | Pn | 05 17 16.5 | -1.9 |
| SORM | Soroca | 9.38 | 352 | ⇑P | Pn | 05 17 16.6 | -1.9 |
| SORM | Soroca | 9.38 | 352 | P | Pn | 05 17 16.6 | -1.9 |
| BURAR | Bucovina Array | 9.48 | 339⇑ | *i*P | Pn | 05 17 20.4 | +0.3 |
| BURAR | Bucovina Array | 9.48 | 339 | ⇑P | Pn | 05 17 20.4 | +0.3 |
| BURAR | Bucovina Array | 9.48 | 339⇑ | *i*P | Pn | 05 17 20.4 | +0.3 |
| BUR04 | Bucovina Ar. S | 9.49 | 339 | *e*Pn | Pn | 05 17 20.8 | +0.7 |
| BUR04 | Bucovina Ar. S | 9.49 | 339 | *e*Pn | Pn | 05 17 20.8 | +0.7 |
| BUR08 | Bucovina Ar. S | 9.51 | 339 | *e*Pn | Pn | 05 17 21.8 | +1.3 |
| BUR08 | Bucovina Ar. S | 9.51 | 339 | *e*Pn | Pn | 05 17 21.8 | +1.3 |
| DRGR | | 9.65 | 328⇑ | *i*P | Pn | 05 17 21.1 | -1.3 |
| DRGR | | 9.65 | 328 | ⇑P | Pn | 05 17 21.1 | -1.3 |
| DRGR | | 9.65 | 328 | P | Pn | 05 17 21.1 | -1.3 |
| TEKS | Tekeris | 9.80 | 309 | *e*Pn | Pn | 05 17 26.0 | +1.6 |
| EIL | Elat | 9.96 | 155 | Pn | Pn | 05 17 27.5 | +0.9 |
| | comp=Z,0.3nm,0.3s,baz=297,slow=16,SNR=3.4 | | | | | | |
| NEY | Neytrino | 10.42 | 61⇓ | *e*P | Pn | 05 17 32.8 | -0.2 |
| NEY | Neytrino | 10.42 | 61 | *e*P | Pn | 05 17 32.8 | -0.2 |
| GNI | Garni | 11.30 | 79 | LR | LR | 05 22 16.2 | |
| | comp=Z,116nm,19.5s,baz=328,slow=38 | | | | | | |
| KIEV | Kiev | 11.86 | 357⇑ | *e*P | Pn | 05 17 54.2 | +1.7 |
| KIEV | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.3s | | | | | | |
| KIEV | Kiev | 11.86 | 357 | *e*P | Pn | 05 17 54.2 | +1.7 |
| | comp=Z,6.0nm,1.3s | | | | | | |
| AKASG | Malin Array Be | 11.87 | 357 | Pn | Pn | 05 17 51.7 | -0.9 |
| | comp=Z,0.7nm,0.3s,baz=171,slow=12,SNR=6.5 | | | | | | |
| AKASG | | | | Sn | Sn | 05 20 08.5 | +3.2 |
| | comp=Z,1.0nm,0.3s,baz=184,slow=26,SNR=4.7 | | | | | | |
| AKASG | Malin Array Be | 11.87 | 357 | *e*P | Pn | 05 17 54.4 | +1.8 |
| AKASG | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.3s | | | | | | |
| AKASG | Malin Array Be | 11.87 | 357 | *e*P | Pn | 05 17 54.4 | +1.8 |
| | comp=Z,1.0nm,0.3s | | | | | | |
| VSR | Storozhevoye | 13.88 | 24 | *e*P | Pn | 05 18 22.7 | +2.7 |
| VSR | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.6s | | | | | | |
| VRH | Novokhopyorsk | 14.77 | 30 | *e*P | Pn | 05 18 34.7 | +2.6 |
| VRH | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.4s | | | | | | |
| GEA0 | GERESS Array S | 15.51 | 315 | *e*Pn | P | 05 18 46.7 | +0.1 |
| GEC2 | GERESS Array S | 15.51 | 315 | *e*P | P | 05 18 46.6 | -0.1 |
| GEC2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.4s | | | | | | |
| GEC2 | GERESS Array S | 15.51 | 315 | *e*P | P | 05 18 46.6 | -0.1 |
| | comp=Z,10.0nm,1.4s | | | | | | |
| GEC2 | GERESS Array S | 15.51 | 315 | *e*Pn | P | 05 18 46.6 | -0.1 |
| | comp=Z,10nm,1.4s | | | | | | |
| GERES | GERESS Array B | 15.51 | 315 | Pn | Pn | 05 18 41.9 | -0.3 |
| | comp=Z,0.1nm,0.3s,baz=150,slow=8.0,SNR=2.4 | | | | | | |
| OBN | Obninsk | 16.82 | 13⇓ | *e*P | P | 05 19 00.7 | -0.4 |
| OBN | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.3s | | | | | | |
| OBN | Obninsk | 16.82 | 13 | *e*P | P | 05 19 00.7 | -0.4 |
| | comp=Z,4.0nm,0.3s | | | | | | |
| KEST | Kesra | 16.89 | 266 | Pn | Pn | 05 18 59.4 | -0.6 |
| | comp=Z,0.1nm,0.3s,baz=310,slow=7.9,SNR=2.9 | | | | | | |
| KEST | Kesra | 16.89 | 266 | *e*Pn | P | 05 19 01.9 | -0.2 |
| | comp=Z,13nm,1.0s | | | | | | |
| KEST | Kesra | 16.89 | 266 | *e*Pn | P | 05 19 01.9 | -0.2 |
| | comp=Z,13nm,1.0s | | | | | | |
| BFO | Black Forest | 18.41 | 308 | *i* P | P | 05 19 21.5 | +2.8 |
| BFO | Black Forest | 18.41 | 308 | *i* P | P | 05 19 21.5 | +2.8 |
| VSU | Vasula | 19.75 | 355⇑ | *e*P | Pn | 05 19 36.6 | +1.9 |
| VSU | | | | pmax | pmax | | |
| | comp=Z,139nm,1.2s | | | | | | |
| FINES | FINESS Array B | 22.76 | 355 | P | P | 05 20 05.8 | +0.2 |
| | comp=Z,4.6nm,0.9s,baz=156,slow=10,SNR=3.0 | | | | | | |
| KLMR | Klimovskoe | 22.78 | 12 | *e*P | P | 05 20 05.3 | -0.6 |
| KLMR | | | | pmax | pmax | | |
| | comp=Z,25nm,1.4s | | | | | | |
| KLMR | Klimovskoe | 22.78 | 12 | *e*P | P | 05 20 05.3 | -0.6 |
| | comp=Z,25nm,1.4s | | | | | | |
| NOA | NORSAR Array B | 25.16 | 338 | P | P | 05 20 28.5 | -0.3 |
| | comp=Z,1.9nm,0.9s,baz=149,slow=11,SNR=3.0 | | | | | | |
| NOA | NORSAR Array B | 25.16 | 338 | P | P | 05 20 28.5 | -0.3 |
| NOA | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.8s | | | | | | |
| NOA | NORSAR Array B | 25.16 | 338 | P | P | 05 20 28.5 | -0.3 |
| | comp=Z,1.0nm,0.8s | | | | | | |
| ARU | Arti | 25.68 | 38 | P | P | 05 20 32.9 | -0.5 |
| | comp=Z,2.4nm,0.3s,baz=226,slow=5.6,SNR=6.5 | | | | | | |
| ARU | Arti | 25.68 | 38*c* | *i*P | P | 05 20 33.7 | +0.3 |
| ARU | | | | S | S | 05 25 01.7 | -0.6 |
| ARU | | | | pmax | pmax | | |
| | comp=Z,15nm,1.7s | | | | | | |
| ARU | Arti | 25.68 | 38 | *i* P | P | 05 20 33.7 | +0.3 |
| | comp=Z,15nm,1.7s | | | | | | |
| ARU | | | | S | S | 05 25 01.7 | -0.6 |
| ARU | Arti | 25.68 | 38 | *e*P | P | 05 20 34.3 | +0.9 |
| | comp=Z,7.6nm,0.9s | | | | | | |
| ESDC | Sonseca Array | 26.38 | 283 | P | P | 05 20 38.8 | -1.2 |
| | comp=Z,1.8nm,0.9s,baz=76,slow=9.2,SNR=7.6 | | | | | | |
| TAM | Tamanrasset | 26.45 | 240 | *e*P | P | 05 20 42.7 | +1.8 |
| TAM | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.0s | | | | | | |
| TAM | Tamanrasset | 26.45 | 240 | *e*P | P | 05 20 42.7 | +1.8 |
| | comp=Z,2.9nm,1.0s | | | | | | |
| TAM | Tamanrasset | 26.45 | 240 | *e*P | P | 05 20 42.7 | +1.8 |
| | comp=Z,2.9nm,1.0s | | | | | | |
| PAB | San Pablo | 26.70 | 283 | *e*P | P | 05 20 45.0 | +2.1 |
| PAB | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.1s | | | | | | |
| PAB | San Pablo | 26.70 | 283 | *e*P | P | 05 20 45.0 | +2.1 |
| | comp=Z,7.1nm,1.1s | | | | | | |
| PAB | San Pablo | 26.70 | 283 | *e*P | P | 05 20 45.0 | +2.1 |
| | comp=Z,7.1nm,1.1s | | | | | | |
| KURK | Kurchatov | 35.73 | 55⇓ | *e*P | P | 05 22 01.4 | -0.8 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,8.0nm,2.7s | | | | | | |
| KURK | Kurchatov | 35.73 | 55 | *e*P | P | 05 22 01.4 | -0.8 |
| | comp=Z,8.0nm,2.7s | | | | | | |
| TOA0 | Torodi Ar. Sit | 35.95 | 232 | *e*P | P | 05 22 04.2 | -0.2 |
| | comp=Z,4.2nm,0.9s | | | | | | |
| TOA0 | Torodi Ar. Sit | 35.95 | 232 | *e*P | P | 05 22 04.2 | -0.2 |
| | comp=Z,4.2nm,0.9s | | | | | | |
| TORD | Torodi Ar. Bea | 35.95 | 232 | P | P | 05 22 03.6 | -0.8 |
| | comp=Z,3.0nm,0.8s,baz=34,slow=9.1,SNR=16 | | | | | | |
| MKAR | Makanchi Array | 38.41 | 61 | P | P | 05 22 23.9 | -1.2 |
| | comp=Z,1.2nm,0.8s,baz=285,slow=6.0,SNR=5.9 | | | | | | |
| MK01 | Makanchi Array | 38.41 | 61 | *e*P | P | 05 22 24.7 | -0.4 |
| ZALV | Zalesovo Beam | 39.53 | 49 | P | P | 05 22 32.8 | -1.6 |
| | comp=Z,0.4nm,0.3s,baz=297,slow=6.3,SNR=2.8 | | | | | | |
| DBIC | Dimbokro | 45.02 | 234 | P | P | 05 23 17.0 | -2.4 |
| | comp=Z,4.3nm,1.0s,baz=307,slow=2.6,SNR=3.2 | | | | | | |
| SEY | Seymchan | 68.57 | 25⇓ | *e*P | P | 05 26 06.4 | +0.3 |
| SEY | Seymchan | 68.57 | 25 | *e*P | P | 05 26 06.4 | +0.3 |
| QUA2 | Belchertown | 72.98 | 311 | *e*P | P | 05 26 34.5 | +1.2 |
| | comp=Z,113nm,1.8s | | | | | | |
| QUA2 | Belchertown | 72.98 | 311 | *e*P | P | 05 26 34.5 | +1.2 |
| | comp=Z,113nm,1.8s | | | | | | |
| YKA | Yellowknife Ar | 75.10 | 344 | P | P | 05 26 42.6 | -2.7 |
| | comp=Z,1.4nm,0.9s,baz=24,slow=5.9,SNR=9.8 | | | | | | |
| YKA | Yellowknife Ar | 75.10 | 344 | *e*P | P | 05 26 44.5 | -0.9 |
| YKA | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.9s | | | | | | |
| YKA | Yellowknife Ar | 75.10 | 344 | *e*P | P | 05 26 44.5 | -0.9 |
| | comp=Z,1.0nm,0.9s | | | | | | |
| RCBR | Riachuelo | 75.43 | 250 | LR | LR | 05 58 37.7 | |
| | comp=Z,65nm,20.7s,baz=356,slow=35 | | | | | | |

---

**IDC 10 05:27:08.7**±3.5**, 53°.74N**×**88°.07E, h0**km**, mb1 3.1**/2**, mb1mx2.8**/41**, mbtmp3.1**/2**, ML2.9**/2**, Error ellipse: s-maj=34.2km s-min=19.7km az=49.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| I46RU | ZALESOVO INFRA | 1.94 | 277 | *i* | | 05 41 32.5 | |
| | baz=93,slow=330,SNR=7.4 | | | | | | |
| ZALV | Zalesovo Beam | 1.94 | 277 | Pn | Pn | 05 27 42.9 | 0.0 |
| | 2.5nm,0.3s,baz=92,slow=12,SNR=30 | | | | | | |
| ZALV | | | | Lg | Lg | 05 28 09.8 | |
| | 7.8nm,0.3s,baz=98,slow=27,SNR=23 | | | | | | |
| KURBB | Kurchatov Arra | 6.65 | 246 | Pn | Pn | 05 28 48.1 | +0.5 |
| | 0.3nm,0.3s,baz=59,slow=13,SNR=5.8 | | | | | | |
| MKAR | Makanchi Array | 7.88 | 210 | Pn | Pn | 05 29 05.6 | +1.1 |
| | 0.1nm,0.3s,baz=31,slow=13,SNR=3.9 | | | | | | |
| I34MN | SONGINO INFRAS | 13.02 | 110 | *i* | | 06 46 20.0 | |
| | baz=305,slow=329,SNR=0.2 | | | | | | |

---

*ISCJB **10** 05:27:13.7±0.6, 38°.70N±0°.03×43°.57E±0°.06, h13km±3km, Error ellipse: s-maj=8.5km s-min=3.8km az=27.2*

*CSEM **10** 05:27:13.1±0.3, 38°.70N×43°.57E, h8km, ML2.7, Error ellipse: s-maj=8.9km s-min=4.7km az=112.0*

*DDA **10** 05:27:13.5, 38°.74N×43°.47E, h7km, Md2.8*

*ISK **10** 05:27:13.4, 38°.71N×43°.52E, h7km, ML2.7*

**ISC 10 05:27:13.4**±0.9**, 38°.72N**±0°.02×**43°.55E**±0°.04**, h15**km±7km**, n32, σ0s.90**/44**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.17 | 226 | *e*PG | Pb | 05 27 17.9 | -0.5 |
| VANB | | | | *e*SG | Sg | 05 27 22.6 | +2.0 |
| VANB | Van | 0.17 | 226 | *e*Pg | Pb | 05 27 17.9 | -0.5 |
| TVAN | Van | 0.22 | 211 | *i* P | Pg | 05 27 17.6 | -0.8 |
| TVAN | | | | *i* S | Sg | 05 27 22.6 | +0.8 |
| TVAN | Van | 0.22 | 211 | P | Pg | 05 27 17.6 | -0.8 |
| TVAN | | | | S | Sg | 05 27 22.6 | +0.8 |
| VMUR | Van-Muradiye | 0.28 | 4 | *i* P | Pg | 05 27 18.4 | -1.0 |
| VMUR | | | | *i* S | Sb | 05 27 24.5 | -0.2 |
| VMUR | Van-Muradiye | 0.28 | 4 | P | Pg | 05 27 18.4 | -1.0 |
| VMUR | | | | S | Sb | 05 27 24.5 | -0.2 |
| CLDR | Caldiran | 0.52 | 34 | *e*PG | Pb | 05 27 23.7 | -0.6 |
| CLDR | | | | *e*SG | Sb | 05 27 32.6 | +0.9 |
| CLDR | Caldiran | 0.52 | 34 | *i* P | Pb | 05 27 23.1 | -1.2 |
| CLDR | | | | *i* S | Sb | 05 27 32.7 | +0.9 |
| CLDR | Caldiran | 0.52 | 34 | P | Pb | 05 27 23.1 | -1.2 |
| CLDR | Caldiran | 0.52 | 34 | *e*Pg | Pb | 05 27 23.7 | -0.6 |
| CLDR | | | | *e*Sg | Sb | 05 27 32.6 | +0.9 |
| GEVA | Gevas | 0.56 | 224 | *i* P | Pg | 05 27 22.9 | -1.4 |
| GEVA | | | | *i* S | Sb | 05 27 32.7 | 0.0 |
| GEVA | Gevas | 0.56 | 224 | P | Pg | 05 27 23.0 | -1.4 |
| GEVA | | | | S | Sb | 05 27 32.7 | 0.0 |
| AGRB | Hanur-Agry | 0.96 | 334 | *e*PG | Pb | 05 27 31.6 | -0.2 |
| AGRB | Hanur-Agry | 0.96 | 334 | *e*Pg | Pb | 05 27 31.7 | -0.2 |
| HAKT | HAKKARI | 1.16 | 174 | *i* P | Pb | 05 27 34.0 | -1.3 |
| HAKT | HAKKARI | 1.16 | 174 | P | Pb | 05 27 34.0 | -1.3 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **TASB** | **TASBURUN-IGDIR** | **1.38** | **23** | *e*PN | **Pg** | **05 27 40.0** | **+0.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.38** | **23** | *e*Pn | **Pg** | **05 27 40.0** | **+0.1** |
| **EATA** | **Eleskirt** | **1.41** | **325** | *i* P | **Pb** | **05 27 39.0** | **-0.6** |
| EATA | | | | *i* S | **Sg** | **05 27 58.4** | **-0.5** |
| **EATA** | **Eleskirt** | **1.41** | **325** | P | **Pb** | **05 27 39.0** | **-0.6** |
| EATA | | | | S | **Sg** | **05 27 58.4** | **-0.5** |
| **CUKT** | **Cukurca** | **1.47** | **178** | *e*PN | **Pb** | **05 27 40.1** | **-0.2** |
| **CUKT** | **Cukurca** | **1.47** | **178** | *e*Pn | **Pb** | **05 27 40.2** | **-0.2** |
| **SIRT** | **Sirnak** | **1.49** | **216** | *e*PN | **Pg** | **05 27 41.4** | **-0.7** |
| **SIRT** | **Sirnak** | **1.49** | **216** | *e*Pn | **Pg** | **05 27 41.4** | **-0.7** |
| **VRTB** | **Varto-Mus** | **1.69** | **286** | *e*PN | **Pb** | **05 27 44.3** | **0.0** |
| **VRTB** | **Varto-Mus** | **1.69** | **286** | *e*Pn | **Pb** | **05 27 44.3** | **0.0** |
| **SENK** | **Senkaya-Erzuru** | **2.06** | **334** | *e*PN | **Pb** | **05 27 49.6** | **-1.0** |
| **SENK** | **Senkaya-Erzuru** | **2.06** | **334** | *e*Pn | **Pb** | **05 27 49.6** | **-1.0** |
| **BNGB** | **Bingˆ¶l** | **2.26** | **278** | *e*PN | **Pn** | **05 27 51.6** | **+1.4** |
| **BINT** | **Bingol** | **2.40** | **275** | *e*Pn | **Pn** | **05 27 51.6** | **-0.6** |
| **MAZI** | **Mazidag** | **2.75** | **244** | *e*PN | **Pn** | **05 27 58.3** | **+1.3** |
| **MAZI** | **Mazidag** | **2.75** | **244** | *e*Pn | **Pn** | **05 27 58.3** | **+1.3** |

*ISK **10** 05:36:23.5, 38°.84N×30°.22E, h2km, ML2.8*
*ISCJB **10** 05:36:24.0±0.5, 38°.85N±0°.03×30°.19E±0°.03, h1km±6km, Error ellipse: s-maj=5.0km s-min=3.3km az=32.1*
*DDA **10** 05:36:24.1, 38°.83N×30°.20E, h7km, Ml2.8*
*CSEM **10** 05:36:24.3±0.1, 38°.84N×30°.20E, h5km, ML2.8, Error ellipse: s-maj=3.0km s-min=2.5km az=29.0*
**ISC 10 05:36:24.1**±1.0**, 38°.84N**±0°.02×**30°.21E**±0°.02**, h11**km±10km**, n41, σ0s47**/60**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SHUT** | **Suhut-Afyon** | **0.39** | **136** | *e*PG | **Pb** | **05 36 32.6** | **-0.4** |
| SHUT | | | | *e*SG | **Sb** | **05 36 38.2** | **-0.9** |
| **SHUT** | **Suhut-Afyon** | **0.39** | **136** | *e*Pg | **Pb** | **05 36 32.6** | **-0.4** |
| SHUT | | | | *e*Sg | **Sb** | **05 36 38.2** | **-0.9** |
| **KZIL** | **AFYON_Kizioren** | **0.58** | **185** | *i* P | **Pg** | **05 36 35.9** | **+0.5** |
| KZIL | | | | *i* S | **Sb** | **05 36 44.1** | **-0.4** |
| **KZIL** | **AFYON_Kizioren** | **0.58** | **185** | P | **Pg** | **05 36 35.9** | **+0.5** |
| KZIL | | | | S | **Sb** | **05 36 44.2** | **-0.4** |
| **BOLV** | **Bolvadin** | **0.59** | **101** | *i* P | **Pg** | **05 36 35.8** | **+0.1** |
| BOLV | | | | *i* S | **Sb** | **05 36 44.4** | **-0.5** |
| **BOLV** | **Bolvadin** | **0.59** | **101** | P | **Pg** | **05 36 35.8** | **+0.1** |
| BOLV | | | | S | **Sb** | **05 36 44.4** | **-0.5** |
| **GDZ** | **Gediz** | **0.62** | **294** | *i* P | **Pb** | **05 36 37.1** | **+0.1** |
| GDZ | | | | *i* S | **Sg** | **05 36 44.4** | **0.0** |
| **GDZ** | **Gediz** | **0.62** | **294** | P | **Pb** | **05 36 37.1** | **+0.1** |
| GDZ | | | | S | **Sg** | **05 36 44.4** | **0.0** |
| **KHAL** | **Karahalli** | **0.73** | **231** | *i* P | **Pg** | **05 36 38.1** | **0.0** |
| KHAL | | | | *i* S | **Sg** | **05 36 47.9** | **+0.2** |
| **KHAL** | **Karahalli** | **0.73** | **231** | P | **Pg** | **05 36 38.2** | **0.0** |
| KHAL | | | | S | **Sg** | **05 36 47.9** | **+0.2** |
| **KHL** | **Karahalli** | **0.74** | **227** | *e*PG | **Pg** | **05 36 38.5** | **+0.1** |
| **KHL** | **Karahalli** | **0.74** | **227** | *e*Pg | **Pg** | **05 36 38.5** | **+0.1** |
| **TVSB** | **Tavsanli** | **0.84** | **317** | *e*PG | **Pg** | **05 36 39.9** | **-0.5** |
| **TVSB** | **Tavsanli** | **0.84** | **317** | *e*Pg | **Pg** | **05 36 39.9** | **-0.5** |
| **BAGO** | **Egridir - ISPA** | **0.96** | **151** | *i* P | **Pg** | **05 36 42.0** | **-0.6** |
| BAGO | | | | *i* S | **Sn** | **05 36 58.8** | **+1.6** |
| **SIMA** | **Simav-Kutahya** | **0.99** | **285** | *e*PG | **Pn** | **05 36 43.7** | **-0.2** |
| **SIMA** | **Simav-Kutahya** | **0.99** | **285** | *e*Pg | **Pn** | **05 36 43.7** | **-0.2** |
| **BORA** | **Eskisehir** | **1.06** | **10** | *i* P | **Pb** | **05 36 44.3** | **-0.2** |
| BORA | | | | *i* S | **Sb** | **05 36 57.8** | **-0.6** |
| **BORA** | **Eskisehir** | **1.06** | **10** | P | **Pb** | **05 36 44.3** | **-0.2** |
| BORA | | | | S | **Sb** | **05 36 57.8** | **-0.6** |
| **BRDR** | **BURDUR-Merkez** | **1.14** | **186** | *i* P | **Pb** | **05 36 45.1** | **-0.8** |
| **BRDR** | **BURDUR-Merkez** | **1.14** | **186** | P | **Pb** | **05 36 45.1** | **-0.8** |
| **DEMI** | **Demirci** | **1.18** | **281** | *i* P | **Pg** | **05 36 46.9** | **+0.1** |
| DEMI | | | | *i* S | **Sb** | **05 37 02.1** | **+0.3** |
| **DEMI** | **Demirci** | **1.18** | **281** | P | **Pg** | **05 36 46.9** | **+0.1** |
| DEMI | | | | S | **Sb** | **05 37 02.1** | **+0.3** |
| **SVRH** | **Sivrihisar-ESK** | **1.19** | **59** | *e*PN | **Pn** | **05 36 46.4** | **-0.3** |
| **SVRH** | **Sivrihisar-ESK** | **1.19** | **59** | *e*Pn | **Pn** | **05 36 46.4** | **-0.3** |
| **KULA** | **Kula-Manisa** | **1.25** | **256** | *e*PN | **Pg** | **05 36 48.1** | **0.0** |
| **KULA** | **Kula-Manisa** | **1.25** | **256** | *e*Pn | **Pg** | **05 36 48.2** | **0.0** |
| **KIZT** | **Kizilcal** | **1.31** | **88** | *e*PN | **Pg** | **05 36 49.0** | **-0.2** |
| **KIZT** | **Kizilcal** | **1.31** | **88** | *e*Pn | **Pg** | **05 36 49.0** | **-0.2** |
| **DOGA** | **KONYA_Doganhis** | **1.36** | **122** | *i* P | **Pg** | **05 36 50.8** | **+0.6** |
| DOGA | | | | *i* S | **Sg** | **05 37 08.6** | **+0.7** |
| **DOGA** | **KONYA_Doganhis** | **1.36** | **122** | P | **Pg** | **05 36 50.8** | **+0.6** |
| DOGA | | | | S | **Sg** | **05 37 08.6** | **+0.7** |
| **CAVI** | **Cavuskoy** | **1.39** | **348** | *e*PN | **Pg** | **05 36 51.1** | **+0.2** |
| **CAVI** | **Cavuskoy** | **1.39** | **348** | *e*Pn | **Pg** | **05 36 51.1** | **+0.2** |
| **KDHN** | **Kadinhani** | **1.53** | **101** | *i* P | **Pb** | **05 36 52.4** | **0.0** |
| KDHN | | | | *i* S | **Sg** | **05 37 13.5** | **+0.3** |
| **KDHN** | **Kadinhani** | **1.53** | **101** | P | **Pb** | **05 36 52.4** | **0.0** |
| KDHN | | | | S | **Sg** | **05 37 13.5** | **+0.3** |
| **GULT** | **Gulveren** | **1.61** | **8** | *e*PN | **Pb** | **05 36 54.0** | **+0.1** |
| **GULT** | **Gulveren** | **1.61** | **8** | *e*Pn | **Pb** | **05 36 54.0** | **+0.1** |
| **ADVT** | **Abdulvahap** | **1.64** | **347** | *e*PN | **Pb** | **05 36 54.5** | **+0.3** |
| **ADVT** | **Abdulvahap** | **1.64** | **347** | *e*Pn | **Pb** | **05 36 54.5** | **+0.3** |
| **YLV** | **Yalova** | **1.84** | **340** | *e*PN | **Pb** | **05 36 57.4** | **-0.5** |
| **YLV** | **Yalova** | **1.84** | **340** | *e*Pn | **Pb** | **05 36 57.4** | **-0.5** |

*ATA **10** 05:45:41.7±1.6, 38°.92N×43°.58E, h2km±17km, ML3.5, MW3.4*
*CSEM **10** 05:45:43.9, 38°.92N×43°.63E, h3km, ML2.8*
*ISK **10** 05:45:43.9, 38°.92N×43°.63E, h3km, ML2.8*
*ISCJB **10** 05:45:44.9±0.6, 38°.95N±0°.03×43°.57E±0°.05, h6km±6km, Error ellipse: s-maj=6.3km s-min=4.7km az=18.3*
**ISC 10 05:45:44.0**±1.0**, 38°.93N**±0°.02×**43°.53E**±0°.03**, h17**km±9km**, n36, σ1s00**/44**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ERCV** | **ERCIS-VAN** | **0.17** | **299** | *e*PG | **Pb** | **05 45 50.0** | **+1.0** |
| **ERCV** | **ERCIS-VAN** | **0.17** | **299** | *e*Pg | **Pb** | **05 45 50.0** | **+1.0** |
| **VANB** | **Van** | **0.36** | **198** | *e*PG | **Pb** | **05 45 53.2** | **+1.1** |
| VANB | | | | *e*SG | **Sn** | **05 45 59.8** | **-1.5** |
| **VANB** | **Van** | **0.36** | **198** | *e*Pg | **Pb** | **05 45 53.2** | **+1.1** |
| VANB | | | | *e*Sg | **Sn** | **05 45 59.8** | **-1.5** |
| **CLDR** | **Caldiran** | **0.36** | **55** | *e*PG | **Pg** | **05 45 50.7** | **-1.0** |
| CLDR | | | | *e*SG | **Sg** | **05 45 56.6** | **-0.3** |
| **CLDR** | **Caldiran** | **0.36** | **55** | *e*Pg | **Pg** | **05 45 50.7** | **-1.0** |
| CLDR | | | | *e*Sg | **Sg** | **05 45 56.6** | **-0.3** |
| **GEVA** | **Gevas** | **0.72** | **211** | *e*P | **Pg** | **05 45 56.3** | **-2.0** |
| GEVA | | | | IAML | | 05 46 17.6 | |
| | comp=Z,87nm,0.5s | | | | | | |
| **GEVA** | **Gevas** | **0.72** | **211** | *e*P | **Pg** | **05 45 56.4** | **-1.9** |
| GEVA | | | | *e*S | **Sb** | **05 46 08.2** | **+0.2** |
| GEVA | | | | IAML | | 05 46 17.6 | |
| | comp=Z,87nm,0.5s | | | | | | |
| **TUTA** | **Tutak** | **0.73** | **310** | *e*P | **Pg** | **05 45 56.6** | **-1.8** |
| TUTA | | | | *e*S | **Sg** | **05 46 08.1** | **0.0** |
| TUTA | | | | IAML | | 05 46 12.6 | |
| | comp=Z,141nm,0.3s | | | | | | |
| **TUTA** | **Tutak** | **0.73** | **310** | *i* P | **Pg** | **05 45 56.5** | **-1.8** |
| TUTA | | | | IAML | | 05 46 12.6 | |
| | comp=Z,141nm,0.3s | | | | | | |
| **AGRB** | **Hanur-Agry** | **0.77** | **327** | *e*PG | **Pn** | **05 46 00.5** | **+0.2** |
| AGRB | | | | *e*SG | **Sn** | **05 46 12.2** | **+0.6** |
| **AGRB** | **Hanur-Agry** | **0.77** | **327** | *e*Pg | **Pn** | **05 46 00.5** | **+0.2** |
| AGRB | | | | *e*Sg | **Sn** | **05 46 12.2** | **+0.6** |
| **TASB** | **TASBURUN-IGDIR** | **1.18** | **27** | *e*PN | **Pb** | **05 46 06.4** | **+0.3** |
| **TASB** | **TASBURUN-IGDIR** | **1.18** | **27** | *e*Pn | **Pb** | **05 46 06.4** | **+0.3** |
| **EKAR** | **Karacoban** | **1.19** | **286** | *e*P | **Pg** | **05 46 07.0** | **0.0** |
| EKAR | | | | IAML | | 05 46 29.9 | |
| | comp=Z,48nm,0.4s | | | | | | |
| **EATA** | **Eleskirt** | **1.23** | **319** | *e*P | **Pn** | **05 46 06.2** | **-0.6** |
| EATA | | | | IAML | | 05 46 31.5 | |
| | comp=Z,15nm,0.6s | | | | | | |
| **EATA** | **Eleskirt** | **1.23** | **319** | *e*P | **Pn** | **05 46 06.2** | **-0.6** |
| **DIGO** | **Kars** | **1.48** | **355** | *e*P | **Pb** | **05 46 11.7** | **+0.4** |
| DIGO | | | | IAML | | 05 46 42.8 | |
| | comp=Z,9.2nm,0.5s | | | | | | |
| **VRTB** | **Varto-Mus** | **1.63** | **279** | *e*PN | **Pg** | **05 46 15.7** | **+0.2** |
| **VRTB** | **Varto-Mus** | **1.63** | **279** | *e*Pn | **Pg** | **05 46 15.7** | **+0.2** |
| **SIRT** | **Sirnak** | **1.67** | **211** | *e*PN | **Pg** | **05 46 15.5** | **-0.7** |
| **SIRT** | **Sirnak** | **1.67** | **211** | *e*Pn | **Pg** | **05 46 15.5** | **-0.7** |
| **CUKT** | **Cukurca** | **1.69** | **178** | *e*PN | **Pb** | **05 46 14.9** | **+0.2** |
| **CUKT** | **Cukurca** | **1.69** | **178** | *e*Pn | **Pb** | **05 46 14.9** | **+0.2** |
| **KARS** | **Kars** | **1.73** | **348** | *e*PN | **Pg** | **05 46 16.5** | **-0.7** |
| **KARS** | **Kars** | **1.73** | **348** | *e*Pn | **Pg** | **05 46 16.5** | **-0.7** |
| **BNGL** | **BINGOL** | **1.86** | **271** | *e*P | **Pg** | **05 46 18.8** | **-0.9** |
| BNGL | | | | IAML | | 05 46 52.4 | |
| | comp=Z,66nm,0.4s | | | | | | |
| **SENK** | **Senkaya-Erzuru** | **1.86** | **331** | *e*PN | **Pb** | **05 46 18.6** | **+0.9** |
| **SENK** | **Senkaya-Erzuru** | **1.86** | **331** | *e*Pn | **Pb** | **05 46 18.7** | **+0.9** |
| **ERZM** | **Erzurum** | **1.94** | **301** | *e*P | **Pb** | **05 46 18.8** | **-0.3** |
| **BNGB** | **Bingˆ¶l** | **2.23** | **272** | *e*PN | **Pb** | **05 46 24.0** | **+0.1** |
| **BINT** | **Bingol** | **2.38** | **270** | *e*Pn | **Pn** | **05 46 24.0** | **+1.6** |
| **YEDI** | **Yedisu-Bingol** | **2.38** | **283** | *e*PN | **Pb** | **05 46 25.6** | **-0.9** |
| **YEDI** | **Yedisu-Bingol** | **2.38** | **283** | *e*Pn | **Pb** | **05 46 25.6** | **-0.9** |
| **MAZI** | **Mazidag** | **2.84** | **240** | *e*PN | **Pb** | **05 46 33.2** | **-1.2** |
| **MAZI** | **Mazidag** | **2.84** | **240** | *e*Pn | **Pb** | **05 46 33.2** | **-1.2** |

*IDC **10** 05:49:15.7±3.5, 31°.59S×68°.82W, h101km±32km, mb3.7/1, mb1 3.6/4, mb1mx3.3/27, mbtmp3.9/4, Error ellipse: s-maj=73.6km s-min=28.3km az=106.0*
*ISCJB **10** 05:49:16.6±0.5, 31°.48S±0°.04×68°.73W±0°.07, h116km±6km, mb3.8/1, Error ellipse: s-maj=10.8km s-min=4.1km az=26.5*
*SJA **10** 05:49:16.1±0.4, 31°.54S×68°.72W, h110km±2km, ML3.7, MW3.7*
*GUC **10** 05:49:17.5±0.6, 31°.46S×69°.02W, h146km±28km, ML3.7*
**ISC 10 05:49:17.1**±0.8**, 31°.49S**±0°.04×**68°.72W**±0°.06**, h109**km±7km**, n24, σ1s01**/34**, 2C-1D, San Juan Province**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SJA** | **San Juan** | **0.14** | **104** | *e*P | **Pn** | **05 49 32.3** | **-0.1** |
| **RTCV** | **Cerro Valdivia** | **0.40** | **157** | *e*P | **Pn** | **05 49 32.7** | **-0.6** |
| **RTLS** | **Leoncito** | **0.58** | **238** | *e*P | **Pn** | **05 49 34.7** | **0.0** |
| **AMOG** | **MOGNA** | **0.59** | **20** | *e*P | **Pn** | **05 49 34.6** | **0.0** |
| AMOG | | | | *e*S | **Sn** | **05 49 48.3** | **+0.6** |
| **AUSP** | **Uspallata** | **0.92** | **218** | *e*P | **Pn** | **05 49 37.6** | **-0.1** |
| AUSP | | | | *e*S | **Sn** | **05 49 53.6** | **+0.2** |
| **ACAN** | **Cantantal** | **1.52** | **121** | *e*P | **Pn** | **05 49 43.8** | **-0.4** |
| **AGUA** | **GUANDACOL** | **2.01** | **6** | *e*P | **Pn** | **05 49 51.0** | **+0.6** |
| AGUA | | | | *e*S | **Sn** | **05 50 16.9** | **+1.2** |
| **FCH** | **Farellones** | **2.26** | **216** | *e*P | **Pn** | **05 49 55.2** | **+1.5** |
| FCH | | | | *e*S | **Sn** | **05 50 24.2** | **+2.6** |
| FCH | | | | IAML | | 05 50 26.9 | |
| | comp=E,279nm,0.8s | | | | | | |
| **PEL** | **Peldehue** | **2.34** | **225** | ⇑*i*P | **Pn** | **05 49 54.8** | **+0.3** |
| PEL | | | | *i* S | **Sn** | **05 50 23.7** | **+0.6** |
| PEL | | | | IAML | | 05 50 24.8 | |
| | comp=N,356nm,0.4s | | | | | | |
| **ROCH** | **El Roble** | **2.44** | **232** | ⇑*i*P | **Pn** | **05 49 55.9** | **0.0** |
| ROCH | | | | *i* S | **Sn** | **05 50 25.5** | **-0.1** |
| ROCH | | | | IAML | | 05 50 29.3 | |
| | comp=N,535nm,0.8s | | | | | | |
| **CLCH** | **Cerro Calan** | **2.44** | **218** | *i* P | **Pn** | **05 49 56.6** | **+0.8** |
| CLCH | | | | *i* S | **Sn** | **05 50 26.9** | **+1.4** |
| CLCH | | | | IAML | | 05 50 29.9 | |
| | comp=E,452nm,0.6s | | | | | | |
| **ANTU** | **Antumapu** | **2.62** | **217** | *i* S | **Sn** | **05 50 30.6** | **+0.8** |
| ANTU | | | | IAML | | 05 50 31.8 | |
| | comp=E,342nm,0.3s | | | | | | |
| **RCDM** | **Rinconada Maip** | **2.66** | **221** | ⇓*i*P | **Pn** | **05 49 59.0** | **+0.4** |
| RCDM | | | | *i* S | **Sn** | **05 50 31.4** | **+1.0** |
| **VCA** | **Vinchina** | **2.78** | **9** | *e*P | **Pn** | **05 50 01.3** | **+0.9** |
| VCA | | | | *e*S | **Sn** | **05 50 34.4** | **+0.7** |
| VCA | | | | IAML | | 05 50 43.5 | |
| | comp=Z,257nm,0.3s | | | | | | |
| **VACH** | **Vallenar** | **3.40** | **328** | *i* P | **Pn** | **05 50 08.3** | **-0.2** |
| VACH | | | | *i* S | **Sn** | **05 50 46.5** | **-1.7** |
| **CYA** | **Choya** | **3.96** | **41** | *e*P | **Pn** | **05 50 16.6** | **+0.6** |
| **CPCH** | **Copiapo** | **4.36** | **341** | *i* P | **Pn** | **05 50 21.5** | **+0.2** |
| **FSA** | **Cafayete** | **5.88** | **25** | *e*P | **Pn** | **05 50 42.9** | **+0.8** |
| **PLCA** | **Paso Flores** | **9.34** | **189** | P | **Pn** | **05 51 26.2** | **-2.5** |
| | comp=Z,0.3nm,0.3s,baz=14,slow=12,SNR=9.8 | | | | | | |
| **LPAZ** | **La Paz** | **15.15** | **2** | P | **Pn** | **05 52 45.6** | **-0.3** |
| | comp=Z,0.2nm,0.3s,baz=181,slow=7.8,SNR=13 | | | | | | |
| **SIV** | **San Ignacio** | **16.94** | **26** | P | **P** | **05 53 08.0** | **+0.2** |
| | comp=Z,0.1nm,0.3s,baz=179,slow=6.3,SNR=3.0 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **80.71** | **68** | P | **P** | **06 01 18.6** | **-0.1** |
| | comp=Z,1.3nm,0.8s,baz=244,slow=4.9,SNR=8.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **124.28** | **206** | PKP | **PKPdf** | **06 08 02.2** | **-1.5** |
| | comp=Z,0.2nm,0.5s,baz=152,slow=1.7,SNR=5.6 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **150.62** | **32** | PKPbc | **PKPbc** | **06 08 56.0** | **+0.2** |
| | comp=Z,1.2nm,0.6s,baz=316,slow=3.6,SNR=5.9 | | | | | | |

*ISK **10** 06:01:12.8, 38°.69N×43°.05E, h7km, ML2.5*
*DDA **10** 06:01:13.9, 38°.70N×43°.09E, h7km, Ml3.5*
*CSEM **10** 06:01:14.1±0.2, 38°.70N×43°.08E, h5km, ML2.5, Error ellipse: s-maj=4.8km s-min=3.7km az=80.0*
**ISC 10 06:01:14.2**±1.0**, 38°.72N**±0°.02×**43°.10E**±0°.02**, h11**km±8km**, n31, σ0s75**/56**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.26** | **118** | *e*PG | **Pg** | **06 01 20.0** | **+0.5** |
| VANB | | | | *e*SG | **Sb** | **06 01 25.1** | **-0.3** |
| **VANB** | **Van** | **0.26** | **118** | *e*Pg | **Pg** | **06 01 20.0** | **+0.5** |
| VANB | | | | *e*Sg | **Sb** | **06 01 25.1** | **-0.3** |
| **TVAN** | **Van** | **0.30** | **128** | *i* P | **Pg** | **06 01 19.9** | **-0.5** |
| TVAN | | | | *i* S | **Sg** | **06 01 25.5** | **+1.0** |
| **TVAN** | **Van** | **0.30** | **128** | P | **Pg** | **06 01 19.9** | **-0.5** |
| TVAN | | | | S | **Sg** | **06 01 25.5** | **+1.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.31** | **288** | *i* P | **Pg** | **06 01 20.9** | **+0.4** |
| ADCV | | | | *i* S | **Sb** | **06 01 26.5** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.31** | **288** | P | **Pg** | **06 01 20.9** | **+0.4** |
| ADCV | | | | S | **Sb** | **06 01 26.5** | **-0.6** |
| **GEVA** | **Gevas** | **0.40** | **185** | *i* P | **Pg** | **06 01 21.2** | **-1.0** |
| GEVA | | | | *i* S | **Sg** | **06 01 27.2** | **-0.4** |
| **GEVA** | **Gevas** | **0.40** | **185** | P | **Pg** | **06 01 21.2** | **-1.0** |
| GEVA | | | | S | **Sg** | **06 01 27.2** | **-0.4** |
| **VMUR** | **Van-Muradiye** | **0.46** | **53** | *i* P | **Pg** | **06 01 23.1** | **-0.1** |
| VMUR | | | | *i* S | **Sb** | **06 01 30.8** | **-0.6** |
| **VMUR** | **Van-Muradiye** | **0.46** | **53** | P | **Pg** | **06 01 23.1** | **-0.1** |
| VMUR | | | | S | **Sb** | **06 01 30.8** | **-0.6** |
| **TUTA** | **Tutak** | **0.72** | **342** | *i* P | **Pg** | **06 01 27.8** | **-0.4** |
| TUTA | | | | *i* S | **Sb** | **06 01 38.5** | **-0.5** |
| **TUTA** | **Tutak** | **0.72** | **342** | P | **Pg** | **06 01 27.8** | **-0.4** |
| TUTA | | | | S | **Sb** | **06 01 38.5** | **-0.5** |
| **CLDR** | **Caldiran** | **0.77** | **56** | *e*PG | **Pg** | **06 01 28.8** | **-0.3** |
| CLDR | | | | *e*SG | **Sb** | **06 01 40.8** | **+0.5** |
| **CLDR** | **Caldiran** | **0.77** | **56** | *i* P | **Pg** | **06 01 28.9** | **-0.2** |
| CLDR | | | | *i* S | **Sb** | **06 01 40.5** | **+0.2** |
| **CLDR** | **Caldiran** | **0.77** | **56** | P | **Pg** | **06 01 28.9** | **-0.2** |
| CLDR | | | | S | **Sb** | **06 01 40.5** | **+0.2** |
| **AGRB** | **Hanur-Agry** | **0.86** | **354** | *e*PG | **Pg** | **06 01 30.3** | **-0.6** |
| AGRB | | | | *e*SG | **Sb** | **06 01 42.9** | **-0.2** |
| **AGRB** | **Hanur-Agry** | **0.86** | **354** | *e*Pg | **Pg** | **06 01 30.3** | **-0.6** |
| AGRB | | | | *e*Sg | **Sb** | **06 01 42.9** | **-0.2** |
| **SRTM** | **Siirt_Merkez** | **1.18** | **232** | *i* P | **Pn** | **06 01 36.8** | **0.0** |
| SRTM | | | | *i* S | **Sn** | **06 01 54.7** | **+1.9** |
| **SRTM** | **Siirt_Merkez** | **1.18** | **232** | P | **Pn** | **06 01 36.8** | **0.0** |
| SRTM | | | | S | **Sn** | **06 01 54.7** | **+1.9** |
| **EATA** | **Eleskirt** | **1.24** | **338** | *i* P | **Pb** | **06 01 37.3** | **-0.5** |
| EATA | | | | *i* S | **Sn** | **06 01 55.6** | **+0.8** |
| **EATA** | **Eleskirt** | **1.24** | **338** | P | **Pb** | **06 01 37.3** | **-0.5** |
| EATA | | | | S | **Sn** | **06 01 55.6** | **+0.8** |
| **HAKT** | **HAKKARI** | **1.25** | **157** | *i* P | **Pn** | **06 01 36.8** | **-1.1** |
| HAKT | | | | *i* S | **Sn** | **06 01 56.5** | **+1.6** |
| **HAKT** | **HAKKARI** | **1.25** | **157** | P | **Pn** | **06 01 36.8** | **-1.1** |
| HAKT | | | | S | **Sn** | **06 01 56.5** | **+1.6** |
| **CUKT** | **Cukurca** | **1.52** | **165** | *e*PN | **Pn** | **06 01 41.0** | **-0.5** |
| **CUKT** | **Cukurca** | **1.52** | **165** | *i* P | **Pg** | **06 01 43.0** | **-0.3** |
| **CUKT** | **Cukurca** | **1.52** | **165** | *e*Pn | **Pn** | **06 01 41.0** | **-0.5** |
| **CUKT** | **Cukurca** | **1.52** | **165** | P | **Pg** | **06 01 43.0** | **-0.3** |
| **BTMN** | **Batman** | **1.66** | **241** | *i* P | **Pb** | **06 01 44.3** | **-0.5** |
| BTMN | | | | *i* S | **Sg** | **06 02 08.4** | **+0.9** |
| **BTMN** | **Batman** | **1.66** | **241** | P | **Pb** | **06 01 44.3** | **-0.5** |
| BTMN | | | | S | **Sg** | **06 02 08.4** | **+0.9** |
| **DIGO** | **Kars** | **1.71** | **7** | *i* P | **Pg** | **06 01 46.7** | **-0.4** |
| **DIGO** | **Kars** | **1.71** | **7** | P | **Pg** | **06 01 46.7** | **-0.4** |

*ISCJB **10** 06:02:39.9±0.5, 38°.87N±0°.02×30°.18E±0°.02, h1km±4km, mb3.5/2, MS4.0/2, Error ellipse: s-maj=3.1km s-min=2.7km az=30.0*
*IDC **10** 06:02:39.8±1.2, 38°.90N×30°.12E, h0km, mb3.5/2, mb1 3.4/7, mb1mx3.2/52, mbtmp3.4/7, ML3.2/5, MS3.9/2, Ms1 3.9/2, ms1mx2.6/52, Error ellipse: s-maj=18.0km s-min=13.3km az=171.0*
*CSEM **10** 06:02:40.7±0.1, 38°.85N×30°.19E, h2km, ML3.8, Error ellipse: s-maj=2.4km s-min=2.1km az=65.0*
*DDA **10** 06:02:40.0, 38°.86N×30°.20E, h14km, Ml3.7*
*ISK **10** 06:02:40.3, 38°.83N×30°.19E, h4km, ML3.8*
**ISC 10 06:02:40.5**±1.0**, 38°.85N**±0°.02×**30°.18E**±0°.02**, h6**km±8km**, n155, σ0s66**/174**, 11C-7D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SHUT** | **Suhut-Afyon** | **0.41** | **135** | *e*PG | **Pg** | **06 02 48.6** | **+0.1** |
| SHUT | | | | *e*SG | **Sg** | **06 02 54.5** | **+0.5** |
| **SHUT** | **Suhut-Afyon** | **0.41** | **135** | *e*Pg | **Pg** | **06 02 48.6** | **+0.1** |
| SHUT | | | | *e*Sg | **Sg** | **06 02 54.5** | **+0.5** |
| **KZIL** | **AFYON_Kizioren** | **0.59** | **183** | *i* P | **Pg** | **06 02 52.0** | **+0.1** |
| KZIL | | | | *i* S | **Sg** | **06 02 59.3** | **-0.3** |
| **KZIL** | **AFYON_Kizioren** | **0.59** | **183** | P | **Pg** | **06 02 52.0** | **+0.1** |
| KZIL | | | | S | **Sg** | **06 02 59.3** | **-0.3** |
| **GDZ** | **Gediz** | **0.60** | **294** | *i* P | **Pg** | **06 02 52.6** | **+0.5** |
| GDZ | | | | *i* S | **Sg** | **06 03 00.8** | **+0.9** |
| **GDZ** | **Gediz** | **0.60** | **294** | P | **Pg** | **06 02 52.6** | **+0.5** |
| GDZ | | | | S | **Sg** | **06 03 00.8** | **+0.9** |
| **BOLV** | **Bolvadin** | **0.61** | **102** | *i* P | **Pg** | **06 02 51.9** | **-0.5** |
| BOLV | | | | *i* S | **Sg** | **06 02 59.5** | **-0.8** |
| **BOLV** | **Bolvadin** | **0.61** | **102** | P | **Pg** | **06 02 51.9** | **-0.5** |
| BOLV | | | | S | **Sg** | **06 02 59.5** | **-0.8** |
| **KHAL** | **Karahalli** | **0.72** | **229** | *i* P | **Pg** | **06 02 54.1** | **-0.3** |
| KHAL | | | | *i* S | **Sg** | **06 03 03.6** | **-0.2** |
| **KHAL** | **Karahalli** | **0.72** | **229** | P | **Pg** | **06 02 54.1** | **-0.3** |
| KHAL | | | | S | **Sg** | **06 03 03.6** | **-0.2** |
| **KHL** | **Karahalli** | **0.73** | **225** | *e*PG | **Pg** | **06 02 54.5** | **-0.1** |
| KHL | | | | *e*SG | **Sg** | **06 03 05.0** | **+0.8** |
| **KHL** | **Karahalli** | **0.73** | **225** | *e*Pg | **Pg** | **06 02 54.6** | **-0.1** |
| KHL | | | | *e*Sg | **Sg** | **06 03 05.0** | **+0.8** |
| **TVSB** | **Tavsanli** | **0.82** | **317** | *e*PG | **Pg** | **06 02 56.1** | **-0.3** |
| **TVSB** | **Tavsanli** | **0.82** | **317** | *e*Pg | **Pg** | **06 02 56.1** | **-0.3** |
| **ESKT** | **Eskisehir** | **0.85** | **37** | *i* P | **Sn** | **06 03 12.5** | **+0.4** |
| **SIMA** | **Simav-Kutahya** | **0.96** | **285** | *e*PG | **Pn** | **06 03 00.4** | **-0.4** |
| **SIMA** | **Simav-Kutahya** | **0.96** | **285** | *e*Pg | **Pn** | **06 03 00.4** | **-0.4** |
| **BAGO** | **Egridir - ISPA** | **0.98** | **151** | *i* P | **Pg** | **06 02 59.2** | **-0.1** |
| **BORA** | **Eskisehir** | **1.05** | **11** | *i* P | **Pg** | **06 03 00.1** | **-0.7** |
| **BORA** | **Eskisehir** | **1.05** | **11** | P | **Pg** | **06 03 00.1** | **-0.7** |
| **BRDR** | **BURDUR-Merkez** | **1.15** | **185** | *i* P | **Pg** | **06 03 02.0** | **-0.6** |
| BRDR | | | | *i* S | **Sn** | **06 03 19.7** | **+0.2** |
| **BRDR** | **BURDUR-Merkez** | **1.15** | **185** | P | **Pg** | **06 03 02.0** | **-0.6** |
| BRDR | | | | S | **Sn** | **06 03 19.7** | **+0.2** |
| **DEMI** | **Demirci** | **1.16** | **280** | *i* P | **Pn** | **06 03 03.4** | **-0.1** |
| DEMI | | | | *i* S | **Sb** | **06 03 18.7** | **+0.3** |
| **DEMI** | **Demirci** | **1.16** | **280** | P | **Pn** | **06 03 03.3** | **-0.1** |
| DEMI | | | | S | **Sb** | **06 03 18.7** | **+0.3** |
| **SVRH** | **Sivrihisar-ESK** | **1.20** | **60** | *e*PN | **Pg** | **06 03 03.4** | **-0.2** |
| **SVRH** | **Sivrihisar-ESK** | **1.20** | **60** | *e*Pn | **Pg** | **06 03 03.4** | **-0.2** |
| **KULA** | **Kula-Manisa** | **1.24** | **255** | *e*PN | **Pg** | **06 03 04.3** | **0.0** |
| **KULA** | **Kula-Manisa** | **1.24** | **255** | *e*Pn | **Pg** | **06 03 04.3** | **0.0** |
| **MANT** | **Manisa** | **1.32** | **255** | *i* P | **Pn** | **06 03 05.7** | **-0.1** |
| MANT | | | | *i* S | **Sg** | **06 03 22.6** | **-0.4** |
| **MANT** | **Manisa** | **1.32** | **255** | P | **Pn** | **06 03 05.7** | **-0.1** |
| MANT | | | | S | **Sg** | **06 03 22.6** | **-0.4** |
| **KIZT** | **Kizilcal** | **1.33** | **88** | *e*PN | **Pg** | **06 03 06.2** | **+0.2** |
| **KIZT** | **Kizilcal** | **1.33** | **88** | *e*Pn | **Pg** | **06 03 06.2** | **+0.2** |
| **CAVI** | **Cavuskoy** | **1.38** | **349** | *e*PN | **Pb** | **06 03 06.7** | **-0.1** |
| **CAVI** | **Cavuskoy** | **1.38** | **349** | *e*Pn | **Pb** | **06 03 06.7** | **-0.1** |
| **DOGA** | **KONYA_Doganhis** | **1.38** | **122** | *i* P | **Pn** | **06 03 05.9** | **-0.7** |
| DOGA | | | | *i* S | **Sn** | **06 03 25.4** | **+0.1** |
| **DOGA** | **KONYA_Doganhis** | **1.38** | **122** | P | **Pn** | **06 03 05.9** | **-0.7** |
| DOGA | | | | S | **Sn** | **06 03 25.4** | **+0.1** |
| **DNZL** | **Cakiroluk** | **1.46** | **218** | *i* P | **Pn** | **06 03 07.8** | **+0.1** |
| **DNZL** | **Cakiroluk** | **1.46** | **218** | P | **Pn** | **06 03 07.8** | **+0.1** |
| **SUTC** | **Sutluce-Ispart** | **1.51** | **155** | *e*PN | **Pb** | **06 03 09.3** | **+0.2** |
| **SUTC** | **Sutluce-Ispart** | **1.51** | **155** | *e*Pn | **Pb** | **06 03 09.3** | **+0.2** |
| **KDHN** | **Kadinhani** | **1.55** | **102** | *i* P | **Pn** | **06 03 08.5** | **-0.3** |
| **KDHN** | **Kadinhani** | **1.55** | **102** | P | **Pn** | **06 03 08.5** | **-0.3** |
| **GULT** | **Gulveren** | **1.60** | **9** | *e*PN | **Pg** | **06 03 11.3** | **0.0** |
| **GULT** | **Gulveren** | **1.60** | **9** | *e*Pn | **Pg** | **06 03 11.3** | **0.0** |
| **IGD** | **Bursa** | **1.60** | **332** | *i* P | **Pn** | **06 03 09.3** | **-0.1** |
| **ADVT** | **Abdulvahap** | **1.62** | **348** | *e*PN | **Pb** | **06 03 10.8** | **-0.1** |
| **ADVT** | **Abdulvahap** | **1.62** | **348** | *e*Pn | **Pb** | **06 03 10.8** | **-0.1** |
| **GEYV** | **SAKARYA_Geyve** | **1.64** | **3** | *i* P | **Pn** | **06 03 10.3** | **+0.3** |
| **GEYV** | **SAKARYA_Geyve** | **1.64** | **3** | P | **Pn** | **06 03 10.3** | **+0.3** |
| **GOLH** | **Golhisar** | **1.68** | **197** | *i* P | **Pb** | **06 03 12.2** | **+0.2** |
| **GOLH** | **Golhisar** | **1.68** | **197** | P | **Pb** | **06 03 12.2** | **+0.2** |
| **TAVA** | **DENIZLI_Tavas** | **1.70** | **216** | *i* P | **Pn** | **06 03 11.0** | **+0.1** |
| **TAVA** | **DENIZLI_Tavas** | **1.70** | **216** | P | **Pn** | **06 03 11.0** | **+0.1** |
| **GEMT** | **Gemlik** | **1.76** | **334** | *e*PN | **Pn** | **06 03 11.8** | **+0.2** |
| **GEMT** | **Gemlik** | **1.76** | **334** | *e*Pn | **Pn** | **06 03 11.8** | **+0.2** |
| **GLHS** | **Glhisar (BURDU** | **1.77** | **198** | *e*PN | **Pb** | **06 03 13.1** | **-0.5** |
| **GLHS** | **Glhisar (BURDU** | **1.77** | **198** | *e*Pn | **Pb** | **06 03 13.1** | **-0.5** |
| **MDUB** | **Mudurnu** | **1.80** | **25** | *e*PN | **Pb** | **06 03 13.5** | **-0.5** |
| **MDUB** | **Mudurnu** | **1.80** | **25** | *e*Pn | **Pb** | **06 03 13.5** | **-0.5** |
| **MDNY** | **Mudanya-Bursa** | **1.82** | **327** | *e*PN | **Pn** | **06 03 12.7** | **+0.3** |
| **MDNY** | **Mudanya-Bursa** | **1.82** | **327** | *e*Pn | **Pn** | **06 03 12.7** | **+0.3** |
| **YLV** | **Yalova** | **1.83** | **340** | *e*PN | **Pb** | **06 03 13.9** | **-0.5** |
| **YLV** | **Yalova** | **1.83** | **340** | *e*Pn | **Pb** | **06 03 13.9** | **-0.5** |
| **BTAS** | **Taskesti** | **1.83** | **20** | *i* P | **Pg** | **06 03 15.1** | **-0.6** |
| **BTAS** | **Taskesti** | **1.83** | **20** | P | **Pg** | **06 03 15.1** | **-0.6** |
| **AKHS** | **Akhisar** | **1.85** | **272** | *i* P | **Pn** | **06 03 13.2** | **+0.3** |
| **AKHS** | **Akhisar** | **1.85** | **272** | P | **Pn** | **06 03 13.2** | **+0.3** |
| **KORT** | **Korkueli** | **1.85** | **176** | *e*PN | **Pn** | **06 03 13.5** | **+0.5** |
| **KORT** | **Korkueli** | **1.85** | **176** | *i* P | **Pn** | **06 03 13.2** | **+0.3** |
| **KORT** | **Korkueli** | **1.85** | **176** | P | **Pn** | **06 03 13.2** | **+0.3** |
| **KORT** | **Korkueli** | **1.85** | **176** | *e*Pn | **Pn** | **06 03 13.5** | **+0.5** |
| **KONT** | **Konya--Tatoy** | **1.93** | **117** | *e*PN | **Pn** | **06 03 14.6** | **+0.6** |
| **KONT** | **Konya--Tatoy** | **1.93** | **117** | *i* P | **Pn** | **06 03 14.5** | **+0.4** |
| **KONT** | **Konya--Tatoy** | **1.93** | **117** | *e*Pn | **Pn** | **06 03 14.6** | **+0.6** |
| **BALB** | **Balikesir** | **1.96** | **295** | *e*PN | **Pb** | **06 03 16.0** | **-0.6** |
| **BALB** | **Balikesir** | **1.96** | **295** | *e*Pn | **Pb** | **06 03 16.0** | **-0.6** |
| **KCTX** | **Karacabey (Bur** | **2.00** | **316** | *e*PN | **Pb** | **06 03 16.9** | **-0.5** |
| **KCTX** | **Karacabey (Bur** | **2.00** | **316** | *e*Pn | **Pb** | **06 03 16.9** | **-0.5** |
| **HRT** | **Hereke** | **2.01** | **349** | *e*PN | **Pn** | **06 03 16.0** | **+0.9** |
| **HRT** | **Hereke** | **2.01** | **349** | *e*Pn | **Pn** | **06 03 16.0** | **+0.9** |
| **KMER** | **Konya-Meram** | **2.03** | **121** | *i* P | **Pn** | **06 03 16.1** | **+0.7** |
| **SAHE** | **Sakarya_HENDEK** | **2.07** | **14** | *i* P | **Pn** | **06 03 16.2** | **+0.3** |
| **SAHE** | **Sakarya_HENDEK** | **2.07** | **14** | P | **Pn** | **06 03 16.2** | **+0.3** |
| **ELL** | **Elmali** | **2.11** | **186** | *e*PN | **Pn** | **06 03 17.3** | **+0.8** |
| **ELL** | **Elmali** | **2.11** | **186** | *e*Pn | **Pn** | **06 03 17.3** | **+0.8** |
| **KKUL** | **Konya-Kulu** | **2.15** | **81** | *i* P | **Pn** | **06 03 18.0** | **+0.8** |
| **KKUL** | **Konya-Kulu** | **2.15** | **81** | P | **Pn** | **06 03 18.0** | **+0.8** |
| **BUY** | **Buyukada** | **2.16** | **338** | *i* P | **Pn** | **06 03 18.1** | **+0.9** |
| **BUY** | **Buyukada** | **2.16** | **338** | P | **Pn** | **06 03 18.0** | **+0.9** |
| **KAND** | **Kocaeli-Kandir** | **2.24** | **0** | *i* P | **Pn** | **06 03 19.4** | **+1.1** |
| **KAND** | **Kocaeli-Kandir** | **2.24** | **0** | P | **Pn** | **06 03 19.4** | **+1.1** |
| **LOD** | **Lodumlu** | **2.25** | **62** | *e*PN | **Pn** | **06 03 19.8** | **+1.3** |
| **LOD** | **Lodumlu** | **2.25** | **62** | *e*Pn | **Pn** | **06 03 19.8** | **+1.3** |
| **AFSR** | **Af¯ar-Bala (A** | **2.32** | **74** | *e*PN | **Pn** | **06 03 20.6** | **+1.1** |
| **AFSR** | **Af¯ar-Bala (A** | **2.32** | **74** | *e*Pn | **Pn** | **06 03 20.6** | **+1.1** |
| **DALY** | **Dalyan (Mu˜la** | **2.36** | **211** | *e*PN | **Pn** | **06 03 21.0** | **+1.2** |
| **DALY** | **Dalyan (Mu˜la** | **2.36** | **211** | *e*Pn | **Pn** | **06 03 21.0** | **+1.2** |
| **FETY** | **Fethiye** | **2.37** | **202** | *e*PN | **Pn** | **06 03 21.9** | **+1.8** |
| **FETY** | **Fethiye** | **2.37** | **202** | P | **Pn** | **06 03 21.0** | **+0.9** |
| **FETY** | **Fethiye** | **2.37** | **202** | *e*Pn | **Pn** | **06 03 21.9** | **+1.8** |
| **FETY** | **Fethiye** | **2.37** | **202** | P | **Pn** | **06 03 21.5** | **+1.4** |
| **BBAL** | **Bala** | **2.39** | **72** | *i* P | **Pn** | **06 03 21.5** | **+1.1** |
| **BBAL** | **Bala** | **2.39** | **72** | P | **Pn** | **06 03 21.5** | **+1.1** |
| **CMDR** | **Camlidere-ANKA** | **2.42** | **46** | *i* P | **Pb** | **06 03 24.6** | **+0.1** |
| **CMDR** | **Camlidere-ANKA** | **2.42** | **46** | P | **Pb** | **06 03 24.6** | **+0.1** |
| **BCAM** | **Yenicaga** | **2.44** | **36** | *i* P | **Pn** | **06 03 21.8** | **+0.6** |
| **AKSY** | **AKSARAY - Alti** | **2.81** | **93** | *i* P | **Pg** | **06 03 35.0** | **+0.7** |
| **BRTR** | **Keskin Array B** | **2.82** | **71** | Pn | **Pn** | **06 03 26.4** | **+0.1** |
| | 2.8nm,0.3s,baz=246,slow=15,SNR=28 | | | | | | |
| BRTR | | | | Pg | **Pg** | **06 03 34.9** | **+0.3** |
| | 6.0nm,0.3s,baz=256,slow=15,SNR=52 | | | | | | |
| BRTR | | | | Lg | Lg | 06 04 13.2 | |
| | 3.9nm,0.3s,baz=254,slow=24,SNR=3.9 | | | | | | |
| **SMG** | **Samos** | **2.87** | **248** | P | **Pn** | **06 03 27.2** | **+0.3** |
| **SMG** | **Samos** | **2.87** | **248** | P | **Pn** | **06 03 27.2** | **+0.3** |
| **CHOS** | **Chios island** | **3.27** | **263** | P | **Pn** | **06 03 33.0** | **+0.6** |
| **CHOS** | **Chios island** | **3.27** | **263** | P | **Pn** | **06 03 33.0** | **+0.6** |
| **ENEZ** | **Enez** | **3.63** | **303** | P | **Pn** | **06 03 38.4** | **+1.1** |
| **ENEZ** | **Enez** | **3.63** | **303** | P | **Pn** | **06 03 38.4** | **+1.1** |
| **ALN** | **Alexandroupoli** | **3.78** | **304** | P | **Pn** | **06 03 39.9** | **+0.5** |
| **ALN** | **Alexandroupoli** | **3.78** | **304** | P | **Pn** | **06 03 39.9** | **+0.5** |
| **SMTH** | **Samothraki Isl** | **3.94** | **296** | P | **Pn** | **06 03 42.4** | **+0.8** |
| **SMTH** | **Samothraki Isl** | **3.94** | **296** | P | **Pn** | **06 03 42.4** | **+0.8** |
| **APE** | **Apeiranthos** | **4.08** | **246** | ⇑*i*P | **Pn** | **06 03 45.0** | **+1.4** |
| APE | | | | S | Sn | 06 03 59.9 | -32 |
| **APE** | **Apeiranthos** | **4.08** | **246** | ⇑*i*P | **Pn** | **06 03 45.0** | **+1.4** |
| **RDO** | **Rodhopi** | **4.24** | **304** | P | **Pn** | **06 03 46.2** | **+0.5** |
| **RDO** | **Rodhopi** | **4.24** | **304** | P | **Pn** | **06 03 46.2** | **+0.5** |
| **KDZ** | **Kurdzhali** | **4.60** | **309** | *i* P | **Pn** | **06 03 51.9** | **+1.3** |
| **DIM** | **Dimitrovgrad** | **4.78** | **314** | *i* P | **Pn** | **06 03 53.4** | **+0.3** |
| **PLD** | **Plovdiv** | **5.29** | **310** | *i* P | **Pn** | **06 04 01.0** | **+0.8** |
| **SZH** | **Strazhica** | **5.46** | **325** | *i* P | **Pn** | **06 04 02.3** | **-0.2** |
| **IDI** | **Anoyia** | **5.53** | **232** | Pn | **Pn** | **06 04 04.9** | **+1.5** |
| | 1.3nm,0.3s,baz=59,slow=17,SNR=11 | | | | | | |
| **TIRR** | **Tirgusor** | **5.76** | **347** | ⇓*i*P | **Pn** | **06 04 07.5** | **+0.9** |
| **TIRR** | **Tirgusor** | **5.76** | **347** | ⇓*i*P | **Pn** | **06 04 07.5** | **+0.9** |
| **VTS** | **Vitosha** | **6.48** | **307** | ⇑*i*P | **Pn** | **06 04 17.9** | **+1.2** |
| **VTS** | **Vitosha** | **6.48** | **307** | ⇑*i*P | **Pn** | **06 04 17.9** | **+1.2** |
| **CFR** | **Carcaliu** | **6.51** | **347** | ⇓*i*P | **Pn** | **06 04 16.7** | **-0.1** |
| **MMAI** | **Mount Meron Ar** | **7.20** | **142** | Pn | **Pn** | **06 04 27.2** | **+0.8** |
| | 0.8nm,0.3s,baz=327,slow=12,SNR=6.3 | | | | | | |
| **MLR** | **Muntele Rosu** | **7.34** | **336** | Pn | **Pn** | **06 04 29.0** | **+0.5** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| | 0.1nm,0.3s,baz=332,slow=5.2,SNR=5.3 | | | | | | |
| **MLR** | **Muntele Rosu** | **7.34** | **336⇓** | *i*P | **Pn** | **06 04 28.8** | **+0.3** |
| **MLR** | **Muntele Rosu** | **7.34** | **336⇓** | *i*P | **Pn** | **06 04 28.8** | **+0.3** |
| **VRI** | **Vrincioaia** | **7.46** | **341⇓** | *i*P | **Pn** | **06 04 30.2** | **+0.2** |
| **VRI** | **Vrincioaia** | **7.46** | **341⇓** | *i*P | **Pn** | **06 04 30.2** | **+0.2** |
| **VOIR** | | **7.61** | **332⇑** | *i*P | **Pn** | **06 04 32.4** | **+0.4** |
| **VOIR** | | **7.61** | **332⇑** | *i*P | **Pn** | **06 04 32.4** | **+0.4** |
| **ARR** | **Arges** | **7.71** | **329⇑** | *i*P | **Pn** | **06 04 32.5** | **-0.9** |
| **ARR** | **Arges** | **7.71** | **329⇑** | *i*P | **Pn** | **06 04 32.5** | **-0.9** |
| **ZAGS** | **Zajecar** | **7.77** | **312** | *e*Pn | **Pn** | **06 04 34.6** | **+0.4** |
| **DOPR** | **Dopca** | **7.95** | **335⇑** | *i*P | **Pn** | **06 04 37.2** | **+0.5** |
| **DOPR** | **Dopca** | **7.95** | **335⇑** | *i*P | **Pn** | **06 04 37.2** | **+0.5** |
| **BOVS** | **Bovan** | **7.98** | **310** | *e*Pn | **Pn** | **06 04 36.9** | **-0.1** |
| **SELS** | **Selova** | **8.12** | **305** | *e*Pn | **Pn** | **06 04 39.3** | **+0.2** |
| **KUBS** | **Kucevo** | **8.45** | **314** | *e*Pn | **Pn** | **06 04 42.4** | **-1.2** |
| **GRUS** | **Gruza** | **8.72** | **308** | *e*Pn | **Pn** | **06 04 47.0** | **-0.2** |
| **BURAR** | **Bucovina Array** | **9.48** | **339⇑** | *i*P | **Pn** | **06 04 59.1** | **+1.4** |
| **AKASG** | **Malin Array Be** | **11.87** | **357** | Pn | **Pn** | **06 05 28.6** | **-1.7** |
| | 0.4nm,0.3s,baz=171,slow=12,SNR=4.3 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **35.93** | **232** | P | **P** | **06 09 41.9** | **0.0** |
| | 0.7nm,0.8s,baz=38,slow=9.6,SNR=5.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **38.43** | **61** | P | **P** | **06 10 02.6** | **-0.3** |
| | 0.5nm,0.7s,baz=276,slow=6.7,SNR=3.3 | | | | | | |
| **LSZ** | **Lusaka** | **53.87** | **182** | LR | LR | 06 34 34.7 | |
| | comp=Z,76nm,18.1s,baz=326,slow=36 | | | | | | |
| **INK** | **Inuvik** | **72.47** | **354** | LR | LR | 06 51 46.0 | |
| | comp=Z,109nm,18.3s,baz=66,slow=41 | | | | | | |

---

*NIED **10** 06:08:00, 38°.60N×141°.80E, h50km, Mw4.6 Best double couple: $M_0$8.32000×$10^{15}$ NP1:$\phi_s$194.00000°, δ86.00000°, λ-177.00000°. NP2:$\phi_s$103.00000°, δ87.00000°, λ-4.00000°.*

*BJI **10** 06:08:14.2, 38°.43N×141°.95E, h56km, mb4.6/39, mB5.3/23, Ms4.5/15, Ms7 4.2/14*

*ISCJB **10** 06:08:16.0±0.3, 38°.63N±0°.02×141°.79E±0°.03, h48km±2km, mb4.6/101, MS4.0/4, Error ellipse: s-maj=5.1km s-min=3.4km az=40.4*

*MOS **10** 06:08:16.0±0.9, 38°.85N×141°.71E, h39km, mb4.7/38, Error ellipse: s-maj=6.9km s-min=4.7km az=91.5*

*JMA **10** 06:08:16.5±0.1, 38°.63N×141°.81E, h45km±1km, M4.7*

*JMA Felt IV J1.*

*IDC **10** 06:08:17.2±1.9, 38°.60N×141°.79E, h51km±16km, mb4.0/25, mb1 4.2/31, mb1mx4.1/52, mbtmp4.4/31, ML4.1/6, MS3.6/6, Ms1 3.7/6, ms1mx3.1/56, Error ellipse: s-maj=14.5km s-min=11.7km az=99.0*

*NEIC **10** 06:08:18.5±0.4, 38°.63N×141°.72E, h55km±4km, mb4.7/55, Error ellipse: s-maj=4.5km s-min=3.1km az=133.0*

*NEIC Felt at Misawa. Recorded [4 JMA] in Iwate and Miyagi.*

**ISC 10 06:08:16.6**±0.6**, 38°.63N**±0°.04×**141°.87E**±0°.05**, h41**km±4km**, n233, σ1s.47**/252**, mb4.6**/101**, MS4.1**/4**, 13C-14D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JIO** | **Ouri** | **0.45** | **247** | P | **Pn** | **06 08 26.3** | **-0.4** |
| JIO | | | | S | **Sn** | **06 08 32.7** | **-1.1** |
| **OFUJ** | **Ofunato** | **0.48** | **340** | P | **Pn** | **06 08 27.1** | **0.0** |
| OFUJ | | | | S | **Sn** | **06 08 34.4** | **-0.1** |
| **JMK** | **Ichinoseki** | **0.60** | **302** | P | **Pn** | **06 08 28.5** | **-0.2** |
| JMK | | | | S | **Sn** | **06 08 36.8** | **-0.6** |
| **JOM** | **Ohasama** | **0.95** | **332** | P | **Pn** | **06 08 33.5** | **0.0** |
| JOM | | | | S | **Sn** | **06 08 45.8** | **-0.2** |
| **JOU** | **Okura** | **0.98** | **255** | P | **Pn** | **06 08 33.3** | **-0.7** |
| JOU | | | | S | **Sn** | **06 08 45.9** | **-0.8** |
| **JMM** | **Marumori** | **1.14** | **228** | P | **Pn** | **06 08 35.1** | **-1.0** |
| JMM | | | | S | **Sn** | **06 08 49.1** | **-1.4** |
| **JYK** | **Kaneyama** | **1.22** | **284** | P | **Pn** | **06 08 36.6** | **-0.5** |
| JYK | | | | S | **Sn** | **06 08 51.6** | **-0.8** |
| **JRG** | **Rokugo** | **1.23** | **309** | P | **Pn** | **06 08 36.8** | **-0.5** |
| **JYS** | **Shirataka** | **1.48** | **254** | P | **Pn** | **06 08 40.4** | **-0.3** |
| JYS | | | | S | **Sn** | **06 08 58.1** | **-0.7** |
| **JFK** | **Kawauchi** | **1.49** | **212** | P | **Pn** | **06 08 40.1** | **-0.8** |
| JFK | | | | S | **Sn** | **06 08 57.0** | **-2.1** |
| **ERM** | **Erimo** | **3.52** | **16** | *e*P | **Pn** | **06 09 09.9** | **+1.2** |
| **ERM** | **Erimo** | **3.52** | **16** | *e*Pn | **Pn** | **06 09 09.9** | **+1.2** |
| **MAJO** | **Matsushiro** | **3.58** | **236*d*** | *i*P | **Pn** | **06 09 10.6** | **+1.0** |
| **MAJO** | **Matsushiro** | **3.58** | **236** | *e*Pn | **Pn** | **06 09 10.7** | **+1.1** |
| **MAT** | **Matsushiro** | **3.58** | **236** | P | **Pn** | **06 09 10.6** | **+1.0** |
| MAT | | | | *e*S | **Sn** | **06 09 51.4** | **+0.7** |
| **MJAR** | **Matsushiro Arr** | **3.58** | **236** | P | **Pn** | **06 09 10.6** | **+1.0** |
| | 38nm,0.3s,baz=36,slow=12,SNR=258 | | | | | | |
| MJAR | | | | LR | LR | 06 10 54.0 | |
| | comp=Z,911nm,18.9s,baz=65,slow=45 | | | | | | |
| **MJB9** | **Matsu-Tunnel** | **3.58** | **236** | *e*Pn | **Pn** | **06 09 10.8** | **+1.1** |
| **INU** | **Inuyama** | **5.08** | **231** | *e*Pn | **Pn** | **06 09 31.7** | **+1.4** |
| **ASAJ** | **Asahikawa** | **5.51** | **5** | P | **Pn** | **06 09 36.8** | **+0.8** |
| | 11nm,0.3s,baz=222,slow=9.4,SNR=20 | | | | | | |
| **JHJ** | **Hachijo jima 2** | **5.75** | **198** | P | **Pn** | **06 09 39.1** | **-0.4** |
| | 70nm,0.3s,baz=105,slow=22,SNR=9.8 | | | | | | |
| JHJ | | | | S | **Sn** | **06 10 40.9** | **-3.3** |
| | 211nm,0.3s,baz=40,slow=23,SNR=12 | | | | | | |
| **JHJ2** | **Mitsune** | **5.75** | **197** | *e*Pn | **Pn** | **06 09 39.5** | **+0.1** |
| **GLVR** | **Golovnino** | **5.80** | **27⇑** | *i*P | **Pn** | **06 09 39.0** | **-1.0** |
| GLVR | | | | *e*S | **Sn** | **06 10 41.6** | **-3.5** |
| **GRPR** | **Tuman** | **6.11** | **27⇑** | *i*P | **Pn** | **06 09 43.1** | **-1.1** |
| GRPR | | | | *e*S | **Sn** | **06 10 47.6** | **-5.2** |
| **LAGR** | **Lagunnoye** | **6.17** | **27⇑** | *i*P | **Pn** | **06 09 44.4** | **-0.6** |
| LAGR | | | | *e*S | **Sn** | **06 10 50.4** | **-3.8** |
| **YUK** | **Yuzh-Kuril'sk** | **6.18** | **28*c*** | *i*P | **Pn** | **06 09 44.1** | **-1.1** |
| YUK | | | | *i* S | **Sn** | **06 10 50.0** | **-4.5** |
| YUK | | | | pmax | pmax | | |
| | comp=Z,543nm,0.3s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=N,125nm,0.4s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=E,124nm,0.3s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,3μm,0.5s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=E,2μm,0.5s | | | | | | |
| **SHO** | **Shikotan** | **6.43** | **34*d*** | *i*P | **Pn** | **06 09 46.5** | **-2.1** |
| SHO | | | | *i* S | Sn | 06 10 54.2 | -6.5 |
| SHO | | | | pmax | pmax | | |
| | comp=Z,158nm,0.5s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=E,171nm,0.3s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=N,112nm,0.5s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=N,1μm,0.5s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=E,2μm,0.4s | | | | | | |
| **KUR** | **Kuril'sk** | **7.96** | **32*d*** | *i*P | **Pn** | **06 10 09.5** | **-0.2** |
| KUR | | | | *e*S | **Sn** | **06 11 34.3** | **-4.1** |
| KUR | | | | pmax | pmax | | |
| | comp=Z,122nm,0.7s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,439nm,0.7s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=N,244nm,0.4s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=N,1μm,2.0s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,1μm,3.4s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **8.34** | **4⇑** | *i*P | **Pn** | **06 10 15.4** | **+0.5** |
| YSS | | | | pmax | pmax | | |
| | comp=Z,30nm,0.9s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **8.34** | **4** | *e*Pn | **Pn** | **06 10 17.3** | **+2.4** |
| **VLA** | **Vladivostok** | **8.79** | **304*d*** | *e*P | **Pn** | **06 10 22.4** | **+1.3** |
| **MSHR** | **Mys Shultsa** | **9.05** | **299⇑** | *e*P | **Pn** | **06 10 24.5** | **-0.1** |
| **USRK** | **Ussuriysk Ar.** | **9.28** | **310** | P | **Pn** | **06 10 27.7** | **0.0** |
| | comp=Z,2.3nm,0.3s,baz=119,slow=18,SNR=34 | | | | | | |
| USRK | | | | LR | LR | 06 13 49.6 | |
| | comp=Z,170nm,19.1s,baz=117,slow=36 | | | | | | |
| **JNU** | **Nakatsue** | **10.47** | **242** | P | **Pn** | **06 10 44.4** | **+0.2** |
| | comp=Z,0.7nm,0.3s,baz=74,slow=7.2,SNR=6.3 | | | | | | |
| **JNU** | **Nakatsue** | **10.47** | **242** | *e*Pn | **Pn** | **06 10 44.9** | **+0.7** |
| **MDJ** | **Mudanjiang** | **10.96** | **307** | P | **Pn** | **06 10 54.4** | **+3.7** |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,19nm,0.8s | | | | | | |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,140nm,5.5s | | | | | | |
| **HABR** | **Khabarovsk** | **11.01** | **336** | *e*P | **Pn** | **06 10 48.3** | **-3.0** |
| HABR | | | | *e*S | **Sn** | **06 12 49.8** | **-3.2** |
| HABR | | | | pmax | pmax | | |
| | comp=E,12nm,1.5s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=Z,22nm,1.5s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=N,8.0nm,0.8s | | | | | | |
| HABR | | | | MLR | MLR | | |
| | comp=Z,168nm,15.0s | | | | | | |
| **KSRS** | **Korea Array** | **11.07** | **268** | P | **Pn** | **06 10 53.5** | **+1.3** |
| | comp=Z,1.5nm,0.3s,baz=80,slow=14,SNR=18 | | | | | | |
| KSRS | | | | LR | LR | 06 14 44.7 | |
| | comp=Z,118nm,20.7s,baz=40,slow=35 | | | | | | |
| **KS01** | **Wonju Array Si** | **11.09** | **268** | *e*Pn | **Pn** | **06 10 54.8** | **+2.4** |
| **KS15** | **Wonju Array Si** | **11.10** | **268** | *e*Pn | **Pn** | **06 10 56.0** | **+3.3** |
| **KSAR** | **Wonju Array Be** | **11.10** | **268** | P | **Pn** | **06 10 53.5** | **+0.8** |
| **KSAR** | **Wonju Array Be** | **11.10** | **268** | P | **Pn** | **06 10 53.5** | **+0.8** |
| **TJN** | **Taejon** | **11.74** | **263⇓** | *e*P | **Pn** | **06 11 02.9** | **+1.4** |
| **TYV** | **Tymovskoe** | **12.24** | **2** | *e*P | **Pn** | **06 11 08.0** | **-0.2** |
| TYV | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.8s | | | | | | |
| TYV | | | | pmax | pmax | | |
| | comp=E,500nm,2.0s | | | | | | |
| TYV | | | | pmax | pmax | | |
| | comp=Z,368nm,1.2s | | | | | | |
| **KLR** | **Kul'dur** | **12.85** | **329** | P | **Pn** | **06 11 15.4** | **-1.1** |
| | comp=Z,0.0nm,0.3s,baz=125,slow=14,SNR=7.4 | | | | | | |
| KLR | | | | LR | LR | 06 17 01.0 | |
| | comp=Z,5.8nm,18.7s,baz=104,slow=41 | | | | | | |
| **CN2** | **Changchun** | **13.40** | **298** | *e*P | **Pn** | **06 11 26.0** | **+2.0** |
| **PETK** | **Petropavlovsk-** | **18.13** | **32** | LR | LR | 06 20 46.7 | |
| | comp=Z,135nm,18.0s,baz=262,slow=41 | | | | | | |
| **HIA** | **Hailar** | **19.09** | **311⇓** | *e*P | **Pn** | **06 12 37.8** | **+1.1** |
| HIA | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.4s | | | | | | |
| **NJ2** | **Nanjing** | **19.87** | **258** | *e*P | **P** | **06 12 43.8** | **-0.4** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.6s | | | | | | |
| **CLNS** | **Chul'man** | **21.39** | **334** | *e*P | **P** | **06 12 57.7** | **-2.8** |
| CLNS | | | | pmax | pmax | | |
| | comp=E,3.0nm,0.8s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=Z,11nm,0.8s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=N,7.0nm,0.7s | | | | | | |
| **MA2** | **Magadan** | **21.72** | **12** | P | **P** | **06 13 03.3** | **-0.6** |
| | comp=N,7.8nm,0.7s,baz=196,slow=8.6,SNR=5.6 | | | | | | |
| **NACB** | **Ninganchiao** | **22.45** | **236** | *e*P | **P** | **06 13 12.3** | **+0.2** |
| | comp=N,45nm,1.0s | | | | | | |
| **YULB** | **Yu-li** | **23.20** | **235** | *e*P | **P** | **06 13 18.9** | **-1.0** |
| | comp=N,162nm,2.0s | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **23.36** | **285** | *e*P | **P** | **06 13 20.2** | **-1.2** |
| HHC | | | | S | **S** | **06 17 23.8** | **-7.6** |
| HHC | | | | SS | **SnSn** | **06 18 13.2** | **+4.7** |
| HHC | | | | PcS | **PcS** | **06 20 46.3** | **-0.2** |
| HHC | | | | pmax | pmax | | |
| | comp=N,7.0nm,1.1s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=N,93nm,5.5s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=N,190nm,10.4s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=N,250nm,11.6s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=N,100nm,12.6s | | | | | | |
| **TPUB** | **Ta-pu** | **23.69** | **236** | *e*P | **P** | **06 13 24.1** | **-0.5** |
| | comp=N,258nm,1.8s | | | | | | |
| **WHN** | **Wuhan** | **23.99** | **259** | P | **P** | **06 13 25.5** | **-1.8** |
| **YAK** | **Yakutsk** | **24.60** | **346** | *e*P | **P** | **06 13 31.5** | **-1.1** |
| YAK | | | | *e**PP | **pP** | **06 13 43.5** | **-0.2** |
| YAK | | | | *e* | | 06 14 04.7 | |
| YAK | | | | *e* | | 06 17 07.6 | |
| YAK | | | | *e*S | **S** | **06 17 50.1** | **-0.5** |
| YAK | | | | *e**SS | **sS** | **06 18 10.6** | **+1.5** |
| YAK | | | | *e*SS | **SnSn** | **06 18 40.8** | **+2.4** |
| YAK | | | | *e* | | 06 24 29.8 | |
| YAK | | | | pmax | pmax | | |
| | comp=N,13nm,1.0s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,155nm,4.3s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,288nm,5.3s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=N,408nm,5.2s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=E,174nm,4.1s | | | | | | |
| **SEY** | **Seymchan** | **25.16** | **11** | P | **P** | **06 13 38.3** | **+0.7** |
| | comp=E,2.9nm,0.4s,baz=185,slow=11,SNR=7.8 | | | | | | |
| **SEY** | **Seymchan** | **25.16** | **11⇓** | *e*P | **P** | **06 13 38.9** | **+1.3** |
| **ULN** | **Ulaanbaatar** | **26.80** | **301⇓** | *i*P | **P** | **06 13 53.3** | **+0.5** |
| ULN | | | | pmax | pmax | | |
| | comp=Z,8.0nm,2.5s | | | | | | |
| **ULN** | **Ulaanbaatar** | **26.80** | **301** | *e*P | **P** | **06 13 52.9** | **+0.1** |
| | comp=Z,3.7nm,0.6s | | | | | | |
| **SONA1** | **Songino Array** | **27.23** | **301** | *e*P | **P** | **06 13 56.2** | **-0.5** |
| **SONM** | **Songino Array** | **27.23** | **301** | P | **P** | **06 13 55.1** | **-1.6** |
| | comp=Z,1.6nm,0.6s,baz=101,slow=8.2,SNR=10 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.69** | **124** | T | T | 06 44 24.3 | |
| | baz=316,slow=75 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.70** | **124** | T | T | 06 44 24.9 | |
| | baz=316,slow=75 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.71** | **124** | T | T | 06 44 23.8 | |
| | baz=316,slow=75 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.46** | **126** | T | T | 06 45 18.6 | |
| | baz=318,slow=76,SNR=6309 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.46** | **126** | T | T | 06 45 18.7 | |
| | baz=318,slow=76,SNR=7732 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.48** | **126** | T | T | 06 45 22.5 | |
| | baz=318,slow=76,SNR=4440 | | | | | | |
| **TLY** | **Talaya** | **29.59** | **309** | P | **P** | **06 14 16.8** | **-0.7** |
| | comp=Z,2.6nm,0.5s,baz=114,slow=4.7,SNR=3.4 | | | | | | |
| **ZAK** | **Zakamensk** | **29.60** | **306** | *e*P | **P** | **06 14 17.1** | **-0.6** |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.9s | | | | | | |
| **LZH** | **Lanzhou** | **30.19** | **277** | *e*P | **P** | **06 14 23.0** | **-0.2** |
| LZH | | | | pP | sP | 06 14 38.7 | -0.6 |
| LZH | | | | sP | pP | 06 14 44.9 | +10 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,13nm,1.1s | | | | | | |
| **CD2** | **Chengdu** | **32.07** | **268** | *e*P | **P** | **06 14 38.1** | **-1.5** |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,20nm,0.8s | | | | | | |
| **TIXI** | **Tiksi** | **33.75** | **353⇓** | *i*P | **P** | **06 14 54.4** | **+0.6** |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.1s | | | | | | |
| **TIXI** | **Tiksi** | **33.75** | **353** | *e*P | **P** | **06 14 53.9** | **+0.2** |
| | comp=Z,4.7nm,0.4s | | | | | | |
| **KMI** | **Kunming** | **35.59** | **259** | P | **P** | **06 15 10.2** | **-0.2** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,16nm,0.5s | | | | | | |
| **NIKH** | **Nikolski High** | **36.47** | **50** | *e*P | **P** | **06 15 17.9** | **+0.6** |
| | comp=Z,940nm,2.0s | | | | | | |
| **DGZ** | **Jazzator, Alta** | **39.77** | **304** | *i* P | **P** | **06 15 45.6** | **+0.2** |
| DGZ | | | | pmax | pmax | | |
| | comp=Z,18nm,0.8s | | | | | | |
| **WMQ** | **Urumqi** | **40.47** | **295** | P | **P** | **06 15 51.8** | **+0.6** |
| WMQ | | | | pP | sP | 06 16 06.4 | -1.1 |
| WMQ | | | | sP | pP | 06 16 13.7 | +11 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,23nm,1.1s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,450nm,6.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,260nm,16.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,180nm,20.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,220nm,15.3s | | | | | | |
| **ZAA0** | **Zalesovo Array** | **41.13** | **311** | *e*P | **P** | **06 15 56.0** | **-0.4** |
| | comp=Z,17nm,0.8s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.13** | **311** | P | **P** | **06 15 55.8** | **-0.6** |
| | comp=Z,16nm,0.6s,baz=88,slow=7.3,SNR=79 | | | | | | |
| **NVS** | **Novosibirsk** | **42.02** | **312** | *e*P | **P** | **06 16 03.0** | **-0.6** |
| NVS | | | | pmax | pmax | | |
| | comp=Z,15nm,1.0s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=N,3.0nm,0.7s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=E,8.0nm,0.9s | | | | | | |
| **MK01** | **Makanchi Array** | **43.60** | **301** | *e*P | **P** | **06 16 16.0** | **-0.6** |
| **MK31** | **Makanchi Array** | **43.60** | **301** | *e*P | **P** | **06 16 16.0** | **-0.6** |
| **MK31** | **Makanchi Array** | **43.60** | **301** | *e*P | **P** | **06 16 16.0** | **-0.6** |
| **MKAR** | **Makanchi Array** | **43.60** | **301** | P | **P** | **06 16 16.1** | **-0.5** |
| | comp=E,14nm,0.7s,baz=86,slow=9.7,SNR=96 | | | | | | |
| **MAKZ** | **Makanchi** | **43.81** | **301** | *e*P | **P** | **06 16 17.7** | **-0.6** |
| MAKZ | | | | pmax | pmax | | |
| | comp=Z,15nm,0.8s | | | | | | |
| **MAKZ** | **Makanchi** | **43.81** | **301** | *e*P | **P** | **06 16 17.7** | **-0.6** |
| | comp=Z,15nm,0.8s | | | | | | |
| **SHL** | **Shillong** | **43.81** | **268** | *e*P | P | 06 16 06.5 | -12 |
| **SVW2** | **Sparrevohn** | **44.04** | **38** | *e*P | **P** | **06 16 22.0** | **+2.1** |
| | comp=Z,38nm,1.6s | | | | | | |
| **IMAR** | **Indian Mountai** | **45.10** | **31** | *e*P | **P** | **06 16 29.3** | **+1.0** |
| **KURK** | **Kurchatov** | **45.25** | **307*c*** | *i*P | **P** | **06 16 28.6** | **-1.1** |
| **KURK** | **Kurchatov** | **45.25** | **307** | *e*P | **P** | **06 16 28.8** | **-0.9** |
| | comp=Z,36nm,0.7s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **45.32** | **307** | P | **P** | **06 16 29.1** | **-1.1** |
| | baz=82,slow=8.2 | | | | | | |
| **RSO** | **Redoubt South** | **45.43** | **39** | *e*P | **P** | **06 16 32.5** | **+1.2** |
| **PPLA** | **Purkeypile** | **45.66** | **36** | *e*P | **P** | **06 16 34.8** | **+1.8** |
| | comp=Z,40nm,1.6s | | | | | | |
| **KDAK** | **Kodiak Island** | **45.68** | **43** | *i* P | **P** | **06 16 33.5** | **+0.6** |
| **CAST** | **Castle Rocks** | **45.71** | **35** | *e*P | **P** | **06 16 35.1** | **+1.9** |
| | comp=Z,17nm,1.7s | | | | | | |
| **TAPN** | **Taplejung** | **46.21** | **273** | *e*P | **P** | **06 16 38.8** | **+0.8** |
| **MLY** | **Manley** | **46.31** | **33** | *e*P | **P** | **06 16 39.6** | **+1.7** |
| | comp=Z,9.4nm,1.5s | | | | | | |
| **PDGK** | **Podgornoye** | **46.37** | **297** | P | **P** | **06 16 37.7** | **-1.1** |
| **SUA** | **Susitna One** | **46.37** | **38** | *e*P | **P** | **06 16 39.2** | **+0.6** |
| | comp=Z,27nm,1.5s | | | | | | |
| **RC01** | **Rabbit Creek A** | **46.88** | **38** | *e*P | **P** | **06 16 43.1** | **+0.8** |
| | comp=Z,59nm,2.0s | | | | | | |
| **JIRN** | **Jiri** | **47.25** | **274** | *e*P | **P** | **06 16 47.1** | **+0.9** |
| **RAMN** | **Ramite** | **47.27** | **273** | *e*P | **P** | **06 16 46.2** | **0.0** |
| **MDM** | **Murphy Dome** | **47.38** | **33** | *e*P | **P** | **06 16 47.6** | **+1.4** |
| | comp=Z,9.0nm,1.2s | | | | | | |
| **GUN** | **Gumba** | **47.38** | **274** | *e*P | **P** | **06 16 47.8** | **+0.7** |
| | comp=Z,12nm,0.4s | | | | | | |
| **SML** | **Sawmill** | **47.50** | **37** | *e*P | **P** | **06 16 48.1** | **+0.9** |
| SML | | | | pmax | pmax | | |
| | comp=Z,64nm,2.0s | | | | | | |
| **SML** | **Sawmill** | **47.50** | **37** | *e*P | **P** | **06 16 48.1** | **+0.9** |
| | comp=Z,64nm,2.0s | | | | | | |
| **COLA** | **College** | **47.54** | **33⇓** | *e*P | **P** | **06 16 48.4** | **+1.0** |
| COLA | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.6s | | | | | | |
| **CCB** | **Clear Creek Bu** | **47.57** | **33** | *e*P | **P** | **06 16 48.2** | **+0.5** |
| | comp=Z,13nm,1.7s | | | | | | |
| **IL1** | **Eielson Array** | **47.96** | **33** | *e*P | **P** | **06 16 51.2** | **+0.5** |
| **ILAR** | **Eielson Array** | **47.96** | **33** | P | **P** | **06 16 51.1** | **+0.4** |
| | comp=Z,2.2nm,0.8s,baz=267,slow=6.0,SNR=30 | | | | | | |
| **ILB** | **Eielson Array** | **47.96** | **33** | *e*P | **P** | **06 16 51.2** | **+0.5** |
| **SCM** | **Sheep Creek Mo** | **47.97** | **37** | *e*P | **P** | **06 16 52.0** | **+1.1** |
| SCM | | | | pmax | pmax | | |
| | comp=Z,89nm,2.0s | | | | | | |
| **SCM** | **Sheep Creek Mo** | **47.97** | **37** | *e*P | **P** | **06 16 52.0** | **+1.1** |
| | comp=Z,89nm,2.0s | | | | | | |
| **FID** | **Port Fidalgo** | **48.49** | **38** | *e*P | **P** | **06 16 55.9** | **+1.0** |
| | comp=Z,34nm,1.5s | | | | | | |
| **KLU** | **Klutina** | **48.67** | **37** | *e*P | **P** | **06 16 57.8** | **+1.5** |
| | comp=Z,22nm,1.5s | | | | | | |
| **EYAK** | **Cordova Ski Ar** | **48.88** | **39** | *e*P | **P** | **06 16 59.7** | **+1.9** |
| | comp=Z,44nm,1.5s | | | | | | |
| **TKM2** | **Tokmak 2** | **49.21** | **297** | *i* P | **P** | **06 17 00.4** | **-0.5** |
| TKM2 | | | | pmax | pmax | | |
| | comp=Z,11nm,1.1s | | | | | | |
| **KOLN** | **Koldanda** | **49.22** | **276** | *e*P | **P** | **06 17 01.7** | **+0.5** |
| **BMRM** | **Bremner River** | **49.38** | **38** | *e*P | **P** | **06 17 03.3** | **+1.6** |
| | comp=Z,54nm,1.8s | | | | | | |
| **MENT** | **Mentasta** | **49.52** | **35** | *e*P | **P** | **06 17 04.1** | **+1.3** |
| | comp=Z,5.2nm,1.0s | | | | | | |
| **PYUN** | **Piuthan** | **49.54** | **276** | *e*P | **P** | **06 17 03.6** | **0.0** |
| **BRVK** | **Borovoye** | **49.83** | **311⇑** | *i*P | **P** | **06 17 04.7** | **-0.5** |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.6s | | | | | | |
| **BRVK** | **Borovoye** | **49.83** | **311** | *e*P | **P** | **06 17 04.8** | **-0.5** |
| | comp=Z,6.1nm,0.6s | | | | | | |
| **AAK** | **Ala-Archa** | **50.07** | **297⇑** | *i*P | **P** | **06 17 07.4** | **0.0** |
| AAK | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.3s | | | | | | |
| **AAK** | **Ala-Archa** | **50.07** | **297** | *e*P | **P** | **06 17 06.9** | **-0.5** |
| | comp=Z,6.5nm,1.3s | | | | | | |
| **KSH** | **Kashi** | **50.10** | **293** | P | **P** | **06 17 10.4** | **+2.7** |
| KSH | | | | pP | sP | 06 17 25.4 | +1.2 |
| KSH | | | | PcP | **PcP** | **06 18 28.8** | **+2.0** |
| KSH | | | | PP | **PP** | **06 19 07.9** | **+5.1** |
| KSH | | | | S | **S** | **06 24 16.7** | **+0.4** |
| KSH | | | | ScS | **ScS** | **06 26 52.7** | **-2.9** |
| KSH | | | | SS | **SS** | **06 27 48.2** | **-1.3** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.4s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,110nm,5.0s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,190nm,8.1s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,220nm,5.8s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,170nm,6.9s | | | | | | |
| **MNAS** | **Manas** | **51.50** | **298** | *i* P | **P** | **06 17 17.1** | **-1.1** |
| MNAS | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.1s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **51.69** | **295** | P | **P** | **06 17 19.3** | **-0.4** |
| **KK31** | **Karatay Array** | **52.65** | **299** | *i* P | **P** | **06 17 25.1** | **-1.5** |
| KK31 | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.8s | | | | | | |
| **INK** | **Inuvik** | **52.80** | **28** | P | **P** | **06 17 26.8** | **-0.5** |
| | comp=Z,1.6nm,0.5s,baz=287,slow=6.4,SNR=19 | | | | | | |
| **INK** | **Inuvik** | **52.80** | **28** | *e*P | **P** | **06 17 28.0** | **+0.8** |
| INK | | | | pmax | pmax | | |
| | comp=Z,20nm,1.7s | | | | | | |
| **INK** | **Inuvik** | **52.80** | **28** | *e*P | **P** | **06 17 28.0** | **+0.8** |
| | comp=Z,20nm,1.7s | | | | | | |
| **HYT** | **Haines Junctio** | **52.81** | **37** | *e*P | **P** | **06 17 30.3** | **+2.8** |
| HYT | | | | *e*pP | **sP** | **06 17 42.7** | **-1.4** |
| **WHY** | **Whitehorse** | **54.09** | **37** | *e*P | **P** | **06 17 38.9** | **+2.0** |
| | comp=Z,20nm,1.5s | | | | | | |
| **SVE** | **Sverdlovsk** | **54.20** | **318** | *e*P | **P** | **06 17 37.5** | **-0.1** |
| SVE | | | | pmax | pmax | | |
| | comp=Z,24nm,0.7s | | | | | | |
| **ARU** | **Arti** | **55.41** | **318** | P | **P** | **06 17 46.0** | **-0.4** |
| | comp=Z,12nm,0.5s,baz=70,slow=4.4,SNR=28 | | | | | | |
| **DZET** | **Dzherino** | **55.49** | **295** | P | **P** | **06 17 45.6** | **-1.9** |
| **AB31** | **Akbulak array** | **57.20** | **309** | *i* P | **P** | **06 17 57.9** | **-1.4** |
| AB31 | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.5s | | | | | | |
| **AKTO** | **Aktyubinsk** | **57.89** | **311** | P | **P** | **06 18 03.5** | **-0.7** |
| | comp=Z,4.4nm,0.8s,baz=73,slow=14,SNR=15 | | | | | | |
| **WRAB** | **Tennant Creek** | **58.68** | **188⇓** | *e*P | P | 06 18 14.6 | +4.7 |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.9s | | | | | | |
| **WB2** | **Warramunga Arr** | **58.69** | **188** | *e*P | **P** | **06 18 09.0** | **-0.9** |
| | comp=Z,7.1nm,0.9s | | | | | | |
| **WRA** | **Warramunga Arr** | **58.69** | **188** | P | **P** | **06 18 08.7** | **-1.2** |
| | comp=Z,2.0nm,0.5s,baz=5.8,slow=7.0,SNR=14 | | | | | | |
| **LVZ** | **Lovozero** | **60.81** | **336** | *e*P | **P** | **06 18 24.4** | **+0.4** |
| LVZ | | | | pmax | pmax | | |
| | comp=Z,114nm,1.6s | | | | | | |
| **LVZ** | **Lovozero** | **60.81** | **336** | *e*P | **P** | **06 18 24.4** | **+0.4** |
| | comp=Z,114nm,1.6s | | | | | | |
| **YKA** | **Yellowknife Ar** | **62.25** | **31** | P | **P** | **06 18 33.6** | **-0.1** |
| | comp=Z,0.9nm,0.7s,baz=300,slow=6.1,SNR=12 | | | | | | |
| **AS01** | **Alice Springs** | **62.41** | **188** | *e*P | **P** | **06 18 34.7** | **-0.6** |
| **AS31** | **Alice Springs** | **62.42** | **188** | *e*P | **P** | **06 18 35.0** | **-0.4** |
| | comp=Z,1.0nm,0.8s | | | | | | |
| **ASAR** | **Alice Springs** | **62.42** | **188** | P | **P** | **06 18 34.5** | **-0.8** |
| | comp=Z,2.1nm,0.8s,baz=8.8,slow=5.9,SNR=17 | | | | | | |
| **KLMR** | **Klimovskoe** | **62.61** | **327** | *e*P | P | 06 18 21.3 | -15 |
| KLMR | | | | pmax | pmax | | |
| | comp=Z,14nm,1.3s | | | | | | |
| **ARCES** | **ARCESS Array B** | **62.63** | **339** | P | **P** | **06 18 36.5** | **+0.2** |
| | comp=Z,1.6nm,0.6s,baz=56,slow=6.2,SNR=9.4 | | | | | | |
| **ARCES** | **ARCESS Array B** | **62.63** | **339** | *e*P | **P** | **06 18 36.6** | **+0.3** |
| **ARCES** | **ARCESS Array B** | **62.63** | **339** | *e*P | **P** | **06 18 36.6** | **+0.3** |
| **TULEG** | **Thule** | **63.47** | **8** | *e*P | **P** | **06 18 41.9** | **+0.2** |
| | comp=Z,26nm,1.8s | | | | | | |
| **EIDS** | **Eidsvold** | **64.25** | **171** | *e*P | **P** | **06 18 47.7** | **+0.4** |
| | comp=Z,20nm,1.4s | | | | | | |
| **OBN** | **Obninsk** | **67.04** | **323⇑** | *e*P | **P** | **06 19 06.1** | **+1.0** |
| OBN | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.4s | | | | | | |
| **LTY** | **Liberty** | **67.30** | **47** | *e*P | **P** | **06 19 07.7** | **+0.7** |
| | comp=Z,11nm,1.5s | | | | | | |
| **FIA1** | **FINESS Array S** | **67.57** | **332** | *e*P | **P** | **06 19 08.6** | **+0.2** |
| | comp=Z,99nm,1.5s | | | | | | |
| **FINES** | **FINESS Array B** | **67.57** | **332** | P | **P** | **06 19 07.8** | **-0.6** |
| | comp=Z,3.5nm,0.7s,baz=35,slow=7.0,SNR=9.3 | | | | | | |
| **E08A** | **Dider Farm, El** | **68.64** | **47** | *e*P | **P** | **06 19 15.6** | **+0.2** |
| | comp=Z,36nm,1.9s | | | | | | |
| **YBH** | **Yreka Blue Hor** | **69.08** | **53** | *e*P | **P** | **06 19 19.6** | **+1.2** |
| YBH | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.2s | | | | | | |
| **YBH** | **Yreka Blue Hor** | **69.08** | **53** | *e*P | **P** | **06 19 19.6** | **+1.2** |
| | comp=Z,7.0nm,1.2s | | | | | | |
| **SUMG** | **Summit** | **69.09** | **0** | *e*P | **P** | **06 19 19.9** | **+1.7** |
| SUMG | | | | pmax | pmax | | |
| | comp=Z,42nm,1.9s | | | | | | |
| **SUMG** | **Summit** | **69.09** | **0** | *e*P | **P** | **06 19 19.9** | **+1.7** |
| | comp=Z,42nm,1.9s | | | | | | |

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VSU** | **Vasula** | **69.27** | **329**⇓ | *i*P | **P** | **06 19 19.0** | **0.0** |
| **NCK** | **Nalchik** | **69.86** | **310**⇓ | *e*P | **P** | **06 19 26.0** | **+3.0** |
| NCK | | | | pmax | pmax | | |
| | comp=Z,11nm,0.9s | | | | | | |
| **KIV** | **Kislovodsk** | **70.14** | **311** | *ce*P | **P** | **06 19 25.5** | **+0.7** |
| KIV | | | | *e* | | 06 19 35.9 | |
| KIV | | | | *e* | | 06 21 54.1 | |
| KIV | | | | pmax | pmax | | |
| | comp=Z,11nm,1.0s | | | | | | |
| **KBZ** | **Khabaz** | **70.14** | **310** | P | **P** | **06 19 24.2** | **-0.4** |
| | comp=Z,4.7nm,1.0s,baz=117,slow=4.0,SNR=6.4 | | | | | | |
| **STKA** | **Stephens Creek** | **70.15** | **180** | P | **P** | **06 19 23.5** | **-1.1** |
| | comp=Z,1.0nm,0.5s,baz=136,slow=6.9,SNR=3.1 | | | | | | |
| **STKA** | **Stephens Creek** | **70.15** | **180** | *e*P | **P** | **06 19 24.0** | **-0.6** |
| STKA | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.8s | | | | | | |
| **STKA** | **Stephens Creek** | **70.15** | **180** | *e*P | **P** | **06 19 24.0** | **-0.6** |
| | comp=Z,3.4nm,1.8s | | | | | | |
| **NEY** | **Neytrino** | **70.52** | **310**⇑ | *e*P | **P** | **06 19 28.4** | **+1.1** |
| NEY | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.5s | | | | | | |
| **JTMT** | **Jette** | **70.59** | **44** | *e*P | **P** | **06 19 27.4** | **-0.1** |
| | comp=Z,3.6nm,0.8s | | | | | | |
| **BEKR** | **Beckworth** | **71.61** | **53** | *e*P | **P** | **06 19 35.0** | **+1.0** |
| | comp=Z,3.2nm,0.6s | | | | | | |
| **FFC** | **Flin Flon** | **72.17** | **33** | *e*P | **P** | **06 19 37.0** | **+0.2** |
| FFC | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.3s | | | | | | |
| **FFC** | **Flin Flon** | **72.17** | **33** | *e*P | **P** | **06 19 37.0** | **+0.2** |
| | comp=Z,8.1nm,1.3s | | | | | | |
| **PAHR** | **Pah Rah Range** | **72.31** | **53** | *e*P | **P** | **06 19 39.1** | **+1.0** |
| | comp=Z,4.4nm,1.1s | | | | | | |
| **HRY** | **Holter Researc** | **72.55** | **44** | *e*P | **P** | **06 19 40.5** | **+1.2** |
| **NC405** | **NORSAR Array S** | **72.65** | **337** | *e*P | **P** | **06 19 39.6** | **+0.1** |
| **LRM** | **Limekiln Ridge** | **72.75** | **45** | *e*P | **P** | **06 19 42.0** | **+1.3** |
| **HFS** | **Hagfors** | **72.78** | **336** | P | **P** | **06 19 39.9** | **-0.4** |
| | comp=Z,2.0nm,0.4s,baz=81,slow=8.9,SNR=25 | | | | | | |
| **NC204** | **NORSAR Array S** | **72.81** | **338** | *e*P | **P** | **06 19 39.9** | **-0.6** |
| **NB201** | **NORSAR Array S** | **72.83** | **337** | *e*P | **P** | **06 19 42.3** | **+1.7** |
| **NB2** | **NORSAR Subarra** | **72.86** | **337** | P | **P** | **06 19 40.7** | **-0.1** |
| | comp=Z,4.1nm,0.9s,baz=35,slow=6.2 | | | | | | |
| **NOA** | **NORSAR Array B** | **72.86** | **337** | P | **P** | **06 19 40.5** | **-0.3** |
| | comp=Z,1.1nm,0.6s,baz=39,slow=5.9,SNR=5.2 | | | | | | |
| NOA | | | | LR | LR | 06 54 14.6 | |
| | comp=Z,89nm,21.1s,baz=300,slow=38 | | | | | | |
| **DLMT** | **Dillon** | **72.96** | **45** | *e*P | **P** | **06 19 43.0** | **+1.2** |
| | comp=Z,6.8nm,1.2s | | | | | | |
| **NBO00** | **NORSAR Array S** | **73.00** | **337** | *e*P | **P** | **06 19 41.8** | **+0.2** |
| **AKASG** | **Malin Array Be** | **73.26** | **322** | P | **P** | **06 19 42.5** | **-0.8** |
| | comp=Z,0.8nm,0.3s,baz=45,slow=6.4,SNR=10 | | | | | | |
| **AKBB** | **Malin Array Si** | **73.26** | **322** | *e*P | **P** | **06 19 43.2** | **-0.1** |
| AKBB | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.6s | | | | | | |
| **AKBB** | **Malin Array Si** | **73.26** | **322** | *e*P | **P** | **06 19 43.2** | **-0.1** |
| | comp=Z,7.9nm,0.6s | | | | | | |
| **KIEV** | **Kiev** | **73.27** | **322**⇓ | *e*P | **P** | **06 19 44.0** | **+0.7** |
| KIEV | | | | pmax | pmax | | |
| | comp=Z,16nm,2.4s | | | | | | |
| **KIEV** | **Kiev** | **73.27** | **322** | *e*P | **P** | **06 19 43.0** | **-0.3** |
| | comp=Z,6.1nm,1.0s | | | | | | |
| **AK11** | **Malin Array Si** | **73.30** | **322** | *e*P | **P** | **06 19 43.2** | **-0.4** |
| **BOZ** | **Bozeman (W)** | **73.35** | **45** | *e*P | **P** | **06 19 45.2** | **+1.1** |
| BOZ | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.0s | | | | | | |
| **BOZ** | **Bozeman (W)** | **73.35** | **45** | *e*P | **P** | **06 19 45.2** | **+1.1** |
| | comp=Z,4.7nm,1.0s | | | | | | |
| **YHB** | **Horse Butte** | **74.11** | **45** | *e*P | **P** | **06 19 49.7** | **+1.0** |
| **IMW** | **Indian Meadow** | **74.80** | **46** | *e*P | **P** | **06 19 54.4** | **+1.6** |
| | comp=Z,2.6nm,0.9s | | | | | | |
| **FXWY** | **Fox Creek** | **74.91** | **46** | *e*P | **P** | **06 19 55.6** | **+2.3** |
| | comp=Z,8.0nm,1.5s | | | | | | |
| **RLMT** | **Red Lodge** | **74.94** | **44** | *e*P | **P** | **06 19 54.6** | **+1.1** |
| | comp=Z,17nm,1.7s | | | | | | |
| **TPAW** | **Teton Pass** | **75.05** | **46** | *e*P | **P** | **06 19 55.9** | **+1.7** |
| | comp=Z,7.8nm,1.6s | | | | | | |
| **HVU** | **Hansel Valley** | **75.07** | **48** | *e*P | **P** | **06 19 55.8** | **+1.6** |
| HVU | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.9s | | | | | | |
| **HVU** | **Hansel Valley** | **75.07** | **48** | *e*P | **P** | **06 19 55.8** | **+1.6** |
| | comp=Z,3.0nm,0.9s | | | | | | |
| **DUG** | **Dugway, Tooele** | **76.04** | **50** | *e*P | **P** | **06 20 01.0** | **+1.2** |
| DUG | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.2s | | | | | | |
| **DUG** | **Dugway, Tooele** | **76.04** | **50** | *e*P | **P** | **06 20 01.0** | **+1.2** |
| | comp=Z,6.5nm,1.2s | | | | | | |
| **BW06** | **Boulder Array** | **76.29** | **46** | *e*P | **P** | **06 20 01.8** | **+0.4** |
| | comp=Z,14nm,1.9s | | | | | | |
| **PD31** | **Pinedale Array** | **76.29** | **46** | *e*P | **P** | **06 20 01.9** | **+0.6** |
| **PDAR** | **Pinedale Array** | **76.29** | **46** | P | **P** | **06 20 01.6** | **+0.2** |
| | comp=Z,2.2nm,0.7s,baz=258,slow=1.2,SNR=21 | | | | | | |
| **PDAR** | **Pinedale Array** | **76.29** | **46** | *e*P | **P** | **06 20 01.8** | **+0.4** |
| **MPU** | **Maple Canyon** | **76.85** | **49** | *e*P | **P** | **06 20 05.8** | **+1.3** |
| | comp=Z,5.0nm,1.0s | | | | | | |
| **BUR08** | **Bucovina Ar. S** | **77.27** | **322** | *e*P | **P** | **06 20 06.9** | **+0.3** |
| **STHS** | **Stebnicka Huta** | **77.86** | **325** | *e*P | **P** | **06 20 12.8** | **+3.1** |
| **STHS** | **Stebnicka Huta** | **77.86** | **325** | *e*P | **P** | **06 20 12.8** | **+3.1** |
| **ULM** | **Lac du Bonnet** | **77.97** | **34** | P | **P** | **06 20 10.0** | **-0.3** |
| | comp=Z,2.7nm,0.9s,baz=348,slow=8.0,SNR=2.9 | | | | | | |
| **ULM** | **Lac du Bonnet** | **77.97** | **34** | *e*P | **P** | **06 20 09.9** | **-0.4** |
| | comp=Z,26nm,1.5s | | | | | | |
| **BRTR** | **Keskin Array B** | **78.07** | **312** | P | **P** | **06 20 11.2** | **-0.1** |
| | comp=Z,0.3nm,0.4s,baz=112,slow=4.0,SNR=4.8 | | | | | | |
| **SRU** | **San Rafael Swe** | **78.09** | **49** | *e*P | **P** | **06 20 12.8** | **+1.4** |
| SRU | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.7s | | | | | | |
| **SRU** | **San Rafael Swe** | **78.09** | **49** | *e*P | **P** | **06 20 12.8** | **+1.4** |
| | comp=Z,3.9nm,0.7s | | | | | | |
| **BR231** | **Keskin MP Arra** | **78.50** | **312** | *e*P | **P** | **06 20 13.6** | **0.0** |
| **PV10** | **Paradox Valley** | **79.45** | **49** | *e*P | **P** | **06 20 20.8** | **+1.8** |
| **CLL** | **Collm** | **79.89** | **330** | *e*P | **P** | **06 20 20.0** | **-0.8** |
| **CLL** | **Collm** | **79.89** | **330** | *e*P | **P** | **06 20 20.0** | **-0.8** |
| **KHC** | **Kasperske Hory** | **81.37** | **329** | *e*P | **P** | **06 20 30.4** | **+1.6** |
| **KHC** | **Kasperske Hory** | **81.37** | **329** | *e*P | **P** | **06 20 30.4** | **+1.6** |
| **GERES** | **GERESS Array B** | **81.55** | **328** | P | **P** | **06 20 29.9** | **0.0** |
| | comp=Z,0.5nm,0.5s,baz=30,slow=6.2,SNR=5.7 | | | | | | |
| **GEA0** | **GERESS Array S** | **81.55** | **328** | *e*P | **P** | **06 20 30.5** | **+0.6** |
| **ANMO** | **Albuquerque** | **83.28** | **50**⇑ | *i*P | **P** | **06 20 40.6** | **+1.3** |
| ANMO | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.7s | | | | | | |
| **TXAR** | **Lajitas Array** | **88.86** | **53** | P | **P** | **06 21 06.7** | **0.0** |
| | comp=Z,0.6nm,0.7s,baz=238,slow=5.2,SNR=3.3 | | | | | | |
| **ESDC** | **Sonseca Array** | **96.02** | **334** | LR | LR | 07 10 54.2 | |
| | comp=Z,71nm,19.1s,baz=295,slow=39 | | | | | | |
| **LPAZ** | **La Paz** | **145.56** | **58** | PKPbc | **PKPdf** | **06 27 51.5** | **0.0** |
| | comp=Z,1.6nm,0.9s,baz=0.1,slow=6.0,SNR=7.0 | | | | | | |
| **MNMC** | **Minye Minye** | **146.53** | **63** | *e*PKPbc | **PKPbc** | **06 27 54.9** | **+0.8** |
| **PB11** | **IPOC Station P** | **146.90** | **64** | *e*PKPbc | **PKPbc** | **06 27 56.1** | **+1.1** |
| **LCO** | **Las Campanas** | **151.41** | **80** | *e*PKPbc | **PKPbc** | **06 28 07.0** | **+0.6** |

**IDC 10 06:11:46.8**±9.2**, 6°.71S**×**128°.63E, h256**km±103km**, mb3.0**/1**, mb1 3.0**/4**, mb1mx2.7**/41**, mbtmp3.6**/4**, Error ellipse: s-maj=70.8km s-min=36.8km az=46.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **11.69** | **194** | P | Pn | 06 14 26.9 | +0.4 |
| | 0.6nm,0.3s,baz=30,slow=13,SNR=19 | | | | | | |
| FITZ | | | | S | S | 06 16 37.4 | +0.3 |
| | 0.1nm,0.3s,baz=66,slow=20,SNR=2.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **14.28** | **158** | P | Pn | 06 14 57.5 | -0.7 |
| | 0.2nm,0.3s,baz=337,slow=12,SNR=10 | | | | | | |
| WRA | | | | S | S | 06 17 32.3 | -3.8 |
| | 0.2nm,0.3s,baz=330,slow=21,SNR=5.4 | | | | | | |
| **ASAR** | **Alice Springs** | **17.61** | **164** | P | P | 06 15 35.5 | +0.6 |
| | 0.3nm,0.3s,baz=335,slow=9.0,SNR=10.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.24** | **327** | P | P | 06 22 13.6 | -0.2 |
| | 0.2nm,0.5s,baz=118,slow=7.1,SNR=4.2 | | | | | | |

*CSEM **10** 06:11:54.4±0.8, 38°.56N×42°.99E, h20km, MD2.5, Error ellipse: s-maj=19.0km s-min=10.7km az=92.0*
*ISK **10** 06:11:55.5, 38°.65N×43°.23E, h27km, ML2.0*
*DDA **10** 06:11:57.9, 38°.41N×43°.63E, h7km, Md2.5*
**ISC 10 06:11:57.4**±1.0**, 38°.58N**±0°.04×**43°.34E**±0°.07**, h28**km±5km**, n17, σ1°.81**/27**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.04** | **71** | PG | **Pb** | **06 12 02.1** | **-0.2** |
| VANB | | | | *e*SG | **Sb** | **06 12 05.8** | **+0.1** |
| **VANB** | **Van** | **0.04** | **71** | *i* Pg | **Pb** | **06 12 02.1** | **-0.2** |
| VANB | | | | *e*Sg | **Sb** | **06 12 05.8** | **+0.1** |
| **TVAN** | **Van** | **0.08** | **133** | *i* P | **Pb** | **06 12 02.1** | **-0.5** |
| TVAN | | | | *i* S | **Sb** | **06 12 06.1** | **0.0** |
| **TVAN** | **Van** | **0.08** | **133** | P | **Pb** | **06 12 02.1** | **-0.5** |
| TVAN | | | | S | **Sb** | **06 12 06.1** | **0.0** |
| **GEVA** | **Gevas** | **0.34** | **219** | *i* P | **Pn** | **06 12 07.2** | **+0.5** |
| GEVA | | | | *i* S | **Sn** | **06 12 17.0** | **+4.2** |
| **VMUR** | **Van-Muradiye** | **0.45** | **24** | *i* P | **Pn** | **06 12 09.2** | **+1.0** |
| VMUR | | | | *i* S | **Sn** | **06 12 18.5** | **+3.1** |
| **VMUR** | **Van-Muradiye** | **0.45** | **24** | P | **Pn** | **06 12 09.2** | **+1.0** |
| **CLDR** | **Caldiran** | **0.72** | **39** | *e*PG | **Pb** | **06 12 10.6** | **-1.0** |
| **CLDR** | **Caldiran** | **0.72** | **39** | *i* P | **Pn** | **06 12 11.7** | **-0.3** |
| CLDR | | | | *i* S | **Sn** | **06 12 24.2** | **+1.9** |
| **CLDR** | **Caldiran** | **0.72** | **39** | *e*Pg | **Pb** | **06 12 10.6** | **-1.0** |
| **CLDR** | **Caldiran** | **0.72** | **39** | P | **Pn** | **06 12 11.7** | **-0.3** |
| CLDR | | | | S | **Sn** | **06 12 24.2** | **+1.9** |
| **AGRB** | **Hanur-Agry** | **1.03** | **345** | *e*PG | **Pn** | **06 12 12.9** | **-3.3** |
| **AGRB** | **Hanur-Agry** | **1.03** | **345** | *e*Pg | **Pn** | **06 12 12.9** | **-3.3** |
| **HAKT** | **HAKKARI** | **1.06** | **164** | *i* P | **Pn** | **06 12 14.5** | **-2.2** |
| HAKT | | | | *i* S | **Sb** | **06 12 29.3** | **-1.6** |
| **HAKT** | **HAKKARI** | **1.06** | **164** | P | **Pn** | **06 12 14.5** | **-2.2** |
| HAKT | | | | S | **Sb** | **06 12 29.3** | **-1.6** |
| **CUKT** | **Cukurca** | **1.35** | **171** | *e*PN | **Pn** | **06 12 20.3** | **-0.2** |
| **CUKT** | **Cukurca** | **1.35** | **171** | *e*Pn | **Pn** | **06 12 20.3** | **-0.2** |

*ISCJB **10** 06:26:30.9±0.2, 61°.04N±0°.02×152°.23W±0°.04, h123km±2km, mb4.1/10, Error ellipse: s-maj=3.4km s-min=2.7km az=35.6*
*IDC **10** 06:26:31.3±1.4, 60°.95N×152°.14W, h111km±17km, mb3.5/5, mb1 3.8/9, mb1mx3.2/54, mbtmp4.0/9, MS3.3/2, Ms1 3.3/2, ms1mx2.7/43, Error ellipse: s-maj=26.5km s-min=13.0km az=110.0*
*NEIC **10** 06:26:32.8±0.0, 61°.05N×152°.30W, h113km, mb4.1/4, After AEIC.*
*NEIC Felt at Anchorage, Chugiak and Palmer.*
**ISC 10 06:26:32.5**±0.6**, 61°.04N**±0°.03×**152°.26W**±0°.04**, h117**km±5km**, n122, σ1°.38**/155**, mb4.1**/10**, Southern Alaska**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CKL** | **Chakachamna La** | **0.16** | **346** | P | **Pn** | **06 26 48.1** | **-0.7** |
| **CKT** | **Bend** | **0.16** | **9** | P | **Pn** | **06 26 48.0** | **-0.8** |
| CKT | | | | S | **Sn** | **06 27 00.4** | **-0.7** |
| **SPU** | **Mount Spurr** | **0.17** | **35** | *e*Pn | **Pn** | **06 26 47.9** | **-0.9** |
| SPU | | | | *e*Sn | **Sn** | **06 27 00.7** | **-0.4** |
| **SPCP** | **Crater Peak Br** | **0.23** | **13** | P | **Pn** | **06 26 48.5** | **-0.6** |
| SPCP | | | | S | **Sn** | **06 27 00.4** | **-1.2** |
| **SPWE** | **Spurr West** | **0.27** | **328** | P | **Pn** | **06 26 48.6** | **-0.5** |
| **SPCG** | **Spurr Capps Gl** | **0.27** | **25** | P | **Pn** | **06 26 48.4** | **-0.8** |
| SPCG | | | | S | **Sn** | **06 27 01.1** | **-0.6** |
| **CGLM** | **Capps Glacier** | **0.29** | **24** | P | **Pn** | **06 26 48.4** | **-0.8** |
| **NCG** | **North Capps Gl** | **0.36** | **8** | P | **Pn** | **06 26 48.8** | **-0.7** |
| **DFR** | **Drift River** | **0.50** | **205** | P | **Pn** | **06 26 49.2** | **-1.1** |
| DFR | | | | S | **Sn** | **06 27 02.4** | **-1.2** |
| **STLK** | **Strandline Lak** | **0.50** | **24** | P | **Pn** | **06 26 49.5** | **-0.7** |
| **RDJH** | **Redoubt Jeurge** | **0.53** | **211** | P | **Pn** | **06 26 49.6** | **-0.8** |
| RDJH | | | | S | **Sn** | **06 27 02.8** | **-1.2** |
| **RDWB** | **Redoubt West** | **0.63** | **207** | P | **Pn** | **06 26 50.2** | **-1.0** |
| RDWB | | | | S | **Sn** | **06 27 04.1** | **-1.1** |
| **RSO** | **Redoubt South** | **0.63** | **203** | *e*Pn | **Pn** | **06 26 50.7** | **-0.6** |
| **RED** | **Redoubt Volcan** | **0.68** | **202** | P | **Pn** | **06 26 50.5** | **-1.0** |
| **SUA** | **Susitna One** | **0.84** | **59** | P | **Pn** | **06 26 52.7** | **-0.2** |
| SUA | | | | S | **Sn** | **06 27 08.3** | **0.0** |
| **VOGL** | **Vogel Lake** | **0.89** | **92** | P | **Pn** | **06 26 54.3** | **+1.2** |
| **SKT** | **Skwentna** | **1.00** | **20** | P | **Pn** | **06 26 54.1** | **-0.2** |
| SKT | | | | S | **Sn** | **06 27 10.6** | **-0.3** |
| **FIB** | **Fire Island** | **1.02** | **82** | P | **Pn** | **06 26 55.2** | **+0.8** |
| FIB | | | | S | **Sn** | **06 27 13.1** | **+2.2** |
| **IVE** | **Iliamna Volcan** | **1.10** | **200** | P | **Pn** | **06 26 54.6** | **-0.8** |
| **SLKM** | **Skilak Lake** | **1.14** | **117** | P | **Pn** | **06 26 55.2** | **-0.5** |
| **ILS** | **Iliamna Low So** | **1.16** | **201** | P | **Pn** | **06 26 55.4** | **-0.7** |
| **RC01** | **Rabbit Creek A** | **1.23** | **87** | P | **Pn** | **06 26 56.4** | **-0.2** |
| RC01 | | | | S | **Sn** | **06 27 14.4** | **-0.5** |
| **HOM** | **Homer** | **1.42** | **167** | *e*Pn | **Pn** | **06 26 58.9** | **+0.1** |
| HOM | | | | *e*Sn | **Sn** | **06 27 20.8** | **+2.0** |
| **BRLK** | **Bradley Lake** | **1.45** | **151** | P | **Pn** | **06 26 58.4** | **-0.8** |
| BRLK | | | | S | **Sn** | **06 27 18.9** | **-0.6** |
| **PMR** | **Palmer** | **1.60** | **69** | P | **Pn** | **06 26 59.9** | **-0.9** |
| **CNPM** | **China Poot** | **1.61** | **161** | P | **Pn** | **06 27 00.2** | **-0.7** |
| CNPM | | | | S | **Sn** | **06 27 21.4** | **-1.3** |
| **SVW2** | **Sparrevohn** | **1.62** | **273** | P | **Pn** | **06 26 59.9** | **-1.2** |
| SVW2 | | | | S | **Sn** | **06 27 20.7** | **-2.2** |
| **SEW** | **Seward** | **1.68** | **123** | P | **Pn** | **06 27 00.9** | **-0.8** |
| **GHO** | **Glory Hole Cre** | **1.76** | **64** | P | **Pn** | **06 27 02.1** | **-0.8** |
| GHO | | | | S | **Sn** | **06 27 25.1** | **-1.0** |
| **AUE** | **Augustine Isla** | **1.78** | **199** | P | **Pn** | **06 27 02.5** | **-0.5** |
| **AUW** | **Augustine West** | **1.79** | **200** | P | **Pn** | **06 27 02.9** | **-0.2** |
| **PPLA** | **Purkeypile** | **1.86** | **1** | P | **Pn** | **06 27 04.1** | **0.0** |
| PPLA | | | | S | **Sn** | **06 27 28.4** | **0.0** |
| **KNK** | **Knik Glacier** | **1.88** | **77** | P | **Pn** | **06 27 03.4** | **-0.8** |
| KNK | | | | S | **Sn** | **06 27 28.1** | **-0.3** |
| **SML** | **Sawmill** | **2.04** | **66** | P | **Pn** | **06 27 05.2** | **-1.0** |
| **CDD** | **Cape Douglas** | **2.23** | **199** | P | **Pn** | **06 27 08.0** | **-0.8** |
| **FOSS** | **Fourpeaked Sta** | **2.37** | **198** | P | **Pn** | **06 27 09.8** | **-0.7** |
| **FOPK** | **Fourpeaked Vol** | **2.37** | **196** | P | **Pn** | **06 27 09.6** | **-1.0** |
| **CAST** | **Castle Rocks** | **2.38** | **2** | P | **Pn** | **06 27 10.2** | **-0.5** |
| CAST | | | | S | **Sn** | **06 27 38.9** | **-1.1** |
| **SCM** | **Sheep Creek Mo** | **2.50** | **69** | *e*Pn | **Pn** | **06 27 11.3** | **-0.8** |
| SCM | | | | *e*Sn | **Sn** | **06 27 41.6** | **-1.0** |
| **GLI** | **Glacier Island** | **2.52** | **91** | P | **Pn** | **06 27 10.4** | **-2.0** |
| **TT01** | **Tatalina** | **2.58** | **318** | P | **Pn** | **06 27 12.4** | **-0.7** |
| **TRF** | **Thorofare Moun** | **2.58** | **20** | P | **Pn** | **06 27 12.9** | **-0.5** |
| **TTA** | **Tatalina** | **2.59** | **319** | P | **Pn** | **06 27 12.6** | **-0.8** |
| **KTH** | **Kantishna Hill** | **2.59** | **13** | *e*Pn | **Pn** | **06 27 12.8** | **-0.6** |
| KTH | | | | *e*Sn | **Sn** | **06 27 44.6** | **-0.3** |
| **KAPH** | **Katmai Pasha** | **2.67** | **204** | P | **Pn** | **06 27 14.2** | **-0.2** |
| **JPK** | **Jack Peak** | **2.75** | **87** | P | **Pn** | **06 27 13.9** | **-1.5** |
| **KAHC** | **Katmai Hardscr** | **2.77** | **211** | P | **Pn** | **06 27 15.2** | **-0.6** |
| **FID** | **Port Fidalgo** | **2.84** | **93** | P | **Pn** | **06 27 14.1** | **-2.5** |
| **KARR** | **Katmai Rainbow** | **2.84** | **207** | P | **Pn** | **06 27 16.4** | **-0.1** |
| **RND** | **Reindeer** | **2.86** | **32** | *e*Pn | **Pn** | **06 27 16.6** | **-0.2** |
| RND | | | | *e*Sn | **Sn** | **06 27 50.5** | **-0.4** |
| **VMT** | **TAPS Tl Valdez** | **2.86** | **87** | P | **Pn** | **06 27 15.7** | **-1.1** |
| **DHY** | **Denali Highway** | **3.07** | **46** | P | **Pn** | **06 27 19.4** | **-0.3** |
| **KVTA** | **Katmai Vly 10** | **3.08** | **211** | P | **Pn** | **06 27 19.5** | **-0.3** |
| **KLU** | **Klutina** | **3.09** | **79** | P | **Pn** | **06 27 18.8** | **-1.1** |
| **MCK** | **McKinley** | **3.11** | **28** | P | **Pn** | **06 27 19.5** | **-0.5** |
| **BPAW** | **Bear Paw Mtn.** | **3.12** | **10** | P | **Pn** | **06 27 19.1** | **-1.2** |
| **DIV** | **Divide** | **3.15** | **86** | P | **Pn** | **06 27 19.4** | **-1.3** |
| **KELA** | **Mount Kelaz** | **3.15** | **216** | P | **Pn** | **06 27 20.1** | **-0.7** |
| **KABU** | **Katmai Buttres** | **3.18** | **210** | P | **Pn** | **06 27 21.1** | **0.0** |
| **EYAK** | **Cordova Ski Ar** | **3.23** | **96** | P | **Pn** | **06 27 19.7** | **-1.9** |
| **KABR** | **Katmai Barrier** | **3.23** | **206** | P | **Pn** | **06 27 21.5** | **-0.3** |
| **KDAK** | **Kodiak Island** | **3.28** | **183** | P | **Pn** | **06 27 20.0** | **-2.2** |
| | 8.7nm,0.3s,baz=14,slow=12,SNR=226 | | | | | | |
| KDAK | | | | S | **Sn** | **06 27 57.3** | **-3.3** |
| | 15nm,0.3s,baz=293,slow=22,SNR=9.3 | | | | | | |
| **MID** | **Middleton Isla** | **3.37** | **116** | *e*Pn | **Pn** | **06 27 22.6** | **-0.8** |
| **PS11** | **TAPS Pump St11** | **3.41** | **69** | P | **Pn** | **06 27 24.1** | **+0.1** |
| **HARP** | **HAARP** | **3.65** | **65** | P | **Pn** | **06 27 27.4** | **+0.2** |
| **BMRM** | **Bremner River** | **3.73** | **88** | P | **Pn** | **06 27 26.5** | **-1.8** |
| **PAX** | **Paxson** | **3.74** | **56** | *e*Pn | **Pn** | **06 27 28.8** | **+0.3** |
| PAX | | | | *e*Sn | **Sn** | **06 28 11.0** | **-0.8** |
| **RAGM** | **Ragged Mountai** | **3.78** | **97** | *e*Pn | **Pn** | **06 27 27.1** | **-2.0** |
| RAGM | | | | *e*Sn | **Sn** | **06 28 13.0** | **+0.1** |
| **OHAK** | **Old Harbor** | **3.87** | **188** | P | **Pn** | **06 27 27.5** | **-2.6** |
| **PLK4** | **Peulik 4** | **4.01** | **213** | P | **Pn** | **06 27 32.4** | **+0.2** |
| **MLY** | **Manley** | **4.06** | **9** | P | **Pn** | **06 27 31.5** | **-1.2** |
| **CCB** | **Clear Creek Bu** | **4.15** | **27** | P | **Pn** | **06 27 32.4** | **-1.5** |
| **NICHA** | **Nichawak Mount** | **4.16** | **98** | P | **Pn** | **06 27 31.7** | **-2.3** |
| **HDA** | **Harding Lake** | **4.17** | **34** | P | **Pn** | **06 27 33.5** | **-0.6** |
| **PS08** | **TAPS Pump Stn8** | **4.31** | **33** | P | **Pn** | **06 27 35.3** | **-0.6** |
| **MDM** | **Murphy Dome** | **4.34** | **23** | P | **Pn** | **06 27 35.2** | **-1.2** |
| **COLA** | **College** | **4.34** | **26** | P | **Pn** | **06 27 35.5** | **-0.9** |
| **MENT** | **Mentasta** | **4.45** | **61** | P | **Pn** | **06 27 37.7** | **-0.3** |
| **GRIN** | **Grindle Hills** | **4.46** | **96** | P | **Pn** | **06 27 36.1** | **-2.0** |
| **IL1** | **Eielson Array** | **4.47** | **31** | *e*Pn | **Pn** | **06 27 37.3** | **-0.9** |
| IL1 | | | | *e*Sn | **Sn** | **06 28 28.9** | **-0.3** |
| **ILAR** | **Eielson Array** | **4.47** | **31** | P | **Pn** | **06 27 37.0** | **-1.1** |
| | 19nm,0.3s,baz=213,slow=13,SNR=501 | | | | | | |
| ILAR | | | | S | **Sn** | **06 28 24.1** | **-5.1** |
| | 22nm,0.3s,baz=216,slow=26,SNR=10 | | | | | | |
| ILAR | | | | LR | LR | 06 29 20.6 | |
| | comp=Z,211nm,21.1s,baz=109,slow=37 | | | | | | |
| **ILB** | **Eielson Array** | **4.47** | **31** | P | **Pn** | **06 27 37.2** | **-0.9** |
| **GLM** | **Gilmore Dome** | **4.54** | **27** | P | **Pn** | **06 27 38.8** | **-0.3** |
| **ISLE** | **Juniper Island** | **4.88** | **91** | P | **Pn** | **06 27 42.2** | **-1.6** |
| **IM3** | **Indian Mountai** | **5.00** | **353** | P | **Pn** | **06 27 44.6** | **-0.7** |
| **IMAR** | **Indian Mountai** | **5.00** | **353** | *e*Pn | **Pn** | **06 27 45.0** | **-0.3** |
| **BCA3** | **Beaver Creek A** | **5.33** | **63** | P | **Pn** | **06 27 49.6** | **-0.1** |
| **RKAV** | **Rock Avalanche** | **5.42** | **93** | P | **Pn** | **06 27 50.2** | **-0.8** |
| **BVCY** | **Beaver Creek** | **5.59** | **71** | P | **Pn** | **06 27 53.8** | **+0.5** |
| **CHGN** | **Chignik** | **5.74** | **217** | *e*Pn | **Pn** | **06 27 54.5** | **-0.7** |
| **PS05** | **TAPS Pump Stn5** | **5.83** | **6** | P | **Pn** | **06 27 55.8** | **-0.7** |
| **COLD** | **Coldfoot** | **6.27** | **7** | *e*Pn | **Pn** | **06 28 01.9** | **-0.5** |
| **EGAK** | **Eagle** | **6.30** | **49** | *e*Pn | **Pn** | **06 28 02.2** | **-0.6** |
| **FYU** | **Fort Yukon** | **6.35** | **26** | *e*Pn | **Pn** | **06 28 02.6** | **-0.8** |
| **DAWY** | **Dawson** | **6.67** | **57** | *e*Pn | **Pn** | **06 28 08.1** | **+0.2** |
| **HYT** | **Haines Junctio** | **7.19** | **85** | *e*Pn | **Pn** | **06 28 15.1** | **+0.1** |
| HYT | | | | *e*Sn | **Sn** | **06 29 34.7** | **-0.4** |
| **WHY** | **Whitehorse** | **8.49** | **85** | *e*Pn | **Pn** | **06 28 31.8** | **-0.7** |
| WHY | | | | *e*Sn | **Sn** | **06 30 04.9** | **-1.6** |
| **SKAG** | **Skagway** | **8.56** | **93** | *e*Pn | **Pn** | **06 28 33.5** | **+0.1** |
| SKAG | | | | *e*Sn | **Sn** | **06 30 16.7** | **+8.6** |
| **BESE** | **Bessie Mountai** | **9.11** | **98** | *e*Pn | **Pn** | **06 28 41.1** | **+0.3** |
| **SIT** | **Sitka** | **9.59** | **107** | *e*Pn | **Pn** | **06 28 46.7** | **-0.5** |
| **INK** | **Inuvik** | **10.79** | **40** | P | **Pn** | **06 29 03.1** | **-0.2** |
| | 1.8nm,0.3s,baz=257,slow=13,SNR=72 | | | | | | |
| INK | | | | S | **Sn** | **06 30 59.3** | **-2.6** |
| | 0.5nm,0.3s,baz=311,slow=7.8,SNR=4.4 | | | | | | |
| **INK** | **Inuvik** | **10.79** | **40** | *e*Pn | **Pn** | **06 29 02.3** | **-1.0** |
| INK | | | | S | **Sn** | **06 30 59.3** | **-2.6** |
| **DLBC** | **Dease Lake** | **11.50** | **93** | *e*Pn | **Pn** | **06 29 13.3** | **+0.4** |
| **CRAG** | **Craig** | **11.50** | **111** | *e*Pn | **Pn** | **06 29 13.4** | **+0.6** |
| CRAG | | | | *e*Sn | **Sn** | **06 31 20.2** | **+1.0** |
| **DIB** | **Dawson Inlet,** | **13.26** | **117** | *e*P | **P** | **06 29 40.6** | **-0.8** |
| **YKW3** | **Yellowknife Ar** | **17.69** | **69** | *e*P | **Pn** | **06 30 31.4** | **+0.4** |
| | 8.4nm,1.8s | | | | | | |
| **YKA** | **Yellowknife Ar** | **17.71** | **69** | P | **Pn** | **06 30 31.1** | **-0.1** |
| | 0.2nm,0.3s,baz=279,slow=10,SNR=25 | | | | | | |
| YKA | | | | ScP | **ScP** | **06 38 25.8** | **-0.3** |
| | 0.0nm,0.3s,baz=289,slow=2.4,SNR=5.9 | | | | | | |
| **SMY** | **Shemya** | **19.97** | **261** | *e*P | **P** | **06 30 54.2** | **-1.0** |
| | 443nm,1.5s | | | | | | |
| **RES** | **Resolute Bay** | **24.22** | **33** | P | **P** | **06 31 38.0** | **+0.2** |
| | 2.1nm,0.8s,baz=253,slow=12,SNR=7.2 | | | | | | |
| **MA2** | **Magadan** | **27.50** | **292** | LR | LR | 06 42 29.5 | |
| | comp=Z,90nm,19.3s,baz=354,slow=35 | | | | | | |
| **YHB** | **Horse Butte** | **29.03** | **105** | *e*P | **P** | **06 32 19.2** | **-2.1** |
| | 3.0nm,0.7s | | | | | | |
| **YHH** | **Holmes Hill** | **29.16** | **105** | *e*P | **P** | **06 32 21.4** | **-1.3** |
| | 7.2nm,1.7s | | | | | | |
| **AHID** | **Auburn Hatcher** | **30.59** | **108** | *e*P | **P** | **06 32 33.2** | **-2.0** |
| | 12nm,0.5s | | | | | | |
| **ARCES** | **ARCESS Array B** | **49.70** | **1** | P | **P** | **06 35 10.9** | **-0.9** |
| | 2.9nm,0.9s,baz=348,slow=8.3,SNR=3.0 | | | | | | |
| **SONM** | **Songino Array** | **54.48** | **306** | P | **P** | **06 35 48.5** | **+1.0** |
| | 2.2nm,0.7s,baz=42,slow=7.2,SNR=14 | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **58.03** | **297** | *e*P | **P** | **06 36 15.0** | **+2.1** |
| HHC | | | | S | **S** | **06 44 03.1** | **-1.1** |
| HHC | | | | sS | sS | 06 44 50.3 | -2.2 |
| **HHC** | **Hu-ho-hao-te** | **58.03** | **297** | SS | SS | 06 47 57.4 | +1.0 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.0s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,88nm,5.2s | | | | | | |
| **BVAR** | **Borovoye Array** | **61.31** | **332** | P | **P** | **06 36 34.9** | **-0.1** |
| | comp=Z,0.2nm,0.3s,baz=30,slow=12,SNR=3.7 | | | | | | |
| **KURK** | **Kurchatov** | **61.37** | **326** | P | **P** | **06 36 36.0** | **+0.6** |
| **KURBB** | **Kurchatov Arra** | **61.48** | **326** | P | **P** | **06 36 36.0** | **-0.1** |
| | comp=Z,0.4nm,0.6s,baz=27,slow=7.3,SNR=3.9 | | | | | | |
| **WMQ** | **Urumqi** | **64.76** | **316** | *e*P | **P** | **06 37 02.3** | **+4.3** |
| **KMI** | **Kunming** | **75.25** | **295** | P | **P** | **06 38 03.8** | **+1.3** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.5s | | | | | | |

**IDC 10 06:29:38.8**±2.6**, 54°.17N**×**86°.35E, h0**km**, mb1 2.7**/2**, mb1mx2.6**/51**, mbtmp2.7**/2**, ML2.5**/2**, Error ellipse: s-maj=19.6km s-min=11.8km az=61.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **I46RU** | **ZALESOVO INFRA** | **0.93** | **257** | *i* | | 06 35 10.0 | |
| | baz=74,slow=331,SNR=11 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **0.93** | **257** | Pg | Pg | 06 29 55.5 | -1.2 |
| | 1.4nm,0.3s,baz=74,slow=17,SNR=18 | | | | | | |
| ZALV | | | | Lg | Lg | 06 30 09.9 | |
| | 2.7nm,0.3s,baz=78,slow=31,SNR=18 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **5.96** | **237** | Pn | Pn | 06 31 08.9 | +0.7 |
| | 0.1nm,0.3s,baz=54,slow=14,SNR=5.6 | | | | | | |
| KURBB | | | | Lg | Lg | 06 32 50.6 | |
| | 0.0nm,0.3s,baz=56,slow=30,SNR=3.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **7.83** | **201** | Pn | Pn | 06 31 35.2 | +1.3 |
| | 0.1nm,0.3s,baz=21,slow=11,SNR=6.4 | | | | | | |

**IDC 10 06:39:56.2**±2.6**, 54°.30N**×**85°.98E, h0**km**, mb1 2.7**/2**, mb1mx2.5**/50**, mbtmp2.7**/2**, ML2.4**/2**, Error ellipse: s-maj=19.3km s-min=11.0km az=53.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **I46RU** | **ZALESOVO INFRA** | **0.77** | **243** | *i* | | 06 44 20.0 | |
| | baz=61,slow=330,SNR=1.8 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **0.77** | **243** | Pg | Pg | 06 40 10.1 | -0.8 |
| | 0.5nm,0.3s,baz=62,slow=16,SNR=10 | | | | | | |
| ZALV | | | | Lg | Lg | 06 40 22.3 | |
| | 2.1nm,0.3s,baz=64,slow=29,SNR=14 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **5.86** | **234** | Pn | Pn | 06 41 24.5 | +0.3 |
| | 0.1nm,0.3s,baz=54,slow=13,SNR=5.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **7.88** | **199** | Pn | Pn | 06 41 53.4 | +1.4 |
| | 0.1nm,0.3s,baz=26,slow=14,SNR=5.9 | | | | | | |

**IDC 10 06:41:57.7**±8.5**, 17°.17S**×**178°.86W, h546**km±100km**, mb3.2**/5**, mb1 3.5**/5**, mb1mx2.9**/31**, mbtmp4.1**/5**, Error ellipse: s-maj=97.6km s-min=33.1km az=158.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **STKA** | **Stephens Creek** | **38.61** | **240** | P | P | 06 48 34.2 | -0.2 |
| | 2.3nm,0.6s,baz=84,slow=9.0,SNR=8.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.34** | **259** | P | P | 06 49 19.7 | -0.2 |
| | 1.1nm,0.6s,baz=98,slow=7.2,SNR=12 | | | | | | |
| **ASAR** | **Alice Springs** | **44.58** | **254** | P | P | 06 49 21.6 | -0.1 |
| | 12nm,0.6s,baz=88,slow=8.1,SNR=167 | | | | | | |
| ASAR | | | | PcP | PcP | 06 50 52.1 | -0.8 |
| | 0.5nm,0.4s,baz=104,slow=3.9,SNR=4.1 | | | | | | |
| **TXAR** | **Lajitas Array** | **85.97** | **58** | P | P | 06 53 41.4 | +0.7 |
| | 0.6nm,0.8s,baz=255,slow=6.4,SNR=2.8 | | | | | | |
| **PDAR** | **Pinedale Array** | **87.12** | **44** | P | P | 06 53 45.0 | -1.0 |
| | 0.2nm,0.5s,baz=212,slow=3.2,SNR=3.2 | | | | | | |
| **GERES** | **GERESS Array B** | **146.79** | **345** | PKPbc | PKPbc | 07 00 38.4 | -0.4 |
| | 0.3nm,0.5s,baz=15,slow=4.6,SNR=3.1 | | | | | | |

*CSEM **10** 06:56:33.3, 38°.22N×26°.57W, h0km, ML2.0*
**PDA 10 06:56:33.3**±1.5**, 38°.22N**×**26°.57W, h0**km±9km**, MD3.5, ML2.0, Error ellipse: s-maj=12.9km s-min=2.6km az=36.0, Azores Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ADH** | **Angra Heroismo** | **0.68** | **310** | *e*P | Pg | 06 56 45.1 | -1.2 |
| ADH | | | | *e*S | Sg | 06 56 54.1 | -1.1 |
| ADH | | | | A | A | 06 56 54.5 | |
| | 38nm,0.2s | | | | | | |
| **ADH** | **Angra Heroismo** | **0.68** | **310** | *e*P | Pg | 06 56 45.1 | -1.2 |
| ADH | | | | *e*S | Sg | 06 56 54.1 | -1.1 |
| **PSET** | **Sete Cidades** | **0.78** | **120** | *e*P | Pg | 06 56 46.2 | -2.0 |
| PSET | | | | *e*S | Sg | 06 56 56.4 | -1.9 |
| PSET | | | | A | A | 06 56 57.6 | |
| | 18nm,0.4s | | | | | | |
| **PSET** | **Sete Cidades** | **0.78** | **120** | *e*P | Pg | 06 56 46.2 | -2.0 |
| PSET | | | | *e*S | Sg | 06 56 56.4 | -1.9 |
| **PDA** | **Ponta Delgada** | **0.86** | **123** | *e*P | Pg | 06 56 47.2 | -2.5 |
| PDA | | | | *e*S | Sg | 06 56 58.5 | -2.3 |
| PDA | | | | A | A | 06 57 00.0 | |
| | 9.9nm,0.1s | | | | | | |
| **PDA** | **Ponta Delgada** | **0.86** | **123** | *e*P | Pg | 06 56 47.2 | -2.5 |
| PDA | | | | *e*S | Sg | 06 56 58.5 | -2.3 |
| **CMLA** | **Cha da Macela** | **0.94** | **118** | *e*S | Sg | 06 57 00.9 | -2.7 |
| CMLA | | | | A | A | 06 57 05.2 | |
| | 14nm,0.4s | | | | | | |
| **CMLA** | **Cha da Macela** | **0.94** | **118** | *e*S | Sg | 06 57 00.9 | -2.7 |
| **BART** | **Pico Bartolome** | **1.19** | **111** | *e*S | Sg | 06 57 07.0 | -4.6 |
| BART | | | | A | A | 06 57 08.3 | |
| | 5.9nm,0.4s | | | | | | |
| **BART** | **Pico Bartolome** | **1.19** | **111** | *e*S | Sg | 06 57 07.0 | -4.6 |
| **PMAN** | **Manadas** | **1.26** | **290** | *e*S | Sg | 06 57 08.7 | -5.2 |
| **PMAN** | **Manadas** | **1.26** | **290** | *e*S | Sg | 06 57 08.7 | -5.2 |
| **PGRA** | **Graciosa** | **1.37** | **307** | *e*S | Sg | 06 57 10.9 | -6.4 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PGRA | | | | A | A | 06 57 13.4 | |
| | 7.0nm,0.3s | | | | | | |
| PGRA | Graciosa | 1.37 | 307 | eS | Sg | 06 57 10.9 | -6.4 |
| PICO | Pico | 1.48 | 282 | eP | Pn | 06 56 56.4 | -4.9 |
| PICO | | | | eS | Sg | 06 57 13.6 | -7.4 |
| PICO | | | | A | A | 06 57 14.9 | |
| | 11nm,0.5s | | | | | | |
| PICO | Pico | 1.48 | 282 | eP | Pn | 06 56 56.4 | -4.9 |
| PICO | | | | eS | Sg | 06 57 13.6 | -7.4 |
| PSMA | Santa Maria | 1.67 | 136 | eS | Sn | 06 57 18.6 | -7.4 |
| PSMA | | | | A | A | 06 57 20.4 | |
| | 4.0nm,0.1s | | | | | | |

**IDC 10 06:59:19.2±7.0, 30°.63S×179°.18W, h0km, mb3.7/2, mb1 3.9/2, mb1mx3.7/21, mbtmp3.7/2, Error ellipse: s-maj=288.2km s-min=56.7km az=156.0, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ASAR | Alice Springs | 42.08 | 268 | P | P | 07 07 13.2 | 0.0 |
| | 0.5nm,0.7s,baz=105,slow=7.2,SNR=9.0 | | | | | | |
| WRA | Warramunga Arr | 43.09 | 273 | P | P | 07 07 21.8 | +0.4 |
| | 0.8nm,0.6s,baz=113,slow=7.7,SNR=8.0 | | | | | | |
| FINES | FINESS Array B | 145.00 | 339 | PKPbc | PKPbc | 07 18 55.4 | -1.7 |
| | 5.3nm,1.1s,baz=56,slow=4.5,SNR=7.3 | | | | | | |

**DJA 10 07:08:26.0±1.8, 0°S±8°×12°3E±1°2, h19km±33km, M3.6/4, MLv3.6/4, Minahassa Peninsula, Sulawesi**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MRSI | Marisa | 0.95 | 303 | P | Pg | 07 08 44.8 | +0.3 |
| MRSI | | | | S | Sb | 07 08 56.5 | +0.4 |
| LUWI | Luwuk | 1.00 | 178 | P | Pb | 07 08 43.9 | -0.8 |
| LUWI | | | | S | Sg | 07 09 00.2 | +1.7 |
| APSI | Ampana | 1.39 | 232 | P | Pb | 07 08 51.4 | 0.0 |
| APSI | | | | S | Sb | 07 09 08.7 | -0.1 |
| MPSI | Mapaga | 2.87 | 278 | P | Pn | 07 09 10.7 | 0.0 |

*ATA 10 07:11:13.7±1.1, 40°.13N×38°.43E, h34km±18km, ML3.0, MW2.7*
*CSEM 10 07:11:15.2±0.1, 40°.05N×38°.48E, h2km, MD2.8, Error ellipse: s-maj=3.3km s-min=3.0km az=60.0*
*DDA 10 07:11:15.1, 40°.03N×38°.49E, h7km, Md2.8*
*ISK 10 07:11:15.0, 40°.08N×38°.49E, h6km, MD2.7*
**ISC 10 07:11:15.1±1.0, 40°.04N±0°.02×38°.48E±0°.02, h10km±9km, n46, σ0s.58/68, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SUSE | Susehri | 0.27 | 308 | i P | Pb | 07 11 21.8 | -0.4 |
| SUSE | | | | i S | Sb | 07 11 26.4 | -0.5 |
| SUSE | Susehri | 0.27 | 308 | P | Pb | 07 11 21.8 | -0.4 |
| SUSE | | | | S | Sb | 07 11 26.4 | -0.5 |
| CUZAR | Zara_SIVAS | 0.56 | 254 | i P | Pg | 07 11 26.2 | +0.1 |
| CUZAR | | | | i S | Sg | 07 11 34.2 | +0.6 |
| CUZAR | Zara_SIVAS | 0.56 | 254 | P | Pg | 07 11 26.2 | +0.1 |
| CUZAR | | | | S | Sg | 07 11 34.2 | +0.6 |
| KELT | Kelkit | 0.61 | 80 | i P | Pg | 07 11 26.6 | -0.3 |
| KELT | | | | IAML | | 07 11 37.4 | |
| | comp=Z,38nm,0.5s | | | | | | |
| KELT | Kelkit | 0.61 | 80 | i P | Pg | 07 11 26.6 | -0.3 |
| KELT | | | | i S | Sg | 07 11 35.0 | 0.0 |
| KELT | Kelkit | 0.61 | 80 | P | Pg | 07 11 26.6 | -0.3 |
| KELT | | | | S | Sg | 07 11 35.0 | 0.0 |
| REFA | Refahiye_ERZ˜ | 0.68 | 161 | eP | Pg | 07 11 22.9 | -5.5 |
| REFA | | | | IAML | | 07 11 26.9 | |
| | comp=Z,397nm,0.3s | | | | | | |
| REFA | Refahiye_ERZ˜ | 0.68 | 161 | i P | Pg | 07 11 20.8 | -7.6 |
| REFA | | | | i S | Sg | 07 11 24.3 | -13 |
| KEMA | Kemaliye | 0.77 | 179 | eP | Pb | 07 11 30.7 | -0.1 |
| KEMA | | | | IAML | | 07 11 40.0 | |
| | comp=Z,6.2nm,0.2s | | | | | | |
| KEMA | | | | eS | Sn | 07 11 43.5 | -0.5 |
| KEMA | Kemaliye | 0.77 | 179 | i P | Pg | 07 11 29.8 | -0.3 |
| KEMA | | | | i S | Sb | 07 11 41.1 | -0.3 |
| KEMA | Kemaliye | 0.77 | 179 | P | Pg | 07 11 29.8 | -0.3 |
| KEMA | | | | S | Sb | 07 11 41.1 | -0.3 |
| ESPY | Espiye-Giresun | 0.89 | 12 | ePG | Pg | 07 11 32.6 | +0.3 |
| ESPY | | | | eSG | Sg | 07 11 44.1 | +0.2 |
| ESPY | Espiye-Giresun | 0.89 | 12 | ePg | Pg | 07 11 32.6 | +0.3 |
| ESPY | | | | eSg | Sg | 07 11 44.2 | +0.2 |
| GRSN | GIRESUNGRSN | 0.89 | 350 | i P | Pg | 07 11 30.5 | -1.9 |
| GRSN | | | | i S | Sg | 07 11 44.6 | +0.6 |
| GRSN | GIRESUNGRSN | 0.89 | 350 | P | Pg | 07 11 30.5 | -1.9 |
| GRSN | | | | S | Sg | 07 11 44.6 | +0.6 |
| RSDY | Resadiye-TOKAT | 0.95 | 292 | ePG | Pg | 07 11 33.2 | -0.2 |
| RSDY | Resadiye-TOKAT | 0.95 | 292 | ePg | Pg | 07 11 33.2 | -0.2 |
| SCER | sogukcermik | 1.05 | 260 | i P | Pg | 07 11 34.7 | -0.7 |
| SCER | | | | i S | Sg | 07 11 48.8 | -0.3 |
| SCER | sogukcermik | 1.05 | 260 | P | Pg | 07 11 34.7 | -0.7 |
| SCER | | | | S | Sg | 07 11 48.8 | -0.3 |
| ORDU | Ordu-Boztepe | 1.06 | 334 | i P | Pb | 07 11 36.0 | +0.4 |
| ORDU | | | | i S | Sb | 07 11 50.3 | +0.8 |
| ORDU | Ordu-Boztepe | 1.06 | 334 | P | Pb | 07 11 36.0 | +0.4 |
| ORDU | | | | S | Sb | 07 11 50.3 | +0.8 |
| ERZN | Erzincan | 1.06 | 115 | ePG | Pb | 07 11 35.6 | -0.1 |
| CUKAN | kangal_SIVAS | 1.07 | 227 | i P | Pg | 07 11 34.7 | -0.9 |
| CUKAN | | | | i S | Sb | 07 11 50.6 | +0.8 |
| CUKAN | kangal_SIVAS | 1.07 | 227 | P | Pg | 07 11 34.7 | -0.9 |
| CUKAN | | | | S | Sb | 07 11 50.7 | +0.8 |
| SVSK | Karacayir | 1.14 | 264 | ePN | Pn | 07 11 37.6 | +0.4 |
| SVSK | Karacayir | 1.14 | 264 | ePn | Pn | 07 11 37.6 | +0.4 |
| TNCL | Tunceli-Merkez | 1.24 | 138 | i P | Pn | 07 11 39.1 | +0.4 |
| TNCL | | | | IAML | | 07 11 43.4 | |
| | comp=Z,11nm,0.6s | | | | | | |
| TNCL | Tunceli-Merkez | 1.24 | 138 | i P | Pn | 07 11 39.3 | +0.6 |
| TNCL | | | | i S | Sn | 07 11 55.1 | -0.5 |
| TNCL | Tunceli-Merkez | 1.24 | 138 | P | Pn | 07 11 39.3 | +0.6 |
| TNCL | | | | S | Sn | 07 11 55.1 | -0.5 |
| PTK | Pertek | 1.35 | 148 | ePN | Pg | 07 11 41.6 | +0.5 |
| PTK | Pertek | 1.35 | 148 | ePn | Pg | 07 11 41.6 | +0.5 |
| KTUT | Trabzon | 1.36 | 46 | ePN | Pn | 07 11 40.6 | +0.3 |
| KTUT | Trabzon | 1.36 | 46 | ePn | Pn | 07 11 40.6 | +0.3 |
| ELZG | Elazig | 1.59 | 166 | i P | Pg | 07 11 45.0 | -0.7 |
| ELZG | | | | i S | Sg | 07 12 06.4 | 0.0 |
| ELZG | Elazig | 1.59 | 166 | P | Pg | 07 11 45.0 | -0.7 |
| ELZG | | | | S | Sg | 07 12 06.4 | 0.0 |
| DARE | Darende-Malaty | 1.66 | 208 | ePN | Pb | 07 11 45.9 | 0.0 |
| DARE | Darende-Malaty | 1.66 | 208 | ePn | Pb | 07 11 45.9 | 0.0 |
| YEDI | Yedisu-Bingol | 1.71 | 110 | ePN | Pb | 07 11 46.4 | -0.3 |
| YEDI | Yedisu-Bingol | 1.71 | 110 | ePn | Pb | 07 11 46.4 | -0.3 |
| MALT | Malatya | 1.73 | 181 | ePN | Pb | 07 11 46.6 | -0.4 |
| MALT | Malatya | 1.73 | 181 | ePn | Pb | 07 11 46.7 | -0.4 |
| CUSAR | Sarkisla-SIVAS | 1.83 | 251 | i P | Pb | 07 11 49.0 | +0.2 |
| CUSAR | | | | i S | Sg | 07 12 14.7 | +0.6 |
| CUSAR | Sarkisla-SIVAS | 1.83 | 251 | P | Pb | 07 11 49.0 | +0.2 |
| BINT | Bingol | 1.95 | 126 | ePn | Pb | 07 11 50.3 | -0.5 |
| BNGB | Bingˆ¶l | 2.00 | 121 | ePN | Pn | 07 11 50.2 | +1.1 |

*IDC 10 07:14:05.4±1.9, 1°.17N×95°.58E, h0km, mb3.6/5, mb1 3.8/7, mb1mx3.6/41, mbtmp3.7/7, ML4.1/2, MS3.5/1, Ms1 3.5/1, ms1mx2.8/32, Error ellipse: s-maj=54.7km s-min=21.7km az=58.0*
*ISCJB 10 07:14:08.8±0.9, 1°.19N±0°.04×95°.66E±0°.08, h33km, mb3.5/5, MS3.5/1, Error ellipse: s-maj=11.2km s-min=5.9km az=166.9*
*DJA 10 07:14:09.7±0.8, 1°N±3°×9°6E±°, h10km, M4.4/13, mB5.2/1, mb4.5/4, MLv4.3/13, Mw(mB)4.6/1*
**ISC 10 07:14:11.0±1.2, 1°.23N±0°.06×95°.7E±0°.1, h35km, n18, σ1s.18/21, mb3.5/5, Off west coast of northern Sumatera**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SNSI | Sinabang, Aceh | 1.33 | 29 | P | Pn | 07 14 32.4 | -0.8 |
| SNSI | | | | S | Sn | 07 14 49.2 | -0.5 |
| GSI | Gunungsitoli | 1.89 | 88 | P | Pn | 07 14 40.9 | 0.0 |
| TPTI | | 2.51 | 37 | P | Pn | 07 14 48.5 | -0.8 |
| PBSI | Pulau Batu | 2.89 | 116 | P | Pn | 07 14 54.3 | -0.3 |
| PBSI | | | | S | Sn | 07 15 26.0 | -2.2 |
| KCSI | Kotacane, Aceh | 3.09 | 42 | P | Pn | 07 14 57.3 | 0.0 |
| KCSI | | | | S | Sn | 07 15 33.6 | +0.6 |
| MLSI | Meulaboh, Aceh | 3.10 | 13 | P | Pn | 07 14 56.8 | -0.7 |
| PSI | Prapat | 3.59 | 64 | Pn | Pn | 07 15 03.7 | -0.7 |
| | 4.0nm,0.3s,baz=266,slow=5.9,SNR=10 | | | | | | |
| LHMI | Lhok Sumawe | 4.17 | 18 | P | Pn | 07 15 12.5 | +0.4 |
| LHMI | | | | S | Sn | 07 16 01.7 | +2.0 |
| SISI | Saibi | 4.25 | 127 | P | Pn | 07 15 13.5 | +0.2 |
| PDSI | Padang | 5.23 | 114 | P | Pn | 07 15 30.2 | +3.4 |
| PPSI | Pulau Pagai | 5.87 | 133 | P | Pn | 07 15 35.0 | -0.6 |
| CMAR | Chiang Mai Arr | 17.42 | 10 | P | Pn | 07 18 11.7 | +0.3 |
| | 0.5nm,0.3s,baz=193,slow=11,SNR=6.7 | | | | | | |
| WRA | Warramunga Arr | 43.34 | 121 | P | P | 07 22 09.5 | -0.7 |
| | 0.3nm,0.7s,baz=300,slow=9.0,SNR=3.8 | | | | | | |
| ASAR | Alice Springs | 44.63 | 126 | P | P | 07 22 21.1 | +0.6 |
| | 0.1nm,0.4s,baz=295,slow=7.7,SNR=4.8 | | | | | | |
| KSRS | Korea Array | 46.70 | 36 | LR | LR | 07 44 57.5 | |
| | comp=Z,54nm,18.6s,baz=4.5,slow=40 | | | | | | |
| MKAR | Makanchi Array | 46.86 | 347 | P | P | 07 22 37.9 | +0.2 |
| | 1.2nm,0.7s,baz=171,slow=7.9,SNR=7.7 | | | | | | |
| SONM | Songino Array | 47.34 | 10 | P | P | 07 22 41.5 | -0.1 |
| | 0.3nm,0.5s,baz=191,slow=13,SNR=2.8 | | | | | | |
| ZALV | Zalesovo Beam | 53.30 | 352 | P | P | 07 23 26.0 | -0.4 |
| | 1.2nm,0.4s,baz=182,slow=7.9,SNR=7.1 | | | | | | |

*JMA 10 07:16:01.5±0.3, 43°.51N×147°.53E, h7km±4km, M3.5*
*SKHL 10 07:16:03.3±0.4, 43°.63N×147°.72E, h38km±3km, mb4.0/3*
*MOS 10 07:16:04.6±0.5, 43°.69N×147°.49E, h30km, mb4.1/1, Error ellipse: s-maj=28.7km s-min=16.6km az=34.2*
**ISC 10 07:16:02.2±2.2, 43°.63N±0°.08×147°.72E±0°.08, h28km±13km, n23, σ0s.87/40, 2C-3D, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SHO | Shikotan | 0.69 | 291 | d iPN | Pb | 07 16 15.5 | -0.1 |
| SHO | | | | i S | Sb | 07 16 24.8 | 0.0 |
| SHO | | | | pmax | pmax | | |
| | comp=N,237nm,0.3s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=Z,386nm,0.3s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=E,287nm,0.2s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=N,1μm,0.4s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=E,834nm,0.2s | | | | | | |
| SHO | Shikotan | 0.69 | 291 | i P | Pb | 07 16 15.5 | -0.1 |
| SHO | | | | AMB | AMB | 07 16 16.9 | |
| | comp=E,40nm,0.3s | | | | | | |
| SHO | | | | i S | Sb | 07 16 24.8 | 0.0 |
| SHO | | | | A | A | 07 16 26.7 | |
| | comp=E,1μm,0.4s | | | | | | |
| SHO | | | | A | A | 07 16 26.7 | |
| | comp=E,830nm,0.4s | | | | | | |
| YUK | Yuzh-Kuril'sk | 1.41 | 287 | d iPN | Pn | 07 16 25.7 | -0.2 |
| YUK | | | | i S | Sn | 07 16 42.8 | -0.8 |
| YUK | | | | pmax | pmax | | |
| | comp=N,53nm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=E,160nm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=Z,416nm,0.2s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,313nm,0.2s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=E,989nm,0.4s | | | | | | |
| YUK | Yuzh-Kuril'sk | 1.41 | 287 | i P | Pn | 07 16 25.7 | -0.2 |
| YUK | | | | AMB | AMB | 07 16 27.1 | |
| | comp=E,42nm,0.2s | | | | | | |
| YUK | | | | i S | Sn | 07 16 42.8 | -0.8 |
| YUK | | | | A | A | 07 16 43.4 | |
| | comp=E,313nm,0.2s | | | | | | |
| YUK | | | | A | A | 07 16 43.4 | |
| | comp=E,99nm,0.2s | | | | | | |
| GRPR | Tuman | 1.46 | 285 | ePN | Pn | 07 16 26.4 | -0.3 |
| GRPR | | | | eS | Sn | 07 16 43.5 | -1.4 |
| GRPR | Tuman | 1.46 | 285 | eP | Pn | 07 16 26.4 | -0.3 |
| GRPR | | | | eS | Sn | 07 16 43.5 | -1.4 |
| LAGR | Lagunnoye | 1.47 | 288 | d iPN | Pn | 07 16 26.8 | +0.1 |
| LAGR | | | | i S | Sn | 07 16 44.3 | -0.7 |
| LAGR | Lagunnoye | 1.47 | 288 | eP | Pn | 07 16 26.8 | +0.1 |
| LAGR | | | | eS | Sn | 07 16 44.3 | -0.7 |
| NEM2 | Nemuro 2 | 1.47 | 260 | P | Pn | 07 16 25.8 | -0.9 |
| NEM2 | | | | eS | Sn | 07 16 43.5 | -1.5 |
| GLVR | Golovnino | 1.60 | 275 | c iPN | Pn | 07 16 29.2 | +0.6 |
| GLVR | | | | i S | Sn | 07 16 48.9 | +0.5 |
| GLVR | Golovnino | 1.60 | 275 | eP | Pn | 07 16 29.2 | +0.6 |
| GLVR | | | | eS | Sn | 07 16 48.9 | +0.5 |
| KUR | Kuril'sk | 1.61 | 4 | c iPN | Pb | 07 16 30.7 | -0.4 |
| KUR | | | | i S | Sn | 07 16 48.1 | -0.4 |
| KUR | | | | pmax | pmax | | |
| | comp=Z,55nm,0.1s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=N,93nm,0.2s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,217nm,0.2s | | | | | | |
| KUR | Kuril'sk | 1.61 | 4 | eP | Pn | 07 16 28.8 | +0.1 |
| KUR | | | | AMB | AMB | 07 16 30.8 | |
| | comp=E,56nm,0.2s | | | | | | |
| KUR | | | | i S | Sn | 07 16 47.6 | -0.9 |
| KUR | | | | A | A | 07 16 50.4 | |
| | comp=E,246nm,0.2s | | | | | | |
| KUR | | | | A | A | 07 16 50.4 | |
| | comp=E,170nm,0.2s | | | | | | |
| JRA | Rausu | 1.91 | 280 | P | Pn | 07 16 33.0 | +0.2 |
| JNK | Nakash | 2.18 | 270 | P | Pn | 07 16 36.5 | -0.1 |
| JAK | Akkeshi | 2.30 | 255 | P | Pn | 07 16 38.3 | +0.1 |
| JAK | | | | eS | Sn | 07 17 04.9 | -0.6 |
| JTKR | Abashiri--Toko | 2.78 | 278 | P | Pn | 07 16 46.1 | +1.2 |
| JAR | Ashorobuto | 2.90 | 265 | P | Pn | 07 16 47.2 | +0.7 |
| JAR | | | | eS | Sn | 07 17 19.7 | -0.7 |
| JOB | Onbets | 2.93 | 257 | P | Pn | 07 16 47.9 | +1.0 |
| JOB | | | | eS | Sn | 07 17 21.9 | +0.7 |
| JCH | Churui | 3.35 | 254 | P | Pn | 07 16 53.2 | +0.5 |
| JCH | | | | eS | Sn | 07 17 31.3 | -0.2 |
| JNBK | Urakawa-nobuka | 3.89 | 251 | P | Pn | 07 17 01.3 | +1.2 |
| YSS | Yuzh-Sakhalins | 4.83 | 315 | ePN | Pn | 07 17 15.1 | +2.1 |
| YSS | Yuzh-Sakhalins | 4.83 | 315 | eP | Pn | 07 17 15.1 | +2.1 |

*ISK 10 07:16:09.6, 38°.81N×30°.19E, h5km, ML2.7*
*CSEM 10 07:16:10.7±0.2, 38°.82N×30°.20E, h2km, ML2.7, Error ellipse: s-maj=3.6km s-min=3.3km az=40.0*
*DDA 10 07:16:10.2, 38°.84N×30°.20E, h7km, Md2.8*
**ISC 10 07:16:10.2±1.1, 38°.82N±0°.02×30°.21E±0°.02, h5km±10km, n46, σ0s.67/63, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SHUT | Suhut-Afyon | 0.38 | 134 | ePG | Pb | 07 16 19.1 | -0.4 |
| SHUT | | | | eSG | Sb | 07 16 24.5 | -1.2 |
| SHUT | Suhut-Afyon | 0.38 | 134 | ePg | Pb | 07 16 19.1 | -0.4 |
| SHUT | | | | eSg | Sb | 07 16 24.5 | -1.2 |
| KZIL | AFYON_Kizioren | 0.56 | 185 | i P | Pb | 07 16 22.1 | -0.5 |
| KZIL | | | | i S | Sb | 07 16 30.7 | -0.3 |
| KZIL | AFYON_Kizioren | 0.56 | 185 | P | Pb | 07 16 22.1 | -0.5 |
| KZIL | | | | S | Sb | 07 16 30.7 | -0.3 |
| BOLV | Bolvadin | 0.59 | 99 | i P | Pg | 07 16 22.2 | +0.6 |
| BOLV | | | | i S | Sg | 07 16 30.0 | +0.7 |
| BOLV | Bolvadin | 0.59 | 99 | P | Pg | 07 16 22.2 | +0.6 |
| BOLV | | | | S | Sg | 07 16 30.0 | +0.7 |
| GDZ | Gediz | 0.63 | 296 | i P | Pb | 07 16 23.2 | -0.6 |
| GDZ | | | | i S | Sg | 07 16 30.9 | +0.5 |
| GDZ | Gediz | 0.63 | 296 | P | Pb | 07 16 23.2 | -0.6 |
| KHAL | Karahalli | 0.72 | 232 | i P | Pg | 07 16 24.4 | +0.4 |
| KHAL | | | | i S | Sg | 07 16 33.8 | +0.5 |
| KHAL | Karahalli | 0.72 | 232 | P | Pg | 07 16 24.4 | +0.4 |
| KHL | Karahalli | 0.73 | 227 | ePG | Pg | 07 16 23.9 | -0.3 |
| KHL | Karahalli | 0.73 | 227 | ePg | Pg | 07 16 23.9 | -0.3 |
| TVSB | Tavsanli | 0.86 | 318 | ePG | Pg | 07 16 26.8 | +0.1 |
| TVSB | Tavsanli | 0.86 | 318 | ePg | Pg | 07 16 26.8 | +0.1 |
| ESKT | Eskisehir | 0.86 | 35 | ePG | Pg | 07 16 27.4 | +0.6 |
| ESKT | Eskisehir | 0.86 | 35 | ePg | Pg | 07 16 27.4 | +0.6 |
| SIMA | Simav-Kutahya | 0.99 | 286 | ePG | Pb | 07 16 29.8 | -0.1 |
| SIMA | Simav-Kutahya | 0.99 | 286 | ePg | Pb | 07 16 29.8 | -0.1 |
| BORA | Eskisehir | 1.08 | 10 | i P | Pg | 07 16 30.4 | -0.6 |
| BORA | | | | i S | Sb | 07 16 45.7 | -0.2 |
| BORA | Eskisehir | 1.08 | 10 | P | Pg | 07 16 30.4 | -0.6 |
| BORA | | | | S | Sb | 07 16 45.7 | -0.2 |
| BRDR | BURDUR-Merkez | 1.12 | 186 | i P | Pb | 07 16 32.3 | +0.1 |
| BRDR | | | | i S | Sn | 07 16 51.1 | +2.5 |
| BRDR | BURDUR-Merkez | 1.12 | 186 | P | Pb | 07 16 32.3 | +0.1 |
| DEMI | Demirci | 1.18 | 281 | i P | Pb | 07 16 33.1 | -0.1 |
| DEMI | | | | i S | Sb | 07 16 48.8 | -0.1 |
| DEMI | Demirci | 1.18 | 281 | P | Pb | 07 16 33.1 | -0.1 |
| DEMI | | | | S | Sb | 07 16 48.8 | -0.1 |
| SVRH | Sivrihisar-ESK | 1.20 | 58 | ePN | Pb | 07 16 33.8 | +0.2 |
| SVRH | Sivrihisar-ESK | 1.20 | 58 | ePn | Pb | 07 16 33.8 | +0.2 |
| KULA | Kula-Manisa | 1.25 | 256 | ePN | Pn | 07 16 34.3 | -0.1 |
| KULA | Kula-Manisa | 1.25 | 256 | ePn | Pn | 07 16 34.3 | -0.1 |
| MANT | Manisa | 1.33 | 256 | i P | Pb | 07 16 35.9 | +0.1 |
| MANT | | | | i S | Sg | 07 16 52.8 | -0.2 |
| MANT | Manisa | 1.33 | 256 | P | Pb | 07 16 35.9 | +0.1 |
| MANT | | | | S | Sg | 07 16 52.8 | -0.2 |
| DOGA | KONYA_Doganhis | 1.35 | 121 | i P | Pn | 07 16 34.1 | -1.8 |
| DOGA | | | | i S | Sn | 07 16 55.5 | +1.2 |
| DOGA | KONYA_Doganhis | 1.35 | 121 | P | Pn | 07 16 34.1 | -1.8 |
| DOGA | | | | S | Sn | 07 16 55.5 | +1.2 |
| CAVI | Cavuskoy | 1.41 | 349 | ePN | Pg | 07 16 37.4 | +0.1 |
| CAVI | Cavuskoy | 1.41 | 349 | ePn | Pg | 07 16 37.4 | +0.1 |
| ORLT | Orhaneli | 1.59 | 321 | ePN | Pg | 07 16 40.9 | +0.1 |
| ORLT | Orhaneli | 1.59 | 321 | ePn | Pg | 07 16 40.9 | +0.1 |
| GULT | Gulveren | 1.63 | 8 | ePN | Pb | 07 16 41.1 | +0.2 |
| GULT | Gulveren | 1.63 | 8 | ePn | Pb | 07 16 41.1 | +0.2 |
| ADVT | Abdulvahap | 1.65 | 348 | ePN | Pb | 07 16 40.7 | -0.5 |
| ADVT | Abdulvahap | 1.65 | 348 | ePn | Pb | 07 16 40.7 | -0.5 |
| MDUB | Mudurnu | 1.82 | 25 | ePN | Pb | 07 16 43.9 | -0.2 |
| MDUB | Mudurnu | 1.82 | 25 | ePn | Pb | 07 16 43.9 | -0.2 |
| YLV | Yalova | 1.86 | 340 | ePN | Pb | 07 16 44.7 | -0.1 |
| YLV | Yalova | 1.86 | 340 | ePn | Pb | 07 16 44.7 | -0.1 |
| ARMT | Armutlu | 2.03 | 330 | ePN | Pb | 07 16 47.0 | -0.7 |
| ARMT | Armutlu | 2.03 | 330 | ePn | Pb | 07 16 47.0 | -0.7 |

*DDA 10 07:24:51.9, 39°.08N×29°.13E, h7km, Md2.6*
*ISK 10 07:24:51.5, 39°.07N×29°.12E, h5km, ML2.1*
*ISCJB 10 07:24:52.1±0.5, 39°.07N±0°.03×29°.11E±0°.04, h7km±6km, Error ellipse: s-maj=5.7km s-min=4.7km az=146.9*
*CSEM 10 07:24:52.1±0.1, 39°.09N×29°.11E, h5km, ML2.1, Error ellipse: s-maj=2.3km s-min=1.4km az=132.0*
**ISC 10 07:24:52.1±0.9, 39°.09N±0°.03×29°.11E±0°.03, h8km±7km, n24, σ0s.33/38, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SIMA | Simav-Kutahya | 0.10 | 267 | PG | Pg | 07 24 54.6 | 0.0 |
| SIMA | | | | eSG | Sg | 07 24 56.2 | -0.1 |
| SIMA | Simav-Kutahya | 0.10 | 267 | i Pg | Pg | 07 24 54.6 | 0.0 |
| SIMA | | | | eSg | Sg | 07 24 56.2 | -0.1 |
| GDZ | Gediz | 0.29 | 90 | i P | Pg | 07 24 58.1 | +0.2 |
| GDZ | | | | i S | Sg | 07 25 02.4 | +0.6 |
| GDZ | Gediz | 0.29 | 90 | P | Pg | 07 24 58.1 | +0.2 |
| GDZ | | | | S | Sg | 07 25 02.4 | +0.6 |
| DEMI | Demirci | 0.31 | 262 | i P | Pg | 07 24 58.3 | 0.0 |
| DEMI | | | | i S | Sg | 07 25 02.7 | +0.3 |
| DEMI | Demirci | 0.31 | 262 | P | Pg | 07 24 58.3 | 0.0 |
| DEMI | | | | S | Sg | 07 25 02.7 | +0.3 |
| TVSB | Tavsanli | 0.45 | 37 | PG | Pg | 07 25 00.8 | -0.2 |
| TVSB | Tavsanli | 0.45 | 37 | i Pg | Pg | 07 25 00.8 | -0.2 |
| KULA | Kula-Manisa | 0.67 | 212 | ePG | Pg | 07 25 05.3 | +0.3 |
| KULA | | | | eSG | Sg | 07 25 13.9 | +0.1 |
| KULA | Kula-Manisa | 0.67 | 212 | ePg | Pg | 07 25 05.3 | +0.3 |
| KULA | | | | eSg | Sg | 07 25 13.9 | +0.1 |
| MANT | Manisa | 0.73 | 216 | i P | Pg | 07 25 06.3 | 0.0 |
| MANT | | | | i S | Sg | 07 25 15.7 | -0.2 |
| MANT | Manisa | 0.73 | 216 | P | Pg | 07 25 06.3 | 0.0 |
| MANT | | | | S | Sg | 07 25 15.7 | -0.2 |
| KHAL | Karahalli | 0.78 | 157 | i P | Pb | 07 25 07.4 | -0.5 |
| KHAL | | | | i S | Sg | 07 25 17.5 | +0.4 |
| KHAL | Karahalli | 0.78 | 157 | P | Pb | 07 25 07.4 | -0.5 |
| KHAL | | | | S | Sg | 07 25 17.5 | +0.4 |
| CAVI | Cavuskoy | 1.25 | 27 | ePN | Pg | 07 25 15.8 | -0.2 |
| CAVI | Cavuskoy | 1.25 | 27 | ePn | Pg | 07 25 15.9 | -0.2 |
| BORA | Eskisehir | 1.31 | 52 | i P | Pn | 07 25 16.6 | -0.2 |
| BORA | | | | i S | Sn | 07 25 34.5 | +0.1 |
| BORA | Eskisehir | 1.31 | 52 | P | Pn | 07 25 16.5 | -0.2 |
| BORA | | | | S | Sn | 07 25 34.5 | +0.1 |
| ARMT | Armutlu | 1.49 | 353 | ePN | Pb | 07 25 20.1 | +0.1 |
| ARMT | Armutlu | 1.49 | 353 | ePn | Pb | 07 25 20.1 | +0.1 |
| YLV | Yalova | 1.49 | 8 | ePN | Pn | 07 25 19.7 | +0.5 |
| YLV | Yalova | 1.49 | 8 | ePn | Pn | 07 25 19.7 | +0.5 |
| GULT | Gulveren | 1.73 | 38 | ePN | Pb | 07 25 23.4 | -0.7 |
| GULT | Gulveren | 1.73 | 38 | ePn | Pb | 07 25 23.4 | -0.7 |

*DJA 10 07:41:24.1±1.8, 1°N±6°×12°8E±1°7, h139km±20km, M4.3/6, mb4.6/3, mB4.8/3, MLv4.2/6, Mw(mB)4.0/3*
*IDC 10 07:41:26.2±1.2, 0°.92N×127°.34E, h0km, mb4.0/5, mb1 4.1/6, mb1mx3.7/34, mbtmp3.9/6, ML3.5/1, MS3.3/1, Ms1 3.3/1, ms1mx2.6/32, Error ellipse: s-maj=93.4km s-min=17.9km az=71.0*
*ISCJB 10 07:41:29.4±0.4, 1°.03N±0°.05×127°.49E±0°.06, h33km, mb4.4/15, MS3.1/1, Error ellipse: s-maj=8.0km s-min=6.8km az=175.5*
*NEIC 10 07:41:33.1±1.4, 0°.95N×127°.41E, h52km±14km, mb4.3/8, Error ellipse: s-maj=13.5km s-min=7.6km az=60.0*
*NEIC Felt [III] on Pulau Ternate.*
**ISC 10 07:41:31.4±0.7, 1°.03N±0°.07×127°.49E±0°.09, h35km, n30, σ1s.34/31, mb4.2/15, Halmahera**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LBMI | Labuha | 1.66 | 180 | P | Pn | 07 41 56.7 | -1.4 |
| LBMI | | | | S | Sn | 07 42 21.7 | +3.5 |
| SANI | Sanana | 3.41 | 206 | P | Pn | 07 42 20.7 | -1.5 |
| SANI | | | | S | Sn | 07 43 01.7 | +0.3 |
| LUWI | Luwuk | 5.15 | 246 | P | Pn | 07 42 46.9 | +0.8 |
| LUWI | Luwuk | 5.15 | 246 | ePn | Pn | 07 42 46.2 | +0.2 |
| MRSI | Marisa | 5.58 | 264 | P | Pn | 07 42 52.7 | +0.8 |
| APSI | Ampana | 6.15 | 252 | P | Pn | 07 43 01.0 | +1.1 |
| FAKI | Fak Fak | 6.17 | 130 | ePn | Pn | 07 43 01.9 | +1.8 |
| MTN | Manton Dam | 14.25 | 165 | ePn | P | 07 44 55.0 | -2.7 |
| FITZ | Fitzroy Crossi | 19.10 | 185 | P | P | 07 45 50.6 | -0.7 |
| | 0.1nm,0.3s,baz=9.5,slow=6.1,SNR=3.9 | | | | | | |
| GUMO | Guam | 21.25 | 53 | LR | LR | 07 53 09.0 | |
| | comp=Z,75nm,19.9s,baz=102,slow=33 | | | | | | |
| WRAB | Tennant Creek | 21.90 | 162 | eP | P | 07 46 22.4 | +0.7 |
| | 7.7nm,0.8s | | | | | | |
| WR1 | Warramunga Arr | 21.90 | 162 | eP | P | 07 46 21.0 | -0.7 |
| | 16nm,1.3s | | | | | | |
| WRA | Warramunga Arr | 21.90 | 162 | P | P | 07 46 21.0 | -0.7 |
| | 4.7nm,0.6s,baz=341,slow=11,SNR=18 | | | | | | |
| WB2 | Warramunga Arr | 21.91 | 162 | eP | P | 07 46 21.3 | -0.5 |
| | 20nm,1.4s | | | | | | |
| AS31 | Alice Springs | 25.33 | 166 | eP | P | 07 46 55.3 | +0.1 |
| | 1.6nm,0.5s | | | | | | |
| ASAR | Alice Springs | 25.33 | 166 | P | P | 07 46 53.2 | -1.9 |
| | 3.7nm,0.8s,baz=339,slow=8.6,SNR=25 | | | | | | |
| AS01 | Alice Springs | 25.34 | 166 | eP | P | 07 46 54.0 | -1.3 |
| BBOO | Buckleboo | 34.62 | 167 | eP | P | 07 48 18.6 | +1.2 |
| | 17nm,1.3s | | | | | | |
| EIDS | Eidsvold | 34.79 | 141 | eP | P | 07 48 20.7 | +1.8 |
| | 6.0nm,1.0s | | | | | | |
| STKA | Stephens Creek | 35.36 | 159 | P | P | 07 48 23.6 | -0.2 |
| | 1.9nm,0.7s,baz=329,slow=10,SNR=3.1 | | | | | | |
| KWAJ | Kwajalein Atol | 40.68 | 78 | eP | P | 07 49 07.8 | -1.1 |
| | 305nm,1.0s | | | | | | |
| SONA0 | Songino Array | 50.08 | 342 | eP | P | 07 50 24.0 | +1.0 |
| SONM | Songino Array | 50.08 | 342 | P | P | 07 50 24.0 | +1.0 |
| | 0.4nm,0.5s,baz=155,slow=11,SNR=3.3 | | | | | | |
| MK01 | Makanchi Array | 60.17 | 326 | eP | P | 07 51 35.5 | -0.3 |
| MK31 | Makanchi Array | 60.19 | 326 | eP | P | 07 51 35.7 | -0.2 |
| MK32 | Makanchi Array | 60.19 | 326 | eP | P | 07 51 35.7 | -0.3 |
| MKAR | Makanchi Array | 60.19 | 326 | P | P | 07 51 35.7 | -0.3 |
| | 1.2nm,0.6s,baz=117,slow=8.1,SNR=13 | | | | | | |
| AKUT | Akutan | 75.71 | 34 | eP | P | 07 53 14.9 | +1.7 |
| | 233nm,1.4s | | | | | | |
| VNDA | Vanda | 80.67 | 173 | eP | P | 07 53 39.0 | -1.4 |
| | 2.0nm,1.1s | | | | | | |
| SUA | Susitna One | 85.16 | 28 | eP | P | 07 54 03.8 | -0.2 |
| | 11nm,1.3s | | | | | | |

**JMA 10 07:50:35.3±0.1, 25°.41N×125°.25E, h69km±3km, M3.5, Southwestern Ryukyu Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JIKM | Ikemajima | 0.48 | 180 | P | Pn | 07 50 48.1 | +0.2 |
| JIKM | | | | S | Sn | 07 50 57.4 | +0.3 |
| JIRB | Irabujima | 0.58 | 187 | P | Pn | 07 50 48.8 | -0.1 |
| JIRB | | | | S | Sn | 07 50 58.6 | -0.2 |
| JMJ | Miyako jima 2 | 0.59 | 176 | P | Pn | 07 50 49.1 | +0.1 |
| JMJ | | | | S | Sn | 07 50 59.2 | +0.2 |
| JOGS | Gusukube | 0.66 | 168 | P | Pn | 07 50 49.9 | +0.2 |
| JOGS | | | | S | Sn | 07 51 00.3 | 0.0 |
| JTJ | Tarama | 0.91 | 213 | P | Pn | 07 50 52.9 | +0.2 |
| JTJ | | | | S | Sn | 07 51 05.9 | +0.4 |
| JISG | Ishigakijimahi | 1.18 | 226 | P | Pn | 07 50 56.4 | +0.3 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| JISG | | | | S | Sn | 07 51 11.9 | +0.3 |
| JIJ | Ishigaki jima | 1.45 | 224 | P | Pn | 07 50 59.5 | 0.0 |
| JIJ | | | | S | Sn | 07 51 17.7 | -0.1 |
| JKRS | Kuro-shima | 1.62 | 224 | P | Pn | 07 51 02.2 | +0.3 |
| JKRS | | | | S | Sn | 07 51 23.3 | +1.4 |
| JKE | Kume jima 2 | 1.66 | 56 | P | Pn | 07 51 02.5 | +0.2 |
| JKE | | | | S | Sn | 07 51 22.8 | 0.0 |
| IRIF | Iriomote-Funau | 1.75 | 233 | P | Pn | 07 51 04.1 | +0.6 |
| IRIF | | | | S | Sn | 07 51 25.9 | +1.0 |
| HATJ | Hateruma jima | 1.88 | 225 | P | Pn | 07 51 06.6 | +1.3 |
| JAGN | Aguni-jima | 2.14 | 56 | P | Pn | 07 51 09.5 | +0.7 |
| YOJ | Yonaguni jima | 2.24 | 246 | P | Pn | 07 51 11.8 | +1.6 |
| JTK | Tokunoshima | 4.07 | 54 | P | Pn | 07 51 34.8 | -0.3 |
| JAM | Amami Oshima | 4.90 | 51 | P | Pn | 07 51 45.5 | -1.0 |
| JMZ | Minamidaito 2 | 5.41 | 84 | P | Pn | 07 51 49.6 | -3.7 |

*DDA **10** 07:51:14.8, 39°.10N×29°.12E, h7$^{km}$, Md2.5*
*ISK **10** 07:51:14.6, 39°.06N×29°.13E, h6$^{km}$, ML1.9*
*ISCJB **10** 07:51:15.2±0.5, 39°.07N±0°.04×29°.11E±0°.04, h7$^{km}$±5$^{km}$, Error ellipse: s-maj=6.7km s-min=4.7km az=143.8*
*CSEM **10** 07:51:15.2±0.1, 39°.08N×29°.12E, h5$^{km}$, ML1.9, Error ellipse: s-maj=2.9km s-min=1.8km az=134.0*
**ISC 10 07:51:15.1**±0.9, **39°.08N**±0°.03×**29°.11E**±0°.03, **h10**$^{km}$±7$^{km}$, **n22**, σ**0$^s$36**/34, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SIMA | Simav-Kutahya | 0.10 | 275 | PG | Pg | 07 51 17.8 | 0.0 |
| SIMA | | | | eSG | Sg | 07 51 19.5 | -0.2 |
| SIMA | Simav-Kutahya | 0.10 | 275 | i Pg | Pg | 07 51 17.8 | 0.0 |
| SIMA | | | | eSg | Sg | 07 51 19.5 | -0.2 |
| GDZ | Gediz | 0.29 | 87 | i P | Pg | 07 51 21.2 | +0.2 |
| GDZ | | | | i S | Sg | 07 51 25.5 | +0.6 |
| GDZ | Gediz | 0.29 | 87 | P | Pg | 07 51 21.2 | +0.2 |
| GDZ | | | | S | Sg | 07 51 25.5 | +0.6 |
| DEMI | Demirci | 0.31 | 264 | i P | Pg | 07 51 21.6 | +0.3 |
| DEMI | | | | i S | Sg | 07 51 26.0 | +0.5 |
| DEMI | Demirci | 0.31 | 264 | P | Pg | 07 51 21.6 | +0.3 |
| DEMI | | | | S | Sg | 07 51 26.0 | +0.5 |
| TVSB | Tavsanli | 0.46 | 36 | ePG | Pg | 07 51 24.0 | -0.2 |
| TVSB | Tavsanli | 0.46 | 36 | ePg | Pg | 07 51 24.0 | -0.2 |
| KULA | Kula-Manisa | 0.66 | 212 | ePG | Pg | 07 51 27.6 | -0.3 |
| KULA | Kula-Manisa | 0.66 | 212 | ePg | Pg | 07 51 27.6 | -0.3 |
| MANT | Manisa | 0.73 | 217 | i P | Pg | 07 51 29.5 | +0.3 |
| MANT | | | | i S | Sg | 07 51 39.0 | +0.3 |
| MANT | Manisa | 0.73 | 217 | P | Pg | 07 51 29.5 | +0.3 |
| MANT | | | | S | Sg | 07 51 39.0 | +0.3 |
| KHAL | Karahalli | 0.76 | 157 | i P | Pb | 07 51 30.4 | -0.2 |
| KHAL | | | | i S | Sb | 07 51 41.0 | -0.1 |
| KHAL | Karahalli | 0.76 | 157 | P | Pb | 07 51 30.4 | -0.2 |
| KHAL | | | | S | Sb | 07 51 41.0 | -0.1 |
| CAVI | Cavuskoy | 1.26 | 26 | ePN | Pn | 07 51 39.5 | +0.6 |
| CAVI | Cavuskoy | 1.26 | 26 | ePn | Pn | 07 51 39.5 | +0.6 |
| BORA | Eskisehir | 1.31 | 52 | i P | Pn | 07 51 39.1 | -0.6 |
| BORA | | | | i S | Sn | 07 51 57.2 | -0.1 |
| BORA | Eskisehir | 1.31 | 52 | P | Pn | 07 51 39.1 | -0.6 |
| BORA | | | | S | Sn | 07 51 57.2 | -0.1 |
| ADVT | Abdulvahap | 1.44 | 19 | ePN | Pb | 07 51 41.9 | -0.2 |
| ADVT | Abdulvahap | 1.44 | 19 | ePn | Pb | 07 51 41.9 | -0.2 |
| YLV | Yalova | 1.50 | 8 | ePN | Pb | 07 51 43.0 | -0.2 |
| YLV | Yalova | 1.50 | 8 | ePn | Pb | 07 51 43.0 | -0.2 |

*CSEM **10** 07:59:42.9±0.2, 38°.90N×43°.55E, h5$^{km}$, MD2.6, Error ellipse: s-maj=5.8km s-min=4.1km az=119.0*
*IASPEI **10** 07:59:42.8±0.9, 38°.91N±0°.02×43°.55E±0°.03, h8$^{km}$±6$^{km}$, Error ellipse: s-maj=4.6km s-min=3.2km az=115.4, GT5 selection from ISC bulletin GT5 identified by Bondˆ¡r and McLaughlin (2009) selection criteria Bondˆ¡r and McLaughlin, A new ground truth data set for seismic studies, <i>Seism. Res. Let.</i>, <b>80</b>, 465-472, 2009*
*DDA **10** 07:59:42.6, 38°.91N×43°.53E, h10$^{km}$, Md2.6*
*ATA **10** 07:59:42.1±0.6, 38°.90N×43°.49E, h7$^{km}$±18$^{km}$, ML3.2, MW3.2*
*ISK **10** 07:59:43.1, 38°.90N×43°.55E, h12$^{km}$, ML2.9*
*ISCJB **10** 07:59:43.4±0.5, 38°.91N±0°.02×43°.57E±0°.05, h11$^{km}$±4$^{km}$, Error ellipse: s-maj=6.8km s-min=4.1km az=9.8*
**ISC 10 07:59:43.0**±0.8, **38°.91N**±0°.02×**43°.56E**±0°.03, **h9**$^{km}$±5$^{km}$, **n45**, σ**0$^s$68**/57, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.08 | 7 | i P | Pg | 07 59 44.8 | -0.6 |
| VMUR | | | | i S | Sg | 07 59 47.4 | +0.3 |
| VMUR | Van-Muradiye | 0.08 | 7 | P | Pg | 07 59 44.8 | -0.6 |
| VMUR | | | | S | Sg | 07 59 47.4 | +0.3 |
| ERCV | ERCIS-VAN | 0.20 | 302 | ePG | Pb | 07 59 48.6 | +1.3 |
| ERCV | ERCIS-VAN | 0.20 | 302 | ePg | Pb | 07 59 48.6 | +1.3 |
| VANB | Van | 0.34 | 203 | ePG | Pb | 07 59 51.1 | -0.2 |
| VANB | | | | eSG | Sb | 07 59 58.6 | +1.7 |
| VANB | Van | 0.34 | 203 | ePg | Pb | 07 59 51.1 | -0.2 |
| CLDR | Caldiran | 0.36 | 50 | ePG | Pg | 07 59 50.4 | +0.2 |
| CLDR | | | | eSG | Sb | 07 59 57.2 | -0.4 |
| CLDR | Caldiran | 0.36 | 50 | i P | Pg | 07 59 49.9 | -0.3 |
| CLDR | | | | i S | Sb | 07 59 56.7 | -0.9 |
| CLDR | Caldiran | 0.36 | 50 | P | Pg | 07 59 49.9 | -0.3 |
| CLDR | Caldiran | 0.36 | 50 | ePg | Pg | 07 59 50.4 | +0.2 |
| CLDR | | | | S | Sb | 07 59 56.7 | -0.9 |
| CLDR | | | | eSg | Sb | 07 59 57.2 | -0.4 |
| TVAN | Van | 0.40 | 197 | i P | Pg | 07 59 51.0 | 0.0 |
| TVAN | | | | i S | Sb | 07 59 59.4 | +0.6 |
| TVAN | Van | 0.40 | 197 | P | Pg | 07 59 51.0 | 0.0 |
| DYDN | Diyadin | 0.64 | 9 | eP | Pg | 07 59 55.3 | -0.1 |
| DYDN | | | | IAML | | 08 00 12.2 | |
| | comp=Z,76nm,0.3s | | | | | | |
| DYDN | Diyadin | 0.64 | 9 | eP | Pg | 07 59 55.6 | +0.2 |
| DYDN | | | | IAML | | 08 00 12.2 | |
| | comp=Z,76nm,0.3s | | | | | | |
| ADCV | BITLIS_Adilcev | 0.66 | 261 | i P | Pg | 07 59 55.5 | -0.3 |
| ADCV | BITLIS_Adilcev | 0.66 | 261 | P | Pg | 07 59 55.5 | -0.3 |
| GEVA | Gevas | 0.72 | 213 | eP | Pg | 07 59 55.9 | -0.9 |
| GEVA | | | | IAML | | 08 00 15.0 | |
| | comp=Z,69nm,0.4s | | | | | | |
| GEVA | Gevas | 0.72 | 213 | eP | Pg | 07 59 56.1 | -0.7 |
| GEVA | | | | eS | Sg | 08 00 06.8 | +0.5 |
| GEVA | | | | IAML | | 08 00 15.0 | |
| | comp=Z,69nm,0.4s | | | | | | |
| GEVA | Gevas | 0.72 | 213 | i P | Pg | 07 59 56.0 | -0.9 |
| GEVA | Gevas | 0.72 | 213 | P | Pg | 07 59 56.0 | -0.9 |
| TUTA | Tutak | 0.76 | 310 | eP | Pg | 07 59 56.8 | -0.9 |
| TUTA | | | | eS | Sg | 08 00 07.8 | +0.2 |
| TUTA | | | | IAML | | 08 00 09.9 | |
| | comp=Z,164nm,0.2s | | | | | | |
| TUTA | Tutak | 0.76 | 310 | eP | Pg | 07 59 56.7 | -0.9 |
| TUTA | | | | eS | Sb | 08 00 08.8 | -0.2 |
| TUTA | | | | IAML | | 08 00 09.9 | |
| | comp=Z,164nm,0.2s | | | | | | |
| TUTA | Tutak | 0.76 | 310 | i P | Pg | 07 59 56.8 | -0.9 |
| TUTA | Tutak | 0.76 | 310 | P | Pg | 07 59 56.8 | -0.9 |
| AGRB | Hanur-Agry | 0.80 | 326 | ePG | Pg | 07 59 58.6 | +0.2 |
| AGRB | Hanur-Agry | 0.80 | 326 | ePg | Pg | 07 59 58.6 | +0.2 |
| BASK | Baskale_VAN | 0.93 | 158 | eP | Pg | 08 00 00.5 | -0.4 |
| BASK | | | | IAML | | 08 00 05.5 | |
| | comp=Z,62nm,0.4s | | | | | | |
| TASB | TASBURUN-IGDIR | 1.19 | 26 | ePN | Pg | 08 00 06.9 | +1.0 |
| TASB | TASBURUN-IGDIR | 1.19 | 26 | ePn | Pg | 08 00 06.9 | +1.0 |
| EATA | Eleskirt | 1.26 | 319 | eP | Pn | 08 00 06.0 | -1.0 |
| EATA | | | | eS | Sg | 08 00 25.0 | +1.4 |
| EATA | | | | IAML | | 08 00 26.5 | |
| | comp=Z,10nm,0.3s | | | | | | |
| EATA | Eleskirt | 1.26 | 319 | eP | Pn | 08 00 06.2 | -0.8 |
| EATA | | | | IAML | | 08 00 26.5 | |
| | comp=Z,10nm,0.3s | | | | | | |
| DIGO | Kars | 1.51 | 355 | eP | Pg | 08 00 11.8 | -0.1 |
| DIGO | | | | IAML | | 08 00 27.3 | |
| | comp=Z,9.4nm,0.6s | | | | | | |
| DIGO | Kars | 1.51 | 355 | eP | Pg | 08 00 11.9 | -0.1 |
| DIGO | | | | IAML | | 08 00 27.3 | |
| | comp=Z,9.4nm,0.6s | | | | | | |
| CUKT | Cukurca | 1.66 | 179 | ePN | Pn | 08 00 12.1 | -0.3 |
| CUKT | Cukurca | 1.66 | 179 | ePn | Pn | 08 00 12.1 | -0.3 |
| SIRT | Sirnak | 1.66 | 212 | ePN | Pn | 08 00 12.5 | +0.1 |
| SIRT | Sirnak | 1.66 | 212 | ePn | Pn | 08 00 12.5 | +0.1 |
| KARS | Kars | 1.75 | 348 | ePN | Pb | 08 00 14.6 | -0.8 |
| KARS | Kars | 1.75 | 348 | ePn | Pb | 08 00 14.6 | -0.8 |
| BNGL | BINGOL | 1.88 | 272 | eP | Pb | 08 00 17.6 | 0.0 |
| BNGL | | | | IAML | | 08 00 22.6 | |
| | comp=Z,46nm,0.4s | | | | | | |
| SENK | Senkaya-Erzuru | 1.89 | 331 | ePN | Pn | 08 00 16.2 | +0.6 |
| SENK | Senkaya-Erzuru | 1.89 | 331 | ePn | Pn | 08 00 16.2 | +0.6 |
| ERZM | Erzurum | 1.97 | 301 | eP | Pb | 08 00 19.1 | 0.0 |
| YEDI | Yedisu-Bingol | 2.40 | 284 | ePN | Pn | 08 00 23.1 | +0.5 |
| YEDI | Yedisu-Bingol | 2.40 | 284 | ePn | Pn | 08 00 23.1 | +0.5 |

*KRNET **10** 08:00:29.9±0.1, 41°.39N×78°.29E, mb2.5*
*SOME **10** 08:00:30.9, 41°.68N×78°.50E, h0$^{km}$*
**ISC 10 08:00:29.9**±3.2, **41°.5N**±0°.2×**78°.33E**±0°.06, **h12**$^{km}$±18$^{km}$, **n7**, σ**1$^s$12**/14, **6C**, **Kyrgyzstan-Xinjiang border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ULHL | Ulahol | 1.74 | 297 | ⇑iP | Pg | 08 01 03.1 | -0.2 |
| | baz=299 | | | | | | |
| ULHL | | | | ⇑iS | Sg | 08 01 27.3 | +1.4 |
| | baz=299 | | | | | | |
| PDGK | Podgornoye | 2.05 | 25 | ⇑iP | Pg | 08 01 08.9 | -0.3 |
| | baz=24 | | | | | | |
| PDGK | | | | ⇑iS | Sg | 08 01 37.4 | +1.6 |
| | baz=24 | | | | | | |
| TKM2 | Tokmak 2 | 2.49 | 307 | ⇑iP | Pb | 08 01 14.4 | -0.4 |
| | baz=308 | | | | | | |
| TKM2 | | | | ⇑iS | Sb | 08 01 47.7 | +2.1 |
| | baz=308 | | | | | | |
| CHKK | Chushkaly | 2.58 | 338 | eP | Pb | 08 01 15.3 | -0.9 |
| | 1.1nm,0.3s | | | | | | |
| CHKK | | | | eS | Sb | 08 01 47.1 | -0.8 |
| | 5.7nm,0.3s | | | | | | |
| DGS | Degeres | 2.59 | 314 | eP | Pg | 08 01 18.5 | -1.1 |
| | 1.3nm,0.5s | | | | | | |
| DGS | | | | eS | Sg | 08 01 53.1 | -0.1 |
| | 3.7nm,0.4s | | | | | | |
| ARXS | Arharly | 2.77 | 353 | eP | Pb | 08 01 18.9 | -0.5 |
| | 3.3nm,0.3s | | | | | | |
| ARXS | | | | eS | Sb | 08 01 53.6 | +0.2 |
| | 3.0nm,0.3s | | | | | | |
| DJR | Jarkent | 3.06 | 20 | eP | Pb | 08 01 24.1 | -0.3 |
| | 1.6nm,0.2s | | | | | | |
| DJR | | | | eS | Sb | 08 02 02.1 | +0.4 |
| | 2.6nm,0.3s | | | | | | |

*ISCJB **10** 08:10:25.3±0.5, 37°.22N±0°.03×28°.21E±0°.03, h0$^{km}$, Error ellipse: s-maj=4.7km s-min=3.8km az=26.6*
*CSEM **10** 08:10:25.6±0.2, 37°.24N×28°.23E, h1$^{km}$, ML2.2, Error ellipse: s-maj=5.4km s-min=4.0km az=35.0, Suspected Mining explosion.*
*DDA **10** 08:10:25.4, 37°.24N×28°.20E, h7$^{km}$, Md2.6, Suspected Mining explosion.*
*ISK **10** 08:10:25.7, 37°.21N×28°.22E, h10$^{km}$, ML2.2*
**ISC 10 08:10:24.7**±0.8, **37°.29N**±0°.03×**28°.24E**±0°.03, **h0**$^{km}$, **n28**, σ**0$^s$70**/39, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AYDN | Tasoluk | 0.47 | 322 | i P | Pb | 08 10 35.2 | -0.7 |
| AYDN | | | | i S | Sb | 08 10 42.3 | -1.1 |
| AYDN | Tasoluk | 0.47 | 322 | P | Pb | 08 10 35.2 | -0.7 |
| AYDN | | | | S | Sb | 08 10 42.3 | -1.1 |
| TURN | Turunc | 0.51 | 145 | ePG | Pg | 08 10 34.5 | +0.1 |
| TURN | | | | eSG | Sg | 08 10 41.5 | +0.5 |
| TURN | Turunc | 0.51 | 145 | i P | Pg | 08 10 34.0 | -0.4 |
| TURN | | | | i S | Sg | 08 10 41.5 | +0.5 |
| TURN | Turunc | 0.51 | 145 | P | Pg | 08 10 34.0 | -0.4 |
| TURN | Turunc | 0.51 | 145 | ePg | Pg | 08 10 34.5 | +0.1 |
| TURN | | | | S | Sg | 08 10 41.5 | +0.5 |
| TAVA | DENIZLI_Tavas | 0.56 | 72 | i P | Pb | 08 10 37.1 | -0.4 |
| TAVA | | | | i S | Sb | 08 10 46.1 | 0.0 |
| TAVA | DENIZLI_Tavas | 0.56 | 72 | P | Pb | 08 10 37.1 | -0.4 |
| TAVA | | | | S | Sb | 08 10 46.1 | 0.0 |
| DALY | Dalyan (Mu˜la | 0.58 | 145 | ePG | Pg | 08 10 35.8 | +0.1 |
| DALY | Dalyan (Mu˜la | 0.58 | 145 | i P | Pb | 08 10 37.1 | -0.5 |
| DALY | Dalyan (Mu˜la | 0.58 | 145 | ePg | Pg | 08 10 35.8 | +0.1 |
| DALY | Dalyan (Mu˜la | 0.58 | 145 | P | Pb | 08 10 37.1 | -0.5 |
| BDRM | Kayabasi | 0.68 | 251 | i P | Pg | 08 10 37.7 | +0.1 |
| BDRM | | | | i S | Sg | 08 10 47.0 | +0.6 |
| BDRM | Kayabasi | 0.68 | 251 | P | Pg | 08 10 37.7 | +0.1 |
| BDRM | | | | S | Sg | 08 10 47.0 | +0.6 |
| DNZL | Cakiroluk | 0.75 | 58 | i P | Pn | 08 10 42.0 | -0.8 |
| DNZL | Cakiroluk | 0.75 | 58 | P | Pn | 08 10 42.0 | -0.8 |
| BODT | Bodrum | 0.78 | 253 | ePG | Pg | 08 10 40.1 | +0.5 |
| BODT | Bodrum | 0.78 | 253 | ePg | Pg | 08 10 40.1 | +0.5 |
| GCAM | G?zelcaml? | 0.90 | 297 | ePG | Pn | 08 10 44.2 | -0.4 |
| GCAM | G?zelcaml? | 0.90 | 297 | ePg | Pn | 08 10 44.2 | -0.4 |
| FETY | Fethiye | 0.94 | 134 | ePG | Pb | 08 10 43.6 | -0.2 |
| FETY | Fethiye | 0.94 | 134 | ePg | Pb | 08 10 43.7 | -0.2 |
| MANT | Manisa | 1.22 | 12 | i P | Pb | 08 10 48.4 | -0.5 |
| MANT | | | | i S | Sn | 08 11 08.6 | +1.9 |
| MANT | Manisa | 1.22 | 12 | P | Pb | 08 10 48.4 | -0.5 |
| MANT | | | | S | Sn | 08 11 08.6 | +1.9 |
| ELL | Elmali | 1.44 | 112 | PN | Pb | 08 10 52.4 | -0.1 |
| ELL | Elmali | 1.44 | 112 | i Pn | Pb | 08 10 52.4 | -0.1 |
| AKAS | Kas | 1.52 | 134 | ePN | Pn | 08 10 52.4 | -0.9 |
| AKAS | Kas | 1.52 | 134 | ePn | Pn | 08 10 52.4 | -0.9 |

*IDC **10** 08:12:19.7±0.9, 0°.01S×125°.69E, h0$^{km}$, mb3.8/6, mb1 4.0/7, mb1mx3.7/33, mbtmp3.9/7, ML3.7/1, Error ellipse: s-maj=113.4km s-min=16.2km az=69.0*
*ISCJB **10** 08:12:23.5±0.9, 0°.0S±0°.2×125°.7E±0°.5, h44$^{km}$, mb3.9/6, Error ellipse: s-maj=71.2km s-min=13.4km az=162.1*
**ISC 10 08:12:25.8**±1.0, **0°.1S**±0°.2×**125°.8E**±0°.6, **h44**$^{km}$, **n8**, σ**0$^s$93**/9, **mb3.9**/6, **Southern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| FITZ | Fitzroy Crossi | 17.93 | 180 | P | Pn | 08 16 32.0 | 0.0 |
| | 0.2nm,0.3s,baz=11,slow=9.4,SNR=5.4 | | | | | | |
| WRA | Warramunga Arr | 21.48 | 157 | P | P | 08 17 10.2 | -0.7 |
| | 2.7nm,0.5s,baz=339,slow=12,SNR=27 | | | | | | |
| ASAR | Alice Springs | 24.77 | 162 | P | P | 08 17 44.6 | +0.9 |
| | 1.2nm,0.5s,baz=342,slow=6.7,SNR=35 | | | | | | |
| ASAR | | | | PcP | PcP | 08 21 20.9 | +1.2 |
| | 0.2nm,0.6s,baz=356,slow=3.0,SNR=2.7 | | | | | | |
| STKA | Stephens Creek | 35.02 | 156 | P | P | 08 19 13.9 | -0.5 |
| | 1.3nm,0.5s,baz=326,slow=11,SNR=6.3 | | | | | | |
| SONM | Songino Array | 50.58 | 343 | P | P | 08 21 20.9 | +0.6 |
| | 0.3nm,0.6s,baz=160,slow=10,SNR=2.6 | | | | | | |
| MKAR | Makanchi Array | 60.13 | 327 | P | P | 08 22 28.2 | -0.8 |
| | 1.0nm,0.5s,baz=125,slow=7.8,SNR=12 | | | | | | |
| ZALV | Zalesovo Beam | 63.53 | 334 | P | P | 08 22 50.6 | -1.0 |
| | 0.5nm,0.4s,baz=112,slow=6.4,SNR=2.2 | | | | | | |
| TORD | Torodi Ar. Bea | 123.07 | 286 | PKP | PKPdf | 08 31 19.1 | +0.5 |
| | 0.2nm,0.7s,baz=48,slow=2.1,SNR=2.6 | | | | | | |

**IDC 10 08:28:32.8**±2.0, **6°.58S**×**129°.15E**, **h0**$^{km}$, **mb3.3**/1, **mb1 3.4**/3, **mb1mx3.1**/45, **mbtmp3.2**/3, **ML3.3**/2, **Error ellipse: s-maj=121.3km s-min=31.3km az=68.0**, **Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 14.21 | 160 | Pn | Pn | 08 31 55.6 | +0.2 |
| | 0.2nm,0.3s,baz=339,slow=13,SNR=6.7 | | | | | | |
| WRA | | | | Sn | Sn | 08 34 18.0 | -16 |
| | 0.4nm,0.3s,baz=329,slow=23,SNR=7.9 | | | | | | |
| ASAR | Alice Springs | 17.60 | 165 | P | Pn | 08 32 39.4 | -0.2 |
| | 0.1nm,0.3s,baz=337,slow=11,SNR=6.7 | | | | | | |
| ASAR | | | | S | Sn | 08 35 35.0 | -21 |
| | 0.1nm,0.3s,baz=354,slow=26,SNR=3.3 | | | | | | |
| MKAR | Makanchi Array | 67.41 | 327 | P | P | 08 39 30.3 | 0.0 |
| | 0.1nm,0.5s,baz=113,slow=6.1,SNR=2.4 | | | | | | |

*IDC **10** 08:39:19.9±1.1, 51°.67N×75°.42E, h0$^{km}$, mb1 2.6/4, mb1mx2.5/56, mbtmp2.6/4, ML2.1/4, Error ellipse: s-maj=23.7km s-min=9.3km az=30.0*
*NNC **10** 08:39:22.9±1.9, 51°.90N×75°.93E, h0$^{km}$, mb3.3, mpv2.9, Error ellipse: s-maj=55.2km s-min=11.1km az=28.0, Suspected Mining explosion.*
**ISC 10 08:39:14.1**±1.2, **52°.33N**±0°.09×**75°.96E**±0°.05, **h0**$^{km}$, **n10**, σ**1$^s$20**/13, **3C-5D**, **Eastern Kazakhstan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KURK | Kurchatov | 2.32 | 133 | ⇑Pn | Pb | 08 39 57.2 | +0.4 |
| | 4.4nm,0.6s | | | | | | |
| KURK | | | | ⇓Sn | Sb | 08 40 25.3 | -0.6 |
| | 12nm,0.7s | | | | | | |
| KURBB | Kurchatov Arra | 2.35 | 136 | Pn | Pb | 08 39 57.3 | 0.0 |
| | 0.2nm,0.3s,baz=303,slow=18,SNR=25 | | | | | | |
| KURBB | | | | Lg | Lg | 08 40 29.2 | |
| | 0.5nm,0.3s,baz=302,slow=32,SNR=15 | | | | | | |
| KURBB | Kurchatov Arra | 2.35 | 136 | ⇓Pn | Pb | 08 39 57.9 | +0.7 |
| | 7.0nm,0.4s,baz=306,slow=18 | | | | | | |
| KURBB | | | | ⇓Sn | Sg | 08 40 28.7 | -0.8 |
| | 22nm,0.6s,baz=307,slow=30 | | | | | | |
| BVA0 | Borovoye Array | 3.46 | 284 | ⇓Pn | Pb | 08 40 18.1 | +1.8 |
| | 1.5nm,0.7s,baz=115,slow=17,SNR=7.0 | | | | | | |
| BVA0 | | | | ⇑Sn | Sg | 08 41 05.4 | +0.1 |
| | 4.8nm,0.6s,baz=139,slow=28,SNR=8.2 | | | | | | |
| BVAR | Borovoye Array | 3.46 | 284 | Pn | Pb | 08 40 13.9 | -2.4 |
| | 0.3nm,0.3s,baz=111,slow=14,SNR=4.7 | | | | | | |
| BVAR | | | | Lg | Lg | 08 41 05.6 | |
| | 1.1nm,0.3s,baz=113,slow=31,SNR=9.5 | | | | | | |
| BRVK | Borovoye | 3.53 | 284 | ⇓Pn | Pb | 08 40 18.4 | +0.9 |
| | 2.1nm,0.7s | | | | | | |
| BRVK | | | | ⇑Sn | Sg | 08 41 06.5 | -1.0 |
| | 12nm,0.9s | | | | | | |
| I46RU | ZALESOVO INFRA | 5.57 | 70 | i | | 09 18 22.3 | |
| | baz=251,slow=319,SNR=1.2 | | | | | | |
| ZALV | Zalesovo Beam | 5.57 | 70 | Pn | Pb | 08 40 52.2 | 0.0 |
| | 0.3nm,0.3s,baz=257,slow=13,SNR=5.4 | | | | | | |
| ZALV | | | | Lg | Lg | 08 42 36.6 | |
| | 0.2nm,0.3s,baz=254,slow=25,SNR=2.8 | | | | | | |
| MKAR | Makanchi Array | 6.90 | 141 | Pn | Pn | 08 40 57.6 | +1.1 |
| | 0.1nm,0.3s,baz=316,slow=10,SNR=4.1 | | | | | | |
| MKAR | | | | Sn | Sn | 08 42 14.9 | -0.9 |
| | 0.1nm,0.3s,baz=324,slow=16,SNR=5.1 | | | | | | |
| MKAR | | | | Lg | Lg | 08 42 47.7 | |
| | 0.1nm,0.3s,baz=324,slow=27,SNR=4.2 | | | | | | |
| AAK | Ala-Archa | 9.75 | 186 | Lg | Lg | 08 44 02.8 | |
| | 0.1nm,0.3s,baz=54,slow=14,SNR=2.5 | | | | | | |

*ISCJB **10** 08:56:24.8±0.8, 27°.46N±0°.03×111°.37W±0°.02, h1$^{km}$±5$^{km}$, mb4.5/25, MS3.9/6, Error ellipse: s-maj=5.6km s-min=2.8km az=11.8*
*IDC **10** 08:56:26.0±0.9, 27°.66N×111°.40W, h0$^{km}$, mb4.0/10, mb1 4.0/17, mb1mx3.9/43, mbtmp3.8/17, ML3.6/7, MS3.7/8, Ms1 3.7/8, ms1mx3.3/47, Error ellipse: s-maj=15.2km s-min=11.8km az=24.0*
*NEIC **10** 08:56:26.2±0.6, 27°.24N×111°.42W, h10$^{km}$, mb4.3/50, MD4.0(MEX), Error ellipse: s-maj=8.5km s-min=4.8km az=194.0*
*NEIC Felt at Guaymas, Sonora.*
*MEX **10** 08:56:27.0±0.3, 27°.50N×111°.39W, h12$^{km}$±4$^{km}$, MD4.0*
**ISC 10 08:56:27.2**±1.2, **27°.60N**±0°.05×**111°.42W**±0°.04, **h7**$^{km}$±8$^{km}$, **n338**, σ**1$^s$78**/335, **mb4.6**/25, **MS3.9**/6, **Gulf of California**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GUYB | Guaymas | 0.57 | 58 | eP | Pg | 08 56 37.4 | -0.9 |
| GUYB | | | | eS | Sg | 08 56 45.3 | -0.5 |
| SRIG | Santa Rosalia | 0.78 | 250 | eP | Pg | 08 56 39.8 | -2.4 |
| SRIG | | | | eS | Sg | 08 56 49.9 | -2.5 |
| SRIG | Santa Rosalia | 0.78 | 250 | ePg | Pg | 08 56 40.0 | -2.2 |
| SRIG | | | | eSg | Sg | 08 56 51.6 | -0.8 |
| HSIG | | 1.48 | 16 | eP | Pn | 08 56 51.1 | -3.2 |
| HSIG | | | | eS | Sn | 08 57 10.0 | -3.8 |
| HSIG | | 1.48 | 16 | ePn | Pn | 08 56 53.9 | -0.3 |
| HSIG | | | | eSn | Sn | 08 57 14.2 | +0.3 |
| LPIG | La Paz | 3.62 | 164 | Pn | Pn | 08 57 25.1 | +1.4 |
| | 2.0nm,0.3s,baz=280,slow=19,SNR=3.2 | | | | | | |
| SLBS | Sierra La Lagu | 4.11 | 161 | ePn | Pn | 08 57 31.1 | +0.5 |
| 214A | Organ Pipe Nat | 4.51 | 345 | P | Pn | 08 57 34.6 | -1.3 |
| | baz=165 | | | | | | |
| TUC | Tucson | 4.73 | 7 | ePn | Pn | 08 57 37.7 | -1.4 |
| HPIG | | 5.16 | 96 | ePn | Pn | 08 57 43.9 | -1.2 |
| 113A | Mohawk Valley, | 5.54 | 339 | ePn | Pn | 08 57 49.0 | -1.1 |
| 113A | | | | eSn | Sn | 08 58 52.8 | -1.3 |
| 121A | Cookes Peak, D | 5.84 | 32 | P | Pn | 08 57 54.0 | -0.4 |
| | baz=212 | | | | | | |
| EPT | El Paso | 5.97 | 45 | ePn | Pn | 08 57 56.0 | -0.1 |
| GLA | Glamis | 6.18 | 332 | P | Pn | 08 57 58.1 | -0.8 |
| | baz=152,SNR=62 | | | | | | |
| GLA | Glamis | 6.18 | 332 | ePn | Pn | 08 57 57.8 | -1.2 |
| GLA | | | | eSn | Sn | 08 59 07.4 | -2.6 |
| Y14A | Wickenburg | 6.47 | 348 | ePn | Pn | 08 58 02.4 | -0.5 |
| IKP | In-Ko-Pah, Jac | 6.47 | 322 | P | Pn | 08 58 03.7 | +0.7 |
| | baz=142,SNR=13 | | | | | | |
| SWSC | Sam W. Stewart | 6.54 | 326 | P | Pn | 08 58 03.7 | -0.1 |
| | baz=145 | | | | | | |
| MNTX | Cornudas Mount | 6.66 | 51 | ePn | Pn | 08 58 04.9 | -0.5 |
| MNTX | | | | eSn | Sn | 08 59 18.8 | -2.9 |
| Y12C | Blythe | 6.69 | 337 | P | Pn | 08 58 05.7 | -0.2 |
| | baz=157 | | | | | | |
| X16A | Lo Mia Camp, P | 6.80 | 360 | ePn | Pn | 08 58 07.8 | +0.2 |
| BAR | Barrett | 6.81 | 319 | ePn | Pn | 08 58 10.0 | +2.4 |
| MONP2 | Monument Peak | 6.83 | 322 | P | Pn | 08 58 09.1 | +1.2 |
| | baz=141,SNR=7.9 | | | | | | |
| BC3 | Big Chuckawall | 6.97 | 331 | P | Pn | 08 58 09.4 | -0.4 |
| | baz=150 | | | | | | |
| X18A | Snowflake | 7.03 | 10 | ePn | Pn | 08 58 10.5 | -0.2 |
| TX31 | Lajitas Ar. Si | 7.04 | 74 | ePn | Pn | 08 58 10.8 | -0.1 |
| TXAR | Lajitas Array | 7.04 | 74 | Pn | Pn | 08 58 10.4 | -0.4 |
| | 0.8nm,0.3s,baz=244,slow=13,SNR=25 | | | | | | |
| TXAR | | | | Sn | Sn | 08 59 29.9 | -1.2 |
| | 0.6nm,0.3s,baz=252,slow=21,SNR=3.6 | | | | | | |
| TXAR | | | | Lg | Lg | 09 00 05.7 | |
| | 2.1nm,0.3s,baz=252,slow=30,SNR=7.1 | | | | | | |
| PDMCI | Parker Dam,Lak | 7.08 | 341 | P | Pn | 08 58 10.6 | -0.6 |
| | baz=161 | | | | | | |
| 109C | Camp Elliot, M | 7.21 | 318 | P | Pn | 08 58 16.3 | +3.2 |
| | baz=138 | | | | | | |
| IRM | Iron Mountain | 7.28 | 335 | P | Pn | 08 58 13.3 | -0.8 |
| | baz=154,SNR=29 | | | | | | |
| XPFO | Piæon Flat | 7.40 | 325 | ePn | Pn | 08 58 16.4 | +0.6 |
| PFO | Pinyon Flats O | 7.40 | 325 | Pn | Pn | 08 58 15.9 | +0.1 |
| | 0.2nm,0.3s,baz=139,slow=9.9,SNR=5.9 | | | | | | |
| PFO | | | | Lg | Lg | 09 00 33.0 | |
| | 0.2nm,0.3s,baz=226,slow=13,SNR=5.1 | | | | | | |
| PFO | Pinyon Flats O | 7.40 | 325 | P | Pn | 08 58 15.4 | -0.4 |
| | baz=144 | | | | | | |
| PFO | Pinyon Flats O | 7.40 | 325 | ePn | Pn | 08 58 16.3 | +0.5 |
| PFO | | | | Lg | Lg | 09 00 33.0 | |
| BELC | Belle Mtn. Jos | 7.50 | 329 | P | Pn | 08 58 16.8 | -0.4 |
| | baz=149,SNR=10 | | | | | | |
| LENM | Lemitar | 7.58 | 29 | ePn | Pn | 08 58 22.6 | +4.2 |
| NEE2 | Needles Airpor | 7.66 | 340 | P | Pn | 08 58 18.6 | -0.5 |
| | baz=159,SNR=10 | | | | | | |
| LAZ | Ladron | 7.72 | 27 | ePn | Pn | 08 58 20.9 | +0.7 |
| W13A | Hualapai Mount | 7.77 | 345 | ePn | Pn | 08 58 20.8 | -0.2 |
| MURC | Murrieta | 7.78 | 322 | P | Pn | 08 58 22.3 | +1.3 |
| | baz=140 | | | | | | |
| LPM | Los Pinos Moun | 7.86 | 30 | ePn | Pn | 08 58 23.6 | +1.5 |
| WUAZ | Wupatki | 7.90 | 0 | ePn | Pn | 08 58 24.8 | +2.2 |
| GMRC | Granite Mounta | 8.03 | 334 | P | Pn | 08 58 24.3 | -0.1 |
| | baz=153,SNR=12 | | | | | | |
| CHNC | Chino | 8.35 | 321 | ePn | Pn | 08 58 27.4 | -1.3 |
| CIS | Catalina Islan | 8.36 | 316 | P | Pn | 08 58 31.4 | +2.6 |
| | baz=134 | | | | | | |
| ANMO | Albuquerque | 8.47 | 29 | Pn | Pn | 08 58 31.0 | +0.5 |
| | 0.1nm,0.3s,baz=270,slow=20,SNR=7.3 | | | | | | |
| ANMO | | | | Sn | Sn | 09 00 04.3 | -2.1 |
| | 0.2nm,0.3s,baz=217,slow=18,SNR=2.5 | | | | | | |
| ANMO | | | | Lg | Lg | 09 00 53.8 | |
| | 1.0nm,0.3s,baz=259,slow=21,SNR=8.2 | | | | | | |
| ANMO | | | | LR | LR | 09 01 34.3 | |
| | comp=Z,360nm,20.6s,baz=24,slow=37 | | | | | | |
| ANMO | Albuquerque | 8.47 | 29 | ePn | Pn | 08 58 32.2 | +1.7 |
| ANMO | | | | Sn | Sn | 09 00 04.3 | -2.1 |
| ANMO | | | | Lg | Lg | 09 00 53.8 | |
| BFSC | Mount Baldy Ra | 8.52 | 323 | P | Pn | 08 58 33.4 | +2.3 |
| | baz=141 | | | | | | |
| TUQ | Turquoise Moun | 8.71 | 335 | P | Pn | 08 58 36.3 | +2.5 |
| | baz=154 | | | | | | |
| U15A | North Rim | 8.84 | 355 | ePn | Pn | 08 58 37.5 | +1.8 |
| GSC | Goldstone, Bar | 8.95 | 330 | P | Pn | 08 58 37.0 | 0.0 |
| | baz=149 | | | | | | |
| GSC | Goldstone, Bar | 8.95 | 330 | ePn | Pn | 08 58 36.7 | -0.3 |
| BLKC | Black Mountain | 8.96 | 328 | ePn | Pn | 08 58 40.0 | +2.9 |
| EDW2 | Edwards Air Fo | 9.19 | 324 | P | Pn | 08 58 42.4 | +2.2 |
| | baz=142 | | | | | | |
| SHOC | Shoshone, Teco | 9.25 | 335 | P | Pn | 08 58 44.1 | +3.0 |
| | baz=153 | | | | | | |
| SHPR | Sheep Range | 9.43 | 341 | ePn | Pn | 08 58 45.9 | +2.3 |
| KNB | Kanab | 9.47 | 353 | ePn | Pn | 08 58 46.1 | +1.9 |
| LRMC | Laurel Mtn Rad | 9.50 | 327 | P | Pn | 08 58 47.1 | +2.5 |
| | baz=145,SNR=13 | | | | | | |
| LCMT | Little Creek M | 9.52 | 351 | ePn | Pn | 08 58 46.5 | +1.7 |
| MSTX | Muleshoe | 9.78 | 47 | P | Pn | 08 58 50.4 | +2.0 |
| | baz=230 | | | | | | |

ARVC **Arvin** 9.82 322 P Pn 08 58 51.3 +2.5
baz=139
PKCU **Pink Cliffs** 9.85 356 ePn Pn 08 58 54.2 +4.7
MPMC **Manual Prospec** 9.89 330 P Pn 08 58 51.7 +1.8
baz=148
MVCO **Mesa Verde** 9.90 14 ePn Pn 08 58 52.6 +2.4
FURC **Furnace Creek,** 9.98 334 P Pn 08 58 54.1 +3.1
baz=152
CCUT **Cedar City** 10.06 351 ePn Pn 08 58 55.4 +3.1
SZCU **Shurtz Canyon** 10.07 352 ePn Pn 08 58 55.8 +3.3
TPNV **Topopah Spring** 10.18 338 ePn Pn 08 58 56.4 +2.5
PKM **Mcpherson Peak** 10.22 317 P Pn 08 58 56.8 +2.3
baz=135
MTPU **Mount Pierson** 10.44 357 ePn Pn 08 59 02.0 +4.4
CWC **Cottonwood Cre** 10.47 329 P Pn 08 59 00.9 +3.0
baz=147
VES **Vestal, Richgr** 10.49 323 P Pn 08 59 00.9 +2.9
baz=141
JCT **Junction City** 10.57 71 ePn Pn 08 59 02.1 +3.0
MMU **Miners Mountai** 10.57 1 ePn Pn 08 59 02.0 +2.6
SMMC **Simmler** 10.62 319 P Pn 08 59 02.6 +2.8
baz=136
PV05 **Paradox Valley** 10.63 10 ePn Pn 08 59 05.8 +5.6
833A **Chaparral WMA,** 10.66 83 P Pn 08 59 00.9 +0.6
baz=267
PV01 **Paradox Valley** 10.78 12 ePn Pn 08 59 05.1 +2.9
S22A **4UR Ranch, Cre** 10.83 20 P Pn 08 59 05.6 +2.6
baz=202
MSU **Marysvale** 10.91 357 ePn Pn 08 59 10.3 +6.4
PV10 **Paradox Valley** 10.94 10 ePn Pn 08 59 08.4 +4.0
PV09 **Paradox Valley** 11.04 9 ePn Pn 08 59 10.2 +4.4
AMTX **Amarillo** 11.05 47 ePn Pn 08 59 06.8 +1.0
PAGB **Antelope Grade** 11.06 319 ePn Pn 08 59 09.3 +3.5
T25A **Trinidad** 11.21 30 P Pn 08 59 10.4 +2.4
baz=213
R11A **Troy Canyon, C** 11.28 343 P Pn 08 59 11.7 +2.7
baz=161
SDCO **Great Sand Dun** 11.28 25 ePn Pn 08 59 12.7 +3.6
Q16A **Castle Valley** 11.29 1 ePn Pn 08 59 13.3 +4.1
ABTX **Abilene, Hawle** 11.36 61 P Pn 08 59 11.1 +1.2
baz=245
SRU **San Rafael Swe** 11.51 3 ePn Pn 08 59 15.9 +3.7
TMUT **Trail Mountain** 11.67 1 ePn Pn 08 59 19.9 +5.4
PMPB **Monarch Peak** 11.71 320 ePn Pn 08 59 18.3 +3.5
P17A **Butcher Ranch,** 11.86 3 ePn Pn 08 59 20.8 +3.8
MDPB **Devils Postpil** 11.90 329 ePn Pn 08 59 22.7 +5.1
P18A **Preston Nutter** 12.04 4 ePn Pn 08 59 22.9 +3.4
SMCO **Snowmass** 12.13 17 ePn Pn 08 59 24.4 +3.6
NLU **North Lily Min** 12.34 358 ePn Pn 08 59 27.3 +3.8
MPU **Maple Canyon** 12.39 359 ePn Pn 08 59 28.0 +3.8
SAO **San Andreas Ge** 12.47 320 ePn Pn 08 59 27.2 +2.1
Q24A **Divide** 12.49 23 P Pn 08 59 28.9 +3.3
baz=206
DUG **Dugway, Tooele** 12.62 355 ePn Pn 08 59 31.4 +4.1
O20A **White River Ci** 12.78 11 P Pn 08 59 32.2 +2.7
baz=192
CMB **Columbia Colle** 12.85 326 ePn Pn 08 59 33.7 +3.4
WMOK **Wichita Mounta** 12.95 54 ePn Pn 08 59 32.2 +0.5
CTU **Camp Tracy** 13.07 359 ePn Pn 08 59 37.8 +4.3
YERR **Yerington** 13.10 332 ePn Pn 08 59 38.5 +4.6
336A **Riesel** 13.25 70 P Pn 08 59 34.6 -1.2
baz=256
JSFB **Stanford Teles** 13.33 320 ePn P 08 59 45.1 -1.6
BGU **Big Grassy Mou** 13.36 355 ePn Pn 08 59 41.4 +3.9
ELK **Elko** 13.49 347 Pn Pn 08 59 40.5 +1.3
0.1nm,0.3s,baz=238,slow=8.2,SNR=6.2
ELK LR LR 09 03 44.6
comp=Z,164nm,20.6s,baz=202,slow=33
KSCO **Kaye Shedlock'** 13.54 31 P Pn 08 59 42.3 +2.4
baz=214
SPUT **South Promonto** 13.71 357 ePn P 08 59 47.3 -3.7
PAHR **Pah Rah Range** 13.77 333 ePn Pn 08 59 47.6 +4.6
N23A **Red Feather La** 14.01 17 P Pn 08 59 49.1 +2.7
baz=200
X35A **Drake** 14.12 58 P Pn 08 59 49.0 +1.4
baz=244
BEKR **Beckworth** 14.31 331 ePn Pn 08 59 54.1 +3.7
PHWY **Pilot Hill** 14.53 18 ePn P 08 59 57.7 -2.5
OK021 **N3530 Road, Sp** 14.84 54 ePn P 09 00 03.9 +0.4
OK021 eSn S 09 02 56.7 -4.0
BW06 **Boulder Array** 15.21 5 ePn P 09 00 10.4 +2.7
9.8nm,1.4s
PD31 **Pinedale Array** 15.21 5 ePn P 09 00 08.0 +0.2
PDAR **Pinedale Array** 15.21 5 Pn Pn 09 00 04.8 +2.2
0.1nm,0.3s,baz=171,slow=10,SNR=11
PDAR Lg Lg 09 04 22.8
0.1nm,0.3s,baz=188,slow=16,SNR=3.6
PDAR LR LR 09 06 14.3
comp=Z,427nm,20.8s,baz=200,slow=39
PDAR **Pinedale Array** 15.21 5 ePn P 09 00 07.4 -0.4
PDAR Lg Lg 09 04 22.8
O03D **Paynes Creek** 15.30 329 P P 09 00 08.5 -0.1
baz=144,SNR=7.5
X37A **Clayton** 15.41 59 P Pn 09 00 06.6 +1.5
baz=246
V36A **Jenks** 15.49 54 P Pn 09 00 07.4 +1.3
baz=241
W37B **Quinton** 15.58 57 P Pn 09 00 09.2 +1.9
baz=244
S34A **Willow Spring** 15.69 46 P Pn 09 00 10.9 +2.1
baz=233
REDW **Red Top Meadow** 15.74 2 ePn P 09 00 13.8 +0.2
5.6nm,1.1s
SNOW **Snow King Moun** 15.84 2 ePn P 09 00 16.1 +1.3
8.2nm,1.0s
X38A **Whitesboro** 15.85 60 P Pn 09 00 12.5 +1.7
baz=247
TPAW **Teton Pass** 15.87 1 ePn P 09 00 15.5 +0.4
17nm,1.3s
WDC **Whiskeytown Da** 15.88 328 ePn P 09 00 14.1 -0.8
26nm,1.9s
WVOR **Wild Horse Val** 15.93 340 ePn P 09 00 15.7 +0.1
29nm,1.5s
R34A **Isabella, Hill** 15.96 44 P P 09 00 15.5 -0.4
baz=231
FXWY **Fox Creek** 16.01 1 ePn P 09 00 16.4 -0.2
22nm,1.8s
MOD **Modoc Plateau** 16.02 335 ePn P 09 00 17.2 +0.6
37nm,1.4s
V37A **Hulbert** 16.11 55 P Pn 09 00 14.8 +0.6
baz=243
HLID **Hailey** 16.12 352 ePn P 09 00 18.4 +0.7
18nm,1.6s
MOOW **Moose Ponds** 16.13 2 ePn P 09 00 17.4 -0.5
11nm,1.4s
MFID **Camas Ranch** 16.18 348 ePn P 09 00 19.1 +0.7
12nm,1.4s
S35A **Otter Creek Ra** 16.20 48 P P 09 00 17.5 -0.9
baz=235
140A **Cam and Jess,** 16.24 68 P P 09 00 17.6 -1.3
baz=255
W38A **Poteau** 16.24 59 P P 09 00 17.8 -1.1
baz=246
N02D **Trinity Center** 16.26 328 P P 09 00 18.8 -0.5
baz=142
IMW **Indian Meadow** 16.27 1 ePn P 09 00 19.3 -0.3
40nm,1.7s
341A **Kurthwood** 16.33 72 P Pn 09 00 18.3 +1.3
baz=260
X39A **Fountain Ranch** 16.34 61 P Pn 09 00 18.4 +1.3
baz=249
U37A **Salina** 16.37 53 P Pn 09 00 17.2 -0.2
baz=241
M04C **Macdoel** 16.52 332 P P 09 00 23.4 +1.2
baz=146,SNR=17
Q34A **Chapman** 16.54 43 P Pn 09 00 20.8 +1.1
baz=230
V38A **Canehill** 16.64 56 P Pn 09 00 20.2 -0.7
baz=244
YPP **Pitchstone Pla** 16.65 2 ePn P 09 00 23.9 +0.1
24nm,1.7s
M02C **Callahan** 16.66 329 P P 09 00 24.1 +0.5
baz=143
S36A **Lake Cedric, C** 16.70 49 P Pn 09 00 22.2 +0.5
baz=236
J08A **Circle Bar Ran** 16.73 342 ePn P 09 00 25.3 +0.8
39nm,1.8s
H17A **Grant Village** 16.78 2 P P 09 00 25.8 +0.7
baz=182
KSU1 **Kansas State U** 16.85 43 ePn P 09 00 26.5 +0.8
16nm,0.8s
YBH **Yreka Blue Hor** 16.86 330 Pn Pn 09 00 24.7 +0.9
0.3nm,0.3s,baz=228,slow=19,SNR=9.9
U38A **Gravette** 16.91 54 P Pn 09 00 24.3 0.0
baz=242
P34A **Walnut Farm, R** 17.00 42 P P 09 00 28.1 +0.7
baz=229
YMR **Madison River** 17.04 1 ePn P 09 00 29.4 +1.4
14nm,1.3s
Q35A **Mercer Eighty,** 17.06 45 P P 09 00 28.0 0.0
baz=232
R36A **Gordon, Harris** 17.09 47 P P 09 00 28.4 0.0
baz=235
YNR **Norris Junctio** 17.10 2 ePn P 09 00 30.5 +1.8
18nm,1.4s
HHAR **Hobbs** 17.16 55 ePn P 09 00 30.6 +1.4
15nm,1.3s
YHH **Holmes Hill** 17.16 1 ePn P 09 00 30.7 +1.2
17nm,1.6s
V39A **Pettigrew** 17.20 57 P Pn 09 00 26.9 -1.1
baz=245
S37A **Fort Scott** 17.23 50 P P 09 00 30.6 +0.7
baz=238
MCMT **McKenzie Canyo** 17.24 357 ePn P 09 00 32.1 +1.9
T38A **Diamond** 17.25 53 P Pn 09 00 28.6 +0.1
baz=241
P35A **Duane Minner,** 17.48 43 P P 09 00 32.8 +0.2
baz=231
Q36A **Arnold C. Orve** 17.48 46 P P 09 00 33.3 +0.6
baz=233
O34A **Beatrice** 17.50 40 P P 09 00 33.2 +0.4
baz=228
J05D **Fort Rock, OR** 17.56 336 P P 09 00 36.0 +2.3
baz=150,SNR=9.6
RLMT **Red Lodge** 17.58 5 ePn P 09 00 36.2 +2.3
53nm,1.9s
I07A **Izee** 17.69 341 ePn P 09 00 37.5 +2.4
DLMT **Dillon** 17.76 357 eP P 09 00 38.8 +2.9
9.3nm,1.2s
V40A **Witts Springs** 17.80 58 P Pn 09 00 35.3 -0.2
baz=247
J04D **Umpqua Nationa** 17.85 334 P P 09 00 39.8 +2.8
baz=148
BMO **Blue Mountains** 17.86 346 ePn P 09 00 38.8 +1.9
16nm,1.9s
T39A **Clever** 17.89 54 P Pn 09 00 36.6 0.0
baz=242
U40A **Yellville** 17.99 56 P P 09 00 39.0 +0.6
baz=245
W41B **Gary Mavity, V** 18.01 60 P P 09 00 39.5 +1.0
baz=249
P36A **Good Intent, A** 18.03 44 P P 09 00 39.3 +0.5
baz=232
R38A **Fenwick Farm,** 18.08 50 P P 09 00 40.4 +1.1
baz=238
Q37A **Longview Farm,** 18.08 47 P P 09 00 40.4 +1.1
baz=236
GCMT **Greycliff** 18.21 4 ePn Pn 09 00 41.3 +0.6
S39A **Bolivar** 18.24 52 P P 09 00 41.5 +0.4
baz=241
V41A **Mountainview** 18.30 59 P P 09 00 42.2 +0.5
baz=248
344A **Westbrook Farm** 18.41 73 P P 09 00 42.7 -0.3
baz=262
I04A **Tendick Farm,** 18.44 334 P Pn 09 00 45.3 +2.0
baz=148
I05D **Terrebonne, OR** 18.51 337 P Pn 09 00 47.9 +3.7
baz=152
N35A **Tabor** 18.54 40 P Pn 09 00 45.4 +0.8
baz=228
P37A **Lathrop** 18.55 45 P Pn 09 00 45.5 +0.9
baz=234
T40A **Mansfield** 18.56 54 P P 09 00 43.5 -1.1
baz=244
G08A **Pilot Rock** 18.66 343 eP Pn 09 00 49.1 +3.1
8.6nm,1.1s
Q38A **Cooks Store, C** 18.67 48 P P 09 00 46.3 +0.5
baz=237
U41A **Viola** 18.68 57 P P 09 00 45.6 -0.3
baz=247
R39A **Chumby, Stover** 18.73 51 P Pn 09 00 47.2 +0.3
baz=240
S40A **Lebanon** 18.77 53 P P 09 00 47.3 +0.3
baz=242
V42A **Cord** 18.89 59 P P 09 00 48.1 0.0
baz=249
T41A **Mountain View** 19.07 55 P P 09 00 50.0 -0.2
baz=245
G06A **Carson Farm,** 19.08 340 eP Pn 09 00 53.9 +2.8
16nm,1.1s
HRY **Holter Researc** 19.09 359 eP Pn 09 00 54.2 +3.0
P38A **Dawn** 19.09 47 P Pn 09 00 52.2 +1.0
baz=236
Q39A **Willow Grove F** 19.14 49 P Pn 09 00 51.8 0.0
baz=238
U42A **Revenden** 19.19 58 P P 09 00 52.0 +0.5
baz=248
R40A **Maddies Statio** 19.25 52 P Pn 09 00 53.2 0.0
baz=241
G05D **Wamic, OR** 19.30 338 P Pn 09 00 55.2 +1.4
baz=153
MSO **Missoula** 19.30 355 eP Pn 09 00 55.3 +1.5
23nm,1.7s
S41A **Jillco Farms,** 19.31 54 P P 09 00 53.2 +0.4
baz=244
N37A **Lee Faris, Mou** 19.32 43 P Pn 09 00 54.1 +0.2
baz=232
O38A **Galt** 19.40 45 P Pn 09 00 55.3 +0.3
baz=234
F07A **Phinny Hill Vi** 19.47 342 eP Pn 09 00 59.0 +3.3
25nm,1.0s
P39B **Salisbury** 19.52 48 P P 09 00 55.9 +0.8
baz=237
E09A **Wood Farm, Sta** 19.62 346 eP P 09 00 57.3 +1.2
12nm,1.0s
Q40A **Laux Farm, Aux** 19.73 50 P P 09 00 58.3 +1.0
baz=240
H31A **Wolsey** 19.79 28 P Pn 09 00 60.0 +0.4
baz=215
M37A **Trindle Farm,** 19.81 41 P P 09 00 58.9 +0.7
baz=231
HAWA **Hanford** 19.83 343 eP Pn 09 01 02.6 +2.6
26nm,1.6s
R41A **Rosebud** 19.88 52 P P 09 00 59.2 +0.2
baz=242
N38A **Joes South For** 19.94 44 P Pn 09 01 01.7 +0.3
baz=234
P40A **Paris** 20.01 49 P P 09 01 01.1 +0.6
baz=238
ECSD **EROS Data Cent** 20.05 33 eP P 09 01 00.8 -0.1
22nm,1.6s
X45A **UM Field Stati** 20.05 65 P P 09 01 02.0 +1.1
baz=255
O39A **Kirksville** 20.07 46 P P 09 01 02.2 +1.1
baz=236
S42A **Caledonia** 20.07 54 P P 09 01 02.2 +1.1
baz=245
T43A **Greenville** 20.17 57 P Pn 09 01 03.5 -0.6
baz=247
H32A **Carlson Farm,** 20.26 30 P Pn 09 01 05.6 +0.5
baz=218
Q41A **Truxton** 20.28 51 P Pn 09 01 05.0 -0.4
baz=241
R42A **Lubbering** 20.29 53 P P 09 01 04.7 +1.2
baz=244
D08A **Wollman Farm,** 20.30 345 eP P 09 01 04.0 +0.4
6.3nm,0.8s
M38A **Pleasantville** 20.33 43 P Pn 09 01 06.1 +0.1
baz=232
Y46A **Houston** 20.36 67 P P 09 01 05.1 +0.8
baz=257
K36A **Gilmore City** 20.39 38 P Pn 09 01 06.4 -0.2
baz=227
O40A **La Belle** 20.43 47 P P 09 01 06.2 +1.2
baz=237
EGMT **Eagleton** 20.44 3 eP Pn 09 01 07.3 +0.1
86nm,1.9s
L37A **Phoenix Point,** 20.44 40 P Pn 09 01 07.1 -0.1
baz=230
N39A **Derby Farms, D** 20.44 45 P Pn 09 01 07.2 -0.1
baz=235
S43A **Fulton Ridge,** 20.51 56 P Pn 09 01 09.4 +1.3
baz=246
H33A **Prehn Over Nor** 20.71 31 P Pn 09 01 09.8 -0.6
baz=219
P41A **Barry, Barry** 20.74 49 P P 09 01 09.5 +1.1
baz=240
Q42A **Golden Eagle** 20.75 52 P P 09 01 09.4 +1.0
baz=242
LON **Longmire** 20.80 340 eP P 09 01 10.6 +1.5
13nm,1.1s
Z47A **Carrollton** 20.88 69 P P 09 01 11.1 +1.1
baz=260
R43A **Red Bud** 20.90 54 P P 09 01 11.0 +0.9
baz=245
L38A **Oak Wood Farm,** 20.91 41 P P 09 01 10.9 +0.6
baz=231
K37A **Belmond** 20.92 39 P P 09 01 10.9 +0.6
baz=229
M39A **Webster** 20.99 44 P P 09 01 11.5 +0.4
baz=234
N40A **Mertquake, Sal** 21.02 46 P P 09 01 12.4 +0.9
baz=236
U45A **Rockin P Farm,** 21.07 60 P P 09 01 12.9 +0.9
baz=251
O41A **Passleys Farm,** 21.08 48 P P 09 01 12.9 +0.9
baz=239
NEW **Newport** 21.11 349 P P 09 01 12.5 +0.2
8.2nm,0.9s,baz=171,slow=12,SNR=18
NEW **Newport** 21.11 349 eP P 09 01 13.2 +0.8
14nm,1.0s
H34A **Spellman Lake,** 21.15 32 P P 09 01 14.1 +1.4
baz=221
S44A **Carbondale** 21.16 56 P P 09 01 13.3 +0.3
baz=247
P42A **Winchester** 21.19 50 P P 09 01 14.2 +1.0
baz=241
Y47A **UCPARC, Winfie** 21.19 67 P P 09 01 13.4 +0.1
baz=258
SIUC **Southern Illin** 21.20 56 eP P 09 01 14.9 +1.5
21nm,0.8s
J37A **Redenius Farm,** 21.32 38 P P 09 01 15.0 +0.3
baz=228
K38A **Parkersburg** 21.34 40 P P 09 01 15.3 +0.5
baz=230
Q43A **New Douglas** 21.34 52 P P 09 01 16.0 +1.1
baz=244
M40A **Post Highland** 21.36 45 P P 09 01 15.8 +0.7
baz=235
L39A **Vinton** 21.47 43 P P 09 01 17.2 +1.0
baz=233
R44A **Waltonville** 21.50 55 P P 09 01 16.8 +0.2
baz=246
WALA **Waterton Lakes** 21.52 356 eP P 09 01 19.8 +2.9
14nm,1.1s
I36A **Fitzsimmons Fa** 21.56 36 P P 09 01 17.1 -0.1
baz=226
H35A **Sunnyside Ranc** 21.63 34 P P 09 01 19.2 +1.3
baz=223
G34A **Benson** 21.64 31 P P 09 01 20.1 +2.0
baz=220
WVT **Waverly** 21.73 61 eP P 09 01 19.8 +0.7
16nm,1.0s
E31A **Nome** 21.73 26 P P 09 01 20.7 +1.6
baz=214
LRAL **Lakeview Retre** 21.75 70 eP P 09 01 19.5 +0.2
53nm,2.0s
P43A **Skaggs, Pawnee** 21.78 51 P P 09 01 20.7 +1.2
baz=242
Q44A **Meyer Farm, Va** 21.81 53 P P 09 01 21.2 +1.3
baz=245
F33A **5 Mile Ranch,** 21.81 29 P P 09 01 21.7 +1.9
baz=218
I37A **Lemond, Waseca** 21.88 37 P P 09 01 21.5 +0.9
baz=227
K39A **Oelwein** 21.89 41 P P 09 01 22.0 +1.3
baz=232
L40A **Anamosa** 21.91 44 P P 09 01 21.5 +0.6
baz=234
J38A **Wedel Dairy, R** 21.93 39 P P 09 01 22.2 +1.0
baz=230
M41A **Milan** 21.95 46 P P 09 01 21.3 -0.1
baz=237
T46A **Princeton** 21.95 59 P P 09 01 22.2 +0.7
baz=250
N42A **Yates City** 22.00 48 P P 09 01 23.6 +1.7
baz=239
R45A **Skylar, Fairfi** 22.10 55 P P 09 01 23.1 +0.1
baz=247
O43A **Sugar Creek Fa** 22.21 50 P P 09 01 25.7 +1.4
baz=241
B05A **Bryant** 22.25 341 P P 09 01 26.9 +2.4
baz=155
S46A **Don Dixon Farm** 22.30 57 P P 09 01 26.7 +1.5
baz=249
P44A **Sand Creek, Wi** 22.33 52 P P 09 01 26.9 +1.5
baz=244
HDIL **Hopedale** 22.36 49 eP P 09 01 26.5 +0.8
54nm,1.2s
L41A **Preston** 22.36 44 P P 09 01 27.8 +2.0
baz=236
J39A **Decorah** 22.38 40 P P 09 01 26.9 +0.9
baz=231
Q45A **Warren Harvey,** 22.42 54 P P 09 01 27.2 +0.8
baz=246
H37A **Dierke Farm, C** 22.52 36 P P 09 01 27.9 +0.5
baz=227
G36A **St. Michael** 22.55 34 P P 09 01 29.5 +1.7
baz=224
P45A **Graceland, Par** 22.97 53 P P 09 01 33.6 +1.3
baz=245
J40A **Soldiers Grove** 22.97 41 P P 09 01 34.0 +1.7
baz=233
JFWS **Jewell Farm** 22.98 43 eP P 09 01 33.8 +1.4
79nm,1.8s
N44A **Piper City** 23.25 50 P P 09 01 36.0 +0.8
baz=242
J41A **Loganville** 23.38 42 P P 09 01 37.9 +1.4
baz=234
B31A **Greenbush Farm** 23.39 24 P P 09 01 37.2 +0.8
baz=212
R47A **Wooly Knot Far** 23.39 57 P P 09 01 38.1 +1.5
baz=248
Q47A **Bedord North L** 23.69 55 P P 09 01 40.3 +0.7
baz=248
E36A **McGregor** 23.71 32 P P 09 01 40.3 +0.7
baz=223
B32A **Ashes, Strandq** 23.77 25 P P 09 01 40.1 -0.1
baz=214
SFIN **Lafayette** 23.77 51 P P 09 01 39.7 -0.6
baz=244
AGMN **Agassiz Nation** 23.95 26 eP P 09 01 42.4 +0.5
56nm,1.9s
P47A **Martinsville** 24.00 54 P P 09 01 42.7 +0.2
baz=247
B33A **Robert and Kas** 24.04 27 P P 09 01 43.4 +0.6
baz=216
CPCT **Cooper Cave** 24.18 64 eP P 09 01 46.0 +1.8
40nm,1.8s
A32A **Rocking H Ranc** 24.22 24 P P 09 01 44.9 +0.5
baz=213
B34A **Aery, Baudette** 24.58 27 P P 09 01 47.6 -0.2
baz=218
A33A **Warroad** 24.65 26 P P 09 01 48.2 -0.2
baz=216
TKL **Tuckaleechee C** 24.82 64 P P 09 01 50.3 +0.3
5.2nm,0.9s,baz=245,slow=7.0,SNR=4.8
TKL **Tuckaleechee C** 24.82 64 eP P 09 01 50.5 +0.5
24nm,1.4s
B35A **Bob, Littlefor** 24.87 29 P P 09 01 51.0 +0.6
baz=219
ULM **Lac du Bonnet** 25.55 24 P P 09 01 54.0 -2.5
3.2nm,1.0s,baz=207,slow=14,SNR=2.3
ULM LR LR 09 12 33.9
comp=Z,401nm,19.1s,baz=230,slow=38
BBB **Bella Bella** 27.56 338 LR LR 09 14 36.2
comp=Z,167nm,20.1s,baz=206,slow=40
VLDQ **Val d'Or** 33.35 43 eP P 09 03 05.7 -0.2
24nm,1.5s
YKA **Yellowknife Ar** 34.96 357 P P 09 03 20.1 +0.5
1.2nm,1.1s,baz=174,slow=7.8,SNR=8.1
YKA PcP PcP 09 05 50.9 -1.0
0.5nm,0.9s,baz=166,slow=2.4,SNR=4.4
YKA LR LR 09 20 01.8
comp=Z,33nm,19.4s,baz=0.0,slow=40
DAWY **Dawson** 40.67 342 eP P 09 04 10.1 +2.2
24nm,1.8s
EGAK **Eagle** 41.71 341 eP P 09 04 18.1 +1.8
24nm,1.9s
INK **Inuvik** 42.82 348 P P 09 04 25.0 -0.4
1.2nm,0.8s,baz=135,slow=6.0,SNR=6.7
INK **Inuvik** 42.82 348 eP P 09 04 25.8 +0.5
16nm,1.5s
IL1 **Eielson Array** 43.44 339 eP P 09 04 31.8 +1.4
ILAR **Eielson Array** 43.44 339 P P 09 04 30.6 +0.2
1.4nm,1.0s,baz=153,slow=6.9,SNR=12
TRF **Thorofare Moun** 43.77 336 eP P 09 04 34.4 +1.1
24nm,1.6s
PPLA **Purkeypile** 44.15 335 eP P 09 04 37.5 +1.1
33nm,1.4s
CAST **Castle Rocks** 44.41 335 eP P 09 04 38.4 +0.1
20nm,1.6s

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MLY** | **Manley** | **44.88** | **338** | *e*P | **P** | **09 04 43.2** | **+1.2** |
| | 40nm,2.0s | | | | | | |
| **IMAR** | **Indian Mountai** | **46.45** | **338** | *e*P | **P** | **09 04 54.7** | **+0.3** |
| **RPN** | **Rapa Nui** | **54.45** | **178** | LR | LR | 09 23 38.5 | |
| | comp=Z,84nm,19.5s,baz=22,slow=30 | | | | | | |
| **LPAZ** | **La Paz** | **60.53** | **131** | P | **P** | **09 06 40.7** | **+1.6** |
| | 1.0nm,0.8s,baz=3.1,slow=10,SNR=3.6 | | | | | | |
| **SEY** | **Seymchan** | **68.54** | **331** | P | **P** | **09 07 28.9** | **-1.3** |
| | 1.2nm,0.7s,baz=163,slow=19,SNR=3.0 | | | | | | |
| **ARCES** | **ARCESS Array B** | **78.27** | **14** | P | **P** | **09 08 27.3** | **-0.1** |
| | 1.7nm,0.8s,baz=339,slow=9.0,SNR=2.8 | | | | | | |
| **FINES** | **FINESS Array B** | **84.85** | **19** | P | **P** | **09 09 02.6** | **+0.3** |
| | 5.5nm,1.0s,baz=34,slow=7.1,SNR=4.4 | | | | | | |
| FINES | | | | LR | LR | 09 46 00.3 | |
| | comp=Z,87nm,18.6s,baz=26,slow=35 | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **101.09** | **328** | *e*P | **Pdif** | **09 10 17.0** | **-1.3** |
| HHC | | | | PP | **PP** | **09 14 28.5** | **+2.7** |
| **HHC** | **Hu-ho-hao-te** | **101.09** | **328** | SS | SS | 09 28 55.9 | +0.8 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,12nm,1.1s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,61nm,5.2s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=N,190nm,17.7s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=E,170nm,18.2s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,110nm,17.1s | | | | | | |
| **WRA** | **Warramunga Arr** | **119.94** | **262** | PKP | **PKPdf** | **09 15 18.1** | **-1.0** |
| | comp=Z,1.2nm,0.7s,baz=64,slow=2.2,SNR=5.7 | | | | | | |
| **ASAR** | **Alice Springs** | **121.58** | **258** | PKP | **PKPdf** | **09 15 20.4** | **-1.8** |
| | comp=Z,0.7nm,0.6s,baz=81,slow=2.0,SNR=12 | | | | | | |
| | 7.2nm,1.5s | | | | | | |
| **KMI** | **Kunming** | **89.62** | **298** | P | **P** | **09 34 44.7** | **-0.9** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,11nm,0.5s | | | | | | |
| **MTPU** | **Mount Pierson** | **89.80** | **47** | *e*P | **P** | **09 34 46.7** | **+0.3** |
| | comp=Z,4.3nm,0.9s | | | | | | |
| **TMUT** | **Trail Mountain** | **91.12** | **47** | *e*P | **P** | **09 34 53.3** | **+0.9** |
| | comp=Z,5.5nm,0.8s | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **91.19** | **315** | *e*P | **P** | **09 34 53.7** | **+1.3** |
| HHC | | | | SKS | **SKSac** | **09 44 36.8** | **+1.0** |
| **HHC** | **Hu-ho-hao-te** | **91.19** | **315** | S | **S** | **09 45 07.0** | **-0.2** |
| **HHC** | **Hu-ho-hao-te** | **91.19** | **315** | sS | sS | 09 48 28.8 | -0.4 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,22nm,1.0s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,84nm,5.2s | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **91.52** | **58** | *e*P | **P** | **09 34 54.3** | **+0.1** |
| **TXAR** | **Lajitas Array** | **91.52** | **58** | P | **P** | **09 34 54.7** | **+0.5** |
| | comp=Z,1.4nm,0.7s,baz=216,slow=4.0,SNR=9.7 | | | | | | |
| **ILAR** | **Eielson Array** | **93.54** | **14** | P | **P** | **09 35 00.4** | **-2.0** |
| | comp=Z,0.2nm,0.8s,baz=235,slow=3.2,SNR=3.9 | | | | | | |
| **ARCES** | **ARCESS Array B** | **133.24** | **348** | SKPbc | **SKPbc** | **09 43 39.5** | **+0.2** |
| | comp=Z,2.1nm,0.8s,baz=48,slow=3.6,SNR=5.7 | | | | | | |
| **FINES** | **FINESS Array B** | **139.71** | **341** | SKPbc | **SKPbc** | **09 43 58.4** | **-0.3** |
| | comp=Z,4.1nm,1.0s,baz=98,slow=3.9,SNR=4.6 | | | | | | |
| **NB2** | **NORSAR Subarra** | **143.46** | **351** | PKP | PKPab | 09 41 13.9 | -2.1 |
| | comp=Z,1.3nm,0.5s,baz=14,slow=3.1 | | | | | | |
| **NOA** | **NORSAR Array B** | **143.46** | **351** | PKP | PKPab | 09 41 14.7 | -1.3 |
| | comp=Z,2.8nm,0.9s,baz=29,slow=4.5,SNR=6.8 | | | | | | |
| **AKASG** | **Malin Array Be** | **145.98** | **326** | PKPbc | **PKPdf** | **09 41 22.4** | **+0.1** |
| | comp=Z,0.5nm,0.4s,baz=46,slow=4.3,SNR=5.4 | | | | | | |
| **BRTR** | **Keskin Array B** | **148.14** | **305** | PKPbc | **PKPbc** | **09 41 29.6** | **-0.8** |
| | comp=Z,0.5nm,0.6s,baz=112,slow=1.6,SNR=3.0 | | | | | | |
| **CLL** | **Collm** | **152.13** | **342** | *e*PKPbc | **PKPbc** | **09 41 42.0** | **+2.8** |

---

*IDC **10** 08:59:56.7±1.8, 2°.32S×100°.27E, h0km, mb4.2/7, mb1 4.2/8, mb1mx3.8/37, mbtmp4.1/8, ML3.0/1, Error ellipse: s-maj=90.9km s-min=18.3km az=55.0*

*ISCJB **10** 09:00:05.4±0.6, 2°.02S±0°.06×100°.67E±0°.07, h56km, mb4.2/7, Error ellipse: s-maj=10.7km s-min=7.4km az=145.4*

*DJA **10** 09:00:06.0±0.5, 2°S±4°×10°1E±°, h19km±7km, M4.2/6, MLv4.2/6*

**ISC 10 09:00:06.0**±0.8**, 1°.99S**±0°.05×**100°.63E**±0°.06**, h56**km**, n20, σ1s.46**/21**, mb4.3**/7**, Southern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PPSI** | **Pulau Pagai** | **0.98** | **219** | P | **Pn** | **09 00 24.6** | **+0.9** |
| PPSI | | | | Pg | **Pn** | **09 00 24.9** | **+1.2** |
| **PDSI** | **Padang** | **1.08** | **351** | P | **Pn** | **09 00 26.4** | **+1.3** |
| PDSI | | | | S | **Sn** | **09 00 41.0** | **+1.8** |
| PDSI | | | | Sg | **Sn** | **09 00 41.0** | **+1.8** |
| **SDSI** | **Sungai Dareh** | **1.32** | **37** | P | **Pn** | **09 00 30.1** | **+1.8** |
| **SISI** | **Saibi** | **1.67** | **293** | P | **Pn** | **09 00 34.1** | **+1.1** |
| **MASI** | **Maura Aman, Be** | **1.98** | **125** | P | **Pn** | **09 00 38.0** | **+0.8** |
| **PBSI** | **Pulau Batu** | **3.03** | **309** | P | **Pn** | **09 00 53.8** | **+2.2** |
| **MNAI** | **Manna** | **3.31** | **135** | P | **Pn** | **09 00 56.7** | **+1.3** |
| **DSRI** | **Dabo** | **4.23** | **69** | P | **Pn** | **09 01 08.8** | **+0.8** |
| **PSI** | **Prapat** | **5.05** | **340** | Pn | **Pn** | **09 01 16.4** | **-3.1** |
| | 0.5nm,0.3s,baz=172,slow=15,SNR=1.9 | | | | | | |
| **H08S2** | **Diego Garcia H** | **28.58** | **258** | T | T | 09 34 56.0 | |
| | baz=82,slow=74 | | | | | | |
| **H08S3** | **Diego Garcia H** | **28.59** | **258** | T | T | 09 34 56.4 | |
| | baz=82,slow=74 | | | | | | |
| **H08S1** | **Diego Carcia H** | **28.60** | **258** | T | T | 09 35 02.6 | |
| | baz=82 | | | | | | |
| **WRA** | **Warramunga Arr** | **37.46** | **121** | P | **P** | **09 07 12.7** | **-1.8** |
| | 0.9nm,0.6s,baz=304,slow=9.0,SNR=6.0 | | | | | | |
| **ASAR** | **Alice Springs** | **38.75** | **127** | P | **P** | **09 07 24.5** | **-0.8** |
| | 2.6nm,0.6s,baz=301,slow=7.8,SNR=51 | | | | | | |
| ASAR | | | | PcP | **PcP** | **09 09 36.0** | **-0.1** |
| | 0.3nm,0.9s,baz=312,slow=2.7,SNR=4.3 | | | | | | |
| **SONM** | **Songino Array** | **49.88** | **5** | P | **P** | **09 08 54.3** | **+0.4** |
| | 0.6nm,0.5s,baz=180,slow=10,SNR=3.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **51.19** | **344** | P | **P** | **09 09 04.2** | **+0.5** |
| | 3.1nm,0.6s,baz=148,slow=7.7,SNR=29 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **57.28** | **349** | P | **P** | **09 09 47.6** | **-0.2** |
| | 1.6nm,0.3s,baz=172,slow=5.9,SNR=16 | | | | | | |
| **FINES** | **FINESS Array B** | **84.39** | **332** | P | **P** | **09 12 31.0** | **-1.2** |
| | 2.0nm,0.8s,baz=157,slow=6.2,SNR=3.8 | | | | | | |
| **ARCES** | **ARCESS Array B** | **86.68** | **340** | P | **P** | **09 12 42.6** | **-0.8** |
| | 1.8nm,0.8s,baz=104,slow=5.8,SNR=9.4 | | | | | | |
| **TXAR** | **Lajitas Array** | **144.31** | **38** | PKP | **PKPab** | **09 19 34.7** | **-0.1** |
| | 0.4nm,0.3s,baz=321,slow=0.6,SNR=8.2 | | | | | | |

---

*ISCJB **10** 09:22:41.2±0.4, 25°.30S±0°.04×179°.51E±0°.07, h507km, mb4.2/18, Error ellipse: s-maj=7.8km s-min=4.9km az=176.9*

*IDC **10** 09:22:41.2±1.3, 25°.20S×179°.57E, h503km±17km, mb3.2/5, mb1 3.5/5, mb1mx3.2/27, mbtmp4.1/5, Error ellipse: s-maj=28.6km s-min=14.4km az=167.0*

*NEIC **10** 09:22:41.8±0.6, 25°.30S×179°.55E, h504km±8km, mb4.3/11, Error ellipse: s-maj=10.8km s-min=8.8km az=174.0*

**ISC 10 09:22:41.7**±0.6**, 25°.37S**±0°.06×**179°.59E**±0°.09**, h507**km**, n51, σ1s.35**/57**, mb4.2**/18**, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **4.46** | **151** | P | **P** | **09 24 05.3** | **+1.1** |
| | 174nm,0.3s,baz=99,slow=8.6,SNR=15 | | | | | | |
| RAO | | | | S | **S** | **09 25 12.3** | **+0.6** |
| | 64nm,0.3s,baz=287,slow=19,SNR=2.3 | | | | | | |
| **RAO** | **Raoul Island** | **4.46** | **151** | *e*P | **P** | **09 24 05.8** | **+1.5** |
| **MSVF** | **Nonsavu** | **7.73** | **349** | *e*P | **P** | **09 24 34.1** | **-1.7** |
| **MXZ** | **Matakaoa Point** | **12.21** | **185** | *e*PN | **P** | **09 25 22.8** | **+0.6** |
| MXZ | | | | SN | **S** | **09 27 37.5** | **+2.9** |
| **WMGZ** | **Waiomatatini S** | **12.46** | **184** | SN | **S** | **09 27 40.0** | **+0.6** |
| **DZM** | **Mont Dzumac** | **12.48** | **283** | P | **P** | **09 25 27.3** | **+1.8** |
| | 0.7nm,0.3s,baz=80,slow=16,SNR=18 | | | | | | |
| **DZM** | **Mont Dzumac** | **12.48** | **283** | *e*P | **P** | **09 25 26.4** | **+0.9** |
| **PKGZ** | **Pakihiroa** | **12.55** | **186** | *e*PN | **P** | **09 25 28.5** | **+2.6** |
| PKGZ | | | | SN | **S** | **09 27 40.7** | **-0.6** |
| **PUZ** | **Puketiti** | **12.72** | **185** | *e*PN | **P** | **09 25 26.4** | **-1.3** |
| PUZ | | | | SN | **S** | **09 27 40.4** | **-4.1** |
| **URZ** | **Urewera** | **13.03** | **189** | P | **P** | **09 25 29.9** | **-1.0** |
| | 4.7nm,0.3s,baz=325,slow=1.9,SNR=32 | | | | | | |
| URZ | | | | S | **S** | **09 27 49.8** | **-0.6** |
| | 1.6nm,0.3s,baz=72,slow=23,SNR=7.1 | | | | | | |
| **URZ** | **Urewera** | **13.03** | **189** | *e*P | **P** | **09 25 30.1** | **-0.8** |
| **MWZ** | **Matawai** | **13.05** | **187** | *e*PN | **P** | **09 25 30.6** | **-0.6** |
| MWZ | | | | *e*SN | **S** | **09 27 50.5** | **-0.4** |
| **AFI** | **Afiamalu** | **13.99** | **37** | S | S | 09 27 56.6 | -13 |
| | 1.9nm,0.3s,baz=270,slow=19,SNR=3.4 | | | | | | |
| **BKZ** | **Black Stump Fm** | **14.01** | **190** | *e*P | **P** | **09 25 41.9** | **+0.7** |
| **PXZ** | **Pawanui** | **14.80** | **188** | *e*SN | **S** | **09 28 21.0** | **-3.4** |
| **QRZ** | **Quartz Range** | **16.50** | **199** | *e*PN | **P** | **09 26 06.6** | **-0.7** |
| **NNZ** | **Nelson** | **16.63** | **197** | *e*PN | **P** | **09 26 06.2** | **-2.3** |
| **THZ** | **Tophouse** | **17.27** | **197** | *e*PN | **P** | **09 26 14.0** | **-0.9** |
| **HNR** | **Honiara** | **24.49** | **307** | P | **P** | **09 27 19.2** | **-1.2** |
| | 46nm,0.6s,baz=185,slow=4.5,SNR=6.0 | | | | | | |
| **HNR** | **Honiara** | **24.49** | **307** | *e*P | **P** | **09 27 19.2** | **-1.2** |
| | 50nm,0.8s | | | | | | |
| **ARMA** | **Armidale** | **25.19** | **252** | P | **P** | **09 27 26.7** | **+0.1** |
| **EIDS** | **Eidsvold** | **25.74** | **264** | *e*P | **P** | **09 27 32.6** | **+1.1** |
| | 3.7nm,0.5s | | | | | | |
| **CTAO** | **Charters Tower** | **31.14** | **273** | *e*P | **P** | **09 28 18.7** | **0.0** |
| | 12nm,0.8s | | | | | | |
| **STKA** | **Stephens Creek** | **33.85** | **250** | P | **P** | **09 28 42.8** | **+1.2** |
| | 0.8nm,0.5s,baz=95,slow=13,SNR=3.8 | | | | | | |
| **COEN** | **Coen** | **36.01** | **281** | *e*P | **P** | **09 28 59.9** | **+0.1** |
| | 4.6nm,0.7s | | | | | | |
| **AS01** | **Alice Springs** | **41.41** | **262** | *e*P | **P** | **09 29 42.9** | **-0.7** |
| **AS31** | **Alice Springs** | **41.45** | **262** | *e*P | **P** | **09 29 44.0** | **+0.1** |
| | 1.2nm,0.4s | | | | | | |
| **ASAR** | **Alice Springs** | **41.45** | **262** | P | **P** | **09 29 44.2** | **+0.3** |
| | 1.1nm,0.3s,baz=94,slow=7.9,SNR=39 | | | | | | |
| ASAR | | | | S | **S** | **09 35 22.4** | **+0.1** |
| | 0.9nm,0.8s,baz=101,slow=16,SNR=6.9 | | | | | | |
| **WRAB** | **Tennant Creek** | **41.95** | **268** | *e*P | **P** | **09 29 47.6** | **-0.3** |
| | 2.4nm,0.4s | | | | | | |
| **WRA** | **Warramunga Arr** | **41.96** | **268** | P | **P** | **09 29 47.7** | **-0.3** |
| | 3.1nm,0.6s,baz=103,slow=8.0,SNR=28 | | | | | | |
| WRA | | | | ScP | **ScP** | **09 34 35.4** | **+1.7** |
| | 0.7nm,0.9s,baz=100,slow=4.1,SNR=4.7 | | | | | | |
| WRA | | | | S | **S** | **09 35 28.2** | **-1.5** |
| | 1.4nm,0.9s,baz=99,slow=14,SNR=7.7 | | | | | | |
| **GSC** | **Goldstone, Bar** | **85.19** | **47** | *e*P | **P** | **09 34 24.4** | **0.0** |
| | 2.3nm,0.8s | | | | | | |
| **TPNV** | **Topopah Spring** | **86.51** | **46** | *e*P | **P** | **09 34 30.0** | **-0.8** |
| | 9.0nm,1.4s | | | | | | |
| **X16A** | **Lo Mia Camp, P** | **88.36** | **51** | *e*P | **P** | **09 34 40.6** | **+1.1** |
| **U15A** | **North Rim** | **88.85** | **48** | *e*P | **P** | **09 34 42.5** | **+0.6** |
| **J08A** | **Circle Bar Ran** | **88.91** | **40** | *e*P | **P** | **09 34 42.1** | **+0.3** |

---

*ISK **10** 09:39:44.5, 40°.73N×43°.08E, h5km, ML2.2*

*ATA **10** 09:39:44.0±0.6, 40°.68N×43°.15E, h1km±5km, ML2.9, MW2.6*

*DDA **10** 09:39:44.7, 40°.66N×43°.19E, h7km, Md2.7*

*CSEM **10** 09:39:44.8±0.2, 40°.67N×43°.15E, h2km, ML2.2, Error ellipse: s-maj=4.6km s-min=4.2km az=108.0*

**ISC 10 09:39:44.9**±1.2**, 40°.72N**±0°.02×**43°.17E**±0°.03**, h3**km±10km**, n29, σ0s.99**/45**, Turkey-Georgia-Armenia border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KARS** | **Kars** | **0.11** | **215** | *e*PG | **Pg** | **09 39 47.2** | **+0.1** |
| **KARS** | **Kars** | **0.11** | **215** | *e*Pg | **Pg** | **09 39 47.2** | **+0.1** |
| **EAK** | **Akyaka** | **0.34** | **96** | *e*P | **Pg** | **09 39 52.2** | **+0.8** |
| EAK | | | | IAML | | 09 40 41.4 | |
| | comp=Z,275nm,0.8s | | | | | | |
| **EAK** | **Akyaka** | **0.34** | **96** | *e*P | **Pg** | **09 39 52.2** | **+0.8** |
| EAK | | | | IAML | | 09 40 41.5 | |
| | comp=Z,275nm,0.8s | | | | | | |
| **EAK** | **Akyaka** | **0.34** | **96** | *i* P | **Pg** | **09 39 51.5** | **+0.1** |
| **EAK** | **Akyaka** | **0.34** | **96** | P | **Pg** | **09 39 51.5** | **+0.1** |
| **DIGO** | **Kars** | **0.34** | **152** | *e*P | **Pg** | **09 39 51.1** | **-0.4** |
| DIGO | | | | IAML | | 09 40 19.8 | |
| | comp=Z,45nm,0.6s | | | | | | |
| **DIGO** | **Kars** | **0.34** | **152** | *e*P | **Pg** | **09 39 51.1** | **-0.4** |
| DIGO | | | | *e*S | **Sb** | **09 39 58.6** | **-1.2** |
| DIGO | | | | IAML | | 09 40 19.8 | |
| | comp=Z,45nm,0.6s | | | | | | |
| **DIGO** | **Kars** | **0.34** | **152** | *i* P | **Pg** | **09 39 51.2** | **-0.4** |
| **DIGO** | **Kars** | **0.34** | **152** | P | **Pg** | **09 39 51.2** | **-0.4** |
| **SENK** | **Senkaya-Erzuru** | **0.64** | **256** | *e*PG | **Pg** | **09 39 56.8** | **-0.3** |
| SENK | | | | *e*SG | **Sg** | **09 40 05.8** | **+0.3** |
| **SENK** | **Senkaya-Erzuru** | **0.64** | **256** | *e*Pg | **Pg** | **09 39 56.8** | **-0.3** |
| SENK | | | | *e*Sg | **Sg** | **09 40 05.8** | **+0.3** |
| **AKH** | **Akhalkalaki** | **0.73** | **20** | *e*PG | **Pb** | **09 40 00.2** | **-0.2** |
| AKH | | | | *e*SG | **Sb** | **09 40 11.3** | **+0.4** |
| **AKH** | **Akhalkalaki** | **0.73** | **20** | *e*Pg | **Pb** | **09 40 00.2** | **-0.2** |
| AKH | | | | *e*Sg | **Sb** | **09 40 11.3** | **+0.4** |
| **EPOS** | **Posof** | **0.85** | **337** | *e*P | **Pg** | **09 40 01.7** | **+0.6** |
| EPOS | | | | *e*S | **Sn** | **09 40 15.8** | **-1.3** |
| **EPOS** | **Posof** | **0.85** | **337** | *e*P | **Pg** | **09 40 01.7** | **+0.6** |
| EPOS | | | | *e*S | **Sn** | **09 40 15.8** | **-1.3** |
| EPOS | | | | IAML | | 09 40 18.3 | |
| | comp=Z,9.9nm,0.6s | | | | | | |
| **EPOS** | **Posof** | **0.85** | **337** | *i* P | **Pg** | **09 40 01.3** | **+0.2** |
| EPOS | | | | *i* S | **Sn** | **09 40 15.7** | **-1.3** |
| **EPOS** | **Posof** | **0.85** | **337** | P | **Pg** | **09 40 01.3** | **+0.2** |
| EPOS | | | | S | **Sn** | **09 40 15.7** | **-1.3** |
| **EATA** | **Eleskirt** | **1.00** | **211** | *e*P | **Pg** | **09 40 03.8** | **-0.2** |
| **EATA** | **Eleskirt** | **1.00** | **211** | *e*P | **Pg** | **09 40 03.6** | **-0.4** |
| EATA | | | | *e*S | **Sb** | **09 40 19.2** | **+0.5** |
| EATA | | | | IAML | | 09 40 27.8 | |
| | comp=Z,4.1nm,0.7s | | | | | | |
| **EATA** | **Eleskirt** | **1.00** | **211** | *i* P | **Pg** | **09 40 02.7** | **-1.3** |
| EATA | | | | *i* S | **Sn** | **09 40 25.4** | **+4.5** |
| **EATA** | **Eleskirt** | **1.00** | **211** | P | **Pg** | **09 40 02.7** | **-1.3** |
| **DAGI** | **Agillar** | **1.01** | **291** | *i* P | **Pg** | **09 40 04.3** | **0.0** |
| DAGI | | | | *i* S | **Sn** | **09 40 20.7** | **-0.2** |
| **ARTV** | **Artvin** | **1.04** | **297** | *i* P | **Pg** | **09 40 05.1** | **+0.2** |
| ARTV | | | | *i* S | **Sn** | **09 40 22.1** | **+0.2** |
| **ARTV** | **Artvin** | **1.04** | **297** | P | **Pg** | **09 40 05.1** | **+0.2** |
| ARTV | | | | S | **Sn** | **09 40 22.1** | **+0.2** |
| **DDEM** | **Demirkent** | **1.09** | **280** | *i* P | **Pg** | **09 40 05.6** | **-0.1** |
| DDEM | | | | *i* S | **Sn** | **09 40 24.3** | **+1.5** |
| **DDEM** | **Demirkent** | **1.09** | **280** | P | **Pg** | **09 40 05.6** | **-0.1** |
| DDEM | | | | S | **Sn** | **09 40 24.3** | **+1.5** |
| **AGRB** | **Hanur-Agry** | **1.15** | **187** | *e*PN | **Pn** | **09 40 07.8** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **1.15** | **187** | *e*Pn | **Pn** | **09 40 07.8** | **-0.3** |

---

*MAN **10** 09:51:12, 11°.27N×126°.33E, h15km, mb5.3, ML4.3, MS4.6*

*BJI **10** 09:51:12.4, 10°.81N×126°.13E, h33km, mb4.9/61, mB5.2/47, Ms4.8/54, Ms7 4.5/51*

*MOS **10** 09:51:13.8±1.0, 11°.06N×126°.01E, h28km, mb5.3/41, MS4.1/5, Error ellipse: s-maj=11.1km s-min=5.1km az=114.7*

*ISCJB **10** 09:51:14.7±0.2, 11°.12N±0°.02×126°.14E±0°.03, h32km, mb4.9/129, MS4.3/39, Error ellipse: s-maj=3.6km s-min=2.6km az=170.2*

*IDC **10** 09:51:16.3±1.8, 11°.09N×126°.04E, h32km±12km, mb4.5/32, mb1 4.6/32, mb1mx4.5/41, mbtmp4.7/32, MS4.2/25, Ms1 4.2/25, ms1mx4.0/41, Error ellipse: s-maj=14.9km s-min=8.2km az=72.0*

*NEIC **10** 09:51:20.4±0.6, 11°.08N×126°.00E, h70km±5km, mb4.9/45, Error ellipse: s-maj=4.9km s-min=3.1km az=85.0*

*NEIC Felt at Palo, Leyte.*

*GCMT **10** 09:51:20.4±0.2, 11°.19N×126°.19E, h14km±1km, MW5.1/90, Moment Tensor Solution. s15,c15; s90,c129; Duration: 0 Moment tensor: Scale $10^{16}$Nm; $M_{rr}$3.15±.26; $M_{\theta\theta}$0.50±.12; $M_{\phi\phi}$-3.66±.17; $M_{r\theta}$0.35±.29; $M_{\theta\phi}$0.78±.07; $M_{\phi r}$4.20±.54; Best double couple: $M_0$5.47800×$10^{16}$ NP1:$\phi_s$2.00000°, δ71.00000°, λ100.00000°. NP2: $\phi_s$154.00000°, δ22.00000°, λ64.00000°. Principal axes: T 5.2430, Plg63.0000°, Azm288.0000°; N 0.4620, Plg9.0000°, Azm179.0000°; P -5.7120, Plg25.0000°, Azm84.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

**ISC 10 09:51:15.6**±0.5**, 11°.11N**±0°.02×**126°.12E**±0°.03**, h26**km±2km**, h26**km**:pP-P, n345, σ1s.90**/409**, mb5.0**/134**, MS4.2**/39**, 18C-12D, Philippine Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BESP** | **Borongan** | **0.83** | **306** | *e*P | **Pb** | **09 51 30.5** | **-0.9** |
| BESP | | | | *e*S | **Sb** | **09 51 41.5** | **-0.7** |
| **PLP** | **Palo** | **1.12** | **273**⇓ | *e*P | **Pn** | **09 51 34.5** | **-1.2** |
| PLP | | | | *i* S | **Sn** | **09 51 53.9** | **+3.6** |
| **SCPH** | **Surigao** | **1.46** | **205**⇑ | *i*P | **Pn** | **09 51 40.3** | **+0.1** |
| SCPH | | | | *i* S | **Sn** | **09 51 57.0** | **-1.5** |
| **OCLP** | **Ormoc** | **1.49** | **268** | *e*P | **Pb** | **09 51 42.1** | **-0.5** |
| OCLP | | | | *e*S | **Sb** | **09 52 06.5** | **+5.4** |
| **MSLP** | **Maasin** | **1.57** | **232** | *e*P | **Pn** | **09 51 42.8** | **+1.0** |
| MSLP | | | | *e*S | **Sb** | **09 52 08.2** | **+4.6** |
| **CNP** | **Catarman** | **2.00** | **314** | *e*P | **Pn** | **09 51 47.6** | **0.0** |
| CNP | | | | *e*S | **Sb** | **09 52 16.5** | **+0.8** |
| **BUTP** | **Butuan** | **2.18** | **193** | *e*P | **Pb** | **09 51 52.8** | **-1.6** |
| **LLP** | **Lapu-Lapu** | **2.26** | **250**⇓ | *e*P | **Pn** | **09 51 52.9** | **+1.6** |
| LLP | | | | *e*S | **Sb** | **09 52 24.9** | **+1.6** |
| **TBP** | **Tagbilaran** | **2.63** | **238** | *e*P | **Pn** | **09 51 59.1** | **+2.7** |
| TBP | | | | *e*S | **Sb** | **09 52 35.3** | **+1.4** |
| **MMPH** | **Masbate** | **2.74** | **297**⇑ | *i*P | **Pb** | **09 52 06.2** | **+2.2** |
| MMPH | | | | *i* S | **Sb** | **09 52 40.3** | **+3.1** |
| **BIPH** | **Bislig** | **2.91** | **175**⇓ | *e*P | **Pb** | **09 52 08.2** | **+1.3** |
| BIPH | | | | *e*S | **Sb** | **09 52 40.6** | **-1.5** |
| **PVCP** | **Virac** | **3.13** | **322** | *e*P | **Pn** | **09 52 02.3** | **-1.0** |
| PVCP | | | | *e*S | **Sb** | **09 52 52.6** | **+4.2** |
| **SNPH** | **Sibulan** | **3.34** | **239**⇑ | *i*P | **Pn** | **09 52 08.5** | **+2.3** |
| SNPH | | | | *e*S | **Sb** | **09 52 53.8** | **-0.6** |
| **RCP** | **Roxas** | **3.34** | **278**⇓ | *i*P | **Pn** | **09 52 08.3** | **+2.1** |
| RCP | | | | *e*S | **Sn** | **09 52 49.4** | **+4.4** |
| **BUKP** | **Musuan** | **3.37** | **198** | *e*P | **Pn** | **09 52 08.7** | **+2.0** |
| BUKP | | | | *e*S | **Sn** | **09 52 49.4** | **+3.5** |
| **GUIM** | **Jordan** | **3.50** | **262** | *e*P | **Pn** | **09 52 11.0** | **+2.6** |
| **DCPH** | **Dipolog City** | **3.71** | **228**⇓ | *e*P | **Pn** | **09 52 12.4** | **+1.2** |
| **AUQP** | **San Andres** | **4.03** | **304** | *e*P | **Pn** | **09 52 19.4** | **+3.8** |
| **DMPH** | **Davao City--Mi** | **4.04** | **189**⇑ | *e*P | Pn | 09 52 20.9 | +5.1 |
| DMPH | | | | *e*S | Sb | 09 53 28.2 | +14 |
| **DAV** | **Davao City (W)** | **4.05** | **188** | *e*Pn | Pn | 09 52 20.5 | +4.6 |
| **JAP** | **San Jose, Anti** | **4.12** | **265**⇓ | *e*P | Pn | 09 52 22.4 | +5.6 |
| JAP | | | | *e*S | Sb | 09 53 38.2 | +22 |
| **OTRP** | **Odiongan** | **4.21** | **288** | *e*P | **Pn** | **09 52 18.3** | **+0.2** |
| **PAGZ** | **Pagadian** | **4.22** | **220** | *e*P | **Pn** | **09 52 19.2** | **+1.0** |
| **CTBH** | **Cotabato--PC H** | **4.28** | **206**⇑ | *i*P | **Pn** | **09 52 21.5** | **+2.4** |
| **GQP** | **Guinayangan** | **4.54** | **308**⇑ | *e*P | **Pn** | **09 52 22.8** | **+0.1** |
| **BOAC** | **Boac** | **4.79** | **300** | *e*P | **Pn** | **09 52 26.7** | **+0.6** |
| **SJMP** | **San Jose** | **5.08** | **286** | *e*P | **Pn** | **09 52 32.6** | **+2.6** |
| **TGY** | **Tagaytay City** | **5.87** | **301** | Pn | **Pn** | **09 52 43.7** | **+2.6** |
| | 67nm,0.3s,baz=132,slow=2.7,SNR=10.0 | | | | | | |
| TGY | | | | LR | LR | 09 55 19.8 | |
| | comp=Z,3μm,18.8s,baz=115,slow=42 | | | | | | |
| **BUSP** | **Coron** | **5.87** | **279** | *e*P | **Pn** | **09 52 41.5** | **+0.5** |
| **CAUP** | **Cauayan** | **7.15** | **325** | *e*P | **Pn** | **09 52 58.2** | **-0.2** |
| **APYP** | **Conner** | **8.21** | **325** | *e*P | **Pn** | **09 53 14.1** | **+1.0** |
| **PALU** | **Palau** | **9.05** | **114** | P | Pn | 09 53 18.2 | -6.5 |
| | baz=8.7,SNR=7.5 | | | | | | |
| **MYLDM** | **Lahad Datu** | **9.57** | **233** | *e*Pn | **Pn** | **09 53 34.0** | **+2.3** |
| **KKM** | **Kota Kinabalu** | **11.01** | **244** | Pn | **Pn** | **09 53 53.6** | **+2.0** |
| **LUWI** | **Luwuk** | **12.52** | **196** | *e*Pn | **Pn** | **09 54 14.4** | **+2.2** |
| **TWG** | **Pinlang** | **12.61** | **338** | *e*Pn | **Pn** | **09 54 13.8** | **+0.4** |
| **SSLB** | **Suanglung** | **13.54** | **339** | *e*Pn | **Pn** | **09 54 28.3** | **+2.2** |
| **YOJ** | **Yonaguni jima** | **13.61** | **348** | *e*P | P | 09 54 30.3 | -5.3 |
| **YOJ** | **Yonaguni jima** | **13.61** | **348** | *e*Pn | P | 09 54 30.3 | -5.3 |
| **NACB** | **Ninganchiao** | **13.69** | **342** | *e*Pn | **P** | **09 54 31.9** | **-4.7** |
| **YHNB** | **Yeheng** | **14.22** | **342** | *e*Pn | **Pn** | **09 54 37.8** | **+2.3** |
| **FAKI** | **Fak Fak** | **15.21** | **156** | *e*Pn | **Pn** | **09 54 49.6** | **+0.8** |
| | 76nm,1.0s | | | | | | |
| **JOW** | **Kunigami** | **15.77** | **7** | *e*Pn | **P** | **09 54 58.2** | **-1.5** |
| | 195nm,1.5s | | | | | | |
| **SBUM** | **Sibu** | **16.25** | **239** | *e*Pn | **P** | **09 55 05.0** | **-0.1** |
| | 68nm,1.0s | | | | | | |
| **KAPI** | **Kappang** | **17.22** | **202** | *e*Pn | **Pn** | **09 55 14.9** | **+0.4** |
| | 156nm,0.7s | | | | | | |
| **QIZ** | **Qiongzhong** | **17.57** | **299** | P | **Pn** | **09 55 18.9** | **+0.1** |
| QIZ | | | | S | **Sn** | **09 58 33.2** | **-0.7** |
| QIZ | | | | sS | **sS** | **09 58 47.1** | **-5.3** |
| QIZ | | | | SS | **SnSn** | **09 58 57.0** | **+9.4** |
| QIZ | | | | LR | LR | | |
| | comp=E,1μm,11.3s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=Z,2μm,12.8s | | | | | | |
| **QIZ** | **Qiongzhong** | **17.57** | **299** | *e*P | **P** | **09 55 19.6** | **-0.1** |
| | 290nm,1.9s | | | | | | |
| **KSM** | **Kuching** | **18.39** | **240** | *e*P | **P** | **09 55 28.7** | **0.0** |
| | 37nm,1.0s | | | | | | |
| **GUMO** | **Guam** | **18.48** | **80** | LR | LR | 10 02 58.6 | |
| | comp=Z,861nm,18.1s,baz=266,slow=38 | | | | | | |
| **SARN** | **Sarigan** | **19.87** | **72** | *e*P | **Pn** | **09 55 48.4** | **+1.7** |
| **MMRI** | **Maumere** | **19.99** | **191** | *e*P | **P** | **09 55 46.4** | **+0.1** |
| | 113nm,0.9s | | | | | | |
| **UBPT** | **Khong Chiam** | **20.53** | **284** | P | Pn | 09 55 56.6 | +2.2 |
| | 125nm,1.2s | | | | | | |
| **SOEI** | **Soe** | **20.81** | **185** | *e*P | Pn | 09 55 57.0 | -0.8 |
| | 76nm,0.8s | | | | | | |
| **NJ2** | **Nanjing** | **21.90** | **343** | *e*P | **P** | **09 56 07.7** | **+1.0** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,14nm,0.7s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=N,780nm,13.6s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=E,700nm,14.1s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,1μm,19.5s | | | | | | |
| **CBIJ** | **Chichi jima** | **21.94** | **41** | *e*P | **P** | **09 56 10.1** | **+2.8** |
| | 193nm,1.2s | | | | | | |
| **WHN** | **Wuhan** | **22.22** | **332** | ⇓P | **P** | **09 56 11.6** | **+1.4** |
| WHN | | | | S | **S** | **10 00 16.6** | **+3.1** |
| WHN | | | | LR | LR | | |
| | comp=N,2μm,13.3s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=E,2μm,16.0s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=Z,2μm,18.6s | | | | | | |
| **JNU** | **Nakatsue** | **22.34** | **11** | P | **P** | **09 56 11.5** | **-0.1** |
| | 6.1nm,0.8s,baz=117,slow=6.8,SNR=3.2 | | | | | | |
| **JNU** | **Nakatsue** | **22.34** | **11** | *e*P | **P** | **09 56 11.8** | **+0.2** |
| | 19nm,1.0s | | | | | | |
| **JAGI** | **Jajag, Banyuwa** | **22.80** | **212** | *e*P | **P** | **09 56 17.1** | **+0.5** |
| | 189nm,1.0s | | | | | | |
| **SMRI** | **Semarang** | **23.85** | **222** | *e*P | **P** | **09 56 27.6** | **+0.6** |
| | 67nm,0.9s | | | | | | |
| **GYA** | **Guiyang** | **23.87** | **312** | P | **P** | **09 56 27.4** | **+0.1** |
| GYA | | | | pP | sP | 09 56 36.8 | -1.4 |
| GYA | | | | PP | **PnPn** | **09 57 01.2** | **+5.3** |
| GYA | | | | PcP | **PcP** | **10 00 12.0** | **+2.0** |
| GYA | | | | S | **S** | **10 00 37.5** | **-4.6** |
| GYA | | | | sS | sS | 10 00 54.8 | 0.0 |
| GYA | | | | pmax | pmax | | |
| | comp=Z,20nm,1.0s | | | | | | |
| GYA | | | | pmax | pmax | | |
| | comp=Z,120nm,5.8s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=N,560nm,17.0s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=E,510nm,16.8s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,540nm,16.7s | | | | | | |
| **CHAI** | **Chaiyaphum** | **23.94** | **284** | P | **P** | **09 56 26.6** | **-1.2** |
| | 11nm,1.0s | | | | | | |
| **MYKOM** | **Kota Tinggi** | **23.96** | **249** | *e*P | **P** | **09 56 28.0** | **-0.1** |
| | 88nm,1.4s | | | | | | |
| **MTN** | **Manton Dam** | **24.31** | **168** | *e*P | **P** | **09 56 31.2** | **0.0** |
| | 73nm,1.1s | | | | | | |
| **UGM** | **Wanagama** | **24.45** | **220** | *e*P | **P** | **09 56 33.7** | **+1.1** |
| | 144nm,1.2s | | | | | | |
| **ENH** | **Enshi** | **24.55** | **323** | *e*P | **P** | **09 56 33.6** | **+0.2** |
| | 61nm,1.4s | | | | | | |
| **PBKT** | **Sadao Pong** | **25.00** | **285** | P | **P** | **09 56 38.2** | **+0.6** |
| | 20nm,2.0s,2μm | | | | | | |
| **JHJ2** | **Mitsune** | **25.26** | **28** | *e*P | **P** | **09 56 41.7** | **+2.0** |
| | 153nm,1.1s | | | | | | |
| **NANT** | **Nan** | **25.70** | **290** | P | **P** | **09 56 42.3** | **-1.6** |
| | 6.4nm,1.0s | | | | | | |
| **IPM** | **Ipoh** | **25.71** | **257** | *e*P | **P** | **09 56 41.7** | **-2.3** |
| **KULM** | **Kulim** | **25.85** | **259** | *e*P | **P** | **09 56 45.1** | **-0.2** |
| | 63nm,1.0s | | | | | | |
| **PHET** | **Kaeng Krachan** | **25.97** | **277** | P | **P** | **09 56 48.8** | **+2.4** |
| | 13nm,1.1s | | | | | | |
| **CISI** | **Cisompet, Garu** | **25.99** | **225** | *e*P | **P** | **09 56 46.3** | **-0.3** |
| | 45nm,0.9s | | | | | | |
| **PHRA** | **Phrae** | **26.07** | **289** | P | **P** | **09 56 48.0** | **+0.8** |
| | 17nm,2.1s,36μm | | | | | | |
| **INU** | **Inuyama** | **26.09** | **21** | *e*P | **P** | **09 56 49.0** | **+1.8** |
| | 45nm,1.2s | | | | | | |
| **KMI** | **Kunming** | **26.17** | **305** | P | **P** | **09 56 47.9** | **-0.5** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,18nm,1.2s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=N,790nm,14.9s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=E,550nm,10.6s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,780nm,22.3s | | | | | | |
| **TRTT** | **Trang** | **26.27** | **265** | P | **P** | **09 56 51.3** | **+2.3** |
| | 95nm,1.2s | | | | | | |
| **KSAR** | **Wonju Array Be** | **26.27** | **3** | P | **P** | **09 56 49.6** | **+0.8** |
| **KSAR** | **Wonju Array Be** | **26.27** | **3** | P | **P** | **09 56 49.6** | **+0.8** |
| **KSRS** | **Korea Array** | **26.28** | **3** | P | **P** | **09 56 49.6** | **+0.7** |
| | 5.1nm,0.9s,baz=187,slow=9.9,SNR=11 | | | | | | |
| KSRS | | | | LR | LR | 10 08 25.8 | |
| | comp=Z,410nm,18.8s,baz=182,slow=39 | | | | | | |
| **TIA** | **Tai'an** | **26.29** | **343** | ⇑P | **P** | **09 56 50.2** | **+1.2** |
| TIA | | | | pmax | pmax | | |
| | comp=Z,30nm,0.9s | | | | | | |
| **KS01** | **Wonju Array Si** | **26.30** | **3** | *e*P | **P** | **09 56 49.9** | **+0.8** |
| **KRAB** | **Krabi** | **26.69** | **266** | P | **P** | **09 56 48.8** | **-4.1** |
| | 156nm,0.8s,3μm | | | | | | |
| **CM01** | **Chiang Mai Arr** | **27.23** | **289** | *e*P | **P** | **09 56 56.8** | **-0.9** |
| **CM31** | **Chiang Mai Arr** | **27.25** | **289** | *e*P | **P** | **09 56 57.0** | **-0.9** |

**CMAR Chiang Mai Arr 27.25 289** P **P** **09 56 57.2 -0.7**
10nm,0.9s,baz=101,slow=7.6,SNR=32
CMAR PcP **PcP** **10 00 18.1 +0.5**
0.8nm,0.4s,baz=111,slow=2.2,SNR=4.3
CMAR ScP **ScP** **10 03 54.5 -1.9**
1.0nm,0.4s,baz=115,slow=2.0,SNR=4.3
CMAR LR LR 10 06 42.9
comp=Z,369nm,21.6s,baz=120,slow=34
**CMMT Chiang Mai 27.32 290** P **P** **09 56 57.4 -1.1**
15nm,1.1s
**CHTO Chiang Mai 27.32 290** P **P** **09 56 57.4 -1.2**
50nm,1.1s
**CHTO Chiang Mai 27.32 290** *eP* **P** **09 56 56.9 -1.7**
CHTO pmax pmax
comp=Z,10.0nm,0.9s
**CHTO Chiang Mai 27.32 290** *eP* **P** **09 56 56.9 -1.7**
comp=Z,10nm,0.9s
**MJAR Matsushiro Arr 27.58 21** P **P** **09 56 59.3 -1.4**
comp=Z,5.0nm,1.0s,baz=192,slow=8.4,SNR=6.4
MJAR PcP **PcP** **10 00 18.4 +0.3**
comp=Z,2.6nm,1.0s,baz=184,slow=3.0,SNR=3.1
MJAR LR LR 10 07 43.5
comp=Z,516nm,19.3s,baz=210,slow=36
**XAN Xi'an 27.72 328** P **P** **09 57 01.6 -0.4**
XAN pP sP 09 57 10.3 -2.7
XAN PP **PnPn** **09 57 49.6 +1.3**
XAN PcP **PcP** **10 00 19.5 +1.0**
XAN S **S** **10 01 39.2 -3.7**
XAN ScS **ScS** **10 07 49.4 -0.4**
XAN pmax pmax
comp=Z,53nm,1.3s
XAN pmax pmax
comp=Z,250nm,6.7s
XAN LR LR
comp=Z,200nm,12.1s
XAN LR LR
comp=Z,640nm,13.2s
XAN LR LR
comp=Z,1μm,14.2s
**PSI Prapat 28.21 255** P **P** **09 57 06.3 -0.3**
comp=Z,3.3nm,0.5s,baz=97,slow=13,SNR=4.7
**PSI Prapat 28.21 255** *eP* **P** **09 57 06.0 -0.7**
comp=Z,14nm,1.1s
**CD2 Chengdu 28.60 317** *eP* **P** **09 57 09.6 -0.3**
CD2 pP sP 09 57 18.9 -2.0
CD2 PP **PnPn** **09 58 03.0 +2.7**
CD2 S **S** **10 02 00.2 +3.3**
CD2 SS **SnSn** **10 03 22.7 +5.0**
CD2 pmax pmax
comp=Z,20nm,0.8s
CD2 pmax pmax
comp=Z,280nm,8.2s
CD2 LR LR
comp=Z,2μm,19.0s
CD2 LR LR
comp=Z,2μm,17.1s
CD2 LR LR
comp=Z,3μm,16.1s
**FITZ Fitzroy Crossi 29.03 181** P **P** **09 57 13.4 -0.3**
comp=Z,13nm,0.8s,baz=1.5,slow=8.3,SNR=15
**FITZ Fitzroy Crossi 29.03 181** P **P** **09 57 13.6 -0.1**
baz=29
**GSI Gunungsitoli 29.97 253** *eP* **P** **09 57 20.7 -1.4**
comp=Z,18nm,0.8s
**COEN Coen 30.10 145** P **P** **09 57 23.2 -0.1**
baz=30,SNR=5.8
**COEN Coen 30.10 145** *eP* **P** **09 57 22.9 -0.4**
comp=Z,44nm,1.3s
**BJT Baijiatuau 30.12 345** *eP* **P** **09 57 23.9 +0.8**
BJT pmax pmax
comp=Z,17nm,0.9s
**BJT Baijiatuau 30.12 345** *eP* **P** **09 57 23.9 +0.8**
comp=Z,17nm,0.9s
**BJI Beijing 30.14 345** P **P** **09 57 23.2 -0.1**
BJI S **S** **10 02 22.2 +1.6**
BJI pmax pmax
comp=Z,20nm,1.0s
BJI LR LR
comp=Z,520nm,14.6s
BJI LR LR
comp=Z,500nm,15.1s
BJI LR LR
comp=Z,340nm,22.0s
**WRAB Tennant Creek 31.89 165** *eP* **P** **09 57 37.8 -1.2**
WRAB pmax pmax
comp=Z,37nm,1.6s
**WRAB Tennant Creek 31.89 165** *eP* **P** **09 57 37.8 -1.2**
comp=Z,37nm,1.6s
**WRA Warramunga Arr 31.90 165** P **P** **09 57 37.5 -1.6**
comp=Z,6.8nm,0.8s,baz=343,slow=9.6,SNR=36
WRA PcP **PcP** **10 00 28.9 -0.5**
comp=Z,4.2nm,1.0s,baz=335,slow=3.4,SNR=5.6
WRA S **S** **10 02 42.5 -6.1**
comp=Z,0.9nm,1.0s,baz=330,slow=20,SNR=2.8
WRA ScP **ScP** **10 04 10.1 -1.2**
comp=Z,3.2nm,1.1s,baz=354,slow=3.9,SNR=6.9
WRA LR LR 10 13 45.7
comp=Z,172nm,19.1s,baz=355,slow=42
**WB2 Warramunga Arr 31.90 165** *eP* **P** **09 57 37.7 -1.4**
comp=Z,37nm,1.6s
**LZH Lanzhou 32.01 325** *eP* **P** **09 57 41.3 +1.2**
LZH pP sP 09 57 51.5 +0.4
LZH sP pP 09 57 55.4 +7.5
LZH PcP **PcP** **10 00 31.4 +1.7**
LZH sS sS 10 03 07.0 +3.6
LZH SS **SnSn** **10 04 41.7 +0.9**
LZH pmax pmax
comp=Z,70nm,1.3s
LZH pmax pmax
comp=Z,340nm,4.2s
LZH LR LR
comp=Z,720nm,14.0s
LZH LR LR
comp=Z,2μm,16.4s
LZH LR LR
comp=Z,3μm,17.1s
**HHC Hu-ho-hao-te 32.29 339** *eP* **P** **09 57 45.9 +3.5**
HHC S **S** **10 02 56.2 +1.6**
HHC sS sS 10 03 10.7 +3.3
HHC SS **SnSn** **10 04 49.1 +1.8**
HHC ScS **ScS** **10 08 12.0 +0.5**
HHC pmax pmax
comp=Z,20nm,1.0s
HHC pmax pmax
comp=Z,190nm,5.1s
HHC LR LR
comp=Z,410nm,14.9s
HHC LR LR
comp=Z,370nm,16.9s
HHC LR LR
comp=Z,390nm,16.7s
**CN2 Changchun 32.58 359** *eP* **P** **09 57 48.5 +3.7**
**MBWA Marble Bar 32.67 191** *eP* **P** **09 57 43.5 -2.3**
comp=Z,50nm,1.7s
**USRK Ussuriysk Ar. 33.36 8** P **P** **09 57 52.4 +0.8**
comp=Z,10nm,0.8s,baz=181,slow=7.6,SNR=9.3
USRK LR LR 10 10 50.9
comp=Z,281nm,20.0s,baz=178,slow=35
**QIS Mount Isa 34.15 157** P **P** **09 57 58.6 -0.1**
baz=34,SNR=20
**MTSU Mount Surprise 34.16 148** P **P** **09 57 59.2 +0.3**
baz=34,SNR=4.9
**BRDH Bariadhala 34.85 294** P **P** **09 58 04.5 -0.3**
comp=Z,83nm,0.3s,baz=87,slow=6.4,SNR=8.3
**AS31 Alice Springs 35.39 168** *eP* **P** **09 58 10.4 +1.0**
comp=Z,2.4nm,0.6s
**ASAR Alice Springs 35.39 168** P **P** **09 58 09.0 -0.4**
comp=Z,3.9nm,0.7s,baz=357,slow=6.6,SNR=34
ASAR PcP **PcP** **10 00 38.8 -0.4**
comp=Z,3.8nm,0.9s,baz=345,slow=2.4,SNR=5.2
ASAR S **S** **10 03 41.1 -1.5**
comp=Z,1.0nm,0.8s,baz=356,slow=23,SNR=4.0
ASAR ScP **ScP** **10 04 22.4 -1.0**
comp=Z,4.3nm,0.9s,baz=349,slow=3.5,SNR=13
ASAR LR LR 10 15 13.1
comp=Z,164nm,19.9s,baz=348,slow=41
**AS01 Alice Springs 35.40 168** *eP* **P** **09 58 09.1 -0.3**
**SHL Shillong 35.41 299** ⇑*iP* **P** **09 58 09.5 -0.3**
**ASAJ Asahikawa 35.84 20** P **P** **09 58 11.9 -1.0**
comp=Z,8.1nm,0.9s,baz=233,slow=20,SNR=2.9
**ASAJ Asahikawa 35.84 20** P **P** **09 58 12.0 -1.0**
ASAJ pmax pmax
comp=Z,8.0nm,0.9s
**WRKA Warakurna 35.99 177** P **P** **09 58 14.2 -0.4**
baz=36,SNR=16
**GTA Gaotai 36.62 325** ⇑P **P** **09 58 20.3 +0.4**
GTA pP sP 09 58 29.8 -1.2
GTA sP pP 09 58 33.7 +5.9
GTA PcP **PcP** **10 00 43.7 +0.9**
GTA S **S** **10 04 01.0 -0.5**
GTA sS sS 10 04 16.4 +2.0
GTA ScP **ScP** **10 04 28.9 +1.0**
GTA SS **SnSn** **10 06 28.0 -4.3**
GTA pmax pmax
comp=Z,46nm,1.2s
GTA pmax pmax
comp=Z,230nm,4.9s
GTA LR LR
comp=Z,560nm,15.7s
GTA LR LR
comp=Z,690nm,16.2s
GTA LR LR
comp=Z,700nm,17.9s
**CTA Charters Tower 36.79 147** P **P** **09 58 22.1 +0.6**
comp=Z,8.4nm,1.1s,baz=318,slow=11,SNR=5.4
**LSA Lhasa 37.43 305** *eP* **P** **09 58 27.5 +0.1**
LSA pmax pmax
comp=Z,14nm,0.9s
**LSA Lhasa 37.43 305** *eP* **P** **09 58 27.5 +0.1**
comp=Z,14nm,0.9s
**HABR Khabarovsk 37.99 10** *eP* **P** **09 58 32.6 +1.3**
HABR *e**SP **sP** **09 58 46.4 +4.1**
HABR *e* 10 00 00.7
HABR *e*PPP PPP 10 00 20.8
HABR *e* 10 00 45.5
HABR *e*S **S** **10 04 25.7 +3.9**
HABR *e**SS **ScP** **10 04 42.2 +10**
HABR *e*SSS SSS 10 07 31.9
HABR *e* 10 08 40.4
HABR pmax pmax
comp=E,25nm,2.5s
HABR pmax pmax
comp=Z,55nm,2.5s
HABR pmax pmax
comp=N,47nm,2.5s
HABR MLR MLR
comp=Z,328nm,20.0s
**KLR Kul'dur 38.29 6** P **P** **09 58 34.5 +0.7**
comp=Z,0.3nm,0.9s,baz=108,slow=5.9,SNR=3.2
**YSS Yuzh-Sakhalins 38.40 18**‖ *eP* P 09 58 38.6 +3.9
YSS *e* 09 58 52.5
YSS *e*S **S** **10 04 32.0 +3.9**
YSS *e*SS **SnSn** **10 07 09.0 -6.0**
YSS pmax pmax
comp=Z,40nm,1.8s
YSS MLR MLR
comp=Z,300nm,19.0s
**YSS Yuzh-Sakhalins 38.40 18** *eP* P 09 58 40.4 +5.7
comp=Z,184nm,1.7s
**HNR Honiara 39.34 120** P **P** **09 58 43.5 +0.4**
comp=Z,19nm,0.3s,baz=186,slow=11,SNR=3.6
**TAPN Taplejung 39.51 300** *eP* **P** **09 58 43.7 -1.0**
comp=Z,155nm,1.1s
**ODAN Odare 39.65 299** *eP* **P** **09 58 44.8 -1.0**
comp=Z,206nm,0.9s
**ULN Ulaanbaatar 39.99 340**‖ *iP* **P** **09 58 48.7 +0.4**
ULN pmax pmax
comp=Z,73nm,2.5s
**ULN Ulaanbaatar 39.99 340** *eP* **P** **09 58 49.1 +0.8**
comp=Z,21nm,0.9s
ULN *e*PcP **PcP** **10 00 52.7 -0.4**
**ULN Ulaanbaatar 39.99 340** P **P** **09 58 49.3 +1.1**
SNR=11
ULN P **P** **09 58 49.3 +1.1**
SNR=11
**ULN Ulaanbaatar 39.99 340** P **P** **09 58 49.3 +1.1**
SNR=11
**SONM Songino Array 40.19 339** P **P** **09 58 50.6 +0.7**
comp=Z,14nm,1.0s,baz=160,slow=9.1,SNR=63
SONM PcP **PcP** **10 00 53.7 0.0**
comp=Z,4.1nm,0.9s,baz=158,slow=2.7,SNR=4.7
SONM ScP **ScP** **10 04 41.6 +0.2**
comp=Z,0.6nm,0.8s,baz=132,slow=2.1,SNR=3.7
SONM LR LR 10 17 12.0
comp=Z,328nm,19.0s,baz=147,slow=39
**SONA1 Songino Array 40.20 339** *eP* **P** **09 58 50.5 +0.5**
**RAMN Ramite 40.35 299** *eP* **P** **09 58 50.9 -0.7**
comp=Z,106nm,0.8s
**JIRN Jiri 40.89 300** *eP* **P** **09 58 55.4 -0.8**
comp=Z,866nm,0.7s
**MORW Morawa 41.11 193** P **P** **09 58 57.1 -0.3**
baz=42,SNR=12
**GUN Gumba 41.22 300** *eP* **P** **09 58 58.0 -1.0**
comp=Z,195nm,0.8s
**QLP Quilpie 41.39 155** P **P** **09 58 59.0 -0.9**
baz=42,SNR=7.8
**PKI Pulchoki 41.53 299** *eP* **P** **09 58 59.8 -1.7**
comp=Z,74nm,0.8s
**PKIN Phulchoki 41.55 299** *eP* **P** **09 59 00.0 -1.5**
comp=Z,42nm,0.7s
**FORT Forrest 41.69 177** P **P** **09 59 02.9 +0.7**
baz=42,SNR=8.0
**FORT Forrest 41.69 177** *eP* **P** **09 59 02.8 +0.6**
comp=Z,205nm,0.7s
**KKN Kakani 41.70 299** *eP* **P** **09 59 01.3 -1.4**
comp=Z,107nm,1.0s
**DMN Daman 41.80 299** *eP* **P** **09 59 02.2 -1.4**
comp=Z,92nm,1.0s
**KMBL Kambalda 42.43 185** P **P** **09 59 07.8 -0.5**
baz=43,SNR=29
**BLDU Ballidu 42.46 192** P **P** **09 59 07.8 -0.7**
baz=43,SNR=8.1
**KOLN Koldanda 43.14 299** *eP* **P** **09 59 13.1 -1.3**
comp=Z,133nm,0.9s
**DANN Dangsing 43.14 300** *eP* **P** **09 59 13.6 -1.0**
**KLBR Kellerberrin 43.21 190** P **P** **09 59 13.9 -0.7**
baz=44,SNR=16
**ZAK Zakamensk 43.44 339** *eP* **P** **09 59 16.0 -0.4**
ZAK pmax pmax
comp=Z,6.0nm,1.1s
**PYUN Piuthan 43.74 299** *eP* **P** **09 59 18.2 -1.1**
comp=Z,228nm,0.9s
**MUN Mundaring 43.88 192** P **P** **09 59 19.8 -0.2**
baz=44,SNR=4.3
**TLY Talaya 44.40 340** LR LR 10 19 18.8
comp=Z,352nm,19.0s,baz=142,slow=38
**TLY Talaya 44.40 340** *eP* **P** **09 59 25.1 +1.1**
TLY pmax pmax
comp=Z,14nm,0.8s
TLY MLR MLR
comp=Z,198nm,13.0s
**TLY Talaya 44.40 340** P **P** **09 59 25.5 +1.5**
SNR=5.5
**TLY Talaya 44.40 340** P **P** **09 59 25.5 +1.5**
SNR=5.5
**NWAO Narrogin (SRO) 44.60 191** P **P** **09 59 25.7 0.0**
baz=45,SNR=12
NWAO P **P** **09 59 25.7 0.0**
baz=45,SNR=12
**NWAO Narrogin (SRO) 44.60 191** *eP* **P** **09 59 24.9 -0.8**
NWAO pmax pmax
comp=Z,78nm,0.9s
**NWAO Narrogin (SRO) 44.60 191** *eP* **P** **09 59 24.9 -0.8**
comp=Z,78nm,0.9s
**BBOO Buckleboo 44.69 168** P **P** **09 59 25.9 -0.5**
baz=45,SNR=20
**BBOO Buckleboo 44.69 168** *eP* **P** **09 59 27.7 +1.2**
comp=Z,15nm,0.8s
**STKA Stephens Creek 45.24 161** P **P** **09 59 30.8 0.0**
comp=Z,9.7nm,1.0s,baz=344,slow=7.9,SNR=13
STKA LR LR 10 21 16.0
comp=Z,145nm,21.3s,baz=352,slow=40
**STKA Stephens Creek 45.24 161** P **P** **09 59 30.9 0.0**
baz=45,SNR=9.8
**STKA Stephens Creek 45.24 161** *eP* **P** **09 59 31.1 +0.3**
STKA pmax pmax
comp=Z,4.0nm,0.9s
**STKA Stephens Creek 45.24 161** *eP* **P** **09 59 31.1 +0.3**
comp=Z,3.9nm,0.9s
**MOY Mondy 45.32 338** *eP* **P** **09 59 32.5 +1.1**
MOY pmax pmax
comp=Z,70nm,2.5s
**CLNS Chul'man 45.64 359** *eP* **P** **09 59 33.3 -0.4**
CLNS pmax pmax
comp=Z,15nm,0.8s
CLNS pmax pmax
comp=E,5.0nm,1.4s
CLNS pmax pmax
comp=N,13nm,1.1s
**RKGY Rocky Gully 46.28 190** P **P** **09 59 39.7 +0.7**
baz=47,SNR=9.6
**CMSA Cobar Meteorol 46.37 157** P **P** **09 59 40.7 +0.9**
baz=46,SNR=14
**WMQ Urumqi 46.48 322** P **P** **09 59 41.4 +0.8**
WMQ pP sP 09 59 52.3 +0.5
WMQ sP pP 09 59 55.9 +7.3
WMQ S **S** **10 06 21.0 -6.4**
WMQ ScS **ScS** **10 09 29.2 -5.0**
WMQ pmax pmax
comp=N,36nm,0.9s
WMQ pmax pmax
comp=N,560nm,5.1s
WMQ LR LR
comp=N,2μm,21.3s
WMQ LR LR
comp=N,760nm,12.5s
WMQ LR LR
comp=N,1μm,17.7s
**SKR Severo-Kuril's 46.49 26**‖ *eP* P 09 59 46.7 +6.2
**HVS Khovu-Aksy 47.88 333**‖ *iP* **P** **09 59 52.6 +1.1**
HVS pmax pmax
comp=Z,30nm,1.0s
**PETK Petropavlovsk- 48.94 25** P **P** **09 59 59.4 -0.1**
comp=Z,2.9nm,0.7s,baz=222,slow=3.9,SNR=2.4
PETK LR LR 10 20 08.2
comp=Z,286nm,20.3s,baz=231,slow=35
**DGZ Jazzator, Alta 49.98 328** *i* P **P** **10 00 08.5 +0.8**
DGZ pmax pmax
comp=Z,14nm,0.9s
**YAK Yakutsk 50.90 2** *eP* **P** **10 00 12.9 -1.3**
YAK pmax pmax
comp=N,14nm,1.0s
YAK pmax pmax
comp=E,5.0nm,1.4s
**CAN Canberra 51.00 156** *eP* **P** **10 00 17.7 +2.3**
CAN pmax pmax
comp=Z,41nm,1.3s
**CAN Canberra 51.00 156** *eP* **P** **10 00 17.7 +2.3**
comp=Z,41nm,1.3s
**MK01 Makanchi Array 51.26 322** *eP* **P** **10 00 16.5 -0.7**
**MK31 Makanchi Array 51.28 322** *eP* **P** **10 00 17.3 -0.1**
**MK31 Makanchi Array 51.28 322** *eP* **P** **10 00 17.3 -0.1**
**MKAR Makanchi Array 51.28 322** P **P** **10 00 17.7 +0.3**
comp=Z,13nm,0.7s,baz=119,slow=8.4,SNR=118
MKAR ScP **ScP** **10 05 26.8 -0.4**
comp=Z,3.6nm,1.0s,baz=126,slow=6.2,SNR=7.4
MKAR LR LR 10 22 09.2
comp=Z,432nm,19.2s,baz=122,slow=36
**MAKZ Makanchi 51.47 322** *eP* **P** **10 00 18.8 0.0**
MAKZ pmax pmax
comp=Z,44nm,1.4s
**MAKZ Makanchi 51.47 322** *eP* **P** **10 00 18.8 0.0**
comp=Z,44nm,1.4s
**DZM Mont Dzumac 51.49 130** P **P** **10 00 20.1 +0.8**
comp=Z,13nm,1.0s,baz=302,slow=3.9,SNR=5.6
DZM LR LR 10 23 01.8
comp=Z,160nm,18.0s,baz=350,slow=37
**DZM Mont Dzumac 51.49 130** *eP* **P** **10 00 19.4 +0.1**
comp=Z,33nm,1.2s
**KSH Kashi 52.57 312** P **P** **10 00 28.1 +0.9**
KSH pP sP 10 00 38.6 +0.1
KSH PcP **PcP** **10 01 38.3 +1.0**
KSH PP **PP** **10 02 28.2 +1.8**
KSH S **S** **10 07 50.2 -2.7**
KSH ScS **ScS** **10 10 11.1 -4.6**
KSH SS **SS** **10 11 26.7 -4.6**
KSH pmax pmax
comp=Z,25nm,1.3s
KSH pmax pmax
comp=Z,220nm,4.7s
KSH LR LR
comp=Z,310nm,6.5s
KSH LR LR
comp=Z,330nm,7.2s
KSH LR LR
comp=Z,510nm,13.7s
**ULHL Ulahol 53.29 315** P **P** **10 00 33.1 +0.5**
SNR=8.1
**ZAA0 Zalesovo Array 53.83 331** *eP* **P** **10 00 37.1 +1.0**
comp=Z,16nm,0.8s
**ZALV Zalesovo Beam 53.83 331** P **P** **10 00 35.9 -0.2**
comp=Z,24nm,0.8s,baz=118,slow=6.5,SNR=107
ZALV LR LR 10 24 35.1
comp=Z,204nm,18.9s,baz=73,slow=37
**ZALV Zalesovo Beam 53.83 331** *eP* **P** **10 00 35.4 -0.6**
**KZA Kyzart 53.92 314** P **P** **10 00 38.0 +0.5**
SNR=6.6
**TKM2 Tokmak 2 53.97 315** *i* P **P** **10 00 36.9 -0.7**
TKM2 pmax pmax
comp=Z,10.0nm,1.0s
**TKM2 Tokmak 2 53.97 315** P **P** **10 00 38.0 +0.4**
SNR=9.6
**KBK Karagaybulak 54.33 315** P **P** **10 00 40.5 +0.3**
SNR=9.9
**UCH Uchtor 54.49 314** P **P** **10 00 42.3 +0.6**
SNR=17
**SFK Sufi-Kurgan 54.53 311** *i* P **P** **10 00 41.4 -0.4**
SFK pmax pmax
comp=Z,24nm,1.0s
**CHMS Chumysh 54.58 315** P **P** **10 00 41.6 -0.2**
SNR=11
**FRU Bishkek 54.62 315** *eP* **P** **10 00 42.0 -0.1**
FRU *e* 10 00 58.0
**AAK Ala-Archa 54.63 315**⇑ *iP* **P** **10 00 42.4 -0.1**
AAK pmax pmax
comp=Z,17nm,1.4s
**AAK Ala-Archa 54.63 315** *eP* **P** **10 00 42.7 +0.3**
comp=Z,16nm,1.3s
**AAK Ala-Archa 54.63 315** P **P** **10 00 42.3 -0.1**
SNR=7.7
AAK P **P** **10 00 42.3 -0.1**
SNR=7.7
**AAK Ala-Archa 54.63 315** P **P** **10 00 42.3 -0.1**
SNR=7.7
**USP Ospenovka 54.84 316** P **P** **10 00 43.9 +0.2**
SNR=5.9
**AML Almayashu 55.03 314** P **P** **10 00 45.9 +0.3**
SNR=15
**SEY Seymchan 55.05 14**‖ *eP* **P** **10 00 46.6 +1.8**
**NVS Novosibirsk 55.10 331** *eP* **P** **10 00 45.3 0.0**
NVS *e*S **S** **10 08 27.1 +0.7**
NVS pmax pmax
comp=N,23nm,1.0s
NVS pmax pmax
comp=Z,54nm,1.0s
NVS pmax pmax
comp=E,27nm,1.2s
NVS smax smax
comp=E,48nm,2.4s
**EKS2 Erkin-Say 55.14 315** P **P** **10 00 46.6 +0.6**
SNR=10
**KURK Kurchatov 55.30 325***c* *iP* **P** **10 00 46.9 +0.1**
KURK pmax pmax
comp=Z,375nm,1.2s
**KURK Kurchatov 55.30 325** *eP* **P** **10 00 46.6 -0.3**
comp=Z,147nm,1.4s
**KURK Kurchatov 55.30 325** P **P** **10 00 46.8 -0.1**
SNR=29
KURK P **P** **10 00 46.8 -0.1**
SNR=29
**KURK Kurchatov 55.30 325** P **P** **10 00 46.8 -0.1**
SNR=29
**MNAS Manas 55.98 314** *i* P **P** **10 00 51.6 -0.5**
MNAS pmax pmax
comp=Z,44nm,1.4s
**KBL Kabul 56.74 304** *eP* **P** **10 00 56.3 -1.4**
KBL pmax pmax
comp=Z,18nm,0.8s
**KBL Kabul 56.74 304** *eP* **P** **10 00 56.3 -1.4**
comp=Z,18nm,0.8s
**KK31 Karatay Array 57.56 314** *i* P **P** **10 01 02.0 -1.2**
KK31 pmax pmax
comp=Z,21nm,0.9s
**DZET Dzherino 57.74 309** P **P** **10 01 03.5 -1.1**
DZET pmax pmax
comp=Z,38nm,0.8s
**TIXI Tiksi 60.52 1** P **P** **10 01 22.7 -0.4**
comp=Z,8.1nm,1.0s,baz=156,slow=4.6,SNR=8.3
**TIXI Tiksi 60.52 1** *eP* **P** **10 01 22.9 -0.2**
TIXI pmax pmax
comp=Z,12nm,1.0s
**TIXI Tiksi 60.52 1** *eP* **P** **10 01 22.9 -0.2**
comp=Z,12nm,1.0s
**BVA0 Borovoye Array 60.90 325** P **P** **10 01 25.5 -0.5**
BVA0 pmax pmax
comp=Z,45nm,1.2s
**BVAR Borovoye Array 60.90 325** ScP **ScP** **10 06 08.3 -1.0**
comp=Z,0.5nm,0.6s,baz=20,slow=4.9,SNR=3.8
**BRVK Borovoye 60.97 325***c* *iP* **P** **10 01 26.3 -0.2**
BRVK pmax pmax

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | comp=Z,128nm,1.0s | | | | | | |
| **BRVK** | **Borovoye** | **60.97** | **325** | *e*P | **P** | **10 01 26.2** | **-0.2** |
| | comp=Z,49nm,1.0s | | | | | | |
| **BRVK** | **Borovoye** | **60.97** | **325** | P | **P** | **10 01 26.6** | **+0.1** |
| | SNR=17 | | | | | | |
| **BRVK** | **Borovoye** | **60.97** | **325** | P | **P** | **10 01 26.6** | **+0.1** |
| | SNR=17 | | | | | | |
| **GEYT** | **Alibeck** | **65.93** | **307** | P | **P** | **10 01 59.3** | **-0.4** |
| | comp=Z,4.8nm,0.5s,baz=109,slow=8.0,SNR=12 | | | | | | |
| GEYT | | | | LR | LR | 10 35 16.1 | |
| | comp=Z,185nm,18.1s,baz=95,slow=40 | | | | | | |
| **AB31** | **Akbulak array** | **66.15** | **319** | *i* P | **P** | **10 02 00.0** | **-0.8** |
| AB31 | | | | pmax | pmax | | |
| | comp=Z,24nm,0.8s | | | | | | |
| **SVE** | **Sverdlovsk** | **67.43** | **327***d* | *e*P | **P** | **10 02 08.7** | **-0.1** |
| SVE | | | | pmax | pmax | | |
| | comp=Z,76nm,1.1s | | | | | | |
| **AKTO** | **Aktyubinsk** | **67.59** | **320** | *i* P | **P** | **10 02 08.9** | **-1.1** |
| AKTO | | | | pmax | pmax | | |
| | comp=Z,23nm,0.9s | | | | | | |
| **RPZ** | **Rata Peaks** | **68.16** | **147** | P | **P** | **10 02 14.4** | **+0.9** |
| | comp=Z,11nm,0.7s,baz=331,slow=3.1 | | | | | | |
| **ARU** | **Arti** | **68.45** | **326***c* | *i*P | **P** | **10 02 14.3** | **-0.9** |
| ARU | | | | S | **S** | **10 11 15.6** | **+0.3** |
| ARU | | | | SS | **SS** | **10 15 34.7** | **-4.4** |
| ARU | | | | pmax | pmax | | |
| | comp=Z,51nm,1.2s | | | | | | |
| **BKZ** | **Black Stump Fm** | **68.51** | **140** | *e*P | **P** | **10 02 17.4** | **+1.5** |
| | comp=Z,23nm,0.7s | | | | | | |
| **MAK** | **Makhachkala** | **74.21** | **312** | *e*P | **P** | **10 02 46.8** | **-3.5** |
| MAK | | | | *e* | | 10 05 40.3 | |
| MAK | | | | *e*S | **SKiKP** | **10 12 19.1** | **+2.8** |
| MAK | | | | pmax | pmax | | |
| | comp=Z,21nm,0.3s | | | | | | |
| **IMAR** | **Indian Mountai** | **75.91** | **25** | *e*P | **P** | **10 03 00.1** | **+0.5** |
| **GNI** | **Garni** | **76.37** | **309**⇑ | *e*P | **P** | **10 03 04.1** | **+1.1** |
| GNI | | | | pmax | pmax | | |
| | comp=Z,39nm,1.5s | | | | | | |
| **CAST** | **Castle Rocks** | **76.47** | **27** | *e*P | **P** | **10 03 04.6** | **+1.7** |
| | comp=Z,13nm,1.1s | | | | | | |
| **BPAW** | **Bear Paw Mtn.** | **76.98** | **27** | *e*P | **P** | **10 03 05.5** | **-0.3** |
| | comp=Z,84nm,2.0s | | | | | | |
| **SUA** | **Susitna One** | **77.04** | **29** | *e*P | **P** | **10 03 07.0** | **+0.7** |
| | comp=Z,10nm,0.9s | | | | | | |
| **MLY** | **Manley** | **77.11** | **26** | *e*P | **P** | **10 03 07.6** | **+1.0** |
| | comp=Z,9.4nm,1.2s | | | | | | |
| **RAYN** | **Ar Rayn** | **77.13** | **292** | *e*P | **P** | **10 03 05.5** | **-2.0** |
| | comp=Z,13nm,1.0s | | | | | | |
| **COLD** | **Coldfoot** | **77.39** | **23** | *e*P | **P** | **10 03 09.9** | **+1.9** |
| | comp=Z,11nm,1.1s | | | | | | |
| **KBZ** | **Khabaz** | **77.54** | **313** | P | **P** | **10 03 08.2** | **-1.1** |
| | comp=Z,5.0nm,0.9s,baz=336,slow=0.6,SNR=5.9 | | | | | | |
| KBZ | | | | LR | LR | 10 42 09.9 | |
| | comp=Z,334nm,18.3s,baz=72,slow=39 | | | | | | |
| **KIV** | **Kislovodsk** | **77.68** | **313** | *e*P | **P** | **10 03 09.3** | **-0.9** |
| KIV | | | | pmax | pmax | | |
| | comp=Z,21nm,1.1s | | | | | | |
| **KIV** | **Kislovodsk** | **77.68** | **313** | *e*P | **P** | **10 03 09.3** | **-0.9** |
| | comp=Z,21nm,1.1s | | | | | | |
| **NEY** | **Neytrino** | **77.69** | **312**⇑ | *e*P | **P** | **10 03 12.0** | **+1.6** |
| NEY | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.4s | | | | | | |
| **MCK** | **McKinley** | **77.88** | **27** | *e*P | **P** | **10 03 11.4** | **+0.5** |
| MCK | | | | pmax | pmax | | |
| | comp=Z,23nm,1.0s | | | | | | |
| **MCK** | **McKinley** | **77.88** | **27** | *e*P | **P** | **10 03 11.4** | **+0.5** |
| | comp=Z,23nm,1.0s | | | | | | |
| **VRH** | **Novokhopyorsk** | **77.93** | **320** | *e*P | **P** | **10 03 09.4** | **-1.9** |
| VRH | | | | pmax | pmax | | |
| | comp=Z,20nm,0.8s | | | | | | |
| **SML** | **Sawmill** | **78.19** | **29** | *e*P | **P** | **10 03 13.0** | **+0.4** |
| **SML** | **Sawmill** | **78.19** | **29** | *e*P | **P** | **10 03 13.0** | **+0.4** |
| **COLA** | **College** | **78.34** | **26**⇓ | *e*P | **P** | **10 03 16.5** | **+3.2** |
| COLA | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.8s | | | | | | |
| **KLMR** | **Klimovskoe** | **78.73** | **330** | *e*P | **P** | **10 03 13.5** | **-2.0** |
| KLMR | | | | pmax | pmax | | |
| | comp=Z,52nm,1.0s | | | | | | |
| **ILAR** | **Eielson Array** | **78.75** | **26** | P | **P** | **10 03 15.2** | **-0.5** |
| | comp=Z,1.3nm,0.8s,baz=240,slow=4.6,SNR=7.3 | | | | | | |
| **VSR** | **Storozhevoye** | **79.54** | **320** | *e*P | **P** | **10 03 18.3** | **-1.9** |
| VSR | | | | pmax | pmax | | |
| | comp=Z,20nm,1.2s | | | | | | |
| **LPSR** | **Galich'ya Gora** | **79.57** | **322** | *e*P | **P** | **10 03 19.3** | **-1.0** |
| LPSR | | | | pmax | pmax | | |
| | comp=Z,40nm,1.2s | | | | | | |
| **OBN** | **Obninsk** | **80.73** | **324** | *e*P | **P** | **10 03 25.6** | **-0.9** |
| OBN | | | | *e* | | 10 06 30.2 | |
| OBN | | | | *e*PPP | PPP | 10 08 25.1 | |
| OBN | | | | pmax | pmax | | |
| | comp=Z,39nm,1.7s | | | | | | |
| OBN | | | | MLR | MLR | | |
| | comp=Z,269nm,21.0s | | | | | | |
| **ANN** | **Anapa** | **81.35** | **314** | *e*P | **P** | **10 03 26.4** | **-3.6** |
| ANN | | | | *e**PP | **pP** | **10 03 36.3** | **-2.2** |
| ANN | | | | *e*S | **S** | **10 13 33.9** | **-5.5** |
| ANN | | | | pmax | pmax | | |
| | comp=Z,30nm,1.2s | | | | | | |
| **ARCES** | **ARCESS Array B** | **83.36** | **340** | P | **P** | **10 03 39.7** | **-0.4** |
| | comp=Z,19nm,1.2s,baz=102,slow=5.3,SNR=15 | | | | | | |
| ARCES | | | | LR | LR | 10 46 41.3 | |
| | comp=Z,164nm,18.0s,baz=102,slow=40 | | | | | | |
| **INK** | **Inuvik** | **83.57** | **22** | *e*P | **P** | **10 03 41.4** | **+0.3** |
| INK | | | | *e**PP | **sP** | **10 03 51.1** | **-1.6** |
| **INK** | **Inuvik** | **83.57** | **22** | *e*P | **P** | **10 03 41.4** | **+0.3** |
| INK | | | | *e*pP | **sP** | **10 03 51.0** | **-1.6** |
| **WHY** | **Whitehorse** | **84.78** | **29** | *e*P | **P** | **10 03 47.8** | **+0.2** |
| | comp=Z,14nm,1.0s | | | | | | |
| **BR131** | **Keskin Array S** | **84.89** | **309** | *e*P | **P** | **10 03 47.2** | **-1.5** |
| **BRTR** | **Keskin Array B** | **84.89** | **309** | P | **P** | **10 03 47.0** | **-1.6** |
| | comp=Z,2.0nm,0.8s,baz=106,slow=4.5,SNR=9.1 | | | | | | |
| BRTR | | | | LR | LR | 10 48 04.2 | |
| | comp=Z,66nm,18.2s,baz=62,slow=40 | | | | | | |
| **FIA1** | **FINESS Array S** | **85.09** | **332** | *e*P | **P** | **10 03 48.1** | **-0.9** |
| FIA1 | | | | *e*pP | **sP** | **10 03 57.4** | **-3.2** |
| **FINES** | **FINESS Array B** | **85.09** | **332** | P | **P** | **10 03 48.1** | **-0.8** |
| | comp=Z,32nm,1.0s,baz=72,slow=5.3,SNR=21 | | | | | | |
| FINES | | | | LR | LR | 10 44 51.4 | |
| | comp=Z,246nm,18.2s,baz=50,slow=38 | | | | | | |
| **FINES** | **FINESS Array B** | **85.09** | **332** | *i* P | **P** | **10 03 48.5** | **-0.5** |
| FINES | | | | pmax | pmax | | |
| | comp=Z,32nm,1.0s | | | | | | |
| **BR231** | **Keskin MP Arra** | **85.52** | **310** | *e*P | **P** | **10 03 47.9** | **-3.9** |
| **AKASG** | **Malin Array Be** | **85.83** | **321** | P | **P** | **10 03 51.6** | **-1.3** |
| | comp=Z,16nm,0.9s,baz=65,slow=4.7,SNR=48 | | | | | | |
| AKASG | | | | LR | LR | 10 45 20.4 | |
| | comp=Z,179nm,18.4s,baz=305,slow=38 | | | | | | |
| **AKASG** | **Malin Array Be** | **85.83** | **321** | *i* P | **P** | **10 03 51.4** | **-1.5** |
| AKASG | | | | pmax | pmax | | |
| | comp=Z,16nm,0.9s | | | | | | |
| **AKBB** | **Malin Array Si** | **85.83** | **321** | *e*P | **P** | **10 03 51.2** | **-1.7** |
| AKBB | | | | pmax | pmax | | |
| | comp=Z,28nm,1.1s | | | | | | |
| **AKBB** | **Malin Array Si** | **85.83** | **321** | *e*P | **P** | **10 03 51.2** | **-1.7** |
| | comp=Z,28nm,1.1s | | | | | | |
| **KIEV** | **Kiev** | **85.84** | **321** | *e*P | **P** | **10 03 51.2** | **-1.7** |
| KIEV | | | | pmax | pmax | | |
| | comp=Z,33nm,1.2s | | | | | | |
| **KIEV** | **Kiev** | **85.84** | **321** | *e*P | **P** | **10 03 51.2** | **-1.7** |
| | comp=Z,33nm,1.2s | | | | | | |
| **AK11** | **Malin Array Si** | **85.87** | **321** | *e*P | **P** | **10 03 51.2** | **-1.8** |
| **PPT** | **Papeete** | **87.96** | **108** | LR | LR | 10 37 54.9 | |
| | comp=Z,85nm,19.5s,baz=240,slow=32 | | | | | | |
| **PPT2** | **Papeete2** | **87.97** | **108** | *e*S | **S** | **10 14 48.9** | **+2.5** |
| | comp=Z,157nm,26.0s | | | | | | |
| **PPT2** | **Papeete2** | **87.97** | **108** | *e*LR | LR | 10 32 03.6 | |
| | comp=Z,294nm,32.2s | | | | | | |
| **KMBO** | **Kilima Mbogo** | **89.10** | **269** | P | **P** | **10 04 08.8** | **-1.0** |
| | comp=Z,4.4nm,1.0s,baz=52,slow=3.2,SNR=8.0 | | | | | | |
| KMBO | | | | LR | LR | 10 42 56.6 | |
| | comp=Z,220nm,19.5s,baz=93,slow=35 | | | | | | |
| **BUR04** | **Bucovina Ar. S** | **89.12** | **318** | *e*P | **P** | **10 04 08.1** | **-0.9** |
| **BUR08** | **Bucovina Ar. S** | **89.13** | **318** | *e*P | **P** | **10 04 08.0** | **-1.0** |
| **TBI** | **Tubuai** | **89.29** | **114** | *e*S | **S** | **10 15 01.2** | **+2.6** |
| | comp=Z,176nm,25.2s | | | | | | |
| **TBI** | **Tubuai** | **89.29** | **114** | *e*LR | LR | 10 32 40.1 | |
| | comp=Z,229nm,24.8s | | | | | | |
| **UZH** | **Uzhgorod** | **90.71** | **320**⇑ | *i*P | **P** | **10 04 15.7** | **-0.5** |
| UZH | | | | *e* | | 10 04 19.3 | |
| **VNDA** | **Vanda** | **90.77** | **173** | P | **P** | **10 04 15.9** | **+0.1** |
| | comp=Z,2.0nm,1.1s,baz=316,slow=7.1,SNR=4.5 | | | | | | |
| VNDA | | | | LR | LR | 10 46 27.6 | |
| | comp=Z,76nm,18.4s,baz=287,slow=36 | | | | | | |
| **VNDA** | **Vanda** | **90.77** | **173** | *e*P | **P** | **10 04 16.5** | **+0.7** |
| VNDA | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.0s | | | | | | |
| **VNDA** | **Vanda** | **90.77** | **173** | *e*P | **P** | **10 04 16.5** | **+0.7** |
| | comp=Z,4.3nm,1.0s | | | | | | |
| **STHS** | **Stebnicka Huta** | **91.12** | **321** | *e*P | **P** | **10 04 18.0** | **-0.2** |
| STHS | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.5s | | | | | | |
| **STHS** | **Stebnicka Huta** | **91.12** | **321** | *e*P | **P** | **10 04 18.0** | **-0.2** |
| **CRVS** | **Cervenica-Dubn** | **91.15** | **320** | *e*P | **P** | **10 04 18.1** | **-0.3** |
| **CRVS** | **Cervenica-Dubn** | **91.15** | **320** | *e*P | **P** | **10 04 18.0** | **-0.3** |
| **NIE** | **Niedzica** | **91.71** | **321** | *e*P | **P** | **10 04 21.1** | **+0.2** |
| **NIE** | **Niedzica** | **91.71** | **321** | *e*P | **P** | **10 04 21.1** | **+0.2** |
| **OJC** | **Ojcow** | **91.75** | **322** | *e*P | **P** | **10 04 20.6** | **-0.5** |
| **OJC** | **Ojcow** | **91.75** | **322** | *e*P | **P** | **10 04 20.5** | **-0.5** |
| **KECS** | **Kecovo** | **91.90** | **320** | *e*P | **P** | **10 04 21.8** | **0.0** |
| KECS | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.4s | | | | | | |
| **KECS** | **Kecovo** | **91.90** | **320** | *e*P | **P** | **10 04 21.8** | **0.0** |
| **NB2** | **NORSAR Subarra** | **91.95** | **334** | P | **P** | **10 04 18.8** | **-3.0** |
| | comp=Z,1.9nm,0.7s,baz=65,slow=4.6 | | | | | | |
| **NOA** | **NORSAR Array B** | **91.95** | **334** | P | **P** | **10 04 20.3** | **-1.5** |
| | comp=Z,3.1nm,0.8s,baz=64,slow=4.8,SNR=6.3 | | | | | | |
| NOA | | | | LR | LR | 10 47 35.3 | |
| | comp=Z,174nm,20.4s,baz=60,slow=37 | | | | | | |
| **YKA** | **Yellowknife Ar** | **93.06** | **24** | P | **P** | **10 04 26.7** | **0.0** |
| | comp=Z,1.1nm,1.0s,baz=288,slow=4.5,SNR=5.1 | | | | | | |
| YKA | | | | PKKPbc | **PKKPdf** | **10 21 29.5** | **-6.0** |
| | comp=Z,0.2nm,0.7s,baz=60,slow=4.2,SNR=3.6 | | | | | | |
| YKA | | | | LR | LR | 10 49 19.2 | |
| | comp=Z,8.6nm,19.0s,baz=0.0,slow=37 | | | | | | |
| **KSP** | **Ksiaz** | **93.62** | **323** | *e*P | **P** | **10 04 29.4** | **-0.2** |
| **KSP** | **Ksiaz** | **93.62** | **323** | *e*P | **P** | **10 04 29.4** | **-0.2** |
| **DPC** | **Dobruska-Polom** | **93.79** | **323** | *e*P | **P** | **10 04 29.5** | **-1.0** |
| **DPC** | **Dobruska-Polom** | **93.79** | **323** | *e*P | **P** | **10 04 29.5** | **-1.0** |
| **CONA** | **Conrad Observa** | **94.99** | **321** | *e*PcP | **PcP** | **10 04 36.2** | **-0.2** |
| | comp=Z,7.2nm,1.5s | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **95.30** | **98** | *e*LR | LR | 10 35 26.9 | |
| | comp=Z,362nm,23.8s | | | | | | |
| **CLL** | **Collm** | **95.33** | **325** | *e*P | **P** | **10 04 39.0** | **+1.5** |
| CLL | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.4s | | | | | | |
| **CLL** | **Collm** | **95.33** | **325** | *e*P | **P** | **10 04 39.0** | **+1.5** |
| | comp=Z,9.0nm,1.4s | | | | | | |
| CLL | | | | LmV | | 10 56 00.0 | |
| | comp=Z,200nm,19.7s | | | | | | |
| **KHC** | **Kasperske Hory** | **95.90** | **322** | *e*P | **P** | **10 04 38.9** | **-1.3** |
| **KHC** | **Kasperske Hory** | **95.90** | **322** | *e*P | **P** | **10 04 38.9** | **-1.3** |
| **GERES** | **GERESS Array B** | **95.95** | **322** | P | **P** | **10 04 39.5** | **-1.0** |
| | comp=Z,1.9nm,0.9s,baz=78,slow=6.2,SNR=11 | | | | | | |
| **GEA0** | **GERESS Array S** | **95.95** | **322** | *e*P | **P** | **10 04 39.9** | **-0.6** |
| **SOKA** | **Soboth** | **95.99** | **320** | *i* PcP | **PcP** | **10 04 40.6** | **-0.3** |
| | comp=Z,2.6nm,0.7s | | | | | | |
| **MOA** | **Molln** | **96.01** | **321** | *i* PcP | **PcP** | **10 04 40.9** | **0.0** |
| | comp=Z,13nm,1.2s | | | | | | |
| **OBKA** | **Obir** | **96.36** | **320** | *i* PcP | **P** | **10 04 41.9** | **-0.5** |
| | comp=Z,11nm,1.3s | | | | | | |
| **KBA** | **Koelnbreinsper** | **96.89** | **321** | *i* PcP | **P** | **10 04 44.0** | **-0.9** |
| | comp=Z,7.5nm,1.2s | | | | | | |
| **ABTA** | **Abfaltersbach** | **97.55** | **321** | *i* PcP | **P** | **10 04 46.7** | **-1.1** |
| | comp=Z,6.2nm,0.9s | | | | | | |
| **WTTA** | **Wattenberg** | **97.87** | **321** | *i* PcP | **P** | **10 04 48.8** | **-0.5** |
| | comp=Z,14nm,1.4s | | | | | | |
| **WATA** | **Walderalm** | **97.88** | **321** | *i* PcP | **P** | **10 04 48.5** | **-0.8** |
| | comp=Z,2.0nm,0.6s | | | | | | |
| **MOTA** | **Moosalm** | **98.16** | **321** | *i* PcP | **P** | **10 04 49.7** | **-0.9** |
| | comp=Z,12nm,1.3s | | | | | | |
| **FETA** | **Feichten** | **98.53** | **321** | *i* Pdiff | Pdif | 10 04 52.0 | -0.3 |
| | comp=Z,7.2nm,1.1s | | | | | | |
| **TXAR** | **Lajitas Array** | **117.39** | **49** | PKP | **PKPdf** | **10 09 58.3** | **-1.4** |
| | comp=Z,0.3nm,0.7s,baz=328,slow=3.2,SNR=3.3 | | | | | | |
| **TOA0** | **Torodi Ar. Sit** | **119.82** | **292** | *e*PKPdf | **PKPdf** | **10 10 03.0** | **-1.5** |
| **TORD** | **Torodi Ar. Bea** | **119.82** | **292** | PKP | **PKPdf** | **10 10 03.1** | **-1.5** |
| | comp=Z,1.1nm,0.8s,baz=83,slow=1.6,SNR=6.8 | | | | | | |
| TORD | | | | PKKPbc | **PKKPbc** | **10 20 14.6** | **+0.6** |
| | comp=Z,0.5nm,0.8s,baz=266,slow=4.0,SNR=3.9 | | | | | | |
| **WVT** | **Waverly** | **123.15** | **33** | *e*PKIKP | **PKPdf** | **10 10 10.1** | **-0.3** |
| **WVT** | **Waverly** | **123.15** | **33** | *e*PKPdf | **PKPdf** | **10 10 10.1** | **-0.3** |
| **SDDR** | **Presa de Saban** | **145.52** | **30** | *e*PKPdf | **PKPbc** | **10 10 50.9** | **-1.6** |
| **PLCA** | **Paso Flores** | **147.03** | **156** | PKPbc | **PKPab** | **10 10 57.2** | **-0.7** |
| | comp=Z,14nm,1.0s,baz=226,slow=2.5,SNR=18 | | | | | | |
| PLCA | | | | PKKP | **PKKPdf** | **10 19 59.9** | **+5.8** |
| | comp=Z,2.7nm,1.0s,baz=352,slow=8.6,SNR=2.9 | | | | | | |
| **PLCA** | **Paso Flores** | **147.03** | **156** | *e*PKPdf | **PKPab** | **10 10 57.5** | **-0.4** |
| PLCA | | | | PKKP | **PKKPdf** | **10 19 59.9** | **+5.8** |
| **TRQA** | **Tornquist** | **152.20** | **166** | *e*PKPbc | **PKPbc** | **10 11 08.7** | **-0.7** |
| **OCAC** | **Ocana** | **152.73** | **46** | *e*P | **PKPbc** | **10 11 12.4** | **+1.1** |
| **GIRC** | **Giron, Santand** | **153.62** | **48** | *e*P | **PKPbc** | **10 11 09.1** | **-4.2** |
| **SDV** | **Santo Domingo** | **154.07** | **41** | *e*P | **PKPdf** | **10 11 08.5** | **+2.3** |
| **SDV** | **Santo Domingo** | **154.07** | **41** | *e*PKPdf | **PKPdf** | **10 11 05.1** | **-1.2** |
| **RUSC** | **La Rusia** | **154.49** | **49** | *e*P | **PKPbc** | **10 11 16.2** | **+0.6** |
| **CPUP** | **Villa Florida** | **164.51** | **168** | PKP | **PKPdf** | **10 11 18.1** | **+0.4** |
| | comp=Z,3.1nm,0.9s,baz=224,slow=6.7,SNR=4.2 | | | | | | |
| **LPAZ** | **La Paz** | **165.23** | **112** | PKP | **PKPdf** | **10 11 20.4** | **+1.0** |
| | comp=Z,2.0nm,1.0s,baz=11,slow=11,SNR=4.3 | | | | | | |
| LPAZ | | | | PKPab | **PKPab** | **10 12 18.0** | **+1.2** |
| | comp=Z,1.9nm,1.0s,baz=260,slow=5.5,SNR=2.8 | | | | | | |
| **LPAZ** | **La Paz** | **165.23** | **112** | *e*PKIKP | **PKPdf** | **10 11 17.3** | **-2.1** |
| **LPAZ** | **La Paz** | **165.23** | **112** | *e*PKPdf | **PKPdf** | **10 11 17.3** | **-2.1** |
| LPAZ | | | | PKPab | **PKPab** | **10 12 18.0** | **+1.2** |
| **SAML** | **Samuel** | **170.59** | **78** | *e*PKPdf | **PKPdf** | **10 11 22.5** | **+0.1** |

---

**IDC 10 10:03:37.4**±4.7**, 19°.81S**×**177°.94W, h469**km±41km**, mb3.0**/2**, mb1 3.3**/3**, mb1mx2.8**/33**, mbtmp4.0**/3**, Error ellipse: s-maj=156.9km s-min=25.2km az=150.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AFI** | **Afiamalu** | **8.32** | **46** | P | P | 10 05 37.5 | +0.8 |
| | 1.4nm,0.3s,baz=247,slow=15,SNR=2.5 | | | | | | |
| AFI | | | | S | S | 10 07 14.5 | -0.2 |
| | 3.9nm,0.3s,baz=129,slow=21,SNR=5.7 | | | | | | |
| **ASAR** | **Alice Springs** | **44.73** | **256** | P | P | 10 11 08.0 | -0.1 |
| | 1.4nm,0.7s,baz=96,slow=7.9,SNR=26 | | | | | | |
| ASAR | | | | PcP | PcP | 10 12 40.0 | -0.7 |
| | 0.3nm,0.5s,baz=105,slow=3.9,SNR=6.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.75** | **261** | P | P | 10 11 08.1 | -0.2 |
| | 0.5nm,0.4s,baz=96,slow=7.3,SNR=17 | | | | | | |
| **BRTR** | **Keskin Array B** | **146.41** | **313** | PKPbc | PKPbc | 10 22 25.2 | -0.3 |
| | 0.4nm,0.6s,baz=102,slow=6.1,SNR=3.1 | | | | | | |

---

*NNC **10** 10:08:21.4±2.9, 54°.22N×86°.59E, h0km, mb2.8, mpv2.7, Error ellipse: s-maj=16.4km s-min=12.7km az=70.0*

**IDC 10 10:08:25.3**±2.4**, 54°.12N**×**86°.32E, h0**km**, mb1 3.3**/2**, mb1mx2.8**/47**, mbtmp3.3**/2**, ML2.8**/2**, 4C-3D, Error ellipse: s-maj=18.1km s-min=11.4km az=60.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **I46RU** | **ZALESOVO INFRA** | **0.90** | **260** | *i* | | 10 12 32.6 | |
| | baz=80,slow=331,SNR=3.0 | | | | | | |
| **ZAA0** | **Zalesovo Array** | **0.90** | **260** | ⇓P | Pg | 10 08 41.5 | -1.0 |
| | 0.4nm,0.5s,baz=79,slow=17 | | | | | | |
| ZAA0 | | | | ⇑S | Sb | 10 08 57.0 | +0.7 |
| | 3.6nm,1.1s,baz=74,slow=27 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **0.90** | **260** | Pg | Pg | 10 08 41.4 | -1.2 |
| | 1.2nm,0.3s,baz=77,slow=16,SNR=16 | | | | | | |
| ZALV | | | | Lg | Lg | 10 08 56.0 | |
| | 2.8nm,0.3s,baz=74,slow=29,SNR=24 | | | | | | |
| **KURK** | **Kurchatov** | **5.81** | **237** | ⇑Pn | Pn | 10 09 54.2 | +1.5 |
| | 0.9nm,0.7s | | | | | | |
| KURK | | | | ⇑Lg | Lg | 10 11 32.4 | |
| | 2.5nm,0.6s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **5.92** | **237** | Pn | Pn | 10 09 55.2 | +1.1 |
| | 0.2nm,0.3s,baz=55,slow=14,SNR=16 | | | | | | |
| KURBB | | | | Sn | Sn | 10 11 00.8 | -1.8 |
| | baz=51,slow=24,SNR=3.0 | | | | | | |
| KURBB | | | | Lg | Lg | 10 11 34.5 | |
| | 0.1nm,0.3s,baz=55,slow=33,SNR=7.3 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **5.92** | **237** | ⇑Pn | Pn | 10 09 54.9 | +0.8 |
| | 3.2nm,0.7s | | | | | | |
| KURBB | | | | ⇓Sn | Sn | 10 11 03.4 | +0.9 |
| | 3.2nm,0.7s | | | | | | |
| KURBB | | | | ⇓Lg | Lg | 10 11 36.3 | |
| | 6.4nm,0.7s | | | | | | |
| **MKAR** | **Makanchi Array** | **7.77** | **201** | Pn | Pn | 10 10 20.6 | +1.1 |
| | 0.2nm,0.3s,baz=18,slow=12,SNR=7.4 | | | | | | |
| MKAR | | | | Sn | Sn | 10 11 47.1 | -1.1 |
| | 0.1nm,0.3s,baz=22,slow=27,SNR=4.0 | | | | | | |
| MKAR | | | | Lg | Lg | 10 12 30.0 | |
| | 0.0nm,0.3s,baz=22,slow=29,SNR=2.1 | | | | | | |
| **BVAR** | **Borovoye Array** | **9.54** | **270** | Sn | Sn | 10 12 29.3 | -2.4 |
| | 0.1nm,0.3s,baz=226,slow=41,SNR=2.5 | | | | | | |

---

*ISCJB **10** 10:18:21.7±1.1, 28°.32S±0°.04×70°.30W±0°.07, h115km±9km, Error ellipse: s-maj=10.1km s-min=7.2km az=9.4*
*GUC **10** 10:18:22.7±0.6, 28°.32S×70°.48W, h99km±7km, ML3.0*
*SJA **10** 10:18:23.6±0.2, 28°.51S×69°.84W, h175km±2km, ML3.1, MW3.1*
**ISC 10 10:18:21.0**±2.4**, 28°.29S**±0°.06×**70°.30W**±0°.08**, h121**km±17km**, n12, σ1s.65**/22**, 2C-1D, Central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VACH** | **Vallenar** | **0.50** | **234** | *e*P | **Pn** | **10 18 37.9** | **-1.1** |
| VACH | | | | *i* S | **Sn** | **10 18 51.4** | **-1.4** |
| **GO03** | **Copiap** | **0.69** | **5**⇓ | *i*P | **Pn** | **10 18 41.5** | **+1.0** |
| GO03 | | | | *i* S | **Sn** | **10 18 55.2** | **0.0** |
| GO03 | | | | IAML | | 10 18 55.9 | |
| | comp=N,802nm,0.3s | | | | | | |
| **LCO** | **Las Campanas** | **0.81** | **206**⇑ | *i*P | **Pn** | **10 18 42.3** | **+0.6** |
| LCO | | | | *i* S | **Sn** | **10 18 56.9** | **-0.4** |
| LCO | | | | IAML | | 10 18 58.5 | |
| | comp=N,253nm,0.2s | | | | | | |
| **CPCH** | **Copiapo** | **0.93** | **357**⇑ | *i*P | **Pn** | **10 18 43.1** | **+0.7** |
| CPCH | | | | *i* S | **Sn** | **10 18 59.0** | **+0.3** |
| **VCA** | **Vinchina** | **1.90** | **104** | *e*P | **Pn** | **10 18 55.5** | **+2.2** |
| VCA | | | | *e*S | **Sn** | **10 19 18.9** | **+0.9** |
| VCA | | | | IAML | | 10 19 20.9 | |
| | comp=Z,119nm,0.4s | | | | | | |
| **TLL** | **Tololo Astrono** | **1.93** | **193** | *e*P | **Pn** | **10 18 54.3** | **+0.5** |
| TLL | | | | *e*S | **Sn** | **10 19 18.5** | **-0.4** |
| TLL | | | | IAML | | 10 19 20.3 | |
| | comp=N,271nm,0.3s | | | | | | |
| **AGUA** | **GUANDACOL** | **1.99** | **128** | *e*P | **Pn** | **10 18 56.1** | **+1.7** |
| AGUA | | | | *e*S | **Sn** | **10 19 20.1** | **+0.1** |
| **AMOG** | **MOGNA** | **3.08** | **150** | *e*P | **Pn** | **10 19 09.1** | **+0.7** |
| AMOG | | | | *e*S | **Sn** | **10 19 42.6** | **-2.3** |
| **RTLS** | **Leoncito** | **3.61** | **166** | *e*P | **Pn** | **10 19 17.3** | **+1.7** |
| RTLS | | | | *e*S | **Sn** | **10 19 57.2** | **-0.6** |
| **CYA** | **Choya** | **3.96** | **93** | *e*P | **Pn** | **10 19 19.7** | **-0.4** |
| CYA | | | | *e*S | **Sn** | **10 20 01.2** | **-4.7** |
| **AUSP** | **Uspallata** | **4.00** | **169** | *e*P | **Pn** | **10 19 22.5** | **+1.6** |
| **ASAL** | **Salagasta** | **4.47** | **164** | *e*P | **Pn** | **10 19 27.6** | **+0.6** |

---

**IDC 10 10:20:33.7**±13.0**, 4°.88S**×**128°.24E, h0**km**, mb4.0**/1**, mb1 3.6**/3**, mb1mx3.2**/32**, mbtmp3.4**/3**, ML3.0**/2**, Error ellipse: s-maj=199.0km s-min=130.4km az=147.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **16.11** | **159** | Pn | Pn | 10 24 22.9 | +1.2 |
| | 0.1nm,0.3s,baz=338,slow=12,SNR=5.1 | | | | | | |
| WRA | | | | Sn | Sn | 10 27 11.8 | -9.4 |
| | 0.1nm,0.3s,baz=340,slow=21,SNR=3.8 | | | | | | |
| **ASAR** | **Alice Springs** | **19.46** | **164** | P | P | 10 25 01.4 | -0.9 |
| | 0.1nm,0.3s,baz=344,slow=11,SNR=8.6 | | | | | | |
| **STKA** | **Stephens Creek** | **29.64** | **157** | P | P | 10 26 41.2 | +0.2 |
| | 1.5nm,0.8s,baz=321,slow=12,SNR=3.0 | | | | | | |

---

**NNC 10 10:27:11.5**±5.5**, 37°.78N**×**72°.04E, h180**km±47km**, mb2.4, mpv3.5, 5C-3D, Error ellipse: s-maj=49.1km s-min=18.2km az=155.0, Tajikistan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SFK** | **Sufi-Kurgan** | **2.51** | **27** | ⇓P | Pn | 10 27 54.5 | 0.0 |
| | 14nm,0.3s | | | | | | |
| SFK | | | | ⇑S | Sn | 10 28 29.0 | +1.0 |
| | 12nm,0.3s | | | | | | |
| **DZET** | **Dzherino** | **2.73** | **293** | ⇑P | Pn | 10 27 56.9 | 0.0 |
| | 3.6nm,0.2s | | | | | | |
| DZET | | | | ⇓S | Sn | 10 28 32.2 | -0.1 |
| | 30nm,0.4s | | | | | | |
| **MNAS** | **Manas** | **4.72** | **4** | ⇓P | Pn | 10 28 22.6 | +0.7 |
| | 4.3nm,0.3s | | | | | | |
| MNAS | | | | ⇑S | Sn | 10 29 18.0 | +0.8 |
| | 6.4nm,0.4s | | | | | | |
| **AAK** | **Ala-Archa** | **5.21** | **20** | P | Pn | 10 28 28.0 | -0.2 |
| | 3.6nm,0.4s | | | | | | |
| AAK | | | | S | Sn | 10 29 28.8 | +0.2 |
| | 3.1nm,0.7s | | | | | | |
| **KK31** | **Karatay Array** | **5.45** | **348** | ⇑P | Pn | 10 28 32.0 | +0.7 |
| | 1.4nm,0.5s,baz=152,slow=12 | | | | | | |
| KK31 | | | | ⇑S | Sn | 10 29 33.4 | -0.6 |
| | 2.9nm,0.3s,baz=157,slow=24,SNR=9.4 | | | | | | |

---

*DDA **10** 10:27:39.1, 37°.23N×31°.97E, h9km, Md2.5*
*CSEM **10** 10:27:42.1±0.5, 37°.44N×31°.80E, h2km, MD2.6, Error ellipse: s-maj=12.2km s-min=5.4km az=162.0*
*ISK **10** 10:27:42.3, 37°.51N×31°.77E, h4km, MD2.6*
**ISC 10 10:27:41.2**±1.7**, 37°.42N**±0°.09×**31°.85E**±0°.04**, h1**km±13km**, n20, σ0s.86**/29**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KMER** | **Konya-Meram** | **0.54** | **49** | *i* P | **Pg** | **10 27 51.7** | **+0.2** |
| KMER | | | | *i* S | **Sb** | **10 28 01.0** | **-0.8** |
| **KMER** | **Konya-Meram** | **0.54** | **49** | P | **Pg** | **10 27 51.7** | **+0.2** |
| KMER | | | | S | **Sb** | **10 28 01.0** | **-0.8** |
| **KONT** | **Konya--Tatoy** | **0.66** | **37** | *e*PG | **Pb** | **10 27 55.3** | **-0.3** |
| KONT | | | | *e*SG | **Sb** | **10 28 04.9** | **-0.4** |
| **KONT** | **Konya--Tatoy** | **0.66** | **37** | *i* P | **Pg** | **10 27 54.7** | **+0.8** |
| KONT | | | | *i* S | **Sb** | **10 28 04.5** | **-0.8** |
| **KONT** | **Konya--Tatoy** | **0.66** | **37** | *e*Pg | **Pb** | **10 27 55.3** | **-0.3** |
| KONT | | | | *e*Sg | **Sb** | **10 28 04.9** | **-0.4** |
| **SUTC** | **Sutluce-Ispart** | **0.68** | **275** | *e*PG | **Pg** | **10 27 54.8** | **+0.5** |
| **SUTC** | **Sutluce-Ispart** | **0.68** | **275** | *e*Pg | **Pg** | **10 27 54.8** | **+0.5** |
| **DOGA** | **KONYA_Doganhis** | **0.70** | **348** | *i* P | **Pg** | **10 27 55.0** | **+0.3** |
| DOGA | | | | *i* S | **Sn** | **10 28 09.6** | **-0.4** |
| **DOGA** | **KONYA_Doganhis** | **0.70** | **348** | P | **Pg** | **10 27 55.0** | **+0.3** |
| **LADK** | **Ladik-KONYA** | **0.88** | **27** | *e*PG | **Pb** | **10 27 59.0** | **-0.3** |
| **LADK** | **Ladik-KONYA** | **0.88** | **27** | *e*Pg | **Pb** | **10 27 59.0** | **-0.3** |
| **BAGO** | **Egridir - ISPA** | **1.02** | **304** | *i* P | **Pn** | **10 28 01.5** | **-1.2** |
| BAGO | | | | *i* S | **Sn** | **10 28 20.0** | **+2.3** |
| **KDHN** | **Kadinhani** | **1.12** | **11** | *i* P | **Pn** | **10 28 03.6** | **-0.5** |
| KDHN | | | | *i* S | **Sn** | **10 28 21.7** | **+1.5** |
| **KDHN** | **Kadinhani** | **1.12** | **11** | P | **Pn** | **10 28 03.6** | **-0.5** |
| KDHN | | | | S | **Sn** | **10 28 21.7** | **+1.5** |
| **CHBY** | **Cihanbeyli** | **1.42** | **35** | *e*PN | **Pg** | **10 28 09.2** | **+0.8** |
| **CHBY** | **Cihanbeyli** | **1.42** | **35** | *e*Pn | **Pg** | **10 28 09.3** | **+0.8** |
| **KIZT** | **Kizilcal** | **1.46** | **1** | *e*PN | **Pb** | **10 28 08.9** | **-0.3** |
| **KIZT** | **Kizilcal** | **1.46** | **1** | *e*Pn | **Pb** | **10 28 08.9** | **-0.3** |
| **SULT** | **Sultanhani-AKS** | **1.53** | **59** | *e*PN | **Pg** | **10 28 11.4** | **+0.9** |
| **SULT** | **Sultanhani-AKS** | **1.53** | **59** | *e*Pn | **Pg** | **10 28 11.4** | **+0.9** |

---

**WEL 10 10:30:57.4**±0.2**, 38°.47S**×**176°.13E, h102**km±2km**, ML3.5**/40**, 13C-6D, Error ellipse: s-maj=1.2km s-min=1.1km az=0.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WPRZ** | **Whakapapatarin** | **0.05** | **150** | ⇓PN | Pn | 10 31 11.5 | -0.1 |
| **ALRZ** | **Allen Road** | **0.19** | **118** | PN | Pn | 10 31 11.5 | -0.2 |
| **RRRZ** | **Republican Roa** | **0.33** | **66** | *e*PN | Pn | 10 31 12.3 | 0.0 |
| **TARZ** | **Mount Tarawera** | **0.38** | **52** | *e*PN | Pn | 10 31 12.8 | +0.1 |
| **WATZ** | **Wairara** | **0.39** | **233** | PN | Pn | 10 31 12.4 | -0.2 |
| WATZ | | | | SN | Sn | 10 31 24.5 | +0.4 |
| **MRHZ** | **Matea Rd** | **0.43** | **148** | PN | Pn | 10 31 12.5 | -0.5 |
| MRHZ | | | | AML | AML | 10 31 25.0 | |
| MRHZ | | | | AML | AML | 10 31 25.9 | |
| **TLZ** | **Tolley Road** | **0.48** | **287** | ⇑PN | Pn | 10 31 13.3 | +0.1 |
| TLZ | | | | SN | Sn | 10 31 25.5 | +0.3 |
| **MUGZ** | **Murupara** | **0.51** | **91** | PN | Pn | 10 31 12.9 | -0.5 |
| **RITZ** | **Rihia Road** | **0.55** | **203** | PN | Pn | 10 31 13.9 | +0.2 |
| **MTHZ** | **Maungataniwha** | **0.68** | **124** | ⇑PN | Pn | 10 31 14.5 | -0.2 |
| MTHZ | | | | SN | Sn | 10 31 28.3 | +0.5 |
| **RTZ** | **Ruatahuna** | **0.68** | **102** | PN | Pn | 10 31 14.6 | -0.3 |
| **OPRZ** | **Ohinepanea** | **0.71** | **28** | ⇑PN | Pn | 10 31 15.1 | +0.1 |
| **KRVZ** | **Karewarewa** | **0.73** | **211** | PN | Pn | 10 31 15.2 | -0.2 |
| **BKZ** | **Black Stump Fm** | **0.75** | **158** | ⇑PN | Pn | 10 31 15.0 | -0.5 |
| BKZ | | | | AML | AML | 10 31 31.6 | |
| BKZ | | | | AML | AML | 10 31 31.6 | |
| **WTVZ** | **West Tongariro** | **0.77** | **213** | PN | Pn | 10 31 15.5 | -0.2 |
| **OTVZ** | **Oturere** | **0.78** | **208** | PN | Pn | 10 31 15.8 | -0.1 |
| **URZ** | **Urewera** | **0.80** | **75** | ⇑PN | Pn | 10 31 15.4 | -0.5 |
| URZ | | | | AML | AML | 10 31 30.2 | |
| URZ | | | | AML | AML | 10 31 30.6 | |
| **TWVZ** | **Taurewa** | **0.80** | **222** | PN | Pn | 10 31 15.9 | -0.2 |
| **NGZ** | **Ngauruhoe** | **0.81** | **210** | ⇓PN | Pn | 10 31 16.2 | 0.0 |
| **NMHZ** | **Naumai** | **0.82** | **140** | PN | Pn | 10 31 16.5 | +0.4 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| NMHZ | | | | AML | AML | 10 31 37.3 | |
| NMHZ | | | | AML | AML | 10 31 37.4 | |
| TUVZ | Tukino | 0.88 | 205 | ⇑PN | Pn | 10 31 16.8 | 0.0 |
| TOZ | Tahuroa Road | 0.89 | 326 | PN | Pn | 10 31 17.1 | +0.3 |
| FWVZ | Far West T-bar | 0.90 | 210 | PN | Pn | 10 31 16.7 | -0.4 |
| WHVZ | Whangaehu Hut | 0.91 | 207 | ⇑PN | Pn | 10 31 17.2 | -0.1 |
| TRVZ | Turoa | 0.94 | 209 | PN | Pn | 10 31 17.2 | -0.3 |
| WNVZ | Wahianoa | 0.95 | 206 | ⇑PN | Pn | 10 31 17.4 | -0.2 |
| KWHZ | Kaweka Forest | 0.98 | 166 | PN | Pn | 10 31 17.7 | -0.1 |
| KWHZ | | | | AML | AML | 10 31 37.3 | |
| KWHZ | | | | AML | AML | 10 31 37.6 | |
| MOVZ | Moawhango | 0.98 | 197 | ⇑PN | Pn | 10 31 17.3 | -0.5 |
| SNGZ | Shannon Statio | 1.00 | 108 | PN | Pn | 10 31 18.8 | +0.9 |
| SNGZ | | | | AML | AML | 10 31 39.1 | |
| SNGZ | | | | AML | AML | 10 31 43.5 | |
| HIZ | Hauiti | 1.00 | 267 | ⇓PN | Pn | 10 31 18.1 | +0.2 |
| RAGZ | Rawiri | 1.01 | 92 | PN | Pn | 10 31 18.1 | 0.0 |
| RAGZ | | | | AML | AML | 10 31 39.5 | |
| RAGZ | | | | AML | AML | 10 31 39.6 | |
| BHHZ | Black Hill Sta | 1.02 | 183 | ⇑PN | Pn | 10 31 17.6 | -0.6 |
| BHHZ | | | | AML | AML | 10 31 33.2 | |
| BHHZ | | | | AML | AML | 10 31 34.4 | |
| PKVZ | Pokaka | 1.02 | 217 | ⇑PN | Pn | 10 31 18.1 | 0.0 |
| ARHZ | Aropaoanui | 1.04 | 140 | PN | Pn | 10 31 18.7 | +0.3 |
| ARHZ | | | | AML | AML | 10 31 40.7 | |
| ARHZ | | | | AML | AML | 10 31 40.9 | |
| MTVZ | Mangateitei | 1.04 | 209 | PN | Pn | 10 31 18.6 | +0.1 |
| WHHZ | Waihua | 1.05 | 125 | PN | Pn | 10 31 18.8 | +0.3 |
| WHHZ | | | | AML | AML | 10 31 40.5 | |
| WHHZ | | | | AML | AML | 10 31 42.2 | |
| MCHZ | McNeill Hill | 1.07 | 156 | PN | Pn | 10 31 19.4 | +0.7 |
| MCHZ | | | | AML | AML | 10 31 41.4 | |
| MCHZ | | | | AML | AML | 10 31 42.3 | |
| MWZ | Matawai | 1.11 | 83 | PN | Pn | 10 31 18.8 | -0.4 |
| MWZ | | | | AML | AML | 10 31 41.0 | |
| MWZ | | | | AML | AML | 10 31 41.9 | |
| KRHZ | Kereru | 1.18 | 171 | PN | Pn | 10 31 20.0 | 0.0 |
| KRHZ | | | | AML | AML | 10 31 38.0 | |
| KRHZ | | | | AML | AML | 10 31 41.5 | |
| VRZ | Vera Road | 1.25 | 238 | ⇑PN | Pn | 10 31 20.8 | +0.1 |
| RIGZ | Rimuhau | 1.30 | 101 | PN | Pn | 10 31 21.6 | +0.3 |
| RIGZ | | | | AML | AML | 10 31 51.0 | |
| RIGZ | | | | AML | AML | 10 31 51.6 | |
| RUGZ | Raukumara Rang | 1.32 | 68 | PN | Pn | 10 31 20.6 | -1.1 |
| KNZ | Kokohu | 1.33 | 115 | PN | Pn | 10 31 21.6 | 0.0 |
| TKGZ | Te Karaka | 1.35 | 89 | PN | Pn | 10 31 22.6 | +0.8 |
| TKGZ | | | | SN | Sn | 10 31 41.7 | +1.2 |
| TKGZ | | | | AML | AML | 10 31 42.6 | |
| CKHZ | Cape Kidnapper | 1.40 | 148 | PN | Pn | 10 31 22.6 | +0.1 |
| CKHZ | | | | AML | AML | 10 31 42.7 | |
| CKHZ | | | | AML | AML | 10 31 42.9 | |
| PNHZ | Pukenui | 1.44 | 178 | PN | Pn | 10 31 22.6 | -0.5 |
| PNHZ | | | | AML | AML | 10 31 47.9 | |
| PNHZ | | | | AML | AML | 10 31 48.4 | |
| KAHZ | Kahuranaki | 1.44 | 156 | PN | Pn | 10 31 23.0 | -0.1 |
| KAHZ | | | | AML | AML | 10 31 44.2 | |
| KAHZ | | | | AML | AML | 10 31 45.9 | |
| PRGZ | Paritu Road | 1.45 | 109 | PN | Pn | 10 31 22.9 | -0.1 |
| PRGZ | | | | AML | AML | 10 31 44.4 | |
| PRGZ | | | | AML | AML | 10 31 46.7 | |
| TWGZ | Tauwhareparae | 1.49 | 79 | PN | Pn | 10 31 24.4 | +0.8 |
| TWGZ | | | | AML | AML | 10 31 53.8 | |
| TWGZ | | | | AML | AML | 10 31 54.0 | |
| HAZ | Te Kaha | 1.49 | 62 | PN | Pn | 10 31 22.8 | -0.8 |
| HAZ | | | | AML | AML | 10 31 45.8 | |
| HAZ | | | | AML | AML | 10 31 45.9 | |
| HAZ | | | | AML | AML | 10 31 47.7 | |
| HAZ | | | | AML | AML | 10 31 47.9 | |
| MHGZ | Mahia Peninsul | 1.55 | 117 | PN | Pn | 10 31 24.2 | -0.1 |
| WAZ | Wanganui | 1.56 | 214 | ⇑PN | Pn | 10 31 24.6 | +0.1 |
| MKAZ | Moumakai | 1.57 | 330 | PN | Pn | 10 31 24.6 | 0.0 |
| TSZ | Takapari Road | 1.59 | 185 | PN | Pn | 10 31 24.2 | -0.7 |
| TSZ | | | | AML | AML | 10 31 50.5 | |
| TSZ | | | | AML | AML | 10 31 53.4 | |
| WPHZ | Waipukurau | 1.61 | 171 | PN | Pn | 10 31 24.4 | -0.7 |
| WPHZ | | | | AML | AML | 10 31 46.2 | |
| WPHZ | | | | AML | AML | 10 31 46.3 | |
| PKGZ | Pakihiroa | 1.64 | 70 | PN | Pn | 10 31 25.9 | +0.4 |
| PKGZ | | | | AML | AML | 10 31 52.3 | |
| PKGZ | | | | AML | AML | 10 31 55.1 | |
| PXZ | Pawanui | 1.66 | 160 | PN | Pn | 10 31 25.0 | -0.6 |
| PXZ | | | | AML | AML | 10 31 48.2 | |
| PXZ | | | | AML | AML | 10 31 48.2 | |
| LREZ | Lake Rotokare | 1.67 | 233 | PN | Pn | 10 31 26.2 | +0.4 |
| PUZ | Puketiti | 1.72 | 77 | PN | Pn | 10 31 26.5 | 0.0 |
| PUZ | | | | AML | AML | 10 32 00.7 | |
| NEZ | North Egmont | 1.77 | 243 | PN | Pn | 10 31 27.8 | +0.6 |
| DVHZ | Dannevirke | 1.82 | 179 | PN | Pn | 10 31 26.4 | -1.4 |
| DVHZ | | | | AML | AML | 10 31 57.6 | |
| DVHZ | | | | AML | AML | 10 31 59.4 | |
| PRHZ | Porangahau | 1.83 | 168 | PN | Pn | 10 31 27.0 | -0.9 |
| PRHZ | | | | AML | AML | 10 31 51.7 | |
| OHWZ | Ohakea | 1.84 | 200 | PN | Pn | 10 31 27.8 | -0.1 |
| WMGZ | Waiomatatini S | 1.92 | 71 | PN | Pn | 10 31 29.0 | 0.0 |
| WMGZ | | | | AML | AML | 10 32 06.6 | |
| WMGZ | | | | AML | AML | 10 32 07.0 | |
| POWZ | Post Office Ro | 1.94 | 188 | PN | Pn | 10 31 28.2 | -1.0 |
| POWZ | | | | AML | AML | 10 31 56.7 | |
| POWZ | | | | AML | AML | 10 32 00.6 | |
| MXZ | Matakaoa Point | 1.95 | 63 | PN | Pn | 10 31 29.9 | +0.7 |
| MXZ | | | | AML | AML | 10 32 03.8 | |
| ANWZ | Angora Road | 2.00 | 172 | *e*PN | Pn | 10 31 28.9 | -1.1 |
| ANWZ | | | | AML | AML | 10 31 55.0 | |
| ANWZ | | | | AML | AML | 10 31 55.4 | |
| PRWZ | Pori Road | 2.08 | 183 | PN | Pn | 10 31 30.0 | -1.1 |
| PRWZ | | | | AML | AML | 10 32 00.6 | |
| MRZ | Mangatainoka R | 2.23 | 191 | ⇓PN | Pn | 10 31 31.1 | -1.8 |
| MRZ | | | | SN | Sn | 10 31 56.4 | -3.7 |
| MRZ | | | | AML | AML | 10 32 10.1 | |
| TIWZ | Tintock | 2.31 | 185 | PN | Pn | 10 31 32.2 | -1.9 |
| TIWZ | | | | AML | AML | 10 32 00.5 | |
| TIWZ | | | | AML | AML | 10 32 01.1 | |
| CPWZ | Castlepoint | 2.44 | 179 | PN | Pn | 10 31 34.4 | -1.2 |
| CPWZ | | | | AML | AML | 10 32 05.5 | |
| CPWZ | | | | AML | AML | 10 32 07.0 | |
| OGWZ | Otaki Gorge | 2.46 | 197 | PN | Pn | 10 31 34.1 | -1.8 |
| OGWZ | | | | AML | AML | 10 32 11.7 | |
| OGWZ | | | | AML | AML | 10 32 12.6 | |
| HOWZ | Holdsworth Sta | 2.47 | 191 | ⇓PN | Pn | 10 31 33.8 | -2.3 |
| KIW | Kapiti Island | 2.56 | 201 | PN | Pn | 10 31 35.3 | -2.1 |
| TMWZ | Te Maipa | 2.64 | 184 | PN | Pn | 10 31 36.0 | -2.3 |
| TMWZ | | | | AML | AML | 10 32 05.9 | |
| MTW | Mount Morrison | 2.73 | 190 | PN | Pn | 10 31 36.8 | -2.7 |
| MTW | | | | AML | AML | 10 32 09.4 | |
| CAW | Cannon Point | 2.75 | 197 | PN | Pn | 10 31 37.3 | -2.6 |
| DUWZ | D'Urville Isla | 2.88 | 216 | PN | Pn | 10 31 39.4 | -2.2 |
| TRWZ | Traveller | 2.94 | 186 | PN | Pn | 10 31 39.8 | -2.5 |
| PAWZ | Paruwai Farm | 2.96 | 190 | PN | Pn | 10 31 39.5 | -3.0 |
| WEL | Wellington | 3.00 | 200 | PN | Pn | 10 31 40.2 | -2.9 |
| MSWZ | Moikau Station | 3.02 | 193 | PN | Pn | 10 31 40.2 | -3.1 |
| MSWZ | | | | AML | AML | 10 32 15.2 | |
| TCW | Tory Channel | 3.08 | 207 | PN | Pn | 10 31 41.4 | -2.8 |
| BHW | Baring Head | 3.09 | 198 | PN | Pn | 10 31 41.0 | -3.2 |
| PLWZ | Palliser | 3.16 | 192 | PN | Pn | 10 31 42.0 | -3.3 |
| TUWZ | Tuamarina | 3.40 | 209 | PN | Pn | 10 31 45.4 | -3.1 |
| NNZ | Nelson | 3.46 | 217 | PN | Pn | 10 31 46.4 | -2.9 |
| QRZ | Quartz Range | 3.64 | 229 | PN | Pn | 10 31 49.5 | -2.2 |
| BSWZ | Blackbirch Sta | 3.67 | 207 | PN | Pn | 10 31 49.0 | -3.1 |
| THZ | Tophouse | 4.11 | 216 | PN | Pn | 10 31 54.8 | -3.3 |
| KHZ | Kahutara | 4.41 | 206 | ⇓PN | Pn | 10 31 58.1 | -3.9 |
| DSZ | Denniston Nort | 4.65 | 224 | PN | Pn | 10 32 01.9 | -3.6 |
| INZ | Inchbonnie | 5.54 | 219 | PN | Pn | 10 32 13.6 | -3.8 |
| OXZ | Oxford | 5.75 | 211 | PN | Pn | 10 32 14.4 | -5.9 |
| MQZ | McQueen's Vall | 5.85 | 206 | PN | Pn | 10 32 15.6 | -5.9 |
| CTZ | Chatham Island | 7.59 | 136 | PN | Pn | 10 32 43.5 | -1.6 |
| ODZ | Otahua Downs | 7.74 | 210 | PN | Pn | 10 32 41.7 | -5.5 |

*SJA **10** 10:32:22.8±0.3, 33.°33S×69.°95W, h28km±3km, ML3.2, MW3.1*
*GUC **10** 10:32:23.1±0.6, 33.°46S×70.°05W, h12km±2km, ML2.5*
**ISC 10 10:32:23.3**±1.0, **33.°42S**±0.°04×**69.°96W**±0.°03, **h17**km±10km, **n18**, σ1$^s$**09**/30, **4C-2D, Chile-Argentina border region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| FCH | Farellones | 0.29 | 287 | ⇓*i*P | Pb | 10 32 29.7 | -0.6 |
| FCH | | | | *i* S | Sb | 10 32 34.6 | -0.4 |
| LMEL | Las Melosas | 0.48 | 206 | ⇑*i*P | Pg | 10 32 32.5 | -0.5 |
| LMEL | | | | *i* S | Sg | 10 32 39.3 | -0.1 |
| LMEL | | | | IAML | | 10 32 40.6 | |
| | comp=N,1μm,0.2s | | | | | | |
| FSR | Penalolen | 0.48 | 262 | ⇑*i*P | Pg | 10 32 33.3 | +0.3 |
| FSR | | | | *i* S | Sb | 10 32 40.9 | +0.7 |
| CLCH | Cerro Calan | 0.49 | 272 | ⇑*i*P | Pg | 10 32 33.2 | +0.2 |
| CLCH | | | | *i* S | Sg | 10 32 40.0 | +0.4 |
| CLCH | | | | IAML | | 10 32 41.6 | |
| | comp=N,881nm,0.9s | | | | | | |
| STL | Santa Lucia | 0.57 | 268 | ⇑*i*P | Pb | 10 32 34.3 | -0.6 |
| STL | | | | *e*S | Sg | 10 32 42.7 | +0.3 |
| ROCH | El Roble | 0.99 | 296 | ⇓*i*P | Pb | 10 32 41.9 | -0.3 |
| ROCH | | | | *i* S | Sn | 10 32 56.3 | -0.1 |
| ROCH | | | | IAML | | 10 32 57.1 | |
| | comp=N,230nm,0.4s | | | | | | |
| ROC1 | El Roble | 0.99 | 296 | *e*P | Pb | 10 32 41.9 | -0.3 |
| ROC1 | | | | *e*S | Sg | 10 32 56.0 | +0.4 |
| AAGR | Agrelo | 1.00 | 71 | *e*P | Pb | 10 32 41.9 | -0.4 |
| ARCO | CERRO ARCO | 1.03 | 57 | *e*P | Pb | 10 32 42.1 | -0.7 |
| ASAL | Salagasta | 1.25 | 49 | *e*P | Pn | 10 32 45.7 | -0.4 |
| AUSP | Uspallata | 1.28 | 22 | *e*P | Pn | 10 32 46.2 | -0.5 |
| RTLS | Leoncito | 1.71 | 19 | *e*P | Pb | 10 32 54.3 | -0.1 |
| RTLS | | | | IAML | | 10 32 54.8 | |
| | comp=Z,77nm,0.2s | | | | | | |
| RTLS | | | | *e*S | Sb | 10 33 15.8 | +0.2 |
| RTCV | Cerro Valdivia | 1.96 | 38 | *e*P | Pn | 10 32 57.3 | +1.5 |
| RTCV | | | | *e*S | Sb | 10 33 23.8 | +1.1 |
| RTLL | Cerro Villicun | 2.43 | 31 | *e*P | Pb | 10 33 07.9 | +1.3 |
| RTLL | | | | *e*S | Sg | 10 33 39.9 | -1.5 |
| RTLL | | | | IAML | | 10 33 43.0 | |
| | comp=Z,63nm,0.4s | | | | | | |
| ACAN | Cantantal | 2.59 | 65 | *e*P | Pb | 10 33 09.5 | +0.2 |
| ACAN | | | | *e*S | Sb | 10 33 42.5 | +1.6 |
| AMOG | MOGNA | 2.76 | 27 | *e*P | Pb | 10 33 12.6 | +0.3 |
| AMOG | | | | IAML | | 10 33 15.2 | |
| | comp=Z,902nm,0.2s | | | | | | |
| TLL | Tololo Astrono | 3.32 | 347 | *e*P | Pb | 10 33 23.9 | +2.0 |
| TLL | | | | *i* S | Sb | 10 34 00.6 | -1.5 |
| AGUA | GUANDACOL | 4.11 | 18 | *e*P | Pb | 10 33 32.0 | -3.3 |

*IDC **10** 10:56:39.8±0.8, 11.°01N×126.°01E, h0km, mb4.0/14, mb1 4.1/14, mb1mx3.8/59, mbtmp4.0/14, Error ellipse: s-maj=48.4km s-min=12.7km az=69.0*
*MAN **10** 10:56:41, 11.°14N×126.°28E, h15km, mb5.2, ML4.2, MS4.4*
*ISCJB **10** 10:56:42.7±0.6, 11.°14N±0.°05×126.°32E±0.°05, h37km, mb4.0/14, Error ellipse: s-maj=7.5km s-min=6.5km az=1.4*
**ISC 10 10:56:44.8**±0.7, **11.°13N**±0.°05×**126.°24E**±0.°08, **h37**km, **n29**, σ1$^s$**31**/32, **mb4.0**/14, **1C-2D, Philippine Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BESP | Borongan | 0.91 | 301 | *e*P | Pn | 10 56 59.1 | -1.9 |
| PLP | Palo | 1.23 | 272 | ⇓*e*P | Pn | 10 57 03.3 | -2.2 |
| PLP | | | | *i* S | Sn | 10 57 21.7 | +0.8 |
| SCPH | Surigao | 1.53 | 209 | *e*P | Pn | 10 57 09.1 | -0.4 |
| SCPH | | | | *i* S | Sn | 10 57 29.1 | +1.0 |
| OCLP | Ormoc | 1.60 | 267 | *e*P | Pn | 10 57 09.3 | -1.2 |
| MSLP | Maasin | 1.68 | 234 | *e*P | Pn | 10 57 10.6 | -1.0 |
| MSLP | | | | *e*S | Sn | 10 57 28.2 | -3.6 |
| CNP | Catarman | 2.06 | 312 | *e*P | Pn | 10 57 16.3 | -0.6 |
| BUTP | Butuan | 2.23 | 196 | *e*P | Pn | 10 57 19.3 | +0.1 |
| LLP | Lapu-Lapu | 2.37 | 250 | *e*P | Pn | 10 57 21.7 | +0.6 |
| LLP | | | | *e*S | Sn | 10 57 52.0 | +3.0 |
| BUKP | Musuan | 3.43 | 200 | *e*P | Pn | 10 57 35.1 | -0.6 |
| RCP | Roxas | 3.45 | 277 | ⇑*i*P | Pn | 10 57 37.3 | +1.4 |
| DCPH | Dipolog City | 3.80 | 229 | ⇓*i*P | Pn | 10 57 41.4 | +0.5 |
| CMAR | Chiang Mai Arr | 27.35 | 289 | P | P | 11 02 25.6 | -1.0 |
| | 1.1nm,0.3s,baz=91,slow=8.4,SNR=4.1 | | | | | | |
| FITZ | Fitzroy Crossi | 29.05 | 181 | P | P | 11 02 41.3 | -0.3 |
| | 0.7nm,0.4s,baz=342,slow=13,SNR=5.6 | | | | | | |
| WRA | Warramunga Arr | 31.89 | 165 | P | P | 11 03 06.2 | -0.5 |
| | 0.4nm,0.5s,baz=345,slow=9.2,SNR=9.0 | | | | | | |
| WRA | | | | PcP | PcP | 11 05 57.5 | +0.6 |
| | 0.3nm,0.6s,baz=338,slow=2.8,SNR=4.0 | | | | | | |
| ASAR | Alice Springs | 35.38 | 168 | P | P | 11 03 38.5 | +1.3 |
| | 0.5nm,0.5s,baz=349,slow=6.7,SNR=11 | | | | | | |
| ASAR | | | | PcP | PcP | 11 06 06.3 | -0.5 |
| | 0.2nm,0.7s,baz=345,slow=3.2,SNR=3.7 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 40.02 | 73 | T | T | 11 47 34.1 | |
| | baz=265,slow=74,SNR=6.0 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 40.03 | 73 | T | T | 11 47 32.4 | |
| | baz=265,slow=74,SNR=4.1 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 40.04 | 73 | T | T | 11 47 35.9 | |
| | baz=265,slow=74,SNR=5.6 | | | | | | |
| SONM | Songino Array | 40.21 | 339 | P | P | 11 04 19.3 | +1.5 |
| | 1.4nm,0.9s,baz=160,slow=10,SNR=7.7 | | | | | | |
| NWAO | Narrogin (SRO) | 44.64 | 191 | P | P | 11 04 52.1 | -1.7 |
| | 6.3nm,0.9s,baz=330,slow=20,SNR=2.4 | | | | | | |
| STKA | Stephens Creek | 45.22 | 161 | P | P | 11 04 58.3 | -0.2 |
| | 1.6nm,0.7s,baz=327,slow=10,SNR=3.5 | | | | | | |
| MKAR | Makanchi Array | 51.33 | 322 | P | P | 11 05 46.4 | +0.9 |
| | 1.6nm,0.6s,baz=122,slow=8.2,SNR=15 | | | | | | |
| ZALV | Zalesovo Beam | 53.86 | 331 | P | P | 11 06 04.5 | +0.5 |
| | 2.1nm,0.7s,baz=112,slow=6.7,SNR=9.8 | | | | | | |
| KURBB | Kurchatov Arra | 55.35 | 325 | P | P | 11 06 15.7 | +0.8 |
| | 2.7nm,0.5s,baz=123,slow=7.0,SNR=10 | | | | | | |
| AKTO | Aktyubinsk | 67.65 | 320 | P | P | 11 07 37.7 | -0.3 |
| | 0.8nm,0.6s,baz=128,slow=19,SNR=2.8 | | | | | | |
| ARCES | ARCESS Array B | 83.38 | 340 | P | P | 11 09 08.6 | +0.8 |
| | 2.3nm,0.9s,baz=54,slow=6.3,SNR=3.8 | | | | | | |
| FINES | FINESS Array B | 85.12 | 332 | P | P | 11 09 17.1 | +0.3 |
| | 4.1nm,1.0s,baz=92,slow=4.3,SNR=12 | | | | | | |
| AKASG | Malin Array Be | 85.88 | 321 | P | P | 11 09 20.4 | -0.4 |
| | 0.5nm,0.5s,baz=70,slow=5.4,SNR=4.2 | | | | | | |
| PLCA | Paso Flores | 147.00 | 156 | PKPbc | PKPab | 11 16 24.2 | -1.2 |
| | 1.9nm,0.8s,baz=235,slow=12,SNR=2.7 | | | | | | |

**IDC 10 10:57:14.8**±624.0, **57.°21N**×**48.°21E, h0**km, **Error ellipse: s-maj=351.0km s-min=170.7km az=124.0, Baltic States-Belarus-Northwestern Russia**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| I31KZ | AKTYUBINSK INF | 8.95 | 135 | *i* | | 11 52 00.0 | |
| | baz=324,slow=331,SNR=1.3 | | | | | | |
| I46RU | ZALESOVO INFRA | 20.79 | 83 | *i* | | 13 05 10.0 | |
| | baz=294,slow=334,SNR=1.9 | | | | | | |
| I34MN | SONGINO INFRAS | 35.61 | 80 | *i* | | 14 35 40.0 | |
| | baz=308,slow=329,SNR=0.5 | | | | | | |

*IDC **10** 10:59:03.9±3.9, 21.°93N×143.°06E, h278km±38km, mb3.3/16, mb1 3.4/18, mb1mx3.3/60, mbtmp3.9/18, Error ellipse: s-maj=25.7km s-min=11.6km az=89.0*
*ISCJB **10** 10:59:04.6±0.7, 21.°93N±0.°09×143.°0E±0.°2, h300km, mb3.5/15, Error ellipse: s-maj=25.0km s-min=11.8km az=175.0*
**ISC 10 10:59:06.2**±1.0, **22.°0N**±0.°1×**143.°0E**±0.°2, **h300**km, **n18**, σ0$^s$**80**/18, **mb3.6**/15, **Mariana Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MJAR | Matsushiro Arr | 15.12 | 345 | P | P | 11 02 22.8 | -1.6 |
| | 0.9nm,0.3s,baz=160,slow=10,SNR=10 | | | | | | |
| JNU | Nakatsue | 15.44 | 319 | P | Pn | 11 02 29.4 | -0.3 |
| | 0.6nm,0.3s,baz=118,slow=1.2,SNR=6.2 | | | | | | |
| KSRS | Korea Array | 20.19 | 323 | P | P | 11 03 19.4 | +0.4 |
| | 3.3nm,0.6s,baz=147,slow=8.7,SNR=18 | | | | | | |
| ASAJ | Asahikawa | 22.11 | 359 | P | P | 11 03 35.8 | -1.2 |
| | 4.2nm,0.6s,baz=225,slow=14,SNR=3.8 | | | | | | |
| KLR | Kul'dur | 28.64 | 345 | P | P | 11 04 34.6 | -0.9 |
| | 0.1nm,0.4s,baz=145,slow=9.2,SNR=7.5 | | | | | | |
| SONM | Songino Array | 39.02 | 320 | P | P | 11 06 04.5 | 0.0 |
| | 0.9nm,0.4s,baz=126,slow=7.4,SNR=7.3 | | | | | | |
| WRA | Warramunga Arr | 42.49 | 192 | P | P | 11 06 32.5 | -0.2 |
| | 0.3nm,0.5s,baz=8.1,slow=7.8,SNR=9.6 | | | | | | |
| FITZ | Fitzroy Crossi | 43.27 | 204 | P | P | 11 06 38.2 | -0.8 |
| | 3.2nm,1.2s,baz=25,slow=11,SNR=4.1 | | | | | | |
| ASAR | Alice Springs | 46.20 | 192 | P | P | 11 07 01.3 | -0.6 |
| | 0.2nm,0.7s,baz=12,slow=10,SNR=2.7 | | | | | | |
| ZALV | Zalesovo Beam | 53.89 | 322 | P | P | 11 07 59.4 | +0.4 |
| | 1.2nm,0.3s,baz=115,slow=7.0,SNR=6.6 | | | | | | |
| MKAR | Makanchi Array | 54.38 | 313 | P | P | 11 08 02.9 | +0.2 |
| | 0.2nm,0.4s,baz=85,slow=9.2,SNR=3.6 | | | | | | |
| KURBB | Kurchatov Arra | 57.20 | 317 | P | P | 11 08 23.1 | +0.7 |
| | 1.3nm,0.4s,baz=97,slow=7.9,SNR=4.5 | | | | | | |
| BVAR | Borovoye Array | 62.35 | 319 | P | P | 11 08 57.2 | -0.1 |
| | 1.1nm,0.4s,baz=103,slow=7.5,SNR=5.4 | | | | | | |
| INK | Inuvik | 67.41 | 24 | P | P | 11 09 30.2 | +0.8 |
| | 0.4nm,0.5s,baz=239,slow=2.6,SNR=3.3 | | | | | | |
| YKA | Yellowknife Ar | 76.32 | 28 | P | P | 11 10 22.3 | +0.2 |
| | 0.7nm,0.5s,baz=291,slow=6.0,SNR=21 | | | | | | |
| ARCES | ARCESS Array B | 78.62 | 341 | P | P | 11 10 35.2 | +0.5 |
| | 2.1nm,0.7s,baz=72,slow=8.1,SNR=10 | | | | | | |
| KBZ | Khabaz | 82.05 | 314 | P | P | 11 10 54.6 | +1.3 |
| | 0.6nm,0.5s,baz=83,slow=4.7,SNR=3.8 | | | | | | |
| FINES | FINESS Array B | 82.87 | 334 | P | P | 11 10 56.8 | -0.4 |
| | 3.4nm,0.4s,baz=68,slow=5.4,SNR=22 | | | | | | |

**SJA 10 11:09:14.7**±0.4, **31.°81S**×**69.°52W, h101**km±2km, **ML3.7, MW3.6, San Juan Province**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RTLS | Leoncito | 0.19 | 87 | *e*P | Pn | 11 09 30.4 | +1.0 |
| RTLS | | | | *e*S | Sn | 11 09 42.1 | +1.7 |
| AUSP | Uspallata | 0.43 | 165 | *e*P | Pn | 11 09 31.6 | +1.1 |
| AUSP | | | | *e*S | Sn | 11 09 44.0 | +1.7 |
| RTCV | Cerro Valdivia | 0.83 | 94 | *e*P | Pn | 11 09 34.4 | +0.9 |
| RTCV | | | | *e*S | Sn | 11 09 49.0 | +1.2 |
| ASAL | Salagasta | 0.97 | 144 | *e*P | Pn | 11 09 35.7 | +0.7 |
| ASAL | | | | *e*S | Sn | 11 09 51.2 | +0.9 |
| ARCO | CERRO ARCO | 1.14 | 154 | *e*P | Pn | 11 09 38.1 | +1.1 |
| ARCO | | | | *e*S | Sn | 11 09 55.1 | +1.4 |
| AMOG | MOGNA | 1.23 | 46 | *e*P | Pn | 11 09 38.8 | +0.8 |
| AMOG | | | | IAML | | 11 09 39.2 | |
| | comp=Z,10μm,0.2s | | | | | | |
| AMOG | | | | *e*S | Sn | 11 09 56.7 | +1.3 |
| AAGR | Agrelo | 1.40 | 156 | *e*P | Pn | 11 09 41.1 | +1.2 |
| ACAN | Cantantal | 2.03 | 104 | *e*P | Pn | 11 09 49.0 | +1.2 |
| AGUA | GUANDACOL | 2.48 | 21 | *e*P | Pn | 11 09 55.0 | +1.3 |
| VCA | Vinchina | 3.27 | 21 | *e*P | Pn | 11 10 05.4 | +1.1 |
| VCA | | | | IAML | | 11 10 55.5 | |
| | comp=Z,19nm,0.3s | | | | | | |

*CSEM **10** 11:14:11.0±0.7, 38.°01N×17.°68E, h20km, ML2.6, Error ellipse: s-maj=16.4km s-min=6.8km az=128.0*
*ROM **10** 11:14:13.9±0.6, 37.°84N×17.°33E, h22km±8km, Ml2.6/9, Error ellipse: s-maj=12.0km s-min=6.2km az=78.0*
**ISC 10 11:14:08.7**±2.5, **37.°91N**±0.°07×**17.°76E**±0.°10, **h30**km±14km, **n29**, σ1$^s$**46**/49, **Ionian Sea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PLAC | Placanica | 1.17 | 298 | Pg | Pb | 11 14 31.5 | +1.1 |
| PLAC | | | | Sg | Sb | 11 14 43.8 | -1.4 |
| PLAC | Placanica | 1.17 | 298 | Pg | Pb | 11 14 31.5 | +1.1 |
| PLAC | | | | Sg | Sb | 11 14 43.8 | -1.4 |
| MSCL | Scilla | 1.59 | 282 | Pg | Pb | 11 14 37.6 | +0.1 |
| | 91nm,0.4s | | | | | | |
| MSCL | Scilla | 1.59 | 282 | Pg | Pb | 11 14 37.6 | +0.1 |
| | 91nm,0.4s | | | | | | |
| JOPP | Joppolo | 1.63 | 296 | Pg | Pb | 11 14 38.0 | -0.2 |
| JOPP | | | | Sg | Sn | 11 14 55.6 | +0.1 |
| | 29nm,0.3s | | | | | | |
| JOPP | Joppolo | 1.63 | 296 | Pg | Pb | 11 14 38.0 | -0.2 |
| JOPP | | | | Sg | Sn | 11 14 55.6 | +0.1 |
| | 29nm,0.3s | | | | | | |
| MSRU | Castanea | 1.81 | 282 | Pg | Pb | 11 14 40.8 | -0.4 |
| MSRU | | | | Sg | Sn | 11 15 00.2 | +0.3 |
| | 62nm,0.4s | | | | | | |
| MSRU | Castanea | 1.81 | 282 | Pg | Pb | 11 14 40.8 | -0.4 |
| MSRU | | | | Sg | Sn | 11 15 00.2 | +0.3 |
| | 62nm,0.4s | | | | | | |
| MPNC | Port Mandanici | 1.92 | 278 | Pg | Pb | 11 14 42.2 | -0.8 |
| | 68nm,0.4s | | | | | | |
| MPNC | Port Mandanici | 1.92 | 278 | Pg | Pb | 11 14 42.2 | -0.8 |
| | 68nm,0.4s | | | | | | |
| MCSR | Castroreale | 1.99 | 275 | Pg | Pb | 11 14 44.1 | -0.2 |
| | 65nm,0.3s | | | | | | |
| MCSR | Castroreale | 1.99 | 275 | Pg | Pb | 11 14 44.1 | -0.2 |
| | 65nm,0.3s | | | | | | |
| MILZ | Milazzo | 2.03 | 281 | Pg | Pb | 11 14 44.5 | -0.4 |
| MILZ | | | | Sg | Sn | 11 15 04.9 | -0.2 |
| | 36nm,0.4s | | | | | | |
| MILZ | Milazzo | 2.03 | 281 | Pg | Pb | 11 14 44.5 | -0.4 |
| MILZ | | | | Sg | Sn | 11 15 04.9 | -0.2 |
| | 36nm,0.4s | | | | | | |
| HCRL | Carlentini | 2.26 | 255 | Pg | Pn | 11 14 45.6 | +1.6 |
| HCRL | | | | Sg | Sn | 11 15 09.3 | -1.5 |
| | 144nm,0.2s | | | | | | |
| HCRL | Carlentini | 2.26 | 255 | Pg | Pn | 11 14 45.6 | +1.6 |
| HCRL | | | | Sg | Sn | 11 15 09.3 | -1.5 |
| | 144nm,0.2s | | | | | | |
| HAVL | Avola | 2.30 | 246 | Pg | Pn | 11 14 46.4 | +1.7 |
| HAVL | | | | Sg | Sn | 11 15 10.8 | -1.2 |
| | 49nm,0.2s | | | | | | |
| HAVL | Avola | 2.30 | 246 | Pg | Pn | 11 14 46.4 | +1.7 |
| HAVL | | | | Sg | Sn | 11 15 10.8 | -1.2 |
| | 49nm,0.2s | | | | | | |
| HLNI | Lentini | 2.36 | 257 | Pg | Pn | 11 14 46.7 | +1.3 |
| HLNI | | | | Sg | Sn | 11 15 11.7 | -1.7 |
| | 35nm,0.3s | | | | | | |
| HLNI | Lentini | 2.36 | 257 | Pg | Pn | 11 14 46.7 | +1.3 |
| HLNI | | | | Sg | Sn | 11 15 11.7 | -1.7 |
| | 35nm,0.3s | | | | | | |
| MASS | Massafra | 2.76 | 350 | *e*Pn | Pn | 11 14 52.6 | +1.7 |
| MASS | | | | Sn | Sn | 11 15 23.0 | -0.2 |
| FASA | Fasano | 2.92 | 354 | *e*Pn | Pn | 11 14 55.1 | +2.0 |
| FASA | | | | Sn | Sn | 11 15 25.7 | -1.4 |
| SG1 | Sgolgore (BA) | 3.04 | 344 | *e*Pn | Pn | 11 14 57.0 | +2.2 |
| BAI | Bari | 3.26 | 348 | *e*Pn | Pn | 11 14 59.5 | +1.7 |
| CDT | Castel del Mon | 3.37 | 340 | *e*Pn | Pn | 11 15 00.7 | +1.4 |
| STON | Ston | 4.95 | 359 | *e*Pn | Pn | 11 15 22.3 | +1.2 |
| STON | | | | Sn | Sn | 11 16 14.7 | -2.6 |
| STON | Ston | 4.95 | 359 | *e*Pn | Pn | 11 15 22.2 | +1.2 |
| STON | | | | Sn | Sn | 11 16 14.7 | -2.6 |
| UDBI | Udbina | 6.78 | 348 | *i* Pn | Pn | 11 15 48.7 | +2.5 |
| UDBI | | | | Sn | Sn | 11 17 00.0 | -2.3 |
| UDBI | Udbina | 6.78 | 348 | *i* Pn | Pn | 11 15 48.7 | +2.5 |
| UDBI | | | | Sn | Sn | 11 17 00.0 | -2.3 |

*ISCJB **10** 11:34:51.5±1.4, 20.°3N±0.°2×93.°2E±0.°2, h10km, mb3.4/5, MS3.5/2, Error ellipse: s-maj=37.1km s-min=13.4km az=137.8*
*IDC **10** 11:34:52.4±2.1, 20.°36N×93.°25E, h0km, mb3.4/5, mb1 3.5/6, mb1mx3.2/61, mbtmp3.4/6, ML3.7/1, MS3.5/2, Ms1 3.5/2, ms1mx2.7/37, Error ellipse: s-maj=73.2km s-min=22.4km az=62.0*
**ISC 10 11:34:53.6**±2.0, **20.°2N**±0.°2×**93.°1E**±0.°3, **h10**km, **n10**, σ1$^s$**14**/8, **mb3.3**/5, **Myanmar**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SHL | Shillong | 5.44 | 348 | *e*P | Pg | 11 36 39.0 | +1.2 |
| CMAR | Chiang Mai Arr | 5.76 | 107 | Pn | Pn | 11 36 19.7 | +0.4 |
| | 0.6nm,0.3s,baz=293,slow=14,SNR=9.7 | | | | | | |
| CMAR | | | | Lg | Lg | 11 37 38.9 | |
| | 1.0nm,0.3s,baz=287,slow=30,SNR=4.1 | | | | | | |
| PHRA | Phrae | 6.92 | 103 | P | Pn | 11 36 35.7 | +0.6 |
| | 19nm,3.5s,24μm | | | | | | |
| MKAR | Makanchi Array | 27.94 | 344 | P | P | 11 40 44.2 | +0.1 |
| | 0.4nm,0.9s,baz=143,slow=9.6,SNR=2.9 | | | | | | |
| SONM | Songino Array | 29.57 | 18 | P | P | 11 40 56.8 | -1.9 |
| | 0.2nm,0.4s,baz=193,slow=12,SNR=3.9 | | | | | | |
| ZALV | Zalesovo Beam | 34.26 | 351 | P | P | 11 41 39.2 | -0.4 |
| | 0.5nm,0.3s,baz=186,slow=12,SNR=3.3 | | | | | | |
| WRA | Warramunga Arr | 56.76 | 132 | P | P | 11 44 37.8 | -0.3 |
| | 0.2nm,0.6s,baz=322,slow=7.4,SNR=3.4 | | | | | | |
| ASAR | Alice Springs | 59.01 | 136 | P | P | 11 44 54.7 | +0.8 |
| | 0.2nm,0.7s,baz=312,slow=7.0,SNR=4.3 | | | | | | |
| MLR | Muntele Rosu | 59.97 | 312 | LR | LR | 12 16 12.4 | |
| | comp=Z,24nm,19.5s,baz=240,slow=41 | | | | | | |
| TORD | Torodi Ar. Bea | 86.86 | 283 | LR | LR | 12 35 28.1 | |
| | comp=Z,28nm,18.2s,baz=320,slow=42 | | | | | | |

*DDA **10** 11:36:35.1, 36.°79N×30.°64E, h7km, Md2.6*
*ISK **10** 11:36:38.3, 37.°06N×30.°48E, h23km, ML1.9*
*CSEM **10** 11:36:38.9±0.2, 37.°08N×30.°50E, h15km, MD2.6, Error ellipse: s-maj=7.8km s-min=6.2km az=143.0*
**ISC 10 11:36:39.4**±0.9, **37.°11N**±0.°05×**30.°51E**±0.°04, **h10**km±9km, **n19**, σ0$^s$**82**/25, **Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KORT | Korkueli | 0.17 | 229 | *e*PG | Pg | 11 36 42.9 | -0.2 |
| KORT | | | | *e*SG | Sb | 11 36 46.5 | +0.9 |
| KORT | Korkueli | 0.17 | 229 | *i* P | Pg | 11 36 42.2 | -0.9 |
| KORT | | | | *i* S | Sb | 11 36 46.2 | +0.6 |
| KORT | Korkueli | 0.17 | 229 | P | Pg | 11 36 42.2 | -0.9 |
| KORT | Korkueli | 0.17 | 229 | *e*Pg | Pg | 11 36 42.9 | -0.2 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KORT | | | | S | **Sb** | **11 36 46.2** | **+0.6** |
| **ANTB** | **Antalya** | **0.24** | **151** | *e*PG | **Pg** | **11 36 44.4** | **+0.1** |
| **ANTB** | **Antalya** | **0.24** | **151** | *e*Pg | **Pg** | **11 36 44.4** | **+0.1** |
| **BCK** | **Bucak** | **0.36** | **11** | *e*PG | **Pb** | **11 36 48.0** | **0.0** |
| **BCK** | **Bucak** | **0.36** | **11** | *e*Pg | **Pb** | **11 36 48.0** | **0.0** |
| **SUTC** | **Sutluce-Ispart** | **0.54** | **47** | *e*PG | **Pg** | **11 36 49.8** | **-0.1** |
| **SUTC** | **Sutluce-Ispart** | **0.54** | **47** | *e*Pg | **Pg** | **11 36 49.8** | **-0.1** |
| **BRDR** | **BURDUR-Merkez** | **0.68** | **329** | *i* P | **Pg** | **11 36 52.5** | **-0.2** |
| BRDR | | | | *i* S | **Sn** | **11 37 05.1** | **-1.0** |
| **BRDR** | **BURDUR-Merkez** | **0.68** | **329** | P | **Pg** | **11 36 52.5** | **-0.2** |
| **GOLH** | **Golhisar** | **0.77** | **280** | *i* P | **Pg** | **11 36 54.1** | **-0.1** |
| GOLH | | | | *i* S | **Sn** | **11 37 09.7** | **+1.6** |
| **GOLH** | **Golhisar** | **0.77** | **280** | P | **Pg** | **11 36 54.1** | **-0.1** |
| **BAGO** | **Egridir - ISPA** | **0.91** | **14** | *i* P | **Pn** | **11 36 58.0** | **-0.4** |
| BAGO | | | | *i* S | **Sn** | **11 37 13.5** | **+1.9** |
| **KMER** | **Konya-Meram** | **1.62** | **66** | *i* P | **Pn** | **11 37 07.1** | **-1.1** |
| **KMER** | **Konya-Meram** | **1.62** | **66** | P | **Pn** | **11 37 07.1** | **-1.1** |
| **KDHN** | **Kadinhani** | **1.90** | **42** | *i* P | **Pn** | **11 37 11.3** | **-0.7** |
| **KDHN** | **Kadinhani** | **1.90** | **42** | P | **Pn** | **11 37 11.3** | **-0.7** |

*CSEM **10** 11:36:57.9, 38°.09N×32°.74E, h9km, ML1.5*
**ISK 10 11:36:57.9, 38°.09N×32°.74E, h9km, ML1.5, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LADK** | **Ladik-KONYA** | **0.32** | **290** | PG | Pg | 11 37 04.6 | +0.4 |
| LADK | | | | *e*SG | Sg | 11 37 09.5 | +1.1 |
| **LADK** | **Ladik-KONYA** | **0.32** | **290** | *i* Pg | Pg | 11 37 04.6 | +0.4 |
| LADK | | | | *e*Sg | Sg | 11 37 09.5 | +1.1 |
| **KONT** | **Konya--Tatoy** | **0.33** | **244** | PG | Pg | 11 37 05.0 | +0.5 |
| KONT | | | | *e*SG | Sg | 11 37 10.1 | +1.1 |
| **KONT** | **Konya--Tatoy** | **0.33** | **244** | *i* P | Pg | 11 37 05.2 | +0.6 |
| KONT | | | | *i* S | Sg | 11 37 10.2 | +1.2 |
| **KONT** | **Konya--Tatoy** | **0.33** | **244** | *i* Pg | Pg | 11 37 05.0 | +0.5 |
| KONT | | | | *e*Sg | Sg | 11 37 10.1 | +1.2 |
| **KMER** | **Konya-Meram** | **0.44** | **222** | *i* S | Sb | 11 37 15.0 | +0.4 |
| **CHBY** | **Cihanbeyli** | **0.50** | **14** | *e*PG | Pg | 11 37 08.2 | +0.4 |
| **CHBY** | **Cihanbeyli** | **0.50** | **14** | *e*Pg | Pg | 11 37 08.2 | +0.5 |
| **KDHN** | **Kadinhani** | **0.65** | **311** | *i* S | Sg | 11 37 18.4 | -0.6 |
| **KIZT** | **Kizilcal** | **1.04** | **320** | *e*PG | Pb | 11 37 18.3 | +0.2 |
| **KIZT** | **Kizilcal** | **1.04** | **320** | *e*Pg | Pb | 11 37 18.3 | +0.2 |
| **KAMT** | **Kaman** | **1.48** | **31** | *e*PN | Pb | 11 37 25.5 | -0.3 |
| **KAMT** | **Kaman** | **1.48** | **31** | *e*Pn | Pb | 11 37 25.5 | -0.2 |

*MAN **10** 11:39:06, 11°.39N×126°.53E, h68km, mb4.7, ML3.6, MS3.6*
*IDC **10** 11:39:07.9±1.7, 10°.96N×125°.84E, h0km, mb3.8/7, mb1 3.9/7, mb1mx3.6/50, mbtmp3.8/7, Error ellipse: s-maj=190.2km s-min=18.7km az=69.0*
*ISCJB **10** 11:39:12.0±0.8, 11°.11N±0°.06×126°.22E±0°.09, h49km, mb3.8/7, Error ellipse: s-maj=12.6km s-min=8.3km az=4.1*
**ISC 10 11:39:13.5**±1.0**, 11°.14N**±0°.07×**126°.30E**±0°.10**, h49**km**, n19, σ2ˢ13**/18**, mb3.8**/7**, 1C-1D, Philippine Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BESP** | **Borongan** | **0.96** | **299** | *e*P | **Pn** | **11 39 26.8** | **-3.9** |
| **PLP** | **Palo** | **1.29** | **271** | ⇓*e*P | **Pn** | **11 39 31.6** | **-3.6** |
| **SCPH** | **Surigao** | **1.57** | **211** | *e*P | **Pn** | **11 39 37.2** | **-1.8** |
| SCPH | | | | *e*S | **Sn** | **11 39 55.6** | **-2.5** |
| **OCLP** | **Ormoc** | **1.66** | **267** | *e*P | **Pn** | **11 39 39.1** | **-1.1** |
| **MSLP** | **Maasin** | **1.73** | **235** | *e*P | **Pn** | **11 39 40.1** | **-1.1** |
| MSLP | | | | *e*S | **Sn** | **11 40 04.6** | **+2.4** |
| **CNP** | **Catarman** | **2.10** | **311** | *e*P | Pn | 11 39 40.7 | -5.5 |
| **LLP** | **Lapu-Lapu** | **2.43** | **251** | *e*P | **Pn** | **11 39 47.5** | **-3.4** |
| LLP | | | | *e*S | **Sn** | **11 40 21.7** | **+2.3** |
| **BUKP** | **Musuan** | **3.46** | **201** | *e*P | **Pn** | **11 40 03.8** | **-1.2** |
| **RCP** | **Roxas** | **3.51** | **277** | ⇑*e*P | **Pn** | **11 40 06.2** | **+0.6** |
| **WRA** | **Warramunga Arr** | **31.89** | **166** | P | **P** | **11 45 34.2** | **-0.2** |
| | 0.3nm,0.5s,baz=346,slow=9.2,SNR=5.9 | | | | | | |
| **ASAR** | **Alice Springs** | **35.39** | **168** | P | **P** | **11 46 05.3** | **+0.5** |
| | 0.3nm,0.4s,baz=345,slow=7.1,SNR=9.1 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **39.97** | **73** | T | T | 12 30 06.2 | |
| | baz=263 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **39.97** | **73** | T | T | 12 30 07.5 | |
| | baz=263 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **39.98** | **73** | T | T | 12 30 06.4 | |
| | baz=263 | | | | | | |
| **SONM** | **Songino Array** | **40.22** | **339** | P | **P** | **11 46 46.8** | **+1.4** |
| | 0.6nm,1.0s,baz=163,slow=6.0,SNR=3.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **51.35** | **322** | P | **P** | **11 48 12.9** | **-0.3** |
| | 0.6nm,0.6s,baz=122,slow=8.3,SNR=7.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **53.88** | **331** | P | **P** | **11 48 32.2** | **+0.5** |
| | 0.7nm,0.5s,baz=125,slow=5.6,SNR=3.9 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **55.38** | **325** | P | **P** | **11 48 43.5** | **+0.9** |
| | 1.0nm,0.2s,baz=120,slow=6.9,SNR=3.8 | | | | | | |
| **FINES** | **FINESS Array B** | **85.14** | **332** | P | **P** | **11 51 44.5** | **+0.3** |
| | 6.4nm,1.0s,baz=71,slow=8.3,SNR=4.2 | | | | | | |

*IDC **10** 11:44:17.1±1.0, 15°.88N×95°.11E, h0km, mb3.9/9, mb1 4.1/10, mb1mx3.6/48, mbtmp3.9/10, ML4.2/1, MS3.5/4, Ms1 3.5/4, ms1mx2.9/47, Error ellipse: s-maj=43.6km s-min=18.2km az=53.0*
*BKK **10** 11:44:18.8±3.1, 16°N±7°×9°5E±2°8, h0km, M4.0/11, mb4.1/2, mB4.2/1, MLv3.9/11, Mw(mB)3.3/1*
*NEIC **10** 11:44:18.9±0.5, 15°.95N×95°.18E, h10km, mb4.1/2, Error ellipse: s-maj=10.8km s-min=9.9km az=159.0*
*ISCJB **10** 11:44:20.2±0.5, 15°.91N±0°.06×95°.34E±0°.04, h33km, mb3.9/10, MS3.6/3, Error ellipse: s-maj=8.3km s-min=5.6km az=11.9*
**ISC 10 11:44:21.9**±0.8**, 15°.89N**±0°.08×**95°.30E**±0°.08**, h35**km**, n31, σ1ˢ13**/29**, mb4.0**/10**, MS3.7**/3**, Near south coast of Myanmar**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **UTHA** | **Uthaitani** | **4.00** | **94** | P | **Pn** | **11 45 20.4** | **-0.3** |
| **CMAR** | **Chiang Mai Arr** | **4.32** | **53** | Pn | **Pn** | **11 45 25.6** | **+0.5** |
| | 2.9nm,0.3s,baz=240,slow=15,SNR=24 | | | | | | |
| CMAR | | | | Sn | **Sn** | **11 46 13.9** | **-0.3** |
| | 2.8nm,0.3s,baz=238,slow=18,SNR=12 | | | | | | |
| **CHTO** | **Chiang Mai** | **4.53** | **50** | *e*Pn | **Pn** | **11 45 28.0** | **-0.1** |
| CHTO | | | | *e*Sn | **Sn** | **11 46 17.0** | **-2.6** |
| **CMMT** | **Chiang Mai** | **4.54** | **50** | P | **Pn** | **11 45 28.7** | **+0.6** |
| **PHET** | **Kaeng Krachan** | **5.13** | **125** | P | **Pn** | **11 45 35.5** | **-0.8** |
| | 8.2nm,0.6s,251nm0.1nm | | | | | | |
| **PHRA** | **Phrae** | **5.38** | **60** | P | **Pn** | **11 45 40.8** | **+1.1** |
| **PBKT** | **Sadao Pong** | **5.49** | **82** | P | **Pn** | **11 45 41.2** | **+0.1** |
| **NAYO** | **Nakonayok** | **6.02** | **104** | P | **Pn** | **11 45 47.8** | **-0.7** |
| **ODAN** | **Odare** | **13.17** | **327** | *e*P | **Pn** | **11 47 26.2** | **-0.5** |
| **TAPN** | **Taplejung** | **13.41** | **330** | *e*P | **Pn** | **11 47 28.1** | **-1.9** |
| **PSI** | **Prapat** | **13.48** | **164** | LR | LR | 11 52 22.7 | |
| | comp=Z,66nm,19.9s,baz=40,slow=36 | | | | | | |
| **GUN** | **Gumba** | **14.81** | **325** | *e*P | **Pn** | **11 47 49.5** | **+0.4** |
| | 14nm,0.4s | | | | | | |
| **PKI** | **Pulchoki** | **14.81** | **323** | *e*P | **Pn** | **11 47 50.0** | **+0.9** |
| | 21nm,0.5s | | | | | | |
| **PKIN** | **Phulchoki** | **14.82** | **323** | *e*P | **Pn** | **11 47 50.0** | **+0.8** |
| | 9.5nm,0.3s | | | | | | |
| **KOLN** | **Koldanda** | **16.04** | **319** | *e*P | **P** | **11 48 07.0** | **-1.2** |
| | 6.6nm,0.3s | | | | | | |
| **PYUN** | **Piuthan** | **16.66** | **319** | *e*P | **Pn** | **11 48 13.6** | **+0.7** |
| | 12nm,0.6s | | | | | | |
| **PALK** | **Pallekele** | **16.66** | **241** | *e*P | **Pn** | **11 48 11.6** | **-1.2** |
| | 35nm,1.5s | | | | | | |
| **MKAR** | **Makanchi Array** | **32.66** | **343** | P | **P** | **11 50 51.5** | **+0.8** |
| | 1.0nm,0.5s,baz=155,slow=9.7,SNR=8.5 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **37.19** | **342** | P | **P** | **11 51 30.4** | **+0.8** |
| | 1.4nm,0.5s,baz=151,slow=8.3,SNR=4.1 | | | | | | |
| **KURK** | **Kurchatov** | **37.25** | **342** | P | **P** | **11 51 30.4** | **+0.3** |
| **ZALV** | **Zalesovo Beam** | **38.85** | **350** | P | **P** | **11 51 44.1** | **+0.5** |
| | 1.3nm,0.4s,baz=173,slow=8.4,SNR=8.6 | | | | | | |
| **AKTO** | **Aktyubinsk** | **45.67** | **327** | LR | LR | 12 13 20.4 | |
| | comp=Z,41nm,18.7s,slow=38 | | | | | | |
| **WRA** | **Warramunga Arr** | **52.34** | **132** | P | **P** | **11 53 32.1** | **+1.4** |
| | 0.8nm,0.6s,baz=312,slow=7.6,SNR=13 | | | | | | |
| **WRAB** | **Tennant Creek** | **52.34** | **132** | *e*P | **P** | **11 53 33.0** | **+2.3** |
| | 1.9nm,0.9s | | | | | | |
| **KVAR** | **Kislovodsk Arr** | **52.40** | **314** | LR | LR | 12 20 57.1 | |
| | comp=Z,69nm,19.6s,baz=194,slow=42 | | | | | | |
| **ASAR** | **Alice Springs** | **54.48** | **135** | P | **P** | **11 53 48.0** | **+1.7** |
| | 0.2nm,0.5s,baz=314,slow=7.4,SNR=5.8 | | | | | | |
| **OBN** | **Obninsk** | **59.36** | **325** | LR | LR | 12 22 40.8 | |
| | comp=Z,64nm,19.8s,baz=266,slow=39 | | | | | | |
| **FINES** | **FINESS Array B** | **66.26** | **331** | P | **P** | **11 55 05.3** | **-1.0** |
| | 3.9nm,0.9s,baz=168,slow=10,SNR=3.0 | | | | | | |
| **ARCES** | **ARCESS Array B** | **68.19** | **339** | P | **P** | **11 55 17.2** | **-1.2** |
| | 1.9nm,0.8s,baz=72,slow=8.0,SNR=5.1 | | | | | | |
| **GERES** | **GERESS Array B** | **72.72** | **317** | P | **P** | **11 55 47.2** | **+0.7** |
| | 0.2nm,0.5s,baz=54,slow=5.0,SNR=2.8 | | | | | | |
| **NOA** | **NORSAR Array B** | **73.39** | **330** | P | **P** | **11 55 50.2** | **0.0** |
| | 1.3nm,0.9s,baz=80,slow=10,SNR=2.8 | | | | | | |

*IDC **10** 11:44:27.0±3.1, 27°.01S×70°.77W, h0km, mb3.9/2, mb1 4.0/3, mb1mx3.8/19, mbtmp3.8/3, ML3.9/1, Error ellipse: s-maj=86.2km s-min=63.0km az=61.0*
*ISCJB **10** 11:45:00.5±0.9, 22°.23S±0°.05×68°.9W±0°.1, h133km±8km, mb3.5/2, Error ellipse: s-maj=21.3km s-min=7.4km az=14.4*
*GUC **10** 11:45:01.1±0.7, 22°.22S×68°.85W, h122km±5km, ML3.7*
**ISC 10 11:45:00.9**±1.3**, 22°.24S**±0°.06×**68°.8W**±0°.1**, h127**km±10km**, n12, σ0ˢ50**/20**, 9C, Northern Chile**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PB09** | **IPOC Station P** | **0.59** | **319** | ⇑*i*P | **Pn** | **11 45 20.6** | **+0.1** |
| PB09 | | | | *i* S | **Sn** | **11 45 34.7** | **-0.5** |
| PB09 | | | | IAML | | 11 45 36.1 | |
| | comp=N,8μm,0.3s | | | | | | |
| **PB06** | **IPOC Station P** | **0.83** | **236** | ⇑*i*P | **Pn** | **11 45 22.2** | **0.0** |
| PB06 | | | | *i* S | **Sn** | **11 45 38.3** | **-0.1** |
| PB06 | | | | IAML | | 11 45 38.8 | |
| | comp=E,5μm,0.3s | | | | | | |
| **PB07** | **IPOC Station P** | **1.11** | **297** | ⇑*i*P | **Pn** | **11 45 25.2** | **+0.4** |
| PB07 | | | | *i* S | **Sn** | **11 45 42.8** | **-0.2** |
| PB07 | | | | IAML | | 11 45 43.9 | |
| | comp=N,2μm,0.3s | | | | | | |
| **PB04** | **IPOC Station P** | **1.23** | **265** | ⇑*i*P | **Pn** | **11 45 26.4** | **+0.3** |
| PB04 | | | | *i* S | **Sn** | **11 45 45.6** | **+0.5** |
| PB04 | | | | IAML | | 11 45 48.6 | |
| | comp=N,1μm,0.6s | | | | | | |
| **PB01** | **IPOC Station P** | **1.34** | **333** | ⇑*i*P | **Pn** | **11 45 27.2** | **0.0** |
| PB01 | | | | *i* S | **Sn** | **11 45 46.6** | **-0.5** |
| PB01 | | | | IAML | | 11 45 47.8 | |
| | comp=E,763nm,0.3s | | | | | | |
| **PB02** | **IPOC Station P** | **1.35** | **313** | ⇑*i*P | **Pn** | **11 45 27.6** | **+0.3** |
| PB02 | | | | *i* S | **Sn** | **11 45 47.1** | **-0.3** |
| PB02 | | | | IAML | | 11 45 51.4 | |
| | comp=E,1μm,0.2s | | | | | | |
| **PB10** | **IPOC Station P** | **2.03** | **231** | ⇑*i*P | **Pn** | **11 45 35.3** | **+0.1** |
| PB10 | | | | *i* S | **Sn** | **11 46 00.8** | **-0.7** |
| PB10 | | | | IAML | | 11 46 02.3 | |
| | comp=E,836nm,0.3s | | | | | | |
| **PB08** | **IPOC Station P** | **2.11** | **352** | ⇑*i*P | **Pn** | **11 45 37.1** | **+0.6** |
| PB08 | | | | *i* S | **Sn** | **11 46 04.7** | **+1.0** |
| PB08 | | | | IAML | | 11 46 06.5 | |
| | comp=E,306nm,0.2s | | | | | | |
| **PB11** | **IPOC Station P** | **2.59** | **342** | ⇑*i*P | **Pn** | **11 45 41.6** | **-0.7** |
| PB11 | | | | *i* S | **Sn** | **11 46 13.3** | **-0.7** |
| **LPAZ** | **La Paz** | **5.96** | **6** | Pn | Pn | 11 47 05.7 | +38 |
| | comp=E,0.4nm,0.3s,baz=190,slow=12,SNR=4.8 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **77.53** | **70** | P | **P** | **11 56 43.1** | **-0.1** |
| | comp=E,0.7nm,0.4s,baz=243,slow=5.9,SNR=6.7 | | | | | | |
| **YKA** | **Yellowknife Ar** | **91.91** | **341** | P | **P** | **11 57 54.5** | **+0.1** |
| | comp=E,0.3nm,0.8s,baz=138,slow=5.1,SNR=3.8 | | | | | | |

*ISCJB **10** 12:04:14.7±0.5, 38°.51N±0°.03×43°.25E±0°.04, h5km±5km, Error ellipse: s-maj=5.4km s-min=4.2km az=29.4*
*CSEM **10** 12:04:14.2±0.2, 38°.48N×43°.29E, h5km, ML2.2, Error ellipse: s-maj=5.5km s-min=3.7km az=113.0*
*DDA **10** 12:04:14.2, 38°.51N×43°.20E, h7km, Ml2.7*
*ISK **10** 12:04:14.0, 38°.53N×43°.29E, h12km, ML2.2*
**ISC 10 12:04:14.2**±0.9**, 38°.52N**±0°.02×**43°.23E**±0°.03**, h8**km±7km**, n29, σ0ˢ98**/47**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TVAN** | **Van** | **0.14** | **85** | *i* P | **Pg** | **12 04 17.3** | **-0.1** |
| TVAN | | | | *i* S | **Sg** | **12 04 20.1** | **+0.5** |
| **TVAN** | **Van** | **0.14** | **85** | P | **Pg** | **12 04 17.3** | **-0.1** |
| TVAN | | | | S | **Sg** | **12 04 20.1** | **+0.5** |
| **VANB** | **Van** | **0.15** | **58** | PG | **Pg** | **12 04 17.3** | **-0.2** |
| VANB | | | | *e*SG | **Sg** | **12 04 18.9** | **-0.8** |
| **VANB** | **Van** | **0.15** | **58** | *i* Pg | **Pg** | **12 04 17.3** | **-0.2** |
| VANB | | | | *e*Sg | **Sg** | **12 04 18.9** | **-0.8** |
| **GEVA** | **Gevas** | **0.24** | **214** | *i* P | **Pg** | **12 04 18.9** | **-0.3** |
| GEVA | | | | *i* S | **Sg** | **12 04 23.1** | **+0.5** |
| **GEVA** | **Gevas** | **0.24** | **214** | P | **Pg** | **12 04 18.9** | **-0.3** |
| GEVA | | | | S | **Sg** | **12 04 23.1** | **+0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.49** | **306** | *i* P | **Pg** | **12 04 21.2** | **-2.6** |
| ADCV | | | | *i* S | **Sb** | **12 04 32.9** | **+0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.49** | **306** | P | **Pg** | **12 04 21.2** | **-2.6** |
| ADCV | | | | S | **Sb** | **12 04 32.9** | **+0.2** |
| **VMUR** | **Van-Muradiye** | **0.54** | **29** | *i* P | **Pb** | **12 04 25.6** | **-0.5** |
| VMUR | | | | *i* S | **Sb** | **12 04 34.9** | **+0.7** |
| **VMUR** | **Van-Muradiye** | **0.54** | **29** | P | **Pb** | **12 04 25.6** | **-0.5** |
| VMUR | | | | S | **Sb** | **12 04 34.9** | **+0.7** |
| **CLDR** | **Caldiran** | **0.82** | **40** | *e*PG | **Pg** | **12 04 29.8** | **-0.4** |
| **CLDR** | **Caldiran** | **0.82** | **40** | *i* P | **Pg** | **12 04 29.9** | **-0.2** |
| CLDR | | | | *i* S | **Sn** | **12 04 43.4** | **-1.5** |
| **CLDR** | **Caldiran** | **0.82** | **40** | P | **Pg** | **12 04 29.9** | **-0.2** |
| CLDR | | | | S | **Sn** | **12 04 43.4** | **-1.5** |
| **TUTA** | **Tutak** | **0.94** | **340** | *i* P | **Pg** | **12 04 32.1** | **-0.3** |
| TUTA | | | | *i* S | **Sg** | **12 04 45.3** | **+0.7** |
| **TUTA** | **Tutak** | **0.94** | **340** | P | **Pg** | **12 04 32.1** | **-0.3** |
| TUTA | | | | S | **Sg** | **12 04 45.3** | **+0.7** |
| **HAKT** | **HAKKARI** | **1.03** | **158** | *i* P | **Pg** | **12 04 32.8** | **-1.2** |
| HAKT | | | | *i* S | **Sn** | **12 04 49.9** | **0.0** |
| **HAKT** | **HAKKARI** | **1.03** | **158** | P | **Pg** | **12 04 32.8** | **-1.2** |
| HAKT | | | | S | **Sn** | **12 04 49.9** | **0.0** |
| **AGRB** | **Hanur-Agry** | **1.07** | **350** | *e*PG | **Pg** | **12 04 34.9** | **0.0** |
| **AGRB** | **Hanur-Agry** | **1.07** | **350** | *e*Pg | **Pg** | **12 04 34.9** | **0.0** |
| **SRTM** | **Siirt_Merkez** | **1.16** | **243** | *i* P | **Pn** | **12 04 37.5** | **+0.7** |
| **SRTM** | **Siirt_Merkez** | **1.16** | **243** | P | **Pn** | **12 04 37.5** | **+0.7** |
| **EKAR** | **Karacoban** | **1.17** | **309** | *i* P | **Pn** | **12 04 38.6** | **+1.5** |
| **EKAR** | **Karacoban** | **1.17** | **309** | P | **Pn** | **12 04 38.6** | **+1.5** |
| **SIRT** | **Sirnak** | **1.19** | **212** | *e*PN | **Pn** | **12 04 37.6** | **+0.3** |
| **SIRT** | **Sirnak** | **1.19** | **212** | *e*Pn | **Pn** | **12 04 37.6** | **+0.3** |
| **CUKT** | **Cukurca** | **1.30** | **167** | *e*PN | **Pn** | **12 04 38.4** | **-0.4** |
| **CUKT** | **Cukurca** | **1.30** | **167** | *e*Pn | **Pn** | **12 04 38.4** | **-0.4** |
| **BTMN** | **Batman** | **1.67** | **249** | *i* P | **Pn** | **12 04 45.1** | **+1.3** |
| BTMN | | | | *i* S | **Sb** | **12 05 08.0** | **+1.6** |
| **BTMN** | **Batman** | **1.67** | **249** | P | **Pn** | **12 04 45.1** | **+1.3** |
| BTMN | | | | S | **Sb** | **12 05 08.0** | **+1.6** |

*SOME **10** 12:04:40.0, 44°.53N×82°.30E, h20km*
*ISCJB **10** 12:04:43.5±1.5, 44°.62N±0°.07×82°.2E±0°.1, h10km, Error ellipse: s-maj=16.2km s-min=5.5km az=33.9*
*NNC **10** 12:04:44.7±1.3, 44°.75N×81°.92E, h0km, mb3.1, mpv2.7, Error ellipse: s-maj=19.6km s-min=5.4km az=118.0*
**ISC 10 12:04:39.5**±2.0**, 44°.66N**±0°.08×**82°.16E**±0°.10**, h10**km**, n7, σ1ˢ08**/14**, 2C-3D, Northern Xinjiang**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DJR** | **Jarkent** | **1.73** | **260** | *e*P | **Pg** | **12 05 13.1** | **+0.4** |
| | 9.5nm,0.2s | | | | | | |
| DJR | | | | *e*S | **Sg** | **12 05 37.2** | **+2.1** |
| | 7.3nm,0.3s | | | | | | |
| **KAPS** | **Kapalarasan** | **2.09** | **288** | *e*P | **Pg** | **12 05 18.9** | **-0.6** |
| | 2.3nm,0.1s | | | | | | |
| KAPS | | | | *e*S | **Sg** | **12 05 46.6** | **0.0** |
| | 7.1nm,0.3s | | | | | | |
| **MK31** | **Makanchi Array** | **2.14** | **2** | ⇑Pn | **Pg** | **12 05 20.7** | **+0.2** |
| | 1.8nm,0.2s,baz=187,slow=16,SNR=135 | | | | | | |
| MK31 | | | | Sn | **Sg** | **12 05 48.2** | **0.0** |
| | 5.8nm,0.5s,baz=189,slow=27,SNR=20 | | | | | | |
| **MAKZ** | **Makanchi** | **2.15** | **357** | ⇓Pn | **Pg** | **12 05 20.1** | **-0.7** |
| | 2.2nm,0.3s | | | | | | |
| MAKZ | | | | ⇑Sn | **Sg** | **12 05 48.5** | **-0.2** |
| | 3.3nm,0.6s | | | | | | |
| **PDGK** | **Podgornoye** | **2.34** | **236** | ⇓Pn | **Pb** | **12 05 22.4** | **+0.5** |
| | 1.1nm,0.3s | | | | | | |
| PDGK | | | | ⇓Sn | **Sg** | **12 05 53.5** | **-1.3** |
| | 2.6nm,0.4s | | | | | | |
| **KPKS** | **Kokpek** | **2.78** | **246** | *e*P | **Pb** | **12 05 29.3** | **0.0** |
| | 9.6nm,0.2s | | | | | | |
| KPKS | | | | *e*S | **Sb** | **12 06 04.6** | **+1.2** |
| | 20nm,0.3s | | | | | | |
| **ARXS** | **Arharly** | **3.14** | **263** | *e*P | **Pg** | **12 05 37.8** | **-1.8** |
| | 2.6nm,0.3s | | | | | | |
| ARXS | | | | *e*S | **Sg** | **12 06 19.4** | **-0.8** |
| | 12nm,0.3s | | | | | | |

**IDC 10 12:08:36.7**±3.1**, 30°.91S**×**177°.00W, h0**km**, mb3.5**/2**, mb1 3.8**/2**, mb1mx3.6**/18**, mbtmp3.5**/2**, Error ellipse: s-maj=61.9km s-min=32.7km az=91.0, Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **1.83** | **334** | Pn | Pn | 12 09 09.9 | +0.3 |
| | 50nm,0.3s,baz=358,slow=22,SNR=6.4 | | | | | | |
| RAO | | | | Sn | Sn | 12 09 34.0 | +0.6 |
| | 191nm,0.3s,baz=203,slow=23,SNR=7.5 | | | | | | |
| **URZ** | **Urewera** | **8.79** | **212** | Sn | Sn | 12 12 19.9 | -5.0 |
| | 0.5nm,0.3s,baz=255,slow=19,SNR=4.5 | | | | | | |
| **ASAR** | **Alice Springs** | **43.94** | **267** | P | P | 12 16 45.3 | -0.4 |
| | 0.3nm,0.6s,baz=103,slow=7.2,SNR=7.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.98** | **272** | P | P | 12 16 54.1 | +0.1 |
| | 0.5nm,0.3s,baz=111,slow=8.1,SNR=23 | | | | | | |
| **FINES** | **FINESS Array B** | **145.92** | **340** | PKPbc | PKPdf | 12 28 16.5 | -0.3 |
| | 4.8nm,1.0s,baz=64,slow=3.2,SNR=4.3 | | | | | | |

*IDC **10** 12:08:37.4±0.7, 34°.80N×23°.85E, h0km, mb4.0/17, mb1 4.0/26, mb1mx4.0/44, mbtmp3.9/26, ML3.7/9, MS3.3/4, Ms1 3.3/4, ms1mx2.8/42, Error ellipse: s-maj=15.4km s-min=11.8km az=167.0*
*MOS **10** 12:08:39.8±1.4, 34°.71N×23°.96E, h23km, mb4.3/18, Error ellipse: s-maj=9.2km s-min=5.2km az=87.6*
*ISCJB **10** 12:08:40.2±0.5, 34°.55N±0°.03×23°.93E±0°.03, h37km±4km, mb4.1/27, MS3.3/2, Error ellipse: s-maj=6.1km s-min=3.0km az=26.3*
*ATH **10** 12:08:42.8, 34°.79N×23°.96E, h32km±1km, ML3.9/8, Error ellipse: s-maj=2.5km s-min=1.0km az=29.0*
*CSEM **10** 12:08:42.5±0.2, 34°.62N×23°.93E, h36km, mb4.1/15, Error ellipse: s-maj=5.3km s-min=3.1km az=24.0*
*ISK **10** 12:08:43.3, 34°.83N×23°.98E, h65km, ML3.8*
*NEIC **10** 12:08:43.4±0.7, 34°.63N×23°.95E, h45km±6km, mb4.0/12, Error ellipse: s-maj=8.3km s-min=4.6km az=198.0*
*THE **10** 12:08:45.2, 34°.96N×24°.05E, h0km, ML3.8/12, Error ellipse: s-maj=0.8km s-min=0.5km az=250.0*
*GII **10** 12:08:49.7±0.0, 34°.59N×24°.65E, h30km, MD3.5/1*
**ISC 10 12:08:41.3**±0.7**, 34°.65N**±0°.04×**23°.91E**±0°.03**, h27**km±3km**, n351, σ1ˢ70**/390**, mb4.1**/27**, 1C-4D, Crete**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GVD** | **Gavdhos** | **0.24** | **37** | P | **Pb** | **12 08 48.3** | **+0.7** |
| GVD | | | | S | **Sb** | **12 08 52.8** | **+0.9** |
| GVD | | | | AML | AML | 12 08 53.7 | |
| GVD | | | | AML | AML | 12 08 54.3 | |
| **GVD** | **Gavdhos** | **0.24** | **37** | P | **Pb** | **12 08 48.4** | **+0.8** |
| GVD | | | | S | **Sb** | **12 08 52.1** | **+0.2** |
| **GVD** | **Gavdhos** | **0.24** | **37** | P | **Pb** | **12 08 48.4** | **+0.8** |
| GVD | | | | S | **Sb** | **12 08 52.1** | **+0.2** |
| **VAM** | **Vamos** | **0.79** | **17** | P | **Pb** | **12 08 55.4** | **-1.1** |
| VAM | | | | S | **Sb** | **12 09 06.9** | **+0.1** |
| VAM | | | | AML | AML | 12 09 10.5 | |
| | comp=E,38284μm,0.4s | | | | | | |
| VAM | | | | AML | AML | 12 09 13.5 | |
| | comp=N,40763μm,0.4s | | | | | | |
| **VAM** | **Vamos** | **0.79** | **17** | P | **Pb** | **12 08 55.6** | **-0.9** |
| VAM | | | | S | **Sb** | **12 09 06.9** | **+0.1** |
| **VAM** | **Vamos** | **0.79** | **17** | P | **Pb** | **12 08 55.6** | **-0.9** |
| VAM | | | | S | **Sb** | **12 09 02.6** | **-4.2** |
| **IMMV** | **Iera Moni Meta** | **0.81** | **4** | P | **Pb** | **12 08 55.3** | **-1.5** |
| IMMV | | | | S | **Sb** | **12 09 07.9** | **+0.5** |
| **IMMV** | **Iera Moni Meta** | **0.81** | **4** | P | **Pb** | **12 08 55.9** | **-0.9** |
| IMMV | | | | S | **Sb** | **12 09 07.9** | **+0.5** |
| **IMMV** | **Iera Moni Meta** | **0.81** | **4** | P | **Pb** | **12 08 55.9** | **-0.9** |
| IMMV | | | | S | **Sb** | **12 09 05.1** | **-2.3** |
| **TMBK** | **Timbaki Herakl** | **0.82** | **59** | P | **Pn** | **12 08 59.7** | **+2.6** |
| **TMBK** | **Timbaki Herakl** | **0.82** | **59** | P | **Pn** | **12 08 59.7** | **+2.6** |
| **SIVA** | **Sivas** | **0.82** | **63** | P | **Pn** | **12 08 57.4** | **+0.3** |
| SIVA | | | | S | **Sb** | **12 09 07.4** | **-0.3** |
| SIVA | | | | AML | AML | 12 09 14.5 | |
| | comp=E,85308μm,0.7s | | | | | | |
| SIVA | | | | AML | AML | 12 09 15.7 | |
| | comp=N,58038μm,0.4s | | | | | | |
| **SIVA** | **Sivas** | **0.82** | **63** | P | **Pn** | **12 08 57.7** | **+0.6** |
| SIVA | | | | S | **Sn** | **12 09 08.5** | **0.0** |
| **SIVA** | **Sivas** | **0.82** | **63** | P | **Pn** | **12 08 57.7** | **+0.6** |
| SIVA | | | | S | **Sn** | **12 09 08.5** | **0.0** |
| **IDI** | **Anoyia** | **1.02** | **51** | Pn | **Pn** | **12 09 00.1** | **+0.1** |
| | comp=N,256nm,0.3s,baz=241,slow=16,SNR=550 | | | | | | |
| IDI | | | | Sn | **Sn** | **12 09 14.7** | **+1.2** |
| | comp=N,483nm,0.3s,baz=329,slow=19,SNR=27 | | | | | | |
| **IDI** | **Anoyia** | **1.02** | **51** | P | **Pn** | **12 08 59.6** | **-0.4** |
| IDI | | | | S | **Sb** | **12 09 13.8** | **+0.3** |
| IDI | | | | AML | AML | 12 09 17.1 | |
| | comp=N,14958μm,0.5s | | | | | | |
| IDI | | | | AML | AML | 12 09 21.8 | |
| | comp=E,10203μm,0.6s | | | | | | |
| **IDI** | **Anoyia** | **1.02** | **51** | P | **Pn** | **12 09 00.1** | **+0.1** |
| IDI | | | | S | **Sb** | **12 09 13.8** | **+0.3** |
| IDI | | | | Sn | **Sn** | **12 09 14.7** | **+1.2** |
| **IDI** | **Anoyia** | **1.02** | **51** | P | **Pn** | **12 09 00.1** | **+0.1** |
| IDI | | | | S | **Sn** | **12 09 14.0** | **+0.5** |
| **IACM** | **Heraklion** | **1.16** | **55** | P | **Pb** | **12 09 04.2** | **+1.6** |
| **IACM** | **Heraklion** | **1.16** | **55** | P | **Pb** | **12 09 03.3** | **+0.7** |
| IACM | | | | S | **Sb** | **12 09 17.4** | **+0.3** |
| **IACM** | **Heraklion** | **1.16** | **55** | P | **Pb** | **12 09 03.3** | **+0.7** |
| IACM | | | | S | **Sb** | **12 09 17.4** | **+0.3** |
| **ANKY** | **Antikythira Is** | **1.32** | **338** | P | **Pb** | **12 09 06.4** | **+1.1** |
| ANKY | | | | AML | AML | 12 09 40.6 | |
| | comp=N,4924μm,1.0s | | | | | | |
| ANKY | | | | AML | AML | 12 09 41.3 | |
| | comp=E,7564μm,0.8s | | | | | | |
| **ANKY** | **Antikythira Is** | **1.32** | **338** | P | **Pb** | **12 09 05.8** | **+0.5** |
| **ANKY** | **Antikythira Is** | **1.32** | **338** | P | **Pb** | **12 09 05.8** | **+0.5** |
| **LAST** | **Lasithi** | **1.38** | **68** | P | **Pb** | **12 09 08.6** | **+2.1** |
| LAST | | | | S | **Sb** | **12 09 23.2** | **-0.6** |
| LAST | | | | AML | AML | 12 09 31.7 | |
| | comp=N,3842μm,0.5s | | | | | | |
| LAST | | | | AML | AML | 12 09 31.8 | |
| | comp=E,4488μm,0.5s | | | | | | |
| **LAST** | **Lasithi** | **1.38** | **68** | P | **Pb** | **12 09 07.5** | **+1.0** |
| LAST | | | | S | **Sb** | **12 09 23.2** | **-0.6** |
| **LAST** | **Lasithi** | **1.38** | **68** | P | **Pb** | **12 09 07.5** | **+1.0** |
| **NPS** | **Neapolis** | **1.52** | **66** | P | **Pb** | **12 09 10.9** | **+2.0** |
| NPS | | | | AML | AML | 12 09 36.8 | |
| | comp=N,4578μm,0.5s | | | | | | |
| NPS | | | | AML | AML | 12 09 41.7 | |
| | comp=E,6646μm,0.5s | | | | | | |
| **NPS** | **Neapolis** | **1.52** | **66** | P | **Pb** | **12 09 09.8** | **+0.9** |
| **NPS** | **Neapolis** | **1.52** | **66** | P | **Pb** | **12 09 09.8** | **+0.9** |
| **KYTH** | **Kithira** | **1.76** | **337** | P | **Pb** | **12 09 12.7** | **-0.2** |
| **KYTH** | **Kithira** | **1.76** | **337** | P | **Pn** | **12 09 12.1** | **+2.0** |
| **ZKR** | **Zakros** | **1.95** | **76** | P | **Pb** | **12 09 16.6** | **+0.5** |
| ZKR | | | | S | **Sb** | **12 09 38.2** | **-1.8** |
| ZKR | | | | AML | AML | 12 09 55.1 | |
| | comp=E,3109μm,0.8s | | | | | | |
| ZKR | | | | AML | AML | 12 09 58.5 | |
| | comp=N,1392μm,0.7s | | | | | | |
| **ZKR** | **Zakros** | **1.95** | **76** | P | **Pb** | **12 09 15.4** | **-0.7** |
| ZKR | | | | S | **Sb** | **12 09 38.2** | **-1.8** |
| **ZKR** | **Zakros** | **1.95** | **76** | P | **Pb** | **12 09 15.4** | **-0.7** |
| **SAP1** | **Santorini-Akro** | **2.09** | **35** | P | **Pn** | **12 09 15.9** | **+1.3** |
| **SAP1** | **Santorini-Akro** | **2.09** | **35** | P | **Pn** | **12 09 15.9** | **+1.3** |
| **THR6** | **Thira Island,** | **2.09** | **35** | P | **Pn** | **12 09 16.4** | **+1.8** |
| **THR6** | **Thira Island,** | **2.09** | **35** | P | **Pn** | **12 09 15.7** | **+1.1** |
| **THR6** | **Thira Island,** | **2.09** | **35** | P | **Pn** | **12 09 15.7** | **+1.1** |
| **THR5** | **Thira Island,** | **2.12** | **33** | P | **Pn** | **12 09 15.7** | **+0.7** |
| **THR5** | **Thira Island,** | **2.12** | **33** | P | **Pn** | **12 09 15.7** | **+0.7** |
| **THT1** | **Athinios (Pele** | **2.13** | **35** | P | **Pn** | **12 09 15.5** | **+0.4** |
| **THT1** | **Athinios (Pele** | **2.13** | **35** | P | **Pn** | **12 09 15.5** | **+0.4** |
| **SANT** | **Santorini** | **2.13** | **36** | P | **Pn** | **12 09 16.1** | **+0.8** |
| **SANT** | **Santorini** | **2.13** | **36** | P | **Pn** | **12 09 16.0** | **+0.8** |
| **SANT** | **Santorini** | **2.13** | **36** | *e*Pn | **Pn** | **12 09 16.1** | **+0.8** |
| **SANT** | **Santorini** | **2.13** | **36** | P | **Pn** | **12 09 16.0** | **+0.8** |
| **MHLA** | **Plaka, Milos I** | **2.13** | **11** | P | **Pn** | **12 09 15.1** | **-0.1** |
| **MHLA** | **Plaka, Milos I** | **2.13** | **11** | P | **Pn** | **12 09 15.1** | **-0.1** |
| **THR3** | **Thira Island,** | **2.13** | **34** | P | **Pn** | **12 09 15.9** | **+0.7** |
| **THR3** | **Thira Island,** | **2.13** | **34** | P | **Pn** | **12 09 15.9** | **+0.7** |
| **THR7** | **Fira-Santorini** | **2.16** | **34** | P | **Pn** | **12 09 16.5** | **+1.0** |
| **THR7** | **Fira-Santorini** | **2.16** | **34** | P | **Pn** | **12 09 16.5** | **+1.0** |
| **THR7** | **Fira-Santorini** | **2.16** | **34** | P | **Pn** | **12 09 16.6** | **+1.0** |
| **THR8** | **Santorini-Mono** | **2.17** | **36** | P | **Pn** | **12 09 16.2** | **+0.5** |
| **THR8** | **Santorini-Mono** | **2.17** | **36** | P | **Pn** | **12 09 16.2** | **+0.5** |
| **THR8** | **Santorini-Mono** | **2.17** | **36** | P | **Pn** | **12 09 16.1** | **+0.4** |
| **CMBO** | **Columbo, Santo** | **2.19** | **33** | P | **Pn** | **12 09 17.2** | **+1.3** |
| **CMBO** | **Columbo, Santo** | **2.19** | **33** | P | **Pn** | **12 09 16.9** | **+1.0** |
| **CMBO** | **Columbo, Santo** | **2.19** | **33** | P | **Pn** | **12 09 16.9** | **+1.0** |
| **VLI** | **Veliai** | **2.21** | **339** | P | **Pb** | **12 09 19.7** | **-0.9** |
| **VLI** | **Veliai** | **2.21** | **339** | P | **Pn** | **12 09 18.7** | **+2.4** |
| VLI | | | | S | **Sn** | **12 09 44.1** | **+1.3** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| VLI | Veliai | 2.21 | 339 | P | Pn | 12 09 18.7 | +2.4 |
| VLI | | | | S | Sn | 12 09 44.1 | +1.3 |
| SERI | Serifos | 2.55 | 10 | P | Pn | 12 09 21.0 | 0.0 |
| SERI | Serifos | 2.55 | 10 | P | Pn | 12 09 21.0 | 0.0 |
| APE | Apeiranthos | 2.75 | 28 | ePN | Pn | 12 09 24.1 | +0.5 |
| APE | | | | eSN | Sn | 12 09 53.7 | -2.4 |
| APE | Apeiranthos | 2.75 | 28c | iP | Pn | 12 09 23.5 | -0.2 |
| APE | Apeiranthos | 2.75 | 28 | P | Pn | 12 09 22.4 | -1.2 |
| APE | Apeiranthos | 2.75 | 28 | P | Pn | 12 09 23.7 | 0.0 |
| APE | Apeiranthos | 2.75 | 28 | ePn | Pn | 12 09 24.2 | +0.5 |
| APE | | | | eSn | Sn | 12 09 53.7 | -2.4 |
| APE | Apeiranthos | 2.75 | 28 | P | Pn | 12 09 23.7 | 0.0 |
| KRND | KRANIDI | 2.80 | 347 | P | Pn | 12 09 24.9 | +0.6 |
| KRND | KRANIDI | 2.80 | 347 | P | Pn | 12 09 25.5 | +1.2 |
| KRND | KRANIDI | 2.80 | 347 | P | Pn | 12 09 25.5 | +1.2 |
| KARP | Karpathos | 2.81 | 70 | ePN | Pn | 12 09 26.5 | +2.0 |
| KARP | | | | eSN | Sn | 12 09 56.6 | -0.9 |
| KARP | Karpathos | 2.81 | 70 | P | Pn | 12 09 26.5 | +2.0 |
| KARP | Karpathos | 2.81 | 70 | P | Pn | 12 09 26.5 | +2.0 |
| KARP | | | | eSn | Sn | 12 09 56.6 | -0.9 |
| KARP | Karpathos | 2.81 | 70 | ePn | Pn | 12 09 26.5 | +2.0 |
| KARP | Karpathos | 2.81 | 70 | P | Pn | 12 09 26.8 | +2.3 |
| PYL | PYLOS | 2.85 | 322 | P | Pn | 12 09 26.2 | +1.1 |
| PYL | PYLOS | 2.85 | 322 | P | Pn | 12 09 26.2 | +1.1 |
| PYL | PYLOS | 2.85 | 322 | P | Pn | 12 09 26.8 | +1.7 |
| DID | Didima | 2.91 | 349 | P | Pn | 12 09 25.2 | -0.6 |
| DID | Didima | 2.91 | 349 | P | Pn | 12 09 26.4 | +0.6 |
| DID | | | | S | Sn | 12 09 59.8 | -0.1 |
| DID | Didima | 2.91 | 349 | P | Pn | 12 09 26.4 | +0.6 |
| DID | | | | S | Sn | 12 09 59.8 | -0.1 |
| VLX | Vlachokerasia | 2.99 | 336 | P | Pn | 12 09 29.6 | +2.6 |
| VLX | Vlachokerasia | 2.99 | 336 | P | Pn | 12 09 29.6 | +2.6 |
| ITM | Ithomi | 3.00 | 328 | P | Pn | 12 09 27.7 | +0.6 |
| ITM | Ithomi | 3.00 | 328 | P | Pn | 12 09 28.6 | +1.5 |
| ITM | Ithomi | 3.00 | 328 | P | Pn | 12 09 28.6 | +1.5 |
| VLY | Voula,Athens | 3.20 | 358 | P | Pn | 12 09 29.4 | -0.4 |
| VLY | Voula,Athens | 3.20 | 358 | P | Pn | 12 09 29.9 | +0.1 |
| VLY | Voula,Athens | 3.20 | 358 | P | Pn | 12 09 29.9 | +0.1 |
| NIS1 | Nisyros Isl. | 3.30 | 53 | ePN | Pn | 12 09 32.4 | +1.2 |
| NIS1 | Nisyros Isl. | 3.30 | 53 | ePn | Pn | 12 09 32.4 | +1.2 |
| ATH | Athens Observa | 3.32 | 357 | P | Pn | 12 09 31.1 | -0.4 |
| ATH | Athens Observa | 3.32 | 357 | P | Pn | 12 09 31.1 | -0.4 |
| PTL | Penteli | 3.40 | 359 | P | Pn | 12 09 31.7 | -0.8 |
| PTL | Penteli | 3.40 | 359 | P | Pn | 12 09 32.9 | +0.4 |
| PTL | Penteli | 3.40 | 359 | P | Pn | 12 09 32.9 | +0.4 |
| KARY | Karystos | 3.40 | 7 | P | Pn | 12 09 32.8 | +0.2 |
| KARY | Karystos | 3.40 | 7 | P | Pn | 12 09 32.8 | +0.2 |
| LTK | Loutraki | 3.46 | 347 | P | Pn | 12 09 33.4 | +0.1 |
| LTK | Loutraki | 3.46 | 347 | P | Pn | 12 09 34.3 | +0.9 |
| LTK | Loutraki | 3.46 | 347 | P | Pn | 12 09 34.3 | +0.9 |
| GUR | Goura | 3.52 | 339 | P | Pn | 12 09 35.7 | +1.4 |
| GUR | Goura | 3.52 | 339 | P | Pn | 12 09 35.7 | +1.4 |
| GUR | Goura | 3.52 | 339 | P | Pn | 12 09 36.3 | +2.0 |
| VILL | Villia | 3.54 | 352 | P | Pn | 12 09 34.9 | +0.3 |
| VILL | | | | S | Sn | 12 10 13.7 | -1.9 |
| VILL | Villia | 3.54 | 352 | P | Pn | 12 09 34.9 | +0.3 |
| VILL | | | | S | Sn | 12 10 13.7 | -1.9 |
| VIL2 | Platees | 3.59 | 352 | P | Pn | 12 09 33.5 | -1.8 |
| BODT | Bodrum | 3.66 | 48 | ePN | Pn | 12 09 37.2 | +1.0 |
| BODT | Bodrum | 3.66 | 48 | ePn | Pn | 12 09 37.2 | +1.0 |
| KLV | Kalavryta, Ach | 3.68 | 338 | P | Pn | 12 09 37.8 | +1.4 |
| KLV | Kalavryta, Ach | 3.68 | 338 | P | Pn | 12 09 37.8 | +1.4 |
| DRO | Drossia | 3.75 | 332 | P | Pn | 12 09 38.6 | +1.2 |
| DRO | Drossia | 3.75 | 332 | P | Pn | 12 09 38.6 | +1.2 |
| ARG | Arkhangelos | 3.78 | 64 | P | Pn | 12 09 38.5 | +0.7 |
| ARG | Arkhangelos | 3.78 | 64 | P | Pn | 12 09 38.5 | +0.7 |
| DSF | Desfina | 3.92 | 344 | P | Pn | 12 09 39.8 | 0.0 |
| DSF | Desfina | 3.92 | 344 | P | Pn | 12 09 39.8 | 0.0 |
| KALE | Kalithea | 4.00 | 340 | P | Pn | 12 09 42.1 | +1.2 |
| KALE | Kalithea | 4.00 | 340 | P | Pn | 12 09 42.1 | +1.2 |
| SERG | Sergoula | 4.04 | 339 | P | Pn | 12 09 42.5 | +1.0 |
| SERG | Sergoula | 4.04 | 339 | P | Pn | 12 09 42.5 | +1.0 |
| MRSB | Marmaris-Mugla | 4.05 | 58 | ePN | Pn | 12 09 43.4 | +1.9 |
| MRSB | Marmaris-Mugla | 4.05 | 58 | ePn | Pn | 12 09 43.4 | +1.9 |
| GCAM | G?zelcaml? | 4.06 | 40 | ePN | Pn | 12 09 43.5 | +1.8 |
| GCAM | G?zelcaml? | 4.06 | 40 | ePn | Pn | 12 09 43.5 | +1.8 |
| LKR | Lokris | 4.06 | 350 | P | Pn | 12 09 42.0 | +0.3 |
| LKR | Lokris | 4.06 | 350 | P | Pn | 12 09 42.0 | +0.3 |
| CHOS | Chios island | 4.11 | 24 | ePN | Pn | 12 09 43.0 | +0.6 |
| CHOS | Chios island | 4.11 | 24 | ePn | Pn | 12 09 43.0 | +0.6 |
| ANX | Ano Chora | 4.25 | 338 | P | Pn | 12 09 45.4 | +1.0 |
| ANX | Ano Chora | 4.25 | 338 | P | Pn | 12 09 45.4 | +1.0 |
| URLA | Izmir | 4.29 | 29 | ePN | Pn | 12 09 45.2 | +0.4 |
| URLA | Izmir | 4.29 | 29 | ePn | Pn | 12 09 45.2 | +0.4 |
| DALY | Dalyan (Mu˜la | 4.42 | 59 | ePN | Pn | 12 09 49.1 | +2.5 |
| DALY | Dalyan (Mu˜la | 4.42 | 59 | ePn | Pn | 12 09 49.1 | +2.5 |
| AGG | Agios Georgios | 4.55 | 344 | ePN | Pn | 12 09 49.5 | +1.1 |
| AGG | Agios Georgios | 4.55 | 344 | eP | Pn | 12 09 49.6 | +1.2 |
| AGG | Agios Georgios | 4.55 | 344 | eP | Pn | 12 09 49.6 | +1.2 |
| AGG | Agios Georgios | 4.55 | 344 | ePn | Pn | 12 09 49.6 | +1.2 |
| AGG | Agios Georgios | 4.55 | 344 | P | Pn | 12 09 48.9 | +0.5 |
| FETY | Fethiye | 4.65 | 63 | ePN | Pn | 12 09 51.1 | +1.2 |
| FETY | Fethiye | 4.65 | 63 | P | Pn | 12 09 50.7 | +0.9 |
| FETY | Fethiye | 4.65 | 63 | ePn | Pn | 12 09 51.1 | +1.2 |
| FETY | Fethiye | 4.65 | 63 | P | Pn | 12 09 50.7 | +0.9 |
| SIGR | SIGRI | 4.81 | 18 | ePN | Pn | 12 09 52.7 | +0.7 |
| SIGR | SIGRI | 4.81 | 18 | ePn | Pn | 12 09 52.7 | +0.7 |
| KSL | Kastellorizon | 4.87 | 70 | P | Pn | 12 09 53.6 | +0.9 |
| AKAS | Kas | 4.91 | 70 | ePN | Pn | 12 09 55.0 | +1.5 |
| AKAS | Kas | 4.91 | 70 | ePn | Pn | 12 09 54.5 | +1.1 |
| AKAS | | | | eSn | Sn | 12 10 47.9 | -1.5 |
| AKAS | Kas | 4.91 | 70 | ePn | Pn | 12 09 54.5 | +1.1 |
| AKAS | | | | eSn | Sn | 12 10 47.9 | -1.5 |
| GLHS | Glhisar (BURDU | 5.18 | 59 | ePN | Pn | 12 09 58.9 | +1.8 |
| GLHS | Glhisar (BURDU | 5.18 | 59 | ePn | Pn | 12 09 58.9 | +1.8 |
| ELL | Elmali | 5.31 | 65 | ePN | Pn | 12 10 00.2 | +1.3 |
| ELL | Elmali | 5.31 | 65 | ePn | Pn | 12 10 00.2 | +1.3 |
| MANT | Manisa | 5.36 | 43 | ePn | Pn | 12 10 00.7 | +1.1 |
| MANT | Manisa | 5.36 | 43 | ePn | Pn | 12 10 00.7 | +1.1 |
| KULA | Kula-Manisa | 5.43 | 43 | ePN | Pn | 12 10 02.1 | +1.6 |
| KULA | Kula-Manisa | 5.43 | 43 | ePn | Pn | 12 10 02.1 | +1.6 |
| KORT | Korkueli | 5.73 | 64 | ePN | Pn | 12 10 05.7 | +0.9 |
| KORT | Korkueli | 5.73 | 64 | ePn | Pn | 12 10 05.7 | +0.9 |
| SUTC | Sutluce-Ispart | 6.39 | 62 | ePN | Pn | 12 10 14.6 | +0.8 |
| SUTC | Sutluce-Ispart | 6.39 | 62 | ePn | Pn | 12 10 14.6 | +0.8 |
| TVSB | Tavsanli | 6.53 | 41 | ePN | Pn | 12 10 16.5 | +0.8 |
| TVSB | Tavsanli | 6.53 | 41 | ePn | Pn | 12 10 16.5 | +0.8 |
| BIA | Bitola | 6.68 | 343 | ePn | Pn | 12 10 17.1 | -0.7 |
| BIA | | | | eSn | Sn | 12 11 27.6 | -5.4 |
| BOLV | Bolvadin | 6.96 | 52 | ePn | Pn | 12 10 23.2 | +1.6 |
| BOLV | Bolvadin | 6.96 | 52 | ePn | Pn | 12 10 23.2 | +1.6 |
| KRUS | Krusevo | 7.03 | 343 | i Pn | Pn | 12 10 22.0 | -0.5 |
| KRUS | | | | eSn | Sn | 12 11 35.1 | -6.6 |
| CEL | Celeste | 7.40 | 301 | ePn | Pn | 12 10 28.8 | +1.2 |
| CEL | Celeste | 7.40 | 301 | ePn | Pn | 12 10 28.8 | +1.2 |
| CEL | | | | eSn | Sn | 12 11 46.0 | -4.6 |
| CSS | Mathiatis | 7.75 | 85 | Pn | Pn | 12 10 31.0 | -1.4 |
| CSS | Mathiatis | 7.75 | 85 | Pn | Pn | 12 10 31.0 | -1.4 |
| CSS | Mathiatis | 7.75 | 85 | ePn | Pn | 12 10 35.1 | +2.7 |
| VTS | Vitosha | 7.95 | 356 | eP | Pn | 12 10 36.5 | +1.3 |
| VTS | Vitosha | 7.95 | 356 | ePn | Pn | 12 10 36.5 | +1.3 |
| VAE | Valguarnera | 8.20 | 293 | Sn | Sn | 12 12 03.2 | -7.1 |
| | comp=N,3.6nm,0.3s,baz=158,slow=19,SNR=4.1 | | | | | | |
| CUC | Castrocucco | 8.37 | 312 | ePn | Pn | 12 10 43.0 | +2.1 |
| CUC | Castrocucco | 8.37 | 312 | ePn | Pn | 12 10 43.0 | +2.1 |
| CUC | | | | eSn | Sn | 12 12 04.2 | -10 |
| BR231 | Keskin MP Arra | 8.76 | 51 | ePn | Pn | 12 10 54.1 | +7.8 |
| ANTO | Ankara | 8.79 | 51 | eP | Pn | 12 10 48.0 | +1.4 |
| ANTO | Ankara | 8.79 | 51 | eP | Pn | 12 10 48.0 | +1.4 |
| ANTO | Ankara | 8.79 | 51 | ePn | Pn | 12 10 48.0 | +1.4 |
| BR131 | Keskin Array S | 9.27 | 54 | ePn | Pn | 12 10 54.9 | +1.6 |
| BR131 | Keskin Array S | 9.27 | 54 | ePn | Pn | 12 10 54.9 | +1.6 |
| BRTR | Keskin Array B | 9.27 | 54 | Pn | Pn | 12 10 53.7 | +0.5 |
| | comp=N,0.4nm,0.3s,baz=232,slow=13,SNR=16 | | | | | | |
| BRTR | | | | LR | LR | 12 15 10.7 | |
| | comp=N,151nm,21.9s,baz=262,slow=43 | | | | | | |
| STON | Ston | 9.54 | 331 | ePn | Pn | 12 10 54.5 | -2.2 |
| STON | | | | Sn | Sn | 12 12 31.6 | -11 |
| KZIT | Kziot | 9.58 | 110 | Pn | Pn | 12 10 56.7 | -0.8 |
| KZIT | Kziot | 9.58 | 110 | Pn | Pn | 12 10 56.7 | -0.8 |
| SLTI | Sal'it | 9.60 | 101 | Pn | Pn | 12 10 57.4 | -0.3 |
| SLTI | Sal'it | 9.60 | 101 | Pn | Pn | 12 10 57.4 | -0.3 |
| MMA0B | Mount Meron ar | 9.70 | 96 | Pn | Pn | 12 10 59.2 | +0.1 |
| MMA0B | | | | Sn | Sn | 12 12 41.3 | -5.9 |
| MMA0B | Mount Meron ar | 9.70 | 96 | Pn | Pn | 12 10 59.2 | +0.1 |
| MMAI | Mount Meron Ar | 9.70 | 96 | Pn | Pn | 12 10 57.6 | -1.5 |
| | comp=N,5.3nm,0.3s,baz=295,slow=12,SNR=26 | | | | | | |
| MMAI | | | | Sn | Sn | 12 12 40.1 | -7.1 |
| | comp=N,1.9nm,0.3s,baz=256,slow=12,SNR=3.1 | | | | | | |
| AMAZ | Amatzia | 9.74 | 106 | Pn | Pn | 12 10 59.8 | +0.2 |
| AMAZ | | | | Sn | Sn | 12 12 41.8 | -6.3 |
| AMAZ | Amatzia | 9.74 | 106 | Pn | Pn | 12 10 59.8 | +0.2 |
| MMLI | Mount Malkishu | 9.85 | 100 | Pn | Pn | 12 11 00.9 | -0.3 |
| MMLI | Mount Malkishu | 9.85 | 100 | Pn | Pn | 12 11 00.9 | -0.3 |
| KSDI | Kefar Szold | 9.87 | 95 | Pn | Pn | 12 10 59.5 | -1.9 |
| KSDI | Kefar Szold | 9.87 | 95 | Pn | Pn | 12 10 59.5 | -1.9 |
| HWQ | Hawqa | 9.94 | 89 | eP | Pn | 12 11 01.1 | -1.4 |
| RCY | Rachaya | 9.96 | 93 | eP | Pn | 12 11 01.6 | -1.2 |
| YTIR | Yattir | 9.96 | 106 | Pn | Pn | 12 11 02.6 | -0.1 |
| YTIR | Yattir | 9.96 | 106 | Pn | Pn | 12 11 02.6 | -0.1 |
| KSHT | Keshet | 10.04 | 96 | Pn | Pn | 12 11 04.2 | +0.4 |
| KSHT | Keshet | 10.04 | 96 | Pn | Pn | 12 11 04.2 | +0.4 |
| DSI | Dead Sea | 10.09 | 105 | Pn | Pn | 12 11 04.3 | -0.2 |
| DSI | Dead Sea | 10.09 | 105 | Pn | Pn | 12 11 04.3 | -0.2 |
| MZDA | Masada | 10.18 | 106 | Pn | Pn | 12 11 05.3 | -0.2 |
| MZDA | Masada | 10.18 | 106 | Pn | Pn | 12 11 05.3 | -0.2 |
| PRNI | Paran | 10.30 | 112 | Pn | Pn | 12 11 06.6 | -0.7 |
| PRNI | Paran | 10.30 | 112 | Pn | Pn | 12 11 06.6 | -0.7 |
| ZFRI | Zfri | 10.34 | 110 | Pn | Pn | 12 11 07.6 | -0.2 |
| ZFRI | Zfri | 10.34 | 110 | Pn | Pn | 12 11 07.6 | -0.2 |
| HRFI | Mount Harif | 10.47 | 113 | Pn | Pn | 12 11 09.8 | +0.1 |
| HRFI | Mount Harif | 10.47 | 113 | Pn | Pn | 12 11 09.8 | +0.1 |
| MBRI | Mt Berech | 10.49 | 114 | Pn | Pn | 12 11 10.6 | +0.5 |
| MBRI | | | | Sn | Sn | 12 12 59.9 | -6.9 |
| MBRI | Mt Berech | 10.49 | 114 | Pn | Pn | 12 11 10.6 | +0.5 |
| EIL | Elat | 10.59 | 115 | Pn | Pn | 12 11 11.0 | -0.3 |
| | comp=N,1.8nm,0.3s,baz=280,slow=0.7,SNR=7.9 | | | | | | |
| EIL | | | | Sn | Sn | 12 13 02.0 | -6.9 |
| | comp=N,1.3nm,0.3s,baz=102,slow=20,SNR=5.0 | | | | | | |
| EIL | Elat | 10.59 | 115 | Pn | Pn | 12 11 11.2 | 0.0 |
| EIL | Elat | 10.59 | 115 | Pn | Pn | 12 11 11.3 | 0.0 |
| EIL | Elat | 10.59 | 115 | Pn | Pn | 12 11 11.2 | 0.0 |
| MLR | Muntele Rosu | 10.94 | 8 | Pn | Pn | 12 11 14.8 | -1.3 |
| | comp=N,0.1nm,0.3s,baz=142,slow=18,SNR=2.3 | | | | | | |
| MLR | Muntele Rosu | 10.94 | 8 | ePn | Pn | 12 11 17.4 | +1.2 |
| ASF | Jabal al Asfar | 11.13 | 99 | Pn | Pn | 12 11 16.8 | -1.9 |
| | comp=N,0.4nm,0.3s,baz=228,slow=13,SNR=3.0 | | | | | | |
| ASF | | | | Sn | Sn | 12 13 13.7 | -8.7 |
| | comp=N,0.3nm,0.3s,baz=260,slow=6.1,SNR=2.2 | | | | | | |
| AQU | L'Aquila | 11.26 | 316 | eP | Pn | 12 11 22.4 | +1.9 |
| AQU | L'Aquila | 11.26 | 316 | eP | Pn | 12 11 22.4 | +1.9 |
| AQU | L'Aquila | 11.26 | 316 | ePn | Pn | 12 11 22.4 | +1.9 |
| BLY | Banja Luka | 11.34 | 335 | ePn | Pn | 12 11 24.0 | +2.6 |
| BLY | Banja Luka | 11.34 | 335 | ePn | Pn | 12 11 24.1 | +2.6 |
| UDBI | Udbina | 11.69 | 330 | ePn | Pn | 12 11 23.5 | -2.9 |
| UDBI | | | | Sn | Sn | 12 13 25.9 | -10 |
| NVLJ | Novalja | 12.10 | 328 | ePn | Pn | 12 11 29.8 | -2.1 |
| NVLJ | | | | Sn | Sn | 12 13 35.6 | -10 |
| KOPT | Kop Dagi | 14.24 | 63 | ePn | Pn | 12 12 04.4 | +3.1 |
| KOPT | Kop Dagi | 14.24 | 63 | ePn | Pn | 12 12 04.4 | +3.1 |
| ANN | Anapa | 14.51 | 42 | eP | Pn | 12 12 02.3 | -2.4 |
| ANN | | | | eS | Sn | 12 14 40.0 | -4.6 |
| ANN | | | | pmax | pmax | | |
| | comp=Z,18nm,1.0s | | | | | | |
| KBA | Koelnbreinsper | 14.75 | 331 | i P | P | 12 12 17.7 | +3.7 |
| | comp=Z,2.6nm,0.6s | | | | | | |
| ABTA | Abfaltersbach | 14.84 | 328 | eP | P | 12 12 16.8 | +1.9 |
| | comp=Z,9.3nm,0.9s | | | | | | |
| ABTA | Abfaltersbach | 14.84 | 328 | P | P | 12 12 16.8 | +1.9 |
| | comp=Z,9.3nm,0.9s | | | | | | |
| VRAC | Vranov | 15.62 | 342 | LR | LR | 12 19 53.2 | |
| | comp=Z,114nm,20.0s,baz=204,slow=44 | | | | | | |
| FUORN | Ofenpass-Fuorn | 15.80 | 323 | ePn | Pn | 12 12 19.3 | -2.7 |
| | comp=Z,8.1nm,0.8s | | | | | | |
| FETA | Feichten | 15.86 | 325 | i P | P | 12 12 29.0 | +2.7 |
| | comp=Z,7.8nm,1.2s | | | | | | |
| FETA | Feichten | 15.86 | 325 | P | P | 12 12 29.0 | +2.7 |
| | comp=Z,7.8nm,1.2s | | | | | | |
| MOTA | Moosalm | 15.92 | 327 | eP | P | 12 12 29.6 | +2.6 |
| | comp=Z,5.7nm,0.8s | | | | | | |
| MOTA | Moosalm | 15.92 | 327 | P | P | 12 12 29.6 | +2.6 |
| | comp=Z,5.7nm,0.8s | | | | | | |
| GEA0 | GERESS Array S | 16.07 | 335 | ePn | Pn | 12 12 27.0 | +1.6 |
| GEA0 | GERESS Array S | 16.07 | 335 | ePn | Pn | 12 12 27.1 | +1.6 |
| GEC2 | GERESS Array S | 16.08 | 335 | eP | P | 12 12 31.6 | +2.9 |
| GEC2 | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.7s | | | | | | |
| GEC2 | GERESS Array S | 16.08 | 335 | eP | P | 12 12 31.6 | +2.9 |
| | comp=Z,4.0nm,0.7s | | | | | | |
| GEC2 | GERESS Array S | 16.08 | 335 | ePn | P | 12 12 31.6 | +2.9 |
| | comp=Z,3.9nm,0.7s | | | | | | |
| GERES | GERESS Array B | 16.08 | 335 | Pn | Pn | 12 12 23.3 | -2.3 |
| | comp=Z,0.1nm,0.3s,baz=144,slow=13,SNR=3.2 | | | | | | |
| DAVOX | Davos/Dischmat | 16.10 | 323 | Pn | Pn | 12 12 25.3 | -0.5 |
| | comp=Z,0.1nm,0.3s,baz=66,slow=20,SNR=2.1 | | | | | | |
| TUE | Stuetta | 16.16 | 321 | ePn | Pn | 12 12 27.8 | +1.2 |
| | comp=Z,7.0nm,1.0s | | | | | | |
| TUE | Stuetta | 16.16 | 321 | ePn | Pn | 12 12 27.8 | +1.2 |
| | comp=Z,7.0nm,1.0s | | | | | | |
| RETA | Reutte | 16.18 | 326 | eP | P | 12 12 33.0 | +3.2 |
| | comp=Z,3.8nm,0.5s | | | | | | |
| RETA | Reutte | 16.18 | 326 | P | P | 12 12 33.0 | +3.2 |
| | comp=Z,3.8nm,0.5s | | | | | | |
| KHC | Kasperske Hory | 16.37 | 335 | eP | P | 12 12 31.9 | +0.1 |
| KHC | | | | ex | x | 12 12 40.8 | |
| KHC | Kasperske Hory | 16.37 | 335 | eP | Pn | 12 12 30.5 | +1.4 |
| KHC | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.8s | | | | | | |
| KHC | Kasperske Hory | 16.37 | 335 | P | P | 12 12 31.9 | +0.1 |
| KHC | Kasperske Hory | 16.37 | 335 | ePn | Pn | 12 12 30.5 | +1.4 |
| | comp=Z,2.1nm,0.8s | | | | | | |
| AK11 | Malin Array Si | 16.47 | 12 | ePn | Pn | 12 12 31.0 | +0.6 |
| AK11 | Malin Array Si | 16.47 | 12 | ePn | Pn | 12 12 31.0 | +0.6 |
| KIEV | Kiev | 16.50 | 12 | eP | Pn | 12 12 32.3 | +1.7 |
| KIEV | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.8s | | | | | | |
| KIEV | Kiev | 16.50 | 12 | eP | Pn | 12 12 32.3 | +1.7 |
| | comp=Z,6.0nm,0.8s | | | | | | |
| KIEV | Kiev | 16.50 | 12 | ePn | Pn | 12 12 32.3 | +1.7 |
| | comp=Z,5.8nm,0.8s | | | | | | |
| AKASG | Malin Array Be | 16.50 | 12 | Pn | Pn | 12 12 28.0 | -2.7 |
| | comp=Z,0.9nm,0.3s,baz=201,slow=11,SNR=4.5 | | | | | | |
| AKBB | Malin Array Si | 16.50 | 12 | eP | P | 12 12 37.8 | +4.6 |
| AKBB | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.8s | | | | | | |
| AKBB | Malin Array Si | 16.50 | 12 | ePn | P | 12 12 37.8 | +4.6 |
| | comp=Z,5.5nm,0.8s | | | | | | |
| DPC | Dobruska-Polom | 16.65 | 343 | eP | P | 12 12 42.5 | +7.6 |
| DPC | Dobruska-Polom | 16.65 | 343 | eP | P | 12 12 42.5 | +7.6 |
| GOPC | GO Pecny, Ondr | 16.66 | 339 | eP | P | 12 12 43.5 | +8.5 |
| GOPC | GO Pecny, Ondr | 16.66 | 339 | eP | P | 12 12 43.5 | +8.5 |
| BNI | Bardonecchia | 16.79 | 313 | eP | P | 12 12 36.4 | -0.2 |
| BNI | | | | pmax | pmax | | |
| | comp=Z,17nm,1.6s | | | | | | |
| BNI | Bardonecchia | 16.79 | 313 | eP | P | 12 12 36.4 | -0.2 |
| | comp=Z,17nm,1.6s | | | | | | |
| BNI | Bardonecchia | 16.79 | 313 | ePn | P | 12 12 36.4 | -0.2 |
| | comp=Z,17nm,1.6s | | | | | | |
| PRU | Pruhonice | 16.80 | 339 | eP | P | 12 12 36.4 | -0.1 |
| PRU | Pruhonice | 16.80 | 339 | eP | P | 12 12 36.4 | -0.1 |
| PRU | Pruhonice | 16.80 | 339 | eP | P | 12 12 36.4 | -0.1 |
| KIV | Kislovodsk | 17.22 | 52 | eP | P | 12 12 41.8 | +0.5 |
| KIV | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.7s | | | | | | |
| KIV | | | | MLR | MLR | | |
| | comp=Z,71nm,17.0s | | | | | | |
| KIV | Kislovodsk | 17.22 | 52 | eP | P | 12 12 41.8 | +0.5 |
| | comp=Z,71nm,17.0s | | | | | | |
| KIV | Kislovodsk | 17.22 | 52 | ePn | P | 12 12 42.2 | +0.9 |
| | comp=Z,15nm,1.1s | | | | | | |
| KIV | Kislovodsk | 17.22 | 52 | ePn | P | 12 12 42.2 | +0.9 |
| | comp=Z,15nm,1.1s | | | | | | |
| KBZ | Khabaz | 17.25 | 53 | P | Pn | 12 12 41.0 | +0.8 |
| | comp=Z,0.3nm,0.3s,baz=237,slow=9.4,SNR=9.1 | | | | | | |
| GNI | Garni | 17.42 | 66 | LR | LR | 12 20 47.0 | |
| | comp=Z,118nm,19.5s,baz=277,slow=42 | | | | | | |
| GRFO | Grafenberg | 17.70 | 332 | eP | P | 12 12 48.1 | +1.7 |
| GRFO | | | | pmax | pmax | | |
| | comp=Z,20nm,1.3s | | | | | | |
| GRFO | Grafenberg | 17.70 | 332 | eP | P | 12 12 48.1 | +1.7 |
| | comp=Z,20nm,1.3s | | | | | | |
| GRFO | Grafenberg | 17.70 | 332 | ePn | P | 12 12 48.1 | +1.7 |
| | comp=Z,20nm,1.3s | | | | | | |
| BFO | Black Forest | 17.93 | 324 | eP | P | 12 12 50.3 | +1.3 |
| BFO | | | | pmax | pmax | | |
| | comp=Z,29nm,1.8s | | | | | | |
| BFO | Black Forest | 17.93 | 324 | eP | P | 12 12 50.3 | +1.3 |
| | comp=Z,29nm,1.8s | | | | | | |
| BFO | Black Forest | 17.93 | 324 | ePn | P | 12 12 50.3 | +1.3 |
| | comp=Z,29nm,1.8s | | | | | | |
| CLL | Collm | 18.43 | 338 | eP | P | 12 12 55.0 | +0.5 |
| CLL | Collm | 18.43 | 338 | eP | P | 12 12 55.0 | +0.5 |
| CLL | | | | epP | sP | 12 13 04.0 | -1.1 |
| CLL | | | | e(sP) | pP | 12 13 13.0 | +11 |
| CLL | Collm | 18.43 | 338 | eP | Pn | 12 12 55.7 | +1.0 |
| | comp=Z,4.9nm,0.8s | | | | | | |
| CLL | Collm | 18.43 | 338 | eP | Pn | 12 12 55.6 | +1.0 |
| | comp=Z,4.9nm,0.8s | | | | | | |
| WLF | Walferdange | 19.89 | 324 | eP | P | 12 13 11.5 | +1.0 |
| WLF | | | | pmax | pmax | | |
| | comp=Z,30nm,1.4s | | | | | | |
| WLF | Walferdange | 19.89 | 324 | eP | P | 12 13 11.5 | +1.0 |
| | comp=Z,30nm,1.4s | | | | | | |
| WLF | Walferdange | 19.89 | 324 | eP | P | 12 13 11.5 | +1.0 |
| | comp=Z,30nm,1.4s | | | | | | |
| OBN | Obninsk | 22.27 | 19 | eP | P | 12 13 35.4 | -0.7 |
| OBN | | | | e | | 12 14 01.1 | |
| OBN | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.8s | | | | | | |
| OBN | | | | MLR | MLR | | |
| | comp=Z,51nm,10.0s | | | | | | |
| OBN | Obninsk | 22.27 | 19 | eP | P | 12 13 35.4 | -0.7 |
| | comp=Z,8.0nm,0.8s | | | | | | |
| ES19 | SONSECA Array | 22.68 | 291 | eP | P | 12 13 40.5 | -0.2 |
| ES19 | SONSECA Array | 22.68 | 291 | eP | P | 12 13 40.5 | -0.2 |
| ESDC | Sonseca Array | 22.73 | 291 | P | P | 12 13 39.8 | -1.4 |
| | comp=Z,1.0nm,0.5s,baz=83,slow=10,SNR=11 | | | | | | |
| MDT | Midelt | 23.77 | 274 | LR | LR | 12 24 58.7 | |
| | comp=Z,94nm,18.6s,baz=348,slow=41 | | | | | | |
| MTE | Manteigas | 25.52 | 292 | eP | P | 12 14 05.9 | -1.7 |
| | comp=Z,25nm,1.1s | | | | | | |
| MTE | Manteigas | 25.52 | 292 | eP | P | 12 14 06.0 | -1.7 |
| | comp=Z,25nm,1.1s | | | | | | |
| HFS | Hagfors | 26.36 | 348 | P | P | 12 14 13.3 | -1.6 |
| | comp=Z,2.0nm,0.4s,baz=150,slow=12,SNR=17 | | | | | | |
| KONO | Kongsberg | 26.72 | 344 | eP | P | 12 14 19.6 | +1.4 |
| KONO | | | | pmax | pmax | | |
| | comp=Z,203nm,1.8s | | | | | | |
| KONO | Kongsberg | 26.72 | 344 | eP | P | 12 14 19.6 | +1.4 |
| | comp=Z,203nm,1.8s | | | | | | |
| KONO | Kongsberg | 26.72 | 344 | eP | P | 12 14 19.6 | +1.4 |
| | comp=Z,203nm,1.8s | | | | | | |
| FINES | FINESS Array B | 26.85 | 2 | P | P | 12 14 16.3 | -3.0 |
| | comp=Z,6.0nm,0.9s,baz=173,slow=12,SNR=4.5 | | | | | | |
| NB2 | NORSAR Subarra | 27.65 | 347 | P | P | 12 14 25.2 | -1.4 |
| | comp=Z,0.9nm,0.5s,baz=156,slow=9.3 | | | | | | |
| NB2 | NORSAR Subarra | 27.65 | 347 | P | P | 12 14 25.2 | -1.4 |
| | comp=Z,0.9nm,0.5s,SNR=3.7 | | | | | | |
| NOA | NORSAR Array B | 27.65 | 347 | P | P | 12 14 25.0 | -1.5 |
| | comp=Z,1.3nm,0.8s,baz=195,slow=8.8,SNR=9.4 | | | | | | |
| EKA | Eskdalemuir Ar | 27.88 | 326 | P | P | 12 14 28.6 | 0.0 |
| | comp=Z,0.3nm,0.4s,baz=129,slow=8.3,SNR=4.3 | | | | | | |
| AKTK | Aktyubinsk | 29.35 | 47 | P | P | 12 14 41.0 | -0.8 |
| | comp=Z,2.0nm,0.5s | | | | | | |
| AKTO | Aktyubinsk | 29.35 | 47 | P | P | 12 14 41.0 | -0.8 |
| | comp=Z,1.6nm,0.5s,baz=220,slow=7.2,SNR=7.5 | | | | | | |
| TOA0 | Torodi Ar. Sit | 29.38 | 229 | eP | P | 12 14 43.8 | +1.5 |
| TOA0 | Torodi Ar. Sit | 29.38 | 229 | eP | P | 12 14 43.8 | +1.5 |
| TORD | Torodi Ar. Bea | 29.38 | 229 | P | P | 12 14 43.7 | +1.4 |
| | comp=Z,4.1nm,0.6s,baz=38,slow=8.6,SNR=40 | | | | | | |
| ARCES | ARCESS Array B | 34.95 | 1 | P | P | 12 15 28.6 | -2.0 |
| | comp=Z,1.2nm,0.5s,baz=178,slow=8.5,SNR=9.5 | | | | | | |
| BRVK | Borovoye | 37.38 | 46⇓ | eP | P | 12 15 54.7 | +3.1 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.6s | | | | | | |
| DBIC | Dimbokro | 38.45 | 230 | P | P | 12 16 02.0 | +1.1 |
| | comp=Z,1.4nm,0.4s,baz=22,slow=7.7,SNR=3.4 | | | | | | |
| AAK | Ala-Archa | 39.80 | 63⇓ | eP | P | 12 16 13.5 | +1.2 |
| AAK | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | |
| AAK | Ala-Archa | 39.80 | 63 | eP | P | 12 16 13.2 | +0.9 |
| | comp=Z,2.1nm,0.7s | | | | | | |
| AAK | Ala-Archa | 39.80 | 63 | ePcP | PcP | 12 18 19.3 | +1.2 |
| AAK | Ala-Archa | 39.80 | 63 | eP | P | 12 16 13.2 | +0.9 |
| | comp=Z,2.1nm,0.7s | | | | | | |
| AAK | | | | ePcP | PcP | 12 18 19.3 | +1.2 |
| KURK | Kurchatov | 42.30 | 50⇓ | eP | P | 12 16 32.1 | -0.4 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.6s | | | | | | |
| KURK | Kurchatov | 42.30 | 50 | eP | P | 12 16 32.1 | -0.4 |
| | comp=Z,3.0nm,0.6s | | | | | | |
| KURK | | | | epP | sP | 12 16 42.7 | -1.0 |
| KURK | Kurchatov | 42.30 | 50 | eP | P | 12 16 31.9 | -0.6 |
| | comp=Z,18nm,0.5s | | | | | | |
| KURK | | | | epP | sP | 12 16 42.7 | -1.0 |
| MKAR | Makanchi Array | 44.91 | 56 | P | P | 12 16 53.7 | +0.1 |
| | comp=Z,2.2nm,0.5s,baz=271,slow=8.0,SNR=37 | | | | | | |
| NVS | Novosibirsk | 45.17 | 45 | eP | P | 12 16 55.1 | -0.4 |
| NVS | Novosibirsk | 45.17 | 45 | eP | P | 12 16 55.1 | -0.4 |
| ZALV | Zalesovo Beam | 46.10 | 46 | P | P | 12 17 02.0 | -0.8 |
| | comp=Z,2.7nm,0.3s,baz=264,slow=9.3,SNR=14 | | | | | | |
| DGZ | Jazzator, Alta | 48.00 | 51 | eP | P | 12 17 18.1 | +0.1 |
| DGZ | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.5s | | | | | | |
| DGZ | Jazzator, Alta | 48.00 | 51 | eP | P | 12 17 18.1 | +0.1 |
| | comp=Z,1.0nm,0.5s | | | | | | |
| SONM | Songino Array | 60.60 | 50 | P | P | 12 18 49.7 | 0.0 |
| | comp=Z,0.6nm,0.4s,baz=284,slow=7.2,SNR=6.4 | | | | | | |
| ULN | Ulaanbaatar | 61.01 | 50⇓ | eP | P | 12 18 57.2 | +4.7 |
| ULN | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.0s | | | | | | |
| KMI | Kunming | 67.43 | 74 | P | P | 12 19 37.0 | +1.9 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,14nm,0.5s | | | | | | |
| CMAR | Chiang Mai Arr | 67.65 | 83 | P | P | 12 19 36.5 | +0.3 |
| | comp=Z,0.4nm,0.5s,baz=294,slow=9.1,SNR=3.1 | | | | | | |
| INK | Inuvik | 75.98 | 352 | P | P | 12 20 24.2 | -1.2 |
| | comp=Z,0.8nm,0.7s,baz=31,slow=5.3,SNR=5.1 | | | | | | |
| YKA | Yellowknife Ar | 77.62 | 342 | P | P | 12 20 34.1 | -0.7 |
| | comp=Z,0.2nm,0.4s,baz=31,slow=5.4,SNR=11 | | | | | | |
| KSAR | Wonju Array Be | 79.39 | 52 | P | P | 12 20 46.3 | +1.3 |
| KSAR | Wonju Array Be | 79.39 | 52 | P | P | 12 20 46.2 | +1.3 |
| KSAR | Wonju Array Be | 79.39 | 52 | P | P | 12 20 46.2 | +1.3 |
| KSRS | Korea Array | 79.40 | 52 | P | P | 12 20 46.3 | +1.2 |
| | comp=Z,1.0nm,0.8s,baz=319,slow=4.4,SNR=3.0 | | | | | | |
| ILAR | Eielson Array | 80.65 | 356 | P | P | 12 20 50.7 | -0.6 |
| | comp=Z,0.2nm,0.5s,baz=332,slow=5.2,SNR=4.7 | | | | | | |
| WRA | Warramunga Arr | 117.55 | 96 | PKP | PKPdf | 12 27 24.4 | -0.7 |
| | comp=Z,0.4nm,0.9s,baz=313,slow=2.2,SNR=4.1 | | | | | | |
| ASAR | Alice Springs | 118.97 | 100 | PKP | PKPdf | 12 27 27.6 | -0.2 |
| | comp=Z,0.5nm,0.9s,baz=329,slow=1.5,SNR=4.8 | | | | | | |

---

*ISCJB **10** 12:30:27.9±0.8, 18.°9S±0.°1×169.°4E±0.°1, h246km, mb3.9/9, Error ellipse: s-maj=23.7km s-min=10.3km az=45.0*

*IDC **10** 12:30:29.2±2.0, 19.°01S×169.°41E, h248km±27km, mb3.6/9, mb1 3.8/11, mb1mx3.6/29, mbtmp4.3/11, Error ellipse: s-maj=50.5km s-min=14.0km az=156.0*

**ISC 10 12:30:29.2**±1.0**, 19.°0S**±0.°2×**169.°4E**±0.°2**, h246**km**, n12, σ0.s74**/13**, mb3.9**/9**, Vanuatu Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DZM | Mont Dzumac | 4.15 | 221 | P | Pn | 12 31 35.3 | +0.6 |
| | 5.6nm,0.3s,baz=30,slow=6.0,SNR=60 | | | | | | |
| DZM | | | | S | S | 12 32 26.0 | -0.7 |
| | 1.8nm,0.3s,baz=307,slow=20,SNR=2.1 | | | | | | |
| AFI | Afiamalu | 18.74 | 77 | P | P | 12 34 30.8 | +0.5 |
| | 1.4nm,0.3s,baz=217,slow=5.1,SNR=2.9 | | | | | | |
| CTA | Charters Tower | 21.84 | 263 | P | P | 12 35 02.5 | +0.3 |
| | 1.6nm,0.5s,baz=80,slow=14,SNR=5.4 | | | | | | |
| STKA | Stephens Creek | 28.12 | 237 | P | P | 12 35 58.2 | -0.5 |
| | 2.8nm,0.7s,baz=56,slow=9.0,SNR=8.6 | | | | | | |
| WRA | Warramunga Arr | 33.04 | 262 | P | P | 12 36 41.0 | -1.0 |
| | 1.3nm,0.5s,baz=98,slow=6.9,SNR=37 | | | | | | |
| ASAR | Alice Springs | 33.34 | 256 | P | P | 12 36 44.5 | 0.0 |
| | 12nm,0.5s,baz=82,slow=8.8,SNR=266 | | | | | | |
| FITZ | Fitzroy Crossi | 41.42 | 264 | P | P | 12 37 52.2 | 0.0 |
| | 3.5nm,0.7s,baz=81,slow=7.4,SNR=20 | | | | | | |
| PETK | Petropavlovsk- | 72.48 | 353 | P | P | 12 41 28.8 | 0.0 |
| | 2.4nm,0.6s,baz=128,slow=6.5,SNR=7.9 | | | | | | |
| CMAR | Chiang Mai Arr | 78.53 | 294 | P | P | 12 42 04.9 | +1.1 |
| | 0.6nm,0.3s,baz=129,slow=5.3,SNR=4.1 | | | | | | |
| SONM | Songino Array | 87.08 | 323 | P | P | 12 42 47.2 | 0.0 |
| | 0.5nm,0.4s,baz=140,slow=7.0,SNR=4.4 | | | | | | |
| ILAR | Eielson Array | 89.92 | 17 | P | P | 12 42 58.6 | -1.4 |
| | 0.3nm,0.4s,baz=237,slow=5.1,SNR=16 | | | | | | |
| YKA | Yellowknife Ar | 100.35 | 27 | P | Pdif | 12 43 47.5 | +0.1 |
| | 0.3nm,0.7s,baz=254,slow=4.7,SNR=3.9 | | | | | | |

---

*DDA **10** 12:33:07.0, 39.°21N×26.°10E, h7km, Md2.6*

*ISCJB **10** 12:33:07.5±0.5, 39.°23N±0.°02×26.°06E±0.°04, h9km±4km, Error ellipse: s-maj=4.9km s-min=4.1km az=3.6*

*CSEM **10** 12:33:07.5±0.1, 39.°23N×26.°06E, h8km, ML1.9, Error ellipse: s-maj=3.4km s-min=2.6km az=81.0*

*ATH **10** 12:33:07.2, 39.°25N×26.°05E, h14km±2km, ML1.9/3, Error ellipse: s-maj=2.7km s-min=1.2km az=158.0*

**ISC 10 12:33:07.6**±0.8**, 39.°22N**±0.°02×**26.°07E**±0.°03**, h13**km±6km**,**

**n20, σ0ˢ34/37, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PRK | Paraskevi | 0.16 | 82 | P | Pg | 12 33 11.3 | -0.1 |
| PRK | | | | S | Sg | 12 33 14.2 | +0.2 |
| PRK | | | | AML | AML | 12 33 14.6 | |
| | comp=N,3151μm,0.5s | | | | | | |
| PRK | | | | AML | AML | 12 33 15.3 | |
| | comp=E,1727μm,0.4s | | | | | | |
| PRK | Paraskevi | 0.16 | 82 | P | Pg | 12 33 11.3 | -0.1 |
| PRK | | | | S | Sg | 12 33 14.2 | +0.2 |
| SIGR | SIGRI | 0.17 | 266 | P | Pg | 12 33 11.5 | +0.1 |
| SIGR | | | | S | Sg | 12 33 13.7 | -0.4 |
| SIGR | | | | AML | AML | 12 33 14.1 | |
| | comp=E,371μm,0.1s | | | | | | |
| SIGR | | | | AML | AML | 12 33 14.6 | |
| | comp=N,348μm,0.2s | | | | | | |
| SIGR | SIGRI | 0.17 | 266 | P | Pg | 12 33 11.5 | +0.1 |
| SIGR | | | | S | Sg | 12 33 13.7 | -0.4 |
| BOZC | Bozcaada | 0.62 | 359 | *i* P | Pg | 12 33 19.3 | -0.3 |
| BOZC | | | | *i* S | Sg | 12 33 27.7 | -0.1 |
| BAYC | CANAKKALE_Bayr | 0.64 | 36 | *i* P | Pg | 12 33 19.8 | -0.2 |
| BAYC | | | | *i* S | Sg | 12 33 28.3 | -0.1 |
| BAYC | CANAKKALE_Bayr | 0.64 | 36 | P | Pg | 12 33 19.8 | -0.2 |
| BAYC | | | | S | Sg | 12 33 28.3 | -0.1 |
| CHOS | Chios island | 0.84 | 181 | P | Pg | 12 33 23.5 | -0.2 |
| CHOS | | | | S | Sb | 12 33 35.5 | +0.3 |
| CHOS | | | | AML | AML | 12 33 37.4 | |
| | comp=E,262μm,0.5s | | | | | | |
| CHOS | | | | AML | AML | 12 33 38.8 | |
| | comp=N,164μm,0.3s | | | | | | |
| CHOS | Chios island | 0.84 | 181 | P | Pg | 12 33 23.5 | -0.2 |
| CHOS | | | | S | Sb | 12 33 35.5 | +0.3 |
| URLA | Izmir | 0.96 | 154 | *i* P | Pb | 12 33 26.3 | +0.3 |
| URLA | | | | *i* S | Sg | 12 33 38.4 | -0.1 |
| URLA | Izmir | 0.96 | 154 | P | Pb | 12 33 26.3 | +0.3 |
| URLA | | | | S | Sg | 12 33 38.4 | -0.1 |
| LIA | Limnos Island | 0.96 | 315 | P | Pb | 12 33 26.4 | +0.4 |
| LIA | Limnos Island | 0.96 | 315 | P | Pb | 12 33 26.4 | +0.4 |
| ZEY | ˜zmir | 1.04 | 161 | *i* P | Pg | 12 33 27.1 | -0.5 |
| ZEY | | | | *i* S | Sg | 12 33 40.8 | -0.4 |
| STEP | BALIKESIR_Sava | 1.29 | 83 | *i* P | Pg | 12 33 32.1 | -0.3 |
| STEP | | | | *i* S | Sb | 12 33 48.3 | +0.1 |
| STEP | BALIKESIR_Sava | 1.29 | 83 | P | Pg | 12 33 32.1 | -0.3 |
| STEP | | | | S | Sb | 12 33 48.3 | +0.1 |
| BALY | Balya | 1.31 | 66 | *i* P | Pn | 12 33 22.1 | -9.5 |
| BALY | | | | *i* S | Sb | 12 33 48.9 | +0.2 |
| SMTH | Samothraki Isl | 1.31 | 342 | P | Pn | 12 33 30.9 | -0.7 |
| SMTH | | | | S | Sn | 12 33 49.5 | +0.5 |
| SMTH | Samothraki Isl | 1.31 | 342 | P | Pn | 12 33 30.9 | -0.7 |
| SMTH | | | | S | Sn | 12 33 49.5 | +0.5 |
| DGB | ˜zmir | 1.33 | 151 | *i* P | Pn | 12 33 31.8 | 0.0 |
| DGB | | | | *i* S | Sb | 12 33 49.6 | +0.3 |

**SJA 10 12:34:39.6**±0.3**, 31°.43S×67°.88W, h16km±14km, ML3.4, MW3.7, San Juan Province**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RTCV | Cerro Valdivia | 0.71 | 232 | *e*P | Pb | 12 34 53.7 | 0.0 |
| RTCV | | | | *e*S | Sb | 12 35 04.2 | +0.9 |
| AMOG | MOGNA | 0.72 | 312 | *e*P | Pb | 12 34 53.9 | +0.1 |
| AMOG | | | | *e*S | Sb | 12 35 04.3 | +0.9 |
| AMOG | | | | IAML | | 12 35 05.9 | |
| | comp=Z,2μm,0.2s | | | | | | |
| ACAN | Cantantal | 1.03 | 145 | *e*P | Pn | 12 34 59.3 | -0.1 |
| ACAN | | | | *e*S | Sn | 12 35 13.8 | +0.4 |
| RTLS | Leoncito | 1.27 | 253 | *e*P | Pg | 12 35 04.2 | 0.0 |
| ASAL | Salagasta | 1.42 | 215 | *e*P | Pg | 12 35 06.4 | -0.5 |

**IDC 10 12:49:56.7**±15.0**, 19°.51S×179°.69W, h646km±153km, mb2.4/3, mb1 2.8/3, mb1mx2.6/20, mbtmp3.5/3, Error ellipse: s-maj=289.6km s-min=64.0km az=142.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 43.17 | 261 | P | P | 12 57 03.6 | +0.1 |
| | 0.2nm,0.3s,baz=97,slow=7.7,SNR=6.9 | | | | | | |
| ASAR | Alice Springs | 43.21 | 256 | P | P | 12 57 03.7 | 0.0 |
| | 0.5nm,0.5s,baz=96,slow=7.5,SNR=6.9 | | | | | | |
| ILAR | Eielson Array | 87.72 | 13 | P | P | 13 01 38.3 | +0.1 |
| | 0.1nm,0.4s,baz=224,slow=3.8,SNR=3.4 | | | | | | |
| BRTR | Keskin Array B | 145.00 | 312 | PKPbc | PKPdf | 13 08 22.6 | +0.1 |
| | 0.7nm,0.9s,baz=83,slow=4.5,SNR=3.0 | | | | | | |

*IDC **10** 12:57:31.4±2.1, 8°.99S×123°.52E, h0km, mb3.4/1, mb1 4.0/3, mb1mx3.5/25, mbtmp3.8/3, ML3.9/2, Error ellipse: s-maj=231.3km s-min=32.0km az=56.0*
*ISCJB **10** 12:57:32.8±1.2, 8°.20S±0°.09×124°.64E±0°.06, h20km, mb3.5/1, Error ellipse: s-maj=13.3km s-min=8.5km az=17.9*
*DJA **10** 12:57:45.9±1.2, 9°S±7°×12°4E±°, h93km±16km, M3.8/5, mb4.1/1, MLv3.7/5*
**ISC 10 12:57:35.1**±1.3**, 8°.3S**±0°.1×**124°.54E**±0°.08**, h20km, n7, σ2ˢ07/10, Timor region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SOEI | Soe | 1.48 | 190 | Pg | Pb | 12 58 05.4 | +3.5 |
| SOEI | | | | Sg | Sb | 12 58 21.1 | +0.8 |
| MMRI | Maumere | 2.30 | 261 | P | Pb | 12 58 17.1 | +1.2 |
| MMRI | | | | S | Sb | 12 58 40.9 | -3.1 |
| EDFI | Ende, Flores | 2.85 | 261 | P | Pb | 12 58 24.1 | -1.3 |
| EDFI | | | | S | Sn | 12 58 53.9 | +0.5 |
| PLAI | Plampang | 6.71 | 265 | P | Pn | 12 59 15.9 | +3.4 |
| PLAI | | | | S | Sn | 13 00 27.0 | -1.4 |
| WRA | Warramunga Arr | 14.97 | 142 | Pn | Pn | 13 01 04.5 | -1.1 |
| | 0.4nm,0.3s,baz=313,slow=13,SNR=21 | | | | | | |
| WRA | | | | Sn | Sn | 13 03 37.1 | -14 |
| | 1.5nm,0.3s,baz=314,slow=23,SNR=15 | | | | | | |
| ASAR | Alice Springs | 17.72 | 151 | P | P | 13 01 40.3 | -1.4 |
| | 0.6nm,0.3s,baz=319,slow=12,SNR=36 | | | | | | |
| ASAR | | | | S | Sn | 13 04 42.8 | -15 |
| | 0.5nm,0.3s,baz=316,slow=22,SNR=9.6 | | | | | | |
| MKAR | Makanchi Array | 66.47 | 330 | P | P | 13 08 23.4 | +0.2 |
| | 0.2nm,0.4s,baz=131,slow=7.1,SNR=4.2 | | | | | | |

*DDA **10** 12:58:03.6, 38°.96N×43°.88E, h7km, Ml2.7*
*CSEM **10** 12:58:03.6±0.4, 38°.95N×43°.80E, h5km, ML2.7, Error ellipse: s-maj=9.4km s-min=6.8km az=93.0*
*ISK **10** 12:58:03.0, 39°.03N×43°.88E, h26km, ML2.3*
*ISCJB **10** 12:58:04.7±0.8, 39°.01N±0°.04×43°.79E±0°.06, h12km±5km, Error ellipse: s-maj=8.6km s-min=6.6km az=35.6*
*ATA **10** 12:58:04.9±1.2, 39°.11N×43°.68E, h0km±23km, ML2.6, MW3.2*
**ISC 10 12:58:05.0**±0.9**, 39°.04N**±0°.04×**43°.76E**±0°.03**, h9km±7km, n20, σ1ˢ48/30, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.16 | 252 | *i* P | Pg | 12 58 07.0 | -1.4 |
| VMUR | | | | *i* S | Sg | 12 58 12.6 | +1.7 |
| VMUR | Van-Muradiye | 0.16 | 252 | P | Pg | 12 58 07.0 | -1.4 |
| VMUR | | | | S | Sg | 12 58 12.6 | +1.7 |
| CLDR | Caldiran | 0.16 | 49 | *e*PG | Pg | 12 58 08.3 | -0.3 |
| CLDR | | | | *e*SG | Sg | 12 58 12.2 | +1.2 |
| CLDR | Caldiran | 0.16 | 49 | *i* P | Pg | 12 58 07.9 | -0.7 |
| CLDR | Caldiran | 0.16 | 49 | P | Pg | 12 58 07.9 | -0.7 |
| CLDR | Caldiran | 0.16 | 49 | *e*Pg | Pg | 12 58 08.3 | -0.3 |
| CLDR | | | | *e*Sg | Sg | 12 58 12.2 | +1.2 |
| DYDN | Diyadin | 0.51 | 354 | *e*P | Pg | 12 58 14.5 | -0.4 |
| DYDN | | | | *e*S | Sb | 12 58 22.6 | -1.2 |
| DYDN | | | | IAML | | 12 58 36.8 | |
| | comp=Z,31nm,0.4s | | | | | | |
| DYDN | Diyadin | 0.51 | 354 | *i* P | Pg | 12 58 14.8 | -0.1 |
| DYDN | | | | *i* S | Sb | 12 58 24.2 | +0.4 |
| DYDN | Diyadin | 0.51 | 354 | P | Pg | 12 58 14.8 | -0.1 |
| DYDN | | | | S | Sb | 12 58 24.2 | +0.4 |
| VANB | Van | 0.53 | 213 | *e*PG | Pb | 12 58 16.3 | -0.2 |
| VANB | Van | 0.53 | 213 | *e*Pg | Pb | 12 58 16.3 | -0.2 |
| AGRB | Hanur-Agry | 0.80 | 312 | *e*PG | Pg | 12 58 20.3 | -0.2 |
| AGRB | | | | *e*SG | Sb | 12 58 32.2 | -0.1 |
| AGRB | Hanur-Agry | 0.80 | 312 | *e*Pg | Pg | 12 58 20.3 | -0.2 |
| AGRB | | | | *e*Sg | Sb | 12 58 32.2 | -0.1 |
| TUTA | Tutak | 0.82 | 297 | *e*P | Pg | 12 58 19.7 | -1.1 |
| TUTA | | | | IAML | | 12 58 35.1 | |
| | comp=Z,29nm,0.6s | | | | | | |
| EATA | Eleskirt | 1.28 | 310 | *e*P | Pn | 12 58 28.7 | -0.7 |
| EATA | | | | IAML | | 12 58 54.3 | |
| | comp=Z,3.4nm,0.4s | | | | | | |
| EATA | Eleskirt | 1.28 | 310 | *i* P | Pg | 12 58 30.3 | +0.7 |
| EATA | Eleskirt | 1.28 | 310 | P | Pg | 12 58 30.3 | +0.7 |
| EKAR | Karacoban | 1.34 | 280 | *e*P | Pg | 12 58 31.0 | +0.3 |
| EKAR | | | | IAML | | 12 58 42.9 | |
| | comp=Z,9.1nm,0.1s | | | | | | |
| HAKT | HAKKARI | 1.48 | 182 | *i* P | Pn | 12 58 30.2 | -1.8 |
| HAKT | | | | *i* S | Sg | 12 58 58.2 | +5.6 |
| HAKT | HAKKARI | 1.48 | 182 | P | Pn | 12 58 30.2 | -1.8 |

*NNC **10** 13:13:19.8±4.8, 48°.46N×77°.72E, h0km, mb3.2, mpv2.8, Error ellipse: s-maj=48.2km s-min=22.0km az=68.0, Suspected Mining explosion.*
**IDC 10 13:13:23.0**±1.1**, 48°.67N×77°.63E, h0km, mb1 2.8/4, mb1mx2.7/36, mbtmp2.8/4, ML2.3/4, 3C-3D, Error ellipse: s-maj=20.8km s-min=9.2km az=105.0, Eastern Kazakhstan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KURBB | Kurchatov Arra | 2.04 | 16 | Pn | Pn | 13 13 59.2 | +0.6 |
| | 0.8nm,0.3s,baz=200,slow=16,SNR=62 | | | | | | |
| KURBB | | | | Lg | Lg | 13 14 26.7 | |
| | 0.4nm,0.3s,baz=196,slow=28,SNR=11 | | | | | | |
| KURBB | Kurchatov Arra | 2.04 | 16 | ⇑Pn | Pn | 13 13 59.2 | +0.6 |
| | 9.5nm,0.7s,baz=197,slow=16 | | | | | | |
| KURBB | | | | ⇑Sn | Sb | 13 14 27.1 | +0.4 |
| | 12nm,0.8s,baz=202,slow=25 | | | | | | |
| KURK | Kurchatov | 2.14 | 17 | ⇓Pn | Pn | 13 14 01.1 | +1.0 |
| | 3.8nm,0.4s | | | | | | |
| KURK | | | | ⇑Sn | Sb | 13 14 29.0 | -0.8 |
| | 4.8nm,0.5s | | | | | | |
| MK31 | Makanchi Array | 3.67 | 119 | ⇓Pg | Pn | 13 14 20.9 | 0.0 |
| | 0.5nm,0.5s,baz=301,slow=11,SNR=13 | | | | | | |
| MK31 | | | | ⇓Lg | Lg | 13 15 11.0 | |
| | 7.8nm,1.0s,baz=318,slow=29,SNR=6.4 | | | | | | |
| MKAR | Makanchi Array | 3.67 | 119 | Pn | Pn | 13 14 21.7 | +0.7 |
| | 0.2nm,0.3s,baz=304,slow=12,SNR=8.5 | | | | | | |
| MKAR | | | | Lg | Lg | 13 15 12.3 | |
| | 0.7nm,0.3s,baz=304,slow=27,SNR=10 | | | | | | |
| BVAR | Borovoye Array | 6.32 | 316 | Sn | Sn | 13 16 11.3 | +1.0 |
| | 0.2nm,0.3s,baz=130,slow=23,SNR=4.3 | | | | | | |
| BVAR | | | | Lg | Lg | 13 16 41.9 | |
| | 0.1nm,0.3s,baz=119,slow=30,SNR=4.1 | | | | | | |
| AAK | Ala-Archa | 6.42 | 201 | Pn | Pn | 13 15 00.6 | +1.6 |
| | 0.1nm,0.3s,baz=194,slow=8.3,SNR=3.2 | | | | | | |
| AAK | | | | Sn | Sn | 13 16 12.2 | -0.8 |
| | 0.0nm,0.3s,baz=252,slow=20,SNR=2.2 | | | | | | |
| AAK | | | | Lg | Lg | 13 16 46.9 | |
| | 0.1nm,0.3s,baz=342,slow=20,SNR=2.8 | | | | | | |
| ZALV | Zalesovo Beam | 6.94 | 38 | Pn | Pn | 13 15 05.5 | -0.4 |
| | 0.2nm,0.3s,baz=225,slow=12,SNR=3.8 | | | | | | |
| ZALV | | | | Sn | Sn | 13 16 24.1 | -1.4 |
| | 0.2nm,0.3s,baz=223,slow=25,SNR=3.3 | | | | | | |
| I46RU | ZALESOVO INFRA | 6.94 | 38 | *i* | | 13 55 49.5 | |
| | baz=220,slow=321,SNR=1.2 | | | | | | |

**MEX 10 13:18:14.3**±0.7**, 19°.11N×98°.85W, h3km, MD3.7, Central Mexico**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AMVM | AMECAMECA | 0.07 | 73 | *i* P | Pg | 13 18 15.3 | -0.5 |
| AMVM | | | | *e*S | Sg | 13 18 16.8 | -0.1 |
| PPM | Popocatepetl | 0.22 | 102 | *i* P | Pg | 13 18 16.7 | -1.9 |
| PPM | | | | *i* S | Sg | 13 18 20.2 | -1.3 |
| YAIG | Yautepec | 0.32 | 219 | *e*P | Pg | 13 18 20.1 | -0.5 |
| YAIG | | | | *e*S | Sg | 13 18 25.0 | +0.2 |
| UNM | Universidad Na | 0.38 | 305 | *e*P | Pg | 13 18 21.9 | +0.2 |
| UNM | | | | *i* S | Sg | 13 18 26.7 | +0.2 |
| PBVM | Pinon | 0.39 | 326 | *e*P | Pg | 13 18 21.9 | 0.0 |
| PBVM | | | | *e*S | Sg | 13 18 27.7 | +0.7 |
| AZVM | Cuida Lopez Ma | 0.62 | 319 | *e*P | Pg | 13 18 25.6 | -0.7 |
| AZVM | | | | *e*S | Sg | 13 18 34.7 | +0.4 |
| MAVM | Malinalco, Edo | 0.63 | 256 | *e*P | Pg | 13 18 26.3 | -0.1 |
| MAVM | | | | *i* S | Sg | 13 18 34.7 | +0.2 |
| ZUVM | ZUMPANGO | 0.74 | 343 | *e*P | Pg | 13 18 27.6 | -0.9 |
| ZUVM | | | | *e*S | Sg | 13 18 38.2 | 0.0 |
| DEIG | Demacu | 1.20 | 352 | *e*P | Pg | 13 18 33.4 | -3.9 |
| DEIG | | | | *e*S | Sg | 13 18 50.4 | -2.4 |
| TPIG | Tehuac#an | 1.57 | 116 | *e*P | Pn | 13 18 41.6 | -1.7 |
| TPIG | | | | *i* P | Pb | 13 18 42.2 | -1.9 |
| TPIG | | | | *e*S | Sn | 13 19 00.8 | -3.4 |
| ARIG | Puente Sto Nin | 1.64 | 240 | *e*P | Pn | 13 18 43.5 | -0.6 |
| ARIG | | | | *e*S | Sn | 13 19 05.4 | -0.4 |

*IDC **10** 13:24:45.4±1.7, 30°.75N×57°.02E, h0km, mb3.6/3, mb1 3.6/4, mb1mx3.3/47, mbtmp3.6/4, ML2.6/1, Error ellipse: s-maj=36.7km s-min=32.8km az=125.0*
*ISCJB **10** 13:24:47.1±0.5, 30°.91N±0°.04×56°.89E±0°.05, h10km, mb3.9/2, Error ellipse: s-maj=6.5km s-min=5.7km az=40.1*
*CSEM **10** 13:24:48.4, 30°.95N×56°.93E, h3km, ML3.6*
*TEH **10** 13:24:48.4, 30°.95N×56°.93E, h3km, ML3.6*
**ISC 10 13:24:47.5**±0.8**, 30°.90N**±0°.06×**56°.93E**±0°.04**, h10km, n30, σ1ˢ19/32, Northern and central Iran**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KHGB | Koh Gabri | 0.65 | 217 | *e*Pg | Pg | 13 24 59.9 | -0.3 |
| KHGB | Koh Gabri | 0.65 | 217 | *e*Pg | Pg | 13 24 59.9 | -0.3 |
| TVBK | TV Kerman | 0.93 | 189 | *e*Pg | Pb | 13 25 06.6 | +0.7 |
| TVBK | TV Kerman | 0.93 | 189 | *e*Pg | Pb | 13 25 06.6 | +0.7 |
| CHMN | Cheshme madani | 1.17 | 153 | *e*Pg | Pb | 13 25 09.6 | -0.4 |
| CHMN | Cheshme madani | 1.17 | 153 | *e*Pg | Pb | 13 25 09.6 | -0.4 |
| NGRK | Negar Kerman | 1.27 | 188 | *e*Pg | Pg | 13 25 12.4 | +0.5 |
| NGRK | Negar Kerman | 1.27 | 188 | *e*Pg | Pg | 13 25 12.4 | +0.5 |
| IBAF | Bafgh | 1.35 | 301 | *e*Pg | Pn | 13 25 10.8 | -1.8 |
| IBAF | | | | *e*Sg | Sb | 13 25 30.1 | -0.4 |
| IBAF | | | | *e*AMB | AMB | 13 25 33.8 | |
| | comp=Z,10μm,0.2s | | | | | | |
| IBAF | Bafgh | 1.35 | 301 | *e*Pg | Pn | 13 25 10.8 | -1.8 |
| IBAF | | | | *e*Sg | Sb | 13 25 30.1 | -0.4 |
| IMEH | Mehriz | 2.04 | 284 | *e*Pn | Pn | 13 25 23.1 | +0.9 |
| IMEH | | | | *e*AMB | AMB | 13 25 54.5 | |
| | comp=Z,5μm,0.2s | | | | | | |
| IMEH | Mehriz | 2.04 | 284 | *e*Pn | Pn | 13 25 23.1 | +0.9 |
| IKOO | Kooshah | 2.33 | 49 | *e*Pn | Pn | 13 25 27.1 | +0.9 |
| IKOO | | | | *e*AMB | AMB | 13 26 02.6 | |
| | comp=Z,3μm,0.1s | | | | | | |
| IKOO | Kooshah | 2.33 | 49 | *e*Pn | Pn | 13 25 27.1 | +0.9 |
| ITEG | Tejag | 2.52 | 37 | *e*Pn | Pn | 13 25 28.4 | -0.3 |
| ITEG | | | | *e*AMB | AMB | 13 26 08.3 | |
| | comp=Z,2μm,0.2s | | | | | | |
| ITEG | Tejag | 2.52 | 37 | *e*Pn | Pn | 13 25 28.4 | -0.3 |
| ICHK | Chekchek | 2.53 | 303 | *e*Pn | Pn | 13 25 29.8 | +0.9 |
| ICHK | | | | *e*AMB | AMB | 13 26 12.0 | |
| | comp=Z,4μm,0.2s | | | | | | |
| ICHK | Chekchek | 2.53 | 303 | *e*Pn | Pn | 13 25 29.8 | +0.9 |
| ISAD | Sadrabad | 2.95 | 291 | *e*Pn | Pn | 13 25 36.0 | +1.3 |
| ISAD | | | | *e*AMB | AMB | 13 26 24.4 | |
| | comp=Z,2μm,0.3s | | | | | | |
| ISAD | Sadrabad | 2.95 | 291 | *e*Pn | Pn | 13 25 36.0 | +1.3 |
| IDAH | Dahanechah | 3.10 | 53 | *e*Pn | Pn | 13 25 38.4 | +1.6 |
| IDAH | | | | *e*AMB | AMB | 13 26 37.2 | |
| | comp=N,2μm,0.3s | | | | | | |
| IDAH | Dahanechah | 3.10 | 53 | *e*Pn | Pn | 13 25 38.4 | +1.6 |
| IMON | Monand | 3.26 | 45 | *e*Pn | Pn | 13 25 40.0 | +1.1 |
| IMON | | | | *e*AMB | AMB | 13 25 51.5 | |
| | comp=Z,1μm,0.1s | | | | | | |
| IMON | Monand | 3.26 | 45 | *e*Pn | Pn | 13 25 40.0 | +1.1 |
| IZEF | Zefreh | 4.39 | 298 | *e*Pn | Pn | 13 25 55.6 | +1.1 |
| IZEF | | | | *e*AMB | AMB | 13 27 08.2 | |
| | comp=Z,665nm,0.3s | | | | | | |
| IZEF | Zefreh | 4.39 | 298 | *e*Pn | Pn | 13 25 55.6 | +1.1 |
| WSAR | Wadi Sarin | 7.78 | 168 | Pn | Pn | 13 26 37.3 | -3.7 |
| | comp=Z,0.1nm,0.3s,baz=348,slow=9.3,SNR=3.7 | | | | | | |
| BRTR | Keskin Array B | 20.90 | 301 | P | P | 13 29 30.6 | +0.5 |
| | comp=Z,0.6nm,0.7s,baz=100,slow=12,SNR=4.0 | | | | | | |
| ZALV | Zalesovo Beam | 30.54 | 33 | P | P | 13 31 01.1 | +0.2 |
| | comp=Z,0.9nm,0.6s,baz=248,slow=7.6,SNR=4.1 | | | | | | |
| TORD | Torodi Ar. Bea | 53.63 | 264 | P | P | 13 34 09.4 | 0.0 |
| | comp=Z,1.4nm,0.7s,baz=58,slow=6.9,SNR=11 | | | | | | |

*ISCJB **10** 13:32:07.0±0.9, 6°.7S±0°.1×154°.35E±0°.09, h48km, mb3.7/7, MS3.0/3, Error ellipse: s-maj=16.4km s-min=11.8km az=157.4*
*IDC **10** 13:32:10.6±5.4, 6°.76S×154°.28E, h61km±45km, mb3.6/7, mb1 3.7/10, mb1mx3.6/28, mbtmp3.9/10, ML2.7/3, MS3.1/5, Ms1 3.1/5, ms1mx2.9/22, Error ellipse: s-maj=33.1km s-min=26.5km az=50.0*
**ISC 10 13:32:08.9**±1.0**, 6°.7S**±0°.1×**154°.4E**±0°.1**, h48km, n12, σ1ˢ30/13, mb3.7/7, MS3.0/3, Bougainville-Solomon Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| HNR | Honiara | 6.18 | 117 | LR | LR | 13 35 58.1 | |
| | comp=Z,132nm,19.9s,baz=267,slow=37 | | | | | | |
| PMG | Port Moresby | 7.64 | 249 | P | Pn | 13 33 56.9 | -0.7 |
| | 0.9nm,0.3s,baz=225,slow=14,SNR=5.3 | | | | | | |
| PMG | | | | S | Sn | 13 35 24.7 | +1.9 |
| | 1.0nm,0.3s,baz=69,slow=20,SNR=4.4 | | | | | | |
| PMG | | | | LR | LR | 13 36 39.3 | |
| | comp=Z,122nm,20.4s,baz=39,slow=36 | | | | | | |
| CTA | Charters Tower | 15.50 | 210 | P | Pn | 13 35 45.5 | +1.0 |
| | 0.1nm,0.3s,baz=25,slow=16,SNR=3.2 | | | | | | |
| DZM | Mont Dzumac | 19.27 | 144 | P | P | 13 36 30.6 | +0.8 |
| | 0.1nm,0.3s,baz=35,slow=16,SNR=3.6 | | | | | | |
| WRA | Warramunga Arr | 23.50 | 234 | P | P | 13 37 12.8 | -1.9 |
| | 1.9nm,0.9s,baz=52,slow=9.0,SNR=13 | | | | | | |
| WRA | | | | LR | LR | 13 44 50.1 | |
| | comp=Z,23nm,21.3s,baz=130,slow=32 | | | | | | |
| ASAR | Alice Springs | 25.93 | 227 | P | P | 13 37 35.4 | -1.6 |
| | 1.3nm,1.0s,baz=58,slow=8.8,SNR=7.7 | | | | | | |
| ASAR | | | | LR | LR | 13 46 13.4 | |
| | comp=Z,90nm,19.0s,baz=142,slow=33 | | | | | | |
| STKA | Stephens Creek | 27.78 | 204 | P | P | 13 37 53.1 | -0.3 |
| | 1.2nm,0.6s,baz=20,slow=17,SNR=2.6 | | | | | | |
| FITZ | Fitzroy Crossi | 30.22 | 245 | P | P | 13 38 14.6 | -0.7 |
| | 1.4nm,0.7s,baz=59,slow=12,SNR=3.6 | | | | | | |
| FITZ | | | | LR | LR | 13 50 05.0 | |
| | comp=Z,33nm,20.1s,baz=220,slow=36 | | | | | | |
| SONM | Songino Array | 68.71 | 328 | P | P | 13 43 08.4 | +0.7 |
| | 0.4nm,0.5s,baz=138,slow=5.4,SNR=2.9 | | | | | | |
| MKAR | Makanchi Array | 82.73 | 319 | P | P | 13 44 28.6 | +0.9 |
| | 1.5nm,0.9s,baz=96,slow=7.9,SNR=8.3 | | | | | | |
| ZALV | Zalesovo Beam | 83.54 | 326 | P | P | 13 44 30.6 | -1.1 |
| | 0.3nm,0.3s,baz=88,slow=4.8,SNR=2.9 | | | | | | |
| TORD | Torodi Ar. Bea | 152.32 | 286 | PKPbc | PKPbc | 13 52 00.4 | -0.3 |
| | 0.5nm,0.5s,baz=36,slow=2.6,SNR=4.2 | | | | | | |
| TORD | | | | PKPab | PKPab | 13 52 12.1 | +1.4 |
| | 0.9nm,0.6s,baz=67,slow=2.8,SNR=5.5 | | | | | | |

*ISCJB **10** 13:38:23.9±0.4, 39°.58N±0°.02×26°.98E±0°.03, h2km±4km, Error ellipse: s-maj=3.7km s-min=3.1km az=40.0*
*DDA **10** 13:38:23.8, 39°.59N×27°.00E, h11km, Md2.6*
*ISK **10** 13:38:23.5, 39°.56N×26°.99E, h9km, ML2.4*
*CSEM **10** 13:38:24.0±0.1, 39°.58N×26°.97E, h2km, MD2.6, Error ellipse: s-maj=3.5km s-min=2.9km az=54.0*
**ISC 10 13:38:24.1**±0.9**, 39°.59N**±0°.02×**27°.00E**±0°.02**, h12km±8km, n54, σ0ˢ55/78, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BAYC | CANAKKALE_Bayr | 0.38 | 294 | *i* P | Pg | 13 38 31.9 | +0.2 |
| BAYC | | | | *i* S | Sg | 13 38 37.1 | +0.3 |
| BAYC | CANAKKALE_Bayr | 0.38 | 294 | P | Pg | 13 38 31.9 | +0.2 |
| BAYC | | | | S | Sg | 13 38 37.1 | +0.3 |
| BALY | Balya | 0.51 | 72 | *i* P | Pg | 13 38 34.4 | +0.4 |
| BALY | | | | *i* S | Sb | 13 38 41.6 | -0.7 |
| BALY | Balya | 0.51 | 72 | P | Pg | 13 38 34.4 | +0.4 |
| BALY | | | | S | Sb | 13 38 41.6 | -0.7 |
| DKL | Dikili | 0.52 | 188 | *e*PG | Pg | 13 38 33.6 | -0.6 |
| DKL | | | | *e*SG | Sg | 13 38 41.0 | -0.1 |
| DKL | Dikili | 0.52 | 188 | *e*Pg | Pg | 13 38 33.6 | -0.6 |
| DKL | | | | *e*Sg | Sg | 13 38 41.0 | -0.1 |
| EZN | Ezine | 0.57 | 295 | *e*PG | Pg | 13 38 35.3 | +0.1 |
| EZN | | | | *e*SG | Sb | 13 38 43.5 | -0.6 |
| EZN | Ezine | 0.57 | 295 | *e*Pg | Pg | 13 38 35.3 | +0.1 |
| EZN | | | | *e*Sg | Sb | 13 38 43.5 | -0.6 |
| STEP | BALIKESIR_Sava | 0.60 | 110 | *i* P | Pg | 13 38 35.8 | +0.1 |
| STEP | | | | *i* S | Sg | 13 38 44.1 | +0.5 |
| STEP | BALIKESIR_Sava | 0.60 | 110 | P | Pg | 13 38 35.8 | +0.1 |
| STEP | | | | S | Sg | 13 38 44.1 | +0.5 |
| GONE | Gonen-Balikesi | 0.70 | 49 | *e*PG | Pg | 13 38 37.9 | +0.2 |
| GONE | Gonen-Balikesi | 0.70 | 49 | *e*Pg | Pg | 13 38 37.9 | +0.2 |
| BOZC | Bozcaada | 0.77 | 290 | *e*PG | Pg | 13 38 38.9 | -0.1 |
| BOZC | Bozcaada | 0.77 | 290 | *i* P | Pb | 13 38 39.4 | -0.1 |
| BOZC | | | | *i* S | Sb | 13 38 49.5 | -0.4 |
| BOZC | Bozcaada | 0.77 | 290 | *e*Pg | Pg | 13 38 38.9 | -0.1 |
| KNL | Bal˜–kesir | 0.80 | 31 | *i* P | Pb | 13 38 39.7 | -0.1 |
| KNL | | | | *i* S | Sn | 13 38 52.2 | -0.7 |
| LPK | Lapseki | 0.81 | 347 | *e*PG | Pg | 13 38 39.5 | -0.2 |
| LPK | Lapseki | 0.81 | 347 | *e*Pg | Pg | 13 38 39.5 | -0.2 |
| KRBG | Karabiga-Canak | 0.84 | 16 | *e*PG | Pb | 13 38 40.4 | -0.2 |
| KRBG | Karabiga-Canak | 0.84 | 16 | *e*Pg | Pb | 13 38 40.4 | -0.2 |
| GELI | Tayfur-Gelibol | 0.90 | 334 | *e*PG | Pb | 13 38 41.8 | +0.1 |
| GELI | Tayfur-Gelibol | 0.90 | 334 | *e*Pg | Pb | 13 38 41.8 | +0.1 |
| AKHS | Akhisar | 0.95 | 138 | *i* P | Pb | 13 38 42.4 | -0.1 |
| AKHS | Akhisar | 0.95 | 138 | P | Pb | 13 38 42.4 | -0.1 |
| SIGR | SIGRI | 0.96 | 247 | *e*PG | Pg | 13 38 41.8 | -0.8 |
| SIGR | SIGRI | 0.96 | 247 | *e*Pg | Pg | 13 38 41.8 | -0.8 |
| EDC | Edincik | 1.01 | 41 | *e*PG | Pb | 13 38 43.7 | +0.2 |
| EDC | Edincik | 1.01 | 41 | *e*Pg | Pb | 13 38 43.7 | +0.2 |
| GADA | Gvkgeada | 1.04 | 306 | *e*PG | Pb | 13 38 44.1 | +0.1 |
| GADA | Gvkgeada | 1.04 | 306 | *e*Pg | Pb | 13 38 44.1 | +0.1 |
| RKY | Sarkoy-Tekirda | 1.11 | 7 | *e*PN | Pn | 13 38 46.0 | +0.5 |
| RKY | Sarkoy-Tekirda | 1.11 | 7 | *e*Pn | Pn | 13 38 46.0 | +0.5 |
| SART | Tekirdag | 1.11 | 7 | *i* P | Pg | 13 38 44.0 | -1.5 |
| SART | | | | *i* S | Sg | 13 38 59.7 | -0.2 |
| SART | Tekirdag | 1.11 | 7 | P | Pg | 13 38 44.0 | -1.5 |
| SART | | | | S | Sg | 13 38 59.7 | -0.2 |
| ERIK | Erikli-Kesan | 1.14 | 341 | *e*PN | Pn | 13 38 46.4 | +0.5 |
| ERIK | Erikli-Kesan | 1.14 | 341 | *e*Pn | Pn | 13 38 46.4 | +0.5 |
| KESN | Edirne-Kesan | 1.26 | 349 | *i* P | Pg | 13 38 48.5 | +0.1 |
| KESN | | | | *i* S | Sg | 13 39 04.8 | 0.0 |
| KESN | Edirne-Kesan | 1.26 | 349 | P | Pg | 13 38 48.5 | +0.1 |
| KESN | | | | S | Sg | 13 39 04.8 | 0.0 |
| URLA | Izmir | 1.26 | 194 | *e*PN | Pn | 13 38 47.0 | -0.6 |
| URLA | Izmir | 1.26 | 194 | *i* P | Pn | 13 38 47.4 | -0.2 |
| URLA | | | | *i* S | Sn | 13 39 06.1 | +1.6 |
| URLA | Izmir | 1.26 | 194 | *e*Pn | Pn | 13 38 47.0 | -0.6 |
| URLA | Izmir | 1.26 | 194 | P | Pn | 13 38 47.4 | -0.2 |
| URLA | | | | S | Sn | 13 39 06.1 | +1.6 |
| ENEZ | Enez | 1.32 | 331 | *e*PN | Pg | 13 38 49.1 | -0.2 |
| ENEZ | Enez | 1.32 | 331 | *e*Pn | Pg | 13 38 49.2 | -0.2 |
| CHOS | Chios island | 1.41 | 212 | *e*PN | Pn | 13 38 49.5 | -0.1 |
| CHOS | Chios island | 1.41 | 212 | *e*Pn | Pn | 13 38 49.5 | -0.1 |
| DEMI | Demirci | 1.44 | 112 | *i* P | Pn | 13 38 50.5 | +0.4 |
| DEMI | | | | *i* S | Sn | 13 39 09.2 | +0.2 |
| DEMI | Demirci | 1.44 | 112 | P | Pn | 13 38 50.5 | +0.4 |
| DEMI | | | | S | Sn | 13 39 09.2 | +0.2 |
| ALN | Alexandroupoli | 1.50 | 331 | *e*PN | Pb | 13 38 51.9 | +0.1 |
| ALN | Alexandroupoli | 1.50 | 331 | *e*Pn | Pb | 13 38 51.9 | +0.1 |
| MANT | Manisa | 1.64 | 131 | *i* P | Pg | 13 38 55.9 | +0.3 |
| MANT | | | | *i* S | Sb | 13 39 15.6 | +0.6 |
| MANT | Manisa | 1.64 | 131 | P | Pg | 13 38 55.8 | +0.3 |
| MANT | | | | S | Sb | 13 39 15.6 | +0.6 |
| GDZ | Gediz | 1.99 | 104 | *i* P | Pg | 13 39 01.6 | -0.7 |
| GDZ | | | | *i* S | Sg | 13 39 26.9 | -1.2 |
| GDZ | Gediz | 1.99 | 104 | P | Pg | 13 39 01.5 | -0.7 |
| GDZ | | | | S | Sg | 13 39 26.9 | -1.2 |

*ATA **10** 13:40:02.7±0.8, 39°.01N×43°.69E, h0km±5km, ML4.1, MW4.5*
*DDA **10** 13:40:03.7, 38°.99N×43°.75E, h2km, Ml3.4*
*AZER **10** 13:40:03.1±1.9, 38°.95N×43°.53E, h7km, Error ellipse: s-maj=18.3km s-min=10.3km az=124.0*
*ISK **10** 13:40:04.8, 38°.98N×43°.85E, h4km, ML3.5*
*CSEM **10** 13:40:05.1±0.1, 38°.99N×43°.81E, h2km, ML3.4, Error ellipse: s-maj=4.1km s-min=3.3km az=128.0*
**ISC 10 13:40:05.2**±1.0**, 39°.01N**±0°.02×**43°.73E**±0°.02**, h5km±9km, n91, σ1ˢ47/118, 4C-6D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.12 | 261 | *i* P | Pg | 13 40 06.3 | -1.5 |
| VMUR | | | | *i* S | Sg | 13 40 11.8 | +2.3 |
| CLDR | Caldiran | 0.20 | 48 | *e*PG | Pg | 13 40 09.0 | -0.3 |
| CLDR | | | | *e*SG | Sg | 13 40 11.8 | -0.1 |
| CLDR | Caldiran | 0.20 | 48 | *i* P | Pg | 13 40 07.8 | -1.5 |
| CLDR | Caldiran | 0.20 | 48 | P | Pg | 13 40 07.8 | -1.5 |
| CLDR | Caldiran | 0.20 | 48 | *e*Pg | Pg | 13 40 09.0 | -0.3 |
| CLDR | | | | *e*Sg | Sg | 13 40 11.8 | -0.1 |
| ERCV | ERCIS-VAN | 0.30 | 272 | *e*PG | Pb | 13 40 13.0 | -0.3 |

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ERCV | ERCIS-VAN | 0.30 | 272 | ePg | Pb | 13 40 13.0 | -0.3 |
| VANB | Van | 0.49 | 213 | ePG | Pb | 13 40 16.1 | -0.4 |
| VANB | | | | eSG | Sb | 13 40 25.0 | +1.0 |
| VANB | Van | 0.49 | 213 | ePg | Pb | 13 40 16.1 | -0.4 |
| VANB | | | | eSg | Sb | 13 40 25.0 | +1.0 |
| DYDN | Diyadin | 0.54 | 357 | i P | Pg | 13 40 14.1 | -1.5 |
| DYDN | | | | i S | Sg | 13 40 23.3 | +0.7 |
| DYDN | Diyadin | 0.54 | 357 | P | Pg | 13 40 14.1 | -1.5 |
| DYDN | | | | S | Sg | 13 40 23.3 | +0.7 |
| AGRB | Hanur-Agry | 0.80 | 315 | ePG | Pn | 13 40 22.5 | -1.0 |
| AGRB | Hanur-Agry | 0.80 | 315 | ePg | Pn | 13 40 22.5 | -1.0 |
| ADCV | BITLIS_Adilcev | 0.81 | 256 | i P | Pg | 13 40 20.0 | -0.7 |
| ADCV | | | | i S | Sb | 13 40 32.3 | -0.9 |
| ADCV | BITLIS_Adilcev | 0.81 | 256 | P | Pg | 13 40 20.0 | -0.7 |
| ADCV | | | | S | Sb | 13 40 32.3 | -0.9 |
| TUTA | Tutak | 0.81 | 299 | eP | Pg | 13 40 19.2 | -1.6 |
| TUTA | | | | | IAML | 13 40 35.1 | |
| | comp=Z,476nm,0.5s | | | | | | |
| TUTA | Tutak | 0.81 | 299 | i P | Pg | 13 40 19.6 | -1.3 |
| TUTA | | | | i S | Sb | 13 40 32.3 | -1.0 |
| GEVA | Gevas | 0.87 | 217 | eP | Pg | 13 40 19.7 | -2.2 |
| GEVA | | | | | IAML | 13 40 48.6 | |
| | comp=Z,282nm,0.7s | | | | | | |
| GEVA | Gevas | 0.87 | 217 | i P | Pg | 13 40 20.4 | -1.6 |
| BASK | Baskale_VAN | 0.98 | 167 | eP | Pg | 13 40 23.1 | -0.9 |
| BASK | | | | | IAML | 13 40 51.2 | |
| | comp=Z,154nm,0.5s | | | | | | |
| BASK | Baskale_VAN | 0.98 | 167 | i P | Pg | 13 40 23.1 | -0.9 |
| BASK | Baskale_VAN | 0.98 | 167 | P | Pg | 13 40 23.1 | -0.9 |
| TASB | TASBURUN-IGDIR | 1.05 | 22 | ePG | Pb | 13 40 25.5 | -0.5 |
| TASB | TASBURUN-IGDIR | 1.05 | 22 | ePg | Pb | 13 40 25.5 | -0.5 |
| HYR | Heyderabad | 1.12 | 51 | ⇑P | Pn | 13 40 26.9 | -0.9 |
| HYR | | | | ⇑S | Sn | 13 40 45.4 | +1.7 |
| HYR | Heyderabad | 1.12 | 51 | P | Pn | 13 40 26.9 | -0.9 |
| EATA | Eleskirt | 1.28 | 312 | eP | Pn | 13 40 28.0 | -2.2 |
| EATA | Eleskirt | 1.28 | 312 | i P | Pn | 13 40 28.3 | -1.8 |
| EATA | | | | i S | Sn | 13 40 47.4 | -0.5 |
| EATA | | | | i S | Sg | 13 40 51.2 | +4.7 |
| EKAR | Karacoban | 1.32 | 281 | eP | Pn | 13 40 29.0 | -1.6 |
| EKAR | | | | | IAML | 13 41 16.1 | |
| | comp=Z,135nm,0.7s | | | | | | |
| EKAR | Karacoban | 1.32 | 281 | i P | Pg | 13 40 30.9 | +0.4 |
| EKAR | Karacoban | 1.32 | 281 | P | Pg | 13 40 30.9 | +0.4 |
| NAX | Nakhchivan | 1.39 | 83 | ⇓P | Pb | 13 40 31.0 | -0.7 |
| NAX | | | | ⇑S | Sg | 13 40 52.7 | +2.9 |
| NAX | Nakhchivan | 1.39 | 83 | P | Pb | 13 40 31.0 | -0.7 |
| NAX | | | | S | Sg | 13 40 52.7 | +2.9 |
| DIGO | Kars | 1.43 | 349 | eP | Pn | 13 40 30.5 | -1.6 |
| DIGO | | | | | IAML | 13 40 38.8 | |
| | comp=Z,109nm,0.7s | | | | | | |
| DIGO | | | | eS | Sg | 13 40 53.3 | +2.0 |
| DIGO | Kars | 1.43 | 349 | i P | Pg | 13 40 32.6 | -0.1 |
| DIGO | Kars | 1.43 | 349 | P | Pg | 13 40 32.6 | -0.1 |
| HAKT | HAKKARI | 1.45 | 181 | i P | Pn | 13 40 30.8 | -1.6 |
| HAKT | | | | i S | Sg | 13 40 56.7 | +4.9 |
| HAKT | HAKKARI | 1.45 | 181 | P | Pn | 13 40 30.8 | -1.6 |
| SBZ | Shahbuz | 1.47 | 74 | ⇓P | Pn | 13 40 31.1 | -1.5 |
| SBZ | | | | ⇓S | Sg | 13 40 55.2 | +2.7 |
| SBZ | Shahbuz | 1.47 | 74 | P | Pn | 13 40 31.1 | -1.5 |
| SBZ | | | | S | Sg | 13 40 55.2 | +2.7 |
| YOVA | Hakkari_Yˆ…kse | 1.49 | 162 | i P | Pn | 13 40 31.2 | -1.7 |
| YOVA | | | | i S | Sg | 13 40 56.0 | +2.9 |
| YOVA | Hakkari_Yˆ…kse | 1.49 | 162 | P | Pn | 13 40 31.2 | -1.7 |
| EAK | Akyaka | 1.68 | 357 | eP | Pb | 13 40 35.8 | -0.9 |
| EAK | | | | | IAML | 13 40 48.4 | |
| | comp=Z,131nm,0.7s | | | | | | |
| EAK | | | | eS | Sg | 13 41 02.4 | +3.2 |
| EAK | Akyaka | 1.68 | 357 | i P | Pg | 13 40 36.8 | -0.6 |
| EAK | Akyaka | 1.68 | 357 | P | Pg | 13 40 36.8 | -0.6 |
| KARS | Kars | 1.69 | 343 | ePN | Pb | 13 40 36.4 | -0.6 |
| KARS | Kars | 1.69 | 343 | ePn | Pb | 13 40 36.4 | -0.6 |
| SRTM | Siirt_Merkez | 1.74 | 235 | i P | Pb | 13 40 36.5 | -1.3 |
| SRTM | Siirt_Merkez | 1.74 | 235 | P | Pb | 13 40 36.5 | -1.3 |
| HOMI | Horasan | 1.75 | 307 | eP | Pn | 13 40 36.0 | -0.5 |
| HOMI | | | | | IAML | 13 40 44.4 | |
| | comp=Z,85nm,0.4s | | | | | | |
| CUKT | Cukurca | 1.76 | 183 | ePN | Pb | 13 40 36.8 | -1.3 |
| CUKT | Cukurca | 1.76 | 183 | i P | Pb | 13 40 37.3 | -0.8 |
| CUKT | | | | i S | Sg | 13 41 05.0 | +3.2 |
| CUKT | Cukurca | 1.76 | 183 | ePn | Pb | 13 40 36.8 | -1.3 |
| CUKT | Cukurca | 1.76 | 183 | P | Pb | 13 40 37.3 | -0.8 |
| ORD | Ordubad | 1.77 | 92 | P | Pn | 13 40 35.9 | -0.7 |
| ORD | | | | S | Sg | 13 41 02.2 | +0.1 |
| VRTB | Varto-Mus | 1.77 | 276 | ePN | Pb | 13 40 38.4 | +0.1 |
| VRTB | Varto-Mus | 1.77 | 276 | i P | Pb | 13 40 38.4 | +0.1 |
| VRTB | | | | i S | Sg | 13 41 04.8 | +2.5 |
| VRTB | Varto-Mus | 1.77 | 276 | P | Pb | 13 40 38.4 | +0.1 |
| SIRT | Sirnak | 1.81 | 214 | ePN | Pb | 13 40 38.2 | -0.8 |
| SIRT | Sirnak | 1.81 | 214 | ePn | Pb | 13 40 38.2 | -0.8 |
| SIRN | S˜–rnak | 1.83 | 215 | i P | Pg | 13 40 39.4 | -0.9 |
| SIRN | S˜–rnak | 1.83 | 215 | P | Pg | 13 40 39.4 | -0.9 |
| SENK | Senkaya-Erzuru | 1.88 | 326 | ePN | Pg | 13 40 40.5 | -0.8 |
| SENK | Senkaya-Erzuru | 1.88 | 326 | ePn | Pg | 13 40 40.5 | -0.8 |
| BNGL | BINGOL | 2.01 | 269 | eP | Pb | 13 40 41.0 | -1.4 |
| BNGL | | | | eS | Sg | 13 41 10.8 | +1.0 |
| BNGL | | | | | IAML | 13 41 16.4 | |
| | comp=Z,226nm,0.6s | | | | | | |
| BNGL | BINGOL | 2.01 | 269 | i P | Pb | 13 40 42.4 | 0.0 |
| ERZM | Erzurum | 2.04 | 297 | eP | Pb | 13 40 41.9 | -1.0 |
| ERZM | Erzurum | 2.04 | 297 | i P | Pb | 13 40 42.7 | -0.2 |
| ERZM | Erzurum | 2.04 | 297 | P | Pb | 13 40 42.7 | -0.2 |
| ECAT | Cat-ERZURUM | 2.22 | 286 | i P | Pb | 13 40 45.1 | -0.8 |
| ECAT | Cat-ERZURUM | 2.22 | 286 | P | Pb | 13 40 45.1 | -0.8 |
| BTMN | Batman | 2.23 | 241 | i P | Pb | 13 40 44.1 | -1.9 |
| BTMN | Batman | 2.23 | 241 | P | Pb | 13 40 44.1 | -1.9 |
| BGD | Bogdanovka | 2.25 | 358 | P | Pb | 13 40 44.8 | -1.8 |
| GDB | GEDABAY | 2.31 | 42 | ⇓P | Pn | 13 40 44.2 | 0.0 |
| | SNR=12 | | | | | | |
| GDB | GEDABAY | 2.31 | 42 | P | Pn | 13 40 44.2 | 0.0 |
| | SNR=12 | | | | | | |
| BNGB | Bingˆ¶l | 2.38 | 271 | ePN | Pb | 13 40 47.4 | -1.2 |
| AKH | Akhalkalaki | 2.41 | 356 | P | Pb | 13 40 49.0 | -0.2 |
| QZX | Qazax, Azerbai | 2.41 | 31 | ⇑P | Pn | 13 40 45.1 | -0.2 |
| | SNR=8.8 | | | | | | |
| QZX | | | | ⇓S | Sb | 13 41 18.3 | -0.8 |
| QZX | Qazax, Azerbai | 2.41 | 31 | P | Pn | 13 40 45.1 | -0.2 |
| | SNR=8.8 | | | | | | |
| QZX | | | | S | Sb | 13 41 18.3 | -0.8 |
| DAGI | Agillar | 2.49 | 327 | i P | Pg | 13 40 52.5 | -0.5 |
| BINT | Bingol | 2.53 | 268 | ePn | Pn | 13 40 47.4 | +0.3 |
| GANJ | Ganja | 2.58 | 50 | ⇓P | Pn | 13 40 48.4 | +0.6 |
| | SNR=6.6 | | | | | | |
| GANJ | Ganja | 2.58 | 50 | P | Pn | 13 40 48.4 | +0.6 |
| | SNR=6.6 | | | | | | |
| KOPT | Kop Dagi | 2.69 | 293 | i P | Pg | 13 40 56.0 | -0.9 |
| TBLG | Delisi | 2.83 | 16 | P | Pb | 13 40 56.6 | +0.4 |
| TBLG | Delisi | 2.83 | 16 | P | Pb | 13 40 56.6 | +0.4 |
| DYBB | Diyarbakir | 3.01 | 251 | ePN | Pb | 13 40 55.8 | -3.5 |
| MAZI | Mazidag | 3.01 | 240 | ePN | Pn | 13 40 55.4 | +1.6 |
| MAZI | Mazidag | 3.01 | 240 | ePn | Pn | 13 40 55.4 | +1.6 |
| ONI | Oni | 3.58 | 357 | P | Pb | 13 41 10.3 | +1.2 |

**MAN 10 14:02:02, 12°.71N×124°.86E, h41km, mb4.2, ML3.0, MS2.8, 1D, Samar**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CNP | Catarman | 0.28 | 223 | eP | Pn | 14 02 12.2 | +2.1 |
| CNP | | | | eS | Sn | 14 02 19.2 | +3.5 |
| PVCP | Virac | 1.11 | 322 | eP | Pn | 14 02 26.1 | +5.0 |
| BESP | Borongan | 1.24 | 153 | eP | Pn | 14 02 23.9 | +1.0 |
| BESP | | | | eS | Sn | 14 02 39.9 | +1.4 |
| PLP | Palo | 1.54 | 175 | ⇓eP | Pn | 14 02 27.9 | +0.9 |
| PLP | | | | i S | Sn | 14 02 47.5 | +1.6 |

*IDC **10** 14:07:55.4±1.9, 16°.69N×85°.92W, h0km, mb3.8/8, mb1 4.2/11, mb1mx3.9/44, mbtmp4.0/11, ML3.8/3, MS3.5/4, Ms1 3.5/4, ms1mx3.0/36, Error ellipse: s-maj=42.4km s-min=21.5km az=8.0*
*NEIC **10** 14:07:57.0±0.8, 16°.92N×85°.81W, h10km, mb4.5/10, Error ellipse: s-maj=12.7km s-min=10.0km az=194.0*
*ISCJB **10** 14:08:00.3±1.0, 17°.13N±0°.09×86°.07W±0°.06, h29km, mb4.0/10, MS3.5/2, Error ellipse: s-maj=13.0km s-min=7.0km az=163.2*
*MEX **10** 14:08:02.7±0.4, 16°.87N×86°.18W, h34km±999km, MD4.8*
**ISC 10 14:08:00.0**±0.8**, 17°.00N**±0°.07×**85°.99W**±0°.07**, h29**km**, n32, σ2s.57**/37**, mb4.2**/11**, North of Honduras**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TEIG | Tepich | 3.87 | 326 | ePn | Pn | 14 09 00.0 | +2.4 |
| MYIG | MØrida | 5.30 | 319 | eP | Pn | 14 09 18.5 | +1.3 |
| MYIG | | | | eS | Sn | 14 10 15.9 | -1.5 |
| SCIG | Sabancuy | 5.32 | 292 | eP | Pn | 14 09 17.4 | -0.2 |
| SCIG | | | | eS | Sn | 14 10 15.0 | -2.9 |
| SCIG | Sabancuy | 5.32 | 292 | eP | Pn | 14 09 17.4 | -0.2 |
| SCIG | | | | eS | Sn | 14 10 15.0 | -2.9 |
| CCIG | Comitan | 5.94 | 264 | eP | Pn | 14 09 25.8 | -0.5 |
| CCIG | | | | i S | Sn | 14 10 29.4 | -4.0 |
| CCIG | Comitan | 5.94 | 264 | eP | Pn | 14 09 27.0 | +0.7 |
| CCIG | | | | i S | Sn | 14 10 33.8 | +0.4 |
| CMIG | Matias Romero | 8.51 | 272 | Pn | Pn | 14 09 60.0 | -1.5 |
| | 1.1nm,0.3s,baz=113,slow=6.7,SNR=6.3 | | | | | | |
| CMIG | | | | Sn | Sn | 14 11 39.2 | +2.7 |
| | 0.9nm,0.3s,baz=284,slow=16,SNR=3.8 | | | | | | |
| CMIG | | | | LR | LR | 14 13 47.2 | |
| | comp=Z,199nm,18.1s,baz=127,slow=41 | | | | | | |
| TIGA | Tifton | 14.54 | 8 | ePn | Pn | 14 11 21.5 | -2.3 |
| | 31nm,0.4s | | | | | | |
| LRAL | Lakeview Retre | 15.99 | 357 | ePn | Pn | 14 11 42.2 | -0.7 |
| | 21nm,0.3s | | | | | | |
| GOGA | Godfrey | 16.50 | 7 | ePn | Pn | 14 11 48.4 | -0.9 |
| | 8.4nm,0.4s | | | | | | |
| SDV | Santo Domingo | 16.99 | 116 | Pn | Pn | 14 11 52.7 | -3.2 |
| | 0.8nm,0.3s,baz=302,slow=13,SNR=3.8 | | | | | | |
| SDV | Santo Domingo | 16.99 | 116 | ePn | Pn | 14 11 51.5 | -4.4 |
| | 4.0nm,0.6s | | | | | | |
| WHTX | Lake Whitney, | 18.19 | 327 | Pn | Pn | 14 12 11.3 | +0.9 |
| | 39nm,0.5s | | | | | | |
| JCT | Junction City | 18.41 | 319 | eP | Pn | 14 12 16.1 | +2.8 |
| | 15nm,0.5s | | | | | | |
| KMSC | Kings Mountain | 18.54 | 12 | eP | Pn | 14 12 14.9 | +0.2 |
| | 12nm,0.5s | | | | | | |
| TKL | Tuckaleechee C | 18.68 | 6 | P | Pn | 14 12 19.5 | +3.0 |
| | 1.4nm,0.3s,baz=196,slow=9.3,SNR=7.1 | | | | | | |
| TKL | | | | S | Sn | 14 15 36.5 | -8.2 |
| | 1.3nm,0.3s,baz=240,slow=3.2,SNR=6.1 | | | | | | |
| SJG | San Juan | 18.95 | 84 | LR | LR | 14 19 27.4 | |
| | comp=Z,91nm,18.3s,baz=203,slow=37 | | | | | | |
| ABTX | Abilene, Hawle | 19.86 | 324 | eP | P | 14 12 29.5 | +0.7 |
| | 18nm,0.4s | | | | | | |
| TXAR | Lajitas Array | 20.33 | 310 | P | Pn | 14 12 37.3 | +1.0 |
| | 8.0nm,0.7s,baz=133,slow=10,SNR=67 | | | | | | |
| TXAR | | | | S | S | 14 16 15.8 | -5.0 |
| | 1.9nm,0.8s,baz=104,slow=18,SNR=7.0 | | | | | | |
| WMOK | Wichita Mounta | 21.05 | 329 | eP | P | 14 12 43.6 | +1.8 |
| | 7.5nm,0.8s | | | | | | |
| WCI | Wyandotte Cave | 21.15 | 359 | eP | P | 14 12 43.1 | +0.3 |
| | 118nm,1.2s | | | | | | |
| AMTX | Amarillo | 22.67 | 325 | eP | P | 14 13 00.4 | +1.2 |
| | 10nm,0.4s | | | | | | |
| MNTX | Cornudas Mount | 22.89 | 313 | P | P | 14 13 00.8 | -0.7 |
| | 18nm,1.4s | | | | | | |
| ANMO | Albuquerque | 25.56 | 318 | P | P | 14 13 29.4 | +2.6 |
| | 2.6nm,1.0s,baz=330,slow=11,SNR=6.8 | | | | | | |
| PFO | Pinyon Flats O | 31.97 | 307 | P | P | 14 14 25.5 | +1.7 |
| | 2.7nm,0.9s,baz=102,slow=9.7,SNR=3.9 | | | | | | |
| PDAR | Pinedale Array | 32.60 | 327 | P | P | 14 14 31.1 | +1.8 |
| | 0.2nm,0.5s,baz=150,slow=9.4,SNR=2.8 | | | | | | |
| PDAR | | | | LR | LR | 14 29 29.7 | |
| | comp=Z,95nm,18.8s,baz=51,slow=39 | | | | | | |
| SCHQ | Schefferville | 40.54 | 17 | P | P | 14 15 37.6 | +1.1 |
| | 8.0nm,0.9s,baz=223,slow=7.9,SNR=4.5 | | | | | | |
| YKA | Yellowknife Ar | 49.66 | 343 | P | P | 14 16 50.1 | +1.3 |
| | 0.4nm,0.7s,baz=136,slow=8.0,SNR=6.1 | | | | | | |
| RCBR | Riachuelo | 54.44 | 110 | LR | LR | 14 44 29.8 | |
| | comp=Z,46nm,18.1s,baz=314,slow=40 | | | | | | |
| ILAR | Eielson Array | 62.48 | 335 | P | P | 14 18 22.4 | +1.9 |
| | 0.2nm,0.5s,baz=111,slow=4.6,SNR=6.4 | | | | | | |
| ESDC | Sonseca Array | 73.31 | 53 | P | P | 14 19 30.2 | +1.0 |
| | 0.6nm,0.7s,baz=282,slow=6.7,SNR=3.6 | | | | | | |
| ASAR | Alice Springs | 142.10 | 253 | PKP | PKPdf | 14 27 30.5 | +0.3 |
| | 0.2nm,0.5s,baz=118,slow=2.8,SNR=3.4 | | | | | | |

*IDC **10** 14:14:59.6±0.8, 39°.89N×142°.35E, h0km, mb3.7/14, mb1 3.8/15, mb1mx3.7/46, mbtmp3.7/15, ML3.6/1, MS3.2/5, Ms1 3.3/5, ms1mx3.0/43, Error ellipse: s-maj=20.4km s-min=16.7km az=99.0*
*NIED **10** 14:15:00, 40°.00N×142°.40E, h44km, Mw3.9 Best double couple: M0 8.40000×10^14 NP1:φs210.00000°, δ4.00000°, λ94.00000°. NP2:φs26.00000°, δ86.00000°, λ90.00000°.*
*ISCJB **10** 14:15:05.3±0.8, 40°.03N±0°.04×142°.40E±0°.09, h50km±6km, mb3.6/15, MS3.6/3, Error ellipse: s-maj=11.0km s-min=6.4km az=176.8*
*JMA **10** 14:15:05.3±0.1, 40°.03N×142°.43E, h38km±1km, M3.9*
*JMA Felt II J1.*
**ISC 10 14:15:06.4**±1.2**, 40°.01N**±0°.04×**142°.33E**±0°.08**, h43**km±11km**, n38, σ1s.74**/40**, mb3.7**/15**, MS3.4**/3**, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JTH | Tanohata | 0.36 | 258 | P | Pn | 14 15 15.3 | -0.3 |
| JTH | | | | S | Sn | 14 15 22.4 | +0.4 |
| MIYJ | Miyakonagasawa | 0.58 | 222 | P | Pn | 14 15 17.7 | -0.7 |
| MIYJ | | | | S | Sn | 14 15 26.5 | -0.4 |
| JANG | Nango | 0.72 | 300 | P | Pn | 14 15 19.5 | -0.7 |
| JANG | | | | eS | Sn | 14 15 29.3 | -0.8 |
| JKZ | Kuzumaki | 0.77 | 268 | P | Pn | 14 15 21.1 | +0.3 |
| JKZ | | | | eS | Sn | 14 15 32.1 | +0.8 |
| JOM | Ohasama | 0.96 | 236 | P | Pn | 14 15 23.7 | +0.2 |
| JOM | | | | S | Sn | 14 15 37.0 | +1.0 |
| OFUJ | Ofunato | 1.06 | 209 | P | Pn | 14 15 24.6 | -0.2 |
| OFUJ | | | | eS | Sn | 14 15 38.9 | +0.5 |
| JTM | Tenmabayashi | 1.23 | 309 | P | Pn | 14 15 27.4 | +0.2 |
| JTM | | | | eS | Sn | 14 15 43.5 | +0.9 |
| JAH | Hinai | 1.31 | 278 | P | Pn | 14 15 29.0 | +0.8 |
| JAH | | | | eS | Sn | 14 15 45.9 | +1.4 |
| JMK | Ichinoseki | 1.36 | 219 | P | Pn | 14 15 29.3 | +0.4 |
| JMK | | | | eS | Sn | 14 15 48.1 | +2.3 |
| JRG | Rokugo | 1.44 | 245 | P | Pn | 14 15 31.4 | +1.4 |
| ASAJ | Asahikawa | 4.11 | 3 | Pn | Pn | 14 16 07.2 | +0.6 |
| | 3.0nm,0.3s,baz=210,slow=16,SNR=22 | | | | | | |
| ASAJ | | | | Sn | Sn | 14 16 58.5 | +5.2 |
| | 5.4nm,0.3s,baz=311,slow=20,SNR=2.7 | | | | | | |
| MAT | Matsushiro | 4.74 | 224 | P | Pn | 14 16 18.4 | +3.0 |
| MAT | | | | eS | Sn | 14 17 15.5 | +6.4 |
| MJAR | Matsushiro Arr | 4.74 | 224 | Pn | Pn | 14 16 18.3 | +2.9 |
| | 1.7nm,0.3s,baz=33,slow=13,SNR=16 | | | | | | |
| MJAR | | | | LR | LR | 14 18 16.2 | |
| | comp=Z,82nm,20.5s,baz=340,slow=42 | | | | | | |
| USRK | Ussuriysk Ar. | 8.75 | 302 | Pn | Pn | 14 17 12.1 | +1.8 |
| | 0.6nm,0.3s,baz=110,slow=12,SNR=8.1 | | | | | | |
| KSRS | Korea Array | 11.54 | 262 | Pn | Pn | 14 17 54.4 | +5.9 |
| | 0.2nm,0.3s,baz=71,slow=14,SNR=4.0 | | | | | | |
| KSRS | | | | LR | LR | 14 22 06.1 | |
| | comp=Z,49nm,20.4s,baz=55,slow=37 | | | | | | |
| YAK | Yakutsk | 23.35 | 345 | P | P | 14 20 10.5 | -0.1 |
| | 0.1nm,0.3s,baz=304,slow=11,SNR=1.5 | | | | | | |
| SEY | Seymchan | 23.73 | 11 | P | P | 14 20 13.4 | -0.9 |
| | 0.6nm,0.4s,baz=163,slow=19,SNR=3.4 | | | | | | |
| SONM | Songino Array | 26.84 | 299 | P | P | 14 20 42.8 | -0.1 |
| | 0.8nm,0.7s,baz=93,slow=8.3,SNR=5.5 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 29.20 | 127 | T | T | 14 51 45.1 | |
| | baz=319,slow=76,SNR=177 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 29.21 | 127 | T | T | 14 51 52.2 | |
| | baz=319,slow=76,SNR=120 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 29.22 | 127 | T | T | 14 51 51.3 | |
| | baz=319,slow=76,SNR=106 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 30.01 | 128 | T | T | 14 53 00.3 | |
| | baz=321,slow=76,SNR=34 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 30.02 | 129 | T | T | 14 53 01.2 | |
| | baz=321,slow=76,SNR=33 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 30.03 | 128 | T | T | 14 52 57.8 | |
| | baz=321,slow=76,SNR=23 | | | | | | |
| ZALV | Zalesovo Beam | 40.50 | 310 | P | P | 14 22 40.3 | -0.5 |
| | 0.9nm,0.4s,baz=92,slow=9.4,SNR=5.1 | | | | | | |
| ZALV | | | | LR | LR | 14 39 46.1 | |
| | comp=Z,52nm,19.0s,baz=68,slow=37 | | | | | | |
| CMAR | Chiang Mai Arr | 43.00 | 253 | LR | LR | 14 41 44.3 | |
| | comp=Z,24nm,18.2s,baz=145,slow=37 | | | | | | |
| MKAR | Makanchi Array | 43.21 | 300 | P | P | 14 23 02.7 | -0.5 |
| | 0.4nm,0.5s,baz=85,slow=10,SNR=10 | | | | | | |
| KURBB | Kurchatov Arra | 44.79 | 306 | P | P | 14 23 15.3 | -0.4 |
| | 2.7nm,0.4s,baz=80,slow=8.5,SNR=8.1 | | | | | | |
| ILAR | Eielson Array | 46.61 | 34 | P | P | 14 23 29.9 | 0.0 |
| | 0.4nm,0.5s,baz=262,slow=6.1,SNR=13 | | | | | | |
| BVAR | Borovoye Array | 49.14 | 311 | P | P | 14 23 49.5 | -0.2 |
| | 0.6nm,0.4s,baz=65,slow=8.4,SNR=4.7 | | | | | | |
| INK | Inuvik | 51.42 | 28 | P | P | 14 24 06.9 | +0.2 |
| | 0.4nm,0.4s,baz=296,slow=6.8,SNR=6.4 | | | | | | |
| AKTO | Aktyubinsk | 57.24 | 311 | P | P | 14 24 48.6 | -0.7 |
| | 0.7nm,0.5s,baz=74,slow=13,SNR=3.8 | | | | | | |
| WRA | Warramunga Arr | 60.11 | 189 | P | P | 14 25 08.2 | -1.2 |
| | 0.5nm,0.5s,baz=7.4,slow=6.9,SNR=11 | | | | | | |
| YKA | Yellowknife Ar | 60.88 | 31 | P | P | 14 25 14.0 | -0.2 |
| | 0.2nm,0.6s,baz=302,slow=6.5,SNR=4.1 | | | | | | |
| ASAR | Alice Springs | 63.83 | 189 | P | P | 14 25 33.0 | -1.3 |
| | 0.2nm,0.3s,baz=9.2,slow=12,SNR=4.8 | | | | | | |
| FINES | FINESS Array B | 66.52 | 332 | P | P | 14 25 51.6 | +0.3 |
| | 2.4nm,0.8s,baz=26,slow=9.8,SNR=2.9 | | | | | | |
| TXAR | Lajitas Array | 87.75 | 53 | P | P | 14 27 50.2 | -0.8 |
| | 0.1nm,0.5s,baz=305,slow=3.2,SNR=2.7 | | | | | | |
| VAE | Valguarnera | 89.28 | 321 | LR | LR | 15 14 33.4 | |
| | comp=Z,94nm,18.8s,baz=342,slow=40 | | | | | | |

*ISCJB **10** 14:26:08.8±1.3, 38°.53N±0°.04×28°.52E±0°.09, h7km±11km, Error ellipse: s-maj=11.4km s-min=5.9km az=173.7*
*CSEM **10** 14:26:08.1±0.3, 38°.51N×28°.49E, h2km, MD2.5, Error ellipse: s-maj=6.8km s-min=5.1km az=66.0*
*DDA **10** 14:26:08.3, 38°.50N×28°.54E, h6km, Md2.5*
**ISC 10 14:26:08.3**±1.4**, 38°.49N**±0°.04×**28°.49E**±0°.07**, h4**km±8km**, n16, σ0s.44**/27**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MANT | Manisa | 0.05 | 93 | i P | Pg | 14 26 09.3 | -0.4 |
| MANT | | | | i S | Sg | 14 26 11.0 | +0.3 |
| MANT | Manisa | 0.05 | 93 | P | Pg | 14 26 09.3 | -0.4 |
| MANT | | | | S | Sg | 14 26 11.0 | +0.3 |
| KULA | Kula-Manisa | 0.14 | 81 | ePG | Pg | 14 26 11.0 | -0.1 |
| KULA | | | | eSG | Sg | 14 26 13.7 | +0.8 |
| KULA | Kula-Manisa | 0.14 | 81 | ePg | Pg | 14 26 11.0 | -0.1 |
| KULA | | | | eSg | Sg | 14 26 13.7 | +0.8 |
| DEMI | Demirci | 0.58 | 18 | i P | Pg | 14 26 19.0 | -0.4 |
| DEMI | | | | i S | Sg | 14 26 27.1 | +0.2 |
| DEMI | Demirci | 0.58 | 18 | P | Pg | 14 26 19.0 | -0.4 |
| DEMI | | | | S | Sg | 14 26 27.1 | +0.2 |
| KHAL | Karahalli | 0.80 | 99 | i P | Pg | 14 26 23.2 | -0.4 |
| KHAL | | | | i S | Sg | 14 26 33.4 | -0.5 |
| KHAL | Karahalli | 0.80 | 99 | P | Pg | 14 26 23.2 | -0.4 |
| KHAL | | | | S | Sg | 14 26 33.4 | -0.5 |
| DNZL | Cakiroluk | 0.92 | 151 | i P | Pb | 14 26 26.8 | -0.1 |
| DNZL | | | | i S | Sn | 14 26 42.2 | +0.3 |
| DNZL | Cakiroluk | 0.92 | 151 | P | Pb | 14 26 26.8 | -0.1 |
| GDZ | Gediz | 0.98 | 52 | i P | Pg | 14 26 26.6 | -0.4 |
| GDZ | | | | i S | Sb | 14 26 41.2 | 0.0 |
| GDZ | Gediz | 0.98 | 52 | P | Pg | 14 26 26.6 | -0.4 |
| GDZ | | | | S | Sb | 14 26 41.2 | 0.0 |
| TVSB | Tavsanli | 1.22 | 38 | ePN | Pg | 14 26 31.2 | -0.5 |
| TVSB | Tavsanli | 1.22 | 38 | ePn | Pg | 14 26 31.2 | -0.5 |
| BALB | Balikesir | 1.24 | 338 | ePN | Pn | 14 26 32.8 | +0.3 |
| BALB | Balikesir | 1.24 | 338 | ePn | Pn | 14 26 32.8 | +0.3 |

*IDC **10** 14:29:11.0±1.0, 15°.46N×94°.75W, h0km, mb4.1/12, mb1 4.3/13, mb1mx4.1/38, mbtmp4.1/13, ML4.2/1, MS3.5/5, Ms1 3.5/5, ms1mx3.1/47, Error ellipse: s-maj=33.6km s-min=12.2km az=71.0*
*ISCJB **10** 14:29:14.5±0.7, 15°.43N±0°.05×94°.79W±0°.03, h37km±5km, mb4.1/18, MS3.7/5, Error ellipse: s-maj=8.3km s-min=4.7km az=5.6*
*NEIC **10** 14:29:16.2±0.0, 15°.33N×94°.79W, h16km, mb4.3/18, After MEX.*
*NEIC Felt at Oaxaca.*
*MEX **10** 14:29:16.2±1.1, 15°.32N×94°.79W, h16km±12km, MD4.5*
**ISC 10 14:29:16.3**±1.1**, 15°.40N**±0°.07×**94°.80W**±0°.03**, h42**km±10km**, n127, σ1s.51**/133**, mb4.2**/18**, MS3.6**/5**, Near coast of Oaxaca**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| HUIG | Huatulco | 1.31 | 286 | eP | Pn | 14 29 36.9 | -1.2 |
| HUIG | | | | eS | Sn | 14 29 52.1 | -2.3 |
| HUIG | Huatulco | 1.31 | 286 | eP | Pn | 14 29 36.9 | -1.2 |
| HUIG | | | | eS | Sn | 14 29 52.1 | -2.3 |
| PCIG | | 1.55 | 79 | eP | Pn | 14 29 39.0 | -2.4 |
| PCIG | | | | i S | Sn | 14 29 56.7 | -3.7 |
| PCIG | | 1.55 | 79 | eP | Pn | 14 29 39.0 | -2.4 |
| PCIG | | | | i S | Sn | 14 29 56.7 | -3.7 |
| CMIG | Matias Romero | 1.68 | 357 | Pg | Pn | 14 29 41.0 | -2.2 |
| | 392nm,0.3s,baz=158,slow=12,SNR=2377 | | | | | | |
| CMIG | | | | Lg | Lg | 14 30 00.4 | |
| | 588nm,0.3s,baz=84,slow=19,SNR=32 | | | | | | |
| CMIG | | | | LR | LR | 14 30 29.9 | |
| | comp=Z,1μm,18.8s,baz=186,slow=48 | | | | | | |
| TGIG | | 2.12 | 49 | eP | Pn | 14 29 47.9 | -1.4 |
| TGIG | | | | eS | Sn | 14 30 13.8 | -0.6 |
| TGIG | | 2.12 | 49 | eP | Pn | 14 29 47.9 | -1.4 |
| TGIG | | | | eS | Sn | 14 30 13.8 | -0.6 |
| TGBT | Tuxtla Gutierr | 2.14 | 50 | eP | Pn | 14 29 49.2 | -0.3 |
| TGBT | | | | eS | Sn | 14 30 14.2 | -0.7 |
| TUIG | Tuzandepetl | 2.64 | 8 | ePn | Pn | 14 29 55.2 | -1.2 |
| CCIG | Comitan | 2.71 | 71 | eP | Pn | 14 29 57.4 | -0.2 |
| CCIG | | | | eS | Sn | 14 30 27.6 | -1.5 |
| CCIG | Comitan | 2.71 | 71 | ePn | Pn | 14 29 57.3 | -0.2 |
| CCIG | | | | eS | Sn | 14 30 27.6 | -1.5 |
| PNIG | Pinotepa | 3.35 | 288 | eP | Pn | 14 30 05.9 | -0.3 |
| PNIG | | | | eS | Sn | 14 30 44.3 | -0.4 |
| PNIG | Pinotepa | 3.35 | 288 | eP | Pn | 14 30 05.9 | -0.3 |
| PNIG | | | | eS | Sn | 14 30 40.3 | -4.4 |
| TLIG | Tlapa | 4.20 | 301 | ePn | Pn | 14 30 17.4 | -0.6 |
| LVIG | Laguna Verde | 4.57 | 340 | ePn | Pn | 14 30 21.4 | -1.5 |
| SCIG | Sabancuy | 4.95 | 44 | ePn | Pn | 14 30 26.5 | -1.7 |
| 833A | Chaparral WMA, | 13.54 | 342 | P | Pn | 14 32 28.4 | +2.5 |
| | baz=161,SNR=8.7 | | | | | | |
| 438A | Sam Houston St | 15.29 | 358 | P | Pn | 14 32 49.7 | +0.5 |
| | baz=178 | | | | | | |
| 439A | Center Grove, | 15.32 | 0 | P | Pn | 14 32 51.5 | +1.8 |
| | baz=180 | | | | | | |
| JCT | Junction City | 15.69 | 344 | ePn | Pn | 14 32 55.3 | +0.7 |
| | 23nm,0.7s | | | | | | |
| 339A | Huntington | 15.86 | 1 | P | Pn | 14 32 57.6 | +1.0 |
| | baz=181 | | | | | | |
| 338A | Crockett | 15.89 | 358 | P | Pn | 14 32 58.5 | +1.5 |
| | baz=178 | | | | | | |
| 336A | Riesel | 16.02 | 354 | P | Pn | 14 32 59.2 | +0.5 |
| | baz=173 | | | | | | |
| TXAR | Lajitas Array | 16.10 | 331 | Pn | Pn | 14 33 00.9 | +1.1 |
| | 0.2nm,0.3s,baz=158,slow=13,SNR=17 | | | | | | |
| TX31 | Lajitas Ar. Si | 16.10 | 331 | ePn | Pn | 14 32 59.6 | -0.2 |
| 238A | Jacksonville | 16.53 | 359 | P | Pn | 14 33 05.9 | +0.8 |
| | baz=179 | | | | | | |
| WHTX | Lake Whitney, | 16.69 | 352 | P | P | 14 33 09.6 | +0.6 |
| | baz=171 | | | | | | |
| WHTX | Lake Whitney, | 16.69 | 352 | ePn | Pn | 14 33 07.5 | +0.4 |
| | 24nm,0.7s | | | | | | |
| LPIG | La Paz | 16.96 | 303 | LR | LR | 14 39 31.1 | |
| | comp=Z,164nm,18.5s,baz=18,slow=36 | | | | | | |
| 137A | Heron Place, G | 17.14 | 357 | P | P | 14 33 14.1 | +0.1 |
| | baz=177 | | | | | | |
| ABTX | Abilene, Hawle | 17.70 | 346 | P | P | 14 33 21.1 | +0.9 |
| | baz=165,SNR=7.7 | | | | | | |
| ABTX | Abilene, Hawle | 17.70 | 346 | ePn | Pn | 14 33 18.7 | -1.1 |
| | 22nm,0.8s | | | | | | |
| Y36A | Durant | 18.47 | 356 | P | Pn | 14 33 31.2 | +2.2 |
| | baz=176 | | | | | | |
| Y39A | Lockesburg | 18.47 | 2 | P | Pn | 14 33 31.5 | +2.4 |
| | baz=182 | | | | | | |
| Y37A | Hugo | 18.51 | 358 | P | P | 14 33 29.7 | +0.6 |
| | baz=178 | | | | | | |
| Y35A | Marietta | 18.54 | 354 | P | P | 14 33 30.0 | +0.6 |
| | baz=173,SNR=6.6 | | | | | | |
| MNTX | Cornudas Mount | 18.88 | 331 | eP | Pn | 14 33 34.3 | +0.2 |
| | 21nm,1.8s | | | | | | |
| X35A | Drake | 19.02 | 354 | P | P | 14 33 35.5 | +0.8 |
| | baz=174 | | | | | | |
| X35A | Drake | 19.02 | 354 | eP | P | 14 33 33.9 | -0.8 |
| | 15nm,0.6s | | | | | | |
| X39A | Fountain Ranch | 19.04 | 2 | P | Pn | 14 33 36.5 | +0.6 |
| | baz=182 | | | | | | |
| MIAR | Mount Ida | 19.09 | 3 | eP | P | 14 33 33.8 | -1.7 |
| | 5.9nm,0.6s | | | | | | |
| X37A | Clayton | 19.11 | 359 | P | P | 14 33 36.6 | +0.9 |
| | baz=178 | | | | | | |
| X36A | Centrahoma | 19.14 | 356 | P | P | 14 33 36.7 | +0.7 |
| | baz=175 | | | | | | |
| Y46A | Houston | 19.17 | 15 | P | P | 14 33 37.0 | +0.7 |
| | baz=198 | | | | | | |
| X38A | Whitesboro | 19.19 | 360 | P | P | 14 33 37.2 | +0.7 |
| | baz=180 | | | | | | |
| Y47A | UCPARC, Winfie | 19.46 | 18 | P | P | 14 33 39.5 | 0.0 |
| | baz=200 | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WMOK | Wichita Mounta | 19.59 | 350 | eP | P | 14 33 41.0 | +0.1 |
| | 14nm,1.1s | | | | | | |
| W38A | Poteau | 19.59 | 1 | P | P | 14 33 40.8 | -0.1 |
| | baz=181 | | | | | | |
| W37B | Quinton | 19.66 | 358 | P | P | 14 33 42.0 | +0.3 |
| | baz=178 | | | | | | |
| W36A | Wetumka | 19.70 | 357 | P | P | 14 33 42.0 | 0.0 |
| | baz=176 | | | | | | |
| W39A | Magazine | 19.73 | 2 | P | P | 14 33 41.7 | -0.8 |
| | baz=183 | | | | | | |
| W35A | Tecumseh | 19.76 | 355 | P | P | 14 33 42.6 | -0.1 |
| | baz=174 | | | | | | |
| MSTX | Muleshoe | 19.84 | 340 | P | P | 14 33 44.8 | +1.0 |
| | baz=157 | | | | | | |
| MSTX | Muleshoe | 19.84 | 340 | eP | P | 14 33 43.6 | -0.1 |
| | 8.8nm,0.8s | | | | | | |
| OK021 | N3530 Road, Sp | 20.19 | 355 | eP | P | 14 33 46.3 | -1.2 |
| | 32nm,0.9s | | | | | | |
| V36A | Jenks | 20.33 | 357 | P | P | 14 33 49.1 | +0.2 |
| | baz=177 | | | | | | |
| V35A | Meyer Ranch, C | 20.36 | 355 | P | P | 14 33 49.2 | -0.1 |
| | baz=174 | | | | | | |
| AMTX | Amarillo | 20.36 | 344 | eP | P | 14 33 47.8 | -1.6 |
| | 29nm,1.2s | | | | | | |
| V39A | Pettigrew | 20.38 | 3 | P | P | 14 33 49.1 | -0.4 |
| | baz=183,SNR=9.0 | | | | | | |
| V38A | Canehill | 20.38 | 1 | P | P | 14 33 49.2 | -0.3 |
| | baz=181 | | | | | | |
| V40A | Witts Springs | 20.39 | 5 | P | P | 14 33 48.9 | -0.8 |
| | baz=185 | | | | | | |
| V37A | Hulbert | 20.40 | 359 | P | P | 14 33 49.1 | -0.6 |
| | baz=179,SNR=6.0 | | | | | | |
| V41A | Mountainview | 20.44 | 6 | P | P | 14 33 49.4 | -0.8 |
| | baz=187 | | | | | | |
| TUL1 | Leonard | 20.44 | 358 | P | P | 14 33 49.9 | -0.3 |
| | baz=177 | | | | | | |
| V42A | Cord | 20.55 | 8 | P | P | 14 33 50.2 | -1.1 |
| | baz=189 | | | | | | |
| 121A | Cookes Peak, D | 20.74 | 328 | P | Pn | 14 33 56.8 | +0.5 |
| | baz=142,SNR=10 | | | | | | |
| 121A | Cookes Peak, D | 20.74 | 328 | eP | P | 14 33 52.9 | -0.8 |
| | 12nm,0.9s | | | | | | |
| U37A | Salina | 20.92 | 359 | P | P | 14 33 55.3 | -0.1 |
| | baz=179 | | | | | | |
| U36A | Oologah | 20.92 | 358 | P | P | 14 33 56.3 | +0.9 |
| | baz=178 | | | | | | |
| U40A | Yellville | 20.94 | 4 | P | P | 14 33 55.1 | -0.5 |
| | baz=185,SNR=7.7 | | | | | | |
| U38A | Gravette | 20.95 | 1 | P | P | 14 33 56.3 | +0.5 |
| | baz=181 | | | | | | |
| U42A | Revenden | 21.11 | 8 | P | P | 14 33 56.5 | -0.8 |
| | baz=190 | | | | | | |
| U32A | Winter Ranch, | 21.23 | 351 | P | P | 14 33 57.8 | -0.9 |
| | baz=169 | | | | | | |
| T35A | Sooner Cattle | 21.48 | 356 | P | P | 14 34 00.5 | -0.9 |
| | baz=176 | | | | | | |
| BNM | Barren Site | 21.50 | 332 | eP | P | 14 34 04.1 | +2.2 |
| T38A | Diamond | 21.55 | 1 | P | P | 14 34 02.5 | +0.4 |
| | baz=181 | | | | | | |
| T39A | Clever | 21.57 | 3 | P | P | 14 34 03.2 | +0.9 |
| | baz=184 | | | | | | |
| T36A | Boggs Farm, Ca | 21.59 | 358 | P | P | 14 34 03.8 | +1.2 |
| | baz=177 | | | | | | |
| T37A | Cheneyville 18 | 21.64 | 360 | P | P | 14 34 03.3 | +0.4 |
| | baz=180 | | | | | | |
| T34A | McClaskey Farm | 21.64 | 355 | P | P | 14 34 04.1 | +1.0 |
| | baz=174,SNR=5.6 | | | | | | |
| T41A | Mountain View | 21.72 | 7 | P | P | 14 34 04.7 | +0.8 |
| | baz=188 | | | | | | |
| T43A | Greenville | 21.96 | 10 | P | P | 14 34 07.0 | +0.4 |
| | baz=192 | | | | | | |
| ANMO | Albuquerque | 22.10 | 334 | P | P | 14 34 09.2 | +0.9 |
| | 2.6nm,0.9s,baz=334,slow=12,SNR=9.2 | | | | | | |
| S38A | Stockton | 22.16 | 2 | P | P | 14 34 08.3 | -0.3 |
| | baz=182 | | | | | | |
| S40A | Lebanon | 22.20 | 5 | P | P | 14 34 09.5 | +0.4 |
| | baz=186 | | | | | | |
| S35A | Otter Creek Ra | 22.23 | 357 | P | P | 14 34 09.2 | -0.2 |
| | baz=176 | | | | | | |
| S39A | Bolivar | 22.24 | 3 | P | P | 14 34 09.9 | +0.4 |
| | baz=184 | | | | | | |
| TUC | Tucson | 22.24 | 322 | eP | P | 14 34 11.5 | +1.8 |
| | 8.5nm,0.9s | | | | | | |
| S36A | Lake Cedric, C | 22.25 | 358 | P | P | 14 34 09.6 | 0.0 |
| | baz=178 | | | | | | |
| S41A | Jillco Farms, | 22.26 | 6 | P | P | 14 34 10.2 | +0.5 |
| | baz=188 | | | | | | |
| TKL | Tuckaleechee C | 22.46 | 24 | P | P | 14 34 13.0 | +1.1 |
| | 5.4nm,0.9s,baz=175,slow=12,SNR=4.1 | | | | | | |
| S42A | Caledonia | 22.56 | 8 | P | P | 14 34 12.2 | -0.7 |
| | baz=190 | | | | | | |
| ROSC | El Rosal | 22.70 | 115 | P | P | 14 34 15.3 | +0.3 |
| | 6.6nm,0.4s,baz=162,slow=9.2,SNR=4.2 | | | | | | |
| R38A | Fenwick Farm, | 22.71 | 2 | P | P | 14 34 13.9 | -0.6 |
| | baz=182 | | | | | | |
| R39A | Chumby, Stover | 22.88 | 4 | P | P | 14 34 16.1 | -0.2 |
| | baz=184 | | | | | | |
| R40A | Maddies Statio | 22.91 | 5 | P | P | 14 34 16.1 | -0.5 |
| | baz=186 | | | | | | |
| R34A | Isabella, Hill | 22.91 | 355 | P | P | 14 34 16.9 | +0.2 |
| | baz=174 | | | | | | |
| T25A | Trinidad | 23.27 | 340 | P | P | 14 34 22.7 | +2.2 |
| | baz=156,SNR=13 | | | | | | |
| T25A | Trinidad | 23.27 | 340 | eP | P | 14 34 21.4 | +0.9 |
| | 14nm,0.8s | | | | | | |
| CHIC | Chingaza | 23.32 | 115 | eP | P | 14 34 23.9 | +2.5 |
| RUSC | La Rusia | 23.32 | 112 | eP | P | 14 34 24.5 | +3.1 |
| RUSC | La Rusia | 23.32 | 112 | eP | P | 14 34 22.0 | +0.6 |
| | 9.8nm,1.2s | | | | | | |
| SJAC | San Juan de Ar | 23.81 | 118 | eP | P | 14 34 26.0 | +0.3 |
| X16A | Lo Mia Camp, P | 24.15 | 325 | eP | P | 14 34 29.9 | +1.2 |
| | 5.0nm,0.8s | | | | | | |
| SDV | Santo Domingo | 24.48 | 103 | LR | LR | 14 43 58.9 | |
| | comp=Z,164nm,20.6s,baz=238,slow=36 | | | | | | |
| SDV | Santo Domingo | 24.48 | 103 | eP | P | 14 34 40.4 | +8.4 |
| O33A | Hebron | 24.70 | 355 | P | P | 14 34 34.0 | +0.5 |
| | baz=174 | | | | | | |
| MVCO | Mesa Verde | 24.89 | 333 | P | P | 14 34 32.1 | -3.5 |
| | 9.6nm,1.4s | | | | | | |
| WUAZ | Wupatki | 24.93 | 326 | eP | P | 14 34 38.7 | +2.9 |
| | 14nm,0.9s | | | | | | |
| N38A | Joes South For | 25.34 | 3 | P | P | 14 34 38.8 | -0.4 |
| | baz=184 | | | | | | |
| PFO | Pinyon Flats O | 26.68 | 317 | LR | LR | 14 45 44.6 | |
| | comp=Z,181nm,21.2s,baz=134,slow=37 | | | | | | |
| BREC | Barre Substati | 27.82 | 315 | eP | P | 14 34 59.8 | -1.8 |
| PDAR | Pinedale Array | 30.07 | 338 | P | P | 14 35 22.9 | +1.0 |
| | 0.6nm,0.8s,baz=142,slow=7.5,SNR=5.8 | | | | | | |
| E34A | Wadena | 31.02 | 360 | P | P | 14 35 29.4 | -0.6 |
| | baz=179 | | | | | | |
| JHC | Johnson Canyon | 31.67 | 317 | eP | P | 14 35 42.3 | +6.4 |
| ULM | Lac du Bonnet | 34.77 | 359 | P | P | 14 36 01.5 | -1.1 |
| | 3.7nm,0.9s,baz=199,slow=8.3,SNR=4.5 | | | | | | |
| YBH | Yreka Blue Hor | 35.61 | 323 | LR | LR | 14 50 10.8 | |
| | comp=Z,208nm,18.9s,baz=148,slow=35 | | | | | | |
| YKA | Yellowknife Ar | 49.07 | 348 | P | P | 14 37 59.2 | +0.1 |
| | 2.3nm,0.8s,baz=153,slow=7.3,SNR=23 | | | | | | |
| YKA | | | | PcP | PcP | 14 39 21.1 | -1.2 |
| | 0.5nm,0.8s,baz=153,slow=5.5,SNR=3.7 | | | | | | |
| YKA | | | | LR | LR | 15 02 20.6 | |
| | comp=Z,8.0nm,20.9s,baz=0.0,slow=40 | | | | | | |
| BDFB | Brasilia | 55.56 | 122 | P | P | 14 38 48.2 | +0.1 |
| | 1.3nm,0.4s,baz=35,slow=1.7,SNR=3.4 | | | | | | |
| PLCA | Paso Flores | 60.22 | 159 | P | P | 14 39 20.5 | +0.3 |
| | 3.7nm,0.9s,baz=6.6,slow=2.5,SNR=4.2 | | | | | | |
| ILAR | Eielson Array | 60.50 | 337 | P | P | 14 39 22.6 | +0.9 |
| | 1.8nm,0.9s,baz=142,slow=4.1,SNR=23 | | | | | | |
| ESDC | Sonseca Array | 80.97 | 51 | P | P | 14 41 26.9 | +0.1 |
| | 2.0nm,0.8s,baz=294,slow=5.6,SNR=9.6 | | | | | | |
| ARCES | ARCESS Array B | 85.65 | 18 | P | P | 14 41 51.8 | +1.5 |
| | 1.3nm,0.7s,baz=302,slow=5.2,SNR=3.5 | | | | | | |
| GERES | GERESS Array B | 90.23 | 39 | P | P | 14 42 14.2 | +1.5 |
| | 0.7nm,0.8s,baz=306,slow=3.4,SNR=3.8 | | | | | | |
| HHC | Hu-ho-hao-te | 118.92 | 337 | ePKP | PKPdf | 14 48 00.5 | -0.3 |
| HHC | | | | PP | PP | 14 49 22.5 | +3.5 |
| HHC | | | | SKS | SKSdf | 14 55 07.7 | -2.2 |
| HHC | | | | SKKS | SKKSac | 14 56 09.5 | -7.7 |
| HHC | Hu-ho-hao-te | 118.92 | 337 | SS | SS | 15 05 31.3 | -3.8 |
| HHC | | | | AMB | AMB | | |
| | comp=Z,65nm,5.3s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=N,120nm,17.5s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=E,210nm,18.0s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,120nm,19.8s | | | | | | |
| CMAR | Chiang Mai Arr | 143.73 | 338 | PKP | PKPbc | 14 48 45.9 | +0.6 |
| | comp=Z,0.6nm,0.7s,baz=350,slow=3.0,SNR=4.6 | | | | | | |

*IDC* ***10*** *14:36:33.0±1.2, 0°.89N×123°.75E, h0km, mb3.7/4, mb1 3.9/4, mb1mx3.6/26, mbtmp3.7/4, Error ellipse: s-maj=147.2km s-min=20.7km az=66.0*
*ISCJB* ***10*** *14:36:57.2±0.6, 0°.37N±0°.09×123°.18E±0°.07, h250km, mb3.5/4, Error ellipse: s-maj=12.9km s-min=9.9km az=15.4*
*DJA* ***10*** *14:37:00.1±0.6, 0°N±6°×12°3E±°, h211km±6km, M3.5/6, MLv3.5/6*
**ISC 10 14:36:57.7**±0.9**, 0°.40N**±0°.10×**123°.26E**±0°.07**, h250**km**, n11, σ2.20**/15**, mb3.4**/4**, Minahassa Peninsula, Sulawesi**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KMSI | Cibinong | 0.74 | 77 | P | Pn | 14 37 30.6 | -0.9 |
| KMSI | | | | S | S | 14 37 52.5 | -5.4 |
| MRSI | Marisa | 1.32 | 273 | P | Pn | 14 37 34.3 | -0.5 |
| MRSI | | | | S | S | 14 38 01.1 | -2.8 |
| LUWI | Luwuk | 1.52 | 199 | P | Pn | 14 37 36.1 | -0.1 |
| LUWI | | | | S | S | 14 38 04.0 | -2.5 |
| APSI | Ampana | 2.08 | 231 | P | Pn | 14 37 41.0 | +0.1 |
| APSI | | | | S | S | 14 38 12.7 | -2.2 |
| MPSI | Mapaga | 3.37 | 269 | P | Pn | 14 37 54.7 | +0.5 |
| SANI | Sanana | 3.66 | 132 | P | Pn | 14 37 57.3 | -0.3 |
| LBMI | Labuha | 4.36 | 104 | P | Pn | 14 38 07.0 | +1.1 |
| WRA | Warramunga Arr | 22.95 | 152 | P | P | 14 41 42.0 | +1.4 |
| | 2.1nm,0.5s,baz=336,slow=10,SNR=33 | | | | | | |
| ASAR | Alice Springs | 26.06 | 157 | P | P | 14 42 10.2 | +1.6 |
| | 0.7nm,0.4s,baz=330,slow=8.5,SNR=20 | | | | | | |
| SONM | Songino Array | 49.47 | 345 | P | P | 14 45 24.2 | +1.3 |
| | 0.5nm,0.5s,baz=160,slow=8.3,SNR=4.9 | | | | | | |
| MKAR | Makanchi Array | 58.41 | 328 | P | P | 14 46 28.3 | +0.9 |
| | 0.2nm,0.3s,baz=126,slow=8.3,SNR=5.9 | | | | | | |

*GCMT* ***10*** *14:41:44.0±0.3, 13°.42S×111°.41W, h24km±1km, MW5.1/101, Moment Tensor Solution. s38,c42; s101,c148; Duration: 0 Moment tensor: Scale $10^{16}$Nm; $M_{rr}$-1.46±.23; $M_{\theta\theta}$2.70±.19; $M_{\phi\phi}$-1.24±.21; $M_{r\theta}$-0.26±.25; $M_{\theta\phi}$4.77±.16; $M_{\phi r}$0.01±.28; Best double couple: $M_0$5.16800×$10^{16}$ NP1:$\phi_s$101.00000°,δ89.00000°, λ-3.00000°. NP2:$\phi_s$191.00000°,δ87.00000°, λ-179.00000°. Principal axes: T 5.8970, Plg2.0000°, Azm146.0000°; N -1.4580, Plg87.0000°, Azm265.0000°; P -4.4390, Plg3.0000°, Azm56.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*ISCJB* ***10*** *14:41:50.2±3.2, 13°.3S±0°.5×111°.7W±0°.5, h11km, mb3.5/5 Error ellipse: s-maj=94.5km s-min=27.9km az=44.5*
*IDC* ***10*** *14:41:50.2±1.5, 13°.30S×111°.60W, h0km, mb3.6/5, mb1 4.0/5, mb1mx3.9/26, mbtmp3.6/5, Error ellipse: s-maj=50.4km s-min=33.3km az=45.0*
**ISC 10 14:41:51.7**±1.7**, 13°.3S**±0°.3×**111°.6W**±0°.3**, h11**km**, n20, σ0.76**/8**, mb3.5**/5**, Central East Pacific Rise**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RKT | Rikitea | 24.18 | 243 | eLR | LR | 14 53 05.0 | |
| | 2μm,29.5s | | | | | | |
| RKT | Rikitea | 24.18 | 243 | eT | T | 15 12 05.2 | |
| | 3.2nm,0.3s | | | | | | |
| TAOE | Nuku Hiva Isla | 28.33 | 276 | eLR | LR | 14 54 55.9 | |
| | 439nm,24.5s | | | | | | |
| PPT2 | Papeete2 | 36.78 | 258 | eLR | LR | 14 58 56.5 | |
| | 661nm,27.5s | | | | | | |
| TBI | Tubuai | 37.17 | 249 | eT | T | 15 28 13.5 | |
| | 5.1nm,0.3s | | | | | | |
| LPAZ | La Paz | 42.10 | 100 | P | P | 14 49 44.9 | 0.0 |
| | 3.9nm,0.8s,baz=258,slow=8.5,SNR=2.0 | | | | | | |
| TXAR | Lajitas Array | 43.11 | 10 | P | P | 14 49 53.0 | +0.8 |
| | 0.8nm,0.8s,baz=186,slow=8.2,SNR=4.9 | | | | | | |
| PDAR | Pinedale Array | 55.85 | 2 | P | P | 14 51 28.7 | -0.9 |
| | 0.4nm,0.7s,baz=152,slow=4.1,SNR=4.0 | | | | | | |
| YKA | Yellowknife Ar | 75.62 | 359 | P | P | 14 53 36.7 | +0.3 |
| | 0.3nm,0.8s,baz=163,slow=3.9,SNR=3.5 | | | | | | |
| DZM | Mont Dzumac | 77.74 | 250 | eLR | LR | 15 17 58.6 | |
| | 234nm,26.1s | | | | | | |
| ILAR | Eielson Array | 82.32 | 346 | P | P | 14 54 13.2 | 0.0 |
| | 0.3nm,0.8s,baz=177,slow=5.4,SNR=3.8 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 86.47 | 290 | T | T | 16 30 29.3 | |
| | baz=105,slow=74,SNR=185 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 86.47 | 290 | T | T | 16 30 30.0 | |
| | baz=105,slow=74,SNR=123 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 86.48 | 290 | T | T | 16 30 30.6 | |
| | baz=105,slow=74,SNR=126 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 86.60 | 291 | T | T | 16 30 45.2 | |
| | baz=106,slow=75,SNR=13 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 86.62 | 291 | T | T | 16 30 48.8 | |
| | baz=106,slow=75,SNR=6.6 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 86.62 | 291 | T | T | 16 30 46.7 | |
| | baz=106,slow=75,SNR=12 | | | | | | |
| BRTR | Keskin Array B | 139.71 | 43 | PKP | PKPdf | 15 01 20.3 | 0.0 |
| | 0.4nm,0.6s,baz=340,slow=2.1,SNR=3.0 | | | | | | |
| MKAR | Makanchi Array | 144.65 | 343 | PKP | PKPab | 15 01 26.3 | -1.0 |
| | 0.8nm,0.6s,baz=346,slow=1.9,SNR=4.4 | | | | | | |
| CMAR | Chiang Mai Arr | 150.18 | 284 | PKPbc | PKPbc | 15 01 44.5 | +0.7 |
| | 2.0nm,0.7s,baz=75,slow=1.1,SNR=14 | | | | | | |

*IDC* ***10*** *14:43:34.4±1.4, 1°.12S×127°.48E, h0km, mb3.7/3, mb1 3.8/4, mb1mx3.5/35, mbtmp3.7/4, ML3.5/1, MS4.1/1, Ms1 4.1/1, ms1mx2.8/36, Error ellipse: s-maj=129.6km s-min=21.2km az=69.0*
*ISCJB* ***10*** *14:43:39.4±0.6, 1°.48S±0°.06×126°.42E±0°.05, h29km, mb3.8/3, Error ellipse: s-maj=9.2km s-min=6.4km az=144.8*
*DJA* ***10*** *14:43:39.1±0.3, 1°S±3°×12°6E±°, h10km, M3.7/7, MLv3.7/7*
**ISC 10 14:43:39.9**±0.9**, 1°.51S**±0°.06×**126°.45E**±0°.05**, h29**km**, n12, σ1.34**/13**, mb3.6**/3**, Southern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SANI | Sanana | 0.70 | 220 | P | Pb | 14 43 53.1 | -0.6 |
| SANI | | | | S | Sn | 14 44 03.5 | -0.3 |
| LBMI | Labuha | 1.36 | 51 | P | Pn | 14 44 02.9 | -0.1 |
| LBMI | | | | S | Sn | 14 44 21.5 | +1.4 |
| AAI | Ambon | 2.78 | 141 | P | Pn | 14 44 24.0 | +1.5 |
| MSAI | Masohi | 3.08 | 126 | P | Pn | 14 44 28.3 | +1.7 |
| LUWI | Luwuk | 3.70 | 277 | P | Pn | 14 44 36.6 | +1.4 |
| APSI | Ampana | 4.83 | 277 | P | Pn | 14 44 51.8 | +1.1 |
| MRSI | Marisa | 4.92 | 294 | P | Pn | 14 44 53.5 | +1.6 |
| KAPI | Kappang | 7.54 | 242 | LR | LR | 14 49 13.7 | |
| | comp=Z,1μm,21.6s,baz=351,slow=39 | | | | | | |
| WRA | Warramunga Arr | 19.88 | 158 | P | P | 14 48 07.8 | -1.3 |
| | 0.1nm,0.3s,baz=340,slow=12,SNR=8.2 | | | | | | |
| ASAR | Alice Springs | 23.18 | 162 | P | P | 14 48 43.5 | -0.9 |
| | 1.7nm,0.7s,baz=343,slow=11,SNR=22 | | | | | | |
| SONM | Songino Array | 52.17 | 343 | P | P | 14 52 46.6 | -1.4 |
| | 0.5nm,0.8s,baz=148,slow=8.5,SNR=2.8 | | | | | | |
| MKAR | Makanchi Array | 61.72 | 327 | P | P | 14 53 56.1 | +0.6 |
| | 0.9nm,0.5s,baz=118,slow=8.4,SNR=20 | | | | | | |

*GCMT* ***10*** *14:45:28.0±0.2, 13°.49S×111°.35W, h19km±1km, MW5.1/108, Moment Tensor Solution. s48,c59; s108,c162; Duration: 0 Moment tensor: Scale $10^{16}$Nm; $M_{rr}$-0.98±.15; $M_{\theta\theta}$2.21±.14; $M_{\phi\phi}$-1.23±.15; $M_{r\theta}$-0.05±.27; $M_{\theta\phi}$4.53±.12; $M_{\phi r}$-0.64±.29; Best double couple: $M_0$4.89500×$10^{16}$ NP1:$\phi_s$11.00000°,δ87.00000°, λ-172.00000°. NP2:$\phi_s$280.00000°,δ82.00000°, λ-3.00000°. Principal axes: T 5.3620, Plg4.0000°, Azm145.0000°; N -0.9350, Plg81.0000°, Azm31.0000°; P -4.4280, Plg8.0000°, Azm236.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
**IDC 10 14:45:13.8**±1.7**, 13°.10S**×**111°.31W, h0**km**, mb3.7**/3**, mb1 4.0**/3**, mb1mx3.8**/24**, mbtmp3.7**/3**, MS4.2**/13**, Ms1 4.2**/13**, ms1mx4.1**/23 **Error ellipse: s-maj=61.0km s-min=38.0km az=42.0, Central East Pacific Rise**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RKT | Rikitea | 24.57 | 243 | eLR | LR | 14 56 35.0 | |
| | 1μm,28.2s | | | | | | |
| RKT | Rikitea | 24.57 | 243 | eT | T | 15 15 27.5 | |
| | 3.1nm,0.4s | | | | | | |
| TAOE | Nuku Hiva Isla | 28.62 | 276 | eLR | LR | 14 57 58.2 | |
| | 438nm,23.7s | | | | | | |
| ATAH | Atahualpa | 32.91 | 83 | LR | LR | 15 02 13.6 | |
| | comp=Z,659nm,18.2s,baz=259,slow=31 | | | | | | |
| NNA | Nana | 33.64 | 92 | LR | LR | 15 01 57.1 | |
| | comp=Z,280nm,18.2s,baz=257,slow=30 | | | | | | |
| PPT | Papeete | 37.13 | 258 | LR | LR | 15 03 28.1 | |
| | comp=Z,200nm,20.8s,baz=68,slow=30 | | | | | | |
| PPT2 | Papeete2 | 37.13 | 258 | eLR | LR | 15 02 22.2 | |
| | 925nm,27.2s | | | | | | |
| TBI | Tubuai | 37.54 | 249 | eT | T | 15 31 43.8 | |
| | 2.8nm,0.3s | | | | | | |
| ROSC | El Rosal | 40.83 | 66 | LR | LR | 15 06 08.6 | |
| | comp=Z,255nm,21.0s,baz=252,slow=31 | | | | | | |
| LPAZ | La Paz | 41.83 | 100 | P | P | 14 53 06.5 | 0.0 |
| | 2.7nm,0.7s,baz=284,slow=10,SNR=4.5 | | | | | | |
| TXAR | Lajitas Array | 42.83 | 10 | LR | LR | 15 07 30.6 | |
| | comp=Z,136nm,20.0s,baz=0.0,slow=31 | | | | | | |
| RAR | Rarotonga | 46.86 | 253 | LR | LR | 15 08 12.0 | |
| | comp=Z,456nm,18.9s,baz=80,slow=29 | | | | | | |
| PDAR | Pinedale Array | 55.62 | 2 | P | P | 14 54 51.8 | +0.2 |
| | 0.4nm,0.7s,baz=171,slow=6.4,SNR=3.5 | | | | | | |
| PDAR | | | | LR | LR | 15 14 59.1 | |
| | comp=Z,354nm,19.0s,baz=192,slow=32 | | | | | | |
| ULM | Lac du Bonnet | 64.52 | 11 | LR | LR | 15 21 30.0 | |
| | comp=Z,253nm,18.2s,baz=87,slow=34 | | | | | | |
| RPZ | Rata Peaks | 72.16 | 228 | LR | LR | 15 21 15.9 | |
| | comp=Z,357nm,20.9s,baz=132,slow=30 | | | | | | |
| YKA | Yellowknife Ar | 75.40 | 358 | P | P | 14 56 58.8 | -0.2 |
| | 0.4nm,0.9s,baz=176,slow=5.0,SNR=2.6 | | | | | | |
| YKA | | | | LR | LR | 15 27 11.7 | |
| | comp=Z,39nm,19.0s,baz=180,slow=33 | | | | | | |
| SCHQ | Schefferville | 77.38 | 25 | LR | LR | 15 30 09.7 | |
| | comp=Z,388nm,19.0s,baz=84,slow=35 | | | | | | |
| DZM | Mont Dzumac | 78.11 | 250 | eLR | LR | 15 21 24.8 | |
| | 263nm,30.7s | | | | | | |
| ILAR | Eielson Array | 82.18 | 345 | LR | LR | 15 25 40.0 | |
| | comp=Z,176nm,21.8s,baz=129,slow=30 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 86.69 | 290 | T | T | 16 33 52.0 | |
| | baz=105 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 86.69 | 290 | T | T | 16 34 01.5 | |
| | baz=105 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 86.70 | 290 | T | T | 16 33 55.4 | |
| | baz=105 | | | | | | |
| STKA | Stephens Creek | 97.20 | 235 | LR | LR | 15 34 09.5 | |
| | comp=Z,135nm,21.0s,baz=35,slow=30 | | | | | | |
| KURBB | Kurchatov Arra | 141.73 | 350 | PKhKP | PKPpre | 15 04 41.1 | |
| | 0.2nm,0.3s,baz=21,slow=3.3,SNR=3.0 | | | | | | |
| MKAR | Makanchi Array | 144.52 | 344 | PKP | PKPab | 15 04 50.3 | -0.4 |
| | 0.9nm,0.8s,baz=27,slow=3.0,SNR=4.7 | | | | | | |
| CMAR | Chiang Mai Arr | 150.43 | 284 | PKPbc | PKPbc | 15 05 08.4 | +0.1 |
| | 1.2nm,0.8s,baz=93,slow=0.9,SNR=7.7 | | | | | | |

*TIF* ***10*** *14:52:25.4, 40°.50N×41°.62E, h16km±2km*
*ATA* ***10*** *14:52:25.6±1.4, 40°.48N×41°.95E, h13km±12km, ML3.5, MW3.3*
*CSEM* ***10*** *14:52:26.8±0.2, 40°.46N×41°.89E, h2km, ML2.8, Error ellipse: s-maj=4.4km s-min=3.7km az=137.0*
*DDA* ***10*** *14:52:26.5, 40°.47N×41°.89E, h10km, Ml3.1*
*ISK* ***10*** *14:52:27.2, 40°.51N×41°.90E, h10km, ML2.8*
**ISC 10 14:52:26.2**±1.1**, 40°.49N**±0°.02×**41°.93E**±0°.02**, h5**km±10km**, n50, σ0.89**/71**, 1D, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SENK | Senkaya-Erzuru | 0.33 | 77 | ePG | Pb | 14 52 34.5 | -0.2 |
| SENK | | | | eSG | Sb | 14 52 40.0 | -0.4 |
| SENK | Senkaya-Erzuru | 0.33 | 77 | ePg | Pb | 14 52 34.5 | -0.2 |
| SENK | | | | eSg | Sb | 14 52 40.0 | -0.4 |
| DDEM | Demirkent | 0.42 | 341 | i P | Pg | 14 52 35.2 | +0.8 |
| DDEM | | | | i S | Sb | 14 52 42.3 | -0.8 |
| DDEM | Demirkent | 0.42 | 341 | P | Pg | 14 52 35.2 | +0.8 |
| DDEM | | | | S | Sb | 14 52 42.3 | -0.8 |
| HOMI | Horasan | 0.45 | 182 | eP | Pg | 14 52 34.3 | -0.5 |
| HOMI | | | | eS | Sg | 14 52 41.5 | +0.9 |
| HOMI | | | | IAML | | 14 52 44.3 | |
| | comp=Z,277nm,0.6s | | | | | | |
| HOMI | Horasan | 0.45 | 182 | i P | Pg | 14 52 34.1 | -0.7 |
| HOMI | | | | i S | Sg | 14 52 41.2 | +0.5 |
| DAGI | Agillar | 0.59 | 359 | i P | Pg | 14 52 38.4 | +0.9 |
| DAGI | | | | i S | Sb | 14 52 47.1 | -0.7 |
| ARTV | Artvin | 0.69 | 360 | ⇓ i P | Pg | 14 52 40.1 | +0.5 |
| ARTV | | | | eS | Sg | 14 52 50.0 | +1.4 |
| ARTV | | | | IAML | | 14 52 52.4 | |
| | comp=Z,57nm,0.2s | | | | | | |
| ARTV | Artvin | 0.69 | 360 | i P | Pg | 14 52 40.2 | +0.7 |
| ARTV | | | | i S | Sb | 14 52 50.3 | -0.7 |
| ARTV | Artvin | 0.69 | 360 | P | Pg | 14 52 40.2 | +0.7 |
| ARTV | | | | S | Sb | 14 52 50.3 | -0.7 |
| ERZM | Erzurum | 0.73 | 217 | i P | Pg | 14 52 40.5 | +0.3 |
| ERZM | Erzurum | 0.73 | 217 | i P | Pg | 14 52 40.7 | +0.5 |
| ERZM | Erzurum | 0.73 | 217 | P | Pg | 14 52 40.7 | +0.5 |
| EATA | Eleskirt | 0.76 | 145 | i P | Pg | 14 52 40.7 | -0.1 |
| EATA | | | | i S | Sb | 14 52 53.0 | +0.1 |
| EATA | Eleskirt | 0.76 | 145 | P | Pg | 14 52 40.7 | -0.1 |
| EATA | | | | S | Sb | 14 52 53.0 | +0.1 |
| KARS | Kars | 0.89 | 81 | ePG | Pn | 14 52 45.2 | -0.2 |
| KARS | | | | eSG | Sn | 14 52 58.8 | -0.1 |
| KARS | Kars | 0.89 | 81 | ePg | Pn | 14 52 45.3 | -0.2 |
| KARS | | | | eSg | Sn | 14 52 58.8 | -0.1 |
| DIGO | Kars | 1.10 | 93 | i P | Pg | 14 52 47.9 | +0.5 |
| DIGO | Kars | 1.10 | 93 | P | Pg | 14 52 47.9 | +0.5 |
| ECAT | Cat-ERZURUM | 1.15 | 220 | i P | Pg | 14 52 48.1 | -0.1 |
| ECAT | Cat-ERZURUM | 1.15 | 220 | P | Pg | 14 52 48.1 | -0.1 |
| EPOS | Posof | 1.18 | 31 | i P | Pn | 14 52 50.0 | +0.4 |
| EPOS | | | | i S | Sg | 14 53 01.6 | -2.5 |
| EPOS | Posof | 1.18 | 31 | P | Pn | 14 52 50.0 | +0.4 |
| EPOS | | | | S | Sg | 14 53 01.6 | -2.5 |
| KOPT | Kop Dagi | 1.19 | 247 | eP | Pb | 14 52 49.4 | -0.1 |
| KOPT | | | | eS | Sn | 14 53 07.2 | +0.6 |
| KOPT | | | | IAML | | 14 53 14.5 | |
| | comp=Z,41nm,0.5s | | | | | | |
| KOPT | Kop Dagi | 1.19 | 247 | i P | Pn | 14 52 49.8 | -0.1 |
| KOPT | | | | i S | Sn | 14 53 09.7 | +3.0 |
| KOPT | Kop Dagi | 1.19 | 247 | P | Pn | 14 52 49.8 | -0.1 |
| AGRB | Hanur-Agry | 1.23 | 138 | ePN | Pg | 14 52 49.7 | 0.0 |
| AGRB | Hanur-Agry | 1.23 | 138 | ePn | Pg | 14 52 49.7 | 0.0 |
| EKAR | Karacoban | 1.24 | 175 | eP | Pb | 14 52 50.1 | -0.1 |
| EKAR | Karacoban | 1.24 | 175 | i P | Pn | 14 52 50.9 | +0.5 |
| EKAR | Karacoban | 1.24 | 175 | P | Pn | 14 52 50.9 | +0.5 |
| TUTA | Tutak | 1.28 | 148 | i P | Pn | 14 52 50.5 | -0.5 |
| TUTA | Tutak | 1.28 | 148 | P | Pn | 14 52 50.5 | -0.5 |
| EAK | Akyaka | 1.29 | 81 | i P | Pg | 14 52 53.3 | +2.3 |
| EAK | Akyaka | 1.29 | 81 | P | Pg | 14 52 53.3 | +2.3 |
| VRTB | Varto-Mus | 1.38 | 196 | ePN | Pg | 14 52 53.9 | +1.3 |
| VRTB | Varto-Mus | 1.38 | 196 | ePn | Pg | 14 52 53.9 | +1.3 |
| YEDI | Yedisu-Bingol | 1.50 | 226 | ePN | Pg | 14 52 55.1 | +0.2 |
| YEDI | Yedisu-Bingol | 1.50 | 226 | ePn | Pg | 14 52 55.1 | +0.2 |
| AKH | Akhalkalaki | 1.50 | 52 | ePN | Pg | 14 52 55.1 | +0.2 |
| AKH | Akhalkalaki | 1.50 | 52 | ePn | Pg | 14 52 55.1 | +0.2 |
| KTUT | Trabzon | 1.72 | 287 | ePN | Pn | 14 52 56.8 | 0.0 |
| KTUT | Trabzon | 1.72 | 287 | ePn | Pn | 14 52 56.8 | 0.0 |
| BNGB | Bingˆ¶l | 1.78 | 213 | ePN | Pb | 14 52 59.3 | -0.1 |
| ERCV | ERCIS-VAN | 1.83 | 143 | ePN | Pb | 14 52 59.9 | -0.3 |
| ERCV | ERCIS-VAN | 1.83 | 143 | ePn | Pb | 14 52 59.9 | -0.3 |
| BINT | Bingol | 1.96 | 215 | ePn | Pn | 14 52 59.3 | -1.0 |
| KELT | Kelkit | 2.07 | 261 | i P | Pb | 14 53 03.6 | -0.9 |
| KELT | | | | i S | Sb | 14 53 29.8 | -0.8 |
| KELT | Kelkit | 2.07 | 261 | P | Pb | 14 53 03.6 | -0.9 |
| KELT | | | | S | Sb | 14 53 29.8 | -0.8 |
| ONI | Oni | 2.39 | 28 | P | Pg | 14 53 12.0 | 0.0 |
| ONI | | | | S | Sg | 14 53 43.7 | +0.8 |

*ISCJB* ***10*** *14:52:29.3±0.9, 51°.46N±0°.04×16°.11E±0°.04, h0km, Error ellipse: s-maj=6.1km s-min=3.3km az=17.5*
*CSEM* ***10*** *14:52:30.9±0.4, 51°.46N×16°.10E, h2km, ML2.9/7, Error ellipse: s-maj=6.7km s-min=3.7km az=8.0*
**ISC 10 14:52:30.9**±1.2**, 51°.47N**±0°.05×**16°.12E**±0°.03**, h0**km**, n25, σ0.46**/47**, 1D, Poland**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KSP | Ksiaz | 0.64 | 170 | i Pg | Pg | 14 52 43.5 | +0.3 |
| KSP | | | | eSg | Sg | 14 52 51.9 | +0.4 |
| KSP | Ksiaz | 0.64 | 170 | ⇓ i Pg | Pg | 14 52 43.5 | +0.3 |
| KSP | | | | eSg | Sg | 14 52 51.9 | +0.4 |
| UPC | Upice | 0.97 | 184 | ePG | Pg | 14 52 49.6 | +0.1 |
| UPC | | | | eSG | Sg | 14 53 02.3 | +0.2 |
| | comp=Z,19nm,0.3s | | | | | | |
| UPC | Upice | 0.97 | 184 | Pg | Pg | 14 52 49.6 | +0.1 |
| UPC | | | | Sg | Sg | 14 53 02.3 | +0.2 |
| | 19nm,0.3s | | | | | | |
| DPC | Dobruska-Polom | 1.13 | 173 | ePG | Pg | 14 52 52.3 | -0.3 |
| DPC | | | | eSG | Sg | 14 53 07.3 | 0.0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | comp=Z,9.6nm,0.2s | | | | | | |
| DPC | Dobruska-Polom | 1.13 | 173 | Pg | Pg | 14 52 52.3 | -0.3 |
| DPC | | | | Sg | Sg | 14 53 07.3 | 0.0 |
| | 9.6nm,0.2s | | | | | | |
| PVCC | Panska Ves | 1.36 | 226 | ePG | Pn | 14 52 57.2 | 0.0 |
| PVCC | | | | eSG | Sn | 14 53 16.3 | +0.4 |
| | comp=Z,47nm,0.2s | | | | | | |
| PVCC | Panska Ves | 1.36 | 226 | Pg | Pn | 14 52 57.2 | 0.0 |
| PVCC | | | | Sg | Sn | 14 53 16.3 | +0.4 |
| | 47nm,0.2s | | | | | | |
| KRLC | Kraliky | 1.46 | 163 | ePG | Pn | 14 52 58.6 | 0.0 |
| KRLC | | | | eSG | Sg | 14 53 16.8 | -1.1 |
| | comp=Z,3.0nm,0.3s | | | | | | |
| KRLC | Kraliky | 1.46 | 163 | Pg | Pn | 14 52 58.6 | 0.0 |
| KRLC | | | | Sg | Sg | 14 53 16.8 | -1.1 |
| | 3.0nm,0.3s | | | | | | |
| GOPC | GO Pecny, Ondr | 1.78 | 209 | ePG | Pb | 14 53 04.3 | 0.0 |
| GOPC | GO Pecny, Ondr | 1.78 | 209 | Pg | Pb | 14 53 04.3 | 0.0 |
| PRU | Pruhonice | 1.79 | 214 | ePG | Pb | 14 53 04.2 | -0.4 |
| PRU | | | | eSG | Sb | 14 53 27.6 | 0.0 |
| | comp=Z,6.1nm,0.2s | | | | | | |
| PRU | Pruhonice | 1.79 | 214 | Pg | Pb | 14 53 04.2 | -0.4 |
| PRU | | | | Sg | Sb | 14 53 27.6 | 0.0 |
| | 6.1nm,0.2s | | | | | | |
| MORC | Moravsky Berou | 1.93 | 151 | ePn | Pn | 14 53 04.4 | -0.6 |
| MORC | | | | eSg | Sb | 14 53 31.9 | +0.4 |
| CLL | Collm | 1.96 | 266 | ePg | Pb | 14 53 07.0 | -0.4 |
| CLL | | | | eSg | Sg | 14 53 34.0 | +0.3 |
| OKC | Ostrava-Krasne | 2.09 | 141 | eSG | Sg | 14 53 37.5 | -0.4 |
| OKC | Ostrava-Krasne | 2.09 | 141 | Sg | Sg | 14 53 37.5 | -0.4 |
| VRAC | Vranov | 2.19 | 172 | ePn | Pn | 14 53 09.2 | +0.6 |
| VRAC | | | | eSg | Sg | 14 53 40.5 | -0.7 |
| NKC | Novy Kostel | 2.63 | 243 | ePN | Pn | 14 53 14.7 | 0.0 |
| NKC | | | | ePG | Pg | 14 53 20.6 | -0.8 |
| NKC | | | | eSG | Sg | 14 53 56.6 | +1.1 |
| | comp=Z,11nm,0.3s | | | | | | |
| NKC | Novy Kostel | 2.63 | 243 | Pn | Pn | 14 53 14.7 | 0.0 |
| OJC | Ojcow | 2.65 | 117 | ePg | Pg | 14 53 21.7 | 0.0 |
| OJC | | | | eSg | Sg | 14 53 56.5 | +0.4 |
| OJC | Ojcow | 2.65 | 117 | ePg | Pg | 14 53 21.7 | 0.0 |
| OJC | | | | eSg | Sg | 14 53 56.5 | +0.4 |
| KHC | Kasperske Hory | 2.85 | 216 | ePN | Pn | 14 53 17.8 | +0.1 |
| KHC | | | | ePG | Pb | 14 53 23.6 | +0.9 |
| KHC | | | | eSN | Sn | 14 53 52.5 | -0.3 |
| KHC | | | | eSG | Sg | 14 54 02.1 | -0.5 |
| | comp=Z,4.2nm,0.4s | | | | | | |
| KHC | Kasperske Hory | 2.85 | 216 | Pn | Pn | 14 53 17.8 | +0.1 |

*ISN **10** 15:01:52.4±0.3, 37°.61N×42°.53E, h0km, ML2.5*
*ISK **10** 15:01:56.1, 37°.68N×42°.49E, h5km, ML2.5*
*ISCJB **10** 15:01:57.6±0.8, 37°.66N±0°.04×42°.49E±0°.04, h5km±9km, Error ellipse: s-maj=6.6km s-min=4.8km az=10.6*
*CSEM **10** 15:01:57.4±0.3, 37°.60N×42°.49E, h5km, MD2.9, Error ellipse: s-maj=9.7km s-min=5.2km az=27.0*
*DDA **10** 15:01:57.3, 37°.64N×42°.47E, h7km, Md2.9*
**ISC 10 15:01:57.8**±1.1**, 37°.64N**±0°.04×**42°.48E**±0°.03**, h7**km±10km**, n19, σ0s.51**/28**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SIRT | Sirnak | 0.14 | 194 | PG | Pg | 15 02 00.3 | -0.5 |
| SIRT | | | | eSG | Sg | 15 02 03.5 | +0.7 |
| SIRT | Sirnak | 0.14 | 194 | i Pg | Pg | 15 02 00.3 | -0.5 |
| SIRN | S˜–rnak | 0.15 | 201 | i P | Pg | 15 02 00.5 | -0.5 |
| SIRN | | | | i S | Sg | 15 02 03.7 | +0.5 |
| SIRN | S˜–rnak | 0.15 | 201 | P | Pg | 15 02 00.5 | -0.5 |
| SIRN | | | | S | Sg | 15 02 03.7 | +0.5 |
| SRTM | Siirt_Merkez | 0.56 | 308 | i P | Pg | 15 02 08.3 | -0.4 |
| SRTM | | | | i S | Sg | 15 02 16.9 | +0.8 |
| SRTM | Siirt_Merkez | 0.56 | 308 | P | Pg | 15 02 08.3 | -0.4 |
| SRTM | | | | S | Sg | 15 02 16.9 | +0.8 |
| HAKT | HAKKARI | 0.98 | 94 | i P | Pg | 15 02 16.6 | 0.0 |
| HAKT | | | | i S | Sb | 15 02 30.4 | -0.1 |
| HAKT | HAKKARI | 0.98 | 94 | P | Pg | 15 02 16.6 | 0.0 |
| HAKT | | | | S | Sb | 15 02 30.4 | -0.1 |
| CUKT | Cukurca | 0.98 | 113 | ePG | Pg | 15 02 16.3 | -0.3 |
| CUKT | Cukurca | 0.98 | 113 | i P | Pg | 15 02 16.0 | -0.6 |
| CUKT | | | | i S | Sn | 15 02 32.6 | +0.3 |
| CUKT | Cukurca | 0.98 | 113 | P | Pg | 15 02 16.0 | -0.6 |
| CUKT | Cukurca | 0.98 | 113 | ePg | Pg | 15 02 16.3 | -0.3 |
| MARD | Mardin | 1.39 | 257 | i P | Pn | 15 02 23.6 | -0.2 |
| MARD | | | | i S | Sb | 15 02 42.5 | +0.2 |
| MAZI | Mazidag | 1.63 | 264 | ePN | Pn | 15 02 27.4 | +0.4 |
| MAZI | Mazidag | 1.63 | 264 | ePn | Pn | 15 02 27.4 | +0.4 |
| DIY | Diyarbakir | 1.81 | 279 | ePn | Pb | 15 02 31.0 | -0.2 |
| DYBB | Diyarbakir | 1.88 | 280 | ePN | Pn | 15 02 31.0 | +0.6 |
| BNGB | Bingˆ¶l | 1.96 | 314 | ePN | Pn | 15 02 31.2 | -0.3 |
| BINT | Bingol | 2.00 | 309 | ePn | Pn | 15 02 31.2 | -0.9 |

**MAN 10 15:08:56, 12°.31N×125°.15E, h5km, mb4.5, ML3.4, MS3.3, 1C-1D, Samar**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CNP | Catarman | 0.52 | 293 | eP | Pb | 15 09 06.9 | -0.7 |
| CNP | | | | eS | Sb | 15 09 16.5 | +1.1 |
| BESP | Borongan | 0.76 | 158 | eP | Pb | 15 09 11.5 | -0.2 |
| PLP | Palo | 1.15 | 188⇓ | eP | Pg | 15 09 18.1 | +0.1 |
| PLP | | | | i S | Sn | 15 09 35.6 | +0.7 |
| MSLP | Maasin | 2.18 | 188 | eP | Pn | 15 09 34.2 | +1.2 |
| RCP | Roxas | 2.47 | 253⇑ | eP | Pn | 15 09 38.4 | +1.4 |

*ISCJB **10** 15:28:50.8±1.0, 4°.5S±0°.1×144°.4E±0°.1, h100km, mb3.6/6, Error ellipse: s-maj=21.6km s-min=10.5km az=148.7*
*IDC **10** 15:28:51.6±5.0, 4°.46S×144°.51E, h95km±52km, mb3.4/6, mb1 3.6/8, mb1mx3.4/27, mbtmp3.8/8, Error ellipse: s-maj=37.9km s-min=25.0km az=126.0*
**ISC 10 15:28:52.3**±1.1**, 4°.5S**±0°.1×**144°.5E**±0°.2**, h100km, n8, σ0s.90**/9**, mb3.6**/6**, Near north coast of New Guinea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PMG | Port Moresby | 5.61 | 152 | P | Pn | 15 30 12.2 | -1.1 |
| | 3.1nm,0.3s,baz=14,slow=7.1,SNR=13 | | | | | | |
| PMG | | | | S | Sn | 15 31 18.1 | +1.6 |
| | 3.3nm,0.3s,baz=139,slow=23,SNR=7.4 | | | | | | |
| WRA | Warramunga Arr | 18.29 | 212 | P | P | 15 32 57.7 | -0.7 |
| | 0.4nm,0.3s,baz=33,slow=12,SNR=11 | | | | | | |
| ASAR | Alice Springs | 21.65 | 207 | P | P | 15 33 34.8 | -0.1 |
| | 1.0nm,0.7s,baz=34,slow=9.2,SNR=18 | | | | | | |
| FITZ | Fitzroy Crossi | 22.87 | 232 | P | P | 15 33 47.7 | +0.2 |
| | 4.5nm,0.6s,baz=47,slow=8.8,SNR=13 | | | | | | |
| STKA | Stephens Creek | 27.42 | 185 | P | P | 15 34 28.6 | 0.0 |
| | 2.3nm,0.9s,baz=5.7,slow=10,SNR=3.1 | | | | | | |
| CMAR | Chiang Mai Arr | 50.29 | 298 | P | P | 15 37 39.8 | +0.8 |
| | 0.7nm,0.8s,baz=114,slow=6.0,SNR=5.8 | | | | | | |
| MKAR | Makanchi Array | 74.70 | 321 | P | P | 15 40 20.9 | -0.3 |
| | 0.5nm,0.8s,baz=107,slow=8.0,SNR=2.6 | | | | | | |
| ILAR | Eielson Array | 85.07 | 24 | P | P | 15 41 16.6 | 0.0 |
| | 0.4nm,0.6s,baz=249,slow=4.8,SNR=10 | | | | | | |

*GUC **10** 15:37:13.5±0.5, 32°.19S×71°.73W, h41km±5km, ML3.0*
*SJA **10** 15:37:13.1±0.7, 32°.57S×71°.96W, h69km±14km, ML3.2, MW3.3*
**ISC 10 15:37:11.3**±2.4**, 32°.20S**±0°.04×**71°.75W**±0°.10**, h4**km±14km**, n15, σ1s.54**/26**, 2D, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ROCH | El Roble | 0.99 | 141⇓ | iP | Pb | 15 37 31.5 | +0.4 |
| ROCH | | | | i S | Sb | 15 37 44.9 | +0.2 |
| ROCH | | | | IAML | | 15 37 46.9 | |
| | comp=N,530nm,0.3s | | | | | | |
| ROC1 | El Roble | 0.99 | 141 | eP | Pb | 15 37 31.6 | +0.4 |
| ROC1 | | | | eS | Sb | 15 37 44.9 | +0.1 |
| PEL | Peldehue | 1.30 | 137⇓ | iP | Pb | 15 37 36.4 | 0.0 |
| PEL | | | | i S | Sn | 15 37 53.7 | -0.6 |
| PEL | | | | IAML | | 15 37 55.8 | |
| | comp=N,334nm,0.4s | | | | | | |
| RCDM | Rinconada Maip | 1.51 | 148 | eP | Pb | 15 37 39.8 | -0.2 |
| RCDM | | | | i S | Sg | 15 37 59.3 | -0.6 |
| CLCH | Cerro Calan | 1.57 | 140 | eP | Pb | 15 37 40.6 | -0.4 |
| CLCH | | | | i S | Sg | 15 38 01.3 | -0.5 |
| CLCH | | | | IAML | | 15 38 04.3 | |
| | comp=E,233nm,0.3s | | | | | | |
| FCH | Farellones | 1.67 | 133 | eP | Pb | 15 37 42.3 | -0.5 |
| FCH | | | | i S | Sg | 15 38 04.2 | -0.7 |
| FCH | | | | IAML | | 15 38 07.1 | |
| | comp=E,290nm,0.2s | | | | | | |
| AUSP | Uspallata | 2.00 | 91 | eP | Pg | 15 37 50.0 | +0.3 |
| AUSP | | | | eS | Sg | 15 38 16.9 | +1.2 |
| RTLS | Leoncito | 2.12 | 80 | eP | Pg | 15 37 52.0 | 0.0 |
| RTLS | | | | eS | Sg | 15 38 21.9 | +2.4 |
| TLL | Tololo Astrono | 2.18 | 22 | eP | Pn | 15 37 49.4 | +0.8 |
| TLL | | | | IAML | | 15 38 22.5 | |
| | comp=E,217nm,0.4s | | | | | | |
| RTCV | Cerro Valdivia | 2.75 | 84 | eP | Pb | 15 38 00.7 | -0.4 |
| RTLL | Cerro Villicun | 2.92 | 74 | eP | Pb | 15 38 02.5 | -1.5 |
| RTLL | | | | eS | Sb | 15 38 42.1 | +1.9 |
| RTLL | | | | IAML | | 15 38 52.9 | |
| | comp=Z,39nm,0.4s | | | | | | |
| AMOG | MOGNA | 3.05 | 67 | eP | Pb | 15 38 04.9 | -1.3 |
| AMOG | | | | eS | Sb | 15 38 45.9 | +1.9 |
| ACAN | Cantantal | 3.87 | 92 | i P | Pb | 15 38 16.2 | -3.9 |
| ACAN | | | | eS | Sb | 15 39 05.6 | -1.8 |
| AGUA | GUANDACOL | 3.90 | 47 | eP | Pb | 15 38 17.8 | -2.8 |
| AGUA | | | | eS | Sb | 15 39 10.2 | +2.0 |
| VCA | Vinchina | 4.61 | 42 | IAML | | 15 39 37.8 | |
| | comp=Z,22nm,0.6s | | | | | | |

**IDC 10 15:38:53.8**±1.8**, 7°.41S**×**124°.38E, h0km, mb3.5**/1**, mb1 3.4**/4**, mb1mx3.3**/35**, mbtmp3.2**/4**, ML3.1**/3**, Error ellipse: s-maj=122.9km s-min=27.4km az=65.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| FITZ | Fitzroy Crossi | 10.70 | 174 | Pn | Pn | 15 41 27.6 | -0.8 |
| | 0.1nm,0.3s,baz=350,slow=12,SNR=7.2 | | | | | | |
| FITZ | | | | Sn | Sn | 15 43 10.5 | -19 |
| | 0.5nm,0.3s,baz=274,slow=17,SNR=8.6 | | | | | | |
| WRA | Warramunga Arr | 15.77 | 143 | Pn | Pn | 15 42 39.3 | +1.9 |
| | 0.1nm,0.3s,baz=321,slow=14,SNR=6.9 | | | | | | |
| WRA | | | | Sn | Sn | 15 45 16.4 | -16 |
| | 0.0nm,0.3s,baz=318,slow=25,SNR=3.0 | | | | | | |
| ASAR | Alice Springs | 18.57 | 152 | P | P | 15 43 12.0 | -0.6 |
| | 0.0nm,0.3s,baz=326,slow=13,SNR=5.6 | | | | | | |
| ASAR | | | | S | Sn | 15 46 25.8 | -15 |
| | 0.0nm,0.3s,baz=312,slow=21,SNR=3.2 | | | | | | |
| MKAR | Makanchi Array | 65.63 | 330 | P | P | 15 49 39.8 | 0.0 |
| | 0.4nm,0.8s,baz=147,slow=7.3,SNR=4.3 | | | | | | |

*ISCJB **10** 15:39:00.6±0.5, 36°.97N±0°.04×28°.14E±0°.03, h4km±8km, Error ellipse: s-maj=6.1km s-min=4.2km az=9.7*
*CSEM **10** 15:39:00.9±0.1, 36°.96N×28°.16E, h5km, MD2.5, Error ellipse: s-maj=3.7km s-min=2.8km az=5.0*
*DDA **10** 15:39:00.4, 36°.97N×28°.13E, h7km, Md2.4*
*ISK **10** 15:39:00.2, 36°.98N×28°.17E, h5km, MD2.5*
**ISC 10 15:39:00.2**±1.2**, 36°.97N**±0°.03×**28°.16E**±0°.02**, h4**km±11km**, n27, σ0s.87**/40**, Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MRSB | Marmaris-Mugla | 0.25 | 173 | ePG | Pg | 15 39 05.9 | +0.8 |
| MRSB | Marmaris-Mugla | 0.25 | 173 | ePg | Pg | 15 39 05.9 | +0.8 |
| TURN | Turunc | 0.37 | 104 | i P | Pg | 15 39 05.1 | -2.2 |
| TURN | Turunc | 0.37 | 104 | P | Pg | 15 39 05.1 | -2.2 |
| DALY | Dalyan (Mu˜la | 0.42 | 110 | ePG | Pg | 15 39 08.9 | +0.6 |
| DALY | Dalyan (Mu˜la | 0.42 | 110 | i P | Pg | 15 39 08.5 | +0.1 |
| DALY | | | | i S | Sb | 15 39 16.3 | -0.7 |
| DALY | Dalyan (Mu˜la | 0.42 | 110 | P | Pg | 15 39 08.5 | +0.1 |
| DALY | Dalyan (Mu˜la | 0.42 | 110 | ePg | Pg | 15 39 08.9 | +0.6 |
| DALY | | | | S | Sb | 15 39 16.3 | -0.7 |
| BDRM | Kayabasi | 0.58 | 280 | i P | Pg | 15 39 11.8 | +0.4 |
| BDRM | | | | i S | Sb | 15 39 20.3 | -1.3 |
| BDRM | Kayabasi | 0.58 | 280 | P | Pg | 15 39 11.9 | +0.4 |
| BDRM | | | | S | Sb | 15 39 20.3 | -1.3 |
| BODT | Bodrum | 0.69 | 278 | ePG | Pg | 15 39 14.0 | +0.6 |
| BODT | | | | eSG | Sb | 15 39 24.0 | -0.7 |
| BODT | Bodrum | 0.69 | 278 | ePg | Pg | 15 39 14.0 | +0.6 |
| BODT | | | | eSg | Sb | 15 39 24.0 | -0.7 |
| AYDN | Tasoluk | 0.73 | 342 | i P | Pg | 15 39 14.3 | 0.0 |
| AYDN | | | | i S | Sg | 15 39 24.3 | +0.5 |
| AYDN | Tasoluk | 0.73 | 342 | P | Pg | 15 39 14.3 | 0.0 |
| AYDN | | | | S | Sg | 15 39 24.3 | +0.5 |
| TAVA | DENIZLI_Tavas | 0.78 | 50 | i P | Pb | 15 39 16.3 | -0.2 |
| TAVA | | | | i S | Sb | 15 39 27.9 | +0.4 |
| TAVA | DENIZLI_Tavas | 0.78 | 50 | P | Pb | 15 39 16.3 | -0.2 |
| TAVA | | | | S | Sb | 15 39 27.9 | +0.4 |
| FETY | Fethiye | 0.81 | 114 | ePG | Pg | 15 39 15.9 | +0.1 |
| FETY | Fethiye | 0.81 | 114 | ePg | Pg | 15 39 15.9 | +0.1 |
| NIS1 | Nisyros Isl. | 0.87 | 246 | ePG | Pb | 15 39 17.8 | -0.1 |
| NIS1 | Nisyros Isl. | 0.87 | 246 | ePg | Pb | 15 39 17.8 | -0.1 |
| DNZL | Cakiroluk | 1.01 | 44 | i P | Pn | 15 39 21.5 | +0.1 |
| DNZL | | | | i S | Sn | 15 39 37.9 | +1.7 |
| DNZL | Cakiroluk | 1.01 | 44 | P | Pn | 15 39 21.5 | +0.1 |
| DNZL | | | | S | Sn | 15 39 37.9 | +1.7 |
| DGB | ˜zmir | 1.49 | 317 | i P | Pn | 15 39 26.9 | -0.8 |
| DGB | | | | i S | Sn | 15 39 46.5 | -1.1 |
| MANT | Manisa | 1.56 | 12 | i P | Pb | 15 39 29.7 | -0.1 |
| MANT | Manisa | 1.56 | 12 | P | Pb | 15 39 29.7 | -0.1 |
| KARP | Karpathos | 1.63 | 210 | ePN | Pb | 15 39 30.6 | -0.3 |
| KARP | Karpathos | 1.63 | 210 | ePn | Pb | 15 39 30.6 | -0.3 |

*IDC **10** 15:55:51.5±1.5, 34°.87S×72°.60W, h0km, mb4.1/3, mb1 4.1/5, mb1mx4.0/20, mbtmp4.0/5, ML4.0/2, MS3.5/4, Ms1 3.5/4, ms1mx3.2/23, Error ellipse: s-maj=58.6km s-min=27.5km az=68.0*
*ISCJB **10** 15:55:52.7±1.5, 34°.89S±0°.05×72°.81W±0°.09, h20km±10km, mb4.0/3, MS3.8/2, Error ellipse: s-maj=14.1km s-min=6.2km az=29.2*
*GUC **10** 15:55:53.9±0.6, 34°.87S×72°.80W, h27km±4km, ML4.1*
**ISC 10 15:55:53.3**±1.9**, 34°.93S**±0°.05×**72°.70W**±0°.08**, h13**km±11km**, n14, σ0s.70**/17**, mb4.3**/3**, 2C-1D, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GO05 | HualaæØ | 0.64 | 98⇑ | iP | Pb | 15 56 06.8 | +0.5 |
| GO05 | | | | i S | Sn | 15 56 16.7 | -1.3 |
| GO05 | | | | IAML | | 15 56 17.4 | |
| | comp=E,15μm,0.4s | | | | | | |
| CHPI | Pichilemu | 0.78 | 47 | eP | Pg | 15 56 08.2 | -0.3 |
| CHPI | | | | i S | Sb | 15 56 19.1 | -0.2 |
| COCH | Cobquecura | 1.20 | 183⇓ | iP | Pn | 15 56 15.3 | -0.5 |
| COCH | | | | eS | Sb | 15 56 30.9 | -0.5 |
| COCH | | | | IAML | | 15 56 37.9 | |
| | comp=E,2μm,1.0s | | | | | | |
| NICH | Los Niches | 1.21 | 94 | eP | Pn | 15 56 16.0 | +0.1 |
| NICH | | | | i S | Sg | 15 56 32.5 | +0.2 |
| NICH | | | | IAML | | 15 56 38.4 | |
| | comp=N,11μm,0.5s | | | | | | |
| CLCH | Cerro Calan | 2.35 | 50 | eP | Pn | 15 56 31.5 | -0.2 |
| CLCH | | | | eS | Sn | 15 57 01.3 | +0.8 |
| CLCH | | | | IAML | | 15 57 13.0 | |
| | comp=N,3μm,0.8s | | | | | | |
| PEL | Peldehue | 2.44 | 44⇑ | iP | Pn | 15 56 32.9 | 0.0 |
| PEL | | | | eS | Sn | 15 57 03.3 | +0.7 |
| PEL | | | | IAML | | 15 57 15.0 | |
| | comp=E,1μm,0.7s | | | | | | |
| PLCA | Paso Flores | 6.04 | 164 | Pn | Pn | 15 57 23.9 | +1.5 |
| | comp=E,1.0nm,0.3s,baz=358,slow=9.3,SNR=23 | | | | | | |
| PLCA | | | | Lg | Lg | 15 58 58.2 | |
| | comp=E,0.7nm,0.3s,baz=21,slow=9.5,SNR=3.7 | | | | | | |
| PLCA | | | | LR | LR | 15 59 14.6 | |
| | comp=E,84nm,20.5s,baz=12,slow=34 | | | | | | |
| CPUP | Villa Florida | 15.75 | 61 | LR | LR | 16 06 09.8 | |
| | comp=E,241nm,18.2s,baz=235,slow=40 | | | | | | |
| LPAZ | La Paz | 19.01 | 14 | P | Pn | 16 00 16.1 | -0.1 |
| | comp=E,0.2nm,0.3s,baz=183,slow=5.8,SNR=7.9 | | | | | | |
| RPN | Rapa Nui | 32.21 | 274 | LR | LR | 16 11 40.9 | |
| | comp=E,113nm,18.2s,baz=148,slow=29 | | | | | | |
| TXAR | Lajitas Array | 70.28 | 331 | P | P | 16 07 06.6 | +0.2 |
| | comp=E,0.3nm,0.5s,baz=154,slow=6.8,SNR=2.9 | | | | | | |
| BOSA | Boshof | 80.12 | 118 | P | P | 16 08 03.3 | -0.1 |
| | comp=E,4.0nm,0.8s,baz=210,slow=8.1,SNR=4.8 | | | | | | |
| TORD | Torodi Ar. Bea | 85.04 | 70 | P | P | 16 08 28.6 | -0.4 |
| | comp=E,1.6nm,0.7s,baz=232,slow=7.1,SNR=7.8 | | | | | | |
| BBB | Bella Bella | 99.32 | 329 | LR | LR | 16 48 26.1 | |
| | comp=E,51nm,20.6s,baz=88,slow=32 | | | | | | |

*NIED **10** 16:02:00, 26°.80N×144°.00E, h5km, Mw3.8 Best double couple: M0 4.97000×10^14 NP1:φs 320.00000°, δ44.00000°, λ-86.00000°. NP2:φs 134.00000°, δ46.00000°, λ-94.00000°.*

*IDC **10** 16:02:46.3±0.9, 26°.69N×144°.21E, h0km, mb3.8/10, mb1 4.0/11, mb1mx3.7/54, mbtmp3.8/11, ML3.4/1, Error ellipse: s-maj=31.2km s-min=17.1km az=71.0*
*ISCJB **10** 16:02:49.2±0.9, 26°.7N±0°.1×144°.2E±0°.2, h33km, mb3.8/10, Error ellipse: s-maj=31.0km s-min=13.8km az=163.6*
**ISC 10 16:02:51.1**±0.9**, 26°.8N**±0°.1×**144°.3E**±0°.2**, h35km, n12, σ1s.06**/13**, mb4.0**/10**, Bonin Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MJAR | Matsushiro Arr | 10.99 | 334 | Pn | Pn | 16 05 25.1 | -0.8 |
| | 0.2nm,0.3s,baz=155,slow=12,SNR=3.1 | | | | | | |
| MJAR | | | | Sn | Sn | 16 07 25.8 | -1.8 |
| | 0.2nm,0.3s,baz=141,slow=34,SNR=3.0 | | | | | | |
| SONM | Songino Array | 36.22 | 316 | P | P | 16 09 51.8 | +1.1 |
| | 1.3nm,0.7s,baz=113,slow=6.5,SNR=8.3 | | | | | | |
| CMAR | Chiang Mai Arr | 42.47 | 268 | P | P | 16 10 42.7 | -0.4 |
| | 0.4nm,0.6s,baz=62,slow=7.6,SNR=3.5 | | | | | | |
| CTA | Charters Tower | 46.65 | 177 | P | P | 16 11 15.7 | -0.5 |
| | 3.9nm,1.1s,baz=23,slow=7.7,SNR=2.5 | | | | | | |
| WRA | Warramunga Arr | 47.45 | 193 | P | P | 16 11 21.6 | -0.9 |
| | 1.3nm,0.5s,baz=13,slow=8.5,SNR=12 | | | | | | |
| ZALV | Zalesovo Beam | 50.93 | 319 | P | P | 16 11 49.0 | +0.2 |
| | 0.5nm,0.4s,baz=98,slow=8.9,SNR=3.3 | | | | | | |
| ASAR | Alice Springs | 51.16 | 192 | P | P | 16 11 50.1 | -0.7 |
| | 0.2nm,0.6s,baz=6.6,slow=5.6,SNR=7.1 | | | | | | |
| MKAR | Makanchi Array | 52.09 | 310 | P | P | 16 11 58.0 | +0.3 |
| | 1.8nm,1.0s,baz=86,slow=11,SNR=7.0 | | | | | | |
| BVAR | Borovoye Array | 59.52 | 318 | P | P | 16 12 51.6 | +0.9 |
| | 0.6nm,0.5s,baz=102,slow=5.1,SNR=4.6 | | | | | | |
| KBZ | Khabaz | 79.56 | 314 | P | P | 16 14 56.1 | +1.7 |
| | 2.3nm,0.8s,baz=42,slow=5.1,SNR=4.5 | | | | | | |
| PDAR | Pinedale Array | 83.10 | 45 | P | P | 16 15 13.9 | +0.3 |
| | 0.2nm,0.6s,baz=242,slow=1.9,SNR=2.9 | | | | | | |
| LPAZ | La Paz | 148.19 | 77 | PKPbc | PKPab | 16 22 37.0 | -0.8 |
| | 0.8nm,0.5s,baz=317,slow=2.6,SNR=4.6 | | | | | | |

*DDA **10** 16:04:02.9, 38°.97N×43°.78E, h7km, Md2.4*
*ISCJB **10** 16:04:03.8±0.7, 39°.02N±0°.04×43°.75E±0°.05, h3km±7km, Error ellipse: s-maj=7.6km s-min=5.6km az=141.5*
*ISK **10** 16:04:03.2, 39°.06N×43°.72E, h5km, MD2.7*
*ATA **10** 16:04:04.7±0.7, 39°.25N×43°.65E, h0km±900km, ML2.5*
*CSEM **10** 16:04:04.4±0.3, 39°.06N×43°.76E, h2km, MD2.4, Error ellipse: s-maj=6.8km s-min=6.0km az=147.0*
**ISC 10 16:04:03.6**±1.0**, 39°.00N**±0°.04×**43°.75E**±0°.03**, h6**km±9km**, n29, σ1s.13**/41**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.14 | 264 | i P | Pg | 16 04 05.1 | -1.5 |
| VMUR | | | | i S | Sg | 16 04 10.0 | +1.5 |
| CLDR | Caldiran | 0.19 | 43 | ePG | Pg | 16 04 06.8 | -0.7 |
| CLDR | | | | eSG | Sg | 16 04 10.8 | +0.7 |
| CLDR | Caldiran | 0.19 | 43 | i P | Pg | 16 04 07.1 | -0.4 |
| CLDR | | | | i S | Sg | 16 04 11.5 | +1.4 |
| CLDR | Caldiran | 0.19 | 43 | ePg | Pg | 16 04 06.8 | -0.7 |
| CLDR | Caldiran | 0.19 | 43 | P | Pg | 16 04 07.1 | -0.4 |
| CLDR | | | | eSg | Sg | 16 04 10.8 | +0.7 |
| CLDR | | | | S | Sg | 16 04 11.5 | +1.4 |
| VANB | Van | 0.50 | 215 | ePG | Pb | 16 04 15.9 | +1.1 |
| VANB | Van | 0.50 | 215 | ePg | Pb | 16 04 15.9 | +1.1 |
| DYDN | Diyadin | 0.54 | 355 | eP | Pg | 16 04 13.3 | -0.8 |
| DYDN | | | | IAML | | 16 04 26.3 | |
| | comp=Z,35nm,0.4s | | | | | | |
| DYDN | | | | eS | Sn | 16 04 29.3 | +1.6 |
| DYDN | Diyadin | 0.54 | 355 | eP | Pg | 16 04 11.9 | -2.2 |
| DYDN | | | | IAML | | 16 04 26.3 | |
| | comp=Z,35nm,0.4s | | | | | | |
| DYDN | Diyadin | 0.54 | 355 | i P | Pg | 16 04 13.4 | -0.7 |
| DYDN | | | | i S | Sb | 16 04 22.2 | -1.7 |
| DYDN | Diyadin | 0.54 | 355 | P | Pg | 16 04 13.4 | -0.7 |
| DYDN | | | | S | Sb | 16 04 22.2 | -1.7 |
| AGRB | Hanur-Agry | 0.82 | 314 | ePG | Pg | 16 04 19.1 | -0.3 |
| AGRB | Hanur-Agry | 0.82 | 314 | ePg | Pg | 16 04 19.1 | -0.3 |
| TUTA | Tutak | 0.83 | 299 | eP | Pg | 16 04 18.6 | -1.0 |
| TUTA | | | | IAML | | 16 04 37.9 | |
| | comp=Z,32nm,0.4s | | | | | | |
| TUTA | Tutak | 0.83 | 299 | eP | Pg | 16 04 18.5 | -1.1 |
| TUTA | | | | IAML | | 16 04 37.8 | |
| | comp=Z,32nm,0.4s | | | | | | |
| TUTA | Tutak | 0.83 | 299 | i P | Pg | 16 04 18.5 | -1.0 |
| TUTA | | | | i S | Sb | 16 04 31.2 | -1.0 |
| TUTA | Tutak | 0.83 | 299 | P | Pg | 16 04 18.5 | -1.1 |
| TUTA | | | | S | Sb | 16 04 31.2 | -1.0 |
| GEVA | Gevas | 0.88 | 218 | i P | Pg | 16 04 19.5 | -0.9 |
| TASB | TASBURUN-IGDIR | 1.05 | 21 | ePG | Pg | 16 04 24.0 | +0.2 |
| TASB | TASBURUN-IGDIR | 1.05 | 21 | ePg | Pg | 16 04 24.0 | +0.2 |
| EATA | Eleskirt | 1.30 | 312 | eP | Pn | 16 04 27.1 | -1.6 |
| EATA | | | | IAML | | 16 04 51.9 | |
| | comp=Z,3.0nm,0.6s | | | | | | |
| EATA | Eleskirt | 1.30 | 312 | eP | Pn | 16 04 27.0 | -1.6 |
| EATA | | | | IAML | | 16 04 51.9 | |
| | comp=Z,3.0nm,0.6s | | | | | | |
| EATA | Eleskirt | 1.30 | 312 | i P | Pg | 16 04 29.7 | +1.2 |
| EATA | | | | i S | Sn | 16 04 47.7 | +1.2 |
| EATA | Eleskirt | 1.30 | 312 | P | Pg | 16 04 29.7 | +1.2 |
| EATA | | | | S | Sn | 16 04 47.7 | +1.2 |
| EKAR | Karacoban | 1.33 | 281 | eP | Pg | 16 04 29.6 | +0.3 |
| EKAR | | | | IAML | | 16 04 38.2 | |
| | comp=Z,7.9nm,0.4s | | | | | | |
| EKAR | Karacoban | 1.33 | 281 | i P | Pg | 16 04 30.0 | +0.8 |
| EKAR | Karacoban | 1.33 | 281 | P | Pg | 16 04 30.0 | +0.8 |
| CUKT | Cukurca | 1.76 | 184 | ePN | Pb | 16 04 36.9 | +0.6 |
| CUKT | Cukurca | 1.76 | 184 | ePn | Pb | 16 04 36.9 | +0.6 |

*IDC **10** 16:04:22.8±1.7, 29°.78S×176°.06W, h0km, mb4.1/4, mb1 4.2/5, mb1mx3.9/27, mbtmp4.1/5, ML3.3/1, MS3.6/3, Ms1 3.6/3, ms1mx3.1/32, Error ellipse: s-maj=35.0km s-min=29.8km az=169.0*
*ISCJB **10** 16:04:24.3±1.5, 29°.87S±0°.05×175°.9W±0°.1, h33km, mb4.1/4, MS3.9/2, Error ellipse: s-maj=16.6km s-min=7.4km az=172.7*
**ISC 10 16:04:27.5**±1.6**, 29°.80S**±0°.08×**176°.0W**±0°.1**, h35km, n15, σ1s.56**/19**, mb4.2**/4**, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RAO | Raoul Island | 1.73 | 288 | Pn | Pn | 16 04 53.8 | -1.3 |
| | 177nm,0.3s,baz=94,slow=13,SNR=14 | | | | | | |
| RAO | | | | Sn | Sn | 16 05 16.0 | +0.1 |
| | 375nm,0.3s,baz=278,slow=23,SNR=7.7 | | | | | | |
| HAZ | Te Kaha | 9.46 | 211 | ePN | Pn | 16 06 41.7 | +0.5 |
| HAZ | | | | eSN | Sn | 16 08 28.3 | +2.1 |
| PUZ | Puketiti | 9.52 | 208 | ePN | Pn | 16 06 40.6 | -1.5 |
| PUZ | | | | eSN | Sn | 16 08 28.3 | +0.5 |
| MWZ | Matawai | 10.05 | 210 | ePN | Pn | 16 06 47.9 | -1.5 |
| URZ | Urewera | 10.17 | 212 | Pn | Pn | 16 06 48.4 | -2.6 |
| | 0.2nm,0.3s,baz=158,slow=5.4,SNR=3.4 | | | | | | |
| URZ | | | | Sn | Sn | 16 08 45.0 | +1.2 |
| | 2.6nm,0.3s,baz=168,slow=22,SNR=11 | | | | | | |
| RAGZ | Rawiri | 10.23 | 210 | ePN | Pn | 16 06 50.9 | -1.0 |
| RAGZ | | | | eSN | Sn | 16 08 47.7 | +2.3 |
| BFZ | Birch Farm | 12.55 | 208 | ePN | Pn | 16 07 23.3 | -0.3 |
| BFZ | | | | eSN | Sn | 16 09 38.9 | -3.2 |
| DZM | Mont Dzumac | 17.52 | 292 | LR | LR | 16 13 59.0 | |
| | comp=Z,84nm,18.9s,baz=63,slow=33 | | | | | | |
| CTA | Charters Tower | 35.40 | 277 | P | P | 16 11 21.0 | +0.7 |
| | 2.4nm,0.8s,baz=95,slow=11,SNR=5.4 | | | | | | |
| STKA | Stephens Creek | 36.27 | 256 | P | P | 16 11 29.2 | +1.5 |
| | 2.1nm,0.5s,baz=94,slow=13,SNR=4.8 | | | | | | |
| ASAR | Alice Springs | 44.85 | 265 | P | P | 16 12 38.2 | -0.4 |
| | 0.6nm,0.5s,baz=104,slow=7.3,SNR=27 | | | | | | |
| ASAR | | | | LR | LR | 16 31 37.6 | |
| | comp=Z,66nm,18.3s,baz=162,slow=36 | | | | | | |
| WRA | Warramunga Arr | 45.78 | 271 | P | P | 16 12 46.0 | 0.0 |
| | 1.7nm,0.5s,baz=109,slow=7.9,SNR=15 | | | | | | |
| BBB | Bella Bella | 91.77 | 27 | LR | LR | 16 58 45.9 | |
| | comp=Z,70nm,18.1s,baz=88,slow=36 | | | | | | |
| FINES | FINESS Array B | 145.14 | 342 | PKPbc | PKPbc | 16 24 00.0 | -0.1 |
| | 5.9nm,1.1s,baz=48,slow=4.1,SNR=4.7 | | | | | | |
| AKASG | Malin Array Be | 151.82 | 325 | PKPbc | PKPbc | 16 24 18.7 | +0.5 |
| | 1.0nm,0.5s,baz=43,slow=3.2,SNR=7.6 | | | | | | |

*ISCJB **10** 16:13:49.4±0.6, 32°.13N±0°.02×58°.46E±0°.02, h8km±4km, mb4.5/90, MS4.0/19, Error ellipse: s-maj=3.5km s-min=3.2km az=15.6*
*CSEM **10** 16:13:50.9±0.1, 32°.16N×58°.49E, h10km, mb4.7/45, Error ellipse: s-maj=4.7km s-min=3.6km az=134.0*
*THR **10** 16:13:50.2±1.4, 32°.16N×58°.46E, h14km±12km, ML4.4*

TEH **10** 16:13:51.2, 32°.20N×58°.50E, h10km, ML4.6
NEIC **10** 16:13:51.2±0.0, 32°.20N×58°.50E, h10km, mb4.7/43, MN4.6(TEH), After TEH.
MOS **10** 16:13:52.8±1.2, 32°.06N×58°.41E, h33km, mb4.8/44, Error ellipse: s-maj=7.2km s-min=4.8km az=106.4
BJI **10** 16:13:52.9, 31°.92N×58°.70E, h24km, mb4.6/41, mB5.0/27, Ms4.5/20, Ms7 4.2/18
DSN **10** 16:13:54.2±0.5, 32°.08N×58°.27E, h26km, mb4.7/1, Error ellipse: s-maj=14.8km s-min=5.3km az=108.0
IDC **10** 16:13:54.8±2.5, 32°.05N×58°.45E, h37km±21km, mb4.2/27, mb1 4.3/35, mb1mx4.2/47, mbtmp4.4/35, ML3.8/7, MS3.8/13, Ms1 3.8/13, ms1mx3.3/55, Error ellipse: s-maj=13.4km s-min=10.6km az=175.0
**ISC 10 16:13:52.3**±0.6**, 32°.14N**±0°.03×**58°.52E**±0°.03**, h18**km±2km**, n335,** σ1°.**50**/357**, mb4.7**/90**, MS3.9**/19**, 13C-10D, Northern and central Iran**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| IKOO | Kooshah | 0.50 | 55 | ePg | Pg | 16 13 59.7 | -2.7 |
| IKOO | | | | eAMB | AMB | 16 14 11.0 | |
| | comp=Z,79µm,0.2s | | | | | | |
| IKOO | Kooshah | 0.50 | 55 | ePg | Pg | 16 13 59.7 | -2.7 |
| ITEG | Tejag | 0.78 | 14 | eSg | Sg | 16 14 13.6 | -4.3 |
| ITEG | | | | ePg | Pg | 16 14 04.2 | -3.3 |
| ITEG | | | | eAMB | AMB | 16 14 15.6 | |
| | comp=Z,35µm,0.3s | | | | | | |
| IDAH | Dahanechah | 1.29 | 62 | ePg | Pn | 16 14 14.6 | -1.0 |
| IDAH | | | | eSg | Sb | 16 14 34.3 | +1.9 |
| IDAH | | | | eAMB | AMB | 16 14 43.7 | |
| | comp=Z,77µm,0.4s | | | | | | |
| IDAH | Dahanechah | 1.29 | 62 | ePg | Pn | 16 14 14.6 | -1.0 |
| IDAH | | | | eSg | Sb | 16 14 34.3 | +1.9 |
| IMON | Monand | 1.43 | 42 | ePg | Pn | 16 14 17.0 | -0.5 |
| IMON | | | | eAMB | AMB | 16 14 41.3 | |
| | comp=Z,83µm,0.2s | | | | | | |
| IMON | Monand | 1.43 | 42 | ePg | Pn | 16 14 17.0 | -0.5 |
| SHRT | Shahrakht | 2.12 | 44 | ePn | Pn | 16 14 27.8 | +1.0 |
| SHRT | | | | eSg | Sb | 16 14 56.7 | +0.6 |
| SHRT | Shahrakht | 2.12 | 44 | ePn | Pn | 16 14 27.8 | +1.0 |
| SHRT | | | | eSg | Sb | 16 14 56.7 | +0.6 |
| CHMN | Cheshme madani | 2.42 | 201 | ePn | Pn | 16 14 30.6 | -0.7 |
| CHMN | Cheshme madani | 2.42 | 201 | ePn | Pn | 16 14 30.6 | -0.7 |
| KHGB | Koh Gabri | 2.48 | 225 | ePn | Pn | 16 14 32.0 | 0.0 |
| KHGB | Koh Gabri | 2.48 | 225 | ePn | Pn | 16 14 32.0 | 0.0 |
| IBAF | Bafgh | 2.57 | 258 | eAMB | AMB | 16 15 12.7 | |
| | comp=Z,65µm,0.2s | | | | | | |
| TVBK | TV Kerman | 2.62 | 216 | ePn | Pn | 16 14 35.0 | +0.9 |
| TVBK | TV Kerman | 2.62 | 216 | ePn | Pn | 16 14 35.0 | +0.9 |
| KRBR | Kerman | 2.63 | 215 | ePn | Pn | 16 14 34.4 | +0.4 |
| KRBR | | | | eSg | Sb | 16 15 11.8 | +0.7 |
| KRBR | | | | AML | AML | 16 15 16.7 | |
| | comp=N,2µm,0.2s | | | | | | |
| KRBR | | | | AML | AML | 16 15 18.4 | |
| | comp=E,2µm,0.5s | | | | | | |
| KRBR | Kerman | 2.63 | 215 | eP | Pn | 16 14 34.5 | +0.4 |
| NGRK | Negar Kerman | 2.93 | 212 | ePn | Pn | 16 14 38.9 | +0.7 |
| NGRK | Negar Kerman | 2.93 | 212 | ePn | Pn | 16 14 38.9 | +0.7 |
| ZHSF | Zahedan | 3.18 | 142 | ePn | Pn | 16 14 43.4 | +1.8 |
| ZHSF | Zahedan | 3.18 | 142 | ePn | Pn | 16 14 43.4 | +1.8 |
| IMEH | Mehriz | 3.41 | 258 | ePn | Pn | 16 14 44.4 | -0.4 |
| IMEH | | | | eAMB | AMB | 16 15 38.9 | |
| | comp=Z,21µm,0.4s | | | | | | |
| IMEH | Mehriz | 3.41 | 258 | ePn | Pn | 16 14 44.4 | -0.4 |
| ICHK | Chekchek | 3.49 | 273 | ePn | Pn | 16 14 45.5 | -0.3 |
| ICHK | | | | eAMB | AMB | 16 15 46.2 | |
| | comp=Z,43µm,0.4s | | | | | | |
| ICHK | Chekchek | 3.49 | 273 | ePn | Pn | 16 14 45.5 | -0.3 |
| IMOG | Moghan | 4.01 | 10 | ePn | Pn | 16 14 54.4 | +1.3 |
| IMOG | | | | eAMB | AMB | 16 16 18.9 | |
| | comp=Z,3µm,0.4s | | | | | | |
| IMOG | Moghan | 4.01 | 10 | ePn | Pn | 16 14 54.4 | +1.3 |
| ISAD | Sadrabad | 4.11 | 268 | ePn | Pn | 16 14 54.0 | -0.5 |
| ISAD | | | | eAMB | AMB | 16 16 05.0 | |
| | comp=Z,16µm,0.4s | | | | | | |
| ISAD | Sadrabad | 4.11 | 268 | ePn | Pn | 16 14 54.0 | -0.5 |
| IPAY | Payeh | 4.32 | 5 | ePn | Pn | 16 14 58.6 | +1.4 |
| IPAY | | | | eAMB | AMB | 16 16 27.8 | |
| | comp=Z,3µm,0.5s | | | | | | |
| IPAY | Payeh | 4.32 | 5 | ePn | Pn | 16 14 58.6 | +1.4 |
| SHRO | Shahrood | 4.37 | 332 | ePn | Pn | 16 14 58.1 | +0.3 |
| SHRO | Shahrood | 4.37 | 332 | ePn | Pn | 16 14 58.1 | +0.3 |
| IAKL | Akhelmad | 4.45 | 2 | eAMB | AMB | 16 16 19.8 | |
| | comp=Z,3µm,0.3s | | | | | | |
| IAKL | | | | eAMB | AMB | 16 16 23.7 | |
| | comp=N,3µm,0.4s | | | | | | |
| BJRD | Bojnurd | 5.62 | 351 | ePn | Pn | 16 15 15.5 | +0.4 |
| BJRD | | | | AML | AML | 16 16 28.8 | |
| | comp=N,134nm,1.0s | | | | | | |
| BJRD | Bojnurd | 5.62 | 351 | ePn | Pn | 16 15 15.5 | +0.4 |
| GEYT | Alibeck | 5.78 | 357 | Pn | Pn | 16 15 18.1 | +0.9 |
| | comp=N,1.9nm,0.3s,baz=179,slow=16,SNR=18 | | | | | | |
| GEYT | | | | Sn | Sn | 16 16 25.2 | +2.1 |
| | comp=N,1.0nm,0.3s,baz=169,slow=16,SNR=2.3 | | | | | | |
| MRVT | Maraveh tapeh | 5.86 | 341 | ePn | Pn | 16 15 18.7 | +0.5 |
| MRVT | Maraveh tapeh | 5.86 | 341 | ePn | Pn | 16 15 18.7 | +0.5 |
| BANOM | Banah | 6.49 | 198 | i P | Pn | 16 15 27.6 | +0.6 |
| | SNR=13 | | | | | | |
| BANOM | Banah | 6.49 | 198 | P | Pn | 16 15 27.6 | +0.6 |
| | SNR=13 | | | | | | |
| UOSS | Minazif | 7.45 | 196 | ePn | Pn | 16 15 40.3 | +0.2 |
| UOSS | Minazif | 7.45 | 196 | ePn | Pn | 16 15 40.3 | +0.2 |
| NAZ | Nazwa, Dubai | 7.56 | 200 | i P | Pn | 16 15 42.0 | +0.5 |
| | SNR=6.8 | | | | | | |
| NAZ | Nazwa, Dubai | 7.56 | 200 | P | Pn | 16 15 42.0 | +0.5 |
| | SNR=6.8 | | | | | | |
| HATD | Hatta, Dubai | 7.58 | 197 | P | Pn | 16 15 41.2 | -0.7 |
| HATD | Hatta, Dubai | 7.58 | 197 | P | Pn | 16 15 41.2 | -0.7 |
| FAQ | Al Faqa, Dubai | 7.81 | 200 | P | Pn | 16 15 44.3 | -0.7 |
| FAQ | Al Faqa, Dubai | 7.81 | 200 | P | Pn | 16 15 44.3 | -0.7 |
| WSAR | Wadi Sarin | 8.87 | 179 | Pn | Pn | 16 15 59.2 | -0.4 |
| | comp=N,0.8nm,0.3s,baz=3.6,slow=9.6,SNR=9.8 | | | | | | |
| WSAR | | | | Sn | Sn | 16 17 36.1 | -2.9 |
| | comp=N,0.2nm,0.3s,baz=8.7,slow=7.6,SNR=2.0 | | | | | | |
| KBL | Kabul | 9.12 | 72 | eP | Pn | 16 16 10.3 | +7.1 |
| KBL | Kabul | 9.12 | 72 | ePn | Pn | 16 16 10.3 | +7.1 |
| KBL | Kabul | 9.12 | 72 | ePn | Pn | 16 16 10.3 | +7.1 |
| BHJ | Bhuj | 13.25 | 129 | eP | Pn | 16 16 58.1 | -1.3 |
| BHJ | | | | AMB | AMB | 16 17 23.8 | |
| | comp=Z,59nm,2.0s | | | | | | |
| GNI | Garni | 13.69 | 310 | Pn | Pn | 16 17 08.2 | +2.6 |
| | comp=Z,0.3nm,0.3s,baz=63,slow=18,SNR=4.5 | | | | | | |
| GNI | | | | LR | LR | 16 23 37.7 | |
| | comp=Z,89nm,18.9s,baz=139,slow=42 | | | | | | |
| GNI | Garni | 13.69 | 310 | ⇓eP | Pn | 16 17 09.8 | +4.2 |
| GNI | Garni | 13.69 | 310 | ePn | Pn | 16 17 08.5 | +2.9 |
| GNI | Garni | 13.69 | 310 | ePn | Pn | 16 17 08.5 | +2.9 |
| MAK | Makhachkala | 13.88 | 324 | eP | Pn | 16 17 09.7 | +1.8 |
| MAK | | | | eS | Sn | 16 19 40.1 | -1.4 |
| MAK | | | | pmax | pmax | | |
| | comp=Z,108nm,1.1s | | | | | | |
| MAK | | | | MLR | MLR | | |
| | comp=Z,87nm,11.0s | | | | | | |
| RAYN | Ar Rayn | 14.35 | 237 | ePn | Pn | 16 17 14.6 | 0.0 |
| RAYN | Ar Rayn | 14.35 | 237 | ePn | Pn | 16 17 14.6 | 0.0 |
| GROC | Groznyy | 14.93 | 321 | eP | Pn | 16 17 22.7 | +0.4 |
| GROC | | | | S | Sn | 16 20 11.6 | +4.5 |
| GROC | | | | pmax | pmax | | |
| | comp=Z,79nm,1.2s | | | | | | |
| DHRM | DHARAMSHALA | 15.06 | 85 | eP | Pn | 16 17 24.7 | +0.4 |
| DHRM | | | | AMB | AMB | 16 17 33.8 | |
| | comp=Z,31nm,0.8s | | | | | | |
| SMLA | Simla | 15.92 | 89 | eP | Pn | 16 17 35.1 | -0.3 |
| SMLA | | | | AMB | AMB | 16 17 42.7 | |
| | comp=Z,24nm,0.9s | | | | | | |
| KSH | Kashi | 15.94 | 58 | P | Pn | 16 17 32.3 | -3.4 |
| KSH | | | | pP | P | 16 17 38.3 | -0.9 |
| KSH | | | | PP | sP | 16 17 45.5 | -1.2 |
| KSH | | | | S | Sn | 16 20 24.6 | -7.4 |
| KSH | | | | SS | SnSn | 16 20 43.8 | -1.1 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,12nm,1.2s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,180nm,7.1s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,200nm,5.9s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,280nm,5.9s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,330nm,6.8s | | | | | | |
| ARTV | Artvin | 16.06 | 309 | ePn | Pn | 16 17 36.2 | -1.2 |
| | comp=Z,7.7nm,1.0s | | | | | | |
| ARTV | Artvin | 16.06 | 309 | ePn | Pn | 16 17 36.2 | -1.2 |
| | comp=Z,7.7nm,1.0s | | | | | | |
| NCK | Nalchik | 16.33 | 318 | ⇑eP | P | 16 17 44.2 | +0.8 |
| NCK | | | | pmax | pmax | | |
| | comp=Z,35nm,0.7s | | | | | | |
| NCK | Nalchik | 16.33 | 318 | eP | P | 16 17 44.2 | +0.8 |
| | comp=Z,35nm,0.7s | | | | | | |
| AAK | Ala-Archa | 16.43 | 46 | Pn | Pn | 16 17 43.7 | +1.7 |
| | comp=Z,0.2nm,0.3s,baz=224,slow=8.2,SNR=12 | | | | | | |
| AAK | | | | LR | LR | 16 25 06.7 | |
| | comp=Z,414nm,20.9s,baz=228,slow=41 | | | | | | |
| AAK | Ala-Archa | 16.43 | 46 | ⇑iP | P | 16 17 45.3 | +0.6 |
| AAK | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.1s | | | | | | |
| AAK | Ala-Archa | 16.43 | 46 | ePn | Pn | 16 17 44.1 | +2.0 |
| | comp=Z,16nm,1.1s | | | | | | |
| AAK | Ala-Archa | 16.43 | 46 | i P | P | 16 17 45.3 | +0.6 |
| | comp=Z,7.0nm,1.1s | | | | | | |
| AAK | Ala-Archa | 16.43 | 46 | ePn | Pn | 16 17 44.1 | +2.0 |
| | comp=Z,16nm,1.1s | | | | | | |
| FRU | Bishkek | 16.62 | 45 | eP | Pn | 16 17 44.0 | -0.3 |
| NEY | Neytrino | 16.68 | 316 | ⇑eP | Pn | 16 17 47.7 | +2.5 |
| NEY | | | | pmax | pmax | | |
| | comp=Z,1.0nm,1.0s | | | | | | |
| NEY | Neytrino | 16.68 | 316 | eP | Pn | 16 17 47.7 | +2.5 |
| | comp=Z,1.0nm,1.0s | | | | | | |
| DDI | Dehra Dun | 16.81 | 91 | eP | Pn | 16 17 46.6 | -0.2 |
| DDI | | | | AMB | AMB | 16 17 55.5 | |
| | comp=Z,25nm,0.7s | | | | | | |
| KBZ | Khabaz | 16.87 | 318 | Pn | Pn | 16 17 48.2 | +0.9 |
| | comp=Z,0.2nm,0.3s,baz=128,slow=9.6,SNR=6.1 | | | | | | |
| KVAR | Kislovodsk Arr | 17.12 | 318 | P | Pn | 16 17 52.8 | +2.0 |
| | baz=90,slow=20,SNR=4.7 | | | | | | |
| KIV | Kislovodsk | 17.13 | 318 | eP | Pn | 16 17 51.7 | +1.0 |
| KIV | | | | eS | Sn | 16 21 00.0 | -0.8 |
| KIV | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.9s | | | | | | |
| KIV | Kislovodsk | 17.13 | 318 | eP | Pn | 16 17 51.9 | +1.2 |
| | comp=Z,16nm,0.8s | | | | | | |
| KIV | Kislovodsk | 17.13 | 318 | eP | Pn | 16 17 51.9 | +1.2 |
| | comp=Z,16nm,0.8s | | | | | | |
| AB31 | Akbulak array | 17.13 | 3 | i P | Pn | 16 17 50.0 | -0.6 |
| AB31 | | | | pmax | pmax | | |
| | comp=Z,19nm,1.0s | | | | | | |
| TKM2 | Tokmak 2 | 17.27 | 47 | i P | P | 16 17 55.6 | +1.6 |
| TKM2 | | | | pmax | pmax | | |
| | comp=Z,12nm,1.4s | | | | | | |
| TKM2 | Tokmak 2 | 17.27 | 47 | i P | P | 16 17 55.6 | +1.6 |
| | comp=Z,12nm,1.4s | | | | | | |
| MALT | Malatya | 17.52 | 296 | P | P | 16 18 00.3 | +3.6 |
| GOF | Gofitskoye | 17.64 | 321 | ⇑eP | Pn | 16 17 55.4 | -1.6 |
| GOF | | | | pmax | pmax | | |
| | comp=Z,26nm,1.0s | | | | | | |
| GOF | Gofitskoye | 17.64 | 321 | eP | Pn | 16 17 55.4 | -1.6 |
| | comp=Z,26nm,1.0s | | | | | | |
| AKTK | Aktyubinsk | 18.28 | 359 | P | Pn | 16 18 06.4 | +1.6 |
| | comp=Z,1.0nm,0.3s | | | | | | |
| AKTO | Aktyubinsk | 18.28 | 359 | P | Pn | 16 18 06.3 | +1.5 |
| | comp=Z,1.0nm,0.3s,baz=179,slow=10,SNR=26 | | | | | | |
| ASF | Jabal al Asfar | 18.31 | 276 | P | Pn | 16 18 05.7 | +0.3 |
| | comp=Z,0.5nm,0.3s,baz=83,slow=16,SNR=2.8 | | | | | | |
| BHPL | Bhopal | 18.92 | 113 | eP | P | 16 18 12.8 | +0.6 |
| BHPL | | | | AMB | AMB | 16 18 16.1 | |
| | comp=Z,20nm,1.1s | | | | | | |
| POO | Poona | 19.35 | 131 | eP | P | 16 18 18.5 | +1.5 |
| POO | | | | AMB | AMB | 16 18 21.4 | |
| | comp=Z,21nm,1.3s | | | | | | |
| PDGK | Podgornoye | 19.94 | 50 | i P | Pn | 16 18 28.2 | +3.2 |
| PDGK | | | | pmax | pmax | | |
| | comp=Z,17nm,0.8s | | | | | | |
| EIL | Elat | 20.37 | 269 | P | P | 16 18 28.1 | +0.3 |
| | comp=Z,12nm,0.8s,baz=34,slow=2.1,SNR=7.9 | | | | | | |
| EIL | | | | LR | LR | 16 27 59.8 | |
| | comp=Z,238nm,18.8s,baz=61,slow=42 | | | | | | |
| ANN | Anapa | 20.72 | 314 | eP | P | 16 18 30.0 | -1.6 |
| ANN | | | | e*PP | sP | 16 18 47.7 | +8.7 |
| ANN | | | | eS | S | 16 22 13.4 | -8.7 |
| ANN | | | | pmax | pmax | | |
| | comp=Z,53nm,1.0s | | | | | | |
| ANN | Anapa | 20.72 | 314 | eP | P | 16 18 30.0 | -1.6 |
| | comp=Z,53nm,1.0s | | | | | | |
| CSS | Mathiatis | 21.17 | 285 | eP | P | 16 18 39.1 | +2.6 |
| | comp=Z,4.2nm,0.9s | | | | | | |
| CSS | Mathiatis | 21.17 | 285 | eP | P | 16 18 39.1 | +2.6 |
| | comp=Z,4.2nm,0.9s | | | | | | |
| BR131 | Keskin Array S | 21.48 | 298 | eP | P | 16 18 40.2 | +0.2 |
| BR131 | Keskin Array S | 21.48 | 298 | eP | P | 16 18 40.2 | +0.2 |
| BRTR | Keskin Array B | 21.48 | 298 | P | P | 16 18 40.8 | +0.8 |
| | comp=Z,7.8nm,0.9s,baz=102,slow=12,SNR=29 | | | | | | |
| BRTR | | | | PcP | PcP | 16 22 42.8 | +0.2 |
| | comp=Z,0.7nm,0.8s,baz=160,slow=3.2,SNR=3.3 | | | | | | |
| BRTR | Keskin Array B | 21.48 | 298 | ceP | P | 16 18 41.0 | +1.0 |
| BRTR | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.9s | | | | | | |
| PYUN | Piuthan | 21.53 | 94 | eP | P | 16 18 43.7 | +3.0 |
| | comp=Z,60nm,0.9s | | | | | | |
| GOA | Goa | 21.65 | 136 | eP | P | 16 18 42.2 | +0.4 |
| DANN | Dangsing | 22.11 | 93 | eP | P | 16 18 50.3 | +3.2 |
| KOLN | Koldanda | 22.14 | 95 | eP | P | 16 18 49.7 | +2.4 |
| | comp=Z,67nm,1.3s | | | | | | |
| BRVK | Borovoye | 22.57 | 19 | c iP | P | 16 18 52.2 | +0.8 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,31nm,0.9s | | | | | | |
| BRVK | Borovoye | 22.57 | 19 | eP | P | 16 18 52.6 | +1.2 |
| | comp=Z,32nm,1.0s | | | | | | |
| BRVK | Borovoye | 22.57 | 19 | eP | P | 16 18 52.6 | +1.2 |
| | comp=Z,32nm,1.0s | | | | | | |
| BVAR | Borovoye Array | 22.57 | 19 | P | P | 16 18 52.5 | +1.1 |
| | comp=Z,23nm,0.6s,baz=198,slow=11,SNR=114 | | | | | | |
| BVAR | | | | PcP | PcP | 16 22 44.4 | +0.1 |
| | comp=Z,2.7nm,0.7s,baz=217,slow=2.4,SNR=6.9 | | | | | | |
| VRH | Novokhopyorsk | 22.71 | 332 | eP | P | 16 18 53.5 | +0.7 |
| VRH | | | | pmax | pmax | | |
| | comp=Z,20nm,0.6s | | | | | | |
| MAKZ | Makanchi | 23.17 | 44 | eP | P | 16 18 59.0 | +1.3 |
| MAKZ | | | | pmax | pmax | | |
| | comp=Z,13nm,0.9s | | | | | | |
| MAKZ | Makanchi | 23.17 | 44 | eP | P | 16 18 59.0 | +1.3 |
| | comp=Z,13nm,0.9s | | | | | | |
| MAKZ | Makanchi | 23.17 | 44 | eP | P | 16 18 59.0 | +1.3 |
| | comp=Z,13nm,0.9s | | | | | | |
| HYB | Hyderabad | 23.30 | 124 | eP | P | 16 18 58.0 | -1.3 |
| MK01 | Makanchi Array | 23.34 | 44 | eP | P | 16 19 00.3 | +0.8 |
| MK01 | Makanchi Array | 23.34 | 44 | eP | P | 16 19 00.3 | +0.8 |
| MK31 | Makanchi Array | 23.35 | 44 | i P | P | 16 18 58.6 | -0.9 |
| MK31 | | | | pmax | pmax | | |
| | comp=Z,19nm,1.3s | | | | | | |
| MK31 | Makanchi Array | 23.35 | 44 | eP | P | 16 18 58.4 | -1.1 |
| MK31 | Makanchi Array | 23.35 | 44 | eP | P | 16 18 58.4 | -1.1 |
| MKAR | Makanchi Array | 23.35 | 44 | P | P | 16 19 00.7 | +1.2 |
| | comp=Z,6.1nm,0.9s,baz=238,slow=9.6,SNR=18 | | | | | | |
| MKAR | | | | PcP | PcP | 16 22 45.8 | -0.3 |
| | comp=Z,0.4nm,0.6s,baz=249,slow=1.9,SNR=4.6 | | | | | | |
| MKAR | | | | LR | LR | 16 29 44.8 | |
| | comp=Z,185nm,18.5s,baz=239,slow=40 | | | | | | |
| DMN | Daman | 23.47 | 94 | eP | P | 16 19 02.3 | +1.1 |
| | comp=Z,121nm,1.3s | | | | | | |
| KKN | Kakani | 23.56 | 94 | eP | P | 16 19 03.3 | +1.3 |
| | comp=Z,107nm,1.2s | | | | | | |
| KURBB | Kurchatov Arra | 23.67 | 33 | P | P | 16 19 04.6 | +2.0 |
| | comp=Z,8.1nm,0.8s,baz=233,slow=9.6,SNR=46 | | | | | | |
| KURBB | | | | PcP | PcP | 16 22 46.5 | -0.1 |
| | comp=Z,0.5nm,0.6s,baz=237,slow=2.7,SNR=4.9 | | | | | | |
| PKIN | Phulchoki | 23.72 | 94 | eP | P | 16 19 04.5 | +0.8 |
| | comp=Z,108nm,1.3s | | | | | | |
| PKI | Pulchoki | 23.73 | 94 | eP | P | 16 19 05.2 | +1.4 |
| | comp=Z,160nm,1.2s | | | | | | |
| KURK | Kurchatov | 23.77 | 33 | c iP | P | 16 19 05.1 | +1.5 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,16nm,0.9s | | | | | | |
| KURK | Kurchatov | 23.77 | 33 | eP | P | 16 19 03.5 | -0.1 |
| | comp=Z,12nm,0.8s | | | | | | |
| KURK | Kurchatov | 23.77 | 33 | eP | P | 16 19 03.5 | -0.1 |
| | comp=Z,12nm,0.8s | | | | | | |
| KURK | | | | PcP | PcP | 16 22 46.5 | -0.3 |
| VSR | Storozhevoye | 23.79 | 329 | eP | P | 16 19 02.6 | -1.1 |
| VSR | | | | pmax | pmax | | |
| | comp=Z,20nm,1.0s | | | | | | |
| GUN | Gumba | 24.03 | 93 | eP | P | 16 19 08.0 | +1.3 |
| | comp=Z,98nm,1.0s | | | | | | |
| ARU | Arti | 24.28 | 0 | P | P | 16 19 09.1 | +0.8 |
| | comp=Z,1.9nm,0.2s,baz=260,slow=2.3,SNR=8.1 | | | | | | |
| ARU | Arti | 24.28 | 0 | c iP | P | 16 19 09.4 | +1.1 |
| ARU | | | | | | 16 19 44.1 | |
| ARU | | | | S | S | 16 23 22.0 | -4.2 |
| ARU | | | | SS | SnSn | 16 24 14.1 | +4.9 |
| ARU | | | | pmax | pmax | | |
| | comp=Z,32nm,2.5s | | | | | | |
| ARU | Arti | 24.28 | 0 | eP | P | 16 19 08.8 | +0.5 |
| | comp=Z,15nm,1.2s | | | | | | |
| ARU | Arti | 24.28 | 0 | eP | P | 16 19 08.8 | +0.5 |
| | comp=Z,15nm,1.2s | | | | | | |
| JIRN | Jiri | 24.37 | 93 | eP | P | 16 19 10.8 | +1.0 |
| SVE | Sverdlovsk | 24.73 | 3 | ⇑eP | P | 16 19 13.7 | +1.4 |
| SVE | | | | pmax | pmax | | |
| | comp=Z,39nm,1.3s | | | | | | |
| LPSR | Galich'ya Gora | 24.90 | 331 | eP | P | 16 19 13.6 | -0.3 |
| LPSR | | | | pmax | pmax | | |
| | comp=Z,20nm,0.9s | | | | | | |
| RAMN | Ramite | 24.93 | 95 | eP | P | 16 19 15.6 | +0.8 |
| | comp=Z,76nm,1.0s | | | | | | |
| ATD | Arta Tunnel | 25.09 | 219 | LR | LR | 16 31 00.6 | |
| | comp=Z,293nm,19.0s,baz=19,slow=41 | | | | | | |
| BOK | Bokaro | 25.51 | 102 | eP | P | 16 19 20.7 | +1.0 |
| BOK | | | | AMB | AMB | 16 19 29.3 | |
| | comp=Z,6.7nm,0.9s | | | | | | |
| ODAN | Odare | 25.63 | 94 | eP | P | 16 19 22.0 | +0.9 |
| | comp=Z,78nm,1.1s | | | | | | |
| WMQ | Urumqi | 25.65 | 55 | P | P | 16 19 22.9 | +2.0 |
| WMQ | | | | pP | sP | 16 19 29.9 | +1.2 |
| WMQ | | | | sP | pP | 16 19 33.2 | +6.8 |
| WMQ | | | | S | S | 16 23 43.9 | -4.6 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,33nm,0.9s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,380nm,4.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,340nm,23.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,250nm,20.7s | | | | | | |
| TAPN | Taplejung | 25.75 | 93 | eP | P | 16 19 23.4 | +1.1 |
| | comp=Z,74nm,1.3s | | | | | | |
| KARP | Karpathos | 26.21 | 286 | eP | P | 16 19 24.8 | -1.3 |
| | comp=Z,13nm,0.9s | | | | | | |
| KARP | Karpathos | 26.21 | 286 | eP | P | 16 19 24.8 | -1.3 |
| | comp=Z,13nm,0.9s | | | | | | |
| VIS | Vishakhapatnam | 26.60 | 117 | eP | P | 16 19 30.2 | +0.6 |
| VIS | | | | AMB | AMB | 16 19 38.5 | |
| | comp=Z,7.5nm,1.3s | | | | | | |
| APE | Apeiranthos | 27.51 | 289 | ⇓eP | P | 16 19 39.5 | +1.7 |
| APE | | | | pmax | pmax | | |
| | comp=Z,14nm,0.9s | | | | | | |
| MDRS | Chennai | 27.52 | 129 | eP | P | 16 19 38.6 | +0.7 |
| MDRS | | | | AMB | AMB | 16 19 45.7 | |
| | comp=Z,21nm,1.1s | | | | | | |
| OBN | Obninsk | 27.70 | 332 | P | P | 16 19 39.0 | -0.1 |
| | comp=Z,6.4nm,0.4s,baz=151,slow=18,SNR=3.2 | | | | | | |
| OBN | Obninsk | 27.70 | 332 | eP | P | 16 19 39.9 | +0.8 |
| OBN | | | | e | | 16 20 28.6 | |
| OBN | | | | pmax | pmax | | |
| | comp=Z,19nm,1.1s | | | | | | |
| OBN | | | | MLR | MLR | | |
| | comp=Z,120nm,15.0s | | | | | | |
| OBN | Obninsk | 27.70 | 332 | P | P | 16 19 39.0 | -0.1 |
| DGZ | Jazzator, Alta | 27.77 | 42 | ⇓iP | P | 16 19 42.1 | +2.0 |
| DGZ | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.6s | | | | | | |
| IDI | Anoyia | 28.07 | 286 | P | P | 16 19 43.6 | +0.7 |
| | comp=Z,5.8nm,0.9s,baz=94,slow=9.6,SNR=5.4 | | | | | | |
| PLOR | Plostina | 28.09 | 308 | ⇑P | P | 16 19 46.0 | +3.1 |
| MLR | Muntele Rosu | 28.45 | 307 | P | P | 16 19 46.9 | +0.7 |
| | comp=Z,0.9nm,0.7s,baz=19,slow=6.0,SNR=5.1 | | | | | | |
| MLR | Muntele Rosu | 28.45 | 307 | ⇑P | P | 16 19 49.1 | +2.9 |
| MLR | Muntele Rosu | 28.45 | 307 | eP | P | 16 19 44.7 | -1.5 |
| | comp=Z,9.8nm,1.1s | | | | | | |
| MLR | Muntele Rosu | 28.45 | 307 | eP | P | 16 19 44.7 | -1.5 |
| | comp=Z,9.8nm,1.1s | | | | | | |
| AKASG | Malin Array Be | 28.47 | 319 | P | P | 16 19 45.8 | -0.2 |
| | comp=Z,3.6nm,0.6s,baz=118,slow=8.2,SNR=21 | | | | | | |
| AKASG | Malin Array Be | 28.47 | 319 | ceP | P | 16 19 45.7 | -0.4 |
| AKASG | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.6s | | | | | | |
| AKBB | Malin Array Si | 28.47 | 319 | eP | P | 16 19 45.2 | -0.9 |
| AKBB | | | | pmax | pmax | | |
| | comp=Z,11nm,0.8s | | | | | | |
| AKBB | Malin Array Si | 28.47 | 319 | eP | P | 16 19 45.2 | -0.9 |
| | comp=Z,11nm,0.8s | | | | | | |
| AKBB | Malin Array Si | 28.47 | 319 | eP | P | 16 19 45.2 | -0.9 |
| | comp=Z,11nm,0.8s | | | | | | |
| KIEV | Kiev | 28.47 | 319 | ⇑iP | P | 16 19 45.8 | -0.3 |
| KIEV | | | | pmax | pmax | | |
| | comp=Z,12nm,0.8s | | | | | | |
| KIEV | Kiev | 28.47 | 319 | eP | P | 16 19 45.1 | -1.0 |
| | comp=Z,11nm,0.8s | | | | | | |
| KIEV | Kiev | 28.47 | 319 | eP | P | 16 19 45.1 | -1.0 |
| | comp=Z,11nm,0.8s | | | | | | |
| NVS | Novosibirsk | 28.64 | 30 | eP | P | 16 19 49.8 | +2.2 |
| ZAA0 | Zalesovo Array | 28.77 | 33 | eP | P | 16 19 48.8 | +0.1 |
| | comp=Z,7.3nm,0.8s | | | | | | |
| ZAA0 | Zalesovo Array | 28.77 | 33 | eP | P | 16 19 48.8 | +0.1 |
| | comp=Z,7.3nm,0.8s | | | | | | |
| ZALV | Zalesovo Beam | 28.77 | 33 | P | P | 16 19 49.5 | +0.8 |
| | comp=Z,7.3nm,0.7s,baz=240,slow=9.6,SNR=37 | | | | | | |
| ZALV | | | | PcP | PcP | 16 22 57.1 | -1.3 |
| | comp=Z,0.6nm,0.5s,baz=225,slow=5.5,SNR=3.3 | | | | | | |
| ZALV | | | | LR | LR | 16 32 23.5 | |
| | comp=Z,97nm,19.5s,baz=246,slow=38 | | | | | | |
| ZALV | Zalesovo Beam | 28.77 | 33 | eP | P | 16 19 48.4 | -0.3 |
| ZALV | Zalesovo Beam | 28.77 | 33 | eP | P | 16 19 48.4 | -0.3 |
| ZALV | | | | PcP | PcP | 16 22 57.1 | -1.3 |
| VOIR | | 29.05 | 307 | ⇓P | P | 16 19 52.3 | +0.9 |
| TRD | Trivandrum | 29.09 | 140 | eP | P | 16 19 51.4 | -0.5 |
| BURAR | Bucovina Array | 29.59 | 311 | ⇓P | P | 16 19 57.0 | +0.8 |
| BUR04 | Bucovina Ar. S | 29.59 | 311 | eP | P | 16 19 56.9 | +0.6 |
| BUR04 | Bucovina Ar. S | 29.59 | 311 | eP | P | 16 19 56.9 | +0.6 |
| BUR08 | Bucovina Ar. S | 29.61 | 311 | eP | P | 16 19 55.8 | -0.6 |
| BUR08 | Bucovina Ar. S | 29.61 | 311 | eP | P | 16 19 55.8 | -0.6 |
| VTS | Vitosha | 29.75 | 301 | ⇓P | P | 16 19 58.6 | +0.9 |
| SHL | Shillong | 29.87 | 94 | eP | P | 16 19 58.7 | -0.3 |
| SHL | | | | AMB | AMB | 16 20 01.7 | |
| | comp=Z,10nm,1.2s | | | | | | |
| KLMR | Klimovskoe | 31.31 | 342 | eP | P | 16 20 09.7 | -1.4 |
| KLMR | | | | pmax | pmax | | |
| | comp=Z,22nm,1.2s | | | | | | |
| OJC | Ojcow | 33.80 | 314 | eP | P | 16 20 34.0 | +0.9 |
| OJC | | | | pmax | pmax | | |
| | comp=Z,21nm,1.2s | | | | | | |
| OJC | Ojcow | 33.80 | 314 | eP | P | 16 20 34.0 | +0.9 |
| | comp=Z,21nm,1.2s | | | | | | |
| OJC | Ojcow | 33.80 | 314 | eP | P | 16 20 34.0 | +0.9 |
| | comp=Z,21nm,1.2s | | | | | | |
| VYHS | Vyhne | 33.94 | 310 | eP | P | 16 20 34.2 | -0.1 |
| VYHS | Vyhne | 33.94 | 310 | eP | P | 16 20 34.2 | -0.1 |
| GTA | Gaotai | 34.05 | 66 | eP | P | 16 20 37.8 | +2.3 |
| GTA | | | | pP | sP | 16 20 41.7 | -1.6 |
| GTA | | | | sP | pP | 16 20 44.8 | +3.7 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,13nm,1.1s | | | | | | |
| GTA | | | | pmax | pmax | | |
| | comp=Z,94nm,5.8s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,320nm,19.0s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,260nm,18.3s | | | | | | |
| ARSA | Arzberg | 35.88 | 308 | i P | P | 16 20 51.5 | +0.4 |
| | comp=Z,3.4nm,0.8s | | | | | | |
| DPC | Dobruska-Polom | 35.98 | 313 | eP | P | 16 20 53.9 | +1.9 |
| DPC | | | | ex | x | 16 20 58.3 | |
| DPC | Dobruska-Polom | 35.98 | 313 | eP | P | 16 20 53.9 | +1.9 |
| DPC | Dobruska-Polom | 35.98 | 313 | eP | P | 16 20 53.9 | +1.9 |
| FINES | FINESS Array B | 36.07 | 334 | P | P | 16 20 52.6 | +0.2 |
| | comp=Z,3.4nm,0.7s,baz=120,slow=11,SNR=9.3 | | | | | | |
| UPC | Upice | 36.22 | 313 | eP | P | 16 20 54.7 | +0.8 |
| UPC | Upice | 36.22 | 313 | eP | P | 16 20 54.7 | +0.8 |
| UPC | Upice | 36.22 | 313 | eP | P | 16 20 54.7 | +0.8 |
| MOY | Mondy | 36.49 | 45 | eP | P | 16 20 59.3 | +2.9 |
| MOY | Mondy | 36.49 | 45 | eP | P | 16 20 59.3 | +2.9 |
| DGPR | DIGLIPUR | 36.72 | 113 | eP | P | 16 20 58.2 | -0.3 |
| DGPR | | | | AMB | AMB | 16 21 02.0 | |
| | comp=Z,65nm,1.2s | | | | | | |
| GEA0 | GERESS Array S | 37.34 | 310 | eP | P | 16 21 01.2 | -2.4 |
| GEA0 | GERESS Array S | 37.34 | 310 | eP | P | 16 21 01.2 | -2.4 |
| GEC2 | GERESS Array S | 37.34 | 310 | eP | P | 16 21 01.5 | -2.2 |
| GEC2 | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.9s | | | | | | |
| GEC2 | GERESS Array S | 37.34 | 310 | eP | P | 16 21 01.5 | -2.2 |
| | comp=Z,5.0nm,0.9s | | | | | | |
| GEC2 | GERESS Array S | 37.34 | 310 | eP | P | 16 21 01.4 | -2.2 |
| | comp=Z,5.0nm,0.9s | | | | | | |
| GERES | GERESS Array B | 37.34 | 310 | P | P | 16 21 03.5 | -0.1 |
| | comp=Z,3.0nm,0.7s,baz=99,slow=8.0,SNR=28 | | | | | | |

GERES PcP **PcP** **16 23 22.0 -0.5**
comp=Z,0.5nm,0.7s,baz=72,slow=3.2,SNR=3.8
**GERES** **GERESS Array B** **37.34 310** PcP **PcP** **16 23 22.0 -0.5**
comp=Z,1.0nm,0.7s
**KHC** **Kasperske Hory** **37.47 310** *eP* **P** **16 21 02.3 -2.4**
KHC *ex* x 16 21 28.3
**KHC** **Kasperske Hory** **37.47 310** *eP* **P** **16 21 02.3 -2.4**
**LZH** **Lanzhou** **37.48 71** *eP* **P** **16 21 07.6 +2.6**
LZH pP sP 16 21 15.9 +3.1
LZH sP pP 16 21 18.8 +8.2
LZH PP **PnPn** **16 22 38.3 +7.0**
LZH sS sS 16 27 04.6 +2.4
LZH SS **SnSn** **16 29 26.0 -4.7**
LZH pmax pmax
comp=Z,24nm,1.1s
LZH pmax pmax
comp=Z,160nm,5.0s
LZH LR LR
comp=Z,1μm,15.2s
LZH LR LR
comp=Z,1μm,13.2s
LZH LR LR
comp=Z,1μm,15.0s
**PBA** **Port Blair** **37.49 115** *eP* P 16 21 06.8 +1.7
**CLL** **Collm** **38.25 314** *eP* **P** **16 21 11.4 +0.2**
CLL pmax pmax
comp=Z,15nm,0.9s
**CLL** **Collm** **38.25 314** *eP* **P** **16 21 11.4 +0.2**
comp=Z,15nm,0.9s
**CLL** **Collm** **38.25 314** *eP* **P** **16 21 11.4 +0.2**
comp=Z,15nm,0.9s
**APA** **Apatity** **38.40 345** ⇓*iP* **P** **16 21 12.3 +0.1**
APA pmax pmax
comp=Z,21nm,0.9s
APA MLR MLR
comp=Z,800nm,12.0s
**APA** **Apatity** **38.40 345** *i* P **P** **16 21 12.3 +0.1**
comp=Z,800nm,12.0s
**WTTA** **Wattenberg** **38.50 307** *i* P **P** **16 21 12.3 -1.3**
comp=Z,4.5nm,0.7s
**CHTO** **Chiang Mai** **38.61 100** *eP* **P** **16 21 14.7 +0.2**
CHTO pmax pmax
comp=Z,9.0nm,1.0s
**CHTO** **Chiang Mai** **38.61 100** *eP* **P** **16 21 14.7 +0.2**
comp=Z,8.6nm,1.0s
**CHTO** **Chiang Mai** **38.61 100** *eP* **P** **16 21 14.7 +0.2**
comp=Z,8.6nm,1.0s
**CMAR** **Chiang Mai Arr** **38.77 101** P **P** **16 21 16.5 +0.6**
comp=Z,2.4nm,0.8s,baz=294,slow=8.6,SNR=20
**CMAR** **Chiang Mai Arr** **38.77 101** P **P** **16 21 16.5 +0.6**
CMAR pmax pmax
comp=Z,3.0nm,0.9s
**CM01** **Chiang Mai Arr** **38.80 101** *eP* **P** **16 21 15.2 -1.0**
**CM01** **Chiang Mai Arr** **38.80 101** *eP* **P** **16 21 15.2 -1.0**
**MOTA** **Moosalm** **38.87 307** *i* P **P** **16 21 15.3 -1.3**
comp=Z,3.0nm,0.7s
**FETA** **Feichten** **39.10 307** *i* P **P** **16 21 17.8 -0.7**
comp=Z,6.3nm,0.9s
**RETA** **Reutte** **39.12 307** *eP* **P** **16 21 17.6 -1.0**
comp=Z,8.0nm,1.3s
**KMI** **Kunming** **39.23 89** P **P** **16 21 20.2 +0.3**
KMI pmax pmax
comp=Z,12nm,0.5s
**SONM** **Songino Array** **39.23 52** P **P** **16 21 21.1 +1.5**
comp=Z,2.1nm,1.0s,baz=259,slow=9.4,SNR=10
SONM PcP **PcP** **16 23 28.7 +0.3**
comp=Z,0.6nm,0.8s,baz=270,slow=2.9,SNR=3.1
SONM LR LR 16 37 49.8
comp=Z,138nm,18.0s,baz=342,slow=36
**SONA1** **Songino Array** **39.24 52** *eP* **P** **16 21 21.6 +2.0**
**SONA1** **Songino Array** **39.24 52** *eP* **P** **16 21 21.6 +2.0**
**ULN** **Ulaanbaatar** **39.67 52** ⇓*iP* **P** **16 21 25.1 +1.8**
ULN pmax pmax
comp=Z,4.0nm,0.9s
**ULN** **Ulaanbaatar** **39.67 52** *eP* **P** **16 21 22.2 -1.1**
comp=Z,3.0nm,0.9s
**ULN** **Ulaanbaatar** **39.67 52** *eP* **P** **16 21 22.2 -1.1**
comp=Z,3.0nm,0.9s
**DAVA** **Damuels** **39.70 307** *i* P **P** **16 21 22.8 -0.7**
comp=Z,7.2nm,0.7s
**TUE** **Stuetta** **40.01 306** *eP* **P** **16 21 24.2 -2.0**
comp=Z,5.2nm,0.8s
**TUE** **Stuetta** **40.01 306** *eP* **P** **16 21 24.2 -2.0**
comp=Z,5.2nm,0.8s
**KEST** **Kesra** **40.62 289** P **P** **16 21 31.8 +0.6**
comp=Z,10nm,0.8s,baz=304,slow=2.6,SNR=9.5
KEST LR LR 16 42 10.6
comp=Z,82nm,18.8s,baz=290,slow=42
**KEST** **Kesra** **40.62 289** *eP* **P** **16 21 29.9 -1.3**
comp=Z,20nm,1.1s
**KEST** **Kesra** **40.62 289** *eP* **P** **16 21 29.9 -1.3**
comp=Z,20nm,1.1s
**SENIN** **Lac Senin/Sane** **41.42 305** *eP* **P** **16 21 37.2 -0.6**
comp=Z,5.5nm,0.7s
**SENIN** **Lac Senin/Sane** **41.42 305** *eP* **P** **16 21 37.2 -0.6**
comp=Z,5.5nm,0.7s
**ARCES** **ARCESS Array B** **41.77 343** P **P** **16 21 40.5 +0.4**
comp=Z,4.9nm,0.9s,baz=116,slow=8.2,SNR=6.6
**BNI** **Bardonecchia** **41.84 303** *eP* **P** **16 21 40.6 -0.6**
BNI pmax pmax
comp=Z,8.0nm,1.0s
**BNI** **Bardonecchia** **41.84 303** *eP* **P** **16 21 40.6 -0.6**
comp=Z,8.1nm,1.0s
**BNI** **Bardonecchia** **41.84 303** *eP* **P** **16 21 40.6 -0.6**
comp=Z,8.1nm,1.0s
**XAN** **Xi'an** **41.92 73** P **P** **16 21 42.5 +0.6**
XAN pP sP 16 21 54.0 +4.2
XAN pmax pmax
comp=Z,19nm,1.1s
XAN pmax pmax
comp=Z,330nm,5.9s
**NB2** **NORSAR Subarra** **42.06 328** P **P** **16 21 41.9 -0.7**
comp=Z,2.1nm,0.7s,baz=113,slow=8.6
**NB2** **NORSAR Subarra** **42.06 328** P **P** **16 21 41.9 -0.7**
comp=Z,2.1nm,0.7s,SNR=7.8
**NOA** **NORSAR Array B** **42.06 328** P **P** **16 21 42.2 -0.4**
comp=Z,4.2nm,0.8s,baz=114,slow=8.0,SNR=8.2
**HHC** **Hu-ho-hao-te** **42.96 63** *eP* **P** **16 21 50.7 +0.4**
HHC S **S** **16 28 14.3 -0.5**
HHC sS sS 16 28 26.7 +2.7
HHC ScS **ScS** **16 31 47.3 -3.1**
HHC pmax pmax
comp=Z,31nm,1.0s
HHC pmax pmax
comp=Z,110nm,5.4s
HHC LR LR
comp=Z,170nm,14.1s
HHC LR LR
comp=Z,270nm,13.9s
HHC LR LR
comp=Z,140nm,14.5s
**SSB** **Saint Sauveur** **43.35 304** *eP* **P** **16 21 52.8 -0.5**
SSB pmax pmax
comp=Z,6.0nm,0.8s
**SSB** **Saint Sauveur** **43.35 304** *eP* **P** **16 21 52.8 -0.5**
comp=Z,5.8nm,0.8s
**SSB** **Saint Sauveur** **43.35 304** *eP* **P** **16 21 52.8 -0.5**
comp=Z,5.8nm,0.8s
**QIZ** **Qiongzhong** **47.69 93** P **P** **16 22 28.4 +0.4**
QIZ pP **sP** **16 22 39.1 +3.2**
QIZ S **S** **16 29 25.3 +1.9**
QIZ pmax pmax
comp=Z,28nm,2.5s
QIZ LR LR
comp=Z,340nm,28.7s
**IPM** **Ipoh** **48.35 116** *eP* **P** **16 22 31.2 -1.9**
comp=Z,23nm,1.0s
**IPM** **Ipoh** **48.35 116** *eP* **P** **16 22 31.2 -1.9**
comp=Z,23nm,1.0s
**ES19** **SONSECA Array** **50.22 297** *eP* **P** **16 22 45.9 -1.3**
**ES19** **SONSECA Array** **50.22 297** *eP* **P** **16 22 45.9 -1.3**
**ESDC** **Sonseca Array** **50.27 297** P **P** **16 22 46.7 -0.9**
comp=Z,1.5nm,0.6s,baz=69,slow=7.9,SNR=11
**NJ2** **Nanjing** **50.49 73** *eP* **P** **16 22 48.9 -0.4**
NJ2 pmax pmax
comp=Z,7.0nm,0.5s
**CN2** **Changchun** **52.71 57** *eP* **P** **16 23 06.7 +1.0**
**TIXI** **Tiksi** **53.66 22** ⇓*eP* **P** **16 23 12.5 +0.2**
TIXI pmax pmax
comp=Z,12nm,3.3s
TIXI MLR MLR
comp=Z,83nm,16.0s
**TIXI** **Tiksi** **53.66 22** *eP* **P** **16 23 12.5 +0.2**
comp=Z,83nm,16.0s
**TOA0** **Torodi Ar. Sit** **55.12 264** *eP* **P** **16 23 22.1 -1.6**
comp=Z,8.7nm,0.8s
**TOA0** **Torodi Ar. Sit** **55.12 264** *eP* **P** **16 23 22.1 -1.6**
comp=Z,8.7nm,0.8s
**TORD** **Torodi Ar. Bea** **55.12 264** P **P** **16 23 22.4 -1.3**
comp=Z,7.9nm,0.8s,baz=58,slow=7.4,SNR=44
TORD LR LR 16 52 01.1
comp=Z,84nm,18.6s,baz=345,slow=42
**DAG** **Danmarks Havn** **56.04 344** *iP* **P** **16 23 29.3 -0.2**
DAG pmax pmax
comp=Z,12nm,1.1s
**KSAR** **Wonju Array Be** **56.05 64** P **P** **16 23 30.4 +0.3**
**KSAR** **Wonju Array Be** **56.05 64** P **P** **16 23 30.4 +0.3**
**KSAR** **Wonju Array Be** **56.05 64** P **P** **16 23 30.4 +0.3**
**KSRS** **Korea Array** **56.08 64** P **P** **16 23 30.4 +0.1**
comp=Z,3.9nm,0.8s,baz=275,slow=6.4,SNR=8.3
**KOWA** **Kowa** **59.29 268** *eP* **P** **16 23 51.5 -1.8**
comp=Z,5.7nm,0.6s
**KOWA** **Kowa** **59.29 268** *eP* **P** **16 23 51.5 -1.8**
comp=Z,5.7nm,0.6s
**SEY** **Seymchan** **63.60 31** ⇓*iP* **P** **16 24 21.8 +0.2**
**DBIC** **Dimbokro** **63.98 261** LR LR 16 54 00.3
comp=Z,119nm,18.6s,baz=26,slow=38
**ASAJ** **Asahikawa** **64.51 53** LR LR 16 53 39.7
comp=Z,94nm,20.2s,baz=334,slow=37
**TULEG** **Thule** **66.79 348** *eP* **P** **16 24 41.3 -0.8**
comp=Z,12nm,0.8s
**TULEG** **Thule** **66.79 348** *eP* **P** **16 24 41.3 -0.8**
comp=Z,12nm,0.8s
**BOSA** **Boshof** **68.20 211** P **P** **16 24 50.1 -1.6**
comp=Z,4.1nm,0.9s,baz=66,slow=6.2,SNR=4.1
BOSA LR LR 16 55 35.5
comp=Z,73nm,18.3s,baz=34,slow=37
**RES** **Resolute Bay** **72.01 353** LR LR 17 01 24.6
comp=Z,90nm,18.4s,baz=9.0,slow=40
**COLD** **Coldfoot** **78.58 11** *eP* **P** **16 25 52.5 +0.2**
comp=Z,8.1nm,0.8s
**COLD** **Coldfoot** **78.58 11** *eP* **P** **16 25 52.5 +0.2**
comp=Z,8.2nm,0.8s
**IMAR** **Indian Mountai** **79.08 13** *eP* **P** **16 25 54.6 -0.5**
**IMAR** **Indian Mountai** **79.08 13** *eP* **P** **16 25 54.6 -0.5**
**INK** **Inuvik** **79.45 5** P **P** **16 25 57.3 +0.2**
comp=Z,5.4nm,0.8s,baz=10,slow=8.5,SNR=19
**INK** **Inuvik** **79.45 5** *eP* **P** **16 25 57.0 -0.1**
INK pmax pmax
comp=Z,11nm,1.0s
**INK** **Inuvik** **79.45 5** *eP* **P** **16 25 57.0 -0.1**
comp=Z,11nm,1.0s
**INK** **Inuvik** **79.45 5** *eP* **P** **16 25 57.0 -0.1**
comp=Z,11nm,1.0s
**MDM** **Murphy Dome** **80.98 11** *eP* **P** **16 26 04.6 -0.8**
comp=Z,8.2nm,1.0s
**MDM** **Murphy Dome** **80.98 11** *eP* **P** **16 26 04.6 -0.8**
comp=Z,8.2nm,1.0s
**COLA** **College** **81.13 11** *eP* **P** **16 26 06.8 +0.7**
COLA pmax pmax
comp=Z,8.0nm,0.8s
**COLA** **College** **81.13 11** *eP* **P** **16 26 06.8 +0.7**
comp=Z,8.2nm,0.8s
**COLA** **College** **81.13 11** *eP* **P** **16 26 06.8 +0.7**
comp=Z,8.2nm,0.8s
**BPAW** **Bear Paw Mtn.** **81.29 13** *eP* **P** **16 26 07.8 +0.7**
comp=Z,7.8nm,1.0s
**BPAW** **Bear Paw Mtn.** **81.29 13** *eP* **P** **16 26 07.8 +0.7**
comp=Z,7.8nm,1.0s
**IL1** **Eielson Array** **81.38 11** *eP* **P** **16 26 06.8 -0.7**
**IL1** **Eielson Array** **81.38 11** *eP* **P** **16 26 06.8 -0.7**
**ILAR** **Eielson Array** **81.38 11** P **P** **16 26 07.1 -0.4**
comp=Z,1.7nm,0.8s,baz=331,slow=3.9,SNR=19
**ILB** **Eielson Array** **81.38 11** *eP* **P** **16 26 07.3 -0.2**
**ILB** **Eielson Array** **81.38 11** *eP* **P** **16 26 07.3 -0.2**
**CAST** **Castle Rocks** **81.70 13** *eP* **P** **16 26 10.0 +0.8**
comp=Z,106nm,2.0s
**CAST** **Castle Rocks** **81.70 13** *eP* **P** **16 26 10.0 +0.8**
comp=Z,106nm,2.0s
**MCK** **McKinley** **82.00 12** *eP* **P** **16 26 10.2 -0.6**
MCK pmax pmax
comp=Z,45nm,1.9s
**MCK** **McKinley** **82.00 12** *eP* **P** **16 26 10.2 -0.6**
comp=Z,45nm,1.9s
**MCK** **McKinley** **82.00 12** *eP* **P** **16 26 10.2 -0.6**
comp=Z,45nm,1.9s
**EGAK** **Eagle** **82.18 8** *eP* **P** **16 26 10.8 -0.9**
comp=Z,12nm,1.1s
**EGAK** **Eagle** **82.18 8** *eP* **P** **16 26 10.8 -0.9**
comp=Z,12nm,1.1s
**RND** **Reindeer** **82.31 12** *eP* **P** **16 26 11.4 -1.1**
RND pmax pmax
comp=Z,12nm,1.0s
**RND** **Reindeer** **82.31 12** *eP* **P** **16 26 11.4 -1.1**
comp=Z,12nm,1.0s
**RND** **Reindeer** **82.31 12** *eP* **P** **16 26 11.4 -1.1**
comp=Z,12nm,1.0s
**DAWY** **Dawson** **83.08 8** *eP* **P** **16 26 15.6 -0.9**
comp=Z,10nm,1.1s
**DAWY** **Dawson** **83.08 8** *eP* **P** **16 26 15.6 -0.9**
comp=Z,10nm,1.1s
**SUA** **Susitna One** **83.74 14** *eP* **P** **16 26 19.4 -0.7**
comp=Z,18nm,1.0s
**SUA** **Susitna One** **83.74 14** *eP* **P** **16 26 19.4 -0.7**
comp=Z,18nm,1.0s
**SML** **Sawmill** **83.89 12** *eP* **P** **16 26 20.2 -0.5**
SML pmax pmax
comp=Z,14nm,0.9s
**SML** **Sawmill** **83.89 12** *eP* **P** **16 26 20.2 -0.5**
comp=Z,14nm,0.9s
**SML** **Sawmill** **83.89 12** *eP* **P** **16 26 20.2 -0.5**
comp=Z,14nm,0.9s
**PMR** **Palmer** **83.94 13** *eP* **P** **16 26 20.1 -0.7**
PMR pmax pmax
comp=Z,10.0nm,0.8s
**PMR** **Palmer** **83.94 13** *eP* **P** **16 26 20.1 -0.7**
comp=Z,9.8nm,0.8s
**PMR** **Palmer** **83.94 13** *eP* **P** **16 26 20.1 -0.7**
comp=Z,9.8nm,0.8s
**RC01** **Rabbit Creek A** **84.28 13** *eP* **P** **16 26 23.1 +0.5**
comp=Z,11nm,0.8s
**RC01** **Rabbit Creek A** **84.28 13** *eP* **P** **16 26 23.1 +0.5**
comp=Z,11nm,0.8s
**SEW** **Seward** **85.25 14** *eP* **P** **16 26 28.5 +1.0**
comp=Z,22nm,1.0s
**SEW** **Seward** **85.25 14** *eP* **P** **16 26 28.4 +1.0**
comp=Z,22nm,1.0s
**YKW3** **Yellowknife Ar** **85.47 357** *eP* **P** **16 26 28.1 -0.4**
comp=Z,6.3nm,1.0s
**YKW3** **Yellowknife Ar** **85.47 357** *eP* **P** **16 26 28.1 -0.4**
comp=Z,6.3nm,1.0s
**YKA** **Yellowknife Ar** **85.53 357** P **P** **16 26 28.8 0.0**
comp=Z,3.7nm,0.8s,baz=359,slow=5.1,SNR=51
**KDAK** **Kodiak Island** **86.68 16** *iP* **P** **16 26 35.3 +0.7**
**WRA** **Warramunga Arr** **89.08 114** P **P** **16 26 45.8 -1.0**
comp=Z,1.5nm,1.1s,baz=298,slow=7.1,SNR=5.2
**WRAB** **Tennant Creek** **89.09 114** *iP* **P** **16 26 48.2 +1.5**
**ASAR** **Alice Springs** **90.86 117** P **P** **16 26 54.2 -0.8**
comp=Z,1.2nm,0.9s,baz=302,slow=3.7,SNR=8.9

*IDC **10** 16:29:38.0±0.6, 12°.61N×143°.64E, h0km, mb3.9/16, mb1 4.1/16, mb1mx4.0/44, mbtmp3.9/16, MS3.9/19, Ms1 3.9/19, ms1mx3.7/37, Error ellipse: s-maj=17.8km s-min=12.8km az=96.0*
*NEIC **10** 16:29:39.4±0.4, 12°.62N×143°.59E, h10km, mb4.5/2, Error ellipse: s-maj=13.4km s-min=8.2km az=89.0*
*GCMT **10** 16:29:39.4±0.3, 12°.57N×143°.48E, h12km, MW4.9/87, Moment Tensor Solution. s19,c20; s87,c128; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr-0.66±.09; Mθθ-1.69±.07; Mφφ2.35±.07; Mrθ-0.82±.21; Mθφ-0.99±.07; Mφr-0.07±.22; Best double couple: Mo2.45200×10¹⁶ NP1:ϕs125.00000°, δ73.00000°, λ-159.00000°. NP2: ϕs29.00000°, δ70.00000°, λ-18.00000°. Principal axes: T 2.5830, Plg2.0000°, Azm257.0000°; N -0.2640, Plg64.0000°, Azm162.0000°; P -2.3210, Plg26.0000°, Azm348.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*ISCJB **10** 16:29:40.4±0.4, 12°.57N±0°.06×143°.61E±0°.06, h27km, mb4.1/21, MS3.9/19 Error ellipse: s-maj=9.3km s-min=7.3km az=32.4*

**ISC 10 16:29:41.9**±0.5, **12°.60N**±0°.08×**143°.60E**±0°.09, **h27**km, **n49,** σ1**s48/35, mb4.0**/21, **MS4.0**/19, **South of Mariana Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **GUMO** | **Guam** | **1.58** | **51** | Pn | **Pn** | **Pn** | **16 30 07.2** | **-0.9** |
| | 289nm,0.3s,baz=234,slow=2.0,SNR=82 | | | | | | | |
| GUMO | | | | Sn | | **Sn** | **16 30 27.2** | **-0.5** |
| | 217nm,0.3s,baz=40,slow=20,SNR=18 | | | | | | | |

**TGY** **Tagaytay City** **22.11 276** LR LR 16 42 51.3
comp=Z,491nm,19.2s,baz=113,slow=36
**H11S3** **WAKE ISLAND Hy** **22.99 72** T T 16 58 38.6
baz=258,slow=75,SNR=37
**H11S1** **WAKE ISLAND Hy** **23.00 72** T T 16 58 39.5
baz=258,slow=75,SNR=28
**H11S2** **WAKE ISLAND Hy** **23.00 72** T T 16 58 39.8
baz=258,slow=75,SNR=23
**H11N1** **WAKE ISLAND Hy** **23.44 69** T T 16 59 10.0
baz=255,slow=75,SNR=67
**H11N2** **WAKE ISLAND Hy** **23.45 69** T T 16 59 12.8
baz=255,slow=75,SNR=41
**H11N3** **WAKE ISLAND Hy** **23.46 69** T T 16 59 11.3
baz=255,slow=75,SNR=61
**JNU** **Nakatsue** **23.51 332** P **P** **16 34 49.6 -0.3**
9.0nm,0.7s,baz=150,slow=8.1,SNR=7.7
**MJAR** **Matsushiro Arr** **24.33 349** P **P** **16 34 57.0 -0.5**
5.1nm,1.1s,baz=185,slow=9.5,SNR=6.6
**LUWI** **Luwuk** **24.72 238** *eP* **P** **16 34 56.8 -4.5**
78nm,1.0s
**COEN** **Coen** **26.39 181** *eP* **P** **16 35 16.6 +0.3**
16nm,1.4s
**KSRS** **Korea Array** **28.45 333** P **P** **16 35 34.8 +0.2**
1.4nm,0.7s,baz=142,slow=9.8,SNR=5.4
**KSAR** **Wonju Array Be** **28.46 333** P **P** **16 35 34.8 +0.1**
**CTAO** **Charters Tower** **32.59 175** P **P** **16 36 12.3 +1.0**
41nm,0.8s
**WRAB** **Tennant Creek** **33.59 196** *eP* **P** **16 36 19.0 -1.0**
3.3nm,0.6s
**WRA** **Warramunga Arr** **33.60 196** P **P** **16 36 19.6 -0.5**
3.9nm,0.8s,baz=19,slow=9.8,SNR=24
WRA PcP **PcP** **16 39 00.9 +0.6**
0.5nm,1.1s,baz=15,slow=4.4,SNR=2.6
WRA LR LR 16 50 57.6
comp=Z,194nm,18.2s,baz=10.0,slow=38
**ASAR** **Alice Springs** **37.27 195** P **P** **16 36 51.5 -0.2**
0.5nm,0.4s,baz=14,slow=10,SNR=22
ASAR PcP **PcP** **16 39 11.3 +0.2**
0.4nm,0.9s,baz=22,slow=3.5,SNR=2.6
ASAR LR LR 16 53 23.9
comp=Z,142nm,19.5s,baz=14,slow=38
**DZM** **Mont Dzumac** **41.10 147** P **P** **16 37 25.5 +1.7**
7.0nm,1.1s,baz=291,slow=7.3,SNR=2.8
**CMAR** **Chiang Mai Arr** **43.34 284** P **P** **16 37 42.0 -0.1**
1.4nm,0.8s,baz=85,slow=6.1,SNR=12
CMAR LR LR 16 53 51.7
comp=Z,180nm,19.2s,baz=91,slow=34
**STKA** **Stephens Creek** **44.26 182** P **P** **16 37 49.0 -0.2**
2.7nm,0.9s,baz=21,slow=8.6,SNR=2.4
STKA LR LR 16 57 15.0
comp=Z,82nm,18.1s,baz=7.7,slow=37
**PSI** **Prapat** **45.26 261** LR LR 16 56 41.2
comp=Z,80nm,21.7s,slow=36
**SONM** **Songino Array** **46.84 326** P **P** **16 38 10.7 +1.0**
1.0nm,0.6s,baz=137,slow=8.7,SNR=5.3
SONM LR LR 16 58 03.0
comp=Z,304nm,19.7s,baz=158,slow=36
**TAPN** **Taplejung** **54.13 295** *eP* **P** **16 39 08.1 +2.8**
**JIRN** **Jiri** **55.50 295** *eP* **P** **16 39 17.1 +1.8**
51nm,0.6s
**GUN** **Gumba** **55.79 295** *eP* **P** **16 39 20.3 +2.9**
29nm,1.0s
**PKI** **Pulchoki** **56.19 295** *eP* **P** **16 39 20.9 +0.7**
**KKN** **Kakani** **56.31 295** *eP* **P** **16 39 23.4 +2.4**
**DMN** **Daman** **56.46 295** *eP* **P** **16 39 23.3 +1.2**
**KOLN** **Koldanda** **57.80 295** *eP* **P** **16 39 30.9 -0.6**
**PYUN** **Piuthan** **58.35 295** *eP* **P** **16 39 34.6 -0.8**
22nm,0.8s
**MKAR** **Makanchi Array** **61.35 317** P **P** **16 39 56.6 +1.1**
0.5nm,0.7s,baz=94,slow=7.8,SNR=3.6
**ZALV** **Zalesovo Beam** **61.72 325** P **P** **16 39 58.7 +1.0**
0.8nm,0.6s,baz=120,slow=8.5,SNR=4.3
ZALV LR LR 17 06 34.8
comp=Z,141nm,19.7s,baz=71,slow=36
**KURK** **Kurchatov** **64.55 320** *eP* **P** **16 40 14.3 -2.3**
23nm,0.9s
**ILAR** **Eielson Array** **69.98 25** P **P** **16 40 50.4 -0.4**
0.4nm,0.8s,baz=239,slow=6.4,SNR=3.7
ILAR LR LR 17 09 02.2
comp=Z,53nm,21.7s,baz=252,slow=34
**INK** **Inuvik** **75.75 22** P **P** **16 41 24.8 0.0**
1.0nm,0.8s,baz=246,slow=4.9,SNR=3.3
**GEYT** **Alibeck** **78.85 307** LR LR 17 19 56.3
comp=Z,70nm,20.3s,baz=100,slow=38
**YKA** **Yellowknife Ar** **84.30 27** P **P** **16 42 10.1 -1.0**
0.1nm,0.5s,baz=289,slow=5.1,SNR=3.5
YKA LR LR 17 19 28.6
comp=Z,13nm,19.2s,baz=0.0,slow=36
**NEW** **Newport** **86.78 41** P **P** **16 42 24.5 +0.6**
0.5nm,0.4s,baz=294,slow=4.7,SNR=2.0
**ARCES** **ARCESS Array B** **87.64 342** LR LR 17 23 14.2
comp=Z,61nm,21.6s,baz=62,slow=37
**KBZ** **Khabaz** **88.98 315** LR LR 17 26 53.1
comp=Z,48nm,18.1s,baz=44,slow=39
**ELK** **Elko** **90.15 48** P **P** **16 42 42.0 +1.6**
0.2nm,0.3s,baz=326,slow=6.8,SNR=2.2
**VNDA** **Vanda** **90.56 176** LR LR 17 22 51.1
comp=Z,70nm,18.1s,baz=274,slow=35
**FINES** **FINESS Array B** **91.53 335** LR LR 17 26 22.2
comp=Z,69nm,18.2s,baz=24,slow=37
**PDAR** **Pinedale Array** **93.53 45** LR LR 17 18 13.0
comp=Z,83nm,20.4s,baz=347,slow=31
**AKASG** **Malin Array Be** **95.11 324** LR LR 17 29 33.2
comp=Z,150nm,19.1s,baz=10.0,slow=38
**BRTR** **Keskin Array B** **96.84 313** LR LR 17 30 05.9
comp=Z,24nm,21.7s,baz=42,slow=38
**EIL** **Elat** **99.50 303** LR LR 17 30 33.5
comp=Z,47nm,21.6s,baz=57,slow=37
**LPAZ** **La Paz** **149.07 101** PKPbc **PKPbc** **16 49 28.1 -1.3**
1.5nm,0.9s,baz=337,slow=4.1,SNR=3.4

*NEIC **10** 16:45:42.7±0.0, 38°.99N×111°.39W, h2km, MD3.1(SLC), After SLC.*
*NEIC Felt at Huntington.*
*ISCJB **10** 16:45:43.3±0.2, 39°.02N±0°.01×111°.39W±0°.02, h10km, mb3.3/2, MS3.7/1, Error ellipse: s-maj=2.4km s-min=2.0km az=22.4*
*IDC **10** 16:45:43.9±1.4, 39°.00N×111°.08W, h0km, mb3.3/2, mb1 3.6/4, mb1mx3.4/47, mbtmp3.2/4, ML3.2/2, MS3.8/1, Ms1 3.8/1, ms1mx2.7/19, Error ellipse: s-maj=15.4km s-min=11.1km az=161.0*

**ISC 10 16:45:43.4**±0.6, **38°.99N**±0°.02×**111°.39W**±0°.02, **h10**km, **n99,** σ1**s84**/134, **Utah**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **Q16A** | **Castle Valley** | **0.19** | **113** | *e*Pg | **Pg** | **Pg** | **16 45 46.3** | **-1.2** |
| Q16A | | | | *e*Sg | **Sg** | **Sg** | **16 45 51.5** | **+1.1** |
| **SGU** | **Sterling** | **0.27** | **314** | *e*Pg | **Pg** | **Pg** | **16 45 48.5** | **-0.5** |
| **TMUT** | **Trail Mountain** | **0.34** | **25** | *e*Pg | **Pg** | **Pg** | **16 45 49.2** | **-1.0** |
| TMUT | | | | *e* | | | 16 45 49.5 | |
| TMUT | | | | *e*Sg | **Sg** | **Sg** | **16 45 53.2** | **-1.6** |
| **SNO** | **Snow College** | **0.34** | **341** | *e*Pg | **Pg** | **Pg** | **16 45 49.8** | **-0.5** |
| **DBD** | **Des Bee Dove** | **0.40** | **36** | *e*Pg | **Pg** | **Pg** | **16 45 50.2** | **-1.1** |
| **WCU** | **Willow Creek** | **0.54** | **267** | *e*Pg | **Pg** | **Pg** | **16 45 53.7** | **-0.3** |
| **LEVU** | **Levan** | **0.61** | **328** | *e*Pg | **Pg** | **Pg** | **16 45 54.5** | **-0.8** |
| **ELU** | **Electric Lake** | **0.66** | **13** | *e*Pg | **Pg** | **Pg** | **16 45 55.4** | **-0.9** |
| **SRU** | **San Rafael Swe** | **0.69** | **80** | *e*Pg | **Pg** | **Pg** | **16 45 55.3** | **-1.5** |
| SRU | | | | *e*Pn | | Pn | 16 46 06.4 | +7.1 |
| **P17A** | **Butcher Ranch,** | **0.70** | **46** | *e*Pg | **Pg** | **Pg** | **16 45 55.2** | **-1.7** |
| P17A | | | | *e*Sg | **Sn** | **Sn** | **16 46 08.7** | **-1.8** |
| **FLU** | **Fool Peak** | **0.72** | **303** | *e*Pg | **Pg** | **Pg** | **16 45 56.6** | **-0.7** |
| **MSU** | **Marysvale** | **0.78** | **232** | *e*Pg | **Pg** | **Pg** | **16 45 57.5** | **-0.9** |
| MSU | | | | *e*Pn | | Pn | 16 46 06.8 | +6.2 |
| **TCRU** | **Three Creeks R** | **0.91** | **245** | *e*Pg | **Pg** | **Pb** | **16 46 00.5** | **-0.8** |
| TCRU | | | | *e*Sn | | **Sg** | **16 46 10.6** | **-2.1** |
| **MPU** | **Maple Canyon** | **1.04** | **350** | *e*Pg | **Pg** | **Pg** | **16 46 02.1** | **-1.3** |
| MPU | | | | *e*Sg | | **Sg** | **16 46 15.5** | **-1.4** |
| **ARGU** | **Argyle Ridge** | **1.06** | **38** | *e*Pg | **Pg** | **Pg** | **16 46 02.4** | **-1.4** |
| **P18A** | **Preston Nutter** | **1.09** | **54** | *e*Pg | **Pg** | **Pg** | **16 46 02.8** | **-1.6** |
| P18A | | | | *e*Sg | | **Sn** | **16 46 19.6** | **-0.9** |
| **NLU** | **North Lily Min** | **1.10** | **331** | *e*Pg | **Pg** | **Pb** | **16 46 04.1** | **-0.5** |
| NLU | | | | *e*Sg | | **Sg** | **16 46 15.0** | **-3.7** |
| **MTPU** | **Mount Pierson** | **1.13** | **213** | *e*Pg | **Pg** | **Pg** | **16 46 04.3** | **-0.9** |
| MTPU | | | | *e*Sg | | **Sb** | **16 46 19.8** | **-0.4** |
| **WMUT** | **West Mountain** | **1.14** | **343** | *e*Pn | **Pn** | **Pn** | **16 46 05.4** | **-0.2** |
| **DAU** | **Daniels Canyon** | **1.42** | **4** | *e*Pn | **Pb** | **Pb** | **16 46 09.4** | **-0.8** |
| **DCU** | **Deer Creek Res** | **1.42** | **356** | *e*Pn | **Pb** | **Pb** | **16 46 09.9** | **-0.9** |
| **DWU** | **Dry Willow Pea** | **1.54** | **235** | *e*Pn | **Pg** | **Pg** | **16 46 11.9** | **-0.9** |
| **CWU** | **Camp Williams** | **1.55** | **340** | *e*Pn | **Pb** | **Pb** | **16 46 11.6** | **-0.8** |
| **LDJ** | **Lady** | **1.59** | **360** | *e*Pn | **Pb** | **Pb** | **16 46 12.5** | **-0.5** |
| **GMU** | **Granite Mounta** | **1.61** | **350** | *e*Pn | **Pb** | **Pb** | **16 46 12.2** | **-1.0** |
| **JLU** | **Jordanelle** | **1.61** | **358** | *e*Pn | **Pb** | **Pb** | **16 46 12.6** | **-0.8** |

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JLU | | | | eSn | Sn | 16 46 32.5 | -0.5 |
| HLJ | Hailstone | 1.62 | 360 | ePn | Pb | 16 46 12.8 | -0.6 |
| DUG | Dugway, Tooele | 1.63 | 318 | ePn | Pn | 16 46 11.8 | -0.4 |
| DUG | | | | eSn | Sb | 16 46 33.5 | -0.7 |
| HTU | Hoyt Peak | 1.69 | 5 | ePn | Pb | 16 46 13.9 | -0.8 |
| PKCU | Pink Cliffs | 1.71 | 205 | ePn | Pb | 16 46 14.4 | -0.6 |
| FSU | Fish Springs | 1.71 | 296 | ePn | Pn | 16 46 13.4 | +0.1 |
| CTU | Camp Tracy | 1.72 | 351 | ePn | Pb | 16 46 13.9 | -1.3 |
| BHU | Blowhard Mount | 1.81 | 220 | ePn | Pb | 16 46 16.6 | -0.2 |
| RBU | Red Butte Cany | 1.81 | 350 | ePn | Pb | 16 46 15.3 | -1.5 |
| PV09 | Paradox Valley | 1.83 | 105 | ePn | Pb | 16 46 16.5 | -0.7 |
| PV09 | | | | eSn | Sg | 16 46 42.4 | 0.0 |
| SZCU | Shurtz Canyon | 1.93 | 224 | ePn | Pn | 16 46 16.8 | +0.4 |
| SZCU | | | | eSn | Sg | 16 46 45.8 | +0.4 |
| PV10 | Paradox Valley | 1.94 | 108 | ePn | Pb | 16 46 18.4 | -0.6 |
| SAIU | Southern Antel | 1.96 | 342 | ePn | Pn | 16 46 16.9 | +0.2 |
| PSUT | Pine Spring | 1.98 | 257 | ePn | Pb | 16 46 18.4 | -1.2 |
| PV05 | Paradox Valley | 2.02 | 116 | ePn | Pb | 16 46 19.9 | -0.3 |
| PV05 | | | | eSn | Sg | 16 46 49.3 | +1.1 |
| PV04 | Paradox Valley | 2.04 | 106 | ePn | Pb | 16 46 19.3 | -1.3 |
| PV04 | | | | eSn | Sn | 16 46 40.4 | -3.1 |
| FPU | Francis Peak | 2.06 | 351 | ePn | Pn | 16 46 18.6 | +0.3 |
| SNUT | Stansbury Nort | 2.08 | 336 | ePn | Pn | 16 46 18.4 | -0.1 |
| EKU | East Kanab | 2.10 | 205 | ePn | Pb | 16 46 21.4 | -0.3 |
| CCUT | Cedar City | 2.11 | 228 | ePn | Pb | 16 46 20.1 | -1.8 |
| CCUT | | | | eSn | Sb | 16 46 47.1 | -1.2 |
| NAIU | Northern Antel | 2.12 | 343 | ePn | Pn | 16 46 18.9 | -0.1 |
| TCUT | Toone Canyon | 2.12 | 360 | ePn | Pn | 16 46 19.7 | +0.5 |
| KNB | Kanab | 2.27 | 210 | ePn | Pb | 16 46 22.9 | -1.6 |
| BGU | Big Grassy Mou | 2.31 | 327 | ePn | Pn | 16 46 21.0 | -0.6 |
| PV01 | Paradox Valley | 2.37 | 110 | ePn | Pb | 16 46 24.1 | -2.3 |
| PV01 | | | | eSn | Sn | 16 46 51.1 | -0.8 |
| SPUT | South Promonto | 2.45 | 341 | ePn | Pn | 16 46 23.4 | -0.2 |
| SPUT | | | | eSn | Sn | 16 46 53.1 | -0.6 |
| LCMT | Little Creek M | 2.46 | 217 | ePn | Pn | 16 46 24.6 | +0.9 |
| LCMT | | | | eSn | Sn | 16 46 54.4 | +0.6 |
| MCU | Monte Cristo P | 2.47 | 358 | ePn | Pn | 16 46 24.7 | +0.8 |
| GZU | Grizzly Peak | 2.47 | 350 | ePn | Pn | 16 46 24.5 | +0.5 |
| RSUT | Red Spur Mount | 2.64 | 360 | ePn | Pn | 16 46 27.8 | +1.5 |
| WVUT | Wellsville | 2.65 | 351 | ePn | Pn | 16 46 27.0 | +0.6 |
| U15A | North Rim | 2.66 | 196 | ePn | Pb | 16 46 28.6 | -2.5 |
| LTU | Little Mountai | 2.68 | 346 | ePn | Pn | 16 46 27.0 | +0.3 |
| O20A | White River Ci | 2.69 | 64 | ePn | Pb | 16 46 29.4 | -2.4 |
| O20A | | | | eSg | Sg | 16 47 12.4 | +2.6 |
| MTUT | Morton Thiokol | 2.83 | 344 | ePn | Pn | 16 46 28.4 | -0.4 |
| MVCO | Mesa Verde | 2.90 | 127 | ePn | Pn | 16 46 31.6 | +1.9 |
| MVCO | | | | eSg | Sg | 16 47 15.9 | -0.5 |
| HVU | Hansel Valley | 2.98 | 340 | ePn | Pn | 16 46 30.1 | -0.7 |
| R11A | Troy Canyon, C | 3.34 | 260 | ePn | Pn | 16 46 37.5 | +1.7 |
| R11A | | | | eSg | Sg | 16 47 30.4 | -0.4 |
| ELK | Elko | 3.44 | 302 | Pn | Pb | 16 46 42.6 | -1.9 |
| | 0.1nm,0.3s,baz=155,slow=12,SNR=6.8 | | | | | | |
| ELK | | | | Pg | Pg | 16 46 48.8 | -0.5 |
| | 0.2nm,0.3s,baz=121,slow=10,SNR=22 | | | | | | |
| ELK | | | | Lg | Lg | 16 47 31.5 | |
| | 0.2nm,0.3s,baz=188,slow=8.0,SNR=3.6 | | | | | | |
| SMCO | Snowmass | 3.44 | 86 | Pn | Pn | 16 46 37.9 | +0.4 |
| SMCO | | | | eSn | Sn | 16 47 18.1 | -0.5 |
| WUAZ | Wupatki | 3.47 | 180 | ePn | Pn | 16 46 39.9 | +2.3 |
| WUAZ | | | | eSn | Sn | 16 47 18.7 | -0.1 |
| S22A | 4UR Ranch, Cre | 3.80 | 108 | ePn | Pn | 16 46 44.3 | +2.1 |
| SHPR | Sheep Range | 3.88 | 231 | ePn | Pn | 16 46 45.5 | +2.3 |
| BW06 | Boulder Array | 4.02 | 20 | ePn | Pn | 16 46 45.7 | +0.5 |
| BW06 | | | | eSn | Sn | 16 47 34.3 | +1.9 |
| PD31 | Pinedale Array | 4.02 | 20 | ePn | Pn | 16 46 46.6 | +1.4 |
| PDAR | Pinedale Array | 4.02 | 20 | Pn | Pn | 16 46 46.9 | +1.7 |
| | 0.2nm,0.3s,baz=183,slow=9.9,SNR=12 | | | | | | |
| PDAR | | | | Pg | Pb | 16 46 56.2 | +1.8 |
| | 0.9nm,0.3s,baz=187,slow=14,SNR=35 | | | | | | |
| PDAR | | | | Lg | Lg | 16 47 46.8 | |
| | 0.7nm,0.3s,baz=190,slow=24,SNR=3.2 | | | | | | |
| PDAR | Pinedale Array | 4.02 | 20 | ePn | Pn | 16 46 46.6 | +1.4 |
| PDAR | | | | Pg | Pb | 16 46 56.2 | +1.8 |
| W18A | Petrified Fore | 4.09 | 161 | ePn | Pn | 16 46 48.5 | +2.4 |
| RWWY | Rawlins | 4.18 | 49 | ePn | Pn | 16 46 47.3 | -0.2 |
| RWWY | | | | eSg | Sg | 16 47 55.5 | -2.1 |
| TPNV | Topopah Spring | 4.34 | 244 | ePn | Pn | 16 46 51.5 | +1.9 |
| REDW | Red Top Meadow | 4.39 | 5 | ePn | Pn | 16 46 51.5 | +1.2 |
| REDW | | | | eSn | Sn | 16 47 41.1 | -0.4 |
| TPAW | Teton Pass | 4.51 | 4 | ePn | Pn | 16 46 51.0 | -0.9 |
| TPAW | | | | eSg | Sg | 16 48 07.9 | -0.2 |
| ISCO | Idaho Springs | 4.55 | 78 | ePn | Pn | 16 46 52.5 | -0.1 |
| ISCO | | | | eSg | Sg | 16 48 07.8 | -1.7 |
| X16A | Lo Mia Camp, P | 4.56 | 180 | ePn | Pb | 16 46 59.2 | -4.5 |
| N23A | Red Feather La | 4.60 | 64 | ePn | Pn | 16 46 56.5 | +3.3 |
| X18A | Snowflake | 4.60 | 165 | ePn | Pn | 16 46 54.8 | +1.7 |
| FXWY | Fox Creek | 4.65 | 3 | ePn | Pn | 16 46 54.4 | +0.6 |
| LOHW | Long Hollow | 4.66 | 7 | ePn | Pn | 16 46 44.5 | -9.5 |
| MOOW | Moose Ponds | 4.78 | 6 | ePn | Pn | 16 46 54.9 | -0.7 |
| MOOW | | | | eSg | Sg | 16 48 15.3 | -1.4 |
| SDCO | Great Sand Dun | 4.79 | 103 | Pn | Pn | 16 46 55.4 | -0.5 |
| IMW | Indian Meadow | 4.91 | 4 | Pn | Pn | 16 46 55.0 | -2.5 |
| K22A | Casper | 5.20 | 44 | Pn | Pn | 16 46 59.8 | -1.5 |
| | 28nm,0.8s | | | | | | |
| ANMO | Albuquerque | 5.65 | 134 | Pn | Pn | 16 47 08.4 | +0.9 |
| | 0.7nm,0.3s,baz=140,slow=13,SNR=11 | | | | | | |
| ANMO | | | | Pg | Pg | 16 47 29.4 | -2.2 |
| | 0.5nm,0.3s,baz=147,slow=15,SNR=13 | | | | | | |
| ANMO | | | | Sn | Sn | 16 48 19.8 | +7.2 |
| | 0.1nm,0.3s,baz=167,slow=18,SNR=2.0 | | | | | | |
| ANMO | | | | Lg | Lg | 16 48 36.3 | |
| | 0.2nm,0.3s,baz=162,slow=20,SNR=1.9 | | | | | | |
| ANMO | Albuquerque | 5.65 | 134 | ePn | Pn | 16 47 07.5 | -0.1 |
| ANMO | | | | Pg | Pg | 16 47 29.4 | -2.2 |
| ANMO | | | | Sn | Sn | 16 48 19.8 | +7.2 |
| ANMO | | | | eSg | Sg | 16 48 37.3 | -7.4 |
| YHH | Holmes Hill | 5.81 | 4 | ePn | Pn | 16 47 12.5 | +2.7 |
| MDPB | Devils Postpil | 6.19 | 260 | eSn | Sn | 16 48 22.4 | -3.7 |
| PAHR | Pah Rah Range | 6.23 | 279 | ePn | Pn | 16 47 16.6 | +1.0 |
| PNTR | Pine Nut | 6.39 | 273 | ePn | Pn | 16 47 20.5 | +2.8 |
| BEKR | Beckworth | 7.00 | 280 | ePn | Pn | 16 47 29.2 | +3.1 |
| PASC | Pasadena Art C | 7.28 | 231 | ePn | Pn | 16 47 30.8 | +1.1 |
| YKA | Yellowknife Ar | 23.61 | 356 | P | P | 16 50 55.6 | +1.5 |
| | 1.0nm,0.9s,baz=174,slow=9.3,SNR=9.2 | | | | | | |
| YKB5 | Yellowknife Ar | 23.61 | 356 | eP | P | 16 50 55.6 | +1.5 |
| KDAK | Kodiak Island | 32.51 | 319 | LR | LR | 17 03 17.5 | |
| | comp=Z,171nm,20.1s,baz=282,slow=32 | | | | | | |
| ILAR | Eielson Array | 33.06 | 333 | P | P | 16 52 22.0 | +3.2 |
| | 0.5nm,1.0s,baz=142,slow=7.4,SNR=4.7 | | | | | | |

**NNC 10 16:47:24.0**±4.1**, 39°.26N**×**76°.08E, h0$^{km}$, mb3.5, mpv3.1, 4C-4D, Error ellipse: s-maj=36.3km s-min=17.1km az=158.0, Southern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SFK | Sufi-Kurgan | 2.13 | 292 | ⇓Pn | Pn | 16 48 00.1 | -0.9 |
| | 12nm,0.3s | | | | | | |
| SFK | | | | ⇓Sn | Sn | 16 48 29.4 | +1.1 |
| | 101nm,0.3s | | | | | | |
| AAK | Ala-Archa | 3.58 | 341 | Pn | Pn | 16 48 23.1 | +2.1 |
| | 9.6nm,1.0s | | | | | | |
| AAK | | | | Lg | Lg | 16 49 17.5 | |
| | 16nm,0.9s | | | | | | |
| TKM2 | Tokmak 2 | 3.68 | 354 | ⇑Pg | Pb | 16 48 28.1 | -1.9 |
| | 3.3nm,0.5s | | | | | | |
| TKM2 | | | | ⇓Lg | Lg | 16 49 20.9 | |
| | 7.6nm,0.6s | | | | | | |
| MNAS | Manas | 4.21 | 321 | ⇑Pn | Pn | 16 48 31.2 | +1.6 |
| | 1.4nm,0.8s | | | | | | |
| MNAS | | | | ⇓Lg | Lg | 16 49 36.6 | |
| | 4.5nm,0.6s | | | | | | |
| PDGK | Podgornoye | 4.81 | 31 | ⇑Pg | Pb | 16 48 50.4 | +1.2 |
| | 0.5nm,0.3s | | | | | | |
| PDGK | | | | ⇑Lg | Lg | 16 50 00.3 | |
| | 1.1nm,0.4s | | | | | | |

*MAN **10** 16:52:24, 11°.24N×126°.49E, h35$^{km}$, mb5.0, ML3.9, MS4.0*
*ISCJB **10** 16:52:25.7±1.7, 11°.22N±0°.03×126°.35E±0°.05, h33$^{km}$±12$^{km}$, mb4.1/21, MS3.3/2, Error ellipse: s-maj=7.5km s-min=5.2km az=177.5*
*NEIC **10** 16:52:29.1±1.6, 11°.14N×126°.06E, h41$^{km}$±14$^{km}$, mb4.0/2, Error ellipse: s-maj=21.0km s-min=7.9km az=69.0*
*IDC **10** 16:52:30.9±3.7, 11°.10N×126°.00E, h53$^{km}$±34$^{km}$, mb3.9/19, mb1 4.0/19, mb1mx3.8/41, mbtmp4.2/19, MS3.4/3, Ms1 3.4/3, ms1mx2.9/41, Error ellipse: s-maj=27.7km s-min=10.8km az=68.0*
**ISC 10 16:52:26.6**±2.0**, 11°.15N**±0°.04×**126°.20E**±0°.08**, h23$^{km}$**±14$^{km}$**, n62,** σ1$^{s}$.76/70**, mb4.2**/21**, 3C-3D, Philippine Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BESP | Borongan | 0.87 | 301 | eP | Pn | 16 52 42.7 | -0.8 |
| PLP | Palo | 1.20 | 271 | ⇓eP | Pn | 16 52 47.2 | -0.8 |
| SCPH | Surigao | 1.53 | 207 | eP | Pn | 16 52 52.3 | -0.2 |
| SCPH | | | | eS | Sn | 16 53 11.4 | -0.4 |
| OCLP | Ormoc | 1.57 | 266 | eP | Pb | 16 52 54.6 | -0.3 |
| MSLP | Maasin | 1.67 | 233 | eP | Pn | 16 52 55.1 | +0.7 |
| MSLP | | | | eS | Sb | 16 53 19.5 | +2.4 |
| CNP | Catarman | 2.02 | 312 | eP | Pn | 16 53 00.2 | +0.9 |
| CNP | | | | eS | Sb | 16 53 29.8 | +2.3 |
| BUTP | Butuan | 2.24 | 195 | eP | Pn | 16 53 03.5 | +1.2 |
| BUTP | | | | eS | Sn | 16 53 30.8 | +1.4 |
| LLP | Lapu-Lapu | 2.35 | 250 | ⇑eP | Pb | 16 53 06.0 | -2.2 |
| LLP | | | | eS | Sb | 16 53 37.7 | +0.8 |
| PVCP | Virac | 3.15 | 321 | eP | Pn | 16 53 14.5 | -0.3 |
| PVCP | | | | eS | Sb | 16 54 05.0 | +5.1 |
| RCP | Roxas | 3.42 | 277 | ⇓eP | Pn | 16 53 20.6 | +2.2 |
| RCP | | | | eS | Sb | 16 54 02.9 | -4.6 |
| GUIM | Jordan | 3.59 | 262 | eP | Pn | 16 53 23.4 | +2.5 |
| DCPH | Dipolog City | 3.80 | 228 | ⇓eP | Pn | 16 53 25.0 | +1.3 |
| DCPH | | | | eS | Sn | 16 54 10.3 | +2.6 |
| AUQP | San Andres | 4.07 | 302 | eP | Pn | 16 53 30.1 | +2.6 |
| JAP | San Jose, Anti | 4.20 | 265 | ⇑eP | Pb | 16 53 39.1 | -0.7 |
| JAP | | | | eS | Sb | 16 54 57.9 | +28 |
| OTRP | Odiongan | 4.27 | 287 | eP | Pn | 16 53 32.2 | +2.0 |
| CTBH | Cotabato--PC H | 4.36 | 206 | ⇑iP | Pn | 16 53 33.4 | +2.0 |
| BOAC | Boac | 4.84 | 299 | eP | Pn | 16 53 39.8 | +1.7 |
| SJMP | San Jose | 5.15 | 285 | eP | Pn | 16 53 44.0 | +1.8 |
| TGY | Tagaytay City | 5.92 | 300 | P | Pn | 16 53 53.7 | +0.8 |
| | baz=87,slow=17,SNR=2.3 | | | | | | |
| TGY | | | | S | Sn | 16 55 04.2 | +4.0 |
| | 64nm,0.3s,baz=90,slow=11,SNR=2.5 | | | | | | |
| TGY | | | | LR | LR | 16 56 23.6 | |
| | comp=Z,391nm,18.5s,baz=82,slow=40 | | | | | | |
| BUSP | Coron | 5.95 | 279 | eP | Pn | 16 53 55.0 | +1.7 |
| SSLB | Suanglung | 13.52 | 339 | Pn | Pn | 16 55 37.1 | -0.1 |
| | 27nm,0.6s | | | | | | |
| NACB | Ninganchiao | 13.67 | 342 | ePn | Pn | 16 55 34.7 | -4.5 |
| YHNB | Yeheng | 14.21 | 342 | ePn | Pn | 16 55 33.5 | -13 |
| CMAR | Chiang Mai Arr | 27.31 | 289 | P | P | 16 58 08.9 | -1.0 |
| | 1.2nm,0.8s,baz=95,slow=7.5,SNR=12 | | | | | | |
| MJAR | Matsushiro Arr | 27.51 | 21 | LR | LR | 17 08 46.1 | |
| | comp=Z,50nm,19.2s,baz=240,slow=35 | | | | | | |
| FITZ | Fitzroy Crossi | 29.07 | 181 | P | P | 16 58 24.9 | -0.5 |
| | 1.1nm,0.4s,baz=14,slow=11,SNR=4.8 | | | | | | |
| WRAB | Tennant Creek | 31.91 | 165 | P | P | 16 58 49.6 | -0.9 |
| | 0.9nm,0.6s | | | | | | |
| WRA | Warramunga Arr | 31.92 | 165 | P | P | 16 58 51.5 | +0.9 |
| | 1.4nm,0.6s,baz=344,slow=9.5,SNR=11 | | | | | | |
| WRA | | | | PcP | PcP | 17 01 41.4 | +0.4 |
| | 1.1nm,0.7s,baz=331,slow=3.0,SNR=3.1 | | | | | | |
| USRK | Ussuriysk Ar. | 33.30 | 8 | P | P | 16 59 04.3 | +1.8 |
| | 2.2nm,0.6s,baz=197,slow=6.9,SNR=4.1 | | | | | | |
| ASAR | Alice Springs | 35.41 | 168 | P | P | 16 59 22.5 | +1.4 |
| | 1.3nm,0.5s,baz=348,slow=7.0,SNR=7.0 | | | | | | |
| ASAR | | | | PcP | PcP | 17 01 50.9 | +0.1 |
| | 0.7nm,0.7s,baz=335,slow=2.5,SNR=4.3 | | | | | | |
| HNR | Honiara | 39.30 | 120 | LR | LR | 17 16 47.4 | |
| | comp=Z,62nm,18.3s,baz=9.0,slow=37 | | | | | | |
| TAPN | Taplejung | 39.56 | 300 | eP | P | 16 59 55.9 | -0.6 |
| | 15nm,0.6s | | | | | | |
| ODAN | Odare | 39.70 | 299 | eP | P | 16 59 56.9 | -0.7 |
| | 29nm,0.6s | | | | | | |
| ULN | Ulaanbaatar | 39.98 | 340 | eP | P | 16 59 56.2 | -3.3 |
| | 4.4nm,0.9s | | | | | | |
| SONM | Songino Array | 40.18 | 339 | P | P | 17 00 02.5 | +1.4 |
| | 2.0nm,0.9s,baz=161,slow=9.2,SNR=9.9 | | | | | | |
| SONM | | | | PcP | PcP | 17 02 05.1 | -0.1 |
| | 0.6nm,0.6s,baz=160,slow=4.6,SNR=3.7 | | | | | | |
| RAMN | Ramite | 40.40 | 299 | eP | P | 17 00 03.0 | -0.5 |
| | 21nm,0.6s | | | | | | |
| JIRN | Jiri | 40.94 | 299 | eP | P | 17 00 07.5 | -0.6 |
| | 240nm,0.5s | | | | | | |
| GUN | Gumba | 41.27 | 300 | eP | P | 17 00 10.1 | -0.7 |
| | 32nm,0.7s | | | | | | |
| PKI | Pulchoki | 41.58 | 299 | eP | P | 17 00 12.0 | -1.3 |
| | 14nm,0.6s | | | | | | |
| PKIN | Phulchoki | 41.60 | 299 | eP | P | 17 00 11.9 | -1.4 |
| | 11nm,0.6s | | | | | | |
| KKN | Kakani | 41.75 | 299 | eP | P | 17 00 13.4 | -1.1 |
| DMN | Daman | 41.85 | 299 | eP | P | 17 00 14.0 | -1.4 |
| GKN | Gorkha | 42.36 | 299 | eP | P | 17 00 17.7 | -1.7 |
| KOLN | Koldanda | 43.19 | 299 | eP | P | 17 00 25.3 | -0.9 |
| | 20nm,0.8s | | | | | | |
| DANN | Dangsing | 43.19 | 300 | eP | P | 17 00 24.7 | -1.7 |
| PYUN | Piuthan | 43.79 | 299 | eP | P | 17 00 30.3 | -0.8 |
| | 32nm,0.8s | | | | | | |
| NWAO | Narrogin (SRO) | 44.66 | 191 | P | P | 17 00 37.6 | 0.0 |
| | 12nm,0.8s,baz=239,slow=9.3,SNR=7.2 | | | | | | |
| STKA | Stephens Creek | 45.25 | 161 | P | P | 17 00 43.2 | +0.8 |
| | 1.5nm,0.5s,baz=348,slow=7.2,SNR=4.9 | | | | | | |
| MKAR | Makanchi Array | 51.29 | 322 | P | P | 17 01 29.9 | +1.0 |
| | 3.6nm,0.6s,baz=119,slow=7.2,SNR=29 | | | | | | |
| DZM | Mont Dzumac | 51.46 | 130 | P | P | 17 01 31.9 | +1.4 |
| | 2.1nm,0.7s,baz=284,slow=19,SNR=3.7 | | | | | | |
| ZALV | Zalesovo Beam | 53.83 | 331 | P | P | 17 01 47.9 | +0.4 |
| | 4.3nm,0.6s,baz=121,slow=6.9,SNR=25 | | | | | | |
| KURK | Kurchatov | 55.31 | 325 | eP | P | 17 01 56.1 | -2.2 |
| BVAR | Borovoye Array | 60.91 | 325 | P | P | 17 02 38.6 | +1.1 |
| | 5.2nm,1.0s,baz=109,slow=6.9,SNR=17 | | | | | | |
| BRVK | Borovoye | 60.98 | 325 | eP | P | 17 02 32.3 | -5.7 |
| ILAR | Eielson Array | 78.68 | 26 | P | P | 17 04 26.7 | +0.1 |
| | 0.3nm,0.8s,baz=234,slow=5.2,SNR=5.8 | | | | | | |
| ARCES | ARCESS Array B | 83.35 | 340 | P | P | 17 04 51.5 | 0.0 |
| | 4.5nm,1.1s,baz=80,slow=5.6,SNR=6.8 | | | | | | |
| BRTR | Keskin Array B | 84.93 | 309 | P | P | 17 04 58.7 | -1.6 |
| | 0.4nm,0.7s,baz=107,slow=5.0,SNR=2.7 | | | | | | |
| FINES | FINESS Array B | 85.09 | 332 | P | P | 17 05 00.5 | 0.0 |
| | 2.7nm,0.5s,baz=66,slow=5.3,SNR=24 | | | | | | |
| AKASG | Malin Array Be | 85.84 | 321 | P | P | 17 05 03.5 | -1.0 |
| | 0.7nm,0.4s,baz=62,slow=4.9,SNR=5.6 | | | | | | |
| NOA | NORSAR Array B | 91.94 | 334 | P | P | 17 05 32.2 | -1.0 |
| | 1.8nm,0.9s,baz=60,slow=14,SNR=3.0 | | | | | | |
| YKA | Yellowknife Ar | 92.98 | 24 | P | P | 17 05 38.6 | +0.7 |
| | 0.2nm,0.6s,baz=295,slow=4.2,SNR=4.0 | | | | | | |
| PLCA | Paso Flores | 147.03 | 156 | PKPbc | PKPab | 17 12 09.4 | 0.0 |
| | 1.9nm,0.7s,baz=216,slow=3.2,SNR=5.1 | | | | | | |

*IDC **10** 16:54:15.2±2.1, 3°.92S×129°.87E, h0$^{km}$, mb3.9/3, mb1 4.0/5, mb1mx3.7/37, mbtmp3.8/5, ML3.9/2, Error ellipse: s-maj=89.1km s-min=23.6km az=70.0*
*ISCJB **10** 16:54:34.8±0.4, 4°.55S±0°.05×129°.27E±0°.07, h200$^{km}$, mb3.5/2, Error ellipse: s-maj=10.6km s-min=5.6km az=154.5*
*DJA **10** 16:54:36.5±0.6, 4°S±5°×12°9E±°, h187$^{km}$±5$^{km}$, M3.8/7, MLv3.8/7*
**ISC 10 16:54:35.5**±0.8**, 4°.51S**±0°.07×**129°.37E**±0°.06**, h200$^{km}$, n20,** σ1$^{s}$.51/26**, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BNDI | Bandanaira | 0.54 | 92 | P | Pn | 16 55 03.2 | +0.4 |
| BNDI | | | | S | Sn | 16 55 24.0 | +0.3 |
| MSAI | Masohi | 1.23 | 339 | P | Pn | 16 55 06.7 | -0.3 |
| MSAI | | | | S | Sn | 16 55 28.5 | -3.0 |
| AAI | Ambon | 1.42 | 305 | P | Pn | 16 55 08.8 | +0.2 |
| AAI | | | | S | Sn | 16 55 32.9 | -1.3 |
| FAKI | Fak Fak | 3.28 | 61 | P | Pn | 16 55 28.7 | +0.2 |
| FAKI | | | | S | Sn | 16 56 07.1 | -2.9 |
| SAUI | Saumlaki | 3.95 | 151 | P | Pn | 16 55 37.2 | +0.4 |
| SANI | Sanana | 4.16 | 306 | P | Pn | 16 55 39.3 | 0.0 |
| SANI | | | | S | Sn | 16 56 25.8 | -3.7 |
| LBMI | Labuha | 4.27 | 334 | P | Pn | 16 55 41.6 | +0.9 |
| FITZ | Fitzroy Crossi | 14.00 | 195 | Pn | Pn | 16 57 45.0 | -0.5 |
| | 0.1nm,0.3s,baz=10,slow=8.4,SNR=5.9 | | | | | | |
| FITZ | | | | Sn | S | 17 00 13.2 | -8.2 |
| | 0.1nm,0.3s,baz=270,slow=18,SNR=1.8 | | | | | | |
| WRA | Warramunga Arr | 16.09 | 163 | Pn | P | 16 58 09.4 | -1.2 |
| | 0.8nm,0.3s,baz=345,slow=12,SNR=55 | | | | | | |
| WRA | | | | Sn | S | 17 00 57.9 | -11 |
| | 0.4nm,0.3s,baz=338,slow=22,SNR=7.1 | | | | | | |
| ASAR | Alice Springs | 19.55 | 167 | P | P | 16 58 49.0 | +0.8 |
| | 3.4nm,0.4s,baz=349,slow=12,SNR=92 | | | | | | |
| ASAR | | | | S | S | 17 02 15.3 | -2.8 |
| | 1.6nm,1.0s,baz=348,slow=22,SNR=6.6 | | | | | | |
| CMAR | Chiang Mai Arr | 37.68 | 308 | P | P | 17 01 33.5 | +1.6 |
| | 0.5nm,0.5s,baz=130,slow=6.8,SNR=5.5 | | | | | | |
| TAPN | Taplejung | 51.18 | 311 | eP | P | 17 03 19.7 | +0.7 |
| | 3.6nm,0.4s | | | | | | |
| RAMN | Ramite | 51.82 | 310 | eP | P | 17 03 24.8 | +1.1 |
| | 9.7nm,0.4s | | | | | | |
| JIRN | Jiri | 52.49 | 310 | eP | P | 17 03 29.5 | +0.7 |
| GUN | Gumba | 52.86 | 310 | eP | P | 17 03 32.1 | +0.7 |
| PKI | Pulchoki | 53.05 | 310 | eP | P | 17 03 33.1 | +0.3 |
| PKIN | Phulchoki | 53.06 | 310 | eP | P | 17 03 32.9 | +0.1 |
| KOLN | Koldanda | 54.54 | 309 | eP | P | 17 03 44.2 | +0.7 |
| | 5.6nm,0.4s | | | | | | |
| PYUN | Piuthan | 55.17 | 309 | eP | P | 17 03 48.8 | +0.8 |
| MKAR | Makanchi Array | 65.81 | 327 | P | P | 17 05 00.7 | +1.3 |
| | 0.9nm,0.5s,baz=117,slow=8.1,SNR=13 | | | | | | |

**IDC 10 17:03:11.0**±20.0**, 18°.62S**×**178°.14W, h624$^{km}$**±159$^{km}$**, mb3.1**/5**, mb1 3.3**/5**, mb1mx2.9**/26**, mbtmp4.2**/5**, Error ellipse: s-maj=191.4km s-min=93.3km az=67.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DZM | Mont Dzumac | 14.86 | 254 | P | P | 17 06 17.6 | +0.5 |
| | 0.2nm,0.3s,baz=96,slow=18,SNR=3.6 | | | | | | |
| CTA | Charters Tower | 33.59 | 262 | P | P | 17 09 02.0 | 0.0 |
| | 3.1nm,0.7s,baz=100,slow=9.6,SNR=4.1 | | | | | | |
| STKA | Stephens Creek | 38.52 | 242 | P | P | 17 09 42.5 | +0.3 |
| | 1.2nm,0.3s,baz=77,slow=7.9,SNR=8.6 | | | | | | |
| WRA | Warramunga Arr | 44.76 | 260 | P | P | 17 10 30.9 | -0.4 |
| | 1.7nm,0.4s,baz=97,slow=7.5,SNR=44 | | | | | | |
| ASAR | Alice Springs | 44.85 | 255 | P | P | 17 10 31.8 | -0.2 |
| | 4.3nm,0.7s,baz=92,slow=7.4,SNR=109 | | | | | | |
| ASAR | | | | PcP | PcP | 17 11 59.6 | -0.3 |
| | 0.2nm,0.5s,baz=114,slow=4.1,SNR=3.1 | | | | | | |
| FITZ | Fitzroy Crossi | 53.16 | 261 | P | P | 17 11 33.3 | +0.3 |
| | 0.8nm,0.4s,baz=103,slow=5.8,SNR=8.8 | | | | | | |

*ISCJB **10** 17:16:12.3±0.6, 0°.62N±0°.05×126°.83E±0°.05, h47$^{km}$, mb4.0/8, Error ellipse: s-maj=8.0km s-min=7.7km az=41.7*
*DJA **10** 17:16:15.5±1.5, 1°N±3°×12°7E±°, h20$^{km}$±13$^{km}$, M4.2/8, mB4.8/2, mb4.4/4, MLv4.1/8, Mw(mB)4.0/2*
*IDC **10** 17:16:20.4±3.8, 0°.55N×126°.86E, h110$^{km}$±34$^{km}$, mb3.6/8, mb1 3.7/9, mb1mx3.4/52, mbtmp3.9/9, Error ellipse: s-maj=36.8km s-min=10.4km az=78.0*
**ISC 10 17:16:14.2**±0.7**, 0°.61N**±0°.07×**126°.71E**±0°.06**, h47$^{km}$, n19,** σ2$^{s}$.18/23**, mb4.1**/8**, Northern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LBMI | Labuha | 1.47 | 147 | P | Pn | 17 16 41.4 | +3.2 |
| LBMI | | | | S | Sn | 17 17 00.7 | +4.4 |
| KMSI | Cibinong | 2.73 | 269 | P | Pn | 17 16 57.2 | +1.8 |
| KMSI | | | | S | Sn | 17 17 29.3 | +2.1 |
| SANI | Sanana | 2.73 | 195 | P | Pn | 17 16 57.0 | +1.4 |
| SANI | | | | S | Sn | 17 17 26.4 | -1.0 |
| LUWI | Luwuk | 4.26 | 247 | P | Pn | 17 17 18.5 | +2.0 |
| MRSI | Marisa | 4.77 | 268 | P | Pn | 17 17 27.0 | +3.5 |
| APSI | Ampana | 5.28 | 253 | P | Pn | 17 17 32.4 | +1.9 |
| FAKI | Fak Fak | 6.55 | 122 | P | Pn | 17 17 52.4 | +4.3 |
| MPSI | Mapaga | 6.81 | 268 | P | Pn | 17 17 53.8 | +2.2 |
| TTSI | Tana Toraja | 7.78 | 242 | P | Pn | 17 18 05.2 | +0.3 |
| FITZ | Fitzroy Crossi | 18.62 | 183 | P | P | 17 20 27.9 | +0.1 |
| | 0.1nm,0.3s,baz=25,slow=11,SNR=3.6 | | | | | | |
| WRA | Warramunga Arr | 21.75 | 160 | P | P | 17 21 01.8 | 0.0 |
| | 4.0nm,0.5s,baz=343,slow=9.4,SNR=70 | | | | | | |
| WRA | | | | S | S | 17 24 55.5 | -4.6 |
| | 0.4nm,0.7s,baz=327,slow=20,SNR=3.3 | | | | | | |
| ASAR | Alice Springs | 25.12 | 164 | P | P | 17 21 34.9 | 0.0 |
| | 3.6nm,0.6s,baz=345,slow=11,SNR=50 | | | | | | |
| ASAR | | | | PcP | PcP | 17 25 07.6 | -0.8 |
| | 0.1nm,0.3s,baz=358,slow=2.1,SNR=4.5 | | | | | | |
| STKA | Stephens Creek | 35.25 | 158 | P | P | 17 23 04.3 | -0.1 |
| | 2.2nm,0.6s,baz=344,slow=9.0,SNR=5.8 | | | | | | |
| MJAR | Matsushiro Arr | 37.31 | 15 | P | P | 17 23 20.6 | -1.4 |
| | 0.5nm,0.4s,baz=180,slow=8.6,SNR=3.5 | | | | | | |
| SONM | Songino Array | 50.24 | 342 | P | P | 17 25 06.4 | +0.7 |
| | 0.3nm,0.5s,baz=159,slow=7.7,SNR=2.1 | | | | | | |
| PETK | Petropavlovsk- | 58.32 | 21 | P | P | 17 26 04.8 | +0.5 |
| | 2.0nm,0.6s,baz=179,slow=4.5,SNR=15 | | | | | | |
| MKAR | Makanchi Array | 60.11 | 326 | P | P | 17 26 16.8 | 0.0 |
| | 1.0nm,0.3s,baz=114,slow=8.1,SNR=35 | | | | | | |
| ILAR | Eielson Array | 87.92 | 25 | P | P | 17 28 56.7 | -2.0 |
| | 0.1nm,0.4s,baz=258,slow=4.3,SNR=3.3 | | | | | | |
| TORD | Torodi Ar. Bea | 123.81 | 286 | PKP | PKPdf | 17 35 06.7 | -1.3 |
| | 0.1nm,0.5s,baz=85,slow=2.3,SNR=2.6 | | | | | | |

*PDG **10** 17:17:25.9±1.2, 43°.74N×16°.79E, h2$^{km}$±3$^{km}$, ML3.6/10, Error ellipse: s-maj=1.1km s-min=1.3km az=0.0*
*CSEM **10** 17:17:26.5±0.1, 43°.70N×16°.75E, h5$^{km}$, ML3.6/8, Ms3.6, Error ellipse: s-maj=3.1km s-min=2.2km az=39.0*
*LDG **10** 17:17:26.5±0.1, 43°.75N×16°.79E, h2$^{km}$, Ml3.6/13, Error ellipse: s-maj=2.7km s-min=2.2km az=22.0*
*BEO **10** 17:17:26.4±0.4, 43°.76N×16°.77E, h0$^{km}$, M3.3/1*
*PRU **10** 17:17:28.0, 43°.79N×16°.69E, h0$^{km}$*
*VIE **10** 17:17:29.1±0.8, 43°.81N×16°.75E, h10$^{km}$, mb3.0/17, ML3.2/17, Ms3.6/2, Error ellipse: s-maj=7.6km s-min=6.9km az=81.0*
**ISC 10 17:17:26.0**±1.1**, 43°.71N**±0°.02×**16°.75E**±0°.02**, h9$^{km}$**±9$^{km}$**, n202,** σ1$^{s}$.76/293**, 32C-21D, Northwestern Balkan Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BLY | Banja Luka | 1.08 | 17 | ePg | Pg | 17 17 46.5 | -0.3 |
| BLY | | | | eSg | Sg | 17 18 00.3 | -0.5 |
| BLY | Banja Luka | 1.08 | 17 | ⇑iPg | Pg | 17 17 46.2 | -0.6 |
| BLY | | | | eSg | Sg | 17 18 01.3 | +0.5 |
| UDBI | Udbina | 1.08 | 319 | i Pg | Pg | 17 17 46.4 | -0.4 |
| UDBI | | | | Sg | Sb | 17 18 02.5 | +1.3 |
| UDBI | Udbina | 1.08 | 319 | i Pg | Pg | 17 17 46.4 | -0.4 |
| UDBI | | | | Sg | Sb | 17 18 02.4 | +1.3 |
| STON | Ston | 1.09 | 140 | i Pg | Pg | 17 17 45.6 | -1.3 |
| STON | | | | Sg | Sb | 17 18 02.6 | +1.2 |
| STON | Ston | 1.09 | 140 | i Pg | Pg | 17 17 45.6 | -1.3 |
| STON | | | | Sg | Sb | 17 18 02.5 | +1.2 |
| MRAK | Mrakovica | 1.30 | 5 | ePg | Pn | 17 17 51.3 | +0.8 |
| MRAK | | | | eSg | Sg | 17 18 08.7 | +0.7 |
| DOB | Doboj | 1.41 | 43 | ePg | Pn | 17 17 51.3 | -0.5 |
| DOB | | | | eSg | Sb | 17 18 10.7 | +0.2 |
| TREB | Trebinje | 1.54 | 130 | ePg | Pn | 17 17 53.5 | -0.1 |
| TREB | | | | eSg | Sg | 17 18 15.9 | +0.5 |
| TREB | Trebinje | 1.54 | 130 | ePg | Pn | 17 17 53.5 | -0.1 |
| TREB | | | | eSg | Sb | 17 18 15.2 | +1.0 |
| NVLJ | Novalja | 1.60 | 303 | ePn | Pn | 17 17 55.4 | +1.0 |
| NVLJ | | | | Sn | Sg | 17 18 19.4 | +2.0 |
| NVLJ | Novalja | 1.60 | 303 | ePn | Pn | 17 17 55.4 | +1.0 |
| NVLJ | | | | Sn | Sg | 17 18 19.4 | +2.0 |
| HAPS | Han Pijesak,Bl | 1.63 | 76 | ePg | Pn | 17 17 55.1 | +0.1 |
| HAPS | | | | eSg | Sn | 17 18 16.8 | +0.6 |
| HAPS | Han Pijesak,Bl | 1.63 | 76 | ⇑iPg | Pn | 17 17 55.3 | +0.3 |
| HAPS | | | | eSg | Sn | 17 18 16.8 | +0.6 |
| UPM | Unac-Piva | 1.65 | 107 | ⇑iPn | Pn | 17 17 56.3 | +1.0 |
| UPM | | | | eSn | Sg | 17 18 21.0 | +2.0 |
| UPM | Unac-Piva | 1.65 | 107 | ePn | Pn | 17 17 56.4 | +1.1 |
| UPM | Unac-Piva | 1.65 | 107 | P | Pb | 17 17 57.6 | +0.9 |
| UPM | | | | eSg | Sb | 17 18 18.5 | +0.9 |
| UPM | | | | eSn | Sg | 17 18 21.0 | +2.0 |
| HCY | Herceg Novi | 1.80 | 134 | ⇓iPn | Pn | 17 17 58.0 | +0.9 |
| HCY | | | | eSn | Sg | 17 18 24.7 | +0.9 |
| HCY | Herceg Novi | 1.80 | 134 | ePn | Pn | 17 17 58.1 | +0.9 |
| HCY | | | | eSn | Sn | 17 18 20.8 | +0.7 |
| NKME | Niksic | 1.87 | 120 | ⇑iPn | Pn | 17 17 59.7 | +1.5 |
| NKME | | | | eSn | Sg | 17 18 26.3 | +0.3 |
| NKME | Niksic | 1.87 | 120 | ⇑iPn | Pn | 17 17 59.7 | +1.5 |
| NKME | | | | eSn | Sg | 17 18 26.3 | +0.3 |
| NKY | Niksic | 1.87 | 118 | ⇓iPn | Pn | 17 17 59.7 | +1.4 |
| NKY | | | | eSn | Sg | 17 18 26.2 | +0.1 |
| NKY | Niksic | 1.87 | 118 | ⇓iPn | Pn | 17 17 59.7 | +1.4 |
| NKY | | | | eSn | Sg | 17 18 26.2 | +0.1 |
| PLE | Pljevlja | 1.96 | 100 | ⇓iPn | Pn | 17 18 01.5 | +2.0 |
| PLE | | | | eSn | Sg | 17 18 28.3 | -0.6 |
| PLE | Pljevlja | 1.96 | 100 | ⇓iPn | Pn | 17 18 01.5 | +2.0 |
| PLE | | | | eSn | Sg | 17 18 28.3 | -0.6 |
| CEME | Cevo | 1.97 | 126 | ePn | Pn | 17 18 01.3 | +1.7 |
| CEME | | | | eSn | Sg | 17 18 29.1 | -0.2 |
| CEME | Cevo | 1.97 | 126 | ePn | Pn | 17 18 01.3 | +1.7 |
| BOJS | Bojanci | 2.09 | 330 | ePn | Pn | 17 18 03.0 | +1.8 |
| BOJS | | | | eSg | Sb | 17 18 30.9 | +0.9 |
| BOJS | Bojanci | 2.09 | 330 | ePn | Pn | 17 18 03.0 | +1.8 |
| MS1 | Monte Sant'Ang | 2.09 | 197 | ePn | Pn | 17 18 02.6 | +1.3 |
| BLJ | Bijeljina | 2.10 | 59 | ePn | Pn | 17 18 01.5 | +0.2 |
| OZLJ | Ozalj | 2.11 | 335 | i Pn | Pn | 17 18 02.9 | +1.4 |
| OZLJ | | | | Sn | Sb | 17 18 32.2 | +1.5 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| OZLJ | Ozalj | 2.11 | 335 | i Pn | Pn | 17 18 02.9 | +1.4 |
| OZLJ | | | | Sn | Sb | 17 18 32.2 | +1.5 |
| BUM | Brajici-Budva | 2.11 | 131 | ePn | Pn | 17 18 03.7 | +2.1 |
| BUM | | | | eSn | Sb | 17 18 32.7 | +1.8 |
| BUM | Brajici-Budva | 2.11 | 131 | ePn | Pn | 17 18 03.7 | +2.1 |
| TEKS | Tekeris | 2.17 | 66 | ePn | Pn | 17 18 02.8 | +0.5 |
| TEKS | Tekeris | 2.17 | 66 | ePn | Pn | 17 18 02.8 | +0.5 |
| TEKS | | | | eSn | Sn | 17 18 29.3 | 0.0 |
| ZAG | Zagreb | 2.18 | 346 | ePn | Pn | 17 18 04.1 | +1.6 |
| ZAG | | | | eSn | Sn | 17 18 32.0 | +2.4 |
| KOME | Kolasin | 2.19 | 112⇓ | iPn | Pn | 17 18 04.8 | +2.1 |
| KOME | | | | eSn | Sb | 17 18 34.3 | +1.0 |
| KOME | Kolasin | 2.19 | 112⇓ | iPn | Pn | 17 18 04.8 | +2.1 |
| KOME | | | | eSn | Sb | 17 18 34.3 | +1.0 |
| PDG | Podgorica | 2.24 | 124 | ePg | Pb | 17 18 06.3 | -0.3 |
| PDG | Podgorica | 2.24 | 124⇑ | iP | Pb | 17 18 06.7 | +0.1 |
| PDG | Podgorica | 2.24 | 124 | S | Sg | 17 18 37.0 | -0.9 |
| PDG | Podgorica | 2.24 | 124 | ePn | Pn | 17 18 04.2 | +1.0 |
| PDG | Podgorica | 2.24 | 124 | ePg | Pb | 17 18 06.3 | -0.3 |
| PDG | Podgorica | 2.24 | 124⇑ | iP | Pb | 17 18 06.7 | +0.1 |
| PDG | | | | eSn | Sn | 17 18 31.6 | +0.6 |
| TTG | Podgorica | 2.24 | 124⇓ | iPn | Pn | 17 18 05.4 | +2.2 |
| TTG | | | | eSn | Sb | 17 18 35.7 | +1.3 |
| CRES | Cresnjev | 2.30 | 337⇑ | iPn | Pn | 17 18 05.5 | +1.3 |
| CRES | | | | eSn | Sn | 17 18 34.9 | +2.2 |
| DRME | Dracevica, Mon | 2.35 | 130⇑ | iPn | Pn | 17 18 07.0 | +2.2 |
| DRME | | | | eSn | Sb | 17 18 38.3 | +0.7 |
| DRME | Dracevica, Mon | 2.35 | 130 | ePn | Pn | 17 18 06.5 | +1.7 |
| DRME | | | | eSn | Sn | 17 18 35.1 | +1.4 |
| DIVS | Divibare | 2.37 | 80 | ePn | Pn | 17 18 06.2 | +1.0 |
| DIVS | | | | eSg | Sg | 17 18 42.2 | -0.1 |
| DIVS | Divibare | 2.37 | 80 | ePn | Pn | 17 18 06.2 | +1.0 |
| DIVS | | | | eSn | Sn | 17 18 35.0 | +0.5 |
| SJES | Sjenica | 2.39 | 100 | ePn | Pn | 17 18 07.4 | +2.0 |
| BEY | Berane | 2.44 | 109 | ePn | Pn | 17 18 08.3 | +2.1 |
| BEY | Berane | 2.44 | 109 | P | Pb | 17 18 09.9 | -0.3 |
| BEY | | | | eSn | Sb | 17 18 40.1 | -0.3 |
| IVA | Berane | 2.44 | 109 | ePn | Pn | 17 18 08.3 | +2.1 |
| IVA | | | | eSn | Sb | 17 18 40.1 | -0.3 |
| ULC | Ulcinj | 2.53 | 133⇓ | iPn | Pn | 17 18 09.1 | +1.8 |
| ULC | | | | eSn | Sb | 17 18 42.8 | -0.1 |
| ULC | Ulcinj | 2.53 | 133⇓ | iPn | Pn | 17 18 09.1 | +1.8 |
| ULC | Ulcinj | 2.53 | 133 | P | Pb | 17 18 11.3 | -0.4 |
| ULC | | | | eSn | Sb | 17 18 42.8 | -0.1 |
| PVY | Plav | 2.60 | 114⇑ | iPn | Pn | 17 18 10.8 | +2.5 |
| PVY | | | | eSn | Sb | 17 18 44.2 | -0.7 |
| PVY | Plav | 2.60 | 114⇑ | iPn | Pn | 17 18 10.8 | +2.5 |
| PVY | | | | eSn | Sb | 17 18 44.2 | -0.7 |
| BAI | Bari | 2.61 | 178 | ePn | Pn | 17 18 08.8 | +0.5 |
| CEY | Cerknica | 2.62 | 322⇑ | iPn | Pn | 17 18 10.8 | +2.3 |
| CEY | | | | eSn | Sn | 17 18 43.4 | +3.0 |
| FGSL | Fruska Gora | 2.62 | 56 | ePn | Pn | 17 18 08.8 | +0.2 |
| FRGS | Fruska Gora | 2.62 | 56 | ePn | Pn | 17 18 08.8 | +0.2 |
| FRGS | Fruska Gora | 2.62 | 56 | ePn | Pn | 17 18 09.1 | +0.5 |
| FRGS | | | | eSn | Sn | 17 18 41.3 | +0.7 |
| CDT | Castel del Mon | 2.65 | 188 | ePn | Pn | 17 18 08.6 | -0.4 |
| TRUS | Trudelj | 2.69 | 78 | ePn | Pn | 17 18 09.6 | +0.2 |
| TRUS | Trudelj | 2.69 | 78 | ePn | Pn | 17 18 09.6 | +0.2 |
| BEHE | Becsehely | 2.76 | 0⇑ | ex | Pn | 17 18 11.9 | +1.5 |
| BEHE | | | | ex | Sn | 17 18 54.9 | +11 |
| BEHE | Becsehely | 2.76 | 0 | ePn | Pn | 17 18 11.8 | +1.4 |
| BEHE | | | | eSn | Sn | 17 18 45.2 | +1.4 |
| AQU | L'Aquila | 2.81 | 242 | ePn | Pn | 17 18 13.6 | +2.5 |
| AQU | | | | eSn | Sn | 17 18 47.9 | +2.8 |
| LJU | Ljubljana | 2.81 | 327 | ePn | Pn | 17 18 13.0 | +1.8 |
| LJU | | | | eSn | Sn | 17 18 47.8 | +2.5 |
| SG1 | Sgolgore (BA) | 2.87 | 181 | ePn | Pn | 17 18 11.8 | -0.2 |
| SG1 | | | | Sn | Sn | 17 18 46.1 | -0.6 |
| GRUS | Gruza | 2.88 | 85 | ePn | Pn | 17 18 12.9 | +0.9 |
| GRUS | Gruza | 2.88 | 85 | ePn | Pn | 17 18 12.9 | +0.9 |
| FASA | Fasano | 2.93 | 171 | ePn | Pn | 17 18 12.7 | -0.1 |
| FASA | | | | Sn | Sn | 17 18 48.1 | +0.1 |
| MASS | Massafra | 3.09 | 174 | ePn | Pn | 17 18 14.7 | -0.3 |
| MASS | | | | Sn | Sn | 17 18 52.1 | 0.0 |
| CGL1 | Ceglie Messapi | 3.10 | 170 | ePn | Pn | 17 18 14.9 | -0.3 |
| CGL1 | | | | Sn | Sn | 17 18 52.6 | +0.2 |
| SMRK | Smrekonice | 3.17 | 104 | P | Pn | 17 18 18.5 | +2.4 |
| OBKA | Obir | 3.20 | 332 | Pn | Pn | 17 18 18.9 | +2.3 |
| | 4.3nm,0.1s | | | | | | |
| OBKA | | | | Sn | Sn | 17 18 58.9 | +4.0 |
| | 54nm,0.4s | | | | | | |
| SOKA | Soboth | 3.20 | 338 | Pn | Pn | 17 18 17.8 | +1.2 |
| | 4.9nm,0.2s | | | | | | |
| SOKA | | | | Sn | Sn | 17 18 55.9 | +1.0 |
| | 33nm,0.5s | | | | | | |
| TAR1 | Taranto | 3.21 | 173 | ePn | Pn | 17 18 16.6 | 0.0 |
| SELS | Selova | 3.22 | 97 | ePn | Pn | 17 18 17.9 | +1.2 |
| SELS | Selova | 3.22 | 97 | ePn | Pn | 17 18 17.9 | +1.2 |
| TIR | Tirane | 3.30 | 135 | ePn | Pn | 17 18 20.5 | +2.7 |
| TIR | Tirane | 3.30 | 135⇑ | iP | Pb | 17 18 22.5 | -2.2 |
| TIR | Tirane | 3.30 | 135 | ePn | Pn | 17 18 20.5 | +2.7 |
| TIR | Tirane | 3.30 | 135⇑ | iP | Pb | 17 18 22.5 | -2.2 |
| BOVS | Bovan | 3.59 | 90 | ePn | Pn | 17 18 22.6 | +0.7 |
| BOVS | Bovan | 3.59 | 90 | ePn | Pn | 17 18 22.6 | +0.7 |
| KUBS | Kucevo | 3.62 | 77 | ePn | Pn | 17 18 22.1 | -0.1 |
| KUBS | Kucevo | 3.62 | 77 | ePn | Pn | 17 18 22.1 | -0.1 |
| ARSA | Arzberg | 3.64 | 347 | Pn | Pn | 17 18 24.0 | +1.4 |
| | 27nm,0.5s | | | | | | |
| ARSA | | | | Sn | Sn | 17 19 05.8 | +0.2 |
| | 17nm,0.5s | | | | | | |
| MYKA | Terra Mystica | 3.65 | 324 | Pn | Pn | 17 18 26.2 | +3.4 |
| | 3.0nm,0.2s | | | | | | |
| MDVR | Moldovita | 3.72 | 72⇓ | iP | Pn | 17 18 24.0 | +0.3 |
| MDVR | Moldovita | 3.72 | 72⇓ | iP | Pn | 17 18 24.0 | +0.3 |
| MDVR | | | | S | Sn | 17 19 07.5 | -0.2 |
| CSKK | Csˆ‡kako | 3.80 | 16⇑ | ex | Pn | 17 18 26.0 | +1.3 |
| CSKK | | | | ex | Sn | 17 19 10.4 | +0.9 |
| CSKK | Csˆ‡kako | 3.80 | 16⇑ | ePn | Pn | 17 18 26.0 | +1.3 |
| CSKK | | | | eSn | Sn | 17 19 10.4 | +0.9 |
| SKO | Skopje | 3.86 | 115 | ePn | Pn | 17 18 29.6 | +4.0 |
| BZS | Buzias | 3.96 | 60⇑ | iP | Pn | 17 18 27.7 | +0.8 |
| BZS | Buzias | 3.96 | 60⇑ | iP | Pn | 17 18 27.7 | +0.8 |
| BZS | | | | S | Sn | 17 19 13.4 | 0.0 |
| OHR | Ohrid | 3.97 | 130 | i Pn | Pn | 17 18 28.9 | +1.8 |
| ZAGS | Zajecar | 3.97 | 87 | ePn | Pn | 17 18 28.0 | +0.9 |
| ZAGS | Zajecar | 3.97 | 87 | ePn | Pn | 17 18 28.0 | +0.9 |
| KRUS | Krusevo | 4.07 | 124 | i Pn | Pn | 17 18 30.9 | +2.4 |
| KBA | Koelnbreinsper | 4.13 | 326 | Pn | Pn | 17 18 31.8 | +2.4 |
| | 2.8nm,0.3s | | | | | | |
| KBA | | | | Sn | Sn | 17 19 19.1 | +1.1 |
| | 9.1nm,0.3s | | | | | | |
| HERR | Herculane | 4.23 | 72⇑ | iP | Pn | 17 18 31.7 | +1.1 |
| SRO | Srobarova | 4.24 | 14 | ePn | Pn | 17 18 32.9 | +2.1 |
| SRO | Srobarova | 4.24 | 14 | ePN | Pn | 17 18 32.9 | +2.1 |
| CONA | Conrad Observa | 4.26 | 352 | Pn | Pn | 17 18 32.6 | +1.5 |
| | 5.8nm,0.3s | | | | | | |
| CONA | | | | Sn | Sn | 17 19 22.9 | +1.9 |
| | 12nm,0.4s | | | | | | |
| ABTA | Abfaltersbach | 4.26 | 317 | Pn | Pn | 17 18 32.7 | +1.6 |
| | 2.6nm,0.3s,SNR=14 | | | | | | |
| ZAPS | Zavoj | 4.30 | 94 | ePn | Pn | 17 18 33.2 | +1.5 |
| MOA | Molln | 4.49 | 338 | Pn | Pn | 17 18 36.5 | +2.3 |
| | 8.3nm,0.3s | | | | | | |
| MOA | | | | Sn | Sn | 17 19 28.7 | +2.2 |
| | 19nm,0.5s | | | | | | |
| PSZ | Piszkesteto | 4.74 | 26⇑ | iP | Pn | 17 18 37.9 | +0.2 |
| PSZ | Piszkesteto | 4.74 | 26⇑ | ex | Pn | 17 18 38.0 | +0.2 |
| PSZ | | | | ex | Sn | 17 19 31.0 | -1.9 |
| PSZ | Piszkesteto | 4.74 | 26⇑ | ePn | Pn | 17 18 38.0 | +0.2 |
| PSZ | | | | eSn | Sn | 17 19 31.0 | -1.9 |
| SMOL | Smolenice | 4.82 | 5 | ePn | Pn | 17 18 39.7 | +0.9 |
| SMOL | | | | eSn | Sn | 17 19 32.9 | -1.9 |
| SMOL | Smolenice | 4.82 | 5 | ePN | Pn | 17 18 39.7 | +0.9 |
| SMOL | | | | eSN | Sn | 17 19 32.9 | -1.9 |
| VTS | Vitosha | 4.86 | 101⇓ | iP | Pn | 17 18 41.5 | +2.1 |
| VTS | Vitosha | 4.86 | 101 | S | Sn | 17 19 38.6 | +2.8 |
| VTS | Vitosha | 4.86 | 101⇓ | iP | Pn | 17 18 41.5 | +2.1 |
| VYHS | Vyhne | 5.00 | 16 | ePn | Pn | 17 18 42.1 | +0.9 |
| VYHS | | | | eSn | Sn | 17 19 38.1 | -0.9 |
| VYHS | Vyhne | 5.00 | 16 | ePN | Pn | 17 18 42.1 | +0.9 |
| VYHS | | | | eSN | Sn | 17 19 38.1 | -0.9 |
| WTTA | Wattenberg | 5.05 | 316 | Pn | Pn | 17 18 44.7 | +2.6 |
| | 11nm,0.2s,SNR=15 | | | | | | |
| WTTA | | | | Sn | Sn | 17 19 43.2 | +2.5 |
| | 12nm,0.4s | | | | | | |
| WATA | Walderalm | 5.13 | 317 | Pn | Pn | 17 18 45.8 | +2.7 |
| | 12nm,0.2s,SNR=16 | | | | | | |
| DRGR | | 5.21 | 52⇑ | iP | Pn | 17 18 44.0 | -0.2 |
| DRGR | | 5.21 | 52⇑ | iP | Pn | 17 18 44.0 | -0.2 |
| DRGR | | | | S | Sn | 17 19 44.6 | +0.2 |
| LOT | Lotru | 5.30 | 68⇑ | iP | Pn | 17 18 45.7 | +0.2 |
| LOT | Lotru | 5.30 | 68⇑ | iP | Pn | 17 18 45.7 | +0.2 |
| MOTA | Moosalm | 5.38 | 314 | Pn | Pn | 17 18 49.0 | +2.5 |
| | 6.3nm,0.3s,SNR=22 | | | | | | |
| FETA | Feichten | 5.38 | 310 | Pn | Pn | 17 18 48.8 | +2.2 |
| | 0.7nm,0.2s,SNR=5.4 | | | | | | |
| KECS | Kecovo | 5.43 | 27 | ePn | Pn | 17 18 48.8 | +1.7 |
| KECS | | | | eSn | Sn | 17 19 48.4 | -1.3 |
| KECS | Kecovo | 5.43 | 27 | ePN | Pn | 17 18 48.8 | +1.7 |
| KECS | | | | eSN | Sn | 17 19 48.4 | -1.3 |
| VRAC | Vranov | 5.60 | 359⇓ | iP | Pn | 17 18 49.8 | +0.4 |
| VRAC | Vranov | 5.60 | 359⇓ | iP | Pn | 17 18 49.8 | +0.4 |
| VRAC | Vranov | 5.60 | 359 | ePn | Pn | 17 18 50.8 | +1.4 |
| RETA | Reutte | 5.65 | 314 | Pn | Pn | 17 18 52.2 | +2.0 |
| | 1.7nm,0.2s,SNR=5.3 | | | | | | |
| RETA | | | | Sn | Sn | 17 19 57.6 | +2.5 |
| | 6.5nm,0.4s | | | | | | |
| CJR | Cluj-Napoca | 5.69 | 56⇓ | iP | Pn | 17 18 52.0 | +1.3 |
| CJR | Cluj-Napoca | 5.69 | 56⇓ | iP | Pn | 17 18 52.0 | +1.3 |
| LANS | Liptovska Anna | 5.75 | 18 | ePN | Pn | 17 18 58.0 | +6.4 |
| PGF | Pioggiola | 5.79 | 261 | ePn | Pn | 17 18 54.2 | +2.0 |
| | SNR=1.0 | | | | | | |
| PGF | Pioggiola | 5.79 | 261 | ePn | Pn | 17 18 54.2 | +2.0 |
| | SNR=1.0 | | | | | | |
| KHC | Kasperske Hory | 5.84 | 339 | ePN | Pn | 17 18 54.6 | +1.8 |
| KHC | | | | ex | x | 17 19 04.0 | |
| KHC | | | | eSN | Sn | 17 19 58.7 | -1.3 |
| KHC | Kasperske Hory | 5.84 | 339 | Pn | Pn | 17 18 54.6 | +1.8 |
| KHC | | | | Sn | Sn | 17 19 58.7 | -1.3 |
| HUMR | Humele | 5.98 | 79⇑ | iP | Pn | 17 18 54.9 | +0.2 |
| HUMR | Humele | 5.98 | 79⇑ | iP | Pn | 17 18 54.9 | +0.2 |
| DAVA | Damuels | 6.01 | 309 | Pn | Pn | 17 18 57.9 | +2.7 |
| | 1.9nm,0.2s,SNR=6.8 | | | | | | |
| MORC | Moravsky Berou | 6.09 | 5⇑ | iP | Pn | 17 18 57.6 | +1.4 |
| MORC | Moravsky Berou | 6.09 | 5 | S | Sn | 17 20 05.6 | -0.4 |
| MORC | Moravsky Berou | 6.09 | 5⇑ | iP | Pn | 17 18 57.6 | +1.4 |
| MORC | Moravsky Berou | 6.09 | 5 | ePn | Pn | 17 18 58.0 | +1.8 |
| MORC | | | | eSn | Sn | 17 20 06.8 | +0.8 |
| CRVS | Cervenica-Dubn | 6.13 | 30 | ePn | Pn | 17 18 58.9 | +2.2 |
| CRVS | Cervenica-Dubn | 6.13 | 30 | ePN | Pn | 17 18 58.9 | +2.2 |
| VOIR | | 6.17 | 71⇓ | iP | Pn | 17 18 58.6 | +1.2 |
| VOIR | | 6.17 | 71⇓ | iP | Pn | 17 18 58.6 | +1.2 |
| OKC | Ostrava-Krasne | 6.20 | 8 | eSN | Sn | 17 20 08.9 | +0.3 |
| OKC | Ostrava-Krasne | 6.20 | 8 | Sn | Sn | 17 20 08.9 | +0.3 |
| PRU | Pruhonice | 6.46 | 347 | ePN | Pn | 17 19 03.6 | +2.4 |
| PRU | Pruhonice | 6.46 | 347 | Pn | Pn | 17 19 03.6 | +2.4 |
| STHS | Stebnicka Huta | 6.49 | 27 | ePn | Pn | 17 19 04.5 | +2.8 |
| STHS | Stebnicka Huta | 6.49 | 27 | ePN | Pn | 17 19 04.5 | +2.8 |
| DPC | Dobruska-Polom | 6.65 | 358 | eSN | Sn | 17 20 19.5 | -0.2 |
| DPC | Dobruska-Polom | 6.65 | 358 | Sn | Sn | 17 20 19.5 | -0.2 |
| SBF | Sospel | 6.75 | 274 | ePn | Pn | 17 19 06.0 | +0.8 |
| SBF | Sospel | 6.75 | 274 | ePn | Pn | 17 19 06.0 | +0.8 |
| INCR | INCERC-Sediu C | 6.82 | 81⇑ | iP | Pn | 17 19 12.7 | +6.6 |
| MBDF | Montbardon | 7.24 | 281 | ePn | Pn | 17 19 11.7 | -0.4 |
| | SNR=1.0 | | | | | | |
| MBDF | | | | eSn | Sn | 17 20 29.3 | -5.2 |
| | 7.4nm,0.4s | | | | | | |
| MBDF | Montbardon | 7.24 | 281 | ePn | Pn | 17 19 11.7 | -0.4 |
| | SNR=1.0 | | | | | | |
| FRF | La Foret Royal | 7.33 | 272 | ePn | Pn | 17 19 14.5 | +1.3 |
| | SNR=1.0 | | | | | | |
| FRF | La Foret Royal | 7.33 | 272 | ePn | Pn | 17 19 14.5 | +1.3 |
| | SNR=1.0 | | | | | | |
| LPG | La Plagne | 7.36 | 287 | ePn | Pn | 17 19 12.7 | -1.1 |
| | SNR=1.0 | | | | | | |
| LPG | | | | eSn | Sn | 17 20 34.5 | -3.0 |
| | 16nm,0.5s | | | | | | |
| LPG | La Plagne | 7.36 | 287 | ePn | Pn | 17 19 12.7 | -1.1 |
| | SNR=1.0 | | | | | | |
| LPL | La Plagne | 7.37 | 288 | ePn | Pn | 17 19 13.6 | -0.4 |
| | SNR=1.0 | | | | | | |
| LPL | | | | eSn | Sn | 17 20 32.7 | -5.2 |
| | 13nm,0.4s | | | | | | |
| LPL | La Plagne | 7.37 | 288 | ePn | Pn | 17 19 13.6 | -0.4 |
| | SNR=1.0 | | | | | | |
| LMR | La Mourre | 7.46 | 271 | ePn | Pn | 17 19 15.9 | +1.0 |
| | SNR=1.0 | | | | | | |
| LMR | | | | eSn | Sn | 17 20 36.9 | -2.6 |
| | 2.9nm,0.3s,SNR=1.0 | | | | | | |
| LMR | La Mourre | 7.46 | 271 | ePn | Pn | 17 19 15.9 | +1.0 |
| | SNR=1.0 | | | | | | |
| ORIF | Oris-en-Rattie | 7.89 | 283 | ePn | Pn | 17 19 21.1 | +0.1 |
| | SNR=1.0 | | | | | | |
| ORIF | | | | eSn | Sn | 17 20 45.9 | -4.5 |
| | 13nm,0.5s,SNR=1.0 | | | | | | |
| ORIF | Oris-en-Rattie | 7.89 | 283 | ePn | Pn | 17 19 21.1 | +0.1 |
| | SNR=1.0 | | | | | | |
| CLL | Collm | 8.01 | 343 | eSb | Sn | 17 20 56.0 | +2.9 |
| CLL | | | | eSg | Sg | 17 21 40.0 | -2.9 |
| HINF | Hinteralfeld | 8.04 | 304 | ePn | Pn | 17 19 24.7 | +1.7 |
| HINF | | | | eSn | Sn | 17 20 49.9 | -4.2 |
| | 8.3nm,0.6s | | | | | | |
| HINF | Hinteralfeld | 8.04 | 304 | ePn | Pn | 17 19 24.7 | +1.7 |
| CABF | La Chapelle | 8.07 | 295 | ePn | Pn | 17 19 23.5 | 0.0 |
| | SNR=1.0 | | | | | | |
| CABF | | | | eSn | Sn | 17 20 51.2 | -3.7 |
| | 6.3nm,0.5s | | | | | | |
| CABF | La Chapelle | 8.07 | 295 | ePn | Pn | 17 19 23.5 | 0.0 |
| | SNR=1.0 | | | | | | |
| CDF | Champ du Feu | 8.09 | 309 | ePn | Pn | 17 19 22.9 | -0.8 |
| | SNR=1.0 | | | | | | |
| CDF | Champ du Feu | 8.09 | 309 | ePn | Pn | 17 19 22.9 | -0.8 |
| | SNR=1.0 | | | | | | |
| HAU | Haudompre | 8.43 | 304 | ePn | Pn | 17 19 29.2 | +0.9 |
| | SNR=1.0 | | | | | | |
| HAU | | | | eSn | Sn | 17 21 00.3 | -3.3 |
| | 8.3nm,0.5s,SNR=1.0 | | | | | | |
| HAU | Haudompre | 8.43 | 304 | ePn | Pn | 17 19 29.2 | +0.9 |
| | SNR=1.0 | | | | | | |
| EFOR | EFORIE | 8.59 | 83⇓ | iP | Pn | 17 19 25.6 | -4.8 |
| VIVF | Saint-Julien-l | 8.74 | 282 | ePn | Pn | 17 19 32.1 | -0.5 |
| | SNR=1.0 | | | | | | |
| VIVF | | | | eSn | Sn | 17 21 05.3 | -5.9 |
| | 2.7nm,0.4s,SNR=1.0 | | | | | | |
| VIVF | Saint-Julien-l | 8.74 | 282 | ePn | Pn | 17 19 32.1 | -0.5 |
| | SNR=1.0 | | | | | | |
| SMF | Signal de Mont | 9.58 | 292 | ePn | Pn | 17 19 43.9 | -0.1 |
| | SNR=1.0 | | | | | | |
| SMF | | | | eSn | Sn | 17 21 27.1 | -4.6 |
| | 6.0nm,0.4s,SNR=1.0 | | | | | | |
| SMF | Signal de Mont | 9.58 | 292 | ePn | Pn | 17 19 43.9 | -0.1 |
| | SNR=1.0 | | | | | | |
| LOR | Lormes | 9.73 | 296 | ePn | Pn | 17 19 45.6 | -0.5 |
| | baz=116,SNR=1.0 | | | | | | |
| LOR | | | | eSn | Sn | 17 21 28.8 | -6.6 |
| | 6.0nm,0.4s | | | | | | |
| LOR | Lormes | 9.73 | 296 | ePn | Pn | 17 19 45.6 | -0.5 |
| | SNR=1.0 | | | | | | |
| SSF | Saint Saulge | 9.90 | 294 | ePn | Pn | 17 19 48.1 | -0.3 |
| | SNR=1.0 | | | | | | |
| SSF | Saint Saulge | 9.90 | 294 | ePn | Pn | 17 19 48.1 | -0.3 |
| | SNR=1.0 | | | | | | |
| AVF | Avril sur Loir | 9.94 | 293 | ePn | Pn | 17 19 48.6 | -0.3 |
| | SNR=1.0 | | | | | | |
| AVF | | | | eSn | Sn | 17 21 32.9 | -7.6 |
| | 2.7nm,0.5s | | | | | | |
| AVF | Avril sur Loir | 9.94 | 293 | ePn | Pn | 17 19 48.6 | -0.3 |
| | SNR=1.0 | | | | | | |
| BGF | Bois d'Agland | 10.23 | 291 | ePn | Pn | 17 19 52.7 | -0.2 |
| BGF | Bois d'Agland | 10.23 | 291 | ePn | Pn | 17 19 52.7 | -0.2 |
| TCF | Toulx Ste Croi | 10.62 | 289 | ePn | Pn | 17 19 56.6 | -1.6 |
| | SNR=1.0 | | | | | | |
| TCF | | | | eSn | Sn | 17 21 50.7 | -6.5 |
| | 2.4nm,0.4s | | | | | | |

**IDC 10 17:18:25.6±11.0, 2°.68N×128°.75E, h307km±125km, mb2.8/7, mb1 2.9/7, mb1mx2.8/50, mbtmp3.5/7, Error ellipse: s-maj=77.0km s-min=19.0km az=60.0, Halmahera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 23.14 | 167 | P | P | 17 23 06.4 | +0.8 |
| | 0.3nm,0.7s,baz=348,slow=9.9,SNR=2.8 | | | | | | |
| ASAR | Alice Springs | 26.66 | 169 | P | P | 17 23 36.4 | -0.8 |
| | 0.2nm,0.5s,baz=356,slow=9.0,SNR=2.8 | | | | | | |
| CMAR | Chiang Mai Arr | 33.14 | 300 | P | P | 17 24 34.0 | 0.0 |
| | 0.7nm,0.7s,baz=107,slow=6.7,SNR=5.0 | | | | | | |
| SONM | Songino Array | 48.95 | 340 | P | P | 17 26 41.7 | +0.1 |
| | 0.2nm,0.4s,baz=134,slow=6.2,SNR=2.7 | | | | | | |
| MKAR | Makanchi Array | 59.56 | 325 | P | P | 17 27 57.7 | +0.1 |
| | 0.7nm,0.6s,baz=120,slow=8.2,SNR=6.2 | | | | | | |
| ZALV | Zalesovo Beam | 62.44 | 332 | P | P | 17 28 15.8 | -0.8 |
| | 0.3nm,0.4s,baz=126,slow=7.4,SNR=2.2 | | | | | | |
| BVAR | Borovoye Array | 69.30 | 327 | P | P | 17 29 00.3 | +0.2 |
| | 0.5nm,0.4s,baz=116,slow=6.1,SNR=2.8 | | | | | | |
| ARCES | ARCESS Array B | 92.12 | 340 | P | P | 17 31 00.4 | +0.3 |
| | 2.6nm,0.9s,baz=91,slow=7.2,SNR=2.7 | | | | | | |

*ISCJB **10** 17:22:13.5±0.6, 51°.52N±0°.03×16°.07E±0°.03, h0km, Error ellipse: s-maj=4.4km s-min=2.7km az=14.5*
*CSEM **10** 17:22:15.9±0.3, 51°.49N×16°.06E, h2km, ML3.4/11, Error ellipse: s-maj=5.6km s-min=3.1km az=3.0*
*VIE **10** 17:22:19.0±0.8, 51°.27N×16°.03E, h0km, mb2.3/4, ML2.8/5, Error ellipse: s-maj=8.7km s-min=6.1km az=86.0, Suspected Mining induced.*
**ISC 10 17:22:14.4±0.9, 51°.59N±0°.03×16°.04E±0°.02, h0km, n40, σ1s.07/78, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KSP | Ksiaz | 0.76 | 168 | ePg | Pg | 17 22 29.4 | +0.4 |
| KSP | | | | eSg | Sg | 17 22 38.8 | 0.0 |
| KSP | Ksiaz | 0.76 | 168 | ePg | Pg | 17 22 29.4 | +0.4 |
| KSP | | | | eSg | Sg | 17 22 38.8 | 0.0 |
| KSP | Ksiaz | 0.76 | 168 | ePg | Pg | 17 22 29.4 | +0.4 |
| KSP | | | | eSg | Sg | 17 22 38.8 | 0.0 |
| UPC | Upice | 1.08 | 181 | ePG | Pg | 17 22 35.2 | +0.1 |
| UPC | | | | eSG | Sg | 17 22 48.9 | -0.2 |
| | comp=Z,115nm,0.2s | | | | | | |
| UPC | Upice | 1.08 | 181 | Pg | Pg | 17 22 35.2 | +0.1 |
| UPC | | | | Sg | Sg | 17 22 48.9 | -0.2 |
| | 115nm,0.2s | | | | | | |
| DPC | Dobruska-Polom | 1.25 | 172 | ePG | Pg | 17 22 38.1 | -0.2 |
| DPC | | | | eSG | Sg | 17 22 53.5 | -1.1 |
| | comp=Z,39nm,0.4s | | | | | | |
| DPC | Dobruska-Polom | 1.25 | 172 | Pg | Pg | 17 22 38.1 | -0.2 |
| DPC | | | | Sg | Sg | 17 22 53.5 | -1.1 |
| | 39nm,0.4s | | | | | | |
| PVCC | Panska Ves | 1.41 | 222 | ePG | Pb | 17 22 42.0 | +0.5 |
| PVCC | | | | eSG | Sb | 17 23 00.5 | +0.5 |
| | comp=Z,189nm,0.2s | | | | | | |
| PVCC | Panska Ves | 1.41 | 222 | Pg | Pb | 17 22 42.0 | +0.5 |
| PVCC | | | | Sg | Sb | 17 23 00.5 | +0.5 |
| | 189nm,0.2s | | | | | | |
| KRLC | Kraliky | 1.59 | 162 | ePG | Pn | 17 22 44.2 | +0.4 |
| KRLC | | | | eSG | Sn | 17 23 04.4 | -0.6 |
| | comp=Z,8.4nm,0.5s | | | | | | |
| KRLC | Kraliky | 1.59 | 162 | Pg | Pn | 17 22 44.2 | +0.4 |
| KRLC | | | | Sg | Sn | 17 23 04.4 | -0.6 |
| | 8.4nm,0.5s | | | | | | |
| GOPC | GO Pecny, Ondr | 1.86 | 206 | ePG | Pn | 17 22 47.6 | +0.2 |
| GOPC | | | | eSG | Sb | 17 23 12.7 | -0.2 |
| | comp=Z,21nm,0.3s | | | | | | |
| PRU | Pruhonice | 1.86 | 211 | ePN | Pn | 17 22 47.9 | +0.4 |
| PRU | | | | ePG | Pb | 17 22 49.2 | 0.0 |
| PRU | | | | eSG | Sb | 17 23 13.3 | +0.2 |
| | comp=Z,46nm,0.3s | | | | | | |
| PRU | Pruhonice | 1.86 | 211 | Pn | Pn | 17 22 47.9 | +0.4 |
| CLL | Collm | 1.92 | 263 | ePn | Pn | 17 22 48.0 | -0.3 |
| CLL | | | | ePg | Pb | 17 22 51.0 | +0.8 |
| CLL | | | | i | | 17 22 55.4 | |
| CLL | | | | i Sg | Sg | 17 23 16.7 | +0.7 |
| | comp=Z,23nm,0.6s | | | | | | |
| RAC | Raciborz | 2.03 | 137 | ePg | Pg | 17 22 53.4 | +0.1 |
| RAC | | | | eSg | Sb | 17 23 18.5 | +0.5 |
| MORC | Moravsky Berou | 2.05 | 152 | ePn | Pn | 17 22 49.9 | -0.2 |
| MORC | | | | eSg | Sb | 17 23 18.4 | -0.1 |
| OKC | Ostrava-Krasne | 2.21 | 142 | ePG | Pb | 17 22 55.0 | -0.1 |
| OKC | | | | eSG | Sb | 17 23 22.9 | -0.1 |
| OKC | Ostrava-Krasne | 2.21 | 142 | Pg | Pb | 17 22 55.0 | -0.1 |
| OKC | | | | Sg | Sb | 17 23 22.9 | -0.1 |
| VRAC | Vranov | 2.31 | 171 | ePn | Pn | 17 22 54.2 | +0.5 |
| VRAC | | | | eSg | Sb | 17 23 27.0 | +1.0 |
| NKC | Novy Kostel | 2.65 | 241 | ePN | Pn | 17 22 59.2 | +0.9 |
| NKC | | | | ePG | Pg | 17 23 05.8 | +0.7 |
| NKC | | | | eSG | Sg | 17 23 40.6 | +1.2 |
| | comp=Z,44nm,0.3s | | | | | | |
| NKC | Novy Kostel | 2.65 | 241 | Pn | Pn | 17 22 59.2 | +0.9 |
| OJC | Ojcow | 2.75 | 118 | ePg | Pg | 17 23 07.7 | +0.8 |
| OJC | | | | eSg | Sg | 17 23 42.5 | 0.0 |
| OJC | Ojcow | 2.75 | 118 | ePg | Pg | 17 23 07.7 | +0.8 |
| OJC | | | | eSg | Sg | 17 23 42.5 | 0.0 |
| OJC | Ojcow | 2.75 | 118 | ePg | Pg | 17 23 07.7 | +0.8 |
| OJC | | | | eSg | Sg | 17 23 42.5 | 0.0 |
| KHC | Kasperske Hory | 2.92 | 214 | ePN | Pn | 17 23 02.4 | +0.3 |
| KHC | | | | ePG | Pb | 17 23 08.7 | +1.4 |
| KHC | | | | eSN | Sn | 17 23 36.5 | -1.4 |
| KHC | | | | eSG | Sg | 17 23 46.3 | -1.9 |
| | comp=Z,14nm,0.4s | | | | | | |
| KHC | Kasperske Hory | 2.92 | 214 | Pn | Pn | 17 23 02.4 | +0.3 |
| SMOL | Smolenice | 3.21 | 163 | eSg | Sg | 17 23 57.0 | -0.3 |
| SMOL | Smolenice | 3.21 | 163 | eSG | Sg | 17 23 57.0 | -0.3 |
| LANS | Liptovska Anna | 3.28 | 137 | ePg | Pg | 17 23 17.0 | -0.2 |
| LANS | | | | eSg | Sg | 17 23 57.7 | -2.1 |
| LANS | Liptovska Anna | 3.28 | 137 | ePG | Pg | 17 23 17.0 | -0.2 |
| LANS | | | | eSG | Sg | 17 23 57.7 | -2.1 |
| VYHS | Vyhne | 3.58 | 149 | ePg | Pg | 17 23 24.2 | +1.2 |
| VYHS | | | | eSg | Sg | 17 24 07.5 | -1.9 |
| VYHS | Vyhne | 3.58 | 149 | ePG | Pg | 17 23 24.2 | +1.2 |
| VYHS | | | | eSG | Sg | 17 24 07.5 | -1.9 |
| BSD | Bornholm Skovb | 3.60 | 350 | i P | Pn | 17 23 10.8 | -0.5 |
| BSD | | | | i S | Sn | 17 23 51.3 | -3.1 |
| BSD | Bornholm Skovb | 3.60 | 350 | i P | Pn | 17 23 10.8 | -0.5 |
| CONA | Conrad Observa | 3.67 | 182 | Pn | Pn | 17 23 13.7 | +1.3 |
| | comp=Z,0.6nm,0.2s | | | | | | |
| CONA | | | | Sg | Sg | 17 24 09.0 | -3.1 |
| | comp=Z,10nm,0.4s | | | | | | |
| MOA | Molln | 3.92 | 198 | Pn | Pn | 17 23 16.6 | +0.9 |
| | comp=Z,0.5nm,0.1s | | | | | | |
| MOA | | | | Sg | Sg | 17 24 18.2 | -1.9 |
| | comp=Z,2.7nm,0.2s | | | | | | |
| STHS | Stebnicka Huta | 3.97 | 121 | ePg | Pg | 17 23 30.9 | +0.5 |
| STHS | | | | eSg | Sg | 17 24 24.9 | +3.1 |
| STHS | Stebnicka Huta | 3.97 | 121 | ePG | Pg | 17 23 30.9 | +0.5 |
| STHS | | | | eSG | Sg | 17 24 24.9 | +3.1 |
| STHS | | | | eLG | Lg | 17 24 31.8 | |
| ARSA | Arzberg | 4.36 | 185 | Sg | Sg | 17 24 33.2 | -1.0 |
| | comp=Z,15nm,0.8s | | | | | | |

*ATA **10** 17:24:59.6±1.6, 39°.66N×39°.91E, h15km±116km, ML2.7, MW2.3*
*ISCJB **10** 17:25:00.4±1.4, 39°.7N±0°.1×39°.95E±0°.07, h8km, Error ellipse: s-maj=17.7km s-min=7.8km az=171.4*
**ISC 10 17:24:58.8±2.2, 39°.9N±0°.1×39°.82E±0°.08, h8km, n6, σ1s.74/8, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| EUZM | Uzumlu | 0.22 | 204 | eP | Pg | 17 25 05.3 | +2.1 |
| EUZM | | | | eS | Sg | 17 25 07.1 | +0.7 |
| EUZM | | | | IAML | | 17 25 07.4 | |
| | comp=Z,174nm,0.2s | | | | | | |
| ERZN | Erzincan | 0.33 | 192 | ePG | Pg | 17 25 06.1 | +0.8 |
| ERZN | | | | eSG | Sg | 17 25 07.7 | -2.1 |
| YEDI | Yedisu-Bingol | 0.73 | 130 | ePG | Pn | 17 25 17.1 | +1.5 |
| ECAT | Cat-ERZURUM | 0.94 | 108 | eP | Pb | 17 25 15.8 | -1.7 |
| ECAT | | | | IAML | | 17 26 05.7 | |
| | comp=Z,12nm,0.2s | | | | | | |
| PTK | Pertek | 1.07 | 198 | ePG | Pn | 17 25 19.8 | -0.4 |
| KEMA | Kemaliye | 1.21 | 238 | eP | Pn | 17 25 21.9 | -0.2 |

*IDC **10** 17:38:44.3±2.0, 34°.64N×141°.71E, h0km, mb3.5/2, mb1 3.5/4, mb1mx3.2/48, mbtmp3.4/4, ML3.1/2, Error ellipse: s-maj=37.3km s-min=23.9km az=137.0*
*JMA **10** 17:38:45.0±0.4, 34°.67N×141°.95E, h40km±5km, M3.1*
*ISCJB **10** 17:38:46.3±1.4, 34°.67N±0°.04×141°.9E±0°.1, h33km±15km, mb3.5/2, Error ellipse: s-maj=14.2km s-min=7.3km az=2.2*
**ISC 10 17:38:45.2±2.1, 34°.71N±0°.05×141°.85E±0°.09, h14km±11km, n14, σ1s.46/21, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BSO1 | Boso 1 | 0.72 | 266 | P | Pg | 17 38 59.8 | +0.7 |
| BSO3 | Boso 3 | 1.11 | 275 | P | Pg | 17 39 06.1 | -0.4 |
| BSO4 | Boso 4 | 1.28 | 283 | P | Pn | 17 39 08.8 | +0.2 |
| CHOJ | Chosi | 1.28 | 321 | P | Pn | 17 39 08.4 | -0.3 |
| CHOJ | | | | S | Sg | 17 39 26.3 | -0.3 |
| JCN | Nagara | 1.53 | 298 | P | Pn | 17 39 12.6 | +0.5 |
| JCN | | | | eS | Sn | 17 39 33.1 | +1.3 |
| JHJ2 | Mitsune | 2.32 | 227 | P | Pn | 17 39 22.7 | -0.3 |
| JHJ2 | | | | S | Sn | 17 39 50.0 | -1.4 |
| JOD2 | Odawara 2 | 2.34 | 284 | P | Pn | 17 39 22.6 | -0.7 |
| JOD2 | | | | eS | Sn | 17 39 50.3 | -1.5 |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| JHJ | Hachijo jima 2 | 2.34 | 228 | Pn | Pn | 17 39 22.4 | -0.8 |
| | 11nm,0.3s,baz=54,slow=19,SNR=5.5 | | | | | | |
| JHJ | | | | Sn | Sn | 17 39 49.8 | -2.1 |
| | 30nm,0.3s,baz=125,slow=23,SNR=6.8 | | | | | | |
| JAG | Ashikaga | 2.60 | 312 | P | Pn | 17 39 26.8 | -0.1 |
| JAG | | | | S | Sn | 17 39 57.0 | -1.3 |
| JFK | Kawauchi | 2.77 | 344 | S | Sn | 17 39 59.4 | -3.1 |
| MJAR | Matsushiro Arr | 3.49 | 303 | Pn | Pn | 17 39 38.8 | -0.3 |
| | 2.1nm,0.3s,baz=100,slow=8.1,SNR=23 | | | | | | |
| MJAR | | | | Sn | Sn | 17 40 21.2 | +1.0 |
| | 1.2nm,0.3s,baz=209,slow=6.9,SNR=5.3 | | | | | | |
| ASAJ | Asahikawa | 9.41 | 3 | Pn | Pn | 17 40 57.9 | -2.5 |
| | 0.5nm,0.3s,baz=210,slow=13,SNR=11 | | | | | | |
| ASAJ | | | | Sn | Sn | 17 42 38.2 | -7.8 |
| | 0.2nm,0.3s,baz=112,slow=19,SNR=2.4 | | | | | | |
| MKAR | Makanchi Array | 45.69 | 304 | P | P | 17 47 06.0 | +0.5 |
| | 0.7nm,0.9s,baz=82,slow=12,SNR=2.9 | | | | | | |
| ILAR | Eielson Array | 51.28 | 31 | P | P | 17 47 50.5 | +2.2 |
| | 0.7nm,1.2s,baz=272,slow=6.9,SNR=3.6 | | | | | | |

*KRNET **10** 17:44:27.8±0.1, 39.°35N×72.°72E, mb2.3*
*NNC **10** 17:44:39.0±0.5, 40.°17N×71.°51E, h0km, mb2.6, mpv2.3, Error ellipse: s-maj=7.6km s-min=2.6km az=125.0*
**ISC 10 17:44:27.0**±2.0**, 39.°28N**±0.°10×**72.°73E**±0.°07**, h31km, n9, σ1.s76**/15**, 12C-6D, Kyrgyzstan**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SFK | Sufi-Kurgan | 0.95 | 39 | ⇓iP | Pb | 17 44 45.7 | +0.7 |
| | baz=42 | | | | | | |
| SFK | | | | ⇓iS | Sb | 17 44 58.8 | +1.5 |
| | baz=42 | | | | | | |
| ARSB | Arslanbob | 2.05 | 5 | ⇑eP | Pb | 17 45 04.6 | +0.9 |
| | baz=5.0 | | | | | | |
| ARSB | | | | ⇑iS | Sb | 17 45 31.3 | +2.5 |
| | baz=5.0 | | | | | | |
| ARK | Arkit | 2.58 | 347 | ⇑eP | Pb | 17 45 12.4 | -0.3 |
| | baz=347 | | | | | | |
| ARK | | | | ⇑iS | Sb | 17 45 45.1 | +1.1 |
| | baz=347 | | | | | | |
| AML | Almayashu | 2.94 | 14 | ⇓iP | Pb | 17 45 17.7 | -1.3 |
| | baz=14 | | | | | | |
| AML | | | | ⇓iS | Sb | 17 45 56.3 | +1.7 |
| | baz=14 | | | | | | |
| DZET | Dzherino | 3.07 | 262 | ⇓Pn | Pb | 17 45 20.8 | -0.3 |
| | 1.4nm,0.5s | | | | | | |
| DZET | | | | ⇑Lg | Lg | 17 45 58.0 | |
| | 8.1nm,0.7s | | | | | | |
| MNAS | Manas | 3.21 | 357 | ⇑iP | Pb | 17 45 21.3 | -2.1 |
| | baz=357 | | | | | | |
| MNAS | | | | ⇑iS | Sb | 17 46 03.4 | +1.3 |
| | baz=357 | | | | | | |
| MNAS | Manas | 3.21 | 357 | ⇑Pn | Pb | 17 45 20.3 | -3.0 |
| | 1.3nm,0.6s | | | | | | |
| MNAS | | | | ⇓Lg | Lg | 17 45 55.9 | |
| | 1.4nm,0.6s | | | | | | |
| UCH | Uchtor | 3.24 | 24 | ⇑iP | Pb | 17 45 21.6 | -2.5 |
| | baz=25 | | | | | | |
| UCH | | | | ⇑iS | Sb | 17 46 02.7 | -0.6 |
| | baz=25 | | | | | | |
| KK31 | Karatay Array | 4.17 | 337 | ⇑Pn | Pn | 17 45 28.3 | -0.2 |
| | 0.2nm,0.3s,baz=142,slow=11,SNR=9.2 | | | | | | |
| KK31 | | | | ⇑Lg | Lg | 17 46 15.2 | |
| | 0.2nm,0.3s,baz=165,slow=30 | | | | | | |

**ATA 10 17:48:12.6**±0.7**, 38.°67N**×**43.°55E, h7km**±75km**, ML2.8, MW2.8, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GEVA | Gevas | 0.53 | 227 | eP | Pb | 17 48 24.0 | -0.3 |
| GEVA | | | | eS | Sg | 17 48 28.9 | -0.8 |
| GEVA | | | | IAML | | 17 48 38.6 | |
| | comp=Z,53nm,0.4s | | | | | | |
| GEVA | Gevas | 0.53 | 227 | eP | Pg | 17 48 23.5 | +0.7 |
| GEVA | | | | eS | Sb | 17 48 31.6 | -0.6 |
| GEVA | | | | IAML | | 17 48 38.7 | |
| | comp=Z,53nm,0.4s | | | | | | |
| TUTA | Tutak | 0.93 | 322 | eP | Pb | 17 48 30.9 | -0.3 |
| TUTA | | | | IAML | | 17 48 42.7 | |
| | comp=Z,34nm,0.4s | | | | | | |
| TUTA | Tutak | 0.93 | 322 | eP | Pg | 17 48 30.7 | +0.2 |
| TUTA | | | | IAML | | 17 48 42.7 | |
| | comp=Z,34nm,0.4s | | | | | | |
| EKAR | Karacoban | 1.30 | 297 | eP | Pn | 17 48 37.2 | -0.2 |
| EKAR | | | | IAML | | 17 48 58.5 | |
| | comp=Z,7.1nm,0.4s | | | | | | |
| EKAR | Karacoban | 1.30 | 297 | eP | Pg | 17 48 38.1 | +0.6 |
| EKAR | | | | IAML | | 17 48 58.5 | |
| | comp=Z,7.1nm,0.4s | | | | | | |
| EATA | Eleskirt | 1.45 | 326 | eP | Pg | 17 48 40.2 | -0.1 |
| EATA | | | | IAML | | 17 49 02.7 | |
| | comp=Z,2.6nm,0.4s | | | | | | |
| EATA | Eleskirt | 1.45 | 326 | eP | Pg | 17 48 40.3 | 0.0 |
| EATA | | | | IAML | | 17 49 02.8 | |
| | comp=Z,2.6nm,0.4s | | | | | | |

*ATA **10** 18:08:14.5±0.3, 37.°68N×45.°65E, h15km, ML4.1, MW4.4*
*TEH **10** 18:08:14.2, 37.°15N×45.°13E, h10km, ML3.4*
*AZER **10** 18:08:15.8±0.9, 36.°87N×45.°91E, h11km, Error ellipse: s-maj=8.1km s-min=4.3km az=49.0*
*CSEM **10** 18:08:15.1±0.3, 37.°22N×45.°35E, h2km, ML3.5, Error ellipse: s-maj=8.2km s-min=5.8km az=169.0*
*ISK **10** 18:08:17.3, 36.°88N×44.°75E, h5km, ML3.5*
*ISN **10** 18:08:19.3±1.0, 36.°67N×44.°49E, h0km±3km, ML3.5*
*DDA **10** 18:08:37.1, 38.°00N×43.°85E, h47km, Ml2.9*
*NSSC **10** 18:08:41.4±1.2, 36.°87N×42.°91E, h15km±72km, ML2.4*
**ISC 10 18:08:11.7**±1.2**, 37.°04N**±0.°04×**45.°42E**±0.°03**, h2km**±8km**, n102, σ2.s05**/128**, 11C-15D, Northwestern Iran**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ISHB | Shabestar | 1.25 | 7 | ePg | Pg | 18 08 36.1 | +0.3 |
| ISHB | | | | eSg | Sg | 18 08 50.8 | -1.2 |
| ISHB | | | | eAMB | AMB | 18 08 55.1 | |
| | comp=Z,23μm,0.1s | | | | | | |
| ITBZ | Tabriz | 1.33 | 26 | ePg | Pb | 18 08 38.5 | +1.0 |
| ITBZ | | | | eSg | Sn | 18 08 57.1 | +1.2 |
| ITBZ | | | | eAMB | AMB | 18 09 00.4 | |
| | comp=Z,7μm,0.3s | | | | | | |
| ITBZ | Tabriz | 1.33 | 26 | ePg | Pb | 18 08 38.5 | +1.0 |
| ITBZ | | | | eSg | Sn | 18 08 57.1 | +1.2 |
| IBST | Bostanabad | 1.35 | 60 | eAMB | AMB | 18 09 09.0 | |
| | comp=Z,7μm,0.2s | | | | | | |
| CUKT | Cukurca | 1.46 | 279 | ePG | Pn | 18 08 37.2 | -2.0 |
| CUKT | Cukurca | 1.46 | 279 | iP | Pn | 18 08 37.3 | -2.0 |
| CUKT | | | | iS | Sg | 18 08 58.2 | -0.4 |
| CUKT | Cukurca | 1.46 | 279 | ePg | Pn | 18 08 37.3 | -2.0 |
| CUKT | | | | S | Sg | 18 08 58.2 | -0.4 |
| BASK | Baskale_VAN | 1.51 | 312 | eP | Pg | 18 08 40.5 | -0.2 |
| BASK | | | | IAML | | 18 08 47.0 | |
| | comp=Z,87nm,0.6s | | | | | | |
| IMRD | Marand | 1.69 | 8 | ePg | Pn | 18 08 43.7 | +1.2 |
| IMRD | | | | eAMB | AMB | 18 09 14.7 | |
| | comp=Z,9μm,0.2s | | | | | | |
| IMRD | Marand | 1.69 | 8 | ePg | Pn | 18 08 43.7 | +1.2 |
| IHRS | Heris | 1.81 | 45 | ePg | Pg | 18 08 49.2 | +2.7 |
| IHRS | | | | eAMB | AMB | 18 09 16.9 | |
| | comp=Z,4μm,0.1s | | | | | | |
| IHRS | Heris | 1.81 | 45 | ePg | Pg | 18 08 49.2 | +2.7 |
| ORD | Ordubad | 1.94 | 13 | P | Pg | 18 08 50.1 | +1.2 |
| ORD | | | | S | Sg | 18 09 17.4 | +3.3 |
| NAX | Nakhchivan | 2.13 | 2 | ⇑P | Pg | 18 08 53.9 | +1.3 |
| | SNR=6.5 | | | | | | |
| NAX | | | | ⇑S | Sg | 18 09 24.6 | +4.3 |
| NAX | Nakhchivan | 2.13 | 2 | P | Pg | 18 08 53.9 | +1.3 |
| | SNR=6.5 | | | | | | |
| NAX | | | | S | Sg | 18 09 24.6 | +4.3 |
| VANB | Van | 2.23 | 315 | ePN | Pn | 18 08 51.9 | +2.0 |
| VANB | | | | eSN | Sb | 18 09 18.7 | -2.4 |
| VANB | Van | 2.23 | 315 | ePn | Pn | 18 08 51.9 | +2.0 |
| VANB | | | | eSn | Sb | 18 09 18.7 | -2.4 |
| GEVA | Gevas | 2.26 | 305 | eP | Pb | 18 08 53.1 | -0.4 |
| GEVA | | | | IAML | | 18 08 58.7 | |
| | comp=Z,49nm,0.4s | | | | | | |
| GEVA | | | | eS | Sg | 18 09 23.1 | -1.3 |
| GEVA | Gevas | 2.26 | 305 | iP | Pn | 18 08 51.7 | +1.3 |
| GEVA | | | | iS | Sg | 18 09 22.8 | -1.6 |
| GEVA | Gevas | 2.26 | 305 | P | Pn | 18 08 51.7 | +1.3 |
| GEVA | | | | S | Sg | 18 09 22.8 | -1.6 |
| SBZ | Shahbuz | 2.36 | 3 | ⇓P | Pg | 18 08 56.7 | -0.2 |
| SBZ | | | | ⇓S | Sg | 18 09 30.0 | +2.5 |
| SBZ | Shahbuz | 2.36 | 3 | P | Pg | 18 08 56.7 | -0.2 |
| SBZ | | | | S | Sg | 18 09 30.0 | +2.5 |
| MAKU | Maku | 2.38 | 346 | ePn | Pb | 18 08 54.3 | -1.2 |
| CLDR | Caldiran | 2.41 | 331 | ePN | Pg | 18 08 58.9 | +1.0 |
| CLDR | Caldiran | 2.41 | 331 | iP | Pg | 18 08 58.2 | +0.2 |
| CLDR | | | | iS | Sg | 18 09 30.6 | +1.4 |
| CLDR | Caldiran | 2.41 | 331 | P | Pg | 18 08 58.2 | +0.2 |
| CLDR | Caldiran | 2.41 | 331 | ePn | Pg | 18 08 58.9 | +1.0 |
| CLDR | | | | S | Sg | 18 09 30.6 | +1.4 |
| SIRT | Sirnak | 2.42 | 282 | ePN | Pn | 18 08 53.0 | +0.5 |
| SIRT | Sirnak | 2.42 | 282 | ePn | Pn | 18 08 53.0 | +0.5 |
| SIRN | S˜–rnak | 2.44 | 282 | iP | Pn | 18 08 53.9 | +1.2 |
| SIRN | | | | iS | Sn | 18 09 24.1 | +0.9 |
| SIRN | S˜–rnak | 2.44 | 282 | P | Pn | 18 08 53.9 | +1.2 |
| SIRN | | | | S | Sn | 18 09 24.1 | +0.9 |
| SNGE | Sanandaj | 2.50 | 141 | ePn | Pn | 18 09 00.4 | +6.8 |
| GRMI | Germi | 2.64 | 47 | ePn | Pn | 18 08 59.3 | +3.8 |
| ZNJK | Zanjan | 2.65 | 97 | ePn | Pn | 18 09 01.8 | +6.0 |
| HYR | Heyderabad | 2.71 | 351 | ⇓P | Pg | 18 09 03.5 | -0.2 |
| HYR | | | | ⇑S | Sg | 18 09 39.9 | +1.0 |
| HYR | Heyderabad | 2.71 | 351 | P | Pg | 18 09 03.5 | -0.2 |
| HYR | | | | S | Sg | 18 09 39.9 | +1.0 |
| ADCV | BITLIS_Adilcev | 2.77 | 311 | iP | Pn | 18 08 59.5 | +2.2 |
| ADCV | BITLIS_Adilcev | 2.77 | 311 | P | Pn | 18 08 59.5 | +2.2 |
| LRK | Lerik | 2.81 | 54 | ⇑P | Pn | 18 08 58.1 | +0.1 |
| LRK | | | | ⇓S | Sn | 18 09 31.2 | -1.4 |
| LRK | Lerik | 2.81 | 54 | P | Pn | 18 08 58.1 | +0.1 |
| LRK | | | | S | Sn | 18 09 31.2 | -1.4 |
| DYDN | Diyadin | 2.84 | 332 | eP | Pn | 18 08 57.4 | -1.1 |
| SRTM | Siirt_Merkez | 2.94 | 290 | iP | Pn | 18 09 03.4 | +3.9 |
| SRTM | Siirt_Merkez | 2.94 | 290 | P | Pn | 18 09 03.4 | +3.9 |
| ASTR | Astara | 3.08 | 59 | ⇑P | Pn | 18 09 01.4 | 0.0 |
| | SNR=4.8 | | | | | | |
| ASTR | | | | ⇓S | Sn | 18 09 36.0 | -2.7 |
| ASTR | Astara | 3.08 | 59 | P | Pn | 18 09 01.4 | 0.0 |
| | SNR=4.8 | | | | | | |
| ASTR | | | | S | Sn | 18 09 36.0 | -2.7 |
| TASB | TASBURUN-IGDIR | 3.08 | 343 | ePN | Pg | 18 09 10.6 | -0.2 |
| TASB | TASBURUN-IGDIR | 3.08 | 343 | ePn | Pg | 18 09 10.6 | -0.2 |
| TUTA | Tutak | 3.12 | 320 | eP | Pn | 18 09 02.5 | +0.2 |
| TUTA | | | | IAML | | 18 09 14.1 | |
| | comp=Z,22nm,0.7s | | | | | | |
| LKRN | Lenkeran, Azer | 3.14 | 57 | ⇓P | Pn | 18 09 02.1 | -0.2 |
| | SNR=3.1 | | | | | | |
| LKRN | | | | ⇑S | Sn | 18 09 38.1 | -2.3 |
| LKRN | Lenkeran, Azer | 3.14 | 57 | P | Pn | 18 09 02.1 | -0.2 |
| | SNR=3.1 | | | | | | |
| LKRN | | | | S | Sn | 18 09 38.1 | -2.3 |
| AGRB | Hanur-Agry | 3.17 | 324 | ePN | Pb | 18 09 07.7 | -1.2 |
| AGRB | Hanur-Agry | 3.17 | 324 | ePn | Pb | 18 09 07.7 | -1.2 |
| GLBA | Clilabad | 3.22 | 46 | ⇓P | Pn | 18 09 04.5 | +1.2 |
| | SNR=6.8 | | | | | | |
| GLBA | Clilabad | 3.22 | 46 | P | Pn | 18 09 04.5 | +1.2 |
| | SNR=6.8 | | | | | | |
| BTMN | Batman | 3.41 | 286 | iP | Pb | 18 09 12.9 | 0.0 |
| BTMN | | | | iS | Sb | 18 09 55.2 | +0.4 |
| BTMN | Batman | 3.41 | 286 | P | Pb | 18 09 12.9 | 0.0 |
| BTMN | | | | S | Sb | 18 09 55.2 | +0.4 |
| EKAR | Karacoban | 3.45 | 311 | eP | Pn | 18 09 08.2 | +1.5 |
| EKAR | | | | IAML | | 18 09 34.7 | |
| | comp=Z,6.9nm,0.6s | | | | | | |
| BRDA | Brd | 3.50 | 23 | ⇓S | Sb | 18 09 53.4 | -4.0 |
| BRDA | Brd | 3.50 | 23 | S | Sb | 18 09 53.4 | -4.0 |
| GANJ | Ganja | 3.67 | 11 | ⇓P | Pn | 18 09 14.1 | +4.5 |
| | SNR=4.5 | | | | | | |
| GANJ | | | | ⇑S | Sb | 18 10 00.1 | -2.2 |
| GANJ | Ganja | 3.67 | 11 | P | Pn | 18 09 14.1 | +4.5 |
| | SNR=4.5 | | | | | | |
| GANJ | | | | S | Sb | 18 10 00.1 | -2.2 |
| SAAT | Saatly | 3.68 | 39 | ⇓S | Sn | 18 09 55.2 | +1.7 |
| SAAT | Saatly | 3.68 | 39 | S | Sn | 18 09 55.2 | +1.7 |
| GDB | GEDABAY | 3.69 | 4 | ⇓P | Pb | 18 09 15.3 | -2.4 |
| GDB | | | | ⇓S | Sb | 18 10 01.6 | -1.3 |
| GDB | GEDABAY | 3.69 | 4 | P | Pb | 18 09 15.3 | -2.4 |
| GDB | | | | S | Sb | 18 10 01.6 | -1.3 |
| ZRD | Zardab | 3.69 | 28 | ⇑P | Pn | 18 09 12.4 | +2.6 |
| ZRD | Zardab | 3.69 | 28 | P | Pn | 18 09 12.4 | +2.6 |
| MARD | Mardin | 3.71 | 276 | iP | Pb | 18 09 17.6 | -0.5 |
| KBSD | Kabsdagh | 3.90 | 271 | eP | Pn | 18 09 13.2 | +0.5 |
| KBSD | | | | eS | Sn | 18 09 36.8 | -22 |
| KBSD | | | | AML | AML | 18 10 17.1 | |
| | comp=Z,56nm,0.5s | | | | | | |
| MNGR | Mingechevir, A | 3.95 | 19 | ⇓S | Sb | 18 10 05.5 | -4.8 |
| MNGR | Mingechevir, A | 3.95 | 19 | S | Sb | 18 10 05.5 | -4.8 |
| MAZI | Mazidag | 3.99 | 278 | ePN | Pn | 18 09 14.8 | +0.8 |
| MAZI | Mazidag | 3.99 | 278 | ePn | Pn | 18 09 14.8 | +0.8 |
| QZX | Qazax, Azerbai | 4.01 | 360 | ⇓P | Pb | 18 09 20.3 | -2.9 |
| | SNR=2.9 | | | | | | |
| QZX | Qazax, Azerbai | 4.01 | 360 | P | Pb | 18 09 20.3 | -2.9 |
| | SNR=2.9 | | | | | | |
| MZRK | Al-Mazaregh | 4.03 | 254 | eP | Pn | 18 09 17.1 | +2.6 |
| MZRK | | | | eS | Sn | 18 09 41.2 | -21 |
| MZRK | | | | AML | AML | 18 10 27.0 | |
| | comp=Z,168nm,0.6s | | | | | | |
| HANI | Diyarbakir_Han | 4.21 | 291 | iP | Pb | 18 09 26.7 | +0.2 |
| HANI | Diyarbakir_Han | 4.21 | 291 | P | Pb | 18 09 26.7 | +0.2 |
| DIY | Diyarbakir | 4.21 | 283 | ePn | Pn | 18 09 20.0 | +2.9 |
| DYBB | Diyarbakir | 4.29 | 284 | ePN | Pn | 18 09 20.0 | +1.8 |
| SFNV | Sufian | 4.30 | 263 | eP | Pn | 18 09 18.9 | +0.5 |
| SFNV | | | | eS | Sn | 18 09 45.8 | -23 |
| SFNV | | | | AML | AML | 18 10 11.9 | |
| | comp=Z,38nm,0.4s | | | | | | |
| IML | Ismayilli | 4.33 | 29 | ⇑P | Pn | 18 09 21.1 | +2.5 |
| IML | Ismayilli | 4.33 | 29 | P | Pn | 18 09 21.1 | +2.5 |
| PQL | Pirkuli | 4.49 | 33 | ⇑P | Pn | 18 09 23.4 | +2.4 |
| | SNR=12 | | | | | | |
| PQL | Pirkuli | 4.49 | 33 | P | Pn | 18 09 23.4 | +2.4 |
| | SNR=12 | | | | | | |
| XNQ | Khinaliq | 4.64 | 26 | ⇑P | Pn | 18 09 25.8 | +2.7 |
| XNQ | Khinaliq | 4.64 | 26 | P | Pn | 18 09 25.8 | +2.7 |
| ATGJ | Altiaghaj | 4.70 | 35 | ⇓P | Pn | 18 09 25.8 | +2.0 |
| ATGJ | Altiaghaj | 4.70 | 35 | P | Pn | 18 09 25.8 | +2.0 |
| KHMZ | Khomeyn | 4.96 | 130 | ePn | Pn | 18 09 34.5 | +7.0 |
| SVRC | Sivrice-ELAZID | 5.03 | 287 | ePN | Pn | 18 09 30.1 | +1.7 |
| SVRC | Sivrice-ELAZID | 5.03 | 287 | ePn | Pn | 18 09 30.1 | +1.7 |
| PTK | Pertek | 5.11 | 293 | ePN | Pn | 18 09 31.1 | +1.7 |
| PTK | Pertek | 5.11 | 293 | ePn | Pn | 18 09 31.2 | +1.7 |
| KSRV | Kasrt alli | 5.30 | 259 | eP | Pn | 18 09 36.4 | +4.4 |
| KSRV | | | | eS | Sn | 18 10 16.1 | -18 |
| KSRV | | | | AML | AML | 18 11 15.3 | |
| | comp=Z,27nm,0.6s | | | | | | |
| MALT | Malatya | 5.69 | 285 | ePN | Pn | 18 09 39.6 | +2.2 |
| MALT | Malatya | 5.69 | 285 | ePn | Pn | 18 09 39.6 | +2.2 |
| RTB | Rutbah | 5.79 | 228 | ePn | Pn | 18 09 36.0 | -2.8 |
| | SNR=3.0 | | | | | | |
| RTB | | | | iSn | Sn | 18 10 31.0 | -15 |
| | SNR=3.0 | | | | | | |
| NSR | Nassriya | 6.04 | 174 | ePn | Pn | 18 09 48.0 | +5.8 |
| | SNR=3.0 | | | | | | |
| NSR | | | | iSn | Sn | 18 10 51.0 | -1.0 |
| | SNR=3.0 | | | | | | |
| ROOS | tl_alroos | 7.21 | 249 | eP | Pn | 18 10 01.4 | +3.1 |
| ROOS | | | | eS | Sn | 18 10 58.0 | -23 |
| ROOS | | | | AML | AML | 18 12 24.6 | |
| | comp=N,16nm,0.8s | | | | | | |
| ROOS | | | | AML | AML | 18 12 30.9 | |
| | comp=E,22nm,0.7s | | | | | | |
| HAWK | Haweek | 7.74 | 254 | eP | Pn | 18 10 07.5 | +1.9 |
| HAWK | | | | eS | Sn | 18 11 10.7 | -23 |
| HAWK | | | | AML | AML | 18 12 33.2 | |
| | comp=E,8.9nm,0.6s | | | | | | |
| HAWK | | | | AML | AML | 18 12 35.7 | |
| | comp=N,5.1nm,0.6s | | | | | | |
| SALA | Sala | 8.34 | 241 | eP | Pn | 18 10 18.3 | +4.5 |
| SALA | | | | eS | Sn | 18 11 28.4 | -20 |
| SALA | | | | AML | AML | 18 12 43.7 | |
| | comp=N,6.9nm,0.7s | | | | | | |
| SALA | | | | AML | AML | 18 12 44.3 | |
| | comp=E,1.2nm,0.7s | | | | | | |

*ISCJB **10** 18:37:25.3±0.6, 24.°76S±0.°03×179.°67E±0.°03, h507km±6km, mb4.7/148, Error ellipse: s-maj=5.3km s-min=4.0km az=153.0*
*NEIC **10** 18:37:25.0±0.1, 24.°76S×179.°77E, mb4.8/125, Error ellipse: s-maj=4.7km s-min=3.4km az=134.0*
*IDC **10** 18:37:26.2±0.8, 24.°73S×179.°73E, h508km±8km, mb3.9/21, mb1 4.0/24, mb1mx3.8/39, mbtmp4.7/24, Error ellipse: s-maj=10.6km s-min=8.7km az=176.0*
*BJI **10** 18:37:26.1, 24.°93S×179.°20E, h501km, mb4.6/15, mB5.2/10*
**ISC 10 18:37:25.6**±0.5**, 24.°76S**±0.°05×**179.°81E**±0.°05**, h506km**±5km**, h507km:pP-P, n291, σ1.s38**/331**, mb4.7**/148**, 1C, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RAO | Raoul Island | 4.92 | 156 | P | P | 18 38 54.0 | +2.0 |
| | 167nm,0.3s,baz=257,slow=22,SNR=12 | | | | | | |
| RAO | | | | S | S | 18 40 04.8 | +2.1 |
| | 87nm,0.3s,baz=217,slow=20,SNR=2.3 | | | | | | |
| MSVF | Nonsavu | 7.18 | 346 | eP | P | 18 39 14.1 | +0.1 |
| DZM | Mont Dzumac | 12.56 | 280 | P | P | 18 40 11.4 | +1.2 |
| | 2.3nm,0.3s,baz=85,slow=16,SNR=32 | | | | | | |
| DZM | Mont Dzumac | 12.56 | 280 | eP | P | 18 40 12.5 | +2.3 |
| MXZ | Matakaoa Point | 12.83 | 185 | eP | P | 18 40 15.3 | +2.6 |
| HAZ | Te Kaha | 13.07 | 187 | ePN | P | 18 40 16.8 | +1.5 |
| HAZ | | | | SN | S | 18 42 30.9 | -4.3 |
| WMGZ | Waiomatatini S | 13.08 | 185 | ePN | P | 18 40 17.0 | +1.8 |
| WMGZ | | | | SN | S | 18 42 32.0 | -3.2 |
| AFI | Afiamalu | 13.39 | 38 | P | P | 18 40 15.0 | -4.0 |
| | 7.7nm,0.3s,baz=230,slow=7.9,SNR=7.2 | | | | | | |
| AFI | | | | S | S | 18 42 27.8 | -14 |
| | 2.5nm,0.3s,baz=239,slow=5.9,SNR=2.5 | | | | | | |
| URZ | Urewera | 13.66 | 189 | P | P | 18 40 20.3 | -1.0 |
| | 4.3nm,0.3s,baz=32,slow=2.7,SNR=29 | | | | | | |
| URZ | | | | S | S | 18 42 44.8 | -1.6 |
| | 3.1nm,0.3s,baz=125,slow=20,SNR=10 | | | | | | |
| URZ | Urewera | 13.66 | 189 | ePN | P | 18 40 21.5 | +0.1 |
| URZ | | | | eSN | S | 18 42 44.3 | -2.1 |
| RIGZ | Rimuhau | 14.02 | 187 | ePN | P | 18 40 24.9 | -0.3 |
| HIZ | Hauiti | 14.35 | 196 | eP | P | 18 40 29.3 | +0.6 |
| BKZ | Black Stump Fm | 14.64 | 190 | eP | P | 18 40 30.5 | -1.3 |
| BFZ | Birch Farm | 16.16 | 190 | eP | P | 18 40 45.0 | -2.5 |
| | 41nm,1.2s | | | | | | |
| MRZ | Mangatainoka R | 16.25 | 192 | ePN | P | 18 40 45.5 | -3.0 |
| MRZ | | | | eSN | S | 18 43 26.1 | -9.4 |
| DUWZ | D'Urville Isla | 16.74 | 196 | ePN | P | 18 40 52.6 | -1.0 |
| SNZO | South Karori | 17.05 | 193 | eP | P | 18 40 55.0 | -1.5 |
| | 172nm,1.7s | | | | | | |
| QRZ | Quartz Range | 17.14 | 199 | ePN | P | 18 40 57.3 | -0.2 |
| NNZ | Nelson | 17.27 | 197 | ePN | P | 18 40 58.5 | -0.1 |
| THZ | Tophouse | 17.90 | 197 | eP | P | 18 41 03.5 | -1.1 |
| | 20nm,0.4s | | | | | | |
| THZ | Tophouse | 17.90 | 197 | ePN | P | 18 41 03.4 | -1.2 |
| THZ | | | | eSN | S | 18 43 59.5 | -3.8 |
| DSZ | Denniston Nort | 18.20 | 199 | ePN | P | 18 41 07.2 | -0.1 |
| KHZ | Kahutara | 18.36 | 195 | eP | P | 18 41 07.8 | -0.9 |
| | 44nm,1.3s | | | | | | |
| KHZ | Kahutara | 18.36 | 195 | PN | P | 18 41 07.8 | -0.9 |
| LTZ | Lake Taylor | 19.02 | 197 | eP | P | 18 41 15.1 | +0.3 |
| | 106nm,1.8s | | | | | | |
| RAR | Rarotonga | 19.13 | 83 | P | P | 18 41 15.6 | -0.4 |
| | 0.9nm,0.3s,baz=234,slow=6.0,SNR=4.2 | | | | | | |
| RAR | Rarotonga | 19.13 | 83 | eP | P | 18 41 15.3 | -0.7 |
| | 14nm,0.9s | | | | | | |
| INZ | Inchbonnie | 19.20 | 199 | ePN | P | 18 41 16.2 | -0.2 |
| OXZ | Oxford | 19.59 | 197 | eP | P | 18 41 19.3 | -0.7 |
| | 26nm,0.5s | | | | | | |
| OXZ | Oxford | 19.59 | 197 | PN | P | 18 41 19.0 | -1.0 |
| CRLZ | Canterbury Las | 19.68 | 196 | eP | P | 18 41 20.1 | -0.6 |
| | 267nm,1.7s | | | | | | |
| MQZ | McQueen's Vall | 19.79 | 195 | eP | P | 18 41 21.1 | -0.6 |
| | 162nm,1.8s | | | | | | |
| RPZ | Rata Peaks | 20.23 | 199 | P | P | 18 41 26.1 | +0.4 |
| | 10.0nm,0.5s,baz=28,slow=3.4,SNR=10.0 | | | | | | |
| FOZ | Fox Glacier | 20.44 | 201 | eP | P | 18 41 28.0 | +0.3 |
| | 81nm,1.6s | | | | | | |
| LBZ | Lake Benmore | 21.10 | 199 | eP | P | 18 41 31.7 | -1.9 |
| | 46nm,1.5s | | | | | | |
| ODZ | Otahua Downs | 21.56 | 198 | eP | P | 18 41 38.5 | +0.7 |
| | 55nm,1.4s | | | | | | |
| WKZ | Wanaka | 21.86 | 201 | eP | P | 18 41 39.3 | -1.2 |
| | 119nm,1.8s | | | | | | |
| MLZ | Mavora Lakes | 22.63 | 202 | eP | P | 18 41 47.9 | +0.5 |
| | 75nm,1.8s | | | | | | |
| DCZ | Deep Cove | 23.05 | 203 | eP | P | 18 41 49.9 | -1.2 |
| | 42nm,1.6s | | | | | | |
| WHZ | Wether Hill Ro | 23.15 | 201 | eP | P | 18 41 51.8 | -0.3 |
| | 124nm,2.0s | | | | | | |
| KNTN | Kanton | 23.33 | 22 | eP | P | 18 41 52.7 | -1.3 |
| | 360nm,1.7s | | | | | | |
| HNR | Honiara | 24.29 | 305 | P | P | 18 42 01.8 | -0.7 |
| | 150nm,0.7s,baz=151,slow=1.6,SNR=16 | | | | | | |
| HNR | Honiara | 24.29 | 305 | eP | P | 18 42 01.0 | -1.6 |
| | 154nm,0.8s | | | | | | |
| ARMA | Armidale | 25.57 | 251 | eP | P | 18 42 15.3 | +1.5 |
| | 14nm,0.9s | | | | | | |
| EIDS | Eidsvold | 26.01 | 263 | eP | P | 18 42 18.8 | +1.0 |
| | 36nm,1.0s | | | | | | |
| CAN | Canberra | 28.57 | 241 | eP | P | 18 42 41.7 | +1.6 |
| | 16nm,1.2s | | | | | | |
| PPT2 | Papeete2 | 29.38 | 82 | eP | P | 18 42 47.8 | +0.4 |
| | 32nm,1.2s | | | | | | |
| TIAR | Tiarei | 29.60 | 82 | eP | P | 18 42 49.5 | +0.2 |
| | 14nm,0.9s | | | | | | |
| CTA | Charters Tower | 31.32 | 272 | P | P | 18 43 04.8 | +0.7 |
| | 79nm,0.3s,baz=95,slow=11,SNR=209 | | | | | | |
| CTAO | Charters Tower | 31.32 | 272 | eP | P | 18 43 05.3 | +1.3 |
| | 90nm,0.8s | | | | | | |
| PMOR | Pomariorio Ree | 31.82 | 78 | eP | P | 18 43 08.3 | 0.0 |
| | 48nm,1.1s | | | | | | |
| VAH | Vaihoa | 31.96 | 79 | eP | P | 18 43 09.6 | 0.0 |
| | 36nm,1.1s | | | | | | |
| TAU | Tasmania Unive | 32.23 | 228 | eP | P | 18 43 11.8 | +0.4 |
| | 156nm,1.8s | | | | | | |
| RABL | Rabaul | 33.54 | 303 | eP | P | 18 43 22.2 | -0.9 |
| | 27nm,0.5s | | | | | | |
| STKA | Stephens Creek | 34.25 | 249 | P | P | 18 43 29.6 | +0.8 |
| | 6.5nm,0.4s,baz=92,slow=9.7,SNR=14 | | | | | | |
| STKA | Stephens Creek | 34.25 | 249 | eP | P | 18 43 29.8 | +1.0 |
| | 2.3nm,0.6s | | | | | | |
| XMAS | Kiritimati | 34.60 | 43 | eP | P | 18 43 31.9 | 0.0 |
| | 61nm,0.9s | | | | | | |
| PMG | Port Moresby | 34.62 | 290 | P | P | 18 43 32.3 | +0.2 |
| | 64nm,0.8s,baz=107,slow=5.6,SNR=33 | | | | | | |
| PMG | Port Moresby | 34.62 | 290 | eP | P | 18 43 32.3 | +0.2 |
| | 78nm,0.9s | | | | | | |
| COEN | Coen | 36.09 | 280 | eP | P | 18 43 45.3 | +1.0 |
| | 35nm,0.9s | | | | | | |
| BBOO | Buckleboo | 38.95 | 248 | eP | P | 18 44 07.7 | +0.1 |
| | 14nm,0.8s | | | | | | |
| AS01 | Alice Springs | 41.69 | 262 | eP | P | 18 44 30.0 | +0.3 |
| AS01 | | | | epP | pP | 18 46 02.1 | +0.5 |
| AS31 | Alice Springs | 41.73 | 262 | eP | P | 18 44 30.6 | +0.5 |
| | 11nm,1.2s | | | | | | |
| AS31 | | | | epP | pP | 18 46 02.1 | +0.1 |
| AS31 | | | | eScP | ScP | 18 49 18.8 | +2.1 |
| AS31 | | | | eS | S | 18 50 08.6 | -1.8 |
| ASAR | Alice Springs | 41.73 | 262 | P | P | 18 44 30.4 | +0.3 |
| | 11nm,0.4s,baz=98,slow=7.6,SNR=454 | | | | | | |
| ASAR | | | | pP | pP | 18 46 02.5 | +0.5 |
| | 4.6nm,1.0s,baz=99,slow=8.4,SNR=3.8 | | | | | | |
| ASAR | | | | ScP | ScP | 18 49 18.8 | +2.1 |
| | 1.5nm,0.7s,baz=104,slow=4.1,SNR=6.0 | | | | | | |
| ASAR | | | | S | S | 18 50 08.6 | -1.8 |
| | 1.1nm,0.6s,baz=96,slow=15,SNR=8.9 | | | | | | |
| WC3 | Warramunga Arr | 42.15 | 267 | eP | P | 18 44 33.4 | 0.0 |
| | 47nm,0.5s | | | | | | |
| WB2 | Warramunga Arr | 42.17 | 267 | eP | P | 18 44 33.3 | -0.2 |
| WRAB | Tennant Creek | 42.17 | 267 | eP | P | 18 44 33.5 | -0.1 |
| | 45nm,0.4s | | | | | | |
| WR1 | Warramunga Arr | 42.18 | 267 | eP | P | 18 44 33.4 | -0.2 |
| | 55nm,0.8s | | | | | | |
| WR1 | | | | eScP | ScP | 18 49 21.6 | +3.0 |
| WR1 | | | | eS | S | 18 50 13.3 | -3.5 |
| WRA | Warramunga Arr | 42.18 | 267 | P | P | 18 44 33.4 | -0.3 |
| | 24nm,0.3s,baz=99,slow=6.9,SNR=503 | | | | | | |
| WRA | | | | ScP | ScP | 18 49 21.6 | +3.0 |
| | 11nm,1.0s,baz=100,slow=4.1,SNR=23 | | | | | | |
| WRA | | | | S | S | 18 50 13.3 | -3.5 |
| | 5.6nm,0.9s,baz=103,slow=14,SNR=11 | | | | | | |
| JAY | Jayapura | 43.70 | 294 | P | P | 18 44 45.6 | 0.0 |
| | 258nm,0.7s | | | | | | |
| GENI | Genyem | 44.10 | 294 | P | P | 18 44 49.4 | +0.7 |
| | 72nm,0.8s | | | | | | |
| FORT | Forrest | 45.85 | 250 | eP | P | 18 45 01.0 | -1.0 |
| | 445nm,0.6s | | | | | | |
| MTN | Manton Dam | 47.35 | 275 | eP | P | 18 45 12.9 | -0.6 |
| | 11nm,0.8s | | | | | | |
| SAUI | Saumlaki | 49.15 | 281 | eP | P | 18 45 28.3 | +1.3 |
| | 76nm,0.7s | | | | | | |
| MLH | Mauna Loa | 50.18 | 31 | eP | P | 18 45 35.7 | +1.0 |
| | 560nm,1.7s | | | | | | |
| HPAH | Hawaii Prepara | 50.50 | 30 | eP | P | 18 45 37.4 | +0.6 |
| | 115nm,0.8s | | | | | | |
| KEKH | Kekaha | 50.54 | 25 | eP | P | 18 45 36.5 | -0.5 |

304nm,1.4s
FITZ Fitzroy Crossi 50.59 266 P P 18 45 37.9 +0.4
28nm,0.6s,baz=119,slow=5.3,SNR=73
FAKI Fak Fak 50.67 288 eP P 18 45 37.5 -0.7
24nm,0.8s
BNDI Bandanaira 51.95 284 P P 18 45 47.4 0.0
MSAI Masohi 53.36 285 P P 18 45 57.0 -0.5
VNDA Vanda 53.52 185 P P 18 45 58.8 +1.1
1.5nm,0.7s,baz=6.2,slow=9.2,SNR=9.2
VNDA Vanda 53.52 185 eP P 18 45 59.2 +1.5
9.9nm,1.5s
AAI Ambon 53.84 284 P P 18 46 01.3 +0.3
NWAO Narrogin (SRO) 54.73 246 P P 18 46 06.8 -0.2
9.6nm,1.0s,baz=72,slow=9.6,SNR=4.3
SOEI Soe 54.75 276 P P 18 46 08.3 +0.8
SOEI Soe 54.75 276 eP P 18 46 08.9 +1.4
75nm,0.9s
MBWA Marble Bar 55.06 261 eP P 18 46 09.0 -0.4
20nm,1.0s
LBMI Labuha 55.91 287 P P 18 46 15.7 +0.2
SANI Sanana 56.55 285 P P 18 46 19.1 -0.8
39nm,0.7s
TNTI Ternate 56.73 289 epP pP 18 48 01.9 +0.6
MMRI Maumere 57.03 276 P P 18 46 22.9 -0.3
61nm,0.7s,1μm
MMRI Maumere 57.03 276 eP P 18 46 23.1 -0.1
46nm,0.8s
EDFI Ende, Flores 57.48 275 P P 18 46 26.5 +0.1
WBSI Waikabubak, Su 59.21 273 P P 18 46 38.4 +0.3
LUWI Luwuk 59.86 284 P P 18 46 42.4 +0.1
LUWI Luwuk 59.86 284 eP P 18 46 42.3 -0.1
34nm,0.6s
BNSI Bone 60.72 279 P P 18 46 47.5 -0.5
PLAI Plampang 60.99 274 P P 18 46 49.7 -0.2
JAGI Jajag, Banyuwa 64.42 272 eP P 18 47 11.2 -0.9
38nm,1.0s
GMJI Gumukmas 65.15 272 P P 18 47 16.2 -0.4
28nm,1.1s,2μm
QSPA South Pole Qui 65.33 180 eP P 18 47 18.4 +1.4
12nm,0.9s
GRJI Gresik 66.56 273 P P 18 47 25.9 +0.4
MYLDM Lahad Datu 66.58 288 eP P 18 47 26.4 +0.8
21nm,1.1s
PCJI Pacitan 67.24 271 P P 18 47 30.0 +0.4
UGM Wanagama 67.94 271 eP P 18 47 34.0 -0.1
87nm,1.3s
KKM Kota Kinabalu 68.99 287 eP P 18 47 40.6 +0.2
86nm,1.4s
CISI Cisompet, Garu 70.55 271 eP P 18 47 48.1 -1.6
22nm,0.6s
SBUM Sibu 70.81 282 eP P 18 47 51.3 +0.1
38nm,2.0s
XMIS Christmas Isla 71.37 267 eP P 18 47 54.4 -0.2
32nm,0.7s
JOW Kunigami 71.43 312 eP P 18 47 54.8 +0.2
178nm,1.7s
KSM Kuching 72.08 280 eP P 18 47 58.7 +0.1
21nm,0.7s
INU Inuyama 72.21 324 eP P 18 47 59.8 +0.9
99nm,1.7s
MJAR Matsushiro Arr 72.50 326 P P 18 48 00.5 0.0
8.5nm,0.8s,baz=162,slow=5.8,SNR=19
MAJO Matsushiro 72.50 326 eP P 18 48 00.6 0.0
80nm,1.8s
MJB9 Matsu-Tunnel 72.51 326 eP P 18 48 00.6 0.0
89nm,1.8s
YOJ Yonaguni jima 73.61 307 eP P 18 48 06.3 -0.9
272nm,1.0s
JNU Nakatsue 74.05 319 P P 18 48 09.6 +0.1
5.8nm,0.6s,baz=111,slow=2.2,SNR=6.9
JNU Nakatsue 74.05 319 eP P 18 48 09.7 +0.1
12nm,1.1s
TWG Pinlang 74.05 305 eP P 18 48 08.7 -1.0
194nm,1.1s
YULB Yu-li 74.22 305 eP P 18 48 09.5 -1.2
74nm,1.5s
NACB Ninganchiao 74.47 306 eP P 18 48 11.8 -0.2
87nm,1.3s
ERM Erimo 74.58 333 eP P 18 48 12.7 +0.5
59nm,1.1s
TPUB Ta-pu 74.66 305 eP P 18 48 11.7 -1.5
226nm,1.8s
SSLB Suanglung 74.71 306 eP P 18 48 12.2 -1.3
194nm,2.0s
YHNB Yeheng 74.92 307 eP P 18 48 14.5 -0.2
254nm,1.6s
TATO Taipei 75.02 307 eP P 18 48 14.6 -0.6
805nm,1.8s
MNAI Manna 76.25 272 eP P 18 48 22.6 +0.3
103nm,1.0s
MAW Mawson 76.89 201 P P 18 48 25.5 +0.7
2.3nm,0.5s,baz=126,slow=5.7,SNR=6.1
MAW Mawson 76.89 201 eP P 18 48 25.9 +1.1
SMY Shemya 77.31 356 eP P 18 48 24.3 -2.8
417nm,1.4s
PMSA Palmer Station 78.19 157 eP P 18 48 33.8 +1.9
148nm,1.5s
COCO West Island 78.69 262 eP P 18 48 35.0 -0.4
328nm,1.6s
KSRS Korea Array 78.79 320 P P 18 48 36.1 +0.7
4.2nm,0.7s,baz=131,slow=5.8,SNR=16
KS15 Wonju Array Si 78.80 320 eP P 18 48 35.9 +0.3
KSAR Wonju Array Be 78.80 320 P P 18 48 36.1 +0.6
KS01 Wonju Array Si 78.82 320 eP P 18 48 36.9 +1.3
YSS Yuzh-Sakhalins 78.83 335 eP P 18 48 36.5 +1.0
156nm,2.0s
AKUT Akutan 79.55 9 eP P 18 48 38.1 -1.0
1μm,2.0s
PETK Petropavlovsk- 79.89 347 P P 18 48 40.9 0.0
4.6nm,0.7s,baz=106,slow=7.1,SNR=6.6
PETK Petropavlovsk- 79.89 347 eP P 18 48 41.7 +0.8
PEA1 Petropavlovsk- 79.89 347 eP P 18 48 40.9 0.0
NJ2 Nanjing 81.09 311 eP P 18 48 47.4 -0.3
NJ2 pmax pmax
comp=Z,8.0nm,0.5s
USRK Ussuriysk Ar. 81.39 327 P P 18 48 49.7 +0.8
3.3nm,0.6s,baz=144,slow=3.5,SNR=6.3
IPM Ipoh 81.72 279 eP P 18 48 51.1 -0.3
15nm,0.7s
PKM Mcpherson Peak 82.40 46 P P 18 48 55.9 +1.4
baz=233
KULM Kulim 82.41 279 eP P 18 48 55.2 +0.4
83nm,1.7s
SAO San Andreas Ge 82.49 44 eP P 18 48 55.3 +0.6
9.3nm,1.1s
PMPB Monarch Peak 82.57 45 eP P 18 48 55.4 +0.2
19nm,1.4s
PAGB Antelope Grade 82.62 45 eP P 18 48 55.4 0.0
5.4nm,0.7s
GHS Gilroy Hot Spr 82.70 44 eP P 18 48 56.4 +0.5
PSI Prapat 82.90 276 P P 18 48 56.8 -0.7
2.4nm,0.3s,baz=135,slow=5.7,SNR=4.0
PSI Prapat 82.90 276 eP P 18 48 56.0 -1.5
6.4nm,0.8s
HOPS Hopland Field 82.90 41 eP P 18 48 57.5 +0.7
20nm,1.0s
KCPM Cahto Peak 83.04 40 eP P 18 48 59.5 +1.9
42nm,1.6s
MWC Mount Wilson 83.17 48 eP P 18 48 58.4 0.0
17nm,1.4s
KMRM Mail Ridge 83.31 40 eP P 18 49 00.5 +1.7
11nm,0.9s
SLBS Sierra La Lagu 83.38 60 eP P 18 49 01.4 +1.7
13nm,0.7s
MURC Murrieta 83.39 48 P P 18 49 00.7 +1.3
baz=234
BFSC Mount Baldy Ra 83.44 48 P P 18 49 00.5 +0.7
baz=234
BFSC Mount Baldy Ra 83.44 48 eP P 18 48 56.9 -2.8
GSI Gunungsitoli 83.49 274 eP P 18 49 01.3 +1.0
27nm,1.2s
MONP2 Monument Peak 83.51 49 P P 18 49 01.6 +1.4
baz=235,SNR=9.7
IKP In-Ko-Pah, Jac 83.59 50 P P 18 49 01.9 +1.4
baz=235,SNR=6.6
EDW2 Edwards Air Fo 83.60 47 P P 18 49 01.5 +1.0
baz=234,SNR=7.9
KHMM Horse Mountain 83.72 39 eP P 18 49 02.8 +1.8
8.7nm,0.8s
SNAA Sanae 83.82 179 eP P 18 49 00.8 -0.2
3.6nm,0.6s
PFO Pinyon Flats O 83.90 49 P P 18 49 01.8 -0.2
3.7nm,0.8s,baz=264,slow=9.2,SNR=5.3
PFO Pinyon Flats O 83.90 49 P P 18 49 02.9 +0.9
baz=235
PFO Pinyon Flats O 83.90 49 eP P 18 49 01.8 -0.2
8.1nm,1.2s

XPFO Piæon Flat 83.90 49 eP P 18 49 02.0 -0.1
8.6nm,1.2s
CMB Columbia Colle 83.94 43 eP P 18 49 02.7 +0.6
8.6nm,0.9s
SWSC Sam W. Stewart 83.97 50 P P 18 49 03.8 +1.6
baz=235
KRMB Red Mountain 84.03 39 eP P 18 49 04.5 +2.0
40nm,1.7s
AFDM Forest Hills D 84.14 42 eP P 18 49 03.5 +0.6
8.7nm,1.1s
LRMC Laurel Mtn Rad 84.15 47 P P 18 49 04.4 +1.1
baz=234,SNR=8.0
ORV Oroville 84.20 42 eP P 18 49 03.9 +0.7
8.2nm,1.0s
WDC Whiskeytown Da 84.22 40 eP P 18 49 04.0 +0.7
8.8nm,1.1s
N02D Trinity Center 84.38 40 P P 18 49 05.4 +1.3
baz=230,SNR=5.0
BELC Belle Mtn. Jos 84.43 49 P P 18 49 05.9 +1.2
baz=235,SNR=14
CWC Cottonwood Cre 84.45 46 P P 18 49 06.0 +1.2
baz=234
CN2 Changchun 84.47 324 eP P 18 49 06.1 +1.7
O03D Paynes Creek 84.48 41 P P 18 49 05.9 +1.2
baz=231
MDPB Devils Postpil 84.52 44 eP P 18 49 05.7 +0.5
4.9nm,1.0s
M02C Callahan 84.56 40 P P 18 49 06.9 +1.8
baz=230
BC3 Big Chuckawall 84.61 49 P P 18 49 07.1 +1.5
baz=236,SNR=5.9
L02D Cave Junction, 84.62 39 P P 18 49 07.2 +2.0
baz=230
GSC Goldstone, Bar 84.63 47 P P 18 49 06.7 +1.1
baz=235,SNR=7.8
GSC Goldstone, Bar 84.63 47 eP P 18 49 06.4 +0.8
9.3nm,0.9s
HEC Hector,Ludlow 84.68 48 P P 18 49 06.7 +0.9
baz=235
TIA Tai'an 84.69 314 ⇑P P 18 49 07.2 +1.5
TIA pmax pmax
comp=Z,20nm,0.8s
GLA Glamis 84.71 50 P P 18 49 07.5 +1.6
baz=236,SNR=5.1
GLA Glamis 84.71 50 eP P 18 49 07.5 +1.6
10nm,0.8s
WAKR Walker 84.82 43 eP P 18 49 07.4 +0.8
4.7nm,0.9s
PNTR Pine Nut 85.07 43 eP P 18 49 08.8 +1.0
7.6nm,0.9s
BEKR Beckworth 85.08 42 eP P 18 49 08.2 +0.4
2.8nm,0.7s
IRM Iron Mountain 85.11 49 P P 18 49 09.4 +1.5
baz=236,SNR=10
GMRC Granite Mounta 85.11 48 P P 18 49 09.5 +1.5
baz=235
KLR Kul'dur 85.19 331 P P 18 49 07.3 -0.5
0.2nm,0.8s,baz=153,slow=7.1,SNR=4.7
FURC Furnace Creek, 85.27 46 P P 18 49 09.7 +1.3
baz=234
TUQ Turquoise Moun 85.30 48 P P 18 49 09.8 +0.9
baz=235
Y12C Blythe 85.31 50 P P 18 49 09.8 +1.0
baz=236
SHOC Shoshone, Teco 85.33 47 P P 18 49 09.9 +1.0
baz=235
HSIG 85.34 55 eP P 18 49 09.8 +0.7
15nm,0.8s
M04C Macdoel 85.39 40 P P 18 49 10.5 +1.3
baz=231
NV01 Mina Array Sit 85.49 44 eP P 18 49 10.0 +0.2
214A Organ Pipe Nat 85.53 52 P P 18 49 11.5 +1.6
baz=237
PAHR Pah Rah Range 85.58 42 eP P 18 49 10.3 +0.1
4.3nm,0.8s
NV11 Mina Array Sit 85.58 44 eP P 18 49 10.7 +0.5
0.3nm,0.8s
LDFC Landfair 85.65 48 eP P 18 49 11.8 +1.2
18nm,0.7s
TPNV Topopah Spring 85.95 46 eP P 18 49 12.8 +0.8
7.2nm,0.8s
KVN Kaiserville 85.98 44 eP P 18 49 12.6 +0.5
4.6nm,0.7s
J04D Umqua Nationa 86.16 38 P P 18 49 13.8 +0.9
baz=231
MOD Modoc Plateau 86.36 40 eP P 18 49 14.2 +0.3
4.5nm,0.7s
SHPR Sheep Range 86.41 47 eP P 18 49 15.1 +0.9
4.1nm,1.1s
W13A Hualapai Mount 86.49 49 eP P 18 49 15.6 +0.9
2.6nm,0.6s
J05D Fort Rock, OR 86.68 39 P P 18 49 16.8 +1.5
baz=231
ENH Enshi 86.79 305 eP P 18 49 16.6 +0.6
9.6nm,0.8s
GYA Guiyang 87.03 301 eP P 18 49 18.0 +0.7
GYA pP pP 18 51 11.5 +2.3
GYA sP sP 18 52 01.4 +0.7
GYA PP PP 18 52 51.8 +1.7
GYA SKS SKSac 18 58 55.0 -1.3
GYA S S 18 59 12.3 -1.6
GYA pmax pmax
comp=Z,10.0nm,1.0s
TUC Tucson 87.18 53 eP P 18 49 19.7 +1.9
10nm,0.9s
R11A Troy Canyon, C 87.18 45 P P 18 49 18.3 +0.5
baz=235
I05D Terrebonne, OR 87.28 38 P P 18 49 18.9 +1.0
baz=231
WVOR Wild Horse Val 87.67 41 eP P 18 49 20.7 +0.8
7.6nm,1.0s
X16A Lo Mia Camp, P 87.82 50 eP P 18 49 22.4 +1.5
6.3nm,0.9s
LCMT Little Creek M 87.97 47 eP P 18 49 22.6 +1.1
4.3nm,1.0s
I07A Izee 88.16 39 eP P 18 49 23.2 +1.0
11nm,0.8s
G06A Carlson Farm, 88.23 38 eP P 18 49 23.2 +0.8
8.4nm,1.0s
KNB Kanab 88.26 48 eP P 18 49 23.4 +0.5
6.8nm,1.1s
U15A North Rim 88.30 48 eP P 18 49 24.5 +1.3
6.5nm,0.8s
LON Longmire 88.55 36 eP P 18 49 24.4 +0.5
5.2nm,1.0s
X18A Snowflake 88.92 51 eP P 18 49 27.0 +1.0
6.6nm,0.8s
XAN Xi'an 89.13 308 P P 18 49 28.2 +1.3
XAN pP pP 18 51 21.2 +1.9
XAN sP sP 18 52 08.9 -1.7
XAN pmax pmax
comp=Z,12nm,0.9s
XAN pmax pmax
comp=Z,270nm,5.2s
G08A Pilot Rock 89.20 38 eP P 18 49 27.7 +0.7
5.0nm,0.9s
A04D Lummi Island 89.34 34 P P 18 49 28.6 +1.3
baz=230
B05A Bryant 89.36 35 P P 18 49 28.7 +1.3
baz=230
121A Cookes Peak, D 89.47 54 P P 18 49 30.0 +1.4
baz=240
KMI Kunming 89.51 298 P P 18 49 28.5 -0.5
KMI pmax pmax
comp=Z,7.0nm,0.7s
CM01 Chiang Mai Arr 89.63 290 eP P 18 49 31.3 +1.9
CM31 Chiang Mai Arr 89.66 290 eP P 18 49 31.6 +2.0
CMAR Chiang Mai Arr 89.66 290 P P 18 49 31.1 +1.5
5.3nm,0.9s,baz=138,slow=3.4,SNR=36
CHTO Chiang Mai 89.81 291 eP P 18 49 31.1 +0.8
8.1nm,0.8s
MFID Camas Ranch 89.92 41 eP P 18 49 31.2 +0.8
6.5nm,0.8s
SEY Seymchan 90.06 348 P P 18 49 30.9 +0.5
3.2nm,1.0s,baz=109,slow=6.8,SNR=7.2
TMUT Trail Mountain 90.56 46 eP P 18 49 35.0 +1.3
13nm,0.7s
SPUT South Promonto 90.83 44 eP P 18 49 35.5 +0.8
9.0nm,1.0s
HHC Hu-ho-hao-te 90.90 315 eP P 18 49 35.3 +0.3
HHC SKS SKSac 18 59 13.2 -4.9
HHC S S 18 59 47.3 -1.3
HHC sS sS 19 03 09.0 -1.2
HHC SS SS 19 06 09.9 +2.5
HHC pmax pmax
comp=Z,14nm,1.0s
HHC pmax pmax

comp=Z,62nm,5.5s
SRU San Rafael Swe 90.91 47 eP P 18 49 35.8 +0.7
7.2nm,0.7s
CTU Camp Tracy 90.94 45 eP P 18 49 36.0 +0.7
6.6nm,0.8s
TX31 Lajitas Ar. Si 91.03 58 eP P 18 49 36.8 +1.0
LTX Lajitas 91.03 58 eP P 18 49 37.3 +1.4
TXAR Lajitas Array 91.03 58 P P 18 49 37.3 +1.4
4.7nm,0.8s,baz=215,slow=6.4,SNR=46
DCM Dugout Coal Mi 91.17 46 eP P 18 49 36.8 +0.3
ANMO Albuquerque 91.62 52 P P 18 49 39.0 +0.4
2.7nm,0.8s,baz=17,slow=3.8,SNR=6.6
ANMO Albuquerque 91.62 52 eP P 18 49 38.8 +0.2
4.4nm,0.9s
S22A 4UR Ranch, Cre 92.72 49 P P 18 49 44.1 +0.4
baz=241
ILAR Eielson Array 92.90 14 P P 18 49 42.6 -0.8
0.4nm,0.6s,baz=219,slow=5.8,SNR=6.4
ILB Eielson Array 92.90 14 eP P 18 49 43.0 -0.5
PD31 Pinedale Array 93.42 44 eP P 18 49 45.8 -0.9
PDAR Pinedale Array 93.42 44 P P 18 49 46.9 +0.2
1.1nm,0.8s,baz=208,slow=4.1,SNR=9.4
Q24A Divide 94.47 49 P P 18 49 52.0 +0.4
baz=242
MK32 Makanchi Array 112.60 312 ePKiKP PKiKP 18 55 03.1 -0.9
MK32 eSKPdf SKPdf 18 57 51.5 +0.4
MK32 ePKKPbc PKKPbc 19 05 52.4 -2.7
MKAR Makanchi Array 112.60 312 PKiKP PKiKP 18 55 03.1 -0.9
1.5nm,1.0s,baz=246,slow=1.7,SNR=4.6
MKAR SKP 18 57 51.5
0.9nm,0.5s,baz=180,slow=1.0,SNR=10
MKAR PKKPbc PKKPbc 19 05 52.4 -2.7
0.7nm,0.6s,baz=272,slow=3.2,SNR=5.3
KSH Kashi 115.60 304 ePKP PKPdf 18 55 13.4 +3.3
KSH PP PP 18 56 30.8 +8.7
KSH sPKP 18 57 55.5
KSH PKS PKSdf 18 58 50.3 +3.4
KSH SKS SKSdf 19 01 40.0 +5.9
KSH AMB AMB
comp=Z,240nm,7.0s
GEYT Ailbeck 129.24 300 SKPbc SKPbc 18 58 11.7 +1.5
5.2nm,1.0s,baz=211,slow=1.7,SNR=12
ARA0 ARCESS Array S 132.68 348 ePKPdf PKPdf 18 55 40.5 -1.2
ARA0 eSKPbc SKPbc 18 58 21.7 +0.3
ARCES ARCESS Array B 132.68 348 PKP PKPdf 18 55 40.5 -1.2
1.0nm,0.6s,baz=0.0,slow=1.2,SNR=7.8
ARCES SKPbc SKPbc 18 58 21.7 +0.3
5.1nm,0.9s,baz=29,slow=2.8,SNR=7.4
FIA0 FINESS Array S 139.20 341 ePKPpre PKPpre 18 55 45.3
FIA0 ePKPdf PKiKP 18 55 55.5 -0.8
FIA0 eSKPbc SKPbc 18 58 41.5 +0.2
FINES FINESS Array B 139.20 341 PKhKP PKPpre 18 55 45.3
4.5nm,0.9s,baz=11,slow=1.4,SNR=5.8
FINES PKP PKiKP 18 55 55.5 -0.8
20nm,1.3s,baz=64,slow=3.2,SNR=5.8
FINES SKPbc SKPbc 18 58 41.5 +0.2
5.6nm,0.7s,baz=41,slow=2.4,SNR=9.6
NB2 NORSAR Subarra 142.90 351 PKP PKPdf 18 55 58.7 -2.0
comp=Z,8.0nm,1.4s,baz=16,slow=3.2
NB200 NORSAR Array S 142.90 351 ePKPpre PKPpre 18 55 57.7
NOA NORSAR Array B 142.90 351 PKhKP PKPpre 18 55 57.7
comp=Z,0.8nm,0.7s,baz=9.8,slow=2.7,SNR=3.4
MARD Mardin 143.00 300 ePKPpre PKPpre 18 55 58.7
AKASG Malin Array Be 145.59 326 PKPbc PKPdf 18 56 06.1 +0.6
comp=Z,2.9nm,0.5s,baz=46,slow=4.5,SNR=22
AKASG SKPbc SKiKP 18 58 58.0 +0.3
comp=Z,2.7nm,0.7s,baz=47,slow=2.8,SNR=7.3
AKBB Malin Array Si 145.59 326 ePKPdf PKPbc 18 56 06.7 -0.3
AKBB eSKPbc SKiKP 18 58 58.0 +0.3
KIEV Kiev 145.60 326 ePKPdf PKPdf 18 56 06.2 +0.6
AK11 Malin Array Si 145.63 326 ePKPdf PKPdf 18 56 04.5 -1.2
BR101 Keskin Array S 147.94 306 ePKPbc PKPbc 18 56 13.8 -0.1
BR101 ePKPab PKPab 18 56 18.9 +0.6
BR131 Keskin Array S 147.94 306 ePKPbc PKPbc 18 56 12.7 -1.1
BR131 ePKPab PKPab 18 56 18.5 +0.2
BR131 epPKPdf pPKPbc 18 58 11.1 -1.3
BRTR Keskin Array B 147.94 306 PKPbc PKPbc 18 56 13.8 -0.1
comp=Z,1.3nm,0.7s,baz=128,slow=3.5,SNR=8.0
BRTR PKPab PKPab 18 56 18.9 +0.6
comp=Z,3.3nm,0.6s,baz=100,slow=3.2,SNR=17
BR231 Keskin MP Arra 148.54 307 ePKPdf PKPbc 18 56 13.8 -1.5
BR231 ePKPbc PKPab 18 56 19.0 -1.8
BR231 epPKPdf pPKPdf 18 58 10.8 -0.4
EKA Eskdalemuir Ar 149.38 3 PKPbc PKPbc 18 56 16.3 -0.4
comp=Z,0.8nm,0.4s,baz=347,slow=3.1,SNR=14
STHS Stebnicka Huta 150.23 331 ePKP PKPbc 18 56 19.3 +0.4
CRVS Cervenica-Dubn 150.51 330 ePKP PKPab 18 56 29.0 +0.5
DPC Dobruska Polom 151.42 338 ePKPAB PKPab 18 56 32.8 +0.5
KHC Kasperske Hory 153.38 340 ePKPAB PKPab 18 56 39.2 -1.4
GERES GERESS Array B 153.59 339 PKPbc PKPbc 18 56 26.2 -0.3
comp=Z,0.2nm,0.4s,baz=355,slow=4.1,SNR=2.3
GERES PKPab PKPab 18 56 40.7 -1.0
comp=Z,0.3nm,0.6s,baz=32,slow=5.8,SNR=3.6
VTS Vitosha 153.76 318 ePKPab PKPab 18 56 43.8 +1.1
DBIC Dimbokro 161.47 165 PKPab PKPab 18 57 15.8 -0.6
comp=Z,4.1nm,0.8s,baz=112,slow=4.1,SNR=3.8
TOA0 Torodi Ar. Sit 168.32 189 ePKPdf PKPdf 18 56 33.4 -1.2
TOA0 ePKPab PKPab 18 57 46.3 -0.2
TORD Torodi Ar. Bea 168.32 189 PKP PKPdf 18 56 33.6 -1.0
comp=Z,0.7nm,0.6s,baz=354,slow=1.1,SNR=4.9
TORD PKPab PKPab 18 57 46.4 -0.2
comp=Z,2.0nm,0.8s,baz=175,slow=3.8,SNR=11
TOA1 Torodi Ar. Sit 168.32 189 ePKPdf PKPdf 18 56 33.6 -1.0
TOA1 ePKPab PKPab 18 57 46.4 -0.2

*JMA **10** 18:51:03.9±0.4, 33.66°N×137.36°E, h367km±4km, M3.4*
*ISCJB **10** 18:51:04.3±0.6, 33.65°N±0.07°×137.35°E±0.06, h352km, mb2.9/4, Error ellipse: s-maj=10.6km s-min=6.5km az=159.0*
*IDC **10** 18:51:04.8±0.3, 33.64°N×137.31°E, h350km±7km, mb2.8/4, mb1 3.0/7, mb1mx2.7/52, mbtmp3.6/7, Error ellipse: s-maj=10.6km s-min=3.8km az=16.0*
**ISC 10 18:51:04.8±1.0, 33.73N±0.09×137.36E±0.07, h352km, n25, σ1°40/30, mb2.9/4, 1C, Near south coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| JIE | Ise | 0.85 | 321 | P | Pn | 18 51 51.7 | +1.6 |
| JKN2 | Miekihoku | 1.03 | 300 | P | Pn | 18 51 52.1 | +1.3 |
| JHMK | Hamakita | 1.13 | 17 | P | Pn | 18 51 52.1 | +1.1 |
| JWZ | Kozaga | 1.38 | 262 | P | Pn | 18 51 53.2 | +0.7 |
| JAO | Obara | 1.53 | 357 | P | Pn | 18 51 55.0 | +1.7 |
| JWT | Wachi | 2.23 | 314 | P | Pn | 18 51 58.7 | +0.9 |
| JWT | | | | eS | S | 18 52 39.9 | -0.6 |
| JRY | Ryogami san | 2.61 | 29 | P | Pn | 18 52 02.9 | +2.1 |
| JHU | Hanno | 2.64 | 36 | P | Pn | 18 52 02.5 | +1.4 |
| JHU | | | | eS | S | 18 52 45.4 | -1.0 |
| JKG | Kaga | 2.67 | 342 | P | Pn | 18 52 02.3 | +1.0 |
| BSO4 | Boso 4 | 2.77 | 62 | S | S | 18 52 49.5 | +1.4 |
| BSO3 | Boso 3 | 2.82 | 67 | eS | S | 18 52 49.6 | +0.9 |
| MJAR | Matsushiro Arr | 2.89 | 14 | P | Pn | 18 52 04.0 | +0.8 |
| | 0.9nm,0.3s,baz=194,slow=8.4,SNR=14 | | | | | | |
| MJAR | | | | S | S | 18 52 51.0 | +0.7 |
| | 0.3nm,0.3s,baz=181,slow=27,SNR=4.1 | | | | | | |
| MAT | Matsushiro | 2.89 | 14 | eS | S | 18 52 51.6 | +1.3 |
| BSO1 | Boso 1 | 3.14 | 72 | eS | S | 18 52 53.6 | +0.3 |
| JAG | Ashikaga | 3.19 | 32 | P | Pn | 18 52 06.6 | +0.7 |
| JYT | Yasato | 3.41 | 42 | ⇑P | Pn | 18 52 07.8 | -0.1 |
| JYT | | | | eS | S | 18 52 55.5 | -3.4 |
| JHS | Saijyo | 3.73 | 291 | P | Pn | 18 52 11.7 | +0.6 |
| JHO | Hitachi | 3.89 | 42 | P | Pn | 18 52 12.6 | -0.1 |
| JHO | | | | eS | S | 18 53 04.3 | -3.3 |
| JTO | Tosashimizu | 3.91 | 258 | P | Pn | 18 52 13.2 | +0.2 |
| KSRS | Korea Array | 8.53 | 298 | P | Pn | 18 53 05.6 | +0.5 |
| | 1.1nm,0.3s,baz=112,slow=12,SNR=31 | | | | | | |
| USRK | Ussuriysk Ar. | 11.25 | 340 | P | Pn | 18 53 36.8 | -0.6 |
| | 0.4nm,0.3s,baz=159,slow=13,SNR=5.8 | | | | | | |
| SONM | Songino Array | 27.13 | 311 | P | P | 18 56 18.7 | +1.8 |
| | 0.7nm,0.6s,baz=122,slow=9.7,SNR=6.9 | | | | | | |
| MKAR | Makanchi Array | 43.15 | 305 | P | P | 18 58 31.0 | -0.8 |
| | 0.4nm,0.6s,baz=84,slow=9.7,SNR=4.8 | | | | | | |
| WRA | Warramunga Arr | 53.45 | 184 | P | P | 18 59 49.2 | -0.7 |
| | 0.2nm,0.4s,baz=359,slow=7.5,SNR=5.9 | | | | | | |
| ASAR | Alice Springs | 57.18 | 184 | P | P | 19 00 15.5 | -0.6 |
| | 0.5nm,0.7s,baz=344,slow=9.3,SNR=14 | | | | | | |

*NIED **10** 19:00:00, 37.80N×143.40E, h20km, Mw3.9 Best double couple: M0 7.64000×10^14 NP1: φs329.00000°, δ38.00000°, λ-139.00000° NP2: φs204.00000°, δ66.00000°, λ-59.00000°.*

*IDC* ***10*** *19:00:53.6±0.8, 37.°61N×143.°57E, h0km, mb3.8/10, mb1 4.0/16, mb1mx3.7/42, mbtmp3.9/16, ML3.6/5, MS2.7/3, Ms1 2.7/3, ms1mx2.6/40, Error ellipse: s-maj=19.4km s-min=15.2km az=125.0*
*NEIC* ***10*** *19:00:54.4±0.4, 37.°66N×143.°59E, h10km, mb5.0/12, Error ellipse: s-maj=9.4km s-min=6.0km az=139.0*
*ISCJB* ***10*** *19:00:56.3±0.4, 37.°71N±0.°03×143.°45E±0.°03, h33km, mb4.4/22, Error ellipse: s-maj=4.5km s-min=3.7km az=162.5*
*JMA* ***10*** *19:00:57.5±0.2, 37.°77N×143.°36E, h41km, M4.1*
**ISC 10 19:00:58.4**±0.7**, 37.°72N**±0.°05×**143.°37E**±0.°07**, h35km, n69, σ1.s87**/84**, mb4.5**/22**, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JIO** | **Ouri** | **1.76** | **295** | P | **Pn** | **19 01 26.1** | **-0.2** |
| JIO | | | | S | **Sn** | **19 01 47.0** | **-0.5** |
| **OFUJ** | **Ofunato** | **1.91** | **316** | P | **Pn** | **19 01 27.8** | **-0.6** |
| OFUJ | | | | S | **Sn** | **19 01 49.9** | **-1.3** |
| **JFK** | **Kawauchi** | **2.02** | **261** | P | **Pn** | **19 01 29.3** | **-0.7** |
| JFK | | | | *e*S | **Sn** | **19 01 53.7** | **-0.3** |
| **JMM** | **Marumori** | **2.05** | **275** | P | **Pn** | **19 01 30.2** | **-0.1** |
| JMM | | | | *e*S | **Sn** | **19 01 54.2** | **-0.5** |
| **JMK** | **Ichinoseki** | **2.09** | **307** | P | **Pn** | **19 01 30.8** | **-0.1** |
| JMK | | | | *e*S | **Sn** | **19 01 55.6** | **-0.1** |
| **JOU** | **Okura** | **2.23** | **288** | P | **Pn** | **19 01 33.5** | **+0.6** |
| JOU | | | | S | **Sn** | **19 01 59.5** | **+0.2** |
| **JOM** | **Ohasama** | **2.39** | **318** | P | **Pn** | **19 01 35.0** | **-0.1** |
| JOM | | | | S | **Sn** | **19 02 02.7** | **-0.4** |
| **JFT** | **Otama** | **2.42** | **266** | P | **Pn** | **19 01 36.1** | **+0.6** |
| JFT | | | | S | **Sn** | **19 02 05.7** | **+1.9** |
| **JYK** | **Kaneyama** | **2.65** | **298** | P | **Pn** | **19 01 39.2** | **+0.5** |
| JYK | | | | S | **Sn** | **19 02 08.8** | **-0.8** |
| **JRG** | **Rokugo** | **2.72** | **309** | P | **Pn** | **19 01 40.2** | **+0.6** |
| JRG | | | | S | **Sn** | **19 02 12.8** | **+1.5** |
| **JANG** | **Nango** | **3.02** | **332** | P | **Pn** | **19 01 44.3** | **+0.6** |
| JANG | | | | *e*S | **Sn** | **19 02 17.2** | **-1.4** |
| **JAG** | **Ashikaga** | **3.39** | **249** | P | **Pn** | **19 01 49.3** | **+0.5** |
| **JRY** | **Ryogami san** | **3.97** | **246** | P | **Pn** | **19 01 57.4** | **+0.6** |
| **MJAR** | **Matsushiro Arr** | **4.29** | **256** | Pn | **Pn** | **19 02 02.8** | **+1.6** |
| | 10nm,0.3s,baz=89,slow=15,SNR=130 | | | | | | |
| MJAR | | | | Sn | **Sn** | **19 02 54.0** | **+4.0** |
| | 2.1nm,0.3s,baz=77,slow=24,SNR=2.8 | | | | | | |
| MJAR | | | | LR | LR | 19 03 38.3 | |
| | comp=Z,22nm,19.1s,baz=70,slow=38 | | | | | | |
| **MAJO** | **Matsushiro** | **4.29** | **256** | *e*Pn | **Pn** | **19 02 03.0** | **+1.8** |
| MAJO | | | | *e*Sn | **Sn** | **19 02 50.4** | **+0.3** |
| **MAT** | **Matsushiro** | **4.29** | **256** | P | **Pn** | **19 02 03.0** | **+1.8** |
| MAT | | | | S | **Sn** | **19 02 51.7** | **+1.6** |
| **ERM** | **Erimo** | **4.29** | **358** | *e*Pn | **Pn** | **19 02 00.5** | **-0.7** |
| ERM | | | | *e*Sn | **Sn** | **19 02 45.6** | **-4.3** |
| **MJB9** | **Matsu-Tunnel** | **4.29** | **256** | *e*Pn | **Pn** | **19 02 03.2** | **+2.0** |
| MJB9 | | | | *e*Sn | **Sn** | **19 02 50.4** | **+0.3** |
| **JHJ2** | **Mitsune** | **5.44** | **213** | *e*Pn | **Pn** | **19 02 14.8** | **-2.1** |
| JHJ2 | | | | *e*Sn | **Sn** | **19 03 12.8** | **-5.5** |
| **JHJ** | **Hachijo jima 2** | **5.45** | **214** | Pn | **Pn** | **19 02 15.8** | **-1.3** |
| | 9.0nm,0.3s,baz=23,slow=18,SNR=4.1 | | | | | | |
| JHJ | | | | Sn | **Sn** | **19 03 13.3** | **-5.2** |
| | 22nm,0.3s,baz=281,slow=10,SNR=4.8 | | | | | | |
| **INU** | **Inuyama** | **5.64** | **247** | *e*Pn | **Pn** | **19 02 21.3** | **+1.6** |
| INU | | | | *e*Sn | **Sn** | **19 03 17.3** | **-5.9** |
| **ASAJ** | **Asahikawa** | **6.42** | **355** | Pn | **Pn** | **19 02 30.6** | **+0.3** |
| | 1.6nm,0.3s,baz=204,slow=18,SNR=19 | | | | | | |
| ASAJ | | | | Sn | **Sn** | **19 03 39.0** | **-3.3** |
| | 1.7nm,0.3s,baz=69,slow=29,SNR=3.8 | | | | | | |
| **ASAJ** | **Asahikawa** | **6.42** | **355** | *e*Pn | **Pn** | **19 02 29.8** | **-0.5** |
| ASAJ | | | | *e*Sn | **Sn** | **19 03 38.3** | **-4.1** |
| **USRK** | **Ussuriysk Ar.** | **10.76** | **311** | Pn | **Pn** | **19 03 30.6** | **+0.7** |
| | 0.2nm,0.3s,baz=105,slow=15,SNR=3.2 | | | | | | |
| USRK | | | | LR | LR | 19 07 44.1 | |
| | comp=Z,160nm,18.2s,baz=154,slow=38 | | | | | | |
| **JNU** | **Nakatsue** | **11.18** | **249** | Pn | **Pn** | **19 03 36.3** | **+0.6** |
| | 0.2nm,0.3s,baz=37,slow=10,SNR=3.3 | | | | | | |
| **KSRS** | **Korea Array** | **12.26** | **273** | Pn | **Pn** | **19 03 51.7** | **+1.2** |
| | 0.1nm,0.3s,baz=79,slow=13,SNR=3.9 | | | | | | |
| KSRS | | | | LR | LR | 19 08 31.4 | |
| | comp=Z,41nm,19.4s,baz=50,slow=37 | | | | | | |
| **KS01** | **Wonju Array Si** | **12.28** | **274** | *e*Pn | **Pn** | **19 03 48.8** | **-2.0** |
| **KS15** | **Wonju Array Si** | **12.29** | **273** | *e*Pn | **Pn** | **19 03 51.8** | **+0.9** |
| **KSAR** | **Wonju Array Be** | **12.29** | **273** | Pn | **Pn** | **19 03 51.7** | **+0.8** |
| **KLR** | **Kul'dur** | **14.24** | **328** | Pn | **Pn** | **19 04 16.6** | **-0.9** |
| | 0.0nm,0.3s,baz=126,slow=12,SNR=7.3 | | | | | | |
| **JOW** | **Kunigami** | **16.73** | **234** | *e*Pn | **Pn** | **19 04 46.5** | **-3.6** |
| | 77nm,1.3s | | | | | | |
| **NACB** | **Ninganchiao** | **22.98** | **240** | *e*P | **P** | **19 05 59.5** | **-0.5** |
| | 122nm,1.5s | | | | | | |
| **SSLB** | **Suanglung** | **23.67** | **240** | *e*P | **P** | **19 06 05.2** | **-1.6** |
| | 82nm,1.5s | | | | | | |
| **SEY** | **Seymchan** | **25.84** | **9** | P | **P** | **19 06 27.8** | **+1.6** |
| | 0.8nm,0.6s,baz=143,slow=20,SNR=3.9 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **27.21** | **125** | T | T | 19 35 00.3 | |
| | baz=317,slow=75,SNR=6.5 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **27.21** | **125** | T | T | 19 35 00.5 | |
| | baz=317,slow=75,SNR=4.7 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **27.22** | **125** | T | T | 19 35 01.5 | |
| | baz=317,slow=75,SNR=5.5 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **27.97** | **127** | T | T | 19 35 58.5 | |
| | baz=318 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **27.97** | **127** | T | T | 19 35 58.5 | |
| | baz=318 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **27.99** | **127** | T | T | 19 35 58.5 | |
| | baz=318 | | | | | | |
| **SONA1** | **Songino Array** | **28.71** | **303** | *e*P | **P** | **19 06 52.4** | **+0.1** |
| **SONA0** | **Songino Array** | **28.71** | **302** | *e*P | **P** | **19 06 54.6** | **+2.2** |
| **SONM** | **Songino Array** | **28.71** | **302** | P | **P** | **19 06 54.6** | **+2.2** |
| | 0.8nm,0.8s,baz=80,slow=9.5,SNR=6.8 | | | | | | |
| **ENH** | **Enshi** | **28.94** | **265** | *e*P | **P** | **19 06 54.0** | **-0.4** |
| | 11nm,0.9s | | | | | | |
| **ZAA0** | **Zalesovo Array** | **42.61** | **312** | *e*P | **P** | **19 08 53.0** | **+2.0** |
| | 2.3nm,0.9s | | | | | | |
| **ZAA1** | **Zalesovo Array** | **42.61** | **312** | *e*P | **P** | **19 08 52.7** | **+1.7** |
| **ZALV** | **Zalesovo Beam** | **42.61** | **312** | P | **P** | **19 08 52.7** | **+1.7** |
| | 1.3nm,0.7s,baz=90,slow=8.6,SNR=2.7 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.61** | **312** | *e*P | **P** | **19 08 52.8** | **+1.9** |
| **MK01** | **Makanchi Array** | **45.08** | **302** | *e*P | **P** | **19 09 11.8** | **+0.9** |
| **MK31** | **Makanchi Array** | **45.08** | **302** | *e*P | **P** | **19 09 11.8** | **+0.9** |
| **MK32** | **Makanchi Array** | **45.08** | **302** | *e*P | **P** | **19 09 12.5** | **+1.6** |
| **MKAR** | **Makanchi Array** | **45.08** | **302** | P | **P** | **19 09 12.5** | **+1.6** |
| | 1.1nm,0.6s,baz=79,slow=9.4,SNR=5.1 | | | | | | |
| **IMAR** | **Indian Mountai** | **45.27** | **31** | *e*P | **P** | **19 09 10.3** | **-1.8** |
| **MAKZ** | **Makanchi** | **45.29** | **302** | *e*P | **P** | **19 09 14.3** | **+1.8** |
| | 28nm,1.4s | | | | | | |
| **KDAK** | **Kodiak Island** | **45.54** | **42** | *e*P | **P** | **19 09 12.6** | **-1.8** |
| | 132nm,1.8s | | | | | | |
| **KURK** | **Kurchatov** | **46.74** | **308** | *e*P | **P** | **19 09 25.2** | **+1.3** |
| | 6.3nm,0.9s | | | | | | |
| **MCK** | **McKinley** | **47.19** | **34** | *e*P | **P** | **19 09 25.5** | **-1.8** |
| | 46nm,2.0s | | | | | | |
| **MDM** | **Murphy Dome** | **47.50** | **32** | *e*P | **P** | **19 09 28.2** | **-1.5** |
| | 14nm,1.7s | | | | | | |
| **HDA** | **Harding Lake** | **48.06** | **33** | *e*P | **P** | **19 09 31.4** | **-2.5** |
| | 135nm,1.4s | | | | | | |
| **ILAR** | **Eielson Array** | **48.08** | **33** | P | **P** | **19 09 35.1** | **+0.9** |
| | 0.6nm,0.9s,baz=261,slow=6.4,SNR=4.3 | | | | | | |
| **ILB** | **Eielson Array** | **48.08** | **33** | *e*P | **P** | **19 09 33.2** | **-0.9** |
| **FYU** | **Fort Yukon** | **48.73** | **30** | *e*P | **P** | **19 09 40.7** | **+1.6** |
| | 53nm,1.9s | | | | | | |
| **WB2** | **Warramunga Arr** | **57.98** | **190** | *e*P | **P** | **19 10 47.5** | **0.0** |
| **WR1** | **Warramunga Arr** | **57.98** | **190** | *e*P | **P** | **19 10 47.2** | **-0.3** |
| | 3.9nm,0.8s | | | | | | |
| **WRA** | **Warramunga Arr** | **57.98** | **190** | P | **P** | **19 10 47.2** | **-0.3** |
| | 2.8nm,0.7s,baz=10,slow=7.4,SNR=18 | | | | | | |
| **ASAR** | **Alice Springs** | **61.71** | **190** | P | **P** | **19 11 13.1** | **0.0** |
| | 0.7nm,0.8s,baz=13,slow=5.9,SNR=6.2 | | | | | | |
| **YKA** | **Yellowknife Ar** | **62.43** | **31** | P | **P** | **19 11 16.9** | **-0.6** |
| | 0.3nm,0.8s,baz=300,slow=5.9,SNR=2.7 | | | | | | |
| **KBZ** | **Khabaz** | **71.63** | **311** | P | **P** | **19 12 18.1** | **+1.9** |
| | 1.8nm,0.9s,baz=102,slow=4.1,SNR=3.7 | | | | | | |
| **PDAR** | **Pinedale Array** | **76.07** | **46** | P | **P** | **19 12 43.4** | **+0.8** |
| | 0.4nm,0.6s,baz=251,slow=4.7,SNR=3.9 | | | | | | |

---

*DDA* ***10*** *19:06:55.7, 38.°68N×26.°32E, h8km, Ml3.0*
*ATH* ***10*** *19:06:56.3, 38.°67N×26.°38E, h30km±1km, ML3.0/2, Error ellipse: s-maj=3.0km s-min=1.1km az=77.0*
*ISK* ***10*** *19:06:56.5, 38.°69N×26.°39E, h14km, ML2.9*
*ISCJB* ***10*** *19:06:57.4±0.4, 38.°67N±0.°02×26.°32E±0.°03, h21km±4km, Error ellipse: s-maj=4.3km s-min=3.5km az=168.0*
*THE* ***10*** *19:06:57.1, 38.°68N×26.°36E, h5km±2km, ML2.7/5, Error ellipse: s-maj=2.3km s-min=0.7km az=263.0*
*CSEM* ***10*** *19:06:57.1±0.1, 38.°67N×26.°36E, h15km, ML2.9, Error ellipse: s-maj=2.1km s-min=1.6km az=87.0*
**ISC 10 19:06:56.7**±1.0**, 38.°67N**±0.°02×**26.°35E**±0.°02**, h15km**±8km**, n91, σ0.s60**/122**, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **URLA** | **Izmir** | **0.36** | **149** | *e*PG | **Pg** | **19 07 04.2** | **+0.1** |
| URLA | | | | *e*SG | **Sb** | **19 07 10.3** | **0.0** |
| **URLA** | **Izmir** | **0.36** | **149** | *e*Pg | **Pg** | **19 07 04.2** | **+0.1** |
| URLA | | | | *e*Sg | **Sb** | **19 07 10.3** | **0.0** |
| **CHOS** | **Chios island** | **0.37** | **220** | P | **Pb** | **19 07 05.4** | **+0.4** |
| CHOS | | | | S | **Sb** | **19 07 10.9** | **+0.4** |
| **CHOS** | **Chios island** | **0.37** | **220** | P | **Pb** | **19 07 05.4** | **+0.4** |
| CHOS | | | | S | **Sb** | **19 07 10.9** | **+0.4** |
| **PRK** | **Paraskevi** | **0.58** | **354** | P | **Pg** | **19 07 07.8** | **-0.3** |
| PRK | | | | S | **Sb** | **19 07 16.8** | **+0.3** |
| PRK | | | | AML | AML | 19 07 19.7 | |
| | comp=E,3890µm,0.3s | | | | | | |
| PRK | | | | AML | AML | 19 07 19.9 | |
| | comp=N,3965µm,0.2s | | | | | | |
| **PRK** | **Paraskevi** | **0.58** | **354** | P | **Pg** | **19 07 08.0** | **-0.1** |
| PRK | | | | S | **Sb** | **19 07 16.8** | **+0.3** |
| **PRK** | **Paraskevi** | **0.58** | **354** | P | **Pg** | **19 07 08.0** | **-0.1** |
| PRK | | | | S | **Sb** | **19 07 17.1** | **+0.6** |
| **DKL** | **Dikili** | **0.59** | **47** | *e*PG | **Pb** | **19 07 08.3** | **-0.3** |
| DKL | | | | *e*SG | **Sg** | **19 07 15.7** | **-0.4** |
| **DKL** | **Dikili** | **0.59** | **47** | *e*Pg | **Pb** | **19 07 08.3** | **-0.3** |
| DKL | | | | *e*Sg | **Sg** | **19 07 15.7** | **-0.4** |
| **SIGR** | **SIGRI** | **0.67** | **324** | *e*PG | **Pb** | **19 07 10.1** | **+0.1** |
| **SIGR** | **SIGRI** | **0.67** | **324** | P | **Pb** | **19 07 10.2** | **+0.2** |
| SIGR | | | | S | **Sn** | **19 07 20.8** | **-0.9** |
| SIGR | | | | AML | AML | 19 07 22.5 | |
| | comp=N,1820µm,0.4s | | | | | | |
| SIGR | | | | AML | AML | 19 07 23.2 | |
| | comp=E,1867µm,0.3s | | | | | | |
| **SIGR** | **SIGRI** | **0.67** | **324** | P | **Pb** | **19 07 10.2** | **+0.2** |
| SIGR | | | | S | **Sn** | **19 07 20.4** | **-1.3** |
| **SIGR** | **SIGRI** | **0.67** | **324** | P | **Pb** | **19 07 10.0** | **+0.1** |
| SIGR | | | | S | **Sn** | **19 07 20.4** | **-1.3** |
| **SMG** | **Samos** | **1.03** | **158** | P | **Pg** | **19 07 16.4** | **-0.3** |
| **SMG** | **Samos** | **1.03** | **158** | P | **Pg** | **19 07 16.4** | **-0.3** |
| SMG | | | | S | **Sn** | **19 07 31.2** | **+0.4** |
| **SMG** | **Samos** | **1.03** | **158** | P | **Pb** | **19 07 16.1** | **-0.2** |
| SMG | | | | S | **Sn** | **19 07 31.2** | **+0.4** |
| **EZN** | **Ezine** | **1.15** | **359** | *e*PN | **Pg** | **19 07 18.4** | **-0.5** |
| **EZN** | **Ezine** | **1.15** | **359** | P | **Pn** | **19 07 18.2** | **-0.1** |
| **EZN** | **Ezine** | **1.15** | **359** | *e*Pn | **Pg** | **19 07 18.5** | **-0.5** |
| **EZN** | **Ezine** | **1.15** | **359** | P | **Pn** | **19 07 18.2** | **-0.1** |
| **AKHS** | **Akhisar** | **1.16** | **79** | *i* P | **Pb** | **19 07 18.2** | **-0.2** |
| AKHS | | | | *i* S | **Sn** | **19 07 34.7** | **+0.7** |
| **AKHS** | **Akhisar** | **1.16** | **79** | P | **Pb** | **19 07 18.2** | **-0.2** |
| AKHS | | | | S | **Sn** | **19 07 34.7** | **+0.7** |
| **BOZC** | **Bozcaada** | **1.19** | **349** | *e*PN | **Pb** | **19 07 18.9** | **-0.1** |
| BOZC | | | | *e*SN | **Sg** | **19 07 35.4** | **+0.1** |
| **BOZC** | **Bozcaada** | **1.19** | **349** | *e*Pn | **Pb** | **19 07 18.9** | **-0.1** |
| BOZC | | | | *e*Sn | **Sg** | **19 07 35.4** | **+0.1** |
| **GCAM** | **G?zelcaml?** | **1.19** | **144** | *e*PN | **Pg** | **19 07 19.2** | **-0.4** |
| **GCAM** | **G?zelcaml?** | **1.19** | **144** | *e*Pn | **Pg** | **19 07 19.3** | **-0.4** |
| **STEP** | **BALIKESIR_Sava** | **1.27** | **56** | *i* P | **Pn** | **19 07 20.0** | **0.0** |
| STEP | | | | *i* S | **Sg** | **19 07 39.0** | **+1.1** |
| **STEP** | **BALIKESIR_Sava** | **1.27** | **56** | P | **Pn** | **19 07 20.0** | **0.0** |
| STEP | | | | S | **Sg** | **19 07 39.0** | **+1.1** |
| **BALY** | **Balya** | **1.45** | **42** | *i* P | **Pn** | **19 07 22.6** | **+0.2** |
| BALY | | | | *i* S | **Sg** | **19 07 44.9** | **+1.3** |
| **BALY** | **Balya** | **1.45** | **42** | P | **Pn** | **19 07 22.6** | **+0.2** |
| BALY | | | | S | **Sg** | **19 07 44.8** | **+1.3** |
| **LIA** | **Limnos Island** | **1.53** | **324** | P | **Pb** | **19 07 24.1** | **-0.5** |
| LIA | | | | S | **Sn** | **19 07 42.8** | **-0.1** |
| **LIA** | **Limnos Island** | **1.53** | **324** | P | **Pn** | **19 07 23.8** | **+0.4** |
| LIA | | | | S | **Sn** | **19 07 43.0** | **+0.1** |
| **LIA** | **Limnos Island** | **1.53** | **324** | P | **Pn** | **19 07 23.8** | **+0.4** |
| LIA | | | | S | **Sn** | **19 07 43.0** | **+0.1** |
| **BALB** | **Balikesir** | **1.53** | **50** | *e*PN | **Pn** | **19 07 23.7** | **+0.3** |
| **BALB** | **Balikesir** | **1.53** | **50** | *e*Pn | **Pn** | **19 07 23.7** | **+0.3** |
| **GADA** | **Gvkgeada** | **1.56** | **347** | *e*PN | **Pn** | **19 07 24.2** | **+0.4** |
| **GADA** | **Gvkgeada** | **1.56** | **347** | *e*Pn | **Pn** | **19 07 24.2** | **+0.4** |
| GADA | | | | S | **Sn** | **19 07 43.6** | **-0.2** |
| **GADA** | **Gvkgeada** | **1.56** | **347** | P | **Pn** | **19 07 24.1** | **+0.3** |
| GADA | | | | S | **Sn** | **19 07 43.6** | **-0.2** |
| **KARY** | **Karystos** | **1.64** | **248** | P | **Pn** | **19 07 25.7** | **+0.8** |
| **KARY** | **Karystos** | **1.64** | **248** | P | **Pn** | **19 07 25.7** | **+0.8** |
| **APE** | **Apeiranthos** | **1.73** | **202** | *e*PN | **Pb** | **19 07 27.3** | **-0.8** |
| **APE** | **Apeiranthos** | **1.73** | **202** | P | **Pn** | **19 07 25.9** | **-0.3** |
| **APE** | **Apeiranthos** | **1.73** | **202** | P | **Pn** | **19 07 25.9** | **-0.3** |
| **APE** | **Apeiranthos** | **1.73** | **202** | *e*Pn | **Pb** | **19 07 27.3** | **-0.8** |
| **GELI** | **Tayfur-Gelibol** | **1.73** | **3** | *e*PN | **Pn** | **19 07 26.7** | **+0.5** |
| **GELI** | **Tayfur-Gelibol** | **1.73** | **3** | *e*Pn | **Pn** | **19 07 26.7** | **+0.5** |
| **LPK** | **Lapseki** | **1.73** | **10** | *e*PN | **Pb** | **19 07 27.1** | **-1.0** |
| **LPK** | **Lapseki** | **1.73** | **10** | *e*Pn | **Pb** | **19 07 27.1** | **-1.0** |
| **MANT** | **Manisa** | **1.74** | **95** | *i* P | **Pg** | **19 07 29.6** | **-0.4** |
| MANT | | | | *i* S | **Sg** | **19 07 52.3** | **-0.3** |
| **MANT** | **Manisa** | **1.74** | **95** | P | **Pg** | **19 07 29.6** | **-0.4** |
| MANT | | | | S | **Sg** | **19 07 52.3** | **-0.3** |
| **BODT** | **Bodrum** | **1.78** | **154** | *e*PN | **Pn** | **19 07 27.2** | **+0.4** |
| **BODT** | **Bodrum** | **1.78** | **154** | *e*Pn | **Pn** | **19 07 27.2** | **+0.4** |
| **BODT** | **Bodrum** | **1.78** | **154** | P | **Pn** | **19 07 27.0** | **+0.2** |
| **KULA** | **Kula-Manisa** | **1.81** | **94** | *e*PN | **Pn** | **19 07 28.2** | **+0.8** |
| **KULA** | **Kula-Manisa** | **1.81** | **94** | *e*Pn | **Pn** | **19 07 28.2** | **+0.8** |
| **KRBG** | **Karabiga-Canak** | **1.87** | **23** | *e*PN | **Pn** | **19 07 28.0** | **-0.1** |
| **KRBG** | **Karabiga-Canak** | **1.87** | **23** | *e*Pn | **Pn** | **19 07 28.0** | **-0.1** |
| **DEMI** | **Demirci** | **1.88** | **78** | *i* P | **Pn** | **19 07 28.9** | **+0.6** |
| DEMI | | | | *i* S | **Sg** | **19 07 55.9** | **-1.3** |
| **DEMI** | **Demirci** | **1.88** | **78** | P | **Pn** | **19 07 28.9** | **+0.6** |
| DEMI | | | | S | **Sg** | **19 07 55.9** | **-1.3** |
| **SMTH** | **Samothraki Isl** | **1.91** | **341** | P | **Pn** | **19 07 29.1** | **+0.5** |
| **SMTH** | **Samothraki Isl** | **1.91** | **341** | P | **Pn** | **19 07 29.1** | **+0.5** |
| **SMTH** | **Samothraki Isl** | **1.91** | **341** | P | **Pn** | **19 07 28.8** | **+0.2** |
| **ERIK** | **Erikli-Kesan** | **2.00** | **3** | *e*PN | **Pn** | **19 07 30.7** | **+0.8** |
| **ERIK** | **Erikli-Kesan** | **2.00** | **3** | *e*Pn | **Pn** | **19 07 30.7** | **+0.8** |
| **EDC** | **Edincik** | **2.04** | **34** | *e*PN | **Pn** | **19 07 30.6** | **+0.1** |
| **EDC** | **Edincik** | **2.04** | **34** | *e*Pn | **Pn** | **19 07 30.6** | **+0.1** |
| **ENEZ** | **Enez** | **2.07** | **356** | *e*PN | **Pn** | **19 07 31.8** | **+0.9** |
| **ENEZ** | **Enez** | **2.07** | **356** | P | **Pn** | **19 07 31.4** | **+0.6** |
| **ENEZ** | **Enez** | **2.07** | **356** | *e*Pn | **Pn** | **19 07 31.8** | **+0.9** |
| **ENEZ** | **Enez** | **2.07** | **356** | P | **Pn** | **19 07 31.4** | **+0.6** |
| **SIMA** | **Simav-Kutahya** | **2.09** | **78** | *e*PN | **Pn** | **19 07 32.2** | **+0.9** |
| **SIMA** | **Simav-Kutahya** | **2.09** | **78** | *e*Pn | **Pn** | **19 07 32.2** | **+0.9** |
| **SERI** | **Serifos** | **2.11** | **225** | P | **Pn** | **19 07 31.6** | **+0.1** |
| **SERI** | **Serifos** | **2.11** | **225** | P | **Pn** | **19 07 31.6** | **+0.1** |
| **RKY** | **Sarkoy-Tekirda** | **2.11** | **17** | *e*PN | **Pn** | **19 07 32.2** | **+0.7** |
| **RKY** | **Sarkoy-Tekirda** | **2.11** | **17** | *e*Pn | **Pn** | **19 07 32.2** | **+0.7** |
| **KCTX** | **Karacabey (Bur** | **2.22** | **44** | *e*PN | **Pn** | **19 07 33.6** | **+0.6** |
| **KCTX** | **Karacabey (Bur** | **2.22** | **44** | *e*Pn | **Pn** | **19 07 33.6** | **+0.6** |
| **ALN** | **Alexandroupoli** | **2.24** | **354** | *e*PN | **Pn** | **19 07 34.4** | **+1.2** |
| **ALN** | **Alexandroupoli** | **2.24** | **354** | P | **Pn** | **19 07 34.0** | **+0.8** |
| **ALN** | **Alexandroupoli** | **2.24** | **354** | P | **Pn** | **19 07 34.0** | **+0.8** |
| **ALN** | **Alexandroupoli** | **2.24** | **354** | *e*Pn | **Pn** | **19 07 34.4** | **+1.2** |
| **ALN** | **Alexandroupoli** | **2.24** | **354** | P | **Pn** | **19 07 32.4** | **-0.7** |
| **MHLO** | **Agia Marina, M** | **2.51** | **219** | P | **Pn** | **19 07 36.8** | **-0.1** |
| **MHLO** | **Agia Marina, M** | **2.51** | **219** | P | **Pn** | **19 07 36.8** | **-0.1** |
| **TVSB** | **Tavsanli** | **2.54** | **71** | *e*PN | **Pn** | **19 07 38.0** | **+0.6** |
| **TVSB** | **Tavsanli** | **2.54** | **71** | *e*Pn | **Pn** | **19 07 38.0** | **+0.6** |
| **RDO** | **Rodhopi** | **2.55** | **346** | P | **Pn** | **19 07 37.5** | **0.0** |
| **RDO** | **Rodhopi** | **2.55** | **346** | P | **Pn** | **19 07 37.5** | **0.0** |
| **KAVA** | **Kavala** | **2.72** | **329** | P | **Pn** | **19 07 40.6** | **+0.8** |
| **KAVA** | **Kavala** | **2.72** | **329** | P | **Pn** | **19 07 40.6** | **+0.8** |

---

*DDA* ***10*** *19:22:56.6, 38.°93N×43.°54E, h7km, Md2.7*
*ISK* ***10*** *19:22:56.3, 38.°97N×43.°55E, h5km, ML2.1*
*ISCJB* ***10*** *19:22:57.0±0.9, 38.°95N±0.°05×43.°54E±0.°06, h10km±6km, Error ellipse: s-maj=9.1km s-min=6.8km az=151.5*
*CSEM* ***10*** *19:22:57.3±0.3, 39.°00N×43.°52E, h2km, MD2.7, Error ellipse: s-maj=8.2km s-min=5.7km az=167.0*
**ISC 10 19:22:57.0**±1.0**, 38.°98N**±0.°04×**43.°54E**±0.°03**, h7km**±6km**, n14, σ0.s87**/27**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.03** | **69** | *i* P | **Pg** | **19 22 58.3** | **-0.3** |
| VMUR | | | | *i* S | **Sg** | **19 23 00.1** | **+0.4** |
| **VMUR** | **Van-Muradiye** | **0.03** | **69** | P | **Pg** | **19 22 58.3** | **-0.3** |
| VMUR | | | | S | **Sg** | **19 23 00.1** | **+0.4** |
| **CLDR** | **Caldiran** | **0.34** | **61** | *e*PG | **Pg** | **19 23 03.7** | **0.0** |
| CLDR | | | | *e*SG | **Sb** | **19 23 10.2** | **-1.0** |
| **CLDR** | **Caldiran** | **0.34** | **61** | *i* P | **Pg** | **19 23 04.0** | **+0.3** |
| CLDR | | | | *i* S | **Sb** | **19 23 10.3** | **-1.0** |
| **CLDR** | **Caldiran** | **0.34** | **61** | *e*Pg | **Pg** | **19 23 03.7** | **0.0** |
| **CLDR** | **Caldiran** | **0.34** | **61** | P | **Pg** | **19 23 04.0** | **+0.3** |
| CLDR | | | | *e*Sg | **Sb** | **19 23 10.2** | **-1.0** |
| **VANB** | **Van** | **0.40** | **197** | *e*PG | **Pb** | **19 23 06.2** | **-0.3** |
| VANB | | | | *e*SG | **Sb** | **19 23 14.7** | **+1.8** |
| **VANB** | **Van** | **0.40** | **197** | *e*Pg | **Pb** | **19 23 06.2** | **-0.3** |
| VANB | | | | *e*Sg | **Sb** | **19 23 14.7** | **+1.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.66** | **255** | *i* P | **Pg** | **19 23 08.9** | **-0.7** |
| ADCV | | | | *i* S | **Sb** | **19 23 19.3** | **-1.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.66** | **255** | P | **Pg** | **19 23 08.9** | **-0.7** |
| ADCV | | | | S | **Sb** | **19 23 19.3** | **-1.0** |
| **TUTA** | **Tutak** | **0.70** | **307** | *i* P | **Pg** | **19 23 10.2** | **-0.3** |
| TUTA | | | | *i* S | **Sb** | **19 23 21.9** | **+0.2** |
| **TUTA** | **Tutak** | **0.70** | **307** | P | **Pg** | **19 23 10.2** | **-0.3** |
| TUTA | | | | S | **Sb** | **19 23 21.9** | **+0.2** |
| **AGRB** | **Hanur-Agry** | **0.73** | **325** | *e*PG | **Pg** | **19 23 11.4** | **+0.4** |
| AGRB | | | | *e*SG | **Sb** | **19 23 23.7** | **+1.2** |
| **AGRB** | **Hanur-Agry** | **0.73** | **325** | *e*Pg | **Pg** | **19 23 11.5** | **+0.4** |
| AGRB | | | | *e*Sg | **Sb** | **19 23 23.7** | **+1.2** |

---

*NSSC* ***10*** *19:32:11.9±0.7, 39.°81N×43.°51E, h0km±242km, ML2.7*
*ATA* ***10*** *19:32:19.8±0.5, 38.°83N×43.°53E, h5km±16km, ML4.1, MW4.0*
*ISK* ***10*** *19:32:20.0, 38.°85N×43.°58E, h5km, ML3.6*
*DDA* ***10*** *19:32:20.4, 38.°81N×43.°60E, h7km, Ml3.7*
*AZER* ***10*** *19:32:21.3±0.3, 38.°65N×43.°42E, h11km±7km, Error ellipse: s-maj=8.1km s-min=1.9km az=65.0*
*CSEM* ***10*** *19:32:21.8±0.1, 38.°83N×43.°48E, h2km, ML3.7, Error ellipse: s-maj=4.3km s-min=2.7km az=163.0*
**ISC 10 19:32:22.0**±1.1**, 38.°84N**±0.°02×**43.°56E**±0.°02**, h3km**±8km**, n124, σ1.s94**/195**, 31C-21D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.15** | **3** | *i* P | **Pg** | **19 32 24.5** | **-0.5** |
| VMUR | | | | *i* S | **Sg** | **19 32 29.2** | **+2.2** |
| **VMUR** | **Van-Muradiye** | **0.15** | **3** | P | **Pg** | **19 32 24.5** | **-0.5** |
| VMUR | | | | S | **Sg** | **19 32 29.2** | **+2.2** |
| **ERCV** | **ERCIS-VAN** | **0.25** | **315** | *e*PG | **Pg** | **19 32 25.8** | **-1.1** |
| **ERCV** | **ERCIS-VAN** | **0.25** | **315** | *e*Pg | **Pg** | **19 32 25.8** | **-1.1** |
| **VANB** | **Van** | **0.28** | **209** | *e*PG | **Pg** | **19 32 28.1** | **+0.6** |
| VANB | | | | *e*SG | **Sb** | **19 32 34.7** | **-0.3** |
| **VANB** | **Van** | **0.28** | **209** | *e*Pg | **Pg** | **19 32 28.1** | **+0.6** |
| **CLDR** | **Caldiran** | **0.41** | **43** | *e*PG | **Pg** | **19 32 28.9** | **-1.1** |
| **CLDR** | **Caldiran** | **0.41** | **43** | *i* P | **Pg** | **19 32 28.9** | **-1.1** |
| **CLDR** | **Caldiran** | **0.41** | **43** | *e*Pg | **Pg** | **19 32 28.9** | **-1.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.66** | **267** | *i* P | **Pg** | **19 32 33.6** | **-1.0** |
| ADCV | | | | *i* S | **Sb** | **19 32 44.1** | **-1.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.66** | **267** | P | **Pg** | **19 32 33.6** | **-1.0** |
| **GEVA** | **Gevas** | **0.66** | **217** | *i* P | **Pg** | **19 32 32.7** | **-2.1** |
| GEVA | | | | IAML | | 19 32 55.1 | |
| | comp=Z,352nm,0.7s | | | | | | |
| **GEVA** | **Gevas** | **0.66** | **217** | *i* P | **Pg** | **19 32 32.6** | **-2.1** |
| **GEVA** | **Gevas** | **0.66** | **217** | P | **Pg** | **19 32 32.7** | **-2.1** |
| **DYDN** | **Diyadin** | **0.71** | **8** | *e*P | **Pg** | **19 32 34.2** | **-1.4** |
| DYDN | | | | IAML | | 19 32 46.9 | |
| | comp=Z,524nm,0.4s | | | | | | |
| **DYDN** | **Diyadin** | **0.71** | **8** | *i* P | **Pg** | **19 32 34.5** | **-1.1** |
| DYDN | | | | *i* S | **Sb** | **19 32 45.5** | **-1.8** |
| **DYDN** | **Diyadin** | **0.71** | **8** | P | **Pg** | **19 32 34.5** | **-1.1** |
| DYDN | | | | S | **Sb** | **19 32 45.5** | **-1.8** |
| **TUTA** | **Tutak** | **0.81** | **314** | *i* P | **Pg** | **19 32 35.7** | **-1.8** |
| TUTA | | | | *e*S | **Sg** | **19 32 48.2** | **+0.2** |
| TUTA | | | | IAML | | 19 32 50.8 | |
| | comp=Z,854nm,0.2s | | | | | | |
| **TUTA** | **Tutak** | **0.81** | **314** | *i* P | **Pg** | **19 32 36.2** | **-1.3** |
| TUTA | | | | *i* S | **Sb** | **19 32 49.0** | **-1.2** |
| **TUTA** | **Tutak** | **0.81** | **314** | P | **Pg** | **19 32 36.2** | **-1.3** |
| TUTA | | | | S | **Sb** | **19 32 49.0** | **-1.2** |
| **AGRB** | **Hanur-Agry** | **0.85** | **329** | *e*PG | **Pg** | **19 32 37.0** | **-1.4** |
| **AGRB** | **Hanur-Agry** | **0.85** | **329** | *e*Pg | **Pg** | **19 32 37.0** | **-1.4** |
| **EKAR** | **Karacoban** | **1.24** | **290** | *e*P | **Pn** | **19 32 43.8** | **-2.6** |
| **EKAR** | **Karacoban** | **1.24** | **290** | *i* P | **Pn** | **19 32 44.9** | **-1.5** |
| EKAR | | | | *i* S | **Sn** | **19 33 06.7** | **+3.0** |
| **EKAR** | **Karacoban** | **1.24** | **290** | P | **Pn** | **19 32 44.9** | **-1.5** |
| **TASB** | **TASBURUN-IGDIR** | **1.25** | **25** | *e*PN | **Pn** | **19 32 44.8** | **-1.7** |
| **TASB** | **TASBURUN-IGDIR** | **1.25** | **25** | *e*Pn | **Pn** | **19 32 44.8** | **-1.7** |
| **EATA** | **Eleskirt** | **1.31** | **321** | *e*P | **Pn** | **19 32 45.2** | **-2.4** |
| **EATA** | **Eleskirt** | **1.31** | **321** | *i* P | **Pn** | **19 32 45.3** | **-2.2** |
| EATA | | | | *i* S | **Sn** | **19 33 04.2** | **-1.5** |
| **EATA** | **Eleskirt** | **1.31** | **321** | P | **Pn** | **19 32 45.3** | **-2.2** |
| EATA | | | | S | **Sn** | **19 33 04.2** | **-1.5** |
| **HYR** | **Heyderabad** | **1.33** | **48** | ⇓P | **Pg** | **19 32 47.4** | **-0.1** |
| HYR | | | | ⇓S | **Sg** | **19 33 09.7** | **+4.9** |
| **HYR** | **Heyderabad** | **1.33** | **48** | P | **Pg** | **19 32 47.4** | **-0.1** |
| HYR | | | | S | **Sg** | **19 33 09.7** | **+4.9** |
| **NAX** | **Nakhchivan** | **1.54** | **77** | ⇑P | **Pn** | **19 32 49.8** | **-0.6** |
| NAX | | | | ⇑S | **Sg** | **19 33 13.6** | **+2.0** |
| **NAX** | **Nakhchivan** | **1.54** | **77** | P | **Pn** | **19 32 49.8** | **-0.6** |
| NAX | | | | S | **Sg** | **19 33 13.6** | **+2.0** |
| **SRTM** | **Siirt_Merkez** | **1.54** | **237** | *i* P | **Pn** | **19 32 49.8** | **-0.7** |
| SRTM | | | | *i* S | **Sg** | **19 33 14.5** | **+2.9** |
| **SRTM** | **Siirt_Merkez** | **1.54** | **237** | P | **Pn** | **19 32 49.8** | **-0.7** |
| **DIGO** | **Kars** | **1.58** | **355** | *e*P | **Pb** | **19 32 50.9** | **-1.0** |
| **CUKT** | **Cukurca** | **1.59** | **179** | *e*PN | **Pn** | **19 32 50.2** | **-1.0** |
| **CUKT** | **Cukurca** | **1.59** | **179** | *e*Pn | **Pn** | **19 32 50.2** | **-1.0** |
| **SIRT** | **Sirnak** | **1.61** | **214** | *e*PN | **Pn** | **19 32 50.7** | **-0.7** |
| **SIRT** | **Sirnak** | **1.61** | **214** | *e*Pn | **Pn** | **19 32 50.7** | **-0.7** |
| **SIRN** | **S˜–rnak** | **1.62** | **214** | *i* P | **Pn** | **19 32 51.2** | **-0.4** |
| **SIRN** | **S˜–rnak** | **1.62** | **214** | P | **Pn** | **19 32 51.2** | **-0.4** |
| **SBZ** | **Shahbuz** | **1.65** | **70** | ⇓P | **Pb** | **19 32 51.9** | **-1.2** |
| SBZ | | | | ⇑S | **Sg** | **19 33 17.9** | **+3.0** |
| **SBZ** | **Shahbuz** | **1.65** | **70** | P | **Pb** | **19 32 51.9** | **-1.2** |
| SBZ | | | | S | **Sg** | **19 33 17.9** | **+3.0** |
| **VRTB** | **Varto-Mus** | **1.67** | **282** | *e*PN | **Pn** | **19 32 51.7** | **-0.6** |
| **VRTB** | **Varto-Mus** | **1.67** | **282** | *i* P | **Pb** | **19 32 52.0** | **-1.5** |
| VRTB | | | | *i* S | **Sg** | **19 33 18.2** | **+2.5** |
| **VRTB** | **Varto-Mus** | **1.67** | **282** | *e*Pn | **Pn** | **19 32 51.7** | **-0.6** |
| **VRTB** | **Varto-Mus** | **1.67** | **282** | P | **Pb** | **19 32 52.0** | **-1.5** |
| **KARS** | **Kars** | **1.82** | **348** | *e*PN | **Pn** | **19 32 53.6** | **-0.7** |
| **KARS** | **Kars** | **1.82** | **348** | *e*Pn | **Pn** | **19 32 53.6** | **-0.7** |
| **BNGL** | **BINGOL** | **1.89** | **274** | *e*P | **Pn** | **19 32 55.3** | **0.0** |
| **ORD** | **Ordubad** | **1.90** | **87** | P | **Pn** | **19 32 55.4** | **0.0** |
| ORD | | | | S | **Sg** | **19 33 22.8** | **-0.3** |
| **SENK** | **Senkaya-Erzuru** | **1.95** | **332** | *e*PN | **Pn** | **19 32 55.9** | **-0.3** |
| **SENK** | **Senkaya-Erzuru** | **1.95** | **332** | *e*Pn | **Pn** | **19 32 55.9** | **-0.3** |
| **ERZM** | **Erzurum** | **2.00** | **303** | *e*P | **Pb** | **19 32 57.5** | **-1.8** |
| **ECAT** | **Cat-ERZURUM** | **2.15** | **292** | *i* P | **Pb** | **19 32 60.0** | **-1.7** |
| **BNGB** | **Bingˆ¶l** | **2.25** | **275** | *e*PN | **Pn** | **19 33 00.6** | **+0.3** |
| **BINT** | **Bingol** | **2.40** | **272** | *e*Pn | **Pn** | **19 33 00.6** | **-1.7** |
| **BGD** | **Bogdanovka** | **2.42** | **1** | P | **Pg** | **19 33 08.8** | **+0.4** |
| **YEDI** | **Yedisu-Bingol** | **2.42** | **285** | *e*PN | **Pn** | **19 33 03.0** | **+0.4** |
| **YEDI** | **Yedisu-Bingol** | **2.42** | **285** | *e*Pn | **Pn** | **19 33 03.0** | **+0.4** |
| **GDB** | **GEDABAY** | **2.52** | **41** | ⇓P | **Pb** | **19 33 05.6** | **-2.5** |
| GDB | | | | ⇓S | **Sb** | **19 33 39.4** | **-0.2** |
| **GDB** | **GEDABAY** | **2.52** | **41** | P | **Pb** | **19 33 05.6** | **-2.5** |
| GDB | | | | S | **Sb** | **19 33 39.4** | **-0.2** |
| **AKH** | **Akhalkalaki** | **2.56** | **359** | *e*PN | **Pn** | **19 33 04.3** | **-0.3** |
| **AKH** | **Akhalkalaki** | **2.56** | **359** | P | **Pg** | **19 33 12.6** | **+1.5** |
| **AKH** | **Akhalkalaki** | **2.56** | **359** | *e*Pn | **Pn** | **19 33 04.3** | **-0.3** |
| **QZX** | **Qazax, Azerbai** | **2.61** | **32** | ⇓P | **Pb** | **19 33 06.8** | **-2.7** |
| QZX | | | | ⇑S | **Sb** | **19 33 41.8** | **-0.2** |
| **QZX** | **Qazax, Azerbai** | **2.61** | **32** | P | **Pb** | **19 33 06.8** | **-2.7** |
| QZX | | | | S | **Sb** | **19 33 41.8** | **-0.2** |
| **DIY** | **Diyarbakir** | **2.79** | **251** | *e*Pn | **Pn** | **19 33 08.4** | **+0.8** |
| **GANJ** | **Ganja** | **2.79** | **49** | ⇑P | **Pn** | **19 33 08.7** | **+1.2** |
| GANJ | | | | ⇑S | **Sb** | **19 33 45.7** | **-1.3** |
| **GANJ** | **Ganja** | **2.79** | **49** | P | **Pn** | **19 33 08.7** | **+1.2** |
| GANJ | | | | S | **Sb** | **19 33 45.7** | **-1.3** |
| **DYBB** | **Diyarbakir** | **2.83** | **253** | *e*PN | **Pn** | **19 33 08.4** | **+0.2** |
| **KBSD** | **Kabsdagh** | **3.01** | **233** | *e*P | **Pn** | **19 33 10.2** | **-0.4** |
| KBSD | | | | *e*S | **Sb** | **19 33 52.3** | **-1.2** |
| KBSD | | | | AML | AML | 19 34 02.4 | |
| | comp=Z,70nm,0.5s | | | | | | |
| **BRDA** | **Brd** | **3.13** | **62** | ⇑P | **Pn** | **19 33 13.5** | **+1.2** |
| BRDA | | | | ⇑S | **Sb** | **19 33 53.4** | **-3.6** |
| **BRDA** | **Brd** | **3.13** | **62** | P | **Pn** | **19 33 13.5** | **+1.2** |
| BRDA | | | | S | **Sb** | **19 33 53.4** | **-3.6** |
| **PTK** | **Pertek** | **3.25** | **272** | *e*PN | **Pn** | **19 33 14.8** | **+0.7** |
| **PTK** | **Pertek** | **3.25** | **272** | *e*Pn | **Pn** | **19 33 14.8** | **+0.7** |
| **MNGR** | **Mingechevir, A** | **3.33** | **54** | ⇓P | **Pn** | **19 33 16.0** | **+1.1** |
| MNGR | | | | ⇑S | **Sb** | **19 33 58.5** | **-4.0** |
| **MNGR** | **Mingechevir, A** | **3.33** | **54** | P | **Pn** | **19 33 16.0** | **+1.1** |
| MNGR | | | | S | **Sb** | **19 33 58.5** | **-4.0** |
| **ZRD** | **Zardab** | **3.49** | **64** | ⇑P | **Pn** | **19 33 18.1** | **+0.9** |
| ZRD | | | | ⇓S | **Sb** | **19 34 01.9** | **-5.4** |
| **ZRD** | **Zardab** | **3.49** | **64** | P | **Pn** | **19 33 18.1** | **+0.9** |
| ZRD | | | | S | **Sb** | **19 34 01.9** | **-5.4** |
| **ZKTA** | **Zakatala** | **3.64** | **39** | ⇑P | **Pn** | **19 33 20.8** | **+1.5** |
| ZKTA | | | | ⇑S | **Sb** | **19 34 07.3** | **-4.4** |
| **SFNV** | **Sufian** | **3.66** | **230** | *e*P | **Pn** | **19 33 19.4** | **-0.2** |
| SFNV | | | | *e*S | **Sb** | **19 34 07.8** | **-4.2** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SFNV | | | | AML | AML | 19 34 27.2 | |
| | comp=Z,25nm,0.5s | | | | | | |
| **SEKA** | **Sheki** | **3.66** | **49** | ⇑P | **Pn** | **19 33 21.3** | **+1.8** |
| SEKA | | | | ⇓S | **Sb** | **19 34 08.6** | **-3.5** |
| **SEKA** | **Sheki** | **3.66** | **49** | P | **Pn** | **19 33 21.3** | **+1.8** |
| SEKA | | | | S | **Sb** | **19 34 08.6** | **-3.5** |
| **GUDG** | **Gudauri** | **3.68** | **11** | P | **Pg** | **19 33 30.2** | **-2.4** |
| **LRK** | **Lerik** | **3.74** | **92** | ⇓P | **Pn** | **19 33 20.3** | **-0.5** |
| LRK | | | | ⇑S | **Sn** | **19 34 06.0** | **+0.6** |
| **LRK** | **Lerik** | **3.74** | **92** | P | **Pn** | **19 33 20.3** | **-0.5** |
| LRK | | | | S | **Sn** | **19 34 06.0** | **+0.6** |
| **ONI** | **Oni** | **3.74** | **359** | P | **Pg** | **19 33 35.0** | **+1.3** |
| **GLBA** | **Clilabad** | **3.78** | **82** | ⇓P | **Pn** | **19 33 21.3** | **+0.1** |
| GLBA | | | | ⇓S | **Sn** | **19 34 08.2** | **+2.0** |
| **GLBA** | **Clilabad** | **3.78** | **82** | P | **Pn** | **19 33 21.3** | **+0.1** |
| GLBA | | | | S | **Sn** | **19 34 08.2** | **+2.0** |
| **MZRK** | **Al-Mazaregh** | **3.80** | **218** | *e*P | **Pn** | **19 33 22.6** | **+1.1** |
| MZRK | | | | *e*S | **Sb** | **19 34 14.4** | **-1.8** |
| MZRK | | | | AML | AML | 19 34 31.7 | |
| | comp=Z,75nm,0.5s | | | | | | |
| **KDMR** | **Kurdemir** | **3.88** | **65** | ⇑P | **Pn** | **19 33 23.3** | **+0.7** |
| KDMR | | | | ⇑S | **Sn** | **19 34 11.8** | **+3.2** |
| **KDMR** | **Kurdemir** | **3.88** | **65** | P | **Pn** | **19 33 23.3** | **+0.7** |
| KDMR | | | | S | **Sn** | **19 34 11.8** | **+3.2** |
| **QBL** | **Gabala** | **3.90** | **56** | ⇑P | **Pn** | **19 33 23.7** | **+0.8** |
| QBL | | | | ⇓S | **Sn** | **19 34 12.5** | **+3.3** |
| **QBL** | **Gabala** | **3.90** | **56** | P | **Pn** | **19 33 23.7** | **+0.8** |
| QBL | | | | S | **Sn** | **19 34 12.5** | **+3.3** |
| **SAAT** | **Saatly** | **3.90** | **73** | ⇓P | **Pn** | **19 33 22.7** | **-0.1** |
| SAAT | | | | ⇓S | **Sn** | **19 34 10.8** | **+1.7** |
| **SAAT** | **Saatly** | **3.90** | **73** | P | **Pn** | **19 33 22.7** | **-0.1** |
| SAAT | | | | S | **Sn** | **19 34 10.8** | **+1.7** |
| **URFA** | **Urfa** | **3.99** | **251** | *e*PN | **Pn** | **19 33 24.8** | **+0.6** |
| **URFA** | **Urfa** | **3.99** | **251** | *e*Pn | **Pn** | **19 33 24.8** | **+0.6** |
| **IML** | **Ismayilli** | **4.05** | **60** | ⇑P | **Pn** | **19 33 25.7** | **+0.7** |
| IML | | | | ⇓S | **Sn** | **19 34 16.3** | **+3.3** |
| **IML** | **Ismayilli** | **4.05** | **60** | P | **Pn** | **19 33 25.7** | **+0.7** |
| IML | | | | S | **Sn** | **19 34 16.3** | **+3.3** |
| **LKRN** | **Lenkeran, Azer** | **4.08** | **90** | ⇓P | **Pn** | **19 33 24.8** | **-0.4** |
| LKRN | | | | ⇓S | **Sn** | **19 34 14.7** | **+1.2** |
| **LKRN** | **Lenkeran, Azer** | **4.08** | **90** | P | **Pn** | **19 33 24.8** | **-0.4** |
| LKRN | | | | S | **Sn** | **19 34 14.7** | **+1.2** |
| **ASTR** | **Astara** | **4.10** | **92** | ⇑P | **Pn** | **19 33 25.1** | **-0.5** |
| ASTR | | | | ⇓S | **Sn** | **19 34 15.2** | **+1.2** |
| **ASTR** | **Astara** | **4.10** | **92** | P | **Pn** | **19 33 25.1** | **-0.5** |
| ASTR | | | | S | **Sn** | **19 34 15.2** | **+1.2** |
| **XNQ** | **Khinaliq** | **4.21** | **55** | ⇑P | **Pn** | **19 33 28.2** | **+0.8** |
| XNQ | | | | ⇑S | **Sn** | **19 34 20.6** | **+3.4** |
| **XNQ** | **Khinaliq** | **4.21** | **55** | P | **Pn** | **19 33 28.2** | **+0.8** |
| XNQ | | | | S | **Sn** | **19 34 20.6** | **+3.4** |
| **PQL** | **Pirkuli** | **4.33** | **62** | ⇓P | **Pn** | **19 33 29.6** | **+0.7** |
| PQL | | | | ⇑S | **Sn** | **19 34 23.2** | **+3.2** |
| **PQL** | **Pirkuli** | **4.33** | **62** | P | **Pn** | **19 33 29.6** | **+0.7** |
| PQL | | | | S | **Sn** | **19 34 23.2** | **+3.2** |
| **ALIB** | **Äli-Bayra** | **4.36** | **74** | ⇑P | **Pn** | **19 33 29.1** | **-0.1** |
| ALIB | | | | ⇑S | **Sn** | **19 34 22.9** | **+2.5** |
| **ALIB** | **Äli-Bayra** | **4.36** | **74** | P | **Pn** | **19 33 29.1** | **-0.1** |
| ALIB | | | | S | **Sn** | **19 34 22.9** | **+2.5** |
| **GBS** | **Qobustan** | **4.48** | **66** | ⇑P | **Pn** | **19 33 31.6** | **+0.7** |
| GBS | | | | ⇑S | **Sn** | **19 34 26.7** | **+3.2** |
| **GBS** | **Qobustan** | **4.48** | **66** | P | **Pn** | **19 33 31.6** | **+0.7** |
| GBS | | | | S | **Sn** | **19 34 26.7** | **+3.2** |
| **QSAR** | **Qusar** | **4.48** | **52** | ⇑P | **Pn** | **19 33 31.1** | **+0.3** |
| QSAR | | | | ⇑S | **Sn** | **19 34 27.4** | **+3.9** |
| **QSAR** | **Qusar** | **4.48** | **52** | P | **Pn** | **19 33 31.1** | **+0.3** |
| QSAR | | | | S | **Sn** | **19 34 27.4** | **+3.9** |
| **QUBA** | **Quba, Azerbaij** | **4.54** | **55** | ⇑P | **Pn** | **19 33 32.9** | **+1.3** |
| QUBA | | | | ⇑S | **Sn** | **19 34 28.3** | **+3.5** |
| **QUBA** | **Quba, Azerbaij** | **4.54** | **55** | P | **Pn** | **19 33 32.9** | **+1.3** |
| QUBA | | | | S | **Sn** | **19 34 28.3** | **+3.5** |
| **ATGJ** | **Altiaghaj** | **4.60** | **62** | ⇑P | **Pn** | **19 33 33.6** | **+1.0** |
| ATGJ | | | | ⇓S | **Sn** | **19 34 29.5** | **+2.9** |
| **ATGJ** | **Altiaghaj** | **4.60** | **62** | P | **Pn** | **19 33 33.6** | **+1.0** |
| ATGJ | | | | S | **Sn** | **19 34 29.5** | **+2.9** |
| **KSRV** | **Kasrt alli** | **4.69** | **232** | *e*P | Pb | 19 33 39.7 | -5.3 |
| KSRV | | | | *e*S | **Sb** | **19 34 43.5** | **+1.6** |
| KSRV | | | | AML | AML | 19 35 01.1 | |
| | comp=Z,27nm,0.6s | | | | | | |
| **RABH** | **Abou Rabah** | **6.74** | **231** | *e*P | **Pn** | **19 34 02.1** | **+0.2** |
| RABH | | | | *e*S | **Sn** | **19 35 21.0** | **+1.8** |
| RABH | | | | AML | AML | 19 36 34.9 | |
| | comp=E,4.9nm,0.7s | | | | | | |
| RABH | | | | AML | AML | 19 36 40.5 | |
| | comp=N,3.7nm,0.7s | | | | | | |
| **ROOS** | **tl_alroos** | **6.87** | **229** | *e*P | **Pn** | **19 34 04.1** | **+0.3** |
| ROOS | | | | *e*S | **Sn** | **19 35 24.5** | **+1.9** |
| ROOS | | | | AML | AML | 19 36 17.2 | |
| | comp=N,7.0nm,0.8s | | | | | | |
| ROOS | | | | AML | AML | 19 36 25.3 | |
| | comp=E,9.8nm,0.6s | | | | | | |

*KRSC **10** 19:34:09.3±1.4, 53°.62N×161°.46E, h40km±16km, ML4.3*
*ISCJB **10** 19:34:11.7±0.6, 53°.64N±0°.03×161°.37E±0°.07, h49km±6km, mb3.7/14, Error ellipse: s-maj=7.8km s-min=2.7km az=30.8*
*MOS **10** 19:34:11.7±0.6, 53°.64N×161°.36E, h38km, mb4.0/3, Error ellipse: s-maj=8.6km s-min=4.8km az=84.9*
*IDC **10** 19:34:16.1±3.9, 53°.96N×160°.78E, h64km±32km, mb3.4/13, mb1 3.6/14, mb1mx3.3/55, mbtmp3.7/14, ML2.7/1, Error ellipse: s-maj=31.2km s-min=21.7km az=95.0*
**ISC 10 19:34:11.8**±0.8**, 53°.64N**±0°.03×**161°.37E**±0°.04**, h40**km±6km**, n95,** σ1s**61**/151**, mb3.7**/15**, Off east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MKZ** | **Mys Kozlova** | **0.94** | **13** | PN | **Pn** | **19 34 26.8** | **-1.7** |
| MKZ | | | | S | **Sn** | **19 34 38.6** | **-2.1** |
| **MKZ** | **Mys Kozlova** | **0.94** | **13** | *e*P | **Pn** | **19 34 26.8** | **-1.7** |
| MKZ | | | | *e*S | **Sn** | **19 34 38.6** | **-2.1** |
| **SPN** | **Mys Shipunski** | **0.98** | **236** | PN | **Pn** | **19 34 28.3** | **-0.7** |
| SPN | | | | S | **Sn** | **19 34 40.5** | **-1.1** |
| **SPN** | **Mys Shipunski** | **0.98** | **236** | *i* P | **Pn** | **19 34 28.3** | **-0.7** |
| SPN | | | | *e*S | **Sn** | **19 34 40.5** | **-1.1** |
| **KII** | **Karymskiy** | **1.21** | **290** | PN | **Pn** | **19 34 31.3** | **-0.9** |
| KII | | | | S | **Sn** | **19 34 45.4** | **-2.0** |
| **KII** | **Karymskiy** | **1.21** | **290** | *e*P | **Pn** | **19 34 31.3** | **-0.9** |
| KII | | | | *e*S | **Sn** | **19 34 45.4** | **-2.0** |
| **NLC** | **Nalytchevo** | **1.30** | **250** | PN | **Pn** | **19 34 32.9** | **-0.5** |
| NLC | | | | S | **Sn** | **19 34 49.6** | **0.0** |
| **NLC** | **Nalytchevo** | **1.30** | **250** | *e*P | **Pn** | **19 34 32.9** | **-0.5** |
| NLC | | | | *e*S | **Sn** | **19 34 49.6** | **0.0** |
| **SDLR** | **Sedlovina** | **1.53** | **257** | PN | **Pn** | **19 34 36.7** | **0.0** |
| SDLR | | | | S | **Sn** | **19 34 55.4** | **-0.1** |
| **SDLR** | **Sedlovina** | **1.53** | **257** | *e*P | **Pn** | **19 34 36.7** | **0.0** |
| SDLR | | | | *e*S | **Sn** | **19 34 55.4** | **-0.1** |
| **UGLR** | **Uglovaya** | **1.59** | **255** | PN | **Pn** | **19 34 37.8** | **+0.3** |
| UGLR | | | | S | **Sn** | **19 34 58.0** | **+1.2** |
| **UGLR** | **Uglovaya** | **1.59** | **255** | *e*P | **Pn** | **19 34 37.8** | **+0.3** |
| UGLR | | | | *e*S | **Sn** | **19 34 58.0** | **+1.2** |
| **KZV** | **Kizimen** | **1.60** | **337** | PN | **Pn** | **19 34 37.7** | **0.0** |
| KZV | | | | S | **Sn** | **19 34 58.0** | **+0.7** |
| **KZV** | **Kizimen** | **1.60** | **337** | *e*P | **Pn** | **19 34 37.7** | **0.0** |
| KZV | | | | *e*S | **Sn** | **19 34 58.0** | **+0.7** |
| **KRER** | **Koryakskii** | **1.60** | **259** | PN | **Pn** | **19 34 38.2** | **+0.4** |
| KRER | | | | S | **Sn** | **19 34 57.8** | **+0.4** |
| **KRER** | **Koryakskii** | **1.60** | **259** | *e*P | **Pn** | **19 34 38.2** | **+0.4** |
| KRER | | | | *e*S | **Sn** | **19 34 57.8** | **+0.4** |
| **AVH** | **Avacha** | **1.62** | **258** | PN | **Pn** | **19 34 38.3** | **+0.4** |
| AVH | | | | S | **Sn** | **19 34 58.8** | **+1.2** |
| **AVH** | **Avacha** | **1.62** | **258** | *e*P | **Pn** | **19 34 38.3** | **+0.4** |
| AVH | | | | *e*S | **Sn** | **19 34 58.8** | **+1.2** |
| **KRX** | **Arik** | **1.65** | **261** | PN | **Pn** | **19 34 38.5** | **+0.1** |
| KRX | | | | S | **Sn** | **19 34 58.7** | **+0.2** |
| **KRX** | **Arik** | **1.65** | **261** | *e*P | **Pn** | **19 34 38.5** | **+0.1** |
| KRX | | | | *e*S | **Sn** | **19 34 58.7** | **+0.2** |
| **KOK** | **Koryaka** | **1.67** | **259** | PN | **Pn** | **19 34 39.1** | **+0.4** |
| **KOK** | **Koryaka** | **1.67** | **259** | *e*P | **Pn** | **19 34 39.1** | **+0.4** |
| **DALK** | **Dalny** | **1.69** | **250** | PN | **Pn** | **19 34 38.7** | **0.0** |
| DALK | | | | S | **Sn** | **19 34 59.3** | **+0.2** |
| **DALK** | **Dalny** | **1.69** | **250** | *e*P | **Pn** | **19 34 38.7** | **0.0** |
| DALK | | | | *e*S | **Sn** | **19 34 59.3** | **+0.2** |
| **PET** | **Petropavlovsk** | **1.75** | **250** | *e*PN | **Pn** | **19 34 39.6** | **+0.1** |
| PET | | | | *e*S | **Sn** | **19 34 59.6** | **-0.9** |
| PET | | | | pmax | pmax | | |
| | comp=Z,81nm,0.5s | | | | | | |
| PET | | | | smax | smax | | |
| | comp=N,600nm,0.5s | | | | | | |
| PET | | | | smax | smax | | |
| | comp=N,786nm,0.5s | | | | | | |
| **PET** | **Petropavlovsk** | **1.75** | **250** | *e*P | **Pn** | **19 34 39.8** | **+0.3** |
| PET | | | | *e*S | **Sn** | **19 35 00.9** | **+0.4** |
| **TUMR** | **Tumrok** | **1.79** | **337** | PN | **Pn** | **19 34 40.8** | **+0.5** |
| TUMR | | | | S | **Sn** | **19 35 02.5** | **+0.6** |
| **TUMR** | **Tumrok** | **1.79** | **337** | *e*P | **Pn** | **19 34 40.8** | **+0.5** |
| TUMR | | | | *e*S | **Sn** | **19 35 02.5** | **+0.6** |
| **GNL** | **Ganaly** | **2.04** | **273** | PN | **Pn** | **19 34 44.8** | **+1.1** |
| GNL | | | | S | **Sn** | **19 35 10.1** | **+2.1** |
| **GNL** | **Ganaly** | **2.04** | **273** | *e*P | **Pn** | **19 34 44.8** | **+1.1** |
| GNL | | | | *e*S | **Sn** | **19 35 10.1** | **+2.1** |
| **RUS** | **Russkaya** | **2.11** | **236** | PN | **Pn** | **19 34 44.4** | **-0.1** |
| RUS | | | | S | **Sn** | **19 35 09.1** | **-0.4** |
| **RUS** | **Russkaya** | **2.11** | **236** | *e*P | **Pn** | **19 34 44.4** | **-0.1** |
| RUS | | | | *e*S | **Sn** | **19 35 09.1** | **-0.4** |
| **KRMR** | **Karymshinskiy** | **2.11** | **249** | PN | **Pn** | **19 34 45.3** | **+0.7** |
| KRMR | | | | S | **Sn** | **19 35 11.4** | **+1.8** |
| **KRMR** | **Karymshinskiy** | **2.11** | **249** | *e*P | **Pn** | **19 34 45.3** | **+0.7** |
| KRMR | | | | *e*S | **Sn** | **19 35 11.4** | **+1.8** |
| **KMNR** | **Kamenistaya** | **2.22** | **343** | PN | **Pn** | **19 34 47.3** | **+1.2** |
| KMNR | | | | S | **Sn** | **19 35 13.9** | **+1.6** |
| **KMNR** | **Kamenistaya** | **2.22** | **343** | *e*P | **Pn** | **19 34 47.3** | **+1.2** |
| KMNR | | | | *e*S | **Sn** | **19 35 13.9** | **+1.6** |
| **MTVR** | **Mutnovka** | **2.25** | **240** | PN | **Pn** | **19 34 47.1** | **+0.5** |
| MTVR | | | | S | **Sn** | **19 35 13.9** | **+0.7** |
| **MTVR** | **Mutnovka** | **2.25** | **240** | *e*P | **Pn** | **19 34 47.1** | **+0.5** |
| MTVR | | | | *e*S | **Sn** | **19 35 13.9** | **+0.7** |
| **PETK** | **Petropavlovsk-** | **2.27** | **258** | P | **Pn** | **19 34 47.9** | **+1.2** |
| | comp=N,14nm,0.3s,baz=73,slow=18,SNR=144 | | | | | | |
| PETK | | | | S | **Sn** | **19 35 16.9** | **+3.6** |
| | comp=N,23nm,0.3s,baz=90,slow=19,SNR=7.4 | | | | | | |
| **GRL** | **Gorelyy** | **2.27** | **243** | PN | **Pn** | **19 34 49.2** | **+2.3** |
| GRL | | | | S | **Sn** | **19 35 16.0** | **+2.3** |
| **GRL** | **Gorelyy** | **2.27** | **243** | *e*P | **Pn** | **19 34 49.2** | **+2.3** |
| GRL | | | | *e*S | **Sn** | **19 35 16.0** | **+2.3** |
| **BZMR** | **Bezymyannaya** | **2.35** | **348** | PN | **Pn** | **19 34 49.3** | **+1.3** |
| **BZMR** | **Bezymyannaya** | **2.35** | **348** | *e*P | **Pn** | **19 34 49.3** | **+1.3** |
| **BZWR** | **Bezymyannyi-We** | **2.38** | **348** | PN | **Pn** | **19 34 49.8** | **+1.4** |
| **BZWR** | **Bezymyannyi-We** | **2.38** | **348** | *e*P | **Pn** | **19 34 49.8** | **+1.4** |
| **KIRR** | **Kirishev** | **2.39** | **346** | PN | **Pn** | **19 34 50.1** | **+1.5** |
| KIRR | | | | S | **Sn** | **19 35 19.9** | **+3.2** |
| **KIRR** | **Kirishev** | **2.39** | **346** | *e*P | **Pn** | **19 34 50.1** | **+1.5** |
| KIRR | | | | *e*S | **Sn** | **19 35 19.9** | **+3.2** |
| **ZLN** | **Zelenaya** | **2.40** | **352** | PN | **Pn** | **19 34 49.9** | **+1.2** |
| ZLN | | | | S | **Sn** | **19 35 18.7** | **+1.8** |
| **ZLN** | **Zelenaya** | **2.40** | **352** | *e*P | **Pn** | **19 34 49.9** | **+1.2** |
| ZLN | | | | *e*S | **Sn** | **19 35 18.7** | **+1.8** |
| **KPT** | **Kopyto** | **2.42** | **345** | PN | **Pn** | **19 34 50.2** | **+1.3** |
| **KPT** | **Kopyto** | **2.42** | **345** | *e*P | **Pn** | **19 34 50.2** | **+1.3** |
| **ASAK** | **Asacha** | **2.45** | **240** | PN | **Pn** | **19 34 51.9** | **+2.6** |
| ASAK | | | | S | **Sn** | **19 35 21.3** | **+3.3** |
| **ASAK** | **Asacha** | **2.45** | **240** | *e*P | **Pn** | **19 34 51.9** | **+2.6** |
| ASAK | | | | *e*S | **Sn** | **19 35 21.3** | **+3.3** |
| **CIRR** | **Tsirk** | **2.50** | **352** | PN | **Pn** | **19 34 51.5** | **+1.4** |
| **CIRR** | **Tsirk** | **2.50** | **352** | *e*P | **Pn** | **19 34 51.5** | **+1.4** |
| **KOZ** | **Kozyrevsk** | **2.57** | **341** | PN | **Pn** | **19 34 51.2** | **+0.3** |
| KOZ | | | | S | **Sn** | **19 35 21.6** | **+0.7** |
| **KOZ** | **Kozyrevsk** | **2.57** | **341** | *e*P | **Pn** | **19 34 51.2** | **+0.3** |
| KOZ | | | | *e*S | **Sn** | **19 35 21.6** | **+0.7** |
| **KRSR** | **Krestovskiy** | **2.62** | **350** | PN | **Pn** | **19 34 52.2** | **+0.5** |
| **KRSR** | **Krestovskiy** | **2.62** | **350** | *e*P | **Pn** | **19 34 52.2** | **+0.5** |
| **KBTR** | **Krutoberegovo** | **2.70** | **17** | PN | **Pn** | **19 34 54.0** | **+1.3** |
| KBTR | | | | S | **Sn** | **19 35 27.3** | **+3.2** |
| **KBTR** | **Krutoberegovo** | **2.70** | **17** | *e*P | **Pn** | **19 34 54.0** | **+1.3** |
| KBTR | | | | *e*S | **Sn** | **19 35 27.3** | **+3.2** |
| **KLY** | **Klyuchi** | **2.71** | **351** | PN | **Pn** | **19 34 53.2** | **+0.5** |
| KLY | | | | S | **Sn** | **19 35 24.7** | **+0.5** |
| **KLY** | **Klyuchi** | **2.71** | **351** | *e*P | **Pn** | **19 34 53.2** | **+0.5** |
| KLY | | | | *e*S | **Sn** | **19 35 24.7** | **+0.5** |
| **KDTR** | **Khodutka, Kamc** | **2.72** | **229** | *e*P | **Pn** | **19 34 54.3** | **+1.4** |
| KDTR | | | | *e*S | **Sn** | **19 35 26.6** | **+2.1** |
| **ESO** | **Esso** | **2.76** | **327** | PN | **Pn** | **19 34 53.9** | **+0.4** |
| ESO | | | | S | **Sn** | **19 35 26.9** | **+1.3** |
| **ESO** | **Esso** | **2.76** | **327** | *e*P | **Pn** | **19 34 53.9** | **+0.4** |
| ESO | | | | *e*S | **Sn** | **19 35 26.9** | **+1.3** |
| **BDR** | **Baidarnaya** | **2.93** | **358** | PN | **Pn** | **19 34 57.5** | **+1.6** |
| BDR | | | | S | **Sn** | **19 35 33.2** | **+3.3** |
| **BDR** | **Baidarnaya** | **2.93** | **358** | *e*P | **Pn** | **19 34 57.5** | **+1.6** |
| BDR | | | | *e*S | **Sn** | **19 35 33.2** | **+3.3** |
| **SMKR** | **Semkarok** | **2.95** | **1** | PN | **Pn** | **19 34 57.1** | **+1.0** |
| SMKR | | | | S | **Sn** | **19 35 34.1** | **+3.9** |
| **SMKR** | **Semkarok** | **2.95** | **1** | *e*P | **Pn** | **19 34 57.1** | **+1.0** |
| SMKR | | | | *e*S | **Sn** | **19 35 34.1** | **+3.9** |
| **SRKR** | **Sorokina** | **3.02** | **358** | PN | **Pn** | **19 34 59.0** | **+1.9** |
| **SRKR** | **Sorokina** | **3.02** | **358** | *e*P | **Pn** | **19 34 59.0** | **+1.9** |
| **BKI** | **Bering** | **3.11** | **58** | *e*S | **Sn** | **19 35 31.2** | **-2.9** |
| **MJA0** | **Matsu Arr-Jizo** | **23.47** | **233** | *e*P | **P** | **19 39 22.7** | **+5.1** |
| **MJAR** | **Matsushiro Arr** | **23.49** | **233** | P | **P** | **19 39 19.9** | **+2.1** |
| | comp=N,1.8nm,0.8s,baz=330,slow=7.0,SNR=7.2 | | | | | | |
| **ILAR** | **Eielson Array** | **27.88** | **46** | pP | pP | 19 40 13.9 | +5.6 |
| | comp=N,0.4nm,0.7s,baz=278,slow=6.8,SNR=3.1 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **34.12** | **171** | T | T | 20 17 27.0 | |
| | baz=354,slow=76,SNR=27 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **34.13** | **171** | T | T | 20 17 25.9 | |
| | baz=354,slow=76,SNR=25 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **34.13** | **171** | T | T | 20 17 21.6 | |
| | baz=354,slow=76,SNR=28 | | | | | | |
| **KURK** | **Kurchatov** | **48.09** | **302** | P | **P** | **19 42 44.8** | **-2.2** |
| KURK | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.5s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **48.19** | **302** | P | **P** | **19 42 44.8** | **-3.0** |
| | comp=Z,0.5nm,0.5s,baz=57,slow=7.8,SNR=3.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **48.60** | **296** | P | **P** | **19 42 49.0** | **-2.1** |
| | comp=Z,0.4nm,0.5s,baz=59,slow=7.9,SNR=7.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **48.60** | **296** | P | **P** | **19 42 49.0** | **-2.1** |
| **CMAR** | **Chiang Mai Arr** | **59.04** | **259** | P | **P** | **19 44 08.2** | **+0.5** |
| | comp=Z,0.5nm,0.7s,baz=31,slow=7.3,SNR=4.7 | | | | | | |
| **FINES** | **FINESS Array B** | **59.91** | **337** | P | **P** | **19 44 11.6** | **-1.5** |
| | comp=Z,6.6nm,1.1s,baz=37,slow=7.1,SNR=3.9 | | | | | | |
| **NOA** | **NORSAR Array B** | **63.22** | **344** | P | **P** | **19 44 34.0** | **-1.4** |
| | comp=Z,1.9nm,0.9s,baz=24,slow=6.6,SNR=2.9 | | | | | | |
| **NOA** | **NORSAR Array B** | **63.22** | **344** | P | **P** | **19 44 34.0** | **-1.4** |
| NOA | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.8s | | | | | | |
| **GEYT** | **Alibeck** | **67.43** | **304** | P | **P** | **19 45 01.9** | **-1.1** |
| | comp=Z,3.7nm,0.7s,baz=44,slow=4.8,SNR=3.9 | | | | | | |
| **AKASG** | **Malin Array Be** | **68.53** | **330** | P | **P** | **19 45 09.0** | **-0.6** |
| | comp=Z,0.2nm,0.4s,baz=19,slow=5.9,SNR=3.1 | | | | | | |
| **TXAR** | **Lajitas Array** | **69.72** | **68** | P | **P** | **19 45 20.3** | **+2.8** |
| | comp=Z,0.2nm,0.5s,baz=303,slow=5.0,SNR=2.7 | | | | | | |
| **GERES** | **GERESS Array B** | **74.29** | **338** | P | **P** | **19 45 45.0** | **+0.4** |
| | comp=Z,0.3nm,0.5s,baz=21,slow=5.7,SNR=2.8 | | | | | | |
| **GERES** | **GERESS Array B** | **74.29** | **338** | P | **P** | **19 45 45.0** | **+0.4** |
| **BRTR** | **Keskin Array B** | **76.68** | **321** | P | **P** | **19 45 56.1** | **-2.4** |
| | comp=Z,0.3nm,0.5s,baz=66,slow=3.6,SNR=2.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **76.91** | **206** | P | **P** | **19 46 01.8** | **+2.1** |
| | comp=Z,0.3nm,0.8s,baz=19,slow=6.2,SNR=3.0 | | | | | | |
| WRA | | | | pP | **sP** | **19 46 15.4** | **-1.0** |
| | comp=Z,0.9nm,1.0s,baz=19,slow=6.2,SNR=4.1 | | | | | | |
| **ASAR** | **Alice Springs** | **80.58** | **205** | P | **P** | **19 46 21.5** | **+1.8** |
| | comp=Z,0.3nm,0.6s,baz=18,slow=4.8,SNR=5.2 | | | | | | |
| ASAR | | | | pP | **sP** | **19 46 36.2** | **-0.3** |
| | comp=Z,0.8nm,0.7s,baz=17,slow=6.1,SNR=6.6 | | | | | | |

*ISCJB **10** 19:34:29.6±0.4, 43°.83N±0°.04×105°.23W±0°.05, h0km, mb3.9/1, Error ellipse: s-maj=5.6km s-min=5.2km az=23.9*
*IDC **10** 19:34:30.4±2.1, 43°.66N×105°.39W, h0km, mb3.9/1, mb1 3.7/4, mb1mx3.4/45, mbtmp3.6/4, ML3.4/3, Error ellipse: s-maj=52.2km s-min=8.6km az=151.0*
*NEIC **10** 19:34:31.4±0.3, 43°.80N×105°.27W, h0km, ML3.1, Error ellipse: s-maj=4.9km s-min=4.5km az=189.0, Suspected Mining explosion.*
*NEIC 57 km [36 miles] SSE of Gillette.*
**ISC 10 19:34:31.1**±0.9**, 43°.78N**±0°.07×**105°.30W**±0°.07**, h0**km**, n38,** σ1s**05**/37**, Wyoming**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RSSD** | **Black Hills** | **0.97** | **69** | *e*Pg | **Pg** | **19 34 49.6** | **-0.1** |
| **K22A** | **Casper** | **1.44** | **219** | P | **Pn** | **19 34 57.5** | **-1.1** |
| | baz=38 | | | | | | |
| **K22A** | **Casper** | **1.44** | **219** | *e*Pn | **Pn** | **19 34 57.0** | **-1.6** |
| **PHWY** | **Pilot Hill** | **2.48** | **183** | *e*Pn | **Pn** | **19 35 13.4** | **+0.4** |
| **RWWY** | **Rawlins** | **2.52** | **215** | *e*Pn | **Pn** | **19 35 14.8** | **+1.3** |
| **N23A** | **Red Feather La** | **2.92** | **190** | P | **Pn** | **19 35 19.7** | **+0.7** |
| | baz=9.4 | | | | | | |
| **RLMT** | **Red Lodge** | **3.15** | **297** | *e*Pn | **Pn** | **19 35 22.2** | **+0.2** |
| **BW06** | **Boulder Array** | **3.27** | **253** | *e*Pn | **Pn** | **19 35 24.2** | **+0.4** |
| **PDAR** | **Pinedale Array** | **3.27** | **253** | Pn | **Pn** | **19 35 24.7** | **+0.8** |
| | 3.9nm,0.3s,baz=78,slow=15,SNR=70 | | | | | | |
| PDAR | | | | Lg | Lg | 19 36 10.3 | |
| | 13nm,0.3s,baz=74,slow=30,SNR=13 | | | | | | |
| **LKWY** | **Lake** | **3.76** | **284** | *e*Pn | **Pn** | **19 35 30.1** | **-0.4** |
| **H17A** | **Grant Village** | **3.85** | **281** | P | **Pn** | **19 35 32.7** | **+0.9** |
| | baz=97 | | | | | | |
| **H17A** | **Grant Village** | **3.85** | **281** | *e*Pn | **Pn** | **19 35 33.4** | **+1.6** |
| **LOHW** | **Long Hollow** | **3.85** | **269** | *e*Pn | **Pn** | **19 35 30.6** | **-1.1** |
| **MOOW** | **Moose Ponds** | **3.95** | **271** | *e*Pn | **Pn** | **19 35 34.8** | **+1.7** |
| **SNOW** | **Snow King Moun** | **3.98** | **267** | *e*Pn | **Pn** | **19 35 32.5** | **-1.0** |
| **ISCO** | **Idaho Springs** | **3.98** | **184** | *e*Pn | **Pn** | **19 35 34.4** | **+0.7** |
| **REDW** | **Red Top Meadow** | **4.06** | **266** | *e*Pn | **Pn** | **19 35 35.1** | **+0.5** |
| **IMW** | **Indian Meadow** | **4.08** | **274** | *e*Pn | **Pn** | **19 35 36.6** | **+1.5** |
| **TPAW** | **Teton Pass** | **4.12** | **268** | *e*Pn | **Pn** | **19 35 35.9** | **+0.4** |
| **O20A** | **White River Ci** | **4.25** | **212** | *e*Pn | **Pn** | **19 35 38.0** | **+0.7** |
| **AHID** | **Auburn Hatcher** | **4.36** | **259** | *e*Pn | **Pn** | **19 35 39.6** | **+0.9** |
| **SMCO** | **Snowmass** | **4.77** | **196** | *e*Pn | **Pn** | **19 35 44.2** | **-0.3** |
| **BOZ** | **Bozeman (W)** | **4.87** | **294** | *e*Pn | **Pn** | **19 35 46.3** | **+0.6** |
| **KSCO** | **Kaye Shedlock'** | **5.17** | **156** | *e*Pn | **Pn** | **19 35 49.6** | **-0.2** |
| | 50nm,0.4s | | | | | | |
| **EGMT** | **Eagleton** | **5.26** | **325** | *e*Pn | **Pn** | **19 35 50.9** | **-0.1** |
| | 17nm,0.4s | | | | | | |
| **DLMT** | **Dillon** | **5.45** | **289** | *e*Pn | **Pn** | **19 35 55.5** | **+1.9** |
| | 3.1nm,0.5s | | | | | | |
| **BGNE** | **Belgrade** | **5.78** | **112** | *e*Pn | **Pn** | **19 35 59.9** | **+1.8** |
| | 48nm,0.4s | | | | | | |
| **SDCO** | **Great Sand Dun** | **6.03** | **182** | *e*Pn | **Pn** | **19 36 02.1** | **+0.4** |
| | 2.2nm,0.8s | | | | | | |
| **PV04** | **Paradox Valley** | **6.03** | **208** | *e*Pn | **Pn** | **19 36 02.3** | **+0.6** |
| **PV01** | **Paradox Valley** | **6.16** | **205** | *e*Pn | **Pn** | **19 36 04.5** | **+1.0** |
| | 287nm,0.5s | | | | | | |
| **CBKS** | **Cedar Bluff** | **6.49** | **138** | *e*Pn | **Pn** | **19 36 07.7** | **-0.1** |
| | 20nm,0.5s | | | | | | |
| **DUG** | **Dugway, Tooele** | **6.65** | **240** | *e*Pn | **Pn** | **19 36 10.4** | **+0.3** |
| | 5.6nm,1.0s | | | | | | |
| **MVCO** | **Mesa Verde** | **7.00** | **201** | *e*Pn | **Pn** | **19 36 17.6** | **+2.6** |
| | 3.5nm,0.5s | | | | | | |
| **AGMN** | **Agassiz Nation** | **7.97** | **52** | *e*Pn | **Pn** | **19 36 28.1** | **+0.1** |
| | 12nm,0.5s | | | | | | |
| **I10CA** | **LAC DU BONNET** | **9.02** | **41** | *i* | | 20 30 10.0 | |
| | baz=219,slow=320,SNR=2.5 | | | | | | |
| **ULM** | **Lac du Bonnet** | **9.12** | **42** | Pn | **Pn** | **19 36 43.5** | **-0.4** |
| | 1.5nm,0.3s,baz=235,slow=13,SNR=16 | | | | | | |
| ULM | | | | Pg | | 19 37 17.5 | |
| | 1.7nm,0.3s,baz=225,slow=13,SNR=6.2 | | | | | | |
| ULM | | | | Lg | Lg | 19 39 14.4 | |
| | 0.9nm,0.3s,baz=128,slow=22,SNR=4.6 | | | | | | |
| **YKA** | **Yellowknife Ar** | **19.52** | **347** | P | **P** | **19 38 58.7** | **-1.0** |
| | 0.1nm,0.3s,baz=157,slow=11,SNR=5.6 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **82.26** | **354** | P | **P** | **19 46 53.1** | **-0.8** |
| | 0.3nm,0.3s,baz=1.4,slow=6.1,SNR=3.5 | | | | | | |

**MEX 10 19:38:49.4**±0.9**, 13°.86N**×**92°.55W, h20**km±173km**, MD4.0, Off coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PCIG** | | **1.94** | **341** | *e*P | Pn | 19 39 18.2 | -3.1 |
| PCIG | | | | *e*S | Sn | 19 39 40.5 | -4.6 |
| **CCIG** | **Comitan** | **2.44** | **9** | *e*P | Pn | 19 39 27.9 | -0.4 |
| CCIG | | | | *e*S | Sn | 19 39 57.3 | -0.4 |
| **TGIG** | | **2.95** | **349** | *e*P | Pn | 19 39 32.7 | -2.5 |

*IDC **10** 19:44:59.1±0.9, 43°.39N×82°.11E, h0km, mb3.6/5, mb1 3.7/11, mb1mx3.5/47, mbtmp3.6/11, ML3.1/6, Error ellipse: s-maj=17.8km s-min=10.8km az=85.0*
*SOME **10** 19:44:59.5, 43°.57N×82°.62E, h25km*
*BJI **10** 19:45:00.8, 43°.37N×82°.53E, h7km, ML3.6/8*
*MOS **10** 19:45:03.7±1.7, 43°.50N×82°.29E, h33km, mb4.2/2, Error ellipse: s-maj=14.0km s-min=8.7km az=97.7*
*NNC **10** 19:45:03.6±2.0, 43°.53N×82°.17E, h2km±8km, mb4.0, mpv3.7, Error ellipse: s-maj=18.2km s-min=6.4km az=128.0*
**ISC 10 19:45:01.0**±0.8**, 43°.61N**±0°.05×**82°.59E**±0°.05**, h10**km**, n48,** σ2s**12**/65**, mb3.5**/5**, 18C-8D, Northern Xinjiang**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KTMS** | **Ketmen** | **1.64** | **265** | *e*P | **Pn** | **19 45 29.3** | **-0.7** |
| | 280nm,0.2s | | | | | | |
| KTMS | | | | *e*S | **Sb** | **19 45 51.1** | **-1.0** |
| | 900nm,0.4s | | | | | | |
| **DJR** | **Jarkent** | **2.15** | **291** | *e*P | **Pb** | **19 45 38.9** | **-1.2** |
| | 700nm,0.4s | | | | | | |
| DJR | | | | *e*S | **Sg** | **19 46 08.6** | **-1.4** |
| | 479nm,0.3s | | | | | | |
| **PDGK** | **Podgornoye** | **2.27** | **264** | ⇑Pn | **Pn** | **19 45 38.1** | **-0.6** |
| | 302nm,0.4s | | | | | | |
| PDGK | | | | ⇑Lg | Lg | 19 46 08.2 | |
| | 2µm,0.6s | | | | | | |
| **PDGK** | **Podgornoye** | **2.27** | **264** | PN | **Pn** | **19 45 38.0** | **-0.8** |
| **KAPS** | **Kapalarasan** | **2.86** | **307** | *e*P | **Pb** | **19 45 51.3** | **-0.8** |
| | 17nm,0.2s | | | | | | |
| KAPS | | | | *e*S | **Sb** | **19 46 28.4** | **+1.1** |
| | 342nm,0.4s | | | | | | |
| **SATY** | **Saty** | **3.10** | **261** | *e*P | **Pb** | **19 45 53.8** | **-2.6** |
| | 77nm,0.2s | | | | | | |
| SATY | | | | *e*S | **Sb** | **19 46 32.7** | **-1.5** |
| | 931nm,0.3s | | | | | | |
| **MK31** | **Makanchi Array** | **3.19** | **356** | ⇑Pn | **Pb** | **19 45 56.0** | **-1.9** |
| | 0.3nm,0.2s,baz=200,slow=15,SNR=509 | | | | | | |
| MK31 | | | | ⇑Pg | **Pg** | **19 46 02.5** | **+0.3** |
| | 6.2nm,0.3s,baz=176,slow=16,SNR=51 | | | | | | |
| MK31 | | | | ⇑Lg | Lg | 19 46 46.5 | |
| | 120nm,0.6s,baz=177,slow=29,SNR=6.0 | | | | | | |
| **MK31** | **Makanchi Array** | **3.19** | **356** | *e*PN | **Pb** | **19 45 56.0** | **-1.9** |
| **MKAR** | **Makanchi Array** | **3.19** | **356** | Pn | **Pb** | **19 45 55.3** | **-2.6** |
| | 0.8nm,0.3s,baz=183,slow=15,SNR=73 | | | | | | |
| MKAR | | | | Pg | **Pg** | **19 46 02.0** | **-0.2** |
| | 8.0nm,0.3s,baz=162,slow=17,SNR=62 | | | | | | |
| MKAR | | | | Lg | Lg | 19 46 45.5 | |
| | 23nm,0.3s,baz=179,slow=29,SNR=11 | | | | | | |
| **KURS** | **Kuram** | **3.21** | **269** | *e*P | **Pb** | **19 45 56.9** | **-1.4** |
| KURS | | | | *e*S | **Sb** | **19 46 36.8** | **-0.7** |
| **MAKZ** | **Makanchi** | **3.23** | **353** | ⇓Pn | **Pb** | **19 45 56.8** | **-1.7** |
| | 14nm,1.1s | | | | | | |
| MAKZ | | | | ⇑Pg | **Pg** | **19 46 04.6** | **+1.7** |
| | 20nm,0.7s | | | | | | |
| MAKZ | | | | ⇓Sn | **Sb** | **19 46 37.3** | **-0.6** |
| | 14nm,0.3s | | | | | | |
| MAKZ | | | | ⇑Lg | Lg | 19 46 49.2 | |
| | 70nm,0.7s | | | | | | |
| **MAKZ** | **Makanchi** | **3.23** | **353** | PN | **Pb** | **19 45 56.0** | **-2.5** |
| **WMQ** | **Urumqi** | **3.71** | **85** | Pn | **Pb** | **19 46 03.1** | **-3.5** |
| WMQ | | | | smax | smax | | |
| | comp=N,73nm,0.5s | | | | | | |
| WMQ | | | | smax | smax | | |
| | comp=E,95nm,0.5s | | | | | | |
| **KOTS** | **Kotyrbulak** | **4.01** | **267** | *e*P | **Pb** | **19 46 11.7** | **-0.1** |
| KOTS | | | | *e*S | **Sb** | **19 47 02.6** | **+2.2** |
| **CHKK** | **Chushkaly** | **4.07** | **275** | *e*P | **Pb** | **19 46 13.3** | **+0.5** |
| | 42nm,0.4s | | | | | | |
| CHKK | | | | *e*S | **Sg** | **19 47 06.1** | **-5.5** |
| | 429nm,0.3s | | | | | | |
| **AAA** | **Alma-Ata** | **4.15** | **266** | *e*PN | **Pb** | **19 46 14.1** | **-0.1** |
| AAA | | | | *e*S | **Sg** | **19 47 08.5** | **-5.9** |
| AAA | | | | pmax | pmax | | |
| | comp=Z,143nm,0.6s | | | | | | |
| AAA | | | | smax | smax | | |
| | comp=E,342nm,0.4s | | | | | | |
| **IZV** | **Izvestkoviy** | **4.40** | **265** | *e*P | **Pb** | **19 46 18.5** | **+0.1** |
| | comp=E,52nm,0.5s | | | | | | |
| IZV | | | | *e*S | **Sb** | **19 47 15.1** | **+3.5** |
| | comp=E,238nm,0.5s | | | | | | |
| **ULHL** | **Ulahol** | **4.86** | **256** | ⇑P | **Pn** | **19 46 12.6** | **-1.7** |
| | comp=E,1.5nm,0.2s,SNR=11 | | | | | | |
| **DGS** | **Degeres** | **4.98** | **268** | *e*P | **Pb** | **19 46 28.1** | **-0.2** |
| | comp=E,24nm,0.5s | | | | | | |
| DGS | | | | *e*S | **Sb** | **19 47 32.0** | **+3.8** |
| | comp=E,136nm,0.6s | | | | | | |
| **TKM2** | **Tokmak 2** | **5.15** | **265** | ⇑Pg | **Pb** | **19 46 30.6** | **-0.7** |
| | comp=E,14nm,0.6s | | | | | | |
| TKM2 | | | | ⇑Lg | Lg | 19 47 36.9 | |
| | comp=E,87nm,0.6s | | | | | | |
| **TKM2** | **Tokmak 2** | **5.15** | **265** | PN | **Pb** | **19 46 30.6** | **-0.7** |
| **TKM2** | **Tokmak 2** | **5.15** | **265** | P | **Pn** | **19 46 17.9** | **-0.5** |
| | comp=E,8.8nm,0.3s,SNR=12 | | | | | | |
| **KBK** | **Karagaybulak** | **5.67** | **263** | ⇑P | **Pn** | **19 46 25.0** | **-0.5** |
| | comp=E,2.0nm,0.3s,SNR=7.5 | | | | | | |
| **FRU** | **Bishkek** | **5.88** | **265** | *e*PN | **Pb** | **19 46 44.0** | **+0.4** |
| FRU | | | | *i* S | **Sb** | **19 47 59.0** | **+5.0** |
| FRU | | | | pmax | pmax | | |
| | comp=Z,20nm,1.5s | | | | | | |
| FRU | | | | smax | smax | | |
| | comp=E,140nm,1.6s | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **USP** | **Ospenovka** | **5.90** | **269** | ⇑P | **Pn** | **19 46 27.8** | **-0.8** |
| | comp=E,0.9nm,0.2s,SNR=5.9 | | | | | | |
| **AAK** | **Ala-Archa** | **6.00** | **263** | Pn | **Pn** | **19 46 28.3** | **-1.8** |
| | comp=E,0.9nm,0.3s,baz=96,slow=7.0,SNR=11 | | | | | | |
| AAK | | | | Pg | **Pb** | **19 46 45.7** | **-0.1** |
| | comp=E,0.6nm,0.3s,baz=97,slow=11,SNR=5.8 | | | | | | |
| AAK | | | | Lg | Lg | 19 48 03.6 | |
| | comp=E,2.9nm,0.3s,baz=291,slow=19,SNR=8.7 | | | | | | |
| **AAK** | **Ala-Archa** | **6.00** | **263** | ⇓Pg | **Pb** | **19 46 46.3** | **+0.5** |
| | comp=E,12nm,0.6s | | | | | | |
| AAK | | | | ⇓Lg | Lg | 19 48 02.9 | |
| | comp=E,49nm,0.7s | | | | | | |
| **AAK** | **Ala-Archa** | **6.00** | **263** | d *i*PN | **Pn** | **19 46 29.3** | **-0.8** |
| **UCH** | **Uchtor** | **6.09** | **260** | ⇑P | **Pn** | **19 46 31.4** | **-0.1** |
| | comp=E,0.6nm,0.3s,SNR=5.4 | | | | | | |
| **DGZ** | **Jazzator, Alta** | **6.95** | **27** | ⇓*e*PN | Pn | 19 46 47.9 | +5.0 |
| **MNAS** | **Manas** | **7.47** | **265** | ⇑Pg | **Pb** | **19 47 12.6** | **+1.8** |
| | comp=E,4.1nm,0.9s | | | | | | |
| MNAS | | | | ⇑Lg | Lg | 19 48 48.1 | |
| | comp=E,14nm,0.8s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **7.54** | **340** | Pn | **Pn** | **19 46 52.6** | **+1.6** |
| | comp=E,0.4nm,0.3s,baz=162,slow=12,SNR=35 | | | | | | |
| KURBB | | | | Sn | **Sn** | **19 48 18.4** | **+2.0** |
| | comp=E,0.6nm,0.3s,baz=241,slow=27,SNR=20 | | | | | | |
| KURBB | | | | Lg | Lg | 19 48 59.9 | |
| | comp=E,0.6nm,0.3s,baz=162,slow=31,SNR=4.3 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **7.54** | **340** | ⇑Pn | **Pn** | **19 46 52.2** | **+1.2** |
| | comp=E,4.9nm,0.5s | | | | | | |
| KURBB | | | | ⇓Sn | **Sn** | **19 48 18.2** | **+1.7** |
| | comp=E,46nm,0.7s | | | | | | |
| KURBB | | | | ⇓Lg | Lg | 19 48 59.4 | |
| | comp=E,50nm,0.5s | | | | | | |
| **KURK** | **Kurchatov** | **7.61** | **341** | c *i*P | **Pn** | **19 46 54.0** | **+2.1** |
| **KK31** | **Karatay Array** | **8.82** | **271** | Pn | **Pn** | **19 47 10.8** | **+2.4** |
| | comp=E,0.4nm,0.4s,baz=79,slow=14,SNR=10 | | | | | | |
| KK31 | | | | ⇑Lg | Lg | 19 49 34.8 | |
| | comp=E,5.1nm,0.5s,baz=37,slow=74,SNR=4.1 | | | | | | |
| **KK31** | **Karatay Array** | **8.82** | **271** | P | **Pn** | **19 47 10.9** | **+2.4** |
| **ZALV** | **Zalesovo Beam** | **10.45** | **7** | Pn | Pn | 19 47 35.3 | +4.5 |
| | comp=E,0.3nm,0.3s,baz=200,slow=15,SNR=5.3 | | | | | | |
| ZALV | | | | Sn | **Sn** | **19 49 27.8** | **-0.1** |
| | comp=E,0.6nm,0.3s,baz=194,slow=24,SNR=4.7 | | | | | | |
| ZALV | | | | Lg | Lg | 19 50 37.1 | |
| | comp=E,0.2nm,0.3s,baz=180,slow=36,SNR=5.6 | | | | | | |
| **BVAR** | **Borovoye Array** | **12.42** | **324** | Pn | **Pn** | **19 47 59.1** | **+1.3** |
| | comp=E,0.1nm,0.3s,baz=137,slow=13,SNR=2.5 | | | | | | |
| BVAR | | | | Lg | Lg | 19 51 31.8 | |
| | comp=E,0.2nm,0.3s,baz=133,slow=28,SNR=2.7 | | | | | | |
| **SONM** | **Songino Array** | **17.13** | **67** | P | **P** | **19 49 06.1** | **+3.9** |
| | comp=E,0.2nm,0.3s,baz=284,slow=12,SNR=11 | | | | | | |
| **SONM** | **Songino Array** | **17.13** | **67** | *e*P | **P** | **19 49 06.6** | **+4.4** |
| **AKTO** | **Aktyubinsk** | **18.04** | **301** | P | **Pn** | **19 49 09.2** | **-2.4** |
| | comp=E,0.1nm,0.3s,baz=94,slow=13,SNR=3.1 | | | | | | |
| **ARCES** | **ARCESS Array B** | **38.54** | **332** | P | **P** | **19 52 23.2** | **-0.1** |
| | comp=E,2.0nm,0.7s,baz=91,slow=8.4,SNR=3.7 | | | | | | |
| **STHS** | **Stebnicka Huta** | **41.59** | **300** | *e*P | **P** | **19 52 50.3** | **+1.5** |
| **STHS** | **Stebnicka Huta** | **41.59** | **300** | *e*P | **P** | **19 52 50.3** | **+1.5** |
| **NOA** | **NORSAR Array B** | **44.50** | **319** | P | **P** | **19 53 11.0** | **-1.2** |
| | comp=E,0.5nm,0.5s,baz=80,slow=8.1,SNR=2.2 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **74.50** | **273** | P | **P** | **19 56 36.5** | **-3.5** |
| | comp=E,0.2nm,0.4s,baz=38,slow=4.4,SNR=7.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **79.05** | **131** | P | **P** | **19 57 06.1** | **+0.7** |
| | comp=E,0.2nm,0.5s,baz=330,slow=4.7,SNR=3.5 | | | | | | |
| **ASAR** | **Alice Springs** | **81.84** | **134** | P | **P** | **19 57 20.4** | **0.0** |
| | comp=E,0.2nm,0.6s,baz=325,slow=5.5,SNR=4.0 | | | | | | |

---

*DDA **10** 19:49:40.0, 38°.73N×43°.58E, h7km, Ml2.7*
*ISK **10** 19:49:41.0, 38°.86N×43°.51E, h5km, ML2.2*
*CSEM **10** 19:49:42.0±0.4, 38°.89N×43°.57E, h15km, ML2.7, Error ellipse: s-maj=9.7km s-min=7.0km az=119.0*
*ISCJB **10** 19:49:43.1±0.8, 38°.89N±0°.05×43°.53E±0°.08, h13km±6km, Error ellipse: s-maj=11.5km s-min=5.4km az=33.8*
**ISC 10 19:49:42.1**±1.0**, 38°.88N**±0°.04×**43°.55E**±0°.04**, h17**km±6km**, n15, σ0s.97**/26**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.11** | **11** | *i* P | **Pg** | **19 49 45.0** | **-0.9** |
| VMUR | | | | *i* S | **Sg** | **19 49 49.6** | **+1.1** |
| **VMUR** | **Van-Muradiye** | **0.11** | **11** | P | **Pg** | **19 49 45.0** | **-0.9** |
| VMUR | | | | S | **Sg** | **19 49 49.6** | **+1.1** |
| **VANB** | **Van** | **0.31** | **203** | *e*PG | **Pb** | **19 49 48.8** | **-0.5** |
| VANB | | | | *e*SG | **Sb** | **19 49 55.5** | **+1.4** |
| **VANB** | **Van** | **0.31** | **203** | *e*Pg | **Pb** | **19 49 48.8** | **-0.5** |
| VANB | | | | *e*Sg | **Sb** | **19 49 55.5** | **+1.4** |
| **CLDR** | **Caldiran** | **0.39** | **48** | *e*PG | **Pb** | **19 49 50.2** | **-0.6** |
| CLDR | | | | *e*SG | **Sb** | **19 49 57.8** | **+1.2** |
| **CLDR** | **Caldiran** | **0.39** | **48** | *i* P | **Pb** | **19 49 50.2** | **-0.6** |
| CLDR | | | | *i* S | **Sb** | **19 49 57.6** | **+1.0** |
| **CLDR** | **Caldiran** | **0.39** | **48** | P | **Pb** | **19 49 50.2** | **-0.6** |
| CLDR | | | | S | **Sb** | **19 49 57.6** | **+1.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.65** | **264** | *i* S | **Sb** | **19 50 04.8** | **+0.9** |
| **ADCV** | **BITLIS_Adilcev** | **0.65** | **264** | S | **Sb** | **19 50 04.8** | **+0.9** |
| **DYDN** | **Diyadin** | **0.67** | **10** | *i* P | **Pg** | **19 49 54.4** | **-1.0** |
| DYDN | | | | *i* S | **Sb** | **19 50 06.0** | **+1.4** |
| **DYDN** | **Diyadin** | **0.67** | **10** | P | **Pg** | **19 49 54.4** | **-1.0** |
| DYDN | | | | S | **Sb** | **19 50 06.1** | **+1.4** |
| **TUTA** | **Tutak** | **0.77** | **313** | *i* P | **Pn** | **19 49 58.3** | **-0.2** |
| TUTA | | | | *i* S | **Sg** | **19 50 07.3** | **-0.2** |
| **TUTA** | **Tutak** | **0.77** | **313** | P | **Pn** | **19 49 58.3** | **-0.2** |
| TUTA | | | | S | **Sg** | **19 50 07.3** | **-0.2** |
| **AGRB** | **Hanur-Agry** | **0.82** | **328** | *e*PG | **Pb** | **19 49 57.9** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **0.82** | **328** | *e*Pg | **Pb** | **19 49 57.9** | **-0.1** |

---

*IDC **10** 19:51:59.7±2.2, 19°.05N×145°.51E, h182km±22km, mb3.5/15, mb1 3.7/17, mb1mx3.6/42, mbtmp4.0/17, Error ellipse: s-maj=17.2km s-min=12.3km az=85.0*
*ISCJB **10** 19:52:01.2±0.5, 18°.95N±0°.06×145°.4E±0°.1, h214km, mb3.6/15, Error ellipse: s-maj=18.4km s-min=8.3km az=2.0*
**ISC 10 19:52:02.5**±0.7**, 18°.92N**±0°.08×**145°.5E**±0°.2**, h214**km**, n18, σ1s.19**/20**, mb3.6**/15**, Mariana Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GUMO** | **Guam** | **5.33** | **186** | P | **Pn** | **19 53 21.3** | **-0.1** |
| | 6.6nm,0.3s,baz=356,slow=15,SNR=2.9 | | | | | | |
| GUMO | | | | S | **S** | **19 54 21.2** | **-2.5** |
| | 6.1nm,0.3s,baz=17,slow=19,SNR=2.1 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **18.69** | **341** | P | **P** | **19 56 03.6** | **-1.2** |
| | 0.5nm,0.3s,baz=162,slow=9.7,SNR=11 | | | | | | |
| **KSRS** | **Korea Array** | **24.02** | **324** | P | **P** | **19 56 57.0** | **-0.8** |
| | 2.4nm,0.7s,baz=142,slow=9.5,SNR=6.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **40.13** | **196** | P | **P** | **19 59 19.3** | **+1.5** |
| | 11nm,0.7s,baz=22,slow=9.1,SNR=88 | | | | | | |
| **SONM** | **Songino Array** | **42.84** | **321** | P | **P** | **19 59 39.1** | **-0.5** |
| | 0.6nm,0.4s,baz=125,slow=6.6,SNR=15 | | | | | | |
| **ASAR** | **Alice Springs** | **43.80** | **195** | P | **P** | **19 59 48.4** | **+1.0** |
| | 1.5nm,0.7s,baz=14,slow=8.3,SNR=23 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **43.98** | **277** | P | **P** | **19 59 51.1** | **+2.2** |
| | 0.9nm,0.3s,baz=74,slow=5.9,SNR=4.9 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **57.72** | **322** | P | **P** | **20 01 30.0** | **-0.7** |
| | 0.3nm,0.4s,baz=114,slow=7.0,SNR=2.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **58.16** | **314** | P | **P** | **20 01 34.0** | **0.0** |
| | 0.5nm,0.6s,baz=87,slow=8.4,SNR=6.9 | | | | | | |
| MKAR | | | | PcP | **PcP** | **20 02 22.9** | **-0.2** |
| | 0.7nm,0.8s,baz=72,slow=4.7,SNR=2.8 | | | | | | |
| **ILAR** | **Eielson Array** | **63.55** | **26** | P | **P** | **20 02 09.2** | **-0.7** |
| | 0.8nm,0.3s,baz=257,slow=5.7,SNR=28 | | | | | | |
| **INK** | **Inuvik** | **69.26** | **23** | P | **P** | **20 02 45.8** | **-0.1** |
| | 0.7nm,0.5s,baz=266,slow=6.0,SNR=5.1 | | | | | | |
| **YKA** | **Yellowknife Ar** | **77.90** | **28** | P | **P** | **20 03 36.5** | **+0.2** |
| | 1.2nm,0.5s,baz=288,slow=5.4,SNR=19 | | | | | | |
| **YBH** | **Yreka Blue Hor** | **78.97** | **50** | P | **P** | **20 03 44.2** | **+1.4** |
| | 1.0nm,0.9s,baz=318,slow=6.2,SNR=3.7 | | | | | | |
| **NEW** | **Newport** | **80.89** | **42** | P | **P** | **20 03 53.3** | **+0.4** |
| | 0.6nm,0.6s,baz=284,slow=8.3,SNR=4.5 | | | | | | |
| **ELK** | **Elko** | **84.64** | **49** | P | **P** | **20 04 13.2** | **+0.7** |
| | 0.7nm,0.8s,baz=336,slow=10.0,SNR=6.2 | | | | | | |
| **FINES** | **FINESS Array B** | **86.60** | **335** | P | **P** | **20 04 19.8** | **-1.6** |
| | 5.5nm,1.0s,baz=57,slow=5.1,SNR=10 | | | | | | |
| **PDAR** | **Pinedale Array** | **87.82** | **45** | P | **P** | **20 04 28.4** | **+0.4** |
| | 0.2nm,0.5s,baz=193,slow=1.6,SNR=4.8 | | | | | | |
| **LPAZ** | **La Paz** | **147.89** | **91** | PKPbc | **PKPbc** | **20 11 24.6** | **+0.7** |
| | 0.5nm,0.6s,baz=315,slow=4.3,SNR=2.6 | | | | | | |

---

*JMA **10** 19:52:49.5±0.2, 22°.75N×121°.70E, h16km±4km, M3.5*
*ISCJB **10** 19:52:50.0±0.7, 22°.75N±0°.02×121°.72E±0°.02, h14km±5km, Error ellipse: s-maj=4.0km s-min=2.8km az=170.0*
*TAP **10** 19:52:52.1, 22°.78N×121°.56E, h23km, ML3.7, C*
**ISC 10 19:52:50.6**±1.2**, 22°.76N**±0°.03×**121°.68E**±0°.03**, h20**km±4km**,**
**n62, σ1s.03**/94**, 11C-1D, Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CHKT** | **Chengkung** | **0.45** | **320** | ⇑*i*P | **Pg** | **19 52 59.6** | **-0.2** |
| | baz=338 | | | | | | |
| CHKT | | | | *i* S | **Sg** | **19 53 04.9** | **-1.1** |
| | baz=338 | | | | | | |
| **TTN** | **Taitung** | **0.49** | **270** | *e*P | **Pg** | **19 53 00.1** | **-0.6** |
| | baz=265 | | | | | | |
| **TWG** | **Pinlang** | **0.56** | **277** | P | **Pg** | **19 53 01.1** | **-0.8** |
| | baz=281 | | | | | | |
| TWG | | | | *e*S | **Sg** | **19 53 08.9** | **-0.7** |
| | baz=281 | | | | | | |
| **ECL** | **Taimali** | **0.69** | **257** | ⇑*i*P | **Pb** | **19 53 03.2** | **-0.8** |
| | baz=251 | | | | | | |
| ECL | | | | S | **Sb** | **19 53 11.2** | **-1.8** |
| | baz=251 | | | | | | |
| **TWF1** | **Yuli** | **0.69** | **329** | ⇑*i*P | **Pb** | **19 53 03.7** | **-0.3** |
| | baz=345 | | | | | | |
| TWF1 | | | | S | **Sb** | **19 53 12.5** | **-0.6** |
| | baz=345 | | | | | | |
| **LAY** | **Lan-yu** | **0.72** | **189** | *e*P | **Pb** | **19 53 04.3** | **-0.4** |
| | baz=180 | | | | | | |
| **ELDTW** | **Lidau** | **0.74** | **305** | ⇑*i*P | **Pb** | **19 53 03.9** | **-1.1** |
| | baz=309 | | | | | | |
| ELDTW | | | | *e*S | **Sb** | **19 53 11.2** | **-3.6** |
| | baz=309 | | | | | | |
| **EHY** | **Hungye** | **0.81** | **336** | ⇑*i*P | **Pb** | **19 53 05.7** | **-0.4** |
| | baz=350 | | | | | | |
| EHY | | | | S | **Sb** | **19 53 16.1** | **-0.6** |
| | baz=350 | | | | | | |
| **TAW** | **Tawu** | **0.82** | **241** | *e*P | **Pb** | **19 53 05.3** | **-1.0** |
| | baz=235 | | | | | | |
| TAW | | | | *e*S | **Sb** | **19 53 15.4** | **-1.6** |
| | baz=235 | | | | | | |
| **EAST** | **Anshuo** | **0.85** | **244** | ⇑*i*P | **Pb** | **19 53 06.0** | **-0.8** |
| | baz=238 | | | | | | |
| EAST | | | | *e*S | **Sb** | **19 53 15.0** | **-2.8** |
| | baz=238 | | | | | | |
| **STYT** | **Tauyuan** | **0.94** | **296** | P | **Pb** | **19 53 07.3** | **-1.0** |
| | baz=302 | | | | | | |
| **TEGC** | **Jichi Village** | **0.96** | **352** | *e*P | **Pn** | **19 53 09.7** | **+0.7** |
| | baz=9.0 | | | | | | |
| **SSD** | **Sandimen** | **0.96** | **270** | *e*P | **Pb** | **19 53 07.6** | **-1.1** |
| | baz=260 | | | | | | |
| **YUS** | **Yu-Shan** | **0.99** | **318** | ⇑*i*P | **Pb** | **19 53 08.8** | **-0.7** |
| | baz=315 | | | | | | |
| YUS | | | | S | **Sb** | **19 53 20.2** | **-2.0** |
| | baz=315 | | | | | | |
| **SCZT** | **Fangliau** | **1.05** | **249** | *e*P | **Pb** | **19 53 09.2** | **-1.0** |
| | baz=236 | | | | | | |
| **SGST** | **Jiashian** | **1.06** | **288** | *e*P | **Pb** | **19 53 10.5** | **+0.1** |
| | baz=291 | | | | | | |
| **ESL** | **Shilin** | **1.08** | **348** | *e*P | **Pb** | **19 53 09.4** | **-1.2** |
| | baz=4.0 | | | | | | |
| ESL | | | | *e*S | **Sb** | **19 53 22.4** | **-1.9** |
| | baz=4.0 | | | | | | |
| **WTP** | **Ta-pu** | **1.09** | **297** | ⇑*i*P | **Pb** | **19 53 10.6** | **-0.4** |
| | baz=298 | | | | | | |
| WTP | | | | *e*S | **Sb** | **19 53 25.7** | **+0.8** |
| | baz=298 | | | | | | |
| **SGLT** | **Jiouru** | **1.10** | **269** | *e*P | **Pn** | **19 53 12.1** | **+1.2** |
| | baz=266 | | | | | | |
| **ALS** | **Alishan** | **1.10** | **313** | P | **Pb** | **19 53 10.8** | **-0.4** |
| | baz=325 | | | | | | |
| **CHN1** | **Nanshi** | **1.14** | **292** | ⇑P | **Pn** | **19 53 11.9** | **+0.4** |
| | baz=292 | | | | | | |
| **TWK1** | **Hengchun** | **1.14** | **225** | *e*P | **Pb** | **19 53 12.9** | **+1.2** |
| | baz=219 | | | | | | |
| **HEN** | **Hengchun** | **1.15** | **229** | *e*P | **Pn** | **19 53 12.4** | **+0.8** |
| | baz=223 | | | | | | |
| **CHN4** | **Tsaushan** | **1.16** | **301** | ⇑*i*P | **Pn** | **19 53 12.0** | **+0.2** |
| | baz=303 | | | | | | |
| CHN4 | | | | S | **Sb** | **19 53 26.4** | **-0.4** |
| | baz=303 | | | | | | |
| **TWM1** | **Shoushan** | **1.16** | **273** | P | **Pn** | **19 53 12.6** | **+0.8** |
| | baz=267 | | | | | | |
| **TWK** | **Hsinying** | **1.21** | **295** | ⇓*i*P | **Pn** | **19 53 13.0** | **+0.5** |
| | baz=296 | | | | | | |
| TWK | | | | *e*S | **Sb** | **19 53 28.9** | **+0.7** |
| | baz=296 | | | | | | |
| **CHN5** | **Tsauling** | **1.24** | **312** | P | **Pn** | **19 53 13.6** | **+0.5** |
| | baz=315 | | | | | | |
| CHN5 | | | | *e*S | **Sn** | **19 53 30.1** | **+0.8** |
| | baz=315 | | | | | | |
| **CHN3** | **Shinhua** | **1.25** | **285** | *e*P | **Pb** | **19 53 14.6** | **+1.0** |
| | baz=285 | | | | | | |
| CHN3 | | | | *e*S | **Sg** | **19 53 33.0** | **+1.7** |
| | baz=285 | | | | | | |
| **KAU** | **Kaohsiung** | **1.28** | **262** | *e*P | **Pg** | **19 53 15.9** | **+0.5** |
| | baz=251 | | | | | | |
| **TWD** | **Chiawan** | **1.32** | **357** | *e*P | **Pn** | **19 53 12.8** | **-1.2** |
| | baz=13 | | | | | | |
| TWD | | | | *e*S | **Sn** | **19 53 28.9** | **-2.1** |
| | baz=13 | | | | | | |
| **SMLT** | **Sun Moon Lake** | **1.33** | **328** | *e*P | **Pn** | **19 53 14.9** | **+0.7** |
| | baz=339 | | | | | | |
| SMLT | | | | *e*S | **Sn** | **19 53 32.0** | **+0.5** |
| | baz=339 | | | | | | |
| **CHN2** | **Minshiung** | **1.35** | **305** | *e*P | **Pn** | **19 53 15.3** | **+0.9** |
| | baz=307 | | | | | | |
| CHN2 | | | | *e*S | **Sb** | **19 53 33.4** | **+1.3** |
| | baz=307 | | | | | | |
| **TYC** | **Yuchr** | **1.37** | **327** | *e*P | **Pn** | **19 53 15.5** | **+0.8** |
| | baz=343 | | | | | | |
| TYC | | | | *e*S | **Sn** | **19 53 32.6** | **+0.3** |
| | baz=343 | | | | | | |
| **CHY** | **Chiayi** | **1.37** | **303** | *e*P | **Pb** | **19 53 16.0** | **+0.4** |
| | baz=305 | | | | | | |
| CHY | | | | *e*S | **Sb** | **19 53 33.7** | **+1.0** |
| | baz=305 | | | | | | |
| **WGK** | **Gukeng** | **1.38** | **312** | *e*P | **Pb** | **19 53 16.3** | **+0.4** |
| | baz=315 | | | | | | |
| WGK | | | | *e*S | **Sb** | **19 53 34.3** | **+1.2** |
| | baz=315 | | | | | | |
| **SCLT** | **Jiali** | **1.43** | **287** | *e*P | **Pn** | **19 53 15.9** | **+0.4** |
| | baz=288 | | | | | | |
| SCLT | | | | *e*S | **Sb** | **19 53 35.5** | **+1.1** |
| | baz=288 | | | | | | |
| **WHF** | **Hehuan Shan** | **1.43** | **345** | *e*P | **Pn** | **19 53 15.5** | **-0.4** |
| | baz=349 | | | | | | |
| **WNT** | **Mingjian** | **1.44** | **321** | *e*P | **Pb** | **19 53 17.2** | **+0.4** |
| | baz=325 | | | | | | |
| WNT | | | | *e*S | **Sn** | **19 53 35.2** | **+1.1** |
| | baz=325 | | | | | | |
| **CHN8** | **Yiju** | **1.47** | **294** | *e*P | **Pn** | **19 53 17.0** | **+1.0** |
| | baz=295 | | | | | | |
| CHN8 | | | | *e*S | **Sn** | **19 53 35.6** | **+0.9** |
| | baz=295 | | | | | | |
| **TWT** | **Tachien** | **1.56** | **343** | *e*P | **Pn** | **19 53 18.5** | **+1.1** |
| | baz=346 | | | | | | |
| **WSF** | **Szhu** | **1.60** | **303** | *e*P | **Pn** | **19 53 18.6** | **+0.7** |
| | baz=304 | | | | | | |
| **TCU** | **Taichung** | **1.66** | **327** | *e*P | **Pb** | **19 53 20.9** | **+0.3** |
| | baz=329 | | | | | | |
| **ENA** | **Nanau** | **1.66** | **2** | *e*P | **Pn** | **19 53 18.5** | **-0.3** |
| | baz=6.0 | | | | | | |
| **WTCT** | **Ta-ch'eng** | **1.69** | **311** | *e*P | **Pn** | **19 53 19.8** | **+0.7** |
| | baz=311 | | | | | | |
| **NNS** | **Nan Shan** | **1.70** | **351** | *e*P | **Pn** | **19 53 19.3** | **-0.1** |
| | baz=6.0 | | | | | | |
| **TWQ1** | **Liyutan** | **1.79** | **333** | ⇑P | **Pb** | **19 53 22.5** | **-0.3** |
| | baz=336 | | | | | | |
| TWQ1 | | | | *e*S | **Sb** | **19 53 45.8** | **+1.0** |
| | baz=336 | | | | | | |
| **TWC** | **Suao** | **1.85** | **5** | *e*P | **Pn** | **19 53 20.6** | **-0.7** |
| | baz=9.0 | | | | | | |
| **NSY** | **Sanyi** | **1.85** | **333** | *e*P | **Pb** | **19 53 24.0** | **+0.1** |
| | baz=337 | | | | | | |
| NSY | | | | *e*S | **Sb** | **19 53 46.7** | **0.0** |
| | baz=337 | | | | | | |
| **ENTT** | **Nioudou** | **1.88** | **357** | *e*P | **Pn** | **19 53 22.2** | **+0.5** |
| | baz=1.0 | | | | | | |
| **WDGT** | **Dungji** | **1.93** | **285** | *e*P | **Pn** | **19 53 22.6** | **+0.3** |
| | baz=283 | | | | | | |
| **NSK** | **Sanguang** | **1.93** | **351** | *e*P | **Pn** | **19 53 23.4** | **+0.9** |
| | baz=5.0 | | | | | | |
| **TWE** | **Neicheng** | **1.96** | **360** | *e*P | **Pn** | **19 53 23.5** | **+0.8** |
| | baz=4.0 | | | | | | |
| **NSTT** | **Nanjuang** | **1.97** | **342** | *e*P | **Pb** | **19 53 25.3** | **-0.5** |
| | baz=345 | | | | | | |
| **PNG** | **Penghu** | **2.11** | **293** | *e*P | **Pn** | **19 53 24.8** | **-0.1** |
| | baz=291 | | | | | | |
| **NWF** | **Wu-fen Shan** | **2.31** | **2** | *e*P | **Pn** | **19 53 29.6** | **+2.0** |
| | baz=356 | | | | | | |
| **HATJ** | **Hateruma jima** | **2.34** | **56** | S | **Sn** | **19 53 56.5** | **+0.2** |
| **IRIF** | **Iriomote-Funau** | **2.45** | **50** | P | **Pn** | **19 53 30.7** | **+1.1** |
| IRIF | | | | *e*S | **Sn** | **19 54 00.0** | **+1.0** |
| **JKRS** | **Kuro-shima** | **2.60** | **55** | P | **Pn** | **19 53 31.7** | **+0.1** |
| JKRS | | | | *e*S | **Sn** | **19 54 03.3** | **+0.7** |
| **JIJ** | **Ishigaki jima** | **2.77** | **54** | P | **Pn** | **19 53 35.0** | **+1.0** |
| JIJ | | | | *e*S | **Sn** | **19 54 06.7** | **-0.2** |
| **JISG** | **Ishigakijimahi** | **3.02** | **52** | P | **Pn** | **19 53 38.5** | **+1.1** |
| JISG | | | | *e*S | **Sn** | **19 54 13.0** | **-0.1** |
| **JTJ** | **Tarama** | **3.35** | **55** | P | **Pn** | **19 53 43.6** | **+1.7** |
| JTJ | | | | *e*S | **Sn** | **19 54 21.5** | **+0.4** |
| **JIRB** | **Irabujima** | **3.81** | **57** | P | **Pn** | **19 53 49.0** | **+0.8** |
| JIRB | | | | S | **Sn** | **19 54 32.4** | **-0.1** |

---

**DJA 10 20:05:14.0**±0.3**, 2°S**±2°×**12°1E**±°**, h10**km**, M3.7**/6**, MLv3.7**/6**, Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **APSI** | **Ampana** | **1.52** | **14** | P | Pn | 20 05 40.6 | -0.6 |
| APSI | | | | S | Sg | 20 06 03.2 | +0.3 |
| **TTSI** | **Tana Toraja** | **1.59** | **246** | P | Pn | 20 05 40.7 | -1.5 |
| TTSI | | | | S | Sb | 20 06 03.7 | +0.1 |
| **LUWI** | **Luwuk** | **2.01** | **48** | P | Pn | 20 05 46.5 | -1.5 |
| LUWI | | | | S | Sn | 20 06 14.0 | +0.7 |
| **SPSI** | **Sidrap Palu** | **2.17** | **224** | P | Pn | 20 05 49.9 | -0.3 |
| SPSI | | | | S | Sn | 20 06 18.4 | +1.3 |
| **BNSI** | **Bone** | **2.31** | **210** | P | Pn | 20 05 52.3 | +0.2 |
| **MRSI** | **Marisa** | **2.93** | **13** | P | Pn | 20 06 00.0 | -0.6 |
| **MPSI** | **Mapaga** | **3.04** | **333** | P | Pn | 20 06 02.6 | +0.5 |

---

*ISCJB **10** 20:42:05.0±0.6, 29°.47S±0°.05×175°.73W±0°.09, h33km, mb4.7/15, Error ellipse: s-maj=11.6km s-min=6.7km az=12.0*
*IDC **10** 20:42:05.6±0.9, 28°.71S×176°.12W, h0km, mb4.1/6, mb1 4.3/6, mb1mx4.0/30, mbtmp4.1/6, MS3.2/2, Ms1 3.2/2, ms1mx2.9/32, Error ellipse: s-maj=32.0km s-min=20.7km az=162.0*
*NEIC **10** 20:42:09.2±0.7, 29°.31S×176°.08W, h35km, mb4.6/22, Error ellipse: s-maj=16.0km s-min=8.4km az=107.0*
**ISC 10 20:42:07.5**±0.6**, 29°.46S**±0°.06×**176°.05W**±0°.07**, h28**km**, n57, σ2s.83**/62**, mb4.6**/15**, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **1.65** | **277** | Pn | **Pb** | **20 42 37.5** | **+0.4** |
| | 359nm,0.3s,baz=72,slow=14,SNR=35 | | | | | | |
| RAO | | | | Sn | **Sb** | **20 42 58.9** | **+1.5** |
| | 693nm,0.3s,baz=60,slow=20,SNR=11 | | | | | | |
| **RAO** | **Raoul Island** | **1.65** | **277** | *e*Pn | **Pb** | **20 42 37.5** | **+0.4** |
| RAO | | | | *e*Sn | **Sn** | **20 42 49.5** | **-5.3** |
| **MXZ** | **Matakaoa Point** | **9.36** | **209** | *e*Pn | **Pn** | **20 44 24.2** | **+3.7** |
| MXZ | | | | *e*Sn | **Sn** | **20 45 58.4** | **-6.3** |
| **URZ** | **Urewera** | **10.46** | **211** | Pn | **Pn** | **20 44 37.2** | **+1.7** |
| | 0.6nm,0.3s,baz=354,slow=19,SNR=11 | | | | | | |
| URZ | | | | Sn | **Sn** | **20 46 35.6** | **+3.9** |
| | 4.2nm,0.3s,baz=237,slow=22,SNR=14 | | | | | | |
| **BKZ** | **Black Stump Fm** | **11.48** | **210** | *e*Pn | **Pn** | **20 44 50.2** | **+0.6** |
| **HIZ** | **Hauiti** | **11.77** | **217** | *e*Pn | **Pn** | **20 44 53.8** | **+0.3** |
| **BFZ** | **Birch Farm** | **12.85** | **207** | *e*Pn | **Pn** | **20 45 07.8** | **-0.4** |
| BFZ | | | | *e*Sn | **Sn** | **20 47 23.3** | **-7.0** |
| **SNZO** | **South Karori** | **14.02** | **210** | *e*Pn | **Pn** | **20 45 23.8** | **-0.4** |
| SNZO | | | | *e*Sn | **Sn** | **20 47 51.0** | **-7.7** |
| **THZ** | **Tophouse** | **15.20** | **213** | *e*Pn | **Pn** | **20 45 38.7** | **-1.5** |
| | 124nm,1.9s | | | | | | |
| **KHZ** | **Kahutara** | **15.42** | **210** | *e*Pn | **Pn** | **20 45 40.6** | **-2.4** |
| | 76nm,1.6s | | | | | | |
| **LTZ** | **Lake Taylor** | **16.28** | **212** | *e*Pn | **Pn** | **20 45 55.6** | **+1.4** |
| | 26nm,1.2s | | | | | | |
| **OXZ** | **Oxford** | **16.82** | **211** | *e*Pn | **Pn** | **20 45 57.8** | **-3.1** |
| | 29nm,1.1s | | | | | | |
| **MQZ** | **McQueen's Vall** | **16.85** | **209** | *e*Pn | **Pn** | **20 45 56.8** | **-4.4** |
| | 87nm,1.5s | | | | | | |
| **DZM** | **Mont Dzumac** | **17.39** | **291** | P | **P** | **20 46 10.6** | **+1.2** |
| | 0.3nm,0.3s,baz=107,slow=16,SNR=5.5 | | | | | | |
| DZM | | | | LR | LR | 20 50 28.1 | |
| | comp=Z,96nm,19.2s,baz=232,slow=29 | | | | | | |
| **DZM** | **Mont Dzumac** | **17.39** | **291** | *e*Pn | **Pn** | **20 46 06.3** | **-2.0** |
| | 46nm,1.8s | | | | | | |
| **RPZ** | **Rata Peaks** | **17.57** | **212** | P | **P** | **20 46 14.0** | **+2.8** |
| | 1.4nm,0.3s,baz=14,slow=4.2,SNR=4.0 | | | | | | |
| **RPZ** | **Rata Peaks** | **17.57** | **212** | *e*Pn | **Pn** | **20 46 08.1** | **-2.2** |
| | 19nm,1.0s | | | | | | |
| **FOZ** | **Fox Glacier** | **18.03** | **215** | *e*Pn | **Pn** | **20 46 16.2** | **+0.3** |
| | 135nm,1.9s | | | | | | |
| **LBZ** | **Lake Benmore** | **18.49** | **213** | *e*P | **Pn** | **20 46 23.7** | **+2.2** |
| | 44nm,1.4s | | | | | | |
| **ODZ** | **Otahua Downs** | **18.78** | **210** | *e*P | **Pn** | **20 46 28.8** | **+3.7** |
| | 33nm,1.1s | | | | | | |
| **WKZ** | **Wanaka** | **19.37** | **214** | *e*P | **Pn** | **20 46 32.9** | **+0.6** |
| | 178nm,2.0s | | | | | | |
| **MLZ** | **Mavora Lakes** | **20.20** | **214** | *e*P | Pn | 20 46 43.7 | +1.6 |
| | 40nm,1.5s | | | | | | |
| **WHZ** | **Wether Hill Ro** | **20.67** | **213** | *e*P | Pn | 20 46 50.0 | +2.5 |
| | 75nm,1.6s | | | | | | |
| **DCZ** | **Deep Cove** | **20.75** | **215** | *e*P | Pn | 20 46 49.1 | +0.8 |
| | 67nm,2.0s | | | | | | |
| **FUNA** | **Funafuti** | **21.29** | **347** | *e*P | **P** | **20 46 49.9** | **-2.1** |
| | 89nm,1.1s | | | | | | |
| **PPT** | **Papeete** | **26.93** | **70** | LR | LR | 20 54 42.5 | |
| | comp=Z,51nm,21.8s,baz=145,slow=28 | | | | | | |
| **MCQ** | **Macquarie Isla** | **30.86** | **209** | *e*P | **P** | **20 48 24.4** | **+3.4** |
| | 170nm,1.3s | | | | | | |
| **CTA** | **Charters Tower** | **35.35** | **277** | P | **P** | **20 49 01.6** | **+0.9** |
| | 1.8nm,0.5s,baz=114,slow=13,SNR=4.2 | | | | | | |
| **CTAO** | **Charters Tower** | **35.35** | **277** | *e*P | **P** | **20 49 01.0** | **+0.3** |
| | 30nm,1.7s | | | | | | |
| **STKA** | **Stephens Creek** | **36.35** | **255** | P | **P** | **20 49 13.6** | **+4.4** |
| | 1.3nm,0.5s,baz=100,slow=9.5,SNR=5.3 | | | | | | |
| **STKA** | **Stephens Creek** | **36.35** | **255** | *e*P | **P** | **20 49 11.8** | **+2.7** |
| | 4.9nm,2.0s | | | | | | |
| **COEN** | **Coen** | **40.67** | **283** | *e*P | **P** | **20 49 43.6** | **-2.1** |
| | 25nm,1.8s | | | | | | |
| **BBOO** | **Buckleboo** | **40.86** | **253** | *e*P | **P** | **20 49 48.1** | **+1.0** |
| | 61nm,1.8s | | | | | | |
| **PATS** | **Pohnpei** | **43.71** | **322** | *e*P | **P** | **20 50 08.8** | **-1.5** |
| | 388nm,1.6s | | | | | | |
| **AS01** | **Alice Springs** | **44.82** | **265** | *e*P | **P** | **20 50 20.5** | **+1.2** |
| **AS31** | **Alice Springs** | **44.86** | **265** | *e*P | **P** | **20 50 21.1** | **+1.4** |
| | 1.0nm,0.4s | | | | | | |
| **ASAR** | **Alice Springs** | **44.86** | **265** | P | **P** | **20 50 20.8** | **+1.1** |
| | 3.0nm,0.8s,baz=103,slow=7.7,SNR=29 | | | | | | |
| **WB2** | **Warramunga Arr** | **45.76** | **270** | *e*P | **P** | **20 50 27.4** | **+0.7** |
| **WRAB** | **Tennant Creek** | **45.77** | **270** | *e*P | **P** | **20 50 27.6** | **+0.8** |
| | 18nm,1.7s | | | | | | |
| **WR1** | **Warramunga Arr** | **45.77** | **270** | *e*P | **P** | **20 50 27.7** | **+0.8** |
| | 3.7nm,0.7s | | | | | | |
| **WRA** | **Warramunga Arr** | **45.77** | **270** | P | **P** | **20 50 27.7** | **+0.8** |
| | 1.8nm,0.7s,baz=108,slow=7.8,SNR=6.8 | | | | | | |
| **FORT** | **Forrest** | **47.93** | **254** | *e*P | **P** | **20 50 45.5** | **+1.9** |
| | 84nm,0.8s | | | | | | |
| **VNDA** | **Vanda** | **49.21** | **186** | P | P | 20 51 00.7 | +7.9 |
| | 0.4nm,0.3s,baz=58,slow=6.9,SNR=8.1 | | | | | | |
| **VNDA** | **Vanda** | **49.21** | **186** | *e*P | **P** | **20 50 54.6** | **+1.8** |
| VNDA | | | | *e*sP | **pP** | **20 50 56.4** | **-4.9** |
| VNDA | | | | *e*PcP | **PcP** | **20 52 19.6** | **+4.1** |
| VNDA | | | | *e* | | 20 52 19.9 | |
| **SBI** | **Santa Barbara** | **82.64** | **45** | *e*P | **P** | **20 54 24.0** | **-4.2** |
| **PASC** | **Pasadena Art C** | **83.62** | **45** | *e*P | **P** | **20 54 30.9** | **-2.4** |
| **ILAR** | **Eielson Array** | **96.64** | **12** | P | **P** | **20 55 33.5** | **-0.8** |
| | 0.3nm,0.7s,baz=217,slow=6.0,SNR=6.0 | | | | | | |
| **ARA0** | **ARCESS Array S** | **138.01** | **349** | *e*PKPdf | **PKPdf** | **21 01 29.0** | **+0.3** |
| **ARCES** | **ARCESS Array B** | **138.01** | **349** | PKP | **PKPdf** | **21 01 29.0** | **+0.4** |
| | 2.3nm,0.8s,baz=323,slow=2.3,SNR=4.4 | | | | | | |
| **FIA0** | **FINESS Array S** | **144.81** | **342** | *e*PKPdf | **PKPdf** | **21 01 41.4** | **+0.3** |
| **FINES** | **FINESS Array B** | **144.81** | **342** | PKP | **PKPdf** | **21 01 41.4** | **+0.3** |
| | 4.8nm,0.8s,baz=27,slow=3.7,SNR=13 | | | | | | |
| **NB2** | **NORSAR Subarra** | **148.04** | **353** | PKP | **PKPbc** | **21 01 50.6** | **+0.8** |
| | comp=Z,0.8nm,0.5s,baz=10,slow=3.2 | | | | | | |
| **NB200** | **NORSAR Array S** | **148.04** | **353** | *e*PKPbc | **PKPbc** | **21 01 50.5** | **+0.8** |
| **NOA** | **NORSAR Array B** | **148.04** | **353** | PKPbc | **PKPbc** | **21 01 50.5** | **+0.8** |
| | comp=Z,1.1nm,0.7s,baz=12,slow=4.5,SNR=8.0 | | | | | | |
| **AKASG** | **Malin Array Be** | **151.53** | **325** | PKPbc | **PKPbc** | **21 02 00.3** | **+1.8** |
| | comp=Z,1.3nm,0.5s,baz=45,slow=3.0,SNR=8.7 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **163.64** | **172** | PKP | **PKPdf** | **21 02 11.4** | **+2.9** |
| | comp=Z,0.4nm,0.8s,baz=126,slow=0.9,SNR=3.2 | | | | | | |
| TORD | | | | PKPab | **pPKPab** | **21 03 05.0** | **-4.1** |
| | comp=Z,0.9nm,0.7s,baz=183,slow=5.2,SNR=6.5 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **163.64** | **172** | *e*PKPdf | **PKPdf** | **21 02 11.4** | **+2.9** |
| TOA1 | | | | *e*PKPab | **pPKPab** | **21 03 05.0** | **-4.1** |

---

*CSEM **10** 20:42:46.8, 39°.28N×30°.01W, h10km, ML3.0*
**PDA 10 20:42:46.8**±1.0**, 39°.28N×30°.01W, h10**km**, MD3.7, ML3.0, Error ellipse: s-maj=109.1km s-min=9.1km az=41.0,**

**Azores Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PCED** | **Cedros** | **1.21** | **122** | *e*P | Pn | 20 43 05.2 | -4.6 |
| PCED | | | | *e*S | Sb | 20 43 18.3 | -7.1 |
| PCED | | | | A | A | 20 43 20.6 | |
| | 71nm,0.4s | | | | | | |
| **PCED** | **Cedros** | **1.21** | **122** | *e*P | Pn | 20 43 05.2 | -4.6 |
| PCED | | | | *e*S | Sb | 20 43 18.3 | -7.1 |
| **CALA** | **Caldeira** | **1.23** | **124** | *e*S | Sb | 20 43 19.8 | -6.5 |
| **CALA** | **Caldeira** | **1.23** | **124** | *e*S | Sb | 20 43 19.8 | -6.5 |
| **HOR** | **Horta** | **1.31** | **124** | *e*S | Sb | 20 43 21.3 | -7.1 |
| HOR | | | | A | A | 20 43 23.1 | |
| | 182nm,0.3s | | | | | | |
| **HOR** | **Horta** | **1.31** | **124** | *e*S | Sb | 20 43 21.3 | -7.1 |
| **PCAN** | **Candelaria** | **1.44** | **124** | *e*P | Pn | 20 43 08.1 | -4.9 |
| PCAN | | | | *e*S | Sn | 20 43 24.5 | -7.5 |
| PCAN | | | | A | A | 20 43 26.6 | |
| | 61nm,0.2s | | | | | | |
| **PCAN** | **Candelaria** | **1.44** | **124** | *e*P | Pn | 20 43 08.1 | -4.9 |
| PCAN | | | | *e*S | Sn | 20 43 24.5 | -7.5 |
| **PICO** | **Pico** | **1.46** | **122** | *e*P | Pn | 20 43 08.8 | -4.5 |
| PICO | | | | *e*S | Sn | 20 43 25.4 | -7.1 |
| PICO | | | | A | A | 20 43 26.8 | |
| | 251nm,0.4s | | | | | | |
| **PICO** | **Pico** | **1.46** | **122** | *e*P | Pn | 20 43 08.8 | -4.5 |
| PICO | | | | *e*S | Sn | 20 43 25.4 | -7.1 |

**BUC 10 20:48:24.7**±0.4**,45°.75N×26°.64E,h140km**±3km**,MD2.5**/2**,4C-4D,Error ellipse: s-maj=4.7km s-min=2.3km az=13.0, Romania**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PLOR** | **Plostina** | **0.10** | **6** | S | Sn | 20 48 57.6 | -0.5 |
| **PLOR** | **Plostina** | **0.10** | **6** | *i* S | Sn | 20 48 57.6 | -0.5 |
| **VRI** | **Vrincioaia** | **0.14** | **29**⇓ | *i*P | Pn | 20 48 43.9 | +0.2 |
| **VRI** | **Vrincioaia** | **0.14** | **29**⇓ | *i*P | Pn | 20 48 43.9 | +0.2 |
| **MLR** | **Muntele Rosu** | **0.55** | **242**⇓ | *i*P | Pn | 20 48 45.6 | +0.3 |
| **MLR** | **Muntele Rosu** | **0.55** | **242**⇓ | *i*P | Pn | 20 48 45.6 | +0.3 |
| MLR | | | | *i* S | Sn | 20 49 00.4 | -0.5 |
| **VOIR** | | **1.16** | **255**⇑ | *i*P | Pn | 20 48 49.6 | -0.4 |
| **VOIR** | | **1.16** | **255**⇑ | *i*P | Pn | 20 48 49.6 | -0.4 |
| VOIR | | | | *i* S | Sn | 20 49 09.1 | -0.2 |
| **CFR** | **Carcaliu** | **1.20** | **118**⇑ | *i*P | Pn | 20 48 50.8 | +0.5 |
| **CFR** | **Carcaliu** | **1.20** | **118**⇑ | *i*P | Pn | 20 48 50.8 | +0.5 |
| CFR | | | | *i* S | Sn | 20 49 09.1 | -0.8 |

*CSEM **10** 20:49:26.8±0.3, 41°.91N×20°.19E, h8km, ML2.5, Error ellipse: s-maj=13.8km s-min=5.4km az=50.0*

**TIR 10 20:49:24.6**±0.5**,41°.87N×20°.12E,h27km**±3km**,ML2.5, Albania**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PUK** | **Puka** | **0.24** | **316** | *i* PG | Pb | 20 49 31.4 | +0.3 |
| PUK | | | | *i* SG | Sb | 20 49 36.3 | +0.8 |
| **PUK** | **Puka** | **0.24** | **316** | *i* Pg | Pb | 20 49 31.5 | +0.4 |
| | SNR=131 | | | | | | |
| PUK | | | | *i* Sg | Sb | 20 49 36.3 | +0.8 |
| | SNR=131 | | | | | | |
| **PHP** | **Peshkopia** | **0.30** | **127** | *i* PG | Pb | 20 49 32.4 | +0.6 |
| PHP | | | | *i* SG | Sb | 20 49 37.8 | +1.0 |
| **PHP** | **Peshkopia** | **0.30** | **127** | *i* Pg | Pb | 20 49 32.4 | +0.6 |
| | SNR=124 | | | | | | |
| PHP | | | | *i* Sg | Sb | 20 49 37.8 | +1.0 |
| | SNR=124 | | | | | | |
| **BCI** | **Bajram Curri** | **0.50** | **355** | *i* PG | Pn | 20 49 35.5 | -0.5 |
| BCI | | | | *i* SG | Sn | 20 49 43.1 | -0.8 |
| **BCI** | **Bajram Curri** | **0.50** | **355** | *i* Pg | Pn | 20 49 35.5 | -0.6 |
| | SNR=108 | | | | | | |
| BCI | | | | *i* Sg | Sn | 20 49 43.1 | -0.8 |
| | SNR=108 | | | | | | |
| **STON** | **Ston** | **2.06** | **300** | *e*Pn | Pb | 20 50 02.4 | +1.1 |
| STON | | | | Sn | Sb | 20 50 35.2 | +8.9 |
| **STON** | **Ston** | **2.06** | **300** | *e*Pn | Pb | 20 50 02.3 | +1.1 |

**SJA 10 20:53:48.7**±0.4**,29°.11S×69°.66W,h155km**±3km**,ML4.2, MW3.8,Chile-Argentina border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AGUA** | **GUANDACOL** | **1.09** | **110** | *e*P | Pn | 20 54 15.4 | +0.7 |
| AGUA | | | | *e*S | Sn | 20 54 35.0 | +0.3 |
| **VCA** | **Vinchina** | **1.33** | **74** | *e*P | Pn | 20 54 17.8 | +0.7 |
| VCA | | | | *e*S | Sn | 20 54 39.1 | +0.3 |
| VCA | | | | IAML | | 20 54 42.1 | |
| | comp=Z,508nm,0.3s | | | | | | |
| **AMOG** | **MOGNA** | **2.08** | **151** | *e*P | Pn | 20 54 25.9 | +0.7 |
| AMOG | | | | *e*S | Sn | 20 54 53.7 | +0.4 |
| AMOG | | | | IAML | | 20 54 56.2 | |
| | comp=Z,5µm,0.3s | | | | | | |
| **RTLS** | **Leoncito** | **2.70** | **173** | *e*P | Pn | 20 54 34.3 | +1.6 |
| **RTCV** | **Cerro Valdivia** | **2.91** | **161** | *e*P | Pn | 20 54 35.9 | +0.8 |
| RTCV | | | | *e*S | Sn | 20 55 10.9 | -0.2 |
| **AUSP** | **Uspallata** | **3.11** | **176** | *e*P | Pn | 20 54 39.0 | +1.0 |
| **CYA** | **Choya** | **3.45** | **80** | *e*P | Pn | 20 54 43.1 | +1.0 |
| CYA | | | | *e*S | Sn | 20 55 22.9 | -0.5 |
| **ACAN** | **Cantantal** | **3.81** | **147** | *e*P | Pn | 20 54 47.4 | +0.9 |
| **TCA** | **Tanti** | **4.91** | **118** | *e*P | Pn | 20 55 02.2 | +1.1 |

*CSEM **10** 21:01:38.0, 39°.44N×29°.82W, h10km, ML3.5*

**PDA 10 21:01:38.0**±0.8**,39°.44N×29°.82W,h10km,MD3.6,ML3.5, 2C,Error ellipse: s-maj=18.6km s-min=6.0km az=51.0, Azores Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PCED** | **Cedros** | **1.19** | **133** | *e*P | Pb | 21 01 55.9 | -4.7 |
| PCED | | | | *e*S | Sb | 21 02 09.2 | -6.8 |
| PCED | | | | A | A | 21 02 12.4 | |
| | 248nm,0.3s | | | | | | |
| **PCED** | **Cedros** | **1.19** | **133** | *e*P | Pb | 21 01 55.9 | -4.7 |
| PCED | | | | *e*S | Sb | 21 02 09.2 | -6.8 |
| **CALA** | **Caldeira** | **1.22** | **134** | *e*P | Pn | 21 01 56.3 | -4.9 |
| CALA | | | | *e*S | Sb | 21 02 10.3 | -6.7 |
| **CALA** | **Caldeira** | **1.22** | **134** | *e*P | Pn | 21 01 56.3 | -4.9 |
| CALA | | | | *e*S | Sb | 21 02 10.3 | -6.7 |
| **HOR** | **Horta** | **1.30** | **134** | *e*S | Sb | 21 02 12.2 | -7.0 |
| HOR | | | | A | A | 21 02 13.9 | |
| | 739nm,0.3s | | | | | | |
| **HOR** | **Horta** | **1.30** | **134** | *e*S | Sb | 21 02 12.2 | -7.0 |
| **PCAN** | **Candelaria** | **1.42** | **133** | *e*P | Pn | 21 01 59.1 | -4.8 |
| PCAN | | | | *e*S | Sn | 21 02 15.4 | -7.3 |
| PCAN | | | | A | A | 21 02 16.5 | |
| | 359nm,0.2s | | | | | | |
| **PCAN** | **Candelaria** | **1.42** | **133** | *e*P | Pn | 21 01 59.1 | -4.8 |
| PCAN | | | | *e*S | Sn | 21 02 15.4 | -7.3 |
| **PICO** | **Pico** | **1.43** | **130**⇑ | *i*P | Pn | 21 01 59.9 | -4.2 |
| PICO | | | | *e*S | Sn | 21 02 15.8 | -7.2 |
| PICO | | | | A | A | 21 02 18.6 | |
| | 982nm,0.3s | | | | | | |
| **PICO** | **Pico** | **1.43** | **130**⇑ | *i*P | Pn | 21 01 59.9 | -4.2 |
| PICO | | | | *e*S | Sn | 21 02 15.8 | -7.2 |
| **PMAN** | **Manadas** | **1.57** | **120** | *e*P | Pn | 21 02 01.3 | -4.6 |
| PMAN | | | | *e*S | Sn | 21 02 18.6 | -7.7 |
| PMAN | | | | A | A | 21 02 21.1 | |
| | 160nm,0.3s | | | | | | |
| **PMAN** | **Manadas** | **1.57** | **120** | *e*P | Pn | 21 02 01.3 | -4.6 |
| PMAN | | | | *e*S | Sn | 21 02 18.6 | -7.7 |

*CSEM **10** 21:02:56.1, 39°.40N×29°.92W, h10km, ML3.5*

**PDA 10 21:02:56.1**±0.8**,39°.40N×29°.92W,h10km,ML3.5,Error ellipse: s-maj=17.9km s-min=5.5km az=47.0,Azores Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PCED** | **Cedros** | **1.22** | **129** | *e*P | Pn | 21 03 14.6 | -4.6 |
| PCED | | | | *e*S | Sb | 21 03 28.3 | -6.8 |
| PCED | | | | A | A | 21 03 30.9 | |
| | 212nm,0.5s | | | | | | |
| **PCED** | **Cedros** | **1.22** | **129** | *e*P | Pn | 21 03 14.6 | -4.6 |
| PCED | | | | *e*S | Sb | 21 03 28.3 | -6.8 |
| **CALA** | **Caldeira** | **1.25** | **130** | *e*S | Sb | 21 03 29.2 | -6.8 |
| **CALA** | **Caldeira** | **1.25** | **130** | *e*S | Sb | 21 03 29.2 | -6.8 |
| **HOR** | **Horta** | **1.33** | **131** | *e*P | Pn | 21 03 15.7 | -5.0 |
| HOR | | | | *e*S | Sb | 21 03 31.3 | -6.9 |
| HOR | | | | A | A | 21 03 33.5 | |
| | 788nm,0.2s | | | | | | |
| **HOR** | **Horta** | **1.33** | **131** | *e*P | Pn | 21 03 15.7 | -5.0 |
| HOR | | | | *e*S | Sb | 21 03 31.3 | -6.9 |
| **PCAN** | **Candelaria** | **1.46** | **129** | *e*P | Pn | 21 03 18.0 | -4.5 |
| PCAN | | | | *e*S | Sn | 21 03 34.0 | -7.6 |
| PCAN | | | | A | A | 21 03 37.5 | |
| | 267nm,0.1s | | | | | | |
| **PCAN** | **Candelaria** | **1.46** | **129** | *e*P | Pn | 21 03 18.0 | -4.5 |
| PCAN | | | | *e*S | Sn | 21 03 34.0 | -7.6 |
| **PICO** | **Pico** | **1.47** | **127** | *e*P | Pn | 21 03 18.0 | -4.7 |
| PICO | | | | *e*S | Sn | 21 03 34.6 | -7.4 |
| PICO | | | | A | A | 21 03 37.9 | |
| | 782nm,0.1s | | | | | | |
| **PICO** | **Pico** | **1.47** | **127** | *e*P | Pn | 21 03 18.0 | -4.7 |
| PICO | | | | *e*S | Sn | 21 03 34.6 | -7.4 |
| **PMAN** | **Manadas** | **1.62** | **118** | *e*P | Pn | 21 03 20.2 | -4.5 |
| PMAN | | | | *e*S | Sn | 21 03 37.9 | -7.7 |
| PMAN | | | | A | A | 21 03 39.3 | |
| | 113nm,0.2s | | | | | | |
| **PMAN** | **Manadas** | **1.62** | **118** | *e*P | Pn | 21 03 20.2 | -4.5 |
| PMAN | | | | *e*S | Sn | 21 03 37.9 | -7.7 |

*CSEM **10** 21:06:25.3, 39°.44N×29°.81W, h10km, ML2.7*

**PDA 10 21:06:25.3**±0.7**,39°.44N×29°.81W,h10km,MD3.6,ML2.7, 2C,Error ellipse: s-maj=17.1km s-min=5.9km az=47.0, Azores Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PCED** | **Cedros** | **1.18** | **133** | *e*P | Pb | 21 06 43.1 | -4.7 |
| PCED | | | | *e*S | Sb | 21 06 56.2 | -6.9 |
| PCED | | | | A | A | 21 06 57.6 | |
| | 36nm,0.1s | | | | | | |
| **PCED** | **Cedros** | **1.18** | **133** | *e*P | Pb | 21 06 43.1 | -4.7 |
| PCED | | | | *e*S | Sb | 21 06 56.2 | -6.9 |
| **CALA** | **Caldeira** | **1.21** | **134** | *e*S | Sb | 21 06 57.7 | -6.4 |
| **CALA** | **Caldeira** | **1.21** | **134** | *e*S | Sb | 21 06 57.7 | -6.4 |
| **PCAN** | **Candelaria** | **1.42** | **133** | *e*P | Pn | 21 06 46.4 | -4.7 |
| PCAN | | | | *e*S | Sn | 21 07 02.3 | -7.5 |
| PCAN | | | | A | A | 21 07 05.5 | |
| | 61nm,0.2s | | | | | | |
| **PCAN** | **Candelaria** | **1.42** | **133** | *e*P | Pn | 21 06 46.4 | -4.7 |
| PCAN | | | | *e*S | Sn | 21 07 02.3 | -7.5 |
| **PICO** | **Pico** | **1.43** | **130**⇑ | *i*P | Pn | 21 06 46.8 | -4.5 |
| PICO | | | | *e*S | Sn | 21 07 02.9 | -7.2 |
| PICO | | | | A | A | 21 07 04.8 | |
| | 125nm,0.2s | | | | | | |
| **PICO** | **Pico** | **1.43** | **130**⇑ | *i*P | Pn | 21 06 46.8 | -4.5 |
| PICO | | | | *e*S | Sn | 21 07 02.9 | -7.2 |
| **PMAN** | **Manadas** | **1.56** | **120** | *e*S | Sn | 21 07 05.8 | -7.6 |
| PMAN | | | | A | A | 21 07 06.9 | |
| | 31nm,0.6s | | | | | | |
| **PMAN** | **Manadas** | **1.56** | **120** | *e*S | Sn | 21 07 05.8 | -7.6 |

**KRSC 10 21:10:00.1**±1.1**,53°.63N×161°.47E,h41km**±19km**,ML3.6, Off east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MKZ** | **Mys Kozlova** | **0.94** | **9** | *e*P | Pn | 21 10 18.2 | +1.4 |
| MKZ | | | | *e*S | Sn | 21 10 29.9 | +0.8 |
| **SPN** | **Mys Shipunski** | **1.02** | **239** | *e*P | Pn | 21 10 19.7 | +1.9 |
| SPN | | | | *e*S | Sn | 21 10 31.8 | +0.9 |
| **KII** | **Karymskiy** | **1.27** | **290** | *e*P | Pn | 21 10 22.2 | +0.9 |
| KII | | | | *e*S | Sn | 21 10 37.0 | -0.2 |
| **NLC** | **Nalytchevo** | **1.35** | **251** | *e*P | Pn | 21 10 24.1 | +1.7 |
| NLC | | | | *e*S | Sn | 21 10 39.4 | +0.3 |
| **SDLR** | **Sedlovina** | **1.59** | **258** | *e*P | Pn | 21 10 27.9 | +2.1 |
| SDLR | | | | *e*S | Sn | 21 10 46.9 | +1.8 |
| **UGLR** | **Uglovaya** | **1.64** | **256** | *e*P | Pn | 21 10 28.8 | +2.3 |
| **KRER** | **Koryakskii** | **1.66** | **260** | *e*P | Pn | 21 10 29.1 | +2.3 |
| KRER | | | | *e*S | Sn | 21 10 48.8 | +1.8 |
| **AVH** | **Avacha** | **1.68** | **259** | *e*P | Pn | 21 10 29.6 | +2.7 |
| AVH | | | | *e*S | Sn | 21 10 49.2 | +2.0 |
| **KRX** | **Arik** | **1.71** | **262** | *e*P | Pn | 21 10 28.5 | +1.1 |
| **KOK** | **Koryaka** | **1.73** | **260** | *e*P | Pn | 21 10 29.2 | +1.5 |
| **DALK** | **Dalny** | **1.74** | **251** | *e*P | Pn | 21 10 29.4 | +1.7 |
| DALK | | | | *e*S | Sn | 21 10 50.2 | +1.6 |
| **PET** | **Petropavlovsk** | **1.80** | **251** | *e*P | Pn | 21 10 31.1 | +2.6 |
| PET | | | | *e*S | Sn | 21 10 51.6 | +1.6 |
| **TUMR** | **Tumrok** | **1.83** | **336** | *e*P | Pn | 21 10 31.8 | +2.7 |
| TUMR | | | | *e*S | Sn | 21 10 53.1 | +2.0 |
| **GNL** | **Ganaly** | **2.10** | **273** | *e*P | Pn | 21 10 35.9 | +3.1 |
| GNL | | | | *e*S | Sn | 21 11 00.6 | +2.8 |
| **RUS** | **Russkaya** | **2.15** | **237** | *e*P | Pn | 21 10 36.3 | +3.0 |
| RUS | | | | *e*S | Sn | 21 11 01.1 | +2.3 |
| **KRMR** | **Karymshinskiy** | **2.16** | **250** | *e*P | Pn | 21 10 36.5 | +3.0 |
| KRMR | | | | *e*S | Sn | 21 11 01.7 | +2.6 |
| **KMNR** | **Kamenistaya** | **2.25** | **342** | *e*P | Pn | 21 10 38.6 | +3.7 |
| KMNR | | | | *e*S | Sn | 21 11 05.7 | +4.3 |
| **MTVR** | **Mutnovka** | **2.29** | **241** | *e*P | Pn | 21 10 38.8 | +3.3 |
| MTVR | | | | *e*S | Sn | 21 11 05.4 | +2.9 |
| **BZMR** | **Bezymyannaya** | **2.38** | **347** | *e*P | Pn | 21 10 40.5 | +3.8 |
| **BZWR** | **Bezymyannyi-We** | **2.41** | **347** | *e*P | Pn | 21 10 41.3 | +4.2 |
| **ZLN** | **Zelenaya** | **2.43** | **351** | *e*P | Pn | 21 10 40.5 | +3.2 |
| ZLN | | | | *e*S | Sn | 21 11 08.0 | +2.3 |
| **KPT** | **Kopyto** | **2.45** | **343** | *e*P | Pn | 21 10 40.6 | +3.0 |
| **ASAK** | **Asacha** | **2.49** | **241** | *e*P | Pn | 21 10 42.1 | +4.0 |
| ASAK | | | | *e*S | Sn | 21 11 11.3 | +4.0 |
| **KOZ** | **Kozyrevsk** | **2.61** | **340** | *e*P | Pn | 21 10 43.1 | +3.5 |
| KOZ | | | | *e*S | Sn | 21 11 14.6 | +4.6 |
| **KRSR** | **Krestovskiy** | **2.65** | **349** | *e*P | Pn | 21 10 45.0 | +4.7 |
| **APC** | **Apacha** | **2.69** | **257** | *e*P | Pn | 21 10 44.8 | +4.1 |
| APC | | | | *e*S | Sn | 21 11 16.0 | +4.1 |
| **KBTR** | **Krutoberegovo** | **2.70** | **16** | *e*P | Pn | 21 10 44.3 | +3.4 |
| KBTR | | | | *e*S | Sn | 21 11 14.8 | +2.5 |
| **KLY** | **Klyuchi** | **2.73** | **350** | *e*P | Pn | 21 10 44.2 | +2.9 |
| KLY | | | | *e*S | Sn | 21 11 15.2 | +2.1 |
| **KDTR** | **Khodutka, Kamc** | **2.75** | **230** | *e*P | Pn | 21 10 45.5 | +3.9 |
| KDTR | | | | *e*S | Sn | 21 11 16.6 | +3.0 |
| **ESO** | **Esso** | **2.81** | **326** | *e*P | Pn | 21 10 45.1 | +2.7 |
| ESO | | | | *e*S | Sn | 21 11 17.5 | +2.5 |
| **BDR** | **Baidarnaya** | **2.95** | **357** | P | Pn | 21 10 47.1 | +2.7 |
| **SMKR** | **Semkarok** | **2.96** | **360** | *e*P | Pn | 21 10 48.7 | +4.1 |
| SMKR | | | | *e*S | Sn | 21 11 21.9 | +3.0 |
| **SRKR** | **Sorokina** | **3.04** | **357** | *e*P | Pn | 21 10 49.7 | +4.1 |
| **BKI** | **Bering** | **3.07** | **57** | *e*S | Sn | 21 11 21.9 | +0.6 |

*ISCJB **10** 21:10:34.9±0.4, 59°.92S±0°.07×27°.9W±0°.2, h150km, mb4.3/21, Error ellipse: s-maj=12.9km s-min=8.0km az=146.4*

*NEIC **10** 21:10:39.5±1.6, 59°.94S×27°.83W, h182km±14km, mb4.2/10, Error ellipse: s-maj=9.7km s-min=6.5km az=46.0*

*IDC **10** 21:10:39.2±4.3, 59°.93S×27°.90W, h175km±39km, mb3.9/10, mb1 4.0/11, mb1mx3.8/22, mbtmp4.4/11, Error ellipse: s-maj=22.1km s-min=12.8km az=59.0*

**ISC 10 21:10:36.0**±0.4**,60°.01S**±0°.08**×27°.7W**±0°.1**,h150km,n37, σ1s.44**/37**,mb4.2**/20**,South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VNA3** | **Neumayer Olymp** | **13.42** | **154** | P | **Pn** | **21 13 40.2** | **0.0** |
| **VNA2** | **Neumayer--Watz** | **13.72** | **151** | P | **Pn** | **21 13 44.6** | **+0.6** |
| | baz=307,slow=16 | | | | | | |
| **SNAA** | **Sanae** | **15.33** | **150** | P | **P** | **21 14 06.3** | **+0.8** |
| **SNAA** | **Sanae** | **15.33** | **150** | P | **P** | **21 14 06.4** | **+0.9** |
| | 0.5nm,0.3s,baz=15,slow=22,SNR=13 | | | | | | |
| SNAA | | | | S | **Sn** | **21 16 47.1** | **-7.2** |
| | 0.1nm,0.3s,baz=352,slow=17,SNR=3.8 | | | | | | |
| **PMSA** | **Palmer Station** | **17.31** | **239** | P | **Pn** | **21 14 28.5** | **+0.3** |
| | 25nm,1.1s | | | | | | |
| **TRIS** | **Tristan da Cun** | **25.00** | **30** | *e*P | **P** | **21 15 46.0** | **+0.4** |
| | 88nm,0.3s | | | | | | |
| **QSPA** | **South Pole Qui** | **30.22** | **180** | *e*P | **P** | **21 16 33.3** | **+1.1** |
| | 37nm,1.1s | | | | | | |
| **TRQA** | **Tornquist** | **30.84** | **300** | *e*P | **P** | **21 16 37.5** | **-0.2** |
| | 1.6nm,0.4s | | | | | | |
| **PLCA** | **Paso Flores** | **32.64** | **287** | P | **P** | **21 16 52.9** | **-0.6** |
| | 1.6nm,0.6s,baz=156,slow=12,SNR=3.6 | | | | | | |
| **MAW** | **Mawson** | **37.19** | **141** | P | **P** | **21 17 33.3** | **+1.4** |
| | 3.9nm,1.0s,baz=274,slow=6.3,SNR=3.6 | | | | | | |
| **CPUP** | **Villa Florida** | **39.34** | **316** | P | **P** | **21 17 50.0** | **-0.3** |
| | 3.2nm,0.6s,baz=177,slow=7.8,SNR=12 | | | | | | |
| **VNDA** | **Vanda** | **42.59** | **183** | P | **P** | **21 18 18.3** | **+1.9** |
| | 2.7nm,0.6s,baz=184,slow=7.4,SNR=16 | | | | | | |
| **LPAZ** | **La Paz** | **52.53** | **308** | P | **P** | **21 19 34.3** | **-0.1** |
| | 2.3nm,0.4s,baz=152,slow=6.1,SNR=24 | | | | | | |
| **SAML** | **Samuel** | **57.46** | **317** | *e*P | **P** | **21 20 08.6** | **-0.5** |
| | 1.8nm,0.6s | | | | | | |
| **NNA** | **Nana** | **59.99** | **301** | P | **P** | **21 20 26.2** | **-0.4** |
| | 9.2nm,0.7s | | | | | | |
| **LSZ** | **Lusaka** | **60.13** | **67** | P | **P** | **21 20 28.1** | **+0.5** |
| | 0.7nm,0.8s | | | | | | |
| **DBIC** | **Dimbokro** | **68.90** | **24** | P | **P** | **21 21 24.6** | **+0.2** |
| | 2.5nm,0.7s,baz=182,slow=8.5,SNR=3.0 | | | | | | |
| **OTAV** | **Otavalo** | **71.67** | **305** | P | **P** | **21 21 41.8** | **0.0** |
| | 0.6nm,0.5s | | | | | | |
| **SDV** | **Santo Domingo** | **76.65** | **316** | *e*P | **P** | **21 22 09.5** | **-0.7** |
| | 2.2nm,0.6s | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **76.66** | **29** | P | **P** | **21 22 10.7** | **+0.6** |
| | 2.4nm,0.5s,baz=197,slow=6.2,SNR=99 | | | | | | |
| **JTS** | **JuntasAbangare** | **83.44** | **304** | P | **P** | **21 22 46.0** | **-0.5** |
| | 1.2nm,0.5s | | | | | | |
| **STKA** | **Stephens Creek** | **88.02** | **171** | P | **P** | **21 23 09.9** | **+1.0** |
| | 2.5nm,0.7s,baz=152,slow=5.6,SNR=3.9 | | | | | | |
| **DGAR** | **Diego Garcia** | **88.70** | **102** | P | **P** | **21 23 12.8** | **+0.5** |
| | 11nm,0.2s | | | | | | |
| **ASAR** | **Alice Springs** | **95.28** | **163** | P | **P** | **21 23 42.8** | **+0.1** |
| | 1.3nm,0.7s,baz=174,slow=4.1,SNR=8.0 | | | | | | |
| **COCO** | **West Island** | **95.58** | **126** | P | **P** | **21 23 44.1** | **0.0** |
| | 69nm,0.5s | | | | | | |
| **WRA** | **Warramunga Arr** | **99.00** | **163** | P | **Pdif** | **21 23 59.8** | **+0.3** |
| | 0.7nm,0.8s,baz=188,slow=4.1,SNR=2.7 | | | | | | |
| **GNI** | **Garni** | **116.07** | **54** | *e*PKPdf | **PKPdf** | **21 28 59.5** | **-0.9** |
| **CMAR** | **Chiang Mai Arr** | **123.84** | **114** | PKP | **PKPdf** | **21 29 15.7** | **-0.1** |
| | 1.0nm,0.8s,baz=222,slow=3.6,SNR=4.8 | | | | | | |
| **FINES** | **FINESS Array B** | **128.01** | **29** | PKP | **PKPdf** | **21 29 21.4** | **-0.9** |
| | 2.4nm,0.8s,baz=242,slow=3.0,SNR=4.0 | | | | | | |
| **ARCES** | **ARCESS Array B** | **134.73** | **23** | PKP | **PKPdf** | **21 29 34.6** | **-0.3** |
| | 1.0nm,0.8s,baz=196,slow=0.9,SNR=7.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **138.28** | **76** | PKhKP | PKPpre | 21 29 39.2 | |
| | 0.3nm,0.6s,baz=198,slow=2.7,SNR=3.0 | | | | | | |
| **YKA** | **Yellowknife Ar** | **138.86** | **315** | PKP | **PKPdf** | **21 29 41.9** | **-0.8** |
| | 0.4nm,0.6s,baz=140,slow=1.9,SNR=5.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **144.23** | **69** | PKP | **PKPdf** | **21 29 51.1** | **-1.4** |
| | 1.1nm,0.5s,baz=236,slow=4.1,SNR=7.1 | | | | | | |
| **INK** | **Inuvik** | **148.60** | **317** | PKPbc | **PKPbc** | **21 30 02.9** | **-0.5** |
| | 2.0nm,0.8s,baz=89,slow=2.3,SNR=7.7 | | | | | | |
| **SONM** | **Songino Array** | **151.00** | **94** | PKPbc | **PKPbc** | **21 30 10.6** | **+0.5** |
| | 2.8nm,0.6s,baz=216,slow=3.5,SNR=25 | | | | | | |
| **KDAK** | **Kodiak Island** | **152.12** | **290** | PKPbc | **PKPbc** | **21 30 11.5** | **-0.5** |
| | 10nm,0.9s,baz=110,slow=3.9,SNR=4.9 | | | | | | |
| **ILAR** | **Eielson Array** | **152.39** | **306** | PKPbc | **PKPbc** | **21 30 11.8** | **-0.7** |
| | 1.4nm,0.6s,baz=318,slow=0.9,SNR=32 | | | | | | |

*ISCJB **10** 21:12:33.0±0.2, 6°.13S±0°.03×147°.80E±0°.04, h60km, mb4.8/54, MS3.8/11, Error ellipse: s-maj=5.6km s-min=3.9km az=12.7*

*IDC **10** 21:12:34.4±1.5, 6°.16S×147°.73E, h59km±13km, mb4.1/14, mb1 4.2/18, mb1mx4.0/39, mbtmp4.4/18, MS3.5/11, Ms1 3.6/11, ms1mx3.4/31, Error ellipse: s-maj=18.3km s-min=8.5km az=99.0*

*DJA **10** 21:12:35.9±1.1, 6°S±5°×14°8E±°, h66km±8km, M4.8/11, mB5.0/1, mb4.7/11, MLv4.8/1, Mw(mB)4.3/1*

*NEIC **10** 21:12:35.3±0.6, 6°.14S×147°.77E, h67km±5km, mb4.9/29, Error ellipse: s-maj=4.5km s-min=3.8km az=119.0*

*BJI **10** 21:12:35.5, 5°.75S×147°.81E, h68km, mb4.6/38, mB5.1/22, Ms5.0/10, Ms7 4.7/10*

**ISC 10 21:12:34.7**±0.3**,6°.18S**±0°.04**×147°.81E**±0°.05**,h60km,n106, σ1s.54**/121**,mb4.8**/54**,MS3.6**/11**,1D,Eastern New Guinea region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **3.27** | **191** | P | **Pn** | **21 13 24.1** | **+0.5** |
| | 77nm,0.3s,baz=8.1,slow=5.0,SNR=97 | | | | | | |
| PMG | | | | S | **Sn** | **21 14 01.6** | **+0.4** |
| | 55nm,0.3s,baz=96,slow=16,SNR=9.3 | | | | | | |
| PMG | | | | LR | LR | 21 14 49.1 | |
| | comp=Z,935nm,21.8s,baz=62,slow=41 | | | | | | |
| **PMG** | **Port Moresby** | **3.27** | **191** | *e*Pn | **Pn** | **21 13 23.6** | **0.0** |
| PMG | | | | S | **Sn** | **21 14 01.6** | **+0.4** |
| **RABL** | **Rabaul** | **4.77** | **66** | *e*Pn | **Pn** | **21 13 44.9** | **+0.8** |
| **JAY** | **Jayapura** | **7.96** | **297** | P | Pn | 21 14 34.5 | +6.6 |
| **GENI** | **Genyem** | **8.41** | **295** | P | Pn | 21 14 40.9 | +6.9 |
| GENI | | | | S | Sn | 21 16 18.7 | +11 |
| **COEN** | **Coen** | **8.97** | **210** | *e*Pn | **Pn** | **21 14 42.6** | **+0.9** |
| **HNR** | **Honiara** | **12.45** | **106** | P | **Pn** | **21 15 29.5** | **+0.2** |
| | 5.0nm,0.3s,baz=204,slow=10.0,SNR=6.0 | | | | | | |
| HNR | | | | LR | LR | 21 19 31.3 | |
| | comp=Z,184nm,19.0s,baz=276,slow=33 | | | | | | |
| **CTA** | **Charters Tower** | **13.91** | **186** | P | **Pn** | **21 15 49.5** | **+0.5** |
| | 0.2nm,0.3s,baz=20,slow=12,SNR=6.3 | | | | | | |
| **CTAO** | **Charters Tower** | **13.91** | **186** | *e*Pn | **Pn** | **21 15 50.1** | **+1.1** |
| **MTN** | **Manton Dam** | **17.72** | **247** | *e*P | **Pn** | **21 16 37.2** | **-0.3** |
| | 27nm,1.3s | | | | | | |
| **WRAB** | **Tennant Creek** | **18.92** | **222** | *e*P | **P** | **21 16 51.2** | **+0.4** |
| | 11nm,0.8s | | | | | | |
| WRAB | | | | *e*S | **S** | **21 20 19.7** | **-3.0** |
| **WB2** | **Warramunga Arr** | **18.92** | **222** | *e*P | **Pn** | **21 16 51.5** | **-0.5** |
| **WRA** | **Warramunga Arr** | **18.93** | **222** | P | **P** | **21 16 51.1** | **+0.1** |
| | 1.1nm,0.3s,baz=45,slow=11,SNR=29 | | | | | | |
| WRA | | | | S | **S** | **21 20 19.0** | **-4.0** |
| | baz=44,slow=22,SNR=14 | | | | | | |
| WRA | | | | PcP | **PcP** | **21 21 15.1** | **0.0** |
| | 0.1nm,0.3s,baz=31,slow=1.6,SNR=5.3 | | | | | | |
| WRA | | | | ScP | **ScP** | **21 24 46.9** | **+1.1** |
| | 0.1nm,0.3s,baz=45,slow=2.6,SNR=11 | | | | | | |
| WRA | | | | LR | LR | 21 25 05.6 | |
| | comp=Z,198nm,19.6s,baz=50,slow=40 | | | | | | |
| **EIDS** | **Eidsvold** | **19.34** | **171** | *e*P | **Pn** | **21 16 56.5** | **-0.4** |
| | 49nm,1.0s | | | | | | |
| **AAI** | **Ambon** | **19.69** | **276** | P | **Pn** | **21 17 02.2** | **+1.0** |
| | 57nm,0.7s | | | | | | |
| **GUMO** | **Guam** | **19.86** | **352** | *e*P | **P** | **21 17 01.3** | **+0.3** |
| | 544nm,1.4s | | | | | | |
| **AS01** | **Alice Springs** | **21.91** | **216** | *e*P | **P** | **21 17 23.2** | **+0.1** |
| AS01 | | | | *e*S | **S** | **21 21 21.3** | **-0.6** |
| AS01 | | | | *e*Sn | Sn | 21 21 39.0 | +4.0 |
| **AS31** | **Alice Springs** | **21.93** | **216** | *e*P | **P** | **21 17 24.2** | **+0.8** |
| | 5.5nm,0.5s | | | | | | |
| **ASAR** | **Alice Springs** | **21.93** | **216** | P | **P** | **21 17 23.9** | **+0.4** |
| | 4.2nm,0.5s,baz=57,slow=9.4,SNR=52 | | | | | | |
| ASAR | | | | S | **S** | **21 21 20.5** | **-2.0** |
| | 6.3nm,1.0s,baz=26,slow=22,SNR=11 | | | | | | |
| ASAR | | | | ScP | **ScP** | **21 24 54.4** | **+1.4** |
| | 2.7nm,0.8s,baz=43,slow=3.1,SNR=12 | | | | | | |
| **SANI** | **Sanana** | **22.14** | **280** | P | **P** | **21 17 30.9** | **+5.2** |
| | 17nm,0.7s | | | | | | |
| **SOEI** | **Soe** | **23.58** | **260** | P | **P** | **21 17 46.3** | **+5.9** |
| **SOEI** | **Soe** | **23.58** | **260** | *e*P | **P** | **21 17 40.5** | **+0.1** |
| | 45nm,1.0s | | | | | | |
| **DZM** | **Mont Dzumac** | **23.96** | **133** | P | **P** | **21 17 43.7** | **0.0** |
| | 11nm,0.9s,baz=250,slow=8.6,SNR=7.0 | | | | | | |
| **DZM** | **Mont Dzumac** | **23.96** | **133** | *e*P | **P** | **21 17 44.1** | **+0.3** |
| | 33nm,1.4s | | | | | | |
| **ARMA** | **Armidale** | **24.38** | **172** | *e*P | **P** | **21 17 48.1** | **+0.6** |
| ARMA | | | | *e*pP | **pP** | **21 18 04.7** | **+2.5** |
| **FITZ** | **Fitzroy Crossi** | **24.66** | **239** | P | **P** | **21 17 50.8** | **+0.7** |
| | 57nm,0.7s,baz=60,slow=7.8,SNR=162 | | | | | | |
| **KWAJ** | **Kwajalein Atol** | **24.73** | **53** | *e*P | **P** | **21 17 50.9** | **+0.2** |
| | 1µm,1.4s | | | | | | |
| **MMRI** | **Maumere** | **25.47** | **263** | *e*P | **P** | **21 17 56.8** | **-0.7** |
| | 19nm,0.7s | | | | | | |
| **LUWI** | **Luwuk** | **25.49** | **281** | *e*P | **P** | **21 17 57.4** | **-0.3** |
| | 37nm,1.1s | | | | | | |
| **EDFI** | **Ende, Flores** | **26.02** | **263** | P | **P** | **21 18 01.9** | **-0.7** |
| **STKA** | **Stephens Creek** | **26.22** | **192** | P | **P** | **21 18 04.0** | **-0.1** |
| | 9.9nm,0.8s,baz=357,slow=9.6,SNR=15 | | | | | | |
| STKA | | | | LR | LR | 21 28 44.0 | |
| | comp=Z,226nm,20.6s,baz=20,slow=37 | | | | | | |
| **STKA** | **Stephens Creek** | **26.22** | **192** | *e*P | **P** | **21 18 04.8** | **+0.7** |
| | 2.4nm,1.0s | | | | | | |
| **KAPI** | **Kappang** | **27.94** | **271** | *e*P | **P** | **21 18 20.0** | **+0.3** |
| | 13nm,1.1s | | | | | | |
| **FORT** | **Forrest** | **30.70** | **215** | *e*P | **P** | **21 18 43.6** | **-0.4** |
| | 108nm,0.8s | | | | | | |
| **MBWA** | **Marble Bar** | **31.00** | **239** | *e*P | **P** | **21 18 47.0** | **+0.3** |
| | 72nm,1.8s | | | | | | |
| **MSVF** | **Nonsavu** | **31.68** | **114** | *e*P | **P** | **21 18 53.4** | **+0.5** |
| | 36nm,1.7s | | | | | | |
| **JAGI** | **Jajag, Banyuwa** | **33.45** | **264** | *e*P | **P** | **21 19 08.2** | **-0.2** |
| | 13nm,0.9s | | | | | | |
| **CBIJ** | **Chichi jima** | **33.52** | **351** | *e*P | **P** | **21 19 09.2** | **+0.5** |
| | 340nm,1.5s | | | | | | |
| **KPJI** | **Karang Pucung** | **38.61** | **266** | P | P | 21 20 06.0 | +13 |
| **NACB** | **Ninganchiao** | **39.54** | **321** | *e*P | **P** | **21 19 60.0** | **-0.1** |
| | 88nm,1.4s | | | | | | |
| **CISI** | **Cisompet, Garu** | **39.72** | **266** | P | **P** | **21 20 02.0** | **+0.2** |
| **CISI** | **Cisompet, Garu** | **39.72** | **266** | *e*P | **P** | **21 20 00.8** | **-1.0** |
| | 46nm,1.1s | | | | | | |
| **CNJI** | **Cibinong** | **40.40** | **266** | P | **P** | **21 20 07.6** | **+0.2** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JNU** | **Nakatsue** | **42.26** | **339** | P | **P** | **21 20 22.4** | **0.0** |
| | 6.8nm,0.7s,baz=113,slow=7.4,SNR=4.4 | | | | | | |
| **LBZ** | **Lake Benmore** | **42.80** | **156** | *e*P | **P** | **21 20 27.3** | **+0.7** |
| | 111nm,1.9s | | | | | | |
| **MLZ** | **Mavora Lakes** | **42.85** | **159** | *e*P | **P** | **21 20 27.5** | **+0.5** |
| | 48nm,1.5s | | | | | | |
| **PYZ** | **Puysegur Point** | **43.05** | **161** | *e*P | **P** | **21 20 30.0** | **+1.4** |
| | 49nm,1.3s | | | | | | |
| **KASI** | **Kota Agung** | **43.08** | **269** | P | **P** | **21 20 28.9** | **-0.4** |
| **MJAR** | **Matsushiro Arr** | **43.44** | **349** | P | **P** | **21 20 31.4** | **-0.4** |
| | 12nm,0.9s,baz=177,slow=7.7,SNR=11 | | | | | | |
| MJAR | | | | LR | LR | 21 37 58.9 | |
| | comp=Z,34nm,18.1s,baz=185,slow=35 | | | | | | |
| **MAJO** | **Matsushiro** | **43.44** | **349** | *e*P | **P** | **21 20 31.7** | **-0.1** |
| | 22nm,1.0s | | | | | | |
| **MAT** | **Matsushiro** | **43.44** | **349** | P | **P** | **21 20 31.2** | **-0.6** |
| **MJB9** | **Matsu-Tunnel** | **43.44** | **349** | *e*P | **P** | **21 20 32.0** | **+0.1** |
| | 23nm,1.0s | | | | | | |
| **LWLI** | **Liwa** | **43.55** | **269** | P | **P** | **21 20 34.1** | **+0.9** |
| **MNAI** | **Manna** | **44.69** | **270** | *e*P | **P** | **21 20 40.5** | **-1.7** |
| | 160nm,1.1s | | | | | | |
| **QIZ** | **Qiongzhong** | **45.02** | **305** | P | **P** | **21 20 42.9** | **-1.8** |
| QIZ | | | | sP | **sP** | **21 21 11.1** | **+4.0** |
| QIZ | | | | PP | **PP** | **21 22 32.4** | **+1.4** |
| QIZ | | | | S | **S** | **21 27 19.7** | **+0.3** |
| QIZ | | | | pmax | pmax | | |
| | comp=Z,680nm,5.7s | | | | | | |
| **NJ2** | **Nanjing** | **46.98** | **326** | *e*P | **P** | **21 20 58.7** | **-1.2** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.5s | | | | | | |
| **KSRS** | **Korea Array** | **47.21** | **338** | P | **P** | **21 21 01.2** | **-0.4** |
| | 3.7nm,0.9s,baz=158,slow=9.3,SNR=7.4 | | | | | | |
| KSRS | | | | LR | LR | 21 40 46.6 | |
| | comp=Z,46nm,18.2s,baz=153,slow=36 | | | | | | |
| **KSAR** | **Wonju Array Be** | **47.21** | **338** | P | **P** | **21 21 01.2** | **-0.5** |
| **KS01** | **Wonju Array Si** | **47.24** | **338** | *e*P | **P** | **21 21 01.5** | **-0.3** |
| **IPM** | **Ipoh** | **47.89** | **282** | *e*P | **P** | **21 21 06.7** | **-0.7** |
| | 26nm,1.3s | | | | | | |
| **MIDW** | **Midway** | **47.93** | **43** | *e*P | **P** | **21 21 07.1** | **-0.3** |
| | 314nm,2.0s | | | | | | |
| **JOHN** | **Johnston Islan** | **47.94** | **61** | *e*P | **P** | **21 21 07.3** | **-0.3** |
| | 722nm,1.5s | | | | | | |
| **WHN** | **Wuhan** | **48.58** | **321** | P | **P** | **21 21 11.2** | **-1.1** |
| **GYA** | **Guiyang** | **51.40** | **311** | *e*P | **P** | **21 21 35.0** | **+1.0** |
| GYA | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.0s | | | | | | |
| **LHMI** | **Lhok Sumawe** | **52.02** | **282** | *e*P | **P** | **21 21 36.5** | **-2.2** |
| | 140nm,1.0s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **52.14** | **346** | P | **P** | **21 21 38.1** | **-0.9** |
| | 1.9nm,0.6s,baz=162,slow=7.8,SNR=4.3 | | | | | | |
| USRK | | | | LR | LR | 21 42 24.4 | |
| | comp=Z,36nm,19.6s,baz=183,slow=34 | | | | | | |
| **MDJ** | **Mudanjiang** | **53.16** | **344** | P | **P** | **21 21 47.0** | **+0.5** |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.6s | | | | | | |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,160nm,5.6s | | | | | | |
| **CN2** | **Changchun** | **53.70** | **340** | *e*P | **P** | **21 21 53.8** | **+3.3** |
| **KMI** | **Kunming** | **53.74** | **307** | P | **P** | **21 21 53.9** | **+2.4** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.5s | | | | | | |
| **CM01** | **Chiang Mai Arr** | **54.01** | **298** | *e*P | **P** | **21 21 52.7** | **-0.6** |
| **CM31** | **Chiang Mai Arr** | **54.04** | **298** | *e*P | **P** | **21 21 53.4** | **-0.1** |
| **CMAR** | **Chiang Mai Arr** | **54.04** | **298** | P | **P** | **21 21 53.0** | **-0.5** |
| | 0.8nm,1.1s,baz=119,slow=6.7,SNR=5.1 | | | | | | |
| CMAR | | | | LR | LR | 21 47 52.6 | |
| | comp=Z,35nm,18.0s,baz=147,slow=39 | | | | | | |
| **BJI** | **Beijing** | **54.45** | **330** | P | **P** | **21 21 55.5** | **-0.5** |
| BJI | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.1s | | | | | | |
| **KLR** | **Kul'dur** | **56.93** | **348** | P | **P** | **21 22 13.4** | **-0.2** |
| | 0.3nm,0.8s,baz=158,slow=2.2,SNR=12 | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **57.41** | **328** | *e*P | **P** | **21 22 19.7** | **+2.3** |
| HHC | | | | S | **S** | **21 30 09.4** | **-0.6** |
| HHC | | | | ScS | **ScS** | **21 31 58.3** | **-3.4** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,16nm,1.0s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,120nm,5.4s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=N,190nm,16.9s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=E,120nm,16.5s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,130nm,15.7s | | | | | | |
| **LZH** | **Lanzhou** | **58.87** | **319** | *e*P | **P** | **21 22 28.5** | **+0.8** |
| LZH | | | | pP | pP | 21 22 45.8 | +2.0 |
| LZH | | | | sP | sP | 21 22 54.6 | +4.0 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,12nm,1.0s | | | | | | |
| **PETK** | **Petropavlovsk-** | **59.66** | **7** | P | **P** | **21 22 32.8** | **+0.2** |
| | 11nm,0.8s,baz=156,slow=5.9,SNR=16 | | | | | | |
| PETK | | | | LR | LR | 21 45 51.3 | |
| | comp=Z,51nm,20.5s,baz=152,slow=34 | | | | | | |
| **PETK** | **Petropavlovsk-** | **59.66** | **7** | *e*P | **P** | **21 22 33.1** | **+0.5** |
| **GTA** | **Gaotai** | **63.39** | **320** | *e*P | **P** | **21 22 59.5** | **+1.2** |
| GTA | | | | pP | sP | 21 23 19.1 | -2.1 |
| GTA | | | | sP | PcP | 21 23 28.0 | -6.8 |
| GTA | | | | S | **S** | **21 31 25.7** | **-1.0** |
| GTA | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.0s | | | | | | |
| GTA | | | | pmax | pmax | | |
| | comp=Z,61nm,6.1s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=N,120nm,11.4s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=E,170nm,12.8s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,130nm,14.7s | | | | | | |
| **ULN** | **Ulaanbaatar** | **64.65** | **331** | *e*P | **P** | **21 23 06.3** | **-0.1** |
| | 3.7nm,0.7s | | | | | | |
| **SONM** | **Songino Array** | **64.95** | **331** | P | **P** | **21 23 08.0** | **-0.3** |
| | 1.9nm,0.6s,baz=146,slow=7.3,SNR=14 | | | | | | |
| SONM | | | | LR | LR | 21 51 00.7 | |
| | comp=Z,61nm,21.2s,baz=43,slow=36 | | | | | | |
| **SONA1** | **Songino Array** | **64.96** | **331** | *e*P | **P** | **21 23 07.8** | **-0.5** |
| **VNDA** | **Vanda** | **71.69** | **177** | P | **P** | **21 23 49.1** | **-0.7** |
| | 0.6nm,0.5s,baz=338,slow=5.7,SNR=6.6 | | | | | | |
| **WMQ** | **Urumqi** | **73.45** | **319** | P | **P** | **21 24 01.7** | **+0.8** |
| WMQ | | | | pP | sP | 21 24 21.8 | -2.3 |
| WMQ | | | | sP | pP | 21 24 30.4 | +13 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,13nm,0.7s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,570nm,8.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,98nm,16.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,64nm,15.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,100nm,13.5s | | | | | | |
| **MK01** | **Makanchi Array** | **78.13** | **320** | *e*P | **P** | **21 24 26.4** | **-1.1** |
| **MKAR** | **Makanchi Array** | **78.15** | **320** | P | **P** | **21 24 26.4** | **-1.2** |
| | 3.0nm,0.7s,baz=98,slow=8.0,SNR=26 | | | | | | |
| **TIXI** | **Tiksi** | **78.67** | **354** | P | **P** | **21 24 27.9** | **-2.0** |
| | 1.4nm,0.7s,baz=146,slow=1.5,SNR=5.3 | | | | | | |
| **TIXI** | **Tiksi** | **78.67** | **354** | *e*P | **P** | **21 24 29.7** | **-0.2** |
| | 2.9nm,1.0s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **79.59** | **328** | P | **P** | **21 24 33.1** | **-2.2** |
| | 2.2nm,0.6s,baz=115,slow=5.9,SNR=13 | | | | | | |
| ZALV | | | | LR | LR | 21 57 52.9 | |
| | comp=Z,28nm,21.3s,baz=70,slow=34 | | | | | | |
| **KSH** | **Kashi** | **80.09** | **312** | P | **P** | **21 24 40.6** | **+2.0** |
| KSH | | | | pP | sP | 21 25 00.5 | -1.4 |
| KSH | | | | PP | **PP** | **21 27 45.5** | **+4.0** |
| KSH | | | | S | **S** | **21 34 37.8** | **-0.9** |
| KSH | | | | SKS | **SKSac** | **21 34 45.8** | **-5.4** |
| KSH | | | | SS | **SS** | **21 39 53.6** | **+3.2** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.8s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,98nm,6.7s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,180nm,6.1s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,230nm,5.9s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,160nm,7.6s | | | | | | |
| **RC01** | **Rabbit Creek A** | **82.53** | **26** | *e*P | **P** | **21 24 51.5** | **+0.7** |
| | 43nm,1.8s | | | | | | |
| **QSPA** | **South Pole Qui** | **83.79** | **180** | *e*P | **P** | **21 24 57.2** | **-0.3** |
| | 16nm,1.3s | | | | | | |
| **ILAR** | **Eielson Array** | **85.33** | **23** | P | **P** | **21 25 02.0** | **-3.0** |
| | 1.8nm,0.9s,baz=255,slow=4.0,SNR=4.1 | | | | | | |
| **SYO** | **Syowa Base** | **90.70** | **200** | ⇓*e*X | P | 21 25 36.0 | +5.4 |
| **SWSC** | **Sam W. Stewart** | **98.68** | **58** | *e*P | Pdif | 21 26 08.6 | +0.7 |
| **WVT** | **Waverly** | **121.14** | **51** | *e*PKPdf | **PKPdf** | **21 31 19.3** | **-2.0** |
| **PLCA** | **Paso Flores** | **121.53** | **146** | PKP | **PKPdf** | **21 31 21.9** | **-0.2** |
| | 2.7nm,0.8s,baz=216,slow=1.7,SNR=5.1 | | | | | | |
| **PRAC** | **Prado** | **137.41** | **91** | *e*PKPdf | **PKPdf** | **21 31 52.5** | **-0.3** |
| **LPAZ** | **La Paz** | **138.01** | **123** | PKhKP | PKPpre | 21 31 45.7 | |
| | 0.5nm,0.5s,baz=276,slow=4.2,SNR=3.1 | | | | | | |
| **LPAZ** | **La Paz** | **138.01** | **123** | *e*PKPdf | **PKPdf** | **21 31 55.8** | **+1.2** |
| **SAML** | **Samuel** | **145.65** | **116** | *e*PKPdf | **PKPdf** | **21 32 07.2** | **-0.3** |
| **TOA0** | **Torodi Ar. Sit** | **145.91** | **284** | *e*PKPdf | **PKPdf** | **21 32 07.0** | **-0.9** |
| TOA0 | | | | *e*PKPdf | **PKPbc** | **21 32 07.5** | **-1.1** |
| **TORD** | **Torodi Ar. Bea** | **145.91** | **284** | PKPbc | **PKPdf** | **21 32 07.5** | **-0.4** |
| | 3.8nm,0.6s,baz=67,slow=3.3,SNR=58 | | | | | | |
| **PTGA** | **Pitinga** | **151.44** | **103** | *e*PKPdf | **PKPdf** | **21 32 15.8** | **-1.1** |
| **DBIC** | **Dimbokro** | **152.83** | **273** | PKPbc | **PKPbc** | **21 32 25.7** | **-0.4** |
| | 2.6nm,0.7s,baz=30,slow=4.6,SNR=4.5 | | | | | | |
| **BDFB** | **Brasilia** | **153.25** | **144** | PKPbc | **PKPbc** | **21 32 27.0** | **-0.1** |
| | 13nm,0.8s,baz=25,slow=2.3,SNR=13 | | | | | | |

*GUC* ***10*** *21:18:34.4±0.7, 33°.34S×69°.94W, h12km±3km, ML2.1*
*ISCJB* ***10*** *21:18:36.8±1.2, 33°.35S±0°.05×70°.01W±0°.05, h3km±8km, Error ellipse: s-maj=9.5km s-min=5.2km az=143.8*
*SJA* ***10*** *21:18:45.1±0.6, 33°.16S×69°.63W, h40km, ML3.8, MW3.3*
**ISC 10 21:18:36.1**±1.4**, 33°.30S**±0°.06×**69°.98W**±0°.04**, h7**km±11km**, n13,** σ**0s.74**/22**, 4D, Chile-Argentina border region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FCH** | **Farellones** | **0.26** | **264** | ⇓*i*P | **Pg** | **21 18 41.0** | **-0.3** |
| FCH | | | | *i* S | **Sg** | **21 18 46.1** | **+1.2** |
| **CLCH** | **Cerro Calan** | **0.47** | **259** | ⇓*i*P | **Pg** | **21 18 44.7** | **-0.6** |
| CLCH | | | | *i* S | **Sb** | **21 18 52.8** | **-1.2** |
| CLCH | | | | IAML | | 21 18 53.6 | |
| | comp=E,278nm,0.6s | | | | | | |
| **PEL** | **Peldehue** | **0.61** | **285** | ⇓*i*P | **Pg** | **21 18 47.4** | **-0.5** |
| PEL | | | | *i* S | **Sb** | **21 18 57.5** | **-0.4** |
| PEL | | | | IAML | | 21 18 57.7 | |
| | comp=E,280nm,0.2s | | | | | | |
| **ROCH** | **El Roble** | **0.92** | **291** | ⇓*i*P | **Pg** | **21 18 53.2** | **-0.7** |
| ROCH | | | | *i* S | **Sb** | **21 19 07.6** | **+0.5** |
| ROCH | | | | IAML | | 21 19 08.6 | |
| | comp=N,92nm,0.2s | | | | | | |
| **ROC1** | **El Roble** | **0.93** | **290** | *e*P | Pn | 21 19 06.8 | +11 |
| ROC1 | | | | *e*P | Pb | 21 19 07.3 | +13 |
| **AUSP** | **Uspallata** | **1.19** | **25** | *e*P | **Pg** | **21 18 57.7** | **-1.2** |
| AUSP | | | | *e*S | **Sn** | **21 19 15.8** | **-0.1** |
| **RTLS** | **Leoncito** | **1.61** | **21** | *e*P | **Pn** | **21 19 05.5** | **+0.3** |
| RTLS | | | | *e*S | **Sg** | **21 19 28.9** | **+1.1** |
| **RTCV** | **Cerro Valdivia** | **1.88** | **41** | *e*P | **Pb** | **21 19 10.2** | **-0.6** |
| RTCV | | | | *e*S | **Sb** | **21 19 35.2** | **+0.6** |
| **GO05** | **HualaæØ** | **2.35** | **223** | *e*P | **Pn** | **21 19 15.2** | **+0.1** |
| GO05 | | | | *e*S | **Sn** | **21 19 45.0** | **+0.9** |
| **RTLL** | **Cerro Villicun** | **2.35** | **33** | *e*P | **Pb** | **21 19 18.8** | **+0.1** |
| **ACAN** | **Cantantal** | **2.57** | **67** | *e*P | **Pb** | **21 19 21.9** | **-0.6** |
| ACAN | | | | *e*S | **Sb** | **21 19 54.7** | **+0.4** |
| **AMOG** | **MOGNA** | **2.67** | **29** | *e*P | **Pb** | **21 19 23.9** | **-0.4** |
| AMOG | | | | IAML | | 21 19 26.6 | |
| | comp=Z,500nm,0.3s | | | | | | |
| AMOG | | | | *e*S | **Sb** | **21 19 56.8** | **-0.6** |
| **AGUA** | **GUANDACOL** | **4.01** | **19** | *e*P | **Pg** | **21 19 53.1** | **+0.1** |

**IDC 10 21:35:47.1**±2.2**, 5°.95S**×**129°.82E, h0**km**, mb3.6**/1**, mb1 3.7**/4**, mb1mx3.3**/47**, mbtmp3.5**/4**, ML3.7**/3**, Error ellipse: s-maj=95.3km s-min=27.9km az=76.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **12.75** | **198** | Pn | Pn | 21 38 50.9 | +1.1 |
| | 0.3nm,0.3s,baz=19,slow=11,SNR=11 | | | | | | |
| FITZ | | | | Sn | Sn | 21 41 01.0 | -12 |
| | 0.4nm,0.3s,baz=168,slow=21,SNR=7.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **14.59** | **163** | Pn | Pn | 21 39 14.1 | -0.8 |
| | 0.4nm,0.3s,baz=344,slow=13,SNR=12 | | | | | | |
| WRA | | | | Sn | Sn | 21 41 44.2 | -13 |
| | 0.5nm,0.3s,baz=338,slow=23,SNR=8.0 | | | | | | |
| **ASAR** | **Alice Springs** | **18.05** | **168** | P | Pn | 21 39 59.0 | -0.5 |
| | 0.2nm,0.3s,baz=346,slow=11,SNR=17 | | | | | | |
| ASAR | | | | S | Sn | 21 43 07.5 | -14 |
| | 0.1nm,0.3s,baz=346,slow=26,SNR=4.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.26** | **327** | P | P | 21 46 43.6 | 0.0 |
| | 0.3nm,0.5s,baz=122,slow=7.1,SNR=6.3 | | | | | | |

*IDC* ***10*** *21:45:08.6±1.6, 10°.70S×164°.38E, h0km, mb3.7/5, mb1 3.9/6, mb1mx3.7/37, mbtmp3.8/6, ML3.9/1, MS3.2/3, Ms1 3.2/3, ms1mx2.9/28, Error ellipse: s-maj=46.8km s-min=29.7km az=129.0*
*ISCJB* ***10*** *21:45:10.5±1.2, 10°.9S±0°.1×164°.4E±0°.2, h24km, mb3.6/5, MS3.0/1, Error ellipse: s-maj=27.1km s-min=20.2km az=170.5*
**ISC 10 21:45:12.2**±1.3**, 10°.8S**±0°.2×**164°.4E**±0°.2**, h24**km**, n8,** σ**0s.74**/6**, mb3.9**/5**, Santa Cruz Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **11.40** | **170** | Pn | **Pn** | **21 47 53.8** | **0.0** |
| | 0.9nm,0.3s,baz=350,slow=12,SNR=18 | | | | | | |
| DZM | | | | LR | LR | 21 51 27.7 | |
| | comp=Z,170nm,20.6s,baz=206,slow=33 | | | | | | |
| **PMG** | **Port Moresby** | **17.04** | **273** | LR | LR | 21 55 18.4 | |
| | comp=Z,79nm,21.4s,baz=96,slow=36 | | | | | | |
| **AFI** | **Afiamalu** | **23.46** | **100** | LR | LR | 21 58 24.7 | |
| | comp=Z,53nm,21.2s,baz=38,slow=34 | | | | | | |
| **WRA** | **Warramunga Arr** | **30.35** | **249** | P | **P** | **21 51 22.4** | **-0.1** |
| | 0.5nm,0.8s,baz=80,slow=9.9,SNR=5.3 | | | | | | |
| **ASAR** | **Alice Springs** | **31.75** | **242** | P | **P** | **21 51 35.2** | **+0.4** |
| | 0.2nm,0.5s,baz=67,slow=9.7,SNR=3.7 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **38.19** | **254** | P | **P** | **21 52 29.5** | **-0.8** |
| | 1.1nm,0.5s,baz=73,slow=10.0,SNR=7.1 | | | | | | |
| **ILAR** | **Eielson Array** | **83.68** | **19** | P | **P** | **21 57 38.2** | **-0.4** |
| | 0.6nm,0.8s,baz=239,slow=4.8,SNR=5.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **92.43** | **317** | P | **P** | **21 58 22.0** | **+0.8** |
| | 0.7nm,0.9s,baz=112,slow=3.4,SNR=3.2 | | | | | | |

*ISCJB* ***10*** *22:06:02.9±0.8, 31°.51S±0°.05×68°.91W±0°.06, h119km±7km, Error ellipse: s-maj=10.5km s-min=5.0km az=39.0*
*SJA* ***10*** *22:06:02.3±0.6, 31°.52S×68°.95W, h117km±2km, ML3.4, MW3.7*
*GUC* ***10*** *22:06:02.8±0.3, 31°.26S×69°.39W, h122km±29km, ML3.2*
**ISC 10 22:06:03.9**±1.5**, 31°.50S**±0°.05×**68°.92W**±0°.06**, h111**km±10km**, n16,** σ**0s.56**/24**, San Juan Province**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SJA** | **San Juan** | **0.31** | **95** | *e*P | **Pn** | **22 06 19.6** | **-0.4** |
| SJA | | | | *e*S | **Sn** | **22 06 32.2** | **+0.3** |
| **RTCV** | **Cerro Valdivia** | **0.48** | **138** | *e*P | **Pn** | **22 06 20.4** | **-0.5** |
| RTCV | | | | *e*S | **Sn** | **22 06 33.9** | **+0.2** |
| **AMOG** | **MOGNA** | **0.67** | **33** | *e*P | **Pn** | **22 06 22.2** | **-0.1** |
| AMOG | | | | *e*S | **Sn** | **22 06 36.6** | **+0.6** |
| **AUSP** | **Uspallata** | **0.82** | **209** | *e*P | **Pn** | **22 06 23.4** | **-0.4** |
| AUSP | | | | *e*S | **Sn** | **22 06 39.1** | **+0.3** |
| **ACAN** | **Cantantal** | **1.67** | **118** | *e*P | **Pn** | **22 06 32.6** | **-0.2** |
| ACAN | | | | *e*S | **Sn** | **22 06 55.1** | **+0.3** |
| **AGUA** | **GUANDACOL** | **2.04** | **11** | *e*P | **Pn** | **22 06 37.7** | **0.0** |
| AGUA | | | | *e*S | **Sn** | **22 07 03.8** | **+0.4** |
| **FCH** | **Farellones** | **2.16** | **212** | *e*P | **Pn** | **22 06 40.4** | **+1.2** |
| FCH | | | | IAML | | 22 07 12.3 | |
| | comp=N,102nm,0.1s | | | | | | |
| **PEL** | **Peldehue** | **2.21** | **222** | *e*P | **Pn** | **22 06 39.2** | **-0.5** |
| PEL | | | | *i* S | **Sn** | **22 07 07.1** | **-0.1** |
| PEL | | | | IAML | | 22 07 08.9 | |
| | comp=E,150nm,0.2s | | | | | | |
| **ROCH** | **El Roble** | **2.30** | **230** | *e*P | **Pn** | **22 06 40.2** | **-0.7** |
| ROCH | | | | *i* S | **Sn** | **22 07 08.7** | **-0.7** |
| ROCH | | | | IAML | | 22 07 12.2 | |
| | comp=N,152nm,0.6s | | | | | | |
| **ROC1** | **El Roble** | **2.30** | **230** | *e*P | **Pn** | **22 06 40.6** | **-0.4** |
| **CLCH** | **Cerro Calan** | **2.33** | **215** | *i* S | **Sn** | **22 07 11.1** | **+1.2** |
| CLCH | | | | IAML | | 22 07 19.2 | |
| | comp=E,146nm,0.7s | | | | | | |
| **ANTU** | **Antumapu** | **2.52** | **215** | IAML | | 22 07 20.3 | |
| | comp=N,114nm,0.2s | | | | | | |
| **RCDM** | **Rinconada Maip** | **2.54** | **218** | *e*P | **Pn** | **22 06 43.8** | **-0.1** |
| RCDM | | | | *i* S | **Sn** | **22 07 14.7** | **+0.1** |
| **VCA** | **Vinchina** | **2.83** | **13** | *e*P | **Pn** | **22 06 47.9** | **0.0** |
| VCA | | | | IAML | | 22 07 26.2 | |
| | comp=Z,201nm,0.3s | | | | | | |
| **TCA** | **Tanti** | **3.70** | **89** | *e*P | **Pn** | **22 06 59.1** | **-0.3** |
| TCA | | | | IAML | | 22 06 59.8 | |
| | comp=Z,35nm,0.1s | | | | | | |
| **CYA** | **Choya** | **4.08** | **42** | *e*P | **Pn** | **22 07 03.7** | **-0.7** |

*NIED* ***10*** *22:13:00, 38°.20N×144°.10E, h5km, Mw4.0 Best double couple: M0 1.11000×10^15 NP1: φs13.00000°, δ22.00000°, λ-107.00000°. NP2: φs211.00000°, δ69.00000°, λ-83.00000°.*
*IDC* ***10*** *22:13:52.9±0.9, 37°.99N×144°.35E, h0km, mb3.8/8, mb1 4.0/12, mb1mx3.7/54, mbtmp3.9/12, ML4.2/3, MS2.6/3, Ms1 2.6/3, ms1mx2.5/41, Error ellipse: s-maj=24.5km s-min=16.7km az=91.0*
*JMA* ***10*** *22:13:56.2±0.2, 38°.18N×144°.14E, h44km, M4.3*
*NEIC* ***10*** *22:13:58.2±0.5, 38°.06N×144°.22E, h35km, mb4.2/3, Error ellipse: s-maj=10.0km s-min=7.5km az=106.0*
**ISC 10 22:13:56.4**±2.8**, 38°.12N**±0°.04×**144°.21E**±0°.06**, h25**km±21km**, n39,** σ**2s.14**/45**, mb3.9**/11**, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OFUJ** | **Ofunato** | **2.21** | **296** | P | Pn | 22 14 30.6 | -0.9 |
| OFUJ | | | | *e*S | **Sn** | **22 14 56.0** | **-2.0** |
| **JIO** | **Ouri** | **2.28** | **279** | P | Pn | 22 14 31.6 | -0.8 |
| JIO | | | | *e*S | **Sn** | **22 14 56.9** | **-2.7** |
| **MIYJ** | **Miyakonagasawa** | **2.37** | **309** | P | Pn | 22 14 32.3 | -1.3 |
| MIYJ | | | | *e*S | **Sn** | **22 14 59.6** | **-2.2** |
| **JMK** | **Ichinoseki** | **2.49** | **290** | P | **Pn** | **22 14 34.8** | **-0.5** |
| JMK | | | | *e*S | **Sn** | **22 15 02.9** | **-1.9** |
| **JOM** | **Ohasama** | **2.65** | **301** | P | Pn | 22 14 36.8 | -0.7 |
| JOM | | | | *e*S | **Sn** | **22 15 07.3** | **-1.6** |
| **JANG** | **Nango** | **3.07** | **318** | P | Pn | 22 14 42.1 | -1.2 |
| JANG | | | | *e*S | **Sn** | **22 15 16.6** | **-2.7** |
| **JYK** | **Kaneyama** | **3.13** | **286** | P | **Pn** | **22 14 44.3** | **+0.2** |
| JYK | | | | *e*S | **Sn** | **22 15 20.3** | **-0.3** |
| **JFT** | **Otama** | **3.13** | **260** | P | **Pn** | **22 14 44.4** | **+0.3** |
| JFT | | | | *e*S | **Sn** | **22 15 19.2** | **-1.5** |
| **ERM** | **Erimo** | **3.97** | **349** | *e*Pn | **Pn** | **22 14 56.9** | **+1.2** |
| **JOT** | **Ohata** | **4.07** | **324** | P | **Pn** | **22 14 57.6** | **+0.6** |
| **BSO1** | **Boso 1** | **4.34** | **218** | P | **Pn** | **22 14 58.7** | **-1.5** |
| **JKB** | **Kayabe** | **4.48** | **328** | *e*S | Sn | 22 15 49.9 | -4.1 |
| **JCH** | **Churui** | **4.53** | **352** | P | **Pn** | **22 15 02.1** | **-1.3** |
| JCH | | | | *e*S | **Sn** | **22 15 51.4** | **-3.9** |
| **JRY** | **Ryogami san** | **4.74** | **245** | P | **Pn** | **22 15 05.5** | **-0.8** |
| JRY | | | | *e*S | **Sn** | **22 15 56.6** | **-3.8** |
| **JOD2** | **Odawara 2** | **5.01** | **237** | P | **Pn** | **22 15 09.2** | **-0.8** |
| JOD2 | | | | *e*S | **Sn** | **22 16 02.6** | **-4.5** |
| **MJAR** | **Matsushiro Arr** | **5.04** | **254** | Pn | **Pn** | **22 15 10.7** | **+0.3** |
| | 6.5nm,0.3s,baz=89,slow=15,SNR=34 | | | | | | |
| MJAR | | | | Sn | **Sn** | **22 16 10.5** | **+2.7** |
| | 1.4nm,0.3s,baz=70,slow=10,SNR=4.3 | | | | | | |
| **MAJO** | **Matsushiro** | **5.04** | **254** | *e*Pn | **Pn** | **22 15 10.6** | **+0.2** |
| | 22nm,0.6s | | | | | | |
| **MAT** | **Matsushiro** | **5.04** | **254** | P | **Pn** | **22 15 11.4** | **+1.0** |
| MAT | | | | S | **Sn** | **22 16 05.5** | **-2.3** |
| **NEM2** | **Nemuro 2** | **5.36** | **12** | P | Pn | 22 15 11.7 | -3.1 |
| NEM2 | | | | *e*S | **Sn** | **22 16 09.9** | **-5.8** |
| **ASAJ** | **Asahikawa** | **6.11** | **349** | Pn | **Pn** | **22 15 25.4** | **+0.3** |
| | 5.4nm,0.3s,baz=222,slow=15,SNR=10.0 | | | | | | |
| ASAJ | | | | Sn | **Sn** | **22 16 34.4** | **+0.2** |
| | 1.1nm,0.3s,baz=43,slow=19,SNR=3.1 | | | | | | |
| **JHJ** | **Hachijo jima 2** | **6.16** | **217** | Pn | **Pn** | **22 15 24.6** | **-1.1** |
| | 31nm,0.3s,baz=61,slow=16,SNR=4.5 | | | | | | |
| JHJ | | | | Sn | **Sn** | **22 16 30.9** | **-4.4** |
| | 24nm,0.3s,baz=71,slow=21,SNR=2.7 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **11.03** | **307** | Pn | **Pn** | **22 16 35.1** | **+2.6** |
| | 0.2nm,0.3s,baz=116,slow=13,SNR=4.6 | | | | | | |
| USRK | | | | LR | LR | 22 20 33.9 | |
| | comp=Z,92nm,19.2s,baz=160,slow=36 | | | | | | |
| **MDJ** | **Mudanjiang** | **12.75** | **305** | P | **Pn** | **22 16 57.0** | **+1.0** |
| **KSRS** | **Korea Array** | **12.91** | **272** | LR | LR | 22 21 19.1 | |
| | comp=Z,45nm,21.1s,baz=66,slow=34 | | | | | | |
| **KLR** | **Kul'dur** | **14.28** | **325** | Pn | **Pn** | **22 17 19.2** | **+2.3** |
| | 0.0nm,0.3s,baz=129,slow=14,SNR=3.5 | | | | | | |
| KLR | | | | LR | LR | 22 22 17.8 | |
| | comp=Z,4.9nm,19.4s,baz=140,slow=35 | | | | | | |
| **SEY** | **Seymchan** | **25.34** | **9** | P | **P** | **22 19 22.6** | **+1.7** |
| | 2.2nm,0.7s,baz=182,slow=8.9,SNR=6.3 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **26.90** | **127** | T | T | 22 47 53.7 | |
| | baz=318,slow=74 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **26.91** | **127** | T | T | 22 47 39.7 | |
| | baz=318,slow=74 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **26.92** | **127** | T | T | 22 47 46.6 | |
| | baz=318 | | | | | | |
| **SONM** | **Songino Array** | **29.07** | **302** | P | **P** | **22 19 56.4** | **+1.7** |
| | 0.5nm,0.8s,baz=90,slow=7.2,SNR=2.8 | | | | | | |
| **ENH** | **Enshi** | **29.64** | **265** | P | **P** | **22 20 01.2** | **+1.3** |
| | 1.6nm,0.3s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.84** | **312** | P | **P** | **22 21 53.6** | **+1.5** |
| | 0.2nm,0.3s,baz=86,slow=7.3,SNR=2.4 | | | | | | |
| ZALV | | | | PcP | **PcP** | **22 23 43.6** | **+0.8** |
| | 0.6nm,0.5s,baz=98,slow=4.0,SNR=3.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **45.43** | **302** | P | **P** | **22 22 14.2** | **+1.1** |
| | 1.0nm,1.0s,baz=92,slow=6.2,SNR=3.6 | | | | | | |
| **COLA** | **College** | **46.97** | **33** | P | **P** | **22 22 25.7** | **+0.9** |
| | 0.9nm,0.5s | | | | | | |
| **KURK** | **Kurchatov** | **47.02** | **308** | P | **P** | **22 22 27.1** | **+1.7** |
| | 3.8nm,0.6s | | | | | | |
| **WRA** | **Warramunga Arr** | **58.50** | **191** | P | **P** | **22 23 49.9** | **-0.6** |
| | 1.7nm,0.5s,baz=10,slow=7.1,SNR=22 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **58.59** | **201** | P | **P** | **22 23 51.5** | **+0.4** |
| | 1.6nm,0.7s,baz=20,slow=12,SNR=3.6 | | | | | | |
| **ASAR** | **Alice Springs** | **62.22** | **191** | P | **P** | **22 24 15.2** | **-0.7** |
| | 0.2nm,0.5s,baz=13,slow=7.9,SNR=6.5 | | | | | | |
| **PDAR** | **Pinedale Array** | **75.31** | **47** | P | **P** | **22 25 38.5** | **+0.8** |
| | 0.3nm,0.5s,baz=285,slow=2.9,SNR=3.7 | | | | | | |

*DDA* ***10*** *22:22:32.9, 38°.90N×43°.79E, h7km, Ml2.8*
*ISK* ***10*** *22:22:33.6, 38°.99N×43°.76E, h5km, MD2.8*
*ISCJB* ***10*** *22:22:34.8±0.8, 38°.98N±0°.04×43°.76E±0°.05, h3km±8km, Error ellipse: s-maj=7.5km s-min=5.5km az=140.5*
*CSEM* ***10*** *22:22:34.6±0.3, 38°.99N×43°.76E, h2km, ML2.8, Error ellipse: s-maj=5.9km s-min=4.8km az=101.0*
**ISC 10 22:22:34.4**±1.0**, 39°.00N**±0°.03×**43°.74E**±0°.03**, h11**km±7km**, n25,** σ**0s.70**/35**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.13** | **267** | *i* P | **Pg** | **22 22 37.1** | **-0.7** |
| VMUR | | | | *i* S | **Sg** | **22 22 40.7** | **+0.5** |
| **VMUR** | **Van-Muradiye** | **0.13** | **267** | P | **Pg** | **22 22 37.1** | **-0.7** |
| VMUR | | | | S | **Sg** | **22 22 40.7** | **+0.5** |
| **CLDR** | **Caldiran** | **0.20** | **43** | *e*PG | **Pg** | **22 22 38.3** | **-0.6** |
| **CLDR** | **Caldiran** | **0.20** | **43** | *i* P | **Pg** | **22 22 38.2** | **-0.7** |
| CLDR | | | | *i* S | **Sg** | **22 22 43.2** | **+1.2** |
| **CLDR** | **Caldiran** | **0.20** | **43** | *e*Pg | **Pg** | **22 22 38.3** | **-0.6** |
| CLDR | | | | S | **Sg** | **22 22 43.2** | **+1.2** |
| **ERCV** | **ERCIS-VAN** | **0.32** | **275** | *e*PG | **Pb** | **22 22 41.3** | **-0.9** |
| **ERCV** | **ERCIS-VAN** | **0.32** | **275** | *e*Pg | **Pb** | **22 22 41.3** | **-0.9** |
| **VANB** | **Van** | **0.49** | **215** | *e*PG | **Pb** | **22 22 45.3** | **+0.2** |
| **DYDN** | **Diyadin** | **0.55** | **356** | *i* P | **Pb** | **22 22 45.8** | **-0.4** |
| DYDN | | | | *i* S | **Sb** | **22 22 54.4** | **+0.1** |
| **DYDN** | **Diyadin** | **0.55** | **356** | P | **Pb** | **22 22 45.8** | **-0.4** |
| DYDN | | | | S | **Sb** | **22 22 54.3** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **0.82** | **315** | *e*PG | **Pb** | **22 22 50.8** | **-0.1** |
| AGRB | | | | *e*SG | **Sb** | **22 23 03.6** | **+1.6** |
| **AGRB** | **Hanur-Agry** | **0.82** | **315** | *e*Pg | **Pb** | **22 22 50.8** | **-0.1** |
| AGRB | | | | *e*Sg | **Sb** | **22 23 03.6** | **+1.6** |
| **TUTA** | **Tutak** | **0.83** | **300** | *i* P | **Pg** | **22 22 50.0** | **-0.5** |
| TUTA | | | | *i* S | **Sb** | **22 23 02.8** | **+0.5** |
| **TUTA** | **Tutak** | **0.83** | **300** | P | **Pg** | **22 22 50.0** | **-0.5** |
| TUTA | | | | S | **Sb** | **22 23 02.8** | **+0.5** |
| **TASB** | **TASBURUN-IGDIR** | **1.06** | **21** | *e*PG | **Pn** | **22 22 55.0** | **-0.4** |
| **KARS** | **Kars** | **1.71** | **343** | *e*PN | **Pb** | **22 23 05.7** | **-0.2** |
| **KARS** | **Kars** | **1.71** | **343** | *e*Pn | **Pb** | **22 23 05.7** | **-0.2** |
| **CUKT** | **Cukurca** | **1.75** | **184** | *e*PN | **Pb** | **22 23 06.2** | **-0.4** |
| **CUKT** | **Cukurca** | **1.75** | **184** | *e*Pn | **Pb** | **22 23 06.2** | **-0.4** |
| **VRTB** | **Varto-Mus** | **1.79** | **276** | *e*PN | **Pb** | **22 23 07.1** | **-0.2** |
| **VRTB** | **Varto-Mus** | **1.79** | **276** | *e*Pn | **Pb** | **22 23 07.1** | **-0.2** |
| **SIRT** | **Sirnak** | **1.81** | **215** | *e*PN | **Pb** | **22 23 07.6** | **0.0** |
| **SIRT** | **Sirnak** | **1.81** | **215** | *e*Pn | **Pb** | **22 23 07.6** | **0.0** |
| **SENK** | **Senkaya-Erzuru** | **1.90** | **326** | *e*PN | **Pb** | **22 23 08.7** | **-0.5** |
| **SENK** | **Senkaya-Erzuru** | **1.90** | **326** | *e*Pn | **Pb** | **22 23 08.7** | **-0.5** |

*AZER* ***10*** *22:24:21.3±1.6, 38°.70N×43°.17E, h35km, Error ellipse: s-maj=11.7km s-min=10.8km az=124.0*
*ISN* ***10*** *22:24:22.0±1.6, 39°.06N×43°.87E, h0km±82km, ML3.8*
*ISK* ***10*** *22:24:23.1, 38°.98N×43°.74E, h5km, ML3.8*
*CSEM* ***10*** *22:24:24.6±0.1, 38°.97N×43°.74E, h2km, ML3.7, Error ellipse: s-maj=3.4km s-min=2.4km az=156.0*

*DDA **10** 22:24:24.0,38°.96N×43°.79E,h7km,Ml3.7*
*ATA **10** 22:24:25.3±1.4,38°.96N×43°.49E,h0km±7km,ML4.0, MW4.1*
**ISC 10 22:24:25.4**±1.1**,38°.97N**±0°.02×**43°.73E**±0°.01**,h2km**±9km**, n136,**σ**2s.21**/212**,25C-36D,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.13** | **280** | ⇓*i*P | **Pg** | **22 24 26.6** | **-1.4** |
| VMUR | | | | *i*S | **Sg** | **22 24 31.7** | **+2.0** |
| **VMUR** | **Van-Muradiye** | **0.13** | **280** | P | **Pg** | **22 24 26.6** | **-1.4** |
| VMUR | | | | S | **Sg** | **22 24 31.7** | **+2.0** |
| **CLDR** | **Caldiran** | **0.23** | **39** | *e*PG | **Pg** | **22 24 27.9** | **-2.0** |
| **CLDR** | **Caldiran** | **0.23** | **39** | ⇑*i*P | **Pg** | **22 24 27.8** | **-2.0** |
| CLDR | | | | *i*S | **Sg** | **22 24 33.1** | **+0.3** |
| CLDR | | | | *i*S | **Sg** | **22 24 41.0** | **+8.2** |
| **CLDR** | **Caldiran** | **0.23** | **39** | *e*Pg | **Pg** | **22 24 27.9** | **-2.0** |
| CLDR | | | | S | **Sg** | **22 24 33.1** | **+0.3** |
| **ERCV** | **ERCIS-VAN** | **0.31** | **280** | *e*PG | **Pg** | **22 24 30.2** | **-1.2** |
| **ERCV** | **ERCIS-VAN** | **0.31** | **280** | *e*Pg | **Pg** | **22 24 30.2** | **-1.2** |
| **VANB** | **Van** | **0.46** | **216** | *e*PG | **Pg** | **22 24 34.2** | **-0.1** |
| **VANB** | **Van** | **0.46** | **216** | *e*Pg | **Pg** | **22 24 34.2** | **-0.1** |
| **DYDN** | **Diyadin** | **0.58** | **357** | *i*P | **Pg** | **22 24 35.4** | **-1.1** |
| DYDN | | | | *i*S | **Sb** | **22 24 45.5** | **-1.6** |
| **DYDN** | **Diyadin** | **0.58** | **357** | P | **Pg** | **22 24 35.4** | **-1.1** |
| DYDN | | | | S | **Sb** | **22 24 45.5** | **-1.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.80** | **259** | *i*P | **Pg** | **22 24 39.8** | **-1.1** |
| ADCV | | | | *i*S | **Sb** | **22 24 53.3** | **-0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.80** | **259** | P | **Pg** | **22 24 39.8** | **-1.1** |
| ADCV | | | | S | **Sb** | **22 24 53.3** | **-0.3** |
| **TUTA** | **Tutak** | **0.83** | **302** | *e*P | **Pg** | **22 24 39.7** | **-1.8** |
| TUTA | | | | IAML | | 22 25 02.1 | |
| | comp=Z,556nm,0.4s | | | | | | |
| **TUTA** | **Tutak** | **0.83** | **302** | ⇓*i*P | **Pg** | **22 24 39.7** | **-1.8** |
| TUTA | | | | *i*S | **Sg** | **22 24 52.5** | **+0.2** |
| **TUTA** | **Tutak** | **0.83** | **302** | P | **Pg** | **22 24 39.7** | **-1.8** |
| TUTA | | | | S | **Sg** | **22 24 52.5** | **+0.2** |
| **AGRB** | **Hanur-Agry** | **0.84** | **317** | *e*PG | **Pg** | **22 24 39.7** | **-1.8** |
| AGRB | | | | *e*SG | **Sb** | **22 24 53.2** | **-1.4** |
| **AGRB** | **Hanur-Agry** | **0.84** | **317** | *e*Pg | **Pg** | **22 24 39.7** | **-1.8** |
| AGRB | | | | *e*Sg | **Sb** | **22 24 53.2** | **-1.4** |
| **GEVA** | **Gevas** | **0.84** | **219** | *e*P | **Pg** | **22 24 39.5** | **-2.0** |
| **GEVA** | **Gevas** | **0.84** | **219** | ⇑*i*P | **Pg** | **22 24 39.6** | **-2.0** |
| GEVA | | | | *i*S | **Sn** | **22 24 56.4** | **-1.1** |
| **GEVA** | **Gevas** | **0.84** | **219** | P | **Pg** | **22 24 39.6** | **-2.0** |
| **BASK** | **Baskale_VAN** | **0.94** | **167** | *e*P | **Pn** | **22 24 46.2** | **+0.3** |
| BASK | | | | *e*S | **Sn** | **22 25 01.4** | **+1.5** |
| **TASB** | **TASBURUN-IGDIR** | **1.09** | **21** | *e*PG | **Pg** | **22 24 44.6** | **-1.7** |
| **TASB** | **TASBURUN-IGDIR** | **1.09** | **21** | *e*Pg | **Pg** | **22 24 44.6** | **-1.7** |
| **HYR** | **Heyderabad** | **1.15** | **49** | ⇑P | **Pn** | **22 24 47.9** | **-0.7** |
| HYR | | | | ⇓S | **Sn** | **22 25 08.8** | **+3.9** |
| **HYR** | **Heyderabad** | **1.15** | **49** | P | **Pn** | **22 24 47.9** | **-0.7** |
| **EATA** | **Eleskirt** | **1.31** | **313** | ⇓*e*P | **Pn** | **22 24 48.9** | **-2.3** |
| **EATA** | **Eleskirt** | **1.31** | **313** | *i*P | **Pn** | **22 24 48.8** | **-2.3** |
| EATA | | | | *i*S | **Sn** | **22 25 08.0** | **-1.3** |
| **EATA** | **Eleskirt** | **1.31** | **313** | P | **Pn** | **22 24 48.8** | **-2.3** |
| EATA | | | | S | **Sn** | **22 25 08.0** | **-1.3** |
| **EKAR** | **Karacoban** | **1.33** | **283** | *e*P | **Pn** | **22 24 49.2** | **-2.1** |
| **EKAR** | **Karacoban** | **1.33** | **283** | *i*P | **Pg** | **22 24 50.8** | **-0.1** |
| EKAR | | | | *i*S | **Sg** | **22 25 16.6** | **+8.5** |
| **EKAR** | **Karacoban** | **1.33** | **283** | P | **Pg** | **22 24 50.8** | **-0.1** |
| **NAX** | **Nakhchivan** | **1.39** | **81** | ⇓P | **Pn** | **22 24 50.7** | **-1.2** |
| NAX | | | | ⇓S | **Sg** | **22 25 13.2** | **+3.2** |
| **NAX** | **Nakhchivan** | **1.39** | **81** | P | **Pn** | **22 24 50.7** | **-1.2** |
| NAX | | | | S | **Sg** | **22 25 13.2** | **+3.2** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.45** | **162** | *i*P | **Pn** | **22 24 51.9** | **-0.9** |
| YOVA | | | | *i*S | **Sg** | **22 25 13.8** | **+1.9** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.45** | **162** | P | **Pn** | **22 24 51.9** | **-0.9** |
| **DIGO** | **Kars** | **1.47** | **349** | *e*P | **Pb** | **22 24 53.1** | **-0.6** |
| DIGO | | | | IAML | | 22 25 00.9 | |
| | comp=Z,77nm,0.5s | | | | | | |
| DIGO | | | | *e*S | **Sg** | **22 25 16.7** | **+4.0** |
| **DIGO** | **Kars** | **1.47** | **349** | *i*P | **Pb** | **22 24 52.7** | **-1.0** |
| DIGO | | | | *i*S | **Sg** | **22 25 17.5** | **+4.8** |
| **DIGO** | **Kars** | **1.47** | **349** | P | **Pb** | **22 24 52.7** | **-1.0** |
| **SBZ** | **Shahbuz** | **1.48** | **73** | ⇓P | **Pn** | **22 24 52.0** | **-1.2** |
| SBZ | | | | ⇑S | **Sg** | **22 25 17.0** | **+4.0** |
| **SBZ** | **Shahbuz** | **1.48** | **73** | P | **Pn** | **22 24 52.0** | **-1.2** |
| **CUKT** | **Cukurca** | **1.72** | **183** | *e*PN | **Pn** | **22 24 55.5** | **-1.0** |
| **CUKT** | **Cukurca** | **1.72** | **183** | *i*P | **Pg** | **22 24 58.5** | **+0.1** |
| CUKT | | | | *i*S | **Sg** | **22 25 23.5** | **+2.8** |
| **CUKT** | **Cukurca** | **1.72** | **183** | *e*Pn | **Pn** | **22 24 55.5** | **-1.0** |
| **SRTM** | **Siirt_Merkez** | **1.72** | **236** | *i*P | **Pb** | **22 24 56.6** | **-1.3** |
| SRTM | | | | *i*S | **Sg** | **22 25 25.5** | **+4.7** |
| **SRTM** | **Siirt_Merkez** | **1.72** | **236** | P | **Pb** | **22 24 56.6** | **-1.3** |
| **KARS** | **Kars** | **1.73** | **343** | *e*PN | **Pn** | **22 24 55.2** | **-1.5** |
| **KARS** | **Kars** | **1.73** | **343** | *e*Pn | **Pn** | **22 24 55.2** | **-1.5** |
| **ORD** | **Ordubad** | **1.76** | **91** | P | **Pn** | **22 24 55.9** | **-1.2** |
| ORD | | | | S | **Sg** | **22 25 21.8** | **-0.3** |
| **HOMI** | **Horasan** | **1.78** | **308** | *e*P | **Pb** | **22 24 57.4** | **-1.4** |
| HOMI | | | | IAML | | 22 25 13.6 | |
| | comp=Z,66nm,0.6s | | | | | | |
| HOMI | | | | *e*S | **Sg** | **22 25 23.2** | **+0.7** |
| **VRTB** | **Varto-Mus** | **1.78** | **277** | *e*PN | **Pn** | **22 24 56.2** | **-1.2** |
| **VRTB** | **Varto-Mus** | **1.78** | **277** | *e*Pn | **Pn** | **22 24 56.2** | **-1.2** |
| **SIRT** | **Sirnak** | **1.78** | **215** | *e*PN | **Pb** | **22 24 57.1** | **-1.8** |
| **SIRT** | **Sirnak** | **1.78** | **215** | *e*Pn | **Pb** | **22 24 57.1** | **-1.8** |
| **SIRN** | **S˜–rnak** | **1.80** | **216** | *i*P | **Pb** | **22 24 58.8** | **-0.4** |
| SIRN | | | | *i*S | **Sg** | **22 25 26.0** | **+2.7** |
| **SIRN** | **S˜–rnak** | **1.80** | **216** | P | **Pb** | **22 24 58.8** | **-0.4** |
| **SENK** | **Senkaya-Erzuru** | **1.92** | **327** | *e*PN | **Pn** | **22 24 58.0** | **-1.3** |
| **SENK** | **Senkaya-Erzuru** | **1.92** | **327** | *e*Pn | **Pn** | **22 24 58.0** | **-1.3** |
| **BNGL** | **BINGOL** | **2.01** | **270** | *e*P | **Pb** | **22 25 01.3** | **-1.6** |
| **BNGL** | **BINGOL** | **2.01** | **270** | *i*P | **Pb** | **22 25 02.1** | **-0.8** |
| BNGL | | | | *i*S | **Sb** | **22 25 27.0** | **-1.5** |
| **ERZM** | **Erzurum** | **2.06** | **298** | *e*P | **Pb** | **22 25 01.8** | **-1.9** |
| **BGD** | **Bogdanovka** | **2.30** | **357** | P | Pg | 22 25 14.3 | +4.8 |
| **GDB** | **GEDABAY** | **2.34** | **41** | ⇑P | **Pn** | **22 25 04.6** | **-0.5** |
| GDB | | | | ⇑S | **Sb** | **22 25 38.0** | **+0.1** |
| **GDB** | **GEDABAY** | **2.34** | **41** | P | **Pn** | **22 25 04.6** | **-0.5** |
| GDB | | | | S | **Sb** | **22 25 38.0** | **+0.1** |
| **BNGB** | **Bingˆ¶l** | **2.38** | **272** | *e*PN | **Pn** | **22 25 04.9** | **-0.6** |
| **QZX** | **Qazax, Azerbai** | **2.44** | **31** | ⇑P | **Pn** | **22 25 05.5** | **-0.8** |
| QZX | | | | ⇓S | **Sb** | **22 25 38.9** | **-1.6** |
| **QZX** | **Qazax, Azerbai** | **2.44** | **31** | P | **Pn** | **22 25 05.5** | **-0.8** |
| QZX | | | | S | **Sb** | **22 25 38.9** | **-1.6** |
| **AKH** | **Akhalkalaki** | **2.45** | **356** | *e*PN | **Pn** | **22 25 05.5** | **-1.1** |
| **AKH** | **Akhalkalaki** | **2.45** | **356** | P | **Pg** | **22 25 13.5** | **+1.2** |
| **AKH** | **Akhalkalaki** | **2.45** | **356** | *e*Pn | **Pn** | **22 25 05.5** | **-1.1** |
| **YEDI** | **Yedisu-Bingol** | **2.52** | **282** | *e*PN | **Pn** | **22 25 07.1** | **-0.5** |
| **YEDI** | **Yedisu-Bingol** | **2.52** | **282** | *e*Pn | **Pn** | **22 25 07.1** | **-0.5** |
| **BINT** | **Bingol** | **2.53** | **269** | *e*Pn | **Pn** | **22 25 04.9** | **-2.8** |
| **GANJ** | **Ganja** | **2.60** | **49** | ⇓P | **Pn** | **22 25 08.3** | **-0.3** |
| GANJ | | | | ⇑S | **Sb** | **22 25 44.7** | **-0.6** |
| **GANJ** | **Ganja** | **2.60** | **49** | P | **Pn** | **22 25 08.3** | **-0.3** |
| GANJ | | | | S | **Sb** | **22 25 44.7** | **-0.6** |
| **TBLG** | **Delisi** | **2.87** | **15** | *e*PN | **Pn** | **22 25 11.9** | **-0.2** |
| **TBLG** | **Delisi** | **2.87** | **15** | P | **Pg** | **22 25 20.8** | **+0.5** |
| **TBLG** | **Delisi** | **2.87** | **15** | *e*Pn | **Pn** | **22 25 11.9** | **-0.2** |
| **DIY** | **Diyarbakir** | **2.95** | **250** | *e*Pn | **Pn** | **22 25 14.2** | **+0.8** |
| **BRDA** | **Brd** | **2.96** | **63** | ⇓P | **Pn** | **22 25 12.8** | **-0.6** |
| BRDA | | | | ⇓S | **Sb** | **22 25 53.6** | **-1.9** |
| **BRDA** | **Brd** | **2.96** | **63** | P | **Pn** | **22 25 12.8** | **-0.6** |
| **MAZI** | **Mazidag** | **2.99** | **241** | *e*PN | **Pn** | **22 25 13.9** | **-0.1** |
| **MAZI** | **Mazidag** | **2.99** | **241** | *e*Pn | **Pn** | **22 25 14.0** | **-0.1** |
| **DYBB** | **Diyarbakir** | **3.00** | **251** | *e*PN | **Pn** | **22 25 14.2** | **+0.2** |
| **MNGR** | **Mingechevir, A** | **3.15** | **54** | ⇓P | **Pn** | **22 25 15.6** | **-0.4** |
| MNGR | | | | ⇓S | **Sb** | **22 25 58.0** | **-2.9** |
| **MNGR** | **Mingechevir, A** | **3.15** | **54** | P | **Pn** | **22 25 15.6** | **-0.4** |
| MNGR | | | | S | **Sb** | **22 25 58.0** | **-2.9** |
| **ZRD** | **Zardab** | **3.32** | **66** | ⇓P | **Pn** | **22 25 17.7** | **-0.7** |
| ZRD | | | | ⇑S | **Sb** | **22 26 02.2** | **-3.7** |
| **ZRD** | **Zardab** | **3.32** | **66** | P | **Pn** | **22 25 17.7** | **-0.7** |
| ZRD | | | | S | **Sb** | **22 26 02.2** | **-3.7** |
| **PTK** | **Pertek** | **3.39** | **270** | *e*PN | **Pn** | **22 25 19.6** | **+0.1** |
| **PTK** | **Pertek** | **3.39** | **270** | *e*Pn | **Pn** | **22 25 19.6** | **+0.1** |
| **ZKTA** | **Zakatala** | **3.46** | **39** | ⇓P | **Pn** | **22 25 19.6** | **-0.8** |
| ZKTA | | | | ⇑S | **Sb** | **22 26 05.2** | **-4.8** |
| **SEKA** | **Sheki** | **3.48** | **49** | ⇓P | **Pn** | **22 25 20.8** | **+0.2** |
| SEKA | | | | ⇑S | **Sb** | **22 26 07.7** | **-2.7** |
| **SEKA** | **Sheki** | **3.48** | **49** | P | **Pn** | **22 25 20.8** | **+0.2** |
| **SVRC** | **Sivrice-ELAZID** | **3.51** | **262** | *e*PN | **Pn** | **22 25 21.6** | **+0.4** |
| **SVRC** | **Sivrice-ELAZID** | **3.51** | **262** | *e*Pn | **Pn** | **22 25 21.6** | **+0.4** |
| **LRK** | **Lerik** | **3.61** | **94** | ⇓P | **Pn** | **22 25 20.7** | **-1.9** |
| LRK | | | | ⇓S | **Sn** | **22 26 07.5** | **+1.6** |
| **LRK** | **Lerik** | **3.61** | **94** | P | **Pn** | **22 25 20.7** | **-1.9** |
| LRK | | | | S | **Sn** | **22 26 07.5** | **+1.6** |
| **ONI** | **Oni** | **3.62** | **357** | P | **Pg** | **22 25 37.1** | **+2.2** |
| **GLBA** | **Clilabad** | **3.64** | **84** | ⇓P | **Pn** | **22 25 21.5** | **-1.2** |
| GLBA | | | | ⇑S | **Sn** | **22 26 08.9** | **+2.7** |
| **GLBA** | **Clilabad** | **3.64** | **84** | P | **Pn** | **22 25 21.5** | **-1.2** |
| GLBA | | | | S | **Sn** | **22 26 08.9** | **+2.7** |
| **KDMR** | **Kurdemir** | **3.71** | **66** | ⇓P | **Pn** | **22 25 23.1** | **-0.7** |
| KDMR | | | | ⇑S | **Sb** | **22 26 12.0** | **-5.1** |
| **KDMR** | **Kurdemir** | **3.71** | **66** | P | **Pn** | **22 25 23.1** | **-0.7** |
| KDMR | | | | S | **Sb** | **22 26 12.0** | **-5.1** |
| **QBL** | **Gabala** | **3.72** | **57** | ⇓P | **Pn** | **22 25 23.4** | **-0.6** |
| QBL | | | | ⇑S | **Sb** | **22 26 12.2** | **-5.3** |
| **QBL** | **Gabala** | **3.72** | **57** | P | **Pn** | **22 25 23.4** | **-0.6** |
| QBL | | | | S | **Sb** | **22 26 12.2** | **-5.3** |
| **SAAT** | **Saatly** | **3.74** | **75** | ⇓P | **Pn** | **22 25 22.9** | **-1.2** |
| SAAT | | | | ⇑S | **Sn** | **22 26 11.0** | **+2.3** |
| **SAAT** | **Saatly** | **3.74** | **75** | P | **Pn** | **22 25 22.9** | **-1.2** |
| SAAT | | | | S | **Sn** | **22 26 11.0** | **+2.3** |
| **IML** | **Ismayilli** | **3.88** | **61** | ⇓P | **Pn** | **22 25 25.4** | **-0.7** |
| IML | | | | ⇑S | **Sb** | **22 26 16.2** | **-5.8** |
| **IML** | **Ismayilli** | **3.88** | **61** | P | **Pn** | **22 25 25.4** | **-0.7** |
| IML | | | | S | **Sb** | **22 26 16.2** | **-5.8** |
| **LKRN** | **Lenkeran, Azer** | **3.95** | **92** | ⇓P | **Pn** | **22 25 25.3** | **-1.7** |
| LKRN | | | | ⇑S | **Sn** | **22 26 16.0** | **+2.1** |
| **LKRN** | **Lenkeran, Azer** | **3.95** | **92** | P | **Pn** | **22 25 25.3** | **-1.7** |
| LKRN | | | | S | **Sn** | **22 26 16.0** | **+2.1** |
| **ASTR** | **Astara** | **3.98** | **94** | ⇑P | **Pn** | **22 25 25.6** | **-1.8** |
| ASTR | | | | ⇑S | **Sn** | **22 26 16.5** | **+1.9** |
| **ASTR** | **Astara** | **3.98** | **94** | P | **Pn** | **22 25 25.6** | **-1.8** |
| ASTR | | | | S | **Sn** | **22 26 16.5** | **+1.9** |
| **XNQ** | **Khinaliq** | **4.04** | **56** | ⇓P | **Pn** | **22 25 27.9** | **-0.5** |
| XNQ | | | | ⇓S | **Sn** | **22 26 20.2** | **+3.8** |
| **XNQ** | **Khinaliq** | **4.04** | **56** | P | **Pn** | **22 25 27.9** | **-0.5** |
| **PQL** | **Pirkuli** | **4.16** | **63** | ⇓P | **Pn** | **22 25 29.4** | **-0.7** |
| PQL | | | | ⇑S | **Sn** | **22 26 23.1** | **+3.8** |
| **PQL** | **Pirkuli** | **4.16** | **63** | P | **Pn** | **22 25 29.4** | **-0.7** |
| PQL | | | | S | **Sn** | **22 26 23.1** | **+3.8** |
| **URFA** | **Urfa** | **4.16** | **250** | *e*PN | **Pn** | **22 25 30.6** | **+0.6** |
| **URFA** | **Urfa** | **4.16** | **250** | *e*Pn | **Pn** | **22 25 30.6** | **+0.6** |
| **ALIB** | **Äli-Bayra** | **4.20** | **75** | ⇓P | **Pn** | **22 25 29.6** | **-0.9** |
| ALIB | | | | ⇓S | **Sn** | **22 26 23.6** | **+3.5** |
| **ALIB** | **Äli-Bayra** | **4.20** | **75** | P | **Pn** | **22 25 29.6** | **-0.9** |
| ALIB | | | | S | **Sn** | **22 26 23.6** | **+3.5** |
| **MALT** | **Malatya** | **4.21** | **263** | *e*PN | **Pn** | **22 25 31.4** | **+0.8** |
| **MALT** | **Malatya** | **4.21** | **263** | *e*Pn | **Pn** | **22 25 31.4** | **+0.8** |
| **QSAR** | **Qusar** | **4.30** | **52** | ⇑P | **Pn** | **22 25 31.3** | **-0.6** |
| QSAR | | | | ⇓S | **Sn** | **22 26 26.3** | **+3.7** |
| **QSAR** | **Qusar** | **4.30** | **52** | P | **Pn** | **22 25 31.3** | **-0.6** |
| QSAR | | | | S | **Sn** | **22 26 26.3** | **+3.7** |
| **GBS** | **Qobustan** | **4.31** | **67** | ⇓P | **Pn** | **22 25 31.3** | **-0.8** |
| GBS | | | | ⇓S | **Sn** | **22 26 26.4** | **+3.5** |
| **GBS** | **Qobustan** | **4.31** | **67** | P | **Pn** | **22 25 31.3** | **-0.8** |
| GBS | | | | S | **Sn** | **22 26 26.4** | **+3.5** |
| **QUBA** | **Quba, Azerbaij** | **4.36** | **55** | ⇓P | **Pn** | **22 25 32.1** | **-0.6** |
| QUBA | | | | ⇑S | **Sn** | **22 26 27.7** | **+3.6** |
| **QUBA** | **Quba, Azerbaij** | **4.36** | **55** | P | **Pn** | **22 25 32.1** | **-0.6** |
| QUBA | | | | S | **Sn** | **22 26 27.7** | **+3.6** |
| **ATGJ** | **Altiaghaj** | **4.43** | **63** | ⇓P | **Pn** | **22 25 33.1** | **-0.6** |
| ATGJ | | | | ⇑S | **Sn** | **22 26 29.5** | **+3.6** |
| **ATGJ** | **Altiaghaj** | **4.43** | **63** | P | **Pn** | **22 25 33.1** | **-0.6** |
| ATGJ | | | | S | **Sn** | **22 26 29.5** | **+3.6** |
| **SIZA** | **Siyzn** | **4.49** | **60** | ⇑P | **Pn** | **22 25 33.8** | **-0.8** |
| SIZA | | | | ⇓S | **Sn** | **22 26 31.2** | **+3.8** |
| **SIZA** | **Siyzn** | **4.49** | **60** | P | **Pn** | **22 25 33.8** | **-0.8** |
| SIZA | | | | S | **Sn** | **22 26 31.2** | **+3.8** |
| **GOBA** | **Gobu** | **4.84** | **71** | ⇓P | **Pn** | **22 25 38.6** | **-0.8** |
| GOBA | | | | ⇑S | **Sn** | **22 26 39.5** | **+3.5** |
| **GOBA** | **Gobu** | **4.84** | **71** | P | **Pn** | **22 25 38.6** | **-0.8** |
| GOBA | | | | S | **Sn** | **22 26 39.5** | **+3.5** |
| **BHD** | **Baghdad** | **5.71** | **175** | *e*Pn | **Pn** | **22 25 50.0** | **-1.2** |
| | SNR=3.0 | | | | | | |
| **RTB** | **Rutbah** | **6.54** | **206** | *e*Pn | **Pn** | **22 26 03.0** | **+0.3** |
| | SNR=3.0 | | | | | | |

**MEX 10 22:55:27.7**±0.5**,18°.18N**×**103°.47W,h8km**±22km**,MD3.9, Near coast of Michoacan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MMIG** | **Aquila** | **0.16** | **49** | *i*P | Pg | 22 55 30.6 | -0.5 |
| MMIG | | | | *i*S | Sg | 22 55 33.3 | -0.1 |
| **R15V** | | **1.09** | **334** | *e*P | Pg | 22 55 45.5 | -3.3 |
| R15V | | | | *e*S | Sg | 22 55 59.6 | -3.5 |
| **EZ5V** | | **1.30** | **355** | *i*P | Pn | 22 55 48.9 | -3.4 |
| EZ5V | | | | *e*S | Sb | 22 56 04.5 | -4.9 |
| **CJM** | **Chamela** | **1.98** | **312** | *e*P | Pn | 22 55 59.9 | -1.6 |

*ISCJB **10** 22:58:28.2±0.7,1°.38N±0°.10×127°.05E±0°.08,h10km, mb4.4/8,Error ellipse: s-maj=14.7km s-min=10.2km az=29.4*
*NEIC **10** 22:58:32.4±0.7,1°.39N×127°.13E,h35km,mb4.1/4,Error ellipse: s-maj=13.8km s-min=11.7km az=201.0*
*IDC **10** 22:58:36.5±1.4,0°.20N×126°.04E,h0km,mb3.9/4, mb1 4.1/5,mb1mx3.6/44,mbtmp4.0/5,ML3.7/1,Error ellipse: s-maj=104.1km s-min=20.3km az=66.0*
*DJA **10** 22:58:45.9±0.4,0°S±4°×12°6E±°,h10km,M3.9/7,mb4.1/1, MLv3.8/7*
**ISC 10 22:58:29.7**±0.7**,1°.50N**±0°.07×**127°.11E**±0°.10**,h10km,n20,** σ**1s.51**/16**,mb4.1**/8**,Halmahera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LBMI** | **Labuha** | **2.16** | **170** | P | **Pg** | **22 59 13.0** | **+1.9** |
| LBMI | | | | S | **Sb** | **22 59 35.3** | **-0.4** |
| **LUWI** | **Luwuk** | **5.02** | **240** | P | Pn | 22 59 37.3 | -7.8 |
| **LUWI** | **Luwuk** | **5.02** | **240** | Pn | **Pn** | **22 59 43.5** | **-1.6** |
| **MRSI** | **Marisa** | **5.27** | **259** | P | **Pn** | **22 59 49.2** | **+0.7** |
| **APSI** | **Ampana** | **5.96** | **246** | P | Pn | 22 59 50.7 | -7.4 |
| **MPSI** | **Mapaga** | **7.30** | **261** | P | **Pn** | **23 00 14.9** | **-1.6** |
| **KKM** | **Kota Kinabalu** | **11.77** | **293** | Pn | **Pn** | **23 01 18.6** | **+0.7** |
| | 37nm,1.1s | | | | | | |
| **KSM** | **Kuching** | **16.80** | **270** | Pn | **Pn** | **23 02 25.3** | **+0.1** |
| | 1.8nm,0.3s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **19.53** | **184** | P | P | 23 02 50.1 | -7.4 |
| | 0.2nm,0.3s,baz=19,slow=9.7,SNR=6.6 | | | | | | |
| **GUMO** | **Guam** | **21.29** | **55** | *e*P | **P** | **23 03 14.1** | **-2.6** |
| | 177nm,0.3s | | | | | | |
| **WRA** | **Warramunga Arr** | **22.46** | **162** | P | **P** | **23 03 27.6** | **-1.5** |
| | 2.3nm,0.6s,baz=335,slow=11,SNR=12 | | | | | | |
| **NACB** | **Ninganchiao** | **23.17** | **347** | *e*P | **P** | **23 03 38.5** | **+2.0** |
| | 12nm,0.9s | | | | | | |
| **ASAR** | **Alice Springs** | **25.87** | **166** | P | **P** | **23 04 01.5** | **-0.4** |
| | 1.5nm,0.5s,baz=344,slow=7.6,SNR=28 | | | | | | |
| **CHTO** | **Chiang Mai** | **32.53** | **304** | *e*P | **P** | **23 05 01.6** | **+0.5** |
| | 0.5nm,0.4s | | | | | | |
| **HNR** | **Honiara** | **34.46** | **109** | P | **P** | **23 05 17.3** | **-0.8** |
| | 8.5nm,0.3s | | | | | | |
| **STKA** | **Stephens Creek** | **35.92** | **159** | P | **P** | **23 05 32.0** | **+1.6** |
| | 1.7nm,0.5s,baz=337,slow=9.6,SNR=6.8 | | | | | | |
| **BJT** | **Baijiatuau** | **39.61** | **347** | P | **P** | **23 06 02.5** | **+1.0** |
| **DGAR** | **Diego Garcia** | **55.24** | **260** | P | **P** | **23 08 02.0** | **-1.5** |
| **MKAR** | **Makanchi Array** | **59.60** | **326** | P | P | 23 08 44.6 | +11 |
| | 0.6nm,0.4s,baz=125,slow=7.5,SNR=16 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **123.95** | **287** | PKP | PKPdf | 23 17 38.2 | +8.9 |
| | 0.2nm,0.6s,baz=52,slow=3.2,SNR=2.3 | | | | | | |

*ISCJB **10** 23:00:53.7±0.4,66°.05N±0°.02×13°.53E±0°.06,h9km,Error ellipse: s-maj=3.8km s-min=3.2km az=169.4*
*IDC **10** 23:00:54.6±1.6,66°.16N×12°.95E,h0km,mb1 3.1/4, mb1mx2.9/40,mbtmp3.1/4,ML2.3/4,Error ellipse: s-maj=21.5km s-min=8.8km az=117.0*
*NAO **10** 23:00:55.7±1.5,66°.09N×13°.36E,ML2.2*
*CSEM **10** 23:00:55.6±0.2,66°.12N×13°.12E,h15km,ML1.4,Error ellipse: s-maj=6.0km s-min=4.6km az=109.0*
*UPP **10** 23:00:55.8,66°.05N×13°.32E,h0km*
*HEL **10** 23:00:55.5±0.2,66°.08N×13°.20E,h10km,ML1.6, ML1.4(BER)*
*BER **10** 23:00:56.5±2.9,66°.11N×13°.23E,h0km±12km,ML1.4, ML2.2(NAO)*
**ISC 10 23:00:54.8**±0.9**,66°.06N**±0°.03×**13°.15E**±0°.05**,h9km,n80,** σ**1s.56**/135**,Northern Norway**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **STOK** | **Stokkvaagen** | **0.28** | **349** | *e*P | **Pg** | **23 01 00.2** | **-0.2** |
| STOK | | | | *e*S | **Sg** | **23 01 04.3** | **+0.1** |
| STOK | | | | IAML | | 23 01 05.6 | |
| | comp=Z,25nm,0.3s | | | | | | |
| **STOK** | **Stokkvaagen** | **0.28** | **349** | *e*P | **Pg** | **23 01 00.2** | **-0.2** |
| | SNR=90 | | | | | | |
| STOK | | | | *e*S | **Sg** | **23 01 04.3** | **+0.1** |
| | SNR=90 | | | | | | |
| **STOK** | **Stokkvaagen** | **0.28** | **349** | *i*P | **Pg** | **23 01 00.2** | **-0.2** |
| STOK | | | | *i*S | **Sg** | **23 01 04.3** | **+0.1** |
| STOK | | | | IAML | | 23 01 05.6 | |
| | comp=Z,25nm,0.3s | | | | | | |
| **KONS** | **Konsvik** | **0.44** | **358** | *e*P | **Pg** | **23 01 03.2** | **-0.2** |
| KONS | | | | *e*S | **Sg** | **23 01 10.1** | **+0.8** |
| **KONS** | **Konsvik** | **0.44** | **358** | *e*P | **Pg** | **23 01 03.2** | **-0.2** |
| | SNR=90 | | | | | | |
| KONS | | | | S | **Sg** | **23 01 10.0** | **+0.8** |
| **KONS** | **Konsvik** | **0.44** | **358** | *i*P | **Pg** | **23 01 03.2** | **-0.2** |
| KONS | | | | *i*S | **Sg** | **23 01 10.1** | **+0.8** |
| **MOR8** | **Moi Rana** | **0.54** | **77** | *e*P | **Pb** | **23 01 07.5** | **+1.0** |
| MOR8 | | | | IAML | | 23 01 17.2 | |
| | comp=Z,28nm,0.3s | | | | | | |
| **MOR8** | **Moi Rana** | **0.54** | **77** | P | **Pb** | **23 01 07.4** | **+1.0** |
| **MOR8** | **Moi Rana** | **0.54** | **77** | *i*P | **Pb** | **23 01 07.5** | **+1.0** |
| MOR8 | | | | IAML | | 23 01 17.2 | |
| | comp=Z,28nm,0.3s | | | | | | |
| **LOF** | **Lofoten** | **2.09** | **4** | *e*P | **Pn** | **23 01 28.9** | **-1.0** |
| LOF | | | | IAML | | 23 01 59.2 | |
| | comp=Z,9.2nm,0.8s | | | | | | |
| **LOF** | **Lofoten** | **2.09** | **4** | *e*P | **Pn** | **23 01 28.9** | **-1.0** |
| | SNR=50 | | | | | | |
| **LOF** | **Lofoten** | **2.09** | **4** | *e*P | **Pn** | **23 01 28.9** | **-1.0** |
| LOF | | | | IAML | | 23 01 59.2 | |
| | comp=Z,9.2nm,0.8s | | | | | | |
| **LILU** | **Lilltraesk** | **2.88** | **103** | P | **Pn** | **23 01 42.4** | **+1.6** |
| LILU | | | | S | **Sn** | **23 02 17.0** | **+1.6** |
| **LILU** | **Lilltraesk** | **2.88** | **103** | P | **Pn** | **23 01 42.4** | **+1.6** |
| LILU | | | | S | **Sn** | **23 02 17.0** | **+1.6** |
| **LILU** | **Lilltraesk** | **2.88** | **103** | *e*P | **Pn** | **23 01 42.4** | **+1.6** |
| LILU | | | | *e*S | **Sn** | **23 02 17.0** | **+1.6** |
| **SVAU** | **Svanoeiden** | **3.12** | **117** | P | **Pn** | **23 01 45.3** | **+1.2** |
| SVAU | | | | S | **Sn** | **23 02 22.2** | **+0.7** |
| **SVAU** | **Svanoeiden** | **3.12** | **117** | P | **Pn** | **23 01 45.4** | **+1.2** |
| SVAU | | | | S | **Sn** | **23 02 22.2** | **+0.7** |
| **SVAU** | **Svanoeiden** | **3.12** | **117** | *e*P | **Pn** | **23 01 45.4** | **+1.2** |
| SVAU | | | | *e*S | **Sn** | **23 02 22.2** | **+0.7** |
| **DUNU** | **Dundret** | **3.15** | **67** | P | **Pn** | **23 01 46.0** | **+1.5** |
| DUNU | | | | S | **Sn** | **23 02 24.3** | **+2.2** |
| **DUNU** | **Dundret** | **3.15** | **67** | P | **Pn** | **23 01 46.0** | **+1.5** |
| DUNU | | | | S | **Sn** | **23 02 24.4** | **+2.2** |
| **DUNU** | **Dundret** | **3.15** | **67** | *e*P | **Pn** | **23 01 46.0** | **+1.5** |
| DUNU | | | | *e*S | **Sn** | **23 02 24.4** | **+2.2** |
| **HARU** | **Harads** | **3.19** | **85** | P | **Pn** | **23 01 46.3** | **+1.3** |
| **HARU** | **Harads** | **3.19** | **85** | P | **Pn** | **23 01 46.3** | **+1.3** |
| **HARU** | **Harads** | **3.19** | **85** | *e*P | **Pn** | **23 01 46.3** | **+1.3** |
| **SJUU** | **Sjulsmark** | **3.53** | **95** | P | **Pn** | **23 01 50.1** | **+0.4** |
| SJUU | | | | S | **Sn** | **23 02 32.5** | **+1.1** |
| **SJUU** | **Sjulsmark** | **3.53** | **95** | P | **Pn** | **23 01 50.1** | **+0.4** |
| SJUU | | | | S | **Sn** | **23 02 32.6** | **+1.1** |
| **SJUU** | **Sjulsmark** | **3.53** | **95** | *e*P | **Pn** | **23 01 50.1** | **+0.4** |
| SJUU | | | | *e*S | **Sn** | **23 02 32.6** | **+1.1** |
| **ERTU** | **Ertsjaerv** | **3.68** | **78** | P | **Pn** | **23 01 51.9** | **+0.1** |
| **ERTU** | **Ertsjaerv** | **3.68** | **78** | P | **Pn** | **23 01 51.9** | **+0.1** |
| **ERTU** | **Ertsjaerv** | **3.68** | **78** | *e*P | **Pn** | **23 01 51.9** | **+0.1** |
| **LANU** | **Lannavaara** | **4.00** | **56** | P | **Pn** | **23 01 56.3** | **+0.2** |
| LANU | | | | S | **Sn** | **23 02 41.4** | **-1.6** |
| **LANU** | **Lannavaara** | **4.00** | **56** | P | **Pn** | **23 01 57.4** | **+1.3** |
| **LANU** | **Lannavaara** | **4.00** | **56** | *e*P | **Pn** | **23 01 56.4** | **+0.2** |
| LANU | | | | *e*S | **Sn** | **23 02 41.5** | **-1.6** |
| **KIF** | **Kilpisjarvi** | **4.17** | **41** | P | **Pn** | **23 01 59.5** | **+1.1** |
| KIF | | | | S | **Sn** | **23 02 47.3** | **+0.1** |
| **KIF** | **Kilpisjarvi** | **4.17** | **41** | *e*P | **Pn** | **23 01 59.5** | **+1.1** |
| KIF | | | | *e*S | **Sn** | **23 02 47.3** | **+0.1** |
| KIF | | | | MSG | | 23 02 52.1 | |
| | comp=Z,0.6nm,0.1s | | | | | | |
| **TOF** | **Tornio** | **4.55** | **85** | P | **Pn** | **23 02 03.5** | **-0.2** |
| TOF | | | | S | **Sn** | **23 02 54.8** | **-1.8** |
| **TOF** | **Tornio** | **4.55** | **85** | *e*P | **Pn** | **23 02 03.6** | **-0.2** |
| TOF | | | | *e*S | **Sn** | **23 02 54.9** | **-1.8** |
| TOF | | | | MSG | | 23 02 56.8 | |
| | comp=Z,1.3nm,0.2s | | | | | | |
| **HEF** | **Hetta** | **4.71** | **55** | P | **Pn** | **23 02 06.4** | **+0.4** |
| HEF | | | | S | **Sn** | **23 02 59.3** | **-1.4** |
| **HEF** | **Hetta** | **4.71** | **55** | *e*P | **Pn** | **23 02 06.4** | **+0.4** |
| HEF | | | | *e*S | **Sn** | **23 02 59.3** | **-1.4** |
| HEF | | | | MSG | | 23 03 03.2 | |
| | comp=Z,0.5nm,0.1s | | | | | | |
| **AKN** | **Aaknes** | **4.74** | **218** | Pn | **Pn** | **23 02 07.1** | **+0.8** |
| AKN | | | | Sn | **Sn** | **23 03 01.1** | **-0.2** |
| **AKN** | **Aaknes** | **4.74** | **218** | Pn | **Pn** | **23 02 07.1** | **+0.8** |
| AKN | | | | Sn | **Sn** | **23 03 01.1** | **-0.2** |
| **AKN** | **Aaknes** | **4.74** | **218** | P | **Pn** | **23 02 07.1** | **+0.8** |
| AKN | | | | S | **Sn** | **23 03 01.0** | **-0.2** |
| **AKN** | **Aaknes** | **4.74** | **218** | *e*P | **Pn** | **23 02 07.1** | **+0.8** |
| AKN | | | | *e*S | **Sn** | **23 03 01.1** | **-0.2** |
| **KTK1** | **Kautokeino** | **4.87** | **48** | P | **Pn** | **23 02 08.2** | **+0.1** |
| KTK1 | | | | S | **Sn** | **23 03 03.2** | **-1.4** |
| **KTK1** | **Kautokeino** | **4.87** | **48** | *e*P | **Pn** | **23 02 08.2** | **+0.1** |
| KTK1 | | | | *e*S | **Sn** | **23 03 03.2** | **-1.4** |
| **VAF** | **Ylistaro** | **5.10** | **122** | P | **Pn** | **23 02 11.5** | **+0.3** |
| VAF | | | | S | **Sn** | **23 03 07.6** | **-2.6** |
| **VAF** | **Ylistaro** | **5.10** | **122** | *e*P | **Pn** | **23 02 11.5** | **+0.3** |
| VAF | | | | *e*S | **Sn** | **23 03 07.6** | **-2.6** |
| **NB2** | **NORSAR Subarra** | **5.11** | **191** | Pn | **Pn** | **23 02 13.4** | **+1.8** |
| | baz=4.8,slow=14 | | | | | | |
| **NB2** | **NORSAR Subarra** | **5.11** | **191** | Pn | **Pn** | **23 02 13.4** | **+1.8** |
| | baz=4.8,slow=14 | | | | | | |
| **NB2** | **NORSAR Subarra** | **5.11** | **191** | P | **Pn** | **23 02 13.3** | **+1.8** |
| **NB2** | **NORSAR Subarra** | **5.11** | **191** | *e*P | **Pn** | **23 02 13.4** | **+1.8** |
| **NOA** | **NORSAR Array B** | **5.11** | **191** | Pn | **Pn** | **23 02 12.9** | **+1.3** |
| | comp=Z,0.1nm,0.3s,baz=1.8,slow=15,SNR=2.5 | | | | | | |
| NOA | | | | Sn | **Sn** | **23 03 12.5** | **+1.9** |
| | comp=Z,0.1nm,0.3s,baz=41,slow=20,SNR=2.8 | | | | | | |
| **OUF** | **Merijarvi** | **5.16** | **104** | P | **Pn** | **23 02 11.0** | **-1.0** |
| OUF | | | | S | **Sn** | **23 03 09.0** | **-2.6** |
| **OUF** | **Merijarvi** | **5.16** | **104** | *e*P | **Pn** | **23 02 11.1** | **-1.0** |
| OUF | | | | *e*S | **Sn** | **23 03 09.1** | **-2.6** |
| **OUL** | **Oulu** | **5.38** | **95** | P | **Pn** | **23 02 14.0** | **-1.1** |
| **OUL** | **Oulu** | **5.38** | **95** | *e*P | **Pn** | **23 02 14.1** | **-1.1** |
| OUL | | | | *e*S | **Sn** | **23 03 13.7** | **-3.4** |
| **SGF** | **Sodankyl** | **5.48** | **69** | P | **Pn** | **23 02 15.4** | **-1.0** |
| SGF | | | | S | **Sn** | **23 03 16.6** | **-2.8** |
| **SGF** | **Sodankyl** | **5.48** | **69** | *e*P | **Pn** | **23 02 15.4** | **-1.0** |
| SGF | | | | *e*S | **Sn** | **23 03 16.6** | **-2.8** |
| **ARE0** | **ARCESS Array S** | **5.83** | **48** | P | **Pn** | **23 02 21.0** | **-0.3** |
| **ARE0** | **ARCESS Array S** | **5.83** | **48** | *e*P | **Pn** | **23 02 21.1** | **-0.3** |
| ARE0 | | | | *e*S | **Sn** | **23 03 26.0** | **-2.3** |
| **ARA0** | **ARCESS Array S** | **5.84** | **48** | Pn | **Pn** | **23 02 21.2** | **-0.2** |
| | baz=233,slow=14 | | | | | | |
| ARA0 | | | | Sn | **Sn** | **23 03 26.1** | **-2.2** |
| | baz=234,slow=22 | | | | | | |
| ARA0 | | | | Lg | Lg | 23 03 54.2 | |
| | baz=230,slow=28 | | | | | | |
| **ARA0** | **ARCESS Array S** | **5.84** | **48** | Pn | **Pn** | **23 02 21.2** | **-0.2** |
| | baz=233,slow=14 | | | | | | |
| ARA0 | | | | Sn | **Sn** | **23 03 26.1** | **-2.2** |
| | baz=234,slow=22 | | | | | | |
| ARA0 | | | | Lg | Lg | 23 03 54.2 | |
| | baz=230,slow=28 | | | | | | |
| **ARA0** | **ARCESS Array S** | **5.84** | **48** | Pn | **Pn** | **23 02 21.2** | **-0.2** |
| | SNR=50 | | | | | | |
| ARA0 | | | | Sn | **Sn** | **23 03 26.1** | **-2.2** |
| | SNR=50 | | | | | | |
| **ARCES** | **ARCESS Array B** | **5.84** | **48** | Pn | **Pn** | **23 02 21.3** | **-0.1** |
| | comp=Z,0.1nm,0.3s,baz=235,slow=14,SNR=9.7 | | | | | | |
| ARCES | | | | Sn | **Sn** | **23 03 26.3** | **-2.0** |
| | comp=Z,0.2nm,0.3s,baz=236,slow=22,SNR=5.5 | | | | | | |
| **HFS** | **Hagfors** | **5.95** | **177** | Pn | **Pn** | **23 02 25.2** | **+2.2** |
| | baz=348,slow=12 | | | | | | |
| HFS | | | | Sn | **Sn** | **23 03 31.5** | **+0.3** |
| | baz=5.5,slow=28 | | | | | | |
| **HFS** | **Hagfors** | **5.95** | **177** | Pn | **Pn** | **23 02 24.2** | **+1.2** |
| | comp=Z,0.1nm,0.3s,baz=351,slow=11,SNR=4.2 | | | | | | |
| HFS | | | | Sn | **Sn** | **23 03 32.6** | **+1.4** |
| | comp=Z,0.2nm,0.3s,baz=345,slow=22,SNR=3.7 | | | | | | |
| **HFS** | **Hagfors** | **5.95** | **177** | Pn | **Pn** | **23 02 25.2** | **+2.2** |
| | baz=348,slow=12 | | | | | | |
| HFS | | | | Sn | **Sn** | **23 03 31.5** | **+0.3** |
| | baz=5.5,slow=28 | | | | | | |
| **HFS** | **Hagfors** | **5.95** | **177** | P | **Pn** | **23 02 25.1** | **+2.2** |
| HFS | | | | S | **Sn** | **23 03 31.5** | **+0.3** |
| **HFS** | **Hagfors** | **5.95** | **177** | *e*P | **Pn** | **23 02 25.2** | **+2.2** |
| HFS | | | | *e*S | **Sn** | **23 03 31.5** | **+0.3** |
| **RAF** | **Rauma** | **6.35** | **139** | *e*S | **Sn** | **23 03 37.0** | **-3.9** |
| **KEF** | **Keuruu** | **6.44** | **122** | *e*S | **Sn** | **23 03 38.8** | **-4.5** |
| **MSF** | **Maaselka** | **6.49** | **84** | *e*S | **Sn** | **23 03 40.9** | **-3.5** |
| **SUF** | **Sumiainen** | **6.55** | **115** | *e*S | **Sn** | **23 03 42.5** | **-3.4** |
| **KU6** | **Riekki** | **6.82** | **83** | P | **Pn** | **23 02 33.8** | **-1.0** |
| **KU6** | **Riekki** | **6.82** | **83** | *e*P | **Pn** | **23 02 33.9** | **-1.0** |
| KU6 | | | | *e*S | **Sn** | **23 03 48.3** | **-4.1** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| **FIA0** | **FINESS Array S** | **7.36** | **123** | Pn | **Pn** | **23 02 43.3** | **+1.0** |
| | baz=309,slow=11 | | | | | | |
| FIA0 | | | | Sn | **Sn** | **23 04 02.9** | **-2.9** |
| | baz=325,slow=28 | | | | | | |
| FIA0 | | | | Lg | Lg | 23 04 43.1 | |
| | baz=312,slow=28 | | | | | | |
| **FIA0** | **FINESS Array S** | **7.36** | **123** | Pn | **Pn** | **23 02 43.3** | **+1.0** |
| | baz=309,slow=11 | | | | | | |
| FIA0 | | | | Sn | **Sn** | **23 04 02.9** | **-2.9** |
| | baz=325,slow=28 | | | | | | |
| FIA0 | | | | Lg | Lg | 23 04 43.1 | |
| | baz=312,slow=28 | | | | | | |
| **FIA0** | **FINESS Array S** | **7.36** | **123** | Pn | **Pn** | **23 02 43.3** | **+1.0** |
| | SNR=50 | | | | | | |
| **FIA0** | **FINESS Array S** | **7.36** | **123** | *e*P | **Pn** | **23 02 43.3** | **+1.0** |
| FIA0 | | | | *e*S | **Sn** | **23 04 02.9** | **-2.9** |
| FIA0 | | | | *e*SG | Sg | 23 04 43.1 | -7.6 |
| **FINES** | **FINESS Array B** | **7.36** | **123** | Pn | **Pn** | **23 02 43.3** | **+1.0** |
| | comp=Z,0.1nm,0.3s,baz=311,slow=13,SNR=3.4 | | | | | | |
| FINES | | | | Sn | **Sn** | **23 04 04.8** | **-1.0** |
| | comp=Z,0.1nm,0.3s,baz=325,slow=23,SNR=3.2 | | | | | | |

**NEIC 10 23:03:12.4**±0.0**, 19°.37N×155°.26W, h26km, ML3.5**(HVO), **After HVO., Hawaiian Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **POHA** | **Pohakuloa** | **0.47** | **327** | *e*Pg | Pb | 23 03 21.0 | -1.3 |
| POHA | | | | *e*Sg | Sb | 23 03 27.0 | -2.0 |
| **HON** | **Honolulu** | **3.23** | **308** | *e*Pn | Pn | 23 03 58.5 | -2.9 |
| HON | | | | *e*Sn | Sn | 23 04 30.9 | -8.2 |
| **KIP** | **Kipapa** | **3.30** | **309** | Pn | Pn | 23 04 00.9 | -1.5 |
| KIP | | | | *e*Sn | Sn | 23 04 38.9 | -1.9 |

*ISK **10** 23:29:50.0, 38°.78N×43°.23E, h4km, ML2.6*
*DDA **10** 23:29:50.3, 38°.76N×43°.22E, h7km, Md2.6*
*ISCJB **10** 23:29:51.6±0.6, 38°.79N±0°.03×43°.23E±0°.05, h14km±5km, Error ellipse: s-maj=6.7km s-min=5.0km az=177.0*
*CSEM **10** 23:29:51.5±0.3, 38°.81N×43°.26E, h15km, ML2.6, Error ellipse: s-maj=8.2km s-min=6.5km az=82.0*
**ISC 10 23:29:51.4**±0.9**, 38°.79N**±0°.02×**43°.27E**±0°.03**, h16**km±8km**, n23,** σ1°.04/36**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.22** | **154** | *e*PG | **Pg** | **23 29 56.5** | **0.0** |
| VANB | | | | *e*SG | **Sb** | **23 30 01.3** | **+0.4** |
| **VANB** | **Van** | **0.22** | **154** | *e*Pg | **Pg** | **23 29 56.5** | **0.0** |
| VANB | | | | *e*Sg | **Sb** | **23 30 01.3** | **+0.4** |
| **ERCV** | **ERCIS-VAN** | **0.24** | **14** | *e*PG | **Pg** | **23 29 56.2** | **-0.7** |
| **ERCV** | **ERCIS-VAN** | **0.24** | **14** | *e*Pg | **Pg** | **23 29 56.2** | **-0.7** |
| **VMUR** | **Van-Muradiye** | **0.31** | **50** | *i* P | **Pb** | **23 30 00.2** | **+1.5** |
| VMUR | | | | *i* S | **Sg** | **23 30 04.2** | **+1.5** |
| **VMUR** | **Van-Muradiye** | **0.31** | **50** | P | **Pb** | **23 30 00.2** | **+1.5** |
| VMUR | | | | S | **Sg** | **23 30 04.2** | **+1.5** |
| **CLDR** | **Caldiran** | **0.62** | **55** | *e*PG | **Pg** | **23 30 02.8** | **-0.9** |
| CLDR | | | | *e*SG | **Sg** | **23 30 12.8** | **+0.9** |
| **CLDR** | **Caldiran** | **0.62** | **55** | *i* P | **Pg** | **23 30 02.8** | **-0.9** |
| CLDR | | | | *i* S | **Sg** | **23 30 12.5** | **+0.6** |
| **CLDR** | **Caldiran** | **0.62** | **55** | P | **Pg** | **23 30 02.8** | **-0.9** |
| CLDR | | | | S | **Sg** | **23 30 12.5** | **+0.6** |
| **TUTA** | **Tutak** | **0.70** | **330** | *i* P | **Pb** | **23 30 04.1** | **-1.4** |
| TUTA | | | | *i* S | **Sg** | **23 30 14.4** | **-0.3** |
| **TUTA** | **Tutak** | **0.70** | **330** | P | **Pb** | **23 30 04.1** | **-1.4** |
| TUTA | | | | S | **Sg** | **23 30 14.4** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **0.81** | **345** | *e*PG | **Pb** | **23 30 06.2** | **-1.1** |
| AGRB | | | | *e*SG | **Sb** | **23 30 18.2** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **0.81** | **345** | *e*Pg | **Pb** | **23 30 06.2** | **-1.1** |
| AGRB | | | | *e*Sg | **Sb** | **23 30 18.2** | **+0.1** |
| **EKAR** | **Karacoban** | **1.04** | **297** | *i* P | **Pg** | **23 30 14.1** | **+2.4** |
| **EKAR** | **Karacoban** | **1.04** | **297** | P | **Pg** | **23 30 14.1** | **+2.4** |
| **EATA** | **Eleskirt** | **1.23** | **331** | *i* P | **Pn** | **23 30 13.9** | **-0.3** |
| EATA | | | | *i* S | **Sg** | **23 30 31.4** | **+0.2** |
| **EATA** | **Eleskirt** | **1.23** | **331** | P | **Pn** | **23 30 13.9** | **-0.3** |
| EATA | | | | S | **Sg** | **23 30 31.5** | **+0.2** |
| **SRTM** | **Siirt_Merkez** | **1.32** | **233** | *i* P | **Pn** | **23 30 14.7** | **-0.6** |
| **SRTM** | **Siirt_Merkez** | **1.32** | **233** | P | **Pn** | **23 30 14.7** | **-0.6** |
| **SIRT** | **Sirnak** | **1.44** | **207** | *e*PN | **Pb** | **23 30 17.4** | **-0.6** |
| **SIRT** | **Sirnak** | **1.44** | **207** | *e*Pn | **Pb** | **23 30 17.4** | **-0.6** |
| **CUKT** | **Cukurca** | **1.56** | **170** | *e*PN | **Pb** | **23 30 19.3** | **-0.8** |
| **CUKT** | **Cukurca** | **1.56** | **170** | *e*Pn | **Pb** | **23 30 19.3** | **-0.8** |

*CSEM **10** 23:38:27.2±0.5, 50°.04N×18°.45E, h1km, ML2.0/6, Error ellipse: s-maj=9.8km s-min=5.6km az=7.0*
**IPEC 10 23:38:27.9**±0.2**, 50°.04N×18°.51E, h0km, ML1.4**/4**, Error ellipse: s-maj=1.8km s-min=1.0km az=165.0, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RAC** | **Raciborz** | **0.21** | **283** | *e*Pg | Pg | 23 38 32.2 | +0.3 |
| RAC | | | | *e*Sg | Sg | 23 38 36.0 | +1.3 |
| **OKC** | **Ostrava-Krasne** | **0.31** | **230** | *e*PG | Pg | 23 38 34.1 | +0.3 |
| OKC | | | | *e*SG | Sg | 23 38 37.9 | +0.1 |
| | comp=Z,18nm,0.5s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **0.31** | **230** | Pg | Pg | 23 38 34.1 | +0.3 |
| OKC | | | | Sg | Sg | 23 38 37.9 | +0.1 |
| | 18nm,0.5s | | | | | | |
| **MORC** | **Moravsky Berou** | **0.68** | **248** | *e*Pg | Pg | 23 38 40.4 | -0.5 |
| MORC | | | | *e*Sg | Sg | 23 38 49.8 | +0.1 |
| | 7.6nm,0.3s,baz=67 | | | | | | |
| **OJC** | **Ojcow** | **0.85** | **77** | *e*Pg | Pg | 23 38 44.2 | 0.0 |
| OJC | | | | *e*Sg | Sg | 23 38 55.7 | +0.6 |
| **OJC** | **Ojcow** | **0.85** | **77** | *e*Pg | Pg | 23 38 44.2 | +0.1 |
| OJC | | | | *e*Sg | Sg | 23 38 55.7 | +0.6 |
| **LANS** | **Liptovska Anna** | **1.08** | **145** | *e*Pg | Pg | 23 38 49.0 | +0.4 |
| LANS | | | | *e*Sg | Sn | 23 39 05.7 | -0.4 |
| **LANS** | **Liptovska Anna** | **1.08** | **145** | *e*PG | Pg | 23 38 49.0 | +0.4 |
| LANS | | | | *e*SG | Sn | 23 39 05.7 | -0.4 |
| **KRLC** | **Kraliky** | **1.12** | **273** | *e*PG | Pg | 23 38 47.8 | -1.5 |
| KRLC | | | | *e*SG | Sg | 23 39 01.7 | -2.1 |
| | comp=Z,1.7nm,0.3s | | | | | | |
| **KRLC** | **Kraliky** | **1.12** | **273** | Pg | Pg | 23 38 47.8 | -1.5 |
| KRLC | | | | Sg | Sg | 23 39 01.7 | -2.1 |
| | 1.7nm,0.3s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.44** | **283** | *e*PG | Pn | 23 38 53.9 | -1.4 |
| DPC | | | | *e*SG | Sg | 23 39 12.6 | -1.6 |
| | comp=Z,4.9nm,0.4s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.44** | **283** | Pg | Pn | 23 38 53.9 | -1.4 |
| DPC | | | | Sg | Sg | 23 39 12.6 | -1.6 |
| | 4.9nm,0.4s | | | | | | |
| **VRAC** | **Vranov** | **1.44** | **240** | *e*Pg | Pn | 23 38 54.3 | -1.0 |
| | baz=59 | | | | | | |
| VRAC | | | | *e*Sg | Sg | 23 39 13.0 | -1.3 |
| | 5.7nm,0.3s,baz=59 | | | | | | |
| **VYHS** | **Vyhne** | **1.56** | **172** | *e*Pg | Pn | 23 38 55.8 | -1.1 |
| **VYHS** | **Vyhne** | **1.56** | **172** | *e*PG | Pn | 23 38 55.8 | -1.1 |
| VYHS | | | | *e*LG | Lg | 23 39 51.7 | |
| **KRUC** | **Moravsky** | **1.69** | **236** | *e*Pg | Pn | 23 38 58.1 | -0.6 |
| | baz=54 | | | | | | |
| KRUC | | | | *e*Sg | Sn | 23 39 21.0 | 0.0 |
| | 1.9nm,0.3s,baz=54 | | | | | | |
| **STHS** | **Stebnicka Huta** | **1.88** | **108** | *e*PN | Pg | 23 39 03.9 | +0.1 |
| STHS | | | | *e*LG | Lg | 23 40 05.8 | |
| **PRU** | **Pruhonice** | **2.56** | **270** | *e*SG | Sb | 23 39 46.3 | -0.5 |
| **PRU** | **Pruhonice** | **2.56** | **270** | Sg | Sb | 23 39 46.3 | -0.5 |
| **KHC** | **Kasperske Hory** | **3.34** | **256** | *e*PG | Pb | 23 39 27.0 | -0.9 |
| KHC | | | | *e*SG | Sg | 23 40 12.7 | -2.3 |
| **KHC** | **Kasperske Hory** | **3.34** | **256** | Pg | Pb | 23 39 27.0 | -0.9 |

*CSEM **10** 23:38:58.5±0.3, 50°.09N×18°.48E, h1km, Error ellipse: s-maj=7.1km s-min=3.7km az=10.0*
**PRU 10 23:38:59.7, 50°.06N×18°.44E, h0km, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RAC** | **Raciborz** | **0.16** | **278** | *e*Pg | Pg | 23 39 03.5 | +0.7 |
| RAC | | | | *e*Sg | Sg | 23 39 07.3 | +2.5 |
| **OKC** | **Ostrava-Krasne** | **0.29** | **220** | *e*PG | Pg | 23 39 05.2 | -0.1 |
| OKC | | | | *e*SG | Sg | 23 39 09.5 | +0.5 |
| | comp=Z,34nm,0.5s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **0.29** | **220** | Pg | Pg | 23 39 05.2 | -0.1 |
| OKC | | | | Sg | Sg | 23 39 09.5 | +0.5 |
| | 34nm,0.5s | | | | | | |
| **MORC** | **Moravsky Berou** | **0.65** | **244** | *e*Pg | Pg | 23 39 11.8 | -0.3 |
| MORC | | | | *e*Sg | Sg | 23 39 21.6 | +1.2 |
| **OJC** | **Ojcow** | **0.89** | **79** | *e*Pg | Pg | 23 39 15.0 | -1.8 |
| OJC | | | | *e*Sg | Sg | 23 39 27.8 | -0.4 |
| **OJC** | **Ojcow** | **0.89** | **79** | *e*Pg | Pg | 23 39 15.0 | -1.7 |
| OJC | | | | *e*Sg | Sg | 23 39 27.8 | -0.4 |
| **KRLC** | **Kraliky** | **1.07** | **271** | *e*PG | Pg | 23 39 18.8 | -1.4 |
| KRLC | | | | *e*SG | Sg | 23 39 33.0 | -1.0 |
| | comp=Z,2.6nm,0.5s | | | | | | |
| **KRLC** | **Kraliky** | **1.07** | **271** | Pg | Pg | 23 39 18.8 | -1.4 |
| KRLC | | | | Sg | Sg | 23 39 33.0 | -1.0 |
| | 2.6nm,0.5s | | | | | | |
| **LANS** | **Liptovska Anna** | **1.13** | **143** | *e*Pg | Pg | 23 39 20.1 | -1.2 |
| LANS | | | | *e*Sg | Sg | 23 39 36.1 | +0.2 |
| **LANS** | **Liptovska Anna** | **1.13** | **143** | *e*PG | Pg | 23 39 20.1 | -1.2 |
| LANS | | | | *e*SG | Sg | 23 39 36.1 | +0.2 |
| **DPC** | **Dobruska-Polom** | **1.39** | **283** | *e*PG | Pg | 23 39 25.1 | -1.3 |
| DPC | | | | *e*SG | Sg | 23 39 43.6 | -0.8 |
| | comp=Z,7.3nm,0.5s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.39** | **283** | Pg | Pg | 23 39 25.1 | -1.3 |
| DPC | | | | Sg | Sg | 23 39 43.6 | -0.8 |
| | 7.3nm,0.5s | | | | | | |
| **VYHS** | **Vyhne** | **1.59** | **170** | *e*Sg | Sn | 23 39 49.9 | -0.4 |
| **VYHS** | **Vyhne** | **1.59** | **170** | *e*SG | Sn | 23 39 49.9 | -0.4 |
| **UPC** | **Upice** | **1.62** | **287** | *e*SG | Sn | 23 39 50.5 | -0.6 |
| **UPC** | **Upice** | **1.62** | **287** | Sg | Sn | 23 39 50.5 | -0.6 |
| **STHS** | **Stebnicka Huta** | **1.93** | **108** | *e*SN | Sb | 23 40 00.0 | -0.4 |
| **KECS** | **Kecovo** | **2.07** | **139** | *e*Sn | Sn | 23 39 59.1 | -3.1 |
| **KECS** | **Kecovo** | **2.07** | **139** | *e*SN | Sn | 23 39 59.1 | -3.1 |
| KECS | | | | *e*LG | Lg | 23 40 04.8 | |
| **PRU** | **Pruhonice** | **2.52** | **270** | *e*SG | Sg | 23 40 19.0 | -1.5 |
| **PRU** | **Pruhonice** | **2.52** | **270** | Sg | Sg | 23 40 19.0 | -1.5 |
| **KHC** | **Kasperske Hory** | **3.30** | **255** | *e*SG | Sg | 23 40 44.5 | -1.1 |
| **KHC** | **Kasperske Hory** | **3.30** | **255** | Sg | Sg | 23 40 44.5 | -1.1 |

*IDC **10** 23:41:58.4±3.5, 5°.14S×148°.26E, h0km, mb4.0/4, mb1 4.2/5, mb1mx3.8/37, mbtmp4.1/5, ML2.3/1, MS3.4/4, Ms1 3.4/4, ms1mx3.0/23, Error ellipse: s-maj=95.3km s-min=23.3km az=99.0*
*NEIC **10** 23:42:08.6±0.6, 5°.31S×147°.56E, h35km, mb4.4/10, Error ellipse: s-maj=13.1km s-min=10.4km az=90.0*
**ISC 10 23:42:04.6**±0.8**, 5°.26S**±0°.07×**148°.2E**±0°.1**, h35**km**, n24,** σ**2°.07**/20**, mb4.5**/14**, MS3.2**/3**, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **4.24** | **194** | Pn | **Pn** | **23 43 06.1** | **-0.8** |
| | 11nm,0.3s,baz=31,slow=10,SNR=16 | | | | | | |
| PMG | | | | Sn | **Sn** | **23 44 00.8** | **+5.6** |
| | 7.4nm,0.3s,baz=84,slow=21,SNR=9.9 | | | | | | |
| **PMG** | **Port Moresby** | **4.24** | **194** | *e*Pn | **Pn** | **23 43 06.3** | **-0.5** |
| PMG | | | | *e*Sn | **Sn** | **23 43 57.6** | **+2.5** |
| **HNR** | **Honiara** | **12.37** | **110** | Pn | **P** | **23 45 09.6** | **-0.4** |
| **CTAO** | **Charters Tower** | **14.86** | **187** | Pn | **P** | **23 45 35.3** | **-2.3** |
| **GUMO** | **Guam** | **19.02** | **350** | LR | LR | 23 52 03.2 | |
| | comp=Z,152nm,21.4s,baz=124,slow=32 | | | | | | |
| **WRAB** | **Tennant Creek** | **19.85** | **222** | *e*P | **P** | **23 46 32.9** | **+0.1** |
| | 8.2nm,0.8s | | | | | | |
| **WRA** | **Warramunga Arr** | **19.86** | **222** | P | **Pn** | **23 46 33.6** | **-1.1** |
| | 6.6nm,0.9s,baz=48,slow=10,SNR=20 | | | | | | |
| **ASAR** | **Alice Springs** | **22.90** | **216** | P | **P** | **23 47 05.2** | **-0.3** |
| | 1.8nm,0.7s,baz=42,slow=10,SNR=17 | | | | | | |
| **DZM** | **Mont Dzumac** | **24.32** | **135** | LR | LR | 23 54 37.5 | |
| | comp=Z,140nm,19.2s,baz=194,slow=31 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **25.46** | **238** | P | **P** | **23 47 28.7** | **-1.0** |
| | 4.9nm,0.9s,baz=63,slow=10.0,SNR=10 | | | | | | |
| **STKA** | **Stephens Creek** | **27.19** | **192** | LR | LR | 23 58 34.7 | |
| | comp=Z,68nm,19.0s,baz=229,slow=36 | | | | | | |
| **MBWA** | **Marble Bar** | **31.80** | **238** | P | **P** | **23 48 25.5** | **-0.7** |
| | 26nm,0.9s | | | | | | |
| **KKM** | **Kota Kinabalu** | **33.84** | **289** | P | **P** | **23 48 42.0** | **-2.2** |
| | 10nm,0.9s | | | | | | |
| **KSM** | **Kuching** | **38.43** | **279** | P | **P** | **23 49 21.9** | **-1.4** |
| | 2.1nm,0.4s | | | | | | |
| **NACB** | **Ninganchiao** | **39.09** | **320** | P | **P** | **23 49 29.3** | **+0.6** |
| | 5.7nm,0.7s | | | | | | |
| **MJAR** | **Matsushiro Arr** | **42.62** | **348** | LR | LR | 00 06 56.0 | |
| | comp=Z,23nm,18.6s,baz=30,slow=35 | | | | | | |
| **COCO** | **West Island** | **51.16** | **259** | P | **P** | **23 51 03.7** | **-1.1** |
| | 84nm,0.7s | | | | | | |
| **ENH** | **Enshi** | **51.20** | **316** | *e*P | **P** | **23 51 06.2** | **+1.4** |
| | 0.9nm,0.4s | | | | | | |
| **BJT** | **Baijiatuau** | **53.84** | **330** | P | **P** | **23 51 26.0** | **+1.8** |
| | 1.6nm,0.3s | | | | | | |
| **CHTO** | **Chiang Mai** | **54.09** | **298** | P | **P** | **23 51 26.9** | **+0.5** |
| | 0.6nm,0.3s | | | | | | |
| **KIP** | **Kipapa** | **59.00** | **61** | P | P | 23 52 10.6 | +9.3 |
| | 72nm,0.4s | | | | | | |
| **SONM** | **Songino Array** | **64.35** | **330** | P | **P** | **23 52 35.9** | **-1.2** |
| | 2.2nm,1.0s,baz=140,slow=7.4,SNR=8.2 | | | | | | |
| **TLY** | **Talaya** | **68.25** | **332** | P | **P** | **23 53 05.1** | **+3.2** |
| | 2.0nm,0.5s | | | | | | |
| **COLA** | **College** | **84.01** | **23** | P | P | 23 54 38.0 | +6.8 |
| | 3.7nm,0.4s | | | | | | |

*NEIC **10** 23:43:42.5±0.0, 39°.71S×174°.08E, h208km, MG4.3(WEL), After WEL.*
**WEL 10 23:43:42.5**±0.3**, 39°.71S×174°.07E, h208**km±2km**, ML4.3**/54**, 17C-29D, Error ellipse: s-maj=2.2km s-min=1.2km az=90.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **NMEZ** | **Namu Road** | **0.33** | **333** | Pn | Pn | 23 44 10.0 | 0.0 |
| **NMEZ** | **Namu Road** | **0.33** | **333** | PN | Pn | 23 44 10.0 | 0.0 |
| **LREZ** | **Lake Rotokare** | **0.36** | **46** | PN | Pn | 23 44 10.1 | +0.1 |
| LREZ | | | | SN | S | 23 44 30.4 | -1.2 |
| **KHEZ** | **Kahui Hut** | **0.41** | **354** | Pn | Pn | 23 44 10.3 | -0.1 |
| KHEZ | | | | Sn | S | 23 44 30.9 | -1.2 |
| **KHEZ** | **Kahui Hut** | **0.41** | **354** | PN | Pn | 23 44 10.3 | -0.1 |
| KHEZ | | | | SN | S | 23 44 30.9 | -1.2 |
| **NEZ** | **North Egmont** | **0.44** | **3** | Pn | Pn | 23 44 10.3 | -0.2 |
| **NEZ** | **North Egmont** | **0.44** | **3** | PN | Pn | 23 44 10.3 | -0.2 |
| NEZ | | | | SN | S | 23 44 31.3 | -0.9 |
| **PKE** | **Pukeiti** | **0.52** | **353** | Pn | Pn | 23 44 10.6 | -0.1 |
| **PKE** | **Pukeiti** | **0.52** | **353** | PN | Pn | 23 44 10.6 | -0.1 |
| **WAZ** | **Wanganui** | **0.71** | **94** | Pn | Pn | 23 44 12.0 | +0.6 |
| **WAZ** | **Wanganui** | **0.71** | **94** | ⇓PN | Pn | 23 44 12.0 | +0.6 |
| **VRZ** | **Vera Road** | **0.79** | **43** | Pn | Pn | 23 44 11.2 | -0.7 |
| VRZ | | | | Sn | S | 23 44 32.6 | -1.9 |
| **VRZ** | **Vera Road** | **0.79** | **43** | PN | Pn | 23 44 11.2 | -0.7 |
| VRZ | | | | SN | S | 23 44 32.6 | -1.9 |
| **PKVZ** | **Pokaka** | **1.07** | **68** | Pn | Pn | 23 44 13.3 | -0.4 |
| **PKVZ** | **Pokaka** | **1.07** | **68** | PN | Pn | 23 44 13.3 | -0.4 |
| **OHWZ** | **Ohakea** | **1.08** | **118** | PN | Pn | 23 44 14.4 | +0.9 |
| **DUWZ** | **D'Urville Isla** | **1.10** | **186** | Pn | Pn | 23 44 13.7 | 0.0 |
| DUWZ | | | | Sn | S | 23 44 35.9 | -2.2 |
| **DUWZ** | **D'Urville Isla** | **1.10** | **186** | PN | Pn | 23 44 13.7 | 0.0 |
| DUWZ | | | | SN | S | 23 44 35.9 | -2.2 |
| **MTVZ** | **Mangateitei** | **1.13** | **74** | Pn | Pn | 23 44 14.0 | -0.1 |
| **MTVZ** | **Mangateitei** | **1.13** | **74** | ⇓PN | Pn | 23 44 14.0 | -0.1 |
| **TRVZ** | **Turoa** | **1.22** | **71** | Pn | Pn | 23 44 14.5 | -0.4 |
| TRVZ | | | | Sn | S | 23 44 37.5 | -2.3 |
| **TRVZ** | **Turoa** | **1.22** | **71** | PN | Pn | 23 44 14.5 | -0.4 |
| TRVZ | | | | SN | S | 23 44 37.5 | -2.3 |
| **DRZ** | **Dome Shelter** | **1.23** | **70** | Pn | Pn | 23 44 14.9 | -0.2 |
| **DRZ** | **Dome Shelter** | **1.23** | **70** | PN | Pn | 23 44 14.9 | -0.2 |
| **FWVZ** | **Far West T-bar** | **1.23** | **69** | Pn | Pn | 23 44 14.3 | -0.7 |
| **FWVZ** | **Far West T-bar** | **1.23** | **69** | PN | Pn | 23 44 14.5 | -0.5 |
| **TWVZ** | **Taurewa** | **1.24** | **60** | Pn | Pn | 23 44 14.2 | -0.6 |
| **TWVZ** | **Taurewa** | **1.24** | **60** | PN | Pn | 23 44 14.2 | -0.6 |
| **WNVZ** | **Wahianoa** | **1.24** | **73** | Pn | Pn | 23 44 14.8 | -0.2 |
| **WNVZ** | **Wahianoa** | **1.24** | **73** | ⇓PN | Pn | 23 44 14.7 | -0.2 |
| **WHVZ** | **Whangaehu Hut** | **1.25** | **71** | Pn | Pn | 23 44 14.8 | -0.3 |
| **WHVZ** | **Whangaehu Hut** | **1.25** | **71** | PN | Pn | 23 44 14.8 | -0.3 |
| **NGZ** | **Ngauruhoe** | **1.30** | **66** | Pn | Pn | 23 44 15.2 | -0.2 |
| **NGZ** | **Ngauruhoe** | **1.30** | **66** | PN | Pn | 23 44 15.2 | -0.2 |
| **TUVZ** | **Tukino** | **1.30** | **71** | Pn | Pn | 23 44 15.4 | -0.1 |
| **TUVZ** | **Tukino** | **1.30** | **71** | PN | Pn | 23 44 15.4 | -0.1 |
| **WTVZ** | **West Tongariro** | **1.32** | **64** | Pn | Pn | 23 44 15.1 | -0.4 |
| **WTVZ** | **West Tongariro** | **1.32** | **64** | PN | Pn | 23 44 15.1 | -0.4 |
| **KIW** | **Kapiti Island** | **1.32** | **151** | Pn | Pn | 23 44 15.4 | 0.0 |
| **KIW** | **Kapiti Island** | **1.32** | **151** | ⇑PN | Pn | 23 44 15.4 | 0.0 |
| KIW | | | | AML | AML | 23 44 39.6 | |
| KIW | | | | AML | AML | 23 44 40.2 | |
| **MOVZ** | **Moawhango** | **1.34** | **78** | Pn | Pn | 23 44 15.2 | -0.4 |
| **MOVZ** | **Moawhango** | **1.34** | **78** | ⇓PN | Pn | 23 44 15.2 | -0.4 |
| **HIZ** | **Hauiti** | **1.34** | **27** | Pn | Pn | 23 44 14.5 | -1.1 |
| **HIZ** | **Hauiti** | **1.34** | **27** | PN | Pn | 23 44 14.5 | -1.1 |
| **OTVZ** | **Oturere** | **1.35** | **67** | Pn | Pn | 23 44 15.3 | -0.5 |
| **OTVZ** | **Oturere** | **1.35** | **67** | PN | Pn | 23 44 15.3 | -0.5 |
| **KRVZ** | **Karewarewa** | **1.36** | **64** | Pn | Pn | 23 44 15.7 | -0.2 |
| **KRVZ** | **Karewarewa** | **1.36** | **64** | PN | Pn | 23 44 15.7 | -0.2 |
| **OGWZ** | **Otaki Gorge** | **1.39** | **143** | Pn | Pn | 23 44 16.1 | +0.2 |
| **OGWZ** | **Otaki Gorge** | **1.39** | **143** | PN | Pn | 23 44 16.1 | +0.2 |
| OGWZ | | | | AML | AML | 23 44 40.5 | |
| OGWZ | | | | AML | AML | 23 44 41.3 | |
| **POWZ** | **Post Office Ro** | **1.47** | **118** | Pn | Pn | 23 44 15.3 | -1.3 |
| **POWZ** | **Post Office Ro** | **1.47** | **118** | *e*PN | Pn | 23 44 16.6 | 0.0 |
| POWZ | | | | AML | AML | 23 44 43.3 | |
| POWZ | | | | AML | AML | 23 44 43.6 | |
| **MRZ** | **Mangatainoka R** | **1.50** | **130** | Pn | Pn | 23 44 15.5 | -1.3 |
| **MRZ** | **Mangatainoka R** | **1.50** | **130** | PN | Pn | 23 44 15.5 | -1.3 |
| MRZ | | | | AML | AML | 23 44 41.8 | |
| MRZ | | | | AML | AML | 23 44 42.3 | |
| **TSZ** | **Takapari Road** | **1.50** | **104** | Pn | Pn | 23 44 16.9 | +0.1 |
| **TSZ** | **Takapari Road** | **1.50** | **104** | ⇓PN | Pn | 23 44 16.9 | +0.1 |
| TSZ | | | | AML | AML | 23 44 43.6 | |
| TSZ | | | | AML | AML | 23 44 43.8 | |
| **TCW** | **Tory Channel** | **1.51** | **174** | Pn | Pn | 23 44 17.2 | +0.3 |
| **TCW** | **Tory Channel** | **1.51** | **174** | PN | Pn | 23 44 17.2 | +0.3 |
| TCW | | | | AML | AML | 23 44 41.7 | |
| TCW | | | | AML | AML | 23 44 41.8 | |
| **BHHZ** | **Black Hill Sta** | **1.56** | **83** | Pn | Pn | 23 44 16.8 | -0.6 |
| **BHHZ** | **Black Hill Sta** | **1.56** | **83** | ⇓PN | Pn | 23 44 16.8 | -0.6 |
| BHHZ | | | | AML | AML | 23 44 46.1 | |
| BHHZ | | | | AML | AML | 23 44 47.5 | |
| **RATZ** | **Rangitukua** | **1.57** | **58** | Pn | Pn | 23 44 17.3 | -0.2 |
| **RATZ** | **Rangitukua** | **1.57** | **58** | PN | Pn | 23 44 17.3 | -0.2 |
| **RITZ** | **Rihia Road** | **1.57** | **63** | Pn | Pn | 23 44 17.7 | +0.2 |
| **RITZ** | **Rihia Road** | **1.57** | **63** | ⇑PN | Pn | 23 44 17.7 | +0.2 |
| **CAW** | **Cannon Point** | **1.59** | **152** | Pn | Pn | 23 44 17.6 | 0.0 |
| **CAW** | **Cannon Point** | **1.59** | **152** | ⇑PN | Pn | 23 44 17.6 | 0.0 |
| CAW | | | | AML | AML | 23 44 43.8 | |
| CAW | | | | AML | AML | 23 44 44.7 | |
| **NNZ** | **Nelson** | **1.60** | **199** | Pn | Pn | 23 44 17.5 | -0.2 |
| **NNZ** | **Nelson** | **1.60** | **199** | ⇓PN | Pn | 23 44 17.5 | -0.2 |
| NNZ | | | | *e*SN | S | 23 44 43.1 | -1.8 |
| **QRZ** | **Quartz Range** | **1.62** | **226** | Pn | Pn | 23 44 17.1 | -0.8 |
| **QRZ** | **Quartz Range** | **1.62** | **226** | ⇑PN | Pn | 23 44 17.1 | -0.8 |
| **HOWZ** | **Holdsworth Sta** | **1.62** | **137** | Pn | Pn | 23 44 17.8 | -0.1 |
| **HOWZ** | **Holdsworth Sta** | **1.62** | **137** | PN | Pn | 23 44 17.8 | -0.1 |
| HOWZ | | | | AML | AML | 23 44 43.4 | |
| HOWZ | | | | AML | AML | 23 44 44.9 | |
| **WATZ** | **Wairara** | **1.63** | **53** | Pn | Pn | 23 44 17.8 | -0.3 |
| **WATZ** | **Wairara** | **1.63** | **53** | ⇓PN | Pn | 23 44 17.8 | -0.3 |
| **PNHZ** | **Pukenui** | **1.66** | **98** | Pn | Pn | 23 44 18.3 | 0.0 |
| **PNHZ** | **Pukenui** | **1.66** | **98** | ⇓PN | Pn | 23 44 18.3 | 0.0 |
| PNHZ | | | | AML | AML | 23 44 46.1 | |
| PNHZ | | | | AML | AML | 23 44 46.7 | |
| **WEL** | **Wellington** | **1.66** | **161** | Pn | Pn | 23 44 18.1 | -0.2 |
| **WEL** | **Wellington** | **1.66** | **161** | PN | Pn | 23 44 18.1 | -0.2 |
| WEL | | | | AML | AML | 23 44 45.3 | |
| WEL | | | | AML | AML | 23 44 45.3 | |
| WEL | | | | AML | AML | 23 44 45.6 | |
| WEL | | | | AML | AML | 23 44 45.6 | |
| **SNZO** | **South Karori** | **1.67** | **163** | *e*Pn | Pn | 23 44 18.1 | -0.2 |
| SNZO | | | | *e*Sn | S | 23 44 43.9 | -2.2 |
| **PRWZ** | **Pori Road** | **1.69** | **121** | Pn | Pn | 23 44 18.9 | +0.4 |
| **PRWZ** | **Pori Road** | **1.69** | **121** | PN | Pn | 23 44 18.9 | +0.4 |
| PRWZ | | | | AML | AML | 23 44 46.0 | |
| PRWZ | | | | AML | AML | 23 44 46.1 | |
| **DVHZ** | **Dannevirke** | **1.72** | **111** | Pn | Pn | 23 44 18.9 | +0.1 |
| **DVHZ** | **Dannevirke** | **1.72** | **111** | ⇓PN | Pn | 23 44 18.9 | +0.1 |
| DVHZ | | | | AML | AML | 23 44 45.4 | |
| DVHZ | | | | AML | AML | 23 44 45.9 | |
| **TUWZ** | **Tuamarina** | **1.72** | **183** | Pn | Pn | 23 44 18.8 | 0.0 |
| **TUWZ** | **Tuamarina** | **1.72** | **183** | ⇑PN | Pn | 23 44 18.8 | 0.0 |
| TUWZ | | | | AML | AML | 23 44 46.7 | |
| TUWZ | | | | AML | AML | 23 44 47.3 | |
| **TIWZ** | **Tintock** | **1.75** | **128** | Pn | Pn | 23 44 19.2 | 0.0 |
| **TIWZ** | **Tintock** | **1.75** | **128** | PN | Pn | 23 44 19.2 | 0.0 |
| TIWZ | | | | AML | AML | 23 44 48.0 | |
| TIWZ | | | | AML | AML | 23 44 48.1 | |
| **HATZ** | **Hinemaiaia** | **1.77** | **63** | Pn | Pn | 23 44 18.5 | -0.9 |
| **HATZ** | **Hinemaiaia** | **1.77** | **63** | PN | Pn | 23 44 18.5 | -0.9 |
| **KRHZ** | **Kereru** | **1.78** | **89** | ⇓PN | Pn | 23 44 19.3 | -0.1 |
| KRHZ | | | | AML | AML | 23 44 47.4 | |
| KRHZ | | | | AML | AML | 23 44 48.3 | |
| **TLZ** | **Tolley Road** | **1.79** | **40** | Pn | Pn | 23 44 18.5 | -1.1 |
| **TLZ** | **Tolley Road** | **1.79** | **40** | PN | Pn | 23 44 18.5 | -1.1 |
| **BHW** | **Baring Head** | **1.81** | **160** | Pn | Pn | 23 44 19.1 | -0.4 |
| **BHW** | **Baring Head** | **1.81** | **160** | PN | Pn | 23 44 19.1 | -0.4 |
| BHW | | | | AML | AML | 23 44 46.7 | |
| BHW | | | | AML | AML | 23 44 47.3 | |
| **MTW** | **Mount Morrison** | **1.82** | **143** | Pn | Pn | 23 44 19.5 | -0.2 |
| **MTW** | **Mount Morrison** | **1.82** | **143** | ⇑PN | Pn | 23 44 19.5 | -0.2 |
| MTW | | | | AML | AML | 23 44 48.6 | |
| MTW | | | | AML | AML | 23 44 48.7 | |
| **KWHZ** | **Kaweka Forest** | **1.84** | **82** | ⇓PN | Pn | 23 44 20.2 | +0.2 |
| KWHZ | | | | AML | AML | 23 44 49.3 | |
| KWHZ | | | | AML | AML | 23 44 49.4 | |
| **WPHZ** | **Waipukurau** | **1.86** | **102** | Pn | Pn | 23 44 20.4 | +0.2 |
| **WPHZ** | **Waipukurau** | **1.86** | **102** | ⇓PN | Pn | 23 44 20.3 | +0.2 |
| WPHZ | | | | AML | AML | 23 44 49.6 | |
| WPHZ | | | | AML | AML | 23 44 51.4 | |
| **MSWZ** | **Moikau Station** | **1.93** | **153** | Pn | Pn | 23 44 20.4 | -0.4 |
| **MSWZ** | **Moikau Station** | **1.93** | **153** | ⇑PN | Pn | 23 44 20.4 | -0.4 |
| MSWZ | | | | AML | AML | 23 44 49.1 | |
| MSWZ | | | | AML | AML | 23 44 50.8 | |
| **BFZ** | **Birch Farm** | **1.93** | **121** | Pn | Pn | 23 44 20.7 | -0.1 |
| **BFZ** | **Birch Farm** | **1.93** | **121** | PN | Pn | 23 44 20.7 | -0.1 |
| BFZ | | | | AML | AML | 23 44 50.3 | |
| BFZ | | | | AML | AML | 23 44 50.3 | |
| BFZ | | | | AML | AML | 23 44 50.9 | |
| BFZ | | | | AML | AML | 23 44 50.9 | |
| **BKZ** | **Black Stump Fm** | **1.95** | **75** | Pn | Pn | 23 44 20.3 | -0.8 |
| **BKZ** | **Black Stump Fm** | **1.95** | **75** | PN | Pn | 23 44 20.3 | -0.8 |
| BKZ | | | | AML | AML | 23 44 48.7 | |
| BKZ | | | | AML | AML | 23 44 48.7 | |
| **PAWZ** | **Paruwai Farm** | **1.97** | **149** | Pn | Pn | 23 44 20.8 | -0.4 |
| **PAWZ** | **Paruwai Farm** | **1.97** | **149** | PN | Pn | 23 44 20.8 | -0.4 |
| PAWZ | | | | AML | AML | 23 44 49.9 | |
| PAWZ | | | | AML | AML | 23 44 50.7 | |
| **TMWZ** | **Te Maipa** | **1.97** | **136** | Pn | Pn | 23 44 21.2 | -0.1 |
| **TMWZ** | **Te Maipa** | **1.97** | **136** | PN | Pn | 23 44 21.2 | -0.1 |
| TMWZ | | | | AML | AML | 23 44 51.2 | |
| TMWZ | | | | AML | AML | 23 44 51.2 | |
| **ANWZ** | **Angora Road** | **1.99** | **113** | PN | Pn | 23 44 21.8 | +0.3 |
| ANWZ | | | | AML | AML | 23 44 51.9 | |
| ANWZ | | | | AML | AML | 23 44 52.1 | |
| **BSWZ** | **Blackbirch Sta** | **2.01** | **184** | Pn | Pn | 23 44 21.8 | +0.2 |
| **BSWZ** | **Blackbirch Sta** | **2.01** | **184** | PN | Pn | 23 44 21.8 | +0.2 |
| BSWZ | | | | AML | AML | 23 44 51.7 | |
| BSWZ | | | | AML | AML | 23 44 53.9 | |
| **MRHZ** | **Matea Rd** | **2.02** | **65** | ⇓PN | Pn | 23 44 20.8 | -1.0 |
| MRHZ | | | | AML | AML | 23 44 49.6 | |
| MRHZ | | | | AML | AML | 23 44 50.1 | |
| **CPWZ** | **Castlepoint** | **2.03** | **127** | Pn | Pn | 23 44 22.3 | +0.6 |
| **CPWZ** | **Castlepoint** | **2.03** | **127** | PN | Pn | 23 44 22.3 | +0.6 |
| CPWZ | | | | AML | AML | 23 44 53.1 | |
| CPWZ | | | | AML | AML | 23 44 54.3 | |
| **CMWZ** | **Cape Campbell** | **2.04** | **177** | Pn | Pn | 23 44 22.4 | +0.4 |
| **CMWZ** | **Cape Campbell** | **2.04** | **177** | PN | Pn | 23 44 22.4 | +0.4 |
| CMWZ | | | | AML | AML | 23 44 53.9 | |
| CMWZ | | | | AML | AML | 23 44 54.0 | |
| **MCHZ** | **McNeill Hill** | **2.05** | **83** | Pn | Pn | 23 44 22.7 | +0.6 |
| **MCHZ** | **McNeill Hill** | **2.05** | **83** | ⇓PN | Pn | 23 44 22.7 | +0.6 |
| MCHZ | | | | AML | AML | 23 44 54.1 | |
| MCHZ | | | | AML | AML | 23 44 54.2 | |
| **PRHZ** | **Porangahau** | **2.05** | **107** | Pn | Pn | 23 44 22.3 | +0.3 |
| **PRHZ** | **Porangahau** | **2.05** | **107** | ⇓PN | Pn | 23 44 22.3 | +0.3 |
| PRHZ | | | | AML | AML | 23 44 53.9 | |
| PRHZ | | | | AML | AML | 23 44 54.5 | |
| **PLWZ** | **Palliser** | **2.07** | **154** | Pn | Pn | 23 44 21.7 | -0.6 |
| **PLWZ** | **Palliser** | **2.07** | **154** | PN | Pn | 23 44 21.7 | -0.6 |
| PLWZ | | | | AML | AML | 23 44 53.8 | |
| PLWZ | | | | AML | AML | 23 44 55.2 | |
| **TRWZ** | **Traveller** | **2.09** | **144** | Pn | Pn | 23 44 22.2 | -0.3 |
| **TRWZ** | **Traveller** | **2.09** | **144** | ⇑PN | Pn | 23 44 22.2 | -0.3 |
| TRWZ | | | | AML | AML | 23 44 53.2 | |
| TRWZ | | | | AML | AML | 23 44 53.3 | |
| **ALRZ** | **Allen Road** | **2.11** | **58** | Pn | Pn | 23 44 21.9 | -0.8 |
| **ALRZ** | **Allen Road** | **2.11** | **58** | PN | Pn | 23 44 21.9 | -0.8 |
| **KAHZ** | **Kahuranaki** | **2.17** | **93** | Pn | Pn | 23 44 23.7 | +0.4 |
| **KAHZ** | **Kahuranaki** | **2.17** | **93** | ⇓PN | Pn | 23 44 23.7 | +0.4 |
| KAHZ | | | | AML | AML | 23 44 53.9 | |
| KAHZ | | | | AML | AML | 23 44 55.4 | |
| **PXZ** | **Pawanui** | **2.17** | **99** | Pn | Pn | 23 44 23.5 | +0.2 |
| **PXZ** | **Pawanui** | **2.17** | **99** | ⇓PN | Pn | 23 44 23.5 | +0.2 |
| PXZ | | | | AML | AML | 23 44 55.4 | |
| PXZ | | | | AML | AML | 23 44 55.4 | |
| PXZ | | | | AML | AML | 23 44 55.4 | |
| PXZ | | | | AML | AML | 23 44 55.5 | |
| **NMHZ** | **Naumai** | **2.21** | **75** | Pn | Pn | 23 44 24.1 | +0.3 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| NMHZ | Naumai | 2.21 | 75 | ⇓PN | Pn | 23 44 24.1 | +0.3 |
| NMHZ | | | | AML | AML | 23 44 57.3 | |
| NMHZ | | | | AML | AML | 23 44 57.6 | |
| THZ | Tophouse | 2.23 | 203 | Pn | Pn | 23 44 23.5 | -0.5 |
| THZ | Tophouse | 2.23 | 203 | ⇑PN | Pn | 23 44 23.5 | -0.5 |
| ARHZ | Aropaoanui | 2.31 | 80 | Pn | Pn | 23 44 25.0 | +0.3 |
| ARHZ | Aropaoanui | 2.31 | 80 | ⇑PN | Pn | 23 44 25.0 | +0.3 |
| ARHZ | | | | AML | AML | 23 44 58.3 | |
| ARHZ | | | | AML | AML | 23 44 58.7 | |
| MTHZ | Maungataniwha | 2.32 | 69 | PN | Pn | 23 44 24.0 | -0.9 |
| CKHZ | Cape Kidnapper | 2.32 | 90 | Pn | Pn | 23 44 25.3 | +0.4 |
| CKHZ | Cape Kidnapper | 2.32 | 90 | ⇓PN | Pn | 23 44 25.3 | +0.4 |
| CKHZ | | | | AML | AML | 23 44 56.5 | |
| CKHZ | | | | AML | AML | 23 44 57.0 | |
| TARZ | Mount Tarawera | 2.40 | 53 | Pn | Pn | 23 44 25.2 | -0.7 |
| MUGZ | Murupara | 2.44 | 61 | ⇑PN | Pn | 23 44 24.9 | -1.2 |
| WHHZ | Waihua | 2.53 | 77 | PN | Pn | 23 44 27.1 | -0.1 |
| WHHZ | | | | AML | AML | 23 45 03.0 | |
| WHHZ | | | | AML | AML | 23 45 08.6 | |
| DSZ | Denniston Nort | 2.66 | 219 | Pn | Pn | 23 44 27.9 | -0.8 |
| DSZ | Denniston Nort | 2.66 | 219 | ⇑PN | Pn | 23 44 27.9 | -0.8 |
| SNGZ | Shannon Statio | 2.70 | 71 | Pn | Pn | 23 44 28.5 | -0.6 |
| SNGZ | Shannon Statio | 2.70 | 71 | ⇓PN | Pn | 23 44 28.5 | -0.6 |
| SNGZ | | | | AML | AML | 23 45 08.0 | |
| SNGZ | | | | AML | AML | 23 45 10.1 | |
| KHZ | Kahutara | 2.73 | 188 | Pn | Pn | 23 44 28.8 | -0.6 |
| KHZ | Kahutara | 2.73 | 188 | ⇑PN | Pn | 23 44 28.8 | -0.6 |
| KHZ | | | | AML | AML | 23 45 03.9 | |
| KHZ | | | | AML | AML | 23 45 05.1 | |
| URZ | Urewera | 2.78 | 60 | Pn | Pn | 23 44 28.2 | -1.7 |
| URZ | Urewera | 2.78 | 60 | PN | Pn | 23 44 28.2 | -1.7 |
| URZ | | | | SN | S | 23 45 01.4 | -5.1 |
| URZ | | | | AML | AML | 23 45 04.5 | |
| RAGZ | Rawiri | 2.87 | 66 | Pn | Pn | 23 44 30.1 | -1.0 |
| RAGZ | Rawiri | 2.87 | 66 | ⇓PN | Pn | 23 44 30.1 | -1.0 |
| RAGZ | | | | AML | AML | 23 45 08.6 | |
| RAGZ | | | | AML | AML | 23 45 08.8 | |
| KNZ | Kokohu | 2.88 | 77 | Pn | Pn | 23 44 30.5 | -0.6 |
| KNZ | Kokohu | 2.88 | 77 | PN | Pn | 23 44 30.5 | -0.6 |
| MHGZ | Mahia Peninsul | 3.02 | 81 | Pn | Pn | 23 44 32.6 | -0.2 |
| MHGZ | Mahia Peninsul | 3.02 | 81 | PN | Pn | 23 44 32.6 | -0.2 |
| MHGZ | | | | AML | AML | 23 45 12.7 | |
| MWZ | Matawai | 3.02 | 64 | Pn | Pn | 23 44 30.6 | -2.2 |
| MWZ | Matawai | 3.02 | 64 | PN | Pn | 23 44 31.5 | -1.3 |
| MWZ | | | | AML | AML | 23 45 10.9 | |
| MWZ | | | | AML | AML | 23 45 14.1 | |
| RIGZ | Rimuhau | 3.04 | 72 | ⇓PN | Pn | 23 44 32.3 | -0.7 |
| RIGZ | | | | AML | AML | 23 45 11.7 | |
| RIGZ | | | | AML | AML | 23 45 14.3 | |
| PRGZ | Paritu Road | 3.06 | 76 | Pn | Pn | 23 44 32.8 | -0.5 |
| PRGZ | Paritu Road | 3.06 | 76 | ⇓PN | Pn | 23 44 32.8 | -0.5 |
| PRGZ | | | | AML | AML | 23 45 11.7 | |
| PRGZ | | | | AML | AML | 23 45 13.4 | |
| TKGZ | Te Karaka | 3.20 | 68 | Pn | Pn | 23 44 34.1 | -0.7 |
| TKGZ | Te Karaka | 3.20 | 68 | ⇑PN | Pn | 23 44 34.1 | -0.7 |
| TKGZ | | | | AML | AML | 23 45 15.8 | |
| TKGZ | | | | AML | AML | 23 45 16.2 | |
| RUGZ | Raukumara Rang | 3.31 | 59 | PN | Pn | 23 44 34.0 | -2.3 |
| LTZ | Lake Taylor | 3.36 | 203 | Pn | Pn | 23 44 35.7 | -1.0 |
| LTZ | Lake Taylor | 3.36 | 203 | PN | Pn | 23 44 35.7 | -1.0 |
| TWGZ | Tauwhareparae | 3.41 | 65 | Pn | Pn | 23 44 36.5 | -1.0 |
| TWGZ | Tauwhareparae | 3.41 | 65 | ⇑PN | Pn | 23 44 36.5 | -1.0 |
| TWGZ | | | | AML | AML | 23 45 23.7 | |
| TWGZ | | | | AML | AML | 23 45 24.6 | |
| CNGZ | Carnagh Statio | 3.44 | 71 | Pn | Pn | 23 44 37.3 | -0.4 |
| CNGZ | Carnagh Statio | 3.44 | 71 | PN | Pn | 23 44 37.3 | -0.4 |
| HAZ | Te Kaha | 3.50 | 57 | PN | Pn | 23 44 36.1 | -2.3 |
| HAZ | | | | AML | AML | 23 45 18.2 | |
| HAZ | | | | AML | AML | 23 45 19.3 | |
| HAZ | | | | AML | AML | 23 45 20.6 | |
| HAZ | | | | AML | AML | 23 45 23.6 | |
| INZ | Inchbonnie | 3.60 | 212 | PN | Pn | 23 44 38.1 | -1.5 |
| PKGZ | Pakihiroa | 3.62 | 61 | ⇓PN | Pn | 23 44 38.4 | -1.5 |
| PKGZ | | | | AML | AML | 23 45 24.0 | |
| PKGZ | | | | AML | AML | 23 45 25.6 | |
| PUZ | Puketiti | 3.65 | 65 | Pn | Pn | 23 44 38.6 | -1.7 |
| PUZ | Puketiti | 3.65 | 65 | ⇓PN | Pn | 23 44 38.6 | -1.7 |
| PUZ | | | | AML | AML | 23 45 25.5 | |
| PUZ | | | | AML | AML | 23 45 25.9 | |
| WMGZ | Waiomatatini S | 3.89 | 62 | Pn | Pn | 23 44 41.3 | -1.8 |
| WMGZ | Waiomatatini S | 3.89 | 62 | ⇓PN | Pn | 23 44 41.3 | -1.8 |
| WMGZ | | | | AML | AML | 23 45 29.1 | |
| WMGZ | | | | AML | AML | 23 45 31.0 | |
| OXZ | Oxford | 3.92 | 202 | Pn | Pn | 23 44 41.6 | -1.9 |
| OXZ | Oxford | 3.92 | 202 | PN | Pn | 23 44 41.6 | -1.9 |
| MXZ | Matakaoa Point | 3.95 | 58 | Pn | Pn | 23 44 42.3 | -1.6 |
| MXZ | Matakaoa Point | 3.95 | 58 | ⇓PN | Pn | 23 44 42.3 | -1.6 |
| CRLZ | Canterbury Las | 4.01 | 195 | Pn | Pn | 23 44 43.2 | -1.3 |
| CRLZ | Canterbury Las | 4.01 | 195 | ⇑PN | Pn | 23 44 43.2 | -1.3 |
| MQZ | McQueen's Vall | 4.13 | 194 | Pn | Pn | 23 44 43.7 | -2.3 |
| MQZ | McQueen's Vall | 4.13 | 194 | ⇑PN | Pn | 23 44 43.7 | -2.3 |
| WVZ | Waitaha Valley | 4.19 | 216 | PN | Pn | 23 44 44.9 | -1.9 |
| RPZ | Rata Peaks | 4.59 | 208 | Pn | Pn | 23 44 50.2 | -1.7 |
| RPZ | Rata Peaks | 4.59 | 208 | ⇓PN | Pn | 23 44 50.2 | -1.7 |
| FOZ | Fox Glacier | 4.97 | 218 | Pn | Pn | 23 44 55.2 | -1.4 |
| FOZ | Fox Glacier | 4.97 | 218 | PN | Pn | 23 44 55.2 | -1.4 |
| LBZ | Lake Benmore | 5.50 | 210 | Pn | Pn | 23 45 01.2 | -2.1 |
| LBZ | Lake Benmore | 5.50 | 210 | PN | Pn | 23 45 01.2 | -2.1 |
| ODZ | Otahua Downs | 5.90 | 204 | Pn | Pn | 23 45 06.8 | -1.6 |
| ODZ | Otahua Downs | 5.90 | 204 | PN | Pn | 23 45 06.8 | -1.6 |
| WKZ | Wanaka | 6.34 | 215 | Pn | Pn | 23 45 11.7 | -2.4 |
| CTZ | Chatham Island | 8.04 | 123 | PN | Pn | 23 45 46.0 | +10 |

*DDA* ***10*** *23:52:08.3, 38°.48N×28°.32E, h8km, Ml2.8*
*CSEM* ***10*** *23:52:08.9±0.1, 38°.48N×28°.34E, h2km, ML2.8, Error ellipse: s-maj=3.0km s-min=2.4km az=63.0*
*ISK* ***10*** *23:52:08.8, 38°.51N×28°.36E, h4km, ML2.5*
**ISC 10 23:52:08.8**±1.1**, 38°.47N**±0°.02×**28°.31E**±0°.02**, h1**km±10km**,**
**n52, σ0s.69**/79**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MANT | Manisa | 0.19 | 85 | *i* P | Pg | 23 52 12.9 | +0.3 |
| MANT | | | | *i* S | Sg | 23 52 15.7 | +0.6 |
| MANT | Manisa | 0.19 | 85 | P | Pg | 23 52 12.9 | +0.3 |
| MANT | | | | S | Sg | 23 52 15.7 | +0.6 |
| KULA | Kula-Manisa | 0.28 | 81 | *e*PG | Pg | 23 52 14.3 | +0.2 |
| KULA | | | | *e*SG | Sg | 23 52 18.0 | +0.3 |
| KULA | Kula-Manisa | 0.28 | 81 | *e*Pg | Pg | 23 52 14.3 | +0.2 |
| KULA | | | | *e*Sg | Sg | 23 52 18.0 | +0.3 |
| AKHS | Akhisar | 0.56 | 316 | *i* P | Pg | 23 52 19.4 | -0.2 |
| AKHS | | | | *i* S | Sg | 23 52 28.1 | +1.2 |
| AKHS | Akhisar | 0.56 | 316 | P | Pg | 23 52 19.4 | -0.2 |
| AKHS | | | | S | Sg | 23 52 28.1 | +1.2 |
| DEMI | Demirci | 0.65 | 29 | *i* P | Pg | 23 52 20.8 | -0.5 |
| DEMI | | | | *i* S | Sg | 23 52 29.1 | -0.7 |
| DEMI | Demirci | 0.65 | 29 | P | Pg | 23 52 20.8 | -0.5 |
| DEMI | | | | S | Sg | 23 52 29.1 | -0.7 |
| SIMA | Simav-Kutahya | 0.80 | 40 | *e*PG | Pg | 23 52 23.7 | -0.5 |
| SIMA | Simav-Kutahya | 0.80 | 40 | *e*Pg | Pg | 23 52 23.7 | -0.5 |
| AYDN | Tasoluk | 0.88 | 203 | *i* P | Pg | 23 52 25.1 | -0.6 |
| AYDN | | | | *i* S | Sg | 23 52 37.3 | +0.2 |
| AYDN | Tasoluk | 0.88 | 203 | P | Pg | 23 52 25.1 | -0.6 |
| AYDN | | | | S | Sg | 23 52 37.3 | +0.2 |
| KHAL | Karahalli | 0.93 | 96 | *i* P | Pg | 23 52 26.6 | -0.1 |
| KHAL | | | | *i* S | Sg | 23 52 38.5 | -0.3 |
| KHAL | Karahalli | 0.93 | 96 | P | Pg | 23 52 26.6 | -0.1 |
| KHAL | | | | S | Sg | 23 52 38.5 | -0.3 |
| DNZL | Cakiroluk | 0.97 | 143 | *i* P | Pg | 23 52 27.6 | +0.1 |
| DNZL | | | | *i* S | Sg | 23 52 40.4 | +0.3 |
| DNZL | Cakiroluk | 0.97 | 143 | P | Pg | 23 52 27.5 | +0.1 |
| DNZL | | | | S | Sg | 23 52 40.4 | +0.3 |
| STEP | BALIKESIR_Sava | 1.01 | 333 | *i* P | Pg | 23 52 28.5 | +0.2 |
| STEP | | | | *i* S | Sb | 23 52 43.2 | +0.2 |
| STEP | BALIKESIR_Sava | 1.01 | 333 | P | Pg | 23 52 28.5 | +0.2 |
| STEP | | | | S | Sb | 23 52 43.2 | +0.2 |
| GDZ | Gediz | 1.10 | 56 | *i* P | Pg | 23 52 28.9 | -1.0 |
| GDZ | | | | *i* S | Sg | 23 52 43.6 | -0.6 |
| GDZ | Gediz | 1.10 | 56 | P | Pg | 23 52 28.9 | -1.0 |
| GDZ | | | | S | Sg | 23 52 43.6 | -0.6 |
| TAVA | DENIZLI_Tavas | 1.11 | 155 | *i* P | Pg | 23 52 29.6 | -0.6 |
| TAVA | | | | *i* S | Sb | 23 52 45.0 | -0.9 |
| TAVA | DENIZLI_Tavas | 1.11 | 155 | P | Pg | 23 52 29.5 | -0.6 |
| TAVA | | | | S | Sb | 23 52 45.0 | -0.9 |
| BALB | Balikesir | 1.21 | 344 | *e*PN | Pn | 23 52 32.7 | -0.2 |
| BALB | | | | *e*SN | Sn | 23 52 49.7 | -0.3 |
| BALB | Balikesir | 1.21 | 344 | *e*Pn | Pn | 23 52 32.7 | -0.2 |
| BALB | | | | *e*Sn | Sn | 23 52 49.7 | -0.3 |
| DKL | Dikili | 1.25 | 299 | *e*PN | Pg | 23 52 32.8 | 0.0 |
| DKL | Dikili | 1.25 | 299 | *e*Pn | Pg | 23 52 32.8 | 0.0 |
| TVSB | Tavsanli | 1.32 | 42 | *e*PN | Pg | 23 52 33.8 | -0.4 |
| TVSB | Tavsanli | 1.32 | 42 | *e*Pn | Pg | 23 52 33.8 | -0.4 |
| URLA | Izmir | 1.35 | 266 | *e*PN | Pn | 23 52 34.6 | -0.3 |
| URLA | Izmir | 1.35 | 266 | *e*Pn | Pn | 23 52 34.6 | -0.3 |
| BALY | Balya | 1.38 | 337 | *i* P | Pg | 23 52 35.2 | 0.0 |
| BALY | | | | *i* S | Sg | 23 52 53.0 | 0.0 |
| BALY | Balya | 1.38 | 337 | P | Pg | 23 52 35.2 | 0.0 |
| BALY | | | | S | Sg | 23 52 53.0 | 0.0 |
| KZIL | AFYON_Kizioren | 1.45 | 98 | *i* P | Pg | 23 52 36.6 | -0.1 |
| KZIL | | | | *i* S | Sn | 23 52 57.8 | +1.7 |
| KZIL | AFYON_Kizioren | 1.45 | 98 | P | Pg | 23 52 36.6 | -0.1 |
| GOLH | Golhisar | 1.58 | 141 | *i* P | Pn | 23 52 37.3 | -0.8 |
| GOLH | | | | *i* S | Sg | 23 53 01.2 | +1.6 |
| GOLH | Golhisar | 1.58 | 141 | P | Pn | 23 52 37.3 | -0.8 |
| GOLH | | | | S | Sg | 23 53 01.2 | +1.6 |
| BRDR | BURDUR-Merkez | 1.58 | 119 | *i* P | Pg | 23 52 44.3 | +5.2 |
| BRDR | | | | *i* S | Sg | 23 53 02.8 | +3.1 |
| BODT | Bodrum | 1.62 | 210 | *e*PN | Pb | 23 52 39.6 | +0.2 |
| BODT | Bodrum | 1.62 | 210 | *e*Pn | Pb | 23 52 39.6 | +0.2 |
| CHOS | Chios island | 1.77 | 268 | *e*PN | Pb | 23 52 41.8 | -0.4 |
| CHOS | Chios island | 1.77 | 268 | *e*Pn | Pb | 23 52 41.8 | -0.4 |
| KCTX | Karacabey (Bur | 1.79 | 1 | *e*PN | Pn | 23 52 41.1 | +0.2 |
| KCTX | Karacabey (Bur | 1.79 | 1 | *e*Pn | Pn | 23 52 41.1 | +0.2 |
| EDC | Edincik | 1.90 | 350 | *e*PN | Pn | 23 52 43.0 | +0.6 |
| EDC | Edincik | 1.90 | 350 | *e*Pn | Pn | 23 52 43.0 | +0.6 |
| FETY | Fethiye | 1.93 | 161 | *e*PN | Pb | 23 52 44.2 | -0.6 |
| FETY | Fethiye | 1.93 | 161 | *e*Pn | Pb | 23 52 44.3 | -0.6 |
| MDNY | Mudanya-Bursa | 1.94 | 13 | *e*PN | Pn | 23 52 43.5 | +0.5 |
| MDNY | Mudanya-Bursa | 1.94 | 13 | *e*Pn | Pn | 23 52 43.5 | +0.5 |
| BORA | Eskisehir | 2.18 | 49 | *i* P | Pb | 23 52 49.2 | +0.1 |
| YLV | Yalova | 2.25 | 21 | *e*PN | Pn | 23 52 47.7 | +0.5 |
| YLV | Yalova | 2.25 | 21 | *e*Pn | Pn | 23 52 47.7 | +0.5 |

*ISN* ***10*** *23:55:50.1±1.3, 39°.00N×43°.62E, h0km±62km, ML3.8*
*AZER* ***10*** *23:55:55.0±0.6, 38°.68N×43°.33E, h6km±7km, Error ellipse: s-maj=7.5km s-min=1.8km az=66.0*
*ATA* ***10*** *23:55:55.8±1.2, 38°.87N×43°.43E, h0km±5km, ML4.5, MW4.3*
*CSEM* ***10*** *23:55:55.2±0.2, 38°.72N×43°.37E, h2km, ML3.8, Error ellipse: s-maj=3.5km s-min=3.3km az=107.0*
*ISK* ***10*** *23:55:55.3, 38°.85N×43°.57E, h5km, ML3.8*
*DDA* ***10*** *23:55:55.6, 38°.81N×43°.62E, h12km, Ml3.8*
*NSSC* ***10*** *23:55:57.9±1.1, 39°.05N×43°.60E, h38km±999km, ML2.6*
**ISC 10 23:55:57.4**±1.0**, 38°.83N**±0°.01×**43°.53E**±0°.01**, h6**km±8km**,**
**n151, σ1s.99**/245**, 35C-34D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.17 | 11 | ⇓*i*P | Pg | 23 55 59.7 | -1.1 |
| VMUR | | | | *i* S | Sg | 23 56 03.5 | +0.4 |
| VMUR | Van-Muradiye | 0.17 | 11 | P | Pg | 23 55 59.7 | -1.1 |
| ERCV | ERCIS-VAN | 0.24 | 322 | *e*PG | Pg | 23 56 01.2 | -1.0 |
| ERCV | ERCIS-VAN | 0.24 | 322 | *e*Pg | Pg | 23 56 01.2 | -1.0 |
| VANB | Van | 0.26 | 206 | *e*PG | Pg | 23 56 03.3 | +0.9 |
| VANB | | | | *e*SG | Sg | 23 56 10.2 | +4.4 |
| CLDR | Caldiran | 0.44 | 44 | *e*PG | Pg | 23 56 04.2 | -1.7 |
| CLDR | | | | *e*SG | Sg | 23 56 11.2 | -0.5 |
| CLDR | Caldiran | 0.44 | 44 | ⇑*i*P | Pg | 23 56 04.2 | -1.7 |
| CLDR | | | | *i* S | Sg | 23 56 11.4 | -0.2 |
| CLDR | Caldiran | 0.44 | 44 | *e*Pg | Pg | 23 56 04.2 | -1.7 |
| CLDR | | | | *e*Sg | Sg | 23 56 11.2 | -0.5 |
| ADCV | BITLIS_Adilcev | 0.63 | 269 | ⇑*i*P | Pg | 23 56 09.0 | -0.5 |
| ADCV | | | | *i* S | Sb | 23 56 19.8 | -0.3 |
| GEVA | Gevas | 0.63 | 216 | *e*P | Pg | 23 56 08.2 | -1.4 |
| GEVA | Gevas | 0.63 | 216 | ⇑*i*P | Pg | 23 56 08.1 | -1.4 |
| GEVA | | | | *i* S | Sb | 23 56 21.1 | +1.0 |
| DYDN | Diyadin | 0.73 | 10 | *e*P | Pg | 23 56 10.1 | -1.2 |
| DYDN | Diyadin | 0.73 | 10 | ⇑*i*P | Pg | 23 56 09.9 | -1.4 |
| DYDN | | | | *i* S | Sg | 23 56 20.4 | -0.4 |
| DYDN | Diyadin | 0.73 | 10 | P | Pg | 23 56 09.9 | -1.4 |
| TUTA | Tutak | 0.80 | 316 | *e*P | Pg | 23 56 10.9 | -1.8 |
| TUTA | | | | *e*S | Sg | 23 56 23.7 | +0.5 |
| TUTA | | | | IAML | | 23 56 26.8 | |
| | comp=Z,1µm,0.4s | | | | | | |
| TUTA | Tutak | 0.80 | 316 | ⇓*i*P | Pg | 23 56 11.1 | -1.7 |
| TUTA | | | | *i* S | Sg | 23 56 24.3 | +1.2 |
| TUTA | Tutak | 0.80 | 316 | P | Pg | 23 56 11.1 | -1.7 |
| AGRB | Hanur-Agry | 0.86 | 331 | *e*PG | Pg | 23 56 12.3 | -1.5 |
| AGRB | | | | *e*SG | Sg | 23 56 25.7 | +0.7 |
| AGRB | Hanur-Agry | 0.86 | 331 | *e*Pg | Pg | 23 56 12.3 | -1.5 |
| AGRB | | | | *e*Sg | Sg | 23 56 25.7 | +0.7 |
| BASK | Baskale_VAN | 0.86 | 154 | *e*P | Pb | 23 56 15.5 | +0.7 |
| BASK | | | | *e*S | Sn | 23 56 30.1 | +0.9 |
| BASK | Baskale_VAN | 0.86 | 154 | *i* P | Pg | 23 56 11.8 | -2.0 |
| BASK | | | | *i* S | Sb | 23 56 26.6 | -0.1 |
| BASK | Baskale_VAN | 0.86 | 154 | P | Pg | 23 56 11.8 | -2.0 |
| EKAR | Karacoban | 1.22 | 291 | *e*P | Pb | 23 56 18.6 | -2.4 |
| EKAR | | | | IAML | | 23 56 44.9 | |
| | comp=Z,329nm,0.5s | | | | | | |
| EKAR | Karacoban | 1.22 | 291 | *i* P | Pb | 23 56 19.8 | -1.3 |
| EKAR | | | | *i* S | Sn | 23 56 39.8 | +1.6 |
| TASB | TASBURUN-IGDIR | 1.28 | 25 | *e*PN | Pn | 23 56 19.8 | -2.1 |
| TASB | TASBURUN-IGDIR | 1.28 | 25 | *e*Pn | Pn | 23 56 19.8 | -2.1 |
| EATA | Eleskirt | 1.31 | 322 | *e*P | Pn | 23 56 20.3 | -2.2 |
| EATA | Eleskirt | 1.31 | 322 | ⇓*i*P | Pn | 23 56 20.4 | -2.2 |
| EATA | | | | *i* S | Sn | 23 56 41.5 | +0.9 |
| EATA | Eleskirt | 1.31 | 322 | P | Pn | 23 56 20.4 | -2.2 |
| HYR | Heyderabad | 1.36 | 49 | ⇓P | Pn | 23 56 23.2 | +0.2 |
| HYR | | | | ⇑S | Sg | 23 56 45.0 | +3.9 |
| HYR | Heyderabad | 1.36 | 49 | P | Pn | 23 56 23.2 | +0.2 |
| HYR | | | | S | Sg | 23 56 45.0 | +3.9 |
| YOVA | Hakkari_Yˆ…kse | 1.37 | 154 | *i* P | Pn | 23 56 22.1 | -1.2 |
| YOVA | | | | *i* S | Sg | 23 56 43.7 | +2.1 |
| YOVA | Hakkari_Yˆ…kse | 1.37 | 154 | P | Pn | 23 56 22.1 | -1.2 |
| SRTM | Siirt_Merkez | 1.51 | 237 | ⇑*i*P | Pn | 23 56 24.4 | -0.8 |
| SRTM | | | | *i* S | Sg | 23 56 47.8 | +1.8 |
| NAX | Nakhchivan | 1.57 | 77 | ⇓P | Pn | 23 56 25.7 | -0.2 |
| NAX | | | | ⇑S | Sg | 23 56 49.8 | +1.9 |
| NAX | Nakhchivan | 1.57 | 77 | P | Pn | 23 56 25.7 | -0.2 |
| NAX | | | | S | Sg | 23 56 49.8 | +1.9 |
| CUKT | Cukurca | 1.58 | 178 | *e*PN | Pn | 23 56 25.2 | -0.8 |
| CUKT | Cukurca | 1.58 | 178 | *i* P | Pn | 23 56 25.1 | -1.0 |
| CUKT | | | | *i* S | Sg | 23 56 51.4 | +3.4 |
| CUKT | Cukurca | 1.58 | 178 | *e*Pn | Pn | 23 56 25.2 | -0.8 |
| SIRT | Sirnak | 1.58 | 213 | *e*PN | Pn | 23 56 26.4 | +0.4 |
| DIGO | Kars | 1.59 | 356 | *e*P | Pn | 23 56 26.2 | -0.2 |
| DIGO | Kars | 1.59 | 356 | ⇓*i*P | Pn | 23 56 26.1 | -0.2 |
| DIGO | | | | *i* S | Sg | 23 56 51.3 | +2.7 |
| DIGO | Kars | 1.59 | 356 | P | Pn | 23 56 26.1 | -0.3 |
| SIRN | S˜–rnak | 1.59 | 214 | *i* P | Pn | 23 56 26.8 | +0.5 |
| SIRN | | | | *i* S | Sn | 23 56 47.0 | -0.2 |
| VRTB | Varto-Mus | 1.65 | 282 | *e*PN | Pn | 23 56 27.1 | 0.0 |
| VRTB | Varto-Mus | 1.65 | 282 | *i* P | Pn | 23 56 27.1 | 0.0 |
| VRTB | | | | *i* S | Sg | 23 56 52.4 | +2.0 |
| VRTB | Varto-Mus | 1.65 | 282 | *e*Pn | Pn | 23 56 27.1 | 0.0 |
| SBZ | Shahbuz | 1.67 | 69 | ⇑P | Pn | 23 56 27.3 | -0.1 |
| SBZ | | | | ⇑S | Sg | 23 56 53.4 | +2.2 |
| SBZ | Shahbuz | 1.67 | 69 | P | Pn | 23 56 27.3 | -0.1 |
| SBZ | | | | S | Sg | 23 56 53.4 | +2.2 |
| HOMI | Horasan | 1.75 | 315 | *e*P | Pn | 23 56 28.9 | +0.3 |
| HOMI | | | | IAML | | 23 56 35.2 | |
| | comp=Z,168nm,0.5s | | | | | | |
| HOMI | Horasan | 1.75 | 315 | *i* P | Pn | 23 56 28.8 | +0.3 |
| HOMI | | | | *i* S | Sg | 23 56 56.5 | +2.9 |
| KARS | Kars | 1.83 | 349 | *e*PN | Pn | 23 56 29.0 | -0.6 |
| KARS | Kars | 1.83 | 349 | *e*Pn | Pn | 23 56 29.0 | -0.6 |
| EAK | Akyaka | 1.86 | 2 | *e*P | Pn | 23 56 31.1 | +1.1 |
| EAK | Akyaka | 1.86 | 2 | *i* P | Pb | 23 56 31.4 | -0.5 |
| EAK | | | | *i* S | Sg | 23 57 00.7 | +3.6 |
| EAK | Akyaka | 1.86 | 2 | P | Pb | 23 56 31.4 | -0.5 |
| BNGL | BINGOL | 1.86 | 275 | *e*P | Pn | 23 56 31.1 | +1.1 |
| BNGL | | | | *e*S | Sg | 23 56 57.6 | +0.4 |
| BNGL | | | | IAML | | 23 57 04.6 | |
| | comp=Z,471nm,0.4s | | | | | | |
| BNGL | BINGOL | 1.86 | 275 | *i* P | Pn | 23 56 31.0 | +0.9 |
| BNGL | | | | *i* S | Sg | 23 56 59.6 | +2.4 |
| ORD | Ordubad | 1.93 | 86 | P | Pn | 23 56 30.6 | -0.2 |
| ORD | | | | S | Sg | 23 56 58.8 | -0.5 |
| SENK | Senkaya-Erzuru | 1.96 | 333 | *e*PN | Pn | 23 56 31.6 | +0.2 |
| SENK | Senkaya-Erzuru | 1.96 | 333 | *e*Pn | Pn | 23 56 31.6 | +0.2 |
| ERZM | Erzurum | 1.99 | 303 | *e*P | Pn | 23 56 32.5 | +0.6 |
| ERZM | Erzurum | 1.99 | 303 | *i* P | Pn | 23 56 32.9 | +0.9 |
| ERZM | | | | *i* S | Sg | 23 57 03.5 | +2.0 |
| BTMN | Batman | 2.01 | 243 | *i* P | Pn | 23 56 32.7 | +0.7 |
| BTMN | | | | *i* S | Sb | 23 57 00.2 | +0.6 |
| ECAT | Cat-ERZURUM | 2.13 | 292 | *e*P | Pn | 23 56 35.5 | +1.7 |
| ECAT | | | | IAML | | 23 56 41.2 | |
| | comp=Z,106nm,0.5s | | | | | | |
| ECAT | Cat-ERZURUM | 2.13 | 292 | *i* P | Pn | 23 56 35.0 | +1.2 |
| ECAT | | | | *i* S | Sg | 23 57 07.4 | +1.6 |
| BNGB | Bingˆ¶l | 2.23 | 275 | *e*PN | Pn | 23 56 35.5 | +0.4 |
| BINT | Bingol | 2.38 | 272 | *e*Pn | Pn | 23 56 35.5 | -1.5 |
| YEDI | Yedisu-Bingol | 2.40 | 286 | *e*PN | Pn | 23 56 37.7 | +0.3 |
| YEDI | Yedisu-Bingol | 2.40 | 286 | *e*Pn | Pn | 23 56 37.7 | +0.3 |
| BGD | Bogdanovka | 2.44 | 1 | P | Pb | 23 56 43.6 | +1.9 |
| DDEM | Demirkent | 2.48 | 327 | *i* P | Pn | 23 56 38.4 | 0.0 |
| DDEM | Demirkent | 2.48 | 327 | P | Pn | 23 56 38.4 | 0.0 |
| GDB | GEDABAY | 2.55 | 41 | ⇑P | Pn | 23 56 40.3 | +0.8 |
| GDB | | | | ⇑S | Sb | 23 57 14.8 | -0.6 |
| GDB | GEDABAY | 2.55 | 41 | P | Pn | 23 56 40.3 | +0.8 |
| GDB | | | | S | Sb | 23 57 14.8 | -0.6 |
| AKH | Akhalkalaki | 2.58 | 359 | *e*PN | Pn | 23 56 39.6 | -0.3 |
| AKH | Akhalkalaki | 2.58 | 359 | P | Pb | 23 56 46.2 | +2.0 |
| AKH | Akhalkalaki | 2.58 | 359 | *e*Pn | Pn | 23 56 39.6 | -0.3 |
| KOPT | Kop Dagi | 2.63 | 298 | *e*P | Pn | 23 56 42.1 | +1.4 |
| QZX | Qazax, Azerbai | 2.64 | 32 | ⇑P | Pn | 23 56 41.4 | +0.8 |
| QZX | | | | ⇑S | Sb | 23 57 16.6 | -1.2 |
| QZX | Qazax, Azerbai | 2.64 | 32 | P | Pn | 23 56 41.4 | +0.8 |
| QZX | | | | S | Sb | 23 57 16.6 | -1.2 |
| EPOS | Posof | 2.74 | 347 | *e*P | Pn | 23 56 44.0 | +1.9 |
| MAZI | Mazidag | 2.79 | 242 | *e*PN | Pn | 23 56 44.0 | +1.3 |
| DYBB | Diyarbakir | 2.80 | 253 | *e*PN | Pn | 23 56 44.0 | +1.2 |
| GANJ | Ganja | 2.82 | 49 | ⇑P | Pn | 23 56 43.4 | +0.4 |
| GANJ | | | | ⇑S | Sb | 23 57 21.6 | -1.3 |
| GANJ | Ganja | 2.82 | 49 | P | Pn | 23 56 43.4 | +0.4 |
| GANJ | | | | S | Sb | 23 57 21.6 | -1.3 |
| KBSD | Kabsdagh | 2.98 | 233 | *e*P | Pn | 23 56 45.6 | +0.3 |
| KBSD | | | | *e*S | Sn | 23 57 19.7 | -1.7 |
| KBSD | | | | AML | AML | 23 57 44.1 | |
| | comp=Z,79nm,0.6s | | | | | | |
| TBLG | Delisi | 3.04 | 17 | *e*PN | Pn | 23 56 46.0 | -0.2 |
| TBLG | Delisi | 3.04 | 17 | P | Pb | 23 56 52.0 | 0.0 |
| TBLG | Delisi | 3.04 | 17 | *e*Pn | Pn | 23 56 46.0 | -0.2 |
| ERZN | Erzincan | 3.05 | 286 | *e*PN | Pn | 23 56 47.1 | +0.8 |
| EUZM | Uzumlu | 3.10 | 288 | *e*P | Pn | 23 56 48.9 | +1.9 |
| BRDA | Brd | 3.17 | 62 | ⇑P | Pn | 23 56 48.3 | +0.5 |
| BRDA | | | | ⇓S | Sb | 23 57 30.0 | -2.9 |
| BRDA | Brd | 3.17 | 62 | P | Pn | 23 56 48.3 | +0.5 |
| BRDA | | | | S | Sb | 23 57 30.0 | -2.9 |
| PTK | Pertek | 3.23 | 272 | *e*PN | Pn | 23 56 49.6 | +0.8 |
| SVRC | Sivrice-ELAZID | 3.34 | 264 | *e*PN | Pn | 23 56 51.5 | +1.2 |
| MNGR | Mingechevir, A | 3.36 | 54 | ⇓P | Pn | 23 56 51.0 | +0.6 |
| MNGR | | | | ⇓S | Sn | 23 57 34.6 | +4.0 |
| MNGR | Mingechevir, A | 3.36 | 54 | P | Pn | 23 56 51.0 | +0.6 |
| MNGR | | | | S | Sn | 23 57 34.6 | +4.0 |
| EZC | Erzincan | 3.37 | 287 | *e*Pn | Pn | 23 56 47.2 | -3.5 |
| ZRD | Zardab | 3.52 | 64 | ⇑P | Pn | 23 56 53.1 | +0.5 |
| ZRD | | | | ⇓S | Sn | 23 57 38.7 | +4.0 |
| ZRD | Zardab | 3.52 | 64 | P | Pn | 23 56 53.1 | +0.5 |
| ZRD | | | | S | Sn | 23 57 38.7 | +4.0 |
| ZKTA | Zakatala | 3.67 | 39 | ⇓P | Pn | 23 56 55.3 | +0.6 |
| ZKTA | | | | ⇑S | Sn | 23 57 42.3 | +3.9 |
| SEKA | Sheki | 3.69 | 49 | ⇓P | Pn | 23 56 56.3 | +1.3 |
| SEKA | | | | ⇑S | Sb | 23 57 44.2 | -3.8 |
| SEKA | Sheki | 3.69 | 49 | P | Pn | 23 56 56.3 | +1.3 |
| SEKA | | | | S | Sb | 23 57 44.2 | -3.8 |
| ONI | Oni | 3.76 | 359 | P | Sn | 23 57 43.5 | +2.8 |
| LRK | Lerik | 3.77 | 91 | ⇑P | Pn | 23 56 55.7 | -0.5 |
| LRK | | | | ⇑S | Sn | 23 57 43.0 | +2.1 |
| LRK | Lerik | 3.77 | 91 | P | Pn | 23 56 55.7 | -0.5 |
| LRK | | | | S | Sn | 23 57 43.0 | +2.1 |
| MZRK | Al-Mazaregh | 3.77 | 218 | *e*P | Pn | 23 56 57.1 | +1.0 |
| MZRK | | | | *e*S | Sn | 23 57 39.3 | -1.6 |
| MZRK | | | | AML | AML | 23 58 11.2 | |
| | comp=Z,63nm,0.7s | | | | | | |
| GLBA | Clilabad | 3.81 | 82 | ⇓P | Pn | 23 56 56.3 | -0.3 |
| GLBA | | | | ⇓S | Sn | 23 57 44.7 | +3.0 |
| GLBA | Clilabad | 3.81 | 82 | P | Pn | 23 56 56.3 | -0.3 |
| GLBA | | | | S | Sn | 23 57 44.7 | +3.0 |
| KDMR | Kurdemir | 3.91 | 65 | ⇓P | Pn | 23 56 58.2 | +0.2 |
| KDMR | | | | ⇓S | Sn | 23 57 48.1 | +3.8 |
| KDMR | Kurdemir | 3.91 | 65 | P | Pn | 23 56 58.2 | +0.2 |
| KDMR | | | | S | Sn | 23 57 48.1 | +3.8 |
| QBL | Gabala | 3.93 | 56 | ⇓P | Pn | 23 56 58.6 | +0.2 |
| QBL | | | | ⇓S | Sn | 23 57 48.8 | +3.9 |
| QBL | Gabala | 3.93 | 56 | P | Pn | 23 56 58.6 | +0.2 |
| QBL | | | | S | Sn | 23 57 48.8 | +3.9 |
| SAAT | Saatly | 3.93 | 73 | ⇓P | Pn | 23 56 57.9 | -0.4 |
| SAAT | | | | ⇑S | Sn | 23 57 47.3 | +2.6 |
| SAAT | Saatly | 3.93 | 73 | P | Pn | 23 56 57.9 | -0.4 |
| SAAT | | | | S | Sn | 23 57 47.3 | +2.6 |
| URFA | Urfa | 3.96 | 251 | *e*PN | Pn | 23 57 00.3 | +1.5 |
| MALT | Malatya | 4.03 | 264 | *e*PN | Pn | 23 57 00.9 | +1.1 |
| IML | Ismayilli | 4.09 | 60 | ⇓P | Pn | 23 57 00.6 | +0.1 |
| IML | | | | ⇑S | Sn | 23 57 52.4 | +3.7 |
| IML | Ismayilli | 4.09 | 60 | P | Pn | 23 57 00.6 | +0.1 |
| IML | | | | S | Sn | 23 57 52.4 | +3.7 |
| LKRN | Lenkeran, Azer | 4.11 | 90 | ⇓P | Pn | 23 57 00.2 | -0.5 |
| LKRN | | | | ⇑S | Sn | 23 57 51.2 | +2.2 |
| LKRN | Lenkeran, Azer | 4.11 | 90 | P | Pn | 23 57 00.2 | -0.5 |
| LKRN | | | | S | Sn | 23 57 51.2 | +2.2 |
| ASTR | Astara | 4.12 | 92 | ⇑P | Pn | 23 57 00.5 | -0.5 |
| ASTR | | | | ⇑S | Sn | 23 57 52.1 | +2.5 |
| ASTR | Astara | 4.12 | 92 | P | Pn | 23 57 00.5 | -0.5 |
| ASTR | | | | S | Sn | 23 57 52.1 | +2.5 |
| XNQ | Khinaliq | 4.25 | 55 | ⇓P | Pn | 23 57 03.0 | +0.2 |
| XNQ | | | | ⇓S | Sn | 23 57 56.4 | +3.6 |
| XNQ | Khinaliq | 4.25 | 55 | P | Pn | 23 57 03.0 | +0.2 |
| XNQ | | | | S | Sn | 23 57 56.4 | +3.6 |
| PQL | Pirkuli | 4.36 | 62 | ⇑P | Pn | 23 57 04.6 | +0.2 |
| PQL | | | | ⇓S | Sn | 23 57 59.1 | +3.4 |
| PQL | Pirkuli | 4.36 | 62 | P | Pn | 23 57 04.6 | +0.2 |
| PQL | | | | S | Sn | 23 57 59.1 | +3.4 |
| ALIB | Äli-Bayra | 4.39 | 73 | ⇑P | Pn | 23 57 04.8 | +0.2 |
| ALIB | | | | ⇓S | Sn | 23 57 59.6 | +3.5 |
| ALIB | Äli-Bayra | 4.39 | 73 | P | Pn | 23 57 04.8 | +0.2 |
| ALIB | | | | S | Sn | 23 57 59.6 | +3.5 |
| GBS | Qobustan | 4.51 | 66 | ⇓P | Pn | 23 57 06.5 | +0.2 |
| GBS | | | | ⇓S | Sn | 23 58 02.4 | +3.2 |
| GBS | Qobustan | 4.51 | 66 | P | Pn | 23 57 06.5 | +0.2 |
| GBS | | | | S | Sn | 23 58 02.4 | +3.2 |
| QSAR | Qusar | 4.51 | 52 | ⇑P | Pn | 23 57 06.6 | +0.3 |
| QSAR | | | | ⇓S | Sn | 23 58 02.8 | +3.7 |
| QSAR | Qusar | 4.51 | 52 | P | Pn | 23 57 06.6 | +0.3 |
| QSAR | | | | S | Sn | 23 58 02.8 | +3.7 |
| QUBA | Quba, Azerbaij | 4.57 | 55 | ⇑P | Pn | 23 57 07.4 | +0.3 |
| QUBA | | | | ⇑S | Sn | 23 58 04.4 | +3.9 |
| QUBA | Quba, Azerbaij | 4.57 | 55 | P | Pn | 23 57 07.4 | +0.3 |
| QUBA | | | | S | Sn | 23 58 04.4 | +3.9 |
| ATGJ | Altiaghaj | 4.63 | 62 | ⇓P | Pn | 23 57 08.1 | +0.1 |
| ATGJ | | | | ⇓S | Sn | 23 58 05.8 | +3.6 |
| ATGJ | Altiaghaj | 4.63 | 62 | P | Pn | 23 57 08.1 | +0.1 |
| ATGJ | | | | S | Sn | 23 58 05.8 | +3.6 |
| KSRV | Kasrt alli | 4.66 | 232 | *e*P | Pb | 23 57 14.6 | -5.0 |
| KSRV | | | | *e*S | Sb | 23 58 11.7 | -4.3 |
| KSRV | | | | AML | AML | 23 58 36.5 | |
| | comp=Z,23nm,0.6s | | | | | | |
| SIZA | Siyzn | 4.70 | 60 | ⇑P | Pn | 23 57 09.2 | +0.3 |
| SIZA | | | | ⇑S | Sn | 23 58 07.4 | +3.6 |
| SIZA | Siyzn | 4.70 | 60 | P | Pn | 23 57 09.2 | +0.3 |
| SIZA | | | | S | Sn | 23 58 07.4 | +3.6 |
| GOBA | Gobu | 5.04 | 70 | ⇑P | Pn | 23 57 13.6 | +0.1 |
| GOBA | | | | ⇑S | Sn | 23 58 15.4 | +3.3 |
| GOBA | Gobu | 5.04 | 70 | P | Pn | 23 57 13.6 | +0.1 |
| GOBA | | | | S | Sn | 23 58 15.4 | +3.3 |
| NDR | Nardaran | 5.28 | 69 | ⇓P | Pn | 23 57 16.9 | +0.1 |
| NDR | | | | ⇓S | Sn | 23 58 21.6 | +3.7 |
| NDR | Nardaran | 5.28 | 69 | P | Pn | 23 57 16.9 | +0.1 |
| NDR | | | | S | Sn | 23 58 21.6 | +3.7 |
| GALA | Gala | 5.36 | 71 | ⇓P | Pn | 23 57 17.9 | +0.1 |
| GALA | | | | ⇓S | Sn | 23 58 23.2 | +3.4 |
| GALA | Gala | 5.36 | 71 | P | Pn | 23 57 17.9 | +0.1 |
| GALA | | | | S | Sn | 23 58 23.2 | +3.4 |
| BHD | Baghdad | 5.59 | 173 | *e*Pn | Pn | 23 57 18.0 | -3.0 |
| | SNR=3.0 | | | | | | |
| RTB | Rutbah | 6.35 | 205 | *e*Pn | Pn | 23 57 29.0 | -2.5 |
| | SNR=3.0 | | | | | | |
| RTB | | | | *i* Sn | Sn | 23 58 39.0 | -5.4 |
| | SNR=3.0 | | | | | | |
| RABH | Abou Rabah | 6.71 | 231 | *e*P | Pn | 23 57 38.5 | +1.9 |
| RABH | | | | AML | AML | 23 58 48.4 | |
| | comp=N,4.5nm,0.7s | | | | | | |
| RABH | | | | *e*S | Sn | 23 58 49.5 | -3.9 |
| RABH | | | | AML | AML | 00 00 10.2 | |
| | comp=E,5.1nm,0.7s | | | | | | |
| ROOS | tl_alroos | 6.84 | 229 | *e*P | Pn | 23 57 39.2 | +0.8 |

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ROOS | | | | eS | Sn | 23 58 52.5 | -4.2 |
| ROOS | | | | AML | AML | 00 00 03.3 | |
| | comp=N,8.7nm,0.7s | | | | | | |
| ROOS | | | | AML | AML | 00 00 16.1 | |
| | comp=E,11nm,0.7s | | | | | | |

*IDC **11** 00:41:53.5±3.9, 17°.07S×167°.53E, h0km, mb4.1/5, mb1 4.2/6, mb1mx3.9/24, mbtmp4.1/6, ML4.0/1, MS2.8/1, Ms1 2.8/1, ms1mx2.5/32, Error ellipse: s-maj=67.6km s-min=28.0km az=44.0*

*ISCJB **11** 00:41:55.3±0.5, 17°.09S±0°.06×167°.47E±0°.07, h25km, mb4.3/13, Error ellipse: s-maj=9.8km s-min=8.3km az=24.9*

*NEIC **11** 00:41:58.5±0.4, 17°.12S×167°.50E, h35km, mb4.4/12, Error ellipse: s-maj=11.6km s-min=7.6km az=167.0*

**ISC 11 00:41:57.2**±0.6, **17°.09S**±0°.08×**167°.49E**±0°.09, **h25**km, **n20**, σ**0.87**/21, **mb4.5**/13, **Vanuatu Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DZM | Mont Dzumac | 5.05 | 191 | Pn | Pn | 00 43 10.1 | -1.4 |
| | 5.4nm,0.3s,baz=13,slow=14,SNR=99 | | | | | | |
| DZM | | | | Sn | Sn | 00 44 10.1 | +1.0 |
| | 6.9nm,0.3s,baz=338,slow=19,SNR=3.8 | | | | | | |
| DZM | | | | LR | LR | 00 44 37.7 | |
| | comp=Z,106nm,19.4s,baz=13,slow=32 | | | | | | |
| DZM | Mont Dzumac | 5.05 | 191 | ePn | Pn | 00 43 11.1 | -0.4 |
| | 32nm,0.4s | | | | | | |
| FUNA | Funafuti | 14.24 | 55 | Pn | Pn | 00 45 17.6 | +0.2 |
| RAO | Raoul Island | 18.05 | 135 | Pn | Pn | 00 46 05.6 | -0.7 |
| | 51nm,0.3s | | | | | | |
| AFI | Afiamalu | 20.23 | 84 | eP | P | 00 46 30.2 | -0.6 |
| | 4.1nm,0.6s | | | | | | |
| CTA | Charters Tower | 20.34 | 258 | P | P | 00 46 32.4 | +0.4 |
| | 1.3nm,0.5s,baz=90,slow=9.1,SNR=3.9 | | | | | | |
| CTAO | Charters Tower | 20.34 | 258 | P | P | 00 46 31.7 | -0.3 |
| | 8.0nm,0.6s | | | | | | |
| PMG | Port Moresby | 21.20 | 289 | eP | P | 00 46 39.2 | -2.0 |
| | 4.1nm,0.7s | | | | | | |
| URZ | Urewera | 22.71 | 160 | P | P | 00 46 57.0 | -0.2 |
| | 4.8nm,0.8s,baz=322,slow=12,SNR=3.1 | | | | | | |
| STKA | Stephens Creek | 27.69 | 233 | P | P | 00 47 45.1 | +1.6 |
| | 1.7nm,0.6s,baz=67,slow=7.7,SNR=4.6 | | | | | | |
| WRAB | Tennant Creek | 31.52 | 260 | P | P | 00 48 17.6 | 0.0 |
| | 9.4nm,1.5s | | | | | | |
| WRA | Warramunga Arr | 31.53 | 260 | P | P | 00 48 17.2 | -0.5 |
| | 1.4nm,0.8s,baz=90,slow=9.3,SNR=7.7 | | | | | | |
| ASAR | Alice Springs | 32.10 | 253 | P | P | 00 48 23.1 | +0.3 |
| | 5.4nm,0.5s,baz=80,slow=8.4,SNR=78 | | | | | | |
| KKM | Kota Kinabalu | 55.63 | 290 | P | P | 00 51 31.0 | -0.7 |
| | 24nm,1.1s | | | | | | |
| KSM | Kuching | 59.29 | 282 | P | P | 00 51 58.0 | +0.6 |
| | 1.9nm,0.4s | | | | | | |
| BJT | Baijiatuau | 74.22 | 321 | P | P | 00 53 31.9 | -0.1 |
| | 2.1nm,0.4s | | | | | | |
| CHTO | Chiang Mai | 76.25 | 295 | P | P | 00 53 44.9 | +0.7 |
| | 1.9nm,0.8s | | | | | | |
| CMB | Columbia Colle | 86.99 | 49 | P | P | 00 54 41.0 | +0.4 |
| | 1.8nm,0.5s | | | | | | |
| NEW | Newport | 93.22 | 40 | P | P | 00 55 09.7 | +0.2 |
| | 0.3nm,0.4s | | | | | | |
| WALA | Waterton Lakes | 95.49 | 40 | eP | P | 00 55 21.0 | +0.9 |
| | 1.1nm,0.4s | | | | | | |

**IDC 11 00:46:54.6**±7.0, **8°.40S**×**126°.66E**, **h48**km±76km, **mb3.3**/2, **mb1 3.4**/4, **mb1mx3.2**/26, **mbtmp3.4**/4, **ML3.4**/2, **Error ellipse: s-maj=263.6km s-min=39.6km az=61.0, Timor region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 13.67 | 148 | P | Pn | 00 50 05.4 | -0.5 |
| | 0.3nm,0.3s,baz=325,slow=14,SNR=5.2 | | | | | | |
| WRA | | | | S | Sn | 00 52 25.6 | -11 |
| | 0.4nm,0.3s,baz=334,slow=22,SNR=6.2 | | | | | | |
| ASAR | Alice Springs | 16.69 | 156 | P | P | 00 50 46.3 | -0.8 |
| | 0.1nm,0.3s,baz=332,slow=9.5,SNR=6.3 | | | | | | |
| ASAR | | | | S | Sn | 00 53 46.8 | -3.0 |
| | 0.1nm,0.3s,baz=346,slow=25,SNR=4.0 | | | | | | |
| STKA | Stephens Creek | 27.17 | 151 | P | P | 00 52 33.5 | -0.2 |
| | 0.8nm,0.5s,baz=333,slow=9.0,SNR=3.0 | | | | | | |
| MKAR | Makanchi Array | 67.64 | 329 | P | P | 00 57 46.7 | 0.0 |
| | 0.1nm,0.5s,baz=120,slow=8.0,SNR=3.1 | | | | | | |

*CSEM **11** 00:48:16.7, 38°.83N×43°.53E, h5km, MD2.9*

*ATA **11** 00:48:16.3±0.7, 38°.83N×43°.55E, h0km±2km, ML2.7, MW2.9*

*ISK **11** 00:48:16.7, 38°.83N×43°.53E, h5km, MD2.9*

**ISC 11 00:48:18.7**±1.0, **38°.84N**±0°.02×**43°.53E**±0°.03, **h14**km±9km, **n40**, σ**1.02**/49, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ERCV | ERCIS-VAN | 0.23 | 321 | ePG | Pg | 00 48 23.0 | -1.0 |
| ERCV | ERCIS-VAN | 0.23 | 321 | ePg | Pg | 00 48 23.0 | -1.0 |
| VANB | Van | 0.27 | 204 | ePG | Pg | 00 48 24.4 | -0.1 |
| VANB | Van | 0.27 | 204 | ePg | Pg | 00 48 24.4 | -0.1 |
| CLDR | Caldiran | 0.43 | 45 | ePG | Pg | 00 48 26.1 | -1.3 |
| CLDR | | | | eSG | Sg | 00 48 33.7 | +0.4 |
| CLDR | Caldiran | 0.43 | 45 | ePg | Pg | 00 48 26.1 | -1.3 |
| CLDR | | | | eSg | Sg | 00 48 33.7 | +0.4 |
| GEVA | Gevas | 0.64 | 215 | eP | Pg | 00 48 29.7 | -1.6 |
| GEVA | | | | eS | Sb | 00 48 41.1 | +0.4 |
| GEVA | | | | IAML | | 00 48 46.9 | |
| | comp=Z,24nm,0.5s | | | | | | |
| GEVA | Gevas | 0.64 | 215 | eP | Pg | 00 48 29.9 | -1.4 |
| GEVA | | | | eS | Sb | 00 48 40.7 | 0.0 |
| GEVA | | | | IAML | | 00 48 46.9 | |
| | comp=Z,24nm,0.5s | | | | | | |
| DYDN | Diyadin | 0.72 | 10 | eP | Pg | 00 48 31.6 | -1.1 |
| DYDN | | | | eS | Sb | 00 48 43.5 | +0.5 |
| DYDN | | | | IAML | | 00 48 47.5 | |
| | comp=Z,18nm,0.3s | | | | | | |
| DYDN | Diyadin | 0.72 | 10 | eP | Pg | 00 48 31.7 | -1.1 |
| DYDN | | | | eS | Sb | 00 48 43.2 | +0.3 |
| DYDN | | | | IAML | | 00 48 47.5 | |
| | comp=Z,18nm,0.3s | | | | | | |
| TUTA | Tutak | 0.79 | 316 | eP | Pb | 00 48 32.6 | -1.9 |
| TUTA | | | | eS | Sg | 00 48 46.0 | +1.4 |
| TUTA | | | | IAML | | 00 48 55.2 | |
| | comp=Z,33nm,0.4s | | | | | | |
| TUTA | Tutak | 0.79 | 316 | eP | Pb | 00 48 32.6 | -1.9 |
| TUTA | | | | eS | Sb | 00 48 44.9 | -0.2 |
| TUTA | | | | IAML | | 00 48 55.2 | |
| | comp=Z,33nm,0.4s | | | | | | |
| AGRB | Hanur-Agry | 0.85 | 331 | ePG | Pb | 00 48 33.9 | -1.4 |
| AGRB | Hanur-Agry | 0.85 | 331 | ePg | Pb | 00 48 33.9 | -1.4 |
| EKAR | Karacoban | 1.22 | 291 | eP | Pn | 00 48 41.4 | -0.1 |
| EKAR | Karacoban | 1.22 | 291 | eP | Pn | 00 48 41.1 | -0.4 |
| TASB | TASBURUN-IGDIR | 1.27 | 25 | ePN | Pb | 00 48 42.8 | +0.3 |
| TASB | TASBURUN-IGDIR | 1.27 | 25 | ePn | Pb | 00 48 42.8 | +0.3 |
| EATA | Eleskirt | 1.30 | 322 | eP | Pn | 00 48 42.8 | 0.0 |
| EATA | | | | eS | Sg | 00 49 03.6 | +2.8 |
| EATA | | | | IAML | | 00 49 11.2 | |
| | comp=Z,2.8nm,0.4s | | | | | | |
| EATA | Eleskirt | 1.30 | 322 | eP | Pn | 00 48 43.0 | +0.2 |
| DIGO | Kars | 1.58 | 356 | eP | Pb | 00 48 47.4 | -0.5 |
| DIGO | Kars | 1.58 | 356 | eP | Pn | 00 48 47.2 | +0.7 |
| SIRT | Sirnak | 1.59 | 213 | ePN | Pn | 00 48 47.1 | +0.6 |
| SIRT | Sirnak | 1.59 | 213 | ePn | Pn | 00 48 47.1 | +0.6 |
| CUKT | Cukurca | 1.59 | 178 | ePN | Pb | 00 48 47.2 | -0.8 |
| CUKT | Cukurca | 1.59 | 178 | ePn | Pb | 00 48 47.2 | -0.8 |
| KARS | Kars | 1.82 | 349 | ePN | Pn | 00 48 50.2 | +0.4 |
| KARS | Kars | 1.82 | 349 | ePn | Pn | 00 48 50.2 | +0.4 |
| EAK | Akyaka | 1.85 | 2 | eP | Pb | 00 48 53.0 | +0.6 |
| EAK | Akyaka | 1.85 | 2 | eP | Pb | 00 48 51.9 | -0.5 |
| BNGL | BINGOL | 1.86 | 274 | eP | Pb | 00 48 52.5 | -0.2 |
| BNGL | BINGOL | 1.86 | 274 | eP | Pn | 00 48 51.3 | +0.9 |
| SENK | Senkaya-Erzuru | 1.95 | 333 | ePN | Pn | 00 48 52.4 | +0.8 |
| SENK | Senkaya-Erzuru | 1.95 | 333 | ePn | Pn | 00 48 52.4 | +0.8 |
| ERZM | Erzurum | 1.99 | 303 | eP | Pb | 00 48 55.7 | +0.9 |
| ERZM | Erzurum | 1.99 | 303 | eP | Pb | 00 48 53.8 | -1.1 |
| ECAT | Cat-ERZURUM | 2.13 | 292 | eP | Pb | 00 48 57.1 | -0.1 |
| ECAT | Cat-ERZURUM | 2.13 | 292 | eP | Pn | 00 48 55.6 | +1.5 |
| BNGB | Bingˆ¶l | 2.23 | 275 | ePN | Pn | 00 48 56.4 | +1.0 |
| BINT | Bingol | 2.37 | 272 | ePn | Pn | 00 48 56.4 | -1.0 |

*IDC **11** 01:09:45.6±4.5, 36°.29N×71°.11E, h64km±30km, mb3.4/8, mb1 3.6/14, mb1mx3.3/59, mbtmp3.8/14, ML3.5/6, Error ellipse: s-maj=46.5km s-min=20.4km az=146.0*

*ISCJB **11** 01:09:46.7±0.5, 36°.34N±0°.04×71°.15E±0°.07, h114km, mb3.6/7, Error ellipse: s-maj=8.3km s-min=4.8km az=153.1*

*NNC **11** 01:09:53.6±3.6, 36°.97N×70°.80E, h169km±28km, mb3.0, mpv3.9, Error ellipse: s-maj=33.0km s-min=15.4km az=166.0*

**ISC 11 01:09:49.6**±0.8, **36°.44N**±0°.07×**71°.32E**±0°.09, **h114**km, **n38**, σ**1.91**/41, **mb3.6**/7, **11C-5D, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DZET | Dzherino | 3.08 | 321 | ⇑P | Pn | 01 10 34.2 | -2.6 |
| | 25nm,0.4s | | | | | | |
| DZET | | | | ⇓S | Sn | 01 11 07.4 | -5.9 |
| | 125nm,0.7s | | | | | | |
| SFK | Sufi-Kurgan | 3.96 | 25 | ⇑P | Pn | 01 10 50.5 | +1.9 |
| | 4.8nm,0.4s | | | | | | |
| SFK | | | | ⇑S | Sn | 01 11 36.9 | +2.5 |
| | 4.6nm,0.3s | | | | | | |
| AML | Almayashu | 5.97 | 17 | P | Pn | 01 11 16.0 | +0.1 |
| | SNR=13 | | | | | | |
| MNAS | Manas | 6.11 | 8 | ⇑P | Pn | 01 11 16.7 | -0.8 |
| | 7.5nm,0.6s | | | | | | |
| MNAS | | | | ⇓S | Sn | 01 12 21.8 | -4.3 |
| | 4.5nm,0.5s | | | | | | |
| UCH | Uchtor | 6.29 | 22 | P | Pn | 01 11 20.1 | 0.0 |
| | SNR=11 | | | | | | |
| EKS2 | Erkin-Say | 6.50 | 16 | P | Pn | 01 11 22.9 | +0.2 |
| | SNR=15 | | | | | | |
| AAK | Ala-Archa | 6.66 | 21 | P | Pn | 01 11 25.3 | +0.3 |
| | 2.9nm,0.3s,baz=176,slow=6.3,SNR=55 | | | | | | |
| AAK | | | | S | Sn | 01 12 39.5 | +0.1 |
| | 0.5nm,0.3s,baz=304,slow=21,SNR=6.6 | | | | | | |
| AAK | Ala-Archa | 6.66 | 21 | ⇑P | Pn | 01 11 24.6 | -0.4 |
| | 5.4nm,0.4s | | | | | | |
| AAK | | | | ⇑S | Sn | 01 12 38.0 | -1.4 |
| | 6.9nm,0.7s | | | | | | |
| AAK | Ala-Archa | 6.66 | 21 | P | Pn | 01 11 25.2 | +0.3 |
| | SNR=11 | | | | | | |
| KK31 | Karatay Array | 6.68 | 355 | ⇓P | Pn | 01 11 23.7 | -1.4 |
| | 11nm,0.4s,baz=180,slow=13 | | | | | | |
| KK31 | | | | ⇓S | Sn | 01 12 32.2 | -7.6 |
| | 29nm,0.7s,baz=187,slow=23 | | | | | | |
| CHMS | Chumysh | 7.06 | 21 | P | Pn | 01 11 30.3 | 0.0 |
| | SNR=7.8 | | | | | | |
| TKM2 | Tokmak 2 | 7.26 | 26 | ⇑P | Pn | 01 11 32.5 | -0.7 |
| | 3.6nm,0.5s | | | | | | |
| TKM2 | | | | ⇑S | Sn | 01 12 49.3 | -4.9 |
| | 2.0nm,0.8s | | | | | | |
| TKM2 | Tokmak 2 | 7.26 | 26 | P | Pn | 01 11 33.4 | +0.2 |
| | SNR=8.3 | | | | | | |
| GEYT | Alibeck | 10.64 | 282 | P | Pn | 01 12 13.7 | -5.1 |
| | 0.5nm,0.3s,baz=106,slow=8.6,SNR=12 | | | | | | |
| PYUN | Piuthan | 12.90 | 127 | eP | Pn | 01 12 47.0 | -1.9 |
| | 15nm,0.4s | | | | | | |
| MKAR | Makanchi Array | 13.19 | 35 | P | Pn | 01 12 53.7 | +1.3 |
| | 0.0nm,0.3s,baz=234,slow=15,SNR=3.4 | | | | | | |
| KOLN | Koldanda | 13.52 | 126 | eP | Pn | 01 12 55.4 | -1.6 |
| | 5.2nm,0.4s | | | | | | |
| DMN | Daman | 14.63 | 123 | eP | Pn | 01 13 09.6 | -1.6 |
| | 4.8nm,0.4s | | | | | | |
| KKN | Kakani | 14.63 | 122 | eP | Pn | 01 13 09.2 | -2.0 |
| | 6.5nm,0.5s | | | | | | |
| PKIN | Phulchoki | 14.84 | 123 | eP | Pn | 01 13 12.5 | -1.4 |
| | 6.4nm,0.4s | | | | | | |
| PKI | Pulchoki | 14.86 | 123 | eP | Pn | 01 13 12.5 | -1.7 |
| | 5.8nm,0.4s | | | | | | |
| GUN | Gumba | 14.97 | 121 | eP | Pn | 01 13 13.6 | -2.0 |
| | 4.3nm,0.4s | | | | | | |
| KURBB | Kurchatov Arra | 15.10 | 18 | P | P | 01 13 19.1 | -0.1 |
| | 0.1nm,0.3s,baz=208,slow=10,SNR=5.1 | | | | | | |
| AB31 | Akbulak array | 15.26 | 331 | ⇑P | Pn | 01 13 15.2 | -3.6 |
| | 0.9nm,0.4s | | | | | | |
| AB31 | | | | ⇑S | Sn | 01 15 52.6 | -15 |
| | 1.6nm,0.6s | | | | | | |
| JIRN | Jiri | 15.34 | 121 | eP | Pn | 01 13 18.3 | -1.9 |
| TAPN | Taplejung | 16.59 | 118 | eP | P | 01 13 35.1 | -1.1 |
| | 5.4nm,0.4s | | | | | | |
| BVAR | Borovoye Array | 16.60 | 358 | P | Pn | 01 13 35.3 | +0.1 |
| | 0.2nm,0.3s,baz=168,slow=11,SNR=7.3 | | | | | | |
| ODAN | Odare | 16.67 | 120 | eP | P | 01 13 36.1 | -0.9 |
| | 8.9nm,0.6s | | | | | | |
| AKTO | Aktyubinsk | 16.96 | 330 | P | P | 01 13 39.0 | -0.8 |
| | 0.4nm,0.3s,baz=134,slow=10,SNR=7.3 | | | | | | |
| AKTO | Aktyubinsk | 16.96 | 330 | ⇑P | P | 01 13 36.6 | -3.1 |
| | 3.6nm,0.6s | | | | | | |
| AKTO | | | | ⇓S | Sn | 01 16 35.0 | -13 |
| | 1.7nm,0.6s | | | | | | |
| ZALV | Zalesovo Beam | 19.86 | 24 | P | P | 01 14 11.8 | +0.4 |
| | 1.4nm,0.6s,baz=224,slow=11,SNR=8.8 | | | | | | |
| ARU | Arti | 21.77 | 341 | P | P | 01 14 32.4 | +0.6 |
| | 0.7nm,0.3s,baz=132,slow=14,SNR=3.1 | | | | | | |
| FINES | FINESS Array B | 37.68 | 326 | P | P | 01 16 55.1 | +1.7 |
| | 2.7nm,0.9s,baz=116,slow=9.4,SNR=5.8 | | | | | | |
| ARCES | ARCESS Array B | 41.30 | 338 | P | P | 01 17 25.1 | +1.8 |
| | 1.8nm,0.9s,baz=118,slow=9.1,SNR=7.3 | | | | | | |
| NOA | NORSAR Array B | 44.58 | 323 | P | P | 01 17 51.4 | +1.4 |
| | 1.0nm,0.7s,baz=98,slow=7.8,SNR=3.2 | | | | | | |
| TORD | Torodi Ar. Bea | 65.97 | 269 | P | P | 01 20 23.5 | -0.4 |
| | 0.4nm,0.5s,baz=43,slow=6.1,SNR=7.8 | | | | | | |
| INK | Inuvik | 73.92 | 9 | P | P | 01 21 15.2 | +3.6 |
| | 0.7nm,0.8s,baz=317,slow=4.1,SNR=2.8 | | | | | | |
| YKA | Yellowknife Ar | 81.29 | 3 | P | P | 01 21 55.4 | +2.7 |
| | 0.2nm,0.6s,baz=352,slow=5.5,SNR=3.4 | | | | | | |

*ISCJB **11** 01:10:22.1±0.2, 7°.66S±0°.03×127°.53E±0°.04, h150km, mb4.4/38, Error ellipse: s-maj=6.2km s-min=4.0km az=152.2*

*NEIC **11** 01:10:25.8±0.6, 7°.66S×127°.51E, h170km±6km, mb4.5/22, Error ellipse: s-maj=7.8km s-min=5.4km az=222.0*

*DJA **11** 01:10:27.5±0.2, 8°S±3°×12°8E±°, h170km±3km, M4.7/16, mb4.7/16, mB5.3/3, MLv4.7/7, Mw(mB)4.7/3*

*IDC **11** 01:10:29.6±2.9, 7°.68S×127°.35E, h199km±27km, mb3.9/17, mb1 3.9/19, mb1mx3.7/45, mbtmp4.4/19, MS3.5/1, Ms1 3.5/1, ms1mx2.8/42, Error ellipse: s-maj=13.5km s-min=8.6km az=57.0*

**ISC 11 01:10:23.8**±0.3, **7°.78S**±0°.04×**127°.55E**±0°.04, **h150**km, **n113**, σ**2.42**/132, **mb4.4**/38, **1C, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SAUI | Saumlaki | 3.72 | 93 | P | Pn | 01 11 25.2 | +4.8 |
| SAUI | | | | S | Sn | 01 12 08.5 | +4.1 |
| SAUI | Saumlaki | 3.72 | 93 | ePn | Pn | 01 11 25.3 | +4.8 |
| SAUI | | | | eSn | Sn | 01 11 59.7 | -4.7 |
| SOEI | Soe | 3.79 | 239 | P | Pn | 01 11 25.5 | +4.0 |
| SOEI | | | | S | Sn | 01 12 10.7 | +4.4 |
| SOEI | Soe | 3.79 | 239 | ePn | Pn | 01 11 25.5 | +4.0 |
| SOEI | | | | eSn | Sn | 01 12 09.9 | +3.6 |
| AAI | Ambon | 4.11 | 9 | P | Pn | 01 11 29.2 | +3.6 |
| MSAI | Masohi | 4.61 | 17 | P | Pn | 01 11 36.7 | +4.6 |
| MSAI | | | | S | Sn | 01 12 31.0 | +5.7 |
| MMRI | Maumere | 5.33 | 260 | P | Pn | 01 11 45.6 | +4.0 |
| MMRI | | | | S | Sn | 01 12 46.8 | +4.5 |
| MMRI | Maumere | 5.33 | 260 | ePn | Pn | 01 11 45.0 | +3.5 |
| MMRI | | | | eSn | Sn | 01 12 46.0 | +3.7 |
| BBSI | Bau Bau | 5.44 | 294 | S | Pn | 01 11 48.3 | +5.1 |
| EDFI | Ende, Flores | 5.88 | 260 | P | Pn | 01 11 53.0 | +4.0 |
| EDFI | | | | S | Sn | 01 13 00.7 | +5.0 |
| SANI | Sanana | 5.90 | 345 | P | Pn | 01 11 52.4 | +3.2 |
| MTN | Manton Dam | 6.15 | 145 | ePn | Pn | 01 11 56.3 | +3.9 |
| MTN | | | | eSn | Sn | 01 13 02.7 | +0.8 |
| FAKI | Fak Fak | 6.72 | 44 | ePn | Pn | 01 12 00.4 | +0.2 |
| FAKI | | | | eSn | Sn | 01 13 12.9 | -2.8 |
| LBMI | Labuha | 7.09 | 360 | P | Pn | 01 12 08.9 | +3.8 |
| BNSI | Bone | 8.13 | 294 | P | Pn | 01 12 22.6 | +3.7 |
| KAPI | Kappang | 8.22 | 289 | ePn | Pn | 01 12 21.1 | +0.8 |
| FITZ | Fitzroy Crossi | 10.43 | 190 | P | Pn | 01 12 49.9 | +0.4 |
| | 17nm,0.3s,baz=9.8,slow=10,SNR=214 | | | | | | |
| FITZ | | | | S | Sn | 01 14 41.3 | -3.7 |
| | 3.3nm,0.3s,baz=348,slow=11,SNR=5.0 | | | | | | |
| JAGI | Jajag, Banyuwa | 13.28 | 266 | ePn | Pn | 01 13 28.6 | +1.8 |
| GENI | Genyem | 13.58 | 68 | P | P | 01 13 35.1 | +0.8 |
| WRAB | Tennant Creek | 13.77 | 152 | ePn | Pn | 01 13 32.8 | 0.0 |
| WRAB | | | | eSn | Sn | 01 16 00.8 | -4.5 |
| WRA | Warramunga Arr | 13.77 | 152 | P | Pn | 01 13 33.3 | +0.4 |
| | 6.6nm,0.3s,baz=325,slow=14,SNR=90 | | | | | | |
| WRA | | | | S | Sn | 01 16 00.0 | -5.4 |
| | 5.5nm,0.3s,baz=323,slow=24,SNR=9.7 | | | | | | |
| WB2 | Warramunga Arr | 13.77 | 152 | ePn | Pn | 01 13 32.8 | -0.1 |
| WB2 | | | | eSn | Sn | 01 15 58.8 | -6.8 |
| JAY | Jayapura | 14.10 | 69 | P | P | 01 13 41.5 | +1.3 |
| MTKI | Muara Teweh, K | 14.32 | 298 | P | P | 01 13 42.4 | -0.2 |
| MBWA | Marble Bar | 15.30 | 209 | ePn | P | 01 13 54.8 | +1.5 |
| | 19nm,1.0s | | | | | | |
| COEN | Coen | 16.52 | 113 | eP | Pn | 01 14 08.7 | +1.7 |
| | 20nm,0.6s | | | | | | |
| COEN | | | | eS | S | 01 17 01.6 | -9.2 |
| UGM | Wanagama | 16.87 | 268 | eP | P | 01 14 11.6 | +0.7 |
| | 162nm,1.6s | | | | | | |
| AS31 | Alice Springs | 16.93 | 160 | eP | Pn | 01 14 14.7 | +2.7 |
| | 9.3nm,0.6s | | | | | | |
| ASAR | Alice Springs | 16.93 | 160 | P | Pn | 01 14 13.9 | +1.9 |
| | 4.0nm,0.3s,baz=339,slow=11,SNR=117 | | | | | | |
| ASAR | | | | S | S | 01 17 20.4 | 0.0 |
| | 2.4nm,0.3s,baz=337,slow=20,SNR=8.9 | | | | | | |
| AS01 | Alice Springs | 16.95 | 159 | eP | Pn | 01 14 14.4 | +2.2 |
| STKI | Sintang | 17.82 | 295 | P | Pn | 01 14 23.6 | +1.0 |
| | 50nm,0.9s | | | | | | |
| KPJI | Karang Pucung | 18.46 | 270 | P | P | 01 14 28.1 | -0.2 |
| PMG | Port Moresby | 19.46 | 96 | P | Pn | 01 14 44.6 | +2.7 |
| | 3.3nm,0.3s,baz=294,slow=8.9,SNR=10 | | | | | | |
| PMG | | | | S | S | 01 18 14.7 | +3.6 |
| | 0.7nm,0.3s,baz=284,slow=18,SNR=2.6 | | | | | | |
| PMG | Port Moresby | 19.46 | 96 | eP | P | 01 14 39.1 | +0.1 |
| | 29nm,0.9s | | | | | | |
| PMG | | | | S | S | 01 18 14.7 | +3.6 |
| KSM | Kuching | 19.50 | 297 | eP | P | 01 14 39.8 | +0.3 |
| | 19nm,0.7s | | | | | | |
| CTA | Charters Tower | 21.86 | 126 | P | P | 01 15 08.9 | +4.1 |
| | 2.8nm,0.9s,baz=300,slow=14,SNR=3.0 | | | | | | |
| FORT | Forrest | 22.89 | 179 | eP | P | 01 15 17.0 | +2.4 |
| | 174nm,0.7s | | | | | | |
| PMBI | Palembang | 23.18 | 281 | P | P | 01 15 31.4 | +14 |
| MNAI | Manna | 24.69 | 276 | eP | P | 01 15 29.7 | -1.4 |
| | 86nm,0.8s | | | | | | |
| BBOO | Buckleboo | 26.13 | 164 | eP | P | 01 15 45.7 | +1.7 |
| | 7.0nm,0.6s | | | | | | |
| NWAO | Narrogin (SRO) | 26.79 | 200 | P | P | 01 15 51.9 | +2.0 |
| | 12nm,0.6s,baz=267,slow=9.5,SNR=17 | | | | | | |
| NWAO | | | | LR | LR | 01 28 12.2 | |
| | comp=Z,113nm,20.7s,baz=216,slow=40 | | | | | | |
| NWAO | Narrogin (SRO) | 26.79 | 200 | eP | P | 01 15 51.1 | +1.2 |
| | 41nm,1.4s | | | | | | |
| STKA | Stephens Creek | 27.32 | 153 | P | P | 01 15 56.7 | +2.1 |
| | 2.3nm,0.6s,baz=323,slow=10,SNR=9.9 | | | | | | |
| IPM | Ipoh | 29.13 | 294 | eP | P | 01 16 09.8 | -1.1 |
| | 6.9nm,0.6s | | | | | | |
| KULM | Kulim | 29.81 | 295 | eP | P | 01 16 15.7 | -1.2 |
| | 14nm,0.6s | | | | | | |
| PSI | Prapat | 30.43 | 289 | P | P | 01 16 21.4 | -1.1 |
| | 13nm,0.8s,baz=104,slow=7.0,SNR=7.2 | | | | | | |
| PSI | Prapat | 30.43 | 289 | eP | P | 01 16 20.6 | -2.0 |
| | 16nm,0.8s | | | | | | |
| CMAR | Chiang Mai Arr | 38.42 | 313 | P | P | 01 17 30.9 | -0.2 |
| | 3.4nm,0.5s,baz=142,slow=6.8,SNR=15 | | | | | | |
| CMAR | | | | PcP | PcP | 01 19 41.7 | +0.3 |
| | 1.3nm,0.4s,baz=160,slow=2.9,SNR=4.3 | | | | | | |
| CHTO | Chiang Mai | 38.65 | 313 | eP | P | 01 17 31.8 | -1.2 |
| | 4.2nm,0.7s | | | | | | |
| NJ2 | Nanjing | 40.47 | 349 | eP | P | 01 17 45.8 | -2.0 |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,17nm,0.5s | | | | | | |
| KMI | Kunming | 40.66 | 324 | P | P | 01 17 51.0 | +1.2 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.5s | | | | | | |
| KSAR | Wonju Array Be | 44.98 | 0 | P | P | 01 18 25.9 | +1.8 |
| KSRS | Korea Array | 44.99 | 0 | P | P | 01 18 25.9 | +1.7 |
| | comp=Z,0.6nm,0.5s,baz=182,slow=9.0,SNR=3.4 | | | | | | |
| LZH | Lanzhou | 49.00 | 334 | eP | P | 01 18 54.5 | -1.0 |
| LZH | | | | pP | pP | 01 19 36.0 | +6.4 |
| LZH | | | | sP | sP | 01 19 51.6 | +5.3 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,23nm,1.2s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,65nm,5.9s | | | | | | |
| PALK | Pallekele | 49.05 | 287 | eP | P | 01 18 55.4 | -0.7 |
| | comp=Z,6.8nm,0.8s | | | | | | |
| HHC | Hu-ho-hao-te | 50.58 | 344 | eP | P | 01 19 08.8 | +1.5 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.8s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,140nm,4.8s | | | | | | |
| LSA | Lhasa | 51.12 | 318 | eP | P | 01 19 11.3 | -0.7 |
| | comp=Z,7.6nm,0.6s | | | | | | |
| USRK | Ussuriysk Ar. | 51.89 | 4 | P | P | 01 19 18.1 | +1.3 |
| | comp=Z,1.4nm,0.6s,baz=130,slow=6.6,SNR=3.7 | | | | | | |
| ODAN | Odare | 51.97 | 313 | eP | P | 01 19 16.6 | -1.5 |
| | comp=Z,16nm,0.5s | | | | | | |
| TAPN | Taplejung | 52.02 | 314 | eP | P | 01 19 17.4 | -1.1 |
| | comp=Z,15nm,0.4s | | | | | | |
| MDJ | Mudanjiang | 52.18 | 2 | P | P | 01 19 19.6 | +0.6 |
| MDJ | | | | PP | PP | 01 21 18.7 | -0.4 |
| MDJ | | | | PcS | PcS | 01 24 27.1 | +0.2 |
| MDJ | | | | S | S | 01 26 31.9 | 0.0 |
| MDJ | | | | sS | sS | 01 27 39.2 | +7.5 |
| MDJ | Mudanjiang | 52.18 | 2 | SS | SS | 01 30 12.1 | +0.4 |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.8s | | | | | | |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,37nm,3.8s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=N,4μm,17.2s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=E,3μm,17.8s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=Z,5μm,17.8s | | | | | | |
| RAMN | Ramite | 52.59 | 313 | eP | P | 01 19 21.3 | -1.4 |
| | comp=Z,22nm,0.5s | | | | | | |
| JIRN | Jiri | 53.30 | 313 | eP | P | 01 19 26.6 | -1.4 |
| | comp=Z,18nm,0.6s | | | | | | |
| GTA | Gaotai | 53.52 | 333 | eP | P | 01 19 28.6 | -0.5 |
| GTA | | | | pP | pP | 01 20 07.8 | +4.0 |
| GTA | | | | sP | sP | 01 20 28.1 | +7.8 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,13nm,0.7s | | | | | | |
| GUN | Gumba | 53.67 | 313 | eP | P | 01 19 29.2 | -1.5 |
| | comp=Z,24nm,0.4s | | | | | | |
| PKI | Pulchoki | 53.82 | 312 | eP | P | 01 19 30.1 | -1.6 |
| | comp=Z,9.2nm,0.3s | | | | | | |
| PKIN | Phulchoki | 53.83 | 312 | eP | P | 01 19 30.3 | -1.4 |
| | comp=Z,9.5nm,0.3s | | | | | | |
| GKN | Gorkha | 54.62 | 312 | eP | P | 01 19 36.2 | -1.2 |
| | comp=Z,4.6nm,0.2s | | | | | | |
| SONM | Songino Array | 58.45 | 343 | P | P | 01 20 03.5 | -0.4 |
| | comp=Z,1.0nm,0.5s,baz=167,slow=7.4,SNR=10.0 | | | | | | |
| SONA1 | Songino Array | 58.45 | 343 | eP | P | 01 20 02.0 | -2.1 |
| WMQ | Urumqi | 62.75 | 329 | P | P | 01 20 32.8 | -0.3 |
| WMQ | | | | pP | PcP | 01 21 13.5 | +3.2 |
| WMQ | | | | sP | sP | 01 21 32.4 | +7.3 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,26nm,0.7s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,350nm,4.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,9μm,13.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,10μm,13.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,10μm,17.9s | | | | | | |
| PETK | Petropavlovsk- | 65.84 | 19 | P | P | 01 20 54.4 | +1.5 |
| | comp=Z,2.5nm,0.6s,baz=309,slow=0.9,SNR=3.3 | | | | | | |
| KSH | Kashi | 66.97 | 319 | eP | P | 01 21 00.1 | -0.5 |
| KSH | | | | PcP | PcP | 01 21 27.1 | -0.9 |
| KSH | | | | pP | pP | 01 21 42.1 | +5.4 |
| KSH | | | | PP | PP | 01 23 32.4 | +2.1 |
| KSH | | | | S | S | 01 29 32.3 | -10 |
| KSH | | | | ScS | SKSac | 01 30 30.2 | -13 |
| KSH | Kashi | 66.97 | 319 | SS | SS | 01 33 55.8 | -8.2 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.6s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,56nm,4.9s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,280nm,7.7s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,430nm,6.2s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,450nm,6.9s | | | | | | |
| MK01 | Makanchi Array | 67.55 | 328 | eP | P | 01 21 02.7 | -1.3 |
| MK31 | Makanchi Array | 67.57 | 328 | eP | P | 01 21 02.3 | -1.8 |
| MKAR | Makanchi Array | 67.57 | 328 | P | P | 01 21 02.9 | -1.2 |
| | comp=Z,5.1nm,0.6s,baz=115,slow=8.5,SNR=82 | | | | | | |
| MAKZ | Makanchi | 67.74 | 328 | eP | P | 01 21 02.9 | -2.3 |
| | comp=Z,3.7nm,0.8s | | | | | | |
| AAK | Ala-Archa | 69.59 | 321 | eP | P | 01 21 16.5 | -0.4 |
| | comp=Z,2.9nm,0.5s | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| **ZAA0** | **Zalesovo Array** | **71.23** | **335** | *e*P | **P** | **01 21 24.7** | **-1.7** |
| **ZALV** | **Zalesovo Beam** | **71.23** | **335** | P | **P** | **01 21 24.6** | **-1.8** |
| | comp=Z,3.4nm,0.4s,baz=138,slow=5.3,SNR=18 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **71.92** | **330** | P | **P** | **01 21 29.5** | **-1.1** |
| | baz=135,slow=5.1 | | | | | | |
| **KURK** | **Kurchatov** | **71.94** | **330** | *e*P | **P** | **01 21 29.7** | **-0.9** |
| | comp=Z,8.9nm,0.8s | | | | | | |
| **VNDA** | **Vanda** | **71.98** | **173** | P | **P** | **01 21 32.2** | **+1.6** |
| | comp=Z,2.4nm,0.5s,baz=314,slow=6.4,SNR=25 | | | | | | |
| **VNDA** | **Vanda** | **71.98** | **173** | *e*P | **P** | **01 21 31.7** | **+1.1** |
| | comp=Z,8.8nm,1.4s | | | | | | |
| **SEY** | **Seymchan** | **73.03** | **12** | P | **P** | **01 21 35.9** | **-1.0** |
| | comp=Z,2.0nm,0.6s,baz=207,slow=9.7,SNR=4.2 | | | | | | |
| **MAW** | **Mawson** | **73.35** | **201** | P | **P** | **01 21 39.7** | **+1.0** |
| | comp=Z,2.2nm,0.5s,baz=61,slow=8.4,SNR=4.2 | | | | | | |
| **WSAR** | **Wadi Sarin** | **74.03** | **297** | P | **P** | **01 21 42.8** | **-0.8** |
| | comp=Z,5.6nm,0.8s,baz=135,slow=10.0,SNR=5.8 | | | | | | |
| **BRVK** | **Borovoye** | **77.51** | **329** | *e*P | **P** | **01 22 01.0** | **-1.7** |
| | comp=Z,8.5nm,1.0s | | | | | | |
| **SYO** | **Syowa Base** | **82.06** | **201** | ⇑*e*P | **P** | **01 22 26.9** | **-0.1** |
| **ARU** | **Arti** | **85.09** | **329** | P | **P** | **01 22 40.9** | **-1.7** |
| | comp=Z,1.6nm,0.4s,baz=110,slow=5.5,SNR=6.5 | | | | | | |
| **ARU** | **Arti** | **85.09** | **329** | *e*P | **P** | **01 22 40.5** | **-2.1** |
| | comp=Z,2.0nm,0.4s | | | | | | |
| **RAYN** | **Ar Rayn** | **85.84** | **294** | *e*P | **P** | **01 22 45.4** | **-1.8** |
| | comp=Z,5.6nm,1.0s | | | | | | |
| **SNAA** | **Sanae** | **94.34** | **194** | P | **P** | **01 23 27.5** | **+1.4** |
| **SNAA** | **Sanae** | **94.34** | **194** | *e*P | **P** | **01 23 27.2** | **+1.2** |
| **VNA2** | **Neumayer--Watz** | **95.92** | **194** | P | **P** | **01 23 31.9** | **-1.3** |
| | baz=268,slow=3.0 | | | | | | |
| **VNA3** | **Neumayer Olymp** | **96.20** | **193** | P | **P** | **01 23 33.8** | **-0.7** |
| **VNA1** | **Neumayer--Stat** | **96.32** | **194** | P | **P** | **01 23 33.6** | **-1.4** |
| **BRTR** | **Keskin Array B** | **97.92** | **309** | P | **P** | **01 23 41.2** | **-1.9** |
| | comp=Z,0.5nm,0.7s,baz=116,slow=4.9,SNR=2.8 | | | | | | |
| **ARCES** | **ARCESS Array B** | **101.45** | **339** | P | **Pdif** | **01 23 56.7** | **-1.2** |
| | comp=Z,1.9nm,0.8s,baz=91,slow=4.9,SNR=4.3 | | | | | | |
| **YKA** | **Yellowknife Ar** | **109.51** | **26** | PKiKP | **PKiKP** | **01 28 34.8** | **-1.4** |
| | comp=Z,0.3nm,0.5s,baz=286,slow=1.8,SNR=8.5 | | | | | | |
| YKA | | | | PKKPbc | **PKKPbc** | **01 39 41.1** | **-2.8** |
| | comp=Z,0.2nm,0.4s,baz=111,slow=3.7,SNR=5.0 | | | | | | |
| **GERES** | **GERESS Array B** | **111.44** | **320** | PKiKP | **PKiKP** | **01 28 39.3** | **-1.1** |
| | comp=Z,0.7nm,0.6s,baz=70,slow=2.2,SNR=8.9 | | | | | | |
| **WTTA** | **Wattenberg** | **113.16** | **318** | *e*PKiKP | **PKiKP** | **01 28 42.5** | **-1.4** |
| | comp=Z,3.8nm,0.6s | | | | | | |
| **MOTA** | **Moosalm** | **113.50** | **318** | *e*PKiKP | **PKiKP** | **01 28 42.7** | **-1.7** |
| | comp=Z,1.2nm,0.5s | | | | | | |
| **DAVA** | **Damuels** | **114.31** | **319** | *e*PKPdf | PKPdf | 01 28 44.2 | -1.8 |
| | comp=Z,2.6nm,0.5s | | | | | | |
| **PDAR** | **Pinedale Array** | **119.16** | **45** | PKP | **PKPdf** | **01 28 55.1** | **-0.5** |
| | comp=Z,0.4nm,0.6s,baz=24,slow=1.9,SNR=5.3 | | | | | | |
| **ULM** | **Lac du Bonnet** | **124.41** | **32** | PKP | **PKPdf** | **01 29 04.1** | **-0.9** |
| | comp=Z,2.0nm,0.6s,baz=0.1,slow=2.6,SNR=5.5 | | | | | | |
| **ESDC** | **Sonseca Array** | **126.33** | **314** | PKP | **PKPdf** | **01 29 08.4** | **-0.7** |
| | comp=Z,0.6nm,0.8s,baz=7.1,slow=2.8,SNR=4.9 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **126.57** | **281** | PKP | **PKPdf** | **01 29 09.2** | **-1.0** |
| | comp=Z,1.6nm,0.7s,baz=32,slow=2.4,SNR=21 | | | | | | |
| **DBIC** | **Dimbokro** | **132.79** | **272** | PKP | **PKPdf** | **01 29 22.2** | **+0.1** |
| | comp=Z,1.4nm,0.5s,baz=86,slow=3.9,SNR=6.1 | | | | | | |
| **CPUP** | **Villa Florida** | **145.77** | **172** | PKPbc | **PKPdf** | **01 29 46.7** | **+1.4** |
| | comp=Z,3.3nm,0.4s,baz=217,slow=1.8,SNR=16 | | | | | | |
| **LPAZ** | **La Paz** | **151.49** | **147** | PKPbc | **PKPbc** | **01 30 02.6** | **+0.7** |
| | comp=Z,2.0nm,0.5s,baz=183,slow=1.9,SNR=17 | | | | | | |

*BJI **11** 01:18:07.7, 6°.42S×130°.64E, h168$^{km}$, mb4.5/6, mB5.0/4*
*ISCJB **11** 01:18:10.4±0.3, 6°.08S±0°.03×129°.96E±0°.04, h146$^{km}$, mb4.5/34, Error ellipse: s-maj=5.5km s-min=3.8km az=5.4*
*NEIC **11** 01:18:14.2±0.7, 6°.07S×129°.94E, h169$^{km}$±7$^{km}$, mb4.7/22, Error ellipse: s-maj=8.3km s-min=5.5km az=72.0*
*DJA **11** 01:18:14.4±0.3, 6°S±3°×13°0E±°, h136$^{km}$±5$^{km}$, M4.9/10, mb5.3/10, mB5.3/5, MLv4.8/9, Mw(mB)4.7/5*
*IDC **11** 01:18:21.0±3.7, 6°.14S×130°.00E, h236$^{km}$±36$^{km}$, mb4.0/17, mb1 4.1/18, mb1mx3.8/43, mbtmp4.6/18, Error ellipse: s-maj=21.1km s-min=8.7km az=78.0*
**ISC 11 01:18:11.7**±0.4**, 6°.18S**±0°.04×**130°.05E**±0°.05**, h146**$^{km}$**, n71, σ2$^s$25**/81**, mb4.6**/33**, Banda Sea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BNDI** | **Bandanaira** | **1.65** | **355** | P | Pn | 01 18 47.7 | +5.1 |
| BNDI | | | | S | **Sn** | **01 19 06.7** | **+0.4** |
| **SAUI** | **Saumlaki** | **2.18** | **145** | *e*Pn | Pn | 01 18 55.8 | +7.0 |
| **MSAI** | **Masohi** | **3.03** | **338** | P | **Pn** | **01 19 02.5** | **+3.2** |
| MSAI | | | | S | **Sn** | **01 19 37.6** | **+1.5** |
| **AAI** | **Ambon** | **3.09** | **323** | P | **Pn** | **01 19 04.0** | **+4.0** |
| AAI | | | | S | **Sn** | **01 19 41.0** | **+3.6** |
| **FAKI** | **Fak Fak** | **3.91** | **34** | P | **Pn** | **01 19 12.3** | **+1.6** |
| FAKI | | | | S | **Sn** | **01 19 55.9** | **-0.7** |
| **FAKI** | **Fak Fak** | **3.91** | **34** | *e*Pn | **Pn** | **01 19 12.1** | **+1.4** |
| FAKI | | | | *e*Sn | **Sn** | **01 19 53.8** | **-2.8** |
| **KMPI** | **Kaimana, Papua** | **4.42** | **56** | P | **Pn** | **01 19 20.5** | **+3.1** |
| KMPI | | | | S | **Sn** | **01 20 09.4** | **+0.9** |
| **SANI** | **Sanana** | **5.76** | **315** | P | **Pn** | **01 19 38.4** | **+3.2** |
| SANI | | | | S | **Sn** | **01 20 41.1** | **+0.6** |
| **LBMI** | **Labuha** | **6.06** | **335** | P | **Pn** | **01 19 41.7** | **+2.5** |
| LBMI | | | | S | **Sn** | **01 20 42.9** | **-4.8** |
| **RKPI** | **Ransiki, Papua** | **6.21** | **42** | P | **Pn** | **01 19 43.8** | **+2.7** |
| RKPI | | | | S | **Sn** | **01 20 49.2** | **-1.9** |
| **MTN** | **Manton Dam** | **6.71** | **171** | *e*Pn | **Pn** | **01 19 51.7** | **+3.9** |
| **SOEI** | **Soe** | **6.74** | **238** | P | **Pn** | **01 19 51.8** | **+3.5** |
| **SOEI** | **Soe** | **6.74** | **238** | *e*Pn | **Pn** | **01 19 51.2** | **+2.9** |
| SOEI | | | | *e*Sn | **Sn** | **01 21 03.4** | **-0.6** |
| **EDFI** | **Ende, Flores** | **8.67** | **252** | P | Pn | 01 20 19.7 | +5.5 |
| **MRSI** | **Marisa** | **10.45** | **309** | P | **Pn** | **01 20 41.3** | **+3.5** |
| | 25nm,0.6s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **12.61** | **200** | P | **Pn** | **01 21 07.2** | **+1.2** |
| | 3.2nm,0.3s,baz=20,slow=12,SNR=14 | | | | | | |
| FITZ | | | | S | **Sn** | **01 23 20.5** | **-4.9** |
| | 12nm,0.3s,baz=167,slow=21,SNR=11 | | | | | | |
| **WRAB** | **Tennant Creek** | **14.30** | **163** | *e*Pn | **P** | **01 21 31.3** | **+0.9** |
| WRAB | | | | *e*Sn | **Sn** | **01 24 00.3** | **-5.8** |
| **WRA** | **Warramunga Arr** | **14.30** | **163** | P | **Pn** | **01 21 29.0** | **+1.4** |
| | 4.5nm,0.3s,baz=335,slow=12,SNR=13 | | | | | | |
| WRA | | | | S | **Sn** | **01 24 01.5** | **-4.8** |
| | 8.8nm,0.3s,baz=342,slow=22,SNR=12 | | | | | | |
| **WB2** | **Warramunga Arr** | **14.31** | **163** | *e*Pn | **Pn** | **01 21 28.9** | **+1.3** |
| WB2 | | | | *e*Sn | **Sn** | **01 23 58.6** | **-7.7** |
| **COEN** | **Coen** | **15.05** | **122** | *e*Pn | **P** | **01 21 41.9** | **+3.1** |
| | 31nm,1.4s | | | | | | |
| **JAGI** | **Jajag, Banyuwa** | **15.93** | **261** | *e*Pn | **Pn** | **01 21 47.0** | **-0.9** |
| | 47nm,1.5s | | | | | | |
| **AS31** | **Alice Springs** | **17.78** | **168** | *e*P | **Pn** | **01 22 11.9** | **+1.8** |
| | 17nm,0.6s | | | | | | |
| **ASAR** | **Alice Springs** | **17.78** | **168** | P | **Pn** | **01 22 12.3** | **+2.2** |
| | 10nm,0.3s,baz=342,slow=8.8,SNR=75 | | | | | | |
| ASAR | | | | S | **S** | **01 25 24.7** | **-1.4** |
| | 1.7nm,0.3s,baz=350,slow=27,SNR=9.9 | | | | | | |
| **AS01** | **Alice Springs** | **17.79** | **168** | *e*P | **Pn** | **01 22 11.4** | **+1.1** |
| **MBWA** | **Marble Bar** | **17.93** | **213** | *e*P | **Pn** | **01 22 12.1** | **+0.1** |
| | 35nm,0.6s | | | | | | |
| **KKM** | **Kota Kinabalu** | **18.39** | **311** | *e*P | **P** | **01 22 16.3** | **+0.7** |
| | 13nm,0.4s | | | | | | |
| **CTA** | **Charters Tower** | **20.95** | **133** | P | Pn | 01 22 47.1 | -0.6 |
| | 2.5nm,0.4s,baz=310,slow=14,SNR=3.5 | | | | | | |
| **CTAO** | **Charters Tower** | **20.95** | **133** | *e*P | Pn | 01 22 45.9 | -1.7 |
| | 29nm,0.7s | | | | | | |
| **FORT** | **Forrest** | **24.54** | **184** | *e*P | **P** | **01 23 19.8** | **+1.9** |
| | 300nm,0.6s | | | | | | |
| **BBOO** | **Buckleboo** | **27.08** | **169** | *e*P | **P** | **01 23 41.8** | **+1.1** |
| | 12nm,0.5s | | | | | | |
| **STKA** | **Stephens Creek** | **27.75** | **159** | P | **P** | **01 23 48.9** | **+2.1** |
| | 4.1nm,0.5s,baz=327,slow=9.9,SNR=15 | | | | | | |
| **STKA** | **Stephens Creek** | **27.75** | **159** | *e*P | **P** | **01 23 48.2** | **+1.5** |
| | 1.4nm,0.8s | | | | | | |
| **KULM** | **Kulim** | **31.48** | **291** | *e*P | **P** | **01 24 19.3** | **-0.6** |
| | 14nm,0.9s | | | | | | |
| **CAN** | **Canberra** | **33.85** | **152** | *e*P | **P** | **01 24 43.0** | **+2.8** |
| | 12nm,0.7s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **39.25** | **309** | P | **P** | **01 25 26.3** | **+0.1** |
| | 1.2nm,0.5s,baz=135,slow=7.1,SNR=6.1 | | | | | | |
| **CHTO** | **Chiang Mai** | **39.45** | **310** | *e*P | **P** | **01 25 27.1** | **-0.9** |
| | 3.5nm,0.7s | | | | | | |
| **MAJO** | **Matsushiro** | **43.18** | **10** | *e*P | **P** | **01 25 56.2** | **-1.9** |
| | 35nm,0.8s | | | | | | |
| **CD2** | **Chengdu** | **44.64** | **327** | *e*P | **P** | **01 26 10.7** | **+0.8** |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.2s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **50.18** | **2** | P | **P** | **01 26 50.7** | **-1.7** |
| | 15nm,0.8s,baz=183,slow=11,SNR=8.6 | | | | | | |
| **ASAJ** | **Asahikawa** | **51.33** | **12** | P | **P** | **01 27 01.1** | **+0.1** |
| | 27nm,0.6s,baz=223,slow=11,SNR=12 | | | | | | |
| **ASAJ** | **Asahikawa** | **51.33** | **12** | *e*P | **P** | **01 27 01.0** | **0.0** |
| | 13nm,0.6s | | | | | | |
| **LSA** | **Lhasa** | **51.64** | **316** | *e*P | **P** | **01 27 03.4** | **-0.7** |
| | 4.2nm,0.4s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **54.09** | **11** | *e*P | **P** | **01 27 20.6** | **-0.5** |
| | 12nm,0.3s | | | | | | |
| **ULN** | **Ulaanbaatar** | **57.50** | **342** | *e*P | **P** | **01 27 45.4** | **-0.4** |
| | 89nm,1.3s | | | | | | |
| **SONM** | **Songino Array** | **57.68** | **341** | P | **P** | **01 27 47.2** | **+0.2** |
| | 0.9nm,0.3s,baz=160,slow=5.6,SNR=18 | | | | | | |
| **WMQ** | **Urumqi** | **62.74** | **327** | P | **P** | **01 28 22.0** | **+0.6** |
| WMQ | | | | pP | PcP | 01 29 02.1 | +3.5 |
| WMQ | | | | sP | sP | 01 29 20.2 | +8.2 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,23nm,0.7s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,290nm,6.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,9µm,14.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,9µm,14.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,10µm,16.1s | | | | | | |
| **PETK** | **Petropavlovsk-** | **63.54** | **18** | P | **P** | **01 28 26.6** | **+0.3** |
| | 4.7nm,0.6s,baz=162,slow=1.7,SNR=7.7 | | | | | | |
| **MK01** | **Makanchi Array** | **67.55** | **327** | *e*P | **P** | **01 28 51.9** | **-0.4** |
| **MK31** | **Makanchi Array** | **67.57** | **327** | *e*P | **P** | **01 28 52.2** | **-0.2** |
| **MKAR** | **Makanchi Array** | **67.57** | **327** | P | **P** | **01 28 52.2** | **-0.2** |
| | 7.1nm,0.6s,baz=115,slow=7.5,SNR=72 | | | | | | |
| **MAKZ** | **Makanchi** | **67.75** | **326** | *e*P | **P** | **01 28 53.3** | **-0.2** |
| | 56nm,1.3s | | | | | | |
| **AAK** | **Ala-Archa** | **69.95** | **320** | *e*P | **P** | **01 29 06.9** | **-0.5** |
| | 49nm,1.1s | | | | | | |
| **ZAA0** | **Zalesovo Array** | **70.87** | **334** | *e*P | **P** | **01 29 11.3** | **-1.3** |
| | 19nm,0.8s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **70.87** | **334** | P | **P** | **01 29 11.2** | **-1.3** |
| | 1.5nm,0.3s,baz=127,slow=5.8,SNR=10 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **70.87** | **334** | *e*P | **P** | **01 29 11.1** | **-1.5** |
| **SEY** | **Seymchan** | **71.00** | **11** | P | **P** | **01 29 13.3** | **+0.2** |
| | 11nm,0.7s,baz=197,slow=4.8,SNR=32 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **71.84** | **328** | P | **P** | **01 29 17.9** | **-0.5** |
| | 2.9nm,0.4s,baz=130,slow=4.9,SNR=24 | | | | | | |
| **KURK** | **Kurchatov** | **71.85** | **328** | P | **P** | **01 29 17.9** | **-0.6** |
| **VNDA** | **Vanda** | **73.25** | **173** | P | **P** | **01 29 27.4** | **+1.0** |
| | 1.1nm,0.5s,baz=307,slow=6.6,SNR=8.9 | | | | | | |
| **MAW** | **Mawson** | **75.72** | **201** | P | **P** | **01 29 39.8** | **-1.0** |
| | 2.5nm,0.3s,baz=72,slow=6.4,SNR=9.7 | | | | | | |
| **BVAR** | **Borovoye Array** | **77.40** | **328** | P | **P** | **01 29 49.7** | **-0.8** |
| | 1.0nm,0.4s,baz=118,slow=7.9,SNR=7.6 | | | | | | |
| **BRVK** | **Borovoye** | **77.47** | **328** | *e*P | **P** | **01 29 49.3** | **-1.6** |
| | 8.6nm,0.9s | | | | | | |
| **TIXI** | **Tiksi** | **77.68** | **360** | P | **P** | **01 29 51.1** | **-0.5** |
| | 6.6nm,0.4s,baz=170,slow=5.4,SNR=28 | | | | | | |
| **TIXI** | **Tiksi** | **77.68** | **360** | *e*P | **P** | **01 29 49.9** | **-1.7** |
| | 6.4nm,0.5s | | | | | | |
| **GEYT** | **Alibeck** | **79.72** | **310** | P | **P** | **01 30 02.3** | **-1.3** |
| | 3.9nm,0.7s,baz=107,slow=4.7,SNR=6.5 | | | | | | |
| **ARU** | **Arti** | **85.04** | **328** | *e*P | **P** | **01 30 28.9** | **-1.8** |
| | 3.1nm,0.6s | | | | | | |
| **RAYN** | **Ar Rayn** | **87.46** | **294** | *e*P | **P** | **01 30 42.5** | **-0.9** |
| | 3.8nm,0.7s | | | | | | |
| **ILAR** | **Eielson Array** | **92.59** | **25** | P | **P** | **01 31 04.1** | **-2.2** |
| | 0.8nm,0.8s,baz=236,slow=5.2,SNR=9.0 | | | | | | |
| **SNAA** | **Sanae** | **96.47** | **193** | *e*P | **P** | **01 31 25.0** | **+0.9** |
| **TXAR** | **Lajitas Array** | **124.47** | **59** | PKP | **PKPdf** | **01 36 51.2** | **-3.1** |
| | 0.9nm,0.7s,baz=267,slow=2.4,SNR=5.2 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **128.69** | **282** | PKP | **PKPdf** | **01 37 02.4** | **-0.2** |
| | 0.3nm,0.6s,baz=89,slow=1.5,SNR=3.9 | | | | | | |

*NIED **11** 01:22:00, 28°.20N×129°.50E, h29$^{km}$, Mw5.6 Best double couple: $M_0$2.52000$\times10^{17}$ NP1:$\phi_s$55.00000°, $\delta$36.00000°, $\lambda$107.00000°. NP2:$\phi_s$214.00000°, $\delta$56.00000°, $\lambda$78.00000°.*
*BJI **11** 01:22:36.9, 27°.70N×130°.01E, h27$^{km}$, mb5.4/76, mB5.4/53, Ms5.5/86, Ms7 5.4/81*
*IDC **11** 01:22:40.0±0.4, 28°.17N×129°.47E, h0$^{km}$, mb5.2/34, mb1 5.3/36, mb1mx5.2/39, mbtmp5.2/36, ML2.4/1, MS5.0/12, Ms1 5.1/12, ms1mx4.7/61, Error ellipse: s-maj=11.7km s-min=10.4km az=88.0*
*ISCJB **11** 01:22:43.3±0.3, 28°.09N±0°.01×129°.44E±0°.02, h31$^{km}$±2$^{km}$, mb5.7/427, MS5.2/44, Error ellipse: s-maj=2.7km s-min=1.8km az=42.5*
*JMA **11** 01:22:43.8±0.2, 28°.13N×129°.54E, h29$^{km}$±3$^{km}$, M5.5*
*JMA Felt IV J1.*
*MOS **11** 01:22:44.9±1.1, 28°.13N×129°.43E, h45$^{km}$, mb6.0/111, MS5.3/25, Error ellipse: s-maj=6.1km s-min=3.5km az=107.6*
*NEIC **11** 01:22:45.7±0.4, 28°.10N×129°.37E, h38$^{km}$±3$^{km}$, mb5.7/286, MW5.3, Error ellipse: s-maj=3.1km s-min=2.3km az=134.0, Moment Tensor Solution. s42 Moment tensor: Scale $10^{17}$Nm; $M_{rr}$1.00; $M_{\theta\theta}$-0.24; $M_{\phi\phi}$-0.77; $M_{r\theta}$-0.23; $M_{\theta\phi}$-0.70; $M_{\phi r}$0.62; Best double couple: $M_0$1.30000$\times10^{17}$ NP1:$\phi_s$10.00000°, $\delta$60.00000°, $\lambda$61.00000°. NP2: $\phi_s$239.00000°, $\delta$41.00000°, $\lambda$130.00000°. Principal axes: T 1.3300, Plg63.0000°, Azm231.0000°; N -0.0100, Plg25.0000°, Azm26.0000°; P -1.3200, Plg10.0000°, Azm121.0000°;*
*NEIC Felt at Yomitan, Okinawa. Recorded [4 JMA] on Uke-jima.*
*GCMT **11** 01:22:45.7±0.1, 28°.07N×129°.40E, h30$^{km}$, MW5.4/80, Moment Tensor Solution. s80,c167; s71,c152; Duration: 1$^s$2 Moment tensor: Scale $10^{17}$Nm; $M_{rr}$1.36±.03; $M_{\theta\theta}$-0.52±.02; $M_{\phi\phi}$-0.83±.02; $M_{r\theta}$-0.37±.04; $M_{\theta\phi}$-0.58±.02; $M_{\phi r}$0.21±.03; Best double couple: $M_0$1.38000$\times10^{17}$ NP1:$\phi_s$233.00000°, $\delta$48.00000°, $\lambda$111.00000°. NP2:$\phi_s$23.00000°, $\delta$46.00000°, $\lambda$68.00000°. Principal axes: T 1.4770, Plg75.0000°, Azm213.0000°; N -0.1910, Plg15.0000°, Azm38.0000°; P -1.2820, Plg1.0000°, Azm308.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*
**ISC 11 01:22:44.7**±0.4**, 28°.06N**±0°.02×**129°.51E**±0°.02**, h32**$^{km}$±2$^{km}$**, h33**$^{km}$**:pP-P, n1336, σ1$^s$51**/1469**, mb5.7**/462**, MS5.3**/45**, 100C-52D, Ryukyu Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JAMN** | **Amaminishikomi** | **0.35** | **303** | P | **Pb** | **01 22 51.6** | **-1.4** |
| JAMN | | | | *e*S | **Sb** | **01 22 58.5** | **-0.1** |
| **JAM** | **Amami Oshima** | **0.36** | **14** | ⇓P | **Pb** | **01 22 50.5** | **-2.7** |
| JAM | | | | S | **Sb** | **01 22 55.8** | **-3.3** |
| **JZK** | **Kikaishima** | **0.48** | **58** | ⇑P | **Pb** | **01 22 52.7** | **-2.3** |
| JZK | | | | S | **Sb** | **01 23 00.4** | **-1.7** |
| **JTK** | **Tokunoshima** | **0.56** | **241** | P | **Pb** | **01 22 55.8** | **-0.4** |
| JTK | | | | S | **Sn** | **01 23 04.8** | **+0.2** |
| **JOKE** | **Okinoerabujima** | **1.08** | **230** | P | **Pb** | **01 23 04.4** | **-0.5** |
| JOKE | | | | *e*S | **Sb** | **01 23 20.2** | **+1.5** |
| **JTAJ** | **Takarajima** | **1.12** | **346** | P | **Pn** | **01 23 02.6** | **-1.6** |
| JTAJ | | | | S | **Sn** | **01 23 17.7** | **-0.8** |
| **JOW** | **Kunigami** | **1.64** | **222** | ⇑P | **Pn** | **01 23 12.3** | **+1.0** |
| **JOW** | **Kunigami** | **1.64** | **222** | *e*Pn | **Pn** | **01 23 12.2** | **+1.0** |
| JOW | | | | *e*Sn | **Sn** | **01 23 30.0** | **-1.2** |
| **JIH** | **Iheya** | **1.70** | **234** | ⇑P | **Pn** | **01 23 13.6** | **+1.5** |
| JIH | | | | *e*S | **Sb** | **01 23 36.3** | **-0.1** |
| **JNN** | **Nakanoshima** | **1.81** | **10** | P | **Pn** | **01 23 13.0** | **-0.6** |
| JNN | | | | S | **Sn** | **01 23 35.5** | **+0.1** |
| **JNTH** | **Nagotoyohara** | **2.02** | **221** | P | **Pn** | **01 23 17.7** | **+1.2** |
| JNTH | | | | *e*S | **Sb** | **01 23 43.5** | **-2.1** |
| **JYAK** | **Yakushimahirau** | **2.34** | **22** | P | **Pn** | **01 23 20.0** | **-0.9** |
| JYAK | | | | S | **Sn** | **01 23 49.2** | **+0.6** |
| **JJT2** | **Tamagusuku 2** | **2.47** | **220** | ⇑P | **Pn** | **01 23 23.6** | **+0.9** |
| JJT2 | | | | *e*S | **Sn** | **01 23 53.6** | **+1.9** |
| **JKC** | **Kuchinoerabu** | **2.47** | **14** | ⇑P | **Pn** | **01 23 22.7** | **0.0** |
| JKC | | | | S | **Sn** | **01 23 52.7** | **+0.9** |
| **JAGN** | **Aguni-jima** | **2.49** | **235** | ⇑P | **Pn** | **01 23 24.1** | **+1.2** |
| JAGN | | | | S | **Sn** | **01 23 55.0** | **+2.8** |
| **JTN** | **Tanegashima 3** | **2.89** | **26** | ⇑P | **Pn** | **01 23 27.7** | **-0.8** |
| JTN | | | | *e*S | **Sn** | **01 24 02.5** | **+0.4** |
| **JKE** | **Kume jima 2** | **2.97** | **235** | ⇑P | **Pn** | **01 23 30.5** | **+0.9** |
| JKE | | | | *e*S | **Sn** | **01 24 06.0** | **+1.9** |
| **JSU** | **Suzuyama** | **3.54** | **13** | P | **Pn** | **01 23 37.5** | **+0.1** |
| **JIU2** | **Izumi 2** | **4.62** | **14** | P | **Pn** | **01 23 53.7** | **+1.5** |
| **JIKM** | **Ikemajima** | **4.93** | **232** | P | **Pn** | **01 23 56.7** | **+0.2** |
| **JOGS** | **Gusukube** | **4.93** | **229** | P | **Pn** | **01 23 56.9** | **+0.4** |
| **JMJ** | **Miyako jima 2** | **4.97** | **230** | P | **Pn** | **01 23 57.5** | **+0.5** |
| **JTA** | **Tamana** | **4.97** | **10** | P | **Pn** | **01 23 59.1** | **+2.0** |
| **JIRB** | **Irabujima** | **5.04** | **231** | P | **Pn** | **01 23 57.7** | **-0.3** |
| **JNU** | **Nakatsue** | **5.19** | **13** | Pn | **Pn** | **01 24 01.6** | **+1.5** |
| | 14nm,0.3s,baz=194,slow=2.9,SNR=130 | | | | | | |
| JNU | | | | Sn | **Sn** | **01 25 00.3** | **+1.5** |
| | baz=66,slow=20,SNR=1.8 | | | | | | |
| **JNU** | **Nakatsue** | **5.19** | **13** | *e*Pn | **Pn** | **01 24 01.0** | **+1.0** |
| JNU | | | | Sn | **Sn** | **01 25 00.3** | **+1.5** |
| **JTJ** | **Tarama** | **5.49** | **233** | P | **Pn** | **01 24 04.3** | **+0.1** |
| **JISG** | **Ishigakijimahi** | **5.80** | **235** | P | **Pn** | **01 24 07.6** | **-0.9** |
| JISG | | | | *e*S | **Sn** | **01 25 10.8** | **-3.1** |
| **JIJ** | **Ishigaki jima** | **6.06** | **234** | P | **Pn** | **01 24 10.7** | **-1.3** |
| **YOJ** | **Yonaguni jima** | **6.84** | **240** | *e*P | **Pn** | **01 24 20.4** | **-2.4** |
| **YOJ** | **Yonaguni jima** | **6.84** | **240** | *e*Pn | **Pn** | **01 24 20.4** | **-2.4** |
| **TATO** | **Taipei** | **7.81** | **249** | *e*Pn | **Pn** | **01 24 38.3** | **+2.2** |
| **SSE** | **Sheshan** | **7.85** | **295** | ⇓P | **Pn** | **01 24 40.9** | **+4.3** |
| SSE | | | | S | **Sn** | **01 26 09.6** | **+5.2** |
| SSE | | | | LR | LR | | |
| | comp=N,9µm,16.0s | | | | | | |
| SSE | | | | LR | LR | | |
| | comp=E,13µm,16.0s | | | | | | |
| SSE | | | | LR | LR | | |
| | comp=Z,16µm,16.2s | | | | | | |
| **YHNB** | **Yeheng** | **8.03** | **247** | *e*Pn | **Pn** | **01 24 40.3** | **+1.1** |
| **NACB** | **Ninganchiao** | **8.09** | **243** | *e*Pn | **Pn** | **01 24 37.4** | **-2.6** |
| **JKN2** | **Miekihoku** | **8.46** | **42** | P | **Pn** | **01 24 44.1** | **-0.9** |
| **TJN** | **Taejon** | **8.49** | **348** | ⇓*e*P | **Pn** | **01 24 48.7** | **+3.3** |
| **YULB** | **Yu-li** | **8.74** | **240** | *e*Pn | **Pn** | **01 24 45.0** | **-3.8** |
| | 90nm,0.5s | | | | | | |
| **SSLB** | **Suanglung** | **8.79** | **243** | *e*Pn | **Pn** | **01 24 47.5** | **-2.1** |
| SSLB | | | | *e*Sn | **Sn** | **01 26 24.7** | **-3.0** |
| **TWG** | **Pinlang** | **9.23** | **238** | *e*Pn | **Pn** | **01 24 51.5** | **-4.2** |
| TWG | | | | *e*Sn | **Sn** | **01 26 34.4** | **-4.0** |
| **TPUB** | **Ta-pu** | **9.30** | **241** | *e*Pn | **Pn** | **01 24 55.2** | **-1.4** |
| **KS15** | **Wonju Array Si** | **9.46** | **352** | *e*Pn | **Pn** | **01 25 02.7** | **+4.1** |
| **KSAR** | **Wonju Array Be** | **9.46** | **352** | P | **Pn** | **01 25 02.0** | **+3.3** |
| **KSAR** | **Wonju Array Be** | **9.46** | **352** | Pn | **Pn** | **01 25 01.9** | **+3.3** |
| **KSRS** | **Korea Array** | **9.47** | **352** | Pn | **Pn** | **01 25 02.0** | **+3.3** |
| | 1.2nm,0.3s,baz=168,slow=14,SNR=27 | | | | | | |
| KSRS | | | | LR | LR | 01 28 53.6 | |
| | comp=Z,12µm,18.9s,baz=168,slow=40 | | | | | | |
| **KSRS** | **Korea Array** | **9.47** | **352** | P | **Pn** | **01 25 02.0** | **+3.3** |
| KSRS | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.3s | | | | | | |
| KSRS | | | | MLR | MLR | | |
| | comp=Z,12µm,18.9s | | | | | | |
| **KS01** | **Wonju Array Si** | **9.49** | **352** | *e*Pn | **Pn** | **01 25 01.7** | **+2.7** |
| **INU** | **Inuyama** | **9.68** | **39** | *e*Pn | **Pn** | **01 25 03.1** | **+1.4** |
| **INCN** | **Inchon** | **9.71** | **346** | *e*Pn | **Pn** | **01 25 04.2** | **+2.2** |
| **INCN** | **Inchon** | **9.71** | **346** | P | Pn | 01 25 06.9 | +4.9 |
| | SNR=6.4 | | | | | | |
| **NJ2** | **Nanjing** | **10.05** | **296** | *e*P | **Pn** | **01 25 11.3** | **+4.5** |
| NJ2 | | | | S | **Sn** | **01 27 04.5** | **+6.1** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,580nm,1.0s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,10µm,12.5s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,16µm,16.0s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,19µm,15.2s | | | | | | |
| **JHJ** | **Hachijo jima 2** | **10.19** | **58** | Pn | **Pn** | **01 25 10.0** | **+1.3** |
| | comp=Z,57nm,0.3s,baz=124,slow=21,SNR=11 | | | | | | |
| JHJ | | | | LR | LR | 01 28 49.5 | |
| | comp=Z,28nm,19.7s,baz=272,slow=36 | | | | | | |
| **JHJ2** | **Mitsune** | **10.21** | **58** | *e*Pn | **Pn** | **01 25 10.4** | **+1.4** |
| **QZH** | **Quanzhou** | **10.26** | **255** | P | **Pn** | **01 25 10.3** | **+0.7** |
| QZH | | | | S | **Sn** | **01 27 01.6** | **-1.9** |
| QZH | | | | LR | LR | | |
| | comp=Z,15µm,7.9s | | | | | | |
| QZH | | | | LR | LR | | |
| | comp=Z,23µm,12.9s | | | | | | |
| QZH | | | | LR | LR | | |
| | comp=Z,36µm,12.2s | | | | | | |
| **MAJO** | **Matsushiro** | **11.21** | **39** | ⇑*e*P | **Pn** | **01 25 23.1** | **+0.5** |
| **MAJO** | **Matsushiro** | **11.21** | **39** | *e*Pn | **Pn** | **01 25 23.1** | **+0.5** |
| **MAT** | **Matsushiro** | **11.21** | **39** | P | **Pn** | **01 25 22.9** | **+0.2** |
| MAT | | | | *e*S | **Sn** | **01 27 30.0** | **+3.2** |
| **MJAR** | **Matsushiro Arr** | **11.21** | **39** | Pn | **Pn** | **01 25 21.6** | **-1.1** |
| | comp=Z,2.9nm,0.3s,baz=248,slow=14,SNR=25 | | | | | | |
| **MJB9** | **Matsu-Tunnel** | **11.21** | **39** | *e*Pn | **Pn** | **01 25 23.8** | **+1.2** |
| **CBIJ** | **Chichi jima** | **11.29** | **92** | *e*Pn | **Pn** | **01 25 25.0** | **+1.3** |
| **DL2** | **Dalian** | **12.65** | **331** | P | Pn | 01 25 47.4 | +5.1 |
| DL2 | | | | S | Sn | 01 28 11.0 | +8.9 |
| DL2 | | | | pmax | pmax | | |
| | comp=Z,75nm,1.6s | | | | | | |
| DL2 | | | | pmax | pmax | | |
| | comp=Z,2µm,7.6s | | | | | | |
| DL2 | | | | LR | LR | | |
| | comp=Z,14µm,15.1s | | | | | | |
| DL2 | | | | LR | LR | | |
| | comp=Z,11µm,14.7s | | | | | | |
| DL2 | | | | LR | LR | | |
| | comp=Z,21µm,14.8s | | | | | | |
| **TIA** | **Tai'an** | **13.27** | **311** | ⇑P | **P** | **01 25 55.6** | **-4.5** |
| TIA | | | | pP | Pn | 01 26 01.8 | +11 |
| TIA | | | | S | **S** | **01 28 33.6** | **-7.2** |
| TIA | | | | pmax | pmax | | |
| | comp=Z,150nm,1.2s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,10µm,13.5s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,16µm,13.9s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,22µm,14.1s | | | | | | |
| **WHN** | **Wuhan** | **13.46** | **284** | ⇓P | **Pn** | **01 25 56.6** | **+3.2** |
| WHN | | | | S | S | 01 28 35.2 | -10 |
| WHN | | | | pmax | pmax | | |
| | comp=Z,220nm,1.3s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=Z,22µm,12.7s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=Z,33µm,13.2s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=Z,42µm,14.7s | | | | | | |
| **MSHR** | **Mys Shultsa** | **14.55** | **5** | ⇓*e*P | **Pn** | **01 26 07.1** | **-1.1** |
| **SNY** | **Shenyang** | **14.57** | **342** | ⇓P | **Pn** | **01 26 11.2** | **+2.8** |
| SNY | | | | S | **Sn** | **01 28 56.6** | **+7.9** |
| SNY | | | | pmax | pmax | | |
| | comp=Z,41nm,2.0s | | | | | | |
| SNY | | | | pmax | pmax | | |
| | comp=Z,2µm,7.4s | | | | | | |
| SNY | | | | LR | LR | | |
| | comp=Z,17µm,13.0s | | | | | | |
| SNY | | | | LR | LR | | |
| | comp=Z,8µm,13.0s | | | | | | |
| SNY | | | | LR | LR | | |
| | comp=Z,25µm,14.1s | | | | | | |
| **SCZP** | **Santa Cruz** | **15.11** | **218** | *e*P | **P** | **01 26 20.8** | **+0.1** |
| **VLA** | **Vladivostok** | **15.15** | **7** | ⇑*e*P | **Pn** | **01 26 16.9** | **+0.6** |
| VLA | | | | pmax | pmax | | |
| | comp=Z,32nm,1.2s | | | | | | |
| **PVCP** | **Virac** | **15.23** | **200** | *e*P | **Pn** | **01 26 16.3** | **-1.2** |
| PVCP | | | | *e*S | **Sn** | **01 28 59.2** | **-5.8** |
| **GZH** | **Guangzhou** | **15.40** | **255** | P | **Pn** | **01 26 19.3** | **-0.3** |
| GZH | | | | S | **S** | **01 29 17.2** | **-7.3** |
| GZH | | | | pmax | pmax | | |
| | comp=Z,790nm,4.3s | | | | | | |
| **TGY** | **Tagaytay City** | **16.01** | **212** | Pn | **P** | **01 26 29.6** | **-1.2** |
| | comp=Z,35nm,0.3s,baz=95,slow=2.5,SNR=9.0 | | | | | | |
| TGY | | | | LR | LR | 01 32 15.8 | |
| | comp=Z,1µm,21.5s,baz=12,slow=36 | | | | | | |
| **CN2** | **Changchun** | **16.05** | **349** | *e*P | **P** | **01 26 30.1** | **-0.9** |
| CN2 | | | | *e*pP | pP | 01 26 37.7 | -1.8 |
| CN2 | | | | *e*sP | sP | 01 26 42.5 | -1.2 |
| CN2 | | | | *e*S | **Sn** | **01 29 27.0** | **+2.3** |
| CN2 | | | | PcP | **PcP** | **01 31 23.7** | **+0.5** |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,40nm,1.4s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,11µm,13.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,7µm,13.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,16µm,13.0s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **16.23** | **6** | Pn | **Pn** | **01 26 28.5** | **-1.7** |
| | comp=Z,0.1nm,0.3s,baz=183,slow=13,SNR=3.7 | | | | | | |
| USRK | | | | LR | LR | 01 32 35.7 | |
| | comp=Z,3µm,19.4s,baz=178,slow=37 | | | | | | |
| **BJT** | **Baijiatuau** | **16.24** | **321** | *e*P | **P** | **01 26 32.8** | **-0.4** |
| BJT | | | | pmax | pmax | | |
| | comp=Z,275nm,1.0s | | | | | | |
| **BJT** | **Baijiatuau** | **16.24** | **321** | *e*Pn | **P** | **01 26 32.8** | **-0.4** |
| | comp=Z,275nm,1.0s | | | | | | |
| **BJI** | **Beijing** | **16.25** | **321** | P | **P** | **01 26 32.7** | **-0.6** |
| BJI | | | | S | **S** | **01 29 43.5** | **+1.7** |
| BJI | | | | pmax | pmax | | |
| | comp=Z,91nm,1.5s | | | | | | |
| BJI | | | | pmax | pmax | | |
| | comp=Z,1µm,3.6s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,8µm,18.1s | | | | | | |

**MDJ Mudanjiang 16.53 0** P **P** 01 26 35.7 -0.6
MDJ pP pP 01 26 44.3 -0.5
MDJ sP sP 01 26 47.3 -1.7
MDJ S **Sn** **01 29 39.7 +3.3**
MDJ pmax pmax
comp=Z,650nm,5.2s
MDJ LR LR
comp=Z,4μm,15.8s
MDJ LR LR
comp=Z,3μm,15.5s
MDJ LR LR
comp=Z,5μm,16.7s
**MDJ Mudanjiang 16.53 0** *e*Pn **Pn** **01 26 33.8 -0.1**
comp=Z,63nm,1.4s
**TIY Taiyuan 17.25 308** *e*P **P** **01 26 45.2 +0.8**
TIY S **Sn** **01 29 53.9 -0.2**
TIY pmax pmax
comp=Z,150nm,0.7s
TIY pmax pmax
comp=Z,4μm,5.8s
TIY LR LR
comp=Z,12μm,13.5s
TIY LR LR
comp=Z,14μm,14.7s
TIY LR LR
comp=Z,19μm,14.2s
**SJMP San Jose 17.39 208** *e*P **Pn** **01 26 45.2 +0.3**
**RCP Roxas 17.59 202**⇓ *e*P **P** **01 26 49.9 +1.6**
**ENH Enshi 17.62 282** *e*Pn **P** **01 26 49.4 +0.9**
comp=Z,548nm,1.1s
**MSLP Maasin 18.36 195** *e*P **Pn** **01 26 58.0 +1.1**
**XAN Xi'an 18.61 294** P **Pn** **01 27 00.4 +0.6**
XAN pP pP 01 27 06.9 -1.1
XAN sP sP 01 27 10.7 -1.4
XAN PP **PnPn** **01 27 17.5 +5.5**
XAN S **S** **01 30 29.7 -0.1**
XAN sS sS 01 30 39.7 -3.8
XAN SS SnSn 01 30 56.4 +16
XAN pmax pmax
comp=Z,650nm,0.9s
XAN pmax pmax
comp=Z,1μm,5.8s
XAN LR LR
comp=Z,4μm,13.2s
XAN LR LR
comp=Z,6μm,13.6s
XAN LR LR
comp=Z,8μm,13.3s
**ASAJ Asahikawa 19.16 30** LR LR 01 34 50.1
comp=Z,18nm,19.6s,baz=228,slow=38
**HHC Hu-ho-hao-te 19.49 316** *e*P **Pn** **01 27 10.0 -0.5**
HHC sP sP 01 27 23.6 +1.8
HHC S **Sn** **01 30 48.7 +0.4**
HHC SS **SnSn** **01 31 14.2 +12**
HHC pmax pmax
comp=Z,83nm,1.0s
HHC pmax pmax
comp=Z,2μm,6.4s
HHC LR LR
comp=Z,7μm,14.9s
HHC LR LR
comp=Z,5μm,16.5s
HHC LR LR
comp=Z,8μm,15.7s
**QIZ Qiongzhong 20.12 248** P Pn 01 27 17.1 -0.9
QIZ pmax pmax
comp=Z,75nm,1.4s
QIZ LR LR
comp=Z,3μm,17.5s
QIZ LR LR
comp=Z,5μm,20.1s
QIZ LR LR
comp=Z,7μm,16.0s
**QIZ Qiongzhong 20.12 248** *e*P Pn 01 27 17.7 -0.3
comp=Z,509nm,1.9s
**GUMO Guam 20.30 132** P Pn 01 27 19.5 -0.6
comp=Z,201nm,1.0s,baz=0.5,slow=16,SNR=4.6
GUMO LR LR 01 33 57.8
comp=Z,4μm,19.1s,baz=336,slow=33
**GUMO Guam 20.30 132** *e*P Pn 01 27 19.4 -0.7
GUMO pmax pmax
comp=Z,611nm,1.3s
**GUMO Guam 20.30 132** *e*P Pn 01 27 19.4 -0.7
comp=Z,611nm,1.3s
**BTO Baotou 20.33 313** *e*P **P** **01 27 17.9 -0.4**
**GYA Guiyang 20.37 271**⇑ *i*P **P** **01 27 19.1 +0.3**
GYA pP pP 01 27 28.0 +0.6
GYA PP **PnPn** **01 27 41.4 +5.2**
GYA S **S** **01 31 01.2 -4.2**
GYA sS Sn 01 31 13.6 +4.0
GYA SS **SnSn** **01 31 31.0 +6.7**
GYA pmax pmax
comp=Z,610nm,1.1s
GYA pmax pmax
comp=Z,740nm,7.5s
GYA LR LR
comp=Z,4μm,18.0s
GYA LR LR
comp=Z,5μm,19.2s
GYA LR LR
comp=Z,7μm,18.9s
**BUKP Musuan 20.50 193** *e*P **P** **01 27 20.8 +0.6**
**YUK Yuzh-Kuril'sk 20.65 35** *e*P **P** **01 27 21.3 -0.2**
YUK *e* 01 27 34.4
YUK *e*S **S** **01 31 12.5 +2.0**
YUK *e*SS **SnSn** **01 31 29.5 -1.5**
YUK *e*SSS SSS 01 31 46.9
YUK pmax pmax
comp=Z,2μm,2.9s
YUK pmax pmax
comp=Z,598nm,1.5s
YUK pmax pmax
comp=N,252nm,1.1s
YUK pmax pmax
comp=E,423nm,1.1s
YUK MLR MLR
comp=N,2μm,17.0s
YUK MLR MLR
comp=E,942nm,17.0s
YUK MLR MLR
comp=Z,3μm,17.0s
**HABR Khabarovsk 20.83 10***c e*P **P** **01 27 21.4 -2.0**
HABR *e**SP **sP** **01 27 34.6 -1.6**
HABR *e* 01 27 40.1
HABR *e*S **S** **01 31 12.2 -1.8**
HABR *e*SS **SnSn** **01 31 34.9 -0.5**
HABR MLR MLR
comp=Z,2μm,16.0s
**DAV Davao City (W) 21.20 191**⇓ *e*P **P** **01 27 27.9 +0.2**
**KLR Kul'dur 21.21 4** P **P** **01 27 25.6 -1.9**
comp=Z,1.7nm,0.7s,baz=185,slow=7.2,SNR=25
KLR PcP **PcP** **01 31 32.7 +0.8**
comp=Z,1.6nm,1.1s,baz=285,slow=3.2,SNR=4.7
KLR LR LR 01 35 22.3
comp=Z,205nm,20.6s,baz=182,slow=36
**CTBH Cotabato--PC H 21.31 194**⇓ *i*P **P** **01 27 30.0 +1.1**
**YSS Yuzh-Sakhalins 21.54 25**⇓ *i*P **P** **01 27 31.2 +0.2**
YSS *e*S **S** **01 31 32.0 +4.0**
YSS pmax pmax
comp=Z,110nm,1.2s
YSS pmax pmax
comp=N,50nm,0.9s
YSS pmax pmax
comp=E,50nm,1.1s
YSS pmax pmax
comp=Z,900nm,2.0s
YSS pmax pmax
comp=N,700nm,2.4s
YSS MLR MLR
comp=Z,4μm,18.0s
YSS MLR MLR
comp=N,2μm,19.0s
YSS MLR MLR
comp=E,3μm,19.0s
**YSS Yuzh-Sakhalins 21.54 25** *e*P **P** **01 27 31.3 +0.3**
comp=E,547nm,1.5s
**HIA Hailar 22.47 343** *e*P **P** **01 27 41.0 -0.1**
HIA pmax pmax
comp=Z,152nm,1.6s
**HIA Hailar 22.47 343** *e*P **P** **01 27 41.0 -0.1**
comp=Z,152nm,1.6s
**KUR Kuril'sk 22.52 36***d i*P **P** **01 27 42.8 +1.3**
KUR *e* 01 28 19.4
KUR *i*S **S** **01 31 45.4 -1.0**
KUR pmax pmax
comp=Z,1μm,2.8s
KUR pmax pmax
comp=Z,522nm,1.1s
KUR MLR MLR
comp=N,3μm,17.0s
KUR MLR MLR
comp=Z,3μm,17.0s
**CD2 Chengdu 22.58 283**⇓ *i*P **P** **01 27 40.9 -1.6**
CD2 pP pP 01 27 48.9 -2.2
CD2 sP sP 01 27 53.4 -1.9
CD2 PP **PnPn** **01 28 12.5 +6.1**
CD2 S **S** **01 31 44.1 -3.9**
CD2 pmax pmax
comp=Z,1μm,0.8s
CD2 pmax pmax
comp=Z,890nm,10.4s
CD2 LR LR
comp=Z,10μm,16.1s
CD2 LR LR
comp=Z,16μm,16.1s
CD2 LR LR
comp=Z,16μm,13.3s
**LZH Lanzhou 23.13 297**⇑ *i*P **P** **01 27 47.9 -0.3**
LZH pP pP 01 27 55.8 -1.2
LZH sP sP 01 27 59.5 -1.6
LZH PP **PnPn** **01 28 18.0 +4.0**
LZH PcP **PcP** **01 31 38.0 +1.7**
LZH S **S** **01 31 53.0 -4.6**
LZH pmax pmax
comp=Z,370nm,1.0s
LZH pmax pmax
comp=Z,1μm,4.5s
LZH LR LR
comp=Z,8μm,11.4s
LZH LR LR
comp=Z,8μm,12.3s
LZH LR LR
comp=Z,9μm,13.5s
**KMI Kunming 24.10 269** P **P** **01 27 58.4 +0.7**
KMI pP pP 01 28 06.1 -0.9
KMI S **S** **01 32 11.6 -1.9**
KMI pmax pmax
comp=Z,1μm,1.1s
KMI pmax pmax
comp=Z,2μm,3.1s
KMI LR LR
comp=Z,4μm,15.6s
KMI LR LR
comp=Z,7μm,17.5s
KMI LR LR
comp=Z,7μm,14.7s
**KDM Kudat 24.21 212**⇑ *i*P **P** **01 28 00.6 +2.1**
**SGSI Sangihe 24.53 190** P **P** **01 28 00.3 -1.1**
**TYV Tymovskoe 24.86 20** *e*P P 01 27 55.2 -8.9
TYV *e*S S 01 32 11.5 -13
TYV pmax pmax
comp=Z,1μm,6.2s
TYV smax smax
comp=E,12nm,2.4s
TYV MLR MLR
comp=Z,3μm,16.0s
TYV MLR MLR
comp=E,4μm,17.0s
**MYLDM Lahad Datu 25.04 207** *e*P **P** **01 28 08.1 +2.0**
comp=E,233nm,1.2s
**SDKM Sandakan 25.17 210**⇑ P **P** **01 28 08.3 +1.0**
**KKM Kota Kinabalu 25.27 212** *e*P **P** **01 28 09.2 +1.0**
comp=E,206nm,1.3s
**UBPT Khong Chiam 25.64 245** P **P** **01 28 13.7 +2.2**
comp=E,288nm,1.5s,comp=E,4μm
**SKNT Sakolnakorn 25.98 250** P **P** **01 28 16.1 +1.5**
comp=E,462nm,1.2s,comp=E,6μm
**TSM Tawau 26.10 207**⇓ P **P** **01 28 16.7 +1.1**
**NONG Nongkai 26.16 253** P **P** **01 28 17.7 +1.5**
comp=E,424nm,1.1s,comp=E,6μm
**ULN Ulaanbaatar 26.38 325***d i*P **P** **01 28 18.7 +0.6**
ULN pmax pmax
comp=Z,57nm,2.5s
ULN MLR MLR
comp=Z,6μm,15.0s
**ULN Ulaanbaatar 26.38 325** *e*P **P** **01 28 17.5 -0.6**
comp=Z,89nm,1.3s
ULN *e*PcP **PcP** **01 31 43.2 0.0**
**ULN Ulaanbaatar 26.38 325** P **P** **01 28 17.6 -0.6**
SNR=11
**ULN Ulaanbaatar 26.38 325** P **P** **01 28 17.6 -0.6**
SNR=11
**NKL Nikolayevsk 26.40 15** *e*P **P** **01 28 11.0 -7.0**
NKL *e* 01 28 23.0
NKL pmax pmax
comp=Z,1μm,6.0s
NKL MLR MLR
comp=E,1μm,15.0s
NKL MLR MLR
comp=Z,5μm,15.0s
**SONM Songino Array 26.70 324** P **P** **01 28 20.8 -0.2**
comp=Z,8.5nm,0.6s,baz=138,slow=9.3,SNR=31
SONM PcP **PcP** **01 31 44.8 +0.8**
comp=Z,5.8nm,1.0s,baz=180,slow=2.8,SNR=4.9
SONM LR LR 01 40 24.7
comp=Z,4μm,19.6s,baz=136,slow=40
SONM P3KP 02 02 05.1
comp=Z,2.5nm,0.9s,baz=25,slow=2.2,SNR=5.5
**SONA1 Songino Array 26.70 324** *e*P **P** **01 28 19.2 -1.8**
**GTA Gaotai 27.05 302** P **P** **01 28 23.0 -1.2**
GTA pP pP 01 28 30.0 -3.6
GTA sP sP 01 28 33.5 -4.0
GTA PcP **PcP** **01 31 45.8 +0.9**
GTA S **S** **01 32 56.7 -3.3**
GTA PcS **PcS** **01 35 26.0 -0.5**
GTA pmax pmax
comp=Z,31nm,1.0s
GTA pmax pmax
comp=Z,470nm,7.6s
GTA LR LR
comp=Z,5μm,14.0s
GTA LR LR
comp=Z,10μm,14.3s
GTA LR LR
comp=Z,13μm,14.5s
**KHON Khomkaen 27.25 250** P **P** **01 28 27.4 +1.3**
comp=Z,192nm,0.8s,comp=Z,2μm
**CHAI Chaiyaphum 28.17 250** P **P** **01 28 35.1 +0.8**
comp=Z,152nm,1.2s,comp=Z,1μm
**MRSI Marisa 28.36 196** P **P** **01 28 35.5 -0.5**
comp=Z,52nm,1.6s,comp=Z,1μm
**LBMI Labuha 28.59 184** P **P** **01 28 36.5 -1.5**
comp=Z,74nm,1.4s,comp=Z,2μm
**PBKT Sadao Pong 28.69 253** P **P** **01 28 40.0 +1.1**
comp=Z,706nm,0.9s,comp=Z,6μm
**CLNS Chul'man 28.95 355** *e*P P 01 28 34.0 -6.9
CLNS pmax pmax
comp=E,6.0nm,1.1s
CLNS pmax pmax
comp=Z,15nm,1.6s
CLNS pmax pmax
comp=N,8.0nm,1.2s
CLNS MLR MLR
comp=Z,2μm,14.0s
CLNS MLR MLR
comp=N,2μm,13.0s
CLNS MLR MLR
comp=E,327nm,11.0s
**MPSI Mapaga 29.06 200** P **P** **01 28 42.6 +0.5**
comp=E,47nm,1.4s,comp=E,972nmcomp=E,245μm
**SRAK Srakaew 29.11 247** P **P** **01 28 39.9 -2.7**
comp=E,414nm,1.1s,comp=E,4μm
**BTM Bintulu 29.26 215**⇓ P **P** **01 28 46.7 +2.7**
**CMMT Chiang Mai 29.44 258** P **P** **01 28 46.1 +0.5**
comp=E,385nm,0.9s,comp=E,3μm
**CHTO Chiang Mai 29.44 258** P **P** **01 28 46.1 +0.5**
comp=E,2μm,1.1s,comp=E,13μm
**CHTO Chiang Mai 29.44 258** *e*P **P** **01 28 46.5 +0.9**
CHTO *e* 01 31 52.6
CHTO pmax pmax
comp=Z,239nm,0.8s
**CHTO Chiang Mai 29.44 258** *e*P **P** **01 28 46.5 +0.9**
comp=Z,239nm,0.8s
CHTO *e*PcP **PcP** **01 31 52.6 +1.6**
**CHTO Chiang Mai 29.44 258** P **P** **01 28 46.6 +0.9**
SNR=57
**CHTO Chiang Mai 29.44 258** P **P** **01 28 46.6 +0.9**
SNR=57
**NAYO Nakonayok 29.53 248** P **P** **01 28 47.9 +1.5**
comp=Z,76nm,1.0s,comp=Z,6μm
**CM31 Chiang Mai Arr 29.59 258** *e*P **P** **01 28 48.2 +1.3**
**CMAR Chiang Mai Arr 29.59 258** P **P** **01 28 48.0 +1.1**
comp=Z,56nm,0.8s,baz=55,slow=7.2,SNR=177
CMAR PcP **PcP** **01 31 53.1 +1.7**
comp=Z,47nm,0.9s,baz=44,slow=1.1,SNR=25
CMAR LR LR 01 42 16.4
comp=Z,4μm,18.1s,baz=68,slow=40
**CMAR Chiang Mai Arr 29.59 258***c e*P **P** **01 28 48.0 +1.1**
CMAR pmax pmax
comp=Z,59nm,0.8s
**CM01 Chiang Mai Arr 29.59 258** *e*P **P** **01 28 46.6 -0.3**
**LUWI Luwuk 29.65 194** *e*P **P** **01 28 47.3 -0.1**
comp=Z,21nm,0.6s
**ZAK Zakamensk 29.89 325** *e*P **P** **01 28 48.9 -0.5**
ZAK pmax pmax
comp=Z,12nm,1.4s
**SANI Sanana 30.12 187** P **P** **01 28 50.1 -1.5**
**UTHA Uthaitani 30.46 252** P **P** **01 28 56.4 +1.8**
comp=Z,115nm,1.0s,comp=Z,880nm
**TLY Talaya 30.54 328** P **P** **01 28 55.4 +0.4**
comp=Z,4.8nm,0.7s,baz=136,slow=6.3,SNR=6.2
TLY PcP **PcP** **01 31 53.6 +0.3**
comp=Z,7.0nm,0.6s,baz=275,slow=1.6,SNR=5.7
TLY LR LR 01 42 36.4
comp=Z,6μm,20.1s,baz=126,slow=39
**TLY Talaya 30.54 328** *i*P **P** **01 28 55.4 +0.4**
TLY pmax pmax
comp=Z,28nm,1.7s
**TLY Talaya 30.54 328** *e*P **P** **01 28 54.4 -0.6**
comp=Z,79nm,1.8s
TLY PcP **PcP** **01 31 53.6 +0.3**
**IRK Irkutsk 30.62 329** *e*P **P** **01 28 55.1 -0.6**
IRK pmax pmax
comp=Z,81nm,4.2s
**FAKI Fak Fak 30.91 175** P **P** **01 28 58.2 -0.3**
**FAKI Fak Fak 30.91 175** *e*P **P** **01 28 58.6 +0.1**
comp=Z,139nm,0.8s
FAKI *e*PcP **PcP** **01 31 54.9 +0.2**
**MSAI Masohi 31.23 181** P **P** **01 29 02.6 +1.3**
comp=Z,3μmcomp=Z,45nm,0.8s
**SRDT SRDT 31.33 251** P **P** **01 29 03.9 +1.6**
comp=Z,913nm,1.3s,comp=Z,13μm
**AAI Ambon 31.58 182** P **P** **01 29 05.0 +0.6**
comp=Z,146nm,0.8s
**AAI Ambon 31.58 182** P **P** **01 29 05.1 +0.6**
AAI pmax pmax
comp=Z,146nm,0.9s
**PHET Kaeng Krachan 31.67 248** P **P** **01 29 07.4 +2.1**
comp=Z,45nm,0.9s,comp=Z,356nm
**BOD Bodaibo 31.68 344** *e*P **P** **01 29 05.2 +0.3**
BOD pmax pmax
comp=Z,9.0nm,1.9s
**MOY Mondy 31.82 326** *e*P **P** **01 29 06.2 -0.2**
MOY pmax pmax
comp=Z,30nm,1.6s
**KSM Kuching 32.19 218**⇓ P **P** **01 29 11.6 +1.8**
**KSM Kuching 32.19 218** *e*P **P** **01 29 11.1 +1.3**
comp=Z,306nm,1.6s
KSM *e*PcP **PcP** **01 31 59.4 +1.2**
**TTSI Tana Toraja 32.30 198** P **P** **01 29 14.9 +4.2**
**PEA0B Petropavlovsk- 32.55 32** *e*P **P** **01 29 12.4 -0.3**
comp=Z,44nm,1.1s
**PETK Petropavlovsk- 32.55 32** P **P** **01 29 12.7 +0.1**
comp=Z,16nm,0.9s,baz=212,slow=7.0,SNR=8.6
PETK PcP **PcP** **01 31 58.7 +0.1**
comp=Z,7.3nm,0.8s,baz=48,slow=6.6,SNR=4.3
PETK LR LR 01 43 59.4
comp=Z,2μm,18.8s,baz=234,slow=39
**PETK Petropavlovsk- 32.55 32** *e*P **P** **01 29 12.3 -0.4**
PETK 01 31 58.7
**PETK Petropavlovsk- 32.55 32** *e*P **P** **01 29 12.2 -0.4**
PETK PcP **PcP** **01 31 58.7 +0.1**
**PET Petropavlovsk 32.95 33** *e*P **P** **01 29 20.7 +4.6**
PET *e*S **S** **01 34 34.5 +2.6**
PET pmax pmax
comp=Z,300nm,11.4s
PET MLR MLR
comp=Z,3μm,19.0s
PET MLR MLR
comp=Z,3μm,16.0s
**SPSI Sidrap Palu 33.19 198** P **P** **01 29 21.8 +3.3**
comp=Z,15nm,1.2s
**LSA Lhasa 33.53 282** P **P** **01 29 23.2 +1.2**
LSA pmax pmax
comp=Z,200nm,0.7s
LSA LR LR
comp=Z,1μm,13.6s
LSA LR LR
comp=Z,5μm,22.4s
LSA LR LR
comp=Z,4μm,22.4s
**LSA Lhasa 33.53 282** *e*P **P** **01 29 22.4 +0.4**
LSA pmax pmax
comp=Z,153nm,0.8s
**LSA Lhasa 33.53 282** *e*P **P** **01 29 22.4 +0.4**
comp=Z,153nm,0.8s
**SHL Shillong 33.59 275**⇑ *i*P **P** **01 29 21.5 -0.7**
SHL *e*S **S** **01 34 41.0 -1.8**
**KBKI Kotabaru 33.72 205** P **P** **01 29 23.4 +0.3**
comp=Z,76nm,1.3s,comp=Z,1μm
**YAK Yakutsk 33.98 0** *e*P **P** **01 29 22.8 -2.1**
YAK *e* 01 30 36.5
YAK *e*S **S** **01 34 44.4 -3.2**
YAK pmax pmax
comp=N,23nm,1.3s
YAK pmax pmax
comp=N,64nm,1.8s
YAK pmax pmax
comp=E,23nm,1.7s
YAK smax smax
comp=N,272nm,11.4s
YAK smax smax
comp=E,103nm,7.8s
**KAPI Kappang 34.20 197** *e*P **P** **01 29 26.2 -1.1**
comp=E,47nm,1.3s
**BRDH Bariadhala 34.53 270** P **P** **01 29 31.4 +1.1**
comp=E,360nm,0.5s,baz=26,slow=2.7,SNR=31
**TRTT Trang 34.60 240** P **P** **01 29 33.0 +2.1**
comp=E,133nm,1.4s,comp=E,2μm
**SURT Suratani 34.61 243** P **P** **01 29 32.7 +1.8**
comp=E,98nm,1.2s,comp=E,956nm
**MA2 Magadan 34.72 19** P **P** **01 29 30.6 -0.8**
comp=E,18nm,0.8s,baz=200,slow=9.4,SNR=8.1
**MA2 Magadan 34.72 19***c i*P **P** **01 29 30.1 -1.3**
**KRAB Krabi 34.74 241** P **P** **01 29 33.8 +1.7**
comp=E,204nm,0.7s,comp=E,2μm
**H11N2 WAKE ISLAND Hy 35.07 95** T T 02 06 53.2
baz=290,slow=74,SNR=140
**H11N1 WAKE ISLAND Hy 35.07 95** T T 02 06 52.5
baz=290,slow=74,SNR=101
**H11N3 WAKE ISLAND Hy 35.08 95** T T 02 06 55.2
baz=290,slow=74,SNR=95
**H11S3 WAKE ISLAND Hy 35.34 97** T T 02 07 20.1
baz=283,slow=74,SNR=47
**H11S1 WAKE ISLAND Hy 35.34 97** T T 02 07 17.7
baz=283,slow=74,SNR=31
**H11S2 WAKE ISLAND Hy 35.36 97** T T 02 07 18.2
baz=283,slow=74,SNR=40
**KULM Kulim 35.55 236**⇓ P **P** **01 29 41.3 +2.2**
**KULM Kulim 35.55 236** *e*P **P** **01 29 40.5 +1.5**
comp=E,356nm,1.4s
KULM *e*PcP **PcP** **01 32 09.1 +1.3**
**PKDT Phuket 35.62 242** P **P** **01 29 41.8 +2.2**
comp=E,211nm,1.2s,comp=E,7μm
**IPM Ipoh 35.83 234**⇓ P **P** **01 29 43.0 +1.5**
**IPM Ipoh 35.83 234** *e*P **P** **01 29 42.4 +0.9**
comp=E,393nm,1.3s
IPM *e*PcP **PcP** **01 32 09.0 +0.3**
**MYKOM Kota Tinggi 35.83 228** *e*P **P** **01 29 42.9 +1.5**
comp=E,284nm,1.3s
**SAUI Saumlaki 35.87 177** P **P** **01 29 42.6 +0.9**
**SAUI Saumlaki 35.87 177** *e*P **P** **01 29 42.3 +0.6**
comp=E,186nm,0.8s
**KGM Kluang 36.01 229**⇓ P **P** **01 29 45.1 +2.1**
**TPRI Tanjung Pinang 36.05 226** P **P** **01 29 47.0 +3.6**
comp=E,144nm,1.9s,comp=E,8μm
**TAPN Taplejung 36.88 279** *e*P **P** **01 29 50.9 +0.2**
comp=E,805nm,1.0s
**WMQ Urumqi 36.91 307** P **P** **01 29 49.7 -0.8**
WMQ pP pP 01 29 59.5 -0.5
WMQ sP sP 01 30 03.0 -0.9
WMQ PP **PnPn** **01 31 22.2 +7.2**
WMQ PcP **PcP** **01 32 12.6 +1.1**
WMQ S **S** **01 35 30.5 -2.7**
WMQ sS sS 01 35 46.8 -2.1
WMQ PcS **PcS** **01 36 00.3 +0.7**
WMQ pmax pmax
comp=E,130nm,1.5s

WMQ pmax pmax
comp=E,410nm,3.7s
WMQ LR LR
comp=E,10µm,14.5s
WMQ LR LR
comp=E,10µm,16.5s
WMQ LR LR
comp=E,10µm,16.5s
**MMRI Maumere 37.15 192** P **P** **01 29 52.3 -0.3**
comp=E,110nm,1.2s
**MMRI Maumere 37.15 192** *e*P **P** **01 29 51.2 -1.4**
comp=E,171nm,1.3s
**ODAN Odare 37.26 278** *e*P **P** **01 29 54.2 +0.3**
comp=E,2µm,0.9s
**EDFI Ende, Flores 37.36 193** P **P** **01 29 52.7 -1.9**
comp=E,46nm,1.7s,comp=E,707nm
**PPBI Pangkal Pinang 37.52 221** P **P** **01 29 59.0 +3.2**
**SOEI Soe 37.93 188** P **P** **01 29 57.3 -2.1**
**SOEI Soe 37.93 188** *e*P **P** **01 29 57.1 -2.3**
comp=E,130nm,1.2s
**RAMN Ramite 37.93 279** *e*P **P** **01 29 59.6 0.0**
comp=E,514nm,0.9s
**SEY Seymchan 37.95 17** P **P** **01 29 58.5 -0.4**
comp=E,18nm,0.7s,baz=217,slow=7.0,SNR=18
**SEY Seymchan 37.95 17**‖ *e*P **P** **01 29 59.0 +0.1**
**JIRN Jiri 38.15 280** *e*P **P** **01 30 01.7 +0.2**
comp=E,495nm,0.9s
**LHMI Lhok Sumawe 38.35 240** *e*P **P** **01 30 04.5 +1.6**
comp=E,244nm,0.8s
**GUN Gumba 38.37 280** *e*P **P** **01 30 03.9 +0.5**
comp=E,1µm,0.9s
**PLAI Plampang 38.38 199** P **P** **01 30 02.3 -0.8**
**GRJI Gresik 38.46 208** P **P** **01 30 04.9 +1.2**
comp=E,179nm,1.2s,comp=E,2µm
**PSI Prapat 38.49 235** *e*P **P** **01 30 05.0 +0.8**
PSI *e* 01 32 17.0
PSI pmax pmax
comp=Z,326nm,1.5s
**PSI Prapat 38.49 235** *e*P **P** **01 30 05.0 +0.8**
comp=Z,326nm,1.5s
PSI *e*PcP **PcP** **01 32 17.0 +0.1**
**DGZ Jazzator, Alta 38.58 316** *i* P **P** **01 30 05.0 +0.4**
DGZ pmax pmax
comp=Z,6.0nm,1.0s
**JMBI JAMBI 38.58 224** P **P** **01 30 08.4 +3.6**
comp=Z,924nm,1.2s,comp=Z,10µm
**TBJI Tambak Boyo 38.64 209** P **P** **01 30 06.1 +0.9**
comp=Z,259nm,1.2s,comp=Z,3µm
**UWJI Ujung Watu 38.68 210** P **P** **01 30 06.3 +0.8**
comp=Z,158nm,0.9s,comp=Z,3µm
**WBSI Waikabubak, Su 38.73 196** P **P** **01 30 08.7 +2.7**
comp=Z,65nm,0.6s,comp=Z,6µm
**BLJI Banyuglugur 38.77 206** P **P** **01 30 06.1 -0.2**
comp=Z,123nm,1.1s,comp=Z,2µm
**BKNI Bangkinang 38.78 230** P **P** **01 30 08.0 +1.5**
**BKNI Bangkinang 38.78 230** *e*P **P** **01 30 07.5 +1.0**
comp=Z,943nm,1.4s
**PKI Pulchoki 38.84 280** *e*P **P** **01 30 07.5 +0.2**
comp=Z,1µm,0.9s
**KCSI Kotacane, Aceh 38.85 237** P **P** **01 30 06.5 -0.6**
comp=Z,88nm,1.2s,comp=Z,944nm
**PKIN Phulchoki 38.85 280** *e*P **P** **01 30 07.7 +0.3**
comp=Z,1µm,0.8s
**KKN Kakani 38.91 280** *e*P **P** **01 30 08.2 +0.4**
comp=Z,2µm,0.9s
**PMBI Palembang 38.93 222** P **P** **01 30 11.9 +4.2**
**DMN Daman 39.10 280** *e*P **P** **01 30 09.7 +0.3**
comp=Z,1µm,1.0s
**JAGI Jajag, Banyuwa 39.23 204** P **P** **01 30 10.0 -0.2**
**JAGI Jajag, Banyuwa 39.23 204** *e*P **P** **01 30 09.5 -0.7**
comp=Z,133nm,1.1s
JAGI *e*PcP **PcP** **01 32 17.1 -1.8**
**GMJI Gumukmas 39.31 206** P **P** **01 30 11.9 +1.0**
comp=Z,36nm,1.0s,comp=Z,1µm
**MLSI Meulaboh, Aceh 39.38 239** P **P** **01 30 12.0 +0.5**
**GKN Gorkha 39.43 281** *e*P **P** **01 30 12.2 +0.1**
comp=Z,16nm,0.6s
**TPTI 39.46 237** P **P** **01 30 11.0 -1.2**
comp=Z,124nm,1.2s,comp=Z,1µm
**SMRI Semarang 39.46 211** P **P** **01 30 14.5 +2.4**
comp=Z,139nm,0.9s
**SMRI Semarang 39.46 211** *e*P **P** **01 30 13.6 +1.5**
comp=Z,426nm,1.8s
**ZSN Zaisan 39.61 312** *i* P **P** **01 30 13.0 -0.1**
ZSN LR LR 01 47 06.3
comp=Z,404nm,11.7s
**PWJI Pagerwojo 39.74 208** P **P** **01 30 14.2 -0.2**
comp=Z,247nm,1.3s,comp=Z,2µm
**PDSI Padang 40.08 229** P **P** **01 30 18.3 +1.0**
comp=Z,37nm,1.7s
**DANN Dangsing 40.13 282** *e*P **P** **01 30 18.6 +0.6**
comp=Z,52nm,0.8s
**PCJI Pacitan 40.16 209** P **P** **01 30 17.6 -0.3**
comp=Z,144nm,0.8s,comp=Z,2µm
**UGM Wanagama 40.19 210** P **P** **01 30 18.7 +0.5**
**UGM Wanagama 40.19 210** *e*P **P** **01 30 18.4 +0.1**
comp=Z,814nm,1.3s
**KPJI Karang Pucung 40.41 213** P **P** **01 30 21.3 +1.3**
comp=Z,369nm,1.3s,comp=Z,4µm
**KLI Kotabumi 40.45 220** P **P** **01 30 22.4 +2.1**
comp=Z,160nm,0.9s
**GSI Gunungsitoli 40.50 235** P **P** **01 30 20.9 +0.1**
**GSI Gunungsitoli 40.50 235** *e*P **P** **01 30 21.1 +0.3**
comp=Z,620nm,1.4s
GSI *e*PcP **PcP** **01 32 23.3 +0.2**
**MASI Maura Aman, Be 40.63 225** P **P** **01 30 23.8 +1.9**
comp=Z,696nm,1.3s,comp=Z,7µm
**MTN Manton Dam 40.69 178** *e*P **P** **01 30 21.5 -0.8**
comp=Z,161nm,0.9s
**SBJI Serang 40.79 217** P **P** **01 30 24.6 +1.5**
comp=Z,367nm,1.3s,comp=Z,6µm
**DBJI Dramaga 40.83 216** P **P** **01 30 25.0 +1.5**
comp=Z,448nm,1.2s,comp=Z,9µm
**PMG Port Moresby 40.97 153***c* *i*P **P** **01 30 24.4 -0.2**
PMG pmax pmax
comp=Z,320nm,0.9s
PMG MLR MLR
comp=Z,3µm,18.0s
**PMG Port Moresby 40.97 153** *e*P **P** **01 30 24.8 +0.2**
comp=Z,80nm,0.9s
**LWLI Liwa 41.03 221** P **P** **01 30 26.7 +1.4**
comp=Z,170nm,0.7s
**SMY Shemya 41.05 41** *e*P **P** **01 30 24.0 -0.9**
SMY pmax pmax
comp=Z,338nm,1.3s
**SMY Shemya 41.05 41** *e*P **P** **01 30 24.0 -0.9**
comp=Z,338nm,1.3s
**CISI Cisompet, Garu 41.14 214** P **P** **01 30 25.7 -0.4**
comp=Z,128nm,0.8s,comp=Z,4µm
**CISI Cisompet, Garu 41.14 214** *e*P **P** **01 30 25.4 -0.7**
comp=Z,85nm,0.8s
**MK01 Makanchi Array 41.19 310** *e*P **P** **01 30 24.1 -2.2**
**KASI Kota Agung 41.19 220** P **P** **01 30 27.6 +1.2**
comp=Z,59nm,1.2s,comp=Z,1µm
**MK31 Makanchi Array 41.20 310** *e*P **P** **01 30 24.5 -1.8**
**MK31 Makanchi Array 41.20 310** *e*P **P** **01 30 24.5 -1.8**
**MKAR Makanchi Array 41.20 310** P **P** **01 30 24.7 -1.6**
comp=Z,9.0nm,0.5s,baz=99,slow=5.4,SNR=48
MKAR PcP **PcP** **01 32 25.6 +0.6**
comp=Z,20nm,0.9s,baz=88,slow=3.9,SNR=6.4
MKAR LR LR 01 49 13.5
comp=Z,3µm,18.7s,baz=87,slow=39
**MKAR Makanchi Array 41.20 310** *i* P **P** **01 30 24.0 -2.3**
MKAR pmax pmax
comp=Z,19nm,0.9s
**CNJI Cibinong 41.27 215** P **P** **01 30 26.0 -1.1**
comp=Z,110nm,0.8s,comp=Z,2µm
**SISI Saibi 41.31 230** P **P** **01 30 27.5 +0.1**
comp=Z,124nm,1.5s,comp=Z,2µm
**MAKZ Makanchi 41.41 310** *e*P **P** **01 30 26.5 -1.5**
MAKZ pmax pmax
comp=Z,56nm,1.3s
**MAKZ Makanchi 41.41 310** *e*P **P** **01 30 26.5 -1.5**
comp=Z,56nm,1.3s
**ZAA0 Zalesovo Array 41.51 321** *e*P **P** **01 30 27.2 -1.5**
comp=Z,19nm,0.8s
**ZALV Zalesovo Beam 41.51 321** P **P** **01 30 28.0 -0.7**
comp=Z,11nm,0.5s,baz=107,slow=8.2,SNR=25
ZALV PcP **PcP** **01 32 25.4 -0.3**
comp=Z,36nm,1.1s,baz=114,slow=3.6,SNR=12
ZALV ScP **ScP** **01 36 21.4 +7.9**
comp=Z,10.0nm,1.0s,baz=111,slow=3.2,SNR=7.1
ZALV LR LR 01 49 35.3
comp=Z,2µm,18.1s,baz=90,slow=39
**ZALV Zalesovo Beam 41.51 321** *e*P **P** **01 30 25.9 -2.7**
ZALV PcP **PcP** **01 32 25.4 -0.3**
ZALV ScP **ScP** **01 36 21.4 +7.9**

**PPSI Pulau Pagai 41.76 228** P **P** **01 30 31.7 +0.6**
comp=Z,331nm,1.4s,comp=Z,5µm
**CHLP Challavanipeta 42.61 267** *e*P **P** **01 30 37.9 -0.2**
CHLP IAmb IAmb 01 30 39.9
comp=Z,155nm,0.9s
CHLP *e*pP **pP** **01 30 48.4 +0.7**
CHLP *e*S **S** **01 36 54.9 -4.2**
CHLP IVMs_BB IVMs_BB 01 51 56.4
comp=Z,400nm,15.9s
**NVS Novosibirsk 42.69 322** *e*P **P** **01 30 36.6 -1.7**
NVS *e* 01 32 26.4
NVS *e*S **S** **01 36 50.6 -8.8**
NVS pmax pmax
comp=Z,27nm,1.4s
NVS pmax pmax
comp=E,15nm,1.1s
NVS smax smax
comp=E,27nm,2.2s
**PTH Pithoragarh 42.96 284** *e*P **P** **01 30 41.5 +0.5**
**UZB Uzynbulak 43.08 304** *i* P **P** **01 30 40.1 -1.8**
comp=E,615nm,1.2s
UZB LR LR 01 49 50.3
comp=E,898nm,13.0s
**SEM Semipalatinsk 43.23 315** *i* P **P** **01 30 40.3 -2.7**
comp=E,868nm,1.3s
SEM *e*S **S** **01 37 05.5 -2.4**
SEM LR LR 01 49 11.3
comp=E,3µm,17.1s
**ZHN Zhinishke 43.51 304** *i* P **P** **01 30 42.9 -2.4**
comp=E,562nm,1.3s
ZHN LR LR 01 50 05.9
comp=E,1µm,14.3s
**SATY Saty 43.53 304** *i* P **P** **01 30 43.5 -1.9**
comp=E,1µm,1.3s
SATY LR LR 01 50 04.0
comp=E,2µm,13.7s
**VIS Vishakhapatnam 43.55 267** *i* P **P** **01 30 46.5 +0.8**
VIS *i* x x 01 33 07.0
**TIXI Tiksi 43.64 360** P **P** **01 30 44.7 -0.9**
comp=E,6.1nm,0.6s,baz=165,slow=8.0,SNR=12
TIXI PcP **PcP** **01 32 32.1 -0.3**
comp=E,4.8nm,0.7s,baz=189,slow=1.8,SNR=4.2
**TIXI Tiksi 43.64 360** *i* P **P** **01 30 44.8 -0.9**
TIXI pmax pmax
comp=Z,23nm,1.3s
**TIXI Tiksi 43.64 360** *e*P **P** **01 30 43.8 -1.8**
comp=Z,59nm,1.7s
TIXI *e*PcP **PcP** **01 32 31.8 -0.7**
**COEN Coen 43.81 161** *e*P **P** **01 30 48.5 +0.8**
comp=Z,258nm,1.8s
**KURK Kurchatov 44.31 315**‖ *e*P **P** **01 30 49.4 -2.0**
KURK pmax pmax
comp=Z,417nm,1.7s
KURK MLR MLR
comp=Z,6µm,17.0s
**KURK Kurchatov 44.31 315** *e*P **P** **01 30 49.6 -1.8**
comp=Z,114nm,1.3s
KURK *e*PcP **PP** **01 32 34.9 0.0**
**KURK Kurchatov 44.31 315** P **P** **01 30 49.9 -1.4**
SNR=27
KURK P **P** **01 30 49.9 -1.4**
SNR=27
**KURK Kurchatov 44.31 315** P **P** **01 30 49.9 -1.4**
SNR=27
**KURBB Kurchatov Arra 44.34 315** P **P** **01 30 49.8 -1.9**
comp=Z,38nm,0.9s,baz=102,slow=8.6,SNR=86
KURBB PcP **PP** **01 32 34.8 -0.5**
comp=Z,12nm,1.0s,baz=107,slow=4.4,SNR=5.6
**MDOK Medeo 44.52 304** *i* P **P** **01 30 50.9 -2.5**
comp=Z,488nm,1.2s
MDOK *e*S **S** **01 37 24.2 -2.6**
MDOK LR LR 01 50 31.6
comp=Z,2µm,15.1s
**JBP Jabalpur 44.68 275**‖ *e*P **P** **01 30 55.3 +0.6**
JBP *e*S **S** **01 37 30.9 +1.7**
**XMIS Christmas Isla 44.73 214** *e*P **P** **01 30 54.4 -0.7**
comp=Z,195nm,1.5s
**KUU Kurty 45.07 305** *i* P **P** **01 30 55.5 -2.1**
comp=Z,473nm,1.5s
KUU *e*S **S** **01 37 32.5 -1.9**
KUU LR LR 01 51 28.7
comp=Z,901nm,14.4s
**ULHL Ulahol 45.10 303** P **P** **01 30 58.1 0.0**
SNR=10
**PVM Polavaram 45.23 267** *e*P **P** **01 30 58.7 -0.5**
PVM IAmb IAmb 01 31 00.5
comp=Z,91nm,0.9s
PVM *e*pP **pP** **01 31 09.4 +0.7**
PVM *e*S **S** **01 37 36.7 -0.5**
PVM IVMs_BB IVMs_BB 01 50 53.0
comp=Z,375nm,16.2s
**KSH Kashi 45.34 299** P **P** **01 31 02.6 +2.6**
KSH pP pP 01 31 10.3 +0.7
KSH PcP **PcP** **01 32 38.6 -0.6**
KSH PP **PP** **01 32 49.4 +3.2**
KSH S **S** **01 37 40.3 +1.5**
KSH pmax pmax
comp=Z,59nm,0.9s
KSH LR LR
comp=Z,3µm,17.3s
KSH LR LR
comp=Z,3µm,14.4s
KSH LR LR
comp=Z,3µm,14.9s
**TKM2 Tokmak 2 45.58 304** P **P** **01 31 03.2 +1.3**
SNR=10.0
**KZA Kyzart 45.84 303** P **P** **01 31 05.1 +0.9**
SNR=34
**BHK Bhakra 45.85 288** *e*P **P** **01 31 02.6 -1.4**
**KBK Karagaybulak 46.06 303** P **P** **01 31 06.5 +0.8**
SNR=67
**CHMS Chumysh 46.20 304** P **P** **01 31 07.2 +0.6**
SNR=64
**FRU Bishkek 46.30 304** *e*P **P** **01 31 07.0 -0.4**
FRU *i* 01 32 43.0
FRU pmax pmax
comp=Z,200nm,2.0s
**UCH Uchtor 46.38 303** P **P** **01 31 08.1 -0.4**
SNR=157
**USP Ospenovka 46.39 304** P **P** **01 31 08.4 +0.3**
SNR=48
**AAK Ala-Archa 46.39 303** P **P** **01 31 07.4 -0.9**
comp=Z,13nm,0.5s,baz=107,slow=6.2,SNR=49
AAK PcP **PcP** **01 32 43.3 +0.5**
comp=Z,14nm,1.0s,baz=27,slow=2.3,SNR=4.0
**AAK Ala-Archa 46.39 303***c* *i*P **P** **01 31 08.0 -0.2**
AAK pmax pmax
comp=Z,54nm,1.2s
AAK MLR MLR
comp=Z,3µm,16.0s
**AAK Ala-Archa 46.39 303** P **P** **01 31 08.8 +0.5**
SNR=29
**AAK Ala-Archa 46.39 303** *e*P **P** **01 31 07.5 -0.9**
comp=Z,49nm,1.1s
AAK *e*PcP **PcP** **01 32 42.9 0.0**
**AAK Ala-Archa 46.39 303** P **P** **01 31 07.3 -0.9**
SNR=20
**AAK Ala-Archa 46.39 303** P **P** **01 31 07.3 -0.9**
SNR=20
**RPR Rampur 46.69 270** *e*P **P** **01 31 10.0 -0.7**
RPR IAmb IAmb 01 31 11.8
comp=Z,157nm,1.0s
RPR *e*pP **pP** **01 31 20.8 +0.5**
RPR *e*S **S** **01 37 59.8 +1.4**
RPR IVMs_BB IVMs_BB 01 53 07.3
comp=Z,677nm,13.4s
**BTLS Baital 46.75 307** *i* P **P** **01 31 08.3 -2.4**
comp=Z,604nm,1.1s
BTLS LR LR 01 52 14.1
comp=Z,319nm,8.4s
**EKS2 Erkin-Say 46.92 303** P **P** **01 31 11.7 -0.7**
SNR=32
**AML Almayashu 46.99 303** P **P** **01 31 13.8 +0.6**
SNR=34
**ADKI Addanki 47.24 266** *e*P **P** **01 31 14.8 -0.1**
ADKI IAmb IAmb 01 31 16.9
comp=Z,150nm,1.1s
ADKI *e*pP **pP** **01 31 24.7 +0.1**
ADKI *e*S **S** **01 38 03.5 -2.6**
ADKI IVMs_BB IVMs_BB 01 53 41.8
comp=Z,364nm,18.2s
**SRSP Sriramsagar 47.51 271** *e*P **P** **01 31 15.9 -1.1**
SRSP IAmb IAmb 01 31 18.0
comp=Z,131nm,1.0s
SRSP *e*pP **pP** **01 31 26.8 0.0**
SRSP *e*S **S** **01 38 09.5 -0.5**

SRSP IVMs_BB IVMs_BB 01 54 13.9
comp=Z,825nm,15.7s
**NJS Nagarjunasagar 47.54 267** *e*P **P** **01 31 17.3 0.0**
NJS IAmb IAmb 01 31 18.6
comp=Z,94nm,1.1s
NJS *e*pP **pP** **01 31 27.4 +0.4**
NJS *e*S **S** **01 38 06.1 -4.4**
NJS IVMs_BB IVMs_BB 01 55 53.7
comp=Z,550nm,16.2s
**HYB Hyderabad 47.88 269**⇑ *i*P **P** **01 31 20.0 0.0**
comp=Z,100nm,1.0s
HYB *e*S **S** **01 38 12.0 -3.3**
**HYBB Hyderabad (bro 47.88 269** *e*P **P** **01 31 19.6 -0.4**
HYBB IAmb IAmb 01 31 21.0
comp=Z,78nm,1.0s
HYBB *e*pP **pP** **01 31 29.9 +0.2**
HYBB *e*S **S** **01 38 14.6 -0.7**
HYBB IVMs_BB IVMs_BB 01 55 55.5
comp=Z,604nm,16.3s
**WRAB Tennant Creek 47.94 174***c* *i*P **P** **01 31 20.0 -0.2**
WRAB pmax pmax
comp=Z,125nm,1.1s
WRAB MLR MLR
comp=Z,791nm,21.0s
**WRAB Tennant Creek 47.94 174** *e*P **P** **01 31 19.4 -0.8**
comp=Z,110nm,1.0s
**WRA Warramunga Arr 47.95 174** P **P** **01 31 20.0 -0.3**
comp=Z,85nm,1.0s,baz=350,slow=8.3,SNR=90
WRA PcP **PcP** **01 32 50.9 +2.6**
comp=Z,4.7nm,0.6s,baz=355,slow=4.7,SNR=3.8
**WB2 Warramunga Arr 47.95 174** *e*P **P** **01 31 20.2 -0.1**
comp=Z,106nm,0.9s
**SRLM Srisailam 48.09 267** *e*P **P** **01 31 20.4 -1.2**
SRLM IAmb IAmb 01 31 22.8
comp=Z,183nm,1.2s
SRLM *e*pP **pP** **01 31 31.4 +0.1**
SRLM *e*S **S** **01 38 17.9 -0.4**
SRLM IVMs_BB IVMs_BB 01 56 11.5
comp=Z,538nm,15.3s
**SKHT Srikalahasti 48.33 263** *e*P **P** **01 31 23.5 +0.1**
SKHT IAmb IAmb 01 31 25.6
comp=Z,264nm,1.1s
SKHT *e*pP **pP** **01 31 34.4 +1.2**
SKHT *e*S **S** **01 38 22.6 +0.9**
SKHT IVMs_BB IVMs_BB 01 55 11.8
comp=Z,238nm,21.0s
**KLRI Killari 49.36 270** *e*P **P** **01 31 30.4 -1.0**
KLRI IAmb IAmb 01 31 32.7
comp=Z,415nm,0.8s
KLRI *e*pP **pP** **01 31 41.5 +0.4**
KLRI *e*S **S** **01 38 34.5 -1.8**
KLRI IVMs_BB IVMs_BB 01 55 25.6
comp=Z,857nm,17.2s
**BVAR Borovoye Array 49.69 317** P **P** **01 31 32.5 -0.9**
comp=Z,23nm,0.7s,baz=98,slow=9.1,SNR=94
BVAR PcP **PcP** **01 32 54.9 +0.6**
comp=Z,12nm,0.7s,baz=106,slow=2.8,SNR=7.7
BVAR LR LR 01 54 35.6
comp=Z,6µm,19.6s,baz=96,slow=39
**IUG luzhnay 49.71 303** *i* P **P** **01 31 31.5 -2.4**
comp=Z,349nm,0.6s
IUG LR LR 01 54 03.5
comp=Z,1µm,15.6s
**BRVK Borovoye 49.76 317***d* *i*P **P** **01 31 32.1 -1.8**
BRVK pmax pmax
comp=Z,233nm,1.2s
BRVK MLR MLR
comp=Z,7µm,17.0s
**BRVK Borovoye 49.76 317** *e*P **P** **01 31 32.7 -1.2**
comp=Z,155nm,1.4s
BRVK *e*PcP **PcP** **01 32 53.9 -0.5**
**BRVK Borovoye 49.76 317** P **P** **01 31 32.7 -1.2**
SNR=32
BRVK P **P** **01 31 32.7 -1.2**
SNR=32
**BRVK Borovoye 49.76 317** P **P** **01 31 32.7 -1.2**
SNR=32
**BRLS Borolday 49.81 304** *i* P **P** **01 31 33.6 -0.8**
comp=Z,20nm,1.4s
BRLS LR LR 01 54 16.9
comp=Z,169nm,16.4s
**MBWA Marble Bar 49.83 192** *e*P **P** **01 31 34.6 -0.1**
comp=Z,127nm,1.3s
**MBWA Marble Bar 49.83 192** P **P** **01 31 34.8 +0.1**
SNR=5.8
MBWA P **P** **01 31 34.8 +0.1**
SNR=5.8
**URV Uravakonda 49.99 266** *e*P **P** **01 31 35.3 -0.8**
URV IAmb IAmb 01 31 37.5
comp=Z,193nm,1.1s
URV *e*pP **pP** **01 31 46.6 +0.6**
URV *e*S **S** **01 38 42.1 -2.9**
URV IVMs_BB IVMs_BB 01 57 01.3
comp=Z,477nm,19.8s
**PALK Pallekele 50.48 255** P **P** **01 31 40.0 0.0**
comp=Z,40nm,0.9s
**PALK Pallekele 50.48 255** *i* P **P** **01 31 40.7 +0.8**
SNR=10
**PALK Pallekele 50.48 255** *i* P **P** **01 31 41.4 +1.5**
**PALK Pallekele 50.48 255** *e*P **P** **01 31 41.0 +1.1**
comp=Z,84nm,1.1s
PALK *e*PcP **PcP** **01 32 58.6 +0.8**
**PALK Pallekele 50.48 255** P **P** **01 31 41.1 +1.2**
SNR=6.5
**PALK Pallekele 50.48 255** P **P** **01 31 41.1 +1.2**
SNR=6.5
**CTAO Charters Tower 50.53 159** *e*P **P** **01 31 40.9 +0.9**
CTAO pmax pmax
comp=Z,117nm,0.9s
**CTAO Charters Tower 50.53 159** *e*P **P** **01 31 40.9 +0.9**
comp=Z,117nm,0.9s
**COCO West Island 51.01 223** *i* P **P** **01 31 45.7 +2.0**
**KBL Kabul 51.41 293** *e*P **P** **01 31 47.3 +0.4**
KBL pmax pmax
comp=Z,246nm,1.0s
**KBL Kabul 51.41 293** *e*P **P** **01 31 47.3 +0.4**
comp=Z,246nm,1.0s
**AS31 Alice Springs 51.59 175** *e*P **P** **01 31 48.3 +0.2**
comp=Z,11nm,0.8s
**ASAR Alice Springs 51.60 175** P **P** **01 31 48.2 +0.2**
comp=Z,34nm,0.8s,baz=1.1,slow=7.8,SNR=139
ASAR PcP **PcP** **01 33 01.8 +0.1**
comp=Z,15nm,1.0s,baz=360,slow=3.0,SNR=5.5
**AS01 Alice Springs 51.60 175** *e*P **P** **01 31 47.6 -0.5**
**POO Poona 51.62 272**⇑ *i*P **P** **01 31 48.0 -0.5**
comp=Z,42nm,1.0s
**BOM Bombay 52.40 273** *e*P **P** **01 31 50.5 -3.7**
BOM AMB AMB 01 32 00.7
comp=Z,284nm,1.2s
**MNGI Mangalore 52.97 265** *e*P **P** **01 31 58.0 -0.4**
MNGI AMB AMB 01 32 04.7
comp=Z,124nm,1.5s
**FALS False Pass 54.50 41** *e*P **P** **01 32 09.2 +0.1**
comp=Z,387nm,1.5s
**SVE Sverdlovsk 55.53 322***c* *i*P **P** **01 32 16.6 +0.1**
SVE pmax pmax
comp=Z,89nm,1.3s
SVE MLR MLR
comp=E,4µm,15.0s
SVE MLR MLR
comp=Z,5µm,16.0s
**ARU Arti 56.68 321***c* *i*P **P** **01 32 23.1 -1.6**
ARU 01 33 19.0
ARU S **S** **01 40 13.9 -0.9**
ARU pmax pmax
comp=Z,102nm,1.2s
ARU MLR MLR
comp=Z,7µm,17.0s
**ARU Arti 56.68 321** *e*P **P** **01 32 23.3 -1.4**
comp=Z,121nm,1.2s
**EIDS Eidsvold 57.03 157** *e*P **P** **01 32 27.7 +0.1**
comp=Z,46nm,1.0s
**FORT Forrest 58.52 181** *e*P **P** **01 32 38.2 +0.3**
**IMAR Indian Mountai 59.35 28** *e*P **P** **01 32 42.1 -1.2**
**GEYT Alibeck 59.37 299** P **P** **01 32 44.4 +0.4**
comp=Z,66nm,1.1s,baz=56,slow=3.7,SNR=89
GEYT PcP **PcP** **01 33 32.0 +0.3**
comp=Z,25nm,1.0s,baz=20,slow=4.7,SNR=6.1
**RSO Redoubt South 60.04 34** *e*P **P** **01 32 48.7 +0.4**
**PPLA Purkeypile 60.13 31** *e*P **P** **01 32 48.4 -0.5**
comp=Z,170nm,1.6s
**CAST Castle Rocks 60.15 31** *e*P **P** **01 32 49.9 +1.0**
comp=Z,71nm,1.3s
**SPU Mount Spurr 60.32 33** *e*P **P** **01 32 50.7 +0.6**
**KDAK Kodiak Island 60.38 37** P **P** **01 32 50.5 +0.1**
comp=Z,68nm,0.8s,baz=299,slow=5.6,SNR=12

KDAK **Kodiak Island** 60.38 37 *i* P P 01 32 50.1 -0.4
KDAK **Kodiak Island** 60.38 37 *e*P P 01 32 49.8 -0.7
comp=Z,103nm,0.9s
BPAW **Bear Paw Mtn.** 60.59 30 *e*P P 01 32 52.8 +0.9
comp=Z,70nm,1.5s
MLY **Manley** 60.64 29 *e*P P 01 32 52.9 +0.7
comp=Z,52nm,1.2s
KTH **Kantishna Hill** 60.66 30 *e*P P 01 32 53.1 +0.7
comp=Z,134nm,1.6s
STKA **Stephens Creek** 60.70 168 P P 01 32 53.0 +0.1
comp=Z,23nm,0.7s,baz=341,slow=7.3,SNR=20
STKA **Stephens Creek** 60.70 168 P P 01 32 53.0 +0.1
STKA pmax pmax
comp=Z,23nm,0.7s
STKA **Stephens Creek** 60.70 168 *e*P P 01 32 53.0 +0.1
comp=Z,5.2nm,0.8s
COLD **Coldfoot** 60.73 26 *e*P P 01 32 53.6 +0.9
comp=Z,69nm,1.6s
BBOO **Buckleboo** 60.85 174 *e*P P 01 32 53.2 -0.7
comp=Z,37nm,0.8s
SUA **Susitna One** 60.93 33 *e*P P 01 32 54.1 -0.2
comp=Z,42nm,0.9s
BRLK **Bradley Lake** 61.04 35 *e*P P 01 32 56.1 +1.1
comp=Z,87nm,1.1s
DZM **Mont Dzumac** 61.28 141 *e*P P 01 32 57.2 0.0
comp=Z,123nm,1.1s
DZM *e*S S 01 41 12.7 -2.7
comp=Z,4µm,32.1s
DZM **Mont Dzumac** 61.28 141 *e*LR LR 01 51 14.2
comp=Z,1µm,23.4s
DZM **Mont Dzumac** 61.28 141 *e*P P 01 32 57.4 +0.3
comp=Z,48nm,0.9s
RC01 **Rabbit Creek A** 61.45 33 *e*P P 01 32 57.6 -0.2
comp=Z,112nm,1.4s
MCK **McKinley** 61.53 30 *e*P P 01 32 58.0 -0.2
MCK pmax pmax
comp=Z,71nm,1.2s
MCK **McKinley** 61.53 30 *e*P P 01 32 58.0 -0.2
comp=Z,71nm,1.2s
RND **Reindeer** 61.60 30 *e*P P 01 32 58.3 -0.5
RND pmax pmax
comp=Z,93nm,1.2s
RND **Reindeer** 61.60 30 *e*P P 01 32 58.3 -0.5
comp=Z,93nm,1.2s
PMR **Palmer** 61.68 32 *e*P P 01 32 57.6 -1.6
PMR pmax pmax
comp=Z,88nm,1.3s
PMR **Palmer** 61.68 32 *e*P P 01 32 57.6 -1.6
comp=Z,88nm,1.3s
MDM **Murphy Dome** 61.70 29 *e*P P 01 32 59.8 +0.4
comp=Z,134nm,1.2s
SEW **Seward** 61.72 34 *e*P P 01 32 59.4 0.0
comp=Z,131nm,1.2s
NWAO **Narrogin (SRO)** 61.76 192 *e*P P 01 33 00.2 +0.2
NWAO pmax pmax
comp=Z,180nm,1.1s
NWAO **Narrogin (SRO)** 61.76 192 *e*P P 01 33 00.2 +0.2
comp=Z,180nm,1.1s
NWAO **Narrogin (SRO)** 61.76 192 P P 01 33 00.3 +0.2
NWAO P P 01 33 00.3 +0.2
SNR=6.4
SNR=6.4
ARMA **Armidale** 61.87 158 *e*P P 01 33 01.8 +0.9
comp=Z,103nm,1.0s
COLA **College** 61.87 29 *e*P P 01 33 01.1 +0.6
COLA pmax pmax
comp=Z,17nm,0.6s
COLA **College** 61.87 29 *e*P P 01 33 00.4 -0.1
comp=Z,17nm,0.6s
CCB **Clear Creek Bu** 61.92 29 *e*P P 01 33 01.5 +0.7
comp=Z,29nm,1.4s
SML **Sawmill** 62.03 32 *e*P P 01 33 01.9 +0.2
SML pmax pmax
comp=Z,102nm,1.4s
SML **Sawmill** 62.03 32 *e*P P 01 33 01.9 +0.2
comp=Z,102nm,1.4s
IL1 **Eielson Array** 62.30 29 *e*P P 01 33 02.1 -1.3
ILAR **Eielson Array** 62.30 29 P P 01 33 02.6 -0.7
comp=Z,5.0nm,1.0s,baz=239,slow=3.4,SNR=28
ILB **Eielson Array** 62.30 29 *e*P P 01 33 02.6 -0.7
DHY **Denali Highway** 62.30 31 *e*P P 01 33 04.4 +0.8
comp=Z,53nm,1.4s
SCM **Sheep Creek Mo** 62.50 32 *e*P P 01 33 05.3 +0.4
SCM pmax pmax
comp=Z,165nm,1.5s
SCM **Sheep Creek Mo** 62.50 32 *e*P P 01 33 05.3 +0.4
comp=Z,165nm,1.5s
FYU **Fort Yukon** 62.74 27 *e*P P 01 33 07.8 +1.6
comp=Z,163nm,1.5s
GLI **Glacier Island** 62.76 33 *e*P P 01 33 06.6 +0.1
comp=Z,112nm,1.4s
FID **Port Fidalgo** 63.08 33 *e*P P 01 33 08.7 +0.1
comp=Z,196nm,1.8s
PAX **Paxson** 63.18 31 *e*P P 01 33 09.7 +0.3
PAX pmax pmax
comp=Z,46nm,1.2s
PAX **Paxson** 63.18 31 *e*P P 01 33 09.7 +0.3
comp=Z,46nm,1.2s
WBK **Wadi Bani Khal** 63.19 283 P P 01 33 11.0 +0.9
SNR=5.9
WBK **Wadi Bani Khal** 63.19 283 P P 01 33 11.0 +0.9
SNR=5.9
KLU **Klutina** 63.22 32 *e*P P 01 33 10.1 +0.5
comp=Z,81nm,1.6s
DIV **Divide** 63.35 33 *e*P P 01 33 11.2 +0.7
comp=Z,108nm,1.4s
HARP **HAARP** 63.42 31 *e*P P 01 33 11.8 +0.9
comp=Z,62nm,1.1s
EYAK **Cordova Ski Ar** 63.47 33 *e*P P 01 33 12.4 +1.3
comp=Z,53nm,1.4s
BIDO **Bidbid** 63.60 284 P P 01 33 12.9 +0.2
SNR=27
BIDO **Bidbid** 63.60 284 P P 01 33 12.9 +0.2
SNR=27
SMDO **Samad** 63.83 283 P P 01 33 15.8 +1.5
SNR=14
SMDO **Samad** 63.83 283 P P 01 33 15.8 +1.5
SNR=14
BMRM **Bremner River** 63.94 33 *e*P P 01 33 15.1 +0.7
comp=Z,122nm,1.3s
MENT **Mentasta** 63.97 31 *e*P P 01 33 14.8 +0.3
comp=Z,38nm,1.0s
RAGM **Ragged Mountai** 64.02 33 *e*P P 01 33 15.9 +1.0
comp=Z,183nm,1.4s
JMDO **Jabal Madar** 64.03 283 P P 01 33 16.3 +0.8
SNR=6.1
JMDO **Jabal Madar** 64.03 283 P P 01 33 16.3 +0.8
SNR=6.1
BANOM **Banah** 64.32 287 *i* P P 01 33 17.4 0.0
SNR=32
BANOM **Banah** 64.32 287 P P 01 33 17.1 -0.3
SNR=15
BANOM **Banah** 64.32 287 P P 01 33 17.1 -0.3
SNR=15
BSY **Bisya** 64.67 283 P P 01 33 21.0 +1.2
SNR=14
BSY **Bisya** 64.67 283 P P 01 33 21.0 +1.2
SNR=14
EGAK **Eagle** 64.71 28 *e*P P 01 33 18.6 -0.7
comp=Z,34nm,1.4s
UOSS **Minazif** 64.74 286 *e*P P 01 33 20.5 +0.3
comp=Z,32nm,0.8s
HATD **Hatta, Dubai** 64.84 286 *i* P P 01 33 20.9 +0.1
SNR=43
HATD **Hatta, Dubai** 64.84 286 P P 01 33 21.0 +0.2
SNR=25
HATD **Hatta, Dubai** 64.84 286 P P 01 33 21.0 +0.2
SNR=25
ASHO **Ashiyiah** 64.95 286 *i* P P 01 33 21.2 -0.4
SNR=89
ASHO **Ashiyiah** 64.95 286 P P 01 33 21.8 +0.2
SNR=42
ASHO **Ashiyiah** 64.95 286 P P 01 33 21.8 +0.2
SNR=42
ARQ **Araqi** 65.04 284 P P 01 33 21.9 -0.2
SNR=10.0
ARQ **Araqi** 65.04 284 P P 01 33 21.9 -0.2
SNR=10.0
NAZ **Nazwa, Dubai** 65.18 286 *i* P P 01 33 22.9 -0.1
SNR=8.4
NAZ **Nazwa, Dubai** 65.18 286 P P 01 33 23.0 -0.1
SNR=15
NAZ **Nazwa, Dubai** 65.18 286 P P 01 33 23.0 -0.1
SNR=15
FAQ **Al Faqa, Dubai** 65.33 286 *i* P P 01 33 23.6 -0.3
SNR=39
FAQ **Al Faqa, Dubai** 65.33 286 P P 01 33 23.7 -0.3
SNR=14
FAQ P P 01 33 23.7 -0.3
SNR=14
FAQ **Al Faqa, Dubai** 65.33 286 P P 01 33 23.7 -0.3
SNR=14
DGAR **Diego Garcia** 65.37 246*c* *i*P P 01 33 23.7 -0.6
DGAR **Diego Garcia** 65.37 246 *e*P P 01 33 24.9 +0.6
comp=Z,284nm,1.4s
MSVF **Nonsavu** 65.42 128 *e*P P 01 33 26.3 +1.7
MSVF pmax pmax
comp=Z,75nm,1.1s
MSVF **Nonsavu** 65.42 128 *e*P P 01 33 26.3 +1.7
comp=Z,75nm,1.1s
DAWY **Dawson** 65.62 29 *e*P P 01 33 24.8 -0.5
comp=Z,33nm,1.3s
CAN **Canberra** 65.67 163 *e*P P 01 33 27.1 +1.2
CAN pmax pmax
comp=Z,84nm,1.0s
CAN **Canberra** 65.67 163 *e*P P 01 33 27.1 +1.2
comp=Z,84nm,1.0s
TMCR **Tamitsa** 65.75 331 *e*P P 01 33 25.9 -0.1
TMCR pmax pmax
comp=Z,330nm,1.4s
KLMR **Klimovskoe** 65.92 328 *e*P P 01 33 25.0 -2.1
KLMR *e* 01 33 55.1
KLMR *e*SS SS 01 46 29.5 +2.9
KLMR pmax pmax
comp=Z,271nm,1.4s
KLMR MLR MLR
comp=Z,892nm,15.0s
MAK **Makhachkala** 65.92 307 *e*P P 01 33 25.3 -2.2
MAK *e*S S 01 42 11.1 -1.5
MAK *e*SS SS 01 46 25.2 -2.3
MAK pmax pmax
comp=Z,168nm,1.2s
APA **Apatity** 66.67 335⇑ *i*P P 01 33 30.0 -1.9
APA pmax pmax
comp=Z,40nm,0.9s
APA MLR MLR
comp=Z,3µm,18.0s
INK **Inuvik** 66.77 24 P P 01 33 32.5 +0.1
comp=Z,20nm,1.1s,baz=283,slow=7.4,SNR=24
INK **Inuvik** 66.77 24 *e*P P 01 33 32.5 +0.1
comp=Z,73nm,1.4s
GROC **Groznyy** 67.05 308 *e*P P 01 33 34.5 -0.2
GROC *e* 01 34 01.0
GROC pmax pmax
comp=Z,146nm,1.0s
SPA0 **Spitsbergen Ar** 67.28 348 *e*P P 01 33 33.5 -2.1
HYT **Haines Junctio** 67.34 32 *e*P P 01 33 37.7 +1.3
comp=Z,86nm,1.4s
VRH **Novokhopyorsk** 67.34 317 *e*P P 01 33 34.7 -1.7
VRH pmax pmax
comp=Z,40nm,0.9s
VRH MLR MLR
comp=Z,2µm,17.0s
KBS **Kingsbay** 67.67 349 *e*P P 01 33 37.3 -0.7
KBS pmax pmax
comp=Z,22nm,0.9s
KBS **Kingsbay** 67.67 349 *e*P P 01 33 37.4 -0.7
KBS **Kingsbay** 67.67 349 *e*P P 01 33 37.3 -0.7
comp=Z,22nm,0.9s
HSPB **Hornsund (broa** 68.01 347 *e*P P 01 33 39.9 -0.3
KEV **Kevo** 68.16 339 *e*P P 01 33 39.5 -1.7
KEV pmax pmax
comp=Z,116nm,1.6s
KEV **Kevo** 68.16 339 *e*P P 01 33 39.5 -1.7
comp=Z,116nm,1.6s
GUDG **Gudauri** 68.20 307 P P 01 33 42.8 +0.5
TBLG **Delisi** 68.25 307 P P 01 33 42.4 0.0
TBLG **Delisi** 68.25 307 *e*P P 01 33 42.3 0.0
MOS **Moscow** 68.32 323 *e*P P 01 33 40.9 -1.6
MOS *e* 01 33 53.0
MOS *e* 01 36 12.0
MOS pmax pmax
comp=Z,259nm,1.3s
MOS pmax pmax
comp=Z,600nm,2.1s
MOS MLR MLR
comp=N,2µm,18.0s
MOS MLR MLR
comp=E,4µm,18.0s
MOS MLR MLR
comp=Z,4µm,18.0s
GOF **Gofitskoye** 68.36 310⇑ *i*P P 01 33 43.0 0.0
GOF *e*S S 01 42 41.9 -0.1
GOF pmax pmax
comp=Z,112nm,1.0s
NCK **Nalchik** 68.48 309⇓ *i*P P 01 33 43.9 +0.1
NCK pmax pmax
comp=Z,67nm,0.9s
NCK MLR MLR
comp=Z,3µm,15.0s
LPSR **Galich'ya Gora** 68.57 319 *e*P P 01 33 42.8 -1.3
LPSR pmax pmax
comp=Z,130nm,1.1s
LPSR MLR MLR
comp=Z,310nm,6.0s
WHY **Whitehorse** 68.61 32 *e*P P 01 33 45.5 +1.1
comp=Z,99nm,1.4s
VORR **Voronezh** 68.70 318 *e*P P 01 33 43.0 -1.9
VORR pmax pmax
comp=Z,350nm,1.2s
ARCES **ARCESS Array B** 68.73 339 P P 01 33 43.8 -1.1
comp=Z,9.1nm,0.9s,baz=76,slow=8.7,SNR=33
ARCES **ARCESS Array B** 68.73 339 *e*P P 01 33 43.5 -1.4
ARE0 **ARCESS Array S** 68.73 339 *e*P P 01 33 44.2 -0.6
ARE0 **ARCESS Array S** 68.73 339 *e*P P 01 33 43.6 -1.2
comp=Z,69nm,1.5s
GNI **Garni** 68.76 305 *i* P P 01 33 46.5 +0.8
SNR=41
GNI **Garni** 68.76 305 *c* *i*P P 01 33 46.5 +0.8
GNI pmax pmax
comp=Z,456nm,1.2s
GNI **Garni** 68.76 305 *e*P P 01 33 46.6 +0.9
comp=Z,125nm,1.0s
GNI **Garni** 68.76 305 P P 01 33 46.7 +0.9
SNR=26
GNI **Garni** 68.76 305 P P 01 33 46.7 +0.9
SNR=26
SKAG **Skagway** 68.80 33 *e*P P 01 33 46.6 +1.2
comp=Z,98nm,1.4s
MSF **Maaselka** 68.85 334 P P 01 33 45.2 -0.5
MSF pmax pmax
comp=Z,55nm,1.4s
VSR **Storozhevoye** 68.87 318 *e*P P 01 33 44.4 -1.6
VSR pmax pmax
comp=Z,100nm,1.3s
VSR MLR MLR
comp=Z,3µm,19.0s
ONI **Oni** 68.88 308 P P 01 33 46.9 +0.5
ONI **Oni** 68.88 308 *e*P P 01 33 46.8 +0.5
KBZ **Khabaz** 68.89 309 P P 01 33 46.3 +0.1
comp=Z,188nm,0.9s,baz=80,slow=3.4,SNR=187
KBZ PKP2bc 02 01 58.0
comp=Z,4.2nm,0.9s,baz=291,slow=3.4,SNR=3.5
KIV **Kislovodsk** 68.96 309 *i* P P 01 33 47.1 +0.3
SNR=86
KIV **Kislovodsk** 68.96 309 *e*P P 01 33 47.0 +0.2
KIV *e*S S 01 42 49.6 +0.3
KIV pmax pmax
comp=Z,252nm,1.0s
KIV pmax pmax
comp=Z,151nm,6.2s
KIV MLR MLR
comp=Z,2µm,17.0s
KIV **Kislovodsk** 68.96 309 *e*P P 01 33 46.6 -0.3
comp=Z,235nm,1.0s
KIV **Kislovodsk** 68.96 309 P P 01 33 47.2 +0.3
SNR=44
KIV P P 01 33 47.2 +0.3
SNR=44
KIV **Kislovodsk** 68.96 309 P P 01 33 47.2 +0.3
SNR=44
JOF **Joensuu** 69.00 331 P P 01 33 46.5 -0.1
JOF pmax pmax
comp=Z,141nm,1.4s
OBN **Obninsk** 69.09 322*c* *i*P P 01 33 46.2 -1.0
OBN *e* 01 34 10.0
OBN *e*PPP PPP 01 37 58.6
OBN pmax pmax
comp=Z,215nm,1.7s
OBN MLR MLR
comp=Z,3µm,19.0s
OBN **Obninsk** 69.09 322 *e*P P 01 33 46.3 -1.0
comp=Z,146nm,1.2s
NEY **Neytrino** 69.17 309*d* *i*P P 01 33 49.1 +0.9
NEY pmax pmax
comp=Z,23nm,0.9s
BGD **Bogdanovka** 69.21 306 P P 01 33 49.9 +1.3
AKH **Akhalkalaki** 69.24 307 P P 01 33 49.8 +1.0
AKH **Akhalkalaki** 69.24 307⇑ *i*P P 01 33 49.9 +1.2
AKH **Akhalkalaki** 69.24 307 *e*P P 01 33 49.7 +1.0
BESE **Bessie Mountai** 69.33 34 *e*P P 01 33 49.7 +0.9
comp=Z,65nm,1.4s
KTK1 **Kautokeino** 69.68 338 *e*P P 01 33 49.8 -1.0
KTK1 lAmb lAmb 01 33 51.2
comp=Z,34nm,1.0s
CHVG **Ch'k'valeri** 69.78 308 P P 01 33 52.5 +0.7
OUL **Oulu** 70.38 334 P P 01 33 53.4 -1.6
OUL pmax pmax
comp=Z,84nm,1.0s
ARTV **Artvin** 70.42 307 *e*P P 01 33 56.5 +0.5
comp=Z,52nm,1.1s
AFI **Afiamalu** 70.50 118 *e*P P 01 33 57.0 +0.4
AFI pmax pmax
comp=Z,134nm,1.4s
AFI **Afiamalu** 70.50 118 *e*P P 01 33 57.0 +0.4
comp=Z,134nm,1.4s
PUL **Pulkovo** 70.60 328*d* *i*P P 01 33 56.6 +0.1
PUL pmax pmax
comp=Z,388nm,1.2s
TRO **Tromso** 70.76 340 *e*P P 01 34 01.3 +4.0
SOC **Sochi** 71.11 310*c* *i*P P 01 33 59.3 -0.6
SOC *e* 01 36 38.0
SOC *e*PPP PPP 01 38 16.6
SOC *e*S S 01 43 12.4 -1.9
SOC *e*SSS SSS 01 50 59.9
SOC pmax pmax
comp=Z,133nm,0.9s
SOC MLR MLR
comp=Z,2µm,15.0s
SUF **Sumiainen** 71.27 332 P P 01 34 00.1 -0.4
SUF pmax pmax
comp=Z,83nm,1.5s
DLBC **Dease Lake** 71.73 33 *e*P P 01 34 05.0 +1.5
comp=Z,95nm,1.6s
FIA1 **FINESS Array S** 71.84 331 *e*P P 01 34 03.4 -0.6
comp=Z,246nm,1.6s
FINES **FINESS Array B** 71.84 331 P P 01 34 03.3 -0.7
comp=Z,34nm,0.4s,baz=66,slow=6.1,SNR=204
FINES **FINESS Array B** 71.84 331 *i* P P 01 34 02.9 -1.0
FINES pmax pmax
comp=Z,34nm,0.4s
KOPT **Kop Dagi** 71.86 306 *e*P P 01 34 05.8 +0.9
comp=Z,131nm,1.0s
ANN **Anapa** 72.19 312 *e*P P 01 34 02.9 -3.5
ANN pmax pmax
comp=Z,160nm,1.0s
BINT **Bingol** 72.28 305 P P 01 34 06.4 -0.8
TAU **Tasmania Unive** 72.50 166 *e*P P 01 34 08.3 +0.4
TAU pmax pmax
comp=Z,172nm,1.5s
TAU **Tasmania Unive** 72.50 166 *e*P P 01 34 08.3 +0.4
comp=Z,172nm,1.5s
VAF **Ylistaro** 72.55 333 P P 01 34 09.3 +1.1
VAF pmax pmax
comp=Z,79nm,1.8s
DIB **Dawson Inlet,** 72.57 39 *e*P P 01 34 09.4 +0.9
comp=Z,70nm,1.1s
MARD **Mardin** 72.66 303 *e*P P 01 34 09.9 +0.4
comp=Z,199nm,1.0s
STEI **Steigen** 72.79 339 *e*P P 01 34 08.8 -0.6
STEI lAmb lAmb 01 34 10.0
comp=Z,65nm,1.3s
VSU **Vasula** 72.82 328*c* *i*P P 01 34 09.0 -0.8
VSU pmax pmax
comp=Z,501nm,1.0s
RES **Resolute Bay** 73.55 11 P P 01 34 13.8 0.0
comp=Z,34nm,0.9s,baz=313,slow=5.8,SNR=61
DAG **Danmarks Havn** 73.60 353⇓ *i*P P 01 34 14.1 -0.1
DAG **Danmarks Havn** 73.60 353⇓ *i*P P 01 34 14.1 -0.1
MICGM **Minsk** 73.97 324⇓ *i*P P 01 34 17.0 +0.3
MICGM PM 01 34 18.0
comp=Z,0.5nm,1.0s
MNK **Minsk** 73.97 324⇓ *i*P P 01 34 17.0 +0.3
MNK pmax pmax
comp=Z,510nm,1.0s
MOR8 **Moi Rana** 74.01 337 *e*P P 01 34 14.9 -1.9
IDID **Didziasalis** 74.20 325 *e*P P 01 34 18.1 +0.1
IDID lAmb lAmb 01 34 19.8
comp=Z,95nm,1.1s
IZAR **Zarasai** 74.26 325 *e*P P 01 34 18.4 +0.1
IZAR lAmb lAmb 01 34 20.1
comp=Z,99nm,1.2s
SIM **Simferopol'** 74.31 313*c* *i*P P 01 34 18.8 -0.1
SIM *e* 01 34 32.0
SIM pmax pmax
comp=Z,80nm,1.0s
RAYN **Ar Rayn** 74.31 289 *e*P P 01 34 19.3 0.0
comp=Z,234nm,1.1s
NACGM **Naroch** 74.36 324 *e*P P 01 34 18.0 -1.0
NACGM PM 01 34 20.0
comp=Z,0.4nm,0.7s
ISAL **Salakas** 74.40 325 *e*P P 01 34 19.2 0.0
ISAL lAmb lAmb 01 34 21.0
comp=Z,77nm,1.1s
IIGN **Ignalina** 74.45 325 *e*P P 01 34 19.5 0.0
IIGN lAmb lAmb 01 34 21.3
comp=Z,51nm,1.1s
TOKA **Tokat** 74.58 308 *e*P P 01 34 21.1 +0.4
comp=Z,137nm,1.0s
AKASG **Malin Array Be** 74.88 320 P P 01 34 21.1 -1.0
comp=Z,82nm,1.0s,baz=52,slow=6.3,SNR=188
AKBB **Malin Array Si** 74.88 320 *e*P P 01 34 21.3 -0.8
AKBB pmax pmax
comp=Z,118nm,1.1s
AKBB **Malin Array Si** 74.88 320 *e*P P 01 34 21.2 -0.8
comp=Z,118nm,1.1s
KIEV **Kiev** 74.90 320 *e*P P 01 34 21.0 -1.2
KIEV pmax pmax
comp=Z,146nm,1.3s
KIEV **Kiev** 74.90 320 *e*P P 01 34 21.0 -1.2
comp=Z,146nm,1.3s
AK11 **Malin Array Si** 74.93 320 *e*P P 01 34 21.2 -1.1
TULEG **Thule** 75.03 4 *e*P P 01 34 21.5 -1.0
comp=Z,70nm,0.9s
RAO **Raoul Island** 76.00 134 LR LR 02 03 27.4
comp=Z,579nm,20.5s,baz=88,slow=32
ILGA **Ilgaz** 76.19 309 *e*P P 01 34 31.1 +1.0
comp=Z,110nm,1.1s
YKA **Yellowknife Ar** 76.39 25 P P 01 34 30.6 +0.1
comp=Z,5.8nm,0.7s,baz=301,slow=5.7,SNR=57
SORM **Soroca** 76.53 317⇓ *i*P P 01 34 30.9 -0.7
SUW **Suwalki** 76.64 324 *e*P P 01 34 31.7 -0.3
SUW **Suwalki** 76.64 324 *e*P P 01 34 31.7 -0.3
KIS **Kishinev** 76.77 316⇑ *i*P P 01 34 32.0 -0.9
comp=Z,400nm,1.5s
KIS LRM MLR 02 15 04.0
comp=Z,3µm,16.0s
KIS **Kishinev** 76.77 316*α* *i*P P 01 34 32.0 -0.9
KIS *e* 01 37 32.0
KIS *e* 01 45 22.0
KIS pmax pmax
comp=Z,400nm,1.5s
KIS pmax pmax
comp=Z,400nm,1.6s
BR131 **Keskin Array S** 76.81 308 *e*P P 01 34 33.1 -0.4
BRTR **Keskin Array B** 76.81 308 P P 01 34 33.4 -0.2
comp=Z,120nm,1.0s,baz=99,slow=4.1,SNR=305
BRTR PKPPKP **P'P'df** 02 01 51.1 +1.5
comp=Z,0.7nm,0.7s,baz=272,slow=2.9,SNR=4.0
BRTR **Keskin Array B** 76.81 308 P P 01 34 33.4 -0.2
BRTR pmax pmax
comp=Z,118nm,1.0s
BRTR **Keskin Array B** 76.81 308 P **P'P'df** 02 01 51.1 +1.5
BRTR pmax pmax
comp=Z,1.0nm,0.7s
FKH **Fakeheh** 77.14 302 *e*P P 01 34 35.7 +0.3
HORU **Horodok** 77.17 319 P P 01 34 34.5 -0.7
TBLU **Trondheim** 77.18 336 *e*P P 01 34 33.4 -1.6
TBLU lAmb lAmb 01 34 34.7
comp=Z,81nm,1.3s
ANTO **Ankara** 77.34 308 *e*P P 01 34 36.5 +0.1
ANTO pmax pmax
comp=Z,172nm,1.1s
ANTO **Ankara** 77.34 308 *e*P P 01 34 36.5 +0.1
comp=Z,172nm,1.1s
ANTO **Ankara** 77.34 308 P P 01 34 36.1 -0.3
SNR=32
ANTO P P 01 34 36.1 -0.3
SNR=32

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ANTO | Ankara | 77.34 | 308 | P | P | 01 34 36.1 | -0.3 |
| | SNR=32 | | | | | | |
| LEOM | Leova | 77.36 | 316⇑ | iP | P | 01 34 35.8 | -0.4 |
| BR231 | Keskin MP Arra | 77.36 | 308 | eP | P | 01 34 36.8 | +0.2 |
| IAS | Iasi | 77.44 | 317⇓ | iP | P | 01 34 36.7 | 0.0 |
| HWQ | Hawqa | 77.47 | 302 | eP | P | 01 34 37.3 | -0.1 |
| KULLO | Kullorsuaq | 77.53 | 2 | i P | P | 01 34 35.9 | -0.8 |
| KULLO | | | | pmax | pmax | | |
| | comp=Z,62nm,1.0s | | | | | | |
| KULLO | Kullorsuaq | 77.53 | 2 | i P | P | 01 34 35.9 | -0.8 |
| | comp=Z,62nm,1.0s | | | | | | |
| TLCR | | 77.59 | 315⇑ | iP | P | 01 34 37.6 | 0.0 |
| BHL | Bhannes | 77.85 | 302 | eP | P | 01 34 39.0 | -0.4 |
| RCY | Rachaya | 77.89 | 301 | eP | P | 01 34 40.0 | +0.3 |
| DQRL | Deir Qamar | 78.00 | 302 | eP | P | 01 34 40.2 | 0.0 |
| CFR | Carcaliu | 78.02 | 315⇑ | iP | P | 01 34 39.4 | -0.6 |
| SHBL | Chebaa | 78.03 | 301 | eP | P | 01 34 40.5 | +0.1 |
| PRAR | RASCA | 78.16 | 317⇓ | iP | P | 01 34 40.7 | -0.1 |
| NB2 | NORSAR Subarra | 78.18 | 334 | P | P | 01 34 39.4 | -1.2 |
| | comp=Z,686nm,2.5s,baz=52,slow=5.9 | | | | | | |
| NB2 | NORSAR Subarra | 78.18 | 334 | P | P | 01 34 39.4 | -1.2 |
| | baz=52,slow=5.9 | | | | | | |
| NOA | NORSAR Array B | 78.18 | 334 | P | P | 01 34 39.3 | -1.3 |
| | comp=Z,12nm,0.6s,baz=51,slow=5.5,SNR=41 | | | | | | |
| TIRR | Tirgusor | 78.18 | 314⇑ | iP | P | 01 34 40.5 | -0.3 |
| TIRR | Tirgusor | 78.18 | 314 | eP | P | 01 34 40.6 | -0.3 |
| TIRR | | | | pmax | pmax | | |
| | comp=Z,143nm,1.2s | | | | | | |
| TIRR | Tirgusor | 78.18 | 314 | eP | P | 01 34 40.6 | -0.2 |
| | comp=Z,143nm,1.2s | | | | | | |
| MSEY | Mahe Island | 78.20 | 258 | i P | P | 01 34 43.0 | +1.5 |
| MSEY | Mahe Island | 78.20 | 258 | eP | P | 01 34 42.5 | +1.0 |
| | comp=Z,56nm,1.1s | | | | | | |
| EFOR | EFORIE | 78.22 | 314⇑ | iP | P | 01 34 42.5 | +1.4 |
| NC602 | NORSAR Array S | 78.24 | 334 | eP | P | 01 34 39.9 | -1.0 |
| LVV | L'vov | 78.25 | 320 | eP | P | 01 34 41.0 | -0.2 |
| LVV | | | | eS | S | 01 44 27.0 | -6.8 |
| LVV | | | | MLR | MLR | | |
| | comp=Z,2μm,16.0s | | | | | | |
| TESR | Tescani | 78.31 | 317⇓ | iP | P | 01 34 41.2 | -0.4 |
| PETR | Petresti | 78.33 | 316⇑ | iP | P | 01 34 42.6 | +0.9 |
| DOMB | Dombas | 78.37 | 335 | eP | P | 01 34 40.4 | -1.3 |
| DOMB | | | | IAmb | IAmb | 01 34 44.1 | |
| | comp=Z,73nm,1.3s | | | | | | |
| HARR | Harsova | 78.38 | 314⇓ | iP | P | 01 34 42.4 | +0.4 |
| ODBI | Odobesti | 78.42 | 316⇑ | iP | P | 01 34 42.8 | +0.6 |
| VRI | Vrincioaia | 78.57 | 316⇑ | iP | P | 01 34 43.5 | +0.4 |
| PHNC | Paralimni | 78.58 | 304 | P | P | 01 34 43.0 | -0.3 |
| PLOR | Plostina | 78.63 | 316⇑ | iP | P | 01 34 43.3 | -0.1 |
| HIZ | Hauiti | 78.63 | 145 | eP | P | 01 34 44.9 | +1.6 |
| | comp=Z,146nm,1.1s | | | | | | |
| BUR08 | Bucovina Ar. S | 78.64 | 318 | eP | P | 01 34 42.5 | -1.0 |
| BURAR | Bucovina Array | 78.64 | 318⇑ | iP | P | 01 34 43.5 | 0.0 |
| BUR04 | Bucovina Ar. S | 78.64 | 318 | eP | P | 01 34 43.4 | -0.2 |
| GRER | | 78.65 | 315⇑ | iP | P | 01 34 44.4 | +0.9 |
| PSN | Preselentsi | 78.69 | 313 | P | P | 01 34 43.9 | +0.2 |
| AMRR | Amara | 78.79 | 315⇑ | iP | P | 01 34 45.1 | +0.9 |
| PGOR | Pogoanele | 78.87 | 315⇓ | iP | P | 01 34 46.3 | +1.6 |
| BEL | Belsk | 78.99 | 323 | eP | P | 01 34 45.5 | +0.3 |
| BEL | Belsk | 78.99 | 323 | eP | P | 01 34 45.5 | +0.3 |
| AKN | Aaknes | 79.03 | 336 | eP | P | 01 34 44.9 | -0.4 |
| AKN | | | | IAmb | IAmb | 01 34 45.1 | |
| | comp=Z,68nm,1.0s | | | | | | |
| ISR | Istrita | 79.04 | 315⇑ | iP | P | 01 34 46.7 | +1.0 |
| OSL | Oslo | 79.05 | 333 | eP | P | 01 34 45.1 | -0.3 |
| OSL | | | | IAmb | IAmb | 01 34 49.5 | |
| | comp=Z,52nm,0.9s | | | | | | |
| KWP | Kalwaria Pacla | 79.08 | 321 | eP | P | 01 34 46.2 | +0.4 |
| KWP | Kalwaria Pacla | 79.08 | 321 | eP | P | 01 34 46.2 | +0.4 |
| MAMC | Mammari | 79.11 | 304 | P | P | 01 34 46.2 | 0.0 |
| CSS | Mathiatis | 79.12 | 304 | eP | P | 01 34 46.1 | -0.1 |
| | comp=Z,45nm,1.0s | | | | | | |
| CSS | Mathiatis | 79.12 | 304 | P | P | 01 34 45.1 | -1.2 |
| BOLV | Bolvadin | 79.13 | 308 | eP | P | 01 34 46.6 | +0.2 |
| | comp=Z,473nm,1.6s | | | | | | |
| MLR | Muntele Rosu | 79.23 | 316⇑ | iP | P | 01 34 46.7 | -0.2 |
| MLR | Muntele Rosu | 79.23 | 316 | eP | P | 01 34 46.6 | -0.2 |
| MLR | | | | pmax | pmax | | |
| | comp=Z,193nm,1.2s | | | | | | |
| MLR | Muntele Rosu | 79.23 | 316 | eP | P | 01 34 46.6 | -0.2 |
| | comp=Z,193nm,1.2s | | | | | | |
| SUMG | Summit | 79.30 | 356 | i P | P | 01 34 47.1 | +0.1 |
| SUMG | | | | pmax | pmax | | |
| | comp=Z,95nm,1.0s | | | | | | |
| SUMG | Summit | 79.30 | 356 | i P | P | 01 34 47.1 | +0.1 |
| | comp=Z,95nm,1.0s | | | | | | |
| SUMG | Summit | 79.30 | 356 | eP | P | 01 34 47.1 | +0.1 |
| | comp=Z,77nm,0.9s | | | | | | |
| DOPR | Dopca | 79.34 | 317⇑ | iP | P | 01 34 47.7 | +0.4 |
| SECR | | 79.38 | 315⇑ | iP | P | 01 34 48.4 | +0.9 |
| ARCR | ARCALIA | 79.41 | 318⇓ | iP | P | 01 34 48.3 | +0.7 |
| PRD | Provadia | 79.42 | 313 | P | P | 01 34 47.9 | +0.2 |
| SULR | | 79.44 | 315⇑ | iP | P | 01 34 48.3 | +0.5 |
| SZAC | Souni | 79.54 | 304 | P | P | 01 34 49.2 | +0.6 |
| ALFC | Alefka | 79.57 | 304 | P | P | 01 34 48.2 | -0.5 |
| LLLB | Lillooet | 79.58 | 38 | eP | P | 01 34 48.9 | +0.4 |
| | comp=Z,60nm,1.3s | | | | | | |
| URZ | Urewera | 79.60 | 144 | eP | P | 01 34 47.8 | -0.7 |
| | comp=Z,193nm,1.8s | | | | | | |
| BMR | Baia Mare | 79.62 | 319⇑ | iP | P | 01 34 49.2 | +0.5 |
| SCO | Scoresbysund | 79.64 | 351 | i P | P | 01 34 48.6 | +0.2 |
| SCO | | | | pmax | pmax | | |
| | comp=Z,140nm,1.4s | | | | | | |
| SCO | Scoresbysund | 79.64 | 351 | i P | P | 01 34 48.6 | +0.2 |
| | comp=Z,136nm,1.4s | | | | | | |
| KONO | Kongsberg | 79.67 | 333⇓ | eP | P | 01 34 47.9 | -0.9 |
| KONO | | | | pmax | pmax | | |
| | comp=Z,56nm,1.4s | | | | | | |
| KONO | Kongsberg | 79.67 | 333 | eP | P | 01 34 48.8 | +0.1 |
| KONO | Kongsberg | 79.67 | 333 | eP | P | 01 34 47.0 | -1.7 |
| | comp=Z,62nm,1.4s | | | | | | |
| PGC | Sidney | 79.72 | 40 | eP | P | 01 34 49.8 | +0.6 |
| | comp=Z,46nm,1.0s | | | | | | |
| TRSU | Trosnyk | 79.72 | 319 | P | P | 01 34 49.7 | +0.5 |
| BUC1 | Bucharest | 79.74 | 315⇑ | iP | P | 01 34 50.2 | +0.8 |
| VOIR | | 79.81 | 316⇑ | iP | P | 01 34 49.6 | -0.3 |
| UZH | Uzhgorod | 79.83 | 320d | iP | P | 01 34 48.9 | -0.9 |
| UZH | | | | i | | 01 34 57.7 | |
| UZH | | | | e | | 01 35 02.7 | |
| UZH | | | | i PPP | PPP | 01 39 37.7 | |
| UZH | | | | i S | S | 01 44 45.5 | -5.2 |
| UZH | | | | e | | 01 45 02.1 | |
| UZH | | | | ePS | PnS | 01 45 25.3 | -12 |
| UZH | | | | MLR | MLR | | |
| | comp=N,2μm,18.0s | | | | | | |
| UZH | | | | MLR | MLR | | |
| | comp=E,2μm,18.0s | | | | | | |
| UZH | | | | MLR | MLR | | |
| | comp=Z,700nm,18.0s | | | | | | |
| SGRR | Singureni | 79.83 | 315⇓ | iP | P | 01 34 50.3 | +0.4 |
| PPCY | Paphos | 79.87 | 304 | P | P | 01 34 49.7 | -0.6 |
| MTUR | Matau | 79.91 | 316⇓ | iP | P | 01 34 51.3 | +0.8 |
| TRPA | Tarpa | 79.94 | 319⇑ | eP | P | 01 34 50.8 | +0.3 |
| BKZ | Black Stump Fm | 79.96 | 145 | eP | P | 01 34 50.1 | -0.4 |
| | comp=Z,125nm,1.6s | | | | | | |
| HYA | Hoyanger | 79.99 | 336 | eP | P | 01 34 50.0 | -0.4 |
| HYA | | | | IAmb | IAmb | 01 34 51.3 | |
| | comp=Z,248nm,1.6s | | | | | | |
| STHS | Stebnicka Huta | 80.01 | 321 | eP | P | 01 34 52.0 | +1.1 |
| STHS | | | | pmax | pmax | | |
| | comp=Z,70nm,1.2s | | | | | | |
| STHS | Stebnicka Huta | 80.01 | 321 | eP | P | 01 34 52.0 | +1.1 |
| GKP | Gorka Klasztor | 80.04 | 326 | eP | P | 01 34 50.9 | 0.0 |
| GKP | Gorka Klasztor | 80.04 | 326 | eP | P | 01 34 50.9 | 0.0 |
| CJR | Cluj-Napoca | 80.05 | 318⇓ | iP | P | 01 34 51.7 | +0.6 |
| ARR | Arges | 80.10 | 316⇑ | iP | P | 01 34 51.8 | +0.3 |
| A04D | Lummi Island | 80.11 | 40 | P | P | 01 34 52.0 | +0.7 |
| | baz=302 | | | | | | |
| BSD | Bornholm Skovb | 80.12 | 328 | i P | P | 01 34 51.1 | -0.1 |
| BSD | Bornholm Skovb | 80.12 | 328 | i P | P | 01 34 51.1 | -0.1 |
| CRVS | Cervenica-Dubn | 80.16 | 320 | eP | P | 01 34 52.0 | +0.3 |
| CRVS | Cervenica-Dubn | 80.16 | 320 | eP | P | 01 34 52.0 | +0.3 |
| JMB | Yambol | 80.30 | 313 | P | P | 01 34 52.7 | +0.2 |
| HUMR | Humele | 80.30 | 315⇑ | iP | P | 01 34 52.7 | +0.2 |
| SZH | Strazhica | 80.33 | 314 | i P | P | 01 34 53.4 | +0.8 |
| OJC | Ojcow | 80.38 | 322 | eP | P | 01 34 52.9 | +0.1 |
| OJC | Ojcow | 80.38 | 322 | eP | P | 01 34 52.9 | +0.1 |
| OJC | Ojcow | 80.38 | 322 | eP | P | 01 34 52.5 | -0.3 |
| | comp=Z,403nm,1.3s | | | | | | |
| ZIMR | | 80.49 | 314⇓ | iP | P | 01 34 54.5 | +1.0 |
| DRGR | | 80.53 | 318⇑ | iP | P | 01 34 54.1 | +0.3 |
| NIE | Niedzica | 80.53 | 321 | eP | P | 01 34 54.2 | +0.5 |
| NIE | Niedzica | 80.53 | 321 | eP | P | 01 34 54.2 | +0.5 |
| LOT | Lotru | 80.58 | 317⇓ | iP | P | 01 34 54.3 | +0.2 |
| ODD1 | Odda | 80.65 | 335 | eP | P | 01 34 53.8 | -0.4 |
| B05A | Bryant | 80.69 | 40 | P | P | 01 34 55.1 | +0.6 |
| | baz=302 | | | | | | |
| PVL | Pavlikeni | 80.73 | 314 | i P | P | 01 34 55.3 | +0.5 |
| E03A | Lebam | 80.74 | 42 | eP | P | 01 34 55.8 | +1.1 |
| | comp=Z,77nm,1.1s | | | | | | |
| ASK | Askoy | 80.81 | 336 | eP | P | 01 34 54.6 | -0.2 |
| BER | Bergen | 80.82 | 335 | eP | P | 01 34 54.6 | -0.3 |
| DEV | Deva | 80.89 | 317⇓ | iP | P | 01 34 55.9 | +0.3 |
| MANT | Manisa | 80.89 | 309 | eP | P | 01 34 56.1 | +0.1 |
| | comp=Z,446nm,1.2s | | | | | | |
| B06A | Marblemount | 80.90 | 40 | eP | P | 01 34 56.1 | +0.5 |
| | comp=Z,109nm,1.4s | | | | | | |
| KECS | Kecovo | 80.93 | 320 | eP | P | 01 34 56.0 | +0.2 |
| KECS | | | | pmax | pmax | | |
| | comp=Z,52nm,1.6s | | | | | | |
| KECS | Kecovo | 80.93 | 320 | eP | P | 01 34 56.0 | +0.2 |
| RPZ | Rata Peaks | 80.94 | 151 | eP | P | 01 34 55.7 | 0.0 |
| | comp=Z,50nm,1.1s | | | | | | |
| HOMB | Homborsund | 80.99 | 333 | eP | P | 01 34 54.5 | -1.3 |
| BLS5 | Blasjo | 81.04 | 334 | eP | P | 01 34 55.3 | -0.8 |
| BLS5 | | | | IAmb | IAmb | 01 34 57.2 | |
| | comp=Z,179nm,1.5s | | | | | | |
| CRAR | CRAIOVA | 81.14 | 316⇓ | iP | P | 01 34 57.6 | +0.7 |
| LANS | Liptovska Anna | 81.14 | 321 | eP | P | 01 34 58.4 | +1.5 |
| LANS | Liptovska Anna | 81.14 | 321 | eP | P | 01 34 58.4 | +1.5 |
| DIM | Dimitrovgrad | 81.18 | 313 | P | P | 01 34 58.1 | +0.9 |
| AKAS | Kas | 81.23 | 306 | eP | P | 01 34 56.8 | -1.0 |
| | comp=Z,62nm,1.1s | | | | | | |
| KSL | Kastellorizon | 81.28 | 306 | P | P | 01 34 56.6 | -1.3 |
| KSL | Kastellorizon | 81.28 | 306 | P | P | 01 34 56.6 | -1.3 |
| F04D | Rainier, OR | 81.31 | 42 | P | P | 01 34 58.7 | +0.9 |
| | baz=302 | | | | | | |
| RAC | Raciborz | 81.32 | 323 | eP | P | 01 34 58.3 | +0.5 |
| SRE | Strehaia | 81.33 | 316⇓ | iP | P | 01 34 58.7 | +0.7 |
| ALN | Alexandroupoli | 81.42 | 312 | P | P | 01 34 58.5 | 0.0 |
| ALN | Alexandroupoli | 81.42 | 312 | P | P | 01 34 58.5 | 0.0 |
| ALN | Alexandroupoli | 81.42 | 312 | P | P | 01 34 58.5 | 0.0 |
| SIRR | Siria | 81.42 | 318⇓ | iP | P | 01 34 59.1 | +0.6 |
| KDZ | Kurdzhali | 81.46 | 313 | P | P | 01 34 58.8 | +0.1 |
| SNART | Snartemo | 81.46 | 333 | eP | P | 01 34 57.8 | -0.6 |
| SNART | | | | IAmb | IAmb | 01 34 58.9 | |
| | comp=Z,25nm,1.0s | | | | | | |
| OKC | Ostrava-Krasne | 81.48 | 322⇑ | eP | P | 01 34 59.2 | +0.5 |
| OKC | | | | epP | sP | 01 35 11.9 | -0.8 |
| OKC | Ostrava-Krasne | 81.48 | 322 | eP | P | 01 34 59.2 | +0.5 |
| OKC | | | | e | | 01 35 11.9 | |
| C06D | Leavenworth | 81.56 | 40 | P | P | 01 34 59.7 | +0.5 |
| | baz=303 | | | | | | |
| PSZ | Piszkesteto | 81.57 | 320⇑ | iP | P | 01 34 59.2 | -0.1 |
| PSZ | Piszkesteto | 81.57 | 320 | eP | P | 01 34 59.8 | +0.5 |
| PSZ | | | | pmax | pmax | | |
| | comp=Z,162nm,1.3s | | | | | | |
| PSZ | Piszkesteto | 81.57 | 320⇑ | eP | P | 01 34 59.4 | +0.1 |
| PSZ | Piszkesteto | 81.57 | 320 | eP | P | 01 34 59.8 | +0.5 |
| | comp=Z,162nm,1.3s | | | | | | |
| G03D | McMinnville, O | 81.61 | 43 | P | P | 01 35 00.2 | +0.7 |
| | baz=302 | | | | | | |
| RDO | Rodhopi | 81.63 | 312 | P | P | 01 34 58.9 | -0.7 |
| RDO | Rodhopi | 81.63 | 312 | P | P | 01 34 58.9 | -0.7 |
| LON | Longmire | 81.66 | 41 | eP | P | 01 34 59.4 | -0.4 |
| LON | | | | pmax | pmax | | |
| | comp=Z,23nm,1.1s | | | | | | |
| LON | Longmire | 81.66 | 41 | eP | P | 01 34 59.4 | -0.4 |
| | comp=Z,23nm,1.1s | | | | | | |
| MPEP | Malo Peshtene | 81.67 | 315 | P | P | 01 34 59.8 | 0.0 |
| PLD | Plovdiv | 81.69 | 313 | P | P | 01 34 59.9 | 0.0 |
| HERR | Herculane | 81.70 | 317⇓ | iP | P | 01 35 00.2 | +0.3 |
| F04A | Amboy | 81.74 | 42 | eP | P | 01 35 00.7 | +0.6 |
| | comp=Z,58nm,0.9s | | | | | | |
| ATD | Arta Tunnel | 81.75 | 279 | eP | P | 01 35 01.6 | +0.8 |
| | comp=Z,90nm,1.1s | | | | | | |
| BZS | Buzias | 81.79 | 318⇓ | iP | P | 01 35 00.2 | -0.2 |
| PGB | Panagyurishte | 81.81 | 314 | i P | P | 01 35 00.7 | +0.1 |
| MORC | Moravsky Berou | 81.84 | 323⇑ | iP | P | 01 35 00.7 | +0.1 |
| MORC | Moravsky Berou | 81.84 | 323 | eP | P | 01 35 00.5 | -0.1 |
| MORC | | | | pmax | pmax | | |
| | comp=Z,521nm,1.4s | | | | | | |
| MORC | Moravsky Berou | 81.84 | 323 | eP | P | 01 35 00.5 | -0.1 |
| | comp=Z,521nm,1.4s | | | | | | |
| VYHS | Vyhne | 81.85 | 321 | eP | P | 01 35 01.2 | +0.5 |
| VYHS | | | | pmax | pmax | | |
| | comp=Z,110nm,1.2s | | | | | | |
| VYHS | Vyhne | 81.85 | 321 | eP | P | 01 35 01.2 | +0.5 |
| VYHS | | | | ePP | PP | 01 38 08.1 | +0.5 |
| MUD | Monsted U'grnd | 81.87 | 331 | i P | P | 01 35 00.1 | -0.5 |
| MUD | | | | pmax | pmax | | |
| | comp=Z,100nm,1.1s | | | | | | |
| MUD | Monsted U'grnd | 81.87 | 331 | i P | P | 01 35 00.1 | -0.5 |
| | comp=Z,100nm,1.1s | | | | | | |
| RZN | Rozhen | 81.89 | 313 | i P | P | 01 35 01.4 | +0.1 |
| KSP | Ksiaz | 81.90 | 324 | eP | P | 01 35 01.0 | +0.2 |
| KSP | Ksiaz | 81.90 | 324 | eP | P | 01 35 01.0 | +0.2 |
| COR | Corvallis | 81.91 | 44 | eP | P | 01 35 02.9 | +1.9 |
| COR | | | | pmax | pmax | | |
| | comp=Z,83nm,1.0s | | | | | | |
| COR | Corvallis | 81.91 | 44 | eP | P | 01 35 02.1 | +1.1 |
| | comp=Z,83nm,1.0s | | | | | | |
| LTY | Liberty | 82.05 | 40 | eP | P | 01 35 02.0 | +0.2 |
| | comp=Z,63nm,1.4s | | | | | | |
| KRLC | Kraliky | 82.08 | 323⇑ | eP | P | 01 35 02.4 | +0.5 |
| KRLC | Kraliky | 82.08 | 323 | eP | P | 01 35 02.4 | +0.5 |
| PRK | Paraskevi | 82.08 | 310 | P | P | 01 35 02.0 | 0.0 |
| PRK | Paraskevi | 82.08 | 310 | P | P | 01 35 02.0 | 0.0 |
| PRK | Paraskevi | 82.08 | 310 | P | P | 01 35 02.0 | 0.0 |
| DPC | Dobruska-Polom | 82.16 | 324⇑ | iP | P | 01 35 02.7 | +0.4 |
| DPC | Dobruska-Polom | 82.16 | 324⇑ | iP | P | 01 35 02.7 | +0.4 |
| KEBM | Edson Butte | 82.16 | 45 | eP | P | 01 35 03.8 | +1.3 |
| | comp=Z,283nm,1.4s | | | | | | |
| MDVR | Moldovita | 82.18 | 317⇑ | iP | P | 01 35 02.3 | -0.2 |
| B08A | Colville Reser | 82.19 | 39 | eP | P | 01 35 02.9 | +0.4 |
| | comp=Z,73nm,1.1s | | | | | | |
| BANR | Banloc | 82.20 | 318⇑ | iP | P | 01 35 02.7 | +0.2 |
| UPC | Upice | 82.23 | 324⇑ | eP | P | 01 35 02.7 | +0.1 |
| UPC | | | | epP | sP | 01 35 15.4 | -1.3 |
| UPC | Upice | 82.23 | 324 | eP | P | 01 35 02.7 | +0.1 |
| UPC | | | | e | | 01 35 15.4 | |
| ARG | Arkhangelos | 82.29 | 307 | P | P | 01 35 03.1 | -0.1 |
| ARG | Arkhangelos | 82.29 | 307 | P | P | 01 35 03.1 | -0.1 |
| ARG | Arkhangelos | 82.29 | 307 | P | P | 01 35 03.1 | -0.1 |
| BUD | Budapest | 82.30 | 320⇓ | eP | P | 01 35 03.6 | +0.6 |
| I03D | Drain, OR | 82.35 | 44 | P | P | 01 35 04.6 | +1.3 |
| | baz=302,SNR=14 | | | | | | |
| KAVA | Kavala | 82.37 | 312 | P | P | 01 35 03.1 | -0.4 |
| KAVA | Kavala | 82.37 | 312 | P | P | 01 35 03.1 | -0.4 |
| VTS | Vitosha | 82.39 | 314⇑ | iP | P | 01 35 04.0 | +0.2 |
| VTS | Vitosha | 82.39 | 314 | eP | P | 01 35 03.9 | +0.2 |
| VTS | | | | pmax | pmax | | |
| | comp=Z,180nm,1.2s | | | | | | |
| VTS | Vitosha | 82.39 | 314 | i P | P | 01 35 03.8 | 0.0 |
| VTS | Vitosha | 82.39 | 314 | eP | P | 01 35 03.9 | 0.0 |
| | comp=Z,180nm,1.2s | | | | | | |
| VTS | Vitosha | 82.39 | 314 | P | P | 01 35 04.1 | +0.2 |
| SMG | Samos | 82.46 | 309 | P | P | 01 35 03.9 | -0.2 |
| SMG | Samos | 82.46 | 309 | P | P | 01 35 03.9 | -0.2 |
| H04A | Detroit Lake | 82.54 | 43 | eP | P | 01 35 04.8 | +0.5 |
| | comp=Z,112nm,1.6s | | | | | | |
| KBO | Bosley Butte | 82.57 | 46 | eP | P | 01 35 06.2 | +1.5 |
| | comp=Z,130nm,1.3s | | | | | | |
| MMB | Musomiste | 82.58 | 313 | i P | P | 01 35 04.3 | -0.4 |
| SMOL | Smolenice | 82.61 | 322 | eP | P | 01 35 07.6 | +3.0 |
| SMOL | Smolenice | 82.61 | 322 | eP | P | 01 35 07.6 | +3.0 |
| VRAC | Vranov | 82.61 | 323⇑ | iP | P | 01 35 05.2 | +0.5 |
| NVR | Nevrokopi | 82.62 | 313 | P | P | 01 35 04.4 | -0.5 |
| NVR | Nevrokopi | 82.62 | 313 | P | P | 01 35 04.4 | -0.5 |
| G05D | Wamic, OR | 82.76 | 42 | P | P | 01 35 06.1 | +0.6 |
| | baz=303,SNR=8.6 | | | | | | |
| CSKK | Csˆ‡kako | 82.80 | 320⇑ | eP | P | 01 35 05.7 | +0.1 |
| NISR | Nisiros | 82.80 | 308 | P | P | 01 35 02.1 | -3.7 |
| NISR | Nisiros | 82.80 | 308 | P | P | 01 35 02.1 | -3.7 |
| I04A | Tendick Farm, | 82.88 | 44 | P | P | 01 35 06.6 | +0.4 |
| | baz=302,SNR=26 | | | | | | |
| E07A | Sunnyside | 82.90 | 41 | eP | P | 01 35 07.0 | +0.8 |
| | comp=Z,77nm,1.1s | | | | | | |
| BEO | Beograd | 82.91 | 317 | eP | P | 01 35 07.2 | +1.0 |
| BEO | Beograd | 82.91 | 317 | eP | P | 01 35 07.2 | +1.0 |
| SRS | Serrai | 82.91 | 313 | P | P | 01 35 05.1 | -1.3 |
| SRS | Serrai | 82.91 | 313 | P | P | 01 35 05.1 | -1.3 |
| SRS | Serrai | 82.91 | 313 | P | P | 01 35 05.1 | -1.3 |
| PVCC | Panska Ves | 82.97 | 324⇑ | eP | P | 01 35 06.8 | +0.3 |
| PVCC | | | | epP | sP | 01 35 19.3 | -1.2 |
| PVCC | Panska Ves | 82.97 | 324 | eP | P | 01 35 06.8 | +0.3 |
| PVCC | | | | e | | 01 35 19.3 | |
| L02D | Cave Junction, | 83.00 | 46 | P | P | 01 35 07.4 | +0.6 |
| | baz=302,SNR=22 | | | | | | |
| ILULI | Ilulissat | 83.02 | 0 | eP | P | 01 35 05.8 | -0.5 |
| ILULI | | | | pmax | pmax | | |
| | comp=Z,78nm,1.1s | | | | | | |
| ILULI | Ilulissat | 83.02 | 0 | i P | P | 01 35 05.2 | -1.1 |
| | comp=Z,70nm,1.1s | | | | | | |
| ILULI | Ilulissat | 83.02 | 0 | eP | P | 01 35 05.8 | -0.5 |
| | comp=Z,78nm,1.1s | | | | | | |
| OUR | Ouranopolis | 83.06 | 312 | P | P | 01 35 06.6 | -0.5 |
| OUR | Ouranopolis | 83.06 | 312 | P | P | 01 35 06.6 | -0.5 |
| OUR | Ouranopolis | 83.06 | 312 | P | P | 01 35 06.6 | -0.5 |
| BRG | Berggiesshubel | 83.09 | 325⇑ | iP | P | 01 35 07.1 | +0.1 |
| BRG | | | | *PP | sP | 01 35 19.8 | -1.3 |
| BRG | | | | pmax | pmax | | |
| | comp=Z,171nm,1.6s | | | | | | |
| BRG | | | | pmax | pmax | | |
| | comp=Z,38nm,1.4s | | | | | | |
| C09A | Chrisman Ranch | 83.09 | 39 | eP | P | 01 35 07.8 | +0.6 |
| | comp=Z,96nm,1.4s | | | | | | |
| KRMB | Red Mountain | 83.13 | 46 | eP | P | 01 35 09.0 | +1.4 |
| | comp=Z,64nm,1.3s | | | | | | |
| D08A | Wollman Farm, | 83.15 | 40 | eP | P | 01 35 07.9 | +0.4 |
| | comp=Z,57nm,0.9s | | | | | | |
| HUMO | Hull Mountain | 83.17 | 45 | eP | P | 01 35 08.5 | +0.9 |
| | comp=Z,59nm,1.4s | | | | | | |
| G06A | Carlson Farm, | 83.17 | 42 | eP | P | 01 35 08.3 | +0.7 |
| | comp=Z,118nm,1.5s | | | | | | |
| HAWA | Hanford | 83.17 | 41 | eP | P | 01 35 08.3 | +0.7 |
| | comp=Z,54nm,1.0s | | | | | | |
| SOH | Sokhos | 83.22 | 313 | P | P | 01 35 06.9 | -1.1 |
| SOH | Sokhos | 83.22 | 313 | P | P | 01 35 06.9 | -1.1 |
| SOH | Sokhos | 83.22 | 313 | P | P | 01 35 06.9 | -1.1 |
| F07A | Phinny Hill Vi | 83.22 | 41 | eP | P | 01 35 08.8 | +0.9 |
| | comp=Z,75nm,1.2s | | | | | | |
| GOPC | GO Pecny, Ondr | 83.22 | 324⇑ | eP | P | 01 35 07.9 | +0.1 |
| GOPC | | | | epP | sP | 01 35 20.4 | -1.4 |
| GOPC | GO Pecny, Ondr | 83.22 | 324 | eP | P | 01 35 07.9 | +0.1 |
| GOPC | | | | e | | 01 35 20.4 | |
| I05D | Terrebonne, OR | 83.23 | 43 | P | P | 01 35 08.9 | +0.9 |
| | baz=303,SNR=14 | | | | | | |
| KARP | Karpathos | 83.30 | 307 | eP | P | 01 35 07.7 | -0.8 |
| | comp=Z,82nm,1.1s | | | | | | |
| KARP | Karpathos | 83.30 | 307 | P | P | 01 35 07.7 | -0.8 |
| CLL | Collm | 83.30 | 326⇑ | iP | P | 01 35 08.0 | -0.1 |
| CLL | | | | i | | 01 35 18.8 | |
| CLL | | | | eS | S | 01 45 25.0 | -1.5 |
| CLL | | | | pmax | pmax | | |
| | comp=Z,357nm,1.9s | | | | | | |
| CLL | Collm | 83.30 | 326⇑ | iP | P | 01 35 08.0 | -0.1 |
| | comp=Z,357nm,1.9s | | | | | | |
| CLL | | | | i pP | pP | 01 35 18.8 | +0.4 |
| CLL | | | | e | | 01 35 37.0 | |
| CLL | | | | eS | S | 01 45 25.0 | -1.5 |
| CLL | | | | ePS | PnS | 01 46 24.0 | +3.7 |
| CLL | | | | e | | 01 51 48.0 | |
| CLL | | | | e | | 01 55 42.0 | |
| CLL | | | | Lmax | | 02 16 00.0 | |
| CLL | Collm | 83.30 | 326 | eP | P | 01 35 08.0 | -0.1 |
| | comp=Z,110nm,1.2s | | | | | | |
| PRU | Pruhonice | 83.31 | 324⇑ | eP | P | 01 35 08.3 | +0.1 |
| PRU | | | | epP | sP | 01 35 21.2 | -1.0 |
| PRU | Pruhonice | 83.31 | 324 | eP | P | 01 35 08.3 | +0.1 |
| PRU | | | | e | | 01 35 21.2 | |
| PRA | Prague | 83.31 | 324⇑ | eP | P | 01 35 09.0 | +0.8 |
| PRA | Prague | 83.31 | 324 | eP | P | 01 35 09.0 | +0.8 |
| KNT | Kendrikon | 83.34 | 313 | P | P | 01 35 07.5 | -1.1 |
| KNT | Kendrikon | 83.34 | 313 | P | P | 01 35 07.5 | -1.1 |
| KNT | Kendrikon | 83.34 | 313 | P | P | 01 35 07.5 | -1.1 |
| J04D | Umpqua Nationa | 83.36 | 44 | P | P | 01 35 09.7 | +0.8 |
| | baz=303,SNR=17 | | | | | | |
| E08A | Dider Farm, El | 83.39 | 40 | eP | P | 01 35 09.5 | +0.8 |
| | comp=Z,121nm,1.5s | | | | | | |
| PLG | Polygyros | 83.39 | 312 | P | P | 01 35 08.1 | -0.8 |
| PLG | Polygyros | 83.39 | 312 | P | P | 01 35 08.1 | -0.8 |
| PLG | Polygyros | 83.39 | 312 | P | P | 01 35 08.1 | -0.8 |
| JCC | Jacoby Creek, | 83.42 | 47 | eP | P | 01 35 10.5 | +1.5 |
| | comp=Z,86nm,1.2s | | | | | | |
| NEW | Newport | 83.46 | 38 | eP | P | 01 35 09.5 | +0.4 |
| NEW | | | | pmax | pmax | | |
| | comp=Z,51nm,1.1s | | | | | | |
| NEW | Newport | 83.46 | 38 | eP | P | 01 35 09.5 | +0.4 |
| | comp=Z,52nm,1.1s | | | | | | |
| VAY | Valandovo | 83.46 | 314 | P | P | 01 35 08.6 | -0.6 |
| VAY | Valandovo | 83.46 | 314 | P | P | 01 35 08.6 | -0.6 |
| VAY | Valandovo | 83.46 | 314 | P | P | 01 35 08.6 | -0.6 |
| VAY | Valandovo | 83.46 | 314 | i P | P | 01 35 08.9 | -0.2 |
| PAIG | Paliouri | 83.47 | 312 | P | P | 01 35 08.6 | -0.6 |
| PAIG | Paliouri | 83.47 | 312 | P | P | 01 35 08.6 | -0.6 |
| PAIG | Paliouri | 83.47 | 312 | P | P | 01 35 08.6 | -0.6 |
| HORT | Hortiatis | 83.50 | 313 | P | P | 01 35 08.4 | -1.1 |
| HORT | Hortiatis | 83.50 | 313 | P | P | 01 35 08.4 | -1.1 |
| KHMM | Horse Mountain | 83.59 | 47 | eP | P | 01 35 11.5 | +1.4 |
| | comp=Z,104nm,1.6s | | | | | | |
| APE | Apeiranthos | 83.68 | 309⇑ | iP | P | 01 35 09.7 | -0.7 |
| APE | Apeiranthos | 83.68 | 309c | iP | P | 01 35 08.4 | -2.0 |
| APE | | | | pmax | pmax | | |
| | comp=Z,73nm,1.1s | | | | | | |
| APE | Apeiranthos | 83.68 | 309 | P | P | 01 35 08.5 | -2.0 |
| APE | Apeiranthos | 83.68 | 309 | P | P | 01 35 08.5 | -2.0 |
| GRG | Griva | 83.76 | 313 | P | P | 01 35 09.8 | -1.0 |
| GRG | Griva | 83.76 | 313 | P | P | 01 35 09.8 | -1.0 |
| GRG | Griva | 83.76 | 313 | P | P | 01 35 09.8 | -1.0 |
| YBH | Yreka Blue Hor | 83.79 | 46 | eP | P | 01 35 11.8 | +0.8 |
| YBH | | | | pmax | pmax | | |
| | comp=Z,59nm,1.3s | | | | | | |
| YBH | Yreka Blue Hor | 83.79 | 46 | eP | P | 01 35 11.8 | +0.8 |
| | comp=Z,59nm,1.3s | | | | | | |
| CONA | Conrad Observa | 83.81 | 322 | i PcP | P | 01 35 11.7 | +0.8 |
| | comp=Z,200nm,1.2s,SNR=82 | | | | | | |
| SKO | Skopje | 83.84 | 315 | P | P | 01 35 11.3 | +0.2 |
| SKO | Skopje | 83.84 | 315 | P | P | 01 35 11.3 | +0.2 |
| SKO | Skopje | 83.84 | 315 | P | P | 01 35 11.3 | +0.2 |
| SKO | Skopje | 83.84 | 315 | i P | P | 01 35 11.4 | +0.2 |
| J05D | Fort Rock, OR | 83.87 | 44 | P | P | 01 35 11.9 | +0.5 |
| | baz=303,SNR=36 | | | | | | |
| M02C | Callahan | 83.88 | 46 | P | P | 01 35 12.2 | +0.8 |
| | baz=302,SNR=20 | | | | | | |
| E09A | Wood Farm, Sta | 83.90 | 40 | eP | P | 01 35 11.8 | +0.5 |
| | comp=Z,116nm,1.3s | | | | | | |
| K04D | Chiloquin, OR | 83.91 | 45 | P | P | 01 35 12.4 | +0.8 |
| | baz=303,SNR=18 | | | | | | |
| KARY | Karystos | 83.94 | 310 | P | P | 01 35 10.7 | -1.0 |
| KMRM | Mail Ridge | 83.94 | 47 | eP | P | 01 35 13.1 | +1.4 |
| | comp=Z,104nm,1.8s | | | | | | |
| EREA | Eretria | 84.08 | 310 | P | P | 01 35 11.1 | -1.3 |
| SANT | Santorini | 84.08 | 308 | eP | P | 01 35 10.7 | -1.8 |
| | comp=Z,289nm,1.2s | | | | | | |
| XOR | Xorichti | 84.08 | 312 | P | P | 01 35 10.3 | -2.1 |
| XOR | Xorichti | 84.08 | 312 | P | P | 01 35 10.3 | -2.1 |
| NEO | Neokhori | 84.09 | 312 | P | P | 01 35 11.6 | -0.9 |
| NEO | Neokhori | 84.09 | 312 | P | P | 01 35 11.6 | -0.9 |
| G08A | Pilot Rock | 84.12 | 41 | eP | P | 01 35 13.3 | +0.7 |
| | comp=Z,68nm,1.5s | | | | | | |
| BEHE | Becsehely | 84.14 | 320⇓ | eP | P | 01 35 13.4 | +0.9 |
| LIT | Litokhoron | 84.16 | 312 | P | P | 01 35 11.6 | -1.2 |
| LIT | Litokhoron | 84.16 | 312 | P | P | 01 35 11.6 | -1.2 |
| LIT | Litokhoron | 84.16 | 312 | P | P | 01 35 11.6 | -1.2 |
| ZKR | Zakros | 84.18 | 307 | P | P | 01 35 11.9 | -1.1 |
| ZKR | Zakros | 84.18 | 307 | P | P | 01 35 11.9 | -1.1 |
| N02D | Trinity Center | 84.19 | 46 | P | P | 01 35 13.7 | +0.7 |
| | baz=302,SNR=23 | | | | | | |
| FYTO | Fytoko, Volos | 84.22 | 312 | P | P | 01 35 11.5 | -1.6 |
| FYTO | Fytoko, Volos | 84.22 | 312 | P | P | 01 35 11.5 | -1.6 |
| NKC | Novy Kostel | 84.23 | 325⇑ | iP | P | 01 35 13.1 | +0.1 |
| NKC | Novy Kostel | 84.23 | 325⇑ | iP | P | 01 35 13.1 | +0.1 |
| KRUS | Krusevo | 84.28 | 314 | i P | P | 01 35 12.7 | -0.8 |
| KCPM | Cahto Peak | 84.31 | 48 | eP | P | 01 35 14.8 | +1.2 |
| | comp=Z,141nm,1.7s | | | | | | |
| M04C | Macdoel | 84.31 | 45 | P | P | 01 35 14.2 | +0.5 |
| | baz=303,SNR=61 | | | | | | |
| IVA | Berane | 84.31 | 316⇑ | iP | P | 01 35 14.0 | +0.4 |
| PTL | Penteli | 84.32 | 310 | P | P | 01 35 12.2 | -1.4 |
| PTL | Penteli | 84.32 | 310 | P | P | 01 35 12.2 | -1.4 |
| KHC | Kasperske Hory | 84.32 | 324⇑ | iP | P | 01 35 13.3 | -0.1 |
| KHC | | | | epP | pP | 01 35 23.4 | -0.4 |
| KHC | Kasperske Hory | 84.32 | 324 | eP | P | 01 35 13.4 | -0.1 |
| KHC | | | | pmax | pmax | | |
| | comp=Z,41nm,1.5s | | | | | | |
| KHC | Kasperske Hory | 84.32 | 324 | eP | P | 01 35 13.3 | -0.1 |
| | comp=Z,41nm,1.5s | | | | | | |
| ARSA | Arzberg | 84.39 | 321 | i PcP | P | 01 35 14.6 | +0.8 |
| | comp=Z,85nm,1.4s,SNR=33 | | | | | | |

ATHU Athens Univers 84.41 310 P P 01 35 11.8 -2.3
ATHU Athens Univers 84.41 310 P P 01 35 11.8 -2.3
BIA Bitola 84.42 314 *i* P P 01 35 13.5 -0.7
PVY Plav 84.42 316 *e*P P 01 35 13.7 -0.5
GEC2 GERESS Array S 84.43 323 *e*P P 01 35 14.0 -0.1
GEC2 pmax pmax
comp=Z,56nm,1.3s
GEC2 GERESS Array S 84.43 323 *e*P P 01 35 14.0 -0.1
comp=Z,56nm,1.3s
GERES GERESS Array B 84.43 323 P P 01 35 14.0 -0.1
comp=Z,14nm,0.7s,baz=56,slow=5.0,SNR=79
GEA0 GERESS Array S 84.43 323 *e*P P 01 35 13.4 -0.7
KOGS Kog 84.45 320 *e*P P 01 35 13.6 -0.5
VLY Voula,Athens 84.47 310 P P 01 35 12.4 -2.0
VLY Voula,Athens 84.47 310 P P 01 35 12.4 -2.0
I07A Izee 84.48 43 *e*P P 01 35 15.3 +0.9
comp=Z,64nm,1.4s
WDC Whiskeytown Da 84.51 47 *e*P P 01 35 15.0 +0.5
WDC pmax pmax
comp=Z,51nm,1.2s
WDC Whiskeytown Da 84.51 47 *e*P P 01 35 15.0 +0.5
comp=Z,51nm,1.2s
KZN Kozani 84.51 313 P P 01 35 13.6 -1.1
KZN Kozani 84.51 313 P P 01 35 13.6 -1.1
KZN Kozani 84.51 313 P P 01 35 13.6 -1.1
NPS Neapolis 84.53 307 P P 01 35 13.8 -1.0
NPS Neapolis 84.53 307 P P 01 35 13.8 -1.0
NPS Neapolis 84.53 307 P P 01 35 13.8 -1.0
MRIV Mauritius Mete 84.56 244 *e*P P 01 35 15.6 +0.6
KOME Kolasin 84.56 316 *e*P P 01 35 15.0 +0.1
LKR Lokris 84.58 311 P P 01 35 13.1 -1.8
LKR Lokris 84.58 311 P P 01 35 13.1 -1.8
VILL Villia 84.63 311 P P 01 35 13.3 -1.9
LAST Lasithi 84.68 307 P P 01 35 14.8 -0.8
LAST Lasithi 84.68 307 P P 01 35 14.8 -0.8
OHR Ohrid 84.70 314 *i* P P 01 35 14.7 -0.9
WALA Waterton Lakes 84.71 36 *e*P P 01 35 16.3 +0.8
comp=Z,86nm,1.3s
MOA Molln 84.72 322 *i* PcP P 01 35 16.1 +0.6
comp=Z,38nm,0.8s,SNR=16
F10A Beach Ranch, E 84.73 40 *e*P P 01 35 16.2 +0.5
comp=Z,31nm,1.3s
UPM Unac-Piva 84.73 317⇑ *i*P P 01 35 14.8 -1.1
THL Klokotos Trika 84.75 312 P P 01 35 13.4 -2.3
AGG Agios Georgios 84.83 312 *e*P P 01 35 14.8 -1.4
AGG pmax pmax
comp=Z,196nm,1.0s
AGG Agios Georgios 84.83 312 *e*P P 01 35 14.8 -1.4
comp=Z,196nm,1.0s
AGG Agios Georgios 84.83 312 P P 01 35 14.2 -2.0
BLY Banja Luka 84.89 319 *e*P P 01 35 16.9 +0.5
comp=Z,108nm,1.3s
NKY Niksic 84.90 316 *e*P P 01 35 16.4 -0.2
NEST Nestorio 84.92 313 P P 01 35 14.9 -1.8
NKME Niksic 84.95 316⇑ *i*P P 01 35 16.3 -0.5
PDG Podgorica 84.95 316⇑ *i*P P 01 35 16.2 -0.5
PDG Podgorica 84.95 316 P P 01 35 14.4 -2.3
TTG Podgorica 84.95 316⇑ *i*P P 01 35 16.4 -0.3
TTG Podgorica 84.95 316 P P 01 35 14.4 -2.3
TTG Podgorica 84.95 316 P P 01 35 14.4 -2.3
SOKA Soboth 85.00 321 *i* PcP P 01 35 17.1 +0.2
comp=Z,132nm,1.5s,SNR=46
DSF Desfina 85.02 311 P P 01 35 12.7 -4.5
DSF Desfina 85.02 311 P P 01 35 12.7 -4.5
IDI Anoyia 85.03 307 P P 01 35 16.1 -1.2
IDI Anoyia 85.03 307 P P 01 35 16.1 -1.2
CEME Cevo 85.09 316⇑ *i*P P 01 35 17.0 -0.5
DRME Dracevica, Mon 85.13 316⇑ *i*P P 01 35 17.5 -0.1
O03D Paynes Creek 85.14 47 P P 01 35 17.8 0.0
baz=303
KRND KRANIDI 85.15 310 P P 01 35 14.4 -3.4
TIR Tirane 85.17 315⇓ *i*P P 01 35 18.4 +0.6
TIR Tirane 85.17 315 *e*P P 01 35 18.2 +0.4
TIR pmax pmax
comp=Z,258nm,1.2s
TIR Tirane 85.17 315 *e*P P 01 35 18.1 +0.4
comp=Z,258nm,1.2s
GRFO Grafenberg 85.19 325 *e*P P 01 35 18.7 +0.9
GRFO pmax pmax
comp=Z,151nm,1.2s
GRFO Grafenberg 85.19 325 *e*P P 01 35 18.7 +0.9
comp=Z,151nm,1.2s
MOD Modoc Plateau 85.20 45 *e*P P 01 35 18.8 +0.6
comp=Z,99nm,1.2s
ULC Ulcinj 85.21 315⇑ *i*P P 01 35 18.4 +0.3
SIVA Sivas 85.22 307 P P 01 35 16.9 -1.3
SIVA Sivas 85.22 307 P P 01 35 16.9 -1.3
BUM Brajici-Budva 85.24 316⇑ *i*P P 01 35 18.2 -0.1
SFJD Kangerlussuaq 85.25 0 *e*P P 01 35 17.5 -0.2
SFJD pmax pmax
comp=Z,111nm,1.3s
SFJD Kangerlussuaq 85.25 0 *i* P P 01 35 17.3 -0.4
comp=Z,49nm,0.9s
SFJD Kangerlussuaq 85.25 0 *e*P P 01 35 17.5 -0.2
comp=Z,111nm,1.3s
KALE Kalithea 85.29 311 P P 01 35 16.5 -2.1
KALE Kalithea 85.29 311 P P 01 35 16.5 -2.1
JTMT Jette 85.31 37 *e*P P 01 35 19.2 +0.7
comp=Z,63nm,1.2s
ANX Ano Chora 85.33 311 P P 01 35 17.2 -1.6
BMO Blue Mountains 85.33 41 *e*P P 01 35 19.1 +0.4
BMO pmax pmax
comp=Z,67nm,1.3s
BMO Blue Mountains 85.33 41 *e*P P 01 35 19.1 +0.4
comp=Z,67nm,1.3s
SERG Sergoula 85.34 311 P P 01 35 15.9 -2.9
OBKA Obir 85.36 321 *i* PcP P 01 35 19.0 +0.2
comp=Z,49nm,1.2s,SNR=13
GUR Goura 85.40 311 P P 01 35 15.3 -3.9
GUR Goura 85.40 311 P P 01 35 15.3 -3.9
HCY Herceg Novi 85.41 316⇑ *i*P P 01 35 19.0 0.0
EFP Efpalio 85.43 311 P P 01 35 16.4 -2.8
VAM Vamos 85.45 308 P P 01 35 17.4 -2.0
VAM Vamos 85.45 308 P P 01 35 17.4 -2.0
VAM Vamos 85.45 308 P P 01 35 17.4 -2.0
JAN Janina 85.46 313 P P 01 35 18.6 -0.8
JAN Janina 85.46 313 P P 01 35 18.6 -0.8
JAN Janina 85.46 313 P P 01 35 18.6 -0.8
KLV Kalavryta, Ach 85.47 311 P P 01 35 16.2 -3.3
KLV Kalavryta, Ach 85.47 311 P P 01 35 16.2 -3.3
LAKA Lakka 85.48 311 P P 01 35 17.0 -2.5
LAKA Lakka 85.48 311 P P 01 35 17.0 -2.5
J08A Circle Bar Ran 85.50 43 *e*P P 01 35 20.7 +1.1
comp=Z,114nm,1.3s
BOJS Bojanci 85.56 320 *i* P P 01 35 19.6 -0.1
IMMV Iera Moni Meta 85.58 308 P P 01 35 17.5 -2.5
DSL Palaion Diasel 85.58 312 P P 01 35 17.9 -2.1
DSL Palaion Diasel 85.58 312 P P 01 35 17.9 -2.1
MCCM Marconi Confer 85.59 49 *e*P P 01 35 21.1 +1.1
comp=Z,93nm,1.1s
VLI Veliai 85.64 309 P P 01 35 15.9 -4.4
VLI Veliai 85.64 309 P P 01 35 15.9 -4.4
STON Ston 85.65 317 P P 01 35 20.3 +0.2
LJU Ljubljana 85.65 321 *e*P P 01 35 20.0 -0.2
VLX Vlachokerasia 85.67 310 P P 01 35 19.4 -1.2
VLX Vlachokerasia 85.67 310 P P 01 35 19.4 -1.2
KBA Koelnbreinsper 85.69 322 *i* PcP P 01 35 20.9 +0.4
comp=Z,63nm,1.1s,SNR=24
ORV Oroville 85.73 47 *e*P P 01 35 20.6 -0.1
ORV pmax pmax
comp=Z,49nm,1.0s
ORV Oroville 85.73 47 *e*P P 01 35 20.6 -0.1
comp=Z,49nm,1.0s
MYKA Terra Mystica 85.79 322 *i* PcP P 01 35 21.0 +0.1
comp=Z,56nm,1.1s,SNR=21
DRO Drossia 85.81 311 P P 01 35 19.8 -1.3
PDO Prodromos 85.81 312 P P 01 35 19.6 -1.5
GVD Gavdhos 85.83 307 P P 01 35 19.3 -1.9
GVD Gavdhos 85.83 307 P P 01 35 19.3 -1.9
UDBI Udbina 85.84 319 P P 01 35 20.8 -0.4
WTSB Winterswijk 85.86 329 *e*P P 01 35 20.4 -0.6
comp=Z,98nm,1.5s
WVOR Wild Horse Val 85.93 44 *e*P P 01 35 22.5 +0.7
WVOR pmax pmax
comp=Z,65nm,1.2s
WVOR Wild Horse Val 85.93 44 *e*P P 01 35 22.5 +0.7
comp=Z,65nm,1.2s
CADS Cadrg 85.98 321 *i* P P 01 35 20.8 -1.0
JAVS Javornik 86.00 321 *i* P P 01 35 21.1 -1.0
AMT Artemida-Makis 86.04 311 P P 01 35 19.4 -2.9
MSO Missoula 86.05 38 *e*P P 01 35 22.3 0.0
comp=Z,50nm,1.2s
ITM Ithomi 86.08 310 P P 01 35 20.0 -2.5
ITM Ithomi 86.08 310 P P 01 35 20.0 -2.5
TRI Trieste 86.28 321 *e*P P 01 35 22.9 -0.3
TRI pmax pmax
comp=Z,101nm,1.3s
TRI Trieste 86.28 321 *e*P P 01 35 22.9 -0.3
comp=Z,101nm,1.3s
BEKR Beckworth 86.30 46 *e*P P 01 35 24.0 +0.3
comp=Z,77nm,1.0s
ABTA Abfaltersbach 86.34 322 *i* P P 01 35 22.8 -0.9
comp=Z,128nm,1.1s,SNR=67
PYL PYLOS 86.36 310 P P 01 35 20.2 -3.6
PYL PYLOS 86.36 310 P P 01 35 20.2 -3.6
AFDM Forest Hills D 86.41 47 *e*P P 01 35 24.3 +0.2
comp=Z,53nm,1.2s
VLS Valsamata 86.44 312 P P 01 35 22.4 -1.8
VLS Valsamata 86.44 312 P P 01 35 22.4 -1.8
VLS Valsamata 86.44 312 P P 01 35 22.4 -1.8
FFC Flin Flon 86.45 27 *e*P P 01 35 23.8 -0.1
FFC pmax pmax
comp=Z,129nm,1.3s
FFC Flin Flon 86.45 27 *e*P P 01 35 23.8 -0.1
comp=Z,129nm,1.3s
WATA Walderalm 86.48 323 *i* PcP P 01 35 23.9 -0.5
comp=Z,71nm,1.2s,SNR=32
WTTA Wattenberg 86.49 323 *i* PcP P 01 35 24.3 -0.2
comp=Z,104nm,1.1s,SNR=29
FURI Furi 86.60 278 *e*P P 01 35 28.4 +2.6
comp=Z,254nm,1.4s
MOTA Moosalm 86.72 323 *i* P P 01 35 24.9 -0.7
comp=Z,44nm,0.6s,SNR=74
STU Stuttgart 86.80 325 *e*P P 01 35 24.9 -0.9
STU pmax pmax
comp=Z,59nm,1.0s
STU Stuttgart 86.80 325 *e*P P 01 35 24.9 -0.9
comp=Z,59nm,1.0s
RETA Reutte 86.81 323 *i* PcP P 01 35 27.4 +1.5
comp=Z,53nm,1.6s,SNR=11
PAHR Pah Rah Range 87.01 46 *e*P P 01 35 27.6 +0.5
comp=Z,82nm,1.1s
MFID Camas Ranch 87.04 42 *e*P P 01 35 27.9 +0.7
comp=Z,93nm,1.4s
HGN Heimansgroeve 87.08 328 *e*P P 01 35 26.4 -0.6
comp=Z,76nm,1.6s
FETA Feichten 87.13 323 *i* PcP P 01 35 27.3 -0.3
comp=Z,61nm,1.1s,SNR=28
MEM Membach 87.14 328 P P 01 35 26.8 -0.6
comp=Z,33nm,1.4s
BEBN Eben Emael 87.17 328 P P 01 35 26.5 -1.0
comp=Z,16nm,1.1s
PNTR Pine Nut 87.22 47 *e*P P 01 35 29.1 +0.8
comp=Z,206nm,1.8s
HRY Holter Researc 87.26 37 *e*P P 01 35 28.9 +0.7
SAO San Andreas Ge 87.29 49 *e*P P 01 35 29.0 +0.6
SAO pmax pmax
comp=Z,24nm,1.1s
SAO San Andreas Ge 87.29 49 *e*P P 01 35 29.0 +0.6
comp=Z,24nm,1.1s
CMB Columbia Colle 87.30 48 *e*P P 01 35 28.4 -0.1
CMB pmax pmax
comp=Z,48nm,1.0s
CMB Columbia Colle 87.30 48 *e*P P 01 35 28.4 -0.1
comp=Z,48nm,1.0s
DAVA Damuels 87.40 324 *i* PcP P 01 35 28.7 -0.2
comp=Z,81nm,1.1s,SNR=24
LRM Limekiln Ridge 87.48 38 *e*P P 01 35 30.1 +0.6
EGMT Eagleton 87.50 35 *e*P P 01 35 29.8 +0.5
comp=Z,130nm,1.0s
YERR Yerington 87.51 47 *e*P P 01 35 30.3 +0.6
comp=Z,89nm,1.3s
BFO Black Forest 87.53 325 *i* P P 01 35 29.3 0.0
BFO Black Forest 87.53 325 *e*P P 01 35 28.8 -0.6
comp=Z,35nm,1.1s
BCLA Clavier 87.60 328 P P 01 35 28.6 -0.9
comp=Z,13nm,1.2s
FUORN Ofenpass-Fuorn 87.63 323 *e*P P 01 35 29.9 -0.3
comp=Z,128nm,0.9s
ESK Eskdalemuir 87.64 335 *e*P P 01 35 28.2 -1.4
ESK pmax pmax
comp=Z,60nm,1.2s
ESK Eskdalemuir 87.64 335 *e*P P 01 35 28.2 -1.4
comp=Z,60nm,1.2s
WAKR Walker 87.65 47 *e*P P 01 35 31.2 +0.9
comp=Z,44nm,1.3s
DLMT Dillon 87.69 39 *e*P P 01 35 31.1 +0.8
comp=Z,158nm,1.4s
WLF Walferdange 87.71 327 P P 01 35 30.1 -0.1
comp=Z,31nm,1.6s
WLF Walferdange 87.71 327 *e*P P 01 35 30.0 -0.1
WLF pmax pmax
comp=Z,65nm,1.3s
WLF Walferdange 87.71 327 *e*P P 01 35 29.9 -0.2
comp=Z,65nm,1.3s
HLID Hailey 87.77 41 *e*P P 01 35 31.9 +1.1
comp=Z,58nm,1.1s
MCMT McKenzie Canyo 87.88 39 *e*P P 01 35 32.2 +0.8
SNF Seneffe 88.02 329 P P 01 35 33.6 +2.1
PMPB Monarch Peak 88.03 50 *e*P P 01 35 33.2 +1.2
comp=Z,35nm,1.3s
BOZ Bozeman (W) 88.07 38 *e*P P 01 35 32.8 +0.6
BOZ pmax pmax
comp=Z,41nm,1.1s
BOZ Bozeman (W) 88.07 38 *e*P P 01 35 32.8 +0.6
comp=Z,41nm,1.1s
DOU Dourbes 88.16 328 P P 01 35 31.5 -0.7
comp=Z,16nm,1.3s
ECH Echery 88.19 326 *e*P P 01 35 31.4 -1.1
ECH pmax pmax
comp=Z,21nm,1.2s
ECH Echery 88.19 326 *e*P P 01 35 31.4 -1.1
comp=Z,21nm,1.2s
TUE Stuetta 88.21 323 *e*P P 01 35 32.5 -0.3
comp=Z,70nm,0.8s
MDPB Devils Postpil 88.38 48 *e*P P 01 35 34.8 +0.9
comp=Z,36nm,1.3s
CUC Castrocucco 88.47 315 *e*P P 01 35 33.0 -1.0
comp=Z,24nm,1.3s
AQU L'Aquila 88.52 318 *e*P P 01 35 34.8 +0.6
AQU pmax pmax
comp=Z,148nm,1.1s
AQU L'Aquila 88.52 318 *e*P P 01 35 34.8 +0.6
comp=Z,148nm,1.1s
MLAC Mammoth, Mammo 88.54 48 P P 01 35 35.7 +1.1
baz=305
QLMT Earthquake Lak 88.67 38 *e*P P 01 35 36.3 +1.2
PAGB Antelope Grade 88.67 50 *e*P P 01 35 32.0 -3.0
comp=Z,122nm,1.6s
YHB Horse Butte 88.85 38 *e*P P 01 35 37.3 +1.3
comp=Z,63nm,1.0s
GCMT Greycliff 89.00 37 *e*P P 01 35 37.4 +0.9
YHH Holmes Hill 89.01 38 *e*P P 01 35 37.9 +1.1
comp=Z,53nm,1.4s
RCTC Rector, Farmer 89.02 49 P P 01 35 37.3 +0.7
baz=305
YMR Madison River 89.03 38 *e*P P 01 35 38.3 +1.5
comp=Z,55nm,1.0s
SMMC Simmler 89.08 50 P P 01 35 37.1 +0.2
baz=304
VLC Villacollemand 89.12 321 *e*P P 01 35 41.1 +4.1
comp=Z,44nm,1.2s
YNR Norris Junctio 89.15 38 *e*P P 01 35 39.8 +2.4
comp=Z,56nm,1.3s
YFT Old Faithful 89.24 38 *e*P P 01 35 40.7 +2.9
comp=Z,60nm,1.1s
TIN Tinemaha, Big 89.26 48 P P 01 35 37.6 -0.3
baz=305
SENIN Lac Senin/Sane 89.35 324 *e*P P 01 35 37.4 -0.8
comp=Z,16nm,1.1s
VES Veal, Richgr 89.39 49 P P 01 35 38.8 +0.4
baz=305
LKWY Lake 89.40 38 *e*P P 01 35 41.4 +2.8
LKWY pmax pmax
comp=Z,92nm,1.3s
LKWY Lake 89.40 38 *e*P P 01 35 41.4 +2.8
comp=Z,92nm,1.3s
H17A Grant Village 89.42 38 P P 01 35 41.5 +2.9
baz=310
H17A Grant Village 89.42 38 *e*P P 01 35 41.5 +2.9
comp=Z,132nm,1.4s
CEL Celeste 89.44 314 *e*P P 01 35 39.3 +0.7
comp=Z,78nm,1.0s
PKM Mcpherson Peak 89.44 50 P P 01 35 39.5 +0.7
baz=304
IMW Indian Meadow 89.53 39 *e*P P 01 35 40.8 +1.5
comp=Z,59nm,1.3s
FXWY Fox Creek 89.65 39 *e*P P 01 35 41.0 +1.2
comp=Z,36nm,1.3s
RLMT Red Lodge 89.65 37 *e*P P 01 35 40.9 +1.2
comp=Z,102nm,1.4s
CWC Cottonwood Cre 89.72 48 P P 01 35 40.0 -0.1
baz=305
MOOW Moose Ponds 89.74 39 *e*P P 01 35 41.4 +1.3
comp=Z,72nm,1.7s
TPAW Teton Pass 89.79 39 *e*P P 01 35 41.8 +1.3
comp=Z,52nm,1.3s
HVU Hansel Valley 89.82 41 *e*P P 01 35 41.7 +1.2
HVU pmax pmax
comp=Z,69nm,1.2s
HVU Hansel Valley 89.82 41 *e*P P 01 35 41.7 +1.2
comp=Z,69nm,1.2s
GRAC Grapevine Rang 89.86 47 P P 01 35 41.2 +0.6
baz=306
LOHW Long Hollow 89.90 39 *e*P P 01 35 42.0 +1.1
comp=Z,82nm,2.0s
SNOW Snow King Moun 89.92 39 *e*P P 01 35 42.4 +1.4
comp=Z,35nm,1.3s
REDW Red Top Meadow 89.92 39 *e*P P 01 35 42.1 +1.1
comp=Z,68nm,1.5s
DGMT Dagmar 89.94 32 *e*P P 01 35 41.5 +0.7
comp=Z,174nm,1.3s
AHID Auburn Hatcher 90.17 40 *e*P P 01 35 42.4 +0.3
comp=Z,39nm,1.3s
LAO LASA Array 90.19 35 *e*P P 01 35 42.9 +1.0
comp=Z,141nm,1.3s
BGU Big Grassy Mou 90.20 42 *e*P P 01 35 43.6 +1.3
comp=Z,119nm,1.7s
R11A Troy Canyon, C 90.20 45 P P 01 35 43.0 +0.6
baz=307
R11A Troy Canyon, C 90.20 45 *e*P P 01 35 43.1 +0.8
comp=Z,57nm,1.4s
SPUT South Promonto 90.31 42 *e*P P 01 35 43.9 +1.1
comp=Z,83nm,1.4s
MPMC Manual Prospec 90.33 48 P P 01 35 43.2 +0.2
baz=306
FURC Furnace Creek, 90.50 48 P P 01 35 43.8 +0.3
baz=306
LRMC Laurel Mtn Rad 90.53 49 P P 01 35 43.7 -0.1
baz=306
BNI Bardonecchia 90.55 323 *e*P P 01 35 42.6 -1.2
BNI pmax pmax
comp=Z,18nm,1.0s
BNI Bardonecchia 90.55 323 *e*P P 01 35 42.6 -1.2
comp=Z,18nm,1.0s
PMOR Pomariorio Ree 90.59 107 *e*P P 01 35 46.2 +2.1
comp=Z,111nm,1.2s
PMOR Pomariorio Ree 90.59 107 *e*T T 03 15 28.6
comp=Z,8.7nm,0.2s
TPNV Topopah Spring 90.61 47 *e*P P 01 35 44.9 +0.6
TPNV pmax pmax
comp=Z,53nm,1.3s
TPNV Topopah Spring 90.61 47 *e*P P 01 35 44.9 +0.6
comp=Z,53nm,1.3s
EDW2 Edwards Air Fo 90.67 49 P P 01 35 44.7 +0.3
baz=306,SNR=9.3
DUG Dugway, Tooele 90.78 43 *e*P P 01 35 46.2 +1.2
DUG pmax pmax
comp=Z,125nm,1.4s
DUG Dugway, Tooele 90.78 43 *e*P P 01 35 46.2 +1.2
comp=Z,125nm,1.4s
VAH Vaihoa 90.93 107 *e*P P 01 35 47.6 +1.9
comp=Z,46nm,1.1s
BW06 Boulder Array 91.03 39 *e*P P 01 35 46.5 +0.3
comp=Z,35nm,1.2s
PD31 Pinedale Array 91.03 39 *e*P P 01 35 46.5 +0.4
PDAR Pinedale Array 91.03 39 P P 01 35 46.4 +0.2
comp=Z,13nm,0.9s,baz=312,slow=1.1,SNR=81
PDAR Pinedale Array 91.03 39 *e*P P 01 35 45.7 -0.5
TCUT Toone Canyon 91.04 41 *e*P P 01 35 47.5 +1.3
comp=Z,186nm,1.4s
CTU Camp Tracy 91.11 42 *e*P P 01 35 47.6 +1.1
comp=Z,55nm,1.3s
SHOC Shoshone, Teco 91.22 48 P P 01 35 46.7 -0.2
baz=306
GSC Goldstone, Bar 91.22 49 P P 01 35 47.2 +0.2
baz=306
GSC Goldstone, Bar 91.22 49 *e*P P 01 35 47.5 +0.5
GSC pmax pmax
comp=Z,78nm,1.7s
GSC Goldstone, Bar 91.22 49 *e*P P 01 35 47.5 +0.5
comp=Z,78nm,1.7s
JLU Jordanelle 91.34 42 *e*P P 01 35 48.7 +1.0
comp=Z,78nm,1.5s
NLU North Lily Min 91.38 43 *e*P P 01 35 49.0 +1.2
comp=Z,65nm,1.2s
SSB Saint Sauveur 91.50 325 *e*P P 01 35 48.4 +0.3
SSB pmax pmax
comp=Z,7.0nm,1.0s
SSB Saint Sauveur 91.50 325 *e*P P 01 35 48.4 +0.3
comp=Z,7.1nm,1.0s
SHPR Sheep Range 91.58 47 *e*P P 01 35 49.8 +1.0
comp=Z,58nm,1.3s
MPU Maple Canyon 91.60 42 *e*P P 01 35 50.5 +1.6
comp=Z,77nm,1.2s
TUQ Turquoise Moun 91.72 48 P P 01 35 50.1 +0.7
baz=307
HEC Hector,Ludlow 91.81 49 P P 01 35 50.3 +0.6
baz=306,SNR=18
MURC Murrieta 91.95 50 P P 01 35 51.0 +0.6
baz=306,SNR=5.7
CCUT Cedar City 92.08 45 *e*P P 01 35 52.2 +1.1
comp=Z,37nm,0.9s
MSU Marysvale 92.22 44 *e*P P 01 35 53.4 +1.6
MSU Marysvale 92.22 44 *e*P P 01 35 53.4 +1.6
SZCU Shurtz Canyon 92.23 45 *e*P P 01 35 52.8 +0.9
comp=Z,31nm,1.3s
ABPO Ambohimpanom 92.25 250 *e*P P 01 35 51.9 -0.1
ABPO pmax pmax
comp=Z,39nm,1.2s
ABPO Ambohimpanom 92.25 250 *e*P P 01 35 51.9 -0.1
comp=Z,39nm,1.2s
ULM Lac du Bonnet 92.28 27 P P 01 35 51.3 -0.2
comp=Z,1.0s,baz=315,slow=4.9,SNR=45
GMRC Granite Mounta 92.28 48 P P 01 35 52.4 +0.4
baz=307,SNR=18
TMUT Trail Mountain 92.31 43 *e*P P 01 35 53.4 +1.1
comp=Z,54nm,1.4s
109C Camp Elliot, M 92.43 51 P P 01 35 53.3 +0.8
baz=306
PFO Pinyon Flats O 92.44 50 P P 01 35 53.4 +0.6
baz=306,SNR=26
PFO Pinyon Flats O 92.44 50 *e*P P 01 35 53.3 +0.6
PFO pmax pmax
comp=Z,66nm,1.4s
PFO Pinyon Flats O 92.44 50 *e*P P 01 35 53.3 +0.6
comp=Z,66nm,1.4s
XPFO Piæon Flat 92.44 50 *e*P P 01 35 53.4 +0.6
comp=Z,64nm,1.3s
LDFC Landfair 92.47 48 *e*P P 01 35 54.0 +1.2
comp=Z,103nm,1.3s
P17A Butcher Ranch, 92.48 42 *e*P P 01 35 54.1 +1.3
comp=Z,160nm,1.3s
LCMT Little Creek M 92.49 45 *e*P P 01 35 54.0 +1.1
comp=Z,71nm,1.2s
MTPU Mount Pierson 92.51 44 *e*P P 01 35 54.9 +1.6
comp=Z,87nm,1.3s
KMBO Kilima Mbogo 92.52 270 P P 01 35 53.6 +0.1
comp=Z,15nm,0.9s,baz=41,slow=7.4,SNR=26
KMBO Kilima Mbogo 92.52 270 *ce*P P 01 35 53.5 0.0
KMBO pmax pmax
comp=Z,15nm,0.9s
KMBO Kilima Mbogo 92.52 270 *e*P P 01 35 54.5 +1.0
comp=Z,31nm,1.1s
KMBO Kilima Mbogo 92.52 270 P P 01 35 54.9 +1.3
SNR=10
KMBO Kilima Mbogo 92.52 270 PcP P 01 35 54.9 +1.3
SNR=10
MDND Maddock 92.52 31 P P 01 35 53.2 +0.5
baz=318
MDND Maddock 92.52 31 *e*P P 01 35 53.8 +1.2
comp=Z,132nm,1.2s
BELC Belle Mtn. Jos 92.52 49 P P 01 35 53.5 +0.4
baz=307,SNR=14
P18A Preston Nutter 92.67 42 *e*P P 01 35 55.1 +1.2
comp=Z,86nm,1.0s
VSL Villasalto 92.69 318 *e*P P 01 35 54.1 +0.5
comp=Z,59nm,1.0s
KNB Kanab 92.75 45 *e*P P 01 35 55.7 +1.5
KNB pmax pmax
comp=Z,122nm,1.1s
KNB Kanab 92.75 45 *e*P P 01 35 55.7 +1.5
comp=Z,122nm,1.1s
K22A Casper 92.78 38 P P 01 35 54.0 -0.2
baz=313
K22A Casper 92.78 38 *e*P P 01 35 54.8 +0.6
comp=Z,40nm,1.3s
PKCU Pink Cliffs 92.81 45 *e*P P 01 35 56.8 +2.1

comp=Z,40nm,1.3s
**SRU San Rafael Swe 92.84 42** *e*P **P 01 35 55.4 +0.9**
SRU pmax pmax
comp=Z,99nm,1.4s
**SRU San Rafael Swe 92.84 42** *e*P **P 01 35 55.4 +0.9**
comp=Z,99nm,1.4s
**BAR Barrett 92.84 51** *e*P **P 01 35 55.4 +0.9**
comp=Z,44nm,1.1s
**MONP2 Monument Peak 92.89 50** P **P 01 35 55.3 +0.3**
baz=306,SNR=21
**B31A Greenbush Farm 92.94 29** P **P 01 35 54.7 +0.1**
baz=320,SNR=6.1
**IRM Iron Mountain 93.00 49** P **P 01 35 55.8 +0.6**
baz=307,SNR=41
**RWWY Rawlins 93.05 39** *e*P **P 01 35 56.5 +0.9**
comp=Z,47nm,1.3s
**A32A Rocking H Ranc 93.06 28** P **P 01 35 55.2 +0.1**
baz=321,SNR=9.8
**RSSD Black Hills 93.08 35** *e*P **P 01 35 56.1 +0.5**
RSSD pmax pmax
comp=Z,103nm,1.4s
**RSSD Black Hills 93.08 35** *e*P **P 01 35 56.1 +0.5**
comp=Z,103nm,1.4s
**BC3 Big Chuckawall 93.09 49** P **P 01 35 56.3 +0.5**
baz=307,SNR=28
**IKP In-Ko-Pah, Jac 93.25 50** P **P 01 35 57.1 +0.7**
baz=306,SNR=19
**W13A Hualapai Mount 93.25 47** *e*P **P 01 35 57.5 +0.9**
**SWSC Sam W. Stewart 93.28 50** P **P 01 35 57.0 +0.5**
baz=307,SNR=14
**C31A Landman Farms, 93.39 30** P **P 01 35 56.9 +0.2**
baz=320,SNR=12
**B32A Ashes, Strandq 93.44 29** P **P 01 35 56.8 -0.1**
baz=321,SNR=6.8
**A33A Warroad 93.50 28** P **P 01 35 57.2 +0.1**
baz=322
**O20A White River Ci 93.51 41** P **P 01 35 58.1 +0.5**
baz=312
**O20A White River Ci 93.51 41** *e*P **P 01 35 58.3 +0.6**
**PDMCI Parker Dam,Lak 93.57 48** P **P 01 35 58.9 +1.1**
baz=308,SNR=16
**Y12C Blythe 93.65 49** P **P 01 35 59.2 +1.1**
baz=308,SNR=16
**Y12C Blythe 93.65 49** *e*P **P 01 35 59.3 +1.2**
**AGMN Agassiz Nation 93.80 28** *e*P **P 01 35 58.5 0.0**
comp=Z,31nm,1.3s
**GLA Glamis 93.87 49** P **P 01 36 00.2 +1.0**
baz=307,SNR=16
**GLA Glamis 93.87 49** *e*P **P 01 36 00.5 +1.3**
GLA pmax pmax
comp=Z,62nm,1.0s
**GLA Glamis 93.87 49** *e*P **P 01 36 00.5 +1.3**
comp=Z,62nm,1.0s
**B33A Robert and Kas 93.94 28** P **P 01 35 59.0 -0.1**
baz=321
**PV09 Paradox Valley 94.06 42** *e*P **P 01 36 01.4 +1.1**
**B34A Aery, Baudette 94.16 28** P **P 01 35 60.0 -0.2**
baz=322,SNR=8.8
**PV10 Paradox Valley 94.20 42** *e*P **P 01 36 02.3 +1.4**
**E31A Nome 94.26 31** P **P 01 36 00.7 0.0**
baz=320
**C33A Trail 94.26 29** P **P 01 36 00.3 -0.4**
baz=321
**PV04 Paradox Valley 94.27 42** *e*P **P 01 36 01.5 +0.4**
**PHWY Pilot Hill 94.28 38** *e*P **P 01 36 02.1 +0.8**
**N23A Red Feather La 94.29 39** P **P 01 36 02.1 +0.8**
baz=313
**N23A Red Feather La 94.29 39** *e*P **P 01 36 02.7 +1.4**
**PV05 Paradox Valley 94.36 42** *e*P **P 01 36 02.7 +1.1**
**Y14A Wickenburg 94.54 48** *e*P **P 01 36 03.0 +0.7**
**WUAZ Wupatki 94.60 46** *e*P **P 01 36 03.9 +1.2**
comp=Z,75nm,1.3s
**F31A Hecla 94.62 31** P **P 01 36 02.4 0.0**
baz=319
**PV01 Paradox Valley 94.64 42** *e*P **P 01 36 03.7 +0.8**
**B35A Bob, Littlefor 94.64 27** P **P 01 36 02.3 -0.1**
baz=323,SNR=12
**D33A AnnSam, Waubun 94.71 29** P **P 01 36 02.4 -0.4**
baz=321
**SMCO Snowmass 94.87 41** *e*P **P 01 36 05.0 +0.8**
comp=Z,30nm,1.3s
**D34A Park Rapids 95.03 29** P **P 01 36 03.8 -0.4**
baz=322,SNR=6.0
**C35A Jirik Farms, M 95.06 28** P **P 01 36 03.7 -0.6**
baz=323,SNR=7.0
**G31A Conde 95.12 32** P **P 01 36 04.8 +0.1**
baz=319
**KEST Kesra 95.12 315** P **P 01 36 04.3 -0.6**
comp=Z,15nm,1.1s,baz=294,slow=4.8,SNR=10.0
**KEST Kesra 95.12 315** *e*P **P 01 36 05.3 +0.3**
**E33A Westby DABS, E 95.13 30** P **P 01 36 04.7 0.0**
baz=321,SNR=6.0
**ISCO Idaho Springs 95.22 39** *e*P **P 01 36 06.7 +1.1**
ISCO pmax pmax
comp=Z,17nm,1.3s
**ISCO Idaho Springs 95.22 39** *e*P **P 01 36 06.7 +1.1**
comp=Z,17nm,1.3s
**X16A Lo Mia Camp, P 95.25 47** *e*P **P 01 36 07.1 +1.3**
**MVCO Mesa Verde 95.29 43** *e*P **P 01 36 06.6 +0.7**
comp=Z,32nm,1.4s
**SUSD Miller 95.35 33** P **P 01 36 05.5 -0.3**
baz=319
**G32A Webster 95.42 31** P **P 01 36 06.1 0.0**
baz=320
**C36A Pine Crest Far 95.48 27** P **P 01 36 05.6 -0.6**
baz=324,SNR=5.2
**D35A Remer 95.52 28** P **P 01 36 06.1 -0.3**
baz=322
**F33A 5 Mile Ranch, 95.52 30** P **P 01 36 06.4 -0.1**
baz=321,SNR=8.7
**C37A Embarrass 95.76 27** P **P 01 36 07.2 -0.4**
baz=324
**E35A Pequot Lakes 95.78 29** P **P 01 36 07.3 -0.4**
baz=322
**D36A Goodland 95.81 28** P **P 01 36 07.1 -0.6**
baz=323
**EYMN Ely 95.86 26** *e*P **P 01 36 08.3 +0.3**
comp=Z,37nm,1.3s
**214A Organ Pipe Nat 95.89 49** P **P 01 36 09.4 +0.9**
baz=308,SNR=24
**214A Organ Pipe Nat 95.89 49** *e*P **P 01 36 09.1 +0.6**
comp=Z,260nm,1.3s
**S22A 4UR Ranch, Cre 95.92 42** P **P 01 36 09.7 +0.9**
baz=313,SNR=12
**S22A 4UR Ranch, Cre 95.92 42** *e*P **P 01 36 09.9 +1.0**
**G33A Ortonville 95.95 31** P **P 01 36 08.2 -0.3**
baz=320
**F34A Alexandria 96.01 30** P **P 01 36 08.4 -0.3**
baz=322
**C38A Sawbill Land. 96.13 26** P **P 01 36 08.7 -0.6**
baz=325
**H33A Prehn Over Nor 96.21 31** P **P 01 36 09.5 -0.2**
baz=320,SNR=5.7
**G34A Benson 96.27 30** P **P 01 36 10.0 +0.1**
baz=321,SNR=6.8
**E36A McGregor 96.30 28** P **P 01 36 09.7 -0.2**
baz=323
**H34A Spellman Lake, 96.66 31** P **P 01 36 11.3 -0.4**
baz=321
**J32A Parkston 96.69 33** P **P 01 36 11.5 -0.3**
baz=319
**SDCO Great Sand Dun 96.69 41** *e*P **P 01 36 13.2 +0.8**
comp=Z,22nm,1.8s
**F36A Milaca 96.71 29** P **P 01 36 11.7 -0.2**
baz=323
**G35A Watkins 96.80 30** P **P 01 36 12.3 0.0**
baz=322
**K31A O'Neill 96.81 34** P **P 01 36 12.4 -0.1**
baz=319
**E38A The Farm, Brul 96.92 27** P **P 01 36 12.9 0.0**
baz=324
**ECSD EROS Data Cent 96.99 32** *e*P **P 01 36 12.9 -0.3**
comp=Z,5.8nm,0.9s
**TUC Tucson 97.01 48** *e*P Pdif 01 36 14.4 +0.7
**TUC Tucson 97.01 48** *e*P Pdif 01 36 14.4 +0.7
**H35A Sunnyside Ranc 97.06 30** P **P 01 36 13.5 0.0**
baz=322,SNR=7.7
**G36A St. Michael 97.11 29** P Pdif 01 36 13.9 +0.2
baz=323
**K32A Verdigre 97.17 33** P **P 01 36 13.9 -0.1**
baz=319
**F37A Hinrichs Farm, 97.19 28** P **P 01 36 13.9 -0.2**
baz=324
**F38A Pierce - Schro 97.32 28** P Pdif 01 36 14.8 +0.1
baz=324
**KSCO Kaye Shedlock' 97.43 38** P Pdif 01 36 15.6 +0.1
baz=316
**KSCO Kaye Shedlock' 97.43 38** *e*P Pdif 01 36 16.7 +1.1
**E39A Mellen 97.51 27** P **P 01 36 15.3 -0.1**
baz=325
**SPMN Marine on St. 97.52 29** P **P 01 36 14.9 -0.6**
baz=323
**SPMN Marine on St. 97.52 29** *e*P Pdif 01 36 16.3 +0.7
**E40A Wakefield 97.71 26** P **P 01 36 16.4 0.0**
baz=326
**T25A Trinidad 97.74 41** P **P 01 36 16.6 -0.4**
baz=314
**T25A Trinidad 97.74 41** *e*P Pdif 01 36 19.4 +2.3
**F39A Loretta 97.74 27** P **P 01 36 16.2 -0.3**
baz=325
**ANMO Albuquerque 98.02 43** ||*i*P Pdif 01 36 19.3 +1.0
ANMO pmax pmax
comp=Z,6.0nm,1.2s
**ANMO Albuquerque 98.02 43** *e*P Pdif 01 36 19.4 +1.1
**F40A Park Falls 98.06 27** P **P 01 36 17.8 -0.2**
baz=326
**G39A Holcombe 98.15 28** P **P 01 36 17.9 -0.5**
baz=325
**H38A Maiden Rock 98.18 29** P **P 01 36 18.4 -0.2**
baz=324
**I37A Lemond, Waseca 98.23 30** P Pdif 01 36 18.8 0.0
baz=323
**BNM Barren Site 98.45 44** *e*P Pdif 01 36 21.3 +1.0
**G40A Rib Lake 98.56 27** P **P 01 36 19.6 -0.6**
baz=325
**H39A Augusta 98.60 28** P **P 01 36 20.0 -0.4**
baz=324
**N34A Lincoln 99.26 34** P **Pdif 01 36 22.6 -0.9**
baz=320
**H41A Junction City 99.32 27** P **Pdif 01 36 23.1 -0.6**
baz=326
**N35A Tabor 99.66 33** P **Pdif 01 36 24.6 -0.6**
baz=321
**I41A Arkdale 99.69 28** P **Pdif 01 36 24.8 -0.5**
baz=326
**ESDC Seneca Army 99.89 325** P **Pdif 01 36 25.5 -0.8**
comp=Z,4.0nm,0.9s,baz=32,slow=4.0,SNR=12
**R36A Gordon, Harris 101.68 35** P **Pdif 01 36 34.1 -0.2**
baz=321
**N42A Yates City 102.27 30** P **Pdif 01 36 36.5 -0.3**
baz=325
**Q39A Willow Grove F 102.36 33** P **Pdif 01 36 36.6 -0.7**
baz=323
**P40A Paris 102.41 32** P **Pdif 01 36 37.2 -0.3**
baz=323
**S37A Fort Scott 102.46 35** P **Pdif 01 36 37.5 -0.2**
baz=321
**Q40A Laux Farm, Aux 102.82 32** P **Pdif 01 36 38.6 -0.7**
baz=323
**R39A Chumby, Stover 102.91 33** P **Pdif 01 36 39.6 -0.1**
baz=322
**S39A Bolivar 103.26 34** P **Pdif 01 36 40.6 -0.7**
baz=322
**R40A Maddies Statio 103.29 33** P **Pdif 01 36 41.0 -0.5**
baz=323
**TX31 Lajitas Ar. Si 103.56 46** *e*Pdif **Pdif 01 36 43.3 +0.4**
**TXAR Lajitas Array 103.56 46** Pdiff **Pdif 01 36 44.1 +1.2**
comp=Z,1.5nm,0.9s,baz=294,slow=2.9,SNR=7.3
TXAR PP **PP 01 40 57.0 -1.5**
comp=Z,0.9nm,1.0s,baz=330,slow=7.2,SNR=3.7
TXAR PKiKP **PKiKP 01 41 02.5 +1.0**
comp=Z,1.5nm,1.0s,baz=306,slow=4.5,SNR=5.9
**U38A Gravette 103.70 35** P **Pdif 01 36 43.2 -0.2**
baz=321
**R41A Rosebud 103.71 32** P **Pdif 01 36 43.0 -0.3**
baz=324
**S40A Lebanon 103.73 33** P **Pdif 01 36 43.2 -0.3**
baz=323
**O45A Potomac 103.74 28** P **Pdif 01 36 42.8 -0.5**
baz=327
**TAM Tamanrasset 106.00 307** *e*PKP **PKiKP 01 41 06.7 +0.5**
**LSZ Lusaka 106.85 261** *e*PKP **PKiKP 01 41 07.7 0.0**
**BOSA Boshof 114.47 249** PKP PKPdf 01 41 22.2 +0.4
comp=Z,3.1nm,0.9s,baz=31,slow=1.9,SNR=5.4
**TORD Torodi Ar. Bea 114.96 302** PKP PKPdf 01 41 22.3 -0.8
comp=Z,7.8nm,0.9s,baz=33,slow=1.6,SNR=33
TORD PP **PP 01 42 21.1 -0.6**
comp=Z,5.7nm,1.1s,baz=55,slow=4.9,SNR=4.2
TORD PKKPbc **PKKPbc 01 51 59.8 +1.3**
comp=Z,1.3nm,0.8s,baz=258,slow=3.0,SNR=8.0
TORD PKKPab **PKKPab 01 52 06.5 +0.1**
comp=Z,1.9nm,1.1s,baz=239,slow=4.6,SNR=7.1
**QSPA South Pole Qui 117.83 180** *e*PKPdf **PKPdf 01 41 26.4 -0.7**
**DBIC Dimbokro 124.04 301** PKP **PKPdf 01 41 40.5 -0.1**
comp=Z,19nm,0.9s,baz=2.1,slow=1.8,SNR=18
**SNAA Sanae 129.21 198** PKP **PKPdf 01 41 46.9 -1.9**
**SNAA Sanae 129.21 198** *e*PKIKP **PKPdf 01 41 46.8 -1.9**
**SNAA Sanae 129.21 198** *e*PKPdf **PKPdf 01 41 46.8 -2.0**
**JTS JuntasAbangare 129.35 46** *e*PKIKP **PKPdf 01 41 50.1 -0.6**
**JTS JuntasAbangare 129.35 46** *e*PKPdf **PKPdf 01 41 50.0 -0.6**
**VNA2 Neumayer--Watz 130.85 197** PKP **PKPdf 01 41 50.1 -1.7**
baz=61,slow=1.5
**VNA3 Neumayer Olymp 131.23 196** PKP PKPpre 01 41 43.6
**VNA1 Neumayer--Stat 131.24 197** PKP PKPpre 01 41 45.3
**MOTC Monteria, Cord 136.03 37** *e*P PKPpre 01 41 54.0
**CODC Agust´›n Codaz 136.19 34** *e*P PKPpre 01 41 58.2
**SDV Santo Domingo 138.43 31** *e*P **PKPdf 01 42 05.6 -2.3**
**SDV Santo Domingo 138.43 31** *e*PKPpre PKPpre 01 42 01.4
SDV *e*PKPdf **PKPdf 01 42 07.9 0.0**
**GUYC Guyana, Colomb 139.12 40** *e*P **PKPdf 01 42 09.5 -0.1**
**NORC Norcasia 139.13 39** *e*P **PKPdf 01 42 07.6 -1.4**
**BARC Barichara 139.18 36** *e*P PKPpre 01 42 00.3
**RUSC La Rusia 139.82 36** *e*P PKPpre 01 42 00.9
**ROSC El Rosal 140.03 39** PKP **PKPdf 01 42 11.1 0.0**
comp=Z,19nm,1.0s,baz=9.1,slow=2.5,SNR=13
**ASCN Ascension 140.46 293** *e*PKPdf **PKPdf 01 42 11.6 +0.2**
**CHIC Chingaza 140.53 38** *e*P PKPpre 01 42 02.6
**OTAV Otavalo 141.14 48** *e*P **PKPdf 01 42 11.6 -1.7**
**OTAV Otavalo 141.14 48** *e*PKPpre PKPpre 01 42 07.6
OTAV *e*PKPdf **PKPdf 01 42 13.7 +0.4**
**NNA Nana 150.63 62** *i* PKIKP **PKPbc 01 42 34.4 +0.2**
**NNA Nana 150.63 62** *e*PKPbc **PKPbc 01 42 33.9 -0.3**
**RCBR Riachuelo 153.91 325** *e*PKPdf **PKPdf 01 42 33.3 -0.3**
RCBR *e*PKPbc **PKPbc 01 42 41.5 -0.1**
RCBR *e*PKPab **PKPab 01 42 54.7 0.0**
**SAML Samuel 157.54 35** *e*PKPdf **PKPdf 01 42 39.0 +0.6**
SAML *e*PKPbc **pPKPdf 01 42 48.5 -0.6**
SAML *e*PKPab **PKPab 01 43 09.1 -1.0**
**PLCA Paso Flores 159.23 133** PKP **PKPdf 01 42 40.0 +0.2**
comp=Z,4.7nm,1.0s,baz=289,slow=8.8,SNR=3.6
PLCA PKPab **PKPab 01 43 19.0 +2.0**
comp=Z,17nm,1.0s,baz=251,slow=5.2,SNR=11
**LPAZ La Paz 159.93 58** PKP **PKPdf 01 42 43.5 +1.6**
comp=Z,19nm,1.3s,baz=334,slow=2.4,SNR=23
LPAZ PKPab **PKPab 01 43 20.9 -0.4**
comp=Z,26nm,1.2s,baz=325,slow=5.4,SNR=12
**LCO Las Campanas 162.22 98** *e*PKPdf **PKPdf 01 42 44.2 +0.6**
LCO *e*PKPab **PKPab 01 43 31.8 +1.1**
**TRQA Tornquist 166.15 139** *e*PKPdf **PKPdf 01 42 46.5 -0.1**
**BDFB Brasilia 167.43 349** PKP **PKPdf 01 42 48.7 +0.5**
comp=Z,6.5nm,0.9s,baz=24,slow=3.6,SNR=6.1
BDFB PKPab **PKPab 01 43 52.3 -1.1**
comp=Z,7.3nm,1.0s,baz=141,slow=5.1,SNR=4.9
BDFB PP **PP 01 47 41.1 +0.7**
comp=Z,7.2nm,1.1s,baz=166,slow=0.5,SNR=4.7
**CPUP Villa Florida 173.68 76** PKP **PKPdf 01 42 51.7 +0.4**
comp=Z,9.5nm,1.1s,baz=174,slow=1.0,SNR=8.6
CPUP PKPab **PKPab 01 44 21.0 -0.1**
comp=Z,4.4nm,1.1s,baz=253,slow=4.9,SNR=2.8

**JMA 11 01:23:49.1±0.2, 28°.12N×129°.51E, h27km, M4.5, Ryukyu Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **JAM** | **Amami Oshima** | **0.29** | **17** | P | | P | Pb | 01 23 55.6 | -0.6 |
| JAM | | | | S | | S | Sb | 01 24 00.8 | -0.2 |
| **JAMN** | **Amaminishikomi** | **0.32** | **291** | P | | P | Pb | 01 23 56.7 | +0.2 |
| JAMN | | | | S | | S | Sb | 01 24 02.6 | +1.0 |
| **JZK** | **Kikaishima** | **0.45** | **66** | P | | P | Pb | 01 23 58.7 | +0.2 |
| JZK | | | | S | | *e*S | Sb | 01 24 05.8 | +0.8 |
| **JTK** | **Tokunoshima** | **0.60** | **235** | P | | P | Pb | 01 24 00.3 | -0.8 |
| JTK | | | | S | | *e*S | Sb | 01 24 08.4 | -0.9 |
| **JOKE** | **Okinoerabujima** | **1.13** | **228** | P | | P | Pn | 01 24 09.4 | +0.2 |
| JOKE | | | | S | | *e*S | Sn | 01 24 23.2 | -0.6 |

**JMA 11 01:25:06.1±0.2, 28°.12N×129°.53E, h26km±4km, M3.6, Ryukyu Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **JAM** | **Amami Oshima** | **0.30** | **13** | P | | P | Pb | 01 25 12.7 | -0.5 |
| JAM | | | | S | | S | Sb | 01 25 17.7 | -0.3 |
| **JAMN** | **Amaminishikomi** | **0.34** | **291** | P | | P | Pb | 01 25 13.9 | +0.2 |
| JAMN | | | | S | | S | Sb | 01 25 19.6 | +0.7 |
| **JZK** | **Kikaishima** | **0.44** | **63** | P | | P | Pb | 01 25 15.1 | -0.2 |
| JZK | | | | S | | S | Sn | 01 25 22.9 | -0.9 |
| **JTK** | **Tokunoshima** | **0.61** | **237** | P | | P | Pb | 01 25 17.7 | -0.5 |
| JTK | | | | S | | S | Sb | 01 25 26.0 | -0.5 |
| **JTAJ** | **Takarajima** | **1.07** | **344** | P | | P | Pn | 01 25 25.1 | -0.3 |
| JTAJ | | | | S | | *e*S | Sb | 01 25 39.7 | +0.2 |
| **JOKE** | **Okinoerabujima** | **1.14** | **229** | P | | P | Pn | 01 25 26.5 | +0.1 |
| JOKE | | | | S | | *e*S | Sn | 01 25 41.2 | +0.1 |

**JMA 11 01:27:03.2±0.1, 28°.12N×129°.53E, h28km±3km, M3.6, Ryukyu Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **JAM** | **Amami Oshima** | **0.30** | **13** | P | | P | Pb | 01 27 10.1 | -0.4 |
| JAM | | | | S | | S | Sb | 01 27 15.3 | -0.1 |
| **JAMN** | **Amaminishikomi** | **0.34** | **291** | P | | P | Pb | 01 27 10.9 | -0.1 |
| JAMN | | | | S | | S | Sb | 01 27 17.2 | +0.9 |
| **JZK** | **Kikaishima** | **0.44** | **63** | P | | P | Pb | 01 27 12.5 | 0.0 |
| JZK | | | | S | | S | Sb | 01 27 19.6 | +0.8 |
| **JTK** | **Tokunoshima** | **0.61** | **237** | P | | P | Pb | 01 27 14.8 | -0.6 |
| JTK | | | | S | | S | Sb | 01 27 22.7 | -1.0 |
| **JTAJ** | **Takarajima** | **1.07** | **344** | P | | P | Pn | 01 27 22.3 | 0.0 |
| JTAJ | | | | S | | S | Sb | 01 27 36.7 | 0.0 |
| **JOKE** | **Okinoerabujima** | **1.14** | **229** | P | | P | Pn | 01 27 23.5 | +0.2 |
| JOKE | | | | S | | S | Sn | 01 27 38.0 | 0.0 |
| **JOW** | **Kunigami** | **1.70** | **221** | P | | P | Pn | 01 27 31.3 | +0.3 |
| JOW | | | | S | | *e*S | Sn | 01 27 53.3 | +1.5 |
| **JNN** | **Nakanoshima** | **1.74** | **10** | S | | *e*S | Sb | 01 27 54.6 | -1.4 |
| **JIH** | **Iheya** | **1.76** | **232** | P | | P | Pn | 01 27 32.4 | +0.6 |
| JIH | | | | S | | *e*S | Sb | 01 27 55.2 | -1.2 |
| **JNTH** | **Nagotoyohara** | **2.08** | **220** | P | | P | Pn | 01 27 36.5 | +0.2 |
| **JYAK** | **Yakushimahirau** | **2.28** | **22** | P | | P | Pn | 01 27 40.2 | +1.3 |
| JYAK | | | | S | | *e*S | Sn | 01 28 08.3 | +2.2 |

**JMA 11 01:30:50.1±0.1, 28°.13N×129°.53E, h28km±2km, M3.5, Ryukyu Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **JAM** | **Amami Oshima** | **0.29** | **13** | P | | P | Pb | 01 30 56.9 | -0.3 |
| JAM | | | | S | | S | Sb | 01 31 02.0 | -0.1 |
| **JAMN** | **Amaminishikomi** | **0.33** | **290** | P | | P | Pb | 01 30 57.8 | 0.0 |
| JAMN | | | | S | | *e*S | Sb | 01 31 03.3 | +0.2 |
| **JZK** | **Kikaishima** | **0.43** | **65** | P | | P | Pb | 01 30 59.2 | -0.1 |
| JZK | | | | S | | S | Sn | 01 31 07.0 | -0.4 |
| **JTK** | **Tokunoshima** | **0.62** | **236** | P | | P | Pb | 01 31 01.8 | -0.6 |
| JTK | | | | S | | S | Sb | 01 31 09.9 | -0.8 |
| **JTAJ** | **Takarajima** | **1.06** | **344** | P | | P | Pn | 01 31 09.1 | 0.0 |
| JTAJ | | | | S | | *e*S | Sb | 01 31 23.7 | +0.4 |
| **JOKE** | **Okinoerabujima** | **1.14** | **228** | P | | P | Pn | 01 31 10.4 | +0.1 |
| JOKE | | | | S | | *e*S | Sn | 01 31 24.7 | -0.3 |
| **JOW** | **Kunigami** | **1.71** | **221** | P | | P | Pn | 01 31 18.1 | +0.1 |
| JOW | | | | S | | *e*S | Sn | 01 31 39.4 | +0.5 |
| **JNN** | **Nakanoshima** | **1.73** | **10** | P | | P | Pn | 01 31 19.3 | +0.9 |
| JNN | | | | S | | *e*S | Sn | 01 31 40.6 | +1.1 |
| **JIH** | **Iheya** | **1.77** | **232** | P | | P | Pn | 01 31 19.3 | +0.5 |
| JIH | | | | S | | *e*S | Sb | 01 31 42.2 | -1.3 |
| **JNTH** | **Nagotoyohara** | **2.09** | **220** | P | | P | Pn | 01 31 23.4 | +0.1 |
| **JYAK** | **Yakushimahirau** | **2.27** | **22** | P | | P | Pn | 01 31 27.1 | +1.4 |
| JYAK | | | | S | | *e*S | Sn | 01 31 54.8 | +2.0 |
| **JTN** | **Tanegashima 3** | **2.82** | **26** | P | | P | Pn | 01 31 34.5 | +1.2 |

*ATA **11** 01:39:05.0±0.8, 38°.74N×43°.14E, h18km±10km, ML2.9, MW2.7*
*ISCJB **11** 01:39:06.9±0.5, 38°.75N±0°.03×43°.09E±0°.05, h12km, Error ellipse: s-maj=5.5km s-min=4.3km az=151.2*
*ISK **11** 01:39:06.0, 38°.74N×43°.07E, h6km, MD2.7*
*CSEM **11** 01:39:06.0, 38°.74N×43°.07E, h6km, MD2.7*

**ISC 11 01:39:06.5±0.9, 38°.74N±0°.03×43°.09E±0°.03, h12km, n24, σ0s51/31, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.28** | **122** | **PG** | | **Pb** | | **01 39 13.4** | **-0.1** |
| VANB | | | | *e*SG | | **Sb** | | **01 39 18.5** | **+0.3** |
| **VANB** | **Van** | **0.28** | **122** | *i* Pg | | **Pb** | | **01 39 13.4** | **-0.1** |
| VANB | | | | *e*Sg | | **Sb** | | **01 39 18.5** | **+0.3** |
| **GEVA** | **Gevas** | **0.43** | **183** | *i* P | | **Pg** | | **01 39 14.1** | **-1.0** |
| **TUTA** | **Tutak** | **0.69** | **342** | *i* P | | **Pg** | | **01 39 19.7** | **-0.3** |
| TUTA | | | | IAML | | | | 01 39 20.6 | |
| comp=Z,119nm,0.2s | | | | | | | | | |
| **CLDR** | **Caldiran** | **0.76** | **58** | *e*PG | | **Pg** | | **01 39 21.3** | **0.0** |
| CLDR | | | | *e*SG | | **Sb** | | **01 39 32.4** | **+0.2** |
| **CLDR** | **Caldiran** | **0.76** | **58** | *e*Pg | | **Pg** | | **01 39 21.3** | **0.0** |
| CLDR | | | | *e*Sg | | **Sb** | | **01 39 32.4** | **+0.2** |
| **AGRB** | **Hanur-Agry** | **0.83** | **355** | *e*PG | | **Pg** | | **01 39 22.2** | **-0.5** |
| AGRB | | | | *e*SG | | **Sb** | | **01 39 34.6** | **+0.3** |
| **AGRB** | **Hanur-Agry** | **0.83** | **355** | *e*Pg | | **Pg** | | **01 39 22.2** | **-0.5** |
| AGRB | | | | *e*Sg | | **Sb** | | **01 39 34.7** | **+0.3** |
| **DYDN** | **Diyadin** | **0.93** | **30** | *e*P | | **Pg** | | **01 39 22.8** | **-1.7** |
| **EKAR** | **Karacoban** | **0.95** | **303** | *e*P | | **Pg** | | **01 39 24.6** | **-0.2** |
| EKAR | | | | IAML | | | | 01 39 53.3 | |
| comp=Z,9.5nm,0.6s | | | | | | | | | |
| **EATA** | **Eleskirt** | **1.21** | **338** | *e*P | | **Pb** | | **01 39 29.0** | **-0.6** |
| EATA | | | | IAML | | | | 01 39 31.4 | |
| comp=Z,3.7nm,0.5s | | | | | | | | | |
| EATA | | | | *e*S | | **Sn** | | **01 39 46.9** | **+0.8** |
| **VRTB** | **Varto-Mus** | **1.34** | **289** | *e*PN | | **Pb** | | **01 39 31.6** | **-0.1** |
| **VRTB** | **Varto-Mus** | **1.34** | **289** | *e*Pn | | **Pb** | | **01 39 31.6** | **-0.1** |
| **SIRT** | **Sirnak** | **1.34** | **203** | *e*PN | | **Pb** | | **01 39 31.7** | **0.0** |
| **SIRT** | **Sirnak** | **1.34** | **203** | *e*Pn | | **Pb** | | **01 39 31.7** | **0.0** |
| **TASB** | **TASBURUN-IGDIR** | **1.53** | **35** | *e*PN | | **Pb** | | **01 39 34.5** | **-0.3** |
| **TASB** | **TASBURUN-IGDIR** | **1.53** | **35** | *e*Pn | | **Pb** | | **01 39 34.5** | **-0.3** |
| **BNGL** | **BINGOL** | **1.53** | **278** | *e*P | | **Pb** | | **01 39 34.4** | **-0.5** |
| BNGL | | | | IAML | | | | 01 40 09.7 | |
| comp=Z,13nm,0.3s | | | | | | | | | |
| **CUKT** | **Cukurca** | **1.55** | **165** | *e*PN | | **Pb** | | **01 39 34.9** | **-0.3** |
| **CUKT** | **Cukurca** | **1.55** | **165** | *e*Pn | | **Pb** | | **01 39 34.9** | **-0.3** |
| **HOMI** | **Horasan** | **1.59** | **325** | *e*P | | **Pb** | | **01 39 35.7** | **-0.3** |
| **DIGO** | **Kars** | **1.68** | **7** | *e*P | | **Pb** | | **01 39 37.2** | **-0.4** |
| **SENK** | **Senkaya-Erzuru** | **1.90** | **343** | *e*PN | | **Pn** | | **01 39 39.5** | **+0.5** |
| **SENK** | **Senkaya-Erzuru** | **1.90** | **343** | *e*Pn | | **Pn** | | **01 39 39.5** | **+0.5** |

*CASC **11** 01:47:14.1±2.4, 18°.57N×100°.41W, h6km±38km, mb6.5(NEIC)*
*MOS **11** 01:47:22.9±0.9, 17°.99N×99°.76W, h51km, mb6.3/104, MS6.1/37, Error ellipse: s-maj=5.7km s-min=3.4km az=87.4*
*ISCJB **11** 01:47:25.9±0.2, 18°.10N±0°.01×99°.76W±0°.01, h74km±1km, mb6.0/466, Error ellipse: s-maj=2.4km s-min=1.6km az=42.9*
*GCMT **11** 01:47:25.9±0.1, 17°.89N×99°.84W, h55km, MW6.5/148, Moment Tensor Solution. s148,c361; s144,c600; Duration: 4s1 Moment tensor: Scale 10¹⁸Nm; Mrr=5.61±.03; Mθθ=5.37±.02; Mφφ=0.24±.03; Mrθ=2.35±.03; Mrφ=-1.02±.02; Mθφ=0.07±.02; Best double couple: M₀6.06200×10¹⁸ NP1:φs97.00000°,δ56.00000°, λ-94.00000°. NP2:φs284.00000°,δ34.00000°, λ-84.00000°. Principal axes: T 6.0290, Plg11.0000°, Azm190.0000°; N 0.0650, Plg3.0000°, Azm99.0000°; P -6.0950, Plg78.0000°, Azm354.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*
*BJI **11** 01:47:25.0, 18°.05N×99°.75W, h60km, mb5.9/5, mB6.4/51, Ms6.5/62, Ms7 6.3/59*
*NEIC **11** 01:47:25.6±0.1, 17°.99N×99°.79W, h59km, mb6.2/299, ME6.2, MW6.4, MW6.5, MW6.5, MD6.5(MEX), Error ellipse: s-maj=2.3km s-min=1.7km az=34.0, Moment Tensor Solution. s65 Moment tensor: Scale 10¹⁸Nm; Mrr=4.44; Mθθ=3.60; Mφφ=0.85; Mrθ=2.25; Mrφ=-1.74; Mθφ=0.41; Best double couple: M₀5.00000×10¹⁸ NP1:φs303.00000°, δ32.00000°,λ-78.00000°. NP2:φs109.00000°,δ59.00000°, λ-97.00000°. Principal axes: T 4.9600, Plg13.0000°, Azm204.0000°; N 0.0700, Plg6.0000°, Azm113.0000°; P -5.0300, Plg75.0000°, Azm358.0000°; Broadband fault plane solution: P waves. NP1:φs107.00000°,δ51.00000°, λ-98.00000°. NP2:φs300.00000°,δ40.00000°,*

λ-80.00000°. Principal axes: T Plg5.0000°, Azm203.0000°; N Plg0.0000°, Azm0.0000°; P Plg82.0000°, Azm333.0000°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.

NEIC At least 2 people killed, 5 injured, 70 homes damaged and landslides occurred in Guerrero. Some buildings damaged and power outages occurred at Mexico. Felt [VII] at Chilapa and Iguala, [VI] at Chilpancingo and [V] at Huixquilucan, Nezahualcoyotl, Taxco, Toluca and Valle de Bravo. Felt throughout central Mexico and as far as Ciudad Madero, Huatulco, San Luis Potosi and Tepic.

MEX **11** 01:47:25.9±1.5, 17.°83N×99.°97W, h54km±10km, MD6.5

NEIC **11** 01:47:26.0±0.0, 18.°04N×99.°69W, h60km, Moment Tensor Solution. s54 Moment tensor: Scale $10^{18}$Nm; $M_{rr}$-5.96; $M_{\theta\theta}$5.56; $M_{\phi\phi}$0.40; $M_{r\theta}$-2.75; $M_{\theta\phi}$-1.31; $M_{\phi r}$-0.01; Best double couple: $M_0$6.50000×$10^{18}$ NP1:$\phi_s$98.00000°, δ57.00000°, λ-96.00000°. NP2:$\phi_s$289.00000°, δ33.00000°, λ-80.00000°. Principal axes: T 6.4500, Plg12.0000°, Azm192.0000°; N 0.1400, Plg5.0000°, Azm101.0000°; P -6.5900, Plg76.0000°, Azm348.0000°;

IDC **11** 01:47:27.7±0.5, 18.°05N×99.°73W, h80km±3km, mb5.3/45, mb1 5.4/49, mb1mx5.3/51, mbtmp5.6/49, MS6.0/33, Ms1 6.0/33, ms1mx5.9/37 Error ellipse: s-maj=10.2km s-min=7.2km az=46.0

NEIC **11** 01:47:47.4±0.0, 18.°27N×99.°54W, h53km, Moment Tensor Solution. s123 Moment tensor: Scale $10^{18}$Nm; $M_{rr}$-6.23; $M_{\theta\theta}$5.25; $M_{\phi\phi}$0.98; $M_{r\theta}$-2.18; $M_{\theta\phi}$-1.16; $M_{\phi r}$-0.05; Best double couple: $M_0$6.30000×$10^{18}$ NP1:$\phi_s$288.00000°, δ35.00000°, λ-83.00000°. NP2:$\phi_s$99.00000°, δ55.00000°, λ-95.00000°. Principal axes: T 5.9100, Plg10.0000°, Azm193.0000°; N 0.7300, Plg4.0000°, Azm102.0000°; P -6.6400, Plg79.0000°, Azm349.0000°;

**ISC 11 01:47:25.4**±0.2**, 17.°90N**±0.°02×**99.°93W**±0.°02**, h65**km±1km**, h66**km**:pP-P, n1942,** σ**1.s79**/2356**, mb6.1**/483**, 42C-123D, Guerrero**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MEIG** | **Mezcala** | **0.30** | **85** | eP | **Pn** | **01 47 33.7** | **-2.4** |
| MEIG | | | | eS | **Sn** | **01 47 41.4** | **-2.6** |
| **MEIG** | **Mezcala** | **0.30** | **85** | eP | **Pn** | **01 47 33.7** | **-2.4** |
| MEIG | | | | eS | **Sn** | **01 47 41.4** | **-2.6** |
| **ARIG** | **Puente Sto Nin** | **0.55** | **314** | eP | **Pn** | **01 47 36.8** | **-1.6** |
| ARIG | | | | eS | **Sn** | **01 47 46.1** | **-1.7** |
| **PLIG** | **Platanillo** | **0.64** | **40** | eP | **Pn** | **01 47 38.1** | **-1.3** |
| PLIG | | | | eS | **Sn** | **01 47 48.5** | **-1.1** |
| **PLIG** | **Platanillo** | **0.64** | **40** | eP | **Pn** | **01 47 38.1** | **-1.3** |
| PLIG | | | | eS | **Sn** | **01 47 48.5** | **-1.1** |
| **CAIG** | **El Cayaco** | **0.91** | **201** | eP | **Pn** | **01 47 39.2** | **-3.4** |
| CAIG | | | | eS | **Sn** | **01 47 50.4** | **-4.8** |
| **CAIG** | **El Cayaco** | **0.91** | **201** | eP | **Pn** | **01 47 39.2** | **-3.4** |
| CAIG | | | | eS | **Sn** | **01 47 51.5** | **-3.7** |
| **ACP2** | **Acapulco** | **1.02** | **178** | eP | **Pn** | **01 47 40.7** | **-3.3** |
| ACP2 | | | | eS | **Sn** | **01 47 53.7** | **-4.1** |
| **ACX** | **Acapulco** | **1.03** | **176** | eP | **Pn** | **01 47 42.0** | **-2.2** |
| ACX | | | | eS | **Sn** | **01 47 55.0** | **-2.9** |
| **ACX** | **Acapulco** | **1.03** | **176** | eP | **Pn** | **01 47 41.9** | **-2.2** |
| **MAVM** | **Malinalco, Edo** | **1.13** | **21** | eP | **Pn** | **01 47 44.5** | **-1.1** |
| MAVM | | | | iS | **Sn** | **01 48 01.5** | **+1.0** |
| **YAIG** | **Yautepec** | **1.26** | **41** | eS | **Sn** | **01 48 02.7** | **-0.8** |
| **YAIG** | **Yautepec** | **1.26** | **41** | eS | **Sn** | **01 48 02.7** | **-0.8** |
| **HMTT** | **Tlapaneco** | **1.31** | **94** | eP | **Pn** | **01 47 48.2** | **+0.4** |
| HMTT | | | | eS | **Sn** | **01 48 03.4** | **-1.2** |
| **TLIG** | **Tlapa** | **1.34** | **104** | eP | **Pn** | **01 47 47.4** | **-0.9** |
| TLIG | | | | eS | **Sn** | **01 48 03.9** | **-1.5** |
| **TLIG** | **Tlapa** | **1.34** | **104** | ePn | **Pn** | **01 47 47.8** | **-0.4** |
| TLIG | | | | eS | **Sn** | **01 48 03.9** | **-1.5** |
| **TOVM** | **TOLUCA** | **1.39** | **10** | eP | **Pn** | **01 47 48.8** | **-0.4** |
| TOVM | | | | iS | **Sn** | **01 48 06.0** | **-1.0** |
| **ZIIG** | **Zihuatanejo** | **1.49** | **259** | eP | **Pn** | **01 47 48.0** | **-2.2** |
| **ZIIG** | **Zihuatanejo** | **1.49** | **259** | eP | **Pn** | **01 47 48.0** | **-2.2** |
| **UNM** | **Universidad Na** | **1.59** | **27** | eP | **Pn** | **01 47 51.5** | **-0.2** |
| UNM | | | | iS | **Sn** | **01 48 13.8** | **+2.3** |
| **UNM** | **Universidad Na** | **1.59** | **27** | eP | **Pn** | **01 47 51.5** | **-0.2** |
| UNM | | | | iS | **Sn** | **01 48 13.8** | **+2.3** |
| **UNM** | **Universidad Na** | **1.59** | **27** | ePn | **Pn** | **01 47 51.5** | **-0.2** |
| UNM | | | | iS | **Sn** | **01 48 13.8** | **+2.3** |
| **AMVM** | **AMECAMECA** | **1.64** | **41** | eP | **Pn** | **01 47 51.7** | **-0.7** |
| AMVM | | | | iS | **Sn** | **01 48 10.7** | **-2.0** |
| **VCVM** | **Valle de Chalc** | **1.67** | **34** | eP | **Pn** | **01 47 52.3** | **-0.5** |
| **PPM** | **Popocatepetl** | **1.69** | **47** | eP | **Pn** | **01 47 53.4** | **0.0** |
| PPM | | | | iS | **Sn** | **01 48 13.3** | **-1.1** |
| **PPM** | **Popocatepetl** | **1.69** | **47** | eP | **Pn** | **01 47 52.5** | **-0.9** |
| PPM | | | | eP | **Pn** | **01 47 53.4** | **0.0** |
| PPM | | | | iS | **Sn** | **01 48 13.3** | **-1.1** |
| **PPM** | **Popocatepetl** | **1.69** | **47** | eP | **Pn** | **01 47 53.4** | **0.0** |
| PPM | | | | iS | **Sn** | **01 48 13.3** | **-1.1** |
| **PBVM** | **Pinon** | **1.73** | **28** | eP | **Pn** | **01 47 53.2** | **-0.1** |
| **PBVM** | **Pinon** | **1.73** | **28** | eP | **Pn** | **01 47 53.2** | **-0.1** |
| **AZVM** | **Cuida Lopez Ma** | **1.78** | **20** | eP | **Pn** | **01 47 54.1** | **-0.2** |
| **PTVM** | **Pico Tres Padr** | **1.85** | **25** | eP | **Pn** | **01 47 54.5** | **-0.8** |
| **PTVM** | **Pico Tres Padr** | **1.85** | **25** | eP | **Pn** | **01 47 54.5** | **-0.8** |
| **PHPU** | **Puebla** | **2.02** | **56** | eP | **Pn** | **01 47 56.3** | **-1.2** |
| PHPU | | | | eS | **Sn** | **01 48 20.8** | **-1.1** |
| **ZUVM** | **ZUMPANGO** | **2.08** | **23** | eP | **Pn** | **01 47 57.5** | **-0.8** |
| ZUVM | | | | iS | **Sn** | **01 48 16.9** | **-6.4** |
| **MOIG** | **Morelia** | **2.13** | **326** | eP | **Pn** | **01 47 59.3** | **+0.4** |
| MOIG | | | | eP | **Pn** | **01 47 59.4** | **+0.4** |
| MOIG | | | | eS | **Sn** | **01 48 17.2** | **-7.3** |
| MOIG | | | | eS | **Sn** | **01 48 17.3** | **-7.2** |
| **MOIG** | **Morelia** | **2.13** | **326** | ePn | **Pn** | **01 47 59.7** | **+0.7** |
| MOIG | | | | eS | **Sn** | **01 48 17.2** | **-7.3** |
| MOIG | | | | eS | **Sn** | **01 48 17.3** | **-7.2** |
| **VTVM** | **Tizayuca** | **2.16** | **30** | eP | **Pn** | **01 47 58.6** | **-0.8** |
| **TPIG** | **Tehuac#an** | **2.50** | **78** | eP | **Pn** | **01 48 03.3** | **-0.6** |
| **TPIG** | **Tehuac#an** | **2.50** | **78** | eP | **Pn** | **01 48 03.3** | **-0.6** |
| **DEIG** | **Demacu** | **2.53** | **19** | eP | **Pn** | **01 48 03.2** | **-1.2** |
| DEIG | | | | eS | Sn | 01 48 24.8 | -9.5 |
| **DEIG** | **Demacu** | **2.53** | **19** | eP | **Pn** | **01 48 03.2** | **-1.2** |
| DEIG | | | | eS | Sn | 01 48 24.8 | -9.5 |
| **IGIG** | **Irapuato, Guan** | **3.13** | **335** | eP | **Pn** | **01 48 12.3** | **-0.3** |
| IGIG | | | | eS | **Sn** | **01 48 48.8** | **0.0** |
| **VHO** | **Vista Hermosa** | **3.16** | **105** | eP | **Pn** | **01 48 13.1** | **+0.1** |
| **VHO** | **Vista Hermosa** | **3.16** | **105** | eP | **Pn** | **01 48 13.1** | **+0.1** |
| **LVIG** | **Laguna Verde** | **3.79** | **61** | eP | **Pn** | **01 48 20.3** | **-1.0** |
| **LVIG** | **Laguna Verde** | **3.79** | **61** | eP | **Pn** | **01 48 20.3** | **-1.0** |
| **SFJM** | **Santa Fe** | **3.90** | **312** | eP | **Pn** | **01 48 24.8** | **+1.7** |
| **SFJM** | **Santa Fe** | **3.90** | **312** | eP | **Pn** | **01 48 24.8** | **+1.7** |
| **HUIG** | **Huatulco** | **4.23** | **120** | eP | **Pn** | **01 48 26.7** | **-0.7** |
| **HUIG** | **Huatulco** | **4.23** | **120** | eP | **Pn** | **01 48 26.7** | **-0.7** |
| **CMIG** | **Matias Romero** | **4.88** | **99** | P | **Pn** | **01 48 36.4** | **0.0** |
| | 172nm,0.3s,baz=254,slow=13,SNR=540 | | | | | | |
| CMIG | | | | S | **Sn** | **01 49 29.3** | **-2.2** |
| | 1µm,0.3s,baz=288,slow=22,SNR=9.4 | | | | | | |
| CMIG | | | | LR | LR | 01 50 45.6 | |
| | comp=Z,280µm,21.4s,baz=274,slow=42 | | | | | | |
| **CJM** | **Chamela** | **5.10** | **289** | eP | **Pn** | **01 48 39.2** | **-0.1** |
| CJM | | | | iS | **Sn** | **01 49 34.7** | **-2.1** |
| **CJM** | **Chamela** | **5.10** | **289** | eP | **Pn** | **01 48 39.2** | **-0.1** |
| CJM | | | | eS | Sn | 01 49 02.9 | -34 |
| **TUIG** | **Tuzandepetl** | **5.24** | **88** | ePn | **Pn** | **01 48 40.5** | **-0.7** |
| **ZAIG** | **Zacatecas** | **5.44** | **333** | eP | **Pn** | **01 48 44.9** | **+0.7** |
| ZAIG | | | | iS | **Sn** | **01 49 45.5** | **-0.1** |
| **ZAIG** | **Zacatecas** | **5.44** | **333** | ePn | **Pn** | **01 48 44.2** | **0.0** |
| ZAIG | | | | eS | Sn | 01 49 58.9 | +13 |
| **PCIG** | | **6.79** | **108** | eP | **Pn** | **01 49 02.6** | **+0.2** |
| **PCIG** | | **6.79** | **108** | eP | **Pn** | **01 49 02.6** | **+0.2** |
| **LNIG** | **Linares** | **6.97** | **3** | eP | **Pn** | **01 49 04.5** | **-0.4** |
| **LNIG** | **Linares** | **6.97** | **3** | ePn | **Pn** | **01 49 03.6** | **-1.3** |
| **CCIG** | **Comitan** | **7.62** | **101** | iP | **Pn** | **01 49 13.8** | **-0.3** |
| CCIG | | | | eP | **Pn** | **01 49 14.3** | **+0.3** |
| CCIG | | | | eS | **Sn** | **01 50 38.4** | **-0.7** |
| **CCIG** | **Comitan** | **7.62** | **101** | ePn | **Pn** | **01 49 14.2** | **+0.1** |
| CCIG | | | | eS | **Sn** | **01 50 38.4** | **-0.7** |
| **MAIG** | **Mazatlaan** | **8.04** | **312** | eP | **Pn** | **01 49 20.9** | **+1.3** |
| **MAIG** | **Mazatlaan** | **8.04** | **312** | eP | **Pn** | **01 49 20.9** | **+1.3** |
| **SCIG** | **Sabancuy** | **8.37** | **81** | eP | **Pn** | **01 49 22.0** | **-2.0** |
| **SCIG** | **Sabancuy** | **8.37** | **81** | ePn | **Pn** | **01 49 22.9** | **-1.1** |
| **KVTX** | **Kingsville** | **9.78** | **11** | ePn | **Pn** | **01 49 41.8** | **-1.5** |
| **IXG** | **Ixpaco** | **9.83** | **111** | eP | **Pn** | **01 49 46.6** | **+2.3** |
| **MYIG** | **MØrida** | **10.08** | **71** | ePn | **Pn** | **01 49 47.4** | **-0.1** |
| **833A** | **Chaparral WMA,** | **10.38** | **3** | P | **Pn** | **01 49 51.6** | **0.0** |
| | baz=183,SNR=274 | | | | | | |
| **CUS1** | **Cusmapa** | **10.39** | **111** | eP | **Pn** | **01 49 53.9** | **+2.2** |
| **HPIG** | | **10.44** | **330** | eP | **Pn** | **01 49 55.7** | **+3.2** |
| **HPIG** | | **10.44** | **330** | ePn | **Pn** | **01 49 54.8** | **+2.3** |
| **RTR** | **El Retiro** | **10.66** | **110** | eP | **Pn** | **01 49 57.8** | **+2.2** |
| **SLBS** | **Sierra La Lagu** | **10.99** | **303** | ePn | **Pn** | **01 50 02.2** | **+2.3** |
| **BOQS** | **Boqueron** | **11.05** | **110** | eP | **Pn** | **01 50 02.5** | **+1.6** |
| **UEES** | **San Salvador** | **11.09** | **110** | eP | **Pn** | **01 50 02.8** | **+1.5** |
| **LPIG** | **La Paz** | **11.49** | **304** | P | **Pn** | **01 50 09.5** | **+2.9** |
| | 6.1nm,0.3s,baz=322,slow=1.9,SNR=39 | | | | | | |
| LPIG | | | | S | **Sn** | **01 52 12.5** | **-0.8** |
| | 3.4nm,0.3s,baz=338,slow=19,SNR=1.9 | | | | | | |
| LPIG | | | | LR | LR | 01 54 42.4 | |
| | comp=Z,34µm,20.6s,baz=130,slow=38 | | | | | | |
| **LPIG** | **La Paz** | **11.49** | **304** | eP | **Pn** | **01 50 09.2** | **+2.5** |
| **TXAR** | **Lajitas Array** | **11.88** | **344** | P | **Pn** | **01 50 14.1** | **+2.0** |
| | 2.8nm,0.3s,baz=163,slow=10,SNR=118 | | | | | | |
| TXAR | | | | S | **Sn** | **01 52 22.5** | **-0.5** |
| | baz=150,slow=27,SNR=2.0 | | | | | | |
| TXAR | | | | LR | LR | 01 55 26.8 | |
| | comp=Z,138µm,18.1s,baz=0.0,slow=41 | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **11.88** | **344** | ePn | **Pn** | **01 50 14.1** | **+2.0** |
| **CAHU** | **Cacacuatique** | **12.00** | **108** | eP | **Pn** | **01 50 15.7** | **+1.9** |
| **VSM** | **San Miguel** | **12.07** | **110** | eP | **Pn** | **01 50 16.7** | **+1.8** |
| **JCT** | **Junction City** | **12.52** | **1** | eP | **Pn** | **01 50 21.4** | **+0.6** |
| **JCT** | **Junction City** | **12.52** | **1** | ePn | **Pn** | **01 50 21.4** | **+0.6** |
| **HKT** | **Hockley** | **12.56** | **17** | eP | **Pn** | **01 50 19.8** | **-1.4** |
| **HKT** | **Hockley** | **12.56** | **17** | ePn | **Pn** | **01 50 19.8** | **-1.4** |
| **TGUH** | **Tegucigalpa,Un** | **12.76** | **106** | ePn | **Pn** | **01 50 25.0** | **+1.0** |
| **435B** | **Jarrell** | **13.00** | **9** | P | **Pn** | **01 50 26.9** | **-0.3** |
| | baz=190,SNR=167 | | | | | | |
| **438A** | **Sam Houston St** | **13.42** | **17** | P | **Pn** | **01 50 31.9** | **-1.0** |
| | baz=199,SNR=136 | | | | | | |
| **CRIN** | **San Cristobal** | **13.46** | **111** | eP | **Pn** | **01 50 36.0** | **+2.4** |
| **541A** | **Lake Charles** | **13.57** | **26** | P | **Pn** | **01 50 33.0** | **-2.0** |
| | baz=208 | | | | | | |
| **439A** | **Center Grove,** | **13.67** | **19** | P | **Pn** | **01 50 34.8** | **-1.4** |
| | baz=201,SNR=99 | | | | | | |
| **336A** | **Riesel** | **13.71** | **11** | P | **Pn** | **01 50 35.9** | **-1.0** |
| | baz=192,SNR=191 | | | | | | |
| **337A** | **Centerville** | **13.85** | **15** | P | **Pn** | **01 50 37.5** | **-1.1** |
| | baz=196 | | | | | | |
| **542A** | **Morse** | **13.90** | **28** | P | **Pn** | **01 50 37.6** | **-1.7** |
| | baz=210,SNR=7.2 | | | | | | |
| **ESTN** | **Estel** | **13.91** | **108** | iP | **Pn** | **01 50 40.5** | **+0.9** |
| ESTN | | | | AML | AML | 01 53 50.9 | |
| | comp=N,13nm,0.7s | | | | | | |
| **338A** | **Crockett** | **14.04** | **17** | P | **Pn** | **01 50 40.0** | **-1.1** |
| | baz=198,SNR=279 | | | | | | |
| **COPN** | **Copaltepe** | **14.08** | **112** | eP | **Pn** | **01 50 43.3** | **+1.6** |
| **441A** | **DeRidder** | **14.18** | **24** | P | **Pn** | **01 50 41.3** | **-1.7** |
| | baz=207,SNR=49 | | | | | | |
| **543A** | **St. Martinvill** | **14.19** | **30** | P | **Pn** | **01 50 40.8** | **-2.3** |
| | baz=213,SNR=8.1 | | | | | | |
| **WHTX** | **Lake Whitney,** | **14.21** | **9** | P | **Pn** | **01 50 42.5** | **-0.8** |
| | baz=190,SNR=289 | | | | | | |
| **WHTX** | **Lake Whitney,** | **14.21** | **9** | ePn | **Pn** | **01 50 42.3** | **-1.0** |
| **645A** | **Chauvin** | **14.32** | **35** | P | **Pn** | **01 50 43.0** | **-1.8** |
| | baz=218 | | | | | | |
| **236A** | **Katherine and** | **14.37** | **12** | P | **Pn** | **01 50 44.2** | **-1.3** |
| | baz=193,SNR=287 | | | | | | |
| **MGAN** | **Managua** | **14.40** | **112** | eP | **Pn** | **01 50 45.8** | **-0.1** |
| **442A** | **Mamou** | **14.46** | **27** | P | **Pn** | **01 50 44.0** | **-2.6** |
| | baz=210,SNR=37 | | | | | | |
| **237A** | **Washetta, Mont** | **14.53** | **14** | P | **Pn** | **01 50 46.1** | **-1.3** |
| | baz=196,SNR=186 | | | | | | |
| **544A** | **White Castle** | **14.55** | **32** | P | **Pn** | **01 50 44.7** | **-3.0** |
| | baz=215,SNR=9.0 | | | | | | |
| **MNTX** | **Cornudas Mount** | **14.60** | **341** | ePn | **Pn** | **01 50 49.6** | **+1.1** |
| **NATX** | **Nacogdoches** | **14.60** | **18** | ePn | **Pn** | **01 50 47.0** | **-1.4** |
| **ABTX** | **Abilene, Hawle** | **14.66** | **1** | P | **Pn** | **01 50 48.6** | **-0.7** |
| | baz=181,SNR=332 | | | | | | |
| **ABTX** | **Abilene, Hawle** | **14.66** | **1** | ePn | **Pn** | **01 50 48.5** | **-0.7** |
| **238A** | **Jacksonville** | **14.70** | **16** | P | **Pn** | **01 50 48.7** | **-1.1** |
| | baz=198,SNR=62 | | | | | | |
| **341A** | **Kurthwood** | **14.71** | **23** | P | **Pn** | **01 50 47.9** | **-2.0** |
| | baz=206,SNR=143 | | | | | | |
| **SRIG** | **Santa Rosalia** | **14.72** | **312** | eP | **Pn** | **01 50 51.8** | **+1.7** |
| **SRIG** | **Santa Rosalia** | **14.72** | **312** | ePn | **Pn** | **01 50 51.6** | **+1.6** |
| **443A** | **Delano Plantat** | **14.79** | **29** | P | **Pn** | **01 50 48.4** | **-2.5** |
| | baz=212 | | | | | | |
| **136A** | **Ennis** | **14.83** | **11** | P | **Pn** | **01 50 50.2** | **-1.2** |
| | baz=193,SNR=202 | | | | | | |
| **545A** | **Edgard** | **14.84** | **34** | P | **Pn** | **01 50 48.7** | **-2.9** |
| | baz=217 | | | | | | |
| **646A** | **Port Sulphur** | **14.85** | **37** | P | **Pn** | **01 50 48.8** | **-2.9** |
| | baz=220 | | | | | | |
| **239A** | **Gary** | **14.90** | **18** | P | **Pn** | **01 50 50.7** | **-1.6** |
| | baz=201,SNR=82 | | | | | | |
| **HSIG** | | **14.98** | **320** | ePn | **P** | **01 50 55.5** | **-1.9** |
| **EPT** | **El Paso** | **15.04** | **338** | ePn | **Pn** | **01 50 55.6** | **+1.3** |
| **342A** | **Flagon Creek P** | **15.08** | **26** | P | **Pn** | **01 50 52.5** | **-2.2** |
| | baz=209,SNR=145 | | | | | | |
| **137A** | **Heron Place, G** | **15.11** | **14** | P | **Pn** | **01 50 54.0** | **-1.1** |
| | baz=195,SNR=140 | | | | | | |
| **240A** | **Hunter Patters** | **15.14** | **20** | P | **Pn** | **01 50 53.3** | **-2.1** |
| | baz=203,SNR=37 | | | | | | |
| **CONN** | **Concepcion** | **15.20** | **113** | eP | **P** | **01 50 58.2** | **-1.8** |
| **444A** | **Pine Grove** | **15.25** | **32** | P | **Pn** | **01 50 53.9** | **-2.9** |
| | baz=215,SNR=46 | | | | | | |
| **343A** | **Vidalia** | **15.31** | **28** | P | **Pn** | **01 50 55.1** | **-2.5** |
| | baz=211,SNR=16 | | | | | | |
| **138A** | **Matatall Enter** | **15.33** | **16** | P | **Pn** | **01 50 56.7** | **-1.2** |
| | baz=198,SNR=82 | | | | | | |
| **546A** | **Slidell** | **15.40** | **35** | P | **Pn** | **01 50 55.3** | **-3.5** |
| | baz=219 | | | | | | |
| **CRZ1** | **La Cruz** | **15.41** | **114**⇓ | eP | **P** | **01 51 01.6** | **-0.7** |
| **241A** | **Mo Tay, Goldon** | **15.42** | **23** | P | **Pn** | **01 50 57.5** | **-1.5** |
| | baz=206,SNR=110 | | | | | | |
| **ACON** | **Acoyapa** | **15.43** | **110** | eP | **P** | **01 51 01.1** | **-1.4** |
| **445A** | **Amite** | **15.46** | **33** | P | **Pn** | **01 50 57.3** | **-2.3** |
| | baz=216,SNR=42 | | | | | | |
| **CPRX** | **Cap Rock** | **15.48** | **348** | ePn | **Pn** | **01 51 00.5** | **+0.7** |
| **139A** | **Bunkhouse Ranc** | **15.54** | **18** | P | **Pn** | **01 50 58.9** | **-1.6** |
| | baz=200,SNR=37 | | | | | | |
| **Z36A** | **Blue Ridge** | **15.62** | **11** | P | **Pn** | **01 51 00.2** | **-1.4** |
| | baz=192,SNR=1000 | | | | | | |
| **Z37A** | **Pogue Cattle C** | **15.72** | **13** | P | **Pn** | **01 51 01.5** | **-1.3** |
| | baz=195,SNR=273 | | | | | | |
| **242A** | **Grayson** | **15.75** | **25** | P | **Pn** | **01 51 01.1** | **-2.2** |
| | baz=208,SNR=138 | | | | | | |
| **140A** | **Cam and Jess,** | **15.75** | **20** | P | **Pn** | **01 51 02.0** | **-1.3** |
| | baz=203,SNR=116 | | | | | | |
| **344A** | **Westbrook Farm** | **15.86** | **30** | P | **Pn** | **01 51 02.0** | **-2.6** |
| | baz=214,SNR=122 | | | | | | |
| **319A** | **Douglas** | **15.87** | **329** | ePn | **P** | **01 51 06.8** | **-0.6** |
| | comp=N,8µm,1.4s | | | | | | |
| **VCR** | **Vista de Mar** | **15.87** | **117** | eP | **P** | **01 51 08.7** | **+1.1** |
| **243A** | **Waterproof** | **15.88** | **27** | P | **Pn** | **01 51 02.5** | **-2.3** |
| | baz=211,SNR=82 | | | | | | |
| **Z38A** | **Mt. Pleasant** | **15.93** | **15** | P | **Pn** | **01 51 04.0** | **-1.5** |
| | baz=197,SNR=291 | | | | | | |
| **141A** | **Papa Simpson,** | **15.95** | **22** | P | **Pn** | **01 51 04.1** | **-1.7** |
| | baz=205,SNR=190 | | | | | | |
| **446A** | **Poplarville** | **16.03** | **35** | P | **Pn** | **01 51 04.1** | **-2.6** |
| | baz=219,SNR=93 | | | | | | |
| **345A** | **Thompson Farm,** | **16.08** | **32** | P | **Pn** | **01 51 04.8** | **-2.6** |
| | baz=216,SNR=53 | | | | | | |
| **ESPN** | **Las Esperanzas** | **16.12** | **108** | eP | **Pn** | **01 51 08.3** | **+0.3** |
| **Z39A** | **Irene McRaven,** | **16.12** | **18** | P | **Pn** | **01 51 06.8** | **-1.1** |
| | baz=200,SNR=162 | | | | | | |
| **Y35A** | **Marietta** | **16.15** | **9** | P | **Pn** | **01 51 07.1** | **-1.2** |
| | baz=190,SNR=801 | | | | | | |
| **121A** | **Cookes Peak, D** | **16.20** | **336** | P | **P** | **01 51 10.6** | **-0.5** |
| | baz=152,SNR=451 | | | | | | |
| **121A** | **Cookes Peak, D** | **16.20** | **336** | ePn | **Pn** | **01 51 10.1** | **+1.0** |
| | comp=N,2µm,1.0s | | | | | | |
| **MSTX** | **Muleshoe** | **16.20** | **352** | P | **Pn** | **01 51 08.4** | **-0.6** |
| | baz=170,SNR=1000 | | | | | | |
| **MSTX** | **Muleshoe** | **16.20** | **352** | ePn | **Pn** | **01 51 08.5** | **-0.6** |
| | comp=N,2µm,0.9s | | | | | | |
| **Y36A** | **Durant** | **16.26** | **11** | P | **Pn** | **01 51 08.2** | **-1.4** |
| | baz=192,SNR=518 | | | | | | |
| **142A** | **Monroe** | **16.26** | **25** | P | **Pn** | **01 51 08.1** | **-1.6** |
| | baz=208,SNR=18 | | | | | | |
| **244A** | **Avery, Jackson** | **16.37** | **29** | P | **Pn** | **01 51 08.6** | **-2.4** |
| | baz=213,SNR=174 | | | | | | |
| **JTS** | **JuntasAbangare** | **16.37** | **116** | eP | **P** | **01 51 12.4** | **-0.6** |
| JTS | | | | pmax | pmax | | |
| | comp=Z,2µm,1.1s | | | | | | |
| **JTS** | **JuntasAbangare** | **16.37** | **116** | ePn | **P** | **01 51 12.4** | **-0.6** |
| | comp=Z,2µm,1.1s | | | | | | |
| **Z40A** | **Long Farm, Mag** | **16.38** | **20** | P | **Pn** | **01 51 09.6** | **-1.6** |
| | baz=202,SNR=742 | | | | | | |
| **447A** | **Lucedale** | **16.42** | **37** | P | **Pn** | **01 51 09.1** | **-2.6** |
| | baz=221,SNR=43 | | | | | | |
| **346A** | **Big Creek Wild** | **16.44** | **33** | P | **Pn** | **01 51 09.5** | **-2.3** |
| | baz=218,SNR=112 | | | | | | |
| **Y37A** | **Hugo** | **16.47** | **13** | P | **Pn** | **01 51 10.5** | **-1.8** |
| | baz=195,SNR=1000 | | | | | | |
| Y37A | | | | Sn | **Sn** | **01 54 15.1** | **+0.8** |
| | baz=195 | | | | | | |
| **Z41A** | **Richland Creek** | **16.58** | **21** | P | **Pn** | **01 51 12.1** | **-1.5** |
| | baz=204,SNR=627 | | | | | | |
| **VBMS** | **Vicksburg** | **16.60** | **29** | ePn | **Pn** | **01 51 12.6** | **-1.3** |
| | comp=Z,1µm,0.9s | | | | | | |
| **143A** | **Socs Landing,** | **16.62** | **26** | P | **Pn** | **01 51 12.2** | **-1.9** |
| | baz=210,SNR=261 | | | | | | |
| **Y38A** | **Idabel** | **16.62** | **15** | P | **Pn** | **01 51 12.4** | **-1.8** |
| | baz=198,SNR=326 | | | | | | |
| **X35A** | **Drake** | **16.64** | **9** | P | **Pn** | **01 51 12.9** | **-1.6** |
| | baz=190,SNR=1000 | | | | | | |
| **X35A** | **Drake** | **16.64** | **9** | ePn | **Pn** | **01 51 12.7** | **-1.7** |
| | comp=Z,4µm,0.9s | | | | | | |
| **245A** | **Little AP, Sta** | **16.74** | **31** | P | **Pn** | **01 51 13.0** | **-2.6** |
| | baz=215,SNR=66 | | | | | | |
| **WMOK** | **Wichita Mounta** | **16.80** | **3** | eP | **Pn** | **01 51 14.5** | **-1.9** |
| WMOK | | | | pmax | pmax | | |
| | comp=Z,647nm,0.8s | | | | | | |
| **WMOK** | **Wichita Mounta** | **16.80** | **3** | ePn | **Pn** | **01 51 14.5** | **-1.9** |
| | comp=Z,647nm,0.8s | | | | | | |
| **Y39A** | **Lockesburg** | **16.80** | **17** | P | **Pn** | **01 51 15.0** | **-1.4** |
| | baz=200,SNR=196 | | | | | | |
| **WLAR** | **White Oak Lake** | **16.87** | **20** | ePn | **Pn** | **01 51 16.4** | **-0.8** |
| | comp=Z,2µm,1.0s | | | | | | |
| **Z42A** | **Norrel Spur, H** | **16.90** | **24** | P | **Pn** | **01 51 16.6** | **-1.0** |
| | baz=207,SNR=194 | | | | | | |
| **X36A** | **Centrahoma** | **16.91** | **10** | P | **Pn** | **01 51 16.4** | **-1.3** |
| | baz=192,SNR=443 | | | | | | |
| **CGA2** | **Cerro Gallo 2** | **16.92** | **116** | eP | **P** | **01 51 22.1** | **+2.9** |
| **347A** | **Saraland** | **16.95** | **35** | P | **Pn** | **01 51 16.1** | **-2.1** |
| | baz=220,SNR=69 | | | | | | |
| **448A** | **Bay Minette** | **16.98** | **38** | P | **Pn** | **01 51 16.6** | **-2.0** |
| | baz=223,SNR=34 | | | | | | |
| **144A** | **Alexander Plac** | **16.98** | **28** | P | **Pn** | **01 51 16.9** | **-1.8** |
| | baz=212,SNR=43 | | | | | | |
| **AMTX** | **Amarillo** | **16.98** | **355** | ePn | **Pn** | **01 51 17.9** | **-0.9** |
| | comp=Z,1µm,0.8s | | | | | | |
| **246A** | **Jackson Lee, B** | **17.11** | **33** | P | **Pn** | **01 51 18.1** | **-2.1** |
| | baz=217,SNR=8.9 | | | | | | |
| **X37A** | **Clayton** | **17.11** | **13** | P | **Pn** | **01 51 18.8** | **-1.4** |
| | baz=195,SNR=465 | | | | | | |
| **X37A** | **Clayton** | **17.11** | **13** | ePn | **Pn** | **01 51 18.9** | **-1.4** |
| | comp=Z,3µm,1.2s | | | | | | |
| **Y40A** | **Okolona** | **17.11** | **19** | P | **Pn** | **01 51 18.9** | **-1.3** |
| | baz=202,SNR=406 | | | | | | |
| **Z43A** | **Armstrong Fami** | **17.13** | **25** | P | **Pn** | **01 51 18.7** | **-1.7** |
| | baz=209,SNR=38 | | | | | | |
| **145A** | **Houston Renfro** | **17.19** | **30** | P | **Pn** | **01 51 19.2** | **-2.0** |
| | baz=214,SNR=82 | | | | | | |
| **Y41A** | **Eaglette Beard** | **17.21** | **21** | P | **Pn** | **01 51 20.3** | **-1.1** |
| | baz=204,SNR=212 | | | | | | |
| **HDC** | **Heredia** | **17.23** | **115** | ePn | **P** | **01 51 25.2** | **+2.5** |
| | comp=Z,4µm,1.4s | | | | | | |
| **HDC** | **Heredia** | **17.23** | **115**⇑ | iP | **P** | **01 51 24.0** | **+1.4** |
| **BNM** | **Barren Site** | **17.25** | **341** | ePn | **P** | **01 51 24.4** | **+1.5** |
| **Y22D** | **IRIS PASSCAL I** | **17.28** | **340** | P | **P** | **01 51 25.0** | **+1.9** |
| | baz=157,SNR=97 | | | | | | |
| **Y22D** | **IRIS PASSCAL I** | **17.28** | **340** | ePn | **P** | **01 51 24.8** | **+1.7** |
| | comp=Z,9µm,1.8s | | | | | | |
| **Y22E** | **IRIS PASSCAL I** | **17.28** | **340** | P | **P** | **01 51 25.2** | **+2.1** |
| | baz=157,SNR=99 | | | | | | |
| **X38A** | **Whitesboro** | **17.31** | **14** | P | **Pn** | **01 51 21.3** | **-1.4** |
| | baz=196,SNR=892 | | | | | | |
| **348A** | **Jackson** | **17.31** | **37** | P | **Pn** | **01 51 20.6** | **-2.1** |
| | baz=222,SNR=41 | | | | | | |
| **X39A** | **Fountain Ranch** | **17.34** | **16** | P | **Pn** | **01 51 21.3** | **-1.7** |
| | baz=199,SNR=242 | | | | | | |
| **TUC** | **Tucson** | **17.37** | **328** | eP | **P** | **01 51 25.3** | **+1.3** |
| TUC | | | | pmax | pmax | | |
| | comp=Z,849nm,1.0s | | | | | | |
| **TUC** | **Tucson** | **17.37** | **328** | ePn | **P** | **01 51 25.3** | **+1.3** |
| | comp=Z,849nm,1.0s | | | | | | |
| **LENM** | **Lemitar** | **17.38** | **340** | ePn | **P** | **01 51 26.6** | **+2.4** |
| **W35A** | **Tecumseh** | **17.39** | **8** | P | **Pn** | **01 51 21.8** | **-1.9** |
| | baz=190,SNR=1000 | | | | | | |
| **W35A** | **Tecumseh** | **17.39** | **8** | ePn | **Pn** | **01 51 23.6** | **-0.1** |
| | comp=Z,4µm,1.0s | | | | | | |
| **LPM** | **Los Pinos Moun** | **17.41** | **341** | ePn | **P** | **01 51 26.0** | **+1.5** |
| **247A** | **Quitman** | **17.41** | **34** | P | **Pn** | **01 51 21.1** | **-2.8** |
| | baz=218,SNR=57 | | | | | | |
| **Y42A** | **Garnett, Star** | **17.46** | **23** | P | **Pn** | **01 51 23.7** | **-0.9** |
| | baz=207,SNR=105 | | | | | | |
| **QCR1** | **Quepos** | **17.47** | **117**⇓ | eP | **P** | **01 51 26.7** | **+1.6** |
| **W36A** | **Wetumka** | **17.48** | **10** | P | **Pn** | **01 51 23.4** | **-1.3** |
| | baz=192,SNR=719 | | | | | | |
| **W36A** | **Wetumka** | **17.48** | **10** | ePn | **Pn** | **01 51 23.4** | **-1.3** |
| | comp=Z,460nm,0.9s | | | | | | |
| **MIAR** | **Mount Ida** | **17.52** | **18** | eP | **Pn** | **01 51 23.7** | **-1.5** |
| MIAR | | | | pmax | pmax | | |
| | comp=Z,2µm,1.3s | | | | | | |
| **MIAR** | **Mount Ida** | **17.52** | **18** | ePn | **Pn** | **01 51 23.7** | **-1.5** |
| | comp=Z,2µm,1.3s | | | | | | |
| **Z44A** | **Pea Ridge, Bel** | **17.53** | **27** | P | **Pn** | **01 51 23.6** | **-1.7** |
| | baz=211,SNR=60 | | | | | | |
| **CCAR** | **Cane Creek** | **17.54** | **23** | ePn | **Pn** | **01 51 25.1** | **-0.5** |
| | comp=Z,8µm,1.7s | | | | | | |
| **URSC** | **Urasca** | **17.60** | **115** | eP | **P** | **01 51 29.1** | **+2.3** |
| **W37B** | **Quinton** | **17.63** | **12** | P | **Pn** | **01 51 25.5** | **-1.1** |
| | baz=194,SNR=916 | | | | | | |
| **W37B** | **Quinton** | **17.63** | **12** | ePn | **Pn** | **01 51 25.4** | **-1.1** |
| | comp=Z,2µm,0.9s | | | | | | |
| **BRAL** | **Brewton** | **17.63** | **39** | ePn | **Pn** | **01 51 25.7** | **-1.0** |
| | comp=Z,2µm,1.3s | | | | | | |
| **146A** | **Union** | **17.64** | **32** | P | **Pn** | **01 51 24.5** | **-2.3** |
| | baz=216,SNR=117 | | | | | | |
| **LAZ** | **Ladron** | **17.65** | **340** | ePn | **P** | **01 51 29.0** | **+1.8** |
| **X40A** | **Basin Creek Fa** | **17.69** | **20** | P | **Pn** | **01 51 25.8** | **-1.5** |
| | baz=203,SNR=155 | | | | | | |
| **W38A** | **Poteau** | **17.77** | **15** | P | **P** | **01 51 27.2** | **-1.0** |
| | baz=197,SNR=205 | | | | | | |
| **OK020** | **N3440 Road, Me** | **17.77** | **8** | ePn | **P** | **01 51 26.3** | **-2.0** |
| | comp=Z,4µm,0.8s | | | | | | |
| **X41A** | **Kaden, Bauxite** | **17.80** | **20** | P | **P** | **01 51 27.6** | **-1.0** |
| | baz=204,SNR=118 | | | | | | |
| **OK021** | **N3530 Road, Sp** | **17.86** | **9** | ePn | **P** | **01 51 28.4** | **-0.9** |
| | comp=Z,2µm,0.9s | | | | | | |
| **Y43A** | **Makayla and Ka** | **17.87** | **25** | P | **P** | **01 51 28.5** | **-0.8** |
| | baz=209,SNR=22 | | | | | | |
| **248A** | **Dixon Mills** | **17.91** | **36** | P | **P** | **01 51 27.7** | **-2.2** |
| | baz=221,SNR=68 | | | | | | |
| **Z45A** | **Winona** | **17.94** | **29** | P | **P** | **01 51 28.8** | **-1.4** |
| | baz=213,SNR=72 | | | | | | |
| **ANMO** | **Albuquerque** | **17.94** | **342** | P | **Pn** | **01 51 31.7** | **+1.1** |
| | comp=Z,8.7nm,0.3s,baz=332,slow=12,SNR=265 | | | | | | |
| ANMO | | | | S | **S** | **01 54 53.6** | **+1.1** |
| | comp=Z,0.4nm,0.3s,baz=229,slow=19,SNR=2.0 | | | | | | |
| ANMO | | | | LR | LR | 01 59 16.4 | |
| | comp=Z,112µm,20.2s,baz=345,slow=40 | | | | | | |
| **ANMO** | **Albuquerque** | **17.94** | **342**d | iP | **Pn** | **01 51 31.5** | **+0.9** |
| ANMO | | | | pmax | pmax | | |
| | comp=Z,737nm,1.1s | | | | | | |
| **ANMO** | **Albuquerque** | **17.94** | **342** | ePn | **Pn** | **01 51 31.4** | **+0.7** |
| | comp=Z,3µm,1.7s | | | | | | |
| ANMO | | | | S | **S** | **01 54 53.6** | **+1.1** |
| **V35A** | **Meyer Ranch, C** | **18.00** | **8** | P | **P** | **01 51 29.9** | **-1.0** |
| | baz=190,SNR=1000 | | | | | | |
| **V35A** | **Meyer Ranch, C** | **18.00** | **8** | eP | **P** | **01 51 30.3** | **-0.6** |
| | comp=Z,5µm,0.8s | | | | | | |
| **W39A** | **Magazine** | **18.07** | **16** | P | **P** | **01 51 31.5** | **-0.1** |
| | baz=199,SNR=718 | | | | | | |
| **147A** | **Livingston** | **18.07** | **33** | P | **P** | **01 51 30.2** | **-1.4** |
| | baz=218,SNR=83 | | | | | | |
| **UALR** | **University of** | **18.11** | **20** | eP | **P** | **01 51 31.4** | **-0.6** |
| | comp=Z,1µm,1.0s | | | | | | |
| **Z46A** | **Louisville** | **18.15** | **31** | P | **P** | **01 51 31.2** | **-1.2** |
| | baz=216,SNR=64 | | | | | | |
| **V36A** | **Jenks** | **18.16** | **10** | P | **P** | **01 51 31.9** | **-0.7** |
| | baz=192,SNR=624 | | | | | | |
| **V36A** | **Jenks** | **18.16** | **10** | eP | **P** | **01 51 31.9** | **-0.7** |
| | comp=Z,3µm,1.1s | | | | | | |
| **X42A** | **Stuttgart** | **18.16** | **22** | P | **P** | **01 51 32.4** | **-0.2** |
| | baz=206,SNR=139 | | | | | | |
| **214A** | **Organ Pipe Nat** | **18.20** | **323** | P | **Pn** | **01 51 34.9** | **+1.3** |
| | baz=138,SNR=458 | | | | | | |
| **214A** | **Organ Pipe Nat** | **18.20** | **323** | eP | **Pn** | **01 51 34.5** | **+0.8** |
| | comp=Z,2µm,1.0s | | | | | | |
| **Y44A** | **Strider, Charl** | **18.21** | **27** | P | **P** | **01 51 32.3** | **-0.8** |
| | baz=211,SNR=68 | | | | | | |
| **W40A** | **Ferguson Farm,** | **18.27** | **18** | P | **P** | **01 51 33.7** | **-0.1** |
| | baz=201,SNR=316 | | | | | | |
| **W40A** | **Ferguson Farm,** | **18.27** | **18** | eP | **P** | **01 51 33.6** | **-0.1** |
| | comp=Z,2µm,1.0s | | | | | | |
| **TUL1** | **Leonard** | **18.31** | **11** | P | **P** | **01 51 33.7** | **-0.6** |
| | baz=193,SNR=1000 | | | | | | |
| **TUL1** | **Leonard** | **18.31** | **11** | eP | **P** | **01 51 33.6** | **-0.6** |
| | comp=Z,3µm,1.0s | | | | | | |
| **V37A** | **Hulbert** | **18.41** | **12** | P | **P** | **01 51 34.9** | **-0.3** |
| | baz=195,SNR=881 | | | | | | |

X43A **Marvell** 18.41 24 P Pn 01 51 35.7 -0.4
baz=208,SNR=115
Y45A **Yeager Farm, C** 18.42 28 P P 01 51 34.8 -0.6
baz=213,SNR=297
U32A **Winter Ranch,** 18.42 2 P P 01 51 35.5 0.0
baz=183,SNR=354
W41B **Gary Mavity, V** 18.51 20 P P 01 51 35.9 -0.5
baz=204,SNR=291
X301 **Greenbrier Sit** 18.52 20 eP P 01 51 36.3 -0.3
comp=Z,824nm,0.7s
V38A **Canehill** 18.55 14 P P 01 51 36.4 -0.4
baz=197,SNR=855
Z47A **Carrollton** 18.59 33 P P 01 51 36.4 -0.9
baz=218,SNR=144
WHAR **Wooly Hollow** 18.60 20 eP P 01 51 37.6 +0.1
comp=Z,1µm,0.7s
U35A **Pawnee** 18.61 8 P P 01 51 37.2 -0.3
baz=190,SNR=437
U35A **Pawnee** 18.61 8 eP P 01 51 37.0 -0.6
comp=Z,3µm,1.1s
X44A **Crenshaw** 18.70 26 P P 01 51 37.9 -0.6
baz=210,SNR=81
V39A **Pettigrew** 18.71 16 P P 01 51 38.7 0.0
baz=199,SNR=1000
Y46A **Houston** 18.75 30 P P 01 51 38.7 -0.4
baz=214,SNR=437
U36A **Oologah** 18.79 11 P P 01 51 39.2 -0.3
baz=192,SNR=638
X18A **Snowflake** 18.82 334 eP Pn 01 51 42.2 +1.0
comp=Z,1µm,1.1s
W42A **Bald Knob** 18.85 22 P P 01 51 39.9 -0.2
baz=205,SNR=138
V40A **Witts Springs** 18.91 18 P P 01 51 40.7 -0.2
baz=201,SNR=1000
U37A **Salina** 18.92 12 P P 01 51 40.4 -0.5
baz=194,SNR=700
X45A **UM Field Stati** 18.95 28 P P 01 51 40.2 -1.1
baz=212,SNR=80
W43A **Forest City** 18.98 24 P P 01 51 41.5 -0.1
baz=208,SNR=32
Z48A **Northport** 19.00 33 P P 01 51 40.6 -1.2
baz=219,SNR=76
OXF **Oxford** 19.02 28 eP P 01 51 41.0 -1.0
OXF **Oxford** 19.02 28 eP P 01 51 41.0 -1.0
LRAL **Lakeview Retre** 19.03 35 eP P 01 51 41.3 -0.9
comp=Z,504nm,0.8s
LRAL eS S 01 55 05.1 -10
BRU2 **Volcan** 19.05 116 eP Pn 01 51 45.7 +1.7
HHAR **Hobbs** 19.06 15 eP P 01 51 42.0 -0.5
comp=Z,824nm,0.9s
V41A **Mountainview** 19.10 20 P P 01 51 42.8 -0.1
baz=203,SNR=1000
U38A **Gravette** 19.11 14 P P 01 51 42.5 -0.5
baz=196,SNR=1000
T35A **Sooner Cattle** 19.18 8 P P 01 51 43.1 -0.6
baz=190,SNR=1000
T34A **McClaskey Farm** 19.20 7 P P 01 51 43.4 -0.6
baz=188,SNR=642
SPIG **San Pedro Mart** 19.24 316 eP Pn 01 51 46.8 +0.5
SPIG **San Pedro Mart** 19.24 316 eP Pn 01 51 46.8 +0.5
W18A **Petrified Fore** 19.24 335 P Pn 01 51 46.4 +0.2
baz=151,SNR=91
W18A **Petrified Fore** 19.24 335 eP Pn 01 51 46.5 +0.3
comp=Z,6µm,1.6s
Y47A **UCPARC, Winfie** 19.26 32 P P 01 51 43.5 -1.1
baz=217,SNR=176
U39A **Green Forest** 19.27 16 P P 01 51 44.3 -0.4
baz=199,SNR=1000
MET **Memphis--Engin** 19.32 25 eP P 01 51 45.6 +0.3
comp=Z,2µm,1.3s
113A **Mohawk Valley,** 19.35 323 eP Pn 01 51 47.4 +0.1
comp=Z,4µm,1.5s
V42A **Cord** 19.38 21 P P 01 51 45.2 -0.6
baz=205,SNR=495
W44A **Shelby Farms P** 19.38 26 P P 01 51 44.8 -1.2
baz=210,SNR=9.7
X16A **Lo Mia Camp, P** 19.40 330 eP Pn 01 51 48.2 +0.2
comp=Z,768nm,0.9s
HBAR **Harrisburg** 19.41 23 eP P 01 51 46.4 +0.1
comp=Z,2µm,1.2s
T36A **Boggs Farm, Ca** 19.42 10 P P 01 51 45.8 -0.5
baz=192,SNR=580
U40A **Yellville** 19.42 17 P P 01 51 46.2 -0.2
baz=201,SNR=1000
T25A **Trinidad** 19.57 349 P P 01 51 48.9 +0.7
baz=167,SNR=218
T25A **Trinidad** 19.57 349 eP Pn 01 51 49.8 -0.2
comp=Z,1µm,1.4s
T37A **Cheneyville 18** 19.65 12 P P 01 51 48.4 -0.5
baz=194,SNR=1000
V43A **Jonesboro** 19.66 23 P P 01 51 48.2 -0.8
baz=207,SNR=47
W45A **Hickory Valley** 19.66 27 P P 01 51 47.7 -1.3
baz=212,SNR=111
U41A **Viola** 19.69 20 P P 01 51 49.0 -0.3
baz=203,SNR=1000
T38A **Diamond** 19.70 13 P P 01 51 48.7 -0.7
baz=196,SNR=514
Y14A **Wickenburg** 19.80 326 eP Pn 01 51 52.2 -0.5
comp=Z,8µm,1.4s
DWPF **Disney Wildern** 19.80 56 eP P 01 51 50.0 -0.6
comp=Z,586nm,0.8s
S34A **Willow Spring** 19.88 7 P P 01 51 50.4 -1.0
baz=188,SNR=386
T39A **Clever** 19.91 16 P P 01 51 51.2 -0.5
baz=199,SNR=671
U42A **Revenden** 19.92 21 P P 01 51 51.3 -0.5
baz=205,SNR=908
V44A **Blytheville** 19.95 25 P P 01 51 51.1 -1.0
baz=209
S35A **Otter Creek Ra** 19.96 8 P P 01 51 51.4 -0.8
baz=190,SNR=867
TIGA **Tifton** 20.02 45 P P 01 51 52.6 -0.3
baz=231,SNR=42
TIGA **Tifton** 20.02 45 eP P 01 51 52.4 -0.5
comp=Z,711nm,0.9s
GNAR **Gosnell** 20.02 24 eP P 01 51 52.6 -0.2
comp=Z,4µm,1.6s
PLAL **Pickwick Lake** 20.02 30 eP P 01 51 51.3 -1.6
comp=Z,2µm,1.3s
S36A **Lake Cedric, C** 20.11 10 P P 01 51 53.0 -0.8
baz=192,SNR=934
GLA **Glamis** 20.17 321 P Pn 01 51 56.2 -0.8
baz=135,SNR=259
GLA **Glamis** 20.17 321 eP Pn 01 51 56.4 -0.7
GLA pmax pmax
comp=Z,3µm,1.4s
GLA **Glamis** 20.17 321 eP Pn 01 51 56.4 -0.6
comp=Z,3µm,1.4s
U43A **Rector** 20.23 23 P P 01 51 54.1 -1.1
baz=207,SNR=138
HALT **Halls** 20.25 26 eP P 01 51 54.9 -0.4
comp=Z,2µm,1.0s
T40A **Mansfield** 20.25 17 P P 01 51 55.0 -0.4
baz=201,SNR=558
V45A **Humboldt** 20.26 27 P P 01 51 54.1 -1.4
baz=211,SNR=226
WUAZ **Wupatki** 20.28 332 eP Pn 01 51 58.0 -0.4
comp=Z,7µm,1.4s
S37A **Fort Scott** 20.28 12 P P 01 51 55.1 -0.7
baz=194,SNR=844
S38A **Stockton** 20.35 14 P P 01 51 56.1 -0.4
baz=197,SNR=1000
SDCO **Great Sand Dun** 20.36 347 eP P 01 51 57.5 +0.6
comp=Z,804nm,1.3s
T41A **Mountain View** 20.38 19 P P 01 51 56.3 -0.5
baz=203,SNR=883
R34A **Isabella, Hill** 20.46 6 P P 01 51 57.1 -0.5
baz=187,SNR=921
Y12C **Blythe** 20.50 323 P Pn 01 51 59.7 -1.1
baz=137,SNR=321
Y12C **Blythe** 20.50 323 eP Pn 01 51 59.6 -1.2
comp=Z,4µm,1.9s
PVMO **Portageville** 20.54 24 eP P 01 51 58.3 -0.2
comp=Z,2µm,0.9s
S39A **Bolivar** 20.55 15 P P 01 51 57.7 -1.0
baz=198,SNR=1000
GLAT **Glass** 20.57 25 eP P 01 51 58.6 -0.3
comp=Z,2µm,1.1s
T42A **Van Buren** 20.58 20 P P 01 51 58.2 -0.8
baz=204,SNR=580
PBMO **Poplar Bluff** 20.59 22 eP P 01 51 58.0 -1.0
comp=Z,1µm,0.8s
R35A **Emporia Munici** 20.61 8 P P 01 51 58.3 -0.9
baz=190,SNR=224
U44B **Burton Farm, H** 20.61 25 P P 01 51 58.5 -0.8
baz=210,SNR=92
U44A **Portageville** 20.62 24 P P 01 51 58.4 -1.0
baz=209,SNR=63
MVCO **Mesa Verde** 20.66 340 eP P 01 52 00.8 +0.7
comp=Z,4µm,1.6s
S22A **4UR Ranch, Cre** 20.68 344 P P 01 52 01.3 +1.0
baz=161,SNR=1000
S22A **4UR Ranch, Cre** 20.68 344 eP P 01 52 01.3 +1.0
comp=Z,3µm,1.4s
S40A **Lebanon** 20.68 17 P P 01 51 59.3 -0.7
baz=200,SNR=588
IKP **In-Ko-Pah, Jac** 20.69 318 P Pn 01 52 02.2 -1.0
baz=132,SNR=290
PDMCI **Parker Dam,Lak** 20.69 325 P Pn 01 52 01.7 -1.4
baz=139,SNR=134
SWSC **Sam W. Stewart** 20.69 319 P Pn 01 52 01.8 -1.3
baz=133,SNR=296
R36A **Gordon, Harris** 20.71 10 P P 01 51 59.2 -1.1
baz=192,SNR=728
PARMO **Parma** 20.74 24 eP P 01 52 00.1 -0.5
comp=Z,2µm,0.8s
PAYG **Puerto Ayora** 20.76 152 eP P 01 52 02.4 +1.3
comp=Z,490nm,1.1s
PAYG **Puerto Ayora** 20.76 152 ⇑iP Pn 01 52 03.7 -0.3
UTMT **University of** 20.81 26 eP P 01 52 00.4 -1.0
comp=Z,3µm,1.0s
CBKS **Cedar Bluff** 20.84 0 eP P 01 52 01.0 -0.8
CBKS pmax pmax
comp=Z,3µm,1.0s
CBKS **Cedar Bluff** 20.84 0 eP P 01 52 00.9 -0.8
comp=Z,3µm,1.0s
U45A **Rockin P Farm,** 20.86 26 P P 01 52 00.5 -1.4
baz=211,SNR=198
R38A **Fenwick Farm,** 20.89 13 P P 01 52 00.7 -1.5
baz=196,SNR=442
S41A **Jillco Farms,** 20.89 18 P P 01 52 01.5 -0.8
baz=202,SNR=346
T43A **Greenville** 20.91 22 P P 01 52 01.3 -1.2
baz=206,SNR=474
BC3 **Big Chuckawall** 20.97 321 P P 01 52 04.6 +1.3
baz=135,SNR=251
MBJ **Montego Bay** 20.98 85 iP P 01 52 04.1 +0.6
MONP2 **Monument Peak** 21.05 318 P P 01 52 05.8 +1.6
baz=132,SNR=272
BAR **Barrett** 21.07 317 eP P 01 52 05.6 +1.3
comp=Z,2µm,1.4s
WVT **Waverly** 21.08 28 eP P 01 52 02.6 -1.7
WVT pmax pmax
comp=Z,686nm,0.8s
WVT **Waverly** 21.08 28 eP P 01 52 02.6 -1.7
comp=Z,686nm,0.8s
Q34A **Chapman** 21.11 6 P P 01 52 04.2 -0.4
baz=188,SNR=819
IRM **Iron Mountain** 21.14 323 P P 01 52 06.8 +1.7
baz=136,SNR=557
Q35A **Mercer Eighty,** 21.16 8 P P 01 52 04.3 -0.8
baz=190,SNR=438
W13A **Hualapai Mount** 21.16 327 eP P 01 52 06.9 +1.5
comp=Z,966nm,1.4s
KSCO **Kaye Shedlock'** 21.16 354 P P 01 52 05.2 -0.2
baz=173,SNR=426
KSCO **Kaye Shedlock'** 21.16 354 eP P 01 52 05.3 0.0
comp=Z,2µm,1.1s
MCJ **Malvern** 21.16 87 iPA P 01 52 11.0 +5.5
T44A **Benton** 21.17 23 P P 01 52 04.1 -1.2
baz=208,SNR=167
R39A **Chumby, Stover** 21.21 15 P P 01 52 04.5 -1.2
baz=188,SNR=428
PNME **Penonome** 21.24 114 ⇓iP P 01 52 08.9 +2.7
SWET **Sewanee** 21.27 33 eP P 01 52 04.5 -2.0
comp=Z,445nm,0.8s
MTDJ **Mount Denham** 21.29 86 eP P 01 52 07.9 +1.0
comp=Z,5µm,1.4s
NEE2 **Needles Airpor** 21.30 325 P P 01 52 08.0 +1.3
baz=139,SNR=11
KSU1 **Kansas State U** 21.32 7 eP P 01 52 05.8 -1.1
comp=Z,1µm,1.0s
Q36A **Arnold C. Orve** 21.34 10 P P 01 52 06.7 -0.4
baz=192,SNR=74
S42A **Caledonia** 21.35 20 P P 01 52 05.8 -1.5
baz=204,SNR=309
BCIP **Isla Barro Col** 21.36 111 eP P 01 52 07.9 +0.4
BCIP **Isla Barro Col** 21.36 111 eP P 01 52 08.5 +1.0
comp=Z,782nm,1.3s
BCIP **Isla Barro Col** 21.36 111 eP P 01 52 08.4 +1.0
GOGA **Godfrey** 21.37 41 eP P 01 52 05.5 -2.0
GOGA pmax pmax
comp=Z,765nm,0.8s
GOGA **Godfrey** 21.37 41 eP P 01 52 05.5 -2.0
comp=Z,765nm,0.8s
R40A **Maddies Statio** 21.39 17 P P 01 52 06.5 -1.2
baz=200,SNR=481
ZANG **Zanguenga, Cho** 21.43 112 eP P 01 52 10.2 +2.0
FRIJ **El Hiral** 21.43 111 eP P 01 52 10.3 +2.0
Q37A **Longview Farm,** 21.44 12 P P 01 52 07.3 -0.8
baz=194,SNR=136
U15A **North Rim** 21.44 332 eP P 01 52 10.1 +1.5
comp=Z,6µm,1.6s
CCM **Cathedral Cave** 21.47 19 eP P 01 52 07.0 -1.5
CCM pmax pmax
comp=Z,959nm,0.9s
CCM **Cathedral Cave** 21.47 19 eP P 01 52 07.0 -1.5
comp=Z,958nm,0.9s
Q24A **Divide** 21.47 349 P P 01 52 08.7 -0.2
baz=166,SNR=54
Q24A **Divide** 21.47 349 eP P 01 52 08.7 -0.2
comp=Z,721nm,1.4s
109C **Camp Elliot, M** 21.48 317 P P 01 52 09.9 +1.2
baz=130,SNR=85
T45A **Paducah** 21.48 25 P P 01 52 08.7 +0.1
baz=210,SNR=26
PV01 **Paradox Valley** 21.53 341 eP P 01 52 10.0 +0.6
BELC **Belle Mtn. Jos** 21.53 321 P P 01 52 10.6 +1.2
baz=134,SNR=205
BBJ **Bamboo Saint A** 21.54 85 iPA P 01 52 11.6 +2.1
XPFO **Piæon Flat** 21.54 320 eP P 01 52 10.7 +1.3
comp=Z,2µm,1.6s
PFO **Pinyon Flats O** 21.55 320 P P 01 52 10.9 +1.4
comp=Z,81nm,1.0s,baz=126,slow=9.5,SNR=124
PFO S S 01 56 08.0 +3.1
comp=Z,8.8nm,0.9s,baz=36,slow=18,SNR=2.8
PFO LR LR 02 00 41.7
comp=Z,44µm,21.6s,baz=134,slow=37
PFO **Pinyon Flats O** 21.55 320 P P 01 52 11.1 +1.6
baz=133,SNR=194
PFO **Pinyon Flats O** 21.55 320 eP P 01 52 10.7 +1.2
comp=Z,2µm,1.6s
PFO S S 01 56 08.1 +3.1
AZU **Azuero** 21.61 115 ⇓iP P 01 52 12.8 +2.6
PV05 **Paradox Valley** 21.64 340 eP P 01 52 11.0 +0.4
R41A **Rosebud** 21.65 18 P P 01 52 09.1 -1.3
baz=202,SNR=292
PCJ **Portland Cotta** 21.68 87 iP P 01 52 14.5 +3.6
Q38A **Cooks Store, C** 21.69 13 P P 01 52 09.5 -1.4
baz=196,SNR=184
P34A **Walnut Farm, R** 21.74 6 P P 01 52 10.4 -0.9
baz=188,SNR=212
LDFC **Landfair** 21.80 325 eP P 01 52 14.4 +2.3
comp=Z,2µm,1.2s
T46A **Princeton** 21.82 27 P P 01 52 10.4 -1.7
baz=212,SNR=139
P35A **Duane Minner,** 21.82 8 P P 01 52 11.3 -0.8
baz=190,SNR=130
R42A **Luebbering** 21.82 20 P P 01 52 10.5 -1.7
baz=204,SNR=150
S44A **Carbondale** 21.83 23 P P 01 52 10.9 -1.4
baz=208,SNR=233
SIUC **Southern Illin** 21.86 23 eP P 01 52 11.1 -1.5
comp=Z,900nm,0.8s
PV04 **Paradox Valley** 21.87 341 eP P 01 52 13.2 +0.2
GMRC **Granite Mounta** 21.89 323 P P 01 52 14.1 +0.9
baz=136,SNR=131
PV10 **Paradox Valley** 21.90 341 eP P 01 52 13.0 -0.4
Q39A **Willow Grove F** 21.92 15 P P 01 52 11.7 -1.6
baz=198,SNR=305
STH **Stony Hill** 21.99 86 iPA P 01 52 17.3 +3.0
MURC **Murrieta** 22.00 319 P P 01 52 15.5 +1.2
baz=131,SNR=130
P36A **Good Intent, A** 22.03 10 P P 01 52 13.1 -1.3
baz=192,SNR=191
PV09 **Paradox Valley** 22.04 340 eP P 01 52 15.0 +0.1
HOJ **Hope** 22.05 86 ⇓iP P 01 52 18.9 +4.0
SMCO **Snowmass** 22.07 345 eP P 01 52 15.6 +0.3
comp=Z,1µm,1.3s
GWJ **Greenwich** 22.07 86 iP P 01 52 16.7 +1.5
S45A **Carrier Mills** 22.08 25 P P 01 52 13.3 -1.7
baz=210,SNR=276
Q40A **Laux Farm, Aux** 22.10 16 P P 01 52 13.7 -1.6
baz=200,SNR=267
R43A **Red Bud** 22.10 21 P P 01 52 13.5 -1.7
baz=206,SNR=155
T47A **Sharon Grove** 22.12 28 P P 01 52 13.3 -2.1
baz=214,SNR=256
P37A **Lathrop** 22.14 11 P P 01 52 14.5 -1.3
baz=194,SNR=261
KNB **Kanab** 22.17 332 eP P 01 52 17.2 +1.0
KNB pmax pmax
comp=Z,2µm,1.4s
KNB **Kanab** 22.17 332 eP P 01 52 17.2 +1.0
comp=Z,2µm,1.4s
O33A **Hebron** 22.19 5 P P 01 52 14.9 -1.3
baz=186,SNR=208
CPCT **Cooper Cave** 22.20 35 eP P 01 52 14.2 -2.2
comp=Z,604nm,0.7s
BBRC **Big Bear Solar** 22.27 320 P P 01 52 18.9 +1.6
baz=133,SNR=26
PKCU **Pink Cliffs** 22.30 333 eP P 01 52 19.2 +1.4
comp=Z,2µm,1.3s
YHJ **Yallahs** 22.30 86 iP P 01 52 14.8 -2.9
Q41A **Truxton** 22.30 18 P P 01 52 15.5 -1.9
baz=202,SNR=232
HEC **Hector,Ludlow** 22.31 322 P P 01 52 19.0 +1.3
baz=135,SNR=185
SLM **Saint Louis** 22.32 20 eP P 01 52 16.2 -1.5
SLM pmax pmax
comp=Z,872nm,0.8s
SLM **Saint Louis** 22.32 20 eP P 01 52 16.1 -1.5
comp=Z,872nm,0.8s
P38A **Dawn** 22.35 13 P P 01 52 16.2 -1.6
baz=196,SNR=51
ISCO **Idaho Springs** 22.37 348 eP P 01 52 18.1 -0.4
ISCO pmax pmax
comp=Z,340nm,0.8s
ISCO **Idaho Springs** 22.37 348 eP P 01 52 18.1 -0.4
comp=Z,340nm,0.8s
O34A **Beatrice** 22.38 7 P P 01 52 17.4 -0.9
baz=188,SNR=533
R44A **Waltonville** 22.38 23 P P 01 52 16.9 -1.4
baz=208,SNR=318
P39B **Salisbury** 22.39 15 P P 01 52 16.5 -1.9
baz=198,SNR=265
CMJ **Castle Mountai** 22.40 86 ⇑iP P 01 52 23.0 +4.3
S46A **Don Dixon Farm** 22.43 26 P P 01 52 16.3 -2.5
baz=212,SNR=27
Q42A **Golden Eagle** 22.48 19 P P 01 52 17.5 -1.8
baz=204,SNR=114
SCI2 **San Clemente I** 22.48 315 P P 01 52 20.2 +0.7
baz=128,SNR=17
TUQ **Turquoise Moun** 22.51 324 P P 01 52 20.7 +0.9
baz=137,SNR=728
O35A **Humboldt** 22.56 8 P P 01 52 18.8 -1.3
baz=190,SNR=47
O36A **Bolckow** 22.57 10 P P 01 52 18.4 -1.8
baz=192,SNR=79
P40A **Paris** 22.61 16 P P 01 52 18.9 -1.9
baz=200,SNR=335
MAPC **Malpelo** 22.64 125 eP P 01 52 21.9 +0.6
CIS **Catalina Islan** 22.66 316 P P 01 52 22.0 +0.7
baz=129,SNR=32
HODGE **Hodges** 22.67 41 eP P 01 52 19.2 -2.2
comp=Z,2µm,1.4s
USIN **University of** 22.69 26 eP P 01 52 19.9 -1.7
comp=Z,2µm,1.0s
BFSC **Mount Baldy Ra** 22.71 319 P P 01 52 22.8 +0.8
baz=132,SNR=76
R45A **Skylar, Fairfi** 22.73 24 P P 01 52 20.4 -1.6
baz=210,SNR=140
RRX **Edison Barstow** 22.73 321 P P 01 52 22.9 +0.8
baz=134,SNR=14
O37A **Wolven Farm, M** 22.74 12 P P 01 52 20.3 -1.8
baz=194,SNR=62
MTPU **Mount Pierson** 22.75 334 eP P 01 52 23.5 +0.8
comp=Z,5µm,1.8s
TKL **Tuckaleechee C** 22.76 36 P P 01 52 19.9 -2.5
comp=Z,581nm,0.7s,baz=199,slow=11,SNR=90
TKL S S 01 56 25.6 -0.8
comp=Z,77nm,1.2s,baz=210,slow=20,SNR=6.3
TKL LR LR 02 04 31.8
comp=Z,10µm,19.6s,baz=218,slow=46
TKL **Tuckaleechee C** 22.76 36 eP P 01 52 19.9 -2.5
comp=Z,1µm,0.9s
TKL S S 01 56 25.6 -0.8
SZCU **Shurtz Canyon** 22.77 332 eP P 01 52 23.4 +0.8
comp=Z,3µm,2.0s
FMP **Fort Macarthur** 22.77 317 P P 01 52 22.7 +0.2
baz=130,SNR=7.6
BG3 **Lake Jocassee** 22.77 38 eP P 01 52 20.7 -1.8
comp=Z,2µm,1.0s
Q43A **New Douglas** 22.78 21 P P 01 52 20.9 -1.6
baz=206,SNR=344
O38A **Galt** 22.84 13 P P 01 52 21.1 -1.9
baz=196,SNR=238
CCUT **Cedar City** 22.85 332 eP P 01 52 24.3 +0.8
comp=Z,2µm,2.0s
N33A **J Bar K, Exete** 22.86 5 P P 01 52 21.9 -1.4
baz=186,SNR=85
SHPR **Sheep Range** 22.90 327 eP P 01 52 24.4 +0.5
comp=Z,723nm,1.4s
GSC **Goldstone, Bar** 22.92 322 P P 01 52 24.9 +0.9
baz=135,SNR=143
GSC **Goldstone, Bar** 22.92 322 eP P 01 52 24.8 +0.7
GSC pmax pmax
comp=Z,760nm,1.4s
GSC **Goldstone, Bar** 22.92 322 eP P 01 52 24.8 +0.7
comp=Z,760nm,1.4s
MWC **Mount Wilson** 22.95 319 eP P 01 52 25.6 +1.1
MWC pmax pmax
comp=Z,2µm,1.4s
MWC **Mount Wilson** 22.95 319 eP P 01 52 25.6 +1.1
comp=Z,2µm,1.4s
R46A **Gibon Southern** 22.97 26 P P 01 52 22.6 -1.8
baz=212,SNR=199
Q44A **Meyer Farm, Va** 22.98 22 P P 01 52 22.6 -1.9
baz=207,SNR=298
PASC **Pasadena Art C** 22.99 318 eP P 01 52 26.1 +1.3
comp=Z,2µm,1.5s
P41A **Barry, Barry** 23.02 18 P P 01 52 22.6 -2.3
baz=202,SNR=154
OGNE **Ogallala** 23.04 356 eP P 01 52 24.5 -0.7
comp=Z,2µm,1.1s
SHOC **Shoshone, Teco** 23.04 324 P P 01 52 25.8 +0.6
baz=137,SNR=59
N34A **Lincoln** 23.05 7 P P 01 52 23.9 -1.3
baz=188,SNR=167
SRU **San Rafael Swe** 23.06 339 eP P 01 52 25.3 -0.2
SRU pmax pmax
comp=Z,1µm,1.1s
SRU **San Rafael Swe** 23.06 339 eP P 01 52 25.3 -0.2
comp=Z,1µm,1.1s
Q16A **Castle Valley** 23.12 337 eP P 01 52 26.4 +0.3
comp=Z,3µm,1.7s
DECC **Green Verdugo** 23.14 318 P P 01 52 27.0 +0.8
baz=130,SNR=14
P42A **Winchester** 23.15 19 P P 01 52 24.0 -2.2
baz=204,SNR=195
MSU **Marysvale** 23.15 335 eP P 01 52 26.8 +0.3
MSU **Marysvale** 23.15 335 eP P 01 52 26.8 +0.3
O39A **Kirksville** 23.17 14 P P 01 52 24.5 -1.9
baz=198,SNR=139
N35A **Tabor** 23.18 8 P P 01 52 25.2 -1.2
baz=190,SNR=220
OLIL **Olney** 23.18 24 eP P 01 52 24.8 -1.7
comp=Z,1µm,0.9s
RGRS **Roger Stewart** 23.20 46 eP P 01 52 25.8 -0.9
comp=Z,7µm,0.8s
O40A **La Belle** 23.21 16 P P 01 52 24.8 -2.0
baz=200,SNR=419
N36A **Muff Farm, Cla** 23.23 10 P P 01 52 25.5 -1.5
baz=192,SNR=120
O20A **White River Ci** 23.29 344 P P 01 52 28.0 +0.2
baz=160,SNR=499
O20A **White River Ci** 23.29 344 eP P 01 52 27.5 -0.3
comp=Z,3µm,1.5s
Q45A **Warren Harvey,** 23.30 24 P P 01 52 25.6 -2.0
baz=209,SNR=172
SNCC **San Nicolas Is** 23.30 315 P P 01 52 28.6 +0.8
baz=126
SNCC **San Nicolas Is** 23.30 315 eP P 01 52 28.5 +0.8
comp=Z,2µm,1.4s
N37A **Lee Faris, Mou** 23.30 11 P P 01 52 26.2 -1.5
baz=194,SNR=216
NHSC **New Hope** 23.33 46 eP P 01 52 27.4 -0.5
comp=Z,5µm,1.1s
JSC **Jenkinsville** 23.33 42 eP P 01 52 26.3 -1.6
JSC pmax pmax
comp=Z,924nm,1.4s
JSC **Jenkinsville** 23.33 42 eP P 01 52 26.3 -1.6

comp=Z,924nm,1.4s
CSU Charleston Sou 23.33 46 eP P 01 52 27.8 -0.2
EDW2 Edwards Air Fo 23.34 320 P P 01 52 28.8 +0.6
baz=132,SNR=110
TCRU Three Creeks R 23.35 335 eP P 01 52 29.2 +0.8
comp=Z,3µm,1.9s
P18A Preston Nutter 23.43 340 eP P 01 52 29.0 -0.1
comp=Z,2µm,1.1s
P17A Butcher Ranch, 23.45 339 eP P 01 52 29.1 -0.1
comp=Z,947nm,1.1s
R47A Wooly Knot Far 23.45 27 P P 01 52 27.3 -1.8
baz=214,SNR=255
TMUT Trail Mountain 23.46 338 eP P 01 52 29.7 +0.2
comp=Z,1µm,1.3s
P43A Skaggs, Pawnee 23.47 21 P P 01 52 27.9 -1.2
baz=206,SNR=293
BGNE Belgrade 23.48 3 P P 01 52 28.5 -0.8
baz=184,SNR=105
BGNE Belgrade 23.48 3 eP P 01 52 28.6 -0.8
comp=Z,4µm,1.1s
O41A Passleys Farm, 23.48 18 P P 01 52 27.4 -1.9
baz=202,SNR=176
N23A Red Feather La 23.49 349 P P 01 52 29.5 -0.2
baz=166,SNR=298
N23A Red Feather La 23.49 349 eP P 01 52 29.5 -0.2
comp=Z,1µm,1.3s
WCI Wyandotte Cave 23.50 28 eP P 01 52 27.7 -1.8
WCI pmax pmax
comp=Z,583nm,0.7s
WCI Wyandotte Cave 23.50 28 eP P 01 52 27.7 -1.8
comp=Z,583nm,0.7s
BLG Laguna Peak, P 23.52 317 P P 01 52 30.7 +1.0
baz=129
N38A Joes South For 23.53 13 P P 01 52 28.2 -1.6
baz=196,SNR=208
TZTN Tazewell 23.54 35 eP P 01 52 28.3 -1.5
comp=Z,719nm,0.8s
LRMC Laurel Mtn Rad 23.56 321 P P 01 52 31.1 +0.9
baz=134,SNR=211
GTBY Guantanamo Bay 23.56 81 eP P 01 52 30.8 +0.6
comp=Z,720nm,0.8s
OSI Osito Audit: C 23.62 318 P P 01 52 31.5 +0.8
baz=130
OSI Osito Audit: C 23.62 318 eP P 01 52 33.1 +2.4
comp=Z,2µm,1.4s
P44A Sand Creek, Wi 23.63 22 P P 01 52 29.6 -1.1
baz=208,SNR=140
M34A Aspy Farms, Fr 23.70 6 P P 01 52 30.4 -0.8
baz=188,SNR=139
M33A Taylor Creek F 23.71 5 P P 01 52 30.5 -0.9
baz=186,SNR=133
Q46A CEJHS Indians, 23.72 25 P P 01 52 30.0 -1.4
baz=211,SNR=22
M35A Neola 23.77 8 P P 01 52 30.7 -1.1
baz=190,SNR=100
N39A Derby Farms, D 23.77 14 P P 01 52 30.4 -1.6
baz=198,SNR=499
FURC Furnace Creek, 23.78 324 P P 01 52 33.1 +1.0
baz=137,SNR=142
O42A Bath 23.79 19 P P 01 52 30.2 -1.9
baz=204,SNR=72
PHWY Pilot Hill 23.80 350 eP P 01 52 31.9 -0.6
comp=Z,1µm,1.4s
CAPC Capurgana 23.80 110 eP P 01 52 30.4 -2.0
TPNV Topopah Spring 23.80 326 eP P 01 52 33.7 +1.2
TPNV pmax pmax
comp=Z,2µm,1.4s
TPNV Topopah Spring 23.80 326 eP P 01 52 33.6 +1.2
comp=Z,2µm,1.4s
SCZ2 Santa Cruz Isl 23.82 316 P P 01 52 33.5 +1.0
baz=128
KMSC Kings Mountain 23.84 40 P P 01 52 30.4 -2.2
baz=228,SNR=376
KMSC Kings Mountain 23.84 40 eP P 01 52 31.3 -1.3
comp=Z,3µm,1.4s
MPMC Manual Prospec 23.84 323 P P 01 52 33.9 +1.0
baz=135,SNR=248
M36A Felix, Anita 23.88 10 P P 01 52 31.7 -1.3
baz=192,SNR=118
PSUT Pine Spring 23.88 332 eP P 01 52 34.3 +1.1
comp=Z,537nm,1.1s
M37A Trindle Farm, 23.96 11 P P 01 52 33.1 -0.5
baz=194,SNR=635
N40A Mertquake, Sal 24.00 16 P P 01 52 32.2 -1.8
baz=200,SNR=262
P45A Graceland, Par 24.00 24 P P 01 52 33.0 -1.1
baz=210,SNR=90
ARVC Arvin 24.02 319 P P 01 52 35.5 +1.3
baz=131,SNR=59
Q47A Bedord North L 24.03 27 P P 01 52 33.4 -0.9
baz=213,SNR=199
N41A Harden Midland 24.04 17 P P 01 52 32.4 -1.9
baz=202,SNR=279
L32A Elgin 24.08 4 P P 01 52 34.0 -0.7
baz=184
O43A Sugar Creek Fa 24.12 20 P P 01 52 33.5 -1.6
baz=205,SNR=80
M38A Pleasantville 24.14 12 P P 01 52 33.5 -1.7
baz=196,SNR=396
SBC Santa Barbara 24.14 317 P P 01 52 36.7 +1.3
baz=128
ISA Isabella, Lake 24.15 321 P P 01 52 37.3 +1.8
baz=132,SNR=60
ISA Isabella, Lake 24.15 321 eP P 01 52 37.2 +1.7
ISA pmax pmax
comp=Z,1µm,1.3s
ISA Isabella, Lake 24.15 321 eP P 01 52 37.2 +1.7
comp=Z,1µm,1.3s
L34A Svendsen Farm, 24.18 6 P P 01 52 34.5 -1.1
baz=188,SNR=31
BLO Bloomington 24.19 26 eP P 01 52 34.8 -0.9
BLO pmax pmax
comp=Z,605nm,0.8s
BLO Bloomington 24.19 26 eP P 01 52 34.8 -0.9
comp=Z,605nm,0.8s
MPU Maple Canyon 24.25 338 eP P 01 52 36.8 +0.3
comp=Z,964nm,1.3s
O44A Mansfield 24.29 22 P P 01 52 35.0 -1.6
baz=207,SNR=173
L33A Hoskins 24.29 5 P P 01 52 35.9 -0.7
baz=186,SNR=83
P46A Rosedale 24.29 24 P P 01 52 35.5 -1.2
baz=211,SNR=60
NLU North Lily Min 24.36 337 eP P 01 52 38.0 +0.5
comp=Z,2µm,1.8s
HDIL Hopedale 24.37 20 eP P 01 52 35.8 -1.5
comp=Z,1µm,0.8s
N42A Yates City 24.39 18 P P 01 52 36.0 -1.5
baz=203,SNR=104
L35A Bielow Farm, R 24.42 8 P P 01 52 36.6 -1.2
baz=190,SNR=74
M39A Webster 24.42 14 P P 01 52 36.1 -1.7
baz=198,SNR=343
GRAC Grapevine Rang 24.44 325 P P 01 52 39.7 +1.6
baz=137,SNR=285
CWC Cottonwood Cre 24.45 323 P P 01 52 39.7 +1.4
baz=134
PKM Mcpherson Peak 24.49 318 P P 01 52 39.8 +1.1
baz=129
M40A Post Highland 24.51 15 P P 01 52 36.8 -1.8
baz=200,SNR=160
RWWY Rawlins 24.51 347 eP P 01 52 39.1 +0.1
comp=Z,3µm,1.3s
L36A Harm Buss Farm 24.54 9 P P 01 52 37.4 -1.4
baz=192,SNR=96
R11A Troy Canyon, C 24.54 329 P P 01 52 40.3 +1.2
baz=142,SNR=351
R11A Troy Canyon, C 24.54 329 eP P 01 52 40.0 +0.8
comp=Z,935nm,1.5s
P47A Martinsville 24.56 26 P P 01 52 37.7 -1.4
baz=213,SNR=86
SCIA State Center 24.61 12 eP P 01 52 38.4 -1.1
comp=Z,1µm,0.8s
O45A Potomac 24.64 23 P P 01 52 38.5 -1.3
baz=209,SNR=233
VES Vestal, Richgr 24.64 320 P P 01 52 41.3 +1.4
baz=132,SNR=138
K31A O'Neill 24.66 2 P P 01 52 39.6 -0.4
baz=183,SNR=156
JLU Jordanelle 24.71 339 eP P 01 52 40.8 0.0
comp=Z,1µm,1.8s
L37A Phoenix Point, 24.71 11 P P 01 52 38.9 -1.6
baz=194,SNR=103
K32A Verdigre 24.73 3 P P 01 52 40.0 -0.7
baz=184,SNR=144
M41A Milan 24.74 17 P P 01 52 38.9 -1.8
baz=202,SNR=339
K33A Hardington 24.75 5 P P 01 52 40.3 -0.5
baz=187,SNR=72
N43A Stutzman Famil 24.75 20 P P 01 52 39.4 -1.4
baz=205,SNR=298
DUG Dugway, Tooele 24.85 336 eP P 01 52 42.5 +0.6
DUG pmax pmax
comp=Z,2µm,1.5s
DUG Dugway, Tooele 24.85 336 eP P 01 52 42.5 +0.6
comp=Z,2µm,1.5s
SOLC Bahia Solano 24.86 115 eP P 01 52 46.2 +4.2
SMMC Simmler 24.87 318 P P 01 52 43.7 +1.6
baz=129,SNR=181
L38A Oak Wood Farm, 24.88 12 P P 01 52 40.3 -1.7
baz=196,SNR=261
CTU Camp Tracy 24.89 338 eP P 01 52 42.5 +0.2
comp=Z,808nm,1.3s
K34A Le Mars 24.92 7 P P 01 52 41.5 -0.9
baz=189,SNR=146
TIN Tinemaha, Big 24.97 323 P P 01 52 44.4 +1.4
baz=135,SNR=62
N44A Piper City 24.98 22 P P 01 52 41.2 -1.6
baz=207,SNR=154
SFIN Lafayette 24.99 24 P P 01 52 41.6 -1.4
baz=210,SNR=228
SFIN Lafayette 24.99 24 eP P 01 52 41.6 -1.4
comp=Z,909nm,1.0s
M42A Sheffield 25.04 18 P P 01 52 41.5 -1.9
baz=203,SNR=96
RCTC Rector, Farmer 25.05 321 P P 01 52 44.9 +1.4
baz=132
K35A Storm Lake 25.06 8 P P 01 52 42.0 -1.6
baz=191,SNR=43
L39A Vinton 25.07 14 P P 01 52 41.5 -2.2
baz=198,SNR=357
K36A Gilmore City 25.09 10 P P 01 52 42.3 -1.6
baz=192,SNR=54
TCUT Toone Canyon 25.15 339 eP P 01 52 45.2 +0.5
comp=Z,2µm,1.2s
L40A Anamosa 25.20 15 P P 01 52 43.1 -1.9
baz=200,SNR=273
O47A Sheridan 25.23 25 P P 01 52 43.2 -2.0
baz=212,SNR=216
N45A Kentland 25.24 22 P P 01 52 44.1 -1.2
baz=209,SNR=265
MOTC Monteria, Cord 25.26 108 eP P 01 52 46.5 +0.8
MOTC eP P 01 52 48.7 +2.9
M43A Waltham Townsh 25.27 20 P P 01 52 43.7 -1.8
baz=205,SNR=250
PAGB Antelope Grade 25.29 319 eP P 01 52 47.4 +1.5
comp=Z,3µm,1.7s
K22A Casper 25.30 349 P P 01 52 45.5 -0.5
baz=165,SNR=126
K22A Casper 25.30 349 eP P 01 52 45.5 -0.5
comp=Z,3µm,1.5s
J31A Geddes 25.33 2 P P 01 52 45.0 -1.1
baz=183,SNR=112
K37A Belmond 25.36 11 P P 01 52 44.0 -2.3
baz=194,SNR=178
L41A Preston 25.41 17 P P 01 52 44.4 -2.4
baz=201,SNR=655
K38A Parkersburg 25.41 12 P P 01 52 44.3 -2.5
baz=196,SNR=66
J32A Parkston 25.45 4 P P 01 52 46.0 -1.2
baz=185,SNR=211
J33A Davis 25.46 5 P P 01 52 46.2 -1.0
baz=187,SNR=160
J34A George 25.52 7 P P 01 52 46.7 -1.2
baz=189,SNR=72
DBBC Dabeiba 25.53 112 eP P 01 52 51.4 +3.1
M44A Midewin, Midew 25.53 21 P P 01 52 46.2 -1.7
baz=207,SNR=75
BGU Big Grassy Mou 25.56 337 eP P 01 52 48.8 +0.4
comp=Z,1µm,1.4s
L42A Oliver, Polo 25.57 18 P P 01 52 46.4 -1.9
baz=203,SNR=161
N46A Monticello 25.57 24 P P 01 52 46.6 -1.6
baz=210,SNR=77
K39A Oelwein 25.65 14 P P 01 52 46.6 -2.4
baz=198,SNR=350
SPUT South Promonto 25.68 338 eP P 01 52 49.6 +0.1
comp=Z,800nm,1.5s
J35A Milford 25.70 8 P P 01 52 47.6 -1.8
baz=190,SNR=46
MLAC Mammoth, Mammo 25.72 324 P P 01 52 51.3 +1.3
baz=135,SNR=102
BLA Blacksburg 25.77 38 eP P 01 52 49.4 -0.8
BLA pmax pmax
comp=Z,2µm,0.8s
BLA Blacksburg 25.77 38 eP P 01 52 49.4 -0.8
comp=Z,2µm,0.8s
J36A Seneca 1, Swea 25.79 9 P P 01 52 48.2 -2.0
baz=192,SNR=152
M45A Boilermakers S 25.81 22 P P 01 52 49.2 -1.2
baz=209,SNR=96
K40A Colesburg 25.82 15 P P 01 52 48.3 -2.2
baz=200,SNR=131
MDPB Devils Postpil 25.86 323 eP P 01 52 52.5 +1.3
comp=Z,700nm,1.3s
J37A Redenius Farm, 25.90 11 P P 01 52 49.0 -2.3
baz=194,SNR=40
ECSD EROS Data Cent 25.90 6 eP P 01 52 50.0 -1.2
comp=Z,1µm,1.0s
PMPB Monarch Peak 25.95 319 eP P 01 52 53.8 +2.0
comp=Z,5µm,1.6s
K41A Shullsburg 25.95 16 P P 01 52 49.5 -2.2
baz=201,SNR=123
LGNH LØogne 25.96 84 eP P 01 52 53.7 +1.7
GRGC Isla de Gorgon 25.97 122 eP P 01 52 51.0 -1.1
L43A Garden Prairie 26.02 19 P P 01 52 50.2 -2.0
baz=205,SNR=68
I31A Royce, Wessing 26.07 2 P P 01 52 51.3 -1.5
baz=183
BW06 Boulder Array 26.10 344 eP P 01 52 52.8 -0.5
comp=Z,2µm,1.4s
PD31 Pinedale Array 26.10 344 eP P 01 52 53.0 -0.4
PDAR Pinedale Array 26.10 344 P P 01 52 52.8 -0.5
comp=Z,245nm,0.8s,baz=141,slow=8.4,SNR=250
PDAR pP pP 01 53 11.5 +2.5
comp=Z,327nm,1.0s,baz=139,slow=12,SNR=3.8
PDAR PcP PcP 01 56 20.7 +1.2
comp=Z,12nm,0.8s,baz=146,slow=4.8,SNR=6.0
PDAR S S 01 57 24.2 +3.9
comp=Z,12nm,1.1s,baz=163,slow=16,SNR=1.7
PDAR PKiKP PKiKP 02 03 59.2 +0.4
comp=Z,2.9nm,0.9s,baz=108,slow=2.9,SNR=4.8
PDAR LR LR 02 04 21.8
comp=Z,187µm,20.0s,baz=167,slow=39
PDAR P3KPbc 02 25 36.4
comp=Z,1.2nm,0.5s,baz=256,slow=1.1,SNR=15
PDAR Pinedale Array 26.10 344 eP P 01 52 53.3 0.0
PDAR pP pP 01 53 11.5 +2.5
PDAR PcP PcP 01 56 20.7 +1.2
PDAR S S 01 57 24.2 +3.9
PDAR PKiKP PKiKP 02 03 59.2 +0.4
PDAR e 02 25 36.4
CNNC Cliffs of the 26.11 44 eP P 01 52 52.5 -0.7
comp=Z,889nm,0.9s
J38A Wedel Dairy, R 26.11 12 P P 01 52 50.8 -2.3
baz=196,SNR=61
I32A Karley and Nic 26.13 4 P P 01 52 51.9 -1.4
baz=185,SNR=51
M46A Old House Fiel 26.16 24 P P 01 52 52.2 -1.4
baz=210,SNR=51
I33A Coleman 26.20 5 P P 01 52 52.5 -1.4
baz=187,SNR=27
I35A Creekview Farm 26.21 8 P P 01 52 52.5 -1.5
baz=191,SNR=57
HVU Hansel Valley 26.21 338 eP P 01 52 54.6 +0.3
HVU pmax pmax
comp=Z,911nm,1.4s
HVU Hansel Valley 26.21 338 eP P 01 52 54.6 +0.3
comp=Z,911nm,1.4s
JFWS Jewell Farm 26.25 16 eP P 01 52 52.5 -1.9
JFWS pmax pmax
comp=Z,742nm,0.8s
JFWS Jewell Farm 26.25 16 eP P 01 52 52.5 -1.9
comp=Z,742nm,0.8s
L44A Lake County Fo 26.28 20 P P 01 52 52.8 -1.9
baz=206,SNR=16
I34A Hadley 26.28 7 P P 01 52 53.3 -1.4
baz=189,SNR=27
J39A Decorah 26.29 14 P P 01 52 52.2 -2.5
baz=198,SNR=124
RSSD Black Hills 26.37 353 eP P 01 52 55.5 -0.2
RSSD pmax pmax
comp=Z,523nm,1.4s
RSSD Black Hills 26.37 353 eP P 01 52 55.5 -0.2
comp=Z,524nm,1.4s
K42A Prairie Point, 26.38 18 P P 01 52 53.4 -2.1
baz=203,SNR=107
SUSD Miller 26.47 2 P P 01 52 55.4 -1.0
baz=182,SNR=68
PLMC San Jos¨ del 26.49 116 eP P 01 52 56.2 -0.7
HELC Santa Helena 26.51 113 eP P 01 52 58.9 +1.5
HELC Santa Helena 26.51 113 eP P 01 52 59.1 +1.7
comp=Z,505nm,1.0s
I36A Fitzsimmons Fa 26.51 10 P P 01 52 54.7 -2.0
baz=193,SNR=48
H31A Wolsey 26.52 2 P P 01 52 55.4 -1.5
baz=183
AHID Auburn Hatcher 26.54 341 eP P 01 52 57.3 +0.1
comp=Z,378nm,1.1s
J40A Soldiers Grove 26.58 15 P P 01 52 55.1 -2.3
baz=200,SNR=107
H32A Carlson Farm, 26.60 4 P P 01 52 56.4 -1.2
baz=185,SNR=160
I37A Lemond, Waseca 26.61 11 P P 01 52 55.6 -2.0
baz=194,SNR=106
K43A Burlington 26.62 19 P P 01 52 55.5 -2.2
baz=205,SNR=44
ACSO Alum Creek Sta 26.64 30 eP P 01 52 56.6 -1.3
comp=Z,521nm,0.8s
WAKR Walker 26.67 324 eP P 01 53 00.1 +1.6
comp=Z,606nm,1.3s
SAO San Andreas Ge 26.69 319 eP P 01 52 59.7 +1.2
SAO pmax pmax
comp=Z,493nm,1.4s
SAO San Andreas Ge 26.69 319 eP P 01 52 59.7 +1.2
comp=Z,493nm,1.4s
J41A Loganville 26.74 16 P P 01 52 56.5 -2.3
baz=201,SNR=75
I39A Houston 26.83 14 P P 01 52 57.4 -2.2
baz=198,SNR=164
H33A Prehn Over Nor 26.83 5 P P 01 52 58.2 -1.4
baz=197,SNR=91
I38A Scanlan Farm, 26.83 12 P P 01 52 57.4 -2.3
baz=196,SNR=160
CODC Agust¨n Codaz 26.87 104 eP P 01 53 00.1 -0.2
CMB Columbia Colle 26.88 322 eP P 01 53 00.8 +0.6
CMB pmax pmax
comp=Z,474nm,1.5s
CMB Columbia Colle 26.88 322 eP P 01 53 00.8 +0.6
comp=Z,474nm,1.5s
YERR Yerington 26.90 325 eP P 01 53 01.8 +1.2
comp=Z,911nm,1.5s
H34A Spellman Lake, 26.91 7 P P 01 52 58.7 -1.6
baz=189,SNR=115
J42A Columbus 26.94 18 P P 01 52 58.7 -1.9
baz=203,SNR=126
REDW Red Top Meadow 27.01 342 eP P 01 53 01.4 -0.1
comp=Z,943nm,1.3s
H35A Sunnyside Ranc 27.06 8 P P 01 52 59.6 -2.1
baz=191,SNR=134
H36A Jessenland, He 27.07 9 P P 01 53 00.4 -1.3
baz=193,SNR=133
I40A Norwalk 27.07 15 P P 01 52 59.6 -2.3
baz=200,SNR=82
SNOW Snow King Moun 27.08 343 eP P 01 53 02.1 0.0
comp=Z,2µm,1.4s
GUYC Guyana, Colomb 27.09 115 eP P 01 53 05.2 +2.4
TPAW Teton Pass 27.16 342 eP P 01 53 02.8 -0.1
comp=Z,2µm,1.3s
PNTR Pine Nut 27.17 325 eP P 01 53 04.4 +1.4
comp=Z,936nm,1.4s
LOHW Long Hollow 27.17 343 eP P 01 53 02.8 -0.2
comp=Z,1µm,1.4s
SDDR Presa de Saban 27.18 83 eP P 01 53 03.9 +0.8
comp=Z,548nm,0.8s
J43A Natural Harves 27.20 19 P P 01 53 00.9 -2.0
baz=204,SNR=60
H37A Dierke Farm, C 27.24 11 P P 01 53 01.6 -1.7
baz=195,SNR=47
G31A Conde 27.28 3 P P 01 53 01.6 -2.1
baz=184
PTBC PUERTO BERRIO, 27.29 111 eP P 01 53 04.7 +0.6
FXWY Fox Creek 27.32 342 eP P 01 53 04.0 -0.2
comp=Z,554nm,1.1s
GRTK Grand Turk 27.33 78 eP P 01 53 07.3 +3.0
comp=Z,597nm,0.8s
MOOW Moose Ponds 27.34 343 eP P 01 53 04.3 -0.1
comp=Z,362nm,1.0s
G32A Webster 27.35 4 P P 01 53 02.7 -1.6
baz=185,SNR=50
G33A Ortonville 27.37 5 P P 01 53 02.6 -1.8
baz=187,SNR=110
NORC Norcasia 27.38 114 eP P 01 53 06.2 +1.3
I41A Arkdale 27.42 16 P P 01 53 02.6 -2.3
baz=201,SNR=22
H38A Maiden Rock 27.45 12 P P 01 53 03.2 -2.0
baz=196,SNR=70
OTAV Otavalo 27.46 127 eP P 01 53 05.8 -0.2
OTAV Otavalo 27.46 127 eP P 01 53 08.1 +2.0
comp=Z,182nm,1.2s
CMBC Cumbal 27.49 125 eP P 01 53 09.4 +3.1
G34A Benson 27.49 7 P P 01 53 03.8 -1.7
baz=189,SNR=126
PAHR Pah Rah Range 27.50 326 eP P 01 53 06.9 +1.1
comp=Z,452nm,1.4s
I42A Draeger Farm, 27.52 17 P P 01 53 03.8 -2.0
baz=203,SNR=54
IMW Indian Meadow 27.53 343 eP P 01 53 05.9 -0.3
comp=Z,672nm,1.4s
OCAC Ocana 27.61 107 eP P 01 53 07.3 +0.3
JSRW J. Sargeant Re 27.61 40 eP P 01 53 06.1 -0.5
G35A Watkins 27.61 8 P P 01 53 04.5 -2.1
baz=191,SNR=21
IP07 Quail 27.66 39 eP P 01 53 06.5 -0.6
comp=Z,344nm,1.0s
H39A Augusta 27.67 13 P P 01 53 05.4 -1.7
baz=198,SNR=81
URIC Uribia, Colomb 27.68 99 eP P 01 53 07.1 -0.5
IP06 Yanceyville 27.70 39 eP P 01 53 07.0 -0.5
comp=Z,504nm,1.2s
BRRC Barranca, Sant 27.71 109 eP P 01 53 08.1 +0.3
IP04 Greensprings 27.74 39 eP P 01 53 07.3 -0.4
comp=Z,658nm,1.3s
G36A St. Michael 27.74 9 P P 01 53 05.7 -2.0
baz=193,SNR=13
IP03 Louisa 27.74 39 eP P 01 53 07.3 -0.5
comp=Z,364nm,1.1s
I43A Langenfeld Bro 27.74 18 P P 01 53 06.0 -1.8
baz=205,SNR=36
URVA University of 27.75 41 eP P 01 53 07.6 -0.3
IP01 Cuckoo 27.76 40 eP P 01 53 07.4 -0.6
comp=Z,421nm,1.0s
IP05 Hopewell Churc 27.77 40 eP P 01 53 07.7 -0.4
comp=Z,1µm,1.3s
CRUC La Cruz 27.80 123 eP P 01 53 11.9 +3.0
MCWV Mont Chateau 27.80 35 eP P 01 53 07.6 -0.8
comp=Z,675nm,1.4s
H40A Chili 27.82 15 P P 01 53 06.4 -2.0
baz=200,SNR=65
SPRD Spring Road, M 27.82 39 eP P 01 53 08.0 -0.5
comp=Z,394nm,0.9s
AFDM Forest Hills D 27.84 323 eP P 01 53 09.8 +1.0
comp=Z,286nm,1.4s
SPMN Marine on St. 27.89 11 P P 01 53 07.0 -2.0
baz=195,SNR=52
SPMN Marine on St. 27.89 11 eP P 01 53 07.0 -2.0
comp=Z,485nm,1.0s
H17A Grant Village 27.89 344 P P 01 53 08.9 -0.5
baz=158
H17A Grant Village 27.89 344 eP P 01 53 10.8 +1.4
comp=Z,276nm,1.2s
CVRD Centerville Ro 27.89 39 eP P 01 53 09.1 -0.1
comp=Z,589nm,1.4s
F31A Hecla 27.91 3 P P 01 53 07.2 -2.1
baz=184,SNR=32
F32A Veblen 27.98 4 P P 01 53 07.7 -2.2
baz=186,SNR=14
H41A Junction City 28.00 16 P P 01 53 08.1 -1.9
baz=201,SNR=42
AAM Ann Arbor 28.00 26 eP P 01 53 08.4 -1.6
AAM pmax pmax
comp=Z,786nm,0.8s
AAM Ann Arbor 28.00 26 eP P 01 53 08.4 -1.6
comp=Z,786nm,0.8s
LKWY Lake 28.00 344 eP P 01 53 11.5 +1.1
LKWY pmax pmax
comp=Z,1µm,1.6s
LKWY Lake 28.00 344 eP P 01 53 11.5 +1.1
comp=Z,1µm,1.6s
YFT Old Faithful 28.01 343 eP P 01 53 12.5 +2.1
comp=Z,384nm,1.2s
G38A Ridgeland 28.01 12 P P 01 53 08.0 -2.2

baz=196,SNR=57
F33A 5 Mile Ranch, 28.02 5 P P 01 53 07.8 -2.4
baz=187,SNR=52
F34A Alexandria 28.08 7 P P 01 53 08.3 -2.5
baz=190,SNR=34
BEKR Beckworth 28.14 325 eP P 01 53 12.9 +1.3
comp=Z,713nm,1.5s
GIRC Giron, Santand 28.19 109 eP P 01 53 14.4 +2.1
H42A Shiocton 28.20 17 P P 01 53 10.0 -1.9
baz=203,SNR=28
ROSC El Rosal 28.21 114 P P 01 53 15.1 +2.4
comp=Z,47nm,0.9s,baz=357,slow=2.3,SNR=34
ROSC S S 01 57 59.0 +4.7
comp=Z,5.1nm,0.5s,baz=210,slow=22,SNR=2.8
ROSC El Rosal 28.21 114 eP P 01 53 14.1 +1.4
ROSC El Rosal 28.21 114 eP P 01 53 14.8 +2.1
comp=Z,205nm,1.1s
ROSC S S 01 57 59.0 +4.7
YNR Norris Junctio 28.21 344 eP P 01 53 13.7 +1.4
comp=Z,391nm,1.2s
F35A Swanville 28.23 8 P P 01 53 10.2 -1.9
baz=191,SNR=42
RLMT Red Lodge 28.24 346 eP P 01 53 12.1 -0.4
comp=Z,719nm,1.4s
CBN Corbin Frederi 28.24 40 eP P 01 53 12.2 -0.1
comp=Z,837nm,1.2s
YMR Madison River 28.25 343 eP P 01 53 13.1 +0.5
comp=Z,593nm,1.5s
G39A Holcombe 28.27 13 P P 01 53 10.5 -2.0
baz=198,SNR=81
CBRI Barrientos, No 28.29 107 eP P 01 53 14.2 +1.0
PRAC Prado 28.29 117 eP P 01 53 14.1 +1.1
PRAC Prado 28.29 117 eP P 01 53 14.8 +1.8
comp=Z,1µm,2.0s
YHH Holmes Hill 28.33 343 eP P 01 53 13.5 +0.2
comp=Z,373nm,1.3s
HLID Hailey 28.36 337 eP P 01 53 13.8 +0.3
comp=Z,129nm,1.0s
F36A Milaca 28.38 9 P P 01 53 11.3 -2.2
baz=193,SNR=83
YHB Horse Butte 28.39 343 eP P 01 53 14.6 +0.9
comp=Z,174nm,1.1s
H43A Windswept, Lux 28.39 18 P P 01 53 11.4 -2.1
baz=205
F37A Hinrichs Farm, 28.40 11 P P 01 53 11.9 -1.7
baz=195,SNR=24
BARC Barichara 28.41 110 eP P 01 53 14.9 +0.6
MCCM Marconi Confer 28.45 320 eP P 01 53 16.6 +2.5
comp=Z,409nm,1.1s
G40A Rib Lake 28.47 14 P P 01 53 12.3 -1.9
baz=200,SNR=35
SDD Santo Domingo 28.51 84 eP P 01 53 16.6 +1.8
comp=Z,2µm,1.5s
QLMT Earthquake Lak 28.53 343 eP P 01 53 15.6 +0.6
PAMC Pamplona, Colo 28.53 108 eP P 01 53 16.2 +0.6
ORV Oroville 28.55 324 eP P 01 53 16.5 +1.5
ORV pmax pmax
comp=Z,709nm,1.5s
ORV Oroville 28.55 324 eP P 01 53 16.5 +1.5
comp=Z,709nm,1.5s
CVER Cruz Verde, Cu 28.58 115 eP P 01 53 17.3 +1.2
E31A Nome 28.63 3 P P 01 53 14.2 -1.4
baz=184,SNR=33
N54A Moraine State 28.67 33 P P 01 53 13.8 -2.3
baz=222,SNR=42
G41A Antigo 28.67 16 P P 01 53 14.1 -2.0
baz=202,SNR=83
E33A Westby DABS, E 28.71 6 P P 01 53 13.7 -2.6
baz=188,SNR=27
E32A Braaten, Kindr 28.71 4 P P 01 53 13.8 -2.6
baz=186
F38A Pierce - Schro 28.77 12 P P 01 53 14.8 -2.0
baz=196,SNR=25
MFID Camas Ranch 28.77 335 eP P 01 53 17.4 +0.3
comp=Z,474nm,1.3s
E34A Wadena 28.80 7 P P 01 53 15.3 -1.8
baz=190,SNR=36
RUSC La Rusia 28.80 111 eP P 01 53 18.4 +0.3
RUSC La Rusia 28.80 111 eP P 01 53 18.7 +0.6
comp=Z,255nm,1.3s
CHIC Chingaza 28.82 114 eP P 01 53 19.9 +1.8
G42A Mountain 28.90 17 P P 01 53 16.1 -2.0
baz=203,SNR=50
F39A Loretta 28.92 13 P P 01 53 15.7 -2.5
baz=198,SNR=20
O56A Blue Knob Stat 28.93 35 P P 01 53 17.2 -1.3
baz=226,SNR=71
E35A Pequot Lakes 28.94 8 P P 01 53 17.1 -1.2
baz=191,SNR=114
MCMT McKenzie Canyo 28.95 341 eP P 01 53 19.5 +0.7
GCMT Greycliff 28.96 346 eP P 01 53 19.0 +0.2
E36A McGregor 29.07 10 P P 01 53 17.6 -1.9
baz=193,SNR=25
HOPS Hopland Field 29.10 321 eP P 01 53 22.2 +2.3
comp=Z,476nm,1.4s
ALLY Alegheny Colle 29.10 31 eP P 01 53 18.6 -1.3
comp=Z,412nm,1.3s
F40A Park Falls 29.10 14 P P 01 53 18.0 -1.9
baz=200,SNR=46
VILC Villavicencio, 29.11 115 eP P 01 53 23.4 +2.9
D31A Mcclaflin, Tow 29.12 3 P P 01 53 17.6 -2.5
baz=184
G43A Wallace 29.13 18 P P 01 53 17.6 -2.5
baz=204,SNR=12
LAO LASA Array 29.17 351 eP P 01 53 20.2 -0.3
comp=Z,357nm,1.2s
F41A Three Lakes 29.18 16 P P 01 53 18.2 -2.4
baz=202,SNR=46
WVOR Wild Horse Val 29.18 331 eP P 01 53 21.1 +0.3
WVOR pmax pmax
comp=Z,924nm,1.5s
WVOR Wild Horse Val 29.18 331 eP P 01 53 21.1 +0.3
comp=Z,924nm,1.5s
O03D Paynes Creek 29.23 324 P P 01 53 21.4 +0.3
baz=134,SNR=67
M54A Oil Creek Stat 29.24 32 P P 01 53 19.6 -1.6
baz=222,SNR=42
D32A Dogwood Acres, 29.25 4 P P 01 53 19.1 -2.0
baz=186,SNR=15
E37A Wrenshall 29.25 11 P P 01 53 18.8 -2.4
baz=195
BOZ Bozeman (W) 29.29 343 eP P 01 53 21.2 -0.5
BOZ pmax pmax
comp=Z,374nm,1.4s
BOZ Bozeman (W) 29.29 343 eP P 01 53 21.2 -0.5
comp=Z,374nm,1.4s
SJAC San Juan de Ar 29.32 117 eP P 01 53 23.3 +1.1
SDMD Soldier's Deli 29.34 38 eP P 01 53 21.7 -0.2
comp=Z,195nm,0.8s
DLMT Dillon 29.35 342 eP P 01 53 22.8 +0.5
comp=Z,602nm,1.2s
D33A AnnSam, Waubun 29.35 6 P P 01 53 19.8 -2.2
baz=188,SNR=48
D34A Park Rapids 29.36 7 P P 01 53 19.9 -2.2
baz=189,SNR=19
E39A Mellen 29.44 13 P P 01 53 20.8 -2.0
baz=198,SNR=46
E38A The Farm, Brul 29.45 12 P P 01 53 21.4 -1.5
baz=196,SNR=22
F42A Maple Grove Fa 29.46 17 P P 01 53 20.5 -2.5
baz=203,SNR=17
D35A Remer 29.50 8 P P 01 53 21.2 -2.2
baz=191,SNR=53
ERPA Erie 29.53 31 eP P 01 53 23.0 -0.7
comp=Z,226nm,0.9s
SSPA Standing Stone 29.56 35 eP P 01 53 22.6 -1.3
comp=Z,565nm,1.1s
MOD Modoc Plateau 29.58 328 eP P 01 53 24.9 +0.5
comp=Z,784nm,1.6s
YOPC Yopal, Colombi 29.63 112 eP P 01 53 25.5 +0.5
E40A Wakefield 29.65 14 P P 01 53 22.9 -1.8
baz=200,SNR=36
D36A Goodland 29.72 9 P P 01 53 23.4 -1.9
baz=193,SNR=38
LRM Limekiln Ridge 29.72 342 eP P 01 53 25.8 +0.2
GLMI Grayling 29.75 22 eP P 01 53 24.0 -1.6
comp=Z,1µm,0.8s
F43A Flat Rock, Esc 29.80 18 P P 01 53 23.5 -2.5
baz=205,SNR=43
D37A Cotton 29.82 10 P P 01 53 24.4 -1.8
baz=194,SNR=34
WDC Whiskeytown Da 29.83 324 eP P 01 53 25.6 -0.8
WDC pmax pmax
comp=Z,120nm,1.4s
WDC Whiskeytown Da 29.83 324 eP P 01 53 25.6 -0.8
comp=Z,120nm,1.4s
J08A Circle Bar Ran 29.84 332 eP P 01 53 27.2 +0.7
comp=Z,2µm,1.6s
SDV Santo Domingo 29.84 104 P P 01 53 27.4 +0.5
comp=Z,82nm,0.7s,baz=299,slow=3.7,SNR=47
SDV S S 01 58 22.9 +3.4
comp=Z,11nm,0.9s,baz=16,slow=11,SNR=1.8
SDV LR LR 02 06 39.4
comp=Z,37µm,21.2s,baz=296,slow=39
SDV Santo Domingo 29.84 104 eP P 01 53 26.7 -0.2
SDV Santo Domingo 29.84 104 eP P 01 53 27.4 +0.5
comp=Z,375nm,1.2s
SDV S S 01 58 22.9 +3.4
KCPM Cahto Peak 29.85 322 eP P 01 53 28.7 +2.1
comp=Z,549nm,1.3s
C31A Landman Farms, 29.86 3 P P 01 53 25.4 -1.2
baz=184,SNR=73
MDND Maddock 29.87 0 P P 01 53 25.6 -1.0
baz=181,SNR=50
MDND Maddock 29.87 0 eP P 01 53 25.9 -0.7
comp=Z,2µm,1.1s
E41A Kenton 29.89 15 P P 01 53 24.8 -2.0
baz=201,SNR=38
C34A RKJ Ranch, Bem 29.95 7 P P 01 53 25.3 -2.0
baz=190,SNR=87
C33A Trail 29.97 6 P P 01 53 26.0 -1.5
baz=188,SNR=18
C32A Crookston 29.97 5 P P 01 53 25.9 -1.7
baz=186
MVL Millersville 30.00 38 eP P 01 53 27.6 -0.2
comp=Z,290nm,1.1s
C35A Jirik Farms, M 30.12 8 P P 01 53 26.8 -2.1
baz=191,SNR=49
E42A Champion 30.14 17 P P 01 53 26.9 -2.1
baz=203,SNR=31
F44A Big Bay de Noc 30.16 19 P P 01 53 27.1 -2.1
baz=206,SNR=27
F45A CMU Biological 30.19 20 P P 01 53 26.5 -2.9
baz=208,SNR=6.1
N02D Trinity Center 30.19 324 P P 01 53 28.4 -1.2
baz=133,SNR=17
KMRM Mail Ridge 30.27 322 eP P 01 53 32.3 +2.0
comp=Z,772nm,1.4s
M04C Macdoel 30.29 326 P P 01 53 31.3 +0.7
baz=135,SNR=76
C36A Pine Crest Far 30.34 9 P P 01 53 28.9 -1.9
baz=194,SNR=45
E43A Lone Tree Farm 30.35 18 P P 01 53 28.2 -2.7
baz=205,SNR=45
HRY Holter Researc 30.36 344 eP P 01 53 31.1 -0.1
C37A Embarrass 30.42 10 P P 01 53 29.2 -2.2
baz=195,SNR=11
PSUB Penn St. - Bra 30.49 39 eP P 01 53 31.6 -0.6
comp=Z,158nm,1.0s
AGMN Agassiz Nation 30.50 5 eP P 01 53 30.8 -1.4
comp=Z,470nm,1.0s
B33A Robert and Kas 30.50 6 P P 01 53 30.7 -1.5
baz=188,SNR=82
B31A Greenbush Farm 30.50 3 P P 01 53 30.9 -1.2
baz=184,SNR=36
F46A Macinaw City C 30.52 21 P P 01 53 30.7 -1.6
baz=209,SNR=38
B32A Ashes, Strandq 30.54 4 P P 01 53 31.2 -1.3
baz=186,SNR=121
D41A Chassel 30.55 15 P P 01 53 31.0 -1.6
baz=202,SNR=36
BMO Blue Mountains 30.56 335 eP P 01 53 32.3 -0.5
BMO pmax pmax
comp=Z,526nm,1.6s
BMO Blue Mountains 30.56 335 eP P 01 53 32.3 -0.5
comp=Z,526nm,1.6s
M02C Callahan 30.56 325 P P 01 53 32.3 -0.6
baz=133,SNR=50
C38A Sawbill Land. 30.57 12 P P 01 53 30.0 -2.9
baz=196
DGMT Dagmar 30.69 354 eP P 01 53 33.6 -0.3
comp=Z,733nm,1.2s
KHMM Horse Mountain 30.70 323 eP P 01 53 34.6 +0.4
comp=Z,411nm,1.1s
YBH Yreka Blue Hor 30.72 325 P P 01 53 33.4 -0.8
comp=Z,25nm,0.8s,baz=95,slow=5.9,SNR=66
YBH PcP PcP 01 56 31.8 +1.0
comp=Z,15nm,1.1s,baz=104,slow=4.2,SNR=3.1
YBH S S 01 58 31.3 -1.3
comp=Z,2.6nm,1.1s,baz=2.0,slow=15,SNR=1.6
YBH Yreka Blue Hor 30.72 325 eP P 01 53 33.2 -1.1
comp=Z,48nm,1.1s
YBH PcP PcP 01 56 31.8 +1.0
YBH S S 01 58 31.3 -1.3
EYMN Ely 30.75 11 eP P 01 53 33.1 -1.3
comp=Z,159nm,0.8s
B35A Bob, Littlefor 30.80 8 P P 01 53 32.5 -2.3
baz=192,SNR=54
B34A Aery, Baudette 30.81 7 P P 01 53 33.3 -1.6
baz=190,SNR=118
IDE Isla Desecheo 30.82 84 eP P 01 53 36.3 +0.9
JCC Jacoby Creek, 30.84 323 eP P 01 53 36.8 +1.6
comp=Z,1µm,1.4s
K04D Chiloquin, OR 30.84 328 P P 01 53 36.0 +0.5
baz=137,SNR=32
I07A Izee 30.87 332 eP P 01 53 35.5 -0.2
comp=Z,198nm,1.1s
E44A Grand Marais A 30.89 19 P P 01 53 33.8 -1.8
baz=207,SNR=16
E45A Wood Hills, 30.89 20 P P 01 53 33.9 -1.7
baz=208,SNR=18
C39A Grand Marais 30.90 13 P P 01 53 33.6 -2.1
baz=198,SNR=12
N59A State Game Lan 30.94 37 P P 01 53 35.2 -1.0
baz=229,SNR=83
LUPA Lehigh Univers 30.96 38 eP P 01 53 36.3 -0.1
comp=Z,50nm,1.0s
MMNY Mt. Morris Dam 31.02 32 eP P 01 53 35.5 -1.4
comp=Z,245nm,1.2s
A31A Linda, St. Vin 31.03 4 P P 01 53 35.0 -1.8
baz=185,SNR=7.7
A32A Rocking H Ranc 31.06 4 P P 01 53 35.3 -1.9
baz=186,SNR=64
J05D Fort Rock, OR 31.07 329 P P 01 53 37.6 +0.2
baz=138
MSO Missoula 31.08 341 eP P 01 53 37.2 -0.3
comp=Z,260nm,1.3s
EGMT Eagleton 31.10 347 eP P 01 53 37.4 -0.1
comp=Z,1µm,1.7s
AGP Aguadilla 31.14 84 eP P 01 53 39.1 +1.0
comp=Z,889nm,1.5s
A33A Warroad 31.18 6 P P 01 53 36.7 -1.4
baz=188,SNR=111
KRMB Red Mountain 31.23 324 eP P 01 53 40.0 +1.1
comp=Z,691nm,1.5s
HUMO Hull Mountain 31.46 326 eP P 01 53 40.8 +0.1
comp=Z,113nm,1.3s
F10A Beach Ranch, E 31.46 337 eP P 01 53 40.5 -0.3
comp=Z,453nm,1.0s
J04D Umpqua Nationa 31.47 328 P P 01 53 41.3 +0.3
baz=137,SNR=56
BRNJ Basking Ridge 31.49 39 eP P 01 53 41.2 +0.2
comp=Z,471nm,0.8s
L02D Cave Junction, 31.49 325 P P 01 53 40.8 -0.2
baz=133,SNR=10
G08A Pilot Rock 31.59 334 eP P 01 53 41.8 -0.2
comp=Z,674nm,1.4s
BINY Binghamton 31.67 35 eP P 01 53 41.5 -1.1
comp=Z,474nm,0.9s
CELP Cerrillos 31.70 84 eP P 01 53 41.8 -1.2
ODNJ Ogdensburg 31.72 38 eP P 01 53 43.1 +0.1
comp=Z,304nm,0.9s
KBO Bosley Butte 31.87 325 eP P 01 53 46.3 +1.8
comp=Z,2µm,1.5s
I05D Terrebonne, OR 31.91 330 P P 01 53 44.8 +0.1
baz=139,SNR=46
CPNY Central Park 31.92 39 eP P 01 53 43.9 -0.8
comp=Z,531nm,1.3s
SADO Sadowa 31.95 29 LR LR 02 09 14.2
comp=Z,26µm,20.0s,baz=224,slow=41
SADO Sadowa 31.95 29 eP P 01 53 42.7 -2.3
comp=Z,179nm,0.9s
JTMT Jette 32.00 342 eP P 01 53 45.1 -0.5
comp=Z,183nm,0.9s
I04A Tendick Farm, 32.02 329 P P 01 53 45.6 -0.2
baz=137,SNR=59
PAL Palisades 32.08 39 eP P 01 53 45.9 -0.3
PAL pmax pmax
comp=Z,2µm,1.5s
PAL Palisades 32.08 39 eP P 01 53 45.9 -0.3
comp=Z,2µm,1.5s
SJG San Juan 32.10 84 eP P 01 53 45.9 -0.7
SJG pmax pmax
comp=Z,344nm,1.0s
SJG San Juan 32.10 84 eP P 01 53 45.6 -1.0
comp=Z,344nm,1.0s
E09A Wood Farm, Sta 32.26 336 eP P 01 53 47.0 -0.7
comp=Z,295nm,1.3s
G06A Carlson Farm, 32.27 332 eP P 01 53 47.8 -0.1
comp=Z,411nm,1.4s
KEBM Edson Butte 32.37 325 eP P 01 53 50.4 +1.6
comp=Z,2µm,1.5s
HUMP Col San Antoni 32.38 84 eP P 01 53 48.9 -0.2
comp=Z,394nm,1.1s
I03D Drain, OR 32.43 327 P P 01 53 49.4 +0.2
baz=135,SNR=30
ULM Lac du Bonnet 32.43 5 P P 01 53 47.2 -1.9
comp=Z,233nm,1.0s,baz=190,slow=9.3,SNR=91
ULM PcP PcP 01 56 34.7 -0.4
comp=Z,60nm,0.9s,baz=161,slow=3.7,SNR=4.4
ULM S S 01 58 54.8 -4.1
comp=Z,53nm,1.2s,baz=258,slow=19,SNR=3.1
ULM LR LR 02 07 55.5
comp=Z,15µm,20.6s,baz=183,slow=38
ULM Lac du Bonnet 32.43 5 eP P 01 53 47.3 -1.9
ULM 01 56 34.7
ULM S S 01 58 54.8 -4.1
ULM pmax pmax
comp=Z,649nm,1.2s
ULM Lac du Bonnet 32.43 5 eP P 01 53 47.3 -1.9
comp=Z,649nm,1.2s
ULM PcP PcP 01 56 34.7 -0.4
ULM S S 01 58 54.8 -4.1
F07A Phinny Hill Vi 32.48 334 eP P 01 53 49.5 -0.2
comp=Z,277nm,1.4s
H04A Detroit Lake 32.57 330 eP P 01 53 50.5 0.0
comp=Z,1µm,1.6s
G05D Wamic, OR 32.58 331 P P 01 53 50.8 +0.2
baz=140,SNR=31
E08A Dider Farm, El 32.60 335 eP P 01 53 50.1 -0.6
comp=Z,180nm,1.4s
MTP Monte Pirata 32.67 84 eP P 01 53 51.1 -0.5
comp=Z,2µm,1.7s
HAWA Hanford 32.72 335 eP P 01 53 51.5 -0.2
comp=Z,189nm,1.5s
ATAH Atahualpa 32.73 138 P P 01 53 54.7 +2.2
comp=Z,43nm,0.8s,baz=330,slow=9.8,SNR=29
ATAH PcP PcP 01 56 39.6 +2.6
comp=Z,28nm,0.7s,baz=348,slow=5.3,SNR=5.4
ATAH S S 01 59 10.8 +5.8
comp=Z,6.9nm,0.8s,baz=96,slow=22,SNR=1.7
ATAH LR LR 02 04 45.6
comp=Z,27µm,19.0s,baz=307,slow=32
YLE Yale 32.85 39 eP P 01 53 52.7 -0.2
comp=Z,370nm,0.7s
E07A Sunnyside 32.98 334 eP P 01 53 53.8 -0.3
comp=Z,118nm,1.0s
D08A Wollman Farm, 33.01 336 eP P 01 53 54.2 0.0
comp=Z,136nm,1.1s
COR Corvallis 33.04 329 eP P 01 53 55.6 +1.1
COR pmax pmax
comp=Z,615nm,1.4s
COR Corvallis 33.04 329 eP P 01 53 55.6 +1.1
comp=Z,615nm,1.4s
WALA Waterton Lakes 33.08 343 eP P 01 53 54.8 -0.2
comp=Z,273nm,1.0s
PLVO Plevna 33.12 30 eP P 01 53 53.6 -1.6
comp=Z,459nm,1.7s
STVI Saint Thomas 33.21 84 eP P 01 53 56.6 +0.2
comp=Z,564nm,1.5s
TRY Troy 33.31 36 eP P 01 53 56.9 0.0
comp=Z,310nm,1.2s
NEW Newport 33.37 339 LR LR 02 09 00.9
comp=Z,65µm,18.4s,baz=150,slow=39
NEW Newport 33.37 339 eP P 01 53 56.3 -1.1
NEW pmax pmax
comp=Z,85nm,0.8s
NEW Newport 33.37 339 eP P 01 53 56.3 -1.1
comp=Z,85nm,0.8s
C09A Chrisman Ranch 33.39 337 eP P 01 53 57.2 -0.4
comp=Z,1µm,2.0s
G03D McMinnville, O 33.47 329 P P 01 53 58.6 +0.3
baz=137,SNR=45
TBVI Tortola 33.53 84 eP P 01 54 00.4 +1.4
F04A Amboy 33.61 331 eP P 01 53 59.6 +0.1
comp=Z,273nm,1.1s
ACCN Adirondack Com 33.73 36 eP P 01 53 59.4 -1.2
comp=Z,395nm,1.2s
ABVI Anegada Island 33.77 83 eP P 01 54 00.9 -0.3
comp=Z,1µm,1.6s
QUA2 Belchertown 33.78 38 eP P 01 54 00.6 -0.4
comp=Z,291nm,0.9s
NCB Newcomb 33.81 34 eP P 01 54 00.1 -1.2
comp=Z,456nm,1.6s
LTY Liberty 33.88 334 eP P 01 54 02.0 +0.2
comp=Z,914nm,1.6s
LON Longmire 33.96 333 eP P 01 54 02.9 +0.3
LON pmax pmax
comp=Z,528nm,1.4s
LON Longmire 33.96 333 eP P 01 54 02.9 +0.3
comp=Z,528nm,1.4s
F04D Rainier, OR 34.00 331 P P 01 53 03.2 +0.4
baz=138
BRYW Bryant College 34.05 39 eP P 01 54 02.9 -0.5
comp=Z,928nm,1.7s
LONY Lake Ozonia 34.06 33 eP P 01 54 02.2 -1.2
comp=Z,147nm,1.0s
B08A Colville Reser 34.24 337 eP P 01 54 04.7 -0.3
comp=Z,285nm,1.2s
D05A Enumclaw 34.38 333 eP P 01 54 07.0 +0.9
comp=Z,2µm,1.8s
HRV Adam Dziewonsk 34.39 38 eP P 01 54 06.1 -0.2
HRV pmax pmax
comp=Z,310nm,1.0s
HRV Adam Dziewonsk 34.39 38 eP P 01 54 06.1 -0.2
comp=Z,310nm,1.0s
WES Weston 34.46 39 eP P 01 54 06.5 -0.3
WES pmax pmax
comp=Z,280nm,1.0s
WES Weston 34.46 39 eP P 01 54 06.5 -0.3
comp=Z,280nm,1.0s
C06D Leavenworth 34.50 335 P P 01 54 07.7 +0.5
baz=143
BCX Boston College 34.52 39 eP P 01 54 07.5 +0.1
comp=Z,198nm,0.9s
E03A Lebam 34.60 331 eP P 01 54 08.8 +0.9
comp=Z,472nm,0.9s
HNH Hanover 34.71 36 eP P 01 54 08.4 -0.6
comp=Z,312nm,1.1s
FRNY Flat Rock 34.73 34 eP P 01 54 08.1 -1.1
comp=Z,117nm,0.8s
VT1 Waterbury 34.85 35 eP P 01 54 09.6 -0.7
comp=Z,94nm,0.8s
SABA Saba 34.90 85 eP P 01 54 12.3 +1.3
comp=Z,415nm,0.6s
SABA Saba 34.90 85 eP P 01 54 10.1 -0.9
FFD Franklin Falls 34.92 37 eP P 01 54 11.2 +0.4
comp=Z,144nm,0.8s
PCRV Puerto La Cruz 35.04 98 P P 01 54 12.3 0.0
comp=Z,31nm,0.8s,baz=183,slow=1.6,SNR=12
SEUS St. Eustatius 35.17 85 eP P 01 54 14.5 +1.2
comp=Z,509nm,0.9s
SEUS St. Eustatius 35.17 85 eP P 01 54 12.3 -0.9
TRQ Mont Tremblant 35.20 31 eP P 01 54 11.8 -1.5
B06A Marblemount 35.21 335 eP P 01 54 13.3 +0.1
comp=Z,282nm,1.3s
LBNH Lisbon 35.25 36 eP P 01 54 14.0 +0.3
LBNH pmax pmax
comp=Z,314nm,1.1s
LBNH Lisbon 35.25 36 eP P 01 54 14.0 +0.3
comp=Z,314nm,1.1s
B05A Bryant 35.26 334 P P 01 54 12.9 -0.8
baz=142,SNR=49
VLDQ Val d'Or 35.27 26 eP P 01 54 11.7 -2.1
comp=Z,138nm,1.0s
A04D Lummi Island 35.87 334 P P 01 54 18.9 0.0
baz=141,SNR=33
MLYT Lee's Yard 36.01 86 eP P 01 54 19.6 -1.0
PGC Sidney 36.13 333 eP P 01 54 21.4 +0.2
comp=Z,594nm,1.5s
ANWB Willy Bob 36.28 84 eP P 01 54 22.2 -0.6
comp=Z,272nm,0.9s
ANWB Willy Bob 36.28 84 eP P 01 54 20.3 -2.5
GDHS Morne Mazeau, 36.48 87 eP P 01 54 23.8 -0.7
comp=Z,332nm,0.8s
TBG Guadaloupe-3 36.65 87 eP P 01 54 27.2 +1.2
WVL Waterville 36.73 37 eP P 01 54 26.0 -0.3
comp=Z,352nm,1.1s
FFC Flin Flon 36.79 358 eP P 01 54 25.5 -1.2
FFC pmax pmax
comp=Z,457nm,1.1s

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **FFC** | **Flin Flon** | **36.79** | **358** | *e*P | **P** | **01 54 25.5** | **-1.2** |
| | comp=Z,457nm,1.1s | | | | | | |
| **BBL** | **Barber's Block** | **36.87** | **88** | *e*P | **P** | **01 54 26.8** | **-1.1** |
| **MDN** | **Morne-Daniel** | **36.98** | **88** | *e*P | **P** | **01 54 27.1** | **-1.7** |
| **DSHT** | **Scott's Head** | **37.01** | **88** | *e*P | **P** | **01 54 27.1** | **-2.0** |
| **LLLB** | **Lillooet** | **37.04** | **337** | *e*P | **P** | **01 54 29.1** | **+0.1** |
| | comp=Z,748nm,1.4s | | | | | | |
| **DLPL** | **La Plaine** | **37.11** | **88** | *e*P | **P** | **01 54 28.5** | **-1.4** |
| **DEG** | **La Desirade** | **37.14** | **86** | *e*P | **P** | **01 54 28.6** | **-1.7** |
| **CXM** | **Morne La Croix** | **37.27** | **89** | *e*P | **P** | **01 54 28.7** | **-2.7** |
| **FDF** | **Fort de France** | **37.31** | **89** | *e*P | **P** | **01 54 30.3** | **-1.3** |
| FDF | | | | pmax | pmax | | |
| | comp=Z,155nm,0.7s | | | | | | |
| **FDF** | **Fort de France** | **37.31** | **89** | *e*P | **P** | **01 54 30.3** | **-1.3** |
| | comp=Z,155nm,0.7s | | | | | | |
| **FDF** | **Fort de France** | **37.31** | **89** | *e*P | **P** | **01 54 29.8** | **-1.8** |
| **PKME** | **Peaks-Kenny Pk** | **37.35** | **36** | *e*P | **P** | **01 54 31.6** | **0.0** |
| | comp=Z,265nm,1.0s | | | | | | |
| **BIM** | **Bigot** | **37.42** | **89** | *e*P | **P** | **01 54 31.1** | **-1.4** |
| **NNA** | **Nana** | **37.44** | **141** | *i* P | **P** | **01 54 34.0** | **+1.3** |
| **NNA** | **Nana** | **37.44** | **141** | *e*P | **P** | **01 54 33.6** | **+0.9** |
| | comp=Z,76nm,1.0s | | | | | | |
| **SVB** | **Belmont** | **37.49** | **91** | *e*P | **P** | **01 54 32.4** | **-0.7** |
| | comp=Z,258nm,0.7s | | | | | | |
| **SVB** | **Belmont** | **37.49** | **91** | *e*P | **P** | **01 54 32.0** | **-1.2** |
| **SVV** | **Soufriere Volc** | **37.52** | **91** | *e*P | **P** | **01 54 32.0** | **-1.3** |
| **FCV** | **Fort Charlotte** | **37.52** | **92** | *e*P | **P** | **01 54 32.8** | **-0.6** |
| **SSV** | **Crater Summit** | **37.54** | **91** | *e*P | **P** | **01 54 33.2** | **-0.4** |
| **SVCV** | **St. Vincent, C** | **37.59** | **91** | *e*P | **P** | **01 54 30.7** | **-3.3** |
| **MCLT** | **Moule a Chique** | **37.70** | **91** | *e*P | **P** | **01 54 33.0** | **-1.9** |
| **EMMW** | **East Machias** | **38.09** | **38** | *e*P | **P** | **01 54 38.2** | **+0.3** |
| | comp=Z,220nm,1.0s | | | | | | |
| **LMQ** | **La Malbaie** | **38.23** | **33** | *e*P | **P** | **01 54 38.2** | **-0.7** |
| **TOSP** | **Speyside** | **38.63** | **94** | *e*P | **P** | **01 54 39.9** | **-2.8** |
| **GGN** | **Saint George** | **38.68** | **38** | *e*P | **P** | **01 54 42.6** | **-0.2** |
| | comp=Z,152nm,0.8s | | | | | | |
| **PQI** | **Presque Isle** | **38.91** | **35** | *e*P | **P** | **01 54 44.8** | **+0.1** |
| | comp=Z,196nm,0.9s | | | | | | |
| **BBGH** | **Gun Hill** | **39.13** | **91** | *e*P | P | 01 54 41.5 | -5.4 |
| **LMN** | **Caledonia Moun** | **40.28** | **38** | *e*P | **P** | **01 54 55.9** | **-0.3** |
| | comp=Z,307nm,1.0s | | | | | | |
| **DIB** | **Dawson Inlet,** | **43.37** | **332** | *e*P | **P** | **01 55 23.3** | **+2.2** |
| | comp=Z,307nm,1.2s | | | | | | |
| **PTGA** | **Pitinga** | **43.46** | **111** | P | **P** | **01 55 21.8** | **-0.7** |
| | comp=Z,53nm,0.7s,baz=304,slow=9.0,SNR=78 | | | | | | |
| **PTGA** | **Pitinga** | **43.46** | **111** | *e*P | **P** | **01 55 21.9** | **-0.6** |
| | comp=Z,511nm,1.6s | | | | | | |
| **SCHQ** | **Schefferville** | **44.71** | **27** | P | **P** | **01 55 29.8** | **-2.0** |
| | comp=Z,104nm,0.6s,baz=227,slow=8.2,SNR=70 | | | | | | |
| SCHQ | | | | PcP | **PcP** | **01 57 12.9** | **-0.4** |
| | comp=Z,60nm,0.7s,baz=321,slow=4.7,SNR=3.2 | | | | | | |
| SCHQ | | | | S | **S** | **02 02 00.4** | **-3.3** |
| | comp=Z,9.2nm,0.8s,baz=48,slow=12,SNR=2.1 | | | | | | |
| SCHQ | | | | LR | LR | 02 16 34.8 | |
| | comp=Z,22µm,20.2s,baz=221,slow=39 | | | | | | |
| **SCHQ** | **Schefferville** | **44.71** | **27** | *e*P | **P** | **01 55 30.6** | **-1.3** |
| | comp=Z,214nm,0.9s | | | | | | |
| SCHQ | | | | PcP | **PcP** | **01 57 12.9** | **-0.4** |
| SCHQ | | | | S | **S** | **02 02 00.4** | **-3.3** |
| **SAML** | **Samuel** | **45.04** | **123** | *e*P | **P** | **01 55 33.6** | **-1.5** |
| | comp=Z,456nm,1.8s | | | | | | |
| **CRAG** | **Craig** | **45.18** | **334** | *e*P | **P** | **01 55 37.5** | **+2.0** |
| | comp=Z,367nm,1.2s | | | | | | |
| **WRAK** | **Wrangell Islan** | **45.52** | **335** | *e*P | **P** | **01 55 39.0** | **+0.7** |
| | comp=Z,133nm,1.3s | | | | | | |
| **RPN** | **Rapa Nui** | **45.68** | **192** | P | **P** | **01 55 41.8** | **+2.0** |
| | comp=Z,134nm,0.7s,baz=8.7,slow=4.9,SNR=9.4 | | | | | | |
| RPN | | | | S | **S** | **02 02 20.4** | **+2.3** |
| | comp=Z,24nm,0.5s,baz=190,slow=9.9,SNR=1.7 | | | | | | |
| **RPN** | **Rapa Nui** | **45.68** | **192** | *e*P | **P** | **01 55 42.9** | **+3.1** |
| RPN | | | | *e*pP | **pP** | **01 55 57.8** | **+1.4** |
| RPN | | | | S | **S** | **02 02 20.4** | **+2.3** |
| **YKA** | **Yellowknife Ar** | **45.71** | **351** | P | **P** | **01 55 38.1** | **-1.6** |
| | comp=Z,34nm,0.6s,baz=160,slow=7.4,SNR=168 | | | | | | |
| YKA | | | | PcP | **PcP** | **01 57 18.3** | **+1.7** |
| | comp=Z,16nm,0.8s,baz=162,slow=1.6,SNR=4.8 | | | | | | |
| YKA | | | | S | **S** | **02 02 16.6** | **-1.3** |
| | comp=Z,3.0nm,0.9s,baz=159,slow=15,SNR=2.6 | | | | | | |
| YKA | | | | LR | LR | 02 16 13.8 | |
| | comp=Z,8µm,18.9s,baz=180,slow=38 | | | | | | |
| YKA | | | | PKPPKP | **P'P'df** | **02 27 11.3** | **-1.1** |
| | comp=Z,2.0nm,1.1s,baz=353,slow=2.7,SNR=4.2 | | | | | | |
| YKA | | | | P4KPbc | | 02 33 26.7 | |
| | comp=Z,0.8nm,0.9s,baz=155,slow=4.6,SNR=3.5 | | | | | | |
| **DLBC** | **Dease Lake** | **46.12** | **339** | *e*P | **P** | **01 55 44.6** | **+1.5** |
| | comp=Z,891nm,1.6s | | | | | | |
| **LPAZ** | **La Paz** | **46.21** | **135** | P | **P** | **01 55 44.4** | **-0.5** |
| | comp=Z,39nm,0.7s,baz=327,slow=7.3,SNR=96 | | | | | | |
| LPAZ | | | | S | **S** | **02 02 20.1** | **-7.2** |
| | comp=Z,2.6nm,0.9s,baz=183,slow=17,SNR=1.8 | | | | | | |
| LPAZ | | | | LR | LR | 02 13 58.4 | |
| | comp=Z,22µm,19.2s,baz=311,slow=34 | | | | | | |
| **LPAZ** | **La Paz** | **46.21** | **135** | *e*P | **P** | **01 55 44.9** | **0.0** |
| LPAZ | | | | S | **S** | **02 02 20.1** | **-7.2** |
| LPAZ | | | | pmax | pmax | | |
| | comp=Z,78nm,0.9s | | | | | | |
| **LPAZ** | **La Paz** | **46.21** | **135** | *e*P | **P** | **01 55 44.9** | **0.0** |
| | comp=Z,78nm,0.9s | | | | | | |
| LPAZ | | | | S | **S** | **02 02 20.1** | **-7.2** |
| **LPAZ** | **La Paz** | **46.21** | **135** | *e*P | **P** | **01 55 43.7** | **-1.2** |
| **PB12** | **IPOC Station P** | **46.51** | **140** | *e*P | **P** | **01 55 46.9** | **+0.2** |
| **PB16** | **IPOC Station P** | **46.81** | **139** | *e*P | **P** | **01 55 51.1** | **+1.6** |
| **SIT** | **Sitka** | **47.16** | **334** | *e*P | **P** | **01 55 52.7** | **+1.6** |
| SIT | | | | pmax | pmax | | |
| | comp=Z,173nm,1.4s | | | | | | |
| **SIT** | **Sitka** | **47.16** | **334** | *e*P | **P** | **01 55 52.7** | **+1.6** |
| | comp=Z,173nm,1.4s | | | | | | |
| **MNMC** | **Minye Minye** | **47.35** | **140** | *e*P | **P** | **01 55 54.2** | **+0.8** |
| | comp=Z,456nm,1.3s | | | | | | |
| **MNMC** | **Minye Minye** | **47.35** | **140** | *e*P | **P** | **01 55 53.5** | **+0.1** |
| **PSGC** | **Pisagua** | **47.38** | **140** | *e*P | **P** | **01 55 53.5** | **+0.1** |
| **PB11** | **IPOC Station P** | **47.79** | **140** | *e*P | **P** | **01 55 57.0** | **+0.4** |
| | comp=Z,565nm,1.1s | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **47.79** | **239** | *e*P | **P** | **01 55 58.2** | **+1.5** |
| | comp=Z,603nm,1.4s | | | | | | |
| TAOE | | | | *e*S | **S** | **02 02 50.4** | **+1.4** |
| | comp=Z,7µm,25.2s | | | | | | |
| TAOE | | | | *e*LQ | LQ | 02 07 28.7 | |
| | comp=Z,16µm,24.9s | | | | | | |
| TAOE | | | | *e*LR | LR | 02 09 26.0 | |
| | comp=Z,59µm,27.5s,baz=57 | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **47.79** | **239** | *e*T | T | 02 45 54.2 | |
| | comp=Z,306nm,0.2s | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **47.79** | **239** | *e*P | **P** | **01 55 59.3** | **+2.6** |
| | comp=Z,253nm,1.3s | | | | | | |
| **BESE** | **Bessie Mountai** | **47.99** | **336** | *e*P | **P** | **01 55 59.4** | **+1.8** |
| | comp=Z,256nm,1.5s | | | | | | |
| **PB08** | **IPOC Station P** | **48.39** | **140** | *i* P | **P** | **01 56 02.7** | **+1.2** |
| **SKAG** | **Skagway** | **48.77** | **337** | *e*P | **P** | **01 56 04.8** | **+1.3** |
| | comp=Z,104nm,1.1s | | | | | | |
| **PB01** | **IPOC Station P** | **48.87** | **141** | *e*P | **P** | **01 56 05.4** | **+0.5** |
| | comp=Z,284nm,1.3s | | | | | | |
| **PB01** | **IPOC Station P** | **48.87** | **141** | *e*P | **P** | **01 56 04.8** | **-0.1** |
| **PB07** | **IPOC Station P** | **49.16** | **142** | *e*P | **P** | **01 56 08.6** | **+1.5** |
| **WHY** | **Whitehorse** | **49.44** | **338** | *e*P | **P** | **01 56 09.4** | **+0.7** |
| | comp=Z,401nm,1.5s | | | | | | |
| **PB04** | **IPOC Station P** | **49.48** | **143** | *e*P | **P** | **01 56 11.5** | **+1.9** |
| | comp=Z,1µm,1.8s | | | | | | |
| **PB04** | **IPOC Station P** | **49.48** | **143** | *e*P | **P** | **01 56 11.0** | **+1.4** |
| **PB09** | **IPOC Station P** | **49.59** | **141** | *e*P | **P** | **01 56 13.4** | **+2.9** |
| **PB06** | **IPOC Station P** | **50.10** | **143** | *e*P | **P** | **01 56 15.3** | **+1.0** |
| **PB10** | **IPOC Station P** | **50.17** | **144** | *e*P | **P** | **01 56 15.4** | **+0.8** |
| PB10 | | | | *e*pP | **pP** | **01 56 31.4** | **0.0** |
| **PB10** | **IPOC Station P** | **50.17** | **144** | *e*P | **P** | **01 56 13.7** | **-1.0** |
| **HYT** | **Haines Junctio** | **50.50** | **337** | *e*P | **P** | **01 56 18.5** | **+1.7** |
| | comp=Z,1µm,1.5s | | | | | | |
| **HULD** | **Heiheiahulu Di** | **51.99** | **281** | *e*P | **P** | **01 56 31.1** | **+2.6** |
| HULD | | | | *e*pP | **pP** | **01 56 46.9** | **+1.5** |
| **JCUZ** | **Jacuzzi** | **52.11** | **281** | *e*P | **P** | **01 56 32.3** | **+2.8** |
| JCUZ | | | | *e*pP | **pP** | **01 56 48.4** | **+2.1** |
| **NPOC** | **North of Pu'u** | **52.12** | **281** | *e*P | **P** | **01 56 31.8** | **+2.3** |
| NPOC | | | | *e*pP | **pP** | **01 56 48.1** | **+1.7** |
| **STCH** | **Steam Cracks** | **52.13** | **281** | *e*P | **P** | **01 56 31.6** | **+2.0** |
| STCH | | | | *e*pP | **pP** | **01 56 48.0** | **+1.5** |
| **PUH** | **Pauahi** | **52.22** | **281** | *e*P | **P** | **01 56 32.6** | **+2.3** |
| PUH | | | | *e*pP | **pP** | **01 56 48.7** | **+1.6** |
| **BYL** | **Byron's Ledge** | **52.25** | **281** | *e*P | **P** | **01 56 32.5** | **+2.0** |
| | comp=Z,2µm,1.3s | | | | | | |
| **HATHI** | **Halema'uma'u T** | **52.25** | **281** | *e*P | **P** | **01 56 32.3** | **+1.8** |
| | comp=Z,2µm,1.4s | | | | | | |
| **SBLHI** | **Steaming Bluff** | **52.26** | **281** | *e*pP | pP | 01 56 51.5 | +4.0 |
| **KKO** | **Keanakako'i** | **52.26** | **281** | *e*P | **P** | **01 56 33.4** | **+2.8** |
| KKO | | | | *e*pP | **pP** | **01 56 48.8** | **+1.3** |
| **UWB** | **Uwekahuna B** | **52.27** | **281** | *e*P | **P** | **01 56 32.7** | **+2.0** |
| | comp=Z,2µm,1.3s | | | | | | |
| **RIM** | **Rim** | **52.27** | **281** | *e*P | **P** | **01 56 33.5** | **+2.8** |
| RIM | | | | *e*pP | **pP** | **01 56 48.2** | **+0.7** |
| **NPH** | **North Pit** | **52.27** | **281** | *e*P | **P** | **01 56 32.2** | **+1.5** |
| NPH | | | | pmax | pmax | | |
| | comp=Z,3µm,1.6s | | | | | | |
| **NPH** | **North Pit** | **52.27** | **281** | *e*P | **P** | **01 56 32.2** | **+1.5** |
| | comp=Z,3µm,1.6s | | | | | | |
| **OBL** | **Observatory Le** | **52.27** | **281** | *e*P | **P** | **01 56 32.4** | **+1.7** |
| | comp=Z,3µm,1.4s | | | | | | |
| **UWE** | **Uwekahuna** | **52.28** | **281** | *e*P | **P** | **01 56 32.5** | **+1.7** |
| UWE | | | | *e*pP | **pP** | **01 56 49.9** | **+2.2** |
| **SDHHI** | **Sand Hill** | **52.29** | **281** | *e*P | **P** | **01 56 33.8** | **+2.9** |
| | comp=Z,808nm,0.9s | | | | | | |
| **MLH** | **Mauna Loa** | **52.36** | **281** | *e*P | **P** | **01 56 34.1** | **+2.6** |
| MLH | | | | *e**PP | **pP** | **01 56 50.2** | **+1.8** |
| **MLH** | **Mauna Loa** | **52.36** | **281** | *e*P | **P** | **01 56 34.1** | **+2.6** |
| MLH | | | | *e*pP | **pP** | **01 56 50.2** | **+1.8** |
| **POHA** | **Pohakuloa** | **52.46** | **281** | *e*P | **P** | **01 56 33.6** | **+1.4** |
| | comp=Z,904nm,1.1s | | | | | | |
| **MLOA** | **Mauna Loa Obse** | **52.53** | **281** | *e*P | **P** | **01 56 34.7** | **+1.7** |
| | comp=Z,2µm,1.5s | | | | | | |
| **MWH** | **Moku'aweowe** | **52.56** | **281** | *e*P | **P** | **01 56 36.1** | **+2.8** |
| | comp=Z,543nm,1.0s | | | | | | |
| **HPAH** | **Hawaii Prepara** | **52.58** | **282** | *e*P | **P** | **01 56 35.6** | **+2.8** |
| HPAH | | | | *e*pP | **pP** | **01 56 51.2** | **+1.4** |
| **HJA** | **Humahuaca** | **52.98** | **139** | *e*P | **P** | **01 56 35.9** | **-0.2** |
| **RAGM** | **Ragged Mountai** | **53.05** | **334** | *e*P | **P** | **01 56 37.8** | **+2.1** |
| | comp=Z,660nm,1.4s | | | | | | |
| **RKT** | **Rikitea** | **53.24** | **221** | *e*P | **P** | **01 56 39.3** | **+1.8** |
| | comp=Z,293nm,1.3s | | | | | | |
| RKT | | | | *e*S | **S** | **02 04 05.0** | **+0.9** |
| | comp=Z,16µm,31.8s | | | | | | |
| RKT | | | | *e*LQ | LQ | 02 09 46.3 | |
| | comp=Z,7µm,39.5s | | | | | | |
| RKT | | | | *e*LR | LR | 02 12 05.2 | |
| | comp=Z,35µm,29.2s | | | | | | |
| **RKT** | **Rikitea** | **53.24** | **221** | *e*T | T | 02 52 50.2 | |
| | comp=Z,61nm,0.3s | | | | | | |
| **MID** | **Middleton Isla** | **53.26** | **332** | *e*P | **P** | **01 56 38.8** | **+1.6** |
| MID | | | | pmax | pmax | | |
| | comp=Z,2µm,2.0s | | | | | | |
| **MID** | **Middleton Isla** | **53.26** | **332** | *e*P | **P** | **01 56 38.8** | **+1.6** |
| | comp=Z,2µm,2.0s | | | | | | |
| **DAWY** | **Dawson** | **53.30** | **340** | *e*P | **P** | **01 56 37.5** | **0.0** |
| | comp=Z,263nm,1.1s | | | | | | |
| **BMRM** | **Bremner River** | **53.34** | **335** | *e*P | **P** | **01 56 39.4** | **+1.6** |
| | comp=Z,2µm,1.4s | | | | | | |
| **EYAK** | **Cordova Ski Ar** | **53.59** | **334** | *e*P | **P** | **01 56 41.7** | **+2.1** |
| | comp=Z,418nm,1.2s | | | | | | |
| **DIV** | **Divide** | **53.91** | **334** | *e*P | **P** | **01 56 43.5** | **+1.4** |
| | comp=Z,754nm,1.3s | | | | | | |
| **AZAP** | **Zapla** | **53.94** | **140** | *e*P | **P** | **01 56 42.5** | **-0.5** |
| **FID** | **Port Fidalgo** | **54.00** | **334** | *e*P | **P** | **01 56 44.1** | **+1.5** |
| | comp=Z,3µm,1.6s | | | | | | |
| **SLA** | **San Lorenzo** | **54.04** | **141** | *e*P | **P** | **01 56 42.8** | **-0.7** |
| **ASTB** | **Santa Barbara** | **54.12** | **139** | *e*P | **P** | **01 56 43.2** | **-0.9** |
| **MENT** | **Mentasta** | **54.12** | **337** | *e*P | **P** | **01 56 44.2** | **+0.7** |
| | comp=Z,648nm,1.4s | | | | | | |
| **KLU** | **Klutina** | **54.16** | **335** | *e*P | **P** | **01 56 45.2** | **+1.3** |
| | comp=Z,1µm,1.5s | | | | | | |
| **ALOL** | **LOMAS DE OLMED** | **54.32** | **139** | *e*P | **P** | **01 56 43.9** | **-1.5** |
| **GLI** | **Glacier Island** | **54.33** | **334** | *e*P | **P** | **01 56 46.4** | **+1.4** |
| | comp=Z,2µm,1.8s | | | | | | |
| **EGAK** | **Eagle** | **54.34** | **340** | *e*P | **P** | **01 56 45.1** | **+0.1** |
| | comp=Z,348nm,1.0s | | | | | | |
| **HARP** | **HAARP** | **54.36** | **336** | *e*P | **P** | **01 56 47.0** | **+1.8** |
| | comp=Z,2µm,1.4s | | | | | | |
| **LCO** | **Las Campanas** | **54.52** | **148** | *e*P | **P** | **01 56 47.3** | **+0.2** |
| | comp=Z,169nm,1.0s | | | | | | |
| **HON** | **Honolulu** | **54.55** | **284** | *e*P | **P** | **01 56 50.1** | **+2.9** |
| **HON** | **Honolulu** | **54.55** | **284** | *e*P | **P** | **01 56 50.1** | **+2.9** |
| **KIP** | **Kipapa** | **54.55** | **284** | *d i*P | **P** | **01 56 48.4** | **+1.2** |
| KIP | | | | pmax | pmax | | |
| | comp=Z,2µm,1.0s | | | | | | |
| **KIP** | **Kipapa** | **54.55** | **284** | *e*P | **P** | **01 56 49.5** | **+2.3** |
| | comp=Z,517nm,1.2s | | | | | | |
| **INK** | **Inuvik** | **54.65** | **345** | P | **P** | **01 56 46.9** | **-0.2** |
| | comp=Z,115nm,0.9s,baz=133,slow=7.9,SNR=172 | | | | | | |
| INK | | | | pP | **pP** | **01 57 06.4** | **+2.3** |
| | comp=Z,365nm,1.0s,baz=135,slow=12,SNR=11 | | | | | | |
| INK | | | | S | **S** | **02 04 22.4** | **+0.5** |
| | comp=Z,4.9nm,1.0s,baz=311,slow=30,SNR=6.1 | | | | | | |
| INK | | | | LR | LR | 02 22 14.6 | |
| | comp=Z,43µm,18.6s,baz=152,slow=38 | | | | | | |
| **PAX** | **Paxson** | **54.80** | **336** | *e*P | **P** | **01 56 49.2** | **+0.7** |
| **PAX** | **Paxson** | **54.80** | **336** | *e*P | **P** | **01 56 49.2** | **+0.7** |
| **FSA** | **Cafayete** | **54.80** | **142** | *e*P | **P** | **01 56 49.0** | **-0.1** |
| **SCM** | **Sheep Creek Mo** | **54.92** | **335** | *e*P | **P** | **01 56 50.1** | **+0.8** |
| SCM | | | | pmax | pmax | | |
| | comp=Z,1µm,1.4s | | | | | | |
| **SCM** | **Sheep Creek Mo** | **54.92** | **335** | *e*P | **P** | **01 56 50.1** | **+0.8** |
| | comp=Z,1µm,1.4s | | | | | | |
| **SEW** | **Seward** | **54.96** | **332** | *e*P | **P** | **01 56 50.1** | **+0.5** |
| | comp=Z,449nm,1.2s | | | | | | |
| **SML** | **Sawmill** | **55.31** | **334** | *e*P | **P** | **01 56 53.3** | **+1.1** |
| SML | | | | pmax | pmax | | |
| | comp=Z,1µm,1.5s | | | | | | |
| **SML** | **Sawmill** | **55.31** | **334** | *e*P | **P** | **01 56 53.3** | **+1.1** |
| | comp=Z,1µm,1.5s | | | | | | |
| **KDAK** | **Kodiak Island** | **55.43** | **329** | *i* P | **P** | **01 56 54.6** | **+1.7** |
| **KDAK** | **Kodiak Island** | **55.43** | **329** | *e*P | **P** | **01 56 54.1** | **+1.2** |
| | comp=Z,438nm,1.1s | | | | | | |
| **BRLK** | **Bradley Lake** | **55.45** | **331** | *e*P | **P** | **01 56 54.0** | **+0.9** |
| | comp=Z,755nm,1.2s | | | | | | |
| **PMR** | **Palmer** | **55.54** | **334** | *e*P | **P** | **01 56 54.2** | **+0.5** |
| PMR | | | | pmax | pmax | | |
| | comp=Z,261nm,0.9s | | | | | | |
| **PMR** | **Palmer** | **55.54** | **334** | *e*P | **P** | **01 56 54.2** | **+0.5** |
| | comp=Z,261nm,0.9s | | | | | | |
| **RC01** | **Rabbit Creek A** | **55.55** | **333** | *e*P | **P** | **01 56 54.5** | **+0.7** |
| **OHAK** | **Old Harbor** | **55.56** | **328** | *e*P | **P** | **01 56 55.0** | **+1.1** |
| | comp=Z,546nm,1.1s | | | | | | |
| **DHY** | **Denali Highway** | **55.58** | **336** | *e*P | **P** | **01 56 55.1** | **+0.8** |
| **VCA** | **Vinchina** | **55.59** | **146** | *e*P | **P** | **01 56 54.5** | **-0.2** |
| **AGUA** | **GUANDACOL** | **56.03** | **147** | *e*P | **P** | **01 56 57.1** | **-0.7** |
| **HDA** | **Harding Lake** | **56.14** | **338** | *e*P | **P** | **01 56 59.7** | **+1.7** |
| | comp=Z,2µm,1.5s | | | | | | |
| **SUA** | **Susitna One** | **56.16** | **333** | *e*P | **P** | **01 56 59.2** | **+1.0** |
| **IL1** | **Eielson Array** | **56.32** | **338** | *e*P | **P** | **01 56 58.6** | **-0.6** |
| **ILAR** | **Eielson Array** | **56.32** | **338** | P | **P** | **01 56 59.4** | **+0.1** |
| | comp=Z,85nm,0.9s,baz=134,slow=5.5,SNR=298 | | | | | | |
| ILAR | | | | pP | **pP** | **01 57 19.0** | **+2.7** |
| | comp=Z,436nm,1.2s,baz=138,slow=5.6,SNR=8.7 | | | | | | |
| ILAR | | | | PcP | **PcP** | **01 57 57.6** | **+1.7** |
| | comp=Z,76nm,1.0s,baz=153,slow=2.3,SNR=5.8 | | | | | | |
| ILAR | | | | S | **S** | **02 04 46.4** | **+2.1** |
| | comp=Z,1.1nm,1.0s,baz=128,slow=5.8,SNR=2.4 | | | | | | |
| ILAR | | | | LR | LR | 02 23 07.5 | |
| | comp=Z,40µm,18.2s,baz=138,slow=38 | | | | | | |
| ILAR | | | | PKPPKP | **P'P'df** | **02 27 00.1** | **+2.2** |
| | comp=Z,1.8nm,1.0s,baz=299,slow=3.0,SNR=5.3 | | | | | | |
| **ILB** | **Eielson Array** | **56.32** | **338** | *e*P | **P** | **01 56 59.5** | **+0.2** |
| **RND** | **Reindeer** | **56.33** | **336** | *e*P | **P** | **01 57 00.3** | **+0.9** |
| **RND** | **Reindeer** | **56.33** | **336** | *e*P | **P** | **01 57 00.3** | **+0.9** |
| **MCK** | **McKinley** | **56.53** | **336** | *e*P | **P** | **01 57 01.4** | **+0.6** |
| **MCK** | **McKinley** | **56.53** | **336** | *e*P | **P** | **01 57 01.4** | **+0.6** |
| **CCB** | **Clear Creek Bu** | **56.58** | **338** | *e*P | **P** | **01 57 00.7** | **-0.3** |
| **SPU** | **Mount Spurr** | **56.60** | **333** | *e*P | **P** | **01 57 01.9** | **+0.6** |
| **RSO** | **Redoubt South** | **56.60** | **332** | *e*P | **P** | **01 57 02.0** | **+0.5** |
| **CYA** | **Choya** | **56.68** | **144** | *e*P | **P** | **01 57 01.8** | **-0.5** |
| **COLA** | **College** | **56.72** | **338** | *e*P | **P** | **01 57 02.3** | **+0.3** |
| COLA | | | | pmax | pmax | | |
| | comp=Z,1µm,1.4s | | | | | | |
| **COLA** | **College** | **56.72** | **338** | *e*P | **P** | **01 57 02.3** | **+0.3** |
| | comp=Z,1µm,1.4s | | | | | | |
| **FYU** | **Fort Yukon** | **56.78** | **340** | *e*P | **P** | **01 57 03.6** | **+1.2** |
| | comp=Z,2µm,1.4s | | | | | | |
| **MDM** | **Murphy Dome** | **56.90** | **338** | *e*P | **P** | **01 57 03.4** | **0.0** |
| **TRF** | **Thorofare Moun** | **56.91** | **336** | *e*P | **P** | **01 57 04.3** | **+0.7** |
| **AMOG** | **MOGNA** | **57.20** | **148** | *e*P | **P** | **01 57 05.1** | **-0.9** |
| **KTH** | **Kantishna Hill** | **57.21** | **336** | *e*P | **P** | **01 57 05.8** | **+0.2** |
| | comp=Z,1µm,1.2s | | | | | | |
| **VAH** | **Vaihoa** | **57.40** | **238** | *e*P | **P** | **01 57 09.2** | **+1.7** |
| | comp=Z,273nm,1.2s | | | | | | |
| VAH | | | | *e*pP | **pP** | **01 57 26.2** | **+1.6** |
| | comp=Z,612nm,1.3s | | | | | | |
| **VAH** | **Vaihoa** | **57.40** | **238** | *e*T | T | 02 57 56.4 | |
| | comp=Z,13nm,0.3s | | | | | | |
| **PPLA** | **Purkeypile** | **57.41** | **335** | *e*P | **P** | **01 57 07.8** | **+0.6** |
| **PMOR** | **Pomariorio Ree** | **57.48** | **238** | *e*P | **P** | **01 57 09.8** | **+1.7** |
| | comp=Z,548nm,1.6s | | | | | | |
| PMOR | | | | *e*pP | **pP** | **01 57 26.8** | **+1.5** |
| | comp=Z,843nm,1.4s | | | | | | |
| **PMOR** | **Pomariorio Ree** | **57.48** | **238** | *e*T | T | 02 58 02.5 | |
| | comp=Z,35nm,0.2s | | | | | | |
| **RTLS** | **Leoncito** | **57.49** | **149** | *e*P | **P** | **01 57 08.1** | **-0.2** |
| **BPAW** | **Bear Paw Mtn.** | **57.50** | **336** | *e*P | **P** | **01 57 07.6** | **0.0** |
| | comp=Z,1µm,1.2s | | | | | | |
| **RTLL** | **Cerro Villicun** | **57.52** | **148** | *e*P | **P** | **01 57 06.9** | **-1.3** |
| **CAST** | **Castle Rocks** | **57.61** | **335** | *e*P | **P** | **01 57 08.3** | **-0.1** |
| **NRS** | **Narsarsuaq** | **57.64** | **28** | *i* P | **P** | **01 57 09.4** | **+0.8** |
| **NRS** | **Narsarsuaq** | **57.64** | **28** | *i* P | **P** | **01 57 09.4** | **+0.8** |
| **MLY** | **Manley** | **57.86** | **337** | *e*P | **P** | **01 57 10.5** | **+0.4** |
| | comp=Z,1µm,1.2s | | | | | | |
| **RTCV** | **Cerro Valdivia** | **57.92** | **148** | *e*P | **P** | **01 57 10.5** | **-0.5** |
| **CHGN** | **Chignik** | **57.92** | **326** | *e*P | **P** | **01 57 11.4** | **+0.8** |
| | comp=Z,1µm,2.0s | | | | | | |
| **PEL** | **Peldehue** | **57.94** | **151** | *e*P | **P** | **01 57 11.2** | **+0.1** |
| **PEL** | **Peldehue** | **57.94** | **151** | *e*P | **P** | **01 57 11.2** | **+0.1** |
| **SFJD** | **Kangerlussuaq** | **58.34** | **20** | *i* P | **P** | **01 57 13.9** | **+0.5** |
| SFJD | | | | *e*S | **S** | **02 05 12.5** | **+1.8** |
| SFJD | | | | pmax | pmax | | |
| | comp=Z,74nm,0.8s | | | | | | |
| **SFJD** | **Kangerlussuaq** | **58.34** | **20** | *i* P | **P** | **01 57 13.9** | **+0.5** |
| | comp=Z,74nm,0.8s | | | | | | |
| SFJD | | | | *e*S | **S** | **02 05 12.5** | **+1.8** |
| **SFJD** | **Kangerlussuaq** | **58.34** | **20** | *e*P | **P** | **01 57 13.8** | **+0.4** |
| | comp=Z,324nm,1.3s | | | | | | |
| **XMAS** | **Kiritimati** | **58.54** | **261** | *e*P | **P** | **01 57 18.1** | **+2.5** |
| XMAS | | | | *e*pP | **pP** | **01 57 33.8** | **+1.0** |
| **COLD** | **Coldfoot** | **58.78** | **340** | *e*P | **P** | **01 57 17.2** | **+0.8** |
| **SDPT** | **Sand Point** | **58.79** | **324** | *e*P | **P** | **01 57 17.1** | **+0.4** |
| | comp=Z,823nm,1.5s | | | | | | |
| **GO05** | **HualaæØ** | **58.96** | **153** | *e*P | **P** | **01 57 18.4** | **+0.3** |
| **ILULI** | **Ilulissat** | **59.39** | **18** | *i* P | **P** | **01 57 21.8** | **+1.2** |
| ILULI | | | | pmax | pmax | | |
| | comp=Z,140nm,1.0s | | | | | | |
| **ILULI** | **Ilulissat** | **59.39** | **18** | *i* P | **P** | **01 57 21.8** | **+1.2** |
| | comp=Z,135nm,1.0s | | | | | | |
| **ILULI** | **Ilulissat** | **59.39** | **18** | *e*P | **P** | **01 57 21.5** | **+0.9** |
| **IMAR** | **Indian Mountai** | **59.41** | **337** | *e*P | **P** | **01 57 19.7** | **-1.2** |
| **TCA** | **Tanti** | **59.57** | **145** | *e*P | **P** | **01 57 21.9** | **-0.6** |
| **TIAR** | **Tiarei** | **60.04** | **237** | *e*P | **P** | **01 57 27.5** | **+1.6** |
| | comp=Z,55nm,1.0s | | | | | | |
| TIAR | | | | *e*pP | **pP** | **01 57 44.1** | **+0.9** |
| | comp=Z,113nm,1.3s | | | | | | |
| **TIAR** | **Tiarei** | **60.04** | **237** | *e*T | T | 03 01 14.5 | |
| | comp=Z,2.7nm,0.2s | | | | | | |
| **TVO** | **Taravao** | **60.09** | **236** | *e*P | **P** | **01 57 28.1** | **+1.8** |
| | comp=Z,74nm,1.1s | | | | | | |
| TVO | | | | *e*pP | **pP** | **01 57 44.7** | **+1.2** |
| | comp=Z,141nm,1.3s | | | | | | |
| **TVO** | **Taravao** | **60.09** | **236** | *e*T | T | 03 01 18.5 | |
| | comp=Z,0.7nm,0.3s | | | | | | |
| **PPT** | **Papeete** | **60.23** | **237** | P | **P** | **01 57 30.1** | **+2.9** |
| | comp=Z,29nm,0.8s,baz=15,slow=23,SNR=3.7 | | | | | | |
| PPT | | | | LR | LR | 02 16 41.8 | |
| | comp=Z,12µm,21.5s,baz=53,slow=29 | | | | | | |
| **PPTF** | **Pamatai, Papee** | **60.23** | **237** | *e*pP | pP | 01 57 45.8 | +1.3 |
| **PPT2** | **Papeete2** | **60.24** | **237** | *e*P | **P** | **01 57 29.0** | **+1.6** |
| | comp=Z,72nm,1.4s | | | | | | |
| PPT2 | | | | *e*S | **S** | **02 05 37.7** | **+0.8** |
| | comp=Z,16µm,27.4s | | | | | | |
| PPT2 | | | | *e*SS | **SS** | **02 09 36.0** | **+0.5** |
| | comp=Z,13µm,31.5s | | | | | | |
| PPT2 | | | | *e*LQ | LQ | 02 12 29.9 | |
| | comp=Z,22µm,28.2s | | | | | | |
| PPT2 | | | | *e*LR | LR | 02 15 13.8 | |
| | comp=Z,58µm,27.5s,baz=48 | | | | | | |
| **PAE** | **Paea** | **60.29** | **237** | *e*P | **P** | **01 57 29.2** | **+1.6** |
| | comp=Z,22nm,1.2s | | | | | | |
| PAE | | | | *e*pP | **pP** | **01 57 47.2** | **+2.4** |
| | comp=Z,55nm,1.4s | | | | | | |
| **FALS** | **False Pass** | **60.33** | **323** | *e*P | **P** | **01 57 27.5** | **+0.2** |
| **CPUP** | **Villa Florida** | **60.38** | **136** | P | **P** | **01 57 26.8** | **-1.2** |
| | comp=Z,59nm,0.8s,baz=322,slow=7.6,SNR=56 | | | | | | |
| CPUP | | | | S | **S** | **02 05 35.2** | **-3.0** |
| | comp=Z,2.1nm,1.0s,baz=329,slow=8.4,SNR=1.5 | | | | | | |
| CPUP | | | | LR | LR | 02 22 38.9 | |
| | comp=Z,14µm,21.8s,baz=326,slow=35 | | | | | | |
| **CPUP** | **Villa Florida** | **60.38** | **136** | *e*P | **P** | **01 57 27.4** | **-0.7** |
| CPUP | | | | S | **S** | **02 05 35.2** | **-3.0** |
| **CPUP** | **Villa Florida** | **60.38** | **136** | *e*P | **P** | **01 57 27.4** | **-0.7** |
| CPUP | | | | S | **S** | **02 05 35.2** | **-3.0** |
| **TULEG** | **Thule** | **60.79** | **8** | *e*P | **P** | **01 57 29.5** | **-0.6** |
| **BDFB** | **Brasilia** | **61.05** | **120** | P | **P** | **01 57 33.4** | **+0.4** |
| | comp=Z,146nm,0.7s,baz=77,slow=8.5,SNR=126 | | | | | | |
| BDFB | | | | S | **S** | **02 05 46.4** | **-0.9** |
| | comp=Z,2.3nm,0.7s,baz=330,slow=3.3,SNR=1.9 | | | | | | |
| **BDFB** | **Brasilia** | **61.05** | **120** | *e*P | **P** | **01 57 33.0** | **0.0** |
| BDFB | | | | S | **S** | **02 05 46.4** | **-0.9** |
| **KULLO** | **Kullorsuaq** | **61.21** | **12** | *i* P | **P** | **01 57 32.8** | **-0.2** |
| KULLO | | | | pmax | pmax | | |
| | comp=Z,110nm,0.9s | | | | | | |
| **KULLO** | **Kullorsuaq** | **61.21** | **12** | *i* P | **P** | **01 57 32.8** | **-0.2** |
| | comp=Z,114nm,0.9s | | | | | | |
| **AKUT** | **Akutan** | **61.55** | **322** | *e*P | **P** | **01 57 35.6** | **0.0** |
| **NIKH** | **Nikolski High** | **63.23** | **321** | *e*P | **P** | **01 57 47.0** | **+0.1** |
| **TBI** | **Tubuai** | **63.41** | **231** | *e*T | T | 03 05 30.0 | |
| | comp=Z,16nm,0.3s | | | | | | |
| **PLCA** | **Paso Flores** | **64.41** | **156** | P | **P** | **01 57 55.1** | **+0.3** |
| | comp=Z,48nm,0.8s,baz=344,slow=7.7,SNR=41 | | | | | | |
| PLCA | | | | LR | LR | 02 19 32.0 | |
| | comp=Z,12µm,21.9s,baz=17,slow=30 | | | | | | |
| **PLCA** | **Paso Flores** | **64.41** | **156** | *e*P | **P** | **01 57 55.5** | **+0.7** |
| **PLCA** | **Paso Flores** | **64.41** | **156** | *e*P | **P** | **01 57 55.5** | **+0.7** |
| **PLCA** | **Paso Flores** | **64.41** | **156** | *e*P | **P** | **01 57 54.4** | **-0.4** |
| **PCED** | **Cedros** | **64.54** | **55** | *e*P | **P** | **01 57 55.4** | **-0.3** |
| | comp=Z,299nm,1.4s | | | | | | |
| **SUMG** | **Summit** | **64.64** | **17** | *i* P | **P** | **01 57 57.0** | **+0.7** |
| SUMG | | | | *i* S | **S** | **02 06 33.3** | **+2.1** |
| SUMG | | | | pmax | pmax | | |
| | comp=Z,250nm,1.0s | | | | | | |
| **SUMG** | **Summit** | **64.64** | **17** | *i* P | **P** | **01 57 57.0** | **+0.7** |
| | comp=Z,245nm,1.0s | | | | | | |
| SUMG | | | | *i* S | **S** | **02 06 33.3** | **+2.1** |
| **SUMG** | **Summit** | **64.64** | **17** | *e*P | **P** | **01 57 56.1** | **-0.2** |
| **PCAN** | **Candelaria** | **64.71** | **55** | *e*P | **P** | **01 57 57.9** | **+1.0** |
| | comp=Z,262nm,1.3s | | | | | | |
| **PICO** | **Pico** | **64.76** | **55** | *e*P | **P** | **01 57 56.8** | **-0.5** |
| | comp=Z,414nm,1.4s | | | | | | |
| **PMAN** | **Manadas** | **65.02** | **55** | *e*P | **P** | **01 57 58.1** | **-0.7** |
| | comp=Z,216nm,2.0s | | | | | | |
| **PGRA** | **Graciosa** | **65.08** | **55** | *e*P | **P** | **01 57 58.8** | **-0.4** |
| | comp=Z,490nm,1.7s | | | | | | |
| **GAMB** | **Gambell** | **66.04** | **332** | *e*P | **P** | **01 58 06.2** | **+1.2** |
| **TRQA** | **Tornquist** | **66.10** | **148** | *e*P | **P** | **01 58 05.8** | **+0.1** |
| **ATKA** | **Atka Island** | **66.44** | **320** | *e*P | **P** | **01 58 07.4** | **-0.4** |
| **PSET** | **Sete Cidades** | **66.94** | **56** | *e*P | **P** | **01 58 11.6** | **+0.4** |
| | comp=Z,511nm,1.6s | | | | | | |
| **PDA** | **Ponta Delgada** | **66.99** | **56** | *e*P | **P** | **01 58 12.0** | **+0.5** |
| | comp=Z,314nm,1.4s | | | | | | |
| **CMLA** | **Cha da Macela** | **67.10** | **56** | *i* P | **P** | **01 58 13.8** | **+1.6** |
| **CMLA** | **Cha da Macela** | **67.10** | **56** | *e*P | **P** | **01 58 13.6** | **+1.4** |
| CMLA | | | | *e*pP | **pP** | **01 58 31.7** | **+1.9** |
| **PCALD** | **Caldeiras da R** | **67.12** | **56** | *e*P | **P** | **01 58 13.5** | **+1.1** |
| | comp=Z,516nm,1.3s | | | | | | |
| **BART** | **Pico Bartolome** | **67.38** | **56** | *e*P | **P** | **01 58 13.5** | **-0.6** |
| | comp=Z,695nm,1.5s | | | | | | |
| **RCBR** | **Riachuelo** | **67.42** | **104** | *e*P | **P** | **01 58 15.5** | **+0.9** |
| **PSMA** | **Santa Maria** | **67.48** | **57** | *e*P | **P** | **01 58 16.0** | **+1.3** |
| | comp=Z,295nm,1.6s | | | | | | |
| **PSMN** | **Pico do Norte,** | **67.53** | **57** | *e*P | **P** | **01 58 14.6** | **-0.4** |
| | comp=Z,257nm,2.0s | | | | | | |
| **ADK** | **Adak** | **67.98** | **319** | *e*P | **P** | **01 58 16.9** | **-0.5** |
| **ADK** | **Adak** | **67.98** | **319** | *e*P | **P** | **01 58 16.9** | **-0.5** |
| **BORG** | **Borgarnes** | **69.10** | **27** | *e*P | **P** | **01 58 25.7** | **+1.5** |
| BORG | | | | pmax | pmax | | |
| | comp=Z,753nm,1.2s | | | | | | |
| **BORG** | **Borgarnes** | **69.10** | **27** | *e*P | **P** | **01 58 25.7** | **+1.5** |
| | comp=Z,753nm,1.2s | | | | | | |
| **SCO** | **Scoresbysund** | **69.24** | **21** | *i* P | **P** | **01 58 25.6** | **+0.6** |
| SCO | | | | *i* | | 01 58 46.6 | |
| **SCO** | **Scoresbysund** | **69.24** | **21** | *i* P | **P** | **01 58 25.6** | **+0.6** |
| SCO | | | | *i* | | 01 58 46.6 | |
| **CHRN** | **Cochrane** | **69.36** | **160** | *e*P | **P** | **01 58 27.6** | **+1.7** |
| **RAR** | **Rarotonga** | **70.34** | **239** | P | **P** | **01 58 35.1** | **+2.5** |
| | comp=Z,29nm,0.8s,baz=209,slow=5.4,SNR=9.1 | | | | | | |
| RAR | | | | S | S | 02 07 52.1 | +12 |
| | comp=Z,6.6nm,0.8s,baz=82,slow=9.3,SNR=2.4 | | | | | | |
| RAR | | | | LR | LR | 02 20 58.8 | |
| | comp=Z,10µm,20.5s,baz=62,slow=28 | | | | | | |
| **DAG** | **Danmarks Havn** | **70.70** | **14⇓** | *i*P | **P** | **01 58 33.4** | **-0.4** |
| DAG | | | | *i* | | 01 58 55.8 | |
| DAG | | | | *i* S | **S** | **02 07 41.9** | **-0.8** |
| DAG | | | | pmax | pmax | | |
| | comp=Z,190nm,1.0s | | | | | | |
| **DAG** | **Danmarks Havn** | **70.70** | **14⇓** | *i*P | **P** | **01 58 33.4** | **-0.4** |
| | comp=Z,186nm,1.0s | | | | | | |
| DAG | | | | *i* | | 01 58 55.8 | |
| DAG | | | | *i* S | **S** | **02 07 41.9** | **-0.8** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| MIDW | Midway | 70.95 | 294 | eP | P | 01 58 38.0 | +1.8 |
| SACV | Santiago Islan | 72.78 | 79 | eP | P | 01 58 47.2 | -0.2 |
| | comp=Z,81nm,0.8s | | | | | | |
| JMIC | Jan Mayen | 73.69 | 20 | P | P | 01 58 52.5 | +0.7 |
| | comp=Z,38nm,0.4s,baz=262,slow=3.3,SNR=5.6 | | | | | | |
| JMIC | | | | S | S | 02 08 23.1 | +6.0 |
| | comp=Z,27nm,0.3s,baz=182,slow=14,SNR=7.6 | | | | | | |
| JMIC | Jan Mayen | 73.69 | 20 | IVmB_BB | | 01 58 55.3 | |
| | comp=Z,7µm,2.5s | | | | | | |
| JMIC | | | | eS | S | 02 08 17.0 | -0.1 |
| PMOZ | Porto Moniz, M | 74.56 | 60⇓ | eP | P | 01 58 58.1 | +0.4 |
| | comp=Z,210nm,1.9s | | | | | | |
| PMOZ | | | | eS | S | 02 08 31.7 | +3.2 |
| PMOZ | Porto Moniz, M | 74.56 | 60 | eLR | LR | 02 21 36.4 | |
| | comp=Z,5µm,22.0s | | | | | | |
| PMAR | Madeira | 74.81 | 60 | eP | P | 01 58 59.2 | -0.1 |
| | comp=Z,195nm,1.5s | | | | | | |
| PMAR | | | | esP | sP | 01 59 25.3 | +1.0 |
| FUL | Funchal | 74.85 | 60 | eP | P | 01 59 00.6 | +1.3 |
| FUL | | | | esP | sP | 01 59 26.1 | +1.8 |
| PMPS | Porto Santo | 75.22 | 60 | eP | P | 01 59 02.3 | +0.9 |
| | comp=Z,391nm,1.5s | | | | | | |
| VAL | Valentia | 75.93 | 40⇓ | iP | P | 01 59 04.3 | -0.7 |
| VAL | | | | i S | S | 02 08 45.9 | +3.3 |
| KBS | Kingsbay | 76.63 | 11 | eP | P | 01 59 09.5 | +0.9 |
| KBS | | | | pmax | pmax | | |
| | comp=Z,276nm,1.0s | | | | | | |
| KBS | Kingsbay | 76.63 | 11 | eP | P | 01 59 08.5 | -0.1 |
| KBS | | | | IVmB_BB | | 01 59 12.8 | |
| | comp=Z,8µm,2.5s | | | | | | |
| KBS | | | | eS | S | 02 08 49.2 | -0.5 |
| KBS | | | | eSS | SS | 02 13 46.3 | +1.0 |
| KBS | | | | IVMs_BB | IVMs_BB | 02 37 53.0 | |
| | comp=Z,4µm,16.9s | | | | | | |
| KBS | Kingsbay | 76.63 | 11 | eP | P | 01 59 09.5 | +0.9 |
| | comp=Z,276nm,1.0s | | | | | | |
| RRH | Rhenigidale | 76.72 | 33 | eP | P | 01 59 09.3 | -0.1 |
| RRR | Rubha Reidh | 77.20 | 33 | eP | P | 01 59 11.8 | -0.3 |
| USHA | Ushuaia | 77.26 | 162 | LR | LR | 02 27 49.3 | |
| | comp=Z,59µm,18.1s,baz=306,slow=31 | | | | | | |
| KPL | Plockton | 77.40 | 34 | eP | P | 01 59 13.5 | +0.3 |
| KPL | | | | IAmb | IAmb | 01 59 15.6 | |
| | comp=Z,931nm,1.7s | | | | | | |
| KPL | | | | IAMs_20 | IAMs_20 | 02 25 56.4 | |
| | comp=Z,24µm,37.4s | | | | | | |
| RSC | Scourie | 77.41 | 33 | eP | P | 01 59 13.9 | +0.7 |
| KSB | Sheil Bridge | 77.55 | 34 | eP | P | 01 59 14.0 | -0.1 |
| AFI | Afiamalu | 77.58 | 251 | P | P | 01 59 17.2 | +2.1 |
| | comp=Z,43nm,0.7s,baz=291,slow=10,SNR=5.5 | | | | | | |
| AFI | Afiamalu | 77.58 | 251 | eP | P | 01 59 17.9 | +2.8 |
| AFI | Afiamalu | 77.58 | 251 | eP | P | 01 59 17.1 | +2.0 |
| | comp=Z,391nm,1.4s | | | | | | |
| SPA0 | Spitsbergen Ar | 77.76 | 11 | eP | P | 01 59 15.4 | +0.4 |
| SPA0 | | | | IVmB_BB | | 01 59 16.8 | |
| | comp=Z,8µm,2.5s | | | | | | |
| SPA0 | Spitsbergen Ar | 77.76 | 11 | eP | P | 01 59 15.5 | +0.5 |
| IWEX | Carrickbyrne, | 77.92 | 39 | eP | P | 01 59 14.8 | -1.4 |
| DSB | Dublin | 77.95 | 38 | eP | P | 01 59 16.3 | -0.1 |
| | comp=Z,40nm,0.7s | | | | | | |
| GMM | Mts of Mourne | 77.96 | 37 | eP | P | 01 59 15.8 | -0.6 |
| MDO | Dochfour | 78.05 | 33 | eP | P | 01 59 16.6 | -0.3 |
| HSPB | Hornsund (broa | 78.17 | 12 | eP | P | 01 59 19.0 | +1.8 |
| HSPB | | | | e*SP | sP | 01 59 41.7 | -0.6 |
| HSPB | | | | ePPP | PPP | 02 04 00.0 | |
| HSPB | | | | eS | S | 02 09 10.3 | +4.0 |
| HSPB | Hornsund (broa | 78.17 | 12⇓ | iP | P | 01 59 18.8 | +1.6 |
| HSPB | | | | IVmB_BB | | 01 59 21.1 | |
| | comp=Z,9µm,6.9s | | | | | | |
| HSPB | | | | eS | S | 02 09 07.0 | +0.7 |
| HSPB | | | | eSS | SS | 02 14 09.4 | +0.8 |
| HSPB | | | | IVMs_BB | IVMs_BB | 02 39 17.4 | |
| | comp=Z,5µm,18.4s | | | | | | |
| EFI | East Falkland | 78.32 | 155⇓ | eP | P | 01 59 18.6 | +0.3 |
| EFI | | | | pmax | pmax | | |
| | comp=Z,259nm,1.9s | | | | | | |
| EFI | | | | MLR | MLR | | |
| | comp=Z,5µm,18.0s | | | | | | |
| PGBU | Glenifferbraes | 78.39 | 35 | eP | P | 01 59 19.2 | +0.3 |
| PGBU | | | | IAMs_20 | IAMs_20 | 02 33 30.3 | |
| | comp=Z,12µm,23.5s | | | | | | |
| GAL1 | Galloway | 78.51 | 36 | eP | P | 01 59 19.7 | +0.2 |
| GAL1 | | | | IAmb | IAmb | 01 59 21.8 | |
| | comp=Z,171nm,1.5s | | | | | | |
| GAL1 | | | | IAMs_20 | IAMs_20 | 02 30 50.4 | |
| | comp=Z,6µm,21.5s | | | | | | |
| MCD | Coleburn Disti | 78.59 | 33 | eP | P | 01 59 19.7 | -0.2 |
| LRW | Lerwick | 78.93 | 30 | IAMs_20 | IAMs_20 | 02 29 16.8 | |
| | comp=Z,19µm,30.0s | | | | | | |
| SAN1 | Sandwick | 78.93 | 30 | eP | P | 01 59 22.6 | +0.9 |
| EDU | Dundee | 79.00 | 34 | eP | P | 01 59 22.6 | +0.5 |
| WPS | Cemaes, Angles | 79.00 | 37 | eP | P | 01 59 21.8 | -0.4 |
| WPS | | | | IAmb | IAmb | 01 59 23.8 | |
| | comp=Z,90nm,1.0s | | | | | | |
| WPS | | | | IAMs_20 | IAMs_20 | 02 28 56.3 | |
| | comp=Z,16µm,29.2s | | | | | | |
| EDI | Edinburgh | 79.07 | 35 | eP | P | 01 59 23.0 | +0.5 |
| EDI | | | | IAmb | IAmb | 01 59 25.0 | |
| | comp=Z,477nm,1.5s | | | | | | |
| EDI | | | | IAMs_20 | IAMs_20 | 02 32 30.7 | |
| | comp=Z,13µm,19.9s | | | | | | |
| WLF1 | Llynfaes | 79.09 | 37 | IAMs_20 | IAMs_20 | 02 28 59.0 | |
| | comp=Z,32µm,29.7s | | | | | | |
| WME | Myndd Eilian | 79.12 | 37 | eP | P | 01 59 22.6 | -0.2 |
| DRUM | Mains of Drumt | 79.17 | 34 | eP | P | 01 59 23.6 | +0.5 |
| ESK | Eskdalemuir | 79.22 | 35 | eP | P | 01 59 23.6 | +0.3 |
| ESK | | | | IAMs_20 | IAMs_20 | 02 32 10.7 | |
| | comp=Z,14µm,26.9s | | | | | | |
| ESK | Eskdalemuir | 79.22 | 35 | eP | P | 01 59 23.9 | +0.5 |
| ESK | Eskdalemuir | 79.22 | 35 | eP | P | 01 59 23.4 | 0.0 |
| | comp=Z,275nm,1.1s | | | | | | |
| EKA | Eskdalemuir Ar | 79.25 | 35 | P | P | 01 59 23.4 | -0.1 |
| | comp=Z,21nm,0.5s,baz=288,slow=4.8,SNR=109 | | | | | | |
| BHH | Howats Hill | 79.28 | 36 | eP | P | 01 59 23.4 | -0.3 |
| ESY | Stoneypath | 79.38 | 35 | eP | P | 01 59 24.5 | +0.2 |
| WPM1 | Penmaenmawr | 79.39 | 37 | eP | P | 01 59 24.2 | -0.1 |
| PTO | Porto | 79.42 | 50 | eP | P | 01 59 24.8 | +0.1 |
| PGAV | Gavieira, Arco | 79.46 | 49⇓ | eP | P | 01 59 25.0 | -0.1 |
| | comp=Z,197nm,1.7s | | | | | | |
| PGAV | | | | esP | sP | 01 59 48.7 | -1.5 |
| PGAV | | | | eS | S | 02 09 21.3 | -0.1 |
| PGAV | Gavieira, Arco | 79.46 | 49 | eLQ | LQ | 02 20 17.0 | |
| PGAV | | | | eLR | LR | 02 24 43.5 | |
| | comp=Z,5µm,20.0s | | | | | | |
| PMAFR | Mafra | 79.46 | 52⇓ | eP | P | 01 59 25.8 | +0.8 |
| | comp=Z,277nm,1.6s | | | | | | |
| PMAFR | | | | esP | sP | 01 59 48.9 | -1.3 |
| PMAFR | | | | eS | S | 02 09 22.1 | +0.7 |
| PMAFR | Mafra | 79.46 | 52 | eLQ | LQ | 02 19 58.8 | |
| PMAFR | | | | eLR | LR | 02 24 32.5 | |
| | comp=Z,6µm,18.0s | | | | | | |
| KESW | Keswick, Cumbr | 79.48 | 36 | IAMs_20 | IAMs_20 | 02 26 24.9 | |
| | comp=Z,16µm,36.9s | | | | | | |
| PMST | Lisbon--Monsan | 79.59 | 53⇓ | eP | P | 01 59 26.7 | +1.0 |
| | comp=Z,289nm,1.7s | | | | | | |
| PMST | | | | esP | sP | 01 59 49.8 | -1.1 |
| LPW | Lampeter | 79.60 | 39 | eP | P | 01 59 24.9 | -0.5 |
| LPW | | | | IAmb | IAmb | 01 59 27.5 | |
| | comp=Z,116nm,1.0s | | | | | | |
| LPW | | | | IAMs_20 | IAMs_20 | 02 28 25.7 | |
| | comp=Z,13µm,29.1s | | | | | | |
| LIS | Lisbon | 79.62 | 53 | eP | P | 01 59 25.3 | -0.6 |
| LIS | | | | eS | S | 02 09 21.9 | -1.2 |
| LIS | | | | AMS | AMS | 02 30 37.3 | |
| | comp=Z,5µm,22.5s | | | | | | |
| LIS | Lisbon | 79.62 | 53 | eP | P | 01 59 25.2 | -0.6 |
| LIS | | | | eS | S | 02 09 21.8 | -1.2 |
| LIS | Lisbon | 79.62 | 53⇓ | eP | P | 01 59 26.0 | +0.1 |
| | comp=Z,323nm,1.9s | | | | | | |
| LIS | | | | esP | sP | 01 59 50.0 | -1.0 |
| PCAB | Cabril | 79.70 | 50⇓ | eP | P | 01 59 26.4 | +0.1 |
| | comp=Z,223nm,1.7s | | | | | | |
| PCAB | | | | esP | sP | 01 59 51.8 | +0.4 |
| PCAS | Casmilo, Conde | 79.77 | 51⇓ | eP | P | 01 59 27.3 | +0.6 |
| | comp=Z,528nm,1.7s | | | | | | |
| PCAS | | | | esP | sP | 01 59 50.9 | -1.0 |
| PCAS | | | | eS | S | 02 09 25.7 | +1.1 |
| PCAS | Casmilo, Conde | 79.77 | 51 | eLQ | LQ | 02 20 47.3 | |
| PCAS | | | | eLR | LR | 02 24 52.3 | |
| | comp=Z,7µm,20.0s | | | | | | |
| COI | Coimbra | 79.80 | 51⇓ | eP | P | 01 59 26.9 | +0.1 |
| | comp=Z,241nm,1.5s | | | | | | |
| COI | | | | esP | sP | 01 59 50.8 | -1.1 |
| COI | | | | eS | S | 02 09 24.7 | -0.1 |
| COI | | | | eSS | SS | 02 14 35.2 | +0.6 |
| COI | | | | eLQ | LQ | 02 20 36.3 | |
| COI | | | | eLR | LR | 02 24 38.2 | |
| | comp=Z,7µm,20.0s | | | | | | |
| FOEL | Foel Wylfa | 79.89 | 38 | eP | P | 01 59 27.1 | 0.0 |
| FOEL | | | | IAMs_20 | IAMs_20 | 02 29 06.1 | |
| | comp=Z,14µm,28.5s | | | | | | |
| ALMR | Almeirim | 79.94 | 52 | eP | P | 01 59 27.0 | -0.6 |
| ALMR | Almeirim | 79.94 | 52 | eP | P | 01 59 27.0 | -0.6 |
| PTOM | Tomar | 79.95 | 52⇓ | eP | P | 01 59 27.9 | +0.3 |
| | comp=Z,262nm,1.5s | | | | | | |
| PTOM | | | | esP | sP | 01 59 53.5 | +0.7 |
| PTOM | | | | eP | PKiKP | 02 05 09.3 | +12 |
| POLO | Lamas de Olo | 79.95 | 50⇓ | eP | P | 01 59 27.9 | +0.1 |
| | comp=Z,98nm,1.4s | | | | | | |
| POLO | | | | esP | sP | 01 59 51.3 | -1.6 |
| POLO | | | | eS | S | 02 09 27.8 | +1.1 |
| POLO | | | | eSS | SS | 02 14 43.3 | +6.2 |
| POLO | | | | eLQ | LQ | 02 20 27.0 | |
| POLO | | | | eLR | LR | 02 24 28.7 | |
| | comp=Z,2µm,20.0s | | | | | | |
| PVRL | Vila Real | 80.03 | 50⇓ | eP | P | 01 59 28.1 | -0.1 |
| | comp=Z,201nm,1.5s | | | | | | |
| PVRL | | | | esP | sP | 01 59 53.7 | +0.4 |
| EDMD | Edmundbyers | 80.05 | 36 | eP | P | 01 59 27.6 | -0.3 |
| EDMD | | | | IAmb | IAmb | 01 59 29.7 | |
| | comp=Z,253nm,0.8s | | | | | | |
| EDMD | | | | IAMs_20 | IAMs_20 | 02 29 19.1 | |
| | comp=Z,13µm,30.5s | | | | | | |
| PVIS | Viseu | 80.05 | 50⇓ | eP | P | 01 59 28.0 | -0.2 |
| | comp=Z,181nm,1.3s | | | | | | |
| PVIS | | | | esP | sP | 01 59 53.9 | +0.5 |
| HLM1 | Long Mynd | 80.19 | 38 | eP | P | 01 59 28.5 | -0.2 |
| BJO | Bjornoya | 80.23 | 14⇓ | iP | P | 01 59 29.3 | +0.8 |
| BJO | | | | IVmB_BB | | 01 59 31.9 | |
| | comp=Z,9µm,2.9s | | | | | | |
| PMTG | Montargil | 80.23 | 52⇓ | eP | P | 01 59 29.3 | +0.1 |
| | comp=Z,248nm,1.5s | | | | | | |
| PMTG | | | | esP | sP | 01 59 52.9 | -1.4 |
| PMTG | | | | eS | S | 02 09 30.2 | +0.8 |
| PMTG | | | | eSS | SS | 02 14 42.2 | +1.1 |
| PMTG | | | | eLQ | LQ | 02 20 57.1 | |
| PMTG | | | | eLR | LR | 02 25 06.9 | |
| | comp=Z,5µm,20.0s | | | | | | |
| PTEO | Sao Teotonio | 80.24 | 54⇓ | eP | P | 01 59 29.7 | +0.4 |
| | comp=Z,332nm,1.7s | | | | | | |
| PTEO | | | | esP | sP | 01 59 55.6 | +1.2 |
| PNCL | Nicolau / Gran | 80.25 | 53⇓ | eP | P | 01 59 29.6 | +0.3 |
| | comp=Z,100nm,1.4s | | | | | | |
| PNCL | | | | esP | sP | 01 59 53.3 | -1.1 |
| PNCL | | | | eS | S | 02 09 30.7 | +1.1 |
| PNCL | | | | eSS | SS | 02 14 41.0 | -0.4 |
| PNCL | | | | eLQ | LQ | 02 21 13.3 | |
| PNCL | | | | eLR | LR | 02 24 58.5 | |
| | comp=Z,5µm,20.0s | | | | | | |
| MCH1 | Michaelchurch | 80.27 | 39 | eP | P | 01 59 28.5 | -0.6 |
| PFVI | Vila Bisbo | 80.27 | 54 | eP | P | 01 59 30.4 | +0.9 |
| PFVI | Vila Bisbo | 80.27 | 54⇓ | eP | P | 01 59 29.9 | +0.5 |
| | comp=Z,388nm,1.6s | | | | | | |
| PFVI | | | | esP | sP | 01 59 53.7 | -0.9 |
| PFVI | | | | eS | S | 02 09 32.5 | +2.5 |
| PFVI | | | | eSS | SS | 02 14 41.0 | -0.9 |
| HOPEN | Hopen | 80.27 | 11⇓ | iP | P | 01 59 29.5 | +0.8 |
| HOPEN | | | | IVmB_BB | | 01 59 32.0 | |
| | comp=Z,8µm,4.5s | | | | | | |
| HOPEN | | | | eS | S | 02 09 29.6 | +1.0 |
| HOPEN | | | | IVMs_BB | IVMs_BB | 02 37 07.8 | |
| | comp=Z,4µm,18.2s | | | | | | |
| LCP | Cassop | 80.34 | 36 | eP | P | 01 59 29.7 | +0.3 |
| MORF | Marmelete | 80.36 | 54 | eP | P | 01 59 29.4 | -0.6 |
| MORF | | | | eS | S | 02 09 29.7 | -1.3 |
| MORF | | | | AMS | AMS | 02 33 46.0 | |
| | comp=Z,3µm,24.0s | | | | | | |
| MORF | Marmelete | 80.36 | 54⇓ | eP | P | 01 59 30.3 | +0.3 |
| MORF | | | | pmax | pmax | | |
| | comp=Z,153nm,1.6s | | | | | | |
| MORF | Marmelete | 80.36 | 54⇓ | eP | P | 01 59 30.4 | +0.4 |
| | comp=Z,154nm,1.6s | | | | | | |
| MORF | | | | esP | sP | 01 59 54.1 | -1.1 |
| MORF | | | | eS | S | 02 09 32.2 | +1.2 |
| MORF | Marmelete | 80.36 | 54 | eLR | LR | 02 24 34.7 | |
| | comp=Z,3µm,20.0s | | | | | | |
| MTE | Manteigas | 80.39 | 51 | eP | P | 01 59 29.5 | -0.6 |
| | comp=Z,124nm,0.7s | | | | | | |
| MTE | Manteigas | 80.39 | 51⇓ | eP | P | 01 59 29.9 | -0.2 |
| | comp=Z,254nm,1.8s | | | | | | |
| MTE | | | | epP | sP | 01 59 53.6 | -1.7 |
| MTE | | | | esP | sP | 01 59 53.6 | -1.7 |
| MTE | Manteigas | 80.39 | 51 | ePP | PP | 02 02 31.4 | -2.1 |
| MTE | | | | eS | S | 02 09 31.3 | +0.1 |
| MTE | | | | eSS | SS | 02 14 42.0 | -1.6 |
| MTE | | | | eLQ | LQ | 02 20 49.0 | |
| MTE | | | | eLR | LR | 02 24 23.2 | |
| | comp=Z,5µm,20.0s | | | | | | |
| MONM | Monmouth | 80.42 | 39 | eP | P | 01 59 30.2 | +0.3 |
| MONM | | | | IAMs_20 | IAMs_20 | 02 29 36.4 | |
| | comp=Z,12µm,26.7s | | | | | | |
| HGH | Gray Hill | 80.48 | 39 | eP | P | 01 59 30.8 | +0.5 |
| LHO | Holmfirth | 80.48 | 37 | eP | P | 01 59 30.6 | +0.4 |
| EVO | Evora | 80.53 | 53⇓ | eP | P | 01 59 31.1 | +0.3 |
| | comp=Z,203nm,1.6s | | | | | | |
| EVO | | | | esP | sP | 01 59 54.8 | -1.2 |
| MESJ | Messejana | 80.55 | 53 | eP | P | 01 59 30.3 | -0.6 |
| MESJ | | | | eS | S | 02 09 31.9 | -1.0 |
| MESJ | | | | AMS | AMS | 02 36 51.8 | |
| | comp=Z,5µm,18.7s | | | | | | |
| MESJ | Messejana | 80.55 | 53 | eP | P | 01 59 30.3 | -0.6 |
| MESJ | | | | eS | S | 02 09 31.8 | -1.0 |
| MVO | Moncorvo | 80.56 | 50⇓ | eP | P | 01 59 31.3 | +0.3 |
| | comp=Z,266nm,1.7s | | | | | | |
| MVO | | | | esP | sP | 01 59 55.0 | -1.2 |
| MVO | | | | eS | S | 02 09 34.2 | +1.2 |
| MVO | | | | eSS | SS | 02 14 55.1 | +8.9 |
| MVO | | | | eLQ | LQ | 02 20 55.1 | |
| MVO | | | | eLR | LR | 02 24 43.8 | |
| | comp=Z,4µm,20.0s | | | | | | |
| PCBR | Castelo Branco | 80.58 | 51 | eP | P | 01 59 31.0 | -0.1 |
| | comp=Z,237nm,1.5s | | | | | | |
| PCBR | | | | esP | sP | 01 59 56.8 | +0.6 |
| PBRG | Braganca | 80.60 | 49⇓ | eP | P | 01 59 31.1 | -0.1 |
| | comp=Z,161nm,1.6s | | | | | | |
| PBRG | | | | esP | sP | 01 59 55.0 | -1.4 |
| PBRG | | | | eS | S | 02 09 34.4 | +1.0 |
| PBRG | | | | eSS | SS | 02 14 55.3 | +8.6 |
| PBRG | | | | eLQ | LQ | 02 20 58.1 | |
| PBRG | | | | eLR | LR | 02 25 12.1 | |
| | comp=Z,8µm,18.0s | | | | | | |
| PCVE | Castro Verde | 80.75 | 54⇓ | eP | P | 01 59 32.4 | +0.4 |
| | comp=Z,210nm,1.6s | | | | | | |
| PCVE | | | | esP | sP | 01 59 56.1 | -1.0 |
| PCVE | | | | eS | S | 02 09 35.5 | +0.6 |
| PCVE | | | | eSS | SS | 02 14 47.6 | -1.4 |
| PCVE | | | | eLQ | LQ | 02 21 00.5 | |
| PCVE | | | | eLR | LR | 02 25 10.9 | |
| | comp=Z,4µm,20.0s | | | | | | |
| PESTR | Estremoz | 80.76 | 52⇓ | eP | P | 01 59 32.1 | 0.0 |
| | comp=Z,159nm,1.6s | | | | | | |
| PESTR | | | | esP | sP | 01 59 55.9 | -1.3 |
| PESTR | | | | eS | S | 02 09 35.7 | +0.7 |
| PESTR | | | | eSS | SS | 02 14 48.9 | -0.2 |
| PESTR | | | | eLQ | LQ | 02 20 30.6 | |
| PESTR | | | | eLR | LR | 02 25 14.0 | |
| | comp=Z,4µm,20.0s | | | | | | |
| PMRV | Marv??o | 80.76 | 52⇓ | eP | P | 01 59 32.0 | 0.0 |
| | comp=Z,285nm,1.9s | | | | | | |
| PMRV | | | | esP | sP | 01 59 56.0 | -1.2 |
| PMRV | | | | eS | S | 02 09 35.0 | 0.0 |
| PMRV | | | | eSS | SS | 02 14 52.7 | +3.6 |
| PMRV | | | | eLQ | LQ | 02 20 42.7 | |
| PMRV | | | | eLR | LR | 02 25 13.2 | |
| | comp=Z,5µm,20.0s | | | | | | |
| PBEJ | Beja | 80.77 | 53⇓ | eP | P | 01 59 32.4 | +0.3 |
| | comp=Z,180nm,1.8s | | | | | | |
| PBEJ | | | | esP | sP | 01 59 58.1 | +0.8 |
| BATH | Bath | 80.82 | 39 | eP | P | 01 59 32.2 | +0.1 |
| BATH | | | | IAMs_20 | IAMs_20 | 02 28 56.4 | |
| | comp=Z,16µm,38.2s | | | | | | |
| STRD | Stroud | 80.82 | 39 | eP | P | 01 59 31.9 | -0.2 |
| STRD | | | | IAMs_20 | IAMs_20 | 02 29 17.1 | |
| | comp=Z,13µm,27.6s | | | | | | |
| PBDV | Barranco-do-Ve | 80.93 | 54⇓ | eP | P | 01 59 33.9 | +0.9 |
| | comp=Z,304nm,1.7s | | | | | | |
| PBDV | | | | esP | sP | 01 59 57.9 | -0.3 |
| PBDV | | | | eS | S | 02 09 39.3 | +2.4 |
| PBDV | | | | eSS | SS | 02 14 51.3 | -0.5 |
| PBDV | | | | eLR | LR | 02 23 25.0 | |
| | comp=Z,3µm,18.0s | | | | | | |
| CWF | Charnwood Fore | 81.04 | 37 | eP | P | 01 59 32.5 | -0.8 |
| CWF | | | | IAMs_20 | IAMs_20 | 02 29 38.7 | |
| | comp=Z,15µm,32.3s | | | | | | |
| PVAQ | Vaqueiros | 81.05 | 54⇓ | eP | P | 01 59 34.0 | +0.4 |
| | comp=Z,276nm,1.6s | | | | | | |
| PVAQ | | | | esP | sP | 01 59 58.3 | -0.5 |
| PVAQ | | | | eS | S | 02 09 40.3 | +2.2 |
| PVAQ | | | | eSS | SS | 02 14 53.9 | +0.4 |
| PVAQ | | | | eLR | LR | 02 24 44.5 | |
| | comp=Z,4µm,20.0s | | | | | | |
| ROSF | Rostrenen | 81.14 | 42 | eP | P | 01 59 33.3 | -0.6 |
| ROSF | | | | pmax | pmax | | |
| | comp=Z,105nm,1.2s | | | | | | |
| FOO | Floro | 81.33 | 28 | eP | P | 01 59 36.1 | +1.6 |
| FOO | | | | IVmB_BB | | 01 59 38.4 | |
| | comp=Z,11µm,5.0s | | | | | | |
| FOO | | | | eSS | SS | 02 14 56.6 | +0.3 |
| PBAR | Barrancos | 81.36 | 53⇓ | eP | P | 01 59 35.5 | +0.3 |
| | comp=Z,434nm,1.6s | | | | | | |
| PBAR | | | | esP | sP | 01 59 59.3 | -1.1 |
| PBAR | | | | eS | S | 02 09 42.7 | +1.4 |
| PBAR | Barrancos | 81.36 | 53 | eLR | LR | 02 25 11.9 | |
| | comp=Z,9µm,20.0s | | | | | | |
| LMK | Market Rasen | 81.38 | 37 | eP | P | 01 59 34.8 | -0.2 |
| LMK | | | | IAmb | IAmb | 01 59 37.9 | |
| | comp=Z,758nm,1.4s | | | | | | |
| LMK | | | | IAMs_20 | IAMs_20 | 02 31 04.0 | |
| | comp=Z,12µm,24.0s | | | | | | |
| SUE | Sulen | 81.40 | 28⇓ | iP | P | 01 59 36.5 | +1.6 |
| SUE | | | | IVmB_BB | | 01 59 39.0 | |
| | comp=Z,13µm,6.3s | | | | | | |
| SUE | | | | eS | S | 02 09 40.2 | -0.6 |
| WOL | Wolverton | 81.52 | 39 | eP | P | 01 59 35.5 | -0.3 |
| WOL | | | | IAMs_20 | IAMs_20 | 02 29 37.7 | |
| | comp=Z,9µm,21.8s | | | | | | |
| SGMF | Saint Gilles | 81.63 | 42 | eP | P | 01 59 35.8 | -0.6 |
| SGMF | | | | pmax | pmax | | |
| | comp=Z,167nm,1.4s | | | | | | |
| ASK | Askoy | 81.81 | 29 | eP | P | 01 59 39.2 | +2.1 |
| ASK | | | | eS | S | 02 09 49.2 | +4.1 |
| LOF | Lofoten | 81.88 | 20⇓ | iP | P | 01 59 38.4 | +1.1 |
| LOF | | | | IVmB_BB | | 01 59 41.0 | |
| | comp=Z,13µm,2.2s | | | | | | |
| LOF | | | | eS | S | 02 09 47.0 | +1.5 |
| BER | Bergen | 81.91 | 29 | eP | P | 01 59 39.7 | +2.0 |
| BER | | | | IVmB_BB | | 01 59 42.0 | |
| | comp=Z,10µm,5.2s | | | | | | |
| BER | | | | eS | S | 02 09 46.6 | +0.5 |
| BER | | | | eS | SKSac | 02 09 50.6 | -1.4 |
| BER | | | | eSS | SS | 02 15 06.5 | +1.5 |
| BER | | | | IVMs_BB | IVMs_BB | 02 31 55.0 | |
| | comp=Z,3µm,4.0s | | | | | | |
| AKN | Aaknes | 81.97 | 27 | eP | P | 01 59 39.5 | +1.6 |
| AKN | | | | IVmB_BB | | 01 59 41.7 | |
| | comp=Z,7µm,8.0s | | | | | | |
| AKN | | | | ePP | PP | 02 02 45.6 | -0.2 |
| AKN | | | | eS | S | 02 09 45.8 | -0.9 |
| AKN | | | | eSS | SS | 02 15 02.3 | -3.5 |
| AKN | | | | eSS | SS | 02 15 05.6 | -0.2 |
| SEY | Seymchan | 81.99 | 334 | P | P | 01 59 39.0 | +0.9 |
| | comp=Z,63nm,1.0s,baz=89,slow=4.1,SNR=69 | | | | | | |
| SEY | Seymchan | 81.99 | 334 | P | P | 01 59 39.0 | +0.9 |
| SEY | | | | pmax | pmax | | |
| | comp=Z,63nm,1.0s | | | | | | |
| HYA | Hoyanger | 82.00 | 28 | eP | P | 01 59 39.6 | +1.5 |
| HYA | | | | IVmB_BB | | 01 59 42.1 | |
| | comp=Z,9µm,6.0s | | | | | | |
| HYA | | | | eS | S | 02 09 46.6 | -0.4 |
| MOL | Molde | 82.05 | 26⇓ | iP | P | 01 59 39.4 | +1.1 |
| MOL | | | | IVmB_BB | | 01 59 42.4 | |
| | comp=Z,11µm,5.8s | | | | | | |
| MOL | | | | eS | S | 02 09 48.2 | +0.8 |
| MOL | | | | IVMs_BB | IVMs_BB | 02 30 10.0 | |
| | comp=Z,7µm,34.0s | | | | | | |
| WACR | West Acre | 82.16 | 37 | eP | P | 01 59 39.9 | +0.8 |
| WACR | | | | IAmb | IAmb | 01 59 40.9 | |
| | comp=Z,518nm,0.9s | | | | | | |
| WACR | | | | IAMs_20 | IAMs_20 | 02 30 54.3 | |
| | comp=Z,15µm,31.8s | | | | | | |
| KMY | Karmoy | 82.31 | 30 | eP | P | 01 59 41.4 | +1.6 |
| KMY | | | | eS | S | 02 09 50.6 | +0.4 |
| KONS | Konsvik | 82.51 | 22 | eP | P | 01 59 41.7 | +1.0 |
| KONS | | | | IVmB_BB | | 01 59 44.7 | |
| | comp=Z,12µm,5.1s | | | | | | |
| KONS | | | | eS | S | 02 09 52.2 | +0.2 |
| STEI | Steigen | 82.54 | 20 | eP | P | 01 59 41.2 | +0.4 |
| STEI | | | | IVmB_BB | | 01 59 44.4 | |
| | comp=Z,12µm,4.7s | | | | | | |
| STOK | Stokkvaagen | 82.55 | 22 | eP | P | 01 59 41.8 | +0.9 |
| STOK | | | | IVmB_BB | | 01 59 45.0 | |
| | comp=Z,21µm,4.8s | | | | | | |
| STOK | | | | eS | S | 02 09 51.4 | -0.9 |
| PET | Petropavlovsk | 82.55 | 323 | i P | P | 01 59 41.9 | +0.8 |
| PET | | | | e*SP | sP | 02 00 05.4 | -0.9 |
| PET | | | | eS | S | 02 09 52.6 | -0.3 |
| PET | | | | ePS | PnS | 02 10 43.3 | -6.9 |
| PET | | | | ePPS | PPS | 02 11 11.3 | |
| PET | | | | pmax | pmax | | |
| | comp=Z,8µm,6.3s | | | | | | |
| PET | | | | pmax | pmax | | |
| | comp=Z,211nm,0.9s | | | | | | |
| PET | | | | pmax | pmax | | |
| | comp=Z,6µm,12.0s | | | | | | |
| PET | | | | smax | smax | | |
| | comp=E,5µm,16.9s | | | | | | |
| PET | | | | smax | smax | | |
| | comp=N,3µm,11.8s | | | | | | |
| PET | | | | MLR | MLR | | |
| | comp=Z,5µm,17.0s | | | | | | |
| PET | | | | MLR | MLR | | |
| | comp=Z,4µm,18.0s | | | | | | |
| PET | Petropavlovsk | 82.55 | 323 | eP | P | 01 59 43.8 | +2.7 |
| HMNX | Herstmonceux | 82.60 | 39 | eP | P | 01 59 42.1 | +0.7 |
| HMNX | | | | IAMs_20 | IAMs_20 | 02 38 08.1 | |
| | comp=Z,13µm,18.1s | | | | | | |
| STAV | Stavanger | 82.64 | 30 | eP | P | 01 59 42.8 | +1.3 |
| STAV | | | | IVmB_BB | | 02 00 08.2 | |
| | comp=Z,11µm,4.3s | | | | | | |
| STAV | | | | ePP | PP | 02 02 50.5 | -0.8 |
| STAV | | | | eS | S | 02 09 53.0 | -0.5 |
| STAV | | | | IVMs_BB | IVMs_BB | 02 34 20.9 | |
| | comp=Z,3µm,4.5s | | | | | | |
| ODD1 | Odda | 82.69 | 29 | eP | P | 01 59 43.4 | +1.6 |
| ODD1 | | | | IVmB_BB | | 01 59 46.3 | |
| | comp=Z,12µm,5.0s | | | | | | |
| ODD1 | | | | eS | S | 02 09 53.7 | -0.6 |
| FLN | La Foliniere | 82.78 | 41 | eP | P | 01 59 42.3 | -0.1 |
| FLN | | | | pmax | pmax | | |
| | comp=Z,160nm,0.9s | | | | | | |
| TRO | Tromso | 82.80 | 18 | eP | P | 01 59 46.3 | +4.2 |
| TRO | | | | IVmB_BB | | 01 59 49.8 | |
| | comp=Z,14µm,5.4s | | | | | | |
| TRO | | | | eS | S | 02 09 55.0 | +0.1 |
| TRO | | | | i | | 02 21 41.5 | |
| BLS5 | Blasjo | 82.80 | 30⇓ | iP | P | 01 59 43.3 | +0.9 |
| BLS5 | | | | IVmB_BB | | 01 59 46.7 | |
| | comp=Z,14µm,4.7s | | | | | | |
| BLS5 | | | | eS | S | 02 09 56.3 | +0.9 |
| BLS5 | | | | IVMs_BB | IVMs_BB | 02 31 34.3 | |
| | comp=Z,3µm,16.3s | | | | | | |
| TBLU | Trondheim | 82.89 | 25⇓ | iP | P | 01 59 43.5 | +0.8 |
| TBLU | | | | IVmB_BB | | 01 59 46.7 | |
| | comp=Z,12µm,4.5s | | | | | | |
| TBLU | | | | eS | S | 02 09 57.8 | +1.8 |
| TBLU | | | | IVMs_BB | IVMs_BB | 02 37 51.4 | |
| | comp=Z,4µm,5.3s | | | | | | |
| DOMB | Dombas | 82.91 | 27⇓ | iP | P | 01 59 44.2 | +1.3 |
| DOMB | | | | IVmB_BB | | 01 59 45.5 | |
| | comp=Z,11µm,2.8s | | | | | | |
| DOMB | | | | eS | S | 02 10 01.1 | +4.7 |
| DOMB | | | | IVMs_BB | IVMs_BB | 02 32 35.7 | |
| | comp=Z,5µm,2.8s | | | | | | |
| PAB | San Pablo | 82.98 | 51 | eP | P | 01 59 43.8 | 0.0 |
| PAB | | | | pmax | pmax | | |
| | comp=Z,181nm,1.0s | | | | | | |
| PAB | San Pablo | 82.98 | 51 | eP | P | 01 59 43.8 | 0.0 |
| | comp=Z,181nm,1.0s | | | | | | |
| LDF | La Druitiere | 83.06 | 41 | eP | P | 01 59 44.4 | +0.5 |
| LDF | | | | pmax | pmax | | |
| | comp=Z,82nm,0.9s | | | | | | |
| PETK | Petropavlovsk- | 83.06 | 324 | P | P | 01 59 44.6 | +0.8 |
| | comp=Z,118nm,0.8s,baz=78,slow=9.1,SNR=80 | | | | | | |
| PETK | | | | pP | sP | 02 00 05.7 | -3.4 |
| | comp=Z,99nm,0.7s,baz=77,slow=10,SNR=6.0 | | | | | | |

PETK LR LR 02 36 57.3
comp=Z,3µm,19.6s,baz=52,slow=36
**PETK Petropavlovsk- 83.06 324** P **P 01 59 44.6 +0.8**
PETK *PP **sP 02 00 05.7 -3.4**
PETK pmax pmax
comp=Z,112nm,0.8s
PETK MLR MLR
comp=Z,3µm,19.6s
**MOR8 Moi Rana 83.13 22**⇓ *iP* **P 01 59 44.7 +0.7**
MOR8 IVmB_BB 01 59 47.8
comp=Z,12µm,4.8s
MOR8 *eS* **S 02 09 59.9 +1.4**
MOR8 *eSS* **SS 02 15 25.9 +2.9**
MOR8 IVMs_BB IVMs_BB 02 36 51.5
comp=Z,6µm,23.8s
**ESDC Sonseca Array 83.23 51** P **P 01 59 45.0 0.0**
comp=Z,21nm,0.7s,baz=301,slow=5.1,SNR=132
ESDC LR LR 02 37 11.1
comp=Z,2µm,18.9s,baz=305,slow=36
**HAMF Hammerfest 83.55 16**⇓ *iP* **P 01 59 46.5 +0.5**
HAMF IVmB_BB 01 59 49.0
comp=Z,9µm,6.6s
HAMF *e*PP **PP 02 02 58.8 +0.2**
HAMF *eS* **S 02 10 02.9 +0.4**
HAMF IVMs_BB IVMs_BB 02 32 50.1
comp=Z,4µm,30.1s
**SNART Snartemo 83.59 30**⇓ *iP* **P 01 59 47.8 +1.4**
SNART IVmB_BB 01 59 50.5
comp=Z,5µm,4.5s
SNART *eS* **S 02 10 00.8 -2.5**
**MFF Saint Martin d 83.70 43** *eP* **P 01 59 47.4 +0.2**
MFF pmax pmax
comp=Z,321nm,1.6s
**MA2 Magadan 84.10 331** P **P 01 59 49.8 +0.8**
comp=Z,38nm,0.8s,baz=54,slow=5.8,SNR=23
**KONO Kongsberg 84.17 29***d iP* **P 01 59 50.6 +1.3**
KONO pmax pmax
comp=Z,644nm,2.1s
KONO MLR MLR
comp=Z,14µm,23.0s
**KONO Kongsberg 84.17 29**⇓ *iP* **P 01 59 50.3 +1.0**
KONO IVmBBB 01 59 53.5
comp=Z,13µm,4.8s
KONO *eS* **S 02 10 06.8 -2.3**
KONO *eSS* **SS 02 15 38.9 +0.5**
KONO IVMs_BB IVMs_BB 02 35 54.3
comp=Z,5µm,15.8s
**KONO Kongsberg 84.17 29** *eP* **P 01 59 51.1 +1.7**
**HOMB Homborsund 84.25 30**⇓ *iP* **P 01 59 50.5 +0.8**
**NB2 NORSAR Subarra 84.28 27** P **P 01 59 50.6 +0.7**
comp=Z,812nm,1.1s,baz=299,slow=5.1
**NB2 NORSAR Subarra 84.28 27** P **P 01 59 52.2 +2.3**
NB2 pmax pmax
comp=Z,2µm,2.6s
**NB2 NORSAR Subarra 84.28 27** P **P 01 59 50.6 +0.7**
baz=299,slow=5.1
**NOA NORSAR Array B 84.28 27** P **P 01 59 50.6 +0.7**
comp=Z,17nm,0.5s,baz=301,slow=5.7,SNR=112
NOA pP **sP 02 00 11.9 -3.2**
comp=Z,655nm,1.1s,baz=301,slow=4.9,SNR=18
NOA LR LR 02 38 13.1
comp=Z,5µm,21.8s,baz=300,slow=36
**ORDF Ordiarp 84.28 47** *eP* **P 01 59 51.1 +0.8**
**KTK1 Kautokeino 84.41 18** *eP* **P 01 59 51.5 +1.0**
KTK1 IVmB_BB 01 59 53.7
comp=Z,8µm,4.1s
KTK1 *eS* **S 02 10 07.2 -3.9**
**ATE Arette 84.49 47** *eP* **P 01 59 52.5 +1.2**
**OSL Oslo 84.55 28** *eP* **P 01 59 51.9 +0.6**
OSL IVmBBB 01 59 55.3
comp=Z,8µm,5.0s
OSL *eS* **S 02 10 08.4 -4.4**
**NC602 NORSAR Array S 84.56 27** *eP* **P 01 59 50.6 -0.6**
NC602 IVmB_BB 01 59 55.4
comp=Z,56µm,4.0s
**REYF Montagne du Re 84.70 47** *eP* **P 01 59 53.2 +0.7**
**ARCES ARCESS Array B 84.73 17** P **P 01 59 52.1 +0.1**
comp=Z,72nm,0.6s,baz=314,slow=1.9,SNR=151
ARCES LR LR 02 39 22.7
comp=Z,4µm,21.5s,baz=311,slow=37
**ARE0 ARCESS Array S 84.73 17**⇓ *iP* **P 01 59 52.1 +0.1**
ARE0 IVmBBB 01 59 55.3
comp=Z,9µm,3.7s
**TIXI Tiksi 84.77 346** P **P 01 59 52.0 -0.2**
comp=Z,148nm,0.9s,baz=30,slow=5.1,SNR=171
**TIXI Tiksi 84.77 346***d iP* **P 01 59 51.8 -0.3**
TIXI pmax pmax
comp=Z,732nm,1.7s
**TIXI Tiksi 84.77 346** *eP* **P 01 59 51.9 -0.2**
comp=Z,1µm,1.2s
**MDT Midelt 84.81 57** P **P 01 59 53.5 +0.2**
comp=Z,71nm,0.9s,baz=280,slow=5.8,SNR=102
**SKR Severo-Kuril's 84.86 322** *eP* **P 01 59 52.6 -0.4**
SKR *e**PP **pP 02 00 08.3 -2.8**
SKR *eS* **S 02 10 17.3 +1.2**
SKR pmax pmax
comp=Z,246nm,1.0s
SKR pmax pmax
comp=Z,7µm,5.8s
SKR MLR MLR
comp=Z,3µm,17.0s
**KEV Kevo 84.99 16** *eP* **P 01 59 53.3 0.0**
KEV pmax pmax
comp=Z,652nm,1.1s
**KEV Kevo 84.99 16** *eP* **P 01 59 53.3 0.0**
comp=Z,652nm,1.1s
**UCC Uccle 85.01 38** P **P 01 59 54.0 +0.2**
UCC XP **sP 02 00 18.3 -0.7**
**LABF Labassere 85.03 46** *eP* **P 01 59 54.6 +0.5**
**VIEF Viey 85.06 47** *eP* **P 01 59 54.8 +0.5**
**SNF Seneffe 85.07 38** P **P 01 59 55.9 +1.8**
**BAIF Baives 85.20 39** *eP* **P 01 59 54.8 +0.1**
BAIF pmax pmax
comp=Z,246nm,1.4s
**RESF Ens 85.30 47** *eP* **P 01 59 56.2 +0.6**
**MUD Monsted U'grnd 85.35 32**⇓ *iP* **P 01 59 56.7 +1.4**
MUD pmax pmax
comp=Z,160nm,1.1s
**MUD Monsted U'grnd 85.35 32**⇓ *iP* **P 01 59 56.7 +1.4**
comp=Z,155nm,1.1s
**DOU Dourbes 85.42 39** P **P 01 59 54.9 -0.9**
DOU XP **sP 02 00 21.8 +0.7**
comp=Z,16nm,1.3s
**GIVF Givet 85.55 39** *eP* **P 01 59 56.6 +0.1**
GIVF pmax pmax
comp=Z,245nm,1.4s
**MELF Melles 85.57 46** *eP* **P 01 59 57.5 +0.7**
**BCLA Clavier 85.71 38** P **P 01 59 57.2 0.0**
BCLA XP **sP 02 00 23.3 +0.8**
comp=Z,18nm,1.2s
**CAF Calviac 85.73 44** *eP* **P 01 59 56.0 -1.5**
CAF pmax pmax
comp=Z,387nm,1.9s
**BEBN Eben Emael 85.78 38** P **P 01 59 57.8 +0.2**
BEBN XP **sP 02 00 22.0 -0.9**
comp=Z,89nm,1.1s
**HFS Hagfors 85.78 27** P **P 01 59 57.4 0.0**
comp=Z,27nm,0.8s,baz=298,slow=3.1,SNR=36
**AVF Avril sur Loir 85.89 42** *eP* **P 01 59 56.3 -1.9**
AVF pmax pmax
comp=Z,134nm,1.4s
**FRNF Fournols 85.89 44** *eP* **P 01 59 58.7 +0.3**
**HGN Heimansgroeve 85.94 38** *eP* **P 01 59 58.6 +0.2**
HGN *ep*P **pP 02 00 16.1 -0.5**
HGN *es*P **sP 02 00 23.1 -0.6**
**WTSB Winterswijk 85.96 36** *eP* **P 01 59 58.8 +0.4**
WTSB *ep*P **pP 02 00 17.3 +0.8**
WTSB *es*P **sP 02 00 23.5 -0.3**
**AGO Saint Agoulin 86.02 43** *eP* **P 02 00 00.0 +1.1**
**MEM Membach 86.05 38** P **P 01 59 59.3 +0.3**
MEM XP **sP 02 00 25.1 +0.8**
comp=Z,22nm,1.2s
**PYM Petit Puy Mans 86.05 43** *eP* **P 01 59 59.6 +0.4**
**SMF Signal de Mont 86.26 42** *eP* **P 01 59 59.7 -0.4**
SMF pmax pmax
comp=Z,34nm,0.7s
**LBL Lubilhac 86.40 44** *eP* **P 02 00 01.3 +0.4**
**WLF Walferdange 86.51 39** P **P 02 00 01.6 +0.3**
WLF XP **sP 02 00 28.3 +1.8**
comp=Z,20nm,1.1s
**WLF Walferdange 86.51 39** *eP* **P 02 00 01.2 0.0**
WLF pmax pmax
comp=Z,354nm,1.0s
**WLF Walferdange 86.51 39** *eP* **P 02 00 01.2 0.0**
comp=Z,354nm,1.0s

**CARF Carcanieres 86.55 46** *eP* **P 02 00 01.9 +0.2**
**VALF Valcebollere 86.60 47** *eP* **P 02 00 02.6 +0.5**
**PMSA Palmer Station 86.87 165** P **P 02 00 03.1 +0.7**
baz=2.1,slow=2.7
PMSA LR LR 02 29 45.8
comp=Z,5µm,19.3s,baz=336,slow=29
**TARA Tarawa 86.87 270** *eP* **P 02 00 04.4 +0.8**
comp=Z,6.8nm,0.8s
**FILF Fillols 86.92 46** *eP* **P 02 00 04.4 +0.9**
**THEF They Montfort 86.99 40** *eP* **P 02 00 04.2 +0.6**
**USTO Oran 87.06 53** P **P 02 00 06.0 +1.9**
**SSB Saint Sauveur 87.23 43** *eP* **P 02 00 05.4 +0.5**
**SSB Saint Sauveur 87.23 43** *eP* **P 02 00 04.3 -0.6**
SSB pmax pmax
comp=Z,87nm,1.0s
**SSB Saint Sauveur 87.23 43** *eP* **P 02 00 04.3 -0.6**
comp=Z,87nm,1.0s
**COP Copenhagen 87.33 32** *i* P **P 02 00 04.8 -0.2**
COP *i* 02 00 28.8
COP pmax pmax
comp=Z,74nm,1.2s
COP MLR MLR
comp=Z,11µm,29.0s
**COP Copenhagen 87.33 32** *i* P **P 02 00 04.8 -0.2**
comp=Z,74nm,1.2s
COP *i* 02 00 28.8
comp=Z,11µm,29.0s
**VIVF Saint-Julien-l 87.48 44** *eP* **P 02 00 05.4 -0.7**
VIVF pmax pmax
comp=Z,30nm,1.0s
**ODJA Bouhanifia 87.50 54** P **P 02 00 04.0 -2.4**
**OUL Oulu 87.67 20** P **P 02 00 04.3 -2.2**
OUL pmax pmax
comp=Z,192nm,0.9s
**ECH Echery 87.71 40** *eP* **P 02 00 07.7 +0.6**
**ECH Echery 87.71 40** *eP* **P 02 00 05.8 -1.3**
ECH pmax pmax
comp=Z,196nm,1.4s
**ECH Echery 87.71 40** *eP* **P 02 00 05.8 -1.3**
comp=Z,196nm,1.4s
ECH *ep*P **sP 02 00 31.6 -0.8**
**LANF Langenberg 87.78 39** *eP* **P 02 00 07.7 +0.3**
**VAF Ylistaro 87.81 23** *eP* **P 02 00 09.6 +2.4**
VAF pmax pmax
comp=Z,69nm,2.5s
**MOF Molkenrain 87.84 40** *eP* **P 02 00 07.4 -0.4**
**OKGL Djebel Kef Gue 87.86 53** P **P 02 00 08.0 -0.1**
**MSVF Nonsavu 88.08 251** *eP* **P 02 00 11.3 +1.9**
MSVF pmax pmax
comp=Z,543nm,1.2s
**MSVF Nonsavu 88.08 251** *eP* **P 02 00 11.3 +1.9**
comp=Z,543nm,1.2s
**OJGS Djebel Guires 88.13 53** P **P 02 00 07.0 -2.4**
**APA Apatity 88.20 16**⇑ *iP* **P 02 00 13.6 +4.6**
APA *iS* **S 02 10 52.0 +4.0**
APA *i* PS PS 02 12 16.0 +17
APA pmax pmax
comp=Z,65nm,1.1s
**ASCN Ascension 88.22 99** *eP* **P 02 00 10.6 +0.5**
comp=Z,69nm,0.8s
**EANR 'Ain N'Sour 88.24 53** P **P 02 00 09.9 0.0**
**ECHA Ech Chlef 88.37 53** P **P 02 00 10.8 +0.4**
**BFO Black Forest 88.37 39** *iP* **P 02 00 09.8 -0.4**
**BFO Black Forest 88.37 39** *eP* **P 02 00 09.4 -0.9**
comp=Z,146nm,1.4s
**EBNR Beni Rached 88.44 52** P **P 02 00 11.9 +1.0**
**LPL La Plagne 88.55 42** *eP* **P 02 00 10.9 -0.5**
LPL pmax pmax
comp=Z,22nm,0.7s
**LPG La Plagne 88.57 42** *eP* **P 02 00 11.4 -0.2**
LPG pmax pmax
comp=Z,70nm,1.2s
**STU Stuttgart 88.70 39** *eP* **P 02 00 11.1 -0.7**
STU pmax pmax
comp=Z,86nm,1.0s
**STU Stuttgart 88.70 39** *eP* **P 02 00 11.1 -0.7**
comp=Z,86nm,1.0s
**BNI Bardonecchia 88.70 43** *eP* **P 02 00 12.0 -0.1**
BNI pmax pmax
comp=Z,77nm,1.2s
**BNI Bardonecchia 88.70 43** *eP* **P 02 00 12.0 -0.1**
comp=Z,77nm,1.2s
**BSD Bornholm Skovb 88.84 31** *i* P **P 02 00 10.8 -1.4**
BSD *i* 02 00 34.9
BSD pmax pmax
comp=Z,98nm,1.1s
BSD MLR MLR
comp=Z,13µm,24.0s
**BSD Bornholm Skovb 88.84 31** *i* P **P 02 00 10.8 -1.4**
comp=Z,98nm,1.1s
BSD *i* 02 00 34.9
comp=Z,13µm,24.0s
**MOX Moxa 89.26 36** P **P 02 00 14.7 +0.4**
MOX pmax pmax
comp=Z,213nm,1.2s
**ABA Alger-Bouzarea 89.38 51** P **P 02 00 15.0 -0.2**
**GRFO Grafenberg 89.47 37** *eP* **P 02 00 15.3 0.0**
GRFO pmax pmax
comp=Z,129nm,1.1s
**GRFO Grafenberg 89.47 37** *eP* **P 02 00 15.3 0.0**
comp=Z,129nm,1.1s
**EMHD Djebel Mahouad 89.55 52** P **P 02 00 15.5 -0.6**
**CLL Collm 89.72 35** *eP* **P 02 00 16.0 -0.4**
CLL *i* *PP **pP 02 00 34.3 -0.4**
CLL pmax pmax
comp=Z,104nm,1.8s
**CLL Collm 89.72 35** *eP* **P 02 00 16.0 -0.4**
comp=Z,104nm,1.8s
CLL *eP*max 02 00 18.0
CLL *e* 02 00 22.0
CLL *e* 02 00 25.0
comp=Z,79nm,1.2s
CLL *i* pP **pP 02 00 34.3 -0.4**
CLL *i* sP **sP 02 00 41.5 -0.3**
comp=Z,150nm,1.1s
CLL *eP*P **PP 02 03 47.0 -1.7**
CLL *es*PP 02 04 14.0
CLL *i* S S 02 11 12.0 +9.2
CLL *es*S **sS 02 11 38.0 +4.1**
CLL *e*(SP) 02 12 05.0
CLL *eP*PS PPS 02 12 43.0
CLL *eS*S SS 02 17 24.0 +24
CLL *e* 02 24 24.0
CLL *eP*KPPKPd **P'P'df 02 26 03.0 +2.7**
CLL Lmax 02 39 00.0
CLL LV 02 41 00.0
comp=Z,7µm,21.8s
**DAVA Damuels 89.77 40** *iP* **P 02 00 17.2 +0.2**
comp=Z,80nm,1.1s,SNR=29
**TUE Stuetta 89.80 41** *eP* **P 02 00 16.1 -1.1**
comp=Z,49nm,0.9s
**HOPE Hope Point 89.88 148** *eP* **P 02 00 18.2 +1.4**
comp=Z,958nm,0.7s
HOPE *ep*P **pP 02 00 34.4 -0.8**
**NKC Novy Kostel 89.92 36**⇓ *eP* **P 02 00 17.3 -0.2**
NKC *ep*P **pP 02 00 35.1 -0.6**
NKC *eP*P **PP 02 03 45.1 -5.3**
NKC *ex* x 02 11 10.5
NKC AMS AMS 02 42 10.0
comp=Z,8µm,19.0s
**NKC Novy Kostel 89.92 36** *eP* **P 02 00 17.3 -0.2**
NKC *e* 02 00 35.1
NKC *e* 02 00 36.1
NKC *e* 02 03 49.9
NKC *eS* **S 02 11 10.5 +5.6**
NKC MLR MLR
comp=Z,8µm,19.0s
**DAVOX Davos/Dischmat 89.99 40** P **P 02 00 17.7 -0.4**
comp=Z,10.0nm,0.9s,baz=327,slow=3.7,SNR=16
**FINES FINESS Array B 90.06 23** P **P 02 00 17.1 -0.7**
comp=Z,30nm,0.9s,baz=318,slow=2.6,SNR=33
FINES pP **pP 02 00 38.8 +2.8**
comp=Z,93nm,1.0s,baz=336,slow=4.2,SNR=8.6
FINES PKKPbc **PKKPbc 02 17 49.3 -0.7**
comp=Z,3.2nm,0.9s,baz=132,slow=2.8,SNR=6.3
FINES LR LR 02 41 32.4
comp=Z,20µm,21.8s,baz=306,slow=36
**RETA Reutte 90.21 39** *iP* **P 02 00 18.9 -0.1**
comp=Z,72nm,1.8s,SNR=17
**FETA Feichten 90.40 40** *iP* **P 02 00 20.0 0.0**
comp=Z,51nm,1.3s,SNR=22
FETA *i* PP **PP 02 03 51.4 -3.2**
comp=Z,28nm,1.3s
**BRG Berggiesshubel 90.44 35** *iP* **P 02 00 19.8 -0.1**
BRG 02 03 54.6

BRG SP SP 02 12 20.0 +4.2
BRG pmax pmax
comp=Z,119nm,1.6s
BRG pmax pmax
comp=Z,37nm,1.3s
BRG MLR MLR
comp=N,6µm,28.5s
BRG MLR MLR
comp=E,8µm,28.5s
**MOTA Moosalm 90.48 39** *iP* **P 02 00 20.0 -0.3**
comp=E,47nm,0.8s,SNR=53
MOTA *i* PP **PP 02 03 51.8 -3.4**
comp=E,14nm,1.1s
**WET Wettzell 90.69 37** P **P 02 00 21.1 0.0**
**WATA Walderalm 90.77 39** *iP* **P 02 00 21.9 +0.2**
comp=E,60nm,1.1s,SNR=21
WATA *i* PP **PP 02 03 55.4 -2.0**
comp=E,22nm,1.2s
**WTTA Wattenberg 90.84 39** *iP* **P 02 00 22.4 +0.4**
comp=E,36nm,1.1s,SNR=11
WTTA *i* PP **PP 02 03 55.2 -2.8**
comp=E,29nm,1.2s
**PVCC Panska Ves 90.96 36**⇓ *eP* **P 02 00 22.3 0.0**
PVCC *ep*P **pP 02 00 40.4 -0.1**
PVCC *eP*P **PP 02 03 58.9 +0.3**
PVCC *eS*P SP 02 12 24.3 +2.7
PVCC AMS AMS 02 38 00.0
comp=E,9µm,24.8s
**PVCC Panska Ves 90.96 36** *eP* **P 02 00 22.3 0.0**
PVCC *e* 02 00 40.4
PVCC *e* 02 03 58.9
PVCC *e* 02 12 24.3
PVCC MLR MLR
comp=Z,9µm,24.8s
**GKP Gorka Klasztor 90.97 32** *eP* **P 02 00 22.2 0.0**
GKP *ep*P **sP 02 00 46.0 -1.6**
GKP *eS* **S 02 11 18.3 +4.1**
GKP LMZ LR 02 37 49.1
comp=Z,22µm,27.3s
**GKP Gorka Klasztor 90.97 32** *eP* **P 02 00 22.2 0.0**
GKP *e**PP **sP 02 00 46.0 -1.6**
GKP *eS* **S 02 11 18.3 +4.1**
**KHC Kasperske Hory 91.09 37**⇓ *iP* **P 02 00 22.8 -0.2**
KHC *ep*P **pP 02 00 41.6 +0.4**
KHC *ex* x 02 03 39.7
KHC *ex* x 02 11 21.8
KHC *eS*P SP 02 12 26.6 +3.4
KHC AMS AMS 02 42 30.0
comp=Z,8µm,20.1s
**KHC Kasperske Hory 91.09 37**⇓ *iP* **P 02 00 22.8 -0.2**
KHC *e* 02 00 41.6
KHC *eS* **S 02 11 21.8 +6.1**
KHC *e* 02 12 26.6
KHC MLR MLR
comp=Z,8µm,20.1s
**KHC Kasperske Hory 91.09 37** *eP* **P 02 00 22.3 -0.7**
comp=Z,40nm,1.5s
**PRA Prague 91.11 36**⇓ *eP* **P 02 00 22.7 -0.3**
PRA *ep*P **pP 02 00 42.0 +0.8**
PRA *eP*P **PP 02 03 57.5 -2.3**
PRA AMS AMS 02 42 30.0
comp=Z,8µm,20.5s
**PRA Prague 91.11 36** *eP* **P 02 00 22.7 -0.3**
PRA *e* 02 00 42.0
PRA *e* 02 03 57.5
PRA MLR MLR
comp=Z,8µm,20.5s
**PRU Pruhonice 91.22 36**⇓ *eP* **P 02 00 23.0 -0.5**
PRU *ex* x 02 00 28.3
PRU *ep*P **pP 02 00 42.1 +0.4**
PRU *eP*P **PP 02 03 59.0 -1.7**
PRU *eS* **S 02 11 21.0 +4.3**
PRU *eS*P **SPn 02 12 28.1 +3.1**
PRU *ex* x 02 17 12.3
PRU AMS AMS 02 42 50.0
comp=Z,8µm,20.1s
**PRU Pruhonice 91.22 36** *eP* **P 02 00 23.0 -0.5**
PRU *e* 02 00 42.1
PRU *e* 02 03 59.0
PRU *eS* **S 02 11 21.0 +4.3**
PRU *e* 02 12 28.1
PRU MLR MLR
comp=Z,8µm,20.1s
**YAK Yakutsk 91.23 339** *iP* **P 02 00 23.9 +0.7**
YAK *eS* **SKSac 02 10 51.4 +1.8**
YAK *e* 02 11 19.8
YAK *eSS* SS 02 17 34.7 +14
YAK pmax pmax
comp=N,71nm,1.5s
YAK pmax pmax
comp=E,96nm,1.6s
YAK smax smax
comp=N,314nm,3.2s
YAK smax smax
comp=E,144nm,2.8s
YAK MLR MLR
comp=E,6µm,27.0s
**GERES GERESS Array B 91.31 37** P **P 02 00 23.5 -0.6**
comp=E,9.2nm,0.8s,baz=321,slow=3.8,SNR=72
GERES pP **sP 02 00 46.1 -3.3**
comp=E,27nm,0.9s,baz=345,slow=4.6,SNR=10
GERES PP **PP 02 04 03.7 +2.2**
comp=E,2.1nm,0.8s,baz=308,slow=6.6,SNR=4.2
GERES PKKPbc **PKKPbc 02 17 46.3 -0.4**
comp=E,1.4nm,0.8s,baz=151,slow=3.0,SNR=8.6
GERES LR LR 02 43 17.9
comp=E,5µm,20.0s,baz=294,slow=37
**SET Setif 91.37 51** P **P 02 00 26.0 +1.4**
**GOPC GO Pecny, Ondr 91.39 36**⇓ *eP* **P 02 00 24.2 -0.1**
GOPC *ep*P **pP 02 00 40.5 -2.1**
GOPC *eP*P **PP 02 04 00.5 -1.6**
GOPC *eS* **S 02 11 19.4 +1.1**
GOPC *eS*P **SPn 02 12 30.4 +3.3**
GOPC *ex* x 02 17 15.8
GOPC AMS AMS 02 42 50.0
comp=E,8µm,21.6s
**GOPC GO Pecny, Ondr 91.39 36** *eP* **P 02 00 24.2 -0.1**
GOPC *e* 02 00 40.5
GOPC *e* 02 04 00.5
GOPC *eS* **S 02 11 19.4 +1.1**
GOPC *e* 02 12 30.4
GOPC MLR MLR
comp=Z,8µm,21.6s
**VLC Villacollemand 91.48 42** *eP* **P 02 00 23.6 -1.3**
comp=Z,66nm,1.1s
**ABTA Abfaltersbach 91.61 39** *iP* **P 02 00 25.3 -0.2**
comp=Z,46nm,1.1s,SNR=30
ABTA *i* PP **PP 02 04 00.7 -3.3**
comp=Z,25nm,1.5s
**KLNR Kaliningrad 91.70 30**⇑ *eP* **P 02 00 26.5 +1.0**
**KSP Ksiaz 91.75 35** *eP* **P 02 00 25.9 0.0**
KSP *ep*P **sP 02 00 48.9 -2.4**
KSP *eP*P PP 02 04 25.2 +20
KSP *eS* **S 02 11 23.1 +1.6**
KSP *eS*P **SPn 02 12 33.6 +2.5**
KSP LMZ LR 02 35 56.2
comp=Z,14µm,29.2s
**KSP Ksiaz 91.75 35** *eP* **P 02 00 25.9 0.0**
KSP *e**PP **sP 02 00 48.9 -2.4**
KSP *eS* **S 02 11 23.1 +1.6**
KSP *eS*P **SPn 02 12 33.6 +2.5**
**UPC Upice 91.77 35**⇓ *iP* **P 02 00 25.9 -0.1**
UPC *eP*P **PP 02 04 03.4 -1.6**
UPC *eS* **S 02 11 21.0 -0.7**
UPC *eS*P **SPn 02 12 32.6 +1.2**
UPC *eS*S **SS 02 17 27.3 -2.2**
UPC AMS AMS 02 40 40.0
comp=Z,12µm,23.6s
**UPC Upice 91.77 35**⇓ *iP* **P 02 00 25.9 -0.1**
UPC *e* 02 04 03.4
UPC *eS* **S 02 11 21.0 -0.7**
UPC *e* 02 12 32.6
UPC *eS*S **SS 02 17 27.3 -2.2**
UPC MLR MLR
comp=Z,12µm,23.6s
**KBA Koelnbreinsper 91.95 39** P **P 02 00 26.9 -0.3**
**KBA Koelnbreinsper 91.95 39** *iP* **P 02 00 27.1 -0.1**
comp=Z,23nm,0.8s,SNR=15
KBA *i* PP **PP 02 04 02.9 -3.9**
comp=Z,31nm,1.2s
**DPC Dobruska-Polom 92.02 35**⇓ *iP* **P 02 00 27.0 -0.2**
DPC *ep*P **pP 02 00 46.2 +0.7**
DPC *eP*P **PP 02 04 05.8 -1.2**
DPC *eS* **S 02 11 24.8 +0.8**

DPC eX x 02 17 25.9
DPC AMS AMS 02 41 00.0
comp=Z,9µm,21.6s
**DPC Dobruska-Polom 92.02 35⇓*i*P P 02 00 27.0 -0.2**
DPC *e* 02 00 46.2
DPC *e* 02 04 05.8
DPC *e*S **S 02 11 24.8 +0.8**
DPC MLR MLR
comp=Z,9µm,21.6s
**TMCR Tamitsa 92.02 17 *e*P P 02 00 26.2 -0.6**
TMCR pmax pmax
comp=Z,88nm,1.5s
**MOA Molln 92.12 38 *i* P P 02 00 27.4 -0.3**
comp=Z,37nm,0.8s,SNR=16
MOA *i* PP **PP 02 04 05.8 -2.1**
comp=Z,40nm,1.4s
**NKL Nikolayevsk 92.15 328 *i* P P 02 00 28.0 +0.3**
NKL *e*S **S 02 11 26.0 +1.1**
NKL pmax pmax
comp=Z,86nm,1.0s
NKL pmax pmax
comp=N,1µm,10.0s
NKL pmax pmax
comp=E,1µm,10.0s
NKL pmax pmax
comp=Z,5µm,10.0s
NKL smax smax
comp=N,8µm,16.0s
NKL smax smax
comp=E,9µm,16.0s
**KUR Kuril'sk 92.18 319*d i*P P 02 00 27.8 -0.2**
KUR *i* 02 04 08.0
KUR S **SKSac 02 10 52.6 -3.1**
KUR *i* *SS **S 02 11 25.1 -0.4**
KUR *e*SS **SS 02 17 37.8 +2.2**
KUR pmax pmax
comp=Z,3µm,5.6s
KUR pmax pmax
comp=Z,424nm,1.4s
KUR MLR MLR
comp=Z,4µm,20.0s
KUR MLR MLR
comp=N,3µm,17.0s
KUR MLR MLR
comp=E,3µm,19.0s
**VSU Vasula 92.23 25*d i*P P 02 00 26.8 -1.1**
VSU pmax pmax
comp=Z,99nm,1.0s
VSU MLR MLR
comp=Z,17µm,21.0s
**MYKA Terra Mystica 92.35 39 *i* P P 02 00 28.3 -0.6**
comp=Z,47nm,1.7s,SNR=11
MYKA *i* PP **PP 02 04 08.0 -1.8**
comp=Z,26nm,1.5s
**TYV Tymovskoe 92.38 326 *e*P P 02 00 25.8 -3.0**
TYV *e*S **S 02 11 19.1 -8.0**
TYV pmax pmax
comp=Z,3µm,7.7s
TYV pmax pmax
comp=Z,128nm,1.3s
TYV smax smax
comp=E,5µm,8.5s
TYV MLR MLR
comp=N,4µm,22.0s
TYV MLR MLR
comp=Z,5µm,22.0s
**KRLC Kraliky 92.41 35⇓*e*P P 02 00 29.1 0.0**
KRLC *e*pP **pP 02 00 48.0 +0.7**
KRLC AMS AMS 02 43 00.0
**KRLC Kraliky 92.41 35 *e*P P 02 00 29.1 0.0**
KRLC *e* 02 00 48.0
**CADS Cadrg 92.60 40 *e*P P 02 00 29.2 -0.9**
CADS *e*pP **pP 02 00 48.2 -0.1**
CADS *e* 02 12 44.2
**VRAC Vranov 92.71 36 P P 02 00 29.6 -0.8**
comp=Z,12nm,0.8s,baz=292,slow=5.3,SNR=20
**VRAC Vranov 92.71 36⇑*i*P P 02 00 30.2 -0.2**
**VRAC Vranov 92.71 36 ⇑P P 02 00 30.2 -0.2**
**PUL Pulkovo 92.74 23⇑*e*P P 02 00 30.5 +0.3**
PUL pmax pmax
comp=Z,44nm,0.6s
PUL MLR MLR
comp=Z,14µm,22.0s
**DBIC Dimbokro 92.77 82 P P 02 00 30.6 -0.7**
comp=Z,27nm,0.8s,baz=258,slow=4.6,SNR=40
DBIC PKKPbc **PKKPbc 02 17 43.9 +2.1**
comp=Z,4.7nm,0.6s,baz=100,slow=3.6,SNR=13
DBIC PKPPKP **P'P'df 02 25 55.5 +0.3**
comp=Z,4.0nm,0.9s,baz=76,slow=1.8,SNR=3.3
DBIC LR LR 02 38 31.4
comp=Z,2µm,21.9s,baz=278,slow=33
**VSL Villasalto 92.87 47 *e*P P 02 00 31.0 -0.3**
comp=Z,124nm,1.4s
**TRI Trieste 92.87 40 *e*P P 02 00 30.6 -0.6**
TRI pmax pmax
comp=Z,193nm,1.5s
**TRI Trieste 92.87 40 *e*P P 02 00 30.6 -0.6**
comp=Z,193nm,1.5s
**OBKA Obir 92.95 39 *i* P P 02 00 31.2 -0.5**
comp=Z,49nm,0.8s,SNR=19
OBKA *i* PP **PP 02 04 12.7 -1.9**
comp=Z,20nm,1.1s
**JAVS Javornik 92.97 40 *i* P P 02 00 31.4 -0.4**
**MORC Moravsky Berou 92.99 35⇑*i*P P 02 00 32.1 +0.4**
**MORC Moravsky Berou 92.99 35 ⇑P P 02 00 32.1 +0.4**
**MORC Moravsky Berou 92.99 35 *e*P P 02 00 31.4 -0.3**
comp=Z,416nm,1.0s
**CONA Conrad Observa 93.01 37 *i* P P 02 00 32.1 +0.2**
comp=Z,59nm,1.6s,SNR=18
CONA *i* PP **PP 02 04 11.1 -3.8**
comp=Z,24nm,1.4s
**SOKA Soboth 93.16 39 *i* P P 02 00 32.0 -0.6**
comp=Z,41nm,1.0s,SNR=18
SOKA *i* PP **PP 02 04 14.4 -1.7**
comp=Z,27nm,1.2s
**ARSA Arzberg 93.16 38 *i* P P 02 00 32.0 -0.5**
comp=Z,17nm,1.2s,SNR=11
ARSA *i* PP **PP 02 04 13.9 -2.2**
comp=Z,22nm,1.2s
**LJU Ljubljana 93.17 39 *e*P P 02 00 32.4 -0.2**
**RAC Raciborz 93.18 35 *e*P P 02 00 30.8 -1.7**
RAC *e*S **S 02 11 30.7 -3.5**
RAC MLR MLR
comp=Z,13µm,23.7s
**PERS Pernice 93.23 39 *e*P P 02 00 32.0 -1.0**
PERS *e*pP **pP 02 00 50.6 -0.6**
**OKC Ostrava-Krasne 93.29 35⇓*e*P P 02 00 33.0 0.0**
OKC *e*pP **pP 02 00 52.0 +0.7**
OKC *e*S **S 02 11 33.8 -1.4**
OKC *e*x x 02 17 38.3
OKC AMS AMS 02 41 30.0
comp=Z,9µm,23.0s
**OKC Ostrava-Krasne 93.29 35 *e*P P 02 00 33.0 0.0**
OKC *e* 02 00 52.0
OKC *e*S **S 02 11 33.8 -1.4**
OKC MLR MLR
comp=Z,9µm,23.0s
**SUW Suwalki 93.46 30 *e*P P 02 00 32.2 -1.5**
SUW *e*pP **sP 02 00 58.5 -0.6**
SUW *e*S **S 02 11 34.8 -1.7**
SUW *e*SP **SP 02 12 53.3 +4.3**
SUW LMZ LR 02 37 07.8
comp=Z,15µm,31.0s
**SUW Suwalki 93.46 30 *e*P P 02 00 32.2 -1.5**
SUW *e*S **S 02 11 34.8 -1.7**
SUW *e*SP **SP 02 12 53.3 +4.3**
**BEL Belsk 93.57 32 *e*P P 02 00 33.9 -0.4**
BEL *e*S **S 02 11 31.8 -5.7**
BEL LMZ LR 02 39 43.1
comp=Z,22µm,26.0s
**BEL Belsk 93.57 32 P P 02 00 38.0 +3.8**
BEL pmax pmax
comp=Z,155nm,1.0s
**ZST Bratislava 93.58 37 *e*P P 02 00 35.4 +1.0**
ZST *e*S **S 02 11 32.6 -5.2**
**ZST Bratislava 93.58 37 *e*P P 02 00 35.4 +1.0**
**SMOL Smolenice 93.60 36 *e*P P 02 00 35.3 +0.8**
**SMOL Smolenice 93.60 36 *e*P P 02 00 35.3 +0.8**
**IZAR Zarasai 93.77 27 *e*P P 02 00 34.6 -0.5**
IZAR IAmb IAmb 02 00 56.0
comp=Z,23nm,1.0s
**ISAL Salakas 93.83 27 *e*P P 02 00 34.8 -0.6**
ISAL IAmb IAmb 02 00 38.1
comp=Z,6.8nm,0.9s
**BOJS Bojanci 93.88 40 *e*P P 02 00 35.7 -0.1**
BOJS *e*pP **pP 02 00 54.7 +0.5**
BOJS *e* 02 00 59.8
BOJS *e* 02 03 45.0
BOJS *e* 02 04 19.5
BOJS *e*SKSac **SKSac 02 11 06.3 +1.2**
BOJS *e*S **S 02 11 35.2 -5.3**
BOJS *e* 02 12 59.8
**OJC Ojcow 93.97 34 *e*P P 02 00 36.0 -0.2**
OJC *e*pP **sP 02 01 02.2 +0.7**
OJC *e*S **S 02 11 34.1 -7.0**
OJC LMZ LR 02 37 57.9
comp=Z,12µm,29.9s
**OJC Ojcow 93.97 34 *e*P P 02 00 36.0 -0.2**
OJC *e*S **S 02 11 34.1 -7.0**
**YUK Yuzh-Kuril'sk 94.01 319*d i*P P 02 00 35.9 -0.6**
YUK *i* 02 04 22.3
YUK *e*S **SKSac 02 11 02.7 -3.1**
YUK *e*SS **SS 02 18 04.4 +2.5**
YUK *i* SSS SSS 02 21 43.9
YUK pmax pmax
comp=Z,2µm,3.4s
YUK pmax pmax
comp=E,577nm,1.2s
YUK pmax pmax
comp=Z,611nm,1.2s
YUK pmax pmax
comp=N,260nm,1.1s
YUK MLR MLR
comp=Z,4µm,22.0s
**IIGN Ignalina 94.02 28 *e*P P 02 00 35.6 -0.6**
IIGN IAmb IAmb 02 00 55.5
comp=Z,38nm,1.1s
**IDID Didziasalis 94.27 27 *e*P P 02 00 36.8 -0.6**
IDID IAmb IAmb 02 00 55.3
comp=Z,36nm,1.3s
**AQU L'Aquila 94.27 43 *e*P P 02 00 37.4 -0.4**
AQU pmax pmax
comp=Z,87nm,1.2s
**AQU L'Aquila 94.27 43 *e*P P 02 00 37.4 -0.4**
comp=Z,87nm,1.2s
**BEHE Becsehely 94.30 38⇑*e*P P 02 00 37.5 -0.3**
**LANS Liptovska Anna 94.38 35 *e*P P 02 00 39.2 +1.0**
LANS *e* 02 04 24.7
**LANS Liptovska Anna 94.38 35 *e*P P 02 00 39.2 +1.0**
LANS *e* 02 01 05.5
LANS *e*PP **PP 02 04 24.7 -0.8**
**VYHS Vyhne 94.40 36 *e*P P 02 00 38.4 +0.2**
VYHS pmax pmax
comp=Z,71nm,1.6s
**VYHS Vyhne 94.40 36 *e*P P 02 00 38.4 +0.2**
VYHS *e*PP **PP 02 04 23.0 -2.6**
VYHS *e*S **S 02 11 39.7 -5.3**
VYHS *e*L L 02 35 57.4
**YSS Yuzh-Sakhalins 94.40 322*d i*P P 02 00 38.5 +0.3**
YSS *e* 02 00 56.4
YSS *e* 02 11 12.8
YSS *e*S **S 02 11 38.2 -6.8**
YSS *e*PS **PS 02 12 58.0 -10**
YSS pmax pmax
comp=Z,3µm,6.0s
**YSS Yuzh-Sakhalins 94.40 322 *e*P P 02 00 38.1 -0.1**
comp=Z,246nm,1.3s
**KEST Kesra 94.48 50 P P 02 00 38.5 -0.4**
comp=Z,28nm,0.8s,baz=248,slow=1.9,SNR=33
KEST PKKPbc **PKKPbc 02 17 39.5 +1.5**
comp=Z,2.5nm,0.7s,baz=292,slow=5.4,SNR=4.0
KEST LR LR 02 42 47.6
comp=Z,2µm,18.9s,baz=260,slow=35
**NACGM Naroch 94.55 28 *e*P P 02 00 36.0 -2.7**
NACGM PM 02 00 42.0
comp=Z,0.1nm,0.8s
NACGM *e*PP **PP 02 04 32.0 +5.5**
NACGM *e*S **S 02 11 40.0 -6.0**
NACGM *e*SS SS 02 18 22.0 +13
NACGM *e*SSS SSS 02 22 54.0
NACGM *e*LQ LQ 02 28 32.0
NACGM *e*LR LR 02 34 16.0
NACGM LRM MLR 02 41 40.0
comp=Z,23nm,25.0s
**NIE Niedzica 94.69 34 *e*P P 02 00 40.0 +0.4**
NIE *e*pP **sP 02 01 05.4 +0.5**
NIE *e*S **S 02 11 41.3 -6.2**
NIE LMZ LR 02 37 53.1
comp=Z,8µm,28.8s
**NIE Niedzica 94.69 34 *e*P P 02 00 39.9 +0.4**
NIE *e*S **S 02 11 41.3 -6.2**
**CSKK Csˆ‡kako 94.69 37⇑*e*P P 02 00 40.0 +0.5**
**KLMR Klimovskoe 95.03 19*d i*P P 02 00 39.4 -1.4**
KLMR *e* 02 04 27.5
KLMR *e*S **SKSac 02 11 08.5 -2.2**
KLMR *e*SSS SSS 02 21 53.0
KLMR pmax pmax
comp=Z,76nm,1.1s
KLMR MLR MLR
comp=Z,762nm,17.0s
**BUD Budapest 95.06 37 P P 02 00 43.2 +2.0**
BUD pmax pmax
comp=Z,47nm,1.5s
**BUD Budapest 95.06 37⇑*e*P P 02 00 41.1 -0.1**
**STHS Stebnicka Huta 95.19 34 *e*P P 02 00 42.6 +0.8**
STHS pmax pmax
comp=Z,107nm,1.0s
**STHS Stebnicka Huta 95.19 34 *e*P P 02 00 42.6 +0.8**
STHS *e* 02 01 08.8
STHS *e*PP PP 02 04 23.5 -8.3
**MICGM Minsk 95.30 28 *e*P P 02 00 41.0 -1.1**
MICGM *e*pP **sP 02 01 06.0 -1.5**
MICGM *e*PP **PP 02 04 32.0 -0.3**
MICGM *e*PPP PPP 02 06 32.0
MICGM *e*SKS SKSac 02 11 24.0 +12
MICGM *e*S **SKKSac 02 11 44.0 +8.4**
MICGM *e*SS **PKKPdf 02 17 32.0 -3.4**
MICGM *e*SSS SSS 02 21 36.0
MICGM *e*LR LR 02 31 20.0
MICGM LRM MLR 02 42 00.0
comp=Z,28nm,24.0s
MICGM LRM MLR 02 42 20.0
comp=Z,16nm,25.0s
MICGM LRM MLR 02 42 26.0
comp=E,12nm,24.0s
**MNK Minsk 95.30 28 *e*P P 02 00 41.0 -1.1**
MNK *e**PP **sP 02 01 06.0 -1.5**
MNK *e* 02 04 32.0
MNK *e*PPP PPP 02 06 32.0
MNK *e*S **S 02 11 44.0 -8.5**
MNK MLR MLR
comp=Z,28µm,24.0s
MNK MLR MLR
comp=Z,16µm,25.0s
MNK MLR MLR
comp=E,12µm,24.0s
**PSZ Piszkesteto 95.31 36⇑*i*P P 02 00 43.2 +0.8**
**PSZ Piszkesteto 95.31 36 ⇑P P 02 00 43.2 +0.8**
**PSZ Piszkesteto 95.31 36⇑*e*P P 02 00 42.8 +0.4**
**PSZ Piszkesteto 95.31 36 *e*P P 02 00 42.5 +0.1**
comp=E,190nm,1.6s
**KECS Kecovo 95.31 35 *e*P P 02 00 42.3 -0.1**
KECS pmax pmax
comp=Z,57nm,1.1s
**KECS Kecovo 95.31 35 *e*P P 02 00 42.2 -0.1**
KECS *e* 02 01 07.8
**URZ Urewera 95.54 232 P P 02 00 44.4 +1.0**
comp=Z,7.4nm,0.9s,baz=228,slow=11,SNR=2.4
**CRVS Cervenica-Dubn 95.61 34 *e*P P 02 00 44.3 +0.6**
CRVS *e*S S 02 11 45.8 -10
**CRVS Cervenica-Dubn 95.61 34 *e*P P 02 00 44.3 +0.6**
CRVS *e* 02 01 10.3
**KWP Kalwaria Pacla 95.84 33 *e*P P 02 00 45.0 +0.2**
KWP *e*pP **sP 02 01 11.3 +1.1**
KWP *e*PP **PP 02 04 37.9 +1.2**
KWP *e*S S 02 11 45.8 -12
KWP LMZ LR 02 38 21.1
comp=Z,15µm,30.1s
**KWP Kalwaria Pacla 95.84 33⇓*e*P P 02 00 45.0 +0.2**
KWP *e* 02 04 37.9
KWP *e*S S 02 11 45.8 -12
**ASAJ Asahikawa 96.00 320 P P 02 00 45.6 0.0**
comp=Z,14nm,0.8s,baz=235,slow=4.7,SNR=4.7
**ASAJ Asahikawa 96.00 320 *e*P P 02 00 46.9 +1.4**
comp=Z,40nm,0.8s
ASAJ *e*pP **pP 02 01 03.8 -0.1**
**UZH Uzhgorod 96.21 34 *e*P P 02 00 47.3 +0.9**
UZH *e* 02 01 01.3
**LVV L'vov 96.42 33 *e*P P 02 00 46.8 -0.5**
LVV *e* 02 01 08.1
LVV *e* 02 04 38.2
LVV *e* 02 11 21.8
LVV MLR MLR
comp=Z,10µm,25.0s
LVV MLR MLR
comp=N,4µm,23.0s
LVV MLR MLR
comp=E,5µm,24.0s
**TRPA Tarpa 96.64 35⇑*e*P P 02 00 48.4 0.0**
**CLNS Chul'man 96.66 337 *e*P P 02 00 46.9 -1.4**
CLNS pmax pmax
comp=Z,61nm,1.0s
CLNS pmax pmax
comp=N,23nm,1.2s
CLNS pmax pmax
comp=E,28nm,1.2s
**TAM Tamanrasset 96.69 64 *e*P P 02 00 49.3 0.0**
TAM pmax pmax
comp=Z,41nm,1.2s
**TAM Tamanrasset 96.69 64 *e*P P 02 00 49.3 0.0**
comp=Z,41nm,1.2s
**ERM Erimo 96.74 318 *e*P P 02 00 51.1 +2.1**
ERM pmax pmax
comp=Z,268nm,1.3s
**ERM Erimo 96.74 318 *e*P P 02 00 51.1 +2.1**
comp=Z,268nm,1.3s
**TORD Torodi Ar. Bea 96.77 74 P P 02 00 48.3 -1.4**
comp=Z,8.5nm,1.1s,baz=286,slow=4.1,SNR=21
TORD PP PP 02 04 54.0 +8.8
comp=Z,6.7nm,1.1s,baz=290,slow=6.4,SNR=4.1
TORD PKKP **PKKPdf 02 17 33.5 +0.7**
comp=Z,8.1nm,0.7s,baz=105,slow=2.8,SNR=31
TORD PKPPKP **P'P'df 02 25 46.2 -1.6**
comp=Z,1.5nm,1.1s,baz=88,slow=2.3,SNR=3.7
TORD LR LR 02 44 10.1
comp=Z,4µm,19.6s,baz=275,slow=35
**CUC Castrocucco 97.02 44 *e*P P 02 00 48.7 -1.6**
comp=Z,31nm,0.9s
**SIRR Siria 97.24 37⇑*i*P** Pdif 02 00 51.2 0.0
**VAE Valguarnera 97.30 47 P P 02 00 50.4 -1.3**
comp=Z,7.8nm,0.8s,baz=350,slow=6.1,SNR=1.7
**UPM Unac-Piva 97.32 40⇓*i*P P 02 00 50.7 -1.1**
**BMR Baia Mare 97.43 35⇓*i*P P 02 00 51.8 -0.2**
**BMR Baia Mare 97.43 35 ⇓P P 02 00 51.8 -0.2**
**BANR Banloc 97.44 38⇓*i*P** Pdif 02 00 53.3 +1.2
**DRGR 97.52 36⇑*i*P P 02 00 51.8 -0.7**
**DRGR 97.52 36 ⇑P P 02 00 51.8 -0.7**
**NKME Niksic 97.58 41⇓*i*P P 02 00 52.8 0.0**
**NKY Niksic 97.58 41⇓*i*P** Pdif 02 00 53.1 +0.1
**BZS Buzias 97.59 37⇓*i*P P 02 00 52.6 -0.1**
**BZS Buzias 97.59 37 ⇓P P 02 00 52.6 -0.1**
**CEME Cevo 97.68 41⇓*i*P** Pdif 02 00 53.4 0.0
**HABR Khabarovsk 97.79 327 *e*P P 02 00 52.4 -1.1**
HABR *e**PP **pP 02 01 11.8 -0.1**
HABR *e* 02 04 50.8
HABR *e*PPP PPP 02 06 56.0
HABR S **SKSac 02 11 25.5 0.0**
HABR *e* 02 12 11.9
HABR *e*PS **PS 02 13 45.0 -0.2**
HABR *e*SS **SS 02 18 55.1 +0.2**
HABR *e*SSS SSS 02 22 41.6
HABR MLR MLR
comp=Z,6µm,23.0s
**BUM Brajici-Budva 97.80 41⇓*i*P P 02 00 53.7 -0.1**
**KOME Kolasin 97.89 40 *e*P P 02 00 54.2 -0.1**
**TTG Podgorica 97.95 41⇓*i*P** Pdif 02 00 54.6 +0.1
**DRME Dracevica, Mon 98.04 41⇓*i*P P 02 00 54.4 -0.5**
**CJR Cluj-Napoca 98.06 35⇑*i*P P 02 00 54.6 -0.3**
**CJR Cluj-Napoca 98.06 35 ⇑P P 02 00 54.6 -0.3**
**IVA Berane 98.11 40⇓*i*P** Pdif 02 00 55.7 +0.4
**MDVR Moldovita 98.12 38⇑*i*P P 02 00 55.2 0.0**
**DEV Deva 98.16 36⇑*i*P** Pdif 02 00 55.7 +0.4
**DEV Deva 98.16 36 ⇑P** Pdif 02 00 55.7 +0.4
**ARCR ARCALIA 98.25 35⇓*i*P** Pdif 02 00 55.7 0.0
**PVY Plav 98.30 40⇓*i*P P 02 00 55.7 -0.5**
**MOS Moscow 98.36 23 *e*P P 02 00 54.4 -1.5**
MOS *e* 02 01 17.4
MOS *e* 02 04 52.8
MOS *e* 02 11 32.2
MOS *i* PS **PS 02 13 38.7 -12**
MOS pmax pmax
comp=Z,81nm,1.7s
MOS MLR MLR
comp=N,5µm,20.0s
MOS MLR MLR
comp=E,6µm,20.0s
MOS MLR MLR
comp=Z,8µm,20.0s
**BURAR Bucovina Array 98.39 34⇑*i*P P 02 00 55.7 -0.7**
**BURAR Bucovina Array 98.39 34 ⇑P P 02 00 55.7 -0.7**
**AKASG Malin Array Be 98.42 30 P P 02 00 54.9 -1.4**
comp=Z,5.1nm,0.8s,baz=300,slow=3.6,SNR=19
AKASG PP **PP 02 04 55.4 -1.1**
comp=Z,4.7nm,0.8s,baz=310,slow=6.8,SNR=4.1
AKASG LR LR 02 47 02.5
comp=Z,3µm,21.5s,baz=300,slow=36
**AKASG Malin Array Be 98.42 30*c e*P P 02 00 55.7 -0.6**
AKASG pmax pmax
comp=Z,5.0nm,0.8s
**OBN Obninsk 98.44 24 P P 02 00 55.9 -0.3**
comp=Z,23nm,0.8s,baz=305,slow=4.5,SNR=8.1
OBN PP **PP 02 04 53.5 -2.9**
comp=Z,31nm,1.1s,baz=334,slow=4.5,SNR=3.3
**OBN Obninsk 98.44 24*d i*P P 02 00 54.8 -1.5**
OBN *i* *PP **sP 02 01 19.6 -2.1**
OBN *e* 02 04 57.7
OBN *e*PPP PPP 02 07 02.9
OBN *i* SS SS 02 19 06.7 +3.2
OBN pmax pmax
comp=Z,109nm,1.8s
OBN MLR MLR
comp=Z,17µm,22.0s
**OBN Obninsk 98.44 24 *e*P P 02 00 55.1 -1.2**
comp=Z,194nm,1.3s
OBN PP **PP 02 04 53.5 -2.9**
**LOT Lotru 98.91 36⇑*i*P P 02 00 57.2 -1.6**
**TIR Tirane 98.93 41⇑*i*P P 02 00 58.5 -0.3**
**TIR Tirane 98.93 41 ⇑P P 02 00 58.5 -0.3**
**KLR Kul'dur 98.99 329 P** Pdif 02 00 59.7 +0.7
comp=Z,0.7nm,0.9s,baz=34,slow=4.9,SNR=4.6
KLR pP sP 02 01 22.1 -2.3
comp=Z,1.2nm,1.1s,baz=21,slow=3.8,SNR=4.2
KLR PP **PP 02 04 55.7 -5.2**
comp=Z,0.4nm,0.9s,baz=45,slow=7.3,SNR=6.6
KLR PKKPbc **PKKPbc 02 17 25.1 -1.1**
comp=Z,0.3nm,0.6s,baz=269,slow=2.0,SNR=8.7
**PRAR RASCA 99.08 34⇓*i*P Pdif 02 00 59.3 -0.1**
**ARR Arges 99.44 36⇑*i*P Pdif 02 01 01.3 +0.1**
**BOD Bodaibo 99.48 342 *e*P Pdif 02 00 59.4 -1.5**
BOD pmax pmax
comp=Z,48nm,1.8s
**DOPR Dopca 99.50 35⇓*i*P Pdif 02 01 00.4 -0.9**
**VOIR 99.64 36⇓*i*P Pdif 02 01 02.5 +0.5**
**VOIR 99.64 36 ⇓P Pdif 02 01 02.5 +0.5**
**SORM Soroca 99.69 32⇓*i*P Pdif 02 00 59.4 -2.6**
**SORM Soroca 99.69 32 ⇓P Pdif 02 00 59.4 -2.6**
**DZM Mont Dzumac 99.79 250 P Pdif 02 01 04.8 +1.7**
comp=Z,10nm,1.2s,baz=135,slow=23,SNR=3.1
**DZM Mont Dzumac 99.79 250 *e*PP** PP 02 05 05.7 -2.9
comp=Z,1µm,31.4s
DZM *e*SKSac **SKSac 02 11 33.4 -3.2**
comp=Z,5µm,34.2s
**DZM Mont Dzumac 99.79 250 *e*PS** PS 02 14 07.8 -0.6
comp=Z,9µm,29.1s
DZM *e*SS SS 02 19 25.4 -0.4
comp=Z,8µm,28.3s
DZM *e*LQ LQ 02 29 07.0
comp=Z,9µm,36.8s
DZM *e*LR LR 02 33 47.9
comp=Z,29µm,29.1s
**DZM Mont Dzumac 99.79 250 *e*Pdif Pdif 02 01 04.7 +1.6**
comp=Z,47nm,1.4s
**IAS Iasi 99.89 33⇑*i*P Pdif 02 01 07.1 +4.1**
**IAS Iasi 99.89 33 ⇑P Pdif 02 01 07.1 +4.1**
**MLR Muntele Rosu 100.10 35 P Pdif 02 01 04.0 -0.1**
comp=Z,3.2nm,0.9s,baz=305,slow=7.3,SNR=17
MLR PP **PP 02 05 05.9 -3.7**
comp=Z,1.8nm,1.1s,baz=91,slow=3.1,SNR=3.3
MLR PKKPbc **PKKPbc 02 17 22.9 -0.2**
comp=Z,0.5nm,0.6s,baz=195,slow=7.7,SNR=6.1
**MLR Muntele Rosu 100.10 35⇓*i*P Pdif 02 01 02.4 -1.7**
**VTS Vitosha 100.27 39⇓*i*P Pdif 02 01 05.4 +0.4**

VTS Vitosha 100.27 39 ⇓P Pdif 02 01 05.4 +0.4
KIS Kishinev 100.67 33⇓iP Pdif 02 01 04.0 -2.5
comp=Z,600nm,3.0s
KIS i pP pPdif 02 01 24.0 -0.8
KIS Kishinev 100.67 33 ePP PP 02 05 20.0 +6.3
KIS Kishinev 100.67 33 ePPP PPP 02 07 28.0
KIS eSKS 02 11 40.0
KIS i SKKS SKKSac 02 12 08.0 -6.9
KIS Kishinev 100.67 33 ePS PS 02 14 18.0 +1.8
KIS Kishinev 100.67 33 ePPS PPS 02 15 02.0
KIS LRM MLR 02 43 40.0
comp=Z,12μm,28.0s
KIS Kishinev 100.67 33κ iP Pdif 02 01 04.0 -2.5
KIS e 02 05 20.0
KIS ePPP PPP 02 07 28.0
KIS e 02 11 40.0
KIS ePS PS 02 14 18.0 +1.8
KIS ePPS PPS 02 15 02.0
KIS pmax pmax
comp=Z,600nm,3.0s
KIS pmax pmax
comp=Z,2μm,6.0s
KIS pmax pmax
comp=Z,2μm,6.0s
LEOM Leova 100.72 34⇑iP Pdif 02 01 06.4 -0.2
LEOM Leova 100.72 34 ⇑P Pdif 02 01 06.4 -0.2
LPSR Galich'ya Gora 101.26 24 eP Pdif 02 01 08.7 -0.2
LPSR pmax pmax
comp=Z,40nm,0.8s
CFR Carcaliu 101.49 35⇓iP Pdif 02 01 07.3 -2.8
CFR Carcaliu 101.49 35 ⇓P Pdif 02 01 07.3 -2.8
VORR Voronezh 102.09 25 eP Pdif 02 01 11.0 -1.6
VORR pmax pmax
comp=Z,350nm,2.0s
TIRR Tirgusor 102.11 35⇓iP Pdif 02 01 13.5 +0.6
TIRR Tirgusor 102.11 35 ⇓P Pdif 02 01 13.5 +0.6
USRK Ussuriysk Ar. 102.13 325 P Pdif 02 01 14.4 +1.4
comp=Z,3.5nm,0.8s,baz=54,slow=7.3,SNR=5.4
USRK PP PKiKP 02 05 34.8 -0.2
comp=Z,2.8nm,0.8s,baz=1.4,slow=8.0,SNR=4.3
VSR Storozhevoye 102.42 25 eP Pdif 02 01 13.4 -0.7
VSR pmax pmax
comp=Z,40nm,1.0s
MJAR Matsushiro Arr 102.92 315 Pdiff Pdif 02 01 18.5 +1.8
comp=Z,3.9nm,0.8s,baz=51,slow=3.4,SNR=7.4
MJAR pPdiff pPdif 02 01 37.5 +2.4
comp=Z,7.4nm,1.1s,baz=8.6,slow=2.5,SNR=6.2
MJAR PP PKiKP 02 05 38.2 +1.5
comp=Z,8.6nm,1.1s,baz=35,slow=5.5,SNR=5.3
VRH Novokhopyorsk 103.43 24 eP Pdif 02 01 17.9 -0.7
VRH pmax pmax
comp=Z,30nm,1.0s
ARU Arti 103.77 12 Pdiff Pdif 02 01 20.0 -0.1
baz=282,slow=6.0
ARU PKKPbc PKKPbc 02 17 11.3 -1.4
comp=Z,1.9nm,0.5s,baz=148,slow=4.7,SNR=5.1
ARU Arti 103.77 12c iP Pdif 02 01 20.5 +0.4
ARU 02 05 35.7
ARU S SKSac 02 11 53.8 -0.4
ARU SP SP 02 14 38.8 -1.0
ARU pmax pmax
comp=Z,48nm,2.5s
ARU Arti 103.77 12 ePdif Pdif 02 01 19.9 -0.1
comp=Z,47nm,1.1s
ARU PKKPbc PKKPbc 02 17 11.3 -1.4
SIM Simferopol' 104.77 32 eP Pdif 02 01 25.1 +0.3
SIM e 02 05 42.0
SIM pmax pmax
comp=Z,760nm,10.9s
SIM MLR MLR
comp=Z,12μm,23.6s
APE Apeiranthos 104.98 42d iP Pdif 02 01 25.2 -0.7
APE MLR MLR
comp=Z,3μm,21.0s
CN2 Changchun 105.88 328 Pdif Pdif 02 01 30.0 +0.3
CN2 PP PP 02 05 52.4 -0.1
CN2 SS SS 02 20 49.2 +2.4
CN2 AMB AMB
comp=Z,500nm,8.0s
CN2 LR LR
comp=Z,3μm,18.0s
CN2 LR LR
comp=Z,4μm,18.0s
CN2 LR LR
comp=Z,6μm,18.0s
ANN Anapa 106.51 30 eP Pdif 02 01 33.9 +1.5
ANN e 02 05 58.1
ANN e 02 12 04.5
ANN eSP SP 02 15 17.8 +8.9
ANN eSS SS 02 20 59.0 +3.8
ANN pmax pmax
comp=Z,122nm,1.0s
IRK Irkutsk 107.04 345 eP Pdif 02 01 35.3 +0.6
IRK pmax pmax
comp=Z,109nm,3.9s
NVS Novosibirsk 107.50 358 eP Pdif 02 01 34.4 -2.2
NVS e 02 06 06.2
NVS pmax pmax
comp=Z,18nm,1.4s
NVS pmax pmax
comp=N,8.0nm,1.6s
TLY Talaya 107.71 345 eP Pdif 02 01 38.5 +0.8
TLY i 02 06 05.2
TLY eSS SS 02 21 24.7 +14
TLY pmax pmax
comp=Z,29nm,1.5s
BRTR Keskin Array B 108.16 36 Pdiff Pdif 02 01 42.6 +2.5
comp=Z,0.4nm,0.8s,baz=294,slow=1.4,SNR=3.3
BRTR PKiKP PKiKP 02 05 46.3 -0.2
comp=Z,3.4nm,0.6s,baz=216,slow=0.8,SNR=17
BRTR PP PP 02 06 05.7 -3.9
comp=Z,8.5nm,1.1s,baz=311,slow=5.7,SNR=5.5
BRTR PKKPbc PKKPbc 02 16 58.6 -0.4
comp=Z,2.3nm,1.0s,baz=143,slow=3.1,SNR=4.9
BRTR PKKPab PKKPab 02 17 13.8 -0.2
comp=Z,6.8nm,1.1s,baz=164,slow=5.0,SNR=8.0
SNY Shenyang 108.25 327 Pdif Pdif 02 01 33.2 -7.1
SNY PP PP 02 06 09.5 -0.4
SNY Shenyang 108.25 327 SKS SKSdf 02 12 45.6 -7.2
SNY Shenyang 108.25 327 SS SS 02 21 30.2 +11
SNY AMB AMB
comp=Z,2μm,7.0s
SNY LR LR
comp=N,6μm,16.7s
SNY LR LR
comp=E,4μm,19.1s
SNY LR LR
comp=Z,8μm,16.6s
ZALV Zalesovo Beam 108.33 357 Pdiff Pdif 02 01 40.6 +0.2
comp=Z,3.2nm,0.8s,baz=353,slow=4.3,SNR=9.7
ZALV PKiKP PKiKP 02 05 46.9 +0.7
comp=Z,2.8nm,0.5s,baz=299,slow=1.4,SNR=5.7
ZALV PP PP 02 06 05.5 -4.4
comp=Z,6.3nm,0.7s,baz=350,slow=4.5,SNR=4.5
ZALV PKKP PKKPdf 02 17 10.2 -1.5
comp=Z,1.6nm,0.7s,baz=199,slow=4.0,SNR=3.9
MOY Mondy 108.35 346 eP Pdif 02 01 43.1 +2.4
MOY pmax pmax
comp=Z,63nm,4.6s
SOC Sochi 108.51 30 i P Pdif 02 01 41.7 +0.3
SOC e 02 06 12.8
SOC ePPP PPP 02 08 36.6
SOC ePS PS 02 15 33.3 -4.6
SOC eSS SS 02 21 26.7 +4.4
SOC eSSS SSS 02 25 30.8
SOC pmax pmax
comp=Z,11nm,0.6s
SOC MLR MLR
comp=Z,6μm,21.0s
BRVK Borovoye 108.83 6d iP Pdif 02 01 42.4 -0.2
BRVK Borovoye 108.83 6 ePdif Pdif 02 01 42.6 0.0
comp=Z,24nm,0.8s
GOF Gofitskoye 108.86 27⇑eP Pdif 02 01 57.3 +14
BVAR Borovoye Array 108.87 6 Pdiff Pdif 02 01 44.8 +2.0
comp=Z,1.5nm,0.6s,baz=349,slow=2.9,SNR=3.8
BVAR PKiKP PKiKP 02 05 48.4 +1.1
comp=Z,3.7nm,0.7s,baz=159,slow=1.2,SNR=7.2
BVAR PP PP 02 06 11.5 -2.4
comp=Z,2.1nm,0.7s,baz=285,slow=3.3,SNR=4.2
BVAR PKKPbc PKKPbc 02 16 56.3 -0.7
comp=Z,1.7nm,0.8s,baz=224,slow=4.1,SNR=4.4
BVAR PKKPab PKKPdf 02 17 10.6 -0.1
comp=Z,5.4nm,1.0s,baz=160,slow=4.7,SNR=6.7
KSRS Korea Array 108.87 321 Pdiff Pdif 02 01 44.2 +1.1
comp=Z,2.4nm,1.0s,baz=24,slow=26,SNR=2.3
KSRS PKiKP PKiKP 02 05 48.5 +0.8
comp=Z,5.0nm,0.7s,baz=8.0,slow=1.3,SNR=12
KSRS PP PP 02 06 18.2 +3.5
comp=Z,13nm,1.0s,baz=33,slow=2.4,SNR=8.6
KSRS PKKP PKKPdf 02 17 09.8 -0.8
comp=Z,5.5nm,0.9s,baz=234,slow=5.3,SNR=7.0
KSAR Wonju Array Be 108.90 321 P Pdif 02 01 44.2 +0.9
KSAR 02 06 18.2
KSAR Wonju Array Be 108.90 321 Pdif Pdif 02 01 44.2 +0.9
KSAR PKiKP PKiKP 02 05 48.5 +0.8
KSAR PP PP 02 06 18.2 +3.3
KSAR PKKP PKKPab 02 17 09.8 -0.7
ZAK Zakamensk 109.00 345 eP Pdif 02 02 03.3 +20
ZAK pmax pmax
comp=Z,5.0nm,1.4s
SNAA Sanae 109.09 161 PKKPbc PKKPbc 02 16 54.8 -2.2
comp=Z,2.6nm,0.8s,baz=86,slow=3.9,SNR=5.8
SNAA Sanae 109.09 161d iP Pdif 02 01 43.8 +0.5
SNAA Sanae 109.09 161 ePKP PKiKP 02 05 48.1 +1.0
SNAA PKKPbc PKKPbc 02 16 54.8 -2.2
VNDA Vanda 109.14 193 PKiKP PKiKP 02 05 46.8 -0.1
comp=Z,1.6nm,0.7s,baz=94,slow=0.8,SNR=10
VNDA PKKPbc PKKPbc 02 16 54.2 -2.6
comp=Z,1.7nm,0.8s,baz=285,slow=6.5,SNR=7.0
AKTO Aktyubinsk 109.24 15 Pdiff Pdif 02 01 45.8 +1.3
baz=352,slow=7.1
AKTO pPdiff sPdif 02 02 07.1 -2.8
comp=Z,6.7nm,0.9s,baz=55,slow=1.5,SNR=3.5
AKTO PKKPbc PKKPbc 02 16 54.2 -1.5
comp=Z,1.5nm,0.6s,baz=150,slow=5.8,SNR=6.3
AKTO PKKP PKKPab 02 17 07.8 -1.6
comp=Z,2.8nm,0.7s,baz=197,slow=2.7,SNR=6.0
KIV Kislovodsk 109.58 28 eP Pdif 02 01 44.4 -1.9
KIV e 02 06 17.8
KIV eSP SP 02 15 38.1 -2.3
KIV eSS SS 02 21 35.5 -1.3
KIV MLR MLR
comp=Z,5μm,21.0s
KVAR Kislovodsk Arr 109.58 28 Pdiff Pdif 02 01 49.1 +2.8
comp=Z,5.3nm,0.8s,baz=315,slow=1.4,SNR=3.2
KBZ Khabaz 109.85 28 Pdiff Pdif 02 01 50.3 +3.0
comp=Z,2.2nm,1.0s,baz=30,slow=4.2,SNR=3.5
KBZ PKKP PKKPdf 02 17 10.3 +1.6
comp=Z,7.2nm,1.0s,baz=210,slow=2.4,SNR=5.4
ULN Ulaanbaatar 110.21 341d iP Pdif 02 01 49.6 +0.5
ULN i 02 05 49.4
HVS Khovu-Aksy 110.23 351⇑iPKIKP PKiKP 02 05 50.3 +0.3
CHVG Ch'k'valeri 110.28 29 P PS 02 15 52.9 -2.5
NCK Nalchik 110.34 27⇓iPKIKP PKiKP 02 05 50.5 +0.2
NCK MLR MLR
comp=Z,4μm,20.0s
SONM Songino Array 110.44 341 Pdiff Pdif 02 01 52.6 +2.5
comp=Z,0.7nm,0.6s,baz=12,slow=2.1,SNR=3.2
SONM PKiKP PKiKP 02 05 50.4 -0.1
comp=Z,4.6nm,0.8s,baz=309,slow=1.3,SNR=8.5
SONM PP PP 02 06 30.5 +4.9
comp=Z,5.9nm,0.9s,baz=18,slow=3.5,SNR=4.2
SONM PKKPbc PKKPbc 02 16 49.6 -2.4
comp=Z,2.0nm,0.7s,baz=212,slow=3.7,SNR=6.8
SONM PKKP PKKPdf 02 17 07.6 -0.3
comp=Z,9.4nm,1.1s,baz=206,slow=4.7,SNR=10
ONI Oni 111.00 28 P PS 02 16 01.0 -1.1
DL2 Dalian 111.40 326 ePdif Pdif 02 01 50.8 -3.5
DL2 PP PP 02 06 32.6 -0.1
DL2 SS SS 02 22 01.6 +0.3
DL2 AMB AMB
comp=Z,2μm,7.0s
DL2 LR LR
comp=Z,4μm,23.5s
DL2 LR LR
comp=Z,3μm,24.0s
DL2 LR LR
comp=Z,6μm,28.8s
GROC Groznyy 111.53 26 i PKIKP PKiKP 02 05 42.1 -10
GROC pmax pmax
comp=Z,15nm,1.2s
KURK Kurchatov 111.67 1d iP Pdif 02 01 54.7 -0.6
KURK Kurchatov 111.67 1 Pdif Pdif 02 01 55.6 +0.3
KURK ePKP PKiKP 02 05 51.9 -0.7
KURK PP PP 02 06 31.0 -3.0
KURK SKP 02 09 18.7
KURK PKKP PKKPdf 02 17 05.2 -0.3
KURBB Kurchatov Arra 111.76 1 Pdiff Pdif 02 01 55.6 -0.1
comp=Z,0.8nm,0.8s,baz=358,slow=3.8,SNR=8.1
KURBB PKiKP PKiKP 02 05 52.1 -0.6
comp=Z,3.4nm,0.7s,baz=3.5,slow=1.8,SNR=7.8
KURBB PP PP 02 06 31.0 -3.7
comp=Z,5.3nm,1.0s,baz=341,slow=5.5,SNR=6.6
KURBB SKP 02 09 18.7
comp=Z,4.6nm,1.1s,baz=3.5,slow=1.9,SNR=4.2
KURBB PKKP PKKPdf 02 17 05.2 -0.1
comp=Z,3.8nm,0.8s,baz=198,slow=3.0,SNR=8.1
AKH Akhalkalaki 111.95 29 P PS 02 16 08.1 -3.0
SEM Semipalatinsk 111.99 360 ePdif Pdif 02 01 55.5 -1.6
SEM i PP PP 02 06 36.2 -0.4
SEM i PS PS 02 16 09.1 -2.0
SEM LR LR 02 55 15.4
comp=Z,3μm,23.5s
BGD Bogdanovka 112.12 29 P PS 02 16 11.4 -1.3
DGZ Jazzator, Alta 112.38 355 ePKIKP PKiKP 02 05 55.2 +1.0
MAK Makhachkala 112.44 25 eP Pdif 02 01 57.7 -1.2
MAK i 02 05 53.5
MAK e 02 06 12.9
MAK e 02 06 36.5
MAK ePPP PPP 02 09 02.0
MAK e 02 12 29.6
MAK e 02 13 03.6
MAK eSP SP 02 16 07.2 +0.4
MAK eSS SS 02 22 18.9 +4.3
MAK eSSS SSS 02 26 21.7
MAK pmax pmax
comp=Z,19nm,0.3s
GNI Garni 113.53 29 PKKP PKKPdf 02 17 01.6 -0.6
comp=Z,4.4nm,0.8s,baz=308,slow=12,SNR=4.4
GNI Garni 113.53 29d iP Pdif 02 02 04.1 +0.1
GNI MLR MLR
comp=Z,14μm,24.0s
GNI Garni 113.53 29 ePKP PKiKP 02 05 57.3 +0.6
GNI PKKP PKKPdf 02 17 01.6 -0.6
MMAI Mount Meron Ar 113.78 40 PKiKP PKiKP 02 05 57.6 +0.4
comp=Z,1.6nm,0.7s,baz=43,slow=2.8,SNR=5.0
MMAI PKKPbc PKKPbc 02 16 41.5 +1.2
comp=Z,3.2nm,0.7s,baz=95,slow=4.2,SNR=6.6
MMAI PKKP PKKPdf 02 16 59.5 -2.1
comp=Z,24nm,1.2s,baz=117,slow=4.8,SNR=10
NVL N'lazarevskaya 113.91 160 ePKIKP PKiKP 02 06 00.2 +4.1
NVL e 02 06 54.8
NVL eSP SP 02 16 28.4 +8.9
NVL eSS SS 02 22 44.3 +10
PMG Port Moresby 114.54 268 PKP PKPdf 02 05 59.5 +0.5
comp=Z,4.1nm,0.4s,baz=144,slow=19,SNR=2.6
PMG Port Moresby 114.54 268c iP Pdif 02 02 06.8 -1.9
HHC Hu-ho-hao-te 114.64 334 Pdif Pdif 02 02 12.2 +3.3
HHC PP PP 02 07 05.7 +10
HHC AMB AMB
comp=Z,2μm,9.2s
HHC LR LR
comp=Z,6μm,20.6s
HHC LR LR
comp=Z,4μm,18.1s
HHC LR LR
comp=Z,8μm,21.2s
ZSN Zaisan 114.81 356 ePKP PKPdf 02 05 57.9 -0.8
ZSN i PP PP 02 06 56.1 -0.3
ZSN i PS PS 02 16 35.6 -0.9
ZSN LR LR 02 57 37.6
comp=Z,727nm,18.8s
MGCD Mangrove Creek 115.21 241 P Pdif 02 02 12.2 +0.9
baz=29,SNR=15
ASF Jabal al Asfar 115.28 40 PKP PKPdf 02 06 00.0 -0.2
comp=Z,3.2nm,0.8s,baz=340,slow=6.8,SNR=3.9
ASF PKKP PKKPdf 02 16 54.5 -4.2
comp=Z,10.0nm,1.2s,baz=226,slow=5.8,SNR=4.7
MAKZ Makanchi 115.57 359 PKIKP PKPdf 02 05 57.6 -2.6
MAKZ pmax pmax
comp=Z,1.0nm,0.5s
MK31 Makanchi Array 115.58 358 i PKIKP PKPpre 02 05 55.8
MK31 pmax pmax
comp=Z,6.0nm,0.8s
MKAR Makanchi Array 115.58 358 PKP PKPdf 02 06 00.4 +0.2
comp=Z,6.0nm,0.9s,baz=301,slow=3.4,SNR=12
MKAR PKKPbc PKKPbc 02 16 32.9 -1.8
comp=Z,2.0nm,0.9s,baz=209,slow=3.9,SNR=7.7
MKAR PKKP PKKPdf 02 16 55.4 -2.8
comp=Z,27nm,1.1s,baz=167,slow=1.8,SNR=7.2
MKAR SKKP 02 20 24.2
comp=Z,3.2nm,1.1s,baz=202,slow=9.2,SNR=4.0
MKAR Makanchi Array 115.58 358c iPKIKP PKPdf 02 06 00.0 -0.3
MKAR pmax pmax
comp=Z,6.0nm,0.9s
EIL Elat 115.74 43 PKP PKPdf 02 06 00.8 -0.2
comp=Z,4.1nm,0.6s,baz=16,slow=5.8,SNR=6.8
EIL PP PP 02 07 01.6 -2.4
comp=Z,10nm,1.2s,baz=345,slow=9.4,SNR=3.6
TIA Tai'an 115.78 327 PKP PKPdf 02 06 00.1 -0.8
TIA PP PP 02 07 03.6 -0.2
TIA SS SS 02 22 56.0 -3.1
TIA AMB AMB
comp=Z,2μm,10.7s
TIA LR LR
comp=Z,3μm,19.1s
TIA LR LR
comp=Z,4μm,19.2s
TIA LR LR
comp=Z,1μm,18.1s
TIY Taiyuan 116.86 332 PKP PKPdf 02 05 55.2 -7.8
TIY PP PP 02 07 12.5 +1.2
TIY SKS SKSdf 02 13 06.5 -3.3
TIY SKKS SKKSac 02 14 05.3 -2.3
TIY AMB AMB
comp=Z,2μm,7.2s
TIY LR LR
comp=N,9μm,20.7s
TIY LR LR
comp=E,5μm,23.1s
TIY LR LR
comp=Z,12μm,21.3s
SSE Sheshan 117.28 321 ePKP PKPdf 02 05 58.5 -5.4
SSE AMB AMB
comp=Z,1μm,11.3s
SSE LR LR
comp=Z,2μm,22.0s
SSE LR LR
comp=Z,4μm,21.9s
SSE LR LR
comp=Z,3μm,23.4s
TDK Taldyqorghan 117.38 1 i PKP PKPdf 02 06 02.8 -1.0
TDK i PP PP 02 07 13.9 -0.5
TDK i PS PS 02 16 59.0 -0.9
TDK LR LR 02 59 23.0
comp=Z,3μm,23.3s
CTA Charters Tower 117.76 256 PKP PKPdf 02 06 06.2 +1.1
comp=Z,7.4nm,0.7s,baz=111,slow=4.2,SNR=14
CTAO Charters Tower 117.76 256 ePKIKP PKPdf 02 06 01.9 -3.2
CTAO Charters Tower 117.76 256 ePKPdf PKPdf 02 06 01.9 -3.2
WMQ Urumqi 118.18 354 PKP PKPdf 02 06 04.8 -0.6
WMQ sPKP 02 06 31.6
WMQ PP PP 02 07 26.2 +6.1
WMQ SKKS 02 14 07.4
WMQ SS SS 02 23 31.8 +2.3
WMQ AMB AMB
comp=Z,3μm,5.3s
WMQ LR LR
comp=Z,13μm,25.3s
WMQ LR LR
comp=Z,10μm,22.3s
WMQ LR LR
comp=Z,24μm,25.3s
KUU Kurty 118.41 3 i PKP PKPdf 02 06 04.5 -1.3
comp=Z,76nm,0.8s
KUU i PP PP 02 07 21.3 -0.2
KUU LR LR 02 59 16.0
comp=Z,2μm,20.6s
KK31 Karatay Array 118.66 8 PKIKP PKPdf 02 06 06.0 -0.3
USP Ospenovka 118.92 5 P PKPdf 02 06 06.9 +0.1
SNR=20
KPKS Kokpek 118.92 1 ePKP PKPdf 02 06 06.2 -0.7
PDGK Podgornoye 119.07 0 PKIKP PKPdf 02 06 05.7 -1.5
PDGK pmax pmax
comp=Z,11nm,1.1s
MDOK Medeo 119.17 3 i PKP PKPdf 02 06 06.0 -1.5
comp=Z,119nm,1.5s
MDOK i PP PP 02 07 26.2 -0.8
MDOK eSKS SKSdf 02 13 11.6 -2.5
MDOK ePS PS 02 17 15.7 -0.7
MDOK LR LR 02 59 43.2
comp=Z,3μm,18.9s
GENI Genyem 119.20 277 PKP PKPdf 02 06 09.6 +1.6
CHMS Chumysh 119.21 4 P PKPdf 02 06 07.5 +0.2
SNR=6.6
ZHN Zhinishke 119.22 1 ePKP PKPdf 02 06 06.1 -1.4
comp=Z,55nm,1.2s
CHM Chimkent 119.31 9 ePKP PKPdf 02 06 06.6 -1.0
comp=Z,388nm,0.8s
CHM ePS PS 02 17 17.1 -0.2
CHM LR LR 02 59 46.2
comp=Z,4μm,19.8s
TKM2 Tokmak 2 119.34 4 PKIKP PKPdf 02 06 06.9 -1.0
TKM2 pmax pmax
comp=Z,10.0nm,0.9s
TKM2 Tokmak 2 119.34 4 P PKPdf 02 06 07.4 -0.4
SNR=8.3
FRU Bishkek 119.36 5 e PKPdf 02 06 07.0 -0.7
FRU i 02 06 26.0
FRU pmax pmax
comp=Z,125nm,2.8s
COEN Coen 119.43 264 ePKPdf PKPdf 02 06 07.9 -0.5
EKS2 Erkin-Say 119.46 5 P PKPdf 02 06 08.4 +0.4
SNR=11
MNAS Manas 119.51 6 PKIKP PKPdf 02 06 07.3 -0.8
MNAS pmax pmax
comp=Z,17nm,0.9s
AAK Ala-Archa 119.55 5 PKKPbc PKKPbc 02 16 22.7 +2.0
comp=Z,2.7nm,0.8s,baz=135,slow=1.5,SNR=4.8
AAK Ala-Archa 119.55 5d iPKIKP PKPdf 02 06 08.4 +0.2
AAK Ala-Archa 119.55 5 P PKPdf 02 06 06.1 -2.1
SNR=5.4
AAK Ala-Archa 119.55 5 ePKPdf PKPdf 02 06 06.1 -2.1
AAK PKKPbc PKKPab 02 16 22.7 -1.2
KBK Karagaybulak 119.56 4 P PKPdf 02 06 08.4 +0.2
SNR=9.6
UCH Uchtor 119.95 5 P PKPdf 02 06 10.1 +0.7
SNR=16
AML Almayashu 119.98 5 P PKPdf 02 06 09.6 +0.3
SNR=21
GTA Gaotai 120.07 342 ePKP PKPdf 02 06 08.3 -1.0
GTA SKS SKSdf 02 13 16.2 +0.2
GTA SKKS SKKSac 02 14 24.8 -4.0
GTA SS SS 02 23 54.2 -0.1
GTA AMB AMB
comp=Z,1μm,10.0s
GTA LR LR
comp=Z,2μm,22.3s
GTA LR LR
comp=Z,4μm,26.1s
GTA LR LR
comp=Z,5μm,26.4s
GEYT Alibeck 120.75 20 PKP PKPdf 02 06 10.3 -0.2
comp=Z,24nm,0.7s,baz=284,slow=3.2,SNR=30
GEYT PKKPbc PKKPbc 02 16 16.1 +0.2
comp=Z,2.1nm,0.7s,baz=197,slow=4.6,SNR=4.7
XAN Xi'an 121.49 332 PKP PKPdf 02 06 11.4 -0.6
XAN PKS PKSdf 02 09 48.7 -0.1
XAN SKS SKSdf 02 13 20.9 +2.2
XAN SKKS SKKSac 02 14 31.4 -6.7
XAN AMB AMB
comp=Z,3μm,8.0s
XAN LR LR
comp=Z,4μm,19.0s
XAN LR LR
comp=Z,5μm,17.0s
XAN LR LR
comp=Z,11μm,17.7s
WHN Wuhan 121.62 325 PKP PKPdf 02 06 05.9 -6.4
WHN PP PP 02 07 45.3 +1.1
WHN SS SS 02 24 19.2 +4.4
WHN LR LR
comp=Z,12μm,18.2s
WHN LR LR
comp=Z,6μm,14.4s
WHN LR LR
comp=Z,13μm,21.8s
LZH Lanzhou 121.78 337 ⇓PKP PKPdf 02 06 12.9 +0.2
LZH sPKP 02 06 38.8
LZH PP PP 02 07 48.0 +2.9
LZH PKS PKSdf 02 09 50.0 +0.4
LZH SKS SKSdf 02 13 16.0 -3.4
LZH SKKS SKKSac 02 14 32.3 -7.9
LZH SS SS 02 24 15.6 -0.9
LZH AMB AMB

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| | comp=Z,2μm,6.8s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,5μm,18.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,7μm,17.6s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,11μm,20.3s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **122.06** | **6** | PKIKP | **PKPdf** | **02 06 12.8** | **-0.4** |
| SFK | | | | pmax | pmax | | |
| | comp=Z,52nm,0.9s | | | | | | |
| **DZET** | **Dzherino** | **122.62** | **10** | PKIKP | **PKPdf** | **02 06 13.7** | **-0.4** |
| DZET | | | | pmax | pmax | | |
| | comp=Z,67nm,0.5s | | | | | | |
| **KSH** | **Kashi** | **122.75** | **4** | PKP | **PKPdf** | **02 06 11.9** | **-2.5** |
| KSH | | | | PP | **PP** | **02 07 54.7** | **+3.3** |
| KSH | | | | PKS | **PKSdf** | **02 09 47.9** | **-3.3** |
| KSH | | | | SKS | **SKSdf** | **02 13 14.0** | **-7.0** |
| KSH | | | | AMB | AMB | | |
| | comp=Z,2μm,5.8s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,8μm,21.9s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,2μm,15.8s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,5μm,19.7s | | | | | | |
| **ARPS** | **Mount Arapiles** | **122.94** | **237** | P | **Pdif** | **02 02 48.1** | **+2.5** |
| | baz=33,SNR=10.0 | | | | | | |
| **SYO** | **Syowa Base** | **123.09** | **164⇓** | *e*X | **PKPdf** | **02 06 12.2** | **-1.6** |
| **SYO** | **Syowa Base** | **123.09** | **164⇑** | *e*P | PKKPbc | 02 16 17.2 | +10 |
| **STKA** | **Stephens Creek** | **123.15** | **243** | PKP | **PKPdf** | **02 06 15.3** | **+0.2** |
| | comp=Z,34nm,0.8s,baz=44,slow=2.7,SNR=36 | | | | | | |
| STKA | | | | PKKPbc | **PKKPab** | **02 16 05.2** | **-0.1** |
| | comp=Z,2.5nm,0.6s,baz=326,slow=6.1,SNR=7.8 | | | | | | |
| **QZH** | **Quanzhou** | **123.24** | **317** | *e*PKP | **PKPdf** | **02 06 15.9** | **+0.4** |
| QZH | | | | AMB | AMB | | |
| | comp=Z,4μm,8.1s | | | | | | |
| QZH | | | | LR | LR | | |
| | comp=Z,7μm,17.0s | | | | | | |
| QZH | | | | LR | LR | | |
| | comp=Z,3μm,17.0s | | | | | | |
| QZH | | | | LR | LR | | |
| | comp=Z,8μm,18.0s | | | | | | |
| **ENH** | **Enshi** | **124.35** | **329** | *e*PKPdf | **PKPdf** | **02 06 16.7** | **-0.9** |
| **SUR** | **Sutherland** | **125.08** | **117** | PKP | **PKPdf** | **02 06 18.9** | **-0.1** |
| | comp=Z,1.8nm,0.8s,baz=337,slow=2.6,SNR=9.7 | | | | | | |
| **SUR** | **Sutherland** | **125.08** | **117** | *e*PKPdf | **PKPdf** | **02 06 19.7** | **+0.7** |
| **CD2** | **Chengdu** | **126.39** | **335** | PKP | **PKPdf** | **02 06 21.8** | **+0.3** |
| CD2 | | | | PP | **PP** | **02 08 18.5** | **+2.5** |
| CD2 | | | | SKS | **SKSdf** | **02 13 29.1** | **+1.1** |
| CD2 | | | | SS | **SS** | **02 25 20.2** | **+5.6** |
| CD2 | | | | AMB | AMB | | |
| | comp=Z,3μm,10.4s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,6μm,17.1s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,7μm,21.8s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,6μm,28.6s | | | | | | |
| **RAYN** | **Ar Rayn** | **126.76** | **41** | *e*PKPpre | PKPpre | 02 06 13.8 | |
| RAYN | | | | *e*PKPdf | **PKPdf** | **02 06 22.1** | **-0.3** |
| **FAKI** | **Fak Fak** | **126.77** | **280** | PKP | **PKPdf** | **02 06 23.5** | **+0.9** |
| **BBOO** | **Buckleboo** | **127.83** | **242** | *e*PKPdf | **PKPdf** | **02 06 23.7** | **-0.4** |
| **TGY** | **Tagaytay City** | **128.66** | **306** | PKP | **PKPdf** | **02 06 26.1** | **0.0** |
| | comp=Z,101nm,0.3s,baz=218,slow=21,SNR=2.8 | | | | | | |
| **WRAB** | **Tennant Creek** | **128.80** | **259*d*** | *i*PKIKP | **PKPdf** | **02 06 25.5** | **-0.7** |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,199nm,0.7s | | | | | | |
| **WRAB** | **Tennant Creek** | **128.80** | **259** | *e*PKPdf | **PKPdf** | **02 06 26.1** | **-0.2** |
| **WRA** | **Warramunga Arr** | **128.81** | **259** | PKP | **PKPdf** | **02 06 25.9** | **-0.4** |
| | comp=Z,42nm,0.6s,baz=81,slow=2.4,SNR=79 | | | | | | |
| **WRA** | **Warramunga Arr** | **128.81** | **259** | PKIKP | **PKPdf** | **02 06 25.9** | **-0.4** |
| WRA | | | | pmax | pmax | | |
| | comp=Z,41nm,0.6s | | | | | | |
| **BOSA** | **Boshof** | **128.90** | **113** | PKP | **PKPdf** | **02 06 26.0** | **-0.3** |
| | comp=Z,35nm,1.1s,baz=288,slow=0.8,SNR=14 | | | | | | |
| **LBTB** | **Lobatse** | **129.09** | **108** | PKP | **PKPdf** | **02 06 26.7** | **-0.1** |
| | comp=Z,14nm,1.0s,baz=269,slow=1.7,SNR=9.6 | | | | | | |
| **MAW** | **Mawson** | **129.11** | **172** | PKP | **PKPdf** | **02 06 25.3** | **-0.1** |
| | comp=Z,56nm,0.6s,baz=191,slow=2.3,SNR=87 | | | | | | |
| **ASAR** | **Alice Springs** | **129.58** | **254** | PKP | **PKPdf** | **02 06 27.5** | **-0.2** |
| | comp=Z,35nm,0.8s,baz=98,slow=1.9,SNR=51 | | | | | | |
| **THN** | **Thein Dam** | **129.78** | **5** | *e*P | **PKPdf** | **02 06 28.0** | **+0.2** |
| **DHRM** | **DHARAMSHALA** | **130.00** | **4** | *e*P | **PKPdf** | **02 06 29.5** | **+0.9** |
| DHRM | | | | AMS | AMS | 03 04 00.8 | |
| | comp=Z,5μm,20.6s | | | | | | |
| **LSZ** | **Lusaka** | **130.34** | **95** | PKP | **PKPdf** | **02 06 28.0** | **-1.4** |
| | comp=Z,16nm,1.1s,baz=313,slow=1.7,SNR=7.7 | | | | | | |
| **LSZ** | **Lusaka** | **130.34** | **95** | *e*PKIKP | **PKPdf** | **02 06 29.5** | **+0.1** |
| **LSZ** | **Lusaka** | **130.34** | **95** | *e*PKPdf | **PKPdf** | **02 06 29.5** | **+0.1** |
| **BANOM** | **Banah** | **130.68** | **29** | *i* P | **PKPdf** | **02 06 29.3** | **-0.5** |
| | SNR=8.3 | | | | | | |
| **BANOM** | **Banah** | **130.68** | **29** | PKiKP | **PKPdf** | **02 06 29.1** | **-0.7** |
| | SNR=6.2 | | | | | | |
| **SMLA** | **Simla** | **131.17** | **3** | *e*P | **PKPdf** | **02 06 31.5** | **+1.0** |
| SMLA | | | | AMS | AMS | 03 10 29.8 | |
| | comp=Z,3μm,16.1s | | | | | | |
| **NAZ** | **Nazwa, Dubai** | **131.19** | **30** | *i* P | **PKPdf** | **02 06 30.3** | **-0.4** |
| | SNR=7.7 | | | | | | |
| **NAZ** | **Nazwa, Dubai** | **131.19** | **30** | PKiKP | **PKPdf** | **02 06 30.1** | **-0.6** |
| | SNR=8.2 | | | | | | |
| **FAQ** | **Al Faqa, Dubai** | **131.36** | **30** | *i* P | **PKPdf** | **02 06 30.4** | **-0.6** |
| | SNR=8.0 | | | | | | |
| **FAQ** | **Al Faqa, Dubai** | **131.36** | **30** | PKPdf | **PKPdf** | **02 06 30.3** | **-0.8** |
| | SNR=5.2 | | | | | | |
| **LSA** | **Lhasa** | **131.48** | **347** | PKP | **PKPdf** | **02 06 32.1** | **+0.3** |
| LSA | | | | PP | **PP** | **02 08 50.6** | **+1.0** |
| LSA | | | | LR | LR | | |
| | comp=Z,2μm,33.5s | | | | | | |
| LSA | | | | LR | LR | | |
| | comp=Z,8μm,35.3s | | | | | | |
| **LSA** | **Lhasa** | **131.48** | **347** | *e*PKIKP | **PKPdf** | **02 06 32.4** | **+0.6** |
| **LSA** | **Lhasa** | **131.48** | **347** | *e*PKPdf | **PKPdf** | **02 06 32.4** | **+0.6** |
| **HATD** | **Hatta, Dubai** | **131.55** | **30** | *i* P | **PKPdf** | **02 06 30.9** | **-0.6** |
| | SNR=10.0 | | | | | | |
| **HATD** | **Hatta, Dubai** | **131.55** | **30** | PKiKP | **PKPdf** | **02 06 30.7** | **-0.7** |
| | SNR=7.6 | | | | | | |
| **ASHO** | **Ashiyiah** | **131.63** | **30** | *i* P | **PKPdf** | **02 06 30.7** | **-0.9** |
| | SNR=9.9 | | | | | | |
| **ASHO** | **Ashiyiah** | **131.63** | **30** | PKPdf | **PKPdf** | **02 06 30.3** | **-1.4** |
| | SNR=7.0 | | | | | | |
| **KMI** | **Kunming** | **131.87** | **332** | PKP | **PKPdf** | **02 06 32.0** | **-0.3** |
| KMI | | | | sPKP | | 02 06 59.6 | |
| KMI | | | | PP | **PP** | **02 08 55.0** | **+2.9** |
| KMI | | | | SKKS | | 02 15 42.0 | |
| KMI | | | | SS | **SS** | **02 26 24.1** | **+1.4** |
| KMI | | | | AMB | AMB | | |
| | comp=Z,3μm,7.3s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,3μm,24.8s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,3μm,19.4s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,6μm,25.9s | | | | | | |
| **DDI** | **Dehra Dun** | **132.02** | **2** | *e*P | **PKPdf** | **02 06 31.7** | **-0.5** |
| DDI | | | | AMS | AMS | 03 05 36.8 | |
| | comp=Z,4μm,20.9s | | | | | | |
| **SANI** | **Sanana** | **132.29** | **284** | PKP | **PKPdf** | **02 06 34.5** | **+1.5** |
| **ATD** | **Arta Tunnel** | **133.03** | **54** | PKP | **PKPdf** | **02 06 35.4** | **+0.9** |
| | comp=Z,12nm,0.7s,baz=263,slow=20,SNR=7.1 | | | | | | |
| **QIZ** | **Qiongzhong** | **133.07** | **320** | PKP | **PKPdf** | **02 06 35.2** | **+0.8** |
| QIZ | | | | PP | **PP** | **02 08 58.5** | **-1.5** |
| QIZ | | | | SS | SS | 02 26 38.6 | +0.9 |
| QIZ | | | | LR | LR | | |
| | comp=Z,2μm,24.3s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=Z,3μm,21.2s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=Z,6μm,19.8s | | | | | | |
| **BIDO** | **Bidbid** | **133.59** | **28** | PKiKP | **PKPdf** | **02 06 34.7** | **-0.5** |
| | SNR=9.5 | | | | | | |
| **NDI** | **New Delhi** | **133.61** | **3** | *e*P | **PKPdf** | **02 06 34.2** | **-1.0** |
| **DANN** | **Dangsing** | **133.88** | **355** | *e*P | PKPpre | 02 06 20.8 | |
| **GUN** | **Gumba** | **134.11** | **353** | *e*P | PKPpre | 02 06 22.1 | |
| **PYUN** | **Piuthan** | **134.18** | **356** | *e*P | PKPpre | 02 06 20.8 | |
| **KKN** | **Kakani** | **134.30** | **354** | *e*P | PKPpre | 02 06 21.9 | |
| **JIRN** | **Jiri** | **134.32** | **352** | *e*P | PKPpre | 02 06 22.3 | |
| | comp=Z,23nm,0.6s | | | | | | |
| **TAPN** | **Taplejung** | **134.41** | **350** | *e*P | PKPpre | 02 06 23.0 | |
| | comp=Z,20nm,0.6s | | | | | | |
| **KOLN** | **Koldanda** | **134.47** | **356** | *e*P | PKPpre | 02 06 20.7 | |
| | comp=Z,5.4nm,0.6s | | | | | | |
| **DMN** | **Daman** | **134.50** | **354** | *e*P | PKPpre | 02 06 21.6 | |
| **PKIN** | **Phulchoki** | **134.50** | **353** | *e*P | PKPpre | 02 06 22.5 | |
| **PKI** | **Pulchoki** | **134.50** | **353** | *e*P | PKPpre | 02 06 22.4 | |
| | comp=Z,15nm,0.7s | | | | | | |
| **FORT** | **Forrest** | **134.75** | **244** | *e*PKPdf | **PKPdf** | **02 06 38.1** | **+0.9** |
| **KMBO** | **Kilima Mbogo** | **134.77** | **73** | PKP | **PKPdf** | **02 06 37.4** | **-0.7** |
| | comp=Z,2.3nm,0.8s,baz=308,slow=2.2,SNR=4.7 | | | | | | |
| **KMBO** | **Kilima Mbogo** | **134.77** | **73** | *e*PKIKP | **PKPdf** | **02 06 39.1** | **+1.0** |
| **KMBO** | **Kilima Mbogo** | **134.77** | **73** | *e*PKPdf | **PKPdf** | **02 06 39.1** | **+1.0** |
| **ODAN** | **Odare** | **134.94** | **351** | *e*P | PKPpre | 02 06 23.0 | |
| **RAMN** | **Ramite** | **134.97** | **352** | *e*P | PKPpre | 02 06 22.4 | |
| | comp=Z,12nm,0.5s | | | | | | |
| **SHL** | **Shillong** | **135.29** | **345** | *e*P | **PKPdf** | **02 06 37.4** | **-1.3** |
| SHL | | | | AMS | AMS | 03 03 20.0 | |
| | comp=Z,5μm,27.2s | | | | | | |
| **SOEI** | **Soe** | **136.41** | **275** | PKP | PKPpre | 02 06 33.6 | |
| **SOEI** | **Soe** | **136.41** | **275** | *e*PKPpre | PKPpre | 02 06 34.6 | |
| SOEI | | | | *e*PKPdf | **PKiKP** | **02 06 41.8** | **-0.8** |
| **FITZ** | **Fitzroy Crossi** | **136.75** | **262** | PKhKP | PKPpre | 02 06 30.2 | |
| | comp=Z,8.1nm,0.7s,baz=53,slow=2.3,SNR=11 | | | | | | |
| FITZ | | | | PKP | **PKPdf** | **02 06 41.9** | **+0.6** |
| | comp=Z,39nm,1.1s,baz=75,slow=2.4,SNR=11 | | | | | | |
| **MPSI** | **Mapaga** | **136.84** | **291** | PKP | PKPpre | 02 06 32.1 | |
| **BHJ** | **Bhuj** | **137.85** | **14** | *e*P | **PKPdf** | **02 06 42.4** | **-0.8** |
| **MMRI** | **Maumere** | **138.02** | **277** | *e*PKPdf | **PKPdf** | **02 06 43.6** | **-0.1** |
| **BOK** | **Bokaro** | **138.17** | **352** | *e*x | PKPpre | 02 06 35.3 | |
| BOK | | | | AMS | AMS | 02 46 39.0 | |
| | comp=Z,2μm,12.9s | | | | | | |
| **PHRA** | **Phrae** | **138.75** | **330** | P | **PKPdf** | **02 06 41.2** | **-3.8** |
| | comp=Z,13nm,1.0s | | | | | | |
| **SPSI** | **Sidrap Palu** | **138.75** | **285** | PKP | PKPpre | 02 06 36.6 | |
| **BHPL** | **Bhopal** | **139.03** | **4** | *e*P | **PKPdf** | **02 06 43.8** | **-1.6** |
| BHPL | | | | AMB | AMB | 02 06 47.4 | |
| | comp=Z,87nm,1.5s | | | | | | |
| BHPL | | | | AMS | AMS | 03 06 57.6 | |
| | comp=Z,6μm,24.8s | | | | | | |
| **CMMT** | **Chiang Mai** | **139.07** | **332** | P | **PKPdf** | **02 06 45.2** | **-0.4** |
| | comp=Z,86nm,1.8s,comp=Z,3μm | | | | | | |
| **CHTO** | **Chiang Mai** | **139.07** | **332** | P | **PKPdf** | **02 06 45.3** | **-0.3** |
| | comp=Z,375nm,1.5s,comp=Z,12μm | | | | | | |
| **CHTO** | **Chiang Mai** | **139.07** | **332** | *e*PKHKP | PKPpre | 02 06 38.3 | |
| CHTO | | | | *e* | | 02 06 45.3 | |
| **CHTO** | **Chiang Mai** | **139.07** | **332** | *e*PKPpre | PKPpre | 02 06 38.3 | |
| CHTO | | | | *e*PKPdf | **PKPdf** | **02 06 45.3** | **-0.3** |
| **KAPI** | **Kappang** | **139.16** | **283** | *e*PKPpre | PKPpre | 02 06 38.2 | |
| KAPI | | | | *e*PKPdf | **PKPdf** | **02 06 46.6** | **+0.8** |
| **JBP** | **Jabalpur** | **139.18** | **0⇓** | *e*P | **PKPdf** | **02 06 45.2** | **-0.4** |
| JBP | | | | *e*x | x | 02 10 20.1 | |
| **CMAR** | **Chiang Mai Arr** | **139.38** | **332** | PKhKP | PKPpre | 02 06 34.8 | |
| | comp=Z,1.9nm,0.3s,baz=64,slow=3.3,SNR=7.0 | | | | | | |
| CMAR | | | | PKP | **PKPdf** | **02 06 47.1** | **+0.9** |
| | comp=Z,24nm,0.8s,baz=351,slow=1.3,SNR=22 | | | | | | |
| CMAR | | | | PP | **PP** | **02 09 39.7** | **+0.5** |
| | comp=Z,2.5nm,0.5s,baz=2.7,slow=5.7,SNR=5.1 | | | | | | |
| **UTHA** | **Uthaitani** | **141.66** | **329** | P | **PKPdf** | **02 06 48.9** | **-1.4** |
| | comp=Z,22nm,0.9s,comp=Z,222nm | | | | | | |
| **PLAI** | **Plampang** | **142.29** | **279** | PKP | PKPpre | 02 06 44.5 | |
| **MBWA** | **Marble Bar** | **142.55** | **258** | *e*PKPpre | PKPpre | 02 06 46.2 | |
| **SRDT** | **SRDT** | **142.85** | **328** | P | **PKPdf** | **02 06 51.3** | **-1.1** |
| | comp=Z,630nm,1.6s | | | | | | |
| **POO** | **Poona** | **143.28** | **10** | *e*x | PKPab | 02 06 48.8 | -0.2 |
| **SRSP** | **Sriramsagar** | **143.36** | **3** | *e*PKPdf | PKPab | 02 06 46.3 | -3.0 |
| **RPR** | **Rampur** | **143.46** | **1** | *e*PKPdf | PKPab | 02 06 48.4 | -1.3 |
| RPR | | | | *e*PP | **PP** | **02 10 00.4** | **-3.1** |
| **NWAO** | **Narrogin (SRO)** | **143.46** | **239** | PKhKP | PKPpre | 02 06 50.5 | |
| | comp=Z,30nm,0.8s,baz=324,slow=2.8,SNR=10.0 | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **143.46** | **239** | *e*PKIKP | PKPbc | 02 06 51.3 | +0.9 |
| **NWAO** | **Narrogin (SRO)** | **143.46** | **239** | *e*PKPdf | PKPbc | 02 06 51.3 | +0.9 |
| **CHLP** | **Challavanipeta** | **143.61** | **354** | *e*PKPdf | PKPab | 02 06 49.1 | -1.1 |
| CHLP | | | | *e*PP | **PP** | **02 10 01.4** | **-3.0** |
| **PHET** | **Kaeng Krachan** | **143.81** | **326** | P | PKPbc | 02 06 52.6 | +0.8 |
| | comp=Z,50nm,1.2s,comp=Z,487nm | | | | | | |
| **KLRI** | **Killari** | **144.09** | **6** | *e*PKPdf | **PKPab** | **02 06 50.1** | **-2.1** |
| KLRI | | | | *e*PP | **PP** | **02 10 05.2** | **-2.2** |
| **VIS** | **Vishakhapatnam** | **144.46** | **355** | *i* P | **PKPdf** | **02 06 55.1** | **-0.1** |
| VIS | | | | *i* x | x | 02 10 36.4 | |
| VIS | | | | AMS | AMS | 03 08 35.2 | |
| | comp=Z,4μm,15.1s | | | | | | |
| **VIS** | **Vishakhapatnam** | **144.46** | **355** | *i* P | **PKPdf** | **02 06 55.1** | **-0.1** |
| VIS | | | | *i* S | **SKiKP** | **02 10 36.4** | **+6.9** |
| **SRBI** | **Singaraja** | **144.46** | **281** | PKP | **PKPab** | **02 06 50.7** | **-2.9** |
| **KSM** | **Kuching** | **144.54** | **300** | *e*PKPdf | **PKPab** | **02 06 53.9** | **-0.1** |
| **IGBI** | **Denpasar** | **144.76** | **280** | PKP | PKPbc | 02 06 55.0 | +0.2 |
| **HYBB** | **Hyderabad (bro** | **144.87** | **3** | *e*PKPbc | **PKPab** | **02 06 53.8** | **-1.3** |
| HYBB | | | | *e*PP | **PP** | **02 10 09.1** | **-2.9** |
| **HYB** | **Hyderabad** | **144.87** | **3** | *i* PKP | **PKPab** | **02 06 54.0** | **-1.0** |
| | comp=Z,400nm,1.0s | | | | | | |
| HYB | | | | *e*PP | **PP** | **02 10 10.0** | **-2.0** |
| **HYB** | **Hyderabad** | **144.87** | **3** | *e*P | **PKPab** | **02 06 54.2** | **-0.9** |
| **PVM** | **Polavaram** | **145.04** | **357** | *e*PKPbc | **PKPbc** | **02 06 55.0** | **-0.6** |
| PVM | | | | *e*PP | **PP** | **02 10 09.4** | **-3.5** |
| **KMMI** | **Kalianget** | **145.26** | **284** | PKP | **PKPbc** | **02 06 56.2** | **-0.2** |
| **JAGI** | **Jajag, Banyuwa** | **145.57** | **281** | PKP | **PKPdf** | **02 06 55.1** | **-2.1** |
| **JAGI** | **Jajag, Banyuwa** | **145.57** | **281** | *e*PKPbc | **PKPdf** | **02 06 54.5** | **-2.7** |
| **NJS** | **Nagarjunasagar** | **145.75** | **1** | *e*PKPdf | **PKPdf** | **02 06 56.8** | **-0.6** |
| NJS | | | | *e*PP | **PP** | **02 10 14.6** | **-2.6** |
| **BLJI** | **Banyuglugur** | **145.85** | **283** | PKP | **PKPdf** | **02 06 57.2** | **-0.4** |
| **GMJI** | **Gumukmas** | **146.17** | **282** | PKP | **PKPdf** | **02 06 57.7** | **-0.5** |
| **SRLM** | **Srisailam** | **146.19** | **2** | *e*PKPdf | **PKPdf** | **02 06 57.1** | **-1.2** |
| SRLM | | | | *e*PP | **PP** | **02 10 17.6** | **-2.3** |
| **GOA** | **Goa** | **146.25** | **11** | *e*P | **PKPdf** | **02 06 56.9** | **-1.4** |
| **ADKI** | **Addanki** | **146.47** | **0** | *e*PKPdf | **PKPdf** | **02 06 58.8** | **+0.2** |
| ADKI | | | | *e*PP | **PP** | **02 10 19.3** | **-2.1** |
| ADKI | | | | *e*SKKSac | SKKSac | 02 17 11.2 | +1.6 |
| **DGPR** | **DIGLIPUR** | **146.61** | **337** | *e*P | **PKPdf** | **02 06 59.2** | **+0.3** |
| **TBJI** | **Tambak Boyo** | **147.12** | **286** | PKP | **PKPbc** | **02 07 01.4** | **-0.6** |
| **URV** | **Uravakonda** | **147.24** | **5** | *e*PKPdf | **PKPdf** | **02 06 59.1** | **-0.9** |
| URV | | | | *e*PP | **PP** | **02 10 24.4** | **-1.7** |
| **SURT** | **Suratani** | **147.53** | **324** | P | **PKPbc** | **02 07 03.3** | **+0.2** |
| | comp=Z,135nm,1.3s,comp=Z,4μm | | | | | | |
| **PWJI** | **Pagerwojo** | **147.60** | **284** | PKP | **PKPdf** | **02 06 59.1** | **-1.5** |
| **PAF** | **Port-aux-Franc** | **147.63** | **168** | *e*PKP2 | **PKPbc** | **02 07 02.9** | **+0.5** |
| **PAF** | **Port-aux-Franc** | **147.63** | **168** | *e*PKPbc | **PKPbc** | **02 07 02.9** | **+0.5** |
| **UWJI** | **Ujung Watu** | **147.79** | **287** | PKP | **PKPbc** | **02 07 02.8** | **-1.1** |
| **KRAB** | **Krabi** | **147.90** | **322** | P | **PKPbc** | **02 07 03.4** | **-0.7** |
| | comp=Z,230nm,1.2s,comp=Z,4μm | | | | | | |
| **TRTT** | **Trang** | **147.91** | **321** | P | **PKPbc** | **02 07 04.6** | **+0.4** |
| | comp=Z,232nm,1.3s,comp=Z,6μm | | | | | | |
| **PBA** | **Port Blair** | **148.08** | **336** | *e*P | PKPdf | 02 07 01.3 | -0.1 |
| **PCJI** | **Pacitan** | **148.25** | **284** | PKP | **PKPbc** | **02 07 03.5** | **-1.6** |
| **SMRI** | **Semarang** | **148.50** | **286** | PKP | **PKPbc** | **02 07 05.1** | **-0.7** |
| **SMRI** | **Semarang** | **148.50** | **286** | *e*PKPbc | **PKPbc** | **02 07 06.5** | **+0.7** |
| **SKHT** | **Srikalahasti** | **148.56** | **1** | *e*PKPdf | **PKPdf** | **02 07 02.1** | **-0.1** |
| SKHT | | | | *e*SKPdf | **SKPdf** | **02 10 29.6** | **-0.8** |
| **UGM** | **Wanagama** | **148.75** | **285** | PKP | **PKPdf** | **02 07 01.7** | **-0.8** |
| UGM | | | | PKP | **PKPdf** | **02 07 01.8** | **-0.8** |
| **OPO** | **Ambohidratompo** | **148.78** | **96** | PKPbc | **PKPbc** | **02 07 05.9** | **-0.6** |
| | comp=Z,17nm,0.9s,baz=275,slow=17,SNR=26 | | | | | | |
| **ABPO** | **Ambohimpanom** | **148.85** | **97** | *e*PKP2 | **PKPbc** | **02 07 06.8** | **+0.1** |
| **ABPO** | **Ambohimpanom** | **148.85** | **97** | *e*PKPbc | **PKPbc** | **02 07 06.8** | **+0.1** |
| **MDRS** | **Chennai** | **149.23** | **360** | *e*P | **PKPdf** | **02 07 03.5** | **+0.2** |
| **KULM** | **Kulim** | **149.28** | **317** | *e*PKPdf | **PKPdf** | **02 07 03.4** | **0.0** |
| KULM | | | | *e*PKPbc | **PKPbc** | **02 07 07.7** | **-0.1** |
| **KPJI** | **Karang Pucung** | **149.99** | **287** | PKP | **PKPdf** | **02 07 03.6** | **-0.9** |
| **CISI** | **Cisompet, Garu** | **151.09** | **287** | PKP | **PKPdf** | **02 07 05.6** | **-0.7** |
| **CISI** | **Cisompet, Garu** | **151.09** | **287** | *e*PKPdf | **PKPdf** | **02 07 05.6** | **-0.7** |
| CISI | | | | *e*PKPbc | **PKPbc** | **02 07 11.2** | **-0.9** |
| **CNJI** | **Cibinong** | **151.61** | **288** | PKP | **PKPdf** | **02 07 05.4** | **-1.6** |
| CNJI | | | | PKP | **PKPdf** | **02 07 07.1** | **+0.1** |
| **LHMI** | **Lhok Sumawe** | **151.62** | **323** | PKP | **PKPdf** | **02 07 06.0** | **-1.0** |
| **CMBY** | **CAMPBELL BAY** | **151.72** | **330** | *e*P | **PKPdf** | **02 07 07.4** | **+0.2** |
| **JMBI** | **JAMBI** | **151.77** | **302** | PKP | **PKPdf** | **02 07 08.2** | **+0.9** |
| **BLSI** | **Bandar Lampung** | **152.42** | **294** | PKP | **PKPdf** | **02 07 06.9** | **-1.3** |
| **KCSI** | **Kotacane, Aceh** | **152.47** | **319** | PKP | **PKPdf** | **02 07 09.2** | **+0.9** |
| **BKNI** | **Bangkinang** | **152.55** | **309** | *e*PKPbc | **PKPbc** | **02 07 14.2** | **-1.2** |
| **MSEY** | **Mahe Island** | **152.59** | **64** | *e*PKIKP | **PKPbc** | **02 07 16.1** | **+0.6** |
| **MSEY** | **Mahe Island** | **152.59** | **64** | *e*PKPbc | **PKPbc** | **02 07 16.1** | **+0.6** |
| **MNCY** | **Minicoy** | **153.09** | **16** | *e*P | **PKPdf** | **02 07 09.6** | **+0.4** |
| **TRD** | **Trivandrum** | **153.58** | **7** | *e*P | **PKPdf** | **02 07 09.8** | **-0.1** |
| **XMIS** | **Christmas Isla** | **154.15** | **283** | *e*PKPdf | **PKPdf** | **02 07 11.8** | **+1.2** |
| XMIS | | | | *e*PKPbc | **PKiKP** | **02 07 20.7** | **+1.8** |
| **GSI** | **Gunungsitoli** | **154.28** | **316** | PKP | **PKPdf** | **02 07 11.7** | **+0.8** |
| **GSI** | **Gunungsitoli** | **154.28** | **316** | *e*PKPbc | **PKPbc** | **02 07 19.5** | **+0.3** |
| **PALK** | **Pallekele** | **154.98** | **359** | PKP | **PKPdf** | **02 07 10.8** | **-1.1** |
| | comp=Z,13nm,1.0s,baz=117,slow=0.4,SNR=6.7 | | | | | | |
| PALK | | | | PKPbc | **PKiKP** | **02 07 21.8** | **+1.1** |
| | comp=Z,11nm,0.8s,baz=296,slow=1.6,SNR=5.1 | | | | | | |
| PALK | | | | PKPab | **PKPab** | **02 07 36.9** | **+0.9** |
| | comp=Z,64nm,1.1s,baz=295,slow=5.1,SNR=7.2 | | | | | | |
| **PALK** | **Pallekele** | **154.98** | **359** | *i* P | **PKPdf** | **02 07 11.6** | **-0.3** |
| | SNR=5.1 | | | | | | |
| **PALK** | **Pallekele** | **154.98** | **359** | *e*PKIKP | **PKPdf** | **02 07 12.3** | **+0.3** |
| PALK | | | | | | 02 07 21.8 | |
| PALK | | | | | | 02 07 36.9 | |
| **PALK** | **Pallekele** | **154.98** | **359** | *e*PKPdf | **PKPdf** | **02 07 12.2** | **+0.3** |
| PALK | | | | PKPbc | **PKiKP** | **02 07 21.8** | **+1.1** |
| PALK | | | | PKPab | **PKPab** | **02 07 36.9** | **+0.9** |
| **DGAR** | **Diego Garcia** | **167.20** | **36*d*** | *i*PKIKP | **PKPdf** | **02 07 23.9** | **-0.9** |

*ISCJB* ***11*** *01:53:30.7±0.5, 24°.25N±0°.05×143°.21E±0°.08, h29km, mb4.5/40, MS5.2/2, Error ellipse: s-maj=11.1km s-min=7.2km az=172.8*
*NEIC* ***11*** *01:53:37.9±1.3, 24°.32N×143°.11E, h75km±11km, mb4.5/4, Error ellipse: s-maj=11.5km s-min=8.6km az=94.0*
*IDC* ***11*** *01:53:38.2±3.5, 24°.33N×143°.13E, h76km±31km, mb4.1/24, mb1 4.1/28, mb1mx4.0/72, mbtmp4.3/28, MS5.2/2, Ms1 5.2/2, ms1mx3.7/46, Error ellipse: s-maj=20.5km s-min=13.0km az=81.0*
**ISC 11 01:53:32.7**±0.6**, 24°.24N**±0°.06×**143°.2E**±0°.1**, h29km, n67, σ1s.42**/57**, mb4.6**/40**, Volcano Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CBIJ** | **Chichi jima** | **2.99** | **342** | *e*Pn | **Pn** | **01 54 21.3** | **+3.1** |
| CBIJ | | | | *e*Sn | **Sb** | **01 55 03.3** | **+1.9** |
| **MJAR** | **Matsushiro Arr** | **12.99** | **342** | P | **Pn** | **01 56 37.2** | **+1.7** |
| | 1.3nm,0.3s,baz=145,slow=11,SNR=10 | | | | | | |
| MJAR | | | | S | **Sn** | **01 59 00.2** | **+1.2** |
| | 0.6nm,0.3s,baz=158,slow=24,SNR=5.0 | | | | | | |
| **MAJO** | **Matsushiro** | **13.00** | **342** | *e*Pn | **Pn** | **01 56 37.2** | **+1.8** |
| | 48nm,1.2s | | | | | | |
| **MAT** | **Matsushiro** | **13.00** | **342** | P | **Pn** | **01 56 37.2** | **+1.8** |
| MAT | | | | *e*S | **Sn** | **01 58 54.6** | **-4.5** |
| **JNU** | **Nakatsue** | **13.96** | **312** | P | **Pn** | **01 56 51.8** | **+3.2** |
| | 0.2nm,0.3s,baz=6.1,slow=15,SNR=2.1 | | | | | | |
| **KSRS** | **Korea Array** | **18.55** | **319** | P | **Pn** | **01 57 48.2** | **+0.7** |
| | 0.2nm,0.3s,baz=132,slow=9.0,SNR=10 | | | | | | |
| **KSAR** | **Wonju Array Be** | **18.57** | **319** | P | **Pn** | **01 57 48.2** | **+0.5** |
| **ASAJ** | **Asahikawa** | **19.84** | **359** | P | **Pn** | **01 58 02.9** | **0.0** |
| | 0.2nm,0.3s,baz=207,slow=18,SNR=1.5 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **21.92** | **338** | P | **P** | **01 58 23.7** | **0.0** |
| | 4.9nm,0.9s,baz=157,slow=8.8,SNR=7.5 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **22.60** | **100** | T | T | 02 21 48.9 | |
| | baz=291,slow=75,SNR=5.4 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **22.61** | **100** | T | T | 02 21 50.2 | |
| | baz=291,slow=75,SNR=5.8 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **22.62** | **100** | T | T | 02 21 51.6 | |
| | baz=291,slow=75,SNR=3.8 | | | | | | |
| **KLR** | **Kul'dur** | **26.52** | **343** | P | **P** | **01 59 09.3** | **+1.7** |
| | 0.9nm,0.8s,baz=142,slow=11,SNR=34 | | | | | | |
| **KAPI** | **Kappang** | **36.97** | **221** | *e*P | **P** | **02 00 40.4** | **+0.7** |
| | 17nm,1.1s | | | | | | |
| **ULN** | **Ulaanbaatar** | **37.04** | **319** | *e*P | **P** | **02 00 39.8** | **-0.4** |
| | 2.6nm,0.8s | | | | | | |
| **SONM** | **Songino Array** | **37.42** | **318** | P | **P** | **02 00 42.5** | **-0.9** |
| | 1.0nm,0.9s,baz=112,slow=11,SNR=5.1 | | | | | | |
| **NONG** | **Nongkai** | **37.76** | **269** | P | P | 02 00 55.4 | +9.0 |
| | 200nm,0.9s | | | | | | |
| **KHON** | **Khomkaen** | **38.57** | **266** | P | P | 02 01 02.6 | +9.4 |
| | 11nm,1.1s | | | | | | |
| **CHAI** | **Chaiyaphum** | **39.47** | **266** | P | P | 02 01 09.1 | +8.3 |
| | 6.0nm,1.0s | | | | | | |
| **PBKT** | **Sadao Pong** | **40.18** | **267** | P | P | 02 01 15.5 | +8.8 |
| | 13nm,1.4s | | | | | | |
| **PHRA** | **Phrae** | **40.30** | **270** | P | P | 02 01 16.9 | +9.2 |
| | 23nm,2.2s,49μm | | | | | | |
| **TLY** | **Talaya** | **40.74** | **323** | LR | LR | 02 17 41.3 | |
| | comp=Z,2μm,20.4s,baz=293,slow=36 | | | | | | |
| **CMMT** | **Chiang Mai** | **41.38** | **271** | P | P | 02 01 24.8 | +8.1 |
| | 11nm,1.4s | | | | | | |
| **CHTO** | **Chiang Mai** | **41.39** | **271** | P | P | 02 01 24.9 | +8.2 |
| | 48nm,1.4s | | | | | | |
| **CHTO** | **Chiang Mai** | **41.39** | **271** | *e*P | **P** | **02 01 15.7** | **-1.0** |
| | 6.9nm,0.9s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **41.48** | **271** | P | **P** | **02 01 15.8** | **-1.7** |
| | 1.4nm,0.5s,baz=60,slow=8.5,SNR=7.0 | | | | | | |
| **UTHA** | **Uthaitani** | **41.89** | **266** | P | P | 02 01 30.0 | +9.2 |
| | 5.1nm,1.1s | | | | | | |
| **WRA** | **Warramunga Arr** | **44.75** | **192** | P | **P** | **02 01 44.6** | **+0.9** |
| | 5.5nm,0.5s,baz=14,slow=8.6,SNR=5.6 | | | | | | |
| **LSA** | **Lhasa** | **46.39** | **289** | *e*P | **P** | **02 01 56.7** | **-0.6** |
| | 5.0nm,0.6s | | | | | | |
| **ASAR** | **Alice Springs** | **48.46** | **191** | P | **P** | **02 02 14.5** | **+1.7** |
| | 2.8nm,0.6s,baz=13,slow=10,SNR=6.0 | | | | | | |
| **TAPN** | **Taplejung** | **49.71** | **286** | *e*P | **P** | **02 02 23.3** | **+0.5** |
| | 78nm,1.2s | | | | | | |
| **ODAN** | **Odare** | **50.08** | **286** | *e*P | **P** | **02 02 24.8** | **-0.7** |
| | 76nm,1.1s | | | | | | |
| **RAMN** | **Ramite** | **50.75** | **286** | *e*P | **P** | **02 02 30.5** | **-0.2** |
| | 46nm,1.1s | | | | | | |
| **JIRN** | **Jiri** | **50.99** | **287** | *e*P | **P** | **02 02 32.1** | **-0.5** |
| | 63nm,0.7s | | | | | | |
| **GUN** | **Gumba** | **51.22** | **287** | *e*P | **P** | **02 02 34.5** | **+0.2** |
| | 74nm,1.1s | | | | | | |
| **DZM** | **Mont Dzumac** | **51.28** | **152** | P | **P** | **02 02 36.9** | **+2.6** |
| | 3.3nm,0.6s,baz=307,slow=5.1,SNR=2.6 | | | | | | |
| **PKI** | **Pulchoki** | **51.69** | **287** | *e*P | **P** | **02 02 37.4** | **-0.4** |
| | 36nm,1.2s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **52.25** | **320** | P | **P** | **02 02 40.4** | **-0.8** |
| | 1.1nm,0.5s,baz=116,slow=7.9,SNR=2.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **53.02** | **311** | P | **P** | **02 02 46.7** | **-0.3** |
| | 1.3nm,0.6s,baz=89,slow=8.1,SNR=4.4 | | | | | | |
| **KOLN** | **Koldanda** | **53.23** | **287** | *e*P | **P** | **02 02 48.3** | **-0.8** |
| | 43nm,1.2s | | | | | | |
| **PYUN** | **Piuthan** | **53.70** | **288** | *e*P | **P** | **02 02 51.2** | **-1.3** |
| **KURK** | **Kurchatov** | **55.65** | **316** | *e*P | **P** | **02 03 04.4** | **-1.6** |
| | 80nm,1.0s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **55.70** | **316** | P | **P** | **02 03 05.5** | **-0.9** |
| | 4.3nm,1.0s,baz=93,slow=8.3,SNR=9.5 | | | | | | |
| **STKA** | **Stephens Creek** | **55.82** | **182** | P | **P** | **02 03 07.2** | **-0.1** |
| | 5.3nm,0.7s,baz=326,slow=11,SNR=3.8 | | | | | | |
| **MCK** | **McKinley** | **58.76** | **29** | *e*P | **P** | **02 03 26.6** | **-1.2** |
| | 45nm,1.4s | | | | | | |
| **COLA** | **College** | **59.40** | **28** | *e*P | **P** | **02 03 31.9** | **-0.3** |
| | 24nm,1.4s | | | | | | |
| **ILAR** | **Eielson Array** | **59.79** | **28** | P | **P** | **02 03 33.6** | **-1.3** |
| | 5.9nm,0.9s,baz=261,slow=4.2,SNR=13 | | | | | | |
| **PAX** | **Paxson** | **60.23** | **30** | *e*P | **P** | **02 03 38.0** | **-0.1** |
| | 17nm,1.2s | | | | | | |
| **BVAR** | **Borovoye Array** | **60.77** | **319** | P | **P** | **02 03 41.5** | **-0.3** |
| | 12nm,1.0s,baz=83,slow=5.8,SNR=7.1 | | | | | | |
| **BRVK** | **Borovoye** | **60.83** | **319** | *e*P | **P** | **02 03 42.0** | **-0.3** |
| | 50nm,1.3s | | | | | | |
| **ARU** | **Arti** | **67.24** | **323** | P | **P** | **02 04 23.2** | **-1.1** |
| | 6.5nm,0.5s,baz=78,slow=3.8,SNR=8.7 | | | | | | |
| **ARU** | **Arti** | **67.24** | **323** | *e*P | **P** | **02 04 23.4** | **-0.9** |
| **AKTO** | **Aktyubinsk** | **68.72** | **317** | P | **P** | **02 04 34.3** | **+0.6** |
| | 3.0nm,0.8s,baz=53,slow=10,SNR=4.4 | | | | | | |
| **GEYT** | **Alibeck** | **71.83** | **304** | P | **P** | **02 04 52.8** | **-0.3** |
| | 10.0nm,1.1s,baz=90,slow=3.0,SNR=14 | | | | | | |
| **YKA** | **Yellowknife Ar** | **74.22** | **28** | P | **P** | **02 05 05.6** | **-1.0** |
| | 1.5nm,0.6s,baz=293,slow=5.9,SNR=9.3 | | | | | | |
| **ARCES** | **ARCESS Array B** | **76.53** | **341** | P | **P** | **02 05 20.6** | **+0.8** |
| | 10nm,1.1s,baz=62,slow=10,SNR=3.9 | | | | | | |
| **KBZ** | **Khabaz** | **80.63** | **314** | P | **P** | **02 05 43.6** | **+0.8** |
| | 18nm,1.1s,baz=90,slow=4.0,SNR=5.8 | | | | | | |
| **FINES** | **FINESS Array B** | **80.91** | **334** | P | **P** | **02 05 42.8** | **-1.2** |
| | 7.1nm,0.9s,baz=61,slow=4.4,SNR=7.7 | | | | | | |
| **AKASG** | **Malin Array Be** | **85.46** | **324** | P | **P** | **02 06 05.7** | **-2.0** |
| | 0.5nm,0.4s,baz=52,slow=5.5,SNR=3.4 | | | | | | |
| **PDAR** | **Pinedale Array** | **85.59** | **45** | P | **P** | **02 06 08.9** | **+0.1** |
| | 0.9nm,0.8s,baz=260,slow=2.7,SNR=2.9 | | | | | | |
| **HFS** | **Hagfors** | **86.40** | **337** | P | **P** | **02 06 11.2** | **-1.0** |
| | 3.7nm,0.8s,baz=79,slow=7.5,SNR=4.0 | | | | | | |
| **NOA** | **NORSAR Array B** | **86.59** | **339** | P | **P** | **02 06 11.2** | **-2.0** |
| | 4.1nm,1.0s,baz=45,slow=4.6,SNR=3.2 | | | | | | |
| **BRTR** | **Keskin Array B** | **88.61** | **313** | LR | LR | 02 51 08.9 | |
| | comp=Z,2μm,21.2s,baz=318,slow=39 | | | | | | |
| **LBTB** | **Lobatse** | **123.73** | **255** | PKP | **PKPdf** | **02 12 28.1** | **-0.3** |
| | 4.4nm,1.1s,baz=18,slow=3.2,SNR=3.7 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **127.13** | **310** | PKP | **PKPdf** | **02 12 32.6** | **-2.4** |
| | 1.4nm,1.1s,baz=87,slow=1.0,SNR=3.4 | | | | | | |
| **SAML** | **Samuel** | **150.59** | **63** | *e*PKPbc | **PKPdf** | **02 13 18.9** | **+1.6** |
| **ASCN** | **Ascension** | **153.09** | **303** | *e*PKPbc | **PKPbc** | **02 13 27.2** | **-1.2** |

*ISCJB* ***11*** *01:57:00.4±0.3, 4°.59S±0°.04×149°.34E±0°.06, h577km, mb4.2/23, Error ellipse: s-maj=8.0km s-min=5.7km az=1.1*
*IDC* ***11*** *01:57:01.8±0.9, 4°.67S×149°.39E, h581km±11km, mb3.7/23, mb1 3.9/26, mb1mx3.7/46, mbtmp4.7/26, Error ellipse: s-maj=11.0km s-min=7.7km az=96.0*
**ISC 11 01:57:01.4**±0.4**, 4°.61S**±0°.06×**149°.42E**±0°.08**, h577km, n55, σ0s.90**/61**, mb4.1**/23**, Bismarck Sea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **5.26** | **205** | P | **P** | **01 58 35.3** | **+0.2** |
| | 74nm,0.3s,baz=53,slow=5.8,SNR=181 | | | | | | |
| PMG | | | | S | **S** | **01 59 50.6** | **-1.0** |
| | 9.2nm,0.3s,baz=52,slow=19,SNR=13 | | | | | | |
| **COEN** | **Coen** | **11.14** | **213** | P | **P** | **01 59 31.9** | **+0.6** |
| | baz=11,SNR=18 | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| HNR | Honiara | 11.50 | 115 | P | P | 01 59 34.6 | -0.4 |
| | 8.2nm,0.3s,baz=5.0,slow=1.8,SNR=3.9 | | | | | | |
| HNR | | | | S | S | 02 01 40.7 | -0.6 |
| | 7.3nm,0.3s,baz=209,slow=19,SNR=2.6 | | | | | | |
| MTSU | Mount Surprise | 14.34 | 200 | P | P | 02 00 04.7 | +0.8 |
| | baz=14,SNR=322 | | | | | | |
| CTA | Charters Tower | 15.69 | 191 | P | P | 02 00 17.4 | +0.5 |
| | 13nm,0.3s,baz=3.1,slow=11,SNR=172 | | | | | | |
| CTA | | | | S | S | 02 03 00.8 | +4.2 |
| | 0.2nm,0.3s,baz=29,slow=13,SNR=3.4 | | | | | | |
| QIS | Mount Isa | 18.50 | 210 | P | P | 02 00 43.2 | +0.5 |
| | baz=19,SNR=29 | | | | | | |
| KDU | Kakadu | 18.56 | 243 | P | P | 02 00 43.1 | -0.2 |
| | baz=19,SNR=3.2 | | | | | | |
| EIDS | Eidsvold | 20.70 | 176 | P | P | 02 01 02.5 | -0.1 |
| | baz=21,SNR=8.7 | | | | | | |
| WRA | Warramunga Arr | 21.16 | 223 | P | P | 02 01 07.1 | +0.3 |
| | 17nm,0.6s,baz=47,slow=9.3,SNR=95 | | | | | | |
| WRA | | | | S | S | 02 04 23.3 | -1.5 |
| | 6.7nm,0.8s,baz=48,slow=14,SNR=10 | | | | | | |
| RMQ | Roma | 21.76 | 182 | P | P | 02 01 12.4 | +0.4 |
| | baz=22,SNR=24 | | | | | | |
| QLP | Quilpie | 22.40 | 192 | P | P | 02 01 17.9 | +0.1 |
| | baz=23,SNR=52 | | | | | | |
| DZM | Mont Dzumac | 23.95 | 138 | P | P | 02 01 31.1 | -0.6 |
| | 9.0nm,0.4s,baz=294,slow=10.0,SNR=35 | | | | | | |
| ASAR | Alice Springs | 24.14 | 217 | P | P | 02 01 33.4 | 0.0 |
| | 21nm,0.4s,baz=49,slow=8.1,SNR=444 | | | | | | |
| ASAR | | | | S | S | 02 05 09.9 | -1.8 |
| | 2.2nm,0.7s,baz=41,slow=13,SNR=5.7 | | | | | | |
| ARMA | Armidale | 25.76 | 176 | P | P | 02 01 48.5 | +0.9 |
| | baz=26,SNR=37 | | | | | | |
| FITZ | Fitzroy Crossi | 26.84 | 238 | P | P | 02 01 56.9 | -0.2 |
| | 19nm,1.0s,baz=50,slow=8.7,SNR=21 | | | | | | |
| FITZ | Fitzroy Crossi | 26.84 | 238 | P | P | 02 01 55.8 | -1.2 |
| | baz=27,SNR=5.9 | | | | | | |
| CMSA | Cobar Meteorol | 27.02 | 187 | P | P | 02 01 58.4 | 0.0 |
| | baz=27,SNR=22 | | | | | | |
| STKA | Stephens Creek | 28.10 | 194 | P | P | 02 02 07.2 | -0.7 |
| | 18nm,0.8s,baz=358,slow=8.8,SNR=38 | | | | | | |
| STKA | Stephens Creek | 28.10 | 194 | P | P | 02 02 07.3 | -0.6 |
| | baz=28,SNR=28 | | | | | | |
| WRKA | Warakurna | 28.71 | 223 | P | P | 02 02 12.7 | -0.6 |
| | baz=29,SNR=44 | | | | | | |
| YNG | Young | 29.55 | 182 | P | P | 02 02 21.2 | +0.7 |
| | baz=30,SNR=11 | | | | | | |
| MPSI | Mapaga | 29.89 | 279 | P | P | 02 02 23.6 | -0.1 |
| CNB | Canberra Magne | 30.55 | 180 | P | P | 02 02 29.9 | +0.8 |
| | baz=31,SNR=12 | | | | | | |
| BBOO | Buckleboo | 30.71 | 202 | P | P | 02 02 29.8 | -0.6 |
| | baz=31,SNR=22 | | | | | | |
| MILA | Mila | 32.29 | 180 | P | P | 02 02 45.0 | +1.1 |
| | baz=32,SNR=4.7 | | | | | | |
| FORT | Forrest | 32.90 | 215 | P | P | 02 02 48.7 | -0.3 |
| | baz=33,SNR=45 | | | | | | |
| TOO | Toolangi | 33.00 | 186 | P | P | 02 02 50.7 | +0.8 |
| | baz=33,SNR=20 | | | | | | |
| KMBL | Kambalda | 37.11 | 221 | P | P | 02 03 23.3 | -0.8 |
| | baz=37,SNR=10 | | | | | | |
| MOO | Moorlands | 37.72 | 183 | P | P | 02 03 29.2 | +0.4 |
| | baz=38,SNR=3.1 | | | | | | |
| KLBR | Kellerberrin | 40.03 | 224 | P | P | 02 03 46.6 | -1.1 |
| | baz=40,SNR=5.7 | | | | | | |
| JNU | Nakatsue | 41.44 | 336 | P | P | 02 03 59.2 | +0.5 |
| | 3.2nm,0.5s,baz=174,slow=9.2,SNR=4.3 | | | | | | |
| URZ | Urewera | 41.92 | 147 | P | P | 02 04 02.7 | +0.3 |
| | 9.9nm,0.5s,baz=254,slow=4.8,SNR=6.9 | | | | | | |
| MJAR | Matsushiro Arr | 42.26 | 347 | P | P | 02 04 05.0 | -0.1 |
| | 3.2nm,0.8s,baz=166,slow=7.5,SNR=4.7 | | | | | | |
| RPZ | Rata Peaks | 43.38 | 157 | P | P | 02 04 14.1 | +0.3 |
| | 15nm,0.8s,baz=300,slow=20,SNR=3.4 | | | | | | |
| KSRS | Korea Array | 46.39 | 336 | P | P | 02 04 37.3 | +0.5 |
| | 1.9nm,0.6s,baz=154,slow=8.9,SNR=5.4 | | | | | | |
| CMAR | Chiang Mai Arr | 54.76 | 296 | P | P | 02 05 38.4 | +0.4 |
| | 2.0nm,0.4s,baz=108,slow=5.8,SNR=3.4 | | | | | | |
| PETK | Petropavlovsk- | 57.93 | 6 | P | P | 02 06 00.2 | +1.1 |
| | 9.7nm,0.9s,baz=194,slow=8.5,SNR=3.6 | | | | | | |
| MA2 | Magadan | 63.99 | 1 | P | P | 02 06 39.2 | +0.5 |
| | 8.2nm,0.7s,baz=177,slow=3.2,SNR=3.8 | | | | | | |
| SONM | Songino Array | 64.40 | 329 | P | P | 02 06 42.8 | +1.1 |
| | 3.7nm,0.6s,baz=147,slow=6.1,SNR=12 | | | | | | |
| VNDA | Vanda | 73.16 | 177 | P | P | 02 07 33.6 | -0.1 |
| | 2.6nm,0.5s,baz=331,slow=7.4,SNR=12 | | | | | | |
| TIXI | Tiksi | 77.30 | 353 | P | P | 02 07 56.8 | +0.2 |
| | 0.8nm,0.3s,baz=135,slow=1.4,SNR=3.1 | | | | | | |
| MKAR | Makanchi Array | 77.98 | 320 | P | P | 02 08 01.2 | +0.3 |
| | 5.4nm,1.0s,baz=93,slow=8.8,SNR=5.1 | | | | | | |
| ZALV | Zalesovo Beam | 79.14 | 327 | P | P | 02 08 05.8 | -1.1 |
| | 3.3nm,0.8s,baz=126,slow=7.6,SNR=2.7 | | | | | | |
| KURBB | Kurchatov Arra | 81.58 | 323 | P | P | 02 08 19.2 | -0.4 |
| | 3.0nm,0.8s,baz=113,slow=3.8,SNR=4.7 | | | | | | |
| ILAR | Eielson Array | 83.27 | 23 | P | P | 02 08 26.3 | -1.5 |
| | 6.5nm,0.7s,baz=250,slow=5.0,SNR=46 | | | | | | |
| BVAR | Borovoye Array | 87.08 | 324 | P | P | 02 08 46.2 | -0.2 |
| | 2.1nm,0.7s,baz=96,slow=6.5,SNR=2.6 | | | | | | |
| INK | Inuvik | 89.49 | 21 | P | P | 02 08 57.1 | -0.2 |
| | 7.0nm,1.0s,baz=256,slow=5.9,SNR=4.8 | | | | | | |
| YKA | Yellowknife Ar | 96.83 | 28 | P | P | 02 09 30.9 | 0.0 |
| | 0.7nm,0.8s,baz=274,slow=5.0,SNR=3.5 | | | | | | |
| GERES | GERESS Array B | 122.09 | 327 | PKP | PKPdf | 02 14 51.4 | 0.0 |
| | 1.5nm,0.6s,baz=54,slow=1.5,SNR=13 | | | | | | |
| EKA | Eskdalemuir Ar | 124.83 | 341 | PKP | PKPdf | 02 14 55.8 | -0.5 |
| | 0.9nm,0.5s,baz=21,slow=3.8,SNR=4.7 | | | | | | |
| DAVOX | Davos/Dischmat | 125.39 | 327 | PKP | PKPdf | 02 14 58.9 | +1.0 |
| | 0.9nm,0.5s,baz=354,slow=4.6,SNR=3.3 | | | | | | |
| MDT | Midelt | 142.91 | 322 | PKP | PKPdf | 02 15 29.1 | -1.6 |
| | 0.8nm,0.5s,baz=42,slow=2.0,SNR=4.9 | | | | | | |
| TORD | Torodi Ar. Bea | 147.03 | 287 | PKPbc | PKPbc | 02 15 41.0 | -0.1 |
| | 6.6nm,0.6s,baz=58,slow=2.6,SNR=58 | | | | | | |
| BDFB | Brasilia | 153.49 | 140 | PKPbc | PKPbc | 02 15 56.7 | +0.3 |
| | 2.4nm,0.6s,baz=233,slow=1.3,SNR=3.7 | | | | | | |
| BDFB | | | | PKPab | PKPab | 02 16 11.1 | -0.5 |
| | 1.8nm,0.8s,baz=247,slow=7.7,SNR=2.8 | | | | | | |
| DBIC | Dimbokro | 154.32 | 276 | PKPab | PKPab | 02 16 15.7 | +0.5 |
| | 3.5nm,0.9s,baz=102,slow=4.9,SNR=4.6 | | | | | | |

*NEIC **11** 02:00:14.7±0.0, 17°.82N×99°.96W, h56km, MD4.1(MEX), After MEX.*

**MEX 11 02:00:14.7**±0.6**, 17°.82N×99°.96W, h56**km±6km**, MD4.1, Guerrero**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MEIG | Mezcala | 0.34 | 72 | *i* P | Pn | 02 00 23.2 | -1.7 |
| MEIG | | | | *e*S | Sn | 02 00 30.5 | -1.7 |
| MEIG | Mezcala | 0.34 | 72 | *i* P | Pn | 02 00 23.2 | -1.7 |
| MEIG | | | | *e*S | Sn | 02 00 30.5 | -1.7 |
| ARIG | Puente Sto Nin | 0.59 | 321 | *i* P | Pn | 02 00 26.0 | -1.4 |
| ARIG | | | | *e*S | Sn | 02 00 35.2 | -1.4 |
| PLIG | Platanillo | 0.71 | 37 | *i* P | Pn | 02 00 27.7 | -1.3 |
| PLIG | | | | *e*S | Sn | 02 00 38.1 | -1.3 |
| PLIG | Platanillo | 0.71 | 37 | *i* P | Pn | 02 00 27.7 | -1.3 |
| PLIG | | | | *e*S | Sn | 02 00 38.1 | -1.3 |
| YAIG | Yautepec | 1.34 | 39 | *e*P | Pn | 02 00 35.5 | -1.8 |
| YAIG | | | | *i* S | Sn | 02 00 52.3 | -1.9 |
| YAIG | Yautepec | 1.34 | 39 | *e*P | Pn | 02 00 35.5 | -1.8 |
| YAIG | | | | *i* S | Sn | 02 00 52.3 | -1.9 |
| TLIG | Tlapa | 1.35 | 101 | *e*P | Pn | 02 00 36.5 | -0.9 |
| TLIG | | | | *e*S | Sn | 02 00 52.4 | -2.1 |
| TLIG | Tlapa | 1.35 | 101 | *e*P | Pn | 02 00 36.5 | -0.9 |
| TLIG | | | | *e*S | Sn | 02 00 52.4 | -2.1 |
| ZIIG | Zihuatanejo | 1.45 | 262 | *e*P | Pn | 02 00 37.0 | -1.7 |
| ZIIG | Zihuatanejo | 1.45 | 262 | *e*P | Pn | 02 00 37.0 | -1.7 |

**MEX 11 02:06:17.8**±0.3**, 17°.80N×99°.95W, h61**km±4km**, MD4.0, Guerrero**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MEIG | Mezcala | 0.34 | 68 | *e*P | Pn | 02 06 26.9 | -1.5 |
| MEIG | | | | *e*S | Sn | 02 06 34.4 | -1.7 |
| ARIG | Puente Sto Nin | 0.61 | 322 | *e*P | Pn | 02 06 29.6 | -1.5 |
| ARIG | | | | *e*S | Sn | 02 06 38.9 | -1.9 |
| PLIG | Platanillo | 0.73 | 36 | *e*P | Pn | 02 06 31.2 | -1.4 |
| PLIG | | | | *i* S | Sn | 02 06 41.6 | -1.8 |
| ZIIG | Zihuatanejo | 1.46 | 263 | *e*P | Pn | 02 06 40.5 | -1.4 |

*NIED **11** 02:14:00, 41°.30N×140°.10E, h65km, Mw4.7 Best double couple: Mo1.31000×10^16 NP1:φs84.00000°, δ59.00000°, λ162.00000°. NP2:φs184.00000°, δ74.00000°, λ32.00000°.*
*ISCJB **11** 02:14:09.0±0.2, 41°.34N±0°.03×140°.17E±0°.05, h169km±2km, mb3.9/24, Error ellipse: s-maj=6.6km s-min=4.5km az=21.0*
*MOS **11** 02:14:09.3±0.9, 41°.42N×140°.05E, h168km, mb4.1/18, Error ellipse: s-maj=13.8km s-min=9.0km az=70.1*
*JMA **11** 02:14:10.3±0.1, 41°.34N×140°.11E, h162km±1km, M3.6*
*IDC **11** 02:14:10.6±1.4, 41°.27N×140°.06E, h173km±13km, mb3.6/22, mb1 3.7/27, mb1mx3.6/63, mbtmp4.0/27, Error ellipse: s-maj=13.2km s-min=10.4km az=122.0*

**ISC 11 02:14:09.9**±0.6**, 41°.34N**±0°.04×**140°.17E**±0°.05**, h165**km±5km**, n65, σ1s.00**/83**, mb4.0**/24**, 1C, Hokkaido region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JSR | Shiriuchi | 0.27 | 45 | P | Pn | 02 14 32.3 | +0.2 |
| JSR | | | | *e*S | Sn | 02 14 48.9 | -0.3 |
| JSI2 | Shiura 2 | 0.34 | 147 | P | Pn | 02 14 32.7 | +0.3 |
| JSI2 | | | | *e*S | Sn | 02 14 49.6 | +0.1 |
| JOT | Ohata | 0.67 | 86 | P | Pn | 02 14 34.2 | +0.4 |
| JOT | | | | *e*S | Sn | 02 14 52.2 | +0.1 |
| JIW | Iwasaki | 0.76 | 189 | P | Pn | 02 14 34.6 | +0.2 |
| JYM2 | Yakumo 2 | 0.79 | 11 | P | Pn | 02 14 35.0 | +0.4 |
| JYM2 | | | | *e*S | Sn | 02 14 54.0 | +0.3 |
| JKB | Kayabe | 0.85 | 50 | P | Pn | 02 14 35.5 | +0.6 |
| JKB | | | | *e*S | Sn | 02 14 54.8 | +0.5 |
| JTM | Tenmabayashi | 0.88 | 129 | P | Pn | 02 14 35.7 | +0.5 |
| JTM | | | | *e*S | Sn | 02 14 54.4 | -0.2 |
| JOSM | Okushiri--Mats | 0.90 | 325 | P | Pn | 02 14 35.2 | -0.1 |
| JOSM | | | | *e*S | Sn | 02 14 53.8 | -1.2 |
| JAH | Hinai | 1.21 | 163 | P | Pn | 02 14 38.3 | +0.5 |
| JAH | | | | *e*S | Sn | 02 15 00.1 | +0.8 |
| JNB | Noboribetsu | 1.30 | 30 | P | Pn | 02 14 39.0 | +0.3 |
| JNB | | | | *e*S | Sn | 02 15 01.6 | +0.6 |
| JSH | Shimam | 1.30 | 356 | P | Pn | 02 14 39.0 | +0.3 |
| JSH | | | | *e*S | Sn | 02 15 00.5 | -0.5 |
| JANG | Nango | 1.41 | 133 | P | Pn | 02 14 39.8 | +0.1 |
| JANG | | | | *e*S | Sn | 02 15 02.3 | -0.4 |
| JEW | Eniwo | 1.78 | 32 | P | Pn | 02 14 44.7 | +1.3 |
| JSK | Shakotan | 2.02 | 6 | P | Pn | 02 14 46.8 | +0.7 |
| JOM | Ohasama | 2.05 | 155 | P | Pn | 02 14 46.6 | 0.0 |
| JOM | | | | *e*S | Sn | 02 15 14.9 | 0.0 |
| JNBK | Urakawa-nobuka | 2.15 | 63 | P | Pn | 02 14 48.2 | +0.6 |
| JYK | Kaneyama | 2.42 | 176 | P | Pn | 02 14 51.0 | +0.1 |
| ASAJ | Asahikawa | 3.30 | 32 | P | Pn | 02 15 02.3 | +0.7 |
| | 30nm,0.3s,baz=230,slow=12,SNR=139 | | | | | | |
| ASAJ | | | | S | Sn | 02 15 39.9 | -2.0 |
| | 10.0nm,0.3s,baz=306,slow=19,SNR=5.9 | | | | | | |
| YUK | Yuzh-Kuril'sk | 4.99 | 55*c* | *i*P | Pn | 02 15 23.9 | +0.6 |
| YUK | | | | *e*S | Sn | 02 16 19.0 | -1.8 |
| YUK | | | | pmax | pmax | | |
| | comp=Z,194nm,0.3s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=N,79nm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=E,82nm,0.2s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=E,205nm,0.3s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,432nm,0.5s | | | | | | |
| MAT | Matsushiro | 5.03 | 198 | P | Pn | 02 15 24.4 | +0.5 |
| MAT | | | | *e*S | Sn | 02 16 19.7 | -2.2 |
| MJAR | Matsushiro Arr | 5.03 | 198 | P | Pn | 02 15 24.8 | +0.8 |
| | comp=N,2.6nm,0.3s,baz=10,slow=13,SNR=23 | | | | | | |
| MJAR | | | | S | Sn | 02 16 10.6 | -11 |
| | comp=N,0.1nm,0.3s,baz=6.8,slow=32,SNR=2.3 | | | | | | |
| SHO | Shikotan | 5.53 | 61 | P | Pn | 02 15 28.9 | -1.5 |
| SHO | | | | *e*S | Sn | 02 16 27.9 | -5.7 |
| SHO | | | | pmax | pmax | | |
| | comp=Z,141nm,0.4s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=E,457nm,0.3s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=N,98nm,0.2s | | | | | | |
| USRK | Ussuriysk Ar. | 6.66 | 298 | P | Pn | 02 15 45.8 | +0.5 |
| | comp=N,0.7nm,0.3s,baz=95,slow=16,SNR=9.4 | | | | | | |
| KUR | Kuril'sk | 6.83 | 53 | *e*P | Pn | 02 15 49.2 | +1.6 |
| KUR | | | | *e*S | Sn | 02 17 04.1 | -0.4 |
| KSRS | Korea Array | 10.24 | 252 | P | Pn | 02 16 32.8 | +0.1 |
| | comp=N,0.2nm,0.3s,baz=71,slow=13,SNR=7.8 | | | | | | |
| MA2 | Magadan | 19.42 | 16 | P | Pn | 02 18 25.1 | -1.0 |
| | comp=N,1.6nm,0.3s,baz=203,slow=14,SNR=5.4 | | | | | | |
| SEY | Seymchan | 22.81 | 14 | P | P | 02 18 58.0 | -0.1 |
| | comp=N,3.9nm,0.7s,baz=206,slow=10,SNR=4.1 | | | | | | |
| SEY | Seymchan | 22.81 | 14 | P | P | 02 18 58.0 | -0.1 |
| SEY | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.5s | | | | | | |
| SONM | Songino Array | 24.77 | 297 | P | P | 02 19 15.5 | -0.8 |
| | comp=Z,0.4nm,0.6s,baz=84,slow=8.1,SNR=3.1 | | | | | | |
| ZALV | Zalesovo Beam | 38.38 | 308 | P | P | 02 21 14.9 | +0.2 |
| | comp=Z,1.4nm,0.6s,baz=96,slow=7.7,SNR=4.3 | | | | | | |
| ZALV | | | | PcP | PcP | 02 23 24.8 | +0.2 |
| | comp=Z,0.7nm,0.3s,baz=70,slow=2.0,SNR=4.8 | | | | | | |
| MKAR | Makanchi Array | 41.13 | 298 | P | P | 02 21 37.4 | -0.1 |
| | comp=Z,1.5nm,0.5s,baz=84,slow=10,SNR=25 | | | | | | |
| CMAR | Chiang Mai Arr | 41.87 | 250 | P | P | 02 21 44.3 | +0.5 |
| | comp=Z,0.9nm,0.3s,baz=44,slow=7.2,SNR=4.0 | | | | | | |
| KURK | Kurchatov | 42.61 | 304 | P | P | 02 21 50.0 | +0.6 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.4s | | | | | | |
| KURBB | Kurchatov Arra | 42.68 | 304 | P | P | 02 21 50.0 | +0.1 |
| | comp=Z,3.2nm,0.4s,baz=80,slow=8.7,SNR=24 | | | | | | |
| TAPN | Taplejung | 44.86 | 269 | *e*P | P | 02 22 08.3 | +0.3 |
| | comp=Z,7.8nm,0.4s | | | | | | |
| ODAN | Odare | 45.36 | 269 | *e*P | P | 02 22 12.1 | +0.2 |
| JIRN | Jiri | 45.84 | 270 | *e*P | P | 02 22 16.3 | +0.5 |
| RAMN | Ramite | 45.91 | 269 | *e*P | P | 02 22 16.3 | +0.1 |
| | comp=Z,23nm,0.6s | | | | | | |
| GUN | Gumba | 45.94 | 271 | *e*P | P | 02 22 16.6 | 0.0 |
| | comp=Z,40nm,0.5s | | | | | | |
| ILAR | Eielson Array | 46.44 | 34 | P | P | 02 22 20.9 | +1.4 |
| | comp=Z,4.3nm,0.8s,baz=278,slow=6.0,SNR=49 | | | | | | |
| ILAR | Eielson Array | 46.44 | 34 | P | P | 02 22 21.0 | +1.4 |
| ILAR | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.8s | | | | | | |
| BVAR | Borovoye Array | 47.03 | 309 | P | P | 02 22 23.8 | -0.5 |
| | comp=Z,0.6nm,0.3s,baz=75,slow=9.3,SNR=3.9 | | | | | | |
| KOLN | Koldanda | 47.73 | 272 | *e*P | P | 02 22 30.4 | +0.1 |
| | comp=Z,4.2nm,0.4s | | | | | | |
| PYUN | Piuthan | 48.02 | 273 | *e*P | P | 02 22 32.9 | +0.4 |
| | comp=Z,9.2nm,0.3s | | | | | | |
| INK | Inuvik | 51.03 | 29 | P | P | 02 22 55.4 | +0.9 |
| | comp=Z,5.5nm,0.4s,baz=280,slow=6.4,SNR=61 | | | | | | |
| ARCES | ARCESS Array B | 59.64 | 338 | P | P | 02 23 55.7 | -0.2 |
| | comp=Z,4.4nm,1.0s,baz=34,slow=6.6,SNR=3.3 | | | | | | |
| YKA | Yellowknife Ar | 60.60 | 31 | P | P | 02 24 03.3 | +0.8 |
| | comp=Z,1.1nm,0.4s,baz=298,slow=6.7,SNR=32 | | | | | | |
| WRA | Warramunga Arr | 61.21 | 186 | P | P | 02 24 06.5 | -0.6 |
| | comp=Z,0.7nm,0.5s,baz=3.8,slow=7.2,SNR=13 | | | | | | |
| FINES | FINESS Array B | 64.57 | 331 | P | P | 02 24 28.3 | -0.5 |
| | comp=Z,2.8nm,0.7s,baz=33,slow=7.6,SNR=9.7 | | | | | | |
| ASAR | Alice Springs | 64.94 | 186 | P | P | 02 24 29.4 | -2.2 |
| | comp=Z,0.2nm,0.5s,baz=2.3,slow=4.6,SNR=3.2 | | | | | | |
| SUMG | Summit | 66.38 | 360 | *i* P | P | 02 24 41.4 | +0.6 |
| SUMG | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.4s | | | | | | |
| SUMG | Summit | 66.38 | 360 | *i* P | P | 02 24 41.4 | +0.6 |
| | comp=Z,2.7nm,0.4s | | | | | | |
| HFS | Hagfors | 69.78 | 335 | P | P | 02 25 01.5 | -0.1 |
| | comp=Z,1.3nm,0.4s,baz=46,slow=6.2,SNR=14 | | | | | | |
| NB2 | NORSAR Subarra | 69.85 | 336 | P | P | 02 25 02.0 | -0.2 |
| | comp=Z,2.0nm,0.6s,baz=39,slow=6.2 | | | | | | |
| NOA | NORSAR Array B | 69.85 | 336 | P | P | 02 25 02.0 | -0.2 |
| | comp=Z,1.6nm,0.6s,baz=39,slow=7.9,SNR=6.0 | | | | | | |
| NOA | NORSAR Array B | 69.85 | 336 | P | P | 02 25 02.0 | -0.2 |
| NOA | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.6s | | | | | | |
| AKASG | Malin Array Be | 70.32 | 321 | P | P | 02 25 04.9 | -0.2 |
| | comp=Z,0.3nm,0.4s,baz=44,slow=6.5,SNR=4.1 | | | | | | |
| BRTR | Keskin Array B | 75.30 | 310 | P | P | 02 25 34.9 | 0.0 |
| | comp=Z,0.3nm,0.5s,baz=123,slow=4.3,SNR=3.4 | | | | | | |
| GERES | GERESS Array B | 78.56 | 327 | P | P | 02 25 53.0 | +0.2 |
| | comp=Z,0.4nm,0.5s,baz=21,slow=6.3,SNR=4.0 | | | | | | |
| GERES | GERESS Array B | 78.56 | 327 | P | P | 02 25 53.0 | +0.2 |
| GERES | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.1s | | | | | | |
| EKA | Eskdalemuir Ar | 78.76 | 340 | P | P | 02 25 54.0 | +0.3 |
| | comp=Z,0.5nm,0.4s,baz=24,slow=5.7,SNR=6.6 | | | | | | |
| EKA | Eskdalemuir Ar | 78.76 | 340 | P | P | 02 25 54.0 | +0.3 |
| EKA | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.4s | | | | | | |
| IDI | Anoyia | 83.37 | 312 | P | P | 02 26 17.1 | -1.4 |
| | baz=30,slow=6.6 | | | | | | |
| TXAR | Lajitas Array | 88.24 | 52 | P | P | 02 26 43.9 | +1.3 |
| | comp=Z,2.1nm,1.0s,baz=328,slow=3.2,SNR=5.4 | | | | | | |
| ESDC | Sonseca Array | 93.01 | 333 | P | P | 02 27 03.4 | -1.1 |
| | comp=Z,0.7nm,0.9s,baz=12,slow=5.0,SNR=2.7 | | | | | | |

**IDC 11 02:43:23.0**±3.1**, 5°.13S×134°.62E, h0**km**, mb3.9**/1**, mb1 4.2**/3**, mb1mx3.7**/21**, mbtmp4.0**/3**, ML3.7**/2**, Error ellipse: s-maj=141.4km s-min=31.6km az=79.0, Aru Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 14.73 | 181 | Pn | Pn | 02 46 51.6 | -1.2 |
| | 0.3nm,0.3s,baz=0.2,slow=13,SNR=8.8 | | | | | | |
| WRA | | | | Sn | Sn | 02 49 31.3 | -5.6 |
| | 0.3nm,0.3s,baz=348,slow=24,SNR=5.1 | | | | | | |
| ASAR | Alice Springs | 18.45 | 182 | P | P | 02 47 40.7 | +0.4 |
| | 0.3nm,0.3s,baz=2.7,slow=13,SNR=25 | | | | | | |
| ASAR | | | | S | Sn | 02 50 58.2 | -9.0 |
| | 0.0nm,0.3s,baz=2.2,slow=29,SNR=3.0 | | | | | | |
| MKAR | Makanchi Array | 69.29 | 324 | P | P | 02 54 32.2 | 0.0 |
| | 0.9nm,0.7s,baz=114,slow=7.1,SNR=6.8 | | | | | | |

**SJA 11 03:01:30.4**±0.3**, 29°.18S×69°.35W, h151**km±2km**, ML4.1, MW3.7, Chile-Argentina border region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| AGUA | GUANDACOL | 0.81 | 112 | *e*P | Pn | 03 01 54.3 | +0.4 |
| AGUA | | | | *e*S | Sn | 03 02 12.1 | +0.3 |
| VCA | Vinchina | 1.10 | 66 | *e*P | Pn | 03 01 57.0 | +0.6 |
| VCA | | | | *e*S | Sn | 03 02 16.4 | +0.3 |
| VCA | | | | IAML | | 03 02 18.4 | |
| | comp=Z,681nm,0.2s | | | | | | |
| AMOG | MOGNA | 1.90 | 157 | *e*P | Pn | 03 02 05.3 | +0.8 |
| AMOG | | | | *e*S | Sn | 03 02 31.0 | +0.2 |
| AMOG | | | | IAML | | 03 02 35.1 | |
| | comp=Z,3μm,0.4s | | | | | | |
| RTLS | Leoncito | 2.61 | 179 | *e*P | Pn | 03 02 14.4 | +1.2 |
| RTCV | Cerro Valdivia | 2.76 | 166 | *e*P | Pn | 03 02 15.6 | +0.8 |
| CYA | Choya | 3.20 | 77 | *e*P | Pn | 03 02 21.1 | +0.8 |
| CYA | | | | *e*S | Sn | 03 02 58.8 | -0.2 |

**CASC 11 03:08:03.6**±1.7**, 11°.33N×85°.70W, h147**km±17km**, MD3.9, ML3.0, Nicaragua**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CONN | Concepcion | 0.25 | 17 | *e*P | Pn | 03 08 24.6 | +0.9 |
| CRZ1 | La Cruz | 0.26 | 166 | *e*P | Pn | 03 08 24.2 | +0.5 |
| ACON | Acoyapa | 0.82 | 39 | *e*P | Pn | 03 08 26.8 | +0.1 |
| MGAN | Managua | 0.98 | 327 | *e*P | Pn | 03 08 28.6 | +0.7 |
| TISN | Laguna Tiscapa | 0.98 | 326 | *e*P | Pn | 03 08 27.9 | -0.1 |
| VCR | Vista de Mar | 1.19 | 177 | *e*P | Pn | 03 08 29.9 | -0.1 |
| VCR | | | | *e*S | Sn | 03 08 51.5 | +1.4 |
| COPN | Copaltepe | 1.22 | 314 | *e*P | Pn | 03 08 30.4 | +0.3 |
| COPN | | | | *e*S | Sn | 03 08 50.1 | -0.3 |
| COPN | | | | AML | AML | 03 08 54.3 | |
| | comp=Z,160nm,0.1s | | | | | | |
| ESPN | Las Esperanzas | 1.62 | 58 | *e*P | Pn | 03 08 33.9 | -0.3 |
| CGA2 | Cerro Gallo 2 | 1.78 | 137 | *e*P | Pn | 03 08 36.8 | +0.6 |
| CGA2 | | | | *e*S | Sn | 03 09 01.7 | +0.5 |
| URSC | Urasca | 2.40 | 128 | *e*P | Pn | 03 08 44.8 | +1.2 |
| URSC | | | | *e*S | Sn | 03 09 16.9 | +2.6 |
| QCR1 | Quepos | 2.42 | 141 | *e*P | Pn | 03 08 43.4 | -0.2 |
| QCR1 | | | | *e*S | Sn | 03 09 14.3 | -0.1 |

**IDC 11 03:08:15.6**±2.3**, 31°.48S×178°.68W, h0**km**, mb3.8**/2**, mb1 4.1**/3**, mb1mx3.8**/26**, mbtmp3.8**/3**, ML3.5**/1**, Error ellipse: s-maj=60.5km s-min=42.5km az=128.0, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| URZ | Urewera | 7.59 | 206 | Pn | Pn | 03 10 07.0 | -0.4 |
| | 0.8nm,0.3s,baz=276,slow=3.1,SNR=7.5 | | | | | | |
| URZ | | | | Sn | Sn | 03 11 28.4 | -5.8 |
| | 1.0nm,0.3s,baz=213,slow=22,SNR=6.0 | | | | | | |
| ASAR | Alice Springs | 42.48 | 268 | P | P | 03 16 12.3 | -0.5 |
| | 0.4nm,0.3s,baz=108,slow=7.6,SNR=11 | | | | | | |
| WRA | Warramunga Arr | 43.57 | 274 | P | P | 03 16 21.8 | +0.2 |
| | 1.2nm,0.5s,baz=114,slow=7.9,SNR=21 | | | | | | |
| FINES | FINESS Array B | 145.95 | 339 | PKPbc | PKPdf | 03 27 54.8 | -0.9 |
| | 5.1nm,1.1s,baz=30,slow=3.9,SNR=4.4 | | | | | | |
| BRTR | Keskin Array B | 152.58 | 296 | PKPbc | PKPbc | 03 28 14.9 | +0.8 |
| | 0.3nm,0.5s,baz=159,slow=3.2,SNR=4.6 | | | | | | |

*IDC **11** 03:19:07.1±1.5, 12°.96N×87°.96W, h0km, mb3.8/7, mb1 4.0/8, mb1mx3.8/34, mbtmp3.8/8, ML3.6/1, Error ellipse: s-maj=65.3km s-min=20.4km az=47.0*
*CASC **11** 03:19:09.4±1.7, 12°.42N×88°.74W, h24km±8km, MD4.0, ML4.1*
*NEIC **11** 03:19:12.4±1.2, 12°.73N×88°.30W, h36km±13km, mb4.3/19, Error ellipse: s-maj=26.1km s-min=7.8km az=222.0*

**ISC 11 03:19:07.5**±2.0**, 12°.41N**±0°.07×**88°.67W**±0°.05**, h13**km±12km**, n62, σ1s.62**/68**, mb4.1**/26**, Off coast of central America**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| UESV | Ojushtada | 0.97 | 353 | *e*P | Pn | 03 19 30.5 | +3.6 |
| UESV | | | | *e*S | Sn | 03 19 46.3 | +5.7 |
| UESV | | | | AML | AML | 03 19 55.0 | |
| | comp=Z,4μm,0.8s | | | | | | |
| LCY | Lacayo | 1.07 | 20 | *e*P | Pn | 03 19 28.7 | +0.3 |
| LCY | | | | *e*S | Sn | 03 19 43.8 | +0.6 |
| VSM | San Miguel | 1.08 | 21 | *e*P | Pn | 03 19 29.3 | +0.6 |
| PACA | Pacayal | 1.11 | 18 | *e*P | Pn | 03 19 29.7 | +0.8 |
| CNCH | Conchagua | 1.19 | 43 | *e*P | Pn | 03 19 30.8 | +0.8 |
| SNVI | San Vicente | 1.21 | 352 | *e*P | Pb | 03 19 30.4 | 0.0 |
| LBRS | Las Brisas | 1.37 | 345 | *e*P | Pn | 03 19 32.4 | -0.1 |
| SNET | Serv Nac Est T | 1.38 | 337 | *e*Pn | Pn | 03 19 32.2 | -0.4 |
| SNET | Serv Nac Est T | 1.38 | 337 | *e*P | Pn | 03 19 32.4 | -0.3 |
| SNET | | | | *e*S | Sb | 03 19 49.5 | -1.4 |
| SNET | | | | AML | AML | 03 19 52.5 | |
| | comp=Z,2μm,0.3s | | | | | | |
| COLS | Colinas | 1.39 | 334 | *e*P | Pn | 03 19 32.7 | 0.0 |
| COLS | | | | *e*S | Sb | 03 19 50.4 | -0.8 |
| OPAM | San Salvador | 1.40 | 338 | AML | AML | 03 19 57.1 | |
| | comp=Z,2μm,0.3s | | | | | | |
| UEES | San Salvador | 1.43 | 337 | *e*P | Pn | 03 19 32.8 | -0.4 |
| UEES | | | | AML | AML | 03 19 54.3 | |
| | comp=Z,2μm,0.3s | | | | | | |
| CAHU | Cacacuatique | 1.43 | 18 | *e*P | Pg | 03 19 34.5 | -0.5 |
| BOQS | Boqueron | 1.45 | 336 | *e*P | Pn | 03 19 33.6 | 0.0 |
| CRIN | San Cristobal | 1.61 | 79 | *e*P | Pb | 03 19 37.2 | 0.0 |
| CRIN | | | | *e*S | Sg | 03 20 00.4 | +1.0 |
| CRIN | | | | AML | AML | 03 20 14.8 | |
| | comp=N,4μm,0.4s | | | | | | |
| SBLS | San Blas | 1.70 | 327 | *e*P | Pn | 03 19 37.4 | +0.3 |
| SBLS | | | | *e*S | Sn | 03 19 59.3 | +0.5 |
| SNJE | San Jose | 1.71 | 328 | *e*P | Pn | 03 19 37.4 | +0.1 |
| MONT | Ecomontaæa | 1.73 | 327 | *e*P | Pn | 03 19 38.1 | +0.6 |
| RTR | El Retiro | 1.76 | 327 | *e*P | Pn | 03 19 38.4 | +0.5 |
| CUS1 | Cusmapa | 1.94 | 320 | *e*P | Pn | 03 19 41.1 | +0.8 |
| RBDL | Robledal | 1.96 | 330 | *e*P | Pn | 03 19 41.8 | +1.1 |
| COPN | Copaltepe | 2.04 | 96 | *e*P | Pn | 03 19 42.4 | +0.8 |
| TGUH | Tegucigalpa,Un | 2.13 | 40 | *e*Pn | Pb | 03 19 44.4 | -1.6 |
| TGUH | Tegucigalpa,Un | 2.13 | 40 | *e*P | Pb | 03 19 45.0 | -1.0 |
| XAVN | Gruta Xavier | 2.31 | 96 | *e*P | Pn | 03 19 47.1 | +1.8 |
| ESTN | Estel | 2.35 | 73 | *e*P | Pn | 03 19 46.8 | +0.9 |
| TISN | Laguna Tiscapa | 2.36 | 96 | *e*P | Pn | 03 19 46.0 | 0.0 |
| MGAN | Managua | 2.38 | 96 | *e*P | Pn | 03 19 47.2 | +1.0 |
| IXG | Ixpaco | 2.47 | 316 | *e*P | Pn | 03 19 47.8 | +0.2 |
| JTS | JuntasAbangare | 4.21 | 120 | *e*Pn | Pn | 03 20 14.1 | +2.7 |
| CMIG | Matias Romero | 7.60 | 309 | Pn | Pn | 03 21 01.4 | +3.4 |
| | comp=N,0.9nm,0.3s,baz=141,slow=8.4,SNR=12 | | | | | | |
| CMIG | | | | Sn | Sn | 03 22 22.7 | -1.5 |
| | comp=N,0.2nm,0.3s,baz=156,slow=20,SNR=2.2 | | | | | | |
| SDV | Santo Domingo | 18.07 | 99 | *e*Pn | Pn | 03 23 17.9 | -0.8 |
| JCT | Junction City | 20.73 | 332 | *e*P | P | 03 23 48.2 | +0.3 |
| | comp=N,7.5nm,0.8s | | | | | | |
| TXAR | Lajitas Array | 21.87 | 323 | P | P | 03 24 02.3 | +2.1 |
| | comp=N,1.9nm,0.6s,baz=144,slow=9.3,SNR=18 | | | | | | |
| TX31 | Lajitas Ar. Si | 21.87 | 323 | *e*P | P | 03 24 02.4 | +2.1 |
| ABTX | Abilene, Hawle | 22.50 | 335 | *e*P | P | 03 24 08.0 | +1.1 |
| | comp=N,5.3nm,0.8s | | | | | | |
| W37B | Quinton | 23.45 | 346 | *e*P | P | 03 24 17.5 | +0.9 |
| | comp=N,7.7nm,0.6s | | | | | | |
| TKL | Tuckaleechee C | 23.57 | 10 | P | P | 03 24 16.4 | -1.4 |
| | comp=N,6.9nm,0.9s,baz=175,slow=12,SNR=4.0 | | | | | | |
| WMOK | Wichita Mounta | 24.05 | 339 | *e*P | P | 03 24 21.8 | -0.7 |
| | comp=N,2.1nm,0.6s | | | | | | |
| V35A | Meyer Ranch, C | 24.40 | 344 | *e*P | P | 03 24 24.6 | -1.0 |
| | comp=N,8.5nm,0.6s | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| **MSTX** | **Muleshoe** | **25.02** | **331** | *e*P | **P** | **03 24 30.6** | **-0.8** |
| | comp=N,26nm,1.5s | | | | | | |
| **AMTX** | **Amarillo** | **25.30** | **334** | *e*P | **P** | **03 24 37.1** | **+3.1** |
| | comp=N,8.2nm,0.6s | | | | | | |
| **CCM** | **Cathedral Cave** | **25.64** | **355** | *e*P | **P** | **03 24 36.1** | **-0.9** |
| | comp=N,18nm,1.4s | | | | | | |
| **CBKS** | **Cedar Bluff** | **28.08** | **341** | *e*P | **P** | **03 24 58.0** | **-0.9** |
| | comp=N,5.4nm,0.6s | | | | | | |
| **T25A** | **Trinidad** | **28.39** | **333** | *e*P | **P** | **03 25 03.9** | **+2.0** |
| **SDCO** | **Great Sand Dun** | **29.38** | **332** | *e*P | **P** | **03 25 13.0** | **+2.2** |
| | comp=N,1.5nm,1.0s | | | | | | |
| **S22A** | **4UR Ranch, Cre** | **30.00** | **330** | *e*P | **P** | **03 25 18.1** | **+1.8** |
| | comp=N,4.7nm,1.4s | | | | | | |
| **SAML** | **Samuel** | **33.04** | **129** | *e*P | **P** | **03 25 42.7** | **-0.2** |
| | comp=N,2.1nm,0.8s | | | | | | |
| **CHNC** | **Chino** | **34.04** | **314** | *e*P | **P** | **03 25 54.8** | **+3.3** |
| **PDAR** | **Pinedale Array** | **35.26** | **333** | P | **P** | **03 26 04.1** | **+1.9** |
| | comp=N,0.2nm,0.5s,baz=145,slow=11,SNR=3.1 | | | | | | |
| **REDW** | **Red Top Meadow** | **36.31** | **332** | *e*P | **P** | **03 26 12.2** | **+1.0** |
| | comp=N,11nm,1.4s | | | | | | |
| **SNOW** | **Snow King Moun** | **36.34** | **332** | *e*P | **P** | **03 26 13.5** | **+2.0** |
| | comp=N,3.9nm,0.7s | | | | | | |
| **LOHW** | **Long Hollow** | **36.39** | **333** | *e*P | **P** | **03 26 13.7** | **+1.8** |
| | comp=N,5.6nm,1.1s | | | | | | |
| **TPAW** | **Teton Pass** | **36.45** | **332** | *e*P | **P** | **03 26 13.5** | **+1.1** |
| | comp=N,1.9nm,0.7s | | | | | | |
| **ULM** | **Lac du Bonnet** | **38.19** | **353** | P | **P** | **03 26 24.2** | **-2.6** |
| | comp=N,2.1nm,0.5s,baz=180,slow=10,SNR=7.2 | | | | | | |
| **DGMT** | **Dagmar** | **38.21** | **343** | *e*P | **P** | **03 26 27.1** | **+0.1** |
| | comp=N,8.6nm,0.6s | | | | | | |
| **SIV** | **San Ignacio** | **39.26** | **135** | P | **P** | **03 26 37.0** | **+0.8** |
| | comp=N,1.5nm,0.6s,baz=315,slow=8.3,SNR=5.6 | | | | | | |
| **EGMT** | **Eagleton** | **39.63** | **338** | *e*P | **P** | **03 26 39.0** | **0.0** |
| | comp=N,17nm,1.4s | | | | | | |
| **WVOR** | **Wild Horse Val** | **39.64** | **325** | *e*P | **P** | **03 26 41.5** | **+2.3** |
| | comp=N,4.7nm,1.4s | | | | | | |
| **YKA** | **Yellowknife Ar** | **53.34** | **345** | P | **P** | **03 28 24.7** | **-1.5** |
| | comp=N,1.0nm,0.6s,baz=151,slow=7.0,SNR=13 | | | | | | |
| **ILAR** | **Eielson Array** | **65.58** | **336** | P | **P** | **03 29 49.8** | **-1.0** |
| | comp=N,0.4nm,0.8s,baz=166,slow=5.0,SNR=5.0 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **87.58** | **77** | P | **P** | **03 31 54.2** | **-2.0** |
| | comp=N,0.4nm,0.9s,baz=307,slow=5.0,SNR=2.6 | | | | | | |

*NIED **11** 03:30:00, 28°.20N×129°.50E, h35km, Mw4.9 Best double couple: M0 2.16000×10[16] NP1:φs 190.00000°, δ21.00000°, λ58.00000°. NP2:φs 43.00000°, δ72.00000°, λ101.00000°.*
*ISCJB **11** 03:30:51.8±0.4, 28°.09N±0°.03×129°.54E±0°.03, h31km±2km, mb4.3/51, MS4.4/1, Error ellipse: s-maj=6.0km s-min=2.9km az=38.6*
*JMA **11** 03:30:52.3±0.1, 28°.11N×129°.53E, h24km±3km, M4.4*
*JMA Felt III J1.*
*BJI **11** 03:30:53.4, 28°.00N×129°.30E, h30km, mb4.6/21, mB4.9/13, Ms4.7/7, Ms7 4.5/7*
*NEIC **11** 03:30:54.4±0.6, 28°.02N×129°.38E, h40km±5km, mb4.6/20, Error ellipse: s-maj=7.4km s-min=5.0km az=130.0*
*NEIC Recorded [3 JMA] on Uke-jima and Yoro-jima.*
*IDC **11** 03:30:55.5±2.5, 28°.09N×129°.42E, h52km±22km, mb3.8/20, mb1 3.9/24, mb1mx3.8/54, mbtmp4.1/24, ML3.8/4, MS3.6/1, Ms1 3.6/1, ms1mx3.2/44, Error ellipse: s-maj=17.1km s-min=13.1km az=91.0*

**ISC 11 03:30:52.8**±0.9**, 28°.08N**±0°.03×**129°.52E**±0°.04**, h27**km±6km**, n140, σ1s.61**/151**, mb4.5**/60**, 10C-3D, Ryukyu Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JAM** | **Amami Oshima** | **0.34** | **13** | P | **Pb** | **03 30 59.0** | **-1.6** |
| JAM | | | | S | **Sb** | **03 31 03.9** | **-1.9** |
| **JAMN** | **Amaminishikomi** | **0.34** | **298** | P | **Pb** | **03 30 59.9** | **-0.8** |
| JAMN | | | | S | **Sb** | **03 31 05.9** | **-0.1** |
| **JZK** | **Kikaishima** | **0.46** | **60** | P | **Pb** | **03 31 01.4** | **-1.1** |
| JZK | | | | S | **Sb** | **03 31 08.0** | **-1.1** |
| **JTK** | **Tokunoshima** | **0.58** | **240** | P | **Pb** | **03 31 03.8** | **-0.7** |
| JTK | | | | S | **Sb** | **03 31 12.0** | **-0.4** |
| **JTAJ** | **Takarajima** | **1.10** | **345** | P | **Pn** | **03 31 11.4** | **-1.1** |
| JTAJ | | | | S | **Sn** | **03 31 26.0** | **-0.8** |
| **JOKE** | **Okinoerabujima** | **1.10** | **230** | P | **Pb** | **03 31 12.6** | **-0.7** |
| JOKE | | | | S | **Sb** | **03 31 27.8** | **+0.5** |
| **JOW** | **Kunigami** | **1.67** | **222** | P | **Pn** | **03 31 20.3** | **+0.1** |
| **JOW** | **Kunigami** | **1.67** | **222** | *e*Pn | **Pn** | **03 31 20.3** | **+0.1** |
| **JIH** | **Iheya** | **1.73** | **233** | P | **Pn** | **03 31 21.7** | **+0.7** |
| JIH | | | | S | **Sb** | **03 31 44.0** | **-1.2** |
| **JNN** | **Nakanoshima** | **1.78** | **10** | P | **Pn** | **03 31 21.6** | **-0.2** |
| JNN | | | | S | **Sn** | **03 31 43.0** | **-0.5** |
| **JNTH** | **Nagotoyohara** | **2.05** | **221** | P | **Pn** | **03 31 24.9** | **-0.6** |
| JNTH | | | | S | **Sb** | **03 31 51.5** | **-2.9** |
| **JYAK** | **Yakushimahirau** | **2.32** | **22** | P | **Pn** | **03 31 28.6** | **-0.5** |
| **JKC** | **Kuchinoerabu** | **2.44** | **14** | P | **Pn** | **03 31 31.2** | **+0.3** |
| JKC | | | | S | **Sn** | **03 32 00.1** | **+0.2** |
| **JJT2** | **Tamagusuku 2** | **2.50** | **220** | P | **Pn** | **03 31 31.4** | **-0.2** |
| JJT2 | | | | S | **Sb** | **03 32 03.2** | **-4.0** |
| **JAGN** | **Aguni-jima** | **2.51** | **234** | P | **Pn** | **03 31 32.4** | **+0.6** |
| JAGN | | | | *e*S | **Sn** | **03 32 02.9** | **+1.3** |
| **JTN** | **Tanegashima 3** | **2.86** | **26** | P | **Pn** | **03 31 36.2** | **-0.5** |
| JTN | | | | *e*S | **Sn** | **03 32 10.8** | **+0.6** |
| **JKE** | **Kume jima 2** | **3.00** | **235** | P | **Pn** | **03 31 39.0** | **+0.5** |
| JKE | | | | S | **Sn** | **03 32 13.8** | **+0.3** |
| **JNU** | **Nakatsue** | **5.16** | **13** | P | **Pn** | **03 32 10.1** | **+1.8** |
| | 10nm,0.3s,baz=236,slow=2.2,SNR=88 | | | | | | |
| JNU | | | | S | **Sb** | **03 33 17.5** | **-6.4** |
| | baz=241,slow=19,SNR=1.7 | | | | | | |
| **YHNB** | **Yeheng** | **8.05** | **247** | *e*Pn | **Pn** | **03 32 50.0** | **+1.9** |
| **NACB** | **Ninganchiao** | **8.12** | **243** | *e*Pn | **Pn** | **03 32 47.3** | **-1.6** |
| **YULB** | **Yu-li** | **8.76** | **240** | *e*Pn | **Pn** | **03 32 53.5** | **-4.2** |
| **SSLB** | **Suanglung** | **8.81** | **243** | *e*Pn | **Pn** | **03 32 57.0** | **-1.5** |
| **TPUB** | **Ta-pu** | **9.32** | **241** | *e*Pn | **Pn** | **03 33 03.4** | **-2.1** |
| **KSAR** | **Wonju Array Be** | **9.44** | **352** | P | **Pn** | **03 33 10.3** | **+3.4** |
| **KSRS** | **Korea Array** | **9.44** | **352** | P | **Pn** | **03 33 10.3** | **+3.3** |
| | 0.2nm,0.3s,baz=171,slow=14,SNR=6.1 | | | | | | |
| KSRS | | | | LR | LR | 03 37 04.2 | |
| | comp=Z,353nm,18.5s,baz=300,slow=39 | | | | | | |
| **INU** | **Inuyama** | **9.65** | **40** | *e*Pn | **Pn** | **03 33 12.1** | **+2.2** |
| **MAJO** | **Matsushiro** | **11.18** | **39** | *e*Pn | **Pn** | **03 33 33.4** | **+2.5** |
| **MJAR** | **Matsushiro Arr** | **11.18** | **39** | P | **Pn** | **03 33 33.1** | **+2.2** |
| | 0.3nm,0.3s,baz=213,slow=14,SNR=5.0 | | | | | | |
| **CBIJ** | **Chichi jima** | **11.28** | **92** | *e*Pn | **Pn** | **03 33 34.9** | **+2.6** |
| **CN2** | **Changchun** | **16.02** | **349** | *e*P | **P** | **03 34 45.5** | **+6.1** |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.6s | | | | | | |
| **XAN** | **Xi'an** | **18.61** | **294** | P | **Pn** | **03 35 09.3** | **+0.8** |
| XAN | | | | pmax | pmax | | |
| | comp=Z,38nm,0.7s | | | | | | |
| XAN | | | | pmax | pmax | | |
| | comp=Z,160nm,6.0s | | | | | | |
| **ASAJ** | **Asahikawa** | **19.14** | **30** | P | **Pn** | **03 35 16.4** | **+1.7** |
| | comp=Z,0.5nm,0.3s,baz=221,slow=9.3,SNR=3.2 | | | | | | |
| **KLR** | **Kul'dur** | **21.19** | **4** | P | **P** | **03 35 35.8** | **-0.2** |
| | comp=Z,0.2nm,0.6s,baz=170,slow=5.0,SNR=6.8 | | | | | | |
| **CD2** | **Chengdu** | **22.59** | **283** | *e*P | **P** | **03 35 51.6** | **+0.4** |
| CD2 | | | | pP | pP | 03 35 59.8 | +1.1 |
| CD2 | | | | sP | sP | 03 36 01.9 | -0.3 |
| CD2 | | | | PP | **PnPn** | **03 36 13.8** | **-1.3** |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,40nm,1.0s | | | | | | |
| **KMI** | **Kunming** | **24.11** | **269** | P | **P** | **03 36 07.1** | **+0.5** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,21nm,0.9s | | | | | | |
| **ULN** | **Ulaanbaatar** | **26.36** | **325** | *e*P | **P** | **03 36 27.8** | **+1.1** |
| | comp=Z,2.3nm,0.8s | | | | | | |
| **SONM** | **Songino Array** | **26.68** | **324** | P | **P** | **03 36 30.6** | **+1.0** |
| | comp=Z,3.1nm,1.0s,baz=127,slow=8.7,SNR=7.7 | | | | | | |
| **SONA1** | **Songino Array** | **26.68** | **324** | *e*P | **P** | **03 36 29.5** | **-0.1** |
| **GTA** | **Gaotai** | **27.04** | **302** | *e*P | **P** | **03 36 32.5** | **-0.5** |
| GTA | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.8s | | | | | | |
| **CHTO** | **Chiang Mai** | **29.46** | **258** | *e*P | **P** | **03 36 54.5** | **-0.1** |
| | comp=Z,4.4nm,0.7s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **29.61** | **258** | P | **P** | **03 36 56.2** | **+0.3** |
| | comp=Z,1.7nm,0.4s,baz=56,slow=7.9,SNR=7.1 | | | | | | |
| **LSA** | **Lhasa** | **33.53** | **282** | *e*P | **P** | **03 37 31.1** | **+0.2** |
| | comp=Z,6.9nm,0.5s | | | | | | |
| **KAPI** | **Kappang** | **34.23** | **197** | *e*P | **P** | **03 37 35.5** | **-0.9** |
| | comp=Z,3.3nm,0.5s | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **35.06** | **95** | T | T | 04 14 48.2 | |
| | baz=290,slow=74,SNR=42 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **35.06** | **95** | T | T | 04 14 54.0 | |
| | baz=290,slow=74,SNR=33 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **35.07** | **95** | T | T | 04 14 57.3 | |
| | baz=290,slow=74,SNR=37 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **35.33** | **98** | T | T | 04 15 25.7 | |
| | baz=283,slow=74,SNR=11 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **35.34** | **97** | T | T | 04 15 28.5 | |
| | baz=283,slow=74,SNR=5.2 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **35.35** | **97** | T | T | 04 15 20.2 | |
| | baz=283,slow=74,SNR=6.8 | | | | | | |
| **KULM** | **Kulim** | **35.57** | **236** | *e*P | **P** | **03 37 46.6** | **-1.4** |
| | comp=Z,8.9nm,0.7s | | | | | | |
| **TAPN** | **Taplejung** | **36.89** | **279** | *e*P | **P** | **03 37 59.5** | **-0.1** |
| | comp=Z,12nm,0.7s | | | | | | |
| **WMQ** | **Urumqi** | **36.90** | **306** | *e*P | P | 03 38 11.1 | +12 |
| WMQ | | | | LR | LR | | |
| | comp=N,250nm,20.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,300nm,21.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,360nm,33.3s | | | | | | |
| **WMQ** | **Urumqi** | **36.90** | **306** | P | **P** | **03 38 00.1** | **+0.9** |
| WMQ | | | | pP | pP | 03 38 08.6 | +1.2 |
| WMQ | | | | sP | sP | 03 38 12.3 | +1.6 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,15nm,0.7s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,640nm,6.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,1μm,26.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,1μm,27.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,1μm,25.7s | | | | | | |
| **ODAN** | **Odare** | **37.27** | **278** | *e*P | **P** | **03 38 02.4** | **-0.3** |
| | comp=Z,76nm,0.8s | | | | | | |
| **SEY** | **Seymchan** | **37.92** | **17** | P | **P** | **03 38 06.8** | **-0.7** |
| | comp=Z,1.3nm,0.6s,baz=239,slow=15,SNR=4.1 | | | | | | |
| **RAMN** | **Ramite** | **37.94** | **279** | *e*P | **P** | **03 38 07.9** | **-0.5** |
| | comp=Z,12nm,0.7s | | | | | | |
| **JIRN** | **Jiri** | **38.16** | **280** | *e*P | **P** | **03 38 10.1** | **-0.3** |
| | comp=Z,10nm,0.5s | | | | | | |
| **GUN** | **Gumba** | **38.38** | **280** | *e*P | **P** | **03 38 12.1** | **-0.1** |
| | comp=Z,34nm,0.6s | | | | | | |
| **PKI** | **Pulchoki** | **38.85** | **280** | *e*P | **P** | **03 38 15.6** | **-0.6** |
| | comp=Z,30nm,0.6s | | | | | | |
| **PKIN** | **Phulchoki** | **38.86** | **280** | *e*P | **P** | **03 38 15.5** | **-0.7** |
| **KKN** | **Kakani** | **38.92** | **280** | *e*P | **P** | **03 38 16.0** | **-0.7** |
| | comp=Z,44nm,0.7s | | | | | | |
| **DMN** | **Daman** | **39.11** | **280** | *e*P | **P** | **03 38 17.8** | **-0.5** |
| **PYUN** | **Piuthan** | **40.85** | **281** | *e*P | **P** | **03 38 32.5** | **-0.2** |
| | comp=Z,28nm,0.7s | | | | | | |
| **MK31** | **Makanchi Array** | **41.19** | **310** | *e*P | **P** | **03 38 34.8** | **-0.3** |
| **MKAR** | **Makanchi Array** | **41.19** | **310** | P | **P** | **03 38 32.9** | **-2.2** |
| | comp=Z,1.7nm,0.6s,baz=91,slow=9.2,SNR=17 | | | | | | |
| MKAR | | | | PcP | **PcP** | **03 40 33.4** | **-0.4** |
| | comp=Z,0.9nm,0.6s,baz=93,slow=2.9,SNR=4.1 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.50** | **321** | P | **P** | **03 38 35.1** | **-2.3** |
| | comp=Z,2.1nm,0.5s,baz=111,slow=8.4,SNR=12 | | | | | | |
| **COEN** | **Coen** | **43.83** | **161** | *e*P | **P** | **03 38 56.2** | **-0.5** |
| **KURK** | **Kurchatov** | **44.30** | **315** | *e*P | **P** | **03 38 59.3** | **-0.8** |
| | comp=Z,4.2nm,0.9s | | | | | | |
| **KSH** | **Kashi** | **45.34** | **299** | *e*P | **P** | **03 39 12.2** | **+3.4** |
| KSH | | | | PcP | **PcP** | **03 40 49.2** | **+1.1** |
| KSH | | | | PP | **PP** | **03 41 01.2** | **+6.2** |
| KSH | | | | S | **S** | **03 45 43.3** | **-4.7** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.6s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,130nm,5.1s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,180nm,8.5s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,190nm,7.2s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,380nm,7.4s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **46.06** | **185** | P | **P** | **03 39 13.8** | **-0.5** |
| | comp=Z,1.1nm,0.9s,baz=7.1,slow=8.1 | | | | | | |
| **AAK** | **Ala-Archa** | **46.39** | **303** | *e*P | **P** | **03 39 16.1** | **-1.0** |
| | comp=Z,1.9nm,0.5s | | | | | | |
| **WRA** | **Warramunga Arr** | **47.97** | **174** | P | **P** | **03 39 28.2** | **-1.1** |
| | comp=Z,2.4nm,1.1s,baz=352,slow=8.4,SNR=3.9 | | | | | | |
| **BRVK** | **Borovoye** | **49.75** | **317** | *e*P | **P** | **03 39 41.5** | **-1.1** |
| | comp=Z,4.3nm,0.6s | | | | | | |
| **CTAO** | **Charters Tower** | **50.55** | **159** | *e*P | **P** | **03 39 49.7** | **+0.7** |
| | comp=Z,23nm,0.7s | | | | | | |
| **KBL** | **Kabul** | **51.41** | **293** | *e*P | **P** | **03 39 55.1** | **-0.6** |
| | comp=Z,5.4nm,0.7s | | | | | | |
| **ASAR** | **Alice Springs** | **51.62** | **175** | P | **P** | **03 39 56.8** | **-0.3** |
| | comp=Z,0.6nm,0.6s,baz=4.9,slow=13,SNR=18 | | | | | | |
| **AS01** | **Alice Springs** | **51.62** | **175** | *e*P | **P** | **03 39 56.1** | **-1.0** |
| **ARU** | **Arti** | **56.67** | **321** | *e*P | **P** | **03 40 32.4** | **-1.1** |
| | comp=Z,2.2nm,0.5s | | | | | | |
| **GEYT** | **Alibeck** | **59.37** | **299** | P | **P** | **03 40 53.0** | **+0.2** |
| | comp=Z,1.5nm,0.5s,baz=15,slow=6.3,SNR=5.3 | | | | | | |
| **IL1** | **Eielson Array** | **62.27** | **29** | *e*P | **P** | **03 41 15.1** | **+3.1** |
| **ILAR** | **Eielson Array** | **62.27** | **29** | P | **P** | **03 41 11.8** | **-0.2** |
| | comp=Z,0.4nm,0.7s,baz=280,slow=5.3,SNR=11 | | | | | | |
| **INK** | **Inuvik** | **66.74** | **24** | P | **P** | **03 41 41.1** | **0.0** |
| | comp=Z,0.5nm,0.5s,baz=306,slow=9.9,SNR=3.8 | | | | | | |
| **ARCES** | **ARCESS Array B** | **68.71** | **339** | P | **P** | **03 41 51.9** | **-1.7** |
| | comp=Z,2.0nm,0.8s,baz=54,slow=4.7,SNR=4.5 | | | | | | |
| **GNI** | **Garni** | **68.75** | **305** | *e*P | **P** | **03 41 53.9** | **-0.7** |
| | comp=Z,27nm,0.8s | | | | | | |
| **KBZ** | **Khabaz** | **68.88** | **309** | P | **P** | **03 41 55.2** | **+0.2** |
| | comp=Z,9.7nm,0.8s,baz=80,slow=3.4,SNR=22 | | | | | | |
| **KIV** | **Kislovodsk** | **68.95** | **309** | *e*P | **P** | **03 41 55.2** | **-0.4** |
| | comp=Z,5.8nm,0.8s | | | | | | |
| **AKH** | **Akhalkalaki** | **69.23** | **307⇑** | *i*P | **P** | **03 41 58.7** | **+1.2** |
| **FINES** | **FINESS Array B** | **71.82** | **331** | P | **P** | **03 42 11.1** | **-1.6** |
| | comp=Z,3.8nm,0.7s,baz=117,slow=6.6,SNR=16 | | | | | | |
| **RES** | **Resolute Bay** | **73.52** | **11** | P | **P** | **03 42 22.3** | **-0.3** |
| | comp=Z,2.3nm,0.7s,baz=333,slow=6.3,SNR=9.2 | | | | | | |
| **RAYN** | **Ar Rayn** | **74.31** | **289** | *e*P | **P** | **03 42 27.9** | **-0.3** |
| | comp=Z,4.9nm,1.0s | | | | | | |
| **AKASG** | **Malin Array Be** | **74.87** | **320** | P | **P** | **03 42 29.8** | **-1.1** |
| | comp=Z,2.8nm,0.6s,baz=58,slow=6.3,SNR=16 | | | | | | |
| **AK11** | **Malin Array Si** | **74.91** | **320** | *e*P | **P** | **03 42 33.2** | **+2.1** |
| **YKA** | **Yellowknife Ar** | **76.37** | **25** | P | **P** | **03 42 39.1** | **-0.1** |
| | comp=Z,0.4nm,0.6s,baz=301,slow=5.7,SNR=8.6 | | | | | | |
| **SORM** | **Soroca** | **76.52** | **317⇑** | *i*P | P | 03 42 47.3 | +6.9 |
| **BR131** | **Keskin Array S** | **76.80** | **308** | *e*P | **P** | **03 42 41.9** | **-0.4** |
| **BRTR** | **Keskin Array B** | **76.81** | **308** | P | **P** | **03 42 42.4** | **+0.1** |
| | comp=Z,4.4nm,0.8s,baz=102,slow=5.2,SNR=26 | | | | | | |
| **BR231** | **Keskin MP Arra** | **77.35** | **308** | *e*P | **P** | **03 42 41.4** | **-4.0** |
| **NB2** | **NORSAR Subarra** | **78.16** | **334** | P | **P** | **03 42 47.6** | **-1.8** |
| | comp=Z,3.1nm,0.9s,baz=52,slow=5.9 | | | | | | |
| **NOA** | **NORSAR Array B** | **78.16** | **334** | P | **P** | **03 42 47.6** | **-1.8** |
| | comp=Z,1.0nm,0.9s,baz=50,slow=5.5,SNR=5.2 | | | | | | |
| **TIRR** | **Tirgusor** | **78.17** | **314⇓** | *i*P | **P** | **03 42 51.2** | **+1.5** |
| **TESR** | **Tescani** | **78.30** | **317⇑** | *i*P | **P** | **03 42 50.2** | **-0.2** |
| **VRI** | **Vrincioaia** | **78.56** | **316⇑** | *i*P | **P** | **03 42 52.5** | **+0.6** |
| **BUR08** | **Bucovina Ar. S** | **78.63** | **318** | *e*P | **P** | **03 42 52.4** | **+0.1** |
| **BURAR** | **Bucovina Array** | **78.63** | **318⇑** | *i*P | **P** | **03 42 52.6** | **+0.3** |
| **BUR04** | **Bucovina Ar. S** | **78.63** | **318** | *e*P | **P** | **03 42 52.2** | **-0.1** |
| **MLR** | **Muntele Rosu** | **79.22** | **316⇑** | *i*P | **P** | **03 42 53.2** | **-2.5** |
| **SUMG** | **Summit** | **79.27** | **356** | *i* P | **P** | **03 42 55.6** | **-0.1** |
| **DOPR** | **Dopca** | **79.33** | **317⇑** | *i*P | **P** | **03 42 56.9** | **+0.8** |
| **ARR** | **Arges** | **80.09** | **316⇓** | *i*P | **P** | **03 43 01.1** | **+0.8** |
| **OJC** | **Ojcow** | **80.37** | **322** | *e*P | **P** | **03 43 02.2** | **+0.6** |
| | comp=Z,8.0nm,0.8s | | | | | | |
| **DRGR** | | **80.52** | **318⇑** | *i*P | **P** | **03 43 03.2** | **+0.6** |
| **MORC** | **Moravsky Berou** | **81.83** | **323** | *e*P | **P** | **03 43 09.1** | **-0.3** |
| | comp=Z,9.6nm,0.9s | | | | | | |
| **VYHS** | **Vyhne** | **81.83** | **321** | *e*P | **P** | **03 43 10.2** | **+0.8** |
| **MDVR** | **Moldovita** | **82.17** | **317⇑** | *i*P | **P** | **03 43 11.6** | **+0.3** |
| **VTS** | **Vitosha** | **82.39** | **314⇓** | *i*P | **P** | **03 43 13.3** | **+0.7** |
| **VTS** | **Vitosha** | **82.39** | **314** | *e*P | **P** | **03 43 12.9** | **+0.3** |
| | comp=Z,4.1nm,0.8s | | | | | | |
| **VRAC** | **Vranov** | **82.60** | **323⇑** | *i*P | **P** | **03 43 13.6** | **+0.1** |
| **CLL** | **Collm** | **83.29** | **326** | *i* P | **P** | **03 43 17.1** | **+0.2** |
| | comp=Z,6.0nm,0.8s | | | | | | |
| **CLL** | **Collm** | **83.29** | **326** | *e*P | **P** | **03 43 17.1** | **+0.2** |
| | comp=Z,5.5nm,0.7s | | | | | | |
| **CONA** | **Conrad Observa** | **83.79** | **322** | *i* PcP | **P** | **03 43 20.8** | **+1.0** |
| | comp=Z,5.5nm,1.4s | | | | | | |
| **GERES** | **GERESS Array B** | **84.41** | **323** | P | **P** | **03 43 21.9** | **-1.0** |
| | comp=Z,1.2nm,0.7s,baz=38,slow=5.2,SNR=12 | | | | | | |
| **GEA0** | **GERESS Array S** | **84.42** | **323** | *e*P | **P** | **03 43 22.1** | **-0.8** |
| **MOA** | **Molln** | **84.71** | **322** | *i* PcP | **P** | **03 43 26.1** | **+1.8** |
| | comp=Z,2.8nm,0.8s | | | | | | |
| **SOKA** | **Soboth** | **84.98** | **321** | *i* P | **P** | **03 43 25.1** | **-0.7** |
| | comp=Z,2.8nm,0.7s | | | | | | |
| **GRFO** | **Grafenberg** | **85.18** | **325** | *e*P | **P** | **03 43 26.5** | **-0.1** |
| | comp=Z,13nm,1.2s | | | | | | |
| **OBKA** | **Obir** | **85.35** | **321** | *i* PcP | **P** | **03 43 28.2** | **+0.5** |
| | comp=Z,4.7nm,0.9s | | | | | | |
| **KBA** | **Koelnbreinsper** | **85.67** | **322** | *i* PcP | **P** | **03 43 29.5** | **+0.1** |
| | comp=Z,2.0nm,0.8s | | | | | | |
| **MYKA** | **Terra Mystica** | **85.78** | **322** | *i* PcP | **P** | **03 43 30.2** | **+0.5** |
| | comp=Z,2.4nm,0.8s | | | | | | |
| **BEKR** | **Beckworth** | **86.27** | **46** | *e*P | **P** | **03 43 33.0** | **+0.5** |
| | comp=Z,3.3nm,1.0s | | | | | | |
| **ABTA** | **Abfaltersbach** | **86.33** | **322** | *i* PcP | **P** | **03 43 32.8** | **+0.4** |
| | comp=Z,6.1nm,1.2s | | | | | | |
| **FFC** | **Flin Flon** | **86.43** | **27** | *e*P | **P** | **03 43 33.3** | **+0.6** |
| | comp=Z,4.2nm,1.0s | | | | | | |
| **WATA** | **Walderalm** | **86.47** | **323** | *e*P | **P** | **03 43 31.7** | **-1.5** |
| | comp=Z,0.5nm,0.4s | | | | | | |
| **MOTA** | **Moosalm** | **86.71** | **323** | *i* PcP | **P** | **03 43 34.1** | **-0.4** |
| | comp=Z,2.4nm,0.6s | | | | | | |
| **FETA** | **Feichten** | **87.11** | **323** | *i* PcP | **P** | **03 43 37.8** | **+1.4** |
| | comp=Z,3.7nm,1.1s | | | | | | |
| **DAVA** | **Damuels** | **87.39** | **324** | *i* PcP | **P** | **03 43 39.0** | **+1.3** |
| | comp=Z,3.6nm,0.6s | | | | | | |
| **FUORN** | **Ofenpass-Fuorn** | **87.61** | **323** | *e*P | **P** | **03 43 40.7** | **+1.7** |
| | comp=Z,9.3nm,0.8s | | | | | | |
| **GCMT** | **Greycliff** | **88.98** | **37** | *e*P | **P** | **03 43 46.1** | **+0.9** |
| **PDAR** | **Pinedale Array** | **91.01** | **39** | P | **P** | **03 43 55.6** | **+0.7** |
| | comp=Z,0.4nm,0.6s,baz=241,slow=1.5,SNR=4.4 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **114.96** | **302** | PKP | PKPdf | 03 49 32.1 | +0.1 |
| | comp=Z,0.3nm,0.7s,baz=69,slow=2.9,SNR=2.3 | | | | | | |
| **PTGA** | **Pitinga** | **151.33** | **20** | PKPbc | **PKPbc** | **03 50 44.9** | **+0.2** |
| | comp=Z,3.9nm,0.7s,baz=329,slow=4.1,SNR=9.7 | | | | | | |

**TAP 11 03:32:41.7, 23°.97N×121°.76E, h5km±1km, ML2.5, D, Taiwan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HWA** | **Hwalien** | **0.14** | **274** | *e*P | Pg | 03 32 45.3 | +0.7 |
| | baz=272 | | | | | | |
| **WHF** | **Hehuan Shan** | **0.49** | **291** | *i* P | Pb | 03 32 52.3 | -0.7 |
| | baz=291 | | | | | | |
| **TWT** | **Tachien** | **0.60** | **298** | *e*P | Pb | 03 32 54.9 | -0.1 |
| | baz=297 | | | | | | |
| **EHY** | **Hungye** | **0.61** | **221** | P | Pb | 03 32 54.8 | -0.2 |
| | baz=220 | | | | | | |
| **WDT** | **Danda** | **0.61** | **250** | *e*P | Pb | 03 32 54.6 | -0.5 |
| | baz=249 | | | | | | |
| WDT | | | | *e*S | Sb | 03 33 04.1 | -0.1 |
| | baz=249 | | | | | | |
| **TWF1** | **Yuli** | **0.75** | **215** | *e*P | Pb | 03 32 57.0 | -0.2 |
| | baz=214 | | | | | | |
| **SMLT** | **Sun Moon Lake** | **0.79** | **264** | *e*P | Pb | 03 32 58.6 | +0.5 |
| | baz=263 | | | | | | |
| **TYC** | **Yuchr** | **0.83** | **266** | *e*P | Pb | 03 32 59.0 | +0.3 |
| | baz=265 | | | | | | |
| TYC | | | | *e*S | Sg | 03 33 08.4 | 0.0 |
| | baz=265 | | | | | | |
| **YUS** | **Yu-Shan** | **0.88** | **237** | P | Pb | 03 32 59.7 | -0.1 |
| | baz=236 | | | | | | |
| **ALS** | **Alishan** | **0.99** | **243** | *e*P | Pb | 03 33 01.5 | 0.0 |
| | baz=242 | | | | | | |
| ALS | | | | *e*S | Sb | 03 33 15.6 | +0.7 |
| | baz=242 | | | | | | |
| **CHN5** | **Tsauling** | **1.06** | **250** | P | Pb | 03 33 02.9 | +0.3 |
| | baz=249 | | | | | | |
| CHN5 | | | | S | Sn | 03 33 18.3 | -0.2 |
| | baz=249 | | | | | | |
| **CHN4** | **Tsaushan** | **1.23** | **240** | *e*P | Pn | 03 33 06.1 | +0.4 |
| | baz=240 | | | | | | |
| **WTP** | **Ta-pu** | **1.27** | **236** | *e*P | Pn | 03 33 06.3 | +0.1 |
| | baz=235 | | | | | | |
| **CHN1** | **Nanshi** | **1.37** | **236** | *e*P | Pg | 03 33 08.6 | +0.5 |
| | baz=235 | | | | | | |

*IDC **11** 03:34:23.6±1.5, 12°.94N×88°.05W, h0km, mb4.0/9, mb1 4.2/10, mb1mx3.9/48, mbtmp4.0/10, ML3.7/1, Error ellipse: s-maj=59.2km s-min=21.4km az=48.0*
*CASC **11** 03:34:24.7±1.1, 12°.37N×88°.75W, h10km±8km, ML4.2, mb4.5(NEIC)*
*ISCJB **11** 03:34:26.0±0.4, 12°.36N±0°.05×88°.75W±0°.03, h35km, mb4.3/50, Error ellipse: s-maj=7.3km s-min=3.6km az=27.0*
*NEIC **11** 03:34:30.0±1.0, 12°.71N×88°.37W, h42km±10km, mb4.5/36, MD4.3(SNET), Error ellipse: s-maj=16.9km s-min=6.6km az=224.0*
*NEIC Felt [I] at San Salvador.*

**ISC 11 03:34:27.9**±0.7**, 12°.45N**±0°.07×**88°.71W**±0°.05**, h35**km**, n94, σ1s.45**/98**, mb4.4**/50**, 4D, Off coast of central America**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **UESV** | **Ojushtada** | **0.93** | **355** | *e*P | **Pn** | **03 34 47.2** | **+2.7** |
| UESV | | | | AML | AML | 03 35 12.2 | |
| | comp=Z,7μm,0.4s | | | | | | |
| **LCY** | **Lacayo** | **1.05** | **23⇓** | *e*P | **Pn** | **03 34 45.5** | **-0.8** |
| **VSM** | **San Miguel** | **1.07** | **24⇓** | *i*P | **Pn** | **03 34 45.9** | **-0.6** |
| **PACA** | **Pacayal** | **1.09** | **20** | *e*P | **Pn** | **03 34 46.3** | **-0.5** |
| **SNVI** | **San Vicente** | **1.17** | **354** | *e*P | **Pn** | **03 34 47.0** | **-0.9** |
| **CNCH** | **Conchagua** | **1.19** | **46** | *e*P | **Pn** | **03 34 48.0** | **-0.2** |
| **LFRS** | **El Faro** | **1.22** | **344** | *e*P | **Pn** | **03 34 47.4** | **-1.2** |
| **LBRS** | **Las Brisas** | **1.32** | **346⇓** | *e*P | **Pn** | **03 34 49.3** | **-0.7** |
| **SNET** | **Serv Nac Est T** | **1.33** | **338** | *e*P | **Pn** | **03 34 49.0** | **-1.1** |
| SNET | | | | *e*P | **Pn** | **03 34 49.1** | **-1.0** |
| SNET | | | | *e*S | **Sn** | **03 35 05.9** | **-0.7** |
| SNET | | | | AML | AML | 03 35 11.0 | |
| | comp=Z,5μm,0.3s | | | | | | |
| **COLS** | **Colinas** | **1.34** | **335** | *e*P | **Pn** | **03 34 49.5** | **-0.7** |
| **UDBS** | **Soyapango** | **1.34** | **341** | AML | AML | 03 35 12.2 | |
| | comp=Z,4μm,0.3s | | | | | | |
| **OPAM** | **San Salvador** | **1.35** | **339** | AML | AML | 03 35 14.1 | |
| | comp=Z,4μm,0.3s | | | | | | |
| **UEES** | **San Salvador** | **1.38** | **338** | *e*P | **Pn** | **03 34 49.5** | **-1.2** |
| **BOQS** | **Boqueron** | **1.40** | **337** | *e*P | **Pn** | **03 34 50.3** | **-0.8** |
| **CAHU** | **Cacacuatique** | **1.41** | **20** | *e*P | **Pn** | **03 34 51.2** | **0.0** |
| CAHU | | | | *e*S | **Sn** | **03 35 11.1** | **+2.5** |
| **CRIN** | **San Cristobal** | **1.64** | **81** | *e*P | **Pn** | **03 34 54.3** | **0.0** |
| CRIN | | | | *e*S | **Sn** | **03 35 17.5** | **+3.3** |
| CRIN | | | | AML | AML | 03 35 25.6 | |
| | comp=E,4μm,0.3s | | | | | | |
| **SBLS** | **San Blas** | **1.65** | **327** | *e*P | **Pn** | **03 34 54.1** | **-0.4** |
| **SNJE** | **San Jose** | **1.66** | **328** | *e*P | **Pn** | **03 34 54.3** | **-0.4** |
| **MONT** | **Ecomontaæa** | **1.67** | **327** | *e*P | **Pn** | **03 34 55.1** | **+0.2** |
| **RTR** | **El Retiro** | **1.71** | **328** | *e*P | **Pn** | **03 34 55.1** | **-0.2** |
| **CUS1** | **Cusmapa** | **1.89** | **321** | *e*P | **Pn** | **03 34 57.5** | **-0.2** |
| **RBDL** | **Robledal** | **1.91** | **330⇓** | *i*P | **Pn** | **03 34 58.4** | **+0.3** |
| **COPN** | **Copaltepe** | **2.09** | **97** | *e*P | **Pn** | **03 34 59.0** | **-1.4** |
| **TGUH** | **Tegucigalpa,Un** | **2.13** | **41** | *e*Pn | **Pn** | **03 35 01.0** | **0.0** |
| **TGUH** | **Tegucigalpa,Un** | **2.13** | **41** | *e*P | **Pn** | **03 35 01.6** | **+0.7** |
| **APYN** | **Apoyeque** | **2.32** | **95** | *e*P | **Pn** | **03 35 02.8** | **-0.7** |
| **BRAN** | **Las Pilas** | **2.32** | **83** | *e*P | **Pn** | **03 35 03.3** | **-0.3** |
| **ESTN** | **Estel** | **2.38** | **74** | *e*P | **Pn** | **03 35 03.9** | **-0.6** |
| ESTN | | | | *e*S | **Sn** | **03 35 34.9** | **+2.4** |
| **TISN** | **Laguna Tiscapa** | **2.41** | **97** | *e*P | **Pn** | **03 35 03.3** | **-1.4** |
| **MGAN** | **Managua** | **2.43** | **97** | *e*P | **Pn** | **03 35 04.5** | **-0.5** |
| **CONN** | **Concepcion** | **3.14** | **106** | *e*P | **Pn** | **03 35 14.2** | **-0.8** |
| **JTS** | **JuntasAbangare** | **4.26** | **120** | *e*Pn | **Pn** | **03 35 30.4** | **0.0** |
| **CCIG** | **Comitan** | **5.05** | **319** | *e*Pn | **Pn** | **03 35 44.2** | **+2.9** |
| **CMIG** | **Matias Romero** | **7.55** | **308** | Pn | **Pn** | **03 36 17.0** | **+1.6** |
| | comp=E,1.0nm,0.3s,baz=139,slow=8.2,SNR=14 | | | | | | |
| CMIG | | | | Sn | **Sn** | **03 37 41.3** | **+1.4** |
| | comp=E,0.9nm,0.3s,baz=284,slow=14,SNR=2.3 | | | | | | |
| **ZAIG** | **Zacatecas** | **16.71** | **310** | *e*Pn | **P** | **03 38 25.4** | **+3.7** |
| | comp=E,9.8nm,1.1s | | | | | | |
| **SDV** | **Santo Domingo** | **18.11** | **99** | *e*Pn | **Pn** | **03 38 35.3** | **-1.7** |
| | comp=E,3.1nm,0.3s | | | | | | |
| **HKT** | **Hockley** | **18.63** | **340** | *e*Pn | **Pn** | **03 38 43.7** | **+0.7** |
| **NATX** | **Nacogdoches** | **19.99** | **345** | *e*P | **P** | **03 38 56.2** | **-1.2** |
| | comp=E,8.5nm,0.5s | | | | | | |
| **JCT** | **Junction City** | **20.68** | **332** | *e*P | **P** | **03 39 05.2** | **+0.3** |
| | comp=E,15nm,0.8s | | | | | | |
| **WHTX** | **Lake Whitney,** | **21.05** | **339** | *e*P | **P** | **03 39 09.2** | **+0.4** |
| | comp=E,48nm,1.4s | | | | | | |
| **HPIG** | | **21.47** | **315** | *e*P | **P** | **03 39 14.8** | **+1.2** |
| | comp=E,12nm,0.9s | | | | | | |
| **TXAR** | **Lajitas Array** | **21.81** | **323** | P | **P** | **03 39 18.6** | **+1.4** |
| | comp=E,2.7nm,0.5s,baz=145,slow=10.0,SNR=28 | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **21.81** | **323** | *e*P | **P** | **03 39 18.6** | **+1.4** |
| **MIAR** | **Mount Ida** | **22.44** | **349** | *e*P | **P** | **03 39 24.0** | **+0.2** |
| | comp=E,14nm,1.0s | | | | | | |
| **ABTX** | **Abilene, Hawle** | **22.45** | **335** | *e*P | **P** | **03 39 23.1** | **-0.9** |
| | comp=E,46nm,1.8s | | | | | | |
| **X35A** | **Drake** | **23.11** | **342** | *e*P | **P** | **03 39 31.7** | **+0.9** |
| | comp=E,11nm,0.9s | | | | | | |
| **W37B** | **Quinton** | **23.40** | **346** | *e*P | **P** | **03 39 34.1** | **+0.5** |
| | comp=E,14nm,0.7s | | | | | | |
| **TKL** | **Tuckaleechee C** | **23.54** | **10** | P | **P** | **03 39 35.0** | **0.0** |
| | comp=E,4.1nm,0.7s,baz=194,slow=14,SNR=4.7 | | | | | | |
| **W35A** | **Tecumseh** | **23.79** | **343** | *e*P | **P** | **03 39 37.1** | **-0.2** |
| | comp=E,11nm,0.9s | | | | | | |
| **WMOK** | **Wichita Mounta** | **24.00** | **339** | *e*P | **P** | **03 39 39.4** | **0.0** |
| | comp=E,11nm,1.4s | | | | | | |
| **V36A** | **Jenks** | **24.14** | **346** | *e*P | **P** | **03 39 40.2** | **-0.4** |
| | comp=E,55nm,1.9s | | | | | | |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| OK020 | N3440 Road, Me | 24.15 | 344 | eP | P | 03 39 40.7 | 0.0 |
| | comp=E,22nm,1.3s | | | | | | |
| HHAR | Hobbs | 24.20 | 350 | eP | P | 03 39 42.4 | +1.2 |
| | comp=E,7.1nm,1.0s | | | | | | |
| TUL1 | Leonard | 24.22 | 346 | eP | P | 03 39 41.5 | +0.1 |
| | comp=E,13nm,1.1s | | | | | | |
| V35A | Meyer Ranch, C | 24.35 | 344 | eP | P | 03 39 41.9 | -0.6 |
| | comp=E,13nm,0.9s | | | | | | |
| MNTX | Cornudas Mount | 24.55 | 324 | eP | P | 03 39 44.6 | +0.2 |
| | comp=E,3.6nm,0.9s | | | | | | |
| U35A | Pawnee | 24.89 | 344 | eP | P | 03 39 47.4 | -0.1 |
| | comp=E,11nm,0.8s | | | | | | |
| MSTX | Muleshoe | 24.96 | 331 | eP | P | 03 39 47.7 | -0.6 |
| | comp=E,20nm,0.9s | | | | | | |
| AMTX | Amarillo | 25.25 | 334 | eP | P | 03 39 51.2 | +0.4 |
| | comp=E,24nm,1.3s | | | | | | |
| CCM | Cathedral Cave | 25.60 | 355 | eP | P | 03 39 53.0 | -0.9 |
| | comp=E,33nm,0.8s | | | | | | |
| WCI | Wyandotte Cave | 25.77 | 4 | eP | P | 03 39 54.6 | -0.7 |
| | comp=E,20nm,0.7s | | | | | | |
| BNM | Barren Site | 27.07 | 326 | eP | P | 03 40 08.2 | +0.7 |
| ANMO | Albuquerque | 27.58 | 327 | eP | P | 03 40 13.7 | +1.7 |
| | comp=E,1.0nm,0.6s | | | | | | |
| CBKS | Cedar Bluff | 28.03 | 341 | eP | P | 03 40 15.0 | -0.8 |
| | comp=E,10nm,0.7s | | | | | | |
| TUC | Tucson | 28.31 | 318 | eP | P | 03 40 22.6 | +4.2 |
| | comp=E,5.3nm,1.1s | | | | | | |
| T25A | Trinidad | 28.33 | 333 | eP | P | 03 40 20.6 | +1.9 |
| | comp=E,7.1nm,0.8s | | | | | | |
| KSCO | Kaye Shedlock' | 29.20 | 337 | eP | P | 03 40 27.0 | +0.6 |
| | comp=E,14nm,0.9s | | | | | | |
| SDCO | Great Sand Dun | 29.32 | 332 | eP | P | 03 40 28.8 | +1.2 |
| | comp=E,3.3nm,1.0s | | | | | | |
| S22A | 4UR Ranch, Cre | 29.95 | 330 | eP | P | 03 40 34.9 | +1.7 |
| | comp=E,3.0nm,0.9s | | | | | | |
| ISCO | Idaho Springs | 31.07 | 334 | eP | P | 03 40 44.0 | +1.0 |
| | comp=E,3.2nm,1.0s | | | | | | |
| SMCO | Snowmass | 31.16 | 332 | eP | P | 03 40 45.8 | +1.8 |
| | comp=E,2.6nm,0.8s | | | | | | |
| O20A | White River Ci | 32.51 | 332 | eP | P | 03 40 58.4 | +2.8 |
| | comp=E,7.7nm,0.8s | | | | | | |
| SPMN | Marine on St. | 32.85 | 355 | eP | P | 03 40 57.1 | -1.2 |
| | comp=E,11nm,0.9s | | | | | | |
| SAML | Samuel | 33.10 | 129 | eP | P | 03 41 03.7 | +3.0 |
| | comp=E,2.7nm,0.9s | | | | | | |
| TMUT | Trail Mountain | 33.35 | 327 | eP | P | 03 41 00.6 | -2.5 |
| | comp=E,14nm,1.9s | | | | | | |
| FLSC | Flash Two Peak | 34.07 | 316 | eP | P | 03 41 12.9 | +3.7 |
| DUG | Dugway, Tooele | 34.85 | 327 | eP | P | 03 41 16.9 | +1.0 |
| | comp=E,3.9nm,1.3s | | | | | | |
| PDAR | Pinedale Array | 35.20 | 333 | P | P | 03 41 20.5 | +1.5 |
| | comp=E,0.5nm,0.7s,baz=121,slow=9.4,SNR=5.3 | | | | | | |
| REDW | Red Top Meadow | 36.26 | 332 | eP | P | 03 41 28.6 | +0.6 |
| | comp=E,4.7nm,0.9s | | | | | | |
| SNOW | Snow King Moun | 36.29 | 333 | eP | P | 03 41 28.6 | +0.3 |
| | comp=E,3.8nm,0.6s | | | | | | |
| TPAW | Teton Pass | 36.40 | 332 | eP | P | 03 41 30.3 | +1.0 |
| | comp=E,2.2nm,0.6s | | | | | | |
| MDND | Maddock | 36.45 | 348 | eP | P | 03 41 27.6 | -1.8 |
| | comp=E,18nm,0.8s | | | | | | |
| MOOW | Moose Ponds | 36.51 | 333 | eP | P | 03 41 31.2 | +1.1 |
| | comp=E,1.0nm,0.6s | | | | | | |
| ULM | Lac du Bonnet | 38.15 | 353 | P | P | 03 41 41.3 | -2.4 |
| | comp=E,2.9nm,0.5s,baz=160,slow=8.4,SNR=8.1 | | | | | | |
| DGMT | Dagmar | 38.16 | 343 | eP | P | 03 41 44.2 | +0.3 |
| | comp=E,14nm,0.6s | | | | | | |
| MCMT | McKenzie Canyo | 38.30 | 332 | eP | P | 03 41 47.7 | +2.3 |
| SIV | San Ignacio | 39.32 | 135 | P | P | 03 41 54.3 | +0.4 |
| | comp=E,3.4nm,0.8s,baz=322,slow=5.4,SNR=4.1 | | | | | | |
| EGMT | Eagleton | 39.58 | 338 | eP | P | 03 41 56.3 | +0.5 |
| | comp=E,7.6nm,0.6s | | | | | | |
| YKA | Yellowknife Ar | 53.30 | 345 | P | P | 03 43 41.7 | -1.3 |
| | comp=E,2.2nm,0.7s,baz=129,slow=8.8,SNR=18 | | | | | | |
| RES | Resolute Bay | 62.32 | 358 | P | P | 03 44 43.7 | -2.5 |
| | comp=E,0.7nm,0.4s,baz=177,slow=8.1,SNR=6.5 | | | | | | |
| INK | Inuvik | 62.84 | 343 | P | P | 03 44 48.6 | -1.2 |
| | comp=E,1.2nm,0.7s,baz=123,slow=7.5,SNR=5.2 | | | | | | |
| ILAR | Eielson Array | 65.53 | 336 | P | P | 03 45 06.5 | -1.0 |
| | comp=E,1.3nm,1.0s,baz=122,slow=4.9,SNR=7.2 | | | | | | |
| TORD | Torodi Ar. Bea | 87.61 | 77 | P | P | 03 47 10.9 | -2.3 |
| | comp=E,0.3nm,0.8s,baz=299,slow=3.0,SNR=3.4 | | | | | | |
| WRA | Warramunga Arr | 138.08 | 254 | PKP | PKPdf | 03 53 51.4 | +1.4 |
| | comp=E,0.6nm,0.3s,baz=89,slow=2.4,SNR=15 | | | | | | |

*ISCJB* ***11*** *03:38:39.0±1.5, 32°.69S±0°.08×179°.6W±0°.3, h350km, mb3.4/2, Error ellipse: s-maj=33.3km s-min=10.3km az=1.8*

*IDC* ***11*** *03:38:41.4±8.3, 32°.68S×179°.85W, h331km±94km, mb3.4/2, mb1 3.6/3, mb1mx3.2/34, mbtmp4.1/3, Error ellipse: s-maj=111.3km s-min=41.2km az=1.0*

**ISC 11 03:38:40.9**±2.2**, 32°.8S**±0°.1×**179°.7W**±0°.3**, h350**km**, n34,** σ1$^s$**09**/40**, South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MXZ | Matakaoa Point | 5.05 | 199 | ePN | Pn | 03 39 59.5 | -1.4 |
| MXZ | | | | SN | S | 03 41 04.1 | -1.6 |
| WMGZ | Waiomatatini S | 5.27 | 197 | PN | Pn | 03 40 03.3 | 0.0 |
| WMGZ | | | | SN | S | 03 41 11.3 | +1.3 |
| HAZ | Te Kaha | 5.39 | 202 | PN | Pn | 03 40 02.0 | -2.6 |
| HAZ | | | | SN | S | 03 41 13.0 | +0.6 |
| PKGZ | Pakihiroa | 5.42 | 199 | PN | Pn | 03 40 05.5 | +0.4 |
| PKGZ | | | | SN | S | 03 41 12.3 | -1.0 |
| PUZ | Puketiti | 5.55 | 197 | PN | Pn | 03 40 08.1 | +1.6 |
| PUZ | | | | SN | S | 03 41 15.8 | 0.0 |
| RUGZ | Raukumara Rang | 5.61 | 202 | PN | Pn | 03 40 08.0 | +0.7 |
| MWZ | Matawai | 6.00 | 202 | PN | Pn | 03 40 08.6 | -3.0 |
| URZ | Urewera | 6.07 | 205 | P | Pn | 03 40 13.2 | +0.9 |
| | 2.0nm,0.3s,baz=265,slow=3.9,SNR=16 | | | | | | |
| URZ | | | | S | S | 03 41 25.9 | -0.6 |
| | 2.7nm,0.3s,baz=67,slow=22,SNR=13 | | | | | | |
| URZ | Urewera | 6.07 | 205 | PN | Pn | 03 40 13.2 | +0.9 |
| RAGZ | Rawiri | 6.18 | 202 | PN | Pn | 03 40 15.3 | +1.6 |
| RIGZ | Rimuhau | 6.27 | 199 | PN | Pn | 03 40 15.6 | +0.9 |
| RTZ | Ruatahuna | 6.43 | 204 | PN | Pn | 03 40 17.1 | +0.5 |
| KNZ | Kokohu | 6.59 | 198 | PN | Pn | 03 40 19.4 | +1.0 |
| MTHZ | Maungataniwha | 6.69 | 204 | PN | Pn | 03 40 20.1 | +0.5 |
| NMHZ | Naumai | 6.92 | 203 | PN | Pn | 03 40 23.2 | +0.9 |
| ARHZ | Aropaoanui | 7.01 | 202 | PN | Pn | 03 40 24.6 | +1.4 |
| BKZ | Black Stump Fm | 7.09 | 205 | PN | Pn | 03 40 25.0 | +0.7 |
| OTVZ | Oturere | 7.41 | 209 | PN | Pn | 03 40 29.2 | +1.1 |
| BHHZ | Black Hill Sta | 7.53 | 206 | PN | Pn | 03 40 28.6 | -0.8 |
| KRHZ | Kereru | 7.56 | 204 | PN | Pn | 03 40 30.2 | +0.4 |
| WNVZ | Wahianoa | 7.58 | 209 | PN | Pn | 03 40 30.5 | +0.4 |
| PNHZ | Pukenui | 7.86 | 204 | PN | Pn | 03 40 33.2 | -0.1 |
| TIWZ | Tintock | 8.74 | 203 | PN | Pn | 03 40 44.2 | +0.5 |
| HOWZ | Holdsworth Sta | 8.97 | 204 | PN | Pn | 03 40 46.0 | -0.5 |
| OGWZ | Otaki Gorge | 9.03 | 206 | PN | Pn | 03 40 46.6 | -0.5 |
| KIW | Kapiti Island | 9.16 | 207 | PN | Pn | 03 40 47.7 | -1.0 |
| CAW | Cannon Point | 9.32 | 205 | PN | Pn | 03 40 50.2 | -0.4 |
| DUWZ | D'Urville Isla | 9.51 | 211 | PN | Pn | 03 40 51.8 | -1.1 |
| TCW | Tory Channel | 9.71 | 208 | PN | Pn | 03 40 55.1 | -0.1 |
| TUWZ | Tuamarina | 10.03 | 209 | PN | Pn | 03 40 58.4 | -0.5 |
| THZ | Tophouse | 10.74 | 211 | PN | Pn | 03 41 07.8 | +0.2 |
| ASAR | Alice Springs | 41.63 | 270 | P | P | 03 45 57.5 | +1.2 |
| | 1.5nm,0.5s,baz=107,slow=7.4,SNR=32 | | | | | | |
| WRA | Warramunga Arr | 42.84 | 276 | P | P | 03 46 06.2 | +0.3 |
| | 2.0nm,0.5s,baz=115,slow=7.8,SNR=21 | | | | | | |
| FINES | FINESS Array B | 146.84 | 338 | PKPbc | PKPab | 03 57 42.8 | -1.0 |
| | 2.9nm,0.9s,baz=50,slow=2.2,SNR=7.3 | | | | | | |

*SOME* ***11*** *03:52:08.1, 40°.80N×76°.97E, h10km*

*KRNET* ***11*** *03:52:08.0±0.1, 40°.98N×77°.06E, mb2.6*

**ISC 11 03:52:05.8**±2.8**, 40°.8N**±0°.1×**77°.02E**±0°.06**, h2**km±17km**, n13,** σ0$^s$**59**/26**, 12C, Kyrgyzstan-Xinjiang border region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ULHL | Ulahol | 1.55 | 338 | ⇑iP | Pn | 03 52 35.2 | +0.6 |
| | baz=334 | | | | | | |
| ULHL | | | | ⇑iS | Sb | 03 52 54.7 | -0.8 |
| | baz=334 | | | | | | |
| KZA | Kyzart | 1.84 | 314 | ⇑iP | Pb | 03 52 40.6 | +0.3 |
| | baz=309 | | | | | | |
| KZA | | | | ⇑iS | Sg | 03 53 05.1 | +0.3 |
| | baz=309 | | | | | | |
| TNSS | Tian-Shan | 2.23 | 359 | eP | Pg | 03 52 48.8 | +0.3 |
| | 3.9nm,0.2s | | | | | | |
| TNSS | | | | eS | Sg | 03 53 18.2 | +0.8 |
| | 7.4nm,0.4s | | | | | | |
| IZV | Izvestkoviy | 2.25 | 352 | eP | Pg | 03 52 49.1 | +0.3 |
| | 5.2nm,0.5s | | | | | | |
| IZV | | | | eS | Sg | 03 53 18.6 | +0.6 |
| | 15nm,0.5s | | | | | | |
| MDOK | Medeo | 2.35 | 1 | eP | Pg | 03 52 50.9 | 0.0 |
| | 2.3nm,0.2s | | | | | | |
| MDOK | | | | eS | Sg | 03 53 21.4 | 0.0 |
| | 7.7nm,0.6s | | | | | | |
| UCH | Uchtor | 2.35 | 308 | ⇑iP | Pb | 03 52 49.0 | -0.2 |
| | baz=304 | | | | | | |
| UCH | | | | ⇑iS | Sb | 03 53 19.6 | +0.7 |
| | baz=304 | | | | | | |
| TKM2 | Tokmak 2 | 2.36 | 334 | ⇑iP | Pb | 03 52 48.7 | -0.5 |
| | baz=331 | | | | | | |
| TKM2 | | | | ⇑iS | Sb | 03 53 18.0 | -0.9 |
| | baz=331 | | | | | | |
| KST | Kastek | 2.37 | 341 | eP | Pg | 03 52 51.1 | 0.0 |
| | 0.8nm,0.6s | | | | | | |
| KST | | | | eS | Sg | 03 53 21.7 | -0.1 |
| | 3.8nm,0.4s | | | | | | |
| KBK | Karagaybulak | 2.41 | 321 | ⇑iP | Pb | 03 52 49.3 | -0.7 |
| | baz=317 | | | | | | |
| KBK | | | | ⇑iS | Sb | 03 53 20.4 | +0.2 |
| | baz=317 | | | | | | |
| SATY | Saty | 2.48 | 24 | eP | Pg | 03 52 53.6 | +0.4 |
| | 2.8nm,0.3s | | | | | | |
| SATY | | | | eS | Sg | 03 53 26.2 | +0.8 |
| | 7.6nm,0.4s | | | | | | |
| DGS | Degeres | 2.60 | 340 | eP | Pg | 03 52 55.3 | -0.4 |
| | 2.7nm,0.6s | | | | | | |
| DGS | | | | eS | Sg | 03 53 28.9 | -0.4 |
| | 16nm,0.5s | | | | | | |
| AML | Almayashu | 2.83 | 299 | ⇑iP | Pb | 03 52 56.0 | -1.1 |
| | baz=295 | | | | | | |
| AML | | | | ⇑iS | Sb | 03 53 32.6 | +0.3 |
| | baz=295 | | | | | | |
| KPKS | Kokpek | 2.93 | 24 | eP | Pg | 03 53 01.4 | -0.6 |
| | 8.5nm,0.4s | | | | | | |
| KPKS | | | | eS | Sg | 03 53 39.4 | -0.6 |
| | 9.3nm,0.5s | | | | | | |

*IDC* ***11*** *03:59:45.1±1.1, 5°.28N×127°.24E, h0km, mb4.2/9, mb1 4.3/9, mb1mx3.8/39, mbtmp4.2/9, Error ellipse: s-maj=98.6km s-min=15.0km az=71.0*

*MAN* ***11*** *03:59:49, 4°.38N×126°.18E, h139km, mb4.8, ML3.7, MS3.8*

*ISCJB* ***11*** *03:59:52.7±0.4, 5°.18N±0°.04×127°.18E±0°.06, h76km, mb4.1/15, Error ellipse: s-maj=8.7km s-min=5.6km az=164.1*

*NEIC* ***11*** *03:59:55.4±1.8, 5°.15N×127°.13E, h86km±18km, mb4.3/6, Error ellipse: s-maj=18.3km s-min=8.8km az=68.0*

*DJA* ***11*** *03:59:57.1±0.5, 5°N±3°×12°7E±°, h55km±13km, M4.7/6, mb4.7/6, mB5.3/5, MLv4.8/6, Mw(mB)4.7/5*

**ISC 11 03:59:54.6**±0.6**, 5°.10N**±0°.05×**127°.22E**±0°.08**, h76**km**, n39,** σ2$^s$**20**/46**, mb4.3**/15**, 2C-1D, Philippine Islands region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SGSI | Sangihe | 2.19 | 230 | P | Pn | 04 00 27.9 | -1.1 |
| SGSI | | | | S | Sn | 04 00 55.8 | +0.5 |
| GSPH | General Santos | 2.46 | 294 | eP | Pn | 04 00 28.7 | -4.0 |
| DMPH | Davao City--Mi | 2.60 | 319 | ⇑iP | Pn | 04 00 34.9 | +0.3 |
| DMPH | | | | iS | Sn | 04 01 08.7 | +3.6 |
| KCP | Kidapawan | 2.84 | 312 | ⇓eP | Pn | 04 00 35.3 | -2.5 |
| BUKP | Musuan | 3.49 | 322 | eP | Pn | 04 00 46.7 | 0.0 |
| BUKP | | | | eS | Sn | 04 01 29.6 | +2.7 |
| CTBH | Cotabato--PC H | 3.63 | 306 | ⇑iP | Pn | 04 00 48.3 | -0.2 |
| BUTP | Butuan | 4.16 | 338 | eP | Pn | 04 00 58.3 | +2.7 |
| BUTP | | | | eS | Sn | 04 01 51.8 | +8.8 |
| MRSI | Marisa | 6.99 | 229 | P | Pn | 04 01 33.7 | -0.7 |
| MRSI | | | | S | Sn | 04 02 49.6 | -2.8 |
| SANI | Sanana | 7.21 | 190 | P | Pn | 04 01 34.7 | -2.7 |
| | 59nm,0.6s,2μm0.3nm | | | | | | |
| SANI | | | | S | Sn | 04 02 51.3 | -6.5 |
| | 59nm,0.6s,2μm0.3nm | | | | | | |
| APSI | Ampana | 8.16 | 223 | P | Pn | 04 01 50.6 | +0.2 |
| | 48nm,0.9s,910nm0.2nm | | | | | | |
| APSI | | | | S | Sn | 04 03 27.0 | +5.9 |
| | 48nm,0.9s,910nm0.2nm | | | | | | |
| FAKI | Fak Fak | 9.42 | 148 | ePn | Pn | 04 02 10.3 | +2.6 |
| SOEI | Soe | 15.05 | 191 | P | Pn | 04 03 22.8 | -0.4 |
| | 20nm,1.1s | | | | | | |
| SOEI | | | | pP | P | 04 03 28.7 | +1.8 |
| | 20nm,1.1s | | | | | | |
| SOEI | Soe | 15.05 | 191 | eP | Pn | 04 03 22.6 | -0.7 |
| | 22nm,1.1s | | | | | | |
| SMRI | Semarang | 20.64 | 234 | P | Pn | 04 04 30.1 | -1.1 |
| SMRI | | | | pP | P | 04 04 32.9 | +4.7 |
| FITZ | Fitzroy Crossi | 23.11 | 184 | P | P | 04 04 54.8 | +0.6 |
| | 3.2nm,0.9s,baz=356,slow=8.6,SNR=7.0 | | | | | | |
| PMG | Port Moresby | 24.55 | 126 | eP | P | 04 05 06.5 | -0.9 |
| | 7.2nm,0.8s | | | | | | |
| WRAB | Tennant Creek | 25.85 | 164 | eP | P | 04 05 19.7 | +0.5 |
| | 6.7nm,0.5s | | | | | | |
| WRA | Warramunga Arr | 25.85 | 164 | P | P | 04 05 20.2 | +0.9 |
| | 3.5nm,0.4s,baz=343,slow=10,SNR=61 | | | | | | |
| IPM | Ipoh | 26.11 | 270 | eP | P | 04 05 20.4 | -1.3 |
| | 5.2nm,0.6s | | | | | | |
| ASAR | Alice Springs | 29.33 | 167 | P | P | 04 05 51.4 | +1.1 |
| | 0.7nm,0.5s,baz=0.4,slow=8.5,SNR=19 | | | | | | |
| FORT | Forrest | 35.69 | 179 | eP | P | 04 06 46.8 | +1.1 |
| STKA | Stephens Creek | 39.24 | 160 | P | P | 04 07 17.0 | +1.2 |
| | 7.1nm,0.8s,baz=339,slow=6.5,SNR=12 | | | | | | |
| TAPN | Taplejung | 43.62 | 305 | eP | P | 04 07 50.7 | -1.4 |
| | 13nm,0.9s | | | | | | |
| ODAN | Odare | 43.69 | 304 | eP | P | 04 07 51.1 | -1.5 |
| | 16nm,0.8s | | | | | | |
| RAMN | Ramite | 44.38 | 304 | eP | P | 04 07 56.9 | -1.2 |
| | 14nm,0.8s | | | | | | |
| JIRN | Jiri | 44.98 | 305 | eP | P | 04 08 01.5 | -1.6 |
| | 26nm,0.8s | | | | | | |
| GUN | Gumba | 45.33 | 305 | eP | P | 04 08 04.4 | -1.4 |
| | 18nm,0.6s | | | | | | |
| ULN | Ulaanbaatar | 45.98 | 341 | eP | P | 04 08 09.9 | -0.5 |
| | 3.2nm,0.7s | | | | | | |
| SONM | Songino Array | 46.17 | 341 | P | P | 04 08 11.2 | -0.6 |
| | 0.8nm,0.7s,baz=153,slow=9.1,SNR=5.4 | | | | | | |
| KOLN | Koldanda | 47.16 | 304 | eP | P | 04 08 18.7 | -1.3 |
| | 19nm,0.8s | | | | | | |
| DANN | Dangsing | 47.23 | 304 | eP | P | 04 08 19.5 | -1.2 |
| PYUN | Piuthan | 47.78 | 304 | eP | P | 04 08 23.5 | -1.3 |
| MKAR | Makanchi Array | 56.72 | 325 | P | P | 04 09 30.9 | +0.4 |
| | 2.4nm,0.5s,baz=117,slow=7.6,SNR=48 | | | | | | |
| ZALV | Zalesovo Beam | 59.60 | 332 | P | P | 04 09 49.6 | -0.8 |
| | 1.5nm,0.4s,baz=116,slow=6.1,SNR=9.1 | | | | | | |
| KURK | Kurchatov | 60.86 | 327 | eP | P | 04 09 58.2 | -0.8 |
| BRVK | Borovoye | 66.52 | 327 | eP | P | 04 10 35.5 | -0.8 |
| | 18nm,1.1s | | | | | | |
| ARU | Arti | 74.05 | 327 | eP | P | 04 11 21.0 | -1.2 |
| | 2.9nm,0.7s | | | | | | |
| ARCES | ARCESS Array B | 89.34 | 340 | P | P | 04 12 40.6 | -1.7 |
| | 2.8nm,0.8s,baz=64,slow=8.2,SNR=3.8 | | | | | | |
| BRTR | Keskin Array B | 89.52 | 310 | P | P | 04 12 42.6 | -1.4 |
| | 0.7nm,0.9s,baz=93,slow=6.2,SNR=4.6 | | | | | | |

*ISCJB* ***11*** *04:03:49.9±0.4, 38°.86N±0°.02×26°.30E±0°.03, h10km±3km, Error ellipse: s-maj=4.4km s-min=2.5km az=159.6*

*ISK* ***11*** *04:03:49.7, 38°.86N×26°.36E, h12km, ML2.4*

*ATH* ***11*** *04:03:49.7, 38°.87N×26°.31E, h27km±1km, ML2.3/8, Error ellipse: s-maj=2.2km s-min=0.8km az=261.0*

*DDA* ***11*** *04:03:49.6, 38°.85N×26°.33E, h7km, Ml2.8*

*CSEM* ***11*** *04:03:50.2±0.1, 38°.85N×26°.33E, h12km, ML2.3, Error ellipse: s-maj=2.6km s-min=1.8km az=74.0*

**ISC 11 04:03:49.9**±1.0**, 38°.85N**±0°.02×**26°.31E**±0°.02**, h11**km±8km**, n85,** σ0$^s$**54**/117**, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PRK | Paraskevi | 0.40 | 355 | P | Pg | 04 03 58.0 | +0.1 |
| PRK | | | | S | Sg | 04 04 03.0 | -0.2 |
| PRK | | | | AML | AML | 04 04 04.4 | |
| | comp=N,1324μm,0.5s | | | | | | |
| PRK | | | | AML | AML | 04 04 04.6 | |
| | comp=E,1257μm,0.5s | | | | | | |
| PRK | Paraskevi | 0.40 | 355 | P | Pg | 04 03 58.0 | +0.1 |
| PRK | | | | S | Sg | 04 04 03.0 | -0.2 |
| CHOS | Chios island | 0.50 | 204 | ePG | Pb | 04 04 00.9 | +0.2 |
| CHOS | Chios island | 0.50 | 204 | P | Pb | 04 04 00.5 | -0.2 |
| CHOS | | | | AML | AML | 04 04 13.8 | |
| | comp=N,956μm,0.3s | | | | | | |
| CHOS | | | | AML | AML | 04 04 13.8 | |
| | comp=E,1398μm,0.4s | | | | | | |
| CHOS | Chios island | 0.50 | 204 | P | Pb | 04 04 00.5 | -0.2 |
| CHOS | Chios island | 0.50 | 204 | ePg | Pb | 04 04 00.9 | +0.2 |
| SIGR | SIGRI | 0.51 | 316 | ePG | Pb | 04 04 00.7 | -0.2 |
| SIGR | SIGRI | 0.51 | 316 | P | Pb | 04 04 01.2 | +0.4 |
| SIGR | | | | S | Sg | 04 04 07.2 | +0.5 |
| SIGR | | | | AML | AML | 04 04 11.2 | |
| | comp=E,484μm,0.2s | | | | | | |
| SIGR | | | | AML | AML | 04 04 12.5 | |
| | comp=N,493μm,0.3s | | | | | | |
| SIGR | SIGRI | 0.51 | 316 | ePg | Pb | 04 04 00.7 | -0.2 |
| SIGR | SIGRI | 0.51 | 316 | P | Pb | 04 04 01.2 | +0.4 |
| SIGR | | | | S | Sg | 04 04 07.2 | +0.5 |
| DKL | Dikili | 0.51 | 64 | ePG | Pg | 04 03 59.7 | -0.2 |
| DKL | | | | eSG | Sg | 04 04 06.9 | +0.1 |
| DKL | Dikili | 0.51 | 64 | ePg | Pg | 04 03 59.7 | -0.2 |
| DKL | | | | eSg | Sg | 04 04 06.9 | +0.1 |
| URLA | Izmir | 0.53 | 155 | ePG | Pg | 04 04 00.4 | +0.2 |
| URLA | | | | eSG | Sb | 04 04 08.3 | -0.6 |
| URLA | Izmir | 0.53 | 155 | iP | Pg | 04 04 00.1 | -0.2 |
| URLA | | | | iS | Sb | 04 04 08.3 | -0.6 |
| URLA | Izmir | 0.53 | 155 | P | Pg | 04 04 00.1 | -0.2 |
| URLA | Izmir | 0.53 | 155 | ePg | Pg | 04 04 00.4 | +0.2 |
| URLA | | | | eSg | Sb | 04 04 08.3 | -0.6 |
| ZEY | ˜zmir | 0.62 | 166 | iP | Pg | 04 04 02.2 | +0.3 |
| ZEY | | | | iS | Sb | 04 04 11.7 | +0.3 |
| DGB | ˜zmir | 0.91 | 150 | iP | Pb | 04 04 07.5 | -0.1 |
| DGB | | | | iS | Sb | 04 04 19.7 | 0.0 |
| BAYC | CANAKKALE_Bayr | 0.91 | 11 | iP | Pg | 04 04 06.8 | -0.7 |
| BAYC | | | | iS | Sb | 04 04 20.1 | +0.2 |
| BAYC | CANAKKALE_Bayr | 0.91 | 11 | P | Pg | 04 04 06.8 | -0.7 |
| BAYC | | | | S | Sb | 04 04 20.1 | +0.2 |
| EZN | Ezine | 0.98 | 1 | ePG | Pg | 04 04 08.7 | -0.1 |
| EZN | Ezine | 0.98 | 1 | ePg | Pg | 04 04 08.7 | -0.1 |
| BOZC | Bozcaada | 1.02 | 349 | ePG | Pg | 04 04 09.6 | +0.1 |
| BOZC | Bozcaada | 1.02 | 349 | iP | Pn | 04 04 10.1 | 0.0 |
| BOZC | | | | iS | Sn | 04 04 23.8 | -0.5 |
| BOZC | Bozcaada | 1.02 | 349 | ePg | Pg | 04 04 09.6 | +0.1 |
| AKHS | Akhisar | 1.17 | 88 | iP | Pg | 04 04 12.7 | +0.3 |
| AKHS | | | | iS | Sn | 04 04 29.6 | +1.4 |
| AKHS | Akhisar | 1.17 | 88 | P | Pg | 04 04 12.7 | +0.3 |
| AKHS | | | | S | Sn | 04 04 29.5 | +1.4 |
| SMG | Samos | 1.21 | 160 | P | Pg | 04 04 13.0 | -0.1 |
| SMG | | | | S | Sn | 04 04 30.1 | +1.1 |
| SMG | | | | AML | AML | 04 04 32.7 | |
| | comp=N,607μm,0.3s | | | | | | |
| SMG | | | | AML | AML | 04 04 33.4 | |
| | comp=E,435μm,0.3s | | | | | | |
| SMG | Samos | 1.21 | 160 | P | Pg | 04 04 13.0 | -0.1 |
| SMG | | | | S | Sn | 04 04 30.1 | +1.1 |
| STEP | BALIKESIR_Sava | 1.22 | 64 | iP | Pn | 04 04 12.6 | -0.2 |
| STEP | BALIKESIR_Sava | 1.22 | 64 | P | Pn | 04 04 12.6 | -0.2 |
| GCAM | G?zelcaml? | 1.35 | 147 | ePN | Pb | 04 04 15.0 | -0.2 |
| GCAM | G?zelcaml? | 1.35 | 147 | iP | Pn | 04 04 13.9 | -0.7 |
| GCAM | | | | iS | Sg | 04 04 33.6 | +0.2 |
| GCAM | G?zelcaml? | 1.35 | 147 | P | Pn | 04 04 13.9 | -0.7 |
| GCAM | G?zelcaml? | 1.35 | 147 | ePn | Pb | 04 04 15.0 | -0.2 |
| GCAM | | | | S | Sg | 04 04 33.6 | +0.2 |
| LIA | Limnos Island | 1.37 | 321 | P | Pb | 04 04 15.4 | -0.1 |
| LIA | | | | S | Sn | 04 04 32.3 | -0.6 |
| LIA | | | | AML | AML | 04 04 37.4 | |
| | comp=E,177μm,0.4s | | | | | | |
| LIA | | | | AML | AML | 04 04 38.5 | |
| | comp=N,171μm,0.6s | | | | | | |
| LIA | Limnos Island | 1.37 | 321 | P | Pb | 04 04 15.4 | -0.1 |
| LIA | | | | S | Sn | 04 04 32.3 | -0.6 |
| GADA | Gvkgeada | 1.38 | 347 | ePN | Pn | 04 04 14.7 | -0.3 |
| GADA | Gvkgeada | 1.38 | 347 | ePn | Pn | 04 04 14.7 | -0.3 |
| BALB | Balikesir | 1.45 | 56 | ePN | Pn | 04 04 15.9 | -0.1 |
| BALB | Balikesir | 1.45 | 56 | ePn | Pn | 04 04 15.9 | -0.1 |
| GELI | Tayfur-Gelibol | 1.56 | 5 | ePN | Pb | 04 04 18.7 | 0.0 |
| GELI | Tayfur-Gelibol | 1.56 | 5 | ePn | Pb | 04 04 18.7 | 0.0 |
| LPK | Lapseki | 1.56 | 13 | ePN | Pb | 04 04 18.5 | -0.3 |
| LPK | Lapseki | 1.56 | 13 | ePn | Pb | 04 04 18.5 | -0.3 |
| GONE | Gonen-Balikesi | 1.60 | 41 | ePN | Pn | 04 04 18.2 | +0.1 |
| GONE | Gonen-Balikesi | 1.60 | 41 | ePn | Pn | 04 04 18.2 | +0.1 |
| KARY | Karystos | 1.68 | 242 | P | Pn | 04 04 19.2 | 0.0 |
| KARY | | | | AML | AML | 04 04 39.5 | |
| | comp=E,44μm,0.3s | | | | | | |
| KARY | | | | AML | AML | 04 04 39.9 | |
| | comp=N,43μm,0.2s | | | | | | |
| KARY | Karystos | 1.68 | 242 | P | Pn | 04 04 19.2 | 0.0 |
| AYDN | Tasoluk | 1.71 | 133 | iP | Pn | 04 04 19.4 | -0.1 |
| AYDN | | | | iS | Sb | 04 04 42.7 | -0.1 |
| AYDN | Tasoluk | 1.71 | 133 | P | Pn | 04 04 19.5 | -0.1 |
| AYDN | | | | S | Sb | 04 04 42.7 | -0.1 |
| KRBG | Karabiga-Canak | 1.72 | 26 | ePN | Pn | 04 04 19.6 | -0.1 |
| KRBG | Karabiga-Canak | 1.72 | 26 | ePn | Pn | 04 04 19.7 | -0.1 |
| SMTH | Samothraki Isl | 1.73 | 340 | P | Pn | 04 04 19.8 | -0.1 |
| SMTH | | | | S | Sn | 04 04 40.3 | -1.7 |
| SMTH | | | | AML | AML | 04 04 46.2 | |
| | comp=E,62μm,0.3s | | | | | | |
| SMTH | | | | AML | AML | 04 04 48.7 | |
| | comp=N,95μm,0.4s | | | | | | |
| SMTH | Samothraki Isl | 1.73 | 340 | P | Pn | 04 04 19.8 | -0.1 |
| SMTH | | | | S | Sn | 04 04 40.3 | -1.7 |
| KULA | Kula-Manisa | 1.87 | 99 | ePN | Pn | 04 04 22.3 | +0.5 |
| KULA | Kula-Manisa | 1.87 | 99 | ePn | Pn | 04 04 22.3 | +0.5 |
| APE | Apeiranthos | 1.88 | 199 | ePN | Pb | 04 04 23.2 | -1.0 |
| APE | Apeiranthos | 1.88 | 199 | P | Pn | 04 04 20.7 | -1.2 |
| APE | | | | S | Sn | 04 04 45.9 | +0.3 |
| APE | Apeiranthos | 1.88 | 199 | P | Pn | 04 04 20.7 | -1.2 |
| APE | Apeiranthos | 1.88 | 199 | ePn | Pb | 04 04 23.2 | -1.0 |
| APE | | | | S | Sn | 04 04 45.9 | +0.3 |
| EDC | Edincik | 1.92 | 38 | ePN | Pn | 04 04 22.4 | 0.0 |
| EDC | Edincik | 1.92 | 38 | ePn | Pn | 04 04 22.5 | 0.0 |
| BODT | Bodrum | 1.95 | 156 | ePN | Pn | 04 04 23.1 | +0.3 |
| BODT | Bodrum | 1.95 | 156 | ePn | Pn | 04 04 23.1 | +0.3 |
| ALN | Alexandroupoli | 2.06 | 354 | P | Pn | 04 04 24.7 | +0.3 |
| ALN | | | | S | Sn | 04 04 50.8 | +0.8 |
| ALN | | | | AML | AML | 04 04 55.9 | |
| | comp=N,124μm,0.5s | | | | | | |
| ALN | | | | AML | AML | 04 05 00.7 | |
| | comp=E,55μm,0.5s | | | | | | |
| ALN | Alexandroupoli | 2.06 | 354 | P | Pn | 04 04 24.7 | +0.3 |
| ALN | | | | S | Sn | 04 04 50.8 | +0.8 |
| SIMA | Simav-Kutahya | 2.09 | 83 | ePN | Pn | 04 04 24.8 | -0.2 |
| SIMA | Simav-Kutahya | 2.09 | 83 | ePn | Pn | 04 04 24.8 | -0.2 |
| KCTX | Karacabey (Bur | 2.12 | 47 | ePN | Pn | 04 04 25.0 | -0.3 |
| KCTX | Karacabey (Bur | 2.12 | 47 | ePn | Pn | 04 04 25.0 | -0.3 |
| VLY | Voula,Athens | 2.21 | 244 | P | Pn | 04 04 27.3 | +0.8 |
| VLY | Voula,Athens | 2.21 | 244 | P | Pn | 04 04 27.3 | +0.8 |
| PAIG | Paliouri | 2.31 | 299 | P | Pn | 04 04 28.7 | +0.9 |
| PAIG | Paliouri | 2.31 | 299 | P | Pn | 04 04 28.7 | +0.9 |
| OUR | Ouranopolis | 2.34 | 310 | P | Pn | 04 04 29.2 | +1.0 |
| OUR | Ouranopolis | 2.34 | 310 | P | Pn | 04 04 29.2 | +1.0 |
| RDO | Rodhopi | 2.38 | 346 | P | Pn | 04 04 29.3 | +0.6 |
| RDO | | | | S | Sn | 04 04 57.4 | -0.5 |
| RDO | Rodhopi | 2.38 | 346 | P | Pn | 04 04 29.3 | +0.6 |
| RDO | | | | S | Sn | 04 04 57.3 | -0.5 |
| KAVA | Kavala | 2.56 | 328 | P | Pn | 04 04 31.5 | +0.3 |
| KAVA | Kavala | 2.56 | 328 | P | Pn | 04 04 31.5 | +0.3 |
| SRS | Serrai | 3.09 | 318 | P | Pn | 04 04 38.5 | 0.0 |
| SRS | Serrai | 3.09 | 318 | P | Pn | 04 04 38.5 | 0.0 |
| NVR | Nevrokopi | 3.13 | 324 | P | Pn | 04 04 39.6 | +0.5 |
| NVR | Nevrokopi | 3.13 | 324 | P | Pn | 04 04 39.7 | +0.5 |

*ISCJB* ***11*** *04:09:18.0±0.5, 28°.11N±0°.04×129°.56E±0°.05, h32km±3km, mb3.8/15, Error ellipse: s-maj=8.5km s-min=4.2km az=37.4*

*JMA* ***11*** *04:09:18.3±0.2, 28°.13N×129°.53E, h28km±3km, M3.9*

*JMA Felt II J1.*

*IDC* ***11*** *04:09:23.4±3.0, 28°.13N×129°.57E, h70km±26km, mb3.5/15, mb1 3.7/17, mb1mx3.5/46, mbtmp3.8/17, Error ellipse: s-maj=24.6km s-min=15.7km az=75.0*

**ISC 11 04:09:18.1**±1.0**, 28°.15N**±0°.04×**129°.55E**±0°.05**, h25**km±7km**, n38,** σ1$^s$**28**/48**, mb3.9**/15**, Ryukyu Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JAM | Amami Oshima | 0.26 | 10 | P | Pb | 04 09 25.0 | +0.4 |
| JAM | | | | S | Sb | 04 09 29.9 | +0.8 |
| JAMN | Amaminishikomi | 0.34 | 285 | P | Pn | 04 09 26.1 | -1.4 |
| JAMN | | | | S | Sn | 04 09 32.1 | -1.5 |
| JZK | Kikaishima | 0.40 | 66 | P | Pn | 04 09 27.3 | -1.0 |
| JZK | | | | S | Sn | 04 09 35.1 | 0.0 |
| JTK | Tokunoshima | 0.65 | 236 | P | Pb | 04 09 30.0 | -0.8 |
| JTK | | | | S | Sb | 04 09 38.2 | -1.2 |
| JTAJ | Takarajima | 1.04 | 343 | P | Pn | 04 09 37.3 | +0.2 |
| JTAJ | | | | S | Sn | 04 09 51.8 | +0.9 |
| JOKE | Okinoerabujima | 1.17 | 228 | P | Pb | 04 09 38.7 | -1.0 |
| JOKE | | | | S | Sn | 04 09 54.3 | +0.2 |
| JNN | Nakanoshima | 1.71 | 9 | P | Pb | 04 09 47.4 | -1.4 |
| JNN | | | | eS | Sb | 04 10 09.5 | -0.4 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **JOW** | **Kunigami** | **1.74** | **221** | P | **Pn** | **04 09 46.5** | **-0.2** |
| JOW | | | | *e*S | **Sn** | **04 10 08.7** | **+0.7** |
| **JIH** | **Iheya** | **1.79** | **232** | P | **Pn** | **04 09 47.8** | **+0.4** |
| JIH | | | | S | **Sn** | **04 10 09.6** | **+0.2** |
| **JNTH** | **Nagotoyohara** | **2.12** | **220** | P | **Pn** | **04 09 52.0** | **+0.1** |
| **JYAK** | **Yakushimahirau** | **2.24** | **22** | P | **Pb** | **04 09 55.1** | **-2.8** |
| **JNU** | **Nakatsue** | **5.08** | **13** | P | **Pn** | **04 10 36.2** | **+3.5** |
| | 4.8nm,0.3s,baz=160,slow=2.1,SNR=30 | | | | | | |
| JNU | | | | S | **Sb** | **04 11 42.3** | **-4.7** |
| | 0.9nm,0.3s,baz=10,slow=18,SNR=1.8 | | | | | | |
| **KSRS** | **Korea Array** | **9.38** | **352** | P | Pn | 04 11 37.7 | +6.1 |
| | baz=162,slow=13,SNR=3.9 | | | | | | |
| **SONM** | **Songino Array** | **26.64** | **324** | P | **P** | **04 14 57.3** | **+2.5** |
| | 0.3nm,0.4s,baz=132,slow=8.3,SNR=2.7 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **29.65** | **258** | P | **P** | **04 15 22.4** | **+0.6** |
| | 1.7nm,0.3s,baz=54,slow=6.8,SNR=4.5 | | | | | | |
| **TAPN** | **Taplejung** | **36.91** | **279** | *e*P | **P** | **04 16 26.3** | **+1.0** |
| | 5.5nm,0.6s | | | | | | |
| **ODAN** | **Odare** | **37.28** | **278** | *e*P | **P** | **04 16 28.4** | **0.0** |
| | 40nm,0.9s | | | | | | |
| **RAMN** | **Ramite** | **37.96** | **279** | *e*P | **P** | **04 16 34.0** | **-0.1** |
| | 7.0nm,0.7s | | | | | | |
| **GUN** | **Gumba** | **38.39** | **280** | *e*P | **P** | **04 16 39.0** | **+1.1** |
| | 17nm,0.7s | | | | | | |
| **PKI** | **Pulchoki** | **38.87** | **280** | *e*P | **P** | **04 16 41.9** | **0.0** |
| | 21nm,0.8s | | | | | | |
| **PKIN** | **Phulchoki** | **38.88** | **280** | *e*P | **P** | **04 16 42.6** | **+0.7** |
| | 23nm,0.8s | | | | | | |
| **KKN** | **Kakani** | **38.94** | **280** | *e*P | **P** | **04 16 42.9** | **+0.6** |
| | 24nm,0.7s | | | | | | |
| **DMN** | **Daman** | **39.12** | **280** | *e*P | **P** | **04 16 44.2** | **+0.2** |
| | 9.9nm,0.5s | | | | | | |
| **KOLN** | **Koldanda** | **40.40** | **281** | *e*P | **P** | **04 16 54.9** | **+0.4** |
| **PYUN** | **Piuthan** | **40.86** | **281** | *e*P | **P** | **04 16 58.9** | **+0.6** |
| **MKAR** | **Makanchi Array** | **41.17** | **310** | P | **P** | **04 17 00.8** | **+0.4** |
| | 0.4nm,0.6s,baz=98,slow=10.0,SNR=4.9 | | | | | | |
| MKAR | | | | PcP | **PcP** | **04 18 58.3** | **-1.0** |
| | 0.7nm,0.8s,baz=79,slow=3.1,SNR=4.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.47** | **321** | P | **P** | **04 17 02.0** | **-0.7** |
| | 0.7nm,0.3s,baz=94,slow=9.2,SNR=4.0 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **44.31** | **315** | P | **P** | **04 17 25.0** | **-0.7** |
| | 1.1nm,0.6s,baz=102,slow=8.8,SNR=4.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **48.03** | **174** | P | **P** | **04 17 54.2** | **-1.2** |
| | 1.0nm,0.8s,baz=347,slow=7.9,SNR=4.2 | | | | | | |
| **ASAR** | **Alice Springs** | **51.69** | **175** | P | **P** | **04 18 24.0** | **+0.9** |
| | 0.4nm,0.7s,baz=5.6,slow=14,SNR=20 | | | | | | |
| **ILAR** | **Eielson Array** | **62.19** | **29** | P | **P** | **04 19 37.3** | **+0.2** |
| | 0.3nm,0.8s,baz=300,slow=9.0,SNR=4.1 | | | | | | |
| **KBZ** | **Khabaz** | **68.86** | **309** | P | **P** | **04 20 21.6** | **+1.1** |
| | 5.8nm,0.8s,baz=94,slow=3.2,SNR=13 | | | | | | |
| **FINES** | **FINESS Array B** | **71.78** | **331** | P | **P** | **04 20 37.7** | **-0.3** |
| | 1.9nm,0.8s,baz=65,slow=6.5,SNR=11 | | | | | | |
| **AKASG** | **Malin Array Be** | **74.84** | **320** | P | **P** | **04 20 55.8** | **-0.5** |
| | 0.7nm,0.5s,baz=56,slow=6.8,SNR=4.0 | | | | | | |
| **YKA** | **Yellowknife Ar** | **76.29** | **25** | P | **P** | **04 21 04.5** | **+0.2** |
| | 0.3nm,0.7s,baz=300,slow=5.7,SNR=3.7 | | | | | | |
| **BRTR** | **Keskin Array B** | **76.78** | **308** | P | **P** | **04 21 08.4** | **+0.6** |
| | 2.2nm,0.9s,baz=104,slow=5.9,SNR=11 | | | | | | |
| **NOA** | **NORSAR Array B** | **78.11** | **334** | P | **P** | **04 21 14.8** | **+0.1** |
| | 1.9nm,0.9s,baz=51,slow=5.5,SNR=2.9 | | | | | | |
| **GERES** | **GERESS Array B** | **84.38** | **323** | P | **P** | **04 21 48.0** | **-0.3** |
| | 0.4nm,0.8s,baz=48,slow=4.2,SNR=4.1 | | | | | | |

**IDC 11 04:34:29.5**±6.7**, 32°.37S**×**179°.60E, h448**km±78km**, mb3.1**/2**, mb1 3.4**/3**, mb1mx2.9**/25**, mbtmp4.0**/3**, Error ellipse: s-maj=94.1km s-min=32.6km az=12.0, South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **URZ** | **Urewera** | **6.22** | **198** | P | P | 04 36 07.1 | +1.2 |
| | 3.1nm,0.3s,baz=330,slow=2.7,SNR=14 | | | | | | |
| URZ | | | | S | S | 04 37 23.9 | -0.8 |
| | 2.6nm,0.3s,baz=209,slow=21,SNR=13 | | | | | | |
| **ASAR** | **Alice Springs** | **41.01** | **270** | P | P | 04 41 32.5 | +0.3 |
| | 0.6nm,0.5s,baz=106,slow=7.9,SNR=16 | | | | | | |
| **WRA** | **Warramunga Arr** | **42.18** | **276** | P | P | 04 41 41.1 | -0.5 |
| | 1.3nm,0.4s,baz=114,slow=7.8,SNR=22 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **120.94** | **313** | PKP | PKPdf | 04 52 28.9 | -0.7 |
| | 0.1nm,0.4s,baz=114,slow=2.9,SNR=3.4 | | | | | | |
| **FINES** | **FINESS Array B** | **146.22** | **337** | PKPbc | PKPbc | 04 53 17.3 | -0.7 |
| | 2.1nm,0.4s,baz=42,slow=4.5,SNR=26 | | | | | | |

*VIE **11** 04:35:27.7±0.2, 46°.14N×13°.94E, h8km, ML1.0/4, Error ellipse: s-maj=1.5km s-min=1.1km az=74.0*
*CSEM **11** 04:35:27.9±0.1, 46°.12N×13°.89E, h10km, ML1.4/17, Error ellipse: s-maj=2.3km s-min=1.6km az=47.0*
*ROM **11** 04:35:27.2±0.4, 46°.12N×13°.92E, h10km, Md1.8/3, Ml1.2/3, Error ellipse: s-maj=4.3km s-min=2.1km az=96.0*
**LJU 11 04:35:27.8, 46°.13N×13°.89E, h12km, ML0.8, 5C-4D, Austria**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VOJS** | **Vojsko** | **0.10** | **183** | *i* Pg | Pg | 04 35 30.4 | -0.3 |
| VOJS | | | | *i* Sg | Sg | 04 35 32.2 | -0.6 |
| | comp=Z,9.0nm,0.1s | | | | | | |
| **VOJS** | **Vojsko** | **0.10** | **183** | Pg | Pg | 04 35 30.4 | -0.3 |
| VOJS | | | | *i* Sg | Sg | 04 35 32.2 | -0.6 |
| | comp=Z,9.0nm,0.1s | | | | | | |
| **CADS** | **Cadrg** | **0.14** | **313**⇓ | *i*Pg | Pg | 04 35 31.1 | -0.2 |
| CADS | | | | *i* Sg | Sg | 04 35 33.6 | -0.3 |
| | comp=Z,11nm,0.1s | | | | | | |
| **CADS** | **Cadrg** | **0.14** | **313**⇓ | *i*Pg | Pg | 04 35 31.1 | -0.2 |
| CADS | | | | *i* Sg | Sg | 04 35 33.6 | -0.2 |
| | comp=Z,11nm,0.1s | | | | | | |
| **DRE** | **Drenchia** | **0.18** | **284**⇑ | *e*Pg | Pg | 04 35 31.7 | -0.1 |
| DRE | | | | *e*Sg | Sg | 04 35 34.8 | +0.1 |
| **DRE** | **Drenchia** | **0.18** | **284** | *e*P | Pg | 04 35 31.7 | -0.1 |
| **DRE** | **Drenchia** | **0.18** | **284** | *e*Pg | Pb | 04 35 34.8 | +1.7 |
| **GORS** | **Gorjuse** | **0.20** | **21** | *i* Pg | Pg | 04 35 32.3 | +0.1 |
| GORS | | | | *i* Sg | Sg | 04 35 36.0 | +0.7 |
| | comp=Z,9.0nm,0.1s | | | | | | |
| **GORS** | **Gorjuse** | **0.20** | **21** | *i* Pg | Pg | 04 35 32.3 | +0.1 |
| GORS | | | | *i* Sg | Sg | 04 35 36.0 | +0.7 |
| | comp=Z,9.0nm,0.1s | | | | | | |
| **SABO** | **M.te Sabotino** | **0.25** | **233** | Pg | Pg | 04 35 32.9 | -0.2 |
| SABO | | | | Sg | Sg | 04 35 37.1 | +0.5 |
| | comp=Z,50nm,0.4s | | | | | | |
| **SABO** | **M.te Sabotino** | **0.25** | **233**⇑ | *e*Pg | Pg | 04 35 32.9 | -0.1 |
| SABO | | | | *e*Sg | Sg | 04 35 37.2 | +0.6 |
| **SABO** | **M.te Sabotino** | **0.25** | **233** | *e*P | Pg | 04 35 32.9 | -0.2 |
| SABO | | | | Sg | Sg | 04 35 37.1 | +0.5 |
| | comp=Z,50nm,0.4s | | | | | | |
| **CRNS** | **Crni Vrh** | **0.26** | **101** | *i* Pg | Pg | 04 35 33.5 | +0.2 |
| CRNS | | | | *i* Sg | Sg | 04 35 37.7 | +0.8 |
| | comp=Z,5.0nm,0.1s | | | | | | |
| **CRNS** | **Crni Vrh** | **0.26** | **101** | *i* Pg | Pg | 04 35 33.5 | +0.2 |
| CRNS | | | | *i* Sg | Sg | 04 35 37.7 | +0.7 |
| | comp=Z,5.0nm,0.1s | | | | | | |
| **JAVS** | **Javornik** | **0.27** | **153**⇓ | *i*Pg | Pg | 04 35 33.3 | 0.0 |
| JAVS | | | | *e*Sg | Sg | 04 35 37.8 | +0.8 |
| | comp=Z,6.0nm,0.1s | | | | | | |
| **JAVS** | **Javornik** | **0.27** | **153**⇓ | *i*Pg | Pg | 04 35 33.3 | -0.1 |
| JAVS | | | | *e*Sg | Sg | 04 35 37.8 | +0.7 |
| | comp=Z,6.0nm,0.1s | | | | | | |
| **ROBS** | **Robic** | **0.29** | **294** | *i* Pg | Pg | 04 35 33.8 | +0.1 |
| ROBS | | | | *i* Sg | Sg | 04 35 38.4 | +0.7 |
| | comp=Z,5.0nm,0.1s | | | | | | |
| **ROBS** | **Robic** | **0.29** | **294** | *i* Pg | Pg | 04 35 33.8 | +0.1 |
| ROBS | | | | *i* Sg | Sg | 04 35 38.4 | +0.7 |
| | comp=Z,5.0nm,0.1s | | | | | | |
| **COLI** | **Coloredo** | **0.36** | **271**⇑ | *e*Pg | Pg | 04 35 35.3 | +0.3 |
| COLI | | | | *e*Sg | Sb | 04 35 41.3 | -0.3 |
| **COLI** | **Coloredo** | **0.36** | **271** | *e*P | Pg | 04 35 35.3 | +0.4 |
| **PRED** | **Cave del Predi** | **0.39** | **324** | *e*Pg | Pg | 04 35 35.3 | -0.3 |
| PRED | | | | *e*Sg | Sg | 04 35 41.5 | +0.8 |
| **PRED** | **Cave del Predi** | **0.39** | **324** | *e*P | Pg | 04 35 35.3 | -0.2 |
| **MOZS** | **Mozjanca** | **0.42** | **67** | *i* Pg | Pb | 04 35 36.8 | -0.3 |
| MOZS | | | | *e*Sg | Sb | 04 35 43.3 | -0.2 |
| | comp=Z,2.0nm,0.1s | | | | | | |
| **MOZS** | **Mozjanca** | **0.42** | **67** | *i* Pg | Pb | 04 35 36.8 | -0.4 |
| MOZS | | | | *e*Sg | Sb | 04 35 43.3 | -0.2 |
| | comp=Z,2.0nm,0.1s | | | | | | |
| **TRI** | **Trieste** | **0.43** | **192**⇑ | *e*Pg | Pg | 04 35 36.5 | +0.2 |
| TRI | | | | *e*Sg | Sb | 04 35 42.9 | -0.8 |
| **TRI** | **Trieste** | **0.43** | **192** | *e*P | Pg | 04 35 36.5 | +0.2 |
| **GBAS** | **Gorenja Brezov** | **0.43** | **117** | *i* Pg | Pg | 04 35 36.5 | +0.2 |
| GBAS | | | | *e*Sg | Sb | 04 35 43.3 | -0.6 |
| | comp=Z,2.0nm,0.1s | | | | | | |
| **GBAS** | **Gorenja Brezov** | **0.43** | **117** | *i* Pg | Pg | 04 35 36.5 | +0.2 |
| GBAS | | | | *e*Sg | Sb | 04 35 43.3 | -0.5 |
| | comp=Z,2.0nm,0.1s | | | | | | |
| **VINO** | **Villanova** | **0.44** | **287** | Pg | Pg | 04 35 36.4 | -0.1 |
| VINO | | | | Sg | Sb | 04 35 43.6 | -0.5 |
| | comp=Z,18nm,0.8s | | | | | | |
| **VINO** | **Villanova** | **0.44** | **287** | *e*Pg | Pg | 04 35 36.4 | -0.1 |
| VINO | | | | *e*Sg | Sb | 04 35 43.6 | -0.5 |
| **VINO** | **Villanova** | **0.44** | **287** | *e*P | Pg | 04 35 36.4 | -0.1 |
| VINO | | | | Sg | Sb | 04 35 43.6 | -0.5 |
| | comp=Z,18nm,0.8s | | | | | | |
| **ACOM** | **Acomizza, Ital** | **0.49** | **328** | Pg | Pg | 04 35 37.5 | 0.0 |
| ACOM | | | | Sg | Sb | 04 35 45.5 | -0.3 |
| | comp=Z,14nm,0.5s | | | | | | |
| **ACOM** | **Acomizza, Ital** | **0.49** | **328**⇑ | *e*Pg | Pg | 04 35 37.5 | 0.0 |
| ACOM | | | | *e*Sg | Sb | 04 35 45.1 | -0.7 |
| **ACOM** | **Acomizza, Ital** | **0.49** | **328** | Pg | Pg | 04 35 37.5 | 0.0 |
| ACOM | | | | Sg | Sb | 04 35 45.5 | -0.3 |
| | comp=Z,14nm,0.5s | | | | | | |
| **MYKA** | **Terra Mystica** | **0.53** | **341** | Pg | Pg | 04 35 38.2 | 0.0 |
| | comp=Z,0.1nm,0.1s | | | | | | |
| MYKA | | | | Sg | Sb | 04 35 46.6 | -0.1 |
| | comp=Z,6.1nm,0.3s | | | | | | |
| **CEY** | **Cerknica** | **0.54** | **136** | *e*Pg | Pg | 04 35 38.1 | -0.3 |
| CEY | | | | *i* Sg | Sb | 04 35 47.3 | +0.3 |
| | comp=Z,4.0nm,0.2s | | | | | | |
| **CEY** | **Cerknica** | **0.54** | **136** | *e*Pg | Pg | 04 35 38.1 | -0.3 |
| CEY | | | | *i* Sg | Sb | 04 35 47.3 | +0.3 |
| | comp=Z,4.0nm,0.2s | | | | | | |
| **SKDS** | **Skadanscina** | **0.59** | **171** | *i* Pg | Pg | 04 35 38.9 | -0.4 |
| SKDS | | | | *e*Sg | Sb | 04 35 48.1 | -0.3 |
| | comp=Z,2.0nm,0.1s | | | | | | |
| **SKDS** | **Skadanscina** | **0.59** | **171** | *i* Pg | Pg | 04 35 38.9 | -0.4 |
| SKDS | | | | *e*Sg | Sb | 04 35 48.1 | -0.3 |
| | comp=Z,2.0nm,0.1s | | | | | | |
| **OBKA** | **Obir** | **0.59** | **50** | Pg | Pg | 04 35 38.7 | -0.7 |
| | comp=Z,0.2nm,0.1s | | | | | | |
| OBKA | | | | Sg | Sg | 04 35 46.5 | -0.8 |
| | comp=Z,3.2nm,0.3s | | | | | | |
| **KNDS** | **Knezji Dol** | **0.69** | **150** | *i* Pg | Pg | 04 35 40.8 | -0.5 |
| **KNDS** | **Knezji Dol** | **0.69** | **150** | *i* Pg | Pg | 04 35 40.8 | -0.5 |
| **CLUD** | **Cludinico** | **0.77** | **295** | *e*Pg | Pg | 04 35 42.8 | +0.1 |
| CLUD | | | | *e*Sg | Sb | 04 35 54.6 | +0.9 |
| **CLUD** | **Cludinico** | **0.77** | **295** | *e*P | Pg | 04 35 42.8 | +0.1 |
| **KBA** | **Koelnbreinsper** | **1.02** | **339** | Pg | Pn | 04 35 48.0 | -0.1 |
| KBA | | | | Sg | Sb | 04 36 01.7 | +0.7 |
| | comp=Z,0.2nm,0.1s | | | | | | |
| **ABTA** | **Abfaltersbach** | **1.14** | **303** | Sg | Sn | 04 36 06.3 | +1.1 |
| | comp=Z,0.3nm,0.2s | | | | | | |

*DDA **11** 04:39:16.9, 38°.83N×43°.54E, h5km, Ml2.5*
*ATA **11** 04:39:16.6±0.7, 38°.83N×43°.54E, h10km±31km, ML2.7, MW2.7*
*ISK **11** 04:39:17.3, 38°.88N×43°.51E, h5km, ML2.1*
*CSEM **11** 04:39:18.4±0.3, 38°.90N×43°.51E, h2km, ML2.5, Error ellipse: s-maj=6.9km s-min=5.8km az=156.0*
**ISC 11 04:39:18.1**±1.0**, 38°.88N**±0°.03×**43°.53E**±0°.03**, h6**km±8km**, n26, σ1s40**/41**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.11** | **18** | *i* P | **Pg** | **04 39 20.0** | **-0.7** |
| VMUR | | | | *i* S | **Sg** | **04 39 23.4** | **+1.1** |
| **VMUR** | **Van-Muradiye** | **0.11** | **18** | P | **Pg** | **04 39 20.0** | **-0.7** |
| VMUR | | | | S | **Sg** | **04 39 23.5** | **+1.1** |
| **VANB** | **Van** | **0.31** | **201** | *e*PG | **Pb** | **04 39 25.8** | **-0.3** |
| **VANB** | **Van** | **0.31** | **201** | *e*Pg | **Pb** | **04 39 25.8** | **-0.3** |
| **CLDR** | **Caldiran** | **0.40** | **49** | *e*PG | **Pg** | **04 39 26.2** | **+0.2** |
| CLDR | | | | *e*SG | **Sb** | **04 39 33.8** | **-0.5** |
| **CLDR** | **Caldiran** | **0.40** | **49** | *i* P | **Pg** | **04 39 25.9** | **-0.1** |
| CLDR | | | | *i* S | **Sb** | **04 39 33.6** | **-0.7** |
| **CLDR** | **Caldiran** | **0.40** | **49** | P | **Pg** | **04 39 25.9** | **-0.1** |
| **CLDR** | **Caldiran** | **0.40** | **49** | *e*Pg | **Pg** | **04 39 26.2** | **+0.2** |
| CLDR | | | | S | **Sb** | **04 39 33.6** | **-0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.63** | **263** | *i* P | **Pg** | **04 39 29.6** | **-0.7** |
| ADCV | | | | *i* S | **Sb** | **04 39 40.8** | **-0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.63** | **263** | P | **Pg** | **04 39 29.6** | **-0.7** |
| ADCV | | | | S | **Sb** | **04 39 40.8** | **-0.1** |
| **DYDN** | **Diyadin** | **0.67** | **11** | *e*P | **Pg** | **04 39 31.0** | **-0.1** |
| DYDN | | | | IAML | | 04 39 46.3 | |
| | comp=Z,10nm,0.4s | | | | | | |
| **TUTA** | **Tutak** | **0.76** | **313** | *i* P | **Pg** | **04 39 32.2** | **-0.6** |
| TUTA | | | | *e*S | **Sn** | **04 39 45.2** | **-2.4** |
| TUTA | | | | IAML | | 04 39 52.5 | |
| | comp=Z,19nm,0.4s | | | | | | |
| **TUTA** | **Tutak** | **0.76** | **313** | *i* P | **Pg** | **04 39 31.7** | **-1.1** |
| TUTA | | | | *i* S | **Sb** | **04 39 44.9** | **+0.3** |
| **TUTA** | **Tutak** | **0.76** | **313** | P | **Pg** | **04 39 31.7** | **-1.1** |
| TUTA | | | | S | **Sb** | **04 39 44.9** | **+0.3** |
| **AGRB** | **Hanur-Agry** | **0.81** | **329** | *e*PG | **Pg** | **04 39 33.5** | **-0.1** |
| AGRB | | | | *e*SG | **Sn** | **04 39 46.4** | **-2.3** |
| **AGRB** | **Hanur-Agry** | **0.81** | **329** | *e*Pg | **Pg** | **04 39 33.6** | **-0.1** |
| AGRB | | | | *e*Sg | **Sn** | **04 39 46.4** | **-2.3** |
| **EKAR** | **Karacoban** | **1.20** | **289** | *i* P | **Pn** | **04 39 41.8** | **+0.2** |
| EKAR | | | | *i* S | **Sn** | **04 40 04.5** | **+6.2** |
| **EKAR** | **Karacoban** | **1.20** | **289** | P | **Pn** | **04 39 41.8** | **+0.2** |
| **EATA** | **Eleskirt** | **1.27** | **321** | *e*P | **Pg** | **04 39 42.5** | **0.0** |
| EATA | | | | *e*S | **Sn** | **04 40 01.8** | **+1.6** |
| EATA | | | | IAML | | 04 40 05.7 | |
| | comp=Z,1.9nm,0.4s | | | | | | |
| **EATA** | **Eleskirt** | **1.27** | **321** | *i* P | **Pn** | **04 39 42.0** | **-0.7** |
| EATA | | | | *i* S | **Sn** | **04 40 02.6** | **+2.5** |
| **EATA** | **Eleskirt** | **1.27** | **321** | P | **Pn** | **04 39 42.0** | **-0.7** |
| **DIGO** | **Kars** | **1.53** | **356** | *i* P | **Pb** | **04 39 47.2** | **0.0** |
| **DIGO** | **Kars** | **1.53** | **356** | P | **Pb** | **04 39 47.2** | **0.0** |
| **CUKT** | **Cukurca** | **1.64** | **178** | *e*PN | **Pb** | **04 39 48.5** | **-0.3** |
| **CUKT** | **Cukurca** | **1.64** | **178** | *e*Pn | **Pb** | **04 39 48.5** | **-0.3** |
| **BNGL** | **BINGOL** | **1.86** | **273** | *e*P | **Pb** | **04 39 51.8** | **-0.8** |
| BNGL | | | | IAML | | 04 40 07.4 | |
| | comp=Z,16nm,0.2s | | | | | | |

*ISK **11** 04:48:38.9, 36°.44N×28°.82E, h15km, MD2.5*
*ISCJB **11** 04:48:39.5±1.2, 36°.42N±0°.07×28°.84E±0°.05, h18km±13km, Error ellipse: s-maj=12.1km s-min=6.2km az=20.4*
*CSEM **11** 04:48:39.7±0.4, 36°.45N×28°.87E, h20km, ML2.3, Error ellipse: s-maj=9.9km s-min=5.2km az=28.0*
*DDA **11** 04:48:39.8, 36°.56N×28°.85E, h7km, Ml2.3*
**ISC 11 04:48:39.4**±1.2**, 36°.47N**±0°.05×**28°.84E**±0°.03**, h16**km±9km**, n24, σ0s42**/38**, Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FETY** | **Fethiye** | **0.26** | **50** | *e*PG | **Pg** | **04 48 45.3** | **+0.3** |
| FETY | | | | *e*SG | **Sb** | **04 48 50.3** | **+0.4** |
| **FETY** | **Fethiye** | **0.26** | **50** | *e*Pg | **Pg** | **04 48 45.3** | **+0.3** |
| FETY | | | | S | **Sb** | **04 48 50.0** | **+0.1** |
| **DALY** | **Dalyan (Mu˜la** | **0.38** | **337** | *e*PG | **Pg** | **04 48 47.3** | **+0.3** |
| DALY | | | | *e*SG | **Sb** | **04 48 53.6** | **+0.2** |
| **DALY** | **Dalyan (Mu˜la** | **0.38** | **337** | *i* P | **Pg** | **04 48 47.4** | **+0.3** |
| DALY | | | | *i* S | **Sb** | **04 48 53.8** | **+0.4** |
| **DALY** | **Dalyan (Mu˜la** | **0.38** | **337** | P | **Pg** | **04 48 47.4** | **+0.3** |
| DALY | | | | *e*Sg | **Sb** | **04 48 53.6** | **+0.2** |
| **TURN** | **Turunc** | **0.44** | **335** | *i* P | **Pn** | **04 48 51.2** | **+0.1** |
| TURN | | | | *i* S | **Sn** | **04 48 59.7** | **+0.8** |
| **TURN** | **Turunc** | **0.44** | **335** | P | **Pn** | **04 48 51.2** | **+0.1** |
| **AKAS** | **Kas** | **0.66** | **111** | *e*PG | **Pg** | **04 48 52.9** | **+0.5** |
| **AKAS** | **Kas** | **0.66** | **111** | *i* P | **Pb** | **04 48 52.0** | **-0.7** |
| AKAS | | | | *i* S | **Sn** | **04 49 05.3** | **+0.9** |
| **AKAS** | **Kas** | **0.66** | **111** | P | **Pb** | **04 48 52.0** | **-0.7** |
| **AKAS** | **Kas** | **0.66** | **111** | *e*Pg | **Pg** | **04 48 52.9** | **+0.5** |
| **ELL** | **Elmali** | **0.90** | **72** | *e*PG | **Pb** | **04 48 56.5** | **-0.3** |
| **ELL** | **Elmali** | **0.90** | **72** | *e*Pg | **Pb** | **04 48 56.5** | **-0.3** |
| **GOLH** | **Golhisar** | **0.96** | **37** | *i* P | **Pb** | **04 48 57.3** | **-0.4** |
| GOLH | | | | *i* S | **Sn** | **04 49 11.7** | **-0.1** |
| **GOLH** | **Golhisar** | **0.96** | **37** | P | **Pb** | **04 48 57.3** | **-0.4** |
| GOLH | | | | S | **Sn** | **04 49 11.7** | **-0.1** |
| **TAVA** | **DENIZLI_Tavas** | **0.99** | **3** | *i* P | **Pb** | **04 48 57.7** | **-0.6** |
| TAVA | | | | *i* S | **Sb** | **04 49 11.1** | **-0.2** |
| **TAVA** | **DENIZLI_Tavas** | **0.99** | **3** | P | **Pb** | **04 48 57.7** | **-0.6** |
| TAVA | | | | S | **Sb** | **04 49 11.1** | **-0.2** |
| **BDRM** | **Kayabasi** | **1.27** | **298** | *i* P | **Pn** | **04 49 01.9** | **-0.6** |
| BDRM | | | | *i* S | **Sb** | **04 49 19.1** | **0.0** |
| **BDRM** | **Kayabasi** | **1.27** | **298** | P | **Pn** | **04 49 01.9** | **-0.6** |
| BDRM | | | | S | **Sb** | **04 49 19.0** | **0.0** |
| **KORT** | **Korkueli** | **1.32** | **66** | *e*PN | **Pb** | **04 49 03.8** | **-0.1** |
| **KORT** | **Korkueli** | **1.32** | **66** | *i* P | Pn | 04 48 56.1 | -7.3 |
| **KORT** | **Korkueli** | **1.32** | **66** | *e*Pn | **Pb** | **04 49 03.8** | **-0.1** |
| **AYDN** | **Tasoluk** | **1.42** | **327** | *i* P | **Pb** | **04 49 05.7** | **+0.2** |
| AYDN | | | | *i* S | **Sg** | **04 49 24.8** | **-0.3** |
| **AYDN** | **Tasoluk** | **1.42** | **327** | P | **Pb** | **04 49 05.7** | **+0.2** |
| AYDN | | | | S | **Sg** | **04 49 24.8** | **-0.3** |

**IDC 11 04:54:25.7**±2.0**, 31°.15S**×**178°.99W, h0**km**, mb3.4**/2**, mb1 3.7**/2**, mb1mx3.4**/26**, mbtmp3.4**/2**, Error ellipse: s-maj=69.8km s-min=45.3km az=17.0, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ASAR** | **Alice Springs** | **42.22** | **268** | P | P | 05 02 20.9 | +0.1 |
| | 0.3nm,0.9s,baz=104,slow=7.7,SNR=3.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.28** | **273** | P | P | 05 02 28.9 | -0.4 |
| | 0.3nm,0.4s,baz=113,slow=8.1,SNR=4.5 | | | | | | |
| **FINES** | **FINESS Array B** | **145.55** | **339** | PKPbc | PKPdf | 05 14 04.6 | -0.5 |
| | 1.8nm,0.7s,baz=42,slow=5.9,SNR=7.3 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **162.07** | **182** | PKPab | PKPab | 05 15 15.2 | -0.6 |
| | 0.1nm,0.4s,baz=198,slow=3.8,SNR=2.4 | | | | | | |

*NIED **11** 05:04:00, 34°.60N×142°.00E, h20km, Mw4.5 Best double couple: M$_0$7.16000×10$^{15}$ NP1:$\phi_s$344.00000°, δ68.00000°, λ21.00000°. NP2:$\phi_s$246.00000°, δ70.00000°, λ157.00000°.*
*BJI **11** 05:04:26.8, 34°.53N×142°.59E, h20km, mb4.5/46, mB4.9/35, Ms4.6/33, Ms7 4.4/32*
*NEIC **11** 05:04:29.0±0.2, 34°.46N×142°.42E, h10km, mb4.9/53, Error ellipse: s-maj=5.0km s-min=3.6km az=145.0*
*ISCJB **11** 05:04:30.9±0.2, 34°.55N±0°.03×142°.23E±0°.03, h33km, mb4.7/110, MS4.2/18, Error ellipse: s-maj=4.3km s-min=3.1km az=149.8*
*JMA **11** 05:04:31.9±0.3, 34°.61N×142°.01E, h39km±3km, M4.0*
*IDC **11** 05:04:31.9±0.5, 34°.65N×141°.69E, h0km, mb4.4/31, mb1 4.5/34, mb1mx4.4/64, mbtmp4.4/34, ML3.7/3, MS3.8/12, Ms1 3.8/12, ms1mx3.5/51, Error ellipse: s-maj=13.7km s-min=12.0km az=115.0*
*MOS **11** 05:04:32.5±1.7, 34°.79N×141°.98E, h24km, mb4.8/49, Error ellipse: s-maj=8.4km s-min=5.1km az=110.2*
**ISC 11 05:04:32.0**±0.8**, 34°.50N**±0°.04×**142°.27E**±0°.05**, h24**km±5km**, n230, σ2s13**/240**, mb4.7**/110**, MS4.2**/18**, 7C-2D, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BSO1** | **Boso 1** | **1.08** | **278** | P | **Pn** | **05 04 47.6** | **-3.5** |
| **BSO3** | **Boso 3** | **1.48** | **282** | P | **Pn** | **05 04 53.9** | **-3.0** |
| **BSO4** | **Boso 4** | **1.66** | **288** | P | **Pn** | **05 04 56.8** | **-2.8** |
| **CHOJ** | **Chosi** | **1.67** | **316** | P | **Pn** | **05 04 56.2** | **-3.5** |
| CHOJ | | | | S | **Sn** | **05 05 14.4** | **-5.9** |
| **KTR** | **Katsuura** | **1.73** | **292** | P | **Pn** | **05 04 57.3** | **-3.3** |
| **JIM2** | **Oshima 3** | **2.35** | **276** | P | **Pn** | **05 05 05.5** | **-3.7** |
| **JHJ2** | **Mitsune** | **2.47** | **237** | P | **Pn** | **05 05 10.3** | **-0.4** |
| JHJ2 | | | | S | **Sn** | **05 05 37.4** | **-2.7** |
| **JHJ2** | **Mitsune** | **2.47** | **237** | *e*Pn | **Pn** | **05 05 10.5** | **-0.2** |
| **JHJ** | **Hachijo jima 2** | **2.49** | **237** | Pn | **Pn** | **05 05 10.3** | **-0.7** |
| | 40nm,0.3s,baz=104,slow=24,SNR=15 | | | | | | |
| JHJ | | | | Sn | **Sn** | **05 05 37.7** | **-2.9** |
| | 240nm,0.3s,baz=61,slow=21,SNR=6.1 | | | | | | |
| **JOD2** | **Odawara 2** | **2.72** | **287** | P | **Pn** | **05 05 10.4** | **-3.9** |
| **JIZS** | **Izushimoda** | **2.81** | **275** | P | **Pn** | **05 05 11.8** | **-3.6** |
| **MJAR** | **Matsushiro Arr** | **3.89** | **303** | Pn | **Pn** | **05 05 27.1** | **-3.2** |
| | 14nm,0.3s,baz=293,slow=28,SNR=114 | | | | | | |
| MJAR | | | | LR | LR | 05 06 27.2 | |
| | comp=Z,578nm,18.1s,baz=130,slow=34 | | | | | | |
| **MAJO** | **Matsushiro** | **3.89** | **303***c* | *i*P | **Pn** | **05 05 27.7** | **-2.6** |
| **MAJO** | **Matsushiro** | **3.89** | **303** | *e*Pn | **Pn** | **05 05 28.2** | **-2.1** |
| **MAT** | **Matsushiro** | **3.89** | **303** | P | **Pn** | **05 05 27.7** | **-2.6** |
| MAT | | | | *e*S | **Sn** | **05 06 13.8** | **-1.4** |
| **INU** | **Inuyama** | **4.40** | **283** | *e*Pn | **Pn** | **05 05 35.9** | **-1.4** |
| **CBIJ** | **Chichi jima** | **7.38** | **181** | *e*Pn | **Pn** | **05 06 14.9** | **-3.4** |
| **ERM** | **Erimo** | **7.53** | **5** | *e*P | **Pn** | **05 06 18.0** | **-2.3** |
| ERM | | | | *e* | | 05 07 45.4 | |
| **ERM** | **Erimo** | **7.53** | **5** | *e*Pn | **Pn** | **05 06 18.0** | **-2.3** |
| ERM | | | | *e*Sn | **Sn** | **05 07 45.4** | **+0.5** |
| **JNU** | **Nakatsue** | **9.58** | **265** | Pn | **Pn** | **05 06 47.5** | **-1.0** |
| | 0.8nm,0.3s,baz=74,slow=8.9,SNR=9.4 | | | | | | |
| **JNU** | **Nakatsue** | **9.58** | **265** | *e*Pn | **Pn** | **05 06 47.6** | **-0.9** |
| **ASAJ** | **Asahikawa** | **9.61** | **1** | Pn | **Pn** | **05 06 46.5** | **-2.2** |
| | 4.2nm,0.3s,baz=218,slow=8.7,SNR=17 | | | | | | |
| **ASAJ** | **Asahikawa** | **9.61** | **1** | *e*Pn | **Pn** | **05 06 47.3** | **-1.4** |
| ASAJ | | | | *e*Sn | **Sn** | **05 08 31.6** | **-4.2** |
| **YUK** | **Yuzh-Kuril'sk** | **9.92** | **15** | P | **Pn** | **05 06 55.2** | **+2.3** |
| YUK | | | | S | **Sn** | **05 08 46.4** | **+3.0** |
| **KSRS** | **Korea Array** | **11.99** | **288** | Pn | **Pn** | **05 07 18.8** | **-2.6** |
| | 0.3nm,0.3s,baz=102,slow=14,SNR=10.0 | | | | | | |
| KSRS | | | | LR | LR | 05 11 40.6 | |
| | comp=Z,99nm,21.9s,baz=97,slow=37 | | | | | | |
| **KS01** | **Wonju Array Si** | **12.02** | **288** | *e*Pn | **Pn** | **05 07 21.7** | **0.0** |
| **KS15** | **Wonju Array Si** | **12.02** | **288** | *e*Pn | **Pn** | **05 07 20.7** | **-1.0** |
| **KSAR** | **Wonju Array Be** | **12.02** | **288** | P | **Pn** | **05 07 18.8** | **-3.0** |
| **KSAR** | **Wonju Array Be** | **12.02** | **288** | Pn | **Pn** | **05 07 18.8** | **-3.0** |
| **YSS** | **Yuzh-Sakhalins** | **12.44** | **2** | *e*P | **Pn** | **05 07 25.8** | **-1.7** |
| YSS | | | | pmax | pmax | | |
| | comp=Z,30nm,0.6s | | | | | | |
| YSS | | | | MLR | MLR | | |
| | comp=Z,800nm,15.0s | | | | | | |
| YSS | | | | MLR | MLR | | |
| | comp=N,800nm,16.0s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **12.44** | **2** | *e*Pn | **Pn** | **05 07 26.2** | **-1.3** |
| **USRK** | **Ussuriysk Ar.** | **12.52** | **324** | Pn | **Pn** | **05 07 25.9** | **-2.8** |
| | comp=N,0.1nm,0.3s,baz=132,slow=11,SNR=8.0 | | | | | | |
| USRK | | | | LR | LR | 05 11 50.9 | |
| | comp=N,132nm,19.1s,baz=131,slow=36 | | | | | | |
| **INCN** | **Inchon** | **13.01** | **288** | *e*Pn | **Pn** | **05 07 36.0** | **+0.7** |
| **MDJ** | **Mudanjiang** | **14.04** | **320** | P | **Pn** | **05 07 48.6** | **-0.8** |
| MDJ | | | | S | **Sn** | **05 10 22.2** | **-2.2** |
| MDJ | | | | PcP | **PcP** | **05 13 08.1** | **-0.8** |
| MDJ | | | | ScP | **ScP** | **05 16 41.8** | **+0.9** |
| MDJ | | | | ScS | **ScS** | **05 20 18.2** | **+0.2** |
| MDJ | | | | pmax | pmax | | |
| | comp=N,11nm,1.1s | | | | | | |
| MDJ | | | | pmax | pmax | | |
| | comp=N,150nm,6.8s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=N,570nm,15.5s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=N,490nm,16.1s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=N,460nm,16.7s | | | | | | |
| **JOW** | **Kunigami** | **14.26** | **241** | *e*Pn | **Pn** | **05 07 52.7** | **+0.3** |
| **CN2** | **Changchun** | **15.99** | **310** | *e*P | **P** | **05 08 18.2** | **-0.4** |
| CN2 | | | | pmax | pmax | | |
| | comp=N,10.0nm,0.6s | | | | | | |
| CN2 | | | | pmax | pmax | | |
| | comp=N,200nm,5.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=N,700nm,15.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=N,700nm,15.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=N,600nm,15.0s | | | | | | |
| **SNY** | **Shenyang** | **16.40** | **302** | ⇓P | Pn | 05 08 11.2 | -9.3 |
| SNY | | | | S | **S** | **05 11 40.8** | **+7.2** |
| **KLR** | **Kul'dur** | **16.65** | **335** | Pn | **Pn** | **05 08 19.1** | **-4.5** |
| | comp=N,0.0nm,0.3s,baz=139,slow=9.3,SNR=3.3 | | | | | | |
| KLR | | | | LR | LR | 05 14 34.5 | |
| | comp=N,26nm,18.6s,baz=143,slow=37 | | | | | | |
| **SARN** | **Sarigan** | **18.00** | **169** | *e*Pn | **Pn** | **05 08 39.0** | **-1.7** |
| **ANA2** | **Anatahan** | **18.35** | **169** | *e*P | **P** | **05 08 42.9** | **-2.0** |
| **SKR** | **Severo-Kuril's** | **19.06** | **28** | *e*P | **Pn** | **05 08 56.4** | **+3.1** |
| SKR | | | | pmax | pmax | | |
| | comp=Z,156nm,1.2s | | | | | | |
| SKR | | | | pmax | pmax | | |
| | comp=Z,900nm,2.7s | | | | | | |
| SKR | | | | MLR | MLR | | |
| | comp=Z,500nm,15.0s | | | | | | |
| SKR | | | | MLR | MLR | | |
| | comp=Z,700nm,16.0s | | | | | | |
| **NJ2** | **Nanjing** | **19.72** | **269** | *e*P | **P** | **05 09 00.4** | **+0.6** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| **SSLB** | **Suanglung** | **21.42** | **246** | *e*P | **P** | **05 09 18.8** | **+0.5** |
| | comp=Z,108nm,1.6s | | | | | | |
| **PEA0B** | **Petropavlovsk-** | **21.59** | **26** | *e*P | **P** | **05 09 18.5** | **-1.4** |
| | comp=Z,67nm,1.4s | | | | | | |
| **PETK** | **Petropavlovsk-** | **21.59** | **26** | *e*P | **P** | **05 09 19.0** | **-0.9** |
| **PETK** | **Petropavlovsk-** | **21.59** | **26** | *e*P | **P** | **05 09 19.0** | **-0.9** |
| **PET** | **Petropavlovsk** | **21.88** | **27** | *e*P | **P** | **05 09 22.5** | **-0.4** |
| PET | | | | pmax | pmax | | |
| | comp=Z,83nm,1.2s | | | | | | |
| **PET** | **Petropavlovsk** | **21.88** | **27** | *e*P | **P** | **05 09 22.5** | **-0.4** |
| | comp=Z,83nm,1.2s | | | | | | |
| **TWG** | **Pinlang** | **21.89** | **243** | *e*P | **P** | **05 09 24.0** | **+0.6** |
| | comp=Z,137nm,1.0s | | | | | | |
| **HIA** | **Hailar** | **22.22** | **318** | *e*P | **P** | **05 09 24.5** | **-2.2** |

HIA pmax pmax
comp=Z,11nm,1.1s
**HHC Hu-ho-hao-te 25.04 294** *e*P **P 05 09 55.5 +1.2**
HHC sP sP 05 10 06.0 +1.5
HHC S **S 05 14 20.4 +3.2**
HHC sS sS 05 14 27.4 -1.6
HHC pmax pmax
comp=Z,12nm,1.0s
HHC pmax pmax
comp=Z,150nm,6.5s
HHC LR LR
comp=Z,330nm,12.4s
HHC LR LR
comp=Z,400nm,13.5s
HHC LR LR
comp=Z,400nm,13.7s
**CLNS Chul'man 25.28 337** *e*P **P 05 09 49.6 -6.7**
CLNS pmax pmax
comp=Z,14nm,0.9s
CLNS pmax pmax
comp=E,8.0nm,1.6s
CLNS pmax pmax
comp=N,15nm,0.9s
**MA2 Magadan 25.70 10** P **P 05 10 03.4 +3.3**
comp=N,11nm,0.8s,baz=216,slow=9.2,SNR=5.6
**H11N2 WAKE ISLAND Hy 26.30 118** T T 05 38 16.2
baz=309,slow=75,SNR=7.4
**H11N1 WAKE ISLAND Hy 26.31 118** T T 05 38 30.2
baz=309,slow=75,SNR=8.8
**H11N3 WAKE ISLAND Hy 26.32 118** T T 05 38 33.1
baz=309,slow=75,SNR=7.5
**H11S3 WAKE ISLAND Hy 26.95 120** T T 05 39 12.6
baz=312,slow=75,SNR=8.2
**H11S1 WAKE ISLAND Hy 26.95 120** T T 05 39 07.5
baz=312,slow=75,SNR=8.0
**H11S2 WAKE ISLAND Hy 26.96 120** T T 05 39 16.2
baz=312,slow=75,SNR=5.3
**XAN Xi'an 27.50 279** P **P 05 10 13.6 -3.0**
XAN pmax pmax
comp=N,10.0nm,0.8s
XAN pmax pmax
comp=N,85nm,4.2s
**SEY Seymchan 29.15 9** P **P 05 10 34.4 +3.5**
comp=N,2.7nm,0.8s,baz=186,slow=3.1,SNR=6.6
**SEY Seymchan 29.15 9** *e*P **P 05 10 29.1 -1.8**
**ULN Ulaanbaatar 29.40 308** *ce*P **P 05 10 34.1 +0.6**
ULN pmax pmax
comp=Z,11nm,1.2s
**ULN Ulaanbaatar 29.40 308** *e*P **P 05 10 33.5 -0.1**
comp=Z,11nm,1.2s
**SONA1 Songino Array 29.82 307** *e*P **P 05 10 37.6 +0.4**
**SONM Songino Array 29.83 307** P **P 05 10 37.6 +0.3**
comp=Z,3.7nm,0.8s,baz=108,slow=8.6,SNR=23
SONM PcP **PcP 05 13 42.9 +2.7**
comp=Z,0.6nm,0.6s,baz=130,slow=2.1,SNR=5.4
SONM LR LR 05 22 00.2
comp=Z,131nm,18.9s,baz=14,slow=36
**BOD Bodaibo 30.05 330** *e*P **P 05 10 37.7 -1.2**
BOD pmax pmax
comp=Z,17nm,1.7s
**LZH Lanzhou 31.27 284** *e*P **P 05 10 53.7 +3.5**
LZH pP sP 05 11 00.8 +0.4
LZH sP pP 05 11 04.2 +6.8
LZH PP **PP 05 11 58.0 -2.9**
LZH pmax pmax
comp=Z,19nm,1.1s
LZH pmax pmax
comp=Z,76nm,5.3s
LZH LR LR
comp=Z,370nm,14.3s
LZH LR LR
comp=Z,500nm,12.9s
LZH LR LR
comp=Z,620nm,17.2s
**GYA Guiyang 31.59 265** *e*P **P 05 10 48.7 -4.3**
GYA pmax pmax
comp=Z,10.0nm,0.8s
**ZAK Zakamensk 32.42 311** *e*P **P 05 10 57.8 -2.3**
ZAK pmax pmax
comp=Z,5.0nm,1.0s
**CD2 Chengdu 32.47 275** *e*P **P 05 10 59.7 -1.0**
CD2 sP pP 05 11 07.0 -0.9
CD2 pmax pmax
comp=Z,20nm,0.6s
CD2 pmax pmax
comp=Z,330nm,6.8s
CD2 LR LR
comp=Z,1μm,16.1s
CD2 LR LR
comp=Z,860nm,13.3s
CD2 LR LR
comp=Z,690nm,13.3s
**TLY Talaya 32.55 314** *e*P **P 05 11 01.3 +0.2**
TLY pmax pmax
comp=Z,9.0nm,0.8s
TLY MLR MLR
comp=Z,201nm,12.0s
**GTA Gaotai 34.05 291** *e*P **P 05 11 13.6 -0.8**
GTA pP pP 05 11 21.0 -0.7
GTA sP sP 05 11 24.2 -0.4
GTA S **S 05 16 36.0 -2.6**
GTA sS pS 05 16 47.7 +1.0
GTA SS **SnSn 05 18 43.8 -2.5**
GTA pmax pmax
comp=Z,6.0nm,1.0s
GTA pmax pmax
comp=Z,89nm,8.3s
GTA LR LR
comp=Z,300nm,14.7s
GTA LR LR
comp=Z,310nm,16.2s
GTA LR LR
comp=Z,350nm,14.3s
**MIDW Midway 34.86 89** *e*P **P 05 11 19.7 -1.7**
comp=Z,206nm,1.9s
**KMI Kunming 35.36 265** P **P 05 11 27.5 +1.5**
KMI pmax pmax
comp=Z,6.0nm,0.5s
KMI LR LR
comp=Z,340nm,5.9s
KMI LR LR
comp=Z,420nm,8.0s
KMI LR LR
comp=Z,380nm,8.9s
**KKM Kota Kinabalu 37.17 226** *e*P **P 05 11 40.7 -0.7**
comp=Z,95nm,1.6s
**TIXI Tiksi 37.88 353** P **P 05 11 47.5 +0.9**
comp=Z,1.1nm,0.3s,baz=157,slow=0.1,SNR=4.8
TIXI LR LR 05 29 22.2
comp=Z,184nm,19.6s,baz=218,slow=40
**TIXI Tiksi 37.88 353** *i* P **P 05 11 46.7 +0.1**
TIXI pmax pmax
comp=Z,1.0nm,1.0s
**TIXI Tiksi 37.88 353** *e*P **P 05 11 46.4 -0.2**
comp=Z,3.1nm,0.8s
**CHTO Chiang Mai 41.42 259** *e*P **P 05 12 16.4 -0.4**
CHTO pmax pmax
comp=Z,5.0nm,0.8s
**CHTO Chiang Mai 41.42 259** *e*P **P 05 12 16.4 -0.4**
comp=Z,5.2nm,0.8s
**CMAR Chiang Mai Arr 41.61 259** P **P 05 12 17.6 -0.7**
comp=Z,2.0nm,0.3s,baz=48,slow=7.5,SNR=12
**CM01 Chiang Mai Arr 41.62 259** *e*P **P 05 12 17.8 -0.6**
**DGZ Jazzator, Alta 42.47 308** *i* P **P 05 12 25.5 +0.3**
DGZ pmax pmax
comp=Z,8.0nm,0.7s
**WMQ Urumqi 42.65 299** P **P 05 12 27.9 +1.3**
WMQ pP pP 05 12 30.1 -3.9
WMQ sP sP 05 12 34.5 -2.4
WMQ pmax pmax
comp=Z,22nm,1.1s
WMQ pmax pmax
comp=Z,270nm,5.3s
WMQ LR LR
comp=Z,270nm,17.1s
WMQ LR LR
comp=Z,340nm,18.5s
WMQ LR LR
comp=Z,260nm,20.5s
**ZAA0 Zalesovo Array 44.16 314** *e*P **P 05 12 38.2 -0.3**
comp=Z,4.6nm,0.8s
**ZALV Zalesovo Beam 44.16 314** P **P 05 12 38.5 0.0**
comp=Z,4.8nm,0.7s,baz=99,slow=6.9,SNR=21
ZALV PcP **PcP 05 14 24.8 +1.7**
comp=Z,1.6nm,0.5s,baz=114,slow=3.0,SNR=4.5
**ZALV Zalesovo Beam 44.16 314** *e*P **P 05 12 38.0 -0.5**
ZALV 05 14 24.8
**ZALV Zalesovo Beam 44.16 314** *e*P **P 05 12 38.0 -0.5**
ZALV PcP **PcP 05 14 24.8 +1.7**
**KSM Kuching 44.37 229** *e*P **P 05 12 40.1 -0.6**
comp=Z,38nm,1.5s
**NVS Novosibirsk 45.11 316** *e*P **P 05 12 46.3 +0.2**
**MK01 Makanchi Array 46.08 304** *e*P **P 05 12 53.8 -0.2**
**MK31 Makanchi Array 46.09 304** *ce*P **P 05 12 53.8 -0.2**
MK31 pmax pmax
comp=Z,3.0nm,0.6s
**MK31 Makanchi Array 46.09 304** *e*P **P 05 12 54.2 +0.2**
**MKAR Makanchi Array 46.09 304** P **P 05 12 53.9 -0.2**
comp=Z,3.8nm,0.6s,baz=87,slow=9.5,SNR=15
MKAR LR LR 05 30 54.0
comp=Z,116nm,20.2s,baz=88,slow=35
**MKAR Makanchi Array 46.09 304** *i* P **P 05 12 54.0 0.0**
MKAR pmax pmax
comp=Z,4.0nm,0.6s
**MAKZ Makanchi 46.30 304** *i* P **P 05 12 53.5 -2.2**
MAKZ pmax pmax
comp=Z,5.0nm,0.8s
**MAKZ Makanchi 46.30 304** *e*P **P 05 12 55.4 -0.2**
comp=Z,5.1nm,0.8s
**JOHN Johnston Islan 46.47 100** *e*P **P 05 12 54.6 -2.7**
comp=Z,316nm,1.0s
**SVW2 Sparrevohn 47.13 36** *e*P **P 05 12 59.7 -2.2**
comp=Z,132nm,1.0s
**SOEI Soe 47.21 205** *e*P **P 05 13 02.1 -1.1**
comp=Z,23nm,0.8s
**ODAN Odare 47.33 276** *e*P **P 05 13 03.5 -0.7**
comp=Z,5.5nm,0.6s
**RAMN Ramite 47.94 277** *e*P **P 05 13 08.2 -0.8**
comp=Z,25nm,0.7s
**JIRN Jiri 48.00 278** *e*P **P 05 13 09.4 -0.2**
**KURK Kurchatov 48.07 310** *ce*P **P 05 13 09.3 0.0**
KURK pmax pmax
comp=Z,101nm,1.0s
**KURK Kurchatov 48.07 310** *e*P **P 05 13 09.0 -0.3**
comp=Z,22nm,0.8s
**KURBB Kurchatov Arra 48.13 310** P **P 05 13 09.4 -0.4**
comp=Z,16nm,0.8s,baz=86,slow=7.6,SNR=46
**GUN Gumba 48.16 278** *e*P **P 05 13 10.3 -0.5**
comp=Z,36nm,0.9s
**IMAR Indian Mountai 48.49 29** *e*P **P 05 13 12.1 -0.3**
**KDAK Kodiak Island 48.54 40** P P 05 13 17.8 +5.0
comp=Z,12nm,0.8s,baz=249,slow=8.1,SNR=4.1
**PDGK Podgornoye 48.61 300** P **P 05 13 13.9 +0.1**
PDGK pmax pmax
comp=Z,12nm,0.8s
**PKI Pulchoki 48.67 278** *e*P **P 05 13 13.9 -0.8**
comp=Z,16nm,0.7s
**PKIN Phulchoki 48.68 278** *e*P **P 05 13 13.6 -1.1**
comp=Z,14nm,0.6s
**KKN Kakani 48.69 278** *e*P **P 05 13 14.2 -0.6**
comp=Z,25nm,0.8s
**SPU Mount Spurr 48.85 36** *e*P **P 05 13 14.1 -1.2**
**PPLA Purkeypile 48.86 34** *e*P **P 05 13 14.7 -0.8**
comp=Z,31nm,0.5s
**DMN Daman 48.90 278** *e*P **P 05 13 15.6 -0.8**
comp=Z,6.7nm,0.5s
**CAST Castle Rocks 48.95 33** *e*P **P 05 13 15.9 -0.1**
comp=Z,25nm,1.9s
**CNPM China Poot 49.23 38** *e*P **P 05 13 17.1 -1.1**
comp=Z,480nm,2.0s
**BPAW Bear Paw Mtn. 49.48 32** *e*P **P 05 13 18.4 -1.6**
comp=Z,42nm,2.0s
**SUA Susitna One 49.49 36** *e*P **P 05 13 19.3 -1.0**
comp=Z,40nm,0.8s
**MLY Manley 49.64 31** *e*P **P 05 13 19.4 -2.0**
comp=Z,17nm,1.4s
**TRF Thorofare Moun 49.75 33** *e*P **P 05 13 21.2 -1.1**
comp=Z,19nm,0.6s
**RC01 Rabbit Creek A 49.97 36** *e*P **P 05 13 21.8 -2.0**
comp=Z,32nm,0.8s
**COLD Coldfoot 50.04 28** *e*P **P 05 13 23.4 -0.8**
comp=Z,14nm,1.8s
**SEW Seward 50.13 37** *e*P **P 05 13 24.6 -0.3**
comp=Z,177nm,1.9s
**PMR Palmer 50.26 35** *e*P **P 05 13 25.3 -0.6**
PMR pmax pmax
comp=Z,69nm,1.8s
**PMR Palmer 50.26 35** *e*P **P 05 13 25.3 -0.6**
comp=Z,69nm,1.8s
**JAGI Jajag, Banyuwa 50.35 217** *e*P **P 05 13 26.4 -0.8**
comp=Z,20nm,1.2s
**MCK McKinley 50.37 33** *e*P **P 05 13 24.6 -2.2**
MCK pmax pmax
comp=Z,58nm,2.0s
**MCK McKinley 50.37 33** *e*P **P 05 13 24.6 -2.2**
comp=Z,58nm,2.0s
**RND Reindeer 50.40 33** *e*P **P 05 13 26.6 -0.5**
RND pmax pmax
comp=Z,61nm,2.0s
**RND Reindeer 50.40 33** *e*P **P 05 13 26.6 -0.5**
comp=Z,61nm,2.0s
**PYUN Piuthan 50.44 280** *e*P **P 05 13 26.4 -1.7**
comp=Z,30nm,0.7s
**SML Sawmill 50.64 35** *e*P **P 05 13 28.7 -0.2**
SML pmax pmax
comp=Z,66nm,1.6s
**SML Sawmill 50.64 35** *e*P **P 05 13 28.7 -0.2**
comp=Z,66nm,1.6s
**MDM Murphy Dome 50.70 31** *e*P **P 05 13 26.4 -2.9**
comp=Z,9.4nm,1.0s
**CCB Clear Creek Bu 50.88 31** *e*P **P 05 13 29.7 -0.9**
comp=Z,30nm,1.9s
**DHY Denali Highway 51.07 33** *e*P **P 05 13 29.9 -2.3**
comp=Z,22nm,1.5s
**IL1 Eielson Array 51.27 31** *e*P **P 05 13 33.4 -0.2**
**ILAR Eielson Array 51.27 31** P **P 05 13 37.8 +4.2**
comp=Z,3.2nm,0.8s,baz=265,slow=6.1,SNR=19
**ILB Eielson Array 51.27 31** *e*P **P 05 13 32.4 -1.2**
**TKM2 Tokmak 2 51.48 300** *i* P **P 05 13 35.9 +0.2**
TKM2 pmax pmax
comp=Z,8.0nm,0.7s
**PAX Paxson 51.94 34** *e*P **P 05 13 38.3 -0.3**
PAX pmax pmax
comp=Z,20nm,1.7s
**PAX Paxson 51.94 34** *e*P **P 05 13 38.3 -0.3**
comp=Z,20nm,1.7s
**KSH Kashi 52.11 296** *e*P **P 05 13 44.2 +3.8**
KSH pP sP 05 13 51.9 +1.1
KSH PcP **PcP 05 14 55.1 +3.0**
KSH PP **PP 05 15 44.6 +6.1**
KSH S **S 05 21 07.8 +4.6**
KSH ScS **ScS 05 23 29.3 +0.3**
KSH SS **SS 05 24 44.8 +4.6**
KSH pmax pmax
comp=Z,8.0nm,1.1s
KSH pmax pmax
comp=Z,120nm,6.7s
KSH LR LR
comp=Z,140nm,7.6s
KSH LR LR
comp=Z,190nm,6.7s
**FRU Bishkek 52.20 301** *e*P **P 05 13 40.5 -0.4**
FRU *e* 05 13 52.0
**AAK Ala-Archa 52.34 300** P **P 05 13 41.6 -0.5**
comp=Z,1.9nm,0.7s,baz=75,slow=5.7,SNR=5.4
AAK LR LR 05 38 17.6
comp=Z,180nm,19.1s,baz=64,slow=39
**AAK Ala-Archa 52.34 300** *i* P **P 05 13 40.2 -1.8**
**AAK Ala-Archa 52.34 300** *e*P **P 05 13 42.7 +0.7**
comp=Z,2.8nm,0.8s
**BMRM Bremner River 52.47 36** *e*P **P 05 13 41.3 -1.3**
comp=Z,29nm,1.5s
**RAGM Ragged Mountai 52.49 37** *e*P **P 05 13 41.6 -1.1**
comp=Z,37nm,1.0s
**MENT Mentasta 52.74 34** *e*P **P 05 13 43.0 -1.6**
comp=Z,25nm,1.7s
**BVAR Borovoye Array 52.81 314** P **P 05 13 45.3 +0.2**
comp=Z,6.0nm,0.9s,baz=91,slow=6.4,SNR=18
**BRVK Borovoye 52.87 314** *ce*P **P 05 13 46.2 +0.7**
BRVK pmax pmax
comp=Z,64nm,2.5s
**BRVK Borovoye 52.87 314** *e*P **P 05 13 46.3 +0.7**
comp=Z,6.2nm,0.8s
**GSI Gunungsitoli 53.15 241** *e*P **P 05 13 48.0 -0.2**
comp=Z,60nm,1.1s
**SFK Sufi-Kurgan 53.78 297** P **P 05 13 54.3 +1.4**
SFK pmax pmax
comp=Z,5.0nm,0.9s
**MNAS Manas 53.79 301** P **P 05 13 54.0 +1.2**
MNAS pmax pmax
comp=Z,8.0nm,1.0s
**WRAB Tennant Creek 54.66 189** *i* P **P 05 14 02.0 +3.0**
WRAB pmax pmax
comp=Z,14nm,1.1s
**WRAB Tennant Creek 54.66 189** *e*P **P 05 13 57.1 -1.9**
comp=Z,16nm,1.1s
**WRA Warramunga Arr 54.67 189** P **P 05 14 02.8 +3.7**
comp=Z,7.8nm,0.8s,baz=7.4,slow=7.6,SNR=30
**INK Inuvik 56.33 26** P P 05 14 15.5 +5.0
comp=Z,4.1nm,0.7s,baz=300,slow=6.5,SNR=43
**SVE Sverdlovsk 57.52 320** *e*P **P 05 14 19.8 +0.7**
SVE pmax pmax
comp=Z,18nm,1.3s
**DZET Dzherino 57.60 298** P **P 05 14 21.7 +1.6**
DZET pmax pmax
comp=Z,8.0nm,0.8s
**AS01 Alice Springs 58.38 189** *e*P **P 05 14 25.0 -0.5**
**ASAR Alice Springs 58.39 189** P **P 05 14 29.5 +4.0**
comp=Z,2.2nm,0.7s,baz=19,slow=10.0,SNR=33
**ARU Arti 58.73 320** P **P 05 14 27.9 +0.3**
comp=Z,2.8nm,0.4s,baz=80,slow=4.8,SNR=10
**ARU Arti 58.73 320** *d i*P **P 05 14 26.4 -1.1**
ARU 05 16 34.1
ARU S **S 05 22 29.2 -1.6**
ARU SS **SS 05 26 23.3 -0.1**
ARU pmax pmax
comp=Z,18nm,1.7s
**ARU Arti 58.73 320** *e*P **P 05 14 27.8 +0.3**
comp=Z,12nm,1.1s
**HYB Hyderabad 58.88 270** *i* P **P 05 14 30.0 +0.8**
**AB31 Akbulak array 60.12 312** *ce*P **P 05 14 37.0 -0.3**
AB31 pmax pmax
comp=Z,6.0nm,0.6s
**DZM Mont Dzumac 60.77 154** LR LR 05 37 42.6
comp=Z,188nm,21.1s,baz=38,slow=33
**AKTO Aktyubinsk 60.90 313** P **P 05 14 43.2 +0.7**
comp=Z,5.7nm,0.7s,baz=80,slow=13,SNR=19
**AKTO Aktyubinsk 60.90 313** *i* P **P 05 14 42.6 0.0**
AKTO pmax pmax
comp=Z,6.0nm,0.7s
**AFI Afiamalu 64.98 130** LR LR 05 38 03.2
comp=Z,100nm,21.9s,baz=256,slow=31
**YKA Yellowknife Ar 65.65 30** P **P 05 15 17.8 +4.0**
comp=Z,0.7nm,0.6s,baz=293,slow=5.8,SNR=13
**GEYT Alibeck 65.69 300** P **P 05 15 15.4 +0.8**
comp=Z,2.4nm,0.9s,baz=71,slow=5.3,SNR=4.0
**STKA Stephens Creek 66.03 181** P P 05 15 21.8 +5.3
comp=Z,1.8nm,0.9s,baz=325,slow=16,SNR=2.5
**KLMR Klimovskoe 66.27 329** *e*P **P 05 15 15.0 -2.8**
KLMR pmax pmax
comp=Z,12nm,1.3s
**ARCES ARCESS Array B 66.61 340** LR LR 05 46 17.8
comp=Z,71nm,21.6s,baz=310,slow=38
**OBN Obninsk 70.54 324** *e*P **P 05 15 43.8 -0.8**
OBN *e* 05 18 17.8
OBN *es*S **S 05 24 47.8 -8.6**
OBN pmax pmax
comp=Z,6.0nm,1.4s
OBN MLR MLR
comp=Z,213nm,16.0s
**FINES FINESS Array B 71.38 333** P **P 05 15 51.1 +1.5**
comp=Z,5.9nm,0.8s,baz=65,slow=3.7,SNR=7.7
**WSAR Wadi Sarin 72.22 286** P **P 05 15 56.6 +1.2**
comp=Z,3.8nm,0.8s,baz=89,slow=11,SNR=3.5
**KBZ Khabaz 73.09 312** P **P 05 16 01.3 +1.2**
comp=Z,3.6nm,0.9s,baz=210,slow=1.6,SNR=6.7
**KVAR Kislovodsk Arr 73.09 312** P **P 05 16 02.1 +1.7**
comp=Z,4.8nm,0.7s,baz=0.0,slow=0.0,SNR=3.0
**KIV Kislovodsk 73.10 312** *e*P **P 05 16 00.2 -0.2**
KIV pmax pmax
comp=Z,11nm,1.1s
KIV MLR MLR
comp=Z,125nm,18.0s
**SUMG Summit 73.21 0** *e*P **P 05 16 00.5 -0.4**
SUMG pmax pmax
comp=Z,24nm,1.8s
**SUMG Summit 73.21 0** *e*P **P 05 16 00.5 -0.4**
comp=Z,24nm,1.8s
**PAHR Pah Rah Range 74.55 52** *e*P **P 05 16 08.6 -0.4**
comp=Z,2.3nm,0.9s
**HLID Hailey 75.58 47** *e*P **P 05 16 12.7 -2.3**
comp=Z,4.6nm,1.5s
**KVN Kaiserville 75.75 52** P **P 05 16 15.6 -0.4**
KVN pmax pmax
comp=Z,6.0nm,1.2s
**HFS Hagfors 76.68 336** P **P 05 16 22.6 +2.0**
comp=Z,2.8nm,0.6s,baz=108,slow=4.7,SNR=12
**AKASG Malin Array Be 76.73 323** P **P 05 16 21.8 +0.7**
comp=Z,3.3nm,0.6s,baz=47,slow=6.0,SNR=20
**AKBB Malin Array Si 76.73 323** *e*P **P 05 16 22.3 +1.2**
AKBB pmax pmax
comp=Z,45nm,2.0s
**AKBB Malin Array Si 76.73 323** *e*P **P 05 16 22.3 +1.2**
comp=Z,45nm,2.0s
**NB2 NORSAR Subarra 76.79 338** P **P 05 16 22.8 +1.5**
comp=Z,6.9nm,0.9s,baz=41,slow=5.9
**NOA NORSAR Array B 76.79 338** P **P 05 16 23.0 +1.7**
comp=Z,4.4nm,0.8s,baz=40,slow=5.7,SNR=12
NOA LR LR 05 53 55.5
comp=Z,129nm,19.0s,baz=250,slow=39
**FXWY Fox Creek 77.56 45** *e*P **P 05 16 25.2 -1.0**
comp=Z,9.5nm,1.8s
**BGU Big Grassy Mou 77.93 49** *e*P **P 05 16 26.7 -1.5**
comp=Z,11nm,1.8s
**DUG Dugway, Tooele 78.48 49** *e*P **P 05 16 30.1 -1.2**
DUG pmax pmax
comp=Z,4.0nm,0.8s
**DUG Dugway, Tooele 78.48 49** *e*P **P 05 16 30.1 -1.2**
comp=Z,3.7nm,0.8s
**PDAR Pinedale Array 78.94 45** P P 05 16 39.0 +5.1
comp=Z,0.8nm,0.7s,baz=278,slow=3.0,SNR=8.3
**NLU North Lily Min 79.08 49** *e*P **P 05 16 32.6 -2.1**
comp=Z,2.9nm,0.9s
**KIS Kishinev 79.28 320** *e*P P 05 16 24.0 -11
KIS LRM MLR 05 55 04.0
comp=Z,400nm,20.0s
**KIS Kishinev 79.28 320** *e*P P 05 16 24.0 -11
KIS MLR MLR
comp=Z,500nm,17.0s
KIS MLR MLR
comp=Z,400nm,20.0s
**MPU Maple Canyon 79.32 49** *e*P **P 05 16 34.6 -1.4**
comp=Z,4.9nm,1.2s
**BRTR Keskin Array B 81.06 312** P **P 05 16 46.6 +1.4**
comp=Z,1.4nm,0.7s,baz=115,slow=4.2,SNR=8.5
**BRTR Keskin Array B 81.06 312** P **P 05 16 46.7 +1.4**
BRTR pmax pmax
comp=Z,2.0nm,0.7s
**STHS Stebnicka Huta 81.43 326** *e*P **P 05 16 51.3 +4.4**
STHS pmax pmax
comp=Z,3.0nm,1.0s
**STHS Stebnicka Huta 81.43 326** *e*P **P 05 16 51.3 +4.4**
**BR231 Keskin MP Arra 81.51 313** *e*P **P 05 16 47.2 -0.4**
**WUAZ Wupatki 82.16 52** *e*P **P 05 16 49.6 -1.6**
comp=Z,4.8nm,1.0s
**LANS Liptovska Anna 82.44 326** *e*P **P 05 16 55.0 +2.8**
**LANS Liptovska Anna 82.44 326** *e*P **P 05 16 55.0 +2.8**
**DPC Dobruska-Polom 82.97 328** *e*P **P 05 16 56.9 +1.9**
**DPC Dobruska-Polom 82.97 328** *e*P **P 05 16 56.9 +1.9**
**MVCO Mesa Verde 82.97 49** *e*P **P 05 16 53.5 -2.0**
comp=Z,27nm,1.9s
**CLL Collm 83.64 331** *e*P **P 05 17 00.0 +1.7**
**CLL Collm 83.64 331** *e*P **P 05 17 00.0 +1.7**
CLL LmV 06 00 00.0
comp=Z,200nm,18.4s
**SDCO Great Sand Dun 84.49 47** *e*P **P 05 17 01.1 -2.2**
comp=Z,3.0nm,0.9s
**KHC Kasperske Hory 85.06 329** *e*P **P 05 17 07.4 +1.7**
KHC *es*P **sP 05 17 18.7 +2.3**
**KHC Kasperske Hory 85.06 329** *e*P **P 05 17 07.4 +1.7**
KHC *e* 05 17 18.7
**GERES GERESS Array B 85.23 329** P **P 05 17 08.2 +1.6**
comp=Z,1.8nm,0.8s,baz=38,slow=5.1,SNR=14
**GEA0 GERESS Array S 85.24 329** *e*P **P 05 17 07.8 +1.2**
**EKA Eskdalemuir Ar 85.75 341** LR LR 05 59 25.3
comp=Z,105nm,18.4s,baz=40,slow=38
**TX31 Lajitas Ar. Si 91.10 53** *e*P **P 05 17 34.0 -1.0**
**TXAR Lajitas Array 91.10 53** P P 05 17 40.6 +5.6
comp=Z,0.7nm,0.6s,baz=301,slow=3.3,SNR=10
**TORD Torodi Ar. Bea 119.61 315** PKP **PKPdf 05 23 22.7 +2.3**
comp=Z,0.5nm,0.7s,baz=9.0,slow=1.4,SNR=3.1
**LPAZ La Paz 147.27 64** PKPbc **PKPab 05 24 19.8 +3.3**
comp=Z,3.4nm,0.6s,baz=329,slow=2.4,SNR=24

*IDC **11** 05:14:41.1±0.9,29°46S×176°24W,h0$^{km}$,mb4.5/5, mb1 4.6/6,mb1mx4.3/23,mbtmp4.4/6,ML4.1/1,Error*

*ellipse: s-maj=34.0km s-min=20.7km az=169.0*

*ISCJB **11** 05:14:45.7±0.8,29°.83S±0°.06×176°.4W±0°.1,h28km, mb4.5/9,Error ellipse: s-maj=12.9km s-min=8.9km az=164.2*

*NEIC **11** 05:14:46.0±0.7,29°.63S×176°.21W,h35km,mb4.2/2,Error ellipse: s-maj=14.4km s-min=12.6km az=118.0*

**ISC 11 05:14:45.8±0.8,29°.64S±0°.09×176°.32W±0°.09,h28km,n26, σ1$^s$44/29,mb4.5/9,Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **1.44** | **285** | Pn | **Pn** | **05 15 10.2** | **+0.1** |
| | 308nm,0.3s,baz=135,slow=3.9,SNR=13 | | | | | | |
| RAO | | | | Sn | **Sn** | **05 15 29.5** | **+1.3** |
| | 695nm,0.3s,baz=300,slow=24,SNR=11 | | | | | | |
| RAO | | | | LR | LR | 05 15 54.9 | |
| | comp=Z,1μm,21.0s,baz=52,slow=50 | | | | | | |
| **RAO** | **Raoul Island** | **1.44** | **285** | *e*Pn | **Pn** | **05 15 10.2** | **+0.1** |
| RAO | | | | *e*Sn | **Sn** | **05 15 24.4** | **-3.7** |
| RAO | | | | Sn | **Sn** | **05 15 29.5** | **+1.3** |
| **URZ** | **Urewera** | **10.18** | **211** | Pn | **Pn** | **05 17 10.8** | **+0.7** |
| | 1.6nm,0.3s,baz=272,slow=2.1,SNR=7.2 | | | | | | |
| URZ | | | | Sn | **Sn** | **05 19 02.2** | **-1.0** |
| | 3.8nm,0.3s,baz=216,slow=20,SNR=7.8 | | | | | | |
| **SNZO** | **South Karori** | **13.74** | **210** | *e*Pn | **Pn** | **05 17 57.7** | **-1.0** |
| SNZO | | | | *e*Sn | Sn | 05 20 21.3 | -9.0 |
| **DZM** | **Mont Dzumac** | **17.23** | **292** | P | **P** | **05 18 46.4** | **+0.4** |
| | 0.1nm,0.3s,baz=126,slow=18,SNR=3.5 | | | | | | |
| **ARMA** | **Armidale** | **27.71** | **260** | *e*P | **P** | **05 20 33.8** | **+1.8** |
| | 1.5nm,0.5s | | | | | | |
| **CTAO** | **Charters Tower** | **35.13** | **277** | *e*P | **P** | **05 21 37.6** | **+0.4** |
| | 21nm,0.5s | | | | | | |
| **STKA** | **Stephens Creek** | **36.07** | **256** | P | **P** | **05 21 46.0** | **+0.9** |
| | 6.4nm,0.6s,baz=99,slow=11,SNR=23 | | | | | | |
| **ASAR** | **Alice Springs** | **44.61** | **265** | P | **P** | **05 22 54.9** | **-1.1** |
| | 2.1nm,0.5s,baz=100,slow=7.5,SNR=64 | | | | | | |
| ASAR | | | | PcP | **PP** | **05 24 39.7** | **-0.6** |
| | 0.3nm,0.6s,baz=128,slow=3.3,SNR=4.4 | | | | | | |
| **WRAB** | **Tennant Creek** | **45.53** | **271** | *e*P | **P** | **05 23 02.9** | **-0.4** |
| | 4.7nm,0.6s | | | | | | |
| **WRA** | **Warramunga Arr** | **45.53** | **271** | P | **P** | **05 23 02.3** | **-1.0** |
| | 4.9nm,0.4s,baz=109,slow=7.8,SNR=38 | | | | | | |
| **SNAA** | **Sanae** | **78.87** | **178** | P | P | 05 26 58.0 | +12 |
| **VNA3** | **Neumayer Olymp** | **78.96** | **176** | P | **P** | **05 26 47.1** | **+0.6** |
| **VNA2** | **Neumayer--Watz** | **79.41** | **176** | P | **P** | **05 26 50.0** | **+1.1** |
| | baz=172,slow=3.6 | | | | | | |
| **VNA1** | **Neumayer--Stat** | **79.63** | **176** | P | **P** | **05 26 51.2** | **+1.0** |
| **KSRS** | **Korea Array** | **84.73** | **319** | P | **P** | **05 27 20.0** | **+2.8** |
| | 1.9nm,0.7s,baz=146,slow=6.0,SNR=4.4 | | | | | | |
| **KSAR** | **Wonju Array Be** | **84.74** | **319** | P | **P** | **05 27 20.0** | **+2.7** |
| **USRK** | **Ussuriysk Ar.** | **87.34** | **326** | P | **P** | **05 27 30.3** | **+0.4** |
| | 2.1nm,0.6s,baz=90,slow=10,SNR=3.8 | | | | | | |
| **ILAR** | **Eielson Array** | **96.87** | **12** | P | **P** | **05 28 12.1** | **-1.6** |
| | 0.9nm,0.9s,baz=232,slow=5.3,SNR=5.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **118.40** | **310** | PKP | **PKPdf** | **05 33 29.2** | **-1.3** |
| | 0.8nm,0.9s,baz=108,slow=0.4,SNR=3.8 | | | | | | |
| **BVAR** | **Borovoye Array** | **126.87** | **316** | PKP | **PKPdf** | **05 33 46.4** | **-0.1** |
| | 1.1nm,0.8s,baz=150,slow=3.2,SNR=5.7 | | | | | | |
| **FINES** | **FINESS Array B** | **144.91** | **341** | PKP | PKPbc | 05 34 17.5 | -1.3 |
| | 2.8nm,0.6s,baz=80,slow=3.2,SNR=19 | | | | | | |
| **NB2** | **NORSAR Subarra** | **148.20** | **353** | PKP | **PKPbc** | **05 34 27.3** | **-1.2** |
| | comp=Z,1.2nm,0.6s,baz=8.1,slow=2.9 | | | | | | |
| **NOA** | **NORSAR Array B** | **148.20** | **353** | PKPbc | **PKPbc** | **05 34 27.1** | **-1.4** |
| | comp=Z,1.4nm,0.8s,baz=14,slow=4.2,SNR=5.1 | | | | | | |
| **AKASG** | **Malin Array Be** | **151.55** | **325** | PKPbc | **PKPbc** | **05 34 36.2** | **-0.7** |
| | comp=Z,3.4nm,0.5s,baz=46,slow=2.9,SNR=22 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **163.49** | **173** | PKPab | **PKPab** | **05 35 38.5** | **+0.8** |
| | comp=Z,1.0nm,0.7s,baz=188,slow=4.0,SNR=7.8 | | | | | | |

*SJA **11** 05:16:34.9±1.1,32°.51S×71°.73W,h10km,ML4.2,MW3.8*

*GUC **11** 05:16:36.3±0.4,32°.46S×71°.52W,h29km±3km,ML3.4*

**ISC 11 05:16:33.9±2.6,32°.54S±0°.04×71°.8W±0°.1,h5km±13km,n18, σ1$^s$71/32,Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ROC1** | **El Roble** | **0.78** | **125** | *e*P | **Pb** | **05 16 50.7** | **+0.6** |
| ROC1 | | | | *e*S | **Sb** | **05 17 00.6** | **-0.5** |
| **ROCH** | **El Roble** | **0.78** | **124** | *e*P | **Pb** | **05 16 50.4** | **+0.3** |
| ROCH | | | | *e*S | **Sb** | **05 17 01.0** | **0.0** |
| ROCH | | | | IAML | | 05 17 01.7 | |
| | comp=E,4μm,0.5s | | | | | | |
| **PEL** | **Peldehue** | **1.10** | **124** | *e*P | **Pg** | **05 16 55.1** | **0.0** |
| PEL | | | | *e*S | **Sg** | **05 17 09.3** | **-0.1** |
| PEL | | | | IAML | | 05 17 10.9 | |
| | comp=N,2μm,0.4s | | | | | | |
| **RCDM** | **Rinconada Maip** | **1.25** | **140** | *e*P | **Pb** | **05 16 58.1** | **0.0** |
| RCDM | | | | *e*S | **Sn** | **05 17 14.9** | **-0.5** |
| **CLCH** | **Cerro Calan** | **1.35** | **130** | *e*P | **Pn** | **05 16 59.4** | **-0.1** |
| CLCH | | | | *e*S | **Sb** | **05 17 16.8** | **-0.6** |
| CLCH | | | | IAML | | 05 17 18.1 | |
| | comp=N,1μm,0.4s | | | | | | |
| **ANTU** | **Antumapu** | **1.41** | **137** | *e*P | **Pn** | **05 17 00.8** | **+0.5** |
| ANTU | | | | *e*S | **Sn** | **05 17 19.1** | **-0.2** |
| **FCH** | **Farellones** | **1.48** | **123** | *e*P | **Pn** | **05 17 01.4** | **-0.1** |
| FCH | | | | *e*S | **Sn** | **05 17 20.6** | **-0.7** |
| FCH | | | | IAML | | 05 17 21.3 | |
| | comp=N,743nm,0.5s | | | | | | |
| **LMEL** | **Las Melosas** | **1.86** | **135** | *e*P | **Pn** | **05 17 07.5** | **+0.9** |
| LMEL | | | | *e*S | **Sb** | **05 17 31.1** | **-1.0** |
| LMEL | | | | IAML | | 05 17 36.1 | |
| | comp=N,752nm,0.2s | | | | | | |
| **AUSP** | **Uspallata** | **2.05** | **82** | *e*P | **Pb** | **05 17 11.5** | **-0.3** |
| **RTLS** | **Leoncito** | **2.23** | **71** | *e*P | **Pb** | **05 17 14.2** | **-0.6** |
| RTLS | | | | *e*S | **Sb** | **05 17 43.2** | **+0.4** |
| **ASAL** | **Salagasta** | **2.48** | **92** | *e*P | **Pb** | **05 17 19.0** | **-0.2** |
| ASAL | | | | *e*S | **Sb** | **05 17 51.0** | **+0.9** |
| **AAGR** | **Agrelo** | **2.54** | **103** | *e*P | **Pb** | **05 17 19.7** | **-0.4** |
| **RTCV** | **Cerro Valdivia** | **2.83** | **77** | *e*P | **Pb** | **05 17 22.7** | **-2.1** |
| RTCV | | | | *e*S | **Sb** | **05 18 00.2** | **+0.4** |
| **AMOG** | **MOGNA** | **3.22** | **61** | *e*P | **Pn** | **05 17 27.1** | **+2.0** |
| AMOG | | | | *e*S | **Sb** | **05 18 12.4** | **+1.2** |
| **ACAN** | **Cantantal** | **3.89** | **87** | *e*P | **Pn** | **05 17 36.0** | **+1.6** |
| **AGUA** | **GUANDACOL** | **4.15** | **44** | *e*P | **Pn** | **05 17 40.2** | **+2.3** |
| AGUA | | | | *e*S | **Sb** | **05 18 39.2** | **+1.3** |
| **VCA** | **Vinchina** | **4.88** | **40** | *e*P | **Pn** | **05 17 50.8** | **+2.7** |
| VCA | | | | *e*S | **Sb** | **05 18 52.0** | **-7.0** |
| VCA | | | | IAML | | 05 19 01.9 | |
| | comp=Z,167nm,0.6s | | | | | | |
| **CYA** | **Choya** | **6.57** | **53** | *e*P | **Pn** | **05 18 11.6** | **+0.3** |

*NEIC **11** 05:17:21.6±0.0,67°.55N×164°.77W,h20km,ML3.4(AEIC), After AEIC.*

*IDC **11** 05:17:22.9±4.6,68°.23N×164°.54W,h0km,mb3.2/2, mb1 3.9/5,mb1mx3.3/49,mbtmp3.6/5,ML3.3/3,Error ellipse: s-maj=57.9km s-min=36.1km az=114.0*

**ISC 11 05:17:22.8±1.7,67°.52N±0°.07×164°.3W±0°.1,h10km,n18, σ2$^s$17/22,Northern Alaska**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RDOG** | **Red Dog Mine** | **0.76** | **44** | P | **Pg** | **05 17 37.8** | **+0.4** |
| RDOG | | | | S | **Sb** | **05 17 50.4** | **+2.0** |
| **IM3** | **Indian Mountai** | **4.46** | **105** | P | **Pn** | **05 18 30.6** | **+0.2** |
| **GAMB** | **Gambell** | **4.84** | **223** | P | **Pn** | **05 18 32.3** | **-3.4** |
| **COLD** | **Coldfoot** | **5.45** | **87** | P | **Pn** | **05 18 45.2** | **+1.2** |
| **TTA** | **Tatalina** | **5.78** | **139** | P | **Pn** | **05 18 49.6** | **+1.1** |
| TTA | | | | S | **Sn** | **05 19 53.6** | **-1.1** |
| **TT01** | **Tatalina** | **5.79** | **139** | P | **Pn** | **05 18 49.3** | **+0.7** |
| **BPAW** | **Bear Paw Mtn.** | **6.46** | **116** | P | **Pn** | **05 18 59.0** | **+1.2** |
| **CAST** | **Castle Rocks** | **6.54** | **123** | P | **Pn** | **05 19 00.0** | **+1.1** |
| CAST | | | | S | **Sn** | **05 20 13.2** | **-0.2** |
| **KTH** | **Kantishna Hill** | **6.83** | **119** | P | **Pn** | **05 19 04.2** | **+1.2** |
| **COLA** | **College** | **7.16** | **104** | P | **Pn** | **05 19 07.7** | **+0.3** |
| **CCB** | **Clear Creek Bu** | **7.29** | **106** | P | **Pn** | **05 19 09.9** | **+0.7** |
| **BM3** | **Burnt Mountain** | **7.56** | **82** | P | **Pn** | **05 19 13.7** | **+0.7** |
| **ILAR** | **Eielson Array** | **7.57** | **103** | Pn | **Pn** | **05 19 13.9** | **+0.9** |
| | 0.7nm,0.3s,baz=300,slow=14,SNR=53 | | | | | | |
| ILAR | | | | Sn | **Sn** | **05 20 37.2** | **-1.6** |
| | 0.3nm,0.3s,baz=298,slow=21,SNR=4.5 | | | | | | |
| **SKT** | **Skwentna** | **7.78** | **130** | P | **Pn** | **05 19 17.9** | **+1.9** |
| **KDAK** | **Kodiak Island** | **11.13** | **146** | Pn | Pn | 05 20 08.5 | +6.7 |
| | 0.2nm,0.3s,baz=337,slow=13,SNR=2.8 | | | | | | |
| **INK** | **Inuvik** | **11.55** | **72** | Pn | **Pn** | **05 20 05.6** | **-1.8** |
| | 0.1nm,0.3s,baz=297,slow=12,SNR=5.8 | | | | | | |
| INK | | | | Sn | **Sn** | **05 22 09.4** | **-6.7** |
| | 0.2nm,0.3s,baz=233,slow=5.1,SNR=4.5 | | | | | | |
| **YKA** | **Yellowknife Ar** | **21.08** | **80** | P | **P** | **05 22 08.1** | **+1.3** |
| | 0.9nm,0.7s,baz=305,slow=12,SNR=13 | | | | | | |
| **PDAR** | **Pinedale Array** | **38.00** | **102** | P | **P** | **05 24 43.5** | **+2.6** |
| | 0.2nm,0.6s,baz=355,slow=9.1,SNR=3.9 | | | | | | |

*IDC **11** 05:20:55.5±1.2,29°.24S×176°.12W,h0km,mb4.3/3, mb1 4.5/3,mb1mx4.0/26,mbtmp4.3/3,Error ellipse: s-maj=59.8km s-min=23.3km az=173.0*

*ISCJB **11** 05:20:56.7±1.7,29°.82S±0°.09×176°.0W±0°.2,h33km, mb4.5/5,Error ellipse: s-maj=19.9km s-min=11.7km az=163.9*

*NEIC **11** 05:20:59.8±0.9,29°.91S×176°.16W,h35km,mb4.4/1,Error ellipse: s-maj=19.0km s-min=16.5km az=121.0*

**ISC 11 05:20:58.4±1.1,29°.7S±0°.1×176°.2W±0°.1,h21km,n13, σ1$^s$41/15,mb4.5/5,Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **1.59** | **286** | Pn | **Pb** | **05 21 26.2** | **-0.9** |
| | 244nm,0.3s,baz=256,slow=23,SNR=8.2 | | | | | | |
| RAO | | | | Sn | **Sb** | **05 21 47.6** | **+0.9** |
| | 621nm,0.3s,baz=302,slow=23,SNR=7.6 | | | | | | |
| RAO | | | | T | T | 05 23 18.7 | |
| | 255nm,0.3s,baz=67,slow=21,SNR=3.6 | | | | | | |
| **URZ** | **Urewera** | **10.20** | **211** | Pn | **Pn** | **05 23 21.0** | **-2.5** |
| | 0.4nm,0.3s,baz=153,slow=9.0,SNR=2.8 | | | | | | |
| URZ | | | | Sn | **Sn** | **05 25 18.5** | **+1.3** |
| | 2.2nm,0.3s,baz=200,slow=18,SNR=6.8 | | | | | | |
| **CTAO** | **Charters Tower** | **35.27** | **277** | P | **P** | **05 27 51.4** | **-0.5** |
| | 17nm,0.5s | | | | | | |
| **STKA** | **Stephens Creek** | **36.19** | **256** | P | **P** | **05 28 01.8** | **+2.2** |
| | 4.4nm,0.6s,baz=98,slow=12,SNR=12 | | | | | | |
| **ASAR** | **Alice Springs** | **44.74** | **265** | P | **P** | **05 29 10.2** | **-0.3** |
| | 1.2nm,0.4s,baz=100,slow=7.6,SNR=31 | | | | | | |
| **WRAB** | **Tennant Creek** | **45.66** | **271** | *e*P | **P** | **05 29 18.1** | **+0.3** |
| | 2.8nm,0.6s | | | | | | |
| **WRA** | **Warramunga Arr** | **45.67** | **270** | P | **P** | **05 29 17.4** | **-0.5** |
| | 2.8nm,0.4s,baz=108,slow=7.7,SNR=27 | | | | | | |
| **KURK** | **Kurchatov** | **121.71** | **314** | PKP | **PKPdf** | **05 39 50.5** | **+0.2** |
| **KURBB** | **Kurchatov Arra** | **121.75** | **314** | PKP | **PKPdf** | **05 39 50.5** | **+0.1** |
| | 0.2nm,0.5s,baz=94,slow=1.9,SNR=6.0 | | | | | | |
| **FINES** | **FINESS Array B** | **145.01** | **342** | PKP | **PKPab** | **05 40 32.5** | **-0.3** |
| | 6.7nm,1.1s,baz=38,slow=9.6,SNR=11 | | | | | | |
| **NOA** | **NORSAR Array B** | **148.27** | **353** | PKPbc | **PKPbc** | **05 40 40.7** | **-1.6** |
| | 0.9nm,0.7s,baz=48,slow=6.7,SNR=4.1 | | | | | | |
| **AKASG** | **Malin Array Be** | **151.68** | **325** | PKPbc | **PKPbc** | **05 40 51.4** | **+0.5** |
| | 2.7nm,0.6s,baz=42,slow=2.8,SNR=11 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **163.41** | **173** | PKPab | **PKPab** | **05 41 53.4** | **+2.4** |
| | 0.8nm,0.8s,baz=186,slow=4.8,SNR=4.8 | | | | | | |

**IDC 11 05:30:05.4±9.6,7°.28S×124°.79E,h414km±125km,mb3.0/3, mb1 3.1/5,mb1mx2.9/44,mbtmp3.9/5,Error ellipse: s-maj=151.8km s-min=36.2km az=69.0,Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **15.63** | **145** | P | P | 05 33 23.9 | -0.4 |
| | 0.7nm,0.3s,baz=323,slow=11,SNR=20 | | | | | | |
| **ASAR** | **Alice Springs** | **18.49** | **153** | P | P | 05 33 55.1 | +0.5 |
| | 0.7nm,0.3s,baz=324,slow=7.6,SNR=55 | | | | | | |
| **STKA** | **Stephens Creek** | **29.06** | **150** | P | P | 05 35 29.4 | -0.6 |
| | 1.6nm,0.7s,baz=338,slow=5.4,SNR=3.8 | | | | | | |
| **SONM** | **Songino Array** | **57.24** | **345** | P | P | 05 39 11.0 | -0.5 |
| | 0.4nm,0.6s,baz=152,slow=6.5,SNR=3.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **65.73** | **329** | P | P | 05 40 08.1 | +0.6 |
| | 0.3nm,0.5s,baz=133,slow=6.6,SNR=5.1 | | | | | | |

*ISCJB **11** 05:30:56.5±0.4,24°.11S±0°.03×178°.55E±0°.02,h551km±5km, mb5.2/182,Error ellipse: s-maj=4.2km s-min=2.9km az=158.6*

*MOS **11** 05:30:57.2±0.9,24°.00S×178°.55E,h555km,mb5.2/26, Error ellipse: s-maj=8.5km s-min=7.5km az=49.8*

*BJI **11** 05:30:57.4,23°.90S×178°.46E,h551km,mb4.8/33, mB5.1/28*

*IDC **11** 05:30:57.3±0.4,24°.04S×178°.57E,h548km±3km,mb4.5/32, mb1 4.5/33,mb1mx4.5/37,mbtmp5.3/33,Error ellipse: s-maj=8.1km s-min=6.0km az=180.0*

*NEIC **11** 05:30:57.6±0.3,24°.08S×178°.55E,h556km±3km, mb5.4/107,Error ellipse: s-maj=3.8km s-min=2.7km az=140.0*

*GCMT **11** 05:30:57.6±0.4,24°.03S×178°.51E,h571km±2km, MW5.7/85,Moment Tensor Solution. s85,c116; s4,c4; Duration: 1$^s$6 Moment tensor: Scale $10^{17}$Nm; $M_{rr}$-1.85±.10; $M_{\theta\theta}$0.82±.16; $M_{\phi\phi}$1.02±.16; $M_{r\theta}$-0.38±.18; $M_{\theta\phi}$-1.07±.14; $M_{\phi r}$3.27±.16; Best double couple: $M_0$3.79900×$10^{17}$ NP1:$\phi_s$167.00000°,δ76.00000°, λ-75.00000°. NP2:$\phi_s$298.00000°,δ20.00000°, λ-137.00000°. Principal axes: T 3.5970, Plg30.0000°, Azm245.0000°; N 0.3990, Plg14.0000°, Azm343.0000°; P -4.0010, Plg56.0000°, Azm96.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to mantle waves, cutoff=125s.*

**ISC 11 05:30:57.2±0.3,24°.09S±0°.04×178°.67E±0°.03,h552km±3km, h552km:pP-P,n1003,σ1$^s$15/1143,mb5.3/181,54C-28D, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **5.98** | **150** | P | **P** | **05 32 38.2** | **+2.6** |
| | 66nm,0.3s,baz=349,slow=21,SNR=4.4 | | | | | | |
| RAO | | | | S | **S** | **05 33 56.8** | **+0.6** |
| | 61nm,0.3s,baz=90,slow=20,SNR=2.5 | | | | | | |
| **RAO** | **Raoul Island** | **5.98** | **150** | *e*P | **P** | **05 32 39.4** | **+3.8** |
| RAO | | | | S | **S** | **05 33 56.9** | **+0.6** |
| **MSVF** | **Nonsavu** | **6.35** | **355** | *e*P | **P** | **05 32 39.4** | **+0.1** |
| **MSVF** | **Nonsavu** | **6.35** | **355** | *e*P | **P** | **05 32 39.4** | **+0.1** |
| **NFK** | **Norfolk Island** | **10.79** | **240** | P | **P** | **05 33 25.8** | **+2.6** |
| | baz=11,SNR=19 | | | | | | |
| **DZM** | **Mont Dzumac** | **11.43** | **278** | P | **P** | **05 33 32.0** | **+2.0** |
| | 10nm,0.3s,baz=89,slow=16,SNR=316 | | | | | | |
| DZM | | | | S | **S** | **05 35 35.7** | **+0.1** |
| | 1.0nm,0.3s,baz=116,slow=12,SNR=3.1 | | | | | | |
| DZM | | | | ScP | **ScP** | **05 41 14.4** | **+2.8** |
| | 1.7nm,0.3s,baz=154,slow=3.8,SNR=25 | | | | | | |
| **DZM** | **Mont Dzumac** | **11.43** | **278** | *e*P | **P** | **05 33 32.0** | **+2.0** |
| | 2μm,1.1s | | | | | | |
| **DZM** | **Mont Dzumac** | **11.43** | **278** | *e*P | **P** | **05 33 31.6** | **+1.7** |
| DZM | | | | S | **S** | **05 35 35.7** | **+0.1** |
| DZM | | | | ScP | **ScP** | **05 41 14.4** | **+2.8** |
| **NIUE** | **Niue** | **11.72** | **67** | P | **P** | **05 33 32.3** | **-0.7** |
| | baz=12,SNR=117 | | | | | | |
| **WCZ** | **Waipu Caves** | **12.39** | **197** | PN | **P** | **05 33 42.0** | **+2.5** |
| **KUZ** | **Kuaotunu** | **12.87** | **191** | PN | **P** | **05 33 45.5** | **+1.0** |
| KUZ | | | | SN | **S** | **05 36 06.7** | **+4.4** |
| **WIAZ** | **Waiheke Island** | **13.03** | **193** | PN | **P** | **05 33 47.9** | **+1.7** |
| WIAZ | | | | SN | **S** | **05 36 11.4** | **+6.2** |
| **MKAZ** | **Moumakai** | **13.32** | **192** | PN | **P** | **05 33 50.5** | **+1.4** |
| MKAZ | | | | SN | **S** | **05 36 16.4** | **+5.6** |
| **MXZ** | **Matakaoa Point** | **13.44** | **181** | *e*P | **P** | **05 33 49.6** | **-0.8** |
| **MXZ** | **Matakaoa Point** | **13.44** | **181** | PN | **P** | **05 33 48.5** | **-1.9** |
| **AFI** | **Afiamalu** | **13.56** | **43** | P | **P** | **05 33 48.5** | **-3.6** |
| | 23nm,0.3s,baz=35,slow=3.7,SNR=88 | | | | | | |
| AFI | | | | S | S | 05 36 06.6 | -9.4 |
| | 5.4nm,0.3s,baz=18,slow=19,SNR=5.1 | | | | | | |
| **HAZ** | **Te Kaha** | **13.65** | **183** | PN | **P** | **05 33 50.3** | **-2.2** |
| **WMGZ** | **Waiomatatini S** | **13.69** | **181** | PN | **P** | **05 33 50.6** | **-2.3** |
| WMGZ | | | | SN | **S** | **05 36 12.8** | **-4.9** |
| **RUGZ** | **Raukumara Rang** | **13.86** | **183** | PN | **P** | **05 33 52.6** | **-2.2** |
| **TOZ** | **Tahuroa Road** | **13.87** | **191** | PN | **P** | **05 33 55.8** | **+1.0** |
| **PUZ** | **Puketiti** | **13.95** | **181** | PN | **P** | **05 33 52.9** | **-2.7** |
| **URZ** | **Urewera** | **14.19** | **185** | P | **P** | **05 33 55.6** | **-2.5** |
| | 10nm,0.3s,baz=261,slow=3.0,SNR=35 | | | | | | |
| URZ | | | | S | **S** | **05 36 21.0** | **-6.2** |
| | 12nm,0.3s,baz=118,slow=24,SNR=15 | | | | | | |
| **URZ** | **Urewera** | **14.19** | **185** | PN | **P** | **05 33 56.0** | **-2.1** |
| **MWZ** | **Matawai** | **14.24** | **184** | PN | **P** | **05 33 55.9** | **-2.7** |
| MWZ | | | | SN | **S** | **05 36 22.5** | **-5.6** |
| **RAGZ** | **Rawiri** | **14.40** | **184** | PN | **P** | **05 33 58.5** | **-1.9** |
| **RIGZ** | **Rimuhau** | **14.60** | **183** | PN | **P** | **05 34 00.1** | **-2.2** |
| **HIZ** | **Hauiti** | **14.74** | **192** | *e*P | **P** | **05 34 05.7** | **+1.9** |
| **HIZ** | **Hauiti** | **14.74** | **192** | PN | **P** | **05 34 04.5** | **+0.8** |
| **MTHZ** | **Maungataniwha** | **14.80** | **186** | PN | **P** | **05 34 03.3** | **-1.1** |
| **KNZ** | **Kokohu** | **14.91** | **183** | PN | **P** | **05 34 03.2** | **-2.3** |
| **NMHZ** | **Naumai** | **15.05** | **186** | PN | **P** | **05 34 05.8** | **-1.2** |
| **BKZ** | **Black Stump Fm** | **15.15** | **186** | *e*P | **P** | **05 34 08.2** | **+0.2** |
| | 54nm,0.5s | | | | | | |
| **BKZ** | **Black Stump Fm** | **15.15** | **186** | PN | **P** | **05 34 05.5** | **-2.4** |
| **OTVZ** | **Oturere** | **15.25** | **189** | PN | **P** | **05 34 07.4** | **-1.7** |
| **VRZ** | **Vera Road** | **15.36** | **192** | PN | **P** | **05 34 11.4** | **+1.4** |
| **WNVZ** | **Wahianoa** | **15.42** | **189** | PN | **P** | **05 34 09.4** | **-1.5** |
| **NEZ** | **North Egmont** | **15.63** | **193** | PN | **P** | **05 34 15.3** | **+2.4** |
| **BFZ** | **Birch Farm** | **16.67** | **186** | *e*P | **P** | **05 34 21.0** | **-1.6** |
| | 155nm,0.9s | | | | | | |
| **BFZ** | **Birch Farm** | **16.67** | **186** | PN | **P** | **05 34 21.7** | **-0.9** |
| **OGWZ** | **Otaki Gorge** | **16.94** | **189** | PN | **P** | **05 34 22.8** | **-2.3** |
| **KIW** | **Kapiti Island** | **17.02** | **190** | PN | **P** | **05 34 24.0** | **-1.8** |
| **DUWZ** | **D'Urville Isla** | **17.14** | **192** | PN | **P** | **05 34 25.9** | **-1.0** |
| **CAW** | **Cannon Point** | **17.24** | **189** | PN | **P** | **05 34 27.3** | **-0.5** |
| **TCW** | **Tory Channel** | **17.47** | **191** | PN | **P** | **05 34 29.0** | **-0.9** |
| **QRZ** | **Quartz Range** | **17.47** | **196** | PN | **P** | **05 34 30.9** | **+1.0** |
| **SNZO** | **South Karori** | **17.49** | **190** | *e*P | **P** | **05 34 29.2** | **-0.8** |
| | 382nm,0.9s | | | | | | |
| **NNZ** | **Nelson** | **17.65** | **193** | PN | **P** | **05 34 31.3** | **-0.2** |
| **PLWZ** | **Palliser** | **17.67** | **188** | PN | **P** | **05 34 30.3** | **-1.5** |
| **TUWZ** | **Tuamarina** | **17.74** | **192** | PN | **P** | **05 34 31.9** | **-0.4** |
| **BSWZ** | **Blackbirch Sta** | **18.03** | **192** | *e*PN | **P** | **05 34 35.1** | **+0.1** |
| **THZ** | **Tophouse** | **18.27** | **194** | *e*P | **P** | **05 34 36.6** | **-0.7** |
| | 209nm,0.5s | | | | | | |
| **THZ** | **Tophouse** | **18.27** | **194** | PN | **P** | **05 34 37.4** | **+0.1** |
| **DSZ** | **Denniston Nort** | **18.52** | **196** | PN | **P** | **05 34 39.8** | **+0.3** |
| **KHZ** | **Kahutara** | **18.77** | **192** | *e*P | **P** | **05 34 42.0** | **+0.2** |
| | 167nm,0.9s | | | | | | |
| **KHZ** | **Kahutara** | **18.77** | **192** | PN | **P** | **05 34 41.8** | **0.0** |
| **LHI** | **Lord Howe Isla** | **18.84** | **243** | P | **P** | **05 34 44.2** | **+1.6** |
| | baz=19,SNR=36 | | | | | | |
| **LHI** | **Lord Howe Isla** | **18.84** | **243** | *e*P | **P** | **05 34 43.7** | **+1.1** |
| | 834nm,0.8s | | | | | | |
| **LTZ** | **Lake Taylor** | **19.38** | **194** | *e*P | **P** | **05 34 46.4** | **-1.0** |
| | 318nm,1.2s | | | | | | |
| LTZ | | | | *e*S | **S** | **05 37 52.5** | **-1.8** |
| **LTZ** | **Lake Taylor** | **19.38** | **194** | PN | **P** | **05 34 46.1** | **-1.3** |
| **INZ** | **Inchbonnie** | **19.53** | **196** | PN | **P** | **05 34 48.1** | **-0.5** |
| **OXZ** | **Oxford** | **19.95** | **194** | *e*P | **P** | **05 34 51.0** | **-1.6** |
| | 268nm,0.5s | | | | | | |
| **OXZ** | **Oxford** | **19.95** | **194** | PN | **P** | **05 34 51.4** | **-1.2** |
| **CRLZ** | **Canterbury Las** | **20.07** | **193** | *e*P | **P** | **05 34 53.6** | **+0.1** |
| | 248nm,1.3s | | | | | | |
| **RAR** | **Rarotonga** | **20.10** | **86** | P | **P** | **05 34 54.5** | **+0.3** |
| | 32nm,0.9s,baz=229,slow=4.4,SNR=7.5 | | | | | | |
| **RAR** | **Rarotonga** | **20.10** | **86** | *e*P | **P** | **05 34 54.6** | **+0.4** |
| RAR | | | | pmax | pmax | | |
| | comp=Z,76nm,1.1s | | | | | | |
| **RAR** | **Rarotonga** | **20.10** | **86** | *e*P | **P** | **05 34 54.6** | **+0.4** |
| | comp=Z,76nm,1.1s | | | | | | |
| **MQZ** | **McQueen's Vall** | **20.18** | **193** | *e*P | **P** | **05 34 54.9** | **+0.3** |
| | comp=Z,63nm,0.7s | | | | | | |
| **RPZ** | **Rata Peaks** | **20.55** | **196** | P | **P** | **05 34 57.4** | **-0.5** |
| | comp=Z,46nm,0.4s,baz=344,slow=2.4,SNR=31 | | | | | | |
| RPZ | | | | S | **S** | **05 38 08.8** | **-4.1** |
| | comp=Z,101nm,1.1s,baz=185,slow=18,SNR=5.7 | | | | | | |
| **RPZ** | **Rata Peaks** | **20.55** | **196** | *e*P | **P** | **05 34 58.1** | **+0.1** |
| | comp=Z,58nm,0.5s | | | | | | |
| RPZ | | | | *e*S | **S** | **05 38 10.4** | **-2.5** |
| **FOZ** | **Fox Glacier** | **20.72** | **198** | *e*P | **P** | **05 34 59.9** | **+0.5** |
| | comp=Z,117nm,0.7s | | | | | | |
| **FOZ** | **Fox Glacier** | **20.72** | **198** | PN | **P** | **05 34 59.1** | **-0.4** |
| **LBZ** | **Lake Benmore** | **21.41** | **197** | *e*P | **P** | **05 35 04.7** | **-0.9** |
| | comp=Z,77nm,1.2s | | | | | | |
| **LBZ** | **Lake Benmore** | **21.41** | **197** | PN | **P** | **05 35 04.3** | **-1.3** |
| **ODZ** | **Otahua Downs** | **21.90** | **195** | *e*P | **P** | **05 35 09.8** | **-0.3** |
| | comp=Z,28nm,0.6s | | | | | | |
| **WKZ** | **Wanaka** | **22.14** | **198** | *e*P | **P** | **05 35 11.5** | **-0.7** |
| | comp=Z,161nm,1.2s | | | | | | |
| WKZ | | | | *e*S | **S** | **05 38 34.4** | **-3.5** |
| **EAZ** | **Earnscleugh** | **22.42** | **198** | PN | **P** | **05 35 13.9** | **-0.8** |
| **MLZ** | **Mavora Lakes** | **22.89** | **199** | *e*P | **P** | **05 35 19.4** | **+0.4** |
| | comp=Z,190nm,0.6s | | | | | | |
| MLZ | | | | *e*S | **S** | **05 38 48.5** | **-1.3** |
| **MLZ** | **Mavora Lakes** | **22.89** | **199** | PN | **P** | **05 35 19.0** | **+0.1** |
| **HNR** | **Honiara** | **23.05** | **306** | P | **P** | **05 35 18.9** | **-1.9** |
| | comp=Z,106nm,0.7s,baz=199,slow=6.2,SNR=5.0 | | | | | | |
| **KNTN** | **Kanton** | **23.14** | **25** | *e*P | **P** | **05 35 21.1** | **-0.4** |
| | comp=Z,113nm,0.7s | | | | | | |
| **DCZ** | **Deep Cove** | **23.28** | **201** | *e*P | **P** | **05 35 23.1** | **+0.7** |
| | comp=Z,84nm,0.5s | | | | | | |
| **WHZ** | **Wether Hill Ro** | **23.42** | **199** | *e*P | **P** | **05 35 24.1** | **+0.5** |
| | comp=Z,159nm,0.7s | | | | | | |
| WHZ | | | | *e*S | **S** | **05 39 01.0** | **+3.0** |
| **WHZ** | **Wether Hill Ro** | **23.42** | **199** | PN | **P** | **05 35 23.9** | **+0.3** |
| **PYZ** | **Puysegur Point** | **24.06** | **201** | *e*P | **P** | **05 35 30.3** | **+1.1** |
| | comp=Z,132nm,1.3s | | | | | | |
| **ARMA** | **Armidale** | **24.81** | **249** | P | **P** | **05 35 37.9** | **+1.6** |
| | baz=25,SNR=82 | | | | | | |
| **ARMA** | **Armidale** | **24.81** | **249** | *e*P | **P** | **05 35 37.9** | **+1.6** |
| | comp=Z,307nm,1.1s | | | | | | |
| **EIDS** | **Eidsvold** | **25.07** | **261** | P | **P** | **05 35 39.1** | **+0.6** |
| | baz=25,SNR=50 | | | | | | |
| **EIDS** | **Eidsvold** | **25.07** | **261** | *e*P | **P** | **05 35 39.1** | **+0.6** |
| | comp=Z,262nm,1.1s | | | | | | |
| EIDS | | | | *e*S | **S** | **05 39 26.3** | **+1.8** |
| **MGCD** | **Mangrove Creek** | **25.77** | **243** | P | **P** | **05 35 46.3** | **+1.7** |
| | baz=26,SNR=42 | | | | | | |
| **RIV** | **Riverview** | **25.89** | **242** | P | **P** | **05 35 47.4** | **+1.7** |
| | baz=26,SNR=10 | | | | | | |
| **RIV** | **Riverview** | **25.89** | **242** | P | **P** | **05 35 47.3** | **+1.7** |
| RIV | | | | pmax | pmax | | |
| | comp=Z,304nm,0.9s | | | | | | |
| **TARA** | **Tarawa** | **25.90** | **347** | *e*P | **P** | **05 35 46.5** | **+0.6** |
| | comp=Z,168nm,1.1s | | | | | | |
| **RMQ** | **Roma** | **27.12** | **259** | P | **P** | **05 35 58.1** | **+1.5** |
| | baz=27,SNR=235 | | | | | | |
| **CNB** | **Canberra Magne** | **27.70** | **239** | P | **P** | **05 36 02.9** | **+1.3** |
| | baz=28,SNR=120 | | | | | | |
| **CAN** | **Canberra** | **27.99** | **240** | *e*P | **P** | **05 36 04.4** | **+0.2** |
| CAN | | | | pmax | pmax | | |
| | comp=Z,353nm,0.9s | | | | | | |
| **CAN** | **Canberra** | **27.99** | **240** | *e*P | **P** | **05 36 04.3** | **+0.2** |
| | comp=Z,353nm,0.9s | | | | | | |
| **YNG** | **Young** | **28.22** | **242** | P | **P** | **05 36 07.3** | **+1.2** |
| | baz=28,SNR=51 | | | | | | |
| **MILA** | **Mila** | **28.38** | **236** | P | **P** | **05 36 09.0** | **+1.5** |
| | baz=28,SNR=10 | | | | | | |
| **TBI** | **Tubuai** | **29.16** | **95** | *e*P | **P** | **05 36 15.3** | **+0.9** |
| | comp=Z,133nm,0.9s | | | | | | |
| **CMSA** | **Cobar Meteorol** | **30.01** | **248** | P | **P** | **05 36 22.1** | **+0.5** |
| | baz=30,SNR=184 | | | | | | |
| **CTA** | **Charters Tower** | **30.26** | **271** | P | **P** | **05 36 24.6** | **+0.6** |
| | comp=Z,179nm,0.3s,baz=95,slow=9.5,SNR=322 | | | | | | |
| CTA | | | | S | **S** | **05 40 45.1** | **-0.2** |
| | comp=Z,8.5nm,0.9s,baz=276,slow=18,SNR=7.7 | | | | | | |
| CTA | | | | ScP | **ScP** | **05 41 59.8** | **+2.3** |
| | comp=Z,35nm,0.9s,baz=112,slow=2.1,SNR=12 | | | | | | |
| **CTAO** | **Charters Tower** | **30.26** | **271** | *e*P | **P** | **05 36 24.5** | **+0.6** |
| CTAO | | | | pmax | pmax | | |
| | comp=Z,602nm,1.3s | | | | | | |
| **CTAO** | **Charters Tower** | **30.26** | **271** | *e*P | **P** | **05 36 24.5** | **+0.6** |
| | comp=Z,602nm,1.3s | | | | | | |
| **PAE** | **Paea** | **30.31** | **84** | *e*P | **P** | **05 36 24.6** | **+0.3** |
| | comp=Z,20nm,1.1s | | | | | | |
| **PPT2** | **Papeete2** | **30.33** | **84** | *e*P | **P** | **05 36 25.0** | **+0.4** |
| | comp=Z,137nm,1.3s | | | | | | |
| **PPT** | **Papeete** | **30.34** | **84** | P | **P** | **05 36 25.4** | **+0.8** |
| | comp=Z,96nm,1.0s,baz=344,slow=1.2,SNR=5.8 | | | | | | |
| **PPT** | **Papeete** | **30.34** | **84** | *e*P | **P** | **05 36 24.8** | **+0.1** |
| **PPTF** | **Pamatai, Papee** | **30.34** | **84** | *e*P | **P** | **05 36 25.5** | **+0.8** |
| | comp=Z,152nm,1.1s | | | | | | |
| **TIAR** | **Tiarei** | **30.55** | **84** | *e*P | **P** | **05 36 26.9** | **+0.4** |
| | comp=Z,53nm,1.1s | | | | | | |
| **TVO** | **Taravao** | **30.57** | **84** | *e*P | **P** | **05 36 27.0** | **+0.3** |
| | comp=Z,20nm,0.9s | | | | | | |
| **QLP** | **Quilpie** | **31.16** | **258** | P | **P** | **05 36 31.9** | **+0.3** |
| | baz=31,SNR=172 | | | | | | |
| **TOO** | **Toolangi** | **31.32** | **237** | P | **P** | **05 36 33.7** | **+0.8** |
| | baz=31,SNR=131 | | | | | | |
| **MOO** | **Moorlands** | **31.80** | **227** | P | **P** | **05 36 37.8** | **+1.0** |
| | baz=32,SNR=13 | | | | | | |
| **TAU** | **Tasmania Unive** | **31.92** | **226** | *e*P | **P** | **05 36 38.7** | **+0.9** |
| TAU | | | | pmax | pmax | | |
| | comp=Z,166nm,0.7s | | | | | | |
| **TAU** | **Tasmania Unive** | **31.92** | **226** | *e*P | **P** | **05 36 38.7** | **+0.9** |
| | comp=Z,166nm,0.7s | | | | | | |
| **RABL** | **Rabaul** | **32.30** | **304** | *e*P | **P** | **05 36 41.0** | **-0.5** |
| | comp=Z,105nm,0.7s | | | | | | |
| **MTSU** | **Mount Surprise** | **32.53** | **274** | P | **P** | **05 36 44.0** | **+0.6** |
| | baz=33,SNR=126 | | | | | | |
| **PMOR** | **Pomariorio Ree** | **32.71** | **80** | *e*P | **P** | **05 36 45.2** | **+0.3** |
| | comp=Z,155nm,1.1s | | | | | | |
| **VAH** | **Vaihoa** | **32.87** | **81** | *e*P | **P** | **05 36 46.3** | **+0.1** |
| | comp=Z,112nm,1.1s | | | | | | |
| **PMG** | **Port Moresby** | **33.41** | **291** | P | **P** | **05 36 50.8** | **0.0** |
| | comp=Z,208nm,0.8s,baz=97,slow=5.3,SNR=66 | | | | | | |
| PMG | | | | S | **S** | **05 41 32.5** | **-1.0** |
| | comp=Z,12nm,0.9s,baz=36,slow=18,SNR=10 | | | | | | |
| PMG | | | | ScP | **ScP** | **05 42 10.5** | **+2.1** |
| | comp=Z,55nm,1.1s,baz=80,slow=6.0,SNR=7.3 | | | | | | |
| **PMG** | **Port Moresby** | **33.41** | **291** | *e*P | **P** | **05 36 50.8** | **0.0** |
| | comp=Z,261nm,0.9s | | | | | | |
| PMG | | | | S | **S** | **05 41 32.5** | **-1.0** |
| PMG | | | | ScP | **ScP** | **05 42 10.5** | **+2.1** |

STKA **Stephens Creek** 33.52 248 P **P** 05 36 52.1 +0.6
comp=Z,159nm,0.5s,baz=95,slow=12,SNR=390
STKA S **S** 05 41 34.3 -0.5
comp=Z,21nm,1.1s,baz=281,slow=18,SNR=3.9
STKA ScP **ScP** 05 42 09.8 +1.2
comp=Z,15nm,0.8s,baz=69,slow=3.8,SNR=5.2
**STKA** **Stephens Creek** 33.52 248 P **P** 05 36 52.2 +0.6
baz=34,SNR=369
**STKA** **Stephens Creek** 33.52 248 *e*P **P** 05 36 52.2 +0.6
STKA S **S** 05 41 34.3 -0.5
STKA pmax pmax
comp=Z,45nm,0.7s
**STKA** **Stephens Creek** 33.52 248 *e*P **P** 05 36 52.2 +0.6
comp=Z,45nm,0.7s
STKA S **S** 05 41 34.3 -0.5
STKA ScP **ScP** 05 42 09.8 +1.2
**ARPS** **Mount Arapiles** 33.97 239 P **P** 05 36 55.6 +0.4
baz=34,SNR=44
**XMAS** **Kiritimati** 34.84 45 *e*P **P** 05 37 03.1 +0.3
comp=Z,80nm,0.8s
**COEN** **Coen** 34.94 280 P **P** 05 37 04.2 +0.5
baz=35,SNR=34
**COEN** **Coen** 34.94 280 *e*P **P** 05 37 04.2 +0.5
comp=Z,227nm,1.0s
**QIS** **Mount Isa** 36.23 268 P **P** 05 37 13.9 -0.4
baz=36,SNR=43
**BBOO** **Buckleboo** 38.25 247 P **P** 05 37 30.2 -0.4
baz=38,SNR=593
**BBOO** **Buckleboo** 38.25 247 *e*P **P** 05 37 30.2 -0.4
comp=Z,378nm,0.8s
**AS01** **Alice Springs** 40.76 261 *e*P **P** 05 37 50.2 -0.8
**AS31** **Alice Springs** 40.80 261 *e*P **P** 05 37 51.2 -0.1
comp=Z,148nm,0.9s
**ASAR** **Alice Springs** 40.80 261 P **P** 05 37 51.1 -0.1
comp=Z,429nm,0.8s,baz=92,slow=8.2,SNR=1579
ASAR ScP **ScP** 05 42 37.5 +1.2
comp=Z,26nm,0.8s,baz=108,slow=3.8,SNR=18
ASAR S **S** 05 43 20.7 -2.2
comp=Z,14nm,0.9s,baz=96,slow=16,SNR=7.9
**WB2** **Warramunga Arr** 41.16 267 *e*P **P** 05 37 53.5 -0.6
comp=Z,470nm,0.7s
**WRAB** **Tennant Creek** 41.17 267 *e*P **P** 05 37 53.4 -0.7
WRAB pmax pmax
comp=Z,489nm,0.8s
**WRAB** **Tennant Creek** 41.17 267 *e*P **P** 05 37 53.5 -0.7
comp=Z,478nm,0.8s
**WRA** **Warramunga Arr** 41.18 267 P **P** 05 37 54.0 -0.3
comp=Z,443nm,0.8s,baz=101,slow=8.4,SNR=506
WRA ScP **ScP** 05 42 39.3 +1.5
comp=Z,33nm,0.9s,baz=103,slow=3.9,SNR=24
WRA S **S** 05 43 24.7 -3.7
comp=Z,42nm,1.1s,baz=103,slow=15,SNR=13
**TAOE** **Nuku Hiva Isla** 42.12 76 *e*P **P** 05 38 03.4 +1.6
comp=Z,193nm,1.0s
**JOHN** **Johnston Islan** 42.18 17 *e*P **P** 05 38 01.4 -0.6
comp=Z,288nm,1.0s
**JAY** **Jayapura** 42.47 294 P **P** 05 38 04.3 -0.3
comp=Z,2µm,1.2s,comp=Z,17µm
**GENI** **Genyem** 42.88 294 P **P** 05 38 07.3 -0.4
comp=Z,446nm,1.1s,comp=Z,4µm
**WAKE** **Wake Island** 44.67 344 *e*P **P** 05 38 21.0 -0.3
comp=Z,374nm,1.3s
**KDU** **Kakadu** 45.09 276 P **P** 05 38 24.0 -0.8
baz=45,SNR=20
**FORT** **Forrest** 45.10 250 P **P** 05 38 23.8 -0.9
baz=45,SNR=276
**FORT** **Forrest** 45.10 250 *e*P **P** 05 38 23.7 -0.9
comp=Z,4µm,0.7s
**WRKA** **Warakurna** 45.60 258 P **P** 05 38 28.2 -0.5
baz=46,SNR=777
**MTN** **Manton Dam** 46.25 275 P **P** 05 38 32.8 -0.8
baz=46,SNR=15
**MTN** **Manton Dam** 46.25 275 *e*P **P** 05 38 32.8 -0.8
comp=Z,71nm,0.8s
**PTCN** **Pitcairn Islan** 46.38 102 *e*P **P** 05 38 33.8 -0.6
comp=Z,765nm,1.4s
**KNRA** **Kununurra** 47.47 270 P **P** 05 38 42.5 -0.2
baz=48,SNR=71
**KMPI** **Kaimana, Papua** 47.84 288 P **P** 05 38 45.9 +0.3
comp=Z,372nm,1.0s,comp=Z,3µm
**SAUI** **Saumlaki** 48.00 281 *e*P **P** 05 38 45.7 -1.1
comp=Z,614nm,1.1s
**FAKI** **Fak Fak** 49.47 288 P **P** 05 38 56.8 -0.9
comp=Z,162nm,1.2s,comp=Z,2µm
**FAKI** **Fak Fak** 49.47 288 *e*P **P** 05 38 56.6 -1.0
comp=Z,132nm,1.0s
**FITZ** **Fitzroy Crossi** 49.60 266 P **P** 05 38 58.3 -0.2
comp=Z,164nm,1.0s,baz=94,slow=6.0,SNR=201
FITZ pP **pP** 05 40 41.7 +0.4
comp=Z,26nm,1.0s,baz=79,slow=7.6,SNR=3.1
FITZ ScP **ScP** 05 43 13.6 +0.7
comp=Z,14nm,1.0s,baz=101,slow=5.2,SNR=4.3
FITZ S **S** 05 45 25.8 -0.5
comp=Z,4.9nm,0.9s,baz=275,slow=19,SNR=9.9
**FITZ** **Fitzroy Crossi** 49.60 266 P **P** 05 38 58.4 -0.2
baz=50,SNR=123
**KMBL** **Kambalda** 50.32 248 P **P** 05 39 02.7 -1.0
baz=50,SNR=21
**KEKH** **Kekaha** 50.39 26 *e*P **P** 05 39 03.8 -0.3
comp=Z,672nm,1.6s
**HPAH** **Hawaii Prepara** 50.46 32 *e*P **P** 05 39 04.1 -0.7
comp=Z,224nm,0.9s
**HON** **Honolulu** 50.53 29 *e*P **P** 05 39 03.1 -2.0
HON pmax pmax
comp=Z,220nm,1.1s
**HON** **Honolulu** 50.53 29 *e*P **P** 05 39 03.1 -2.0
comp=Z,220nm,1.1s
**MIDW** **Midway** 52.14 4 *e*P **P** 05 39 15.9 -0.7
comp=Z,70nm,1.3s
**MSAI** **Masohi** 52.18 285 P **P** 05 39 16.5 -0.8
comp=Z,51nm,0.9s
**AAI** **Ambon** 52.67 285 P **P** 05 39 20.5 -0.3
comp=Z,233nm,1.1s,comp=Z,3µm
**AAI** **Ambon** 52.67 285 P **P** 05 39 19.9 -0.9
AAI pmax pmax
comp=Z,230nm,1.1s
**PALU** **Palau** 53.24 300 P **P** 05 39 25.0 +0.2
baz=53,SNR=3.7
**SOEI** **Soe** 53.65 276 P **P** 05 39 28.8 +0.9
comp=Z,408nm,0.9s,comp=Z,4µm
**SOEI** **Soe** 53.65 276 *e*P **P** 05 39 28.9 +1.0
comp=Z,477nm,1.1s
**KLBR** **Kellerberrin** 53.79 248 P **P** 05 39 27.7 -0.9
baz=54,SNR=94
**NWAO** **Narrogin (SRO)** 54.05 246 P **P** 05 39 29.6 -0.8
comp=Z,21nm,0.3s,baz=339,slow=6.7,SNR=32
**NWAO** **Narrogin (SRO)** 54.05 246 P **P** 05 39 29.5 -0.8
baz=54,SNR=34
NWAO P **P** 05 39 29.5 -0.8
baz=54,SNR=34
**NWAO** **Narrogin (SRO)** 54.05 246 *e*P **P** 05 39 29.5 -0.8
comp=Z,160nm,1.3s
**RKGY** **Rocky Gully** 54.06 244 P **P** 05 39 30.0 -0.4
baz=54,SNR=19
**VNDA** **Vanda** 54.10 184 P **P** 05 39 31.9 +2.0
comp=Z,4.0nm,0.6s,baz=10,slow=8.4,SNR=19
VNDA PcP **PcP** 05 40 26.2 +0.2
comp=Z,7.5nm,0.9s,baz=2.1,slow=5.0,SNR=7.5
VNDA ScP **ScP** 05 43 31.4 +0.1
comp=Z,6.1nm,0.8s,baz=335,slow=4.4,SNR=8.7
**VNDA** **Vanda** 54.10 184 *e*P **P** 05 39 30.6 +0.6
comp=Z,9.5nm,0.9s
VNDA PcP **PcP** 05 40 26.2 +0.2
VNDA ScP **ScP** 05 43 31.4 +0.1
**SBA** **Scott Base** 54.12 183 *e*P **P** 05 39 31.6 +1.5
SBA pmax pmax
comp=Z,46nm,1.1s
**SBA** **Scott Base** 54.12 183 *e*P **P** 05 39 31.6 +1.5
comp=Z,46nm,1.1s
**MBWA** **Marble Bar** 54.14 261 *e*P **P** 05 39 29.6 -1.5
comp=Z,325nm,1.4s
**BLDU** **Balliduu** 54.82 249 P **P** 05 39 34.8 -1.0
baz=55,SNR=55
**MUN** **Mundaring** 55.04 247 P **P** 05 39 36.7 -0.6
baz=55,SNR=23
**SANI** **Sanana** 55.38 285 P **P** 05 39 38.7 -1.2
comp=Z,143nm,1.1s,comp=Z,2µm
**MORW** **Morawa** 55.66 250 P **P** 05 39 40.8 -0.9
baz=56,SNR=37
**MMRI** **Maumere** 55.92 276 P **P** 05 39 43.4 -0.3
comp=Z,221nm,0.7s
**MMRI** **Maumere** 55.92 276 *e*P **P** 05 39 42.5 -1.2
comp=Z,168nm,0.9s
**EDFI** **Ende, Flores** 56.38 276 P **P** 05 39 46.0 -1.0
comp=Z,238nm,0.9s,comp=Z,2µm
**BASI** **Baing, Sumba** 56.83 273 P **P** 05 39 50.9 +1.0
comp=Z,358nm,1.3s,comp=Z,4µm
**BBSI** **Bau Bau** 56.90 280 P P 05 39 57.8 +7.4

**WBSI** **Waikabubak, Su** 58.13 274 P **P** 05 39 58.4 -0.4
comp=Z,183nm,1.2s
**GIRL** **Giralia** 58.68 257 P **P** 05 40 02.8 +0.4
baz=59,SNR=18
**LUWI** **Luwuk** 58.69 284 P **P** 05 40 02.5 0.0
comp=Z,220nm,1.1s,comp=Z,3µm
**LUWI** **Luwuk** 58.69 284 *e*P **P** 05 40 02.5 0.0
comp=Z,202nm,1.0s
**KAPI** **Kappang** 59.65 279 *e*P **P** 05 40 07.9 -1.0
comp=Z,123nm,1.4s
KAPI *e*PP **PP** 05 42 25.5 -4.0
**APSI** **Ampana** 59.74 284 P **P** 05 40 09.7 +0.1
comp=Z,206nm,1.0s,comp=Z,2µm
**PLAI** **Plampang** 59.91 274 P **P** 05 40 09.9 -0.8
comp=Z,485nm,0.9s,comp=Z,3µm
**MRSI** **Marisa** 60.13 285 P **P** 05 40 10.5 -1.6
comp=Z,36nm,0.9s
**TTSI** **Tana Toraja** 60.42 281 P **P** 05 40 13.3 -0.8
comp=Z,52nm,1.0s,comp=Z,699nm
**MPSI** **Mapaga** 61.87 284 P **P** 05 40 22.3 -1.3
comp=Z,94nm,0.9s,comp=Z,963nm
**IGBI** **Denpasar** 62.32 273 P **P** 05 40 26.4 -0.1
comp=Z,1µm,0.8s,comp=Z,12µm
**SRBI** **Singaraja** 62.54 273 P **P** 05 40 27.3 -0.6
comp=Z,144nm,0.9s,comp=Z,1µm
**JAGI** **Jajag, Banyuwa** 63.36 273 P **P** 05 40 31.4 -1.8
comp=Z,215nm,1.1s,comp=Z,2µm
**JAGI** **Jajag, Banyuwa** 63.36 273 *e*P **P** 05 40 31.6 -1.6
comp=Z,184nm,1.0s
**KBKI** **Kotabaru** 63.60 279 P **P** 05 40 34.7 -0.1
comp=Z,66nm,1.0s,comp=Z,828nm
**KMMI** **Kalianget** 64.08 274 P **P** 05 40 37.8 0.0
comp=Z,266nm,1.2s,comp=Z,3µm
**GMJI** **Gumukmas** 64.08 272 P **P** 05 40 36.5 -1.3
comp=Z,139nm,0.9s
**BLJI** **Banyuglugur** 64.14 273 P **P** 05 40 37.6 -0.6
comp=Z,164nm,0.8s
**RPN** **Rapa Nui** 64.17 110 P **P** 05 40 40.1 +2.0
comp=Z,153nm,0.8s,baz=297,slow=3.5,SNR=6.8
**RPN** **Rapa Nui** 64.17 110 *e*P **P** 05 40 39.1 +1.0
comp=Z,242nm,0.9s
**MYLDM** **Lahad Datu** 65.39 288 *e*P **P** 05 40 46.5 +0.5
comp=Z,77nm,1.2s
**GRJI** **Gresik** 65.49 273 P **P** 05 40 46.7 +0.1
comp=Z,402nm,0.8s,comp=Z,4µm
**TSM** **Tasu** 65.51 287 ⇓P **P** 05 40 47.4 +0.6
**PWJI** **Pagerwojo** 65.67 272 P **P** 05 40 46.9 -0.9
comp=Z,180nm,0.9s,comp=Z,2µm
**MTKI** **Muara Teweh, K** 65.76 280 P **P** 05 40 48.2 -0.2
comp=Z,71nm,0.8s
**QSPA** **South Pole Qui** 66.00 180 *e*P **P** 05 40 49.8 +0.7
comp=Z,345nm,0.8s
**PCJI** **Pacitan** 66.18 272 P **P** 05 40 50.5 -0.5
comp=Z,610nm,0.7s,comp=Z,5µm
**SDKM** **Sandakan** 66.75 288 ⇑P **P** 05 40 54.8 +0.3
**UGM** **Wanagama** 66.89 272 P **P** 05 40 54.9 -0.5
comp=Z,209nm,0.9s
**UGM** **Wanagama** 66.89 272 *e*P **P** 05 40 54.6 -0.8
comp=Z,167nm,0.9s
**KDM** **Kudat** 67.68 289 ⇑P **P** 05 41 00.7 +0.6
**KKM** **Kota Kinabalu** 67.79 288 ⇑P **P** 05 41 01.2 +0.2
**KKM** **Kota Kinabalu** 67.79 288 *e*P **P** 05 41 00.7 -0.3
comp=Z,105nm,1.2s
**PBKI** **Pangkalan Bun** 67.93 277 P **P** 05 41 02.4 +0.7
**CISI** **Cisompet, Garu** 69.50 271 *e*P **P** 05 41 09.1 -2.2
comp=Z,165nm,1.1s
**XMIS** **Christmas Isla** 70.37 267 *e*P **P** 05 41 16.2 -0.2
comp=Z,69nm,0.8s
**KSM** **Kuching** 70.94 281 *e*P **P** 05 41 19.4 -0.4
comp=Z,90nm,0.9s
KSM *e*pP **pP** 05 43 13.9 +0.3
**MJAR** **Matsushiro Arr** 71.37 327 P **P** 05 41 21.7 0.0
comp=Z,8.2nm,0.8s,baz=161,slow=5.8,SNR=14
MJAR pP **pP** 05 43 14.9 -0.9
comp=Z,3.3nm,0.8s,baz=163,slow=5.4,SNR=4.8
**MAJO** **Matsushiro** 71.37 327 *e*P **P** 05 41 21.2 -0.5
MAJO pmax pmax
comp=Z,12nm,0.9s
**JNU** **Nakatsue** 72.86 319 P **P** 05 41 28.9 -1.6
comp=Z,8.0nm,0.9s,baz=46,slow=4.9,SNR=4.2
MYKOM **Kota Tinggi** 76.90 278 ⇓P **P** 05 41 53.5 0.0
MYKOM **Kota Tinggi** 76.90 278 *e*P **P** 05 41 53.5 0.0
**MAW** **Mawson** 77.15 201 P **P** 05 41 54.7 +0.9
comp=Z,8.6nm,0.7s,baz=171,slow=2.0,SNR=12
**MAW** **Mawson** 77.15 201 P **P** 05 41 54.3 +0.6
baz=77,SNR=8.4
**MAW** **Mawson** 77.15 201 *e*P **P** 05 41 54.4 +0.6
**KSRS** **Korea Array** 77.61 321 P **P** 05 41 57.1 +0.3
comp=Z,5.2nm,0.8s,baz=138,slow=5.5,SNR=13
**KSAR** **Wonju Array Be** 77.63 321 P **P** 05 41 57.1 +0.3
**KSAR** **Wonju Array Be** 77.63 321 P **P** 05 41 57.1 +0.3
**KS01** **Wonju Array Si** 77.64 321 *e*P **P** 05 41 57.1 +0.2
**YSS** **Yuzh-Sakhalins** 77.79 336 *e*P **P** 05 41 58.7 +1.2
YSS pmax pmax
comp=Z,30nm,1.2s
**PETK** **Petropavlovsk-** 79.00 347 P **P** 05 42 04.2 +0.3
comp=Z,25nm,0.9s,baz=135,slow=7.2,SNR=15
**PETK** **Petropavlovsk-** 79.00 347 *e*P **P** 05 42 03.9 +0.1
**PMSA** **Palmer Station** 79.22 157 P **P** 05 42 06.0 +1.0
comp=Z,82nm,0.9s,baz=219,slow=4.5,SNR=9.0
**NJ2** **Nanjing** 79.87 312 *e*P **P** 05 42 10.0 +1.1
NJ2 pmax pmax
comp=Z,9.0nm,0.8s
**USRK** **Ussuriysk Ar.** 80.27 328 P **P** 05 42 11.8 +1.1
comp=Z,9.4nm,1.0s,baz=147,slow=3.9,SNR=10
**IPM** **Ipoh** 80.59 279 *e*P **P** 05 42 12.5 -0.6
comp=Z,33nm,0.6s
**MDJ** **Mudanjiang** 81.75 327 P **P** 05 42 19.6 +1.3
MDJ pP pP 05 44 18.8 +2.2
MDJ sP sP 05 45 15.7 +3.0
MDJ S **S** 05 51 45.9 +0.1
MDJ sS sS 05 55 15.7 -0.9
MDJ SS **SS** 05 57 17.8 -2.8
MDJ pmax pmax
comp=Z,10.0nm,1.0s
MDJ pmax pmax
comp=Z,89nm,5.5s
**PSI** **Prapat** 81.78 277 P **P** 05 42 17.9 -1.6
comp=Z,35nm,0.9s,baz=150,slow=2.4,SNR=19
PSI pP **pP** 05 44 15.6 -2.0
comp=Z,7.4nm,0.8s,baz=157,slow=7.8,SNR=3.7
**SCZ2** **Santa Cruz Isl** 82.29 48 P **P** 05 42 22.7 +1.3
baz=234
**CHGN** **Chignik** 82.40 13 *e*P **P** 05 42 21.5 +0.2
**SCI2** **San Clemente I** 82.45 49 P **P** 05 42 23.1 +1.0
baz=235
**SBC** **Santa Barbara** 82.50 47 P **P** 05 42 23.5 +1.2
baz=234
**SYO** **Syowa Base** 82.55 194 ⇑*e*P **P** 05 42 19.4 -2.6
**SYO** **Syowa Base** 82.55 194 ⇓/PcP **PcP** 05 42 24.4 -1.1
**PKM** **Mcpherson Peak** 82.69 47 P **P** 05 42 24.5 +0.8
baz=234,SNR=20
**SAO** **San Andreas Ge** 82.74 44 *e*P **P** 05 42 25.0 +1.4
**SAO** **San Andreas Ge** 82.74 44 *e*P **P** 05 42 24.1 +0.6
comp=Z,61nm,1.0s
**BLG** **Laguna Peak, P** 82.74 48 P **P** 05 42 24.6 +0.9
baz=235
**CIS** **Catalina Islan** 82.78 49 P **P** 05 42 24.7 +0.8
baz=235
**SMMC** **Simmler** 82.82 46 P **P** 05 42 25.0 +1.0
baz=234
**PMPB** **Monarch Peak** 82.83 45 *e*P **P** 05 42 25.4 +1.3
**PAGB** **Antelope Grade** 82.90 46 *e*P **P** 05 42 25.6 +1.2
**FMP** **Fort Macarthur** 83.04 48 P **P** 05 42 26.0 +0.9
baz=235
**HOPS** **Hopland Field** 83.09 42 *e*P **P** 05 42 26.3 +1.1
comp=Z,92nm,1.1s
**KCPM** **Cahto Peak** 83.21 41 *e*P **P** 05 42 27.8 +1.8
**OSI** **Osito Audit: C** 83.27 48 P **P** 05 42 27.2 +0.9
baz=235
**OSI** **Osito Audit: C** 83.27 48 *e*P **P** 05 42 27.6 +1.3
**CN2** **Changchun** 83.32 324 *e*P **P** 05 42 27.0 +0.7
CN2 *e*pP pP 05 44 24.3 -0.8
CN2 pmax pmax
comp=Z,20nm,1.2s
CN2 pmax pmax
comp=Z,300nm,5.0s
**DECC** **Green Verdugo** 83.32 48 P **P** 05 42 27.3 +0.8
baz=235
**PASC** **Pasadena Art C** 83.38 48 *e*P **P** 05 42 27.3 +0.5
comp=Z,46nm,1.0s
**109C** **Camp Elliot, M** 83.40 50 P **P** 05 42 27.7 +0.8
baz=236,SNR=16
**KMRM** **Mail Ridge** 83.47 41 *e*P **P** 05 42 28.9 +1.6
**TIA** **Tai'an** 83.48 314 ⇓P **P** 05 42 28.0 +0.7
TIA pmax pmax

comp=Z,30nm,0.8s
**ARVC** **Arvin** 83.49 47 P **P** 05 42 28.3 +1.0
baz=235,SNR=23
**MWC** **Mount Wilson** 83.49 48 *e*P **P** 05 42 28.2 +0.6
**MWC** **Mount Wilson** 83.49 48 *e*P **P** 05 42 28.2 +0.6
**SKNT** **Sakolnakorn** 83.50 292 P **P** 05 42 28.0 +0.3
comp=Z,123nm,0.9s
**BAR** **Barrett** 83.58 50 *e*P **P** 05 42 28.7 +0.8
**MURC** **Murrieta** 83.73 49 P **P** 05 42 29.5 +0.9
baz=236,SNR=17
**VES** **Vestal, Richgr** 83.73 46 P **P** 05 42 29.4 +0.9
baz=234,SNR=16
**BFSC** **Mount Baldy Ra** 83.77 48 P **P** 05 42 29.6 +0.7
baz=235,SNR=24
**KHMM** **Horse Mountain** 83.87 40 *e*P **P** 05 42 30.6 +1.3
**LPIG** **La Paz** 83.87 60 P **P** 05 42 30.9 +1.5
comp=Z,50nm,0.8s,baz=286,slow=2.2,SNR=8.2
**MONP2** **Monument Peak** 83.88 50 P **P** 05 42 30.4 +0.8
baz=236,SNR=58
**RCTC** **Rector, Farmer** 83.90 46 P **P** 05 42 30.5 +1.2
baz=234
**EDW2** **Edwards Air Fo** 83.91 48 P **P** 05 42 30.4 +0.9
baz=235,SNR=61
**SLBS** **Sierra La Lagu** 83.96 61 *e*P **P** 05 42 31.4 +1.4
**IKP** **In-Ko-Pah, Jac** 83.96 50 P **P** 05 42 31.0 +1.1
baz=236,SNR=36
**SRIG** **Santa Rosalia** 83.98 57 *e*P **P** 05 42 31.0 +1.1
**ISA** **Isabella, Lake** 84.03 47 P **P** 05 42 31.1 +1.1
baz=235,SNR=11
**ISA** **Isabella, Lake** 84.03 47 *e*P **P** 05 42 31.2 +1.1
**ISA** **Isabella, Lake** 84.03 47 *e*P **P** 05 42 31.2 +1.1
**CMB** **Columbia Colle** 84.18 44 *e*P **P** 05 42 31.2 +0.5
CMB pmax pmax
comp=Z,372nm,1.0s
**CMB** **Columbia Colle** 84.18 44 *e*P **P** 05 42 31.2 +0.5
comp=Z,372nm,1.0s
**KRMB** **Red Mountain** 84.18 39 *e*P **P** 05 42 32.8 +2.0
**PFO** **Pinyon Flats O** 84.25 49 P **P** 05 42 32.4 +1.1
comp=Z,20nm,0.9s,baz=237,slow=3.1,SNR=24
**PFO** **Pinyon Flats O** 84.25 49 P **P** 05 42 32.0 +0.7
baz=236,SNR=20
**PFO** **Pinyon Flats O** 84.25 49 *e*P **P** 05 42 32.0 +0.7
comp=Z,36nm,1.0s
**TPFO** **Pinon Flats** 84.25 49 P **P** 05 42 32.0 +0.7
baz=236,SNR=19
**XPFO** **Piæon Flat** 84.25 49 *e*P **P** 05 42 32.0 +0.7
**BBRC** **Big Bear Solar** 84.29 49 P **P** 05 42 32.4 +0.8
baz=236
**SWSC** **Sam W. Stewart** 84.34 50 P **P** 05 42 32.6 +1.0
baz=237,SNR=40
**AFDM** **Forest Hills D** 84.36 43 *e*P **P** 05 42 32.2 +0.6
**OHAK** **Old Harbor** 84.36 15 *e*P **P** 05 42 30.5 -0.5
comp=Z,57nm,0.8s
**WDC** **Whiskeytown Da** 84.39 41 *e*P **P** 05 42 32.6 +0.9
**WDC** **Whiskeytown Da** 84.39 41 *e*P **P** 05 42 32.6 +0.9
**ORV** **Oroville** 84.40 42 *e*P **P** 05 42 32.4 +0.7
**ORV** **Oroville** 84.40 42 *e*P **P** 05 42 32.4 +0.7
**KBO** **Bosley Butte** 84.43 39 *e*P **P** 05 42 34.0 +2.0
**CHRN** **Cochrane** 84.43 140 *e*P **P** 05 42 33.4 +1.5
**LRMC** **Laurel Mtn Rad** 84.46 47 P **P** 05 42 33.1 +0.8
baz=235,SNR=54
**SNAA** **Sanae** 84.50 180 P **P** 05 42 31.1 -0.7
**SNAA** **Sanae** 84.50 180 *d*/P **P** 05 42 30.7 -1.1
**SNAA** **Sanae** 84.50 180 *e*P **P** 05 42 30.8 -1.1
comp=Z,2µm,1.0s
**N02D** **Trinity Center** 84.54 40 P **P** 05 42 33.8 +1.4
baz=232,SNR=42
**RRX** **Edison Barstow** 84.58 48 P **P** 05 42 33.6 +0.8
baz=236
**O03D** **Paynes Creek** 84.66 41 P **P** 05 42 33.9 +0.8
baz=232,SNR=48
**NONG** **Nongkai** 84.70 292 P **P** 05 42 34.5 +0.8
comp=Z,41nm,1.1s
**M02C** **Callahan** 84.71 40 P **P** 05 42 34.4 +1.1
baz=232,SNR=77
**CWC** **Cottonwood Cre** 84.74 46 P **P** 05 42 34.6 +0.9
baz=235
**VNA3** **Neumayer Olymp** 84.75 177 P **P** 05 42 32.3 -0.8
**L02D** **Cave Junction,** 84.75 39 P **P** 05 42 34.7 +1.3
baz=231,SNR=11
**MDPB** **Devils Postpil** 84.78 45 *e*P **P** 05 42 35.0 +1.1
**BELC** **Belle Mtn. Jos** 84.78 49 P **P** 05 42 34.8 +0.9
baz=236,SNR=84
**KEBM** **Edson Butte** 84.79 38 *e*P **P** 05 42 35.5 +1.9
**MPMC** **Manual Prospec** 84.92 47 P **P** 05 42 35.4 +0.8
baz=235,SNR=30
**MLAC** **Mammoth, Mammo** 84.93 45 P **P** 05 42 35.3 +0.6
baz=234,SNR=11
**GSC** **Goldstone, Bar** 84.95 48 P **P** 05 42 35.4 +0.7
baz=236,SNR=34
**GSC** **Goldstone, Bar** 84.95 48 *e*P **P** 05 42 35.2 +0.6
**GSC** **Goldstone, Bar** 84.95 48 *e*P **P** 05 42 35.2 +0.6
**NVL** **N'lazarevskaya** 84.95 184 *e*P **P** 05 42 33.6 -0.3
NVL *e*S **S** 05 52 13.2 -3.4
**BC3** **Big Chuckawall** 84.97 50 P **P** 05 42 35.9 +1.1
baz=237,SNR=41
**TIN** **Tinemaha, Big** 84.99 46 P **P** 05 42 35.7 +0.9
baz=235
**YBH** **Yreka Blue Hor** 85.01 40 P **P** 05 42 35.9 +1.2
comp=Z,26nm,0.9s,baz=188,slow=2.5,SNR=74
**HEC** **Hector,Ludlow** 85.01 48 P **P** 05 42 35.8 +0.9
baz=236,SNR=49
**KDAK** **Kodiak Island** 85.03 15 P **P** 05 42 34.7 +0.4
comp=Z,18nm,0.9s,baz=347,slow=12,SNR=4.6
**KDAK** **Kodiak Island** 85.03 15 P **P** 05 42 34.7 +0.4
KDAK pmax pmax
comp=Z,11nm,0.8s
**WAKR** **Walker** 85.06 44 *e*P **P** 05 42 36.2 +0.9
**GLA** **Glamis** 85.08 51 P **P** 05 42 36.6 +1.4
baz=237,SNR=37
**GLA** **Glamis** 85.08 51 *e*P **P** 05 42 36.7 +1.4
**GLA** **Glamis** 85.08 51 *e*P **P** 05 42 36.7 +1.4
**VNA2** **Neumayer--Watz** 85.16 178 P **P** 05 42 34.0 -1.0
baz=182,slow=4.3
**BEKR** **Beckworth** 85.29 42 *e*P **P** 05 42 36.8 +0.6
**PNTR** **Pine Nut** 85.30 43 *e*P **P** 05 42 37.2 +0.8
**VNA1** **Neumayer--Stat** 85.40 178 P **P** 05 42 35.2 -0.9
**HUMO** **Hull Mountain** 85.41 39 *e*P **P** 05 42 38.0 +1.4
comp=Z,328nm,1.2s
**PHET** **Kaeng Krachan** 85.44 286 P **P** 05 42 39.0 +1.7
comp=Z,19nm,0.9s
**GMRC** **Granite Mounta** 85.45 49 P **P** 05 42 37.6 +0.5
baz=237,SNR=39
**IRM** **Iron Mountain** 85.46 50 P **P** 05 42 38.2 +1.2
baz=237,SNR=65
**YERR** **Yerington** 85.46 44 *e*P **P** 05 42 37.7 +0.6
**GRAC** **Grapevine Rang** 85.53 46 P **P** 05 42 38.1 +0.7
baz=235,SNR=10
**M04C** **Macdoel** 85.55 40 P **P** 05 42 38.5 +1.0
baz=232,SNR=32
**FURC** **Furnace Creek,** 85.56 47 P **P** 05 42 38.2 +0.8
baz=236,SNR=17
**TUQ** **Turquoise Moun** 85.62 48 P **P** 05 42 38.6 +0.6
baz=236,SNR=34
**SHOC** **Shoshone, Teco** 85.64 48 P **P** 05 42 38.6 +0.8
baz=236,SNR=16
**Y12C** **Blythe** 85.67 50 P **P** 05 42 38.8 +0.8
baz=237,SNR=11
**Y12C** **Blythe** 85.67 50 *e*P **P** 05 42 39.6 +1.6
**GYA** **Guiyang** 85.80 301 ⇑/P **P** 05 42 38.7 -0.2
GYA pP pP 05 44 41.0 +2.4
GYA sP sP 05 45 37.4 +3.0
GYA PP **PP** 05 46 11.0 +2.1
GYA SKS **SKSac** 05 52 10.8 -1.6
GYA S **S** 05 52 25.3 -1.1
GYA pmax pmax
comp=Z,20nm,1.0s
GYA pmax pmax
comp=Z,130nm,5.8s
**PAHR** **Pah Rah Range** 85.80 43 *e*P **P** 05 42 39.2 +0.6
**HSIG** 85.82 56 *e*P **P** 05 42 39.8 +1.0
**I03D** **Drain, OR** 85.87 38 P **P** 05 42 39.8 +1.1
baz=231,SNR=7.1
**PBKT** **Sadao Pong** 85.89 290 P **P** 05 42 40.6 +1.2
comp=Z,35nm,0.9s,comp=Z,2µm
**214A** **Organ Pipe Nat** 85.95 52 P **P** 05 42 40.6 +1.2
baz=238
**214A** **Organ Pipe Nat** 85.95 52 *e*P **P** 05 42 40.7 +1.2
comp=Z,106nm,0.9s
**LDFC** **Landfair** 85.98 49 *e*P **P** 05 42 40.8 +1.1
**K04D** **Chiloquin, OR** 86.12 40 P **P** 05 42 40.9 +0.8
baz=232
**NEE2** **Needles Airpor** 86.16 49 P **P** 05 42 41.6 +1.3
baz=237,SNR=5.6
**PDMCI** **Parker Dam,Lak** 86.24 50 P **P** 05 42 41.7 +1.0
baz=238,SNR=22

TPNV **Topopah Spring** 86.24 47 P P 05 42 41.5 +0.6
baz=236,SNR=60
TPNV **Topopah Spring** 86.24 47 eP P 05 42 41.7 +0.8
TPNV **Topopah Spring** 86.24 47 eP P 05 42 41.6 +0.8
J04D **Umpqua Nationa** 86.29 39 P P 05 42 42.1 +1.1
baz=232,SNR=19
I04A **Tendick Farm,** 86.46 38 P P 05 42 42.4 +0.9
baz=232,SNR=23
MOD **Modoc Plateau** 86.54 41 eP P 05 42 42.5 +0.3
comp=Z,83nm,1.1s
SHPR **Sheep Range** 86.73 48 eP P 05 42 44.1 +0.9
UTHA **Uthaitani** 86.76 288 P P 05 42 44.7 +1.2
comp=Z,12nm,0.9s,comp=Z,121nm
UTTA **Uttaradit** 86.76 291 P P 05 42 44.9 +1.4
comp=Z,4.6nm,0.9s
J05D **Fort Rock, OR** 86.82 39 P P 05 42 44.7 +1.2
baz=232,SNR=85
G03D **McMinnville, O** 86.87 37 P P 05 42 44.5 +1.1
baz=231,SNR=6.7
NANT **Nan** 87.10 292 P P 05 46 1.1 +1.0
comp=Z,6.5nm,0.8s,comp=Z,377nm
H04A **Detroit Lake** 87.14 38 eP P 05 42 45.1 +0.4
PHRA **Phrae** 87.37 291 P P 05 42 46.0 -0.4
comp=Z,20nm,2.8s,comp=Z,21µm
I05D **Terrebonne, OR** 87.40 38 P P 05 42 46.9 +0.9
baz=232,SNR=27
RSO **Redoubt South** 87.41 14 eP P 05 42 46.1 +0.2
R11A **Troy Canyon, C** 87.45 46 P P 05 42 47.0 +0.5
baz=236,SNR=20
R11A **Troy Canyon, C** 87.45 46 eP P 05 42 46.8 +0.2
comp=Z,19nm,1.3s
E03A **Lebam** 87.55 36 eP P 05 42 48.1 +1.6
F04D **Rainier, OR** 87.56 36 P P 05 42 48.4 +1.8
baz=231,SNR=6.1
TUC **Tucson** 87.60 53 P P 05 42 48.6 +1.3
baz=240
TUC **Tucson** 87.60 53 eP P 05 42 48.9 +1.6
TUC pmax pmax
comp=Z,93nm,1.2s
TUC **Tucson** 87.60 53 eP P 05 42 48.9 +1.6
comp=Z,93nm,1.2s
F04A **Amboy** 87.78 37 eP P 05 42 48.4 +0.8
DIB **Dawson Inlet,** 87.85 27 eP P 05 42 49.0 +1.3
H02S1 **DAWSON INLET T** 87.85 27 P P 05 42 48.9 +1.2
WVOR **Wild Horse Val** 87.85 41 eP P 05 42 49.1 +0.8
WVOR pmax pmax
comp=Z,79nm,1.0s
WVOR **Wild Horse Val** 87.85 41 eP P 05 42 49.0 +0.8
comp=Z,80nm,1.0s
GAMB **Gambell** 87.89 4 eP P 05 42 48.7 +1.0
XAN **Xi'an** 87.90 309 P P 05 42 49.3 +0.7
XAN pmax pmax
comp=Z,18nm,0.8s
XAN pmax pmax
comp=Z,76nm,7.0s
G05D **Wamic, OR** 87.97 38 P P 05 42 49.5 +0.9
baz=232,SNR=12
SPU **Mount Spurr** 88.21 14 eP P 05 42 48.0 -1.3
KMI **Kunming** 88.27 298 P P 05 42 51.6 +0.9
KMI pmax pmax
comp=Z,9.0nm,0.5s
LCMT **Little Creek M** 88.30 48 eP P 05 42 51.2 +0.7
I07A **Izee** 88.30 39 eP P 05 42 51.3 +1.0
G06A **Carlson Farm,** 88.35 38 eP P 05 42 51.0 +0.7
CMAR **Chiang Mai Arr** 88.45 291 P P 05 42 53.0 +1.5
comp=Z,3.9nm,0.5s,baz=138,slow=3.4,SNR=26
CMAR pP pP 05 44 50.2 -1.8
comp=Z,1.9nm,0.4s,baz=136,slow=4.3,SNR=3.2
CMAR PP PP 05 46 30.3 +0.4
comp=Z,9.8nm,1.0s,baz=127,slow=5.8,SNR=9.8
CMAR PKKPbc PKKPbc 06 00 30.1 +0.3
comp=Z,2.5nm,0.4s,baz=295,slow=4.4,SNR=9.4
CMAR **Chiang Mai Arr** 88.45 291 *i* P P 05 42 53.4 +2.0
CMAR pmax pmax
comp=Z,4.0nm,0.4s
J08A **Circle Bar Ran** 88.48 40 eP P 05 42 51.9 +0.8
CCUT **Cedar City** 88.50 47 eP P 05 42 52.6 +1.1
KNB **Kanab** 88.59 48 eP P 05 42 53.0 +1.1
KNB **Kanab** 88.59 48 eP P 05 42 53.0 +1.1
CMMT **Chiang Mai** 88.60 291 P P 05 42 53.3 +1.2
CHTO **Chiang Mai** 88.60 291 P P 05 42 53.4 +1.3
baz=241,SNR=1.0s
CHTO **Chiang Mai** 88.60 291 eP P 05 42 52.9 +0.8
CHTO **Chiang Mai** 88.60 291 eP P 05 42 51.7 -0.4
comp=Z,8.2nm,0.8s
LON **Longmire** 88.62 36 eP P 05 42 51.9 +0.3
LON **Longmire** 88.62 36 eP P 05 42 51.9 +0.3
RC01 **Rabbit Creek A** 88.65 15 eP P 05 42 51.5 +0.1
SZCU **Shurtz Canyon** 88.71 48 eP P 05 42 53.6 +1.1
D05A **Enumclaw** 88.80 36 eP P 05 42 53.5 +1.2
WUAZ **Wupatki** 88.81 50 P P 05 42 53.8 +0.9
baz=239
WUAZ **Wupatki** 88.81 50 eP P 05 42 53.5 +0.6
comp=Z,44nm,1.1s
HPIG 88.91 60 eP P 05 42 54.0 +0.4
PGC **Sidney** 88.94 34 eP P 05 42 53.7 +0.7
comp=Z,64nm,0.9s
PLCA **Paso Flores** 89.01 135 P P 05 42 54.7 +0.9
comp=Z,39nm,1.1s,baz=252,slow=5.3,SNR=30
PLCA **Paso Flores** 89.01 135 eP P 05 42 54.8 +1.0
GLI **Glacier Island** 89.11 16 eP P 05 42 53.5 0.0
F07A **Phinny Hill Vi** 89.14 38 eP P 05 42 54.6 +0.7
FID **Port Fidalgo** 89.15 16 eP P 05 42 53.6 -0.1
PKCU **Pink Cliffs** 89.16 48 eP P 05 42 56.4 +1.7
SEY **Seymchan** 89.20 348 P P 05 42 54.1 +0.3
comp=Z,14nm,0.8s,baz=152,slow=4.6,SNR=27
SEY pP pP 05 44 55.1 +0.4
comp=Z,2.9nm,0.9s,baz=181,slow=12,SNR=2.4
SEY **Seymchan** 89.20 348 *ceP* P 05 42 53.9 +0.1
PMR **Palmer** 89.23 15 eP P 05 42 53.9 -0.1
PMR **Palmer** 89.23 15 eP P 05 42 53.5 -0.4
comp=Z,54nm,1.0s
G08A **Pilot Rock** 89.33 39 eP P 05 42 55.6 +0.6
MOIG **Morelia** 89.34 68 eP P 05 42 56.9 +1.1
A04D **Lummi Island** 89.37 34 P P 05 42 56.1 +1.2
baz=231
B05A **Bryant** 89.40 35 P P 05 42 56.2 +1.1
baz=232
ZAIG **Zacatecas** 89.53 65 eP P 05 42 58.4 +1.7
LTY **Liberty** 89.55 36 eP P 05 42 56.4 +0.4
MTPU **Mount Pierson** 89.55 48 eP P 05 42 58.2 +1.6
E07A **Sunnyside** 89.58 37 eP P 05 42 56.8 +0.8
SML **Sawmill** 89.61 15 eP P 05 42 55.3 -0.5
SML pmax pmax
comp=Z,12nm,1.4s
SML **Sawmill** 89.61 15 eP P 05 42 55.3 -0.5
comp=Z,12nm,1.4s
DIV **Divide** 89.66 16 eP P 05 42 55.9 -0.2
comp=Z,47nm,1.1s
HAWA **Hanford** 89.66 38 eP P 05 42 57.1 +0.8
comp=Z,60nm,1.1s
HHC **Hu-ho-hao-te** 89.69 316 eP P 05 42 59.6 +2.8
HHC pP pP 05 44 56.7 -1.1
HHC SKS **SKSac** 05 52 36.1 +1.3
HHC S **ScS** 05 53 07.2 +2.8
HHC pmax pmax
comp=Z,24nm,0.9s
HHC pmax pmax
comp=Z,190nm,5.4s
EFI **East Falkland** 89.69 149 *i* P P 05 42 56.3 -0.3
EFI pmax pmax
comp=Z,49nm,1.0s
W18A **Petrified Fore** 89.77 51 P P 05 42 58.2 +0.8
baz=240
W18A **Petrified Fore** 89.77 51 eP P 05 42 58.1 +0.7
comp=Z,43nm,1.1s
MSU **Marysvale** 89.80 47 eP P 05 42 58.9 +1.4
MSU **Marysvale** 89.80 47 eP P 05 42 58.9 +1.4
BMRM **Bremner River** 89.83 17 eP P 05 42 57.1 +0.2
comp=Z,64nm,1.2s
C06D **Leavenworth** 89.83 36 P P 05 42 58.1 +0.9
baz=233
HIA **Hailar** 89.86 326 *i* P P 05 42 56.6 -0.7
HIA pmax pmax
comp=Z,3.0nm,1.0s
SCM **Sheep Creek Mo** 89.87 15 eP P 05 42 56.9 -0.2
SCM **Sheep Creek Mo** 89.87 15 eP P 05 42 56.9 -0.2
B06A **Marblemount** 89.88 35 eP P 05 42 58.0 +0.7
121A **Cookes Peak, D** 89.92 54 P P 05 42 58.8 +0.6
baz=241
121A **Cookes Peak, D** 89.92 54 eP P 05 42 59.3 +1.1
comp=Z,43nm,1.0s
KLU **Klutina** 89.93 16 eP P 05 42 57.4 0.0
E08A **Dider Farm, El** 89.98 38 eP P 05 42 58.9 +1.1
BMO **Blue Mountains** 90.03 40 eP P 05 42 58.3 0.0
BMO pmax pmax
comp=Z,6.0nm,0.8s
BMO **Blue Mountains** 90.03 40 eP P 05 42 58.3 0.0
comp=Z,6.0nm,0.8s
MFID **Camas Ranch** 90.10 42 eP P 05 42 59.2 +0.5
comp=Z,32nm,1.0s
CD2 **Chengdu** 90.17 304 eP P 05 43 00.1 +0.9
CD2 pP pP 05 45 00.7 +0.5
CD2 SKS **SKSac** 05 52 38.8 +1.0
CD2 S **S** 05 53 05.4 +1.0
CD2 SS **SS** 05 59 23.0 -0.1
CD2 pmax pmax
comp=Z,30nm,0.9s
CD2 pmax pmax
comp=Z,410nm,8.5s
CAST **Castle Rocks** 90.21 13 eP P 05 42 57.3 -1.3
WRAK **Wrangell Islan** 90.24 25 eP P 05 42 59.7 +1.0
comp=Z,33nm,0.8s
DUG **Dugway, Tooele** 90.26 45 P P 05 43 00.0 +0.5
baz=238
DUG **Dugway, Tooele** 90.26 45 eP P 05 42 59.9 +0.4
DUG **Dugway, Tooele** 90.26 45 eP P 05 42 59.9 +0.4
D08A **Wollman Farm,** 90.39 37 eP P 05 43 00.3 +0.6
JRQG **Juriquilla Cam** 90.41 68 eP P 05 43 02.0 +1.3
BGU **Big Grassy Mou** 90.50 45 eP P 05 43 01.2 +0.6
E09A **Wood Farm, Sta** 90.50 38 eP P 05 43 00.5 +0.2
SGU **Sterling** 90.50 47 eP P 05 43 02.5 +1.7
EPT **El Paso** 90.51 55 eP P 05 43 01.9 +1.1
KTH **Kantishna Hill** 90.57 13 eP P 05 42 58.9 -1.4
comp=Z,14nm,0.8s
NLU **North Lily Min** 90.62 46 eP P 05 43 02.0 +0.8
Q16A **Castle Valley** 90.69 47 eP P 05 43 02.8 +1.2
TLIG **Tlapa** 90.69 71 eP P 05 43 03.3 +1.4
F10A **Beach Ranch, E** 90.72 39 eP P 05 43 01.4 0.0
TMUT **Trail Mountain** 90.85 47 eP P 05 43 03.7 +1.2
RND **Reindeer** 90.88 14 eP P 05 43 01.5 -0.2
RND **Reindeer** 90.88 14 eP P 05 43 01.5 -0.2
HARP **HAARP** 90.90 16 eP P 05 43 02.0 +0.2
B08A **Colville Reser** 90.93 36 eP P 05 43 02.1 -0.2
DHY **Denali Highway** 90.93 15 eP P 05 43 01.8 -0.3
MPU **Maple Canyon** 90.94 46 eP P 05 43 03.6 +0.9
LLLB **Lillooet** 90.96 33 eP P 05 43 03.1 +0.7
GO05 **HualaæØ** 91.00 129 eP P 05 43 03.7 +0.6
HLID **Hailey** 91.05 42 P P 05 43 03.8 +0.7
baz=237,SNR=18
HLID **Hailey** 91.05 42 eP P 05 43 03.8 +0.7
comp=Z,5.5nm,0.7s
SPUT **South Promonto** 91.08 45 eP P 05 43 03.9 +0.6
HVU **Hansel Valley** 91.12 44 eP P 05 43 04.1 +0.6
HVU **Hansel Valley** 91.12 44 eP P 05 43 04.1 +0.6
MCK **McKinley** 91.15 14 eP P 05 43 02.3 -0.6
MCK pmax pmax
comp=Z,10.0nm,0.7s
MCK **McKinley** 91.15 14 eP P 05 43 02.3 -0.6
comp=Z,10nm,0.7s
CTU **Camp Tracy** 91.21 45 eP P 05 43 04.6 +0.6
SRU **San Rafael Swe** 91.22 47 eP P 05 43 04.7 +0.7
SRU **San Rafael Swe** 91.22 47 eP P 05 43 04.7 +0.7
P17A **Butcher Ranch,** 91.26 47 eP P 05 43 04.9 +0.8
LAZ **Ladron** 91.28 53 eP P 05 43 05.2 +0.7
Y22D **IRIS PASSCAL I** 91.29 53 P P 05 43 05.1 +0.7
baz=242
Y22D **IRIS PASSCAL I** 91.29 53 eP P 05 43 06.0 +1.6
Y22E **IRIS PASSCAL I** 91.29 53 P P 05 43 04.9 +0.5
baz=242
PAX **Paxson** 91.30 16 eP P 05 43 03.1 -0.6
PAX **Paxson** 91.30 16 eP P 05 43 02.3 -1.3
comp=Z,11nm,1.0s
MNTX **Cornudas Mount** 91.32 56 P P 05 43 04.9 +0.4
baz=242,SNR=46
MNTX **Cornudas Mount** 91.32 56 eP P 05 43 05.2 +0.7
comp=Z,31nm,0.9s
JLU **Jordanelle** 91.36 46 eP P 05 43 05.3 +0.6
SKAG **Skagway** 91.42 22 eP P 05 43 05.1 +0.9
BNM **Barren Site** 91.54 53 eP P 05 43 06.3 +0.6
TX31 **Lajitas Ar. Si** 91.57 59 eP P 05 43 06.6 +0.8
TXAR **Lajitas Array** 91.57 59 P P 05 43 06.7 +0.9
comp=Z,22nm,0.9s,baz=213,slow=6.1,SNR=111
LPM **Los Pinos Moun** 91.61 53 eP P 05 43 06.6 +0.6
MVCO **Mesa Verde** 91.66 50 P P 05 43 06.3 +0.1
baz=241
MVCO **Mesa Verde** 91.66 50 eP P 05 43 06.7 +0.5
P18A **Preston Nutter** 91.66 47 eP P 05 43 06.8 +0.6
PV05 **Paradox Valley** 91.67 49 eP P 05 43 07.0 +0.8
MENT **Mentasta** 91.70 16 eP P 05 43 05.4 -0.1
HYT **Haines Junctio** 91.76 20 eP P 05 43 06.4 +0.5
PV09 **Paradox Valley** 91.86 48 eP P 05 43 07.5 +0.4
PV10 **Paradox Valley** 91.86 49 eP P 05 43 07.3 +0.2
MLY **Manley** 91.92 12 eP P 05 43 05.5 -1.0
PV04 **Paradox Valley** 91.96 49 eP P 05 43 07.7 +0.3
ANMO **Albuquerque** 92.04 53 P P 05 43 08.1 +0.2
baz=242
ANMO **Albuquerque** 92.04 53 *de*P P 05 43 08.3 +0.4
ANMO pmax pmax
comp=Z,26nm,1.0s
ANMO **Albuquerque** 92.04 53 eP P 05 43 08.3 +0.4
comp=Z,20nm,1.0s
PV01 **Paradox Valley** 92.06 49 eP P 05 43 08.1 +0.1
comp=Z,1µm,0.8s
NEW **Newport** 92.08 37 P P 05 43 08.7 +1.2
baz=235
CCB **Clear Creek Bu** 92.19 14 eP P 05 43 06.6 -1.0
IMAR **Indian Mountai** 92.22 11 eP P 05 43 07.1 -0.6
MDM **Murphy Dome** 92.37 13 eP P 05 43 07.6 -0.9
COLA **College** 92.38 14 eP P 05 43 07.8 -0.6
COLA **College** 92.38 14 eP P 05 43 07.0 -1.4
comp=Z,14nm,0.9s
WHY **Whitehorse** 92.47 21 eP P 05 43 09.3 +0.2
IL1 **Eielson Array** 92.50 14 eP P 05 43 07.6 -1.4
ILAR **Eielson Array** 92.50 14 P P 05 43 07.9 -1.2
comp=Z,4.6nm,0.7s,baz=233,slow=5.6,SNR=48
ILAR pP pP 05 45 10.1 -0.2
comp=Z,2.3nm,1.0s,baz=230,slow=5.2,SNR=2.5
ILB **Eielson Array** 92.50 14 eP P 05 43 08.2 -0.9
LZH **Lanzhou** 92.53 309 ⇑P P 05 43 10.8 +0.7
LZH pP pP 05 45 14.0 +2.7
LZH sP sP 05 46 09.1 +2.5
LZH PP PP 05 47 06.3 +4.7
LZH SKS **SKSac** 05 52 50.3 -0.7
LZH S **SKKSac** 05 53 15.0 +3.4
LZH sS sS 05 57 06.2 +1.3
LZH SS **SS** 05 59 53.0 -3.7
LZH pmax pmax
comp=Z,95nm,1.5s
LZH pmax pmax
comp=Z,350nm,5.8s
DLBC **Dease Lake** 92.56 24 eP P 05 43 10.3 +0.8
MCMT **McKenzie Canyo** 92.67 42 eP P 05 43 11.4 +0.8
PEL **Peldehue** 92.84 128 eP P 05 43 12.1 +0.5
PEL **Peldehue** 92.84 128 eP P 05 43 12.1 +0.5
LNIG **Linares** 93.01 64 eP P 05 43 11.9 -0.4
MSO **Missoula** 93.08 39 P P 05 43 12.9 +0.6
baz=238
S22A **4UR Ranch, Cre** 93.09 50 P P 05 43 13.0 +0.2
baz=242,SNR=36
S22A **4UR Ranch, Cre** 93.09 50 eP P 05 43 13.4 +0.6
DLMT **Dillon** 93.11 41 eP P 05 43 13.2 +0.7
REDW **Red Top Meadow** 93.15 44 eP P 05 43 13.2 +0.4
TPAW **Teton Pass** 93.15 43 eP P 05 43 13.6 +0.7
comp=Z,6.6nm,0.9s
FXWY **Fox Creek** 93.18 43 eP P 05 43 13.6 +0.6
O20A **White River Ci** 93.26 47 P P 05 43 13.7 +0.3
baz=241,SNR=11
O20A **White River Ci** 93.26 47 eP P 05 43 13.7 +0.3
comp=Z,20nm,0.9s
SNOW **Snow King Moun** 93.26 43 eP P 05 43 14.2 +0.8
comp=Z,15nm,0.9s
IMW **Indian Meadow** 93.37 43 eP P 05 43 14.2 +0.3
comp=Z,9.9nm,0.9s
MOOW **Moose Ponds** 93.41 43 eP P 05 43 14.5 +0.5
LOHW **Long Hollow** 93.43 43 eP P 05 43 14.2 0.0
comp=Z,5.3nm,0.9s
QLMT **Earthquake Lak** 93.54 42 eP P 05 43 15.8 +1.2
YHB **Horse Butte** 93.64 42 eP P 05 43 16.4 +1.3
SMCO **Snowmass** 93.66 49 eP P 05 43 15.7 +0.2
comp=Z,23nm,1.2s
BW06 **Boulder Array** 93.67 44 P P 05 43 15.3 +0.1
baz=240,SNR=8.6
BW06 **Boulder Array** 93.67 44 eP P 05 43 15.1 -0.2
comp=Z,2.9nm,0.7s
PD31 **Pinedale Array** 93.67 44 eP P 05 43 15.2 -0.1
PDAR **Pinedale Array** 93.67 44 P P 05 43 15.2 -0.1
comp=Z,4.4nm,0.7s,baz=207,slow=2.7,SNR=45
PDAR **Pinedale Array** 93.67 44 eP P 05 43 14.7 -0.6
YFT **Old Faithful** 93.71 43 eP P 05 43 17.5 +2.1
YMR **Madison River** 93.74 42 eP P 05 43 16.8 +1.3
DAWY **Dawson** 93.76 17 eP P 05 43 14.7 -0.2
comp=Z,16nm,0.8s
BOZ **Bozeman (W)** 93.81 41 P P 05 43 16.4 +0.7
baz=239
BOZ **Bozeman (W)** 93.81 41 eP P 05 43 13.7 -2.0
BOZ **Bozeman (W)** 93.81 41 eP P 05 43 13.7 -2.0
H17A **Grant Village** 93.84 43 P P 05 43 16.9 +0.9
baz=240,SNR=7.4
H17A **Grant Village** 93.84 43 eP P 05 43 17.2 +1.2
comp=Z,7.0nm,0.9s
EGAK **Eagle** 93.87 16 eP P 05 43 15.3 +0.1
comp=Z,14nm,0.8s
YHH **Holmes Hill** 93.87 42 eP P 05 43 17.7 +1.5
COLD **Coldfoot** 93.97 12 eP P 05 43 16.2 +0.4
SDCO **Great Sand Dun** 94.02 50 P P 05 43 17.2 +0.2
baz=243,SNR=26
SDCO **Great Sand Dun** 94.02 50 eP P 05 43 17.2 +0.2
comp=Z,18nm,1.0s
LKWY **Lake** 94.04 43 eP P 05 43 18.8 +1.9
LKWY **Lake** 94.04 43 eP P 05 43 17.6 +0.7
comp=Z,5.7nm,0.9s
HRY **Holter Researc** 94.26 40 eP P 05 43 17.7 0.0
WALA **Waterton Lakes** 94.29 38 eP P 05 43 17.9 +0.1
MSTX **Muleshoe** 94.31 55 P P 05 43 18.4 +0.2
baz=244,SNR=8.0
MSTX **Muleshoe** 94.31 55 eP P 05 43 17.9 -0.3
comp=Z,13nm,1.0s
833A **Chaparral WMA,** 94.51 61 P P 05 43 19.2 +0.1
baz=245
T25A **Trinidad** 94.52 51 P P 05 43 19.5 +0.3
baz=243,SNR=13
T25A **Trinidad** 94.52 51 eP P 05 43 19.5 +0.3
RWWY **Rawlins** 94.68 46 eP P 05 43 20.1 +0.2
Q24A **Divide** 94.82 49 P P 05 43 20.8 +0.1
baz=243,SNR=17
Q24A **Divide** 94.82 49 eP P 05 43 21.1 +0.4
ISCO **Idaho Springs** 94.88 49 P P 05 43 21.4 +0.5
baz=243
ISCO **Idaho Springs** 94.88 49 eP P 05 43 21.5 +0.6
ISCO **Idaho Springs** 94.88 49 eP P 05 43 21.5 +0.6
LCO **Las Campanas** 94.95 125 eP P 05 43 21.3 -0.2
RLMT **Red Lodge** 95.01 43 P P 05 43 22.2 +0.9
baz=241
JCT **Junction City** 95.08 59 P P 05 43 21.8 0.0
baz=245
JCT **Junction City** 95.08 59 eP P 05 43 21.9 +0.2
JCT **Junction City** 95.08 59 eP P 05 43 21.2 -0.5
comp=Z,5.3nm,0.8s
N23A **Red Feather La** 95.16 47 P P 05 43 22.4 +0.2
baz=243,SNR=6.0
N23A **Red Feather La** 95.16 47 eP P 05 43 22.9 +0.7
AMTX **Amarillo** 95.52 54 P P 05 43 23.8 +0.2
baz=245
K22A **Casper** 95.58 46 P P 05 43 24.0 +0.2
baz=242
ULN **Ulaanbaatar** 96.08 320 ⇑eP P 05 43 25.7 -0.2
ULN pmax pmax
comp=Z,19nm,3.9s
ABTX **Abilene, Hawle** 96.10 57 P P 05 43 26.4 +0.1
baz=245
ABTX **Abilene, Hawle** 96.10 57 eP P 05 43 26.6 +0.4
EGMT **Eagleton** 96.14 40 P P 05 43 26.8 +0.7
baz=241
SONM **Songino Array** 96.45 320 P P 05 43 27.8 +0.2
comp=Z,0.3nm,0.3s,baz=107,slow=1.5,SNR=3.9
SONM pP pP 05 45 28.8 -0.3
comp=Z,0.4nm,0.5s,baz=144,slow=10.0,SNR=2.5
SONM PKKPbc PKKPbc 06 00 08.8 -1.9
comp=Z,2.5nm,0.8s,baz=268,slow=2.3,SNR=13
SONM PKKPPKP P'P'df 06 08 18.0 -3.7
comp=Z,0.4nm,0.8s,baz=217,slow=3.6,SNR=3.7
KSCO **Kaye Shedlock'** 96.60 50 P P 05 43 28.8 +0.3
baz=244
KSCO **Kaye Shedlock'** 96.60 50 eP P 05 43 29.3 +0.8
GTA **Gaotai** 96.88 310 eP P 05 43 31.4 +1.7
GTA pP pP 05 45 31.6 +0.3
GTA sP sP 05 46 24.8 -1.7
GTA pmax pmax
comp=Z,4.0nm,0.8s
435B **Jarrell** 96.95 60 P P 05 43 30.2 +0.1
baz=246
WHTX **Lake Whitney,** 97.54 58 P P 05 43 32.7 +0.1
baz=246
WMOK **Wichita Mounta** 97.62 55 P P 05 43 33.1 +0.1
baz=246
LAO **LASA Array** 97.63 42 P P 05 43 33.5 +0.7
baz=243
OGNE **Ogallala** 97.84 49 P P 05 43 34.8 +0.9
baz=245
RSSD **Black Hills** 97.86 45 P P 05 43 34.1 0.0
baz=244
RSSD **Black Hills** 97.86 45 eP P 05 43 34.1 0.0
RSSD pmax pmax
comp=Z,7.0nm,1.0s
RSSD **Black Hills** 97.86 45 eP P 05 43 34.1 0.0
comp=Z,7.2nm,1.0s
U32A **Winter Ranch,** 98.12 54 P P 05 43 35.4 +0.2
baz=246
236A **Katherine and** 98.26 59 P P 05 43 36.0 +0.1
baz=247
136A **Ennis** 98.45 58 P P 05 43 36.8 +0.1
baz=247
INK **Inuvik** 98.54 16 P Pdif 05 43 35.4 -0.8
comp=Z,6.3nm,0.9s,baz=224,slow=5.1,SNR=20
INK PP PP 05 47 50.2 +3.9
comp=Z,3.3nm,1.1s,baz=172,slow=7.4,SNR=3.2
INK PKiKP PKiKP 05 48 02.5 -1.8
comp=Z,2.1nm,0.8s,baz=259,slow=1.7,SNR=5.1
CBKS **Cedar Bluff** 98.57 51 P P 05 43 37.8 +0.6
baz=246
438A **Sam Houston St** 98.61 60 P P 05 43 37.4 0.0
baz=247
Y35A **Marietta** 98.62 57 P P 05 43 37.7 +0.2
baz=247
237A **Washetta, Mont** 98.83 59 P P 05 43 38.6 +0.1
baz=247
Z36A **Blue Ridge** 98.83 58 P P 05 43 38.5 +0.1
baz=247
X35A **Drake** 98.86 56 P P 05 43 38.6 0.0
baz=247
338A **Crockett** 98.97 60 P P 05 43 39.2 +0.1
baz=247
Y36A **Durant** 99.19 57 P Pdif 05 43 40.0 +0.1
baz=247
W35A **Tecumseh** 99.22 56 P Pdif 05 43 40.4 +0.4
baz=247
X36A **Centrahoma** 99.40 56 P Pdif 05 43 40.9 +0.1
baz=247
Z37A **Pogue Cattle C** 99.43 58 P Pdif 05 43 41.2 +0.2
baz=248
V35A **Meyer Ranch, C** 99.49 55 P Pdif 05 43 41.3 0.0
baz=247
NATX **Nacogdoches** 99.64 60 P Pdif 05 43 42.2 +0.2
baz=248
DGMT **Dagmar** 99.64 41 P Pdif 05 43 42.1 +0.5
baz=245
T34A **McCluskey Farm** 99.71 54 P Pdif 05 43 42.6 +0.4
baz=247
Y37A **Hugo** 99.73 57 P Pdif 05 43 42.4 +0.1
baz=248
U35A **Pawnee** 99.80 55 P Pdif 05 43 43.1 +0.5
baz=247
TLY **Talaya** 99.82 322 *i* P Pdif 05 43 41.9 -0.4
TLY pmax pmax
comp=Z,5.0nm,0.5s
239A **Gary** 99.88 59 P Pdif 05 43 43.2 +0.1
baz=248
Z38A **Mt. Pleasant** 99.95 58 P Pdif 05 43 43.4 +0.1
baz=248
S34A **Willow Spring** 100.03 53 P Pdif 05 43 44.0 +0.4
baz=247
X37A **Clayton** 100.15 57 P Pdif 05 43 44.3 +0.1
baz=248
V36A **Jenks** 100.17 55 P Pdif 05 43 45.0 +0.8
baz=248
T35A **Sooner Cattle** 100.17 54 P Pdif 05 43 44.4 +0.2
baz=248
W37B **Quinton** 100.31 56 P Pdif 05 43 45.0 +0.1
baz=248
TUL1 **Leonard** 100.33 55 P Pdif 05 43 45.6 +0.6
baz=248
X38A **Whitesboro** 100.60 57 P Pdif 05 43 46.3 +0.1
baz=248
S35A **Otter Creek Ra** 100.61 54 P Pdif 05 43 46.3 +0.1
baz=248

**Q34A Chapman** 100.62 52 P **Pdif** 05 43 46.5 +0.3
baz=248
**542A Morse** 100.71 62 P **Pdif** 05 43 46.8 +0.1
baz=248
**K31A O'Neill** 100.76 48 P **Pdif** 05 43 47.2 +0.4
baz=247
**V37A Hulbert** 100.81 56 P **Pdif** 05 43 47.3 +0.2
baz=248
**140A Cam and Jess,** 100.82 59 P **Pdif** 05 43 47.5 +0.3
baz=248
**P34A Walnut Farm, R** 100.94 52 P **Pdif** 05 43 48.0 +0.4
baz=248
**U37A Salina** 101.02 55 P **Pdif** 05 43 48.3 +0.3
baz=248
**YKA Yellowknife Ar** 101.06 26 P **Pdif** 05 43 47.2 -0.3
comp=Z,0.8nm,0.8s,baz=243,slow=4.4,SNR=7.3
YKA PKIKP **PKiKP** 05 48 07.5 -1.4
comp=Z,1.1nm,0.9s,baz=228,slow=1.0,SNR=6.8
YKA PKKPbc **PKKPbc** 05 59 54.7 -3.4
comp=Z,0.2nm,0.5s,baz=46,slow=2.4,SNR=4.6
**V38A Canehill** 101.36 56 P **Pdif** 05 43 50.1 +0.6
baz=248
**TIXI Tiksi** 101.42 346 *e*P **Pdif** 05 43 48.2 -0.7
TIXI pmax pmax
comp=Z,1.0nm,1.1s
**T37A Cheneyville 18** 101.43 54 P **Pdif** 05 43 50.3 +0.5
baz=248
**M33A Taylor Creek F** 101.44 50 P **Pdif** 05 43 50.4 +0.6
baz=248
**MIAR Mount Ida** 101.51 57 P **Pdif** 05 43 50.6 +0.4
baz=249
**W39A Magazine** 101.59 57 P **Pdif** 05 43 50.9 +0.3
baz=249
**T38A Diamond** 101.87 55 P **Pdif** 05 43 52.3 +0.5
baz=249
**V39A Pettigrew** 101.92 56 P **Pdif** 05 43 52.5 +0.3
baz=249
**R38A Fenwick Farm,** 102.56 54 P **Pdif** 05 43 55.3 +0.5
baz=249
**ECSD EROS Data Cent** 102.63 48 P **Pdif** 05 43 55.8 +0.8
baz=249
**344A Westbrook Farm** 102.65 61 P **Pdif** 05 43 55.5 +0.2
baz=249
**U40A Yellville** 102.71 56 P **Pdif** 05 43 55.8 +0.2
baz=250
**P37A Lathrop** 102.73 52 P **Pdif** 05 43 56.5 +0.9
baz=249
**W41B Gary Mavity, V** 102.76 57 P **Pdif** 05 43 56.5 +0.7
baz=250
**S39A Bolivar** 102.82 54 P **Pdif** 05 43 56.3 +0.3
baz=250
**V41A Mountainview** 103.04 57 P **Pdif** 05 43 57.8 +0.8
baz=250
**R39A Chumby, Stover** 103.25 54 P **Pdif** 05 43 58.4 +0.5
baz=250
**S40A Lebanon** 103.40 55 P **Pdif** 05 43 58.9 +0.3
baz=250
**U41A Viola** 103.41 56 P **Pdif** 05 43 59.5 +0.8
baz=250
**LPAZ La Paz** 103.46 115 Pdiff **Pdif** 05 44 01.9 +1.8
comp=Z,0.8nm,0.6s,baz=315,slow=8.6,SNR=4.7
LPAZ PKIKP **PKiKP** 05 48 15.3 -0.2
comp=Z,1.5nm,0.9s,baz=334,slow=2.0,SNR=3.7
**F33A 5 Mile Ranch,** 103.59 46 P **Pdif** 05 43 59.7 +0.5
baz=250
**346A Big Creek Wild** 103.64 62 P **Pdif** 05 44 00.4 +0.7
baz=250
**T41A Mountain View** 103.77 55 P **Pdif** 05 44 01.1 +0.9
baz=250
**R40A Maddies Statio** 103.81 54 P **Pdif** 05 44 01.3 +0.9
baz=250
**S41A Jillco Farms,** 103.96 55 P **Pdif** 05 44 01.5 +0.4
baz=250
**ULM Lac du Bonnet** 105.35 42 Pdiff **Pdif** 05 44 09.3 +2.4
comp=Z,1.2nm,0.7s,baz=284,slow=4.2,SNR=3.3
**ZALV Zalesovo Beam** 111.32 321 PKiKP **PKiKP** 05 48 26.7 -1.6
comp=Z,1.6nm,0.6s,baz=148,slow=1.8,SNR=8.7
ZALV PP **PP** 05 49 24.8 +5.0
comp=Z,0.4nm,0.3s,baz=108,slow=7.7,SNR=3.6
ZALV SKP 05 51 11.2
comp=Z,1.7nm,0.7s,baz=214,slow=1.0,SNR=3.8
ZALV PKKPbc **PKKPbc** 05 59 25.5 -1.0
comp=Z,0.8nm,0.6s,baz=253,slow=4.5,SNR=4.1
ZALV PKKPab **PKKPab** 05 59 36.7 +0.9
comp=Z,0.8nm,0.6s,baz=268,slow=8.8,SNR=3.9
**MKAR Makanchi Array** 111.38 313 PKiKP **PKiKP** 05 48 27.3 -1.4
comp=Z,2.2nm,0.8s,baz=78,slow=1.5,SNR=9.8
MKAR PP **PP** 05 49 26.9 +6.5
comp=Z,1.3nm,0.8s,baz=116,slow=5.5,SNR=4.0
MKAR SKP 05 51 12.2
comp=Z,5.0nm,0.9s,baz=74,slow=2.3,SNR=9.7
MKAR PKKPbc **PKKPbc** 05 59 24.8 -1.4
comp=Z,2.4nm,0.8s,baz=286,slow=4.9,SNR=11
MKAR PKKPab **PKKPab** 05 59 37.0 +1.2
comp=Z,4.4nm,0.7s,baz=278,slow=3.9,SNR=20
**MKAR Makanchi Array** 111.38 313 *c i*PKIKP **PKiKP** 05 48 27.5 -1.2
MKAR pmax pmax
comp=Z,2.0nm,0.9s
**NVS Novosibirsk** 112.40 321 *e*PKIKP **PKiKP** 05 48 27.9 -2.4
NVS *e* 05 54 19.7
**SDV Santo Domingo** 112.43 90 *e*PKPdf **PKiKP** 05 48 30.4 -1.5
**KSH Kashi** 114.36 304 *e*PKP PKPdf 05 48 36.5 +1.7
KSH PP PP 05 49 49.9 +8.3
KSH sPKP 05 51 35.8
KSH PKS **PKSdf** 05 52 12.9 +1.4
KSH SKS **SKSdf** 05 54 57.9 +3.1
KSH SKKS **SKKSac** 05 55 46.2 +0.9
KSH AMB AMB
comp=Z,110nm,5.3s
**KURK Kurchatov** 114.49 317 *c i*PKIKP PKPdf 05 48 33.4 -1.1
KURK pmax pmax
comp=Z,46nm,1.0s
**KURK Kurchatov** 114.49 317 *e*PKPdf PKPdf 05 48 32.9 -1.5
**AAK Ala-Archa** 116.04 307 *i* PKIKP **PKPdf** 05 48 36.0 -1.9
**PTGA Pitinga** 118.07 105 PKP **PKPdf** 05 48 41.5 -1.1
comp=Z,5.0nm,0.5s,baz=250,slow=4.3,SNR=13
**BDFB Brasilia** 119.69 126 PKP **PKPdf** 05 48 44.2 -1.5
comp=Z,7.4nm,0.6s,baz=30,slow=3.4,SNR=15
**BVAR Borovoye Array** 119.77 319 PKKPbc PKKPbc 05 58 56.2 -1.4
comp=Z,1.0nm,0.6s,baz=294,slow=1.4,SNR=4.4
**BRVK Borovoye** 119.84 319 *c i*PKIKP **PKPdf** 05 48 43.8 -0.9
BRVK pmax pmax
comp=Z,39nm,1.2s
**SUR Sutherland** 120.00 202 PKP **PKPdf** 05 48 45.6 -0.5
comp=Z,1.4nm,0.8s,baz=177,slow=3.5,SNR=9.1
**BOSA Boshof** 121.68 208 PKP **PKPdf** 05 48 49.1 -0.1
comp=Z,13nm,1.0s,baz=148,slow=0.5,SNR=8.8
BOSA SKP 05 51 33.4
comp=Z,2.9nm,0.9s,baz=76,slow=4.2,SNR=3.8
BOSA PKKPbc **PKKPbc** 05 58 49.2 -2.0
comp=Z,4.5nm,0.8s,baz=303,slow=1.0,SNR=5.8
**KULLO Kullorsuaq** 121.88 15 *i* PKIKP **PKPdf** 05 48 46.7 -1.3
KULLO pmax pmax
comp=Z,23nm,0.9s
**KULLO Kullorsuaq** 121.88 15 *i* P **PKPdf** 05 48 46.7 -1.3
comp=Z,23nm,0.9s
**PKME Peaks-Kenny Pk** 121.98 51 *e*PKPdf **PKPdf** 05 48 48.4 -0.7
**FDF Fort de France** 123.17 88 PKIKP **PKPdf** 05 48 52.6 +0.4
**FDF Fort de France** 123.17 88 *e*PKPdf **PKPdf** 05 48 51.0 -1.3
**SCHQ Schefferville** 123.39 39 PKP **PKPdf** 05 48 50.4 -1.1
comp=Z,18nm,0.9s,baz=212,slow=2.2,SNR=7.6
**LBTB Lobatse** 124.65 210 PKP **PKPdf** 05 48 54.8 -0.3
comp=Z,7.7nm,0.9s,baz=137,slow=6.2,SNR=5.0
LBTB PKKPbc **PKKPbc** 05 58 38.0 -1.8
comp=Z,2.5nm,0.8s,baz=322,slow=12,SNR=3.7
**SVE Sverdlovsk** 125.11 324 *e*PKIKP **PKPdf** 05 48 54.2 -0.5
SVE pmax pmax
comp=Z,27nm,1.2s
**SPITS Spitsbergen Ar** 125.21 356 PKP **PKPdf** 05 48 54.1 -0.3
comp=Z,32nm,0.7s,baz=38,slow=2.6,SNR=20
SPITS PKKPbc **PKKPab** 05 58 35.6 +1.1
comp=Z,14nm,1.0s,baz=169,slow=2.9,SNR=33
**ARU Arti** 126.31 323 SKPbc SKPbc 05 51 23.3
comp=Z,3.0nm,0.6s,baz=97,slow=2.2,SNR=5.3
ARU SKP 05 51 40.2
comp=Z,0.8nm,0.4s,baz=273,slow=1.2,SNR=4.2
**ARU Arti** 126.31 323 *i* PKIKP **PKPdf** 05 48 56.6 -0.4
ARU 05 51 00.1
ARU PPP PPP 05 53 49.1
ARU 05 55 14.5
**ARU Arti** 126.31 323 *e*PKPdf **PKPdf** 05 48 56.4 -0.6
ARU SKPbc SKPbc 05 51 23.3
ARU SKP 05 51 40.2
**DAG Danmarks Havn** 126.57 5 *i* PKIKP **PKPdf** 05 48 55.4 -1.6
DAG pmax pmax
comp=Z,17nm,1.0s
**DAG Danmarks Havn** 126.57 5 *i* P **PKPdf** 05 48 55.4 -1.6
comp=Z,17nm,1.0s
**SUMG Summit** 127.34 13 *i* PKIKP **PKPdf** 05 48 58.9 -0.1
SUMG pmax pmax
comp=Z,46nm,1.1s
**SUMG Summit** 127.34 13 *i* P **PKPdf** 05 48 58.9 -0.1
comp=Z,46nm,1.1s
**SFJD Kangerlussuaq** 127.41 22 *i* PKIKP **PKPdf** 05 48 57.9 -0.9
SFJD pmax pmax
comp=Z,13nm,0.7s
**SFJD Kangerlussuaq** 127.41 22 *i* P **PKPdf** 05 48 57.9 -0.9
comp=Z,12nm,0.7s
**GEYT Alibeck** 128.01 300 PKP **PKPdf** 05 49 01.2 +0.3
comp=Z,5.8nm,0.8s,baz=174,slow=1.5,SNR=10
GEYT SKPbc SKPbc 05 51 28.9
comp=Z,7.2nm,0.9s,baz=225,slow=0.8,SNR=6.7
**LSZ Lusaka** 131.40 219 PKP **PKPdf** 05 49 08.6 +0.5
comp=Z,1.8nm,0.3s,baz=169,slow=3.4,SNR=6.3
LSZ SKPbc **SKPbc** 05 51 42.5 +0.4
comp=Z,32nm,0.8s,baz=132,slow=2.4,SNR=46
**ARCES ARCESS Array B** 131.81 348 PKhKP PKPpre 05 48 56.5
comp=Z,1.6nm,0.7s,baz=143,slow=0.5,SNR=5.6
ARCES PKP **PKPdf** 05 49 06.4 -0.7
comp=Z,8.7nm,0.7s,baz=61,slow=2.6,SNR=40
ARCES SKPbc **SKPbc** 05 51 42.0 +0.3
comp=Z,49nm,1.0s,baz=32,slow=3.5,SNR=25
ARCES PKKP **PKKPdf** 05 59 01.8 -3.1
comp=Z,3.2nm,1.0s,baz=195,slow=3.4,SNR=5.8
**SCO Scoresbysund** 132.04 9 *i* PKIKP **PKPdf** 05 49 07.2 -0.3
**SCO Scoresbysund** 132.04 9 *i* P **PKPdf** 05 49 07.2 -0.3
**NRS Narsarsuaq** 132.32 27 *i* PKIKP **PKPdf** 05 49 07.2 -1.0
**NRS Narsarsuaq** 132.32 27 *i* P **PKPdf** 05 49 07.2 -1.0
**KLMR Klimovskoe** 133.81 334 *e*PKIKP **PKPdf** 05 49 09.3 -1.7
KLMR *e* 05 51 44.7
KLMR pmax pmax
comp=Z,15nm,1.0s
**KMBO Kilima Mbogo** 134.94 242 SKPbc **SKPbc** 05 51 54.8 +0.7
comp=Z,13nm,0.9s,baz=87,slow=3.6,SNR=20
**RCBR Riachuelo** 135.06 127 PKP **PKPdf** 05 49 14.6 -0.4
comp=Z,14nm,0.8s,baz=172,slow=1.6,SNR=11
RCBR SKPbc **SKPbc** 05 51 51.7 -2.5
comp=Z,31nm,1.1s,baz=196,slow=5.6,SNR=5.5
**OUL Oulu** 135.39 344 PKIKP **PKPdf** 05 49 13.6 -0.3
**JOF Joensuu** 135.48 339 PKIKP **PKPdf** 05 49 15.7 +1.6
**MAK Makhachkala** 135.82 308 *e*P **Pdif** 05 46 22.0 -0.6
MAK *i* 05 49 16.4
MAK *e* 05 52 00.2
MAK *e* 05 55 36.8
MAK *e*SS SS 06 09 14.2 -3.5
MAK *e*SSS SSS 06 14 30.6
MAK pmax pmax
comp=Z,81nm,1.2s
**ATD Arta Tunnel** 136.30 261 SKP **SKPdf** 05 52 00.5 +0.4
comp=Z,21nm,0.7s,baz=354,slow=0.6,SNR=9.1
**DDFL Dedoflistskaro** 137.07 306 P **SKPdf** 05 52 02.3 +1.6
**VRH Novokhopyorsk** 137.36 321 *e*PKIKP **PKPdf** 05 49 16.8 -1.1
VRH pmax pmax
comp=Z,10.0nm,1.1s
**FINES FINESS Array B** 138.22 341 PKhKP PKPpre 05 49 10.6
comp=Z,3.9nm,0.5s,baz=50,slow=3.0,SNR=18
FINES PKP **PKPdf** 05 49 18.6 -0.7
comp=Z,6.7nm,0.5s,baz=14,slow=3.3,SNR=14
FINES SKPbc **SKPbc** 05 52 01.9 0.0
comp=Z,48nm,0.8s,baz=64,slow=4.4,SNR=38
**FINES FINESS Array B** 138.22 341 *c i*PKIKP **PKPdf** 05 49 25.2 +6.0
FINES pmax pmax
comp=Z,4.0nm,0.6s
**OBN Obninsk** 138.29 328 SKPbc **SKPbc** 05 52 01.9 -0.3
comp=Z,14nm,0.5s,baz=31,slow=1.4,SNR=8.4
**OBN Obninsk** 138.29 328 *e*PKIKP **PKPdf** 05 49 18.8 -0.7
OBN *e* 05 51 26.9
OBN *e* 05 52 15.6
OBN pmax pmax
comp=Z,11nm,1.1s
**GNI Garni** 138.30 304 PKP **PKPdf** 05 49 19.6 -0.7
comp=Z,3.9nm,0.7s,baz=25,slow=15,SNR=4.7
GNI SKPbc **SKPbc** 05 52 04.3 +1.3
comp=Z,37nm,1.1s,baz=107,slow=0.8,SNR=15
**LPSR Galich'ya Gora** 138.33 324 *e*PKIKP **PKPdf** 05 49 19.4 -0.3
LPSR pmax pmax
comp=Z,10.0nm,1.0s
**VSR Storozhevoye** 138.82 322 *e*PKIKP **PKPdf** 05 49 19.3 -1.3
VSR pmax pmax
comp=Z,20nm,1.2s
**ONI Oni** 138.82 308 P **SKPdf** 05 52 05.8 +2.1
**KBZ Khabaz** 138.96 310 PKP **PKPdf** 05 49 20.9 -0.2
comp=Z,1.8nm,0.8s,baz=57,slow=3.5,SNR=3.9
KBZ SKPbc **SKPbc** 05 52 05.4 +1.0
comp=Z,8.6nm,0.7s,baz=138,slow=3.6,SNR=18
**BGD Bogdanovka** 138.97 306 P **SKPdf** 05 52 06.7 +2.4
**AKH Akhalkalaki** 139.02 306 P **SKPdf** 05 52 06.7 +2.4
**KVAR Kislovodsk Arr** 139.05 310 SKPbc **SKPbc** 05 52 05.6 +0.7
comp=Z,14nm,0.8s,baz=343,slow=0.9,SNR=11
**KIV Kislovodsk** 139.06 310 *e*PKIKP **PKPdf** 05 49 20.6 -0.8
KIV pmax pmax
comp=Z,12nm,1.0s
**NEY Neytrino** 139.20 309 *i* PKIKP **PKPdf** 05 49 20.8 -1.0
**DOMB Dombas** 141.41 352 *e*P **PKPdf** 05 49 19.8 -5.2
**AKN Aaknes** 141.50 354 *e*PKPdf **PKPdf** 05 49 25.0 -0.2
**NB2 NORSAR Subarra1** 142.06 350 PKP PKPpre 05 49 21.6
comp=Z,20nm,0.9s,baz=16,slow=3.2
**NB2 NORSAR Subarra1** 142.06 350 PKP PKPpre 05 49 21.6
baz=16,slow=3.2
**NOA NORSAR Array B** 142.06 350 PKhKP PKPpre 05 49 21.9
comp=Z,30nm,0.8s,baz=16,slow=4.9,SNR=62
NOA SKPbc **SKPbc** 05 52 11.8 -0.2
comp=Z,10nm,0.7s,baz=16,slow=4.2,SNR=15
**NC602 NORSAR Array S** 142.30 350 *e*P PKPpre 05 49 22.3
**IZAR Zarasai** 142.44 335 *e*P PKPpre 05 49 24.1
IZAR IAmb IAmb 05 49 25.8
comp=Z,10nm,0.7s
**HFS Hagfors** 142.48 348 PKhKP PKPpre 05 49 23.1
comp=Z,23nm,0.5s,baz=65,slow=2.9,SNR=96
HFS SKPbc **SKPbc** 05 52 12.7 -0.2
comp=Z,15nm,0.8s,baz=86,slow=2.0,SNR=11
**IDID Didziasalis** 142.56 334 *e*P PKPpre 05 49 24.5
IDID IAmb IAmb 05 49 25.1
comp=Z,6.8nm,0.9s
**HYA Hoyanger** 142.58 354 *e*P PKPpre 05 49 24.0
**ISAL Salakas** 142.62 334 *e*P PKPpre 05 49 23.7
ISAL IAmb IAmb 05 49 24.8
comp=Z,5.8nm,0.9s
**IIGN Ignalina** 142.74 334 *e*P PKPpre 05 49 24.6
IIGN IAmb IAmb 05 49 25.9
comp=Z,11nm,0.7s
**SUE Sulen** 142.81 355 *e*P PKPpre 05 49 24.7
**NACGM Naroch** 142.83 333 *e* PKPpre 05 49 23.0
**OSL Oslo** 143.19 350 *e*PKPab PKPab 05 49 25.7 -0.4
**ASK Askoy** 143.34 355 *e*PKPab PKPab 05 49 26.4 -0.2
**BER Bergen** 143.43 354 *e*PKPab PKPab 05 49 26.7 -0.2
**KONO Kongsberg** 143.64 351 *d i*PKIKP **PKPdf** 05 49 28.7 -0.3
**KONO Kongsberg** 143.64 351 *e*PKPab PKPab 05 49 27.4 -0.4
**ODD1 Odda** 143.76 353 *e*PKPab PKPbc 05 49 27.9 -0.4
**BLS5 Blasjo** 144.26 353 *e*PKPab PKPbc 05 49 29.5 -0.4
**AKASG Malin Array Be** 144.46 326 PKP **PKPdf** 05 49 29.7 -0.9
comp=Z,17nm,0.7s,baz=46,slow=4.3,SNR=136
AKASG SKPbc **SKPbc** 05 52 18.0 +0.1
comp=Z,18nm,0.8s,baz=48,slow=3.0,SNR=20
**KMY Karmoy** 144.59 354 *e*PKPdf **PKPdf** 05 49 30.5 -0.1
**H10S2 ASCENSION HYDR** 144.68 157 PKP PKPbc 05 49 32.3 +0.2
baz=234,slow=3.6,SNR=5.1
**H10S3 ASCENSION HYDR** 144.68 157 PKP PKPbc 05 49 32.2 +0.1
baz=234,slow=3.6,SNR=4.5
**H10S1 ASCENSION HYDR** 144.69 157 PKP **PKPab** 05 49 33.1 +0.4
baz=234,slow=3.6,SNR=14
**STAV Stavanger** 144.82 354 *e*PKPbc PKPbc 05 49 31.2 -0.3
**SUW Suwalki** 144.92 335 *e*PKP **PKPdf** 05 49 30.8 -0.6
**SUW Suwalki** 144.92 335 *e*PKIKP **PKPdf** 05 49 30.8 -0.6
**HOMB Homborsund** 145.13 351 *e*PKPbc **PKPbc** 05 49 32.1 -0.4
**SNART Snartemo** 145.24 352 *e*PKPbc **PKPbc** 05 49 32.3 -0.5
**ASF Jabal al Asfar** 145.47 292 PKPbc **PKPbc** 05 49 34.7 +0.2
comp=Z,10nm,0.8s,baz=104,slow=3.2,SNR=13
ASF pPKPbc **pPKPdf** 05 51 43.1 +0.7
comp=Z,1.0nm,0.5s,baz=346,slow=4.2,SNR=1.8
ASF SKPbc **SKiKP** 05 52 21.8 +0.4
comp=Z,13nm,1.1s,baz=34,slow=3.0,SNR=6.9
**BIGH Upper Bighouse** 145.57 2 *e*P **PKPdf** 05 49 32.8 +0.5
**RSC Scourie** 145.66 4 *e*P **PKPbc** 05 49 33.4 -0.6
**RRH Rhenigidale** 145.98 5 *e*P **PKPbc** 05 49 34.1 -0.8
**RRR Rubha Reidh** 146.11 4 *e*P **PKPbc** 05 49 34.3 -0.9
**SORM Soroca** 146.43 323 *i*P **PKPbc** 05 49 35.8 -0.7
**SORM Soroca** 146.43 323 ⇓PKIKP **PKPbc** 05 49 35.8 -0.7
**KAC Achnashellach** 146.50 4 *e*P **PKPbc** 05 49 35.8 -0.6
**MCD Coleburn Disti** 146.51 2 *e*P **PKPdf** 05 49 35.0 +1.1
**MDO Dochfour** 146.60 3 *e*P **PKPbc** 05 49 35.7 -1.0
**KPL Plockton** 146.63 4 *e*P **PKPbc** 05 49 36.4 -0.3
**BRTR Keskin Array B** 146.71 306 PKP **PKPdf** 05 49 34.0 -1.0
comp=Z,5.6nm,0.8s,baz=118,slow=3.3,SNR=23
BRTR PKPbc **PKPbc** 05 49 37.2 -0.5
comp=Z,9.9nm,0.8s,baz=128,slow=3.7,SNR=15
BRTR pPKPbc pPKPbc 05 51 44.8 +0.1
comp=Z,1.3nm,0.8s,baz=93,slow=3.9,SNR=2.4
BRTR SKPbc **SKiKP** 05 52 24.1 +0.3
comp=Z,12nm,1.0s,baz=124,slow=2.2,SNR=12
**BRTR Keskin Array B** 146.71 306 PKIKP **PKPdf** 05 49 34.1 -1.0
BRTR 05 51 44.8
BRTR pmax pmax
comp=Z,5.0nm,0.8s
**BSD Bornholm Skovb** 146.75 343 *i* PKP2 **PKPbc** 05 49 36.9 -0.2
BSD pmax pmax
comp=Z,100nm,1.0s
**BSD Bornholm Skovb** 146.75 343 *i* P **PKPbc** 05 49 36.9 -0.2
comp=Z,104nm,1.0s
**MUD Monsted U'grnd** 146.76 349 ⇓*i*PKIKP **PKPbc** 05 49 36.7 -0.4
MUD pmax pmax
comp=Z,59nm,0.9s
**MUD Monsted U'grnd** 146.76 349 ⇓*i* P **PKPbc** 05 49 36.7 -0.4
comp=Z,59nm,0.9s
**KSB Sheil Bridge** 146.78 4 *e*P **PKPbc** 05 49 36.2 -0.9
**KIS Kishinev** 146.80 321 *e*PKP **PKPdf** 05 49 35.0 +0.3
**KIS Kishinev** 146.80 321 *e*PKIKP **PKPdf** 05 49 35.0 +0.3
KIS *e* 05 49 40.0
KIS *e* 05 51 42.0
**COP Copenhagen** 146.84 346 *i* PKP2 **PKPbc** 05 49 37.3 0.0
COP pmax pmax
comp=Z,45nm,0.8s
**COP Copenhagen** 146.84 346 *i* P **PKPbc** 05 49 37.3 0.0
comp=Z,45nm,0.8s
**DRUM Mains of Drumt** 147.20 1 *e*P **PKPbc** 05 49 37.4 -0.8
**ANTO Ankara** 147.29 307 *e*PKIKP **PKPdf** 05 49 35.5 -0.4
ANTO *e* 05 49 42.5
**ANTO Ankara** 147.29 307 *e*PKPdf **PKPdf** 05 49 35.5 -0.4
ANTO *e*PKPbc **PKPbc** 05 49 39.0 -0.2
ANTO *e*PKPab **PKPab** 05 49 42.5 -0.4
**LEOM Leova** 147.42 321 ⇑*i*P **PKPbc** 05 49 39.1 -0.1
**LEOM Leova** 147.42 321 ⇑PKP2 **PKPbc** 05 49 39.1 -0.1
**BEL Belsk** 147.52 334 *e*PKPdf **PKPbc** 05 49 39.3 0.0
BEL *e* 05 51 45.7
**BEL Belsk** 147.52 334 PKP2 **PKPbc** 05 49 39.4 +0.1
**EDU Dundee** 147.55 2 *e*P **PKPbc** 05 49 38.2 -1.0
**LVV L'vov** 147.58 329 *e*PKHKP **PKPdf** 05 49 34.7 -1.3
**GKP Gorka Klasztor** 147.65 339 *e*PKP **PKPbc** 05 49 39.4 -0.2
GKP *e* 05 51 46.9
**GKP Gorka Klasztor** 147.65 339 *e*PKP2 **PKPbc** 05 49 39.4 -0.2
**EAB Aberfoyle** 147.86 3 *e*P **PKPbc** 05 49 39.5 -0.5
**PRAR RASCA** 148.04 324 ⇓*i*P **PKPbc** 05 49 41.0 +0.2
**CSS Mathiatis** 148.09 298 *e*PKPbc **PKPbc** 05 49 41.1 -0.2
CSS *e*PKPab **PKPab** 05 49 45.4 -0.9
**EDI Edinburgh** 148.17 2 *e*P **PKPbc** 05 49 39.6 -1.1
**CFR Carcaliu** 148.18 319 ⇑*i*P **PKPbc** 05 49 41.1 0.0
**CFR Carcaliu** 148.18 319 ⇑PKP2 **PKPbc** 05 49 41.1 0.0
**ESY Stoneypath** 148.19 1 *e*P **PKPbc** 05 49 39.4 -1.4
**PGBU Glenifferbraes** 148.22 3 *e*P **PKPbc** 05 49 40.2 -0.7
**TESR Tescani** 148.31 322 ⇑*i*P **PKPbc** 05 49 41.4 -0.1
**KWP Kalwaria Pacla** 148.32 330 *e*PKP **PKPbc** 05 49 41.5 +0.1
KWP *e* 05 51 48.0
**KWP Kalwaria Pacla** 148.32 330 *e*PKP2 **PKPbc** 05 49 41.5 +0.1
**TIRR Tirgusor** 148.38 317 ⇑*i*P **PKPbc** 05 49 41.8 +0.1
**TIRR Tirgusor** 148.38 317 ⇑PKP2 **PKPbc** 05 49 41.8 +0.1
**BURAR Bucovina Array** 148.43 325 ⇑*i*P **PKPbc** 05 49 42.3 +0.4
**BURAR Bucovina Array** 148.43 325 ⇑PKP2 **PKPbc** 05 49 42.3 +0.5
**HARR Harsova** 148.55 318 ⇓*i*P **PKPbc** 05 49 42.6 +0.5
**HARR Harsova** 148.55 318 ⇓PKP2 **PKPbc** 05 49 42.6 +0.5
**GMK Mull of Kintyr** 148.62 5 *e*P **PKPbc** 05 49 41.3 -0.6
**VRI Vrincioaia** 148.63 321 ⇑*i*P **PKPbc** 05 49 41.2 -1.1
**PLOR Plostina** 148.69 321 ⇑*i*P **PKPbc** 05 49 42.3 -0.2
**ESK Eskdalemuir** 148.78 2 *e*P **PKPbc** 05 49 41.5 -0.9
**BHH Howats Hill** 149.00 2 *e*P **PKPbc** 05 49 42.2 -0.7
**STHS Stebnicka Huta** 149.14 331 *e*PKP **PKPdf** 05 49 39.3 +0.8
STHS *e* 05 49 44.2
STHS *e* 05 51 50.5
**GAL1 Galloway** 149.16 4 *e*P **PKPbc** 05 49 42.6 -0.7
**ISR Istrita** 149.16 320 ⇑*i*P **PKPbc** 05 49 43.9 +0.2
**OJC Ojcow** 149.16 333 *e*PKPdf **PKPbc** 05 49 43.3 -0.2
**UZH Uzhgorod** 149.22 329 *e*PKHKP **PKPbc** 05 49 42.9 -0.7
**BMR Baia Mare** 149.28 326 ⇑*i*P **PKPbc** 05 49 43.2 -0.6
**EDMD Edmundbyers** 149.29 1 *e*P **PKPbc** 05 49 42.9 -0.7
**MLR Muntele Rosu** 149.30 321 ⇑*i*P **PKPbc** 05 49 43.8 -0.3
**DOPR Dopca** 149.34 322 ⇓*i*P **PKPbc** 05 49 44.3 +0.3
**LCP Cassop** 149.39 0 *e*P **PKPbc** 05 49 43.4 -0.4
**CRVS Cervenica-Dubn** 149.42 330 *e*PKP **PKPdf** 05 49 39.0 0.0
CRVS *e* 05 49 44.7
CRVS *e* 05 51 52.0
**TRPA Tarpa** 149.45 328 ⇓*ex* **PKPbc** 05 49 43.7 -0.5
TRPA *ex* x 05 51 51.8
**SECR** 149.48 320 ⇓*i*P **PKPbc** 05 49 44.4 0.0
**KESW Keswick, Cumbr** 149.51 2 *e*P **PKPbc** 05 49 43.7 -0.4
**NIE Niedzica** 149.56 332 *e*PKPdf **PKPbc** 05 49 44.9 +0.5
NIE *e* 05 51 53.0
**SULR** 149.57 319 ⇑*i*P **PKPbc** 05 49 44.1 -0.5
**GMM Mts of Mourne** 149.69 5 *e*P **PKPbc** 05 49 43.6 -0.9
**VOIR** 149.84 321 ⇑*i*P **PKPbc** 05 49 44.3 -1.0
**CJR Cluj-Napoca** 149.85 325 ⇑*i*P **PKPbc** 05 49 45.6 +0.3
**WIM Isle of Man** 149.87 4 *e*P **PKPbc** 05 49 44.4 -0.6
**KSP Ksiaz** 150.00 337 *e*PKPdf **PKPbc** 05 49 45.6 +0.2
KSP *e* 05 51 53.0
**LANS Liptovska Anna** 150.12 332 *e*PKP **PKPdf** 05 49 41.4 +1.3
LANS *e* 05 49 46.8
LANS *e* 05 51 52.5
**ARR Arges** 150.12 322 ⇓*i*P **PKPbc** 05 49 46.9 +0.9
**OKC Ostrava-Krasne** 150.13 334 *e*PKPDF **PKPdf** 05 49 39.2 -0.8
OKC ⇑*i*PKP **PKPbc** 05 49 45.6 -0.1
OKC *ep*PKP **pPKPbc** 05 51 53.4 -0.4
**OKC Ostrava-Krasne** 150.13 334 *e*PKIKP **PKPdf** 05 49 39.2 -0.8
OKC *e* 05 49 39.3
**HPK Haverah Park** 150.17 0 *e*P **PKPbc** 05 49 44.7 -1.0
**KECS Kecovo** 150.17 330 *e*PKIKP **PKPbc** 05 49 44.7 -1.2
KECS *e* 05 51 54.3
**KECS Kecovo** 150.17 330 *e*PKP **PKPbc** 05 49 44.6 -1.3
KECS *e* 05 51 54.3
**DRGR** 150.26 326 ⇓*i*P **PKPbc** 05 49 45.8 -0.5
**DRGR** 150.26 326 ⇓PKIKP **PKPbc** 05 49 45.9 -0.4
**UPC Upice** 150.38 337 *e*PKPDF **PKPdf** 05 49 40.9 +0.5
UPC ⇑*i*PKP **PKPbc** 05 49 46.3 0.0
UPC *ep*PKP **pPKPbc** 05 51 54.9 +0.5
**UPC Upice** 150.38 337 *e*PKIKP **PKPdf** 05 49 40.9 +0.5
**DPC Dobruska-Polom** 150.40 337 *e*PKPDF **PKPdf** 05 49 40.2 -0.3
DPC ⇑*i*PKP **PKPbc** 05 49 46.6 +0.2
DPC *ep*PKP **pPKPbc** 05 51 54.7 +0.1
**DPC Dobruska-Polom** 150.40 337 *e*PKIKP **PKPdf** 05 49 40.2 -0.3
**MORC Moravsky Berou** 150.42 335 ⇑*i*P **PKPbc** 05 49 46.8 +0.3
**MORC Moravsky Berou** 150.42 335 *e*PKIKP **PKPdf** 05 49 39.9 -0.6
**MORC Moravsky Berou** 150.42 335 *e*PKPdf **PKPdf** 05 49 39.9 -0.6
MORC *e*PKPbc **PKPbc** 05 49 46.5 0.0
**KRLC** 150.46 336 ⇑*i*PKP **PKPbc** 05 49 46.7 +0.1
KRLC *ep*PKP **pPKPbc** 05 51 54.7 0.0
KRLC *ex* x 05 52 01.8
**KRLC Kraliky** 150.46 336 *i* PKIKP **PKPbc** 05 49 46.7 +0.1
KRLC *e* 05 51 54.7
**LOT Lotru** 150.56 323 ⇑*i*P **PKPbc** 05 49 46.3 -0.7
**LHO Holmfirth** 150.58 1 *e*P **PKPbc** 05 49 45.8 -0.8
**CLL Collm** 150.66 342 ⇓*i*PKIKP **PKPdf** 05 49 40.0 -0.8
CLL *i* 05 49 56.4
CLL pmax pmax
comp=Z,32nm,0.8s
**CLL Collm** 150.66 342 *e*PKPdf **PKPdf** 05 49 40.0 -0.8
CLL ⇓*i*PKPbc **PKPbc** 05 49 46.6 -0.3
comp=Z,142nm,0.8s
CLL ⇑*i*PKPab **PKPab** 05 49 56.4 +0.1
comp=Z,32nm,0.8s
CLL *ep*PKPbc **pPKPbc** 05 51 55.0 -0.1
CLL *i*PKPab **pPKPab** 05 52 01.8 +2.3
**DEV Deva** 150.75 324 ⇑*i*P **PKPbc** 05 49 47.3 0.0
**DEV Deva** 150.75 324 ⇑PKIKP **PKPbc** 05 49 47.3 0.0
**BRG Berggiesshubel** 150.76 340 *i* PKIKP **PKPdf** 05 49 41.0 0.0
BRG *i* 05 49 54.4
BRG pmax pmax
comp=Z,19nm,1.4s
BRG pmax pmax
comp=Z,35nm,1.2s
**PSZ Piszkesteto** 150.85 330 ⇑*i*P **PKPbc** 05 49 46.8 -0.8
**PSZ Piszkesteto** 150.85 330 *e*PKIKP **PKPdf** 05 49 40.8 -0.5
PSZ *e* 05 49 57.9
**PSZ Piszkesteto** 150.85 330 ⇓*ex* **PKPbc** 05 49 47.1 -0.5
**PSZ Piszkesteto** 150.85 330 *e*PKPdf **PKPdf** 05 49 40.8 -0.5
PSZ *e*PKPbc **PKPbc** 05 49 47.3 -0.3
PSZ *e*PKPab **PKPab** 05 49 57.9 +0.6

| Code | Station Name | Δ° | AZ° | Phase Op | Phase ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PVCC** | **Panska Ves** | **150.86** | **339** | *e*PKPDF | **PKPdf** | **05 49 41.6** | **+0.5** |
| PVCC | | | | ⇑*i*PKP | **PKPbc** | **05 49 47.5** | **+0.1** |
| PVCC | | | | *e*pPKP | **pPKPbc** | **05 51 56.3** | **+0.7** |
| PVCC | | | | *e*x | x | 05 52 02.7 | |
| **PVCC** | **Panska Ves** | **150.86** | **339** | *e*PKIKP | **PKPdf** | **05 49 41.6** | **+0.5** |
| **VYHS** | **Vyhne** | **150.89** | **332** | *e*PKIKP | **PKPbc** | **05 49 47.2** | **-0.4** |
| VYHS | | | | *e* | | 05 51 56.5 | |
| **VYHS** | **Vyhne** | **150.89** | **332** | *e*PKP | **PKPbc** | **05 49 47.2** | **-0.4** |
| VYHS | | | | *e* | | 05 51 56.5 | |
| **SIRR** | **Siria** | **151.16** | **326** | ⇑*i*P | **PKPbc** | **05 49 48.1** | **-0.1** |
| **VRAC** | **Vranov** | **151.16** | **335** | pPKPbc | pPKPbc | 05 51 55.8 | -0.6 |
| | comp=Z,6.2nm,1.1s,baz=34,slow=5.0,SNR=3.8 | | | | | | |
| **VRAC** | **Vranov** | **151.16** | **335** | ⇓*i*P | **PKPdf** | **05 49 41.8** | **+0.2** |
| **VRAC** | **Vranov** | **151.16** | **335** | ⇓PKIKP | **PKPdf** | **05 49 41.8** | **+0.2** |
| **FOEL** | **Foel Wylfa** | **151.20** | **2** | *e*P | **PKPbc** | **05 49 47.7** | **-0.4** |
| **PRA** | **Prague** | **151.29** | **339** | ⇑*i*PKP | **PKPbc** | **05 49 48.2** | **-0.2** |
| **PRA** | **Prague** | **151.29** | **339** | *i* PKIKP | **PKPbc** | **05 49 48.2** | **-0.2** |
| **GOPC** | **GO Pecny, Ondr** | **151.31** | **338** | ⇑*i*PKP | **PKPbc** | **05 49 48.2** | **-0.3** |
| GOPC | | | | *e*pPKP | **pPKPbc** | **05 51 57.4** | **+0.7** |
| GOPC | | | | *e*x | x | 05 52 03.6 | |
| **GOPC** | **GO Pecny, Ondr** | **151.31** | **338** | *i* PKIKP | **PKPbc** | **05 49 48.2** | **-0.3** |
| GOPC | | | | *e* | | 05 51 57.4 | |
| **PRU** | **Pruhonice** | **151.33** | **338** | ⇑*i*PKP | **PKPbc** | **05 49 48.2** | **-0.3** |
| PRU | | | | *e*PKPAB | **PKPab** | **05 49 59.4** | **+0.2** |
| PRU | | | | *e*pPKP | **pPKPbc** | **05 51 57.4** | **+0.6** |
| PRU | | | | *e*x | x | 05 52 03.3 | |
| **PRU** | **Pruhonice** | **151.33** | **338** | *i* PKIKP | **PKPbc** | **05 49 48.2** | **-0.3** |
| PRU | | | | *e* | | 05 49 59.4 | |
| PRU | | | | *e* | | 05 51 57.4 | |
| **WACR** | **West Acre** | **151.37** | **358** | *e*P | **PKPbc** | **05 49 47.7** | **-0.7** |
| **CWF** | **Charnwood Fore** | **151.39** | **360** | *e*P | **PKPbc** | **05 49 47.5** | **-1.0** |
| **SMOL** | **Smolenice** | **151.47** | **333** | *e*PKIKP | **PKPbc** | **05 49 49.2** | **+0.4** |
| **SMOL** | **Smolenice** | **151.47** | **333** | *e*PKP | **PKPbc** | **05 49 49.2** | **+0.4** |
| **BUD** | **Budapest** | **151.57** | **330** | ⇓*e*x | **PKPbc** | **05 49 48.6** | **-0.5** |
| **HLM1** | **Long Mynd** | **151.59** | **2** | *e*P | **PKPbc** | **05 49 48.3** | **-0.6** |
| **BZS** | **Buzias** | **151.61** | **325** | ⇑*i*P | **PKPdf** | **05 49 41.8** | **-0.6** |
| **BZS** | **Buzias** | **151.61** | **325** | ⇑PKIKP | **PKPdf** | **05 49 41.8** | **-0.6** |
| **HERR** | **Herculane** | **151.66** | **323** | ⇓*i*P | **PKPbc** | **05 49 48.9** | **-0.5** |
| **NKC** | **Novy Kostel** | **151.78** | **341** | *e*PKPDF | **PKPdf** | **05 49 42.3** | **-0.2** |
| NKC | | | | ⇑*i*PKP | **PKPbc** | **05 49 49.5** | **0.0** |
| NKC | | | | *e*PKPAB | **PKPab** | **05 50 01.4** | **+0.3** |
| NKC | | | | *e*pPKP | **pPKPab** | **05 52 05.0** | **+0.9** |
| NKC | | | | *e*x | x | 05 52 09.4 | |
| **NKC** | **Novy Kostel** | **151.78** | **341** | *e*PKIKP | **PKPdf** | **05 49 42.3** | **-0.2** |
| NKC | | | | *e* | | 05 50 01.4 | |
| **CSKK** | **Csˆ‡kako** | **152.00** | **331** | ⇑*e*x | **PKPbc** | **05 49 49.8** | **-0.3** |
| **MCH1** | **Michaelchurch** | **152.10** | **2** | *e*P | **PKPbc** | **05 49 49.3** | **-0.8** |
| **MDVR** | **Moldovita** | **152.11** | **323** | ⇑*i*P | **PKPbc** | **05 49 50.2** | **-0.2** |
| **MONM** | **Monmouth** | **152.27** | **2** | *e*P | **PKPbc** | **05 49 49.4** | **-1.1** |
| **KHC** | **Kasperske Hory** | **152.39** | **339** | *e*PKPDF | **PKPdf** | **05 49 42.6** | **-0.9** |
| KHC | | | | ⇑*i*PKP | **PKPbc** | **05 49 50.5** | **-0.4** |
| KHC | | | | *e*PKPAB | **PKPab** | **05 50 03.8** | **0.0** |
| KHC | | | | *e*pPKP | **pPKPbc** | **05 51 59.4** | **+0.1** |
| **KHC** | **Kasperske Hory** | **152.39** | **339** | *e*PKIKP | **PKPdf** | **05 49 42.9** | **-0.6** |
| KHC | | | | *e* | | 05 50 04.1 | |
| **KHC** | **Kasperske Hory** | **152.39** | **339** | *e*PKPdf | **PKPdf** | **05 49 42.9** | **-0.6** |
| KHC | | | | *e*PKPbc | **PKPbc** | **05 49 50.3** | **-0.6** |
| KHC | | | | *e*PKPab | **PKPab** | **05 50 04.1** | **+0.3** |
| **CONA** | **Conrad Observa** | **152.56** | **334** | *i* PKPdf | **PKPdf** | **05 49 42.6** | **-1.2** |
| | comp=Z,6.4nm,1.0s | | | | | | |
| CONA | | | | *i* PKiKP | **PKPbc** | **05 49 51.4** | **0.0** |
| | comp=Z,26nm,1.3s | | | | | | |
| CONA | | | | *i* pPKPbc | **pPKPbc** | **05 51 59.7** | **-0.1** |
| | comp=Z,17nm,1.4s | | | | | | |
| **VTS** | **Vitosha** | **152.57** | **318** | ⇑*i*P | **PKPbc** | **05 49 51.6** | **-0.1** |
| **VTS** | **Vitosha** | **152.57** | **318** | ⇑PKIKP | **PKPbc** | **05 49 51.6** | **-0.1** |
| **GERES** | **GERESS Array B** | **152.59** | **338** | PKP | **PKPdf** | **05 49 43.3** | **-0.6** |
| | comp=Z,2.1nm,0.8s,baz=52,slow=2.2,SNR=19 | | | | | | |
| GERES | | | | PKPbc | **PKPbc** | **05 49 50.9** | **-0.5** |
| | comp=Z,12nm,0.8s,baz=90,slow=1.3,SNR=38 | | | | | | |
| GERES | | | | pPKPbc | **pPKPbc** | **05 51 58.7** | **-1.2** |
| | comp=Z,4.2nm,1.0s,baz=48,slow=2.0,SNR=5.0 | | | | | | |
| **WET** | **Wettzell** | **152.60** | **339** | PKIKP | **PKPdf** | **05 49 43.7** | **-0.1** |
| **GRFO** | **Grafenberg** | **152.62** | **342** | *e*PKIKP | **PKPdf** | **05 49 43.4** | **-0.4** |
| GRFO | | | | *e* | | 05 50 04.1 | |
| **GRFO** | **Grafenberg** | **152.62** | **342** | *e*PKPdf | **PKPdf** | **05 49 43.4** | **-0.4** |
| GRFO | | | | *e*PKPbc | **PKPbc** | **05 49 50.9** | **-0.5** |
| GRFO | | | | *e*PKPab | **PKPab** | **05 50 04.0** | **-0.6** |
| **BEBN** | **Eben Emael** | **152.79** | **350** | PKPab | **PKPab** | **05 50 05.0** | **-0.3** |
| **WOL** | **Wolverton** | **152.82** | **360** | *e*P | **PKPbc** | **05 49 51.1** | **-0.6** |
| **MEM** | **Membach** | **152.91** | **350** | PKP | **PKPdf** | **05 49 43.8** | **-0.3** |
| MEM | | | | PKPbc | **PKPbc** | **05 49 51.5** | **-0.5** |
| MEM | | | | PKPab | **PKPab** | **05 50 06.9** | **+1.0** |
| **BCLA** | **Clavier** | **153.21** | **351** | PKP | **PKPdf** | **05 49 44.3** | **-0.3** |
| BCLA | | | | PKPab | **PKPab** | **05 50 06.7** | **-0.4** |
| **MOA** | **Molln** | **153.24** | **336** | *i* PKPdf | **PKPdf** | **05 49 43.7** | **-1.1** |
| | comp=Z,5.0nm,1.1s | | | | | | |
| MOA | | | | *i* PKPbc | **PKPbc** | **05 49 52.4** | **-0.4** |
| | comp=Z,6.7nm,0.9s | | | | | | |
| MOA | | | | pPKPab | **pPKPab** | **05 52 09.1** | **-1.2** |
| | comp=Z,25nm,1.6s | | | | | | |
| **ARSA** | **Arzberg** | **153.25** | **334** | *i* PKPdf | **PKPdf** | **05 49 43.5** | **-1.3** |
| | comp=Z,3.7nm,1.0s | | | | | | |
| ARSA | | | | *i* PKPbc | **PKPbc** | **05 49 51.6** | **-1.3** |
| | comp=Z,8.0nm,1.2s | | | | | | |
| ARSA | | | | *i* pPKPbc | **pPKPbc** | **05 52 00.0** | **-1.3** |
| | comp=Z,8.2nm,1.7s | | | | | | |
| **BEHE** | **Becsehely** | **153.34** | **331** | ⇑*e*x | **PKPdf** | **05 49 44.4** | **-0.5** |
| **KOGS** | **Kog** | **153.58** | **332** | *e*PKPbc | **PKPdf** | **05 49 44.3** | **-0.9** |
| **DOU** | **Dourbes** | **153.63** | **351** | PKPbc | **PKPbc** | **05 49 53.6** | **+0.1** |
| DOU | | | | PKPab | **PKPab** | **05 50 08.4** | **-0.5** |
| **WLF** | **Walferdange** | **153.80** | **349** | PKP | **PKPdf** | **05 49 46.3** | **+0.9** |
| WLF | | | | PKPbc | **PKPbc** | **05 49 53.6** | **-0.3** |
| WLF | | | | PKPab | **PKPab** | **05 50 09.3** | **-0.4** |
| **WLF** | **Walferdange** | **153.80** | **349** | *e*PKIKP | **PKPdf** | **05 49 45.5** | **+0.1** |
| WLF | | | | *e* | | 05 50 09.5 | |
| **WLF** | **Walferdange** | **153.80** | **349** | *e*PKPdf | **PKPdf** | **05 49 45.5** | **+0.1** |
| WLF | | | | *e*PKPbc | **PKPbc** | **05 49 53.6** | **-0.3** |
| WLF | | | | *e*PKPab | **PKPab** | **05 50 09.5** | **-0.2** |
| **PERS** | **Pernice** | **153.91** | **334** | *e*PKPbc | **PKPdf** | **05 49 44.8** | **-1.0** |
| **SOKA** | **Soboth** | **153.91** | **334** | *i* PKPdf | **PKPdf** | **05 49 44.8** | **-1.0** |
| | comp=Z,13nm,1.2s,SNR=5.1 | | | | | | |
| SOKA | | | | *i* pPKPbc | **pPKPbc** | **05 52 02.6** | **-0.3** |
| | comp=Z,13nm,1.3s | | | | | | |
| **STU** | **Stuttgart** | **154.00** | **344** | *e*PKIKP | **PKPdf** | **05 49 45.2** | **-0.6** |
| STU | | | | *e* | | 05 50 10.5 | |
| **STU** | **Stuttgart** | **154.00** | **344** | *e*PKPdf | **PKPdf** | **05 49 45.2** | **-0.6** |
| STU | | | | *e*PKPbc | **PKPbc** | **05 49 54.2** | **-0.1** |
| STU | | | | *e*PKPab | **PKPab** | **05 50 10.5** | **-0.1** |
| **KBA** | **Koelnbreinsper** | **154.22** | **337** | PKIKP | **PKPdf** | **05 49 45.7** | **-0.7** |
| **KBA** | **Koelnbreinsper** | **154.22** | **337** | *i* PKPdf | **PKPdf** | **05 49 44.6** | **-1.7** |
| | comp=Z,8.0nm,1.1s | | | | | | |
| KBA | | | | *i* pPKPbc | **pPKPbc** | **05 52 03.4** | **-0.3** |
| | comp=Z,12nm,1.4s | | | | | | |
| **OBKA** | **Obir** | **154.24** | **334** | *i* PKPdf | **PKPdf** | **05 49 45.1** | **-1.2** |
| | comp=Z,3.5nm,0.7s | | | | | | |
| **MYKA** | **Terra Mystica** | **154.49** | **336** | *i* PKPdf | **PKPdf** | **05 49 45.2** | **-1.4** |
| | comp=Z,4.1nm,1.0s | | | | | | |
| MYKA | | | | *i* pPKPab | **pPKPab** | **05 52 14.8** | **-0.8** |
| | comp=Z,14nm,1.3s | | | | | | |
| **WATA** | **Walderalm** | **154.61** | **339** | *i* PKPdf | **PKPdf** | **05 49 46.8** | **0.0** |
| | comp=Z,7.3nm,0.9s | | | | | | |
| **BFO** | **Black Forest** | **154.62** | **345** | *e*PKIKP | **PKPdf** | **05 49 45.7** | **-1.0** |
| BFO | | | | *e* | | 05 50 12.8 | |
| **BFO** | **Black Forest** | **154.62** | **345** | *e*PKPdf | **PKPdf** | **05 49 45.7** | **-1.0** |
| BFO | | | | *e*PKPbc | **PKiKP** | **05 49 55.3** | **-0.4** |
| BFO | | | | *e*PKPab | **PKPab** | **05 50 12.8** | **-0.5** |
| **LJU** | **Ljubljana** | **154.63** | **334** | *e*PKPbc | **PKPdf** | **05 49 46.2** | **-0.5** |
| LJU | | | | *e* | | 05 49 55.5 | |
| **WTTA** | **Wattenberg** | **154.65** | **339** | *i* PKPdf | **PKPdf** | **05 49 46.2** | **-0.8** |
| | comp=Z,11nm,1.0s | | | | | | |
| WTTA | | | | *i* pPKPab | **pPKPab** | **05 52 12.1** | **-4.3** |
| | comp=Z,19nm,1.2s | | | | | | |
| **RETA** | **Reutte** | **154.73** | **341** | *i* PKPab | **PKPab** | **05 50 13.7** | **-0.2** |
| | comp=Z,9.9nm,0.7s | | | | | | |
| RETA | | | | *i* pPKPbc | **pPKPbc** | **05 52 01.5** | **-3.2** |
| | comp=Z,8.4nm,1.3s | | | | | | |
| **MOTA** | **Moosalm** | **154.75** | **340** | *i* PKPdf | **PKPdf** | **05 49 46.0** | **-1.1** |
| | comp=Z,15nm,1.1s,SNR=8.7 | | | | | | |
| MOTA | | | | *i* PKPab | **PKPab** | **05 50 13.5** | **-0.6** |
| | comp=Z,8.7nm,0.8s | | | | | | |
| MOTA | | | | *i* pPKPdf | **pPKPdf** | **05 51 58.5** | **+1.7** |
| | comp=Z,12nm,1.3s | | | | | | |
| **ABTA** | **Abfaltersbach** | **154.80** | **337** | *i* PKPdf | **PKPdf** | **05 49 46.0** | **-1.1** |
| | comp=Z,22nm,1.0s,SNR=8.2 | | | | | | |
| ABTA | | | | *i* PKPab | **PKPab** | **05 50 13.4** | **-0.8** |
| | comp=Z,14nm,1.2s | | | | | | |
| ABTA | | | | *i* pPKPbc | **pPKPbc** | **05 52 05.1** | **+0.2** |
| | comp=Z,14nm,1.9s | | | | | | |
| **PDG** | **Podgorica** | **154.99** | **322** | ⇓*i*P | **PKPab** | **05 50 11.4** | **-3.7** |
| **FETA** | **Feichten** | **155.16** | **340** | *i* PKPdf | **PKPdf** | **05 49 46.9** | **-0.7** |
| | comp=Z,24nm,1.1s,SNR=10.0 | | | | | | |
| FETA | | | | *i* PKPab | **PKPab** | **05 50 14.9** | **-0.9** |
| | comp=Z,16nm,1.2s | | | | | | |
| FETA | | | | *i* pPKPbc | pPKPbc | 05 52 02.9 | -2.8 |
| | comp=Z,13nm,1.3s | | | | | | |
| **DAVA** | **Damuels** | **155.17** | **342** | *i* PKPdf | **PKPdf** | **05 49 47.1** | **-0.6** |
| | comp=Z,9.9nm,1.1s | | | | | | |
| DAVA | | | | *i* PKPab | **PKPab** | **05 50 15.9** | **+0.1** |
| | comp=Z,30nm,1.1s | | | | | | |
| DAVA | | | | *i* pPKPab | **pPKPab** | **05 52 19.3** | **+0.8** |
| | comp=Z,27nm,1.9s | | | | | | |
| **TRI** | **Trieste** | **155.21** | **334** | *e*PKIKP | **PKPdf** | **05 49 46.5** | **-1.0** |
| TRI | | | | *e* | | 05 50 14.9 | |
| **TRI** | **Trieste** | **155.21** | **334** | *e*PKPdf | **PKPdf** | **05 49 46.5** | **-1.0** |
| TRI | | | | *e*PKPab | **PKPab** | **05 50 14.9** | **-0.9** |
| **PGAV** | **Gavieira, Arco** | **161.26** | **16** | *e*PKPdf | **PKPdf** | **05 49 53.9** | **-1.0** |
| **PGAV** | **Gavieira, Arco** | **161.26** | **16** | *e*PKPab | **PKPab** | **05 50 42.5** | **+0.1** |
| **PCAB** | **Cabril** | **161.56** | **16** | *e*PKPdf | **PKPdf** | **05 49 55.9** | **+0.7** |
| **PCAB** | **Cabril** | **161.56** | **16** | *e*PKPab | **PKPab** | **05 50 43.9** | **+0.2** |
| **PBRG** | **Braganca** | **161.76** | **13** | *e*PKPab | **PKPab** | **05 50 44.4** | **-0.2** |
| **POLO** | **Lamas de Olo** | **161.94** | **16** | *e*PKPdf | **PKPdf** | **05 49 56.1** | **+0.5** |
| **POLO** | **Lamas de Olo** | **161.94** | **16** | *e*PKPab | **PKPab** | **05 50 45.6** | **+0.2** |
| **PVRL** | **Vila Real** | **162.05** | **16** | *e*PKPab | **PKPab** | **05 50 46.3** | **+0.5** |
| **MVO** | **Moncorvo** | **162.31** | **14** | *e*PKPdf | **PKPdf** | **05 49 56.5** | **+0.5** |
| **MVO** | **Moncorvo** | **162.31** | **14** | *e*PKPab | **PKPab** | **05 50 47.2** | **+0.2** |
| **DBIC** | **Dimbokro** | **162.36** | **168** | PKP | **PKPdf** | **05 49 56.3** | **-0.4** |
| | comp=Z,19nm,0.9s,baz=206,slow=1.8,SNR=13 | | | | | | |
| DBIC | | | | PKPab | **PKPab** | **05 50 47.3** | **-0.4** |
| | comp=Z,19nm,0.9s,baz=170,slow=6.1,SNR=10.0 | | | | | | |
| **DBIC** | **Dimbokro** | **162.36** | **168** | PKIKP | **PKPdf** | **05 49 56.3** | **-0.4** |
| DBIC | | | | | | 05 50 47.3 | |
| DBIC | | | | pmax | pmax | | |
| | comp=Z,19nm,0.9s | | | | | | |
| DBIC | | | | pmax | pmax | | |
| | comp=Z,19nm,0.9s | | | | | | |
| **PVIS** | **Viseu** | **162.53** | **17** | *e*PKPdf | **PKPdf** | **05 49 55.8** | **-0.4** |
| **PVIS** | **Viseu** | **162.53** | **17** | *e*PKPab | **PKPab** | **05 50 48.2** | **+0.2** |
| **MTE** | **Manteigas** | **162.91** | **16** | *e*PKPdf | **PKPdf** | **05 49 54.6** | **-2.0** |
| **MTE** | **Manteigas** | **162.91** | **16** | *e*PKPab | **PKPab** | **05 50 49.9** | **+0.2** |
| **PTOM** | **Tomar** | **163.40** | **19** | *e*PKPdf | **PKPdf** | **05 49 57.4** | **+0.4** |
| **PTOM** | **Tomar** | **163.40** | **19** | *e*PKPab | **PKPab** | **05 50 51.6** | **-0.2** |
| **PCBR** | **Castelo Branco** | **163.46** | **17** | *e*PKPdf | **PKPdf** | **05 49 57.6** | **+0.6** |
| **PCBR** | **Castelo Branco** | **163.46** | **17** | *e*PKPab | **PKPab** | **05 50 52.0** | **0.0** |
| **PMRV** | **Marv??o** | **163.87** | **17** | *e*PKPab | **PKPab** | **05 50 53.5** | **-0.4** |
| **ESDC** | **Sonseca Array** | **164.30** | **8** | PKP | **PKPdf** | **05 49 58.6** | **+0.7** |
| | comp=Z,1.7nm,1.0s,baz=24,slow=2.5,SNR=6.3 | | | | | | |
| ESDC | | | | PKPab | **PKPab** | **05 50 55.4** | **-0.4** |
| | comp=Z,5.9nm,0.8s,baz=344,slow=3.9,SNR=22 | | | | | | |
| **PESTR** | **Estremoz** | **164.34** | **18** | *e*PKPab | **PKPab** | **05 50 55.8** | **-0.1** |
| **EVO** | **Evora** | **164.52** | **20** | *e*PKPdf | **PKPdf** | **05 49 58.1** | **+0.1** |
| **EVO** | **Evora** | **164.52** | **20** | *e*PKPab | **PKPab** | **05 50 55.8** | **-0.9** |
| **PNCL** | **Nicolau / Gran** | **164.73** | **22** | *e*PKPdf | **PKPdf** | **05 49 58.8** | **+0.6** |
| **PNCL** | **Nicolau / Gran** | **164.73** | **22** | *e*PKPab | **PKPab** | **05 50 57.6** | **-0.1** |
| **PBEJ** | **Beja** | **165.03** | **20** | *e*PKPdf | **PKPdf** | **05 49 59.5** | **+1.0** |
| **PBEJ** | **Beja** | **165.03** | **20** | *e*PKPab | **PKPab** | **05 50 58.5** | **-0.5** |
| **MESJ** | **Messejana** | **165.08** | **22** | *e*P | **PKPdf** | **05 49 57.7** | **-0.8** |
| **PBAR** | **Barrancos** | **165.14** | **18** | *e*PKPdf | **PKPdf** | **05 50 00.5** | **+2.0** |
| **PBAR** | **Barrancos** | **165.14** | **18** | *e*PKPab | **PKPab** | **05 50 58.5** | **-0.9** |
| **KEST** | **Kesra** | **165.16** | **324** | PKP | **PKPdf** | **05 49 58.7** | **-0.1** |
| | comp=Z,3.5nm,0.8s,baz=283,slow=7.6,SNR=5.5 | | | | | | |
| **PTEO** | **Sao Teotonio** | **165.17** | **24** | *e*PKPdf | **PKPdf** | **05 49 59.7** | **+1.1** |
| **PCVE** | **Castro Verde** | **165.33** | **21** | *e*PKPdf | **PKPdf** | **05 49 59.3** | **+0.6** |
| **PCVE** | **Castro Verde** | **165.33** | **21** | *e*PKPab | **PKPab** | **05 50 59.7** | **-0.6** |
| **MORF** | **Marmelete** | **165.41** | **24** | *e*P | **PKPdf** | **05 49 58.0** | **-0.9** |
| **MORF** | **Marmelete** | **165.41** | **24** | *e*PKPdf | **PKPdf** | **05 49 59.7** | **+0.8** |
| **MORF** | **Marmelete** | **165.41** | **24** | *e*PKPab | **PKPab** | **05 51 01.0** | **+0.2** |
| **PFVI** | **Vila Bisbo** | **165.49** | **25** | *e*PKPdf | **PKPdf** | **05 49 59.3** | **+0.4** |
| **PFVI** | **Vila Bisbo** | **165.49** | **25** | *e*PKPab | **PKPab** | **05 51 00.8** | **-0.3** |
| **PVAQ** | **Vaqueiros** | **165.64** | **21** | *e*PKPab | **PKPab** | **05 51 02.1** | **+0.4** |
| **PBDV** | **Barranco-do-Ve** | **165.72** | **22** | *e*PKPdf | **PKPdf** | **05 49 59.9** | **+0.8** |
| **PBDV** | **Barranco-do-Ve** | **165.72** | **22** | *e*PKPab | **PKPab** | **05 51 02.3** | **+0.2** |
| **TORD** | **Torodi Ar. Bea** | **168.75** | **195** | PKP | **PKPdf** | **05 50 00.6** | **-1.3** |
| | comp=Z,19nm,1.1s,baz=21,slow=0.5,SNR=52 | | | | | | |
| TORD | | | | PKPab | **PKPab** | **05 51 15.6** | **-0.3** |
| | comp=Z,3.1nm,0.4s,baz=167,slow=4.3,SNR=21 | | | | | | |
| TORD | | | | pPKPab | **pPKPab** | **05 53 17.4** | **-0.4** |
| | comp=Z,1.4nm,1.1s,baz=188,slow=5.2,SNR=3.4 | | | | | | |
| **TAM** | **Tamanrasset** | **173.57** | **260** | *e*PKIKP | **PKPdf** | **05 50 04.6** | **+0.4** |
| **TAM** | **Tamanrasset** | **173.57** | **260** | *e*PKPdf | **PKPdf** | **05 50 04.6** | **+0.4** |

*IDC* ***11*** *05:49:48.0±0.9, 29.°69S×176.°18W, h0km, mb4.3/5, mb1 4.4/7, mb1mx4.1/25, mbtmp4.3/7, ML3.7/2, MS3.4/2, Ms1 3.4/2, ms1mx2.9/24, Error ellipse: s-maj=24.3km s-min=20.8km az=177.0*

*ISCJB* ***11*** *05:49:49.5±1.1, 29.°83S±0.°07×176.°0W±0.°1, h33km, mb4.4/9, Error ellipse: s-maj=14.5km s-min=10.1km az=170.3*

*NEIC* ***11*** *05:49:53.3±0.7, 29.°31S×176.°25W, h35km, mb4.6/3, Error ellipse: s-maj=26.5km s-min=15.1km az=178.0*

**ISC 11 05:49:52.0**±0.9**, 29.°65S**±0.°10×**176.°24W**±0.°08**, h28**km**, n21,** σ**1.°38**/22**, mb4.5**/9**, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **1.52** | **285** | Pn | **Pb** | **05 50 19.2** | **-0.3** |
| | 297nm,0.3s,baz=101,slow=9.5,SNR=11 | | | | | | |
| RAO | | | | Sn | **Sb** | **05 50 39.6** | **+1.3** |
| | 746nm,0.3s,baz=121,slow=22,SNR=10 | | | | | | |
| RAO | | | | LR | LR | 05 51 05.5 | |
| | comp=Z,695nm,18.8s,baz=136,slow=49 | | | | | | |
| RAO | | | | T | T | 05 52 11.8 | |
| | 140nm,0.3s,baz=79,slow=21,SNR=3.7 | | | | | | |
| **RAO** | **Raoul Island** | **1.52** | **285** | Pn | **Pb** | **05 50 19.2** | **-0.3** |
| RAO | | | | Sn | **Sb** | **05 50 39.3** | **+1.1** |
| RAO | | | | Sn | **Sb** | **05 50 39.6** | **+1.3** |
| RAO | | | | TT | | 05 52 11.8 | |
| **URZ** | **Urewera** | **10.21** | **211** | Pn | **Pn** | **05 52 14.5** | **-2.1** |
| | 0.3nm,0.3s,baz=129,slow=13,SNR=2.7 | | | | | | |
| URZ | | | | Sn | **Sn** | **05 54 10.6** | **+0.6** |
| | 1.1nm,0.3s,baz=172,slow=19,SNR=4.6 | | | | | | |
| **RAR** | **Rarotonga** | **17.07** | **64** | LR | LR | 05 59 00.6 | |
| | comp=Z,71nm,19.4s,baz=248,slow=32 | | | | | | |
| **DZM** | **Mont Dzumac** | **17.30** | **292** | LR | LR | 05 59 13.5 | |
| | comp=Z,189nm,20.2s,baz=211,slow=33 | | | | | | |
| **RPZ** | **Rata Peaks** | **17.32** | **212** | P | **Pn** | **05 53 49.8** | **-1.9** |
| | 0.6nm,0.3s,baz=45,slow=7.1,SNR=2.7 | | | | | | |
| **ARMA** | **Armidale** | **27.78** | **260** | *e*P | **P** | **05 55 39.5** | **+0.8** |
| | 34nm,1.9s | | | | | | |
| **CTAO** | **Charters Tower** | **35.20** | **277** | *e*P | **P** | **05 56 41.8** | **-2.2** |
| | 6.8nm,0.4s | | | | | | |
| **STKA** | **Stephens Creek** | **36.14** | **256** | P | **P** | **05 56 53.5** | **+1.6** |
| | 4.2nm,0.6s,baz=98,slow=9.9,SNR=14 | | | | | | |
| **PMG** | **Port Moresby** | **39.69** | **293** | *e*P | **P** | **05 57 20.8** | **-1.2** |
| | 17nm,1.4s | | | | | | |
| **ASAR** | **Alice Springs** | **44.68** | **265** | P | **P** | **05 58 02.5** | **-0.2** |
| | 1.2nm,0.5s,baz=100,slow=7.3,SNR=36 | | | | | | |
| **WRAB** | **Tennant Creek** | **45.60** | **271** | *e*P | **P** | **05 58 10.5** | **+0.5** |
| | 3.6nm,0.7s | | | | | | |
| **WRA** | **Warramunga Arr** | **45.61** | **270** | P | **P** | **05 58 09.6** | **-0.4** |
| | 3.4nm,0.5s,baz=109,slow=7.7,SNR=20 | | | | | | |
| **SNAA** | **Sanae** | **78.86** | **178** | P | **P** | **06 01 54.3** | **+2.2** |
| | 0.5nm,0.5s,baz=168,slow=6.6,SNR=5.4 | | | | | | |
| **ILAR** | **Eielson Array** | **96.86** | **12** | P | **P** | **06 03 19.5** | **-0.3** |
| | 0.6nm,1.1s,baz=216,slow=5.9,SNR=4.5 | | | | | | |
| **BVAR** | **Borovoye Array** | **126.93** | **316** | PKP | **PKPdf** | **06 08 53.8** | **+1.0** |
| | 0.6nm,0.6s,baz=29,slow=3.3,SNR=5.2 | | | | | | |
| **FINES** | **FINESS Array B** | **144.94** | **341** | PKPbc | PKPbc | 06 09 24.6 | -0.4 |
| | 7.8nm,1.1s,baz=214,slow=6.5,SNR=11 | | | | | | |
| **NOA** | **NORSAR Array B** | **148.22** | **353** | PKPbc | **PKPbc** | **06 09 32.8** | **-1.9** |
| | 1.0nm,0.7s,baz=11,slow=4.6,SNR=3.3 | | | | | | |
| **AKASG** | **Malin Array Be** | **151.60** | **325** | PKPbc | **PKPbc** | **06 09 43.6** | **+0.5** |
| | 2.6nm,0.6s,baz=46,slow=3.2,SNR=14 | | | | | | |
| **BRTR** | **Keskin Array B** | **153.56** | **300** | PKPbc | **PKPbc** | **06 09 48.6** | **+0.5** |
| | 0.4nm,0.6s,baz=48,slow=4.3,SNR=2.6 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **163.47** | **173** | PKPab | **PKPab** | **06 10 45.6** | **+1.8** |
| | 0.8nm,0.7s,baz=194,slow=4.6,SNR=6.7 | | | | | | |

*ISCJB* ***11*** *05:56:49.0±0.4, 23.°08N±0.°02×121.°51E±0.°03, h15km±6km, Error ellipse: s-maj=4.1km s-min=3.4km az=16.4*

*JMA* ***11*** *05:56:48.2±0.1, 23.°09N×121.°50E, h21km±3km*

*TAP* ***11*** *05:56:50.0, 23.°12N×121.°37E, h21km, ML3.6, C*

**ISC 11 05:56:49.5**±0.9**, 23.°09N**±0.°02×**121.°44E**±0.°03**, h23**km±6km**, n56,** σ**1.°00**/85**, 18C-2D, Taiwan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CHKT** | **Chengkung** | **0.07** | **280** | ⇓*i*P | **Pb** | **05 56 54.0** | **+0.3** |
| | baz=162 | | | | | | |
| CHKT | | | | *i* S | **Sb** | **05 56 56.7** | **+0.2** |
| | baz=162 | | | | | | |
| **TWF1** | **Yuli** | **0.30** | **333** | ⇑*i*P | **Pb** | **05 56 56.3** | **-0.1** |
| | baz=333 | | | | | | |
| TWF1 | | | | *e*S | **Sb** | **05 57 00.9** | **-0.2** |
| | baz=333 | | | | | | |
| **ELDTW** | **Lidau** | **0.41** | **285** | ⇑*i*P | **Pb** | **05 56 57.1** | **-1.0** |
| | baz=282 | | | | | | |
| ELDTW | | | | S | **Sb** | **05 57 01.8** | **-2.2** |
| | baz=282 | | | | | | |
| **TTN** | **Taitung** | **0.43** | **220** | *e*P | **Pb** | **05 56 59.3** | **+0.9** |
| | baz=208 | | | | | | |
| **EHY** | **Hungye** | **0.43** | **345** | ⇑*i*P | **Pb** | **05 56 58.3** | **-0.3** |
| | baz=341 | | | | | | |
| EHY | | | | S | **Sb** | **05 57 03.5** | **-1.1** |
| | baz=341 | | | | | | |
| **TWG** | **Pinlang** | **0.43** | **232** | ⇑*i*P | **Pb** | **05 56 58.3** | **-0.2** |
| | baz=231 | | | | | | |
| TWG | | | | *i* S | **Sb** | **05 57 04.2** | **-0.4** |
| | baz=231 | | | | | | |
| **YUS** | **Yu-Shan** | **0.60** | **312** | ⇑*i*P | **Pb** | **05 57 01.1** | **-0.6** |
| | baz=307 | | | | | | |
| YUS | | | | S | **Sb** | **05 57 08.5** | **-1.6** |
| | baz=307 | | | | | | |
| **STYT** | **Tauyuan** | **0.64** | **277** | ⇑*i*P | **Pb** | **05 57 01.2** | **-0.8** |
| | baz=274 | | | | | | |
| STYT | | | | S | **Sb** | **05 57 08.8** | **-1.7** |
| | baz=274 | | | | | | |
| **ECL** | **Taimali** | **0.66** | **223** | *e*P | **Pb** | **05 57 01.4** | **-1.1** |
| | baz=216 | | | | | | |
| **ALS** | **Alishan** | **0.72** | **306** | ⇑*i*P | **Pb** | **05 57 03.3** | **-0.4** |
| | baz=306 | | | | | | |
| ALS | | | | *e*S | **Sn** | **05 57 12.9** | **-2.1** |
| | baz=306 | | | | | | |
| **ESL** | **Shilin** | **0.72** | **359** | *e*P | **Pb** | **05 57 03.5** | **+0.1** |
| | baz=354 | | | | | | |
| **WDT** | **Danda** | **0.72** | **337** | ⇑*i*P | **Pb** | **05 57 03.1** | **-0.6** |
| | baz=340 | | | | | | |
| WDT | | | | S | **Sb** | **05 57 11.9** | **-1.4** |
| | baz=340 | | | | | | |
| **WTP** | **Ta-pu** | **0.78** | **282** | ⇑*i*P | **Pn** | **05 57 04.2** | **-0.9** |
| | baz=280 | | | | | | |
| WTP | | | | *e*S | **Sn** | **05 57 14.5** | **-1.6** |
| | baz=280 | | | | | | |
| **SGST** | **Jiashian** | **0.79** | **270** | ⇑P | **Pn** | **05 57 04.5** | **-0.7** |
| | baz=269 | | | | | | |
| SGST | | | | *e*S | **Sn** | **05 57 15.4** | **-1.0** |
| | baz=269 | | | | | | |
| **SSD** | **Sandimen** | **0.82** | **246** | *e*P | **Pb** | **05 57 04.0** | **-1.1** |
| | baz=241 | | | | | | |
| **CHN4** | **Tsaushan** | **0.83** | **289** | ⇑*i*P | **Pn** | **05 57 05.3** | **-0.4** |
| | baz=291 | | | | | | |
| CHN4 | | | | *e*S | **Sn** | **05 57 16.4** | **-0.8** |
| | baz=291 | | | | | | |
| **CHN1** | **Nanshi** | **0.85** | **277** | ⇑*i*P | **Pn** | **05 57 05.8** | **-0.3** |
| | baz=273 | | | | | | |
| CHN1 | | | | *e*S | **Sn** | **05 57 18.4** | **+0.6** |
| | baz=273 | | | | | | |
| **CHN5** | **Tsauling** | **0.87** | **306** | ⇑*i*P | **Pn** | **05 57 06.1** | **-0.2** |
| | baz=305 | | | | | | |
| CHN5 | | | | *e*S | **Sn** | **05 57 18.7** | **+0.3** |
| | baz=305 | | | | | | |
| **EAST** | **Anshuo** | **0.89** | **218** | *e*P | **Pb** | **05 57 05.2** | **-1.1** |
| | baz=213 | | | | | | |
| **TWK** | **Hsinying** | **0.90** | **282** | ⇑P | **Pn** | **05 57 06.3** | **-0.4** |
| | baz=280 | | | | | | |
| TWK | | | | *e*S | **Sn** | **05 57 18.6** | **-0.4** |
| | baz=280 | | | | | | |
| **HWA** | **Hwalien** | **0.90** | **9** | *e*P | **Pb** | **05 57 05.3** | **-1.1** |
| | baz=1.0 | | | | | | |
| **SMLT** | **Sun Moon Lake** | **0.94** | **328** | ⇓P | **Pn** | **05 57 06.9** | **-0.4** |
| | baz=334 | | | | | | |
| SMLT | | | | S | **Sn** | **05 57 19.2** | **-0.9** |
| | baz=334 | | | | | | |
| **SGLT** | **Jiouru** | **0.95** | **248** | *e*P | **Pn** | **05 57 09.0** | **+1.6** |
| | baz=244 | | | | | | |
| **TYC** | **Yuchr** | **0.98** | **327** | ⇑P | **Pn** | **05 57 08.4** | **+0.6** |
| | baz=337 | | | | | | |
| TYC | | | | *e*S | **Sn** | **05 57 21.6** | **+0.7** |
| | baz=337 | | | | | | |
| **TWM1** | **Shoushan** | **0.98** | **255** | *e*P | **Pn** | **05 57 08.5** | **+0.7** |
| | baz=252 | | | | | | |
| **CHN3** | **Shinhua** | **0.99** | **270** | *e*P | **Pn** | **05 57 09.3** | **+1.3** |
| | baz=277 | | | | | | |
| **CHN2** | **Minshiung** | **0.99** | **297** | *e*P | **Pn** | **05 57 08.5** | **+0.5** |
| | baz=296 | | | | | | |
| **TWD** | **Chiawan** | **1.00** | **8** | *e*P | **Pn** | **05 57 08.5** | **+0.4** |
| | baz=357 | | | | | | |
| **CHY** | **Chiayi** | **1.02** | **294** | ⇑*e*P | **Pn** | **05 57 08.9** | **+0.5** |
| | baz=292 | | | | | | |
| CHY | | | | *e*S | **Sn** | **05 57 23.0** | **+1.0** |
| | baz=292 | | | | | | |
| **SCZT** | **Fangliau** | **1.04** | **227** | *e*P | **Pb** | **05 57 08.0** | **-0.8** |
| | baz=218 | | | | | | |
| **LAY** | **Lan-yu** | **1.05** | **175** | *e*P | **Pn** | **05 57 08.4** | **-0.3** |
| | baz=162 | | | | | | |
| **WNT** | **Mingjian** | **1.05** | **319** | ⇑P | **Pn** | **05 57 09.6** | **+0.8** |
| | baz=317 | | | | | | |
| WNT | | | | *e*S | **Sn** | **05 57 24.0** | **+1.3** |
| | baz=317 | | | | | | |
| **WHF** | **Hehuan Shan** | **1.07** | **351** | *e*P | **Pb** | **05 57 08.2** | **-1.3** |
| | baz=5.0 | | | | | | |
| WHF | | | | *e*S | **Sb** | **05 57 21.8** | **-1.4** |
| | baz=5.0 | | | | | | |
| **SCLT** | **Jiali** | **1.15** | **275** | *e*P | **Pb** | **05 57 12.4** | **+1.6** |
| | baz=282 | | | | | | |
| SCLT | | | | *e*S | **Sn** | **05 57 27.8** | **+2.6** |
| | baz=282 | | | | | | |
| **CHN8** | **Yiju** | **1.16** | **283** | *e*P | **Pb** | **05 57 11.6** | **+0.7** |
| | baz=281 | | | | | | |
| CHN8 | | | | *e*S | **Sn** | **05 57 27.3** | **+1.9** |
| | baz=281 | | | | | | |
| **TWT** | **Tachien** | **1.19** | **348** | *e*P | **Pn** | **05 57 10.2** | **-0.6** |
| | baz=348 | | | | | | |
| **HEN** | **Hengchun** | **1.26** | **211** | *e*P | **Pb** | **05 57 13.3** | **+0.8** |
| | baz=200 | | | | | | |
| **TCU** | **Taichung** | **1.27** | **326** | *e*P | **Pb** | **05 57 12.7** | **0.0** |
| | baz=325 | | | | | | |
| **TWK1** | **Hengchun** | **1.28** | **208** | *e*P | **Pb** | **05 57 13.4** | **+0.5** |
| | baz=195 | | | | | | |
| **WTCT** | **Ta-ch'eng** | **1.32** | **306** | *e*P | **Pb** | **05 57 15.0** | **+1.4** |
| | baz=304 | | | | | | |
| WTCT | | | | *e*S | **Sb** | **05 57 30.7** | **+0.6** |
| | baz=304 | | | | | | |
| **NNS** | **Nan Shan** | **1.35** | **357** | *e*P | **Pb** | **05 57 15.0** | **+0.9** |
| | baz=16 | | | | | | |
| **ENA** | **Nanau** | **1.36** | **11** | *e*P | **Pn** | **05 57 13.7** | **+0.7** |
| | baz=1.0 | | | | | | |
| **TWQ1** | **Liyutan** | **1.40** | **334** | ⇑*i*P | **Pb** | **05 57 15.4** | **+0.5** |
| | baz=331 | | | | | | |
| TWQ1 | | | | *e*S | **Sb** | **05 57 34.0** | **+1.7** |
| | baz=331 | | | | | | |
| **NSY** | **Sanyi** | **1.46** | **335** | *e*P | **Pb** | **05 57 16.7** | **+0.6** |
| | baz=332 | | | | | | |
| NSY | | | | *e*S | **Sb** | **05 57 36.0** | **+1.8** |
| | baz=332 | | | | | | |
| **ENTT** | **Nioudou** | **1.55** | **4** | *e*P | **Pb** | **05 57 17.5** | **-0.1** |
| | baz=4.0 | | | | | | |
| **TWC** | **Suao** | **1.56** | **14** | *e*P | **Pn** | **05 57 16.7** | **+0.9** |
| | baz=2.0 | | | | | | |
| **NSK** | **Sanguang** | **1.58** | **357** | *e*P | **Pn** | **05 57 16.8** | **+0.6** |
| | baz=15 | | | | | | |
| **NSTT** | **Nanjuang** | **1.59** | **345** | *e*P | **Pb** | **05 57 18.1** | **-0.1** |
| | baz=343 | | | | | | |
| **TWE** | **Neicheng** | **1.64** | **7** | *e*P | **Pb** | **05 57 18.4** | **-0.6** |
| | baz=9.0 | | | | | | |
| **YOJ** | **Yonaguni jima** | **1.98** | **46** | P | **Pn** | **05 57 21.3** | **-0.3** |
| **NWF** | **Wu-fen Shan** | **2.00** | **9** | *e*P | **Pn** | **05 57 22.9** | **+1.0** |
| | baz=11 | | | | | | |
| **HATJ** | **Hateruma jima** | **2.37** | **66** | S | **Sn** | **05 57 54.7** | **-0.6** |
| **IRIF** | **Iriomote-Funau** | **2.44** | **59** | P | **Pn** | **05 57 29.1** | **+1.3** |
| IRIF | | | | *e*S | **Sn** | **05 57 57.7** | **+0.8** |
| **JKRS** | **Kuro-shima** | **2.62** | **64** | P | **Pn** | **05 57 31.1** | **+0.8** |
| JKRS | | | | *e*S | **Sn** | **05 58 01.8** | **+0.4** |
| **JIJ** | **Ishigaki jima** | **2.78** | **62** | P | **Pn** | **05 57 32.8** | **+0.2** |
| JIJ | | | | S | **Sn** | **05 58 04.4** | **-1.0** |
| **JISG** | **Ishigakijimahi** | **3.02** | **60** | P | **Pn** | **05 57 36.2** | **+0.3** |
| JISG | | | | S | **Sn** | **05 58 10.7** | **-0.6** |

**MEX 11 06:18:24.6**±0.3**, 17.°81N**×**99.°91W, h61**km±7km**, MD3.6, Guerrero**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MEIG** | **Mezcala** | **0.30** | **67** | *e*S | Sn | 06 18 40.5 | -2.0 |
| **ARIG** | **Puente Sto Nin** | **0.62** | **319** | *e*P | Pn | 06 18 36.6 | -1.5 |
| ARIG | | | | *e*S | Sn | 06 18 46.1 | -1.9 |
| **PLIG** | **Platanillo** | **0.70** | **34** | *e*P | Pn | 06 18 37.8 | -1.3 |
| PLIG | | | | *e*S | Sn | 06 18 47.8 | -1.8 |
| **YAIG** | **Yautepec** | **1.32** | **37** | *e*P | Pn | 06 18 45.5 | -1.6 |
| YAIG | | | | *i* S | Sn | 06 19 02.2 | -1.7 |

**SJA 11 06:21:38.6**±0.6**, 31.33S×69.28W, h102**km±5km**, ML3.7, MW3.0, San Juan Province**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RTLS** | **Leoncito** | **0.46** | **182** | *e*P | Pn | 06 21 55.9 | +1.1 |
| RTLS | | | | *e*S | Sn | 06 22 08.6 | +1.8 |
| **RTLL** | **Cerro Villicun** | **0.69** | **90** | *e*P | Pn | 06 21 56.4 | +0.3 |
| RTLL | | | | *e*S | Sn | 06 22 10.4 | +1.1 |
| **AMOG** | **MOGNA** | **0.78** | **60** | IAML | | 06 21 57.7 | |
| | comp=Z,1µm,0.1s | | | | | | |
| **RTCV** | **Cerro Valdivia** | **0.82** | **130** | *e*P | Pn | 06 21 58.2 | +0.8 |
| RTCV | | | | *e*S | Sn | 06 22 12.9 | +1.4 |
| **AUSP** | **Uspallata** | **0.89** | **186** | *e*P | Pn | 06 21 59.7 | +1.3 |
| AUSP | | | | *e*S | Sn | 06 22 15.0 | +1.7 |
| **AGUA** | **GUANDACOL** | **1.96** | **20** | *e*P | Pn | 06 22 12.2 | +1.3 |
| AGUA | | | | *e*S | Sn | 06 22 36.8 | +1.3 |

*TEH **11** 06:23:07.7, 38.79N×43.40E, h18km, ML3.2*
*ISK **11** 06:23:07.4, 38.47N×43.68E, h5km, ML3.4*
*DDA **11** 06:23:08.8, 38.48N×43.65E, h12km, Md3.3*
*ATA **11** 06:23:08.7±0.9, 38.50N×43.57E, h23km±5km, ML3.8, MW3.7*
*AZER **11** 06:23:08.3±2.7, 38.32N×43.26E, h15km, Error ellipse: s-maj=18.1km s-min=9.6km az=43.0*
*CSEM **11** 06:23:10.0±0.2, 38.47N×43.60E, h10km, ML3.4, Error ellipse: s-maj=5.3km s-min=4.8km az=3.0*
**ISC 11 06:23:09.3**±0.9**, 38.48N**±0.02×**43.59E**±0.01**, h8**km±8km**, n102, σ1.50**/155**, 7C-10D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.20** | **306** | PG | **Pg** | **06 23 12.4** | **-1.0** |
| VANB | | | | *e*SG | **Sg** | **06 23 16.7** | **+0.5** |
| **VANB** | **Van** | **0.20** | **306** | *i* Pg | **Pg** | **06 23 12.4** | **-1.0** |
| VANB | | | | *e*Sg | **Sg** | **06 23 16.7** | **+0.5** |
| **GEVA** | **Gevas** | **0.45** | **249** | *i* P | **Pg** | **06 23 17.9** | **-0.1** |
| GEVA | | | | *e*S | **Sb** | **06 23 26.2** | **-0.3** |
| GEVA | | | | IAML | | 06 23 33.7 | |
| | comp=Z,1µm,0.4s | | | | | | |
| **GEVA** | **Gevas** | **0.45** | **249** | *i* P | **Pg** | **06 23 18.0** | **-0.1** |
| GEVA | | | | *i* S | **Sb** | **06 23 25.9** | **-0.6** |
| **GEVA** | **Gevas** | **0.45** | **249** | P | **Pg** | **06 23 18.0** | **-0.1** |
| GEVA | | | | S | **Sb** | **06 23 25.9** | **-0.6** |
| **VMUR** | **Van-Muradiye** | **0.51** | **358** | *i* P | **Pg** | **06 23 19.6** | **+0.4** |
| VMUR | | | | *i* S | **Sb** | **06 23 28.7** | **+0.4** |
| **VMUR** | **Van-Muradiye** | **0.51** | **358** | P | **Pg** | **06 23 19.6** | **+0.4** |
| VMUR | | | | S | **Sb** | **06 23 28.7** | **+0.4** |
| **BASK** | **Baskale_VAN** | **0.53** | **143** | *i* P | **Pb** | **06 23 21.0** | **0.0** |
| BASK | | | | *e*S | **Sb** | **06 23 30.0** | **+1.1** |
| BASK | | | | IAML | | 06 23 33.2 | |
| | comp=Z,499nm,0.6s | | | | | | |
| **BASK** | **Baskale_VAN** | **0.53** | **143** | *i* P | **Pg** | **06 23 17.9** | **-1.7** |
| BASK | | | | *i* S | **Sg** | **06 23 26.4** | **-0.2** |
| **BASK** | **Baskale_VAN** | **0.53** | **143** | P | **Pg** | **06 23 17.9** | **-1.7** |
| BASK | | | | S | **Sg** | **06 23 26.4** | **-0.2** |
| **CLDR** | **Caldiran** | **0.71** | **21** | *e*PG | **Pg** | **06 23 22.0** | **-1.0** |
| **CLDR** | **Caldiran** | **0.71** | **21** | *i* P | **Pg** | **06 23 22.4** | **-0.6** |
| CLDR | | | | *i* S | **Sg** | **06 23 32.6** | **+0.3** |
| **CLDR** | **Caldiran** | **0.71** | **21** | *e*Pg | **Pg** | **06 23 22.0** | **-1.0** |
| **CLDR** | **Caldiran** | **0.71** | **21** | P | **Pg** | **06 23 22.4** | **-0.6** |
| CLDR | | | | S | **Sg** | **06 23 32.6** | **+0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.76** | **296** | *i* P | **Pb** | **06 23 23.9** | **-0.9** |
| ADCV | | | | *i* S | **Sn** | **06 23 36.2** | **-1.9** |
| **ADCV** | **BITLIS_Adilcev** | **0.76** | **296** | P | **Pb** | **06 23 23.9** | **-0.9** |
| ADCV | | | | S | **Sn** | **06 23 36.2** | **-1.9** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.04** | **148** | *i* P | **Pg** | **06 23 28.0** | **-1.3** |
| YOVA | | | | *i* S | **Sb** | **06 23 44.2** | **+0.6** |
| **YOVA** | **Hakkari_Yˆ…kse** | **1.04** | **148** | P | **Pg** | **06 23 28.0** | **-1.3** |
| YOVA | | | | S | **Sb** | **06 23 44.2** | **+0.6** |
| **DYDN** | **Diyadin** | **1.07** | **4** | *i* P | **Pg** | **06 23 28.9** | **-0.9** |
| DYDN | | | | *e*S | **Sn** | **06 23 44.7** | **-1.1** |
| DYDN | | | | IAML | | 06 23 48.7 | |
| | comp=Z,156nm,0.4s | | | | | | |
| **DYDN** | **Diyadin** | **1.07** | **4** | *i* P | **Pg** | **06 23 28.4** | **-1.4** |
| DYDN | | | | *i* S | **Sn** | **06 23 45.1** | **-0.7** |
| **DYDN** | **Diyadin** | **1.07** | **4** | P | **Pg** | **06 23 28.4** | **-1.4** |
| DYDN | | | | S | **Sn** | **06 23 45.1** | **-0.7** |
| **TUTA** | **Tutak** | **1.10** | **327** | ⇑*i*P | **Pg** | **06 23 29.6** | **-0.9** |
| TUTA | | | | *e*S | **Sn** | **06 23 46.9** | **+0.1** |
| **TUTA** | **Tutak** | **1.10** | **327** | *i* P | **Pg** | **06 23 29.6** | **-0.9** |
| TUTA | | | | *i* S | **Sb** | **06 23 45.0** | **-0.4** |
| **TUTA** | **Tutak** | **1.10** | **327** | P | **Pg** | **06 23 29.6** | **-0.9** |
| TUTA | | | | S | **Sb** | **06 23 45.0** | **-0.4** |
| **AGRB** | **Hanur-Agry** | **1.19** | **337** | *e*PN | **Pg** | **06 23 31.9** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **1.19** | **337** | *e*Pn | **Pg** | **06 23 31.9** | **-0.3** |
| **CUKT** | **Cukurca** | **1.23** | **179** | *e*PN | **Pn** | **06 23 32.0** | **-0.7** |
| **CUKT** | **Cukurca** | **1.23** | **179** | *i* P | **Pn** | **06 23 32.1** | **-0.7** |
| **CUKT** | **Cukurca** | **1.23** | **179** | P | **Pn** | **06 23 32.1** | **-0.7** |
| **SIRT** | **Sirnak** | **1.33** | **223** | *e*PN | **Pg** | **06 23 34.6** | **-0.3** |
| **SIRT** | **Sirnak** | **1.33** | **223** | *e*Pn | **Pg** | **06 23 34.6** | **-0.3** |
| **SIRN** | **S˜–rnak** | **1.35** | **224** | *i* P | **Pg** | **06 23 36.8** | **+1.6** |
| SIRN | | | | *i* S | **Sg** | **06 23 56.1** | **+3.4** |
| **SIRN** | **S˜–rnak** | **1.35** | **224** | P | **Pg** | **06 23 36.8** | **+1.6** |
| SIRN | | | | S | **Sg** | **06 23 56.2** | **+3.4** |
| **SRTM** | **Siirt_Merkez** | **1.40** | **250** | *i* P | **Pg** | **06 23 37.5** | **+1.3** |
| SRTM | | | | *i* S | **Sg** | **06 23 59.5** | **+5.1** |
| **SRTM** | **Siirt_Merkez** | **1.40** | **250** | P | **Pg** | **06 23 37.5** | **+1.3** |
| **EKAR** | **Karacoban** | **1.43** | **304** | *e*P | **Pb** | **06 23 35.5** | **-0.7** |
| **EKAR** | **Karacoban** | **1.43** | **304** | *i* P | **Pg** | **06 23 37.3** | **+0.7** |
| EKAR | | | | *i* S | **Sg** | **06 24 00.2** | **+5.1** |
| **EKAR** | **Karacoban** | **1.43** | **304** | P | **Pg** | **06 23 37.3** | **+0.7** |
| **HYR** | **Heyderabad** | **1.58** | **38** | ⇑P | **Pg** | **06 23 40.0** | **+0.4** |
| HYR | | | | ⇓S | **Sg** | **06 24 05.5** | **+5.4** |
| **HYR** | **Heyderabad** | **1.58** | **38** | P | **Pg** | **06 23 40.0** | **+0.4** |
| HYR | | | | S | **Sg** | **06 24 05.5** | **+5.4** |
| **TASB** | **TASBURUN-IGDIR** | **1.58** | **18** | *e*PN | **Pn** | **06 23 37.6** | **-0.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.58** | **18** | *e*Pn | **Pn** | **06 23 37.6** | **-0.1** |
| **ISHB** | **Shabestar** | **1.60** | **96** | *e*Pn | **Pn** | **06 23 37.3** | **-0.8** |
| ISHB | | | | *e*AMB | AMB | 06 23 45.6 | |
| | comp=Z,3µm,0.3s | | | | | | |
| **EATA** | **Eleskirt** | **1.63** | **329** | *e*P | **Pb** | **06 23 39.0** | **-0.7** |
| EATA | | | | IAML | | 06 23 55.6 | |
| | comp=Z,15nm,0.5s | | | | | | |
| EATA | | | | *e*S | **Sg** | **06 24 01.9** | **+0.2** |
| **EATA** | **Eleskirt** | **1.63** | **329** | *i* P | **Pg** | **06 23 39.6** | **-0.8** |
| EATA | | | | *i* S | **Sn** | **06 23 58.0** | **-1.8** |
| **EATA** | **Eleskirt** | **1.63** | **329** | P | **Pg** | **06 23 39.7** | **-0.8** |
| EATA | | | | S | **Sn** | **06 23 58.0** | **-1.8** |
| **NAX** | **Nakhchivan** | **1.64** | **64** | ⇑P | **Pb** | **06 23 40.2** | **+0.4** |
| | SNR=15 | | | | | | |
| NAX | | | | ⇓S | **Sg** | **06 24 04.0** | **+2.0** |
| **NAX** | **Nakhchivan** | **1.64** | **64** | P | **Pb** | **06 23 40.2** | **+0.4** |
| | SNR=15 | | | | | | |
| NAX | | | | S | **Sg** | **06 24 04.0** | **+2.0** |
| **IMRD** | **Marand** | **1.67** | **81** | *e*Pn | **Pn** | **06 23 38.0** | **-0.9** |
| IMRD | | | | *e*Sg | **Sg** | **06 24 04.2** | **+1.2** |
| IMRD | | | | *e*AMB | AMB | 06 24 10.6 | |
| | comp=Z,7µm,0.3s | | | | | | |
| **IMRD** | **Marand** | **1.67** | **81** | *e*Pn | **Pn** | **06 23 38.0** | **-0.9** |
| IMRD | | | | *e*Sg | **Sg** | **06 24 04.2** | **+1.2** |
| **SBZ** | **Shahbuz** | **1.78** | **58** | ⇑P | **Pb** | **06 23 42.4** | **+0.2** |
| SBZ | | | | ⇓S | **Sg** | **06 24 08.4** | **+1.8** |
| **SBZ** | **Shahbuz** | **1.78** | **58** | P | **Pb** | **06 23 42.4** | **+0.2** |
| SBZ | | | | S | **Sg** | **06 24 08.4** | **+1.8** |
| **VRTB** | **Varto-Mus** | **1.80** | **293** | *e*PN | **Pb** | **06 23 41.8** | **-0.8** |
| **VRTB** | **Varto-Mus** | **1.80** | **293** | *i* P | **Pb** | **06 23 42.2** | **-0.4** |
| VRTB | | | | *i* S | **Sg** | **06 24 06.3** | **-1.0** |
| **VRTB** | **Varto-Mus** | **1.80** | **293** | *e*Pn | **Pb** | **06 23 41.8** | **-0.8** |
| **VRTB** | **Varto-Mus** | **1.80** | **293** | P | **Pb** | **06 23 42.2** | **-0.4** |
| VRTB | | | | S | **Sg** | **06 24 06.3** | **-1.0** |
| **BTMN** | **Batman** | **1.92** | **253** | *i* P | **Pb** | **06 23 44.4** | **-0.2** |
| BTMN | | | | *i* S | **Sg** | **06 24 11.0** | **0.0** |
| **BTMN** | **Batman** | **1.92** | **253** | P | **Pb** | **06 23 44.4** | **-0.2** |
| BTMN | | | | S | **Sg** | **06 24 11.0** | **0.0** |
| **ORD** | **Ordubad** | **1.93** | **76** | P | **Pb** | **06 23 44.4** | **-0.3** |
| ORD | | | | S | **Sg** | **06 24 13.0** | **+1.7** |
| **DIGO** | **Kars** | **1.94** | **355** | *e*P | **Pn** | **06 23 43.4** | **+0.7** |
| **DIGO** | **Kars** | **1.94** | **355** | *i* P | **Pb** | **06 23 44.0** | **-1.0** |
| **DIGO** | **Kars** | **1.94** | **355** | P | **Pb** | **06 23 44.0** | **-1.0** |
| **BNGL** | **BINGOL** | **1.97** | **285** | *e*P | **Pb** | **06 23 44.1** | **-1.4** |
| **BNGL** | **BINGOL** | **1.97** | **285** | *i* P | **Pg** | **06 23 46.1** | **-0.9** |
| BNGL | | | | *i* S | **Sb** | **06 24 08.2** | **-2.0** |
| **ITBZ** | **Tabriz** | **2.02** | **96** | *e*Pn | **Pn** | **06 23 44.3** | **+0.5** |
| ITBZ | | | | *e*AMB | AMB | 06 23 54.1 | |
| | comp=Z,537nm,0.3s | | | | | | |
| **ITBZ** | **Tabriz** | **2.02** | **96** | *e*Pn | **Pn** | **06 23 44.3** | **+0.5** |
| **HOMI** | **Horasan** | **2.04** | **321** | *e*P | **Pn** | **06 23 44.7** | **+0.6** |
| **HOMI** | **Horasan** | **2.04** | **321** | *i* P | **Pg** | **06 23 47.7** | **-0.7** |
| **EAK** | **Akyaka** | **2.21** | **0** | *e*P | **Pn** | **06 23 46.9** | **+0.5** |
| **EAK** | **Akyaka** | **2.21** | **0** | *i* P | **Pb** | **06 23 48.9** | **-0.6** |
| **EAK** | **Akyaka** | **2.21** | **0** | P | **Pb** | **06 23 48.9** | **-0.6** |
| **ERZM** | **Erzurum** | **2.24** | **310** | *e*P | **Pn** | **06 23 47.5** | **+0.6** |
| **ERZM** | **Erzurum** | **2.24** | **310** | *i* P | **Pg** | **06 23 52.5** | **+0.2** |
| **ERZM** | **Erzurum** | **2.24** | **310** | P | **Pg** | **06 23 52.5** | **+0.2** |
| **SENK** | **Senkaya-Erzuru** | **2.29** | **336** | *e*PN | **Pn** | **06 23 48.6** | **+1.0** |
| **SENK** | **Senkaya-Erzuru** | **2.29** | **336** | *e*Pn | **Pn** | **06 23 48.6** | **+1.0** |
| **BNGB** | **Bingˆ¶l** | **2.34** | **284** | *e*PN | **Pb** | **06 23 49.8** | **-1.9** |
| **BINT** | **Bingol** | **2.46** | **280** | *e*Pn | **Pn** | **06 23 49.8** | **0.0** |
| **HANI** | **Diyarbakir_Han** | **2.51** | **270** | *i* P | **Pb** | **06 23 55.4** | **+0.7** |
| **HANI** | **Diyarbakir_Han** | **2.51** | **270** | P | **Pb** | **06 23 55.3** | **+0.7** |
| **MARD** | **Mardin** | **2.51** | **243** | *i* P | **Pb** | **06 23 53.2** | **-1.5** |
| **YEDI** | **Yedisu-Bingol** | **2.56** | **293** | *e*PN | **Pb** | **06 23 52.9** | **-2.7** |
| **YEDI** | **Yedisu-Bingol** | **2.56** | **293** | *e*Pn | **Pb** | **06 23 52.9** | **-2.7** |
| **MAZI** | **Mazidag** | **2.69** | **249** | *e*PN | **Pn** | **06 23 54.1** | **+1.2** |
| **MAZI** | **Mazidag** | **2.69** | **249** | *e*Pn | **Pn** | **06 23 54.1** | **+1.2** |
| **IHRS** | **Heris** | **2.71** | **92** | *e*Pn | **Pn** | **06 23 53.2** | **-0.2** |
| IHRS | | | | *e*AMB | AMB | 06 24 03.1 | |
| | comp=Z,702nm,0.2s | | | | | | |
| **IHRS** | **Heris** | **2.71** | **92** | *e*Pn | **Pn** | **06 23 53.2** | **-0.2** |
| **IBST** | **Bostanabad** | **2.72** | **106** | *e*Pn | **Pn** | **06 23 54.1** | **+0.7** |
| IBST | | | | *e*AMB | AMB | 06 24 05.2 | |
| | comp=Z,248nm,0.2s | | | | | | |
| **IBST** | **Bostanabad** | **2.72** | **106** | *e*Pn | **Pn** | **06 23 54.1** | **+0.7** |
| **GDB** | **GEDABAY** | **2.79** | **36** | ⇓P | **Pn** | **06 23 56.5** | **+2.1** |
| | SNR=13 | | | | | | |
| GDB | | | | ⇓S | **Sb** | **06 24 34.1** | **+0.1** |
| **GDB** | **GEDABAY** | **2.79** | **36** | P | **Pn** | **06 23 56.5** | **+2.1** |
| | SNR=13 | | | | | | |
| GDB | | | | S | **Sb** | **06 24 34.1** | **+0.1** |
| **KOPT** | **Kop Dagi** | **2.85** | **304** | *i* P | **Pg** | **06 24 02.6** | **-1.4** |
| **QZX** | **Qazax, Azerbai** | **2.92** | **27** | ⇑P | **Pn** | **06 23 57.8** | **+1.8** |
| | SNR=7.2 | | | | | | |
| QZX | | | | ⇓S | **Sb** | **06 24 36.4** | **-1.0** |
| **QZX** | **Qazax, Azerbai** | **2.92** | **27** | P | **Pn** | **06 23 57.8** | **+1.8** |
| | SNR=7.2 | | | | | | |
| QZX | | | | S | **Sb** | **06 24 36.4** | **-1.0** |
| **GANJ** | **Ganja** | **3.02** | **43** | ⇓P | **Pn** | **06 23 59.7** | **+2.3** |
| | SNR=4.2 | | | | | | |
| GANJ | | | | ⇑S | **Sb** | **06 24 39.8** | **-0.6** |
| **GANJ** | **Ganja** | **3.02** | **43** | P | **Pn** | **06 23 59.7** | **+2.3** |
| | SNR=4.2 | | | | | | |
| GANJ | | | | S | **Sb** | **06 24 39.8** | **-0.6** |
| **BRDA** | **Brd** | **3.30** | **56** | ⇓P | **Pn** | **06 24 03.4** | **+2.2** |
| BRDA | | | | ⇓S | **Sb** | **06 24 46.5** | **-1.9** |
| **BRDA** | **Brd** | **3.30** | **56** | P | **Pn** | **06 24 03.4** | **+2.2** |
| BRDA | | | | S | **Sb** | **06 24 46.5** | **-1.9** |
| **PTK** | **Pertek** | **3.31** | **278** | *e*PN | **Pn** | **06 24 03.5** | **+1.9** |
| **PTK** | **Pertek** | **3.31** | **278** | *e*Pn | **Pn** | **06 24 03.5** | **+1.9** |
| **MNGR** | **Mingechevir, A** | **3.54** | **49** | ⇑P | **Pn** | **06 24 06.7** | **+2.2** |
| MNGR | | | | ⇓S | **Sb** | **06 24 52.4** | **-2.8** |
| **MNGR** | **Mingechevir, A** | **3.54** | **49** | P | **Pn** | **06 24 06.7** | **+2.2** |
| MNGR | | | | S | **Sb** | **06 24 52.4** | **-2.8** |

**IDC 11 06:28:35.8**±5.0**, 4.68S**×**100.55E, h0**km**, mb3.4**/3**, mb1 3.4**/3**, mb1mx3.2**/44**, mbtmp3.4**/3**, Error ellipse: s-maj=213.6km s-min=29.0km az=58.0, Southwest of Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ASAR** | **Alice Springs** | **37.28** | **124** | P | P | 06 35 50.2 | +0.3 |
| | 0.1nm,0.3s,baz=297,slow=7.1,SNR=3.1 | | | | | | |
| **SONM** | **Songino Array** | **52.54** | **5** | P | P | 06 37 51.0 | -0.1 |
| | 0.3nm,0.6s,baz=186,slow=7.2,SNR=2.6 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **59.88** | **349** | P | P | 06 38 43.8 | +0.5 |
| | 0.5nm,0.6s,baz=181,slow=5.8,SNR=2.6 | | | | | | |
| **TXAR** | **Lajitas Array** | **146.43** | **40** | PKPbc | PKPdf | 06 48 17.8 | -0.7 |
| | 0.1nm,0.4s,baz=215,slow=1.1,SNR=7.2 | | | | | | |

**IDC 11 06:32:50.1**±2.0**, 15.92N**×**120.19E, h0**km**, mb3.7**/3**, mb1 4.0**/3**, mb1mx3.4**/50**, mbtmp3.8**/3**, MS3.2**/1**, Ms1 3.2**/1**, ms1mx2.5**/43**, Error ellipse: s-maj=81.4km s-min=26.5km az=54.0, Luzon**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CMAR** | **Chiang Mai Arr** | **20.45** | **280** | P | P | 06 37 29.4 | 0.0 |
| | 1.4nm,0.4s,baz=102,slow=8.4,SNR=5.0 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **29.92** | **17** | LR | LR | 06 51 22.4 | |
| | comp=Z,43nm,18.4s,baz=178,slow=37 | | | | | | |
| **ASAR** | **Alice Springs** | **41.56** | **161** | P | P | 06 40 39.6 | -0.1 |
| | 0.8nm,0.4s,baz=338,slow=6.8,SNR=15 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.97** | **323** | P | P | 06 40 59.0 | -0.1 |
| | 0.4nm,0.8s,baz=111,slow=7.9,SNR=2.8 | | | | | | |

*IDC **11** 06:34:12.4±0.6, 7.77S×107.36E, h0km, mb4.1/11, mb1 4.2/11, mb1mx3.8/50, mbtmp4.1/11, MS3.3/1, Ms1 3.5/1, ms1mx2.8/34, Error ellipse: s-maj=27.4km s-min=15.5km az=51.0*
*ISCJB **11** 06:34:17.7±0.5, 8.22S±0.03×107.31E±0.02, h35km±6km, mb4.4/15, MS3.8/4, Error ellipse: s-maj=5.9km s-min=3.5km az=18.2*
*NEIC **11** 06:34:19.2±0.4, 8.19S×107.31E, h35km, mb4.3/2, Error ellipse: s-maj=8.1km s-min=6.3km az=205.0*
*DJA **11** 06:34:19.6±0.4, 8°S±3°×10°7E±°, h35km±7km, M5.0/14, mb5.3/6, mB5.3/6, MLv4.9/14, Mw(mB)4.8/6*
**ISC 11 06:34:18.8**±0.5**, 8.17S**±0.04×**107.28E**±0.03**, h38**km±2km**, n181, σ1.62**/196**, mb4.2**/15**, MS3.8**/4**, Jawa**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CISI** | **Cisompet, Garu** | **0.81** | **41** | P | **Pn** | **06 34 34.0** | **+0.2** |
| CISI | | | | S | **Sn** | **06 34 43.0** | **-1.6** |
| **CISI** | **Cisompet, Garu** | **0.81** | **41** | *e*Pn | **Pn** | **06 34 33.6** | **-0.1** |
| CISI | | | | *e*Sn | **Sn** | **06 34 43.5** | **-1.2** |
| **CNJI** | **Cibinong** | **0.86** | **350** | P | **Pn** | **06 34 35.0** | **+0.5** |
| CNJI | | | | S | **Sn** | **06 34 45.1** | **-0.8** |
| **SKJI** | **Sukabumi** | **1.36** | **328** | P | **Pn** | **06 34 42.0** | **+0.7** |
| SKJI | | | | S | **Sn** | **06 34 58.8** | **+0.8** |
| **DBJI** | **Dramaga** | **1.69** | **342** | P | **Pn** | **06 34 46.4** | **+0.6** |
| DBJI | | | | S | **Sn** | **06 35 07.8** | **+1.6** |
| **KPJI** | **Karang Pucung** | **1.84** | **63** | P | **Pn** | **06 34 48.3** | **+0.5** |
| KPJI | | | | S | **Sn** | **06 35 12.2** | **+2.4** |
| **JCJI** | **Jatiwangi** | **1.94** | **31** | P | **Pn** | **06 34 46.7** | **-2.5** |
| JCJI | | | | S | **Sn** | **06 35 09.1** | **-3.2** |
| **TNG** | **Tangerang** | **2.08** | **342** | P | **Pn** | **06 34 51.8** | **+0.6** |
| **SBJI** | **Serang** | **2.33** | **331** | P | **Pn** | **06 34 55.4** | **+0.8** |
| SBJI | | | | S | **Sn** | **06 35 24.1** | **+2.0** |
| **XMIS** | **Christmas Isla** | **2.80** | **215** | *e*Pn | **Pn** | **06 35 02.0** | **+0.8** |
| XMIS | | | | *e*Sn | **Sn** | **06 35 31.8** | **-2.0** |
| **UGM** | **Wanagama** | **3.22** | **86** | P | **Pn** | **06 35 07.3** | **+0.3** |
| UGM | | | | S | **Sn** | **06 35 44.1** | **-0.1** |
| **UGM** | **Wanagama** | **3.22** | **86** | *e*Pn | **Pn** | **06 35 07.3** | **+0.3** |
| UGM | | | | *e*Sn | **Sn** | **06 35 43.6** | **-0.6** |
| **SMRI** | **Semarang** | **3.33** | **71** | P | **Pn** | **06 35 10.4** | **+2.0** |
| SMRI | | | | S | **Sn** | **06 35 47.2** | **+0.5** |
| **SMRI** | **Semarang** | **3.33** | **71** | *e*Pn | **Pn** | **06 35 09.6** | **+1.2** |
| SMRI | | | | *e*Sn | **Sn** | **06 35 47.0** | **+0.3** |
| **BLSI** | **Bandar Lampung** | **3.44** | **324** | P | **Pn** | **06 35 11.4** | **+1.5** |
| **KASI** | **Kota Agung** | **3.81** | **313** | P | **Pn** | **06 35 16.4** | **+1.4** |
| KASI | | | | S | **Sn** | **06 35 57.4** | **-1.2** |
| **PCJI** | **Pacitan** | **3.86** | **91** | P | **Pn** | **06 35 16.7** | **+1.0** |
| PCJI | | | | S | **Sn** | **06 35 59.4** | **-0.4** |
| **UWJI** | **Ujung Watu** | **4.03** | **65** | P | **Pn** | **06 35 19.5** | **+1.4** |
| UWJI | | | | S | **Sn** | **06 36 04.0** | **-0.1** |
| **KLI** | **Kotabumi** | **4.07** | **324** | P | Pn | 06 35 23.3 | +4.7 |
| **LWLI** | **Liwa** | **4.47** | **314** | P | **Pn** | **06 35 26.6** | **+2.4** |
| LWLI | | | | S | **Sn** | **06 36 13.9** | **-1.2** |
| **PWJI** | **Pagerwojo** | **4.48** | **88** | P | **Pn** | **06 35 25.1** | **+0.8** |
| PWJI | | | | S | **Sn** | **06 36 14.1** | **-1.1** |
| **TBJI** | **Tambak Boyo** | **4.73** | **74** | P | **Pn** | **06 35 28.5** | **+0.9** |
| **GRJI** | **Gresik** | **5.30** | **77** | P | **Pn** | **06 35 36.7** | **+1.1** |
| | 108nm,0.4s,2µm0.6nm | | | | | | |
| GRJI | | | | S | **Sn** | **06 36 35.5** | **0.0** |
| | 108nm,0.4s,2µm0.6nm | | | | | | |
| **MNAI** | **Manna** | **5.72** | **311** | P | **Pn** | **06 35 43.0** | **+1.7** |
| | 227nm,1.0s,4µm0.8nm | | | | | | |
| **MNAI** | **Manna** | **5.72** | **311** | *e*Pn | **Pn** | **06 35 41.7** | **+0.4** |
| MNAI | | | | *e*Sn | **Sn** | **06 36 42.0** | **-3.8** |
| **PPBI** | **Pangkal Pinang** | **6.07** | **349** | P | Pn | 06 35 56.8 | +11 |
| **GMJI** | **Gumukmas** | **6.11** | **91** | P | **Pn** | **06 35 47.7** | **+1.2** |
| | 99nm,0.5s,2µm0.6nm | | | | | | |
| GMJI | | | | S | **Sn** | **06 36 56.4** | **+1.2** |
| | 99nm,0.5s,2µm0.6nm | | | | | | |
| **BLJI** | **Banyuglugur** | **6.27** | **87** | P | Pn | 06 35 56.2 | +7.4 |
| **JAGI** | **Jajag, Banyuwa** | **6.81** | **93** | P | **Pn** | **06 35 57.7** | **+1.4** |
| **JAGI** | **Jajag, Banyuwa** | **6.81** | **93** | *e*Pn | **Pn** | **06 35 57.4** | **+1.1** |
| JAGI | | | | *e*Sn | **Sn** | **06 37 09.3** | **-3.2** |
| **MASI** | **Maura Aman, Be** | **7.07** | **315** | P | Pn | 06 36 16.3 | +16 |
| **SRBI** | **Singaraja** | **7.86** | **90** | P | **Pn** | **06 36 11.4** | **+0.8** |
| | 64nm,0.6s,1µm0.4nm | | | | | | |
| **PPSI** | **Pulau Pagai** | **9.01** | **306** | P | **Pn** | **06 36 25.4** | **-1.0** |
| | 245nm,0.6s,3µm | | | | | | |
| **PLAI** | **Plampang** | **10.41** | **94** | P | **Pn** | **06 36 46.0** | **+0.4** |
| **BKNI** | **Bangkinang** | **10.48** | **323** | *e*Pn | **Pn** | **06 36 47.4** | **+0.8** |
| **SOEI** | **Soe** | **16.86** | **97** | *e*Pn | **Pn** | **06 38 11.9** | **-0.2** |
| | 43nm,1.0s | | | | | | |
| SOEI | | | | *e*Sn | **Sn** | **06 41 18.2** | **-0.4** |
| **MBWA** | **Marble Bar** | **17.64** | **138** | *e*P | **Pn** | **06 38 20.9** | **-0.9** |
| MBWA | | | | *e*S | Sn | 06 41 16.1 | -21 |
| **FITZ** | **Fitzroy Crossi** | **20.41** | **121** | P | **P** | **06 38 53.8** | **+1.1** |
| | 7.9nm,0.8s,baz=299,slow=7.0,SNR=22 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **27.70** | **343** | LR | LR | 06 51 34.8 | |
| | comp=Z,56nm,19.9s,baz=125,slow=38 | | | | | | |
| **WRA** | **Warramunga Arr** | **28.69** | **117** | P | **P** | **06 40 11.7** | **-0.9** |
| | 0.6nm,0.6s,baz=288,slow=12,SNR=11 | | | | | | |
| WRA | | | | PcP | **PcP** | **06 43 21.4** | **-1.2** |
| | 0.5nm,0.5s,baz=310,slow=2.1,SNR=4.6 | | | | | | |
| **ASAR** | **Alice Springs** | **29.80** | **124** | P | **P** | **06 40 22.8** | **+0.5** |
| | 0.7nm,0.7s,baz=297,slow=8.4,SNR=8.2 | | | | | | |
| ASAR | | | | PcP | **PcP** | **06 43 24.5** | **-0.9** |
| | 0.5nm,0.3s,baz=310,slow=2.1,SNR=4.5 | | | | | | |
| **KMI** | **Kunming** | **33.38** | **353** | P | P | 06 40 57.8 | +3.8 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.5s | | | | | | |
| **H08S2** | **Diego Garcia H** | **34.45** | **268** | T | T | 07 18 12.6 | |
| | baz=93,slow=76,SNR=21 | | | | | | |
| **H08S3** | **Diego Garcia H** | **34.46** | **268** | T | T | 07 18 19.6 | |
| | baz=93,slow=76,SNR=14 | | | | | | |
| **H08S1** | **Diego Carcia H** | **34.47** | **268** | T | T | 07 18 16.1 | |
| | baz=93,slow=76,SNR=3.9 | | | | | | |
| **STKA** | **Stephens Creek** | **39.66** | **131** | P | **P** | **06 41 48.4** | **+1.1** |
| | comp=Z,9.2nm,0.5s,baz=306,slow=7.8,SNR=49 | | | | | | |
| **STKA** | **Stephens Creek** | **39.66** | **131** | *e*P | **P** | **06 41 47.8** | **+0.5** |
| | comp=Z,1.9nm,0.6s | | | | | | |
| **LZH** | **Lanzhou** | **44.13** | **356** | *e*P | **P** | **06 42 27.5** | **+3.7** |
| LZH | | | | sP | pP | 06 42 32.7 | -2.2 |
| LZH | | | | pP | sP | 06 42 38.1 | -1.4 |
| LZH | | | | *e*PP | **PcP** | **06 44 12.6** | **+4.1** |
| LZH | | | | pmax | pmax | | |
| | comp=Z,15nm,1.2s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,46nm,5.6s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=N,100nm,14.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=E,110nm,13.7s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,140nm,17.6s | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **48.93** | **4** | *e*P | P | 06 43 06.0 | +4.7 |
| HHC | | | | S | **S** | **06 50 08.2** | **+5.4** |
| HHC | | | | sS | sS | 06 50 24.8 | +3.5 |
| HHC | | | | ScS | **ScS** | **06 52 52.4** | **+1.7** |
| **HHC** | **Hu-ho-hao-te** | **48.93** | **4** | SS | SS | 06 53 35.5 | +1.3 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,29nm,1.1s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,82nm,5.7s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=N,120nm,13.7s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=E,130nm,14.5s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,83nm,15.9s | | | | | | |
| **CN2** | **Changchun** | **54.29** | **16** | *e*P | **P** | **06 43 44.4** | **+3.3** |
| **WMQ** | **Urumqi** | **54.71** | **343** | P | **P** | **06 43 46.0** | **+1.7** |
| WMQ | | | | pP | pP | 06 43 57.5 | +1.9 |
| WMQ | | | | sP | sP | 06 44 01.6 | +1.5 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,13nm,0.7s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,320nm,4.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,81nm,18.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,60nm,19.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,62nm,27.3s | | | | | | |
| **SONM** | **Songino Array** | **55.76** | **359** | P | **P** | **06 43 49.8** | **-2.1** |
| | comp=Z,0.4nm,0.4s,baz=175,slow=8.5,SNR=4.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **59.07** | **340** | P | **P** | **06 44 11.0** | **-4.1** |
| | comp=Z,0.5nm,0.4s,baz=152,slow=8.2,SNR=14 | | | | | | |
| **MAW** | **Mawson** | **66.34** | **197** | P | **P** | **06 45 05.0** | **+1.8** |
| | comp=Z,3.9nm,0.6s,baz=77,slow=5.6,SNR=13 | | | | | | |
| **BVAR** | **Borovoye Array** | **68.54** | **337** | P | **P** | **06 45 14.0** | **-3.4** |
| | comp=Z,0.8nm,0.4s,baz=148,slow=9.2,SNR=6.0 | | | | | | |
| **BOSA** | **Boshof** | **79.16** | **242** | P | **P** | **06 46 20.8** | **+0.5** |
| | comp=Z,2.1nm,0.7s,baz=129,slow=5.4,SNR=5.5 | | | | | | |
| **BRTR** | **Keskin Array B** | **82.81** | **312** | P | **P** | **06 46 37.9** | **-1.6** |
| | comp=Z,0.9nm,0.7s,baz=131,slow=5.3,SNR=5.7 | | | | | | |
| **SNAA** | **Sanae** | **88.50** | **197** | P | **P** | **06 47 08.4** | **+1.3** |
| **SNAA** | **Sanae** | **88.50** | **197** | *e*P | **P** | **06 47 08.3** | **+1.3** |
| | comp=Z,505nm,1.3s | | | | | | |
| **AKASG** | **Malin Array Be** | **88.77** | **322** | P | **P** | **06 47 08.8** | **+0.3** |
| | comp=Z,0.2nm,0.4s,baz=81,slow=5.6,SNR=3.9 | | | | | | |
| **VNA2** | **Neumayer--Watz** | **90.15** | **197** | P | **P** | **06 47 15.5** | **+0.8** |
| | baz=82,slow=3.4 | | | | | | |
| **VNA1** | **Neumayer--Stat** | **90.53** | **198** | P | **P** | **06 47 15.0** | **-1.4** |
| **VNA3** | **Neumayer Olymp** | **90.66** | **197** | P | **P** | **06 47 18.2** | **+1.1** |
| **CPUP** | **Villa Florida** | **142.59** | **203** | PKhKP | PKPpre | 06 53 44.9 | |
| | comp=Z,1.8nm,0.9s,baz=166,slow=5.4,SNR=3.2 | | | | | | |
| **TXAR** | **Lajitas Array** | **144.11** | **50** | PKP | PKPbc | 06 53 48.4 | -0.9 |
| | comp=Z,0.4nm,0.6s,baz=354,slow=0.9,SNR=8.9 | | | | | | |
| **Q40A** | **Laux Farm, Aux** | **144.72** | **27** | P | **PKPab** | **06 53 48.6** | **-2.0** |
| | baz=325 | | | | | | |
| **V35A** | **Meyer Ranch, C** | **144.79** | **35** | P | **PKPab** | **06 53 49.4** | **-1.6** |
| | baz=316 | | | | | | |
| **R39A** | **Chumby, Stover** | **144.83** | **28** | P | **PKPab** | **06 53 48.9** | **-2.2** |
| | baz=323 | | | | | | |
| **U36A** | **Oologah** | **144.94** | **33** | P | **PKPab** | **06 53 49.9** | **-1.6** |
| | baz=318 | | | | | | |
| **S38A** | **Stockton** | **144.95** | **30** | P | **PKPab** | **06 53 49.0** | **-2.6** |
| | baz=322,SNR=5.2 | | | | | | |
| **P42A** | **Winchester** | **144.96** | **24** | P | **PKPab** | **06 53 49.6** | **-2.0** |
| | baz=329 | | | | | | |
| **N46A** | **Monticello** | **145.10** | **19** | P | **PKPab** | **06 53 50.4** | **-1.7** |
| | baz=335 | | | | | | |
| **Q41A** | **Truxton** | **145.12** | **26** | P | **PKPab** | **06 53 49.9** | **-2.2** |
| | baz=327 | | | | | | |
| **ABTX** | **Abilene, Hawle** | **145.15** | **42** | P | **PKPbc** | **06 53 50.7** | **-1.8** |
| | baz=308 | | | | | | |
| **O44A** | **Mansfield** | **145.18** | **21** | P | **PKPbc** | **06 53 49.9** | **-2.3** |
| | baz=332 | | | | | | |
| **S39A** | **Bolivar** | **145.19** | **29** | P | **PKPbc** | **06 53 50.3** | **-2.1** |
| | baz=322 | | | | | | |
| **W35A** | **Tecumseh** | **145.20** | **36** | P | **PKPbc** | **06 53 51.0** | **-1.5** |
| | baz=315 | | | | | | |
| **R40A** | **Maddies Statio** | **145.21** | **27** | P | **PKPbc** | **06 53 50.4** | **-2.0** |
| | baz=325,SNR=13 | | | | | | |
| **T38A** | **Diamond** | **145.22** | **31** | P | **PKPbc** | **06 53 50.3** | **-2.2** |
| | baz=320,SNR=8.5 | | | | | | |
| **P43A** | **Skaggs, Pawnee** | **145.23** | **23** | P | **PKPbc** | **06 53 50.2** | **-2.2** |
| | baz=330 | | | | | | |
| **TUL1** | **Leonard** | **145.27** | **34** | P | **PKPbc** | **06 53 50.9** | **-1.8** |
| | baz=317 | | | | | | |
| **U37A** | **Salina** | **145.27** | **33** | P | **PKPbc** | **06 53 50.7** | **-1.9** |
| | baz=319 | | | | | | |
| **V36A** | **Jenks** | **145.27** | **34** | P | **PKPbc** | **06 53 51.3** | **-1.4** |
| | baz=317,SNR=7.3 | | | | | | |
| **O45A** | **Potomac** | **145.36** | **20** | P | **PKPbc** | **06 53 50.9** | **-1.9** |
| | baz=333 | | | | | | |
| **Q42A** | **Golden Eagle** | **145.45** | **25** | P | **PKPbc** | **06 53 51.0** | **-2.2** |
| | baz=328 | | | | | | |
| **SFIN** | **Lafayette** | **145.45** | **20** | P | **PKPbc** | **06 53 51.3** | **-1.8** |
| | baz=334 | | | | | | |
| **W36A** | **Wetumka** | **145.58** | **35** | P | **PKPdf** | **06 53 51.9** | **-1.6** |
| | baz=316 | | | | | | |
| **R41A** | **Rosebud** | **145.60** | **26** | P | **PKPdf** | **06 53 51.8** | **-1.7** |
| | baz=326,SNR=6.3 | | | | | | |
| **U38A** | **Gravette** | **145.63** | **32** | P | **PKPdf** | **06 53 51.7** | **-1.8** |
| | baz=320,SNR=5.3 | | | | | | |
| **V37A** | **Hulbert** | **145.64** | **33** | P | **PKPdf** | **06 53 51.9** | **-1.7** |
| | baz=318,SNR=7.0 | | | | | | |
| **S40A** | **Lebanon** | **145.66** | **28** | P | **PKPdf** | **06 53 51.5** | **-2.1** |
| | baz=324,SNR=6.6 | | | | | | |
| **X35A** | **Drake** | **145.66** | **37** | P | **PKPdf** | **06 53 52.2** | **-1.4** |
| | baz=314,SNR=5.4 | | | | | | |
| **T39A** | **Clever** | **145.69** | **30** | P | **PKPdf** | **06 53 52.1** | **-1.6** |
| | baz=322,SNR=7.1 | | | | | | |
| **P44A** | **Sand Creek, Wi** | **145.73** | **22** | P | **PKPdf** | **06 53 52.1** | **-1.5** |
| | baz=331 | | | | | | |
| **Q43A** | **New Douglas** | **145.77** | **24** | P | **PKPdf** | **06 53 52.1** | **-1.6** |

baz=329
**CCM Cathedral Cave 145.86 27 P PKPdf 06 53 52.3 -1.6**
baz=326
**CCM Cathedral Cave 145.86 27 *e*PKPdf PKPdf 06 53 52.4 -1.6**
**R42A Luebbering 145.87 26 P PKPdf 06 53 52.3 -1.6**
baz=327,SNR=5.5
**O47A Sheridan 145.88 19 P PKPdf 06 53 52.3 -1.6**
baz=336
**X36A Centrahoma 145.91 36 P PKPdf 06 53 53.3 -0.8**
baz=315
**BDFB Brasilia 145.96 226 PKPbc PKPab 06 53 56.2 +0.2**
comp=Z,3.8nm,0.5s,baz=291,slow=3.4,SNR=11
**Y35A Marietta 145.96 38 P PKPdf 06 53 53.0 -1.2**
baz=313
**P45A Graceland, Par 145.99 21 P PKPdf 06 53 52.7 -1.4**
baz=333
**T40A Mansfield 146.01 29 P PKPdf 06 53 52.4 -1.9**
baz=323
**S41A Jillco Farms, 146.02 28 P PKPdf 06 53 53.0 -1.2**
baz=325,SNR=9.8
**W37B Quinton 146.03 34 P PKPdf 06 53 53.0 -1.3**
baz=317
**V38A Canehill 146.05 33 P PKPdf 06 53 53.0 -1.3**
baz=319
**Q44A Meyer Farm, Va 146.07 23 P PKPdf 06 53 52.6 -1.6**
baz=330
**P46A Rosedale 146.10 20 P PKPdf 06 53 52.2 -2.1**
baz=334
**U39A Green Forest 146.14 31 P PKPdf 06 53 53.0 -1.4**
baz=321
**R43A Red Bud 146.24 25 P PKPdf 06 53 53.5 -1.0**
baz=328
**S42A Caledonia 146.29 26 P PKPdf 06 53 53.5 -1.2**
baz=326
**JCT Junction City 146.32 45 P PKPbc 06 53 55.3 -1.0**
baz=306
**JCT Junction City 146.32 45 *e*PKPbc PKPbc 06 53 55.2 -1.0**
**Q45A Warren Harvey, 146.40 22 P PKPdf 06 53 54.4 -0.4**
baz=332
**Y36A Durant 146.42 37 P PKPdf 06 53 54.7 -0.3**
baz=314
**T41A Mountain View 146.45 28 P PKPdf 06 53 54.0 -1.0**
baz=324
**X37A Clayton 146.46 35 P PKPdf 06 53 54.0 -1.1**
baz=316
**V39A Pettigrew 146.47 32 P PKPdf 06 53 54.0 -1.1**
baz=320
**U40A Yellville 146.47 30 P PKPdf 06 53 54.1 -0.9**
baz=322
**P47A Martinsville 146.53 19 P PKPdf 06 53 54.2 -0.8**
baz=335
**W38A Poteau 146.59 34 P PKPdf 06 53 54.4 -0.8**
baz=318
**R44A Waltonville 146.61 24 P PKPdf 06 53 54.5 -0.6**
baz=330
**N54A Moraine State 146.71 10 P PKPdf 06 53 54.6 -0.6**
baz=347
**X38A Whitesboro 146.71 34 P PKPbc 06 53 55.6 -1.5**
baz=317
**Z36A Blue Ridge 146.76 38 P PKPdf 06 53 55.5 -0.1**
baz=314
**T42A Van Buren 146.77 27 P PKPdf 06 53 55.2 -0.3**
baz=325,SNR=6.3
**ACSO Alum Creek Sta 146.78 14 P PKPdf 06 53 54.8 -0.6**
baz=341
**R45A Skylar, Fairfi 146.88 23 P PKPdf 06 53 55.3 -0.3**
baz=331
**W39A Magazine 146.89 33 P PKPdf 06 53 55.3 -0.5**
baz=319
**V40A Witts Springs 146.92 31 P PKPdf 06 53 55.2 -0.6**
baz=322
**U41A Viola 146.94 29 P PKPdf 06 53 55.6 -0.2**
baz=323
**T43A Greenville 147.09 26 P PKPdf 06 53 56.1 +0.1**
baz=327
**X39A Fountain Ranch 147.22 34 P PKPbc 06 53 57.1 -1.5**
baz=318
**R46A Gibon Southern 147.24 22 P PKPdf 06 53 56.3 +0.1**
baz=332
**136A Ennis 147.25 39 P PKPbc 06 53 57.6 -1.1**
baz=312
**U42A Revenden 147.26 28 P PKPdf 06 53 56.4 +0.1**
baz=324,SNR=5.4
**W40A Ferguson Farm, 147.27 32 P PKPdf 06 53 56.4 +0.1**
baz=320
**V41A Mountainview 147.27 30 P PKPdf 06 53 55.5 -0.9**
baz=322
**N59A State Game Lan 147.27 4 P PKPdf 06 53 56.4 +0.2**
baz=354
**S45A Carrier Mills 147.30 24 P PKPdf 06 53 55.8 -0.5**
baz=330
**MIAR Mount Ida 147.49 33 P PKPbc 06 53 58.1 -1.2**
baz=319
**MIAR Mount Ida 147.49 33 *e*PKPdf PKPbc 06 53 57.4 -1.9**
**R47A Wooly Knot Far 147.52 20 P PKPbc 06 53 58.0 -1.3**
baz=334
**V42A Cord 147.63 29 P PKPdf 06 53 57.3 +0.4**
baz=324
**WCI Wyandotte Cave 147.66 20 P PKPbc 06 53 57.9 -1.8**
baz=334
**W41B Gary Mavity, V 147.71 31 P PKPbc 06 53 59.2 -0.7**
baz=322
**336A Riesel 147.76 41 P PKPab 06 54 00.7 -1.8**
baz=311
**833A Chaparral WMA, 147.84 48 P PKPbc 06 53 59.8 -0.7**
baz=304
**X40A Basin Creek Fa 147.93 32 P PKPbc 06 53 59.4 -1.1**
baz=320
**237A Washetta, Mont 148.02 39 P PKPbc 06 53 59.5 -1.3**
baz=313
**V43A Jonesboro 148.04 28 P PKPbc 06 53 59.4 -1.3**
baz=325
**Y40A Okolona 148.05 33 P PKPbc 06 53 59.5 -1.4**
baz=319
**T46A Princeton 148.12 23 P PKPbc 06 53 59.4 -1.6**
baz=331
**U44B Burton Farm, H 148.12 26 P PKPbc 06 53 59.6 -1.3**
baz=328
**S48A Wiedeman Farm, 148.25 20 P PKPbc 06 53 59.4 -1.8**
baz=334
**U45A Rockin P Farm, 148.37 25 P PKPbc 06 53 59.3 -2.3**
baz=329
**337A Centerville 148.43 40 P PKPdf 06 53 59.3 +0.9**
baz=312
**T47A Sharon Grove 148.47 22 P PKPbc 06 54 00.1 -1.8**
baz=332
**X42A Stuttgart 148.51 31 P PKPbc 06 53 60.0 -2.0**
baz=322
**Y41A Eaglette Beard 148.52 33 P PKPbc 06 54 00.4 -1.6**
baz=320
**338A Crockett 148.76 39 P PKPbc 06 54 00.7 -2.1**
baz=313
**U47A Clarksville 148.88 23 P PKPbc 06 54 01.0 -1.9**
baz=331
**NATX Nacogdoches 148.89 38 P PKPab 06 54 04.6 -2.4**
baz=314
**WVT Waverly 148.94 24 P PKPbc 06 54 01.2 -1.8**
baz=330
**Y42A Garnett, Star 148.99 32 P PKPbc 06 54 02.4 -0.8**
baz=321
**U48A Cassie Pea, Po 149.10 22 P PKPbc 06 54 01.7 -1.8**
baz=333
**OXF Oxford 149.62 28 P PKPbc 06 54 02.8 -2.0**
baz=326
**Y44A Strider, Charl 149.69 30 P PKPbc 06 54 03.0 -2.0**
baz=324
**X45A UM Field Stati 149.70 28 P PKPbc 06 54 03.2 -1.8**
baz=326
**241A Mo Tay, Goldon 149.73 36 P PKPbc 06 54 04.4 -0.8**
baz=317
**TZTN Tazewell 150.08 18 P PKPbc 06 54 04.9 -1.0**
baz=338
**Y45A Yeager Farm, C 150.09 29 P PKPbc 06 54 04.8 -1.1**
baz=325
**341A Kurthwood 150.09 37 P PKPbc 06 54 04.1 -2.0**
baz=316
**Z44A Pea Ridge, Bel 150.12 31 P PKPbc 06 54 05.0 -1.0**
baz=323
**X47A Russelville 150.31 26 P PKPbc 06 54 04.4 -2.1**
baz=329
**Y46A Houston 150.40 28 P PKPbc 06 54 05.1 -1.6**
baz=326
**Z45A Winona 150.42 30 P PKPbc 06 54 03.5 -3.3**
baz=324
**441A DeRidder 150.49 38 P PKPbc 06 54 05.0 -2.0**
baz=315
**LPAZ La Paz 155.28 191 PKPab PKPab 06 54 36.5 +1.7**
comp=Z,1.6nm,0.8s,baz=138,slow=1.7,SNR=6.0

**MEX 11 06:36:41.8±0.3, 14.67N×92.44W, h67km±6km, MD3.7, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PCIG** | | **1.28** | **324** | *e*P | Pn | 06 37 02.5 | -1.3 |
| PCIG | | | | *e*S | Sn | 06 37 18.2 | -1.9 |
| **CCIG** | **Comitan** | **1.63** | **10** | *e*P | Pn | 06 37 07.1 | -1.5 |
| CCIG | | | | *e*S | Sn | 06 37 27.3 | -1.6 |

*IDC **11** 06:59:29.9±16.0, 36.01N×70.39E, h103km±191km, mb3.6/4, mb1 3.6/5, mb1mx3.1/44, mbtmp3.9/5, ML3.4/1, Error ellipse: s-maj=120.0km s-min=51.8km az=105.0*
*ISCJB **11** 06:59:36.7±1.1, 36.59N×0.08×70.38E±0.07, h150km, mb3.6/3, Error ellipse: s-maj=11.4km s-min=8.0km az=169.5*
*NNC **11** 06:59:37.7±2.5, 36.63N×70.30E, h144km±23km, mb3.2, mpv4.0, Error ellipse: s-maj=21.9km s-min=12.0km az=171.0*

**ISC 11 06:59:37.5±1.5, 36.6N±0.1×70.30E±0.08, h150km, n22, σ1§12/30, mb3.5/3, 9C-7D, Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DZET** | **Dzherino** | **2.51** | **333** | ⇓P | **Pn** | **07 00 18.2** | **-0.6** |
| | 18nm,0.4s | | | | | | |
| DZET | | | | ⇑S | **Sn** | **07 00 50.0** | **-0.6** |
| | 126nm,0.5s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **4.25** | **35** | ⇓P | **Pn** | **07 00 41.1** | **0.0** |
| | 18nm,0.4s | | | | | | |
| SFK | | | | ⇑S | **Sn** | **07 01 30.0** | **-0.7** |
| | 72nm,0.5s | | | | | | |
| **AML** | **Almayashu** | **6.13** | **24** | P | **Pn** | **07 01 05.6** | **-0.7** |
| | SNR=99 | | | | | | |
| **MNAS** | **Manas** | **6.13** | **15** | ⇑P | **Pn** | **07 01 06.1** | **0.0** |
| | 14nm,0.7s | | | | | | |
| MNAS | | | | ⇓S | **Sn** | **07 02 17.5** | **+2.2** |
| | 7.8nm,0.4s | | | | | | |
| **UCH** | **Uchtor** | **6.51** | **29** | P | **Pn** | **07 01 10.6** | **-0.7** |
| | SNR=15 | | | | | | |
| **KK31** | **Karatay Array** | **6.51** | **1** | ⇑P | **Pn** | **07 01 10.9** | **0.0** |
| | 3.4nm,0.3s,baz=177,slow=12 | | | | | | |
| KK31 | | | | ⇑S | **Sn** | **07 02 23.7** | **-0.5** |
| | 5.9nm,0.5s,baz=187,slow=23 | | | | | | |
| **EKS2** | **Erkin-Say** | **6.63** | **23** | P | **Pn** | **07 01 12.7** | **0.0** |
| | SNR=7.6 | | | | | | |
| **KZA** | **Kyzart** | **6.69** | **33** | P | **Pn** | **07 01 12.3** | **-1.4** |
| | SNR=15 | | | | | | |
| **AAK** | **Ala-Archa** | **6.85** | **27** | ⇓P | **Pn** | **07 01 15.1** | **-0.6** |
| | 8.9nm,0.5s | | | | | | |
| AAK | | | | ⇓S | **Sn** | **07 02 31.0** | **-1.7** |
| | 18nm,1.1s | | | | | | |
| **AAK** | **Ala-Archa** | **6.85** | **27** | P | **Pn** | **07 01 15.4** | **-0.3** |
| | SNR=13 | | | | | | |
| **KBK** | **Karagaybulak** | **7.04** | **29** | P | **Pn** | **07 01 18.4** | **+0.2** |
| | SNR=7.5 | | | | | | |
| **CHMS** | **Chumysh** | **7.26** | **27** | P | **Pn** | **07 01 20.3** | **-0.7** |
| | SNR=6.1 | | | | | | |
| **USP** | **Ospenovka** | **7.41** | **24** | P | **Pn** | **07 01 22.8** | **-0.1** |
| | SNR=6.9 | | | | | | |
| **TKM2** | **Tokmak 2** | **7.53** | **31** | ⇓P | **Pn** | **07 01 23.3** | **-1.3** |
| | 6.8nm,0.6s | | | | | | |
| TKM2 | | | | ⇑S | **Sn** | **07 02 47.7** | **-1.1** |
| | 4.5nm,0.6s | | | | | | |
| **TKM2** | **Tokmak 2** | **7.53** | **31** | P | **Pn** | **07 01 23.9** | **-0.7** |
| | SNR=16 | | | | | | |
| **MKAR** | **Makanchi Array** | **13.56** | **38** | P | **Pn** | **07 02 43.8** | **+0.1** |
| | 0.2nm,0.3s,baz=217,slow=16,SNR=7.8 | | | | | | |
| **AB31** | **Akbulak array** | **14.74** | **332** | ⇑P | **Pn** | **07 02 59.2** | **+0.7** |
| | 1.6nm,0.4s,baz=155,slow=12,SNR=102 | | | | | | |
| AB31 | | | | ⇓S | **Sn** | **07 05 39.7** | **-2.4** |
| | 0.9nm,0.6s,baz=155,slow=24,SNR=5.6 | | | | | | |
| **AKTO** | **Aktyubinsk** | **16.43** | **331** | ⇑P | **P** | **07 03 20.4** | **+1.1** |
| | 1.6nm,0.6s | | | | | | |
| AKTO | | | | ⇑S | **Sn** | **07 06 21.8** | **-0.7** |
| | 2.4nm,0.9s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **20.07** | **26** | P | **P** | **07 03 59.9** | **+0.9** |
| | 8.9nm,0.6s,baz=222,slow=11,SNR=40 | | | | | | |
| **ARCES** | **ARCESS Array B** | **40.85** | **338** | P | **P** | **07 07 06.3** | **+2.2** |
| | 5.5nm,1.1s,baz=121,slow=8.5,SNR=2.5 | | | | | | |
| **NOA** | **NORSAR Array B** | **43.97** | **323** | P | **P** | **07 07 29.9** | **+0.4** |
| | 1.1nm,0.8s,baz=101,slow=7.3,SNR=2.9 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **65.16** | **268** | P | **P** | **07 10 00.7** | **-2.0** |
| | 0.2nm,0.5s,baz=42,slow=6.3,SNR=3.1 | | | | | | |

*NIED **11** 07:06:00, 38.40N×141.90E, h53km, Mw3.9 Best double couple: M0 8.10000×10^14 NP1:φ=75.00000°, δ=48.00000°, λ=163.00000°. NP2:φ=176.00000°, δ=78.00000°, λ=43.00000°.*
*ISCJB **11** 07:06:42.7±0.6, 38.35N±0.03×142.02E±0.07, h69km±5km, mb3.9/15, Error ellipse: s-maj=9.5km s-min=4.7km az=21.8*
*IDC **11** 07:06:42.9±2.2, 38.23N×141.99E, h55km±21km, mb3.6/12, mb1 3.8/16, mb1mx3.5/51, mbtmp3.9/16, ML4.0/3, Error ellipse: s-maj=20.1km s-min=11.6km az=92.0*
*NEIC **11** 07:06:44.4±0.8, 38.37N×142.00E, h65km±7km, mb4.5/3, Error ellipse: s-maj=11.3km s-min=6.7km az=120.0*
*NEIC Recorded [2 JMA] in Miyagi.*
*JMA **11** 07:06:44.7±0.1, 38.37N×141.90E, h65km±1km, M3.9*
*JMA Felt II J1.*

**ISC 11 07:06:43.6±1.1, 38.34N±0.04×141.99E±0.09, h61km±9km, n44, σ1§67/56, mb3.8/15, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JIO** | **Ouri** | **0.52** | **283** | P | **Pn** | **07 06 56.5** | **+0.7** |
| JIO | | | | S | **Sn** | **07 07 04.8** | **+0.2** |
| **OFUJ** | **Ofunato** | **0.78** | **342** | P | **Pn** | **07 06 59.7** | **+0.8** |
| OFUJ | | | | S | **Sn** | **07 07 10.4** | **+0.3** |
| **JMK** | **Ichinoseki** | **0.86** | **316** | P | **Pn** | **07 07 00.6** | **+0.8** |
| JMK | | | | S | **Sn** | **07 07 12.0** | **+0.2** |
| **JOU** | **Okura** | **1.04** | **272** | P | **Pn** | **07 07 02.7** | **+0.5** |
| JOU | | | | S | **Sn** | **07 07 16.1** | **+0.1** |
| **JMM** | **Marumori** | **1.05** | **244** | P | **Pn** | **07 07 02.7** | **+0.4** |
| JMM | | | | S | **Sn** | **07 07 16.0** | **-0.2** |
| **JOM** | **Ohasama** | **1.26** | **335** | P | **Pn** | **07 07 05.7** | **+0.7** |
| JOM | | | | S | **Sn** | **07 07 21.2** | **+0.1** |
| **JFK** | **Kawauchi** | **1.31** | **223** | P | **Pn** | **07 07 06.5** | **+0.7** |
| JFK | | | | S | **Sn** | **07 07 23.2** | **+0.8** |
| **JYK** | **Kaneyama** | **1.40** | **295** | P | **Pn** | **07 07 07.4** | **+0.4** |
| JYK | | | | S | **Sn** | **07 07 24.4** | **-0.1** |
| **JRG** | **Rokugo** | **1.49** | **315** | P | **Pn** | **07 07 08.7** | **+0.5** |
| JRG | | | | S | **Sn** | **07 07 27.4** | **+0.7** |
| **JYS** | **Shirataka** | **1.52** | **266** | P | **Pn** | **07 07 09.2** | **+0.7** |
| JYS | | | | S | **Sn** | **07 07 27.8** | **+0.5** |
| **JFT** | **Otama** | **1.54** | **238** | P | **Pn** | **07 07 10.0** | **+1.1** |
| JFT | | | | S | **Sn** | **07 07 28.5** | **+0.6** |
| **JYA** | **Atsumi** | **1.80** | **279** | P | **Pn** | **07 07 13.0** | **+0.6** |
| **MAJO** | **Matsushiro** | **3.50** | **240** | *e*Pn | **Pn** | **07 07 37.7** | **+2.1** |
| **MAT** | **Matsushiro** | **3.50** | **240** | P | **Pn** | **07 07 37.8** | **+2.2** |
| MAT | | | | *e*S | **Sn** | **07 08 18.1** | **+2.3** |
| **MJAR** | **Matsushiro Arr** | **3.50** | **240** | P | **Pn** | **07 07 37.5** | **+2.0** |
| | 3.1nm,0.3s,baz=53,slow=11,SNR=25 | | | | | | |
| **ERM** | **Erimo** | **3.78** | **13** | *e*Pn | **Pn** | **07 07 39.0** | **-0.3** |
| ERM | | | | *e*Sn | **Sn** | **07 08 20.9** | **-1.6** |
| **JHJ2** | **Mitsune** | **5.50** | **199** | *e*Pn | **Pn** | **07 08 03.3** | **+0.3** |
| JHJ2 | | | | *e*Sn | **Sn** | **07 08 58.5** | **-6.5** |
| **JHJ** | **Hachijo jima 2** | **5.51** | **200** | P | **Pn** | **07 08 02.5** | **-0.5** |
| | 17nm,0.3s,baz=330,slow=22,SNR=21 | | | | | | |
| JHJ | | | | S | **Sn** | **07 09 01.2** | **-3.8** |
| | 13nm,0.3s,baz=49,slow=23,SNR=6.3 | | | | | | |
| **ASAJ** | **Asahikawa** | **5.79** | **4** | P | **Pn** | **07 08 06.7** | **-0.2** |
| | 4.5nm,0.3s,baz=218,slow=8.3,SNR=18 | | | | | | |
| ASAJ | | | | S | **Sn** | **07 09 08.2** | **-3.6** |
| | 3.1nm,0.3s,baz=102,slow=19,SNR=3.3 | | | | | | |
| **ASAJ** | **Asahikawa** | **5.79** | **4** | P | **Pn** | **07 08 06.7** | **-0.2** |
| | 1.9nm,0.6s | | | | | | |
| ASAJ | | | | *e*Sn | **Sn** | **07 09 08.0** | **-3.9** |
| ASAJ | | | | S | **Sn** | **07 09 08.2** | **-3.6** |
| **USRK** | **Ussuriysk Ar.** | **9.53** | **311** | P | **Pn** | **07 08 58.9** | **+0.8** |
| | 0.7nm,0.3s,baz=122,slow=14,SNR=7.2 | | | | | | |
| **KSRS** | **Korea Array** | **11.15** | **270** | P | **Pn** | **07 09 21.5** | **+1.3** |
| | 0.4nm,0.3s,baz=80,slow=14,SNR=3.2 | | | | | | |
| **KSAR** | **Wonju Array Be** | **11.18** | **270** | P | **Pn** | **07 09 21.5** | **+0.9** |
| **SEY** | **Seymchan** | **25.43** | **11** | P | **P** | **07 12 06.0** | **+0.8** |
| | 0.8nm,0.4s,baz=216,slow=11,SNR=3.6 | | | | | | |
| **ULN** | **Ulaanbaatar** | **27.02** | **302** | *e*P | **P** | **07 12 20.6** | **+0.6** |
| | 1.0nm,0.4s | | | | | | |
| **SONM** | **Songino Array** | **27.46** | **302** | P | **P** | **07 12 23.8** | **-0.1** |
| | 1.5nm,0.6s,baz=110,slow=9.1,SNR=12 | | | | | | |
| **ENH** | **Enshi** | **27.92** | **263** | *e*P | **P** | **07 12 27.5** | **-0.6** |
| | 16nm,1.3s | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.46** | **124** | T | T | 07 42 58.4 | |
| | baz=317,slow=76,SNR=146 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.46** | **124** | T | T | 07 43 05.6 | |
| | baz=317,slow=76,SNR=116 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.47** | **124** | T | T | 07 43 14.9 | |
| | baz=317,slow=76,SNR=167 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.22** | **126** | T | T | 07 43 51.0 | |
| | baz=318,slow=76,SNR=71 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.22** | **126** | T | T | 07 43 53.8 | |
| | baz=318,slow=76,SNR=79 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.23** | **126** | T | T | 07 43 52.7 | |
| | baz=318,slow=76,SNR=61 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.38** | **311** | P | **P** | **07 14 23.7** | **+0.2** |
| | 2.9nm,0.5s,baz=75,slow=7.1,SNR=17 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.82** | **301** | P | **P** | **07 14 44.5** | **+1.0** |
| | 2.7nm,0.7s,baz=86,slow=9.8,SNR=21 | | | | | | |
| **KURK** | **Kurchatov** | **45.50** | **307** | *e*P | **P** | **07 14 56.1** | **-0.6** |
| | 40nm,0.8s | | | | | | |
| **PMG** | **Port Moresby** | **47.74** | **173** | P | **P** | **07 15 11.8** | **-2.7** |
| | 5.9nm,0.4s,baz=274,slow=9.9,SNR=4.7 | | | | | | |
| **ILAR** | **Eielson Array** | **48.15** | **33** | P | **P** | **07 15 17.1** | **-0.1** |
| | 0.5nm,0.7s,baz=270,slow=6.3,SNR=5.3 | | | | | | |
| **INK** | **Inuvik** | **58.32** | **28** | P | **P** | **07 15 54.8** | **+1.0** |
| | 2.1nm,1.2s,baz=273,slow=2.9,SNR=3.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **58.41** | **188** | P | **P** | **07 16 32.9** | **-0.1** |
| | 0.3nm,0.5s,baz=5.3,slow=7.3,SNR=3.8 | | | | | | |
| **ASAR** | **Alice Springs** | **62.14** | **188** | P | **P** | **07 16 58.4** | **-0.1** |
| | 0.2nm,0.7s,baz=23,slow=7.3,SNR=3.2 | | | | | | |
| **AKASG** | **Malin Array Be** | **73.55** | **322** | P | **P** | **07 18 08.7** | **-1.2** |
| | 0.3nm,0.5s,baz=48,slow=5.8,SNR=4.1 | | | | | | |
| **PDAR** | **Pinedale Array** | **76.43** | **46** | P | **P** | **07 18 27.6** | **+0.7** |
| | 0.3nm,0.6s,baz=239,slow=2.2,SNR=4.8 | | | | | | |
| **TXAR** | **Lajitas Array** | **88.97** | **53** | P | **P** | **07 19 33.1** | **+1.1** |
| | 0.2nm,0.6s,baz=305,slow=3.2,SNR=3.5 | | | | | | |

*JMA **11** 07:21:16.0±0.2, 36.16N×142.53E, h42km, M3.0*
*IDC **11** 07:21:21.4±9.7, 36.55N×141.94E, h0km, mb3.5/2, mb1 3.3/3, mb1mx3.1/40, mbtmp3.3/3, ML2.7/1, MS3.6/1, Ms1 3.6/1, ms1mx2.4/33, Error ellipse: s-maj=158.0km s-min=73.8km az=134.0*

**ISC 11 07:21:21.5±2.0, 36.3N±0.1×142.1E±0.1, h19km, n11, σ1§11/14, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JHO** | **Hitachi** | **1.30** | **284** | P | **Pn** | **07 21 43.1** | **-1.4** |
| JHO | | | | S | **Sg** | **07 22 03.6** | **+0.1** |
| **ONAJ** | **Iwakimizuishiy** | **1.34** | **307** | *e*S | **Sg** | **07 22 04.0** | **-0.8** |
| **JFT** | **Otama** | **1.88** | **311** | P | **Pn** | **07 21 52.0** | **-0.6** |
| JFT | | | | *e*S | **Sb** | **07 22 18.0** | **-0.4** |
| **JAG** | **Ashikaga** | **2.17** | **274** | P | **Pn** | **07 21 55.4** | **-1.1** |
| JAG | | | | S | **Sn** | **07 22 24.3** | **+1.5** |
| **JRY** | **Ryogami san** | **2.63** | **265** | P | **Pn** | **07 22 01.7** | **-1.2** |
| JRY | | | | S | **Sn** | **07 22 36.0** | **+1.7** |
| **JOD2** | **Odawara 2** | **2.68** | **248** | *e*S | **Sn** | **07 22 35.0** | **-0.6** |
| **MJAR** | **Matsushiro Arr** | **3.17** | **275** | Pn | **Pn** | **07 22 10.0** | **-0.4** |
| | 1.0nm,0.3s,baz=90,slow=15,SNR=8.1 | | | | | | |
| **MAT** | **Matsushiro** | **3.17** | **275** | P | **Pn** | **07 22 10.2** | **-0.2** |
| **SONM** | **Songino Array** | **28.67** | **305** | P | **P** | **07 27 16.8** | **-0.4** |
| | 0.1nm,0.4s,baz=108,slow=9.3,SNR=3.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **45.00** | **303** | P | **P** | **07 29 36.9** | **+1.3** |
| | 0.4nm,0.7s,baz=92,slow=10,SNR=3.6 | | | | | | |
| **PSI** | **Prapat** | **51.92** | **240** | LR | LR | 07 52 21.5 | |
| | comp=Z,49nm,18.2s,baz=186,slow=36 | | | | | | |

*NNC **11** 07:21:33.1±0.8, 50.04N×78.82E, h0km, mb3.0, mpv2.7, Error ellipse: s-maj=21.7km s-min=3.6km az=70.0, Suspected Mining explosion.*

**IDC 11 07:21:33.8±0.8, 50.05N×78.78E, h0km, mb1 3.0/3, mb1mx2.7/45, mbtmp3.0/3, ML2.7/3, 5C-5D, Error ellipse: s-maj=12.3km s-min=6.1km az=60.0, Eastern Kazakhstan**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KURBB** | **Kurchatov Arra** | **0.60** | **345** | Pg | Pg | 07 21 45.1 | -0.2 |
| | 4.0nm,0.3s,baz=167,slow=17,SNR=123 | | | | | | |
| KURBB | | | | Lg | Lg | 07 21 53.6 | |
| | 4.2nm,0.3s,baz=161,slow=33,SNR=58 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **0.60** | **345** | ⇑P | Pg | 07 21 44.9 | -0.4 |
| | 20nm,0.3s | | | | | | |
| KURBB | | | | ⇓S | Sg | 07 21 53.8 | +0.7 |
| | 126nm,0.6s | | | | | | |
| **KURK** | **Kurchatov** | **0.68** | **352** | ⇑P | Pg | 07 21 46.2 | -0.6 |
| | 22nm,0.9s | | | | | | |
| KURK | | | | ⇑S | Sg | 07 21 56.2 | +0.6 |
| | 16nm,0.5s | | | | | | |
| **MAKZ** | **Makanchi** | **3.88** | **145** | ⇓Pn | Pn | 07 22 35.9 | +1.3 |
| | 0.3nm,0.3s | | | | | | |
| MAKZ | | | | ⇑Pg | Pb | 07 22 42.1 | -1.0 |
| | 1.8nm,0.6s | | | | | | |
| MAKZ | | | | ⇓Lg | Lg | 07 23 34.1 | |
| | 5.8nm,0.9s | | | | | | |
| **MK31** | **Makanchi Array** | **4.01** | **143** | ⇓Pn | Pn | 07 22 37.1 | +0.7 |
| | 0.4nm,0.4s,baz=323,slow=10,SNR=34 | | | | | | |
| MK31 | | | | ⇑Pg | Pb | 07 22 45.1 | -0.1 |
| | 0.6nm,0.3s,baz=325,slow=13,SNR=12 | | | | | | |
| MK31 | | | | ⇓Lg | Lg | 07 23 38.1 | |
| | 1.6nm,0.3s,baz=326,slow=23,SNR=11 | | | | | | |
| **MKAR** | **Makanchi Array** | **4.01** | **143** | Pn | Pn | 07 22 37.2 | +0.7 |
| | 0.6nm,0.3s,baz=330,slow=11,SNR=28 | | | | | | |
| MKAR | | | | Pg | Pb | 07 22 43.4 | -1.9 |
| | 1.2nm,0.3s,baz=325,slow=14,SNR=20 | | | | | | |
| MKAR | | | | Lg | Lg | 07 23 37.7 | |
| | 2.3nm,0.3s,baz=336,slow=24,SNR=13 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **5.40** | **41** | Pn | Pn | 07 22 57.2 | +1.6 |
| | 1.4nm,0.3s,baz=232,slow=14,SNR=15 | | | | | | |
| ZALV | | | | Lg | Lg | 07 24 29.7 | |
| | 0.4nm,0.3s,baz=233,slow=27,SNR=4.2 | | | | | | |
| **I46RU** | **ZALESOVO INFRA** | **5.41** | **41** | *i* | | 07 53 40.0 | |
| | baz=221,slow=326,SNR=1.8 | | | | | | |
| **BVAR** | **Borovoye Array** | **6.02** | **303** | Pn | Pn | 07 23 04.4 | +0.3 |
| | 0.2nm,0.3s,baz=121,slow=14,SNR=3.4 | | | | | | |
| BVAR | | | | Sn | Sn | 07 24 10.7 | -3.1 |
| | 0.9nm,0.3s,baz=113,slow=24,SNR=11 | | | | | | |

**MEX 11 07:37:14.2±0.6, 14.49N×92.58W, h7km±90km, MD3.7, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PCIG** | | **1.35** | **333** | *e*P | Pn | 07 37 35.8 | -3.8 |
| PCIG | | | | *e*S | Sb | 07 37 52.9 | -4.5 |
| **CCIG** | **Comitan** | **1.83** | **13** | *e*P | Pn | 07 37 44.5 | -1.7 |
| CCIG | | | | *e*S | Sn | 07 38 03.1 | -6.6 |
| **TGIG** | | **2.33** | **347** | *e*P | Pn | 07 37 47.6 | -5.4 |

**IDC 11 07:42:58.0±2.0, 15.93N×120.16E, h0km, mb3.7/4, mb1 4.0/4, mb1mx3.5/36, mbtmp3.7/4, Error ellipse: s-maj=82.2km s-min=23.7km az=51.0, Luzon**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CMAR** | **Chiang Mai Arr** | **20.42** | **280** | P | P | 07 47 37.1 | +0.1 |
| | 1.6nm,0.3s,baz=104,slow=7.5,SNR=5.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **38.27** | **158** | P | P | 07 50 20.0 | -0.3 |
| | 0.6nm,0.6s,baz=336,slow=9.5,SNR=7.3 | | | | | | |
| **ASAR** | **Alice Springs** | **41.58** | **161** | P | P | 07 50 47.9 | +0.1 |
| | 0.7nm,0.5s,baz=338,slow=6.9,SNR=26 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.95** | **323** | P | P | 07 51 06.5 | -0.3 |
| | 0.4nm,0.7s,baz=117,slow=8.8,SNR=3.6 | | | | | | |

**IDC 11 08:06:19.3±4.6, 21.46S×179.33W, h0km, mb4.2/2, mb1 4.5/2, mb1mx3.6/24, mbtmp4.2/2, Error ellipse: s-maj=272.1km s-min=44.5km az=155.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ASAR** | **Alice Springs** | **43.10** | **258** | P | P | 08 14 20.4 | -1.2 |
| | 0.8nm,0.3s,baz=98,slow=7.3,SNR=14 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.25** | **263** | P | P | 08 14 23.4 | +0.5 |
| | 3.3nm,0.6s,baz=93,slow=8.7,SNR=17 | | | | | | |
| **ARCES** | **ARCESS Array B** | **129.63** | **349** | PKP | PKPdf | 08 25 28.0 | -1.6 |
| | 4.7nm,1.0s,baz=47,slow=4.0,SNR=3.4 | | | | | | |
| **BRTR** | **Keskin Array B** | **146.54** | **310** | PKPbc | PKPab | 08 26 03.9 | -0.1 |
| | 0.4nm,0.6s,baz=64,slow=1.1,SNR=3.3 | | | | | | |

**IDC 11 08:07:28.8±2.4, 54°.48N×86°.30E, h0$^{km}$, mb1 2.9/3, mb1mx2.7/36, mbtmp2.9/3, ML2.6/3, Error ellipse: s-maj=20.5km s-min=12.6km az=58.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| I46RU | ZALESOVO INFRA | 1.01 | 239 | i | | 08 13 50.0 | |
| | baz=55,slow=336,SNR=39 | | | | | | |
| ZALV | Zalesovo Beam | 1.02 | 239 | Pg | Pg | 08 07 46.3 | -1.9 |
| | 0.9nm,0.3s,baz=59,slow=16,SNR=17 | | | | | | |
| ZALV | | | | Lg | Lg | 08 08 02.6 | |
| | 4.9nm,0.3s,baz=54,slow=27,SNR=27 | | | | | | |
| KURBB | Kurchatov Arra | 6.11 | 234 | Pn | Pn | 08 09 00.1 | -0.1 |
| | 0.1nm,0.3s,baz=50,slow=14,SNR=7.0 | | | | | | |
| KURBB | | | | Lg | Lg | 08 10 45.5 | |
| | 0.0nm,0.3s,baz=53,slow=32,SNR=7.8 | | | | | | |
| MKAR | Makanchi Array | 8.10 | 200 | Pn | Pn | 08 09 27.9 | +0.3 |
| | 0.1nm,0.3s,baz=24,slow=12,SNR=6.2 | | | | | | |
| MKAR | | | | Lg | Lg | 08 11 48.2 | |
| | 0.1nm,0.3s,baz=20,slow=31,SNR=6.4 | | | | | | |
| BVAR | Borovoye Array | 9.54 | 268 | Pn | Pn | 08 09 47.8 | +0.6 |
| | 0.1nm,0.3s,baz=75,slow=17,SNR=2.6 | | | | | | |

---

*ISCJB **11** 08:31:01.4±0.3, 36°.19S±0°.03×71°.54W±0°.05, h89$^{km}$±2$^{km}$, mb4.8/149, Error ellipse: s-maj=6.5km s-min=4.3km az=8.2*

*BJI **11** 08:31:01.9, 36°.10S×71°.50W, h84$^{km}$, mB5.2/5, Ms5.4/5, Ms7 5.3/5*

*NEIC **11** 08:31:03.0±0.5, 36°.15S×71°.49W, h86$^{km}$±4$^{km}$, mb4.9/144, Error ellipse: s-maj=6.4km s-min=3.6km az=78.0*

*NEIC Felt [V] at Cauquenes, Colbun, Linares and Parral; [IV] at Chillan, Chillan Viejo and Cobquecura; [III] at Chanco, Constitucion, La Laja, Pelluhue, Quirihue, Rio Claro, San Fabian, Talca and Tome; [II] at Curico. Also felt at Melipilla and Santiago.*

*IDC **11** 08:31:02.7±0.7, 36°.16S×71°.57W, h87$^{km}$±6$^{km}$, mb4.3/16, mb1 4.5/19, mb1mx4.4/27, mbtmp4.7/19, MS3.7/6, Ms1 3.7/6, ms1mx3.4/23, Error ellipse: s-maj=18.4km s-min=11.3km az=90.0*

*GUC **11** 08:31:03.6±0.6, 36°.18S×71°.74W, h84$^{km}$±5$^{km}$, ML5.0*

**ISC 11 08:31:02.6±0.4, 36°.20S±0°.04×71°.67W±0°.05, h88$^{km}$±3$^{km}$, h89$^{km}$:pP-P, n638, σ1$^{s}$07/660, mb4.8/149, 1C-1D, Central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CCHI | Chillan | 0.52 | 219 | eP | Pn | 08 31 17.3 | +0.1 |
| CCHI | | | | eS | Sn | 08 31 28.0 | -0.2 |
| CCHI | | | | IAML | | 08 31 29.0 | |
| | comp=E,201µm,0.3s | | | | | | |
| COCH | Cobquecura | 0.91 | 274 | eP | Pn | 08 31 20.7 | -0.4 |
| COCH | | | | eS | Sn | 08 31 34.3 | -0.7 |
| COCH | | | | IAML | | 08 31 35.8 | |
| | comp=E,69µm,0.3s | | | | | | |
| GO05 | HualaæØ | 1.21 | 350 | ePn | Pn | 08 31 24.8 | +0.1 |
| GO05 | | | | eSn | Sn | 08 31 40.7 | -0.6 |
| GO05 | HualaæØ | 1.21 | 350 | eP | Pn | 08 31 24.8 | +0.1 |
| GO05 | | | | eS | Sn | 08 31 40.4 | -1.0 |
| GO05 | | | | IAML | | 08 31 43.5 | |
| | comp=E,23µm,0.4s | | | | | | |
| NICH | Los Niches | 1.25 | 17 | eP | Pn | 08 31 25.4 | +0.2 |
| NICH | | | | eS | Sn | 08 31 42.5 | +0.4 |
| CCSP | San Pedro de C | 1.32 | 241 | eP | Pn | 08 31 24.9 | -1.1 |
| CCSP | | | | eS | Sn | 08 31 41.6 | -2.1 |
| LMEL | Las Melosas | 2.64 | 28 | eP | Pn | 08 31 44.7 | +1.3 |
| CLCH | Cerro Calan | 2.95 | 19 | eP | Pn | 08 31 47.5 | 0.0 |
| CLCH | | | | eS | Sn | 08 32 21.3 | -0.8 |
| CLCH | | | | IAML | | 08 32 23.8 | |
| | comp=N,5µm,0.4s | | | | | | |
| PEL | Peldehue | 3.16 | 15 | ePn | Pn | 08 31 50.4 | +0.1 |
| PEL | Peldehue | 3.16 | 15 | eP | Pn | 08 31 49.8 | -0.5 |
| PEL | | | | eS | Sn | 08 32 26.6 | -0.5 |
| PEL | | | | IAML | | 08 32 28.8 | |
| | comp=E,4µm,0.3s | | | | | | |
| ROC1 | El Roble | 3.27 | 10 | ePn | Pn | 08 31 51.4 | -0.5 |
| PLCA | Paso Flores | 4.61 | 169 | P | Pn | 08 32 11.3 | +1.4 |
| | comp=E,34nm,0.3s,baz=358,slow=12,SNR=632 | | | | | | |
| PLCA | Paso Flores | 4.61 | 169 | ePn | Pn | 08 32 10.8 | +0.9 |
| LCO | Las Campanas | 7.22 | 7 | ePn | Pn | 08 32 44.0 | -1.6 |
| TRQA | Tornquist | 7.96 | 106 | ePn | Pn | 08 32 56.0 | +0.5 |
| CHRN | Cochrane | 11.06 | 183 | ePn | Pn | 08 33 36.0 | -1.6 |
| PB10 | IPOC Station P | 12.68 | 5 | ePn | Pn | 08 33 59.6 | -0.1 |
| PB04 | IPOC Station P | 13.88 | 6 | ePn | Pn | 08 34 15.3 | -0.3 |
| PB01 | IPOC Station P | 15.23 | 8 | ePn | Pn | 08 34 31.7 | -1.1 |
| | comp=E,44nm,0.8s | | | | | | |
| CPUP | Villa Florida | 15.71 | 55 | P | Pn | 08 34 38.7 | 0.0 |
| | comp=E,0.5nm,0.3s,baz=229,slow=10,SNR=9.6 | | | | | | |
| CPUP | | | | LR | LR | 08 41 27.4 | |
| | comp=E,78nm,20.3s,baz=228,slow=40 | | | | | | |
| CPUP | Villa Florida | 15.71 | 55 | eP | Pn | 08 34 39.1 | +0.3 |
| PB11 | IPOC Station P | 16.48 | 7 | ePn | Pn | 08 34 48.1 | -0.4 |
| | comp=E,51nm,0.9s | | | | | | |
| MNMC | Minye Minye | 17.11 | 7 | ePn | Pn | 08 34 55.6 | -0.8 |
| | comp=E,51nm,0.8s | | | | | | |
| EFI | East Falkland | 18.26 | 152 | eP | P | 08 35 08.5 | -0.5 |
| | comp=E,405nm,2.0s | | | | | | |
| USHA | Ushuaia | 18.76 | 174 | P | Pn | 08 35 15.9 | +0.1 |
| | comp=E,108nm,0.3s,baz=337,slow=10,SNR=15 | | | | | | |
| USHA | | | | LR | LR | 08 42 07.5 | |
| | comp=E,894nm,18.9s,baz=41,slow=35 | | | | | | |
| LPAZ | La Paz | 20.09 | 10 | P | P | 08 35 31.0 | +1.2 |
| | comp=E,16nm,0.8s,baz=181,slow=4.5,SNR=28 | | | | | | |
| LPAZ | La Paz | 20.09 | 10 | eP | P | 08 35 30.9 | +1.1 |
| | comp=E,18nm,0.6s | | | | | | |
| SIV | San Ignacio | 22.23 | 28 | P | P | 08 35 51.2 | -0.9 |
| | comp=E,15nm,0.9s,baz=219,slow=11,SNR=19 | | | | | | |
| SIV | | | | LR | LR | 08 46 07.3 | |
| | comp=E,56nm,19.7s,baz=314,slow=41 | | | | | | |
| NNA | Nana | 24.56 | 348 | P | P | 08 36 14.4 | +0.2 |
| | comp=E,23nm,0.7s,baz=199,slow=11,SNR=14 | | | | | | |
| NNA | | | | LR | LR | 08 43 59.1 | |
| | comp=E,60nm,19.8s,baz=177,slow=32 | | | | | | |
| NNA | Nana | 24.56 | 348 | eP | P | 08 36 14.4 | +0.2 |
| | comp=E,29nm,0.8s | | | | | | |
| SAML | Samuel | 28.21 | 18 | eP | P | 08 36 46.5 | -0.6 |
| | comp=E,4.6nm,0.9s | | | | | | |
| PMSA | Palmer Station | 28.97 | 173 | eP | P | 08 36 54.5 | +1.2 |
| | comp=E,167nm,1.5s | | | | | | |
| BDFB | Brasilia | 29.39 | 52 | P | P | 08 36 56.5 | -1.1 |
| | comp=E,6.0nm,0.6s,baz=353,slow=11,SNR=7.2 | | | | | | |
| BDFB | Brasilia | 29.39 | 52 | eP | P | 08 36 56.7 | -1.0 |
| | comp=E,67nm,1.7s | | | | | | |
| OTAV | Otavalo | 36.80 | 349 | eP | P | 08 38 04.3 | +1.8 |
| OTAV | Otavalo | 36.80 | 349 | eP | P | 08 38 01.6 | -0.9 |
| | comp=E,24nm,1.5s | | | | | | |
| PTGA | Pitinga | 36.93 | 20 | P | P | 08 38 02.2 | -0.9 |
| | comp=E,7.1nm,0.6s,baz=206,slow=10,SNR=12 | | | | | | |
| PTGA | Pitinga | 36.93 | 20 | eP | P | 08 38 02.4 | -0.7 |
| | comp=E,7.0nm,0.7s | | | | | | |
| SJAC | San Juan de Ar | 39.33 | 356 | eP | P | 08 38 25.5 | +2.2 |
| PRAC | Prado | 39.82 | 355 | eP | P | 08 38 27.8 | +0.4 |
| | comp=E,24nm,0.7s | | | | | | |
| PRAC | | | | eS | S | 08 44 26.3 | +0.9 |
| VILC | Villavicencio, | 40.15 | 357 | eP | P | 08 38 32.3 | +2.1 |
| CHIC | Chingaza | 40.66 | 357 | eP | P | 08 38 35.4 | +0.6 |
| ROSC | El Rosal | 40.90 | 356 | P | P | 08 38 40.2 | +3.6 |
| | comp=E,24nm,0.4s,baz=198,slow=3.9,SNR=19 | | | | | | |
| ROSC | El Rosal | 40.90 | 356 | eP | P | 08 38 40.3 | +3.6 |
| ROSC | El Rosal | 40.90 | 356 | eP | P | 08 38 37.1 | +0.5 |
| | comp=E,24nm,0.5s | | | | | | |
| GUYC | Guyana, Colomb | 41.36 | 354 | eP | P | 08 38 41.9 | +1.4 |
| NORC | Norcasia | 41.66 | 355 | eP | P | 08 38 43.5 | +1.1 |
| RUSC | La Rusia | 41.90 | 358 | eP | P | 08 38 45.7 | +0.8 |
| RUSC | La Rusia | 41.90 | 358 | eP | P | 08 38 44.9 | 0.0 |
| | comp=E,27nm,1.4s | | | | | | |
| HELC | Santa Helena | 42.33 | 354 | eP | P | 08 38 48.6 | +0.4 |
| HELC | Santa Helena | 42.33 | 354 | eP | P | 08 38 48.4 | +0.2 |
| | comp=E,88nm,0.6s | | | | | | |
| PTBC | PUERTO BERRIO, | 42.60 | 356 | eP | P | 08 38 48.5 | -1.5 |
| GIRC | Giron, Santand | 43.08 | 358 | eP | P | 08 38 52.4 | -1.7 |
| PAMC | Pamplona, Colo | 43.32 | 359 | eP | P | 08 38 55.1 | -1.3 |
| OCAC | Ocana | 44.23 | 358 | eP | P | 08 39 01.8 | -1.6 |
| RCBR | Riachuelo | 44.58 | 56 | P | P | 08 39 06.5 | +0.4 |
| | comp=E,8.9nm,0.8s,baz=168,slow=6.5,SNR=4.4 | | | | | | |
| SDV | Santo Domingo | 44.86 | 1 | eP | P | 08 39 06.4 | -1.9 |
| SDV | Santo Domingo | 44.86 | 1 | eP | P | 08 39 07.8 | -0.6 |
| | comp=E,19nm,1.0s | | | | | | |
| MOTC | Monteria, Cord | 44.90 | 354 | eP | P | 08 39 09.2 | +0.7 |
| VNA3 | Neumayer Olymp | 47.21 | 157 | P | P | 08 39 26.7 | +0.7 |
| VNA1 | Neumayer--Stat | 47.54 | 156 | P | P | 08 39 27.2 | -1.3 |
| VNA2 | Neumayer--Watz | 47.87 | 156 | P | P | 08 39 31.7 | +0.5 |
| | baz=282,slow=8.7 | | | | | | |
| SNAA | Sanae | 49.44 | 157 | P | P | 08 39 43.6 | +0.4 |
| SNAA | Sanae | 49.44 | 157 | P | P | 08 39 43.7 | +0.4 |
| | comp=E,6.5nm,0.4s,baz=308,slow=10.0,SNR=17 | | | | | | |
| SNAA | Sanae | 49.44 | 157 | eP | P | 08 39 43.1 | -0.1 |
| | comp=E,16nm,0.9s | | | | | | |
| VNDA | Vanda | 62.01 | 191 | P | P | 08 41 13.8 | +0.9 |
| | comp=E,1.8nm,0.9s,baz=129,slow=7.3,SNR=3.9 | | | | | | |
| SYO | Syowa Base | 63.71 | 158⇑ | eP | P | 08 41 22.0 | -2.2 |
| SYO | Syowa Base | 63.71 | 158⇓ | epP | pP | 08 41 45.2 | -1.4 |
| ZAIG | Zacatecas | 65.53 | 329 | eP | P | 08 41 37.2 | +0.2 |
| | comp=E,5.2nm,0.8s | | | | | | |
| 447A | Lucedale | 68.53 | 344 | P | P | 08 41 57.0 | +1.5 |
| | baz=165 | | | | | | |
| 446A | Poplarville | 68.68 | 344 | P | P | 08 41 58.2 | +1.8 |
| | baz=165 | | | | | | |
| 542A | Morse | 68.83 | 341 | P | P | 08 41 60.0 | +2.6 |
| | baz=162 | | | | | | |
| 444A | Pine Grove | 68.94 | 342 | P | P | 08 41 59.7 | +1.8 |
| | baz=164 | | | | | | |
| 541A | Lake Charles | 68.95 | 340 | P | P | 08 42 00.2 | +2.2 |
| | baz=161 | | | | | | |
| 348A | Jackson | 68.97 | 345 | P | P | 08 41 59.1 | +0.9 |
| | baz=166 | | | | | | |
| 347A | Saraland | 69.09 | 345 | P | P | 08 41 59.7 | +0.8 |
| | baz=165 | | | | | | |
| 346A | Big Creek Wild | 69.28 | 344 | P | P | 08 42 00.9 | +0.9 |
| | baz=165 | | | | | | |
| 833A | Chaparral WMA, | 69.29 | 334 | P | P | 08 42 01.4 | +1.2 |
| | baz=156 | | | | | | |
| 248A | Dixon Mills | 69.59 | 345 | P | P | 08 42 02.5 | +0.5 |
| | baz=166 | | | | | | |
| 441A | DeRidder | 69.60 | 340 | P | P | 08 42 03.4 | +1.3 |
| | baz=162 | | | | | | |
| 344A | Westbrook Farm | 69.64 | 343 | P | P | 08 42 03.1 | +0.8 |
| | baz=164 | | | | | | |
| 247A | Quitman | 69.73 | 345 | P | P | 08 42 03.8 | +0.9 |
| | baz=165 | | | | | | |
| 245A | Little AP, Sta | 70.00 | 344 | P | P | 08 42 05.4 | +0.9 |
| | baz=164 | | | | | | |
| 439A | Center Grove, | 70.08 | 339 | P | P | 08 42 06.5 | +1.4 |
| | baz=160 | | | | | | |
| 341A | Kurthwood | 70.14 | 341 | P | P | 08 42 06.8 | +1.3 |
| | baz=162,SNR=7.5 | | | | | | |
| 244A | Avery, Jackson | 70.19 | 343 | P | P | 08 42 06.8 | +1.2 |
| | baz=164 | | | | | | |
| 243A | Waterproof | 70.23 | 342 | P | P | 08 42 07.9 | +2.0 |
| | baz=163 | | | | | | |
| PPT | Papeete | 70.24 | 262 | LR | LR | 09 06 38.6 | |
| | comp=E,140nm,18.0s,baz=242,slow=30 | | | | | | |
| 438A | Sam Houston St | 70.25 | 338 | P | P | 08 42 07.2 | +1.1 |
| | baz=160 | | | | | | |
| 147A | Livingston | 70.26 | 345 | P | P | 08 42 06.9 | +0.8 |
| | baz=166,SNR=5.8 | | | | | | |
| VBMS | Vicksburg | 70.32 | 343 | P | P | 08 42 07.5 | +1.0 |
| | baz=164 | | | | | | |
| VBMS | Vicksburg | 70.32 | 343 | eP | P | 08 42 07.1 | +0.7 |
| | comp=E,28nm,0.7s | | | | | | |
| LRAL | Lakeview Retre | 70.36 | 346 | P | P | 08 42 06.8 | +0.1 |
| | baz=167 | | | | | | |
| 146A | Union | 70.39 | 344 | P | P | 08 42 07.9 | +1.0 |
| | baz=165 | | | | | | |
| HPIG | | 70.51 | 328 | eP | P | 08 42 08.7 | +0.7 |
| | comp=E,19nm,1.2s | | | | | | |
| 145A | Houston Renfro | 70.55 | 344 | P | P | 08 42 09.0 | +1.1 |
| | baz=164 | | | | | | |
| 242A | Grayson | 70.57 | 342 | P | P | 08 42 08.7 | +0.7 |
| | baz=162,SNR=7.3 | | | | | | |
| 144A | Alexander Plac | 70.69 | 343 | P | P | 08 42 10.1 | +1.4 |
| | baz=164 | | | | | | |
| Z47A | Carrollton | 70.73 | 345 | P | P | 08 42 09.4 | +0.5 |
| | baz=166,SNR=13 | | | | | | |
| 241A | Mo Tay, Goldon | 70.73 | 341 | P | P | 08 42 10.9 | +1.9 |
| | baz=162 | | | | | | |
| 338A | Crockett | 70.77 | 339 | P | P | 08 42 10.8 | +1.6 |
| | baz=160 | | | | | | |
| Z48A | Northport | 70.80 | 346 | P | P | 08 42 09.7 | +0.4 |
| | baz=166 | | | | | | |
| Z46A | Louisville | 70.90 | 345 | P | P | 08 42 11.2 | +1.2 |
| | baz=165 | | | | | | |
| 337A | Centerville | 70.90 | 338 | P | P | 08 42 11.8 | +1.8 |
| | baz=159 | | | | | | |
| 435B | Jarrell | 70.94 | 337 | P | P | 08 42 11.3 | +1.0 |
| | baz=158 | | | | | | |
| NATX | Nacogdoches | 70.96 | 339 | P | P | 08 42 11.3 | +0.9 |
| | baz=160 | | | | | | |
| NATX | Nacogdoches | 70.96 | 339 | eP | P | 08 42 11.2 | +0.8 |
| | comp=E,31nm,0.8s | | | | | | |
| 240A | Hunter Patters | 70.97 | 340 | P | P | 08 42 11.1 | +0.6 |
| | baz=161 | | | | | | |
| 142A | Monroe | 70.98 | 342 | P | P | 08 42 11.1 | +0.6 |
| | baz=163 | | | | | | |
| MAW | Mawson | 70.99 | 163 | P | P | 08 42 10.9 | +0.8 |
| | comp=E,5.9nm,1.0s,baz=166,slow=5.6,SNR=6.6 | | | | | | |
| MAW | | | | pP | pP | 08 42 33.4 | +0.5 |
| | comp=E,5.6nm,0.8s,baz=293,slow=0.6,SNR=4.1 | | | | | | |
| 239A | Gary | 71.15 | 340 | P | P | 08 42 12.1 | +0.6 |
| | baz=161 | | | | | | |
| Z45A | Winona | 71.24 | 344 | P | P | 08 42 12.9 | +0.9 |
| | baz=165 | | | | | | |
| 336A | Riesel | 71.26 | 337 | P | P | 08 42 13.1 | +0.9 |
| | baz=159,SNR=11 | | | | | | |
| 141A | Papa Simpson, | 71.28 | 341 | P | P | 08 42 13.3 | +1.0 |
| | baz=162 | | | | | | |
| Z44A | Pea Ridge, Bel | 71.31 | 343 | P | P | 08 42 13.5 | +1.1 |
| | baz=164 | | | | | | |
| CNNC | Cliffs of the | 71.31 | 355 | eP | P | 08 42 12.5 | +0.1 |
| | comp=E,39nm,1.1s | | | | | | |
| 238A | Jacksonville | 71.32 | 339 | P | P | 08 42 13.2 | +0.7 |
| | baz=160 | | | | | | |
| Y47A | UCPARC, Winfie | 71.36 | 346 | P | P | 08 42 13.2 | +0.5 |
| | baz=166,SNR=17 | | | | | | |
| JCT | Junction City | 71.40 | 335 | P | P | 08 42 13.7 | +0.6 |
| | baz=156,SNR=17 | | | | | | |
| JCT | Junction City | 71.40 | 335 | eP | P | 08 42 12.8 | -0.3 |
| | comp=E,25nm,0.8s | | | | | | |
| Z43A | Armstrong Fami | 71.44 | 343 | P | P | 08 42 13.7 | +0.5 |
| | baz=163 | | | | | | |
| 140A | Cam and Jess, | 71.49 | 341 | P | P | 08 42 14.6 | +1.1 |
| | baz=161 | | | | | | |
| 237A | Washetta, Mont | 71.52 | 339 | P | P | 08 42 14.8 | +1.1 |
| | baz=160,SNR=7.1 | | | | | | |
| Y46A | Houston | 71.55 | 345 | P | P | 08 42 13.9 | +0.1 |
| | baz=165,SNR=5.2 | | | | | | |
| KMSC | Kings Mountain | 71.55 | 352 | P | P | 08 42 13.9 | 0.0 |
| | baz=172 | | | | | | |
| BG3 | Lake Jocassee | 71.61 | 350 | eP | P | 08 42 14.3 | +0.1 |
| | comp=E,20nm,1.0s | | | | | | |
| Y45A | Yeager Farm, C | 71.68 | 344 | P | P | 08 42 15.4 | +0.8 |
| | baz=165 | | | | | | |
| 236A | Katherine and | 71.74 | 338 | P | P | 08 42 16.0 | +1.0 |
| | baz=159 | | | | | | |
| 139A | Bunkhouse Ranc | 71.75 | 340 | P | P | 08 42 16.0 | +0.9 |
| | baz=161 | | | | | | |
| TXAR | Lajitas Array | 71.80 | 331 | P | P | 08 42 16.7 | +1.0 |
| | comp=E,7.0nm,0.6s,baz=157,slow=9.2,SNR=121 | | | | | | |
| TX31 | Lajitas Ar. Si | 71.80 | 331 | eP | P | 08 42 16.0 | +0.4 |
| Z41A | Richland Creek | 71.87 | 341 | P | P | 08 42 16.8 | +1.0 |
| | baz=162 | | | | | | |
| Y44A | Strider, Charl | 71.92 | 344 | P | P | 08 42 16.5 | +0.4 |
| | baz=164 | | | | | | |
| 138A | Matatall Enter | 71.93 | 339 | P | P | 08 42 17.2 | +1.0 |
| | baz=160 | | | | | | |
| X47A | Russelville | 71.96 | 346 | P | P | 08 42 16.4 | +0.1 |
| | baz=166 | | | | | | |
| WHTX | Lake Whitney, | 72.02 | 337 | P | P | 08 42 17.0 | +0.3 |
| | baz=158,SNR=9.0 | | | | | | |
| WHTX | Lake Whitney, | 72.02 | 337 | eP | P | 08 42 17.1 | +0.3 |
| | comp=E,28nm,0.9s | | | | | | |
| Z40A | Long Farm, Mag | 72.03 | 341 | P | P | 08 42 17.8 | +1.1 |
| | baz=162 | | | | | | |
| Y43A | Makayla and Ka | 72.04 | 343 | P | P | 08 42 17.5 | +0.8 |
| | baz=164 | | | | | | |
| 137A | Heron Place, G | 72.06 | 339 | P | P | 08 42 18.0 | +1.1 |
| | baz=160,SNR=7.9 | | | | | | |
| Y42A | Garnett, Star | 72.17 | 342 | P | P | 08 42 18.0 | +0.4 |
| | baz=163 | | | | | | |
| 136A | Ennis | 72.18 | 338 | P | P | 08 42 18.4 | +0.8 |
| | baz=159 | | | | | | |
| X45A | UM Field Stati | 72.19 | 345 | P | P | 08 42 17.7 | 0.0 |
| | baz=165 | | | | | | |
| CCAR | Cane Creek | 72.24 | 343 | eP | P | 08 42 17.9 | -0.1 |
| | comp=E,74nm,1.5s | | | | | | |
| OXF | Oxford | 72.27 | 345 | P | P | 08 42 17.9 | -0.3 |
| | baz=165,SNR=5.9 | | | | | | |
| OXF | Oxford | 72.27 | 345 | eP | P | 08 42 18.0 | -0.1 |
| | comp=E,39nm,0.9s | | | | | | |
| CPCT | Cooper Cave | 72.29 | 349 | eP | P | 08 42 18.0 | -0.3 |
| | comp=E,18nm,0.9s | | | | | | |
| SWET | Sewanee | 72.29 | 348 | eP | P | 08 42 18.4 | +0.1 |
| | comp=E,46nm,0.8s | | | | | | |
| WLAR | White Oak Lake | 72.36 | 341 | eP | P | 08 42 19.4 | +0.7 |
| | comp=E,25nm,0.9s | | | | | | |
| Y41A | Eaglette Beard | 72.42 | 342 | P | P | 08 42 19.7 | +0.6 |
| | baz=162,SNR=13 | | | | | | |
| X44A | Crenshaw | 72.42 | 344 | P | P | 08 42 19.3 | +0.2 |
| | baz=164 | | | | | | |
| PLAL | Pickwick Lake | 72.45 | 346 | eP | P | 08 42 19.0 | -0.2 |
| | comp=E,16nm,0.8s | | | | | | |
| Z38A | Mt. Pleasant | 72.46 | 340 | P | P | 08 42 20.0 | +0.7 |
| | baz=160 | | | | | | |
| X43A | Marvell | 72.61 | 343 | P | P | 08 42 20.8 | +0.7 |
| | baz=164 | | | | | | |
| Y40A | Okolona | 72.71 | 341 | P | P | 08 42 21.1 | +0.3 |
| | baz=162 | | | | | | |
| X42A | Stuttgart | 72.81 | 343 | P | P | 08 42 21.9 | +0.5 |
| | baz=163 | | | | | | |
| W45A | Hickory Valley | 72.85 | 345 | P | P | 08 42 22.6 | +1.0 |
| | baz=165 | | | | | | |
| Y39A | Lockesburg | 72.86 | 341 | P | P | 08 42 22.0 | +0.4 |
| | baz=161 | | | | | | |
| Z36A | Blue Ridge | 72.89 | 338 | P | P | 08 42 22.5 | +0.6 |
| | baz=159,SNR=12 | | | | | | |
| X41A | Kaden, Bauxite | 72.97 | 342 | P | P | 08 42 22.4 | 0.0 |
| | baz=162 | | | | | | |
| Y38A | Idabel | 73.02 | 340 | P | P | 08 42 23.0 | +0.4 |
| | baz=161,SNR=8.9 | | | | | | |
| X40A | Basin Creek Fa | 73.05 | 342 | P | P | 08 42 22.6 | -0.2 |
| | baz=162 | | | | | | |
| TZTN | Tazewell | 73.22 | 350 | P | P | 08 42 23.4 | -0.3 |
| | baz=170 | | | | | | |
| MIAR | Mount Ida | 73.29 | 341 | P | P | 08 42 24.1 | -0.2 |
| | baz=162 | | | | | | |
| MIAR | Mount Ida | 73.29 | 341 | eP | P | 08 42 24.5 | +0.3 |
| | comp=E,37nm,1.9s | | | | | | |
| ABTX | Abilene, Hawle | 73.31 | 336 | P | P | 08 42 24.8 | +0.4 |
| | baz=157,SNR=18 | | | | | | |
| ABTX | Abilene, Hawle | 73.31 | 336 | eP | P | 08 42 24.2 | -0.2 |
| | comp=E,22nm,0.7s | | | | | | |
| Y37A | Hugo | 73.32 | 339 | P | P | 08 42 24.9 | +0.5 |
| | baz=160,SNR=7.3 | | | | | | |
| V45A | Humboldt | 73.36 | 345 | P | P | 08 42 24.3 | -0.3 |
| | baz=165 | | | | | | |
| X39A | Fountain Ranch | 73.40 | 341 | P | P | 08 42 25.3 | +0.4 |
| | baz=161 | | | | | | |
| Y36A | Durant | 73.43 | 339 | P | P | 08 42 25.8 | +0.7 |
| | baz=159 | | | | | | |
| W42A | Bald Knob | 73.48 | 343 | P | P | 08 42 25.7 | +0.5 |
| | baz=163 | | | | | | |
| WVT | Waverly | 73.52 | 346 | P | P | 08 42 25.4 | -0.1 |
| | baz=166 | | | | | | |
| WVT | Waverly | 73.52 | 346 | eP | P | 08 42 25.3 | -0.1 |
| | comp=E,31nm,0.8s | | | | | | |
| WVT | | | | epP | pP | 08 42 47.3 | -1.1 |
| W41B | Gary Mavity, V | 73.56 | 343 | P | P | 08 42 26.0 | +0.2 |
| | baz=163 | | | | | | |
| X301 | Greenbrier Sit | 73.66 | 342 | eP | P | 08 42 26.6 | +0.3 |
| | comp=E,27nm,0.9s | | | | | | |
| Y35A | Marietta | 73.66 | 338 | P | P | 08 42 26.8 | +0.3 |
| | baz=159,SNR=5.6 | | | | | | |
| WHAR | Wooly Hollow | 73.68 | 343 | eP | P | 08 42 26.0 | -0.5 |
| | comp=E,23nm,1.1s | | | | | | |
| U47A | Clarksville | 73.72 | 347 | P | P | 08 42 26.4 | -0.2 |
| | baz=167 | | | | | | |
| X38A | Whitesboro | 73.74 | 340 | P | P | 08 42 27.3 | +0.4 |
| | baz=161 | | | | | | |
| W40A | Ferguson Farm, | 73.78 | 342 | P | P | 08 42 27.4 | +0.4 |
| | baz=162 | | | | | | |
| X37A | Clayton | 73.82 | 340 | P | P | 08 42 27.3 | 0.0 |
| | baz=160 | | | | | | |
| IP05 | Hopewell Churc | 73.88 | 355 | eP | P | 08 42 28.4 | +0.9 |
| | comp=E,22nm,1.2s | | | | | | |
| U45A | Rockin P Farm, | 73.91 | 346 | P | P | 08 42 27.8 | 0.0 |
| | baz=166,SNR=9.8 | | | | | | |
| UTMT | University of | 73.93 | 346 | eP | P | 08 42 28.4 | +0.5 |
| | comp=E,62nm,0.8s | | | | | | |
| V42A | Cord | 73.96 | 343 | P | P | 08 42 27.7 | -0.4 |
| | baz=163 | | | | | | |
| W39A | Magazine | 73.96 | 341 | P | P | 08 42 28.8 | +0.7 |
| | baz=161,SNR=13 | | | | | | |
| U44B | Burton Farm, H | 74.02 | 345 | P | P | 08 42 28.9 | +0.5 |
| | baz=165 | | | | | | |
| W38A | Poteau | 74.04 | 341 | P | P | 08 42 28.7 | +0.1 |
| | baz=161 | | | | | | |
| X36A | Centrahoma | 74.08 | 339 | P | P | 08 42 28.7 | -0.2 |
| | baz=159,SNR=16 | | | | | | |
| X35A | Drake | 74.10 | 338 | P | P | 08 42 28.8 | -0.2 |
| | baz=159 | | | | | | |
| V41A | Mountainview | 74.12 | 343 | P | P | 08 42 28.7 | -0.3 |
| | baz=163,SNR=18 | | | | | | |
| IP04 | Greensprings | 74.17 | 355 | eP | P | 08 42 29.0 | -0.3 |
| | comp=E,15nm,0.9s | | | | | | |
| T47A | Sharon Grove | 74.22 | 347 | P | P | 08 42 29.3 | -0.3 |
| | baz=167,SNR=6.3 | | | | | | |
| U44A | Portageville | 74.25 | 345 | P | P | 08 42 30.0 | +0.2 |
| | baz=165 | | | | | | |
| U43A | Rector | 74.28 | 344 | P | P | 08 42 29.9 | 0.0 |
| | baz=164 | | | | | | |
| V40A | Witts Springs | 74.30 | 342 | P | P | 08 42 29.8 | -0.3 |
| | baz=162 | | | | | | |
| W37B | Quinton | 74.35 | 340 | P | P | 08 42 30.2 | -0.2 |
| | baz=160,SNR=5.5 | | | | | | |
| W37B | Quinton | 74.35 | 340 | eP | P | 08 42 30.3 | -0.1 |
| | comp=E,14nm,1.0s | | | | | | |
| T46A | Princeton | 74.42 | 347 | P | P | 08 42 30.4 | -0.3 |
| | baz=166,SNR=6.1 | | | | | | |
| PARMO | Parma | 74.42 | 345 | eP | P | 08 42 30.9 | +0.2 |
| | comp=E,56nm,0.8s | | | | | | |
| U42A | Revenden | 74.44 | 344 | P | P | 08 42 30.5 | -0.4 |
| | baz=164,SNR=11 | | | | | | |
| V39A | Pettigrew | 74.54 | 342 | P | P | 08 42 31.4 | -0.1 |
| | baz=162,SNR=8.2 | | | | | | |
| MNTX | Cornudas Mount | 74.57 | 331 | P | P | 08 42 31.3 | -0.5 |
| | baz=152,SNR=23 | | | | | | |
| MNTX | Cornudas Mount | 74.57 | 331 | eP | P | 08 42 31.3 | -0.5 |
| | comp=E,11nm,0.6s | | | | | | |
| W36A | Wetumka | 74.58 | 339 | P | P | 08 42 31.2 | -0.5 |
| | baz=160 | | | | | | |
| W36A | Wetumka | 74.58 | 339 | eP | P | 08 42 31.3 | -0.4 |
| | comp=E,3.4nm,0.9s | | | | | | |
| U41A | Viola | 74.59 | 343 | P | P | 08 42 31.4 | -0.4 |
| | baz=163 | | | | | | |
| HSIG | | 74.66 | 325 | eP | P | 08 42 33.2 | +0.9 |
| | comp=E,9.5nm,1.0s | | | | | | |
| PBMO | Poplar Bluff | 74.67 | 344 | eP | P | 08 42 32.0 | -0.2 |
| | comp=E,20nm,0.8s | | | | | | |
| S48A | Wiedeman Farm, | 74.69 | 348 | P | P | 08 42 31.4 | -0.9 |
| | baz=168 | | | | | | |
| V38A | Canehill | 74.76 | 341 | P | P | 08 42 32.5 | -0.3 |
| | baz=161,SNR=8.2 | | | | | | |
| W35A | Tecumseh | 74.78 | 339 | P | P | 08 42 32.4 | -0.5 |
| | baz=159,SNR=8.8 | | | | | | |
| W35A | Tecumseh | 74.78 | 339 | eP | P | 08 42 32.4 | -0.5 |
| | comp=E,15nm,0.6s | | | | | | |
| T44A | Benton | 74.79 | 345 | P | P | 08 42 32.8 | -0.1 |
| | baz=165 | | | | | | |
| U40A | Yellville | 74.83 | 342 | P | P | 08 42 32.9 | -0.2 |
| | baz=162,SNR=11 | | | | | | |
| T43A | Greenville | 74.94 | 345 | P | P | 08 42 33.4 | -0.4 |
| | baz=164,SNR=17 | | | | | | |
| WMOK | Wichita Mounta | 74.97 | 337 | P | P | 08 42 33.8 | -0.2 |
| | baz=158,SNR=7.7 | | | | | | |
| WMOK | Wichita Mounta | 74.97 | 337 | eP | P | 08 42 33.8 | -0.2 |
| | comp=E,7.1nm,1.0s | | | | | | |
| V37A | Hulbert | 74.97 | 340 | P | P | 08 42 34.5 | +0.5 |
| | baz=160 | | | | | | |
| S46A | Don Dixon Farm | 75.01 | 347 | P | P | 08 42 33.4 | -0.7 |
| | baz=166 | | | | | | |
| U39A | Green Forest | 75.01 | 342 | P | P | 08 42 34.0 | -0.3 |
| | baz=162,SNR=8.3 | | | | | | |
| HHAR | Hobbs | 75.03 | 342 | eP | P | 08 42 34.4 | +0.1 |
| | comp=E,11nm,0.7s | | | | | | |
| T42A | Van Buren | 75.06 | 344 | P | P | 08 42 34.3 | -0.2 |
| | baz=164 | | | | | | |
| V36A | Jenks | 75.10 | 340 | P | P | 08 42 34.5 | -0.2 |
| | baz=160,SNR=5.5 | | | | | | |
| V36A | Jenks | 75.10 | 340 | eP | P | 08 42 34.5 | -0.2 |
| | comp=E,23nm,0.8s | | | | | | |
| OK020 | N3440 Road, Me | 75.14 | 339 | eP | P | 08 42 34.9 | 0.0 |
| | comp=E,21nm,0.8s | | | | | | |
| OK021 | N3530 Road, Sp | 75.15 | 339 | eP | P | 08 42 34.7 | -0.3 |
| | comp=E,21nm,0.7s | | | | | | |
| S45A | Carrier Mills | 75.16 | 346 | P | P | 08 42 33.9 | -1.1 |
| | baz=166 | | | | | | |
| TUL1 | Leonard | 75.18 | 340 | P | P | 08 42 35.2 | +0.1 |
| | baz=160,SNR=9.9 | | | | | | |

TUL1 Leonard 75.18 340 eP P 08 42 35.3 +0.1
comp=E,26nm,0.7s
LIC Lamto 75.20 71 eP P 08 42 35.8 0.0
comp=E,33nm,1.3s
T41A Mountain View 75.23 343 P P 08 42 35.3 -0.2
baz=163,SNR=8.4
WCI Wyandotte Cave 75.29 348 P P 08 42 35.0 -0.7
baz=168
U38A Gravette 75.30 341 P P 08 42 35.3 -0.5
baz=161
S44A Carbondale 75.31 346 P P 08 42 35.5 -0.4
baz=165,SNR=5.4
SIUC Southern Illin 75.33 346 eP P 08 42 35.2 -0.7
V35A Meyer Ranch, C 75.33 339 P P 08 42 35.9 -0.2
baz=159,SNR=13
V35A Meyer Ranch, C 75.33 339 eP P 08 42 36.0 0.0
comp=E,35nm,0.6s
R48A Northridge Ran 75.39 349 P P 08 42 35.8 -0.5
baz=166
R47A Wooly Knot Far 75.39 348 P P 08 42 36.0 -0.4
baz=168
U37A Salina 75.46 341 P P 08 42 36.5 -0.2
baz=160,SNR=7.1
TIC Toumodi 75.47 70 eP P 08 42 40.5 +3.1
R46A Gibon Southern 75.48 347 P P 08 42 36.3 -0.5
baz=167
KIC Kosan Boka 75.50 71 eP P 08 42 37.3 -0.3
comp=E,20nm,0.7s
T40A Mansfield 75.50 343 P P 08 42 36.9 -0.1
baz=163
T39A Clever 75.59 342 P P 08 42 37.5 0.0
baz=162,SNR=9.0
U36A Oologah 75.61 340 P P 08 42 37.7 +0.1
baz=160
MSTX Muleshoe 75.61 334 P P 08 42 38.3 +0.4
baz=154,SNR=12
MSTX Muleshoe 75.61 334 eP P 08 42 37.8 0.0
comp=E,16nm,0.6s
DBIC Dimbokro 75.61 71 P P 08 42 37.6 -0.6
comp=E,5.9nm,0.7s,baz=187,slow=4.3,SNR=9.9
DBIC pP pP 08 43 00.5 -0.7
comp=E,7.2nm,0.7s,baz=196,slow=5.2,SNR=4.8
DBIC Dimbokro 75.61 71 eP P 08 42 37.6 -0.6
comp=E,9.4nm,0.8s
DBIC pP pP 08 43 00.5 -0.7
R45A Skylar, Fairfi 75.70 347 P P 08 42 37.5 -0.6
baz=166
S42A Caledonia 75.71 344 P P 08 42 37.8 -0.3
baz=164,SNR=8.2
S41A Jillco Farms, 75.74 344 P P 08 42 38.3 -0.1
baz=163,SNR=15
R44A Waltonville 75.81 346 P P 08 42 38.1 -0.6
baz=165
T38A Diamond 75.83 341 P P 08 42 39.0 +0.1
baz=161
U35A Pawnee 75.87 339 P P 08 42 39.3 +0.2
baz=159,SNR=20
U35A Pawnee 75.87 339 eP P 08 42 39.4 +0.2
comp=E,40nm,0.8s
U35A epP pP 08 43 00.7 -1.4
319A Douglas 75.92 327 eP P 08 42 41.2 +1.6
comp=E,20nm,0.9s
S40A Lebanon 75.93 343 P P 08 42 39.3 -0.1
baz=163,SNR=12
R43A Red Bud 76.01 345 P P 08 42 39.7 -0.1
baz=165,SNR=5.6
AMTX Amarillo 76.06 335 P P 08 42 40.8 +0.5
baz=155
AMTX Amarillo 76.06 335 eP P 08 42 40.5 +0.2
comp=E,61nm,1.3s
CCM Cathedral Cave 76.08 344 P P 08 42 40.4 +0.1
baz=164
CCM Cathedral Cave 76.08 344 eP P 08 42 40.2 0.0
comp=E,37nm,0.8s
T37A Cheneyville 18 76.08 341 P P 08 42 40.2 0.0
baz=161,SNR=11
R42A Luebbering 76.20 345 P P 08 42 40.9 0.0
baz=164,SNR=5.0
S39A Bolivar 76.21 342 P P 08 42 41.0 0.0
baz=162,SNR=8.4
Q45A Warren Harvey, 76.26 347 P P 08 42 40.8 -0.5
baz=166
T36A Boggs Farm, Ca 76.28 340 P P 08 42 41.4 0.0
baz=160,SNR=8.6
121A Cookes Peak, D 76.28 329 P P 08 42 43.3 +1.6
baz=151,SNR=9.0
121A Cookes Peak, D 76.28 329 eP P 08 42 43.2 +1.5
comp=E,16nm,0.9s
S38A Stockton 76.30 342 P P 08 42 41.5 0.0
baz=162,SNR=22
T35A Sooner Cattle 76.32 340 P P 08 42 42.0 +0.4
baz=159,SNR=7.7
R41A Rosebud 76.34 344 P P 08 42 41.7 -0.1
baz=164,SNR=19
Q44A Meyer Farm, Va 76.43 346 P P 08 42 41.6 -0.6
baz=166
P47A Martinsville 76.51 348 P P 08 42 41.9 -0.8
baz=168
R40A Maddies Statio 76.53 343 P P 08 42 42.7 -0.1
baz=163,SNR=19
U32A Winter Ranch, 76.55 338 P P 08 42 43.4 +0.4
baz=158
Q43A New Douglas 76.61 346 P P 08 42 43.1 -0.1
baz=165,SNR=10
T34A McClaskey Farm 76.61 339 P P 08 42 43.7 +0.4
baz=159,SNR=6.4
S37A Fort Scott 76.66 341 P P 08 42 43.2 -0.3
baz=161
R39A Chumby, Stover 76.74 343 P P 08 42 43.9 0.0
baz=162,SNR=14
Q42A Golden Eagle 76.75 345 P P 08 42 44.1 +0.1
baz=164,SNR=6.6
ACSO Alum Creek Sta 76.77 351 P P 08 42 43.9 -0.2
baz=170,SNR=5.1
ACSO Alum Creek Sta 76.77 351 eP P 08 42 43.6 -0.5
comp=E,21nm,0.9s
P46A Rosedale 76.80 348 P P 08 42 43.9 -0.4
baz=167
S36A Lake Cedric, C 76.82 341 P P 08 42 44.5 0.0
baz=160,SNR=7.3
R38A Fenwick Farm, 76.83 342 P P 08 42 44.1 -0.3
baz=162,SNR=6.4
P44A Sand Creek, Wi 76.91 347 P P 08 42 44.5 -0.4
baz=166
Q41A Truxton 76.94 344 P P 08 42 45.2 +0.1
baz=164,SNR=14
S35A Otter Creek Ra 76.98 340 P P 08 42 45.4 +0.1
baz=160,SNR=6.8
Q40A Laux Farm, Aux 77.16 344 P P 08 42 46.4 +0.1
baz=163,SNR=15
BNM Barren Site 77.22 331 eP P 08 42 48.6 +1.5
O47A Sheridan 77.23 349 P P 08 42 45.9 -0.8
baz=168
P43A Skaggs, Pawnee 77.25 346 P P 08 42 46.4 -0.3
baz=165,SNR=6.3
Y22D IRIS PASSCAL I 77.27 331 P P 08 42 46.6 -0.7
baz=151
Y22E IRIS PASSCAL I 77.27 331 P P 08 42 46.6 -0.7
baz=151
P42A Winchester 77.36 345 P P 08 42 47.0 -0.4
baz=164,SNR=6.0
R36A Gordon, Harris 77.36 341 P P 08 42 47.8 +0.3
baz=160
LPM Los Pinos Moun 77.37 331 eP P 08 42 49.4 +1.5
TUC Tucson 77.38 327 P P 08 42 49.2 +1.4
baz=148
TUC Tucson 77.38 327 eP P 08 42 49.4 +1.6
comp=E,6.1nm,1.0s
Q39A Willow Grove F 77.42 343 P P 08 42 47.5 -0.3
baz=162,SNR=10
Q38A Cooks Store, C 77.49 343 P P 08 42 48.1 -0.1
baz=162,SNR=13
O45A Potomac 77.50 347 P P 08 42 47.3 -0.9
baz=167
SFIN Lafayette 77.52 348 P P 08 42 47.8 -0.4
baz=167
O44A Mansfield 77.54 347 P P 08 42 47.9 -0.5
baz=166
P41A Barry, Barry 77.59 345 P P 08 42 48.4 -0.3
baz=164
Q37A Longview Farm, 77.62 342 P P 08 42 48.3 -0.6
baz=161,SNR=5.5
LAZ Ladron 77.65 331 eP P 08 42 51.1 +1.7
P40A Paris 77.67 344 P P 08 42 49.3 +0.2
baz=163,SNR=26
P39B Salisbury 77.79 343 P P 08 42 49.6 -0.2
baz=163
R34A Isabella, Hill 77.82 340 P P 08 42 50.2 +0.1
baz=159,SNR=8.8
O43A Sugar Creek Fa 77.83 346 P P 08 42 49.8 -0.2
baz=165
ANMO Albuquerque 77.86 331 P P 08 42 51.6 +1.1
baz=152
ANMO Albuquerque 77.86 331 eP P 08 42 51.7 +1.1
comp=E,9.4nm,1.0s
O42A Bath 77.89 346 P P 08 42 50.7 +0.3
baz=165
N46A Monticello 77.96 348 P P 08 42 49.8 -0.9
baz=168
O41A Passleys Farm, 77.98 345 P P 08 42 50.3 -0.6
baz=164,SNR=7.2
214A Organ Pipe Nat 77.99 325 P P 08 42 52.9 +1.7
baz=147,SNR=6.1
214A Organ Pipe Nat 77.99 325 eP P 08 42 53.0 +1.8
comp=E,30nm,0.9s
Q35A Mercer Eighty, 78.01 341 P P 08 42 51.1 0.0
baz=160
HDIL Hopedale 78.09 346 P P 08 42 51.1 -0.3
baz=165
HDIL Hopedale 78.09 346 eP P 08 42 51.2 -0.3
comp=E,27nm,0.9s
P38A Dawn 78.10 343 P P 08 42 51.3 -0.2
baz=162,SNR=12
N44A Piper City 78.10 347 P P 08 42 51.2 -0.3
baz=166
O40A La Belle 78.20 344 P P 08 42 51.7 -0.4
baz=163,SNR=6.2
P37A Lathrop 78.26 342 P P 08 42 52.0 -0.5
baz=161,SNR=8.2
Q34A Chapman 78.31 340 P P 08 42 52.9 +0.1
baz=159,SNR=5.9
KSU1 Kansas State U 78.39 340 P P 08 42 53.3 +0.2
baz=160
O39A Kirtsville 78.47 344 P P 08 42 53.6 0.0
baz=163,SNR=6.7
N42A Yates City 78.49 346 P P 08 42 53.2 -0.4
baz=165
P36A Good Intent, A 78.51 342 P P 08 42 53.4 -0.4
baz=161
N41A Harden Midland 78.54 345 P P 08 42 53.7 -0.3
baz=164
O38A Galt 78.56 343 P P 08 42 53.8 -0.3
baz=162,SNR=5.3
P35A Duane Minner, 78.63 341 P P 08 42 54.3 -0.2
baz=160,SNR=8.4
M44A Midewin, Midew 78.66 348 P P 08 42 54.2 -0.4
baz=166
O37A Wolven Farm, M 78.76 343 P P 08 42 55.0 -0.1
baz=162,SNR=5.4
BOSA Boshof 78.79 117 P P 08 42 56.1 +0.1
comp=E,14nm,0.9s,baz=236,slow=5.1,SNR=15
BOSA Boshof 78.79 117 eP P 08 42 56.3 +0.3
comp=E,67nm,1.8s
N40A Mertquake, Sal 78.86 345 P P 08 42 55.6 -0.1
baz=164
P34A Walnut Farm, R 78.87 340 P P 08 42 56.0 +0.2
baz=159,SNR=7.2
M43A Waltham Townsh 78.88 347 P P 08 42 55.4 -0.3
baz=166
X18A Snowflake 78.91 329 eP P 08 42 58.0 +1.6
O36A Bolckow 78.93 342 P P 08 42 55.7 -0.4
baz=161
CBKS Cedar Bluff 79.02 338 P P 08 42 57.4 +0.8
baz=157,SNR=5.4
CBKS Cedar Bluff 79.02 338 eP P 08 42 57.7 +1.0
comp=E,20nm,0.8s
T25A Trinidad 79.04 334 P P 08 42 58.2 +1.2
baz=154,SNR=18
T25A Trinidad 79.04 334 eP P 08 42 58.4 +1.3
comp=E,24nm,0.8s
N39A Derby Farms, D 79.06 344 P P 08 42 56.6 -0.2
baz=163,SNR=11
M41A Milan 79.12 346 P P 08 42 56.4 -0.7
baz=164
N38A Joes South For 79.14 343 P P 08 42 57.2 0.0
baz=162,SNR=10
O35A Humboldt 79.30 341 P P 08 42 57.6 -0.5
baz=160
N37A Lee Faris, Mou 79.34 343 P P 08 42 58.1 -0.2
baz=162
O34A Beatrice 79.42 341 P P 08 42 59.0 +0.2
baz=160
X16A Lo Mia Camp, P 79.45 327 eP P 08 43 00.8 +1.5
comp=E,11nm,0.9s
L42A Oliver, Polo 79.56 346 P P 08 42 59.2 -0.2
baz=165
L43A Garden Prairie 79.56 347 P P 08 42 59.5 +0.1
baz=166
M39A Weber 79.56 344 P P 08 42 59.0 -0.5
baz=163
O33A Hebron 79.57 340 P P 08 42 59.8 +0.2
baz=159,SNR=7.7
N36A Muff Farm, Cla 79.58 342 P P 08 42 59.5 -0.1
baz=161,SNR=6.5
M38A Pleasantville 79.73 344 P P 08 43 00.2 -0.2
baz=162,SNR=8.0
L41A Preston 79.79 346 P P 08 43 00.6 -0.1
baz=164
N35A Tabor 79.79 342 P P 08 43 00.7 -0.1
baz=160,SNR=12
GLA Glamis 79.85 324 P P 08 43 03.0 +1.7
baz=146
M37A Trindle Farm, 79.91 343 P P 08 43 01.4 0.0
baz=162,SNR=6.1
L40A Anamosa 79.92 345 P P 08 43 01.2 -0.2
baz=164
SDCO Great Sand Dun 79.97 333 P P 08 43 03.1 +0.9
baz=153,SNR=12
SDCO Great Sand Dun 79.97 333 eP P 08 43 03.2 +0.9
comp=E,5.6nm,0.9s
N34A Lincoln 79.99 341 P P 08 43 01.8 0.0
baz=160,SNR=5.8
KSCO Kaye Shedlock' 80.11 336 P P 08 43 03.9 +1.2
baz=155
KSCO Kaye Shedlock' 80.11 336 eP P 08 43 04.2 +1.5
comp=E,15nm,0.9s
IKP In-Ko-Pah, Jac 80.13 323 P P 08 43 04.7 +1.8
baz=145
L39A Vinton 80.14 345 P P 08 43 02.3 -0.3
baz=163
M36A Felix, Anita 80.14 343 P P 08 43 02.9 +0.3
baz=161
SWSC Sam W. Stewart 80.22 324 P P 08 43 04.5 +1.3
baz=145
K42A Prairie Point, 80.25 347 P P 08 43 02.8 -0.4
baz=166,SNR=5.9
K41A Shullsburg 80.26 346 P P 08 43 03.2 0.0
baz=165,SNR=6.2
Y12C Blythe 80.28 325 P P 08 43 05.7 +2.2
baz=146
Y12C Blythe 80.28 325 eP P 08 43 05.8 +2.2
comp=E,15nm,0.9s
WUAZ Wupatki 80.36 328 P P 08 43 06.0 +1.9
baz=148,SNR=8.5
WUAZ Wupatki 80.36 328 eP P 08 43 06.1 +1.9
comp=E,12nm,1.0s
L38A Oak Wood Farm, 80.36 344 P P 08 43 03.7 -0.1
baz=163
M35A Neola 80.37 342 P P 08 43 03.9 0.0
baz=160
BAR Barrett 80.43 323 eP P 08 43 06.3 +1.9
comp=E,6.1nm,0.8s
S22A 4UR Ranch, Cre 80.46 332 P P 08 43 06.1 +1.3
baz=152,SNR=9.7
S22A 4UR Ranch, Cre 80.46 332 eP P 08 43 06.1 +1.3
comp=E,5.2nm,0.8s
MONP2 Monument Peak 80.48 323 P P 08 43 06.6 +1.7
baz=145
K40A Colesburg 80.52 346 P P 08 43 04.4 -0.2
baz=164
L37A Phoenix Point, 80.53 344 P P 08 43 04.3 -0.4
baz=162
JFWS Jewell Farm 80.55 346 P P 08 43 04.6 -0.2
baz=165
M34A Aspy Farms, Fr 80.63 341 P P 08 43 05.5 +0.2
baz=160
MVCO Mesa Verde 80.63 331 P P 08 43 06.7 +1.0
baz=150,SNR=6.7
MVCO Mesa Verde 80.63 331 eP P 08 43 06.7 +1.0
comp=E,6.3nm,0.8s
BC3 Big Chuckawall 80.64 324 P P 08 43 07.2 +1.5
baz=145,SNR=8.7
J43A Natural Harves 80.67 348 P P 08 43 05.3 -0.1
baz=166
K39A Oelwein 80.67 345 P P 08 43 04.8 -0.6
baz=163
L36A Harm Buss Farm 80.72 343 P P 08 43 05.7 0.0
baz=161,SNR=5.8
J42A Columbus 80.73 347 P P 08 43 05.6 -0.1
baz=166
K38A Parkersburg 80.81 344 P P 08 43 05.6 -0.5
baz=163
M33A Taylor Creek F 80.86 341 P P 08 43 06.6 +0.1
baz=159
IRM Iron Mountain 80.91 325 P P 08 43 08.6 +1.7
baz=146,SNR=7.9
Q24A Divide 80.93 334 P P 08 43 08.6 +1.3
baz=153,SNR=7.3
Q24A Divide 80.93 334 eP P 08 43 08.7 +1.3
comp=E,13nm,0.7s
J41A Loganville 80.94 347 P P 08 43 06.6 -0.2
baz=165
L35A Bielow Farm, R 80.94 342 P P 08 43 07.0 +0.1
baz=161,SNR=6.1
BGNE Belgrade 80.96 340 P P 08 43 07.3 +0.3
baz=158
L34A Svendsen Farm, 81.02 342 P P 08 43 07.6 +0.3
baz=160
TPFO Pinon Flats 81.08 323 P P 08 43 10.0 +2.0
baz=145,SNR=11
PFO Pinyon Flats O 81.08 323 P P 08 43 10.2 +2.2
baz=145,SNR=11
PFO Pinyon Flats O 81.08 323 eP P 08 43 09.9 +1.9
comp=E,15nm,1.0s
J40A Soldiers Grove 81.11 346 P P 08 43 07.5 -0.2
baz=164,SNR=5.7
I43A Langenfeld Bro 81.11 348 P P 08 43 07.9 +0.2
baz=166
W13A Hualapai Mount 81.11 326 eP P 08 43 09.8 +1.6
K37A Belmond 81.11 344 P P 08 43 07.2 -0.6
baz=162
LBTB Lobatse 81.11 114 eP P 08 43 08.7 +0.1
comp=E,18nm,0.4s
K36A Gilmore City 81.18 343 P P 08 43 08.4 +0.2
baz=161
BELC Belle Mtn. Jos 81.18 324 P P 08 43 10.3 +1.8
baz=145,SNR=6.9
J39A Decorah 81.24 345 P P 08 43 08.2 -0.3
baz=164
I42A Draeger Farm, 81.25 347 P P 08 43 07.9 -0.5
baz=166
KOWA Kowa 81.28 65 eP P 08 43 10.9 +1.5
comp=E,5.0nm,0.6s
J38A Wedel Dairy, R 81.39 345 P P 08 43 09.1 -0.1
baz=163
MURC Murrieta 81.43 323 P P 08 43 11.4 +1.7
baz=144
L33A Hoskins 81.43 341 P P 08 43 09.7 +0.1
baz=159
PV01 Paradox Valley 81.47 331 eP P 08 43 10.7 +0.6
J37A Redenius Farm, 81.61 344 P P 08 43 10.3 -0.1
baz=162
K34A Le Mars 81.62 342 P P 08 43 10.4 -0.1
baz=160
PV05 Paradox Valley 81.62 331 eP P 08 43 12.1 +1.2
LDFC Landfair 81.65 325 eP P 08 43 13.4 +2.4
comp=E,8.3nm,0.8s
GMRC Granite Mounta 81.66 325 P P 08 43 12.8 +1.8
baz=145,SNR=12
I39A Houston 81.70 346 P P 08 43 10.8 -0.1
baz=164
K33A Hardington 81.77 341 P P 08 43 11.9 +0.6
baz=159
SMCO Snowmass 81.78 333 eP P 08 43 13.1 +1.2
comp=E,10nm,0.8s
J36A Seneca 1, Swea 81.81 343 P P 08 43 11.4 0.0
baz=162,SNR=5.3
BBRC Big Bear Solar 81.83 324 P P 08 43 13.4 +1.3
baz=144
ISCO Idaho Springs 81.84 334 P P 08 43 13.2 +1.2
baz=153,SNR=5.3
ISCO Idaho Springs 81.84 334 eP P 08 43 13.3 +1.2
comp=E,4.7nm,0.8s
PV10 Paradox Valley 81.86 331 eP P 08 43 12.8 +0.7
PV09 Paradox Valley 82.00 331 eP P 08 43 13.9 +0.9
HEC Hector,Ludlow 82.02 324 P P 08 43 14.6 +1.7
baz=145,SNR=5.1
I38A Scanlan Farm, 82.05 345 P P 08 43 12.6 -0.1
baz=163,SNR=5.6
K32A Verdigre 82.08 341 P P 08 43 13.5 +0.6
baz=159
J34A George 82.15 342 P P 08 43 13.7 +0.4
baz=160
BFSC Mount Baldy Ra 82.17 323 P P 08 43 15.0 +1.2
baz=144,SNR=6.1
KNB Kanab 82.25 328 eP P 08 43 15.8 +1.7
comp=E,13nm,0.9s
I37A Lemond, Waseca 82.25 344 P P 08 43 13.9 +0.1
baz=162,SNR=5.3
K31A O'Neill 82.26 340 P P 08 43 14.6 +0.7
baz=158,SNR=15
TUQ Turquoise Moun 82.32 325 P P 08 43 16.1 +1.6
baz=145,SNR=11
MWC Mount Wilson 82.36 323 eP P 08 43 16.7 +1.9
comp=E,9.7nm,0.8s
RRX Edison Barstow 82.37 324 P P 08 43 16.7 +2.1
baz=144
I36A Fitzsimmons Fa 82.39 344 P P 08 43 14.4 -0.1
baz=162
LCMT Little Creek M 82.42 328 eP P 08 43 16.6 +1.5
comp=E,8.2nm,1.2s
J33A Davis 82.43 342 P P 08 43 15.0 +0.3
baz=160,SNR=5.5
G42A Mountain 82.47 348 P P 08 43 15.0 +0.1
baz=166
DECC Green Verdugo 82.51 323 P P 08 43 17.5 +2.1
baz=144
GSC Goldstone, Bar 82.62 324 P P 08 43 17.9 +1.8
baz=145,SNR=6.4
GSC Goldstone, Bar 82.62 324 eP P 08 43 17.8 +1.8
comp=E,7.6nm,0.8s
H37A Dierke Farm, C 82.69 345 P P 08 43 16.2 +0.2
baz=163
J32A Parkston 82.71 341 P P 08 43 16.3 +0.2
baz=159,SNR=8.3
ECSD EROS Data Cent 82.73 342 P P 08 43 16.5 +0.2
baz=160,SNR=14
ECSD EROS Data Cent 82.73 342 eP P 08 43 16.5 +0.2
comp=E,14nm,0.9s
BLG Laguna Peak, P 82.76 322 P P 08 43 17.8 +1.1
baz=143
MTPU Mount Pierson 82.84 329 eP P 08 43 18.6 +1.2
comp=E,8.6nm,0.9s
SZCU Shurtz Canyon 82.85 328 eP P 08 43 19.3 +2.0
comp=E,7.4nm,1.1s
SHPR Sheep Range 82.85 326 eP P 08 43 19.0 +1.7
comp=E,5.9nm,0.8s
EDW2 Edwards Air Fo 82.85 323 P P 08 43 18.3 +1.1
baz=144,SNR=7.3
J31A Geddes 82.87 340 P P 08 43 17.3 +0.3
baz=158
H36A Jessenland, He 82.90 344 P P 08 43 17.8 +0.7
baz=162
N23A Red Feather La 82.93 335 P P 08 43 18.7 +1.0
baz=153
N23A Red Feather La 82.93 335 eP P 08 43 19.0 +1.3
comp=E,7.4nm,0.8s
F42A Maple Grove Fa 82.93 348 P P 08 43 17.9 +0.7
baz=166
G39A Holcombe 83.01 346 P P 08 43 17.8 +0.2
baz=164
F41A Three Lakes 83.07 348 P P 08 43 17.5 -0.5
baz=166
I33A Coleman 83.07 342 P P 08 43 18.6 +0.5
baz=160
SRU San Rafael Swe 83.08 331 eP P 08 43 19.4 +1.0
comp=E,9.2nm,0.8s
E45A Wooded Hills, 83.08 351 P P 08 43 18.4 +0.4
baz=169
O20A White River Ci 83.08 333 P P 08 43 19.2 +0.8
baz=151
PHWY Pilot Hill 83.12 335 eP P 08 43 19.8 +1.1
comp=E,27nm,1.5s
Q16A Castle Valley 83.17 330 eP P 08 43 20.4 +1.5
comp=E,36nm,0.9s
LRMC Laurel Mtn Rad 83.19 324 P P 08 43 20.3 +1.3
baz=144,SNR=7.9
H35A Sunnyside Ranc 83.22 344 P P 08 43 18.8 0.0
baz=161,SNR=9.2
I32A Karley and Nic 83.22 342 P P 08 43 18.5 -0.3
baz=159
MSU Marysvale 83.24 329 eP P 08 43 21.0 +1.7
SPMN Marine on St. 83.28 345 P P 08 43 18.3 -0.7
baz=163

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| H34A | Spellman Lake, baz=160 | 83.41 | 343 | P | | P | 08 43 20.2 +0.5 |
| P18A | Preston Nutter comp=E,15nm,0.9s | 83.41 | 331 | *e*P | | P | 08 43 21.4 +1.1 |
| F40A | Park Falls baz=165 | 83.42 | 347 | P | | P | 08 43 20.5 +0.7 |
| ARVC | Arvin baz=143 | 83.46 | 323 | P | | P | 08 43 21.5 +1.3 |
| P17A | Butcher Ranch, comp=E,15nm,1.3s | 83.47 | 331 | *e*P | | P | 08 43 21.5 +1.1 |
| G36A | St. Michael baz=162 | 83.49 | 344 | P | | P | 08 43 20.1 0.0 |
| TMUT | Trail Mountain comp=E,12nm,0.5s | 83.51 | 330 | *e*P | | P | 08 43 21.9 +1.1 |
| MPMC | Manual Prospec baz=144,SNR=5.5 | 83.56 | 324 | P | | P | 08 43 22.1 +1.2 |
| F39A | Loretta baz=164 | 83.57 | 347 | P | | P | 08 43 21.1 +0.6 |
| FURC | Furnace Creek, baz=145,SNR=6.2 | 83.60 | 325 | P | | P | 08 43 22.6 +1.8 |
| G35A | Watkins baz=162 | 83.63 | 344 | P | | P | 08 43 21.0 +0.1 |
| H33A | Prehn Over Nor baz=160,SNR=9.5 | 83.66 | 342 | P | | P | 08 43 21.4 +0.4 |
| H32A | Carlson Farm, baz=159 | 83.66 | 342 | P | | P | 08 43 21.3 +0.2 |
| TPNV | Topopah Spring baz=145,SNR=9.4 | 83.71 | 326 | P | | P | 08 43 23.6 +2.0 |
| TPNV | Topopah Spring comp=E,6.0nm,0.8s | 83.71 | 326 | *e*P | | P | 08 43 23.4 +1.7 |
| ISA | Isabella, Lake baz=144 | 83.71 | 323 | P | | P | 08 43 23.6 +2.0 |
| F37A | Hinrichs Farm, baz=163 | 83.72 | 345 | P | | P | 08 43 21.2 -0.1 |
| PKM | Mcpherson Peak baz=143 | 83.75 | 322 | P | | P | 08 43 24.2 +2.2 |
| F38A | Pierce - Schro baz=164 | 83.79 | 346 | P | | P | 08 43 21.4 -0.2 |
| E40A | Wakefield baz=165 | 83.89 | 347 | P | | P | 08 43 22.1 -0.1 |
| H31A | Wolsey baz=158,SNR=5.1 | 83.91 | 341 | P | | P | 08 43 22.3 +0.1 |
| G34A | Benson baz=161 | 83.92 | 343 | P | | P | 08 43 22.2 -0.1 |
| E39A | Mellen baz=165 | 83.95 | 347 | P | | P | 08 43 21.9 -0.5 |
| F36A | Milaca baz=162,SNR=7.9 | 84.04 | 345 | P | | P | 08 43 22.5 -0.4 |
| G33A | Ortonville baz=160 | 84.06 | 343 | P | | P | 08 43 23.1 +0.1 |
| CWC | Cottonwood Cre baz=144 | 84.15 | 324 | P | | P | 08 43 25.6 +1.7 |
| VES | Vestal, Richgr baz=143,SNR=11 | 84.15 | 323 | P | | P | 08 43 25.4 +1.7 |
| SMMC | Simmler baz=143 | 84.18 | 322 | P | | P | 08 43 26.4 +2.4 |
| F35A | Swanville baz=162 | 84.26 | 344 | P | | P | 08 43 24.1 +0.1 |
| D41A | Chassel baz=166 | 84.27 | 348 | P | | P | 08 43 24.7 +0.7 |
| GRAC | Grapevine Rang baz=144,SNR=5.7 | 84.27 | 325 | P | | P | 08 43 26.1 +1.8 |
| MPU | Maple Canyon comp=E,8.3nm,0.9s | 84.29 | 330 | *e*P | | P | 08 43 25.9 +1.3 |
| E38A | The Farm, Brul baz=164 | 84.35 | 346 | P | | P | 08 43 24.4 -0.1 |
| F34A | Alexandria baz=161 | 84.35 | 344 | P | | P | 08 43 24.6 +0.1 |
| G32A | Webster baz=159 | 84.38 | 342 | P | | P | 08 43 24.8 +0.2 |
| NLU | North Lily Min comp=E,8.4nm,1.2s | 84.42 | 330 | *e*P | | P | 08 43 26.5 +1.2 |
| WMUT | West Mountain | 84.42 | 330 | *e*P | | P | 08 43 23.2 -2.1 |
| E37A | Wrenshall baz=163 | 84.48 | 346 | P | | P | 08 43 25.4 +0.3 |
| R11A | Troy Canyon, C baz=146,SNR=15 | 84.56 | 327 | P | | P | 08 43 27.8 +1.7 |
| R11A | Troy Canyon, C comp=E,6.0nm,0.8s | 84.56 | 327 | *e*P | | P | 08 43 27.7 +1.7 |
| RCTC | Rector, Farmer baz=143 | 84.60 | 323 | P | | P | 08 43 27.1 +1.2 |
| E36A | McGregor baz=162,SNR=6.8 | 84.61 | 345 | P | | P | 08 43 25.7 -0.1 |
| F33A | 5 Mile Ranch, baz=160 | 84.64 | 343 | P | | P | 08 43 25.7 -0.2 |
| PAGB | Antelope Grade comp=E,11nm,0.9s | 84.64 | 322 | *e*P | | P | 08 43 28.5 +2.3 |
| K22A | Casper baz=152,SNR=6.9 | 84.68 | 335 | P | | P | 08 43 27.6 +1.1 |
| K22A | Casper comp=E,19nm,0.9s | 84.68 | 335 | *e*P | | P | 08 43 27.5 +1.1 |
| TOA0 | Torodi Ar. Sit | 84.69 | 70 | *e*P | | P | 08 43 27.3 +0.4 |
| TOA0 | | | | *e*pP | | pP | 08 43 49.6 -0.7 |
| TORD | Torodi Ar. Bea comp=E,3.7nm,0.8s,baz=244,slow=3.8,SNR=17 | 84.69 | 70 | P | | P | 08 43 27.0 +0.1 |
| TORD | comp=E,4.0nm,0.9s,baz=242,slow=4.6,SNR=7.7 | | | *e*pP | | pP | 08 43 49.5 -0.8 |
| JLU | Jordanelle baz=162 | 84.72 | 331 | *e*P | | P | 08 43 28.0 +1.2 |
| E35A | Pequot Lakes baz=162 | 84.89 | 344 | P | | P | 08 43 27.2 +0.1 |
| CTU | Camp Tracy comp=E,4.6nm,0.8s | 84.92 | 331 | *e*P | | P | 08 43 28.8 +1.1 |
| DUG | Dugway, Tooele baz=148,SNR=10 | 84.92 | 330 | P | | P | 08 43 28.7 +1.0 |
| DUG | Dugway, Tooele comp=E,6.6nm,1.0s | 84.92 | 330 | *e*P | | P | 08 43 28.8 +1.1 |
| D37A | Cotton baz=163 | 85.05 | 346 | P | | P | 08 43 28.0 0.0 |
| F31A | Hecla baz=159 | 85.14 | 342 | P | | P | 08 43 28.8 +0.3 |
| TCUT | Toone Canyon comp=E,10nm,0.7s | 85.14 | 331 | *e*P | | P | 08 43 30.1 +1.2 |
| RSSD | Black Hills baz=154 | 85.18 | 337 | P | | P | 08 43 29.4 +0.4 |
| RSSD | Black Hills comp=E,12nm,1.0s | 85.18 | 337 | *e*P | | P | 08 43 29.6 +0.6 |
| C39A | Grand Marais baz=165 | 85.26 | 348 | P | | P | 08 43 32.7 +3.7 |
| D35A | Remer baz=162,SNR=6.9 | 85.31 | 345 | P | | P | 08 43 29.5 +0.3 |
| C38A | Sawbill Land. baz=164 | 85.37 | 347 | P | | P | 08 43 29.1 -0.4 |
| MLAC | Mammoth, Mammo baz=144,SNR=6.1 | 85.47 | 324 | P | | P | 08 43 32.3 +1.7 |
| C37A | Embarrass baz=163 | 85.55 | 346 | P | | P | 08 43 30.4 -0.1 |
| D34A | Park Rapids baz=161 | 85.56 | 344 | P | | P | 08 43 30.2 -0.3 |
| MDPB | Devils Postpil comp=E,3.8nm,0.8s | 85.58 | 324 | *e*P | | P | 08 43 32.9 +1.7 |
| BGU | Big Grassy Mou comp=E,2.6nm,0.8s | 85.63 | 330 | *e*P | | P | 08 43 32.0 +0.8 |
| EYMN | Ely baz=164 | 85.63 | 347 | P | | P | 08 43 30.8 0.0 |
| E31A | Nome baz=159,SNR=5.7 | 85.69 | 342 | P | | P | 08 43 31.6 +0.4 |
| C36A | Pine Crest Far baz=163 | 85.71 | 346 | P | | P | 08 43 31.8 +0.5 |
| BW06 | Boulder Array baz=150 | 85.86 | 333 | P | | P | 08 43 32.6 +0.2 |
| BW06 | Boulder Array comp=E,9.8nm,1.4s | 85.86 | 333 | *e*P | | P | 08 43 32.6 +0.2 |
| PD31 | Pinedale Array | 85.86 | 333 | *e*P | | P | 08 43 32.7 +0.3 |
| PDAR | Pinedale Array comp=E,1.5nm,0.6s,baz=139,slow=3.9,SNR=12 | 85.86 | 333 | P | | P | 08 43 32.6 +0.2 |
| PDAR | Pinedale Array | 85.86 | 333 | *e*P | | P | 08 43 31.8 -0.6 |
| C35A | Jirik Farms, M baz=162,SNR=5.0 | 85.88 | 345 | P | | P | 08 43 31.9 -0.2 |
| C34A | RKJ Ranch, Bem baz=161 | 86.03 | 344 | P | | P | 08 43 32.8 0.0 |
| HVU | Hansel Valley comp=E,13nm,0.8s | 86.25 | 330 | *e*P | | P | 08 43 34.8 +0.5 |
| WAKR | Walker comp=E,7.7nm,0.9s | 86.45 | 324 | *e*P | | P | 08 43 37.7 +2.3 |
| B35A | Bob, Littlefor baz=162 | 86.46 | 345 | P | | P | 08 43 34.8 -0.1 |
| CMB | Columbia Colle comp=E,3.4nm,0.8s | 86.53 | 324 | *e*P | | P | 08 43 36.6 +1.0 |
| YERR | Yerington comp=E,20nm,1.4s | 86.74 | 325 | *e*P | | P | 08 43 38.8 +2.0 |
| B33A | Robert and Kas baz=161 | 86.77 | 344 | P | | P | 08 43 36.6 +0.2 |
| B34A | Aery, Baudette baz=162 | 86.77 | 345 | P | | P | 08 43 36.7 +0.3 |
| C31A | Landman Farms, baz=159 | 86.81 | 343 | P | | P | 08 43 36.9 +0.2 |
| AGMN | Agassiz Nation baz=160 | 86.85 | 344 | P | | P | 08 43 36.9 +0.1 |
| AGMN | Agassiz Nation comp=E,20nm,1.3s | 86.85 | 344 | *e*P | | P | 08 43 37.0 +0.2 |
| REDW | Red Top Meadow comp=E,8.4nm,1.3s | 86.85 | 333 | *e*P | | P | 08 43 37.9 +0.7 |
| SNOW | Snow King Moun comp=E,21nm,1.8s | 86.90 | 333 | *e*P | | P | 08 43 38.1 +0.6 |
| LOHW | Long Hollow comp=E,10nm,1.5s | 86.98 | 333 | *e*P | | P | 08 43 38.5 +0.7 |
| PNTR | Pine Nut comp=E,15nm,0.8s | 86.99 | 325 | *e*P | | P | 08 43 40.2 +2.1 |
| TPAW | Teton Pass comp=E,7.9nm,1.1s | 87.00 | 333 | *e*P | | P | 08 43 38.7 +0.7 |
| B32A | Ashes, Strandq baz=160 | 87.10 | 344 | P | | P | 08 43 37.9 -0.1 |
| FXWY | Fox Creek comp=E,2.8nm,0.9s | 87.16 | 333 | *e*P | | P | 08 43 39.3 +0.6 |
| MDND | Maddock baz=158 | 87.33 | 342 | P | | P | 08 43 39.7 +0.6 |
| MDND | Maddock comp=E,36nm,0.9s | 87.33 | 342 | *e*P | | P | 08 43 40.0 +0.9 |
| IMW | Indian Meadow comp=E,6.6nm,1.0s | 87.34 | 333 | *e*P | | P | 08 43 40.5 +0.8 |
| A33A | Warroad baz=161,SNR=7.7 | 87.36 | 345 | P | | P | 08 43 39.5 +0.3 |
| B31A | Greenbush Farm baz=159 | 87.38 | 343 | P | | P | 08 43 39.5 +0.2 |
| PAHR | Pah Rah Range comp=E,6.1nm,0.8s | 87.39 | 325 | *e*P | | P | 08 43 41.4 +1.6 |
| AFDM | Forest Hills D comp=E,5.8nm,0.9s | 87.53 | 324 | *e*P | | P | 08 43 41.8 +1.4 |
| RLMT | Red Lodge baz=150 | 87.80 | 334 | P | | P | 08 43 42.0 +0.2 |
| RLMT | Red Lodge comp=E,3.8nm,0.6s | 87.80 | 334 | *e*P | | P | 08 43 42.4 +0.6 |
| BEKR | Beckworth comp=E,6.8nm,0.9s | 87.97 | 325 | *e*P | | P | 08 43 44.0 +1.4 |
| YMR | Madison River comp=E,6.6nm,0.7s | 88.02 | 333 | *e*P | | P | 08 43 44.2 +1.4 |
| YHH | Holmes Hill comp=E,5.3nm,0.8s | 88.08 | 333 | *e*P | | P | 08 43 44.4 +1.2 |
| LAO | LASA Array baz=153 | 88.17 | 337 | P | | P | 08 43 43.5 +0.2 |
| ORV | Oroville comp=E,14nm,1.3s | 88.26 | 324 | *e*P | | P | 08 43 45.7 +1.9 |
| HLID | Hailey baz=147,SNR=8.2 | 88.40 | 330 | P | | P | 08 43 45.8 +1.3 |
| HLID | Hailey comp=E,4.3nm,0.9s | 88.40 | 330 | *e*P | | P | 08 43 45.7 +1.1 |
| ULM | Lac du Bonnet comp=E,11nm,0.8s,baz=162,slow=2.7,SNR=14 | 88.70 | 345 | P | | P | 08 43 45.7 +0.1 |
| ULM | Lac du Bonnet comp=E,17nm,1.0s | 88.70 | 345 | *e*P | | P | 08 43 45.4 -0.1 |
| MFID | Camas Ranch comp=E,12nm,1.8s | 88.85 | 329 | *e*P | | P | 08 43 47.5 +0.9 |
| MCMT | McKenzie Canyo | 88.85 | 332 | *e*P | | P | 08 43 48.2 +1.4 |
| O03D | Paynes Creek baz=142 | 88.98 | 324 | P | | P | 08 43 47.9 +0.6 |
| DGMT | Dagmar baz=154 | 89.15 | 339 | P | | P | 08 43 48.6 +0.9 |
| DGMT | Dagmar comp=E,44nm,1.4s | 89.15 | 339 | *e*P | | P | 08 43 49.1 +1.4 |
| WVOR | Wild Horse Val comp=E,17nm,1.1s | 89.24 | 327 | *e*P | | P | 08 43 49.9 +1.4 |
| MOD | Modoc Plateau comp=E,8.6nm,0.8s | 89.56 | 326 | *e*P | | P | 08 43 51.2 +1.2 |
| MOD | | | | *e*pP | | pP | 08 44 14.6 +1.0 |
| J08A | Circle Bar Ran comp=E,19nm,1.3s | 89.92 | 328 | *e*P | | P | 08 43 53.1 +1.5 |
| N02D | Trinity Center baz=141 | 89.94 | 324 | P | | P | 08 43 53.3 +1.5 |
| M04C | Macdoel baz=142 | 90.17 | 325 | P | | P | 08 43 54.0 +1.2 |
| M02C | Callahan baz=141 | 90.34 | 324 | P | | P | 08 43 55.1 +1.5 |
| YBH | Yreka Blue Hor comp=E,1.2nm,0.6s,baz=62,slow=6.4 | 90.53 | 324 | P | | P | 08 43 54.9 +0.4 |
| BMO | Blue Mountains comp=E,2.9nm,1.0s | 90.64 | 329 | *e*P | | P | 08 43 55.8 +0.9 |
| K04D | Chiloquin, OR baz=142 | 90.79 | 326 | P | | P | 08 43 57.6 +1.9 |
| I07A | Izee comp=E,3.5nm,0.8s | 90.94 | 328 | *e*P | | P | 08 43 58.0 +1.6 |
| J05D | Fort Rock, OR baz=142,SNR=7.5 | 91.07 | 326 | P | | P | 08 43 58.6 +1.6 |
| F10A | Beach Ranch, E comp=E,4.7nm,1.2s | 91.52 | 330 | *e*P | | P | 08 44 00.4 +1.4 |
| G08A | Pilot Rock comp=E,2.9nm,0.9s | 91.68 | 329 | *e*P | | P | 08 44 01.0 +1.2 |
| E07A | Sunnyside comp=E,3.6nm,0.8s | 93.07 | 329 | *e*P | | P | 08 44 07.7 +1.7 |
| ESDC | Sonseca Array comp=E,68nm,20.8s,baz=320,slow=34 | 97.88 | 46 | LR | | LR | 09 26 40.8 |
| YKA | Yellowknife Ar comp=E,0.6nm,1.0s,baz=141,slow=4.7,SNR=3.7 | 104.24 | 341 | Pdiff | | Pdif | 08 44 54.1 -1.7 |
| ASAR | Alice Springs comp=E,0.5nm,0.7s,baz=128,slow=1.7,SNR=5.7 | 115.73 | 206 | PKP | | PKPdf | 08 49 34.5 -0.6 |
| ILAR | Eielson Array comp=E,0.2nm,0.7s,baz=166,slow=1.5,SNR=4.0 | 116.29 | 332 | PKP | | PKPdf | 08 49 34.2 -0.5 |
| WRA | Warramunga Arr comp=E,1.0nm,0.5s,baz=162,slow=1.6,SNR=8.4 | 116.98 | 208 | PKP | | PKPdf | 08 49 40.4 -1.0 |
| BRTR | Keskin Array B comp=E,0.7nm,0.8s,baz=276,slow=1.8,SNR=3.6 | 122.62 | 62 | PKP | | PKPdf | 08 49 47.8 -0.1 |
| AKASG | Malin Array Be comp=E,1.0nm,0.6s,baz=261,slow=3.2,SNR=6.5 | 123.44 | 48 | PKP | | PKPdf | 08 49 47.9 -1.0 |
| AKASG | | | | pPKP | | pPKPdf | 08 50 12.1 -1.4 |
| ARCES | comp=E,0.4nm,0.3s,baz=259,slow=2.9,SNR=2.6 ARCESS Array B comp=E,5.3nm,1.0s,baz=281,slow=2.6,SNR=8.1 | 125.88 | 26 | PKP | | PKPdf | 08 49 53.0 0.0 |
| TIXI | Tiksi comp=E,2.0nm,0.5s,baz=58,slow=3.6,SNR=6.4 | 142.91 | 349 | PKhKP | | PKPpre | 08 50 19.9 |
| MA2 | Magadan comp=E,4.0nm,0.6s,baz=45,slow=4.3,SNR=4.1 | 144.10 | 324 | PKP | | PKPbc | 08 50 25.6 +0.3 |
| AAK | Ala-Archa | 153.21 | 66 | *e*PKPbc | | PKPbc | 08 50 50.8 +0.7 |
| KSH | Kashi | 154.31 | 73 | *e*PKPbc | | PKPdf | 08 50 41.9 -2.3 |
| KSH | | | | pPKP | | pPKPdf | 08 51 08.9 0.0 |
| KSH | | | | sPKP | | | 08 51 18.9 |
| KSH | | | | PP | | PP | 08 54 42.5 -0.5 |
| KSH | | | | SKS | | SKSdf | 08 57 36.8 -6.2 |
| KSH | | | | SKKS | | SKKSac | 09 01 18.4 -5.9 |
| KSH | | | | SS | | SS | 09 14 09.6 -6.6 |
| KSH | comp=E,110nm,4.6s | | | AMB | | AMB | |
| KSH | comp=E,54nm,4.1s | | | LR | | LR | |
| KSH | comp=E,47nm,4.8s | | | LR | | LR | |
| KSH | comp=E,170nm,5.7s | | | LR | | LR | |
| ZALV | Zalesovo Beam comp=E,0.6nm,0.3s,baz=263,slow=2.5,SNR=7.0 | 155.89 | 35 | PKP | | PKPdf | 08 50 45.3 -0.4 |
| MKAR | Makanchi Array comp=E,0.7nm,0.8s,baz=180,slow=1.2,SNR=6.0 | 157.91 | 53 | PKP | | PKPdf | 08 50 48.0 -0.5 |
| MKAR | | | | PKPab | | PKPab | 08 51 21.7 -0.4 |
| MKAR | comp=E,1.0nm,0.7s,baz=289,slow=2.9,SNR=6.6 comp=E,1.7nm,0.7s,baz=286,slow=4.2,SNR=6.6 | | | pPKPab | | pPKPab | 08 51 45.5 -0.3 |
| WMQ | Urumqi | 162.49 | 58 | *e*PKP | | PKPdf | 08 50 53.1 -0.7 |
| WMQ | comp=E,210nm,26.7s | | | LR | | LR | |
| WMQ | comp=E,110nm,21.9s | | | LR | | LR | |
| KSRS | Korea Array comp=E,2.0nm,0.8s,baz=96,slow=4.1,SNR=4.6 | 164.26 | 280 | PKPab | | PKPab | 08 51 50.1 +0.1 |
| KSAR | Wonju Array Be | 164.29 | 280 | PKPab | | PKPab | 08 51 50.1 -0.1 |
| KMI | Kunming | 167.96 | 155 | PKP | | PKPdf | 08 51 00.5 +1.3 |
| SONM | Songino Array comp=E,1.7nm,0.7s,baz=323,slow=4.3,SNR=11 | 168.29 | 6 | PKPab | | PKPab | 08 52 07.7 +0.2 |
| GYA | Guiyang | 170.18 | 171 | *e*PKP | | PKPdf | 08 51 00.4 0.0 |
| GYA | | | | sPKP | | | 08 51 32.5 |
| GYA | | | | PKPab | | PKPab | 08 52 19.8 +3.4 |
| GYA | | | | PKS | | PKSdf | 08 54 31.0 -2.0 |
| GYA | | | | PP | | PP | 08 56 10.2 +4.5 |
| GYA | comp=E,120nm,8.3s | | | AMB | | AMB | |
| NJ2 | Nanjing | 170.34 | 248 | *e*PKP | | PKPdf | 08 51 03.1 +3.0 |
| HHC | Hu-ho-hao-te | 174.71 | 332 | *e*PKP | | PKPdf | 08 51 00.6 -1.3 |

*IDC* **11** *08:32:46.7±2.7,3.56N×135.64E,h0km,mb3.6/2,*
*mb1 3.9/4,mb1mx3.6/26,mbtmp3.7/4,ML3.5/2,Error*
*ellipse: s-maj=91.8km s-min=29.0km az=84.0,Irian*
*Jaya region*

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| WRA | Warramunga Arr | 16.33 | 184 | Pn | P | 08 36 39.7 | -1.0 |
| | 0.2nm,0.3s,baz=6.8,slow=12,SNR=7.8 | | | | | | |
| FITZ | Fitzroy Crossi | 17.46 | 213 | P | Pn | 08 36 50.4 | -1.3 |
| | 0.1nm,0.3s,baz=34,slow=14,SNR=3.6 | | | | | | |
| FITZ | | | | S | Sn | 08 39 49.4 | -18 |
| | 0.1nm,0.3s,baz=193,slow=14,SNR=2.7 | | | | | | |
| ASAR | Alice Springs | 20.06 | 185 | P | P | 08 37 21.5 | -0.2 |
| | 2.9nm,0.6s,baz=9.3,slow=10,SNR=68 | | | | | | |
| MKAR | Makanchi Array | 68.62 | 324 | P | P | 08 43 51.8 | +0.1 |
| | 0.2nm,0.5s,baz=118,slow=7.4,SNR=5.3 | | | | | | |

*DDA* **11** *08:36:13.8,37.72N×36.09E,h10km,Md2.7*
*ISK* **11** *08:36:13.1,37.76N×36.10E,h5km,MD2.8*
*CSEM* **11** *08:36:14.5±0.2,37.74N×36.08E,h2km,MD2.7,Error*
*ellipse: s-maj=4.7km s-min=4.5km az=106.0*

**ISC 11 08:36:14.3±1.0,37.74N±0.02×36.10E±0.02,h6km±9km,**
**n41,σ0966/62,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| SAIM | ADANA | 0.24 | 356 | *i* P | Pg | 08 36 18.6 | -0.5 |
| SAIM | | | | *i* S | Sg | 08 36 22.8 | +0.6 |
| SAIM | ADANA | 0.24 | 356 | P | Pg | 08 36 18.6 | -0.5 |
| SAIM | | | | S | Sg | 08 36 22.8 | +0.6 |
| ANDN | Andirin | 0.25 | 129 | *i* P | Pg | 08 36 19.2 | 0.0 |
| ANDN | | | | *i* S | Sg | 08 36 23.1 | +0.5 |
| ANDN | Andirin | 0.25 | 129 | P | Pg | 08 36 19.2 | 0.0 |
| ANDN | | | | S | Sg | 08 36 23.1 | +0.5 |
| KOZT | Kozan | 0.34 | 220 | *e*PG | Pb | 08 36 21.5 | -1.2 |
| KOZT | | | | *e*SG | Sb | 08 36 27.1 | -1.3 |
| AKO | Adana | 0.59 | 242 | *i* P | Pb | 08 36 25.9 | -1.1 |
| AKO | | | | *i* S | Sg | 08 36 33.5 | +0.1 |
| KMRS | Kahramanmaras | 0.68 | 110 | *e*PG | Pg | 08 36 27.0 | -0.3 |
| KMRS | Kahramanmaras | 0.68 | 110 | *e*Pg | Pg | 08 36 27.0 | -0.3 |
| YAHY | KAYSERI_Yahyal | 0.68 | 301 | *i* P | Pg | 08 36 27.4 | -0.1 |
| YAHY | | | | *i* S | Sg | 08 36 36.6 | +0.2 |
| YAHY | KAYSERI_Yahyal | 0.68 | 301 | P | Pg | 08 36 27.4 | -0.1 |
| YAHY | | | | S | Sg | 08 36 36.6 | +0.2 |
| KAMA | Osmaniye | 0.71 | 141 | *i* P | Pg | 08 36 27.7 | -0.7 |
| KAMA | | | | *i* S | Sg | 08 36 36.5 | -0.7 |
| SARI | SarD1z-Kayseri | 0.71 | 20 | *e*PG | Pg | 08 36 27.4 | -0.6 |
| HCB | Kahramanmara¯ | 0.75 | 121 | *i* P | Pg | 08 36 28.5 | -0.2 |
| HCB | | | | *i* S | Sn | 08 36 41.9 | -1.3 |
| CEYT | Ceyhan | 0.78 | 201 | *e*PG | Pg | 08 36 28.9 | -0.4 |
| CEYT | Ceyhan | 0.78 | 201 | *e*Pg | Pg | 08 36 28.9 | -0.4 |
| ELBS | KAHRAMANMARAS | 1.00 | 54 | *i* P | Pn | 08 36 35.2 | +0.2 |
| ELBS | | | | *i* S | Sn | 08 36 49.6 | +0.1 |
| ELBS | KAHRAMANMARAS | 1.00 | 54 | P | Pn | 08 36 35.2 | +0.2 |
| ELBS | | | | S | Sn | 08 36 49.6 | +0.1 |
| GAZ | Gaziantep | 1.05 | 122 | *e*PG | Pb | 08 36 34.6 | -0.2 |
| BNN | Bunyan | 1.13 | 350 | *e*PN | Pg | 08 36 35.3 | -0.7 |
| BNN | Bunyan | 1.13 | 350 | *e*Pn | Pg | 08 36 35.3 | -0.7 |
| KUZU | Kuzuini | 1.24 | 141 | *i* P | Pb | 08 36 37.9 | -0.2 |
| KUZU | | | | *i* S | Sb | 08 36 54.4 | +0.1 |
| KUZU | Kuzuini | 1.24 | 141 | P | Pb | 08 36 37.9 | -0.2 |
| KUZU | | | | S | Sb | 08 36 54.4 | +0.1 |
| TAHT | Tahtakopru-Hat | 1.36 | 177 | *e*PN | Pg | 08 36 41.1 | +0.7 |
| TAHT | Tahtakopru-Hat | 1.36 | 177 | *e*Pn | Pg | 08 36 41.1 | +0.7 |
| DARE | Darende-Malaty | 1.37 | 52 | *e*PN | Pg | 08 36 40.3 | -0.3 |
| AKCD | Akcadag | 1.54 | 68 | *i* P | Pg | 08 36 43.7 | -0.2 |
| AKCD | | | | *i* S | Sg | 08 37 04.2 | +0.4 |
| AKCD | Akcadag | 1.54 | 68 | P | Pg | 08 36 43.7 | -0.2 |
| AKCD | | | | S | Sg | 08 37 04.2 | +0.4 |
| CUSAR | Sarkisla-SIVAS | 1.68 | 4 | *i* P | Pb | 08 36 45.6 | -0.1 |
| CUSAR | | | | *i* S | Sb | 08 37 07.2 | 0.0 |
| CUSAR | Sarkisla-SIVAS | 1.68 | 4 | P | Pb | 08 36 45.6 | -0.1 |
| CUSAR | | | | S | Sb | 08 37 07.2 | 0.0 |
| ATAB | Bozova | 1.76 | 98 | *i* P | Pg | 08 36 47.8 | -0.3 |
| ATAB | | | | *i* S | Sb | 08 37 09.7 | +0.3 |
| ATAB | Bozova | 1.76 | 98 | P | Pg | 08 36 47.8 | -0.3 |
| ATAB | | | | S | Sb | 08 37 09.7 | +0.3 |
| HEKM | Malatya_Hekimh | 1.85 | 52 | *i* P | Pn | 08 36 47.2 | +0.4 |
| HEKM | | | | *i* S | Sg | 08 37 14.5 | +0.6 |
| HEKM | Malatya_Hekimh | 1.85 | 52 | P | Pn | 08 36 47.2 | +0.4 |
| MALT | Malatya | 1.92 | 72 | *e*PN | Pn | 08 36 48.0 | +0.3 |
| URFA | Urfa | 2.18 | 97 | *e*PN | Pb | 08 36 52.6 | -1.6 |
| SVSK | Karacayir | 2.29 | 18 | *e*PN | Pn | 08 36 53.7 | +1.2 |
| SVSK | Karacayir | 2.29 | 18 | *e*Pn | Pn | 08 36 53.7 | +1.2 |
| KEBE | Keben-Mersin | 2.31 | 237 | *e*PN | Pn | 08 36 54.1 | +1.2 |
| KEBE | Keben-Mersin | 2.31 | 237 | *e*Pn | Pn | 08 36 54.1 | +1.2 |
| TEVE | Tevekalti-Mers | 2.49 | 239 | *e*PN | Pn | 08 36 56.7 | +1.3 |
| TEVE | Tevekalti-Mers | 2.49 | 239 | *e*Pn | Pn | 08 36 56.7 | +1.3 |

*NEIC* **11** *08:43:28.3±0.0,17.16N×99.61W,h35km,MD4.1(MEX),*
*After MEX.*

**MEX 11 08:43:28.3±0.5,17.16N×99.61W,h35km±14km,MD4.1,**
**Guerrero**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| ACX | Acapulco | 0.37 | 219 | *e*P | Pb | 08 43 36.2 | -1.0 |
| ACX | | | | *e*S | Sn | 08 43 43.1 | -0.2 |
| ACX | Acapulco | 0.37 | 219 | *e*P | Pb | 08 43 36.2 | -1.0 |
| ACX | | | | *e*S | Sn | 08 43 43.1 | -0.2 |
| ACP2 | Acapulco | 0.39 | 223 | *e*P | Pb | 08 43 35.7 | -1.7 |
| ACP2 | | | | *e*S | Sn | 08 43 42.1 | -1.5 |
| CAIG | El Cayaco | 0.64 | 260 | *e*P | Pn | 08 43 38.7 | -2.1 |
| CAIG | | | | *e*S | Sn | 08 43 47.7 | -2.0 |
| CAIG | El Cayaco | 0.64 | 260 | *e*P | Pn | 08 43 38.7 | -2.1 |
| CAIG | | | | *e*S | Sn | 08 43 47.7 | -2.0 |
| MEIG | Mezcala | 0.76 | 359 | *e*S | Sn | 08 43 50.4 | -2.7 |
| MEIG | Mezcala | 0.76 | 359 | *e*S | Sn | 08 43 50.4 | -2.7 |
| TLIG | Tlapa | 1.08 | 68 | *e*P | Pn | 08 43 45.4 | -1.6 |
| TLIG | | | | *e*S | Sn | 08 43 58.8 | -2.0 |
| TLIG | Tlapa | 1.08 | 68 | *e*P | Pn | 08 43 45.4 | -1.6 |
| TLIG | | | | *e*S | Sn | 08 43 58.8 | -2.0 |
| PLIG | Platanillo | 1.23 | 5 | *e*P | Pn | 08 43 47.6 | -1.5 |
| PLIG | | | | *e*S | Sn | 08 44 02.0 | -2.6 |
| PLIG | Platanillo | 1.23 | 5 | *e*P | Pn | 08 43 47.6 | -1.5 |
| PLIG | | | | *e*S | Sn | 08 44 02.0 | -2.6 |
| ARIG | Puente Sto Nin | 1.32 | 328 | *e*P | Pn | 08 43 48.7 | -1.6 |
| ARIG | | | | *e*S | Sn | 08 44 04.5 | -2.1 |
| PNIG | Pinotepa | 1.61 | 118 | *e*P | Pn | 08 43 52.4 | -1.9 |
| PNIG | Pinotepa | 1.61 | 118 | *e*P | Pn | 08 43 52.4 | -1.9 |

*CSEM* **11** *09:04:51.7±0.4,36.22N×2.95E,h2km,mb3.5,Error*
*ellipse: s-maj=13.2km s-min=7.3km az=36.0*
*CRAAG* **11** *09:04:51.4,36.22N×2.96E,Ml3.5*
*MDD* **11** *09:04:52.5±0.6,36.22N×2.95E,h0km,mb3.5/2,Error*
*ellipse: s-maj=7.1km s-min=6.2km az=60.0,PRXIMO*

**ISC 11 09:04:51.4±1.1,36.24N±0.08×2.93E±0.06,h7km±9km,n18,**
**σ1906/24,Northern Algeria**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| EMHD | Djebel Mahouad | 0.04 | 158 | P | Pg | 09 04 52.7 | -0.2 |
| EMHD | Djebel Mahouad | 0.04 | 158 | P | Pg | 09 04 52.7 | -0.2 |
| EMHD | Djebel Mahouad | 0.04 | 158 | P | Pg | 09 04 52.7 | -0.2 |
| ADJB | Djebel Djouab | 0.42 | 101 | P | Pg | 09 04 59.4 | -0.1 |
| ADJB | Djebel Djouab | 0.42 | 101 | P | Pg | 09 04 59.4 | -0.1 |
| ADJB | Djebel Djouab | 0.42 | 101 | P | Pg | 09 04 59.4 | -0.1 |
| AKET | Djebel Ketaf | 0.79 | 104 | P | Pb | 09 05 07.4 | -0.2 |
| AKET | Djebel Ketaf | 0.79 | 104 | P | Pb | 09 05 07.4 | -0.2 |
| AKET | Djebel Ketaf | 0.79 | 104 | P | Pb | 09 05 07.4 | -0.2 |
| EANR | 'Ain N'Sour | 1.51 | 260 | P | Pn | 09 05 19.9 | +0.9 |
| EANR | 'Ain N'Sour | 1.51 | 260 | P | Pn | 09 05 19.9 | +0.9 |
| EANR | 'Ain N'Sour | 1.51 | 260 | P | Pn | 09 05 19.9 | +0.9 |
| EIBI | Ibiza | 3.06 | 336 | P | Pn | 09 05 41.4 | +1.2 |
| | 2.7nm,0.4s,SNR=7.9 | | | | | | |
| EIBI | | | | S | Sn | 09 06 16.0 | -1.0 |
| | 11nm,0.5s,SNR=7.9 | | | | | | |
| EIBI | Ibiza | 3.06 | 336 | P | Pn | 09 05 41.4 | +1.2 |
| | 2.7nm,0.4s,SNR=7.9 | | | | | | |
| EIBI | | | | S | Sn | 09 06 16.0 | -1.0 |
| | 11nm,0.5s,SNR=7.9 | | | | | | |
| ETOS | Mallorca | 3.52 | 358 | P | Pn | 09 05 47.9 | +1.2 |
| | 5.4nm,0.6s,SNR=6.0 | | | | | | |
| ETOS | | | | S | Sn | 09 06 27.2 | -1.4 |
| | 3.8nm,0.5s,SNR=7.9 | | | | | | |
| ETOS | Mallorca | 3.52 | 358 | P | Pn | 09 05

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| EMOS | | | | | S | | Sn | 09 07 01.9 | -1.2 |
| | 4.1nm,0.6s,SNR=7.9 | | | | | | | | |

*IDC* ***11*** *09:05:53.4±0.9, 12°.58N×143°.66E, h0km, mb3.5/7, mb1 3.7/7, mb1mx3.5/54, mbtmp3.5/7, MS3.3/2, Ms1 3.4/2, ms1mx2.8/40, Error ellipse: s-maj=25.0km s-min=16.8km az=110.0*

*ISCJB* ***11*** *09:05:55.5±0.8, 12°.5N±0°.1×143°.7E±0°.1, h27km, mb3.6/7, MS3.2/2, Error ellipse: s-maj=18.8km s-min=9.6km az=44.1*

**ISC 11 09:05:57.4±1.0, 12°.6N±0°.1×143°.7E±0°.1, h27km, n16, σ0s75/10, mb3.5/7, South of Mariana Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GUMO** | **Guam** | **1.53** | **48** | Pn | **Pn** | **09 06 21.9** | **-1.0** |
| | 78nm,0.3s,baz=206,slow=5.3,SNR=23 | | | | | | |
| GUMO | | | | LR | LR | 09 06 38.1 | |
| | comp=Z,208nm,18.5s,baz=248,slow=29 | | | | | | |
| GUMO | | | | Sn | **Sn** | **09 06 42.3** | **+0.4** |
| | 121nm,0.3s,baz=1.2,slow=21,SNR=20 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **22.91** | **72** | T | T | 09 34 49.4 | |
| | baz=258,slow=75,SNR=14 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **22.92** | **72** | T | T | 09 34 49.9 | |
| | baz=258,slow=75,SNR=14 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **22.93** | **72** | T | T | 09 34 50.3 | |
| | baz=258,slow=75,SNR=14 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **23.37** | **69** | T | T | 09 35 22.6 | |
| | baz=255,slow=75,SNR=41 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **23.38** | **69** | T | T | 09 35 23.3 | |
| | baz=255,slow=75,SNR=30 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **23.39** | **69** | T | T | 09 35 23.5 | |
| | baz=255,slow=75,SNR=39 | | | | | | |
| **JNU** | **Nakatsue** | **23.58** | **332** | P | **P** | **09 11 06.2** | **+0.3** |
| | 3.3nm,0.8s,baz=166,slow=4.2,SNR=3.1 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **24.38** | **349** | P | **P** | **09 11 13.9** | **+0.6** |
| | 0.8nm,0.5s,baz=170,slow=9.4,SNR=2.8 | | | | | | |
| MJAR | | | | LR | LR | 09 19 58.3 | |
| | comp=Z,71nm,18.4s,baz=205,slow=35 | | | | | | |
| **WRA** | **Warramunga Arr** | **33.59** | **196** | P | **P** | **09 12 35.0** | **-0.5** |
| | 4.7nm,0.7s,baz=19,slow=9.7,SNR=5.7 | | | | | | |
| **ASAR** | **Alice Springs** | **37.26** | **195** | P | **P** | **09 13 07.5** | **+0.4** |
| | 0.3nm,0.5s,baz=23,slow=12,SNR=12 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **43.44** | **284** | LR | LR | 09 31 24.4 | |
| | comp=Z,36nm,18.3s,baz=44,slow=35 | | | | | | |
| **MKAR** | **Makanchi Array** | **61.44** | **317** | P | **P** | **09 16 10.9** | **-0.6** |
| | 0.1nm,0.5s,baz=89,slow=7.8,SNR=2.4 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **64.67** | **320** | P | **P** | **09 16 32.2** | **-0.6** |
| | 0.3nm,0.6s,baz=106,slow=6.8,SNR=3.6 | | | | | | |
| **ILAR** | **Eielson Array** | **69.97** | **25** | P | **P** | **09 17 07.1** | **+0.9** |
| | 0.3nm,0.8s,baz=250,slow=5.9,SNR=3.9 | | | | | | |
| **LPAZ** | **La Paz** | **148.97** | **101** | PKPbc | **PKPbc** | **09 25 45.1** | **+0.5** |
| | 0.7nm,0.7s,baz=355,slow=2.9,SNR=2.3 | | | | | | |

**IDC 11 09:06:08.0±2.0, 15°.36S×179°.69W, h0km, mb3.9/3, mb1 4.3/3, mb1mx3.5/35, mbtmp3.9/3, Error ellipse: s-maj=133.5km s-min=32.3km az=151.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ASAR** | **Alice Springs** | **44.36** | **252** | P | P | 09 14 20.4 | -0.1 |
| | 1.4nm,0.6s,baz=83,slow=8.7,SNR=17 | | | | | | |
| **ILAR** | **Eielson Array** | **83.70** | **14** | P | P | 09 18 38.4 | 0.0 |
| | 0.8nm,1.0s,baz=222,slow=5.6,SNR=3.7 | | | | | | |
| **TXAR** | **Lajitas Array** | **85.69** | **58** | P | P | 09 18 49.3 | 0.0 |
| | 0.9nm,0.9s,baz=220,slow=6.9,SNR=7.7 | | | | | | |

*IDC* ***11*** *09:11:07.0±1.3, 30°.46S×179°.67W, h337km±14km, mb2.5/1, mb1 3.0/2, mb1mx2.7/32, mbtmp3.7/2, Error ellipse: s-maj=41.4km s-min=25.2km az=122.0*

**ISC 11 09:11:05.8±0.8, 30°.70S±0°.1×179°.2W±0°.2, h350km, n20, σ2s38/29, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **1.83** | **39** | P | **Pn** | **09 11 56.8** | **+0.8** |
| | 126nm,0.3s,baz=188,slow=21,SNR=6.8 | | | | | | |
| RAO | | | | S | **S** | **09 12 30.9** | **-5.3** |
| | 57nm,0.3s,baz=240,slow=20,SNR=2.5 | | | | | | |
| **WMGZ** | **Waiomatatini S** | **7.37** | **195** | PN | **Pn** | **09 12 55.7** | **+3.4** |
| WMGZ | | | | SN | **S** | **09 14 17.3** | **-1.8** |
| **HAZ** | **Te Kaha** | **7.47** | **199** | PN | **Pn** | **09 12 55.2** | **+1.7** |
| HAZ | | | | SN | **S** | **09 14 17.8** | **-3.4** |
| **PKGZ** | **Pakihiroa** | **7.51** | **197** | PN | **Pn** | **09 12 58.2** | **+4.1** |
| PKGZ | | | | SN | **S** | **09 14 21.1** | **-1.2** |
| **PUZ** | **Puketiti** | **7.65** | **195** | PN | **Pn** | **09 12 56.8** | **+1.2** |
| PUZ | | | | SN | **S** | **09 14 23.1** | **-2.0** |
| **RUGZ** | **Raukumara Rang** | **7.69** | **199** | PN | **Pn** | **09 12 59.0** | **+2.8** |
| RUGZ | | | | SN | **S** | **09 14 24.8** | **-1.5** |
| **MWZ** | **Matawai** | **8.08** | **199** | PN | **P** | **09 13 02.1** | **-1.6** |
| MWZ | | | | SN | **S** | **09 14 32.2** | **-2.3** |
| **URZ** | **Urewera** | **8.13** | **201** | P | **P** | **09 13 03.2** | **-1.0** |
| | 3.6nm,0.3s,baz=274,slow=4.1,SNR=47 | | | | | | |
| URZ | | | | S | **S** | **09 14 31.9** | **-3.6** |
| | 1.8nm,0.3s,baz=206,slow=23,SNR=9.2 | | | | | | |
| **URZ** | **Urewera** | **8.13** | **201** | PN | **P** | **09 13 03.3** | **-0.9** |
| **MUGZ** | **Murupara** | **8.44** | **202** | PN | **P** | **09 13 06.3** | **-1.4** |
| **KNZ** | **Kokohu** | **8.69** | **196** | PN | **P** | **09 13 10.6** | **+0.1** |
| **BKZ** | **Black Stump Fm** | **9.15** | **201** | PN | **P** | **09 13 14.9** | **-0.8** |
| **KWHZ** | **Kaweka Forest** | **9.41** | **201** | PN | **P** | **09 13 17.5** | **-1.0** |
| **ASAR** | **Alice Springs** | **42.04** | **268** | P | **P** | **09 18 23.6** | **-0.9** |
| | 0.3nm,0.8s,baz=103,slow=6.9,SNR=4.5 | | | | | | |
| ASAR | | | | PcP | **PcP** | **09 20 13.1** | **+1.0** |
| | 0.1nm,0.4s,baz=104,slow=3.9,SNR=3.5 | | | | | | |
| **FINES** | **FINESS Array B** | **145.05** | **339** | PKP | **PKPab** | **09 30 02.7** | **+0.9** |
| | 4.2nm,0.6s,baz=46,slow=4.0,SNR=25 | | | | | | |
| **NOA** | **NORSAR Array B** | **148.87** | **350** | PKPbc | **PKPab** | **09 30 13.7** | **-3.4** |
| | 1.9nm,0.9s,baz=16,slow=4.1,SNR=3.9 | | | | | | |
| **HFS** | **Hagfors** | **149.31** | **347** | PKPbc | **PKPbc** | **09 30 13.4** | **+0.6** |
| | 2.0nm,0.8s,baz=47,slow=2.6,SNR=3.4 | | | | | | |
| **AKASG** | **Malin Array Be** | **150.88** | **321** | PKPbc | **PKPbc** | **09 30 18.1** | **+1.2** |
| | 0.1nm,0.3s,baz=60,slow=3.5,SNR=4.0 | | | | | | |
| **BRTR** | **Keskin Array B** | **151.81** | **298** | PKPbc | **PKPbc** | **09 30 21.2** | **+1.6** |
| | 0.4nm,0.5s,baz=134,slow=5.5,SNR=3.0 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **162.51** | **183** | PKPab | **PKPab** | **09 31 19.7** | **+3.1** |
| | 0.2nm,0.5s,baz=184,slow=5.8,SNR=2.5 | | | | | | |

*NIED* ***11*** *09:19:00, 37°.40N×141°.90E, h32km, Mw3.7 Best double couple: Mo3.83000×10^14 NP1:φs=331.00000°, δ51.00000°, λ161.00000°. NP2:φs=74.00000°, δ75.00000°, λ41.00000°.*

*JMA* ***11*** *09:19:20.1±0.2, 37°.37N×141°.92E, h34km±3km, M4.0*

*IDC* ***11*** *09:19:21.9±5.3, 37°.40N×141°.91E, h33km±39km, mb3.5/6, mb1 3.5/10, mb1mx3.3/63, mbtmp3.7/10, ML3.5/3, MS4.4/1, Ms1 4.4/1, ms1mx2.7/47, Error ellipse: s-maj=45.0km s-min=20.4km az=80.0*

*NEIC* ***11*** *09:19:22.6±0.9, 37°.41N×142°.03E, h47km±7km, mb4.6/2, Error ellipse: s-maj=13.9km s-min=7.7km az=119.0*

**ISC 11 09:19:17.6±1.9, 37°.39N±0°.04×141°.99E±0°.06, h10km±11km, n41, σ1s62/49, mb3.7/8, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JFK** | **Kawauchi** | **0.89** | **269** | P | **Pb** | **09 19 35.7** | **+0.5** |
| JFK | | | | eS | **Sb** | **09 19 46.1** | **-1.1** |
| **ONAJ** | **Iwakimizuishiy** | **1.00** | **254** | P | **Pb** | **09 19 37.1** | **+0.1** |
| ONAJ | | | | eS | **Sb** | **09 19 48.7** | **-1.5** |
| **JMM** | **Marumori** | **1.07** | **297** | P | **Pg** | **09 19 38.4** | **+0.2** |
| JMM | | | | eS | **Sg** | **09 19 51.0** | **-1.0** |
| **JIO** | **Ouri** | **1.18** | **335** | P | **Pb** | **09 19 40.2** | **+0.1** |
| **JFT** | **Otama** | **1.33** | **276** | P | **Pb** | **09 19 42.8** | **+0.2** |
| JFT | | | | S | **Sn** | **09 19 58.9** | **-1.0** |
| **JOU** | **Okura** | **1.44** | **313** | P | **Pb** | **09 19 44.3** | **-0.2** |
| JOU | | | | S | **Sb** | **09 20 01.7** | **-1.1** |
| **JMK** | **Ichinoseki** | **1.68** | **339** | P | **Pn** | **09 19 47.7** | **+0.7** |
| JMK | | | | eS | **Sn** | **09 20 08.1** | **-0.4** |
| **JYS** | **Shirataka** | **1.74** | **299** | P | **Pb** | **09 19 49.1** | **-0.5** |
| JYS | | | | eS | **Sb** | **09 20 09.7** | **-1.8** |
| **JFY** | **Yanaizu** | **1.82** | **271** | P | **Pn** | **09 19 50.1** | **+1.1** |
| JFY | | | | S | **Sn** | **09 20 11.6** | **-0.6** |
| **JYK** | **Kaneyama** | **2.00** | **320** | P | **Pb** | **09 19 52.9** | **-1.2** |
| JYK | | | | eS | **Sn** | **09 20 15.5** | **-1.0** |
| **MJAR** | **Matsushiro Arr** | **3.15** | **256** | Pn | **Pn** | **09 20 08.4** | **+1.2** |
| | 3.6nm,0.3s,baz=82,slow=15,SNR=27 | | | | | | |
| MJAR | | | | Sn | **Sn** | **09 20 46.2** | **+1.4** |
| | 4.5nm,0.3s,baz=76,slow=31,SNR=5.8 | | | | | | |
| **MAJO** | **Matsushiro** | **3.15** | **256** | ePn | **Pb** | **09 20 11.1** | **-2.6** |
| **MAT** | **Matsushiro** | **3.15** | **256** | P | **Pn** | **09 20 09.6** | **+2.3** |
| MAT | | | | S | **Sn** | **09 20 46.5** | **+1.6** |
| **MJB9** | **Matsu-Tunnel** | **3.15** | **256** | ePn | **Pb** | **09 20 11.3** | **-2.4** |
| **INU** | **Inuyama** | **4.50** | **245** | ePn | **Pn** | **09 20 29.4** | **+3.6** |
| INU | | | | eSn | **Sb** | **09 21 27.2** | **-3.8** |
| **JHJ2** | **Mitsune** | **4.62** | **203** | ePn | **Pn** | **09 20 29.1** | **+1.6** |
| JHJ2 | | | | eSn | **Sn** | **09 21 21.7** | **+0.5** |
| **JHJ** | **Hachijo jima 2** | **4.63** | **204** | Pn | **Pn** | **09 20 27.9** | **+0.4** |
| | 15nm,0.3s,baz=86,slow=19,SNR=6.6 | | | | | | |
| JHJ | | | | Sn | **Sn** | **09 21 18.4** | **-3.0** |
| | 16nm,0.3s,baz=72,slow=19,SNR=3.3 | | | | | | |
| **ERM** | **Erimo** | **4.71** | **11** | ePn | **Pn** | **09 20 31.6** | **+3.0** |
| **ASAJ** | **Asahikawa** | **6.74** | **4** | Pn | **Pn** | **09 20 57.8** | **+1.3** |
| | 0.7nm,0.3s,baz=220,slow=16,SNR=7.4 | | | | | | |
| ASAJ | | | | Sn | **Sn** | **09 22 08.9** | **-4.3** |
| | 0.3nm,0.3s,baz=251,slow=18,SNR=2.0 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **10.19** | **315** | Pn | **Pn** | **09 21 46.4** | **+2.6** |
| | 0.1nm,0.3s,baz=128,slow=14,SNR=2.7 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **27.94** | **122** | T | T | 09 54 30.8 | |
| | baz=315,slow=75,SNR=66 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **27.95** | **122** | T | T | 09 54 31.4 | |
| | baz=315,slow=75,SNR=54 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **27.95** | **122** | T | T | 09 54 38.2 | |
| | baz=315,slow=75,SNR=54 | | | | | | |
| **SONA1** | **Songino Array** | **27.97** | **303** | eP | **P** | **09 25 09.0** | **+0.5** |
| **SONA0** | **Songino Array** | **27.98** | **303** | eP | **P** | **09 25 08.9** | **+0.4** |
| **SONM** | **Songino Array** | **27.98** | **303** | P | **P** | **09 25 08.9** | **+0.4** |
| | 0.4nm,0.5s,baz=111,slow=9.2,SNR=4.7 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.67** | **124** | T | T | 09 55 27.3 | |
| | baz=316,slow=76,SNR=40 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.67** | **124** | T | T | 09 55 29.8 | |
| | baz=316,slow=76,SNR=30 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.68** | **124** | T | T | 09 55 28.7 | |
| | baz=316,slow=76,SNR=26 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **42.02** | **312** | eP | **P** | **09 27 09.0** | **+0.1** |
| **ZALV** | **Zalesovo Beam** | **42.02** | **312** | P | **P** | **09 27 09.0** | **+0.1** |
| | 0.6nm,0.3s,baz=74,slow=6.6,SNR=3.7 | | | | | | |
| **MK01** | **Makanchi Array** | **44.32** | **302** | eP | **P** | **09 27 27.9** | **+0.2** |
| **MK31** | **Makanchi Array** | **44.33** | **302** | eP | **P** | **09 27 27.8** | **+0.1** |
| **MK32** | **Makanchi Array** | **44.33** | **302** | eP | **P** | **09 27 27.6** | **-0.1** |
| **MKAR** | **Makanchi Array** | **44.33** | **302** | P | **P** | **09 27 27.6** | **-0.1** |
| | 0.8nm,0.7s,baz=83,slow=10.0,SNR=8.2 | | | | | | |
| **KURK** | **Kurchatov** | **46.08** | **308** | eP | **P** | **09 27 41.1** | **-0.4** |
| | 3.4nm,0.8s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **46.15** | **308** | P | **P** | **09 27 41.5** | **-0.5** |
| | 1.4nm,0.4s,baz=82,slow=7.9,SNR=13 | | | | | | |
| **BVAR** | **Borovoye Array** | **50.68** | **312** | P | **P** | **09 28 18.2** | **+1.3** |
| | 0.4nm,0.6s,baz=81,slow=9.1,SNR=2.8 | | | | | | |
| **INK** | **Inuvik** | **53.86** | **27** | LR | LR | 09 53 25.6 | |
| | comp=Z,407nm,20.4s,baz=132,slow=38 | | | | | | |
| **ASAR** | **Alice Springs** | **61.20** | **188** | P | **P** | **09 29 33.8** | **+1.2** |
| | 0.2nm,0.7s,baz=9.7,slow=6.9,SNR=2.6 | | | | | | |
| **DGMT** | **Dagmar** | **76.27** | **39** | eP | **P** | **09 31 06.0** | **-0.4** |
| | 9.5nm,0.6s | | | | | | |

*NIED* ***11*** *09:24:00, 38°.20N×144°.10E, h5km, Mw4.0 Best double couple: Mo1.20000×10^15 NP1:φs=13.00000°, δ23.00000°, λ-120.00000°. NP2:φs=226.00000°, δ70.00000°, λ-78.00000°.*

*IDC* ***11*** *09:24:50.0±0.8, 37°.94N×144°.21E, h0km, mb3.8/9, mb1 4.0/12, mb1mx3.7/64, mbtmp3.9/12, ML4.3/2, MS3.1/5, Ms1 3.1/5, ms1mx2.8/55, Error ellipse: s-maj=23.4km s-min=16.6km az=100.0*

*ISCJB* ***11*** *09:24:52.6±0.4, 38°.05N±0°.03×144°.11E±0°.04, h33km, mb4.1/15, MS4.0/3, Error ellipse: s-maj=4.8km s-min=4.3km az=139.9*

*JMA* ***11*** *09:24:52.8±0.2, 38°.17N×144°.12E, h41km, M4.1*

*NEIC* ***11*** *09:24:53.4±0.8, 38°.05N×144°.19E, h22km±5km, mb4.9/5, Error ellipse: s-maj=10.4km s-min=7.1km az=107.0*

**ISC 11 09:24:55.4±0.7, 38°.13N±0°.05×144°.05E±0°.07, h35km, n53, σ1s56/64, mb4.1/15, MS4.0/3, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OFUJ** | **Ofunato** | **2.10** | **298** | P | **Pn** | **09 25 27.1** | **-0.9** |
| OFUJ | | | | S | **Sn** | **09 25 52.5** | **-0.4** |
| **JIO** | **Ouri** | **2.15** | **280** | P | **Pn** | **09 25 28.2** | **-0.5** |
| JIO | | | | S | **Sn** | **09 25 53.7** | **-0.5** |
| **MIYJ** | **Miyakonagasawa** | **2.27** | **310** | P | **Pn** | **09 25 28.9** | **-1.4** |
| MIYJ | | | | eS | **Sn** | **09 25 56.6** | **-0.5** |
| **JMK** | **Ichinoseki** | **2.37** | **291** | P | **Pn** | **09 25 31.2** | **-0.5** |
| JMK | | | | eS | **Sn** | **09 25 59.6** | **0.0** |
| **JOM** | **Ohasama** | **2.54** | **303** | P | **Pn** | **09 25 33.6** | **-0.5** |
| JOM | | | | eS | **Sn** | **09 26 04.0** | **+0.2** |
| **JOU** | **Okura** | **2.68** | **276** | P | **Pn** | **09 25 36.0** | **0.0** |
| JOU | | | | eS | **Sn** | **09 26 07.5** | **+0.2** |
| **JRG** | **Rokugo** | **2.96** | **296** | P | **Pn** | **09 25 39.8** | **0.0** |
| **JANG** | **Nango** | **2.99** | **320** | P | **Pn** | **09 25 39.2** | **-1.0** |
| **JYK** | **Kaneyama** | **3.00** | **286** | P | **Pn** | **09 25 40.5** | **+0.1** |
| JYK | | | | eS | **Sn** | **09 26 16.2** | **+1.0** |
| **JFT** | **Otama** | **3.00** | **259** | P | **Pn** | **09 25 40.5** | **0.0** |
| JFT | | | | S | **Sn** | **09 26 15.5** | **+0.2** |
| **JAH** | **Hinai** | **3.36** | **309** | P | **Pn** | **09 25 45.3** | **-0.1** |
| **JTM** | **Tenmabayashi** | **3.52** | **320** | P | **Pn** | **09 25 46.4** | **-1.2** |
| JTM | | | | S | **Sn** | **09 26 26.1** | **-1.9** |
| **ERM** | **Erimo** | **3.94** | **350** | ePn | **Pn** | **09 25 53.2** | **-0.1** |
| **JCH** | **Churui** | **4.51** | **353** | P | **Pn** | **09 25 58.6** | **-2.6** |
| JCH | | | | eS | **Sn** | **09 26 48.0** | **-4.4** |
| **JRY** | **Ryogami san** | **4.63** | **245** | P | **Pn** | **09 26 02.1** | **-0.7** |
| JRY | | | | S | **Sn** | **09 26 53.4** | **-1.9** |
| **MJAR** | **Matsushiro Arr** | **4.92** | **253** | Pn | **Pn** | **09 26 07.3** | **+0.5** |
| | 6.0nm,0.3s,baz=87,slow=15,SNR=52 | | | | | | |
| MJAR | | | | Sn | **Sn** | **09 27 00.8** | **-1.7** |
| | baz=72,slow=20,SNR=2.6 | | | | | | |
| **MAJO** | **Matsushiro** | **4.92** | **253** | ePn | **Pn** | **09 26 08.2** | **+1.4** |
| **MAT** | **Matsushiro** | **4.92** | **253** | P | **Pn** | **09 26 07.8** | **+1.0** |
| MAT | | | | S | **Sn** | **09 27 04.8** | **+2.3** |
| **MJB9** | **Matsu-Tunnel** | **4.92** | **253** | ePn | **Pn** | **09 26 08.2** | **+1.4** |
| **JHJ2** | **Mitsune** | **6.08** | **216** | ePn | **Pn** | **09 26 20.3** | **-2.3** |
| JHJ2 | | | | eSn | **Sn** | **09 27 30.2** | **-0.8** |
| **ASAJ** | **Asahikawa** | **6.08** | **350** | Pn | **Pn** | **09 26 21.0** | **-1.7** |
| | 7.4nm,0.3s,baz=188,slow=9.8,SNR=45 | | | | | | |
| ASAJ | | | | Sn | **Sn** | **09 27 28.8** | **-2.3** |
| | 0.7nm,0.3s,baz=210,slow=20,SNR=2.6 | | | | | | |
| **JHJ** | **Hachijo jima 2** | **6.09** | **216** | Pn | **Pn** | **09 26 20.0** | **-2.8** |
| | 38nm,0.3s,baz=52,slow=22,SNR=8.4 | | | | | | |
| JHJ | | | | Sn | **Sn** | **09 27 25.1** | **-6.1** |
| | 11nm,0.3s,baz=53,slow=20,SNR=1.8 | | | | | | |
| **INU** | **Inuyama** | **6.29** | **246** | ePn | **Pn** | **09 26 26.8** | **+1.1** |
| **USRK** | **Ussuriysk Ar.** | **10.93** | **308** | Pn | **Pn** | **09 27 30.9** | **+1.7** |
| | 0.3nm,0.3s,baz=123,slow=14,SNR=7.3 | | | | | | |
| USRK | | | | LR | LR | 09 31 41.1 | |
| | comp=Z,115nm,19.0s,baz=132,slow=37 | | | | | | |
| **KSRS** | **Korea Array** | **12.78** | **272** | LR | LR | 09 32 54.3 | |
| | comp=Z,36nm,18.9s,baz=95,slow=37 | | | | | | |
| **KLR** | **Kul'dur** | **14.21** | **325** | Pn | **Pn** | **09 28 12.7** | **-1.2** |
| | 0.0nm,0.3s,baz=150,slow=16,SNR=3.5 | | | | | | |
| KLR | | | | LR | LR | 09 33 38.6 | |
| | comp=Z,7.5nm,18.7s,baz=135,slow=37 | | | | | | |
| **SEY** | **Seymchan** | **25.35** | **9** | P | **P** | **09 30 20.2** | **+1.5** |
| | 2.1nm,0.8s,baz=151,slow=11,SNR=6.2 | | | | | | |
| **SONA0** | **Songino Array** | **28.96** | **302** | eP | **P** | **09 30 52.7** | **+1.3** |
| **SONM** | **Songino Array** | **28.96** | **302** | P | **P** | **09 30 52.7** | **+1.3** |
| | 0.6nm,0.7s,baz=90,slow=9.5,SNR=4.5 | | | | | | |
| **TLY** | **Talaya** | **31.24** | **309** | LR | LR | 09 46 14.9 | |
| | comp=Z,46nm,18.9s,baz=2.0,slow=41 | | | | | | |
| **MK01** | **Makanchi Array** | **45.32** | **302** | epP | pP | 09 33 17.6 | -2.6 |
| **MK31** | **Makanchi Array** | **45.33** | **302** | epP | pP | 09 33 17.9 | -2.2 |
| **MK32** | **Makanchi Array** | **45.33** | **302** | eP | **P** | **09 33 10.3** | **+0.5** |
| **MKAR** | **Makanchi Array** | **45.33** | **302** | P | **P** | **09 33 10.3** | **+0.5** |
| | 0.5nm,0.9s,baz=81,slow=8.9,SNR=3.6 | | | | | | |
| **KURK** | **Kurchatov** | **46.92** | **308** | eP | **P** | **09 33 24.2** | **+1.9** |
| KURK | | | | epP | **pP** | **09 33 31.6** | **-1.0** |
| **KURBB** | **Kurchatov Arra** | **46.99** | **308** | P | **P** | **09 33 24.2** | **+1.4** |
| | 1.6nm,0.2s,baz=82,slow=8.8,SNR=3.5 | | | | | | |
| **ILAR** | **Eielson Array** | **47.45** | **33** | P | **P** | **09 33 27.4** | **+1.2** |
| | 0.6nm,1.0s,baz=266,slow=5.9,SNR=3.4 | | | | | | |
| **ILB** | **Eielson Array** | **47.45** | **33** | eP | **P** | **09 33 27.4** | **+1.2** |
| **MTN** | **Manton Dam** | **52.13** | **196** | eP | **P** | **09 34 02.0** | **-0.2** |
| | 6.4nm,0.7s | | | | | | |
| **WRAB** | **Tennant Creek** | **58.47** | **191** | eP | **P** | **09 34 46.9** | **-0.9** |
| | 9.4nm,0.8s | | | | | | |
| **WB2** | **Warramunga Arr** | **58.48** | **191** | eP | **P** | **09 34 46.2** | **-1.6** |
| | 22nm,1.5s | | | | | | |
| **WR1** | **Warramunga Arr** | **58.48** | **191** | eP | **P** | **09 34 46.4** | **-1.5** |
| | 9.3nm,1.1s | | | | | | |
| **WRA** | **Warramunga Arr** | **58.48** | **191** | P | **P** | **09 34 46.4** | **-1.5** |
| | 1.3nm,0.4s,baz=12,slow=7.2,SNR=11 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **58.55** | **201** | P | **P** | **09 34 47.8** | **-0.6** |
| | 0.9nm,0.6s,baz=0.0,slow=7.1,SNR=2.9 | | | | | | |
| **AS01** | **Alice Springs** | **62.19** | **190** | eP | **P** | **09 35 13.3** | **0.0** |
| **AS31** | **Alice Springs** | **62.20** | **191** | eP | **P** | **09 35 12.2** | **-1.1** |
| | 0.8nm,1.1s | | | | | | |
| **ASAR** | **Alice Springs** | **62.20** | **191** | P | **P** | **09 35 12.2** | **-1.1** |
| | 0.4nm,0.5s,baz=5.1,slow=6.9,SNR=12 | | | | | | |
| **MBWA** | **Marble Bar** | **63.25** | **206** | eP | **P** | **09 35 19.9** | **-0.4** |
| | 13nm,1.3s | | | | | | |
| **GNI** | **Garni** | **72.72** | **308** | LR | LR | 10 10 38.6 | |
| | comp=Z,87nm,18.9s,baz=278,slow=38 | | | | | | |
| **PD31** | **Pinedale Array** | **75.40** | **47** | eP | **P** | **09 36 35.2** | **-0.5** |
| **PDAR** | **Pinedale Array** | **75.40** | **47** | P | **P** | **09 36 35.2** | **-0.5** |
| | 0.3nm,0.6s,baz=27,slow=1.3,SNR=3.6 | | | | | | |
| **ATD** | **Arta Tunnel** | **91.61** | **286** | LR | LR | 10 22 29.9 | |
| | comp=Z,346nm,19.5s,baz=52,slow=38 | | | | | | |
| **PB10** | **IPOC Station P** | **147.12** | **74** | ePKPbc | **PKPab** | **09 44 37.1** | **+0.6** |

**MEX 11 09:25:50.3±0.3, 17°.80N×99°.95W, h62km±3km, MD3.9, Guerrero**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MEIG** | **Mezcala** | **0.34** | **69** | eP | Pn | 09 25 59.6 | -1.3 |
| MEIG | | | | eS | Sn | 09 26 07.0 | -1.7 |
| **ARIG** | **Puente Sto Nin** | **0.61** | **322** | eP | Pn | 09 26 02.2 | -1.4 |
| ARIG | | | | eS | Sn | 09 26 11.5 | -1.9 |
| **PLIG** | **Platanillo** | **0.72** | **36** | *i* P | Pn | 09 26 03.8 | -1.2 |
| PLIG | | | | eS | Sn | 09 26 14.1 | -1.8 |
| **YAIG** | **Yautepec** | **1.35** | **38** | eP | Pn | 09 26 11.7 | -1.5 |
| YAIG | | | | eS | Sn | 09 26 27.9 | -2.4 |

*SOME* ***11*** *09:37:48.4, 44°.38N×81°.05E, h20km*

*NNC* ***11*** *09:37:48.3±1.1, 44°.28N×81°.07E, h0km, mb3.1, mpv2.8, Error ellipse: s-maj=21.4km s-min=2.5km az=125.0*

**ISC 11 09:37:46.7±1.4, 44°.41N±0°.04×81°.14E±0°.06, h19km±3km, n11, σ1s20/21, 5C-2D, Northern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DJR** | **Jarkent** | **0.97** | **266** | eP | **Pb** | **09 38 04.4** | **-0.5** |
| | 19nm,0.2s | | | | | | |
| DJR | | | | eS | **Sb** | **09 38 15.5** | **-1.9** |
| | 19nm,0.1s | | | | | | |
| **KTMS** | **Ketmen** | **1.11** | **211** | eP | **Pg** | **09 38 08.6** | **+0.3** |
| | 56nm,0.1s | | | | | | |
| KTMS | | | | eS | **Sg** | **09 38 22.9** | **-0.1** |
| | 35nm,0.2s | | | | | | |
| **KAPS** | **Kapalarasan** | **1.54** | **305** | eP | **Pg** | **09 38 16.6** | **+0.2** |
| | 15nm,0.2s | | | | | | |
| KAPS | | | | eS | **Sg** | **09 38 37.1** | **+0.5** |
| | 32nm,0.4s | | | | | | |
| **PDGK** | **Podgornoye** | **1.61** | **229** | ⇑P | **Pb** | **09 38 15.7** | **-0.1** |
| | 8.0nm,0.3s | | | | | | |
| PDGK | | | | ⇑S | **Sb** | **09 38 36.3** | **+0.6** |
| | 17nm,0.4s | | | | | | |
| **SHLS** | **Shalkode** | **1.74** | **225** | eP | **Pn** | **09 38 16.3** | **+0.3** |
| | 60nm,0.1s | | | | | | |
| SHLS | | | | eS | **Sn** | **09 38 35.8** | **-2.0** |
| | 73nm,0.3s | | | | | | |
| **ZHN** | **Zhinishke** | **2.32** | **239** | eP | **Pb** | **09 38 28.3** | **+0.4** |
| | 15nm,0.2s | | | | | | |
| ZHN | | | | eS | **Sb** | **09 38 57.2** | **+1.0** |
| | 47nm,0.3s | | | | | | |
| **KURS** | **Kuram** | **2.33** | **248** | eP | **Pb** | **09 38 29.1** | **+0.9** |
| KURS | | | | eS | **Sb** | **09 38 58.2** | **+1.6** |
| **SATY** | **Saty** | **2.40** | **237** | eP | **Pb** | **09 38 28.8** | **-0.5** |
| | 46nm,0.2s | | | | | | |
| SATY | | | | eS | **Sb** | **09 38 57.4** | **-1.1** |
| | 58nm,0.2s | | | | | | |
| **MAKZ** | **Makanchi** | **2.47** | **13** | ⇓Pn | **Pb** | **09 38 31.7** | **+1.2** |
| | 1.8nm,0.6s | | | | | | |
| MAKZ | | | | ⇑Sn | **Sg** | **09 39 05.6** | **-0.6** |
| | 2.6nm,0.6s | | | | | | |
| **MK31** | **Makanchi Array** | **2.52** | **18** | ⇓Pn | **Pb** | **09 38 32.2** | **+0.9** |
| | 0.9nm,0.4s,baz=199,slow=12,SNR=42 | | | | | | |
| MK31 | | | | Sn | **Sg** | **09 39 05.7** | **-2.1** |
| | 3.2nm,0.4s,baz=206,slow=25,SNR=15 | | | | | | |
| **TKM2** | **Tokmak 2** | **4.29** | **252** | ⇑Pg | **Pb** | **09 39 03.4** | **+1.8** |
| | 1.8nm,0.5s | | | | | | |
| TKM2 | | | | ⇑Lg | Lg | 09 40 01.2 | |
| | 2.6nm,0.6s | | | | | | |

*IDC* ***11*** *09:40:02.2±0.6, 0°.14S×125°.37E, h0km, mb4.2/19, mb1 4.4/20, mb1mx4.1/58, mbtmp4.2/20, ML4.2/1, MS3.5/2, Ms1 3.5/2, ms1mx2.9/44, Error ellipse: s-maj=26.0km s-min=

comp=Z,75nm,2.0s
**STKA Stephens Creek 34.94 156** P **P** 09 46 57.2 +0.2
comp=Z,3.7nm,0.4s,baz=339,slow=8.1,SNR=23
**STKA Stephens Creek 34.94 156** *e*P **P** 09 46 56.9 -0.1
comp=Z,2.7nm,1.0s
**KSAR Wonju Array Be 37.47 3** P **P** 09 47 16.9 -1.5
**KSRS Korea Array 37.48 3** P **P** 09 47 16.9 -1.6
comp=Z,2.3nm,0.6s,baz=182,slow=9.8,SNR=10
**MJAR Matsushiro Arr 38.31 16** P **P** 09 47 23.6 -2.1
comp=Z,1.3nm,0.8s,baz=192,slow=9.0,SNR=3.8
**LZH Lanzhou 41.41 333** *e*P **P** 09 47 54.5 +2.9
LZH pP sP 09 48 11.0 +0.6
LZH sP pP 09 48 18.4 +14
LZH PP **PnPn** **09 49 35.0 +2.0**
LZH pmax pmax
comp=Z,21nm,1.3s
LZH pmax pmax
comp=Z,75nm,5.5s
LZH LR LR
comp=N,320nm,13.6s
LZH LR LR
comp=E,350nm,13.2s
LZH LR LR
comp=Z,400nm,17.0s
**HHC Hu-ho-hao-te 42.80 344** *e*P **P** 09 48 04.3 +1.5
HHC pmax pmax
comp=Z,13nm,1.1s
HHC pmax pmax
comp=Z,56nm,6.2s
**CN2 Changchun 43.77 360** *e*P **P** 09 48 07.5 -2.9
**USRK Ussuriysk Ar. 44.52 6** P **P** 09 48 16.1 -0.3
comp=Z,2.7nm,0.8s,baz=171,slow=7.9,SNR=4.6
**ASAJ Asahikawa 46.58 17** P **P** 09 48 33.6 +0.9
comp=Z,4.1nm,0.8s,baz=209,slow=13,SNR=2.8
**KLR Kul'dur 49.47 5** P **P** 09 48 55.8 +0.8
comp=Z,0.2nm,0.7s,baz=133,slow=5.1,SNR=5.5
**ULN Ulaanbaatar 50.51 344** *e*P **P** 09 49 02.1 -1.1
comp=Z,5.0nm,1.2s
**SONM Songino Array 50.67 343** P **P** 09 49 03.0 -1.3
comp=Z,1.5nm,0.7s,baz=158,slow=8.3,SNR=7.9
**SONA1 Songino Array 50.68 343** *e*P **P** 09 49 03.3 -1.1
**WMQ Urumqi 55.37 327** P **P** 09 49 41.4 +2.5
WMQ pP sP 09 49 56.6 -1.5
WMQ sP pP 09 50 03.9 +11
WMQ pmax pmax
comp=Z,20nm,0.7s
WMQ pmax pmax
comp=Z,120nm,4.9s
WMQ LR LR
comp=N,45nm,21.1s
WMQ LR LR
comp=E,170nm,18.5s
WMQ LR LR
comp=Z,170nm,26.5s
**PETK Petropavlovsk- 59.38 22** P **P** 09 50 06.6 -0.3
comp=Z,2.3nm,0.8s,baz=187,slow=2.5,SNR=2.9
**KSH Kashi 60.13 317** P **P** 09 50 15.3 +2.8
KSH pP sP 09 50 32.3 +0.5
KSH PcP **PcP** **09 51 00.4 +2.5**
KSH PP **PP** **09 52 31.3 +5.7**
KSH S **S** **09 58 23.6 +1.0**
KSH ScS SKKSac 09 59 56.9 -2.2
**KSH Kashi 60.13 317** SS SS 10 02 23.3 +2.9
KSH pmax pmax
comp=Z,3.0nm,0.4s
KSH pmax pmax
comp=Z,160nm,4.7s
KSH LR LR
comp=N,130nm,3.3s
KSH LR LR
comp=E,110nm,3.5s
KSH LR LR
comp=Z,580nm,5.5s
**MK01 Makanchi Array 60.18 327** *e*P **P** **09 50 12.1 -0.5**
**MK31 Makanchi Array 60.20 327** *e*P **P** **09 50 11.8 -0.9**
**MKAR Makanchi Array 60.20 327** P **P** **09 50 09.7 -3.1**
comp=Z,1.9nm,0.4s,baz=122,slow=7.7,SNR=38
**MAKZ Makanchi 60.38 327** *e*P **P** **09 50 12.9 -1.0**
comp=Z,3.9nm,0.6s
**AAK Ala-Archa 62.60 320** P **P** **09 50 27.0 -2.1**
comp=Z,0.6nm,0.4s,baz=102,slow=9.3,SNR=3.5
**MA2 Magadan 62.69 14** P **P** **09 50 29.5 +0.3**
comp=Z,14nm,1.1s,baz=147,slow=6.7,SNR=4.0
**ZAA0 Zalesovo Array 63.61 334** *e*P **P** **09 50 34.2 -1.1**
comp=Z,2.4nm,0.8s
**ZALV Zalesovo Beam 63.61 334** P **P** **09 50 33.2 -2.2**
comp=Z,1.6nm,0.5s,baz=115,slow=6.7,SNR=9.1
**ZALV Zalesovo Beam 63.61 334** *e*P **P** **09 50 33.6 -1.7**
**KURBB Kurchatov Arra 64.49 329** P **P** **09 50 38.2 -3.1**
comp=Z,1.6nm,0.6s,baz=135,slow=6.1,SNR=4.3
**KURK Kurchatov 64.50 329** *e*P **P** **09 50 40.5 -0.8**
comp=Z,10nm,1.0s
**SEY Seymchan 66.02 13** P **P** **09 50 52.7 +1.8**
comp=Z,5.1nm,1.1s,baz=186,slow=9.3,SNR=4.8
**BRVK Borovoye 70.11 328** *e*P **P** **09 51 15.5 -1.3**
comp=Z,4.9nm,0.9s
**AKTO Aktyubinsk 76.09 322** P **P** **09 51 50.2 -2.0**
comp=Z,2.6nm,0.6s,baz=102,slow=8.4,SNR=7.0
**ARU Arti 77.68 328** *e*P **P** **09 51 59.9 -1.1**
comp=Z,7.3nm,0.9s
**CRZF Crozet Islands 78.81 223** *e*P **P** **09 52 09.0 +1.6**
comp=Z,49nm,0.5s
**VNDA Vanda 79.73 173** LR LR 10 26 06.8
comp=Z,2μm,20.1s,baz=192,slow=35
**PUH Pauahi 79.73 70** *e*P **P** **09 52 09.9 -3.3**
comp=Z,532nm,1.4s
**KBZ Khabaz 84.92 314** P **P** **09 52 39.2 -0.4**
comp=Z,3.1nm,1.0s,baz=115,slow=3.1,SNR=3.6
**SUA Susitna One 87.03 29** *e*P **P** **09 52 48.3 -1.6**
comp=Z,29nm,0.6s
**ILAR Eielson Array 89.02 25** P **P** **09 52 58.2 -0.9**
comp=Z,0.4nm,0.8s,baz=262,slow=4.8,SNR=3.9
**BUR04 Bucovina Ar. S 97.21 318** *e*P Pdif 09 53 37.4 0.0
**VYHS Vyhne 101.26 320** *e*PDIFF **Pdif** **09 53 59.8 +4.4**
**ESLA Sonseca Array 119.65 317** *e*PKPdf **PKPdf** **09 58 53.2 -1.5**
**TORD Torodi Ar. Bea 123.08 286** PKP **PKPdf** **09 59 00.1 -1.8**
comp=Z,0.4nm,0.7s,baz=100,slow=1.2,SNR=2.6

**IDC 11 09:42:35.5±29.0, 22.09S×175.33W, h0km, mb4.1/4, mb1 4.2/4, mb1mx3.7/35, mbtmp4.1/4, Error ellipse: s-maj=535.5km s-min=155.8km az=76.0, Tonga Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CTA** | **Charters Tower** | **35.83** | **266** | P | P | 09 49 37.9 | +0.7 |
| | 4.9nm,0.5s,baz=98,slow=10,SNR=11 | | | | | | |
| **STKA** | **Stephens Creek** | **39.38** | **246** | P | P | 09 50 07.6 | +0.5 |
| | 1.3nm,0.6s,baz=104,slow=9.6,SNR=2.9 | | | | | | |
| **ASAR** | **Alice Springs** | **46.60** | **258** | P | P | 09 51 05.3 | -0.4 |
| | 1.4nm,0.7s,baz=94,slow=7.8,SNR=17 | | | | | | |
| **WRA** | **Warramunga Arr** | **46.86** | **263** | P | P | 09 51 06.7 | -1.1 |
| | 0.7nm,0.4s,baz=102,slow=8.8,SNR=7.7 | | | | | | |

**IDC 11 09:50:57.6±1.3, 26.38N×141.32E, h0km, mb3.7/4, mb1 4.0/4, mb1mx3.3/49, mbtmp3.7/4, MS4.2/1, Ms1 4.2/1, ms1mx3.0/43, Error ellipse: s-maj=73.4km s-min=29.8km az=105.0, Bonin Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **46.54** | **189** | P | P | 09 59 27.0 | -0.1 |
| | 0.5nm,0.6s,baz=11,slow=8.6,SNR=4.8 | | | | | | |
| **PSI** | **Prapat** | **46.91** | **247** | LR | LR | 10 17 04.8 | |
| | comp=Z,268nm,20.4s,slow=33 | | | | | | |
| **ILAR** | **Eielson Array** | **58.71** | **28** | P | P | 10 00 56.8 | 0.0 |
| | 0.2nm,0.7s,baz=269,slow=6.3,SNR=3.7 | | | | | | |
| **YKA** | **Yellowknife Ar** | **73.14** | **28** | P | P | 10 02 29.7 | 0.0 |
| | 0.2nm,0.6s,baz=294,slow=5.8,SNR=3.1 | | | | | | |
| **FINES** | **FINESS Array B** | **78.25** | **334** | P | P | 10 02 58.9 | 0.0 |
| | 7.8nm,1.2s,baz=77,slow=6.0,SNR=4.8 | | | | | | |

*CSEM **11** 09:52:17.0±0.3, 41.78N×22.60E, h2km, ML1.4, Error ellipse: s-maj=10.0km s-min=4.2km az=79.0*
*SKO **11** 09:52:18.3, 41.71N×22.76E, h15km, M1.4, ML1.5*
*BEO **11** 09:52:18.1±0.4, 41.78N×22.50E, h0km, M1.4/4*
**ATH 11 09:52:18.4, 41.74N×22.76E, h10km±31km, ML1.4/4, 1C, Error ellipse: s-maj=31.6km s-min=2.1km az=0.0, Northwestern Balkan Peninsula**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VAY** | **Valandovo** | **0.44** | **199** | *e*Pg | Pg | 09 52 26.6 | -0.4 |
| **VAY** | **Valandovo** | **0.44** | **199** | ⇑*i*Pg | Pg | 09 52 26.9 | -0.1 |
| VAY | | | | *i* Sg | Sg | 09 52 32.7 | -0.1 |
| VAY | | | | *e*Lg | Lg | 09 52 32.8 | |
| | comp=N,36nm,0.3s | | | | | | |
| VAY | | | | *e*Lg | Lg | 09 52 32.9 | |
| | comp=E,32nm,0.2s | | | | | | |
| **KNT** | **Kendrikon** | **0.58** | **170** | P | Pg | 09 52 29.8 | +0.1 |
| KNT | | | | S | Sg | 09 52 36.6 | -0.8 |
| KNT | | | | AML | AML | 09 52 38.0 | |
| | comp=E,134μm,0.1s | | | | | | |
| KNT | | | | AML | AML | 09 52 38.3 | |
| | comp=N,293μm,0.2s | | | | | | |
| **KNT** | **Kendrikon** | **0.58** | **170** | P | Pg | 09 52 29.8 | +0.1 |
| KNT | | | | S | Sg | 09 52 36.6 | -0.8 |
| **GRG** | **Griva** | **0.82** | **199** | P | Pg | 09 52 33.0 | -1.2 |
| **GRG** | **Griva** | **0.82** | **199** | P | Pg | 09 52 33.0 | -1.3 |
| **SRS** | **Serrai** | **0.88** | **134** | P | Pg | 09 52 35.0 | -0.3 |
| SRS | | | | S | Sb | 09 52 47.7 | +0.1 |
| SRS | | | | AML | AML | 09 52 50.9 | |
| | comp=N,75μm,0.3s | | | | | | |
| SRS | | | | AML | AML | 09 52 51.6 | |
| | comp=E,39μm,0.2s | | | | | | |
| **SRS** | **Serrai** | **0.88** | **134** | P | Pg | 09 52 35.0 | -0.3 |
| SRS | | | | S | Sb | 09 52 47.7 | +0.1 |
| **VTS** | **Vitosha** | **0.92** | **21** | *e*Pg | Pg | 09 52 36.1 | 0.0 |
| VTS | | | | *e*Sg | Sb | 09 52 48.7 | -0.1 |
| **VTS** | **Vitosha** | **0.92** | **21** | *e*Pg | Pg | 09 52 36.1 | 0.0 |
| VTS | | | | *e*Sg | Sb | 09 52 48.7 | -0.1 |
| **SOH** | **Sokhos** | **1.02** | **154** | P | Pg | 09 52 38.0 | +0.1 |
| SOH | | | | AML | AML | 09 52 39.6 | |
| | comp=E,22μm,0.1s | | | | | | |
| SOH | | | | S | Sb | 09 52 51.5 | -0.1 |
| SOH | | | | AML | AML | 09 52 56.9 | |
| | comp=N,42μm,0.3s | | | | | | |
| **SOH** | **Sokhos** | **1.02** | **154** | P | Pg | 09 52 38.0 | 0.0 |
| SOH | | | | S | Sb | 09 52 51.5 | -0.1 |
| **HORT** | **Hortiatis** | **1.17** | **167** | P | Pb | 09 52 40.4 | -0.3 |
| HORT | | | | S | Sn | 09 52 56.9 | 0.0 |
| **HORT** | **Hortiatis** | **1.17** | **167** | P | Pb | 09 52 40.4 | -0.3 |
| HORT | | | | S | Sn | 09 52 56.9 | +0.1 |
| **BARS** | **Barje** | **1.29** | **327** | *e*Pg | Pn | 09 52 39.7 | -2.7 |
| **BARS** | **Barje** | **1.29** | **327** | *e*Pg | Pn | 09 52 39.7 | -2.7 |
| **KAVA** | **Kavala** | **1.51** | **119** | P | Pb | 09 52 46.8 | +0.3 |
| KAVA | | | | S | Sb | 09 53 06.4 | +0.6 |
| KAVA | | | | AML | AML | 09 53 10.8 | |
| | comp=N,24μm,0.2s | | | | | | |
| KAVA | | | | AML | AML | 09 53 13.1 | |
| | comp=E,18μm,0.4s | | | | | | |
| **KAVA** | **Kavala** | **1.51** | **119** | P | Pb | 09 52 46.8 | +0.3 |
| KAVA | | | | S | Sb | 09 53 06.4 | +0.6 |
| **ZAPS** | **Zavoj** | **1.54** | **357** | *e*Pg | Pn | 09 52 44.3 | -1.6 |
| ZAPS | | | | *e*Sg | Sn | 09 53 05.6 | -0.4 |
| **OUR** | **Ouranopolis** | **1.68** | **146** | P | Pg | 09 52 50.4 | -0.2 |
| OUR | | | | S | Sg | 09 53 14.1 | +1.7 |
| **OUR** | **Ouranopolis** | **1.68** | **146** | P | Pg | 09 52 50.3 | -0.3 |
| OUR | | | | S | Sg | 09 53 14.1 | +1.8 |
| **ZAGS** | **Zajecar** | **2.11** | **350** | *e*Pg | Pn | 09 52 54.0 | +0.3 |
| ZAGS | | | | *e*Sg | Sb | 09 53 22.7 | -0.3 |
| **RDO** | **Rodhopi** | **2.17** | **105** | P | Pb | 09 52 57.1 | -0.6 |
| **RDO** | **Rodhopi** | **2.17** | **105** | P | Pb | 09 52 57.2 | -0.5 |

**IDC 11 09:54:33.6±10.0, 23.40S×179.97E, h616km±121km, mb2.8/5, mb1 3.0/5, mb1mx2.8/31, mbtmp3.8/5, Error ellipse: s-maj=115.7km s-min=56.5km az=163.0, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CTA** | **Charters Tower** | **31.45** | **269** | P | P | 10 00 07.4 | +0.4 |
| | 2.9nm,0.4s,baz=89,slow=12,SNR=6.9 | | | | | | |
| **STKA** | **Stephens Creek** | **34.88** | **247** | P | P | 10 00 35.6 | 0.0 |
| | 0.5nm,0.4s,baz=77,slow=14,SNR=3.0 | | | | | | |
| **ASAR** | **Alice Springs** | **42.09** | **260** | P | P | 10 01 33.6 | -0.1 |
| | 0.2nm,0.4s,baz=95,slow=7.6,SNR=5.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **42.41** | **266** | P | P | 10 01 35.7 | -0.5 |
| | 1.5nm,1.0s,baz=101,slow=8.5,SNR=5.9 | | | | | | |
| **TXAR** | **Lajitas Array** | **90.19** | **58** | P | P | 10 06 29.9 | -0.2 |
| | 0.3nm,0.7s,baz=216,slow=5.6,SNR=3.5 | | | | | | |
| **AKASG** | **Malin Array Be** | **144.53** | **328** | PKP | PKPdf | 10 13 00.6 | -0.2 |
| | 0.4nm,0.3s,baz=43,slow=4.4,SNR=6.6 | | | | | | |

*BJI **11** 09:54:52.2, 56.00S×28.20W, h116km, mB6.2/46*
*MOS **11** 09:54:52.4±0.9, 56.00S×28.15W, h97km, mb6.3/24, MS5.7/11, Error ellipse: s-maj=15.2km s-min=8.2km az=95.5*
*ISCJB **11** 09:54:54.4±0.9, 56.03S±0.03×28.35W±0.05, h114km±7km, mb6.1/175, Error ellipse: s-maj=5.4km s-min=3.9km az=146.5*
*NEIC **11** 09:54:55.2±0.1, 56.01S×28.18W, h116km, mb6.1/122, ME6.0, MW6.2, MW6.2, MW6.2, Error ellipse: s-maj=4.7km s-min=3.8km az=224.0, Moment Tensor Solution. s24 Moment tensor: Scale 10¹⁸Nm; Mrr 1.90; Mθθ -1.71; Mφφ -0.19; Mrθ -0.66; Mθφ 1.04; Mφr -1.38; Best double couple: M₀2.60000×10¹⁸ NP1:φs145.00000°, δ54.00000°, λ130.00000°. NP2:φs270.00000°, δ52.00000°, λ49.00000°. Principal axes: T 2.8300, Plg59.0000°, Azm116.0000°; N -0.5900, Plg31.0000°, Azm298.0000°; P -2.2400, Plg1.0000°, Azm207.0000°; Broadband fault plane solution: P waves. NP1:φs298.00000°, δ40.00000°, λ64.00000°. NP2:φs150.00000°, δ55.00000°, λ110.00000°. Principal axes: T Plg72.0000°, Azm111.0000°; N Plg0.0000°, Azm0.0000°; P Plg8.0000°, Azm226.0000°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.*
*GCMT **11** 09:54:55.2±0.1, 55.97S×27.78W, h123km, MW6.3/153, Moment Tensor Solution. s153,c358; s145,c545; Duration: 3s3 Moment tensor: Scale 10¹⁸Nm; Mrr2.26±.01; Mθθ-2.33±.02; Mφφ 0.06±.02; Mrθ-0.92±.01; Mθφ 1.09±.02; Mφr-1.41±.01; Best double couple: M₀3.02000×10¹⁸ NP1:φs263.00000°, δ57.00000°, λ53.00000°. NP2:φs138.00000°, δ48.00000°, λ133.00000°. Principal axes: T 3.2590, Plg59.0000°, Azm117.0000°; N -0.4840, Plg30.0000°, Azm286.0000°; P -2.7810, Plg5.0000°, Azm19.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*
*NEIC **11** 09:54:56.0±0.0, 56.00S×28.33W, h130km, Moment Tensor Solution. s44 Moment tensor: Scale 10¹⁸Nm; Mrr2.00; Mθθ-1.82; Mφφ -0.18; Mrθ-0.95; Mθφ1.15; Mφr-1.22; Best double couple: M₀2.70000×10¹⁸ NP1:φs269.00000°, δ57.00000°, λ52.00000°. NP2:φs144.00000°, δ49.00000°, λ133.00000°. Principal axes: T 2.9400, Plg58.0000°, Azm122.0000°; N -0.5000, Plg30.0000°, Azm292.0000°; P -2.4300, Plg4.0000°, Azm24.0000°;*
*IDC **11** 09:54:57.7±0.6, 55.98S×28.16W, h138km±4km, mb5.7/33, mb1 5.7/35, mb1mx5.7/36, mbtmp6.1/35, MS5.6/19, Ms1 5.6/19, ms1mx5.4/27 Error ellipse: s-maj=9.2km s-min=7.2km az=39.0*
*NEIC **11** 09:55:08.0±0.0, 55.94S×27.78W, h117km, Moment Tensor Solution. s62 Moment tensor: Scale 10¹⁸Nm; Mrr2.06; Mθθ-1.79; Mφφ -0.26; Mrθ-0.92; Mθφ0.68; Mφr-1.19; Best double couple: M₀2.50000×10¹⁸ NP1:φs264.00000°, δ58.00000°, λ59.00000°. NP2:φs133.00000°, δ44.00000°, λ130.00000°. Principal axes: T 2.8300, Plg63.0000°, Azm121.0000°; N -0.7100, Plg26.0000°, Azm282.0000°; P -2.1200, Plg8.0000°, Azm16.0000°;*
**ISC 11 09:54:56.5±0.3, 56.05S±0.03×28.21W±0.03, h131km±2km, h130km: pP-P, n1690, σ1.81/1972, mb6.1/161, 97C-35D, South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **HOPE** | **Hope Point** | **5.06** | **287** | *e*Pn | **Pn** | **09 56 09.5** | **-0.8** |
| HOPE | | | | *e*Sn | **Sn** | **09 57 06.7** | **-1.0** |
| **VNA1** | **Neumayer--Stat** | **17.02** | **157** | P | **Pn** | **09 58 47.7** | **+1.5** |
| VNA1 | | | | S | S | 10 02 12.7 | +17 |
| **VNA3** | **Neumayer Olymp** | **17.19** | **160** | P | **Pn** | **09 58 49.4** | **+1.2** |
| VNA3 | | | | S | S | 10 02 15.3 | +15 |
| **VNA2** | **Neumayer--Watz** | **17.41** | **157** | P | **Pn** | **09 58 51.6** | **+0.6** |
| | baz=322,slow=12 | | | | | | |
| VNA2 | | | | S | Sn | 10 02 18.3 | +13 |
| **EFI** | **East Falkland** | **18.06** | **271** | *e*P | **Pn** | **09 58 58.9** | **+0.1** |
| EFI | | | | pmax | pmax | | |
| | comp=Z,590nm,1.2s | | | | | | |
| **EFI** | **East Falkland** | **18.06** | **271** | *e*P | **Pn** | **09 58 58.5** | **-0.3** |
| | comp=Z,590nm,1.2s | | | | | | |
| **SNAA** | **Sanae** | **18.98** | **155** | P | **Pn** | **09 59 09.0** | **-0.6** |
| SNAA | | | | S | S | **10 02 34.7** | **-1.0** |
| **SNAA** | **Sanae** | **18.98** | **155** | P | **P** | **09 59 08.0** | **+0.6** |
| | comp=Z,186nm,0.3s,baz=308,slow=9.4,SNR=1744 | | | | | | |
| SNAA | | | | S | S | **10 02 33.0** | **-2.7** |
| | comp=Z,1.0nm,0.3s,baz=186,slow=18,SNR=4.1 | | | | | | |
| SNAA | | | | PcP | **PcP** | **10 03 28.3** | **+1.6** |
| | comp=Z,7.6nm,0.3s,baz=258,slow=3.3,SNR=8.4 | | | | | | |
| **SNAA** | **Sanae** | **18.98** | **155** | *c* *i*P | **P** | **09 59 08.1** | **+0.7** |
| **SNAA** | **Sanae** | **18.98** | **155** | *e*P | **P** | **09 59 07.8** | **+0.4** |
| | comp=Z,3μm,1.1s | | | | | | |
| SNAA | | | | S | **S** | **10 02 33.0** | **-2.7** |
| SNAA | | | | PcP | **PcP** | **10 03 28.3** | **+1.6** |
| **PMSA** | **Palmer Station** | **19.47** | **229** | P | **Pn** | **09 59 15.8** | **+0.7** |
| | comp=Z,18nm,0.3s,baz=67,slow=7.9,SNR=76 | | | | | | |
| PMSA | | | | S | **Sn** | **10 02 52.6** | **-1.6** |
| | baz=96,slow=23,SNR=6.7 | | | | | | |
| PMSA | | | | ScP | **ScP** | **10 06 49.4** | **-1.6** |
| | comp=Z,7.7nm,0.3s,baz=64,slow=3.9,SNR=14 | | | | | | |
| **PMSA** | **Palmer Station** | **19.47** | **229** | *e*P | **Pn** | **09 59 15.9** | **+0.7** |
| | comp=Z,656nm,0.9s | | | | | | |
| PMSA | | | | S | **Sn** | **10 02 52.6** | **-1.6** |
| PMSA | | | | ScP | **ScP** | **10 06 49.5** | **-1.6** |
| **TRIS** | **Tristan da Cun** | **21.81** | **36** | *e*P | **P** | **09 59 39.8** | **+1.8** |
| TRIS | | | | *e*pP | **pP** | **10 00 01.3** | **-0.5** |
| **NVL** | **N'lazarevskaya** | **22.58** | **146** | *e*P | **P** | **09 59 44.5** | **-0.9** |
| NVL | | | | *e* | | 10 03 34.9 | |
| NVL | | | | *e*S | **S** | **10 03 42.8** | **0.0** |
| NVL | | | | *e*'SS | **sS** | **10 04 19.8** | **-6.6** |
| NVL | | | | smax | smax | | |
| | comp=N,12μm,9.1s | | | | | | |
| **USHA** | **Ushuaia** | **22.63** | **256** | P | **P** | **09 59 46.5** | **+0.5** |
| | comp=N,829nm,0.8s,baz=78,slow=12,SNR=76 | | | | | | |
| USHA | | | | PcP | **PcP** | **10 03 34.8** | **+1.0** |
| | comp=N,165nm,0.8s,baz=157,slow=1.7,SNR=6.7 | | | | | | |
| USHA | | | | ScP | **ScP** | **10 06 57.4** | **-1.6** |
| | comp=N,158nm,1.0s,baz=28,slow=2.4,SNR=6.4 | | | | | | |
| **CHRN** | **Cochrane** | **28.46** | **269** | *e*P | **P** | **10 00 39.9** | **+1.1** |
| | comp=N,48nm,0.7s | | | | | | |
| **TRQA** | **Tornquist** | **28.80** | **294** | *e*P | **P** | **10 00 42.6** | **+0.7** |
| | comp=N,592nm,1.6s | | | | | | |
| **PLCA** | **Paso Flores** | **31.43** | **281** | P | **P** | **10 01 04.0** | **-1.2** |
| | comp=N,36nm,0.8s,baz=163,slow=8.1,SNR=63 | | | | | | |
| PLCA | | | | PcP | **PcP** | **10 03 55.9** | **+0.7** |
| | comp=N,39nm,0.8s,baz=164,slow=2.0,SNR=10 | | | | | | |
| PLCA | | | | ScP | **ScP** | **10 07 25.5** | **-0.4** |
| | comp=N,30nm,1.0s,baz=125,slow=2.7,SNR=7.0 | | | | | | |
| PLCA | | | | PKiKP | **PKiKP** | **10 11 24.2** | **+0.1** |
| | comp=N,6.9nm,1.0s,baz=168,slow=3.7,SNR=3.8 | | | | | | |
| PLCA | | | | LR | LR | 10 13 29.4 | |
| | comp=N,7μm,18.6s,baz=150,slow=35 | | | | | | |
| PLCA | | | | P3KPbc | | 10 32 40.6 | |
| | comp=N,2.6nm,0.8s,baz=302,slow=3.7,SNR=6.1 | | | | | | |
| **PLCA** | **Paso Flores** | **31.43** | **281** | *e*P | **P** | **10 01 04.7** | **-0.5** |
| PLCA | | | | | | 10 03 55.9 | |
| PLCA | | | | *i* | | 10 11 24.2 | |
| PLCA | | | | pmax | pmax | | |
| | comp=Z,109nm,1.1s | | | | | | |
| **PLCA** | **Paso Flores** | **31.43** | **281** | *e*P | **P** | **10 01 04.7** | **-0.5** |
| | comp=Z,109nm,1.1s | | | | | | |
| PLCA | | | | PcP | **PcP** | **10 03 55.9** | **+0.7** |
| PLCA | | | | ScP | **ScP** | **10 07 25.5** | **-0.4** |
| PLCA | | | | PKiKP | **PKiKP** | **10 11 24.2** | **+0.1** |
| PLCA | | | | *e* | | 10 32 40.6 | |
| **SYO** | **Syowa Base** | **31.95** | **141** | ⇓*i*P | **P** | **10 01 08.0** | **-1.3** |
| **SYO** | **Syowa Base** | **31.95** | **141** | *e*SH | **S** | **10 06 08.0** | **-2.4** |
| **SYO** | **Syowa Base** | **31.95** | **141** | ⇓*i*PKiKP | **PKiKP** | **10 11 23.2** | **-0.3** |
| **QSPA** | **South Pole Qui** | **34.20** | **180** | *e*P | **P** | **10 01 31.1** | **+2.0** |
| | comp=Z,4μm,1.1s | | | | | | |
| **GO05** | **HualaæØ** | **36.33** | **287** | *e*P | **P** | **10 01 46.4** | **-1.1** |
| | comp=Z,113nm,1.3s | | | | | | |
| **CPUP** | **Villa Florida** | **36.38** | **313** | P | **P** | **10 01 48.1** | **+0.1** |
| | comp=Z,169nm,0.8s,baz=152,slow=7.7,SNR=226 | | | | | | |
| CPUP | | | | PcP | **PcP** | **10 04 09.9** | **+0.5** |
| | comp=Z,127nm,0.9s,baz=148,slow=3.0,SNR=9.1 | | | | | | |
| CPUP | | | | ScP | **ScP** | **10 07 41.5** | **-2.0** |
| | comp=Z,136nm,1.2s,baz=143,slow=3.1,SNR=19 | | | | | | |
| **ASAL** | **Salagasta** | **36.56** | **293** | *e*P | **P** | **10 01 48.1** | **-1.4** |
| ASAL | | | | *e*S | **PcP** | **10 04 04.2** | **-5.9** |
| **RTCV** | **Cerro Valdivia** | **36.98** | **294** | *e*P | **P** | **10 01 48.9** | **-4.2** |
| RTCV | | | | *e*S | **PcP** | **10 04 06.5** | **-4.7** |
| **PEL** | **Peldehue** | **37.09** | **290** | *e*P | **P** | **10 01 54.5** | **+0.5** |
| PEL | | | | pmax | pmax | | |
| | comp=Z,251nm,0.8s | | | | | | |
| **PEL** | **Peldehue** | **37.09** | **290** | *e*P | **P** | **10 01 54.5** | **+0.5** |
| | comp=Z,251nm,0.8s | | | | | | |
| **ROC1** | **El Roble** | **37.40** | **290** | *e*P | **P** | **10 01 56.9** | **+0.1** |
| | comp=Z,806nm,0.3s | | | | | | |
| ROC1 | | | | *e*S | **S** | **10 07 35.0** | **-0.3** |
| **AHML** | **Horco Molle** | **39.56** | **302** | *e*P | **P** | **10 02 15.6** | **+0.9** |
| **LCO** | **Las Campanas** | **40.38** | **294** | *e*P | **P** | **10 02 21.3** | **-0.4** |
| | comp=Z,132nm,0.8s | | | | | | |
| **MAW** | **Mawson** | **40.49** | **144** | P | **P** | **10 02 22.7** | **+0.9** |
| | comp=Z,454nm,0.9s,baz=237,slow=8.5,SNR=315 | | | | | | |
| MAW | | | | PcP | **PcP** | **10 04 22.9** | **+1.3** |
| | comp=Z,228nm,0.9s,baz=238,slow=7.0,SNR=9.8 | | | | | | |
| MAW | | | | ScP | **ScP** | **10 07 58.7** | **+0.2** |
| | comp=Z,227nm,1.2s,baz=238,slow=4.9,SNR=14 | | | | | | |
| MAW | | | | LR | LR | 10 16 42.9 | |
| | comp=Z,7μm,21.3s,baz=256,slow=32 | | | | | | |
| **MAW** | **Mawson** | **40.49** | **144** | P | **P** | **10 02 22.7** | **+0.9** |
| MAW | | | | *e*PcP | **PcP** | **10 04 23.6** | **+2.0** |
| MAW | | | | ScP | **ScP** | **10 07 58.7** | **+0.2** |
| **SUR** | **Sutherland** | **41.20** | **76** | *e*P | **P** | **10 02 29.5** | **+1.2** |
| | comp=Z,553nm,1.3s | | | | | | |
| **ALOL** | **LOMAS DE OLMED** | **41.47** | **306** | *e*P | **P** | **10 02 33.4** | **+3.0** |
| **ASTB** | **Santa Barbara** | **41.57** | **305** | *e*P | **P** | **10 02 29.8** | **-1.6** |
| **AZAP** | **Zapla** | **41.62** | **304** | *e*P | **P** | 10 02 25.2 | -6.6 |
| **BDFB** | **Brasilia** | **43.08** | **331** | P | **P** | **10 02 44.2** | **+0.7** |
| | comp=Z,73nm,0.6s,baz=314,slow=3.4,SNR=135 | | | | | | |
| BDFB | | | | PcP | **PcP** | **10 04 32.5** | **+1.4** |
| | comp=Z,48nm,0.9s,baz=319,slow=3.9,SNR=3.4 | | | | | | |
| BDFB | | | | LR | LR | 10 20 12.5 | |
| | comp=Z,11μm,18.8s,baz=306,slow=35 | | | | | | |
| **BDFB** | **Brasilia** | **43.08** | **331** | *e*P | **P** | **10 02 44.6** | **+1.0** |
| BDFB | | | | | | 10 04 32.5 | |
| BDFB | | | | pmax | pmax | | |
| | comp=Z,1μm,1.8s | | | | | | |
| **BDFB** | **Brasilia** | **43.08** | **331** | *e*P | **P** | **10 02 44.6** | **+1.0** |
| | comp=Z,1μm,1.8s | | | | | | |
| BDFB | | | | PcP | **PcP** | **10 04 32.5** | **+1.4** |
| **SHEL** | **Horse Pasture** | **43.54** | **32** | *i* P | **P** | **10 02 48.5** | **+1.4** |
| **SHEL** | **Horse Pasture** | **43.54** | **32** | *e*P | **P** | **10 02 48.3** | **+1.1** |
| | comp=Z,1μm,1.0s | | | | | | |
| **GRM** | **Grahamstown** | **43.63** | **82** | *i* P | **P** | **10 02 47.3** | **-0.4** |
| **PB14** | **IPOC Station P** | **43.83** | **298** | ⇑*i*P | **P** | **10 02 49.5** | **-0.3** |
| **PB10** | **IPOC Station P** | **44.84** | **299** | *e*P | **P** | **10 02 57.0** | **-0.4** |
| | comp=Z,782nm,1.9s | | | | | | |
| **PB10** | **IPOC Station P** | **44.84** | **299** | ⇑*i*P | **P** | **10 02 57.2** | **-0.2** |
| **PB06** | **IPOC Station P** | **45.04** | **300** | ⇑*i*P | **P** | **10 02 59.3** | **+0.1** |
| **PB04** | **IPOC Station P** | **45.64** | **300** | *e*P | **P** | **10 03 03.3** | **-0.7** |
| | comp=Z,584nm,1.1s | | | | | | |
| **PB04** | **IPOC Station P** | **45.64** | **300** | ⇑*i*P | **P** | **10 03 04.3** | **+0.3** |
| **PB09** | **IPOC Station P** | **45.66** | **301** | ⇑*i*P | **P** | **10 03 05.1** | **+1.0** |
| **PB07** | **IPOC Station P** | **46.03** | **301** | ⇑*i*P | **P** | **10 03 07.2** | **+0.2** |
| **SBA** | **Scott Base** | **46.04** | **184** | *e*P | **P** | **10 03 08.6** | **+2.4** |
| SBA | | | | pmax | pmax | | |
| | comp=Z,631nm,1.0s | | | | | | |
| **SBA** | **Scott Base** | **46.04** | **184** | *e*P | **P** | **10 03 08.6** | **+2.4** |
| | comp=Z,631nm,1.0s | | | | | | |
| **PB02** | **IPOC Station P** | **46.38** | **301** | ⇑*i*P | **P** | **10 03 10.0** | **+0.3** |
| **PB01** | **IPOC Station P** | **46.42** | **302** | *e*P | **P** | **10 03 10

comp=Z,502nm,1.0s
BOSA PcP **PcP** **10 04 43.6 +0.7**
BOSA ScP **ScP** **10 08 23.6 -0.3**
BOSA PKiKP **PKiKP** **10 11 37.2 0.0**
**VNDA Vanda 46.55 183** P **P** **10 03 12.0 +1.8**
comp=Z,436nm,0.8s,baz=186,slow=6.8,SNR=625
VNDA ScP **ScP** **10 08 22.9 -0.1**
comp=Z,33nm,1.1s,baz=236,slow=2.2,SNR=3.2
VNDA S **S** **10 09 50.8 +2.6**
comp=Z,7.4nm,1.0s,baz=44,slow=13,SNR=4.4
**VNDA Vanda 46.55 183** *eP* **P** **10 03 12.1 +2.0**
comp=Z,566nm,0.9s
VNDA ScP **ScP** **10 08 22.9 -0.1**
VNDA S **S** **10 09 50.8 +2.6**
**PB08 IPOC Station P 47.03 303**⇑*iP* **P** **10 03 14.6 -0.4**
**WIN Windhoek 47.11 64** P **P** **10 03 15.6 +0.1**
**SIV San Ignacio 47.16 315** P **P** **10 03 15.3 -0.4**
comp=Z,49nm,0.6s,baz=163,slow=8.2,SNR=103
SIV PcP **PcP** **10 04 46.6 +1.4**
comp=Z,68nm,0.7s,baz=165,slow=5.8,SNR=8.9
SIV ScP **ScP** **10 08 25.4 -1.1**
comp=Z,73nm,1.1s,baz=178,slow=3.6,SNR=20
**PB11 IPOC Station P 47.60 302** *eP* **P** **10 03 19.6 +0.5**
comp=Z,686nm,1.1s
**PB11 IPOC Station P 47.60 302**⇑*iP* **P** **10 03 19.2 0.0**
**PSGC Pisagua 47.96 302**⇑*iP* **P** **10 03 22.0 +0.1**
**MNMC Minye Minye 48.11 303** *eP* **P** **10 03 24.4 +1.1**
comp=Z,572nm,0.8s
**MNMC Minye Minye 48.11 303**⇑*iP* **P** **10 03 23.9 +0.6**
**H10S2 ASCENSION HYDR48.17 18** T T 10 55 54.1
baz=190,slow=74
**H10S3 ASCENSION HYDR48.17 18** T T 10 55 54.4
baz=190,slow=74
**H10S1 ASCENSION HYDR48.19 18** T T 10 55 55.4
baz=190
**CRZF Crozet Islands 48.34 114** *eP* **P** **10 03 26.2 +1.8**
comp=Z,1µm,0.9s
**PB16 IPOC Station P 48.76 304**⇑*iP* **P** **10 03 29.2 +0.6**
**PB12 IPOC Station P 48.90 302**⇑*iP* **P** **10 03 29.5 +0.3**
**ASCN Ascension 49.23 18** *eP* **P** **10 03 31.7 +0.2**
comp=Z,418nm,1.2s
**H10N1 ASCENSION HYDR49.29 18** P **P** **10 03 33.1 +1.5**
baz=191,slow=9.6,SNR=7.9
H10N1 T T 10 56 45.4
baz=189,slow=75,SNR=18
**H10N3 ASCENSION HYDR49.29 18** P **P** **10 03 33.3 +1.7**
baz=191,slow=9.6,SNR=12
H10N3 T T 10 56 32.4
baz=189,slow=75,SNR=72
**H10N2 ASCENSION HYDR49.30 18** P **P** **10 03 33.1 +1.4**
baz=191,slow=9.6,SNR=13
H10N2 T T 10 56 35.4
baz=189,slow=75,SNR=84
**LBTB Lobatse 49.56 74** P **P** **10 03 33.9 -0.2**
comp=Z,647nm,1.0s,baz=217,slow=10,SNR=32
LBTB PcP **PcP** **10 04 55.5 +1.6**
comp=Z,136nm,0.9s,baz=228,slow=4.9,SNR=4.0
LBTB ScP **ScP** **10 08 36.5 -0.2**
comp=Z,17nm,0.7s,baz=243,slow=4.3,SNR=5.3
**LBTB Lobatse 49.56 74** *eP* **P** **10 03 33.5 -0.6**
comp=Z,1µm,1.1s
LBTB PcP **PcP** **10 04 55.5 +1.6**
LBTB ScP **ScP** **10 08 36.5 -0.2**
**LPAZ La Paz 49.91 306** P **P** **10 03 37.6 +0.2**
comp=Z,232nm,0.6s,baz=152,slow=6.2,SNR=506
LPAZ PcP **PcP** **10 04 57.8 +1.9**
comp=Z,117nm,0.8s,baz=98,slow=4.8,SNR=3.6
LPAZ ScP **ScP** **10 08 37.5 -1.4**
comp=Z,19nm,0.8s,baz=150,slow=3.8,SNR=14
LPAZ S **S** **10 10 37.0 -1.0**
comp=Z,14nm,1.0s,baz=40,slow=24,SNR=3.8
LPAZ PKPPKP **P'P'df** **10 34 27.1 -1.2**
comp=Z,4.5nm,0.9s,baz=16,slow=9.5,SNR=6.1
LPAZ P4KPbc 10 41 10.2
comp=Z,1.8nm,0.9s,baz=90,slow=1.3,SNR=6.5
**LPAZ La Paz 49.91 306** *eP* **P** **10 03 37.9 +0.5**
LPAZ 10 04 57.8
LPAZ S **S** **10 10 37.0 -1.0**
LPAZ pmax pmax
comp=Z,344nm,0.8s
**LPAZ La Paz 49.91 306** *eP* **P** **10 03 37.9 +0.5**
comp=Z,344nm,0.8s
LPAZ PcP **PcP** **10 04 57.8 +1.9**
LPAZ ScP **ScP** **10 08 37.5 -1.4**
LPAZ S **S** **10 10 37.0 -1.0**
LPAZ P'P' 10 34 27.1
LPAZ *e* 10 41 10.2
**MIR Mirnyy 50.05 153**⇑*iP* **P** **10 03 37.0 0.0**
MIR *i* S **S** **10 10 34.0 -3.5**
MIR *i* 10 13 13.0
MIR pmax pmax
comp=Z,108nm,1.4s
MIR smax smax
comp=N,6µm,14.0s
MIR MLR MLR
comp=Z,5µm,15.0s
**TSUM Tsumeb 50.19 62** *eP* **P** **10 03 37.5 -1.4**
comp=Z,464nm,1.1s
**RCBR Riachuelo 50.46 350** P **P** **10 03 41.1 +0.3**
comp=Z,32nm,0.7s,baz=172,slow=9.5,SNR=20
RCBR PcP **PcP** **10 04 58.9 +1.8**
comp=Z,129nm,0.8s,baz=153,slow=5.7,SNR=15
RCBR LR LR 10 22 41.0
comp=Z,5µm,18.0s,baz=166,slow=33
**RCBR Riachuelo 50.46 350** *eP* **P** **10 03 41.2 +0.4**
comp=Z,149nm,0.9s
RCBR PcP **PcP** **10 04 58.9 +1.8**
**POGA Pongola 51.07 82** *i* P **P** **10 03 45.4 +0.1**
**SAML Samuel 54.40 316** *eP* **P** **10 04 09.5 -0.3**
comp=Z,290nm,0.8s
**PAF Port-aux-Franc 55.08 128** *eP* **P** **10 04 15.7 +1.4**
PAF pmax pmax
comp=Z,1µm,1.1s
**PAF Port-aux-Franc 55.08 128** *eP* **P** **10 04 15.7 +1.4**
comp=Z,1µm,1.1s
**NNA Nana 57.75 300** P **P** **10 04 33.7 0.0**
comp=Z,161nm,1.0s,baz=161,slow=6.0,SNR=53
NNA PKP2bc 10 34 27.4
comp=Z,30nm,1.1s,baz=330,slow=6.0,SNR=5.4
**NNA Nana 57.75 300** *eP* **P** **10 04 34.0 +0.3**
comp=Z,322nm,1.1s
NNA ⇑*e* 10 34 27.4
**LSZ Lusaka 58.91 70** P **P** **10 04 40.8 -1.1**
comp=Z,500nm,0.8s,baz=207,slow=7.6,SNR=685
**LSZ Lusaka 58.91 70** *eP* **P** **10 04 41.3 -0.6**
LSZ pmax pmax
comp=Z,850nm,0.9s
**LSZ Lusaka 58.91 70** *eP* **P** **10 04 41.3 -0.6**
comp=Z,850nm,0.9s
**PTGA Pitinga 60.82 323** P **P** **10 04 54.1 -0.6**
comp=Z,95nm,0.8s,baz=162,slow=7.3,SNR=129
PTGA ScP **ScP** **10 09 25.5 -0.5**
comp=Z,49nm,1.1s,baz=146,slow=8.0,SNR=6.7
PTGA LR LR 10 31 58.2
comp=Z,6µm,19.2s,baz=152,slow=36
PTGA PKPPKP **P'P'df** **10 34 11.9 +1.3**
comp=Z,15nm,0.9s,baz=15,slow=1.2,SNR=11
**PTGA Pitinga 60.82 323** *eP* **P** **10 04 54.2 -0.6**
comp=Z,108nm,0.8s
PTGA ScP **ScP** **10 09 25.5 -0.5**
PTGA P'P' 10 34 11.9
**ATAH Atahualpa 62.70 301** P **P** **10 05 09.9 +2.1**
comp=Z,210nm,0.9s,baz=157,slow=4.4,SNR=141
**RPN Rapa Nui 63.09 261** P **P** **10 05 11.1 +1.3**
comp=Z,80nm,0.9s,baz=157,slow=7.7,SNR=3.8
**DBIC Dimbokro 65.41 26** P **P** **10 05 23.9 -1.0**
comp=Z,388nm,0.8s,baz=172,slow=7.3,SNR=296
DBIC LR LR 10 28 32.0
comp=Z,4µm,18.7s,baz=150,slow=31
DBIC PKPPKP **P'P'df** **10 34 05.6 +2.9**
comp=Z,18nm,1.1s,baz=345,slow=3.7,SNR=12
**DBIC Dimbokro 65.41 26** *eP* **P** **10 05 24.3 -0.7**
DBIC pmax pmax
comp=Z,515nm,0.9s
**DBIC Dimbokro 65.41 26** *eP* **P** **10 05 24.2 -0.7**
comp=Z,514nm,0.9s
DBIC P'P' 10 34 05.6
**ABPO Ambohimpanom 66.33 89** *eP* **P** **10 05 33.3 +2.2**
ABPO pmax pmax
comp=Z,782nm,1.1s
**ABPO Ambohimpanom 66.33 89** *eP* **P** **10 05 33.3 +2.2**
comp=Z,782nm,1.1s
**OPO Ambohidratompo 66.66 89** P **P** **10 05 35.0 +1.8**
comp=Z,371nm,1.0s,baz=233,slow=3.4,SNR=197
**GUVC San Jose del G 68.66 311** *eP* **P** **10 05 46.2 +0.6**
**OTAV Otavalo 69.18 305** *eP* **P** **10 05 50.9 +1.5**
**OTAV Otavalo 69.18 305** *eP* **P** **10 05 51.6 +2.2**
comp=Z,627nm,1.4s
**RER Riviere de l'E 69.38 97** *eP* **P** **10 05 51.8 +1.7**
comp=Z,2µm,0.9s
**CMBC Cumbal 69.51 306** *eP* **P** **10 05 52.9 +1.5**
**MCQ Macquarie Isla 69.66 184** *eP* **P** **10 05 52.9 +1.8**
MCQ pmax pmax
comp=Z,349nm,1.1s
**MCQ Macquarie Isla 69.66 184** *eP* **P** **10 05 52.9 +1.8**
comp=Z,348nm,1.1s
**SJAC San Juan de Ar 69.88 310** *eP* **P** **10 05 54.2 +1.0**
**BETC Betania 69.99 309** *eP* **P** **10 05 54.9 +1.0**
**VILC Villavicencio, 70.52 311** *eP* **P** **10 05 56.2 -0.9**
**PRAC Prado 70.67 310** *eP* **P** **10 05 57.5 -0.4**
**PRAC Prado 70.67 310** *eP* **P** **10 05 57.8 -0.1**
comp=Z,3µm,2.0s
**SACV Santiago Islan 70.85 5** *eP* **P** **10 05 58.4 -0.5**
comp=Z,243nm,1.3s
**CHIC Chingaza 71.00 311** *eP* **P** **10 06 00.8 +0.5**
**MRIV Mauritius Mete 71.04 98** *eP* **P** **10 06 01.7 +1.5**
**YOPC Yopal, Colombi 71.11 313** *eP* **P** **10 05 59.5 -1.1**
**BBTS Babate 71.12 12** LR LR 10 31 31.3
comp=Z,µm,20.9s,slow=31
**ROSC El Rosal 71.44 311** P **P** **10 06 03.8 +0.8**
comp=Z,87nm,0.8s,baz=169,slow=3.4,SNR=66
ROSC S **S** **10 15 09.4 -1.7**
comp=Z,2.9nm,0.4s,baz=270,slow=20,SNR=4.2
ROSC PKPPKP **P'P'df** **10 33 54.6 +0.7**
comp=Z,3.5nm,0.4s,baz=78,slow=9.1,SNR=4.7
ROSC LR LR 10 38 29.4
comp=Z,2µm,19.7s,baz=157,slow=37
**ROSC El Rosal 71.44 311** *eP* **P** **10 06 04.8 +1.8**
**ROSC El Rosal 71.44 311** *eP* **P** **10 06 03.1 +0.1**
comp=Z,111nm,0.9s
ROSC S **S** **10 15 09.4 -1.7**
ROSC P'P' 10 33 54.6
**RUSC La Rusia 71.87 312** *eP* **P** **10 06 06.2 +0.5**
**RUSC La Rusia 71.87 312** *eP* **P** **10 06 05.1 -0.6**
comp=Z,144nm,1.1s
**MALC Bahia Malaga 72.02 308** *eP* **P** **10 06 09.5 +3.5**
**NORC Norcasia 72.33 311** *eP* **P** **10 06 05.5 -2.4**
**PLMC San Jos¨ del 72.35 309** *eP* **P** **10 06 06.2 -1.8**
**BARC Barichara 72.55 313** *eP* **P** **10 06 07.5 -1.9**
**PCRV Puerto La Cruz 72.59 322** P **P** **10 06 09.4 +0.1**
comp=Z,522nm,0.7s,baz=157,slow=4.1,SNR=235
PCRV pP **pP** **10 06 42.6 +1.0**
comp=Z,76nm,0.6s,baz=168,slow=6.9,SNR=1.5
PCRV LR LR 10 39 11.3
comp=Z,5µm,19.7s,slow=37
**GIRC Giron, Santand 72.99 313** *eP* P 10 06 06.8 -5.0
**PAMC Pamplona, Colo 73.02 313** *eP* **P** **10 06 12.2 -0.3**
**KOWA Kowa 73.16 25** *eP* **P** **10 06 12.8 +0.2**
comp=Z,496nm,1.0s
**HELC Santa Helena 73.17 310** *eP* **P** **10 06 11.5 -1.7**
**HELC Santa Helena 73.17 310** *eP* **P** **10 06 12.7 -0.6**
comp=Z,130nm,0.8s
**BRRC Barranca, Sant 73.23 312** *eP* **P** **10 06 10.2 -3.0**
**TOA0 Torodi Ar. Sit 73.34 30** *eP* **P** **10 06 13.5 -0.2**
comp=Z,829nm,0.9s
**TORD Torodi Ar. Bea 73.34 30** P **P** **10 06 13.4 -0.3**
comp=Z,600nm,0.8s,baz=198,slow=5.1,SNR=1093
TORD pP **pP** **10 06 46.9 +1.0**
comp=Z,223nm,1.2s,baz=196,slow=5.4,SNR=2.4
TORD PKKPbc **PKKPbc** **10 25 50.7 +2.8**
comp=Z,1.3nm,0.9s,baz=33,slow=4.8,SNR=3.6
TORD LR LR 10 33 29.3
comp=Z,4µm,19.2s,baz=205,slow=32
TORD PKPPKP **P'P'df** **10 33 49.7 +0.4**
comp=Z,1.9nm,1.0s,baz=68,slow=2.1,SNR=4.9
**CBRI Barrientos, No 73.40 313** *eP* **P** **10 06 15.5 +1.1**
**GRGR Grenville 73.44 326** *eP* **P** **10 06 15.1 +0.8**
comp=Z,448nm,0.7s
**SDV Santo Domingo 73.61 316** P **P** **10 06 16.0 +0.4**
comp=Z,323nm,0.8s,baz=177,slow=3.8,SNR=328
SDV PKPPKP **P'P'df** **10 33 48.8 -0.7**
comp=Z,10nm,0.9s,baz=347,slow=3.2,SNR=3.2
SDV LR LR 10 40 28.5
comp=Z,11µm,18.7s,baz=158,slow=37
**SDV Santo Domingo 73.61 316** *eP* **P** **10 06 15.3 -0.2**
comp=Z,353nm,0.8s
SDV *e*S **S** **10 15 34.6 -0.7**
SDV P'P' 10 33 48.8
**MAPC Malpelo 73.96 304** *eP* **P** **10 06 15.5 -1.9**
**OCAC Ocana 74.09 313** *eP* **P** **10 06 17.5 -0.8**
**PAYG Puerto Ayora 74.19 293** *eP* **P** **10 06 19.0 +0.2**
comp=Z,187nm,1.3s
**DBBC Dabeiba 74.20 310** *eP* **P** **10 06 20.1 +1.2**
**SVB Belmont 74.39 327** *eP* **P** **10 06 20.3 +0.5**
comp=Z,190nm,0.7s
**MCLT Moule a Chique 74.71 327**⇑*eP* **P** **10 06 22.3 +0.7**
**H05S1 Guadeloupe/Mar 75.35 327** P **P** **10 06 24.9 -0.4**
SNR=7.0
**BIM Bigot 75.51 327**⇑*eP* **P** **10 06 27.1 +0.9**
**MOTC Monteria, Cord 75.55 311** *eP* **P** **10 06 26.1 -0.4**
**KMBO Kilima Mbogo 75.58 70** P **P** **10 06 30.4 +3.3**
comp=Z,86nm,1.1s,baz=209,slow=6.5,SNR=141
KMBO LR LR 10 37 19.4
comp=Z,3µm,18.8s,baz=188,slow=34
**KMBO Kilima Mbogo 75.58 70** *eP* **P** **10 06 30.2 +3.1**
KMBO pmax pmax
comp=Z,350nm,1.4s
**KMBO Kilima Mbogo 75.58 70** *eP* **P** **10 06 30.4 +3.3**
comp=Z,348nm,1.4s
**KMBO Kilima Mbogo 75.58 70** P **P** **10 06 30.6 +3.6**
SNR=106
**FDF Fort de France 75.73 327** *eP* **P** **10 06 28.3 +0.8**
FDF pmax pmax
comp=Z,2µm,1.9s
**FDF Fort de France 75.73 327** *eP* **P** **10 06 28.3 +0.8**
comp=Z,2µm,1.9s
**FDF Fort de France 75.73 327** *eP* **P** **10 06 28.1 +0.6**
**CXM Morne La Croix 75.81 327**⇑*iP* **P** **10 06 29.1 +1.0**
**DLPL La Plaine 76.33 327** *i* P **P** **10 06 31.5 +0.6**
**BBL Barber's Block 76.58 327** *eP* **P** **10 06 33.3 +1.0**
BBL *e*S **pP** **10 07 05.2 +0.4**
**MDVC Dominica, Viel 76.64 327** *eP* **P** **10 06 34.0 +1.4**
**URIC Uribia, Colomb 76.70 316** *eP* **P** **10 06 31.4 -1.6**
**MGG Marie-Galante 76.90 327** *eP* **P** **10 06 35.2 +1.1**
MGG *e*S **pP** **10 07 08.7 +2.8**
**TBG Guadaloupe-3 76.94 327** *eP* **P** **10 06 35.0 +0.8**
TBG *e*S **pP** **10 07 03.6 -3.2**
**CTZ Chatham Island 77.06 203** PN **P** **10 06 35.8 +1.0**
CTZ pP **pP** **10 07 10.3 +3.0**
**H05N1 Guadeloupe/Mar 77.20 328** P **P** **10 06 37.9 +2.1**
SNR=33
**GDHS Morne Mazeau, 77.38 327** *eP* **P** **10 06 37.2 +0.4**
comp=Z,1µm,0.8s
**PYZ Puysegur Point 77.39 191** *eP* **P** **10 06 37.6 +1.1**
comp=Z,340nm,1.4s
**WHZ Wether Hill Ro 77.52 191** *eP* **P** **10 06 37.8 +0.5**
comp=Z,370nm,1.1s
**BCIP Isla Barro Col 77.71 308** *eP* **P** **10 06 39.8 +1.2**
comp=Z,303nm,1.3s
**MLYT Lee's Yard 77.93 327** *eP* **P** **10 06 40.6 +0.8**
MLYT *e*S **pP** **10 07 10.3 -2.1**
**MLZ Mavora Lakes 78.02 192** *eP* **P** **10 06 41.1 +1.0**
comp=Z,323nm,1.2s
**ODZ Otahua Downs 78.03 194** *eP* **P** **10 06 41.6 +1.5**
comp=Z,149nm,1.1s
**ODZ Otahua Downs 78.03 194** *ePN* **P** **10 06 38.8 -1.3**
**DCZ Deep Cove 78.03 191** *eP* **P** **10 06 41.0 +0.9**
comp=Z,219nm,1.1s
**WKZ Wanaka 78.45 192** *eP* **P** **10 06 43.9 +1.4**
comp=Z,228nm,1.0s
**ANWB Willy Bob 78.70 327** *eP* **P** **10 06 44.6 +0.7**
comp=Z,443nm,0.8s
**LBZ Lake Benmore 78.74 193** *eP* **P** **10 06 45.3 +1.2**
comp=Z,346nm,1.3s
**SEUS St. Eustatius 78.90 326** *eP* **P** **10 06 46.1 +1.1**
comp=Z,538nm,0.8s
**MQZ McQueen's Vall 79.06 195** *eP* **P** **10 06 46.4 +0.7**
comp=Z,275nm,1.1s
**MQZ McQueen's Vall 79.06 195** *ePN* **P** **10 06 46.5 +0.7**
**SABA Saba 79.10 326** *eP* **P** **10 06 47.4 +1.2**
comp=Z,750nm,0.9s
**CRLZ Canterbury Las 79.19 195** *eP* **P** **10 06 48.0 +1.5**
comp=Z,483nm,1.2s
**RPZ Rata Peaks 79.28 194** P **P** **10 06 47.2 +0.2**
comp=Z,227nm,1.0s,baz=168,slow=3.6,SNR=29
**RPZ Rata Peaks 79.28 194** *eP* **P** **10 06 48.1 +1.1**
comp=Z,366nm,1.1s
**OXZ Oxford 79.52 195** *eP* **P** **10 06 49.5 +1.2**
comp=Z,268nm,1.2s
**OXZ Oxford 79.52 195** PN **P** **10 06 49.4 +1.1**
**FOZ Fox Glacier 79.62 193** *eP* **P** **10 06 49.9 +1.1**
comp=Z,141nm,1.1s
**RKT Rikitea 79.97 244** *eP* **P** **10 06 52.6 +1.6**
comp=Z,151nm,1.1s
RKT *ep*P **pP** **10 07 22.5 -1.2**
comp=Z,148nm,1.2s
RKT *e*S **S** **10 16 40.3 -3.6**
comp=Z,5µm,27.5s
RKT *e*SS **SS** **10 21 47.9 -7.7**
comp=Z,2µm,27.2s
RKT *e*LQ LQ 10 28 16.7
comp=Z,6µm,33.2s
RKT *e*LR LR 10 31 37.6
comp=Z,6µm,35.0s,baz=147
**RKT Rikitea 79.97 244** *e*T T 11 35 33.0
comp=Z,2.1nm,0.2s
**LTZ Lake Taylor 80.02 195** *eP* **P** **10 06 52.3 +1.2**
comp=Z,584nm,1.0s
**LTZ Lake Taylor 80.02 195** PN **P** **10 06 51.9 +0.8**
LTZ pP **pP** **10 07 27.1 +3.3**
**KHZ Kahutara 80.19 196** *eP* **P** **10 06 52.7 +0.9**
comp=Z,237nm,1.1s
**KHZ Kahutara 80.19 196** PN **P** **10 06 52.2 +0.3**
**TBVI Tortola 80.28 325** *eP* **P** **10 06 52.9 +0.4**
**MTP Monte Pirata 80.29 324** *eP* **P** **10 06 52.6 +0.1**
comp=Z,228nm,1.1s
**STVI Saint Thomas 80.33 325** *eP* **P** **10 06 53.6 +0.8**
comp=Z,287nm,0.8s
**HDC Heredia 80.39 304** *eP* **P** **10 06 54.0 +0.6**
comp=Z,468nm,1.1s
**HUMP Col San Antoni 80.43 324** *eP* **P** **10 06 53.6 +0.3**
comp=Z,114nm,0.8s
**ABVI Anegada Island 80.48 325** *eP* **P** **10 06 54.6 +1.0**
comp=Z,220nm,0.8s
**SJG San Juan 80.50 324** P **P** **10 06 52.7 -1.0**
comp=Z,59nm,0.8s,baz=129,slow=1.6,SNR=24
SJG LR LR 10 46 06.0
comp=Z,2µm,18.7s,baz=158,slow=38
**SJG San Juan 80.50 324** *eP* **P** **10 06 53.1 -0.6**
SJG pmax pmax
comp=Z,93nm,0.9s
**SJG San Juan 80.50 324** *eP* **P** **10 06 53.1 -0.6**
comp=Z,93nm,0.9s
**CELP Cerrillos 80.61 323** *eP* **P** **10 06 54.0 -0.3**
**THZ Tophouse 80.93 196** *eP* **P** **10 06 57.0 +1.0**
comp=Z,366nm,1.1s
**THZ Tophouse 80.93 196** *ePN* **P** **10 06 56.9 +1.0**
**JTS JuntasAbangare 81.03 304** *eP* **P** **10 06 57.7 +1.0**
JTS pmax pmax
comp=Z,446nm,1.2s
**JTS JuntasAbangare 81.03 304** *eP* **P** **10 06 57.7 +1.0**
comp=Z,446nm,1.2s
**SNZO South Karori 81.08 197** *eP* **P** **10 06 57.7 +1.1**
comp=Z,707nm,1.1s
**IDE Isla Desecheo 81.20 323** *eP* **P** **10 06 58.1 +0.6**
**TCW Tory Channel 81.25 197** *ePN* **P** **10 06 58.1 +0.5**
**TAU Tasmania Unive 81.34 177** *eP* **P** **10 06 59.3 +1.3**
TAU pmax pmax
comp=Z,632nm,1.0s
**TAU Tasmania Unive 81.34 177** *eP* **P** **10 06 59.3 +1.3**
comp=Z,632nm,1.0s
**NNZ Nelson 81.39 196** *ePN* **P** **10 06 58.1 -0.1**
**BFZ Birch Farm 81.42 199** *eP* **P** **10 07 00.1 +1.5**
comp=Z,416nm,1.1s
**BFZ Birch Farm 81.42 199** *ePN* **P** **10 06 59.5 +1.0**
**MRZ Mangatainoka R 81.56 198** PN **P** **10 06 60.0 +0.7**
**QRZ Quartz Range 81.90 196** *ePN* **P** **10 06 59.1 -1.9**
**SDD Santo Domingo 82.12 320** *eP* **P** **10 07 02.1 -0.1**
comp=Z,220nm,0.9s
**WAZ Wanganui 82.55 198** *ePN* **P** **10 07 05.8 +1.4**
**MSEY Mahe Island 82.62 87** *eP* **P** **10 07 06.7 +1.5**
**MSEY Mahe Island 82.62 87** *eP* **P** **10 07 06.7 +1.5**
comp=Z,227nm,1.2s
**MSEY Mahe Island 82.62 87** P **P** **10 07 07.2 +2.0**
SNR=7.2
**BKZ Black Stump Fm 82.85 199** *eP* **P** **10 07 07.4 +1.3**
comp=Z,255nm,1.2s
**BKZ Black Stump Fm 82.85 199** *ePN* **P** **10 07 06.4 +0.3**
**SDDR Presa de Saban 83.10 319** *eP* **P** **10 07 08.5 +1.2**
comp=Z,118nm,0.8s
**COPN Copaltepe 83.45 303**⇑*iP* **P** **10 07 08.7 -0.6**
**MWZ Matawai 83.46 200** PN **P** **10 07 10.4 +1.2**
**PUZ Puketiti 83.57 201** *ePN* **P** **10 07 11.1 +1.3**
**TAM Tamanrasset 83.58 31** *eP* **P** **10 07 11.7 +1.8**
**TAM Tamanrasset 83.58 31** *eP* **P** **10 07 10.4 +0.5**
comp=Z,432nm,1.3s
**URZ Urewera 83.61 200** P **P** **10 07 09.9 0.0**
comp=Z,157nm,1.0s,baz=226,slow=1.5,SNR=29
**URZ Urewera 83.61 200** *eP* **P** **10 07 11.1 +1.2**
comp=Z,241nm,1.1s
**URZ Urewera 83.61 200** *ePN* **P** **10 07 10.6 +0.7**
**HIZ Hauiti 83.78 198** *eP* **P** **10 07 10.2 -0.5**
comp=Z,385nm,1.1s
**H01W2 Cape Leeuwin H 83.90 150** P **P** **10 07 13.2 +2.1**
baz=198,slow=7.0,SNR=39
**H01W1 Cape Leeuwin H 83.91 150** P **P** **10 07 13.3 +2.1**
baz=198,slow=7.0,SNR=76
**H01W3 Cape Leeuwin H 83.91 150** P **P** **10 07 12.9 +1.7**
baz=198,slow=7.0,SNR=43
**HAZ Te Kaha 83.97 200** *ePN* **P** **10 07 12.5 +0.8**
**MXZ Matakaoa Point 84.06 201** *eP* **P** **10 07 13.1 +0.9**
comp=Z,131nm,1.2s
**FURI Furi 84.81 66** *eP* **P** **10 07 19.5 +2.9**
comp=Z,354nm,1.4s
**MTDJ Mount Denham 84.82 314** *eP* **P** **10 07 17.3 +1.1**
comp=Z,188nm,1.3s
**LCND La Ca¨ada 85.04 302** *eP* **P** **10 07 15.2 -2.0**
**VSM San Miguel 85.33 302** *eP* **P** **10 07 18.6 -0.4**
**LCY Lacayo 85.33 302** *eP* **P** **10 07 19.6 +0.7**
**PACA Pacayal 85.39 302** *eP* **P** **10 07 19.1 -0.1**
**GTBY Guantanamo Bay 85.40 316** *eP* **P** **10 07 19.1 +0.3**
comp=Z,91nm,0.9s
**LBRS Las Brisas 85.96 302** *eP* **P** **10 07 22.0 +0.1**
**SNET Serv Nac Est T 86.01 302** *eP* **P** **10 07 22.2 0.0**
comp=Z,316nm,1.0s
**SNET Serv Nac Est T 86.01 302** *eP* **P** **10 07 21.0 -1.1**
**OPAM San Salvador 86.02 302** *eP* **P** **10 07 21.9 -0.2**
OPAM AML AML 10 07 26.2
comp=Z,123nm,0.7s
**COLS Colinas 86.02 301** *eP* **P** **10 07 21.6 -0.6**
**UEES San Salvador 86.05 302** *eP* **P** **10 07 21.4 -1.0**
**BOQS Boqueron 86.07 302** *eP* **P** **10 07 22.4 -0.3**
**SBLS San Blas 86.33 301** *eP* **P** **10 07 24.9 +1.0**
**SNJE San Jose 86.34 301** *eP* **P** **10 07 25.0 +1.1**
**MONT Ecomontaæa 86.36 301** *eP* **P** **10 07 25.1 +1.1**
**RTR El Retiro 86.39 301** *eP* **P** **10 07 25.7 +1.6**
**CUS1 Cusmapa 86.55 301** *eP* **P** **10 07 26.3 +1.5**
**TOO Toolangi 86.59 175** P **P** **10 07 25.6 +0.8**
TOO pmax pmax
comp=Z,105nm,1.7s
**NWAO Narrogin (SRO) 86.61 151** P **P** **10 07 24.7 -0.3**
comp=Z,246nm,1.0s,baz=136,slow=4.1,SNR=71
NWAO S **SKSac** **10 17 36.2 -3.0**
comp=Z,5.5nm,1.0s,baz=244,slow=19,SNR=6.1
**NWAO Narrogin (SRO) 86.61 151** *eP* **P** **10 07 24.9 0.0**
NWAO S **SKSac** **10 17 36.3 -3.0**
NWAO pmax pmax
comp=Z,549nm,1.1s
**NWAO Narrogin (SRO) 86.61 151** *eP* **P** **10 07 24.9 0.0**
comp=Z,550nm,1.1s
NWAO S **SKSac** **10 17 36.2 -3.0**
**NWAO Narrogin (SRO) 86.61 151** P **P** **10 07 25.4 +0.4**
SNR=27
**TBI Tubuai 86.63 232** *eP* **P** **10 07 26.0 +0.8**
comp=Z,556nm,1.0s
TBI *ep*P **pP** **10 07 57.6 -0.7**
comp=Z,1µm,1.4s
**FUL Funchal 88.87 10**⇓*eP* **P** **10 07 38.1 +2.8**
comp=Z,406nm,1.9s
**PMAR Madeira 88.94 10**⇑*eP* **P** **10 07 38.3 +2.4**
comp=Z,372nm,1.8s
**CAN Canberra 88.96 178** *eP* **P** **10 07 37.3 +1.1**
CAN pmax pmax
comp=Z,194nm,1.2s
**CAN Canberra 88.96 178** *eP* **P** **10 07 37.2 +1.1**
comp=Z,194nm,1.2s
**PMOZ Porto Moniz, M 89.02 9**⇑*eP* **P** **10 07 38.4 +2.3**
comp=Z,249nm,1.4s
**PMOZ Porto Moniz, M 89.02 9** *eS* **S** **10 18 08.4 -4.7**
**ATD Arta Tunnel 89.19 68** P **P** **10 07 40.5 +3.1**
comp=Z,182nm,1.1s,baz=239,slow=1.0,SNR=47
**ATD Arta Tunnel 89.19 68** *eP* **P** **10 07 40.0 +2.6**
comp=Z,470nm,1.3s
**PMPS Porto Santo 89.33 10**⇑*eP* **P** **10 07 39.9 +2.5**
comp=Z,904nm,1.4s
PMPS *ep*P **pP** **10 08 09.1 -1.7**
**CCIG Comitan 89.64 300** *eP* **P** **10 07 40.2 +0.7**
comp=Z,288nm,1.5s

**DGAR Diego Garcia 89.82 103** *e*P **P** **10 07 41.5 +1.1**
DGAR pmax pmax
comp=Z,342nm,1.0s
**DGAR Diego Garcia 89.82 103** *e*P **P** **10 07 41.5 +1.1**
comp=Z,342nm,1.0s
**BBOO Buckleboo 90.48 167** *e*P **P** **10 07 43.4 +0.2**
comp=Z,152nm,1.1s
**MDT Midelt 90.78 20** P **P** **10 07 47.1 +2.7**
comp=Z,202nm,0.8s,baz=197,slow=3.2,SNR=243
MDT PKKPbc **PKKPbc** **10 25 09.7 +1.3**
comp=Z,1.7nm,0.6s,baz=310,slow=7.2,SNR=5.8
**FORT Forrest 91.18 160** *e*P **P** **10 07 47.2 +0.7**
comp=Z,3µm,1.0s
**TVO Taravao 91.40 235** *e*P **P** **10 07 49.2 +1.5**
comp=Z,97nm,1.0s
TVO *e*pP **pP** **10 08 20.5 -0.6**
comp=Z,82nm,1.3s
**TIAR Tiarei 91.64 235** *e*P **P** **10 07 50.0 +1.2**
**PAE Paea 91.65 235** *e*P **P** **10 07 50.0 +1.2**
comp=Z,8.6nm,0.9s
**CMIG Matias Romero 91.68 299** P **P** **10 07 49.5 +0.7**
comp=Z,82nm,0.9s,baz=140,slow=3.0,SNR=61
**PPTF Pamatai, Papee 91.71 235** *e*P **P** **10 07 50.2 +1.1**
comp=Z,168nm,1.3s
**PPT2 Papeete2 91.71 235** *e*P **P** **10 07 50.0 +0.8**
comp=Z,62nm,1.1s
PPT2 *e*pP **pP** **10 08 21.8 -0.8**
comp=Z,89nm,1.4s
**PPT2 Papeete2 91.71 235** *e*S **S** **10 18 33.8 -4.9**
comp=Z,5µm,25.5s
PPT2 *e*SS **SS** **10 24 39.0 -8.8**
comp=Z,3µm,25.5s
PPT2 *e*LQ LQ 10 33 03.7
comp=Z,3µm,25.0s
PPT2 *e*LR LR 10 36 58.8
comp=Z,12µm,29.8s,baz=155
**PPT Papeete 91.73 235** P **P** **10 07 50.4 +1.2**
comp=Z,52nm,0.9s,baz=78,slow=3.1,SNR=5.0
PPT LR LR 10 40 37.6
comp=Z,2µm,19.8s,baz=158,slow=30
**STKA Stephens Creek 91.99 171** P **P** **10 07 50.5 +0.2**
comp=Z,25nm,0.7s,baz=166,slow=5.9,SNR=39
STKA PP **PP** **10 11 35.7 +5.3**
comp=Z,9.5nm,1.1s,baz=162,slow=11,SNR=3.7
STKA PKKPbc **PKKPbc** **10 25 03.6 +0.1**
comp=Z,7.3nm,0.9s,baz=36,slow=4.6,SNR=8.0
STKA PKPPKP **P'P'df** **10 33 14.2 -4.3**
comp=Z,2.7nm,0.8s,baz=73,slow=1.7,SNR=4.7
STKA LR LR 10 48 49.4
comp=Z,3µm,18.0s,baz=178,slow=35
**STKA Stephens Creek 91.99 171** *e*P **P** **10 07 50.8 +0.5**
STKA 10 11 35.7
STKA 10 25 03.7
STKA pmax pmax
comp=Z,17nm,1.2s
**STKA Stephens Creek 91.99 171** *e*P **P** **10 07 50.8 +0.5**
comp=Z,17nm,1.2s
STKA PP **PP** **10 11 35.7 +5.3**
STKA PKKPbc **PKKPbc** **10 25 03.6 +0.1**
STKA P'P' 10 33 14.2
**PSMA Santa Maria 92.72 2** *e*P **P** **10 07 55.1 +2.0**
comp=Z,306nm,1.1s
**PSMN Pico do Norte, 92.73 3** *e*P **P** **10 07 55.0 +1.9**
comp=Z,395nm,1.0s
**RAR Rarotonga 92.84 224** P **P** **10 07 53.8 -0.4**
comp=Z,43nm,0.8s,baz=217,slow=7.6,SNR=6.7
RAR pP **pP** **10 08 30.2 +2.5**
comp=Z,44nm,1.0s,baz=172,slow=1.5,SNR=3.2
**RAR Rarotonga 92.84 224** *e*P **P** **10 07 55.0 +0.7**
**RAR Rarotonga 92.84 224** *e*P **P** **10 07 54.3 +0.1**
comp=Z,120nm,1.1s
RAR pP **pP** **10 08 30.2 +2.5**
**VAH Vaihoa 92.85 237** *e*P **P** **10 07 55.3 +0.9**
comp=Z,74nm,1.2s
**PMOR Pomariorio Ree 93.18 237** *e*P **P** **10 07 57.0 +1.1**
comp=Z,87nm,1.1s
**PDA Ponta Delgada 93.46 2** *e*P **P** **10 07 59.2 +2.8**
comp=Z,123nm,0.9s
**CMLA Cha da Macela 93.48 2** *i* P **P** **10 08 00.2 +3.6**
**CMLA Cha da Macela 93.48 2** *e*P **P** **10 07 56.4 -0.2**
comp=Z,214nm,1.0s
**GRON Grota Negra 93.48 2** *e*P **P** **10 07 59.6 +3.0**
comp=Z,107nm,1.1s
**BART Pico Bartolome 93.50 2** *e*P **P** **10 07 59.5 +2.7**
comp=Z,1µm,1.5s
**PCALD Caldeiras da R 93.51 2** *e*P **P** **10 07 59.0 +2.3**
comp=Z,268nm,0.7s
**PSET Sete Cidades 93.53 2** *e*P **P** **10 07 55.6 -1.3**
comp=Z,286nm,1.4s
**ARMA Armidale 93.88 180** *e*P **P** **10 08 00.5 +1.4**
comp=Z,26nm,1.0s
**TLIG Tlapa 93.92 296** *e*P **P** **10 08 00.4 +1.2**
comp=Z,116nm,1.0s
**PCAN Candelaria 94.15 360** *e*P **P** **10 08 01.9 +2.2**
comp=Z,264nm,1.7s
**PICO Pico 94.18 360** *e*P **P** **10 08 02.5 +2.6**
comp=Z,314nm,0.8s
**HOR Horta 94.21 360** *e*P **P** **10 08 02.2 +2.3**
comp=Z,217nm,1.1s
**PFVI Vila Bisbo 94.28 15** *e*P **P** **10 08 01.1 +0.9**
comp=Z,151nm,1.2s
**PFVI Vila Bisbo 94.28 15⇑** *e*P **P** **10 08 02.0 +1.7**
comp=Z,196nm,1.3s
**PFVI Vila Bisbo 94.28 15** *e*S **SKSac** **10 18 30.4 +8.0**
**PCED Cedros 94.31 360** *e*P **P** **10 08 02.5 +2.1**
comp=Z,382nm,0.9s
**PMAN Manadas 94.32 0** *e*P **P** **10 08 03.1 +2.7**
comp=Z,542nm,1.2s
**ADH Angra Heroismo 94.34 1** *e*P **P** **10 08 02.6 +2.1**
comp=Z,156nm,1.3s
**MORF Marmelete 94.47 16** *e*P **P** **10 08 01.1 -0.1**
MORF *e*S **SKSac** **10 18 25.7 +2.1**
MORF AMS AMS 10 45 26.4
comp=Z,2µm,18.3s
**MORF Marmelete 94.47 16** *e*P **P** **10 08 01.1 -0.1**
MORF *e*S **SKSac** **10 18 25.7 +2.1**
**MORF Marmelete 94.47 16⇑** *e*P **P** **10 08 02.9 +1.7**
comp=Z,220nm,1.3s
MORF *e*pP **sP** **10 08 43.4 -5.0**
**MORF Marmelete 94.47 16** *e*S **S** **10 19 02.1 +0.3**
**PBDV Barranco-do-Ve 94.52 16⇑** *e*P **P** **10 08 03.5 +2.1**
comp=Z,153nm,1.3s
**PBDV Barranco-do-Ve 94.52 16** *e*S S 10 19 12.7 +11
**TAOE Nuku Hiva Isla 94.62 247** *e*SP SP 10 20 12.7 -8.0
comp=Z,2µm,26.5s
**TAOE Nuku Hiva Isla 94.62 247** *e*LR LR 10 38 24.4
comp=Z,4µm,30.5s
**LVIG Laguna Verde 94.67 299** *e*P **P** **10 08 02.5 +0.1**
comp=Z,104nm,1.0s
LVIG *e*pP **pP** **10 08 34.6 -1.3**
**PTEO Sao Teotonio 94.70 15⇑** *e*P **P** **10 08 04.4 +2.2**
comp=Z,187nm,1.3s
**PGRA Graciosa 94.71 0** *e*P **P** **10 08 04.5 +2.3**
comp=Z,306nm,1.3s
**PVAQ Vaqueiros 94.71 16⇑** *e*P **P** **10 08 04.3 +2.1**
comp=Z,197nm,1.8s
PVAQ *e*pP **sP** **10 08 44.8 -4.6**
PVAQ *e*S SKSac 10 18 35.9 +11
**PCVE Castro Verde 94.89 16⇑** *e*P **P** **10 08 04.9 +1.9**
comp=Z,120nm,1.4s
**PCVE Castro Verde 94.89 16** *e*S **SKSac** **10 18 33.4 +7.7**
**MESJ Messejana 95.06 16** *e*P **P** **10 08 03.6 -0.2**
MESJ *e*S **SKSac** **10 18 28.8 +2.2**
MESJ AMS AMS 10 45 13.2
comp=N,2µm,14.9s
**MESJ Messejana 95.06 16** *e*P **P** **10 08 03.6 -0.2**
MESJ *e*S **SKSac** **10 18 28.8 +2.2**
**PNCL Nicolau / Gran 95.28 15⇑** *e*P **P** **10 08 06.7 +1.9**
comp=N,130nm,1.8s
PNCL *e*pP **sP** **10 08 48.0 -4.0**
PNCL *e*S S 10 18 44.4 -24
**PBEJ Beja 95.30 16⇑** *e*P **P** **10 08 06.7 +1.8**
comp=N,119nm,1.7s
PBEJ *e*pP **sP** **10 08 48.1 -4.0**
**PBAR Barrancos 95.58 17⇑** *e*P **P** **10 08 08.0 +1.8**
comp=N,241nm,1.3s
PBAR *e*pP **sP** **10 08 49.1 -4.2**
**EVO Evora 95.77 16** *e*P **P** **10 08 09.0 +2.0**
comp=N,68nm,2.1s
EVO *e*pP **sP** **10 08 50.2 -4.0**
**LIS Lisbon 95.78 15** *e*P **P** **10 08 07.0 -0.1**
LIS AMS AMS 10 46 30.0
comp=E,2µm,17.2s
**LIS Lisbon 95.78 15** *e*P **P** **10 08 06.9 -0.1**
**PMAFR Mafra 96.00 15** *e*P **P** **10 08 10.1 +2.0**
comp=E,156nm,1.8s
**PMAFR Mafra 96.00 15** *e*S **S** **10 19 19.7 +4.8**
**PESTR Estremoz 96.17 16⇑** *e*P **P** **10 08 10.8 +1.9**
comp=E,111nm,1.6s
PESTR *e*pP **sP** **10 08 51.6 -4.4**
**PESTR Estremoz 96.17 16** *e*S S 10 19 27.1 +11
**PMTG Montargil 96.27 16⇑** *e*P **P** **10 08 11.3 +2.0**
comp=E,98nm,1.6s
**PMTG Montargil 96.27 16** *e*S SKSac 10 18 19.0 -14
**PMRV Marv??o 96.75 16⇑** *e*P **P** **10 08 13.0 +1.5**
comp=E,107nm,1.7s
PMRV *e*pP **sP** **10 08 54.0 -4.6**
**PMRV Marv??o 96.75 16** *e*S S 10 19 30.7 +9.4
**KEST Kesra 96.86 30** P **P** **10 08 13.9 +1.8**
comp=E,25nm,0.9s,baz=156,slow=2.4,SNR=19
KEST PP **PP** **10 12 10.6 +1.0**
comp=E,9.3nm,1.1s,baz=163,slow=10,SNR=3.7
KEST PKKP **PKKPdf** **10 24 54.5 0.0**
comp=E,3.7nm,0.6s,baz=286,slow=3.8,SNR=6.2
KEST LR LR 10 48 28.7
comp=E,5µm,19.5s,baz=163,slow=33
**KEST Kesra 96.86 30** *e*P **P** **10 08 14.1 +1.9**
comp=E,64nm,1.2s
KEST PP **PP** **10 12 10.6 +1.0**
KEST PKKP **PKKPdf** **10 24 54.5 0.0**
**MOIG Morelia 97.02 295** *e*P Pdif 10 08 14.1 +0.5
comp=E,75nm,1.1s
**PCBR Castelo Branco 97.14 16** *e*P Pdif 10 08 14.7 +1.4
comp=E,26nm,1.8s
**PCAS Casmilo, Conde 97.19 15** *e*P Pdif 10 08 14.9 +1.4
comp=E,64nm,1.6s
**COI Coimbra 97.35 15** *e*S **S** **10 19 34.3 +7.9**
**PAB San Pablo 97.37 18** *e*P Pdif 10 08 16.2 +1.8
PAB pmax pmax
comp=Z,206nm,1.9s
**PAB San Pablo 97.37 18** *e*P Pdif 10 08 16.2 +1.8
comp=Z,206nm,1.9s
**ESDC Sonseca Array 97.56 19** P Pdif 10 08 16.5 +1.3
comp=Z,15nm,0.7s,baz=186,slow=4.7,SNR=83
ESDC PKIKP **PKiKP** **10 12 49.6 +0.8**
comp=Z,1.8nm,0.8s,baz=308,slow=1.0,SNR=4.4
ESDC PKKP **PKKPdf** **10 24 53.3 -0.1**
comp=Z,0.9nm,0.6s,baz=4.1,slow=2.9,SNR=7.0
ESDC LR LR 10 50 10.7
comp=Z,1µm,18.2s,baz=190,slow=34
**ESLA Sonseca Array 97.56 19** *e*P Pdif 10 08 17.0 +1.7
comp=Z,25nm,0.8s
**ES19 SONSECA Array 97.60 19** *e*P Pdif 10 08 16.8 +1.4
**MTE Manteigas 97.67 16** *e*P Pdif 10 08 16.6 +0.8
comp=Z,33nm,1.1s
**MTE Manteigas 97.67 16** *e*P Pdif 10 08 17.8 +2.1
comp=Z,102nm,1.5s
**MTE Manteigas 97.67 16** *e*S **S** **10 19 26.9 -2.4**
**PVIS Viseu 97.93 15** *e*P Pdif 10 08 18.6 +1.8
comp=Z,66nm,1.6s
**COCO West Island 98.13 126** *ce*P Pdif 10 08 20.9 +2.5
**COCO West Island 98.13 126** *e*P Pdif 10 08 20.0 +1.6
comp=Z,391nm,1.3s
**MBWA Marble Bar 98.44 150** *e*P **P** **10 08 19.6 -0.1**
comp=Z,75nm,1.0s
**MBWA Marble Bar 98.44 150** Pdiff **P** **10 08 19.5 -0.3**
SNR=7.6
**MVO Moncorvo 98.50 16⇑** *e*P Pdif 10 08 20.5 +1.1
comp=Z,27nm,1.3s
**MVO Moncorvo 98.50 16** *e*S **S** **10 19 37.5 +1.3**
**POLO Lamas de Olo 98.59 15** *e*P Pdif 10 08 21.7 +1.9
comp=Z,20nm,1.2s
**POLO Lamas de Olo 98.59 15** *e*S **S** **10 19 39.5 +2.5**
**PCAB Cabril 98.88 15** *e*P **P** **10 08 22.9 +1.9**
comp=Z,32nm,1.1s
**EIDS Eidsvold 98.91 179** *e*P Pdif 10 08 21.9 +0.1
comp=Z,51nm,1.1s
**TIGA Tifton 99.04 315** P **Pdif** **10 08 22.9 +0.9**
baz=152
**PGAV Gavieira, Arco 99.10 15** *e*S S 10 19 52.0 +11
**ASAR Alice Springs 99.16 163** P **Pdif** **10 08 22.9 -0.1**
comp=Z,83nm,0.9s,baz=192,slow=4.2,SNR=364
ASAR PP **PP** **10 12 26.0 0.0**
comp=Z,48nm,1.0s,baz=183,slow=7.5,SNR=16
ASAR PKIKP **PKiKP** **10 12 52.3 -0.1**
comp=Z,5.2nm,0.6s,baz=181,slow=1.3,SNR=9.0
ASAR S **SKSac** **10 18 41.5 -7.5**
comp=Z,4.3nm,1.1s,baz=170,slow=5.7,SNR=3.1
ASAR PKKP **PKKPdf** **10 24 46.5 -0.5**
comp=Z,15nm,0.8s,baz=29,slow=3.8,SNR=73
ASAR PKPPKP **P'P'df** **10 32 57.8 -7.2**
comp=Z,2.1nm,0.9s,baz=15,slow=1.2,SNR=7.3
ASAR LR LR 10 49 09.1
comp=Z,3µm,21.9s,baz=192,slow=33
**AS31 Alice Springs 99.16 163** *e*P **Pdif** **10 08 23.2 +0.2**
comp=Z,24nm,0.9s
**AS01 Alice Springs 99.17 163** *e*P **Pdif** **10 08 23.1 0.0**
**PBRG Braganca 99.17 16** *e*P **Pdif** **10 08 24.8 +2.5**
comp=Z,35nm,1.1s
**PBRG Braganca 99.17 16** *e*S **S** **10 19 48.6 +6.8**
**448A Bay Minette 100.36 311** P **Pdif** **10 08 28.8 +1.0**
baz=151
**VSL Villasalto 100.39 29** *e*Pdif **Pdif** **10 08 30.1 +2.3**
comp=Z,30nm,0.9s
**546A Slidell 100.55 309** P **Pdif** **10 08 29.7 +1.0**
baz=150
**RAYN Ar Rayn 100.61 64** *e*Pdif **Pdif** **10 08 31.3 +2.1**
comp=Z,32nm,1.2s
**545A Edgard 100.72 309** P **Pdif** **10 08 30.4 +1.0**
baz=150
**348A Jackson 100.79 311** P **Pdif** **10 08 30.6 +0.9**
baz=150
**EIL Elat 100.79 52** P **Pdif** **10 08 32.9 +3.1**
comp=Z,6.1nm,1.0s,baz=192,slow=6.5,SNR=2.7
EIL PP **PP** **10 12 38.6 -0.9**
comp=Z,8.8nm,0.8s,baz=155,slow=8.1,SNR=4.3
**446A Poplarville 100.88 310** P **Pdif** **10 08 31.0 +0.9**
baz=150
**347A Saraland 101.05 311** P **Pdif** **10 08 31.8 +0.9**
baz=150
**544A White Castle 101.07 308** P **Pdif** **10 08 32.0 +1.0**
baz=150
**DZM Mont Dzumac 101.20 194** *e*P **Pdif** **10 08 33.5 +1.4**
comp=Z,78nm,1.1s
**DZM Mont Dzumac 101.20 194** *e*LR LR 10 41 27.9
**445A Amite 101.25 309** P **Pdif** **10 08 32.8 +1.0**
baz=150
**248A Dixon Mills 101.31 312** P **Pdif** **10 08 33.1 +1.1**
baz=150
**IMMV Iera Moni Meta 101.38 41** P **PP** **10 12 41.0 -2.9**
**346A Big Creek Wild 101.43 310** P **Pdif** **10 08 33.7 +1.1**
baz=150
**KMSC Kings Mountain 101.44 318** P **Pdif** **10 08 33.8 +1.2**
baz=153
**IDI Anoyia 101.56 42** P **Pdif** **10 08 34.6 +1.4**
comp=Z,9.3nm,0.8s,baz=220,slow=9.3,SNR=5.6
IDI PP **PP** **10 12 41.4 -4.1**
comp=Z,28nm,0.9s,baz=256,slow=7.7,SNR=3.6
**IDI Anoyia 101.56 42** P **PP** **10 12 41.7 -3.7**
**345A Thompson Farm, 101.61 310** P **Pdif** **10 08 34.5 +1.1**
baz=150
**247A Quitman 101.64 311** P **Pdif** **10 08 34.5 +0.9**
baz=150
**NPS Neapolis 101.81 42** P **PP** **10 12 43.9 -3.3**
**LRAL Lakeview Retre 101.82 313** P **Pdif** **10 08 35.1 +0.8**
baz=151
**ZKR Zakros 101.91 43** P **PP** **10 12 44.2 -3.8**
**344A Westbrook Farm 102.04 309** P **Pdif** **10 08 36.8 +1.6**
baz=150
**147A Livgston 102.04 312** P **Pdif** **10 08 36.3 +1.1**
baz=150
**VLI Veliai 102.12 40** P **PP** **10 12 47.0 -2.5**
**442A Mamou 102.15 308** P **Pdif** **10 08 37.4 +1.6**
baz=149
**245A Little AP, Sta 102.17 310** P **Pdif** **10 08 37.1 +1.2**
baz=150
**ITM Ithomi 102.17 39** P **PP** **10 12 47.5 -2.4**
**146A Union 102.34 311** P **Pdif** **10 08 37.6 +1.0**
baz=150
**Z48A Northport 102.35 313** P **Pdif** **10 08 37.4 +0.8**
baz=150
**Z47A Carrollton 102.41 312** P **Pdif** **10 08 38.1 +1.2**
baz=150
**VLX Vlachokerasia 102.50 39** P **PP** **10 12 50.8 -1.7**
**244A Avery, Jackson 102.52 310** P **Pdif** **10 08 38.9 +1.5**
baz=149
**VBMS Vicksburg 102.60 310** P **Pdif** **10 08 39.0 +1.3**
baz=150
**KARP Karpathos 102.66 43** P **PP** **10 12 50.4 -3.2**
**342A Flagon Creek P 102.67 308** P **Pdif** **10 08 39.6 +1.5**
baz=149
**145A Houston Renfro 102.68 310** P **Pdif** **10 08 39.3 +1.2**
baz=150
**Z46A Louisville 102.77 311** P **Pdif** **10 08 39.5 +1.0**
baz=150
**KRND KRANIDI 102.79 40** P **PP** **10 12 50.9 -3.6**
**DRO Drossia 102.79 38** P **PP** **10 12 50.0 -4.5**
**TKL Tuckaleechee C 102.83 316** PKKPbc PKKPbc 10 24 36.5 +1.4
comp=Z,14nm,0.7s,baz=2.8,slow=0.5,SNR=18
**WRA Warramunga Arr 102.88 163** P **Pdif** **10 08 39.1 -0.4**
comp=Z,14nm,0.9s,baz=201,slow=4.0,SNR=52
WRA PP **PP** **10 12 53.4 -0.7**
comp=Z,32nm,1.0s,baz=193,slow=6.8,SNR=13
WRA PKiKP **PKiKP** **10 12 58.9 -0.2**
comp=Z,7.6nm,0.8s,baz=204,slow=2.0,SNR=12
WRA S **SKSac** **10 19 02.1 -5.0**
comp=Z,3.1nm,0.9s,baz=202,slow=4.4,SNR=5.6
WRA PKKPbc **PKKPbc** **10 24 34.9 +0.8**
comp=Z,21nm,0.7s,baz=1.4,slow=3.3,SNR=48
WRA PKPPKP **P'P'df** **10 32 52.4 -5.6**
comp=Z,1.6nm,0.9s,baz=355,slow=2.1,SNR=5.7
**WRAB Tennant Creek 102.89 163** *e*P **Pdif** **10 08 39.1 -0.5**
WRAB pmax pmax
comp=Z,26nm,1.0s
**WRAB Tennant Creek 102.89 163** *e*Pdif **Pdif** **10 08 39.1 -0.5**
comp=Z,26nm,1.0s
**FITZ Fitzroy Crossi 102.91 155** P **Pdif** **10 08 39.7 0.0**
comp=Z,7.1nm,0.8s,baz=194,slow=5.7,SNR=15
FITZ PP **PP** **10 12 53.3 -1.1**
comp=Z,20nm,1.0s,baz=187,slow=8.0,SNR=3.5
FITZ PKKPbc **PKKPbc** **10 24 35.4 +1.5**
comp=Z,8.2nm,1.1s,baz=20,slow=6.9,SNR=5.2
**144A Alexander Plac 102.91 310** P **Pdif** **10 08 40.1 +1.0**
baz=150
**Y47A UCPARC, Winfie 102.93 313** P **Pdif** **10 08 40.3 +1.1**
baz=150
**DID Didima 102.93 40** P **PP** **10 12 50.6 -5.0**
**341A Kurthwood 103.01 307** P **Pdif** **10 08 41.1 +1.5**
baz=149
**242A Grayson 103.18 308** P **Pdif** **10 08 41.9 +1.6**
baz=149
**Z45A Winona 103.24 311** P **Pdif** **10 08 42.2 +1.7**
baz=150
**439A Center Grove, 103.27 306** P **Pdif** **10 08 42.6 +1.8**
baz=148
**EFP Efpalio 103.28 38** P **PP** **10 12 46.9 -11**
**LTK Loutraki 103.30 39** P **PP** **10 12 50.8 -7.5**
**Y46A Houston 103.33 312** P **Pdif** **10 08 42.7 +1.8**
baz=150
**KALE Kalithea 103.33 38** P **PP** **10 12 55.2 -3.4**
**833A Chaparral WMA, 103.36 301** P **Pdif** **10 08 42.6 +1.3**
baz=147
**ANX Ano Chora 103.44 38** P **PP** **10 12 56.2 -3.2**
**241A Mo Tay, Goldon 103.48 308** P **Pdif** **10 08 43.5 +1.8**
baz=149
**DSF Desfina 103.49 39** P **PKiKP** **10 12 52.0 -7.6**
**142A Monroe 103.50 309** P **Pdif** **10 08 43.0 +1.3**
baz=149
**ATHU Athens Univers 103.54 40** P **PKiKP** **10 12 56.2 -3.4**
**VILL Villia 103.55 39** P **PKiKP** **10 12 55.6 -4.1**
**Y45A Yeager Farm, C 103.60 311** P **Pdif** **10 08 43.5 +1.3**
baz=150
**Z43A Armstrong Fami 103.76 310** P **Pdif** **10 08 44.1 +1.2**
baz=149
**ASF Jabal al Asfar 103.79 52** Pdiff **Pdif** **10 08 46.9 +3.7**
comp=Z,4.7nm,0.9s,baz=244,slow=4.3,SNR=3.4
ASF PP **PKiKP** **10 12 55.5 -4.8**
comp=Z,9.2nm,1.1s,baz=151,slow=7.8,SNR=4.6
**KARY Karystos 103.83 40** P **PKiKP** **10 12 59.5 -0.6**
**LKR Lokris 103.87 39** P **PKiKP** **10 12 58.3 -1.9**
**240A Hunter Patters 103.87 307** P **Pdif** **10 08 44.3 +0.9**
baz=148
**AGG Agios Georgios 103.97 38** P **PKiKP** **10 12 55.3 -5.1**
**141A Papa Simpson, 103.97 308** P **Pdif** **10 08 45.5 +1.6**
baz=149
**338A Crockett 104.00 306** P **Pdif** **10 08 45.9 +1.9**
baz=148
**X45A UM Field Stati 104.02 312** P **Pdif** **10 08 45.8 +1.8**
baz=150
**CTA Charters Tower 104.02 175** Pdiff **Pdif** **10 08 45.3 +0.7**
comp=Z,5.5nm,0.9s,baz=143,slow=8.4,SNR=5.0
CTA PP **PKiKP** **10 12 56.4 -4.9**
comp=Z,11nm,0.9s,baz=185,slow=8.8,SNR=5.0
CTA PKKPbc **PKKPbc** **10 24 31.9 +1.2**
comp=Z,7.8nm,0.8s,baz=36,slow=4.3,SNR=7.3
**NATX Nacogdoches 104.04 306** P **Pdif** **10 08 46.1 +2.0**
baz=148
**Z42A Norrel Spur, H 104.12 309** P **Pdif** **10 08 45.0 +0.5**
baz=149
**KSL Kastellorizon 104.13 45** P **PKiKP** **10 13 00.9 +0.2**
**SMG Samos 104.43 42** P **PKiKP** **10 13 00.5 -0.8**
**Z41A Richland Creek 104.48 309** P **Pdif** **10 08 47.6 +1.5**
baz=148
**435B Jarrell 104.56 304** P **Pdif** **10 08 47.6 +1.1**
baz=147
**CSS Mathiatis 104.63 48** P **PKiKP** **10 13 00.7 -1.0**
**N59A State Game Lan 104.66 325** P **Pdif** **10 08 48.8 +2.0**
baz=155
**336A Riesel 104.72 305** P **Pdif** **10 08 48.1 +0.9**
baz=147
**X43A Marvell 104.73 311** P **Pdif** **10 08 48.5 +1.3**
baz=149
**CHOS Chios island 104.74 41** P **PKiKP** **10 13 05.3 +3.4**
**Z40A Long Farm, Mag 104.75 308** P **Pdif** **10 08 48.9 +1.7**
baz=148
**WVT Waverly 104.84 314** P **PKiKP** **10 13 02.4 +0.3**
baz=150
**Y41A Eaglette Beard 104.93 309** P **PKiKP** **10 13 02.7 +0.4**
baz=148
**LIT Litokhoron 104.98 38** P **PKiKP** **10 12 59.9 -2.3**
**O56A Blue Knob Stat 105.01 322** P **PKiKP** **10 13 03.5 +1.2**
baz=154
**PAIG Paliouri 105.24 39** P **PKiKP** **10 13 01.2 -1.5**
**PAIG Paliouri 105.24 39** P **PKiKP** **10 13 01.2 -1.5**
**T47A Sharon Grove 105.30 315** P **PKiKP** **10 13 03.4 +0.6**
baz=150
**Y40A Okolona 105.33 309** P **PKiKP** **10 13 03.6 +0.6**
baz=148
**JCT Junction City 105.36 302** P **PKiKP** **10 13 03.4 +0.1**
baz=147
**JCT Junction City 105.36 302** *e*P **Pdif** **10 08 50.7 +0.6**
**JCT Junction City 105.36 302** *e*Pdif **Pdif** **10 08 50.7 +0.6**
JCT *e*PKPdf **PKiKP** **10 13 03.2 -0.1**
**Z38A Mt. Pleasant 105.45 307** P **PKiKP** **10 13 04.2 +0.9**
baz=148
**TRD Trivandrum 105.48 98** *e*P **Pdif** **10 08 51.8 +0.8**
**136A Ennis 105.49 305** P **PKiKP** **10 13 03.7 +0.3**
baz=147
**WHTX Lake Whitney, 105.51 304** P **PKiKP** **10 13 03.6 +0.2**
baz=147
**WHTX Lake Whitney, 105.51 304** *e*Pdif **Pdif** **10 08 51.1 +0.4**
comp=Z,110nm,1.7s
**X40A Basin Creek Fa 105.54 309** P **PKiKP** **10 13 03.9 +0.5**
baz=148
**Y39A Lockesburg 105.63 308** P **PKiKP** **10 13 03.9 +0.3**
baz=148
**W42A Bald Knob 105.64 311** P **PKiKP** **10 13 04.3 +0.8**
baz=149
**U44B Burton Farm, H 105.65 313** P **PKiKP** **10 13 04.4 +0.9**
baz=149
**T46A Princeton 105.66 314** P **PKiKP** **10 13 04.2 +0.7**
baz=150
**V43A Jonesboro 105.67 312** P **PKiKP** **10 13 04.5 +0.9**
baz=149
**Z37A Pogue Cattle C 105.69 306** P **PKiKP** **10 13 04.8 +1.1**
baz=148
**OUR Ouranopolis 105.71 39** P **PKiKP** **10 13 04.6 +1.1**
**OUR Ouranopolis 105.71 39** P **PKiKP** **10 13 04.6 +1.1**
**LIA Limnos Island 105.75 40** P **PP** **10 13 12.3 -4.1**
**LIA Limnos Island 105.75 40** P **PP** **10 13 12.3 -4.1**
**W41B Gary Mavity, V 105.87 310** P **PKiKP** **10 13 04.7 +0.8**
baz=148
**Y38A Idabel 105.90 308** P **PKiKP** **10 13 04.6 +0.5**
baz=148
**MIAR Mount Ida 105.91 309** P **PKiKP** **10 13 04.5 +0.4**
baz=148
**U44A Portageville 105.93 313** P **PKiKP** **10 13 05.1 +1.0**
baz=149
**V42A Cord 106.04 311** P **PKiKP** **10 13 04.4 +0.1**
baz=149
**WCI Wyandotte Cave 106.05 316** P **PKiKP** **10 13 04.6 +0.4**
baz=150
**WCI Wyandotte Cave 106.05 316** *e*P **Pdif** **10 08 53.9 +0.9**
WCI pmax pmax
comp=Z,39nm,0.8s
**WCI Wyandotte Cave 106.05 316** *e*Pdif **Pdif** **10 08 53.9 +0.9**
comp=Z,39nm,0.8s

WCI *e*PKPdf **PKiKP** **10 13 03.0 -1.2**
**Z36A Blue Ridge 106.11 306** P **PKiKP** **10 13 05.3 +0.8**
baz=147
**X39A Fountain Ranch 106.12 308** P **PKiKP** **10 13 05.2 +0.7**
baz=148
**N54A Moraine State 106.12 322** P **PKiKP** **10 13 05.5 +1.2**
baz=153
**S46A Don Dixon Farm 106.14 315** P **PKiKP** **10 13 05.4 +1.0**
baz=150
**R47A Wooly Knot Far 106.20 316** P **PKiKP** **10 13 04.5 0.0**
baz=150
**W40A Ferguson Farm, 106.24 309** P **PKiKP** **10 13 04.6 0.0**
baz=148
**TXAR Lajitas Array 106.28 298** Pdiff **Pdif** **10 08 54.5 +0.2**
comp=Z,2.8nm,0.9s,baz=137,slow=6.4,SNR=18
TXAR PKiKP **PKiKP** **10 13 05.5 +0.4**
comp=Z,8.4nm,0.9s,baz=169,slow=2.6,SNR=24
TXAR SKP 10 16 27.7
comp=Z,1.2nm,0.8s,baz=164,slow=3.6,SNR=3.6
TXAR PKKPbc **PKKPbc** **10 24 25.6 +1.1**
comp=Z,10nm,0.9s,baz=258,slow=1.4,SNR=16
TXAR SKKPbc SKKPbc 10 27 54.8 -0.6
comp=Z,1.6nm,0.8s,baz=28,slow=0.9,SNR=5.2
TXAR PKPPKP **P'P'df** **10 32 49.6 0.0**
comp=Z,1.2nm,0.9s,baz=258,slow=1.8,SNR=5.2
**TX31 Lajitas Ar. Si 106.28 298** *e*Pdif **Pdif** **10 08 55.7 +1.3**
**Y37A Hugo 106.34 307** P **PKiKP** **10 13 04.6 -0.3**
baz=147
**V41A Mountainview 106.35 310** P **PKiKP** **10 13 04.9 0.0**
baz=148
**T44A Benton 106.39 313** P **PKiKP** **10 13 05.2 +0.3**
baz=149
**U42A Revenden 106.44 311** P **PKiKP** **10 13 04.9 -0.1**
baz=149
**S45A Carrier Mills 106.48 314** P **PKiKP** **10 13 05.4 +0.4**
baz=150
**KAVA Kavala 106.48 39** P **PP** **10 13 16.6 -5.2**
**KAVA Kavala 106.48 39** P **PP** **10 13 16.6 -5.2**
**M54A Oil Creek Stat 106.49 322** P **PKiKP** **10 13 05.2 +0.2**
baz=153
**R46A Gibon Southern 106.52 315** P **PKiKP** **10 13 05.6 +0.6**
baz=150
**PALK Pallekele 106.53 102** *e*PKPdf **PKiKP** **10 13 05.9 0.0**
**ACSO Alum Creek Sta 106.54 319** P **PKiKP** **10 13 05.1 +0.1**
baz=152
**W39A Magazine 106.55 309** P **PKiKP** **10 13 06.0 +0.7**
baz=148
**NVR Nevrokopi 106.57 38** P **PP** **10 13 17.6 -4.9**
**NVR Nevrokopi 106.57 38** P **PP** **10 13 17.6 -4.9**
**X38A Whitesboro 106.57 308** P **PKiKP** **10 13 06.0 +0.7**
baz=148
**Y36A Durant 106.58 306** P **PKiKP** **10 13 05.5 +0.2**
baz=147
**V40A Witts Springs 106.65 310** P **PKiKP** **10 13 05.5 +0.1**
baz=148
**T43A Greenville 106.67 312** P **PKiKP** **10 13 05.0 -0.4**
baz=149
**Q47A Bedord North L 106.71 316** P **PKiKP** **10 13 05.4 -0.1**
baz=150
**U41A Viola 106.72 311** P **PKiKP** **10 13 05.1 -0.4**
baz=148
**X37A Clayton 106.74 307** P **PKiKP** **10 13 05.6 0.0**
baz=147
**S44A Carbondale 106.77 314** P **PKiKP** **10 13 05.3 -0.2**
baz=149
**W38A Poteau 106.77 308** P **PKiKP** **10 13 05.1 -0.6**
baz=148
**FAQ Al Faqa, Dubai 106.83 71** PP PP 10 13 23.8 -0.6
SNR=9.4
**R45A Skylar, Fairfi 106.89 315** P **PKiKP** **10 13 05.7 -0.1**
baz=150
**TUE Stuetta 106.91 26** *e*PKPdf **PKiKP** **10 13 06.4 +0.6**
**Y35A Marietta 106.92 306** P **PKiKP** **10 13 05.7 -0.3**
baz=147
**ALN Alexandroupoli 106.94 40** P PP 10 13 14.6 -11
**T42A Van Buren 106.96 312** P **PKiKP** **10 13 05.9 -0.1**
baz=149
**CISI Cisompet, Garu 106.99 134** *e*PKPdf **PKiKP** **10 13 06.2 -0.6**
**ASHO Ashiyiah 107.03 71** Pdiff **Pdif** **10 09 01.1 +3.4**
SNR=5.2
ASHO PKiKP **PKiKP** **10 13 11.3 +4.8**
SNR=6.2
**V39A Pettigrew 107.04 309** P **PKiKP** **10 13 05.9 -0.4**
baz=148
**ABTX Abilene, Hawle 107.06 303** P **PKiKP** **10 13 05.9 -0.4**
baz=146
**ABTX Abilene, Hawle 107.06 303** *e*Pdif **Pdif** **10 08 58.8 +1.1**
ABTX *e*PKPdf **PKiKP** **10 13 06.9 +0.5**
**NAZ Nazwa, Dubai 107.06 71** PP PP 10 13 25.2 -1.0
SNR=9.3
**P47A Martinsville 107.13 317** P **PKiKP** **10 13 05.9 -0.3**
baz=150
**U40A Yellville 107.13 310** P **PKiKP** **10 13 06.3 0.0**
baz=148
**X36A Centrahoma 107.17 307** P **PKiKP** **10 13 06.2 -0.2**
baz=147
**R44A Waltonville 107.17 314** P **PKiKP** **10 13 06.2 -0.1**
baz=149
**HATD Hatta, Dubai 107.18 71** Pdiff **Pdif** **10 08 59.4 +1.0**
SNR=5.8
HATD PKiKP **PKiKP** **10 13 06.8 +0.1**
SNR=8.0
**W37B Quinton 107.23 308** P **PKiKP** **10 13 06.5 0.0**
baz=147
**WSAR Wadi Sarin 107.24 74** Pdiff **Pdif** **10 08 58.4 -0.3**
comp=Z,3.2nm,0.9s,baz=193,slow=3.3,SNR=2.6
WSAR PP **PP** **10 13 29.4 +2.0**
comp=Z,17nm,1.0s,baz=243,slow=11,SNR=4.8
**T41A Mountain View 107.25 311** P **PKiKP** **10 13 06.3 -0.2**
baz=148
**X35A Drake 107.30 306** P **PKiKP** **10 13 06.5 -0.1**
baz=147
**DAVOX Davos/Dischmat 107.33 26** Pdiff **Pdif** **10 09 00.5 +1.8**
comp=Z,4.5nm,0.9s,baz=192,slow=3.8,SNR=8.2
DAVOX PKiKP **PKiKP** **10 13 06.7 +0.1**
comp=Z,11nm,0.9s,baz=194,slow=4.6,SNR=8.8
DAVOX PKKPbc **PKKPbc** **10 24 23.0 +1.0**
comp=Z,4.1nm,0.6s,baz=277,slow=3.3,SNR=8.0
**Q45A Warren Harvey, 107.36 315** P **PKiKP** **10 13 06.4 -0.2**
baz=150
**V38A Canehill 107.39 309** P **PKiKP** **10 13 06.4 -0.4**
baz=148
**U39A Green Forest 107.42 310** P **PKiKP** **10 13 06.7 -0.1**
baz=148
**KASI Kota Agung 107.44 130** P **Pdif** **10 09 05.0 +5.2**
**VTS Vitosha 107.45 37⇓** *i*P **Pdif** **10 09 01.9 +2.6**
**VTS Vitosha 107.45 37⇓** *i*P **PKiKP** **10 13 07.3 +0.4**
**VTS Vitosha 107.45 37 ⇓**P **Pdif** **10 09 01.9 +2.6**
**S42A Caledonia 107.47 312** P **PKiKP** **10 13 07.2 +0.4**
baz=149
**R43A Red Bud 107.54 313** P **PKiKP** **10 13 07.2 +0.2**
baz=149
**CEY Cerknica 107.57 30** *e*PKiKP **PKiKP** **10 13 07.1 +0.3**
CEY *e*PP **PP** **10 13 28.4 -1.3**
CEY *e*SP SP 10 22 36.0 -1.5
CEY *e*PKKPbc **PKKPbc** **10 24 21.7 +0.7**
CEY *e* 10 24 35.8
CEY *e*SS **SS** **10 28 30.0 +0.3**
CEY *e* 10 32 28.9
**W36A Wetumka 107.59 307** P **PKiKP** **10 13 06.9 -0.3**
baz=147
**P46A Rosedale 107.61 316** P **PKiKP** **10 13 07.3 +0.2**
baz=150
**T40A Mansfield 107.66 311** P **PKiKP** **10 13 07.9 +0.6**
baz=148
**MOF Molkenrain 107.67 24** PKP **PKiKP** **10 13 07.6 +0.6**
**S41A Jillco Farms, 107.71 312** P **PKiKP** **10 13 07.5 +0.2**
baz=148
**Q44A Meyer Farm, Va 107.71 314** P **PKiKP** **10 13 08.2 +0.9**
baz=149
**V37A Hulbert 107.73 308** P **PKiKP** **10 13 07.0 -0.4**
baz=147
**P45A Graceland, Par 107.74 316** P **PKiKP** **10 13 07.4 +0.1**
baz=150
**O47A Sheridan 107.74 317** P **PKiKP** **10 13 07.5 +0.2**
baz=150
**FETA Feichten 107.77 27** *i* Pdiff **Pdif** **10 09 03.1 +2.5**
comp=Z,8.1nm,0.9s
FETA *i* PKiKP **PKiKP** **10 13 07.6 +0.2**
comp=Z,18nm,1.1s
FETA *i* PKKPbc **PKKPbc** **10 24 21.3 +0.7**
comp=Z,10.0nm,1.3s
**THEF They Montfort 107.77 23** PKP **PKiKP** **10 13 04.1 -3.0**
**DAVA Damuels 107.80 26** *i* Pdiff **Pdif** **10 09 02.8 +2.1**
comp=Z,10.0nm,1.1s
DAVA *i* PKiKP **PKiKP** **10 13 06.4 -1.0**
comp=Z,36nm,1.1s
DAVA *i* PKKPbc **PKKPbc** **10 24 20.9 +0.5**
comp=Z,9.7nm,0.9s
**CADS Cadrg 107.83 29** *e*Pdiff **Pdif** **10 09 04.1 +3.4**
CADS *e*PP **PP** **10 13 30.1 -1.5**
**U38A Gravette 107.86 309** P **PKiKP** **10 13 07.3 -0.4**
baz=147
**LJU Ljubljana 107.88 30** *e*PP PP 10 13 30.5 -1.4
**W35A Tecumseh 107.89 307** P **PKiKP** **10 13 08.2 +0.5**
baz=147
**CCM Cathedral Cave 107.89 312** P **PKiKP** **10 13 07.7 +0.1**
baz=148
**CCM Cathedral Cave 107.89 312** *e*PKPdf **PKiKP** **10 13 07.0 -0.7**
**R42A Luebbering 107.90 313** P **PKiKP** **10 13 07.8 +0.1**
baz=148
**MNGI Mangalore 107.91 93** *e*P **Pdif** **10 09 01.6 -0.2**
**T39A Clever 107.92 310** P **PKiKP** **10 13 08.7 +0.9**
baz=148
**ABTA Abfaltersbach 107.97 28** *i* Pdiff **Pdif** **10 09 03.6 +2.2**
comp=Z,8.8nm,1.0s
ABTA *i* PKiKP **PKiKP** **10 13 07.4 -0.2**
comp=Z,12nm,1.0s
ABTA *i* PKKPbc **PKKPbc** **10 24 20.7 +0.9**
comp=Z,16nm,1.1s
**V36A Jenks 108.00 308** P **PKiKP** **10 13 08.7 +0.8**
baz=147
**Q43A New Douglas 108.02 314** P **PKiKP** **10 13 08.4 +0.5**
baz=149
**ECH Echery 108.02 24** PKP **PKiKP** **10 13 06.2 -1.4**
**P44A Sand Creek, Wi 108.03 315** P **PKiKP** **10 13 08.5 +0.7**
baz=149
**S40A Lebanon 108.03 311** P **PKiKP** **10 13 07.7 -0.2**
baz=148
**TUL1 Leonard 108.04 308** P **PKiKP** **10 13 08.1 +0.1**
baz=147
**U37A Salina 108.16 309** P **PKiKP** **10 13 08.1 -0.1**
baz=147
**R41A Rosebud 108.16 312** P **PKiKP** **10 13 08.0 -0.1**
baz=148
**MOTA Moosalm 108.16 27** *i* Pdiff **Pdif** **10 09 05.6 +3.3**
comp=Z,12nm,1.1s
MOTA *i* PKiKP **PKiKP** **10 13 08.4 +0.3**
comp=Z,9.1nm,0.8s
MOTA *i* PKKPbc **PKKPbc** **10 24 20.9 +1.6**
comp=Z,8.6nm,1.0s
**MYKA Terra Mystica 108.17 29** *i* Pdiff **Pdif** **10 09 04.9 +2.6**
comp=Z,2.2nm,0.6s
MYKA *i* PKiKP **PKiKP** **10 13 08.5 +0.6**
comp=Z,13nm,1.0s,SNR=5.4
MYKA *i* PKKPbc **PKKPbc** **10 24 20.2 +1.0**
comp=Z,9.8nm,1.1s
**RETA Reutte 108.21 27** *i* Pdiff **Pdif** **10 09 07.0 +4.5**
comp=Z,12nm,1.1s
RETA *i* PKiKP **PKiKP** **10 13 08.3 +0.3**
comp=Z,36nm,1.4s
RETA *i* PKKPbc **PKKPbc** **10 24 20.6 +1.5**
comp=Z,10nm,0.9s
**SFIN Lafayette 108.22 316** P **PKiKP** **10 13 08.9 +0.7**
baz=150
**WTTA Wattenberg 108.22 27** *i* Pdiff **Pdif** **10 09 04.2 +1.6**
comp=Z,9.0nm,1.1s
WTTA *i* PKiKP **PKiKP** **10 13 08.7 +0.5**
comp=Z,12nm,0.8s,SNR=5.9
WTTA *i* PKKPbc **PKKPbc** **10 24 20.6 +1.4**
comp=Z,6.8nm,1.0s
**WATA Walderalm 108.28 27** *i* Pdiff **Pdif** **10 09 04.9 +2.1**
comp=Z,5.6nm,0.8s
WATA *i* PKiKP **PKiKP** **10 13 09.1 +0.8**
comp=Z,12nm,1.1s
WATA *i* PKKPbc **PKKPbc** **10 24 21.1 +2.1**
comp=Z,15nm,1.0s
**OBKA Obir 108.31 30** *i* Pdiff **Pdif** **10 09 05.4 +2.5**
comp=Z,6.5nm,0.9s
OBKA *i* PKiKP **PKiKP** **10 13 09.1 +0.9**
comp=Z,10nm,1.0s
OBKA *i* PKKPbc **PKKPbc** **10 24 19.3 +0.6**
comp=Z,13nm,1.0s
**T38A Diamond 108.32 310** P **PKiKP** **10 13 08.2 -0.3**
baz=147
**Q42A Golden Eagle 108.33 313** P **PKiKP** **10 13 08.5 +0.1**
baz=148
**O45A Potomac 108.35 316** P **PKiKP** **10 13 09.3 +0.9**
baz=149
**V35A Meyer Ranch, C 108.38 307** P **PKiKP** **10 13 09.1 +0.5**
baz=147
**BFO Black Forest 108.40 25** *e*P **Pdif** **10 09 03.6 +0.4**
**BFO Black Forest 108.40 25** *e*Pdif **Pdif** **10 09 03.6 +0.4**
BFO *e*PKPdf **PKiKP** **10 13 08.6 +0.3**
**WMOK Wichita Mounta 108.41 305** P **PKiKP** **10 13 08.5 -0.2**
baz=146
**WMOK Wichita Mounta 108.41 305** *e*PKPdf **PKiKP** **10 13 08.8 0.0**
**U36A Oologah 108.41 308** P **PKiKP** **10 13 08.5 -0.2**
baz=147
**S39A Bolivar 108.46 311** P **PKiKP** **10 13 08.5 -0.3**
baz=148
**KBA Koelnbreinsper 108.50 29** *i* Pdiff **Pdif** **10 09 06.1 +2.3**
comp=Z,4.2nm,1.0s
KBA *i* PKiKP **PKiKP** **10 13 07.2 -1.5**
comp=Z,11nm,1.0s,SNR=4.3
KBA *i* PKKPbc **PKKPbc** **10 24 19.4 +1.2**
comp=Z,14nm,1.1s
**R40A Maddies Statio 108.52 312** P **PKiKP** **10 13 08.6 -0.2**
baz=148
**N46A Monticello 108.53 317** P **PKiKP** **10 13 08.6 -0.2**
baz=150
**P43A Skaggs, Pawnee 108.54 314** P **PKiKP** **10 13 09.2 +0.4**
baz=149
**O44A Mansfield 108.56 315** P **PKiKP** **10 13 08.5 -0.4**
baz=149
**JAGI Jajag, Banyuwa 108.57 140** *e*PKPdf **PKiKP** **10 13 09.1 -0.7**
**PERS Pernice 108.58 30** *e*PKiKP **PKiKP** **10 13 08.9 +0.2**
PERS *e*PP **PP** **10 13 35.9 -1.2**
PERS *e*PKKPbc **PKKPbc** **10 24 18.6 +0.8**
PERS *i* 10 24 31.8
**SOKA Soboth 108.60 30** *i* Pdiff **Pdif** **10 09 05.9 +1.8**
comp=Z,13nm,1.4s
SOKA *i* PKiKP **PKiKP** **10 13 09.3 +0.5**
comp=Z,14nm,1.5s
SOKA *i* PKKPab **PKKPdf** **10 24 31.9 -0.9**
comp=Z,25nm,1.2s,SNR=6.0
**AAM Ann Arbor 108.60 320** P **PKiKP** **10 13 08.9 +0.1**
baz=151
**ANTO Ankara 108.62 45** PKiKP PKiKP 10 13 22.4 +13
SNR=6.8
**Q41A Truxton 108.65 313** P **PKiKP** **10 13 08.6 -0.5**
baz=148
**S38A Stockton 108.66 310** P **PKiKP** **10 13 08.7 -0.5**
baz=147
**T37A Cheneyville 18 108.67 309** P **PKiKP** **10 13 08.8 -0.3**
baz=147
**N45A Kentland 108.78 316** P **PKiKP** **10 13 10.4 +1.2**
baz=149
**M46A Old House Fiel 108.82 318** P **PKiKP** **10 13 09.2 -0.1**
baz=150
**P42A Winchester 108.83 314** P **PKiKP** **10 13 09.5 +0.2**
baz=148
**BRTR Keskin Array B 108.83 46** Pdiff **Pdif** **10 09 08.1 +2.6**
comp=Z,3.2nm,0.9s,baz=178,slow=6.2,SNR=12
BRTR PKiKP **PKiKP** **10 13 09.2 -0.4**
comp=Z,11nm,0.9s,baz=187,slow=3.3,SNR=19
BRTR PP **PP** **10 13 37.6 -1.5**
comp=Z,16nm,0.9s,baz=196,slow=6.0,SNR=8.6
BRTR PKKPbc **PKKPbc** **10 24 17.8 +0.9**
comp=Z,2.5nm,0.7s,baz=70,slow=1.7,SNR=5.4
**U35A Pawnee 108.84 307** P **PKiKP** **10 13 09.9 +0.4**
baz=147
**R39A Chumby, Stover 108.86 311** P **PKiKP** **10 13 09.4 -0.1**
baz=148
**LANF Langenberg 108.89 24** PKP **PKiKP** **10 13 07.0 -2.2**
**MDVR Moldovita 108.90 35⇑** *i*P **Pdif** **10 09 10.4 +4.9**
**MDVR Moldovita 108.90 35⇑** *i*P **PKiKP** **10 13 15.3 +5.9**
**N44A Piper City 108.98 316** P **PKiKP** **10 13 10.0 +0.4**
baz=149
**Q40A Laux Farm, Aux 109.03 312** P **PKiKP** **10 13 09.9 +0.1**
baz=148
**T36A Boggs Farm, Ca 109.04 308** P **PKiKP** **10 13 10.1 +0.3**
baz=147
**MNTX Cornudas Mount 109.06 298** P **PKiKP** **10 13 09.8 -0.3**
baz=145
**MNTX Cornudas Mount 109.06 298** *e*Pdif **PKiKP** **10 13 09.6 -0.5**
**R38A Fenwick Farm, 109.12 311** P **PKiKP** **10 13 09.6 -0.4**
baz=147
**S37A Fort Scott 109.16 310** P **PKiKP** **10 13 10.0 -0.1**
baz=147
**WLF Walferdange 109.16 23** PKP **PKiKP** **10 13 10.5 +0.9**
**P41A Barry, Barry 109.19 313** P **PKiKP** **10 13 10.0 -0.1**
baz=148
**T35A Sooner Cattle 109.19 308** P **PKiKP** **10 13 10.5 +0.3**
baz=147
**HERR Herculane 109.22 36⇑** *i*P **Pdif** **10 09 10.9 +4.1**
**HERR Herculane 109.22 36⇑** *i*P **PKiKP** **10 13 10.6 +0.7**
**HDIL Hopedale 109.23 315** P **PKiKP** **10 13 10.6 +0.5**
baz=149
**O42A Bath 109.24 314** P **PKiKP** **10 13 10.2 +0.1**
baz=148
**DOU Dourbes 109.24 22** PKP **PKiKP** **10 13 09.8 0.0**
**ARSA Arzberg 109.26 30** *i* Pdiff **Pdif** **10 09 09.6 +2.5**
comp=Z,2.7nm,0.7s
ARSA *i* PKiKP **PKiKP** **10 13 09.6 -0.4**
comp=Z,12nm,1.0s
ARSA *i* PKKPbc **PKKPbc** **10 24 17.3 +1.6**
comp=Z,5.5nm,1.1s
**GOA Goa 109.42 91** *e*P **Pdif** **10 09 08.3 -0.2**
**M44A Midewin, Midew 109.45 316** P **PKiKP** **10 13 10.5 0.0**
baz=149
**Q39A Willow Grove F 109.45 312** P **PKiKP** **10 13 10.4 -0.2**
baz=148
**MOA Molln 109.46 29** *i* Pdiff **Pdif** **10 09 11.5 +3.6**
comp=Z,8.6nm,1.6s
MOA *i* PKiKP **PKiKP** **10 13 10.5 +0.2**
comp=Z,13nm,0.9s
MOA *i* PKKPbc **PKKPbc** **10 24 16.4 +1.4**
comp=Z,14nm,1.0s
**S36A Lake Cedric, C 109.47 309** P **PKiKP** **10 13 10.4 -0.2**
baz=147
**P40A Paris 109.48 313** P **PKiKP** **10 13 10.5 -0.1**
baz=148
**O41A Passleys Farm, 109.49 314** P **PKiKP** **10 13 10.6 0.0**
baz=148
**N43A Stutzman Famil 109.51 315** P **PKiKP** **10 13 10.6 0.0**
baz=149
**T34A McClaskey Farm 109.58 308** P **PKiKP** **10 13 11.0 +0.1**
baz=146
**BZS Buzias 109.61 35⇑** *i*P **PKiKP** **10 13 11.0 +0.4**
**MSTX Muleshoe 109.65 302** P **PKiKP** **10 13 10.8 -0.4**
baz=145
**MSTX Muleshoe 109.65 302** *e*PKPdf **PKiKP** **10 13 10.8 -0.4**
**Q38A Cooks Store, C 109.65 311** P **PKiKP** **10 13 10.8 -0.1**
baz=147
**BCLA Clavier 109.69 22** PKP **PKiKP** **10 13 11.8 +1.2**
**P39B Salisbury 109.73 312** P **PKiKP** **10 13 11.7 +0.7**
baz=148
**S35A Otter Creek Ra 109.75 309** P **PKiKP** **10 13 11.3 +0.1**
baz=146
**HUMR Humele 109.76 37⇑** *i*P **PKiKP** **10 13 11.6 +0.7**
**N42A Yates City 109.76 315** P **PKiKP** **10 13 11.3 +0.2**
baz=148
**M43A Waltham Townsh 109.85 316** P **PKiKP** **10 13 11.3 +0.1**
baz=149
**U32A Winter Ranch, 109.87 306** P **PKiKP** **10 13 12.3 +0.8**
baz=146
**AMTX Amarillo 109.88 303** P **PKiKP** **10 13 12.1 +0.5**
baz=145
**AMTX Amarillo 109.88 303** *e*Pdif **Pdif** **10 09 11.1 +0.9**
AMTX *e*PKPdf **PKiKP** **10 13 11.6 -0.1**
**COEN Coen 109.89 171** *e*PKPdf **PKiKP** **10 13 12.6 +0.3**
**O40A La Belle 109.90 313** P **PKiKP** **10 13 11.2 -0.2**
baz=148
**R36A Gordon, Harris 109.93 309** P **PKiKP** **10 13 11.2 -0.3**
baz=147
**Q37A Longview Farm, 109.94 311** P **PKiKP** **10 13 11.6 +0.2**
baz=147
**CONA Conrad Observa 109.97 30** *i* Pdiff **Pdif** **10 09 12.2 +1.9**
comp=Z,12nm,1.7s
CONA *i* PKiKP **PKiKP** **10 13 10.7 -0.6**
comp=Z,46nm,1.4s
CONA *i* PKKPbc **PKKPbc** **10 24 15.3 +1.8**
comp=Z,10nm,0.9s
**N41A Harden Midland 109.98 314** P **PKiKP** **10 13 11.8 +0.3**
baz=148
**MEM Membach 110.02 22** PKP **PKiKP** **10 13 12.2 +1.0**
**S34A Willow Spring 110.11 308** P **PKiKP** **10 13 11.9 0.0**
baz=146
**LOT Lotru 110.16 36⇑** *i*P **Pdif** **10 09 20.1 +8.9**
**P38A Dawn 110.17 312** P **PKiKP** **10 13 12.2 +0.3**
baz=147
**M42A Sheffield 110.18 315** P **PKiKP** **10 13 12.1 +0.3**
baz=148
**SIRR Siria 110.20 34⇓** *i*P **PKiKP** **10 13 12.2 +0.5**
**GERES GERESS Array B 110.22 28** Pdiff **Pdif** **10 09 14.3 +2.9**
comp=Z,0.8nm,0.8s,baz=212,slow=3.5,SNR=3.4
GERES PKiKP **PKiKP** **10 13 10.8 -1.0**
comp=Z,10nm,0.8s,baz=211,slow=1.6,SNR=28
GERES PKKPbc **PKKPbc** **10 24 14.1 +1.4**
comp=Z,3.1nm,0.8s,baz=20,slow=4.3,SNR=9.1
**O39A Kirksville 110.29 313** P **PKiKP** **10 13 12.2 +0.1**
baz=147
**ARR Arges 110.38 37⇑** *i*P **PKiKP** **10 13 12.3 +0.1**
**L43A Garden Prairie 110.40 316** P **PKiKP** **10 13 12.4 +0.2**
baz=149
**M41A Milan 110.42 315** P **PKiKP** **10 13 12.5 +0.2**
baz=148
**N40A Mertquake, Sal 110.43 314** P **PKiKP** **10 13 13.5 +1.2**
baz=148
**KHC Kasperske Hory 110.45 28** *e*PDIFF **Pdif** **10 09 19.9 +7.6**
KHC *ex* x 10 09 28.5
KHC *ex* x 10 12 35.0
KHC *e*PKP **PKiKP** **10 13 12.1 0.0**
KHC *e*PS **PS** **10 23 21.9 +1.0**
KHC *e*PKKP **PKKPbc** **10 24 13.4 +1.6**
KHC *ex* x 10 24 23.5
KHC *e*SS SS 10 29 07.9 -0.5
KHC AMS AMS 10 55 40.0
comp=Z,2μm,17.9s
**KHC Kasperske Hory 110.45 28** *e*P **Pdif** **10 09 19.9 +7.6**
KHC *e* 10 13 12.1
KHC *e*SP SP 10 23 21.9 +16
KHC *e* 10 24 13.4
KHC *e* 10 24 23.5
KHC *e*SS **SS** **10 29 07.9 -0.5**
KHC MLR MLR
comp=Z,2μm,17.9s
**P37A Lathrop 110.49 311** P **PKiKP** **10 13 11.9 -0.6**
baz=147
**SOEI Soe 110.56 151** *e*PKPdf **PKiKP** **10 13 14.9 +1.3**
**O38A Galt 110.56 312** P **PKiKP** **10 13 13.0 +0.4**
baz=147
**VOIR 110.58 37⇑** *i*P **Pdif** **10 09 20.4 +7.4**
**VOIR 110.58 37 ⇑**P **Pdif** **10 09 20.4 +7.4**
**Q35A Mercer Eighty, 110.60 309** P **PKiKP** **10 13 13.1 +0.4**
baz=146
**L42A Oliver, Polo 110.61 316** P **PKiKP** **10 13 12.8 +0.1**
baz=148
**R34A Isabella, Hill 110.67 308** P **PKiKP** **10 13 13.0 +0.1**
baz=146
**K43A Burlington 110.69 317** P **PKiKP** **10 13 12.9 +0.1**
baz=149
**N39A Derby Farms, D 110.80 313** P **PKiKP** **10 13 12.8 -0.2**
baz=147
**M40A Post Highland 110.84 314** P **PKiKP** **10 13 12.9 -0.2**
baz=148
**P36A Good Intent, A 110.88 310** P **PKiKP** **10 13 12.7 -0.5**
baz=146
**O37A Wolven Farm, M 110.89 312** P **PKiKP** **10 13 13.3 +0.1**
baz=147
**TIRR Tirgusor 110.90 40⇑** *i*P **PKiKP** **10 13 11.2 -1.9**
**TIRR Tirgusor 110.90 40 ⇑**PKIKP **PKiKP** **10 13 11.2 -1.9**
**URV Uravakonda 110.91 94** *e*Pdif **Pdif** **10 09 16.9 +1.7**
URV *e*PKiKP **PKiKP** **10 13 13.7 -0.3**
URV *e*PP **PP** **10 13 54.0 0.0**
**121A Cookes Peak, D 110.93 297** P **PKiKP** **10 13 14.0 +0.2**
baz=144
**121A Cookes Peak, D 110.93 297** *e*Pdif **Pdif** **10 09 16.2 +1.2**
**MLR Muntele Rosu 110.93 38⇓** *i*P **Pdif** **10 09 22.9 +8.2**
**MLR Muntele Rosu 110.93 38⇑** *i*P **PKiKP** **10 13 13.7 +0.4**
**MLR Muntele Rosu 110.93 38 ⇑**PKIKP **PKiKP** **10 13 13.7 +0.4**
**L41A Preston 111.00 315** P **PKiKP** **10 13 13.5 +0.1**
baz=148
**DRGR 111.00 35⇓** *i*P **Pdif** **10 09 22.2 +7.3**
**DRGR 111.00 35⇓** *i*P **PKiKP** **10 13 13.9 +0.6**
**DRGR 111.00 35 ⇓**PKIKP **PKiKP** **10 13 13.9 +0.6**
**N38A Joes South For 111.03 312** P **PKiKP** **10 13 13.4 -0.1**
baz=147
**MDRS Chennai 111.04 98** *e*P **PKiKP** **10 13 14.0 -0.2**
**MMRI Maumere 111.05 148** *e*PKPdf **PKiKP** **10 13 13.9 -0.5**
**Q34A Chapman 111.05 309** P **PKiKP** **10 13 13.9 +0.3**
baz=146
**KSU1 Kansas State U 111.05 309** P **PKiKP** **10 13 14.1 +0.5**
baz=146
**KSU1 Kansas State U 111.05 309** *e*PKPdf **PKiKP** **10 13 13.9 +0.3**
**PSZ Piszkesteto 111.13 32⇑** *i*P **Pdif** **10 09 21.2 +5.8**
**PSZ Piszkesteto 111.13 32⇑** *i*P **PKiKP** **10 13 14.1 +0.6**
**PSZ Piszkesteto 111.13 32 ⇑**PKIKP **PKiKP** **10 13 14.1 +0.6**
**GLMI Grayling 111.14 321** P **PKiKP** **10 13 14.2 +0.7**

baz=150
P35A **Duane Minner,** 111.15 310 P PKiKP 10 13 13.8 0.0
baz=146
DOPR **Dopca** 111.16 37⇑ *i*P Pdif 10 09 23.3 +7.8
DOPR **Dopca** 111.16 37⇓ *i*P PKiKP 10 13 14.3 +0.7
M39A **Webster** 111.17 314 P PKiKP 10 13 14.0 +0.3
baz=147
NKC **Novy Kostel** 111.17 27 *e*PKP PKiKP 10 13 13.9 +0.4
NKC *e*PKKP PKKPbc 10 24 11.2 +1.7
NKC *ex* x 10 24 20.3
NKC AMS AMS 10 56 10.0
comp=Z,3µm,22.0s
NKC **Novy Kostel** 111.17 27 *e*PKIKP PKiKP 10 13 13.9 +0.4
NKC *e* 10 24 20.3
NKC MLR MLR
comp=Z,3µm,22.0s
O36A **Bolckow** 111.20 311 P PKiKP 10 13 14.4 +0.6
baz=146
L40A **Anamosa** 111.28 315 P PKiKP 10 13 15.0 +1.1
baz=148
SKHT **Srikalahasti** 111.29 97 *e*Pdif Pdif 10 09 18.1 +1.3
SKHT *e*PKiKP PKiKP 10 13 14.4 -0.3
SKHT *e*PP PP 10 13 54.8 -1.9
J43A **Natural Harves** 111.30 317 P PKiKP 10 13 14.3 +0.4
baz=148
VYHS **Vyhne** 111.33 32 *e*PKIKP PKiKP 10 13 14.1 +0.3
VYHS **Vyhne** 111.33 32 *e* PKiKP 10 13 14.1 +0.3
VYHS *e* PKKPbc 10 24 10.2 +1.3
VYHS **Vyhne** 111.33 32 *e*P PKKPab 10 24 19.8 +3.7
VYHS *e*L L 10 57 33.8
K41A **Shullsburg** 111.37 316 P PKiKP 10 13 14.5 +0.4
baz=148
N37A **Lee Faris, Mou** 111.41 312 P PKiKP 10 13 14.6 +0.4
baz=147
CFR **Carcaliu** 111.42 39⇑ *i*P PKiKP 10 13 14.3 +0.3
CFR **Carcaliu** 111.42 39 ⇑PKIKP PKiKP 10 13 14.3 +0.3
VRAC **Vranov** 111.43 30 PKiKP PKiKP 10 13 14.0 0.0
baz=186,slow=4.1
VRAC PKKPbc PKKPbc 10 24 09.5 +0.9
comp=Z,7.9nm,1.0s,baz=28,slow=4.7,SNR=5.0
VRAC **Vranov** 111.43 30⇓ *i*P PKiKP 10 13 14.4 +0.4
VRAC **Vranov** 111.43 30 *i* PKIKP PKiKP 10 13 14.0 0.0
VRAC pmax pmax
comp=Z,8.0nm,1.0s
GOPC **GO Pecny, Ondr** 111.49 28 *e*PKP PKiKP 10 13 14.7 +0.6
GOPC *e*PKKP PKKPbc 10 24 10.2 +1.8
GOPC *ex* x 10 24 19.5
GOPC *ex* x 10 29 13.3
GOPC AMS AMS 10 57 10.0
comp=Z,3µm,14.7s
GOPC **GO Pecny, Ondr** 111.49 28 *e*PKIKP PKiKP 10 13 14.7 +0.6
GOPC MLR MLR
comp=Z,3µm,14.7s
PLOR **Plostina** 111.49 38⇓ *i*P PKiKP 10 13 13.9 -0.3
PLOR **Plostina** 111.49 38 ⇓PKIKP PKiKP 10 13 13.9 -0.3
PRU **Pruhonice** 111.49 28 *e*PDIFF Pdif 10 09 23.5 +6.7
PRU *ex* x 10 09 34.9
PRU *e*PKP PKiKP 10 13 14.5 +0.5
PRU *e*SP SP 10 23 16.8 +1.5
PRU *e*PKKP PKKPbc 10 24 09.9 +1.5
PRU *ex* x 10 24 19.2
PRU *ex* x 10 29 07.1
PRU AMS AMS 10 56 30.0
comp=Z,3µm,17.9s
PRU **Pruhonice** 111.49 28 *e*P Pdif 10 09 23.5 +6.7
PRU *e* 10 13 14.5
PRU *e*SP SP 10 23 16.8 +1.5
PRU MLR MLR
comp=Z,3µm,17.9s
P34A **Walnut Farm, R** 111.52 309 P PKiKP 10 13 14.2 -0.3
baz=146
J42A **Columbus** 111.52 317 P PKiKP 10 13 14.6 +0.3
baz=148
VRI **Vrincioaia** 111.53 38⇓ *i*P PKiKP 10 13 13.9 -0.4
VRI **Vrincioaia** 111.53 38 ⇓PKIKP PKiKP 10 13 13.9 -0.4
PRA **Prague** 111.53 28 AMS AMS 10 56 30.0
comp=Z,4µm,19.0s
M38A **Pleasantville** 111.54 313 P PKiKP 10 13 14.7 +0.3
baz=147
JFWS **Jewell Farm** 111.61 316 P PKiKP 10 13 14.6 +0.1
baz=148
JFWS **Jewell Farm** 111.61 316 *e*PKIKP PKiKP 10 13 14.7 +0.2
JFWS **Jewell Farm** 111.61 316 *e*PKPdf PKiKP 10 13 14.7 +0.2
I43A **Langenfeld Bro** 111.63 318 P PKiKP 10 13 15.0 +0.6
baz=149
L39A **Vinton** 111.64 314 P PKiKP 10 13 14.9 +0.3
baz=147
Y22D **IRIS PASSCAL I** 111.74 299 P PKiKP 10 13 16.0 +0.7
baz=144
Y22E **IRIS PASSCAL I** 111.74 299 P PKiKP 10 13 16.7 +1.5
baz=144
N36A **Muff Farm, Cla** 111.77 311 P PKiKP 10 13 15.2 +0.3
baz=146
K40A **Colesburg** 111.78 315 P PKiKP 10 13 15.1 +0.3
baz=148
ARCR **ARCALIA** 111.80 36⇑ *i*P Pdif 10 09 27.3 +9.0
ARCR **ARCALIA** 111.80 36⇓ *i*P PKiKP 10 13 15.4 +0.7
KECS **Kecovo** 111.81 33 *e*P Pdif 10 09 24.1 +5.8
KECS *e* 10 13 15.0
KECS **Kecovo** 111.81 33 *e*PDIFF Pdif 10 09 24.1 +5.8
KECS *e* 10 13 15.0
KECS *e* 10 24 08.9
KECS **Kecovo** 111.81 33 *e*P PKKPab 10 24 17.6 +3.6
M37A **Trindle Farm,** 111.88 312 P PKiKP 10 13 15.5 +0.4
baz=147
POO **Poona** 111.88 89 *e*P PKiKP 10 13 15.6 -0.2
J41A **Loganville** 111.90 316 P PKiKP 10 13 15.4 +0.3
baz=148
I42A **Draeger Farm,** 111.92 317 P PKiKP 10 13 15.2 +0.2
baz=148
O34A **Beatrice** 111.98 310 P PKiKP 10 13 15.2 -0.1
baz=146
PVCC **Panska Ves** 111.99 28 *e*PKP PKiKP 10 13 15.7 +0.7
PVCC AMS AMS 10 59 30.0
comp=Z,2µm,17.1s
PVCC **Panska Ves** 111.99 28 *e*PKIKP PKiKP 10 13 15.7 +0.7
PVCC MLR MLR
comp=Z,2µm,17.1s
F46A **Macinaw City C** 112.01 321 P PKiKP 10 13 15.5 +0.4
baz=150
L38A **Oak Wood Farm,** 112.04 313 P PKiKP 10 13 15.2 -0.2
baz=147
TESR **Tescani** 112.06 38⇓ *i*P PKiKP 10 13 15.0 -0.2
K39A **Oelwein** 112.08 315 P PKiKP 10 13 15.3 -0.1
baz=147
N35A **Tabor** 112.09 311 P PKiKP 10 13 15.8 +0.3
baz=146
LANS **Liptovska Anna** 112.11 32 *e*P PKKPab 10 24 17.0 +4.3
MORC **Moravsky Berou** 112.11 30⇓ *i*P PKiKP 10 13 16.0 +0.7
MORC **Moravsky Berou** 112.11 30 *e*PKIKP PKiKP 10 13 15.3 0.0
MORC **Moravsky Berou** 112.11 30 *e*PKPdf PKiKP 10 13 15.3 0.0
KRLC **Kraliky** 112.17 29 *e*PKP PKiKP 10 13 16.1 +0.7
KRLC *e*PKKP PKKPbc 10 24 08.0 +1.8
KRLC *ex* x 10 24 16.4
KRLC **Kraliky** 112.17 29 *e*PKIKP PKiKP 10 13 16.1 +0.7
CBKS **Cedar Bluff** 112.20 307 P PKiKP 10 13 16.6 +0.8
baz=145
CBKS **Cedar Bluff** 112.20 307 *e*PKIKP PKiKP 10 13 16.1 +0.3
CBKS **Cedar Bluff** 112.20 307 *e*PKPdf PKiKP 10 13 16.1 +0.3
F45A **CMU Biological** 112.20 320 P PKiKP 10 13 16.3 +0.8
baz=149
J40A **Soldiers Grove** 112.21 316 P PKiKP 10 13 16.0 +0.3
baz=148
ANMO **Albuquerque** 112.22 300 P PKiKP 10 13 16.5 +0.3
baz=144
ANMO **Albuquerque** 112.22 300 *c* *i*PKIKP PKiKP 10 13 16.5 +0.3
ANMO pmax pmax
comp=Z,15nm,1.0s
ANMO **Albuquerque** 112.22 300 *e*Pdif PKiKP 10 13 16.4 +0.2
M36A **Felix, Anita** 112.23 312 P PKiKP 10 13 16.7 +1.0
baz=146
PSI **Prapat** 112.24 121 PKiKP PKiKP 10 13 15.7 -1.1
comp=Z,30nm,1.0s,baz=139,slow=3.5,SNR=7.9
PSI PP PP 10 14 02.0 -1.2
comp=Z,36nm,1.0s,baz=187,slow=7.3,SNR=10
TUC **Tucson** 112.27 295 P PKiKP 10 13 16.8 +0.6
baz=143
TUC **Tucson** 112.27 295 *e*PKIKP PKiKP 10 13 16.5 +0.3
TUC **Tucson** 112.27 295 *e*PKPdf PKiKP 10 13 16.5 +0.3
O33A **Hebron** 112.28 309 P PKiKP 10 13 15.7 -0.2
baz=146
DPC **Dobruska-Polom** 112.30 29 *e*PDIFF Pdif 10 09 25.1 +4.6
DPC *ex* x 10 09 29.7
DPC *ex* x 10 09 39.9
DPC *e*PKP PKiKP 10 13 16.4 +0.8
DPC *e*PKKP PKKPbc 10 24 08.1 +2.3
DPC *e*SS SS 10 29 26.6 -6.3
DPC AMS AMS 10 58 10.0
comp=Z,2µm,21.3s
DPC **Dobruska-Polom** 112.30 29 *e*P Pdif 10 09 25.1 +4.6
DPC *e* 10 13 16.4
DPC MLR MLR
comp=Z,2µm,21.3s
CLL **Collm** 112.30 27⇑ *e*P Pdif 10 09 26.0 +5.6
CLL *i* 10 13 15.2
CLL pmax pmax
comp=Z,26nm,1.0s
CLL **Collm** 112.30 27⇑ *i*PKiKP PKiKP 10 13 15.2 -0.3
comp=Z,26nm,1.0s
CLL *i* PP PP 10 14 00.0 -3.7
comp=Z,33nm,1.4s
CLL *e*sPP 10 14 42.0
CLL *e* 10 17 12.0
CLL *e*SKSac SKSac 10 19 44.0 -1.7
CLL *e*SKKSac SKKSac 10 20 46.0 -5.4
CLL *e*Sdif Sdif 10 21 30.0 -0.8
CLL *e*(SP) 10 23 30.0
CLL ⇓ *i*PKKPbc PKKPbc 10 24 07.0 +1.3
comp=Z,22nm,1.2s
CLL ⇑ *i*PKKPab PKKPab 10 24 14.9 +3.3
comp=Z,22nm,1.1s
CLL *e*sPS 10 24 20.0
CLL *e*SPP SPP 10 24 36.0
CLL *e*SS SS 10 29 33.0 +0.2
CLL *e*sSS 10 30 30.0
CLL *e*SSS SSS 10 33 42.0
CLL *e*sSSS 10 34 30.0
CLL *e*SSSS 10 37 12.0
CLL LmH 10 58 00.0
comp=N,800nm,19.3s
CLL LmH 10 58 00.0
comp=E,1µm,19.8s
CLL LmV 10 58 00.0
comp=Z,2µm,18.8s
H42A **Shiocton** 112.30 318 P PKiKP 10 13 16.5 +0.7
baz=148
OKC **Ostrava-Krasne** 112.34 30 *e*PKP PKiKP 10 13 16.3 +0.7
OKC *e*PS PS 10 23 42.4 +4.2
OKC *e*PKKP PKKPbc 10 24 07.6 +2.1
OKC *ex* x 10 24 15.6
OKC AMS AMS 11 01 30.0
comp=Z,2µm,15.9s
OKC **Ostrava-Krasne** 112.34 30 *e*PKIKP PKiKP 10 13 16.3 +0.7
OKC *e*SP SP 10 23 42.4 +19
OKC MLR MLR
comp=Z,2µm,15.9s
UPC **Upice** 112.35 29 *e*SP SP 10 23 27.3 +4.0
UPC *e*PKKP 10 24 07.2
UPC *ex* x 10 24 15.8
UPC *e*SS SS 10 29 31.2 -2.4
UPC AMS AMS 10 59 40.0
comp=Z,2µm,19.0s
L37A **Phoenix Point,** 112.36 313 P PKiKP 10 13 16.3 +0.4
baz=146
K38A **Parkersburg** 112.39 314 P PKiKP 10 13 16.3 +0.3
baz=147
I41A **Arkdale** 112.43 317 P PKiKP 10 13 16.3 +0.3
baz=148
N34A **Lincoln** 112.44 310 P PKiKP 10 13 16.5 +0.3
baz=146
CRVS **Cervenica-Dubn** 112.48 33 *e*P Pdif 10 09 29.0 +7.7
CRVS **Cervenica-Dubn** 112.48 33 *e*PDIFF Pdif 10 09 29.0 +7.7
CRVS *e* 10 13 16.3
CRVS **Cervenica-Dubn** 112.48 33 *e*P PKKPab 10 24 14.7 +3.6
UZH **Uzhgorod** 112.50 34 *e*PKIKP PKiKP 10 13 14.9 -1.1
UZH *e* 10 14 04.5
J39A **Decorah** 112.54 315 P PKiKP 10 13 16.5 +0.3
baz=147
BURAR **Bucovina Array** 112.54 36⇑ *i*P Pdif 10 09 30.7 +9.0
BURAR **Bucovina Array** 112.54 36⇑ *i*P PKiKP 10 13 16.9 +0.6
BURAR **Bucovina Array** 112.54 36 ⇑PKIKP PKiKP 10 13 16.9 +0.6
I40A **Norwalk** 112.58 316 P PKiKP 10 13 16.3 0.0
baz=148
NIE **Niedzica** 112.59 32 *e*PKPdf PKiKP 10 13 16.5 +0.3
NIE *e*PP PP 10 14 06.8 +1.0
NIE **Niedzica** 112.59 32 *e*PKIKP PKiKP 10 13 16.5 +0.3
NIE *e* 10 14 06.8
M35A **Neola** 112.62 311 P PKiKP 10 13 16.5 0.0
baz=146
G43A **Wallace** 112.62 319 P PKiKP 10 13 16.8 +0.5
baz=148
E45A **Wooded Hills,** 112.66 321 P PKiKP 10 13 17.0 +0.7
baz=149
KSP **Ksiaz** 112.73 29 *e*PKPdf PKiKP 10 13 17.1 +0.7
KSP **Ksiaz** 112.73 29 *e*PKIKP PKiKP 10 13 17.1 +0.7
SRLM **Srisailam** 112.75 95 *e*Pdif Pdif 10 09 25.1 +1.7
SRLM *e*PKiKP PKiKP 10 13 16.6 -0.9
SRLM *e*PP PP 10 14 05.4 -1.7
N33A **J Bar K, Exete** 112.77 310 P PKiKP 10 13 16.7 -0.1
baz=145
H41A **Junction City** 112.82 317 P PKiKP 10 13 17.2 +0.4
baz=148
J38A **Wedel Dairy, R** 112.83 314 P PKiKP 10 13 16.8 -0.1
baz=147
K37A **Belmond** 112.84 313 P PKiKP 10 13 16.9 +0.1
baz=146
STHS **Stebnicka Huta** 112.87 33 *e*PKIKP PKiKP 10 13 17.3 +0.6
STHS **Stebnicka Huta** 112.87 33 *e* PKiKP 10 13 17.3 +0.6
STHS *e* 10 24 05.0
STHS **Stebnicka Huta** 112.87 33 *e*P PKKPab 10 24 14.2 +4.9
EKA **Eskdalemuir Ar** 112.89 15 PKiKP PKiKP 10 13 16.4 -0.1
comp=Z,7.3nm,0.8s,baz=218,slow=2.0,SNR=13
EKA PP PP 10 14 08.4 +0.6
comp=Z,4.3nm,0.9s,baz=179,slow=7.0,SNR=4.3
EKA PKKPbc PKKPbc 10 24 03.4 -0.5
comp=Z,2.2nm,0.4s,baz=354,slow=2.6,SNR=21
G42A **Mountain** 112.89 318 P PKiKP 10 13 17.4 +0.5
baz=148
I39A **Houston** 112.90 315 P PKiKP 10 13 17.2 +0.3
baz=147
F43A **Flat Rock, Esc** 112.92 319 P PKiKP 10 13 17.4 +0.5
baz=149
T25A **Trinidad** 113.00 303 P PKiKP 10 13 17.9 +0.3
baz=144
214A **Organ Pipe Nat** 113.02 293 P PKiKP 10 13 17.7 +0.1
baz=143
214A **Organ Pipe Nat** 113.02 293 *e*PKPdf PKiKP 10 13 17.8 +0.1
M34A **Aspy Farms, Fr** 113.02 311 P PKiKP 10 13 17.6 +0.3
baz=146
KLRI **Killari** 113.06 92 *e*Pdif Pdif 10 09 26.9 +2.2
KLRI *e*PKiKP PKiKP 10 13 17.0 -1.1
KLRI *e*PP PP 10 14 09.3 0.0
K36A **Gilmore City** 113.07 313 P PKiKP 10 13 17.4 +0.1
baz=146
L35A **Bielow Farm, R** 113.09 312 P PKiKP 10 13 17.9 +0.5
baz=146
H40A **Chili** 113.11 317 P PKiKP 10 13 17.8 +0.5
baz=147
G41A **Antigo** 113.14 318 P PKiKP 10 13 18.1 +0.7
baz=148
ADKI **Addanki** 113.15 96 *e*Pdif Pdif 10 09 26.4 +1.4
ADKI *e*PKiKP PKiKP 10 13 17.6 -0.6
ADKI *e*PP PP 10 14 08.2 -1.7
E44A **Grand Marais A** 113.15 321 P PKiKP 10 13 18.2 +0.9
baz=149
OJC **Ojcow** 113.16 31 *e*PKPdf PKiKP 10 13 17.5 +0.3
OJC **Ojcow** 113.16 31 *e*PKIKP PKiKP 10 13 17.5 +0.3
F42A **Maple Grove Fa** 113.22 319 P PKiKP 10 13 17.6 +0.1
baz=148
KIS **Kishinev** 113.23 39 *e*PKP PKiKP 10 13 17.0 -0.4
KIS M M 10 13 17.5
comp=Z,300nm,1.0s
KIS *ep*PKP PP 10 14 04.0 -6.4
KIS **Kishinev** 113.23 39 *e*PP PP 10 14 40.0 +30
KIS *i* SKSP 10 23 54.0
KIS **Kishinev** 113.23 39 *i* PS PS 10 24 20.0 +33
KIS LRM MLR 11 01 08.0
comp=Z,2µm,20.0s
KIS **Kishinev** 113.23 39 *e*PKIKP PKiKP 10 13 17.0 -0.4
KIS *e* 10 19 50.0
KIS pmax pmax
comp=Z,300nm,1.0s
KIS MLR MLR
comp=Z,2µm,20.0s
KIS MLR MLR
comp=E,600nm,19.0s
KIS MLR MLR
comp=Z,2µm,20.0s
J37A **Redenius Farm,** 113.26 314 P PKiKP 10 13 17.8 +0.2
baz=146
BHJ **Bhuj** 113.30 83 *e*P PKiKP 10 13 19.0 +0.7
L34A **Svendsen Farm,** 113.32 311 P PKiKP 10 13 17.8 0.0
baz=146
E43A **Lone Tree Farm** 113.33 320 P PKiKP 10 13 17.7 +0.1
baz=148
M33A **Taylor Creek F** 113.34 310 P PKiKP 10 13 18.0 +0.1
baz=145
NJS **Nagarjunasagar** 113.35 95 *e*Pdif Pdif 10 09 27.6 +1.7
NJS *e*PKiKP PKiKP 10 13 18.2 -0.4
NJS *e*PP PP 10 14 10.9 -0.4
I38A **Scanlan Farm,** 113.38 315 P PKiKP 10 13 17.8 0.0
baz=147
SIM **Simferopol'** 113.44 43 *i* PKIKP PKiKP 10 13 18.2 +0.3
SIM *e* 10 14 11.0
SIM *e*PS PS 10 23 49.0 +0.5
SIM pmax pmax
comp=Z,49nm,0.8s
SIM pmax pmax
comp=Z,360nm,9.6s
K35A **Storm Lake** 113.46 312 P PKiKP 10 13 18.7 +0.7
baz=146
H39A **Augusta** 113.50 316 P PKiKP 10 13 18.3 +0.2
baz=147
KWP **Kalwaria Pacla** 113.51 33 *e*PKPdf PKiKP 10 13 18.0 +0.1
KWP **Kalwaria Pacla** 113.51 33 *e*PKIKP PKiKP 10 13 18.0 +0.1
F41A **Three Lakes** 113.56 318 P PKiKP 10 13 18.1 0.0
baz=148
G40A **Rib Lake** 113.58 317 P PKiKP 10 13 18.5 +0.3
baz=147
J36A **Seneca 1, Swea** 113.60 313 P PKiKP 10 13 18.5 +0.2
baz=146
BGNE **Belgrade** 113.62 310 P PKiKP 10 13 18.5 0.0
baz=145
KGM **Kluang** 113.62 125 ⇑P PKiKP 10 13 19.5 +0.2
HYB **Hyderabad** 113.63 94 *i* PKP PKiKP 10 13 19.0 -0.2
HYB *e*PP PP 10 14 12.0 -1.4
HYB **Hyderabad** 113.63 94 *e*P PKiKP 10 13 18.7 -0.4
HYBB **Hyderabad (bro** 113.63 94 *e*Pdif Pdif 10 09 29.2 +2.0
HYBB *e*PKPdf PKiKP 10 13 17.7 -1.4
HYBB *e*PP PP 10 14 10.9 -2.4
MYKOM **Kota Tinggi** 113.67 126 ⇑P PKiKP 10 13 19.5 +0.1
KSCO **Kaye Shedlock'** 113.67 305 P PKiKP 10 13 19.2 +0.5
baz=144
KSCO **Kaye Shedlock'** 113.67 305 *e*PKPdf PKiKP 10 13 19.4 +0.6
KAPI **Kappang** 113.70 145 *e*PKPdf PKiKP 10 13 19.8 +0.3
KAPI **Kappang** 113.70 145 PKiKP PKiKP 10 13 19.4 -0.1
SNR=7.3
E42A **Champion** 113.71 319 P PKiKP 10 13 18.6 +0.2
baz=148
I37A **Lemond, Waseca** 113.78 314 P PKiKP 10 13 19.2 +0.6
baz=146
K34A **Le Mars** 113.79 312 P PKiKP 10 13 18.6 0.0
baz=145
L33A **Hoskins** 113.86 311 P PKiKP 10 13 19.3 +0.4
baz=145
H38A **Maiden Rock** 113.89 315 P PKiKP 10 13 18.9 +0.2
baz=147
FRIM **Kepong** 113.91 123 ⇑P PKiKP 10 13 19.9 0.0
GNI **Garni** 113.93 53 PKiKP PKiKP 10 13 19.6 +0.4
comp=Z,21nm,0.8s,baz=219,slow=1.8,SNR=10
GNI **Garni** 113.93 53 *c* *i*PKIKP PKiKP 10 13 20.2 +1.0
GNI pmax pmax
comp=Z,185nm,1.7s
GNI **Garni** 113.93 53 *e*PKPdf PKiKP 10 13 19.9 +0.7
GNI **Garni** 113.93 53 PKPdf PKiKP 10 13 20.5 +1.2
SNR=6.0
G39A **Holcombe** 113.97 317 P PKiKP 10 13 19.0 +0.1
baz=147
W18A **Petrified Fore** 113.97 297 P PKiKP 10 13 19.9 +0.4
baz=143
W18A **Petrified Fore** 113.97 297 *e*PKPdf PKiKP 10 13 19.9 +0.4
J35A **Milford** 113.98 313 P PKiKP 10 13 18.9 -0.1
baz=146
SDCO **Great Sand Dun** 114.00 302 P PKiKP 10 13 20.2 +0.6
baz=143
SDCO **Great Sand Dun** 114.00 302 *e*PKPdf PKiKP 10 13 19.8 +0.2
I36A **Fitzsimmons Fa** 114.03 314 P PKPdf 10 13 19.3 +0.2
baz=146
SORM **Soroca** 114.05 38⇓ *i*P PKPdf 10 13 18.8 -0.1
SORM **Soroca** 114.05 38 ⇓PKIKP PKPdf 10 13 18.8 -0.1
H37A **Dierke Farm, C** 114.06 315 P PKPdf 10 13 19.3 +0.2
baz=146
LVV **L'vov** 114.09 34 *i* PKIKP PKPdf 10 13 18.4 -0.6
LVV *e**PP PP 10 13 55.0 -21
LVV *e* 10 19 51.0
LVV *e*PS PS 10 23 47.0 -7.3
LVV MLR MLR
comp=Z,1µm,19.0s
F40A **Park Falls** 114.10 318 P PKPdf 10 13 19.3 +0.2
baz=147
K33A **Hardington** 114.11 311 P PKPdf 10 13 19.8 +0.4
baz=145
E41A **Kenton** 114.12 319 P PKPdf 10 13 19.6 +0.4
baz=148
G38A **Ridgeland** 114.13 316 P PKPdf 10 13 19.1 -0.2
baz=147
BGD **Bogdanovka** 114.32 52 P PKPdf 10 13 21.2 +1.2
BGD **Bogdanovka** 114.32 52 P PKKPdf 10 24 39.6 +18
AKH **Akhalkalaki** 114.39 52 P PKKPab 10 24 07.4 +3.7
AKH **Akhalkalaki** 114.39 52 ⇓ *i*P PKPdf 10 13 21.3 +1.2
BNSI **Bone** 114.39 145 PKP PKPdf 10 13 21.3 +0.5
F39A **Loretta** 114.40 317 P PKPdf 10 13 19.7 -0.1
baz=147
HNR **Honiara** 114.41 189 PKP PKPdf 10 13 20.5 -0.3
comp=Z,20nm,0.3s,baz=244,slow=4.6,SNR=5.0
E40A **Wakefield** 114.45 318 P PKPdf 10 13 20.0 +0.2
baz=147
H36A **Jessenland, He** 114.46 314 P PKPdf 10 13 20.3 +0.4
baz=146
D41A **Chassel** 114.48 319 P PKPdf 10 13 20.3 +0.5
baz=148
SOC **Sochi** 114.55 48 *e*P Pdif 10 09 30.1 -0.5
SOC *i* 10 13 19.8
SOC *e*PPP PPP 10 16 44.1
SOC *e*PS PKKPbc 10 23 52.8 -5.0
SOC *e*SS SS 10 30 07.0 +4.3
SOC pmax pmax
comp=Z,47nm,0.9s
SPMN **Marine on St.** 114.55 315 P PKPdf 10 13 20.2 +0.1
baz=146
SPMN **Marine on St.** 114.55 315 *e*PKPdf PKPdf 10 13 19.6 -0.5
K32A **Verdigre** 114.56 310 P PKPdf 10 13 21.0 +0.8
baz=145
ANN **Anapa** 114.62 46 *i* PKIKP PKPdf 10 13 23.0 +2.9
ANN *e* 10 13 55.7
ANN *e* 10 14 20.4
ANN *e*SP SP 10 23 56.7 +12
ANN pmax pmax
comp=Z,125nm,1.1s
S22A **4UR Ranch, Cre** 114.63 301 P PKPdf 10 13 21.4 +0.5
baz=143
E39A **Mellen** 114.64 318 P PKPdf 10 13 20.1 -0.1
baz=147
PMG **Port Moresby** 114.67 175 *c* *i*PKIKP PKPdf 10 13 21.2 -0.1
PMG pmax pmax
comp=Z,195nm,1.0s
PMG **Port Moresby** 114.67 175 *e*PKPdf PKPdf 10 13 21.7 +0.3
J33A **Davis** 114.68 312 P PKPdf 10 13 20.1 -0.3
baz=145
SPSI **Sidrap Palu** 114.69 144 PKP PKPdf 10 13 21.3 -0.1
IPM **Ipoh** 114.71 122 ⇑P PKPdf 10 13 21.3 -0.2
IPM **Ipoh** 114.71 122 *e*PKPdf PKPdf 10 13 20.6 -0.8
SRSP **Sriramsagar** 114.72 93 *e*Pdif Pdif 10 09 33.8 +1.7
SRSP *e*PKPdf PKPdf 10 13 20.2 -1.0
SRSP *e*PP PP 10 14 20.2 -0.8
F38A **Pierce - Schro** 114.80 316 P PKPdf 10 13 20.9 +0.4
baz=146
I34A **Hadley** 114.81 313 P PKPdf 10 13 21.0 +0.4
baz=145
Q24A **Divide** 114.81 303 P PKPdf 10 13 21.6 +0.4
baz=143
ECSD **EROS Data Cent** 114.87 312 P PKPdf 10 13 20.6 -0.1
baz=145
ECSD **EROS Data Cent** 114.87 312 *e*PKPdf PKPdf 10 13 20.0 -0.7
K31A **O'Neill** 114.87 310 P PKPdf 10 13 20.6 -0.2
baz=144
BEL **Belsk** 114.88 31 *e*PKPdf PKPdf 10 13 21.2 +0.8
BEL **Belsk** 114.88 31 *e*PKIKP PKPdf 10 13 21.2 +0.8
F37A **Hinrichs Farm,** 114.90 316 P PKPdf 10 13 20.9 +0.2
baz=146
H35A **Sunnyside Ranc** 114.93 314 P PKPdf 10 13 20.7 -0.1
baz=145
GLA **Glamis** 114.93 292 P PKPdf 10 13 21.5 +0.3

baz=142
SCHQ **Schefferville** **114.93 337** PKP **PKPdf** 10 13 20.0 -0.4
comp=Z,30nm,0.8s,baz=146,slow=1.7,SNR=17
SCHQ SKP 10 16 41.6
comp=Z,12nm,1.0s,baz=264,slow=4.9,SNR=4.6
**G36A St. Michael** **114.94 315** P **PKPdf** 10 13 21.1 +0.3
baz=146
**OGNE Ogallala** **114.96 307** P **PKPdf** 10 13 21.7 +0.6
baz=144
**OGNE Ogallala** **114.96 307** *e*PKPdf PKPdf 10 13 21.6 +0.5
**MVCO Mesa Verde** **115.02 300** P **PKPdf** **10 13 22.0 +0.5**
baz=142
**MVCO Mesa Verde** **115.02 300** *e*PKPdf **PKPdf** **10 13 21.7 +0.2**
**J32A Parkston** **115.09 311** P **PKPdf** **10 13 21.0 -0.2**
baz=144
**WUAZ Wupatki** **115.10 297** P **PKPdf** **10 13 21.7 0.0**
baz=142
**WUAZ Wupatki** **115.10 297** *e*PKPdf **PKPdf** **10 13 22.1 +0.4**
**GKP Gorka Klasztor** **115.18 28** *e*PKPdf **PKPdf** **10 13 21.5 +0.6**
GKP *e*PP **PP** **10 14 22.7 -1.3**
**GKP Gorka Klasztor** **115.18 28** *e*PKIKP **PKPdf** **10 13 21.5 +0.6**
GKP *e* 10 14 22.7
**RPR Rampur** **115.20 94** *e*Pdif **Pdif** **10 09 36.0 +1.9**
RPR *e*PKPdf **PKPdf** **10 13 20.8 -1.3**
RPR *e*PP **PP** **10 14 23.4 -1.0**
**I33A Coleman** **115.20 312** P **PKPdf** **10 13 21.5 +0.2**
baz=145
**PVM Polavaram** **115.21 97** *e*Pdif **Pdif** **10 09 36.5 +2.3**
PVM *e*PKPdf **PKPdf** **10 13 21.9 -0.2**
PVM *e*PP **PP** **10 14 23.4 -1.0**
**E38A The Farm, Brul** **115.22 317** P **PKPdf** **10 13 21.4 +0.1**
baz=146
**G35A Watkins** **115.22 314** P **PKPdf** **10 13 21.8 +0.4**
baz=145
**KULM Kulim** **115.24 121** *e*PKPdf **PKPdf** **10 13 22.1 -0.3**
**IKP In-Ko-Pah, Jac** **115.28 291** P **PKPdf** **10 13 22.5 +0.5**
baz=142
**H34A Spellman Lake,** **115.29 313** P **PKPdf** **10 13 22.0 +0.5**
baz=145
**Y12C Blythe** **115.32 293** P **PKPdf** **10 13 22.9 +1.0**
baz=142
**Y12C Blythe** **115.32 293** *e*PKPdf **PKPdf** **10 13 22.8 +1.0**
**ONI Oni** **115.33 51** P **PKPdf** **10 13 21.9 +0.2**
**ONI Oni** **115.33 51** *e*PKIKP **PKPdf** **10 13 21.9 +0.2**
**SWSC Sam W. Stewart** **115.35 292** P **PKPdf** **10 13 22.8 +0.9**
baz=142
**F36A Milaca** **115.36 315** P **PKPdf** **10 13 21.6 0.0**
baz=146
**STKI Sintang** **115.39 134** PKP **PKPdf** **10 13 23.8 +1.1**
**J31A Geddes** **115.41 310** P **PKPdf** **10 13 21.9 +0.2**
baz=144
**I32A Karley and Nic** **115.46 312** P **PKPdf** **10 13 22.6 +0.7**
baz=144
**NEY Neytrino** **115.55 50** *i* PKIKP **PKPdf** **10 13 22.5 +0.2**
**PDMCI Parker Dam,Lak** **115.56 294** P **PKPdf** **10 13 23.2 +0.9**
baz=142
**TTSI Tana Toraja** **115.57 144** PKP **PKPdf** **10 13 23.6 +0.5**
**BAR Barrett** **115.60 291** *e*PKPdf **PKPdf** **10 13 23.4 +0.9**
**MONP2 Monument Peak** **115.64 291** P **PKPdf** **10 13 23.4 +0.6**
baz=142
**ISCO Idaho Springs** **115.69 303** P **PKPdf** **10 13 23.4 +0.5**
baz=143
**ISCO Idaho Springs** **115.69 303** *e*PKIKP **PKPdf** **10 13 23.5 +0.7**
**ISCO Idaho Springs** **115.69 303** *e*PKPdf **PKPdf** **10 13 23.5 +0.7**
**C39A Grand Marais** **115.69 319** P **PKPdf** **10 13 21.9 -0.2**
baz=147
**H33A Prehn Over Nor** **115.69 313** P **PKPdf** **10 13 22.7 +0.4**
baz=145
**G34A Benson** **115.70 314** P **PKPdf** **10 13 22.4 +0.1**
baz=145
**BC3 Big Chuckawall** **115.73 292** P **PKPdf** **10 13 23.5 +0.7**
baz=142
**F35A Swanville** **115.78 315** P **PKPdf** **10 13 22.6 +0.2**
baz=145
**PV01 Paradox Valley** **115.78 300** *e*PKPdf **PKPdf** **10 13 23.5 +0.5**
**MTKI Muara Teweh, K** **115.80 138** PKP **PKPdf** **10 13 24.4 +0.9**
**E36A McGregor** **115.80 316** P **PKPdf** **10 13 22.3 -0.1**
baz=146
**SMCO Snowmass** **115.84 302** *e*PKPdf **PKPdf** **10 13 24.1 +0.9**
**H32A Carlson Farm,** **115.84 312** P **PKPdf** **10 13 22.2 -0.4**
baz=144
**I31A Royce, Wessing** **115.92 311** P **PKPdf** **10 13 23.2 +0.4**
baz=144
**IRM Iron Mountain** **115.96 293** P **PKPdf** **10 13 23.7 +0.5**
baz=142
**G33A Ortonville** **115.99 313** P **PKPdf** **10 13 22.7 -0.1**
baz=145
**109C Camp Elliot, M** **115.99 291** P **PKPdf** **10 13 23.9 +0.7**
baz=142
**PV05 Paradox Valley** **115.99 300** *e*PKPdf **PKPdf** **10 13 25.1 +1.7**
**F34A Alexandria** **116.00 314** P **PKPdf** **10 13 23.0 +0.2**
baz=145
**D37A Cotton** **116.01 317** P **PKPdf** **10 13 22.4 -0.4**
baz=146
**KBZ Khabaz** **116.01 50** Pdiff **Pdif** **10 09 46.3 +9.2**
comp=Z,4.7nm,1.0s,baz=187,slow=12,SNR=7.1
KBZ PKP **PKPdf** **10 13 22.7 -0.2**
comp=Z,31nm,0.9s,baz=208,slow=1.6,SNR=38
KBZ PP **PP** **10 14 23.2 -6.7**
comp=Z,16nm,1.0s,baz=218,slow=11,SNR=3.9
KBZ PKKPab **PKKPab** **10 23 56.7 +0.4**
comp=Z,7.4nm,0.9s,baz=333,slow=0.3,SNR=5.5
**C38A Sawbill Land.** **116.03 318** P **PKPdf** **10 13 22.3 -0.5**
baz=146
**W13A Hualapai Mount** **116.05 294** *e*PKPdf **PKPdf** **10 13 24.2 +0.7**
**KIV Kislovodsk** **116.10 49** *i* P **Pdif** **10 09 36.8 -0.8**
KIV *i* 10 13 22.8
KIV *e* 10 14 29.1
KIV *e* 10 20 02.0
KIV *e*PS **PS** **10 24 13.8 +0.8**
KIV *e*SS SS 10 30 25.9 +2.6
KIV pmax pmax
comp=Z,88nm,1.1s
**KIV Kislovodsk** **116.10 49** *e*PKPdf **PKPdf** **10 13 22.9 -0.3**
**KIV Kislovodsk** **116.10 49** PKPdf **PKPdf** **10 13 21.9 -1.2**
SNR=15
**NCK Nalchik** **116.12 50** *e*PKIKP **PKPdf** **10 13 23.4 +0.3**
**PV04 Paradox Valley** **116.15 300** *e*PKPdf **PKPdf** **10 13 24.0 +0.4**
**NEE2 Needles Airpor** **116.16 294** P **PKPdf** **10 13 24.3 +0.8**
baz=142
**MUD Monsted U'grnd** **116.17 22** *i* PKIKP **PKPdf** **10 13 23.6 +0.9**
MUD pmax pmax
comp=Z,83nm,1.2s
**MUD Monsted U'grnd** **116.17 22** *i* P **PKPdf** **10 13 23.6 +0.9**
comp=Z,83nm,1.2s
**KSM Kuching** **116.19 132** *e*PKPdf **PKPdf** **10 13 24.1 -0.1**
**PV10 Paradox Valley** **116.20 300** *e*PKPdf **PKPdf** **10 13 23.8 +0.1**
**TPFO Pinon Flats** **116.21 292** P **PKPdf** **10 13 24.9 +1.1**
baz=141
**XPFO Piæon Flat** **116.21 292** *e*PKPdf **PKPdf** **10 13 24.8 +1.0**
**PFO Pinyon Flats O** **116.22 292** P **PKPdf** **10 13 24.6 +0.8**
baz=141
**PFO Pinyon Flats O** **116.22 292** *e*PKIKP **PKPdf** **10 13 24.8 +1.0**
**PFO Pinyon Flats O** **116.22 292** *e*PKPdf **PKPdf** **10 13 24.8 +1.0**
**H31A Wolsey** **116.25 311** P **PKPdf** **10 13 23.4 0.0**
baz=144
**U15A North Rim** **116.28 297** *e*PKPdf **PKPdf** **10 13 24.9 +0.9**
**BELC Belle Mtn. Jos** **116.28 292** P **PKPdf** **10 13 24.5 +0.6**
baz=141
**E35A Pequot Lakes** **116.28 315** P **PKPdf** **10 13 23.4 0.0**
baz=145
**D36A Goodland** **116.31 316** P **PKPdf** **10 13 23.5 +0.2**
baz=146
**EYMN Ely** **116.31 318** P **PKPdf** **10 13 23.2 -0.2**
baz=146
**EYMN Ely** **116.31 318** *e*PKPdf **PKPdf** **10 13 23.0 -0.4**
**PV09 Paradox Valley** **116.34 300** *e*PKPdf **PKPdf** **10 13 24.9 +0.8**
**PKDT Phuket** **116.35 117** PKP **PKPdf** **10 13 25.1 +0.6**
**C37A Embarrass** **116.39 317** P **PKPdf** **10 13 23.3 -0.2**
baz=146
**SUSD Miller** **116.43 311** P **PKPdf** **10 13 23.9 +0.2**
baz=144
**KTGM Kuala Trenggan** **116.45 123** ⇓P **PKPdf** **10 13 25.0 +0.3**
**F33A 5 Mile Ranch,** **116.45 314** P **PKPdf** **10 13 23.8 +0.2**
baz=144
**G32A Webster** **116.47 312** P **PKPdf** **10 13 24.2 +0.4**
baz=144
**AK11 Malin Array Si** **116.50 37** *e*PKPdf **PKPdf** **10 13 22.1 -1.4**
**KIEV Kiev** **116.53 37** *e*PKIKP **PKPdf** **10 13 23.0 -0.6**
**KIEV Kiev** **116.53 37** *e*PKPdf **PKPdf** **10 13 23.0 -0.6**
**VIS Vishakhapatnam** **116.54 98** *i* P **PKPdf** **10 13 24.7 0.0**
**AKBB Malin Array Si** **116.54 37** *e*PKIKP **PKPdf** **10 13 23.0 -0.6**
**AKBB Malin Array Si** **116.54 37** *e*PKPdf **PKPdf** **10 13 23.0 -0.6**
**AKASG Malin Array Be** **116.54 37** Pdiff **Pdif** **10 09 45.2 +5.9**
comp=Z,0.2nm,0.3s,baz=215,slow=4.2,SNR=5.8
AKASG PKP **PKPdf** **10 13 22.5 -1.1**
comp=Z,31nm,0.8s,baz=244,slow=1.4,SNR=92
AKASG PP **PP** **10 14 32.4 -1.2**
comp=Z,3.2nm,0.7s,baz=213,slow=7.2,SNR=5.7
AKASG PKKPbc **PKKPab** **10 23 52.3 -1.0**
comp=Z,9.6nm,0.9s,baz=36,slow=4.1,SNR=4.3
**E34A Wadena** **116.55 315** P **PKPdf** **10 13 24.0 +0.2**
baz=145
**D35A Remer** **116.57 316** P **PKPdf** **10 13 24.0 +0.1**
baz=145
**MURC Murrieta** **116.59 291** P **PKPdf** **10 13 25.0 +0.6**
baz=141
**LDFC Landfair** **116.66 294** *e*PKPdf **PKPdf** **10 13 25.8 +1.2**
**C36A Pine Crest Far** **116.66 317** P **PKPdf** **10 13 23.9 -0.1**
baz=146
**PBA Port Blair** **116.67 110** *e*P PKPdf 10 13 25.4 +0.3
**N23A Red Feather La** **116.71 304** P **PKPdf** **10 13 25.2 +0.5**
baz=142
**N23A Red Feather La** **116.71 304** *e*PKPdf **PKPdf** **10 13 25.2 +0.5**
**GMRC Granite Mounta** **116.71 293** P **PKPdf** **10 13 25.3 +0.5**
baz=141
**G31A Conde** **116.75 312** P **PKPdf** **10 13 24.6 +0.3**
baz=144
**PHWY Pilot Hill** **116.80 305** *e*PKPdf **PKPdf** **10 13 25.5 +0.6**
**GROC Groznyy** **116.85 52** *i* PKIKP **PKPdf** **10 13 25.2 +0.7**
GROC *e* 10 13 57.5
GROC *e* 10 14 33.9
GROC *e* 10 20 05.4
GROC *e* 10 20 25.9
**E33A Westby DABS, E** **116.88 314** P **PKPdf** **10 13 24.5 0.0**
baz=144
**BBRC Big Bear Solar** **116.96 292** P **PKPdf** **10 13 25.8 +0.4**
baz=141
**KNB Kanab** **117.00 297** *e*PKIKP **PKPdf** **10 13 25.8 +0.5**
**KNB Kanab** **117.00 297** *e*PKPdf **PKPdf** **10 13 25.8 +0.5**
**D34A Park Rapids** **117.03 315** P **PKPdf** **10 13 24.5 -0.2**
baz=145
**C35A Jirik Farms, M** **117.05 316** P **PKPdf** **10 13 24.5 -0.3**
baz=145
**CIS Catalina Islan** **117.08 290** P **PKPdf** **10 13 25.8 +0.5**
baz=141
**PKCU Pink Cliffs** **117.08 297** *e*PKPdf **PKPdf** **10 13 26.4 +0.7**
**HEC Hector,Ludlow** **117.10 293** P **PKPdf** **10 13 26.0 +0.6**
baz=141
**GOF Gofitskoye** **117.14 49**⇑ *e*PKIKP **PKPdf** **10 13 25.3 +0.3**
GOF pmax pmax
comp=Z,79nm,0.9s
**MMU Miners Mountai** **117.16 298** *e*PKPdf **PKPdf** **10 13 26.1 +0.4**
**KLNR Kaliningrad** **117.17 29** *e*PKIKP PKPdf 10 13 36.9 +12
**O20A White River Ci** **117.19 302** P **PKPdf** **10 13 26.0 +0.4**
baz=142
**O20A White River Ci** **117.19 302** *e*PKPdf **PKPdf** **10 13 26.2 +0.6**
**LCMT Little Creek M** **117.21 296** *e*PKPdf **PKPdf** **10 13 26.4 +0.8**
**FMP Fort Macarthur** **117.25 290** P **PKPdf** **10 13 25.6 0.0**
baz=141
**F31A Hecla** **117.27 312** P **PKPdf** **10 13 25.5 +0.2**
baz=144
**BFSC Mount Baldy Ra** **117.33 291** P **PKPdf** **10 13 26.3 +0.4**
baz=141
**D33A AnnSam, Waubun** **117.33 315** P **PKPdf** **10 13 25.4 0.0**
baz=144
**TUQ Turquoise Moun** **117.35 293** P **PKPdf** **10 13 26.3 +0.4**
baz=141
**C34A RKJ Ranch, Bem** **117.38 316** P **PKPdf** **10 13 24.8 -0.6**
baz=145
**E32A Braaten, Kindr** **117.38 314** P **PKPdf** **10 13 25.8 +0.4**
baz=144
**AAI Ambon** **117.40 153** PKP **PKPdf** **10 13 26.1 -0.5**
**MAK Makhachkala** **117.42 53** *e*P **Pdif** **10 09 39.6 -3.8**
MAK *i* 10 13 25.8
MAK *e* 10 14 39.4
MAK *e* 10 20 02.2
MAK *e*SP SP 10 24 22.2 +12
MAK pmax pmax
comp=Z,125nm,1.0s
**RRX Edison Barstow** **117.48 292** P **PKPdf** **10 13 26.3 +0.3**
baz=141
**MTPU Mount Pierson** **117.48 298** *e*PKPdf **PKPdf** **10 13 27.5 +1.1**
**SUW Suwalki** **117.49 31** *e*PKPdf **PKPdf** **10 13 25.1 -0.3**
SUW *e*PP **PP** **10 14 37.5 -2.7**
**SUW Suwalki** **117.49 31** *e*PKIKP **PKPdf** **10 13 25.1 -0.3**
SUW *e* 10 14 37.5
**SRU San Rafael Swe** **117.49 300** *e*PKIKP **PKPdf** **10 13 26.1 -0.1**
**SRU San Rafael Swe** **117.49 300** *e*PKPdf **PKPdf** **10 13 26.1 -0.1**
**B35A Bob, Littlefor** **117.50 317** P **PKPdf** **10 13 25.1 -0.5**
baz=145
**SURT Suratani** **117.50 117** PKP **PKPdf** **10 13 26.8 +0.1**
**MWC Mount Wilson** **117.53 291** *e*PKIKP **PKPdf** **10 13 27.2 +0.8**
**MWC Mount Wilson** **117.53 291** *e*PKPdf **PKPdf** **10 13 27.2 +0.8**
**SNCC San Nicolas Is** **117.55 289** P **PKPdf** **10 13 26.2 0.0**
baz=141
**NLAI Namlea** **117.55 152** PKP **PKPdf** **10 13 27.3 +0.4**
**PASC Pasadena Art C** **117.55 291** *e*PKPdf **PKPdf** **10 13 27.3 +1.1**
**CHLP Challavanipeta** **117.58 98** *e*Pdif **Pdif** **10 09 47.9 +3.2**
CHLP *e*PKPdf **PKPdf** **10 13 25.6 -1.0**
CHLP *e*PP **PP** **10 14 38.4 -2.5**
**SZCU Shurtz Canyon** **117.58 297** *e*PKPdf **PKPdf** **10 13 27.4 +0.9**
**BHPL Bhopal** **117.64 89** *e*P **PKPdf** **10 13 26.5 -0.2**
**NRS Narsarsuaq** **117.65 351** *i* PKIKP **PKPdf** **10 13 24.5 -0.9**
**NRS Narsarsuaq** **117.65 351** *i* P **PKPdf** **10 13 24.5 -0.9**
**Q16A Castle Valley** **117.66 299** *e*PKPdf **PKPdf** **10 13 27.2 +0.6**
**E31A Nome** **117.69 313** P **PKPdf** **10 13 26.2 +0.2**
baz=144
**CCUT Cedar City** **117.69 297** *e*PKPdf **PKPdf** **10 13 27.8 +1.1**
**DECC Green Verdugo** **117.69 291** P **PKPdf** **10 13 27.1 +0.6**
baz=141
**GSC Goldstone, Bar** **117.71 293** P **PKPdf** **10 13 27.5 +1.0**
baz=141
**GSC Goldstone, Bar** **117.71 293** *e*PKIKP **PKPdf** **10 13 27.3 +0.7**
**GSC Goldstone, Bar** **117.71 293** *e*PKPdf **PKPdf** **10 13 27.3 +0.7**
**P18A Preston Nutter** **117.76 300** *e*PKPdf **PKPdf** **10 13 27.4 +0.5**
**SHPR Sheep Range** **117.79 295** *e*PKPdf **PKPdf** **10 13 27.9 +1.1**
**D32A Dogwood Acres,** **117.80 314** P **PKPdf** **10 13 26.4 +0.2**
baz=144
**C33A Trail** **117.80 315** P **PKPdf** **10 13 26.5 +0.3**
baz=144
**MSU Marysvale** **117.84 298** *e*PKIKP **PKPdf** **10 13 28.0 +1.1**
**MSU Marysvale** **117.84 298** *e*PKPdf **PKPdf** **10 13 28.0 +1.1**
**SBUM Sibu** **117.86 134** ⇓P **PKPdf** **10 13 27.7 +0.3**
**SBUM Sibu** **117.86 134** *e*PKPdf **PKPdf** **10 13 27.4 0.0**
**P17A Butcher Ranch,** **117.88 300** *e*PKPdf **PKPdf** **10 13 27.3 +0.4**
**SHOC Shoshone, Teco** **117.89 293** P **PKPdf** **10 13 27.9 +1.1**
baz=141
**RWWY Rawlins** **117.92 304** *e*PKPdf **PKPdf** **10 13 26.3 -0.7**
**B34A Aery, Baudette** **117.95 316** P **PKPdf** **10 13 26.1 -0.4**
baz=144
**TMUT Trail Mountain** **117.97 299** *e*PKPdf **PKPdf** **10 13 27.6 +0.3**
**EDW2 Edwards Air Fo** **118.00 291** P **PKPdf** **10 13 27.9 +0.8**
baz=141
**D31A Mcclaflin, Tow** **118.01 313** P **PKPdf** **10 13 27.0 +0.4**
baz=144
**DGPR DIGLIPUR** **118.04 109** *e*P **PKPdf** **10 13 27.6 -0.1**
DGPR AMS AMS 10 58 45.6
comp=Z,3µm,16.8s
**B33A Robert and Kas** **118.15 316** P **PKPdf** **10 13 26.9 0.0**
baz=144
**C32A Crookston** **118.16 315** P **PKPdf** **10 13 26.7 -0.2**
baz=144
**APSI Ampana** **118.17 145** PKP **PKPdf** **10 13 28.5 +0.4**
**OSI Osito Audit: C** **118.18 291** P **PKPdf** **10 13 28.5 +1.1**
baz=141
**OSI Osito Audit: C** **118.18 291** *e*PKPdf **PKPdf** **10 13 28.6 +1.1**
**SCZ2 Santa Cruz Isl** **118.18 290** P **PKPdf** **10 13 28.1 +0.7**
baz=141
**AGMN Agassiz Nation** **118.28 315** P **PKPdf** **10 13 26.9 -0.2**
baz=144
**AGMN Agassiz Nation** **118.28 315** *e*PKPdf **PKPdf** **10 13 26.5 -0.6**
**LRMC Laurel Mtn Rad** **118.30 292** P **PKPdf** **10 13 28.4 +0.7**
baz=140
**K22A Casper** **118.36 305** P **PKPdf** **10 13 27.3 -0.3**
baz=141
**RSSD Black Hills** **118.38 307** P **PKPdf** **10 13 27.4 -0.3**
baz=142
**RSSD Black Hills** **118.38 307** *e*PKIKP **PKPdf** **10 13 28.0 +0.3**
**RSSD Black Hills** **118.38 307** *e*PKPdf **PKPdf** **10 13 28.0 +0.3**
**SANI Sanana** **118.39 150** PKP **PKPdf** **10 13 28.2 -0.3**
**LUWI Luwuk** **118.40 147** PKP **PKPdf** **10 13 29.0 +0.5**
**LUWI Luwuk** **118.40 147** *e*PKPdf **PKPdf** **10 13 29.0 +0.5**
**GEYT Alibeck** **118.58 64** Pdiff **Pdif** **10 09 47.3 -1.5**
comp=Z,0.5nm,0.3s,baz=132,slow=2.1,SNR=1.7
GEYT PKP **PKiKP** **10 13 28.1 0.0**
comp=Z,30nm,1.0s,baz=258,slow=7.0,SNR=37
GEYT PP **PP** **10 14 50.9 +2.9**
comp=Z,17nm,0.9s,baz=243,slow=6.5,SNR=4.4
**A33A Warroad** **118.61 316** P **PKPdf** **10 13 27.7 -0.1**
baz=144
**C31A Landman Farms,** **118.61 314** P **PKPdf** **10 13 27.6 -0.2**
baz=143
**B32A Ashes, Strandq** **118.62 315** P **PKPdf** **10 13 27.4 -0.3**
baz=144
**ARVC Arvin** **118.63 291** P **PKPdf** **10 13 28.7 +0.4**
baz=140
**FURC Furnace Creek,** **118.63 293** P **PKPdf** **10 13 29.2 +1.0**
baz=140
**MPMC Manual Prospec** **118.64 293** P **PKPdf** **10 13 29.0 +0.5**
baz=140
**TPNV Topopah Spring** **118.69 294** P **PKPdf** **10 13 29.4 +0.9**
baz=140
**TPNV Topopah Spring** **118.69 294** *e*PKIKP **PKPdf** **10 13 29.6 +1.1**
**TPNV Topopah Spring** **118.69 294** *e*PKPdf **PKPdf** **10 13 29.6 +1.1**
**PSUT Pine Spring** **118.69 297** *e*PKPdf **PKPdf** **10 13 30.0 +1.5**
**MPU Maple Canyon** **118.74 300** *e*PKPdf **PKPdf** **10 13 29.1 +0.5**
**MPSI Mapaga** **118.77 143** PKP **PKPdf** **10 13 29.5 +0.3**
**ISA Isabella, Lake** **118.85 292** P **PKPdf** **10 13 29.5 +0.7**
baz=140
**ISA Isabella, Lake** **118.85 292** *e*PKIKP **PKPdf** **10 13 30.3 +1.6**
**ISA Isabella, Lake** **118.85 292** *e*PKPdf **PKPdf** **10 13 30.3 +1.6**
**NLU North Lily Min** **118.91 299** *e*PKPdf **PKPdf** **10 13 29.6 +0.7**
**PKM Mcpherson Peak** **118.96 290** P **PKPdf** **10 13 29.8 +0.6**
baz=140
**JBP Jabalpur** **119.02 91**⇑ *e*P **PKPdf** **10 13 28.8 -0.5**
JBP *ex* x 10 20 03.7
**A32A Rocking H Ranc** **119.02 316** P **PKPdf** **10 13 28.5 0.0**
baz=143
**B31A Greenbush Farm** **119.09 314** P **PKPdf** **10 13 28.6 -0.1**
baz=143
**FAKI Fak Fak** **119.09 158** PKP **PKPdf** **10 13 30.1 +0.2**
**FAKI Fak Fak** **119.09 158** *e*PKPdf **PKPdf** **10 13 29.9 0.0**
**JLU Jordanelle** **119.10 300** *e*PKPdf **PKPdf** **10 13 30.0 +0.7**
**KONO Kongsberg** **119.21 21***d* *i* PKIKP **PKPdf** **10 13 28.5 0.0**
KONO pmax pmax
comp=Z,291nm,1.7s
**KONO Kongsberg** **119.21 21** *e*PKPdf **PKPdf** **10 13 28.6 +0.1**
**CWC Cottonwood Cre** **119.24 292** P **PKPdf** **10 13 30.4 +0.8**
baz=140
**GRAC Grapevine Rang** **119.30 293** P **PKPdf** **10 13 30.3 +0.7**
baz=140
**A31A Linda, St. Vin** **119.31 315** P **PKPdf** **10 13 28.8 -0.3**
baz=143
**CTU Camp Tracy** **119.31 300** *e*PKPdf **PKPdf** **10 13 30.1 +0.5**
**MICGM Minsk** **119.33 34**⇓ *e*PKP1 **PKPdf** **10 13 27.0 -1.9**
MICGM PKPM 10 13 29.0
comp=Z,0.3nm,1.0s
MICGM *e*pPKP1 10 14 00.0
MICGM *e*PP **PP** **10 14 47.0 -5.9**
MICGM *e*PPP PPP 10 17 00.0
MICGM *e*S **Sdif** **10 22 14.0 -15**
MICGM *e*PS **PS** **10 24 44.0 +2.3**
MICGM *e*SPP SPP 10 25 10.0
MICGM *e*PPS PPS 10 25 22.0
MICGM *e*SS **SS** **10 31 04.0 -0.6**
MICGM *e*SSS SSS 10 36 20.0
MICGM *e*LR LR 10 52 16.0
**MNK Minsk** **119.33 34**⇓ *e*PKIKP **PKPdf** **10 13 27.0 -1.9**
MNK *e* 10 14 00.0
MNK *e*PS **PS** **10 24 44.0 +2.3**
MNK *e*SS SS 10 31 04.0 -0.6
MNK pmax pmax
comp=Z,340nm,1.0s
**NACGM Naroch** **119.33 33** *e*P **PKPdf** **10 13 27.0 -1.9**
NACGM PM 10 13 28.0
comp=Z,0.5nm,1.0s
NACGM *e*LQ LQ 10 50 14.0
NACGM *e*LR LR 10 53 28.0
**SMMC Simmler** **119.38 290** P **PKPdf** **10 13 30.8 +1.1**
baz=140
**MDND Maddock** **119.42 313** P **PKPdf** **10 13 29.7 +0.3**
baz=142
**MDND Maddock** **119.42 313** *e*PKPdf **PKPdf** **10 13 29.1 -0.3**
**R11A Troy Canyon, C** **119.42 296** P **PKPdf** **10 13 30.6 +0.7**
baz=140
**R11A Troy Canyon, C** **119.42 296** *e*PKPdf **PKPdf** **10 13 30.7 +0.8**
**DUG Dugway, Tooele** **119.45 299** P **PKPdf** **10 13 30.4 +0.5**
baz=140
**DUG Dugway, Tooele** **119.45 299** *e*PKIKP **PKPdf** **10 13 30.5 +0.7**
**DUG Dugway, Tooele** **119.45 299** *e*PKPdf **PKPdf** **10 13 30.5 +0.7**
**TCUT Toone Canyon** **119.47 300** *e*PKPdf **PKPdf** **10 13 31.0 +1.0**
**IIGN Ignalina** **119.55 32** *e*P **PKPdf** **10 13 29.0 -0.2**
IIGN IAmb IAmb 10 13 30.8
comp=Z,48nm,1.0s
**IIGN Ignalina** **119.55 32** *e*P **PKKPbc** **10 23 43.2 +2.8**
IIGN IAmb IAmb 10 23 45.0
comp=Z,14nm,1.0s
**MRSI Marisa** **119.57 145** PKP **PKPdf** **10 13 29.1 -1.6**
**IDID Didziasalis** **119.67 33** *e*P **PKPdf** **10 13 29.1 -0.4**
IDID IAmb IAmb 10 13 30.9
comp=Z,31nm,0.9s
**IDID Didziasalis** **119.67 33** *e*P **PKKPbc** **10 23 42.6 +2.7**
IDID IAmb IAmb 10 23 44.4
comp=Z,17nm,1.1s
**ISAL Salakas** **119.70 32** *e*P **PKPdf** **10 13 29.1 -0.4**
ISAL IAmb IAmb 10 13 30.2
comp=Z,5.9nm,1.0s
**ISAL Salakas** **119.70 32** *e*P **PKKPbc** **10 23 42.4 +2.6**
ISAL IAmb IAmb 10 23 43.9
comp=Z,5.8nm,0.9s
**RCTC Rector, Farmer** **119.74 292** P **PKPdf** **10 13 30.5 +0.2**
baz=140
**MCU Monte Cristo P** **119.79 301** *e*PKPdf **PKPdf** **10 13 30.9 +0.2**
**TIN Tinemaha, Big** **119.79 293** P **PKPdf** **10 13 31.7 +1.2**
baz=140
**PAGB Antelope Grade** **119.83 290** *e*PKPdf **PKPdf** **10 13 31.9 +1.4**
**ULM Lac du Bonnet** **119.85 317** PKP **PKPdf** **10 13 29.0 -1.0**
comp=Z,55nm,0.8s,baz=132,slow=1.0,SNR=72
ULM PP **PP** **10 14 51.2 -5.3**
comp=Z,13nm,0.8s,baz=168,slow=6.3,SNR=4.1
ULM SKP 10 16 51.1
comp=Z,5.5nm,0.6s,baz=103,slow=2.4,SNR=4.6
ULM PKKPab **PKKPab** **10 23 41.0 +1.9**
comp=Z,49nm,1.0s,baz=323,slow=4.8,SNR=25
ULM SKKPbc SKKPbc 10 27 15.9 0.0
comp=Z,10nm,0.9s,baz=301,slow=3.7,SNR=5.7
**BW06 Boulder Array** **119.86 303** P **PKPdf** **10 13 30.2 -0.5**
baz=140
**BW06 Boulder Array** **119.86 303** *e*PKPdf **PKPdf** **10 13 30.8 +0.2**
**PD31 Pinedale Array** **119.86 303** *e*PKPdf **PKPdf** **10 13 31.2 +0.5**
**PDAR Pinedale Array** **119.86 303** Pdiff **Pdif** **10 10 04.2 +10**
comp=Z,0.1nm,0.5s,baz=157,slow=4.8,SNR=2.3
PDAR PKhKP PKPpre 10 13 13.4
comp=Z,0.5nm,0.8s,baz=130,slow=2.8,SNR=2.9
PDAR PKP **PKPdf** **10 13 29.8 -0.9**
comp=Z,24nm,0.9s,baz=132,slow=2.2,SNR=82
PDAR SKP 10 16 51.5
comp=Z,2.4nm,0.6s,baz=113,slow=4.6,SNR=6.6
PDAR PKKPab **PKKPab** **10 23 40.7 +0.5**
comp=Z,13nm,0.8s,baz=24,slow=0.4,SNR=30
PDAR SKKP 10 27 31.4
comp=Z,2.4nm,1.0s,baz=260,slow=4.5,SNR=3.9
PDAR PKPPKP **P'P'df** **10 32 20.6 -2.9**
comp=Z,1.3nm,1.0s,baz=58,slow=5.6,SNR=5.2
**PDAR Pinedale Array** **119.86 303** Pdif **Pdif** **10 10 04.2 +10**
PDAR PKPpre PKPpre 10 13 13.4
PDAR *e*PKPdf **PKiKP** **10 13 30.8 0.0**
PDAR SKP 10 16 51.5
PDAR PKKPab **PKKPab** **10 23 40.7 +0.5**
PDAR SKKP 10 27 31.4
PDAR P'P' 10 32 20.6
**IZAR Zarasai** **119.89 32** *e*P **PKPdf** **10 13 29.7 -0.3**
IZAR IAmb IAmb 10 13 31.4
comp=Z,65nm,0.9s
**IZAR Zarasai** **119.89 32** *e*P **PKKPbc** **10 23 42.1 +2.9**
IZAR IAmb IAmb 10 23 43.5
comp=Z,16nm,0.9s
**RABL Rabaul** **119.97 180** *e*PKPdf **PKPdf** **10 13 32.4 +0.8**
**BGU Big Grassy Mou** **120.12 299** *e*PKPdf **PKPdf** **10 13 31.9 +0.7**
**SPUT South Promonto** **120.13 300** *e*PKPdf **PKPdf** **10 13 31.6 +0.5**
**LBMI Labuha** **120.15 152** PKP **PKPdf** **10 13 31.9 0.0**
**BEI Bear River Ran** **120.42 301** *e*PKPdf **PKPdf** **10 13 31.6 -0.2**
**PMPB Monarch Peak** **120.49 290** *e*PKPdf **PKPdf** **10 13 32.8 +1.0**
**HFS Hagfors** **120.51 23** PKP **PKPdf** **10 13 29.0 -2.0**
comp=Z,37nm,0.8s,baz=151,slow=3.3,SNR=9.8
HFS PKKPbc **PKKPbc** **10 23 36.4 -0.6**
comp=Z,9.0nm,0.7s,baz=57,slow=5.3,SNR=21
**HFS Hagfors** **120.51 23** PKIKP **PKPdf** **10 13 29.0 -2.0**
HFS pmax pmax
comp=Z,39nm,0.8s
**MLI Malad Range** **120.52 301** *e*PKPdf **PKPdf** **10 13 31.7 -0.2**
**VSR Storozhevoye** **120.52 42** *e*PKIKP **PKPdf** **10 13 30.6 -0.7**
VSR pmax pmax
comp=Z,140nm,1.0s

MLAC Mammoth, Mammt 120.54 293 P PKPdf 10 13 33.3 +1.2
baz=139
NAO01 NORSAR Array S 120.56 21 ePKPdf PKPdf 10 13 31.5 +0.4
BORG Borgarnes 120.58 3 ePKIKP PKPdf 10 13 32.8 +1.8
BORG Borgarnes 120.58 3 ePKIKP PKPdf 10 13 32.8 +1.8
AHID Auburn Hatcher 120.59 302 ePKPdf PKPdf 10 13 32.6 +0.6
NC602 NORSAR Array S 120.60 21 ePKPdf PKPdf 10 13 31.1 0.0
HVU Hansel Valley 120.64 300 ePKIKP PKPdf 10 13 31.5 -0.6
HVU Hansel Valley 120.64 300 ePKPdf PKPdf 10 13 31.5 -0.6
MDPB Devils Postpil 120.67 293 ePKPdf PKPdf 10 13 33.7 +1.3
NBO00 NORSAR Array S 120.71 21 ePKPdf PKPdf 10 13 31.9 +0.5
NBO02 NORSAR Array S 120.75 21 ePKPdf PKPdf 10 13 31.5 0.0
GENI Genyem 120.78 166 PKP PKPdf 10 13 35.3 +2.2
NB2 NORSAR Subarra 120.81 21 PKPdf PKPdf 10 13 31.1 -0.6
comp=Z,86nm,1.1s,baz=202,slow=1.9
NB2 NORSAR Subarra 120.81 21 PKPdf PKPdf 10 13 31.1 -0.6
baz=202,slow=1.9
NOA NORSAR Array B 120.81 21 PKP PKPdf 10 13 31.0 -0.6
comp=Z,51nm,0.8s,baz=200,slow=1.8,SNR=96
NOA PP PP 10 14 58.5 -4.4
comp=Z,7.1nm,0.9s,baz=207,slow=7.0,SNR=3.9
NOA PKKPbc PKKPbc 10 23 37.0 +1.1
comp=Z,18nm,0.9s,baz=27,slow=3.0,SNR=26
NOA SKKPbc SKKPbc 10 27 09.9 -3.8
comp=Z,1.2nm,0.8s,baz=69,slow=9.1,SNR=3.3
NB201 NORSAR Array S 120.83 21 ePKPdf PKPdf 10 13 31.1 -0.5
VORR Voronezh 120.90 42 PKIKP PKPdf 10 13 32.0 0.0
VORR pmax pmax
comp=Z,250nm,1.0s
REDW Red Top Meadow 120.92 303 ePKPdf PKPdf 10 13 32.9 +0.2
JAY Jayapura 120.93 167 PKP PKPdf 10 13 34.5 +1.1
NC204 NORSAR Array S 120.94 21 ePKPdf PKPdf 10 13 31.8 -0.1
SNOW Snow King Moun 120.95 303 ePKPdf PKPdf 10 13 33.1 +0.4
NC405 NORSAR Array S 120.98 21 ePKPdf PKPdf 10 13 32.1 +0.2
LOHW Long Hollow 121.00 303 ePKPdf PKPdf 10 13 32.5 -0.3
NC303 NORSAR Array S 121.01 21 ePKPdf PKPdf 10 13 32.2 +0.3
TPAW Teton Pass 121.07 303 ePKPdf PKPdf 10 13 33.5 +0.5
MOOW Moose Ponds 121.17 303 ePKPdf PKPdf 10 13 33.0 -0.1
FXWY Fox Creek 121.22 303 ePKPdf PKPdf 10 13 33.9 +0.7
SAO San Andreas Ge 121.25 290 ePKIKP PKPdf 10 13 34.9 +1.7
SAO San Andreas Ge 121.25 290 ePKPdf PKPdf 10 13 34.9 +1.7
LAO LASA Array 121.34 308 P PKPdf 10 13 33.4 +0.3
baz=140
LAO LASA Array 121.34 308 ePKPdf PKPdf 10 13 33.5 +0.3
IMW Indian Meadow 121.37 303 ePKPdf PKPdf 10 13 34.0 +0.4
VRH Novokhopyorsk 121.49 44 ePKIKP PKPdf 10 13 32.7 -0.4
VRH pmax pmax
comp=Z,300nm,0.9s
WAKR Walker 121.51 293 ePKPdf PKPdf 10 13 35.6 +1.7
MOL Molde 121.52 19 ePKPdf PKPdf 10 13 33.6 +0.8
MOL eSP SP 10 24 48.9 +3.1
RLMT Red Lodge 121.52 305 P PKPdf 10 13 34.0 +0.2
baz=140
RLMT Red Lodge 121.52 305 ePKPdf PKPdf 10 13 33.4 -0.3
LPSR Galich'ya Gora 121.54 41 ePKIKP PKPdf 10 13 32.9 -0.3
LPSR pmax pmax
comp=Z,160nm,1.0s
H17A Grant Village 121.58 303 P PKPdf 10 13 34.8 +0.9
baz=139
H17A Grant Village 121.58 303 ePKPdf PKPdf 10 13 35.6 +1.6
YPP Pitchstone Pla 121.59 303 ePKPdf PKPdf 10 13 35.5 +1.5
CMB Columbia Colle 121.65 292 ePKIKP PKPdf 10 13 35.0 +1.0
CMB Columbia Colle 121.65 292 ePKPdf PKPdf 10 13 35.0 +1.0
MCID Moose Creek 121.71 303 ePKPdf PKPdf 10 13 35.2 +1.0
KBL Kabul 121.72 74 ePKIKP PKPdf 10 13 34.9 +0.4
KBL Kabul 121.72 74 ePKPdf PKPdf 10 13 34.9 +0.4
YFT Old Faithful 121.74 303 ePKPdf PKPdf 10 13 36.4 +2.2
YERR Yerington 121.77 294 ePKPdf PKPdf 10 13 36.0 +1.6
DGMT Dagmar 121.83 311 P PKPdf 10 13 34.5 +0.5
baz=140
DGMT Dagmar 121.83 311 ePKPdf PKPdf 10 13 34.8 +0.8
YNR Norris Junctio 121.87 304 ePKPdf PKPdf 10 13 35.6 +1.1
YMR Madison River 121.97 303 ePKPdf PKPdf 10 13 35.8 +1.1
YHH Holmes Hill 122.00 304 ePKPdf PKPdf 10 13 35.7 +0.9
PNTR Pine Nut 122.03 293 ePKPdf PKPdf 10 13 36.5 +1.5
YHB Horse Butte 122.14 303 ePKPdf PKPdf 10 13 36.4 +1.4
GCMT Greycliff 122.21 305 ePKPdf PKPdf 10 13 35.4 +0.4
SRDT SRDT 122.25 114 PKP PKPdf 10 13 35.8 0.0
QLMT Earthquake Lak 122.31 303 ePKPdf PKPdf 10 13 36.7 +1.5
VSU Vasula 122.33 31*c* *i* PKIKP PKPdf 10 13 34.4 -0.1
VSU pmax pmax
comp=Z,640nm,1.0s
PAHR Pah Rah Range 122.38 294 ePKPdf PKPdf 10 13 36.7 +1.2
AFDM Forest Hills D 122.64 292 ePKPdf PKPdf 10 13 36.9 +1.0
TBLU Trondheim 122.64 20 ePKPdf PKPdf 10 13 35.7 +0.7
TBLU *e* 10 25 53.5
TBLU eSS SS 10 31 43.7 -2.9
OBN Obninsk 122.70 38*c* *i* PKIKP PKPdf 10 13 34.8 -0.5
OBN *i* 10 14 07.8
OBN *e* 10 15 14.7
OBN pmax pmax
comp=Z,182nm,0.9s
OBN Obninsk 122.70 38 ePKPdf PKPdf 10 13 35.2 -0.1
KKM Kota Kinabalu 122.71 137 ePKPdf PKPdf 10 13 36.3 -0.6
MYLDM Lahad Datu 122.78 139 ePKPdf PKPdf 10 13 37.7 +0.8
HLID Hailey 122.78 300 P PKPdf 10 13 37.1 +1.0
baz=138
HLID Hailey 122.78 300 ePKPdf PKPdf 10 13 37.2 +1.0
BOK Bokaro 122.82 96 eP PKPdf 10 13 36.5 -0.1
MCMT McKenzie Canyo 122.97 302 ePKPdf PKPdf 10 13 37.5 +0.9
BOZ Bozeman (W) 122.97 304 P PKPdf 10 13 37.6 +1.2
baz=138
BOZ Bozeman (W) 122.97 304 ePKIKP PKPdf 10 13 37.6 +1.2
BOZ Bozeman (W) 122.97 304 ePKPdf PKPdf 10 13 37.6 +1.2
BEKR Beckworth 123.00 293 ePKPdf PKPdf 10 13 37.6 +0.8
NIMB Iron Mountain 123.02 291 ePKPdf PKPdf 10 13 37.8 +1.2
MCCM Marconi Confer 123.03 290 ePKPdf PKPdf 10 13 37.3 +0.8
DLMT Dillon 123.25 303 ePKPdf PKPdf 10 13 38.0 +1.0
NAYO Nakonayok 123.34 117 PKP PKPdf 10 13 37.8 0.0
MFID Camas Ranch 123.36 299 ePKPdf PKPdf 10 13 37.8 +0.5
ORV Oroville 123.36 292 ePKIKP PKPdf 10 13 37.9 +0.7
ORV Oroville 123.36 292 ePKPdf PKPdf 10 13 37.9 +0.7
BHK Bhakra 123.40 82 eP PKPdf 10 13 36.5 -1.1
UTHA Uthaitani 123.44 114 PKP PKPdf 10 13 37.9 -0.1
SRAK Srakaew 123.44 117 PKP PKPdf 10 13 38.6 +0.6
GDXM Geysers 123.48 291 ePKPdf PKPdf 10 13 39.0 +1.4
DDI Dehra Dun 123.49 84 eP PKPdf 10 13 38.8 +1.0
LRM Limekiln Ridge 123.53 303 ePKPdf PKPdf 10 13 38.5 +0.9
MOS Moscow 123.56 38 *i* PKIKP PKPdf 10 13 36.6 -0.4
MOS eSSS SSS 10 36 30.4
MOS pmax pmax
comp=Z,417nm,1.3s
MOS MLR MLR
comp=Z,1μm,19.0s
SMLA Simla 123.60 83 eP PKPdf 10 13 38.3 +0.4
SMLA AMS AMS 11 04 59.3
comp=Z,2μm,14.0s
HOPS Hopland Field 123.76 291 ePKPdf PKPdf 10 13 39.4 +1.4
SFJD Kangerlussuaq 123.87 350 PKP PKPdf 10 13 36.8 -0.4
baz=173,slow=2.1
SFJD Kangerlussuaq 123.87 350 ePKIKP PKPdf 10 13 37.3 +0.1
SFJD Kangerlussuaq 123.87 350 *i* P PKPdf 10 13 36.9 -0.3
comp=Z,216nm,1.1s
SFJD Kangerlussuaq 123.87 350 ePKPdf PKPdf 10 13 37.3 +0.1
HRY Holter Researc 123.90 305 ePKPdf PKPdf 10 13 39.0 +0.9
EGMT Eagleton 123.93 307 P PKPdf 10 13 38.7 +0.6
baz=138
EGMT Eagleton 123.93 307 ePKPdf PKPdf 10 13 38.5 +0.4
DHRM DHARAMSHALA 123.97 82 eP PKPdf 10 13 39.4 +0.5
WVOR Wild Horse Val 124.03 297 ePKIKP PKPdf 10 13 39.6 +1.1
WVOR Wild Horse Val 124.03 297 ePKPdf PKPdf 10 13 39.6 +1.1
LGTI Lohaghat 124.05 87 eP PKPdf 10 13 39.2 +0.4
O03D Paynes Creek 124.06 293 P PKPdf 10 13 39.5 +0.9
baz=138,SNR=206
PUL Pulkovo 124.45 32*d* *i* PKIKP PKPdf 10 13 39.1 +0.6
PUL pmax pmax
comp=Z,249nm,1.0s
MOD Modoc Plateau 124.47 295 ePKPdf PKPdf 10 13 40.5 +1.1
KCPM Cahto Peak 124.54 291 ePKPdf PKPdf 10 13 41.1 +1.5
PYUN Piuthan 124.55 90 eP PKPdf 10 13 39.0 -1.1
comp=Z,1μm,1.0s
J08A Circle Bar Ran 124.62 298 ePKPdf PKPdf 10 13 40.7 +1.0
KOLN Koldanda 124.64 91 eP PKPdf 10 13 39.2 -1.1
comp=Z,956nm,1.0s
FINES FINESS Array B 124.65 28 PKhKP PKPpre 10 13 17.9
comp=Z,1.8nm,0.8s,baz=192,slow=4.9,SNR=2.9
FINES PKP PKPdf 10 13 37.7 -1.2
comp=Z,231nm,0.8s,baz=192,slow=0.8,SNR=209
FINES PKKPbc PKKPbc 10 23 21.8 +0.9
comp=Z,8.7nm,1.0s,baz=79,slow=3.7,SNR=9.1
FINES SKKPbc SKKPbc 10 27 00.9 +0.2
comp=Z,2.8nm,0.8s,baz=82,slow=3.1,SNR=4.2
FINES FINESS Array B 124.65 28 PKIKP PKPdf 10 13 37.7 -1.2
FINES 10 27 00.9
FINES pmax pmax
comp=Z,232nm,0.8s
FIA1 FINESS Array S 124.65 28 ePKPdf PKPdf 10 13 39.2 +0.3
WDC Whiskeytown Da 124.66 293 ePKIKP PKPdf 10 13 40.0 +0.4
WDC Whiskeytown Da 124.66 293 ePKPdf PKPdf 10 13 40.0 +0.4
DZET Dzherino 124.78 71 PKIKP PKPdf 10 13 33.5 -6.6
DZET pmax pmax
comp=Z,266nm,1.1s
MSO Missoula 124.97 303 P PKPdf 10 13 41.2 +1.1
baz=137
MSO Missoula 124.97 303 ePKPdf PKPdf 10 13 40.8 +0.6
KMRM Mail Ridge 125.00 291 ePKPdf PKPdf 10 13 41.8 +1.4
CHAI Chaiyaphum 125.02 116 PKP PKPdf 10 13 41.0 0.0
N02D Trinity Center 125.03 293 P PKPdf 10 13 41.6 +1.2
baz=137,SNR=142
LGBM Gray Butte 125.03 293 ePKPdf PKPdf 10 13 41.5 +0.8
PBKT Sadao Pong 125.07 115 PKP PKPdf 10 13 41.2 +0.1
BMO Blue Mountains 125.14 300 ePKIKP PKPdf 10 13 41.1 +0.6
BMO Blue Mountains 125.14 300 ePKPdf PKPdf 10 13 41.1 +0.6
M04C Macdoel 125.17 294 P PKPdf 10 13 41.5 +0.7
baz=137,SNR=102
LHEM Herd Peak 125.25 294 ePKPdf PKPdf 10 13 42.0 +1.0
DMN Daman 125.36 92 eP PKPdf 10 13 40.6 -1.1
comp=Z,761nm,1.1s
M02C Callahan 125.41 293 P PKPdf 10 13 42.2 +1.0
baz=137,SNR=8.3
KHMM Horse Mountain 125.49 292 ePKPdf PKPdf 10 13 42.6 +1.2
PKIN Phulchoki 125.50 93 eP PKPdf 10 13 41.2 -0.8
comp=Z,260nm,0.9s
PKI Pulchoki 125.50 93 eP PKPdf 10 13 41.0 -1.1
comp=Z,751nm,1.1s
CM01 Chiang Mai Arr 125.58 112 ePKPdf PKPdf 10 13 42.6 +0.5
YBH Yreka Blue Hor 125.58 293 SKKP SKKPbc 10 27 14.4 +19
comp=Z,9.9nm,1.1s,baz=93,slow=3.2,SNR=5.2
YBH Yreka Blue Hor 125.58 293 ePKIKP PKPdf 10 13 41.6 +0.1
YBH Yreka Blue Hor 125.58 293 ePKPdf PKPdf 10 13 41.6 +0.1
YBH SKKP 10 27 14.4
KKN Kakani 125.60 92 eP PKPdf 10 13 41.0 -1.1
comp=Z,308nm,0.9s
JCC Jacoby Creek, 125.60 292 ePKPdf PKPdf 10 13 43.0 +1.6
CM31 Chiang Mai Arr 125.60 112 ePKPdf PKPdf 10 13 42.7 +0.6
CMAR Chiang Mai Arr 125.60 112 PKP PKPdf 10 13 42.4 +0.3
comp=Z,233nm,0.9s,baz=234,slow=3.7,SNR=295
CMAR PP PP 10 15 33.3 -2.0
comp=Z,20nm,1.0s,baz=233,slow=7.4,SNR=5.2
CMAR SKP 10 17 06.7
comp=Z,15nm,1.0s,baz=238,slow=3.3,SNR=4.7
CMAR SKKPbc SKKPbc 10 26 51.1 -2.0
comp=Z,1.5nm,0.4s,baz=357,slow=5.6,SNR=4.7
CMAR Chiang Mai Arr 125.60 112 PKIKP PKPdf 10 13 42.4 +0.3
CMAR 10 15 33.3
CMAR 10 26 51.1
CMAR pmax pmax
comp=Z,221nm,0.9s
CMAR pmax pmax
comp=Z,20nm,1.0s
I07A Izee 125.66 298 ePKPdf PKPdf 10 13 43.1 +1.5
FFC Flin Flon 125.68 317 ePKIKP PKPdf 10 13 41.0 -0.1
FFC Flin Flon 125.68 317 ePKPdf PKPdf 10 13 41.0 -0.1
RAMN Ramite 125.69 94 eP PKPdf 10 13 41.9 -0.5
comp=Z,1μm,1.0s
K04D Chiloquin, OR 125.74 295 P PKPdf 10 13 42.8 +1.0
baz=136,SNR=30
JTMT Jette 125.79 304 ePKPdf PKPdf 10 13 41.6 -0.1
KHON Khomkaen 125.81 117 PKP PKPdf 10 13 42.8 +0.3
UTTA Uttaradit 125.84 114 PKP PKPdf 10 13 42.7 +0.1
CHTO Chiang Mai 125.90 111 PKP PKPdf 10 13 42.6 -0.1
CHTO Chiang Mai 125.90 111 ePKIKP PKPdf 10 13 42.7 0.0
CHTO Chiang Mai 125.90 111 ePKPdf PKPdf 10 13 42.7 0.0
CHTO Chiang Mai 125.90 111 PKPdf PKPdf 10 13 42.4 -0.3
SNR=31
CMMT Chiang Mai 125.90 111 PKP PKPdf 10 13 42.4 -0.3
F10A Beach Ranch, E 125.91 301 ePKPdf PKPdf 10 13 41.8 -0.2
STOK Stokkvaagen 125.94 19 ePKPdf PKPdf 10 13 41.5 +0.3
J05D Fort Rock, OR 125.95 296 P PKPdf 10 13 43.3 +1.1
baz=136,SNR=94
JIRN Jiri 126.00 93 eP PKPdf 10 13 42.2 -0.9
GUN Gumba 126.03 93 eP PKPdf 10 13 41.7 -1.4
comp=Z,876nm,1.0s
KRMB Red Mountain 126.05 292 ePKPdf PKPdf 10 13 43.4 +1.0
KTRM Thompson Ridge 126.05 293 ePKPdf PKPdf 10 13 44.0 +1.5
ODAN Odare 126.06 95 eP PKPdf 10 13 42.3 -0.8
comp=Z,1μm,1.1s
ILULI Ilulissat 126.06 350 ePKIKP PKPdf 10 13 41.6 +0.2
ILULI Ilulissat 126.06 350 *i* P PKPdf 10 13 41.4 0.0
comp=Z,181nm,0.8s
ILULI Ilulissat 126.06 350 ePKPdf PKPdf 10 13 41.5 +0.2
MOR8 Moi Rana 126.07 20 ePKPdf PKPdf 10 13 42.2 +0.7
MOR8 eSP SP 10 25 32.2 +6.4
BSMT Bassoo Peak 126.11 304 ePKPdf PKPdf 10 13 42.3 -0.1
KONS Konsvik 126.11 19 ePKPdf PKPdf 10 13 42.2 +0.7
UBPT Khong Chiam 126.21 120 PKP PKPdf 10 13 43.5 +0.2
G08A Pied Piper 126.26 299 ePKPdf PKPdf 10 13 43.8 +1.1
PHRA Phrae 126.31 113 PKP PKPdf 10 13 44.0 +0.6
SCO Scoresbysund 126.31 3 *i* PKIKP PKPdf 10 13 43.1 +1.3
SCO pmax pmax
comp=Z,130nm,1.0s
SCO Scoresbysund 126.31 3 *i* P PKPdf 10 13 43.1 +1.3
comp=Z,130nm,1.0s
HUMO Hull Mountain 126.34 294 ePKPdf PKPdf 10 13 43.9 +1.1
L02D Cave Junction, 126.35 293 P PKPdf 10 13 43.9 +1.1
baz=136,SNR=50
J04D Umpqua Nationa 126.36 295 P PKPdf 10 13 43.9 +0.8
baz=136,SNR=82
WALA Waterton Lakes 126.57 305 ePKPdf PKPdf 10 13 43.3 +0.1
TAPN Taplejung 126.62 95 eP PKPdf 10 13 43.6 -0.6
comp=Z,495nm,1.2s
KBO Bosley Butte 126.71 293 ePKPdf PKPdf 10 13 45.5 +1.9
E09A Wood Farm, Sta 126.74 300 ePKPdf PKPdf 10 13 44.0 +0.6
I05D Terrebonne, OR 126.76 297 P PKPdf 10 13 44.6 +1.0
baz=136,SNR=60
POHA Pohakuloa 126.76 249 ePKPdf PKPdf 10 13 45.6 +1.0
I04A Tendick Farm, 126.91 295 P PKPdf 10 13 44.3 +0.4
baz=136,SNR=42
SKNT Sakolnakorn 126.93 118 PKP PKPdf 10 13 44.9 +0.2
DAV Davao City (W) 126.93 147 ePKPdf PKPdf 10 13 44.9 0.0
DAV Davao City (W) 126.93 147 PKPdf PKPdf 10 13 45.1 +0.3
SNR=5.4
G06A Carlson Farm, 127.05 298 ePKPdf PKPdf 10 13 45.0 +0.8
E08A Dider Farm, El 127.17 300 ePKPdf PKPdf 10 13 45.0 +0.8
F07A Phinny Hill Vi 127.17 299 ePKPdf PKPdf 10 13 45.8 +1.5
KEBM Edson Butte 127.24 293 ePKPdf PKPdf 10 13 46.0 +1.5
I03D Drain, OR 127.32 295 P PKPdf 10 13 45.3 +0.7
baz=135,SNR=19
HAWA Hanford 127.33 300 ePKPdf PKPdf 10 13 45.2 +0.7
G05D Wamic, OR 127.39 297 P PKPdf 10 13 45.7 +0.9
baz=135,SNR=14
NONG Nongkai 127.43 116 PKP PKPdf 10 13 45.6 0.0
H04A Detroit Lake 127.43 296 ePKPdf PKPdf 10 13 45.5 +0.7
NEW Newport 127.50 303 SKPbc SKPbc 10 16 47.3
comp=Z,7.8nm,0.7s,baz=126,slow=5.7,SNR=5.7
NEW Newport 127.50 303 P PKPdf 10 13 45.5 +0.6
baz=135
NEW Newport 127.50 303 ePKIKP PKPdf 10 13 44.4 -0.5
NEW Newport 127.50 303 ePKPdf PKPdf 10 13 44.4 -0.5
NEW SKPbc SKPbc 10 16 47.3
D08A Wollman Farm, 127.50 300 ePKPdf PKPdf 10 13 45.0 +0.1
SHL Shillong 127.55 100 ↑ *i* P PKPdf 10 13 46.0 +0.1
E07A Sunnyside 127.60 299 ePKPdf PKPdf 10 13 46.1 +1.1
LOF Lofoten 127.64 18 ePKPdf PKPdf 10 13 45.0 +0.6
LOF eSS SS 10 32 45.9 -3.2
C09A Chrisman Ranch 127.72 302 ePKPdf PKPdf 10 13 45.6 +0.3
CHM Chimkent 127.72 68 *i* PKP PKPdf 10 13 44.3 -1.2
CHM *i* PP PP 10 15 48.2 -1.3
CHM *i* LRM MLR 11 10 13.9
comp=Z,355nm,17.1s
STEI Steigen 127.77 19 ePKPdf PKPdf 10 13 45.2 +0.6
AKTO Aktyubinsk 127.79 54 PKIKP PKPpre 10 13 38.0
AKTO pmax pmax
comp=Z,447nm,1.1s
IUG luzhnay 127.82 69 *i* PKP PKPdf 10 13 44.3 -1.5
IUG *i* PP PP 10 15 48.6 -1.7
IUG *i* LRM MLR 11 10 11.6
comp=Z,294nm,19.8s
AB31 Akbulak array 127.84 56 *i* PKIKP PKPpre 10 13 37.9
AB31 pmax pmax
comp=Z,270nm,1.0s
COR Corvallis 127.93 296 ePKIKP PKPdf 10 13 47.0 +1.3
COR Corvallis 127.93 296 ePKPdf PKPdf 10 13 47.0 +1.3
SFK Sufi-Kurgan 128.14 73 PKIKP PKPpre 10 13 38.0
SFK pmax pmax
comp=Z,433nm,1.1s
KLMR Klimovskoe 128.15 35 ePKIKP PKPdf 10 13 43.2 -2.4
KLMR *e* 10 14 18.4
KLMR eSS SS 10 33 03.9 +8.3
KLMR pmax pmax
comp=Z,500nm,1.2s
BRLS Borolday 128.35 68 *i* PKP PKPdf 10 13 44.7 -2.0
BRLS *i* PP PP 10 15 50.2 -3.4
G03D McMinnville, O 128.35 296 P PKPdf 10 13 47.3 +0.8
baz=135,SNR=24
F04A Amboy 128.43 297 ePKPdf PKPdf 10 13 47.3 +0.7
LTY Liberty 128.49 300 ePKPdf PKPdf 10 13 47.0 +0.2
SUMG Summit 128.53 356 ePKIKP PKPdf 10 13 46.7 +0.2
SUMG Summit 128.53 356 *i* P PKPdf 10 13 47.4 +0.8
comp=Z,219nm,0.9s
SUMG Summit 128.53 356 ePKPdf PKPdf 10 13 46.7 +0.2
B08A Colville Reser 128.62 301 ePKPdf PKPdf 10 13 47.2 +0.2
LON Longmire 128.70 298 ePKIKP PKPpre 10 13 39.7
LON Longmire 128.70 298 ePKPpre PKPpre 10 13 39.6
LON ePKPdf PKPdf 10 13 47.6 +0.3
KK31 Karatay Array 128.75 68 *i* PKHKP PKPpre 10 13 36.5
KK31 pmax pmax
comp=Z,240nm,1.1s
F04D Rainier, OR 128.83 297 P PKPdf 10 13 48.6 +1.2
baz=134,SNR=23
DZA Taraz 129.03 69 *i* PKP PKPdf 10 13 46.8 -1.2
DZA *i* PP PP 10 15 56.9 -1.2
C06D Leavenworth 129.06 300 P PKPdf 10 13 48.3 +0.4
baz=134,SNR=29
D05A Enumclaw 129.09 299 ePKPdf PKPdf 10 13 48.8 +0.9
KSH Kashi 129.12 75 PKP PKPdf 10 13 48.2 -0.2
KSH PP PP 10 15 56.4 -2.4
KSH AMB AMB
comp=Z,2μm,7.8s
KSH LR LR
comp=Z,250nm,7.4s
KSH LR LR
comp=Z,330nm,7.8s
KSH LR LR
comp=Z,820nm,17.2s
MNAS Manas 129.36 70 PKHKP PKPpre 10 13 39.5
MNAS pmax pmax
comp=Z,221nm,1.1s
PNT Penticton 129.41 302 ePKIKP PKPdf 10 13 49.2 +0.7
PNT Penticton 129.41 302 ePKPdf PKPdf 10 13 49.1 +0.7
E03A Lebam 129.43 297 ePKPdf PKPdf 10 13 50.1 +1.6
KIP Kipapa 129.44 248*c* *i* PKIKP PKPdf 10 13 51.0 +1.7
KIP pmax pmax
comp=Z,2μm,2.5s
AML Almayashu 129.74 71 P PKPdf 10 13 50.7 +0.9
SNR=7.7
AML Almayashu 129.74 71 P SKPbc 10 16 57.2 -2.7
SNR=9.2
JCW Jim Creek 129.75 300 ePKPdf PKPdf 10 13 49.4 +0.3
B06A Marblemount 129.76 300 ePKPdf PKPdf 10 13 49.9 +0.8
B05A Bryant 129.88 300 P PKPdf 10 13 50.1 +0.8
baz=133,SNR=102
TRO Tromso 129.92 20 ePKPdf PKPdf 10 13 51.9 +3.2
TRO ePP PP 10 16 04.3 +1.0
TRO eSS SS 10 33 18.6 +1.4
EKS2 Erkin-Say 130.16 71 P PKPpre 10 13 40.0
SNR=5.3
TMCR Tamitsa 130.17 32 ePKIKP PKPdf 10 13 48.1 -1.2
TMCR pmax pmax
comp=Z,847nm,1.0s
RCP Roxas 130.20 141 ⇓ eP PKPdf 10 13 51.0 0.0
RCP Roxas 130.20 141 ⇓ eP SKPab 10 17 00.9 -0.8
UCH Uchtor 130.25 72 P PKPdf 10 13 51.6 +0.8
SNR=35
UCH Uchtor 130.25 72 P SKPbc 10 17 01.1 -0.7
SNR=8.4
KTK1 Kautokeino 130.26 22 ePKPdf PKPdf 10 13 49.6 +0.2
KTK1 eSKPdf SKiKP 10 17 13.7 0.0
LSA Lhasa 130.35 96 PKP PKPdf 10 13 52.1 +0.6
LSA LR LR
comp=Z,500nm,42.0s
LSA LR LR
comp=Z,3μm,21.8s
LSA LR LR
comp=Z,2μm,47.0s
LSA Lhasa 130.35 96 ePKHKP PKPpre 10 13 40.3
LSA *e* 10 13 52.0
LSA Lhasa 130.35 96 ePKPpre PKPpre 10 13 40.3
LSA ePKPdf PKiKP 10 13 52.0 -0.3
A04D Lummi Island 130.49 300 P PKPdf 10 13 50.9 +0.5
baz=133,SNR=13
AAK Ala-Archa 130.52 71*c* *i* PKIKP PKPdf 10 13 50.5 -0.5
AAK Ala-Archa 130.52 71 P PKPdf 10 13 51.6 +0.6
SNR=38
AAK Ala-Archa 130.52 71 ePKPdf PKPdf 10 13 51.7 +0.7
AAK Ala-Archa 130.52 71 PKPdf PKPdf 10 13 51.2 +0.2
SNR=60
KZA Kyzart 130.53 72 P PKPdf 10 13 52.1 +0.8
SNR=33
FRU Bishkek 130.72 71 ⇑ *i* PKIKP PKPdf 10 13 51.0 -0.2
FRU *e* 10 16 10.0
FRU pmax pmax
comp=Z,740nm,1.9s
KBK Karagaybulak 130.78 72 P PKPdf 10 13 52.1 +0.6
SNR=22
KBK Karagaybulak 130.78 72 P SKPbc 10 17 02.8 -0.5
SNR=7.3
CHMS Chumysh 130.91 71 P PKPdf 10 13 52.1 +0.6
SNR=22
CHMS Chumysh 130.91 71 P SKPbc 10 17 02.7 -0.8
SNR=6.0
USP Ospenovka 130.96 71 P PKPdf 10 13 51.6 0.0
SNR=26
USP Ospenovka 130.96 71 P SKPbc 10 17 02.5 -1.2
SNR=5.9
ARCES ARCESS Array B 131.16 22 PKhKP PKPpre 10 13 32.0
comp=Z,9.3nm,0.8s,baz=220,slow=3.3,SNR=21
ARCES PKP PKPdf 10 13 51.2 +0.1
comp=Z,227nm,0.9s,baz=202,slow=1.4,SNR=106
ARCES PP PP 10 16 09.9 -1.4
comp=Z,52nm,0.9s,baz=210,slow=6.3,SNR=6.8
ARCES SKPbc SKPbc 10 17 01.1 -2.4
comp=Z,30nm,0.8s,baz=204,slow=2.3,SNR=6.6
ARE0 ARCESS Array S 131.16 22 ePKPdf PKPdf 10 13 51.8 +0.6
ARE0 eSS SS 10 33 31.4 -0.9
ARE0 ARCESS Array S 131.16 22 ePKPdf PKPdf 10 13 51.0 -0.1
ULHL Ulahol 131.18 73 P PKPdf 10 13 52.8 +0.5
SNR=22
ULHL Ulahol 131.18 73 P SKPbc 10 17 05.0 +0.2
SNR=5.7
TKM2 Tokmak 2 131.30 72 PKHKP PKPpre 10 13 43.0
TKM2 pmax pmax
comp=Z,137nm,1.2s
TKM2 Tokmak 2 131.30 72 P PKPdf 10 13 52.6 +0.1
SNR=16
LLLB Lillooet 131.37 302 ePKPdf PKPdf 10 13 52.2 +0.1
APA Apatity 131.46 27 ⇑ *i* PKIKP PKPdf 10 13 50.9 -0.8
APA *i* 10 14 22.7
APA *i* 10 16 11.2
APA *i* PPP PPP 10 19 08.4
APA *i* 10 21 00.0
APA pmax pmax
comp=Z,154nm,1.0s
BMNS Besmoynak 131.47 72 ePKP PKPdf 10 13 51.3 -1.5
QIZ Qiongzhong 131.53 122 PKP PKPdf 10 13 54.2 +0.8
QIZ PP PP 10 16 13.4 -0.5
QIZ SS SS 10 33 41.9 +4.7
KEV Kevo 131.65 22 ePKIKP PKPdf 10 13 52.0 0.0
KEV Kevo 131.65 22 ePKPdf PKPdf 10 13 52.0 0.0
HAMF Hammerfest 131.68 21 ePKPdf PKPdf 10 13 52.6 +0.5
HAMF ePP PP 10 16 13.8 -0.8
HAMF eSP SP 10 26 19.1 +4.8
HAMF eSS SS 10 33 36.0 -2.6
KULLO Kullorsuaq 131.78 350 ⇑ *i* PKIKP PKPdf 10 13 52.0 -0.1
KULLO pmax pmax
comp=Z,280nm,1.3s
KULLO Kullorsuaq 131.78 350 ⇑ *i* P PKPdf 10 13 52.0 -0.1
comp=Z,277nm,1.3s
KULLO Kullorsuaq 131.78 350 *i* P SKPbc 10 17 04.3 -1.3
BTLS Baital 131.93 69 *i* PKP PKPdf 10 13 52.3 -1.1
LVZ Lovozero 132.02 27 *c* *i* PKIKP PKPdf 10 13 52.1 -0.7
LVZ pmax pmax
comp=Z,231nm,0.7s
LVZ Lovozero 132.02 27 ePKPdf PKPdf 10 13 53.0 +0.1
ARU Arti 132.12 48 PP PP 10 16 15.3 -2.5
comp=Z,15nm,0.8s,baz=249,slow=5.6,SNR=4.6
ARU SKPbc SKPbc 10 17 06.3 -1.0
comp=Z,42nm,0.9s,baz=287,slow=2.9,SNR=6.8
ARU SKKPbc SKKPbc 10 26 37.1 +3.4
comp=Z,1.6nm,0.3s,baz=83,slow=3.9,SNR=4.0
ARU Arti 132.12 48 *i* PKIKP PKPdf 10 13 53.1 -0.2

ARU 10 20 50.0
**ARU Arti 132.12 48** *e*PKPdf **PKPdf 10 13 53.9 +0.6**
ARU PP **PP 10 16 15.3 -2.5**
ARU SKPbc **SKPbc 10 17 06.3 -1.0**
ARU SKKPbc **SKKPbc 10 26 37.1 +3.4**
**AAA Alma-Ata 132.21 72** *e*PKP **PKPdf 10 13 53.0 -1.0**
**MDOK Medeo 132.25 72** *i* PKP **PKPdf 10 13 53.0 -1.2**
MDOK *i* PP **PP 10 16 17.7 -1.3**
MDOK *i* LRM MLR 11 11 55.2
comp=Z,229nm,15.4s
**KUU Kurty 132.36 71** *i* PKP **PKPdf 10 13 53.4 -0.8**
KUU *i* LRM MLR 11 12 00.7
comp=Z,163nm,17.5s
**DAG Danmarks Havn 132.70 3** *i* PKIKP **PKPdf 10 13 52.9 -0.9**
DAG pmax pmax
comp=Z,280nm,1.2s
**DAG Danmarks Havn 132.70 3** *i* P **PKPdf 10 13 52.9 -0.9**
comp=Z,276nm,1.2s
**SATY Saty 132.90 73** *i* PKP **PKPdf 10 13 54.0 -1.4**
**ZHN Zhinishke 132.99 73** *i* PKP **PKPdf 10 13 54.1 -1.4**
**KMI Kunming 133.07 110** PKP **PKPdf 10 13 56.4 0.0**
KMI PP **PP 10 16 22.1 -2.1**
KMI PKS **PKSdf 10 17 26.1 -7.0**
KMI AMB AMB
comp=Z,2μm,6.9s
KMI LR LR
comp=Z,530nm,15.2s
KMI LR LR
comp=Z,250nm,5.8s
KMI LR LR
comp=Z,870nm,22.1s
**SVE Sverdlovsk 133.26 49** *e*PKIKP **PKPdf 10 13 56.0 +0.6**
SVE pmax pmax
comp=Z,645nm,1.5s
**KPKS Kokpek 133.33 73** *i* PKP **PKPdf 10 13 54.9 -1.3**
**SHLS Shalkode 133.54 74** *i* PKP **PKPdf 10 13 55.6 -1.0**
**PDGK Podgornoye 133.67 74** PKHKP PKPpre 10 13 46.3
PDGK pmax pmax
comp=Z,333nm,1.1s
**BJO Bjornoya 134.04 16** *e*PKPdf **PKPdf 10 13 57.5 +1.1**
BJO *e*SP SP 10 26 17.7 -17
**TDK Taldyqorghan 134.21 72** *i* PKP **PKPdf 10 13 56.4 -1.2**
TDK *e*PP **PP 10 16 29.9 -1.4**
**TULEG Thule 134.82 348** *e*PKPdf **PKPdf 10 13 58.4 +0.5**
**BRVK Borovoye 135.24 58***c* *i*PKIKP **PKPdf 10 13 59.4 +0.1**
**BRVK Borovoye 135.24 58** *e*PKPdf **PKPdf 10 13 59.3 +0.1**
**BRVK Borovoye 135.24 58** PKPdf PKPpre 10 13 48.5
SNR=82
**BVA0 Borovoye Array 135.27 58** *i* PKHKP PKPpre 10 13 48.2
BVA0 pmax pmax
comp=Z,244nm,1.0s
**BVAR Borovoye Array 135.27 58** PP PP 10 16 39.3 +1.4
comp=Z,28nm,1.0s,baz=232,slow=7.3,SNR=6.0
BVAR SKPbc **SKPbc 10 17 15.6 -2.2**
comp=Z,30nm,0.8s,baz=248,slow=3.0,SNR=9.9
BVAR SKKPbc **SKKPbc 10 26 21.9 +0.1**
comp=Z,2.1nm,0.6s,baz=68,slow=3.6,SNR=4.3
**HSPB Hornsund (broa 135.61 13** *e*PKPdf **PKPdf 10 14 00.4 +1.2**
HSPB *e*SKPdf **SKiKP 10 17 24.4 0.0**
**YKA Yellowknife Ar 135.79 318** PKhKP PKPpre 10 13 45.6
comp=Z,4.5nm,0.7s,baz=122,slow=3.5,SNR=33
YKA PKP **PKPdf 10 13 59.9 -0.1**
comp=Z,160nm,0.9s,baz=126,slow=2.3,SNR=94
YKA PP **PP 10 16 39.0 -1.9**
comp=Z,12nm,0.8s,baz=109,slow=6.5,SNR=5.6
YKA SKPbc **SKPbc 10 17 17.3 -1.8**
comp=Z,66nm,1.0s,baz=118,slow=2.3,SNR=20
YKA PKKP **PKKPdf 10 23 40.4 -0.2**
comp=Z,7.4nm,0.8s,baz=311,slow=2.0,SNR=17
YKA SKKPbc **SKKPbc 10 26 20.2 -0.2**
comp=Z,4.7nm,0.9s,baz=315,slow=4.0,SNR=4.6
**GYA Guiyang 136.20 113** Pdif **Pdif 10 11 08.2 +0.7**
GYA sPKP 10 14 46.0
GYA PP **PP 10 16 45.1 +1.3**
GYA PKS **PKSdf 10 17 37.8 -0.7**
GYA SKKS 10 23 26.5
GYA SS **SS 10 34 37.0 +3.2**
GYA AMB AMB
comp=Z,1μm,12.0s
GYA LR LR
comp=Z,2μm,21.7s
GYA LR LR
comp=Z,2μm,22.9s
GYA LR LR
comp=Z,1μm,22.2s
**HOPEN Hopen 136.53 16** *e*PKPdf **PKPdf 10 13 59.1 -1.9**
**SPA0 Spitsbergen Ar 136.68 12** *e*PKPdf **PKPdf 10 14 02.8 +1.5**
**SPITS Spitsbergen Ar 136.68 12** PKhKP PKPpre 10 13 48.9
comp=Z,26nm,0.8s,baz=197,slow=2.6,SNR=26
SPITS PKP **PKiKP 10 14 02.7 -0.4**
comp=Z,219nm,1.0s,baz=215,slow=1.8,SNR=21
SPITS SKPbc **SKPbc 10 17 19.9 -1.6**
comp=Z,26nm,1.0s,baz=234,slow=2.8,SNR=11
**KBS Kingsbay 136.82 10** *e*PKIKP **PKPdf 10 14 01.9 +0.4**
**KBS Kingsbay 136.82 10** *e*PKPdf **PKPdf 10 14 02.6 +1.1**
**KBS Kingsbay 136.82 10** *e*PKPdf **PKPdf 10 14 01.9 +0.4**
**MAKZ Makanchi 137.27 72** PKHKP PKPpre 10 13 52.2
MAKZ pmax pmax
comp=Z,78nm,1.1s
**MK01 Makanchi Array 137.42 72** *e*PKPpre PKPpre 10 13 50.7
MK01 *e*PKPdf **PKPdf 10 14 03.0 -0.6**
**MK31 Makanchi Array 137.43 72** *i* PKHKP PKPpre 10 13 51.6
MK31 pmax pmax
comp=Z,100nm,1.0s
**MK31 Makanchi Array 137.43 72** *e*PKPpre PKPpre 10 13 50.8
MK31 *e*PKPdf **PKPdf 10 14 02.9 -0.7**
**MKAR Makanchi Array 137.43 72** PKhKP PKPpre 10 13 52.4
comp=Z,15nm,0.8s,baz=222,slow=1.6,SNR=24
MKAR PKP **PKPdf 10 14 03.0 -0.6**
comp=Z,61nm,0.8s,baz=256,slow=3.7,SNR=26
MKAR PP **PP 10 16 53.5 +2.0**
comp=Z,18nm,1.0s,baz=242,slow=2.6,SNR=4.7
MKAR SKPbc **SKPbc 10 17 23.3 -1.4**
comp=Z,23nm,0.8s,baz=244,slow=2.1,SNR=9.1
MKAR PKKP **PKKPdf 10 23 39.0 +1.7**
comp=Z,1.2nm,0.7s,baz=43,slow=2.6,SNR=4.1
**RES Resolute Bay 137.65 339** PKP **PKPdf 10 14 03.8 +0.7**
baz=79,slow=0.7
RES SKPbc **SKPbc 10 17 24.1 -0.2**
comp=Z,37nm,1.0s,baz=181,slow=0.5,SNR=7.8
RES PKKP **PKKPdf 10 23 37.0 -0.2**
comp=Z,4.7nm,0.8s,baz=294,slow=1.8,SNR=7.3
RES SKKPbc **SKKPbc 10 26 14.8 +0.9**
comp=Z,11nm,1.0s,baz=263,slow=2.5,SNR=3.9
**KURK Kurchatov 137.93 65***de*PKHKP PKPpre 10 13 56.3
KURK *i* 10 14 06.5
**KURK Kurchatov 137.93 65** *e*PKPpre PKPpre 10 13 53.2
**KURK Kurchatov 137.93 65** PKPdf PKPpre 10 13 56.3
SNR=54
**DIB Dawson Inlet, 138.11 299** *e*PKPpre PKPpre 10 13 57.6
DIB *e*PKPdf **PKiKP 10 14 05.9 -0.7**
**CD2 Chengdu 138.21 106** PKP PKPdf 10 13 56.3 -9.3
CD2 sPKP 10 14 34.3
CD2 PP **PP 10 16 50.9 -5.4**
CD2 PKS **PKSdf 10 17 39.3 -2.5**
CD2 SKS **SKSdf 10 21 02.3 -1.6**
CD2 SKKS **SKKSac 10 23 33.7 -3.7**
**WMQ Urumqi 138.47 79** PKP **PKPdf 10 13 58.5 -7.2**
WMQ sPKP 10 14 51.1
WMQ PP **PP 10 17 03.1 +5.1**
WMQ PKS **PKSdf 10 17 41.9 +0.2**
WMQ SS SS 10 35 03.3 +2.3
WMQ AMB AMB
comp=Z,3μm,10.1s
WMQ LR LR
comp=Z,2μm,27.9s
WMQ LR LR
comp=Z,2μm,29.9s
WMQ LR LR
comp=Z,1μm,29.9s
**CRAG Craig 139.70 302** *e*PKPpre PKPpre 10 14 02.6
CRAG *e*PKPdf **PKiKP 10 14 08.7 -1.1**
**DLBC Dease Lake 139.86 307** *e*PKPpre PKPpre 10 14 00.5
DLBC *e*PKPdf **PKiKP 10 14 09.0 -1.2**
**TPUB Ta-pu 140.09 132** *e*PKPpre PKPpre 10 14 03.0
TPUB *e*PKPdf **PKPdf 10 14 09.8 +0.6**
**YULB Yu-li 140.44 133** *e*PKPpre PKPpre 10 14 01.6
**SSLB Suanglung 140.65 132** *e*PKPpre PKPpre 10 14 03.5
**QZH Quanzhou 140.66 128** PKP **PKPdf 10 14 03.1 -7.0**
QZH PP **PP 10 17 09.4 -1.6**
QZH AMB AMB
comp=Z,2μm,6.4s
**ENH Enshi 140.73 113** *e*PKPpre PKPpre 10 14 03.2
**NACB Ninganchiao 141.26 133** *e*PKPpre PKPpre 10 14 05.5

**YHNB Yeheng 141.61 132** *e*PKPpre PKPpre 10 14 07.7
**WAKE Wake Island 141.62 203** *e*PKPpre PKPpre 10 14 06.7
**YOJ Yonaguni jima 142.09 134** *e*PKIKP PKPpre 10 14 09.3
**YOJ Yonaguni jima 142.09 134** *e*PKPpre PKPpre 10 14 09.3
**BESE Bessie Mountai 142.12 305** *e*PKPpre PKPpre 10 14 08.1
**LZH Lanzhou 142.17 101** ⇑PKP **PKPdf 10 14 08.3 -4.5**
LZH pPKP pPKPdf 10 14 39.4 -8.3
LZH sPKP 10 14 52.1
LZH PP **PP 10 17 20.0 -0.7**
LZH PKS PKSdf 10 17 40.2 -8.5
LZH SKS **SKSdf 10 21 04.5 -5.8**
LZH SKKS **SKKSac 10 23 56.0 -4.6**
LZH SS **SS 10 35 43.5 -0.8**
LZH AMB AMB
comp=Z,1μm,6.2s
LZH LR LR
comp=Z,890nm,18.5s
LZH LR LR
comp=Z,690nm,17.3s
LZH LR LR
comp=Z,2μm,20.5s
**GTA Gaotai 142.30 94** *e*PKP **PKPdf 10 14 08.1 -4.7**
GTA PP **PP 10 17 20.2 -1.3**
GTA SKS **SKSdf 10 21 08.2 -2.1**
GTA SKKS **SKKSac 10 23 59.3 -1.8**
GTA SS **SS 10 35 44.7 -1.1**
GTA AMB AMB
comp=Z,2μm,11.2s
GTA LR LR
comp=Z,470nm,17.6s
GTA LR LR
comp=Z,620nm,20.4s
GTA LR LR
comp=Z,690nm,21.4s
**NVS Novosibirsk 142.55 62** ⇑*i*PKIKP **PKPdf 10 14 10.2 -2.3**
NVS 10 17 23.2
NVS pmax pmax
comp=Z,528nm,1.1s
NVS pmax pmax
comp=N,158nm,1.2s
NVS pmax pmax
comp=E,116nm,1.2s
**SKAG Skagway 142.75 306** *e*PKPpre PKPpre 10 14 09.8
**ZAA0 Zalesovo Array 142.89 64** *e*PKPpre PKPpre 10 14 09.2
**ZALV Zalesovo Beam 142.89 64** PKhKP PKPpre 10 14 09.1
comp=E,64nm,0.6s,baz=246,slow=4.1,SNR=285
ZALV PP **PP 10 17 24.4 -0.4**
comp=E,75nm,1.2s,baz=258,slow=5.6,SNR=8.8
ZALV SKPbc **SKPbc 10 17 37.0 -1.8**
comp=E,15nm,0.7s,baz=221,slow=3.3,SNR=5.3
**WHY Whitehorse 143.10 308** *e*PKPpre PKPpre 10 14 10.8
**XAN Xi'an 143.39 109** PKP PKPab 10 14 11.3 +0.1
XAN pPKP pPKPdf 10 14 38.5 -11
XAN sPKP 10 14 51.7
XAN PKS **PKSdf 10 17 46.5 -4.0**
XAN SKKS 10 24 03.8
XAN AMB AMB
comp=E,1μm,5.2s
XAN LR LR
comp=E,310nm,19.6s
XAN LR LR
comp=E,410nm,18.8s
XAN LR LR
comp=E,780nm,20.5s
**WHN Wuhan 143.41 118** PKP PKPbc 10 14 12.3 -0.2
WHN PP **PP 10 17 26.4 -1.4**
WHN AMB AMB
comp=E,4μm,13.1s
WHN LR LR
comp=E,4μm,35.8s
**HYT Haines Junctio 144.33 308** *e*PKPdf **PKPdf 10 14 15.3 -0.4**
**MIDW Midway 144.53 231** *e*PKPdf PKPbc 10 14 15.9 +0.1
**YKU2 Yakutat 144.76 305** *e*PKPdf **PKPdf 10 14 17.5 +1.2**
**INK Inuvik 145.44 321** PKPbc **PKPdf 10 14 16.8 -0.3**
comp=E,589nm,0.9s,baz=86,slow=3.3,SNR=14
INK SKPbc **SKPbc 10 17 42.9 -1.5**
comp=E,78nm,1.0s,baz=110,slow=1.4,SNR=6.1
INK PKKP **PKKPdf 10 23 22.2 +0.2**
comp=E,4.1nm,0.9s,baz=305,slow=10,SNR=5.8
**INK Inuvik 145.44 321** *e*PKIKP **PKPdf 10 14 17.2 0.0**
INK 10 17 42.9
**INK Inuvik 145.44 321** *e*PKPdf **PKPdf 10 14 17.1 0.0**
INK SKPbc **SKPbc 10 17 42.9 -1.5**
INK PKKP **PKKPdf 10 23 22.2 +0.2**
**HVS Khovu-Aksy 146.07 73***c* *i*PKIKP **PKPdf 10 14 18.4 -0.5**
**JOW Kunigami 146.24 140** *e*PKPdf **PKPbc 10 14 20.9 -0.3**
**DAWY Dawson 146.36 312** *e*PKPdf **PKPbc 10 14 20.0 -0.5**
**NJ2 Nanjing 146.83 122** *e*PKPdf **PKPbc 10 14 22.8 +0.1**
NJ2 pPKP **pPKPdf 10 14 53.3 -2.4**
NJ2 sPKP 10 15 03.6
NJ2 PP **PP 10 17 47.7 -0.3**
NJ2 AMB AMB
comp=E,1μm,7.3s
NJ2 LR LR
comp=E,500nm,15.2s
NJ2 LR LR
comp=E,760nm,14.6s
NJ2 LR LR
comp=E,2μm,22.2s
**SSE Sheshan 147.11 126** ⇑PKPbc **PKPdf 10 14 21.0 -0.2**
SSE PP **PP 10 17 50.0 +0.4**
SSE AMB AMB
comp=E,890nm,7.2s
SSE LR LR
comp=E,960nm,21.0s
SSE LR LR
comp=E,850nm,20.9s
SSE LR LR
comp=E,1μm,20.8s
**EGAK Eagle 147.31 313** *e*PKPbc **PKPbc 10 14 23.6 +0.5**
**BMRM Bremner River 147.59 305** *e*PKPdf **PKPdf 10 14 20.5 -0.6**
BMRM *e*PKPbc **PKiKP 10 14 25.6 -0.3**
**MENT Mentasta 147.84 309** *e*PKPdf **PKPdf 10 14 19.5 -2.0**
MENT *e*PKPbc **PKiKP 10 14 25.6 -0.8**
**EYAK Cordova Ski Ar 147.97 304** *e*PKPbc **PKPab 10 14 26.5 -1.5**
**TIY Taiyuan 148.03 108** *e*PKPbc **PKPdf 10 14 21.6 -1.0**
TIY PKPab **PKPab 10 14 30.1 +1.0**
TIY AMB AMB
comp=E,2μm,7.1s
TIY LR LR
comp=E,680nm,16.0s
TIY LR LR
comp=E,170nm,5.9s
TIY LR LR
comp=E,310nm,15.6s
**DIV Divide 148.18 305** *e*PKPbc **PKPbc 10 14 27.0 +1.4**
**HARP HAARP 148.31 308** *e*PKPbc **PKPbc 10 14 26.8 +0.9**
**KLU Klutina 148.37 306** *e*PKPdf **PKPdf 10 14 21.2 -1.2**
KLU *e*PKPbc **PKiKP 10 14 27.5 0.0**
**FID Port Fidalgo 148.38 304** *e*PKPbc **PKPbc 10 14 27.4 +1.4**
**PAX Paxson 148.62 309** *e*PKPdf **PKPdf 10 14 20.7 -2.1**
PAX *e*PKPbc **PKPbc 10 14 26.6 0.0**
**GLI Glacier Island 148.71 304** *e*PKPdf **PKPdf 10 14 22.7 -0.2**
GLI *e*PKPbc **PKPbc 10 14 27.2 +0.4**
**BTO Baotou 148.79 102** *e*PKPbc **PKPdf 10 14 22.8 -1.0**
**SCM Sheep Creek Mo 149.11 306** *e*PKPdf **PKPdf 10 14 21.9 -1.7**
SCM *e*PKPbc **PKPbc 10 14 28.4 +0.5**
**TIA Tai'an 149.33 116** ⇑PKPbc **PKPdf 10 14 26.7 +2.0**
**FYU Fort Yukon 149.39 316** *e*PKPdf **PKPdf 10 14 22.4 -1.3**
FYU *e*PKPbc **PKiKP 10 14 29.2 -0.2**
**DHY Denali Highway 149.48 308** *e*PKPdf **PKPdf 10 14 22.4 -1.9**
DHY *e*PKPbc **PKPbc 10 14 29.3 +0.4**
**SEW Seward 149.56 302** *e*PKPbc **PKPbc 10 14 29.7 +0.8**
**SML Sawmill 149.56 306** *e*PKPdf **PKPdf 10 14 22.2 -2.1**
**SML Sawmill 149.56 306** *e*PKPdf **PKPdf 10 14 22.2 -2.1**
SML *e*PKPbc **PKiKP 10 14 29.6 -0.4**
**HDA Harding Lake 149.63 311** *e*PKPdf **PKPdf 10 14 22.6 -1.6**
HDA *e*PKPbc **PKPbc 10 14 29.1 +0.1**
**IL1 Eielson Array 149.69 312** *e*PKPdf **PKPdf 10 14 22.1 -2.3**
IL1 *e*PKPbc **PKPbc 10 14 29.5 +0.3**
**ILAR Eielson Array 149.69 312** PKP **PKPdf 10 14 21.8 -2.6**
comp=E,31nm,0.9s,baz=319,slow=1.4,SNR=153
ILAR PKPbc **PKPbc 10 14 29.4 +0.3**
comp=E,1μm,0.9s,baz=128,slow=1.4,SNR=504
ILAR PKKP PKKPdf 10 23 05.9 -8.0
comp=E,4.2nm,1.0s,baz=266,slow=3.6,SNR=4.7
**ILB Eielson Array 149.69 312** *e*PKPdf **PKPdf 10 14 22.0 -2.4**
ILB *e*PKPbc **PKPbc 10 14 29.2 0.0**
**HHC Hu-ho-hao-te 149.81 103** *e*PKPbc **PKPdf 10 14 24.8 -0.7**
HHC sPKP 10 15 02.3
HHC PP **PP 10 18 04.5 -1.2**
HHC SS SS 10 37 11.0 +0.3
HHC AMB AMB
comp=E,1μm,10.5s
**PMR Palmer 149.87 305** *e*PKIKP **PKPdf 10 14 22.2 -2.5**
**PMR Palmer 149.87 305** *e*PKPdf **PKPdf 10 14 22.1 -2.5**
PMR *e*PKPbc **PKPbc 10 14 30.0 +0.4**
**RC01 Rabbit Creek A 150.00 304** *e*PKPdf **PKPdf 10 14 22.4 -2.5**
RC01 *e*PKPbc **PKiKP 10 14 30.8 -0.1**
**CCB Clear Creek Bu 150.04 311** *e*PKPdf **PKPdf 10 14 22.3 -2.5**
CCB *e*PKPbc **PKPbc 10 14 30.1 +0.1**
**COLA College 150.11 312** *e*PKIKP **PKPdf 10 14 22.1 -2.8**
**COLA College 150.11 312** *e*PKPdf **PKPdf 10 14 22.1 -2.8**
COLA *e*PKPbc **PKPbc 10 14 30.2 +0.1**
**BRLK Bradley Lake 150.14 301** *e*PKPdf **PKPdf 10 14 22.8 -2.4**
BRLK *e*PKPbc **PKiKP 10 14 30.9 -0.3**
**RND Reindeer 150.21 309** *e*PKIKP **PKPdf 10 14 22.6 -2.7**
**RND Reindeer 150.21 309** *e*PKPdf **PKPdf 10 14 22.6 -2.7**
RND *e*PKPbc **PKPbc 10 14 30.9 +0.3**
**CNPM China Poot 150.23 301** *e*PKPbc **PKPbc 10 14 31.2 +0.6**
**CBIJ Chichi jima 150.25 163** *e*PKPbc **PKPbc 10 14 30.6 -1.1**
**MDM Murphy Dome 150.29 312** *e*PKPdf **PKPdf 10 14 22.3 -3.0**
MDM *e*PKPbc **PKPbc 10 14 30.1 -0.6**
**MOY Mondy 150.29 77** *e*PKIKP **PKPdf 10 14 25.0 -0.8**
MOY pmax pmax
comp=Z,2μm,2.2s
**KDAK Kodiak Island 150.30 297** PKPbc **PKPbc 10 14 31.1 +0.3**
comp=Z,771nm,0.9s,baz=97,slow=3.4,SNR=299
**KDAK Kodiak Island 150.30 297***c* *i*PKIKP **PKPbc 10 14 30.4 -0.4**
**KDAK Kodiak Island 150.30 297** *e*PKPdf **PKPdf 10 14 23.8 -1.7**
KDAK *e*PKPbc **PKiKP 10 14 31.8 +0.2**
**MCK McKinley 150.32 309** *e*PKIKP **PKPdf 10 14 23.1 -2.3**
**MCK McKinley 150.32 309** *e*PKPdf **PKPdf 10 14 23.1 -2.3**
MCK *e*PKPbc **PKiKP 10 14 31.9 +0.4**
**OHAK Old Harbor 150.46 295** *e*PKPdf **PKPdf 10 14 23.2 -2.5**
OHAK *e*PKPbc **PKiKP 10 14 32.3 +0.5**
**HOM Homer 150.47 301** *e*PKPbc **PKPbc 10 14 32.7 +1.6**
**SUA Susitna One 150.57 305** *e*PKPdf **PKPdf 10 14 24.0 -2.0**
SUA *e*PKPbc **PKiKP 10 14 32.6 +0.4**
**TRF Thorofare Moun 150.85 309** *e*PKPdf **PKPdf 10 14 23.9 -2.6**
TRF *e*PKPbc **PKiKP 10 14 32.8 0.0**
**ZAK Zakamensk 150.91 81** *e*PKIKP **PKPdf 10 14 26.2 -0.6**
ZAK pmax pmax
comp=Z,91nm,1.4s
**SPU Mount Spurr 151.10 304** *e*PKPdf **PKPdf 10 14 23.8 -2.9**
SPU *e*PKPbc **PKiKP 10 14 33.4 +0.2**
**KTH Kantishna Hill 151.15 309** *e*PKPdf **PKPdf 10 14 23.9 -2.9**
KTH *e*PKPbc **PKiKP 10 14 33.5 +0.2**
**RSO Redoubt South 151.24 302** *e*PKPdf **PKPdf 10 14 24.2 -3.0**
RSO *e*PKPbc **PKiKP 10 14 33.5 -0.2**
**BPAW Bear Paw Mtn. 151.29 310** *e*PKPdf **PKPdf 10 14 23.9 -3.0**
BPAW *e*PKPbc **PKiKP 10 14 33.6 +0.1**
**SONM Songino Array 151.30 87** PKP **PKPdf 10 14 26.9 -0.6**
comp=Z,56nm,1.0s,baz=207,slow=2.5,SNR=196
SONM PKPbc **PKPbc 10 14 33.5 -0.2**
comp=Z,809nm,0.8s,baz=221,slow=2.9,SNR=432
SONM PKPab **PKPab 10 14 42.9 +0.5**
comp=Z,155nm,0.8s,baz=228,slow=6.4,SNR=7.2
**SONA1 Songino Array 151.31 87** *e*PKPdf **PKPdf 10 14 26.2 -1.4**
SONA1 *e*PKPbc **PKiKP 10 14 34.1 -0.1**
**MLY Manley 151.35 312** *e*PKPdf **PKPdf 10 14 23.6 -3.3**
MLY *e*PKPbc **PKPbc 10 14 33.3 +0.2**
**COLD Coldfoot 151.42 316** *e*PKPdf **PKPdf 10 14 24.9 -2.0**
COLD *e*PKPbc **PKiKP 10 14 34.5 +0.9**
**PPLA Purkeypile 151.57 307** *e*PKPdf **PKPdf 10 14 24.6 -2.9**
PPLA *e*PKPbc **PKiKP 10 14 34.6 +0.4**
**CAST Castle Rocks 151.63 308** *e*PKPdf **PKPdf 10 14 24.2 -3.2**
CAST *e*PKPbc **PKPbc 10 14 33.9 +0.1**
**ULN Ulaanbaatar 151.69 88** *e*PKIKP **PKPdf 10 14 27.8 -0.4**
**ULN Ulaanbaatar 151.69 88** *e*PKPdf **PKPdf 10 14 27.8 -0.4**
ULN *e*PKPbc **PKiKP 10 14 35.3 +0.3**
**ULN Ulaanbaatar 151.69 88** PKPdf **PKPdf 10 14 27.3 -0.9**
SNR=271
**BJI Beijing 151.72 109** PKPbc **PKPdf 10 14 27.9 -0.3**
BJI SS SS 10 37 36.3 +4.8
BJI LR LR
comp=Z,490nm,30.3s
BJI LR LR
comp=Z,500nm,21.8s
BJI LR LR
comp=Z,1μm,59.6s
**TLY Talaya 151.75 78** PKP **PKPdf 10 14 27.7 -0.3**
comp=Z,39nm,0.9s,baz=218,slow=3.0,SNR=39
TLY PKPbc **PKPbc 10 14 34.6 +0.1**
comp=Z,423nm,0.9s,baz=240,slow=3.4,SNR=128
**TLY Talaya 151.75 78***c* *i*PKIKP **PKPdf 10 14 27.6 -0.3**
TLY pmax pmax
comp=Z,444nm,0.8s
**TLY Talaya 151.75 78** *e*PKPdf **PKPdf 10 14 27.8 -0.1**
TLY *e*PKPbc **PKiKP 10 14 35.2 +0.4**
**TLY Talaya 151.75 78** PKPdf **PKPdf 10 14 27.6 -0.3**
SNR=78
**IRK Irkutsk 152.35 78**⇑*i*PKIKP **PKPdf 10 14 27.7 -1.1**
IRK pmax pmax
comp=Z,1μm,2.5s
**IMAR Indian Mountai 152.71 313** *e*PKPdf **PKPdf 10 14 26.9 -2.1**
IMAR *e*PKPbc **PKiKP 10 14 37.2 +0.9**
**SVW2 Sparrevohn 152.74 303** *e*PKPbc **PKPbc 10 14 36.1 -0.3**
**CHGN Chignik 152.76 292** *e*PKPdf **PKPdf 10 14 31.6 +2.3**
CHGN *e*PKPbc **PKiKP 10 14 36.5 -0.1**
**JNU Nakatsue 152.88 139** PKP **PKPdf 10 14 29.9 -0.4**
comp=Z,18nm,0.9s,baz=114,slow=1.8,SNR=10
JNU PKPbc **PKiKP 10 14 38.1 +0.4**
comp=Z,251nm,0.8s,baz=177,slow=1.3,SNR=43
JNU PP **PP 10 18 22.3 -0.4**
comp=Z,17nm,1.1s,baz=191,slow=6.7,SNR=5.4
**JNU Nakatsue 152.88 139** *e*PKPdf **PKPdf 10 14 30.2 -0.1**
JNU *e*PKPbc **PKiKP 10 14 37.9 +0.1**
JNU PP **PP 10 18 22.3 -0.4**
**TTA Tatalina 153.30 306** *e*PKIKP **PKPdf 10 14 27.8 -2.1**
**TTA Tatalina 153.30 306** *e*PKPdf **PKPdf 10 14 27.8 -2.1**
TTA *e*PKPbc **PKiKP 10 14 38.5 +0.8**
**SDPT Sand Point 153.51 289** *e*PKPbc **PKPbc 10 14 38.2 +0.1**
**DL2 Dalian 153.67 118** ⇑PKPbc **PKPdf 10 14 29.8 -1.3**
DL2 PKPab **PKPab 10 14 52.2 -0.2**
DL2 pPKP **pPKPdf 10 15 01.3 -4.9**
DL2 PP **PP 10 18 24.9 -2.5**
DL2 *e*SS SS 10 37 51.5 -1.2
DL2 AMB AMB
comp=Z,4μm,5.7s
DL2 LR LR
comp=Z,900nm,21.2s
DL2 LR LR
comp=Z,650nm,19.4s
DL2 LR LR
comp=Z,1μm,18.6s
**FALS False Pass 154.90 286** *e*PKPab **PKPab 10 14 57.7 +0.5**
**INCN Inchon 154.90 127** *e*PKPdf **PKPdf 10 14 33.0 +0.1**
INCN *e*PKPab **PKPab 10 14 58.3 +0.6**
**INCN Inchon 154.90 127** PKPdf **PKPdf 10 14 32.3 -0.7**
SNR=6.8
**KS15 Wonju Array Si 155.42 129** *e*PKPdf **PKPdf 10 14 33.6 0.0**
KS15 *e*PKPab **PKPab 10 15 00.9 +1.1**
**KSAR Wonju Array Be 155.42 129** PKIKP **PKPdf 10 14 33.3 -0.3**
KSAR 10 15 00.3
KSAR 10 18 37.0
**KSAR Wonju Array Be 155.42 129** PKP **PKPdf 10 14 33.2 -0.3**
KSAR PKPab **PKPab 10 15 00.3 +0.4**
KSAR PP **PP 10 18 37.0 -0.1**
**KSRS Korea Array 155.45 129** PKP **PKPdf 10 14 33.2 -0.4**
comp=Z,28nm,0.9s,baz=200,slow=1.3,SNR=77
KSRS PKPab **PKPab 10 15 00.3 +0.3**
comp=Z,113nm,1.1s,baz=226,slow=4.0,SNR=9.9
KSRS PP **PP 10 18 37.0 -0.2**
comp=Z,20nm,1.1s,baz=215,slow=4.9,SNR=7.1
**KS01 Wonju Array Si 155.45 129** *e*PKPdf **PKPdf 10 14 33.2 -0.4**
KS01 *e*PKPab **PKPab 10 15 00.9 +0.9**
**INU Inuyama 156.97 148** *e*PKPdf **PKPdf 10 14 35.8 0.0**
**CIT Chita 157.39 84** *e*PKP2 **PKPab 10 15 09.1 +1.0**
CIT pmax pmax
comp=Z,685nm,1.5s
**MJAR Matsushiro Arr 158.43 149** PKP **PKPdf 10 14 37.0 -0.5**
comp=Z,50nm,1.1s,baz=174,slow=1.7,SNR=55
MJAR PKPab **PKPab 10 15 13.1 +0.3**
comp=Z,68nm,1.0s,baz=212,slow=4.9,SNR=8.1
MJAR PP **PP 10 18 53.5 +0.2**
comp=Z,14nm,1.0s,baz=198,slow=6.5,SNR=4.7
**MJAR Matsushiro Arr 158.43 149** PKIKP **PKPdf 10 14 37.0 -0.5**
MJAR pmax pmax
comp=Z,50nm,1.1s
**MAJO Matsushiro 158.43 149** *e*PKIKP **PKPdf 10 14 37.2 -0.3**
MAJO *e* 10 15 13.7
**MAJO Matsushiro 158.43 149** *e*PKPdf **PKPdf 10 14 37.2 -0.3**
MAJO *e*PKPab **PKPab 10 15 13.7 +0.8**
**MAT Matsushiro 158.43 149** PKP **PKPdf 10 14 36.8 -0.7**
**MJB9 Matsu-Tunnel 158.43 149** *e*PKPdf **PKPdf 10 14 37.7 +0.1**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| MJB9 | | | | | *e*PKPab | **PKPab** | **10 15 13.9** | **+1.0** |
| **CN2** | **Changchun** | **159.23** | **115** | | *e*PKP | **PKPdf** | **10 14 37.3** | **-0.9** |
| CN2 | | | | | *es*PKP | | 10 15 15.8 | |
| CN2 | | | | | PP | **PP** | **10 18 59.4** | **+1.2** |
| CN2 | | | | | AMB | AMB | | |
| | comp=Z,2μm,4.0s | | | | | | | |
| **BOD** | **Bodaibo** | **159.48** | **69** | ⇓ | *i*PKIKP | **PKPdf** | **10 14 35.8** | **-2.2** |
| BOD | | | | | pmax | pmax | | |
| | comp=Z,180nm,1.2s | | | | | | | |
| **GAMB** | **Gambell** | **160.38** | **308** | | *e*PKPab | **PKPab** | **10 15 20.8** | **+0.2** |
| **ADK** | **Adak** | **161.09** | **271** | | *e*PKP2 | **PKPab** | **10 15 23.9** | **-0.2** |
| **ADK** | **Adak** | **161.09** | **271** | | *e*PKPab | **PKPab** | **10 15 23.9** | **-0.2** |
| **TIXI** | **Tiksi** | **161.59** | **23** | | PKPab | **PKPab** | **10 15 26.4** | **+0.7** |
| | comp=Z,76nm,0.8s,baz=358,slow=3.8,SNR=20 | | | | | | | |
| **TIXI** | **Tiksi** | **161.59** | **23** | | *e*PKPab | **PKPab** | **10 15 26.9** | **+1.1** |
| **MDJ** | **Mudanjiang** | **161.88** | **120** | | PKP | **PKPdf** | **10 14 40.4** | **-0.7** |
| MDJ | | | | | sPKP | | 10 15 24.3 | |
| MDJ | | | | | AMB | AMB | | |
| | comp=Z,1μm,10.6s | | | | | | | |
| MDJ | | | | | LR | LR | | |
| | comp=Z,860nm,28.8s | | | | | | | |
| MDJ | | | | | LR | LR | | |
| | comp=Z,550nm,26.9s | | | | | | | |
| MDJ | | | | | LR | LR | | |
| | comp=Z,890nm,24.9s | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **162.71** | **125** | | PKP | **PKPdf** | **10 14 41.0** | **-0.8** |
| | comp=Z,35nm,1.0s,baz=240,slow=2.2,SNR=40 | | | | | | | |
| USRK | | | | | PKPab | **PKPab** | **10 15 31.1** | **-0.3** |
| | comp=Z,140nm,1.1s,baz=248,slow=3.1,SNR=37 | | | | | | | |
| USRK | | | | | PP | **PP** | **10 19 14.3** | **-2.3** |
| | comp=Z,13nm,1.0s,baz=214,slow=4.4,SNR=4.1 | | | | | | | |
| **CLNS** | **Chul'man** | **165.14** | **76** | | *e*PKP | **PKPdf** | **10 14 42.1** | **-1.7** |
| CLNS | | | | | pmax | pmax | | |
| | comp=Z,178nm,1.2s | | | | | | | |
| CLNS | | | | | pmax | pmax | | |
| | comp=N,52nm,1.2s | | | | | | | |
| CLNS | | | | | pmax | pmax | | |
| | comp=E,31nm,1.1s | | | | | | | |
| **KLR** | **Kul'dur** | **166.08** | **111** | | PKP | **PKPdf** | **10 14 44.0** | **-0.7** |
| | comp=E,4.7nm,0.9s,baz=295,slow=2.2,SNR=66 | | | | | | | |
| KLR | | | | | PKPab | **PKPab** | **10 15 45.6** | **-0.5** |
| | comp=E,18nm,1.1s,baz=247,slow=4.0,SNR=37 | | | | | | | |
| KLR | | | | | PP | **PP** | **10 19 31.1** | **-3.4** |
| | comp=E,1.8nm,1.0s,baz=261,slow=6.2,SNR=6.2 | | | | | | | |
| **ASAJ** | **Asahikawa** | **166.69** | **150** | | PKP | **PKPdf** | **10 14 45.7** | **+0.3** |
| | comp=E,46nm,1.1s,baz=238,slow=17,SNR=12 | | | | | | | |
| ASAJ | | | | | PKPab | **PKPab** | **10 15 50.0** | **+1.2** |
| | comp=E,58nm,1.1s,baz=284,slow=9.3,SNR=6.0 | | | | | | | |
| **ASAJ** | **Asahikawa** | **166.69** | **150** | | *e*PKPdf | **PKPdf** | **10 14 47.2** | **+1.8** |
| ASAJ | | | | | *e*PKPab | **PKPab** | **10 15 50.4** | **+1.5** |
| **HABR** | **Khabarovsk** | **167.27** | **120** | *c* | *i*PKIKP | **PKPdf** | **10 14 45.9** | **+0.3** |
| HABR | | | | | *e* | | 10 15 18.4 | |
| HABR | | | | | pmax | pmax | | |
| | comp=N,8.0nm,1.3s | | | | | | | |
| HABR | | | | | pmax | pmax | | |
| | comp=E,15nm,1.3s | | | | | | | |
| HABR | | | | | pmax | pmax | | |
| | comp=Z,126nm,1.3s | | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **167.39** | **160** | *d* | *i*PKIKP | **PKPdf** | **10 14 46.3** | **+0.5** |
| YUK | | | | | *i* | | 10 19 41.9 | |
| YUK | | | | | *i* SS | SS | 10 40 13.7 | -1.6 |
| YUK | | | | | pmax | pmax | | |
| | comp=N,525nm,1.5s | | | | | | | |
| YUK | | | | | pmax | pmax | | |
| | comp=E,508nm,1.5s | | | | | | | |
| YUK | | | | | pmax | pmax | | |
| | comp=Z,526nm,1.5s | | | | | | | |
| **KUR** | **Kuril'sk** | **168.89** | **165** | | *i* PKP2 | **PKPab** | **10 15 59.6** | **+1.1** |
| KUR | | | | | *i* | | 10 19 49.5 | |
| KUR | | | | | *i* PPP | PPP | 10 23 48.7 | |
| **YSS** | **Yuzh-Sakhalins** | **169.30** | **145** | | *i*PKIKP | **PKPdf** | **10 14 46.9** | **-0.1** |
| YSS | | | | | *e* | | 10 15 15.6 | |
| YSS | | | | | *e* | | 10 15 59.5 | |
| YSS | | | | | *e* | | 10 19 45.9 | |
| YSS | | | | | pmax | pmax | | |
| | comp=Z,220nm,1.3s | | | | | | | |
| YSS | | | | | pmax | pmax | | |
| | comp=Z,3μm,6.0s | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **169.30** | **145** | | *e*PKPdf | **PKPdf** | **10 14 48.2** | **+1.2** |
| YSS | | | | | *e*PKPab | **PKPab** | **10 16 02.0** | **+1.6** |
| **TYV** | **Tymovskoe** | **172.47** | **130** | | *e*PKIKP | **PKPdf** | **10 14 47.5** | **-1.1** |
| TYV | | | | | *e* | | 10 16 10.3 | |
| TYV | | | | | *e* | | 10 20 04.5 | |
| **NKL** | **Nikolayevsk** | **172.93** | **110** | *i* | PKIKP | **PKPdf** | **10 14 49.0** | **+0.4** |
| NKL | | | | | *e* | | 10 15 21.0 | |
| NKL | | | | | pmax | pmax | | |
| | comp=Z,100nm,1.0s | | | | | | | |
| NKL | | | | | pmax | pmax | | |
| | comp=Z,3μm,10.0s | | | | | | | |
| **SEY** | **Seymchan** | **173.09** | **358** | | PKP | **PKPdf** | **10 14 45.5** | **-2.9** |
| | comp=Z,67nm,1.1s,baz=133,slow=0.9,SNR=47 | | | | | | | |
| SEY | | | | | PKPab | **PKPab** | **10 16 17.4** | **+0.7** |
| | comp=Z,41nm,0.9s,baz=27,slow=3.3,SNR=8.6 | | | | | | | |
| SEY | | | | | PP | **PP** | **10 20 09.8** | **+0.9** |
| | comp=Z,6.5nm,1.0s,baz=340,slow=9.0,SNR=3.6 | | | | | | | |
| **SKR** | **Severo-Kuril's** | **174.03** | **208** | *i* | PKIKP | **PKPdf** | **10 14 46.3** | **-2.8** |
| SKR | | | | | *e* | | 10 15 19.0 | |
| SKR | | | | | *e* | | 10 16 17.8 | |
| SKR | | | | | *e*SS | SS | 10 41 18.3 | -2.5 |
| **PET** | **Petropavlovsk** | **174.98** | **236** | *i* | PKIKP | **PKPdf** | **10 14 47.6** | **-1.8** |
| PET | | | | | *e* | | 10 15 18.2 | |
| PET | | | | | *e* | | 10 20 19.2 | |
| PET | | | | | *e*SPP | SPP | 10 34 18.8 | |
| PET | | | | | *e*SS | **SS** | **10 41 33.3** | **+2.6** |
| PET | | | | | pmax | pmax | | |
| | comp=Z,131nm,1.2s | | | | | | | |
| PET | | | | | pmax | pmax | | |
| | comp=Z,2μm,4.3s | | | | | | | |
| PET | | | | | pmax | pmax | | |
| | comp=Z,2μm,14.4s | | | | | | | |
| PET | | | | | pmax | pmax | | |
| | comp=Z,1μm,18.5s | | | | | | | |
| PET | | | | | pmax | pmax | | |
| | comp=Z,2μm,16.9s | | | | | | | |
| **PET** | **Petropavlovsk** | **174.98** | **236** | | *e*PKPdf | **PKPdf** | **10 14 48.2** | **-1.2** |
| **PEA0B** | **Petropavlovsk-** | **175.47** | **232** | | *e*PKPdf | **PKPdf** | **10 14 48.7** | **-0.8** |
| PEA0B | | | | | *e*PKPab | **PKPab** | **10 16 27.8** | **+0.2** |
| **PETK** | **Petropavlovsk-** | **175.47** | **232** | | PKP | **PKPdf** | **10 14 48.5** | **-1.0** |
| | comp=Z,89nm,1.0s,baz=94,slow=4.5,SNR=40 | | | | | | | |
| PETK | | | | | PKPab | **PKPab** | **10 16 28.1** | **+0.5** |
| | comp=Z,40nm,0.8s,baz=111,slow=5.8,SNR=11 | | | | | | | |
| PETK | | | | | PP | **PP** | **10 20 20.5** | **-0.4** |
| | comp=Z,9.8nm,1.1s,baz=114,slow=6.6,SNR=3.6 | | | | | | | |
| **PETK** | **Petropavlovsk-** | **175.47** | **232** | | PKIKP | **PKPdf** | **10 14 48.5** | **-1.0** |
| PETK | | | | | pmax | pmax | | |
| | comp=Z,85nm,1.0s | | | | | | | |
| **PETK** | **Petropavlovsk-** | **175.47** | **232** | | *e*PKPdf | **PKPdf** | **10 14 48.0** | **-1.5** |
| PETK | | | | | *e*PKPab | **PKPab** | **10 16 27.9** | **+0.2** |
| PETK | | | | | PP | **PP** | **10 20 20.5** | **-0.4** |
| **MA2** | **Magadan** | **176.42** | **8** | | PKP | **PKPdf** | **10 14 47.3** | **-2.3** |
| | comp=Z,23nm,0.8s,baz=99,slow=2.7,SNR=13 | | | | | | | |
| MA2 | | | | | PKPab | **PKPab** | **10 16 33.1** | **+1.5** |
| | comp=Z,27nm,0.9s,baz=14,slow=2.6,SNR=8.8 | | | | | | | |
| MA2 | | | | | PP | **PP** | **10 20 28.0** | **+3.1** |
| | comp=Z,6.7nm,0.9s,baz=34,slow=10,SNR=3.8 | | | | | | | |

*NEIC* ***11*** *09:57:51.4±0.0,45.63°×166.93°E,h84km,ML4.5(WEL), After WEL.*

**WEL 11 09:57:51.6±0.1,45.62S×166.91E,h82km±1km,ML4.5/23, Mw3.9,7D,Error ellipse: s-maj=1.4km s-min=0.8km az=90.0,reported intensity MM 5.,Off west coast of South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res |
|---|---|---|---|---|---|---|---|---|
| **DCZ** | **Deep Cove** | **0.23** | **48** | Pn | | Pn | 09 58 03.5 | -0.2 |
| DCZ | | | | Sn | | Sn | 09 58 12.5 | -0.1 |
| **DCZ** | **Deep Cove** | **0.23** | **48** | PN | | Pn | 09 58 03.5 | -0.2 |
| DCZ | | | | SN | | Sn | 09 58 12.5 | -0.1 |
| DCZ | | | | AML | | AML | 09 58 13.4 | |
| DCZ | | | | AML | | AML | 09 58 13.4 | |
| DCZ | | | | AML | | AML | 09 58 13.4 | |
| **PYZ** | **Puysegur Point** | **0.57** | **196** | Pn | | Pn | 09 58 06.3 | +0.2 |
| PYZ | | | | Sn | | Sn | 09 58 16.4 | -0.4 |
| **PYZ** | **Puysegur Point** | **0.57** | **196** | PN | | Pn | 09 58 06.3 | +0.2 |
| PYZ | | | | SN | | Sn | 09 58 16.4 | -0.4 |
| PYZ | | | | AML | | AML | 09 58 18.5 | |
| PYZ | | | | AML | | AML | 09 58 18.5 | |
| PYZ | | | | AML | | AML | 09 58 18.6 | |
| **WHZ** | **Wether Hill Ro** | **0.78** | **111** | Pn | | Pn | 09 58 07.6 | -0.6 |
| WHZ | | | | Sn | | Sn | 09 58 20.2 | -0.3 |
| **WHZ** | **Wether Hill Ro** | **0.78** | **111** | ⇓PN | | Pn | 09 58 08.0 | -0.2 |
| WHZ | | | | SN | | Sn | 09 58 20.2 | -0.3 |
| WHZ | | | | AML | | AML | 09 58 20.9 | |
| **MLZ** | **Mavora Lakes** | **0.89** | **74** | Pn | | Pn | 09 58 09.0 | -0.5 |
| MLZ | | | | Sn | | Sn | 09 58 22.7 | -0.1 |
| **MLZ** | **Mavora Lakes** | **0.89** | **74** | PN | | Pn | 09 58 09.4 | -0.1 |
| MLZ | | | | SN | | Sn | 09 58 22.7 | -0.1 |
| MLZ | | | | AML | | AML | 09 58 22.8 | |
| **MSZ** | **Milford Sound** | **1.19** | **38** | Pn | | Pn | 09 58 12.8 | -0.2 |
| MSZ | | | | Sn | | Sn | 09 58 28.8 | -0.3 |
| **MSZ** | **Milford Sound** | **1.19** | **38** | PN | | Pn | 09 58 12.8 | -0.2 |
| MSZ | | | | SN | | Sn | 09 58 28.8 | -0.3 |
| MSZ | | | | AML | | AML | 09 58 29.7 | |
| MSZ | | | | AML | | AML | 09 58 29.7 | |
| MSZ | | | | AML | | AML | 09 58 30.1 | |
| **APZ** | **The Paps** | **1.43** | **149** | Pn | | Pn | 09 58 15.9 | -0.1 |
| **APZ** | **The Paps** | **1.43** | **149** | PN | | Pn | 09 58 15.9 | -0.1 |
| APZ | | | | AML | | AML | 09 58 34.8 | |
| APZ | | | | AML | | AML | 09 58 35.5 | |
| **WKZ** | **Wanaka** | **1.69** | **63** | Pn | | Pn | 09 58 19.1 | -0.4 |
| **WKZ** | **Wanaka** | **1.69** | **63** | PN | | Pn | 09 58 19.4 | -0.1 |
| WKZ | | | | AML | | AML | 09 58 40.6 | |
| WKZ | | | | AML | | AML | 09 58 40.6 | |
| WKZ | | | | AML | | AML | 09 58 40.8 | |
| WKZ | | | | AML | | AML | 09 58 40.8 | |
| **EAZ** | **Earnscleugh** | **1.74** | **78** | Pn | | Pn | 09 58 19.3 | -0.7 |
| **EAZ** | **Earnscleugh** | **1.74** | **78** | ⇓PN | | Pn | 09 58 19.6 | -0.4 |
| EAZ | | | | AML | | AML | 09 58 40.4 | |
| EAZ | | | | AML | | AML | 09 58 41.3 | |
| **SYZ** | **Scrubby Hill** | **1.80** | **121** | Pn | | Pn | 09 58 20.4 | -0.5 |
| **SYZ** | **Scrubby Hill** | **1.80** | **121** | PN | | Pn | 09 58 20.3 | -0.5 |
| SYZ | | | | AML | | AML | 09 58 42.7 | |
| SYZ | | | | AML | | AML | 09 58 42.7 | |
| SYZ | | | | AML | | AML | 09 58 42.8 | |
| SYZ | | | | AML | | AML | 09 58 42.8 | |
| **JCZ** | **Jackson Bay** | **2.05** | **41** | Pn | | Pn | 09 58 23.6 | -0.7 |
| **JCZ** | **Jackson Bay** | **2.05** | **41** | PN | | Pn | 09 58 23.5 | -0.7 |
| JCZ | | | | AML | | AML | 09 58 52.0 | |
| JCZ | | | | AML | | AML | 09 58 52.0 | |
| **HHSZ** | **Highcliff Hill** | **2.60** | **97** | Pn | | Pn | 09 58 30.6 | -0.9 |
| **HHSZ** | **Highcliff Hill** | **2.60** | **97** | ⇓PN | | Pn | 09 58 30.6 | -0.9 |
| HHSZ | | | | AML | | AML | 09 59 00.8 | |
| HHSZ | | | | AML | | AML | 09 59 02.2 | |
| **LBZ** | **Lake Benmore** | **2.63** | **63** | Pn | | Pn | 09 58 30.0 | -2.0 |
| **LBZ** | **Lake Benmore** | **2.63** | **63** | ⇓PN | | Pn | 09 58 30.0 | -2.0 |
| LBZ | | | | AML | | AML | 09 59 00.2 | |
| LBZ | | | | AML | | AML | 09 59 00.2 | |
| LBZ | | | | AML | | AML | 09 59 00.7 | |
| LBZ | | | | AML | | AML | 09 59 00.7 | |
| **ODZ** | **Otahua Downs** | **2.70** | **79** | Pn | | Pn | 09 58 30.9 | -1.9 |
| **ODZ** | **Otahua Downs** | **2.70** | **79** | PN | | Pn | 09 58 30.9 | -1.9 |
| ODZ | | | | AML | | AML | 09 59 01.6 | |
| ODZ | | | | AML | | AML | 09 59 01.6 | |
| ODZ | | | | AML | | AML | 09 59 03.1 | |
| ODZ | | | | AML | | AML | 09 59 03.1 | |
| **FOZ** | **Fox Glacier** | **2.95** | **46** | Pn | | Pn | 09 58 34.5 | -1.7 |
| **FOZ** | **Fox Glacier** | **2.95** | **46** | PN | | Pn | 09 58 34.5 | -1.7 |
| FOZ | | | | AML | | AML | 09 59 09.0 | |
| FOZ | | | | AML | | AML | 09 59 09.0 | |
| FOZ | | | | AML | | AML | 09 59 11.4 | |
| FOZ | | | | AML | | AML | 09 59 11.4 | |
| **RPZ** | **Rata Peaks** | **3.52** | **59** | Pn | | Pn | 09 58 41.2 | -2.8 |
| **RPZ** | **Rata Peaks** | **3.52** | **59** | ⇓PN | | Pn | 09 58 41.2 | -2.8 |
| RPZ | | | | AML | | AML | 09 59 21.7 | |
| RPZ | | | | AML | | AML | 09 59 21.9 | |
| **WVZ** | **Waitaha Valley** | **3.75** | **49** | Pn | | Pn | 09 58 45.3 | -1.7 |
| **WVZ** | **Waitaha Valley** | **3.75** | **49** | PN | | Pn | 09 58 45.3 | -1.7 |
| WVZ | | | | AML | | AML | 09 59 27.5 | |
| WVZ | | | | AML | | AML | 09 59 28.9 | |
| **OXZ** | **Oxford** | **4.33** | **60** | Pn | | Pn | 09 58 51.3 | -3.7 |
| **OXZ** | **Oxford** | **4.33** | **60** | ⇓PN | | Pn | 09 58 51.3 | -3.7 |
| OXZ | | | | AML | | AML | 09 59 38.5 | |
| OXZ | | | | AML | | AML | 09 59 38.5 | |
| OXZ | | | | AML | | AML | 09 59 39.3 | |
| OXZ | | | | AML | | AML | 09 59 39.3 | |
| **INZ** | **Inchbonnie** | **4.36** | **50** | PN | | Pn | 09 58 53.1 | -2.4 |
| **MQZ** | **McQueen's Vall** | **4.53** | **67** | Pn | | Pn | 09 58 54.4 | -3.2 |
| **MQZ** | **McQueen's Vall** | **4.53** | **67** | ⇓PN | | Pn | 09 58 54.4 | -3.2 |
| MQZ | | | | AML | | AML | 09 59 45.0 | |
| MQZ | | | | AML | | AML | 09 59 45.1 | |
| **CRLZ** | **Canterbury Las** | **4.57** | **65** | Pn | | Pn | 09 58 55.4 | -2.8 |
| **CRLZ** | **Canterbury Las** | **4.57** | **65** | PN | | Pn | 09 58 55.3 | -2.8 |
| CRLZ | | | | AML | | AML | 09 59 56.1 | |
| **LTZ** | **Lake Taylor** | **4.79** | **56** | AML | | AML | 09 59 54.9 | |
| **DSZ** | **Denniston Nort** | **5.26** | **44** | Pn | | Pn | 09 59 04.5 | -3.2 |
| **DSZ** | **Denniston Nort** | **5.26** | **44** | PN | | Pn | 09 59 04.5 | -3.2 |
| DSZ | | | | AML | | AML | 10 00 01.6 | |
| DSZ | | | | AML | | AML | 10 00 02.6 | |
| **KHZ** | **Kahutara** | **5.76** | **59** | Pn | | Pn | 09 59 11.1 | -3.3 |
| **KHZ** | **Kahutara** | **5.76** | **59** | PN | | Pn | 09 59 11.1 | -3.3 |
| **THZ** | **Tophouse** | **5.81** | **51** | Pn | | Pn | 09 59 11.6 | -3.7 |
| **THZ** | **Tophouse** | **5.81** | **51** | PN | | Pn | 09 59 11.6 | -3.7 |
| THZ | | | | AML | | AML | 10 00 16.1 | |
| THZ | | | | AML | | AML | 10 00 19.6 | |
| **QRZ** | **Quartz Range** | **6.31** | **43** | Pn | | Pn | 09 59 19.6 | -2.4 |
| **QRZ** | **Quartz Range** | **6.31** | **43** | PN | | Pn | 09 59 19.6 | -2.4 |
| QRZ | | | | AML | | AML | 10 00 27.2 | |
| QRZ | | | | AML | | AML | 10 00 27.2 | |
| QRZ | | | | AML | | AML | 10 00 28.1 | |
| QRZ | | | | AML | | AML | 10 00 44.7 | |
| **MRZ** | **Mangatainoka R** | **8.05** | **55** | Pn | | Pn | 09 59 41.7 | -4.0 |
| **MRZ** | **Mangatainoka R** | **8.05** | **55** | PN | | Pn | 09 59 41.7 | -4.0 |
| **NEZ** | **North Egmont** | **8.28** | **42** | Pn | | Pn | 09 59 48.1 | -0.8 |
| **NEZ** | **North Egmont** | **8.28** | **42** | PN | | Pn | 09 59 48.1 | -0.8 |
| **HIZ** | **Hauiti** | **9.24** | **43** | Pn | | Pn | 09 59 59.8 | -2.1 |
| **HIZ** | **Hauiti** | **9.24** | **43** | PN | | Pn | 09 59 59.8 | -2.1 |

**GUC 11 10:07:30.3±0.5,19.57S×70.84W,h32km±2km,ML3.7, Near coast of northern Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res |
|---|---|---|---|---|---|---|---|---|
| **PSGC** | **Pisagua** | **0.68** | **92** | *e*P | | Pn | 10 07 43.2 | -0.6 |
| PSGC | | | | *e*S | | Sb | 10 07 52.6 | -0.5 |
| **PB12** | **IPOC Station P** | **1.07** | **27** | *e*P | | Pn | 10 07 49.5 | +0.4 |
| PB12 | | | | *e*S | | Sb | 10 08 03.7 | -0.4 |
| PB12 | | | | IAML | | | 10 08 05.6 | |
| | comp=N,6μm,0.6s | | | | | | | |
| **PB11** | **IPOC Station P** | **1.13** | **100** | *e*P | | Pn | 10 07 50.7 | +0.6 |
| PB11 | | | | *e*S | | Sb | 10 08 06.0 | +0.1 |
| **MNMC** | **Minye Minye** | **1.26** | **70** | *e*P | | Pb | 10 07 52.9 | -0.7 |
| MNMC | | | | *e*S | | Sb | 10 08 09.7 | +0.1 |
| MNMC | | | | IAML | | | 10 08 10.2 | |
| | comp=E,4μm,0.4s | | | | | | | |
| **PB08** | **IPOC Station P** | **1.69** | **110** | *e*P | | Pb | 10 07 59.9 | -1.1 |
| PB08 | | | | *e*S | | Sb | 10 08 22.2 | +0.2 |
| PB08 | | | | IAML | | | 10 08 23.6 | |
| | comp=N,865nm,0.6s | | | | | | | |
| **PB16** | **IPOC Station P** | **1.76** | **46** | *e*P | | Pb | 10 08 01.4 | -0.9 |
| PB16 | | | | *e*S | | Sb | 10 08 24.8 | +0.4 |
| **PB01** | **IPOC Station P** | **1.94** | **139** | *e*P | | Pn | 10 08 02.5 | +1.4 |
| PB01 | | | | *e*S | | Sb | 10 08 26.9 | -2.0 |
| PB01 | | | | IAML | | | 10 08 36.2 | |
| | comp=N,670nm,0.2s | | | | | | | |
| **PB02** | **IPOC Station P** | **1.95** | **153** | *e*P | | Pn | 10 08 02.5 | +1.3 |
| PB02 | | | | *e*S | | Sn | 10 08 25.4 | +0.6 |
| PB02 | | | | IAML | | | 10 08 35.9 | |
| | comp=E,1μm,0.6s | | | | | | | |
| **PB07** | **IPOC Station P** | **2.32** | **157** | *e*P | | Pn | 10 08 08.1 | +1.6 |

**MEX 11 10:14:58.5±0.3,17.74N×99.88W,h64km±6km,MD3.6, Guerrero**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res |
|---|---|---|---|---|---|---|---|---|
| **MEIG** | **Mezcala** | **0.31** | **54** | *e*P | | Pn | 10 15 07.9 | -1.3 |
| MEIG | | | | *e*S | | Sn | 10 15 15.0 | -2.0 |
| **ARIG** | **Puente Sto Nin** | **0.70** | **321** | *e*P | | Pn | 10 15 11.6 | -1.4 |
| ARIG | | | | *e*S | | Sn | 10 15 21.5 | -2.1 |
| **PLIG** | **Platanillo** | **0.74** | **29** | *e*P | | Pn | 10 15 12.3 | -1.3 |
| PLIG | | | | *e*S | | Sn | 10 15 23.0 | -1.7 |
| **YAIG** | **Yautepec** | **1.36** | **35** | *e*P | | Pn | 10 15 20.0 | -1.6 |
| YAIG | | | | *e*S | | Sn | 10 15 36.5 | -2.3 |

*IDC* ***11*** *10:23:29.4±1.9,54.2°N×164.30E,h0km,mb3.3/2, mb1 3.7/3,mb1mx3.2/42,mbtmp3.3/3,ML2.0/1, Error ellipse: s-maj=111.8km s-min=26.0km az=160.0*
*KRSC* ***11*** *10:23:29.3±1.4,54.53N×164.14E,h48km±24km,ML3.7*
**ISC 11 10:23:28.7±2.9,54.57N±0.05×164.18E±0.08,h2km±22km,**

**n28,σ2s07/37,Komandorsky Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res |
|---|---|---|---|---|---|---|---|---|
| **BKI** | **Bering** | **1.21** | **58** | *e*P | | **Pb** | **10 23 52.0** | **-0.4** |
| BKI | | | | *e*S | | **Sg** | **10 24 06.2** | **-1.5** |
| **KBTR** | **Krutoberegovo** | **1.81** | **335** | *e*P | | **Pn** | **10 23 59.5** | **-1.4** |
| KBTR | | | | *e*S | | **Sn** | **10 24 20.8** | **-3.7** |
| **TUMD** | **Tumrok D** | **2.27** | **288** | *e*P | | **Pn** | **10 24 08.0** | **+0.7** |
| TUMD | | | | *e*S | | **Sn** | **10 24 34.7** | **-1.2** |
| **KZV** | **Kizimen** | **2.31** | **285** | *e*P | | **Pn** | **10 24 08.4** | **+0.5** |
| KZV | | | | *e*S | | **Sn** | **10 24 34.7** | **-2.3** |
| **TUMR** | **Tumrok** | **2.43** | **289** | *e*P | | **Pn** | **10 24 10.8** | **+1.2** |
| TUMR | | | | *e*S | | **Sn** | **10 24 39.2** | **-0.8** |
| **SMKR** | **Semkarok** | **2.53** | **324** | *e*S | | **Sn** | **10 24 42.7** | **+0.3** |
| **KMNR** | **Kamenistaya** | **2.55** | **299** | *e*P | | **Pn** | **10 24 12.8** | **+1.6** |
| KMNR | | | | *e*S | | **Sn** | **10 24 42.8** | **-0.1** |
| **KRSR** | **Krestovskiy** | **2.64** | **310** | *e*S | | **Sn** | **10 24 43.6** | **-1.4** |
| **SPN** | **Mys Shipunski** | **2.87** | **241** | *e*S | | **Sn** | **10 24 46.7** | **-3.9** |
| **NLC** | **Nalytchevo** | **3.19** | **246** | *e*S | | **Sn** | **10 24 55.5** | **-2.8** |
| **SDLR** | **Sedlovina** | **3.39** | **250** | *e*P | | **Pn** | **10 24 23.6** | **+0.9** |
| SDLR | | | | *e*S | | **Sn** | **10 25 01.1** | **-2.4** |
| **UGLR** | **Uglovaya** | **3.45** | **249** | *e*P | | **Pn** | **10 24 25.3** | **+1.7** |
| UGLR | | | | *e*S | | **Sn** | **10 25 03.5** | **-1.5** |
| **KRER** | **Koryakskii** | **3.45** | **251** | *e*S | | **Sn** | **10 25 03.0** | **-2.2** |
| **AVH** | **Avacha** | **3.48** | **250** | *e*P | | **Pn** | **10 24 25.7** | **+1.9** |
| AVH | | | | *e*S | | **Sn** | **10 25 04.3** | **-1.3** |
| **KRX** | **Arik** | **3.49** | **252** | *e*P | | **Pn** | **10 24 25.6** | **+1.5** |
| KRX | | | | *e*S | | **Sn** | **10 25 03.5** | **-2.4** |
| **DALK** | **Dalny** | **3.57** | **247** | *e*S | | **Sn** | **10 25 05.3** | **-2.4** |
| **PET** | **Petropavlovsk** | **3.63** | **247** | *e*S | | **Sn** | **10 25 06.1** | **-3.0** |
| **GNL** | **Ganaly** | **3.77** | **259** | *e*P | | **Pn** | **10 24 30.0** | **+2.0** |
| **KRMR** | **Karymshinskiy** | **4.00** | **247** | *e*S | | **Sn** | **10 25 16.7** | **-1.6** |
| **RUS** | **Russkaya** | **4.01** | **240** | *e*P | | **Pn** | **10 24 31.9** | **+0.9** |
| **PETK** | **Petropavlovsk-** | **4.11** | **252** | Pn | | **Pn** | **10 24 34.1** | **+1.6** |
| | 0.5nm,0.3s,baz=69,slow=16,SNR=6.5 | | | | | | | |
| PETK | | | | Sn | | **Sn** | **10 25 20.6** | **-0.6** |
| | 1.2nm,0.3s,baz=49,slow=21,SNR=7.6 | | | | | | | |
| **MTVR** | **Mutnovka** | **4.15** | **242** | *e*S | | **Sn** | **10 25 19.3** | **-2.9** |
| **KDTR** | **Khodutka, Kamc** | **4.60** | **235** | *e*P | | **Pn** | **10 24 40.4** | **+1.2** |
| KDTR | | | | *e*S | | **Sn** | **10 25 29.3** | **-3.8** |
| **ILAR** | **Eielson Array** | **26.04** | **47** | P | | **P** | **10 29 05.2** | **+2.2** |
| | 0.8nm,0.9s,baz=251,slow=7.7,SNR=5.7 | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **34.84** | **176** | T | | T | 11 08 07.9 | |
| | baz=359,slow=76,SNR=5.4 | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **34.86** | **175** | T | | T | 11 08 10.6 | |
| | baz=359,slow=76,SNR=3.2 | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **34.86** | **176** | T | | T | 11 08 07.7 | |
| | baz=359,slow=76,SNR=4.6 | | | | | | | |
| **TXAR** | **Lajitas Array** | **67.84** | **70** | P | | **P** | **10 34 29.6** | **+1.2** |
| | 0.2nm,0.6s,baz=306,slow=6.2,SNR=2.8 | | | | | | | |

**MEX 11 10:24:54.3±0.3,17.79N×99.95W,h62km±4km,MD3.7, Guerrero**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res |
|---|---|---|---|---|---|---|---|---|
| **MEIG** | **Mezcala** | **0.34** | **67** | *e*P | | Pn | 10 25 03.6 | -1.4 |
| MEIG | | | | *e*S | | Sn | 10 25 11.0 | -1.7 |
| **ARIG** | **Puente Sto Nin** | **0.62** | **322** | *e*P | | Pn | 10 25 06.3 | -1.4 |
| ARIG | | | | *e*S | | Sn | 10 25 15.6 | -1.9 |
| **PLIG** | **Platanillo** | **0.73** | **35** | *e*P | | Pn | 10 25 07.9 | -1.2 |
| PLIG | | | | *e*S | | Sn | 10 25 18.2 | -1.8 |
| **YAIG** | **Yautepec** | **1.35** | **38** | *i* P | | Pn | 10 25 15.7 | -1.5 |
| YAIG | | | | *e*S | | Sn | 10 25 32.5 | -1.9 |

**SKO 11 10:46:28.6,40.63N×20.96E,h4km,M1.0,ML1.6,3C, Greece-Albania border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res |
|---|---|---|---|---|---|---|---|---|
| **BIA** | **Bitola** | **0.48** | **35** | ⇑ | *i*Pg | Pg | 10 46 37.2 | -0.6 |
| BIA | | | | | *i* Sg | Sg | 10 46 44.7 | +0.6 |
| BIA | | | | | *e*Lg | Lg | 10 46 47.8 | |
| | comp=N,18nm,0.6s | | | | | | | |
| BIA | | | | | *e*Lg | Lg | 10 46 47.9 | |
| | comp=E,22nm,0.3s | | | | | | | |
| **OHR** | **Ohrid** | **0.50** | **346** | ⇑ | *i*Pg | Pg | 10 46 37.7 | -0.5 |
| OHR | | | | | *i* Sg | Sg | 10 46 45.1 | +0.4 |
| OHR | | | | | *e*Lg | Lg | 10 46 45.6 | |
| | comp=E,24nm,0.5s | | | | | | | |
| OHR | | | | | *e*Lg | Lg | 10 46 45.6 | |
| | comp=N,12nm,0.3s | | | | | | | |
| **KRUS** | **Krusevo** | **0.77** | **16** | ⇑ | *i*Pg | Pg | 10 46 42.3 | -1.1 |
| KRUS | | | | | *i* Sg | Sg | 10 46 53.5 | +0.1 |
| KRUS | | | | | *e*Lg | Lg | 10 46 53.8 | |
| | comp=E,12nm,0.3s | | | | | | | |
| KRUS | | | | | *e*Lg | Lg | 10 46 53.8 | |
| | comp=N,13nm,0.7s | | | | | | | |

*CSEM* ***11*** *10:47:04.9±0.1,38.49N×28.32E,h2km,MD2.8,Error ellipse: s-maj=2.3km s-min=2.1km az=33.0*
*ISK* ***11*** *10:47:05.1,38.52N×28.34E,h5km,MD2.6*

**DDA 11 10:47:04.0,38.49N×28.31E,h16km,Md2.8,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res |
|---|---|---|---|---|---|---|---|---|
| **MANT** | **Manisa** | **0.19** | **90** | *i* P | | Pb | 10 47 09.3 | +0.1 |
| MANT | | | | *i* S | | Sg | 10 47 11.8 | -0.3 |
| **MANT** | **Manisa** | **0.19** | **90** | P | | Pb | 10 47 09.3 | +0.1 |
| MANT | | | | S | | Sg | 10 47 11.8 | -0.3 |
| **KULA** | **Kula-Manisa** | **0.28** | **85** | *e*PG | | Pb | 10 47 10.7 | +0.1 |
| KULA | | | | *e*SG | | Sg | 10 47 14.3 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| BALY | | | | *i* S | | Sg | 10 47 47.0 | -0.8 |
| **BALY** | **Balya** | **1.36** | **337** | P | | Pg | 10 47 31.7 | +1.6 |
| BALY | | | | S | | Sb | 10 47 47.0 | +0.9 |
| **BODT** | **Bodrum** | **1.63** | **209** | *e*PN | | Pg | 10 47 36.0 | +0.7 |
| **BODT** | **Bodrum** | **1.63** | **209** | *e*Pn | | Pg | 10 47 36.0 | +0.6 |
| **KCTX** | **Karacabey (Bur** | **1.77** | **1** | *e*Pn | | Pb | 10 47 36.6 | +0.5 |
| **KCTX** | **Karacabey (Bur** | **1.77** | **1** | *e*Pn | | Pb | 10 47 36.6 | +0.6 |
| **CHOS** | **Chios island** | **1.77** | **267** | *e*PN | | Pg | 10 47 37.5 | -0.5 |
| **CHOS** | **Chios island** | **1.77** | **267** | *e*Pn | | Pg | 10 47 37.5 | -0.6 |
| **BAYC** | **CANAKKALE_Bayr** | **1.85** | **313** | *i* P | | Pb | 10 47 36.9 | -0.6 |
| BAYC | | | | *i* S | | Sn | 10 47 59.1 | +1.0 |
| **BAYC** | **CANAKKALE_Bayr** | **1.85** | **313** | P | | Pb | 10 47 36.9 | -0.6 |
| **CAVI** | **Cavuskoy** | **2.08** | **34** | *e*PN | | Pb | 10 47 41.3 | 0.0 |
| **CAVI** | **Cavuskoy** | **2.08** | **34** | *e*Pn | | Pb | 10 47 41.3 | 0.0 |
| **AKAS** | **Kas** | **2.48** | **155** | *i* P | | Pn | 10 47 35.9 | -7.9 |

**IDC 11 10:48:51.5±10.0, 21°03'S×177°82'W, h489km±101km, mb3.1/5, mb1 3.3/5, mb1mx3.1/25, mbtmp3.9/5, Error ellipse: s-maj=116.8km s-min=46.6km az=137.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **STKA** | **Stephens Creek** | **37.72** | **245** | P | P | 10 55 25.7 | +1.0 |
| | 1.1nm,0.7s,baz=106,slow=6.9,SNR=3.0 | | | | | | |
| **ASAR** | **Alice Springs** | **44.57** | **257** | P | P | 10 56 19.1 | -0.3 |
| | 1.4nm,0.6s,baz=95,slow=7.7,SNR=26 | | | | | | |
| ASAR | | | | PcP | PcP | 10 57 52.1 | -0.1 |
| | 0.3nm,0.6s,baz=98,slow=4.8,SNR=4.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.70** | **263** | P | P | 10 56 19.6 | -0.8 |
| | 1.4nm,0.8s,baz=96,slow=7.5,SNR=15 | | | | | | |
| **ILAR** | **Eielson Array** | **88.79** | **13** | P | P | 11 00 52.2 | +0.1 |
| | 0.6nm,1.0s,baz=194,slow=3.3,SNR=4.0 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **90.45** | **290** | P | P | 11 01 01.9 | +1.0 |
| | 0.4nm,0.3s,baz=106,slow=3.2,SNR=4.1 | | | | | | |
| **AKASG** | **Malin Array Be** | **143.56** | **331** | PKP | PKPab | 11 07 27.1 | -1.1 |
| | 1.4nm,0.5s,baz=42,slow=4.5,SNR=12 | | | | | | |
| **BRTR** | **Keskin Array B** | **147.32** | **312** | PKPbc | PKPbc | 11 07 39.5 | -0.5 |
| | 0.4nm,0.5s,baz=122,slow=1.9,SNR=2.6 | | | | | | |
| **GERES** | **GERESS Array B** | **150.75** | **344** | PKPbc | PKPbc | 11 07 48.1 | +0.1 |
| | 0.2nm,0.4s,baz=22,slow=3.2,SNR=3.7 | | | | | | |

**IDC 11 11:03:10.0±497.0, 44°82'N×64°90'E, h0km, Error ellipse: s-maj=225.0km s-min=138.3km az=165.0, Western Kazakhstan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **I31KZ** | **AKTYUBINSK INF** | **7.26** | **323** | *i* | | 11 49 20.0 | |
| | baz=138,slow=338,SNR=0.5 | | | | | | |
| **I46RU** | **ZALESOVO INFRA** | **15.82** | **48** | *i* | | 12 39 00.0 | |
| | baz=242,slow=320,SNR=1.9 | | | | | | |
| **I34MN** | **SONGINO INFRAS** | **28.59** | **69** | *i* | | 13 58 40.0 | |
| | baz=282,slow=379,SNR=0.2 | | | | | | |

*ISCJB* ***11*** *11:14:13.9±0.3, 17°74S±0°03×69°43W±0°04, h156km±2km, mb4.5/25, Error ellipse: s-maj=6.8km s-min=4.1km az=11.7*

*SCB* ***11*** *11:14:13.1±0.3, 17°54S×69°03W, h167km, Ml4.0/2, Error ellipse: s-maj=8.8km s-min=4.7km az=80.0*

*NEIC* ***11*** *11:14:14.4±0.4, 17°64S×69°27W, h138km±4km, mb4.7/17, Error ellipse: s-maj=7.2km s-min=5.4km az=82.0*

*GUC* ***11*** *11:14:15.3±0.4, 17°87S×69°62W, h157km±4km, ML4.1*

*IDC* ***11*** *11:14:16.2±0.8, 17°62S×69°13W, h150km±6km, mb4.1/11, mb1 4.1/14, mb1mx3.9/30, mbtmp4.5/14, MS4.3/1, Ms1 4.3/1, ms1mx3.3/26, Error ellipse: s-maj=16.2km s-min=15.3km az=47.0*

**ISC 11 11:14:14.4±0.5, 17.71S±0°03×69°39W±0°05, h146km±4km, h146km:pP-P, n89, σ1s88/115, mb4.7/25, 3C, Peru-Bolivia border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PB12** | **IPOC Station P** | **1.27** | **225** | *e*P | **Pn** | **11 14 41.2** | **-0.1** |
| PB12 | | | | *e*S | **Sn** | **11 15 01.3** | **-0.7** |
| **BBOD** | **La Paz, Gloria** | **1.31** | **35** | *e*Pn | **Pn** | **11 14 43.5** | **+1.2** |
| **BBOJ** | **La Paz, Jacaqu** | **1.36** | **58** | *e*Pn | **Pn** | **11 14 44.1** | **+1.4** |
| **MNMC** | **Minye Minye** | **1.43** | **188** | *e*Pn | **Pn** | **11 14 44.3** | **+1.1** |
| MNMC | | | | *e*Sn | **Sn** | **11 15 06.4** | **+1.2** |
| **MNMC** | **Minye Minye** | **1.43** | **188** | *e*P | **Pn** | **11 14 44.0** | **+0.8** |
| MNMC | | | | *e*S | **Sn** | **11 15 05.5** | **+0.3** |
| MNMC | | | | IAML | | 11 15 10.8 | |
| | comp=E,2μm,0.5s | | | | | | |
| **BBOE** | **La Paz, Chanca** | **1.61** | **57** | *e*Pn | **Pn** | **11 14 46.5** | **+1.0** |
| **I08BO** | **LAS PEÑAS INFR** | **1.74** | **31** | P | **Pn** | **11 14 48.8** | **+1.9** |
| | baz=221,slow=14,SNR=0.3 | | | | | | |
| **LPAZ** | **La Paz** | **1.86** | **41** | P | **Pn** | **11 14 49.2** | **+0.9** |
| | comp=E,154nm,0.3s,baz=219,slow=7.1,SNR=1578 | | | | | | |
| LPAZ | | | | S | **Sn** | **11 15 13.6** | **-0.6** |
| | baz=306,slow=18,SNR=2.3 | | | | | | |
| **LPAZ** | **La Paz** | **1.86** | **41** | *e*Pn | **Pn** | **11 14 49.1** | **+0.8** |
| LPAZ | | | | *e*Sn | **Sn** | **11 15 15.0** | **+0.9** |
| **LPAZ** | **La Paz** | **1.86** | **41** | *e*P | **Pn** | **11 14 49.4** | **+1.1** |
| **BBOB** | **La Paz, Bander** | **1.97** | **38** | *e*Pn | **Pn** | **11 14 50.4** | **+0.9** |
| BBOB | | | | *e*Sn | **Sn** | **11 15 17.9** | **+1.6** |
| | comp=E,634nm,0.9s | | | | | | |
| **PSGC** | **Pisagua** | **2.00** | **200** | *e*P | **Pn** | **11 14 49.6** | **+0.2** |
| PSGC | | | | *e*S | **Sn** | **11 15 15.3** | **-1.0** |
| PSGC | | | | IAML | | 11 15 16.3 | |
| | comp=N,3μm,0.3s | | | | | | |
| **PB11** | **IPOC Station P** | **2.05** | **187** | *e*Pn | **Pn** | **11 14 50.6** | **+0.5** |
| PB11 | | | | *e*Sn | **Sn** | **11 15 18.1** | **+0.5** |
| **PB11** | **IPOC Station P** | **2.05** | **187** | *e*P | **Pn** | **11 14 50.7** | **+0.6** |
| PB11 | | | | *e*S | **Sn** | **11 15 17.6** | **+0.1** |
| **ARE** | **Arequipa** | **2.37** | **301** | ↑*i*P | **Pn** | **11 14 54.0** | **0.0** |
| ARE | | | | *e*S | **Sn** | **11 15 23.0** | **-1.3** |
| **PB08** | **IPOC Station P** | **2.43** | **175** | *e*P | **Pn** | **11 14 56.2** | **+1.4** |
| PB08 | | | | *e*S | **Sn** | **11 15 27.1** | **+1.2** |
| PB08 | | | | IAML | | 11 15 31.0 | |
| | comp=E,357nm,0.4s | | | | | | |
| **PB01** | **IPOC Station P** | **3.31** | **182** | *e*Pn | **Pn** | **11 15 06.3** | **+0.6** |
| PB01 | | | | *e*Sn | **Sn** | **11 15 44.1** | **-1.4** |
| **PB01** | **IPOC Station P** | **3.31** | **182** | *e*P | **Pn** | **11 15 06.3** | **+0.6** |
| PB01 | | | | *e*S | **Sn** | **11 15 44.1** | **-1.4** |
| PB01 | | | | IAML | | 11 15 44.8 | |
| | comp=E,352nm,0.2s | | | | | | |
| **PB02** | **IPOC Station P** | **3.62** | **188** | *e*P | **Pn** | **11 15 10.2** | **+0.5** |
| **PB04** | **IPOC Station P** | **4.65** | **189** | *e*Pn | **Pn** | **11 15 23.1** | **-0.2** |
| PB04 | | | | *e*Sn | **Sn** | **11 16 15.5** | **-1.5** |
| **MOCB** | **Mochara** | **4.99** | **135** | *e*Pn | **Pn** | **11 15 31.1** | **+3.1** |
| **PB10** | **IPOC Station P** | **5.87** | **191** | *e*Pn | **Pn** | **11 15 37.9** | **-1.4** |
| PB10 | | | | *e*Sn | **Sn** | **11 16 40.4** | **-5.4** |
| **SIV** | **San Ignacio** | **8.14** | **79** | P | **Pn** | **11 16 08.3** | **-1.6** |
| | comp=E,6.2nm,0.3s,baz=274,slow=13,SNR=34 | | | | | | |
| SIV | | | | S | **Sn** | **11 17 35.2** | **-5.3** |
| | comp=E,3.3nm,0.3s,baz=356,slow=20,SNR=11 | | | | | | |
| **SIV** | **San Ignacio** | **8.14** | **79** | *e*Pn | **Pn** | **11 16 09.7** | **-0.1** |
| SIV | | | | *e*Sn | **Sn** | **11 17 34.4** | **-6.1** |
| | comp=E,36nm,0.8s | | | | | | |
| **NNA** | **Nana** | **9.18** | **307** | P | **Pn** | **11 16 22.3** | **-1.4** |
| | comp=E,3.7nm,0.3s,baz=141,slow=12,SNR=7.1 | | | | | | |
| NNA | | | | S | **Sn** | **11 17 59.3** | **-6.3** |
| | comp=E,1.6nm,0.3s,baz=31,slow=19,SNR=3.5 | | | | | | |
| **NNA** | **Nana** | **9.18** | **307** | *e*Pn | **Pn** | **11 16 22.8** | **-0.9** |
| NNA | | | | *e*Sn | **Sn** | **11 17 59.3** | **-6.3** |
| **SAML** | **Samuel** | **10.60** | **36** | *e*Pn | **Pn** | **11 16 39.6** | **-2.8** |
| **LCO** | **Las Campanas** | **11.31** | **186** | *e*Pn | **Pn** | **11 16 48.5** | **-3.6** |
| LCO | | | | *e*Sn | **Sn** | **11 18 54.8** | **-2.4** |
| **CPUP** | **Villa Florida** | **14.08** | **130** | P | **Pn** | **11 17 26.1** | **-1.5** |
| | comp=E,0.1nm,0.3s,baz=319,slow=8.1,SNR=3.1 | | | | | | |
| **PTGA** | **Pitinga** | **19.25** | **30** | P | **P** | **11 18 25.9** | **-1.8** |
| | comp=E,0.7nm,0.3s,baz=212,slow=11,SNR=5.7 | | | | | | |
| **PTGA** | **Pitinga** | **19.25** | **30** | *e*P | **P** | **11 18 25.9** | **-1.8** |
| PTGA | | | | *e*Pn | **Pn** | **11 18 26.7** | **-3.5** |
| **BDFB** | **Brasilia** | **20.58** | **87** | P | **P** | **11 18 41.3** | **-0.8** |
| | comp=E,14nm,0.4s,baz=54,slow=9.6,SNR=28 | | | | | | |
| **BDFB** | **Brasilia** | **20.58** | **87** | *e*P | **P** | **11 18 42.0** | **-0.1** |
| | comp=E,27nm,0.5s | | | | | | |
| **TRQA** | **Tornquist** | **21.28** | **164** | *e*P | **P** | **11 18 50.7** | **+1.3** |
| | comp=E,31nm,1.5s | | | | | | |
| **PLCA** | **Paso Flores** | **22.96** | **182** | P | **P** | **11 19 08.1** | **+1.9** |
| | comp=E,2.2nm,0.8s,baz=5.7,slow=7.9,SNR=4.1 | | | | | | |
| **PLCA** | **Paso Flores** | **22.96** | **182** | *e*P | **P** | **11 19 08.1** | **+1.9** |
| | comp=E,38nm,1.9s | | | | | | |
| **RUSC** | **La Rusia** | **23.74** | **351** | *e*P | **P** | **11 19 14.2** | **+0.3** |
| | comp=E,8.9nm,1.9s | | | | | | |
| **RCBR** | **Riachuelo** | **34.77** | **74** | P | **P** | **11 20 49.8** | **-1.5** |
| | comp=E,14nm,1.1s,baz=307,slow=5.1,SNR=3.5 | | | | | | |
| **CELP** | **Cerrillos** | **35.67** | **5** | *e*P | **P** | **11 20 58.8** | **+0.1** |
| **USHA** | **Ushuaia** | **37.06** | **179** | P | **P** | **11 21 12.7** | **+2.6** |
| | comp=E,44nm,1.0s,baz=6.3,slow=9.2,SNR=2.8 | | | | | | |
| **TKL** | **Tuckaleechee C** | **54.80** | **346** | LR | LR | 11 48 32.1 | |
| | comp=E,259nm,19.9s,baz=328,slow=38 | | | | | | |
| **MIAR** | **Mount Ida** | **56.84** | **336** | *e*P | **P** | **11 23 44.3** | **+0.6** |
| | comp=E,22nm,1.8s | | | | | | |
| **LTX** | **Lajitas** | **57.29** | **324** | *e*P | **P** | **11 23 49.7** | **+2.6** |
| LTX | | | | *e*pP | **pP** | **11 24 23.5** | **+2.2** |
| **TXAR** | **Lajitas Array** | **57.29** | **324** | P | **P** | **11 23 49.7** | **+2.6** |
| | comp=E,0.2nm,0.7s,baz=128,slow=5.8,SNR=3.4 | | | | | | |
| TXAR | | | | pP | **pP** | **11 24 23.5** | **+2.2** |
| | comp=E,0.1nm,0.5s,baz=140,slow=11,SNR=1.5 | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **57.29** | **324** | *e*P | **P** | **11 23 50.4** | **+3.2** |
| **PBMO** | **Poplar Bluff** | **57.72** | **340** | *e*P | **P** | **11 23 49.6** | **-0.2** |
| | comp=E,35nm,1.9s | | | | | | |
| **SIUC** | **Southern Illin** | **58.20** | **342** | *e*P | **P** | **11 23 53.1** | **-0.1** |
| | comp=E,8.3nm,0.8s | | | | | | |
| **W36A** | **Wetumka** | **58.41** | **334** | *e*P | **P** | **11 23 55.4** | **+0.6** |
| | comp=E,49nm,1.9s | | | | | | |
| **OK020** | **N3440 Road, Me** | **59.03** | **334** | *e*P | **P** | **11 23 59.8** | **+0.8** |
| | comp=E,29nm,1.8s | | | | | | |
| **BRYW** | **Bryant College** | **59.36** | **358** | *e*P | **P** | **11 24 01.0** | **-0.1** |
| | comp=E,93nm,1.5s | | | | | | |
| **HSIG** | | **61.40** | **319** | *e*P | **P** | **11 24 16.0** | **+0.8** |
| | comp=E,7.2nm,1.5s | | | | | | |
| **LIC** | **Lamto** | **67.82** | **75** | *e*P | **P** | **11 24 56.6** | **-0.7** |
| | comp=E,42nm,1.2s | | | | | | |
| **TIC** | **Toumodi** | **67.98** | **75** | *e*P | **P** | **11 24 58.0** | **-0.3** |
| **KIC** | **Kosan Boka** | **68.14** | **75** | *e*P | **P** | **11 24 58.8** | **-0.4** |
| | comp=E,36nm,0.7s | | | | | | |
| **DBIC** | **Dimbokro** | **68.14** | **75** | P | **P** | **11 24 58.9** | **-0.4** |
| | comp=E,12nm,0.6s,baz=230,slow=7.3,SNR=21 | | | | | | |
| **DBIC** | **Dimbokro** | **68.14** | **75** | *e*P | **P** | **11 24 59.2** | **-0.1** |
| | comp=E,16nm,0.7s | | | | | | |
| **PT2** | **Point Dume** | **69.71** | **318** | *e*P | **P** | **11 25 05.3** | **-3.2** |
| **ULM** | **Lac du Bonnet** | **71.59** | **342** | P | **P** | **11 25 19.6** | **+0.1** |
| | comp=E,2.3nm,0.5s,baz=166,slow=3.5,SNR=8.5 | | | | | | |
| **ULM** | **Lac du Bonnet** | **71.59** | **342** | *e*P | **P** | **11 25 19.7** | **+0.2** |
| | comp=E,24nm,1.8s | | | | | | |
| **KOWA** | **Kowa** | **71.97** | **68** | *e*P | **P** | **11 25 22.4** | **-0.2** |
| | comp=E,8.9nm,0.6s | | | | | | |
| **QSPA** | **South Pole Qui** | **72.46** | **180** | *e*P | **P** | **11 25 27.1** | **+2.3** |
| | comp=E,27nm,2.0s | | | | | | |
| **QLMT** | **Earthquake Lak** | **73.07** | **330** | *e*P | **P** | **11 25 30.0** | **+1.3** |
| **JSFB** | **Stanford Teles** | **73.97** | **319** | *e*P | **P** | **11 25 33.9** | **0.0** |
| **TOA1** | **Torodi Ar. Sit** | **76.54** | **71** | *e*P | **P** | **11 25 48.6** | **-0.5** |
| **TOA0** | **Torodi Ar. Sit** | **76.55** | **71** | *e*P | **P** | **11 25 48.6** | **-0.5** |
| **TORD** | **Torodi Ar. Bea** | **76.55** | **71** | P | **P** | **11 25 48.6** | **-0.5** |
| | comp=E,11nm,0.6s,baz=254,slow=5.8,SNR=115 | | | | | | |
| **SYO** | **Syowa Base** | **80.19** | **160** | *e*P | **P** | **11 26 05.2** | **-2.9** |
| **SYO** | **Syowa Base** | **80.19** | **160** | *e*PcP | **PcP** | **11 26 15.6** | **+0.7** |
| **PAB** | **San Pablo** | **83.15** | **45** | *e*P | **P** | **11 26 25.1** | **+0.8** |
| | comp=E,22nm,1.6s | | | | | | |
| **ESDC** | **Sonseca Array** | **83.47** | **45** | P | **P** | **11 26 26.4** | **+0.6** |
| | comp=E,0.3nm,0.5s,baz=262,slow=5.3,SNR=5.3 | | | | | | |
| **ES19** | **SONSECA Array** | **83.53** | **45** | *e*P | **P** | **11 26 27.0** | **+0.9** |
| **BOSA** | **Boshof** | **85.63** | **118** | P | **P** | **11 26 37.2** | **+0.1** |
| | comp=E,3.0nm,0.9s,baz=249,slow=8.6,SNR=3.5 | | | | | | |
| **YKA** | **Yellowknife Ar** | **87.48** | **341** | P | **P** | **11 26 45.8** | **+0.8** |
| | comp=E,1.1nm,0.6s,baz=134,slow=4.8,SNR=18 | | | | | | |
| YKA | | | | pP | **pP** | **11 27 24.1** | **+2.2** |
| | comp=E,1.1nm,0.8s,baz=136,slow=4.7,SNR=6.5 | | | | | | |
| **MAW** | **Mawson** | **88.07** | **164** | P | **P** | **11 26 49.9** | **+2.0** |
| | comp=E,2.3nm,0.6s,baz=177,slow=8.5,SNR=6.2 | | | | | | |
| **MAW** | **Mawson** | **88.07** | **164** | *e*P | **P** | **11 26 49.9** | **+2.0** |
| | comp=E,5.7nm,1.8s | | | | | | |
| **AS01** | **Alice Springs** | **132.98** | **210** | *e*PKPdf | **PKPdf** | **11 33 14.8** | **+1.5** |
| **ASAR** | **Alice Springs** | **133.00** | **210** | PKP | **PKPdf** | **11 33 14.4** | **+1.1** |
| | comp=E,0.4nm,0.5s,baz=138,slow=2.1,SNR=9.8 | | | | | | |
| **WR1** | **Warramunga Arr** | **135.92** | **213** | PKPdf | **PKPdf** | **11 33 19.1** | **+0.2** |
| **WRA** | **Warramunga Arr** | **135.92** | **213** | PKP | **PKPdf** | **11 33 19.1** | **+0.2** |
| | comp=E,0.4nm,0.8s,baz=147,slow=1.8,SNR=3.7 | | | | | | |
| **KURK** | **Kurchatov** | **138.36** | **30** | *e*PKPdf | **PKPdf** | **11 33 23.5** | **+1.2** |
| **KURBB** | **Kurchatov Arra** | **138.38** | **31** | PKP | **PKPdf** | **11 33 23.5** | **+1.1** |
| | comp=E,0.5nm,0.6s,baz=318,slow=2.4,SNR=2.1 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **138.69** | **23** | *e*PKPdf | **PKPdf** | **11 33 23.2** | **+0.3** |
| ZAA1 | | | | *e*SKPbc | **SKiKP** | **11 36 46.3** | **-1.3** |
| **ZALV** | **Zalesovo Beam** | **138.69** | **23** | PKP | **PKPdf** | **11 33 23.2** | **+0.3** |
| | comp=E,2.0nm,0.7s,baz=281,slow=3.3,SNR=10 | | | | | | |
| ZALV | | | | SKP | | 11 36 46.3 | |
| | comp=E,1.9nm,0.8s,baz=298,slow=3.1,SNR=6.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **138.69** | **23** | *e*PKPdf | **PKPdf** | **11 33 24.2** | **+1.4** |
| ZALV | | | | SKP | | 11 36 46.3 | |
| **MK32** | **Makanchi Array** | **142.77** | **33** | *e*PKPdf | **PKPdf** | **11 33 30.1** | **-0.4** |
| **MKAR** | **Makanchi Array** | **142.77** | **33** | PKP | **PKPdf** | **11 33 30.1** | **-0.4** |
| | comp=E,0.5nm,0.7s,baz=336,slow=2.7,SNR=4.1 | | | | | | |
| **SONA1** | **Songino Array** | **149.75** | **6** | *e*PKPbc | **PKPbc** | **11 33 48.6** | **+1.4** |
| **SONA0** | **Songino Array** | **149.76** | **6** | *e*PKPbc | **PKPbc** | **11 33 48.5** | **+1.2** |
| SONA0 | | | | *e*pPKPab | **pPKPbc** | **11 34 27.8** | **+2.1** |
| **SONM** | **Songino Array** | **149.76** | **6** | PKPbc | **PKPbc** | **11 33 48.5** | **+1.2** |
| | comp=E,1.5nm,0.6s,baz=314,slow=1.5,SNR=12 | | | | | | |
| SONM | | | | pPKPbc | **pPKPbc** | **11 34 27.8** | **+2.1** |
| | comp=E,0.5nm,0.6s,baz=350,slow=1.8,SNR=2.8 | | | | | | |

*ISCJB* ***11*** *11:16:11.0±0.4, 36°47N±0°03×140°65E±0°05, h67km±2km, mb4.1/26, Error ellipse: s-maj=6.8km s-min=4.5km az=36.4*

*JMA* ***11*** *11:16:12.1±0.1, 36°46N×140°59E, h62km±1km, M3.9 Broadband fault plane solution: P waves. NP1: ϕs3.00000°, δ88.00000°, λ-92.00000°. NP2: ϕs228.00000°, δ3.00000°, λ-45.00000°. Principal axes: T Plg43.0000°, Azm95.0000°; N Plg2.0000°, Azm3.0000°; P Plg47.0000°, Azm271.0000°;*

*JMA Felt III J1.*

*MOS* ***11*** *11:16:12.0±1.2, 36°79N×140°64E, h65km, mb4.3/11 Error ellipse: s-maj=11.2km s-min=8.3km az=72.9*

*NEIC* ***11*** *11:16:13.0±0.7, 36°52N×140°55E, h67km±6km, mb4.6/10, Error ellipse: s-maj=8.0km s-min=6.1km az=135.0*

*NEIC Recorded [3 JMA] in Ibaraki.*

*IDC* ***11*** *11:16:13.8±2.1, 36°45N×140°50E, h80km±20km, mb3.6/16, mb1 3.8/18, mb1mx3.6/46, mbtmp3.9/18, MS4.5/3, Ms1 4.5/3, ms1mx3.7/38, Error ellipse: s-maj=18.4km s-min=15.6km az=62.0*

**ISC 11 11:16:12.0±0.7, 36°50N±0°05×140°65E±0°05, h61km±6km, n90, σ1s55/98, mb4.1/26, 4C-2D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JHO** | **Hitachi** | **0.13** | **329** | ↑↑P | **Pn** | **11 16 21.5** | **+0.2** |
| JHO | | | | S | **Sn** | **11 16 28.0** | **0.0** |
| **JYT** | **Yasato** | **0.46** | **234** | ↑↑P | **Pn** | **11 16 23.2** | **-0.4** |
| JYT | | | | S | **Sn** | **11 16 31.2** | **-0.8** |
| **ONAJ** | **Iwakimizuishiy** | **0.61** | **11** | ↓↓P | **Pn** | **11 16 25.6** | **+0.2** |
| ONAJ | | | | S | **Sn** | **11 16 35.7** | **+0.6** |
| **JSB** | **Shiboa** | **0.75** | **309** | ↑↑P | **Pn** | **11 16 27.1** | **+0.1** |
| JSB | | | | S | **Sn** | **11 16 38.2** | **+0.2** |
| **JFK** | **Kawauchi** | **0.88** | **12** | ↓↓P | **Pn** | **11 16 28.8** | **+0.2** |
| JFK | | | | S | **Sn** | **11 16 41.2** | **+0.3** |
| **JAG** | **Ashikaga** | **0.97** | **266** | ↑↑P | **Pn** | **11 16 29.4** | **-0.3** |
| JAG | | | | S | **Sn** | **11 16 41.7** | **-1.1** |
| **JFT** | **Otama** | **1.05** | **346** | P | **Pn** | **11 16 31.4** | **+0.7** |
| JFT | | | | S | **Sn** | **11 16 45.6** | **+1.0** |
| **MJAR** | **Matsushiro Arr** | **1.97** | **272** | P | **Pn** | **11 16 43.2** | **+0.1** |
| | 59nm,0.3s,baz=88,slow=15,SNR=280 | | | | | | |
| MJAR | | | | S | **Sn** | **11 17 06.0** | **-0.7** |
| | 43nm,0.3s,baz=96,slow=26,SNR=9.9 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **1.97** | **272** | P | **Pn** | **11 16 43.2** | **+0.1** |
| MJAR | | | | S | **Sn** | **11 17 06.0** | **-0.7** |
| MJAR | | | | pmax | pmax | | |
| | comp=Z,59nm,0.3s | | | | | | |
| MJAR | | | | smax | smax | | |
| | comp=N,44nm,0.3s | | | | | | |
| **MAJO** | **Matsushiro** | **1.97** | **272** | *e*P | **Pn** | **11 16 43.9** | **+0.8** |
| **MAJO** | **Matsushiro** | **1.97** | **272** | *e*Pn | **Pn** | **11 16 43.9** | **+0.8** |
| **MAT** | **Matsushiro** | **1.97** | **272** | P | **Pn** | **11 16 43.1** | **0.0** |
| MAT | | | | S | **Sn** | **11 17 07.1** | **+0.4** |
| **INU** | **Inuyama** | **3.17** | **250** | *e*Pn | **Pn** | **11 17 01.1** | **+1.7** |
| **JHJ** | **Hachijo jima 2** | **3.45** | **192** | P | **Pn** | **11 17 03.0** | **-0.3** |
| | comp=N,36nm,0.3s,baz=341,slow=23,SNR=10 | | | | | | |
| JHJ | | | | S | **Sn** | **11 17 41.6** | **-1.2** |
| | comp=N,23nm,0.3s,baz=66,slow=20,SNR=3.4 | | | | | | |
| **JHJ2** | **Mitsune** | **3.45** | **192** | *e*Pn | **Pn** | **11 17 03.5** | **+0.2** |
| **ERM** | **Erimo** | **5.84** | **19** | *e*P | **Pn** | **11 17 35.4** | **-0.5** |
| ERM | | | | *e* | | 11 18 41.4 | |
| **ERM** | **Erimo** | **5.84** | **19** | *e*Pn | **Pn** | **11 17 35.4** | **-0.5** |
| ERM | | | | *e*Sn | **Sn** | **11 18 41.4** | **-0.1** |
| **ASAJ** | **Asahikawa** | **7.75** | **10** | P | **Pn** | **11 18 00.7** | **-1.4** |
| | comp=N,3.3nm,0.3s,baz=228,slow=9.9,SNR=33 | | | | | | |
| ASAJ | | | | S | **Sn** | **11 19 26.5** | **-1.8** |
| | comp=N,0.4nm,0.3s,baz=131,slow=20,SNR=2.6 | | | | | | |
| **ASAJ** | **Asahikawa** | **7.75** | **10** | *e*Pn | **Pn** | **11 18 01.1** | **-1.0** |
| ASAJ | | | | S | **Sn** | **11 19 26.5** | **-1.8** |
| **YUK** | **Yuzh-Kuril'sk** | **8.51** | **26** | *e*P | **Pn** | **11 18 10.5** | **-2.0** |
| YUK | | | | *e*S | **Sn** | **11 19 40.5** | **-6.5** |
| YUK | | | | pmax | pmax | | |
| | comp=E,19nm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=Z,38nm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=N,11nm,0.1s | | | | | | |
| **JNU** | **Nakatsue** | **8.71** | **250** | P | **Pn** | **11 18 16.7** | **+1.3** |
| | comp=N,0.4nm,0.3s,baz=54,slow=4.7,SNR=5.7 | | | | | | |
| **SHO** | **Shikotan** | **8.75** | **31** | *e*P | **Pn** | **11 18 11.7** | **-4.0** |
| SHO | | | | *e*S | Sn | 11 19 42.9 | -10 |
| **USRK** | **Ussuriysk Ar.** | **10.14** | **322** | P | **Pn** | **11 18 39.1** | **+4.4** |
| | comp=N,0.7nm,0.3s,baz=135,slow=14,SNR=7.6 | | | | | | |
| **KSRS** | **Korea Array** | **10.23** | **279** | P | **Pn** | **11 18 39.8** | **+3.8** |
| | comp=N,0.3nm,0.3s,baz=92,slow=14,SNR=8.7 | | | | | | |
| **KS15** | **Wonju Array Si** | **10.26** | **279** | *e*Pn | **Pn** | **11 18 36.3** | **-0.1** |
| **KSAR** | **Wonju Array Be** | **10.26** | **279** | P | **Pn** | **11 18 39.8** | **+3.4** |
| **KSAR** | **Wonju Array Be** | **10.26** | **279** | P | **Pn** | **11 18 39.8** | **+3.4** |
| **KUR** | **Kuril'sk** | **10.29** | **30** | P | **Pn** | **11 18 35.3** | **-1.5** |
| KUR | | | | *e*S | **Sn** | **11 20 24.8** | **-5.6** |
| **SEY** | **Seymchan** | **27.43** | **12** | P | **P** | **11 21 55.1** | **+3.4** |
| | comp=N,1.6nm,0.7s,baz=191,slow=16,SNR=4.9 | | | | | | |
| **SONA1** | **Songino Array** | **27.58** | **305** | *e*P | **P** | **11 21 52.6** | **-0.8** |
| **SONA0** | **Songino Array** | **27.58** | **305** | *e*P | **P** | **11 21 52.0** | **-1.4** |
| **SONM** | **Songino Array** | **27.58** | **305** | P | **P** | **11 21 52.0** | **-1.4** |
| | comp=N,0.9nm,0.5s,baz=108,slow=9.9,SNR=7.9 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.41** | **119** | T | T | 11 52 04.5 | |
| | baz=313,slow=75,SNR=55 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.42** | **119** | T | T | 11 52 05.1 | |
| | baz=313,slow=75,SNR=71 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.43** | **119** | T | T | 11 52 05.9 | |
| | baz=313,slow=75,SNR=73 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.10** | **121** | T | T | 11 52 51.4 | |
| | baz=314,slow=76,SNR=311 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.10** | **121** | T | T | 11 52 52.4 | |
| | baz=314,slow=76,SNR=145 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.11** | **121** | T | T | 11 52 50.9 | |
| | baz=314,slow=76,SNR=183 | | | | | | |
| **TIXI** | **Tiksi** | **35.75** | **354** | LR | LR | 11 37 38.8 | |
| | comp=N,857nm,20.6s,baz=64,slow=36 | | | | | | |
| **ZAA0** | **Zalesovo Array** | **41.83** | **313** | *e*P | **P** | **11 23 55.9** | **+0.3** |
| | comp=N,2.9nm,0.8s | | | | | | |
| **ZAA1** | **Zalesovo Array** | **41.83** | **313** | *e*P | **P** | **11 23 55.4** | **-0.2** |
| **ZALV** | **Zalesovo Beam** | **41.83** | **313** | P | **P** | **11 23 55.4** | **-0.2** |
| | comp=N,1.9nm,0.5s,baz=96,slow=6.8,SNR=12 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.83** | **313** | *e*P | **P** | **11 23 55.8** | **+0.3** |
| **MK01** | **Makanchi Array** | **43.88** | **302** | *e*P | **P** | **11 24 12.6** | **+0.3** |
| **MK31** | **Makanchi Array** | **43.89** | **302** | *e*P | **P** | **11 24 12.5** | **+0.1** |
| **MK31** | **Makanchi Array** | **43.89** | **302** | *e*P | **P** | **11 24 12.5** | **+0.1** |
| **MK32** | **Makanchi Array** | **43.89** | **302** | *e*P | **P** | **11 24 11.9** | **-0.5** |
| **MKAR** | **Makanchi Array** | **43.89** | **302** | P | **P** | **11 24 11.9** | **-0.5** |
| | comp=N,1.8nm,0.8s,baz=91,slow=9.5,SNR=17 | | | | | | |
| **KURK** | **Kurchatov** | **45.78** | **308** | P | **P** | **11 24 26.8** | **-0.5** |
| KURK | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.5s | | | | | | |
| **KURK** | **Kurchatov** | **45.78** | **308** | *e*P | **P** | **11 24 26.5** | **

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 2.5nm,0.1s | | | | | | |
| KURS | | | | *e*S | | Sg | 11 45 23.8 -0.8 |
| | 28nm,0.3s | | | | | | |
| **SHLS** | **Shalkode** | **0.66** | **91** | *e*P | | Pn | 11 45 28.0 +3.0 |
| | 5.4nm,0.2s | | | | | | |
| SHLS | | | | *e*S | | Sn | 11 45 40.5 +5.2 |
| | 15nm,0.1s | | | | | | |
| **PRZ** | **Przheval'sk** | **0.69** | **190** | ⇑*i*P | | Pn | 11 45 26.3 +0.7 |
| | baz=207 | | | | | | |
| PRZ | | | | ⇑*i*S | | Sn | 11 45 36.1 -0.1 |
| | baz=207 | | | | | | |
| **PDGK** | **Podgornoye** | **0.70** | **76** | ⇑*e*P | | Pg | 11 45 22.3 -1.4 |
| | baz=65 | | | | | | |
| PDGK | | | | ⇑*i*S | | Sg | 11 45 31.0 -1.9 |
| | baz=65 | | | | | | |
| **PDGK** | **Podgornoye** | **0.70** | **76** | ⇑P | | Pg | 11 45 22.2 -1.5 |
| | 1.9nm,0.3s | | | | | | |
| PDGK | | | | ⇑S | | Sg | 11 45 30.9 -2.0 |
| | 13nm,0.3s | | | | | | |
| **KOTS** | **Kotyrbulak** | **1.06** | **274** | *e*P | | Pn | 11 45 31.5 +0.9 |
| KOTS | | | | *e*S | | Sn | 11 45 46.1 +0.8 |
| **MDOK** | **Medeo** | **1.11** | **270** | *e*P | | Pn | 11 45 31.6 +0.3 |
| | 2.3nm,0.2s | | | | | | |
| MDOK | | | | *e*S | | Sn | 11 45 46.1 -0.3 |
| | 26nm,0.4s | | | | | | |
| **ARXS** | **Arharly** | **1.17** | **333** | *e*P | | Pn | 11 45 32.6 +0.5 |
| | 9.5nm,0.2s | | | | | | |
| ARXS | | | | *e*S | | Sb | 11 45 47.8 +0.6 |
| | 24nm,0.2s | | | | | | |
| **CHKK** | **Chushkaly** | **1.33** | **301** | *e*P | | Pb | 11 45 35.4 +0.5 |
| | 9.6nm,0.4s | | | | | | |
| CHKK | | | | *e*S | | Sb | 11 45 52.7 +0.9 |
| | 38nm,0.3s | | | | | | |
| **KTMS** | **Ketmen** | **1.34** | **77** | *e*P | | Pn | 11 45 34.4 0.0 |
| | 5.7nm,0.1s | | | | | | |
| KTMS | | | | *e*S | | Sb | 11 45 51.2 -0.7 |
| | 33nm,0.2s | | | | | | |
| **IZV** | **Izvestkoviy** | **1.43** | **265** | *e*P | | Pg | 11 45 37.6 0.0 |
| | 3.1nm,0.1s | | | | | | |
| IZV | | | | *e*S | | Sg | 11 45 56.5 +0.3 |
| | 16nm,0.2s | | | | | | |
| **DJR** | **Jarkent** | **1.47** | **37** | *e*P | | Pn | 11 45 36.0 -0.2 |
| | 14nm,0.2s | | | | | | |
| DJR | | | | *e*S | | Sn | 11 45 54.5 -0.6 |
| | 24nm,0.3s | | | | | | |
| **MTBS** | **Maitube** | **1.56** | **269** | *e*P | | Pg | 11 45 39.8 -0.2 |
| | 2.7nm,0.1s | | | | | | |
| MTBS | | | | *e*S | | Sg | 11 46 01.1 +0.8 |
| | 10.0nm,0.3s | | | | | | |
| **ULHL** | **Ulahol** | **1.94** | **242** | ⇑*i*P | | Pg | 11 45 46.4 -0.9 |
| | baz=246 | | | | | | |
| ULHL | | | | ⇑*i*S | | Sg | 11 46 12.5 0.0 |
| | baz=246 | | | | | | |
| **DGS** | **Degeres** | **2.04** | **273** | *e*P | | Pg | 11 45 48.6 -0.6 |
| | 3.8nm,0.2s | | | | | | |
| DGS | | | | *e*S | | Sg | 11 46 15.9 +0.2 |
| | 25nm,0.4s | | | | | | |
| **BOOM** | **Boomskoye usch** | **2.04** | **252** | ⇓*e*P | | Pg | 11 45 48.6 -0.7 |
| | baz=255 | | | | | | |
| BOOM | | | | ⇓*i*S | | Sg | 11 46 14.6 -1.2 |
| | baz=255 | | | | | | |
| **TKM2** | **Tokmak 2** | **2.19** | **265** | ⇑*i*P | | Pg | 11 45 50.8 -1.2 |
| | baz=266 | | | | | | |
| TKM2 | | | | ⇑*i*S | | Sg | 11 46 19.6 -0.8 |
| | baz=266 | | | | | | |
| **TKM2** | **Tokmak 2** | **2.19** | **265** | ⇑Pn | | Pg | 11 45 50.9 -1.1 |
| | 0.6nm,0.3s | | | | | | |
| TKM2 | | | | ⇑Sn | | Sg | 11 46 19.8 -0.6 |
| | 2.4nm,0.3s | | | | | | |
| **KAPS** | **Kapalarasan** | **2.19** | **15** | *e*P | | Pb | 11 45 49.4 -0.1 |
| | 2.2nm,0.1s | | | | | | |
| KAPS | | | | *e*S | | Sb | 11 46 17.3 +0.8 |
| | 25nm,0.5s | | | | | | |
| **KZA** | **Kyzart** | **2.68** | **247** | ⇓*i*P | | Pb | 11 45 57.2 -0.7 |
| | baz=250 | | | | | | |
| KZA | | | | ⇓*i*S | | Sg | 11 46 32.4 -3.7 |
| | baz=250 | | | | | | |
| **AAK** | **Ala-Archa** | **3.04** | **261** | ⇑Pg | | Pg | 11 46 06.7 -1.5 |
| | 1.3nm,0.6s | | | | | | |
| AAK | | | | ⇑Lg | | Lg | 11 46 46.6 |
| | 2.4nm,0.7s | | | | | | |
| **MK31** | **Makanchi Array** | **4.49** | **35** | ⇑Pn | | Pn | 11 46 19.8 +2.2 |
| | 0.2nm,0.3s,baz=213,slow=12,SNR=7.7 | | | | | | |
| MK31 | | | | ⇑Lg | | Lg | 11 47 28.4 |
| | 0.5nm,0.4s,baz=212,slow=29,SNR=7.8 | | | | | | |
| **MNAS** | **Manas** | **4.51** | **263** | ⇑Pg | | Pg | 11 46 33.1 -3.2 |
| | 0.5nm,0.4s | | | | | | |
| MNAS | | | | ⇑Lg | | Lg | 11 47 34.5 |
| | 1.0nm,0.5s | | | | | | |

*JMA* ***11*** *12:06:12.1,23°.87N×121°.51E,h17km±2km,M3.1*
*ISCJB* ***11*** *12:06:13.3±0.2,23°.90N±0°.01×121°.53E±0°.02,h22km±2km,*
*Error ellipse: s-maj=3.1km s-min=2.1km az=37.0*
*TAP* ***11*** *12:06:13.0,23°.93N×121°.45E,h21km,ML3.7,B*
**ISC 11 12:06:13.5±0.9,23°.90N±0°.02×121°.49E±0°.02,h23km±4km,**
**n61,σ1s01/100,4C-10D,Taiwan**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ESF** | **Shoufeng Towns** | **0.03** | **150** | *e*P | **Pb** | **12 06 17.6** | **+0.1** |
| | baz=137 | | | | | | |
| ESF | | | | *e*S | **Sb** | **12 06 20.4** | **+0.3** |
| | baz=137 | | | | | | |
| **ESL** | **Shilin** | **0.10** | **212** | ⇑*i*P | **Pb** | **12 06 17.4** | **-0.5** |
| | baz=185 | | | | | | |
| ESL | | | | *e*S | **Sb** | **12 06 19.9** | **-0.9** |
| | baz=185 | | | | | | |
| **HWA** | **Hwalien** | **0.13** | **53** | ⇑*i*P | **Pb** | **12 06 18.0** | **-0.2** |
| | baz=71 | | | | | | |
| HWA | | | | *e*S | **Sb** | **12 06 21.7** | **+0.4** |
| | baz=71 | | | | | | |
| **TEGC** | **Jichi Village** | **0.19** | **166** | *e*P | **Pb** | **12 06 19.8** | **+1.0** |
| | baz=158 | | | | | | |
| **TWD** | **Chiawan** | **0.20** | **28** | ⇑*i*P | **Pb** | **12 06 18.5** | **-0.6** |
| | baz=36 | | | | | | |
| TWD | | | | *i* S | **Sb** | **12 06 22.0** | **-0.8** |
| | baz=36 | | | | | | |
| **WHF** | **Hehuan Shan** | **0.32** | **320** | ⇓*i*P | **Pb** | **12 06 19.9** | **-1.2** |
| | baz=318 | | | | | | |
| WHF | | | | S | **Sb** | **12 06 24.5** | **-1.7** |
| | baz=318 | | | | | | |
| **WDT** | **Danda** | **0.36** | **247** | ⇓*i*P | **Pb** | **12 06 20.9** | **-0.6** |
| | baz=239 | | | | | | |
| WDT | | | | *i* S | **Sb** | **12 06 25.9** | **-1.0** |
| | baz=239 | | | | | | |
| **EHY** | **Hungye** | **0.42** | **202** | ⇑*i*P | **Pb** | **12 06 21.1** | **-1.2** |
| | baz=191 | | | | | | |
| EHY | | | | S | **Sb** | **12 06 27.8** | **-0.5** |
| | baz=191 | | | | | | |
| **TWT** | **Tachien** | **0.46** | **321** | ⇓*i*P | **Pb** | **12 06 22.5** | **-0.5** |
| | baz=315 | | | | | | |
| TWT | | | | *i* S | **Sb** | **12 06 28.1** | **-1.4** |
| | baz=315 | | | | | | |
| **SMLT** | **Sun Moon Lake** | **0.54** | **269** | ⇓*i*P | **Pb** | **12 06 23.6** | **-0.8** |
| | baz=266 | | | | | | |
| SMLT | | | | *i* S | **Sb** | **12 06 30.6** | **-1.2** |
| | baz=266 | | | | | | |
| **NNS** | **Nan Shan** | **0.55** | **349** | *e*P | **Pb** | **12 06 23.9** | **-0.7** |
| | baz=359 | | | | | | |
| NNS | | | | *e*S | **Sb** | **12 06 30.6** | **-1.6** |
| | baz=359 | | | | | | |
| **TWF1** | **Yuli** | **0.57** | **198** | *e*P | **Pb** | **12 06 23.3** | **-1.6** |
| | baz=193 | | | | | | |
| TWF1 | | | | *e*S | **Sb** | **12 06 32.7** | **+0.1** |
| | baz=193 | | | | | | |
| **ENA** | **Nanau** | **0.57** | **23** | *e*P | **Pb** | **12 06 23.9** | **-1.0** |
| | baz=29 | | | | | | |
| **TYC** | **Yuchr** | **0.58** | **271** | ⇓*i*P | **Pb** | **12 06 24.2** | **-0.8** |
| | baz=274 | | | | | | |
| TYC | | | | S | **Sb** | **12 06 31.4** | **-1.4** |
| | baz=274 | | | | | | |
| **YUS** | **Yu-Shan** | **0.64** | **231** | ⇓*i*P | **Pb** | **12 06 26.0** | **-0.3** |
| | baz=217 | | | | | | |
| YUS | | | | *i* S | **Sb** | **12 06 34.6** | **-0.4** |
| | baz=217 | | | | | | |
| **ALS** | **Alishan** | **0.74** | **239** | ⇓*i*P | **Pb** | **12 06 27.6** | **-0.3** |
| | baz=228 | | | | | | |
| ALS | | | | *e*S | **Sb** | **12 06 37.0** | **-0.6** |
| | baz=228 | | | | | | |
| **WNT** | **Mingjian** | **0.74** | **269** | P | **Pb** | **12 06 27.8** | **+0.1** |
| | baz=267 | | | | | | |
| WNT | | | | S | **Sn** | **12 06 38.4** | **-0.6** |
| | baz=267 | | | | | | |
| **ENTT** | **Nioudou** | **0.74** | **5** | *e*P | **Pb** | **12 06 27.4** | **-0.4** |
| | baz=9.0 | | | | | | |
| ENTT | | | | *e*S | **Sb** | **12 06 37.1** | **-0.3** |
| | baz=9.0 | | | | | | |
| **TWC** | **Suao** | **0.78** | **25** | *e*P | **Pb** | **12 06 27.8** | **-0.6** |
| | baz=29 | | | | | | |
| TWC | | | | S | **Sb** | **12 06 38.1** | **-0.4** |
| | baz=29 | | | | | | |
| **NSK** | **Sanguang** | **0.78** | **351** | ⇓*i*P | **Pb** | **12 06 28.0** | **-0.5** |
| | baz=349 | | | | | | |
| NSK | | | | S | **Sb** | **12 06 37.2** | **-1.5** |
| | baz=349 | | | | | | |
| **TCU** | **Taichung** | **0.79** | **289** | *e*P | **Pn** | **12 06 29.0** | **-0.1** |
| | baz=288 | | | | | | |
| TCU | | | | *e*S | **Sn** | **12 06 41.1** | **+0.9** |
| | baz=288 | | | | | | |
| **TWQ1** | **Liyutan** | **0.79** | **304** | P | **Pn** | **12 06 29.1** | **-0.2** |
| | baz=315 | | | | | | |
| TWQ1 | | | | S | **Sb** | **12 06 39.3** | **+0.3** |
| | baz=315 | | | | | | |
| **CHN5** | **Tsauling** | **0.80** | **248** | ⇓*i*P | **Pn** | **12 06 29.2** | **-0.3** |
| | baz=245 | | | | | | |
| CHN5 | | | | S | **Sn** | **12 06 40.5** | **-0.2** |
| | baz=245 | | | | | | |
| **CHKT** | **Chengkung** | **0.80** | **188** | *e*P | **Pb** | **12 06 27.7** | **-1.1** |
| | baz=184 | | | | | | |
| **ELDTW** | **Lidau** | **0.83** | **212** | *e*P | **Pb** | **12 06 27.6** | **-1.7** |
| | baz=208 | | | | | | |
| ELDTW | | | | *e*S | **Sb** | **12 06 39.5** | **-0.6** |
| | baz=208 | | | | | | |
| **TWE** | **Neicheng** | **0.83** | **11** | *e*P | **Pb** | **12 06 28.9** | **-0.4** |
| | baz=15 | | | | | | |
| TWE | | | | *e*S | **Sb** | **12 06 38.5** | **-1.7** |
| | baz=15 | | | | | | |
| **NSY** | **Sanyi** | **0.84** | **308** | *e*P | **Pn** | **12 06 30.1** | **+0.1** |
| | baz=317 | | | | | | |
| NSY | | | | *e*S | **Sn** | **12 06 41.2** | **-0.4** |
| | baz=317 | | | | | | |
| **NSTT** | **Nanjuang** | **0.85** | **329** | *e*P | **Pb** | **12 06 27.1** | **-2.6** |
| | baz=331 | | | | | | |
| NSTT | | | | *e*S | **Sb** | **12 06 40.0** | **-0.8** |
| | baz=331 | | | | | | |
| **WGK** | **Gukeng** | **0.88** | **256** | *e*P | **Pb** | **12 06 29.5** | **-0.6** |
| | baz=252 | | | | | | |
| **CHN4** | **Tsaushan** | **0.99** | **237** | ⇓P | **Pn** | **12 06 32.4** | **+0.5** |
| | baz=223 | | | | | | |
| CHN4 | | | | *e*S | **Sn** | **12 06 47.4** | **+2.2** |
| | baz=223 | | | | | | |
| **STYT** | **Tauyuan** | **0.99** | **223** | *e*P | **Pb** | **12 06 31.6** | **-0.4** |
| | baz=211 | | | | | | |
| STYT | | | | S | **Sn** | **12 06 45.4** | **0.0** |
| | baz=211 | | | | | | |
| **CHN2** | **Minshiung** | **1.00** | **249** | *e*P | **Pn** | **12 06 32.2** | **+0.1** |
| | baz=244 | | | | | | |
| **HSN** | **Hsinchu** | **1.02** | **332** | *e*P | **Pn** | **12 06 33.4** | **+1.1** |
| | baz=321 | | | | | | |
| HSN | | | | *e*S | **Sn** | **12 06 48.0** | **+2.1** |
| | baz=321 | | | | | | |
| **WTP** | **Ta-pu** | **1.03** | **231** | *e*P | **Pn** | **12 06 33.1** | **+0.5** |
| | baz=219 | | | | | | |
| WTP | | | | *e*S | **Sn** | **12 06 47.3** | **+0.9** |
| | baz=219 | | | | | | |
| **CHY** | **Chiayi** | **1.05** | **248** | *e*P | **Pn** | **12 06 33.6** | **+0.7** |
| | baz=243 | | | | | | |
| **TWA** | **Mucha** | **1.08** | **5** | *e*P | **Pb** | **12 06 34.4** | **+0.9** |
| | baz=17 | | | | | | |
| **NCU** | **National Centr** | **1.10** | **346** | *e*P | **Pb** | **12 06 35.4** | **+1.5** |
| | baz=349 | | | | | | |
| NCU | | | | *e*S | **Sn** | **12 06 50.5** | **+2.5** |
| | baz=349 | | | | | | |
| **WTCT** | **Ta-ch'eng** | **1.11** | **268** | *e*P | **Pn** | **12 06 33.6** | **0.0** |
| | baz=267 | | | | | | |
| WTCT | | | | *e*S | **Sn** | **12 06 48.6** | **+0.5** |
| | baz=267 | | | | | | |
| **TWK** | **Hsinying** | **1.11** | **236** | *e*P | **Pb** | **12 06 34.3** | **+0.2** |
| | baz=230 | | | | | | |
| **CHN1** | **Nanshi** | **1.13** | **231** | P | **Pb** | **12 06 35.1** | **+0.6** |
| | baz=228 | | | | | | |
| CHN1 | | | | S | **Sn** | **12 06 50.7** | **+1.9** |
| | baz=228 | | | | | | |
| **TWG** | **Pinlang** | **1.14** | **200** | *e*P | **Pn** | **12 06 32.3** | **-1.7** |
| | baz=183 | | | | | | |
| **SGST** | **Jiashian** | **1.16** | **226** | *e*P | **Pb** | **12 06 35.5** | **+0.6** |
| | baz=223 | | | | | | |
| SGST | | | | *e*S | **Sn** | **12 06 52.1** | **+2.6** |
| | baz=223 | | | | | | |
| **WSF** | **Szhu** | **1.19** | **258** | *e*P | **Pb** | **12 06 35.2** | **-0.2** |
| | baz=254 | | | | | | |
| **TWB1** | **Santiao Chiao** | **1.20** | **22** | *e*P | **Pb** | **12 06 36.7** | **+1.2** |
| | baz=26 | | | | | | |
| **NWF** | **Wu-fen Shan** | **1.20** | **13** | *e*P | **Pb** | **12 06 36.0** | **+0.4** |
| | baz=26 | | | | | | |
| **TWS1** | **Kuangyinshan** | **1.20** | **357** | *e*P | **Pb** | **12 06 35.7** | **+0.1** |
| | baz=9.0 | | | | | | |
| TWS1 | | | | *e*S | **Sn** | **12 06 52.8** | **+2.4** |
| | baz=9.0 | | | | | | |
| **CHN8** | **Yiju** | **1.30** | **245** | *e*P | **Pn** | **12 06 36.6** | **+0.5** |
| | baz=241 | | | | | | |
| CHN8 | | | | *e*S | **Sb** | **12 06 55.1** | **+1.7** |
| | baz=241 | | | | | | |
| **ECL** | **Taimali** | **1.39** | **201** | *e*P | **Pn** | **12 06 37.2** | **-0.2** |
| | baz=185 | | | | | | |
| **SCLT** | **Jiali** | **1.39** | **239** | *e*P | **Pn** | **12 06 36.9** | **-0.6** |
| | baz=232 | | | | | | |
| **SSD** | **Sandimen** | **1.39** | **215** | *e*P | **Pb** | **12 06 38.4** | **-0.4** |
| | baz=210 | | | | | | |
| **TWM1** | **Shoushan** | **1.45** | **223** | *e*P | **Pb** | **12 06 40.9** | **+1.1** |
| | baz=216 | | | | | | |
| **SGLT** | **Jiouru** | **1.49** | **218** | *e*P | **Pn** | **12 06 39.2** | **+0.4** |
| | baz=213 | | | | | | |
| **EAST** | **Anshuo** | **1.62** | **202** | *e*P | **Pb** | **12 06 43.0** | **+0.2** |
| | baz=188 | | | | | | |
| **SCZT** | **Fangliau** | **1.72** | **208** | *e*P | **Pb** | **12 06 43.8** | **-0.6** |
| | baz=199 | | | | | | |
| **WDGT** | **Dungji** | **1.79** | **250** | *e*P | **Pb** | **12 06 42.9** | **-0.1** |
| | baz=242 | | | | | | |
| **PNG** | **Penghu** | **1.80** | **260** | *e*P | **Pn** | **12 06 43.1** | **0.0** |
| | baz=252 | | | | | | |
| **IRIF** | **Iriomote-Funau** | **2.09** | **78** | P | **Pn** | **12 06 47.1** | **0.0** |
| IRIF | | | | *e*S | **Sn** | **12 07 12.6** | **+0.2** |
| **HATJ** | **Hateruma jima** | **2.12** | **85** | *e*S | **Sn** | **12 07 13.4** | **+0.2** |
| **JKRS** | **Kuro-shima** | **2.33** | **81** | P | **Pn** | **12 06 51.0** | **+0.7** |
| JKRS | | | | S | **Sn** | **12 07 18.8** | **+0.6** |
| **JIJ** | **Ishigaki jima** | **2.47** | **79** | P | **Pn** | **12 06 51.9** | **-0.4** |
| JIJ | | | | *e*S | **Sn** | **12 07 21.1** | **-0.6** |
| **JISG** | **Ishigakijimahi** | **2.66** | **75** | P | **Pn** | **12 06 55.0** | **0.0** |
| JISG | | | | S | **Sn** | **12 07 25.5** | **-1.1** |

**IDC 11 12:07:23.0±4.6,4°.60S×154°.29E,h468km±49km,mb2.9/4,**
**mb1 3.0/6,mb1mx2.6/36,mbtmp3.8/6,Error ellipse:**
**s-maj=42.0km s-min=25.0km az=25.0,**
**Bougainville-Solomon Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PMG** | **Port Moresby** | **8.54** | **236** | P | P | 12 09 24.6 | +0.1 |
| | 1.2nm,0.3s,baz=50,slow=7.9,SNR=6.8 | | | | | | |
| **CTA** | **Charters Tower** | **17.27** | **206** | P | P | 12 10 57.9 | +0.1 |
| | 0.2nm,0.3s,baz=27,slow=11,SNR=4.4 | | | | | | |
| **DZM** | **Mont Dzumac** | **20.98** | **147** | P | P | 12 11 32.4 | -0.1 |
| | 3.3nm,0.6s,baz=334,slow=17,SNR=6.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **24.70** | **230** | P | P | 12 12 05.9 | +0.1 |
| | 0.9nm,0.4s,baz=54,slow=9.4,SNR=9.9 | | | | | | |
| **ASAR** | **Alice Springs** | **27.32** | **224** | P | P | 12 12 28.9 | -0.1 |
| | 0.3nm,0.5s,baz=63,slow=8.6,SNR=5.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **81.15** | **319** | P | P | 12 18 49.1 | +0.2 |
| | 0.2nm,0.6s,baz=102,slow=5.0,SNR=3.2 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **151.65** | **289** | PKPbc | PKPbc | 12 26 24.4 | -0.3 |
| | 0.4nm,0.7s,baz=64,slow=3.2,SNR=2.8 | | | | | | |

**WEL 11 12:08:30.6±0.1,38°.61S×176°.44E,h77km±1km,ML3.9/54,**
**23C-24D,Error ellipse: s-maj=0.8km s-min=0.7km**
**az=90.0,North Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ALRZ** | **Allen Road** | **0.09** | **301** | ⇓P* | Pn | 12 08 41.3 | -0.4 |
| ALRZ | | | | S* | Sn | 12 08 49.8 | 0.0 |
| **PRRZ** | **Plateau Road** | **0.12** | **341** | P* | Pn | 12 08 41.4 | -0.3 |
| PRRZ | | | | S* | Sn | 12 08 49.1 | -0.8 |
| **MRHZ** | **Matea Rd** | **0.23** | **185** | ⇑P* | Pn | 12 08 41.9 | -0.3 |
| MRHZ | | | | S* | Sn | 12 08 50.1 | -0.7 |
| MRHZ | | | | AML | AML | 12 08 51.2 | |
| **WPRZ** | **Whakapapatarin** | **0.24** | **292** | ⇓P* | Pn | 12 08 42.0 | -0.2 |
| WPRZ | | | | S* | Sn | 12 08 50.7 | 0.0 |
| **HRRZ** | **Handcock Road** | **0.25** | **330** | ⇓P* | Pn | 12 08 42.1 | -0.2 |
| **RRRZ** | **Republican Roa** | **0.28** | **12** | ⇓P* | Pn | 12 08 42.2 | -0.2 |
| RRRZ | | | | S* | Sn | 12 08 51.6 | +0.5 |
| **MUGZ** | **Murupara** | **0.29** | **63** | P* | Pn | 12 08 42.0 | -0.4 |
| **HSRZ** | **Hossack Road** | **0.33** | **332** | ⇓P* | Pn | 12 08 42.7 | -0.1 |
| **GRRZ** | **Galatos Road** | **0.37** | **315** | ⇓P* | Pn | 12 08 43.1 | +0.1 |
| **TARZ** | **Mount Tarawera** | **0.38** | **8** | ⇓P* | Pn | 12 08 43.0 | -0.1 |
| **WHTZ** | **Whakaora** | **0.38** | **261** | P* | Pn | 12 08 43.3 | +0.1 |
| **HATZ** | **Hinemaiaia** | **0.39** | **224** | ⇑P* | Pn | 12 08 42.9 | -0.3 |
| **MTHZ** | **Maungataniwha** | **0.40** | **128** | ⇑P* | Pn | 12 08 43.2 | 0.0 |
| **RTZ** | **Ruatahuna** | **0.42** | **91** | P* | Pn | 12 08 42.9 | -0.6 |
| **UTU** | **Utuhina** | **0.47** | **336** | ⇓P* | Pn | 12 08 44.0 | +0.2 |
| **KUTZ** | **Kaahu Road** | **0.50** | **284** | ⇓P* | Pn | 12 08 43.9 | -0.1 |
| **OMRZ** | **Omania** | **0.50** | **354** | ⇓P* | Pn | 12 08 43.9 | -0.2 |
| **EDRZ** | **Edgecumbe** | **0.55** | **25** | P* | Pn | 12 08 44.2 | -0.4 |
| **BKZ** | **Black Stump Fm** | **0.56** | **176** | P* | Pn | 12 08 44.4 | -0.3 |
| BKZ | | | | | AML | 12 08 55.6 | |
| BKZ | | | | | AML | 12 08 56.3 | |
| **WATZ** | **Wairara** | **0.56** | **260** | ⇓P* | Pn | 12 08 44.4 | -0.2 |
| **NMHZ** | **Naumai** | **0.56** | **150** | ⇑PN | Pn | 12 08 45.3 | +0.6 |
| NMHZ | | | | | AML | 12 08 58.2 | |
| NMHZ | | | | | AML | 12 08 59.3 | |
| **RATZ** | **Rangitukua** | **0.58** | **244** | ⇓P* | Pn | 12 08 44.7 | -0.2 |
| **RITZ** | **Rihia Road** | **0.59** | **231** | P* | Pn | 12 08 45.0 | +0.2 |
| **LIRZ** | **Lichensteins R** | **0.61** | **356** | P* | Pn | 12 08 44.8 | -0.2 |
| **KARZ** | **Kaharoa** | **0.61** | **345** | ⇓P* | Pn | 12 08 44.9 | -0.2 |
| **URZ** | **Urewera** | **0.63** | **57** | ⇓P* | Pn | 12 08 44.9 | -0.3 |
| URZ | | | | S* | Sn | 12 08 55.5 | -0.6 |
| URZ | | | | | AML | 12 08 55.8 | |
| **MARZ** | **Manawahe** | **0.65** | **16** | ⇓P* | Pn | 12 08 45.1 | -0.4 |
| **SNGZ** | **Shannon Statio** | **0.72** | **104** | PN | Pn | 12 08 46.8 | +0.5 |
| SNGZ | | | | | AML | 12 09 03.7 | |
| SNGZ | | | | | AML | 12 09 05.7 | |
| **TLZ** | **Tolley Road** | **0.76** | **291** | P* | Pn | 12 08 46.8 | +0.1 |
| **OPRZ** | **Ohinepanea** | **0.77** | **7** | ⇑P* | Pn | 12 08 46.3 | -0.5 |
| **RAGZ** | **Rawiri** | **0.77** | **82** | ⇑P* | Pn | 12 08 46.8 | -0.1 |
| RAGZ | | | | | AML | 12 09 00.9 | |
| RAGZ | | | | | AML | 12 09 01.5 | |
| **WHHZ** | **Waihua** | **0.78** | **127** | PN | Pn | 12 08 46.7 | -0.1 |
| WHHZ | | | | | AML | 12 09 06.8 | |
| WHHZ | | | | | AML | 12 09 07.6 | |
| **ARHZ** | **Aropaoanui** | **0.78** | **147** | ⇑PN | Pn | 12 08 47.4 | +0.5 |
| ARHZ | | | | | AML | 12 09 01.3 | |
| ARHZ | | | | | AML | 12 09 04.9 | |
| **KRVZ** | **Karewarewa** | **0.79** | **232** | P* | Pn | 12 08 46.9 | -0.2 |
| **KWHZ** | **Kaweka Forest** | **0.81** | **181** | ⇑P* | Pn | 12 08 47.5 | +0.2 |
| KWHZ | | | | | AML | 12 09 01.4 | |
| KWHZ | | | | | AML | 12 09 01.8 | |
| **OTVZ** | **Oturere** | **0.82** | **227** | P* | Pn | 12 08 47.6 | +0.1 |
| **WTVZ** | **West Tongariro** | **0.84** | **232** | ⇑P* | Pn | 12 08 47.7 | 0.0 |
| **MCHZ** | **McNeill Hill** | **0.86** | **167** | ⇑PN | Pn | 12 08 48.5 | +0.7 |
| MCHZ | | | | | AML | 12 09 06.2 | |
| MCHZ | | | | | AML | 12 09 09.4 | |
| **NGZ** | **Ngauruhoe** | **0.87** | **229** | ⇑P* | Pn | 12 08 48.2 | +0.2 |
| **TGRZ** | **Tauranga** | **0.89** | **351** | ⇓P* | Pn | 12 08 48.1 | 0.0 |
| **MWZ** | **Matawai** | **0.90** | **73** | P* | Pn | 12 08 48.0 | -0.3 |
| MWZ | | | | | AML | 12 09 02.6 | |
| MWZ | | | | | AML | 12 09 06.3 | |
| **TUVZ** | **Tukino** | **0.90** | **223** | ⇑P* | Pn | 12 08 48.5 | 0.0 |
| **TWVZ** | **Taurewa** | **0.91** | **239** | P* | Pn | 12 08 48.2 | -0.3 |
| **BHHZ** | **Black Hill Sta** | **0.93** | **198** | ⇑P* | Pn | 12 08 48.4 | -0.2 |
| BHHZ | | | | | AML | 12 09 03.2 | |
| BHHZ | | | | | AML | 12 09 03.8 | |
| **WHVZ** | **Whangaehu Hut** | **0.95** | **224** | ⇑P* | Pn | 12 08 49.0 | 0.0 |
| **FWVZ** | **Far West T-bar** | **0.95** | **227** | P* | Pn | 12 08 49.0 | -0.1 |
| **DRZ** | **Dome Shelter** | **0.95** | **226** | P* | Pn | 12 08 49.3 | 0.0 |
| **MOVZ** | **Moawhango** | **0.96** | **214** | P* | Pn | 12 08 48.4 | -0.7 |
| **WNVZ** | **Wahianoa** | **0.97** | **222** | ⇑P* | Pn | 12 08 49.2 | -0.1 |
| **TRVZ** | **Turoa** | **0.98** | **225** | P* | Pn | 12 08 49.4 | 0.0 |
| **KRHZ** | **Kereru** | **1.03** | **183** | ⇑PN | Pn | 12 08 49.8 | -0.1 |
| KRHZ | | | | | AML | 12 09 09.4 | |
| KRHZ | | | | | AML | 12 09 09.6 | |
| **RIGZ** | **Rimuhau** | **1.04** | **96** | PN | Pn | 12 08 50.4 | +0.5 |
| RIGZ | | | | | AML | 12 09 11.8 | |
| RIGZ | | | | | AML | 12 09 11.9 | |
| **KNZ** | **Kokohu** | **1.05** | **114** | PN | Pn | 12 08 49.7 | -0.2 |
| KNZ | | | | | AML | 12 09 11.9 | |
| KNZ | | | | | AML | 12 09 13.6 | |
| **MTVZ** | **Mangateitei** | **1.08** | **224** | P* | Pn | 12 08 50.6 | +0.1 |
| **TKGZ** | **Te Karaka** | **1.12** | **82** | PN | Pn | 12 08 51.4 | +0.6 |
| TKGZ | | | | | AML | 12 09 09.7 | |
| TKGZ | | | | | AML | 12 09 12.0 | |
| **TOZ** | **Tahuroa Road** | **1.15** | **319** | P* | Pn | 12 08 51.3 | +0.1 |
| **CKHZ** | **Cape Kidnapper** | **1.16** | **155** | PN | Pn | 12 08 51.4 | -0.1 |
| CKHZ | | | | | AML | 12 09 08.2 | |
| CKHZ | | | | | AML | 12 09 08.6 | |
| **RUGZ** | **Raukumara Rang** | **1.17** | **57** | ⇓P* | Pn | 12 08 50.9 | -0.7 |
| **PRGZ** | **Paritu Road** | **1.17** | **106** | PN | Pn | 12 08 51.7 | +0.1 |
| PRGZ | | | | | AML | 12 09 17.3 | |
| PRGZ | | | | | AML | 12 09 17.4 | |
| **KAHZ** | **Kahuranaki** | **1.23** | **164** | ⇑PN | Pn | 12 08 52.2 | -0.2 |
| KAHZ | | | | | AML | 12 09 10.5 | |
| KAHZ | | | | | AML | 12 09 10.7 | |
| **HIZ** | **Hauiti** | **1.25** | **274** | PN | Pn | 12 08 52.6 | +0.1 |
| **MHGZ** | **Mahia Peninsul** | **1.27** | **116** | PN | Pn | 12 08 52.9 | +0.2 |
| MHGZ | | | | | AML | 12 09 12.7 | |
| MHGZ | | | | | AML | 12 09 12.9 | |
| **TWGZ** | **Tauwhareparae** | **1.28** | **71** | ⇑PN | Pn | 12 08 53.9 | +0.9 |
| TWGZ | | | | | AML | 12 09 18.2 | |
| TWGZ | | | | | AML | 12 09 18.4 | |
| **PNHZ** | **Pukenui** | **1.32** | **188** | PN | Pn | 12 08 52.9 | -0.6 |
| PNHZ | | | | | AML | 12 09 16.3 | |
| PNHZ | | | | | AML | 12 09 16.5 | |
| **HAZ** | **Te Kaha** | **1.36** | **52** | P* | Pn | 12 08 53.2 | -0.7 |
| HAZ | | | | | AML | 12 09 13.1 | |
| HAZ | | | | | AML | 12 09 13.5 | |
| HAZ | | | | | AML | 12 09 13.5 | |
| HAZ | | | | | AML | 12 09 13.7 | |
| **CNGZ** | **Carnagh Statio** | **1.39** | **85** | PN | Pn | 12 08 54.8 | +0.5 |
| CNGZ | | | | | AML | 12 09 26.9 | |
| CNGZ | | | | | AML | 12 09 32.5 | |
| **VRZ** | **Vera Road** | **1.41** | **248** | P* | Pn | 12 08 54.7 | +0.1 |
| **WPHZ** | **Waipukurau** | **1.45** | **180** | PN | Pn | 12 08 54.4 | -0.8 |
| WPHZ | | | | | AML | 12 09 18.4 | |
| WPHZ | | | | | AML | 12 09 22.2 | |
| **PXZ** | **Pawanui** | **1.46** | **167** | ⇑PN | Pn | 12 08 54.4 | -0.8 |
| PXZ | | | | | AML | 12 09 13.5 | |
| PXZ | | | | | AML | 12 09 13.5 | |
| PXZ | | | | | AML | 12 09 14.3 | |
| PXZ | | | | | AML | 12 09 14.3 | |
| **PKGZ** | **Pakihiroa** | **1.48** | **61** | PN | Pn | 12 08 55.9 | +0.4 |
| PKGZ | | | | | AML | 12 09 22.1 | |
| PKGZ | | | | | AML | 12 09 22.8 | |
| **TSZ** | **Takapari Road** | **1.50** | **194** | PN | Pn | 12 08 54.0 | -0.9 |
| TSZ | | | | | AML | 12 09 21.0 | |
| TSZ | | | | | AML | 12 09 21.1 | |
| **PUZ** | **Puketiti** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **WIAZ** | **Waiheke Island** | **2.09** | **330** | PN | Pn | 12 09 03.7 | +0.1 |
| **AWAZ** | **Awhitu Peninsu** | **2.10** | **317** | PN | Pn | 12 09 03.9 | +0.2 |
| **MRZ** | **Mangatainoka R** | **2.15** | **198** | ⇓PN | Pn | 12 09 02.4 | -2.0 |
| MRZ | | | | AML | AML | 12 09 29.0 | |
| MRZ | | | | AML | AML | 12 09 39.6 | |
| **TIWZ** | **Tintock** | **2.21** | **191** | PN | Pn | 12 09 03.2 | -2.0 |
| TIWZ | | | | AML | AML | 12 09 31.6 | |
| TIWZ | | | | AML | AML | 12 09 31.6 | |
| **CPWZ** | **Castlepoint** | **2.31** | **185** | PN | Pn | 12 09 05.2 | -1.3 |
| CPWZ | | | | AML | AML | 12 09 33.2 | |
| CPWZ | | | | AML | AML | 12 09 33.8 | |
| **HOWZ** | **Holdsworth Sta** | **2.40** | **197** | PN | Pn | 12 09 04.1 | -3.6 |
| HOWZ | | | | AML | AML | 12 09 33.9 | |
| HOWZ | | | | AML | AML | 12 09 44.5 | |
| **OGWZ** | **Otaki Gorge** | **2.41** | **204** | PN | Pn | 12 09 05.9 | -2.0 |
| OGWZ | | | | AML | AML | 12 09 44.5 | |
| OGWZ | | | | AML | AML | 12 09 45.1 | |
| **TMWZ** | **Te Maipa** | **2.53** | **189** | PN | Pn | 12 09 07.5 | -2.1 |
| TMWZ | | | | AML | AML | 12 09 38.3 | |
| TMWZ | | | | AML | AML | 12 09 40.2 | |
| **KIW** | **Kapiti Island** | **2.54** | **207** | PN | Pn | 12 09 07.4 | -2.2 |
| KIW | | | | AML | AML | 12 09 48.6 | |
| KIW | | | | AML | AML | 12 09 48.8 | |
| **MTW** | **Mount Morrison** | **2.65** | **196** | PN | Pn | 12 09 07.7 | -3.4 |
| MTW | | | | AML | AML | 12 09 40.0 | |
| MTW | | | | AML | AML | 12 09 56.7 | |
| **CAW** | **Cannon Point** | **2.71** | **203** | ⇑PN | Pn | 12 09 09.1 | -2.8 |
| CAW | | | | AML | AML | 12 09 54.3 | |
| CAW | | | | AML | AML | 12 09 57.4 | |
| **TRWZ** | **Traveller** | **2.85** | **191** | PN | Pn | 12 09 10.7 | -3.0 |
| TRWZ | | | | AML | AML | 12 09 43.9 | |
| TRWZ | | | | AML | AML | 12 09 45.6 | |
| **PAWZ** | **Paruwai Farm** | **2.88** | **195** | PN | Pn | 12 09 11.2 | -3.0 |
| PAWZ | | | | AML | AML | 12 09 43.9 | |
| PAWZ | | | | AML | AML | 12 09 45.0 | |
| **DUWZ** | **D'Urville Isla** | **2.93** | **221** | PN | Pn | 12 09 12.5 | -2.4 |
| **MSWZ** | **Moikau Station** | **2.95** | **198** | PN | Pn | 12 09 11.9 | -3.3 |
| MSWZ | | | | AML | AML | 12 09 50.5 | |
| **WEL** | **Wellington** | **2.97** | **205** | PN | Pn | 12 09 12.5 | -2.9 |
| WEL | | | | AML | AML | 12 10 00.2 | |
| WEL | | | | AML | AML | 12 10 00.2 | |
| WEL | | | | AML | AML | 12 10 04.3 | |
| **BHW** | **Baring Head** | **3.05** | **203** | PN | Pn | 12 09 13.1 | -3.4 |
| BHW | | | | AML | AML | 12 09 49.4 | |
| **TCW** | **Tory Channel** | **3.09** | **212** | PN | Pn | 12 09 14.2 | -2.8 |
| TCW | | | | AML | AML | 12 10 01.1 | |
| TCW | | | | AML | AML | 12 10 03.7 | |
| **PLWZ** | **Palliser** | **3.09** | **197** | PN | Pn | 12 09 13.6 | -3.6 |
| PLWZ | | | | AML | AML | 12 09 52.0 | |
| **TUWZ** | **Tuamarina** | **3.41** | **213** | ⇓PN | Pn | 12 09 18.4 | -3.0 |
| TUWZ | | | | AML | AML | 12 10 13.1 | |
| **NNZ** | **Nelson** | **3.51** | **221** | PN | Pn | 12 09 19.9 | -2.9 |
| **BSWZ** | **Blackbirch Sta** | **3.67** | **212** | PN | Pn | 12 09 21.8 | -3.2 |
| **QRZ** | **Quartz Range** | **3.74** | **232** | PN | Pn | 12 09 23.7 | -2.3 |
| **THZ** | **Tophouse** | **4.15** | **220** | PN | Pn | 12 09 28.4 | -3.3 |
| **KHZ** | **Kahutara** | **4.40** | **209** | PN | Pn | 12 09 30.8 | -4.0 |
| **DSZ** | **Denniston Nort** | **4.74** | **227** | PN | Pn | 12 09 35.9 | -3.6 |
| **LTZ** | **Lake Taylor** | **5.24** | **216** | PN | Pn | 12 09 40.4 | -5.9 |
| **OXZ** | **Oxford** | **5.77** | **214** | PN | Pn | 12 09 47.6 | -6.0 |
| **MQZ** | **McQueen's Vall** | **5.84** | **208** | PN | Pn | 12 09 49.1 | -5.4 |
| **CTZ** | **Chatham Island** | **7.32** | **137** | PN | Pn | 12 10 12.5 | -2.2 |
| **ODZ** | **Otahua Downs** | **7.75** | **212** | PN | Pn | 12 10 15.1 | -5.5 |

**GUC 11 12:17:39.9±0.6, 35°06S×72°65W, h6km±2km, ML3.5, 1C-5D, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GO05** | **HualaæØ** | **0.59** | **85** | ⇑*i* | P | 12 17 50.9 | -0.5 |
| GO05 | | | | *i* | S | 12 17 58.6 | -0.5 |
| GO05 | | | | | IAML | 12 17 59.2 | |
| | comp=E,6μm,0.3s | | | | | | |
| **CHPI** | **Pichilemu** | **0.86** | **39** | ⇓*i* | P | 12 17 55.3 | -1.0 |
| CHPI | | | | *e* | S | 12 18 07.0 | -0.4 |
| **COCH** | **Cobquecura** | **1.07** | **186** | ⇓*i* | P | 12 17 58.3 | -2.2 |
| COCH | | | | *i* | S | 12 18 12.0 | -2.4 |
| **NICH** | **Los Niches** | **1.17** | **88** | ⇓*i* | P | 12 18 00.2 | -2.1 |
| NICH | | | | *i* | S | 12 18 15.8 | -1.7 |
| **CCHI** | **Chillan** | **1.61** | **163** | ⇓*i* | P | 12 18 07.5 | -1.4 |
| CCHI | | | | *e* | S | 12 18 28.3 | -1.6 |
| CCHI | | | | | IAML | 12 18 31.8 | |
| | comp=E,563nm,0.4s | | | | | | |
| **ANTU** | **Antumapu** | **2.24** | **49** | | IAML | 12 18 52.4 | |
| | comp=E,421nm,0.5s | | | | | | |
| **CLCH** | **Cerro Calan** | **2.41** | **47** | | IAML | 12 19 00.2 | |
| | comp=N,427nm,0.6s | | | | | | |
| **ROCH** | **El Roble** | **2.49** | **34** | | IAML | 12 19 05.9 | |
| | comp=N,206nm,0.6s | | | | | | |
| **PEL** | **Peldehue** | **2.51** | **41** | ⇓*i* | P | 12 18 21.4 | 0.0 |
| PEL | | | | *e* | S | 12 18 53.4 | +1.0 |
| PEL | | | | | IAML | 12 18 59.6 | |
| | comp=E,246nm,0.6s | | | | | | |
| **FCH** | **Farellones** | **2.61** | **49** | | IAML | 12 19 02.9 | |
| | comp=N,184nm,0.3s | | | | | | |

*IDC* ***11*** *12:38:53.8±0.5, 39°.43N×94°.50E, h0km, mb4.0/21, mb1 4.1/26, mb1mx4.0/49, mbtmp4.0/26, ML3.8/5, Error ellipse: s-maj=18.2km s-min=11.0km az=50.0*

*ISCJB* ***11*** *12:38:54.4±0.2, 39°.50N±0°.03×94°.30E±0°.03, h10km, mb4.4/69, MS3.8/2, Error ellipse: s-maj=4.1km s-min=2.9km az=31.5*

*NEIC* ***11*** *12:38:55.7±0.2, 39°.43N×94°.31E, h10km, mb4.6/33, Error ellipse: s-maj=7.1km s-min=4.7km az=47.0*

*MOS* ***11*** *12:38:55.8±1.3, 39°.37N×94°.13E, h21km, mb4.5/23, Error ellipse: s-maj=9.8km s-min=5.8km az=120.9*

*BJI* ***11*** *12:38:56.0, 39°.42N×94°.46E, h8km, mb4.4/24, mB4.4/4, ML4.4/13, Ms3.9/13, Ms7 3.8/15*

*NNC* ***11*** *12:39:00.8±6.2, 40°.21N×94°.25E, h8km±37km, mb4.6, Error ellipse: s-maj=45.3km s-min=44.1km az=152.0*

**ISC 11 12:38:56.2±0.3, 39°.47N±0°.04×94°.24E±0°.03, h10km, n180, σ28°30/201, mb4.4/75, 18C-11D, Gansu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GTA** | **Gaotai** | **4.32** | **89** | Pn | **Pn** | **12 40 01.4** | **-0.6** |
| GTA | | | | Pg | **Pb** | **12 40 11.2** | **-1.0** |
| GTA | | | | Sn | **Sn** | **12 40 49.5** | **-3.0** |
| GTA | | | | Sg | **Sb** | **12 41 06.4** | **+2.0** |
| GTA | | | | smax | smax | | |
| | comp=N,250nm,1.1s | | | | | | |
| GTA | | | | smax | smax | | |
| | comp=E,170nm,1.2s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=N,580nm,8.1s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=E,1μm,11.4s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,1μm,13.1s | | | | | | |
| **WMQ** | **Urumqi** | **6.55** | **314** | Pn | **Pn** | **12 40 34.8** | **+2.2** |
| WMQ | | | | Sn | **Sn** | **12 41 49.4** | **+2.0** |
| WMQ | | | | smax | smax | | |
| | comp=N,660nm,0.9s | | | | | | |
| WMQ | | | | smax | smax | | |
| | comp=E,760nm,0.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,150nm,13.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,360nm,18.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,400nm,13.9s | | | | | | |
| **LZH** | **Lanzhou** | **8.32** | **111** | *e*P | **Pn** | **12 40 56.3** | **-0.8** |
| LZH | | | | pP | Pb | 12 41 00.5 | -20 |
| LZH | | | | sP | Pg | 12 41 04.2 | -31 |
| LZH | | | | PP | **PnPn** | **12 41 05.4** | **+0.9** |
| LZH | | | | *e*S | **Sn** | **12 42 31.0** | **-0.2** |
| LZH | | | | sS | Sb | 12 42 40.0 | -20 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,35nm,1.0s | | | | | | |
| LZH | | | | smax | smax | | |
| | comp=N,130nm,1.1s | | | | | | |
| LZH | | | | smax | smax | | |
| | comp=E,130nm,1.2s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=N,450nm,5.2s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,630nm,7.6s | | | | | | |
| **MK01** | **Makanchi Array** | **11.36** | **314** | *e*Pn | **Pn** | **12 41 38.5** | **0.0** |
| **MK31** | **Makanchi Array** | **11.38** | **314** | ⇑Pn | **Pn** | **12 41 38.9** | **+0.1** |
| | 2.8nm,0.2s,baz=125,slow=14,SNR=245 | | | | | | |
| MK31 | | | | ⇓Sn | **Sn** | **12 43 38.9** | **-7.1** |
| | 12nm,0.6s,baz=127,slow=26 | | | | | | |
| MK31 | | | | ⇓Lg | Lg | 12 44 43.2 | |
| | 18nm,0.7s,baz=116,slow=30 | | | | | | |
| **MK31** | **Makanchi Array** | **11.38** | **314** | *i* P | **Pn** | **12 41 38.9** | **+0.1** |
| MK31 | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.2s | | | | | | |
| **MK31** | **Makanchi Array** | **11.38** | **314** | *e*Pn | **Pn** | **12 41 38.8** | **0.0** |
| MK31 | | | | *e*Sn | **Sn** | **12 43 38.5** | **-7.5** |
| **MKAR** | **Makanchi Array** | **11.38** | **314** | Pn | **Pn** | **12 41 38.6** | **-0.2** |
| | comp=Z,2.4nm,0.3s,baz=120,slow=13,SNR=152 | | | | | | |
| MKAR | | | | Sn | **Sn** | **12 43 40.2** | **-5.8** |
| | comp=Z,1.3nm,0.3s,baz=131,slow=22,SNR=3.8 | | | | | | |
| **MAKZ** | **Makanchi** | **11.57** | **313** | ⇑Pn | **Pn** | **12 41 40.9** | **-0.4** |
| | comp=Z,19nm,0.7s | | | | | | |
| MAKZ | | | | ⇑Sn | **Sn** | **12 43 46.5** | **-4.0** |
| | comp=Z,18nm,0.9s | | | | | | |
| MAKZ | | | | ⇑Lg | Lg | 12 44 52.5 | |
| | comp=Z,19nm,0.8s | | | | | | |
| **MAKZ** | **Makanchi** | **11.57** | **313** | *i* P | **Pn** | **12 41 41.5** | **+0.2** |
| MAKZ | | | | pmax | pmax | | |
| | comp=Z,19nm,0.7s | | | | | | |
| **MAKZ** | **Makanchi** | **11.57** | **313** | *e*Pn | **Pn** | **12 41 41.3** | **0.0** |
| **HVS** | **Khovu-Aksy** | **11.67** | **358** | *i* P | **Pn** | **12 41 45.4** | **+2.6** |
| **PDGK** | **Podgornoye** | **11.73** | **294** | ⇓Pn | **Pn** | **12 41 45.1** | **+1.5** |
| | comp=Z,6.1nm,0.8s | | | | | | |
| PDGK | | | | ⇓Sn | **Sn** | **12 43 51.8** | **-2.8** |
| | comp=Z,37nm,0.9s | | | | | | |
| PDGK | | | | ⇓Lg | Lg | 12 45 05.3 | |
| | comp=Z,31nm,0.7s | | | | | | |
| **PDGK** | **Podgornoye** | **11.73** | **294** | *i* P | **Pn** | **12 41 45.1** | **+1.5** |
| PDGK | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.8s | | | | | | |
| **SONM** | **Songino Array** | **12.13** | **42** | Pn | **Pn** | **12 41 48.1** | **-1.0** |
| | comp=Z,0.6nm,0.3s,baz=223,slow=15,SNR=18 | | | | | | |
| SONM | | | | Lg | Lg | 12 45 12.2 | |
| | comp=Z,1.2nm,0.3s,baz=235,slow=29,SNR=8.7 | | | | | | |
| **SONA1** | **Songino Array** | **12.14** | **42** | *e*Pn | **Pn** | **12 41 48.9** | **-0.4** |
| **ULN** | **Ulaanbaatar** | **12.49** | **44** | *i* P | **Pn** | **12 41 57.8** | **+3.7** |
| **ULN** | **Ulaanbaatar** | **12.49** | **44** | *e*Pn | **Pn** | **12 41 58.2** | **+4.1** |
| **XAN** | **Xi'an** | **12.96** | **110** | P | **Pn** | **12 42 03.6** | **+3.2** |
| XAN | | | | pP | | 12 42 08.0 | |
| XAN | | | | sP | | 12 42 11.6 | |
| XAN | | | | S | **Sn** | **12 44 25.8** | **+1.1** |
| XAN | | | | sS | | 12 44 32.7 | |
| XAN | | | | SS | **SnSn** | **12 44 40.0** | **+3.3** |
| XAN | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.7s | | | | | | |
| XAN | | | | pmax | pmax | | |
| | comp=Z,63nm,7.1s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,290nm,9.0s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,260nm,8.3s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,540nm,11.8s | | | | | | |
| **TAPN** | **Taplejung** | **13.26** | **206** | *e*P | **P** | **12 42 14.9** | **+0.2** |
| | comp=Z,24nm,0.4s | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **13.33** | **79** | *e*P | P | 12 42 09.8 | -5.4 |
| HHC | | | | sP | Pn | 12 42 18.9 | +13 |
| HHC | | | | S | **Sn** | **12 44 40.0** | **+6.3** |
| HHC | | | | SS | **S** | **12 44 51.2** | **-6.9** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,18nm,1.0s | | | | | | |
| **GUN** | **Gumba** | **13.46** | **214** | *e*P | **P** | **12 42 12.5** | **-4.5** |
| | comp=Z,17nm,0.4s | | | | | | |
| **JIRN** | **Jiri** | **13.55** | **212** | *e*P | **P** | **12 42 14.0** | **-4.0** |
| | comp=Z,56nm,0.5s | | | | | | |
| **ODAN** | **Odare** | **13.82** | **206** | *e*P | **P** | **12 42 19.4** | **-1.5** |
| | comp=Z,47nm,0.4s | | | | | | |
| **KKN** | **Kakani** | **13.83** | **215** | *e*P | **Pn** | **12 42 15.2** | **+2.7** |
| **TLY** | **Talaya** | **13.86** | **25** | Lg | Lg | 12 46 11.5 | |
| | comp=Z,0.0nm,0.3s,baz=214,slow=15,SNR=5.0 | | | | | | |
| **TLY** | **Talaya** | **13.86** | **25** | *e*P | **Pn** | **12 42 16.2** | **+3.7** |
| TLY | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.3s | | | | | | |
| TLY | | | | MLR | MLR | | |
| | comp=Z,163nm,14.0s | | | | | | |
| **PKI** | **Pulchoki** | **13.96** | **214** | *e*P | **Pn** | **12 42 15.9** | **+1.5** |
| | comp=Z,12nm,0.5s | | | | | | |
| **PKIN** | **Phulchoki** | **13.96** | **214** | *e*P | **Pn** | **12 42 16.7** | **+2.4** |
| **SHL** | **Shillong** | **14.01** | **189** | *e*P | **Pn** | **12 42 14.1** | **-0.8** |
| SHL | | | | AMB | AMB | 12 42 19.3 | |
| | comp=Z,4.6nm,0.2s | | | | | | |
| **RAMN** | **Ramite** | **14.02** | **209** | *e*P | **P** | **12 42 19.6** | **-3.6** |
| | comp=Z,14nm,0.4s | | | | | | |
| **DMN** | **Daman** | **14.06** | **215** | *e*P | **Pn** | **12 42 16.9** | **+1.2** |
| | comp=Z,12nm,0.5s | | | | | | |
| **KSH** | **Kashi** | **14.11** | **276** | P | **P** | **12 42 23.0** | **-1.0** |
| KSH | | | | pP | Pn | 12 42 27.9 | +12 |
| KSH | | | | PP | **PnPn** | **12 42 34.3** | **+10** |
| KSH | | | | S | Sn | 12 45 02.5 | +10 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.5s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,200nm,7.3s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,310nm,9.6s | | | | | | |
| **TKM2** | **Tokmak 2** | **14.45** | **290** | ⇑Pn | **Pn** | **12 42 20.0** | **-1.0** |
| | comp=Z,23nm,0.9s | | | | | | |
| TKM2 | | | | ⇓Sn | **Sn** | **12 45 03.0** | **+1.7** |
| | comp=Z,7.1nm,0.8s | | | | | | |
| TKM2 | | | | ⇑Lg | Lg | 12 46 31.1 | |
| | comp=Z,12nm,1.3s | | | | | | |
| **TKM2** | **Tokmak 2** | **14.45** | **290** | *i* P | **Pn** | **12 42 19.9** | **-1.0** |
| TKM2 | | | | pmax | pmax | | |
| | comp=Z,23nm,0.9s | | | | | | |
| **AAK** | **Ala-Archa** | **15.23** | **288** | Pn | **Pn** | **12 42 31.1** | **-0.2** |
| | comp=Z,0.2nm,0.3s,baz=112,slow=14,SNR=4.6 | | | | | | |
| **AAK** | **Ala-Archa** | **15.23** | **288** | ⇓Pn | **Pn** | **12 42 32.2** | **+0.8** |
| | comp=Z,4.9nm,0.8s | | | | | | |
| AAK | | | | ⇑Sn | **Sn** | **12 45 20.5** | **+0.4** |
| | comp=Z,4.0nm,0.7s | | | | | | |
| AAK | | | | ⇑Lg | Lg | 12 46 59.1 | |
| | comp=Z,16nm,1.2s | | | | | | |
| **AAK** | **Ala-Archa** | **15.23** | **288** | *i* P | **Pn** | **12 42 31.2** | **-0.2** |
| AAK | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.5s | | | | | | |
| **AAK** | **Ala-Archa** | **15.23** | **288** | *e*Pn | **Pn** | **12 42 31.4** | **0.0** |
| | comp=Z,9.7nm,1.2s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **15.70** | **320** | Pn | **Pn** | **12 42 35.2** | **-2.0** |
| | comp=Z,0.3nm,0.3s,baz=121,slow=14,SNR=33 | | | | | | |
| KURBB | | | | Sn | **Sn** | **12 45 22.6** | **-8.5** |
| | comp=Z,0.2nm,0.3s,baz=89,slow=33,SNR=4.3 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **15.70** | **320** | ⇑Pn | **Pn** | **12 42 34.3** | **-3.0** |
| | comp=Z,12nm,0.8s | | | | | | |
| KURBB | | | | ⇑Sn | **Sn** | **12 45 25.5** | **-5.6** |
| | comp=Z,3.1nm,0.5s | | | | | | |
| KURBB | | | | ⇑Lg | Lg | 12 47 04.4 | |
| | comp=Z,21nm,0.8s | | | | | | |
| **KURK** | **Kurchatov** | **15.71** | **321** | ⇑Pn | **Pn** | **12 42 34.4** | **-3.0** |
| | comp=Z,11nm,0.8s | | | | | | |
| KURK | | | | ⇓Sn | **Sn** | **12 45 24.7** | **-6.8** |
| | comp=Z,3.9nm,0.6s | | | | | | |
| KURK | | | | ⇓Lg | Lg | 12 47 04.4 | |
| | comp=Z,22nm,0.9s | | | | | | |
| **KURK** | **Kurchatov** | **15.71** | **321** | *de*P | **Pn** | **12 42 35.1** | **-2.4** |
| KURK | | | | pmax | pmax | | |
| | comp=Z,29nm,0.8s | | | | | | |
| **KURK** | **Kurchatov** | **15.71** | **321** | *e*Pn | **Pn** | **12 42 35.3** | **-2.2** |
| | comp=Z,12nm,0.8s | | | | | | |
| KURK | | | | Sn | **Sn** | **12 45 22.6** | **-8.9** |
| **ZAA0** | **Zalesovo Array** | **15.83** | **339** | *e*Pn | **Pn** | **12 42 38.8** | **-0.2** |
| | comp=Z,3.7nm,0.8s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **15.83** | **339** | Pn | **Pn** | **12 42 38.8** | **-0.2** |
| | comp=Z,0.8nm,0.3s,baz=160,slow=12,SNR=6.9 | | | | | | |
| ZALV | | | | Lg | Lg | 12 47 09.9 | |
| | comp=Z,0.1nm,0.3s,baz=172,slow=22,SNR=3.1 | | | | | | |
| **SFK** | **Sufi-Kurgan** | **15.96** | **279** | P | **P** | **12 42 44.1** | **-0.5** |
| SFK | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.5s | | | | | | |
| **KMI** | **Kunming** | **16.00** | **151** | P | **P** | **12 42 43.8** | **-1.3** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.5s | | | | | | |
| **DDI** | **Dehra Dun** | **16.09** | **240** | *e*P | **Pn** | **12 42 43.2** | **+0.6** |
| **DHRM** | **DHARAMSHALA** | **16.22** | **249** | *e*P | **P** | **12 42 46.4** | **-1.1** |
| DHRM | | | | AMB | AMB | 12 42 53.0 | |
| | comp=Z,20nm,0.6s | | | | | | |
| **SMLA** | **Simla** | **16.22** | **244** | *e*P | **P** | **12 42 45.9** | **-1.3** |
| SMLA | | | | AMB | AMB | 12 42 49.4 | |
| | comp=Z,12nm,0.6s | | | | | | |
| **THN** | **Thein Dam** | **16.55** | **251** | *e*P | **Pn** | **12 42 48.8** | **+0.5** |
| **GYA** | **Guiyang** | **16.62** | **138** | *e*P | **P** | **12 42 50.0** | **-1.9** |
| GYA | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| **MNAS** | **Manas** | **16.68** | **287** | P | **P** | **12 42 53.3** | **+0.8** |
| MNAS | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.1s | | | | | | |
| **NVS** | **Novosibirsk** | **17.06** | **338** | *e*P | **P** | **12 42 56.5** | **+0.1** |
| NVS | | | | *e* | | 12 46 04.5 | |
| **BOK** | **Bokaro** | **17.16** | **207** | *e*P | **Pn** | **12 42 55.5** | **-0.6** |
| BOK | | | | AMB | AMB | 12 42 57.9 | |
| | comp=Z,9.7nm,0.9s | | | | | | |
| **DZET** | **Dzherino** | **19.71** | **276** | P | **Pn** | **12 43 27.8** | **+0.5** |
| DZET | | | | pmax | pmax | | |
| | comp=Z,30nm,0.7s | | | | | | |
| **KBL** | **Kabul** | **20.69** | **264** | *e*P | **P** | **12 43 35.9** | **-0.7** |
| KBL | | | | pmax | pmax | | |
| | comp=Z,30nm,0.9s | | | | | | |
| **KBL** | **Kabul** | **20.69** | **264** | *e*P | **P** | **12 43 35.9** | **-0.7** |
| | comp=Z,30nm,0.9s | | | | | | |
| **CHTO** | **Chiang Mai** | **20.99** | **167** | P | Pn | 12 43 43.3 | +1.0 |
| | comp=Z,44nm,1.0s | | | | | | |
| **CHTO** | **Chiang Mai** | **20.99** | **167** | *e*P | **P** | **12 43 39.8** | **+0.1** |
| CHTO | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.6s | | | | | | |
| **CHTO** | **Chiang Mai** | **20.99** | **167** | *e*P | **P** | **12 43 39.8** | **+0.1** |
| | comp=Z,5.2nm,0.6s | | | | | | |
| **CMMT** | **Chiang Mai** | **20.99** | **167** | P | Pn | 12 43 43.2 | +0.9 |
| | comp=Z,8.5nm,1.1s | | | | | | |
| **BVAR** | **Borovoye Array** | **21.22** | **318** | P | **P** | **12 43 42.7** | **+0.7** |
| | comp=Z,9.1nm,0.6s,baz=119,slow=11,SNR=73 | | | | | | |
| **NJ2** | **Nanjing** | **21.26** | **103** | *e*P | **P** | **12 43 44.4** | **+1.8** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,11nm,0.7s | | | | | | |
| **BRVK** | **Borovoye** | **21.29** | **318** | P | **P** | **12 43 42.9** | **+0.2** |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,13nm,0.6s | | | | | | |
| **BRVK** | **Borovoye** | **21.29** | **318** | *e*P | **P** | **12 43 43.4** | **+0.7** |
| | comp=Z,16nm,0.6s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **21.34** | **168** | P | **P** | **12 43 43.4** | **0.0** |
| | comp=Z,6.1nm,0.8s,baz=342,slow=10,SNR=34 | | | | | | |
| **CM01** | **Chiang Mai Arr** | **21.37** | **168** | *e*P | **P** | **12 43 43.9** | **0.0** |
| **BHPL** | **Bhopal** | **21.57** | **226** | *e*P | **P** | **12 43 45.8** | **-0.2** |
| BHPL | | | | AMB | AMB | 12 43 46.3 | |
| | comp=Z,23nm,0.3s | | | | | | |
| **BOD** | **Bodaibo** | **22.38** | **28** | *e*P | **P** | **12 43 54.8** | **+0.5** |
| BOD | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.0s | | | | | | |
| **CN2** | **Changchun** | **23.64** | **69** | *e*P | **P** | **12 44 11.2** | **+3.7** |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.9s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,200nm,10.0s | | | | | | |
| **UTHA** | **Uthaitani** | **24.26** | **168** | P | **P** | **12 44 15.9** | **+2.4** |
| **QIZ** | **Qiongzhong** | **24.43** | **142** | P | **P** | **12 44 15.6** | **+0.5** |
| QIZ | | | | S | **S** | **12 48 36.0** | **+1.0** |
| **DGPR** | **DIGLIPUR** | **26.22** | **183** | *e*P | **P** | **12 44 30.6** | **-0.6** |
| DGPR | | | | AMB | AMB | 12 44 51.4 | |
| | comp=Z,56nm,6.3s | | | | | | |
| **KS01** | **Wonju Array Si** | **26.34** | **84** | *e*P | **P** | **12 44 36.6** | **+4.4** |
| **KS15** | **Wonju Array Si** | **26.34** | **84** | *e*P | **P** | **12 44 36.3** | **+4.1** |
| **KSAR** | **Wonju Array Be** | **26.34** | **84** | P | **P** | **12 44 33.2** | **+0.9** |
| **KSAR** | **Wonju Array Be** | **26.34** | **84** | P | **P** | **12 44 33.1** | **+0.9** |
| **KSRS** | **Korea Array** | **26.37** | **84** | P | **P** | **12 44 33.1** | **+0.7** |
| | comp=Z,2.6nm,0.8s,baz=280,slow=10,SNR=5.8 | | | | | | |
| **BHJ** | **Bhuj** | **26.38** | **239** | *e*P | **P** | **12 44 31.4** | **-1.2** |
| **POO** | **Poona** | **27.33** | **226** | *e*P | **P** | **12 44 41.2** | **-0.2** |
| POO | | | | AMB | AMB | 12 44 41.9 | |
| | comp=Z,18nm,1.9s | | | | | | |
| **AKTO** | **Aktyubinsk** | **27.61** | **305** | P | **P** | **12 44 44.3** | **+0.7** |
| | comp=Z,0.9nm,0.6s,baz=107,slow=13,SNR=2.4 | | | | | | |
| **PBA** | **Port Blair** | **27.74** | **183** | *e*P | P | 12 44 45.5 | +0.6 |
| **GEYT** | **Alibeck** | **28.12** | **278** | P | **P** | **12 44 50.6** | **+2.4** |
| | comp=Z,34nm,0.8s,baz=71,slow=6.4,SNR=3.8 | | | | | | |
| **KLR** | **Kul'dur** | **28.28** | **57** | P | **P** | **12 44 53.1** | **+3.5** |
| | comp=Z,0.2nm,0.5s,baz=267,slow=10,SNR=9.5 | | | | | | |
| **ARU** | **Arti** | **28.86** | **318** | P | **P** | **12 44 54.7** | **0.0** |
| | comp=Z,2.0nm,0.6s,baz=146,slow=9.6,SNR=3.9 | | | | | | |
| **ARU** | **Arti** | **28.86** | **318** | *c* *i*P | **P** | **12 44 55.1** | **+0.4** |
| ARU | | | | | | 12 45 42.2 | |
| ARU | | | | S | **S** | **12 49 44.3** | **-0.3** |
| ARU | | | | pmax | pmax | | |
| | comp=Z,14nm,2.5s | | | | | | |
| **ARU** | **Arti** | **28.86** | **318** | *e*P | **P** | **12 44 55.4** | **+0.8** |
| | comp=Z,2.9nm,0.9s | | | | | | |
| **MDRS** | **Chennai** | **29.06** | **209** | *e*P | **P** | **12 44 56.4** | **-0.3** |
| MDRS | | | | AMB | AMB | 12 45 12.9 | |
| | comp=Z,13nm,2.5s | | | | | | |
| **GOA** | **Goa** | **29.84** | **223** | *e*P | **P** | **12 45 04.2** | **+0.6** |
| GOA | | | | AMB | AMB | 12 45 09.0 | |
| | comp=Z,17nm,1.3s | | | | | | |
| **MAK** | **Makhachkala** | **34.98** | **291** | *e*P | **P** | **12 45 46.2** | **-2.2** |
| MAK | | | | *e*S | **S** | **12 51 15.3** | **-4.8** |
| MAK | | | | pmax | pmax | | |
| | comp=Z,15nm,0.3s | | | | | | |
| MAK | | | | MLR | MLR | | |
| | comp=Z,73nm,11.0s | | | | | | |
| **TIXI** | **Tiksi** | **36.65** | **18** | P | **P** | **12 46 02.3** | **-0.2** |
| | comp=Z,0.4nm,0.2s,baz=270,slow=4.0,SNR=1.8 | | | | | | |
| **TIXI** | **Tiksi** | **36.65** | **18** | *e*P | **P** | **12 46 05.9** | **+3.5** |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.7s | | | | | | |
| **GNI** | **Garni** | **37.63** | **287** | *e*P | **P** | **12 46 12.9** | **+1.5** |
| GNI | | | | pmax | pmax | | |
| | comp=Z,13nm,1.1s | | | | | | |
| **NCK** | **Nalchik** | **37.68** | **293** | *e*P | **P** | **12 46 11.6** | **0.0** |
| NCK | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.8s | | | | | | |
| **KLMR** | **Klimovskoe** | **39.56** | **321** | *e*P | **P** | **12 46 26.2** | **-0.9** |
| KLMR | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.7s | | | | | | |
| **KSM** | **Kuching** | **40.56** | **155** | *e*P | **P** | **12 46 35.5** | **-0.3** |
| | comp=Z,33nm,1.4s | | | | | | |
| **OBN** | **Obninsk** | **40.88** | **312** | ⇓*e*P | **P** | **12 46 38.2** | **+0.1** |
| OBN | | | | *e* | | 12 48 14.4 | |
| OBN | | | | *e*SS | SS | 12 56 42.7 | +52 |
| OBN | | | | pmax | pmax | | |
| | comp=Z,32nm,1.9s | | | | | | |
| **SKR** | **Severo-Kuril's** | **43.89** | **54** | ⇑*e*P | **P** | **12 47 04.1** | **+1.4** |
| **RAYN** | **Ar Rayn** | **43.96** | **264** | *e*P | **P** | **12 47 04.8** | **+1.2** |
| | comp=Z,1.6nm,0.5s | | | | | | |
| **AKASG** | **Malin Array Be** | **45.85** | **307** | P | **P** | **12 47 18.4** | **+0.1** |
| | comp=Z,0.4nm,0.3s,baz=70,slow=7.2,SNR=4.8 | | | | | | |
| **BRTR** | **Keskin Array B** | **45.89** | **291** | P | **P** | **12 47 19.3** | **+0.4** |
| | comp=Z,0.7nm,0.7s,baz=100,slow=8.2,SNR=4.7 | | | | | | |
| **BRTR** | **Keskin Array B** | **45.89** | **291**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **CLL** | **Collm** | **55.46 311** | *e*P | | **P** | | **12 48 31.0** | **+0.2** |
| **CLL** | **Collm** | **55.46 311** | *e*P | | **P** | | **12 48 31.6** | **+0.8** |
| | comp=Z,6.3nm,1.0s | | | | | | | |
| **ARSA** | **Arzberg** | **55.48 306** | *i* pP | | **P** | | **12 48 31.7** | **+0.6** |
| | comp=Z,4.0nm,1.2s | | | | | | | |
| **GERES** | **GERESS Array B** | **55.98 308** | P | | **P** | | **12 48 35.3** | **+0.5** |
| | comp=Z,0.8nm,0.8s,baz=68,slow=7.9,SNR=5.6 | | | | | | | |
| **SOKA** | **Soboth** | **56.02 305** | *i* pP | | **P** | | **12 48 35.9** | **+0.9** |
| | comp=Z,3.3nm,0.8s | | | | | | | |
| **MOA** | **Molln** | **56.03 307** | *i* pP | | **P** | | **12 48 35.8** | **+0.8** |
| | comp=Z,6.7nm,1.7s | | | | | | | |
| **OBKA** | **Obir** | **56.39 305** | *i* P | | **P** | | **12 48 36.3** | **-1.4** |
| | comp=Z,4.4nm,1.1s | | | | | | | |
| **KBA** | **Koelnbreinsper** | **56.91 306** | *i* P | | **P** | | **12 48 39.0** | **-2.5** |
| | comp=Z,3.9nm,1.1s | | | | | | | |
| **ABTA** | **Abfaltersbach** | **57.57 306** | *e*P | | **P** | | **12 48 46.2** | **+0.2** |
| | comp=Z,2.3nm,0.9s | | | | | | | |
| **WTTA** | **Wattenberg** | **57.89 307** | *i* pP | | **P** | | **12 48 49.2** | **+0.8** |
| | comp=Z,8.2nm,1.0s | | | | | | | |
| **WATA** | **Walderalm** | **57.90 307** | *i* pP | | **P** | | **12 48 48.8** | **+0.3** |
| | comp=Z,2.9nm,0.8s | | | | | | | |
| **MOTA** | **Moosalm** | **58.19 307** | *i* pP | | **P** | | **12 48 50.7** | **+0.2** |
| | comp=Z,5.5nm,0.8s | | | | | | | |
| **RETA** | **Reutte** | **58.34 308** | *i* pP | | **P** | | **12 48 52.0** | **+0.6** |
| | comp=Z,3.9nm,1.0s | | | | | | | |
| **CUC** | **Castrocucco** | **58.35 298** | *e*P | | **P** | | **12 48 51.9** | **+0.3** |
| | comp=Z,6.3nm,0.8s | | | | | | | |
| **FETA** | **Feichten** | **58.56 307** | *i* P | | **P** | | **12 48 51.2** | **-1.8** |
| | comp=Z,5.5nm,1.1s | | | | | | | |
| **FUORN** | **Ofenpass-Fuorn** | **59.02 307** | *e*P | | **P** | | **12 48 56.9** | **+0.5** |
| | comp=Z,7.7nm,1.0s | | | | | | | |
| **BFO** | **Black Forest** | **59.44 309** | *ce*P | | **P** | | **12 49 00.7** | **+1.7** |
| **BFO** | **Black Forest** | **59.44 309** | *e*P | | **P** | | **12 48 59.6** | **+0.6** |
| | comp=Z,1.4nm,1.1s | | | | | | | |
| **VLC** | **Villacollemand** | **60.05 304** | *e*P | | **P** | | **12 49 04.9** | **+1.6** |
| | comp=Z,11nm,1.1s | | | | | | | |
| **SENIN** | **Lac Senin/Sane** | **60.96 308** | *e*P | | **P** | | **12 49 10.0** | **+0.3** |
| | comp=Z,5.7nm,1.2s | | | | | | | |
| **BNI** | **Bardonecchia** | **61.97 307** | *e*P | | **P** | | **12 49 16.9** | **+0.5** |
| BNI | | | | pmax | pmax | | | |
| | comp=Z,14nm,1.5s | | | | | | | |
| **BNI** | **Bardonecchia** | **61.97 307** | *e*P | | **P** | | **12 49 16.9** | **+0.5** |
| | comp=Z,14nm,1.5s | | | | | | | |
| **VSL** | **Villasalto** | **62.95 300** | *e*P | | **P** | | **12 49 23.5** | **+0.6** |
| | comp=Z,16nm,1.4s | | | | | | | |
| **COLD** | **Coldfoot** | **63.05 23** | *e*P | | **P** | | **12 49 23.9** | **+0.8** |
| | comp=Z,7.0nm,1.2s | | | | | | | |
| **SSB** | **Saint Sauveur** | **63.17 308** | *e*P | | **P** | | **12 49 24.0** | **-0.3** |
| SSB | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,1.1s | | | | | | | |
| **SSB** | **Saint Sauveur** | **63.17 308** | *e*P | | **P** | | **12 49 24.0** | **-0.3** |
| | comp=Z,4.2nm,1.1s | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **64.35 147** | P | | **P** | | **12 49 30.1** | **-2.1** |
| | comp=Z,0.6nm,0.5s,baz=353,slow=8.1,SNR=5.4 | | | | | | | |
| **KEST** | **Kesra** | **64.90 297** | P | | **P** | | **12 49 36.2** | **+0.3** |
| | comp=Z,2.5nm,0.7s,baz=63,slow=6.8,SNR=3.4 | | | | | | | |
| **KEST** | **Kesra** | **64.90 297** | *e*P | | **P** | | **12 49 36.5** | **+0.6** |
| | comp=Z,3.9nm,0.8s | | | | | | | |
| **ILAR** | **Eielson Array** | **65.68 24** | P | | **P** | | **12 49 39.2** | **-1.1** |
| | comp=Z,0.6nm,0.8s,baz=307,slow=5.0,SNR=8.6 | | | | | | | |
| **INK** | **Inuvik** | **66.78 17** | P | | **P** | | **12 49 46.8** | **-0.5** |
| | comp=Z,1.6nm,0.7s,baz=341,slow=10,SNR=7.8 | | | | | | | |
| **INK** | **Inuvik** | **66.78 17** | *e*P | | **P** | | **12 49 47.3** | **0.0** |
| | comp=Z,2.7nm,0.9s | | | | | | | |
| **DAWY** | **Dawson** | **68.48 22** | *e*P | | **P** | | **12 49 58.2** | **0.0** |
| | comp=Z,4.9nm,1.4s | | | | | | | |
| **WRAB** | **Tennant Creek** | **69.98 140** | *ce*P | | P | | 12 50 12.4 | +4.5 |
| WRAB | | | | pmax | pmax | | | |
| | comp=Z,34nm,2.5s | | | | | | | |
| **WRA** | **Warramunga Arr** | **69.98 140** | P | | **P** | | **12 50 05.5** | **-2.4** |
| | comp=Z,0.7nm,0.7s,baz=335,slow=5.7,SNR=6.1 | | | | | | | |
| **WB2** | **Warramunga Arr** | **69.99 140** | *e*P | | **P** | | **12 50 05.9** | **-2.1** |
| | comp=Z,11nm,1.4s | | | | | | | |
| **ES19** | **SONSECA Array** | **71.44 306** | *e*P | | **P** | | **12 50 17.4** | **+0.6** |
| **ESDC** | **Sonseca Array** | **71.50 306** | P | | **P** | | **12 50 17.7** | **+0.5** |
| | comp=Z,3.4nm,0.6s,baz=45,slow=6.1,SNR=33 | | | | | | | |
| **ESLA** | **Sonseca Array** | **71.50 306** | *e*P | | **P** | | **12 50 17.9** | **+0.8** |
| | comp=Z,3.6nm,0.7s | | | | | | | |
| **HYT** | **Haines Junctio** | **71.51 24** | *e*P | | **P** | | **12 50 18.0** | **+1.1** |
| | comp=Z,7.6nm,1.2s | | | | | | | |
| **PAB** | **San Pablo** | **71.81 306** | *e*P | | **P** | | **12 50 20.2** | **+1.1** |
| PAB | | | | pmax | pmax | | | |
| | comp=Z,12nm,1.4s | | | | | | | |
| **PAB** | **San Pablo** | **71.81 306** | *e*P | | **P** | | **12 50 20.2** | **+1.1** |
| | comp=Z,12nm,1.4s | | | | | | | |
| **AS31** | **Alice Springs** | **72.93 142** | *e*P | | **P** | | **12 50 24.0** | **-1.7** |
| | comp=Z,1.4nm,1.2s | | | | | | | |
| **ASAR** | **Alice Springs** | **72.93 142** | P | | **P** | | **12 50 24.1** | **-1.5** |
| | comp=Z,1.3nm,0.5s,baz=331,slow=6.3,SNR=35 | | | | | | | |
| **ASAR** | **Alice Springs** | **72.93 142** | P | | **P** | | **12 50 24.2** | **-1.5** |
| ASAR | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.6s | | | | | | | |
| **AS01** | **Alice Springs** | **72.95 142** | *e*P | | **P** | | **12 50 24.1** | **-1.7** |
| **YKA** | **Yellowknife Ar** | **75.76 13** | P | | **P** | | **12 50 41.2** | **-0.5** |
| | comp=Z,0.3nm,0.5s,baz=339,slow=5.4,SNR=7.2 | | | | | | | |
| **STKA** | **Stephens Creek** | **83.49 141** | P | | **P** | | **12 51 21.3** | **-2.7** |
| | comp=Z,1.9nm,0.7s,baz=311,slow=4.6,SNR=5.6 | | | | | | | |
| **TOA0** | **Torodi Ar. Sit** | **83.71 282** | *e*P | | **P** | | **12 51 25.3** | **-0.3** |
| **TORD** | **Torodi Ar. Bea** | **83.71 282** | P | | **P** | | **12 51 25.1** | **-0.6** |
| | comp=Z,1.0nm,0.9s,baz=33,slow=5.9,SNR=6.4 | | | | | | | |
| **JTMT** | **Jette** | **89.53 19** | *e*P | | **P** | | **12 51 54.2** | **+0.4** |
| | comp=Z,2.5nm,0.7s | | | | | | | |
| **F10A** | **Beach Ranch, E** | **90.38 21** | *e*P | | **P** | | **12 51 58.2** | **+0.4** |
| | comp=Z,3.3nm,1.0s | | | | | | | |
| **YTP** | **The Promontory** | **93.64 17** | *e*P | | **P** | | **12 52 10.4** | **-2.7** |
| **BBGH** | **Gun Hill** | **122.24 329** | *e*PKPdf | | **PKPdf** | | **12 57 50.8** | **-1.1** |
| **CPUP** | **Villa Florida** | **152.90 290** | PKPbc | | **PKPbc** | | **12 58 50.8** | **-2.9** |
| | comp=Z,1.1nm,0.7s,baz=80,slow=1.9,SNR=3.3 | | | | | | | |

**IDC 11 12:41:54.9±2.3, 5.°18N×123.°44E, h0km, mb3.5/3, mb1 3.8/3, mb1mx3.2/42, mbtmp3.5/3, Error ellipse: s-maj=301.9km s-min=25.0km az=63.0, Mindanao**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **27.17** | **157** | P | P | 12 47 40.3 | +0.1 |
| | 0.5nm,0.3s,baz=335,slow=9.8,SNR=9.8 | | | | | | |
| **ASAR** | **Alice Springs** | **30.43** | **161** | P | P | 12 48 09.2 | -0.1 |
| | 0.3nm,0.3s,baz=339,slow=7.3,SNR=16 | | | | | | |
| **MKAR** | **Makanchi Array** | **54.52** | **326** | P | P | 12 51 24.6 | -0.1 |
| | 0.1nm,0.4s,baz=125,slow=8.0,SNR=2.6 | | | | | | |

*CSEM **11** 12:50:10.8, 40.°45N×29.°66W, h10km, ML3.3*
**PDA 11 12:50:10.8±0.8, 40.°45N×29.°66W, h10km, MD3.7, ML3.3, Error ellipse: s-maj=52.3km s-min=5.8km az=69.0, Azores Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PCED** | **Cedros** | **1.96** | **157** | *e*S | Sn | 12 51 01.0 | -7.8 |
| PCED | | | | A | A | 12 51 01.5 | |
| | 60nm,0.3s | | | | | | |
| **PCED** | **Cedros** | **1.96** | **157** | *e*S | Sn | 12 51 01.0 | -7.8 |
| **CALA** | **Caldeira** | **2.00** | **158** | *e*P | Pn | 12 50 40.6 | -4.2 |
| CALA | | | | *e*S | Sn | 12 51 02.4 | -7.6 |
| **CALA** | **Caldeira** | **2.00** | **158** | *e*P | Pn | 12 50 40.6 | -4.2 |
| CALA | | | | *e*S | Sn | 12 51 02.4 | -7.6 |
| **HOR** | **Horta** | **2.08** | **157** | *e*P | Pg | 12 51 04.4 | +14 |
| **PICO** | **Pico** | **2.17** | **153** | *e*P | Pn | 12 50 42.5 | -4.5 |
| PICO | | | | *e*S | Sn | 12 51 05.9 | -8.0 |
| PICO | | | | A | A | 12 51 08.0 | |
| | 102nm,0.5s | | | | | | |
| **PICO** | **Pico** | **2.17** | **153** | *e*P | Pn | 12 50 42.5 | -4.5 |
| PICO | | | | *e*S | Sn | 12 51 05.9 | -8.0 |
| **PCAN** | **Candelaria** | **2.18** | **155** | *e*P | Pn | 12 50 42.4 | -4.7 |
| PCAN | | | | *e*S | Sn | 12 51 06.3 | -7.9 |
| PCAN | | | | A | A | 12 51 10.6 | |
| | 50nm,0.3s | | | | | | |
| **PCAN** | **Candelaria** | **2.18** | **155** | *e*P | Pn | 12 50 42.4 | -4.7 |
| PCAN | | | | *e*S | Sn | 12 51 06.3 | -7.9 |

*JMA **11** 13:13:08.1±0.1, 36.°31N×141.°06E, h47km±2km, MJ3.1*
*IDC **11** 13:13:09.3±2.9, 36.°35N×141.°20E, h41km±29km, mb3.1/4, mb1 3.4/6, mb1mx3.1/51, mbtmp3.4/6, ML3.0/2, Error ellipse: s-maj=21.3km s-min=20.6km az=4.0*
**ISC 11 13:13:05.4±1.6, 36.°35N±0.°04×141.°20E±0.°06, h12km±10km, n24, σ1°02/28, mb3.4/4, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JHO** | **Hitachi** | **0.57** | **297** | P | **Pn** | **13 13 18.9** | **-0.4** |
| JHO | | | | S | **Sb** | **13 13 26.3** | **+1.0** |
| **CHOJ** | **Chosi** | **0.70** | **203** | P | **Pn** | **13 13 20.7** | **-0.4** |
| CHOJ | | | | *e*S | **Sb** | **13 13 29.4** | **+0.2** |
| **ONAJ** | **Iwakimizuishiy** | **0.81** | **337** | P | **Pn** | **13 13 22.9** | **+0.2** |
| ONAJ | | | | S | **Sb** | **13 13 33.1** | **+0.6** |
| **JYT** | **Yasato** | **0.82** | **262** | P | **Pb** | **13 13 21.9** | **+0.4** |
| JYT | | | | S | **Sg** | **13 13 31.1** | **-0.9** |
| **JFK** | **Kawauchi** | **1.04** | **346** | P | **Pn** | **13 13 26.1** | **+0.2** |
| JFK | | | | S | **Sg** | **13 13 39.0** | **-0.2** |
| **JFT** | **Otama** | **1.35** | **330** | P | **Pg** | **13 13 31.6** | **+0.2** |
| JFT | | | | S | **Sb** | **13 13 48.2** | **+0.3** |
| **JAG** | **Ashikaga** | **1.41** | **273** | P | **Pn** | **13 13 30.4** | **-0.4** |
| JAG | | | | *e*S | **Sn** | **13 13 46.4** | **-2.9** |
| **JMM** | **Marumori** | **1.54** | **348** | P | **Pb** | **13 13 33.8** | **-0.1** |
| JMM | | | | *e*S | **Sn** | **13 13 52.5** | **-0.2** |
| **JFY** | **Yanaizu** | **1.59** | **312** | P | **Pb** | **13 13 34.4** | **-0.4** |
| **JKT** | **Katashina** | **1.62** | **285** | *e*S | **Sn** | **13 13 53.3** | **-1.4** |
| **MJAR** | **Matsushiro Arr** | **2.42** | **275** | P | **Pn** | **13 13 46.2** | **+1.5** |
| | 4.1nm,0.3s,baz=98,slow=9.1,SNR=20 | | | | | | |
| MJAR | | | | S | **Sn** | **13 14 14.7** | **+0.5** |
| | 2.5nm,0.3s,baz=140,slow=9.6,SNR=8.5 | | | | | | |
| **MAT** | **Matsushiro** | **2.42** | **275** | P | **Pn** | **13 13 45.6** | **+0.9** |
| MAT | | | | S | **Sn** | **13 14 15.2** | **+1.0** |
| **JHJ** | **Hachijo jima 2** | **3.43** | **200** | P | **Pn** | **13 14 00.9** | **+2.3** |
| | baz=72,slow=20 | | | | | | |
| **ASAJ** | **Asahikawa** | **7.83** | **7** | P | **Pn** | **13 14 59.0** | **-0.1** |
| | 0.2nm,0.3s,baz=255,slow=12,SNR=2.6 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy 27.96** | **119** | | T | T | 13 48 14.7 | |
| | baz=312,slow=75,SNR=7.1 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy 27.97** | **119** | | T | T | 13 48 15.7 | |
| | baz=312,slow=75,SNR=6.5 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy 27.98** | **119** | | T | T | 13 48 16.6 | |
| | baz=312,slow=75,SNR=8.1 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy 28.64** | **122** | | T | T | 13 49 05.8 | |
| | baz=313,slow=75,SNR=21 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy 28.64** | **122** | | T | T | 13 49 06.0 | |
| | baz=313,slow=75,SNR=11 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy 28.66** | **122** | | T | T | 13 49 09.6 | |
| | baz=313,slow=75,SNR=12 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **46.28** | **308** | P | **P** | **13 21 30.4** | **-0.2** |
| | 0.3nm,0.4s,baz=84,slow=7.7,SNR=3.6 | | | | | | |
| **ILAR** | **Eielson Array** | **50.16** | **32** | P | **P** | **13 22 01.2** | **+0.9** |
| | 0.6nm,1.1s,baz=272,slow=6.2,SNR=3.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **56.36** | **188** | P | **P** | **13 22 45.3** | **-1.1** |
| | 0.2nm,0.7s,baz=6.1,slow=7.6,SNR=2.8 | | | | | | |
| **ASAR** | **Alice Springs** | **60.09** | **188** | P | **P** | **13 23 12.4** | **0.0** |
| | 0.2nm,0.8s,baz=27,slow=8.5,SNR=3.2 | | | | | | |

**KRSC 11 13:18:11.3±1.0, 56.°10N×163.°66E, h20km±14km, ML3.8, Near east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KBTR** | **Krutoberegovo** | **0.48** | **283** | *e*P | Pg | 13 18 20.8 | -0.3 |
| KBTR | | | | *e*S | Sg | 13 18 26.3 | -1.4 |
| **SMKR** | **Semkarok** | **1.31** | **292** | *e*P | Pb | 13 18 35.0 | -0.3 |
| SMKR | | | | *e*S | Sb | 13 18 51.8 | +0.1 |
| **BDR** | **Baidarnaya** | **1.44** | **290** | *e*P | Pb | 13 18 37.4 | -0.1 |
| BDR | | | | *e*S | Sb | 13 18 56.5 | +1.0 |
| **SRKR** | **Sorokina** | **1.49** | **293** | *e*P | Pb | 13 18 38.1 | -0.3 |
| SRKR | | | | *e*S | Sb | 13 18 57.4 | +0.5 |
| **BKI** | **Bering** | **1.59** | **123** | *e*P | Pb | 13 18 40.2 | +0.2 |
| BKI | | | | *e*S | Sb | 13 19 01.1 | +1.5 |
| **ZLN** | **Zelenaya** | **1.60** | **268** | *e*P | Pb | 13 18 40.8 | +0.5 |
| ZLN | | | | *e*S | Sg | 13 19 02.2 | -0.8 |
| **BZWR** | **Bezymyannyi-We** | **1.78** | **267** | *e*P | Pb | 13 18 43.3 | 0.0 |
| **BZMR** | **Bezymyannaya** | **1.79** | **266** | *e*P | Pb | 13 18 43.0 | -0.4 |
| **KMNR** | **Kamenistaya** | **1.96** | **261** | *e*P | Pb | 13 18 46.0 | -0.3 |
| **TUMD** | **Tumrok D** | **2.05** | **245** | *e*P | Pb | 13 18 46.8 | -1.1 |
| TUMD | | | | *e*S | Sb | 13 19 12.6 | -0.4 |
| **TUMR** | **Tumrok** | **2.15** | **249** | *e*P | Pb | 13 18 48.4 | -1.2 |
| TUMR | | | | *e*S | Sb | 13 19 14.9 | -1.0 |
| **OSSR** | **Ossora** | **3.17** | **354** | *e*P | Pn | 13 19 01.5 | +1.4 |
| **SPN** | **Mys Shipunski** | **3.68** | **217** | *e*S | Sn | 13 19 52.5 | +2.8 |
| **SDLR** | **Sedlovina** | **3.96** | **226** | *e*P | Pn | 13 19 13.3 | +2.3 |
| **RUS** | **Russkaya** | **4.75** | **221** | *e*P | Pn | 13 19 24.3 | +2.5 |

*ATA **11** 13:22:03.0±0.7, 38.°63N×43.°47E, h28km±12km, ML3.1, MW3.3*
*DDA **11** 13:22:05.9, 38.°69N×43.°24E, h7km, Md2.8*
*ISK **11** 13:22:05.5, 38.°70N×43.°27E, h6km, MD2.9, ML2.5*
*ISCJB **11** 13:22:06.7±0.5, 38.°71N±0.°03×43.°25E±0.°04, h6km±5km, Error ellipse: s-maj=5.9km s-min=4.1km az=21.7*
*CSEM **11** 13:22:06.3±0.2, 38.°70N×43.°26E, h10km, MD2.9, Error ellipse: s-maj=5.0km s-min=4.1km az=110.0*
**ISC 11 13:22:06.5±0.8, 38.°70N±0.°02×43.°24E±0.°03, h13km±7km, n33, σ1°01/54, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.15** | **132** | *e*PG | **Pg** | **13 22 10.1** | **-0.1** |
| VANB | | | | *e*SG | **Sg** | **13 22 14.0** | **+1.1** |
| **VANB** | **Van** | **0.15** | **132** | *e*Pg | **Pg** | **13 22 10.1** | **-0.1** |
| VANB | | | | *e*Sg | **Sg** | **13 22 14.0** | **+1.1** |
| **VMUR** | **Van-Muradiye** | **0.39** | **41** | *i* P | **Pg** | **13 22 13.9** | **-0.4** |
| VMUR | | | | *i* S | **Sb** | **13 22 21.2** | **-0.2** |
| **VMUR** | **Van-Muradiye** | **0.39** | **41** | P | **Pg** | **13 22 13.9** | **-0.4** |
| VMUR | | | | S | **Sb** | **13 22 21.2** | **-0.2** |
| **GEVA** | **Gevas** | **0.41** | **201** | *i* P | **Pg** | **13 22 13.3** | **-1.4** |
| GEVA | | | | *e*S | **Sb** | **13 22 21.3** | **-0.7** |
| GEVA | | | | IAML | | 13 22 27.9 | |
| | comp=Z,158nm,0.4s | | | | | | |
| **GEVA** | **Gevas** | **0.41** | **201** | *i* P | **Pg** | **13 22 13.4** | **-1.3** |
| GEVA | | | | *i* S | **Sg** | **13 22 19.6** | **-0.7** |
| **GEVA** | **Gevas** | **0.41** | **201** | P | **Pg** | **13 22 13.4** | **-1.3** |
| GEVA | | | | S | **Sg** | **13 22 19.6** | **-0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.42** | **285** | *i* P | **Pg** | **13 22 14.3** | **-0.6** |
| ADCV | | | | *i* S | **Sb** | **13 22 21.8** | **-0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.42** | **285** | P | **Pg** | **13 22 14.3** | **-0.6** |
| ADCV | | | | S | **Sb** | **13 22 21.8** | **-0.5** |
| **CLDR** | **Caldiran** | **0.69** | **49** | *e*PG | **Pg** | **13 22 18.9** | **-1.0** |
| **CLDR** | **Caldiran** | **0.69** | **49** | *i* P | **Pg** | **13 22 18.9** | **-1.0** |
| CLDR | | | | *i* S | **Sb** | **13 22 29.5** | **-0.6** |
| **CLDR** | **Caldiran** | **0.69** | **49** | P | **Pg** | **13 22 18.9** | **-1.0** |
| CLDR | | | | S | **Sb** | **13 22 29.5** | **-0.6** |
| **TUTA** | **Tutak** | **0.78** | **335** | *i* P | **Pn** | **13 22 25.1** | **+1.6** |
| TUTA | | | | *i* S | **Sg** | **13 22 30.8** | **-1.1** |
| **TUTA** | **Tutak** | **0.78** | **335** | P | **Pn** | **13 22 25.1** | **+1.6** |
| TUTA | | | | S | **Sg** | **13 22 30.8** | **-1.1** |
| **BASK** | **Baskale_VAN** | **0.88** | **137** | *e*P | Pg | 13 22 17.6 | -5.9 |
| BASK | | | | IAML | | 13 22 40.7 | |
| | comp=Z,36nm,0.4s | | | | | | |
| **AGRB** | **Hanur-Agry** | **0.90** | **347** | *e*Pg | **Pg** | **13 22 23.3** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **0.90** | **347** | *e*Pg | **Pg** | **13 22 23.3** | **-0.6** |
| **EKAR** | **Karacoban** | **1.08** | **302** | *e*P | **Pn** | **13 22 27.5** | **0.0** |
| EKAR | | | | *e*S | **Sn** | **13 22 45.4** | **+2.9** |
| EKAR | | | | IAML | | 13 22 50.9 | |
| | comp=Z,16nm,0.3s | | | | | | |
| **EKAR** | **Karacoban** | **1.08** | **302** | *i* P | **Pn** | **13 22 28.8** | **+1.3** |
| EKAR | | | | *i* S | **Sn** | **13 22 45.9** | **+3.4** |
| **EKAR** | **Karacoban** | **1.08** | **302** | P | **Pn** | **13 22 28.8** | **+1.3** |
| **SRTM** | **Siirt_Merkez** | **1.26** | **236** | *i* P | **Pg** | **13 22 30.5** | **-0.2** |
| SRTM | | | | *i* S | **Sn** | **13 22 47.7** | **+1.0** |
| **SRTM** | **Siirt_Merkez** | **1.26** | **236** | P | **Pg** | **13 22 30.5** | **-0.2** |
| SRTM | | | | S | **Sn** | **13 22 47.7** | **+1.0** |
| **EATA** | **Eleskirt** | **1.30** | **334** | *e*P | **Pn** | **13 22 30.1** | **-0.6** |
| EATA | | | | IAML | | 13 22 51.3 | |
| | comp=Z,7.2nm,0.3s | | | | | | |
| **EATA** | **Eleskirt** | **1.30** | **334** | *i* P | **Pn** | **13 22 30.6** | **-0.1** |
| EATA | | | | *i* S | **Sn** | **13 22 48.3** | **+0.1** |
| **EATA** | **Eleskirt** | **1.30** | **334** | P | **Pn** | **13 22 30.6** | **-0.1** |
| EATA | | | | S | **Sn** | **13 22 48.3** | **+0.1** |
| **SIRT** | **Sirnak** | **1.35** | **208** | *e*PN | **Pb** | **13 22 31.6** | **-0.2** |
| **SIRT** | **Sirnak** | **1.35** | **208** | *e*Pn | **Pb** | **13 22 31.6** | **-0.2** |
| **CUKT** | **Cukurca** | **1.48** | **169** | *e*PN | **Pb** | **13 22 33.2** | **-0.7** |
| **CUKT** | **Cukurca** | **1.48** | **169** | *e*Pn | **Pb** | **13 22 33.2** | **-0.7** |
| **BNGL** | **BINGOL** | **1.66** | **279** | *e*P | **Pb** | **13 22 36.4** | **-0.6** |
| **BNGL** | **BINGOL** | **1.66** | **279** | *i* P | **Pb** | **13 22 36.9** | **-0.1** |
| BNGL | | | | *i* S | **Sn** | **13 22 57.1** | **+0.4** |
| **BTMN** | **Batman** | **1.75** | **243** | *i* P | **Pb** | **13 22 37.9** | **-0.6** |
| BTMN | | | | *i* S | **Sg** | **13 23 03.1** | **+0.3** |
| **BTMN** | **Batman** | **1.75** | **243** | P | **Pb** | **13 22 37.9** | **-0.6** |
| BTMN | | | | S | **Sg** | **13 23 03.1** | **+0.3** |

*IDC **11** 13:26:55.9±1.9, 36.°14N×142.°01E, h0km, mb3.3/2, mb1 3.4/4, mb1mx3.2/37, mbtmp3.3/4, ML3.1/2, Error ellipse: s-maj=40.1km s-min=28.2km az=62.0*
*ISCJB **11** 13:26:56.7±1.2, 36.°20N±0.°08×142.°1E±0.°1, h23km, mb3.3/2, Error ellipse: s-maj=14.1km s-min=8.7km az=43.4*
*JMA **11** 13:26:58.7±0.3, 36.°22N×141.°92E, h62km, MJ3.1*
**ISC 11 13:26:59.3±1.4, 36.°21N±0.°08×141.°91E±0.°10, h23km, n13, σ1°11/16, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CHOJ** | **Chosi** | **0.99** | **240** | P | **Pn** | **13 27 17.1** | **-0.7** |
| CHOJ | | | | *e*S | **Sn** | **13 27 31.7** | **+0.6** |
| **JHO** | **Hitachi** | **1.15** | **291** | P | **Pn** | **13 27 18.7** | **-1.4** |
| **ONAJ** | **Iwakimizuishiy** | **1.26** | **315** | P | **Pn** | **13 27 20.7** | **-0.9** |
| **JFT** | **Otama** | **1.82** | **316** | P | **Pn** | **13 27 29.6** | **+0.4** |
| **JMM** | **Marumori** | **1.88** | **332** | P | **Pn** | **13 27 29.8** | **-0.3** |
| **JAG** | **Ashikaga** | **2.00** | **277** | P | **Pn** | **13 27 31.3** | **-0.3** |
| **JKT** | **Katashina** | **2.22** | **285** | P | **Pn** | **13 27 35.0** | **+0.2** |
| **JRY** | **Ryogami san** | **2.44** | **266** | P | **Pn** | **13 27 37.2** | **-0.6** |
| **MJAR** | **Matsushiro Arr** | **3.01** | **277** | Pn | **Pn** | **13 27 46.0** | **+0.5** |
| | 2.9nm,0.3s,baz=106,slow=8.8,SNR=48 | | | | | | |
| MJAR | | | | Sn | **Sn** | **13 28 22.3** | **+1.5** |
| | 0.8nm,0.3s,baz=138,slow=13,SNR=4.1 | | | | | | |
| **MAT** | **Matsushiro** | **3.01** | **277** | P | **Pn** | **13 27 46.2** | **+0.6** |
| MAT | | | | S | **Sn** | **13 28 18.2** | **-2.7** |
| **ASAJ** | **Asahikawa** | **7.92** | **4** | Pn | **Pn** | **13 28 52.5** | **-0.4** |
| | 0.2nm,0.3s,baz=192,slow=17,SNR=3.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.90** | **303** | P | **P** | **13 35 13.2** | **+1.1** |
| | 0.3nm,0.8s,baz=74,slow=7.7,SNR=3.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **56.30** | **189** | P | **P** | **13 36 37.8** | **-0.4** |
| | 0.3nm,0.7s,baz=6.1,slow=7.6,SNR=2.5 | | | | | | |

*NIED **11** 13:54:00, 36.°90N×141.°30E, h44km, Mw3.6 Best double couple: M0 2.94000×10^14 NP1:φ=236.00000°, δ13.00000°, λ154.00000°. NP2:φ=351.00000°, δ84.00000°, λ78.00000°.*
*IDC **11** 13:54:36.6±1.5, 36.°83N×141.°52E, h0km, mb3.5/2, mb1 3.7/4, mb1mx3.3/37, mbtmp3.5/4, ML3.4/2, MS2.4/1, Ms1 2.4/1, ms1mx2.1/34, Error ellipse: s-maj=35.7km s-min=24.7km az=133.0*
*JMA **11** 13:54:42.2±0.1, 36.°95N×141.°22E, h49km±1km, MJ3.7*
*JMA Felt I J1.*
**ISC 11 13:54:37.0±2.0, 36.°89N±0.°06×141.°39E±0.°07, h4km±12km, n21, σ1°13/23, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ONAJ** | **Iwakimizuishiy** | **0.52** | **294** | P | **Pn** | **13 54 51.8** | **+0.6** |
| ONAJ | | | | S | **Sn** | **13 54 58.5** | **-2.1** |
| **JFK** | **Kawauchi** | **0.63** | **319** | P | **Pn** | **13 54 53.1** | **+0.4** |
| JFK | | | | S | **Sb** | **13 55 00.7** | **+1.0** |
| **JHO** | **Hitachi** | **0.72** | **247** | P | **Pn** | **13 54 54.7** | **+0.8** |
| JHO | | | | S | **Sb** | **13 55 03.6** | **+1.3** |
| **JFT** | **Otama** | **1.05** | **307** | P | **Pn** | **13 54 59.6** | **+1.1** |
| JFT | | | | S | **Sg** | **13 55 11.6** | **+0.9** |
| **JMM** | **Marumori** | **1.08** | **334** | P | **Pn** | **13 54 59.3** | **+0.4** |
| JMM | | | | S | **Sg** | **13 55 11.9** | **+0.1** |
| **JFY** | **Yanaizu** | **1.44** | **291** | P | **Pb** | **13 55 04.7** | **+0.3** |
| **JIO** | **Ouri** | **1.56** | **359** | P | **Pg** | **13 55 06.4** | **-0.4** |
| **JOU** | **Okura** | **1.58** | **339** | P | **Pg** | **13 55 06.9** | **-0.3** |
| **JAG** | **Ashikaga** | **1.63** | **254** | P | **Pb** | **13 55 07.4** | **-0.2** |
| **JYS** | **Shiratake** | **1.69** | **322** | P | **Pb** | **13 55 08.4** | **-0.3** |
| **MJAR** | **Matsushiro Arr** | **2.58** | **263** | Pn | **Pn** | **13 55 21.1** | **+1.6** |
| | 7.9nm,0.3s,baz=85,slow=15,SNR=85 | | | | | | |
| MJAR | | | | Sn | **Sn** | **13 55 52.6** | **+1.2** |
| | 9.1nm,0.3s,baz=96,slow=23,SNR=7.9 | | | | | | |
| MJAR | | | | LR | LR | 13 56 40.3 | |
| | comp=Z,74nm,21.0s,baz=75,slow=47 | | | | | | |
| **MAT** | **Matsushiro** | **2.58** | **263** | P | **Pb** | **13 55 21.6** | **-2.3** |
| MAT | | | | S | **Sb** | **13 55 54.7** | **-1.3** |
| **ASAJ** | **Asahikawa** | **7.27** | **7** | Pn | **Pn** | **13 56 25.5** | **+1.5** |
| | 0.5nm,0.3s,baz=201,slow=17,SNR=6.9 | | | | | | |
| ASAJ | | | | Sn | **Sn** | **13 57 46.3** | **-0.6** |
| | 0.3nm,0.3s,baz=198,slow=20,SNR=2.5 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| RTCV | | | | | *i* S | | Sn | 14 14 17.6 | +0.6 |
| **ASAL** | **Salagasta** | **0.52** | **207** | | *i* P | | Pn | 14 14 06.5 | +0.7 |
| ASAL | | | | | *i* S | | Sn | 14 14 20.7 | +1.3 |
| **RTLS** | **Leoncito** | **0.71** | **297** | | *i* P | | Pn | 14 14 08.7 | +1.4 |
| RTLS | | | | | *i* S | | Sn | 14 14 24.2 | +2.1 |
| **AUSP** | **Uspallata** | **0.72** | **262** | | *i* P | | Pn | 14 14 08.4 | +1.0 |
| AUSP | | | | | *i* S | | Sn | 14 14 23.3 | +1.1 |
| **RTLL** | **Cerro Villicun** | **0.80** | **5** | | *i* P | | Pn | 14 14 08.4 | +0.7 |
| **AAGR** | **Agrelo** | **0.99** | **194** | | *i* P | | Pn | 14 14 10.2 | +0.6 |
| AAGR | | | | | *i* S | | Sn | 14 14 27.2 | +1.1 |
| **AMOG** | **MOGNA** | **1.18** | **2** | | *i* P | | Pn | 14 14 12.6 | +1.0 |
| AMOG | | | | | IAML | | | 14 14 12.6 | |
| | comp=Z,640nm,0.1s | | | | | | | | |
| AMOG | | | | | *i* S | | Sn | 14 14 30.2 | +0.6 |

*IDC* ***11*** *14:21:11.1±1.0,2˚.65N×127˚.32E,h0km,mb4.1/9, mb1 4.3/9,mb1mx3.9/43,mbtmp4.1/9,Error ellipse: s-maj=56.5km s-min=14.6km az=70.0*
*ISCJB* ***11*** *14:21:16.6±0.6,2˚.59N±0˚.10×127˚.2E±0˚.2,h53km, mb4.3/12,Error ellipse: s-maj=29.3km s-min=9.6km az=159.6*
*NEIC* ***11*** *14:21:27.0±1.8,2˚.56N×127˚.40E,h142km±18km,mb4.6/4, Error ellipse: s-maj=19.3km s-min=9.6km az=72.0*

**ISC 11 14:21:18.3±0.9,2˚.5N±0˚.1×127˚.2E±0˚.2,h53km,n16, σ0§68/16,mb4.3/12,Northern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **FAKI** | **Fak Fak** | **7.40** | **137** | *eP* | | Pn | 14 23 10.3 | +6.4 |
| **SOEI** | **Soe** | **12.56** | **193** | Pn | | **P** | **14 24 23.5** | **-1.1** |
| **FITZ** | **Fitzroy Crossi** | **20.57** | **184** | P | | **P** | **14 25 53.5** | **+0.7** |
| | 2.5nm,0.4s,baz=19,slow=9.5,SNR=19 | | | | | | | |
| **COEN** | **Coen** | **22.79** | **136** | *eP* | | **P** | **14 26 16.5** | **-0.2** |
| **WRAB** | **Tennant Creek** | **23.41** | **163** | *eP* | | **P** | **14 26 22.7** | **-0.1** |
| | 9.6nm,0.6s | | | | | | | |
| **WRA** | **Warramunga Arr** | **23.41** | **163** | P | | **P** | **14 26 23.0** | **+0.2** |
| | 7.8nm,0.3s,baz=337,slow=10,SNR=146 | | | | | | | |
| **MBWA** | **Marble Bar** | **24.66** | **197** | *eP* | | **P** | **14 26 35.1** | **+0.9** |
| | 15nm,0.5s | | | | | | | |
| **ASAR** | **Alice Springs** | **26.85** | **166** | P | | **P** | **14 26 54.2** | **+0.1** |
| | 1.1nm,0.4s,baz=343,slow=7.5,SNR=85 | | | | | | | |
| ASAR | | | | PcP | | **PcP** | **14 30 14.8** | **-1.0** |
| | 0.4nm,0.6s,baz=349,slow=2.6,SNR=4.6 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **31.89** | **302** | P | | **P** | **14 27 38.9** | **0.0** |
| | 0.8nm,0.8s,baz=116,slow=7.3,SNR=5.1 | | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **36.51** | **194** | P | | **P** | **14 28 19.4** | **+0.7** |
| | 1.8nm,0.3s,baz=336,slow=12,SNR=4.6 | | | | | | | |
| **STKA** | **Stephens Creek** | **36.85** | **159** | P | | **P** | **14 28 22.1** | **+0.4** |
| | 9.1nm,0.6s,baz=334,slow=8.6,SNR=29 | | | | | | | |
| **ULN** | **Ulaanbaatar** | **48.39** | **342** | *eP* | | **P** | **14 29 55.9** | **+0.7** |
| | 1.7nm,0.9s | | | | | | | |
| **SONM** | **Songino Array** | **48.57** | **341** | P | | **P** | **14 29 57.1** | **+0.6** |
| | 0.9nm,0.6s,baz=148,slow=8.6,SNR=6.1 | | | | | | | |
| **MKAR** | **Makanchi Array** | **58.80** | **325** | P | | **P** | **14 31 11.1** | **-0.2** |
| | 0.4nm,0.3s,baz=119,slow=7.8,SNR=11 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **61.86** | **333** | P | | **P** | **14 31 30.9** | **-1.0** |
| | 0.7nm,0.4s,baz=122,slow=5.6,SNR=4.9 | | | | | | | |
| **KURK** | **Kurchatov** | **62.99** | **328** | *eP* | | **P** | **14 31 39.3** | **-0.3** |
| | 11nm,0.4s | | | | | | | |

*NSSP* ***11*** *14:26:31.1,41˚.35N×43˚.58E,h7km,Ms3.1*
*TIF* ***11*** *14:26:34.0,41˚.42N×43˚.70E,h11km±1km*
*AZER* ***11*** *14:26:33.9±0.1,41˚.06N×43˚.79E,h13km,Error ellipse: s-maj=5.2km s-min=3.5km az=359.0*
*CSEM* ***11*** *14:26:34.5±0.2,41˚.32N×43˚.70E,h2km,mb4.0,Error ellipse: s-maj=3.5km s-min=3.4km az=70.0*
*DDA* ***11*** *14:26:34.2,41˚.37N×43˚.63E,h5km,Md2.9*
*ISK* ***11*** *14:26:34.3,41˚.40N×43˚.72E,h8km,ML2.8*
*MOS* ***11*** *14:26:34.4±1.2,41˚.28N×43˚.53E,h12km,mb4.0/1,Error ellipse: s-maj=13.3km s-min=5.4km az=81.6*
*ISCJB* ***11*** *14:26:34.3±0.4,41˚.34N±0˚.01×43˚.71E±0˚.02,h0km±3km, mb3.1/1,Error ellipse: s-maj=2.5km s-min=2.2km az=171.4*
*ATA* ***11*** *14:26:35.6±1.4,41˚.31N×43˚.51E,h15km±16km,ML3.7, MW3.6*

**ISC 11 14:26:34.6±0.8,41˚.36N±0˚.01×43˚.67E±0˚.01,h11km±5km, n132,σ1§13/217,26C-16D,Turkey-Georgia-Armenia border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **BGD** | **Bogdanovka** | **0.11** | **208** | P | | | **Pg** | **14 26 37.9** | **+0.3** |
| BGD | | | | S | | | **Sg** | **14 26 40.6** | **+0.8** |
| **BGD** | **Bogdanovka** | **0.11** | **208** | P | | | **Pg** | **14 26 37.9** | **+0.3** |
| BGD | | | | S | | | **Sg** | **14 26 40.6** | **+0.8** |
| **AKH** | **Akhalkalaki** | **0.14** | **289** | PG | | | **Pg** | **14 26 38.6** | **+0.7** |
| AKH | | | | *e*SG | | | **Sg** | **14 26 40.9** | **+0.5** |
| **AKH** | **Akhalkalaki** | **0.14** | **289** | P | | | **Pg** | **14 26 37.6** | **-0.5** |
| AKH | | | | S | | | **Sg** | **14 26 40.0** | **-0.4** |
| **AKH** | **Akhalkalaki** | **0.14** | **289** | *e*PG | | | **Pg** | **14 26 37.5** | **-0.5** |
| **AKH** | **Akhalkalaki** | **0.14** | **289** | *e*Pg | | | **Pg** | **14 26 37.5** | **-0.5** |
| AKH | | | | S | | | **Sg** | **14 26 40.0** | **-0.4** |
| **KZR** | **Kazreti** | **0.56** | **88** | P | | | **Pg** | **14 26 45.1** | **-0.4** |
| KZR | | | | S | | | **Sg** | **14 26 53.1** | **+0.2** |
| **KZR** | **Kazreti** | **0.56** | **88** | P | | | **Pg** | **14 26 45.1** | **-0.4** |
| KZR | | | | S | | | **Sg** | **14 26 53.1** | **+0.2** |
| **STE** | **Stepanavan** | **0.64** | **124** | ⇑P | | | **Pg** | **14 26 47.0** | **-0.1** |
| **STEZ** | **Stepenevan** | **0.66** | **123** | ⇑*i*P | | | **Pg** | **14 26 47.0** | **-0.4** |
| STEZ | | | | ⇑S | | | **Sn** | **14 26 59.0** | **-1.5** |
| **EAK** | **Akyaka** | **0.68** | **184** | *i* P | | | **Pg** | **14 26 47.7** | **0.0** |
| EAK | | | | *e*S | | | **Sb** | **14 26 57.5** | **-0.5** |
| EAK | | | | IAML | | | | 14 27 08.3 | |
| | comp=Z,326nm,0.6s | | | | | | | | |
| **EAK** | **Akyaka** | **0.68** | **184** | *i* P | | | **Pg** | **14 26 47.9** | **+0.2** |
| EAK | | | | *i* S | | | **Sb** | **14 26 57.5** | **-0.5** |
| **EAK** | **Akyaka** | **0.68** | **184** | P | | | **Pg** | **14 26 47.9** | **+0.2** |
| EAK | | | | S | | | **Sb** | **14 26 57.5** | **-0.5** |
| **EPOS** | **Posof** | **0.72** | **281** | ⇑*i*P | | | **Pg** | **14 26 48.4** | **-0.1** |
| EPOS | | | | *e*S | | | **Sg** | **14 26 58.2** | **+0.1** |
| EPOS | | | | IAML | | | | 14 26 59.0 | |
| | comp=Z,119nm,0.3s | | | | | | | | |
| **EPOS** | **Posof** | **0.72** | **281** | *i* P | | | **Pg** | **14 26 48.4** | **-0.1** |
| EPOS | | | | *i* S | | | **Sg** | **14 26 58.1** | **+0.1** |
| **EPOS** | **Posof** | **0.72** | **281** | P | | | **Pg** | **14 26 48.4** | **-0.1** |
| EPOS | | | | S | | | **Sg** | **14 26 58.1** | **+0.1** |
| **KARS** | **Kars** | **0.86** | **211** | *e*PG | | | **Pb** | **14 26 52.1** | **+0.5** |
| **KARS** | **Kars** | **0.86** | **211** | *e*Pg | | | **Pb** | **14 26 52.1** | **+0.5** |
| **TBLG** | **Delisi** | **0.88** | **65** | *e*PG | | | **Pg** | **14 26 50.9** | **-0.7** |
| TBLG | | | | *e*SG | | | **Sg** | **14 27 02.7** | **-0.4** |
| **TBLG** | **Delisi** | **0.88** | **65** | P | | | **Pg** | **14 26 50.9** | **-0.7** |
| TBLG | | | | S | | | **Sg** | **14 27 02.3** | **-0.8** |
| **TBLG** | **Delisi** | **0.88** | **65** | *e*Pn | | | **Pg** | **14 26 50.8** | **-0.7** |
| TBLG | | | | *e*SN8 | | | **Sg** | **14 27 03.8** | **+0.7** |
| TBLG | | | | IAML | | | | 14 27 05.9 | |
| | comp=Z,327nm,0.4s | | | | | | | | |
| **TBLG** | **Delisi** | **0.88** | **65** | *e*PG | | | **Pg** | **14 26 50.9** | **-0.7** |
| **TBLG** | **Delisi** | **0.88** | **65** | P | | | **Pg** | **14 26 50.9** | **-0.7** |
| TBLG | | | | S | | | **Sg** | **14 27 02.1** | **-1.0** |
| **SEAG** | **Tbilisi Sea** | **0.94** | **64** | P | | | **Pg** | **14 26 52.0** | **-0.7** |
| SEAG | | | | S | | | **Sg** | **14 27 04.8** | **-0.2** |
| **SEAG** | **Tbilisi Sea** | **0.94** | **64** | P | | | **Pg** | **14 26 52.0** | **-0.7** |
| SEAG | | | | S | | | **Sg** | **14 27 04.8** | **-0.2** |
| **DIGO** | **Kars** | **0.97** | **193** | ⇓*i*P | | | **Pg** | **14 26 53.0** | **-0.4** |
| DIGO | | | | *e*S | | | **Sb** | **14 27 06.5** | **-0.2** |
| DIGO | | | | IAML | | | | 14 27 15.7 | |
| | comp=Z,66nm,0.6s | | | | | | | | |
| **DIGO** | **Kars** | **0.97** | **193** | *i* P | | | **Pb** | **14 26 53.6** | **-0.1** |
| DIGO | | | | *i* S | | | **Sn** | **14 27 07.6** | **-0.8** |
| **DIGO** | **Kars** | **0.97** | **193** | P | | | **Pb** | **14 26 53.6** | **-0.1** |
| DIGO | | | | S | | | **Sn** | **14 27 07.6** | **-0.8** |
| **DUS** | **Dusheti** | **1.06** | **46** | P | | | **Pn** | **14 26 55.4** | **-0.2** |
| DUS | | | | S | | | **Sb** | **14 27 09.2** | **+0.2** |
| **DUS** | **Dusheti** | **1.06** | **46** | *e*PG | | | **Pn** | **14 26 55.6** | **+0.1** |
| DUS | | | | *e*S | | | **Sb** | **14 27 09.4** | **+0.4** |
| **DUS** | **Dusheti** | **1.06** | **46** | P | | | **Pn** | **14 26 55.6** | **+0.1** |
| DUS | | | | *e*Sg | | | **Sb** | **14 27 09.4** | **+0.4** |
| **ONI** | **Oni** | **1.24** | **353** | P | | | **Pn** | **14 26 56.9** | **-1.0** |
| ONI | | | | S | | | **Sb** | **14 27 13.4** | **-0.7** |
| **ONI** | **Oni** | **1.24** | **353** | *e*PG | | | **Pn** | **14 26 56.8** | **-1.1** |
| ONI | | | | *e*S | | | **Sb** | **14 27 13.3** | **-0.7** |
| **ONI** | **Oni** | **1.24** | **353** | P | | | **Pn** | **14 26 56.9** | **-1.0** |
| ONI | | | | S | | | **Sb** | **14 27 13.4** | **-0.7** |
| **GUDG** | **Gudauri** | **1.25** | **28** | P | | | **Pn** | **14 26 57.6** | **-0.7** |
| GUDG | | | | S | | | **Sg** | **14 27 14.9** | **-0.1** |
| **GUDG** | **Gudauri** | **1.25** | **28** | P | | | **Pn** | **14 26 57.6** | **-0.7** |
| GUDG | | | | S | | | **Sg** | **14 27 14.9** | **-0.1** |
| **SENK** | **Senkaya-Erzuru** | **1.28** | **232** | *e*PN | | | **Pg** | **14 26 59.2** | **0.0** |
| **SENK** | **Senkaya-Erzuru** | **1.28** | **232** | *e*Pn | | | **Pg** | **14 26 59.2** | **0.0** |
| **QZX** | **Qazax, Azerbai** | **1.32** | **103** | ⇓P | | | **Pn** | **14 26 58.5** | **-0.5** |
| | SNR=160 | | | | | | | | |
| QZX | | | | ⇓S | | | **Sn** | **14 27 16.5** | **-0.1** |
| **QZX** | **Qazax, Azerbai** | **1.32** | **103** | P | | | **Pn** | **14 26 58.5** | **-0.5** |
| | SNR=160 | | | | | | | | |
| QZX | | | | S | | | **Sn** | **14 27 16.5** | **-0.1** |
| **ARTV** | **Artvin** | **1.32** | **263** | *e*P | | | **Pn** | **14 26 59.3** | **+0.1** |
| ARTV | | | | *e*S | | | **Sb** | **14 27 16.1** | **-0.5** |
| ARTV | | | | IAML | | | | 14 27 18.6 | |
| | comp=Z,126nm,0.3s | | | | | | | | |
| **ARTV** | **Artvin** | **1.32** | **263** | *i* P | | | **Pb** | **14 26 59.5** | **-0.1** |
| ARTV | | | | *i* S | | | **Sb** | **14 27 16.2** | **-0.5** |
| **ARTV** | **Artvin** | **1.32** | **263** | P | | | **Pb** | **14 26 59.5** | **-0.1** |
| ARTV | | | | S | | | **Sb** | **14 27 16.2** | **-0.5** |
| **DAGI** | **Agillar** | **1.35** | **258** | *i* P | | | **Pg** | **14 27 00.4** | **-0.2** |
| DAGI | | | | *i* S | | | **Sg** | **14 27 18.2** | **+0.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.45** | **162** | *e*PN | | | **Pg** | **14 27 01.9** | **-0.4** |
| **TASB** | **TASBURUN-IGDIR** | **1.45** | **162** | *e*Pn | | | **Pg** | **14 27 01.9** | **-0.4** |
| **GNI** | **Garni** | **1.46** | **146** | ⇑*i*P | | | **Pg** | **14 27 02.2** | **-0.4** |
| GNI | | | | ⇓*i*S | | | **Sg** | **14 27 23.5** | **+1.9** |
| **GNI** | **Garni** | **1.46** | **146** | *e*PG | | | **Pb** | **14 27 02.0** | **+0.1** |
| **GNI** | **Garni** | **1.46** | **146** | ⇑P | | | **Pg** | **14 27 02.2** | **-0.4** |
| GNI | | | | S | | | **Sg** | **14 27 23.5** | **+1.9** |
| **DDEM** | **Demirkent** | **1.52** | **253** | *i* P | | | **Pb** | **14 27 03.2** | **+0.3** |
| DDEM | | | | *i* S | | | **Sn** | **14 27 21.8** | **0.0** |
| **DDEM** | **Demirkent** | **1.52** | **253** | P | | | **Pb** | **14 27 03.2** | **+0.3** |
| DDEM | | | | S | | | **Sn** | **14 27 21.8** | **0.0** |
| **LACR** | **Lac** | **1.54** | **18** | ⇓*i*PN | | | **Pn** | **14 27 02.3** | **+0.2** |
| **LACR** | **Lac** | **1.54** | **18** | *i* Pn | | | **Pn** | **14 27 02.3** | **+0.2** |
| **DIGR** | **Digorskoe uzhe** | **1.54** | **358** | *e*PG | | | **Pb** | **14 27 02.7** | **-0.5** |
| DIGR | | | | *e*S | | | **Sg** | **14 27 23.9** | **-0.1** |
| **DIGR** | **Digorskoe uzhe** | **1.54** | **358** | *e*Pg | | | **Pb** | **14 27 02.7** | **-0.5** |
| DIGR | | | | *e*Sg | | | **Sg** | **14 27 23.9** | **-0.1** |
| **GDB** | **GEDABAY** | **1.70** | **111** | ⇑P | | | **Pn** | **14 27 04.8** | **+0.4** |
| GDB | | | | ⇓S | | | **Sb** | **14 27 26.9** | **-0.6** |
| **GDB** | **GEDABAY** | **1.70** | **111** | P | | | **Pn** | **14 27 04.8** | **+0.4** |
| GDB | | | | S | | | **Sb** | **14 27 26.9** | **-0.6** |
| **EATA** | **Eleskirt** | **1.75** | **211** | *e*P | | | **Pb** | **14 27 06.6** | **-0.3** |
| **EATA** | **Eleskirt** | **1.75** | **211** | *i* P | | | **Pb** | **14 27 06.5** | **-0.3** |
| **EATA** | **Eleskirt** | **1.75** | **211** | P | | | **Pb** | **14 27 06.6** | **-0.3** |
| **KORR** | **Kora** | **1.75** | **10** | *e*PN | | | **Pg** | **14 27 07.3** | **-0.8** |
| KORR | | | | *e*S | | | **Sg** | **14 27 31.5** | **+0.8** |
| **KORR** | **Kora** | **1.75** | **10** | *e*Pn | | | **Pg** | **14 27 07.3** | **-0.8** |
| KORR | | | | *e*Sg | | | **Sg** | **14 27 31.5** | **+0.8** |
| **CHVG** | **Ch'k'valeri** | **1.80** | **319** | *e*PN | | | **Pn** | **14 27 03.7** | **-1.8** |
| **CHVG** | **Ch'k'valeri** | **1.80** | **319** | P | | | **Pb** | **14 27 06.7** | **-0.8** |
| CHVG | | | | S | | | **Sg** | **14 27 31.8** | **-0.5** |
| **CHVG** | **Ch'k'valeri** | **1.80** | **319** | *e*Pn | | | **Pn** | **14 27 03.7** | **-1.8** |
| **CHVG** | **Ch'k'valeri** | **1.80** | **319** | P | | | **Pb** | **14 27 06.7** | **-0.8** |
| CHVG | | | | S | | | **Sg** | **14 27 31.8** | **-0.5** |
| **DYDN** | **Diyadin** | **1.82** | **180** | ⇑*i*P | | | **Pg** | **14 27 09.6** | **+0.2** |
| **VLKR** | **Vladikavkaz** | **1.84** | **24** | *e*PN | | | **Pb** | **14 27 08.6** | **+0.3** |
| **VLKR** | **Vladikavkaz** | **1.84** | **24** | *e*Pn | | | **Pb** | **14 27 08.6** | **+0.3** |
| **DDFL** | **Dedoflistskaro** | **1.84** | **87** | P | | | **Pg** | **14 27 09.1** | **-0.8** |
| DDFL | | | | S | | | **Sg** | **14 27 36.5** | **+2.6** |
| **AGRB** | **Hanur-Agry** | **1.86** | **196** | *e*PN | | | **Pb** | **14 27 08.1** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **1.86** | **196** | *e*Pn | | | **Pb** | **14 27 08.1** | **-0.6** |
| **HYR** | **Heyderabad** | **1.87** | **151** | ⇓P | | | **Pn** | **14 27 04.9** | **-1.8** |
| HYR | | | | ⇓S | | | **Sn** | **14 27 27.9** | **-2.5** |
| **HYR** | **Heyderabad** | **1.87** | **151** | P | | | **Pn** | **14 27 04.9** | **-1.8** |
| HYR | | | | S | | | **Sn** | **14 27 27.9** | **-2.5** |
| **HOMI** | **Horasan** | **1.88** | **226** | *i* P | | | **Pg** | **14 27 08.9** | **-0.2** |
| **KMGR** | **Komgaron** | **1.91** | **27** | *e*PN | | | **Pg** | **14 27 11.3** | **+0.1** |
| **KMGR** | **Komgaron** | **1.91** | **27** | *e*Pn | | | **Pg** | **14 27 11.3** | **+0.1** |
| **LSNR** | **Lesken** | **1.92** | **3** | *e*PN | | | **Pg** | **14 27 10.4** | **-0.9** |
| **LSNR** | **Lesken** | **1.92** | **3** | *e*Pn | | | **Pg** | **14 27 10.4** | **-0.9** |
| **NEY** | **Neytrino** | **2.01** | **340** | *i* PN | | | **Pb** | **14 27 11.4** | **+0.1** |
| NEY | | | | | pmax | pmax | | | |
| | comp=Z,55nm,0.3s | | | | | | | | |
| **NEY** | **Neytrino** | **2.01** | **340** | *i* Pn | | | **Pb** | **14 27 11.4** | **+0.1** |
| | comp=Z,55nm,0.3s | | | | | | | | |
| **STDR** | **Stavd-Durt** | **2.02** | **8** | *e*PN | | | **Pg** | **14 27 13.1** | **-0.3** |
| STDR | | | | *e*S | | | **Sg** | **14 27 40.1** | **+0.4** |
| **STDR** | **Stavd-Durt** | **2.02** | **8** | *e*Pn | | | **Pg** | **14 27 13.1** | **-0.3** |
| STDR | | | | *e*Sb | | | **Sg** | **14 27 40.1** | **+0.4** |
| **TUTA** | **Tutak** | **2.07** | **199** | *e*PN12 | | | **Pb** | **14 27 11.5** | **-0.7** |
| **BTKR** | **Batakoyurt** | **2.11** | **18** | *e*PN | | | **Pg** | **14 27 14.5** | **-0.5** |
| BTKR | | | | *e*S | | | **Sg** | **14 27 40.7** | **-1.7** |
| **BTKR** | **Batakoyurt** | **2.11** | **18** | *e*Pn | | | **Pg** | **14 27 14.5** | **-0.5** |
| BTKR | | | | *e*Sn | | | **Sg** | **14 27 40.7** | **-1.7** |
| **NCK** | **Nalchik** | **2.13** | **359** | *e*PN | | | **Pb** | **14 27 13.7** | **+0.5** |
| NCK | | | | *e*S | | | **Sg** | **14 27 43.1** | **0.0** |
| **NCK** | **Nalchik** | **2.13** | **359** | *e*Pn | | | **Pb** | **14 27 13.7** | **+0.5** |
| NCK | | | | *e*Sn | | | **Sg** | **14 27 43.1** | **0.0** |
| **GANJ** | **Ganja** | **2.13** | **109** | ⇑P | | | **Pn** | **14 27 10.0** | **-0.2** |
| GANJ | | | | ⇑S | | | **Sn** | **14 27 37.1** | **+0.4** |
| **GANJ** | **Ganja** | **2.13** | **109** | P | | | **Pn** | **14 27 10.0** | **-0.2** |
| GANJ | | | | S | | | **Sn** | **14 27 37.1** | **+0.4** |
| **CLDR** | **Caldiran** | **2.23** | **175** | *e*PN | | | **Pn** | **14 27 12.7** | **+1.0** |
| **CLDR** | **Caldiran** | **2.23** | **175** | *e*Pn | | | **Pn** | **14 27 12.7** | **+1.0** |
| **ZKTA** | **Zakatala** | **2.23** | **82** | ⇑P | | | **Pn** | **14 27 12.9** | **+1.3** |
| ZKTA | | | | ⇓S | | | **Sb** | **14 27 42.9** | **+0.2** |
| **ERZM** | **Erzurum** | **2.28** | **231** | *e*PN12 | | | **Pb** | **14 27 14.8** | **-1.1** |
| **BTLR** | **Botlikh** | **2.30** | **55** | *e*PN | | | **Pb** | **14 27 15.3** | **-0.9** |
| BTLR | | | | *e* | | | | 14 27 45.0 | |
| BTLR | | | | | pmax | pmax | | | |
| | comp=Z,20nm,0.7s | | | | | | | | |
| BTLR | | | | | smax | smax | | | |
| | comp=E,351nm,0.6s | | | | | | | | |
| BTLR | | | | | smax | smax | | | |
| | comp=E,295nm,0.8s | | | | | | | | |
| BTLR | | | | | smax | smax | | | |
| | comp=N,165nm,0.7s | | | | | | | | |
| **BTLR** | **Botlikh** | **2.30** | **55** | *e*Pn | | | **Pb** | **14 27 15.3** | **-0.9** |
| | comp=N,20nm,0.7s | | | | | | | | |
| BTLR | | | | *e*Sn | | | **Sb** | **14 27 45.0** | **+0.3** |
| | comp=N,165nm,0.7s | | | | | | | | |
| **SBZ** | **Shahbuz** | **2.44** | **143** | ⇑P | | | **Pn** | **14 27 12.8** | **-1.7** |
| SBZ | | | | ⇓S | | | **Sn** | **14 27 42.1** | **-2.2** |
| **SBZ** | **Shahbuz** | **2.44** | **143** | P | | | **Pn** | **14 27 12.8** | **-1.7** |
| SBZ | | | | S | | | **Sn** | **14 27 42.1** | **-2.2** |
| **EKAR** | **Karacoban** | **2.44** | **211** | *e*PN12 | | | **Pb** | **14 27 17.3** | **-1.3** |
| **EKAR** | **Karacoban** | **2.44** | **211** | *i* P | | | **Pg** | **14 27 22.0** | **+0.7** |
| **XNZR** | **Khunzakh** | **2.55** | **62** | *e*PN | | | **Pb** | **14 27 20.6** | **+0.1** |
| XNZR | | | | *e* | | | | 14 27 53.8 | |
| **XNZR** | **Khunzakh** | **2.55** | **62** | *e*Pn | | | **Pb** | **14 27 20.6** | **+0.1** |
| XNZR | | | | *e*Sn | | | **Sb** | **14 27 53.8** | **+1.8** |
| **NAX** | **Nakhchivan** | **2.59** | **147** | ⇑P | | | **Pn** | **14 27 14.9** | **-1.7** |
| NAX | | | | ⇑S | | | **Sn** | **14 27 45.9** | **-2.3** |
| **NAX** | **Nakhchivan** | **2.59** | **147** | P | | | **Pn** | **14 27 14.9** | **-1.7** |
| NAX | | | | S | | | **Sn** | **14 27 45.9** | **-2.3** |
| **MNGR** | **Mingechevir, A** | **2.65** | **102** | ⇑P | | | **Pn** | **14 27 17.4** | **+0.2** |
| MNGR | | | | ⇑S | | | **Sn** | **14 27 50.2** | **+0.8** |
| **MNGR** | **Mingechevir, A** | **2.65** | **102** | P | | | **Pn** | **14 27 17.4** | **+0.2** |
| MNGR | | | | S | | | **Sn** | **14 27 50.2** | **+0.8** |
| **SEKA** | **Sheki** | **2.66** | **92** | ⇑P | | | **Pn** | **14 27 19.2** | **+1.6** |
| SEKA | | | | ⇓S | | | **Sb** | **14 27 52.9** | **-2.2** |
| **SEKA** | **Sheki** | **2.66** | **92** | P | | | **Pn** | **14 27 19.2** | **+1.6** |
| SEKA | | | | S | | | **Sb** | **14 27 52.9** | **-2.2** |
| **KIV** | **Kislovodsk** | **2.69** | **345** | *e*PN | | | **Pb** | **14 27 20.5** | **-2.3** |
| KIV | | | | *e*S | | | **Sb** | **14 27 54.7** | **-1.2** |
| KIV | | | | | pmax | pmax | | | |
| | comp=Z,31nm,1.1s | | | | | | | | |
| **KIV** | **Kislovodsk** | **2.69** | **345** | *e*Pn | | | **Pb** | **14 27 20.5** | **-2.3** |
| | comp=Z,31nm,1.1s | | | | | | | | |
| KIV | | | | *e*Sn | | | **Sb** | **14 27 54.7** | **-1.2** |
| **KOPT** | **Kop Dagi** | **2.76** | **242** | *i* P | | | **Pg** | **14 27 26.6** | **-0.9** |
| **ORD** | **Ordubad** | **3.02** | **143** | P | | | **Pn** | **14 27 20.7** | **-1.7** |
| ORD | | | | S | | | **Sn** | **14 27 56.5** | **-2.1** |
| **AKT** | **Akhty** | **3.06** | **86** | *e*PN | | | **Pb** | **14 27 25.9** | **-3.2** |
| AKT | | | | *e* | | | | 14 28 05.4 | |
| AKT | | | | | pmax | pmax | | | |
| | comp=Z,12nm,0.5s | | | | | | | | |
| AKT | | | | | smax | smax | | | |
| | comp=E,71nm,0.5s | | | | | | | | |
| AKT | | | | | smax | smax | | | |
| | comp=N,94nm,0.7s | | | | | | | | |
| AKT | | | | | smax | smax | | | |
| | comp=N,104nm,0.7s | | | | | | | | |
| **AKT** | **Akhty** | **3.06** | **86** | *e*Pn | | | **Pb** | **14 27 25.9** | **-3.2** |
| | comp=N,12nm,0.5s | | | | | | | | |
| AKT | | | | *e*Sn | | | **Sb** | **14 28 05.4** | **-1.0** |
| | comp=N,104nm,0.7s | | | | | | | | |
| **QBL** | **Gabala** | **3.17** | **96** | ⇓P | | | **Pn** | **14 27 25.2** | **+0.7** |
| QBL | | | | ⇓S | | | **Sn** | **14 28 03.4** | **+1.0** |
| **QBL** | **Gabala** | **3.17** | **96** | P | | | **Pn** | **14 27 25.2** | **+0.7** |
| QBL | | | | S | | | **Sn** | **14 28 03.4** | **+1.0** |
| **XNQ** | **Khinaliq** | **3.38** | **92** | ⇑P | | | **Pn** | **14 27 27.9** | **+0.4** |
| XNQ | | | | ⇓S | | | **Sn** | **14 28 08.7** | **+1.1** |
| **XNQ** | **Khinaliq** | **3.38** | **92** | P | | | **Pn** | **14 27 27.9** | **+0.4** |
| XNQ | | | | S | | | **Sn** | **14 28 08.7** | **+1.1** |
| **QSAR** | **Qusar** | **3.46** | **86** | ⇑P | | | **Pn** | **14 27 29.5** | **+1.1** |
| QSAR | | | | ⇑S | | | **Sn** | **14 28 13.3** | **+3.9** |
| **QSAR** | **Qusar** | **3.46** | **86** | P | | | **Pn** | **14 27 29.5** | **+1.1** |
| QSAR | | | | S | | | **Sn** | **14 28 13.3** | **+3.9** |
| **KELT** | **Kelkit** | **3.56** | **252** | *i* P | | | **Pb** | **14 27 38.4** | **+0.6** |
| KELT | | | | *i* S | | | **Sb** | **14 28 23.5** | **+2.3** |
| **QUBA** | **Quba, Azerbaij** | **3.63** | **89** | ⇓P | | | **Pn** | **14 27 32.0** | **+1.2** |
| QUBA | | | | ⇓S | | | **Sn** | **14 28 16.1** | **+2.4** |
| **QUBA** | **Quba, Azerbaij** | **3.63** | **89** | P | | | **Pn** | **14 27 32.0** | **+1.2** |
| QUBA | | | | S | | | **Sn** | **14 28 16.1** | **+2.4** |
| **GOF** | **Gofitskoye** | **3.72** | **353** | ⇑*e*PN | | | Pg | 14 27 50.7 | +4.9 |
| **GOF** | **Gofitskoye** | **3.72** | **353** | *e*Pn | | | Pg | 14 27 50.7 | +4.9 |
| **PQL** | **Pirkuli** | **3.77** | **97** | ⇑P | | | **Pn** | **14 27 33.3** | **+0.5** |
| PQL | | | | ⇓S | | | **Sn** | **14 28 18.0** | **+0.8** |
| **PQL** | **Pirkuli** | **3.77** | **97** | P | | | **Pn** | **14 27 33.3** | **+0.5** |
| PQL | | | | S | | | **Sn** | **14 28 18.0** | **+0.8** |
| **LRK** | **Lerik** | **4.50** | **126** | ⇑P | | | **Pn** | **14 27 41.1** | **-1.8** |
| **LRK** | **Lerik** | **4.50** | **126** | P | | | **Pn** | **14 27 41.1** | **-1.8** |
| **OBN** | **Obninsk** | **14.54** | **344** | ⇑*e*P | | | **Pn** | **14 30 00.8** | **+0.7** |
| OBN | | | | *e*S | | | **Sn** | **14 32 45.9** | **+4.8** |
| OBN | | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,1.0s | | | | | | | | |
| OBN | | | | | MLR | MLR | | | |
| | comp=Z,121nm,11.0s | | | | | | | | |
| **BRVK** | **Borovoye** | **21.40** | **48** | *e*P | | | **P** | **14 31 21.6** | **-0.5** |
| BRVK | | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.9s | | | | | | | | |
| **BRVK** | **Borovoye** | **21.40** | **48** | *e*P | | | **P** | **14 31 21.6** | **-0.5** |
| | comp=Z,1.0nm,0.9s | | | | | | | | |

*IDC* ***11*** *14:29:45.8±1.9,29˚.76S×175˚.80W,h0km,mb3.8/4, mb1 4.0/5,mb1mx3.7/27,mbtmp3.9/5,ML3.7/1,MS3.2/1, Ms1 3.2/1,ms1mx2.7/25,Error ellipse: s-maj=49.1km s-min=34.8km az=154.0*
*ISCJB* ***11*** *14:29:52.1±2.0,30˚.02S±0˚.08×176˚.3W±0˚.2,h33km, mb3.9/4,Error ellipse: s-maj=23.9km s-min=10.5km az=165.4*

**ISC 11 14:29:52.2±1.6,29˚.9S±0˚.1×176˚.1W±0˚.2,h35km,n9, σ1§24/10,mb3.8/4,Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **1.72** | **290** | Pn | | | **Pn** | **14 30 19.2** | **-0.4** |
| | 264nm,0.3s,baz=103,slow=14,SNR=20 | | | | | | | | |
| RAO | | | | S | | | **Sn** | **14 30 39.2** | **-1.1** |
| | 387nm,0.3s,baz=107,slow=19,SNR=5.9 | | | | | | | | |
| **URZ** | **Urewera** | **10.10** | **212** | Pn | | | **Pn** | **14 32 14.0** | **-0.7** |
| | 0.6nm,0.3s,baz=343,slow=19,SNR=8.2 | | | | | | | | |
| URZ | | | | Sn | | |

**IMOG Moghan 3.50 107** *e*Pn **Pn** 15 22 14.1 +0.2
IMOG eAMB AMB 15 22 27.7
comp=Z,1μm,0.1s
**IMOG Moghan 3.50 107** *e*Pn **Pn** **15 22 14.1 +0.2**
**IVRN Varamin 3.60 233** *e*Pn **Pn** **15 22 18.6 +3.6**
IVRN eAMB AMB 15 23 15.7
comp=Z,3μm,0.1s
**IVRN Varamin 3.60 233** *e*Pn **Pn** **15 22 18.6 +3.6**
**THKV Tehran--Karaj 3.73 251** *e*Pn **Pn** **15 22 18.2 +1.3**
THKV eSg **Sb** **15 23 14.4 +3.9**
THKV AML AML 15 23 20.9
comp=E,172nm,0.4s
**THKV Tehran--Karaj 3.73 251** *e*Pn **Pn** **15 22 18.2 +1.3**
**IMYA Miami 4.02 101** *e*Pn **Pn** **15 22 22.1 +1.2**
IMYA eAMB AMB 15 22 50.5
comp=Z,961nm,0.2s
**IMYA Miami 4.02 101** *e*Pn **Pn** **15 22 22.1 +1.2**
**GHVR GHOM 4.21 230** *e*Pn **Pn** **15 22 24.0 +0.7**
**GHVR GHOM 4.21 230** *e*Pn **Pn** **15 22 24.0 +0.7**
**ANAR Anarak 4.21 197** *e*Pn **Pn** **15 22 22.8 -0.7**
ANAR eAMB AMB 15 23 40.7
comp=Z,99nm,0.3s
**ANAR Anarak 4.21 197** *e*Pn **Pn** **15 22 22.8 -0.7**
**IRAZ Razeghan 4.64 248** *e*Pn **Pn** **15 22 31.5 +2.1**
IRAZ eAMB AMB 15 22 46.2
comp=Z,967nm,0.3s
**IRAZ Razeghan 4.64 248** *e*Pn **Pn** **15 22 31.5 +2.1**
**NASN Na'in 4.84 205** *e*Pn **Pn** **15 22 31.8 -0.6**
**NASN Na'in 4.84 205** *e*Pn **Pn** **15 22 31.8 -0.6**
**ASAO Ashtian 4.99 239** *e*Pn **Pn** **15 22 35.1 +0.8**
**ASAO Ashtian 4.99 239** *e*Pn **Pn** **15 22 35.1 +0.8**
**ASTR Astara 5.25 287** ⇑P **Pn** **15 22 38.3 +0.7**
SNR=8.6
ASTR ⇓S **Sn** **15 23 36.2 -1.6**
**ASTR Astara 5.25 287** P **Pn** **15 22 38.3 +0.7**
SNR=8.6
ASTR S **Sn** **15 23 36.2 -1.6**
**NDR Nardaran 5.27 311** ⇑P **Pn** **15 22 40.2 +2.4**
SNR=7.9
NDR ⇓S **Sn** **15 23 40.5 +2.2**
**NDR Nardaran 5.27 311** P **Pn** **15 22 40.2 +2.4**
SNR=7.9
NDR S **Sn** **15 23 40.5 +2.2**
**LKRN Lenkeran, Azer 5.29 288** ⇑P **Pn** **15 22 39.1 +1.0**
SNR=12
LKRN ⇓S **Sn** **15 23 36.2 -2.6**
**LKRN Lenkeran, Azer 5.29 288** P **Pn** **15 22 39.1 +1.0**
SNR=12
LKRN S **Sn** **15 23 36.2 -2.6**
**SHRT Shahrakht 5.48 129** *e*Pn **Pn** **15 22 40.2 -0.6**
**SHRT Shahrakht 5.48 129** *e*Pn **Pn** **15 22 40.2 -0.6**
**ALIB Äli-Bayra 5.57 301** ⇓P **Pn** **15 22 45.9 +4.0**
SNR=3.2
ALIB ⇓S **Sn** **15 23 44.9 -0.8**
**ALIB Äli-Bayra 5.57 301** P **Pn** **15 22 45.9 +4.0**
SNR=3.2
ALIB S **Sn** **15 23 44.9 -0.8**
**LRK Lerik 5.61 287** ⇑P **Pn** **15 22 43.4 +0.7**
SNR=29
LRK ⇓S **Sn** **15 23 44.9 -2.1**
**LRK Lerik 5.61 287** P **Pn** **15 22 43.4 +0.7**
SNR=29
**GLBA Clilabad 5.73 293** P **Pn** **15 22 45.5 +1.3**
SNR=14
GLBA ⇓S **Sn** **15 23 49.1 -0.6**
**GLBA Clilabad 5.73 293** P **Pn** **15 22 45.5 +1.3**
SNR=14
GLBA S **Sn** **15 23 49.1 -0.6**
**GBS Qobustan 5.90 306** ⇓P **Pn** **15 22 50.9 +4.4**
GBS ⇓S **Sn** **15 23 55.2 +1.3**
**GBS Qobustan 5.90 306** P **Pn** **15 22 50.9 +4.4**
GBS S **Sn** **15 23 55.2 +1.3**
**ATGJ Altiaghaj 6.08 308** ⇓P **Pn** **15 22 51.8 +2.7**
SNR=3.1
ATGJ ⇓S **Sn** **15 23 59.2 +0.8**
**ATGJ Altiaghaj 6.08 308** P **Pn** **15 22 51.8 +2.7**
SNR=3.1
ATGJ S **Sn** **15 23 59.2 +0.8**
**SIZA Siyzn 6.23 310** ⇓P **Pn** **15 22 53.9 +2.8**
SNR=4.3
SIZA ⇑S **Sn** **15 24 03.5 +1.4**
**SIZA Siyzn 6.23 310** P **Pn** **15 22 53.9 +2.8**
SNR=4.3
SIZA S **Sn** **15 24 03.5 +1.4**
**PQL Pirkuli 6.26 307** P **Pn** **15 22 54.8 +3.2**
SNR=3.8
PQL ⇓S **Sn** **15 24 03.4 +0.5**
**PQL Pirkuli 6.26 307** P **Pn** **15 22 54.8 +3.2**
SNR=3.8
PQL S **Sn** **15 24 03.4 +0.5**
**IML Ismayilli 6.53 305** P **Pn** **15 22 57.9 +2.7**
SNR=6.7
IML ⇑S **Sn** **15 24 10.9 +1.6**
**IML Ismayilli 6.53 305** P **Pn** **15 22 57.9 +2.7**
SNR=6.7
IML S **Sn** **15 24 10.9 +1.6**
**IHRS Heris 6.56 282** *e*Pn **Pn** **15 22 57.2 +1.4**
IHRS eAMB AMB 15 22 58.9
comp=Z,2μm,0.1s
**IHRS Heris 6.56 282** *e*Pn **Pn** **15 22 57.2 +1.4**
**QUBA Quba, Azerbaij 6.64 310** ⇓P **Pn** **15 22 59.8 +3.1**
QUBA ⇑S **Sn** **15 24 11.8 -0.3**
**QUBA Quba, Azerbaij 6.64 310** P **Pn** **15 22 59.8 +3.1**
QUBA S **Sn** **15 24 11.8 -0.3**
**XNQ Khinaliq 6.75 308** ⇓P **Pn** **15 23 00.8 +2.4**
SNR=20
XNQ ⇓S **Sn** **15 24 15.8 +0.6**
**XNQ Khinaliq 6.75 308** P **Pn** **15 23 00.8 +2.4**
SNR=20
XNQ S **Sn** **15 24 15.8 +0.6**
**QBL Gabala 6.83 305** P **Pn** **15 23 01.2 +1.9**
SNR=3.4
QBL ⇓S **Sn** **15 24 17.3 +0.5**
**QBL Gabala 6.83 305** P **Pn** **15 23 01.2 +1.9**
SNR=3.4
QBL S **Sn** **15 24 17.3 +0.5**
**QSAR Qusar 6.87 311** P **Pn** **15 23 03.2 +3.3**
SNR=13
QSAR ⇑S **Sn** **15 24 18.0 +0.2**
**QSAR Qusar 6.87 311** P **Pn** **15 23 03.2 +3.3**
SNR=13
QSAR S **Sn** **15 24 18.0 +0.2**
**SEKA Sheki 7.38 305** ⇑P **Pn** **15 23 09.1 +2.2**
SNR=4.3
SEKA ⇓S **Sn** **15 24 29.1 -1.3**
**SEKA Sheki 7.38 305** P **Pn** **15 23 09.1 +2.2**
SNR=4.3
SEKA S **Sn** **15 24 29.1 -1.3**
**ORD Ordubad 7.46 286** P **Pn** **15 23 10.1 +2.0**
ORD S **Sn** **15 24 32.9 +0.4**
**GANJ Ganja 7.72 299** ⇓P **Pn** **15 23 12.1 +0.6**
SNR=3.8
GANJ ⇑S **Sn** **15 24 36.1 -2.6**
**GANJ Ganja 7.72 299** P **Pn** **15 23 12.1 +0.6**
SNR=3.8
**NAX Nakhchivan 7.89 287** P **Pn** **15 23 16.5 +2.5**
SNR=4.1
NAX ⇓S **Sn** **15 24 43.4 +0.4**
**NAX Nakhchivan 7.89 287** P **Pn** **15 23 16.5 +2.5**
SNR=4.1
**SBZ Shahbuz 7.89 289** ⇑P **Pn** **15 23 16.1 +2.1**
SBZ ⇓S **Sn** **15 24 42.5 -0.7**
**SBZ Shahbuz 7.89 289** P **Pn** **15 23 16.1 +2.1**
**ZKTA Zakatala 7.97 306** P **Pn** **15 23 17.6 +2.7**
SNR=4.7
ZKTA ⇑S **Sn** **15 24 45.7 +0.9**
**GDB GEDABAY 8.15 298** ⇑P **Pn** **15 23 19.4 +1.9**
SNR=3.7
GDB ⇓S **Sn** **15 24 48.4 -1.0**
**GDB GEDABAY 8.15 298** P **Pn** **15 23 19.4 +1.9**
SNR=3.7
**QZX Qazax, Azerbai 8.54 300** ⇑P **Pn** **15 23 25.3 +2.5**
SNR=3.5
QZX ⇑S **Sn** **15 24 58.5 -0.5**
**QZX Qazax, Azerbai 8.54 300** P **Pn** **15 23 25.3 +2.5**
SNR=3.5
**GNI Garni 8.69 293** Pn **Pn** **15 23 27.8 +2.8**
comp=Z,0.5nm,0.3s,baz=29,slow=13,SNR=2.6
**KBZ Khabaz 11.40 309** Pn **Pn** **15 24 02.8 +1.0**
comp=Z,0.4nm,0.3s,baz=93,slow=5.9,SNR=7.8
KBZ Sn **Sn** **15 26 05.3 -3.5**
comp=Z,0.3nm,0.3s,baz=107,slow=16,SNR=4.0
**KVAR Kislovodsk Arr 11.64 309** Sn **Sn** **15 26 09.6 -5.3**
baz=198,slow=20,SNR=3.2

**AB31 Akbulak array 12.50 14** ⇑Pn **Pn** **15 24 16.9 +0.1**
comp=Z,1.1nm,0.5s,baz=190,slow=13
AB31 ⇑Sn **Sn** **15 26 31.4 -4.3**
comp=Z,1.5nm,0.5s,baz=201,slow=24,SNR=12
**KK31 Karatay Array 13.08 59** Pn **Pn** **15 24 23.7 -1.2**
comp=Z,0.4nm,0.3s,baz=282,slow=5.5,SNR=16
KK31 ⇓Sn **Sn** **15 26 50.6 +0.5**
comp=Z,1.3nm,0.8s
**AKTO Aktyubinsk 13.35 8** Pn **Pn** **15 24 29.5 +1.0**
comp=Z,0.8nm,0.3s,baz=176,slow=14,SNR=14
AKTO Sn **Sn** **15 26 52.5 -4.0**
comp=Z,0.5nm,0.3s,baz=103,slow=19,SNR=4.4
**AKTO Aktyubinsk 13.35 8** ⇓Pn **Pn** **15 24 29.1 +0.6**
comp=Z,3.8nm,0.8s
AKTO ⇑Sn **Sn** **15 26 51.4 -5.2**
comp=Z,2.5nm,0.5s
**MNAS Manas 14.27 63** ⇓Pn **Pn** **15 24 41.2 -0.1**
comp=Z,0.8nm,0.6s
MNAS ⇓Sn **Sn** **15 27 19.1 -0.3**
comp=Z,1.8nm,0.8s
**AAK Ala-Archa 15.73 64** Pn **Pn** **15 24 58.8 -2.0**
comp=Z,0.2nm,0.3s,baz=206,slow=8.9,SNR=9.7
**BRTR Keskin Array B 17.07 285** Pn **P** **15 25 22.2 +2.6**
comp=Z,0.1nm,0.3s,baz=80,slow=6.9,SNR=5.0
**BVAR Borovoye Array 19.01 29** P **P** **15 25 41.4 +0.6**
comp=Z,0.3nm,0.3s,baz=210,slow=10.0,SNR=14
**ARU Arti 19.33 6** P **Pn** **15 25 45.3 0.0**
comp=Z,0.0nm,0.3s,baz=247,slow=7.7,SNR=5.3
**MKAR Makanchi Array 22.18 56** P **P** **15 26 16.9 +1.8**
comp=Z,0.5nm,0.5s,baz=241,slow=10,SNR=7.2
**AKASG Malin Array Be 22.90 314** P **P** **15 26 24.3 +1.6**
comp=Z,0.8nm,0.5s,baz=123,slow=9.7,SNR=6.4
**CMAR Chiang Mai Arr 42.52 104** P **P** **15 29 14.2 -0.5**
comp=Z,0.5nm,0.9s,baz=295,slow=8.7,SNR=4.1
**ESDC Sonseca Array 45.67 292** P **P** **15 29 37.1 -2.7**
comp=Z,0.3nm,0.6s,baz=64,slow=8.8,SNR=3.3
**TORD Torodi Ar. Bea 53.24 258** P **P** **15 30 35.3 -2.5**
comp=Z,0.3nm,0.4s,baz=53,slow=7.8,SNR=3.7
**YKA Yellowknife Ar 80.28 355** P **P** **15 33 28.5 -0.9**
comp=Z,0.1nm,0.7s,baz=5.3,slow=4.9,SNR=3.0

*ISCJB **11** 15:30:12.9±0.7,24.86S±0.09×179.8W±0.1,h496km, mb3.8/6, Error ellipse: s-maj=17.1km s-min=8.7km az=29.8*
*IDC **11** 15:30:13.7±2.2,24.94S×179.92E,h480km±23km, mb3.4/6, mb1 3.7/8, mb1mx3.3/28, mbtmp4.4/8, Error ellipse: s-maj=32.2km s-min=18.9km az=144.0*
**ISC 11 15:30:13.8±0.8,24.93S±0.10×179.8W±0.1,h496km,n11, σ2s00/15,mb3.9/6,South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DZM** | **Mont Dzumac** | **12.95** | **280** | P | **P** | **15 33 03.1** | **+0.6** |
| | 0.2nm,0.3s,baz=36,slow=19,SNR=5.2 | | | | | | |
| **AFI** | **Afiamalu** | **13.31** | **36** | P | **P** | **15 33 07.0** | **+0.5** |
| | 2.1nm,0.3s,baz=173,slow=17,SNR=3.6 | | | | | | |
| AFI | | | | S | **S** | 15 35 24.3 | -4.6 |
| | 1.0nm,0.3s,baz=253,slow=19,SNR=2.4 | | | | | | |
| **URZ** | **Urewera** | **13.54** | **190** | P | **P** | **15 33 07.1** | **-1.5** |
| | 1.6nm,0.3s,baz=49,slow=2.2,SNR=9.9 | | | | | | |
| URZ | | | | S | **S** | 15 35 32.6 | -0.1 |
| | 0.6nm,0.3s,baz=352,slow=19,SNR=7.9 | | | | | | |
| **STKA** | **Stephens Creek** | **34.53** | **250** | P | **P** | **15 36 19.2** | **-0.8** |
| | 1.7nm,0.4s,baz=94,slow=11,SNR=12 | | | | | | |
| **ASAR** | **Alice Springs** | **42.06** | **262** | P | **P** | **15 37 20.4** | **-1.2** |
| | 1.8nm,0.4s,baz=93,slow=7.2,SNR=151 | | | | | | |
| ASAR | | | | PcP | **PcP** | 15 39 04.3 | -0.9 |
| | 0.2nm,0.5s,baz=98,slow=5.1,SNR=2.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **42.53** | **267** | P | **P** | **15 37 24.0** | **-1.3** |
| | 4.6nm,0.3s,baz=99,slow=6.9,SNR=168 | | | | | | |
| WRA | | | | ScP | **ScP** | 15 42 11.1 | +0.9 |
| | 0.6nm,0.7s,baz=103,slow=3.9,SNR=7.4 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **72.85** | **326** | P | **P** | **15 40 52.0** | **+0.3** |
| | 1.1nm,0.7s,baz=147,slow=6.8,SNR=4.0 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **90.06** | **290** | P | **P** | **15 42 22.2** | **+1.6** |
| | 1.0nm,0.8s,baz=146,slow=5.1,SNR=7.0 | | | | | | |
| **TXAR** | **Lajitas Array** | **90.81** | **58** | P | **P** | **15 42 27.9** | **+3.9** |
| | 0.5nm,0.8s,baz=220,slow=7.5,SNR=6.0 | | | | | | |
| **AKASG** | **Malin Array Be** | **145.94** | **327** | PKPbc | **PKPbc** | **15 48 56.9** | **-0.2** |
| | 0.4nm,0.4s,baz=45,slow=4.4,SNR=7.1 | | | | | | |
| **BRTR** | **Keskin Array B** | **148.34** | **306** | PKPbc | **PKPbc** | **15 49 04.0** | **-0.2** |
| | 0.6nm,0.7s,baz=47,slow=1.0,SNR=3.9 | | | | | | |

*NEIC **11** 15:31:13.4±0.0, 15.16N×94.25W, h20km, MD4.2(MEX), After MEX.*
*MEX **11** 15:31:13.4±0.8, 15.16N×94.25W, h20km±47km, MD4.2*
*IDC **11** 15:31:14.3±6.6, 15.48N×93.93W, h56km±47km, mb3.4/5, mb1 3.6/5, mb1mx3.4/33, mbtmp3.6/5, MS3.6/1, Ms1 3.6/1, ms1mx2.8/19, Error ellipse: s-maj=83.9km s-min=40.9km az=73.0*
**ISC 11 15:31:11.0±1.9,15.2N±0.1×94.22W±0.04,h35km±10km, n22,σ1s86/34,mb3.8/5,Near coast of Oaxaca**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PCIG** | | **1.11** | **61** | *e*P | **Pn** | **15 31 31.1** | **+1.1** |
| PCIG | | | | *e*S | **Sb** | 15 31 44.4 | -1.5 |
| **PCIG** | | **1.11** | **61** | *e*P | **Pn** | 15 31 31.1 | +1.1 |
| PCIG | | | | *e*S | **Sb** | 15 31 44.4 | -1.5 |
| **HUIG** | **Huatulco** | **1.92** | **289** | *e*P | **Pn** | 15 31 41.7 | +0.5 |
| HUIG | | | | *e*S | **Sn** | 15 32 01.9 | -2.2 |
| **HUIG** | **Huatulco** | **1.92** | **289** | *e*P | **Pn** | 15 31 41.7 | +0.5 |
| HUIG | | | | *e*S | **Sn** | 15 32 01.9 | -2.2 |
| **TGIG** | | **1.92** | **33** | *e*P | **Pn** | 15 31 43.0 | +1.7 |
| TGIG | | | | *e*S | **Sn** | 15 32 01.9 | -2.5 |
| **TGIG** | | **1.92** | **33** | *e*P | **Pn** | 15 31 43.0 | +1.7 |
| TGIG | | | | *e*S | **Sn** | 15 32 01.9 | -2.5 |
| **CMIG** | **Matias Romero** | **2.02** | **342** | P | **Pn** | 15 31 43.8 | +1.1 |
| | 28nm,0.3s,baz=167,slow=11,SNR=153 | | | | | | |
| CMIG | | | | S | **Sn** | 15 32 06.1 | -0.5 |
| | 60nm,0.3s,baz=173,slow=21,SNR=17 | | | | | | |
| CMIG | | | | LR | LR | 15 32 35.8 | |
| | comp=Z,132nm,21.3s,baz=92,slow=44 | | | | | | |
| **CCIG** | **Comitan** | **2.29** | **61** | *e*P | **Pn** | 15 31 49.5 | +2.9 |
| CCIG | | | | *e*S | **Sb** | 15 32 19.7 | -0.3 |
| **CCIG** | **Comitan** | **2.29** | **61** | *e*P | **Pn** | 15 31 49.5 | +2.9 |
| CCIG | | | | *e*S | **Sb** | 15 32 19.7 | -0.3 |
| **VHO** | **Vista Hermosa** | **3.07** | **309** | *e*P | **Pn** | 15 32 00.1 | +2.9 |
| VHO | | | | *e*S | **Sn** | 15 32 33.1 | +0.2 |
| **VHO** | **Vista Hermosa** | **3.07** | **309** | *e*P | **Pn** | 15 32 00.1 | +2.9 |
| VHO | | | | *e*S | **Sn** | 15 32 33.1 | +0.2 |
| **PNIG** | **Pinotepa** | **3.95** | **289** | *e*P | **Pn** | 15 32 11.0 | +1.7 |
| PNIG | | | | *e*S | **Sn** | 15 32 51.9 | -2.6 |
| **PNIG** | **Pinotepa** | **3.95** | **289** | *e*P | **Pn** | 15 32 11.0 | +1.7 |
| PNIG | | | | *e*S | **Sn** | 15 32 51.9 | -2.6 |
| **TXAR** | **Lajitas Array** | **16.58** | **330** | P | **P** | **15 35 06.2** | **+3.1** |
| | 0.1nm,0.3s,baz=150,slow=9.9,SNR=7.0 | | | | | | |
| **ANMO** | **Albuquerque** | **22.56** | **333** | P | **P** | **15 36 09.0** | **+0.5** |
| | 1.2nm,0.7s,baz=127,slow=20,SNR=5.3 | | | | | | |
| **PDAR** | **Pinedale Array** | **30.50** | **337** | P | **P** | **15 37 20.3** | **-0.8** |
| | 0.1nm,0.5s,baz=113,slow=8.9,SNR=2.3 | | | | | | |
| **ULM** | **Lac du Bonnet** | **35.02** | **358** | P | **P** | **15 37 58.4** | **-1.8** |
| | 2.5nm,0.8s,baz=189,slow=6.5,SNR=4.0 | | | | | | |
| **YKA** | **Yellowknife Ar** | **49.42** | **348** | P | **P** | **15 39 56.5** | **-0.7** |
| | 0.9nm,0.8s,baz=152,slow=7.4,SNR=7.6 | | | | | | |
| **CPUP** | **Villa Florida** | **54.66** | **139** | LR | LR | 16 03 14.3 | |
| | comp=Z,50nm,18.0s,baz=62,slow=35 | | | | | | |
| **ILAR** | **Eielson Array** | **60.93** | **337** | P | **P** | **15 41 20.5** | **+0.3** |
| | 0.5nm,0.7s,baz=169,slow=5.0,SNR=6.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **133.58** | **257** | PKP | **PKPdf** | **15 50 25.6** | **+0.9** |
| | 0.3nm,0.5s,baz=90,slow=2.5,SNR=4.5 | | | | | | |
| **ASAR** | **Alice Springs** | **134.01** | **252** | PKP | **PKPdf** | **15 50 25.9** | **+0.4** |
| | 0.2nm,0.7s,baz=64,slow=2.2,SNR=3.3 | | | | | | |

*THE **11** 15:46:33.9,39.75N×20.38E,h1km±1km, ML2.9/12, Error ellipse: s-maj=1.8km s-min=1.0km az=310.0*
*ATH **11** 15:46:33.6,39.73N×20.41E,h14km±1km, ML2.9/9, Error ellipse: s-maj=1.3km s-min=0.7km az=32.0*
*CSEM **11** 15:46:33.9±0.1,39.75N×20.38E,h2km, ML2.9, Error ellipse: s-maj=3.1km s-min=2.3km az=38.0*
*ISCJB **11** 15:46:34.1±0.5,39.76N±0.02×20.34E±0.02,h11km±4km, Error ellipse: s-maj=3.6km s-min=2.7km az=38.7*
**ISC 11 15:46:34.4±0.8,39.73N±0.02×20.39E±0.02,h11km±6km, n123,σ1s19/170,Greece-Albania border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SGD** | **Sagiada** | **0.17** | **224** | P | **Pg** | **15 46 37.5** | **-0.6** |
| SGD | | | | S | **Sg** | 15 46 41.6 | +0.9 |
| **SGD** | **Sagiada** | **0.17** | **224** | P | **Pg** | **15 46 37.5** | **-0.6** |
| SGD | | | | S | **Sg** | 15 46 41.6 | +0.9 |

**JAN Janina 0.37 102** P **Pg** **15 46 40.9 -0.9**
JAN S **Sg** **15 46 46.0 -0.6**
JAN AML AML 15 46 46.8
comp=N,6997μm,0.5s
JAN AML AML 15 46 47.8
comp=E,8035μm,0.4s
**JAN Janina 0.37 102** P **Pg** **15 46 40.9 -0.9**
JAN S **Sg** **15 46 46.0 -0.6**
**JAN Janina 0.37 102** P **Pg** **15 46 40.8 -0.9**
JAN S **Sg** **15 46 46.8 +0.2**
**KEK Kerkira 0.45 268** P **Pg** **15 46 43.0 -0.3**
KEK S **Sg** **15 46 49.3 0.0**
KEK AML AML 15 46 54.9
comp=E,5674μm,0.4s
KEK AML AML 15 46 56.1
comp=N,5520μm,0.5s
**KEK Kerkira 0.45 268** P **Pg** **15 46 43.0 -0.3**
KEK S **Sg** **15 46 49.3 0.0**
**KEK Kerkira 0.45 268** P **Pg** **15 46 42.9 -0.4**
KEK S **Sb** **15 46 50.4 -0.8**
**PENT Pentalofos 0.74 51** P **Pg** **15 46 47.8 -0.9**
PENT S **Sg** **15 46 58.0 -0.4**
PENT AML AML 15 47 02.1
comp=N,1477μm,0.5s
PENT AML AML 15 47 02.2
comp=E,1511μm,0.6s
**PENT Pentalofos 0.74 51** P **Pg** **15 46 48.0 -0.7**
PENT S **Sg** **15 46 58.0 -0.4**
**PENT Pentalofos 0.74 51** P **Pg** **15 46 48.0 -0.7**
PENT S **Sb** **15 47 00.7 +1.1**
**KPRO Kipourio 0.78 73** P **Pg** **15 46 48.4 -1.1**
KPRO S **Sg** **15 46 59.2 -0.6**
KPRO AML AML 15 47 01.8
comp=E,2904μm,0.4s
KPRO AML AML 15 47 02.8
comp=N,2793μm,0.6s
**KPRO Kipourio 0.78 73** P **Pg** **15 46 48.5 -1.1**
KPRO S **Sg** **15 46 59.2 -0.6**
**KPRO Kipourio 0.78 73** P **Pg** **15 46 48.5 -1.1**
KPRO S **Sb** **15 47 01.6 +0.8**
**DSL Palaion Diasel 0.81 137** P **Pg** **15 46 48.4 -1.7**
DSL S **Sg** **15 46 59.9 -0.8**
DSL AML AML 15 47 01.9
comp=E,1881μm,0.6s
DSL AML AML 15 47 02.0
comp=N,1998μm,0.4s
**DSL Palaion Diasel 0.81 137** P **Pg** **15 46 48.7 -1.4**
DSL S **Sg** **15 46 59.9 -0.8**
**DSL Palaion Diasel 0.81 137** P **Pg** **15 46 48.7 -1.4**
DSL S **Sb** **15 47 01.5 -0.1**
**NEST Nestorio 0.85 37** P **Pg** **15 46 50.6 -0.2**
NEST S **Sg** **15 47 00.9 -1.0**
NEST AML AML 15 47 07.4
comp=E,898μm,0.4s
NEST AML AML 15 47 07.5
comp=N,752μm,0.5s
**NEST Nestorio 0.85 37** P **Pg** **15 46 50.1 -0.7**
NEST S **Sg** **15 47 00.9 -1.0**
**NEST Nestorio 0.85 37** P **Pg** **15 46 50.1 -0.7**
NEST S **Sb** **15 47 04.3 +1.6**
**KZN Kozani 1.21 61** P **Pg** **15 46 57.0 -0.6**
**KZN Kozani 1.21 61** P **Pg** **15 46 57.0 -0.6**
**KZN Kozani 1.21 61** P **Pg** **15 46 56.9 -0.8**
**THL Klokotos Trika 1.27 97** P **Pg** **15 46 56.6 -2.1**
THL S **Sg** **15 47 14.0 -1.2**
THL AML AML 15 47 19.9
comp=N,436μm,0.5s
THL AML AML 15 47 20.1
comp=E,805μm,0.7s
**THL Klokotos Trika 1.27 97** P **Pg** **15 46 57.6 -1.2**
THL S **Sg** **15 47 14.0 -1.2**
**THL Klokotos Trika 1.27 97** P **Pg** **15 46 57.6 -1.2**
THL S **Sn** **15 47 16.2 +1.1**
**PDO Prodromos 1.29 151** P **Pg** **15 46 58.4 -0.9**
**PDO Prodromos 1.29 151** P **Pg** **15 46 58.3 -0.9**
PDO S **Sg** **15 47 15.7 -0.3**
**PDO Prodromos 1.29 151** P **Pg** **15 46 57.7 -1.5**
PDO S **Sg** **15 47 15.7 -0.3**
**FNA Florina 1.29 36** P **Pg** **15 46 57.5 -1.8**
**FNA Florina 1.29 36** P **Pg** **15 46 57.5 -1.8**
FNA S **Sb** **15 47 15.8 +0.3**
**FNA Florina 1.29 36** P **Pg** **15 46 57.5 -1.8**
FNA S **Sb** **15 47 15.8 +0.3**
**EVR Evrytania 1.37 126** P **Pn** **15 46 59.0 -0.6**
EVR S **Sg** **15 47 17.6 -1.0**
EVR AML AML 15 47 24.2
comp=E,433μm,0.7s
EVR AML AML 15 47 26.0
comp=N,462μm,0.4s
**EVR Evrytania 1.37 126** P **Pn** **15 46 59.7 +0.1**
EVR S **Sg** **15 47 17.6 -1.0**
**EVR Evrytania 1.37 126** P **Pn** **15 46 59.7 +0.1**
EVR S **Sg** **15 47 18.3 -0.3**
**OHR Ohrid 1.41 13** *i* Pn **Pb** **15 47 01.7 +0.9**
OHR *i* Sn **Sn** **15 47 24.6 +5.8**
**PVO Paravola 1.43 141** P **Pn** **15 47 00.4 +0.2**
**PVO Paravola 1.43 141** P **Pn** **15 47 00.4 +0.2**
**PVO Paravola 1.43 141** P **Pn** **15 47 00.6 +0.4**
**BIA Bitola 1.47 29** P **Pn** **15 47 01.4 +0.5**
BIA S **Sg** **15 47 19.2 -2.5**
**BIA Bitola 1.47 29** P **Pn** **15 47 01.4 +0.5**
BIA S **Sg** **15 47 19.2 -2.5**
**BIA Bitola 1.47 29** *i* Pn **Pg** **15 47 02.1 -0.6**
BIA *i* Sn **Sn** **15 47 24.3 +4.1**
**VLS Valsamata 1.56 174** P **Pn** **15 47 02.9 +0.8**
VLS S **Sn** **15 47 23.9 +1.5**
VLS AML AML 15 47 32.5
comp=E,658μm,0.5s
VLS AML AML 15 47 35.2
comp=N,754μm,0.5s
**VLS Valsamata 1.56 174** P **Pn** **15 47 02.9 +0.8**
VLS S **Sn** **15 47 23.9 +1.5**
**VLS Valsamata 1.56 174** P **Pn** **15 47 00.8 -1.3**
VLS S **Sn** **15 47 22.3 -0.1**
**ANX Ano Chora 1.65 133** P **Pb** **15 47 04.7 -0.2**
ANX S **Sn** **15 47 24.7 0.0**
**ANX Ano Chora 1.65 133** P **Pb** **15 47 04.7 -0.2**
ANX S **Sn** **15 47 24.7 0.0**
**LIT Litokhoron 1.66 77** P **Pn** **15 47 03.8 +0.3**
**LIT Litokhoron 1.66 77** P **Pn** **15 47 03.8 +0.3**
**LIT Litokhoron 1.66 77** P **Pn** **15 47 04.3 +0.8**
**AGG Agios Georgios 1.67 115** P **Pn** **15 47 03.8 +0.2**
**AGG Agios Georgios 1.67 115** P **Pn** **15 47 03.8 +0.2**
**AGG Agios Georgios 1.67 115** P **Pn** **15 47 04.2 +0.6**
**KRUS Krusevo 1.76 22** *i* Pn **Pb** **15 47 06.9 +0.2**
KRUS *i* Sn **Sg** **15 47 32.1 +1.0**
**EFP Efpalio 1.76 137** P **Pn** **15 47 05.9 +1.0**
**EFP Efpalio 1.76 137** P **Pn** **15 47 05.9 +1.0**
**EFP Efpalio 1.76 137** P **Pn** **15 47 06.2 +1.4**
**TRIZ Trizonia 1.90 136** P **Pb** **15 47 09.2 +0.2**
**TRIZ Trizonia 1.90 136** P **Pb** **15 47 09.2 +0.2**
**KALE Kalithea 1.91 134** P **Pb** **15 47 09.9 +0.6**
**KALE Kalithea 1.91 134** P **Pn** **15 47 08.7 +1.7**
**KALE Kalithea 1.91 134** P **Pn** **15 47 08.7 +1.7**
**GRG Griva 1.97 51** P **Pn** **15 47 08.9 +1.2**
**GRG Griva 1.97 51** P **Pn** **15 47 08.4 +0.7**
**GRG Griva 1.97 51** P **Pn** **15 47 08.4 +0.7**
**DRO Drossia 2.06 149** P **Pn** **15 47 09.3 +0.3**
**DRO Drossia 2.06 149** P **Pn** **15 47 09.3 +0.3**
**DSF Desfina 2.13 128** P **Pb** **15 47 13.8 +0.8**
**DSF Desfina 2.13 128** P **Pb** **15 47 13.8 +0.8**
**XOR Xorichti 2.20 99** P **Pn** **15 47 11.2 +0.3**
**XOR Xorichti 2.20 99** P **Pn** **15 47 11.2 +0.3**
**XOR Xorichti 2.20 99** P **Pn** **15 47 11.1 +0.2**
**NEO Neokhori 2.24 100** P **Pn** **15 47 12.8 +1.4**
**NEO Neokhori 2.24 100** P **Pn** **15 47 12.8 +1.4**
**HORT Hortiatis 2.25 67** P **Pn** **15 47 12.7 +1.0**
**HORT Hortiatis 2.25 67** P **Pn** **15 47 12.7 +1.0**
**VAY Valandovo 2.30 46** *i* Pn **Pn** **15 47 13.2 +1.0**
VAY *i* Sn **Sg** **15 47 47.1 -1.1**
**GUR Goura 2.36 139** P **Pn** **15 47 14.4 +1.2**
**GUR Goura 2.36 139** P **Pn** **15 47 14.4 +1.2**
**SKO Skopje 2.37 19** *i* Pn **Pb** **15 47 15.6 -1.5**
SKO *i* Sn **Sb** **15 47 48.1 +1.6**
**KNT Kendrikon 2.39 53** P **Pn** **15 47 13.6 +0.1**
**KNT Kendrikon 2.39 53** P **Pn** **15 47 13.6 +0.1**
**PLG Polygyros 2.43 74** P **Pn** **15 47 15.2 +1.1**
**PLG Polygyros 2.43 74** P **Pn** **15 47 15.2 +1.1**
**PAIG Paliouri 2.54 85** P **Pn** **15 47 16.3 +0.7**
**PAIG Paliouri 2.54 85** P **Pn** **15 47 16.3 +0.7**
**FASA Fasano 2.56 296** *e*Pn **Pn** **15 47 16.9 +1.1**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **MASS** | **Massafra** | | **2.64** | **291** | *e*Pn | **Pn** | 15 47 17.6 | **+0.7** |
| **SRS** | **Serrai** | | **2.81** | **60** | P | **Pn** | 15 47 19.0 | **-0.3** |
| **SRS** | **Serrai** | | **2.81** | **60** | P | **Pn** | 15 47 19.0 | **-0.3** |
| **OUR** | **Ouranopolis** | | **2.83** | **77** | P | **Pn** | 15 47 21.2 | **+1.7** |
| **OUR** | **Ouranopolis** | | **2.83** | **77** | P | **Pn** | 15 47 21.2 | **+1.7** |
| **BAI** | **Bari** | | **3.01** | **298** | *e*Pn | **Pn** | 15 47 23.8 | **+1.8** |
| **SG1** | **Sgolgore (BA)** | | **3.04** | **292** | *e*Pn | **Pn** | 15 47 22.8 | **+0.3** |
| SG1 | | | | | Sn | **Sn** | 15 47 59.0 | **+0.1** |
| **BARS** | **Barje** | | **3.26** | **19** | *e*Pn | **Pn** | 15 47 26.5 | **+1.0** |
| **CDT** | **Castel del Mon** | | **3.42** | **295** | *e*Pn | **Pn** | 15 47 27.5 | **-0.1** |
| **SJES** | **Sjenica** | | **3.54** | **355** | *e*Pn | **Pn** | 15 47 31.0 | **+1.6** |
| **STON** | **Ston** | | **3.73** | **328** | *i* Pn | **Pn** | 15 47 31.3 | **-0.7** |
| STON | | | | | Sn | **Sn** | 15 48 14.5 | **-1.3** |
| **STON** | **Ston** | | **3.73** | **328** | *i* Pn | **Pn** | 15 47 31.2 | **-0.7** |
| STON | | | | | Sn | **Sn** | 15 48 14.5 | **-1.3** |
| **MS1** | **Monte Sant'Ang** | | **3.91** | **302** | *e*Pn | **Pn** | 15 47 34.4 | **0.0** |
| **BOVS** | **Bovan** | | **4.02** | **14** | *e*Pn | **Pn** | 15 47 36.7 | **+0.8** |
| **GRUS** | **Gruza** | | **4.16** | **3** | *e*Pn | **Pn** | 15 47 38.5 | **+0.7** |
| **ZAGS** | **Zajecar** | | **4.30** | **18** | *e*Pn | **Pn** | 15 47 41.8 | **+2.0** |
| **DIVS** | **Divibare** | | **4.37** | **356** | *e*Pn | **Pn** | 15 47 41.2 | **+0.4** |
| **TRUS** | **Trudelj** | | **4.49** | **0** | *e*Pn | **Pn** | 15 47 42.9 | **+0.6** |
| **KUBS** | **Kucevo** | | **4.77** | **11** | *e*Pn | **Pn** | 15 47 45.4 | **-0.8** |
| **UDBI** | **Udbina** | | **5.89** | **326** | *e*Pn | **Pn** | 15 48 02.2 | **+0.4** |
| UDBI | | | | | Sn | **Sn** | 15 49 08.3 | **-1.0** |
| **UDBI** | **Udbina** | | **5.89** | **326** | *e*Pn | **Pn** | 15 48 02.1 | **+0.4** |
| UDBI | | | | | Sn | **Sn** | 15 49 08.3 | **-1.0** |
| **NVLJ** | **Novalja** | | **6.33** | **321** | *e*Pn | **Pn** | 15 48 06.9 | **-0.8** |
| NVLJ | | | | | Sn | **Sn** | 15 49 15.7 | **-4.1** |
| **NVLJ** | **Novalja** | | **6.33** | **321** | *e*Pn | **Pn** | 15 48 06.8 | **-0.8** |
| **SOKA** | **Soboth** | | **7.96** | **332** | *i* Pn | **Pn** | 15 48 29.6 | **-0.5** |
| | comp=N,0.2nm,0.2s | | | | | | | |
| **SOKA** | **Soboth** | | **7.96** | **332** | Pn | **Pn** | 15 48 29.6 | **-0.5** |
| | comp=N,0.2nm,0.2s | | | | | | | |
| **OBKA** | **Obir** | | **8.00** | **330** | *i* Pn | **Pn** | 15 48 28.9 | **-1.8** |
| | comp=N,1.9nm,0.5s | | | | | | | |
| **OBKA** | **Obir** | | **8.00** | **330** | Pn | **Pn** | 15 48 28.9 | **-1.8** |
| | comp=N,1.9nm,0.5s | | | | | | | |
| **ARSA** | **Arzberg** | | **8.30** | **336** | *e*Pn | Pn | 15 48 42.8 | +8.1 |
| | comp=N,0.3nm,0.2s | | | | | | | |
| **KBA** | **Koelnbreinsper** | | **8.95** | **327** | *i* Pn | **Pn** | 15 48 43.8 | **+0.1** |
| | comp=N,0.2nm,0.2s | | | | | | | |
| **KBA** | **Koelnbreinsper** | | **8.95** | **327** | Pn | **Pn** | 15 48 43.8 | **+0.1** |
| | comp=N,0.2nm,0.2s | | | | | | | |
| **MOA** | **Molln** | | **9.24** | **333** | *e*Pn | **Pn** | 15 48 48.7 | **+1.2** |
| | comp=N,0.6nm,0.2s | | | | | | | |
| **MOA** | **Molln** | | **9.24** | **333** | Pn | **Pn** | 15 48 48.7 | **+1.2** |
| | comp=N,0.6nm,0.2s | | | | | | | |
| **WATA** | **Walderalm** | | **9.93** | **323** | *i* Pn | **Pn** | 15 48 59.3 | **+2.2** |
| **WATA** | **Walderalm** | | **9.93** | **323** | Pn | **Pn** | 15 48 59.3 | **+2.2** |
| **RETA** | **Reutte** | | **10.42** | **321** | *i* Pn | **Pn** | 15 49 03.1 | **-0.7** |
| **RETA** | **Reutte** | | **10.42** | **321** | Pn | **Pn** | 15 49 03.1 | **-0.7** |

**MAN 11 15:51:59,13'.40N×120'.71E, h1km, mb3.6, ML2.3, MS1.8, 1C, Mindoro**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PGP** | **Puerto Galera** | **0.26** | **66**¶ | *e*P | Pg | 15 52 03.4 | -0.6 |
| PGP | | | | *i* S | Sg | 15 52 06.6 | -0.9 |
| **LUBP** | **Lubang** | **0.56** | **307** | *e*P | Pg | 15 52 10.2 | +0.5 |
| LUBP | | | | *e*S | Sg | 15 52 17.7 | +0.7 |
| **SJMP** | **San Jose** | **1.01** | **156** | *e*P | Pn | 15 52 21.0 | +0.6 |
| SJMP | | | | *e*S | Sn | 15 52 36.7 | +1.4 |
| **BOAC** | **Boac** | **1.11** | **87** | *e*P | Pn | 15 52 21.9 | +0.2 |
| BOAC | | | | *e*S | Sg | 15 52 33.5 | -1.2 |

*ISCJB **11** 15:55:52.8±0.7, 12°.20N±0°.09×144°.2E±0°.1, h30km, mb4.0/15, MS3.7/3, Error ellipse: s-maj=20.3km s-min=9.1km az=27.3*

*IDC **11** 15:55:56.9±1.9, 12°.25N×144°.40E, h54km±16km, mb3.7/15, mb1 3.9/15, mb1mx3.7/45, mbtmp4.0/15, MS3.7/3, Ms1 3.7/3, ms1mx3.1/43, Error ellipse: s-maj=23.6km s-min=13.6km az=109.0*

**ISC 11 15:55:54.2±0.9, 12°.3N±0°.1×144°.4E±0°.2, h30km, n28, σ0.78/20, mb3.9/15, MS3.8/3, South of Mariana Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GUMO** | **Guam** | **1.40** | **19** | P | **Pb** | **15 56 19.3** | **-0.4** |
| | 135nm,0.3s,baz=245,slow=4.8,SNR=36 | | | | | | |
| GUMO | | | | S | **Sb** | **15 56 37.7** | **+0.6** |
| | 206nm,0.3s,baz=163,slow=19,SNR=26 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **22.35** | **71** | T | T | 16 24 06.8 | |
| | baz=305 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **22.36** | **71** | T | T | 16 24 08.9 | |
| | baz=305 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **22.36** | **71** | T | T | 16 24 06.8 | |
| | baz=305 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **22.83** | **68** | T | T | 16 24 38.4 | |
| | baz=255,slow=75,SNR=5.1 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **22.84** | **68** | T | T | 16 24 39.2 | |
| | baz=255,slow=75,SNR=5.4 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **22.85** | **68** | T | T | 16 24 39.8 | |
| | baz=255,slow=75,SNR=5.5 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **24.82** | **348** | LR | LR | 16 10 37.2 | |
| | comp=Z,64nm,18.3s,baz=165,slow=36 | | | | | | |
| **KSRS** | **Korea Array** | **29.11** | **322** | P | **P** | **16 01 52.6** | **+0.3** |
| | 1.8nm,1.0s,baz=141,slow=9.3,SNR=4.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **33.50** | **197** | P | **P** | **16 02 30.9** | **-0.2** |
| | 1.2nm,0.6s,baz=21,slow=9.6,SNR=18 | | | | | | |
| **ASAR** | **Alice Springs** | **37.15** | **196** | P | **P** | **16 03 02.8** | **+0.2** |
| | 0.9nm,0.7s,baz=18,slow=11,SNR=32 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **44.19** | **284** | P | **P** | **16 04 01.9** | **+1.1** |
| | 0.8nm,0.5s,baz=82,slow=6.2,SNR=12 | | | | | | |
| **SONM** | **Songino Array** | **47.56** | **326** | P | **P** | **16 04 27.3** | **+0.1** |
| | 0.6nm,0.6s,baz=148,slow=7.6,SNR=5.7 | | | | | | |
| SONM | | | | LR | LR | 16 24 50.2 | |
| | comp=Z,91nm,19.4s,baz=346,slow=36 | | | | | | |
| **MKAR** | **Makanchi Array** | **62.14** | **317** | P | **P** | **16 06 12.5** | **-0.1** |
| | 0.4nm,0.5s,baz=93,slow=8.5,SNR=9.6 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **62.44** | **325** | P | **P** | **16 06 13.3** | **-1.1** |
| | 0.5nm,0.5s,baz=122,slow=7.1,SNR=3.3 | | | | | | |
| ZALV | | | | PcP | **PcP** | **16 06 52.7** | **-1.0** |
| | 0.4nm,0.3s,baz=116,slow=3.4,SNR=3.0 | | | | | | |
| **ILAR** | **Eielson Array** | **69.96** | **25** | P | **P** | **16 07 01.4** | **-1.0** |
| | 0.6nm,0.6s,baz=253,slow=5.5,SNR=10 | | | | | | |
| **BVAR** | **Borovoye Array** | **70.69** | **322** | LR | LR | 16 37 41.9 | |
| | comp=Z,113nm,21.6s,baz=70,slow=35 | | | | | | |
| **INK** | **Inuvik** | **75.76** | **22** | P | **P** | **16 07 36.7** | **-0.1** |
| | 1.1nm,0.8s,baz=287,slow=8.5,SNR=5.7 | | | | | | |
| **GEYT** | **Alibeck** | **79.68** | **307** | P | **P** | **16 07 59.6** | **+0.3** |
| | 2.8nm,1.1s,baz=64,slow=6.6,SNR=5.0 | | | | | | |
| **YKA** | **Yellowknife Ar** | **84.24** | **27** | P | **P** | **16 08 23.0** | **+0.3** |
| | 0.4nm,0.4s,baz=286,slow=5.1,SNR=10.0 | | | | | | |
| **NEW** | **Newport** | **86.52** | **41** | P | **P** | **16 08 35.9** | **+1.4** |
| | 1.6nm,0.8s,baz=315,slow=4.6,SNR=5.1 | | | | | | |
| **ARCES** | **ARCESS Array B** | **88.21** | **342** | P | **P** | **16 08 42.3** | **+0.2** |
| | 2.9nm,0.9s,baz=80,slow=8.7,SNR=6.0 | | | | | | |
| **FINES** | **FINESS Array B** | **92.17** | **335** | P | **P** | **16 08 59.1** | **-1.6** |
| | 1.5nm,0.5s,baz=76,slow=4.4,SNR=19 | | | | | | |
| **PDAR** | **Pinedale Array** | **93.22** | **45** | P | **P** | **16 09 06.9** | **+0.6** |
| | 0.2nm,0.5s,baz=281,slow=6.2,SNR=2.6 | | | | | | |
| **DBIC** | **Dimbokro** | **144.12** | **300** | PKhKP | PKPpre | 16 15 24.3 | |
| | 1.7nm,0.6s,baz=349,slow=5.2,SNR=3.3 | | | | | | |
| **KIC** | **Kosan Boka** | **144.18** | **299** | *e*PKP1 | PKPbc | 16 15 27.1 | +0.7 |
| | 91nm,2.1s | | | | | | |
| **TIC** | **Toumodi** | **144.27** | **300** | *e*PKP1 | **PKPab** | **16 15 26.2** | **-0.1** |
| **LIC** | **Lamto** | **144.50** | **299** | *e*PKP1 | **PKPab** | **16 15 26.7** | **-0.4** |
| | 20nm,0.6s | | | | | | |

*MAN **11** 16:08:20, 10°.56N×125°.87E, h3km, mb4.9, ML3.8, MS3.8*

*IDC **11** 16:08:24.7±6.2, 10°.45N×126°.02E, h75km±58km, mb3.8/17, mb1 3.9/17, mb1mx3.8/32, mbtmp4.1/17, MS3.1/3, Ms1 3.1/3, ms1mx2.9/39, Error ellipse: s-maj=25.0km s-min=12.6km az=77.0*

*NEIC **11** 16:08:27.6±1.5, 10°.40N×125°.91E, h103km±15km, mb4.4/3, Error ellipse: s-maj=19.0km s-min=8.5km az=68.0*

**ISC 11 16:08:17.5±1.4, 10°.50N±0°.03×126°.21E±0°.05, h13km±9km, n51, σ2.06/63, mb4.1/20, 7C-2D, Philippine Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BESP** | **Borongan** | **1.33** | **325** | *e*P | **Pn** | **16 08 42.4** | **+0.5** |
| BESP | | | | *e*S | **Sg** | **16 09 03.8** | **+3.3** |
| **PLP** | **Palo** | **1.38** | **299**¶ | *e*P | **Pn** | **16 08 42.3** | **-0.3** |
| PLP | | | | *i* S | **Sn** | **16 08 59.3** | **-1.4** |
| **MSLP** | **Maasin** | **1.38** | **255** | *e*P | **Pn** | **16 08 42.7** | **+0.1** |
| MSLP | | | | *e*S | **Sn** | **16 08 59.2** | **-1.6** |
| **BUTP** | **Butuan** | **1.63** | **201** | *e*P | **Pb** | **16 08 48.5** | **+0.9** |
| BUTP | | | | *e*S | **Sg** | **16 09 11.7** | **+1.5** |
| **OCLP** | **Ormoc** | **1.67** | **289** | *e*P | **Pn** | **16 08 47.7** | **+1.2** |
| OCLP | | | | *e*S | **Sb** | **16 09 09.6** | **+0.5** |
| **LLP** | **Lapu-Lapu** | **2.22** | **265**¶ | *e*P | **Pn** | **16 08 55.1** | **+1.0** |
| LLP | | | | *e*S | **Sn** | **16 09 22.3** | **+0.8** |
| **BIPH** | **Bislig** | **2.31** | **176**¶ | *e*P | **Pg** | **16 09 01.7** | **-0.2** |
| BIPH | | | | *e*S | **Sg** | **16 09 31.3** | **-0.5** |
| **TBP** | **Tagbilaran** | **2.45** | **251** | *e*P | **Pn** | **16 08 59.9** | **+2.6** |
| TBP | | | | *e*S | **Sn** | **16 09 26.0** | **-1.2** |
| **CNP** | **Catarman** | **2.51** | **323** | *e*P | **Pn** | **16 08 59.5** | **+1.4** |
| CNP | | | | *e*S | **Sn** | **16 09 28.9** | **+0.4** |
| **BUKP** | **Musuan** | **2.85** | **204** | *e*P | **Pb** | **16 09 06.4** | **-1.9** |
| BUKP | | | | *e*S | **Sb** | **16 09 41.6** | **-1.5** |
| **SNPH** | **Sibulan** | **3.15** | **249**¶ | *e*P | **Pn** | **16 09 08.7** | **+1.7** |
| SNPH | | | | *i* S | **Sn** | **16 09 47.4** | **+2.8** |
| **DCPH** | **Dipolog City** | **3.41** | **236**¶ | *e*P | **Pn** | **16 09 12.1** | **+1.7** |
| DCPH | | | | *i* S | **Sn** | **16 09 50.6** | **-0.1** |
| **DAV** | **Davao City (W)** | **3.47** | **190** | *e*Pn | **Pb** | **16 09 17.1** | **-1.9** |
| **DMPH** | **Davao City--Mi** | **3.47** | **192**¶ | *e*P | **Pg** | **16 09 21.9** | **-2.2** |
| DMPH | | | | *e*S | **Sn** | **16 09 55.6** | **+3.2** |
| **MATI** | **Mati** | **3.54** | **179** | *e*P | **Pb** | **16 09 18.7** | **-1.3** |
| MATI | | | | *e*S | **Sg** | **16 10 07.6** | **-3.6** |
| **RCP** | **Roxas** | **3.56** | **287**¶ | *e*P | **Pn** | **16 09 14.5** | **+1.9** |
| **GUIM** | **Jordan** | **3.57** | **272** | *e*P | **Pn** | **16 09 13.7** | **+1.0** |
| GUIM | | | | *e*S | **Sn** | **16 09 53.7** | **-1.0** |
| **CTBH** | **Cotabato--PC H** | **3.80** | **211**¶ | *i*P | **Pn** | **16 09 19.1** | **+3.3** |
| **PAGZ** | **Pagadian** | **3.84** | **227** | *e*P | **Pn** | **16 09 19.5** | **+3.0** |
| PAGZ | | | | *e*S | **Sn** | **16 10 01.8** | **+0.2** |
| **JAP** | **San Jose, Anti** | **4.20** | **274**‖ | *e*P | **Pn** | **16 09 24.7** | **+3.3** |
| **AUQP** | **San Andres** | **4.45** | **309** | *e*P | Pn | 16 09 10.4 | -14 |
| AUQP | | | | *e*S | **Sn** | **16 10 22.8** | **+6.2** |
| **TGY** | **Tagaytay City** | **6.28** | **305** | LR | LR | 16 12 21.3 | |
| | comp=Z,306nm,18.3s,baz=103,slow=38 | | | | | | |
| **BALP** | **Baler** | **6.89** | **320** | *e*P | **Pn** | **16 09 59.4** | **+1.0** |
| BALP | | | | *e*S | **Sn** | **16 11 10.8** | **-5.9** |
| **FAKI** | **Fak Fak** | **14.63** | **155** | *e*P | **P** | **16 11 52.0** | **+1.3** |
| **MMRI** | **Maumere** | **19.42** | **192** | P | **Pn** | **16 12 49.7** | **+4.8** |
| **SOEI** | **Soe** | **20.22** | **186** | P | Pn | 16 12 57.7 | +3.2 |
| **KSAR** | **Wonju Array Be** | **26.86** | **3** | P | **P** | **16 13 58.8** | **+0.8** |
| **KSRS** | **Korea Array** | **26.88** | **3** | P | **P** | **16 13 58.8** | **+0.7** |
| | 4.0nm,1.0s,baz=177,slow=10,SNR=8.5 | | | | | | |
| KSRS | | | | LR | LR | 16 23 32.1 | |
| | comp=Z,36nm,22.0s,baz=335,slow=34 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **27.53** | **290** | P | **P** | **16 14 04.0** | **-0.4** |
| | 2.0nm,0.8s,baz=100,slow=7.3,SNR=17 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **28.10** | **21** | LR | LR | 16 24 05.7 | |
| | comp=Z,31nm,21.6s,baz=200,slow=33 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **28.43** | **181** | P | **P** | **16 14 12.5** | **+0.3** |
| | 2.9nm,0.7s,baz=350,slow=11,SNR=19 | | | | | | |
| **COEN** | **Coen** | **29.56** | **145** | *e*P | **P** | **16 14 23.4** | **+1.1** |
| | 4.2nm,0.7s | | | | | | |
| **WRAB** | **Tennant Creek** | **31.29** | **165** | *e*P | **P** | **16 14 36.8** | **-0.8** |
| | 2.7nm,0.7s | | | | | | |
| **WRA** | **Warramunga Arr** | **31.30** | **165** | P | **P** | **16 14 37.1** | **-0.6** |
| | 0.8nm,0.7s,baz=343,slow=8.8,SNR=9.1 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **33.94** | **7** | P | **P** | **16 15 00.6** | **+0.1** |
| | 4.8nm,0.8s,baz=212,slow=7.7,SNR=7.8 | | | | | | |
| **ASAR** | **Alice Springs** | **34.78** | **168** | P | **P** | **16 15 07.6** | **-0.5** |
| | 0.9nm,0.3s,baz=350,slow=7.1,SNR=31 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **40.23** | **72** | T | T | 16 59 02.9 | |
| | baz=264,slow=74,SNR=78 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **40.24** | **72** | T | T | 16 59 04.0 | |
| | baz=264,slow=74,SNR=56 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **40.25** | **72** | T | T | 16 59 05.4 | |
| | baz=264,slow=74,SNR=72 | | | | | | |
| **SONM** | **Songino Array** | **40.78** | **340** | P | **P** | **16 15 59.6** | **+0.9** |
| | 0.3nm,0.4s,baz=151,slow=8.1,SNR=4.2 | | | | | | |
| SONM | | | | PcP | **PcP** | **16 17 59.0** | **-0.8** |
| | 0.2nm,0.4s,baz=161,slow=6.1,SNR=3.1 | | | | | | |
| **STKA** | **Stephens Creek** | **44.64** | **161** | P | **P** | **16 16 30.6** | **+0.6** |
| | 2.0nm,0.4s,baz=342,slow=6.6,SNR=6.4 | | | | | | |
| **PETK** | **Petropavlovsk-** | **49.45** | **24** | P | **P** | **16 17 09.2** | **+1.9** |
| | 3.5nm,0.6s,baz=243,slow=3.8,SNR=6.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **51.81** | **323** | P | **P** | **16 17 24.0** | **-1.3** |
| | 2.7nm,0.8s,baz=119,slow=8.2,SNR=13 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **54.40** | **331** | P | **P** | **16 17 42.5** | **-1.7** |
| | 0.4nm,0.4s,baz=138,slow=8.3,SNR=3.0 | | | | | | |
| **KURK** | **Kurchatov** | **55.84** | **325** | *e*P | **P** | **16 17 53.5** | **-1.2** |
| | 23nm,0.8s | | | | | | |
| **ILAR** | **Eielson Array** | **79.25** | **26** | P | **P** | **16 20 21.8** | **-0.6** |
| | 0.9nm,0.7s,baz=274,slow=3.8,SNR=16 | | | | | | |
| **ARCES** | **ARCESS Array B** | **83.96** | **340** | P | **P** | **16 20 46.5** | **-0.8** |
| | 6.1nm,1.0s,baz=55,slow=6.4,SNR=4.7 | | | | | | |
| **BRTR** | **Keskin Array B** | **85.34** | **309** | P | **P** | **16 20 53.4** | **-1.6** |
| | 0.3nm,0.6s,baz=109,slow=4.4,SNR=2.8 | | | | | | |
| **FINES** | **FINESS Array B** | **85.66** | **332** | P | **P** | **16 20 54.2** | **-1.7** |
| | 3.8nm,1.0s,baz=72,slow=4.5,SNR=7.8 | | | | | | |
| **AKASG** | **Malin Array Be** | **86.35** | **321** | P | **P** | **16 20 56.8** | **-2.8** |
| | 0.4nm,0.5s,baz=63,slow=4.4,SNR=3.8 | | | | | | |
| **YKA** | **Yellowknife Ar** | **93.57** | **24** | P | **P** | **16 21 33.8** | **+0.6** |
| | 0.6nm,0.8s,baz=298,slow=4.3,SNR=5.6 | | | | | | |

*ISK **11** 16:10:05.6, 38°.74N×43°.60E, h5km, ML2.9*

*ATA **11** 16:10:05.2±0.8, 38°.74N×43°.63E, h20km±3km, ML3.6, MW3.6*

*CSEM **11** 16:10:06.9±0.3, 38°.74N×43°.64E, h10km, ML2.9, Error ellipse: s-maj=7.2km s-min=4.5km az=107.0*

*DDA **11** 16:10:06.1, 38°.74N×43°.61E, h19km, Md2.8*

**ISC 11 16:10:06.6±1.0, 38°.74N±0°.02×43°.65E±0°.03, h16km±7km, n74, σ1.01/109, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.25** | **236** | PG | **Pg** | **16 10 12.1** | **-0.1** |
| VANB | | | | *e*SG | **Sb** | **16 10 17.1** | **+0.2** |
| **VANB** | **Van** | **0.25** | **236** | *i* Pg | **Pg** | **16 10 12.1** | **-0.1** |
| VANB | | | | *e*Sg | **Sb** | **16 10 17.1** | **+0.2** |
| **VMUR** | **Van-Muradiye** | **0.26** | **347** | *i* P | **Pg** | **16 10 12.0** | **-0.5** |
| VMUR | | | | *i* S | **Sb** | **16 10 17.2** | **-0.2** |
| **VMUR** | **Van-Muradiye** | **0.26** | **347** | P | **Pg** | **16 10 12.0** | **-0.5** |
| VMUR | | | | S | **Sb** | **16 10 17.2** | **-0.2** |
| **ERCV** | **ERCIS-VAN** | **0.37** | **320** | *e*PG | **Pg** | **16 10 13.4** | **-0.9** |
| ERCV | | | | *e*SG | **Sg** | **16 10 19.5** | **-0.2** |
| **ERCV** | **ERCIS-VAN** | **0.37** | **320** | *e*Pg | **Pg** | **16 10 13.5** | **-0.9** |
| ERCV | | | | *e*Sg | **Sg** | **16 10 19.5** | **-0.2** |
| **CLDR** | **Caldiran** | **0.46** | **27** | *e*PG | **Pg** | **16 10 15.7** | **-0.2** |
| **CLDR** | **Caldiran** | **0.46** | **27** | *i* P | **Pg** | **16 10 15.6** | **-0.4** |
| CLDR | | | | *i* S | **Sb** | **16 10 23.4** | **+0.3** |
| **CLDR** | **Caldiran** | **0.46** | **27** | P | **Pg** | **16 10 15.6** | **-0.4** |
| CLDR | | | | S | **Sb** | **16 10 23.4** | **+0.3** |
| **GEVA** | **Gevas** | **0.63** | **228** | *e*P | **Pg** | **16 10 17.9** | **-1.1** |
| GEVA | | | | *e*S | **Sb** | **16 10 27.9** | **0.0** |
| GEVA | | | | IAML | | 16 10 37.0 | |
| | comp=Z,142nm,0.4s | | | | | | |
| **GEVA** | **Gevas** | **0.63** | **228** | *i* P | **Pg** | **16 10 17.4** | **-1.5** |
| GEVA | | | | *i* S | **Sg** | **16 10 27.2** | **-0.2** |
| **GEVA** | **Gevas** | **0.63** | **228** | P | **Pg** | **16 10 17.5** | **-1.5** |
| GEVA | | | | S | **Sg** | **16 10 27.2** | **-0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.73** | **276** | *i* P | **Pg** | **16 10 20.0** | **-0.9** |
| ADCV | | | | *i* S | **Sg** | **16 10 30.7** | **+0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.73** | **276** | P | **Pg** | **16 10 20.0** | **-0.9** |
| ADCV | | | | S | **Sg** | **16 10 30.7** | **+0.2** |
| **BASK** | **Baskale_VAN** | **0.74** | **158** | *i* Pg | **Pg** | **16 10 19.8** | **-1.3** |
| BASK | | | | IAML | | 16 10 37.7 | |
| | comp=Z,147nm,0.4s | | | | | | |
| **BASK** | **Baskale_VAN** | **0.74** | **158** | *i* P | **Pg** | **16 10 20.0** | **-1.0** |
| BASK | | | | *i* S | **Sn** | **16 10 32.6** | **-0.9** |
| **BASK** | **Baskale_VAN** | **0.74** | **158** | P | **Pg** | **16 10 20.0** | **-1.0** |
| BASK | | | | S | **Sn** | **16 10 32.6** | **-0.9** |
| **DYDN** | **Diyadin** | **0.81** | **2** | *e*P | **Pg** | **16 10 21.7** | **-0.8** |
| DYDN | | | | *e*S | **Sb** | **16 10 34.0** | **+0.8** |
| **DYDN** | **Diyadin** | **0.81** | **2** | *i* P | **Pg** | **16 10 20.9** | **-1.6** |
| DYDN | | | | *i* S | **Sb** | **16 10 33.4** | **+0.2** |
| **DYDN** | **Diyadin** | **0.81** | **2** | P | **Pg** | **16 10 20.9** | **-1.6** |
| DYDN | | | | S | **Sb** | **16 10 33.4** | **+0.2** |
| **TUTA** | **Tutak** | **0.93** | **316** | *e*P | **Pb** | **16 10 23.0** | **-1.5** |
| TUTA | | | | *e*S | **Sg** | **16 10 37.3** | **+0.2** |
| TUTA | | | | IAML | | 16 10 38.0 | |
| | comp=Z,218nm,0.2s | | | | | | |
| **TUTA** | **Tutak** | **0.93** | **316** | *i* P | **Pb** | **16 10 23.1** | **-1.4** |
| TUTA | | | | *i* S | **Sb** | **16 10 35.7** | **-1.0** |
| **TUTA** | **Tutak** | **0.93** | **316** | P | **Pb** | **16 10 23.1** | **-1.4** |
| TUTA | | | | S | **Sb** | **16 10 35.7** | **-1.0** |
| **AGRB** | **Hanur-Agry** | **0.98** | **329** | PG | **Pb** | **16 10 24.2** | **-1.2** |
| **AGRB** | **Hanur-Agry** | **0.98** | **329** | *e*Pg | **Pb** | **16 10 24.2** | **-1.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.33** | **20** | *e*PN | **Pg** | **16 10 32.3** | **+0.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.33** | **20** | *e*Pn | **Pg** | **16 10 32.3** | **+0.1** |
| **EKAR** | **Karacoban** | **1.34** | **293** | *e*P | **Pb** | **16 10 31.4** | **-0.1** |
| EKAR | | | | *e*SN11 | **Sg** | **16 10 52.6** | **+2.6** |
| EKAR | | | | IAML | | 16 11 04.2 | |
| | comp=Z,32nm,0.6s | | | | | | |
| **EKAR** | **Karacoban** | **1.34** | **293** | *i* P | **Pn** | **16 10 30.5** | **-0.4** |
| **EKAR** | **Karacoban** | **1.34** | **293** | P | **Pn** | **16 10 30.5** | **-0.4** |
| **EATA** | **Eleskirt** | **1.44** | **322** | *e*P | **Pn** | **16 10 32.6** | **+0.3** |
| EATA | | | | *e*S | **Sg** | **16 10 53.9** | **+0.7** |
| **EATA** | **Eleskirt** | **1.44** | **322** | *i* P | **Pn** | **16 10 32.7** | **+0.3** |
| EATA | | | | *i* S | **Sg** | **16 10 54.5** | **+1.3** |
| **EATA** | **Eleskirt** | **1.44** | **322** | P | **Pn** | **16 10 32.7** | **+0.3** |
| EATA | | | | S | **Sg** | **16 10 54.5** | **+1.3** |
| **SRTM** | **Siirt_Merkez** | **1.55** | **242** | *i* P | **Pb** | **16 10 34.9** | **0.0** |
| SRTM | | | | *i* S | **Sb** | **16 10 55.4** | **+1.1** |
| **SRTM** | **Siirt_Merkez** | **1.55** | **242** | P | **Pb** | **16 10 34.9** | **0.0** |
| SRTM | | | | S | **Sb** | **16 10 55.4** | **+1.1** |
| **SIRT** | **Sirnak** | **1.56** | **218** | *e*PN | **Pb** | **16 10 35.5** | **+0.4** |
| **SIRT** | **Sirnak** | **1.56** | **218** | *e*Pn | **Pb** | **16 10 35.5** | **+0.4** |
| **SIRN** | **S¨–rnak** | **1.57** | **219** | *i* P | **Pb** | **16 10 34.9** | **-0.5** |
| SIRN | | | | *i* S | **Sb** | **16 10 55.9** | **+0.7** |
| **SIRN** | **S¨–rnak** | **1.57** | **219** | P | **Pb** | **16 10 34.9** | **-0.5** |
| SIRN | | | | S | **Sb** | **16 10 55.8** | **+0.7** |
| **DIGO** | **Kars** | **1.69** | **353** | *e*P | **Pb** | **16 10 37.7** | **+0.2** |
| **DIGO** | **Kars** | **1.69** | **353** | *i* P | **Pb** | **16 10 37.7** | **+0.2** |
| **DIGO** | **Kars** | **1.69** | **353** | P | **Pb** | **16 10 37.7** | **+0.2** |
| **VRTB** | **Varto-Mus** | **1.76** | **285** | *e*PN | **Pb** | **16 10 38.0** | **-0.6** |
| **VRTB** | **Varto-Mus** | **1.76** | **285** | *i* P | **Pb** | **16 10 38.8** | **+0.1** |
| VRTB | | | | *i* S | **Sg** | **16 11 04.0** | **+0.7** |
| **VRTB** | **Varto-Mus** | **1.76** | **285** | *e*Pn | **Pb** | **16 10 38.0** | **-0.6** |
| **VRTB** | **Varto-Mus** | **1.76** | **285** | P | **Pb** | **16 10 38.8** | **+0.1** |
| VRTB | | | | S | **Sg** | **16 11 04.1** | **+0.7** |
| **HOMI** | **Horasan** | **1.88** | **315** | *e*PN12 | **Pb** | **16 10 40.4** | **-0.3** |
| **HOMI** | **Horasan** | **1.88** | **315** | *i* P | **Pb** | **16 10 40.9** | **+0.1** |
| **KARS** | **Kars** | **1.94** | **347** | *e*PN | **Pb** | **16 10 40.7** | **-1.0** |
| **KARS** | **Kars** | **1.94** | **347** | *e*Pn | **Pb** | **16 10 40.7** | **-1.0** |
| **EAK** | **Akyaka** | **1.95** | **359** | *e*PN12 | **Pb** | **16 10 40.2** | **+1.5** |
| **EAK** | **Akyaka** | **1.95** | **359** | *i* P | **Pb** | **16 10 41.9** | **+0.1** |
| **EAK** | **Akyaka** | **1.95** | **359** | P | **Pb** | **16 10 41.9** | **+0.1** |
| **BNGL** | **BINGOL** | **1.96** | **277** | *e*PN12 | **Pb** | **16 10 41.2** | **-0.9** |
| BNGL | | | | *e*S | **Sg** | **16 11 08.8** | **-1.1** |
| **BNGL** | **BINGOL** | **1.96** | **277** | *i* P | **Pb** | **16 10 42.0** | **-0.2** |
| BNGL | | | | *i* S | **Sb** | **16 11 06.8** | **+0.4** |
| **BTMN** | **Batman** | **2.05** | **247** | *i* P | **Pb** | **16 10 42.2** | **-1.3** |
| BTMN | | | | *i* S | **Sb** | **16 11 10.2** | **+1.4** |
| **BTMN** | **Batman** | **2.05** | **247** | P | **Pb** | **16 10 42.2** | **-1.3** |
| BTMN | | | | S | **Sb** | **16 11 10.2** | **+1.4** |
| **SENK** | **Senkaya-Erzuru** | **2.08** | **332** | *e*PN | **Pb** | **16 10 42.9** | **-1.2** |
| **SENK** | **Senkaya-Erzuru** | **2.08** | **332** | *e*Pn | **Pb** | **16 10 42.9** | **-1.2** |
| **ERZM** | **Erzurum** | **2.12** | **304** | *e*PN12 | **Pb** | **16

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **DIGO** | **Kars** | **1.74** | **358** | *e*P | **Pg** | **16 30 45.7** | **-0.5** |
| DIGO | | | | IAML | | 16 31 00.9 | |
| | comp=Z,13nm,0.5s | | | | | | |
| **DIGO** | **Kars** | **1.74** | **358** | *i* P | **Pb** | **16 30 44.7** | **-0.2** |
| **DIGO** | **Kars** | **1.74** | **358** | P | **Pb** | **16 30 44.7** | **-0.2** |
| **HOMI** | **Horasan** | **1.82** | **319** | *e*PN12 | **Pb** | **16 30 46.7** | **+0.3** |
| HOMI | | | | IAML | | 16 31 18.9 | |
| | comp=Z,30nm,0.5s | | | | | | |
| **HOMI** | **Horasan** | **1.82** | **319** | *i* P | **Pb** | **16 30 45.5** | **-0.9** |
| **BNGL** | **BINGOL** | **1.83** | **279** | *e*PN8 | **Pb** | **16 30 46.0** | **-0.5** |
| **BNGL** | **BINGOL** | **1.83** | **279** | *i* P | **Pb** | **16 30 46.6** | **-0.9** |
| **BTMN** | **Batman** | **1.90** | **246** | *i* P | **Pn** | **16 30 45.5** | **+0.2** |
| **BTMN** | **Batman** | **1.90** | **246** | P | **Pn** | **16 30 45.5** | **+0.2** |
| **KARS** | **Kars** | **1.97** | **351** | *e*PN | **Pn** | **16 30 47.3** | **+0.9** |
| **KARS** | **Kars** | **1.97** | **351** | *e*Pn | **Pn** | **16 30 47.3** | **+0.9** |
| **EAK** | **Akyaka** | **2.01** | **3** | *e*PN12 | **Pg** | **16 30 51.0** | **-0.3** |
| EAK | | | | IAML | | 16 31 34.2 | |
| | comp=Z,23nm,0.7s | | | | | | |
| **EAK** | **Akyaka** | **2.01** | **3** | *i* P | **Pg** | **16 30 51.4** | **+0.1** |
| **EAK** | **Akyaka** | **2.01** | **3** | P | **Pg** | **16 30 51.4** | **+0.1** |
| **ERZM** | **Erzurum** | **2.04** | **308** | *e*PN8 | **Pb** | **16 30 49.7** | **-0.4** |
| **ERZM** | **Erzurum** | **2.04** | **308** | *i* P | **Pb** | **16 30 50.4** | **+0.3** |
| **ERZM** | **Erzurum** | **2.04** | **308** | P | **Pb** | **16 30 50.4** | **+0.3** |
| **SENK** | **Senkaya-Erzuru** | **2.07** | **336** | *e*PN | **Pn** | **16 30 48.9** | **+1.1** |
| **SENK** | **Senkaya-Erzuru** | **2.07** | **336** | *e*Pn | **Pn** | **16 30 48.9** | **+1.1** |
| **ECAT** | **Cat-ERZURUM** | **2.15** | **296** | *e*PN11 | **Pb** | **16 30 51.0** | **-0.9** |
| ECAT | | | | IAML | | 16 31 05.1 | |
| | comp=Z,11nm,0.4s | | | | | | |
| **BNGB** | **Bing˜ǁl** | **2.20** | **279** | *e*PN | **Pn** | **16 30 51.1** | **+1.6** |
| **BINT** | **Bingol** | **2.34** | **276** | *e*Pn | **Pn** | **16 30 51.1** | **-0.3** |
| **YEDI** | **Yedisu-Bingol** | **2.40** | **289** | *e*PN | **Pn** | **16 30 53.6** | **+1.3** |
| **YEDI** | **Yedisu-Bingol** | **2.40** | **289** | *e*Pn | **Pn** | **16 30 53.6** | **+1.3** |
| **MARD** | **Mardin** | **2.52** | **238** | *i* P | **Pn** | **16 30 54.9** | **+1.0** |
| **DDEM** | **Demirkent** | **2.58** | **330** | *i* P | **Pb** | **16 30 59.8** | **+0.6** |
| **DDEM** | **Demirkent** | **2.58** | **330** | P | **Pb** | **16 30 59.8** | **+0.6** |
| **KOPT** | **Kop Dagi** | **2.66** | **301** | *i* P | **Pb** | **16 31 01.2** | **+0.5** |
| **KOPT** | **Kop Dagi** | **2.66** | **301** | P | **Pb** | **16 31 01.2** | **+0.5** |
| **DIY** | **Diyarbakir** | **2.67** | **254** | *e*Pn | **Pb** | **16 30 58.6** | **-2.1** |
| **DAGI** | **Agillar** | **2.68** | **334** | *i* P | **Pb** | **16 31 00.3** | **-0.6** |
| **DYBB** | **Diyarbakir** | **2.72** | **256** | *e*PN | **Pn** | **16 30 58.6** | **+2.0** |
| **PTK** | **Pertek** | **3.19** | **275** | *e*PN | **Pn** | **16 31 05.2** | **+2.0** |
| **PTK** | **Pertek** | **3.19** | **275** | *e*Pn | **Pn** | **16 31 05.2** | **+2.0** |
| **SVRC** | **Sivrice-ELAZID** | **3.28** | **266** | *e*PN | **Pn** | **16 31 06.3** | **+2.0** |
| **SVRC** | **Sivrice-ELAZID** | **3.28** | **266** | *e*Pn | **Pn** | **16 31 06.3** | **+2.0** |

**SJA 11 16:51:06.7±0.6, 31.71S×67.59W, h29km±2km, ML4.0, MW3.6, San Juan Province**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **ACAN** | **Cantantal** | **0.66** | **148** | *i* P | | | Pn | 16 51 20.7 | +0.6 |
| ACAN | | | | *i* S | | | Sn | 16 51 29.7 | +0.2 |
| **RTCV** | **Cerro Valdivia** | **0.82** | **259** | *i* P | | | Pb | 16 51 22.9 | +0.5 |
| RTCV | | | | *i* S | | | Sn | 16 51 35.2 | +1.6 |
| **RTLL** | **Cerro Villicun** | **0.84** | **297** | *i* P | | | Pb | 16 51 23.3 | +0.4 |
| RTLL | | | | *i* S | | | Sn | 16 51 35.9 | +1.7 |
| **SJA** | **San Juan** | **0.85** | **282** | *i* P | | | Pb | 16 51 23.6 | +0.7 |
| SJA | | | | IAML | | | | 16 51 24.0 | |
| | comp=Z,813nm,0.3s | | | | | | | | |
| SJA | | | | *i* S | | | Sn | 16 51 36.0 | +1.8 |
| **AMOG** | **MOGNA** | **1.09** | **315** | *i* P | | | Pb | 16 51 27.7 | +0.7 |
| AMOG | | | | *i* S | | | Sb | 16 51 43.3 | +2.4 |
| AMOG | | | | IAML | | | | 16 51 46.5 | |
| | comp=Z,17μm,0.2s | | | | | | | | |
| **AUSP** | **Uspallata** | **1.61** | **251** | *i* P | | | Pb | 16 51 35.9 | 0.0 |
| AUSP | | | | *i* S | | | Sb | 16 51 57.4 | +1.5 |
| **AGUA** | **GUANDACOL** | **2.35** | **341** | *i* P | | | Pn | 16 51 45.9 | +2.4 |

*NEIC **11** 16:54:08.0±4.5, 49.31N×159.99E, h38km±26km, mb4.5/8, Error ellipse: s-maj=62.7km s-min=19.7km az=208.0*
*KRSC **11** 16:54:28.7±1.2, 54.46N×160.94E, h122km±17km, ML4.7*
*ISCJB **11** 16:54:30.5±0.2, 54.47N±0.02×160.79E±0.07, h123km±2km, mb4.0/23, Error ellipse: s-maj=7.0km s-min=2.3km az=25.1*
*IDC **11** 16:54:30.9±0.5, 54.62N×160.40E, h115km±4km, mb3.5/11, mb1 3.9/12, mb1mx3.5/45, mbtmp3.9/12, Error ellipse: s-maj=23.0km s-min=10.3km az=141.0*
*MOS **11** 16:54:30.2±0.8, 54.50N×160.73E, h126km, mb4.0/12, Error ellipse: s-maj=10.6km s-min=4.3km az=74.1*

**ISC 11 16:54:30.6±0.4, 54.46N±0.03×160.84E±0.04, h119km±3km, h119km:pP-P, n129, σ1918/208, mb4.2/23, 3C, Near east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **KZV** | **Kizimen** | **0.73** | **335** | PN | | | **Pn** | **16 54 50.3** | **0.0** |
| KZV | | | | S | | | **Sn** | **16 55 04.5** | **-0.7** |
| **KZV** | **Kizimen** | **0.73** | **335** | *i* P | | | **Pn** | **16 54 50.3** | **0.0** |
| KZV | | | | *e*S | | | **Sn** | **16 55 04.5** | **-0.7** |
| **TUMD** | **Tumrok D** | **0.79** | **341** | *e*P | | | **Pn** | **16 54 50.3** | **-0.4** |
| TUMD | | | | *e*S | | | **Sn** | **16 55 05.1** | **-0.7** |
| **KII** | **Karymskiy** | **0.92** | **243** | PN | | | **Pn** | **16 54 52.2** | **+0.3** |
| KII | | | | S | | | **Sn** | **16 55 08.2** | **+0.4** |
| **KII** | **Karymskiy** | **0.92** | **243** | *e*P | | | **Pn** | **16 54 52.2** | **+0.3** |
| KII | | | | *e*S | | | **Sn** | **16 55 08.3** | **+0.4** |
| **TUMR** | **Tumrok** | **0.92** | **334** | PN | | | **Pn** | **16 54 52.3** | **+0.4** |
| TUMR | | | | S | | | **Sn** | **16 55 08.2** | **+0.1** |
| **TUMR** | **Tumrok** | **0.92** | **334** | *i* P | | | **Pn** | **16 54 52.3** | **+0.4** |
| TUMR | | | | *e*S | | | **Sn** | **16 55 08.2** | **+0.1** |
| **KMNR** | **Kamenistaya** | **1.35** | **345** | PN | | | **Pn** | **16 54 56.8** | **+0.5** |
| KMNR | | | | S | | | **Sn** | **16 55 16.9** | **+1.0** |
| **KMNR** | **Kamenistaya** | **1.35** | **345** | *i* P | | | **Pn** | **16 54 56.8** | **+0.5** |
| KMNR | | | | *e*S | | | **Sn** | **16 55 16.9** | **+1.0** |
| **SPN** | **Mys Shipunski** | **1.45** | **200** | PN | | | **Pn** | **16 54 57.1** | **-0.2** |
| SPN | | | | S | | | **Sn** | **16 55 16.7** | **-0.9** |
| **SPN** | **Mys Shipunski** | **1.45** | **200** | *i* P | | | **Pn** | **16 54 57.1** | **-0.2** |
| SPN | | | | *i* S | | | **Sn** | **16 55 16.7** | **-0.9** |
| **BZGR** | **Bezymyannyi-Gr** | **1.49** | **357** | PN | | | Pn | 16 54 50.5 | -7.4 |
| **BZGR** | **Bezymyannyi-Gr** | **1.49** | **357** | *e*P | | | Pn | 16 54 50.5 | -7.4 |
| **BZMR** | **Bezymyannaya** | **1.50** | **352** | PN | | | **Pn** | **16 54 58.2** | **+0.1** |
| BZMR | | | | S | | | **Sn** | **16 55 18.7** | **-0.2** |
| **BZMR** | **Bezymyannaya** | **1.50** | **352** | *e*P | | | **Pn** | **16 54 58.2** | **+0.1** |
| BZMR | | | | *e*S | | | **Sn** | **16 55 18.7** | **-0.2** |
| **BZWR** | **Bezymyannyi-We** | **1.52** | **353** | PN | | | **Pn** | **16 54 59.0** | **+0.6** |
| BZWR | | | | S | | | **Sn** | **16 55 21.2** | **+1.6** |
| **BZWR** | **Bezymyannyi-We** | **1.52** | **353** | *e*P | | | **Pn** | **16 54 59.0** | **+0.6** |
| BZWR | | | | *e*S | | | **Sn** | **16 55 21.2** | **+1.6** |
| **KIRR** | **Kirishev** | **1.53** | **349** | PN | | | **Pn** | **16 54 58.7** | **+0.3** |
| KIRR | | | | S | | | **Sn** | **16 55 20.2** | **+0.6** |
| **KIRR** | **Kirishev** | **1.53** | **349** | *e*P | | | **Pn** | **16 54 58.7** | **+0.3** |
| KIRR | | | | *e*S | | | **Sn** | **16 55 20.2** | **+0.6** |
| **KPT** | **Kopyto** | **1.55** | **347** | PN | | | **Pn** | **16 54 58.7** | **0.0** |
| KPT | | | | S | | | **Sn** | **16 55 19.2** | **-0.9** |
| **KPT** | **Kopyto** | **1.55** | **347** | *e*P | | | **Pn** | **16 54 58.7** | **0.0** |
| KPT | | | | *e*S | | | **Sn** | **16 55 19.2** | **-0.9** |
| **NLC** | **Nalytchevo** | **1.56** | **215** | PN | | | **Pn** | **16 54 59.2** | **+0.5** |
| NLC | | | | S | | | **Sn** | **16 55 20.1** | **+0.1** |
| **NLC** | **Nalytchevo** | **1.56** | **215** | *i* P | | | **Pn** | **16 54 59.2** | **+0.5** |
| NLC | | | | *e*S | | | **Sn** | **16 55 20.1** | **+0.1** |
| **ZLN** | **Zelenaya** | **1.56** | **359** | PN | | | **Pn** | **16 54 59.5** | **+0.7** |
| ZLN | | | | S | | | **Sn** | **16 55 21.7** | **+1.4** |
| **ZLN** | **Zelenaya** | **1.56** | **359** | *i* P | | | **Pn** | **16 54 59.5** | **+0.7** |
| ZLN | | | | *e*S | | | **Sn** | **16 55 21.7** | **+1.4** |
| **SDLR** | **Sedlovina** | **1.65** | **225** | PN | | | **Pn** | **16 55 00.7** | **+0.8** |
| SDLR | | | | S | | | **Sn** | **16 55 24.4** | **+2.2** |
| **SDLR** | **Sedlovina** | **1.65** | **225** | *i* P | | | **Pn** | **16 55 00.7** | **+0.8** |
| SDLR | | | | *e*S | | | **Sn** | **16 55 24.4** | **+2.2** |
| **CIRR** | **Tsirk** | **1.66** | **358** | PN | | | **Pn** | **16 55 00.7** | **+0.7** |
| CIRR | | | | S | | | **Sn** | **16 55 23.3** | **+0.9** |
| **CIRR** | **Tsirk** | **1.66** | **358** | *i* P | | | **Pn** | **16 55 00.7** | **+0.7** |
| CIRR | | | | *i* S | | | **Sn** | **16 55 23.3** | **+0.9** |
| **KRER** | **Koryakskii** | **1.69** | **228** | PN | | | **Pn** | **16 55 01.3** | **+0.8** |
| KRER | | | | S | | | **Sn** | **16 55 23.8** | **+0.6** |
| **KRER** | **Koryakskii** | **1.69** | **228** | *e*P | | | **Pn** | **16 55 01.3** | **+0.8** |
| KRER | | | | *e*S | | | **Sn** | **16 55 23.8** | **+0.6** |
| **KOZ** | **Kozyrevsk** | **1.70** | **341** | PN | | | **Pn** | **16 55 00.5** | **+0.2** |
| KOZ | | | | S | | | **Sn** | **16 55 23.4** | **+0.4** |
| **KOZ** | **Kozyrevsk** | **1.70** | **341** | *e*P | | | **Pn** | **16 55 00.5** | **+0.2** |
| KOZ | | | | *e*S | | | **Sn** | **16 55 23.4** | **+0.4** |
| **KRX** | **Arik** | **1.70** | **231** | PN | | | **Pn** | **16 55 01.4** | **+0.9** |
| KRX | | | | S | | | **Sn** | **16 55 23.9** | **+0.7** |
| **KRX** | **Arik** | **1.70** | **231** | *i* P | | | **Pn** | **16 55 01.4** | **+0.9** |
| KRX | | | | *e*S | | | **Sn** | **16 55 23.9** | **+0.7** |
| **AVH** | **Avacha** | **1.73** | **227** | PN | | | **Pn** | **16 55 01.7** | **+1.0** |
| AVH | | | | S | | | **Sn** | **16 55 25.4** | **+1.7** |
| **AVH** | **Avacha** | **1.73** | **227** | *i* P | | | **Pn** | **16 55 01.7** | **+1.0** |
| AVH | | | | *e*S | | | **Sn** | **16 55 25.4** | **+1.7** |
| **UGLR** | **Uglovaya** | **1.73** | **225** | PN | | | **Pn** | **16 55 01.7** | **+0.9** |
| UGLR | | | | S | | | **Sn** | **16 55 24.2** | **+0.4** |
| **UGLR** | **Uglovaya** | **1.73** | **225** | *i* P | | | **Pn** | **16 55 01.7** | **+0.9** |
| UGLR | | | | *e*S | | | **Sn** | **16 55 24.2** | **+0.4** |
| **KOK** | **Koryaka** | **1.75** | **229** | PN | | | **Pn** | **16 55 02.0** | **+0.9** |
| **KOK** | **Koryaka** | **1.75** | **229** | *e*P | | | **Pn** | **16 55 02.0** | **+0.9** |
| **KRSR** | **Krestovskiy** | **1.77** | **355** | PN | | | **Pn** | **16 55 01.3** | **0.0** |
| KRSR | | | | S | | | **Sn** | **16 55 23.6** | **-1.1** |
| **KRSR** | **Krestovskiy** | **1.77** | **355** | *e*P | | | **Pn** | **16 55 01.3** | **0.0** |
| KRSR | | | | *e*S | | | **Sn** | **16 55 23.6** | **-1.1** |
| **KLY** | **Klyuchi** | **1.86** | **357** | PN | | | **Pn** | **16 55 02.5** | **+0.2** |
| KLY | | | | S | | | **Sn** | **16 55 27.2** | **+0.7** |
| **KLY** | **Klyuchi** | **1.86** | **357** | *e*P | | | **Pn** | **16 55 02.5** | **+0.2** |
| KLY | | | | *e*S | | | **Sn** | **16 55 27.2** | **+0.7** |
| **GNL** | **Ganaly** | **1.87** | **247** | PN | | | **Pn** | **16 55 03.3** | **+0.8** |
| GNL | | | | S | | | **Sn** | **16 55 28.8** | **+1.9** |
| **GNL** | **Ganaly** | **1.87** | **247** | *i* P | | | **Pn** | **16 55 03.3** | **+0.8** |
| GNL | | | | *i* S | | | **Sn** | **16 55 28.8** | **+1.9** |
| **DALK** | **Dalny** | **1.89** | **222** | PN | | | **Pn** | **16 55 03.3** | **+0.7** |
| DALK | | | | S | | | **Sn** | **16 55 27.6** | **+0.5** |
| **DALK** | **Dalny** | **1.89** | **222** | *i* P | | | **Pn** | **16 55 03.3** | **+0.7** |
| DALK | | | | *i* S | | | **Sn** | **16 55 27.6** | **+0.5** |
| **ESO** | **Esso** | **1.92** | **321** | PN | | | **Pn** | **16 55 02.8** | **-0.2** |
| ESO | | | | S | | | **Sn** | **16 55 27.4** | **-0.3** |
| **ESO** | **Esso** | **1.92** | **321** | *i* P | | | **Pn** | **16 55 02.8** | **-0.2** |
| ESO | | | | *e*S | | | **Sn** | **16 55 27.4** | **-0.3** |
| **INSR** | **Institute** | **1.92** | **224** | PN | | | **Pn** | **16 55 02.1** | **-1.0** |
| **INSR** | **Institute** | **1.92** | **224** | *e*P | | | **Pn** | **16 55 02.1** | **-1.0** |
| **PET** | **Petropavlovsk** | **1.94** | **223** | *e*PN | | | **Pn** | **16 55 03.5** | **+0.3** |
| PET | | | | *i* S | | | **Sn** | **16 55 28.3** | **+0.2** |
| PET | | | | | pmax | pmax | | | |
| | comp=Z,200nm,1.2s | | | | | | | | |
| PET | | | | | pmax | pmax | | | |
| | comp=Z,2μm,0.4s | | | | | | | | |
| PET | | | | | pmax | pmax | | | |
| | comp=Z,2μm,0.7s | | | | | | | | |
| PET | | | | | smax | smax | | | |
| | comp=E,6μm,0.6s | | | | | | | | |
| PET | | | | | smax | smax | | | |
| | comp=N,4μm,0.8s | | | | | | | | |
| **PET** | **Petropavlovsk** | **1.94** | **223** | *e*Pn | | | **Pn** | **16 55 03.7** | **+0.5** |
| **PET** | **Petropavlovsk** | **1.94** | **223** | *i* P | | | **Sn** | **16 55 03.8** | **+0.6** |
| PET | | | | *e*S | | | **Sn** | **16 55 28.4** | **+0.3** |
| **KBTR** | **Krutoberegovo** | **2.09** | **32** | PN | | | **Sn** | **16 55 05.5** | **+0.4** |
| KBTR | | | | S | | | **Sn** | **16 55 31.8** | **+0.3** |
| **KBTR** | **Krutoberegovo** | **2.09** | **32** | *e*P | | | **Pn** | **16 55 05.5** | **+0.4** |
| KBTR | | | | *e*S | | | **Sn** | **16 55 31.8** | **+0.3** |
| **BDR** | **Baidarnaya** | **2.13** | **6** | PN | | | **Pn** | **16 55 06.2** | **+0.6** |
| BDR | | | | S | | | **Sn** | **16 55 33.4** | **+0.9** |
| **BDR** | **Baidarnaya** | **2.13** | **6** | *i* P | | | **Pn** | **16 55 06.2** | **+0.6** |
| BDR | | | | *e*S | | | **Sn** | **16 55 33.4** | **+0.9** |
| **SMKR** | **Semkarok** | **2.16** | **9** | PN | | | **Pn** | **16 55 06.4** | **+0.3** |
| SMKR | | | | S | | | **Sn** | **16 55 34.3** | **+1.1** |
| **SMKR** | **Semkarok** | **2.16** | **9** | *e*P | | | **Pn** | **16 55 06.4** | **+0.3** |
| SMKR | | | | *e*S | | | **Sn** | **16 55 34.3** | **+1.1** |
| **SRKR** | **Sorokina** | **2.21** | **5** | PN | | | **Pn** | **16 55 07.2** | **+0.5** |
| SRKR | | | | S | | | **Sn** | **16 55 34.8** | **+0.5** |
| **SRKR** | **Sorokina** | **2.21** | **5** | *e*P | | | **Pn** | **16 55 07.2** | **+0.5** |
| SRKR | | | | *e*S | | | **Sn** | **16 55 34.8** | **+0.5** |
| **KRMR** | **Karymshinskiy** | **2.29** | **226** | PN | | | **Pn** | **16 55 08.2** | **+0.5** |
| KRMR | | | | S | | | **Sn** | **16 55 36.7** | **+0.6** |
| **KRMR** | **Karymshinskiy** | **2.29** | **226** | *e*P | | | **Pn** | **16 55 08.2** | **+0.5** |
| KRMR | | | | *e*S | | | **Sn** | **16 55 36.7** | **+0.6** |
| **PEA0B** | **Petropavlovsk-** | **2.30** | **235** | *e*Pn | | | **Pn** | **16 55 07.8** | **-0.1** |
| **PETK** | **Petropavlovsk-** | **2.30** | **235** | P | | | **Pn** | **16 55 08.4** | **+0.6** |
| | comp=N,58nm,0.3s,baz=59,slow=12,SNR=847 | | | | | | | | |
| PETK | | | | S | | | **Sn** | **16 55 38.1** | **+1.7** |
| | comp=N,21nm,0.3s,baz=84,slow=20,SNR=6.9 | | | | | | | | |
| **PETK** | **Petropavlovsk-** | **2.30** | **235** | *e*Pn | | | **Pn** | **16 55 08.1** | **+0.3** |
| **RUS** | **Russkaya** | **2.46** | **215** | PN | | | **Pn** | **16 55 09.8** | **0.0** |
| RUS | | | | S | | | **Sn** | **16 55 38.8** | **-1.1** |
| **RUS** | **Russkaya** | **2.46** | **215** | *i* P | | | **Pn** | **16 55 09.8** | **0.0** |
| RUS | | | | *e*S | | | **Sn** | **16 55 38.8** | **-1.1** |
| **GRL** | **Gorelyy** | **2.52** | **222** | PN | | | **Pn** | **16 55 12.5** | **+1.7** |
| **GRL** | **Gorelyy** | **2.52** | **222** | *e*P | | | **Pn** | **16 55 12.5** | **+1.7** |
| **MTVR** | **Mutnovka** | **2.54** | **220** | PN | | | **Pn** | **16 55 11.9** | **+0.9** |
| MTVR | | | | S | | | **Sn** | **16 55 43.0** | **+1.1** |
| **MTVR** | **Mutnovka** | **2.54** | **220** | *e*P | | | **Pn** | **16 55 11.9** | **+0.9** |
| MTVR | | | | *e*S | | | **Sn** | **16 55 43.0** | **+1.1** |
| **APC** | **Apacha** | **2.67** | **236** | PN | | | **Pn** | **16 55 13.6** | **+1.0** |
| APC | | | | S | | | **Sn** | **16 55 47.0** | **+2.2** |
| **APC** | **Apacha** | **2.67** | **236** | *e*P | | | **Pn** | **16 55 13.6** | **+1.0** |
| APC | | | | *e*S | | | **Sn** | **16 55 47.0** | **+2.2** |
| **ASAK** | **Asacha** | **2.72** | **221** | PN | | | **Pn** | **16 55 14.0** | **+0.7** |
| ASAK | | | | S | | | **Sn** | **16 55 47.5** | **+1.4** |
| **ASAK** | **Asacha** | **2.72** | **221** | *i* P | | | **Pn** | **16 55 14.0** | **+0.7** |
| ASAK | | | | *e*S | | | **Sn** | **16 55 47.5** | **+1.4** |
| **BKI** | **Bering** | **3.06** | **74** | PN | | | **Pn** | **16 55 17.9** | **+0.3** |
| BKI | | | | S | | | **Sn** | **16 55 51.7** | **-2.1** |
| **BKI** | **Bering** | **3.06** | **74** | *i* P | | | **Pn** | **16 55 17.9** | **+0.3** |
| BKI | | | | *e*S | | | **Sn** | **16 55 51.7** | **-2.1** |
| **KDTR** | **Khodutka, Kamc** | **3.13** | **213** | *i* P | | | **Pn** | **16 55 18.4** | **-0.2** |
| KDTR | | | | *e*S | | | **Sn** | **16 55 53.0** | **-2.5** |
| **SKR** | **Severo-Kuril's** | **4.75** | **219** | *e*PN | | | **Pn** | **16 55 40.0** | **-0.1** |
| SKR | | | | *e*S | | | **Sn** | **16 56 33.1** | **-1.1** |
| SKR | | | | | pmax | pmax | | | |
| | comp=Z,417nm,0.6s | | | | | | | | |
| SKR | | | | | smax | smax | | | |
| | comp=E,223nm,0.8s | | | | | | | | |
| SKR | | | | | smax | smax | | | |
| | comp=N,259nm,1.1s | | | | | | | | |
| **SKR** | **Severo-Kuril's** | **4.75** | **219** | *e*P | | | **Pn** | **16 55 39.8** | **-0.3** |
| SKR | | | | *e*S | | | **Sn** | **16 56 32.1** | **-2.1** |
| **OSSR** | **Ossora** | **4.96** | **13** | PN | | | **Pn** | **16 55 42.6** | **-0.2** |
| OSSR | | | | S | | | **Sn** | **16 56 37.0** | **-2.0** |
| **OSSR** | **Ossora** | **4.96** | **13** | *e*P | | | **Pn** | **16 55 42.6** | **-0.2** |
| OSSR | | | | *e*S | | | **Sn** | **16 56 37.0** | **-2.0** |
| **MA2** | **Magadan** | **7.51** | **317** | P | | | **Pn** | **16 56 18.2** | **+0.8** |
| | comp=N,1.0nm,0.3s,baz=118,slow=9.4,SNR=14 | | | | | | | | |
| **TYV** | **Tymovskoe** | **11.61** | **259** | *e*PN | | | **Pn** | **16 57 11.0** | **-1.5** |
| TYV | | | | | pmax | pmax | | | |
| | comp=Z,26nm,1.1s | | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **13.67** | **244** | *e*P | | | **Pn** | **16 57 39.8** | **+0.4** |
| **YUK** | **Yuzh-Kuril'sk** | **14.27** | **229** | *e*P | | | **Pn** | **16 57 43.7** | **-3.3** |
| **ASAJ** | **Asahikawa** | **15.72** | **236** | P | | | **P** | **16 58 07.2** | **+0.4** |
| | comp=Z,0.7nm,0.3s,baz=112,slow=5.1,SNR=8.4 | | | | | | | | |
| **HABR** | **Khabarovsk** | **17.09** | **260** | *e*P | | | **P** | **16 58 20.0** | **-1.8** |
| HABR | | | | *e*S | | | **Sn** | **17 01 30.3** | **-1.9** |
| HABR | | | | | pmax | pmax | | | |
| | comp=Z,54nm,1.9s | | | | | | | | |
| HABR | | | | | pmax | pmax | | | |
| | comp=N,4.0nm,0.9s | | | | | | | | |
| HABR | | | | | pmax | pmax | | | |
| | comp=E,56nm,1.9s | | | | | | | | |
| HABR | | | | | MLR | MLR | | | |
| | comp=Z,62nm,15.0s | | | | | | | | |
| **KLR** | **Kul'dur** | **18.64** | **266** | P | | | **P** | **16 58 38.2** | **-0.6** |
| | comp=Z,0.0nm,0.3s,baz=56,slow=9.2,SNR=6.5 | | | | | | | | |
| **TIXI** | **Tiksi** | **22.04** | **333** | *e*P | | | **P** | **16 59 16.7** | **+1.6** |
| TIXI | | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,1.0s | | | | | | | | |
| **TIXI** | **Tiksi** | **22.04** | **333** | *e*P | | | pP | 16 59 41.5 | +4.1 |
| | comp=Z,5.3nm,0.9s | | | | | | | | |
| **MAJO** | **Matsushiro** | **23.75** | **230** | *e*P | | | **P** | **16 59 31.0** | **-0.9** |
| MAJO | | | | | pmax | pmax | | | |
| | comp=Z,16nm,0.9s | | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **23.75** | **230** | P | | | **P** | **16 59 32.3** | **+0.5** |
| | comp=Z,3.9nm,0.6s,baz=22,slow=8.2,SNR=13 | | | | | | | | |
| **IMAR** | **Indian Mountai** | **24.70** | **44** | *e*P | | | pP | 17 00 03.6 | -2.0 |
| **ILAR** | **Eielson Array** | **27.55** | **47** | P | | | **P** | **17 00 06.7** | **+0.9** |
| | comp=Z,1.8nm,0.8s,baz=268,slow=7.9,SNR=20 | | | | | | | | |
| ILAR | | | | | pP | | **pP** | **17 00 32.1** | **+0.6** |
| | comp=Z,1.4nm,0.8s,baz=267,slow=8.4,SNR=3.8 | | | | | | | | |
| ILAR | | | | | sP | | **sP** | **17 00 42.4** | **-3.0** |
| | comp=Z,1.7nm,0.9s,baz=261,slow=8.9,SNR=3.8 | | | | | | | | |
| **INK** | **Inuvik** | **32.52** | **39** | P | | | **P** | **17 00 51.2** | **+1.6** |
| | comp=Z,0.3nm,0.4s,baz=277,slow=6.1,SNR=4.8 | | | | | | | | |
| **TLY** | **Talaya** | **33.67** | **289** | *e*P | | | **P** | **17 00 57.0** | **-2.8** |
| TLY | | | | | pmax | pmax | | | |
| | comp=Z,5.0nm,0.9s | | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **34.97** | **170** | T | | | T | 17 38 47.6 | |
| | baz=355,slow=76,SNR=181 | | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **34.99** | **170** | T | | | T | 17 38 50.1 | |
| | baz=355,slow=76,SNR=118 | | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **34.99** | **170** | T | | | T | 17 38 48.4 | |
| | baz=355,slow=76,SNR=222 | | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **36.16** | **171** | T | | | T | 17 40 21.2 | |
| | baz=352,slow=76 | | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **36.18** | **171** | T | | | T | 17 40 18.3 | |
| | baz=352 | | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **36.18** | **171** | T | | | T | 17 40 23.9 | |
| | baz=352,slow=76 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **41.86** | **44** | P | | | **P** | **17 02 09.6** | **+1.3** |
| | comp=Z,1.1nm,0.8s,baz=300,slow=7.9,SNR=8.3 | | | | | | | | |
| YKA | | | | | pP | | **pP** | **17 02 35.4** | **+0.1** |
| | comp=Z,0.4nm,0.6s,baz=300,slow=7.8,SNR=3.0 | | | | | | | | |
| YKA | | | | | sP | | **sP** | **17 02 48.5** | **-0.4** |
| | comp=Z,0.6nm,0.5s,baz=299,slow=8.0,SNR=3.4 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **47.97** | **295** | P | | | **P** | **17 02 53.4** | **-3.6** |
| | comp=Z,0.3nm,0.7s,baz=65,slow=8.7,SNR=2.8 | | | | | | | | |
| **ARU** | **Arti** | **52.70** | **317** | *c* *i*P | | | **P** | **17 03 30.5** | **-1.8** |
| ARU | | | | | *PP | | **pP** | **17 04 00.2** | **-0.2** |
| ARU | | | | | | | | 17 04 36.7 | |
| ARU | | | | | | | | 17 05 28.1 | |
| ARU | | | | | S | | **S** | **17 10 49.2** | **-1.3** |
| ARU | | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,1.7s | | | | | | | | |
| **BEKR** | **Beckworth** | **52.73** | **72** | *e*P | | | **P** | **17 03 35.2** | **+2.2** |
| | comp=Z,4.8nm,1.1s | | | | | | | | |
| **PAHR** | **Pah Rah Range** | **53.38** | **71** | *e*P | | | **P** | **17 03 40.0** | **+2.3** |
| | comp=Z,3.3nm,0.8s | | | | | | | | |
| **PNTR** | **Pine Nut** | **53.69** | **72** | *e*P | | | **P** | **17 03 42.8** | **+2.7** |
| | comp=Z,7.7nm,0.8s | | | | | | | | |
| **YERR** | **Yerington** | **53.96** | **72** | *e*P | | | **P** | **17 03 44.5** | **+2.4** |
| | comp=Z,5.9nm,1.0s | | | | | | | | |
| **CMB** | **Columbia Colle** | **53.99** | **73** | *e*P | | | **P** | **17 03 43.8** | **+1.7** |
| CMB | | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,1.3s | | | | | | | | |
| **CMB** | **Columbia Colle** | **53.99** | **73** | *e*P | | | **P** | **17 03 43.8** | **+1.7** |
| | comp=Z,4.4nm,1.3s | | | | | | | | |
| **WAKR** | **Walker** | **54.19** | **72** | *e*P | | | **P** | **17 03 46.0** | **+2.3** |
| | comp=Z,5.5nm,0.7s | | | | | | | | |
| **NV01** | **Mina Array Sit** | **54.87** | **71** | *e*P | | | **P** | **17 03 51.0** | **+2.3** |
| **NV11** | **Mina Array Sit** | **54.95** | **71** | *e*P | | | **P** | **17 03 51.7** | **+2.5** |
| | comp=Z,0.4nm,1.2s | | | | | | | | |
| **PDAR** | **Pinedale Array** | **56.48** | **62** | P | | | **P** | **17 04 02.0** | **+1.9** |
| | comp=Z,1.3nm,0.7s,baz=289,slow=5.0,SNR=12 | | | | | | | | |
| PDAR | | | | | pP | | **pP** | **17 04 29.6** | **+1.1** |
| | comp=Z,0.9nm,0.9s,baz=313,slow=3.0,SNR=3.3 | | | | | | | | |
| **GSC** | **Goldstone, Bar** | **57.95** | **73** | *e*P | | | **P** | **17 04 11.9** | **+1.5** |
| GSC | | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,0.8s | | | | | | | | |
| **GSC** | **Goldstone, Bar** | **57.95** | **73** | *e*P | | | **P** | **17 04 11.9** | **+1.5** |
| | comp=Z,2.5nm,0.8s | | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **58.90** | **258** | P | | | **P** | **17 04 17.5** | **+0.5** |
| | comp=Z,0.4nm,0.6s,baz=28,slow=7.0,SNR=5.4 | | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **58.90** | **258** | *i* P | | | **P** | **17 04 18.1** | **+1.1** |
| **FINES** | **FINESS Array B** | **59.04** | **337** | P | | | **P** | **17 04 16.8** | **-0.7** |
| | comp=Z,2.9nm,1.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CTBH | Cotabato--PC H | 3.76 | 210 | ⇓ | *i* P | | Pn | 17 13 17.5 | +3.1 |
| GUMO | Guam | 18.59 | 79 | | LR | | LR | 17 21 36.9 | |
| | comp=Z,76nm,21.6s,baz=84,slow=30 | | | | | | | | |
| KSRS | Korea Array | 26.87 | 3 | | LR | | LR | 17 29 06.9 | |
| | comp=Z,11nm,19.9s,baz=155,slow=38 | | | | | | | | |
| CMAR | Chiang Mai Arr | 27.44 | 290 | | P | | P | 17 18 00.9 | -1.1 |
| | 0.5nm,0.7s,baz=94,slow=6.5,SNR=5.1 | | | | | | | | |
| FITZ | Fitzroy Crossi | 28.44 | 181 | | P | | P | 17 18 10.0 | -0.9 |
| | 1.0nm,0.7s,baz=351,slow=9.4,SNR=5.5 | | | | | | | | |
| WRA | Warramunga Arr | 31.34 | 165 | | P | | P | 17 18 34.8 | -1.7 |
| | 0.2nm,0.7s,baz=344,slow=9.3,SNR=3.3 | | | | | | | | |
| ASAR | Alice Springs | 34.82 | 167 | | P | | P | 17 19 05.8 | -1.1 |
| | 0.2nm,0.4s,baz=348,slow=6.8,SNR=8.3 | | | | | | | | |
| H11S3 | WAKE ISLAND Hy 40.00 | 74 | | | T | | T | 18 02 45.2 | |
| | baz=265,slow=75,SNR=7.6 | | | | | | | | |
| H11S1 | WAKE ISLAND Hy 40.01 | 74 | | | T | | T | 18 02 40.1 | |
| | baz=265,slow=75,SNR=7.9 | | | | | | | | |
| H11S2 | WAKE ISLAND Hy 40.02 | 74 | | | T | | T | 18 02 40.8 | |
| | baz=265,slow=75,SNR=9.9 | | | | | | | | |
| H11N1 | WAKE ISLAND Hy 40.33 | 72 | | | T | | T | 18 03 10.9 | |
| | baz=265,slow=74,SNR=12 | | | | | | | | |
| H11N2 | WAKE ISLAND Hy 40.33 | 72 | | | T | | T | 18 03 12.9 | |
| | baz=265,slow=74,SNR=12 | | | | | | | | |
| H11N3 | WAKE ISLAND Hy 40.34 | 72 | | | T | | T | 18 03 13.7 | |
| | baz=265,slow=74,SNR=17 | | | | | | | | |
| MKAR | Makanchi Array | 51.74 | 323 | | P | | P | 17 21 22.6 | -0.6 |
| | 0.8nm,0.7s,baz=117,slow=7.8,SNR=6.7 | | | | | | | | |
| ZALV | Zalesovo Beam | 54.34 | 331 | | P | | P | 17 21 40.9 | -1.3 |
| | 0.2nm,0.3s,baz=138,slow=8.9,SNR=2.3 | | | | | | | | |

*VIE* ***11*** *17:13:50.7±0.1,47°.30N×11°.46E,h8km±1km,mb1.8/11, ML2.4/16,Error ellipse: s-maj=1.4km s-min=0.8km az=7.0*
*CSEM* ***11*** *17:13:51.3±0.1,47°.37N×11°.48E,h2km,ML2.7/22,Error ellipse: s-maj=3.5km s-min=2.3km az=163.0*
*BGR* ***11*** *17:13:52.7±0.4,47°.31N×11°.52E,h10km,ML2.5/5,Error ellipse: s-maj=7.8km s-min=6.7km az=42.0*
*BGR Felt V EMS.*
*PRU* ***11*** *17:13:53.6,47°.28N×11°.58E,h5km*
*LDG* ***11*** *17:13:53.0±0.1,47°.38N×11°.58E,h2km,Ml2.4/7,Error ellipse: s-maj=3.5km s-min=2.5km az=177.0*

**ISC 11 17:13:51.7±0.8, 47°.31N±0°.02×11°.50E±0°.02, h8km±5km, n92,σ1°37/131, Austria**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **WATA** | **Walderalm** | **0.06** | **68** | | **Pg** | **Pg** | **17 13 53.4** | **-0.3** |
| | 89nm,0.1s,SNR=1000 | | | | | | | |
| WATA | | | | | Sg | **Sg** | **17 13 54.9** | **-0.3** |
| | 890nm,0.1s | | | | | | | |
| **WTTA** | **Wattenberg** | **0.11** | **118** | *e*Pg | **Pg** | **Pg** | **17 13 54.3** | **0.0** |
| WTTA | | | | | *e*Sg | **Sg** | **17 13 56.3** | **+0.1** |
| **WTTA** | **Wattenberg** | **0.11** | **118** | | Pg | **Pg** | **17 13 54.3** | **0.0** |
| WTTA | | | | | Sg | **Sg** | **17 13 56.1** | **-0.1** |
| | 102nm,0.1s | | | | | | | |
| **MOTA** | **Moosalm** | **0.27** | **277** | | Pg | **Pg** | **17 13 55.7** | **-1.4** |
| | 32nm,0.1s,SNR=234 | | | | | | | |
| MOTA | | | | | Sg | **Sg** | **17 13 59.5** | **-1.3** |
| | 57nm,0.1s | | | | | | | |
| **RETA** | **Reutte** | **0.53** | **289** | | Pg | **Pg** | **17 13 59.8** | **-2.1** |
| | 1.8nm,0.1s,SNR=21 | | | | | | | |
| RETA | | | | | Sg | **Sg** | **17 14 08.1** | **-0.8** |
| | 11nm,0.1s | | | | | | | |
| **FETA** | **Feichten** | **0.60** | **241** | | Pg | **Pg** | **17 14 01.8** | **-1.5** |
| | 2.7nm,0.1s,SNR=36 | | | | | | | |
| FETA | | | | | Sg | **Sg** | **17 14 09.5** | **-1.7** |
| | 1.9nm,0.1s | | | | | | | |
| **FUR** | **Furstenfeldbru** | **0.86** | **350** | *e*Pn | **Pg** | **Pg** | **17 14 09.3** | **+1.0** |
| **FUR** | **Furstenfeldbru** | **0.86** | **350** | Pn | **Pg** | **Pg** | **17 14 09.3** | **+1.0** |
| **ABTA** | **Abfaltersbach** | **0.90** | **129** | Pg | **Pg** | **Pb** | **17 14 08.5** | **-1.0** |
| | 0.6nm,0.1s,SNR=17 | | | | | | | |
| ABTA | | | | | Sg | **Sb** | **17 14 20.2** | **-1.4** |
| | 6.0nm,0.2s,SNR=5.1 | | | | | | | |
| **RJOB** | **Jochberg** | **0.97** | **64** | *e*Pn | **Pn** | **Pn** | **17 14 11.2** | **-0.5** |
| **RJOB** | **Jochberg** | **0.97** | **64** | Pn | **Pn** | **Pn** | **17 14 11.2** | **-0.5** |
| **DAVA** | **Damuels** | **1.10** | **269** | *e*Pn | **Pn** | **Pn** | **17 14 14.3** | **+0.8** |
| **DAVA** | **Damuels** | **1.10** | **269** | Pg | **Pg** | **Pg** | **17 14 11.1** | **-1.7** |
| | 0.6nm,0.1s,SNR=42 | | | | | | | |
| **DAVA** | **Damuels** | **1.10** | **269** | Pn | **Pn** | **Pn** | **17 14 14.3** | **+0.8** |
| DAVA | | | | | Sn | **Sb** | **17 14 28.5** | **+0.9** |
| | 59nm,0.2s | | | | | | | |
| **KBA** | **Koelnbreinsper** | **1.28** | **100** | *e*Pn | **Pn** | **Pn** | **17 14 15.8** | **-0.2** |
| **KBA** | **Koelnbreinsper** | **1.28** | **100** | Pg | **Pg** | **Pn** | **17 14 15.8** | **-0.2** |
| | 4.9nm,0.3s,SNR=23 | | | | | | | |
| KBA | | | | | Sg | **Sn** | **17 14 34.1** | **+0.7** |
| | 28nm,0.3s | | | | | | | |
| **MYKA** | **Terra Mystica** | **1.62** | **114** | Pg | **Pg** | **Pg** | **17 14 21.9** | **-0.8** |
| | 0.8nm,0.2s,SNR=8.8 | | | | | | | |
| MYKA | | | | | Sg | **Sg** | **17 14 45.1** | **+1.4** |
| | 21nm,0.6s,SNR=5.7 | | | | | | | |
| **MOA** | **Molln** | **1.95** | **73** | *e*Pn | **Pn** | **Pb** | **17 14 27.3** | **-0.1** |
| MOA | | | | | *e*Sg | **Sg** | **17 14 54.7** | **+0.5** |
| **MOA** | **Molln** | **1.95** | **73** | Pn | **Pn** | **Pb** | **17 14 27.3** | **-0.1** |
| **MOA** | **Molln** | **1.95** | **73** | Pg | **Pg** | **Pb** | **17 14 27.8** | **+0.4** |
| | 1.7nm,0.4s,SNR=12 | | | | | | | |
| MOA | | | | | Sg | **Sg** | **17 14 54.7** | **+0.5** |
| **WET** | **Wettzell** | **2.05** | **26** | *e*Pn | **Pn** | **Pn** | **17 14 26.7** | **+0.3** |
| **WET** | **Wettzell** | **2.05** | **26** | Pn | **Pn** | **Pn** | **17 14 26.7** | **+0.3** |
| **GEC2** | **GERESS Array S** | **2.13** | **43** | *e*Sg | **Sg** | **Sg** | **17 14 59.8** | **-0.2** |
| **GEC2** | **GERESS Array S** | **2.13** | **43** | Sg | **Sg** | **Sg** | **17 14 59.8** | **-0.2** |
| **OBKA** | **Obir** | **2.24** | **110** | Sg | **Sg** | **Sg** | **17 15 04.5** | **+0.9** |
| | 2.2nm,0.3s | | | | | | | |
| **KHC** | **Kasperske Hory** | **2.29** | **37** | *e*PN | **Pn** | **Pn** | **17 14 31.5** | **+1.8** |
| KHC | | | | *e*PG | **Pg** | **Pg** | **17 14 34.8** | **-0.7** |
| KHC | | | | *e*SG | **Sg** | **Sg** | **17 15 04.4** | **-0.8** |
| | comp=Z,18nm,0.3s | | | | | | | |
| **KHC** | **Kasperske Hory** | **2.29** | **37** | Pn | **Pn** | **Pn** | **17 14 31.5** | **+1.8** |
| **KHC** | **Kasperske Hory** | **2.29** | **37** | Pg | **Pg** | **Pg** | **17 14 34.8** | **-0.7** |
| KHC | | | | | Sg | **Sg** | **17 15 04.4** | **-0.8** |
| | 18nm,0.3s | | | | | | | |
| **GRA1** | **Grafenberg Arr** | **2.39** | **356** | Sg | **Sb** | **Sb** | **17 15 07.3** | **+2.9** |
| **GRF** | **Grafenberg Arr** | **2.39** | **356** | *e*Sg | **Sb** | **Sb** | **17 15 07.3** | **+2.9** |
| **ROTZ** | **Rotzenmuhle** | **2.50** | **11** | *e*Pn | **Pn** | **Pn** | **17 14 31.4** | **-1.2** |
| **ROTZ** | **Rotzenmuhle** | **2.50** | **11** | Pn | **Pn** | **Pn** | **17 14 31.4** | **-1.2** |
| **MANZ** | **Manzenberg** | **2.70** | **8** | *e*Pn | **Pn** | **Pn** | **17 14 34.0** | **-1.4** |
| **MANZ** | **Manzenberg** | **2.70** | **8** | Pn | **Pn** | **Pn** | **17 14 34.0** | **-1.4** |
| **NKC** | **Novy Kostel** | **2.99** | **12** | *e*PN | **Pn** | **Pn** | **17 14 41.2** | **+1.9** |
| NKC | | | | *e*PG | **Pg** | **Pg** | **17 14 45.6** | **+0.5** |
| NKC | | | | *e*SG | **Sg** | **Sg** | **17 15 27.7** | **+0.1** |
| | comp=Z,16nm,0.4s | | | | | | | |
| **NKC** | **Novy Kostel** | **2.99** | **12** | Pn | **Pn** | **Pn** | **17 14 41.2** | **+1.9** |
| **NKC** | **Novy Kostel** | **2.99** | **12** | Pg | **Pg** | **Pb** | **17 14 45.6** | **+0.5** |
| NKC | | | | Sg | **Sg** | **Sg** | **17 15 27.7** | **+0.1** |
| | 16nm,0.4s | | | | | | | |
| **CDF** | **Champ du Feu** | **3.05** | **293** | *e*Pn | **Pn** | **Pn** | **17 14 40.4** | **+0.2** |
| **CDF** | **Champ du Feu** | **3.05** | **293** | *e*Pg | **Pg** | **Pb** | **17 14 48.7** | **+2.5** |
| CDF | | | | *e*Sg | **Sg** | **Sg** | **17 15 28.3** | **-1.2** |
| | 2.4nm,0.3s | | | | | | | |
| **CDF** | **Champ du Feu** | **3.05** | **293** | *e*Pn | **Pn** | **Pn** | **17 14 40.4** | **+0.2** |
| **CDF** | **Champ du Feu** | **3.05** | **293** | *e*Pg | **Pg** | **Pb** | **17 14 48.7** | **+2.5** |
| CDF | | | | *e*Sg | **Sg** | **Sg** | **17 15 28.3** | **-1.2** |
| | 1.2nm,0.3s | | | | | | | |
| **HINF** | **Hinteralfeld** | **3.19** | **281** | *e*Pn | **Pn** | **Pn** | **17 14 42.3** | **+0.3** |
| HINF | | | | *e*Sn | **Sn** | **Sn** | **17 15 19.5** | **-0.7** |
| HINF | | | | *e*Sg | **Sg** | **Sg** | **17 15 34.0** | **+0.1** |
| | 2.3nm,0.3s | | | | | | | |
| **HINF** | **Hinteralfeld** | **3.19** | **281** | *e*Pn | **Pn** | **Pn** | **17 14 42.3** | **+0.3** |
| HINF | | | | *e*Sn | **Sn** | **Sn** | **17 15 19.5** | **-0.7** |
| HINF | | | | *e*Sg | **Sg** | **Sg** | **17 15 34.0** | **+0.1** |
| | 1.1nm,0.3s | | | | | | | |
| **MOX** | **Moxa** | **3.33** | **1** | *e*Sn | **Sn** | **Sn** | **17 15 22.0** | **-1.8** |
| **MOX** | **Moxa** | **3.33** | **1** | Sn | **Sn** | **Sn** | **17 15 22.0** | **-1.8** |
| **PRU** | **Pruhonice** | **3.35** | **36** | *e*SG | **Sg** | **Sg** | **17 15 37.8** | **-1.4** |
| | comp=Z,4.1nm,0.3s | | | | | | | |
| **PRU** | **Pruhonice** | **3.35** | **36** | Sg | **Sg** | **Sg** | **17 15 37.8** | **-1.4** |
| | 4.1nm,0.3s | | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **3.40** | **39** | *e*SG | **Sg** | **Sg** | **17 15 39.1** | **-1.6** |
| | comp=Z,5.4nm,0.5s | | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **3.40** | **39** | Sg | **Sg** | **Sg** | **17 15 39.1** | **-1.6** |
| | 5.4nm,0.5s | | | | | | | |
| **TNS** | **Taunus Mts** | **3.54** | **326** | *e*Pn | **Pn** | **Pn** | **17 14 47.4** | **+0.5** |
| **TNS** | **Taunus Mts** | **3.54** | **326** | Pn | **Pn** | **Pn** | **17 14 47.4** | **+0.5** |
| **HAU** | **Haudompre** | **3.55** | **283** | *e*Pn | **Pn** | **Pn** | **17 14 47.7** | **+0.7** |
| HAU | | | | *e*Sg | **Sg** | **Sg** | **17 15 44.8** | **-0.8** |
| | 3.9nm,0.3s | | | | | | | |
| **HAU** | **Haudompre** | **3.55** | **283** | *e*Pn | **Pn** | **Pn** | **17 14 47.7** | **+0.7** |
| HAU | | | | *e*Sg | **Sg** | **Sg** | **17 15 44.8** | **-0.8** |
| | 2.0nm,0.3s | | | | | | | |
| **LPG** | **La Plagne** | **3.75** | **243** | *e*Pn | **Pn** | **Pn** | **17 14 52.3** | **+2.2** |
| LPG | | | | *e*Sn | **Sn** | **Sn** | **17 15 35.4** | **+0.9** |
| | 1.0nm,0.3s | | | | | | | |
| **LPG** | **La Plagne** | **3.75** | **243** | *e*Pn | **Pn** | **Pn** | **17 14 52.3** | **+2.2** |
| LPG | | | | *e*Sn | **Sn** | **Sn** | **17 15 35.4** | **+0.9** |
| | 0.5nm,0.3s | | | | | | | |
| **LPL** | **La Plagne** | **3.75** | **243** | *e*Pn | **Pn** | **Pn** | **17 14 52.3** | **+2.3** |
| LPL | | | | *e*Sn | **Sn** | **Sn** | **17 15 34.7** | **+0.2** |
| | 1.7nm,0.4s | | | | | | | |
| **LPL** | **La Plagne** | **3.75** | **243** | *e*Pn | **Pn** | **Pn** | **17 14 52.3** | **+2.3** |
| LPL | | | | *e*Sn | **Sn** | **Sn** | **17 15 34.7** | **+0.2** |
| | 0.9nm,0.4s | | | | | | | |
| **CABF** | **La Chapelle** | **3.77** | **261** | *e*Pn | **Pn** | **Pn** | **17 14 50.9** | **+0.8** |
| CABF | | | | *e*Sn | **Sn** | **Sn** | **17 15 35.1** | **+0.4** |
| CABF | | | | *e*Sg | **Sg** | **Sg** | **17 15 54.4** | **+1.7** |
| **CABF** | **La Chapelle** | **3.77** | **261** | *e*Pn | **Pn** | **Pn** | **17 14 50.9** | **+0.8** |
| CABF | | | | *e*Sn | **Sn** | **Sn** | **17 15 35.1** | **+0.4** |
| CABF | | | | *e*Sg | **Sg** | **Sg** | **17 15 54.4** | **+1.7** |
| **PVCC** | **Panska Ves** | **3.80** | **31** | *e*SG | **Sg** | **Sg** | **17 15 53.3** | **-0.3** |
| | comp=Z,7.6nm,0.3s | | | | | | | |
| **PVCC** | **Panska Ves** | **3.80** | **31** | Sg | **Sg** | **Sg** | **17 15 53.3** | **-0.3** |
| | 7.6nm,0.3s | | | | | | | |
| **VRAC** | **Vranov** | **3.94** | **58** | *e*Sn | **Sn** | **Sn** | **17 15 39.4** | **+0.6** |
| VRAC | | | | *e*Sg | **Sg** | **Sg** | **17 15 56.9** | **-1.3** |
| **CLL** | **Collm** | **4.12** | **13** | *e*Sg | **Sg** | **Sg** | **17 16 02.0** | **-1.8** |
| **MBDF** | **Montbardon** | **4.19** | **234** | *e*Pn | **Pn** | **Pn** | **17 14 57.4** | **+1.5** |
| **MBDF** | **Montbardon** | **4.19** | **234** | *e*P | **Pb** | **Pb** | **17 15 01.4** | **-4.2** |
| **MBDF** | **Montbardon** | **4.19** | **234** | *e*Pn | **Pn** | **Pn** | **17 14 57.4** | **+1.5** |
| **UPC** | **Upice** | **4.37** | **41** | *e*SG | **Sg** | **Sg** | **17 16 08.9** | **-2.9** |
| | comp=Z,3.7nm,0.4s | | | | | | | |
| **UPC** | **Upice** | **4.37** | **41** | Sg | **Sg** | **Sg** | **17 16 08.9** | **-2.9** |
| | 3.7nm,0.4s | | | | | | | |
| **DPC** | **Dobruska-Polom** | **4.40** | **45** | *e*SG | **Sg** | **Sg** | **17 16 09.7** | **-3.2** |
| **DPC** | **Dobruska-Polom** | **4.40** | **45** | Sg | **Sg** | **Sg** | **17 16 09.7** | **-3.2** |
| **ORIF** | **Oris-en-Rattie** | **4.58** | **241** | *e*Pn | **Pn** | **Pn** | **17 15 03.1** | **+1.8** |
| ORIF | | | | *e*Sn | **Sn** | **Sn** | **17 15 56.1** | **+1.4** |
| | 2.6nm,0.4s | | | | | | | |
| **ORIF** | **Oris-en-Rattie** | **4.58** | **241** | *e*Pn | **Pn** | **Pn** | **17 15 03.1** | **+1.8** |
| ORIF | | | | *e*Sn | **Sn** | **Sn** | **17 15 56.1** | **+1.4** |
| | 1.3nm,0.4s | | | | | | | |
| **FRF** | **La Foret Royal** | **5.07** | **224** | *e*Pn | **Pn** | **Pn** | **17 15 10.6** | **+2.7** |
| **FRF** | **La Foret Royal** | **5.07** | **224** | *e*Pn | **Pn** | **Pn** | **17 15 10.6** | **+2.7** |
| **SMF** | **Signal de Mont** | **5.28** | **266** | *e*Pn | **Pn** | **Pn** | **17 15 10.7** | **-0.1** |
| **SMF** | **Signal de Mont** | **5.28** | **266** | *e*Pn | **Pn** | **Pn** | **17 15 10.7** | **-0.1** |
| **LMR** | **La Mourre** | **5.31** | **223** | *e*Pn | **Pn** | **Pn** | **17 15 13.2** | **+2.0** |
| **LMR** | **La Mourre** | **5.31** | **223** | *e*Pn | **Pn** | **Pn** | **17 15 13.2** | **+2.0** |
| **SMRF** | **Simiane la Rot** | **5.33** | **233** | *e*Pn | **Pn** | **Pn** | **17 15 12.9** | **+1.4** |
| **SMRF** | **Simiane la Rot** | **5.33** | **233** | *e*Pn | **Pn** | **Pn** | **17 15 12.9** | **+1.4** |
| **VIVF** | **Saint-Julien-l** | **5.35** | **245** | *e*Pn | **Pn** | **Pn** | **17 15 11.9** | **+0.2** |
| VIVF | | | | *e*Sn | **Sn** | **Sn** | **17 16 12.2** | **-1.2** |
| **VIVF** | **Saint-Julien-l** | **5.35** | **245** | *e*Pn | **Pn** | **Pn** | **17 15 11.9** | **+0.2** |
| VIVF | | | | *e*Sn | **Sn** | **Sn** | **17 16 12.2** | **-1.2** |
| **AVF** | **Avril sur Loir** | **5.59** | **268** | *e*Pn | **Pn** | **Pn** | **17 15 15.5** | **+0.5** |
| **AVF** | **Avril sur Loir** | **5.59** | **268** | *e*Pn | **Pn** | **Pn** | **17 15 15.5** | **+0.5** |
| **BGF** | **Bois d'Agland** | **5.97** | **266** | *e*Pn | **Pn** | **Pn** | **17 15 20.5** | **+0.2** |
| **BGF** | **Bois d'Agland** | **5.97** | **266** | *e*Pn | **Pn** | **Pn** | **17 15 20.5** | **+0.2** |
| **LASF** | **Ste Croix** | **6.25** | **242** | *e*Pn | **Pn** | **Pn** | **17 15 24.2** | **0.0** |
| **LASF** | **Ste Croix** | **6.25** | **242** | *e*Pn | **Pn** | **Pn** | **17 15 24.2** | **0.0** |
| **TCF** | **Toulx Ste Croi** | **6.46** | **264** | *e*Pn | **Pn** | **Pn** | **17 15 27.2** | **+0.2** |
| **TCF** | **Toulx Ste Croi** | **6.46** | **264** | *e*Pn | **Pn** | **Pn** | **17 15 27.2** | **+0.2** |
| **CAF** | **Calviac** | **6.98** | **253** | *e*Pn | **Pn** | **Pn** | **17 15 34.4** | **+0.3** |
| **CAF** | **Calviac** | **6.98** | **253** | *e*Pn | **Pn** | **Pn** | **17 15 34.4** | **+0.3** |

*ISCJB* ***11*** *17:22:29.5±0.5,39°.08N×0°.05×29°.08E±0°.04,h9km±4km, Error ellipse: s-maj=9.3km s-min=5.0km az=169.6*
*CSEM* ***11*** *17:22:29.4±0.1,39°.08N×29°.10E,h8km,MD2.7,Error ellipse: s-maj=3.0km s-min=2.0km az=149.0*
*DDA* ***11*** *17:22:29.6,39°.09N×29°.08E,h7km,Md2.6*
*ISK* ***11*** *17:22:29.0,39°.09N×29°.12E,h6km,MD2.7*

**ISC 11 17:22:29.3±0.9, 39°.09N±0°.04×29°.10E±0°.03, h10km±7km, n30,σ0°45/36, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **SIMA** | **Simav-Kutahya** | **0.09** | **267** | | PG | **Pg** | **17 22 31.9** | **0.0** |
| SIMA | | | | | *e*SG | **Sg** | **17 22 33.6** | **-0.1** |
| **SIMA** | **Simav-Kutahya** | **0.09** | **267** | | *i* Pg | **Pg** | **17 22 31.9** | **0.0** |
| SIMA | | | | | *e*Sg | **Sg** | **17 22 33.6** | **-0.1** |
| **GDZ** | **Gediz** | **0.30** | **90** | | *i* P | **Pg** | **17 22 36.1** | **+0.8** |
| GDZ | | | | | *i* S | **Sb** | **17 22 40.9** | **-1.0** |
| **GDZ** | **Gediz** | **0.30** | **90** | | P | **Pg** | **17 22 36.1** | **+0.8** |
| GDZ | | | | | S | **Sb** | **17 22 40.9** | **-1.0** |
| **DEMI** | **Demirci** | **0.30** | **262** | | *i* P | **Pg** | **17 22 35.4** | **0.0** |
| DEMI | | | | | *i* S | **Sg** | **17 22 39.1** | **-0.4** |
| **DEMI** | **Demirci** | **0.30** | **262** | | P | **Pg** | **17 22 35.4** | **0.0** |
| DEMI | | | | | S | **Sg** | **17 22 39.1** | **-0.4** |
| **TVSB** | **Tavsanli** | **0.46** | **38** | *e*PG | **Pg** | **Pg** | **17 22 38.2** | **-0.1** |
| **TVSB** | **Tavsanli** | **0.46** | **38** | *e*Pg | **Pg** | **Pg** | **17 22 38.2** | **-0.1** |
| **KULA** | **Kula-Manisa** | **0.67** | **211** | *e*PG | **Pg** | **Pg** | **17 22 42.4** | **+0.2** |
| **KULA** | **Kula-Manisa** | **0.67** | **211** | *e*Pg | **Pg** | **Pg** | **17 22 42.4** | **+0.2** |
| **MANT** | **Manisa** | **0.73** | **216** | *i* P | **Pg** | **Pg** | **17 22 43.6** | **+0.1** |
| **MANT** | **Manisa** | **0.73** | **216** | P | **Pg** | **Pg** | **17 22 43.6** | **+0.1** |
| **AKHS** | **Akhisar** | **1.02** | **259** | *i* P | **Pb** | **Pb** | **17 22 49.4** | **+0.2** |
| **AKHS** | **Akhisar** | **1.02** | **259** | P | **Pb** | **Pb** | **17 22 49.4** | **+0.2** |
| **BALB** | **Balikesir** | **1.09** | **301** | *e*PN | **Pb** | **Pb** | **17 22 50.8** | **+0.4** |
| **BALB** | **Balikesir** | **1.09** | **301** | *e*Pn | **Pb** | **Pb** | **17 22 50.8** | **+0.4** |
| **STEP** | **BALIKESIR_Sava** | **1.11** | **285** | *i* P | **Pg** | **Pg** | **17 22 50.6** | **-0.1** |
| **STEP** | **BALIKESIR_Sava** | **1.11** | **285** | P | **Pg** | **Pg** | **17 22 50.6** | **-0.1** |
| **CAVI** | **Cavuskoy** | **1.25** | **27** | *e*PN | **Pn** | **Pn** | **17 22 53.0** | **+0.1** |
| **CAVI** | **Cavuskoy** | **1.25** | **27** | *e*Pn | **Pn** | **Pn** | **17 22 53.0** | **+0.1** |
| **SHUT** | **Suhut-Afyon** | **1.25** | **115** | *e*PN | **Pb** | **Pb** | **17 22 52.9** | **-0.2** |
| **SHUT** | **Suhut-Afyon** | **1.25** | **115** | *e*Pn | **Pb** | **Pb** | **17 22 52.9** | **-0.2** |
| **KCTX** | **Karacabey (Bur** | **1.31** | **334** | *e*PN | **Pn** | **Pn** | **17 22 54.2** | **+0.5** |
| **KCTX** | **Karacabey (Bur** | **1.31** | **334** | *e*Pn | **Pn** | **Pn** | **17 22 54.2** | **+0.5** |
| **ARMT** | **Armutlu** | **1.49** | **353** | *e*PN | **Pn** | **Pn** | **17 22 57.0** | **+0.8** |
| **ARMT** | **Armutlu** | **1.49** | **353** | *e*Pn | **Pn** | **Pn** | **17 22 57.0** | **+0.8** |
| **YLV** | **Yalova** | **1.49** | **8** | *e*PN | **Pb** | **Pb** | **17 22 57.1** | **-0.1** |
| **YLV** | **Yalova** | **1.49** | **8** | *e*Pn | **Pb** | **Pb** | **17 22 57.1** | **-0.1** |
| **GULT** | **Gulveren** | **1.73** | **39** | *e*PN | **Pn** | **Pn** | **17 23 00.1** | **+0.6** |
| **GULT** | **Gulveren** | **1.73** | **39** | *e*Pn | **Pn** | **Pn** | **17 23 00.1** | **+0.6** |

*ISN* ***11*** *17:30:38.8±1.0,39°.09N×43°.23E,h10km±76km,ML3.8*
*ISK* ***11*** *17:30:46.8,38°.50N×43°.20E,h2km,ML3.6*
*DDA* ***11*** *17:30:47.4,38°.50N×43°.20E,h3km,Ml3.8*
*ATA* ***11*** *17:30:47.5±0.9,38°.54N×43°.07E,h12km±5km,ML4.2, MW4.4*
*CSEM* ***11*** *17:30:48.2±0.1,38°.47N×43°.18E,h2km,ML3.6,Error ellipse: s-maj=3.2km s-min=2.5km az=144.0*
*ISCJB* ***11*** *17:30:48.2±0.4,38°.47N±0°.02×43°.22E±0°.02,h7km±3km, Error ellipse: s-maj=3.7km s-min=2.6km az=146.7*
*AZER* ***11*** *17:30:51.7±0.9,38°.58N×43°.31E,h10km,Error ellipse: s-maj=6.4km s-min=3.1km az=57.0*

**ISC 11 17:30:48.1±1.1, 38°.49N±0°.02×43°.19E±0°.02, h3km±9km, n118,σ0°85/156, 7C-23D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.19** | **56** | | PG | **Pg** | **17 30 51.0** | **-0.9** |
| VANB | | | | | *e*SG | **Sg** | **17 30 53.9** | **-0.4** |
| **VANB** | **Van** | **0.19** | **56** | | *i* Pg | **Pg** | **17 30 51.0** | **-0.9** |
| VANB | | | | | *e*Sg | **Sg** | **17 30 53.9** | **-0.4** |
| **GEVA** | **Gevas** | **0.20** | **210** | ⇓ | *i* P | **Pg** | **17 30 52.5** | **+0.5** |
| GEVA | | | | | *e*S | **Sg** | **17 30 57.3** | **+2.5** |
| **GEVA** | **Gevas** | **0.20** | **210** | | *i* P | **Pg** | **17 30 52.6** | **+0.5** |
| **GEVA** | **Gevas** | **0.20** | **210** | | P | **Pg** | **17 30 52.6** | **+0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.48** | **311** | | *i* P | **Pg** | **17 30 57.6** | **+0.2** |
| ADCV | | | | | *i* S | **Sb** | **17 31 06.2** | **-0.9** |
| **ADCV** | **BITLIS_Adilcev** | **0.48** | **311** | | P | **Pg** | **17 30 57.6** | **+0.2** |
| ADCV | | | | | S | **Sb** | **17 31 06.2** | **-0.9** |
| **VMUR** | **Van-Muradiye** | **0.58** | **31** | | *i* P | **Pg** | **17 30 59.0** | **-0.3** |
| VMUR | | | | | *i* S | **Sg** | **17 31 08.0** | **+1.1** |
| **VMUR** | **Van-Muradiye** | **0.58** | **31** | | P | **Pg** | **17 30 59.0** | **-0.3** |
| VMUR | | | | | S | **Sg** | **17 31 08.0** | **+1.1** |
| **BASK** | **Baskale_VAN** | **0.78** | **124** | | *i* P | **Pn** | **17 31 05.7** | **-0.5** |
| BASK | | | | | *e*S | **Sn** | **17 31 17.9** | **-0.6** |
| BASK | | | | | IAML | | 17 31 26.4 | |
| | comp=Z,438nm,0.7s | | | | | | | |
| **BASK** | **Baskale_VAN** | **0.78** | **124** | | *i* P | **Pg** | **17 31 02.4** | **-0.6** |
| **BASK** | **Baskale_VAN** | **0.78** | **124** | | P | **Pg** | **17 31 02.4** | **-0.6** |
| **CLDR** | **Caldiran** | **0.87** | **41** | *e*PG | | **Pg** | **17 31 03.7** | **-1.0** |
| CLDR | | | | *e*SG | | **Sg** | **17 31 16.9** | **+0.9** |
| **CLDR** | **Caldiran** | **0.87** | **41** | *i* P | | **Pg** | **17 31 03.8** | **-1.0** |
| **CLDR** | **Caldiran** | **0.87** | **41** | P | | **Pg** | **17 31 03.8** | **-1.0** |
| CLDR | | | | *e*Sg | | **Sg** | **17 31 16.9** | **+0.9** |
| **AGRB** | **Hanur-Agry** | **1.10** | **352** | *e*PN | | **Pg** | **17 31 07.8** | **-1.4** |
| AGRB | | | | *e*SN | | **Sg** | **17 31 24.1** | **+0.7** |
| **SRTM** | **Siirt_Merkez** | **1.11** | **244** | *i* P | | **Pg** | **17 31 09.1** | **-0.4** |
| **SRTM** | **Siirt_Merkez** | **1.11** | **244** | P | | **Pg** | **17 31 09.1** | **-0.4** |
| **DYDN** | **Diyadin** | **1.12** | **20** | *e*P | | **Pg** | **17 31 09.2** | **-0.4** |
| DYDN | | | | IAML | | | 17 31 14.9 | |
| | comp=Z,160nm,0.6s | | | | | | | |
| **DYDN** | **Diyadin** | **1.12** | **20** | *i* P | | **Pg** | **17 31 09.4** | **-0.3** |
| **DYDN** | **Diyadin** | **1.12** | **20** | P | | **Pg** | **17 31 09.4** | **-0.3** |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **SIRT** | **Sirnak** | **1.15** | **211** | *e*PN | | **Pg** | **17 31 09.9** | **-0.3** |
| **SIRT** | **Sirnak** | **1.15** | **211** | *e*Pn | | **Pg** | **17 31 09.9** | **-0.3** |
| **SIRN** | **S¨–rnak** | **1.17** | **212** | *i* P | | **Pn** | **17 31 11.4** | **-0.1** |
| **SIRN** | **S¨–rnak** | **1.17** | **212** | P | | **Pn** | **17 31 11.4** | **-0.1** |
| **EKAR** | **Karacoban** | **1.17** | **311** | *e*PN7 | | **Pg** | **17 31 10.9** | **+0.4** |
| **EKAR** | **Karacoban** | **1.17** | **311** | *i* P | | **Pn** | **17 31 11.7** | **+0.1** |
| **EKAR** | **Karacoban** | **1.17** | **311** | P | | **Pn** | **17 31 11.7** | **+0.1** |
| **YOVA** | **Hakkari_Y¨…kse** | **1.25** | **136** | *i* P | | **Pg** | **17 31 11.0** | **-1.1** |
| **YOVA** | **Hakkari_Y¨…kse** | **1.25** | **136** | P | | **Pg** | **17 31 11.0** | **-1.1** |
| **CUKT** | **Cukurca** | **1.28** | **165** | *e*PN | | **Pg** | **17 31 12.1** | **-0.6** |
| **CUKT** | **Cukurca** | **1.28** | **165** | *i* P | | **Pg** | **17 31 12.2** | **-0.5** |
| **CUKT** | **Cukurca** | **1.28** | **165** | P | | **Pg** | **17 31 12.2** | **-0.5** |
| **EATA** | **Eleskirt** | **1.48** | **339** | ⇓ | *i* P | **Pn** | **17 31 14.5** | **-1.5** |
| EATA | | | | | IAML | | 17 31 28.9 | |
| | comp=Z,58nm,0.6s | | | | | | | |
| EATA | | | | | *e*S | **Sg** | **17 31 35.6** | **0.0** |
| **EATA** | **Eleskirt** | **1.48** | **339** | *i* P | | **Pn** | **17 31 14.8** | **-1.2** |
| **EATA** | **Eleskirt** | **1.48** | **339** | P | | **Pn** | **17 31 14.8** | **-1.2** |
| **VRTB** | **Varto

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PLP | | | *i* S | Sg | 17 39 55.3 | -0.2 |
| **MSLP** | **Maasin** | **1.24 251** | *e*P | Pb | 17 39 38.7 | -0.1 |
| MSLP | | | *e*S | Sg | 17 39 55.5 | -0.7 |
| **BUKP** | **Musuan** | **2.82 200** | *e*P | Pn | 17 40 01.1 | +0.9 |
| BUKP | | | *e*S | Sn | 17 40 36.0 | +2.2 |

*IDC* ***11*** *18:07:21.1±1.1,35°.85N×23°.70E,h0km,mb3.7/8, mb1 3.7/13,mb1mx3.5/39,mbtmp3.6/13,ML3.5/5,MS3.5/1, Ms1 3.4/1,ms1mx2.6/35,Error ellipse: s-maj=22.5km s-min=10.3km az=39.0*
*ATH* ***11*** *18:07:23.5,35°.77N×23°.72E,h31km±1km,ML3.7/27,Error ellipse: s-maj=1.7km s-min=0.5km az=222.0*
*ISCJB* ***11*** *18:07:24.6±0.3,35°.77N±0°.02×23°.69E±0°.02,h29km±3km, mb3.6/8,Error ellipse: s-maj=4.5km s-min=2.2km az=38.4*
*CSEM* ***11*** *18:07:24.6±0.2,35°.81N×23°.75E,h15km,ML3.7,Error ellipse: s-maj=4.5km s-min=2.4km az=41.0*
*THE* ***11*** *18:07:24.8,35°.80N×23°.76E,h13km,ML3.8/14,Error ellipse: s-maj=1.2km s-min=0.4km az=227.0*
*DDA* ***11*** *18:07:53.3,37°.14N×25°.93E,h2km,Md3.5*
**ISC 11 18:07:24.6±0.8,35°.80N±0°.02×23°.73E±0°.02,h26km±7km, n203,σ1§55/280,mb3.7/8,Crete**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **ANKY** | **Antikythira Is** | **0.35** | **281** | P | | **Pb** | **18 07 32.9** | **+0.4** |
| ANKY | | | | S | | **Sb** | **18 07 37.7** | **-0.2** |
| ANKY | | | | AML | | AML | 18 07 38.7 | |
| ANKY | | | | AML | | AML | 18 07 39.5 | |
| | comp=N,36861μm,0.3s | | | | | | | |
| **ANKY** | **Antikythira Is** | **0.35** | **281** | P | | **Pb** | **18 07 32.4** | **-0.1** |
| ANKY | | | | S | | **Sb** | **18 07 37.7** | **-0.2** |
| **ANKY** | **Antikythira Is** | **0.35** | **281** | P | | **Pb** | **18 07 32.4** | **-0.1** |
| ANKY | | | | S | | **Sb** | **18 07 38.1** | **+0.2** |
| **IMMV** | **Iera Moni Meta** | **0.39** | **148** | P | | **Pb** | **18 07 32.5** | **-0.7** |
| IMMV | | | | S | | **Sb** | **18 07 37.7** | **-1.3** |
| IMMV | | | | AML | | AML | 18 07 41.0 | |
| | comp=E,37034μm,0.3s | | | | | | | |
| IMMV | | | | AML | | AML | 18 07 42.1 | |
| | comp=N,44597μm,0.3s | | | | | | | |
| **IMMV** | **Iera Moni Meta** | **0.39** | **148** | P | | **Pb** | **18 07 32.5** | **-0.7** |
| IMMV | | | | S | | **Sb** | **18 07 37.7** | **-1.3** |
| **IMMV** | **Iera Moni Meta** | **0.39** | **148** | P | | **Pb** | **18 07 32.4** | **-0.7** |
| IMMV | | | | S | | **Sb** | **18 07 38.2** | **-0.8** |
| **VAM** | **Vamos** | **0.55** | **135** | P | | **Pb** | **18 07 35.3** | **-0.3** |
| VAM | | | | S | | **Sb** | **18 07 42.5** | **-0.6** |
| VAM | | | | AML | | AML | 18 07 44.1 | |
| | comp=N,81116μm,0.3s | | | | | | | |
| VAM | | | | AML | | AML | 18 07 45.0 | |
| | comp=E,59618μm,0.2s | | | | | | | |
| **VAM** | **Vamos** | **0.55** | **135** | P | | **Pb** | **18 07 35.3** | **-0.3** |
| VAM | | | | S | | **Sb** | **18 07 42.5** | **-0.6** |
| **VAM** | **Vamos** | **0.55** | **135** | P | | **Pb** | **18 07 34.8** | **-0.9** |
| VAM | | | | S | | **Sb** | **18 07 42.9** | **-0.2** |
| **KYTH** | **Kithira** | **0.72** | **310** | P | | **Pn** | **18 07 39.2** | **0.0** |
| KYTH | | | | S | | **Sb** | **18 07 48.4** | **+0.2** |
| KYTH | | | | AML | | AML | 18 07 49.2 | |
| | comp=N,20056μm,0.6s | | | | | | | |
| KYTH | | | | AML | | AML | 18 07 51.1 | |
| | comp=E,14697μm,0.5s | | | | | | | |
| **KYTH** | **Kithira** | **0.72** | **310** | P | | **Pb** | **18 07 38.9** | **+0.3** |
| KYTH | | | | S | | **Sn** | **18 07 49.1** | **-0.4** |
| **GVD** | **Gavdhos** | **1.00** | **163** | P | | **Pb** | **18 07 43.8** | **+0.5** |
| **GVD** | **Gavdhos** | **1.00** | **163** | P | | **Pb** | **18 07 43.4** | **+0.1** |
| GVD | | | | S | | **Sn** | **18 07 57.1** | **+0.9** |
| **GVD** | **Gavdhos** | **1.00** | **163** | P | | **Pb** | **18 07 43.4** | **+0.1** |
| GVD | | | | S | | **Sn** | **18 07 57.1** | **+0.9** |
| **MHLO** | **Agia Marina, M** | **1.04** | **31** | P | | **Pb** | **18 07 43.6** | **-0.4** |
| MHLO | | | | S | | **Sn** | **18 07 58.1** | **+0.8** |
| MHLO | | | | AML | | AML | 18 07 59.7 | |
| | comp=N,17946μm,0.5s | | | | | | | |
| MHLO | | | | AML | | AML | 18 08 03.6 | |
| | comp=E,17706μm,0.4s | | | | | | | |
| **MHLO** | **Agia Marina, M** | **1.04** | **31** | P | | **Pb** | **18 07 43.7** | **-0.4** |
| MHLO | | | | S | | **Sn** | **18 07 58.1** | **+0.8** |
| **MHLO** | **Agia Marina, M** | **1.04** | **31** | P | | **Pb** | **18 07 43.7** | **-0.4** |
| MHLO | | | | S | | **Sn** | **18 07 58.5** | **+1.2** |
| **IDI** | **Anoyia** | **1.07** | **118** | Pg | | **Pn** | **18 07 43.7** | **-0.4** |
| | comp=E,61nm,0.3s,baz=298,slow=14,SNR=546 | | | | | | | |
| IDI | | | | Lg | | Lg | 18 07 58.1 | |
| | comp=E,641nm,0.3s,baz=41,slow=19,SNR=122 | | | | | | | |
| **IDI** | **Anoyia** | **1.07** | **118** | P | | **Pn** | **18 07 43.5** | **-0.5** |
| IDI | | | | S | | **Sn** | **18 07 58.5** | **+0.3** |
| IDI | | | | AML | | AML | 18 07 59.7 | |
| | comp=N,13995μm,0.6s | | | | | | | |
| IDI | | | | AML | | AML | 18 07 60.0 | |
| | comp=E,16086μm,0.5s | | | | | | | |
| **IDI** | **Anoyia** | **1.07** | **118** | P | | **Pn** | **18 07 43.6** | **-0.4** |
| IDI | | | | S | | **Sn** | **18 07 58.5** | **+0.3** |
| **IDI** | **Anoyia** | **1.07** | **118** | P | | **Pn** | **18 07 43.6** | **-0.4** |
| IDI | | | | S | | **Sn** | **18 07 58.7** | **+0.5** |
| **MHLA** | **Plaka, Milos I** | **1.10** | **30** | P | | **Pb** | **18 07 45.1** | **+0.1** |
| MHLA | | | | S | | **Sn** | **18 08 00.7** | **+2.0** |
| MHLA | | | | AML | | AML | 18 08 01.5 | |
| | comp=E,6232μm,0.6s | | | | | | | |
| MHLA | | | | AML | | AML | 18 08 01.6 | |
| | comp=N,6868μm,0.5s | | | | | | | |
| **MHLA** | **Plaka, Milos I** | **1.10** | **30** | P | | **Pb** | **18 07 45.1** | **+0.1** |
| MHLA | | | | S | | **Sn** | **18 08 00.6** | **+2.0** |
| **VLI** | **Veliai** | **1.12** | **325** | P | | **Pn** | **18 07 44.3** | **-0.3** |
| VLI | | | | S | | **Sb** | **18 07 59.6** | **+0.1** |
| VLI | | | | AML | | AML | 18 08 06.3 | |
| | comp=N,3584μm,0.3s | | | | | | | |
| VLI | | | | AML | | AML | 18 08 06.7 | |
| | comp=E,4046μm,0.5s | | | | | | | |
| **VLI** | **Veliai** | **1.12** | **325** | P | | **Pn** | **18 07 44.5** | **-0.1** |
| VLI | | | | S | | **Sb** | **18 07 59.6** | **+0.1** |
| **VLI** | **Veliai** | **1.12** | **325** | P | | **Pn** | **18 07 44.5** | **-0.1** |
| VLI | | | | S | | **Sb** | **18 08 00.5** | **+1.0** |
| **SIVA** | **Sivas** | **1.18** | **131** | P | | **Pb** | **18 07 46.1** | **-0.2** |
| SIVA | | | | S | | **Sb** | **18 08 01.1** | **0.0** |
| SIVA | | | | AML | | AML | 18 08 04.5 | |
| | comp=E,21661μm,0.5s | | | | | | | |
| SIVA | | | | AML | | AML | 18 08 06.0 | |
| | comp=N,13900μm,0.6s | | | | | | | |
| **SIVA** | **Sivas** | **1.18** | **131** | P | | **Pb** | **18 07 46.1** | **-0.2** |
| SIVA | | | | S | | **Sb** | **18 08 01.1** | **0.0** |
| **SIVA** | **Sivas** | **1.18** | **131** | P | | **Pb** | **18 07 46.0** | **-0.2** |
| SIVA | | | | S | | **Sb** | **18 08 02.0** | **+0.9** |
| **IACM** | **Heraklion** | **1.20** | **114** | P | | **Pb** | **18 07 46.1** | **-0.5** |
| **IACM** | **Heraklion** | **1.20** | **114** | P | | **Pb** | **18 07 46.3** | **-0.4** |
| IACM | | | | S | | **Sb** | **18 08 02.2** | **+0.5** |
| **IACM** | **Heraklion** | **1.20** | **114** | P | | **Pb** | **18 07 46.3** | **-0.4** |
| IACM | | | | S | | **Sb** | **18 08 02.2** | **+0.5** |
| **THR5** | **Thira Island,** | **1.45** | **64** | P | | **Pb** | **18 07 50.1** | **-0.8** |
| **THR5** | **Thira Island,** | **1.45** | **64** | P | | **Pb** | **18 07 49.8** | **-1.1** |
| **THR5** | **Thira Island,** | **1.45** | **64** | P | | **Pb** | **18 07 49.8** | **-1.1** |
| **SAP1** | **Santorini-Akro** | **1.46** | **67** | P | | **Pb** | **18 07 50.0** | **-1.1** |
| SAP1 | | | | S | | **Sb** | **18 08 09.2** | **-0.1** |
| SAP1 | | | | AML | | AML | 18 08 14.0 | |
| | comp=E,21456μm,0.6s | | | | | | | |
| SAP1 | | | | AML | | AML | 18 08 16.9 | |
| | comp=N,15178μm,0.4s | | | | | | | |
| **SAP1** | **Santorini-Akro** | **1.46** | **67** | P | | **Pb** | **18 07 50.0** | **-1.1** |
| SAP1 | | | | S | | **Sb** | **18 08 08.7** | **-0.6** |
| **SAP1** | **Santorini-Akro** | **1.46** | **67** | P | | **Pb** | **18 07 50.2** | **-0.9** |
| SAP1 | | | | S | | **Sb** | **18 08 08.7** | **-0.6** |
| **THR6** | **Thira Island,** | **1.46** | **67** | P | | **Pb** | **18 07 50.3** | **-0.8** |
| **THR6** | **Thira Island,** | **1.46** | **67** | P | | **Pb** | **18 07 50.3** | **-0.8** |
| **THR6** | **Thira Island,** | **1.46** | **67** | P | | **Pn** | **18 07 49.4** | **+0.1** |
| **THR3** | **Thira Island,** | **1.48** | **65** | P | | **Pn** | **18 07 50.1** | **+0.6** |
| **THR3** | **Thira Island,** | **1.48** | **65** | P | | **Pn** | **18 07 50.2** | **+0.6** |
| **THR3** | **Thira Island,** | **1.48** | **65** | P | | **Pb** | **18 07 50.4** | **-1.1** |
| **THT1** | **Athinios (Pele** | **1.50** | **66** | P | | **Pn** | **18 07 50.2** | **+0.4** |
| **THT1** | **Athinios (Pele** | **1.50** | **66** | P | | **Pn** | **18 07 50.2** | **+0.4** |
| **THT1** | **Athinios (Pele** | **1.50** | **66** | P | | **Pn** | **18 07 50.0** | **+0.2** |
| **THR7** | **Fira-Santorini** | **1.51** | **65** | P | | **Pb** | **18 07 51.2** | **-0.8** |
| **THR7** | **Fira-Santorini** | **1.51** | **65** | P | | **Pb** | **18 07 50.9** | **-1.1** |
| **THR7** | **Fira-Santorini** | **1.51** | **65** | P | | **Pb** | **18 07 50.9** | **-1.1** |
| **SANT** | **Santorini** | **1.51** | **67** | P | | **Pn** | **18 07 50.6** | **+0.5** |
| SANT | | | | S | | **Sb** | **18 08 10.6** | **-0.3** |
| SANT | | | | AML | | AML | 18 08 14.5 | |
| | comp=E,4848μm,0.4s | | | | | | | |
| SANT | | | | AML | | AML | 18 08 18.2 | |
| | comp=N,2580μm,0.6s | | | | | | | |
| **SANT** | **Santorini** | **1.51** | **67** | P | | **Pn** | **18 07 50.6** | **+0.5** |
| SANT | | | | S | | **Sb** | **18 08 10.6** | **-0.3** |
| **SANT** | **Santorini** | **1.51** | **67** | P | | **Pn** | **18 07 50.5** | **+0.4** |
| **CMBO** | **Columbo, Santo** | **1.52** | **63** | P | | **Pb** | **18 07 51.1** | **-0.9** |
| **CMBO** | **Columbo, Santo** | **1.52** | **63** | P | | **Pb** | **18 07 50.9** | **-1.1** |
| **CMBO** | **Columbo, Santo** | **1.52** | **63** | P | | **Pb** | **18 07 50.9** | **-1.1** |
| **SAP2K** | **Karterados** | **1.52** | **66** | P | | **Pn** | **18 07 50.8** | **+0.7** |
| SAP2K | | | | S | | **Sb** | **18 08 10.0** | **-1.0** |
| SAP2K | | | | AML | | AML | 18 08 16.3 | |
| | comp=N,17571μm,0.4s | | | | | | | |
| SAP2K | | | | AML | | AML | 18 08 18.6 | |
| | comp=E,11405μm,0.4s | | | | | | | |
| **THR2** | **Thira island,** | **1.53** | **64** | P | | **Pb** | **18 07 51.1** | **-1.1** |
| **THR2** | **Thira island,** | **1.53** | **64** | P | | **Pb** | **18 07 51.1** | **-1.1** |
| **THR2** | **Thira island,** | **1.53** | **64** | P | | **Pn** | **18 07 50.4** | **+0.2** |
| **THR8** | **Santorini-Mono** | **1.54** | **66** | P | | **Pn** | **18 07 50.5** | **+0.1** |
| **THR8** | **Santorini-Mono** | **1.54** | **66** | P | | **Pn** | **18 07 50.5** | **+0.1** |
| **LAST** | **Lasithi** | **1.56** | **113** | P | | **Pn** | **18 07 50.9** | **+0.1** |
| LAST | | | | S | | **Sn** | **18 08 10.8** | **+0.6** |
| LAST | | | | AML | | AML | 18 08 16.7 | |
| | comp=N,5633μm,0.6s | | | | | | | |
| LAST | | | | AML | | AML | 18 08 17.5 | |
| | comp=E,2744μm,0.3s | | | | | | | |
| **LAST** | **Lasithi** | **1.56** | **113** | P | | **Pn** | **18 07 50.9** | **+0.1** |
| LAST | | | | S | | **Sn** | **18 08 10.8** | **+0.6** |
| **LAST** | **Lasithi** | **1.56** | **113** | P | | **Pn** | **18 07 50.8** | **0.0** |
| LAST | | | | S | | **Sn** | **18 08 10.6** | **+0.4** |
| **NPS** | **Neapolis** | **1.63** | **109** | P | | **Pn** | **18 07 51.4** | **-0.2** |
| NPS | | | | S | | **Sn** | **18 08 11.9** | **+0.2** |
| NPS | | | | AML | | AML | 18 08 18.6 | |
| | comp=E,3078μm,0.3s | | | | | | | |
| NPS | | | | AML | | AML | 18 08 20.3 | |
| | comp=N,3585μm,0.4s | | | | | | | |
| **NPS** | **Neapolis** | **1.63** | **109** | P | | **Pn** | **18 07 51.5** | **-0.1** |
| NPS | | | | S | | **Sb** | **18 08 12.6** | **-1.5** |
| **NPS** | **Neapolis** | **1.63** | **109** | P | | **Pn** | **18 07 51.5** | **-0.1** |
| NPS | | | | S | | **Sb** | **18 08 12.6** | **-1.5** |
| **KRND** | **KRANIDI** | **1.65** | **344** | P | | **Pn** | **18 07 52.2** | **+0.3** |
| KRND | | | | S | | **Sb** | **18 08 14.6** | **-0.1** |
| KRND | | | | AML | | AML | 18 08 22.5 | |
| | comp=N,3196μm,0.3s | | | | | | | |
| KRND | | | | AML | | AML | 18 08 23.9 | |
| | comp=E,3128μm,0.7s | | | | | | | |
| **KRND** | **KRANIDI** | **1.65** | **344** | P | | **Pn** | **18 07 52.2** | **+0.3** |
| KRND | | | | S | | **Sb** | **18 08 14.2** | **-0.5** |
| **KRND** | **KRANIDI** | **1.65** | **344** | P | | **Pn** | **18 07 52.1** | **+0.2** |
| KRND | | | | S | | **Sb** | **18 08 14.2** | **-0.5** |
| **DID** | **Didima** | **1.75** | **347** | P | | **Pn** | **18 07 53.5** | **+0.1** |
| DID | | | | S | | **Sb** | **18 08 16.2** | **-1.4** |
| DID | | | | AML | | AML | 18 08 27.8 | |
| | comp=E,3326μm,0.3s | | | | | | | |
| DID | | | | AML | | AML | 18 08 30.4 | |
| | comp=N,1779μm,0.5s | | | | | | | |
| **DID** | **Didima** | **1.75** | **347** | P | | **Pn** | **18 07 53.5** | **+0.1** |
| DID | | | | S | | **Sb** | **18 08 16.2** | **-1.4** |
| **DID** | **Didima** | **1.75** | **347** | P | | **Pn** | **18 07 53.5** | **+0.1** |
| DID | | | | S | | **Sb** | **18 08 17.1** | **-0.6** |
| **VLX** | **Vlachokerasia** | **1.91** | **326** | P | | **Pb** | **18 07 57.3** | **-1.5** |
| **VLX** | **Vlachokerasia** | **1.91** | **326** | P | | **Pn** | **18 07 56.8** | **+1.2** |
| VLX | | | | S | | **Sb** | **18 08 21.8** | **-0.5** |
| **VLX** | **Vlachokerasia** | **1.91** | **326** | P | | **Pn** | **18 07 56.8** | **+1.2** |
| VLX | | | | S | | **Sb** | **18 08 21.8** | **-0.5** |
| **APE** | **Apeiranthos** | **1.93** | **48** | P | | **Pn** | **18 07 55.8** | **0.0** |
| APE | | | | S | | **Sn** | **18 08 20.0** | **+0.8** |
| APE | | | | AML | | AML | 18 08 26.8 | |
| | comp=N,2022μm,0.2s | | | | | | | |
| APE | | | | AML | | AML | 18 08 26.9 | |
| | comp=E,2328μm,0.4s | | | | | | | |
| **APE** | **Apeiranthos** | **1.93** | **48** | P | | **Pn** | **18 07 55.8** | **0.0** |
| APE | | | | S | | **Sn** | **18 08 20.0** | **+0.8** |
| **APE** | **Apeiranthos** | **1.93** | **48** | P | | **Pn** | **18 07 55.5** | **-0.3** |
| **PYL** | **PYLOS** | **1.94** | **305** | P | | **Pb** | **18 08 00.3** | **+1.0** |
| **PYL** | **PYLOS** | **1.94** | **305** | P | | **Pb** | **18 07 58.1** | **-1.2** |
| **PYL** | **PYLOS** | **1.94** | **305** | P | | **Pb** | **18 07 58.1** | **-1.2** |
| **ITM** | **Ithomi** | **2.00** | **314** | P | | **Pb** | **18 08 00.1** | **-0.3** |
| **ITM** | **Ithomi** | **2.00** | **314** | P | | **Pb** | **18 08 00.1** | **-0.3** |
| **VLY** | **Voula,Athens** | **2.05** | **1** | P | | **Pn** | **18 07 57.4** | **0.0** |
| VLY | | | | S | | **Sn** | **18 08 23.1** | **+0.9** |
| VLY | | | | AML | | AML | 18 08 34.5 | |
| | comp=E,2741μm,0.6s | | | | | | | |
| VLY | | | | AML | | AML | 18 08 35.1 | |
| | comp=N,2523μm,0.5s | | | | | | | |
| **VLY** | **Voula,Athens** | **2.05** | **1** | P | | **Pn** | **18 07 57.6** | **+0.2** |
| VLY | | | | S | | **Sn** | **18 08 23.1** | **+0.9** |
| **VLY** | **Voula,Athens** | **2.05** | **1** | P | | **Pn** | **18 07 57.6** | **+0.2** |
| VLY | | | | S | | **Sb** | **18 08 24.9** | **-1.4** |
| **ZKR** | **Zakros** | **2.14** | **108** | P | | **Pn** | **18 07 60.0** | **+1.3** |
| **ZKR** | **Zakros** | **2.14** | **108** | P | | **Pn** | **18 07 59.3** | **+0.6** |
| **ZKR** | **Zakros** | **2.14** | **108** | P | | **Pn** | **18 07 59.3** | **+0.6** |
| **ATHU** | **Athens Univers** | **2.17** | **1** | P | | **Pn** | **18 08 00.4** | **+1.4** |
| ATHU | | | | S | | **Sn** | **18 08 25.2** | **+0.2** |
| ATHU | | | | AML | | AML | 18 08 41.0 | |
| | comp=N,473μm,0.4s | | | | | | | |
| ATHU | | | | AML | | AML | 18 08 45.1 | |
| | comp=E,302μm,0.6s | | | | | | | |
| **ATHU** | **Athens Univers** | **2.17** | **1** | P | | **Pn** | **18 08 00.4** | **+1.4** |
| ATHU | | | | S | | **Sn** | **18 08 25.2** | **+0.2** |
| **ATHU** | **Athens Univers** | **2.17** | **1** | P | | **Pn** | **18 07 58.9** | **-0.1** |
| **ATH** | **Athens Observa** | **2.17** | **360** | P | | **Pn** | **18 07 59.5** | **+0.5** |
| ATH | | | | S | | **Sn** | **18 08 26.7** | **+1.6** |
| ATH | | | | AML | | AML | 18 08 46.6 | |
| | comp=N,905μm,0.6s | | | | | | | |
| ATH | | | | AML | | AML | 18 08 47.2 | |
| | comp=E,884μm,0.5s | | | | | | | |
| **ATH** | **Athens Observa** | **2.17** | **360** | P | | **Pn** | **18 07 59.5** | **+0.5** |
| ATH | | | | S | | **Sn** | **18 08 26.7** | **+1.6** |
| **PTL** | **Penteli** | **2.25** | **3** | P | | **Pn** | **18 08 00.3** | **+0.1** |
| **PTL** | **Penteli** | **2.25** | **3** | P | | **Pn** | **18 08 00.3** | **+0.1** |
| **LOUT** | **Loutraki** | **2.27** | **345** | P | | **Pn** | **18 08 01.3** | **+0.9** |
| **LOUT** | **Loutraki** | **2.27** | **345** | P | | **Pn** | **18 08 01.3** | **+0.9** |
| **KARY** | **Karystos** | **2.30** | **14** | P | | **Pn** | **18 08 01.1** | **+0.2** |
| **KARY** | **Karystos** | **2.30** | **14** | P | | **Pn** | **18 08 01.1** | **+0.2** |
| **LTK** | **Loutraki** | **2.30** | **345** | P | | **Pn** | **18 08 01.8** | **+0.9** |
| **LTK** | **Loutraki** | **2.30** | **345** | P | | **Pn** | **18 08 01.8** | **+0.9** |
| **AMT** | **Artemida-Makis** | **2.37** | **317** | P | | **Pb** | **18 08 05.0** | **-1.7** |
| **AMT** | **Artemida-Makis** | **2.37** | **317** | P | | **Pb** | **18 08 05.0** | **-1.7** |
| **VILL** | **Villia** | **2.39** | **352** | P | | **Pn** | **18 08 02.7** | **+0.6** |
| VILL | | | | S | | **Sn** | **18 08 31.6** | **+1.1** |
| **VILL** | **Villia** | **2.39** | **352** | P | | **Pn** | **18 08 02.6** | **+0.5** |
| **THAL** | **Thalero** | **2.39** | **339** | P | | **Pn** | **18 08 03.6** | **+1.5** |
| THAL | | | | S | | **Sn** | **18 08 31.8** | **+1.2** |
| THAL | | | | AML | | AML | 18 08 54.4 | |
| | comp=N,2165μm,0.4s | | | | | | | |
| THAL | | | | AML | | AML | 18 08 57.2 | |
| | comp=E,3585μm,0.4s | | | | | | | |
| **THAL** | **Thalero** | **2.39** | **339** | P | | **Pn** | **18 08 03.4** | **+1.3** |
| THAL | | | | S | | **Sn** | **18 08 31.8** | **+1.2** |
| **THAL** | **Thalero** | **2.39** | **339** | P | | **Pn** | **18 08 03.4** | **+1.3** |
| **GUR** | **Goura** | **2.41** | **333** | P | | **Pn** | **18 08 03.5** | **+1.1** |
| GUR | | | | S | | **Sn** | **18 08 33.1** | **+2.0** |
| GUR | | | | AML | | AML | 18 08 39.2 | |
| | comp=E,1893μm,0.5s | | | | | | | |
| GUR | | | | AML | | AML | 18 08 43.1 | |
| | comp=N,1730μm,0.3s | | | | | | | |
| **GUR** | **Goura** | **2.41** | **333** | P | | **Pn** | **18 08 03.5** | **+1.1** |
| GUR | | | | S | | **Sn** | **18 08 33.1** | **+2.0** |
| **GUR** | **Goura** | **2.41** | **333** | P | | **Pn** | **18 08 03.1** | **+0.7** |
| GUR | | | | S | | **Sn** | **18 08 33.1** | **+2.0** |
| **VIL2** | **Platees** | **2.44** | **351** | P | | **Pn** | **18 08 02.7** | **-0.1** |
| VIL2 | | | | S | | **Sn** | **18 08 31.6** | **-0.2** |
| VIL2 | | | | AML | | AML | 18 08 49.5 | |
| | comp=N,1469μm,0.6s | | | | | | | |
| VIL2 | | | | AML | | AML | 18 08 50.1 | |
| | comp=E,641μm,0.4s | | | | | | | |
| **KLV** | **Kalavryta, Ach** | **2.57** | **331** | P | | **Pn** | **18 08 06.1** | **+1.4** |
| KLV | | | | S | | **Sn** | **18 08 36.5** | **+1.3** |
| KLV | | | | AML | | AML | 18 08 49.4 | |
| | comp=E,450μm,0.4s | | | | | | | |
| KLV | | | | AML | | AML | 18 08 50.4 | |
| | comp=N,585μm,0.6s | | | | | | | |
| **KLV** | **Kalavryta, Ach** | **2.57** | **331** | P | | **Pn** | **18 08 05.8** | **+1.1** |
| KLV | | | | S | | **Sn** | **18 08 36.5** | **+1.3** |
| **KLV** | **Kalavryta, Ach** | **2.57** | **331** | P | | **Pn** | **18 08 05.8** | **+1.1** |
| **EREA** | **Eretria** | **2.62** | **3** | P | | **Pn** | **18 08 06.0** | **+0.7** |
| **EREA** | **Eretria** | **2.62** | **3** | P | | **Pn** | **18 08 06.0** | **+0.7** |
| **DRO** | **Drossia** | **2.69** | **324** | P | | **Pb** | **18 08 09.5** | **-2.6** |
| **DRO** | **Drossia** | **2.69** | **324** | P | | **Pb** | **18 08 09.5** | **-2.6** |
| **DSF** | **Desfina** | **2.78** | **340** | P | | **Pn** | **18 08 08.7** | **+1.1** |
| DSF | | | | S | | **Sn** | **18 08 40.8** | **+0.6** |
| DSF | | | | AML | | AML | 18 08 47.8 | |
| | comp=E,463μm,0.3s | | | | | | | |
| DSF | | | | AML | | AML | 18 08 49.4 | |
| | comp=N,464μm,0.3s | | | | | | | |
| **DSF** | **Desfina** | **2.78** | **340** | P | | **Pn** | **18 08 08.6** | **+1.1** |
| DSF | | | | S | | **Sn** | **18 08 40.8** | **+0.6** |
| **DSF** | **Desfina** | **2.78** | **340** | P | | **Pn** | **18 08 08.6** | **+1.1** |
| **KARP** | **Karpathos** | **2.81** | **94** | P | | **Pn** | **18 08 07.7** | **-0.1** |
| KARP | | | | S | | **Sn** | **18 08 41.1** | **+0.3** |
| KARP | | | | AML | | AML | 18 08 59.7 | |
| | comp=N,656μm,0.5s | | | | | | | |
| KARP | | | | AML | | AML | 18 09 00.5 | |
| | comp=E,606μm,0.6s | | | | | | | |
| **KARP** | **Karpathos** | **2.81** | **94** | P | | **Pn** | **18 08 07.9** | **+0.1** |
| KARP | | | | S | | **Sn** | **18 08 41.1** | **+0.3** |
| **KARP** | **Karpathos** | **2.81** | **94** | P | | **Pn** | **18 08 07.9** | **+0.1** |
| **KALE** | **Kalithea** | **2.88** | **334** | P | | **Pn** | **18 08 09.5** | **+0.6** |
| **KALE** | **Kalithea** | **2.88** | **334** | P | | **Pn** | **18 08 09.5** | **+0.6** |
| **SERG** | **Sergoula** | **2.93** | **333** | P | | **Pn** | **18 08 10.3** | **+0.7** |
| **SERG** | **Sergoula** | **2.93** | **333** | P | | **Pn** | **18 08 10.3** | **+0.7** |
| **SMG** | **Samos** | **3.14** | **52** | P | | **Pn** | **18 08 13.4** | **+1.0** |
| SMG | | | | S | | **Sn** | **18 08 50.6** | **+1.5** |
| SMG | | | | AML | | AML | 18 09 05.2 | |
| | comp=N,498μm,0.5s | | | | | | | |
| SMG | | | | AML | | AML | 18 09 05.5 | |
| | comp=E,696μm,0.7s | | | | | | | |
| **SMG** | **Samos** | **3.14** | **52** | P | | **Pn** | **18 08 13.4** | **+1.0** |
| SMG | | | | S | | **Sn** | **18 08 50.6** | **+1.5** |
| **ANX** | **Ano Chora** | **3.14** | **333** | P | | **Pn** | **18 08 14.0** | **+1.5** |
| **ANX** | **Ano Chora** | **3.14** | **333** | P | | **Pn** | **18 08 14.0** | **+1.5** |
| **BDRM** | **Kayabasi** | **3.25** | **66** | *i* P | | **Pn** | **18 08 16.9** | **+3.0** |
| **BDRM** | **Kayabasi** | **3.25** | **66** | P | | **Pn** | **18 08 16.9** | **+3.0** |
| **ZEY** | **˙zmir** | **3.30** | **42** | *i* P | | **Pn** | **18 08 15.8** | **+1.3** |
| **SKIA** | **Skiathos** | **3.37** | **357** | P | | **Pn** | **18 08 16.5** | **+0.9** |
| **SKIA** | **Skiathos** | **3.37** | **357** | P | | **Pn** | **18 08 16.5** | **+0.9** |
| **GCAM** | **G?zelcaml?** | **3.40** | **55** | *i* P | | **Pb** | **18 08 28.1** | **+4.0** |
| **AGG** | **Agios Georgios** | **3.41** | **341** | P | | **Pn** | **18 08 17.4** | **+1.3** |
| **AGG** | **Agios Georgios** | **3.41** | **341** | P | | **Pn** | **18 08 17.4** | **+1.3** |
| **URLA** | **Izmir** | **3.44** | **41** | *i* P | | **Pn** | **18 08 19.1** | **+2.7** |
| **URLA** | **Izmir** | **3.44** | **41** | P | | **Pn** | **18 08 19.1** | **+2.6** |
| **EVR** | **Evrytania** | **3.47** | **334** | P | | **Pn** | **18 08 19.5** | **+2.5** |
| **EVR** | **Evrytania** | **3.47** | **334** | P | | **Pn** | **18 08 19.5** | **+2.5** |
| **NEO** | **Neokhori** | **3.53** | **354** | P | | **Pn** | **18 08 18.3** | **+0.6** |
| **NEO** | **Neokhori** | **3.53** | **354** | P | | **Pn** | **18 08 18.3** | **+0.6** |
| **XOR** | **Xorichti** | **3.59** | **353** | P | | **Pn** | **18 08 18.7** | **+0.1** |
| **XOR** | **Xorichti** | **3.59** | **353** | P | | **Pn** | **18 08 18.7** | **+0.1** |
| **ARG** | **Arkhangelos** | **3.59** | **82** | P | | **Pn** | **18 08 20.5** | **+1.9** |
| **ARG** | **Arkhangelos** | **3.59** | **82** | P | | **Pn** | **18 08 20.5** | **+1.9** |
| **AYDN** | **Tasoluk** | **3.82** | **60** | *i* P | | **Pn** | **18 08 24.1** | **+2.4** |
| **AYDN** | **Tasoluk** | **3.82** | **60** | P | | **Pn** | **18 08 24.1** | **+2.3** |
| **TURN** | **Turunc** | **4.08** | **73** | *i* P | | **Pn** | **18 08 23.7** | **-1.6** |
| **TURN** | **Turunc** | **4.08** | **73** | P | | **Pn** | **18 08 23.7** | **-1.6** |
| **DALY** | **Dalyan (Mu˘la** | **4.11** | **74** | *i* P | | **Pn** | **18 08 29.3** | **+3.7** |
| **DALY** | **Dalyan (Mu˘la** | **4.11** | **74** | P | | **Pn** | **18 08 29.3** | **+3.7** |
| **FETY** | **Fethiye** | **4.41** | **78** | P | | **Pn** | **18 08 33.3** | **+3.4** |
| **TAVA** | **DENIZLI_Tavas** | **4.49** | **67** | *i* P | | **Pn** | **18 08 35.0** | **+3.9** |
| **TAVA** | **DENIZLI_Tavas** | **4.49** | **67** | P | | **Pn** | **18 08 35.0** | **+4.0** |
| **DNZL** | **Cakiroluk** | **4.67** | **65** | *i* P | | **Pn** | **18 08 38.0** | **+4.5** |
| **DNZL** | **Cakiroluk** | **4.67** | **65** | P | | **Pn** | **18 08 38.0** | **+4.4** |
| **KSL** | **Kastellorizon** | **4.76** | **84** | P | | **Pn** | **18 08 37.5** | **+2.8** |
| **KSL** | **Kastellorizon** | **4.76** | **84** | P | | **Pn** | **18 08 37.5** | **+2.8** |
| **AKAS** | **Kas** | **4.78** | **83** | *i* P | | **Pn** | **18 08 36.7** | **+1.6** |
| **AKAS** | **Kas** | **4.78** | **83** | P | | **Pn** | **18 08 36.7** | **+1.6** |
| **GOLH** | **Golhisar** | **4.91** | **71** | *i* P | | **Pn** | **18 08 41.4** | **+4.5** |
| **GOLH** | **Golhisar** | **4.91** | **71** | P | | **Pn** | **18 08 41.4** | **+4.5** |
| **KHAL** | **Karahalli** | **5.27** | **59** | *i* P | | **Pn** | **18 08 46.0** | **+4.2** |
| **KHAL** | **Karahalli** | **5.27** | **59** | P | | **Pn** | **18 08 46.0** | **+4.2** |
| **VAE** | **Valguarnera** | **7.68** | **285** | Pn | | **Pn** | **18 09 17.2** | **+2.5** |
| | baz=108,slow=19,SNR=4.3 | | | | | | | |
| VAE | | | | Sn | | **Sn** | **18 10 42.7** | **+1.8** |
| | comp=E,0.7nm,0.3s,baz=308,slow=17,SNR=2.1 | | | | | | | |
| **ZAGS** | **Zajecar** | **8.09** | **352** | *e*Pn | | **Pn** | **18 09 22.2** | **+1.9** |
| **GRUS** | **Gruza** | **8.41** | **345** | *e*Pn | | **Pn** | **18 09 24.6** | **-0.1** |
| **STON** | **Ston** | **8.47** | **328** | *e*Pn | | **Pn** | **18 09 24.2** | **-1.3** |
| STON | | | | Sn | | **Sn** | **18 10 54.0** | **-6.1** |
| **BRTR** | **Keskin Array B** | **8.77**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 0.3nm,0.7s,baz=232,slow=5.3,SNR=3.7 | | | | | | | |
| **MKAR** | **Makanchi Array** | **118.54** | **310** | PKP | **PKPdf** | **19 15 30.9** | **+0.3** |
| | 0.6nm,1.1s,baz=139,slow=0.9,SNR=4.0 | | | | | | | |
| **FINES** | **FINESS Array B** | **144.97** | **342** | PKPbc | **PKPdf** | **19 16 19.0** | **-0.5** |
| | 1.7nm,0.6s,baz=40,slow=3.2,SNR=8.0 | | | | | | | |
| **AKASG** | **Malin Array Be** | **151.66** | **325** | PKPbc | **PKPbc** | **19 16 37.6** | **+0.6** |
| | 2.1nm,0.5s,baz=46,slow=3.0,SNR=11 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **163.46** | **172** | PKPab | **PKPab** | **19 17 37.3** | **-0.1** |
| | 0.4nm,0.6s,baz=191,slow=3.7,SNR=3.1 | | | | | | | |

*SJA **11** 19:01:16.1±0.8,21°.48S×68°.76W,h234km±28km,ML3.1, MW3.3*
*ISCJB **11** 19:01:22.8±0.3,21°.92S±0°.05×68°.68W±0°.05,h125km±4km, mb3.9/7, Error ellipse: s-maj=9.0km s-min=5.1km az=41.1*
*GUC **11** 19:01:23.5±0.7,21°.87S×68°.80W,h123km±5km,ML4.5*
*IDC **11** 19:01:26.0±1.2,21°.73S×68°.35W,h129km±6km,mb3.8/8, mb1 3.8/12,mb1mx3.7/26,mbtmp4.1/12,MS2.8/1, Ms1 2.8/1,ms1mx2.3/29, Error ellipse: s-maj=27.4km s-min=16.3km az=17.0*

**ISC 11 19:01:24.1±0.7,21°.80S±0°.05×68°.66W±0°.05,h125km±5km, n31,σ1§99/41,mb3.9/7,5C-1D,Chile-Bolivia border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **PB09** | **IPOC Station P** | **0.54** | **271** | *e*P | | **Pn** | **19 01 41.9** | **-1.1** |
| PB09 | | | | *e*S | | **Sn** | **19 01 56.3** | **-1.0** |
| PB09 | | | | IAML | | | 19 01 57.0 | |
| | comp=E,30μm,0.4s | | | | | | | |
| **PB01** | **IPOC Station P** | **1.08** | **314**↑ | *i*P | | **Pn** | **19 01 46.8** | **-0.6** |
| PB01 | | | | *i*S | | **Sn** | **19 02 04.7** | **-0.4** |
| PB01 | | | | IAML | | | 19 02 05.6 | |
| | comp=E,18μm,0.3s | | | | | | | |
| **PB07** | **IPOC Station P** | **1.14** | **274**↑ | *i*P | | **Pn** | **19 01 47.1** | **-1.0** |
| PB07 | | | | *i*S | | **Sn** | **19 02 04.7** | **-1.6** |
| PB07 | | | | IAML | | | 19 02 06.1 | |
| | comp=N,11μm,0.2s | | | | | | | |
| **PB06** | **IPOC Station P** | **1.23** | **223**↑ | *i*P | | **Pn** | **19 01 47.6** | **-1.5** |
| PB06 | | | | *e*S | | **Sn** | **19 02 05.3** | **-2.7** |
| PB06 | | | | IAML | | | 19 02 06.6 | |
| | comp=E,11μm,0.3s | | | | | | | |
| **PB02** | **IPOC Station P** | **1.24** | **292**↑ | *i*P | | **Pn** | **19 01 48.3** | **-0.8** |
| PB02 | | | | *e*S | | **Sn** | **19 02 06.6** | **-1.5** |
| PB02 | | | | IAML | | | 19 02 07.2 | |
| | comp=N,23μm,0.4s | | | | | | | |
| **PB04** | **IPOC Station P** | **1.48** | **249**↑ | *i*P | | **Pn** | **19 01 50.3** | **-1.4** |
| PB04 | | | | *i*S | | **Sn** | **19 02 10.1** | **-2.7** |
| PB04 | | | | IAML | | | 19 02 12.8 | |
| | comp=E,3μm,0.3s | | | | | | | |
| **PB08** | **IPOC Station P** | **1.71** | **344**↓ | *i*P | | **Pn** | **19 01 55.6** | **+0.8** |
| PB08 | | | | *i*S | | **Sn** | **19 02 19.5** | **+1.4** |
| PB08 | | | | IAML | | | 19 02 20.7 | |
| | comp=E,3μm,0.3s | | | | | | | |
| **PB10** | **IPOC Station P** | **2.44** | **225** | IAML | | | 19 02 51.3 | |
| | comp=E,4μm,0.3s | | | | | | | |
| **PSGC** | **Pisagua** | **2.58** | **328** | IAML | | | 19 02 36.4 | |
| | comp=E,2μm,0.4s | | | | | | | |
| **YJA** | **Yavi** | **2.95** | **98** | *i* P | | **Pn** | **19 02 10.1** | **-0.2** |
| YJA | | | | IAML | | | 19 02 16.1 | |
| | comp=Z,28nm,0.7s | | | | | | | |
| **HJA** | **Humahuaca** | **3.32** | **116** | *i* P | | **Pn** | **19 02 15.7** | **+0.7** |
| HJA | | | | IAML | | | 19 02 18.5 | |
| | comp=Z,41nm,0.5s | | | | | | | |
| HJA | | | | *i* S | | **Sn** | **19 02 59.2** | **+4.8** |
| **AZAP** | **Zapla** | **4.10** | **127** | *i* P | | **Pn** | **19 02 24.1** | **-1.1** |
| **ASTB** | **Santa Barbara** | **4.43** | **120** | *i* P | | **Pn** | **19 02 28.0** | **-1.7** |
| **ALOL** | **LOMAS DE OLMED** | **4.76** | **116** | *i* P | | **Pn** | **19 02 32.4** | **-1.6** |
| ALOL | | | | *i* S | | **Sn** | **19 03 27.8** | **-0.5** |
| **FSA** | **Cafayete** | **4.94** | **151** | *i* P | | **Pn** | **19 02 35.7** | **-0.8** |
| FSA | | | | IAML | | | 19 03 12.0 | |
| | comp=Z,4.0nm,0.8s | | | | | | | |
| **LPAZ** | **La Paz** | **5.51** | **5** | P | | **Pn** | **19 02 46.9** | **+2.3** |
| | comp=Z,4.6nm,0.3s,baz=186,slow=4.6,SNR=124 | | | | | | | |
| LPAZ | | | | S | | **Sn** | **19 03 42.9** | **-4.3** |
| | comp=Z,1.4nm,0.3s,baz=216,slow=9.7,SNR=6.2 | | | | | | | |
| **AHML** | **Horco Molle** | **5.82** | **149** | *i* P | | **Pn** | **19 02 46.5** | **-1.6** |
| **SIV** | **San Ignacio** | **9.22** | **52** | P | | **Pn** | **19 03 31.4** | **-2.7** |
| | comp=Z,2.2nm,0.3s,baz=246,slow=12,SNR=49 | | | | | | | |
| SIV | | | | S | | **Sn** | **19 05 11.2** | **-5.0** |
| | comp=Z,0.4nm,0.3s,baz=326,slow=21,SNR=3.1 | | | | | | | |
| **CPUP** | **Villa Florida** | **11.29** | **116** | P | | **Pn** | **19 04 00.5** | **-1.4** |
| | comp=Z,0.3nm,0.3s,baz=306,slow=8.7,SNR=4.0 | | | | | | | |
| CPUP | | | | LR | | LR | 19 09 17.7 | |
| | comp=Z,44nm,20.0s,baz=42,slow=43 | | | | | | | |
| **NNA** | **Nana** | **12.51** | **320** | P | | **P** | **19 04 21.7** | **-2.8** |
| | comp=Z,0.7nm,0.3s,baz=158,slow=14,SNR=3.0 | | | | | | | |
| NNA | | | | S | | **Sn** | **19 06 36.3** | **+0.5** |
| | comp=Z,1.0nm,0.3s,baz=58,slow=1.0,SNR=2.6 | | | | | | | |
| **BDFB** | **Brasilia** | **20.48** | **76** | P | | **P** | **19 05 51.3** | **-1.1** |
| | comp=Z,7.4nm,0.7s,baz=37,slow=12,SNR=9.5 | | | | | | | |
| **PTGA** | **Pitinga** | **22.59** | **23** | P | | **P** | **19 06 14.4** | **0.0** |
| | comp=Z,1.8nm,0.3s,baz=197,slow=18,SNR=3.4 | | | | | | | |
| **TXAR** | **Lajitas Array** | **61.01** | **325** | P | | **P** | **19 11 26.6** | **+2.0** |
| | comp=Z,0.4nm,0.6s,baz=151,slow=9.0,SNR=5.3 | | | | | | | |
| **DBIC** | **Dimbokro** | **68.60** | **73** | P | | **P** | **19 12 13.4** | **-0.7** |
| | comp=Z,5.1nm,0.8s,baz=232,slow=7.8,SNR=8.1 | | | | | | | |
| **PDAR** | **Pinedale Array** | **74.48** | **330** | P | | **P** | **19 12 50.9** | **+1.8** |
| | comp=Z,0.5nm,0.5s,baz=130,slow=8.1,SNR=5.3 | | | | | | | |
| **ULM** | **Lac du Bonnet** | **75.67** | **342** | P | | **P** | **19 12 56.2** | **+0.8** |
| | comp=Z,1.1nm,0.5s,baz=180,slow=8.1,SNR=4.3 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **77.24** | **70** | P | | **P** | **19 13 04.9** | **-0.1** |
| | comp=Z,1.4nm,0.4s,baz=258,slow=5.4,SNR=16 | | | | | | | |
| TORD | | | | pP | | **pP** | **19 13 36.5** | **+0.1** |
| | comp=Z,2.2nm,0.9s,baz=259,slow=4.5,SNR=3.6 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **91.55** | **341** | P | | **P** | **19 14 17.6** | **+1.4** |
| | comp=Z,1.2nm,0.6s,baz=134,slow=4.4,SNR=28 | | | | | | | |
| YKA | | | | sP | | **sP** | **19 15 03.5** | **+2.1** |
| | comp=Z,0.5nm,0.7s,baz=134,slow=4.4,SNR=3.5 | | | | | | | |
| **ASAR** | **Alice Springs** | **129.75** | **207** | pPKP | pPKPdf | | 19 20 53.6 | +0.6 |
| | comp=Z,0.4nm,0.9s,baz=148,slow=1.3,SNR=3.3 | | | | | | | |
| **WRA** | **Warramunga Ar** | **132.81** | **210** | PKP | pPKPdf | | 19 20 59.4 | +0.6 |
| | comp=Z,0.3nm,0.6s,baz=161,slow=1.8,SNR=2.3 | | | | | | | |
| **MKAR** | **Makanchi Array** | **145.74** | **36** | PKPbc | **PKPab** | | **19 20 49.9** | **+0.9** |
| | comp=Z,0.5nm,0.7s,baz=328,slow=2.7,SNR=5.1 | | | | | | | |
| MKAR | | | | pPKPbc | pPKPab | | 19 21 23.4 | +1.6 |
| | comp=Z,0.8nm,0.7s,baz=343,slow=3.8,SNR=4.9 | | | | | | | |

*NEIC **11** 19:19:31.6±0.0,17°.86N×99°.90W,h63km,MD4.0(MEX), After MEX.*

**MEX 11 19:19:31.6±0.7,17°.86N×99°.90W,h63km±7km,MD4.0, Guerrero**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **MEIG** | **Mezcala** | **0.28** | **75** | *i* P | | Pn | 19 19 40.7 | -1.2 |
| MEIG | | | | *e*S | | Sn | 19 19 47.7 | -1.8 |
| **MEIG** | **Mezcala** | **0.28** | **75** | *i* P | | Pn | 19 19 40.7 | -1.2 |
| MEIG | | | | *e*S | | Sn | 19 19 47.7 | -1.8 |
| **PLIG** | **Platanillo** | **0.65** | **35** | *e*P | | Pn | 19 19 45.1 | -0.5 |
| PLIG | | | | *e*S | | Sn | 19 19 54.0 | -1.8 |
| **PLIG** | **Platanillo** | **0.65** | **35** | *e*P | | Pn | 19 19 45.1 | -0.5 |
| PLIG | | | | *e*S | | Sn | 19 19 54.0 | -1.8 |
| **CAIG** | **El Cayaco** | **0.88** | **204** | *e*P | | Pn | 19 19 46.5 | -1.7 |
| CAIG | | | | *e*S | | Sn | 19 19 58.6 | -1.8 |
| **CAIG** | **El Cayaco** | **0.88** | **204** | *e*P | | Pn | 19 19 46.5 | -1.7 |
| CAIG | | | | *e*S | | Sn | 19 19 58.6 | -1.8 |
| **ACX** | **Acapulco** | **0.98** | **178** | *e*P | | Pn | 19 19 47.5 | -2.1 |
| ACX | | | | *e*S | | Sn | 19 20 00.8 | -2.1 |
| **ACX** | **Acapulco** | **0.98** | **178** | *e*P | | Pn | 19 19 47.5 | -2.1 |
| ACX | | | | *e*S | | Sn | 19 20 00.8 | -2.1 |
| **YAIG** | **Yautepec** | **1.28** | **38** | *e*P | | Pn | 19 19 52.8 | -0.8 |
| YAIG | | | | *e*S | | Sn | 19 20 03.8 | -6.1 |
| **YAIG** | **Yautepec** | **1.28** | **38** | *e*P | | Pn | 19 19 52.8 | -0.8 |
| YAIG | | | | *e*S | | Sn | 19 20 03.8 | -6.1 |
| **TLIG** | **Tlapa** | **1.30** | **103** | *e*P | | Pn | 19 19 53.5 | -0.4 |
| TLIG | | | | *e*S | | Sn | 19 20 08.3 | -2.2 |
| **TLIG** | **Tlapa** | **1.30** | **103** | *e*P | | Pn | 19 19 53.5 | -0.4 |
| TLIG | | | | *e*S | | Sn | 19 20 08.3 | -2.2 |
| **ZIIG** | **Zihuatanejo** | **1.51** | **261** | *e*P | | Pn | 19 19 55.6 | -1.0 |
| ZIIG | | | | *e*S | | Sn | 19 20 13.7 | -1.7 |
| **ZIIG** | **Zihuatanejo** | **1.51** | **261** | *e*P | | Pn | 19 19 55.6 | -1.0 |
| ZIIG | | | | *e*S | | Sn | 19 20 13.7 | -1.7 |

**MAN 11 19:29:28,11°.08N×126°.26E,h62km,mb4.0,ML2.8,MS2.5, 1D,Philippine Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **PLP** | **Palo** | **1.26** | **274**↓ | *e*P | | Pn | 19 29 50.4 | +0.8 |
| PLP | | | | *i* S | | Sn | 19 29 57.9 | -7.8 |
| **OCLP** | **Ormoc** | **1.62** | **269** | *e*P | | Pn | 19 29 56.8 | +2.4 |
| OCLP | | | | *e*S | | Sn | 19 30 10.4 | -4.0 |
| **MSLP** | **Maasin** | **1.67** | **236** | *e*P | | Pn | 19 29 56.5 | +1.4 |
| MSLP | | | | *e*S | | Sn | 19 30 17.6 | +2.1 |

*IDC **11** 19:33:27.4±2.3,16°.67S×174°.38W,h156km±22km,mb3.9/7, mb1 4.0/9,mb1mx3.7/26,mbtmp4.3/9, Error ellipse: s-maj=39.1km s-min=14.9km az=130.0*

**ISC 11 19:33:32.0±1.3,16°.7S±0°.2×174°.4W±0°.3,h200km,n12, σ0§63/11,mb3.9/7,Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **AFI** | **Afiamalu** | **3.80** | **43** | P | | Pn | 19 34 24.3 | -7.1 |
| | 25nm,0.3s,baz=220,slow=7.9,SNR=46 | | | | | | | |
| AFI | | | | S | | Sn | 19 35 05.2 | -13 |
| | 84nm,0.3s,baz=44,slow=20,SNR=25 | | | | | | | |
| **DZM** | **Mont Dzumac** | **18.81** | **251** | P | | **P** | **19 37 36.4** | **-0.4** |
| | 0.2nm,0.3s,baz=70,slow=19,SNR=3.2 | | | | | | | |
| **RPZ** | **Rata Peaks** | **29.58** | **202** | P | | **P** | **19 39 18.3** | **+0.1** |
| | 5.4nm,0.3s,baz=37,slow=6.3,SNR=8.4 | | | | | | | |
| **STKA** | **Stephens Creek** | **42.52** | **241** | P | | **P** | **19 41 08.1** | **+0.1** |
| | 5.4nm,0.6s,baz=103,slow=9.1,SNR=16 | | | | | | | |
| **WRA** | **Warramunga Arr** | **48.59** | **258** | P | | **P** | **19 41 55.2** | **-0.6** |
| | 0.8nm,0.5s,baz=92,slow=7.0,SNR=40 | | | | | | | |
| **ASAR** | **Alice Springs** | **48.77** | **253** | P | | **P** | **19 41 56.8** | **-0.4** |
| | 14nm,0.7s,baz=89,slow=8.3,SNR=226 | | | | | | | |
| **PETK** | **Petropavlovsk-** | **73.61** | **343** | P | | **P** | **19 44 43.2** | **+0.1** |
| | 1.7nm,0.7s,baz=165,slow=6.9,SNR=3.4 | | | | | | | |
| **ILAR** | **Eielson Array** | **83.94** | **11** | P | | **P** | **19 45 38.7** | **-0.5** |
| | 0.4nm,0.8s,baz=228,slow=5.4,SNR=9.3 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **92.10** | **289** | P | | **P** | **19 46 20.5** | **+1.3** |
| | 0.7nm,0.8s,baz=90,slow=1.4,SNR=4.9 | | | | | | | |
| **BVAR** | **Borovoye Array** | **118.33** | **322** | PKP | | **PKPdf** | **19 51 55.4** | **0.0** |
| | 0.5nm,0.5s,baz=116,slow=3.4,SNR=4.1 | | | | | | | |
| **BRTR** | **Keskin Array B** | **146.54** | **319** | PKPbc | | **PKPbc** | **19 52 50.5** | **+0.2** |
| | 1.7nm,0.8s,baz=131,slow=3.5,SNR=9.5 | | | | | | | |
| **GERES** | **GERESS Array B** | **147.30** | **350** | PKPbc | | **PKPbc** | **19 52 51.4** | **-0.6** |
| | 0.5nm,0.7s,baz=320,slow=2.9,SNR=3.6 | | | | | | | |

**WEL 11 19:39:17.1±0.4,37°.72S×179°.63E,h5km,ML2.8/7,2D, Error ellipse: s-maj=2.7km s-min=2.4km az=90.0,Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **WMGZ** | **Waiomatatini S** | **0.97** | **264** | ↓P* | | Pg | 19 39 36.0 | +0.3 |
| WMGZ | | | | S* | | Sb | 19 39 49.6 | 0.0 |
| WMGZ | | | | AML | | AML | 19 39 52.1 | |
| **MXZ** | **Matakaoa Point** | **1.06** | **278** | P* | | Pg | 19 39 37.0 | -0.6 |
| MXZ | | | | S* | | Pg | 19 39 51.6 | +0.2 |
| **PUZ** | **Puketiti** | **1.14** | **252** | P* | | Pg | 19 39 38.5 | -0.6 |
| PUZ | | | | S* | | Sb | 19 39 54.3 | -0.3 |
| **PKGZ** | **Pakihiroa** | **1.24** | **262** | P* | | Pg | 19 39 40.1 | -0.9 |
| PKGZ | | | | S* | | Sb | 19 39 57.4 | -0.1 |
| PKGZ | | | | AML | | AML | 19 39 58.9 | |
| **CNGZ** | **Carnagh Statio** | **1.36** | **235** | PN | | Pn | 19 39 42.7 | -0.1 |
| CNGZ | | | | S* | | Sb | 19 39 59.5 | -1.2 |
| **HAZ** | **Te Kaha** | **1.47** | **268** | ↓PN | | Pn | 19 39 43.6 | -0.7 |
| HAZ | | | | SN | | Sn | 19 40 03.6 | -0.2 |
| **RUGZ** | **Raukumara Rang** | **1.57** | **260** | PN | | Pn | 19 39 44.9 | -0.9 |
| **RIGZ** | **Rimuhau** | **1.77** | **236** | PN | | Pn | 19 39 47.4 | -1.1 |

*ISCJB **11** 19:39:53.3±0.8,17°.05S±0°.1×174°.1W±0°.2,h100km,mb4.2/9, Error ellipse: s-maj=26.1km s-min=11.8km az=37.3*
*IDC **11** 19:39:53.1±3.0,16°.96S×174°.20W,h80km±28km,mb4.0/9, mb1 4.2/10,mb1mx3.7/32,mbtmp4.3/10,MS3.3/3, Ms1 3.4/3,ms1mx3.0/46, Error ellipse: s-maj=32.5km s-min=15.8km az=120.0*

**ISC 11 19:39:56.0±0.8,17°.0S±0°.2×174°.2W±0°.2,h100km,n43, σ2§19/41,mb4.2/9,3C-5D,Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **AFI** | **Afiamalu** | **3.85** | **38** | P | | Pn | 19 40 50.1 | -3.2 |
| | 30nm,0.3s,baz=225,slow=7.1,SNR=42 | | | | | | | |
| AFI | | | | S | | Sn | 19 41 28.7 | -8.9 |
| | 135nm,0.3s,baz=88,slow=22,SNR=23 | | | | | | | |
| AFI | | | | LR | | LR | 19 41 55.7 | |
| | comp=Z,116nm,20.7s,baz=110,slow=32 | | | | | | | |
| **DZM** | **Mont Dzumac** | **18.92** | **251** | P | | **P** | **19 44 11.2** | **+2.0** |
| | 0.2nm,0.3s,baz=92,slow=17,SNR=2.5 | | | | | | | |
| **URZ** | **Urewera** | **22.52** | **198** | P | | **P** | **19 44 46.5** | **-1.0** |
| | 4.6nm,0.3s,baz=253,slow=2.5,SNR=8.6 | | | | | | | |
| **HNR** | **Honiara** | **26.23** | **283** | LR | | LR | 19 53 57.8 | |
| | comp=Z,80nm,21.1s,baz=27,slow=32 | | | | | | | |
| **STKA** | **Stephens Creek** | **42.59** | **241** | P | | **P** | **19 47 41.7** | **-0.6** |
| | 2.2nm,0.7s,baz=339,slow=13,SNR=5.4 | | | | | | | |
| **WRA** | **Warramunga Arr** | **48.74** | **259** | P | | **P** | **19 48 29.6** | **-1.4** |
| | 0.6nm,0.3s,baz=96,slow=7.6,SNR=30 | | | | | | | |
| **ASAR** | **Alice Springs** | **48.90** | **253** | P | | **P** | **19 48 31.3** | **-0.9** |
| | 11nm,0.7s,baz=88,slow=8.7,SNR=134 | | | | | | | |
| **VNDA** | **Vanda** | **61.73** | **186** | P | | **P** | **19 50 02.9** | **-0.4** |
| | 1.0nm,0.8s,baz=61,slow=10,SNR=4.3 | | | | | | | |
| **PETK** | **Petropavlovsk-** | **73.90** | **343** | P | | **P** | **19 51 19.4** | **-0.5** |
| | 4.4nm,0.8s,baz=118,slow=8.8,SNR=5.1 | | | | | | | |
| **SEY** | **Seymchan** | **83.84** | **345** | P | | **P** | **19 52 12.9** | **-1.1** |
| | 4.5nm,0.9s,baz=122,slow=9.2,SNR=6.9 | | | | | | | |
| **ILAR** | **Eielson Array** | **84.14** | **11** | P | | **P** | **19 52 14.2** | **-1.3** |
| | 1.6nm,0.6s,baz=222,slow=5.4,SNR=27 | | | | | | | |
| ILAR | | | | LR | | LR | 20 23 48.0 | |
| | comp=Z,61nm,20.4s,baz=9.5,slow=31 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **92.38** | **288** | P | | **P** | **19 52 56.6** | **+0.6** |
| | 1.2nm,0.8s,baz=75,slow=2.4,SNR=7.6 | | | | | | | |
| **BVAR** | **Borovoye Array** | **118.64** | **322** | PKP | | **PKPdf** | **19 58 30.9** | **-1.2** |
| | 0.8nm,0.6s,baz=90,slow=1.5,SNR=6.8 | | | | | | | |
| **CLL** | **Collm** | **145.28** | **352** | *i* PKPbc | | **PKPbc** | **19 59 20.6** | **-1.2** |
| | comp=Z,11nm,1.1s | | | | | | | |
| **BURAR** | **Bucovina Array** | **145.53** | **337** | ↓*i*P | | **PKPdf** | **19 59 22.6** | **0.0** |
| **UPC** | **Upice** | **145.56** | **348** | *e*PKP | | **PKPdf** | **19 59 22.7** | **+0.2** |
| **DPC** | **Dobruska-Polom** | **145.65** | **348** | *e*PKP | | **PKPdf** | **19 59 23.3** | **+0.6** |
| DPC | | | | *ex* | | x | 19 59 57.3 | |
| **PVCC** | **Panska Ves** | **145.80** | **350** | *e*PKP | | **PKPdf** | **19 59 23.4** | **+0.6** |
| **KRLC** | **Kraliky** | **145.82** | **347** | *e*PKP | | **PKPdf** | **19 59 23.4** | **+0.4** |
| **TESR** | **Tescani** | **145.85** | **334**↑ | *i*P | | **PKPdf** | **19 59 23.3** | **+0.2** |
| **CFR** | **Carcaliu** | **146.23** | **331**↑ | *i*P | | **PKPdf** | **19 59 24.2** | **+0.5** |
| **PRU** | **Pruhonice** | **146.33** | **350** | *e*PKP | | **PKPdf** | **19 59 25.0** | **+1.3** |
| **DOPR** | **Dopca** | **146.81** | **335**↓ | *i*P | | **PKPdf** | **19 59 26.9** | **+2.2** |
| **BRTR** | **Keskin Array B** | **146.86** | **319** | PKPbc | | **PKPdf** | **19 59 26.4** | **+1.3** |
| | comp=Z,2.5nm,0.8s,baz=153,slow=5.0,SNR=12 | | | | | | | |
| **MLR** | **Muntele Rosu** | **146.96** | **334**↑ | *i*P | | **PKPdf** | **19 59 26.9** | **+1.8** |
| **KHC** | **Kasperske Hory** | **147.32** | **351** | *e*PKP | | **PKPbc** | **19 59 29.2** | **+1.2** |
| **VOIR** | | **147.38** | **334** | ↓*i*P | | **PKPdf** | **19 59 28.5** | **+2.7** |
| **GERES** | **GERESS Array B** | **147.57** | **350** | PKPbc | | **PKPdf** | **19 59 27.2** | **+1.1** |
| | comp=Z,0.6nm,0.7s,baz=18,slow=3.5,SNR=6.4 | | | | | | | |
| **CONA** | **Conrad Observa** | **148.05** | **347** | *i* PKPbc | | **PKPdf** | **19 59 29.6** | **+2.8** |
| | comp=Z,6.1nm,1.5s | | | | | | | |
| **MOA** | **Molln** | **148.44** | **349** | *i* PKPbc | | **PKPdf** | **19 59 29.9** | **+2.6** |
| | comp=Z,1.7nm,0.8s | | | | | | | |
| **BZS** | **Buzias** | **148.54** | **338**↓ | *i*P | | **PKPdf** | **19 59 30.6** | **+3.0** |
| **ARSA** | **Arzberg** | **148.77** | **347** | *i* PKPbc | | **PKPdf** | **19 59 31.7** | **+3.8** |
| | comp=Z,3.5nm,1.6s | | | | | | | |
| **HERR** | **Herculane** | **148.88** | **337**↓ | *i*P | | **PKPdf** | **19 59 31.6** | **+3.5** |
| **KBA** | **Koelnbreinsper** | **149.35** | **350** | *i* PKPbc | | **PKPdf** | **19 59 32.8** | **+3.8** |
| | comp=Z,3.5nm,1.0s | | | | | | | |
| **MOTA** | **Moosalm** | **149.41** | **353** | *i* PKPdf | | **PKPdf** | **19 59 30.7** | **+1.6** |
| | comp=Z,2.5nm,0.9s | | | | | | | |
| **SOKA** | **Soboth** | **149.41** | **347** | *i* PKPbc | | **PKPdf** | **19 59 32.4** | **+3.3** |
| | comp=Z,5.6nm,1.5s | | | | | | | |
| **WTTA** | **Wattenberg** | **149.42** | **352** | *i* PKiKP | | **PKPbc** | **19 59 35.2** | **+1.5** |
| | comp=Z,7.9nm,1.3s | | | | | | | |
| **DAVA** | **Damuels** | **149.59** | **354** | *i* PKPbc | | **PKPdf** | **19 59 33.5** | **+4.1** |
| | comp=Z,8.4nm,1.0s | | | | | | | |
| **OBKA** | **Obir** | **149.67** | **348** | *i* PKPbc | | **PKPdf** | **19 59 33.7** | **+4.2** |
| | comp=Z,3.9nm,1.4s | | | | | | | |
| **MYKA** | **Terra Mystica** | **149.73** | **349** | *i* PKPdf | | **PKPdf** | **19 59 30.9** | **+1.3** |
| | comp=Z,4.1nm,1.0s | | | | | | | |
| **FETA** | **Feichten** | **149.77** | **353** | *i* PKPbc | | **PKPdf** | **19 59 33.4** | **+3.7** |
| | comp=Z,7.0nm,1.3s | | | | | | | |
| **ABTA** | **Abfaltersbach** | **149.80** | **351** | *i* PKPbc | | **PKPdf** | **19 59 33.6** | **+3.9** |
| | comp=Z,8.6nm,1.1s | | | | | | | |
| **ESDC** | **Sonseca Array** | **155.85** | **19** | PKPab | | **PKPab** | **20 00 05.2** | **-0.6** |
| | comp=Z,0.7nm,0.8s,baz=333,slow=6.1,SNR=3.7 | | | | | | | |

*NIED **11** 19:51:00,36°.20N×141°.00E,h23km,Mw4.7 Best double couple: Mo1.17000×10^16 NP1:φs70.00000°,δ2.00000°, λ-27.00000°. NP2:φs187.00000°,δ89.00000°, λ-92.00000°.*
*BJI **11** 19:51:08.5,36°.06N×140°.87E,h29km,mb4.7/59,mB4.9/46, Ms4.5/50,Ms7 4.3/49*
*ISCJB **11** 19:51:09.9±0.6,36°.23N±0°.03×140°.95E±0°.03,h30km±4km, mb4.7/125,MS4.1/22, Error ellipse: s-maj=4.6km s-min=3.9km az=148.3*
*MOS **11** 19:51:10.9±1.1,36°.38N×140°.91E,h33km,mb5.0/60, Error ellipse: s-maj=7.1km s-min=4.4km az=110.0*
*JMA **11** 19:51:10.1,36°.21N×140°.93E,h38km±1km,M4.6*
*JMA Felt III J1.*
*NEIC **11** 19:51:13.4±0.7,36°.19N×140°.81E,h49km±7km,mb4.8/52, Error ellipse: s-maj=6.0km s-min=4.8km az=127.0*
*NEIC Recorded [3 JMA] in Ibaraki.*
*IDC **11** 19:51:14.4±1.6,36°.23N×140°.78E,h53km±15km,mb4.2/30, mb1 4.3/34,mb1mx4.2/59,mbtmp4.4/34,ML3.6/4,MS4.0/16, Ms1 4.1/16,ms1mx3.7/43, Error ellipse: s-maj=12.3km s-min=8.9km az=101.0*

**ISC 11 19:51:11.3±0.5,36°.25N±0°.03×140°.97E±0°.04,h31km±3km, h31km:pP-P,n324,σ1§69/354,mb4.8/140,MS4.2/23, 36C-16D,Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **JHO** | **Hitachi** | **0.48** | **318** | P | | **Pb** | **19 51 20.5** | **-1.1** |
| **CHOJ** | **Chosi** | **0.56** | **189** | P | | **Pb** | **19 51 20.8** | **-1.9** |
| **JYT** | **Yasato** | **0.63** | **268** | P | | **Pb** | **19 51 22.1** | **-1.8** |
| JYT | | | | S | | **Sb** | **19 51 30.2** | **-2.3** |
| **ONAJ** | **Iwakimizuishiy** | **0.86** | **351** | P | | **Pn** | **19 51 25.8** | **-1.5** |
| **JAG** | **Ashikaga** | **1.24** | **278** | P | | **Pn** | **19 51 31.0** | **-1.4** |
| **JFT** | **Otama** | **1.36** | **338** | P | | **Pn** | **19 51 34.3** | **+0.1** |
| JFT | | | | S | | **Sn** | **19 51 51.7** | **+0.5** |
| **MJAR** | **Matsushiro Arr** | **2.25** | **278** | P | | **Pn** | **19 51 46.4** | **+0.1** |
| | 102nm,0.3s,baz=98,slow=8.1,SNR=992 | | | | | | | |
| MJAR | | | | S | | **Sb** | **19 52 18.5** | **-0.1** |
| | 60nm,0.3s,baz=99,slow=15,SNR=5.3 | | | | | | | |
| **MAJO** | **Matsushiro** | **2.25** | **278** | *c* *i*P | | **Pn** | **19 51 46.4** | **0.0** |
| **MAJO** | **Matsushiro** | **2.25** | **278** | *e*Pn | | **Pn** | **19 51 46.6** | **+0.2** |
| MAJO | | | | *e*Sn | | **Sn** | **19 52 07.3** | **-5.8** |
| **MAT** | **Matsushiro** | **2.25** | **278** | P | | **Pn** | **19 51 46.3** | **-0.1** |
| MAT | | | | *e*S | | **Sn** | **19 52 15.5** | **+2.5** |
| **MJB9** | **Matsu-Tunnel** | **2.25** | **278** | *e*Pn | | **Pn** | **19 51 46.6** | **+0.2** |
| **JHJ2** | **Mitsune** | **3.27** | **197** | *e*Pn | | **Pn** | **19 52 01.2** | **+0.8** |
| **JHJ** | **Hachijo jima 2** | **3.27** | **198** | P | | **Pn** | **19 52 02.3** | **+1.8** |
| | 46nm,0.3s,baz=323,slow=23,SNR=21 | | | | | | | |
| JHJ | | | | S | | **Sn** | **19 52 39.7** | **+1.4** |
| | 94nm,0.3s,baz=130,slow=23,SNR=7.4 | | | | | | | |
| **INU** | **Inuyama** | **3.34** | **255** | *e*Pn | | **Pn** | **19 52 01.7** | **+0.4** |
| **ERM** | **Erimo** | **6.00** | **16** | *e*P | | **Pn** | **19 52 34.8** | **-3.1** |
| **ERM** | **Erimo** | **6.00** | **16** | *e*Pn | | **Pn** | **19 52 34.8** | **-3.1** |
| **ASAJ** | **Asahikawa** | **7.95** | **9** | P | | **Pn** | **19 53 04.2** | **-0.4** |
| | 4.4nm,0.3s,baz=232,slow=12,SNR=5.9 | | | | | | | |
| ASAJ | | | | S | | **Sn** | **19 54 32.1** | **-1.4** |
| | 1.7nm,0.3s,baz=189,slow=12,SNR=3.6 | | | | | | | |
| **ASAJ** | **Asahikawa** | **7.95** | **9** | *e*Pn | | **Pn** | **19 53 00.4** | **-4.3** |
| ASAJ | | | | *e*Sn | | **Sn** | **19 54 33.3** | **-0.2** |
| **YUK** | **Yuzh-Kuril'sk** | **8.63** | **24** | *d* *i*P | | **Pn** | **19 53 12.2** | **-1.7** |
| YUK | | | | *i* S | | **Sn** | **19 54 44.1** | **-5.9** |
| YUK | | | | pmax | pmax | | | |
| | comp=Z,99nm,0.6s | | | | | | | |
| YUK | | | | pmax | pmax | | | |
| | comp=N,98nm,0.5s | | | | | | | |
| YUK | | | | pmax | pmax | | | |
| | comp=E,97nm,0.5s | | | | | | | |
| **SHO** | **Shikotan** | **8.83** | **29** | *d* *i*P | | **Pn** | **19 53 15.3** | **-1.4** |
| SHO | | | | *i* S | | **Sn** | **19 54 49.2** | **-5.9** |
| SHO | | | | pmax | pmax | | | |
| | comp=Z,69nm,0.7s | | | | | | | |
| SHO | | | | pmax | pmax | | | |
| | comp=E,58nm,0.6s | | | | | | | |
| SHO | | | | pmax | pmax | | | |
| | comp=N,35nm,0.5s | | | | | | | |
| **JNU** | **Nakatsue**

BJI S **S** **19 59 20.0 -1.3**
BJI pmax pmax
comp=Z,22nm,1.0s
BJI pmax pmax
comp=Z,280nm,8.3s
BJI LR LR
comp=Z,420nm,12.4s
BJI LR LR
comp=Z,470nm,14.4s
**PETK Petropavlovsk- 20.54 30** P Pn 19 55 49.4 0.0
comp=Z,10nm,1.0s,baz=264,slow=6.0,SNR=5.7
PETK LR LR 20 03 12.3
comp=Z,207nm,21.9s,baz=219,slow=35
**PETK Petropavlovsk- 20.54 30** P Pn 19 55 49.4 +0.1
PETK pmax pmax
comp=Z,11nm,1.0s
PETK MLR MLR
comp=Z,207nm,21.9s
**GUMO Guam 22.84 170** LR LR 20 04 16.1
comp=Z,72nm,21.4s,baz=17,slow=34
**HHC Hu-ho-hao-te 23.39 290** *e*P **P** **19 56 17.5 0.0**
HHC pP pP 19 56 26.1 -0.1
HHC PP **PnPn** **19 56 42.8 -1.4**
HHC S **S** **20 00 23.1 -5.4**
HHC pmax pmax
comp=Z,11nm,0.9s
HHC pmax pmax
comp=Z,130nm,7.5s
HHC LR LR
comp=Z,410nm,10.2s
HHC LR LR
comp=Z,450nm,12.7s
HHC LR LR
comp=Z,470nm,13.7s
**MA2 Magadan 24.19 12** P **P** **19 56 25.7 +1.0**
comp=Z,5.5nm,0.8s,baz=204,slow=8.6,SNR=2.9
**XAN Xi'an 26.24 275** P **P** **19 56 41.7 -1.9**
XAN pP pP 19 56 50.7 -1.9
XAN sP sP 19 56 54.8 -1.7
XAN PP **PnPn** **19 57 22.4 -0.6**
XAN S **S** **20 01 06.5 -7.4**
XAN sS pS 20 01 22.0 -1.9
XAN pmax pmax
comp=Z,11nm,0.8s
XAN pmax pmax
comp=Z,200nm,8.6s
XAN LR LR
comp=Z,330nm,13.0s
XAN LR LR
comp=Z,470nm,14.7s
XAN LR LR
comp=Z,630nm,14.7s
**YAK Yakutsk 26.76 348** *e*P **P** **19 56 47.0 -0.9**
YAK *e* 19 57 28.2
YAK *e*S **S** **20 01 16.3 -5.1**
YAK pmax pmax
comp=N,11nm,1.2s
YAK pmax pmax
comp=E,5.0nm,1.3s
YAK pmax pmax
comp=E,95nm,3.3s
YAK pmax pmax
comp=N,40nm,2.0s
YAK smax smax
comp=E,34nm,2.4s
YAK smax smax
comp=N,20nm,2.3s
YAK MLR MLR
comp=N,1μm,22.0s
**ULN Ulaanbaatar 27.51 306***ce*P **P** **19 56 53.7 -1.3**
ULN pmax pmax
comp=Z,11nm,1.2s
**ULN Ulaanbaatar 27.51 306** *e*Pn **P** **19 56 52.2 -2.8**
comp=Z,10nm,0.9s
**SEY Seymchan 27.62 11** P **P** **19 56 57.7 +2.0**
comp=Z,4.3nm,0.8s,baz=206,slow=9.4,SNR=11
**SONA1 Songino Array 27.93 305** *e*P **P** **19 56 58.0 -0.8**
**SONM Songino Array 27.93 305** P **P** **19 56 58.3 -0.5**
comp=Z,6.8nm,0.7s,baz=104,slow=8.6,SNR=47
SONM LR LR 20 08 33.9
comp=Z,389nm,19.1s,baz=95,slow=37
**BOD Bodaibo 28.01 329** *e*P **P** **19 56 57.6 -1.5**
BOD pmax pmax
comp=Z,23nm,0.8s
**H11N2 WAKE ISLAND Hy 28.07 119** T T 20 26 19.7
baz=312,slow=75,SNR=320
**H11N1 WAKE ISLAND Hy 28.08 119** T T 20 26 18.4
baz=312,slow=75,SNR=452
**H11N3 WAKE ISLAND Hy 28.09 119** T T 20 26 19.2
baz=312,slow=75,SNR=302
**H11S1 WAKE ISLAND Hy 28.75 121** T T 20 27 11.2
baz=314,slow=76,SNR=1727
**H11S3 WAKE ISLAND Hy 28.75 121** T T 20 27 07.5
baz=314,slow=76,SNR=1329
**H11S2 WAKE ISLAND Hy 28.77 121** T T 20 27 11.6
baz=314,slow=76,SNR=1017
**LZH Lanzhou 29.86 281** *e*P **P** **19 57 14.2 -1.8**
LZH pP pP 19 57 23.3 -1.8
LZH sP sP 19 57 27.0 -2.0
LZH PP **PnPn** **19 58 11.7 -0.8**
LZH PcP **PcP** **20 00 18.5 -0.2**
LZH pmax pmax
comp=Z,26nm,1.3s
LZH pmax pmax
comp=Z,110nm,5.2s
LZH LR LR
comp=Z,600nm,10.8s
LZH LR LR
comp=Z,680nm,13.0s
LZH LR LR
comp=Z,890nm,16.0s
**TLY Talaya 30.58 312** LR LR 20 10 16.5
comp=Z,213nm,19.3s,baz=108,slow=38
**GYA Guiyang 30.74 261**⇑ *i*P **P** **19 57 21.3 -2.6**
GYA pP pP 19 57 34.2 +1.2
GYA S **S** **20 02 23.6 -1.5**
GYA sS sS 20 02 40.0 -0.2
GYA SS **SnSn** **20 04 07.8 +3.2**
GYA pmax pmax
comp=Z,20nm,0.8s
GYA pmax pmax
comp=Z,120nm,5.0s
GYA LR LR
comp=Z,510nm,16.7s
GYA LR LR
comp=Z,480nm,17.0s
GYA LR LR
comp=Z,440nm,17.2s
**CD2 Chengdu 31.32 271** *e*P **P** **19 57 27.7 -1.2**
CD2 pP pP 19 57 33.3 -4.7
CD2 sP sP 19 57 37.4 -4.5
CD2 PP **PnPn** **19 58 28.7 -3.0**
CD2 S **S** **20 02 31.3 -2.7**
CD2 pmax pmax
comp=Z,30nm,0.8s
CD2 pmax pmax
comp=Z,160nm,12.0s
CD2 LR LR
comp=Z,870nm,13.1s
CD2 LR LR
comp=Z,730nm,16.6s
CD2 LR LR
comp=Z,580nm,19.0s
**QIZ Qiongzhong 32.28 246** P **P** **19 57 37.1 -0.3**
QIZ S **S** **20 02 50.9 +1.9**
QIZ LR LR
comp=Z,270nm,21.9s
**GTA Gaotai 32.46 288** *e*P **P** **19 57 38.7 -0.2**
GTA pP pP 19 57 48.0 0.0
GTA sP sP 19 57 52.0 +0.1
GTA S **S** **20 02 49.6 -2.1**
GTA sS pS 20 03 04.4 +2.6
GTA SS **SnSn** **20 04 42.5 -3.5**
GTA pmax pmax
comp=Z,11nm,1.4s
GTA pmax pmax
comp=Z,200nm,9.5s
GTA LR LR
comp=Z,220nm,10.7s
GTA LR LR
comp=Z,360nm,16.2s
GTA LR LR
comp=Z,330nm,15.4s
**TIXI Tiksi 36.02 354** P **P** **19 58 09.0 -0.2**
comp=Z,0.8nm,0.3s,baz=178,slow=8.6,SNR=3.6
**TIXI Tiksi 36.02 354***ce*P **P** **19 58 08.1 -1.1**
TIXI pmax pmax
comp=Z,3.0nm,1.0s
**TIXI Tiksi 36.02 354** *e*P **P** **19 58 08.9 -0.3**
comp=Z,7.3nm,0.8s
**DGZ Jazzator, Alta 40.56 307** *i* P **P** **19 58 48.7 +0.8**
DGZ pmax pmax
comp=Z,21nm,0.7s
**WMQ Urumqi 40.88 298** P **P** **19 58 51.5 +1.1**
WMQ pP pP 19 59 00.4 +0.7
WMQ sP sP 19 59 04.4 +0.9
WMQ pmax pmax
comp=Z,67nm,1.1s
WMQ LR LR
comp=Z,960nm,8.7s
WMQ LR LR
comp=Z,930nm,9.7s
WMQ LR LR
comp=Z,480nm,25.7s
**CMAR Chiang Mai Arr 40.96 256** P **P** **19 58 50.8 -0.5**
comp=Z,1.1nm,0.8s,baz=44,slow=7.2,SNR=8.4
CMAR LR LR 20 18 38.5
comp=Z,181nm,18.5s,baz=64,slow=40
**CMAR Chiang Mai Arr 40.96 256***ce*P **P** **19 58 51.5 +0.2**
CMAR pmax pmax
comp=Z,1.0nm,0.7s
**CM01 Chiang Mai Arr 40.97 256** *e*P **P** **19 58 49.5 -1.8**
**AAI Ambon 41.49 199** P **P** **19 58 55.7 +0.1**
AAI pmax pmax
comp=Z,48nm,0.7s
**ZAA0 Zalesovo Array 42.18 313** *e*P **P** **19 59 01.0 +0.1**
comp=Z,22nm,1.0s
**ZALV Zalesovo Beam 42.18 313** P **P** **19 59 00.7 -0.2**
comp=Z,18nm,0.9s,baz=93,slow=6.5,SNR=64
ZALV PcP **PcP** **20 00 54.3 -0.3**
comp=Z,2.9nm,1.0s,baz=77,slow=3.1,SNR=2.9
ZALV LR LR 20 16 06.2
comp=Z,120nm,18.6s,baz=262,slow=35
**ZALV Zalesovo Beam 42.18 313** *e*P **P** **19 58 59.4 -1.4**
ZALV PcP **PcP** **20 00 54.3 -0.3**
**NVS Novosibirsk 43.12 314**⇓ *i*P **P** **19 59 08.8 +0.3**
NVS *i* 19 59 17.7
NVS pmax pmax
comp=Z,23nm,1.1s
NVS pmax pmax
comp=N,6.0nm,1.0s
NVS pmax pmax
comp=E,10.0nm,1.0s
**MK01 Makanchi Array 44.23 303** *e*P **P** **19 59 18.0 +0.5**
**MK31 Makanchi Array 44.23 303***ce*P **P** **19 59 17.5 -0.2**
MK31 pmax pmax
comp=Z,20nm,0.9s
**MK31 Makanchi Array 44.23 303** *e*P **P** **19 59 17.4 -0.2**
**MKAR Makanchi Array 44.23 303** P **P** **19 59 17.5 -0.1**
comp=Z,13nm,0.9s,baz=89,slow=9.5,SNR=70
MKAR LR LR 20 18 29.4
comp=Z,319nm,20.7s,baz=35,slow=37
**MKAR Makanchi Array 44.23 303***ce*P **P** **19 59 18.0 +0.4**
MKAR pmax pmax
comp=Z,13nm,0.9s
**MAKZ Makanchi 44.45 303** *i* P **P** **19 59 18.9 -0.4**
MAKZ pmax pmax
comp=Z,20nm,1.0s
**MAKZ Makanchi 44.45 303** *e*P **P** **19 59 19.9 +0.6**
comp=Z,18nm,1.0s
**TAPN Taplejung 45.64 275** *e*P **P** **19 59 29.1 -0.3**
comp=Z,20nm,0.9s
**PMG Port Moresby 45.79 171***de*P **P** **19 59 31.6 +1.5**
PMG pmax pmax
comp=Z,37nm,1.0s
**KURK Kurchatov 46.14 309***ce*P **P** **19 59 32.1 -0.5**
KURK pmax pmax
comp=Z,90nm,1.0s
**KURK Kurchatov 46.14 309** *e*P **P** **19 59 31.3 -1.3**
comp=Z,23nm,0.8s
**RAMN Ramite 46.71 275** *e*P **P** **19 59 37.6 -0.1**
comp=Z,105nm,1.0s
**JIRN Jiri 46.73 276** *e*P **P** **19 59 38.3 +0.2**
comp=Z,156nm,0.9s
**PDGK Podgornoye 46.83 298** *i* P **P** **19 59 38.0 -0.3**
PDGK pmax pmax
comp=Z,19nm,0.9s
**GUN Gumba 46.88 276** *e*P **P** **19 59 39.1 -0.1**
comp=Z,88nm,1.0s
**PKI Pulchoki 47.40 276** *e*P **P** **19 59 42.9 -0.3**
comp=Z,44nm,1.0s
**PKIN Phulchoki 47.41 276** *e*P **P** **19 59 42.9 -0.3**
**KKN Kakani 47.41 276** *e*P **P** **19 59 43.1 -0.1**
comp=Z,56nm,1.0s
**IMAR Indian Mountai 47.51 30** *e*P **P** **19 59 44.2 +1.1**
**DMN Daman 47.63 276** *e*P **P** **19 59 44.8 -0.1**
comp=Z,36nm,1.0s
**KDAK Kodak Island 47.92 41** P **P** **19 59 47.7 +1.3**
comp=Z,28nm,0.7s,baz=244,slow=14,SNR=3.6
**KDAK Kodiak Island 47.92 41***ce*P **P** **19 59 47.5 +1.1**
**CAST Castle Rocks 48.07 34** *e*P **P** **19 59 49.7 +2.1**
comp=Z,8.4nm,0.8s
**SOEI Soe 48.39 202** *e*P **P** **19 59 47.7 -2.9**
comp=Z,39nm,0.9s
**DANN Dangsing 48.40 278** *e*P **P** **19 59 51.4 +0.5**
**BPAW Bear Paw Mtn. 48.57 33** *e*P **P** **19 59 51.9 +0.4**
comp=Z,8.6nm,1.0s
**KTH Kantishna Hill 48.59 34** *e*P **P** **19 59 53.5 +1.9**
comp=Z,21nm,1.0s
**MLY Manley 48.70 32** *e*P **P** **19 59 54.3 +1.9**
comp=Z,15nm,1.0s
**KOLN Koldanda 48.77 277** *e*P **P** **19 59 53.7 +0.1**
comp=Z,84nm,1.2s
**PYUN Piuthan 49.12 278** *e*P **P** **19 59 56.5 +0.2**
comp=Z,217nm,1.0s
**MCK McKinley 49.48 33** *e*P **P** **19 59 59.3 +1.0**
MCK pmax pmax
comp=Z,14nm,1.0s
**MCK McKinley 49.48 33** *e*P **P** **19 59 59.3 +1.0**
comp=Z,14nm,1.0s
**RND Reindeer 49.52 34** *e*P **P** **19 59 59.4 +0.6**
RND pmax pmax
comp=Z,17nm,1.0s
**RND Reindeer 49.52 34** *e*P **P** **19 59 59.4 +0.6**
comp=Z,17nm,1.0s
**TKM2 Tokmak 2 49.69 299** *i* P **P** **20 00 01.0 +0.5**
TKM2 pmax pmax
comp=Z,13nm,0.8s
**TKM2 Tokmak 2 49.69 299** P **P** **20 00 01.4 +0.9**
SNR=16
**MDM Murphy Dome 49.77 32** *e*P **P** **20 00 01.6 +1.1**
comp=Z,27nm,0.9s
**COLA College 49.93 32** *e*P **P** **20 00 02.8 +1.2**
COLA pmax pmax
comp=Z,9.0nm,0.9s
**COLA College 49.93 32** *e*P **P** **20 00 02.8 +1.2**
comp=Z,9.1nm,0.9s
**COEN Coen 49.98 177** *e*P **P** **20 00 02.1 -0.5**
comp=Z,20nm,1.3s
**KZA Kyzart 50.17 298** P **P** **20 00 06.1 +1.7**
SNR=6.8
**KBK Karagaybulak 50.22 299** P **P** **20 00 05.3 +0.8**
SNR=17
**IL1 Eielson Array 50.34 32** *e*P **P** **20 00 05.6 +0.7**
**ILAR Eielson Array 50.34 32** P **P** **20 00 05.8 +1.0**
comp=Z,9.8nm,0.8s,baz=269,slow=6.3,SNR=74
**ILB Eielson Array 50.34 32** *e*P **P** **20 00 05.6 +0.7**
**USP Ospenovka 50.37 300** P **P** **20 00 05.8 +0.4**
SNR=7.9
**KSH Kashi 50.40 295** P **P** **20 00 10.2 +4.4**
KSH pP sP 20 00 20.0 +0.9
KSH PcP **PcP** **20 01 26.9 +2.9**
KSH PP **PP** **20 02 06.4 +5.0**
KSH S **S** **20 07 20.7 +3.5**
KSH ScS **ScS** **20 09 55.4 +0.7**
KSH SS **SS** **20 10 52.4 +1.5**
KSH pmax pmax
comp=Z,10.0nm,0.9s
KSH pmax pmax
comp=Z,140nm,5.1s
KSH LR LR
comp=Z,230nm,8.4s
KSH LR LR
comp=Z,190nm,7.3s
KSH LR LR
comp=Z,320nm,9.7s
**AAK Ala-Archa 50.55 299***d* *i*P **P** **20 00 07.4 +0.5**
AAK pmax pmax
comp=Z,5.0nm,0.9s
**AAK Ala-Archa 50.55 299** *e*P **P** **20 00 05.7 -1.2**
comp=Z,6.9nm,0.8s
**BRVK Borovoye 50.89 313** *e*P **P** **20 00 09.5 +0.3**
BRVK pmax pmax
comp=Z,7.0nm,0.9s
**BRVK Borovoye 50.89 313** *e*P **P** **20 00 09.5 +0.3**
comp=Z,6.9nm,0.9s
**FYU Fort Yukon 50.96 30** *e*P **P** **20 00 08.4 -1.1**
comp=Z,24nm,1.1s
**EKS2 Erkin-Say 51.05 299** P **P** **20 00 11.1 +0.5**
SNR=5.6
**PSI Prapat 51.09 239** P **P** **20 00 11.2 0.0**
comp=Z,6.1nm,0.8s,baz=47,slow=4.5
**AML Almayashu 51.26 298** P **P** **20 00 13.5 +0.9**
SNR=26
**MNAS Manas 52.00 299** *i* P **P** **20 00 17.9 +0.1**
MNAS pmax pmax
comp=Z,11nm,0.7s
**SFK Sufi-Kurgan 52.05 296** *i* P **P** **20 00 18.5 +0.2**
SFK pmax pmax
comp=Z,11nm,0.7s
**EGAK Eagle 52.79 32** *e*P **P** **20 00 24.4 +1.3**
comp=Z,5.8nm,0.8s
**HYT Haines Junctio 55.14 36** *e*P **P** **20 00 40.6 +0.1**
comp=Z,16nm,1.0s
**INK Inuvik 55.24 27** P **P** **20 00 42.5 +1.6**
comp=Z,5.2nm,0.6s,baz=291,slow=6.6,SNR=31
**INK Inuvik 55.24 27** *e*P **P** **20 00 41.1 +0.1**
comp=Z,6.3nm,0.8s
**SVE Sverdlovsk 55.50 319**⇑ *i*P **P** **20 00 43.8 +0.8**
SVE pmax pmax
comp=Z,26nm,0.9s
**FITZ Fitzroy Crossi 55.97 198** P **P** **20 00 47.3 +0.6**
comp=Z,2.9nm,0.8s,baz=13,slow=12,SNR=4.8
**WRAB Tennant Creek 56.23 187** *i* P **P** **20 00 49.7 +1.1**
WRAB pmax pmax
comp=Z,13nm,1.2s
**WRAB Tennant Creek 56.23 187** *e*P **P** **20 00 47.7 -0.8**
comp=Z,24nm,1.3s
**WB2 Warramunga Arr 56.24 187** *e*P **P** **20 00 47.4 -1.2**
comp=Z,18nm,1.1s
**WRA Warramunga Arr 56.24 188** P **P** **20 00 48.3 -0.4**
comp=Z,3.1nm,0.7s,baz=5.7,slow=7.1,SNR=29
**WHY Whitehorse 56.43 36** *e*P **P** **20 00 51.5 +1.8**
comp=Z,12nm,0.9s
**ARU Arti 56.71 319***c* *i*P **P** **20 00 51.6 0.0**
ARU 20 01 47.2
ARU S **S** **20 08 43.6 +1.7**
ARU pmax pmax
comp=Z,34nm,1.0s
**ARU Arti 56.71 319** *e*P **P** **20 00 50.5 -1.2**
comp=Z,25nm,0.8s
**KBL Kabul 57.36 291** *e*P **P** **20 00 56.6 -0.3**
KBL pmax pmax
comp=Z,9.0nm,1.0s
**KBL Kabul 57.36 291** *e*P **P** **20 00 56.6 -0.3**
comp=Z,9.2nm,1.0s
**HYB Hyderabad 57.83 269** *i* P **P** **20 01 00.0 -0.1**
**AB31 Akbulak array 58.17 310***ce*P **P** **20 01 01.7 -0.3**
AB31 pmax pmax
comp=Z,11nm,0.7s
**AS01 Alice Springs 59.96 187** *e*P **P** **20 01 15.1 +0.5**
**AS31 Alice Springs 59.97 187** *e*P **P** **20 01 15.5 +0.8**
comp=Z,1.3nm,0.6s
**ASAR Alice Springs 59.97 187** P **P** **20 01 14.8 +0.1**
comp=Z,1.4nm,0.7s,baz=16,slow=8.0,SNR=24
**TMCR Tamitsa 63.26 331** *e*P **P** **20 01 39.0 +2.6**
TMCR pmax pmax
comp=Z,40nm,1.0s
**RES Resolute Bay 63.44 14** P **P** **20 01 38.9 +1.4**
comp=Z,2.4nm,0.8s,baz=303,slow=7.6,SNR=5.4
**GEYT Ailbeck 63.90 299** P **P** **20 01 41.5 +0.3**
comp=Z,4.6nm,0.8s,baz=44,slow=4.4,SNR=10
GEYT LR LR 20 32 48.7
comp=Z,175nm,18.6s,baz=25,slow=39
**KLMR Klimovskoe 64.22 328** *e*P **P** **20 01 40.8 -2.0**
KLMR *e* 20 04 02.5
KLMR pmax pmax
comp=Z,25nm,0.9s
**ARCES ARCESS Array B 64.60 339** P **P** **20 01 45.5 +0.3**
comp=Z,3.5nm,0.8s,baz=55,slow=6.6,SNR=3.5
**YKA Yellowknife Ar 64.66 30** P **P** **20 01 46.3 +0.6**
comp=Z,2.8nm,0.9s,baz=301,slow=6.7,SNR=18
**YKA Yellowknife Ar 64.66 30** *i* P **P** **20 01 46.7 +1.0**
YKA pmax pmax
comp=Z,3.0nm,0.9s
**AFI Afiamalu 66.91 129** LR LR 20 26 29.6
comp=Z,86nm,21.3s,baz=266,slow=32
**OUL Oulu 67.16 335** P **P** **20 02 00.9 -0.7**
OUL pmax pmax
comp=Z,30nm,2.5s
**MOS Moscow 67.66 323** *e*P P 20 02 12.7 +7.7
MOS pmax pmax
comp=Z,56nm,1.1s
**FORT Forrest 67.77 192** *e*P **P** **20 02 02.7 -3.2**
comp=Z,183nm,1.0s
**VRH Novokhopyorsk 67.92 318** *e*P **P** **20 02 05.5 -1.2**
VRH *e**SP **pP** **20 02 15.8 -0.7**
VRH pmax pmax
comp=Z,10.0nm,0.8s
**OBN Obninsk 68.51 323**⇓ *e*P **P** **20 02 10.6 +0.3**
OBN *e* 20 04 38.8
OBN *e*S SKiKP 20 11 38.9 -22
OBN pmax pmax
comp=Z,28nm,1.5s
**SUF Sumiainen 68.52 333** P **P** **20 02 09.9 -0.4**
SUF pmax pmax
comp=Z,39nm,0.8s
**LPSR Galich'ya Gora 68.67 320** *e*P **P** **20 02 11.2 -0.2**
LPSR *e**SP **pP** **20 02 20.7 -0.5**
LPSR pmax pmax
comp=Z,20nm,0.8s
**VSR Storozhevoye 69.28 319** *e*P **P** **20 02 14.4 -0.8**
VSR *e**SP **pP** **20 02 24.0 -1.0**
VSR pmax pmax
comp=Z,10.0nm,0.8s
**FIA1 FINESS Array S 69.34 332** *e*P **P** **20 02 15.8 +0.5**
**FINES FINESS Array B 69.34 332** P **P** **20 02 15.4 0.0**
comp=Z,7.6nm,0.8s,baz=43,slow=8.4,SNR=13
**FINES FINESS Array B 69.34 332** *i* P **P** **20 02 15.6 +0.2**
FINES pmax pmax
comp=Z,8.0nm,0.8s
**LTY Liberty 69.45 46** *e*P **P** **20 02 16.8 +0.3**
comp=Z,5.7nm,0.8s
**B08A Colville Reser 69.64 45** *e*P **P** **20 02 18.0 +0.4**
comp=Z,7.8nm,1.1s
**E07A Sunnyside 70.29 46** *e*P **P** **20 02 23.4 +1.8**
comp=Z,11nm,1.0s
**D08A Wollman Farm, 70.57 46** *e*P **P** **20 02 22.6 -0.7**
comp=Z,7.9nm,0.9s
**F07A Phinny Hill Vi 70.60 47** *e*P **P** **20 02 23.8 +0.4**
comp=Z,14nm,0.9s
**E08A Dider Farm, El 70.80 46** *e*P **P** **20 02 25.6 +1.0**
comp=Z,6.8nm,0.8s
**NCK Nalchik 70.83 310** *i* P **P** **20 02 24.2 -0.7**
NCK pmax pmax
comp=Z,4.0nm,1.0s
**NEW Newport 70.94 44** P **P** **20 02 26.9 +1.4**
comp=Z,3.6nm,0.8s,baz=313,slow=6.3,SNR=7.3
**NEW Newport 70.94 44** P **P** **20 02 27.0 +1.4**
NEW pmax pmax
comp=Z,4.0nm,0.8s
**VSU Vasula 70.94 330** *i* P **P** **20 02 26.3 +1.0**
VSU pmax pmax
comp=Z,31nm,0.9s
**YBH Yreka Blue Hor 71.11 52** P **P** **20 02 28.7 +2.0**
comp=Z,5.8nm,1.0s,baz=275,slow=5.1,SNR=10
**KBZ Khabaz 71.14 311** P **P** **20 02 27.1 +0.3**
comp=Z,6.7nm,0.8s,baz=33,slow=4.9,SNR=19
**KIV Kislovodsk 71.15 311** *e*P **P** **20 02 27.5 +0.6**
KIV pmax pmax
comp=Z,21nm,1.1s
**KIV Kislovodsk 71.15 311** *e*P **P** **20 02 25.4 -1.6**
comp=Z,14nm,0.9s
**NEY Neytrino 71.50 310** *i* P **P** **20 02 29.5 +0.3**
NEY pmax pmax
comp=Z,4.0nm,1.6s
**GNI Garni 71.89 307***ce*P **P** **20 02 33.1 +1.6**
GNI pmax pmax
comp=Z,44nm,1.2s
**F10A Beach Ranch, E 72.14 46** *e*P **P** **20 02 31.1 -1.8**
comp=Z,5.3nm,1.0s
**WALA Waterton Lakes 72.25 42** *e*P **P** **20 02 34.2 +0.7**
comp=Z,4.9nm,0.9s
**BMO Blue Mountains 72.72 47** P **P** **20 02 33.8 -2.6**
BMO pmax pmax
comp=Z,7.0nm,0.9s
**BMO Blue Mountains 72.72 47** P **P** **20 02 33.8 -2.6**
comp=Z,6.7nm,0.9s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **JTMT** | **Jette** | **72.81** | **43** | *e*P | **P** | **20 02 37.9** | **+1.0** |
| | comp=Z,9.2nm,1.0s | | | | | | | |
| **J08A** | **Circle Bar Ran** | **72.86** | **49** | *e*P | **P** | **20 02 36.6** | **-0.6** |
| | comp=Z,9.7nm,1.3s | | | | | | | |
| **IZAR** | **Zarasai** | **72.87** | **327** | *e*P | **P** | **20 02 37.8** | **+0.9** |
| IZAR | | | | IAmb | IAmb | 20 02 50.6 | | |
| | comp=Z,8.6nm,0.7s | | | | | | | |
| **IDID** | **Didziasalis** | **72.94** | **327** | *e*P | **P** | **20 02 38.1** | **+0.9** |
| IDID | | | | IAmb | IAmb | 20 02 48.5 | | |
| | comp=Z,9.4nm,0.9s | | | | | | | |
| **ISAL** | **Salakas** | **73.04** | **327** | *e*P | **P** | **20 02 38.8** | **+0.9** |
| ISAL | | | | IAmb | IAmb | 20 02 49.3 | | |
| | comp=Z,10nm,0.8s | | | | | | | |
| **IIGN** | **Ignalina** | **73.14** | **327** | *e*P | **P** | **20 02 39.5** | **+1.0** |
| IIGN | | | | IAmb | IAmb | 20 02 49.8 | | |
| | comp=Z,9.6nm,0.9s | | | | | | | |
| **PAHR** | **Pah Rah Range** | **74.33** | **52** | *e*P | **P** | **20 02 41.8** | **-4.1** |
| | comp=Z,9.3nm,1.0s | | | | | | | |
| **FFC** | **Flin Flon** | **74.55** | **32** | *e*P | **P** | **20 02 46.2** | **-0.6** |
| FFC | | | | pmax | pmax | | | |
| | comp=Z,11nm,1.4s | | | | | | | |
| **FFC** | **Flin Flon** | **74.55** | **32** | *e*P | **P** | **20 02 46.2** | **-0.6** |
| | comp=Z,12nm,1.4s | | | | | | | |
| **NC405** | **NORSAR Array S** | **74.55** | **337** | *e*P | **P** | **20 02 49.6** | **+2.9** |
| **CMB** | **Columbia Colle** | **74.61** | **54** | *e*P | **P** | **20 02 47.3** | **-0.2** |
| CMB | | | | pmax | pmax | | | |
| | comp=Z,52nm,1.0s | | | | | | | |
| **CMB** | **Columbia Colle** | **74.61** | **54** | *e*P | **P** | **20 02 47.3** | **-0.2** |
| | comp=Z,52nm,1.0s | | | | | | | |
| **AKASG** | **Malin Array Be** | **74.69** | **322** | P | **P** | **20 02 47.5** | **-0.1** |
| | comp=Z,5.4nm,0.7s,baz=48,slow=6.2,SNR=33 | | | | | | | |
| AKASG | | | | LR | LR | 20 37 34.7 | | |
| | comp=Z,275nm,20.1s,baz=300,slow=37 | | | | | | | |
| **AK11** | **Malin Array Si** | **74.74** | **322** | *e*P | **P** | **20 02 46.9** | **-1.0** |
| **HRY** | **Holter Researc** | **74.77** | **43** | *e*P | **P** | **20 02 48.2** | **-0.1** |
| **NB2** | **NORSAR Subarra** | **74.77** | **337** | P | **P** | **20 02 48.1** | **+0.1** |
| | comp=Z,19nm,0.8s,baz=41,slow=5.9 | | | | | | | |
| **NB2** | **NORSAR Subarra** | **74.77** | **337** | P | **P** | **20 02 48.1** | **+0.1** |
| | baz=41,slow=5.9 | | | | | | | |
| **NOA** | **NORSAR Array B** | **74.77** | **337** | P | **P** | **20 02 48.2** | **+0.3** |
| | comp=Z,4.3nm,0.8s,baz=40,slow=5.7,SNR=9.8 | | | | | | | |
| NOA | | | | LR | LR | 20 38 32.3 | | |
| | comp=Z,150nm,19.3s,baz=270,slow=38 | | | | | | | |
| **NBO02** | **NORSAR Array S** | **74.87** | **337** | *e*P | **P** | **20 02 48.5** | **-0.1** |
| **LRM** | **Limekiln Ridge** | **74.95** | **44** | *e*P | **P** | **20 02 50.3** | **+0.7** |
| **EGMT** | **Eagleton** | **75.09** | **41** | *e*P | **P** | **20 02 48.2** | **-2.0** |
| | comp=Z,10nm,0.9s | | | | | | | |
| **DLMT** | **Dillon** | **75.15** | **44** | *e*P | **P** | **20 02 51.7** | **+1.1** |
| | comp=Z,4.8nm,0.7s | | | | | | | |
| **BOZ** | **Bozeman (W)** | **75.55** | **44** | *e*P | **P** | **20 02 52.8** | **-0.1** |
| BOZ | | | | pmax | pmax | | | |
| | comp=Z,8.0nm,0.9s | | | | | | | |
| **BOZ** | **Bozeman (W)** | **75.55** | **44** | *e*P | **P** | **20 02 52.8** | **-0.1** |
| | comp=Z,8.2nm,0.9s | | | | | | | |
| **KLNR** | **Kaliningrad** | **76.21** | **329** | *e*P | **P** | **20 02 57.3** | **+1.0** |
| KLNR | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.9s | | | | | | | |
| **SORM** | **Soroca** | **76.77** | **321** | ⇑*i*P | **P** | **20 03 00.0** | **+0.4** |
| **SORM** | **Soroca** | **76.77** | **321** | ⇑P | **P** | **20 03 00.0** | **+0.4** |
| **H17A** | **Grant Village** | **76.88** | **44** | *e*P | **P** | **20 03 02.8** | **+2.2** |
| | comp=Z,17nm,1.1s | | | | | | | |
| **IMW** | **Indian Meadow** | **76.98** | **45** | *e*P | **P** | **20 03 02.9** | **+1.7** |
| | comp=Z,7.1nm,1.0s | | | | | | | |
| **R11A** | **Troy Canyon, C** | **77.53** | **52** | *e*P | **P** | **20 03 05.3** | **+1.0** |
| | comp=Z,7.7nm,1.0s | | | | | | | |
| **LVV** | **L'vov** | **77.80** | **324** | *e*P | **P** | **20 03 05.5** | **+0.2** |
| **PDAR** | **Pinedale Array** | **78.47** | **45** | P | **P** | **20 03 10.3** | **+0.8** |
| | comp=Z,1.7nm,0.7s,baz=265,slow=2.2,SNR=20 | | | | | | | |
| **PDAR** | **Pinedale Array** | **78.47** | **45** | *e*P | **P** | **20 03 10.1** | **+0.6** |
| **BURAR** | **Bucovina Array** | **78.70** | **322** | ⇑*i*P | **P** | **20 03 11.2** | **+0.7** |
| **BURAR** | **Bucovina Array** | **78.70** | **322** | ⇑P | **P** | **20 03 11.2** | **+0.7** |
| **TESR** | **Tescani** | **78.70** | **320** | ⇑*i*P | **P** | **20 03 11.0** | **+0.6** |
| **VRI** | **Vrincioaia** | **79.09** | **320** | ⇑*i*P | **P** | **20 03 14.2** | **+1.6** |
| **VRI** | **Vrincioaia** | **79.09** | **320** | ⇑P | **P** | **20 03 14.2** | **+1.6** |
| **BRTR** | **Keskin Array B** | **79.10** | **311** | P | **P** | **20 03 13.1** | **+0.2** |
| | comp=Z,3.0nm,0.9s,baz=97,slow=5.2,SNR=13 | | | | | | | |
| BRTR | | | | LR | LR | 20 41 55.3 | | |
| | comp=Z,111nm,18.8s,baz=304,slow=38 | | | | | | | |
| **PLOR** | **Plostina** | **79.14** | **320** | ⇑*i*P | P | 20 03 18.5 | +5.6 | |
| **PLOR** | **Plostina** | **79.14** | **320** | ⇑P | P | 20 03 18.5 | +5.6 | |
| **STHS** | **Stebnicka Huta** | **79.39** | **325** | *e*P | **P** | **20 03 17.6** | **+3.5** |
| STHS | | | | *e* | | 20 03 27.7 | | |
| STHS | | | | pmax | pmax | | | |
| | comp=Z,8.0nm,1.0s | | | | | | | |
| **STHS** | **Stebnicka Huta** | **79.39** | **325** | *e*P | **P** | **20 03 17.6** | **+3.5** |
| STHS | | | | *e* | | 20 03 27.7 | | |
| **CRVS** | **Cervenica-Dubn** | **79.65** | **324** | *e*P | **P** | **20 03 16.0** | **+0.4** |
| **CRVS** | **Cervenica-Dubn** | **79.65** | **324** | *e*P | **P** | **20 03 16.0** | **+0.4** |
| **ICOR** | **Ion Corvin** | **79.67** | **318** | ⇑*i*P | **P** | **20 03 18.2** | **+2.5** |
| **DOPR** | **Dopca** | **79.72** | **320** | ⇓*i*P | **P** | **20 03 17.6** | **+1.6** |
| **VOIR** | | **80.25** | **320** | ⇓*i*P | **P** | **20 03 20.4** | **+1.4** |
| **VOIR** | | **80.25** | **320** | ⇓P | **P** | **20 03 20.4** | **+1.4** |
| **ULM** | **Lac du Bonnet** | **80.35** | **33** | P | **P** | **20 03 20.6** | **+1.3** |
| | comp=Z,2.2nm,1.0s,baz=307,slow=5.1,SNR=3.1 | | | | | | | |
| **MTUR** | **Matau** | **80.39** | **320** | ⇑*i*P | P | 20 03 30.2 | +10 | |
| **MTUR** | **Matau** | **80.39** | **320** | ⇑P | P | 20 03 30.2 | +10 | |
| **LANS** | **Liptovska Anna** | **80.40** | **325** | *e*P | **P** | **20 03 21.9** | **+2.2** |
| LANS | | | | *e* | | 20 03 30.9 | | |
| **LANS** | **Liptovska Anna** | **80.40** | **325** | *e*P | **P** | **20 03 21.9** | **+2.2** |
| LANS | | | | *e* | | 20 03 30.9 | | |
| **OKC** | **Ostrava-Krasne** | **80.50** | **327** | *e*pP | pP | 20 03 31.0 | +0.9 | |
| **DRGR** | | **80.51** | **322** | ⇓*i*P | **P** | **20 03 21.0** | **+0.7** |
| **DRGR** | | **80.51** | **322** | ⇓P | **P** | **20 03 21.0** | **+0.7** |
| **ARR** | **Arges** | **80.51** | **320** | ⇓*i*P | **P** | **20 03 22.0** | **+1.6** |
| **U15A** | **North Rim** | **80.77** | **51** | *e*P | **P** | **20 03 22.7** | **+0.5** |
| | comp=Z,3.2nm,0.8s | | | | | | | |
| **MORC** | **Moravsky Berou** | **80.82** | **327** | ⇑*i*P | **P** | **20 03 22.9** | **+1.0** |
| **MORC** | **Moravsky Berou** | **80.82** | **327** | ⇑P | **P** | **20 03 22.9** | **+1.0** |
| **LOT** | **Lotru** | **80.90** | **321** | ⇑*i*P | **P** | **20 03 25.6** | **+3.1** |
| **O20A** | **White River Ci** | **80.91** | **47** | *e*P | **P** | **20 03 23.4** | **+0.6** |
| | comp=Z,7.6nm,0.9s | | | | | | | |
| **DPC** | **Dobruska-Polom** | **80.93** | **328** | *e*P | **P** | **20 03 23.5** | **+1.0** |
| DPC | | | | *e*pP | **pP** | **20 03 32.9** | **+0.5** |
| DPC | | | | *ex* | x | 20 03 41.2 | | |
| **DPC** | **Dobruska-Polom** | **80.93** | **328** | *e*P | **P** | **20 03 23.5** | **+1.0** |
| DPC | | | | *e**PP | **pP** | **20 03 32.9** | **+0.5** |
| DPC | | | | *e* | | 20 03 41.2 | | |
| **KRLC** | **Kraliky** | **80.93** | **327** | *ex* | pP | 20 03 33.0 | +0.6 | |
| **UPC** | **Upice** | **80.94** | **328** | *e*P | **P** | **20 03 23.7** | **+1.2** |
| **UPC** | **Upice** | **80.94** | **328** | *e*P | **P** | **20 03 23.7** | **+1.2** |
| **VYHS** | **Vyhne** | **81.16** | **325** | *e*P | **P** | **20 03 24.5** | **+0.8** |
| VYHS | | | | *e* | | 20 03 34.1 | | |
| VYHS | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,1.2s | | | | | | | |
| **VYHS** | **Vyhne** | **81.16** | **325** | *e*P | **P** | **20 03 24.5** | **+0.8** |
| VYHS | | | | *e* | | 20 03 34.1 | | |
| **BRG** | **Berggiesshubel** | **81.54** | **329** | *e*P | **P** | **20 03 26.4** | **+0.8** |
| BRG | | | | *PP | **pP** | **20 03 36.0** | **+0.4** |
| BRG | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,1.0s | | | | | | | |
| BRG | | | | pmax | pmax | | | |
| | comp=Z,11nm,1.0s | | | | | | | |
| **PVCC** | **Panska Ves** | **81.54** | **329** | *e*P | **P** | **20 03 26.9** | **+1.3** |
| PVCC | | | | *e*pP | **pP** | **20 03 36.3** | **+0.7** |
| PVCC | | | | *es*P | **sP** | **20 03 42.2** | **+3.0** |
| **PVCC** | **Panska Ves** | **81.54** | **329** | *e*P | **P** | **20 03 26.9** | **+1.3** |
| PVCC | | | | *e**PP | **pP** | **20 03 36.3** | **+0.7** |
| PVCC | | | | *e* | | 20 03 42.2 | | |
| **CLL** | **Collm** | **81.59** | **330** | *i* P | **P** | **20 03 26.4** | **+0.5** |
| CLL | | | | *i* | | 20 03 35.3 | | |
| CLL | | | | pmax | pmax | | | |
| | comp=Z,9.0nm,0.9s | | | | | | | |
| **CLL** | **Collm** | **81.59** | **330** | *i* P | **P** | **20 03 26.4** | **+0.5** |
| | comp=Z,9.0nm,0.9s | | | | | | | |
| CLL | | | | *i* pP | **pP** | **20 03 35.3** | **-0.6** |
| | comp=Z,25nm,0.9s | | | | | | | |
| **BZS** | **Buzias** | **81.88** | **322** | ⇑*i*P | **P** | **20 03 27.8** | **+0.3** |
| **BZS** | **Buzias** | **81.88** | **322** | ⇑P | **P** | **20 03 27.8** | **+0.3** |
| **GOPC** | **GO Pecny, Ondr** | **81.91** | **328** | *e*P | **P** | **20 03 28.9** | **+1.3** |
| GOPC | | | | *e*pP | **pP** | **20 03 37.7** | **+0.1** |
| GOPC | | | | *ex* | x | 20 03 43.0 | | |
| **GOPC** | **GO Pecny, Ondr** | **81.91** | **328** | *e*P | **P** | **20 03 28.9** | **+1.3** |
| GOPC | | | | *e**PP | **pP** | **20 03 37.7** | **+0.1** |
| GOPC | | | | *e* | | 20 03 43.0 | | |
| **PRA** | **Prague** | **81.94** | **328** | *e*pP | pP | 20 03 38.4 | +0.7 | |
| **PRU** | **Pruhonice** | **81.96** | **328** | *e*P | **P** | **20 03 28.9** | **+1.0** |
| PRU | | | | *e*pP | **pP** | **20 03 38.3** | **+0.5** |
| **PRU** | **Pruhonice** | **81.96** | **328** | *e*P | **P** | **20 03 28.9** | **+1.0** |
| PRU | | | | *e**PP | **pP** | **20 03 38.3** | **+0.5** |
| **HERR** | **Herculane** | **81.99** | **321** | ⇑*i*P | **P** | **20 03 30.0** | **+1.9** |
| **PV01** | **Paradox Valley** | **82.00** | **48** | *e*P | **P** | **20 03 30.3** | **+1.7** |
| **MDVR** | **Moldovita** | **82.42** | **321** | ⇑*i*P | **P** | **20 03 30.4** | **0.0** |
| **NKC** | **Novy Kostel** | **82.64** | **330** | *e*P | **P** | **20 03 33.7** | **+2.2** |
| NKC | | | | *e*pP | **pP** | **20 03 41.9** | **+0.4** |
| **NKC** | **Novy Kostel** | **82.64** | **330** | *e*P | **P** | **20 03 33.7** | **+2.2** |
| NKC | | | | *e**PP | **pP** | **20 03 41.9** | **+0.4** |
| **CONA** | **Conrad Observa** | **82.93** | **326** | *i* PcP | **P** | **20 03 34.3** | **+1.2** |
| | comp=Z,16nm,1.7s | | | | | | | |
| **KHC** | **Kasperske Hory** | **83.02** | **328** | *e*P | **P** | **20 03 34.2** | **+0.7** |
| KHC | | | | *e*pP | **pP** | **20 03 43.2** | **-0.2** |
| **KHC** | **Kasperske Hory** | **83.02** | **328** | *e*P | **P** | **20 03 34.2** | **+0.7** |
| KHC | | | | *e**PP | **pP** | **20 03 43.2** | **-0.2** |
| **VTS** | **Vitosha** | **83.17** | **319** | ⇓*i*P | **P** | **20 03 35.9** | **+1.4** |
| **VTS** | **Vitosha** | **83.17** | **319** | ⇓P | **P** | **20 03 35.9** | **+1.4** |
| **GERES** | **GERESS Array B** | **83.19** | **328** | P | **P** | **20 03 34.5** | **+0.1** |
| | comp=Z,1.3nm,0.8s,baz=46,slow=5.8,SNR=12 | | | | | | | |
| **GEA0** | **GERESS Array S** | **83.19** | **328** | *e*P | **P** | **20 03 34.5** | **+0.1** |
| **GRF** | **Grafenberg Arr** | **83.57** | **330** | P | **P** | **20 03 36.6** | **+0.4** |
| GRF | | | | pmax | pmax | | | |
| | comp=Z,29nm,0.9s | | | | | | | |
| **ARSA** | **Arzberg** | **83.59** | **326** | *i* PcP | **P** | **20 03 37.9** | **+1.5** |
| | comp=Z,7.9nm,1.1s | | | | | | | |
| **MOA** | **Molln** | **83.70** | **327** | *i* PcP | **P** | **20 03 38.6** | **+1.7** |
| | comp=Z,10nm,1.5s | | | | | | | |
| **PMOR** | **Pomariorio Ree** | **84.20** | **113** | *e*T | T | 21 36 15.2 | | |
| | comp=Z,13nm,0.2s | | | | | | | |
| **SOKA** | **Soboth** | **84.24** | **326** | *i* PcP | **P** | **20 03 40.4** | **+0.5** |
| | comp=Z,19nm,1.1s | | | | | | | |
| **SOH** | **Sokhos** | **84.32** | **317** | P | **P** | **20 03 39.8** | **-0.5** |
| SOH | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,0.9s | | | | | | | |
| **OBKA** | **Obir** | **84.59** | **326** | *i* PcP | **P** | **20 03 41.6** | **0.0** |
| | comp=Z,4.4nm,1.0s | | | | | | | |
| **PPT** | **Papeete** | **84.61** | **116** | LR | LR | 20 35 52.6 | | |
| | comp=Z,116nm,19.6s,baz=310,slow=32 | | | | | | | |
| **PPT2** | **Papete2** | **84.62** | **116** | eLR | LR | 20 30 20.0 | | |
| | comp=Z,154nm,21.0s | | | | | | | |
| **KBA** | **Koelnbreinsper** | **84.69** | **327** | P | **P** | **20 03 41.9** | **-0.3** |
| KBA | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,1.4s | | | | | | | |
| **KBA** | **Koelnbreinsper** | **84.69** | **327** | *i* PcP | **P** | **20 03 42.7** | **+0.5** |
| | comp=Z,8.3nm,1.0s | | | | | | | |
| **GRG** | **Griva** | **84.74** | **318** | P | **P** | **20 03 42.7** | **+0.3** |
| GRG | | | | pmax | pmax | | | |
| | comp=Z,18nm,1.5s | | | | | | | |
| **PAIG** | **Paliouri** | **84.76** | **317** | P | **P** | **20 03 42.7** | **+0.3** |
| PAIG | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.9s | | | | | | | |
| **MYKA** | **Terra Mystica** | **84.90** | **327** | *i* P | **P** | **20 03 38.6** | **-4.6** |
| | comp=Z,4.3nm,1.0s | | | | | | | |
| **STU** | **Stuttgart** | **85.11** | **330** | P | **P** | **20 03 44.5** | **+0.4** |
| STU | | | | pmax | pmax | | | |
| | comp=Z,33nm,1.0s | | | | | | | |
| **T25A** | **Trinidad** | **85.13** | **47** | *e*P | **P** | **20 03 45.4** | **+0.7** |
| | comp=Z,6.3nm,0.9s | | | | | | | |
| **WATA** | **Walderalm** | **85.26** | **328** | *i* PcP | **P** | **20 03 49.7** | **+4.7** |
| | comp=Z,3.7nm,0.9s | | | | | | | |
| **ABTA** | **Abfaltersbach** | **85.31** | **327** | *i* PcP | **P** | **20 03 45.0** | **-0.2** |
| | comp=Z,6.7nm,1.1s | | | | | | | |
| **PDG** | **Podgorica** | **85.34** | **321** | ⇑*i*P | **P** | **20 03 45.8** | **+0.5** |
| **ANMO** | **Albuquerque** | **85.36** | **50** | P | **P** | **20 03 47.5** | **+1.7** |
| | comp=Z,3.6nm,1.0s,baz=275,slow=5.3,SNR=7.5 | | | | | | | |
| **ANMO** | **Albuquerque** | **85.36** | **50** | *ce*P | **P** | **20 03 47.6** | **+1.7** |
| ANMO | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,1.2s | | | | | | | |
| **MOTA** | **Moosalm** | **85.45** | **328** | *i* PcP | **P** | **20 03 46.6** | **+0.7** |
| | comp=Z,3.7nm,0.9s | | | | | | | |
| **RETA** | **Reutte** | **85.48** | **329** | *i* PcP | **P** | **20 03 46.7** | **+0.6** |
| | comp=Z,12nm,0.9s | | | | | | | |
| **TRI** | **Trieste** | **85.55** | **326** | P | **P** | **20 03 45.6** | **-0.7** |
| TRI | | | | pmax | pmax | | | |
| | comp=Z,11nm,1.2s | | | | | | | |
| **BFO** | **Black Forest** | **85.81** | **331** | *ce*P | **P** | **20 03 48.4** | **+0.8** |
| **FETA** | **Feichten** | **85.86** | **328** | *i* pP | pP | 20 03 57.6 | -0.4 | |
| | comp=Z,5.9nm,0.9s | | | | | | | |
| **DAVA** | **Damuels** | **86.01** | **329** | *i* PcP | **P** | **20 03 49.6** | **+0.8** |
| | comp=Z,17nm,0.9s | | | | | | | |
| **FUORN** | **Ofenpass-Fuorn** | **86.38** | **328** | *e*P | **P** | **20 03 51.5** | **+0.7** |
| | comp=Z,14nm,1.0s | | | | | | | |
| **TBI** | **Tubuai** | **88.44** | **121** | *e*T | T | 21 41 33.6 | | |
| | comp=Z,4.9nm,0.2s | | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **90.88** | **52** | *e*P | **P** | **20 04 13.1** | **+0.8** |
| **TXAR** | **Lajitas Array** | **90.88** | **52** | P | **P** | **20 04 13.3** | **+1.1** |
| | comp=Z,1.4nm,0.8s,baz=305,slow=3.2,SNR=14 | | | | | | | |
| **KEST** | **Kesra** | **95.42** | **322** | LR | LR | 20 50 35.3 | | |
| | comp=Z,187nm,20.0s,baz=326,slow=37 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **117.62** | **314** | PKP | **PKPdf** | **20 09 54.8** | **+0.1** |
| | comp=Z,0.2nm,0.6s,baz=355,slow=1.7,SNR=2.6 | | | | | | | |
| **LPAZ** | **La Paz** | **147.39** | **60** | PKPbc | **PKPbc** | **20 10 53.9** | **+0.7** |
| | comp=Z,3.9nm,0.7s,baz=310,slow=2.4,SNR=18 | | | | | | | |

*ISCJB **11** 19:51:35.5±1.0,33.04S±0.05×69.94W±0.0, h118km±7km, Error ellipse: s-maj=8.6km s-min=5.3km az=153.0*
*SJA **11** 19:51:35.3±1.0,33.06S×69.94W, h108km±5km, ML3.2, MW3.2*
*GUC **11** 19:51:36.2±0.6,32.92S×69.98W, h113km±7km, ML3.2*
**ISC 11 19:51:35.4±2.2,33.07S±0.07×69.95W±0.05, h119km±15km, n18, σ0°60/33, 3C, Chile-Argentina border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FCH** | **Farellones** | **0.38** | **228** | *e*P | **Pn** | **19 51 53.5** | **+0.4** |
| FCH | | | | *e*S | **Sn** | **19 52 06.5** | **+0.2** |
| FCH | | | | IAML | | 19 52 07.1 | |
| | comp=E,1μm,0.3s | | | | | | |
| **CLCH** | **Cerro Calan** | **0.59** | **237** | ⇑*i*P | **Pn** | **19 51 54.3** | **+0.4** |
| CLCH | | | | *i* S | **Sn** | **19 52 08.1** | **+0.2** |
| CLCH | | | | IAML | | 19 52 09.0 | |
| | comp=E,743nm,0.2s | | | | | | |
| **PEL** | **Peldehue** | **0.62** | **263** | ⇑*i*P | **Pn** | **19 51 54.1** | **-0.1** |
| PEL | | | | *i* S | **Sn** | **19 52 07.9** | **-0.4** |
| **ANTU** | **Antumapu** | **0.76** | **229** | *e*P | **Pn** | **19 51 55.8** | **+0.6** |
| ANTU | | | | *i* S | **Sn** | **19 52 10.6** | **+0.4** |
| ANTU | | | | IAML | | 19 52 11.3 | |
| | comp=N,1μm,0.3s | | | | | | |
| **LMEL** | **Las Melosas** | **0.80** | **195** | IAML | | 19 52 19.0 | |
| | comp=N,472nm,0.1s | | | | | | |
| **ROCH** | **El Roble** | **0.90** | **276** | ⇑*i*P | **Pn** | **19 51 56.5** | **-0.1** |
| ROCH | | | | *e*S | **Sn** | **19 52 11.8** | **-0.8** |
| ROCH | | | | IAML | | 19 52 12.7 | |
| | comp=N,880nm,0.1s | | | | | | |
| **ROC1** | **El Roble** | **0.90** | **276** | *e*P | **Pn** | **19 51 56.6** | **0.0** |
| ROC1 | | | | *e*S | **Sn** | **19 52 12.0** | **-0.8** |
| **AAGR** | **Agrelo** | **0.94** | **91** | *e*P | **Pn** | **19 51 57.5** | **+0.6** |
| AAGR | | | | *e*S | **Sn** | **19 52 12.1** | **-1.1** |
| **AUSP** | **Uspallata** | **0.97** | **29** | *e*P | **Pn** | **19 51 57.7** | **+0.3** |
| AUSP | | | | *e*S | **Sn** | **19 52 13.9** | **-0.1** |
| **ASAL** | **Salagasta** | **1.05** | **63** | *e*P | **Pn** | **19 51 58.4** | **+0.4** |
| ASAL | | | | *e*S | **Sn** | **19 52 14.2** | **-0.9** |
| **AVIZ** | **Vizcacheras** | **1.27** | **109** | *e*P | **Pn** | **19 51 59.5** | **-0.7** |
| AVIZ | | | | *i* S | **Sn** | **19 52 19.3** | **+0.2** |
| **RTLS** | **Leoncito** | **1.39** | **24** | *e*P | **Pn** | **19 52 02.3** | **+0.5** |
| RTLS | | | | *i* S | **Sn** | **19 52 22.2** | **+0.4** |
| **RTCV** | **Cerro Valdivia** | **1.70** | **45** | *e*P | **Pn** | **19 52 05.5** | **+0.3** |
| RTCV | | | | *e*S | **Sn** | **19 52 27.2** | **-0.6** |
| **RTLL** | **Cerro Villicun** | **2.14** | **36** | *e*P | **Pn** | **19 52 11.0** | **+0.3** |
| RTLL | | | | *e*S | **Sn** | **19 52 37.2** | **-0.4** |
| **ACAN** | **Cantantal** | **2.46** | **72** | *e*P | **Pn** | **19 52 15.3** | **+0.6** |
| ACAN | | | | *e*S | **Sn** | **19 52 44.4** | **-0.5** |
| **AMOG** | **MOGNA** | **2.46** | **31** | *e*P | **Pn** | **19 52 15.6** | **+0.9** |
| AMOG | | | | *i* S | **Sn** | **19 52 44.9** | **0.0** |
| **AGUA** | **GUANDACOL** | **3.79** | **20** | *e*P | **Pn** | **19 52 32.8** | **+0.6** |
| **VCA** | **Vinchina** | **4.58** | **20** | *e*P | **Pn** | **19 52 43.0** | **+0.3** |
| VCA | | | | *e*S | **Sn** | **19 53 33.9** | **-1.3** |
| VCA | | | | IAML | | 19 53 43.2 | |
| | comp=Z,20nm,0.4s | | | | | | |

*IDC **11** 19:54:59.0±1.6,28.84S×176.16W, h0km, mb3.8/4, mb1 4.0/4, mb1mx3.7/40, mbtmp3.8/4, MS3.8/2, Ms1 3.8/2, ms1mx3.1/26, Error ellipse: s-maj=43.5km s-min=28.2km az=176.0*
*ISCJB **11** 19:55:01.1±1.6,28.7S±0.3×176.0W±0.1, h38km, mb3.9/4, Error ellipse: s-maj=40.7km s-min=16.7km az=169.9*
**ISC 11 19:55:04.3±1.4,28.8S±0.3×176.1W±0.1, h38km, n9, σ0°83/8, mb3.9/4, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **1.61** | **255** | Pn | **Pn** | **19 55 30.0** | **-0.2** |
| | 169nm,0.3s,baz=106,slow=10,SNR=11 | | | | | | |
| RAO | | | | Sn | **Sn** | **19 55 50.5** | **+0.8** |
| | 386nm,0.3s,baz=87,slow=17,SNR=6.2 | | | | | | |
| **URZ** | **Urewera** | **10.95** | **209** | LR | LR | 20 03 01.1 | |
| | comp=Z,466nm,18.1s,baz=40,slow=44 | | | | | | |
| **RPZ** | **Rata Peaks** | **18.05** | **211** | LR | LR | 20 06 51.1 | |
| | comp=Z,329nm,18.8s,baz=44,slow=40 | | | | | | |
| **STKA** | **Stephens Creek** | **36.43** | **254** | P | **P** | **20 02 05.1** | **-0.3** |
| | 1.2nm,0.6s,baz=88,slow=9.3,SNR=5.5 | | | | | | |
| **ASAR** | **Alice Springs** | **44.84** | **265** | P | **P** | **20 03 14.0** | **-1.0** |
| | 0.5nm,0.5s,baz=100,slow=7.9,SNR=7.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **45.69** | **270** | P | **P** | **20 03 21.4** | **-0.3** |
| | 1.2nm,0.6s,baz=109,slow=8.0,SNR=11 | | | | | | |
| **VNDA** | **Vanda** | **49.80** | **186** | P | **P** | **20 03 52.9** | **+0.1** |
| | 0.6nm,0.6s,baz=29,slow=13,SNR=5.5 | | | | | | |
| **FINES** | **FINESS Array B** | **144.21** | **342** | PKP | **PKPdf** | **20 14 35.4** | **0.0** |
| | 3.0nm,1.0s,baz=31,slow=4.4,SNR=5.3 | | | | | | |
| **AKASG** | **Malin Array Be** | **150.99** | **326** | PKPbc | **PKPbc** | **20 14 53.9** | **+1.2** |
| | 1.0nm,0.5s,baz=47,slow=3.4,SNR=4.5 | | | | | | |

*ISCJB **11** 19:58:19.3±0.6,35.08S±0.04×179.70W±0.09, h39km, mb4.5/10, MS3.9/9, Error ellipse: s-maj=10.7km s-min=5.3km az=17.3*
*NEIC **11** 19:58:20.7±0.6,35.02S×179.75W, h35km, mb4.3/2, Error ellipse: s-maj=15.4km s-min=12.4km az=114.0*
*IDC **11** 19:58:25.3±1.9,35.12S×179.99W, h71km±15km, mb4.3/8, mb1 4.5/10, mb1mx4.0/39, mbtmp4.5/10, MS3.9/9, Ms1 4.0/9, ms1mx3.8/21, Error ellipse: s-maj=18.6km s-min=12.6km az=171.0*
**ISC 11 19:58:20.8±0.6,35.02S±0.06×179.65W±0.08, h39km, n85, σ1°73/89, mb4.5/10, MS4.0/9, 1C, East of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MXZ** | **Matakaoa Point** | **3.02** | **212** | PN | **Pn** | **19 59 05.3** | **-0.8** |
| MXZ | | | | SN | **Sn** | **19 59 44.6** | **+3.6** |
| **WMGZ** | **Waiomatatini S** | **3.20** | **209** | PN | **Pn** | **19 59 08.0** | **-0.5** |
| WMGZ | | | | SN | **Sn** | **19 59 48.2** | **+2.9** |
| **PKGZ** | **Pakihiroa** | **3.40** | **212** | PN | **Pn** | **19 59 11.2** | **-0.1** |
| PKGZ | | | | SN | **Sn** | **19 59 51.1** | **+0.7** |
| **HAZ** | **Te Kaha** | **3.42** | **216** | PN | **Pn** | **19 59 11.8** | **+0.2** |
| **PUZ** | **Puketiti** | **3.48** | **208** | PN | **Pn** | **19 59 11.8** | **-0.6** |
| **RUGZ** | **Raukumara Rang** | **3.64** | **215** | PN | **Pn** | **19 59 14.9** | **+0.2** |
| RUGZ | | | | SN | **Sn** | **20 00 00.7** | **+4.2** |
| **TWGZ** | **Tauwhareparae** | **3.68** | **210** | PN | **Pn** | **19 59 14.7** | **-0.4** |
| TWGZ | | | | SN | **Sn** | **20 00 00.3** | **+2.9** |
| **CNGZ** | **Carnagh Statio** | **3.86** | **206** | PN | **Pn** | **19 59 17.5** | **-0.1** |
| CNGZ | | | | SN | **Sn** | **20 00 03.3** | **+1.6** |
| **TKGZ** | **Te Karaka** | **3.96** | **210** | PN | **Pn** | **19 59 18.8** | **-0.1** |
| **MWZ** | **Matawai** | **4.01** | **214** | PN | **Pn** | **19 59 19.2** | **-0.4** |
| **KUZ** | **Kuaotunu** | **4.13** | **244** | PN | **Pn** | **19 59 21.5** | **+0.2** |
| **URZ** | **Urewera** | **4.15** | **218** | P | **Pn** | **19 59 21.1** | **-0.5** |
| | 25nm,0.3s,baz=45,slow=3.3,SNR=78 | | | | | | |
| URZ | | | | S | **Sn** | **20 00 07.6** | **-1.1** |
| | 34nm,0.3s,baz=323,slow=23,SNR=5.7 | | | | | | |
| **URZ** | **Urewera** | **4.15** | **218** | PN | **Pn** | **19 59 20.7** | **-0.8** |
| **OPRZ** | **Ohinepanea** | **4.16** | **226** | PN | **Pn** | **19 59 21.2** | **-0.5** |
| **GRZ** | **Great Barrier** | **4.17** | **252** | PN | **Pn** | **19 59 22.0** | **+0.2** |
| **RAGZ** | **Rawiri** | **4.19** | **213** | PN | **Pn** | **19 59 21.4** | **-0.8** |
| **RIGZ** | **Rimuhau** | **4.22** | **209** | PN | **Pn** | **19 59 22.2** | **-0.4** |
| **PRGZ** | **Paritu Road** | **4.36** | **206** | PN | **Pn** | **19 59 23.7** | **-0.8** |
| **SNGZ** | **Shannon Statio** | **4.46** | **212** | PN | **Pn** | **19 59 25.5** | **-0.6** |
| **MUGZ** | **Murupara** | **4.49** | **219** | PN | **Pn** | **19 59 25.5** | **-0.7** |
| **RTZ** | **Ruatahuna** | **4.49** | **216** | PN | **Pn** | **19 59 25.3** | **-1.0** |
| **KNZ** | **Kokohu** | **4.53** | **207** | PN | **Pn** | **19 59 25.2** | **-1.6** |
| **MHGZ** | **Mahia Peninsul** | **4.56** | **205** | PN | **Pn** | **19 59 25.6** | **-1.7** |
| **MKAZ** | **Moumakai** | **4.69** | **242** | PN | **Pn** | **19 59 30.1** | **+1.2** |
|

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **FINES** | **FINESS Array B** | **148.91** | **336** | PKPbc | **PKPbc** | **20 18 03.2** | **-0.2** |
| | 7.9nm,0.6s,baz=40,slow=3.8,SNR=39 | | | | | | |
| **DBIC** | **Dimbokro** | **151.38** | **169** | PKPbc | **PKPbc** | **20 18 12.0** | **+1.1** |
| | 6.4nm,0.5s,baz=157,slow=2.3,SNR=22 | | | | | | |
| **NB2** | **NORSAR Subarra** | **153.05** | **348** | PKP | **PKPbc** | **20 18 13.4** | **+0.1** |
| | comp=Z,2.4nm,0.7s,baz=17,slow=2.6 | | | | | | |
| **NOA** | **NORSAR Array B** | **153.05** | **348** | PKPbc | **PKPbc** | **20 18 13.4** | **+0.1** |
| | comp=Z,2.8nm,0.7s,baz=28,slow=2.0,SNR=8.6 | | | | | | |
| **BRTR** | **Keskin Array B** | **153.22** | **290** | PKPbc | **PKPbc** | **20 18 13.2** | **-1.3** |
| | comp=Z,1.8nm,0.4s,baz=150,slow=3.9,SNR=25 | | | | | | |
| **AKASG** | **Malin Array Be** | **153.89** | **316** | PKPbc | **PKPbc** | **20 18 14.6** | **-0.8** |
| | comp=Z,0.8nm,0.4s,baz=50,slow=3.0,SNR=10 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **158.19** | **184** | PKP | **PKPdf** | **20 18 14.9** | **+0.7** |
| | comp=Z,1.4nm,1.2s,baz=238,slow=1.4,SNR=3.5 | | | | | | |
| TORD | | | | PKPab | **PKPab** | **20 18 47.9** | **0.0** |
| | comp=Z,2.6nm,0.7s,baz=171,slow=3.7,SNR=12 | | | | | | |

*ISK* ***11*** *20:04:39.2,38.°91N×43.°54E,h2km,MD2.7*
*ATA* ***11*** *20:04:39.7±0.9,38.°95N×43.°48E,h0±0km,17km,ML2.6, MW2.8*
*DDA* ***11*** *20:04:39.6,38.°83N×43.°54E,h7km,Ml2.8*
*ISCJB* ***11*** *20:04:41.0±0.5,38.°92N±0.°03×43.°52E±0.°05,h10±2km, Error ellipse: s-maj=6.4km s-min=5.3km az=18.1*
*CSEM* ***11*** *20:04:40.5±0.3,38.°92N×43.°49E,h8km,ML2.8,Error ellipse: s-maj=6.4km s-min=4.9km az=108.0*
**ISC 11 20:04:40.3±0.9, 38.°90N±0.°02×43.°53E±0.°03, h14km±6km, n36,σ0§67/47, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.10** | **19** | *i* P | | **Pg** | **20 04 43.0** | **-0.5** |
| VMUR | | | | *i* S | | **Sg** | **20 04 46.8** | **+1.0** |
| **VMUR** | **Van-Muradiye** | **0.10** | **19** | P | | **Pg** | **20 04 43.0** | **-0.5** |
| VMUR | | | | S | | **Sg** | **20 04 46.8** | **+1.0** |
| **ERCV** | **ERCIS-VAN** | **0.19** | **309** | *e*PG | | **Pg** | **20 04 44.2** | **-0.6** |
| ERCV | | | | *e*SG | | **Sg** | **20 04 47.7** | **-0.3** |
| **ERCV** | **ERCIS-VAN** | **0.19** | **309** | *e*Pg | | **Pg** | **20 04 44.2** | **-0.6** |
| ERCV | | | | *e*Sg | | **Sg** | **20 04 47.7** | **-0.3** |
| **VANB** | **Van** | **0.32** | **200** | *e*PG | | **Pb** | **20 04 47.8** | **-0.1** |
| VANB | | | | *e*SG | | **Sb** | **20 04 54.7** | **+1.7** |
| **VANB** | **Van** | **0.32** | **200** | *e*Pg | | **Pb** | **20 04 47.8** | **-0.1** |
| VANB | | | | *e*Sg | | **Sb** | **20 04 54.7** | **+1.7** |
| **CLDR** | **Caldiran** | **0.39** | **51** | *e*PG | | **Pg** | **20 04 47.5** | **-0.6** |
| CLDR | | | | *e*SG | | **Sg** | **20 04 53.5** | **0.0** |
| **CLDR** | **Caldiran** | **0.39** | **51** | *i* P | | **Pg** | **20 04 47.7** | **-0.4** |
| CLDR | | | | *i* S | | **Sb** | **20 04 55.3** | **+0.2** |
| **CLDR** | **Caldiran** | **0.39** | **51** | *e*Pg | | **Pg** | **20 04 47.5** | **-0.6** |
| CLDR | | | | *e*Sg | | **Sg** | **20 04 53.5** | **0.0** |
| CLDR | | | | S | | **Sb** | **20 04 55.3** | **+0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.64** | **262** | *i* P | | **Pg** | **20 04 52.2** | **-0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.64** | **262** | P | | **Pg** | **20 04 52.2** | **-0.5** |
| **DYDN** | **Diyadin** | **0.66** | **11** | *e*P | | **Pg** | **20 04 52.7** | **-0.5** |
| DYDN | | | | IAML | | | 20 05 07.8 | |
| | comp=Z,13nm,0.2s | | | | | | | |
| **DYDN** | **Diyadin** | **0.66** | **11** | *i* P | | **Pb** | **20 04 53.4** | **-0.3** |
| **DYDN** | **Diyadin** | **0.66** | **11** | P | | **Pb** | **20 04 53.4** | **-0.3** |
| **GEVA** | **Gevas** | **0.69** | **213** | *i* P | | **Pg** | **20 04 52.4** | **-1.4** |
| **GEVA** | **Gevas** | **0.69** | **213** | P | | **Pg** | **20 04 52.4** | **-1.4** |
| **TUTA** | **Tutak** | **0.75** | **312** | *i* P | | **Pg** | **20 04 53.8** | **-1.1** |
| TUTA | | | | *e*S | | **Sb** | **20 05 05.7** | **+0.2** |
| TUTA | | | | IAML | | | 20 05 11.3 | |
| | comp=Z,41nm,0.2s | | | | | | | |
| **TUTA** | **Tutak** | **0.75** | **312** | *i* P | | **Pg** | **20 04 54.0** | **-0.9** |
| **TUTA** | **Tutak** | **0.75** | **312** | P | | **Pg** | **20 04 54.0** | **-0.9** |
| **AGRB** | **Hanur-Agry** | **0.80** | **328** | *e*PG | | **Pg** | **20 04 55.3** | **-0.5** |
| **AGRB** | **Hanur-Agry** | **0.80** | **328** | *e*Pg | | **Pg** | **20 04 55.3** | **-0.5** |
| **EKAR** | **Karacoban** | **1.20** | **288** | *e*P | | **Pb** | **20 05 02.9** | **+0.1** |
| **EKAR** | **Karacoban** | **1.20** | **288** | *i* P | | **Pg** | **20 05 03.4** | **0.0** |
| **EKAR** | **Karacoban** | **1.20** | **288** | P | | **Pg** | **20 05 03.4** | **0.0** |
| **EATA** | **Eleskirt** | **1.26** | **320** | *e*P | | **Pn** | **20 05 03.5** | **-0.2** |
| **EATA** | **Eleskirt** | **1.26** | **320** | *i* P | | **Pb** | **20 05 04.0** | **0.0** |
| **EATA** | **Eleskirt** | **1.26** | **320** | P | | **Pb** | **20 05 04.0** | **0.0** |
| **DIGO** | **Kars** | **1.52** | **355** | *e*P | | **Pg** | **20 05 09.3** | **-0.2** |
| DIGO | | | | IAML | | | 20 05 42.0 | |
| | comp=Z,1.8nm,0.5s | | | | | | | |
| **DIGO** | **Kars** | **1.52** | **355** | *i* P | | **Pg** | **20 05 09.6** | **+0.1** |
| **DIGO** | **Kars** | **1.52** | **355** | P | | **Pg** | **20 05 09.6** | **+0.1** |
| **SIRT** | **Sirnak** | **1.64** | **212** | *e*PN | | **Pb** | **20 05 10.3** | **0.0** |
| **SIRT** | **Sirnak** | **1.64** | **212** | *e*Pn | | **Pb** | **20 05 10.3** | **0.0** |
| **CUKT** | **Cukurca** | **1.65** | **178** | *e*PN | | **Pb** | **20 05 10.5** | **0.0** |
| **CUKT** | **Cukurca** | **1.65** | **178** | *e*Pn | | **Pb** | **20 05 10.5** | **0.0** |
| **HOMI** | **Horasan** | **1.70** | **313** | *e*P | | **Pg** | **20 05 12.5** | **-0.4** |
| HOMI | | | | IAML | | | 20 05 29.8 | |
| | comp=Z,3.1nm,0.1s | | | | | | | |
| **ECAT** | **Cat-ERZURUM** | **2.11** | **290** | *e*P | | **Pb** | **20 05 18.4** | **0.0** |

*IDC* ***11*** *20:06:22.7±0.9,34.°94S×179.°52W,h0km,mb4.4/4, mb1 4.5/7,mb1mx4.1/35,mbtmp4.4/7,ML4.2/3,MS4.0/2, Ms1 4.0/2,ms1mx3.4/20,Error ellipse: s-maj=29.7km s-min=25.4km az=15.0*
*ISCJB* ***11*** *20:06:25.7±0.8,35.°03S±0.°04×179.°5W±0.°1,h43km, mb4.3/5,MS4.0/2,Error ellipse: s-maj=12.0km s-min=5.9km az=10.2*
*NEIC* ***11*** *20:06:28.1±0.8,34.°91S×179.°70W,h35km,mb4.0/1,Error ellipse: s-maj=20.8km s-min=14.3km az=99.0*
**ISC 11 20:06:29.0±0.8, 35.°04S±0.°07×179.°63W±0.°09, h43km, n81, σ1§48/83, mb4.3/5, East of North Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **MXZ** | **Matakaoa Point** | **3.01** | **213** | PN | | **Pn** | **20 07 13.7** | **-0.6** |
| MXZ | | | | SN | | **Sn** | **20 07 48.3** | **-0.8** |
| **WMGZ** | **Waiomatatini S** | **3.19** | **209** | PN | | **Pn** | **20 07 17.2** | **+0.7** |
| WMGZ | | | | SN | | **Sn** | **20 07 56.1** | **+2.8** |
| **PKGZ** | **Pakihiroa** | **3.39** | **212** | PN | | **Pn** | **20 07 19.4** | **0.0** |
| PKGZ | | | | SN | | **Sn** | **20 07 58.0** | **-0.3** |
| **HAZ** | **Te Kaha** | **3.42** | **217** | PN | | **Pn** | **20 07 19.9** | **+0.1** |
| HAZ | | | | SN | | **Sn** | **20 08 00.9** | **+2.0** |
| **PUZ** | **Puketiti** | **3.47** | **209** | PN | | **Pn** | **20 07 20.9** | **+0.4** |
| PUZ | | | | SN | | **Sn** | **20 08 01.0** | **+0.8** |
| **RUGZ** | **Raukumara Rang** | **3.63** | **216** | PN | | **Pn** | **20 07 23.6** | **+0.7** |
| RUGZ | | | | SN | | **Sn** | **20 08 06.8** | **+2.3** |
| **TWGZ** | **Tauwhareparae** | **3.67** | **211** | PN | | **Pn** | **20 07 24.2** | **+1.0** |
| TWGZ | | | | SN | | **Sn** | **20 08 03.9** | **-1.4** |
| **CNGZ** | **Carnagh Statio** | **3.85** | **206** | PN | | **Pn** | **20 07 26.3** | **+0.6** |
| CNGZ | | | | SN | | **Sn** | **20 08 11.9** | **+2.3** |
| **TKGZ** | **Te Karaka** | **3.95** | **210** | PN | | **Pn** | **20 07 27.2** | **+0.2** |
| TKGZ | | | | SN | | **Sn** | **20 08 12.1** | **+0.1** |
| **MWZ** | **Matawai** | **4.00** | **214** | PN | | **Pn** | **20 07 27.4** | **-0.4** |
| **KUZ** | **Kuaotunu** | **4.14** | **244** | PN | | **Pn** | **20 07 29.6** | **0.0** |
| KUZ | | | | SN | | **Sn** | **20 08 15.8** | **-0.9** |
| **URZ** | **Urewera** | **4.14** | **218** | Pn | | **Pn** | **20 07 29.8** | **0.0** |
| | 23nm,0.3s,baz=266,slow=3.4,SNR=58 | | | | | | | |
| URZ | | | | Sn | | **Sn** | **20 08 14.3** | **-2.5** |
| | 48nm,0.3s,baz=260,slow=23,SNR=9.0 | | | | | | | |
| **URZ** | **Urewera** | **4.14** | **218** | PN | | **Pn** | **20 07 29.7** | **0.0** |
| **OPRZ** | **Ohinepanea** | **4.15** | **227** | PN | | **Pn** | **20 07 29.6** | **-0.3** |
| **GRZ** | **Great Barrier** | **4.17** | **252** | PN | | **Pn** | **20 07 30.4** | **+0.3** |
| **RAGZ** | **Rawiri** | **4.18** | **214** | PN | | **Pn** | **20 07 30.1** | **-0.2** |
| **RIGZ** | **Rimuhau** | **4.21** | **209** | PN | | **Pn** | **20 07 30.1** | **-0.6** |
| **PRGZ** | **Paritu Road** | **4.35** | **206** | PN | | **Pn** | **20 07 32.1** | **-0.6** |
| **SNGZ** | **Shannon Statio** | **4.45** | **212** | PN | | **Pn** | **20 07 34.1** | **+0.1** |
| SNGZ | | | | SN | | **Sn** | **20 08 24.6** | **+0.1** |
| **MUGZ** | **Murupara** | **4.48** | **219** | PN | | **Pn** | **20 07 33.8** | **-0.5** |
| **RTZ** | **Ruatahuna** | **4.48** | **216** | PN | | **Pn** | **20 07 33.6** | **-0.9** |
| **KNZ** | **Kokohu** | **4.52** | **208** | PN | | **Pn** | **20 07 33.6** | **-1.3** |
| **MHGZ** | **Mahia Peninsul** | **4.55** | **205** | PN | | **Pn** | **20 07 34.1** | **-1.2** |
| **MKAZ** | **Moumakai** | **4.69** | **242** | PN | | **Pn** | **20 07 38.5** | **+1.2** |
| **MTHZ** | **Maungataniwha** | **4.74** | **216** | PN | | **Pn** | **20 07 37.9** | **0.0** |
| **WHHZ** | **Waihua** | **4.74** | **211** | PN | | **Pn** | **20 07 37.6** | **-0.3** |
| **TOZ** | **Tahuroa Road** | **4.75** | **234** | PN | | **Pn** | **20 07 38.6** | **+0.5** |
| **WCZ** | **Waipu Caves** | **4.99** | **258** | PN | | **Pn** | **20 07 42.2** | **+0.8** |
| **ARHZ** | **Aropaoanui** | **5.00** | **212** | PN | | **Pn** | **20 07 40.7** | **-0.7** |
| **AWAZ** | **Awhitu Peninsu** | **5.06** | **245** | PN | | **Pn** | **20 07 43.9** | **+1.7** |
| **BKZ** | **Black Stump Fm** | **5.15** | **216** | PN | | **Pn** | **20 07 42.6** | **-1.0** |
| **MCHZ** | **McNeill Hill** | **5.28** | **213** | PN | | **Pn** | **20 07 45.0** | **-0.3** |
| **KWHZ** | **Kaweka Forest** | **5.39** | **215** | PN | | **Pn** | **20 07 45.8** | **-1.0** |
| **KAHZ** | **Kahuranaki** | **5.50** | **209** | PN | | **Pn** | **20 07 46.8** | **-1.6** |
| **OTVZ** | **Oturere** | **5.57** | **221** | PN | | **Pn** | **20 07 48.4** | **-1.1** |
| **KRHZ** | **Kereru** | **5.59** | **214** | PN | | **Pn** | **20 07 49.1** | **-0.5** |
| **BHHZ** | **Black Hill Sta** | **5.61** | **216** | PN | | **Pn** | **20 07 49.1** | **-0.8** |
| **NGZ** | **Ngauruhoe** | **5.61** | **221** | PN | | **Pn** | **20 07 49.6** | **-0.4** |
| **HIZ** | **Hauiti** | **5.62** | **230** | PN | | **Pn** | **20 07 50.4** | **+0.4** |
| **WNVZ** | **Wahianoa** | **5.72** | **220** | PN | | **Pn** | **20 07 51.0** | **-0.6** |
| **TRVZ** | **Turoa** | **5.73** | **221** | PN | | **Pn** | **20 07 52.1** | **+0.4** |
| **PNHZ** | **Pukenui** | **5.88** | **213** | PN | | **Pn** | **20 07 52.0** | **-1.7** |
| **PRHZ** | **Porangahau** | **6.00** | **208** | PN | | **Pn** | **20 07 52.4** | **-2.7** |
| **TSZ** | **Takapari Road** | **6.11** | **214** | PN | | **Pn** | **20 07 55.8** | **-0.9** |
| **DVHZ** | **Dannevirke** | **6.21** | **211** | PN | | **Pn** | **20 07 57.1** | **-1.0** |
| **ANWZ** | **Angora Road** | **6.22** | **209** | PN | | **Pn** | **20 07 56.9** | **-1.4** |
| **BFZ** | **Birch Farm** | **6.50** | **209** | PN | | **Pn** | **20 07 58.3** | **-3.8** |
| **TIWZ** | **Tintock** | **6.73** | **210** | PN | | **Pn** | **20 08 02.9** | **-2.3** |
| **MRZ** | **Mangatainoka R** | **6.77** | **213** | PN | | **Pn** | **20 08 01.8** | **-3.9** |
| **HOWZ** | **Holdsworth Sta** | **6.99** | **212** | PN | | **Pn** | **20 08 05.9** | **-2.9** |
| **OGWZ** | **Otaki Gorge** | **7.08** | **214** | PN | | **Pn** | **20 08 07.5** | **-2.5** |
| **KIW** | **Kapiti Island** | **7.23** | **215** | PN | | **Pn** | **20 08 08.7** | **-3.4** |
| **SNZO** | **South Karori** | **7.68** | **214** | *e*Pn | | **Pn** | **20 08 17.5** | **-0.7** |
| **RPZ** | **Rata Peaks** | **11.26** | **217** | Pn | | **Pn** | **20 09 06.8** | **-0.5** |
| | 2.6nm,0.3s,baz=234,slow=2.1,SNR=8.0 | | | | | | | |
| RPZ | | | | Sn | | Sn | 20 10 57.7 | -14 |
| | 4.2nm,0.3s,baz=125,slow=19,SNR=12 | | | | | | | |
| **DZM** | **Mont Dzumac** | **17.77** | **313** | P | | **Pn** | **20 10 30.1** | **-3.1** |
| | 0.2nm,0.3s,baz=346,slow=20,SNR=3.8 | | | | | | | |
| **DZM** | **Mont Dzumac** | **17.77** | **313** | *e*P | | P | 20 10 47.3 | +14 |
| | 31nm,1.6s | | | | | | | |
| DZM | | | | *e*LR | | LR | 20 14 42.6 | |
| | 1μm,24.4s | | | | | | | |
| **TBI** | **Tubuai** | **28.69** | **74** | *e*T | | T | 20 41 49.5 | |
| | 6.4nm,0.3s | | | | | | | |
| **PAE** | **Paea** | **31.84** | **65** | *e*T | | T | 20 45 29.2 | |
| | 0.7nm,0.2s | | | | | | | |
| **PPT2** | **Papeete2** | **31.89** | **65** | *e*LR | | LR | 20 13 18.4 | |
| | 457nm,24.2s | | | | | | | |
| **PPT2** | **Papeete2** | **31.89** | **65** | *e*LR | | LR | 20 21 15.8 | |
| | 378nm,24.0s | | | | | | | |
| **TVO** | **Taravao** | **32.01** | **65** | *e*T | | T | 20 45 42.6 | |
| | 0.4nm,0.2s | | | | | | | |
| **STKA** | **Stephens Creek** | **32.37** | **264** | P | | **P** | **20 12 55.6** | **+1.2** |
| | 0.9nm,0.6s,baz=110,slow=15,SNR=3.0 | | | | | | | |
| **VAH** | **Vaihoa** | **34.82** | **64** | *e*T | | T | 20 49 10.2 | |
| | 5.7nm,0.3s | | | | | | | |
| **PMG** | **Port Moresby** | **39.63** | **302** | LR | | LR | 20 27 50.3 | |
| | comp=Z,260nm,20.1s,baz=177,slow=32 | | | | | | | |
| **RKT** | **Rikitea** | **40.49** | **85** | *e*LR | | LR | 20 25 11.5 | |
| | 388nm,29.5s | | | | | | | |
| **ASAR** | **Alice Springs** | **41.72** | **273** | P | | **P** | **20 14 14.4** | **+0.5** |
| | 16nm,0.5s,baz=115,slow=7.4,SNR=50 | | | | | | | |
| ASAR | | | | S | | **S** | **20 20 25.1** | **-3.0** |
| | 0.5nm,0.8s,baz=117,slow=14,SNR=6.1 | | | | | | | |
| **WRAB** | **Tennant Creek** | **43.13** | **278** | *e*P | | **P** | **20 14 22.9** | **-2.5** |
| | 2.1nm,0.6s | | | | | | | |
| **WRA** | **Warramunga Arr** | **43.13** | **278** | P | | **P** | **20 14 25.4** | **0.0** |
| | 4.2nm,0.5s,baz=118,slow=7.7,SNR=46 | | | | | | | |
| **VNDA** | **Vanda** | **43.35** | **186** | LR | | LR | 20 29 11.1 | |
| | comp=Z,151nm,19.6s,baz=292,slow=32 | | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **44.50** | **64** | *e*LR | | LR | 20 27 06.7 | |
| | 396nm,24.1s | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **51.16** | **274** | P | | **P** | **20 15 27.2** | **-0.7** |
| | 2.0nm,0.7s,baz=147,slow=8.0,SNR=6.3 | | | | | | | |
| **QSPA** | **South Pole Qui** | **55.08** | **180** | *e*P | | **P** | **20 15 59.5** | **+3.2** |
| **MKAR** | **Makanchi Array** | **119.64** | **308** | PKP | | **PKPdf** | **20 25 13.2** | **-0.6** |
| | 0.3nm,0.5s,baz=130,slow=3.8,SNR=3.6 | | | | | | | |
| **BVAR** | **Borovoye Array** | **128.67** | **313** | PKP | | **PKPdf** | **20 25 31.2** | **+0.3** |
| | 0.3nm,0.4s,baz=162,slow=3.0,SNR=6.4 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **142.78** | **346** | PKhKP | | PKPpre | 20 25 54.2 | |
| | 2.9nm,0.9s,baz=54,slow=3.0,SNR=5.4 | | | | | | | |
| **KBZ** | **Khabaz** | **146.31** | **298** | PKPbc | | **PKPab** | **20 26 06.8** | **+1.2** |
| | 1.6nm,0.9s,baz=270,slow=2.0,SNR=3.0 | | | | | | | |
| **FINES** | **FINESS Array B** | **148.93** | **336** | PKPbc | | **PKPbc** | **20 26 11.7** | **+0.4** |
| | 2.8nm,0.6s,baz=52,slow=4.0,SNR=21 | | | | | | | |
| **DBIC** | **Dimbokro** | **151.36** | **169** | PKPbc | | **PKPbc** | **20 26 18.7** | **+0.1** |
| | 1.7nm,0.4s,baz=175,slow=2.8,SNR=11 | | | | | | | |
| DBIC | | | | PKPab | | **PKPab** | **20 26 28.1** | **+1.5** |
| | 2.3nm,0.6s,baz=179,slow=1.6,SNR=5.4 | | | | | | | |
| **BRTR** | **Keskin Array B** | **153.25** | **290** | PKPbc | | **PKPbc** | **20 26 21.7** | **-0.6** |
| | 0.8nm,0.5s,baz=154,slow=3.9,SNR=11 | | | | | | | |
| **AKASG** | **Malin Array Be** | **153.91** | **316** | PKPbc | | **PKPbc** | **20 26 23.0** | **-0.1** |
| | 0.3nm,0.3s,baz=50,slow=2.8,SNR=5.1 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **158.17** | **183** | PKPab | | **PKPab** | **20 26 53.9** | **-1.6** |
| | 1.7nm,0.9s,baz=164,slow=3.4,SNR=6.9 | | | | | | | |

*BJI* ***11*** *20:18:13.3,6.°25S×130.°78E,h147km,mb4.8/51,mB5.0/34*
*ISCJB* ***11*** *20:18:13.7±0.2,5.°97S±0.°02×130.°77E±0.°03,h124km, mb4.8/50,Error ellipse: s-maj=4.1km s-min=3.0km az=158.9*
*NEIC* ***11*** *20:18:15.6±0.7,5.°96S×130.°58E,h128km±6km,mb4.8/17, Error ellipse: s-maj=9.0km s-min=5.8km az=66.0*
*IDC* ***11*** *20:18:16.3±2.5,5.°93S×130.°50E,h128km±23km,mb4.4/18, mb1 4.4/20,mb1mx4.2/41,mbtmp4.8/20,MS3.5/2, Ms1 3.4/2,ms1mx3.0/35,Error ellipse: s-maj=19.2km s-min=9.7km az=74.0*
*DJA* ***11*** *20:18:16.9±0.2,6.°5±2.°×13.°1E±.°,h126km±2km,M5.6/14, mb4.9/14,mB5.6/5,MLv6.2/1,Mw(mB)5.1/5*
*KLM* ***11*** *20:18:28.8,5.°77S×129.°79E,h157km,mb4.8*
**ISC 11 20:18:15.4±0.3, 5.°95S±0.°04×130.°67E±0.°04, h124km, n164, σ1§90/183, mb4.7/50, 4C-5D, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **BNDI** | **Bandanaira** | **1.60** | **332** | P | | **Pn** | **20 18 47.0** | **+2.7** |
| BNDI | | | | S | | **Sn** | **20 19 10.1** | **+3.8** |
| **SAUI** | **Saumlaki** | **2.12** | **163** | P | | **Pn** | **20 18 53.7** | **+3.2** |
| SAUI | | | | S | | **Sn** | **20 19 19.3** | **+1.8** |
| **SAUI** | **Saumlaki** | **2.12** | **163** | *e*Pn | | **Pn** | **20 18 53.7** | **+3.2** |
| **MSAI** | **Masohi** | **3.11** | **326** | P | | **Pn** | **20 19 05.1** | **+1.9** |
| MSAI | | | | S | | **Sn** | **20 19 40.8** | **+0.6** |
| **AAI** | **Ambon** | **3.33** | **312** | P | | **Pn** | **20 19 08.5** | **+2.3** |
| AAI | | | | S | | **Sn** | **20 19 47.4** | **+2.0** |
| **FAKI** | **Fak Fak** | **3.39** | **28** | P | | **Pn** | **20 19 07.3** | **+0.4** |
| FAKI | | | | S | | **Sn** | **20 19 45.3** | **-1.6** |
| **FAKI** | **Fak Fak** | **3.39** | **28** | *e*Pn | | **Pn** | **20 19 07.4** | **+0.4** |
| FAKI | | | | *e*Sn | | **Sn** | **20 19 42.2** | **-4.7** |
| **KMPI** | **Kaimana, Papua** | **3.78** | **53** | P | | **Pn** | **20 19 13.3** | **+1.2** |
| KMPI | | | | S | | **Sn** | **20 19 55.5** | **-0.5** |
| **NLAI** | **Namlea** | **4.46** | **307** | P | | **Pn** | **20 19 23.7** | **+2.6** |
| NLAI | | | | S | | **Sn** | **20 20 14.7** | **+2.5** |
| **SWI** | **Sorong** | **5.08** | **7** | P | | **Pn** | **20 19 29.2** | **-0.3** |
| SWI | | | | S | | **Sn** | **20 20 23.6** | **-3.6** |
| **SANI** | **Sanana** | **6.06** | **309** | P | | **Pn** | **20 19 43.5** | **+0.8** |
| SANI | | | | S | | **Sn** | **20 20 48.3** | **-2.6** |
| **LBMI** | **Labuha** | **6.15** | **329** | P | | **Pn** | **20 19 44.7** | **+0.8** |
| LBMI | | | | S | | **Sn** | **20 20 49.8** | **-3.1** |
| **MTN** | **Manton Dam** | **6.87** | **176** | P | | **Pn** | **20 19 54.0** | **+0.4** |
| | baz=6.9,SNR=86 | | | | | | | |
| **MTN** | **Manton Dam** | **6.87** | **176** | *e*Pn | | **Pn** | **20 19 54.1** | **+0.5** |
| **KDU** | **Kakadu** | **6.93** | **165** | P | | **Pn** | **20 19 54.1** | **-0.4** |
| | baz=6.9,SNR=197 | | | | | | | |
| **SOEI** | **Soe** | **7.38** | **239** | P | | **Pn** | **20 20 02.0** | **+1.3** |
| SOEI | | | | S | | **Sn** | **20 21 23.2** | **+0.1** |
| **SOEI** | **Soe** | **7.38** | **239** | *e*Pn | | **Pn** | **20 20 01.3** | **+0.6** |
| SOEI | | | | *e*Sn | | **Sn** | **20 21 23.7** | **+0.6** |
| **BBSI** | **Bau Bau** | **8.07** | **273** | P | | **Pn** | **20 20 14.2** | **+4.4** |
| **MMRI** | **Maumere** | **8.78** | **252** | P | | Pn | 20 20 24.5 | +5.1 |
| **MMRI** | **Maumere** | **8.78** | **252** | *e*Pn | | **Pn** | **20 20 19.2** | **-0.2** |
| MMRI | | | | *e*Sn | | **Sn** | **20 21 55.9** | **-0.8** |
| **LUWI** | **Luwuk** | **9.26** | **301** | P | | Pn | 20 20 37.5 | +12 |
| **LUWI** | **Luwuk** | **9.26** | **301** | *e*Pn | | **Pn** | **20 20 24.4** | **-1.6** |
| **KMSI** | **Cibinong** | **9.30** | **314** | P | | **Pn** | **20 20 28.6** | **+2.2** |
| | 108nm,0.6s | | | | | | | |
| **EDFI** | **Ende, Flores** | **9.33** | **252** | P | | **Pn** | **20 20 31.1** | **+4.2** |
| **KNRA** | **Kununurra** | **9.85** | **191** | P | | **Pn** | **20 20 32.5** | **-1.3** |
| | baz=9.9,SNR=344 | | | | | | | |
| **APSI** | **Ampana** | **10.30** | **299** | P | | **Pn** | **20 20 41.9** | **+2.0** |
| **BNSI** | **Bone** | **10.63** | **278** | P | | **Pn** | **20 20 47.6** | **+3.3** |
| **MRSI** | **Marisa** | **10.80** | **306** | P | | **Pn** | **20 20 47.3** | **+0.7** |
| **SPSI** | **Sidrap Palu** | **11.04** | **280** | P | | **Pn** | **20 20 53.2** | **+3.4** |
| **TTSI** | **Tana Toraja** | **11.19** | **284** | P | | **Pn** | **20 20 55.4** | **+3.5** |
| **WBSI** | **Waikabubak, Su** | **11.76** | **251** | P | | **Pn** | **20 21 00.3** | **+0.9** |
| **MPSI** | **Mapaga** | **12.43** | **300** | P | | **Pn** | **20 21 10.9** | **+2.7** |
| **FITZ** | **Fitzroy Crossi** | **13.04** | **202** | P | | **Pn** | **20 21 12.9** | **-3.1** |
| | 11nm,0.3s,baz=15,slow=6.9,SNR=255 | | | | | | | |
| FITZ | | | | S | | Sn | 20 23 28.2 | -12 |
| | 7.4nm,0.3s,baz=59,slow=21,SNR=11 | | | | | | | |
| **PLAI** | **Plampang** | **13.10** | **257** | P | | **Pn** | **20 21 17.4** | **+0.5** |
| **WRAB** | **Tennant Creek** | **14.36** | **166** | *e*Pn | | **Pn** | **20 21 30.5** | **-2.5** |
| WRAB | | | | *e*Sn | | Sn | 20 23 55.7 | -16 |
| **WRA** | **Warramunga Arr** | **14.37** | **166** | P | | **Pn** | **20 21 29.6** | **-3.5** |
| | 4.9nm,0.3s,baz=345,slow=13,SNR=102 | | | | | | | |
| WRA | | | | S | | Sn | 20 24 01.7 | -10 |
| | 15nm,0.3s,baz=353,slow=22,SNR=17 | | | | | | | |
| **WB2** | **Warramunga Arr** | **14.37** | **166** | *e*Pn | | **Pn** | **20 21 31.2** | **-1.9** |
| **CTBH** | **Cotabato--PC H** | **14.56** | **334** | i,iP | | **P** | **20 21 40.3** | **+1.6** |
| **COEN** | **Coen** | **14.66** | **124** | *e*Pn | | **Pn** | **20 21 36.0** | **-0.8** |
| COEN | | | | *e*Sn | | Sn | 20 24 07.5 | -12 |
| **KBKI** | **Kotabaru** | **14.69** | **280** | P | | **P** | **20 21 40.3** | **+0.2** |
| **BUKP** | **Musuan** | **14.83** | **338** | *e*P | | **Pn** | **20 21 39.1** | **+0.1** |
| BUKP | | | | *e*S | | **P** | **20 21 43.5** | **+1.9** |
| **MTKI** | **Muara Teweh, K** | **16.50** | **287** | P | | **P** | **20 22 02.6** | **+2.4** |
| **KMMI** | **Kalianget** | **16.63** | **265** | P | | **P** | **20 22 04.4** | **+2.8** |
| **PMG** | **Port Moresby** | **16.70** | **103** | P | | **P** | **20 22 04.9** | **+2.6** |
| | 1.5nm,0.3s,baz=285,slow=8.9,SNR=22 | | | | | | | |
| **PMG** | **Port Moresby** | **16.70** | **103** | *e*Pn | | **Pn** | **20 22 01.5** | **-0.6** |
| | 52nm,0.8s | | | | | | | |
| **MSLP** | **Maasin** | **16.99** | **340** | *e*S | | **Pn** | **20 22 08.5** | **+2.9** |
| **BLJI** | **Banyuglugur** | **17.05** | **263** | P | | **Pn** | **20 22 09.5** | **+3.2** |
| | 107nm,0.7s | | | | | | | |
| **SDKM** | **Sandakan** | **17.70** | **310** | i,iP | | **Pn** | **20 22 17.0** | **+2.6** |
| **AS31** | **Alice Springs** | **17.89** | **170** | *e*P | | **Pn** | **20 22 17.2** | **+0.7** |
| | 31nm,0.8s | | | | | | | |
| **ASAR** | **Alice Springs** | **17.89** | **170** | P | | **Pn** | **20 22 16.8** | **+0.3** |
| | 14nm,0.3s,baz=349,slow=10,SNR=1146 | | | | | | | |
| ASAR | | | | S | | **S** | **20 25 26.1** | **-8.8** |
| | 2.9nm,0.3s,baz=353,slow=25,SNR=13 | | | | | | | |
| **AS01** | **Alice Springs** | **17.90** | **170** | *e*P | | **Pn** | **20 22 16.7** | **+0.1** |
| **GRJI** | **Gresik** | **18.10** | **266** | P | | **Pn** | **20 22 20.6** | **+1.6** |
| **MBWA** | **Marble Bar** | **18.47** | **214** | *e*P | | **P** | **20 22 20.3** | **-1.4** |
| | 54nm,1.0s | | | | | | | |
| **KKM** | **Kota Kinabalu** | **18.71** | **309** | *e*P | | **P** | **20 22 21.3** | **-3.2** |
| | 74nm,0.7s | | | | | | | |
| **KDM** | **Kudat** | **18.81** | **313** | i,iP | | **Pn** | **20 22 29.0** | **+1.6** |
| **WRKA** | **Warakurna** | **19.12** | **187** | P | | **Pn** | **20 22 30.1** | **-0.9** |
| | baz=19,SNR=399 | | | | | | | |
| **PBKI** | **Pangkalan Bun** | **19.21** | **279** | P | | **Pn** | **20 22 34.2** | **+2.0** |
| **BTM** | **Bintulu** | **19.77** | **297** | i,iP | | **Pn** | **20 22 37.7** | **-1.0** |
| **STKI** | **Sintang** | **20.07** | **287** | P | | **P** | **20 22 40.2** | **+1.1** |
| | 14nm,0.5s,7μm | | | | | | | |
| **SBUM** | **Sibu** | **20.22** | **294** | i,iP | | Pn | 20 22 42.8 | -1.1 |
| **SJMP** | **San Jose** | **20.60** | **333** | *e*S | | Pn | 20 22 47.2 | -1.1 |
| **CTA** | **Charters Tower** | **20.66** | **134** | P | | Pn | 20 22 48.0 | -1.0 |
| | 15nm,0.8s,baz=316,slow=12,SNR=12 | | | | | | | |
| **CTAO** | **Charters Tower** | **20.66** | **134** | P | | **P** | **20 22 43.3** | **-2.2** |
| | 32nm,0.9s | | | | | | | |
| **KSM** | **Kuching** | **21.62** | **289** | i,iP | | **P** | **20 22 57.3** | **+1.5** |
| **KPJI**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 15nm,0.3s | | | | | | |
| **PKIN** | **Phulchoki** | **54.97** | **310** | *e*P | **P** | **20 27 33.6** | **-0.7** |
| **KKN** | **Kakani** | **55.17** | **310** | *e*P | **P** | **20 27 35.1** | **-0.5** |
| | 24nm,0.4s | | | | | | |
| **DMN** | **Daman** | **55.21** | **310** | *e*P | **P** | **20 27 35.6** | **-0.4** |
| | 27nm,0.4s | | | | | | |
| **GKN** | **Gorkha** | **55.77** | **310** | *e*P | **P** | **20 27 39.4** | **-0.5** |
| | 7.3nm,0.3s | | | | | | |
| **KOLN** | **Koldanda** | **56.45** | **309** | *e*P | **P** | **20 27 44.5** | **-0.3** |
| | 22nm,0.3s | | | | | | |
| **HYB** | **Hyderabad** | **56.46** | **295** | *i* P | **P** | **20 27 43.5** | **-1.3** |
| **DANN** | **Dangsing** | **56.61** | **310** | *e*P | **P** | **20 27 45.5** | **-0.5** |
| **PYUN** | **Piuthan** | **57.08** | **309** | *e*P | **P** | **20 27 49.0** | **-0.2** |
| **ULN** | **Ulaanbaatar** | **57.48** | **341** | *e*P | **P** | **20 27 52.4** | **+0.8** |
| | 15nm,0.7s | | | | | | |
| **SONM** | **Songino Array** | **57.66** | **341** | P | **P** | **20 27 53.8** | **+0.9** |
| | 5.0nm,0.5s,baz=162,slow=6.9,SNR=41 | | | | | | |
| **SONA1** | **Songino Array** | **57.67** | **341** | *e*P | **P** | **20 27 53.4** | **+0.4** |
| **WMQ** | **Urumqi** | **62.88** | **326** | P | **P** | **20 28 29.3** | **+0.9** |
| WMQ | | | | pP | PcP | 20 29 02.9 | -2.6 |
| WMQ | | | | sP | sP | 20 29 18.2 | +6.2 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,79nm,0.9s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,570nm,6.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,200nm,20.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,160nm,17.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,170nm,24.7s | | | | | | |
| **MK01** | **Makanchi Array** | **67.70** | **326** | *e*P | **P** | **20 28 59.7** | **+0.4** |
| **KSH** | **Kashi** | **67.70** | **317** | P | **P** | **20 29 00.9** | **+1.3** |
| KSH | | | | PcP | **PcP** | **20 29 26.3** | **+0.6** |
| KSH | | | | pP | pP | 20 29 35.7 | +5.6 |
| KSH | | | | PP | **PP** | **20 31 34.6** | **+4.0** |
| KSH | | | | S | **S** | **20 37 42.2** | **-5.3** |
| KSH | | | | ScS | **SKiKP** | **20 38 37.9** | **-6.8** |
| KSH | | | | SS | **SS** | **20 42 06.7** | **-4.5** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,11nm,0.7s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,59nm,4.0s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,260nm,7.9s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,300nm,10.0s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,400nm,9.6s | | | | | | |
| **MK31** | **Makanchi Array** | **67.72** | **326** | *e*P | **P** | **20 29 00.0** | **+0.5** |
| **MKAR** | **Makanchi Array** | **67.72** | **326** | P | **P** | **20 28 59.9** | **+0.5** |
| | 25nm,0.4s,baz=115,slow=7.7,SNR=483 | | | | | | |
| **MAKZ** | **Makanchi** | **67.90** | **326** | *e*P | **P** | **20 29 00.9** | **+0.3** |
| | 28nm,0.6s | | | | | | |
| **UCH** | **Uchtor** | **69.97** | **319** | P | **P** | **20 29 15.1** | **+1.1** |
| | SNR=25 | | | | | | |
| **AAK** | **Ala-Archa** | **70.17** | **319** | P | **P** | **20 29 16.3** | **+1.4** |
| | SNR=12 | | | | | | |
| **AAK** | **Ala-Archa** | **70.17** | **319** | *e*P | **P** | **20 29 14.8** | **-0.2** |
| | 19nm,1.1s | | | | | | |
| **CHMS** | **Chumysh** | **70.18** | **320** | P | **P** | **20 29 15.2** | **+0.4** |
| | SNR=6.5 | | | | | | |
| **USP** | **Ospenovka** | **70.47** | **320** | P | **P** | **20 29 17.2** | **+0.6** |
| | SNR=28 | | | | | | |
| **KBL** | **Kabul** | **70.60** | **310** | *e*P | **P** | **20 29 17.5** | **-0.3** |
| | 14nm,0.9s | | | | | | |
| **EKS2** | **Erkin-Say** | **70.65** | **319** | P | **P** | **20 29 18.9** | **+1.1** |
| | SNR=19 | | | | | | |
| **SEY** | **Seymchan** | **70.66** | **10** | P | **P** | **20 29 17.6** | **+0.5** |
| | 3.9nm,0.7s,baz=154,slow=3.7,SNR=8.5 | | | | | | |
| **ZAA0** | **Zalesovo Array** | **70.94** | **333** | *e*P | **P** | **20 29 18.8** | **-0.3** |
| **ZALV** | **Zalesovo Beam** | **70.94** | **333** | P | **P** | **20 29 18.6** | **-0.5** |
| | 3.8nm,0.3s,baz=113,slow=4.8,SNR=29 | | | | | | |
| **KURK** | **Kurchatov** | **71.97** | **328** | *e*P | **P** | **20 29 24.1** | **-1.2** |
| | 10nm,0.7s | | | | | | |
| **VNDA** | **Vanda** | **73.41** | **173** | P | **P** | **20 29 34.1** | **+0.6** |
| | 3.1nm,0.8s,baz=324,slow=6.9,SNR=9.7 | | | | | | |
| **MAW** | **Mawson** | **76.17** | **201** | P | **P** | **20 29 49.8** | **+0.4** |
| | 5.1nm,0.8s,baz=100,slow=6.8,SNR=5.3 | | | | | | |
| **BVAR** | **Borovoye Array** | **77.53** | **328** | P | **P** | **20 29 57.1** | **-0.3** |
| | 4.1nm,0.4s,baz=128,slow=8.4,SNR=43 | | | | | | |
| **BRVK** | **Borovoye** | **77.61** | **328** | *e*P | **P** | **20 29 57.2** | **-0.6** |
| | 9.0nm,0.8s | | | | | | |
| **GEYT** | **Alibeck** | **80.05** | **310** | P | **P** | **20 30 11.8** | **+0.3** |
| | 3.4nm,0.3s,baz=132,slow=2.2,SNR=12 | | | | | | |
| **QSPA** | **South Pole Qui** | **84.03** | **180** | *e*P | **P** | **20 30 30.6** | **-1.2** |
| | 5.4nm,0.6s | | | | | | |
| **ARU** | **Arti** | **85.17** | **328** | *e*P | **P** | **20 30 36.8** | **-0.8** |
| | 9.3nm,1.1s | | | | | | |
| **RAYN** | **Ar Rayn** | **87.93** | **294** | *e*P | **P** | **20 30 51.9** | **+0.1** |
| | 7.4nm,0.8s | | | | | | |
| **ILAR** | **Eielson Array** | **92.11** | **25** | P | **P** | **20 31 09.4** | **-0.9** |
| | 0.6nm,0.9s,baz=282,slow=3.7,SNR=4.8 | | | | | | |
| **ARCES** | **ARCESS Array B** | **100.83** | **340** | PKiKP | **PKiKP** | **20 36 14.1** | **-0.7** |
| | 3.7nm,1.0s,baz=126,slow=1.2,SNR=3.7 | | | | | | |
| **FINES** | **FINESS Array B** | **102.16** | **332** | PP | PP | 20 35 57.6 | -11 |
| | 2.3nm,0.8s,baz=131,slow=5.3,SNR=5.0 | | | | | | |
| **GERES** | **GERESS Array B** | **112.04** | **321** | PKiKP | **PKiKP** | **20 36 34.6** | **-1.7** |
| | 0.3nm,0.5s,baz=90,slow=1.3,SNR=4.7 | | | | | | |
| **TXAR** | **Lajitas Array** | **123.82** | **59** | PKP | **PKPdf** | **20 36 59.6** | **+0.1** |
| | 0.1nm,0.6s,baz=308,slow=4.4,SNR=3.2 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **129.25** | **282** | PKP | **PKPdf** | **20 37 10.1** | **0.0** |
| | 0.4nm,0.5s,baz=101,slow=2.7,SNR=10 | | | | | | |
| TORD | | | | SKPbc | SKPab | 20 40 17.5 | -2.0 |
| | 1.5nm,0.7s,baz=66,slow=3.9,SNR=9.3 | | | | | | |
| **DBIC** | **Dimbokro** | **135.80** | **273** | SKPbc | **SKPbc** | **20 40 40.2** | **-2.7** |
| | 2.5nm,0.7s,baz=50,slow=5.0,SNR=3.8 | | | | | | |
| **CPUP** | **Villa Florida** | **146.99** | **167** | PKPbc | **PKPbc** | **20 37 44.8** | **+0.5** |
| | 1.4nm,0.6s,baz=189,slow=4.8,SNR=3.6 | | | | | | |
| **LPAZ** | **La Paz** | **151.12** | **140** | PKPbc | **PKPbc** | **20 37 57.0** | **+1.2** |
| | 1.1nm,0.4s,baz=27,slow=4.5,SNR=7.4 | | | | | | |

*SOME* ***11*** *20:27:56.7, 42.15N×80.48E, h0km*
*KRNET* ***11*** *20:27:57.8±0.1, 42.48N×80.78E, mb2.9*

**ISC 11 20:28:01.0±2.3, 42.50N±0.08×80.6E±0.1, h10km, n12, σ2s36/20, 8C, Kyrgyzstan-Xinjiang border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KTMS** | **Ketmen** | **0.96** | **349** | *e*P | **Pn** | **20 28 21.2** | **+0.6** |
| | 7.6nm,0.2s | | | | | | |
| KTMS | | | | *e*S | Sn | 20 28 39.1 | +4.6 |
| | 6.9nm,0.2s | | | | | | |
| **SHLS** | **Shalkode** | **1.06** | **309** | *e*P | **Pb** | **20 28 18.2** | **-3.3** |
| | 12nm,0.2s | | | | | | |
| SHLS | | | | *e*S | **Sb** | **20 28 33.6** | **-1.9** |
| | 37nm,0.2s | | | | | | |
| **PDGK** | **Podgornoye** | **1.16** | **316** | ⇑*i*P | **Pg** | **20 28 22.1** | **-1.1** |
| | baz=312 | | | | | | |
| PDGK | | | | ⇑*i*S | **Sn** | **20 28 41.0** | **+1.6** |
| | baz=312 | | | | | | |
| **UZB** | **Uzynbulak** | **1.32** | **300** | *e*P | **Pn** | **20 28 24.6** | **-1.1** |
| | 1.4nm,0.2s | | | | | | |
| UZB | | | | *e*S | **Sg** | **20 28 44.4** | **+0.8** |
| | 5.5nm,0.4s | | | | | | |
| **PRZ** | **Przheval'sk** | **1.62** | **270** | ⇑*i*P | **Pg** | **20 28 31.5** | **-0.6** |
| | baz=270 | | | | | | |
| PRZ | | | | ⇑*i*S | **Sg** | **20 28 54.9** | **+1.7** |
| | baz=270 | | | | | | |
| **KPKS** | **Kokpek** | **1.70** | **305** | *e*P | **Pb** | **20 28 31.3** | **-1.1** |
| | 5.7nm,0.2s | | | | | | |
| KPKS | | | | *e*S | **Sg** | **20 28 56.4** | **+0.7** |
| | 26nm,0.5s | | | | | | |
| **ULHL** | **Ulahol** | **3.24** | **267** | ⇑*i*P | **Pb** | **20 28 54.4** | **-4.2** |
| | baz=267 | | | | | | |
| ULHL | | | | ⇑*i*S | **Sb** | **20 29 36.1** | **-2.1** |
| | baz=267 | | | | | | |
| **TKM2** | **Tokmak 2** | **3.71** | **278** | ⇑*i*P | **Pn** | **20 29 00.7** | **+2.2** |
| | baz=278 | | | | | | |
| TKM2 | | | | ⇑*i*S | **Sn** | **20 29 46.9** | **+4.6** |
| | baz=278 | | | | | | |
| **TKM2** | **Tokmak 2** | **3.71** | **278** | P | **Pg** | **20 29 12.1** | **+0.1** |
| | SNR=19 | | | | | | |
| **KZA** | **Kyzart** | **3.99** | **266** | P | **Pb** | **20 29 11.9** | **+0.3** |
| | SNR=12 | | | | | | |
| **KBK** | **Karagaybulak** | **4.17** | **274** | P | **Pb** | **20 29 13.7** | **-0.8** |
| | SNR=12 | | | | | | |
| **AML** | **Almayashu** | **5.13** | **268** | P | **Pn** | **20 29 18.1** | **-0.1** |
| | SNR=6.0 | | | | | | |

*ATH* ***11*** *20:29:56.2, 38.85N×25.97E, h28km±1km, ML2.9/5, Error ellipse: s-maj=2.8km s-min=1.1km az=75.0*
*ISCJB* ***11*** *20:29:57.5±0.5, 38.85N±0.02×25.98E±0.05, h18km±6km, Error ellipse: s-maj=7.3km s-min=3.9km az=167.5*

*CSEM* ***11*** *20:29:57.4±0.1, 38.85N×25.98E, h15km, ML2.9, Error ellipse: s-maj=4.2km s-min=2.4km az=82.0*
*ISK* ***11*** *20:29:57.4, 38.87N×26.04E, h16km, ML2.9*

**ISC 11 20:29:56.9±1.0, 38.84N±0.02×25.97E±0.03, h14km±10km, n56, σ0s49/68, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SIGR** | **SIGRI** | **0.38** | **347** | PG | **Pb** | **20 30 05.8** | **+0.4** |
| SIGR | | | | *e*SG | **Sb** | **20 30 10.9** | **-0.2** |
| **SIGR** | **SIGRI** | **0.38** | **347** | P | **Pg** | **20 30 05.0** | **+0.4** |
| SIGR | | | | S | **Sg** | **20 30 09.1** | **-0.6** |
| SIGR | | | | AML | AML | 20 30 10.8 | |
| | comp=E,1370μm,0.2s | | | | | | |
| SIGR | | | | AML | AML | 20 30 13.1 | |
| | comp=N,1936μm,0.4s | | | | | | |
| **SIGR** | **SIGRI** | **0.38** | **347** | P | **Pg** | **20 30 04.9** | **+0.4** |
| **SIGR** | **SIGRI** | **0.38** | **347** | *i* Pg | **Pb** | **20 30 05.8** | **+0.4** |
| SIGR | | | | S | **Sg** | **20 30 09.1** | **-0.6** |
| SIGR | | | | *e*Sg | **Sb** | **20 30 10.9** | **-0.2** |
| **CHOS** | **Chios island** | **0.46** | **171** | PG | **Pb** | **20 30 07.7** | **+0.8** |
| **CHOS** | **Chios island** | **0.46** | **171** | P | **Pb** | **20 30 07.2** | **+0.3** |
| CHOS | | | | S | **Sg** | **20 30 12.7** | **+0.3** |
| CHOS | | | | AML | AML | 20 30 13.3 | |
| | comp=N,2546μm,0.3s | | | | | | |
| CHOS | | | | AML | AML | 20 30 13.6 | |
| | comp=E,4290μm,0.2s | | | | | | |
| **CHOS** | **Chios island** | **0.46** | **171** | P | **Pb** | **20 30 07.2** | **+0.3** |
| **CHOS** | **Chios island** | **0.46** | **171** | *i* Pg | **Pb** | **20 30 07.7** | **+0.8** |
| CHOS | | | | S | **Sg** | **20 30 12.7** | **+0.3** |
| **PRK** | **Paraskevi** | **0.47** | **31** | P | **Pg** | **20 30 06.2** | **0.0** |
| PRK | | | | S | **Sb** | **20 30 13.3** | **-0.5** |
| PRK | | | | AML | AML | 20 30 16.8 | |
| | comp=E,3409μm,0.6s | | | | | | |
| PRK | | | | AML | AML | 20 30 17.3 | |
| | comp=N,3853μm,0.4s | | | | | | |
| **PRK** | **Paraskevi** | **0.47** | **31** | P | **Pg** | **20 30 06.2** | **0.0** |
| PRK | | | | S | **Sb** | **20 30 13.3** | **-0.5** |
| **URLA** | **Izmir** | **0.69** | **134** | *e*PG | **Pg** | **20 30 10.6** | **+0.2** |
| **URLA** | **Izmir** | **0.69** | **134** | *e*Pg | **Pg** | **20 30 10.6** | **+0.2** |
| **DKL** | **Dikili** | **0.77** | **73** | *e*PG | **Pb** | **20 30 12.1** | **0.0** |
| **DKL** | **Dikili** | **0.77** | **73** | *e*Pg | **Pb** | **20 30 12.1** | **0.0** |
| **BOZC** | **Bozcaada** | **1.00** | **4** | *e*PG | **Pb** | **20 30 15.6** | **-0.4** |
| **BOZC** | **Bozcaada** | **1.00** | **4** | *e*Pg | **Pb** | **20 30 15.6** | **-0.4** |
| **EZN** | **Ezine** | **1.02** | **16** | *e*PG | **Pb** | **20 30 16.1** | **-0.3** |
| **EZN** | **Ezine** | **1.02** | **16** | *e*Pg | **Pb** | **20 30 16.1** | **-0.3** |
| **LIA** | **Limnos Island** | **1.21** | **330** | P | **Pb** | **20 30 19.9** | **+0.2** |
| LIA | | | | S | **Sb** | **20 30 35.1** | **-0.1** |
| LIA | | | | AML | AML | 20 30 35.9 | |
| | comp=E,500μm,0.5s | | | | | | |
| LIA | | | | AML | AML | 20 30 38.7 | |
| | comp=N,761μm,0.5s | | | | | | |
| **LIA** | **Limnos Island** | **1.21** | **330** | P | **Pb** | **20 30 19.9** | **+0.2** |
| LIA | | | | S | **Sb** | **20 30 35.1** | **-0.1** |
| **SMG** | **Samos** | **1.32** | **149** | P | **Pn** | **20 30 20.2** | **-0.9** |
| SMG | | | | S | **Sb** | **20 30 38.5** | **0.0** |
| SMG | | | | AML | AML | 20 30 42.5 | |
| | comp=E,2236μm,0.3s | | | | | | |
| SMG | | | | AML | AML | 20 30 43.1 | |
| | comp=N,1808μm,0.4s | | | | | | |
| **SMG** | **Samos** | **1.32** | **149** | P | **Pn** | **20 30 20.2** | **-0.9** |
| SMG | | | | S | **Sb** | **20 30 38.5** | **0.0** |
| **GADA** | **Gvkgeada** | **1.35** | **358** | *e*PN | **Pb** | **20 30 21.8** | **-0.2** |
| **GADA** | **Gvkgeada** | **1.35** | **358** | *e*Pn | **Pb** | **20 30 21.8** | **-0.2** |
| **KARY** | **Karystos** | **1.45** | **236** | P | **Pn** | **20 30 22.4** | **-0.4** |
| **KARY** | **Karystos** | **1.45** | **236** | P | **Pn** | **20 30 22.4** | **-0.4** |
| **GCAM** | **G?zelcaml?** | **1.52** | **138** | *e*PN | **Pb** | **20 30 24.5** | **-0.4** |
| **GCAM** | **G?zelcaml?** | **1.52** | **138** | *e*Pn | **Pb** | **20 30 24.5** | **-0.4** |
| **GELI** | **Tayfur-Gelibol** | **1.60** | **14** | *e*PN | **Pn** | **20 30 25.0** | **+0.2** |
| **GELI** | **Tayfur-Gelibol** | **1.60** | **14** | *e*Pn | **Pn** | **20 30 25.0** | **+0.2** |
| **LPK** | **Lapseki** | **1.65** | **22** | *e*PN | **Pn** | **20 30 25.8** | **+0.3** |
| **LPK** | **Lapseki** | **1.65** | **22** | *e*Pn | **Pn** | **20 30 25.8** | **+0.3** |
| **SMTH** | **Samothraki Isl** | **1.66** | **348** | P | **Pb** | **20 30 27.1** | **-0.2** |
| **SMTH** | **Samothraki Isl** | **1.66** | **348** | P | **Pb** | **20 30 27.1** | **-0.2** |
| **BALB** | **Balikesir** | **1.69** | **61** | *e*PN | **Pn** | **20 30 26.0** | **0.0** |
| **BALB** | **Balikesir** | **1.69** | **61** | *e*Pn | **Pn** | **20 30 26.0** | **0.0** |
| **GONE** | **Gonen-Balikesi** | **1.79** | **47** | *e*PN | **Pn** | **20 30 28.0** | **+0.5** |
| **GONE** | **Gonen-Balikesi** | **1.79** | **47** | *e*Pn | **Pn** | **20 30 28.0** | **+0.5** |
| **APE** | **Apeiranthos** | **1.81** | **191** | *e*PN | **Pb** | **20 30 29.1** | **-0.7** |
| **APE** | **Apeiranthos** | **1.81** | **191** | P | **Pn** | **20 30 27.0** | **-0.7** |
| **APE** | **Apeiranthos** | **1.81** | **191** | P | **Pn** | **20 30 27.0** | **-0.7** |
| **APE** | **Apeiranthos** | **1.81** | **191** | *e*Pn | **Pb** | **20 30 29.1** | **-0.7** |
| **KRBG** | **Karabiga-Canak** | **1.86** | **33** | *e*PN | **Pn** | **20 30 28.3** | **0.0** |
| **KRBG** | **Karabiga-Canak** | **1.86** | **33** | *e*Pn | **Pn** | **20 30 28.3** | **0.0** |
| **BODT** | **Bodrum** | **2.07** | **149** | *e*PN | **Pn** | **20 30 32.6** | **+1.2** |
| **BODT** | **Bodrum** | **2.07** | **149** | *e*Pn | **Pn** | **20 30 32.6** | **+1.2** |
| **EDC** | **Edincik** | **2.10** | **44** | *e*PN | **Pn** | **20 30 32.2** | **+0.5** |
| **EDC** | **Edincik** | **2.10** | **44** | *e*Pn | **Pn** | **20 30 32.2** | **+0.5** |
| **KULA** | **Kula-Manisa** | **2.14** | **98** | *e*PN | **Pn** | **20 30 32.7** | **+0.4** |
| **KULA** | **Kula-Manisa** | **2.14** | **98** | *e*Pn | **Pn** | **20 30 32.7** | **+0.4** |
| **OUR** | **Ouranopolis** | **2.14** | **315** | *e*PN | **Pn** | **20 30 33.2** | **+1.0** |
| **OUR** | **Ouranopolis** | **2.14** | **315** | *e*Pn | **Pn** | **20 30 33.2** | **+1.0** |
| **KCTX** | **Karacabey (Bur** | **2.33** | **52** | *e*PN | **Pn** | **20 30 34.9** | **0.0** |
| **KCTX** | **Karacabey (Bur** | **2.33** | **52** | *e*Pn | **Pn** | **20 30 34.9** | **0.0** |
| **SIMA** | **Simav-Kutahya** | **2.37** | **83** | *e*PN | **Pn** | **20 30 35.8** | **+0.4** |
| **SIMA** | **Simav-Kutahya** | **2.37** | **83** | *e*Pn | **Pn** | **20 30 35.8** | **+0.4** |

**IDC 11 20:35:36.3±5.1, 13.17N×87.91W, h0km, mb3.2/2, mb1 3.7/2, mb1mx3.4/25, mbtmp3.3/2, Error ellipse: s-maj=142.4km s-min=87.8km az=49.0, Honduras**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TXAR** | **Lajitas Array** | **21.74** | **320** | P | P | 20 40 29.5 | 0.0 |
| | 0.4nm,0.5s,baz=142,slow=12,SNR=7.8 | | | | | | |
| **YKA** | **Yellowknife Ar** | **52.81** | **345** | P | P | 20 44 53.1 | -0.1 |
| | 0.2nm,0.4s,baz=130,slow=9.1,SNR=5.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **139.03** | **255** | PKP | PKPdf | 20 55 05.3 | -0.6 |
| | 0.3nm,0.8s,baz=91,slow=2.8,SNR=3.4 | | | | | | |

*ATA* ***11*** *20:42:23.7±0.8, 38.53N×43.57E, h13km±14km, ML3.5, MW3.4*
*ISCJB* ***11*** *20:42:28.9±0.6, 38.60N±0.03×43.12E±0.05, h2km±8km, Error ellipse: s-maj=6.3km s-min=4.7km az=29.1*
*ISK* ***11*** *20:42:28.2, 38.61N×43.18E, h6km, ML2.5*
*DDA* ***11*** *20:42:28.5, 38.56N×43.13E, h7km, Ml2.9*
*CSEM* ***11*** *20:42:28.5±0.2, 38.58N×43.14E, h2km, ML2.5, Error ellipse: s-maj=5.6km s-min=4.6km az=147.0*

**ISC 11 20:42:29.3±0.9, 38.58N±0.02×43.21E±0.03, h12km±7km, n54, σ1s19/62, 1D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.15** | **82** | *e*PG | **Pg** | **20 42 32.5** | **-0.3** |
| VANB | | | | *e*SG | **Sg** | **20 42 36.4** | **+1.0** |
| **VANB** | **Van** | **0.15** | **82** | *e*Pg | **Pg** | **20 42 32.5** | **-0.3** |
| VANB | | | | *e*Sg | **Sg** | **20 42 36.4** | **+1.0** |
| **GEVA** | **Gevas** | **0.29** | **204** | ⇓*i*P | **Pg** | **20 42 33.9** | **-1.4** |
| GEVA | | | | *e*S | **Sb** | **20 42 40.4** | **-1.0** |
| GEVA | | | | IAML | | 20 42 42.8 | |
| | comp=Z,340nm,0.4s | | | | | | |
| **GEVA** | **Gevas** | **0.29** | **204** | *i* P | **Pg** | **20 42 34.0** | **-1.2** |
| **GEVA** | **Gevas** | **0.29** | **204** | P | **Pg** | **20 42 34.0** | **-1.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.44** | **302** | *i* P | **Pg** | **20 42 36.8** | **-1.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.44** | **302** | P | **Pg** | **20 42 36.8** | **-1.3** |
| **VMUR** | **Van-Muradiye** | **0.50** | **35** | *i* P | **Pg** | **20 42 39.0** | **-0.2** |
| VMUR | | | | *i* S | **Sb** | **20 42 48.0** | **+0.4** |
| **VMUR** | **Van-Muradiye** | **0.50** | **35** | P | **Pg** | **20 42 39.0** | **-0.2** |
| VMUR | | | | S | **Sb** | **20 42 48.0** | **+0.4** |
| **CLDR** | **Caldiran** | **0.79** | **44** | *e*PG | **Pg** | **20 42 43.9** | **-0.8** |
| **CLDR** | **Caldiran** | **0.79** | **44** | *i* P | **Pg** | **20 42 43.9** | **-0.8** |
| CLDR | | | | *i* S | **Sn** | **20 42 58.0** | **-0.6** |
| **CLDR** | **Caldiran** | **0.79** | **44** | P | **Pg** | **20 42 43.9** | **-0.8** |
| CLDR | | | | S | **Sn** | **20 42 58.0** | **-0.6** |
| **TUTA** | **Tutak** | **0.88** | **340** | *i* P | **Pg** | **20 42 44.7** | **-1.7** |
| TUTA | | | | IAML | | 20 42 49.2 | |
| | comp=Z,103nm,0.2s | | | | | | |
| **TUTA** | **Tutak** | **0.88** | **340** | *i* P | **Pg** | **20 42 44.9** | **-1.5** |
| **TUTA** | **Tutak** | **0.88** | **340** | P | **Pg** | **20 42 44.9** | **-1.5** |
| **AGRB** | **Hanur-Agry** | **1.01** | **351** | *e*PG | **Pg** | **20 42 47.1** | **-1.7** |
| **AGRB** | **Hanur-Agry** | **1.01** | **351** | *e*Pg | **Pg** | **20 42 47.1** | **-1.7** |
| **DYDN** | **Diyadin** | **1.04** | **21** | *e*P | Pg | 20 42 43.2 | -6.1 |
| **EKAR** | **Karacoban** | **1.12** | **308** | *e*P | **Pg** | **20 42 49.9** | **-0.9** |
| EKAR | | | | *e*S | **Sn** | **20 43 11.1** | **+4.5** |
| EKAR | | | | IAML | | 20 43 19.6 | |
| | comp=Z,28nm,0.4s | | | | | | |
| **EKAR** | **Karacoban** | **1.12** | **308** | *i* P | **Pg** | **20 42 49.7** | **-1.2** |
| **EKAR** | **Karacoban** | **1.12** | **308** | P | **Pg** | **20 42 49.7** | **-1.2** |
| **SRTM** | **Siirt_Merkez** | **1.17** | **240** | *i* P | **Pb** | **20 42 51.3** | **-0.2** |
| **SIRT** | **Sirnak** | **1.23** | **210** | *e*PN | **Pg** | **20 42 52.7** | **-0.3** |
| **SIRT** | **Sirnak** | **1.23** | **210** | *e*Pn | **Pg** | **20 42 52.7** | **-0.3** |
| **CUKT** | **Cukurca** | **1.36** | **166** | *e*PN | **Pn** | **20 42 54.2** | **-0.1** |
| **CUKT** | **Cukurca** | **1.36** | **166** | *e*Pn | **Pn** | **20 42 54.2** | **-0.1** |
| **EATA** | **Eleskirt** | **1.40** | **337** | *e*P | **Pn** | **20 42 54.0** | **-1.0** |
| EATA | | | | IAML | | 20 42 57.1 | |
| | comp=Z,4.8nm,0.4s | | | | | | |
| EATA | | | | *e*S | **Sg** | **20 43 17.8** | **+3.4** |
| **EATA** | **Eleskirt** | **1.40** | **337** | *i* P | **Pn** | **20 42 54.2** | **-0.8** |
| **EATA** | **Eleskirt** | **1.40** | **337** | P | **Pn** | **20 42 54.2** | **-0.8** |
| **VRTB** | **Varto-Mus** | **1.48** | **294** | *e*PN | **Pn** | **20 42 55.7** | **-0.3** |
| **VRTB** | **Varto-Mus** | **1.48** | **294** | *i* P | **Pn** | **20 42 55.9** | **-0.1** |
| **VRTB** | **Varto-Mus** | **1.48** | **294** | *e*Pn | **Pn** | **20 42 55.7** | **-0.3** |
| **TASB** | **TASBURUN-IGDIR** | **1.62** | **29** | *e*PN | **Pn** | **20 42 57.7** | **-0.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.62** | **29** | *e*Pn | **Pn** | **20 42 57.7** | **-0.1** |
| **BNGL** | **BINGOL** | **1.65** | **284** | *e*PN12 | **Pb** | **20 42 59.4** | **-0.4** |
| BNGL | | | | IAML | | 20 43 26.8 | |
| | comp=Z,53nm,0.5s | | | | | | |
| **BNGL** | **BINGOL** | **1.65** | **284** | *i* P | **Pb** | **20 42 58.9** | **-0.9** |
| **HOMI** | **Horasan** | **1.78** | **326** | *e*P | **Pn** | **20 43 00.9** | **+0.7** |
| **HOMI** | **Horasan** | **1.78** | **326** | *i* P | **Pb** | **20 43 01.4** | **-0.6** |
| **DIGO** | **Kars** | **1.84** | **4** | *i* P | **Pb** | **20 43 02.4** | **-0.7** |
| **DIGO** | **Kars** | **1.84** | **4** | P | **Pb** | **20 43 02.4** | **-0.7** |
| **ERZM** | **Erzurum** | **1.95** | **314** | *e*PN12 | **Pb** | **20 43 03.2** | **-1.8** |
| **ERZM** | **Erzurum** | **1.95** | **314** | *i* P | **Pb** | **20 43 04.4** | **-0.5** |
| **ERZM** | **Erzurum** | **1.95** | **314** | P | **Pb** | **20 43 04.4** | **-0.5** |
| **BNGB** | **Bing¶ll** | **2.02** | **283** | *e*PN | **Pn** | **20 43 03.7** | **+0.4** |
| **ECAT** | **Cat-ERZURUM** | **2.02** | **301** | *e*PN12 | **Pn** | **20 43 04.0** | **+0.6** |
| ECAT | | | | IAML | | 20 43 39.8 | |
| | comp=Z,3.8nm,0.4s | | | | | | |
| **SENK** | **Senkaya-Erzuru** | **2.09** | **342** | *e*PN | **Pn** | **20 43 04.4** | **0.0** |
| **SENK** | **Senkaya-Erzuru** | **2.09** | **342** | *e*Pn | **Pn** | **20 43 04.4** | **0.0** |
| **EAK** | **Akyaka** | **2.13** | **8** | *e*P | **Pn** | **20 43 02.7** | **-2.2** |
| EAK | | | | IAML | | 20 43 32.1 | |
| | comp=Z,5.7nm,0.6s | | | | | | |
| **EAK** | **Akyaka** | **2.13** | **8** | *i* P | **Pg** | **20 43 10.0** | **-0.2** |
| **BINT** | **Bingol** | **2.15** | **279** | *e*Pn | **Pn** | **20 43 03.7** | **-1.4** |
| **YEDI** | **Yedisu-Bingol** | **2.25** | **293** | *e*PN | **Pn** | **20 43 06.3** | **-0.2** |
| **YEDI** | **Yedisu-Bingol** | **2.25** | **293** | *e*Pn | **Pn** | **20 43 06.3** | **-0.2** |
| **KOPT** | **Kop Dagi** | **2.55** | **305** | *e*PN12 | **Pn** | **20 43 12.2** | **+1.5** |
| KOPT | | | | IAML | | 20 43 21.6 | |
| | comp=Z,6.4nm,0.6s | | | | | | |

**MEX 11 20:49:34.2±1.2, 14.88N×93.83W, h17km±999km, MD3.8, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PCIG** | | **1.01** | **36** | *e*P | Pb | 20 49 49.0 | -4.3 |
| PCIG | | | | *e*S | Sb | 20 50 02.0 | -4.3 |
| **TGIG** | | **2.01** | **20** | *e*P | Pn | 20 50 04.2 | -3.2 |
| TGIG | | | | *e*S | Sn | 20 50 27.3 | -4.9 |
| **CCIG** | **Comitan** | **2.15** | **49** | *e*P | Pn | 20 50 08.2 | -1.3 |
| CCIG | | | | *e*S | Sn | 20 50 31.6 | -4.3 |

*ISN* ***11*** *20:52:19.4±1.4, 38.97N×43.30E, h0km±69km, ML3.9*
*NSSC* ***11*** *20:52:24.4±1.4, 39.59N×41.93E, h192km±35km, ML3.4*
*IDC* ***11*** *20:52:26.9±1.9, 38.15N×43.72E, h0km, mb3.6/2, mb1 3.3/8, mb1mx3.2/41, mbtmp3.3/8, ML2.3/5, Error ellipse: s-maj=31.2km s-min=13.3km az=135.0*
*ATA* ***11*** *20:52:29.4±0.8, 38.54N×43.14E, h12km±6km, ML4.6, MW4.4*
*ISK* ***11*** *20:52:29.1, 38.54N×43.20E, h5km, ML3.9*
*DDA* ***11*** *20:52:29.5, 38.50N×43.23E, h17km, MI3.9*
*CSEM* ***11*** *20:52:32.8±0.2, 38.63N×43.01E, h5km, ML3.9, Error ellipse: s-maj=6.5km s-min=3.4km az=162.0*
*AZER* ***11*** *20:52:33.8±2.0, 38.62N×42.87E, h24km±69km, Error ellipse: s-maj=53.6km s-min=11.4km az=59.0*

**ISC 11 20:52:29.8±0.8, 38.51N±0.02×43.25E±0.02, h13km±6km, n138, σ1s88/174, 12C-16D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.14** | **54** | *e*PG | **Pg** | **20 52 33.1** | **-0.4** |
| VANB | | | | *e*SG | **Sg** | **20 52 36.1** | **+0.1** |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **BNGB** | **Bing**↑‖ | **2.06** | **284** | *e*PN | | **Pn** | **20 53 05.2** | **+1.0** |
| **ECAT** | **Cat-ERZURUM** | **2.08** | **302** | *e*P | | **Pb** | **20 53 06.7** | **-0.7** |
| **ECAT** | **Cat-ERZURUM** | **2.08** | **302** | *i* P | | **Pb** | **20 53 07.3** | **-0.2** |
| **ECAT** | **Cat-ERZURUM** | **2.08** | **302** | P | | **Pb** | **20 53 07.3** | **-0.2** |
| **KARS** | **Kars** | **2.12** | **357** | *e*PN | | **Pb** | **20 53 06.6** | **-1.5** |
| **KARS** | **Kars** | **2.12** | **357** | *e*Pn | | **Pb** | **20 53 06.6** | **-1.5** |
| **SENK** | **Senkaya-Erzuru** | **2.16** | **342** | *e*PN | | **Pb** | **20 53 07.4** | **-1.4** |
| **SENK** | **Senkaya-Erzuru** | **2.16** | **342** | *e*Pn | | **Pb** | **20 53 07.4** | **-1.4** |
| **BINT** | **Bingol** | **2.19** | **280** | *e*Pn | | **Pn** | **20 53 05.3** | **-0.6** |
| **EAK** | **Akyaka** | **2.19** | **7** | *e*PN12 | | **Pb** | **20 53 09.6** | **+0.3** |
| EAK | | | | IAML | | | 20 53 19.6 | |
| | comp=Z,123nm,0.6s | | | | | | | |
| **EAK** | **Akyaka** | **2.19** | **7** | *i* P | | **Pg** | **20 53 11.7** | **0.0** |
| **EAK** | **Akyaka** | **2.19** | **7** | P | | **Pg** | **20 53 11.7** | **0.0** |
| **ORD** | **Ordubad** | **2.19** | **78** | P | | **Pg** | **20 53 12.0** | **+0.2** |
| ORD | | | | S | | **Sg** | **20 53 42.6** | **+2.5** |
| **HANI** | **Diyarbakir_Han** | **2.24** | **268** | *i* P | | **Pb** | **20 53 08.1** | **-2.0** |
| **HANI** | **Diyarbakir_Han** | **2.24** | **268** | P | | **Pb** | **20 53 08.1** | **-2.0** |
| **MARD** | **Mardin** | **2.29** | **239** | *i* P | | **Pb** | **20 53 09.0** | **-2.0** |
| **YEDI** | **Yedisu-Bingol** | **2.30** | **295** | *e*PN | | **Pn** | **20 53 08.8** | **+1.3** |
| **YEDI** | **Yedisu-Bingol** | **2.30** | **295** | *e*Pn | | **Pn** | **20 53 08.8** | **+1.3** |
| **DIY** | **Diyarbakir** | **2.46** | **256** | *e*Pn | | **Pb** | **20 53 12.6** | **-1.2** |
| **DYBB** | **Diyarbakir** | **2.51** | **258** | *e*PN | | **Pb** | **20 53 12.6** | **-2.1** |
| **DIYA** | **Diyarbakir** | **2.53** | **258** | *i* P | | **Pn** | **20 53 12.1** | **+1.5** |
| **DIYA** | **Diyarbakir** | **2.53** | **258** | P | | **Pn** | **20 53 12.1** | **+1.5** |
| **KOPT** | **Kop Dagi** | **2.61** | **306** | *e*P | | **Pb** | **20 53 14.9** | **-1.6** |
| KOPT | | | | IAML | | | 20 53 23.7 | |
| | comp=Z,95nm,0.6s | | | | | | | |
| **KOPT** | **Kop Dagi** | **2.61** | **306** | *i* P | | **Pg** | **20 53 18.4** | **-1.4** |
| **KBSD** | **Kabsdagh** | **2.62** | **236** | *e*P | | **Pn** | **20 53 12.9** | **+1.1** |
| KBSD | | | | *e*S | | **Sb** | **20 53 46.5** | **-2.2** |
| KBSD | | | | AML | | AML | 20 54 02.3 | |
| | comp=Z,300nm,0.6s | | | | | | | |
| **DDEM** | **Demirkent** | **2.64** | **335** | *i* P | | **Pg** | **20 53 18.7** | **-1.7** |
| **DAGI** | **Agillar** | **2.76** | **339** | *i* P | | **Pb** | **20 53 20.3** | **+1.3** |
| **BGD** | **Bogdanovka** | **2.76** | **6** | P | | **Pg** | **20 53 21.4** | **-1.3** |
| **ARTV** | **Artvin** | **2.85** | **340** | *e*P | | **Pb** | **20 53 18.9** | **-1.8** |
| ARTV | | | | IAML | | | 20 53 31.6 | |
| | comp=Z,19nm,0.6s | | | | | | | |
| **AKH** | **Akhalkalaki** | **2.90** | **4** | *e*PN | | **Pn** | **20 53 18.0** | **+2.2** |
| **AKH** | **Akhalkalaki** | **2.90** | **4** | P | | **Pg** | **20 53 24.3** | **-1.1** |
| **AKH** | **Akhalkalaki** | **2.90** | **4** | *e*Pn | | **Pn** | **20 53 18.0** | **+2.2** |
| **GDB** | **GEDABAY** | **2.94** | **41** | ⇑P | | **Pb** | **20 53 20.8** | **-1.2** |
| | SNR=14 | | | | | | | |
| GDB | | | | ⇓S | | **Sb** | **20 53 57.7** | **-0.2** |
| **GDB** | **GEDABAY** | **2.94** | **41** | P | | **Pb** | **20 53 20.8** | **-1.2** |
| | SNR=14 | | | | | | | |
| GDB | | | | S | | **Sb** | **20 53 57.7** | **-0.2** |
| **ERZN** | **Erzincan** | **2.95** | **292** | *e*PN | | **Pn** | **20 53 18.6** | **+2.2** |
| **TNCL** | **Tunceli-Merkez** | **2.96** | **283** | *e*PN12 | | **Pn** | **20 53 19.4** | **+2.9** |
| **TNCL** | **Tunceli-Merkez** | **2.96** | **283** | *i* P | | **Pb** | **20 53 23.1** | **+0.8** |
| **EUZM** | **Uzumlu** | **3.01** | **294** | *e*P | | **Pn** | **20 53 19.6** | **+2.4** |
| **EPOS** | **Posof** | **3.01** | **353** | *e*PN12 | | **Pn** | **20 53 19.9** | **+2.6** |
| **QZX** | **Qazax, Azerbai** | **3.02** | **32** | ⇓P | | **Pb** | **20 53 21.3** | **-2.1** |
| | SNR=25 | | | | | | | |
| QZX | | | | ⇓S | | **Sb** | **20 53 58.5** | **-1.8** |
| **QZX** | **Qazax, Azerbai** | **3.02** | **32** | P | | **Pb** | **20 53 21.3** | **-2.1** |
| | SNR=25 | | | | | | | |
| QZX | | | | S | | **Sb** | **20 53 58.5** | **-1.8** |
| **PTK** | **Pertek** | **3.04** | **278** | *e*PN | | **Pn** | **20 53 20.0** | **+2.3** |
| **PTK** | **Pertek** | **3.04** | **278** | *e*Pn | | **Pn** | **20 53 20.0** | **+2.3** |
| **GANJ** | **Ganja** | **3.19** | **47** | ⇑P | | **Pb** | **20 53 24.6** | **-1.7** |
| | SNR=8.6 | | | | | | | |
| GANJ | | | | ⇓S | | **Sb** | **20 54 04.4** | **-0.7** |
| **GANJ** | **Ganja** | **3.19** | **47** | P | | **Pb** | **20 53 24.6** | **-1.7** |
| | SNR=8.6 | | | | | | | |
| GANJ | | | | S | | **Sb** | **20 54 04.4** | **-0.7** |
| **SFNV** | **Sufian** | **3.25** | **231** | *e*P | | **Pn** | **20 53 21.3** | **+0.7** |
| SFNV | | | | *e*S | | **Sn** | **20 54 01.1** | **+1.9** |
| SFNV | | | | AML | | AML | 20 54 25.9 | |
| | comp=Z,110nm,0.7s | | | | | | | |
| **MZRK** | **Al-Mazaregh** | **3.39** | **218** | *e*P | | **Pn** | **20 53 25.6** | **+3.3** |
| MZRK | | | | *e*S | | **Sb** | **20 54 10.5** | **-0.3** |
| MZRK | | | | AML | | AML | 20 54 31.1 | |
| | comp=Z,293nm,0.6s | | | | | | | |
| **KELT** | **Kelkit** | **3.50** | **299** | *e*PN12 | | **Pb** | **20 53 27.4** | **-4.2** |
| **BRDA** | **Brd** | **3.51** | **59** | ⇓P | | **Pb** | **20 53 29.5** | **-2.3** |
| | SNR=6.7 | | | | | | | |
| BRDA | | | | ⇓S | | **Sb** | **20 54 13.3** | **-1.0** |
| **BRDA** | **Brd** | **3.51** | **59** | P | | **Pb** | **20 53 29.5** | **-2.3** |
| | SNR=6.7 | | | | | | | |
| BRDA | | | | S | | **Sb** | **20 54 13.3** | **-1.0** |
| **URFA** | **Urfa** | **3.66** | **254** | *e*PN | | **Pn** | **20 53 28.5** | **+2.4** |
| **URFA** | **Urfa** | **3.66** | **254** | *e*Pn | | **Pn** | **20 53 28.5** | **+2.4** |
| **MNGR** | **Mingechevir, A** | **3.73** | **52** | ⇑P | | **Pb** | **20 53 32.0** | **-3.4** |
| MNGR | | | | ⇓S | | **Sb** | **20 54 17.7** | **-2.7** |
| **MNGR** | **Mingechevir, A** | **3.73** | **52** | P | | **Pb** | **20 53 32.0** | **-3.4** |
| MNGR | | | | S | | **Sb** | **20 54 17.7** | **-2.7** |
| **MALT** | **Malatya** | **3.79** | **268** | *e*PN | | **Pn** | **20 53 30.4** | **+2.4** |
| **MALT** | **Malatya** | **3.79** | **268** | *e*Pn | | **Pn** | **20 53 30.4** | **+2.4** |
| **ZRD** | **Zardab** | **3.86** | **61** | ⇑P | | **Pb** | **20 53 34.4** | **-3.3** |
| ZRD | | | | ⇓S | | **Sb** | **20 54 22.1** | **-2.4** |
| **ZRD** | **Zardab** | **3.86** | **61** | P | | **Pb** | **20 53 34.4** | **-3.3** |
| ZRD | | | | S | | **Sb** | **20 54 22.0** | **-2.4** |
| **LRK** | **Lerik** | **3.99** | **87** | ⇑P | | **Pb** | **20 53 37.3** | **-2.8** |
| | SNR=6.2 | | | | | | | |
| LRK | | | | ⇓S | | **Sb** | **20 54 27.4** | **-1.0** |
| **LRK** | **Lerik** | **3.99** | **87** | P | | **Pb** | **20 53 37.3** | **-2.8** |
| | SNR=6.2 | | | | | | | |
| LRK | | | | S | | **Sb** | **20 54 27.4** | **-1.0** |
| **ZKTA** | **Zakatala** | **4.05** | **39** | ⇓P | | **Pn** | **20 53 36.0** | **+4.5** |
| | SNR=3.1 | | | | | | | |
| ZKTA | | | | ⇑S | | **Sb** | **20 54 25.0** | **-4.9** |
| **GUDG** | **Gudauri** | **4.06** | **13** | P | | **Pg** | **20 53 44.9** | **-2.6** |
| **SEKA** | **Sheki** | **4.06** | **47** | ⇑P | | **Pb** | **20 53 37.2** | **-3.9** |
| | SNR=6.2 | | | | | | | |
| SEKA | | | | ⇑S | | **Sb** | **20 54 27.2** | **-3.0** |
| **SEKA** | **Sheki** | **4.06** | **47** | P | | **Pb** | **20 53 37.2** | **-3.9** |
| | SNR=6.2 | | | | | | | |
| SEKA | | | | S | | **Sb** | **20 54 27.2** | **-3.0** |
| **GLBA** | **Clilabad** | **4.08** | **78** | ⇑P | | **Pb** | **20 53 38.2** | **-3.3** |
| | SNR=5.9 | | | | | | | |
| GLBA | | | | ⇓S | | **Sb** | **20 54 28.8** | **-1.9** |
| **GLBA** | **Clilabad** | **4.08** | **78** | P | | **Pb** | **20 53 38.2** | **-3.3** |
| | SNR=5.9 | | | | | | | |
| GLBA | | | | S | | **Sb** | **20 54 28.8** | **-1.9** |
| **CHVG** | **Ch'k'valeri** | **4.29** | **348** | *e*PN | | **Pn** | **20 53 38.4** | **+3.6** |
| **CHVG** | **Ch'k'valeri** | **4.29** | **348** | P | | **Pg** | **20 54 02.2** | **+10** |
| **CHVG** | **Ch'k'valeri** | **4.29** | **348** | *e*Pn | | **Pn** | **20 53 38.4** | **+3.6** |
| **KSRV** | **Kasrt alli** | **4.30** | **233** | *e*P | | **Pn** | **20 53 38.5** | **+3.7** |
| KSRV | | | | *e*S | | **Sb** | **20 54 34.3** | **-2.6** |
| KSRV | | | | AML | | AML | 20 55 03.1 | |
| | comp=Z,68nm,0.7s | | | | | | | |
| **KBZ** | **Khabaz** | **5.22** | **357** | Pn | | Pn | 20 53 53.2 | +5.8 |
| | comp=Z,0.0nm,0.3s,baz=175,slow=12,SNR=2.0 | | | | | | | |
| **BHD** | **Baghdad** | **5.31** | **170** | *e*Pn | | **Pn** | **20 53 47.0** | **-1.8** |
| | SNR=3.0 | | | | | | | |
| BHD | | | | *e*Sn | | **Sn** | **20 54 48.7** | **-1.1** |
| | SNR=39 | | | | | | | |
| **RTB** | **Rutbah** | **5.97** | **204** | *e*Pn | | **Pn** | **20 53 56.7** | **-1.2** |
| | SNR=39 | | | | | | | |
| RTB | | | | Sn | | **Sn** | **20 55 05.0** | **-1.1** |
| | SNR=3.0 | | | | | | | |
| **BRTR** | **Keskin Array B** | **7.57** | **282** | Pn | | Pn | 20 54 27.2 | +7.3 |
| | comp=Z,0.1nm,0.3s,baz=84,slow=15,SNR=3.6 | | | | | | | |
| BRTR | | | | Pg | | Pg | 20 54 48.7 | -5.9 |
| | comp=Z,0.1nm,0.3s,baz=111,slow=14,SNR=5.9 | | | | | | | |
| **ASF** | **Jabal al Asfar** | **8.18** | **221** | Pn | | **Pn** | **20 54 27.3** | **-0.9** |
| | comp=Z,0.1nm,0.3s,baz=288,slow=3.2,SNR=2.5 | | | | | | | |
| ASF | | | | Lg | | Lg | 20 56 54.6 | |
| | comp=Z,0.3nm,0.3s,baz=236,slow=23,SNR=8.2 | | | | | | | |
| **MMAI** | **Mount Meron Ar** | **8.41** | **232** | Pn | | **Pn** | **20 54 32.5** | **+1.2** |
| | comp=Z,0.2nm,0.3s,baz=72,slow=14,SNR=2.0 | | | | | | | |
| **AKASG** | **Malin Array Be** | **15.72** | **325** | Pn | | **P** | **20 56 16.4** | **+1.7** |
| | comp=Z,0.4nm,0.3s,baz=132,slow=11,SNR=7.2 | | | | | | | |
| **VYHS** | **Vyhne** | **20.24** | **307** | *e*P | | Pn | 20 57 10.0 | +3.4 |
| **ARU** | **Arti** | **20.61** | **25** | P | | Pn | 20 57 11.0 | +0.2 |
| | comp=Z,2.4nm,0.6s,baz=242,slow=4.3,SNR=4.6 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **44.60** | **247** | P | | **P** | **21 00 41.4** | **-0.4** |
| | comp=Z,0.7nm,0.8s,baz=57,slow=8.5,SNR=5.9 | | | | | | | |

*ISCJB **11** 21:00:37.9±0.6, 17°.60S±0°.05×69°.63W±0°.08, h147km±6km, mb3.6/4, Error ellipse: s-maj=13.4km s-min=7.6km az=21.2*

*GUC **11** 21:00:39.9±0.5, 17°.86S×69°.82W, h159km±6km, ML3.8*

*IDC **11** 21:00:39.3±1.9, 17°.47S×69°.59W, h146km±13km, mb3.4/5, mb1 3.6/7, mb1mx3.4/33, mbtmp4.0/7, MS3.4/2, Ms1 3.4/2, ms1mx2.9/17, Error ellipse: s-maj=26.1km s-min=20.9km az=174.0*

**ISC 11 21:00:38.4±0.8, 17°.60S±0°.06×69°.60W±0°.09, h142km±8km, n16, σ1s28/22, mb3.6/4, 1C-3D, Peru-Bolivia border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **PB12** | **IPOC Station P** | **1.22** | **214** | ⇓*i*P | | **Pn** | **21 01 05.1** | **+0.4** |
| PB12 | | | | *i* S | | **Sn** | **21 01 24.7** | **0.0** |
| **MNMC** | **Minye Minye** | **1.52** | **180** | *e*P | | **Pn** | **21 01 09.1** | **+1.1** |
| MNMC | | | | *i* S | | **Sn** | **21 01 31.0** | **+0.4** |
| MNMC | | | | IAML | | | 21 01 35.1 | |
| | comp=E,1μm,0.2s | | | | | | | |
| **LPAZ** | **La Paz** | **1.92** | **47** | P | | **Pn** | **21 01 14.1** | **+1.3** |
| | comp=E,19nm,0.3s,baz=240,slow=6.1,SNR=451 | | | | | | | |
| LPAZ | | | | S | | **Sn** | **21 01 38.6** | **-0.4** |
| | comp=E,2.7nm,0.3s,baz=60,slow=19,SNR=8.7 | | | | | | | |
| **PSGC** | **Pisagua** | **2.05** | **194** | ⇓*i*P | | **Pn** | **21 01 14.0** | **+0.2** |
| PSGC | | | | *i* S | | **Sn** | **21 01 39.5** | **-1.5** |
| PSGC | | | | IAML | | | 21 01 40.2 | |
| | comp=N,443nm,0.3s | | | | | | | |
| **PB11** | **IPOC Station P** | **2.15** | **181** | *e*P | | **Pn** | **21 01 15.7** | **+0.7** |
| PB11 | | | | *i* S | | **Sn** | **21 01 43.0** | **-0.3** |
| **PB08** | **IPOC Station P** | **2.56** | **171** | ⇓*i*P | | **Pn** | **21 01 21.6** | **+1.2** |
| PB08 | | | | *i* S | | **Sn** | **21 01 53.0** | **+0.3** |
| PB08 | | | | IAML | | | 21 01 55.0 | |
| | comp=N,175nm,0.4s | | | | | | | |
| **PB01** | **IPOC Station P** | **3.43** | **178** | ⇓*i*P | | **Pn** | **21 01 31.3** | **+0.2** |
| PB01 | | | | *i* S | | **Sn** | **21 02 09.0** | **-2.9** |
| PB01 | | | | IAML | | | 21 02 10.1 | |
| | comp=E,416nm,0.3s | | | | | | | |
| **SIV** | **San Ignacio** | **8.32** | **80** | P | | **Pn** | **21 02 34.0** | **-2.3** |
| | comp=E,1.8nm,0.3s,baz=272,slow=13,SNR=17 | | | | | | | |
| SIV | | | | LR | | LR | 21 06 23.1 | |
| | comp=E,85nm,21.9s,baz=276,slow=41 | | | | | | | |
| **NNA** | **Nana** | **8.95** | **308** | P | | **Pn** | **21 02 44.0** | **-0.7** |
| | comp=E,3.1nm,0.3s,baz=140,slow=13,SNR=7.4 | | | | | | | |
| **PTGA** | **Pitinga** | **19.25** | **30** | P | | **P** | **21 04 50.1** | **-2.0** |
| | comp=E,1.0nm,0.3s,baz=323,slow=22,SNR=5.3 | | | | | | | |
| **BDFB** | **Brasilia** | **20.78** | **88** | P | | **P** | **21 05 09.9** | **+1.4** |
| | comp=E,2.2nm,0.4s,baz=64,slow=11,SNR=5.2 | | | | | | | |
| **PLCA** | **Paso Flores** | **23.07** | **182** | P | | **P** | **21 05 32.5** | **+1.0** |
| | comp=E,1.4nm,0.8s,baz=23,slow=10,SNR=3.8 | | | | | | | |
| **PMSA** | **Palmer Station** | **47.29** | **177** | LR | | LR | 21 28 18.2 | |
| | comp=E,141nm,18.0s,baz=16,slow=35 | | | | | | | |
| **DBIC** | **Dimbokro** | **68.31** | **75** | P | | **P** | **21 11 24.7** | **0.0** |
| | comp=E,1.7nm,0.7s,baz=262,slow=2.9,SNR=4.4 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **76.70** | **71** | P | | **P** | **21 12 14.5** | **+0.1** |
| | comp=E,0.7nm,0.4s,baz=257,slow=5.6,SNR=13 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **87.31** | **341** | P | | **P** | **21 13 09.4** | **+0.7** |
| | comp=E,0.2nm,0.5s,baz=139,slow=4.5,SNR=3.8 | | | | | | | |

*IDC **11** 21:02:02.6±1.0, 29°.52S×176°.10W, h0km, mb4.3/6, mb1 4.4/7, mb1mx4.1/30, mbtmp4.2/7, ML3.4/1, MS3.6/7, Ms1 3.6/7, ms1mx3.3/28, Error ellipse: s-maj=43.5km s-min=19.1km az=176.0*

*ISCJB **11** 21:02:05.6±0.4, 29°.88S±0°.05×176°.24W±0°.06, h28km, mb4.7/20, MS3.7/5, Error ellipse: s-maj=7.9km s-min=5.9km az=33.0*

*NEIC **11** 21:02:08.9±1.4, 29°.82S×176°.26W, h45km±13km, mb4.8/20, Error ellipse: s-maj=11.6km s-min=10.3km az=50.0*

**ISC 11 21:02:06.7±0.6, 29.70S±0°.07×176°.23W±0°.06, h28km, n57, σ1s52/54, mb4.7/20, MS3.8/5, 1D, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **1.54** | **286** | Pn | | **Pb** | **21 02 33.8** | **-0.7** |
| | 152nm,0.3s,baz=157,slow=20,SNR=7.3 | | | | | | | |
| RAO | | | | Sn | | **Sb** | **21 02 53.2** | **-0.4** |
| | 790nm,0.3s,baz=103,slow=20,SNR=9.2 | | | | | | | |
| RAO | | | | LR | | LR | 21 03 19.2 | |
| | comp=Z,1μm,18.9s,baz=148,slow=48 | | | | | | | |
| **RAO** | **Raoul Island** | **1.54** | **286** | *e*Pn | | **Pb** | **21 02 33.7** | **-0.9** |
| RAO | | | | *e*Sn | | **Sn** | **21 02 51.9** | **+0.6** |
| **URZ** | **Urewera** | **10.17** | **211** | Sn | | **Sn** | **21 06 24.0** | **+0.2** |
| | 1.9nm,0.3s,baz=66,slow=18,SNR=7.5 | | | | | | | |
| URZ | | | | LR | | LR | 21 08 58.9 | |
| | comp=Z,43nm,18.3s,baz=38,slow=40 | | | | | | | |
| **URZ** | **Urewera** | **10.17** | **211** | *e*Pn | | **Pn** | **21 04 30.6** | **-0.2** |
| URZ | | | | *e*Sn | | **Sn** | **21 06 24.0** | **+0.2** |
| **OUZ** | **Omahuta** | **10.20** | **235** | *e*Pn | | **Pn** | **21 04 34.2** | **+2.9** |
| **BKZ** | **Black Stump Fm** | **11.19** | **210** | *e*Pn | | **Pn** | **21 04 45.4** | **+0.6** |
| BKZ | | | | *e*Sn | | **Sn** | **21 06 47.7** | **-1.3** |
| **HIZ** | **Hauiti** | **11.48** | **218** | *e*Pn | | **Pn** | **21 04 48.1** | **-0.6** |
| **THZ** | **Tophouse** | **14.91** | **213** | *e*Pn | | **P** | **21 05 38.8** | **-2.2** |
| **KHZ** | **Kahutara** | **15.13** | **210** | *e*Pn | | **Pn** | **21 05 37.8** | **-0.7** |
| | 49nm,0.8s | | | | | | | |
| **CRLZ** | **Canterbury Las** | **16.46** | **210** | *e*Pn | | **Pn** | **21 05 53.4** | **-2.2** |
| | 262nm,1.6s | | | | | | | |
| **OXZ** | **Oxford** | **16.53** | **211** | *e*Pn | | **Pn** | **21 05 54.1** | **-2.4** |
| | 48nm,1.2s | | | | | | | |
| **DZM** | **Mont Dzumac** | **17.33** | **292** | P | | **P** | **21 06 08.1** | **+0.1** |
| | 0.1nm,0.3s,baz=143,slow=18,SNR=2.4 | | | | | | | |
| DZM | | | | LR | | LR | 21 11 27.2 | |
| | comp=Z,254nm,19.4s,baz=146,slow=32 | | | | | | | |
| **DZM** | **Mont Dzumac** | **17.33** | **292** | *e*P | | P | 21 06 22.7 | +15 |
| | 38nm,1.5s | | | | | | | |
| DZM | | | | *e*LR | | LR | 21 10 20.0 | |
| | 646nm,27.5s | | | | | | | |
| **DZM** | **Mont Dzumac** | **17.33** | **292** | P | | **P** | **21 06 08.1** | **+0.1** |
| | 47nm,1.7s | | | | | | | |
| **ODZ** | **Otahua Downs** | **18.50** | **210** | *e*P | | **P** | **21 06 18.8** | **-1.7** |
| | 68nm,1.4s | | | | | | | |
| **LHI** | **Lord Howe Isla** | **21.33** | **259** | *e*P | | **P** | **21 06 53.0** | **+1.5** |
| | 342nm,1.7s | | | | | | | |
| **CTA** | **Charters Tower** | **35.22** | **277** | P | | **P** | **21 09 00.1** | **+1.3** |
| | 1.1nm,0.3s,baz=107,slow=10,SNR=6.4 | | | | | | | |
| **CTAO** | **Charters Tower** | **35.22** | **277** | *e*P | | **P** | **21 08 59.2** | **+0.4** |
| | 17nm,1.4s | | | | | | | |
| **STKA** | **Stephens Creek** | **36.13** | **256** | P | | **P** | **21 09 08.6** | **+2.0** |
| | 4.9nm,0.7s,baz=90,slow=9.9,SNR=13 | | | | | | | |
| STKA | | | | LR | | LR | 21 22 54.7 | |
| | comp=Z,142nm,18.2s,baz=61,slow=34 | | | | | | | |
| **STKA** | **Stephens Creek** | **36.13** | **256** | *e*P | | **P** | **21 09 06.8** | **+0.3** |
| | 1.3nm,0.8s | | | | | | | |
| **PMG** | **Port Moresby** | **39.72** | **293** | LR | | LR | 21 22 47.1 | |
| | comp=Z,116nm,18.4s,baz=156,slow=31 | | | | | | | |
| **BBOO** | **Buckleboo** | **40.64** | **253** | *e*P | | **P** | **21 09 44.8** | **+0.4** |
| | 22nm,1.3s | | | | | | | |
| **AS01** | **Alice Springs** | **44.65** | **265** | *e*P | | **P** | **21 10 16.5** | **-0.6** |
| **AS31** | **Alice Springs** | **44.69** | **265** | *e*P | | **P** | **21 10 17.4** | **-0.1** |
| | 0.8nm,0.9s | | | | | | | |
| **ASAR** | **Alice Springs** | **44.69** | **265** | P | | **P** | **21 10 17.4** | **-0.1** |
| | 1.1nm,0.6s,baz=99,slow=8.0,SNR=23 | | | | | | | |
| ASAR | | | | LR | | LR | 21 28 24.4 | |
| | comp=Z,108nm,18.6s,baz=130,slow=35 | | | | | | | |
| **WB2** | **Warramunga Arr** | **45.60** | **271** | *e*P | | **P** | **21 10 25.3** | **+0.6** |
| **WRAB** | **Tennant Creek** | **45.61** | **271** | *e*P | | **P** | **21 10 24.3** | **-0.5** |
| | 5.3nm,0.8s | | | | | | | |
| **WR1** | **Warramunga Arr** | **45.62** | **271** | *e*P | | **P** | **21 10 24.9** | **+0.1** |
| | 9.7nm,1.1s | | | | | | | |
| **WRA** | **Warramunga Arr** | **45.62** | **271** | P | | **P** | **21 10 24.9** | **+0.1** |
| | 4.4nm,0.7s,baz=109,slow=7.9,SNR=37 | | | | | | | |
| WRA | | | | LR | | LR | 21 28 28.8 | |
| | comp=Z,89nm,19.0s,baz=65,slow=35 | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **53.90** | **268** | LR | | LR | 21 33 46.8 | |
| | comp=Z,44nm,18.5s,baz=166,slow=35 | | | | | | | |
| **QSPA** | **South Pole Qui** | **60.41** | **180** | *e*P | | **P** | **21 12 16.3** | **+2.9** |
| | 9.7nm,0.9s | | | | | | | |
| **MYLDM** | **Lahad Datu** | **71.44** | **287** | *e*P | | **P** | **21 13 21.7** | **-3.2** |
| | 22nm,1.1s | | | | | | | |
| **GO09** | **Cerro Castillo** | **75.39** | **141** | *e*P | | **P** | **21 13 48.2** | **+0.6** |
| | 172nm,1.9s | | | | | | | |
| **SYO** | **Syowa Base** | **78.14** | **192** | ⇓*e*pP | | pP | 21 14 15.0 | +3.3 |
| **PAGB** | **Antelope Grade** | **83.71** | **43** | *e*P | | **P** | **21 14 28.3** | **-4.7** |
| | 8.2nm,0.5s | | | | | | | |
| **BBSC** | **Beaumont Base** | **84.48** | **46** | *e*P | | **P** | **21 14 37.6** | **+0.6** |
| **NV01** | **Mina Array Sit** | **86.69** | **42** | *e*P | | **P** | **21 14 46.6** | **-1.5** |
| **LCO** | **Las Campanas** | **88.06** | **122** | *e*P | | **P** | **21 14 55.3** | **+0.1** |
| | 33nm,0.8s | | | | | | | |
| **U15A** | **North Rim** | **89.03** | **46** | *e*P | | **P** | **21 15 00.9** | **+1.5** |
| | 4.1nm,0.8s | | | | | | | |
| **EKU** | **East Kanab** | **89.31** | **46** | *e*P | | **P** | **21 14 57.5** | **-3.1** |
| **LTX** | **Lajitas** | **90.72** | **56** | *e*P | | **P** | **21 15 07.3** | **+0.1** |
| **TX31** | **Lajitas Ar. Si** | **90.72** | **56** | *e*P | | P | 21 15 00.7 | -6.5 |
| **TXAR** | **Lajitas Array** | **90.72** | **56** | P | | **P** | **21 15 07.3** | **+0.1** |
| | 1.0nm,1.1s,baz=193,slow=5.1,SNR=4.8 | | | | | | | |
| **G08A** | **Pilot Rock** | **90.98** | **36** | *e*P | | **P** | **21 15 10.4** | **+2.3** |
| | 7.1nm,1.1s | | | | | | | |
| **E09A** | **Wood Farm, Sta** | **92.22** | **36** | *e*P | | **P** | **21 15 15.9** | **+2.2** |
| | 6.9nm,1.1s | | | | | | | |
| **HLID** | **Hailey** | **92.28** | **40** | *e*P | | **P** | **21 15 16.8** | **+2.5** |
| | 2.3nm,1.0s | | | | | | | |
| **ILAR** | **Eielson Array** | **96.91** | **12** | P | | **P** | **21 15 34.0** | **-0.7** |
| | 0.4nm,0.8s,baz=216,slow=6.5,SNR=3.9 | | | | | | | |
| **ILB** | **Eielson Array** | **96.91** | **12** | *e*P | | **P** | **21 15 34.0** | **-0.7** |
| **FIA0** | **FINESS Array S** | **144.99** | **341** | *e*PKPbc | | PKPbc | 21 21 38.6 | -1.3 |
| **FINES** | **FINESS Array B** | **144.99** | **341** | PKP | | PKPbc | 21 21 38.6 | -1.3 |
| | 1.7nm,0.7s,baz=45,slow=3.0,SNR=5.3 | | | | | | | |
| **NB2** | **NORSAR Subarra** | **148.26** | **353** | PKP | | **PKPbc** | **21 21 48.8** | **-0.7** |
| | comp=Z,1.2nm,0.8s,baz=13,slow=2.9 | | | | | | | |
| **NB200** | **NORSAR Array S** | **148.26** | **353** | *e*PKPbc | | **PKPbc** | **21 21 49.0** | **-0.5** |
| **NOA** | **NORSAR Array B** | **148.26** | **353** | PKPbc | | **PKPbc** | **21 21 49.0** | **-0.5** |
| | comp=Z,1.6nm,0.8s,baz=15,slow=4.5,SNR=3.7 | | | | | | | |
| **AKASG** | **Malin Array Be** | **151.64** | **325** | PKPbc | | **PKPbc** | **21 21 58.0** | **0.0** |
| | comp=Z,2.2nm,0.7s,baz=48,slow=3.1,SNR=11 | | | | | | | |
| **AKBB** | **Malin Array Si** | **151.64** | **325** | *e*PKPbc | | **PKPbc** | **21 21 58.0** | **0.0** |
| **TORD** | **Torodi Ar. Bea** | **163.42** | **173** | PKPab | | **PKPab** | **21 22 59.4** | **+1.2** |
| | comp=Z,1.6nm,0.9s,baz=184,slow=4.5,SNR=8.0 | | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **163.42** | **173** | *e*PKPab | | **PKPab** | **21 22 59.4** | **+1.2** |

*IDC **11** 21:04:15.1±1.1, 15°.04S×173°.03W, h0km, mb4.0/6, mb1 4.3/6, mb1mx3.8/41, mbtmp4.0/6, MS3.8/2, Ms1 3.8/2, ms1mx3.1/30, Error ellipse: s-maj=52.2km s-min=19.3km az=134.0*

*ISCJB **11** 21:04:17.3±0.8, 15°.05S±0°.2×172°.9W±0°.2, h29km, mb4.0/6, MS3.6/2, Error ellipse: s-maj=40.0km s-min=10.7km az=136.9*

**ISC 11 21:04:18.9±1.1, 15°.05S±0°.3×172°.8W±0°.3, h29km, n12, σ1s73/12, mb4.0/6, Samoa Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **AFI** | **Afiamalu** | **1.48** | **43** | Pn | | **Pn** | **21 04 43.6** | **-0.1** |
| | 258nm,0.3s,baz=181,slow=1.6,SNR=431 | | | | | | | |
| AFI | | | | Sn | | **Sn** | **21 04 59.6** | **-2.5** |
| | 152nm,0.3s,baz=84,slow=21,SNR=8.3 | | | | | | | |
| **URZ** | **Urewera** | **24.81** | **199** | P | | **P** | **21 09 38.4** | **-0.2** |
| | 5.2nm,0.7s,baz=204,slow=20,SNR=3.5 | | | | | | | |
| URZ | | | | LR | | LR | 21 17 36.6 | |
| | comp=Z,203nm,19.6s,baz=33,slow=32 | | | | | | | |
| **RPZ** | **Rata Peaks** | **31.76** | **203** | LR | | LR | 21 22 08.8 | |
| | comp=Z,144nm,19.9s,baz=80,slow=34 | | | | | | | |
| **WRA** | **Warramunga Arr** | **50.49** | **256** | P | | **P** | **21 13 13.1** | **-1.7** |
| | 0.6nm,0.6s,baz=90,slow=7.2,SNR=5.3 | | | | | | | |
| **ASAR** | **Alice Springs** | **50.77** | **252** | P | | **P** | **21 13 14.7** | **-2.2** |
| | 1.6nm,0.8s,baz=82,slow=8.8,SNR=9.9 | | | | | | | |
| **ILAR** | **Eielson Array** | **81.95** | **11** | P | | **P** | **21 16 36.5** | **+1.0** |
| | 0.9nm,0.7s,baz=235,slow=6.1,SNR=7.6 | | | | | | | |
| **INK** | **Inuvik** | **87.76** | **14** | P | | **P** | **21 17 06.3** | **+1.7** |
| | 2.7nm,1.1s,baz=195,slow=7.0,SNR=4.7 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **89.52** | **23** | P | | **P** | **21 17 14.4** | **+1.4** |
| | 0.5nm,0.8s,baz=250,slow=3.8,SNR=5.7 | | | | | | | |
| **DPC** | **Dobruska-Polom** | **143.98** | **350** | *e*P | | **PKPab** | **21 23 48.1** | **-0.9** |
| DPC | | | | *ex* | | x | 21 24 08.5 | |
| **KHC** | **Kasperske Hory** | **145.57** | **353** | *e*P | | **PKPab** | **21 23 57.2** | **+2.3** |
| KHC | | | | *ex* | | x | 21 24 14.9 | |
| **

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HOPE** | **Hope Point** | **5.55** | **280** | *e*Pn | **Pn** | **21 18 08.1** | **+0.6** |
| HOPE | | | | *e*Sn | **Sn** | **21 19 07.7** | **-2.6** |
| **VNA1** | **Neumayer--Stat** | **17.22** | **159** | P | **Pn** | **21 20 40.2** | **-4.8** |
| **VNA3** | **Neumayer Olymp** | **17.43** | **161** | P | **Pn** | **21 20 41.9** | **-5.8** |
| **VNA2** | **Neumayer--Watz** | **17.62** | **158** | P | **Pn** | **21 20 49.5** | **-0.5** |
| | baz=318,slow=14 | | | | | | |
| **SNAA** | **Sanae** | **19.16** | **157** | P | **P** | **21 21 07.3** | **-0.6** |
| **SNAA** | **Sanae** | **19.16** | **157** | P | **Pn** | **21 21 08.3** | **-0.5** |
| | 0.2nm,0.3s,baz=288,slow=11,SNR=13 | | | | | | |
| SNAA | | | | PcP | **PcP** | **21 25 30.6** | **+0.1** |
| | 0.0nm,0.3s,baz=180,slow=2.0,SNR=4.3 | | | | | | |
| **SNAA** | **Sanae** | **19.16** | **157** | *e*P | **Pn** | **21 21 09.1** | **+0.2** |
| | 4.6nm,0.9s | | | | | | |
| SNAA | | | | *e*PcP | **PcP** | **21 25 30.6** | **+0.1** |
| **PMSA** | **Palmer Station** | **20.24** | **228** | *e*P | **P** | **21 21 20.1** | **+0.6** |
| | 124nm,1.5s | | | | | | |
| **USHA** | **Ushuaia** | **23.34** | **255** | LR | LR | 21 29 55.3 | |
| | comp=Z,835nm,19.8s,baz=73,slow=34 | | | | | | |
| **SYO** | **Syowa Base** | **31.93** | **141** | ⇑*e*X | **P** | **21 23 10.7** | **+1.0** |
| **QSPA** | **South Pole Qui** | **34.67** | **180** | *e*P | **P** | **21 23 34.6** | **+0.7** |
| | 3.7nm,0.8s | | | | | | |
| **CPUP** | **Villa Florida** | **36.52** | **311** | P | **P** | **21 23 50.0** | **+0.1** |
| | 1.7nm,0.9s,baz=154,slow=16,SNR=3.5 | | | | | | |
| **ROC1** | **El Roble** | **37.82** | **288** | *e*P | **P** | **21 24 00.9** | **-0.2** |
| | 46nm,1.5s | | | | | | |
| **MAW** | **Mawson** | **40.51** | **144** | P | **P** | **21 24 23.5** | **+0.6** |
| | 1.2nm,0.4s,baz=267,slow=18,SNR=3.6 | | | | | | |
| **MAW** | **Mawson** | **40.51** | **144** | *e*P | **P** | **21 24 22.7** | **-0.2** |
| | 7.4nm,2.0s | | | | | | |
| **BOSA** | **Boshof** | **45.82** | **76** | LR | LR | 21 40 41.7 | |
| | comp=Z,207nm,18.5s,baz=164,slow=32 | | | | | | |
| **PB01** | **IPOC Station P** | **46.70** | **300** | *e*P | **P** | **21 25 14.8** | **+1.5** |
| | 8.3nm,0.8s | | | | | | |
| **VNDA** | **Vanda** | **47.05** | **183** | P | **P** | **21 25 18.0** | **+2.7** |
| | 1.7nm,0.6s,baz=191,slow=6.6,SNR=12 | | | | | | |
| **VNDA** | **Vanda** | **47.05** | **183** | *e*P | **P** | **21 25 18.1** | **+2.7** |
| | 17nm,1.6s | | | | | | |
| **LPAZ** | **La Paz** | **50.13** | **305** | P | **P** | **21 25 41.4** | **+1.0** |
| | 2.6nm,0.6s,baz=139,slow=4.4,SNR=15 | | | | | | |
| **LPAZ** | **La Paz** | **50.13** | **305** | *e*P | **P** | **21 25 41.4** | **+1.0** |
| | 4.1nm,0.8s | | | | | | |
| **DBIC** | **Dimbokro** | **64.72** | **25** | LR | LR | 21 50 35.5 | |
| | comp=Z,116nm,18.8s,baz=352,slow=32 | | | | | | |
| **TOA0** | **Torodi Ar. Sit** | **72.63** | **29** | *e*P | **P** | **21 28 11.2** | **-0.5** |
| **TORD** | **Torodi Ar. Bea** | **72.63** | **29** | P | **P** | **21 28 11.0** | **-0.7** |
| | 3.5nm,0.9s,baz=196,slow=6.5,SNR=16 | | | | | | |
| TORD | | | | LR | LR | 21 56 08.8 | |
| | comp=Z,96nm,18.7s,baz=345,slow=33 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **72.63** | **29** | *e*P | **P** | **21 28 11.0** | **-0.7** |
| **CM31** | **Chiang Mai Arr** | **125.20** | **110** | *e*PKPdf | **PKPdf** | **21 35 44.5** | **-0.2** |
| **CMAR** | **Chiang Mai Arr** | **125.20** | **110** | PKP | **PKPdf** | **21 35 44.5** | **-0.2** |
| | 0.6nm,0.3s,baz=235,slow=2.7,SNR=5.3 | | | | | | |
| **BVAR** | **Borovoye Array** | **134.50** | **57** | PKP | **PKPdf** | **21 36 00.8** | **-0.5** |
| | 0.5nm,0.8s,baz=46,slow=4.3,SNR=3.5 | | | | | | |
| **YKA** | **Yellowknife Ar** | **135.84** | **318** | PKP | **PKPdf** | **21 36 02.4** | **-1.1** |
| | 0.3nm,0.6s,baz=120,slow=1.9,SNR=3.9 | | | | | | |
| **YKB5** | **Yellowknife Ar** | **135.84** | **318** | *e*PKPdf | **PKPdf** | **21 36 02.4** | **-1.1** |
| **INK** | **Inuvik** | **145.46** | **321** | PKPbc | **PKPab** | **21 36 21.0** | **0.0** |
| | 2.8nm,0.6s,baz=137,slow=3.1,SNR=12 | | | | | | |
| **INK** | **Inuvik** | **145.46** | **321** | *e*PKPbc | **PKPab** | **21 36 21.3** | **+0.3** |
| **ILAR** | **Eielson Array** | **149.82** | **312** | PKPbc | **PKPbc** | **21 36 32.8** | **0.0** |
| | 3.0nm,0.8s,baz=128,slow=1.5,SNR=30 | | | | | | |
| **ILB** | **Eielson Array** | **149.82** | **312** | *e*PKPbc | **PKPbc** | **21 36 33.0** | **+0.2** |
| **SONA0** | **Songino Array** | **150.66** | **86** | *e*PKPbc | **PKPbc** | **21 36 35.2** | **-0.3** |
| **SONM** | **Songino Array** | **150.66** | **86** | PKPbc | **PKPbc** | **21 36 35.2** | **-0.3** |
| | 0.7nm,0.5s,baz=218,slow=3.4,SNR=4.8 | | | | | | |

*PDG* **11** *21:25:37.4±0.3,36.°56N×21.°61E,h22km±3km, ML4.2/13, Error ellipse: s-maj=3.9km s-min=1.3km az=90.0*

*ISCJB* **11** *21:25:38.8±0.3,36.°60N±0.°03×21.°74E±0.°03,h65km±3km, mb3.7/12, Error ellipse: s-maj=5.4km s-min=2.6km az=41.4*

*CSEM* **11** *21:25:39.2±0.3,36.°52N×21.°75E,h30km, ML3.6, Error ellipse: s-maj=7.4km s-min=3.2km az=38.0*

*ATH* **11** *21:25:39.9,36.°54N×21.°93E,h40km±1km, ML3.6/24, Error ellipse: s-maj=2.1km s-min=0.9km az=230.0*

*BEO* **11** *21:25:40.2±0.8,36.°85N×21.°83E,h0km, M4.0/7*

*IDC* **11** *21:25:40.2±1.9,36.°61N×21.°94E,h46km±19km,mb3.6/12, mb1 3.6/18,mb1mx3.5/40,mbtmp3.7/18, ML3.0/6, Error ellipse: s-maj=18.7km s-min=15.0km az=0.0*

*THE* **11** *21:25:41.2,36.°55N×21.°92E,h23km±1km, ML3.6/8, Error ellipse: s-maj=1.8km s-min=0.8km az=227.0*

**ISC 11 21:25:39.6±0.8,36.°53N±0.°05×21.°74E±0.°04,h47km±7km, n322,σ1§60/382,mb3.8/12,15C-20D,Southern Greece**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MES2** | **Methoni** | **0.29** | **355** | P | **Pn** | **21 25 47.3** | **-1.1** |
| MES2 | | | | S | **Sn** | **21 25 54.6** | **0.0** |
| MES2 | | | | AML | AML | 21 25 55.1 | |
| | comp=N,34371μm,0.3s | | | | | | |
| MES2 | | | | AML | AML | 21 25 55.2 | |
| | comp=E,39840μm,0.3s | | | | | | |
| **MES2** | **Methoni** | **0.29** | **355** | P | **Pn** | **21 25 47.3** | **-1.1** |
| MES2 | | | | S | **Sn** | **21 25 54.6** | **0.0** |
| **PYL** | **PYLOS** | **0.36** | **0** | P | **Pn** | **21 25 48.5** | **-0.6** |
| PYL | | | | S | **Sn** | **21 25 56.3** | **+0.4** |
| PYL | | | | AML | AML | 21 25 56.6 | |
| | comp=N,30422μm,0.7s | | | | | | |
| PYL | | | | AML | AML | 21 25 58.7 | |
| | comp=E,19586μm,0.4s | | | | | | |
| **PYL** | **PYLOS** | **0.36** | **0** | P | **Pn** | **21 25 48.9** | **-0.2** |
| PYL | | | | S | **Sn** | **21 25 55.6** | **-0.3** |
| **PYL** | **PYLOS** | **0.36** | **0** | P | **Pn** | **21 25 48.9** | **-0.2** |
| PYL | | | | S | **Sn** | **21 25 55.6** | **-0.3** |
| **ITM** | **Ithomi** | **0.66** | **13** | P | **Pn** | **21 25 53.1** | **+0.3** |
| ITM | | | | S | **Sn** | **21 26 03.2** | **+0.9** |
| ITM | | | | AML | AML | 21 26 05.2 | |
| | comp=E,13260μm,0.4s | | | | | | |
| ITM | | | | AML | AML | 21 26 06.1 | |
| | comp=N,12775μm,0.2s | | | | | | |
| **ITM** | **Ithomi** | **0.66** | **13** | P | **Pn** | **21 25 53.1** | **+0.3** |
| ITM | | | | S | **Sn** | **21 26 02.4** | **+0.1** |
| **ITM** | **Ithomi** | **0.66** | **13** | P | **Pn** | **21 25 53.1** | **+0.3** |
| ITM | | | | S | **Sn** | **21 26 02.4** | **+0.1** |
| **MES3** | **Kyparissia** | **0.72** | **356** | P | **Pn** | **21 25 54.9** | **+1.4** |
| MES3 | | | | S | **Sn** | **21 26 05.7** | **+2.2** |
| **MES3** | **Kyparissia** | **0.72** | **356** | P | **Pn** | **21 25 54.9** | **+1.4** |
| MES3 | | | | S | **Sn** | **21 26 05.7** | **+2.2** |
| **VLX** | **Vlachokerasia** | **0.98** | **31** | P | **Pn** | **21 25 58.2** | **+1.2** |
| VLX | | | | S | **Sn** | **21 26 10.2** | **+0.3** |
| VLX | | | | AML | AML | 21 26 14.2 | |
| | comp=N,20130μm,0.5s | | | | | | |
| VLX | | | | AML | AML | 21 26 14.2 | |
| | comp=E,21621μm,0.5s | | | | | | |
| **VLX** | **Vlachokerasia** | **0.98** | **31** | P | **Pn** | **21 25 57.7** | **+0.6** |
| VLX | | | | S | **Sn** | **21 26 10.2** | **+0.3** |
| **VLX** | **Vlachokerasia** | **0.98** | **31** | P | **Pn** | **21 25 57.7** | **+0.6** |
| VLX | | | | S | **Sn** | **21 26 10.9** | **+1.0** |
| **VLI** | **Veliai** | **0.98** | **79** | P | **Pn** | **21 25 57.5** | **+0.5** |
| VLI | | | | AML | AML | 21 26 13.4 | |
| | comp=N,5796μm,0.4s | | | | | | |
| VLI | | | | AML | AML | 21 26 18.1 | |
| | comp=E,6328μm,0.6s | | | | | | |
| **VLI** | **Veliai** | **0.98** | **79** | P | **Pn** | **21 25 57.1** | **+0.1** |
| VLI | | | | S | **Sn** | **21 26 10.2** | **+0.4** |
| **VLI** | **Veliai** | **0.98** | **79** | P | **Pn** | **21 25 57.1** | **+0.1** |
| VLI | | | | S | **Sn** | **21 26 10.2** | **+0.4** |
| **AMT** | **Artemida-Makis** | **1.00** | **359** | P | **Pn** | **21 25 59.2** | **+1.9** |
| AMT | | | | AML | AML | 21 26 16.5 | |
| | comp=N,13927μm,0.4s | | | | | | |
| AMT | | | | AML | AML | 21 26 19.1 | |
| | comp=E,12112μm,0.3s | | | | | | |
| **AMT** | **Artemida-Makis** | **1.00** | **359** | P | **Pn** | **21 25 58.8** | **+1.6** |
| AMT | | | | S | **Sn** | **21 26 13.5** | **+3.3** |
| **AMT** | **Artemida-Makis** | **1.00** | **359** | P | **Pn** | **21 25 58.8** | **+1.6** |
| AMT | | | | S | **Sn** | **21 26 13.5** | **+3.3** |
| **KYTH** | **Kithira** | **1.09** | **104** | P | **Pn** | **21 25 59.0** | **+0.6** |
| KYTH | | | | S | **Sn** | **21 26 11.6** | **-0.9** |
| KYTH | | | | AML | AML | 21 26 15.3 | |
| | comp=N,9903μm,0.4s | | | | | | |
| KYTH | | | | AML | AML | 21 26 18.9 | |
| | comp=E,8101μm,0.5s | | | | | | |
| **KYTH** | **Kithira** | **1.09** | **104** | P | **Pn** | **21 25 58.8** | **+0.3** |
| KYTH | | | | S | **Sn** | **21 26 11.6** | **-0.9** |
| **KYTH** | **Kithira** | **1.09** | **104** | P | **Pn** | **21 25 58.8** | **+0.3** |
| KYTH | | | | S | **Sn** | **21 26 12.9** | **+0.4** |
| **KRND** | **KRANIDI** | **1.41** | **53** | P | **Pn** | **21 26 03.5** | **+0.6** |
| **KRND** | **KRANIDI** | **1.41** | **53** | P | **Pn** | **21 26 03.1** | **+0.2** |
| **KRND** | **KRANIDI** | **1.41** | **53** | P | **Pn** | **21 26 03.1** | **+0.2** |
| **DRO** | **Drossia** | **1.42** | **359** | P | **Pn** | **21 26 05.0** | **+2.1** |
| DRO | | | | AML | AML | 21 26 38.0 | |
| | comp=E,5908μm,0.5s | | | | | | |
| DRO | | | | AML | AML | 21 26 38.9 | |
| | comp=N,5024μm,0.6s | | | | | | |
| **DRO** | **Drossia** | **1.42** | **359** | P | **Pn** | **21 26 04.6** | **+1.7** |
| **DRO** | **Drossia** | **1.42** | **359** | P | **Pn** | **21 26 04.6** | **+1.7** |
| **ANKY** | **Antikythira Is** | **1.43** | **117** | P | **Pn** | **21 26 04.9** | **+1.8** |
| ANKY | | | | AML | AML | 21 26 32.7 | |
| | comp=N,2519μm,0.5s | | | | | | |
| ANKY | | | | AML | AML | 21 26 40.3 | |
| | comp=E,3015μm,0.7s | | | | | | |
| **ANKY** | **Antikythira Is** | **1.43** | **117** | P | **Pn** | **21 26 03.9** | **+0.8** |
| **ANKY** | **Antikythira Is** | **1.43** | **117** | P | **Pn** | **21 26 03.9** | **+0.8** |
| **GUR** | **Goura** | **1.48** | **19** | P | **Pn** | **21 26 06.5** | **+2.6** |
| GUR | | | | AML | AML | 21 26 36.0 | |
| | comp=E,6730μm,0.4s | | | | | | |
| GUR | | | | AML | AML | 21 26 40.3 | |
| | comp=N,4435μm,0.4s | | | | | | |
| **GUR** | **Goura** | **1.48** | **19** | P | **Pn** | **21 26 05.8** | **+1.9** |
| **GUR** | **Goura** | **1.48** | **19** | P | **Pn** | **21 26 05.8** | **+1.9** |
| **RLS** | **Riolos of Patr** | **1.54** | **352** | P | **Pn** | **21 26 07.6** | **+3.0** |
| RLS | | | | AML | AML | 21 26 37.6 | |
| | comp=E,1759μm,0.8s | | | | | | |
| RLS | | | | AML | AML | 21 26 38.1 | |
| | comp=N,2229μm,0.4s | | | | | | |
| **RLS** | **Riolos of Patr** | **1.54** | **352** | P | **Pn** | **21 26 07.0** | **+2.5** |
| RLS | | | | S | **Sn** | **21 26 26.6** | **+3.3** |
| **RLS** | **Riolos of Patr** | **1.54** | **352** | P | **Pn** | **21 26 07.0** | **+2.5** |
| RLS | | | | S | **Sn** | **21 26 26.6** | **+3.3** |
| **DID** | **Didima** | **1.54** | **51** | P | **Pn** | **21 26 04.7** | **0.0** |
| DID | | | | AML | AML | 21 26 32.7 | |
| | comp=N,3028μm,0.4s | | | | | | |
| DID | | | | AML | AML | 21 26 34.0 | |
| | comp=E,2565μm,0.4s | | | | | | |
| **DID** | **Didima** | **1.54** | **51** | P | **Pn** | **21 26 04.7** | **0.0** |
| DID | | | | S | **Sn** | **21 26 22.8** | **-0.8** |
| **DID** | **Didima** | **1.54** | **51** | P | **Pn** | **21 26 04.5** | **-0.2** |
| DID | | | | S | **Sn** | **21 26 22.8** | **-0.8** |
| **KLV** | **Kalavryta, Ach** | **1.54** | **12** | P | **Pn** | **21 26 07.6** | **+2.9** |
| KLV | | | | AML | AML | 21 26 40.5 | |
| | comp=E,1950μm,0.6s | | | | | | |
| KLV | | | | AML | AML | 21 26 42.9 | |
| | comp=N,1754μm,0.9s | | | | | | |
| **KLV** | **Kalavryta, Ach** | **1.54** | **12** | P | **Pn** | **21 26 06.9** | **+2.2** |
| **KLV** | **Kalavryta, Ach** | **1.54** | **12** | P | **Pn** | **21 26 06.9** | **+2.2** |
| **THAL** | **Thalero** | **1.67** | **26** | P | **Pn** | **21 26 07.6** | **+1.2** |
| THAL | | | | AML | AML | 21 26 43.6 | |
| | comp=E,6768μm,0.5s | | | | | | |
| THAL | | | | AML | AML | 21 26 52.2 | |
| | comp=N,6530μm,0.8s | | | | | | |
| **THAL** | **Thalero** | **1.67** | **26** | P | **Pn** | **21 26 07.3** | **+0.9** |
| **THAL** | **Thalero** | **1.67** | **26** | P | **Pn** | **21 26 07.3** | **+0.9** |
| **LAKA** | **Lakka** | **1.71** | **6** | P | **Pn** | **21 26 09.6** | **+2.6** |
| **LAKA** | **Lakka** | **1.71** | **6** | P | **Pn** | **21 26 08.7** | **+1.7** |
| **LAKA** | **Lakka** | **1.71** | **6** | P | **Pn** | **21 26 08.7** | **+1.7** |
| **LOUT** | **Loutraki** | **1.75** | **34** | P | **Pn** | **21 26 08.1** | **+0.5** |
| **LOUT** | **Loutraki** | **1.75** | **34** | P | **Pn** | **21 26 08.1** | **+0.5** |
| **LTK** | **Loutraki** | **1.78** | **33** | P | **Pn** | **21 26 08.6** | **+0.7** |
| LTK | | | | AML | AML | 21 26 39.9 | |
| | comp=N,1938μm,0.6s | | | | | | |
| LTK | | | | AML | AML | 21 26 40.6 | |
| | comp=E,1932μm,0.8s | | | | | | |
| **LTK** | **Loutraki** | **1.78** | **33** | P | **Pn** | **21 26 08.3** | **+0.4** |
| **LTK** | **Loutraki** | **1.78** | **33** | P | **Pn** | **21 26 08.3** | **+0.4** |
| **TRIZ** | **Trizonia** | **1.85** | **8** | P | **Pn** | **21 26 12.7** | **+3.9** |
| **VLS** | **Valsamata** | **1.88** | **331** | P | **Pn** | **21 26 10.6** | **+1.3** |
| **VLS** | **Valsamata** | **1.88** | **331** | P | **Pn** | **21 26 10.6** | **+1.3** |
| **VLS** | **Valsamata** | **1.88** | **331** | P | **Pn** | **21 26 10.6** | **+1.3** |
| **KALE** | **Kalithea** | **1.88** | **10** | P | **Pn** | **21 26 12.1** | **+2.7** |
| KALE | | | | AML | AML | 21 26 46.3 | |
| | comp=N,1255μm,0.6s | | | | | | |
| KALE | | | | AML | AML | 21 26 53.4 | |
| | comp=E,1234μm,0.5s | | | | | | |
| **KALE** | **Kalithea** | **1.88** | **10** | P | **Pn** | **21 26 10.5** | **+1.2** |
| **KALE** | **Kalithea** | **1.88** | **10** | P | **Pn** | **21 26 10.5** | **+1.2** |
| **SERG** | **Sergoula** | **1.89** | **8** | P | **Pn** | **21 26 12.0** | **+2.5** |
| **SERG** | **Sergoula** | **1.89** | **8** | P | **Pn** | **21 26 11.6** | **+2.1** |
| **SERG** | **Sergoula** | **1.89** | **8** | P | **Pn** | **21 26 11.6** | **+2.1** |
| **EFP** | **Efpalio** | **1.90** | **4** | P | **Pn** | **21 26 12.7** | **+3.3** |
| **EFP** | **Efpalio** | **1.90** | **4** | P | **Pn** | **21 26 13.0** | **+3.6** |
| **EFP** | **Efpalio** | **1.90** | **4** | P | **Pn** | **21 26 13.0** | **+3.6** |
| **PROD** | **Prodromos** | **1.96** | **28** | P | **Pn** | **21 26 10.2** | **-0.1** |
| PROD | | | | AML | AML | 21 26 46.8 | |
| | comp=N,1107μm,0.3s | | | | | | |
| PROD | | | | AML | AML | 21 26 54.3 | |
| | comp=E,1706μm,0.7s | | | | | | |
| **PROD** | **Prodromos** | **1.96** | **28** | P | **Pn** | **21 26 10.2** | **-0.1** |
| **DSF** | **Desfina** | **1.98** | **18** | P | **Pn** | **21 26 10.6** | **0.0** |
| **DSF** | **Desfina** | **1.98** | **18** | P | **Pn** | **21 26 10.6** | **0.0** |
| **DSF** | **Desfina** | **1.98** | **18** | P | **Pn** | **21 26 11.2** | **+0.6** |
| **VILL** | **Villia** | **2.06** | **37** | P | **Pn** | **21 26 11.7** | **0.0** |
| **VILL** | **Villia** | **2.06** | **37** | P | **Pn** | **21 26 11.7** | **0.0** |
| **ANX** | **Ano Chora** | **2.06** | **4** | P | **Pn** | **21 26 14.5** | **+2.7** |
| **ANX** | **Ano Chora** | **2.06** | **4** | P | **Pn** | **21 26 14.5** | **+2.7** |
| **VIL2** | **Platees** | **2.07** | **36** | P | **Pn** | **21 26 13.1** | **+1.2** |
| VIL2 | | | | AML | AML | 21 26 51.9 | |
| | comp=E,1801μm,0.8s | | | | | | |
| VIL2 | | | | AML | AML | 21 26 52.3 | |
| | comp=N,3254μm,0.6s | | | | | | |
| **VLY** | **Voula,Athens** | **2.10** | **51** | P | **Pn** | **21 26 11.0** | **-1.3** |
| **VLY** | **Voula,Athens** | **2.10** | **51** | P | **Pn** | **21 26 11.4** | **-0.9** |
| **VLY** | **Voula,Athens** | **2.10** | **51** | P | **Pn** | **21 26 11.4** | **-0.9** |
| **PDO** | **Prodromos** | **2.11** | **348** | P | **Pn** | **21 26 16.0** | **+3.7** |
| **PDO** | **Prodromos** | **2.11** | **348** | P | **Pn** | **21 26 15.3** | **+2.9** |
| **PDO** | **Prodromos** | **2.11** | **348** | P | **Pn** | **21 26 15.3** | **+2.9** |
| **IMMV** | **Iera Moni Meta** | **2.11** | **120** | P | **Pn** | **21 26 12.6** | **+0.2** |
| **IMMV** | **Iera Moni Meta** | **2.11** | **120** | P | **Pn** | **21 26 12.7** | **+0.3** |
| **IMMV** | **Iera Moni Meta** | **2.11** | **120** | P | **Pn** | **21 26 12.7** | **+0.3** |
| **ATH** | **Athens Observa** | **2.13** | **47** | P | **Pn** | **21 26 13.1** | **+0.4** |
| ATH | | | | AML | AML | 21 26 55.0 | |
| | comp=N,1385μm,0.6s | | | | | | |
| ATH | | | | AML | AML | 21 26 55.9 | |
| | comp=E,728μm,0.5s | | | | | | |
| **ATH** | **Athens Observa** | **2.13** | **47** | P | **Pn** | **21 26 13.1** | **+0.4** |
| **MHLO** | **Agia Marina, M** | **2.15** | **85** | P | **Pn** | **21 26 13.2** | **+0.3** |
| MHLO | | | | AML | AML | 21 26 51.4 | |
| | comp=E,7329μm,0.7s | | | | | | |
| MHLO | | | | AML | AML | 21 26 53.6 | |
| | comp=N,6002μm,0.6s | | | | | | |
| **MHLO** | **Agia Marina, M** | **2.15** | **85** | P | **Pn** | **21 26 13.2** | **+0.3** |
| **MHLO** | **Agia Marina, M** | **2.15** | **85** | P | **Pn** | **21 26 12.0** | **-0.9** |
| **MHLA** | **Plaka, Milos I** | **2.17** | **84** | P | **Pn** | **21 26 13.1** | **-0.1** |
| **MHLA** | **Plaka, Milos I** | **2.17** | **84** | P | **Pn** | **21 26 13.1** | **-0.1** |
| **ATHU** | **Athens Univers** | **2.17** | **48** | P | **Pn** | **21 26 11.5** | **-1.8** |
| **ATHU** | **Athens Univers** | **2.17** | **48** | P | **Pn** | **21 26 12.1** | **-1.1** |
| **ATHU** | **Athens Univers** | **2.17** | **48** | P | **Pn** | **21 26 12.1** | **-1.1** |
| **PTL** | **Penteli** | **2.27** | **48** | P | **Pn** | **21 26 13.4** | **-1.3** |
| **PTL** | **Penteli** | **2.27** | **48** | P | **Pn** | **21 26 14.1** | **-0.6** |
| **PTL** | **Penteli** | **2.27** | **48** | P | **Pn** | **21 26 14.1** | **-0.6** |
| **SERI** | **Serifos** | **2.29** | **73** | P | **Pn** | **21 26 13.1** | **-1.8** |
| **SERI** | **Serifos** | **2.29** | **73** | P | **Pn** | **21 26 13.1** | **-1.8** |
| **VAM** | **Vamos** | **2.29** | **119** | P | **Pn** | **21 26 14.9** | **0.0** |
| **VAM** | **Vamos** | **2.29** | **119** | P | **Pn** | **21 26 15.1** | **+0.2** |
| **VAM** | **Vamos** | **2.29** | **119** | P | **Pn** | **21 26 15.1** | **+0.2** |
| **LKR** | **Lokris** | **2.34** | **25** | P | **Pn** | **21 26 15.2** | **-0.3** |
| **LKR** | **Lokris** | **2.34** | **25** | P | **Pn** | **21 26 15.4** | **-0.1** |
| **LKR** | **Lokris** | **2.34** | **25** | P | **Pn** | **21 26 15.4** | **-0.1** |
| **EVR** | **Evrytania** | **2.38** | **1** | P | **Pn** | **21 26 20.6** | **+4.4** |
| EVR | | | | AML | AML | 21 27 09.6 | |
| | comp=N,886μm,0.7s | | | | | | |
| EVR | | | | AML | AML | 21 27 13.4 | |
| | comp=E,745μm,0.9s | | | | | | |
| **EVR** | **Evrytania** | **2.38** | **1** | P | **Pn** | **21 26 20.3** | **+4.1** |
| **EVR** | **Evrytania** | **2.38** | **1** | P | **Pn** | **21 26 20.3** | **+4.1** |
| **AGG** | **Agios Georgios** | **2.53** | **11** | P | **Pn** | **21 26 19.5** | **+1.3** |
| **AGG** | **Agios Georgios** | **2.53** | **11** | P | **Pn** | **21 26 19.5** | **+1.3** |
| **AGG** | **Agios Georgios** | **2.53** | **11** | P | **Pn** | **21 26 19.5** | **+1.3** |
| **EREA** | **Eretria** | **2.57** | **42** | P | **Pn** | **21 26 17.6** | **-1.1** |
| **EREA** | **Eretria** | **2.57** | **42** | P | **Pn** | **21 26 18.4** | **-0.3** |
| EREA | | | | S | **Sn** | **21 26 47.2** | **-1.5** |
| **EREA** | **Eretria** | **2.57** | **42** | P | **Pn** | **21 26 18.4** | **-0.3** |
| EREA | | | | S | **Sn** | **21 26 47.2** | **-1.5** |
| **SMIA** | **Simia** | **2.62** | **26** | P | **Pn** | **21 26 19.0** | **-0.4** |
| **SMIA** | **Simia** | **2.62** | **26** | P | **Pn** | **21 26 19.7** | **+0.3** |
| **SMIA** | **Simia** | **2.62** | **26** | P | **Pn** | **21 26 19.7** | **+0.3** |
| **KARY** | **Karystos** | **2.62** | **54** | P | **Pn** | **21 26 18.3** | **-1.1** |
| **KARY** | **Karystos** | **2.62** | **54** | P | **Pn** | **21 26 18.6** | **-0.8** |
| **KARY** | **Karystos** | **2.62** | **54** | P | **Pn** | **21 26 18.6** | **-0.8** |
| **DSL** | **Palaion Diasel** | **2.65** | **349** | P | **Pn** | **21 26 22.6** | **+2.9** |
| **DSL** | **Palaion Diasel** | **2.65** | **349** | P | **Pn** | **21 26 22.5** | **+2.7** |
| DSL | | | | S | **Sn** | **21 26 54.6** | **+4.0** |
| **DSL** | **Palaion Diasel** | **2.65** | **349** | P | **Pn** | **21 26 22.5** | **+2.7** |
| DSL | | | | S | **Sn** | **21 26 54.6** | **+4.0** |
| **IDI** | **Anoyia** | **2.84** | **115** | P | **Pn** | **21 26 22.3** | **-0.2** |
| | comp=E,2.7nm,0.3s,baz=310,slow=21,SNR=32 | | | | | | |
| IDI | | | | S | **Sn** | **21 26 55.6** | **0.0** |
| | comp=E,12nm,0.3s,baz=317,slow=20,SNR=6.3 | | | | | | |
| **IDI** | **Anoyia** | **2.84** | **115** | P | **Pn** | **21 26 23.6** | **+1.1** |
| **IDI** | **Anoyia** | **2.84** | **115** | P | **Pn** | **21 26 23.6** | **+1.1** |
| **THR5** | **Thira Island,** | **2.91** | **91** | P | **Pn** | **21 26 23.0** | **-0.4** |
| **THR5** | **Thira Island,** | **2.91** | **91** | P | **Pn** | **21 26 23.0** | **-0.4** |
| **SIVA** | **Sivas** | **2.92** | **120** | P | **Pn** | **21 26 23.7** | **+0.2** |
| **SIVA** | **Sivas** | **2.92** | **120** | P | **Pn** | **21 26 23.7** | **+0.2** |
| **THR3** | **Thira Island,** | **2.96** | **91** | P | **Pn** | **21 26 23.5** | **-0.5** |
| **THR3** | **Thira Island,** | **2.96** | **91** | P | **Pn** | **21 26 23.5** | **-0.5** |
| **CMBO** | **Columbo, Santo** | **2.96** | **90** | P | **Pn** | **21 26 23.4** | **-0.5** |
| **CMBO** | **Columbo, Santo** | **2.96** | **90** | P | **Pn** | **21 26 23.5** | **-0.5** |
| **CMBO** | **Columbo, Santo** | **2.96** | **90** | P | **Pn** | **21 26 23.5** | **-0.5** |
| **THR6** | **Thira Island,** | **2.96** | **92** | P | **Pn** | **21 26 23.5** | **-0.5** |
| **THR6** | **Thira Island,** | **2.96** | **92** | P | **Pn** | **21 26 23.5** | **-0.5** |
| **SKIA** | **Skiathos** | **2.96** | **27** | P | **Pn** | **21 26 23.3** | **-0.8** |
| **SKIA** | **Skiathos** | **2.96** | **27** | P | **Pn** | **21 26 24.2** | **+0.1** |
| **SKIA** | **Skiathos** | **2.96** | **27** | P | **Pn** | **21 26 24.2** | **+0.1** |
| **THR2** | **Thira island,** | **2.98** | **91** | P | **Pn** | **21 26 24.0** | **-0.3** |
| **THR2** | **Thira island,** | **2.98** | **91** | P | **Pn** | **21 26 24.0** | **-0.3** |
| **SANT** | **Santorini** | **3.00** | **92** | P | **Pn** | **21 26 23.7** | **-1.0** |
| **SANT** | **Santorini** | **3.00** | **92** | P | **Pn** | **21 26 23.7** | **-1.0** |
| **NEO** | **Neokhori** | **3.01** | **23** | P | **Pn** | **21 26 26.0** | **+1.3** |
| **NEO** | **Neokhori** | **3.01** | **23** | P | **Pn** | **21 26 24.7** | **0.0** |
| **NEO** | **Neokhori** | **3.01** | **23** | P | **Pn** | **21 26 24.7** | **0.0** |
| **FYTO** | **Fytoko, Volos** | **3.02** | **18** | P | **Pn** | **21 26 27.6** | **+2.7** |
| **FYTO** | **Fytoko, Volos** | **3.02** | **18** | P | **Pn** | **21 26 27.6** | **+2.7** |
| **THL** | **Klokotos Trika** | **3.03** | **4** | P | **Pn** | **21 26 26.7** | **+1.7** |
| **THL** | **Klokotos Trika** | **3.03** | **4** | P | **Pn** | **21 26 25.6** | **+0.5** |
| **THL** | **Klokotos Trika** | **3.03** | **4** | P | **Pn** | **21 26 25.6** | **+0.5** |
| **XOR** | **Xorichti** | **3.05** | **22** | P | **Pn** | **21 26 27.7** | **+2.4** |
| **XOR** | **Xorichti** | **3.05** | **22** | P | **Pn** | **21 26 25.6** | **+0.2** |
| **XOR** | **Xorichti** | **3.05** | **22** | P | **Pn** | **21 26 25.6** | **+0.2** |
| **APE** | **Apeiranthos** | **3.09** | **79** | P | **Pn** | **21 26 24.1** | **-1.8** |
| **APE** | **Apeiranthos** | **3.09** | **79** | P | **Pn** | **21 26 24.1** | **-1.8** |
| **JAN** | **Janina** | **3.20** | **348** | P | **Pn** | **21 26 29.4** | **+2.1** |
| JAN | | | | AML | AML | 21 27 09.6 | |
| | comp=E,639μm,0.4s | | | | | | |
| JAN | | | | AML | AML | 21 27 11.1 | |
| | comp=N,629μm,0.3s | | | | | | |
| **JAN** | **Janina** | **3.20** | **348** | P | **Pn** | **21 26 29.4** | **+2.1** |
| **SGD** | **Sagiada** | **3.29** | **339** | P | **Pn** | **21 26 30.2** | **+1.6** |
| **SGD** | **Sagiada** | **3.29** | **339** | P | **Pn** | **21 26 30.2** | **+1.6** |
| **LAST** | **Lasithi** | **3.33** | **113** | P | **Pn** | **21 26 29.2** | **-0.1** |
| **LAST** | **Lasithi** | **3.33** | **113** | P | **Pn** | **21 26 29.2** | **-0.1** |
| **NPS** | **Neapolis** | **3.39** | **111** | P | **Pn** | **21 26 29.7** | **-0.3** |
| **NPS** | **Neapolis** | **3.39** | **111** | P | **Pn** | **21 26 29.7** | **-0.3** |
| **KPRO** | **Kipourio** | **3.43** | **355** | P | **Pn** | **21 26 33.9** | **+3.3** |
| **KPRO** | **Kipourio** | **3.43** | **355** | P | **Pn** | **21 26 33.4** | **+2.8** |
| **KPRO** | **Kipourio** | **3.43** | **355** | P | **Pn** | **21 26 33.4** | **+2.8** |
| **KEK** | **Kerkira** | **3.52** | **335** | P | **Pn** | **21 26 33.0** | **+1.2** |
| **KEK** | **Kerkira** | **3.52** | **335** | P | **Pn** | **21 26 33.0** | **+1.2** |
| **LIT** | **Litokhoron** | **3.61** | **9** | P | **Pn** | **21 26 35.4** | **+2.4** |
| **LIT** | **Litokhoron** | **3.61** | **9**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| KOME | | | | *e*Sn | | **Sn** | **21 28 25.8** | **-0.7** |
| **KOME** | **Kolasin** | **6.54** | **345** | *e*Pn | | **Pn** | **21 27 13.9** | **+0.7** |
| KOME | | | | *e*Sn | | **Sn** | **21 28 25.8** | **-0.7** |
| **NKME** | **Niksic** | **6.59** | **342** | ⇑*i*Pn | | **Pn** | **21 27 13.4** | **-0.4** |
| NKME | | | | *e*Sn | | **Sn** | **21 28 26.0** | **-1.6** |
| **NKME** | **Niksic** | **6.59** | **342** | ⇑*i*Pn | | **Pn** | **21 27 13.4** | **-0.4** |
| NKME | | | | *e*Sn | | **Sn** | **21 28 26.0** | **-1.6** |
| **NKY** | **Niksic** | **6.62** | **342** | ⇓*i*Pn | | **Pn** | **21 27 14.1** | **-0.2** |
| NKY | | | | *e*Sn | | **Sn** | **21 28 27.2** | **-1.3** |
| **NKY** | **Niksic** | **6.62** | **342** | ⇓*i*Pn | | **Pn** | **21 27 14.1** | **-0.2** |
| NKY | | | | *e*Sn | | **Sn** | **21 28 27.2** | **-1.3** |
| **SELS** | **Selova** | **6.70** | **356** | *e*Pn | | **Pn** | **21 27 14.5** | **-0.8** |
| SELS | | | | *e*Sn | | **Sn** | **21 28 25.4** | **-4.8** |
| **TREB** | **Trebinje** | **6.71** | **338** | ⇑*i*Pn | | **Pn** | **21 27 14.3** | **-1.1** |
| **ZAPS** | **Zavoj** | **6.77** | **6** | *e*Pn | | **Pn** | **21 27 16.7** | **+0.4** |
| **MS1** | **Monte Sant'Ang** | **6.85** | **321** | *e*Pn | | **Pn** | **21 27 18.4** | **+0.9** |
| **SJES** | **Sjenica** | **6.86** | **349** | *e*Pn | | **Pn** | **21 27 17.4** | **-0.2** |
| **SJES** | **Sjenica** | **6.86** | **349** | *e*Pn | | **Pn** | **21 27 17.4** | **-0.2** |
| **UPM** | **Unac-Piva** | **7.01** | **343** | ⇑*i*Pn | | **Pn** | **21 27 20.4** | **+0.7** |
| UPM | | | | *e*Sn | | **Sn** | **21 28 36.5** | **-1.7** |
| **UPM** | **Unac-Piva** | **7.01** | **343** | ⇑*i*Pn | | **Pn** | **21 27 20.4** | **+0.7** |
| UPM | | | | *e*Sn | | **Sn** | **21 28 36.5** | **-1.7** |
| **PLE** | **Pljevlja** | **7.02** | **346** | ⇓*i*Pn | | **Pn** | **21 27 19.9** | **0.0** |
| PLE | | | | *e*Sn | | **Sn** | **21 28 37.0** | **-1.4** |
| **PLE** | **Pljevlja** | **7.02** | **346** | ⇓*i*Pn | | **Pn** | **21 27 19.9** | **0.0** |
| PLE | | | | *e*Sn | | **Sn** | **21 28 37.0** | **-1.4** |
| **STON** | **Ston** | **7.05** | **335** | *e*Pn | | **Pn** | **21 27 19.1** | **-1.1** |
| STON | | | | Sn | | **Sn** | **21 28 33.5** | **-5.4** |
| **STON** | **Ston** | **7.05** | **335** | *e*Pn | | **Pn** | **21 27 19.0** | **-1.1** |
| **BOVS** | **Bovan** | **7.09** | **360** | *e*Pn | | **Pn** | **21 27 20.3** | **-0.4** |
| **BOVS** | **Bovan** | **7.09** | **360** | *e*Pn | | **Pn** | **21 27 20.3** | **-0.4** |
| **ZAGS** | **Zajecar** | **7.28** | **3** | *e*Pn | | **Pn** | **21 27 23.2** | **-0.1** |
| **ZAGS** | **Zajecar** | **7.28** | **3** | *e*Pn | | **Pn** | **21 27 23.2** | **-0.1** |
| **GRUS** | **Gruza** | **7.39** | **354** | *e*Pn | | **Pn** | **21 27 23.8** | **-1.0** |
| **GRUS** | **Gruza** | **7.39** | **354** | *e*Pn | | **Pn** | **21 27 23.8** | **-1.0** |
| **DIVS** | **Divibare** | **7.67** | **351** | *e*Pn | | **Pn** | **21 27 27.8** | **-1.0** |
| **DIVS** | **Divibare** | **7.67** | **351** | *e*Pn | | **Pn** | **21 27 27.8** | **-1.0** |
| **TRUS** | **Trudelj** | **7.75** | **353** | *e*Pn | | **Pn** | **21 27 28.3** | **-1.4** |
| **TRUS** | **Trudelj** | **7.75** | **353** | *e*Pn | | **Pn** | **21 27 28.3** | **-1.4** |
| **HAPS** | **Han Pijesak,Bl** | **7.84** | **345** | *e*Pn | | **Pn** | **21 27 29.3** | **-1.8** |
| **KUBS** | **Kucevo** | **7.87** | **360** | *e*Pn | | **Pn** | **21 27 29.2** | **-2.2** |
| **KUBS** | **Kucevo** | **7.87** | **360** | *e*Pn | | **Pn** | **21 27 29.2** | **-2.2** |
| **TEKS** | **Tekeris** | **8.18** | **349** | *e*Pn | | **Pn** | **21 27 34.7** | **-1.0** |
| **TEKS** | **Tekeris** | **8.18** | **349** | *e*Pn | | **Pn** | **21 27 34.7** | **-1.0** |
| **FGSL** | **Fruska Gora** | **8.74** | **351** | *e*Pn | | **Pn** | **21 27 41.4** | **-1.9** |
| **FRGS** | **Fruska Gora** | **8.74** | **351** | *e*Pn | | **Pn** | **21 27 41.4** | **-1.9** |
| **BZS** | **Buzias** | **9.07** | **359** | ⇓*i*P | | **Pn** | **21 27 52.0** | **+4.1** |
| **UDBI** | **Udbina** | **9.19** | **332** | *e*Pn | | **Pn** | **21 27 50.1** | **+0.7** |
| UDBI | | | | Sn | | **Sn** | **21 29 27.9** | **-3.5** |
| **UDBI** | **Udbina** | **9.19** | **332** | *e*Pn | | **Pn** | **21 27 50.1** | **+0.7** |
| **VOIR** | | **9.24** | **15** | ⇑*i*P | | Pn | 21 28 00.1 | +10 |
| **MLR** | **Muntele Rosu** | **9.49** | **18** | P | | **Pn** | **21 27 54.4** | **+0.6** |
| | comp=N,0.0nm,0.3s,baz=207,slow=14,SNR=2.1 | | | | | | | |
| **MLR** | **Muntele Rosu** | **9.49** | **18** | ⇓*i*P | | Pn | 21 28 02.8 | +9.1 |
| **NVLJ** | **Novalja** | **9.57** | **329** | *e*Pn | | **Pn** | **21 27 54.1** | **-0.6** |
| NVLJ | | | | Sn | | **Sn** | **21 29 35.2** | **-5.4** |
| **NVLJ** | **Novalja** | **9.57** | **329** | *e*Pn | | **Pn** | **21 27 54.0** | **-0.6** |
| **DOPR** | **Dopca** | **9.82** | **15** | ⇑*i*P | | Pn | 21 28 06.2 | +8.2 |
| **BRTR** | **Keskin Array B** | **9.90** | **68** | P | | **Pn** | **21 28 01.1** | **+1.7** |
| | comp=N,0.0nm,0.3s,baz=251,slow=14,SNR=2.1 | | | | | | | |
| **PLOR** | **Plostina** | **10.02** | **20** | ⇑*i*P | | Pn | 21 28 07.8 | +7.0 |
| **VRI** | **Vrincioaia** | **10.05** | **20** | ⇓*i*P | | Pn | 21 28 10.6 | +9.4 |
| **KEST** | **Kesra** | **10.06** | **269** | P | | **Pn** | **21 28 03.0** | **+1.6** |
| | comp=N,0.2nm,0.3s,baz=53,slow=16,SNR=4.2 | | | | | | | |
| **CRES** | **Cresnjev** | **10.42** | **335** | *e*Pn | | **Pn** | **21 28 04.6** | **-1.6** |
| **CEY** | **Cerknica** | **10.72** | **331** | ⇑*i*Pn | | **Pn** | **21 28 09.9** | **-0.5** |
| **SOKA** | **Soboth** | **11.30** | **336** | *i* Pn | | **Pn** | **21 28 18.2** | **-0.2** |
| | comp=N,1.1nm,0.3s | | | | | | | |
| **SOKA** | **Soboth** | **11.30** | **336** | Pn | | **Pn** | **21 28 18.2** | **-0.2** |
| | comp=N,1.1nm,0.3s | | | | | | | |
| **OBKA** | **Obir** | **11.32** | **334** | *i* Pn | | **Pn** | **21 28 18.9** | **+0.2** |
| | comp=N,0.5nm,0.1s | | | | | | | |
| **OBKA** | **Obir** | **11.32** | **334** | Pn | | **Pn** | **21 28 18.9** | **+0.2** |
| | comp=N,0.5nm,0.1s | | | | | | | |
| **VYHS** | **Vyhne** | **12.14** | **351** | *e*SN | | **Sn** | **21 30 39.4** | **-4.2** |
| **ABTA** | **Abfaltersbach** | **12.31** | **329** | *i* Pn | | **Pn** | **21 28 32.5** | **+0.4** |
| | comp=N,0.4nm,0.2s | | | | | | | |
| **ABTA** | **Abfaltersbach** | **12.31** | **329** | Pn | | **Pn** | **21 28 32.5** | **+0.4** |
| | comp=N,0.4nm,0.2s | | | | | | | |
| **MOA** | **Molln** | **12.58** | **336** | *i* Pn | | **Pn** | **21 28 36.6** | **+0.8** |
| | comp=N,0.7nm,0.2s | | | | | | | |
| **MOA** | **Molln** | **12.58** | **336** | Pn | | **Pn** | **21 28 36.6** | **+0.8** |
| | comp=N,0.7nm,0.2s | | | | | | | |
| **MOTA** | **Moosalm** | **13.38** | **327** | *i* Pn | | **Pn** | **21 28 48.6** | **+1.8** |
| | comp=N,0.4nm,0.3s | | | | | | | |
| **MOTA** | **Moosalm** | **13.38** | **327** | Pn | | **Pn** | **21 28 48.6** | **+1.8** |
| | comp=N,0.4nm,0.3s | | | | | | | |
| **GERES** | **GERESS Array B** | **13.64** | **337** | P | | **Pn** | **21 28 49.7** | **-0.6** |
| | comp=N,0.1nm,0.3s,baz=157,slow=11,SNR=3.4 | | | | | | | |
| GERES | | | | S | | **Sn** | **21 31 13.2** | **-7.0** |
| | comp=N,0.2nm,0.3s,baz=149,slow=23,SNR=4.6 | | | | | | | |
| **AKASG** | **Malin Array Be** | **15.15** | **18** | P | | **Pn** | **21 29 07.7** | **-2.6** |
| | comp=N,0.4nm,0.3s,baz=209,slow=11,SNR=2.9 | | | | | | | |
| **KBZ** | **Khabaz** | **17.68** | **60** | P | | **Pn** | **21 29 42.1** | **-0.1** |
| | comp=N,0.1nm,0.3s,baz=227,slow=11,SNR=3.3 | | | | | | | |
| **ESDC** | **Sonseca Array** | **20.45** | **287** | P | | Pn | 21 30 16.7 | +1.2 |
| | comp=N,0.5nm,0.6s,baz=82,slow=9.6,SNR=3.5 | | | | | | | |
| **FINES** | **FINESS Array B** | **25.08** | **5** | P | | **P** | **21 30 58.8** | **-0.5** |
| | comp=N,3.5nm,0.9s,baz=188,slow=8.4,SNR=10 | | | | | | | |
| **EKA** | **Eskdalemuir Ar** | **25.33** | **326** | P | | **P** | **21 31 03.2** | **+1.6** |
| | comp=N,0.5nm,0.4s,baz=128,slow=7.8,SNR=6.1 | | | | | | | |
| **NB2** | **NORSAR Subarra** | **25.42** | **348** | P | | **P** | **21 31 03.6** | **+1.1** |
| | comp=Z,0.9nm,0.6s,baz=155,slow=10 | | | | | | | |
| **NB2** | **NORSAR Subarra** | **25.42** | **348** | P | | **P** | **21 31 03.6** | **+1.1** |
| | comp=Z,0.9nm,0.6s,SNR=4.2 | | | | | | | |
| **NOA** | **NORSAR Array B** | **25.42** | **348** | P | | **P** | **21 31 02.3** | **-0.2** |
| | comp=Z,1.7nm,0.9s,baz=152,slow=10,SNR=6.8 | | | | | | | |
| **GEYT** | **Alibeck** | **28.89** | **76** | P | | **P** | **21 31 32.8** | **-1.1** |
| | comp=Z,1.1nm,0.5s,baz=275,slow=9.0,SNR=5.8 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **29.42** | **223** | P | | **P** | **21 31 40.4** | **+1.7** |
| | comp=Z,0.3nm,0.6s,baz=38,slow=8.6,SNR=3.8 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **33.12** | **2** | P | | **P** | **21 32 10.7** | **-0.1** |
| | comp=Z,1.3nm,0.6s,baz=185,slow=10,SNR=12 | | | | | | | |
| **BVAR** | **Borovoye Array** | **37.46** | **48** | P | | **P** | **21 32 47.1** | **-1.1** |
| | comp=Z,0.3nm,0.4s,baz=266,slow=9.5,SNR=5.9 | | | | | | | |
| **SPITS** | **Spitsbergen Ar** | **41.81** | **358** | P | | **P** | **21 33 24.6** | **+0.5** |
| | comp=Z,16nm,1.1s,baz=160,slow=7.6,SNR=9.2 | | | | | | | |
| **MKAR** | **Makanchi Array** | **45.35** | **57** | P | | **P** | **21 33 52.1** | **-0.9** |
| | comp=Z,1.0nm,0.5s,baz=271,slow=7.6,SNR=26 | | | | | | | |
| MKAR | | | | PcP | | **PcP** | **21 35 32.2** | **+0.4** |
| | comp=Z,0.3nm,0.4s,baz=286,slow=4.9,SNR=3.7 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **46.08** | **47** | P | | **P** | **21 33 57.2** | **-1.4** |
| | comp=Z,0.8nm,0.3s,baz=267,slow=8.7,SNR=4.8 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **75.26** | **341** | P | | **P** | **21 37 18.2** | **+1.2** |
| | comp=Z,0.2nm,0.5s,baz=32,slow=5.9,SNR=2.6 | | | | | | | |
| **KSRS** | **Korea Array** | **79.61** | **51** | P | | **P** | **21 37 42.0** | **+0.1** |
| | comp=Z,1.7nm,0.6s,baz=314,slow=4.4,SNR=6.6 | | | | | | | |

**MEX 11 21:28:31.4±0.3, 16°25N×98°28W, h2km±12km, MD3.6, Near coast of Guerrero**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | | | |
| **PNIG** | **Pinotepa** | **0.21** | **45** | *e*P | | Pg | 21 28 35.3 | -0.1 |
| PNIG | | | | *e*S | | Sg | 21 28 38.3 | +0.2 |
| **VHO** | **Vista Hermosa** | **1.70** | **61** | *e*P | | Pn | 21 28 58.7 | -3.6 |

*ISCJB **11** 21:34:05.4±1.3, 18°.7S±0°.6×177°.9W±0°.3, h557km, mb3.4/5, Error ellipse: s-maj=83.1km s-min=13.4km az=152.2*
*IDC **11** 21:34:06.4±2.0, 18°.73S×177°.84W, h555km±22km, mb2.9/5, mb1 3.2/6, mb1mx3.0/25, mbtmp3.9/6, Error ellipse: s-maj=76.7km s-min=14.1km az=152.0*
**ISC 11 21:34:06.2±1.4, 18°.7S±0°.5×177°.8W±0°.3, h557km, n19, σ0°84/21, mb3.4/5, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | | | |
| **AFI** | **Afiamalu** | **7.51** | **51** | P | | **P** | **21 35 58.4** | **-1.1** |
| | 5.2nm,0.3s,baz=183,slow=3.8,SNR=8.3 | | | | | | | |
| **STKA** | **Stephens Creek** | **38.74** | **242** | P | | **P** | **21 40 42.9** | **-0.4** |
| | 0.9nm,0.6s,baz=51,slow=12,SNR=2.8 | | | | | | | |
| **WRA** | **Warramunga Arr** | **45.04** | **260** | P | | **P** | **21 41 33.5** | **+0.4** |
| | 0.3nm,0.2s,baz=96,slow=7.9,SNR=32 | | | | | | | |
| WRA | | | | PcP | | **PcP** | **21 43 01.6** | **-0.4** |
| | 0.4nm,0.5s,baz=94,slow=3.8,SNR=5.2 | | | | | | | |
| **ASAR** | **Alice Springs** | **45.12** | **255** | P | | **P** | **21 41 34.2** | **+0.6** |
| | 0.9nm,0.5s,baz=87,slow=8.1,SNR=13 | | | | | | | |
| ASAR | | | | PcP | | **PcP** | **21 43 01.9** | **-0.4** |
| | 0.7nm,0.5s,baz=103,slow=4.0,SNR=6.1 | | | | | | | |
| ASAR | | | | S | | **S** | **21 47 32.0** | **-0.8** |
| | 0.6nm,0.8s,baz=88,slow=15,SNR=9.5 | | | | | | | |
| **TXAR** | **Lajitas Array** | **85.95** | **57** | P | | **P** | **21 45 49.2** | **+1.0** |
| | 0.5nm,0.6s,baz=218,slow=7.2,SNR=8.2 | | | | | | | |
| **ILAR** | **Eielson Array** | **86.54** | **13** | P | | **P** | **21 45 50.4** | **+0.4** |
| | 0.2nm,0.4s,baz=210,slow=5.0,SNR=9.6 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **127.19** | **350** | PKP | | **PKPdf** | **21 52 06.5** | **-0.4** |
| | 2.8nm,0.8s,baz=355,slow=2.2,SNR=7.6 | | | | | | | |
| **AKASG** | **Malin Array Be** | **141.52** | **332** | PKhKP | | PKPpre | 21 52 29.0 | |
| | 0.3nm,0.3s,baz=40,slow=4.2,SNR=4.1 | | | | | | | |
| **BRTR** | **Keskin Array B** | **145.73** | **314** | PKPbc | | **PKPbc** | **21 52 44.0** | **+0.3** |
| | 0.7nm,0.5s,baz=138,slow=5.7,SNR=4.8 | | | | | | | |
| **GERES** | **GERESS Array B** | **148.52** | **345** | PKPbc | | **PKPbc** | **21 52 50.5** | **-0.1** |
| | 0.8nm,0.7s,baz=45,slow=2.1,SNR=7.5 | | | | | | | |
| **CONA** | **Conrad Observa** | **148.79** | **342** | *i* PKPbc | | **PKPbc** | **21 52 51.9** | **+0.6** |
| | 1.3nm,0.6s | | | | | | | |
| **SOKA** | **Soboth** | **150.16** | **342** | *e*PKPbc | | **PKPbc** | **21 52 53.0** | **-1.6** |
| | 2.2nm,1.1s | | | | | | | |
| **KBA** | **Koelnbreinsper** | **150.25** | **345** | *i* PKPbc | | **PKPbc** | **21 52 54.8** | **-0.2** |
| | 1.7nm,0.5s | | | | | | | |
| **WATA** | **Walderalm** | **150.42** | **347** | *i* PKPbc | | **PKPbc** | **21 52 54.0** | **-1.3** |
| | 1.6nm,0.5s | | | | | | | |
| **OBKA** | **Obir** | **150.45** | **343** | *i* PKiKP | | **PKiKP** | **21 52 57.2** | **+1.4** |
| | 4.9nm,1.2s | | | | | | | |
| **WTTA** | **Wattenberg** | **150.48** | **347** | *i* PKPbc | | **PKPbc** | **21 52 54.1** | **-1.4** |
| | 2.9nm,0.6s | | | | | | | |
| **ABTA** | **Abfaltersbach** | **150.77** | **345** | *i* PKPbc | | **PKPbc** | **21 52 55.8** | **-0.2** |
| | 2.4nm,0.5s | | | | | | | |
| **DAVA** | **Damuels** | **150.80** | **349** | *i* PKPbc | | **PKPbc** | **21 52 56.5** | **+0.3** |
| | 9.0nm,1.5s | | | | | | | |
| **FETA** | **Feichten** | **150.90** | **348** | *i* PKPbc | | **PKPbc** | **21 52 56.7** | **+0.3** |
| | 3.7nm,1.3s | | | | | | | |

*ISCJB **11** 21:37:16.8±0.5, 24°.31N±0°.01×122°.14E±0°.01, h11km±3km, Error ellipse: s-maj=2.6km s-min=2.2km az=149.7*
*JMA **11** 21:37:16.6±0.1, 24°.22N×122°.05E, h41km±2km, M3.2*
*TAP **11** 21:37:17.1, 24°.33N×122°.07E, h11km, ML3.7, D*
**ISC 11 21:37:15.9±1.0, 24°.31N±0°.02×122°.17E±0°.02, h10km±9km, n55, σ0°66/108, Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | | | |
| **ENA** | **Nanau** | **0.41** | **287** | P | | **Pg** | **21 37 24.4** | **+0.4** |
| | baz=287 | | | | | | | |
| ENA | | | | *i* S | | **Sg** | **21 37 30.1** | **+0.7** |
| | baz=287 | | | | | | | |
| **TWC** | **Suao** | **0.42** | **316** | *e*P | | **Pb** | **21 37 24.9** | **-0.5** |
| | baz=324 | | | | | | | |
| TWC | | | | S | | **Sg** | **21 37 30.4** | **+0.6** |
| | baz=324 | | | | | | | |
| **TWD** | **Chiawan** | **0.57** | **247** | P | | **Pg** | **21 37 27.6** | **+0.6** |
| | baz=239 | | | | | | | |
| TWD | | | | *i* S | | **Sb** | **21 37 36.3** | **+0.1** |
| | baz=239 | | | | | | | |
| **ILA** | **Ilan** | **0.60** | **320** | P | | **Pb** | **21 37 28.2** | **-0.3** |
| | baz=326 | | | | | | | |
| ILA | | | | *i* S | | **Sb** | **21 37 36.6** | **-0.4** |
| | baz=326 | | | | | | | |
| **HWA** | **Hwalien** | **0.61** | **238** | *e*P | | **Pb** | **21 37 28.9** | **+0.2** |
| | baz=229 | | | | | | | |
| HWA | | | | *e*S | | **Sg** | **21 37 36.8** | **+1.0** |
| | baz=229 | | | | | | | |
| **TWE** | **Neicheng** | **0.61** | **312** | *i* P | | **Pg** | **21 37 28.2** | **+0.3** |
| | baz=317 | | | | | | | |
| TWE | | | | *i* S | | **Sg** | **21 37 36.0** | **+0.1** |
| | baz=317 | | | | | | | |
| **ENTT** | **Nioudou** | **0.64** | **301** | P | | **Pg** | **21 37 28.5** | **+0.1** |
| | baz=303 | | | | | | | |
| ENTT | | | | *i* S | | **Sg** | **21 37 37.2** | **+0.4** |
| | baz=303 | | | | | | | |
| **TWB1** | **Santiao Chiao** | **0.72** | **347** | P | | **Pb** | **21 37 31.2** | **+0.7** |
| | baz=354 | | | | | | | |
| TWB1 | | | | S | | **Sb** | **21 37 41.0** | **+0.5** |
| | baz=354 | | | | | | | |
| **JYNG** | **Yonagunijimaku** | **0.72** | **78** | P | | **Pn** | **21 37 32.0** | **-0.2** |
| JYNG | | | | *e*S | | **Sn** | **21 37 44.0** | **+0.7** |
| **NNS** | **Nan Shan** | **0.74** | **281** | P | | **Pg** | **21 37 30.1** | **-0.1** |
| | baz=279 | | | | | | | |
| NNS | | | | S | | **Sg** | **21 37 40.0** | **+0.1** |
| | baz=279 | | | | | | | |
| **YOJ** | **Yonaguni jima** | **0.78** | **78** | P | | **Pn** | **21 37 33.4** | **+0.4** |
| YOJ | | | | *e*S | | **Sn** | **21 37 45.4** | **+0.6** |
| **NSK** | **Sanguang** | **0.82** | **297** | *i* P | | **Pg** | **21 37 31.4** | **-0.5** |
| | baz=298 | | | | | | | |
| NSK | | | | *i* S | | **Sg** | **21 37 41.8** | **-0.9** |
| | baz=298 | | | | | | | |
| **ESL** | **Shilin** | **0.83** | **234** | P | | **Pg** | **21 37 31.8** | **-0.2** |
| | baz=228 | | | | | | | |
| ESL | | | | *e*S | | **Sb** | **21 37 44.7** | **+1.0** |
| | baz=228 | | | | | | | |
| **NWF** | **Wu-fen Shan** | **0.84** | **335** | P | | **Pb** | **21 37 33.1** | **+0.4** |
| | baz=340 | | | | | | | |
| NWF | | | | S | | **Sb** | **21 37 43.9** | **-0.1** |
| | baz=340 | | | | | | | |
| **WHF** | **Hehuan Shan** | **0.84** | **259** | P | | **Pg** | **21 37 31.8** | **-0.5** |
| | baz=255 | | | | | | | |
| WHF | | | | *i* S | | **Sg** | **21 37 43.3** | **+0.1** |
| | baz=255 | | | | | | | |
| **TWA** | **Mucha** | **0.86** | **322** | *e*P | | **Pb** | **21 37 33.4** | **+0.5** |
| | baz=325 | | | | | | | |
| TWA | | | | *e*S | | **Sb** | **21 37 44.4** | **-0.1** |
| | baz=325 | | | | | | | |
| **TWT** | **Tachien** | **0.91** | **267** | *e*P | | **Pb** | **21 37 34.1** | **+0.2** |
| | baz=264 | | | | | | | |
| TWT | | | | S | | **Sg** | **21 37 45.4** | **+0.1** |
| | baz=264 | | | | | | | |
| **TAP1** | **Taipei** | **0.94** | **321** | *i* P | | **Pb** | **21 37 34.2** | **-0.1** |
| | baz=324 | | | | | | | |
| TAP1 | | | | *i* S | | **Sb** | **21 37 46.8** | **+0.1** |
| | baz=324 | | | | | | | |
| **TAP** | **Taipei** | **0.95** | **321** | *i* P | | **Pb** | **21 37 34.4** | **-0.1** |
| | baz=324 | | | | | | | |
| TAP | | | | *i* S | | **Sb** | **21 37 47.1** | **+0.1** |
| | baz=324 | | | | | | | |
| **TWS1** | **Kuangyinshan** | **1.04** | **319** | P | | **Pg** | **21 37 35.7** | **-0.3** |
| | baz=322 | | | | | | | |
| TWS1 | | | | *e*S | | **Sb** | **21 37 50.1** | **+0.2** |
| | baz=322 | | | | | | | |
| **TWY** | **Chenhua** | **1.09** | **332** | P | | **Pn** | **21 37 37.6** | **+0.2** |
| | baz=335 | | | | | | | |
| TWY | | | | S | | **Sb** | **21 37 51.4** | **+0.1** |
| | baz=335 | | | | | | | |
| **NCU** | **National Centr** | **1.11** | **307** | *e*P | | **Pb** | **21 37 37.3** | **+0.1** |
| | baz=308 | | | | | | | |
| NCU | | | | *e*S | | **Sg** | **21 37 51.5** | **-0.3** |
| | baz=308 | | | | | | | |
| **EHY** | **Hungye** | **1.11** | **224** | *e*P | | **Pg** | **21 37 35.6** | **-1.7** |
| | baz=219 | | | | | | | |
| EHY | | | | *e*S | | **Sg** | **21 37 52.0** | **+0.2** |
| | baz=219 | | | | | | | |
| **NSTT** | **Nanjuang** | **1.11** | **287** | *i* P | | **Pg** | **21 37 36.6** | **-0.7** |
| | baz=287 | | | | | | | |
| NSTT | | | | *i* S | | **Sg** | **21 37 50.6** | **-1.2** |
| | baz=287 | | | | | | | |
| **HSN** | **Hsinchu** | **1.20** | **295** | *e*P | | **Pn** | **21 37 38.9** | **+0.2** |
| | baz=297 | | | | | | | |
| HSN | | | | *e*S | | **Sg** | **21 37 53.2** | **-1.4** |
| | baz=297 | | | | | | | |
| **SMLT** | **Sun Moon Lake** | **1.23** | **250** | *e*P | | **Pn** | **21 37 38.2** | **-1.2** |
| | baz=247 | | | | | | | |
| SMLT | | | | S | | **Sg** | **21 37 54.8** | **-1.0** |
| | baz=247 | | | | | | | |
| **TWF1** | **Yuli** | **1.24** | **220** | *e*P | | **Pn** | **21 37 38.1** | **-1.3** |
| | baz=215 | | | | | | | |
| TWF1 | | | | S | | **Sn** | **21 37 56.9** | **+0.8** |
| | baz=215 | | | | | | | |
| **TYC** | **Yuchr** | **1.26** | **252** | *e*P | | **Pn** | **21 37 38.6** | **-1.0** |
| | baz=248 | | | | | | | |
| TYC | | | | S | | **Sb** | **21 37 55.8** | **-0.4** |
| | baz=248 | | | | | | | |
| **TWQ1** | **Liyutan** | **1.27** | **272** | P | | **Pn** | **21 37 39.2** | **-0.6** |
| | baz=270 | | | | | | | |
| TWQ1 | | | | S | | **Sb** | **21 37 55.9** | **-0.5** |
| | baz=270 | | | | | | | |
| **NSY** | **Sanyi** | **1.29** | **275** | *e*P | | **Pb** | **21 37 40.5** | **+0.3** |
| | baz=274 | | | | | | | |
| NSY | | | | S | | **Sb** | **21 37 56.7** | **-0.2** |
| | baz=274 | | | | | | | |
| **TCU** | **Taichung** | **1.37** | **264** | *e*P | | **Pn** | **21 37 40.5** | **-0.6** |
| | baz=261 | | | | | | | |
| TCU | | | | *e*S | | **Sb** | **21 37 58.5** | **-0.8** |
| | baz=261 | | | | | | | |
| **YUS** | **Yu-Shan** | **1.38** | **234** | *e*P | | **Pn** | **21 37 40.4** | **-1.3** |
| | baz=230 | | | | | | | |
| YUS | | | | *e*S | | **Sb** | **21 38 00.1** | **+0.1** |
| | baz=230 | | | | | | | |
| **CHKT** | **Chengkung** | **1.41** | **212** | *e*P | | **Pb** | **21 37 42.9** | **+0.5** |
| | baz=207 | | | | | | | |
| CHKT | | | | *e*S | | **Sg** | **21 38 01.4** | **+0.1** |
| | baz=207 | | | | | | | |
| **WNT** | **Mingjian** | **1.42** | **253** | *e*P | | **Pn** | **21 37 42.3** | **+0.5** |
| | baz=250 | | | | | | | |
| WNT | | | | *e*S | | **Sn** | **21 38 00.5** | **-0.1** |
| | baz=250 | | | | | | | |
| **IRIF** | **Iriomote-Funau** | **1.43** | **89** | P | | **Pb** | **21 37 42.5** | **-0.1** |
| IRIF | | | | *e*S | | **Sg** | **21 38 01.6** | **-0.2** |
| **ALS** | **Alishan** | **1.48** | **238** | *e*P | | **Pn** | **21 37 43.4** | **+0.5** |
| | baz=234 | | | | | | | |
| ALS | | | | *e*S | | **Sn** | **21 38 02.4** | **0.0** |
| | baz=234 | | | | | | | |
| **ELDTW** | **Lidau** | **1.53** | **224** | *e*P | | **Pn** | **21 37 42.8** | **-0.7** |
| | baz=220 | | | | | | | |
| ELDTW | | | | *e*S | | **Sn** | **21 38 04.0** | **+0.5** |
| | baz=220 | | | | | | | |
| **CHN5** | **Tsauling** | **1.54** | **243** | *e*P | | **Pn** | **21 37 43.4** | **-0.1** |
| | baz=240 | | | | | | | |
| CHN5 | | | | *e*S | | **Sn** | **21 38 03.8** | **+0.3** |
| | baz=240 | | | | | | | |
| **JKRS** | **Kuro-shima** | **1.68** | **92** | P | | **Pb** | **21 37 46.5** | **-0.5** |
| JKRS | | | | S | | **Sg** | **21 38 09.1** | **-1.0** |
| **STYT** | **Tauyuan** | **1.72** | **229** | *e*P | | **Pn** | **21 37 46.0** | **0.0** |
| | baz=225 | | | | | | | |
| STYT | | | | *e*S | | **Sn** | **21 38 07.8** | **-0.3** |
| | baz=225 | | | | | | | |
| **CHN4** | **Tsaushan** | **1.73** | **237** | *e*P | | **Pb** | **21 37 47.3** | **-0.4** |
| | baz=234 | | | | | | | |
| CHN4 | | | | *e*S | | **Sn** | **21 38 07.8** | **-0.4** |
| | baz=234 | | | | | | | |
| **WTP** | **Ta-pu** | **1.77** | **234** | *e*P | | **Pn** | **21 37 47.3** | **+0.6** |
| | baz=230 | | | | | | | |
| WTP | | | | *e*S | | **Sn** | **21 38 09.1** | **-0.2** |
| | baz=230 | | | | | | | |
| **WTCT** | **Ta-ch'eng** | **1.78** | **256** | *e*P | | **Pn** | **21 37 47.4** | **+0.6** |
| | baz=254 | | | | | | | |
| WTCT | | | | *e*S | | **Sn** | **21 38 08.7** | **-0.8** |
| | baz=254 | | | | | | | |
| **CHY** | **Chiayi** | **1.79** | **244** | *e*P | | **Pn** | **21 37 47.6** | **+0.8** |
| | baz=241 | | | | | | | |
| CHY | | | | *e*S | | **Sn** | **21 38 10.1** | **+0.4** |
| | baz=241 | | | | | | | |
| **TWG** | **Pinlang** | **1.79** | **214** | *e*P | | **Pn** | **21 37 47.4** | **+0.5** |
| | baz=211 | | | | | | | |
| TWG | | | | *e*S | | **Sn** | **21 38 10.6** | **+0.9** |
| | baz=211 | | | | | | | |
| **JIJ** | **Ishigaki jima** | **1.80** | **88** | P | | **Pn** | **21 37 47.9** | **+0.8** |
| JIJ | | | | S | | **Sn** | **21 38 10.3** | **+0.3** |
| **TWK** | **Hsinying** | **1.85** | **236** | *e*P | | **Pn** | **21 37 48.2** | **+0.3** |
| | baz=233 | | | | | | | |
| TWK | | | | *e*S | | **Sn** | **21 38 11.4** | **0.0** |
| | baz=233 | | | | | | | |
| **CHN1** | **Nanshi** | **1.87** | **234** | *e*P | | **Pn** | **21 37 48.3** | **+0.2** |
| | baz=231 | | | | | | | |
| CHN1 | | | | *e*S | | **Sn** | **21 38 11.5** | **-0.3** |
| | baz=231 | | | | | | | |
| **SGST** | **Jiashian** | **1.90** | **230** | *e*P | | **Pn** | **21 37 48.7** | **+0.3** |
| | baz=227 | | | | | | | |
| SGST | | | | *e*S | | **Sn** | **21 38 13.2** | **+0.9** |
| | baz=227 | | | | | | | |
| **WSF** | **Szhu** | **1.90** | **250** | *e*S | | **Sn** | **21 38 11.8** | **-0.6** |
| | baz=247 | | | | | | | |
| **JISG** | **Ishigakijimahi** | **1.97** | **81** | P | | **Pn** | **21 37 49.8** | **+0.4** |
| JISG | | | | S | | **Sn** | **21 38 14.7** | **+0.5** |
| **ECL** | **Taimali** | **2.04** | **213** | *e*P | | **Pn** | **21 37 51.7** | **+1.4** |
| | baz=210 | | | | | | | |
| ECL | | | | *e*S | | **Sn** | **21 38 16.1** | **+0.4** |
| | baz=210 | | | | | | | |
| **SSD** | **Sandimen** | **2.10** | **223** | *e*P | | **Pn** | **21 37 52.4** | **+1.2** |
| | baz=219 | | | | | | | |
| SSD | | | | *e*S | | **Sn** | **21 38 18.5** | **+1.2** |
| | baz=219 | | | | | | | |
| **EAST** | **Anshuo** | **2.27** | **213** | *e*P | | **Pn** | **21 37 54.6** | **+1.1** |
| | baz=209 | | | | | | | |
| EAST | | | | *e*S | | **Sn** | **21 38 23.2** | **+1.7** |
| | baz=209 | | | | | | | |
| **JTJ** | **Tarama** | **2.33** | **81** | *e*S | | **Sb** | **21 38 25.2** | **-1.8** |

*ISCJB **11** 21:46:16.8±1.0, 28°.00S±0°.03×71°.50W±0°.08, h10km, Error ellipse: s-maj=9.8km s-min=4.5km az=13.3*
*SJA **11** 21:46:16.2±0.9, 28°.14S×71°.62W, h

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| BANOM | **Banah** | | **3.28** | **127** | pPn | | **Pb** | **21 51 52.2** | **+0.5** |
| | SNR=7.4 | | | | | | | | |
| BANOM | **Banah** | | **3.28** | **127** | P | | **Pb** | **21 51 52.2** | **+0.5** |
| | SNR=7.4 | | | | | | | | |
| KRBR | **Kerman** | | **3.57** | **55** | *e*Pn | | **Pn** | **21 51 49.5** | **+1.2** |
| KRBR | | | | | *e*Sg | | **Sb** | **21 52 41.3** | **+1.7** |
| MSFE | **Esma-Masafi** | | **3.57** | **136** | P | | **Pb** | **21 51 57.1** | **+0.5** |
| | SNR=5.8 | | | | | | | | |
| IMEH | **Mehriz** | | **3.58** | **17** | *e*Pn | | **Pn** | **21 51 48.3** | **-0.1** |
| IMEH | | | | | *e*AMB | | AMB | 21 52 05.2 | |
| | comp=Z,168nm,0.2s | | | | | | | | |
| IMEH | **Mehriz** | | **3.58** | **17** | *e*Pn | | **Pn** | **21 51 48.3** | **-0.1** |
| FAQ | **Al Faqa, Dubai** | | **3.75** | **148** | P | | **Pb** | **21 51 59.8** | **+0.1** |
| FAQ | **Al Faqa, Dubai** | | **3.75** | **148** | P | | **Pb** | **21 51 59.8** | **+0.1** |
| FAQ | **Al Faqa, Dubai** | | **3.75** | **148** | pPn | | **Pb** | **21 52 01.1** | **+1.5** |
| | SNR=7.0 | | | | | | | | |
| FAQ | **Al Faqa, Dubai** | | **3.75** | **148** | P | | **Pb** | **21 52 01.1** | **+1.5** |
| | SNR=7.0 | | | | | | | | |
| UOSS | **Minazif** | | **3.91** | **139** | P | | **Pb** | **21 52 01.3** | **-1.1** |
| | SNR=5.4 | | | | | | | | |
| UOSS | **Minazif** | | **3.91** | **139** | pPn | | **Pb** | **21 52 01.3** | **-1.1** |
| | SNR=5.4 | | | | | | | | |
| UOSS | **Minazif** | | **3.91** | **139** | P | | **Pb** | **21 52 01.3** | **-1.1** |
| | SNR=5.4 | | | | | | | | |
| IRAM | **Ramesheh** | | **3.94** | **347** | *e*Pn | | **Pn** | **21 51 53.0** | **-0.4** |
| IRAM | | | | | *e*AMB | | AMB | 21 53 06.2 | |
| | comp=Z,158nm,0.4s | | | | | | | | |
| IRAM | **Ramesheh** | | **3.94** | **347** | *e*Pn | | **Pn** | **21 51 53.0** | **-0.4** |
| ISAD | **Sadrabad** | | **3.95** | **3** | *e*Pn | | **Pn** | **21 51 53.6** | **0.0** |
| ISAD | | | | | *e*AMB | | AMB | 21 52 58.4 | |
| | comp=Z,199nm,0.3s | | | | | | | | |
| ISAD | **Sadrabad** | | **3.95** | **3** | *e*Pn | | **Pn** | **21 51 53.6** | **0.0** |
| ASHO | **Ashiyiah** | | **4.04** | **143** | *i* P | | **Pb** | **21 52 03.3** | **-1.2** |
| | SNR=8.5 | | | | | | | | |
| ASHO | **Ashiyiah** | | **4.04** | **143** | P | | **Pb** | **21 52 03.6** | **-1.0** |
| | SNR=15 | | | | | | | | |
| ASHO | | | | | S | | **Sb** | **21 52 52.6** | **-0.4** |
| ASHO | **Ashiyiah** | | **4.04** | **143** | pPn | | **Pb** | **21 52 03.6** | **-1.0** |
| | SNR=15 | | | | | | | | |
| ASHO | | | | | Sn | | **Sb** | **21 52 52.6** | **-0.4** |
| ASHO | **Ashiyiah** | | **4.04** | **143** | P | | **Pb** | **21 52 03.6** | **-1.0** |
| | SNR=15 | | | | | | | | |
| ASHO | | | | | S | | **Sb** | **21 52 52.6** | **-0.4** |
| IBAF | **Bafgh** | | **4.08** | **27** | *e*Pn | | **Pn** | **21 51 54.7** | **-0.5** |
| IBAF | | | | | *e*AMB | | AMB | 21 51 56.1 | |
| | comp=Z,159nm,0.1s | | | | | | | | |
| IBAF | **Bafgh** | | **4.08** | **27** | *e*Pn | | **Pn** | **21 51 54.7** | **-0.5** |
| ICHK | **Chekchek** | | **4.36** | **11** | *e*Pn | | **Pn** | **21 51 58.9** | **-0.2** |
| ICHK | | | | | *e*AMB | | AMB | 21 52 12.8 | |
| | comp=Z,140nm,0.2s | | | | | | | | |
| ICHK | **Chekchek** | | **4.36** | **11** | *e*Pn | | **Pn** | **21 51 58.9** | **-0.2** |
| IZEF | **Zefreh** | | **5.01** | **350** | *e*AMB | | AMB | 21 52 27.2 | |
| | comp=Z,52nm,0.2s | | | | | | | | |
| IZEF | | | | | *e*Pn | | **Pn** | **21 52 07.8** | **-0.3** |
| IPIR | **Pirpir** | | **5.19** | **336** | *e*Pn | | **Pn** | **21 52 10.5** | **-0.1** |
| IPIR | | | | | *e*AMB | | AMB | 21 53 16.9 | |
| | comp=Z,120nm,0.4s | | | | | | | | |
| IPIR | **Pirpir** | | **5.19** | **336** | *e*Pn | | **Pn** | **21 52 10.5** | **-0.1** |
| WSAR | **Wadi Sarin** | | **6.66** | **134** | P | | Pn | 21 52 37.8 | +7.3 |
| | SNR=13 | | | | | | | | |
| WSAR | **Wadi Sarin** | | **6.66** | **134** | Pn | | Pn | 21 52 37.8 | +7.2 |
| | SNR=13 | | | | | | | | |
| WSAR | **Wadi Sarin** | | **6.66** | **134** | P | | Pn | 21 52 37.8 | +7.2 |
| | SNR=13 | | | | | | | | |

**NNC 11 21:52:15.3±2.5, 36°97N×71°25E, h193km±36km, mb2.6, mpv3.7,3C-7D, Error ellipse: s-maj=28.2km s-min=21.0km az=69.0, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **SFK** | **Sufi-Kurgan** | **3.51** | **30** | ⇓P | | Pn | 21 53 10.4 | -0.5 |
| | 5.5nm,0.3s | | | | | | | |
| SFK | | | | ⇓S | | Sn | 21 53 55.3 | +0.7 |
| | 12nm,0.4s | | | | | | | |
| **MNAS** | **Manas** | **5.59** | **10** | ⇑P | | Pn | 21 53 37.1 | -0.1 |
| | 3.9nm,0.6s | | | | | | | |
| MNAS | | | | ⇓S | | Sn | 21 54 42.6 | +0.7 |
| | 7.7nm,0.7s | | | | | | | |
| **KK31** | **Karatay Array** | **6.15** | **355** | ⇑P | | Pn | 21 53 44.3 | 0.0 |
| | 10.0nm,0.4s,baz=184,slow=15,SNR=90 | | | | | | | |
| KK31 | | | | ⇑S | | Sn | 21 54 54.9 | +0.2 |
| | 2.1nm,0.3s,baz=177,slow=19,SNR=12 | | | | | | | |
| **AAK** | **Ala-Archa** | **6.18** | **23** | ⇓P | | Pn | 21 53 45.9 | +1.0 |
| | 2.0nm,0.6s | | | | | | | |
| AAK | | | | ⇓S | | Sn | 21 54 57.5 | +1.8 |
| | 3.6nm,0.8s | | | | | | | |
| **TKM2** | **Tokmak 2** | **6.81** | **28** | ⇓P | | Pn | 21 53 53.6 | +0.4 |
| | 2.3nm,0.5s | | | | | | | |
| TKM2 | | | | ⇓S | | Sn | 21 55 09.0 | -1.6 |
| | 1.7nm,0.9s | | | | | | | |

*DJA **11** 21:55:57.6±2.2, 7°S×8°×15°6E±1°1, h58km±15km, M5.3/18, mb5.3/18, mB5.8/6, Mw(mB)5.4/6*
*BJI **11** 21:55:59.0, 7°03S×156°02E, h83km, mb4.9/24, mB5.2/22, Ms5.2/15, Ms7 4.9/12*
*ISCJB **11** 21:56:02.8±0.3, 6°96S±0°03×155°62E±0°04, h100km, mb5.0/65, Error ellipse: s-maj=5.9km s-min=4.7km az=159.7*
*IDC **11** 21:56:02.0±0.8, 6°98S×155°70E, h80km±7km, mb4.2/14, mb1 4.4/18, mb1mx4.3/27, mbtmp4.6/18, MS3.5/6, Ms1 3.5/6, ms1mx3.2/31, Error ellipse: s-maj=18.0km s-min=12.6km az=100.0*
*NEIC **11** 21:56:03.1±0.7, 6°92S×155°64E, h91km±6km, mb5.2/28, Error ellipse: s-maj=5.9km s-min=5.4km az=78.0*
**ISC 11 21:56:04.1±0.3, 6°93S±0°05×155°72E±0°05, h100km, n157, σ1°55/173, mb5.0/65, 1C, Bougainville-Solomon Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **RABL** | **Rabaul** | **4.46** | **307** | *e*Pn | | **Pn** | **21 57 08.9** | **-0.7** |
| RABL | | | | *e*Sn | | **Sn** | **21 57 57.4** | **-3.0** |
| **HNR** | **Honiara** | **4.87** | **121** | *e*P | | **Pn** | **21 57 14.0** | **-1.1** |
| HNR | | | | *e*S | | Sn | 21 58 29.0 | +19 |
| **HNR** | **Honiara** | **4.87** | **121** | P | | **Pn** | **21 57 11.7** | **-3.4** |
| | 31nm,0.3s,baz=200,slow=3.5,SNR=5.0 | | | | | | | |
| HNR | | | | S | | **Sn** | **21 58 13.8** | **+3.4** |
| | 69nm,0.3s,baz=169,slow=13,SNR=4.7 | | | | | | | |
| HNR | | | | LR | | LR | 21 59 09.2 | |
| | comp=Z,645nm,18.9s,baz=290,slow=38 | | | | | | | |
| **HNR** | **Honiara** | **4.87** | **121** | *e*Pn | | **Pn** | **21 57 15.9** | **+0.8** |
| HNR | | | | S | | **Sn** | **21 58 13.8** | **+3.4** |
| **PMG** | **Port Moresby** | **8.82** | **253** | P | | **Pn** | **21 58 06.3** | **-2.5** |
| | 24nm,0.3s,baz=49,slow=10,SNR=37 | | | | | | | |
| PMG | | | | S | | **Sn** | **21 59 49.5** | **+3.0** |
| | 1.8nm,0.3s,baz=327,slow=13,SNR=6.9 | | | | | | | |
| PMG | | | | LR | | LR | 22 01 22.9 | |
| | comp=Z,269nm,20.8s,baz=28,slow=36 | | | | | | | |
| **PATS** | **Pohnpei** | **13.92** | **11** | *e*Pn | | **Pn** | **21 59 14.0** | **-3.0** |
| **COEN** | **Coen** | **14.17** | **239** | P | | **Pn** | **21 59 18.3** | **-2.0** |
| | baz=14,SNR=14 | | | | | | | |
| **COEN** | **Coen** | **14.17** | **239** | *e*Pn | | **Pn** | **21 59 19.8** | **-0.5** |
| **MTSU** | **Mount Surprise** | **15.73** | **224** | P | | **Pn** | **21 59 39.1** | **-1.1** |
| | baz=16,SNR=9.7 | | | | | | | |
| **CTA** | **Charters Tower** | **15.98** | **214** | P | | **Pn** | **21 59 42.3** | **-1.0** |
| | 0.7nm,0.3s,baz=37,slow=13,SNR=9.0 | | | | | | | |
| **CTAO** | **Charters Tower** | **15.98** | **214** | *e*Pn | | **P** | **21 59 45.8** | **+1.0** |
| | 14nm,0.9s | | | | | | | |
| **DZM** | **Mont Dzumac** | **18.27** | **147** | P | | **Pn** | **22 00 10.5** | **-0.8** |
| | 0.7nm,0.3s,baz=339,slow=22,SNR=9.7 | | | | | | | |
| DZM | | | | LR | | LR | 22 05 59.3 | |
| | comp=Z,198nm,21.6s,baz=56,slow=33 | | | | | | | |
| **DZM** | **Mont Dzumac** | **18.27** | **147** | *e*P | | **Pn** | **22 00 11.3** | **+0.1** |
| | 15nm,0.7s | | | | | | | |
| **RMQ** | **Roma** | **20.55** | **198** | P | | **P** | **22 00 34.5** | **-0.3** |
| | baz=20,SNR=4.9 | | | | | | | |
| **QIS** | **Mount Isa** | **20.67** | **227** | P | | **P** | **22 00 36.1** | **0.0** |
| | baz=21,SNR=10 | | | | | | | |
| **QLP** | **Quilpie** | **22.39** | **208** | P | | **P** | **22 00 53.5** | **-0.8** |
| | baz=22,SNR=21 | | | | | | | |
| **KDU** | **Kakadu** | **23.60** | **254** | P | | **P** | **22 01 04.7** | **-1.5** |
| | baz=24,SNR=4.5 | | | | | | | |
| **FAKI** | **Fak Fak** | **23.71** | **279** | *e*P | | **P** | **22 01 05.2** | **-2.0** |
| | 22nm,0.7s | | | | | | | |
| **SAUI** | **Saumlaki** | **24.23** | **266** | P | | **P** | **22 01 11.9** | **+0.1** |
| **SAUI** | **Saumlaki** | **24.23** | **266** | *e*P | | **P** | **22 01 11.6** | **-0.2** |
| | 268nm,0.7s | | | | | | | |
| **MSVF** | **Nonsavu** | **24.29** | **118** | *e*P | | **P** | **22 01 11.3** | **-1.1** |
| | 26nm,1.4s | | | | | | | |
| **WRAB** | **Tennant Creek** | **24.43** | **236** | *e*P | | **P** | **22 01 13.3** | **-0.3** |
| | 27nm,0.6s | | | | | | | |
| **WB2** | **Warramunga Arr** | **24.43** | **236** | *e*P | | **P** | **22 01 13.4** | **-0.2** |
| **WRA** | **Warramunga Arr** | **24.45** | **236** | P | | **P** | **22 01 13.2** | **-0.6** |
| | 25nm,0.6s,baz=60,slow=9.9,SNR=141 | | | | | | | |
| WRA | | | | PcP | | **PcP** | **22 04 51.3** | **+0.9** |
| | 1.4nm,0.4s,baz=57,slow=2.8,SNR=5.8 | | | | | | | |
| WRA | | | | LR | | LR | 22 10 02.9 | |
| | comp=Z,135nm,20.9s,baz=85,slow=34 | | | | | | | |
| **MTN** | **Manton Dam** | **24.91** | **254** | P | | **P** | **22 01 17.6** | **-0.4** |
| | baz=25,SNR=20 | | | | | | | |
| **MTN** | **Manton Dam** | **24.91** | **254** | *e*P | | **P** | **22 01 17.9** | **-0.1** |
| | 98nm,0.9s | | | | | | | |
| **SWI** | **Sorong** | **25.12** | **283** | P | | **P** | **22 01 18.9** | **-1.0** |
| **CMSA** | **Cobar Meteorol** | **26.22** | **200** | P | | **P** | **22 01 31.0** | **+1.3** |
| | baz=26,SNR=9.9 | | | | | | | |
| **AS01** | **Alice Springs** | **26.72** | **229** | *e*P | | **P** | **22 01 33.0** | **-1.4** |
| **AS31** | **Alice Springs** | **26.75** | **229** | *e*P | | **P** | **22 01 33.7** | **-0.9** |
| | 3.7nm,0.8s | | | | | | | |
| **ASAR** | **Alice Springs** | **26.75** | **229** | P | | **P** | **22 01 33.6** | **-1.1** |
| | 7.2nm,0.5s,baz=60,slow=9.7,SNR=91 | | | | | | | |
| ASAR | | | | PcP | | **PcP** | **22 04 56.5** | **+0.9** |
| | 1.0nm,0.5s,baz=58,slow=2.8,SNR=4.8 | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **27.48** | **23** | T | | T | 22 30 04.5 | |
| | baz=202,slow=76,SNR=1081 | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **27.49** | **23** | T | | T | 22 30 11.2 | |
| | baz=202,slow=76,SNR=934 | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **27.50** | **23** | T | | T | 22 30 02.6 | |
| | baz=202,slow=76,SNR=129 | | | | | | | |
| **KNRA** | **Kununurra** | **27.79** | **249** | P | | **P** | **22 01 43.3** | **-0.6** |
| | baz=28,SNR=13 | | | | | | | |
| **STKA** | **Stephens Creek** | **28.11** | **206** | P | | **P** | **22 01 45.0** | **-1.5** |
| | 3.2nm,0.4s,baz=39,slow=14,SNR=15 | | | | | | | |
| STKA | | | | LR | | LR | 22 12 21.1 | |
| | comp=Z,111nm,20.6s,baz=343,slow=35 | | | | | | | |
| **STKA** | **Stephens Creek** | **28.11** | **206** | P | | **P** | **22 01 46.0** | **-0.6** |
| | baz=28,SNR=10 | | | | | | | |
| **STKA** | **Stephens Creek** | **28.11** | **206** | *e*P | | **P** | **22 01 46.0** | **-0.6** |
| | 1.0nm,0.8s | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.67** | **22** | T | | T | 22 31 30.1 | |
| | baz=213,slow=79,SNR=26 | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.68** | **22** | T | | T | 22 31 30.0 | |
| | baz=213,slow=79,SNR=33 | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.69** | **22** | T | | T | 22 31 39.4 | |
| | baz=213,slow=79,SNR=16 | | | | | | | |
| **LBMI** | **Labuha** | **28.82** | **281** | P | | **P** | **22 01 53.5** | **+0.3** |
| **SANI** | **Sanana** | **30.02** | **278** | P | | **P** | **22 02 03.0** | **-0.8** |
| **SOEI** | **Soe** | **31.23** | **263** | P | | **P** | **22 02 14.4** | **-0.2** |
| SOEI | | | | S | | **P** | **22 02 14.4** | **-0.2** |
| **SOEI** | **Soe** | **31.23** | **263** | *e*P | | **P** | **22 02 14.2** | **-0.4** |
| | 21nm,0.7s | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **31.34** | **246** | P | | **P** | **22 02 14.3** | **-1.0** |
| | baz=31,SNR=43 | | | | | | | |
| **BBOO** | **Buckleboo** | **31.58** | **213** | P | | **P** | **22 02 16.2** | **-1.1** |
| | baz=32,SNR=7.0 | | | | | | | |
| **BBOO** | **Buckleboo** | **31.58** | **213** | *e*P | | **P** | **22 02 16.1** | **-1.1** |
| | 50nm,1.9s | | | | | | | |
| **WRKA** | **Wakkuna** | **31.80** | **232** | P | | **P** | **22 02 17.9** | **-1.6** |
| | baz=32,SNR=80 | | | | | | | |
| **SGSI** | **Sangihe** | **31.92** | **288** | P | | **P** | **22 02 22.3** | **+1.8** |
| | 418nm,0.5s,7μm | | | | | | | |
| **KMSI** | **Cibinong** | **32.53** | **282** | P | | **P** | **22 02 27.2** | **+1.4** |
| **BBSI** | **Bau Bau** | **32.98** | **271** | P | | **P** | **22 02 31.5** | **+1.7** |
| **MMRI** | **Maumere** | **33.21** | **265** | P | | **P** | **22 02 31.9** | **+0.1** |
| **MMRI** | **Maumere** | **33.21** | **265** | *e*P | | **P** | **22 02 30.1** | **-1.7** |
| | 65nm,0.6s | | | | | | | |
| **EDFI** | **Ende, Flores** | **33.75** | **265** | P | | **P** | **22 02 36.4** | **-0.2** |
| **MRSI** | **Marisa** | **34.49** | **281** | P | | **P** | **22 02 40.8** | **-2.1** |
| **APSI** | **Ampana** | **34.49** | **278** | P | | **P** | **22 02 44.8** | **+1.9** |
| **FORT** | **Forrest** | **35.13** | **224** | P | | **P** | **22 02 47.2** | **-0.9** |
| | baz=35,SNR=77 | | | | | | | |
| **FORT** | **Forrest** | **35.13** | **224** | *e*P | | **P** | **22 02 47.3** | **-0.9** |
| | 437nm,0.6s | | | | | | | |
| **BNSI** | **Bone** | **35.52** | **272** | P | | **P** | **22 02 51.4** | **-0.3** |
| | 39nm,1.0s,2μm | | | | | | | |
| **KAPI** | **Kappang** | **35.81** | **271** | *e*P | | **P** | **22 02 53.6** | **-0.6** |
| | 26nm,0.8s | | | | | | | |
| **KAPI** | **Kappang** | **35.81** | **271** | PcP | | **P** | **22 02 54.0** | **-0.3** |
| **SPSI** | **Sidrap Palu** | **35.90** | **273** | P | | **P** | **22 02 54.0** | **-1.0** |
| | 13nm,0.9s | | | | | | | |
| **BKZ** | **Black Stump Fm** | **37.16** | **153** | *e*P | | **P** | **22 03 05.6** | **+0.2** |
| | 69nm,1.8s | | | | | | | |
| **MBWA** | **Marble Bar** | **37.55** | **244** | *e*P | | **P** | **22 03 07.5** | **-1.4** |
| | 88nm,0.5s | | | | | | | |
| **MBWA** | **Marble Bar** | **37.55** | **244** | P | | **P** | **22 03 08.0** | **-0.8** |
| **PLAI** | **Plampang** | **37.62** | **265** | P | | **P** | **22 03 08.3** | **-1.3** |
| **BFZ** | **Birch Farm** | **38.29** | **155** | *e*P | | **P** | **22 03 15.4** | **+0.6** |
| | 62nm,1.3s | | | | | | | |
| **MYLDM** | **Lahad Datu** | **39.04** | **287** | *e*P | | **P** | **22 03 22.6** | **+1.1** |
| | 33nm,0.9s | | | | | | | |
| **KMBL** | **Kambalda** | **39.87** | **228** | P | | **P** | **22 03 27.7** | **-0.5** |
| | baz=40,SNR=34 | | | | | | | |
| **KKM** | **Kota Kinabalu** | **41.47** | **287** | *e*P | | **P** | **22 03 40.5** | **-1.2** |
| | 46nm,0.8s | | | | | | | |
| **GIRL** | **Giralia** | **42.86** | **244** | P | | **P** | **22 03 52.9** | **+0.2** |
| | baz=43,SNR=5.2 | | | | | | | |
| **KLBR** | **Kellerberrin** | **43.08** | **230** | P | | **P** | **22 03 53.4** | **-1.0** |
| | baz=43,SNR=18 | | | | | | | |
| **MORW** | **Morawa** | **43.38** | **234** | P | | **P** | **22 03 56.0** | **-0.8** |
| | baz=43,SNR=9.5 | | | | | | | |
| **BLDU** | **Ballidu** | **43.46** | **232** | P | | **P** | **22 03 56.6** | **-0.9** |
| | baz=43,SNR=18 | | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **44.07** | **229** | *e*P | | **P** | **22 04 01.6** | **-0.8** |
| | 71nm,1.7s | | | | | | | |
| **MUN** | **Mundaring** | **44.43** | **231** | P | | **P** | **22 04 04.8** | **-0.4** |
| | baz=44,SNR=3.8 | | | | | | | |
| **RKGY** | **Rocky Gully** | **45.05** | **227** | P | | **P** | **22 04 09.2** | **-0.9** |
| | baz=45,SNR=6.6 | | | | | | | |
| **YULB** | **Yu-li** | **45.16** | **313** | *e*P | | **P** | **22 04 10.3** | **-0.7** |
| | 153nm,2.0s | | | | | | | |
| **NACB** | **Ninganchiao** | **45.42** | **314** | *e*P | | **P** | **22 04 13.4** | **+0.3** |
| | 60nm,1.3s | | | | | | | |
| **SSLB** | **Suanglung** | **45.65** | **313** | *e*P | | **P** | **22 04 12.7** | **-2.3** |
| | 152nm,1.9s | | | | | | | |
| **KSM** | **Kuching** | **46.07** | **279** | *e*P | | **P** | **22 04 17.5** | **-1.0** |
| | 63nm,1.6s | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **46.25** | **340** | P | | **P** | **22 04 18.4** | **-1.1** |
| | 3.4nm,0.7s,baz=164,slow=7.9,SNR=10 | | | | | | | |
| MJAR | | | | pP | | **pP** | **22 04 39.3** | **-3.8** |
| | 2.4nm,0.8s,baz=162,slow=7.9,SNR=3.8 | | | | | | | |
| **MAT** | **Matsushiro** | **46.26** | **340** | P | | **P** | **22 04 18.6** | **-0.9** |
| **MJB9** | **Matsu-Tunnel** | **46.26** | **340** | *e*P | | **P** | **22 04 18.3** | **-1.2** |
| | 9.2nm,0.8s | | | | | | | |
| **JNU** | **Nakatsue** | **46.30** | **331** | *e*P | | **P** | **22 04 19.2** | **-0.7** |
| | 8.5nm,1.0s | | | | | | | |
| **CISI** | **Cisompet, Garu** | **47.50** | **266** | *e*P | | **P** | **22 04 27.9** | **-1.7** |
| | 57nm,0.6s | | | | | | | |
| **KSRS** | **Korea Array** | **51.22** | **332** | P | | **P** | **22 04 58.0** | **+0.5** |
| | 2.8nm,0.8s,baz=143,slow=6.5,SNR=6.2 | | | | | | | |
| KSRS | | | | LR | | LR | 22 25 57.1 | |
| | comp=Z,24nm,19.6s,baz=335,slow=35 | | | | | | | |
| **KSAR** | **Wonju Array Be** | **51.23** | **332** | P | | **P** | **22 04 58.0** | **+0.5** |
| **NJ2** | **Nanjing** | **52.32** | **320** | *e*P | | **P** | **22 05 06.4** | **+0.7** |
| NJ2 | | | | pmax | | pmax | | |
| | comp=Z,11nm,0.6s | | | | | | | |
| **MYKOM** | **Kota Tinggi** | **52.48** | **278** | *e*P | | **P** | **22 05 06.7** | **-0.6** |
| | 16nm,2.0s | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **55.22** | **339** | P | | **P** | **22 05 27.3** | **+0.7** |
| | 3.8nm,0.8s,baz=115,slow=12,SNR=5.2 | | | | | | | |
| **IPM** | **Ipoh** | **55.75** | **280** | *e*P | | **P** | **22 05 30.1** | **-1.0** |
| | 23nm,0.7s | | | | | | | |
| **KHON** | **Khomkaen** | **57.21** | **294** | P | | **P** | **22 05 42.1** | **+0.8** |
| | 12nm,0.7s | | | | | | | |
| **CN2** | **Changchun** | **57.44** | **334** | *e*P | | **P** | **22 05 44.1** | **+1.7** |
| CN2 | | | | pmax | | pmax | | |
| | comp=Z,10.0nm,0.6s | | | | | | | |
| **NONG** | **Nongkai** | **57.51** | **296** | P | | **P** | **22 05 44.4** | **+1.0** |
| | 111nm,1.4s,12μm | | | | | | | |
| **CHAI** | **Chaiyaphum** | **57.82** | **294** | P | | **P** | **22 05 45.7** | **+0.1** |
| | 9.9nm,0.7s | | | | | | | |
| **NAYO** | **Nakonayok** | **57.94** | **292** | P | | **P** | **22 05 47.3** | **+0.9** |
| | 145nm,1.0s,20μm | | | | | | | |
| **GYA** | **Guiyang** | **57.98** | **307** | *e*P | | **P** | **22 05 48.9** | **+2.2** |
| GYA | | | | pmax | | pmax | | |
| | comp=Z,10.0nm,1.0s | | | | | | | |
| **PBKT** | **Sadao Pong** | **58.96** | **294** | P | | **P** | **22 05 54.4** | **+0.9** |
| | 37nm,1.1s | | | | | | | |
| **UTTA** | **Uttaradit** | **59.72** | **295** | P | | **P** | **22 05 59.7** | **+0.9** |
| | 6.2nm,0.8s,71nm | | | | | | | |
| **PETK** | **Petropavlovsk-** | **59.83** | **1** | P | | **P** | **22 06 00.3** | **+1.5** |
| | 4.9nm,0.8s,baz=141,slow=5.5,SNR=5.7 | | | | | | | |
| PETK | | | | pP | | **pP** | **22 06 19.7** | **-3.8** |
| | 7.3nm,0.8s,baz=157,slow=8.2,SNR=5.0 | | | | | | | |
| **NANT** | **Nan** | **59.94** | **296** | P | | **P** | **22 06 00.8** | **+0.5** |
| | 7.1nm,0.5s,143nm | | | | | | | |
| **SRDT** | **SRDT** | **59.98** | **291** | P | | **P** | **22 06 01.6** | **+1.0** |
| | 129nm,0.8s,6μm | | | | | | | |
| **UTHA** | **Uthaitani** | **60.04** | **292** | P | | **P** | **22 06 01.6** | **+0.6** |
| | 13nm,0.7s,152nm | | | | | | | |
| **PHRA** | **Phrae** | **60.26** | **296** | P | | **P** | **22 06 04.0** | **+1.5** |
| | 14nm,2.2s,36μm | | | | | | | |
| **KMI** | **Kunming** | **60.57** | **304** | P | | **P** | **22 06 06.7** | **+1.9** |
| KMI | | | | pmax | | pmax | | |
| | comp=Z,7.0nm,0.7s | | | | | | | |
| **LAMP** | **Lampang** | **60.80** | **296** | P | | **P** | **22 06 07.3** | **+1.1** |
| | 7.1nm,0.7s,66nm | | | | | | | |
| **CM01** | **Chiang Mai Arr** | **61.38** | **295** | *e*P | | **P** | **22 06 10.0** | **0.0** |
| **CMAR** | **Chiang Mai Arr** | **61.40** | **295** | P | | **P** | **22 06 11.2** | **+1.0** |
| | 7.2nm,0.8s,baz=125,slow=5.4,SNR=38 | | | | | | | |
| **CMMT** | **Chiang Mai** | **61.51** | **296** | P | | **P** | **22 06 12.4** | **+1.4** |
| | 8.4nm,1.3s | | | | | | | |
| **CHTO** | **Chiang Mai** | **61.52** | **296** | P | | **P** | **22 06 12.5** | **+1.5** |
| | 36nm,1.1s | | | | | | | |
| **CHTO** | **Chiang Mai** | **61.52** | **296** | *e*P | | **P** | **22 06 11.7** | **+0.7** |
| | 16nm,1.4s | | | | | | | |
| **CD2** | **Chengdu** | **62.31** | **310** | *e*P | | **P** | **22 06 17.3** | **+1.1** |
| CD2 | | | | pP | | pP | 22 06 37.7 | -3.3 |
| CD2 | | | | sP | | sP | 22 06 51.8 | -0.2 |
| CD2 | | | | PP | | **PP** | **22 08 37.1** | **+2.5** |
| CD2 | | | | S | | **S** | **22 14 36.2** | **+1.2** |
| CD2 | | | | pmax | | pmax | | |
| | comp=Z,30nm,0.8s | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **62.46** | **323** | *e*P | | P | 22 06 21.6 | +4.6 |
| HHC | | | | pP | | pP | 22 06 44.3 | +2.4 |
| HHC | | | | PP | | **PP** | **22 08 36.3** | **+0.6** |
| HHC | | | | S | | **S** | **22 14 42.9** | **+6.3** |
| HHC | | | | pmax | | pmax | | |
| | comp=Z,7.0nm,0.9s | | | | | | | |
| HHC | | | | pmax | | pmax | | |
| | comp=Z,150nm,8.4s | | | | | | | |
| HHC | | | | LR | | LR | | |
| | comp=N,190nm,11.8s | | | | | | | |
| HHC | | | | LR | | LR | | |
| | comp=E,330nm,11.2s | | | | | | | |
| HHC | | | | LR | | LR | | |
| | comp=Z,320nm,11.2s | | | | | | | |
| **LZH** | **Lanzhou** | **64.77** | **315** | ⇑P | | **P** | **22 06 33.2** | **+0.8** |
| LZH | | | | pP | | pP | 22 06 56.0 | -1.4 |
| LZH | | | | sP | | sP | 22 07 05.5 | -2.8 |
| LZH | | | | PP | | **PP** | **22 08 59.5** | **+3.3** |
| LZH | | | | *e*S | | **S** | **22 15 04.2** | **-1.4** |
| LZH | | | | sS | | sS | 22 15 41.5 | -6.9 |
| LZH | | | | SS | | **SS** | **22 19 21.0** | **+2.2** |
| LZH | | | | pmax | | pmax | | |
| | comp=Z,42nm,1.6s | | | | | | | |
| LZH | | | | pmax | | pmax | | |
| | comp=Z,240nm,8.2s | | | | | | | |
| LZH | | | | LR | | LR | | |
| | comp=N,360nm,13.9s | | | | | | | |
| LZH | | | | LR | | LR | | |
| | comp=E,450nm,14.6s | | | | | | | |
| LZH | | | | LR | | LR | | |
| | comp=Z,520nm,18.2s | | | | | | | |
| **GTA** | **Gaotai** | **69.18** | **317** | *e*P | | **P** | **22 07 03.4** | **+3.2** |
| GTA | | | | pP | | PcP | 22 07 21.9 | -1.5 |
| GTA | | | | sP | | sP | 22 07 31.2 | -5.2 |
| **ULN** | **Ulaanbaatar** | **69.33** | **327** | *e*P | | **P** | **22 07 02.1** | **+1.1** |
| **SONM** | **Songino Array** | **69.67** | **327** | P | | **P** | **22 07 03.9** | **+0.9** |
| | 2.4nm,0.4s,baz=142,slow=6.6,SNR=26 | | | | | | | |
| **SONA1** | **Songino Array** | **69.67** | **327** | *e*P | | **P** | **22 07 03.5** | **+0.4** |
| **LSA** | **Lhasa** | **71.83** | **304** | *e*P | | **P** | **22 07 16.4** | **-0.6** |
| | 2.3nm,0.5s | | | | | | | |
| **TAPN** | **Taplejung** | **73.98** | **301** | *e*P | | **P** | **22 07 30.0** | **+0.5** |
| | 16nm,0.6s | | | | | | | |
| **ODAN** | **Odare** | **74.11** | **300** | *e*P | | **P** | **22 07 30.2** | **0.0** |
| | 44nm,0.6s | | | | | | | |
| **RAMN** | **Ramite** | **74.82** | **300** | *e*P | | **P** | **22 07 33.7** | **-0.6** |
| | 10nm,0.5s | | | | | | | |
| **JIRN** | **Jiri** | **75.36** | **301** | *e*P | | **P** | **22 07 37.5** | **-0.1** |
| | 20nm,0.5s | | | | | | | |
| **GUN** | **Gumba** | **75.69** | **301** | *e*P | | **P** | **22 07 39.0** | **-0.5** |
| | 25nm,0.5s | | | | | | | |
| **PKI** | **Pulchoki** | **76.00** | **301** | *e*P | | **P** | **22 07 41.1** | **-0.1** |
| | 4.5nm,0.5s | | | | | | | |
| **PKIN** | **Phulchoki** | **76.02** | **301** | *e*P | | **P** | **22 07 41.2** | **0.0** |
| | 9.3nm,0.7s | | | | | | | |
| **KKN** | **Kakani** | **76.17** | **301** | *e*P | | **P** | **22 07 41.8** | **-0.2** |
| | 13nm,0.6s | | | | | | | |
| **DMN** | **Daman** | **76.27** | **300** | *e*P | | **P** | **22 07 42.6** | **0.0** |
| | 17nm,0.5s | | | | | | | |
| **KOLN** | **Koldanda** | **77.61** | **300** | *e*P | | **P** | **22 07 49.5** | **-0.5** |
| | 14nm,0.7s | | | | | | | |
| **PYUN** | **Piuthan** | **78.21** | **300** | *e*P | | **P** | **22 07 52.4** | **-1.0** |
| | 9.4nm,0.5s | | | | | | | |
| **WMQ** | **Urumqi** | **79.26** | **317** | P | | **P** | **22 07 59.0** | **+0.3** |
| WMQ | | | | pP | | pP | 22 08 21.9 | -2.6 |
| WMQ | | | | sP | | sP | 22 08 31.4 | -3.9 |
| WMQ | | | | pmax | | pmax | | |
| | comp=Z,10.0nm,0.7s | | | | | | | |
| WMQ | | | | pmax | | pmax | | |
| | comp=Z,680nm,9.1s | | | | | | | |
| WMQ | | | | LR | | LR | | |
| | comp=N,710nm,11.3s | | | | | | | |
| WMQ | | | | LR | | LR | | |
| | comp=E,970nm,11.3s | | | | | | | |
| WMQ | | | | LR | | LR | | |

*s-maj=49.6km s-min=21.7km az=67.0*

**ISC 11 22:07:58.8±0.8, 24.20N±0.02×121.68E±0.02, h19km±2km, n75, σ0.84/117, mb3.4/4, 10C-6D, Taiwan**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **EHP** | **Heping Village** | **0.12** | **28** | *eP* | | **Pg** | | **22 08 03.1** | **+0.2** |
| | baz=49 | | | | | | | | |
| EHP | | | | *eS* | | **Sg** | | **22 08 06.0** | **+0.4** |
| | baz=49 | | | | | | | | |
| **TWD** | **Chiawan** | **0.14** | **212** | *i*P | | **Pg** | | **22 08 03.3** | **+0.2** |
| | baz=205 | | | | | | | | |
| TWD | | | | S | | **Sg** | | **22 08 06.5** | **+0.6** |
| | baz=205 | | | | | | | | |
| **ENA** | **Nanau** | **0.23** | **14** | *i*P | | **Pb** | | **22 08 04.0** | **-0.1** |
| | baz=23 | | | | | | | | |
| **HWA** | **Hwalien** | **0.23** | **197** | *i*P | | **Pg** | | **22 08 05.0** | **+0.7** |
| | baz=199 | | | | | | | | |
| HWA | | | | *eS* | | **Sg** | | **22 08 09.3** | **+1.2** |
| | baz=199 | | | | | | | | |
| **ESF** | **Shoufeng Towns** | **0.36** | **205** | *eP* | | **Pb** | | **22 08 07.2** | **+0.4** |
| | baz=208 | | | | | | | | |
| **NNS** | **Nan Shan** | **0.36** | **310** | *i*P | | **Pg** | | **22 08 06.1** | **-0.5** |
| | baz=308 | | | | | | | | |
| NNS | | | | *i*S | | **Sg** | | **22 08 10.8** | **-1.1** |
| | baz=308 | | | | | | | | |
| **WHF** | **Hehuan Shan** | **0.38** | **261** | *i*P | | **Pb** | | **22 08 06.9** | **-0.5** |
| | baz=255 | | | | | | | | |
| WHF | | | | *eS* | | **Sg** | | **22 08 11.2** | **-1.4** |
| | baz=255 | | | | | | | | |
| **TWC** | **Suao** | **0.43** | **21** | P | | **Pg** | | **22 08 07.4** | **-0.4** |
| | baz=22 | | | | | | | | |
| TWC | | | | S | | **Sg** | | **22 08 13.0** | **-0.8** |
| | baz=22 | | | | | | | | |
| **ENTT** | **Nioudou** | **0.45** | **347** | *i*P | | **Pg** | | **22 08 07.5** | **-0.5** |
| | baz=349 | | | | | | | | |
| **ESL** | **Shilin** | **0.45** | **210** | P | | **Pb** | | **22 08 08.0** | **-0.2** |
| | baz=207 | | | | | | | | |
| ESL | | | | *eS* | | **Sb** | | **22 08 14.4** | **-0.1** |
| | baz=207 | | | | | | | | |
| **TWT** | **Tachien** | **0.46** | **276** | *i*P | | **Pb** | | **22 08 08.6** | **+0.1** |
| | baz=271 | | | | | | | | |
| TWT | | | | S | | **Sg** | | **22 08 13.9** | **-0.8** |
| | baz=271 | | | | | | | | |
| **TEGC** | **Jichi Village** | **0.51** | **194** | *eP* | | **Pn** | | **22 08 10.9** | **-0.1** |
| | baz=204 | | | | | | | | |
| **TWE** | **Neicheng** | **0.52** | **359** | *i*P | | **Pg** | | **22 08 08.6** | **-0.7** |
| | baz=2.0 | | | | | | | | |
| TWE | | | | *i*S | | **Sg** | | **22 08 15.4** | **-0.9** |
| | baz=2.0 | | | | | | | | |
| **NSK** | **Sanguang** | **0.55** | **328** | *i*P | | **Pb** | | **22 08 09.3** | **-0.7** |
| | baz=328 | | | | | | | | |
| NSK | | | | S | | **Sg** | | **22 08 15.8** | **-1.7** |
| | baz=328 | | | | | | | | |
| **ILA** | **Ilan** | **0.56** | **6** | *eP* | | **Pb** | | **22 08 09.7** | **-0.4** |
| | baz=4.0 | | | | | | | | |
| ILA | | | | *eS* | | **Sb** | | **22 08 17.3** | **-0.4** |
| | baz=4.0 | | | | | | | | |
| **NSTT** | **Nanjuang** | **0.75** | **305** | *i*P | | **Pb** | | **22 08 13.2** | **-0.1** |
| | baz=303 | | | | | | | | |
| NSTT | | | | *eS* | | **Sb** | | **22 08 22.7** | **-0.5** |
| | baz=303 | | | | | | | | |
| **EHY** | **Hungye** | **0.77** | **205** | *eP* | | **Pb** | | **22 08 12.6** | **-1.0** |
| | baz=204 | | | | | | | | |
| EHY | | | | *eS* | | **Sn** | | **22 08 24.9** | **-0.8** |
| | baz=204 | | | | | | | | |
| **SMLT** | **Sun Moon Lake** | **0.78** | **246** | *eP* | | **Pg** | | **22 08 13.9** | **-0.2** |
| | baz=237 | | | | | | | | |
| SMLT | | | | *eS* | | **Sb** | | **22 08 23.4** | **-0.7** |
| | baz=237 | | | | | | | | |
| **TWA** | **Mucha** | **0.78** | **354** | *eP* | | **Pb** | | **22 08 14.0** | **+0.1** |
| | baz=355 | | | | | | | | |
| TWA | | | | *eS* | | **Sb** | | **22 08 23.2** | **-0.9** |
| | baz=355 | | | | | | | | |
| **TYC** | **Yuchr** | **0.81** | **249** | P | | **Pg** | | **22 08 14.3** | **-0.4** |
| | baz=239 | | | | | | | | |
| TYC | | | | *eS* | | **Sb** | | **22 08 24.2** | **-0.6** |
| | baz=239 | | | | | | | | |
| **TWQ1** | **Liyutan** | **0.84** | **280** | *i*P | | **Pn** | | **22 08 15.5** | **-0.2** |
| | baz=277 | | | | | | | | |
| TWQ1 | | | | *eS* | | **Sn** | | **22 08 27.2** | **-0.4** |
| | baz=277 | | | | | | | | |
| **TAP1** | **Taipei** | **0.84** | **350** | *eP* | | **Pb** | | **22 08 14.9** | **0.0** |
| | baz=344 | | | | | | | | |
| TAP1 | | | | *eS* | | **Sb** | | **22 08 25.5** | **-0.3** |
| | baz=344 | | | | | | | | |
| **TAP** | **Taipei** | **0.85** | **349** | *eP* | | **Pb** | | **22 08 14.9** | **-0.1** |
| | baz=344 | | | | | | | | |
| TAP | | | | *eS* | | **Sb** | | **22 08 25.9** | **-0.1** |
| | baz=344 | | | | | | | | |
| **TWB1** | **Santiao Chiao** | **0.85** | **19** | *eP* | | **Pb** | | **22 08 14.7** | **-0.3** |
| | baz=16 | | | | | | | | |
| **NSY** | **Sanyi** | **0.86** | **284** | *i*P | | **Pn** | | **22 08 16.1** | **+0.1** |
| | baz=282 | | | | | | | | |
| **NWF** | **Wu-fen Shan** | **0.87** | **6** | P | | **Pb** | | **22 08 15.1** | **-0.3** |
| | baz=360 | | | | | | | | |
| NWF | | | | S | | **Sb** | | **22 08 27.0** | **+0.3** |
| | baz=360 | | | | | | | | |
| **HSN** | **Hsinchu** | **0.88** | **313** | *eP* | | **Pn** | | **22 08 16.7** | **+0.5** |
| | baz=314 | | | | | | | | |
| HSN | | | | *eS* | | **Sn** | | **22 08 29.8** | **+1.3** |
| | baz=314 | | | | | | | | |
| **NCU** | **National Centr** | **0.89** | **330** | *eP* | | **Pg** | | **22 08 16.0** | **-0.1** |
| | baz=329 | | | | | | | | |
| NCU | | | | *eS* | | **Sn** | | **22 08 28.6** | **0.0** |
| | baz=329 | | | | | | | | |
| **TWF1** | **Yuli** | **0.92** | **202** | *eP* | | **Pb** | | **22 08 14.6** | **-1.5** |
| | baz=209 | | | | | | | | |
| **TCU** | **Taichung** | **0.92** | **267** | *eP* | | **Pn** | | **22 08 17.6** | **+0.9** |
| | baz=264 | | | | | | | | |
| TCU | | | | *eS* | | **Sn** | | **22 08 30.8** | **+1.4** |
| | baz=264 | | | | | | | | |
| **TWS1** | **Kuangyinshan** | **0.93** | **345** | P | | **Pn** | | **22 08 16.6** | **-0.2** |
| | baz=350 | | | | | | | | |
| TWS1 | | | | S | | **Sg** | | **22 08 29.3** | **+0.2** |
| | baz=350 | | | | | | | | |
| **WNT** | **Mingjian** | **0.96** | **251** | *eP* | | **Pg** | | **22 08 18.0** | **+0.4** |
| | baz=246 | | | | | | | | |
| WNT | | | | *eS* | | **Sn** | | **22 08 32.6** | **+2.0** |
| | baz=246 | | | | | | | | |
| **YUS** | **Yu-Shan** | **0.97** | **223** | *eP* | | **Pn** | | **22 08 17.7** | **-0.2** |
| | baz=209 | | | | | | | | |
| YUS | | | | S | | **Sn** | | **22 08 31.4** | **0.0** |
| | baz=209 | | | | | | | | |
| **ALS** | **Alishan** | **1.05** | **229** | P | | **Pg** | | **22 08 19.5** | **+0.1** |
| | baz=214 | | | | | | | | |
| ALS | | | | *eS* | | **Sn** | | **22 08 34.0** | **+0.7** |
| | baz=214 | | | | | | | | |
| **TWY** | **Chenhua** | **1.07** | **356** | *eP* | | **Pb** | | **22 08 18.5** | **-0.3** |
| | baz=345 | | | | | | | | |
| **CHN5** | **Tsauling** | **1.10** | **237** | *eP* | | **Pg** | | **22 08 20.4** | **+0.2** |
| | baz=234 | | | | | | | | |
| CHN5 | | | | S | | **Sg** | | **22 08 36.2** | **+1.7** |
| | baz=234 | | | | | | | | |
| **CHKT** | **Chengkung** | **1.14** | **195** | *eP* | | **Pb** | | **22 08 19.5** | **-0.4** |
| | baz=208 | | | | | | | | |
| **WGK** | **Gukeng** | **1.14** | **244** | *eP* | | **Pg** | | **22 08 21.5** | **+0.5** |
| | baz=228 | | | | | | | | |
| WGK | | | | *eS* | | **Sg** | | **22 08 37.5** | **+1.5** |
| | baz=228 | | | | | | | | |
| **ELDTW** | **Lidau** | **1.18** | **211** | *eP* | | **Pn** | | **22 08 18.9** | **-1.5** |
| | baz=200 | | | | | | | | |
| **JYNG** | **Yonaguni jima** | **1.18** | **78** | P | | **Pn** | | **22 08 20.6** | **+0.2** |
| **YOJ** | **Yonaguni jima** | **1.24** | **78** | *eP* | | **Pn** | | **22 08 21.4** | **+0.3** |
| | baz=79 | | | | | | | | |
| **YOJ** | **Yonaguni jima** | **1.24** | **78** | P | | **Pn** | | **22 08 21.5** | **+0.3** |
| YOJ | | | | *eS* | | **Sn** | | **22 08 38.4** | **+0.9** |
| **CHN2** | **Minshiung** | **1.29** | **239** | *eP* | | **Pg** | | **22 08 23.5** | **-0.3** |
| | baz=236 | | | | | | | | |
| CHN2 | | | | *eS* | | **Sg** | | **22 08 42.5** | **+1.9** |
| | baz=236 | | | | | | | | |
| **CHN4** | **Tsaushan** | **1.31** | **230** | *eP* | | **Pg** | | **22 08 23.7** | **-0.4** |
| | baz=216 | | | | | | | | |
| CHN4 | | | | *eS* | | **Sg** | | **22 08 43.2** | **+2.0** |
| | baz=216 | | | | | | | | |
| **WTCT** | **Ta-ch'eng** | **1.32** | **256** | *eP* | | **Pb** | | **22 08 22.9** | **-0.1** |
| | baz=265 | | | | | | | | |
| WTCT | | | | *eS* | | **Sg** | | **22 08 41.9** | **+0.2** |
| | baz=265 | | | | | | | | |
| **STYT** | **Tauyuan** | **1.33** | **219** | *eP* | | **Pb** | | **22 08 23.0** | **-0.4** |
| | baz=206 | | | | | | | | |
| **CHY** | **Chiayi** | **1.34** | **239** | *eP* | | **Pg** | | **22 08 24.4** | **-0.5** |
| | baz=223 | | | | | | | | |
| **WTP** | **Ta-pu** | **1.36** | **226** | *eP* | | **Pg** | | **22 08 24.7** | **-0.5** |
| | baz=209 | | | | | | | | |
| **TWK** | **Hsinying** | **1.43** | **230** | *eP* | | **Pg** | | **22 08 25.4** | **-1.2** |
| | baz=214 | | | | | | | | |
| TWK | | | | *eS* | | **Sg** | | **22 08 46.0** | **+0.7** |
| | baz=214 | | | | | | | | |
| **WSF** | **Szhu** | **1.45** | **247** | *eP* | | **Pg** | | **22 08 25.6** | **-1.1** |
| | baz=254 | | | | | | | | |
| WSF | | | | *eS* | | **Sg** | | **22 08 46.0** | **+0.4** |
| | baz=254 | | | | | | | | |
| **CHN1** | **Nanshi** | **1.46** | **226** | *eP* | | **Pg** | | **22 08 26.3** | **-0.8** |
| | baz=212 | | | | | | | | |
| CHN1 | | | | *eS* | | **Sg** | | **22 08 47.4** | **+1.2** |
| | baz=212 | | | | | | | | |
| **PCYT** | **Pengchaiyu** | **1.47** | **14** | *eP* | | **Pn** | | **22 08 25.1** | **+0.8** |
| | baz=16 | | | | | | | | |
| **TWG** | **Pinlang** | **1.48** | **202** | *eP* | | **Pn** | | **22 08 23.6** | **-0.9** |
| | baz=187 | | | | | | | | |
| **SGST** | **Jiashian** | **1.50** | **222** | *eP* | | **Pg** | | **22 08 26.8** | **-1.0** |
| | baz=210 | | | | | | | | |
| SGST | | | | *eS* | | **Sg** | | **22 08 48.0** | **+0.7** |
| | baz=210 | | | | | | | | |
| **CHN8** | **Yiju** | **1.59** | **238** | *eP* | | **Pg** | | **22 08 28.1** | **-1.4** |
| | baz=219 | | | | | | | | |
| CHN8 | | | | *eS* | | **Sg** | | **22 08 49.9** | **-0.4** |
| | baz=219 | | | | | | | | |
| **CHN3** | **Shinhua** | **1.65** | **227** | *eP* | | **Pg** | | **22 08 29.7** | **-0.8** |
| | baz=225 | | | | | | | | |
| **SCLT** | **Jiali** | **1.70** | **233** | *eP* | | **Pg** | | **22 08 31.1** | **-0.6** |
| | baz=215 | | | | | | | | |
| SCLT | | | | *eS* | | **Sg** | | **22 08 53.0** | **-0.8** |
| | baz=215 | | | | | | | | |
| **ECL** | **Taimali** | **1.73** | **203** | *eP* | | **Pn** | | **22 08 28.0** | **+0.1** |
| | baz=191 | | | | | | | | |
| **SSD** | **Sandimen** | **1.74** | **214** | *eP* | | **Pb** | | **22 08 30.3** | **+0.1** |
| | baz=212 | | | | | | | | |
| **TWM1** | **Shoushan** | **1.79** | **220** | *eP* | | **Pg** | | **22 08 32.6** | **-0.8** |
| | baz=218 | | | | | | | | |
| **IRIF** | **Iriomote-Funau** | **1.88** | **86** | P | | **Pn** | | **22 08 29.9** | **0.0** |
| **HATJ** | **Hateruma jima** | **1.95** | **94** | *eS* | | **Sn** | | **22 08 56.3** | **+1.4** |
| **EAST** | **Anshuo** | **1.96** | **203** | *eP* | | **Pb** | | **22 08 32.4** | **-1.6** |
| | baz=194 | | | | | | | | |
| **PNG** | **Penghu** | **2.04** | **252** | *eP* | | **Pn** | | **22 08 32.8** | **+0.6** |
| | baz=249 | | | | | | | | |
| **SCZT** | **Fangliau** | **2.06** | **208** | *eP* | | **Pb** | | **22 08 34.2** | **-1.5** |
| | baz=195 | | | | | | | | |
| **WDGT** | **Dungji** | **2.07** | **244** | *eP* | | **Pb** | | **22 08 34.4** | **-1.4** |
| | baz=239 | | | | | | | | |
| WDGT | | | | *eS* | | **Sb** | | **22 09 00.5** | **-0.8** |
| | baz=239 | | | | | | | | |
| **JKRS** | **Kuro-shima** | **2.13** | **89** | P | | **Pn** | | **22 08 33.7** | **+0.3** |
| **JIJ** | **Ishigaki jima** | **2.25** | **85** | P | | **Pn** | | **22 08 35.3** | **+0.1** |
| JIJ | | | | *eS* | | **Sn** | | **22 09 02.4** | **-0.1** |
| **JISG** | **Ishigakijimahi** | **2.43** | **80** | P | | **Pn** | | **22 08 37.6** | **0.0** |
| JISG | | | | *eS* | | **Sn** | | **22 09 07.2** | **+0.4** |
| **KNM** | **Kinmen** | **2.97** | **275** | *eP* | | **Pn** | | **22 08 46.4** | **+1.4** |
| | baz=271 | | | | | | | | |
| **KSRS** | **Korea Array** | **14.25** | **21** | P | | **P** | | **22 11 27.4** | **+0.6** |
| | 0.2nm,0.3s,baz=200,slow=10,SNR=5.0 | | | | | | | | |
| **SONM** | **Songino Array** | **26.53** | **337** | P | | **P** | | **22 13 37.2** | **+1.8** |
| | 0.3nm,0.7s,baz=144,slow=9.9,SNR=2.3 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **38.64** | **316** | P | | **P** | | **22 15 22.2** | **+1.1** |
| | 0.4nm,0.7s,baz=100,slow=10,SNR=3.5 | | | | | | | | |
| **WRA** | **Warrunga Arr** | **45.58** | **163** | P | | **P** | | **22 16 16.5** | **-1.4** |
| | 0.5nm,0.8s,baz=342,slow=8.7,SNR=4.0 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **82.78** | **23** | P | | **P** | | **22 20 20.3** | **-1.1** |
| | 0.5nm,0.8s,baz=315,slow=4.3,SNR=3.6 | | | | | | | | |

**SJA 11 22:25:32.3±0.8, 31.49S×68.80W, h98km±5km, ML3.6, MW2.6, San Juan Province**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **RTLL** | **Cerro Villicun** | **0.32** | **61** | *eP* | | | Pn | 22 25 47.5 | +0.6 |
| RTLL | | | | *eS* | | | Sn | 22 25 58.9 | +1.2 |
| **RTCV** | **Cerro Valdivia** | **0.44** | **149** | *eP* | | | Pn | 22 25 48.4 | +0.8 |
| RTCV | | | | *eS* | | | Sn | 22 25 60.0 | +1.1 |
| **RTLS** | **Leoncito** | **0.52** | **233** | *eP* | | | Pn | 22 25 49.6 | +1.2 |
| RTLS | | | | *eS* | | | Sn | 22 26 02.5 | +2.1 |
| **AMOG** | **MOGNA** | **0.61** | **26** | *eP* | | | Pn | 22 25 49.9 | +1.0 |
| AMOG | | | | *eS* | | | Sn | 22 26 01.6 | +0.5 |
| AMOG | | | | IAML | | | | 22 26 04.4 | |
| | comp=Z,1μm,0.2s | | | | | | | | |
| **AUSP** | **Uspallata** | **0.89** | **214** | *eP* | | | Pn | 22 25 52.7 | +1.0 |
| AUSP | | | | *eS* | | | Sn | 22 26 08.0 | +1.8 |
| **ASAL** | **Salagasta** | **1.10** | **181** | *eP* | | | Pn | 22 25 54.9 | +1.1 |
| ASAL | | | | *eS* | | | Sn | 22 26 11.1 | +1.1 |

**IDC 11 22:30:21.6±0.9, 50.22S×114.15W, h0km, mb4.0/4, mb1 4.3/4, mb1mx4.0/24, mbtmp4.0/4, MS3.9/12, Ms1 3.9/12, ms1mx3.7/25, Error ellipse: s-maj=54.0km s-min=29.0km az=164.0, Southern East Pacific Rise**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **RPN** | **Rapa Nui** | **23.35** | **11** | LR | | | LR | 22 41 27.2 | |
| | comp=Z,124nm,18.8s,baz=220,slow=28 | | | | | | | | |
| **USHA** | **Ushuaia** | **27.80** | **117** | LR | | | LR | 22 44 14.9 | |
| | comp=Z,2μm,21.9s,baz=242,slow=30 | | | | | | | | |
| **PMSA** | **Palmer Station** | **29.66** | **138** | LR | | | LR | 22 45 41.2 | |
| | comp=Z,286nm,18.1s,baz=267,slow=31 | | | | | | | | |
| **RKT** | **Rikitea** | **31.57** | **321** | *e*LR | | | LR | 22 45 01.1 | |
| | 378nm,24.2s | | | | | | | | |
| **RKT** | **Rikitea** | **31.57** | **321** | *e*T | | | T | 23 09 19.5 | |
| | 1.8nm,0.3s | | | | | | | | |
| **PLCA** | **Paso Flores** | **31.60** | **90** | LR | | | LR | 22 46 23.5 | |
| | comp=Z,92nm,20.7s,baz=307,slow=30 | | | | | | | | |
| **TBI** | **Tubuai** | **38.39** | **301** | *e*LR | | | LR | 22 47 55.0 | |
| | 274nm,27.8s | | | | | | | | |
| **TVO** | **Taravao** | **42.83** | **306** | *e*T | | | T | 23 23 26.0 | |
| | 1.6nm,0.3s | | | | | | | | |
| **PAE** | **Paea** | **43.10** | **306** | *e*T | | | T | 23 23 46.4 | |
| | 1.3nm,0.3s | | | | | | | | |
| **PPT2** | **Papeete2** | **43.16** | **306** | *e*LR | | | LR | 22 50 05.6 | |
| | 470nm,28.5s | | | | | | | | |
| **PPT2** | **Papeete2** | **43.16** | **306** | *e*T | | | T | 23 23 50.1 | |
| | 2.4nm,0.3s | | | | | | | | |
| **PPT** | **Papeete** | **43.17** | **306** | LR | | | LR | 22 51 32.8 | |
| | comp=Z,140nm,18.8s,baz=232,slow=30 | | | | | | | | |
| **VAH** | **Vaihoa** | **44.16** | **310** | *e*T | | | T | 23 25 04.7 | |
| | 3.6nm,0.2s | | | | | | | | |
| **RAR** | **Rarotonga** | **45.98** | **292** | LR | | | LR | 22 53 32.9 | |
| | comp=Z,36nm,21.6s,baz=102,slow=30 | | | | | | | | |
| **CPUP** | **Villa Florida** | **49.19** | **83** | P | | | P | 22 39 10.7 | -0.7 |
| | 1.5nm,0.7s,baz=215,slow=9.8,SNR=4.5 | | | | | | | | |
| CPUP | | | | LR | | | LR | 22 56 28.9 | |
| | comp=Z,139nm,20.4s,baz=215,slow=32 | | | | | | | | |
| **LPAZ** | **La Paz** | **50.05** | **64** | P | | | P | 22 39 19.4 | +0.6 |
| | 3.7nm,1.0s,baz=212,slow=5.3,SNR=6.1 | | | | | | | | |
| LPAZ | | | | LR | | | LR | 22 55 14.1 | |
| | comp=Z,104nm,20.8s,baz=243,slow=30 | | | | | | | | |
| **MAW** | **Mawson** | **62.48** | **179** | LR | | | LR | 23 07 10.6 | |
| | comp=Z,180nm,18.3s,baz=96,slow=35 | | | | | | | | |
| **STKA** | **Stephens Creek** | **74.45** | **239** | LR | | | LR | 23 08 58.2 | |
| | comp=Z,43nm,18.6s,baz=207,slow=31 | | | | | | | | |
| **TXAR** | **Lajitas Array** | **79.74** | **9** | P | | | P | 22 42 30.6 | -0.6 |
| | 0.7nm,0.9s,baz=171,slow=8.9,SNR=5.0 | | | | | | | | |
| **ASAR** | **Alice Springs** | **85.08** | **239** | P | | | P | 22 42 58.5 | -0.9 |
| | 1.6nm,0.9s,baz=146,slow=3.9,SNR=10.0 | | | | | | | | |
| ASAR | | | | LR | | | LR | 23 15 56.8 | |
| | comp=Z,75nm,19.9s,baz=222,slow=32 | | | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **85.12** | **218** | T | | | T | 00 18 12.4 | |
| | baz=150,slow=76,SNR=14 | | | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **85.12** | **218** | T | | | T | 00 18 12.3 | |
| | baz=150,slow=76,SNR=18 | | | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **85.13** | **218** | T | | | T | 00 18 13.7 | |
| | baz=150,slow=76,SNR=13 | | | | | | | | |
| **PDAR** | **Pinedale Array** | **92.69** | **3** | LR | | | LR | 23 18 59.9 | |
| | comp=Z,154nm,19.3s,baz=38,slow=32 | | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **97.28** | **290** | T | | | T | 00 32 00.8 | |
| | baz=140,slow=76,SNR=159 | | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **97.30** | **290** | T | | | T | 00 32 01.4 | |
| | baz=140,slow=76,SNR=115 | | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **97.30** | **290** | T | | | T | 00 32 02.4 | |
| | baz=140,slow=76,SNR=133 | | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **98.10** | **291** | T | | | T | 00 33 01.7 | |
| | baz=142,slow=76,SNR=29 | | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **98.11** | **291** | T | | | T | 00 33 09.4 | |
| | baz=142,slow=76,SNR=21 | | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **98.12** | **291** | T | | | T | 00 33 10.8 | |
| | baz=142,slow=76,SNR=18 | | | | | | | | |
| **TIXI** | **Tiksi** | **145.01** | **331** | PKPbc | | | PKPbc | 22 49 57.1 | -1.5 |
| | 2.6nm,0.3s,baz=251,slow=3.4,SNR=8.0 | | | | | | | | |
| **GERES** | **GERESS Array B** | **146.69** | **72** | PKPbc | | | PKPdf | 22 50 03.5 | +0.6 |
| | 0.4nm,0.8s,baz=142,slow=4.2,SNR=3.4 | | | | | | | | |
| **SONM** | **Songino Array** | **153.54** | **281** | PKPbc | | | PKPbc | 22 50 23.0 | +1.5 |
| | 0.3nm,0.4s,baz=142,slow=4.9,SNR=2.8 | | | | | | | | |
| **BRTR** | **Keskin Array B** | **155.10** | **102** | PKPab | | | PKPab | 22 50 41.0 | +0.1 |
| | 0.7nm,0.9s,baz=132,slow=2.1,SNR=3.5 | | | | | | | | |

*BJI 11 23:08:26.8, 39.42N×94.43E, h9km, mb3.8/1, ML3.7/12*
*IDC 11 23:08:28.9±4.7, 39.47N×94.57E, h35km±41km, mb3.6/5, mb1 3.8/9, mb1mx3.4/41, mbtmp3.8/9, ML3.4/4, Error ellipse: s-maj=34.5km s-min=17.5km az=42.0*

**ISC 11 23:08:26.2±0.7, 39.32N±0.08×94.48E±0.05, h10km, n17, σ2.47/21, mb3.8/5, Gansu**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **GTA** | **Gaotai** | **4.13** | **87** | Pn | | | **Pn** | **23 09 31.4** | **+1.9** |
| GTA | | | | Pg | | | **Pb** | **23 09 41.4** | **+2.3** |
| GTA | | | | Sn | | | **Sn** | **23 10 19.0** | **+1.0** |
| GTA | | | | Sg | | | **Sg** | **23 10 36.5** | **-2.5** |
| GTA | | | | smax | | | smax | | |
| | comp=N,74nm,0.6s | | | | | | | | |
| GTA | | | | smax | | | smax | | |
| | comp=E,51nm,0.7s | | | | | | | | |
| **WMQ** | **Urumqi** | **6.79** | **314** | Pn | | | **Pn** | **23 10 05.5** | **-0.4** |
| WMQ | | | | Sg | | | **Sb** | **23 11 52.1** | **+6.7** |
| WMQ | | | | smax | | | smax | | |
| | comp=N,230nm,0.7s | | | | | | | | |
| WMQ | | | | smax | | | smax | | |
| | comp=E,250nm,0.7s | | | | | | | | |
| **MKAR** | **Makanchi Array** | **11.62** | **314** | Pn | | | **Pn** | **23 11 08.9** | **-3.1** |
| | 0.7nm,0.3s,baz=121,slow=13,SNR=31 | | | | | | | | |
| MKAR | | | | Sn | | | Sn | 23 13 10.6 | -11 |
| | 0.3nm,0.3s,baz=126,slow=20,SNR=3.8 | | | | | | | | |
| MKAR | | | | Lg | | | Lg | 23 14 36.0 | |
| | baz=113,slow=32,SNR=2.6 | | | | | | | | |
| **SONM** | **Songino Array** | **12.12** | **42** | Pn | | | **Pn** | **23 11 17.2** | **-1.7** |
| | 0.2nm,0.3s,baz=223,slow=15,SNR=6.9 | | | | | | | | |
| SONM | | | | Lg | | | Lg | 23 14 48.7 | |
| | 0.5nm,0.3s,baz=233,slow=27,SNR=7.7 | | | | | | | | |
| **TAPN** | **Taplejung** | **13.20** | **207** | *eP* | | | **P** | **23 11 44.8** | **+0.7** |
| | 7.8nm,0.4s | | | | | | | | |
| **GUN** | **Gumba** | **13.44** | **215** | *eP* | | | **P** | **23 11 46.7** | **-0.1** |
| | 5.0nm,0.4s | | | | | | | | |
| **JIRN** | **Jiri** | **13.52** | **213** | *eP* | | | **P** | **23 11 48.0** | **+0.3** |
| **ODAN** | **Odare** | **13.77** | **208** | *eP* | | | **P** | **23 11 50.8** | **+0.5** |
| | 14nm,0.4s | | | | | | | | |
| **KOLN** | **Koldanda** | **14.65** | **221** | *eP* | | | **P** | **23 12 00.1** | **+0.1** |
| | 8.5nm,0.9s | | | | | | | | |
| **PYUN** | **Piuthan** | **14.70** | **224** | *eP* | | | **P** | **23 12 00.3** | **-0.4** |
| | 10nm,0.6s | | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **15.93** | **320** | Pn | | | **Pn** | **23 12 05.2** | **-5.1** |
| | 0.2nm,0.3s,baz=119,slow=14,SNR=6.0 | | | | | | | | |
| KURBB | | | | Lg | | | Lg | 23 16 54.5 | |
| | 0.0nm,0.3s,baz=125,slow=27,SNR=3.0 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **16.04** | **339** | Pn | | | **Pn** | **23 12 11.8** | **+0.1** |
| | 0.1nm,0.3s,baz=166,slow=12,SNR=4.5 | | | | | | | | |
| ZALV | | | | Lg | | | Lg | 23 16 55.7 | |
| | 0.1nm,0.3s,baz=155,slow=25,SNR=2.5 | | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **21.15** | **168** | P | | | **P** | **23 13 12.9** | **+1.6** |
| | 1.8nm,0.3s,baz=339,slow=11,SNR=8.2 | | | | | | | | |
| **BVAR** | **Borovoye Array** | **21.46** | **318** | P | | | **P** | **23 13 12.2** | **-2.3** |
| | 1.9nm,0.6s,baz=120,slow=12,SNR=12 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **69.75** | **140** | P | | | **P** | **23 19 35.5** | **-1.0** |
| | 0.3nm,0.8s,baz=329,slow=6.0,SNR=2.9 | | | | | | | | |
| **ESDC** | **Sonseca Array** | **71.74** | **306** | P | | | **P** | **23 19 47.5** | **-1.1** |
| | 0.8nm,0.5s,baz=45,slow=5.7,SNR=9.8 | | | | | | | | |
| **ASAR** | **Alice Springs** | **72.69** | **142** | P | | | **P** | **23 19 54.1** | **-0.2** |
| | 0.5nm,0.6s,baz=319,slow=5.6,SNR=5.2 | | | | | | | | |

**IDC 11 23:20:51.9±1.2, 55.83S×29.33W, h0km, mb3.4/1, mb1 3.6/2, mb1mx3.4/26, mbtmp3.6/2, Error ellipse: s-maj=58.0km s-min=37.4km az=92.0, South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **SNAA** | **Sanae** | **19.45** | **155** | P | | | Pn | 23 25 20.9 | +0.2 |
| | baz=329,slow=11 | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **73.48** | **32** | P | | | P | 23 32 26.3 | +0.3 |
| | 0.2nm,0.4s,baz=205,slow=6.5,SNR=4.7 | | | | | | | | |
| **RAR** | **Rarotonga** | **92.55** | **225** | P | | | P | 23 34 04.1 | -0.9 |
| | 9.3nm,0.3s,baz=146,slow=7.3,SNR=5.3 | | | | | | | | |
| **ILAR** | **Eielson Array** | **149.07** | **312** | PKPbc | | | PKPbc | 23 40 41.4 | +0.9 |
| | 0.5nm,0.8s,baz=132,slow=2.7,SNR=4.3 | | | | | | | | |
| **SONM** | **Songino Array** | **151.92** | **88** | PKPbc | | | PKPbc | 23 40 46.2 | -1.8 |
| | 0.4nm,0.5s,baz=232,slow=2.3,SNR=3.8 | | | | | | | | |

*SJA 11 23:21:49.5±1.3, 26.27S×68.10W, h214km±15km, ML3.2, MW3.5*
*ISCJB 11 23:21:52.2±0.4, 26.18S±0.03×68.24W±0.04, h131km±8km, mb3.9/2, Error ellipse: s-maj=6.2km s-min=4.9km az=169.0*
*GUC 11 23:21:53.3±0.5, 26.18S×68.30W, h118km±14km, ML4.1*
*IDC 11 23:22:27.9±4.1, 22.58S×64.48W, h195km±28km, mb3.7/2, mb1 3.4/4, mb1mx3.0/27, mbtmp3.9/4, Error ellipse: s-maj=137.4km s-min=25.7km az=45.0*

**ISC 11 23:21:53.5±0.9, 26.21S±0.04×68.27W±0.05, h130km±12km, n24, σ1.59/35, 4C-2D, Chile-Argentina border region**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **CPCH** | **Copiapo** | **2.19** | **238** | *i*P | | | **Pn** | **23 22 29.8** | **0.0** |
| CPCH | | | | *eS* | | | **Sn** | **23 22 57.2** | **-0.5** |
| **GO03** | **Copiap** | **2.23** | **231** | *i*P | | | **Pn** | **23 22 30.2** | **-0.2** |
| GO03 | | | | *i*S | | | **Sn** | **23 22 58.8** | **0.0** |
| GO03 | | | | IAML | | | | 23 23 00.6 | |
| | comp=E,562nm,0.2s | | | | | | | | |
| **PB14** | **IPOC Station P** | **2.49** | **309** | *eP* | | | **Pn** | **23 22 33.6** | **-0.3** |
| PB14 | | | | *i*S | | | **Sn** | **23 23 04.6** | **-0.3** |
| PB14 | | | | IAML | | | | 23 23 11.3 | |
| | comp=E,602nm,0.3s | | | | | | | | |
| **VCA** | **Vinchina** | **2.52** | **179** | *eP* | | | **Pn** | **23 22 34.1** | **-0.1** |
| VCA | | | | IAML | | | | 23 22 35.6 | |
| | comp=Z,144nm,0.3s | | | | | | | | |
| VCA | | | | *eS* | | | **Sn** | **23 23 08.2** | **+2.

| Code | Station Name | Δ° | AZ° | Phase ID | Time | Res |
|---|---|---|---|---|---|---|
| | region | | | Op ISC | h m s | ISC |
| **SFK** | **Sufi-Kurgan** | **3.77** | **29** | ⇑P **Pn** | **23 26 42.0** | **+0.7** |
| | 24nm,0.3s | | | | | |
| SFK | | | | ⇑S **Sn** | **23 27 24.9** | **-2.4** |
| | 85nm,0.6s | | | | | |
| **THN** | **Thein Dam** | **5.70** | **137** | *e*P **Pn** | **23 27 04.8** | **-0.9** |
| THN | | | | *e*S **Sn** | **23 28 06.6** | **-4.6** |
| **AML** | **Almayashu** | **5.75** | **19** | P **Pn** | **23 27 07.0** | **+0.3** |
| | SNR=97 | | | | | |
| **MNAS** | **Manas** | **5.85** | **10** | ⇓P **Pn** | **23 27 08.7** | **+0.8** |
| | 17nm,0.4s | | | | | |
| MNAS | | | | ⇑S **Sn** | **23 28 12.0** | **-3.1** |
| | 37nm,0.9s | | | | | |
| **UCH** | **Uchtor** | **6.08** | **24** | P **Pn** | **23 27 11.0** | **-0.1** |
| | SNR=24 | | | | | |
| **EKS2** | **Erkin-Say** | **6.27** | **18** | P **Pn** | **23 27 14.2** | **+1.0** |
| | SNR=17 | | | | | |
| **KK31** | **Karatay Array** | **6.40** | **356** | ⇑P **Pn** | **23 27 15.5** | **+0.7** |
| | 3.7nm,0.3s,baz=180,slow=13,SNR=113 | | | | | |
| KK31 | | | | ⇓S **Sn** | **23 28 23.6** | **-4.1** |
| | 9.0nm,0.3s,baz=188,slow=24,SNR=18 | | | | | |
| **AAK** | **Ala-Archa** | **6.45** | **23** | P **Pn** | **23 27 16.4** | **+0.8** |
| | 8.4nm,0.3s,baz=179,slow=6.4,SNR=127 | | | | | |
| AAK | | | | S **Sn** | **23 28 27.0** | **-2.2** |
| | 1.5nm,0.3s,baz=192,slow=14,SNR=19 | | | | | |
| **AAK** | **Ala-Archa** | **6.45** | **23** | ⇑P **Pn** | **23 27 16.1** | **+0.5** |
| | 12nm,0.3s | | | | | |
| AAK | | | | ⇓S **Sn** | **23 28 26.6** | **-2.6** |
| | 21nm,0.8s | | | | | |
| **AAK** | **Ala-Archa** | **6.45** | **23** | P **Pn** | **23 27 16.2** | **+0.6** |
| | SNR=26 | | | | | |
| **KBK** | **Karagaybulak** | **6.61** | **25** | P **Pn** | **23 27 19.0** | **+1.2** |
| | SNR=20 | | | | | |
| **CHMS** | **Chumysh** | **6.85** | **23** | P **Pn** | **23 27 21.1** | **+0.3** |
| | SNR=10 | | | | | |
| **USP** | **Ospenovka** | **7.03** | **20** | P **Pn** | **23 27 22.9** | **-0.2** |
| | SNR=24 | | | | | |
| **TKM2** | **Tokmak 2** | **7.07** | **28** | ⇓P Pn | 23 27 23.6 | -0.2 |
| | 6.7nm,0.6s | | | | | |
| TKM2 | | | | ⇑S **Sn** | **23 28 42.2** | **-1.8** |
| | 11nm,0.8s | | | | | |
| **TKM2** | **Tokmak 2** | **7.07** | **28** | P **Pn** | **23 27 24.8** | **+1.0** |
| | SNR=6.0 | | | | | |
| **GEYT** | **Alibeck** | **10.45** | **281** | P **Pn** | **23 28 07.8** | **-0.1** |
| | 0.5nm,0.3s,baz=109,slow=12,SNR=7.4 | | | | | |
| GEYT | | | | S **Sn** | **23 30 01.4** | **-3.0** |
| | 0.5nm,0.3s,baz=101,slow=15,SNR=5.3 | | | | | |
| **MKAR** | **Makanchi Array** | **13.04** | **36** | P **Pn** | **23 28 41.0** | **+0.1** |
| | 0.1nm,0.3s,baz=207,slow=11,SNR=2.7 | | | | | |
| **PYUN** | **Piuthan** | **13.18** | **127** | *e*P **Pn** | **23 28 41.4** | **-1.5** |
| | 16nm,0.3s | | | | | |
| **KOLN** | **Koldanda** | **13.79** | **127** | *e*P **Pn** | **23 28 50.4** | **-0.3** |
| | 6.4nm,0.4s | | | | | |
| **GKN** | **Gorkha** | **14.32** | **124** | *e*P Pn | 23 28 55.3 | -1.8 |
| | 1.4nm,0.2s | | | | | |
| **KURBB** | **Kurchatov Arra** | **14.88** | **19** | P **Pn** | **23 29 06.0** | **+2.4** |
| | 0.0nm,0.3s,baz=213,slow=11,SNR=3.1 | | | | | |
| **DMN** | **Daman** | **14.89** | **124** | *e*P **Pn** | **23 29 03.3** | **-1.0** |
| | 11nm,0.4s | | | | | |
| **KKN** | **Kakani** | **14.89** | **123** | *e*P Pn | 23 29 02.8 | -1.4 |
| | 12nm,0.4s | | | | | |
| **AB31** | **Akbulak array** | **14.95** | **330** | ⇓P **Pn** | **23 29 04.8** | **+0.3** |
| | 0.9nm,0.4s,baz=143,slow=12,SNR=39 | | | | | |
| AB31 | | | | ⇑S Sn | 23 31 44.5 | -7.0 |
| | 1.1nm,0.4s,baz=148,slow=22,SNR=9.8 | | | | | |
| **PKIN** | **Phulchoki** | **15.11** | **123** | *e*P **Pn** | **23 29 07.1** | **+0.2** |
| | 11nm,0.4s | | | | | |
| **PKI** | **Pulchoki** | **15.12** | **123** | *e*P **Pn** | **23 29 06.9** | **-0.2** |
| | 15nm,0.4s | | | | | |
| **GUN** | **Gumba** | **15.22** | **121** | *e*P **Pn** | **23 29 07.6** | **-0.8** |
| | 10nm,0.4s | | | | | |
| **JIRN** | **Jiri** | **15.59** | **121** | *e*P **Pn** | **23 29 12.4** | **-0.6** |
| | 44nm,0.4s | | | | | |
| **BVAR** | **Borovoye Array** | **16.31** | **358** | P **P** | **23 29 23.1** | **+2.5** |
| | 0.2nm,0.3s,baz=182,slow=10,SNR=5.3 | | | | | |
| **RAMN** | **Ramite** | **16.32** | **122** | *e*P **P** | **23 29 23.4** | **+2.2** |
| **AKTO** | **Aktyubinsk** | **16.65** | **330** | P **Pn** | **23 29 27.4** | **+2.3** |
| | 2.1nm,0.3s,baz=139,slow=12,SNR=20 | | | | | |
| **AKTO** | **Aktyubinsk** | **16.65** | **330** | ⇓P **P** | **23 29 25.7** | **+1.4** |
| | 3.9nm,0.3s | | | | | |
| AKTO | | | | ⇑S **S** | **23 32 24.0** | **-4.3** |
| | 4.4nm,0.8s | | | | | |
| **TAPN** | **Taplejung** | **16.84** | **119** | *e*P **P** | **23 29 29.2** | **+2.3** |
| | 9.6nm,0.4s | | | | | |
| **ODAN** | **Odare** | **16.92** | **121** | *e*P **P** | **23 29 29.8** | **+2.1** |
| | 5.8nm,0.5s | | | | | |
| **ZALV** | **Zalesovo Beam** | **19.66** | **25** | P **P** | **23 29 57.9** | **+1.0** |
| | 1.0nm,0.4s,baz=219,slow=10,SNR=5.9 | | | | | |
| **FINES** | **FINESS Array B** | **37.37** | **326** | P **P** | **23 32 39.1** | **+2.3** |
| | 1.3nm,0.4s,baz=126,slow=10,SNR=8.5 | | | | | |
| **ARCES** | **ARCESS Array B** | **40.99** | **337** | P **P** | **23 33 09.1** | **+2.4** |
| | 3.9nm,1.0s,baz=114,slow=8.7,SNR=8.5 | | | | | |
| **NB2** | **NORSAR Subarra** | **44.28** | **323** | P **P** | **23 33 35.0** | **+1.7** |
| | comp=Z,0.3nm,0.4s,baz=93,slow=8.6 | | | | | |
| **NOA** | **NORSAR Array B** | **44.28** | **323** | P **P** | **23 33 35.1** | **+1.9** |
| | comp=Z,1.0nm,0.9s,baz=105,slow=7.2,SNR=4.2 | | | | | |
| **TORD** | **Torodi Ar. Bea** | **65.85** | **269** | P **P** | **23 36 08.1** | **-0.1** |
| | comp=Z,0.2nm,0.5s,baz=53,slow=6.4,SNR=5.2 | | | | | |
| **YKA** | **Yellowknife Ar** | **81.02** | **3** | P **P** | **23 37 35.3** | **-0.6** |
| | comp=Z,0.1nm,0.3s,baz=355,slow=5.3,SNR=2.1 | | | | | |

**WEL 11 23:39:43.2±0.5, 37.30S×179.93E, h33km, ML3.6/10, 3C, Error ellipse: s-maj=5.5km s-min=4.3km az=0.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID | Time | Res |
|---|---|---|---|---|---|---|
| | | | | Op ISC | h m s | ISC |
| **WMGZ** | **Waiomatatini S** | **1.31** | **246** | ⇑PN Pn | 23 40 04.8 | -0.3 |
| WMGZ | | | | SN Sn | 23 40 20.9 | -0.5 |
| WMGZ | | | | AML AML | 23 40 21.5 | |
| **MXZ** | **Matakaoa Point** | **1.32** | **258** | PN Pn | 23 40 04.5 | -0.7 |
| MXZ | | | | SN Sn | 23 40 20.5 | -1.2 |
| MXZ | | | | AML AML | 23 40 22.7 | |
| **PUZ** | **Puketiti** | **1.53** | **239** | PN Pn | 23 40 07.2 | -1.0 |
| PUZ | | | | SN Sn | 23 40 25.6 | -1.4 |
| PUZ | | | | AML AML | 23 40 26.6 | |
| **PKGZ** | **Pakihiroa** | **1.58** | **248** | PN Pn | 23 40 08.2 | -0.7 |
| PKGZ | | | | AML AML | 23 40 28.1 | |
| PKGZ | | | | AML AML | 23 40 28.5 | |
| **HAZ** | **Te Kaha** | **1.76** | **254** | PN Pn | 23 40 11.6 | +0.2 |
| HAZ | | | | AML AML | 23 40 36.6 | |
| HAZ | | | | AML AML | 23 40 37.5 | |
| **TWGZ** | **Tauwhareparae** | **1.77** | **240** | PN Pn | 23 40 11.1 | -0.5 |
| TWGZ | | | | SN Sn | 23 40 32.7 | -0.3 |
| TWGZ | | | | AML AML | 23 40 35.0 | |
| **CNGZ** | **Carnagh Statio** | **1.80** | **228** | PN Pn | 23 40 11.5 | -0.4 |
| **RUGZ** | **Raukumara Rang** | **1.91** | **249** | PN Pn | 23 40 13.1 | -0.4 |
| **MWZ** | **Matawai** | **2.16** | **241** | PN Pn | 23 40 16.0 | -1.0 |
| MWZ | | | | AML AML | 23 40 42.3 | |
| MWZ | | | | AML AML | 23 40 43.3 | |
| **RIGZ** | **Rimuhau** | **2.21** | **230** | PN Pn | 23 40 16.6 | -1.0 |
| RIGZ | | | | SN Sn | 23 40 42.1 | -1.7 |
| RIGZ | | | | AML AML | 23 40 44.7 | |
| **URZ** | **Urewera** | **2.43** | **246** | PN Pn | 23 40 20.5 | 0.0 |
| URZ | | | | SN Sn | 23 40 48.3 | -0.8 |
| **WHHZ** | **Waihua** | **2.77** | **229** | PN Pn | 23 40 24.0 | -1.1 |
| **ARHZ** | **Aropaoanui** | **3.03** | **229** | PN Pn | 23 40 28.2 | -0.5 |
| **BKZ** | **Black Stump Fm** | **3.28** | **234** | PN Pn | 23 40 31.2 | -1.2 |
| BKZ | | | | SN Sn | 23 41 07.9 | -2.4 |
| **MCHZ** | **McNeill Hill** | **3.32** | **229** | PN Pn | 23 40 31.6 | -1.2 |
| **KWHZ** | **Kaweka Forest** | **3.48** | **231** | ⇑PN Pn | 23 40 33.6 | -1.4 |
| KWHZ | | | | AML AML | 23 41 17.4 | |
| **OTVZ** | **Oturere** | **3.84** | **240** | ⇑PN Pn | 23 40 38.7 | -1.4 |
| **MRZ** | **Mangatainoka R** | **4.77** | **224** | PN Pn | 23 40 49.2 | -3.5 |
| **DUWZ** | **D'Urville Isla** | **5.84** | **231** | *e*PN Pn | 23 41 04.2 | -3.2 |

*IDC **11** 23:43:23.4±0.8, 10.71N×41.00W, h0km, mb3.9/12, mb1 4.0/12, mb1mx3.8/48, mbtmp3.9/12, MS3.6/6, Ms1 3.7/6, ms1mx3.3/30, Error ellipse: s-maj=30.9km s-min=16.8km az=159.0*

*ISCJB **11** 23:43:24.3±0.7, 10.7N±0.2×41.0W±0.1, h17km, mb3.9/13, MS3.5/6, Error ellipse: s-maj=24.5km s-min=13.1km az=154.4*

*NEIC **11** 23:43:24.9±0.5, 10.66N×40.99W, h10km, mb4.3/1, Error ellipse: s-maj=20.1km s-min=10.6km az=154.0*

**ISC 11 23:43:26.0±0.8, 10.7N±0.2×41.0W±0.1, h17km, n24, σ0s83/13, mb4.0/13, MS3.6/6, Northern Mid-Atlantic Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID | Time | Res |
|---|---|---|---|---|---|---|
| | | | | Op ISC | h m s | ISC |
| **H05S1** | **Guadeloupe/Mar** | **19.73** | **283** | T T | 00 08 30.5 | |
| | SNR=14 | | | | | |
| **PTGA** | **Pitinga** | **22.01** | **240** | P **P** | **23 48 18.8** | **-0.9** |
| | 4.9nm,0.8s,baz=57,slow=14,SNR=5.8 | | | | | |
| PTGA | | | | LR LR | 23 56 37.8 | |
| | comp=Z,106nm,21.3s,baz=68,slow=36 | | | | | |
| **SJG** | **San Juan** | **25.46** | **290** | LR LR | 23 57 01.6 | |
| | comp=Z,79nm,21.8s,baz=93,slow=32 | | | | | |
| **BDFB** | **Brasilia** | **27.04** | **195** | LR LR | 23 59 06.7 | |
| | comp=Z,185nm,21.8s,baz=84,slow=35 | | | | | |
| **H10N3** | **ASCENSION HYDR** | **32.13** | **124** | T T | 00 24 15.2 | |
| | baz=304,slow=75 | | | | | |
| **H10N2** | **ASCENSION HYDR** | **32.14** | **124** | T T | 00 24 15.5 | |
| | baz=304,slow=75 | | | | | |
| **H10N1** | **ASCENSION HYDR** | **32.15** | **124** | T T | 00 24 16.7 | |
| | baz=304,slow=75 | | | | | |
| **H10S3** | **ASCENSION HYDR** | **32.64** | **126** | T T | 00 24 47.8 | |
| | baz=306,slow=75 | | | | | |
| **H10S1** | **ASCENSION HYDR** | **32.65** | **126** | T T | 00 24 50.2 | |
| | baz=306,slow=75 | | | | | |
| **H10S2** | **ASCENSION HYDR** | **32.66** | **126** | T T | 00 24 44.4 | |
| | baz=306,slow=75 | | | | | |
| **DBIC** | **Dimbokro** | **35.92** | **93** | P **P** | **23 50 25.4** | **-0.4** |
| | 3.7nm,0.7s,baz=287,slow=9.1,SNR=5.7 | | | | | |
| **LPAZ** | **La Paz** | **37.92** | **225** | P **P** | **23 50 44.1** | **+0.6** |
| | 1.2nm,0.8s,baz=32,slow=7.3,SNR=7.1 | | | | | |
| LPAZ | | | | LR LR | 00 06 32.9 | |
| | comp=Z,136nm,20.9s,baz=72,slow=37 | | | | | |
| **CPUP** | **Villa Florida** | **40.05** | **203** | LR LR | 00 07 23.3 | |
| | comp=Z,103nm,19.9s,baz=46,slow=36 | | | | | |
| **TORD** | **Torodi Ar. Bea** | **41.80** | **82** | P **P** | **23 51 15.5** | **+0.4** |
| | 2.7nm,0.8s,baz=281,slow=8.5,SNR=15 | | | | | |
| **ESDC** | **Sonseca Array** | **43.74** | **42** | LR LR | 00 06 09.3 | |
| | comp=Z,115nm,20.1s,baz=345,slow=31 | | | | | |
| **KEST** | **Kesra** | **51.88** | **53** | P **P** | **23 52 33.7** | **-0.1** |
| | 4.2nm,0.9s,baz=181,slow=2.8,SNR=6.0 | | | | | |
| **ESK** | **Eskdalemuir** | **53.50** | **26** | P **P** | **23 52 45.7** | **+0.4** |
| | 3.2nm,0.9s | | | | | |
| **DAVOX** | **Davos/Dischmat** | **55.96** | **40** | P **P** | **23 53 04.7** | **+1.1** |
| | 2.1nm,0.9s,baz=253,slow=11 | | | | | |
| **GERES** | **GERESS Array B** | **59.12** | **39** | P **P** | **23 53 24.9** | **-0.8** |
| | 0.2nm,0.6s,baz=248,slow=7.3,SNR=2.1 | | | | | |
| **TXAR** | **Lajitas Array** | **61.09** | **298** | P **P** | **23 53 39.9** | **+0.2** |
| | 0.7nm,0.8s,baz=124,slow=7.1,SNR=5.8 | | | | | |
| **AKASG** | **Malin Array Be** | **69.30** | **40** | P **P** | **23 54 30.9** | **-1.5** |
| | 0.2nm,0.2s,baz=256,slow=5.6,SNR=4.1 | | | | | |
| **BRTR** | **Keskin Array B** | **71.46** | **52** | P **P** | **23 54 47.0** | **+0.9** |
| | 1.1nm,0.8s,baz=258,slow=4.8,SNR=6.7 | | | | | |
| **YKA** | **Yellowknife Ar** | **73.06** | **332** | P **P** | **23 54 54.6** | **-0.3** |
| | 0.4nm,0.8s,baz=96,slow=5.7,SNR=4.1 | | | | | |
| **ILAR** | **Eielson Array** | **87.10** | **336** | P **P** | **23 56 11.1** | **+0.4** |
| | 0.6nm,0.8s,baz=79,slow=3.9,SNR=6.4 | | | | | |

**IDC 11 23:48:47.0±5.7, 21.62S×122.81E, h0km, mb1 3.5/4, mb1mx3.3/41, mbtmp3.3/4, ML3.2/4, Error ellipse: s-maj=63.4km s-min=35.2km az=88.0, Western Australia**

| Code | Station Name | Δ° | AZ° | Phase ID | Time | Res |
|---|---|---|---|---|---|---|
| | | | | Op ISC | h m s | ISC |
| **FITZ** | **Fitzroy Crossi** | **4.40** | **38** | Pn Pn | 23 49 56.2 | +1.2 |
| | 0.5nm,0.3s,baz=219,slow=10,SNR=14 | | | | | |
| FITZ | | | | Sn Sn | 23 50 48.9 | +1.9 |
| | 0.6nm,0.3s,baz=330,slow=20,SNR=12 | | | | | |
| **ASAR** | **Alice Springs** | **10.45** | **103** | Pn Pn | 23 51 18.8 | +0.6 |
| | 0.3nm,0.3s,baz=285,slow=12,SNR=16 | | | | | |
| ASAR | | | | Sn Sn | 23 53 16.6 | +0.5 |
| | 0.1nm,0.3s,baz=277,slow=23,SNR=3.9 | | | | | |
| **WRA** | **Warramunga Arr** | **10.92** | **83** | Pn Pn | 23 51 24.8 | +0.2 |
| | 0.1nm,0.3s,baz=263,slow=14,SNR=9.8 | | | | | |
| WRA | | | | Sn Sn | 23 53 27.5 | 0.0 |
| | 0.2nm,0.3s,baz=265,slow=25,SNR=5.5 | | | | | |
| **STKA** | **Stephens Creek** | **19.62** | **125** | P P | 23 53 15.9 | -1.1 |
| | 0.1nm,0.3s,baz=294,slow=10.0,SNR=3.9 | | | | | |

*KRNET **11** 23:51:20.7±0.1, 39.21N×77.59E, mb4.1*

*IDC **11** 23:51:23.2±0.7, 39.39N×77.49E, h0km, mb3.8/14, mb1 4.0/20, mb1mx3.8/51, mbtmp3.9/20, ML3.3/6, MS3.1/1, Ms1 3.1/1, ms1mx2.6/41, Error ellipse: s-maj=15.9km s-min=14.2km az=99.0*

*BJI **11** 23:51:26.0, 39.59N×77.30E, h10km, mb4.2/7, mB4.3/4, ML4.1/10*

*SOME **11** 23:51:26.8, 39.63N×77.25E, h5km, MS3.7*

*NNC **11** 23:51:28.6±2.6, 39.77N×77.46E, h0km, mb4.4, mpv4.1, Error ellipse: s-maj=23.5km s-min=10.4km az=147.0*

**ISC 11 23:51:26.6±0.5, 39.39N±0.04×77.47E±0.03, h17km, n88, σ2s26/127, mb3.8/14, 29C-23D, Southern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase ID | Time | Res |
|---|---|---|---|---|---|---|
| | | | | Op ISC | h m s | ISC |
| **KSH** | **Kashi** | **1.17** | **277** | ⇓*i*Pg **Pg** | **23 51 53.1** | **+3.9** |
| KSH | | | | Sg **Sg** | **23 52 11.4** | **+6.9** |
| KSH | | | | smax smax | | |
| | comp=N,7μm,0.7s | | | | | |
| KSH | | | | smax smax | | |
| | comp=E,12μm,0.6s | | | | | |
| **ULHL** | **Ulahol** | **3.00** | **342** | ⇓*e*P **Pn** | **23 52 14.0** | **+0.4** |
| | baz=341 | | | | | |
| ULHL | | | | ⇓*i*S **Sn** | **23 52 52.9** | **+3.6** |
| | baz=341 | | | | | |
| **ULHL** | **Ulahol** | **3.00** | **342** | P **Pn** | **23 52 14.5** | **+0.9** |
| | SNR=155 | | | | | |
| **SFK** | **Sufi-Kurgan** | **3.12** | **283** | ⇑*e*P **Pn** | **23 52 15.5** | **+0.2** |
| | baz=286 | | | | | |
| SFK | | | | ⇑*e*S **Sb** | **23 52 56.7** | **-3.0** |
| | baz=286 | | | | | |
| **SFK** | **Sufi-Kurgan** | **3.12** | **283** | ⇑Pn **Pn** | **23 52 15.4** | **+0.1** |
| | 50nm,0.4s | | | | | |
| SFK | | | | ⇓Sn **Sb** | **23 52 58.2** | **-1.5** |
| | 342nm,0.5s | | | | | |
| **PRZ** | **Przheval'sk** | **3.17** | **13** | ⇑*e*P **Pn** | **23 52 15.9** | **0.0** |
| | baz=10.0 | | | | | |
| PRZ | | | | ⇑*e*S **Sn** | **23 52 57.8** | **+4.4** |
| | baz=10.0 | | | | | |
| **KZA** | **Kyzart** | **3.17** | **329** | ⇓*i*P **Pn** | **23 52 16.6** | **+0.5** |
| | baz=329 | | | | | |
| KZA | | | | ⇓*i*S **Sn** | **23 52 57.7** | **+3.9** |
| | baz=329 | | | | | |
| **KZA** | **Kyzart** | **3.17** | **329** | P **Pn** | **23 52 17.2** | **+1.1** |
| | SNR=46 | | | | | |
| **BOOM** | **Boomskoye usch** | **3.31** | **340** | ⇑*e*P **Pn** | **23 52 18.8** | **+1.0** |
| | baz=340 | | | | | |
| BOOM | | | | ⇑*i*S **Sb** | **23 53 03.2** | **-1.8** |
| | baz=340 | | | | | |
| **UCH** | **Uchtor** | **3.62** | **323** | ⇓*i*P **Pn** | **23 52 22.6** | **+0.3** |
| | baz=323 | | | | | |
| UCH | | | | ⇓*i*S **Sn** | **23 53 08.2** | **+3.4** |
| | baz=323 | | | | | |
| **UCH** | **Uchtor** | **3.62** | **323** | P **Pn** | **23 52 24.1** | **+1.8** |
| | SNR=31 | | | | | |
| **IZV** | **Izvestkoviy** | **3.70** | **350** | *e*P **Pb** | **23 52 30.6** | **-1.0** |
| | 142nm,0.5s | | | | | |
| IZV | | | | *e*S **Sb** | **23 53 16.4** | **+0.1** |
| | 374nm,0.4s | | | | | |
| **SATY** | **Saty** | **3.73** | **11** | *e*P **Pb** | **23 52 31.6** | **-0.6** |
| | 324nm,0.7s | | | | | |
| SATY | | | | *e*S **Sb** | **23 53 18.0** | **+0.8** |
| | 371nm,0.6s | | | | | |
| **KBK** | **Karagaybulak** | **3.78** | **330** | ⇓*i*P **Pn** | **23 52 25.2** | **+0.9** |
| | baz=331 | | | | | |
| KBK | | | | ⇓*i*S **Sn** | **23 53 12.4** | **+3.9** |
| | baz=331 | | | | | |
| **KBK** | **Karagaybulak** | **3.78** | **330** | P **Pn** | **23 52 25.7** | **+1.4** |
| | SNR=32 | | | | | |
| **MDOK** | **Medeo** | **3.79** | **355** | ⇓Pn **Pn** | **23 52 24.8** | **+0.5** |
| MDOK | | | | ⇑Pg **Pb** | **23 52 30.1** | **-2.9** |
| MDOK | | | | ⇓Lg Lg | 23 53 17.8 | |
| **MDOK** | **Medeo** | **3.79** | **355** | *e*P **Pb** | **23 52 31.9** | **-1.2** |
| | 260nm,0.8s | | | | | |
| MDOK | | | | *e*S **Sb** | **23 53 18.9** | **+0.3** |
| | 496nm,0.5s | | | | | |
| **TKM2** | **Tokmak 2** | **3.80** | **339** | ⇓*i*P **Pn** | **23 52 25.4** | **+0.8** |
| | baz=339 | | | | | |
| TKM2 | | | | ⇓*e*S **Sn** | **23 53 12.8** | **+3.8** |
| | baz=339 | | | | | |
| **TKM2** | **Tokmak 2** | **3.80** | **339** | ⇑Pg **Pn** | **23 52 28.6** | **+4.0** |
| | 24nm,0.3s | | | | | |
| TKM2 | | | | ⇑Lg Lg | 23 53 16.7 | |
| | 148nm,0.5s | | | | | |
| **TKM2** | **Tokmak 2** | **3.80** | **339** | P **Pn** | **23 52 25.4** | **+0.8** |
| | SNR=98 | | | | | |
| **MTBS** | **Maitube** | **3.82** | **348** | *e*P **Pb** | **23 52 31.1** | **-2.5** |
| | 73nm,0.3s | | | | | |
| MTBS | | | | *e*S **Sb** | **23 53 17.6** | **-2.0** |
| | 228nm,0.4s | | | | | |
| **KST** | **Kastek** | **3.83** | **343** | *e*P **Pb** | **23 52 31.2** | **-2.5** |
| | 29nm,0.4s | | | | | |
| KST | | | | *e*S **Sb** | **23 53 17.9** | **-1.9** |
| | 222nm,0.5s | | | | | |
| **AAA** | **Alma-Ata** | **3.84** | **354** | *e*P **Pb** | **23 52 33.3** | **-0.7** |
| | 275nm,0.3s | | | | | |
| AAA | | | | *e*S **Sb** | **23 53 21.2** | **+1.0** |
| | 589nm,0.6s | | | | | |
| **KOTS** | **Kotyrbulak** | **3.85** | **356** | *e*P **Pb** | **23 52 34.4** | **+0.2** |
| KOTS | | | | *e*S **Sb** | **23 53 22.9** | **+2.4** |
| **UZB** | **Uzynbulak** | **3.93** | **17** | *e*P **Pb** | **23 52 35.6** | **+0.1** |
| | 68nm,0.7s | | | | | |
| UZB | | | | *e*S **Sb** | **23 53 24.8** | **+1.9** |
| | 71nm,0.6s | | | | | |
| **ARSB** | **Arslanbob** | **3.94** | **301** | ⇑*e*P **Pn** | **23 52 27.5** | **+1.1** |
| | baz=302 | | | | | |
| ARSB | | | | ⇑*i*S **Sb** | **23 53 17.7** | **-5.3** |
| | baz=302 | | | | | |
| **AAK** | **Ala-Archa** | **3.95** | **326** | Pn **Pn** | **23 52 28.3** | **+1.8** |
| | 4.6nm,0.3s,baz=115,slow=7.4,SNR=45 | | | | | |
| AAK | | | | Sn **Sn** | **23 53 11.1** | **-1.5** |
| | 11nm,0.3s,baz=152,slow=15,SNR=4.2 | | | | | |
| AAK | | | | Lg Lg | 23 53 21.6 | |
| | 24nm,0.3s,baz=324,slow=19,SNR=10 | | | | | |
| AAK | | | | LR LR | 23 54 16.8 | |
| | comp=Z,240nm,20.3s,baz=320,slow=44 | | | | | |
| **AAK** | **Ala-Archa** | **3.95** | **326** | ⇑*i*P **Pn** | **23 52 26.9** | **+0.3** |
| | baz=327 | | | | | |
| AAK | | | | ⇑*e*S **Sn** | **23 53 15.9** | **+3.3** |
| | baz=327 | | | | | |
| **AAK** | **Ala-Archa** | **3.95** | **326** | ⇓Pn **Pn** | **23 52 27.0** | **+0.4** |
| | 33nm,0.5s | | | | | |
| AAK | | | | ⇓Lg Lg | 23 53 21.8 | |
| | 202nm,0.6s | | | | | |
| **AAK** | **Ala-Archa** | **3.95** | **326** | P **Pn** | **23 52 27.9** | **+1.3** |
| | SNR=7.1 | | | | | |
| **AML** | **Almayashu** | **3.97** | **315** | ⇑*i*P **Pn** | **23 52 27.5** | **+0.5** |
| | baz=316 | | | | | |
| AML | | | | ⇑*i*S **Sn** | **23 53 17.5** | **+4.2** |
| | baz=316 | | | | | |
| **AML** | **Almayashu** | **3.97** | **315** | P **Pn** | **23 52 28.7** | **+1.7** |
| | SNR=79 | | | | | |
| **SHLS** | **Shalkode** | **4.05** | **21** | *e*P **Pb** | **23 52 40.0** | **+2.4** |
| | 117nm,0.8s | | | | | |
| SHLS | | | | *e*S **Sg** | **23 53 32.5** | **-4.3** |
| | 169nm,0.6s | | | | | |
| **DGS** | **Degeres** | **4.06** | **342** | *e*P **Pb** | **23 52 37.5** | **-0.1** |
| | 167nm,0.6s | | | | | |
| DGS | | | | *e*S **Sb** | **23 53 27.7** | **+1.2** |
| | 246nm,0.6s | | | | | |
| **KURS** | **Kuram** | **4.13** | **7** | *e*P **Pb** | **23 52 39.2** | **+0.3** |
| KURS | | | | *e*S **Sb** | **23 53 30.9** | **+2.4** |
| **CHMS** | **Chumysh** | **4.15** | **331** | ⇓*i*P **Pn** | **23 52 30.2** | **+1.0** |
| | baz=331 | | | | | |
| CHMS | | | | ⇓*e*S **Sn** | **23 53 20.8** | **+3.5** |
| | baz=331 | | | | | |
| **CHMS** | **Chumysh** | **4.15** | **331** | P **Pn** | **23 52 30.3** | **+1.1** |
| | SNR=34 | | | | | |
| **KPKS** | **Kokpek** | **4.17** | **12** | *e*P **Pb** | **23 52 39.0** | **-0.6** |
| | 129nm,0.4s | | | | | |
| KPKS | | | | *e*S **Sb** | **23 53 30.5** | **+0.7** |
| | 338nm,0.5s | | | | | |
| **PDGK** | **Podgornoye** | **4.22** | **20** | ⇓*e*P **Pn** | **23 52 31.1** | **+0.9** |
| | baz=18 | | | | | |
| PDGK | | | | ⇓*i*S **Sn** | **23 53 24.4** | **+5.2** |
| | baz=18 | | | | | |
| **PDGK** | **Podgornoye** | **4.22** | **20** | ⇓Pg **Pb** | **23 52 39.6** | **-0.8** |
| | 162nm,0.8s | | | | | |
| PDGK | | | | ⇑Lg Lg | 23 53 33.7 | |
| | 418nm,0.7s | | | | | |
| **EKS2** | **Erkin-Say** | **4.30** | **321** | P **Pn** | **23 52 33.0** | **+1.6** |
| | SNR=16 | | | | | |
| **TOKL** | **Toktogul** | **4.33** | **308** | ⇑*e*P **Pn** | **23 52 33.4** | **+1.7** |
| | baz=309 | | | | | |
| TOKL | | | | ⇑*e*S **Sn** | **23 53 26.7** | **+4.9** |
| | baz=309 | | | | | |
| **USP** | **Ospenovka** | **4.47** | **331** | ⇑*i*P **Pn** | **23 52 34.0** | **+0.3** |
| | baz=331 | | | | | |
| USP | | | | ⇑*e*S **Sn** | **23 53 27.6** | **+2.3** |
| | baz=331 | | | | | |
| **USP** | **Ospenovka** | **4.47** | **331** | P **Pn** | **23 52 35.5** | **+1.9** |
| | SNR=16 | | | | | |
| **CHKK** | **Chushkaly** | **4.48** | **356** | *e*P **Pb** | **23 52 45.7** | **+1.0** |
| | 123nm,0.5s | | | | | |
| CHKK | | | | *e*S **Sb** | **23 53 42.2** | **+3.8** |
| | 551nm,0.3s | | | | | |
| **KUU** | **Kurty** | **4.58** | **350** | *e*P **Pb** | **23 52 44.6** | **-1.9** |
| | 94nm,0.8s | | | | | |
| KUU | | | | *e*S **Sb** | **23 53 40.4** | **-1.0** |
| | 335nm,0.7s | | | | | |
| **MRKS** | **Merke** | **4.64** | **318** | *e*P **Pb** | **23 52 46.6** | **-1.0** |
| | 50nm,0.6s | | | | | |
| MRKS | | | | *e*S **Sb** | **23 53 44.0** | **+0.8** |
| | 130nm,0.6s | | | | | |
| **ARXS** | **Arharly** | **4.83** | **3** | *e*P **Pb** | **23 52 51.0** | **+0.3** |
| | 240nm,0.6s | | | | | |
| ARXS | | | | *e*S **Sb** | **23 53 51.5** | **+3.0** |
| | 264nm,0.5s | | | | | |
| **ARK** | **Arkit** | **4.83** | **302** | ⇑*e*P **Pn** | **23 52 39.2** | **+0.5** |
| | baz=303 | | | | | |
| ARK | | | | ⇑*e*S **Sn** | **23 53 38.2** | **+3.9** |
| | baz=303 | | | | | |
| **MNAS** | **Manas** | **4.87** | **311** | ⇑Pg **Pb** | **23 52 53.0** | **+1.5** |
| | 50nm,1.3s | | | | | |
| MNAS | | | | ⇑Lg Lg | 23 53 57.7 | |
| | 106nm,0.8s | | | | | |
| **DJR** | **Jarkent** | **5.23** | **19** | *e*P **Pb** | **23 52 58.7** | **+1.0** |
| | 67nm,1.0s | | | | | |
| DJR | | | | *e*S **Sb** | **23 54 04.4** | **+4.1** |
| | 144nm,0.7s | | | | | |
| **KK31** | **Karatay Array** | **6.42** | **308** | Pg **Pb** | **23 53 17.8** | **-0.2** |
| | 3.5nm,0.5s,baz=124,slow=15,SNR=20 | | | | | |
| KK31 | | | | ⇑Lg Lg | 23 54 45.1 | |
| | 18nm,0.5s,baz=128,slow=28,SNR=3.9 | | | | | |
| **THN** | **Thein Dam** | **7.08** | **192** | *e*P **Pn** | **23 53 13.0** | **+3.5** |
| THN | | | | *e*S Sn | 23 53 33.6 | -56 |
| **CEP** | **Cherat** | **7.13** | **221** | P **Pn** | **23 53 14.4** | **+4.2** |
| **THW** | **Thamme Wali** | **8.05** | **217** | ⇑P **Pn** | **23 53 25.4** | **+2.7** |
| **MAKZ** | **Makanchi** | **8.11** | **22** | ⇑Pn **Pn** | **23 53 24.5** | **+0.9** |
| | 7.1nm,1.1s | | | | | |
| MAKZ | | | | ⇓Lg Lg | 23 55 36.0 | |
| | 15nm,1.0s | | | | | |
| **MK31** | **Makanchi Array** | **8.20** | **24** | ⇑Pn **Pn** | **23 53 24.6** | **-0.1** |
| | 1.5nm,0.6s,baz=208,slow=11,SNR=25 | | | | | |
| MK31 | | | | ⇓Lg Lg | 23 55 36.3 | |
| | 11nm,0.7s | | | | | |
| **MKAR** | **Makanchi Array** | **8.20** | **24** | Pn **Pn** | **23 53 24.7** | **-0.1**

0.3nm,0.3s,baz=91,slow=12,SNR=3.5
**ZALV Zalesovo Beam 15.40 17** Pn **Pn 23 54 59.8 -3.1**
0.2nm,0.3s,baz=208,slow=12,SNR=5.8
**AKTO Aktyubinsk 17.60 315** P **P 23 55 31.7 -0.2**
0.1nm,0.3s,baz=119,slow=15,SNR=8.0
**ARU Arti 21.12 330** P **P 23 56 10.8 +0.6**
0.9nm,0.5s,baz=115,slow=14,SNR=3.3
**SONM Songino Array 22.48 58** P **P 23 56 24.5 -0.5**
0.5nm,0.6s,baz=252,slow=12,SNR=2.5
**WSAR Wadi Sarin 22.69 230** P **P 23 56 27.6 +0.2**
3.1nm,0.9s,baz=65,slow=9.4,SNR=3.8
**BRTR Keskin Array B 33.55 285** P **P 23 58 05.1 -0.5**
1.0nm,0.6s,baz=83,slow=7.2,SNR=7.5
**FINES FINESS Array B 38.13 323** P **P 23 58 42.7 -1.7**
3.5nm,1.1s,baz=110,slow=10,SNR=2.7
**ARCES ARCESS Array B 40.57 335** P **P 23 59 04.0 -0.7**
7.4nm,1.1s,baz=103,slow=7.8,SNR=3.1
**NOA NORSAR Array B 45.25 321** P **P 23 59 42.7 -0.1**
1.0nm,0.7s,baz=85,slow=8.5,SNR=3.4
**ESDC Sonseca Array 60.60 299** P **P 00 01 35.5 -0.8**
0.4nm,0.7s,baz=59,slow=7.3,SNR=2.6
**ILAR Eielson Array 70.51 19** P **P 00 02 39.2 -0.7**
0.4nm,0.6s,baz=323,slow=5.8,SNR=5.6
**TORD Torodi Ar. Bea 70.83 271** P **P 00 02 41.6 -1.1**
1.9nm,0.6s,baz=49,slow=5.4,SNR=36
**YKA Yellowknife Ar 78.00 6** P **P 00 03 23.1 -0.4**
0.7nm,0.7s,baz=344,slow=5.7,SNR=7.5
**WRA Warramunga Arr 79.39 127** P **P 00 03 31.5 -0.2**
0.5nm,0.7s,baz=326,slow=5.1,SNR=9.7
**DBIC Dimbokro 79.88 270** P **P 00 03 33.1 -1.6**
2.4nm,0.7s,baz=53,slow=9.4,SNR=4.1
**ASAR Alice Springs 81.92 129** P **P 00 03 44.5 -0.8**
0.9nm,0.6s,baz=320,slow=5.7,SNR=12

*IDC **11** 23:58:28.5±0.8, 23.°59N×143.°52E, h0km, mb3.7/8, mb1 3.9/10, mb1mx3.6/36, mbtmp3.7/10, ML3.8/2, MS3.4/2, Ms1 3.4/2, ms1mx2.9/37, Error ellipse: s-maj=36.9km s-min=17.7km az=88.0*
*ISCJB **11** 23:58:31.3±0.8, 23.°5N±0.°1×143.°5E±0.°2, h31km, mb3.6/9, MS3.9/1, Error ellipse: s-maj=30.9km s-min=14.6km az=174.5*
**ISC 11 23:58:33.4±0.8, 23.°6N±0.°1×143.°4E±0.°2, h31km, n12, σ1s68/12, mb3.7/9, Volcano Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MJAR** | **Matsushiro Arr** | **13.64** | **342** | Pn | **Pn** | **00 01 41.9** | **-2.9** |
| | 0.3nm,0.3s,baz=158,slow=11,SNR=3.1 | | | | | | |
| **KSRS** | **Korea Array** | **19.16** | **320** | P | **P** | **00 02 53.5** | **-0.8** |
| | 0.5nm,0.3s,baz=130,slow=11,SNR=4.4 | | | | | | |
| KSRS | | | | LR | LR | 00 10 03.9 | |
| | comp=Z,44nm,18.2s,baz=340,slow=36 | | | | | | |
| **KLR** | **Kul'dur** | **27.17** | **343** | P | **P** | **00 04 17.3** | **+3.4** |
| | 0.1nm,0.7s,baz=159,slow=14,SNR=3.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.20** | **192** | P | **P** | **00 06 39.3** | **-0.4** |
| | 1.4nm,0.6s,baz=13,slow=8.7,SNR=28 | | | | | | |
| WRA | | | | PcP | **PcP** | **00 08 24.9** | **+0.7** |
| | 1.6nm,1.1s,baz=5.7,slow=3.2,SNR=4.7 | | | | | | |
| **ASAR** | **Alice Springs** | **47.91** | **192** | P | **P** | **00 07 08.0** | **-0.9** |
| | 0.4nm,0.6s,baz=16,slow=9.1,SNR=6.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **53.59** | **312** | P | **P** | **00 07 52.9** | **+1.4** |
| | 0.5nm,0.6s,baz=85,slow=7.8,SNR=5.6 | | | | | | |
| **STKA** | **Stephens Creek** | **55.21** | **182** | P | **P** | **00 08 02.5** | **-0.8** |
| | 1.2nm,0.7s,baz=339,slow=16,SNR=2.8 | | | | | | |
| **ILAR** | **Eielson Array** | **60.23** | **28** | P | **P** | **00 08 38.1** | **-0.2** |
| | 0.5nm,0.9s,baz=257,slow=5.4,SNR=3.3 | | | | | | |
| **YKA** | **Yellowknife Ar** | **74.65** | **28** | P | **P** | **00 10 09.7** | **+0.2** |
| | 0.2nm,0.5s,baz=293,slow=6.0,SNR=4.7 | | | | | | |
| **KBZ** | **Khabaz** | **81.21** | **314** | P | **P** | **00 10 47.1** | **+0.9** |
| | 0.4nm,0.4s,baz=90,slow=6.1,SNR=3.7 | | | | | | |
| **FINES** | **FINESS Array B** | **81.55** | **334** | P | **P** | **00 10 47.8** | **+0.1** |
| | 1.7nm,0.9s,baz=65,slow=4.9,SNR=4.8 | | | | | | |
| **MMAI** | **Mount Meron Ar** | **91.29** | **307** | LR | LR | 00 56 38.4 | |
| | comp=Z,48nm,20.6s,baz=340,slow=38 | | | | | | |

*ISK **12** 00:02:10.1, 38.°75N×43.°32E, h6km, MD2.6*
*DDA **12** 00:02:10.6, 38.°73N×43.°33E, h7km, Ml2.6*
*ISCJB **12** 00:02:11.3±0.5, 38.°77N±0.°03×43.°32E±0.°04, h10km±5km, Error ellipse: s-maj=5.9km s-min=3.9km az=24.1*
*CSEM **12** 00:02:11.0±0.2, 38.°76N×43.°32E, h10km, MD2.6, Error ellipse: s-maj=5.5km s-min=4.1km az=106.0*
**ISC 12 00:02:11.2±1.0, 38.°74N±0.°02×43.°36E±0.°03, h19km±3km, n27, σ1s00/45, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.15** | **170** | *e*PG | **Pg** | **00 02 15.5** | **-0.2** |
| VANB | | | | *e*SG | **Sg** | **00 02 19.7** | **+1.0** |
| **VANB** | **Van** | **0.15** | **170** | *e*Pg | **Pg** | **00 02 15.5** | **-0.2** |
| VANB | | | | *e*Sg | **Sg** | **00 02 19.7** | **+1.0** |
| **ERCV** | **ERCIS-VAN** | **0.28** | **357** | *e*PG | **Pg** | **00 02 16.1** | **-1.4** |
| **ERCV** | **ERCIS-VAN** | **0.28** | **357** | *e*Pg | **Pg** | **00 02 16.1** | **-1.4** |
| **VMUR** | **Van-Muradiye** | **0.30** | **35** | *i* P | **Pg** | **00 02 17.1** | **-0.8** |
| VMUR | | | | *i* S | **Sg** | **00 02 22.9** | **+0.4** |
| **VMUR** | **Van-Muradiye** | **0.30** | **35** | P | **Pg** | **00 02 17.1** | **-0.8** |
| VMUR | | | | S | **Sg** | **00 02 22.9** | **+0.4** |
| **GEVA** | **Gevas** | **0.49** | **208** | *i* P | **Pg** | **00 02 19.6** | **-1.7** |
| GEVA | | | | *i* S | **Sg** | **00 02 27.8** | **-0.1** |
| **GEVA** | **Gevas** | **0.49** | **208** | P | **Pg** | **00 02 19.5** | **-1.7** |
| GEVA | | | | S | **Sg** | **00 02 27.8** | **-0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.50** | **278** | *i* P | **Pg** | **00 02 20.4** | **-0.9** |
| ADCV | | | | *i* S | **Sg** | **00 02 28.6** | **+0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.50** | **278** | P | **Pg** | **00 02 20.4** | **-0.9** |
| ADCV | | | | S | **Sg** | **00 02 28.5** | **+0.4** |
| **CLDR** | **Caldiran** | **0.59** | **48** | *e*PG | **Pb** | **00 02 22.2** | **-0.9** |
| **CLDR** | **Caldiran** | **0.59** | **48** | *i* P | **Pb** | **00 02 22.1** | **-0.9** |
| CLDR | | | | *i* S | **Sb** | **00 02 31.6** | **+0.5** |
| **CLDR** | **Caldiran** | **0.59** | **48** | *e*Pg | **Pb** | **00 02 22.2** | **-0.9** |
| CLDR | | | | S | **Sb** | **00 02 31.6** | **+0.5** |
| **TUTA** | **Tutak** | **0.78** | **328** | *i* P | **Pb** | **00 02 25.2** | **-1.1** |
| TUTA | | | | *i* S | **Sb** | **00 02 36.4** | **-0.3** |
| **TUTA** | **Tutak** | **0.78** | **328** | P | **Pb** | **00 02 25.2** | **-1.1** |
| TUTA | | | | S | **Sb** | **00 02 36.4** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **0.88** | **341** | *e*PG | **Pb** | **00 02 27.1** | **-0.9** |
| AGRB | | | | *e*SG | **Sb** | **00 02 39.4** | **0.0** |
| **AGRB** | **Hanur-Agry** | **0.88** | **341** | *e*Pg | **Pb** | **00 02 27.1** | **-0.9** |
| AGRB | | | | *e*Sg | **Sb** | **00 02 39.4** | **0.0** |
| **EKAR** | **Karacoban** | **1.13** | **297** | *i* P | **Pn** | **00 02 32.4** | **+0.2** |
| EKAR | | | | *i* S | **Sg** | **00 02 50.7** | **+2.7** |
| **EKAR** | **Karacoban** | **1.13** | **297** | P | **Pn** | **00 02 32.4** | **+0.2** |
| EKAR | | | | S | **Sg** | **00 02 50.7** | **+2.7** |
| **SRTM** | **Siirt_Merkez** | **1.35** | **237** | *i* P | **Pn** | **00 02 35.6** | **+0.4** |
| SRTM | | | | *i* S | **Sb** | **00 02 53.7** | **+0.7** |
| **SRTM** | **Siirt_Merkez** | **1.35** | **237** | P | **Pn** | **00 02 35.6** | **+0.4** |
| SRTM | | | | S | **Sb** | **00 02 53.7** | **+0.7** |
| **TASB** | **TASBURUN-IGDIR** | **1.42** | **29** | *e*PN | **Pb** | **00 02 37.1** | **0.0** |
| **TASB** | **TASBURUN-IGDIR** | **1.42** | **29** | *e*Pn | **Pb** | **00 02 37.1** | **0.0** |
| **CUKT** | **Cukurca** | **1.51** | **172** | *e*PN | **Pb** | **00 02 38.5** | **-0.2** |
| **CUKT** | **Cukurca** | **1.51** | **172** | *e*Pn | **Pb** | **00 02 38.5** | **-0.2** |
| **DIGO** | **Kars** | **1.67** | **1** | *i* P | **Pb** | **00 02 42.6** | **+1.1** |
| **DIGO** | **Kars** | **1.67** | **1** | P | **Pb** | **00 02 42.6** | **+1.1** |

*CSEM **12** 00:04:27.3±0.1, 36.°97N×23.°56E, h15km, ML1.7, Error ellipse: s-maj=3.5km s-min=2.8km az=134.0*
*THE **12** 00:04:28.0, 36.°98N×23.°42E, h17km±1km, ML1.7/4, Error ellipse: s-maj=2.0km s-min=0.4km az=287.0*
**ATH 12 00:04:26.8, 36.°97N×23.°54E, h26km±1km, ML1.8/2, Error ellipse: s-maj=1.7km s-min=1.1km az=157.0, Southern Greece**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KRND** | **KRANIDI** | **0.52** | **323** | P | Pb | 00 04 37.1 | -0.4 |
| KRND | | | | S | Sn | 00 04 46.0 | -0.6 |
| KRND | | | | AML | AML | 00 04 48.7 | |
| | comp=N,245μm,0.3s | | | | | | |
| KRND | | | | AML | AML | 00 04 48.9 | |
| | comp=E,249μm,0.3s | | | | | | |
| **KRND** | **KRANIDI** | **0.52** | **323** | P | Pb | 00 04 37.2 | -0.3 |
| KRND | | | | S | Sb | 00 04 44.4 | -0.3 |
| **KRND** | **KRANIDI** | **0.52** | **323** | P | Pb | 00 04 37.2 | -0.3 |
| KRND | | | | S | Sb | 00 04 44.4 | -0.3 |
| **VLI** | **Veliai** | **0.55** | **243** | P | Pb | 00 04 36.8 | -1.1 |
| VLI | | | | S | Sb | 00 04 45.5 | +0.2 |
| VLI | | | | AML | AML | 00 04 46.4 | |
| | comp=N,236μm,0.5s | | | | | | |
| VLI | | | | AML | AML | 00 04 46.8 | |
| | comp=E,228μm,0.2s | | | | | | |
| **VLI** | **Veliai** | **0.55** | **243** | P | Pb | 00 04 37.3 | -0.5 |
| VLI | | | | S | Sb | 00 04 45.5 | +0.2 |
| **VLI** | **Veliai** | **0.55** | **243** | P | Pb | 00 04 37.3 | -0.5 |
| VLI | | | | S | Sb | 00 04 44.7 | -0.6 |
| **MHLA** | **Plaka, Milos I** | **0.74** | **107** | P | Pn | 00 04 42.1 | +0.5 |
| **MHLA** | **Plaka, Milos I** | **0.74** | **107** | P | Pn | 00 04 42.1 | +0.5 |
| **SERI** | **Serifos** | **0.78** | **75** | P | Pn | 00 04 42.6 | +0.5 |
| SERI | | | | S | Sn | 00 04 53.1 | +0.1 |
| **SERI** | **Serifos** | **0.78** | **75** | P | Pn | 00 04 42.6 | +0.5 |
| SERI | | | | S | Sn | 00 04 53.1 | +0.1 |
| **KYTH** | **Kithira** | **0.81** | **210** | P | Pn | 00 04 43.0 | +0.5 |
| KYTH | | | | S | Sn | 00 04 53.7 | 0.0 |
| **KYTH** | **Kithira** | **0.81** | **210** | P | Pn | 00 04 43.0 | +0.5 |
| KYTH | | | | S | Sn | 00 04 53.3 | -0.4 |
| **KYTH** | **Kithira** | **0.81** | **210** | P | Pb | 00 04 42.2 | 0.0 |
| KYTH | | | | S | Sn | 00 04 53.3 | -0.4 |
| **VLY** | **Voula,Athens** | **0.91** | **13** | P | Pb | 00 04 45.2 | +1.3 |
| **VLY** | **Voula,Athens** | **0.91** | **13** | P | Pb | 00 04 44.5 | +0.6 |
| VLY | | | | S | Sn | 00 04 57.3 | +1.1 |
| **VLY** | **Voula,Athens** | **0.91** | **13** | P | Pb | 00 04 44.5 | +0.6 |
| VLY | | | | S | Sn | 00 04 57.3 | +1.1 |
| **ATHU** | **Athens Univers** | **1.02** | **11** | P | Pb | 00 04 45.7 | -0.1 |
| **ATHU** | **Athens Univers** | **1.02** | **11** | P | Pb | 00 04 46.0 | +0.2 |
| ATHU | | | | S | Sn | 00 04 59.5 | +0.6 |
| **ATHU** | **Athens Univers** | **1.02** | **11** | P | Pb | 00 04 46.0 | +0.2 |
| ATHU | | | | S | Sn | 00 04 59.5 | +0.6 |
| **PTL** | **Penteli** | **1.11** | **13** | P | Pb | 00 04 47.7 | +0.3 |
| **PTL** | **Penteli** | **1.11** | **13** | P | Pb | 00 04 47.7 | +0.3 |
| **ANKY** | **Antikythira Is** | **1.11** | **190** | P | Pb | 00 04 48.8 | +1.4 |
| **ANKY** | **Antikythira Is** | **1.11** | **190** | P | Pb | 00 04 48.8 | +1.4 |
| **LTK** | **Loutraki** | **1.15** | **337** | P | Pb | 00 04 49.4 | +1.3 |
| **LTK** | **Loutraki** | **1.15** | **337** | P | Pb | 00 04 49.4 | +1.3 |
| **VILL** | **Villia** | **1.21** | **351** | P | Pb | 00 04 49.8 | +0.7 |
| **VILZ** | **Platees** | **1.26** | **350** | P | Pb | 00 04 49.8 | -0.2 |
| **KARY** | **Karystos** | **1.28** | **33** | P | Pb | 00 04 49.8 | -0.5 |
| **KARY** | **Karystos** | **1.28** | **33** | P | Pb | 00 04 49.8 | -0.5 |
| **ITM** | **Ithomi** | **1.31** | **280** | P | Pb | 00 04 51.4 | +0.6 |
| **ITM** | **Ithomi** | **1.31** | **280** | P | Pb | 00 04 51.4 | +0.6 |
| **GUR** | **Goura** | **1.36** | **316** | P | Pb | 00 04 52.0 | +0.3 |
| **GUR** | **Goura** | **1.36** | **316** | P | Pb | 00 04 52.0 | +0.3 |
| **PYL** | **PYLOS** | **1.45** | **268** | P | Pb | 00 04 54.0 | +1.0 |
| **PYL** | **PYLOS** | **1.45** | **268** | P | Pb | 00 04 54.0 | +0.9 |
| **EREA** | **Eretria** | **1.48** | **12** | P | Pb | 00 04 53.2 | -0.5 |
| **EREA** | **Eretria** | **1.48** | **12** | P | Pb | 00 04 53.2 | -0.6 |
| **KLV** | **Kalavryta, Ach** | **1.54** | **315** | P | Pb | 00 04 55.6 | +0.8 |
| **KLV** | **Kalavryta, Ach** | **1.54** | **315** | P | Pb | 00 04 55.6 | +0.8 |
| **APE** | **Apeiranthos** | **1.59** | **86** | P | Pn | 00 04 54.0 | +0.6 |
| **APE** | **Apeiranthos** | **1.59** | **86** | P | Pn | 00 04 54.0 | +0.6 |

*ISCJB **12** 00:05:35.1±0.4, 45.°75N±0.°06×142.°7E±0.°1, h317km, mb3.1/7, Error ellipse: s-maj=10.8km s-min=7.2km az=150.6*
*JMA **12** 00:05:36.1±0.1, 45.°61N×142.°68E, h325km, M3.0*
*IDC **12** 00:05:36.2±1.1, 45.°88N×142.°54E, h314km±21km, mb2.9/7, mb1 3.1/8, mb1mx2.9/38, mbtmp3.5/8, Error ellipse: s-maj=45.6km s-min=16.0km az=177.0*
**ISC 12 00:05:35.5±0.7, 45.°60N±0.°09×142.°65E±0.°09, h317km, n24, σ1s48/29, mb3.1/7, Hokkaido region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JWK2** | **Keihoku** | **0.60** | **242** | P | **Pn** | **00 06 18.0** | **+1.7** |
| JWK2 | | | | *e*S | **S** | **00 06 50.1** | **+1.3** |
| **JSE** | **Soyaes** | **0.64** | **184** | P | **Pn** | **00 06 17.8** | **+1.3** |
| **JSS** | **Shosan** | **1.32** | **206** | P | **Pn** | **00 06 21.2** | **+1.8** |
| **ASAJ** | **Asahikawa** | **1.48** | **181** | P | **Pn** | **00 06 22.4** | **+2.0** |
| | 3.3nm,0.3s,baz=34,slow=7.3,SNR=13 | | | | | | |
| **ASAJ** | **Asahikawa** | **1.48** | **181** | P | **Pn** | **00 06 22.1** | **+1.8** |
| **JMP** | **Maruseppu** | **1.67** | **162** | P | **Pn** | **00 06 23.2** | **+1.7** |
| **JKK2** | **Kamakawa 2** | **1.72** | **178** | P | **Pn** | **00 06 23.9** | **+2.0** |
| **JTKR** | **Abashiri--Toko** | **1.85** | **151** | P | **Pn** | **00 06 24.5** | **+1.7** |
| **JFR** | **Furan** | **2.43** | **181** | P | **Pn** | **00 06 28.9** | **+1.5** |
| **JAR** | **Ashorobuto** | **2.43** | **160** | P | **Pn** | **00 06 29.1** | **+1.7** |
| JAR | | | | *e*S | **S** | **00 07 11.1** | **+2.3** |
| **JAK** | **Akkeshi** | **2.98** | **150** | P | **Pn** | **00 06 33.6** | **+1.3** |
| JAK | | | | *e*S | **S** | **00 07 16.9** | **-0.9** |
| **JCH** | **Churui** | **3.02** | **170** | P | **Pn** | **00 06 33.0** | **+0.3** |
| JCH | | | | *e*S | **S** | **00 07 16.6** | **-1.9** |
| **NEM2** | **Nemuro 2** | **3.14** | **134** | P | **Pn** | **00 06 34.9** | **+1.1** |
| NEM2 | | | | *e*S | **S** | **00 07 18.5** | **-2.0** |
| **JNBK** | **Urakawa-nobuka** | **3.31** | **179** | P | **Pn** | **00 06 36.8** | **+1.2** |
| **JKB** | **Kayabe** | **3.89** | **198** | P | **Pn** | **00 06 41.9** | **+0.4** |
| **USRK** | **Ussuriysk Ar.** | **7.70** | **263** | P | **Pn** | **00 07 26.1** | **+0.6** |
| | 0.4nm,0.3s,baz=81,slow=14,SNR=4.7 | | | | | | |
| **KLR** | **Kul'dur** | **8.24** | **300** | P | **Pn** | **00 07 31.3** | **-0.6** |
| | 0.0nm,0.3s,baz=119,slow=9.9,SNR=5.3 | | | | | | |
| **SONM** | **Songino Array** | **24.82** | **288** | P | **P** | **00 10 29.3** | **-0.3** |
| | 1.1nm,0.5s,baz=78,slow=8.9,SNR=5.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **40.89** | **294** | P | **P** | **00 12 46.1** | **-1.2** |
| | 0.4nm,0.7s,baz=84,slow=9.0,SNR=2.9 | | | | | | |
| **ILAR** | **Eielson Array** | **41.93** | **37** | P | **P** | **00 12 54.1** | **-1.3** |
| | 0.4nm,0.6s,baz=275,slow=7.8,SNR=8.2 | | | | | | |
| **INK** | **Inuvik** | **46.44** | **31** | P | **P** | **00 13 29.9** | **-1.0** |
| | 0.6nm,0.4s,baz=298,slow=7.6,SNR=5.0 | | | | | | |
| **YKA** | **Yellowknife Ar** | **56.03** | **33** | P | **P** | **00 14 41.4** | **-0.1** |
| | 0.5nm,0.7s,baz=307,slow=7.1,SNR=5.4 | | | | | | |
| **PDAR** | **Pinedale Array** | **71.11** | **48** | P | **P** | **00 16 20.8** | **+0.7** |
| | 0.5nm,0.8s,baz=316,slow=7.6,SNR=2.8 | | | | | | |
| **TXAR** | **Lajitas Array** | **84.22** | **53** | P | **P** | **00 17 32.7** | **+0.7** |
| | 0.1nm,0.4s,baz=285,slow=3.4,SNR=4.3 | | | | | | |

*CSEM **12** 00:05:42.1±0.1, 39.°19N×26.°02E, h6km±1km, ML1.0, Error ellipse: s-maj=3.9km s-min=3.0km az=85.0*
**ATH 12 00:05:42.3, 39.°19N×26.°01E, h9km±4km, ML1.0/2, Error ellipse: s-maj=4.1km s-min=1.3km az=270.0, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SIGR** | **SIGRI** | **0.12** | **281** | P | Pg | 00 05 45.2 | 0.0 |
| SIGR | | | | S | Sg | 00 05 47.2 | +0.1 |
| SIGR | | | | AML | AML | 00 05 47.5 | |
| | comp=E,105μm,0.2s | | | | | | |
| SIGR | | | | AML | AML | 00 05 47.5 | |
| | comp=N,222μm,0.2s | | | | | | |
| **SIGR** | **SIGRI** | **0.12** | **281** | P | Pg | 00 05 45.2 | +0.1 |
| SIGR | | | | S | Sg | 00 05 47.2 | +0.1 |
| **PRK** | **Paraskevi** | **0.21** | **74** | P | Pg | 00 05 46.6 | -0.1 |
| PRK | | | | S | Sg | 00 05 49.9 | +0.2 |
| PRK | | | | AML | AML | 00 05 50.8 | |
| | comp=N,232μm,0.5s | | | | | | |
| PRK | | | | AML | AML | 00 05 51.2 | |
| | comp=E,154μm,0.3s | | | | | | |
| **PRK** | **Paraskevi** | **0.21** | **74** | P | Pg | 00 05 46.6 | -0.1 |
| PRK | | | | S | Sg | 00 05 49.9 | +0.2 |
| **BOZC** | **Bozcaada** | **0.65** | **3** | *i* P | Pg | 00 05 54.2 | -0.8 |
| BOZC | | | | *i* S | Sg | 00 06 04.2 | +0.7 |
| **BAYC** | **CANAKKALE_Bayr** | **0.69** | **37** | *i* P | Pg | 00 05 55.0 | -0.7 |
| BAYC | | | | *i* S | Sb | 00 06 05.6 | -0.7 |
| **BAYC** | **CANAKKALE_Bayr** | **0.69** | **37** | P | Pg | 00 05 55.0 | -0.7 |
| **BAYC** | **CANAKKALE_Bayr** | **0.69** | **37** | S | Sb | 00 06 05.6 | -0.6 |
| **CHOS** | **Chios island** | **0.80** | **177** | P | Pg | 00 05 57.5 | -0.2 |
| **CHOS** | **Chios island** | **0.80** | **177** | P | Pg | 00 05 57.5 | -0.3 |
| **LIA** | **Limnos Island** | **0.95** | **318** | P | Pg | 00 06 00.4 | -0.3 |
| **LIA** | **Limnos Island** | **0.95** | **318** | P | Pg | 00 06 00.4 | -0.3 |
| **SMTH** | **Samothraki Isl** | **1.33** | **344** | P | Pb | 00 06 07.4 | -0.1 |
| **SMTH** | **Samothraki Isl** | **1.33** | **344** | P | Pb | 00 06 07.4 | -0.1 |

*CSEM **12** 00:07:43.8±0.2, 38.°99N×43.°52E, h5km, ML2.5, Error ellipse: s-maj=5.1km s-min=3.7km az=169.0*
*DDA **12** 00:07:43.7, 38.°99N×43.°50E, h7km, Ml2.5*
*ISK **12** 00:07:43.0, 38.°94N×43.°53E, h7km, ML2.1*
**ISC 12 00:07:43.7±1.0, 39.°00N±0.°04×43.°52E±0.°03, h7km±6km, n15, σ0s61/24, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VMUR** | **Van-Muradiye** | **0.04** | **106** | *i* P | **Pg** | **00 07 45.1** | **-0.3** |
| VMUR | | | | *i* S | **Sg** | **00 07 47.2** | **+0.6** |
| **VMUR** | **Van-Muradiye** | **0.04** | **106** | P | **Pg** | **00 07 45.1** | **-0.3** |
| VMUR | | | | S | **Sg** | **00 07 47.2** | **+0.6** |
| **ERCV** | **ERCIS-VAN** | **0.14** | **278** | *e*PG | **Pg** | **00 07 47.0** | **+0.2** |
| **ERCV** | **ERCIS-VAN** | **0.14** | **278** | *e*Pg | **Pg** | **00 07 47.0** | **+0.2** |
| **CLDR** | **Caldiran** | **0.34** | **65** | *e*PG | **Pg** | **00 07 50.5** | **+0.1** |
| CLDR | | | | *e*SG | **Sg** | **00 07 56.3** | **+1.3** |
| **CLDR** | **Caldiran** | **0.34** | **65** | *i* P | **Pg** | **00 07 50.5** | **+0.1** |
| CLDR | | | | *i* S | **Sb** | **00 07 56.9** | **-1.1** |
| **CLDR** | **Caldiran** | **0.34** | **65** | P | **Pg** | **00 07 50.5** | **+0.1** |
| CLDR | | | | *e*Sg | **Sg** | **00 07 56.3** | **+1.3** |
| **VANB** | **Van** | **0.42** | **194** | *e*PG | **Pg** | **00 07 52.2** | **+0.4** |
| **VANB** | **Van** | **0.42** | **194** | *e*Pg | **Pg** | **00 07 52.2** | **+0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.65** | **253** | *i* P | **Pg** | **00 07 56.2** | **0.0** |
| ADCV | | | | *i* S | **Sb** | **00 08 06.0** | **-0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.65** | **253** | P | **Pg** | **00 07 56.2** | **0.0** |
| ADCV | | | | S | **Sb** | **00 08 06.1** | **-0.7** |
| **TUTA** | **Tutak** | **0.68** | **306** | *i* P | **Pg** | **00 07 57.0** | **+0.2** |
| TUTA | | | | *i* S | **Sb** | **00 08 07.2** | **-0.5** |
| **TUTA** | **Tutak** | **0.68** | **306** | P | **Pg** | **00 07 57.0** | **+0.2** |
| TUTA | | | | S | **Sb** | **00 08 07.2** | **-0.5** |
| **AGRB** | **Hanur-Agry** | **0.70** | **325** | *e*PG | **Pb** | **00 07 58.1** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **0.70** | **325** | *e*Pg | **Pb** | **00 07 58.1** | **-0.3** |

*ISCJB **12** 00:14:55.9±0.7, 16.°43S±0.°09×168.°0E±0.°1, h33km, mb4.5/11, MS3.1/1, Error ellipse: s-maj=18.2km s-min=12.3km az=176.3*
*NEIC **12** 00:14:57.8±0.6, 16.°44S×168.°04E, h35km, mb4.6/7, Error ellipse: s-maj=15.0km s-min=10.2km az=87.0*
*IDC **12** 00:15:01.7±14.0, 16.°90S×167.°10E, h0km, mb4.2/3, mb1 4.4/4, mb1mx3.9/26, mbtmp4.3/4, ML4.6/1, MS3.1/3, Ms1 3.1/3, ms1mx2.8/31, Error ellipse: s-maj=241.5km s-min=38.6km az=67.0*
**ISC 12 00:14:57.9±0.8, 16.°56S±0.°07×168.°0E±0.°1, h35km, n16, σ1s78/16, mb4.6/11, Vanuatu Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DZM** | **Mont Dzumac** | **5.68** | **195** | Pn | **Pn** | **00 16 20.2** | **+0.3** |
| | 24nm,0.3s,baz=350,slow=18,SNR=228 | | | | | | |
| DZM | | | | Sn | **Sn** | **00 17 20.3** | **-3.6** |
| | 11nm,0.3s,baz=315,slow=19,SNR=8.5 | | | | | | |
| DZM | | | | LR | LR | 00 17 54.8 | |
| | comp=Z,115nm,18.0s,baz=58,slow=33 | | | | | | |
| **DZM** | **Mont Dzumac** | **5.68** | **195** | *e*Pn | **Pn** | **00 16 20.2** | **+0.3** |
| | 38nm,0.3s | | | | | | |
| DZM | | | | *e*Sn | **Sn** | **00 17 20.5** | **-3.5** |
| **HNR** | **Honiara** | **10.56** | **311** | LR | LR | 00 21 25.7 | |
| | comp=Z,72nm,18.4s,baz=324,slow=38 | | | | | | |
| **HNR** | **Honiara** | **10.56** | **311** | Pn | **Pn** | **00 17 25.2** | **-1.7** |
| **URZ** | **Urewera** | **23.06** | **161** | LR | LR | 00 27 03.2 | |
| | comp=Z,74nm,20.5s,baz=304,slow=31 | | | | | | |
| **SNZO** | **South Karori** | **25.34** | **168** | P | **P** | **00 20 21.7** | **+0.2** |
| | 18nm,0.8s | | | | | | |
| **STKA** | **Stephens Creek** | **28.40** | **233** | P | **P** | **00 20 51.4** | **+2.2** |
| | 4.6nm,0.8s,baz=51,slow=9.3,SNR=8.9 | | | | | | |
| **TAU** | **Tasmania Unive** | **31.64** | **210** | P | **P** | **00 21 19.0** | **+1.4** |
| | 8.0nm,0.8s | | | | | | |
| **WRA** | **Warramunga Arr** | **32.11** | **259** | P | **P** | **00 21 22.3** | **+0.1** |
| | 0.7nm,0.9s,baz=90,slow=9.1,SNR=6.2 | | | | | | |
| **ASAR** | **Alice Springs** | **32.73** | **252** | P | **P** | **00 21 28.0** | **+0.5** |
| | 5.9nm,0.7s,baz=80,slow=8.8,SNR=58 | | | | | | |
| **MIDW** | **Midway** | **46.71** | **18** | P | **P** | **00 23 21.5** | **-2.0** |
| | 21nm,0.6s | | | | | | |
| **COCO** | **West Island** | **68.76** | **263** | P | **P** | **00 25 59.4** | **+0.5** |
| | 70nm,0.5s | | | | | | |
| **QSPA** | **South Pole Qui** | **73.48** | **180** | P | **P** | **00 26 28.1** | **+1.3** |
| | 2.9nm,0.3s | | | | | | |
| **CHTO** | **Chiang Mai** | **76.47** | **295** | P | **P** | **00 26 45.1** | **+0.4** |
| | 0.6nm,0.3s | | | | | | |
| **HIA** | **Hailar** | **78.21** | **330** | P | **P** | **00 26 53.6** | **-0.2** |
| | 1.9nm,0.4s | | | | | | |
| **CMB** | **Columbia Colle** | **86.27** | **49** | P | **P** | **00 27 36.3** | **0.0** |
| | 0.9nm,0.3s | | | | | | |

*ISCJB **12** 00:24:36.9±0.3, 34.°03N±0.°02×117.°09W±0.°02, h8km±2km, Error ellipse: s-maj=3.0km s-min=2.7km az=139.2*
*IASPEI **12** 00:24:37.1±0.8, 34.°03N±0.°02×117.°10W±0.°02, h13km±5km, Error ellipse: s-maj=3.7km s-min=3.0km az=62.9, GT5 selection from ISC bulletin GT5 identified by Bond¨jr and McLaughlin (2009) selection criteria Bond¨jr and McLaughlin, A new ground truth data set for seismic studies, Seism. Res. Let., 80, 465-472, 2009*
*NEIC **12** 00:24:38.0±0.0, 34.°04N×117.°09W, h6km, ML2.6(PAS), After PAS.*
*NEIC Felt at Calimesa, Mentone and Yucaipa.*
**ISC 12 00:24:37.1±0.8, 34.°03N±0.°02×117.°10W±0.°02, h12km±5km, n31, σ0s44/51, 1C-2D, Southern California**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CFT** | **Crafton Hills** | **0.01** | **302** | *i* P | **Pg** | **00 24 39.3** | **-0.1** |
| **SVD** | **Seven Oaks Dam** | **0.08** | **2** | *i* P | **Pg** | **00 24 39.6** | **-0.2** |
| SVD | | | | *e*S | **Sg** | **00 24 41.1** | **-0.7** |
| **BBSC** | **Beaumont Base** | **0.15** | **137** | *i* P | **Pg** | **00 24 41.2** | **+0.5** |
| BBSC | | | | *i* S | **Sg** | **00 24 44.1** | **+0.7** |
| **BBRC** | **Big Bear Solar** | **0.28** | **33** | P | **Pg

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **TUQ** | **Turquoise Moun** baz=215 | **1.71** | **34** | Pg | **Pb** | **00 25 09.1** | **+0.6** |
| TUQ | baz=215 | | | Sb | **Sb** | **00 25 30.5** | **+0.5** |
| **MPMC** | **Manual Prospec** baz=171 | **2.05** | **351** | Pg | **Pg** | **00 25 15.9** | **-0.5** |
| **GLA** | **Glamis** baz=298 | **2.14** | **117** | P | **Pn** | **00 25 11.9** | **-0.7** |
| **Y12C** | **Blythe** baz=278 | **2.16** | **97** | P | **Pn** | **00 25 12.3** | **-0.7** |

*IDC* ***12*** *00:45:47.7±6.4, 35.84N×68.71E, h0km, mb3.4/2, mb1 3.6/8, mb1mx3.4/46, mbtmp3.7/8, ML3.3/6, Error ellipse: s-maj=89.4km s-min=27.6km az=168.0*
*NNC* ***12*** *00:45:49.4±2.8, 35.87N×68.96E, h0km, mb4.0, mpv3.7, Error ellipse: s-maj=21.5km s-min=17.6km az=41.0*
**ISC 12 00:45:48.3±2.0, 35.6N±0.2×68.69E±0.09, h35km, n13, σ1s75/20, 5C-5D, Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DZET** | **Dzherino** 19nm,0.5s | **3.19** | **2** | ⇑Pn | **Pn** | **00 46 37.1** | **+1.1** |
| DZET | 154nm,0.4s | | | ⇓Sn | **Sn** | **00 47 15.0** | **+2.2** |
| **SFK** | **Sufi-Kurgan** 1.9nm,0.2s | **5.81** | **40** | ⇓Pn | **Pn** | **00 47 12.9** | **+0.7** |
| SFK | 10nm,0.3s | | | ⇓Sn | **Sn** | **00 48 18.2** | **+0.4** |
| **MNAS** | **Manas** 1.4nm,0.3s | **7.47** | **22** | ⇓Pn | **Pn** | **00 47 36.0** | **+1.1** |
| MNAS | 6.1nm,0.5s | | | ⇑Sn | **Sn** | **00 48 58.4** | **-0.1** |
| **KK31** | **Karatay Array** 0.4nm,0.2s,baz=203,slow=11,SNR=27 | **7.61** | **10** | ⇑Pn | **Pn** | **00 47 36.8** | **+0.1** |
| KK31 | 0.9nm,0.3s,baz=205,slow=24,SNR=3.6 | | | ⇑Sn | **Sn** | **00 49 01.7** | **+0.1** |
| **AAK** | **Ala-Archa** 1.5nm,0.3s,baz=185,slow=8.2,SNR=15 | **8.33** | **31** | Pn | **Pn** | **00 47 48.3** | **+1.6** |
| AAK | 0.2nm,0.3s,baz=323,slow=20,SNR=5.9 | | | Sn | **Sn** | **00 49 15.8** | **-3.9** |
| **AAK** | **Ala-Archa** 3.3nm,0.4s | **8.33** | **31** | ⇑Pn | **Pn** | **00 47 48.4** | **+1.6** |
| AAK | 5.6nm,0.9s | | | ⇓Sn | **Sn** | **00 49 18.1** | **-1.6** |
| **GEYT** | **Alibeck** 0.5nm,0.3s,baz=96,slow=13,SNR=7.5 | **8.79** | **288** | Pn | **Pn** | **00 47 54.4** | **+1.5** |
| GEYT | 0.7nm,0.3s,baz=97,slow=19,SNR=4.1 | | | Sn | **Sn** | **00 49 29.2** | **-1.6** |
| **MKAR** | **Makanchi Array** 0.0nm,0.3s,baz=223,slow=9.8,SNR=2.9 | **15.12** | **38** | Pn | **Pn** | **00 49 19.5** | **+0.3** |
| KURBB | **Kurchatov Arra** 0.0nm,0.3s,baz=212,slow=10,SNR=2.9 | **16.61** | **22** | Pn | **Pn** | **00 49 36.5** | **-1.7** |
| **AKTO** | **Aktyubinsk** 0.2nm,0.3s,baz=135,slow=8.6,SNR=2.4 | **16.71** | **336** | Pn | **Pn** | **00 49 38.7** | **-0.9** |
| **BVAR** | **Borovoye Array** 0.1nm,0.3s,baz=186,slow=9.7,SNR=3.2 | **17.45** | **3** | Pn | **Pn** | **00 49 45.6** | **-3.1** |
| **ZALV** | **Zalesovo Beam** 1.0nm,0.6s,baz=216,slow=11,SNR=6.4 | **21.52** | **27** | P | **P** | **00 50 35.3** | **+1.2** |
| **ARU** | **Arti** 1.4nm,0.6s,baz=96,slow=9.2,SNR=4.2 | **21.93** | **345** | P | **P** | **00 50 39.7** | **+1.3** |

*DDA* ***12*** *01:05:44.0, 39.13N×29.09E, h8km, Ml2.7*
*ISK* ***12*** *01:05:43.8, 39.12N×29.14E, h8km, MD2.7*
*ISCJB* ***12*** *01:05:44.4±0.4, 39.13N±0.03×29.10E±0.03, h8km±4km, Error ellipse: s-maj=4.5km s-min=3.5km az=161.0*
*CSEM* ***12*** *01:05:44.3±0.1, 39.12N×29.11E, h8km, MD2.7, Error ellipse: s-maj=1.6km s-min=1.3km az=151.0*
**ISC 12 01:05:44.4±0.8, 39.12N±0.02×29.10E±0.02, h12km±5km, n39, σ0s33/58, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SIMA** | **Simav-Kutahya** | **0.10** | **247** | *e*PG | **Pg** | **01 05 47.3** | **0.0** |
| SIMA | | | | *e*SG | **Sg** | **01 05 49.4** | **-0.1** |
| **SIMA** | **Simav-Kutahya** | **0.10** | **247** | *e*Pg | **Pg** | **01 05 47.3** | **0.0** |
| SIMA | | | | *e*Sg | **Sg** | **01 05 49.4** | **-0.1** |
| **GDZ** | **Gediz** | **0.30** | **96** | *i* P | **Pg** | **01 05 50.5** | **-0.1** |
| GDZ | | | | *i* S | **Sg** | **01 05 55.2** | **+0.4** |
| **GDZ** | **Gediz** | **0.30** | **96** | P | **Pg** | **01 05 50.5** | **-0.1** |
| GDZ | | | | S | **Sg** | **01 05 55.2** | **+0.4** |
| **DEMI** | **Demirci** | **0.31** | **255** | *i* P | **Pg** | **01 05 50.5** | **-0.2** |
| DEMI | | | | *i* S | **Sg** | **01 05 54.9** | **-0.1** |
| **DEMI** | **Demirci** | **0.31** | **255** | P | **Pg** | **01 05 50.5** | **-0.2** |
| DEMI | | | | S | **Sg** | **01 05 54.9** | **-0.1** |
| **TVSB** | **Tavsanli** | **0.43** | **41** | *e*PG | **Pg** | **01 05 52.6** | **-0.4** |
| TVSB | | | | *e*SG | **Sg** | **01 05 58.4** | **-0.4** |
| **TVSB** | **Tavsanli** | **0.43** | **41** | *e*Pg | **Pg** | **01 05 52.6** | **-0.4** |
| TVSB | | | | *e*Sg | **Sg** | **01 05 58.4** | **-0.4** |
| **KULA** | **Kula-Manisa** | **0.70** | **209** | *e*PG | **Pg** | **01 05 57.7** | **-0.2** |
| **KULA** | **Kula-Manisa** | **0.70** | **209** | *e*Pg | **Pg** | **01 05 57.7** | **-0.2** |
| **MANT** | **Manisa** | **0.76** | **214** | *i* P | **Pg** | **01 05 58.8** | **-0.3** |
| **MANT** | **Manisa** | **0.76** | **214** | P | **Pg** | **01 05 58.8** | **-0.3** |
| **KHAL** | **Karahalli** | **0.81** | **158** | *i* P | **Pb** | **01 06 00.2** | **-0.2** |
| KHAL | | | | *i* S | **Sb** | **01 06 10.9** | **-0.5** |
| **KHAL** | **Karahalli** | **0.81** | **158** | P | **Pb** | **01 06 00.2** | **-0.2** |
| KHAL | | | | S | **Sb** | **01 06 10.9** | **-0.5** |
| **AKHS** | **Akhisar** | **1.03** | **257** | *i* P | **Pb** | **01 06 04.1** | **0.0** |
| AKHS | | | | *i* S | **Sg** | **01 06 17.3** | **-0.3** |
| **AKHS** | **Akhisar** | **1.03** | **257** | P | **Pb** | **01 06 04.1** | **0.0** |
| AKHS | | | | S | **Sg** | **01 06 17.3** | **-0.3** |
| **BALB** | **Balikesir** | **1.08** | **299** | *e*PN | **Pn** | **01 06 05.5** | **+0.3** |
| **BALB** | **Balikesir** | **1.08** | **299** | *e*Pn | **Pn** | **01 06 05.5** | **+0.3** |
| **STEP** | **BALIKESIR_Sava** | **1.10** | **284** | *i* P | **Pn** | **01 06 05.6** | **0.0** |
| STEP | | | | *i* S | **Sn** | **01 06 21.1** | **+0.4** |
| **STEP** | **BALIKESIR_Sava** | **1.10** | **284** | P | **Pn** | **01 06 05.6** | **0.0** |
| STEP | | | | S | **Sn** | **01 06 21.1** | **+0.4** |
| **IGD** | **Bursa** | **1.14** | **4** | *i* P | **Pg** | **01 06 05.5** | **-0.9** |
| IGD | | | | *i* S | **Sb** | **01 06 21.4** | **+0.6** |
| **KZIL** | **AFYON_Kizioren** | **1.19** | **136** | *i* P | **Pn** | **01 06 06.9** | **0.0** |
| KZIL | | | | *i* S | **Sn** | **01 06 23.6** | **+0.6** |
| **KZIL** | **AFYON_Kizioren** | **1.19** | **136** | P | **Pn** | **01 06 06.9** | **0.0** |
| KZIL | | | | S | **Sn** | **01 06 23.6** | **+0.6** |
| **CAVI** | **Cavuskoy** | **1.22** | **28** | *e*PN | **Pg** | **01 06 07.5** | **-0.4** |
| **CAVI** | **Cavuskoy** | **1.22** | **28** | *e*Pn | **Pg** | **01 06 07.5** | **-0.4** |
| **MDNY** | **Mudanya-Bursa** | **1.26** | **353** | *e*PN | **Pb** | **01 06 08.0** | **0.0** |
| **MDNY** | **Mudanya-Bursa** | **1.26** | **353** | *e*Pn | **Pb** | **01 06 08.0** | **0.0** |
| **SHUT** | **Suhut-Afyon** | **1.27** | **116** | *e*PN | **Pb** | **01 06 08.1** | **-0.2** |
| **SHUT** | **Suhut-Afyon** | **1.27** | **116** | *e*Pn | **Pb** | **01 06 08.1** | **-0.2** |
| **KCTX** | **Karacabey (Bur** | **1.28** | **334** | *e*PN | **Pg** | **01 06 08.8** | **-0.1** |
| **KCTX** | **Karacabey (Bur** | **1.28** | **334** | *e*Pn | **Pg** | **01 06 08.8** | **-0.1** |
| **BORA** | **Eskisehir** | **1.29** | **54** | *i* P | **Pb** | **01 06 08.6** | **-0.1** |
| BORA | | | | *i* S | **Sn** | **01 06 25.7** | **+0.1** |
| **BORA** | **Eskisehir** | **1.29** | **54** | P | **Pb** | **01 06 08.6** | **-0.1** |
| BORA | | | | S | **Sn** | **01 06 25.7** | **+0.1** |
| **ADVT** | **Abdulvahap** | **1.40** | **20** | *e*PN | **Pb** | **01 06 10.3** | **-0.1** |
| **ADVT** | **Abdulvahap** | **1.40** | **20** | *e*Pn | **Pb** | **01 06 10.3** | **-0.1** |
| **ARMT** | **Armutlu** | **1.45** | **353** | *e*PN | **Pb** | **01 06 11.1** | **-0.3** |
| **ARMT** | **Armutlu** | **1.45** | **353** | *e*Pn | **Pb** | **01 06 11.1** | **-0.3** |
| **GULT** | **Gulveren** | **1.71** | **39** | *e*PN | **Pn** | **01 06 14.6** | **+0.6** |
| **GULT** | **Gulveren** | **1.71** | **39** | *e*Pn | **Pn** | **01 06 14.6** | **+0.6** |

**MEX 12 01:19:20.5±0.4, 17.08N×95.32W, h135km±24km, MD3.9, Oaxaca**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **OXBJ** | **Oaxaca** | **1.34** | **270** | *e*P | Pn | 01 19 46.1 | -1.3 |
| OXBJ | | | | *e*S | Sn | 01 20 05.9 | -2.0 |
| **VHO** | **Vista Hermosa** | **1.35** | **270** | *e*P | Pn | 01 19 46.2 | -1.3 |
| VHO | | | | *e*S | Sn | 01 20 06.1 | -2.0 |
| **HUIG** | **Huatulco** | **1.51** | **210** | *e*P | Pn | 01 19 47.6 | -1.4 |
| HUIG | | | | *e*S | Sn | 01 20 09.7 | -1.2 |
| **TLIG** | **Tlapa** | **3.14** | **279** | *e*P | Pn | 01 20 08.1 | -1.0 |
| TLIG | | | | *i* S | Sn | 01 20 42.2 | -4.6 |

*DDA* ***12*** *01:37:13.0, 37.34N×37.03E, h12km, Ml2.6*
*ISK* ***12*** *01:37:12.7, 37.29N×36.99E, h10km, ML2.3*
*ISCJB* ***12*** *01:37:13.4±0.5, 37.29N±0.04×37.00E±0.03, h10km±4km, Error ellipse: s-maj=6.4km s-min=4.0km az=24.6*
*CSEM* ***12*** *01:37:13.1±0.1, 37.28N×36.99E, h10km, ML2.3, Error ellipse: s-maj=2.3km s-min=1.3km az=22.0*
**ISC 12 01:37:13.1±0.9, 37.28N±0.03×36.99E±0.02, h13km±6km, n27, σ0s39/43, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **HCB** | **Kahramanmara¯** | **0.09** | **313** | *i* P | **Pg** | **01 37 16.2** | **+0.1** |
| HCB | | | | *i* S | **Sg** | **01 37 18.2** | **0.0** |
| **GAZ** | **Gaziantep** | **0.21** | **122** | *e*PG | **Pg** | **01 37 17.7** | **-0.1** |
| GAZ | | | | *e*SG | **Sg** | **01 37 21.0** | **+0.1** |
| **GAZ** | **Gaziantep** | **0.21** | **122** | *e*Pg | **Pg** | **01 37 17.7** | **-0.1** |
| GAZ | | | | *e*Sg | **Sg** | **01 37 21.0** | **+0.1** |
| **KMRS** | **Kahramanmaras** | **0.23** | **342** | *e*PG | **Pg** | **01 37 18.0** | **-0.2** |
| KMRS | | | | *e*SG | **Sg** | **01 37 21.4** | **-0.3** |
| **KMRS** | **Kahramanmaras** | **0.23** | **342** | *e*Pg | **Pg** | **01 37 18.0** | **-0.2** |
| KMRS | | | | *e*Sg | **Sg** | **01 37 21.4** | **-0.3** |
| **KAMA** | **Osmaniye** | **0.28** | **250** | *i* P | **Pb** | **01 37 19.8** | **-0.2** |
| KAMA | | | | *i* S | **Sb** | **01 37 24.4** | **-0.2** |
| **ANDN** | **Andirin** | **0.59** | **300** | *i* P | **Pg** | **01 37 24.9** | **+0.1** |
| ANDN | | | | *i* S | **Sb** | **01 37 33.3** | **-0.5** |
| **ANDN** | **Andirin** | **0.59** | **300** | P | **Pg** | **01 37 24.9** | **+0.1** |
| ANDN | | | | S | **Sb** | **01 37 33.3** | **-0.5** |
| **KOZT** | **Kozan** | **0.95** | **282** | *e*PG | **Pg** | **01 37 31.0** | **-0.5** |
| **KOZT** | **Kozan** | **0.95** | **282** | *e*Pg | **Pg** | **01 37 31.0** | **-0.5** |
| **SAIM** | **ADANA** | **1.00** | **314** | *i* P | **Pb** | **01 37 32.3** | **-0.1** |
| SAIM | | | | *i* S | **Sb** | **01 37 46.3** | **+0.8** |
| **SAIM** | **ADANA** | **1.00** | **314** | P | **Pb** | **01 37 32.3** | **-0.1** |
| SAIM | | | | S | **Sb** | **01 37 46.3** | **+0.8** |
| **ATAB** | **Bozova** | **1.05** | **79** | *i* P | **Pg** | **01 37 33.0** | **-0.5** |
| ATAB | | | | *i* S | **Sg** | **01 37 47.0** | **-0.3** |
| **ATAB** | **Bozova** | **1.05** | **79** | P | **Pg** | **01 37 33.0** | **-0.5** |
| ATAB | | | | S | **Sg** | **01 37 47.0** | **-0.3** |
| **TAHT** | **Tahtakopru-Hat** | **1.11** | **216** | *e*PN | **Pn** | **01 37 34.6** | **+0.3** |
| **TAHT** | **Tahtakopru-Hat** | **1.11** | **216** | *e*Pn | **Pn** | **01 37 34.6** | **+0.3** |
| **SARI** | **SarD1z-Kayseri** | **1.21** | **338** | *e*PN | **Pg** | **01 37 36.3** | **-0.2** |
| **AKCD** | **Akcadag** | **1.25** | **36** | *i* P | **Pg** | **01 37 37.1** | **-0.2** |
| AKCD | | | | *i* S | **Sb** | **01 37 52.3** | **-0.5** |
| **AKCD** | **Akcadag** | **1.25** | **36** | P | **Pg** | **01 37 37.1** | **-0.2** |
| AKCD | | | | S | **Sb** | **01 37 52.3** | **-0.5** |
| **DARE** | **Darende-Malaty** | **1.34** | **17** | *e*PN | **Pn** | **01 37 38.0** | **+0.3** |
| **DARE** | **Darende-Malaty** | **1.34** | **17** | *e*Pn | **Pn** | **01 37 38.0** | **+0.3** |
| **SURC** | **SANLIURFA_SURC** | **1.36** | **107** | *i* P | **Pn** | **01 37 38.0** | **+0.3** |
| SURC | | | | *i* S | **Sb** | **01 37 55.9** | **+0.3** |
| **SURC** | **SANLIURFA_SURC** | **1.36** | **107** | P | **Pn** | **01 37 38.0** | **+0.3** |
| SURC | | | | S | **Sb** | **01 37 55.9** | **+0.3** |
| **URFA** | **Urfa** | **1.47** | **83** | *e*PN | **Pn** | **01 37 39.9** | **+0.6** |
| **URFA** | **Urfa** | **1.47** | **83** | *e*Pn | **Pn** | **01 37 39.9** | **+0.6** |
| **MALT** | **Malatya** | **1.54** | **47** | *e*PN | **Pn** | **01 37 40.9** | **+0.7** |
| **MALT** | **Malatya** | **1.54** | **47** | *e*Pn | **Pn** | **01 37 40.9** | **+0.7** |

*NIED* ***12*** *01:39:00, 28.10N×129.60E, h17km, Mw4.3 Best double couple: M0 3.31000×10^15 NP1:φs318.00000°, δ15.00000°, λ113.00000°. NP2:φs114.00000°, δ77.00000°, λ84.00000°.*
*IDC* ***12*** *01:39:46.2±0.7, 28.14N×129.51E, h0km, mb4.1/18, mb1 4.3/18, mb1mx4.0/42, mbtmp4.1/18, MS3.4/4, Ms1 3.5/4, ms1mx3.0/34, Error ellipse: s-maj=25.7km s-min=16.7km az=63.0*
*ISCJB* ***12*** *01:39:49.8±0.5, 28.08N±0.03×129.55E±0.04, h32km±3km, mb4.1/21, MS3.4/2, Error ellipse: s-maj=7.9km s-min=3.2km az=35.9*
*JMA* ***12*** *01:39:50.3±0.2, 28.13N×129.53E, h26km±3km, M4.0*
*JMA Felt II J1.*
*NEIC* ***12*** *01:39:52.7±0.9, 28.05N×129.41E, h49km±8km, mb4.3/2, Error ellipse: s-maj=12.9km s-min=7.6km az=100.0*
*NEIC Recorded [2 JMA] on Amami-oshima and Kikaiga-shima.*
**ISC 12 01:39:49.8±1.2, 28.05N±0.04×129.56E±0.05, h23km±8km, n65, σ1s21/81, mb4.4/28, Ryukyu Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JAM** | **Amami Oshima** | **0.36** | **6** | P | **Pb** | **01 39 56.9** | **-0.8** |
| JAM | | | | *e*S | **Sb** | **01 40 01.8** | **-1.2** |
| **JAMN** | **Amaminishikomi** | **0.39** | **299** | P | **Pb** | **01 39 57.9** | **-0.2** |
| JAMN | | | | *e*S | **Sb** | **01 40 04.1** | **+0.3** |
| **JZK** | **Kikaishima** | **0.45** | **54** | P | **Pb** | **01 39 59.3** | **+0.2** |
| JZK | | | | *e*S | **Sn** | **01 40 07.3** | **-0.9** |
| **JTK** | **Tokunoshima** | **0.60** | **244** | P | **Pb** | **01 40 02.0** | **+0.3** |
| JTK | | | | *e*S | **Sb** | **01 40 10.2** | **+0.4** |
| **JOKE** | **Okinoerabujima** | **1.12** | **232** | P | **Pb** | **01 40 10.8** | **+0.3** |
| JOKE | | | | *e*S | **Sn** | **01 40 25.1** | **+0.4** |
| **JTAJ** | **Takarajima** | **1.14** | **344** | P | **Pn** | **01 40 09.2** | **-1.2** |
| JTAJ | | | | *e*S | **Sb** | **01 40 24.3** | **-0.9** |
| **JOW** | **Kunigami** | **1.67** | **223** | P | **Pn** | **01 40 18.6** | **+0.9** |
| **JOW** | **Kunigami** | **1.67** | **223** | *e*Pn | **Pn** | **01 40 18.8** | **+1.1** |
| JOW | | | | *e*S | **Sn** | **01 40 36.7** | **-1.7** |
| **JIH** | **Iheya** | **1.74** | **235** | P | **Pb** | **01 40 20.0** | **-1.1** |
| JIH | | | | *e*S | **Sn** | **01 40 41.1** | **+1.0** |
| **JNN** | **Nakanoshima** | **1.80** | **9** | P | **Pn** | **01 40 19.2** | **-0.3** |
| JNN | | | | *e*S | **Sn** | **01 40 41.5** | **-0.2** |
| **JNTH** | **Nagotoyohara** | **2.05** | **222** | P | **Pn** | **01 40 24.1** | **+1.2** |
| JNTH | | | | *e*S | **Sn** | **01 40 49.6** | **+1.8** |
| **JYAK** | **Yakushimahirau** | **2.33** | **21** | P | **Pn** | **01 40 27.1** | **+0.3** |
| JYAK | | | | *e*S | **Sn** | **01 40 55.2** | **+0.5** |
| **JKC** | **Kuchinoerabu** | **2.46** | **13** | P | **Pn** | **01 40 29.2** | **+0.6** |
| JKC | | | | *e*S | **Sn** | **01 40 57.8** | **-0.2** |
| **JAGN** | **Aguni-jima** | **2.53** | **235** | P | **Pn** | **01 40 31.1** | **+1.7** |
| **JTN** | **Tanegashima 3** | **2.87** | **25** | P | **Pn** | **01 40 34.7** | **+0.5** |
| JTN | | | | *e*S | **Sn** | **01 41 08.8** | **+0.7** |
| **JKE** | **Kume jima 2** | **3.01** | **236** | P | **Pn** | **01 40 37.1** | **+1.0** |
| JKE | | | | *e*S | **Sn** | **01 41 12.9** | **+1.4** |
| **JNU** | **Nakatsue** 7.2nm,0.3s,baz=334,slow=2.3,SNR=21 | **5.18** | **12** | Pn | **Pn** | **01 41 08.6** | **+2.6** |
| **JNU** | **Nakatsue** 20nm,0.8s | **5.18** | **12** | *e*Pn | **Pn** | **01 41 06.8** | **+0.8** |
| JNU | | | | *e*S | **Sn** | **01 42 09.6** | **+4.6** |
| **SSLB** | **Suanglung** | **8.83** | **243** | *e*Pn | **Pn** | **01 41 55.3** | **-0.9** |
| **KSAR** | **Wonju Array Be** | **9.47** | **352** | Pn | **Pn** | **01 42 08.2** | **+3.4** |
| **KSRS** | **Korea Array** 0.3nm,0.3s,baz=172,slow=14,SNR=4.6 | **9.47** | **352** | Pn | **Pn** | **01 42 08.2** | **+3.3** |
| KSRS | comp=Z,271nm,18.6s,baz=124,slow=41 | | | LR | LR | 01 46 08.9 | |
| **MJAR** | **Matsushiro Arr** comp=Z,81nm,19.2s,baz=250,slow=40 | **11.18** | **39** | LR | LR | 01 47 13.1 | |
| **SONM** | **Songino Array** 0.9nm,0.6s,baz=127,slow=9.8,SNR=3.9 | **26.73** | **324** | P | **P** | **01 45 28.5** | **+0.9** |
| **CMAR** | **Chiang Mai Arr** comp=Z,95nm,18.5s,baz=346,slow=39 | **29.64** | **258** | LR | LR | 01 58 53.5 | |
| **PETK** | **Petropavlovsk-** comp=Z,74nm,19.0s,baz=264,slow=39 | **32.53** | **32** | LR | LR | 02 00 60.0 | |
| **ODAN** | **Odare** 48nm,0.8s | **37.30** | **278** | *e*P | **P** | **01 47 00.7** | **0.0** |
| **RAMN** | **Ramite** | **37.98** | **279** | *e*P | **P** | **01 47 04.9** | **-1.5** |
| **JIRN** | **Jiri** | **38.19** | **280** | *e*P | **P** | **01 47 08.3** | **0.0** |
| **GUN** | **Gumba** 30nm,0.8s | **38.42** | **280** | *e*P | **P** | **01 47 11.3** | **+1.1** |
| **PKI** | **Pulchoki** 28nm,0.8s | **38.89** | **280** | *e*P | **P** | **01 47 14.0** | **-0.2** |
| **PKIN** | **Phulchoki** 23nm,0.8s | **38.90** | **280** | *e*P | **P** | **01 47 14.1** | **-0.1** |
| **KKN** | **Kakani** 23nm,0.6s | **38.96** | **280** | *e*P | **P** | **01 47 14.9** | **+0.3** |
| **DMN** | **Daman** 25nm,0.9s | **39.15** | **280** | *e*P | **P** | **01 47 16.0** | **-0.2** |
| **DANN** | **Dangsing** 2.2nm,0.9s | **40.17** | **282** | *e*P | **P** | **01 47 25.5** | **+0.7** |
| **KOLN** | **Koldanda** | **40.42** | **281** | *e*P | **P** | **01 47 26.9** | **+0.1** |
| **PYUN** | **Piuthan** | **40.89** | **281** | *e*P | **P** | **01 47 31.1** | **+0.5** |
| **MKAR** | **Makanchi Array** 0.7nm,0.5s,baz=88,slow=9.1,SNR=14 | **41.24** | **310** | P | **P** | **01 47 31.4** | **-1.6** |
| MKAR | 1.1nm,0.7s,baz=63,slow=3.7,SNR=6.0 | | | PcP | **PcP** | **01 49 31.8** | **+0.1** |
| **ZALV** | **Zalesovo Beam** 1.3nm,0.5s,baz=110,slow=8.4,SNR=5.8 | **41.55** | **321** | P | **P** | **01 47 34.2** | **-1.2** |
| ZALV | 1.5nm,0.8s,baz=94,slow=4.5,SNR=4.6 | | | PcP | **PcP** | **01 49 32.2** | **-0.3** |
| **KURK** | **Kurchatov** 28nm,1.2s | **44.34** | **315** | *e*P | **P** | **01 47 56.5** | **-1.6** |
| **AAK** | **Ala-Archa** 1.3nm,0.4s,baz=116,slow=5.0,SNR=6.7 | **46.43** | **303** | P | **P** | **01 48 14.3** | **-0.7** |
| **AAK** | **Ala-Archa** 1.4nm,0.5s | **46.43** | **303** | *e*P | **P** | **01 48 13.6** | **-1.4** |
| **WRAB** | **Tennant Creek** 6.8nm,1.7s | **47.93** | **174** | *e*P | **P** | **01 48 25.9** | **-0.7** |
| **WRA** | **Warramunga Arr** 1.4nm,0.9s,baz=354,slow=8.2,SNR=7.1 | **47.94** | **174** | P | **P** | **01 48 26.6** | **-0.1** |
| WRA | 0.2nm,0.5s,baz=357,slow=4.6,SNR=6.1 | | | PcP | **PcP** | **01 49 55.5** | **+0.7** |
| **BVAR** | **Borovoye Array** 1.5nm,0.5s,baz=91,slow=10,SNR=8.9 | **49.73** | **317** | P | **P** | **01 48 38.9** | **-1.2** |
| BVAR | 0.9nm,0.6s,baz=48,slow=2.2,SNR=5.8 | | | PcP | **PcP** | **01 50 00.4** | **-0.5** |
| **ASAR** | **Alice Springs** 1.0nm,0.9s,baz=7.0,slow=11,SNR=9.9 | **51.59** | **175** | P | **P** | **01 48 55.3** | **+0.8** |
| **GEYT** | **Alibeck** 1.1nm,0.5s,baz=67,slow=3.0,SNR=5.2 | **59.42** | **299** | P | **P** | **01 49 51.1** | **+0.3** |
| **ILAR** | **Eielson Array** 0.5nm,0.8s,baz=293,slow=7.6,SNR=5.1 | **62.27** | **29** | P | **P** | **01 50 09.4** | **-0.3** |
| **ARCES** | **ARCESS Array B** 2.8nm,0.8s,baz=70,slow=7.9,SNR=5.4 | **68.75** | **339** | P | **P** | **01 50 50.6** | **-0.8** |
| **KBZ** | **Khabaz** 7.9nm,0.9s,baz=102,slow=3.3,SNR=22 | **68.93** | **309** | P | **P** | **01 50 53.6** | **+0.7** |
| **FINES** | **FINESS Array B** 3.2nm,0.6s,baz=59,slow=5.6,SNR=22 | **71.86** | **331** | P | **P** | **01 51 09.9** | **-0.7** |
| **RES** | **Resolute Bay** 2.1nm,0.8s,baz=309,slow=6.9,SNR=5.9 | **73.54** | **11** | P | **P** | **01 51 20.5** | **+0.1** |
| AKASG | **Malin Array Be** 2.1nm,0.6s,baz=55,slow=6.4,SNR=10 | **74.92** | **320** | P | **P** | **01 51 28.0** | **-0.8** |
| **YKA** | **Yellowknife Ar** 0.5nm,0.7s,baz=302,slow=5.4,SNR=6.5 | **76.38** | **25** | P | **P** | **01 51 37.0** | **+0.1** |
| **BRTR** | **Keskin Array B** 4.0nm,0.9s,baz=94,slow=5.4,SNR=22 | **76.85** | **308** | P | **P** | **01 51 39.8** | **-0.5** |
| **NB2** | **NORSAR Subarra** comp=Z,1.1nm,1.2s,baz=52,slow=5.9 | **78.20** | **334** | P | **P** | **01 51 45.7** | **-1.6** |
| **NOA** | **NORSAR Array B** comp=Z,1.6nm,0.8s,baz=45,slow=1.9,SNR=4.0 | **78.20** | **334** | P | **P** | **01 51 45.6** | **-1.6** |
| **CONA** | **Conrad Observa** comp=Z,7.0nm,1.2s | **83.84** | **322** | *e*PcP | **P** | **01 52 19.3** | **+1.7** |
| **GERES** | **GERESS Array B** comp=Z,0.5nm,0.7s,baz=45,slow=4.2,SNR=6.7 | **84.46** | **323** | P | **P** | **01 52 19.8** | **-1.0** |
| **MOA** | **Molln** comp=Z,3.9nm,1.3s | **84.75** | **322** | *e*PcP | **P** | **01 52 22.2** | **0.0** |
| **KBA** | **Koelnbreinsper** comp=Z,4.5nm,1.4s | **85.72** | **322** | *e*PcP | **P** | **01 52 27.1** | **-0.2** |
| **ABTA** | **Abfaltersbach** comp=Z,3.1nm,0.9s | **86.37** | **322** | *e*PcP | **P** | **01 52 30.3** | **-0.1** |
| **MOTA** | **Moosalm** comp=Z,1.4nm,0.6s | **86.75** | **323** | *e*PcP | **P** | **01 52 33.6** | **+1.3** |
| **FETA** | **Feichten** comp=Z,2.6nm,0.8s | **87.16** | **323** | *e*PcP | **P** | **01 52 35.9** | **+1.6** |
| **DAVA** | **Damuels** comp=Z,5.9nm,1.1s | **87.43** | **324** | *e*PcP | **P** | **01 52 37.4** | **+1.7** |
| **PDAR** | **Pinedale Array** comp=Z,0.6nm,0.7s,baz=320,slow=1.3,SNR=6.2 | **91.00** | **39** | P | **P** | **01 52 52.9** | **+0.3** |

**BJI 12 01:42:34.0, 39.59N×118.17E, h5km, ML3.7/8, Northeastern China**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **BJI** | **Beijing** | **1.60** | **287** | Pn | Pn | 01 43 01.4 | -1.5 |
| BJI | | | | Pg | Pb | 01 43 03.0 | -1.0 |
| BJI | | | | Sg | Sn | 01 43 24.1 | +0.1 |
| BJI | comp=N,320nm,0.4s | | | smax | smax | | |
| BJI | comp=E,1μm,0.5s | | | smax | smax | | |
| **DL2** | **Dalian** | **2.77** | **103** | Pg | Pb | 01 43 24.4 | +0.4 |
| DL2 | | | | Sg | Sb | 01 43 59.6 | +1.4 |
| DL2 | comp=N,220nm,0.5s | | | smax | smax | | |
| DL2 | comp=E,160nm,0.6s | | | smax | smax | | |
| **TIA** | **Tai'an** | **3.47** | **194** | Pg | Pb | 01 43 36.8 | +0.8 |
| TIA | | | | Sg | Sb | 01 44 20.3 | +1.8 |
| TIA | comp=N,100nm,0.7s | | | smax | smax | | |
| TIA | comp=E,150nm,0.9s | | | smax | smax | | |
| **QIZ** | **Qiongzhong** | **21.72** | **202** | P | P | 01 47 27.6 | +1.6 |
| QIZ | | | | S | S | 01 51 30.6 | +3.8 |
| QIZ | comp=N,760nm,5.2s | | | LR | LR | | |
| QIZ | comp=E,810nm,5.6s | | | LR | LR | | |
| QIZ | comp=Z,720nm,6.2s | | | LR | LR | | |
| **WMQ** | **Urumqi** | **23.07** | **290** | *e*P | P | 01 47 41.6 | +1.2 |
| WMQ | comp=Z,16nm,0.7s | | | pmax | pmax | | |
| WMQ | comp=Z,400nm,4.9s | | | pmax | pmax | | |
| WMQ | comp=N,1μm,8.9s | | | LR | LR | | |
| WMQ | comp=E,1μm,7.9s | | | LR | LR | | |
| WMQ | comp=Z,180nm,16.7s | | | LR | LR | | |

*NIED* ***12*** *01:43:00, 43.80N×148.10E, h5km, Mw4.2 Best double couple: M0 2.12000×10^15 NP1:φs292.00000°, δ28.00000°, λ-38.00000°. NP2:φs56.00000°, δ73.00000°, λ-113.00000°.*
*JMA* ***12*** *01:43:51.3±0.7, 43.76N×148.09E, h0km, M4.0*
*ISCJB* ***12*** *01:43:53.5±1.1, 43.80N±0.06×148.17E±0.05, h24km±7km, mb3.8/16, Error ellipse: s-maj=10.2km s-min=4.4km az=153.9*
*SKHL* ***12*** *01:43:55.2±0.4, 43.71N×148.19E, h52km±6km, mb4.6/6*
*MOS* ***12*** *01:43:56.9±1.6, 44.05N×147.89E, h44km, mb4.0/9, Error ellipse: s-maj=10.1km s-min=8.8km az=103.1*
*IDC* ***12*** *01:43:56.1±1.0, 43.83N×147.91E, h24km±4km, mb3.6/12, mb1 3.9/13, mb1mx3.6/36, mbtmp3.8/13, ML2.6/1, Error ellipse: s-maj=25.2km s-min=17.7km az=160.0*
**ISC 12 01:43:56.2±0.8, 43.87N±0.06×148.00E±0.05, h26km±4km, n67, σ1s24/83, mb3.9/16, 2C-2D, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SHO** | **Shikotan** | **

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **GRPR** | **Tuman** | **1.61** | **275** | *e*PN | | **Pn** | **01 44 22.2** | **-0.7** |
| GRPR | | | | *e*S | | **Sb** | **01 44 45.1** | **-0.1** |
| **GRPR** | **Tuman** | **1.61** | **275** | *e*P | | **Pn** | **01 44 22.2** | **-0.7** |
| GRPR | | | | *e*S | | **Sb** | **01 44 45.1** | **-0.1** |
| **NEM2** | **Nemuro 2** | **1.71** | **254** | P | | **Pn** | **01 44 23.2** | **-1.1** |
| NEM2 | | | | *e*S | | **Sb** | **01 44 47.3** | **-0.8** |
| **GLVR** | **Golovnino** | **1.80** | **267** | *e*PN | | **Pn** | **01 44 25.4** | **-0.1** |
| GLVR | | | | *e*S | | **Sb** | **01 44 50.1** | **-0.4** |
| **GLVR** | **Golovnino** | **1.80** | **267** | *e*P | | **Pn** | **01 44 25.4** | **-0.1** |
| GLVR | | | | *e*S | | **Sb** | **01 44 50.1** | **-0.4** |
| **JRA** | **Rausu** | **2.08** | **273** | P | | **Pn** | **01 44 29.4** | **+0.1** |
| **JNK** | **Nakash** | **2.39** | **264** | P | | **Pn** | **01 44 32.5** | **-1.2** |
| **JTKR** | **Abashiri--Toko** | **2.96** | **273** | P | | **Pn** | **01 44 42.4** | **+1.0** |
| **JAR** | **Ashorobuto** | **3.12** | **261** | P | | **Pn** | **01 44 43.9** | **+0.2** |
| JAR | | | | *e*S | | **Sn** | **01 45 23.3** | **+3.1** |
| **JCH** | **Churui** | **3.61** | **251** | P | | **Pn** | **01 44 51.3** | **+0.9** |
| JCH | | | | *e*S | | **Sn** | **01 45 35.3** | **+3.1** |
| **JKA** | **Kamikawa-asahi** | **3.90** | **275** | *e*P | | **Pn** | **01 44 57.0** | **+2.6** |
| **ASAJ** | **Asahikawa** | **3.91** | **275** | Pn | | **Pn** | **01 44 57.0** | **+2.6** |
| | comp=N,0.7nm,0.3s,baz=70,slow=11,SNR=3.5 | | | | | | | |
| **JSE** | **Soyaes** | **4.03** | **288** | P | | **Pn** | **01 44 59.8** | **+3.7** |
| **JNBK** | **Urakawa-nobuka** | **4.16** | **249** | *e*S | | **Sn** | **01 45 47.5** | **+1.8** |
| **YSS** | **Yuzh-Sakhalins** | **4.81** | **312** | *e*PN | | **Pn** | **01 45 06.2** | **-0.6** |
| YSS | | | | *e*S | | **Sn** | **01 46 02.2** | **+0.6** |
| YSS | | | | pmax | pmax | | | |
| | comp=Z,30nm,1.4s | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **4.81** | **312** | *e*P | | **Pn** | **01 45 08.3** | **+1.5** |
| YSS | | | | AMB | AMB | | 01 45 08.7 | |
| | comp=Z,30nm,1.0s | | | | | | | |
| **JKB** | **Kayabe** | **5.49** | **251** | P | | **Pn** | **01 45 17.2** | **+1.0** |
| **JOT** | **Ohata** | **5.70** | **246** | P | | **Pn** | **01 45 19.6** | **+0.5** |
| JOT | | | | *e*S | | **Sn** | **01 46 25.5** | **+1.9** |
| **TYV** | **Tymovskoe** | **7.88** | **334** | *e*PN | | **Pn** | **01 45 45.6** | **-3.3** |
| TYV | | | | pmax | pmax | | | |
| | comp=Z,13nm,1.8s | | | | | | | |
| **TYV** | **Tymovskoe** | **7.88** | **334** | *e*P | | **Pn** | **01 45 50.0** | **+1.1** |
| TYV | | | | AMB | AMB | | 01 45 50.4 | |
| | comp=Z,13nm,2.0s | | | | | | | |
| **SKR** | **Severo-Kuril's** | **8.76** | **36** | *e*P | | **Pn** | **01 46 01.9** | **+0.8** |
| SKR | | | | AMB | AMB | | 01 46 09.4 | |
| | comp=Z,78nm,0.9s | | | | | | | |
| **PETK** | **Petropavlovsk-** | **11.25** | **31** | Pn | | **Pn** | **01 46 36.0** | **+0.8** |
| | comp=Z,0.2nm,0.3s,baz=206,slow=12,SNR=4.7 | | | | | | | |
| **PETK** | **Petropavlovsk-** | **11.25** | **31** | *e*PN | | **Pn** | **01 46 35.6** | **+0.4** |
| **PET** | **Petropavlovsk** | **11.56** | **34**⇑ | *e*PN | | **Pn** | **01 46 38.2** | **-1.1** |
| **SEY** | **Seymchan** | **19.27** | **6** | *e*P | | **P** | **01 48 17.6** | **-0.9** |
| **SEY** | **Seymchan** | **19.27** | **6** | *e*P | | **P** | **01 48 17.6** | **-0.9** |
| **HIA** | **Hailar** | **20.10** | **296** | *i* P | | **P** | **01 48 27.2** | **-0.5** |
| HIA | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,0.6s | | | | | | | |
| **HIA** | **Hailar** | **20.10** | **296** | *e*P | | **P** | **01 48 27.3** | **-0.5** |
| **ULN** | **Ulaanbaatar** | **28.55** | **293** | *i* P | | **P** | **01 49 47.2** | **-2.6** |
| ULN | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,1.1s | | | | | | | |
| **ULN** | **Ulaanbaatar** | **28.55** | **293** | *e*P | | **P** | **01 49 47.2** | **-2.6** |
| **H11N2** | **WAKE ISLAND Hy** | **28.80** | **141** | T | | T | 02 20 30.6 | |
| | baz=331,slow=75,SNR=70 | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.81** | **141** | T | | T | 02 20 31.7 | |
| | baz=331,slow=75,SNR=98 | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.82** | **141** | T | | T | 02 20 32.0 | |
| | baz=331,slow=75,SNR=67 | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.78** | **142** | T | | T | 02 21 40.2 | |
| | baz=332,slow=76,SNR=164 | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.79** | **142** | T | | T | 02 21 43.9 | |
| | baz=332,slow=76,SNR=105 | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.80** | **142** | T | | T | 02 21 48.6 | |
| | baz=332,slow=76,SNR=116 | | | | | | | |
| **DGZ** | **Jazzator, Alta** | **40.89** | **300** | *i* P | | **P** | **01 51 35.1** | **-0.9** |
| DGZ | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,1.2s | | | | | | | |
| **ILAR** | **Eielson Array** | **41.03** | **36** | P | | **P** | **01 51 38.8** | **+2.0** |
| | comp=Z,0.6nm,0.5s,baz=274,slow=8.5,SNR=5.9 | | | | | | | |
| ILAR | | | | pP | | **pP** | **01 51 44.6** | **-0.1** |
| | comp=Z,1.2nm,0.8s,baz=266,slow=7.9,SNR=6.7 | | | | | | | |
| **MKAR** | **Makanchi Array** | **45.07** | **298** | P | | **P** | **01 52 10.0** | **+0.3** |
| | comp=Z,0.6nm,0.6s,baz=81,slow=7.3,SNR=2.9 | | | | | | | |
| **INK** | **Inuvik** | **45.99** | **30** | P | | **P** | **01 52 17.6** | **+0.9** |
| | comp=Z,0.5nm,0.3s,baz=285,slow=5.3,SNR=9.5 | | | | | | | |
| INK | | | | pP | | **pP** | **01 52 25.1** | **+0.5** |
| | comp=Z,1.2nm,0.4s,baz=327,slow=4.9,SNR=4.0 | | | | | | | |
| **BRVK** | **Borovoye** | **49.95** | **310** | *e*P | | **P** | **01 52 46.0** | **-1.5** |
| BRVK | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.9s | | | | | | | |
| **BRVK** | **Borovoye** | **49.95** | **310** | *e*P | | **P** | **01 52 46.0** | **-1.5** |
| **AAK** | **Ala-Archa** | **51.86** | **296** | P | | **P** | **01 53 02.8** | **+0.6** |
| | comp=Z,0.8nm,0.4s,baz=51,slow=5.8,SNR=4.1 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **55.36** | **34** | P | | **P** | **01 53 27.8** | **+0.5** |
| | comp=Z,0.3nm,0.7s,baz=300,slow=7.2,SNR=3.8 | | | | | | | |
| YKA | | | | pP | | **pP** | **01 53 35.3** | **-0.1** |
| | comp=Z,0.6nm,0.6s,baz=299,slow=7.0,SNR=5.1 | | | | | | | |
| **WRA** | **Warramunga Arr** | **64.72** | **194** | P | | **P** | **01 54 31.8** | **-0.2** |
| | comp=Z,0.5nm,0.9s,baz=17,slow=7.1,SNR=3.7 | | | | | | | |
| **GEYT** | **Alibeck** | **64.92** | **299** | P | | **P** | **01 54 34.0** | **+0.6** |
| | comp=Z,14nm,0.6s,baz=40,slow=7.7,SNR=3.7 | | | | | | | |
| **FINES** | **FINESS Array B** | **65.04** | **333** | P | | **P** | **01 54 32.8** | **-0.8** |
| | comp=Z,2.3nm,0.8s,baz=38,slow=9.6,SNR=6.7 | | | | | | | |
| FINES | | | | pP | | **pP** | **01 54 41.7** | **-0.2** |
| | comp=Z,2.2nm,0.9s,baz=41,slow=6.1,SNR=1.7 | | | | | | | |
| **FINES** | **FINESS Array B** | **65.04** | **333** | *e*P | | **P** | **01 54 33.0** | **-0.7** |
| FINES | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.8s | | | | | | | |
| **FINES** | **FINESS Array B** | **65.04** | **333** | *e*P | | **P** | **01 54 33.0** | **-0.7** |
| **PDAR** | **Pinedale Array** | **69.36** | **50** | P | | **P** | **01 55 01.9** | **+0.2** |
| | comp=Z,0.3nm,0.5s,baz=239,slow=1.5,SNR=5.3 | | | | | | | |
| **NOA** | **NORSAR Array B** | **69.71** | **339** | P | | **P** | **01 55 03.2** | **-0.1** |
| | comp=Z,1.0nm,0.8s,baz=33,slow=6.6,SNR=4.9 | | | | | | | |
| **KBZ** | **Khabaz** | **70.18** | **312** | P | | **P** | **01 55 06.8** | **+0.5** |
| | comp=Z,2.4nm,0.7s,baz=76,slow=5.2,SNR=8.0 | | | | | | | |
| **CLL** | **Collm** | **77.49** | **333** | *e*P | | **P** | **01 55 49.0** | **-0.1** |
| **CLL** | **Collm** | **77.49** | **333** | *e*P | | **P** | **01 55 49.0** | **-0.1** |
| **CLL** | **Collm** | **77.49** | **333** | *e*P | | **P** | **01 55 49.0** | **-0.1** |
| **GERES** | **GERESS Array B** | **79.35** | **331** | P | | **P** | **01 55 59.6** | **+0.1** |
| | comp=Z,0.4nm,0.5s,baz=46,slow=5.8,SNR=4.2 | | | | | | | |
| GERES | | | | pP | | **PcP** | **01 56 07.2** | **-0.4** |
| | comp=Z,0.5nm,0.7s,baz=17,slow=5.6,SNR=3.8 | | | | | | | |
| **GERES** | **GERESS Array B** | **79.35** | **331** | *e*P | | **P** | **01 55 58.2** | **-1.3** |
| **GERES** | **GERESS Array B** | **79.35** | **331** | *e*P | | **P** | **01 55 58.2** | **-1.3** |
| **TXAR** | **Lajitas Array** | **82.07** | **57** | P | | **P** | **01 56 15.1** | **+0.6** |
| | comp=Z,0.3nm,0.5s,baz=292,slow=3.8,SNR=3.9 | | | | | | | |
| TXAR | | | | pP | | **pP** | **01 56 23.1** | **+0.2** |
| | comp=Z,0.4nm,0.5s,baz=272,slow=3.3,SNR=4.6 | | | | | | | |

*ISCJB **12** 02:09:37.3±0.3, 32°.99N±0°.02×116°.30W±0°.02, h9km±3km, Error ellipse: s-maj=3.3km s-min=2.8km az=179.0*
*NEIC **12** 02:09:38.3±0.0, 32°.99N×116°.33W, h5km, ML2.7(ECX), ML2.8(PAS), After PAS.*
*ECX **12** 02:09:38.7±0.6, 32°.98N×116°.32W, h4km, MD2.6, ML2.8*
**ISC 12 02:09:37.7±1.0, 33°.01N±0°.02×116°.30W±0°.02, h6km±9km, n35, σ0°88/55, 6C-6D, Southern California**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **CBKC** | **Canebrake** | **0.12** | **160** | ⇓ | *i*P | **Pg** | **02 09 40.3** | **+0.1** |
| **MONP2** | **Monument Peak** | **0.16** | **222** | | P | **Pg** | **02 09 41.1** | **+0.2** |
| | baz=36,SNR=246 | | | | | | | |
| MONP2 | | | | | S | **Sg** | **02 09 43.3** | **+0.1** |
| | baz=36 | | | | | | | |
| **MONP2** | **Monument Peak** | **0.16** | **222** | ⇑ | *i*P | **Pg** | **02 09 41.1** | **+0.2** |
| **CRR** | **Carrizo Plain** | **0.30** | **114** | ⇑ | *i*P | **Pg** | **02 09 44.2** | **+0.6** |
| **CRR** | **Carrizo Plain** | **0.30** | **114** | | *i* P | **Pg** | **02 09 44.2** | **+0.6** |
| **IKP** | **In-Ko-Pah, Jac** | **0.39** | **156** | | P | **Pg** | **02 09 45.5** | **+0.2** |
| | baz=331,SNR=113 | | | | | | | |
| IKP | | | | | S | **Sg** | **02 09 50.9** | **+0.4** |
| | baz=331 | | | | | | | |
| **IKP** | **In-Ko-Pah, Jac** | **0.39** | **156** | ⇓ | *e*P | **Pg** | **02 09 45.5** | **+0.2** |
| IKP | | | | | *e*S | **Sg** | **02 09 50.9** | **+0.4** |
| **SWSC** | **Sam W. Stewart** | **0.42** | **98** | | P | **Pg** | **02 09 46.4** | **+0.5** |
| | baz=276,SNR=37 | | | | | | | |
| SWSC | | | | | S | **Sg** | **02 09 52.3** | **+0.8** |
| | baz=276 | | | | | | | |
| **RMX** | **La Rumorosa** | **0.45** | **155** | ⇓ | *e*P | **Pg** | **02 09 45.9** | **-0.5** |
| RMX | | | | | *e*S | **Sg** | **02 09 52.3** | **+0.1** |
| **BAR** | **Barrett** | **0.46** | **224** | ⇑ | *e*P | **Pg** | **02 09 46.4** | **-0.1** |
| BAR | | | | | *e*S | **Sg** | **02 09 52.2** | **-0.2** |
| **YUH** | **Yuha Desert** | **0.48** | **139** | ⇓ | *i*P | **Pg** | **02 09 47.2** | **+0.3** |
| **WESC** | **Westside Schoo** | **0.54** | **117** | | *e*P | **Pg** | **02 09 49.0** | **+1.0** |
| **SDRC** | **San Diego Road** | **0.61** | **244** | ⇑ | *e*P | **Pg** | **02 09 48.9** | **-0.4** |
| SDRC | | | | | *e*S | **Sg** | **02 09 56.7** | **-0.6** |
| **PFO** | **Pinyon Flats O** | **0.62** | **347** | | P | **Pg** | **02 09 49.8** | **+0.1** |
| | baz=170,SNR=30 | | | | | | | |
| PFO | | | | | S | **Sg** | **02 09 57.8** | **+0.1** |
| | baz=170 | | | | | | | |
| **PFO** | **Pinyon Flats O** | **0.62** | **347** | *e*Pg | | **Pg** | **02 09 49.8** | **+0.1** |
| PFO | | | | | *e*S | **Sg** | **02 09 57.3** | **-0.4** |
| **DNR** | **Dunn Ranch,Anz** | **0.62** | **333** | *i* P | | Pn | 02 10 00.0 | +6.8 |
| DNR | | | | | *e*S | Pn | 02 10 00.0 | +6.8 |
| **TJIG** | **Tijuana** | **0.66** | **209** | ⇑ | *e*P | **Pg** | **02 09 49.8** | **-0.5** |
| TJIG | | | | | *e*S | **Sg** | **02 09 58.0** | **-0.8** |
| **109C** | **Camp Elliot, M** | **0.69** | **260** | | P | **Pg** | **02 09 50.4** | **-0.6** |
| | baz=81,SNR=29 | | | | | | | |
| 109C | | | | | S | **Sg** | **02 09 59.3** | **-0.7** |
| | baz=81 | | | | | | | |
| **DREC** | **Desert Rsrch C** | **0.74** | **106** | | *e*P | **Pg** | **02 09 52.5** | **+0.5** |
| **CBX** | **Cerro Bola** | **0.76** | **204** | ⇑ | *e*P | **Pg** | **02 09 51.9** | **-0.4** |
| CBX | | | | | *e*S | **Sg** | **02 10 01.9** | **-0.3** |
| CBX | | | | ⇓ | *e* | | 02 10 04.2 | |
| CBX | | | | | IAML | | 02 10 04.2 | |
| | comp=N,648nm,0.8s | | | | | | | |
| CBX | | | | | *e* | | 02 10 04.2 | |
| CBX | | | | | IAML | | 02 10 04.2 | |
| | comp=E,594nm,0.4s | | | | | | | |
| **MURC** | **Murrieta** | **0.95** | **308** | | P | **Pg** | **02 09 55.6** | **-0.5** |
| | baz=130,SNR=33 | | | | | | | |
| MURC | | | | | S | **Sg** | **02 10 08.1** | **-0.4** |
| | baz=130 | | | | | | | |
| **BC3** | **Big Chuckawall** | **0.96** | **47** | | P | **Pg** | **02 09 55.7** | **-0.4** |
| | baz=228,SNR=105 | | | | | | | |
| BC3 | | | | | S | **Sg** | **02 10 08.3** | **-0.3** |
| | baz=228 | | | | | | | |
| **BELC** | **Belle Mtn. Jos** | **1.02** | **14** | | P | **Pg** | **02 09 57.0** | **-0.3** |
| | baz=196,SNR=70 | | | | | | | |
| BELC | | | | | S | **Sg** | **02 10 10.8** | **+0.2** |
| | baz=196 | | | | | | | |
| **CPBX** | **Cerro Prieto** | **1.02** | **125** | | IAML | | 02 10 17.3 | |
| | comp=E,856nm,0.2s | | | | | | | |
| CPBX | | | | ⇓ | *e* | | 02 10 17.3 | |
| **GLA** | **Glamis** | **1.24** | **88** | | P | **Pg** | **02 09 59.5** | **-1.9** |
| | baz=268,SNR=29 | | | | | | | |
| GLA | | | | | S | **Sg** | **02 10 15.1** | **-2.4** |
| | baz=268 | | | | | | | |
| **BBRC** | **Big Bear Solar** | **1.35** | **338** | | Pg | **Pn** | **02 10 03.2** | **-0.1** |
| | baz=159 | | | | | | | |
| BBRC | | | | | Sb | **Sg** | **02 10 20.7** | **-0.6** |
| | baz=159 | | | | | | | |
| **IRM** | **Iron Mountain** | **1.50** | **40** | | P | **Pn** | **02 10 03.5** | **-1.6** |
| | baz=221,SNR=24 | | | | | | | |
| IRM | | | | | Sb | **Sn** | **02 10 24.7** | **-0.3** |
| | baz=221 | | | | | | | |
| **Y12C** | **Blythe** | **1.66** | **63** | | P | **Pn** | **02 10 05.6** | **-1.7** |
| | baz=244,SNR=12 | | | | | | | |
| **BFSC** | **Mount Baldy Ra** | **1.67** | **318** | | Pb | **Pn** | **02 10 07.9** | **+0.3** |
| | baz=138,SNR=15 | | | | | | | |
| BFSC | | | | | Sb | **Sn** | **02 10 29.5** | **0.0** |
| | baz=138 | | | | | | | |
| **HEC** | **Hector,Ludlow** | **1.82** | **359** | | Sb | **Sn** | **02 10 34.9** | **+2.0** |
| | baz=180 | | | | | | | |
| **CIS** | **Catalina Islan** | **1.82** | **283** | | Pb | **Pn** | **02 10 09.5** | **0.0** |
| | baz=103 | | | | | | | |
| CIS | | | | | Sb | **Sn** | **02 10 33.3** | **+0.5** |
| | baz=103 | | | | | | | |
| **GMRC** | **Granite Mounta** | **1.85** | **16** | | Pg | **Pn** | **02 10 12.3** | **+2.2** |
| | baz=198,SNR=17 | | | | | | | |
| GMRC | | | | | Sb | **Sn** | **02 10 35.9** | **+2.1** |
| | baz=198 | | | | | | | |
| **PASC** | **Pasadena Art C** | **1.96** | **307** | | *e*Pn | **Pn** | **02 10 13.3** | **+1.9** |
| PASC | | | | | *e*S | **Sb** | **02 10 38.6** | **+0.3** |
| **DECC** | **Green Verdugo** | **2.10** | **307** | | Sb | **Sb** | **02 10 42.4** | **-0.2** |
| | baz=127 | | | | | | | |
| **EDW2** | **Edwards Air Fo** | **2.34** | **323** | | Pb | **Pb** | **02 10 19.9** | **-0.4** |
| | baz=143,SNR=10 | | | | | | | |

*NIED **12** 02:34:00, 38°.20N×142°.20E, h35km, Mw4.5 Best double couple: M0 6.50000×10^15 NP1:φ232.00000°, δ25.00000°, λ-72.00000°. NP2:φ32.00000°, δ67.00000°, λ-98.00000°.*
*BJI **12** 02:34:06.2, 38°.02N×142°.33E, h42km, mb4.7/47, mB5.0/26, Ms4.6/16, Ms7 4.4/15*
*ISCJB **12** 02:34:07.3±1.0, 38°.21N±0°.03×142°.26E±0°.04, h32km±6km, mb4.5/56, MS4.2/7, Error ellipse: s-maj=6.3km s-min=3.9km az=41.8*
*MOS **12** 02:34:08.6±1.1, 38°.30N×142°.28E, h40km, mb4.6/37, Error ellipse: s-maj=9.1km s-min=5.7km az=100.4*
*JMA **12** 02:34:08.4±0.2, 38°.24N×142°.20E, h39km±2km, M4.3*
*JMA Felt I J1.*
*NEIC **12** 02:34:09.6±0.8, 38°.18N×142°.35E, h40km±7km, mb4.7/5, Error ellipse: s-maj=9.2km s-min=6.2km az=110.0*
*NEIC Felt at Kashima and Narita. Recorded [1 JMA] in Fukushima, Iwate and Miyagi.*
*IDC **12** 02:34:10.1±0.7, 38°.20N×142°.14E, h39km±4km, mb4.2/23, mb1 4.3/26, mb1mx4.2/41, mbtmp4.4/26, ML4.1/3, MS3.7/8, Ms1 3.8/8, ms1mx3.4/43, Error ellipse: s-maj=14.3km s-min=12.3km az=120.0*
**ISC 12 02:34:08.0±0.5, 38°.18N±0°.04×142°.27E±0°.04, h25km±3km, h25km:pP-P, n168, σ1§80/189, mb4.5/56, MS4.2/7, 16C-9D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **JIO** | **Ouri** | **0.77** | **291** | | P | **Pb** | **02 34 21.9** | **-0.8** |
| JIO | | | | | S | **Sb** | **02 34 31.2** | **-1.6** |
| **OFUJ** | **Ofunato** | **1.01** | **333** | | P | **Pn** | **02 34 25.2** | **-1.4** |
| OFUJ | | | | | S | **Sb** | **02 34 37.1** | **-2.6** |
| **JMK** | **Ichinoseki** | **1.12** | **313** | | P | **Pn** | **02 34 27.1** | **-1.0** |
| **JMM** | **Marumori** | **1.21** | **255** | | P | **Pn** | **02 34 28.1** | **-1.1** |
| JMM | | | | | S | **Sn** | **02 34 42.3** | **-2.5** |
| **JOU** | **Okura** | **1.27** | **279** | | P | **Pn** | **02 34 29.7** | **-0.5** |
| JOU | | | | | *e*S | **Sn** | **02 34 45.1** | **-1.4** |
| **JFK** | **Kawauchi** | **1.37** | **234** | | P | **Pn** | **02 34 30.4** | **-1.2** |
| JFK | | | | | S | **Sn** | **02 34 46.0** | **-3.0** |
| **JOM** | **Ohasama** | **1.50** | **330** | | P | **Pn** | **02 34 32.7** | **-0.5** |
| JOM | | | | | *e*S | **Sn** | **02 34 50.2** | **-1.8** |
| **JFT** | **Otama** | **1.67** | **247** | | P | **Pn** | **02 34 35.7** | **+0.1** |
| JFT | | | | | S | **Sn** | **02 34 55.6** | **-0.6** |
| **JYK** | **Kaneyama** | **1.67** | **297** | | P | **Pn** | **02 34 35.1** | **-0.5** |
| **JYS** | **Shirataka** | **1.73** | **272** | | P | **Pn** | **02 34 36.3** | **-0.2** |
| JYS | | | | | *e*S | **Sn** | **02 34 56.7** | **-1.2** |
| **JRG** | **Rokugo** | **1.76** | **314** | | P | **Pn** | **02 34 36.6** | **-0.3** |
| **JYA** | **Atsumi** | **2.05** | **282** | | P | **Pn** | **02 34 40.7** | **-0.1** |
| **MJAR** | **Matsushiro Arr** | **3.62** | **244** | | Pn | **Pn** | **02 35 04.3** | **+1.8** |
| | 6.3nm,0.3s,baz=70,slow=11,SNR=36 | | | | | | | |
| MJAR | | | | | LR | LR | 02 36 38.6 | |
| | comp=Z,593nm,18.1s,baz=55,slow=42 | | | | | | | |
| **MAJO** | **Matsushiro** | **3.63** | **244** | *d* | *i*P | **Pn** | **02 35 05.6** | **+3.0** |
| **MAJO** | **Matsushiro** | **3.63** | **244** | | *e*Pn | **Pn** | **02 35 05.6** | **+3.0** |
| MAJO | | | | | *e*S | **Sb** | **02 35 51.1** | **-3.8** |
| **MAT** | **Matsushiro** | **3.63** | **244** | | P | **Pn** | **02 35 05.4** | **+2.9** |
| MAT | | | | | *e*S | **Sn** | **02 35 46.5** | **+1.9** |
| **ERM** | **Erimo** | **3.89** | **10** | | *e*P | **Pn** | **02 35 05.4** | **-0.7** |
| **ERM** | **Erimo** | **3.89** | **10** | | *e*Pn | **Pn** | **02 35 05.4** | **-0.7** |
| **JHJ2** | **Mitsune** | **5.44** | **202** | | *e*Pn | **Pn** | **02 35 28.2** | **+0.7** |
| **JHJ** | **Hachijo jima 2** | **5.44** | **203** | | Pn | **Pn** | **02 35 28.2** | **+0.7** |
| | 43nm,0.3s,baz=325,slow=22,SNR=11 | | | | | | | |
| JHJ | | | | | Sn | **Sn** | **02 36 26.5** | **-2.8** |
| | 48nm,0.3s,baz=244,slow=23,SNR=6.0 | | | | | | | |
| **ASAJ** | **Asahikawa** | **5.93** | **2** | | Pn | **Pn** | **02 35 35.4** | **+1.2** |
| | 4.0nm,0.3s,baz=186,slow=5.4,SNR=9.7 | | | | | | | |
| ASAJ | | | | | Sn | **Sn** | **02 36 43.9** | **+2.5** |
| | 1.5nm,0.3s,baz=342,slow=13,SNR=3.5 | | | | | | | |
| **ASAJ** | **Asahikawa** | **5.93** | **2** | | *e*Pn | **Pn** | **02 35 34.6** | **+0.4** |
| ASAJ | | | | | Sn | **Sn** | **02 36 43.9** | **+2.5** |
| **YUK** | **Yuzh-Kuril'sk** | **6.44** | **24** | | *e*P | **Pn** | **02 35 41.4** | **+0.2** |
| YUK | | | | | *e*S | **Sn** | **02 36 49.2** | **-4.7** |
| YUK | | | | | pmax | pmax | | |
| | comp=Z,84nm,0.3s | | | | | | | |
| YUK | | | | | pmax | pmax | | |
| | comp=E,40nm,0.2s | | | | | | | |
| YUK | | | | | pmax | pmax | | |
| | comp=N,12nm,0.1s | | | | | | | |
| YUK | | | | | smax | smax | | |
| | comp=N,331nm,0.6s | | | | | | | |
| YUK | | | | | smax | smax | | |
| | comp=E,325nm,0.5s | | | | | | | |
| **SHO** | **Shikotan** | **6.64** | **30** | | *e*P | **Pn** | **02 35 43.8** | **-0.2** |
| **KUR** | **Kuril'sk** | **8.19** | **29** | | P | **Pn** | **02 36 05.6** | **+0.4** |
| KUR | | | | | *e*S | **Sn** | **02 37 32.0** | **-4.9** |
| KUR | | | | | pmax | pmax | | |
| | comp=Z,23nm,0.3s | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **8.77** | **2** | | *e*P | Pn | 02 36 23.3 | +10 |
| YSS | | | | | *e*S | **Sn** | **02 37 45.7** | **-5.4** |
| YSS | | | | | pmax | pmax | | |
| | comp=Z,30nm,1.1s | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **9.80** | **311** | | Pn | **Pn** | **02 36 29.5** | **+2.3** |
| | comp=Z,1.2nm,0.3s,baz=122,slow=16,SNR=18 | | | | | | | |
| USRK | | | | | LR | LR | 02 40 00.4 | |
| | comp=Z,248nm,18.7s,baz=80,slow=36 | | | | | | | |
| **JNU** | **Nakatsue** | **10.55** | **245** | | Pn | **Pn** | **02 36 40.3** | **+2.7** |
| | comp=Z,0.3nm,0.3s,baz=45,slow=6.9,SNR=5.3 | | | | | | | |
| **CBIJ** | **Chichi jima** | **11.06** | **180** | | *e*Pn | **Pn** | **02 36 42.5** | **-2.0** |
| **KSRS** | **Korea Array** | **11.37** | **271** | | Pn | **Pn** | **02 36 52.9** | **+4.1** |
| | comp=Z,0.4nm,0.3s,baz=78,slow=14,SNR=4.3 | | | | | | | |
| KSRS | | | | | LR | LR | 02 41 08.1 | |
| | comp=Z,178nm,18.3s,baz=47,slow=37 | | | | | | | |
| **KSAR** | **Wonju Array Be** | **11.40** | **271** | | P | **Pn** | **02 36 52.9** | **+3.7** |
| **KSAR** | **Wonju Array Be** | **11.40** | **271** | | Pn | **Pn** | **02 36 52.9** | **+3.7** |
| **MDJ** | **Mudanjiang** | **11.48** | **308** | | P | **Pn** | **02 36 49.5** | **-0.7** |
| MDJ | | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.9s | | | | | | | |
| MDJ | | | | | pmax | pmax | | |
| | comp=Z,35nm,3.9s | | | | | | | |
| **MDJ** | **Mudanjiang** | **11.48** | **308** | | *e*Pn | **Pn** | **02 36 51.5** | **+1.2** |
| | comp=Z,29nm,1.1s | | | | | | | |
| **TYV** | **Tymovskoe** | **12.68** | **1** | | *e*P | **P** | **02 37 13.3** | **-4.3** |
| TYV | | | | | *e*S | **Sn** | **02 39 22.7** | **-4.2** |
| TYV | | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.1s | | | | | | | |
| TYV | | | | | smax | smax | | |
| | comp=E,19nm,3.4s | | | | | | | |
| **KLR** | **Kul'dur** | **13.39** | **329** | | Pn | **Pn** | **02 37 17.9** | **+1.6** |
| | comp=E,0.0nm,0.3s,baz=155,slow=17,SNR=5.3 | | | | | | | |
| KLR | | | | | LR | LR | 02 42 26.7 | |
| | comp=E,27nm,18.9s,baz=128,slow=37 | | | | | | | |
| **PETK** | **Petropavlovsk-** | **18.35** | **31** | | LR | LR | 02 46 05.9 | |
| | comp=E,72nm,18.4s,baz=316,slow=39 | | | | | | | |
| **HIA** | **Hailar** | **19.61** | **312** | | *i* P | **P** | **02 38 34.2** | **-0.2** |
| HIA | | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.9s | | | | | | | |
| **NJ2** | **Nanjing** | **20.08** | **259** | | *e*P | **P** | **02 38 39.0** | **-0.6** |
| NJ2 | | | | | pmax | pmax | | |
| | comp=Z,17nm,0.5s | | | | | | | |
| **MA2** | **Magadan** | **22.09** | **12** | | P | **P** | **02 39 01.2** | **+0.2** |
| | comp=Z,6.3nm,0.3s,baz=198,slow=9.2,SNR=6.2 | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **23.78** | **286** | | *e*P | **P** | **02 39 15.8** | **-2.8** |
| HHC | | | | | pP | sP | 02 39 40.4 | +11 |
| HHC | | | | | S | S | 02 43 10.9 | -22 |
| HHC | | | | | pmax | pmax | | |
| | comp=Z,13nm,1.0s | | | | | | | |
| HHC | | | | | pmax | pmax | | |
| | comp=Z,130nm,9.4s | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **23.78** | **286** | | *e*P | **P** | **02 39 18.6** | **0.0** |
| HHC | | | | | S | **S** | **02 43 28.0** | **-4.7** |
| HHC | | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.1s | | | | | | | |
| HHC | | | | | pmax | pmax | | |
| | comp=Z,130nm,9.7s | | | | | | | |
| HHC | | | | | LR | LR | | |
| | comp=Z,160nm,15.3s | | | | | | | |
| HHC | | | | | LR | LR | | |
| | comp=Z,220nm,15.5s | | | | | | | |
| HHC | | | | | LR | LR | | |
| | comp=Z,200nm,15.7s | | | | | | | |
| **WHN** | **Wuhan** | **24.21** | **260** | | P | **P** | **02 39 16.0** | **-6.6** |
| **YAK** | **Yakutsk** | **25.11** | **346** | | P | **P** | **02 39 30.0** | **-0.4** |
| | comp=Z,6.0nm,0.5s,baz=82,slow=23,SNR=7.3 | | | | | | | |
| **YAK** | **Yakutsk** | **25.11** | **346** | | *i* P | **P** | **02 39 34.7** | **+4.3** |
| YAK | | | | | pmax | pmax | | |
| | comp=Z,13nm,1.0s | | | | | | | |
| **SEY** | **Seymchan** | **25.54** | **11** | | P | **P** | **02 39 35.7** | **+1.4** |
| | comp=Z,6.2nm,0.7s,baz=195,slow=7.1,SNR=14 | | | | | | | |
| **BOD** | **Bodaibo** | **26.94** | **326** | | *e*P | **P** | **02 39 46.3** | **-0.8** |
| BOD | | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.2s | | | | | | | |
| **XAN** | **Xi'an** | **27.17** | **272** | | P | **P** | **02 39 47.3** | **-2.2** |
| XAN | | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.8s | | | | | | | |
| XAN | | | | | pmax | pmax | | |
| | comp=Z,70nm,4.3s | | | | | | | |
| **ULN** | **Ulaanbaatar** | **27.29** | **302** | *ce* | P | **P** | **02 39 50.8** | **+0.2** |
| ULN | | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.2s | | | | | | | |
| **ULN** | **Ulaanbaatar** | **27.29** | **302** | | *e*P | **P** | **02 39 50.1** | **-0.5** |
| | comp=Z,8.1nm,1.2s | | | | | | | |
| **SONM** | **Songino Array** | **27.73** | **302** | | P | **P** | **02 39 54.8** | **+0.4** |
| | comp=Z,2.3nm,0.8s,baz=117,slow=9.2,SNR=10 | | | | | | | |
| **ENH** | **Enshi** | **28.12** | **264** | | *e*P | **P** | **02 39 57.3** | **

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | comp=Z,12nm,0.6s | | | | | | | | |
| **DANN** | **Dangsing** | **49.18** | **277** | *eP* | | **P** | | **02 42 54.6** | **+0.2** |
| | comp=Z,4.9nm,0.8s | | | | | | | | |
| **KOLN** | **Koldanda** | **49.58** | **276** | *eP* | | **P** | | **02 42 57.2** | **-0.1** |
| | comp=Z,44nm,1.1s | | | | | | | | |
| **PYUN** | **Piuthan** | **49.90** | **277** | *eP* | | **P** | | **02 42 59.6** | **-0.2** |
| | comp=Z,74nm,1.0s | | | | | | | | |
| **BRVK** | **Borovoye** | **50.36** | **312** | *deP* | | **P** | | **02 43 02.2** | **-0.5** |
| BRVK | | | | pmax | pmax | | | | |
| | comp=Z,5.0nm,0.9s | | | | | | | | |
| **AAK** | **Ala-Archa** | **50.55** | **298** | *eP* | | **P** | | **02 43 03.0** | **-1.5** |
| AAK | | | | pmax | pmax | | | | |
| | comp=Z,9.0nm,1.7s | | | | | | | | |
| **AAK** | **Ala-Archa** | **50.55** | **298** | *eP* | | **P** | | **02 43 03.0** | **-1.5** |
| | comp=Z,8.5nm,1.7s | | | | | | | | |
| **KSH** | **Kashi** | **50.56** | **294** | P | | **P** | | **02 43 08.3** | **+3.7** |
| KSH | | | | pP | sP | | | 02 43 18.2 | +2.9 |
| KSH | | | | PcP | **PcP** | | | **02 44 25.9** | **+3.8** |
| KSH | | | | PP | **PP** | | | **02 45 06.0** | **+5.7** |
| KSH | | | | S | **S** | | | **02 50 20.8** | **+3.3** |
| KSH | | | | ScS | **ScS** | | | **02 52 53.8** | **-0.2** |
| KSH | | | | SS | **SS** | | | **02 53 53.4** | **+2.0** |
| KSH | | | | pmax | pmax | | | | |
| | comp=Z,3.0nm,0.7s | | | | | | | | |
| KSH | | | | pmax | pmax | | | | |
| | comp=Z,120nm,4.9s | | | | | | | | |
| KSH | | | | LR | LR | | | | |
| | comp=Z,200nm,9.2s | | | | | | | | |
| KSH | | | | LR | LR | | | | |
| | comp=Z,350nm,8.2s | | | | | | | | |
| KSH | | | | LR | LR | | | | |
| | comp=Z,470nm,11.6s | | | | | | | | |
| **INK** | **Inuvik** | **53.06** | **28** | P | | **P** | | **02 43 23.1** | **+0.5** |
| | comp=Z,1.3nm,0.7s,baz=285,slow=7.8,SNR=10 | | | | | | | | |
| **SVE** | **Sverdlovsk** | **54.74** | **318** | *jP* | | **P** | | **02 43 35.6** | **+0.6** |
| SVE | | | | pmax | pmax | | | | |
| | comp=Z,26nm,0.8s | | | | | | | | |
| **ARU** | **Arti** | **55.95** | **318** | LR | LR | | | 03 07 43.2 | |
| | comp=Z,220nm,20.2s,baz=304,slow=36 | | | | | | | | |
| **ARU** | **Arti** | **55.95** | **318** | *dP* | | **P** | | **02 43 43.4** | **-0.4** |
| ARU | | | | | | | | 02 44 41.6 | |
| ARU | | | | | | | | 02 45 43.4 | |
| ARU | | | | S | S | | | 02 51 20.8 | -9.2 |
| ARU | | | | pmax | pmax | | | | |
| | comp=Z,16nm,0.7s | | | | | | | | |
| **WRAB** | **Tennant Creek** | **58.28** | **189** | *ceP* | | **P** | | **02 44 03.2** | **+2.6** |
| WRAB | | | | pmax | pmax | | | | |
| | comp=Z,9.0nm,1.3s | | | | | | | | |
| **WRA** | **Warramunga Array** | **58.30** | **189** | P | | **P** | | **02 44 00.2** | **-0.4** |
| | comp=Z,2.0nm,0.6s,baz=5.9,slow=7.1,SNR=12 | | | | | | | | |
| **RES** | **Resolute Bay** | **61.32** | **15** | P | | **P** | | **02 44 20.7** | **-0.1** |
| | comp=Z,2.5nm,0.6s,baz=307,slow=5.5,SNR=12 | | | | | | | | |
| **ASAR** | **Alice Springs** | **62.02** | **189** | P | | **P** | | **02 44 26.4** | **+0.2** |
| | comp=Z,1.1nm,0.6s,baz=9.1,slow=5.4,SNR=14 | | | | | | | | |
| ASAR | | | | LR | LR | | | 03 10 40.7 | |
| | comp=Z,56nm,20.8s,baz=244,slow=35 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **62.48** | **31** | P | | **P** | | **02 44 28.9** | **+0.1** |
| | comp=Z,1.5nm,0.7s,baz=304,slow=6.4,SNR=11 | | | | | | | | |
| **KLMR** | **Klimovskoe** | **63.15** | **328** | *eP* | | **P** | | **02 44 31.2** | **-2.1** |
| KLMR | | | | pmax | pmax | | | | |
| | comp=Z,15nm,1.9s | | | | | | | | |
| **ARCES** | **ARCESS Array B** | **63.16** | **339** | P | | **P** | | **02 44 33.2** | **-0.1** |
| | comp=Z,3.2nm,0.8s,baz=46,slow=6.9,SNR=7.2 | | | | | | | | |
| **TULEG** | **Thule** | **63.87** | **8** | *eP* | | **P** | | **02 44 36.5** | **-1.3** |
| | comp=Z,4.7nm,0.6s | | | | | | | | |
| **GEYT** | **Alibeck** | **63.87** | **299** | P | | **P** | | **02 44 38.2** | **-0.3** |
| | comp=Z,17nm,0.7s,baz=46,slow=4.3,SNR=13 | | | | | | | | |
| **DAG** | **Danmarks Havn** | **64.69** | **355** | *iP* | | **P** | | **02 44 42.6** | **-0.6** |
| DAG | | | | *i* | | | | 02 44 54.2 | |
| DAG | | | | pmax | pmax | | | | |
| | comp=Z,4.0nm,0.8s | | | | | | | | |
| **DAG** | **Danmarks Havn** | **64.69** | **355** | *iP* | | **P** | | **02 44 42.6** | **-0.6** |
| | comp=Z,4.2nm,0.8s | | | | | | | | |
| DAG | | | | *i* | | | | 02 44 54.2 | |
| **VRH** | **Novokhopyorsk** | **67.18** | **318** | *eP* | | **P** | | **02 44 58.2** | **-1.4** |
| VRH | | | | pmax | pmax | | | | |
| | comp=Z,9.0nm,0.7s | | | | | | | | |
| **OBN** | **Obninsk** | **67.58** | **323** | *iP* | | **P** | | **02 45 01.0** | **-1.0** |
| OBN | | | | *i* | | | | 02 45 25.0 | |
| OBN | | | | pmax | pmax | | | | |
| | comp=Z,10.0nm,0.9s | | | | | | | | |
| **LPSR** | **Galich'ya Gora** | **67.86** | **320** | *eP* | | **P** | | **02 45 03.1** | **-0.7** |
| LPSR | | | | pmax | pmax | | | | |
| | comp=Z,9.0nm,0.8s | | | | | | | | |
| **FINES** | **FINESS Array B** | **68.11** | **332** | P | | **P** | | **02 45 05.0** | **-0.3** |
| | comp=Z,12nm,0.7s,baz=60,slow=9.1,SNR=21 | | | | | | | | |
| **VSR** | **Storozhevoye** | **68.51** | **319** | *eP* | | **P** | | **02 45 06.7** | **-1.3** |
| VSR | | | | pmax | pmax | | | | |
| | comp=Z,8.0nm,0.6s | | | | | | | | |
| **JMIC** | **Jan Mayen** | **69.13** | **350** | LR | LR | | | 03 17 28.2 | |
| | comp=Z,214nm,19.0s,baz=103,slow=38 | | | | | | | | |
| **SUMG** | **Summit** | **69.54** | **0** | *iP* | | **P** | | **02 45 14.6** | **+0.1** |
| SUMG | | | | *i* | | | | 02 45 26.1 | |
| SUMG | | | | pmax | pmax | | | | |
| | comp=Z,7.0nm,0.7s | | | | | | | | |
| **SUMG** | **Summit** | **69.54** | **0** | *iP* | | **P** | | **02 45 14.6** | **+0.1** |
| | comp=Z,7.0nm,0.7s | | | | | | | | |
| SUMG | | | | *i* | | | | 02 45 26.1 | |
| **ZEI** | **Tsey** | **70.59** | **309** | *eP* | | **P** | | **02 45 19.7** | **-1.6** |
| ZEI | | | | pmax | pmax | | | | |
| | comp=Z,1.0nm,0.6s | | | | | | | | |
| **KIV** | **Kislovodsk** | **70.67** | **311** | *eP* | | **P** | | **02 45 22.4** | **+0.8** |
| KIV | | | | pmax | pmax | | | | |
| | comp=Z,22nm,1.0s | | | | | | | | |
| **KBZ** | **Khabaz** | **70.67** | **311** | P | | **P** | | **02 45 21.8** | **+0.4** |
| | comp=Z,5.9nm,0.9s,baz=56,slow=2.2,SNR=16 | | | | | | | | |
| **GNI** | **Garni** | **71.56** | **307** | *ceP* | | **P** | | **02 45 28.3** | **+1.2** |
| GNI | | | | pmax | pmax | | | | |
| | comp=Z,24nm,1.4s | | | | | | | | |
| **NB2** | **NORSAR Subarra** | **73.39** | **337** | P | | **P** | | **02 45 37.1** | **-0.4** |
| | comp=Z,2.1nm,0.6s,baz=38,slow=6.2 | | | | | | | | |
| **NB2** | **NORSAR Subarra** | **73.39** | **337** | P | | **P** | | **02 45 37.0** | **-0.4** |
| NB2 | | | | pmax | pmax | | | | |
| | comp=Z,2.0nm,0.6s | | | | | | | | |
| **NOA** | **NORSAR Array B** | **73.39** | **337** | P | | **P** | | **02 45 37.2** | **-0.3** |
| | comp=Z,4.1nm,0.8s,baz=53,slow=6.9,SNR=9.2 | | | | | | | | |
| NOA | | | | pP | | **sP** | | **02 45 48.4** | **0.0** |
| | comp=Z,2.1nm,0.6s,baz=38,slow=5.8,SNR=4.7 | | | | | | | | |
| NOA | | | | LR | LR | | | 03 21 51.7 | |
| | comp=Z,138nm,18.6s,baz=260,slow=39 | | | | | | | | |
| **NOA** | **NORSAR Array B** | **73.39** | **337** | P | | **P** | | **02 45 37.2** | **-0.3** |
| NOA | | | | *PP | | **sP** | | **02 45 48.4** | **0.0** |
| NOA | | | | pmax | pmax | | | | |
| | comp=Z,1.0nm,0.5s | | | | | | | | |
| NOA | | | | MLR | MLR | | | | |
| | comp=Z,138nm,18.6s | | | | | | | | |
| **AKASG** | **Malin Array Be** | **73.80** | **322** | P | | **P** | | **02 45 39.4** | **-0.7** |
| | comp=Z,4.3nm,0.7s,baz=46,slow=6.1,SNR=26 | | | | | | | | |
| AKASG | | | | pP | | **sP** | | **02 45 50.9** | **-0.1** |
| | comp=Z,1.3nm,0.4s,baz=46,slow=6.0,SNR=6.2 | | | | | | | | |
| **STTC** | **Scott Ranch** | **75.81** | **57** | *eP* | | **P** | | **02 45 53.2** | **+1.2** |
| **SORM** | **Soroca** | **75.93** | **321** | *jP* | | **P** | | **02 45 51.5** | **-0.9** |
| **PDAR** | **Pinedale Array** | **76.38** | **46** | P | | **P** | | **02 45 55.9** | **+0.5** |
| | comp=Z,1.7nm,0.7s,baz=246,slow=1.8,SNR=17 | | | | | | | | |
| PDAR | | | | pP | | **PcP** | | **02 46 09.0** | **+1.9** |
| | comp=Z,2.1nm,0.7s,baz=261,slow=2.2,SNR=12 | | | | | | | | |
| **BURAR** | **Bucovina Array** | **77.83** | **322** | *fP* | | **P** | | **02 46 03.4** | **+0.2** |
| **BURAR** | **Bucovina Array** | **77.83** | **322** | *fP* | | **P** | | **02 46 03.4** | **+0.2** |
| **TESR** | **Tescani** | **77.88** | **320** | *jP* | | **P** | | **02 46 03.2** | **-0.2** |
| **SRU** | **San Rafael Swe** | **78.15** | **49** | P | | P | | 02 46 14.0 | +8.7 |
| SRU | | | | pmax | pmax | | | | |
| | comp=Z,4.0nm,0.7s | | | | | | | | |
| **STHS** | **Stebnicka Huta** | **78.41** | **325** | *eP* | | **P** | | **02 46 07.4** | **+1.1** |
| STHS | | | | pmax | pmax | | | | |
| | comp=Z,3.0nm,1.0s | | | | | | | | |
| **STHS** | **Stebnicka Huta** | **78.41** | **325** | *eP* | | **P** | | **02 46 07.4** | **+1.1** |
| **BRTR** | **Keskin Array B** | **78.59** | **312** | P | | **P** | | **02 46 07.3** | **-0.4** |
| | comp=Z,0.8nm,0.8s,baz=102,slow=3.0,SNR=5.5 | | | | | | | | |
| **BRTR** | **Keskin Array B** | **78.59** | **312** | *ceP* | | **P** | | **02 46 09.3** | **+1.6** |
| BRTR | | | | pmax | pmax | | | | |
| | comp=Z,1.0nm,0.5s | | | | | | | | |
| **ARCR** | **ARCALIA** | **78.62** | **322** | *fP* | | **P** | | **02 46 08.7** | **+1.2** |
| **DOPR** | **Dopca** | **78.89** | **321** | *jP* | | **P** | | **02 46 10.6** | **+1.6** |
| **ICOR** | **Ion Corvin** | **78.93** | **318** | *jP* | | **P** | | **02 46 09.4** | **+0.2** |
| **BR231** | **Keskin MP Arra** | **79.02** | **312** | *eP* | | **P** | | **02 46 06.5** | **-3.5** |
| **VOIR** | | **79.43** | **320** | *fP* | | **P** | | **02 46 12.3** | **+0.2** |
| **VOIR** | | **79.43** | **320** | *fP* | | **P** | | **02 46 12.3** | **+0.2** |
| **ARR** | **Arges** | **79.69** | **321** | *fP* | | **P** | | **02 46 14.6** | **+1.1** |
| **MORC** | **Moravsky Berou** | **79.76** | **327** | *fP* | | **P** | | **02 46 14.3** | **+0.5** |
| **MORC** | **Moravsky Berou** | **79.76** | **327** | *fP* | | **P** | | **02 46 14.3** | **+0.5** |
| **DPC** | **Dobruska-Polom** | **79.84** | **328** | *eP* | | **P** | | **02 46 14.9** | **+0.7** |
| DPC | | | | *epP* | | **sP** | | **02 46 25.5** | **+0.3** |
| **DPC** | **Dobruska-Polom** | **79.84** | **328** | *eP* | | **P** | | **02 46 14.9** | **+0.7** |
| DPC | | | | *e* | | | | 02 46 25.5 | |
| **VYHS** | **Vyhne** | **80.16** | **326** | *eP* | | **P** | | **02 46 16.4** | **+0.5** |
| **VYHS** | **Vyhne** | **80.16** | **326** | *eP* | | **P** | | **02 46 16.4** | **+0.5** |
| **PVCC** | **Panska Ves** | **80.42** | **329** | *eP* | | **P** | | **02 46 17.9** | **+0.7** |
| **PVCC** | **Panska Ves** | **80.42** | **329** | *eP* | | **P** | | **02 46 17.9** | **+0.7** |
| **CLL** | **Collm** | **80.44** | **330** | *iP* | | **P** | | **02 46 16.8** | **-0.5** |
| CLL | | | | *i* | | | | 02 46 29.1 | |
| CLL | | | | pmax | pmax | | | | |
| | comp=Z,10.0nm,1.1s | | | | | | | | |
| **CLL** | **Collm** | **80.44** | **330** | *iP* | | **P** | | **02 46 16.8** | **-0.5** |
| | comp=Z,10.0nm,1.1s | | | | | | | | |
| CLL | | | | *j*pP | | **sP** | | **02 46 29.1** | **+0.8** |
| **VRAC** | **Vranov** | **80.52** | **327** | *fjP* | | **P** | | **02 46 18.6** | **+0.8** |
| **VRAC** | **Vranov** | **80.52** | **327** | *fP* | | **P** | | **02 46 18.6** | **+0.8** |
| **GOPC** | **GO Pecny, Ondr** | **80.81** | **329** | *eP* | | **P** | | **02 46 19.5** | **+0.1** |
| **GOPC** | **GO Pecny, Ondr** | **80.81** | **329** | *eP* | | **P** | | **02 46 19.5** | **+0.1** |
| **PRU** | **Pruhonice** | **80.85** | **329** | *eP* | | **P** | | **02 46 19.6** | **0.0** |
| **PRU** | **Pruhonice** | **80.85** | **329** | *eP* | | **P** | | **02 46 19.6** | **0.0** |
| **KHC** | **Kasperske Hory** | **81.92** | **329** | *eP* | | **P** | | **02 46 25.5** | **+0.2** |
| KHC | | | | *epP* | | **sP** | | **02 46 36.5** | **+0.2** |
| **KHC** | **Kasperske Hory** | **81.92** | **329** | *eP* | | **P** | | **02 46 25.5** | **+0.2** |
| KHC | | | | *e* | | | | 02 46 36.5 | |
| **GERES** | **GERESS Array B** | **82.09** | **329** | P | | **P** | | **02 46 25.8** | **-0.5** |
| | comp=Z,0.9nm,0.7s,baz=43,slow=6.0,SNR=8.9 | | | | | | | | |
| GERES | | | | pP | | **sP** | | **02 46 37.9** | **+0.7** |
| | comp=Z,0.6nm,0.5s,baz=48,slow=5.7,SNR=3.5 | | | | | | | | |
| **VTS** | **Vitosha** | **82.39** | **319** | *fjP* | | **P** | | **02 46 28.5** | **+0.5** |
| **VTS** | **Vitosha** | **82.39** | **319** | *fP* | | **P** | | **02 46 28.5** | **+0.5** |
| **TXAR** | **Lajitas Array** | **88.89** | **53** | P | | **P** | | **02 47 01.1** | **+0.7** |
| | comp=Z,1.1nm,0.6s,baz=302,slow=3.2,SNR=7.7 | | | | | | | | |
| **SNAA** | **Sanae** | **142.04** | **197** | PKP | | **PKPdf** | | **02 53 32.4** | **-4.3** |
| **VNA2** | **Neumayer--Watz** | **143.61** | **196** | PKP | | PKPab | | 02 53 36.6 | +0.6 |
| | baz=127,slow=3.5 | | | | | | | | |
| **VNA3** | **Neumayer Olymp** | **143.85** | **195** | PKP | | PKPab | | 02 53 36.9 | 0.0 |
| **VNA1** | **Neumayer--Stat** | **144.01** | **196** | PKP | | **PKPab** | | **02 53 35.5** | **-2.0** |
| **LPAZ** | **La Paz** | **145.52** | **59** | PKPbc | | **PKPdf** | | **02 53 45.3** | **+0.2** |
| | comp=Z,3.6nm,0.8s,baz=351,slow=3.3,SNR=15 | | | | | | | | |
| **SIV** | **San Ignacio** | **149.82** | **49** | PKPbc | | **PKPbc** | | **02 53 56.8** | **+0.6** |
| | comp=Z,3.1nm,0.6s,baz=302,slow=2.2,SNR=5.6 | | | | | | | | |

*ISK* **12** *02:35:31.6, 38°.89N×43°.53E, h2km, ML2.3*
*ATA* **12** *02:35:31.5±0.9, 38°.86N×43°.53E, h16km±24km, ML2.5, MW2.8*
*ISCJB* **12** *02:35:32.8±0.7, 38°.88N±0°.03×43°.54E±0°.05, h12km±5km, Error ellipse: s-maj=6.6km s-min=4.5km az=36.1*
*CSEM* **12** *02:35:32.4±0.3, 38°.90N×43°.53E, h10km, ML2.7, Error ellipse: s-maj=6.8km s-min=5.2km az=137.0*
*DDA* **12** *02:35:32.8, 38°.92N×43°.53E, h14km, Ml2.7*

**ISC 12 02:35:29.8±1.7, 38°.84N±0°.05×43°.70E±0°.07, h15km±8km, n23, σ0°67/41, 1D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.18** | **328** | *iP* | **Pb** | **02 35 35.1** | **+0.1** |
| VMUR | | | | *iS* | **Sg** | **02 35 38.1** | **+0.7** |
| **VMUR** | **Van-Muradiye** | **0.18** | **328** | P | **Pb** | **02 35 35.1** | **+0.1** |
| VMUR | | | | S | **Sg** | **02 35 38.1** | **+0.7** |
| **ERCV** | **ERCIS-VAN** | **0.33** | **304** | *ePG* | **Pg** | **02 35 36.6** | **-0.2** |
| ERCV | | | | *eSG* | **Sn** | **02 35 40.2** | **-1.4** |
| **ERCV** | **ERCIS-VAN** | **0.33** | **304** | *ePg* | **Pg** | **02 35 36.6** | **-0.2** |
| ERCV | | | | *eSg* | **Sg** | **02 35 40.2** | **-1.4** |
| **VANB** | **Van** | **0.34** | **225** | *ePG* | **Pn** | **02 35 40.4** | **+0.1** |
| **VANB** | **Van** | **0.34** | **225** | *ePg* | **Pn** | **02 35 40.4** | **+0.1** |
| **CLDR** | **Caldiran** | **0.35** | **29** | *ePG* | **Pn** | **02 35 40.5** | **-0.1** |
| CLDR | | | | *eSG* | **Sn** | **02 35 46.7** | **-0.8** |
| **CLDR** | **Caldiran** | **0.35** | **29** | *iP* | **Pn** | **02 35 40.2** | **-0.4** |
| CLDR | | | | *iS* | **Sn** | **02 35 47.2** | **-0.3** |
| **CLDR** | **Caldiran** | **0.35** | **29** | P | **Pn** | **02 35 40.2** | **-0.4** |
| **CLDR** | **Caldiran** | **0.35** | **29** | *ePg* | **Pn** | **02 35 40.5** | **-0.1** |
| CLDR | | | | *eSg* | **Sn** | **02 35 46.7** | **-0.8** |
| CLDR | | | | S | **Sn** | **02 35 47.2** | **-0.3** |
| **DYDN** | **Diyadin** | **0.71** | **360** | *eP* | **Pn** | **02 35 45.3** | **-0.2** |
| DYDN | | | | *eS* | **Sn** | **02 35 56.9** | **+0.7** |
| **GEVA** | **Gevas** | **0.72** | **224** | *eP* | **Pn** | **02 35 44.9** | **-0.7** |
| GEVA | | | | IAML | | 02 36 02.1 | |
| | comp=Z,11nm,0.5s | | | | | | |
| **GEVA** | **Gevas** | **0.72** | **224** | *iP* | **Pn** | **02 35 44.5** | **-1.1** |
| GEVA | | | | *iS* | **Sn** | **02 35 57.3** | **+0.8** |
| **GEVA** | **Gevas** | **0.72** | **224** | P | **Pn** | **02 35 44.5** | **-1.1** |
| GEVA | | | | S | **Sn** | **02 35 57.3** | **+0.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.76** | **268** | *iP* | **Pb** | **02 35 44.8** | **0.0** |
| ADCV | | | | *iS* | **Sg** | **02 35 55.1** | **+0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.76** | **268** | P | **Pb** | **02 35 44.8** | **0.0** |
| ADCV | | | | S | **Sg** | **02 35 55.1** | **+0.5** |
| **TUTA** | **Tutak** | **0.89** | **310** | *jiP* | **Pb** | **02 35 46.5** | **-0.6** |
| TUTA | | | | *eS* | **Sb** | **02 35 59.3** | **+0.5** |
| TUTA | | | | IAML | | 02 36 00.9 | |
| | comp=Z,20nm,0.2s | | | | | | |
| **TUTA** | **Tutak** | **0.89** | **310** | *iP* | **Pb** | **02 35 46.3** | **-0.8** |
| TUTA | | | | *iS* | **Sb** | **02 35 58.6** | **-0.2** |
| **TUTA** | **Tutak** | **0.89** | **310** | P | **Pb** | **02 35 46.3** | **-0.8** |
| TUTA | | | | S | **Sb** | **02 35 58.6** | **-0.2** |
| **AGRB** | **Hanur-Agry** | **0.92** | **324** | *ePG* | **Pb** | **02 35 47.9** | **+0.3** |
| AGRB | | | | *eSG* | **Sb** | **02 36 00.3** | **+0.7** |
| **AGRB** | **Hanur-Agry** | **0.92** | **324** | *ePg* | **Pb** | **02 35 47.9** | **+0.3** |
| AGRB | | | | *eSg* | **Sb** | **02 36 00.4** | **+0.7** |
| **EKAR** | **Karacoban** | **1.34** | **289** | *eP* | **Pb** | **02 35 55.3** | **+0.6** |
| EKAR | | | | IAML | | 02 36 29.3 | |
| | comp=Z,5.0nm,0.6s | | | | | | |
| **DIGO** | **Kars** | **1.60** | **351** | *eP* | **Pg** | **02 36 01.4** | **+0.9** |

*ISK* **12** *02:36:06.2, 38°.67N×43°.17E, h16km, ML2.3*
*ISCJB* **12** *02:36:07.4±0.6, 38°.70N±0°.04×43°.16E±0°.04, h15km±6km, Error ellipse: s-maj=6.5km s-min=5.6km az=157.2*
*DDA* **12** *02:36:07.3, 38°.69N×43°.19E, h7km, Ml2.7*
*CSEM* **12** *02:36:07.2±0.2, 38°.71N×43°.15E, h10km, ML2.3, Error ellipse: s-maj=5.1km s-min=4.6km az=106.0*

**ISC 12 02:36:06.5±1.4, 38°.69N±0°.03×43°.17E±0°.03, h14km±13km, n17, σ0°63/28, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.20** | **117** | *ePG* | **Pb** | **02 36 12.0** | **+0.1** |
| VANB | | | | *eSG* | **Sb** | **02 36 16.3** | **+0.7** |
| **VANB** | **Van** | **0.20** | **117** | *ePg* | **Pb** | **02 36 12.0** | **+0.1** |
| VANB | | | | *eSg* | **Sb** | **02 36 16.3** | **+0.7** |
| **ERCV** | **ERCIS-VAN** | **0.36** | **22** | *ePG* | **Pg** | **02 36 14.1** | **+0.2** |
| **ERCV** | **ERCIS-VAN** | **0.36** | **22** | *ePg* | **Pg** | **02 36 14.1** | **+0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.37** | **290** | *iP* | **Pb** | **02 36 14.7** | **-0.2** |
| ADCV | | | | *iS* | **Sb** | **02 36 21.8** | **+1.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.37** | **290** | P | **Pb** | **02 36 14.7** | **-0.2** |
| ADCV | | | | S | **Sb** | **02 36 21.8** | **+1.2** |
| **GEVA** | **Gevas** | **0.38** | **193** | *iP* | **Pb** | **02 36 14.5** | **-0.7** |
| GEVA | | | | *iS* | **Sb** | **02 36 21.8** | **+0.8** |
| **GEVA** | **Gevas** | **0.38** | **193** | P | **Pb** | **02 36 14.5** | **-0.7** |
| GEVA | | | | S | **Sb** | **02 36 21.8** | **+0.8** |
| **VMUR** | **Van-Muradiye** | **0.44** | **46** | *iP* | **Pb** | **02 36 15.9** | **-0.2** |
| VMUR | | | | *iS* | **Sb** | **02 36 22.9** | **+0.2** |
| **VMUR** | **Van-Muradiye** | **0.44** | **46** | P | **Pb** | **02 36 15.9** | **-0.2** |
| VMUR | | | | S | **Sb** | **02 36 22.9** | **+0.2** |
| **CLDR** | **Caldiran** | **0.74** | **52** | *ePG* | **Pb** | **02 36 21.1** | **-0.3** |
| CLDR | | | | *eSG* | **Sb** | **02 36 32.2** | **+0.8** |
| **CLDR** | **Caldiran** | **0.74** | **52** | *iP* | **Pb** | **02 36 21.1** | **-0.3** |
| CLDR | | | | *iS* | **Sb** | **02 36 32.3** | **+0.8** |
| **CLDR** | **Caldiran** | **0.74** | **52** | P | **Pb** | **02 36 21.1** | **-0.3** |
| CLDR | | | | *eSg* | **Sb** | **02 36 32.2** | **+0.8** |
| **TUTA** | **Tutak** | **0.77** | **339** | *iP* | **Pg** | **02 36 21.4** | **-0.1** |
| **TUTA** | **Tutak** | **0.77** | **339** | P | **Pg** | **02 36 21.4** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **0.90** | **351** | *ePG* | **Pn** | **02 36 24.3** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **0.90** | **351** | *ePg* | **Pn** | **02 36 24.3** | **-0.6** |

*ISCJB* **12** *03:03:39.8±0.9, 33°.1S±0°.1×138°.78E±0°.08, h10km, Error ellipse: s-maj=15.4km s-min=8.8km az=13.4*
*AUST* **12** *03:03:42.6±0.5, 33°.26S×138°.67E, h12km±3km, Error ellipse: s-maj=6.8km s-min=2.9km az=11.0*
*IDC* **12** *03:03:48.5±6.3, 32°.43S×138°.88E, h0km, mb1 3.1/3, mb1mx3.1/27, mbtmp2.9/3, ML3.2/3, Error ellipse: s-maj=81.7km s-min=20.2km az=14.0*

**ISC 12 03:03:41.3±1.2, 33°.07S±0°.10×138°.75E±0°.06, h10km, n8, σ1°98/10, Near coast of South Australia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BBOO** | **Buckleboo** | **2.27** | **276** | P | **Pn** | **03 04 20.4** | **+1.5** |
| | baz=2.2 | | | | | | |
| BBOO | | | | S | **Sn** | **03 04 47.6** | **+0.5** |
| | baz=2.2 | | | | | | |
| **STKA** | **Stephens Creek** | **2.69** | **65** | Pn | **Pb** | **03 04 28.6** | **-0.8** |
| | 2.3nm,0.3s,baz=241,slow=14,SNR=32 | | | | | | |
| STKA | | | | Lg | Lg | 03 05 03.7 | |
| | 6.2nm,0.3s,baz=268,slow=8.9,SNR=7.9 | | | | | | |
| **STKA** | **Stephens Creek** | **2.69** | **65** | P | **Pb** | **03 04 28.7** | **-0.8** |
| | baz=2.8 | | | | | | |
| **ARPS** | **Mount Arapiles** | **4.48** | **146** | P | **Pn** | **03 04 48.1** | **-1.2** |
| | baz=4.4 | | | | | | |
| **CMSA** | **Cobar Meteorol** | **6.08** | **77** | P | **Pn** | **03 05 12.7** | **+1.4** |
| | baz=6.2 | | | | | | |
| **FORT** | **Forrest** | **9.36** | **281** | P | **Pn** | **03 05 56.8** | **+0.5** |
| | baz=9.3 | | | | | | |
| **ASAR** | **Alice Springs** | **10.29** | **334** | Pn | **Pn** | **03 06 11.4** | **+2.4** |
| | 0.1nm,0.3s,baz=172,slow=9.4,SNR=6.1 | | | | | | |
| ASAR | | | | Sn | **Sn** | **03 08 00.8** | **-3.8** |
| | 0.1nm,0.3s,baz=158,slow=22,SNR=3.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **13.65** | **342** | Pn | **Pn** | **03 06 55.3** | **+0.2** |
| | 0.2nm,0.3s,baz=161,slow=13,SNR=15 | | | | | | |

**IDC 12 03:27:32.2±2.9, 14°.43S×167°.03E, h0km, mb3.6/5, mb1 3.8/5, mb1mx3.6/27, mbtmp3.6/5, Error ellipse: s-maj=113.4km s-min=31.0km az=141.0, Vanuatu Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **31.67** | **255** | P | P | 03 33 57.4 | -0.2 |
| | 0.4nm,0.9s,baz=86,slow=9.2,SNR=3.4 | | | | | | |
| **ASAR** | **Alice Springs** | **32.56** | **249** | P | P | 03 34 05.8 | +0.4 |
| | 0.3nm,0.6s,baz=76,slow=9.1,SNR=4.7 | | | | | | |
| **SONM** | **Songino Array** | **82.11** | **324** | P | P | 03 39 54.9 | +0.1 |
| | 0.2nm,0.5s,baz=131,slow=4.4,SNR=2.3 | | | | | | |
| **ILAR** | **Eielson Array** | **86.31** | **18** | P | P | 03 40 16.0 | +0.3 |
| | 0.3nm,0.5s,baz=240,slow=4.9,SNR=8.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **96.82** | **316** | P | P | 03 41 04.7 | -0.4 |
| | 0.3nm,0.6s,baz=97,slow=3.5,SNR=3.1 | | | | | | |
| **ARCES** | **ARCESS Array B** | **119.90** | **345** | PKP | PKPdf | 03 46 23.5 | -0.6 |
| | 5.4nm,1.0s,baz=31,slow=2.3,SNR=11 | | | | | | |

*SJA* **12** *03:34:57.3±0.7, 34°.49S×71°.42W, h206km±7km, ML3.1, MW3.3*
*GUC* **12** *03:35:06.7±0.6, 34°.02S×71°.24W, h68km±6km, ML3.7*

**ISC 12 03:35:08.0±1.1, 34°.01S±0°.06×71°.27W±0°.07, h32km±12km, n14, σ1°26/23, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RCDM** | **Rinconada Maip** | **0.64** | **37** | *eP* | **Pb** | **03 35 20.2** | **-0.7** |
| RCDM | | | | *eS* | **Sb** | **03 35 30.7** | **+0.9** |
| **ANTU** | **Antumapu** | **0.69** | **51** | *eP* | **Pb** | **03 35 21.1** | **-0.5** |
| **CHPI** | **Pichilemu** | **0.72** | **238** | *eP* | **Pb** | **03 35 21.2** | **-1.0** |
| CHPI | | | | *eS* | **Sn** | **03 35 32.8** | **+0.9** |
| **LMEL** | **Las Melosas** | **0.90** | **80** | *eP* | **Pn** | **03 35 23.7** | **-0.9** |
| LMEL | | | | *eS* | **Sb** | **03 35 36.5** | **-0.6** |
| LMEL | | | | AML | AML | 03 35 38.4 | |
| | comp=N,5μm,0.1s | | | | | | |
| **PEL** | **Peldehue** | **0.99** | **30** | *eP* | **Pn** | **03 35 25.1** | **-0.7** |
| PEL | | | | *eS* | **Sb** | **03 35 38.6** | **-0.8** |
| PEL | | | | AML | AML | 03 35 40.2 | |
| | comp=N,3μm,0.2s | | | | | | |
| **FCH** | **Farellones** | **1.06** | **51** | *eP* | **Pn** | **03 35 26.0** | **-1.0** |
| FCH | | | | *eS* | **Sn** | **03 35 40.6** | **-0.2** |
| FCH | | | | AML | AML | 03 35 43.6 | |
| | comp=N,2μm,0.2s | | | | | | |
| **GO05** | **HualaæØ** | **1.14** | **208** | *iP* | **Pn** | **03 35 26.5** | **-1.3** |
| GO05 | | | | *iS* | **Sb** | **03 35 47.1** | **+3.3** |
| **GO05** | **HualaæØ** | **1.14** | **208** | *eP* | **Pn** | **03 35 26.5** | **-1.3** |
| GO05 | | | | *eS* | **Sn** | **03 35 42.5** | **+0.2** |
| **AAGR** | **Agrelo** | **2.23** | **66** | *iP* | **Pn** | **03 35 43.3** | **+0.3** |
| **ARCO** | **CERRO ARCO** | **2.27** | **60** | *iP* | **Pn** | **03 35 43.9** | **+0.4** |
| ARCO | | | | IAML | | 03 36 04.8 | |
| | comp=Z,41nm,0.6s | | | | | | |
| ARCO | | | | *iS* | **Sb** | **03 36 18.4** | **+2.2** |
| **AUSP** | **Uspallata** | **2.38** | **42** | *iP* | **Pn** | **03 35 46.0** | **+1.0** |
| **ASAL** | **Salagasta** | **2.48** | **56** | *iP* | **Pn** | **03 35 46.5** | **+0.3** |
| **RT

*mb3.1/1, Error ellipse: s-maj=17.0km s-min=7.7km az=168.7*

*IDC* ***12*** *04:10:10.2±1.3, 42.04N×135.93E, h371km±28km, mb2.8/1, mb1 3.0/4, mb1mx2.5/51, mbtmp3.7/4, Error ellipse: s-maj=39.0km s-min=26.7km az=155.0*

*JMA* ***12*** *04:10:10.9±0.5, 41.83N×136.30E, h386km, M3.1*

**ISC 12 04:10:09.9±1.1, 41.9N±0.1×136.09E±0.09, h350km, n11, σ1s81/15, Eastern Sea of Japan**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **USRK** | **Ussuriysk Ar.** | **3.80** | **309** | P | | | **Pn** | **04 11 16.4** | **-0.3** |
| | 2.2nm,0.3s,baz=119,slow=8.8,SNR=23 | | | | | | | | |
| **JBT2** | **Biratori 2** | **4.74** | **77** | P | | | **Pn** | **04 11 28.6** | **+2.1** |
| JBT2 | | | | | eS | | **S** | **04 12 29.6** | **+1.1** |
| **ASAJ** | **Asahikawa** | **5.27** | **63** | P | | | **Pn** | **04 11 33.9** | **+1.6** |
| | 3.7nm,0.3s,baz=243,slow=7.5,SNR=12 | | | | | | | | |
| **JKK2** | **Kamakawa 2** | **5.28** | **66** | P | | | **Pn** | **04 11 34.2** | **+1.7** |
| JKK2 | | | | | eS | | **S** | **04 12 40.8** | **+1.4** |
| **JWK2** | **Keihoku** | **5.44** | **49** | P | | | **Pn** | **04 11 36.4** | **+2.2** |
| **JCH** | **Churui** | **5.45** | **80** | P | | | **Pn** | **04 11 35.3** | **+1.0** |
| JCH | | | | | eS | | **S** | **04 12 41.3** | **-1.4** |
| **JTKR** | **Abashiri--Toko** | **6.11** | **67** | P | | | **Pn** | **04 11 43.0** | **+1.2** |
| **NEM2** | **Nemuro 2** | **7.27** | **75** | P | | | **Pn** | **04 11 55.0** | **-0.3** |
| NEM2 | | | | | eS | | **S** | **04 13 17.5** | **-3.6** |
| **KSRS** | **Korea Array** | **7.70** | **238** | P | | | **Pn** | **04 12 01.3** | **+0.9** |
| | 0.4nm,0.3s,baz=53,slow=11,SNR=8.7 | | | | | | | | |
| **KLR** | **Kul'dur** | **7.96** | **339** | P | | | **Pn** | **04 12 01.8** | **-1.6** |
| | 0.0nm,0.3s,baz=161,slow=11,SNR=7.6 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **61.53** | **182** | P | | | **P** | **04 19 50.2** | **-0.6** |
| | 0.3nm,0.4s,baz=358,slow=6.9,SNR=8.1 | | | | | | | | |

**IDC 12 04:12:46.5±1.8, 5.68S×124.74E, h0km, mb3.6/1, mb1 3.7/4, mb1mx3.4/46, mbtmp3.5/4, ML3.1/3, Error ellipse: s-maj=125.2km s-min=25.9km az=65.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **12.38** | **176** | Pn | | | Pn | 04 15 42.1 | -2.0 |
| | 0.1nm,0.3s,baz=4.0,slow=9.4,SNR=6.2 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **16.97** | **148** | Pn | | | Pn | 04 16 44.8 | -0.8 |
| | 0.1nm,0.3s,baz=322,slow=13,SNR=3.5 | | | | | | | | |
| **ASAR** | **Alice Springs** | **19.94** | **155** | P | | | Pn | 04 17 21.6 | -0.3 |
| | 0.1nm,0.3s,baz=335,slow=12,SNR=17 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **64.34** | **329** | P | | | P | 04 23 24.1 | -0.1 |
| | 0.5nm,0.7s,baz=124,slow=8.6,SNR=5.6 | | | | | | | | |

**WEL 12 04:31:09.6±0.4, 35.15S×177.67E, h33km, ML4.0/6, Error ellipse: s-maj=5.2km s-min=2.7km az=90.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **MXZ** | **Matakaoa Point** | **2.46** | **168** | PN | | | Pn | 04 31 46.7 | -0.7 |
| **HAZ** | **Te Kaha** | **2.60** | **178** | PN | | | Pn | 04 31 49.2 | -0.1 |
| HAZ | | | | SN | | | Sn | 04 32 18.0 | -1.7 |
| **WMGZ** | **Waiomatatini S** | **2.73** | **168** | PN | | | Pn | 04 31 49.8 | -1.3 |
| WMGZ | | | | SN | | | Sn | 04 32 21.6 | -1.3 |
| WMGZ | | | | AML | | | AML | 04 32 22.1 | |
| **PKGZ** | **Pakihiroa** | **2.75** | **173** | PN | | | Pn | 04 31 50.5 | -0.9 |
| **RUGZ** | **Raukumara Rang** | **2.81** | **180** | PN | | | Pn | 04 31 51.0 | -1.3 |
| **URZ** | **Urewera** | **3.13** | **188** | PN | | | Pn | 04 31 56.1 | -0.6 |
| URZ | | | | SN | | | Sn | 04 32 30.8 | -2.1 |
| **MWZ** | **Matawai** | **3.18** | **182** | PN | | | Pn | 04 31 56.2 | -1.1 |
| **CNGZ** | **Carnagh Statio** | **3.35** | **173** | PN | | | Pn | 04 31 57.1 | -2.6 |
| **RIGZ** | **Rimuhau** | **3.55** | **179** | PN | | | Pn | 04 31 59.4 | -3.0 |
| **KNZ** | **Kokohu** | **3.86** | **180** | PN | | | Pn | 04 32 02.6 | -4.1 |
| **KWHZ** | **Kaweka Forest** | **4.38** | **193** | PN | | | Pn | 04 32 11.2 | -2.6 |

**ISC 12 04:33:07.4±3.8, 51.54N±0.09×7.2E±0.3, h9km, n9, σ0s29/10, Germany**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **WTSB** | **Winterswijk** | **0.48** | **334** | *e*Pg | | | **Pg** | **04 33 16.6** | **-0.2** |
| **HGN** | **Heimansgroeve** | **1.09** | **225** | *e*Pg | | | **Pg** | **04 33 28.0** | **-0.2** |
| HGN | | | | *e*Sg | | | **Sb** | **04 33 42.6** | **0.0** |
| **MEM** | **Membach** | **1.17** | **218** | P | | | **Pn** | **04 33 30.0** | **+0.1** |
| **MEM** | **Membach** | **1.17** | **218** | P | | | **Pn** | **04 33 30.0** | **+0.1** |
| **BEBN** | **Eben Emael** | **1.18** | **232** | P | | | **Pb** | **04 33 29.9** | **-0.1** |
| **BLCH** | **La Chartreuse** | **1.32** | **228** | P | | | **Pn** | **04 33 32.0** | **0.0** |
| **BSTI** | **Sart Tilman** | **1.38** | **227** | P | | | **Pn** | **04 33 32.8** | **+0.1** |
| **BCLA** | **Clavier** | **1.61** | **227** | P | | | **Pn** | **04 33 36.5** | **+0.5** |
| **BGES** | **Gesves** | **1.74** | **229** | P | | | **Pn** | **04 33 38.2** | **+0.5** |

**WEL 12 04:44:39.0±0.5, 38.39S×175.97E, h158km±4km, ML3.5/28, 7C-3D, Error ellipse: s-maj=4.0km s-min=3.8km az=90.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **MRHZ** | **Matea Rd** | **0.57** | **142** | ⇑P | N | | Pn | 04 45 01.7 | 0.0 |
| MRHZ | | | | | SN | | Sn | 04 45 18.8 | -0.3 |
| **OTVZ** | **Oturere** | **0.81** | **197** | ⇑P | N | | Pn | 04 45 03.5 | +0.3 |
| **MTHZ** | **Maungataniwha** | **0.83** | **124** | PN | | | Pn | 04 45 03.4 | +0.2 |
| MTHZ | | | | SN | | | Sn | 04 45 21.3 | -0.6 |
| **BKZ** | **Black Stump Fm** | **0.88** | **152** | PN | | | Pn | 04 45 03.3 | -0.3 |
| **WNVZ** | **Wahianoa** | **0.98** | **197** | ⇑P | N | | Pn | 04 45 04.5 | -0.1 |
| **KWHZ** | **Kaweka Forest** | **1.09** | **161** | PN | | | Pn | 04 45 05.6 | +0.2 |
| KWHZ | | | | AML | | | AML | 04 45 33.8 | |
| **BHHZ** | **Black Hill Sta** | **1.10** | **176** | PN | | | Pn | 04 45 05.1 | -0.3 |
| **ARHZ** | **Aropaoanui** | **1.19** | **138** | PN | | | Pn | 04 45 06.7 | +0.6 |
| ARHZ | | | | AML | | | AML | 04 45 27.3 | |
| ARHZ | | | | AML | | | AML | 04 45 27.6 | |
| **MCHZ** | **McNeill Hill** | **1.20** | **152** | PN | | | Pn | 04 45 07.0 | +0.8 |
| **MWZ** | **Matawai** | **1.23** | **88** | PN | | | Pn | 04 45 06.6 | 0.0 |
| **KRHZ** | **Kereru** | **1.29** | **166** | PN | | | Pn | 04 45 07.1 | -0.1 |
| **RUGZ** | **Raukumara Rang** | **1.41** | **73** | PN | | | Pn | 04 45 07.6 | -0.8 |
| **RIGZ** | **Rimuhau** | **1.44** | **103** | PN | | | Pn | 04 45 08.9 | +0.3 |
| RIGZ | | | | SN | | | Sn | 04 45 30.4 | -0.9 |
| **KNZ** | **Kokohu** | **1.48** | **116** | PN | | | Pn | 04 45 09.0 | +0.1 |
| **PNHZ** | **Pukenui** | **1.54** | **173** | PN | | | Pn | 04 45 09.0 | -0.5 |
| **HAZ** | **Te Kaha** | **1.56** | **67** | PN | | | Pn | 04 45 09.3 | -0.5 |
| **KAHZ** | **Kahuranaki** | **1.57** | **154** | PN | | | Pn | 04 45 10.1 | +0.2 |
| **TSZ** | **Takapari Road** | **1.67** | **180** | ⇑P | N | | Pn | 04 45 10.3 | -0.6 |
| **WPHZ** | **Waipukurau** | **1.71** | **168** | PN | | | Pn | 04 45 10.9 | -0.5 |
| WPHZ | | | | SN | | | Sn | 04 45 34.0 | -2.5 |
| **DVHZ** | **Dannevirke** | **1.92** | **175** | ⇑P | N | | Pn | 04 45 12.6 | -1.1 |
| **PRHZ** | **Porangahau** | **1.95** | **165** | PN | | | Pn | 04 45 13.4 | -0.6 |
| **POWZ** | **Post Office Ro** | **2.01** | **184** | PN | | | Pn | 04 45 13.5 | -1.2 |
| **ANWZ** | **Angora Road** | **2.11** | **169** | PN | | | Pn | 04 45 15.0 | -0.8 |
| **PRWZ** | **Pori Road** | **2.17** | **180** | PN | | | Pn | 04 45 15.5 | -1.0 |
| **MRZ** | **Mangatainoka R** | **2.29** | **187** | ⇑P | N | | Pn | 04 45 16.3 | -1.6 |
| **BFZ** | **Birch Farm** | **2.30** | **175** | ⇑P | N | | Pn | 04 45 16.7 | -1.4 |
| **TIWZ** | **Tintock** | **2.39** | **182** | PN | | | Pn | 04 45 17.6 | -1.5 |
| **HOWZ** | **Holdsworth Sta** | **2.53** | **188** | PN | | | Pn | 04 45 18.8 | -2.1 |
| **KIW** | **Kapiti Island** | **2.60** | **198** | PN | | | Pn | 04 45 19.6 | -2.2 |
| **MTW** | **Mount Morrison** | **2.79** | **187** | PN | | | Pn | 04 45 21.6 | -2.5 |
| **CAW** | **Cannon Point** | **2.81** | **194** | PN | | | Pn | 04 45 22.0 | -2.2 |
| **MSWZ** | **Moikau Station** | **3.08** | **190** | ⇓P | N | | Pn | 04 45 24.9 | -2.7 |
| **TCW** | **Tory Channel** | **3.11** | **204** | PN | | | Pn | 04 45 25.5 | -2.5 |
| **PLWZ** | **Palliser** | **3.23** | **190** | ⇓P | N | | Pn | 04 45 26.5 | -3.0 |
| **TUWZ** | **Tuamarina** | **3.42** | **207** | PN | | | Pn | 04 45 29.1 | -2.8 |
| **NNZ** | **Nelson** | **3.46** | **214** | PN | | | Pn | 04 45 29.5 | -3.0 |
| **QRZ** | **Quartz Range** | **3.60** | **226** | PN | | | Pn | 04 45 29.9 | -4.3 |
| **THZ** | **Tophouse** | **4.11** | **214** | PN | | | Pn | 04 45 36.6 | -4.2 |
| **KHZ** | **Kahutara** | **4.43** | **204** | ⇓P | N | | Pn | 04 45 41.6 | -3.3 |

*BJI* ***12*** *04:45:29.6, 24.33N×95.21E, h30km, mb4.4/9, mB4.8/4, ML4.4/4, Ms4.3/2, Ms7 4.3/2*

*BKK* ***12*** *04:45:34.5±2.8, 25.N±14.×9.4E±5.6, h10km, M4.1/10, mB4.1/4, mb4.2/10, MLv4.3/9, Mw(mB)3.2/4*

*NDI* ***12*** *04:45:42.9±2.9, 25.33N×95.17E, h22km±142km, ML4.0*

*ISCJB* ***12*** *04:45:42.2±0.3, 25.02N±0.04×94.98E±0.03, h104km, mb4.3/32, Error ellipse: s-maj=6.4km s-min=3.6km az=17.4*

*IDC* ***12*** *04:45:43.9±2.1, 24.84N×95.22E, h118km±20km, mb4.0/20, mb1 4.1/22, mb1mx3.8/47, mbtmp4.4/22, MS3.6/2, Ms1 3.6/2, ms1mx2.9/41, Error ellipse: s-maj=19.3km s-min=11.4km az=59.0*

*NEIC* ***12*** *04:45:44.1±0.6, 24.89N×95.26E, h122km±5km, mb4.6/4, Error ellipse: s-maj=11.6km s-min=7.1km az=56.0*

**ISC 12 04:45:43.3±0.5, 25.03N±0.06×95.07E±0.05, h104km, n81, σ1s98/103, mb4.3/33, 5C-2D, Myanmar-India border region**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **IMP** | **Imphal** | **1.04** | **259** | *e*P | | | **Pn** | **04 46 05.2** | **+0.7** |
| IMP | | | | *e*S | | | **Sn** | **04 46 21.6** | **+1.1** |
| IMP | | | | AML | | | AML | 04 46 28.9 | |
| | comp=N,2μm,0.4s | | | | | | | | |
| IMP | | | | AML | | | AML | 04 46 31.3 | |
| | comp=E,3μm,0.6s | | | | | | | | |
| **SILR** | **SILCHAR** | **2.07** | **264** | *e*P | | | **Pn** | **04 46 18.1** | **+1.2** |
| SILR | | | | *e*S | | | **Sn** | **04 46 45.5** | **+2.7** |
| SILR | | | | AML | | | AML | 04 47 00.3 | |
| | comp=E,3μm,0.6s | | | | | | | | |
| SILR | | | | AML | | | AML | 04 47 00.6 | |
| | comp=N,4μm,0.5s | | | | | | | | |
| **TEZP** | **TEZPUR** | **2.59** | **308** | *e*P | | | **Pn** | **04 46 23.1** | **-0.6** |
| TEZP | | | | *e*S | | | **Sn** | **04 46 52.2** | **-2.5** |
| TEZP | | | | AML | | | AML | 04 46 57.2 | |
| | comp=N,2μm,0.2s | | | | | | | | |
| TEZP | | | | AML | | | AML | 04 46 57.2 | |
| | comp=Z,518nm,0.1s | | | | | | | | |
| **SHL** | **Shillong** | **2.94** | **281** | *i* P | | | **Pn** | **04 46 29.5** | **+1.0** |
| SHL | | | | *e*S | | | **Sn** | **04 47 02.3** | **-0.9** |
| SHL | | | | AML | | | AML | 04 47 04.8 | |
| | comp=N,958nm,0.2s | | | | | | | | |
| SHL | | | | AML | | | AML | 04 47 05.0 | |
| | comp=E,1μm,0.2s | | | | | | | | |
| **GUWA** | **GUWAHATI** | **3.26** | **292** | *e*P | | | **Pn** | **04 46 32.7** | **0.0** |
| GUWA | | | | *e*S | | | **Sn** | **04 47 08.2** | **-2.6** |
| GUWA | | | | AML | | | AML | 04 47 11.7 | |
| | comp=E,551nm,0.3s | | | | | | | | |
| **BRDH** | **Bariadhala** | **3.92** | **234** | P | | | **Pn** | **04 46 40.8** | **-0.6** |
| | comp=E,39nm,0.3s,baz=279,slow=6.6,SNR=6.6 | | | | | | | | |
| BRDH | | | | S | | | **Sn** | **04 47 25.4** | **-1.1** |
| | comp=E,322nm,0.3s,baz=17,slow=23,SNR=33 | | | | | | | | |
| **LSA** | **Lhasa** | **5.81** | **324** | *e*Pn | | | **Pn** | **04 47 10.6** | **+3.1** |
| | comp=E,16nm,0.4s | | | | | | | | |
| LSA | | | | *e*S | | | **Sn** | **04 48 06.9** | **-6.3** |
| **TAPN** | **Taplejung** | **7.00** | **291** | *e*Pn | | | **Pn** | **04 47 24.2** | **+0.6** |
| TAPN | | | | *e*Sn | | | **Sn** | **04 48 40.6** | **-1.3** |
| | comp=E,250nm,0.6s | | | | | | | | |
| **ODAN** | **Odare** | **7.15** | **286** | *e*Pn | | | **Pn** | **04 47 25.8** | **+0.3** |
| ODAN | | | | *e*Sn | | | **Sn** | **04 48 42.7** | **-2.6** |
| | comp=E,325nm,0.4s | | | | | | | | |
| **CHTO** | **Chiang Mai** | **7.15** | **149** | P | | | **Pn** | **04 47 25.2** | **-0.2** |
| | comp=E,86nm,0.9s,comp=E,0.5nm | | | | | | | | |
| **CHTO** | **Chiang Mai** | **7.15** | **149** | *e*Pn | | | **Pn** | **04 47 23.7** | **-1.7** |
| | comp=E,18nm,0.9s | | | | | | | | |
| **CMMT** | **Chiang Mai** | **7.16** | **149** | P | | | **Pn** | **04 47 25.1** | **-0.3** |
| | comp=E,20nm,0.9s,comp=E,0.1nm | | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **7.46** | **150** | P | | | **Pn** | **04 47 28.5** | **-1.1** |
| | comp=E,1.2nm,0.3s,baz=324,slow=12,SNR=11 | | | | | | | | |
| **RAMN** | **Ramite** | **7.86** | **286** | *e*Pn | | | **Pn** | **04 47 35.6** | **+0.5** |
| RAMN | | | | *e*Sn | | | **Sn** | **04 48 58.6** | **-4.0** |
| | comp=E,171nm,0.5s | | | | | | | | |
| **PHRA** | **Phrae** | **8.07** | **143** | P | | | **Pn** | **04 47 39.1** | **+1.2** |
| | comp=E,17nm,2.5s,comp=E,0.6nm | | | | | | | | |
| **JIRN** | **Jiri** | **8.39** | **290** | *e*Pn | | | **Pn** | **04 47 42.7** | **+0.3** |
| JIRN | | | | *e*Sn | | | **Sn** | **04 49 12.8** | **-2.8** |
| **BOK** | **Bokaro** | **8.46** | **264** | *e*P | | | **Pn** | **04 47 42.7** | **-0.4** |
| BOK | | | | *ex* | | | x | 04 49 12.3 | |
| BOK | | | | AML | | | AML | 04 49 18.0 | |
| | comp=E,52nm,0.4s | | | | | | | | |
| BOK | | | | AML | | | AML | 04 49 18.4 | |
| | comp=N,88nm,0.3s | | | | | | | | |
| **GUN** | **Gumba** | **8.72** | **291** | *e*Pn | | | **Pn** | **04 47 47.1** | **+0.1** |
| GUN | | | | *e*Sn | | | **Sn** | **04 49 21.3** | **-2.4** |
| | comp=N,98nm,0.4s | | | | | | | | |
| **PKI** | **Pulchoki** | **9.03** | **288** | *e*Pn | | | **Pn** | **04 47 50.7** | **-0.5** |
| PKI | | | | *e*Sn | | | **Sn** | **04 49 27.9** | **-3.4** |
| | comp=N,106nm,0.7s | | | | | | | | |
| **PKIN** | **Phulchoki** | **9.04** | **288** | *e*Pn | | | **Pn** | **04 47 50.8** | **-0.5** |
| PKIN | | | | *e*Sn | | | **Sn** | **04 49 28.1** | **-3.4** |
| | comp=N,150nm,0.5s | | | | | | | | |
| **KKN** | **Kakani** | **9.20** | **290** | *e*Pn | | | **Pn** | **04 47 53.0** | **-0.3** |
| KKN | | | | *e*Sn | | | **Sn** | **04 49 31.2** | **-3.9** |
| | comp=N,77nm,0.6s | | | | | | | | |
| **DMN** | **Daman** | **9.30** | **288** | *e*Pn | | | **Pn** | **04 47 54.0** | **-0.8** |
| DMN | | | | *e*Sn | | | **Sn** | **04 49 34.2** | **-3.5** |
| | comp=N,87nm,0.6s | | | | | | | | |
| **GKN** | **Gorkha** | **9.80** | **290** | *e*Pn | | | **Pn** | **04 48 01.4** | **-0.1** |
| GKN | | | | *e*Sn | | | **Sn** | **04 49 46.9** | **-2.9** |
| | comp=N,7.8nm,0.3s | | | | | | | | |
| **KOLN** | **Koldanda** | **10.64** | **287** | *e*Pn | | | **Pn** | **04 48 11.5** | **-1.4** |
| KOLN | | | | *e*Sn | | | **Sn** | **04 50 04.4** | **-5.8** |
| | comp=N,72nm,0.4s | | | | | | | | |
| **PYUN** | **Piuthan** | **11.24** | **288** | *e*Pn | | | **Pn** | **04 48 19.9** | **-1.1** |
| PYUN | | | | *e*Sn | | | **Sn** | **04 50 20.0** | **-4.7** |
| | comp=N,119nm,0.7s | | | | | | | | |
| **ENH** | **Enshi** | **13.80** | **65** | *e*Pn | | | **Pn** | **04 48 53.8** | **-0.8** |
| | comp=N,35nm,0.6s | | | | | | | | |
| **JBP** | **Jabalpur** | **13.90** | **265** | *ex* | | | **Pn** | **04 48 57.5** | **+1.6** |
| JBP | | | | *ex* | | | **Sn** | **04 51 24.7** | **-4.3** |
| **GTA** | **Gaotai** | **14.89** | **14** | *e*P | | | **P** | **04 49 12.4** | **+0.8** |
| GTA | | | | pP | | | Pn | 04 49 16.8 | +8.3 |
| GTA | | | | sP | | | | 04 49 20.3 | |
| GTA | | | | pmax | | | pmax | | |
| | comp=N,8.0nm,0.8s | | | | | | | | |
| **SMLA** | **Simla** | **16.92** | **295** | *e*P | | | **P** | **04 49 34.1** | **0.0** |
| SMLA | | | | *ex* | | | x | 04 52 12.7 | |
| SMLA | | | | AML | | | AML | 04 52 38.6 | |
| | comp=N,10nm,1.1s | | | | | | | | |
| SMLA | | | | AML | | | AML | 04 52 39.8 | |
| | comp=E,16nm,0.6s | | | | | | | | |
| **TKM2** | **Tokmak 2** | **23.97** | **323** | P | | | **P** | **04 50 51.8** | **+3.5** |
| | SNR=13 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **24.00** | **338** | P | | | **P** | **04 50 50.1** | **+1.9** |
| | comp=E,31nm,0.6s,baz=150,slow=9.3,SNR=416 | | | | | | | | |
| **UCH** | **Uchtor** | **24.13** | **320** | P | | | **P** | **04 50 52.6** | **+2.6** |
| | SNR=7.3 | | | | | | | | |
| **KBK** | **Karagaybulak** | **24.16** | **322** | P | | | **P** | **04 50 52.6** | **+2.6** |
| | SNR=5.5 | | | | | | | | |
| **AAK** | **Ala-Archa** | **24.40** | **321** | P | | | **P** | **04 50 54.9** | **+2.8** |
| | comp=E,4.3nm,0.5s,baz=121,slow=6.1,SNR=17 | | | | | | | | |
| **AAK** | **Ala-Archa** | **24.40** | **321** | P | | | **P** | **04 50 55.3** | **+3.2** |
| | SNR=5.2 | | | | | | | | |
| **SONM** | **Songino Array** | **24.46** | **19** | P | | | **P** | **04 50 52.5** | **-0.1** |
| | comp=E,3.6nm,0.6s,baz=198,slow=9.5,SNR=27 | | | | | | | | |
| **AML** | **Almayashu** | **24.55** | **319** | P | | | **P** | **04 50 56.5** | **+2.7** |
| | SNR=7.5 | | | | | | | | |
| **ULN** | **Ulaanbaatar** | **24.69** | **20** | *e*P | | | **P** | **04 50 54.3** | **-0.4** |
| | comp=E,5.8nm,0.8s | | | | | | | | |
| **USP** | **Ospenovka** | **24.80** | **322** | P | | | **P** | **04 50 57.9** | **+2.2** |
| | SNR=5.3 | | | | | | | | |
| **TLY** | **Talaya** | **27.41** | **12** | LR | | | LR | 05 03 36.3 | |
| | comp=E,63nm,19.8s,baz=319,slow=39 | | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **28.57** | **338** | P | | | **P** | **04 51 30.6** | **+1.3** |
| | comp=E,6.2nm,0.6s,baz=147,slow=9.2,SNR=34 | | | | | | | | |
| **KURK** | **Kurchatov** | **28.61** | **338** | *e*P | | | **P** | **04 51 30.5** | **+0.9** |
| | comp=E,60nm,0.8s | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **29.88** | **348** | P | | | **P** | **04 51 41.9** | **+1.0** |
| | comp=E,2.5nm,0.5s,baz=172,slow=8.2,SNR=11 | | | | | | | | |
| **BRVK** | **Borovoye** | **33.64** | **333** | *e*P | | | **P** | **04 52 14.9** | **+1.1** |
| | comp=E,12nm,0.6s | | | | | | | | |
| **GEYT** | **Alibeck** | **33.82** | **301** | P | | | **P** | **04 52 18.1** | **+2.5** |
| | comp=E,45nm,0.7s,baz=120,slow=8.5,SNR=3.9 | | | | | | | | |
| GEYT | | | | PcP | | | **PcP** | **04 54 52.4** | **0.0** |
| | comp=E,1.8nm,0.5s,baz=88,slow=7.7,SNR=3.6 | | | | | | | | |
| **AKTO** | **Aktyubinsk** | **38.15** | **321** | P | | | **P** | **04 52 53.7** | **+1.4** |
| | comp=E,4.5nm,0.6s,baz=117,slow=8.4,SNR=12 | | | | | | | | |
| **BRTR** | **Keskin Array B** | **52.96** | **302** | P | | | **P** | **04 54 49.5** | **+0.2** |
| | comp=E,1.6nm,0.5s,baz=124,slow=8.0,SNR=22 | | | | | | | | |
| **AKASG** | **Malin Array Be** | **55.89** | **316** | P | | | **P** | **04 55 09.8** | **-0.3** |
| | comp=E,2.0nm,0.4s,baz=78,slow=6.7,SNR=16 | | | | | | | | |
| **VRI** | **Vrincioaia** | **57.66** | **310** | ⇑*i*P | | | **P** | **04 55 23.5** | **+0.7** |
| **PLOR** | **Plostina** | **57.72** | **310** | ⇑*i*P | | | **P** | **04 55 24.4** | **+1.1** |
| **BUC** | **Bucharest** | **58.22** | **308** | ⇑*i*P | | | **P** | **04 55 24.5** | **-2.2** |
| **MLR** | **Muntele Rosu** | **58.24** | **309** | ⇑*i*P | | | **P** | **04 55 28.7** | **+1.7** |
| **FINES** | **FINESS Array B** | **58.32** | **328** | P | | | **P** | **04 55 27.6** | **+0.5** |
| | comp=E,3.7nm,0.5s,baz=94,slow=6.1,SNR=23 | | | | | | | | |
| **BURAR** | **Bucovina Array** | **58.59** | **312** | ⇓*i*P | | | **P** | **04 55 29.8** | **+0.4** |
| **WRA** | **Warramunga Arr** | **58.80** | **136** | P | | | **P** | **04 55 28.2** | **-2.7** |
| | comp=E,0.9nm,0.6s,baz=323,slow=7.4,SNR=17 | | | | | | | | |
| **VOIR** | | **58.87** | **309** | ⇑*i*P | | | **P** | **04 55 30.0** | **-1.3** |
| **ARR** | **Arges** | **59.17** | **309** | ⇓*i*P | | | **P** | **04 55 34.0** | **+0.6** |
| **ARCES** | **ARCESS Array B** | **59.65** | **338** | P | | | **P** | **04 55 36.9** | **+0.7** |
| | comp=E,4.9nm,0.8s,baz=99,slow=5.6,SNR=22 | | | | | | | | |
| ARCES | | | | PcP | | | **PcP** | **04 56 22.0** | **-0.2** |
| | comp=E,2.9nm,0.8s,baz=88,slow=4.0,SNR=4.7 | | | | | | | | |
| **CRVS** | **Cervenica-Dubn** | **60.98** | **314** | *e*P | | | **P** | **04 55 47.1** | **+1.4** |
| **ASAR** | **Alice Springs** | **61.31** | **139** | P | | | **P** | **04 55 45.6** | **-2.6** |
| | comp=E,0.6nm,0.6s,baz=322,slow=7.1,SNR=8.2 | | | | | | | | |
| ASAR | | | | pP | | | **pP** | **04 56 13.6** | **-0.2** |
| | comp=E,1.1nm,0.8s,baz=312,slow=5.6,SNR=5.6 | | | | | | | | |
| **CONA** | **Conrad Observa** | **64.81** | **313** | *e*P | | | **P** | **04 56 11.1** | **-0.1** |
| | comp=E,2.8nm,0.8s | | | | | | | | |
| **NB2** | **NORSAR Subarra** | **65.49** | **328** | P | | | **P** | **04 56 15.0** | **-0.2** |
| | comp=Z,4.4nm,0.5s,baz=82,slow=6.5 | | | | | | | | |
| **NOA** | **NORSAR Array B** | **65.49** | **328** | P | | | **P** | **04 56 15.0** | **-0.2** |
| | comp=Z,4.9nm,0.5s,baz=83,slow=6.4,SNR=8.2 | | | | | | | | |
| **MOA** | **Molln** | **65.88** | **313** | *e*P | | | **P** | **04 56 17.5** | **-0.5** |
| | comp=Z,4.0nm,0.8s | | | | | | | | |
| **GERES** | **GERESS Array B** | **66.06** | **314** | P | | | **P** | **04 56 19.5** | **+0.4** |
| | comp=Z,2.5nm,0.5s,baz=68,slow=6.1,SNR=32 | | | | | | | | |
| **KBA** | **Koelnbreinsper** | **66.65** | **313** | *e*P | | | **P** | **04 56 22.6** | **-0.5** |
| | comp=Z,2.0nm,0.5s | | | | | | | | |
| **MOTA** | **Moosalm** | **68.08** | **313** | *e*P | | | **P** | **04 56 31.9** | **-0.2** |
| | comp=Z,2.8nm,0.6s | | | | | | | | |
| **RETA** | **Reutte** | **68.27** | **313** | *e*P | | | **P** | **04 56 32.8** | **-0.4** |
| | comp=Z,3.5nm,0.5s | | | | | | | | |
| **DAVA** | **Damuels** | **68.90** | **313** | *e*P | | | **P** | **04 56 36.8** | **-0.4** |
| | comp=Z,2.2nm,0.5s | | | | | | | | |
| **KEST** | **Kesra** | **72.56** | **302** | P | | | **P** | **04 56 59.7** | **+0.2** |
| | comp=Z,9.2nm,1.1s,baz=163,slow=1.8,SNR=5.6 | | | | | | | | |
| **EKA** | **Eskdalemuir Ar** | **74.27** | **324** | P | | | **P** | **04 57 09.4** | **+0.4** |
| | comp=Z,1.5nm,0.4s,baz=73,slow=5.3,SNR=12 | | | | | | | | |
| **LSZ** | **Lusaka** | **76.49** | **246** | P | | | **P** | **04 57 22.1** | **-0.4** |
| | comp=Z,3.7nm,0.5s,baz=55,slow=5.8,SNR=11 | | | | | | | | |
| LSZ | | | | pP | | | **pP** | **04 57 52.7** | **+3.7** |
| | comp=Z,4.5nm,0.9s,baz=47,slow=8.1,SNR=3.7 | | | | | | | | |
| **SUMG** | **Summit** | **77.70** | **347** | *i* P | | | **P** | **04 57 28.8** | **+0.1** |
| | comp=Z,6.4nm,0.7s | | | | | | | | |
| **ILAR** | **Eielson Array** | **78.62** | **23** | P | | | **P** | **04 57 30.3** | **-3.0** |
| | comp=Z,0.4nm,0.9s,baz=292,slow=4.9,SNR=4.4 | | | | | | | | |
| **ESDC** | **Sonseca Array** | **80.93** | **309** | P | | | **P** | **04 57 46.2** | **-0.3** |
| | comp=Z,0.6nm,0.7s,baz=39,slow=5.0,SNR=4.8 | | | | | | | | |
| **MDT** | **Midelt** | **84.35** | **303** | P | | | **P** | **04 58 04.0** | **-0.4** |
| | comp=Z,1.4nm,0.8s,baz=123,slow=12,SNR=3.7 | | | | | | | | |
| **BOSA** | **Boshof** | **85.71** | **236** | pP | | | **pP** | **04 58 40.7** | **+2.5** |
| | comp=Z,2.0nm,0.5s,baz=58,slow=2.4,SNR=2.4 | | | | | | | | |
| BOSA | | | | S | | | LR | 05 36 07.5 | |
| | comp=Z,66nm,21.8s,baz=42,slow=35 | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **87.53** | **283** | P | | | **P** | **04 58 19.9** | **-0.2** |
| | comp=Z,0.8nm,0.6s,baz=63,slow=4.0,SNR=18 | | | | | | | | |
| **SDV** | **Santo Domingo** | **143.53** | **336** | *e*PKPdf | | | PKPab | 05 05 03.0 | -0.5 |
| **BDFB** | **Brasilia** | **144.25** | **278** | PKP | | | **PKPab** | **05 05 06.1** | **0.0** |
| | comp=Z,1.0nm,0.4s,baz=235,slow=5.0,SNR=6.9 | | | | | | | | |
| **ROSC** | **El Rosal** | **148.57** | **339** | PKPbc | | | **PKPbc** | **05 05 19.7** | **+0.2** |
| | comp=Z,4.4nm,0.5s,baz=333,slow=1.4,SNR=4.5 | | | | | | | | |

*NIED* ***12*** *05:13:00, 36.00N×140.90E, h8km, Mw4.6 Best double couple: M07.59000×10^15 NP1:φs336.00000°, δ48.00000°, λ-160.00000°. NP2:φs233.00000°, δ76.00000°, λ-44.00000°.*

*JMA* ***12*** *05:13:18.9, 35.93N×140.83E, h18km±1km, M4.6 Broadband fault plane solution: P waves. NP1: φs345.00000°, δ57.00000°, λ-118.00000°. NP2: φs210.00000°, δ42.00000°, λ-54.00000°. Principal axes: T Plg8.0000°, Azm95.0000°; N Plg24.0000°, Azm1.0000°; P Plg65.0000°, Azm202.0000°;*

*JMA Felt III J1.*

*NEIC* ***12*** *05:13:21.2±2.0, 35.78N×140.57E, h26km±14km, mb4.7/7 Error ellipse: s-maj=8.6km s-min=7.2km az=91.0*

*NEIC Recorded [3 JMA] in Chiba and Ibaraki.*

*IDC* ***12*** *05:13:24.9±2.0, 35.72N×140.39E, h57km±18km, mb3.9/23, mb1 4.0/25, mb1mx3.9/42, mbtmp4.1/25, ML2.7/2, MS3.4/3, Ms1 3.5/3, ms1mx3.0/36, Error ell

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 55.77 | 187 | P | | P | 05 22 55.7 | -1.2 |
| | 0.8nm,0.4s,baz=5.4,slow=7.6,SNR=23 | | | | | | | |
| INK | Inuvik | 55.78 | 27 | P | | P | 05 22 54.0 | -2.4 |
| | 1.4nm,0.8s,baz=300,slow=8.3,SNR=7.2 | | | | | | | |
| INK | Inuvik | 55.78 | 27 | *eP* | | P | 05 22 53.6 | -2.9 |
| | 17nm,1.8s | | | | | | | |
| ARU | Arti | 56.81 | 319 | P | | P | 05 23 03.1 | -0.9 |
| | 2.0nm,0.3s,baz=87,slow=4.1,SNR=8.0 | | | | | | | |
| ARU | Arti | 56.81 | 319 | *eP* | | P | 05 23 03.1 | -0.9 |
| | 5.5nm,0.6s | | | | | | | |
| AKTO | Aktyubinsk | 58.97 | 312 | P | | P | 05 23 20.9 | +1.6 |
| | 1.5nm,0.7s,baz=73,slow=14 | | | | | | | |
| ASAR | Alice Springs | 59.50 | 187 | P | | P | 05 23 21.6 | -1.6 |
| | 1.2nm,0.8s,baz=9.3,slow=7.4,SNR=14 | | | | | | | |
| RES | Resolute Bay | 63.95 | 14 | P | | P | 05 23 50.4 | -2.1 |
| | 1.7nm,0.6s,baz=295,slow=9.7,SNR=30 | | | | | | | |
| ARA0 | ARCESS Array S | 64.88 | 339 | *eP* | | P | 05 23 58.5 | -0.2 |
| ARCES | ARCESS Array B | 64.88 | 339 | P | | P | 05 23 58.5 | -0.2 |
| | 4.5nm,0.9s,baz=53,slow=6.2,SNR=4.5 | | | | | | | |
| YKA | Yellowknife Ar | 65.20 | 30 | P | | P | 05 24 01.1 | +0.2 |
| | 0.6nm,0.7s,baz=302,slow=6.4,SNR=4.1 | | | | | | | |
| YKB5 | Yellowknife Ar | 65.20 | 30 | *eP* | | P | 05 24 01.1 | +0.2 |
| FIA0 | FINESS Array S | 69.56 | 332 | *eP* | | P | 05 24 26.9 | -1.5 |
| FINES | FINESS Array B | 69.56 | 332 | P | | P | 05 24 27.0 | -1.5 |
| | 2.4nm,0.9s,baz=66,slow=7.8,SNR=5.2 | | | | | | | |
| KBZ | Khabaz | 71.16 | 311 | P | | P | 05 24 38.1 | -0.4 |
| | 2.3nm,0.8s,baz=44,slow=3.7,SNR=7.2 | | | | | | | |
| AKASG | Malin Array Be | 74.82 | 322 | P | | P | 05 24 58.0 | -2.2 |
| | 1.1nm,0.6s,baz=46,slow=6.3,SNR=11 | | | | | | | |
| AKBB | Malin Array Si | 74.82 | 322 | *eP* | | P | 05 24 56.6 | -3.6 |
| | 5.0nm,0.8s | | | | | | | |
| HFS | Hagfors | 74.90 | 335 | P | | P | 05 25 00.6 | +0.1 |
| | 5.0nm,0.9s,baz=45,slow=2.2,SNR=4.3 | | | | | | | |
| NB2 | NORSAR Subarra | 75.03 | 337 | P | | P | 05 24 59.6 | -1.6 |
| | comp=Z,6.5nm,1.0s,baz=39,slow=5.9 | | | | | | | |
| NB200 | NORSAR Array S | 75.03 | 337 | *eP* | | P | 05 24 59.6 | -1.6 |
| NOA | NORSAR Array B | 75.03 | 337 | P | | P | 05 24 59.6 | -1.6 |
| | comp=Z,0.6nm,0.6s,baz=54,slow=5.0,SNR=5.3 | | | | | | | |
| PDAR | Pinedale Array | 79.02 | 45 | P | | P | 05 25 24.4 | +0.1 |
| | comp=Z,0.5nm,0.5s,baz=251,slow=1.3,SNR=9.1 | | | | | | | |
| BR101 | Keskin Array S | 79.13 | 311 | *eP* | | P | 05 25 23.5 | -1.3 |
| BRTR | Keskin Array B | 79.13 | 311 | P | | P | 05 25 23.5 | -1.4 |
| | comp=Z,2.1nm,1.0s,baz=121,slow=3.0,SNR=6.1 | | | | | | | |
| CLL | Collm | 81.79 | 330 | *eP* | | P | 05 25 40.0 | +1.2 |
| CLL | | | | *es*P | | PcP | 05 25 50.0 | +5.5 |
| GERES | GERESS Array B | 83.37 | 328 | P | | P | 05 25 47.0 | -0.2 |
| | comp=Z,0.8nm,0.6s,baz=32,slow=6.3,SNR=6.3 | | | | | | | |
| LTX | Lajitas | 91.42 | 52 | *eP* | | P | 05 26 24.8 | -1.8 |
| TXAR | Lajitas Array | 91.42 | 52 | P | | P | 05 26 24.8 | -1.8 |
| | comp=Z,0.3nm,0.8s,baz=320,slow=3.6,SNR=3.2 | | | | | | | |
| LPAZ | La Paz | 147.91 | 60 | PKPbc | | PKPbc | 05 33 04.6 | -1.9 |
| | comp=Z,1.4nm,0.7s,baz=60,slow=4.0,SNR=6.5 | | | | | | | |
| LPAZ | La Paz | 147.91 | 60 | *e*PKPbc | | PKPdf | 05 33 04.4 | +0.8 |

*IDC **12** 05:19:48.9±0.8, 86.97N×50.25E, h0km, mb3.8/10, mb1 4.1/12, mb1mx3.7/49, mbtmp3.9/12, ML3.7/2, MS4.0/2, Ms1 4.0/2, ms1mx3.0/44, Error ellipse: s-maj=30.0km s-min=14.3km az=89.0*
*ISCJB **12** 05:19:49.3±0.5, 86.94N±0.05×4.8E±., h10km, mb4.2/24, MS4.0/2, Error ellipse: s-maj=17.7km s-min=6.9km az=5.8*
*CSEM **12** 05:19:51.2, 86.96N×48.23E, h10km, mb4.5/15*
*NEIC **12** 05:19:51.2±0.4, 86.96N×48.23E, h10km, mb4.5/15, Error ellipse: s-maj=14.9km s-min=5.8km az=99.0*

**ISC 12 05:19:50.8±0.6, 86.92N±0.07×46.6E±0.1, h10km, n69, σ1ᵖ43/68, mb4.3/24, North of Franz Josef Land**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KBS | Kingsbay | 8.77 | 226 | *e*Pn | Pn | 05 21 59.2 | +1.8 |
| KBS | Kingsbay | 8.77 | 226 | *e*Pn | Pn | 05 21 59.2 | +1.8 |
| SPA0 | Spitsbergen Ar | 9.35 | 220 | *e*Pn | Pn | 05 22 06.1 | +0.8 |
| SPA0 | Spitsbergen Ar | 9.35 | 220 | *e*Pn | Pn | 05 22 06.1 | +0.8 |
| SPITS | Spitsbergen Ar | 9.35 | 220 | Pn | Pn | 05 22 05.4 | +0.1 |
| | baz=19,slow=16,SNR=20 | | | | | | |
| SPITS | | | | Sn | Sn | 05 23 45.3 | -5.0 |
| | baz=35,slow=20,SNR=2.2 | | | | | | |
| RES | Resolute Bay | 17.94 | 328 | P | Pn | 05 23 58.8 | -1.0 |
| | 0.2nm,0.3s,baz=18,slow=11,SNR=5.4 | | | | | | |
| INK | Inuvik | 24.93 | 0 | P | P | 05 25 12.2 | -1.1 |
| | 3.4nm,0.9s,baz=13,slow=13,SNR=6.7 | | | | | | |
| INK | Inuvik | 24.93 | 0 | *eP* | P | 05 25 12.2 | -1.1 |
| | 8.2nm,1.1s | | | | | | |
| INK | Inuvik | 24.93 | 0 | *eP* | P | 05 25 12.2 | -1.1 |
| | 8.2nm,1.1s | | | | | | |
| COLD | Coldfoot | 25.89 | 15 | *eP* | P | 05 25 21.6 | -0.5 |
| | 6.0nm,1.1s | | | | | | |
| COLD | Coldfoot | 25.89 | 15 | *eP* | P | 05 25 21.6 | -0.5 |
| | 6.0nm,1.1s | | | | | | |
| ILAR | Eielson Array | 28.40 | 12 | P | P | 05 25 44.8 | +0.1 |
| | 1.3nm,0.9s,baz=359,slow=8.1,SNR=7.7 | | | | | | |
| ILB | Eielson Array | 28.40 | 12 | *eP* | P | 05 25 44.4 | -0.3 |
| ILB | Eielson Array | 28.40 | 12 | *eP* | P | 05 25 44.4 | -0.3 |
| YKA | Yellowknife Ar | 30.61 | 343 | P | P | 05 26 03.3 | -1.0 |
| | 1.0nm,0.8s,baz=4.3,slow=7.8,SNR=6.8 | | | | | | |
| YKB5 | Yellowknife Ar | 30.61 | 343 | *eP* | P | 05 26 03.3 | -1.0 |
| YKB5 | Yellowknife Ar | 30.61 | 343 | *eP* | P | 05 26 03.3 | -1.0 |
| BVAR | Borovoye Array | 34.34 | 154 | P | P | 05 26 36.0 | -1.1 |
| | 0.4nm,0.6s,baz=5.7,slow=7.2,SNR=3.6 | | | | | | |
| BVAR | Borovoye Array | 34.34 | 154 | P | P | 05 26 36.0 | -1.1 |
| AKASG | Malin Array Be | 36.54 | 199 | P | P | 05 26 56.8 | +0.9 |
| | 0.3nm,0.4s,baz=359,slow=9.1,SNR=5.6 | | | | | | |
| AKBB | Malin Array Si | 36.54 | 199 | *eP* | P | 05 26 57.1 | +1.2 |
| | 21nm,1.8s | | | | | | |
| AKBB | Malin Array Si | 36.54 | 199 | *eP* | P | 05 26 57.1 | +1.2 |
| | 21nm,1.8s | | | | | | |
| VRAC | Vranov | 38.22 | 212 | LR | LR | 05 43 12.4 | |
| | comp=Z,270nm,18.6s,baz=332,slow=37 | | | | | | |
| B08A | Colville Reser | 44.84 | 347 | *eP* | P | 05 28 05.4 | +0.9 |
| | 6.5nm,0.9s | | | | | | |
| B08A | Colville Reser | 44.84 | 347 | *eP* | P | 05 28 05.4 | +0.9 |
| | 6.5nm,0.9s | | | | | | |
| MSO | Missoula | 46.29 | 342 | *eP* | P | 05 28 16.8 | +0.7 |
| | 5.7nm,1.0s | | | | | | |
| MSO | Missoula | 46.29 | 342 | *eP* | P | 05 28 16.8 | +0.7 |
| | 5.7nm,1.0s | | | | | | |
| BR231 | Keskin MP Arra | 47.34 | 194 | *eP* | P | 05 28 27.4 | +3.1 |
| BR231 | Keskin MP Arra | 47.34 | 194 | *eP* | P | 05 28 27.4 | +3.1 |
| BR101 | Keskin Array S | 47.45 | 194 | *eP* | P | 05 28 27.5 | +2.3 |
| BR101 | Keskin Array S | 47.45 | 194 | *eP* | P | 05 28 27.4 | +2.3 |
| BR131 | Keskin Array S | 47.45 | 194 | *eP* | P | 05 28 27.5 | +2.3 |
| BR131 | Keskin Array S | 47.45 | 194 | *eP* | P | 05 28 27.5 | +2.3 |
| BRTR | Keskin Array B | 47.45 | 194 | P | P | 05 28 27.4 | +2.3 |
| | 1.4nm,0.9s,baz=15,slow=7.6,SNR=5.7 | | | | | | |
| G08A | Pilot Rock | 47.91 | 346 | *eP* | P | 05 28 29.7 | +1.0 |
| | 6.3nm,1.3s | | | | | | |
| G08A | Pilot Rock | 47.91 | 346 | *eP* | P | 05 28 29.7 | +1.0 |
| | 6.3nm,1.3s | | | | | | |
| YHH | Holmes Hill | 48.28 | 339 | *eP* | P | 05 28 32.8 | +1.0 |
| | 3.0nm,0.9s | | | | | | |
| YHH | Holmes Hill | 48.28 | 339 | *eP* | P | 05 28 32.8 | +1.0 |
| | 3.0nm,0.9s | | | | | | |
| YPP | Pitchstone Pla | 48.79 | 338 | *eP* | P | 05 28 37.7 | +2.0 |
| | 4.7nm,1.0s | | | | | | |
| YPP | Pitchstone Pla | 48.79 | 338 | *eP* | P | 05 28 37.7 | +2.0 |
| | 4.7nm,1.0s | | | | | | |
| GEYT | Alibeck | 49.22 | 168 | LR | LR | 05 53 54.6 | |
| | comp=Z,143nm,19.6s,baz=300,slow=42 | | | | | | |
| MOOW | Moose Ponds | 49.31 | 338 | *eP* | P | 05 28 40.5 | +0.9 |
| | 2.0nm,0.9s | | | | | | |
| MOOW | Moose Ponds | 49.31 | 338 | *eP* | P | 05 28 40.5 | +0.9 |
| | 2.0nm,0.9s | | | | | | |
| J08A | Circle Bar Ran | 49.83 | 346 | *eP* | P | 05 28 45.1 | +1.7 |
| | 4.2nm,0.9s | | | | | | |
| J08A | Circle Bar Ran | 49.83 | 346 | *eP* | P | 05 28 45.1 | +1.7 |
| | 4.2nm,0.9s | | | | | | |
| PD31 | Pinedale Array | 50.27 | 337 | *eP* | P | 05 28 47.5 | +0.6 |
| PD31 | Pinedale Array | 50.27 | 337 | *eP* | P | 05 28 47.5 | +0.6 |
| PDAR | Pinedale Array | 50.27 | 337 | P | P | 05 28 47.0 | 0.0 |
| | 1.7nm,0.8s,baz=25,slow=4.9,SNR=13 | | | | | | |
| PDAR | Pinedale Array | 50.27 | 337 | *eP* | P | 05 28 47.2 | +0.2 |
| PDAR | Pinedale Array | 50.27 | 337 | *eP* | P | 05 28 47.2 | +0.2 |
| BGU | Big Grassy Mou | 52.18 | 340 | *eP* | P | 05 29 01.8 | +0.6 |
| | 5.8nm,1.4s | | | | | | |
| BGU | Big Grassy Mou | 52.18 | 340 | *eP* | P | 05 29 01.8 | +0.6 |
| | 5.8nm,1.4s | | | | | | |
| TMUT | Trail Mountain | 53.77 | 339 | *eP* | P | 05 29 13.7 | +0.6 |
| | 12nm,1.7s | | | | | | |
| TMUT | Trail Mountain | 53.77 | 339 | *eP* | P | 05 29 13.7 | +0.6 |
| | 12nm,1.7s | | | | | | |
| Q16A | Castle Valley | 54.15 | 339 | *eP* | P | 05 29 16.7 | +1.0 |
| | 12nm,1.5s | | | | | | |
| Q16A | Castle Valley | 54.15 | 339 | *eP* | P | 05 29 16.7 | +1.0 |
| | 12nm,1.5s | | | | | | |
| R11A | Troy Canyon, C | 54.80 | 343 | *e*P | P | 05 29 21.1 | +0.7 |
| | 12nm,2.0s | | | | | | |
| R11A | Troy Canyon, C | 54.80 | 343 | *e*P | P | 05 29 21.1 | +0.7 |
| | 12nm,2.0s | | | | | | |
| S22A | 4UR Ranch, Cre | 55.22 | 334 | *e*P | P | 05 29 25.0 | +1.3 |
| | 4.7nm,1.0s | | | | | | |
| S22A | 4UR Ranch, Cre | 55.22 | 334 | *e*P | P | 05 29 25.0 | +1.3 |
| | 4.7nm,1.0s | | | | | | |
| LTX | Lajitas | 63.53 | 331 | *e*P | P | 05 30 20.8 | -0.1 |
| LTX | Lajitas | 63.53 | 331 | *e*P | P | 05 30 20.8 | -0.1 |
| TXAR | Lajitas Array | 63.53 | 331 | P | P | 05 30 20.8 | -0.1 |
| | 0.8nm,0.7s,baz=358,slow=3.6,SNR=9.0 | | | | | | |
| CMAR | Chiang Mai Arr | 69.78 | 127 | P | P | 05 30 59.0 | -1.8 |
| | 0.9nm,0.3s,baz=354,slow=7.3,SNR=3.2 | | | | | | |
| CMAR | Chiang Mai Arr | 69.78 | 127 | P | P | 05 30 59.0 | -1.8 |
| CMAR | Chiang Mai Arr | 69.78 | 127 | P | P | 05 30 59.0 | -1.8 |
| TOA1 | Torodi Ar. Sit | 74.75 | 225 | *e*P | P | 05 31 30.6 | +0.1 |
| TOA1 | Torodi Ar. Sit | 74.75 | 225 | *e*P | P | 05 31 30.6 | +0.1 |
| TORD | Torodi Ar. Bea | 74.75 | 225 | P | P | 05 31 30.6 | +0.1 |
| | 0.3nm,0.8s,baz=350,slow=5.4,SNR=3.5 | | | | | | |

*THE **12** 05:25:37.8, 38.15N×23.22E, h10km, ML1.5/7, Error ellipse: s-maj=0.7km s-min=0.3km az=243.0*
*CSEM **12** 05:25:38.5±0.1, 38.13N×23.23E, h5km, ML1.5, Error ellipse: s-maj=4.1km s-min=2.4km az=14.0*

**ATH 12 05:25:38.8, 38.10N×23.23E, h13km±5km, ML1.4/8, Error ellipse: s-maj=5.3km s-min=0.7km az=196.0, Greece**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VILL | Villia | 0.09 | 45 | P | Pg | 05 25 40.5 | -1.2 |
| VILL | | | | S | Sg | 05 25 42.2 | -1.6 |
| VILL | Villia | 0.09 | 45 | P | Pg | 05 25 40.5 | -1.2 |
| VILL | | | | S | Sg | 05 25 42.2 | -1.6 |
| VIL2 | Platees | 0.11 | 14 | P | Pg | 05 25 40.6 | -1.4 |
| VIL2 | | | | S | Sg | 05 25 42.2 | -2.0 |
| VIL2 | | | | AML | AML | 05 25 42.5 | |
| | comp=N,3960μm,0.2s | | | | | | |
| VIL2 | | | | AML | AML | 05 25 42.7 | |
| | comp=E,1318μm,0.2s | | | | | | |
| LTK | Loutraki | 0.23 | 250 | P | Pg | 05 25 43.1 | -0.6 |
| LTK | Loutraki | 0.23 | 250 | P | Pg | 05 25 43.6 | -0.1 |
| LTK | | | | S | Sg | 05 25 47.5 | +0.5 |
| LTK | | | | AML | AML | 05 25 49.5 | |
| | comp=E,107μm,0.2s | | | | | | |
| LTK | | | | AML | AML | 05 25 54.0 | |
| | comp=N,82μm,0.2s | | | | | | |
| LTK | Loutraki | 0.23 | 250 | P | Pg | 05 25 43.2 | -0.5 |
| LTK | | | | S | Sg | 05 25 47.4 | +0.4 |
| LTK | Loutraki | 0.23 | 250 | P | Pg | 05 25 43.2 | -0.5 |
| LTK | | | | S | Sg | 05 25 47.4 | +0.4 |
| LOUT | Loutraki | 0.23 | 241 | P | Pg | 05 25 43.2 | -0.7 |
| LOUT | | | | S | Sg | 05 25 47.5 | +0.3 |
| LOUT | Loutraki | 0.23 | 241 | P | Pg | 05 25 44.1 | +0.3 |
| LOUT | | | | S | Sg | 05 25 47.4 | +0.2 |
| LOUT | Loutraki | 0.23 | 241 | P | Pg | 05 25 43.2 | -0.6 |
| LOUT | | | | S | Sg | 05 25 47.5 | +0.3 |
| LOUT | Loutraki | 0.23 | 241 | P | Pg | 05 25 43.2 | -0.6 |
| LOUT | | | | S | Sg | 05 25 47.5 | +0.3 |
| PROD | Prodromos | 0.31 | 301 | P | Pg | 05 25 44.1 | -1.0 |
| PROD | | | | S | Sg | 05 25 49.4 | +0.1 |
| PROD | | | | AML | AML | 05 25 50.6 | |
| | comp=E,485μm,0.3s | | | | | | |
| PROD | | | | AML | AML | 05 25 51.4 | |
| | comp=N,568μm,0.2s | | | | | | |
| PROD | Prodromos | 0.31 | 301 | P | Pg | 05 25 43.8 | -1.4 |
| PROD | | | | S | Sb | 05 25 50.4 | -0.8 |
| PROD | | | | AML | AML | 05 25 50.6 | |
| | comp=E,485μm,0.3s | | | | | | |
| PROD | | | | AML | AML | 05 25 51.4 | |
| | comp=N,568μm,0.2s | | | | | | |
| PROD | Prodromos | 0.31 | 301 | P | Pg | 05 25 43.8 | -1.3 |
| PROD | | | | S | Sb | 05 25 50.4 | -0.7 |
| ATHU | Athens Univers | 0.46 | 107 | P | Sg | 05 25 47.7 | -0.1 |
| ATHU | | | | S | Sg | 05 25 53.6 | -0.3 |
| ATHU | | | | AML | AML | 05 25 57.2 | |
| | comp=E,30μm,0.1s | | | | | | |
| ATHU | | | | AML | AML | 05 25 57.5 | |
| | comp=N,58μm,0.2s | | | | | | |
| ATHU | Athens Univers | 0.46 | 107 | P | Pg | 05 25 47.7 | -0.1 |
| ATHU | | | | S | Sg | 05 25 53.7 | -0.2 |
| VLY | Voula,Athens | 0.51 | 119 | P | Pg | 05 25 48.9 | +0.1 |
| VLY | | | | S | Sb | 05 25 57.2 | +0.3 |
| VLY | Voula,Athens | 0.51 | 119 | P | Pg | 05 25 48.9 | +0.1 |
| VLY | | | | S | Sb | 05 25 57.2 | +0.3 |
| LKR | Lokris | 0.58 | 342 | P | Pg | 05 25 47.8 | -2.4 |
| LKR | Lokris | 0.58 | 342 | P | Pg | 05 25 48.2 | -1.9 |
| LKR | | | | S | Sg | 05 25 56.4 | -1.4 |
| LKR | Lokris | 0.58 | 342 | P | Pg | 05 25 48.2 | -1.9 |
| LKR | | | | S | Sg | 05 25 56.4 | -1.4 |
| DID | Didima | 0.59 | 180 | P | Pg | 05 25 50.1 | -0.3 |
| DID | | | | S | Sb | 05 26 00.2 | +0.8 |
| DID | Didima | 0.59 | 180 | P | Pg | 05 25 50.1 | -0.3 |
| DID | | | | S | Sb | 05 26 00.2 | +0.8 |
| EREA | Eretria | 0.64 | 60 | P | Pg | 05 25 50.2 | -1.0 |
| EREA | Eretria | 0.64 | 60 | P | Pg | 05 25 51.3 | +0.1 |
| EREA | | | | S | Sg | 05 25 59.8 | +0.2 |
| EREA | | | | AML | AML | 05 26 02.2 | |
| | comp=N,56μm,0.2s | | | | | | |
| EREA | | | | AML | AML | 05 26 02.7 | |
| | comp=E,71μm,0.2s | | | | | | |
| EREA | Eretria | 0.64 | 60 | P | Pg | 05 25 51.3 | +0.1 |
| EREA | | | | S | Sg | 05 25 59.4 | -0.2 |
| EREA | Eretria | 0.64 | 60 | P | Pg | 05 25 49.8 | -1.4 |
| EREA | | | | S | Sg | 05 25 59.4 | -0.2 |
| DSF | Desfina | 0.64 | 299 | P | Pg | 05 25 50.3 | -0.9 |
| DSF | | | | S | Sb | 05 26 00.6 | -0.1 |
| DSF | | | | AML | AML | 05 26 02.9 | |
| | comp=N,190μm,0.3s | | | | | | |
| DSF | | | | AML | AML | 05 26 03.0 | |
| | comp=E,136μm,0.3s | | | | | | |
| DSF | Desfina | 0.64 | 299 | P | Pg | 05 25 49.7 | -1.6 |
| DSF | | | | S | Sg | 05 25 59.1 | -0.6 |
| DSF | Desfina | 0.64 | 299 | P | Pg | 05 25 49.7 | -1.6 |
| DSF | | | | S | Sg | 05 25 59.1 | -0.6 |
| GUR | Goura | 0.72 | 257 | P | Pg | 05 25 52.2 | -0.7 |
| GUR | Goura | 0.72 | 257 | P | Pg | 05 25 52.2 | -0.7 |
| KLV | Kalavryta, Ach | 0.86 | 266 | P | Pg | 05 25 54.6 | -0.8 |
| KLV | | | | S | Sb | 05 26 07.1 | +0.1 |
| KLV | Kalavryta, Ach | 0.86 | 266 | P | Pg | 05 25 54.6 | -0.8 |
| KLV | | | | S | Sb | 05 26 07.1 | +0.1 |
| KALE | Kalithea | 0.91 | 289 | P | Pg | 05 25 56.4 | 0.0 |
| KALE | | | | S | Sb | 05 26 09.0 | +0.5 |
| KALE | | | | AML | AML | 05 26 13.3 | |
| | comp=N,40μm,0.3s | | | | | | |
| KALE | | | | AML | AML | 05 26 17.3 | |
| | comp=E,24μm,0.3s | | | | | | |
| KALE | Kalithea | 0.91 | 289 | P | Pg | 05 25 56.4 | 0.0 |
| KALE | | | | S | Sb | 05 26 09.0 | +0.5 |
| KARY | Karystos | 0.95 | 94 | P | Pn | 05 25 58.0 | +0.1 |
| KARY | | | | S | Sb | 05 26 09.9 | +0.1 |
| KARY | | | | AML | AML | 05 26 11.1 | |
| | comp=N,97μm,0.2s | | | | | | |
| KARY | | | | AML | AML | 05 26 11.4 | |
| | comp=E,94μm,0.2s | | | | | | |
| KARY | Karystos | 0.95 | 94 | P | Pb | 05 25 55.8 | -1.4 |
| KARY | | | | S | Sg | 05 26 09.1 | -0.5 |
| KARY | Karystos | 0.95 | 94 | P | Pb | 05 25 55.8 | -1.4 |
| KARY | | | | S | Sg | 05 26 09.1 | -0.5 |
| SERG | Sergoula | 0.98 | 289 | P | Pb | 05 25 57.2 | -0.4 |
| SERG | | | | S | Sn | 05 26 11.9 | -0.2 |

*ATA **12** 05:34:07.1±1.0, 40.07N×39.02E, h15km±11km, ML2.6, MW2.5*
*ISK **12** 05:34:07.6, 39.95N×39.13E, h5km, ML2.5*
*CSEM **12** 05:34:08.2±0.2, 39.96N×39.17E, h5km, ML2.6, Error ellipse: s-maj=4.0km s-min=2.8km az=74.0*
*DDA **12** 05:34:08.0, 39.94N×39.17E, h7km, Ml2.6*

**ISC 12 05:34:08.0±1.1, 39.93N±0.02×39.13E±0.02, h4km±10km, n36, σ1ᵖ30/51, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KELT | Kelkit | 0.23 | 24 | *i*P | Pg | 05 34 13.1 | +0.5 |
| KELT | | | | *e*S | Sg | 05 34 16.1 | +0.3 |
| KELT | | | | IAML | | 05 34 16.8 | |
| | comp=Z,140nm,0.3s | | | | | | |
| KELT | Kelkit | 0.23 | 24 | *i*P | Pg | 05 34 13.1 | +0.5 |
| KELT | | | | *i*S | Sg | 05 34 16.3 | +0.5 |
| KELT | Kelkit | 0.23 | 24 | P | Pg | 05 34 13.1 | +0.5 |
| KELT | | | | S | Sg | 05 34 16.3 | +0.5 |
| ERZN | Erzincan | 0.57 | 127 | *e*PG | Pg | 05 34 19.2 | +0.2 |
| REFA | Refahiye_ERZ | 0.61 | 208 | *i*P | Pg | 05 34 14.9 | -4.7 |
| REFA | | | | *i*S | Sg | 05 34 19.8 | -7.7 |
| SUSE | Susehri | 0.76 | 291 | *i*P | Pg | 05 34 23.5 | +0.9 |
| SUSE | | | | *i*S | Sb | 05 34 34.7 | -0.1 |
| SUSE | Susehri | 0.76 | 291 | P | Pg | 05 34 23.5 | +0.9 |
| SUSE | | | | S | Sb | 05 34 34.7 | -0.1 |
| KEMA | Kemaliye | 0.83 | 217 | *i*P | Pg | 05 34 24.1 | +0.3 |
| KEMA | | | | *e*S | Sn | 05 34 38.5 | -0.7 |
| KEMA | | | | IAML | | 05 34 40.8 | |
| | comp=Z,5.7nm,0.7s | | | | | | |
| KEMA | Kemaliye | 0.83 | 217 | *i*P | Pg | 05 34 23.9 | +0.1 |
| KEMA | | | | *i*S | Sg | 05 34 36.3 | +1.7 |
| KEMA | Kemaliye | 0.83 | 217 | P | Pg | 05 34 23.9 | +0.1 |
| KEMA | | | | S | Sg | 05 34 36.3 | +1.7 |
| TNCL | Tunceli-Merkez | 0.88 | 159 | *e*P | Pn | 05 34 27.1 | -0.1 |
| TNCL | | | | IAML | | 05 34 41.5 | |
| | comp=Z,8.5nm,0.4s | | | | | | |
| TNCL | Tunceli-Merkez | 0.88 | 159 | *i*P | Pg | 05 34 25.2 | +0.4 |
| TNCL | Tunceli-Merkez | 0.88 | 159 | P | Pg | 05 34 25.2 | +0.4 |
| ESPY | Espiye-Giresun | 1.03 | 343 | *e*PG | Pg | 05 34 27.4 | -0.3 |
| ESPY | | | | *e*SG | Sb | 05 34 41.8 | -0.5 |
| ESPY | Espiye-Giresun | 1.03 | 343 | *e*Pg | Pg | 05 34 27.4 | -0.3 |
| ESPY | | | | *e*Sg | Sb | 05 34 41.8 | -0.5 |
| CUZAR | Zara_SIVAS | 1.05 | 268 | *i*P | Pg | 05 34 28.3 | +0.2 |
| CUZAR | | | | *i*S | Sn | 05 34 44.7 | -0.1 |
| CUZAR | Zara_SIVAS | 1.05 | 268 | P | Pg | 05 34 28.3 | +0.2 |
| CUZAR | | | | S | Sn | 05 34 44.7 | -0.1 |
| KOPT | Kop Dagi | 1.05 | 85 | *e*P | Pn | 05 34 29.1 | -0.8 |
| KOPT | | | | *e*S | Sn | 05 34 46.6 | +1.5 |
| PTK | Pertek | 1.06 | 169 | *e*PG | Pg | 05 34 28.6 | +0.3 |
| PTK | | | | *e*SG | Sb | 05 34 44.0 | +0.7 |
| PTK | Pertek | 1.06 | 169 | *e*Pg | Pg | 05 34 28.6 | +0.3 |
| PTK | | | | *e*Sg | Sb | 05 34 44.0 | +0.7 |
| KTUT | Trabzon | 1.16 | 25 | *e*PN | Pn | 05 34 30.5 | -0.5 |
| KTUT | Trabzon | 1.16 | 25 | *e*Pn | Pn | 05 34 30.5 | -0.5 |
| GRSN | GIRESUNGRSN | 1.19 | 327 | *i*P | Pg | 05 34 30.3 | -0.5 |
| GRSN | GIRESUNGRSN | 1.19 | 327 | P | Pg | 05 34 30.3 | -0.5 |
| HEKM | Malatya_Hekimh | 1.39 | 221 | *i*P | Pg | 05 34 35.7 | +1.1 |
| HEKM | Malatya_Hekimh | 1.39 | 221 | P | Pg | 05 34 35.7 | +1.1 |
| CUKAN | kangal_SIVAS | 1.43 | 245 | *i*P | Pb | 05 34 35.5 | +0.3 |
| CUKAN | kangal_SIVAS | 1.43 | 245 | P | Pb | 05 34 35.5 | +0.3 |
| ELZG | Elazig | 1.44 | 185 | *i*P | Pb | 05 34 35.4 | 0.0 |
| ELZG | Elazig | 1.44 | 185 | P | Pb | 05 34 35.4 | 0.0 |
| BINT | Bingol | 1.49 | 135 | *e*Pn | Pb | 05 34 36.3 | 0.0 |
| BNGB | Bing¶ll | 1.52 | 128 | *e*PN | Pb | 05 34 36.3 | -0.5 |
| SVSK | Karacayir | 1.64 | 270 | *e*PN | Pn | 05 34 38.0 | +0.4 |
| SVSK | Karacayir | 1.64 | 270 | *e*Pn | Pn | 05 34 38.0 | +0.4 |
| MALT | Malatya | 1.71 | 199 | *e*PN | Pn | 05 34 39.3 | +0.7 |
| MALT | Malatya | 1.71 | 199 | *e*Pn | Pn | 05 34 39.3 | +0.7 |

*ATA **12** 05:37:05.1±0.7, 38.65N×43.19E, h26km±6km, ML2.9, MW2.9*
*ISK **12** 05:37:05.3, 38.68N×43.11E, h5km, ML2.3*
*CSEM **12** 05:37:06.5±0.3, 38.69N×43.13E, h5km, ML2.3, Error ellipse: s-maj=6.2km s-min=5.3km az=38.0*
*DDA **12** 05:37:06.3, 38.64N×43.17E, h7km, Ml2.8*
*ISCJB **12** 05:37:07.1±0.5, 38.65N±0.03×43.16E±0.04, h18km±8km, Error ellipse: s-maj=5.9km s-min=5.7km az=15.1*

**ISC 12 05:37:07.1±0.9, 38.67N±0.03×43.15E±0.03, h17km±7km, n28, σ1ᵖ04/38, 2D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.20 | 111 | *e*PG | Pg | 05 37 11.5 | -0.6 |
| VANB | | | | *e*SG | Sg | 05 37 16.1 | +0.7 |
| VANB | Van | 0.20 | 111 | *e*Pg | Pg | 05 37 11.5 | -0.6 |
| VANB | | | | *e*Sg | Sg | 05 37 16.1 | +0.7 |
| ADCV | BITLIS_Adilcev | 0.36 | 293 | *i*P | Pg | 05 37 14.1 | -0.6 |
| ADCV | | | | *i*S | Sb | 05 37 20.8 | +0.1 |
| ADCV | BITLIS_Adilcev | 0.36 | 293 | P | Pg | 05 37 14.1 | -0.6 |
| ADCV | | | | S | Sb | 05 37 20.8 | +0.1 |
| GEVA | Gevas | 0.36 | 191 | ‖*i*P | Pg | 05 37 13.3 | -1.3 |
| GEVA | | | | IAML | | 05 37 14.0 | |
| | comp=Z,111nm,0.2s | | | | | | |
| GEVA | | | | *e*S | Sb | 05 37 20.2 | -0.6 |
| GEVA | Gevas | 0.36 | 191 | *i*P | Pg | 05 37 13.4 | -1.3 |
| GEVA | Gevas | 0.36 | 191 | P | Pg | 05 37 13.4 | -1.3 |
| VMUR | Van-Muradiye | 0.46 | 46 | *i*P | Pg | 05 37 15.7 | -0.8 |
| VMUR | | | | *i*S | Sb | 05 37 23.6 | 0.0 |
| VMUR | Van-Muradiye | 0.46 | 46 | P | Pg | 05 37 15.7 | -0.8 |
| VMUR | | | | S | Sb | 05 37 23.6 | 0.0 |
| CLDR | Caldiran | 0.77 | 51 | *e*PG | Pg | 05 37 21.0 | -1.2 |
| CLDR | | | | *e*SG | Sb | 05 37 32.3 | -0.1 |
| CLDR | Caldiran | 0.77 | 51 | *i*P | Pg | 05 37 20.9 | -1.2 |
| CLDR | Caldiran | 0.77 | 51 | *e*Pg | Pg | 05 37 21.0 | -1.2 |
| CLDR | | | | *e*Sg | Sb | 05 37 32.3 | -0.1 |
| TUTA | Tutak | 0.78 | 341 | ‖*i*P | Pg | 05 37 21.1 | -1.3 |
| TUTA | | | | IAML | | 05 37 23.6 | |
| | comp=Z,61nm,0.2s | | | | | | |
| TUTA | Tutak | 0.78 | 341 | *i*P | Pg | 05 37 21.1 | -1.3 |
| TUTA | Tutak | 0.78 | 341 | P | Pg | 05 37 21.1 | -1.3 |
| BASK | Baskale_VAN | 0.91 | 132 | *e*P | Pg | 05 37 22.8 | -2.1 |
| BASK | | | | IAML | | 05 37 51.5 | |
| | comp=Z,57nm,0.3s | | | | | | |
| AGRB | Hanur-Agry | 0.91 | 352 | *e*PG | Pg | 05 37 23.1 | -1.9 |
| AGRB | Hanur-Agry | 0.91 | 352 | *e*Pg | Pg | 05 37 23.1 | -1.9 |
| EKAR | Karaco

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **AS31** | **Alice Springs** | **18.98** | **198** | *eP* | **Pn** | **06 05 44.6** | **+3.7** |
| | 1.9nm,0.4s | | | | | | |
| **ASAR** | **Alice Springs** | **18.98** | **198** | P | **Pn** | **06 05 44.0** | **+3.1** |
| | 0.7nm,0.3s,baz=29,slow=8.6,SNR=46 | | | | | | |
| ASAR | | | | S | **Sn** | **06 09 11.8** | **-0.7** |
| | 0.1nm,0.3s,baz=6.4,slow=29,SNR=3.2 | | | | | | |
| **STKA** | **Stephens Creek** | **26.15** | **178** | P | **P** | **06 06 56.9** | **+4.4** |
| | 1.1nm,0.5s,baz=339,slow=8.6,SNR=2.9 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **47.30** | **301** | P | **P** | **06 09 51.8** | **-0.2** |
| | 1.5nm,0.6s,baz=128,slow=7.0,SNR=4.8 | | | | | | |
| **KLR** | **Kul'dur** | **55.13** | **353** | P | **P** | **06 10 49.5** | **-0.7** |
| | 0.1nm,0.6s,baz=173,slow=5.3,SNR=4.9 | | | | | | |
| **MK32** | **Makanchi Array** | **73.06** | **322** | *eP* | **P** | **06 12 48.7** | **+0.6** |
| **MKAR** | **Makanchi Array** | **73.06** | **322** | P | **P** | **06 12 48.7** | **+0.6** |
| | 2.4nm,0.8s,baz=121,slow=6.9,SNR=10 | | | | | | |
| **ILAR** | **Eielson Array** | **87.80** | **24** | P | **P** | **06 14 04.4** | **-2.3** |
| | 0.4nm,0.8s,baz=270,slow=5.4,SNR=4.7 | | | | | | |
| **ILB** | **Eielson Array** | **87.80** | **24** | *eP* | | **06 14 06.8** | **+0.1** |
| **DBIC** | **Dimbokro** | **145.37** | **274** | PKPbc | **PKPbc** | **06 20 56.5** | **-0.2** |
| | 2.9nm,0.9s,baz=23,slow=0.7,SNR=4.4 | | | | | | |

*ISCJB* ***12*** *06:21:47.5±1.1, 13.98S±0.07×166.6E±0.3, h43km, mb3.8/6, Error ellipse: s-maj=35.1km s-min=10.3km az=176.9*
*IDC* ***12*** *06:21:49.3±5.5, 13.92S×166.69E, h46km±58km, mb3.6/6, mb1 3.7/7, mb1mx3.5/26, mbtmp3.8/7, ML3.3/1, Error ellipse: s-maj=46.7km s-min=33.0km az=125.0*
**ISC 12 06:21:49.0±1.1, 13.89S±0.09×166.7E±0.3, h43km, n8, σ1§09/9, mb3.8/6, Vanuatu Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DZM** | **Mont Dzumac** | **8.14** | **181** | P | **Pn** | **06 23 45.2** | **+0.5** |
| | 0.4nm,0.3s,baz=14,slow=19,SNR=5.8 | | | | | | |
| DZM | | | | S | **Sn** | **06 25 14.7** | **-0.9** |
| | 0.2nm,0.3s,baz=152,slow=18,SNR=1.6 | | | | | | |
| **STKA** | **Stephens Creek** | **29.11** | **228** | P | **P** | **06 27 46.9** | **+1.1** |
| | 1.6nm,0.8s,baz=52,slow=10,SNR=3.1 | | | | | | |
| **ASAR** | **Alice Springs** | **32.44** | **248** | P | **P** | **06 28 14.7** | **-0.7** |
| | 0.3nm,0.6s,baz=76,slow=9.0,SNR=5.5 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **56.90** | **333** | P | **P** | **06 31 28.7** | **-0.9** |
| | 0.9nm,0.4s,baz=153,slow=8.2,SNR=3.3 | | | | | | |
| **SONM** | **Songino Array** | **81.48** | **324** | P | **P** | **06 34 02.8** | **+0.9** |
| | 0.3nm,0.6s,baz=122,slow=5.2,SNR=2.7 | | | | | | |
| **ILAR** | **Eielson Array** | **85.91** | **18** | P | **P** | **06 34 24.5** | **+0.6** |
| | 0.3nm,0.5s,baz=241,slow=4.6,SNR=12 | | | | | | |
| **MKAR** | **Makanchi Array** | **96.20** | **317** | P | **P** | **06 35 12.6** | **0.0** |
| | 0.9nm,1.0s,baz=87,slow=7.8,SNR=3.5 | | | | | | |
| **ARCES** | **ARCESS Array B** | **119.30** | **345** | PKP | **PKPdf** | **06 40 31.4** | **-1.6** |
| | 2.9nm,1.0s,baz=68,slow=2.0,SNR=8.7 | | | | | | |

**IDC 12 06:29:00.6±1.7, 4.07N×126.72E, h0km, mb3.5/4, mb1 3.6/4, mb1mx3.4/31, mbtmp3.5/4, Error ellipse: s-maj=165.3km s-min=21.9km az=68.0, Talaud Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **25.01** | **163** | P | P | 06 34 26.6 | +0.2 |
| | 1.1nm,0.6s,baz=343,slow=11,SNR=2.3 | | | | | | |
| **ASAR** | **Alice Springs** | **28.45** | **166** | P | P | 06 34 57.0 | -0.4 |
| | 0.2nm,0.5s,baz=348,slow=7.3,SNR=4.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **57.27** | **325** | P | P | 06 38 49.3 | -0.8 |
| | 0.3nm,0.5s,baz=117,slow=8.9,SNR=6.8 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **60.28** | **333** | P | P | 06 39 11.5 | +0.7 |
| | 0.3nm,0.5s,baz=111,slow=7.9,SNR=2.6 | | | | | | |

**IDC 12 06:39:51.1±2.2, 4.26N×127.04E, h0km, mb3.5/3, mb1 3.7/3, mb1mx3.4/24, mbtmp3.5/3, MS3.7/1, Ms1 3.7/1, ms1mx2.8/24, Error ellipse: s-maj=162.3km s-min=27.6km az=66.0, Talaud Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **25.10** | **164** | P | P | 06 45 18.0 | +0.2 |
| | 1.3nm,0.5s,baz=343,slow=11,SNR=7.9 | | | | | | |
| **ASAR** | **Alice Springs** | **28.55** | **167** | P | P | 06 45 48.5 | -0.4 |
| | 0.3nm,0.5s,baz=355,slow=7.9,SNR=5.9 | | | | | | |
| **SONM** | **Songino Array** | **46.90** | **341** | LR | LR | 07 08 24.3 | |
| | comp=Z,93nm,20.2s,baz=358,slow=36 | | | | | | |
| **MKAR** | **Makanchi Array** | **57.30** | **325** | P | P | 06 49 40.9 | 0.0 |
| | 0.3nm,0.5s,baz=123,slow=7.3,SNR=4.4 | | | | | | |

*ECX* ***12*** *06:52:36.9±0.5, 32.22N×115.30W, h5km, MD2.5, ML2.7*
*MEX* ***12*** *06:52:37.7±0.4, 32.29N×115.22W, h15km±67km, MD3.7*
**ISC 12 06:52:35.0±1.1, 32.27N±0.04×115.25W±0.05, h32km±8km, n16, σ0.§74/23, 9C-1D, California-Baja California border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MBIG** | **Mexicali** | **0.14** | **17** | *eP* | **Pb** | **06 52 40.5** | **-0.3** |
| MBIG | | | | *eS* | **Sn** | **06 52 42.9** | **-1.8** |
| **MBIG** | **Mexicali** | **0.14** | **17** | ↑*eP* | **Pb** | **06 52 40.9** | **0.0** |
| **CPBX** | **Cerro Prieto** | **0.16** | **342** | ↑*eP* | **Pb** | **06 52 40.5** | **-0.5** |
| CPBX | | | | *eS* | **Sn** | **06 52 44.0** | **-1.0** |
| CPBX | | | | ↑*e* | | 06 52 45.5 | |
| CPBX | | | | IAML | | 06 52 45.5 | |
| | comp=E,5μm,0.2s | | | | | | |
| **EMSC** | **East Mesa** | **0.52** | **25** | ↑*iP* | **Pn** | **06 52 47.2** | **+1.1** |
| **COA** | **Coachella** | **0.60** | **10** | *eP* | **Pn** | **06 52 48.5** | **+1.1** |
| **WESC** | **Westside Schoo** | **0.64** | **320** | *eP* | **Pn** | **06 52 48.6** | **+0.8** |
| **YUH** | **Yuha Desert** | **0.69** | **304** | ↑*iP* | **Pb** | **06 52 48.5** | **0.0** |
| **RMX** | **La Rumorosa** | **0.78** | **296** | ↑*eP* | **Pb** | **06 52 49.6** | **-0.5** |
| RMX | | | | *eS* | **Sn** | **06 52 59.8** | **-0.7** |
| **IKP** | **In-Ko-Pah, Jac** | **0.82** | **298** | ↑*iP* | **Pb** | **06 52 50.9** | **+0.1** |
| **CBX** | **Cerro Bola** | **1.20** | **273** | *eP* | **Pb** | **06 52 56.8** | **-0.5** |
| CBX | | | | *eS* | **Sn** | **06 53 10.6** | **-0.3** |
| **CBX** | **Cerro Bola** | **1.20** | **273** | ↑*eP* | **Pb** | **06 52 56.8** | **-0.5** |
| CBX | | | | *eS* | **Sb** | **06 53 12.8** | **+0.4** |
| CBX | | | | IAML | | 06 53 14.1 | |
| | comp=N,201nm,0.2s | | | | | | |
| **TJIG** | **Tijuana** | **1.22** | **278** | *eP* | **Pb** | **06 52 56.9** | **-0.6** |
| TJIG | | | | *eS* | **Sn** | **06 53 11.1** | **-0.1** |
| **TJIG** | **Tijuana** | **1.22** | **278** | ↑*eP* | **Pb** | **06 52 56.9** | **-0.6** |
| **SPIG** | **San Pedro Mart** | **1.23** | **189** | ↓*eP* | **Pb** | **06 52 56.9** | **+0.6** |
| SPIG | | | | *eS* | **Sb** | **06 53 13.5** | **0.0** |
| **SPX** | **San Pedro Mart** | **1.23** | **189** | ↓*eP* | **Pb** | **06 52 57.6** | **-0.3** |
| **BAR** | **Barrett** | **1.27** | **289** | *eP* | **Pb** | **06 52 58.0** | **-0.4** |

**IDC 12 06:57:52.4±1.3, 1.87N×127.45E, h0km, mb3.8/4, mb1 3.9/5, mb1mx3.4/40, mbtmp3.8/5, ML3.7/1, MS3.5/1, Ms1 3.5/1, ms1mx2.8/34, Error ellipse: s-maj=50.7km s-min=21.5km az=63.0, Halmahera**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **FITZ** | **Fitzroy Crossi** | **19.92** | **185** | P | P | 07 02 26.3 | +0.5 |
| | 0.2nm,0.3s,baz=10,slow=9.8,SNR=6.7 | | | | | | |
| **PMG** | **Port Moresby** | **22.61** | **324** | P | P | 07 02 54.9 | 0.0 |
| | 5.3nm,0.3s,baz=277,slow=8.1,SNR=3.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **22.70** | **163** | P | P | 07 02 56.3 | +0.4 |
| | 0.9nm,0.4s,baz=341,slow=10,SNR=8.7 | | | | | | |
| **ASAR** | **Alice Springs** | **26.14** | **166** | P | P | 07 03 27.6 | -0.9 |
| | 0.3nm,0.5s,baz=349,slow=7.6,SNR=5.8 | | | | | | |
| **HNR** | **Honiara** | **34.27** | **110** | LR | LR | 07 17 36.7 | |
| | comp=Z,67nm,19.0s,baz=211,slow=35 | | | | | | |
| **MKAR** | **Makanchi Array** | **59.48** | **326** | P | P | 07 07 57.4 | +0.1 |
| | 0.7nm,0.4s,baz=118,slow=7.7,SNR=17 | | | | | | |

*ATH* ***12*** *07:15:48.7, 40.06N×21.55E, h13km±5km, ML1.9/6, Error ellipse: s-maj=5.1km s-min=1.0km az=258.0*
*CSEM* ***12*** *07:15:48.9±0.2, 40.07N×21.53E, h1km, ML1.8, Error ellipse: s-maj=3.8km s-min=3.2km az=69.0, Suspected Mining explosion.*
**THE 12 07:15:48.2, 40.10N×21.52E, h1km±1km, ML1.8/7, Error ellipse: s-maj=1.2km s-min=0.6km az=228.0, Greece**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KPRO** | **Kipourio** | **0.19** | **220** | P | Pg | 07 15 52.4 | +0.6 |
| KPRO | | | | S | Sg | 07 15 55.5 | +1.3 |
| KPRO | | | | AML | AML | 07 15 56.0 | |
| | comp=N,3033μm,0.2s | | | | | | |
| KPRO | | | | AML | AML | 07 15 58.2 | |
| | comp=E,2520μm,0.3s | | | | | | |
| **KPRO** | **Kipourio** | **0.19** | **220** | P | Pg | 07 15 52.5 | +0.8 |
| **KPRO** | **Kipourio** | **0.19** | **220** | P | Pg | 07 15 52.5 | +0.7 |
| **KPRO** | **Kipourio** | **0.19** | **220** | P | Pg | 07 15 52.6 | +0.8 |
| KPRO | | | | S | Sg | 07 15 55.5 | +1.3 |
| **KZN** | **Kozani** | **0.28** | **43** | P | Pg | 07 15 54.7 | +1.0 |
| KZN | | | | S | Sb | 07 15 59.7 | -1.8 |
| KZN | | | | AML | AML | 07 16 00.1 | |
| | comp=E,664μm,0.2s | | | | | | |
| KZN | | | | AML | AML | 07 16 02.2 | |
| | comp=N,572μm,0.3s | | | | | | |
| **KZN** | **Kozani** | **0.28** | **43** | P | Pg | 07 15 54.8 | +1.1 |
| **KZN** | **Kozani** | **0.28** | **43** | P | Pg | 07 15 54.8 | +1.1 |
| KZN | | | | S | Sb | 07 15 59.9 | -1.6 |
| **KZN** | **Kozani** | **0.28** | **43** | P | Pg | 07 15 54.8 | +1.1 |
| KZN | | | | S | Sb | 07 15 59.9 | -1.6 |
| **PENT** | **Pentalofos** | **0.31** | **289** | P | Pg | 07 15 54.9 | +0.8 |
| PENT | | | | S | Sb | 07 16 01.4 | -0.8 |
| PENT | | | | AML | AML | 07 16 05.0 | |
| | comp=E,608μm,0.4s | | | | | | |
| PENT | | | | AML | AML | 07 16 06.7 | |
| | comp=N,627μm,0.4s | | | | | | |
| **PENT** | **Pentalofos** | **0.31** | **289** | P | Pb | 07 15 55.4 | -1.2 |
| **PENT** | **Pentalofos** | **0.31** | **289** | P | Pb | 07 15 55.4 | -1.2 |
| PENT | | | | S | Sb | 07 16 00.8 | -1.4 |
| **PENT** | **Pentalofos** | **0.31** | **289** | P | Pb | 07 15 55.4 | -1.2 |
| PENT | | | | S | Sb | 07 16 00.8 | -1.4 |
| **NEST** | **Nestorio** | **0.48** | **311** | P | Pb | 07 15 58.9 | -0.6 |
| NEST | | | | S | Sb | 07 16 07.7 | +0.5 |
| NEST | | | | AML | AML | 07 16 11.3 | |
| | comp=N,274μm,0.7s | | | | | | |
| NEST | | | | AML | AML | 07 16 14.8 | |
| | comp=E,327μm,0.5s | | | | | | |
| **NEST** | **Nestorio** | **0.48** | **311** | P | Pb | 07 15 59.2 | -0.3 |
| **NEST** | **Nestorio** | **0.48** | **311** | P | Pb | 07 15 59.2 | -0.3 |
| NEST | | | | S | Sb | 07 16 06.4 | -0.8 |
| **NEST** | **Nestorio** | **0.48** | **311** | P | Pb | 07 15 58.7 | -0.8 |
| NEST | | | | S | Sb | 07 16 06.4 | -0.8 |
| **THL** | **Klokotos Trika** | **0.66** | **144** | P | Pg | 07 16 00.6 | -0.1 |
| THL | | | | S | Sg | 07 16 08.4 | -0.8 |
| THL | | | | AML | AML | 07 16 13.7 | |
| | comp=E,119μm,0.4s | | | | | | |
| THL | | | | AML | AML | 07 16 14.8 | |
| | comp=N,114μm,0.3s | | | | | | |
| **THL** | **Klokotos Trika** | **0.66** | **144** | P | Pg | 07 16 01.1 | +0.4 |
| **THL** | **Klokotos Trika** | **0.66** | **144** | P | Pg | 07 16 01.1 | +0.4 |
| **FNA** | **Florina** | **0.69** | **351** | P | Pg | 07 16 02.1 | +0.6 |
| FNA | | | | S | Sg | 07 16 11.4 | +0.9 |
| FNA | | | | AML | AML | 07 16 13.9 | |
| | comp=E,199μm,0.2s | | | | | | |
| FNA | | | | AML | AML | 07 16 15.8 | |
| | comp=N,166μm,0.5s | | | | | | |
| **FNA** | **Florina** | **0.69** | **351** | P | Pg | 07 16 02.1 | +0.6 |
| **FNA** | **Florina** | **0.69** | **351** | P | Pg | 07 16 02.1 | +0.6 |
| FNA | | | | S | Sb | 07 16 12.9 | -0.4 |
| **FNA** | **Florina** | **0.69** | **351** | P | Pg | 07 16 02.3 | +0.8 |
| FNA | | | | S | Sb | 07 16 12.9 | -0.4 |
| **LIT** | **Litokhoron** | **0.74** | **89** | P | Pb | 07 16 03.4 | -0.6 |
| **LIT** | **Litokhoron** | **0.74** | **89** | P | Pg | 07 16 02.9 | +0.4 |
| **LIT** | **Litokhoron** | **0.74** | **89** | P | Pg | 07 16 02.9 | +0.4 |
| LIT | | | | S | Sb | 07 16 15.0 | +0.3 |
| **LIT** | **Litokhoron** | **0.74** | **89** | P | Pg | 07 16 02.8 | +0.3 |
| LIT | | | | S | Sb | 07 16 15.0 | +0.3 |
| **DSL** | **Palaion Diasel** | **1.02** | **199** | P | Pb | 07 16 08.2 | -0.4 |
| **DSL** | **Palaion Diasel** | **1.02** | **199** | P | Pb | 07 16 08.2 | -0.4 |
| **GRG** | **Griva** | **1.09** | **38** | P | Pb | 07 16 10.1 | +0.2 |
| **GRG** | **Griva** | **1.09** | **38** | P | Pb | 07 16 10.3 | +0.4 |
| **GRG** | **Griva** | **1.09** | **38** | P | Pn | 07 16 10.3 | -0.4 |
| **EVR** | **Evrytania** | **1.20** | **169** | P | Pg | 07 16 10.5 | -0.7 |
| **EVR** | **Evrytania** | **1.20** | **169** | P | Pg | 07 16 10.1 | -1.1 |
| **EVR** | **Evrytania** | **1.20** | **169** | P | Pg | 07 16 10.1 | -1.1 |
| **AGG** | **Agios Georgios** | **1.24** | **149** | P | Pn | 07 16 12.9 | +0.1 |
| **AGG** | **Agios Georgios** | **1.24** | **149** | P | Pb | 07 16 12.6 | +0.1 |
| **AGG** | **Agios Georgios** | **1.24** | **149** | P | Pb | 07 16 12.6 | +0.1 |
| AGG | | | | S | Sb | 07 16 29.6 | +0.6 |
| **AGG** | **Agios Georgios** | **1.24** | **149** | P | Pg | 07 16 11.2 | -0.8 |
| AGG | | | | S | Sb | 07 16 29.6 | +0.6 |
| **HORT** | **Hortiatis** | **1.31** | **67** | P | Pb | 07 16 13.5 | -0.2 |
| **HORT** | **Hortiatis** | **1.31** | **67** | P | Pn | 07 16 13.7 | 0.0 |
| **HORT** | **Hortiatis** | **1.31** | **67** | P | Pn | 07 16 13.7 | 0.0 |
| **KNT** | **Kendrikon** | **1.49** | **44** | P | Pb | 07 16 16.7 | -0.1 |
| **KNT** | **Kendrikon** | **1.49** | **44** | P | Pb | 07 16 16.7 | -0.1 |

*NNC* ***12*** *07:40:12.0±0.8, 50.01N×78.65E, h0km, mb3.4, mpv3.0, Error ellipse: s-maj=11.6km s-min=3.4km az=76.0, Suspected Mining explosion.*
**IDC 12 07:40:13.6±0.9, 50.08N×78.79E, h0km, mb1 3.0/3, mb1mx2.9/34, mbtmp3.0/3, ML2.8/3, 8C-5D, Error ellipse: s-maj=11.1km s-min=6.5km az=56.0, Eastern Kazakhstan**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KURBB** | **Kurchatov Arra** | **0.56** | **343** | Pg | Pg | 07 40 23.9 | -0.5 |
| | 4.1nm,0.3s,baz=166,slow=17,SNR=127 | | | | | | |
| KURBB | | | | Lg | Lg | 07 40 32.4 | |
| | 4.2nm,0.3s,baz=166,slow=31,SNR=34 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **0.56** | **343** | ↑P | Pg | 07 40 24.2 | -0.3 |
| | 31nm,0.3s | | | | | | |
| KURBB | | | | ↑S | Sg | 07 40 32.8 | +1.1 |
| | 158nm,0.8s | | | | | | |
| **KURK** | **Kurchatov** | **0.64** | **351** | ↑P | Pg | 07 40 25.5 | -0.4 |
| | 14nm,0.4s | | | | | | |
| KURK | | | | ↑S | Sb | 07 40 35.9 | -1.4 |
| | 29nm,0.7s | | | | | | |
| **MAKZ** | **Makanchi** | **3.91** | **146** | ↑Pg | Pb | 07 41 23.7 | +0.3 |
| | 7.4nm,1.1s | | | | | | |
| MAKZ | | | | ↑Lg | Lg | 07 42 15.2 | |
| | 5.9nm,0.7s | | | | | | |
| **MK31** | **Makanchi Array** | **4.03** | **143** | Pn | Pn | 07 41 16.4 | -0.2 |
| | 0.4nm,0.3s,baz=79,slow=18,SNR=42 | | | | | | |
| MK31 | | | | ↓Pg | Pb | 07 41 25.1 | -0.4 |
| | 1.5nm,0.4s,baz=333,slow=15,SNR=9.3 | | | | | | |
| MK31 | | | | ↓Sn | Sn | 07 42 03.9 | -0.7 |
| | 0.7nm,0.3s,baz=145,slow=41,SNR=4.5 | | | | | | |
| MK31 | | | | ↓Lg | Lg | 07 42 19.1 | |
| | 4.0nm,0.3s,baz=340,slow=27,SNR=15 | | | | | | |
| **MKAR** | **Makanchi Array** | **4.03** | **143** | Pn | Pn | 07 41 16.4 | -0.3 |
| | 0.6nm,0.3s,baz=325,slow=10.0,SNR=43 | | | | | | |
| MKAR | | | | Sn | Sn | 07 42 06.0 | +1.4 |
| | 1.3nm,0.3s,baz=326,slow=26,SNR=7.6 | | | | | | |
| MKAR | | | | Lg | Lg | 07 42 19.8 | |
| | 3.2nm,0.3s,baz=330,slow=28,SNR=14 | | | | | | |
| **I46RU** | **ZALESOVO INFRA** | **5.37** | **42** | *i* | | 08 12 40.0 | |
| | baz=222,slow=335,SNR=1.6 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **5.37** | **42** | Pn | Pn | 07 41 36.9 | +1.9 |
| | 1.1nm,0.3s,baz=230,slow=15,SNR=8.2 | | | | | | |
| ZALV | | | | Lg | Lg | 07 43 06.3 | |
| | 0.6nm,0.3s,baz=229,slow=26,SNR=4.5 | | | | | | |
| **BVA0** | **Borovoye Array** | **6.01** | **303** | ↑Sn | Sn | 07 42 51.3 | -1.8 |
| | 1.8nm,0.6s | | | | | | |
| BVA0 | | | | ↓Lg | Lg | 07 43 20.4 | |
| | 1.9nm,0.6s | | | | | | |
| **BVAR** | **Borovoye Array** | **6.01** | **303** | Pn | Pn | 07 41 43.8 | +0.1 |
| | 0.4nm,0.3s,baz=113,slow=14,SNR=4.7 | | | | | | |
| BVAR | | | | Sn | Sn | 07 42 51.6 | -1.6 |
| | 0.8nm,0.3s,baz=113,slow=23,SNR=8.4 | | | | | | |
| **BRVK** | **Borovoye** | **6.08** | **303** | ↑Sn | Sn | 07 42 53.7 | -1.3 |
| | 1.4nm,0.6s | | | | | | |
| BRVK | | | | ↓Lg | Lg | 07 43 24.2 | |
| | 1.1nm,0.6s | | | | | | |

**IDC 12 07:52:18.1±2.2, 54.27N×85.98E, h0km, mb1 3.0/3, mb1mx2.8/38, mbtmp3.0/3, ML2.8/3, Error ellipse: s-maj=17.7km s-min=10.8km az=55.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **I46RU** | **ZALESOVO INFRA** | **0.76** | **245** | *i* | | 07 56 55.7 | |
| | baz=61,slow=335,SNR=11 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **0.76** | **245** | Pg | Pb | 07 52 33.5 | -0.6 |
| | 0.9nm,0.3s,baz=60,slow=17,SNR=5.4 | | | | | | |
| ZALV | | | | Lg | Lg | 07 52 42.8 | |
| | 3.6nm,0.3s,baz=64,slow=30,SNR=19 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **5.84** | **234** | Pn | Pn | 07 53 45.6 | -0.2 |
| | 0.1nm,0.3s,baz=52,slow=13,SNR=4.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **7.85** | **199** | Pn | Pn | 07 54 13.7 | +0.2 |
| | 0.2nm,0.3s,baz=15,slow=14,SNR=13 | | | | | | |
| **BVAR** | **Borovoye Array** | **9.34** | **269** | Pn | Pn | 07 54 34.6 | +0.7 |
| | 0.1nm,0.3s,baz=72,slow=12,SNR=2.1 | | | | | | |

**CASC 12 07:56:53.9±1.1, 10.34N×86.39W, h18km±9km, MD4.2, ML3.0, 3C, Off coast of Costa Rica**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VCR** | **Vista de Mar** | **0.78** | **106** | *eP* | Pb | 07 57 07.8 | -1.2 |
| VCR | | | | *eS* | Sg | 07 57 20.2 | +0.7 |
| **CRZ1** | **La Cruz** | **1.04** | **46** | ↑*iP* | Pb | 07 57 12.4 | -1.0 |
| **CONN** | **Concepcion** | **1.43** | **32** | *eP* | Pn | 07 57 18.3 | -0.7 |
| **MGAN** | **Managua** | **1.80** | **4** | *eP* | Pn | 07 57 23.7 | -0.4 |
| **COPN** | **Copaltepe** | **1.83** | **354** | *eP* | Pn | 07 57 24.7 | 0.0 |
| **APYN** | **Apoyeque** | **1.88** | **1** | *eP* | Pn | 07 57 25.2 | 0.0 |
| **CGA2** | **Cerro Gallo 2** | **1.92** | **100** | *eP* | Pn | 07 57 25.2 | -0.7 |
| **ACON** | **Acoyapa** | **2.01** | **36** | ↑*iP* | Pn | 07 57 26.1 | -0.9 |
| ACON | | | | *eS* | Sn | 07 57 52.5 | +0.8 |
| ACON | | | | AML | AML | 07 58 03.0 | |
| | comp=E,145nm,0.6s | | | | | | |
| **BRAN** | **Las Pilas** | **2.36** | **1** | *eP* | Pn | 07 57 24.5 | -7.4 |
| **QCR1** | **Quepos** | **2.37** | **112** | *eP* | Pb | 07 57 36.5 | +0.4 |
| **URSC** | **Urasca** | **2.62** | **101** | *eP* | Pn | 07 57 36.3 | +0.7 |
| **ESTN** | **Estel** | **2.74** | **0** | ↑*iP* | Pn | 07 57 37.1 | -0.1 |
| **ESPN** | **Las Esperanzas** | **2.75** | **48** | *eP* | Pn | 07 57 36.8 | -0.5 |

*ISCJB* ***12*** *08:13:37.8±0.5, 38.29N±0.02×20.56E±0.03, h11km±3km, mb3.8/6, Error ellipse: s-maj=4.0km s-min=2.7km az=43.3*
*CSEM* ***12*** *08:13:38.3±0.2, 38.30N×20.64E, h8km, ML3.9, Error ellipse: s-maj=4.3km s-min=2.7km az=43.0*
*ATH* ***12*** *08:13:38.1, 38.32N×20.61E, h11km±1km, ML3.7/21, Error ellipse: s-maj=1.7km s-min=1.0km az=76.0*
*THE* ***12*** *08:13:38.5, 38.28N×20.71E, h0km, ML3.7/12, Error ellipse: s-maj=1.0km s-min=0.7km az=284.0*
*IDC* ***12*** *08:13:41.0±4.8, 38.40N×20.62E, h33km±40km, mb3.6/6, mb1 3.6/9, mb1mx3.4/43, mbtmp3.7/9, ML2.7/3, Error ellipse: s-maj=23.8km s-min=19.2km az=143.0*
**ISC 12 08:13:38.1±0.8, 38.31N±0.02×20.66E±0.02, h12km±5km, n131, σ1§35/201, mb3.8/6, 7C-1D, Greece**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VLS** | **Valsamata** | **0.15** | **202** | P | **Pb** | **08 13 42.7** | **-0.1** |
| **VLS** | **Valsamata** | **0.15** | **202** | P | **Pg** | **08 13 42.0** | **+0.4** |
| VLS | | | | S | **Sg** | **08 13 44.5** | **+0.4** |
| **VLS** | **Valsamata** | **0.15** | **202** | P | **Pg** | **08 13 42.0** | **+0.4** |
| VLS | | | | S | **Sg** | **08 13 44.5** | **+0.4** |
| **KFL** | **Anninata** | **0.23** | **154** | P | **Pg** | **08 13 42.8** | **-0.2** |
| KFL | | | | S | **Sg** | **08 13 45.3** | **-0.9** |
| **PDO** | **Prodromos** | **0.50** | **55** | P | **Pb** | **08 13 49.5** | **+0.6** |
| PDO | | | | S | **Sb** | **08 13 57.2** | **+1.1** |
| PDO | | | | AML | AML | 08 13 57.6 | |
| | comp=E,27229μm,0.4s | | | | | | |
| PDO | | | | AML | AML | 08 14 02.9 | |
| | comp=N,32244μm,0.4s | | | | | | |
| **PDO** | **Prodromos** | **0.50** | **55** | P | **Pb** | **08 13 48.9** | **0.0** |
| PDO | | | | S | **Sb** | **08 13 56.3** | **+0.1** |
| **PDO** | **Prodromos** | **0.50** | **55** | P | **Pb** | **08 13 48.9** | **0.0** |
| PDO | | | | S | **Sb** | **08 13 57.0** | **+0.8** |
| **VTN** | **Vitineika** | **0.57** | **134** | P | **Pg** | **08 13 49.2** | **-0.1** |
| VTN | | | | S | **Sg** | **08 13 56.8** | **-0.1** |
| **VTN** | **Vitineika** | **0.57** | **134** | P | **Pg** | **08 13 49.2** | **-0.1** |
| VTN | | | | S | **Sg** | **08 13 56.8** | **-0.1** |
| **AXS** | **Araxos** | **0.57** | **101** | P | **Pb** | **08 13 50.4** | **+0.2** |
| AXS | | | | S | **Sb** | **08 13 57.6** | **-0.7** |
| **AXS** | **Araxos** | **0.57** | **101** | P | **Pb** | **08 13 50.4** | **+0.2** |
| AXS | | | | S | **Sb** | **08 13 58.6** | **+0.3** |
| **AXS** | **Araxos** | **0.57** | **101** | P | **Pg** | **08 13 49.5** | **+0.1** |
| AXS | | | | S | **Sb** | **08 13 58.6** | **+0.3** |
| **RLS** | **Riolos of Patr** | **0.68** | **112** | P | **Pg** | **08 13 51.2** | **-0.3** |
| RLS | | | | S | **Sb** | **08 14 01.1** | **-0.3** |
| RLS | | | | AML | AML | 08 14 03.5 | |
| | comp=E,16462μm,0.5s | | | | | | |
| RLS | | | | AML | AML | 08 14 07.8 | |
| | comp=N,5860μm,0.5s | | | | | | |
| **RLS** | **Riolos of Patr** | **0.68** | **112** | P | **Pg** | **08 13 51.3** | **-0.1** |
| RLS | | | | S | **Sb** | **08 14 01.1** | **-0.3** |
| **RLS** | **Riolos of Patr** | **0.68** | **112** | P | **Pg** | **08 13 51.3** | **-0.1** |
| RLS | | | | S | **Sb** | **08 14 02.1** | **+0.7** |
| **PVO** | **Paravola** | **0.74** | **66** | P | **Pn** | **08 13 53.9** | **-0.6** |
| PVO | | | | S | **Sn** | **08 14 05.8** | **+0.1** |
| PVO | | | | AML | AML | 08 14 06.2 | |
| | comp=E,87877μm,0.3s | | | | | | |
| PVO | | | | AML | AML | 08 14 06.3 | |
| | comp=N,38745μm,0.3s | | | | | | |
| **PVO** | **Paravola** | **0.74** | **66** | P | **Pb** | **08 13 53.3** | **+0.3** |
| PVO | | | | S | **Sb** | **08 14 04.0** | **+0.8** |
| **PVO** | **Paravola** | **0.74** | **66** | P | **Pb** | **08 13 53.3** | **+0.3** |
| PVO | | | | S | **Sn** | **08 14 04.8** | **-0.9** |
| **UPR** | **University Cam** | **0.89** | **92** | P | **Pg** | **08 13 55.7** | **+0.4** |
| UPR | | | | S | **Sn** | **08 14 09.0** | **-0.2** |
| **UPR** | **University Cam** | **0.89** | **92** | P | **Pg** | **08 13 55.7** | **+0.4** |
| UPR | | | | S | **Sn** | **08 14 09.0** | **-0.2** |
| **UPR** | **University Cam** | **0.89** | **92** | P | **Pg** | **08 13 55.6** | **+0.4** |
| UPR | | | | S | **Sn** | **08 14 09.2** | **0.0** |
| **DSL** | **Palaion Diasel** | **0.89** | **22** | P | **Pn** | **08 13 56.2** | **-0.3** |
| DSL | | | | S | **Sb** | **08 14 06.3** | **-1.1** |
| DSL | | | | AML | AML | 08 14 21.8 | |
| | comp=E,5919μm,0.6s | | | | | | |
| DSL | | | | AML | AML | 08 14 22.2 | |
| | comp=N,6375μm,0.8s | | | | | | |
| **DSL** | **Palaion Diasel** | **0.89** | **22** | P | **Pn** | **08 13 56.2** | **-0.3** |
| DSL | | | | S | **Sb** | **08 14 06.3** | **-1.1** |
| **DSL** | **Palaion Diasel** | **0.89** | **22** | P | **Pb** | **08 13 55.7** | **+0.2** |
| DSL | | | | S | **Sn** | **08 14 10.6** | **+1.3** |
| **DRO** | **Drossia** | **0.90** | **113** | P | **Pn** | **08 13 56.0** | **-0.7** |
| DRO | | | | S | **Sn** | **08 14 09.9** | **+0.2** |
| DRO | | | | AML | AML | 08 14 11

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| AMT | | | | S | Sn | 08 14 17.1 | +1.6 | |
| AMT | | | | AML | AML | 08 14 24.4 | | |
| | comp=N,8061μm,0.8s | | | | | | | |
| AMT | | | | AML | AML | 08 14 25.8 | | |
| | comp=E,9422μm,0.6s | | | | | | | |
| **AMT** | **Artemida-Makis** | **1.14** | **133** | P | **Pg** | **08 14 00.4** | **+0.3** | |
| AMT | | | | S | **Sn** | **08 14 17.1** | **+1.6** | |
| **KALE** | **Kalithea** | **1.17** | **86** | P | **Pg** | **08 14 01.2** | **+0.6** | |
| KALE | | | | S | **Sg** | **08 14 19.8** | **+4.0** | |
| KALE | | | | AML | AML | 08 14 23.1 | | |
| | comp=E,3843μm,0.4s | | | | | | | |
| KALE | | | | AML | AML | 08 14 26.5 | | |
| | comp=N,5444μm,0.5s | | | | | | | |
| **KALE** | **Kalithea** | **1.17** | **86** | P | **Pg** | **08 14 01.2** | **+0.6** | |
| KALE | | | | S | **Sg** | **08 14 16.6** | **+0.8** | |
| **KALE** | **Kalithea** | **1.17** | **86** | P | **Pn** | **08 13 59.4** | **-0.9** | |
| KALE | | | | S | **Sg** | **08 14 16.6** | **+0.8** | |
| **KLV** | **Kalavryta, Ach** | **1.21** | **102** | P | **Pn** | **08 13 59.4** | **-1.4** | |
| KLV | | | | S | **Sg** | **08 14 19.5** | **+2.5** | |
| KLV | | | | AML | AML | 08 14 19.9 | | |
| | comp=N,7484μm,0.4s | | | | | | | |
| KLV | | | | AML | AML | 08 14 20.9 | | |
| | comp=E,4408μm,0.2s | | | | | | | |
| **KLV** | **Kalavryta, Ach** | **1.21** | **102** | P | **Pn** | **08 14 00.5** | **-0.4** | |
| KLV | | | | S | **Sg** | **08 14 19.5** | **+2.5** | |
| **KLV** | **Kalavryta, Ach** | **1.21** | **102** | P | **Pn** | **08 14 00.5** | **-0.4** | |
| **SGD** | **Sagiada** | **1.34** | **346** | P | **Pg** | **08 14 03.9** | **0.0** | |
| **SGD** | **Sagiada** | **1.34** | **346** | P | **Pg** | **08 14 03.9** | **0.0** | |
| **JAN** | **Janina** | **1.35** | **6** | P | **Pb** | **08 14 03.5** | **+0.1** | |
| JAN | | | | S | **Sg** | **08 14 22.9** | **+1.2** | |
| **JAN** | **Janina** | **1.35** | **6** | P | **Pb** | **08 14 03.5** | **+0.1** | |
| JAN | | | | S | **Sg** | **08 14 22.9** | **+1.2** | |
| **GUR** | **Goura** | **1.38** | **105** | P | **Pg** | **08 14 05.5** | **+0.9** | |
| GUR | | | | S | **Sg** | **08 14 24.8** | **+2.3** | |
| GUR | | | | AML | AML | 08 14 26.5 | | |
| | comp=E,19864μm,0.3s | | | | | | | |
| GUR | | | | AML | AML | 08 14 26.6 | | |
| | comp=N,20542μm,0.3s | | | | | | | |
| **GUR** | **Goura** | **1.38** | **105** | P | **Pn** | **08 14 03.2** | **-0.1** | |
| GUR | | | | S | **Sg** | **08 14 24.8** | **+2.3** | |
| **GUR** | **Goura** | **1.38** | **105** | P | **Pn** | **08 14 03.2** | **-0.1** | |
| **AGG** | **Agios Georgios** | **1.49** | **61** | P | **Pg** | **08 14 06.6** | **-0.1** | |
| AGG | | | | S | **Sg** | **08 14 27.2** | **+1.2** | |
| AGG | | | | AML | AML | 08 14 38.5 | | |
| | comp=N,6559μm,0.7s | | | | | | | |
| AGG | | | | AML | AML | 08 14 39.2 | | |
| | comp=E,5936μm,1.2s | | | | | | | |
| **AGG** | **Agios Georgios** | **1.49** | **61** | P | **Pb** | **08 14 05.4** | **-0.3** | |
| AGG | | | | S | **Sg** | **08 14 27.2** | **+1.2** | |
| **AGG** | **Agios Georgios** | **1.49** | **61** | P | **Pb** | **08 14 05.4** | **-0.3** | |
| **ITM** | **Ithomi** | **1.51** | **138** | P | **Pb** | **08 14 05.1** | **-1.0** | |
| ITM | | | | S | **Sb** | **08 14 24.9** | **-0.4** | |
| **ITM** | **Ithomi** | **1.51** | **138** | P | **Pb** | **08 14 05.1** | **-1.0** | |
| ITM | | | | S | **Sb** | **08 14 24.9** | **-0.4** | |
| **THAL** | **Thalero** | **1.60** | **99** | P | **Pg** | **08 14 10.3** | **+1.5** | |
| THAL | | | | S | **Sg** | **08 14 32.4** | **+2.7** | |
| THAL | | | | AML | AML | 08 14 45.4 | | |
| | comp=N,5739μm,0.5s | | | | | | | |
| THAL | | | | AML | AML | 08 14 45.8 | | |
| | comp=E,9192μm,0.5s | | | | | | | |
| **THAL** | **Thalero** | **1.60** | **99** | P | **Pb** | **08 14 06.9** | **-0.8** | |
| THAL | | | | S | **Sg** | **08 14 32.4** | **+2.7** | |
| **THAL** | **Thalero** | **1.60** | **99** | P | **Pb** | **08 14 06.9** | **-0.8** | |
| **THL** | **Klokotos Trika** | **1.64** | **40** | P | **Pb** | **08 14 07.6** | **-0.7** | |
| **THL** | **Klokotos Trika** | **1.64** | **40** | P | **Pb** | **08 14 07.6** | **-0.7** | |
| **VLX** | **Vlachokerasia** | **1.65** | **124** | P | **Pb** | **08 14 08.6** | **-0.1** | |
| VLX | | | | S | **Sg** | **08 14 31.3** | **-0.1** | |
| VLX | | | | AML | AML | 08 14 41.0 | | |
| | comp=E,4999μm,0.6s | | | | | | | |
| VLX | | | | AML | AML | 08 14 47.7 | | |
| | comp=N,3321μm,0.7s | | | | | | | |
| **VLX** | **Vlachokerasia** | **1.65** | **124** | P | **Pn** | **08 14 07.0** | **-0.1** | |
| VLX | | | | S | **Sb** | **08 14 28.3** | **-1.2** | |
| **VLX** | **Vlachokerasia** | **1.65** | **124** | P | **Pn** | **08 14 07.0** | **-0.1** | |
| VLX | | | | S | **Sb** | **08 14 28.3** | **-1.2** | |
| **PYL** | **PYLOS** | **1.66** | **148** | P | **Pg** | **08 14 10.2** | **+0.3** | |
| PYL | | | | S | **Sg** | **08 14 34.2** | **+2.8** | |
| PYL | | | | AML | AML | 08 14 44.6 | | |
| | comp=E,1016μm,0.5s | | | | | | | |
| PYL | | | | AML | AML | 08 14 46.7 | | |
| | comp=N,1094μm,0.6s | | | | | | | |
| **PYL** | **PYLOS** | **1.66** | **148** | P | **Pb** | **08 14 07.5** | **-1.1** | |
| PYL | | | | S | **Sb** | **08 14 28.4** | **-1.0** | |
| **PYL** | **PYLOS** | **1.66** | **148** | P | **Pb** | **08 14 07.5** | **-1.1** | |
| PYL | | | | S | **Sb** | **08 14 28.4** | **-1.0** | |
| **MES2** | **Methoni** | **1.70** | **150** | P | **Pb** | **08 14 08.8** | **-0.5** | |
| MES2 | | | | S | **Sg** | **08 14 33.9** | **+1.0** | |
| MES2 | | | | AML | AML | 08 14 48.1 | | |
| | comp=N,2283μm,0.9s | | | | | | | |
| MES2 | | | | AML | AML | 08 14 52.8 | | |
| | comp=E,1566μm,1.1s | | | | | | | |
| **MES2** | **Methoni** | **1.70** | **150** | P | **Pb** | **08 14 08.9** | **-0.5** | |
| **PROD** | **Prodromos** | **1.76** | **91** | P | **Pg** | **08 14 12.4** | **+0.4** | |
| PROD | | | | S | **Sg** | **08 14 37.5** | **+2.6** | |
| PROD | | | | AML | AML | 08 14 40.8 | | |
| | comp=E,2410μm,0.8s | | | | | | | |
| PROD | | | | AML | AML | 08 14 43.2 | | |
| | comp=N,2683μm,0.7s | | | | | | | |
| **PROD** | **Prodromos** | **1.76** | **91** | P | **Pg** | **08 14 12.4** | **+0.4** | |
| **LTK** | **Loutraki** | **1.84** | **98** | P | **Pb** | **08 14 11.1** | **-0.6** | |
| **LTK** | **Loutraki** | **1.84** | **98** | P | **Pb** | **08 14 11.1** | **-0.6** | |
| **LOUT** | **Loutraki** | **1.85** | **99** | P | **Pb** | **08 14 11.9** | **-0.1** | |
| LOUT | | | | S | **Sg** | **08 14 41.5** | **+3.7** | |
| **LOUT** | **Loutraki** | **1.85** | **99** | P | **Pb** | **08 14 11.9** | **-0.1** | |
| **VIL2** | **Platees** | **2.06** | **92** | P | **Pb** | **08 14 15.3** | **-0.1** | |
| **SMIA** | **Simia** | **2.08** | **73** | P | **Pb** | **08 14 16.3** | **+0.5** | |
| **SMIA** | **Simia** | **2.08** | **73** | P | **Pn** | **08 14 13.1** | **+0.3** | |
| **SMIA** | **Simia** | **2.08** | **73** | P | **Pn** | **08 14 13.1** | **+0.3** | |
| **VILL** | **Villia** | **2.09** | **93** | P | **Pb** | **08 14 15.3** | **-0.8** | |
| **DID** | **Didima** | **2.19** | **111** | P | **Pb** | **08 14 17.0** | **-0.7** | |
| DID | | | | S | **Sb** | **08 14 45.8** | **+1.0** | |
| DID | | | | AML | AML | 08 14 56.6 | | |
| | comp=E,1377μm,0.4s | | | | | | | |
| DID | | | | AML | AML | 08 14 58.4 | | |
| | comp=N,2239μm,0.5s | | | | | | | |
| **DID** | **Didima** | **2.19** | **111** | P | **Pb** | **08 14 17.0** | **-0.7** | |
| DID | | | | S | **Sb** | **08 14 45.8** | **+1.0** | |
| **KYTH** | **Kithira** | **2.79** | **136** | P | **Pb** | **08 14 27.0** | **-1.0** | |
| **TIR** | **Tirane** | **3.09** | **349** | *i*P | **Pb** | **08 14 33.2** | **+0.1** | |
| **TIR** | **Tirane** | **3.09** | **349** | S | **Sb** | **08 15 08.5** | **-2.3** | |
| **TIR** | **Tirane** | **3.09** | **349** | S | **Sb** | **08 15 08.5** | **-2.3** | |
| **MASS** | **Massafra** | **3.57** | **312** | *e*Pn | **Pn** | **08 14 35.8** | **+2.4** | |
| **SG1** | **Sgolgore (BA)** | **3.98** | **311** | *e*Pn | **Pn** | **08 14 41.3** | **+2.3** | |
| **APE** | **Apeiranthos** | **4.06** | **106** | ⇓*i*P | **Pb** | **08 14 47.6** | **-2.0** | |
| **PDG** | **Podgorica** | **4.25** | **346** | ⇓*i*P | **Pb** | **08 14 49.0** | **-3.8** | |
| **PDG** | **Podgorica** | **4.25** | **346** | S | **Sn** | **08 15 35.2** | **+3.0** | |
| **PDG** | **Podgorica** | **4.25** | **346** | S | **Sn** | **08 15 35.2** | **+3.0** | |
| **IDI** | **Anoyia** | **4.54** | **130** | Pn | **Pn** | **08 14 47.4** | **+0.7** | |
| | comp=N,0.4nm,0.3s,baz=327,slow=17,SNR=2.1 | | | | | | | |
| IDI | | | | Sn | **Sn** | **08 15 41.9** | **+2.4** | |
| | comp=N,4.1nm,0.3s,baz=292,slow=22,SNR=5.6 | | | | | | | |
| **BARS** | **Barje** | **4.58** | **11** | *e*Pn | **Pn** | **08 14 48.1** | **+0.8** | |
| **VTS** | **Vitosha** | **4.70** | **24** | ⇑*i*P | Pn | 08 14 54.4 | +5.5 | |
| **VAE** | **Valguarnera** | **5.01** | **262** | Pn | **Pn** | **08 14 55.2** | **+2.0** | |
| | comp=N,0.9nm,0.3s,baz=94,slow=19,SNR=2.5 | | | | | | | |
| VAE | | | | Sn | **Sn** | **08 15 56.9** | **+5.7** | |
| | comp=N,5.4nm,0.3s,baz=24,slow=20,SNR=2.9 | | | | | | | |
| **STON** | **Ston** | **5.08** | **335** | *e*Pn | **Pn** | **08 14 54.0** | **-0.1** | |
| STON | | | | Sn | **Sn** | **08 15 50.4** | **-2.3** | |
| **STON** | **Ston** | **5.08** | **335** | *e*Pn | **Pn** | **08 14 53.9** | **-0.1** | |
| STON | | | | Sn | **Sn** | **08 15 50.3** | **-2.3** | |
| **BOVS** | **Bovan** | **5.38** | **8** | *e*Pn | **Pn** | **08 14 57.2** | **-0.9** | |
| **GRUS** | **Gruza** | **5.57** | **0** | *e*Pn | **Pn** | **08 15 01.0** | **+0.2** | |
| **TEKS** | **Tekeris** | **6.29** | **353** | *e*Pn | **Pn** | **08 15 11.0** | **+0.3** | |
| **UDBI** | **Udbina** | **7.22** | **331** | *e*Pn | **Pn** | **08 15 25.0** | **+1.5** | |
| **UDBI** | **Udbina** | **7.22** | **331** | *e*Pn | **Pn** | **08 15 24.9** | **+1.5** | |
| **NVLJ** | **Novalja** | **7.61** | **327** | *e*Pn | **Pn** | **08 15 28.6** | **-0.2** | |
| NVLJ | | | | Sn | **Sn** | **08 16 53.5** | **-1.4** | |
| **NVLJ** | **Novalja** | **7.61** | **327** | *e*Pn | **Pn** | **08 15 28.5** | **-0.2** | |
| **VOIR** | | **7.83** | **23** | ⇑*i*P | Pn | 08 15 39.5 | +7.5 | |
| **MLR** | **Muntele Rosu** | **8.18** | **27** | Pn | **Pn** | **08 15 40.6** | **+3.8** | |
| | comp=N,0.0nm,0.3s,baz=253,slow=10,SNR=4.4 | | | | | | | |
| **MLR** | **Muntele Rosu** | **8.18** | **27** | ⇑*i*P | **Pn** | **08 15 41.3** | **+4.5** | |
| **BOJS** | **Bojanci** | **8.24** | **332** | *i* Pn | **Pn** | **08 15 38.3** | **+0.9** | |
| BOJS | | | | *i* Sn | **Sn** | **08 17 08.4** | **-2.0** | |
| **VISS** | **Visnje** | **8.64** | **332** | *i* Pn | Pn | 08 15 49.0 | +6.0 | |
| VISS | | | | *i* Sn | **Sn** | **08 17 18.6** | **-1.8** | |
| **PLOR** | **Plostina** | **8.75** | **29** | ⇑*i*P | Pn | 08 15 49.4 | +4.9 | |
| **VRI** | **Vrinciaia** | **8.79** | **29** | ⇑*i*P | **Pn** | **08 15 48.6** | **+3.6** | |
| **SOKA** | **Soboth** | **9.33** | **335** | *e*Pn | **Pn** | **08 15 55.2** | **+2.7** | |
| | comp=N,2.7nm,0.6s | | | | | | | |
| **OBKA** | **Obir** | **9.35** | **333** | Pn | Pn | 08 15 59.1 | +6.3 | |
| | comp=N,3.8nm,0.6s | | | | | | | |
| OBKA | | | | *e*Sn | **Sn** | **08 17 36.1** | **-1.8** | |
| | comp=N,5.7nm,0.8s | | | | | | | |
| **BRTR** | **Keskin Array B** | **10.20** | **78** | Pn | Pn | 08 16 09.7 | +5.2 | |
| | comp=N,0.1nm,0.3s,baz=261,slow=13,SNR=4.8 | | | | | | | |
| **ABTA** | **Abfaltersbach** | **10.35** | **327** | Pn | **Pn** | **08 16 09.8** | **+3.4** | |
| | comp=N,3.9nm,0.8s | | | | | | | |
| ABTA | | | | Sn | **Sn** | **08 17 59.9** | **-2.4** | |
| | comp=N,6.6nm,0.8s | | | | | | | |
| **MOA** | **Molln** | **10.61** | **336** | Pn | Pn | 08 16 15.6 | +5.6 | |
| | comp=N,2.0nm,0.5s | | | | | | | |
| **FINES** | **FINESS Array B** | **23.40** | **7** | P | **P** | **08 18 44.7** | **-1.9** | |
| | comp=N,3.3nm,0.9s,baz=193,slow=7.6,SNR=6.2 | | | | | | | |
| **NOA** | **NORSAR Array B** | **23.51** | **348** | P | **P** | **08 18 46.9** | **-0.8** | |
| | comp=N,1.0nm,0.8s,baz=154,slow=9.3,SNR=3.5 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **30.20** | **219** | P | **P** | **08 19 48.8** | **+0.3** | |
| | comp=N,0.5nm,0.7s,baz=24,slow=9.5,SNR=3.6 | | | | | | | |
| **BVAR** | **Borovoye Array** | **36.95** | **50** | P | **P** | **08 20 47.1** | **+0.2** | |
| | comp=N,0.8nm,0.6s,baz=258,slow=7.2,SNR=3.6 | | | | | | | |
| **MKAR** | **Makanchi Array** | **45.14** | **59** | P | **P** | **08 21 54.1** | **-0.3** | |
| | comp=N,1.2nm,0.5s,baz=271,slow=8.2,SNR=7.9 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **45.52** | **48** | P | **P** | **08 21 56.8** | **-0.4** | |
| | comp=N,3.2nm,0.6s,baz=280,slow=8.2,SNR=4.4 | | | | | | | |
| **ASAR** | **Alice Springs** | **122.08** | **96** | PKP | **PKPdf** | **08 32 31.9** | **-1.0** | |
| | comp=N,0.2nm,0.7s,baz=285,slow=1.1,SNR=4.3 | | | | | | | |

**IDC 12 08:16:23.7±3.1, 53°.63N×90°.82E, h0km, mb1 3.4/3, mb1mx3.1/50, mbtmp3.4/3, ML2.7/3, 4C-4D, Error ellipse: s-maj=27.0km s-min=22.9km az=52.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **I46RU** | **ZALESOVO INFRA** | **3.57** | **277** | *i* | | 08 43 21.4 | |
| | baz=90,slow=326,SNR=1.7 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **3.57** | **277** | Pn | Pn | 08 17 20.9 | +0.6 |
| | 0.5nm,0.3s,baz=95,slow=15,SNR=19 | | | | | | |
| ZALV | | | | Lg | Lg | 08 18 16.9 | |
| | 3.4nm,0.3s,baz=91,slow=29,SNR=13 | | | | | | |
| **KURK** | **Kurchatov** | **8.05** | **254** | ⇑Pg | Sn | 08 19 55.1 | +1.7 |
| | 17nm,1.4s | | | | | | |
| KURK | | | | ⇓Lg | Lg | 08 20 42.8 | |
| | 62nm,0.9s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **8.14** | **253** | Pn | Pn | 08 18 22.9 | -0.1 |
| | 0.2nm,0.3s,baz=64,slow=15,SNR=13 | | | | | | |
| KURBB | | | | Sn | Sn | 08 19 53.9 | -1.8 |
| | 0.1nm,0.3s,baz=66,slow=26,SNR=7.0 | | | | | | |
| KURBB | | | | Lg | Lg | 08 20 41.5 | |
| | 0.1nm,0.3s,baz=67,slow=33,SNR=6.6 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **8.14** | **253** | ⇓Pg | Sn | 08 19 59.3 | +3.6 |
| | 26nm,1.1s,baz=64,slow=14 | | | | | | |
| KURBB | | | | ⇓Lg | Lg | 08 20 44.9 | |
| | 67nm,1.0s,baz=74,slow=31 | | | | | | |
| **MK31** | **Makanchi Array** | **8.76** | **222** | ⇑Pg | Sn | 08 20 14.3 | +3.3 |
| | 4.1nm,0.8s | | | | | | |
| MK31 | | | | ⇑Lg | Lg | 08 21 20.2 | |
| | 22nm,1.1s,baz=34,slow=27,SNR=3.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **8.76** | **222** | Pn | Pn | 08 18 32.2 | +0.7 |
| | 0.2nm,0.3s,baz=32,slow=12,SNR=10 | | | | | | |
| MKAR | | | | Sn | Sn | 08 20 10.4 | -0.5 |
| | 0.1nm,0.3s,baz=38,slow=26,SNR=2.7 | | | | | | |
| MKAR | | | | Lg | Lg | 08 20 59.7 | |
| | 0.1nm,0.3s,baz=36,slow=28,SNR=5.9 | | | | | | |
| **MAKZ** | **Makanchi** | **8.87** | **223** | ⇓Pg | Sn | 08 20 17.7 | +4.0 |
| | 11nm,1.3s | | | | | | |
| MAKZ | | | | ⇑Lg | Lg | 08 21 19.7 | |
| | 26nm,1.1s | | | | | | |
| **SONM** | **Songino Array** | **11.44** | **114** | Lg | Lg | 08 22 22.7 | |
| | 0.1nm,0.3s,baz=305,slow=28,SNR=12 | | | | | | |
| **BVAR** | **Borovoye Array** | **12.23** | **275** | Sn | Sn | 08 21 31.6 | -4.3 |
| | 0.2nm,0.3s,baz=69,slow=17,SNR=3.1 | | | | | | |

**IDC 12 08:39:29.3±2.6, 53°.77N×86°.96E, h0km, mb1 3.2/2, mb1mx2.9/34, mbtmp3.2/2, ML2.9/2, Error ellipse: s-maj=25.6km s-min=15.5km az=58.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **I46RU** | **ZALESOVO INFRA** | **1.28** | **279** | *i* | | 08 46 10.0 | |
| | baz=99,slow=337,SNR=3.4 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **1.28** | **279** | Pg | Pg | 08 39 53.1 | -0.7 |
| | 2.8nm,0.3s,baz=96,slow=18,SNR=15 | | | | | | |
| ZALV | | | | Lg | Lg | 08 40 11.1 | |
| | 2.4nm,0.3s,baz=95,slow=34,SNR=10 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **6.07** | **242** | Pn | Pn | 08 41 00.1 | 0.0 |
| | 0.2nm,0.3s,baz=59,slow=14,SNR=7.3 | | | | | | |
| KURBB | | | | Lg | Lg | 08 42 43.0 | |
| | 0.1nm,0.3s,baz=58,slow=33,SNR=4.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **7.60** | **205** | Pn | Pn | 08 41 22.8 | +1.6 |
| | 0.3nm,0.3s,baz=28,slow=14,SNR=14 | | | | | | |

*ISK 12 09:02:16.8, 38°.56N×43°.96E, h14km, MD2.9*
*ISCJB 12 09:02:18.6±1.9, 38°.64N±0°.08×43°.8E±0°.1, h6km, Error ellipse: s-maj=15.2km s-min=9.1km az=31.3*
*CSEM 12 09:02:18.2±0.9, 38°.63N×43°.85E, h10km, ML2.5, Error ellipse: s-maj=18.2km s-min=7.2km az=126.0*
*DDA 12 09:02:23.1, 38°.85N×43°.75E, h7km, Ml2.5*

**ISC 12 09:02:20.2±1.6, 38°.69N±0°.06×43.79E±0°.07, h6km, n12, σ 0°61/20, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.33** | **253** | *e*PG | **Pg** | **09 02 26.0** | **-0.6** |
| **VANB** | **Van** | **0.33** | **253** | *e*Pg | **Pg** | **09 02 26.0** | **-0.6** |
| **VMUR** | **Van-Muradiye** | **0.34** | **330** | *i* P | **Pg** | **09 02 26.6** | **-0.3** |
| VMUR | | | | *i* S | **Sg** | **09 02 31.4** | **-0.1** |
| **VMUR** | **Van-Muradiye** | **0.34** | **330** | P | **Pg** | **09 02 26.6** | **-0.3** |
| VMUR | | | | S | **Sg** | **09 02 31.4** | **-0.1** |
| **TVAN** | **Van** | **0.34** | **242** | *i* P | **Pn** | **09 02 32.5** | **+0.6** |
| TVAN | | | | *i* S | Sb | 09 02 45.7 | +11 |
| **CLDR** | **Caldiran** | **0.46** | **12** | *e*PG | **Pg** | **09 02 28.7** | **-0.4** |
| CLDR | | | | *e*SG | **Sb** | **09 02 37.3** | **-0.7** |
| **CLDR** | **Caldiran** | **0.46** | **12** | *i* P | **Pg** | **09 02 28.8** | **-0.4** |
| CLDR | | | | *i* S | **Sg** | **09 02 36.0** | **+0.8** |
| **CLDR** | **Caldiran** | **0.46** | **12** | *e*Pg | **Pg** | **09 02 28.7** | **-0.4** |
| CLDR | | | | S | **Sg** | **09 02 36.0** | **+0.8** |
| CLDR | | | | *e*Sg | **Sb** | **09 02 37.3** | **-0.7** |
| **DYDN** | **Diyadin** | **0.85** | **355** | *i* P | **Pg** | **09 02 35.7** | **-0.9** |
| **DYDN** | **Diyadin** | **0.85** | **355** | P | **Pg** | **09 02 35.7** | **-0.9** |
| **AGRB** | **Hanur-Agry** | **1.08** | **325** | *e*PN | **Pg** | **09 02 40.6** | **-0.3** |
| AGRB | | | | *e*SN | **Sn** | **09 02 57.9** | **+0.5** |
| **AGRB** | **Hanur-Agry** | **1.08** | **325** | *e*Pn | **Pg** | **09 02 40.6** | **-0.3** |
| AGRB | | | | *e*Sn | **Sn** | **09 02 57.9** | **+0.5** |

**IDC 12 09:16:31.2±3.5, 54°.18N×87°.32E, h0km, mb1 2.8/2, mb1mx2.7/35, mbtmp2.8/2, ML2.4/2, Error ellipse: s-maj=32.9km s-min=19.9km az=49.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **I46RU** | **ZALESOVO INFRA** | **1.49** | **262** | *i* | | 09 24 00.0 | |
| | baz=81,slow=332,SNR=3.7 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **1.49** | **262** | Pg | Pn | 09 16 57.5 | -1.7 |
| | 2.6nm,0.3s,baz=77,slow=13,SNR=22 | | | | | | |
| ZALV | | | | Lg | Lg | 09 17 19.1 | |
| | 1.1nm,0.3s,baz=79,slow=25,SNR=3.7 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **6.45** | **240** | Pn | Pn | 09 18 08.0 | +0.7 |
| | 0.1nm,0.3s,baz=54,slow=14,SNR=3.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **8.06** | **205** | Pn | Pn | 09 18 30.8 | +1.3 |
| | 0.1nm,0.3s,baz=26,slow=14,SNR=5.2 | | | | | | |

**IDC 12 09:17:32.7±2.4, 54°.31N×86°.13E, h0km, mb1 3.2/2, mb1mx3.0/34, mbtmp3.2/2, ML3.1/2, Error ellipse: s-maj=18.9km s-min=12.0km az=49.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **I46RU** | **ZALESOVO INFRA** | **0.85** | **246** | *i* | | 09 22 18.0 | |
| | baz=67,slow=334,SNR=13 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **0.85** | **246** | Pg | Pg | 09 17 47.5 | -1.5 |
| | 1.9nm,0.3s,baz=65,slow=18,SNR=5.1 | | | | | | |
| ZALV | | | | Lg | Lg | 09 18 01.2 | |
| | 8.1nm,0.3s,baz=62,slow=33,SNR=13 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **5.93** | **235** | Pn | Pn | 09 19 02.6 | +0.9 |
| | 0.2nm,0.3s,baz=53,slow=14,SNR=11 | | | | | | |
| KURBB | | | | Lg | Lg | 09 20 43.3 | |
| | 0.0nm,0.3s,baz=51,slow=32,SNR=3.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **7.91** | **200** | Pn | Pn | 09 19 29.8 | +0.8 |
| | 0.6nm,0.3s,baz=24,slow=12,SNR=18 | | | | | | |

*ISCJB 12 09:28:38.8±0.4, 50°.66N±0°.01×143°.10E±0°.02, h9km±2km, mb4.9/282, MS4.8/63, Error ellipse: s-maj=2.5km s-min=2.3km az=139.8*
*MOS 12 09:28:38.7±1.0, 50°.64N×143°.05E, h11km, mb5.2/102, MS4.7/35, Error ellipse: s-maj=6.2km s-min=3.6km az=101.6*
*MOS Felt (IV-V) at Beloye, Krasnaya Tym', Molodezhnoye, Tymovskoye; (III-IV) at Voskhod, Kirovskoye, Zonal'noye, Yasnoye; (III) at Aleksandrovsk-Sakhalinskiy, Voskresenovka; (II-III) at Argi-Pagi, Mgachi, Uglegorsk; (II) at Krasnopol'ye, Nogliki, Nysh, Onor, Porech'ye, Poronaisk, Shakhtersk.*
*IDC 12 09:28:38.9±0.5, 50°.71N×143°.16E, h0km, mb4.7/22, mb1 4.8/32, mb1mx4.8/39, mbtmp4.7/32, ML4.1/10, MS4.5/37, Ms1 4.5/37, ms1mx4.4/49, Error ellipse: s-maj=12.5km s-min=9.8km az=118.0*
*SKHL 12 09:28:39.1±0.3, 50°.66N×143°.04E, h10km, mb5.7/1, Ms5.0/4, msh5.1/1*
*SKHL Felt (II-III) at Argi-Pagi, Mgachi, Uglegorsk; (II) at Nogliki, Nysh. Felt (III) at Voskresenovka, Aleksandrovsk-Sakhalinskiy;. Felt (III-IV) at Voshod, Kirovskoye, Zonal'noye, Yasnoye;. Felt (IV-V) at Krasnaya Tym', Tymovskoye:.*
*BJI 12 09:28:41.3, 50°.70N×143°.10E, h20km, mb4.9/68, mB5.2/54, Ms5.4/70, Ms7 5.1/66*
*NEIC 12 09:28:41.6±1.2, 50°.71N×143°.04E, h14km±7km, mb5.0/175, Error ellipse: s-maj=3.3km s-min=2.2km az=157.0*
*NEIC Felt at Aleksandrovsk-Sakhalinskiy, Nogliki and Tymovskoye.*
*GCMT 12 09:28:42.0±0.2, 50°.70N×142°.97E, h16km, MW5.1/110, Moment Tensor Solution. s66,c96; s110,c187; Duration: 0 Moment tensor: Scale 10^16 Nm; Mrr~0.18±.12; Mθθ6.03±.12; Mϕϕ~5.85±.13; Mrθ0.98±.30; Mϕθ1.49±.10; Mϕr~0.59±.30; Best double couple: M○6.22900×10^16 NP1:ϕs128.00000°, δ89.00000°, λ10.00000°. NP2: ϕs38.00000°, δ80.00000°, λ179.00000°. Principal axes: T 6.3390, Plg8.0000°, Azm353.0000°; N -0.2170, Plg80.0000°, Azm132.0000°; P -6.1190, Plg7.0000°, Azm262.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

**ISC 12 09:28:41.7±0.5, 50°.69N±0°.02×143°.12E±0°.03, h14km±2km, h14km:pP-P, n659, σ1§45/724, mb5.0/286, MS4.8/65, 32C-29D, Sakhalin Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TYV** | **Tymovskoe** | **0.34** | **301** | *e*PN | **Pg** | **09 28 46.8** | **-1.9** |
| TYV | | | | *e*S | **Sg** | **09 28 51.0** | **-2.5** |
| TYV | | | | pmax | pmax | | |
| | comp=Z,40μm,0.2s | | | | | | |
| TYV | | | | pmax | pmax | | |
| | comp=Z,52μm,0.2s | | | | | | |
| TYV | | | | smax | smax | | |
| | comp=N,205μm,0.5s | | | | | | |
| TYV | | | | smax | smax | | |
| | comp=E,750μm,5.2s | | | | | | |
| **TYV** | **Tymovskoe** | **0.34** | **301** | *e*Pg | **Pg** | **09 28 46.4** | **-2.3** |
| TYV | | | | AMB | AMB | 09 28 47.0 | |
| | comp=E,5μm,0.2s | | | | | | |
| TYV | | | | *e*Sg | **Sg** | **09 28 51.3** | **-2.2** |
| TYV | | | | A | A | 09 28 51.9 | |
| | comp=E,20μm,0.5s | | | | | | |
| TYV | | | | A | A | 09 28 55.4 | |
| | comp=E,75μm,5.0s | | | | | | |
| **UGL** | **Uglegorsk** | **1.75** | **203** | ⇑*i*P | **Pn** | **09 29 10.0** | **-1.6** |
| UGL | | | | *e*Pg | **Pb** | **09 29 13.7** | **+0.1** |
| UGL | | | | AMB | AMB | 09 29 14.2 | |
| | comp=E,2μm,0.6s | | | | | | |
| UGL | | | | *e*Sg | **Sb** | **09 29 35.5** | **+0.1** |
| UGL | | | | A | A | 09 29 36.5 | |
| | comp=E,3μm,2.0s | | | | | | |
| UGL | | | | A | A | 09 29 40.5 | |
| | comp=E,70μm,1.0s | | | | | | |
| **OKH** | **Okha** | **2.87** | **358** | ⇓*i*PN | **Pn** | **09 29 27.0** | **0.0** |
| OKH | | | | *i* S | **Sn** | **09 30 02.3** | **+1.0** |
| OKH | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.5s | | | | | | |
| OKH | | | | smax | smax | | |
| | comp=E,7.0nm,0.8s | | | | | | |
| OKH | | | | smax | smax | | |
| | comp=N,10.0nm,0.7s | | | | | | |
| **OKH** | **Okha** | **2.87** | **358** | ⇓*i*P | **Pn** | **09 29 27.3** | **+0.3** |
| OKH | | | | *e*Pg | **Pg** | **09 29 39.3** | **+2.6** |
| OKH | | | | AMB | AMB | 09 29 41.0 | |
| | comp=N,1μm,0.6s | | | | | | |
| OKH | | | | *i* S | **Sn** | **09 30 03.9** | **+2.6** |
| OKH | | | | A | A | 09 30 04.4 | |
| | comp=N,10μm,0.8s | | | | | | |
| OKH | | | | A | A | 09 30 04.4 | |
| | comp=N,7μm,0.8s | | | | | | |
| OKH | | | | *e*Sg | **Sg** | **09 30 21.3** | **+7.4** |
| OKH | | | | A | A | 09 30 22.7 | |
| | comp=N,14μm,0.7s | | | | | | |
| **NKL** | **Nikolayevsk** | **2.89** | **329** | *i* PN | **Pn** | **09 29 25.5** | **-1.8** |
| NKL | | | | *e* | | 09 30 06.0 | |
| NKL | | | | pmax | pmax | | |
| | comp=N,110nm,0.7s | | | | | | |
| NKL | | | | pmax | pmax | | |
| | comp=E,65nm,0.7s | | | | | | |
| NKL | | | | pmax | pmax | | |
| | comp=Z,170n

GRNR *e*Pg **Pb** **09 29 59.0 +2.7**
GRNR *e*S **Sn** **09 30 31.5 -4.1**
GRNR *e*Sg **Sg** **09 30 58.5 +0.2**
**HABR Khabarovsk 5.70 250** *e*PN **Pn** **09 30 02.9 -3.0**
HABR pmax pmax
comp=N,5.0nm,0.7s
HABR pmax pmax
comp=Z,44nm,0.7s
HABR pmax pmax
comp=E,55nm,0.7s
HABR MLR MLR
comp=Z,6µm,10.0s
**KUR Kuril'sk 6.32 148***d i* PN **Pn** **09 30 13.1 -1.3**
KUR pmax pmax
comp=Z,215nm,0.6s
KUR pmax pmax
comp=N,90nm,0.7s
KUR pmax pmax
comp=E,47nm,0.8s
KUR MLR MLR
comp=Z,3µm,11.0s
**KUR Kuril'sk 6.32 148** *i* P **Pn** **09 30 13.2 -1.2**
KUR AMB AMB 09 30 33.4
comp=Z,90nm,0.7s
KUR AMB AMB 09 30 33.4
comp=Z,47nm,0.7s
KUR AMB AMB 09 30 33.4
comp=Z,215nm,0.7s
KUR *e*S **Sn** **09 31 24.6 -1.7**
KUR A A 09 31 44.3
comp=Z,186nm,0.8s
KUR A A 09 31 44.3
comp=Z,154nm,0.8s
**ASAJ Asahikawa 6.58 183** Pn **Pn** **09 30 18.0 -0.1**
comp=Z,12nm,0.3s,baz=28,slow=10,SNR=35
ASAJ Sn **Sn** **09 31 31.2 -1.7**
comp=Z,1.3nm,0.3s,baz=248,slow=19,SNR=2.1
ASAJ LR LR 09 33 02.1
comp=Z,17nm,20.7s,baz=359,slow=40
**ASAJ Asahikawa 6.58 183** PN **Pn** **09 30 18.0 -0.1**
ASAJ pmax pmax
comp=Z,12nm,0.3s
**EKMR Ekimchan 6.73 295** *e*P **Pn** **09 30 20.0 -0.1**
EKMR *e*Pg **Pg** **09 30 52.4 +1.8**
EKMR *e*Sg **Sg** **09 32 16.0 -1.7**
**LAGR Lagunnoye 6.88 164** *e*PN **Pn** **09 30 20.3 -1.8**
**YUK Yuzh-Kuril'sk 6.91 163** *e*PN **Pn** **09 30 20.3 -2.2**
YUK pmax pmax
comp=E,35nm,0.4s
YUK pmax pmax
comp=Z,253nm,0.4s
YUK pmax pmax
comp=N,52nm,0.2s
YUK MLR MLR
comp=Z,2µm,14.0s
YUK MLR MLR
comp=E,2µm,12.0s
**YUK Yuzh-Kuril'sk 6.91 163** *e*P **Pn** **09 30 22.5 0.0**
YUK AMB AMB 09 30 23.9
comp=E,52nm,0.4s
YUK AMB AMB 09 30 23.9
comp=E,36nm,0.4s
YUK AMB AMB 09 30 23.9
comp=E,253nm,0.4s
YUK *e*S **Sn** **09 31 40.0 -0.9**
YUK AMS AMS 09 33 11.1
comp=E,2µm,12.0s
YUK AMS AMS 09 33 11.1
comp=E,2µm,12.0s
**YUK Yuzh-Kuril'sk 6.91 163**‖ *e*P **Pn** **09 30 20.6 -1.9**
**GRPR Tuman 6.94 164** *e*PN **Pn** **09 30 20.3 -2.6**
**TEY Ternei 7.15 220** *e*P **Pn** **09 30 27.0 +1.2**
TEY AMB AMB 09 30 31.3
comp=E,104nm,0.8s
TEY *e*S **Sn** **09 31 44.0 -2.8**
TEY *e*Sg **Sg** **09 32 34.0 +2.9**
TEY A A 09 32 36.0
comp=E,520nm,1.0s
TEY A A 09 32 36.0
comp=E,460nm,1.0s
**SHO Shikotan 7.27 158** *e*P **Pn** **09 30 27.6 +0.1**
SHO AMB AMB 09 30 31.8
comp=E,60nm,0.5s
**KLR Kul'dur 7.48 263** Pn **Pn** **09 30 29.9 -0.5**
comp=E,1.2nm,0.3s,baz=78,slow=13,SNR=169
KLR Lg Lg 09 32 38.1
comp=E,0.8nm,0.3s,baz=170,slow=22,SNR=6.9
**SKR Severo-Kuril's 8.26 85**‖ *e*PN **Pn** **09 30 42.4 +1.4**
**SKR Severo-Kuril's 8.26 85** *e*P **Pn** **09 30 41.3 +0.3**
**SKR Severo-Kuril's 8.26 85**‖ *e*P **Pn** **09 30 42.4 +1.4**
**ERM Erimo 8.68 180** *e*PN **Pn** **09 30 49.2 +2.5**
**ERM Erimo 8.68 180** *e*Pn **Pn** **09 30 49.2 +2.5**
**PEA0B Petropavlovsk- 9.33 69** *e*Pn **Pn** **09 30 55.9 +0.2**
**PETK Petropavlovsk- 9.33 69** Pn **Pn** **09 30 55.5 -0.3**
comp=E,1.6nm,0.3s,baz=249,slow=5.3,SNR=12
PETK Sn **Sn** **09 32 35.3 -5.1**
comp=E,1.1nm,0.3s,baz=281,slow=24,SNR=3.4
PETK LR LR 09 34 20.3
comp=E,2µm,21.6s,baz=271,slow=37
**PETK Petropavlovsk- 9.33 69** *e*PN **Pn** **09 30 56.2 +0.4**
**PETK Petropavlovsk- 9.33 69** *e*Pn **Pn** **09 30 56.1 +0.4**
**PEA1 Petropavlovsk- 9.34 69** *e*Pn **Pn** **09 30 55.5 -0.3**
PEA1 *e*Sn **Sn** **09 32 35.3 -5.1**
**I44RU PETROPAVLOVSK- 9.34 69** *i* 10 22 50.0
baz=260,slow=330,SNR=0.6
**BMKR Bomnak 9.56 300** *e*P **Pn** **09 31 00.5 +1.7**
BMKR AMB AMB 09 31 04.8
comp=E,56nm,0.8s
BMKR *e*Sg 09 33 47.5
BMKR A A 09 33 51.0
comp=E,675nm,1.0s
**PET Petropavlovsk 9.89 70** *e*PN **Pn** **09 31 04.1 +0.8**
PET pmax pmax
comp=Z,36nm,0.9s
PET MLR MLR
comp=Z,2µm,13.0s
PET MLR MLR
comp=Z,2µm,12.0s
**PET Petropavlovsk 9.89 70** *e*P **Pn** **09 31 04.1 +0.8**
PET AMB AMB 09 31 06.4
comp=Z,40nm,0.9s
PET *e*S **Sn** **09 32 56.9 +2.8**
PET A A 09 33 01.8
comp=Z,70nm,0.6s
PET A A 09 33 01.8
comp=Z,50nm,0.6s
PET AMS AMS 09 35 59.6
comp=Z,2µm,12.0s
**PET Petropavlovsk 9.89 70** *e*Pn **Pn** **09 31 04.2 +0.8**
**MA2 Magadan 9.92 23** Pn **Pn** **09 31 02.1 -1.6**
comp=Z,2.6nm,0.3s,baz=196,slow=10,SNR=14
MA2 Sn **Sn** **09 32 52.8 -1.8**
comp=Z,0.1nm,0.3s,baz=0.0,slow=20,SNR=2.7
MA2 LR LR 09 35 15.5
comp=Z,2µm,19.1s,baz=208,slow=40
**USRK Ussurivsk Ar. 9.94 234** Pn **Pn** **09 31 03.6 -0.5**
comp=Z,4.0nm,0.3s,baz=45,slow=15,SNR=54
USRK Sn Sn 09 33 07.8 +12
comp=Z,0.8nm,0.3s,baz=40,slow=23,SNR=3.7
USRK Lg Lg 09 34 01.0
comp=Z,2.0nm,0.3s,baz=44,slow=32,SNR=9.9
**ZEA Zeya 10.21 294** *e*P **Pn** **09 31 10.0 +2.3**
ZEA AMB AMB 09 31 16.7
comp=Z,58nm,1.2s
ZEA AMB AMB 09 31 16.7
comp=Z,64nm,1.2s
ZEA *e*S **Sn** **09 33 06.0 +4.2**
ZEA A A 09 33 19.0
comp=Z,800nm,6.0s
ZEA *e*Sg 09 34 07.2
ZEA A A 09 34 11.5
comp=Z,3µm,1.6s
ZEA AMS AMS 09 35 24.0
comp=Z,9µm,9.0s
ZEA AMS AMS 09 35 24.0
comp=Z,10µm,9.0s
ZEA AMS AMS 09 35 24.0
comp=Z,8µm,9.0s
**KROS Kirovskiy 10.52 297** *e*P **Pn** **09 31 13.0 +1.0**
KROS AMB AMB 09 31 18.1
comp=Z,23nm,0.5s
KROS *e*Sg 09 34 14.0
KROS A A 09 34 23.9
comp=Z,180nm,0.5s
**VLA Vladivostok 10.78 230**‖ *e*PN **Pn** **09 31 13.2 -2.3**
**VLA Vladivostok 10.78 230**‖ *e*P **Pn** **09 31 13.3 -2.3**

**MDJ Mudanjiang 10.95 242** P **Pn** **09 31 18.1 +0.1**
MDJ pP 09 31 23.4
MDJ sP 09 31 27.6
MDJ S **Sn** **09 33 21.2 +1.0**
MDJ sS 09 33 29.7
MDJ PcS **PcS** **09 40 53.5 +3.6**
MDJ pmax pmax
comp=Z,35nm,0.8s
MDJ pmax pmax
comp=Z,260nm,3.8s
MDJ LR LR
comp=Z,9µm,10.6s
MDJ LR LR
comp=Z,7µm,8.6s
MDJ LR LR
comp=Z,5µm,9.5s
**MDJ Mudanjiang 10.95 242** *e*Pn **Pn** **09 31 18.3 +0.3**
**MSHR Mys Shultsa 11.54 230**‖ *e*PN **Pn** **09 31 23.4 -2.5**
**CLNS Chul'man 12.40 307** *e*PN **Pn** **09 31 36.8 -0.9**
CLNS pmax pmax
comp=E,32nm,1.2s
CLNS pmax pmax
comp=Z,49nm,1.2s
CLNS pmax pmax
comp=N,39nm,1.2s
CLNS MLR MLR
comp=Z,7µm,10.0s
CLNS MLR MLR
comp=E,4µm,10.0s
CLNS MLR MLR
comp=N,3µm,9.0s
**SEY Seymchan 13.26 19** Pn **Pn** **09 31 50.3 +1.0**
comp=N,0.7nm,0.3s,baz=189,slow=14,SNR=12
SEY Sn **Sn** **09 34 16.0 -0.4**
comp=N,0.3nm,0.3s,baz=156,slow=20,SNR=2.6
**YAK Yakutsk 13.55 332** Pn **Pn** **09 31 53.2 -0.1**
comp=N,0.0nm,0.3s,baz=36,slow=14,SNR=19
YAK Lg Lg 09 35 44.7
comp=N,0.0nm,0.3s,baz=336,slow=20,SNR=6.8
**YAK Yakutsk 13.55 332** *e*P **Pn** **09 31 53.3 -0.1**
YAK *e*S **Sn** **09 34 26.8 +3.3**
YAK pmax pmax
comp=Z,71nm,1.1s
YAK pmax pmax
comp=N,39nm,1.2s
YAK pmax pmax
comp=E,38nm,1.3s
YAK smax smax
comp=E,657nm,1.8s
YAK smax smax
comp=N,1µm,2.2s
YAK MLR MLR
comp=Z,3µm,17.0s
YAK MLR MLR
comp=E,1µm,13.0s
YAK MLR MLR
comp=N,3µm,14.0s
**YAK Yakutsk 13.55 332** *e*Pn **Pn** **09 31 51.9 -1.4**
**CN2 Changchun 13.82 247** *e*P **Pn** **09 31 57.2 +0.1**
CN2 pmax pmax
comp=N,30nm,1.0s
CN2 pmax pmax
comp=N,200nm,4.0s
CN2 LR LR
comp=N,8µm,15.0s
CN2 LR LR
comp=N,4µm,15.0s
CN2 LR LR
comp=N,4µm,12.0s
**MJB9 Matsu-Tunnel 14.57 196** *e*Pn **Pn** **09 32 06.8 -0.6**
**MAJO Matsushiro 14.57 196** *e*P **Pn** **09 32 05.9 -1.6**
**MAJO Matsushiro 14.57 196** *e*Pn **Pn** **09 32 05.9 -1.6**
**MAT Matsushiro 14.57 196** P **Pn** **09 32 03.4 -4.1**
MAT S **Sn** **09 34 42.8 -6.0**
**MJAR Matsushiro Arr 14.58 196** Pn **Pn** **09 32 05.5 -2.0**
comp=N,0.6nm,0.3s,baz=9.3,slow=11,SNR=22
MJAR LR LR 09 37 30.0
comp=N,2µm,20.4s,baz=25,slow=36
**HIA Hailar 15.10 274** *e*P **Pn** **09 32 15.2 +0.7**
HIA pmax pmax
comp=Z,125nm,1.0s
**HIA Hailar 15.10 274** *e*Pn **Pn** **09 32 15.2 +0.7**
comp=Z,125nm,1.0s
**INU Inuyama 15.96 198** *e*Pn **Pn** **09 32 25.2 -0.5**
comp=Z,127nm,0.8s
**KS01 Wonju Array Si 17.10 225** *e*Pn **Pn** **09 32 40.7 +0.5**
**KSRS Korea Array 17.11 225** P **P** **09 32 41.5 -0.5**
comp=Z,0.4nm,0.3s,baz=39,slow=11,SNR=14
KSRS PcP **PcP** **09 37 24.7 +0.2**
baz=279,slow=2.3,SNR=4.1
KSRS LR LR 09 38 38.9
comp=Z,2µm,18.0s,baz=43,slow=35
**KS15 Wonju Array Si 17.14 225** *e*Pn **Pn** **09 32 41.3 +0.6**
**JHJ Hachijo jima 2 17.73 189** P **Pn** **09 32 48.0 0.0**
comp=Z,14nm,0.3s,baz=75,slow=16,SNR=5.8
JHJ LR LR 09 40 01.5
comp=Z,9.0nm,18.4s,baz=351,slow=38
**TJN Taejon 18.25 224***de*P **Pn** **09 32 52.7 -1.7**
**BOD Bodaibo 18.34 304** *e*P **Pn** **09 32 53.3 -2.1**
BOD pmax pmax
comp=Z,42nm,2.2s
**CIT Chita 18.46 286** *e*P **Pn** **09 32 58.4 +1.4**
CIT *e* 09 36 27.1
CIT pmax pmax
comp=Z,252nm,2.0s
**DL2 Dalian 19.19 240** P **Pn** **09 33 06.5 +0.7**
DL2 S **Sn** **09 36 41.2 +0.6**
DL2 pmax pmax
comp=Z,91nm,1.4s
DL2 pmax pmax
comp=Z,330nm,6.9s
DL2 LR LR
comp=Z,12µm,14.1s
DL2 LR LR
comp=Z,9µm,13.7s
DL2 LR LR
comp=Z,5µm,14.5s
**JNU Nakatsue 19.73 212** P **P** **09 33 10.2 -0.7**
comp=Z,0.5nm,0.3s,baz=50,slow=10,SNR=9.9
**JNU Nakatsue 19.73 212** *e*P **P** **09 33 10.5 -0.4**
comp=Z,24nm,0.9s
**BJI Beijing 21.60 251** P **P** **09 33 32.1 +1.1**
BJI S **S** **09 37 29.4 -0.5**
BJI pmax pmax
comp=Z,20nm,1.0s
BJI LR LR
comp=Z,8µm,14.6s
BJI LR LR
comp=Z,5µm,15.0s
**BJT Baijiatuan 21.62 251** *e*P **P** **09 33 32.2 +1.0**
**BJT Baijiatuan 21.62 251** *e*P **P** **09 33 32.2 +1.0**
**TIXI Tiksi 22.00 348** LR LR 09 43 14.2
comp=Z,1µm,19.0s,baz=151,slow=40
**TIXI Tiksi 22.00 348** *e*P **P** **09 33 34.1 -1.0**
TIXI pmax pmax
comp=Z,116nm,1.2s
**TIXI Tiksi 22.00 348** *e*P **P** **09 33 34.0 -1.0**
comp=Z,116nm,1.2s
**ULN Ulaanbaatar 23.55 277***d i* P **P** **09 33 51.0 -0.7**
ULN pmax pmax
comp=Z,55nm,1.0s
**ULN Ulaanbaatar 23.55 277** *e*P **P** **09 33 51.0 -0.7**
comp=Z,61nm,1.1s
**ULN Ulaanbaatar 23.55 277** P **P** **09 33 53.5 +1.8**
SNR=21
**ULN Ulaanbaatar 23.55 277** P **P** **09 33 53.5 +1.8**
SNR=21
**ULN Ulaanbaatar 23.55 277** P **P** **09 33 53.5 +1.8**
SNR=21
**JCJ Chichijima 23.57 182** LR LR 09 44 12.3
comp=Z,650nm,21.0s,baz=3.0,slow=40
**TIA Tai'an 23.62 242** ‖P **P** **09 33 52.2 0.0**
TIA S **S** **09 38 04.2 -2.0**
TIA pmax pmax
comp=Z,80nm,1.2s
TIA pmax pmax
comp=Z,290nm,6.5s
TIA LR LR
comp=Z,10µm,14.3s
TIA LR LR
comp=Z,5µm,15.2s
TIA LR LR
comp=Z,4µm,14.3s
**HHC Hu-ho-hao-te 23.95 258** *e*P **P** **09 33 58.2 +2.8**
HHC S **S** **09 38 09.6 -1.9**
HHC pmax pmax
comp=Z,43nm,1.1s
HHC pmax pmax
comp=Z,430nm,8.8s
HHC LR LR
comp=Z,3µm,9.4s
HHC LR LR
comp=Z,3µm,9.0s
HHC LR LR
comp=Z,2µm,10.9s
**SONA1 Songino Array 23.97 278** *e*P **P** **09 33 55.0 -0.6**
**SONA0 Songino Array 23.98 278** *e*P **P** **09 33 54.8 -0.9**
SONA0 *e*PcP **PcP** **09 37 37.1 -0.3**
**SONM Songino Array 23.98 278** P **P** **09 33 54.8 -0.9**
comp=Z,20nm,0.9s,baz=66,slow=8.9,SNR=41
SONM PcP **PcP** **09 37 37.1 -0.3**
comp=Z,2.1nm,0.8s,baz=42,slow=2.6,SNR=3.4
SONM LR LR 09 43 57.1
comp=Z,1µm,20.6s,baz=70,slow=38
**SONM Songino Array 23.98 278** P **P** **09 33 54.8 -0.9**
SONM 09 37 37.1
SONM pmax pmax
comp=Z,21nm,0.9s
SONM MLR MLR
comp=Z,1µm,20.6s
**IRK Irkutsk 24.06 289** *e*P **P** **09 33 56.2 -0.1**
IRK pmax pmax
comp=Z,225nm,1.9s
**TLY Talaya 24.56 288***c i* P **P** **09 34 03.6 +2.7**
TLY *e* 09 34 30.0
TLY *e*S **S** **09 38 24.0 +2.9**
TLY *e*SS **SnSn** **09 39 07.5 +1.6**
TLY pmax pmax
comp=Z,145nm,1.3s
TLY MLR MLR
comp=Z,1µm,9.0s
**TLY Talaya 24.56 288** *e*P **P** **09 34 00.5 -0.4**
comp=Z,126nm,1.2s
**TLY Talaya 24.56 288** P **P** **09 34 02.9 +1.9**
SNR=23
**TLY Talaya 24.56 288** P **P** **09 34 02.9 +1.9**
SNR=23
**TLY Talaya 24.56 288** P **P** **09 34 02.9 +1.9**
SNR=23
**TLY Talaya 24.56 288** P **P** **09 34 02.9 +1.9**
SNR=23
**BTO Baotou 25.05 259** *e*P **P** **09 34 07.0 +1.5**
**ZAK Zakamensk 25.12 285** *e*P **P** **09 34 06.3 +0.3**
ZAK pmax pmax
comp=Z,112nm,1.4s
**TIY Taiyuan 25.33 251** *e*P **P** **09 34 10.9 +2.9**
TIY pP **sP** **09 34 17.0 +3.0**
TIY pmax pmax
comp=Z,60nm,1.1s
TIY pmax pmax
comp=Z,280nm,3.5s
TIY LR LR
comp=Z,4µm,12.3s
TIY LR LR
comp=Z,2µm,7.2s
TIY LR LR
comp=Z,3µm,11.5s
**SSE Sheshan 25.48 228** P **P** **09 34 10.7 +1.4**
SSE S **S** **09 38 42.0 +6.0**
SSE pmax pmax
comp=Z,140nm,1.1s
SSE pmax pmax
comp=Z,160nm,7.2s
SSE LR LR
comp=Z,1µm,12.0s
SSE LR LR
comp=Z,1µm,12.0s
SSE LR LR
comp=Z,3µm,13.0s
**NJ2 Nanjing 25.85 233** *e*P **P** **09 34 15.9 +3.2**
NJ2 pP **sP** **09 34 20.7 +2.1**
NJ2 S **S** **09 38 46.8 +5.0**
NJ2 pmax pmax
comp=Z,28nm,1.0s
NJ2 pmax pmax
comp=Z,250nm,3.5s
NJ2 LR LR
comp=Z,6µm,16.3s
NJ2 LR LR
comp=Z,6µm,14.6s
NJ2 LR LR
comp=Z,3µm,17.1s
**MOY Mondy 26.17 289** *e*P **P** **09 34 18.5 +2.9**
MOY pmax pmax
comp=Z,44nm,1.7s
**WHN Wuhan 29.40 238** ⇑P P 09 34 49.6 +5.1
WHN S **S** **09 39 42.8 +5.0**
WHN pmax pmax
comp=Z,86nm,1.1s
WHN LR LR
comp=Z,13µm,18.5s
WHN LR LR
comp=Z,12µm,19.3s
WHN LR LR
comp=Z,9µm,15.0s
**XAN Xi'an 29.91 249** P **P** **09 34 46.9 -2.2**
XAN pP sP 09 34 54.2 -0.8
XAN sP pP 09 34 57.6 +4.3
XAN pmax pmax
comp=Z,8.0nm,0.5s
XAN pmax pmax
comp=Z,85nm,3.7s
XAN LR LR
comp=Z,4µm,16.5s
XAN LR LR
comp=Z,4µm,15.3s
XAN LR LR
comp=Z,4µm,14.1s
**HVS Khovu-Aksy 30.69 290**‖ *e*P **P** **09 34 55.8 -0.1**
HVS pmax pmax
comp=Z,24nm,1.0s
HVS MLR MLR
comp=Z,6µm,13.0s
**LZH Lanzhou 31.64 258** ⇑P **P** **09 35 06.6 +2.1**
LZH pP sP 09 35 13.9 +3.4
LZH sP pP 09 35 17.2 +8.5
LZH PP **PnPn** **09 36 11.4 +3.4**
LZH *e*S **S** **09 40 12.3 -0.9**
LZH sS sS 09 40 25.0 +4.8
LZH pmax pmax
comp=Z,80nm,1.3s
LZH pmax pmax
comp=Z,340nm,5.8s
LZH LR LR
comp=Z,2µm,10.0s
LZH LR LR
comp=Z,2µm,10.5s
LZH LR LR
comp=Z,3µm,11.2s
**GTA Gaotai 32.17 266** *e*P **P** **09 35 11.8 +2.8**
GTA pP sP 09 35 19.1 +4.1
GTA sP pP 09 35 22.7 +9.4
GTA S **S** **09 40 23.8 +2.5**
GTA sS sS 09 40 36.0 +7.7
GTA pmax pmax
comp=Z,10.0nm,1.1s
GTA pmax pmax
comp=Z,160nm,7.1s
GTA LR LR
comp=Z,3µm,10.5s
GTA LR LR
comp=Z,2µm,9.0s
GTA LR LR
comp=Z,2µm,16.2s
**ENH Enshi 32.31 244** *e*P **P** **09 35 10.2 0.0**
comp=Z,38nm,1.3s
**IMAR Indian Mountai 34.75 40** *e*P **P** **09 35 30.7 -0.3**
**ZAA1 Zalesovo Array 34.92 299** *e*P **P** **09 35 31.6 -1.1**
ZAA1 *e*PcP **PcP** **09 38 03.8 -1.1**
**ZALV Zalesovo Beam 34.92 299** P **P** **09 35 31.6 -1.1**
comp=Z,1.3nm,0.3s,baz=54,slow=7.5,SNR=9.4
ZALV PcP **PcP** **09 38 03.8 -1.1**
comp=Z,6.1nm,0.7s,baz=55,slow=2.5,SNR=8.4
**ZALV Zalesovo Beam 34.92 299** *e*P **P** **09 35 32.6 -0.1**
ZALV *e* 09 38 04.1
**ZALV Zalesovo Beam 34.92 299** *e*P **P** **09 35 32.6 -0.1**
ZALV *e*PcP **PcP** **09 38 04.1 -0.8**
**DGZ Jazzator, Alta 34.95 291** *e*P **P** **09 35 33.5 +0.3**
DGZ pmax pmax
comp=Z,6.0nm,0.9s
**CD2 Chengdu 35.20 251** P **P** **09 35 36.9 +1.5**
CD2 pP sP 09 35 42.4 +1.0

CD2 sP pP 09 35 47.4 +7.7
CD2 S **S** **09 41 08.5 +0.2**
CD2 pmax pmax
comp=Z,30nm,1.1s
CD2 pmax pmax
comp=Z,240nm,8.3s
CD2 LR LR
comp=Z,4μm,17.8s
CD2 LR LR
comp=Z,2μm,16.6s
**NVS Novosibirsk 35.51 301⇓** *i*P **P 09 35 38.1 +0.4**
NVS pmax pmax
comp=N,8.0nm,1.0s
NVS pmax pmax
comp=Z,20nm,1.0s
NVS pmax pmax
comp=E,14nm,1.3s
**CAST Castle Rocks 35.81 44** *e*P **P 09 35 40.4 +0.2**
comp=E,35nm,1.4s
**COLD Coldfoot 36.02 37** *e*P **P 09 35 41.6 -0.4**
comp=E,23nm,1.3s
**MLY Manley 36.11 41** *e*P **P 09 35 43.5 +0.7**
comp=E,9.4nm,1.1s
**SPU Mount Spurr 36.28 48** *e*P **P 09 35 46.1 +1.7**
**TRF Thorofare Moun 36.59 44** *e*P **P 09 35 47.3 +0.2**
comp=E,25nm,1.0s
**GYA Guiyang 36.81 243⇑** *i*P **P 09 35 50.4 +1.1**
GYA pP sP 09 35 57.5 +2.2
GYA PP **PP** **09 37 15.0 +1.9**
GYA PcP **PcP** **09 38 11.2 0.0**
GYA S **S** **09 41 32.8 -0.3**
GYA ScP **ScP** **09 41 56.0 -1.3**
GYA SS **SnSn** **09 44 00.1 -4.6**
GYA pmax pmax
comp=E,30nm,1.0s
GYA pmax pmax
comp=E,140nm,5.0s
GYA LR LR
comp=E,550nm,18.0s
GYA LR LR
comp=E,520nm,17.8s
**MCK McKinley 37.13 43** *e*P **P 09 35 52.2 +0.7**
MCK pmax pmax
comp=Z,55nm,1.3s
**MCK McKinley 37.13 43** *e*P **P 09 35 52.2 +0.7**
comp=Z,55nm,1.3s
**MDM Murphy Dome 37.17 41** *e*P **P 09 35 52.2 +0.4**
comp=Z,30nm,1.4s
**COLA College 37.35 41** *e*P **P 09 35 53.4 +0.1**
COLA pmax pmax
comp=Z,12nm,0.8s
**COLA College 37.35 41** *e*P **P 09 35 53.4 +0.1**
comp=Z,12nm,0.8s
**CCB Clear Creek Bu 37.42 41** *e*P **P 09 35 53.8 -0.1**
comp=Z,31nm,1.4s
**ZSN Zaisan 37.45 288** *i*P **P 09 35 56.3 +1.8**
comp=Z,31nm,1.4s
ZSN eS **S** **09 41 45.5 +3.2**
**WMQ Urumqi 37.47 282** P **P 09 35 56.6 +1.9**
WMQ S **S** **09 41 43.6 +0.9**
WMQ ScS **ScS** **09 46 06.4 -1.3**
WMQ pmax pmax
comp=Z,35nm,0.9s
WMQ pmax pmax
comp=Z,1μm,7.7s
WMQ LR LR
comp=Z,5μm,8.7s
WMQ LR LR
comp=Z,4μm,10.9s
WMQ LR LR
comp=Z,1μm,17.5s
**ILAR Eielson Array 37.77 41** P **P 09 35 56.4 -0.6**
comp=Z,6.3nm,0.8s,baz=289,slow=7.4,SNR=38
ILAR LR LR 09 54 28.2
comp=Z,776nm,18.7s,baz=289,slow=41
**ILB Eielson Array 37.77 41** *e*P **P 09 35 56.9 -0.1**
**IL1 Eielson Array 37.77 41** *e*P **P 09 35 56.5 -0.4**
**FYU Fort Yukon 38.06 38** *e*P **P 09 35 59.9 +0.6**
comp=Z,28nm,0.9s
**SEM Semipalatinsk 38.87 295** *i*P **P 09 36 04.6 -2.0**
comp=Z,214nm,1.2s
SEM eS **S** **09 42 01.2 -2.9**
SEM LR LR 09 52 08.7
comp=Z,520nm,11.3s
**MK31 Makanchi Array 39.32 289** *e*P **P 09 36 10.1 0.0**
**MK31 Makanchi Array 39.32 289** *e*P **P 09 36 10.1 0.0**
**MK32 Makanchi Array 39.32 289** *e*P **P 09 36 10.1 -0.1**
**MKAR Makanchi Array 39.32 289** P **P 09 36 10.1 -0.1**
comp=Z,19nm,0.9s,baz=64,slow=8.3,SNR=50
MKAR LR LR 09 52 35.6
comp=Z,965nm,19.1s,baz=50,slow=36
**MK01 Makanchi Array 39.32 289** *e*P **P 09 36 09.7 -0.5**
**MAKZ Makanchi 39.50 289** *e*P **P 09 36 11.7 +0.1**
MAKZ pmax pmax
comp=Z,25nm,1.0s
**MAKZ Makanchi 39.50 289** *e*P **P 09 36 11.7 +0.1**
comp=Z,24nm,1.0s
**KURK Kurchatov 39.67 296** *c i*P **P 09 36 12.0 -1.0**
KURK pmax pmax
comp=Z,114nm,1.2s
KURK MLR MLR
comp=Z,872nm,13.0s
**KURK Kurchatov 39.67 296** *e*P **P 09 36 12.8 -0.2**
comp=Z,28nm,0.9s
**KURK Kurchatov 39.67 296** P **P 09 36 12.6 -0.4**
SNR=14
**KURK Kurchatov 39.67 296** P **P 09 36 12.6 -0.4**
SNR=14
**KURK Kurchatov 39.67 296** P **P 09 36 12.6 -0.4**
SNR=14
**KURK Kurchatov 39.67 296** P **P 09 36 12.6 -0.4**
SNR=14
**KURK Kurchatov 39.67 296** P **P 09 36 12.6 -0.4**
SNR=14
**KMI Kunming 40.09 246** P **P 09 36 17.6 +0.6**
KMI pmax pmax
comp=Z,14nm,0.6s
KMI pmax pmax
comp=Z,230nm,4.8s
KMI LR LR
comp=Z,5μm,17.9s
KMI LR LR
comp=Z,4μm,18.3s
KMI LR LR
comp=Z,980nm,16.2s
**EGAK Eagle 40.15 40** *e*P **P 09 36 16.2 -0.5**
comp=Z,40nm,1.4s
**QIZ Qiongzhong 41.13 232** P **P 09 36 25.1 -0.3**
QIZ S **S** **09 42 39.3 +1.3**
QIZ sS sS 09 42 54.8 +10
QIZ LR LR
comp=Z,1μm,13.7s
QIZ LR LR
comp=Z,2μm,15.1s
QIZ LR LR
comp=Z,2μm,13.6s
**INK Inuvik 41.96 34** *e*P **P 09 36 31.1 -0.5**
INK pmax pmax
comp=Z,16nm,0.8s
**INK Inuvik 41.96 34** *e*P **P 09 36 31.1 -0.5**
comp=Z,16nm,0.8s
**PDGK Podgornoye 42.80 286** P **P 09 36 38.7 -0.2**
PDGK pmax pmax
comp=Z,8.0nm,1.1s
**SHLS Shalkode 42.91 286** *e*P **P 09 36 37.0 -2.8**
comp=Z,85nm,0.9s
SHLS eS **S** **09 42 58.5 -5.6**
SHLS LR LR 09 54 34.4
comp=Z,589nm,11.5s
**UZB Uzynbulak 43.19 286** *i*P **P 09 36 41.1 -1.0**
comp=Z,59nm,1.0s
**BVAR Borovoye Array 43.20 303** LR LR 09 54 53.2
comp=Z,702nm,18.6s,baz=68,slow=36
**KPKS Kokpek 43.22 286** *e*P **P 09 36 41.0 -1.3**
comp=Z,87nm,0.9s
KPKS LR LR 09 53 54.0
comp=Z,905nm,12.9s
**BRVK Borovoye 43.24 303** *ce*P **P 09 36 41.2 -1.0**
BRVK pmax pmax
comp=Z,35nm,0.8s
BRVK MLR MLR
comp=Z,1μm,14.0s
**BRVK Borovoye 43.24 303** *e*P **P 09 36 41.7 -0.6**
comp=Z,18nm,1.0s
**BRVK Borovoye 43.24 303** P **P 09 36 42.0 -0.2**
SNR=5.6
**BRVK Borovoye 43.24 303** P **P 09 36 42.0 -0.2**
SNR=5.6
**BRVK Borovoye 43.24 303** P **P 09 36 42.0 -0.2**
SNR=5.6
**BRVK Borovoye 43.24 303** P **P 09 36 42.0 -0.2**
SNR=5.6
**ZHN Zhinishke 43.53 286** *e*P **P 09 36 44.1 -0.8**
comp=Z,87nm,1.0s
**SATY Saty 43.61 286** *i*P **P 09 36 43.1 -2.4**
comp=Z,86nm,1.1s
**LSA Lhasa 43.84 262** P **P 09 36 51.0 +3.1**
LSA S **S** **09 43 14.0 -4.6**
LSA LR LR
comp=Z,870nm,18.9s
LSA LR LR
comp=Z,4μm,27.9s
LSA LR LR
comp=Z,690nm,15.0s
**LSA Lhasa 43.84 262** *e*P **P 09 36 47.1 -0.8**
LSA pmax pmax
comp=Z,16nm,1.1s
**LSA Lhasa 43.84 262** *e*P **P 09 36 47.1 -0.8**
comp=Z,16nm,1.1s
**MDOK Medeo 44.38 287** *e*P **P 09 36 51.3 -0.4**
comp=Z,43nm,1.4s
MDOK eS **S** **09 43 23.8 -1.9**
MDOK LR LR 09 55 16.0
comp=Z,663nm,11.0s
**KUU Kurty 44.41 288** *i*P **P 09 36 51.0 -0.8**
comp=Z,50nm,1.1s
KUU eS **S** **09 43 24.0 -1.8**
**BTLS Baital 45.15 291** *e*P **P 09 36 56.9 -0.8**
comp=Z,47nm,1.0s
**BMNS Besmoynak 45.25 288** *i*P **P 09 36 58.0 -0.6**
comp=Z,70nm,1.0s
**FRU Bishkek 46.04 288** *e*P **P 09 37 08.0 +3.3**
FRU *e* 09 38 54.0
**AAK Ala-Archa 46.23 288** LR LR 09 56 36.8
comp=Z,738nm,21.5s,baz=34,slow=36
**AAK Ala-Archa 46.23 288** *d*P **P 09 37 06.5 +0.1**
AAK pmax pmax
comp=Z,6.0nm,1.1s
AAK MLR MLR
comp=Z,805nm,14.0s
**AAK Ala-Archa 46.23 288** *e*P **P 09 37 06.8 +0.4**
comp=Z,7.1nm,0.8s
**AAK Ala-Archa 46.23 288** P **P 09 37 07.1 +0.8**
SNR=5.1
**AAK Ala-Archa 46.23 288** P **P 09 37 07.1 +0.8**
SNR=5.1
**AAK Ala-Archa 46.23 288** P **P 09 37 07.1 +0.8**
SNR=5.1
**AAK Ala-Archa 46.23 288** P **P 09 37 07.1 +0.8**
SNR=5.1
**AAK Ala-Archa 46.23 288** P **P 09 37 07.1 +0.8**
SNR=5.1
**SHL Shillong 46.30 257** *e*P **P 09 37 08.0 +0.9**
**SVE Sverdlovsk 46.35 311⇑** *e*P **P 09 37 06.5 -0.4**
SVE pmax pmax
comp=Z,26nm,1.0s
SVE MLR MLR
comp=Z,2μm,14.0s
**KSH Kashi 47.15 284** P P 09 37 20.6 +7.0
KSH pP sP 09 37 28.3 +8.6
KSH PcP **PcP** **09 38 51.3 +6.2**
KSH PP PP 09 39 12.2 +8.0
KSH S **S** **09 44 13.7 +8.1**
KSH ScS **ScS** **09 47 11.4 +4.0**
KSH pmax pmax
comp=Z,26nm,1.5s
KSH pmax pmax
comp=Z,170nm,6.4s
KSH LR LR
comp=Z,1μm,8.1s
KSH LR LR
comp=Z,2μm,12.7s
KSH LR LR
comp=Z,880nm,10.6s
**CMMT Chiang Mai 47.20 244** P **P 09 37 16.9 +2.9**
comp=Z,12nm,1.4s
**CHTO Chiang Mai 47.20 244** P **P 09 37 17.0 +3.0**
comp=Z,50nm,1.3s
**CHTO Chiang Mai 47.20 244** *e*P **P 09 37 13.3 -0.7**
CHTO pmax pmax
comp=Z,17nm,1.3s
**CHTO Chiang Mai 47.20 244** *e*P **P 09 37 13.3 -0.7**
comp=Z,17nm,1.3s
**SPITS Spitsbergen Ar 47.43 347** LR LR 09 58 30.7
comp=Z,578nm,18.9s,baz=145,slow=38
**KBS Kingsbay 47.46 349⇑** *e*P **P 09 37 15.5 +0.2**
KBS pmax pmax
comp=Z,137nm,1.7s
**CMAR Chiang Mai Arr 47.48 244** P **P 09 37 15.8 -0.3**
comp=Z,1.7nm,0.5s,baz=23,slow=7.6,SNR=13
CMAR PcP **PcP** **09 38 46.8 +0.4**
comp=Z,1.8nm,0.3s,baz=27,slow=4.4,SNR=3.6
CMAR LR LR 09 59 24.7
comp=Z,1μm,18.9s,baz=49,slow=39
**CMAR Chiang Mai Arr 47.48 244** P **P 09 37 15.9 -0.3**
CMAR 09 38 46.8
CMAR pmax pmax
comp=Z,1.0nm,0.4s
CMAR MLR MLR
comp=Z,1μm,19.0s
**CM01 Chiang Mai Arr 47.50 244** *e*P **P 09 37 16.1 -0.3**
**MNAS Manas 47.51 289** P **P 09 37 17.0 +0.6**
MNAS pmax pmax
comp=Z,13nm,1.4s
**ARU Arti 47.54 311** LR LR 09 59 00.1
comp=Z,715nm,19.1s,baz=57,slow=38
**ARU Arti 47.54 311** *d*P **P 09 37 15.4 -0.8**
ARU 09 39 05.3
ARU PPP PPP 09 39 55.2
ARU S **S** **09 44 10.0 -0.4**
ARU pmax pmax
comp=Z,22nm,1.2s
ARU MLR MLR
comp=Z,1μm,14.0s
**ARU Arti 47.54 311** *e*P **P 09 37 14.9 -1.3**
comp=Z,23nm,1.0s
**TAPN Taplejung 47.64 262** *e*P **P 09 37 17.2 -0.5**
comp=Z,44nm,1.1s
**ODAN Odare 48.19 262** *e*P **P 09 37 22.1 +0.2**
comp=Z,57nm,1.1s
**SFK Sufi-Kurgan 48.37 286** P **P 09 37 23.2 0.0**
SFK pmax pmax
comp=Z,10.0nm,1.5s
**JIRN Jiri 48.38 264** *e*P **P 09 37 22.9 -0.7**
comp=Z,240nm,0.9s
**GUN Gumba 48.40 264** *e*P **P 09 37 22.7 -1.0**
comp=Z,35nm,0.9s
**RAMN Ramite 48.62 263** *e*P **P 09 37 24.4 -0.9**
comp=Z,54nm,0.9s
**BRLS Borolday 48.79 291** *i*P **P 09 37 26.8 +0.7**
comp=Z,8.1nm,1.0s
**KKN Kakani 48.87 265** *e*P **P 09 37 26.4 -0.7**
**PKI Pulchoki 48.94 264** *e*P **P 09 37 26.9 -0.9**
**DMN Daman 49.10 265** *e*P **P 09 37 28.3 -0.7**
comp=Z,32nm,0.9s
**IUG Iuzhnay 49.20 290** *i*P **P 09 37 28.7 -0.7**
comp=Z,168nm,1.6s
**DANN Dangsing 49.44 267** *e*P **P 09 37 30.9 -0.7**
comp=Z,4.5nm,1.1s
**KOLN Koldanda 49.95 266** *e*P **P 09 37 35.0 -0.3**
comp=Z,47nm,1.0s
**PYUN Piuthan 50.10 267** *e*P **P 09 37 36.1 -0.4**
comp=Z,92nm,0.9s
**LVZ Lovozero 50.36 332⇑** *e*P **P 09 37 37.5 -0.2**
LVZ pmax pmax
comp=Z,35nm,1.1s
LVZ MLR MLR
comp=Z,590nm,15.0s
**APA Apatity 50.94 332⇑** *i*P **P 09 37 38.9 -3.1**
APA pmax pmax
comp=Z,13nm,0.8s
APA MLR MLR
comp=Z,2μm,13.0s
**AKTO Aktyubinsk 51.10 305** LR LR 09 59 03.1
comp=Z,770nm,18.1s,baz=44,slow=36
**TULEG Thule 51.42 9** *e*P **P 09 37 43.4 -2.1**
comp=Z,22nm,1.3s
**YKW3 Yellowknife Ar 51.59 35** *e*P **P 09 37 46.0 -1.0**
**TMCR Tamitsa 51.61 327** *e*P **P 09 37 46.0 -1.1**
TMCR pmax pmax
comp=Z,27nm,1.0s
**YKA Yellowknife Ar 51.64 35** P **P 09 37 46.5 -0.9**
comp=Z,3.5nm,0.8s,baz=306,slow=7.1,SNR=21
YKA LR LR 10 02 21.5
comp=Z,31nm,18.2s,baz=0.0,slow=39
**YKB5 Yellowknife Ar 51.64 35** *e*P **P 09 37 46.5 -0.9**
**ARA0 ARCESS Array S 51.78 337** *e*P **P 09 37 47.7 -0.7**
**ARCES ARCESS Array B 51.78 337** P **P 09 37 47.7 -0.7**
comp=Z,6.4nm,0.8s,baz=47,slow=8.9,SNR=7.4
ARCES LR LR 10 03 19.5
comp=Z,538nm,19.2s,baz=26,slow=40
**THN Thein Dam 51.79 276** *e*P P 09 37 40.0 -8.9
**DZET Dzherino 51.97 287** P **P 09 37 50.0 -0.3**
DZET pmax pmax
comp=Z,15nm,1.2s
**DAG Danmarks Havn 52.29 355** *i*P **P 09 37 50.4 -1.6**
DAG pmax pmax
comp=Z,10.0nm,1.1s
**DAG Danmarks Havn 52.29 355** *i*P **P 09 37 50.4 -1.6**
comp=Z,10nm,1.1s
**KLMR Klimovskoe 53.16 324** *e*P **P 09 37 54.9 -3.7**
KLMR pmax pmax
comp=Z,37nm,1.3s
KLMR MLR MLR
comp=Z,306nm,11.0s
**FAKI Fak Fak 54.21 193** *e*P **P 09 38 05.3 -1.5**
comp=Z,40nm,0.8s
**KBL Kabul 54.58 283** *e*P **P 09 38 09.0 -0.7**
KBL pmax pmax
comp=Z,21nm,1.1s
**KBL Kabul 54.58 283** *e*P **P 09 38 09.0 -0.7**
comp=Z,21nm,1.1s
**SBUM Sibu 54.69 219** *e*P **P 09 38 10.5 +0.1**
comp=Z,35nm,1.0s
**JOF Joensuu 54.70 329** P **P 09 38 08.9 -1.0**
JOF pmax pmax
comp=Z,28nm,0.9s
**OUL Oulu 54.85 333** P **P 09 38 08.7 -2.2**
OUL pmax pmax
comp=Z,34nm,1.1s
**JMIC Jan Mayen 56.94 349** LR LR 10 00 59.5
comp=Z,253nm,19.8s,baz=62,slow=34
**SUMG Summit 57.03 1** *i*P **P 09 38 26.7 -0.3**
SUMG pmax pmax
comp=Z,44nm,0.9s
**SUMG Summit 57.03 1** *i*P **P 09 38 26.7 -0.3**
comp=Z,44nm,0.9s
**SUMG Summit 57.03 1** *e*P **P 09 38 26.6 -0.3**
comp=Z,53nm,1.0s
**MOS Moscow 57.30 320** *e*P **P 09 38 32.7 +4.1**
**VAF Yilstaro 57.32 332** P **P 09 38 27.7 -0.9**
**FIA1 FINESS Array S 57.47 329** *e*P **P 09 38 28.7 -1.0**
**FIA0 FINESS Array S 57.47 329** *e*P **P 09 38 28.9 -0.8**
**FIA0 FINESS Array S 57.47 329** *e*P **P 09 38 28.9 -0.8**
**FINES FINESS Array B 57.47 329** P **P 09 38 28.9 -0.8**
comp=Z,35nm,0.8s,baz=54,slow=9.7,SNR=38
FINES LR LR 10 03 50.8
comp=Z,944nm,18.5s,baz=347,slow=37
**OBN Obninsk 58.17 320** *i*P **P 09 38 33.0 -1.7**
OBN *i* 09 39 25.8
OBN pmax pmax
comp=Z,14nm,1.1s
OBN MLR MLR
comp=Z,1μm,15.0s
**D05A Enumclaw 58.18 53** *e*P **P 09 38 35.7 +0.8**
comp=Z,51nm,1.5s
**VRH Novokhopyorsk 58.62 314** *e*P **P 09 38 35.7 -2.2**
VRH pmax pmax
comp=Z,10.0nm,0.9s
**B08A Colville Reser 58.72 51** *e*P **P 09 38 38.4 -0.4**
comp=Z,22nm,1.3s
**LPSR Galich'ya Gora 58.91 316** *e*P **P 09 38 38.4 -1.5**
LPSR pmax pmax
comp=Z,10.0nm,0.8s
**GEYT Alibeck 58.93 293** P **P 09 38 40.7 +0.3**
comp=Z,35nm,0.7s,baz=8.5,slow=3.0,SNR=14
GEYT LR LR 10 03 44.8
comp=Z,679nm,18.9s,baz=40,slow=36
**KAPI Kappang 59.02 207** P **P 09 38 40.7 -0.3**
SNR=7.5
**KAPI Kappang 59.02 207** P **P 09 38 40.7 -0.3**
SNR=7.5
**KAPI Kappang 59.02 207** P **P 09 38 40.7 -0.3**
SNR=7.5
**KAPI Kappang 59.02 207** P **P 09 38 40.7 -0.3**
SNR=7.5
**KAPI Kappang 59.02 207** P **P 09 38 40.7 -0.3**
SNR=7.5
**VSU Vasula 59.48 327⇑** *e*P **P 09 38 42.5 -1.2**
VSU pmax pmax
comp=Z,57nm,0.9s
VSU MLR MLR
comp=Z,1μm,14.0s
**C09A Chrisman Ranch 59.62 51** *e*P **P 09 38 44.5 -0.5**
comp=Z,12nm,1.0s
**E07A Sunnyside 59.68 53** *e*P **P 09 38 45.4 0.0**
comp=Z,28nm,1.4s
**VSR Storozhevoye 59.77 315** *e*P **P 09 38 43.5 -2.4**
VSR pmax pmax
comp=Z,10.0nm,1.0s
**D08A Wollman Farm, 59.81 52** *e*P **P 09 38 45.9 -0.4**
comp=Z,6.5nm,1.0s
**NEW Newport 59.86 50** *e*P **P 09 38 45.7 -1.0**
NEW pmax pmax
comp=Z,9.0nm,1.3s
**NEW Newport 59.86 50** *e*P **P 09 38 45.7 -1.0**
comp=Z,9.1nm,1.3s
**PMG Port Moresby 59.95 175⇓** *e*P **P 09 38 43.2 -4.2**
PMG pmax pmax
comp=Z,43nm,0.9s
PMG MLR MLR
comp=Z,552nm,11.0s
**HAWA Hanford 59.96 52** *e*P **P 09 38 47.2 -0.1**
comp=Z,7.7nm,0.8s
**E09A Wood Farm, Sta 60.57 52** *e*P **P 09 38 51.3 -0.1**
comp=Z,27nm,1.4s
**HYB Hyderabad 60.64 262** *i*P **P 09 38 52.0 -0.3**
**WALA Waterton Lakes 60.84 47** *e*P **P 09 38 52.9 -0.5**
comp=Z,22nm,1.2s
**G08A Pilot Rock 61.01 53** *e*P **P 09 38 55.0 +0.4**
comp=Z,4.2nm,0.9s
**F10A Beach Ranch, E 61.40 52** *e*P **P 09 38 57.2 0.0**
comp=Z,11nm,0.9s
**MAK Makhachkala 61.43 304** *e*P **P 09 38 55.0 -2.3**
MAK *e* 09 41 11.5
MAK eS **S** **09 47 15.3 -2.4**
MAK *e*SS **SS** **09 51 16.4 -1.3**
MAK pmax pmax
comp=Z,289nm,1.9s
MAK MLR MLR
comp=Z,1μm,14.0s
**I07A Izee 61.57 54** *e*P **P 09 38 58.8 +0.4**
comp=Z,22nm,1.4s
**HNR Honiara 61.63 161** LR LR 10 05 03.3
comp=Z,132nm,18.9s,baz=335,slow=35
**IZAR Zarasai 61.72 325** *e*P **P 09 38 58.7 -0.3**
IZAR IAmb IAmb 09 39 03.0
comp=Z,11nm,0.7s
**FFC Flin Flon 61.76 37** *e*P **P 09 38 58.8 -0.6**
FFC pmax pmax
comp=Z,18nm,0.9s
**FFC Flin Flon 61.76 37** *e*P **P 09 38 58.8 -0.6**
comp=Z,18nm,0.9s
**IDID Didziasalis 61.87 324** *e*P **P 09 38 59.5 -0.6**
IDID IAmb IAmb 09 39 05.0
comp=Z,8.7nm,1.0s
**ISAL Salakas 61.90 325** *e*P **P 09 38 59.8 -0.4**
ISAL IAmb IAmb 09 39 16.1
comp=Z,7.1nm,0.8s
**NC405 NORSAR Array S 61.95 336** *e*P **P 09 39 00.1 -0.5**
**IIGN Ignalina 62.03 325** *e*P **P 09 39 00.7 -0.5**
IIGN IAmb IAmb 09 39 16.9
comp=Z,13nm,1.0s
**NB201 NORSAR Array S 62.11 336** *e*P **P 09 39 01.1 -0.6**
**NB2 NORSAR Subarra 62.14 336** P **P 09 39 00.8 -1.1**
comp=Z,6.9nm,0.8s,baz=33,slow=6.5
**NB2 NORSAR Subarra 62.14 336** P **P 09 39 05.1 +3.2**
NB2 pmax pmax
comp=Z,10.0nm,0.8s
**NB200 NORSAR Array S 62.14 336** *e*P **P 09 39 01.1 -0.8**
**NOA NORSAR Array B 62.14 336** P **P 09 39 01.1 -0.8**
comp=Z,9.8nm,0.8s,baz=33,slow=6.5,SNR=12
NOA LR LR 10 07 36.7
comp=Z,506nm,20.9s,baz=50,slow=38
**BMO Blue Mountains 62.15 52** *e*P **P 09 39 02.5 +0.2**
BMO pmax pmax
comp=Z,14nm,1.3s

BMO Blue Mountains 62.15 52 eP P 09 39 02.5 +0.2
comp=Z,14nm,1.3s
SFJD Kangerlussuaq 62.18 6 eP P 09 39 00.3 -1.7
SFJD Kangerlussuaq 62.18 6 iP P 09 39 00.3 -1.7
NBO02 NORSAR Array S 62.23 336 eP P 09 39 01.2 -1.2
GOF Gofitskoye 62.26 308⇑eP P 09 39 03.2 +0.3
GOF pmax pmax
comp=Z,67nm,0.9s
MSO Missoula 62.41 49 eP P 09 39 03.8 -0.2
comp=Z,19nm,1.2s
J08A Circle Bar Ran 62.61 54 eP P 09 39 06.2 +0.8
comp=Z,22nm,1.3s
MOD Modoc Plateau 62.67 57 eP P 09 39 06.3 +0.4
comp=Z,14nm,1.3s
SEKA Sheki 62.81 302 P P 09 39 04.5 -2.2
ZKTA Zakatala 62.82 303 P P 09 39 04.8 -1.9
NCK Nalchik 63.09 306⇓iP P 09 39 08.4 -0.1
NCK pmax pmax
comp=Z,46nm,1.1s
NCK MLR MLR
comp=Z,900nm,16.0s
WVOR Wild Horse Val 63.18 55 eP P 09 39 09.7 +0.5
WVOR pmax pmax
comp=Z,30nm,1.5s
WVOR Wild Horse Val 63.18 55 eP P 09 39 09.7 +0.5
comp=Z,30nm,1.5s
DDFL Dedoflistskaro 63.22 303 P P 09 39 10.9 +1.4
KIV Kislovodsk 63.22 307 eP P 09 39 08.8 -0.7
KIV pmax pmax
comp=Z,72nm,1.1s
KIV MLR MLR
comp=Z,940nm,17.0s
KIV Kislovodsk 63.22 307 eP P 09 39 09.8 +0.4
comp=Z,67nm,1.0s
KIV Kislovodsk 63.22 307 P P 09 39 10.2 +0.7
SNR=13
KIV P P 09 39 10.2 +0.7
SNR=13
KIV Kislovodsk 63.22 307 P P 09 39 10.2 +0.7
SNR=13
KIV P P 09 39 10.2 +0.7
SNR=13
KIV Kislovodsk 63.22 307 P P 09 39 10.2 +0.7
SNR=13
KIV P P 09 39 10.2 +0.7
SNR=13
KIV Kislovodsk 63.22 307 P P 09 39 10.2 +0.7
SNR=13
KIV Kislovodsk 63.22 307 P P 09 39 10.2 +0.7
SNR=13
KIV P P 09 39 10.2 +0.7
SNR=13
KBZ Khabaz 63.28 307 P P 09 39 09.2 -0.5
comp=Z,6.6nm,0.8s,baz=39,slow=6.5,SNR=12
KBZ LR LR 10 09 51.4
comp=Z,912nm,19.2s,baz=41,slow=39
GUDG Gudauri 63.37 305 P P 09 39 10.7 +0.1
ZEI Tsey 63.43 306 eP P 09 39 05.8 -5.2
ZEI pmax pmax
comp=Z,15nm,1.1s
HRY Holter Researc 63.50 48 eP P 09 39 11.5 +0.2
EGMT Eagleton 63.50 46 eP P 09 39 10.9 -0.4
comp=Z,46nm,1.4s
GANJ Ganja 63.68 303 P P 09 39 10.5 -2.0
LKRN Lenkeran, Azer 63.71 300 P P 09 39 10.8 -1.8
NEY Neytrino 63.71 307c iP P 09 39 12.1 -0.7
NEY pmax pmax
comp=Z,5.0nm,0.9s
TBLG Delisi 63.75 304 P P 09 39 12.8 -0.1
TBLG Delisi 63.75 304 eP P 09 39 12.7 -0.1
ONI Oni 63.81 306 P P 09 39 13.2 -0.1
ONI Oni 63.81 306 eP P 09 39 13.2 -0.1
LRM Limekiln Ridge 63.85 49 eP P 09 39 13.7 -0.1
MFID Camas Ranch 63.92 53 eP P 09 39 14.2 +0.1
comp=Z,14nm,1.3s
BEKR Beckworth 64.08 58 eP P 09 39 15.4 +0.1
comp=Z,11nm,1.2s
DLMT Dillon 64.11 49 eP P 09 39 15.5 +0.1
comp=Z,24nm,1.0s
MTN Manton Dam 64.12 193 eP P 09 39 14.8 -0.6
comp=Z,72nm,1.1s
COEN Coen 64.37 180 eP P 09 39 17.1 0.0
comp=Z,18nm,1.0s
MCMT McKenzie Canyo 64.38 50 eP P 09 39 17.1 -0.2
AFDM Forest Hills D 64.40 59 eP P 09 39 16.8 -0.5
comp=Z,7.5nm,1.1s
BOZ Bozeman (W) 64.41 49 eP P 09 39 17.0 -0.3
BOZ pmax pmax
comp=Z,12nm,0.9s
BOZ Bozeman (W) 64.41 49 eP P 09 39 17.0 -0.3
comp=Z,12nm,0.9s
CHVG Ch'k'valeri 64.42 307 P P 09 39 17.8 +0.6
AKASG Malin Array Be 64.43 320 P P 09 39 15.8 -1.3
comp=Z,14nm,0.8s,baz=37,slow=7.4,SNR=33
AKASG LR LR 10 08 45.0
comp=Z,724nm,18.1s,baz=55,slow=37
AKASG Malin Array Be 64.43 320 P P 09 39 15.8 -1.3
AKASG pmax pmax
comp=Z,13nm,0.8s
AKASG MLR MLR
comp=Z,724nm,18.1s
AKBB Malin Array Si 64.43 320 eP P 09 39 15.8 -1.3
AKBB pmax pmax
comp=Z,12nm,0.9s
AKBB Malin Array Si 64.43 320 eP P 09 39 15.8 -1.3
comp=Z,12nm,0.9s
KIEV Kiev 64.44 320 eP P 09 39 15.5 -1.7
KIEV pmax pmax
comp=Z,13nm,1.0s
KIEV Kiev 64.44 320 eP P 09 39 15.5 -1.7
comp=Z,13nm,1.0s
AK11 Malin Array Si 64.47 320 eP P 09 39 15.6 -1.8
HLID Hailey 64.53 52 eP P 09 39 20.7 +2.6
comp=Z,5.3nm,1.4s
AKH Akhalkalaki 64.63 305 P P 09 39 12.2 -6.7
AKH Akhalkalaki 64.63 305⇓iP P 09 39 19.9 +1.0
AKH Akhalkalaki 64.63 305 eP P 09 39 12.2 -6.7
BGD Bogdanovka 64.68 305 P P 09 39 19.8 +0.6
PAHR Pah Rah Range 64.72 58 eP P 09 39 19.6 +0.2
comp=Z,12nm,0.9s
GNI Garni 64.88 303c iP P 09 39 21.2 +0.7
GNI pmax pmax
comp=Z,185nm,1.2s
GNI Garni 64.88 303 eP P 09 39 21.4 +0.9
comp=Z,57nm,1.0s
GNI Garni 64.88 303 P P 09 39 22.2 +1.7
SNR=8.5
GNI P P 09 39 22.2 +1.7
SNR=8.5
GNI Garni 64.88 303 P P 09 39 22.2 +1.7
SNR=8.5
GNI P P 09 39 22.2 +1.7
SNR=8.5
GNI Garni 64.88 303 P P 09 39 22.2 +1.7
SNR=8.5
GNI P P 09 39 22.2 +1.7
SNR=8.5
GNI Garni 64.88 303 P P 09 39 22.2 +1.7
SNR=8.5
GNI P P 09 39 22.2 +1.7
SNR=8.5
SOC Sochi 64.98 309 eP P 09 39 18.9 -2.0
SOC eS S 09 48 00.5 -1.6
SOC eSS SS 09 52 18.5 +5.4
SOC eSSS SSS 09 55 08.5
SOC pmax pmax
comp=Z,46nm,1.1s
SOC MLR MLR
comp=Z,524nm,10.0s
PNTR Pine Nut 65.05 58 eP P 09 39 22.6 +0.9
comp=Z,11nm,0.9s
NAX Nakhchivan 65.18 302 P P 09 39 20.2 -2.1
GCMT Greycliff 65.19 47 eP P 09 39 22.7 +0.3
ANN Anapa 65.20 311 eP P 09 39 23.6 +1.3
ANN e 09 39 48.0
ANN eS S 09 48 06.6 +1.9
ANN pmax pmax
comp=Z,58nm,1.2s
ANN MLR MLR
comp=Z,1μm,19.0s
YHB Horse Butte 65.24 49 eP P 09 39 22.7 -0.1
comp=Z,9.3nm,0.8s
YHB eS S 09 48 06.2 +0.4
YERR Yerington 65.32 58 eP P 09 39 23.9 +0.5
comp=Z,45nm,1.5s
YHH Holmes Hill 65.38 49 eP P 09 39 23.9 +0.1
comp=Z,4.5nm,0.9s
CMB Columbia Colle 65.38 60 eP P 09 39 23.9 +0.3
CMB pmax pmax
comp=Z,15nm,1.4s
CMB Columbia Colle 65.38 60 eP P 09 39 23.9 +0.3
comp=Z,15nm,1.4s
YMR Madison River 65.41 49 eP P 09 39 24.8 +0.8
comp=Z,8.9nm,1.1s
WAKR Walker 65.56 59 eP P 09 39 25.6 +0.7
comp=Z,9.2nm,1.1s
ARTV Artvin 65.61 306 eP P 09 39 25.2 0.0
comp=Z,9.3nm,0.9s
DGMT Dagmar 65.63 42 eP P 09 39 25.0 0.0
comp=Z,25nm,1.1s
H17A Grant Village 65.80 49 eP P 09 39 27.6 +1.1
comp=Z,13nm,1.1s
RLMT Red Lodge 65.88 48 eP P 09 39 27.2 +0.2
comp=Z,13nm,0.8s
IMW Indian Meadow 65.99 50 eP P 09 39 28.1 +0.3
comp=Z,4.6nm,0.9s
BSD Bornholm Skovb 66.08 330 eP P 09 39 26.9 -0.8
BSD Bornholm Skovb 66.08 330 i P P 09 39 26.9 -0.8
FXWY Fox Creek 66.14 50 eP P 09 39 28.8 +0.1
comp=Z,3.0nm,0.9s
MOOW Moose Ponds 66.20 50 eP P 09 39 29.5 +0.5
comp=Z,12nm,1.3s
TPAW Teton Pass 66.29 50 eP P 09 39 30.3 +0.6
comp=Z,17nm,1.3s
MDPB Devils Postpil 66.38 59 eP P 09 39 31.3 +0.9
comp=Z,10nm,1.2s
SNOW Snow King Moun 66.41 50 eP P 09 39 30.8 +0.4
comp=Z,12nm,1.4s
REDW Red Top Meadow 66.43 50 eP P 09 39 31.6 +1.0
comp=Z,13nm,1.3s
HVU Hansel Valley 66.66 52 eP P 09 39 32.5 +0.6
HVU pmax pmax
comp=Z,5.0nm,0.9s
HVU Hansel Valley 66.66 52 eP P 09 39 32.5 +0.6
comp=Z,4.6nm,0.9s
SORM Soroca 66.77 319⇑iP P 09 39 31.3 -1.0
BGU Big Grassy Mou 67.16 53 eP P 09 39 35.9 +0.7
comp=Z,5.5nm,1.1s
SPUT South Promonto 67.17 52 eP P 09 39 35.4 +0.2
comp=Z,5.4nm,0.9s
LVV L'vov 67.20 322 eP P 09 39 34.4 -0.6
KOPT Kop Dagi 67.20 306 eP P 09 39 36.7 +1.2
comp=Z,45nm,0.9s
BW06 Boulder Array 67.51 50 eP P 09 39 36.6 -0.8
comp=Z,12nm,1.1s
PD31 Pinedale Array 67.51 50 eP P 09 39 36.6 -0.8
PDAR Pinedale Array 67.51 50 P P 09 39 36.9 -0.5
comp=Z,3.8nm,0.8s,baz=339,slow=2.1,SNR=29
PDAR LR LR 10 11 22.5
comp=Z,377nm,18.5s,baz=348,slow=38
PDAR Pinedale Array 67.51 50 eP P 09 39 36.0 -1.4
ULM Lac du Bonnet 67.59 37 P P 09 39 35.9 -1.6
comp=Z,6.4nm,0.8s,baz=327,slow=6.9,SNR=8.7
ULM LR LR 10 11 42.2
comp=Z,316nm,18.2s,baz=304,slow=38
ULM Lac du Bonnet 67.59 37 eP P 09 39 36.2 -1.3
ULM pmax pmax
comp=Z,20nm,1.1s
ULM Lac du Bonnet 67.59 37 eP P 09 39 36.2 -1.3
comp=Z,20nm,1.1s
R11A Troy Canyon, C 67.74 56 eP P 09 39 38.9 +0.1
comp=Z,4.7nm,1.1s
DUG Dugway, Tooele 67.81 53 eP P 09 39 39.5 +0.2
DUG pmax pmax
comp=Z,9.0nm,1.0s
DUG Dugway, Tooele 67.81 53 eP P 09 39 39.5 +0.2
comp=Z,8.9nm,1.0s
TCUT Toone Canyon 67.83 52 eP P 09 39 39.2 -0.3
comp=Z,24nm,1.4s
KWP Kalwaria Pacla 67.86 323 eP P 09 39 39.0 -0.2
KWP Kalwaria Pacla 67.86 323 eP P 09 39 39.0 -0.2
JLU Jordanelle 68.20 52 eP P 09 39 41.9 +0.1
comp=Z,13nm,1.4s
NLU North Lily Min 68.37 53 eP P 09 39 43.1 +0.3
comp=Z,9.2nm,1.1s
TPNV Topopah Spring 68.42 58 eP P 09 39 43.0 -0.1
TPNV pmax pmax
comp=Z,13nm,0.8s
TPNV Topopah Spring 68.42 58 eP P 09 39 43.0 -0.1
comp=Z,13nm,0.8s
FURC Furnace Creek, 68.44 59 P P 09 39 43.3 +0.3
baz=318
BUR08 Bucovina Ar. S 68.47 320 eP P 09 39 42.2 -1.0
OJC Ojcow 68.48 325 eP P 09 39 42.6 -0.5
OJC Ojcow 68.48 325 eP P 09 39 42.6 -0.5
OJC Ojcow 68.48 325 eP P 09 39 41.0 -2.0
comp=Z,14nm,0.8s
BUR04 Bucovina Ar. S 68.48 320 eP P 09 39 42.2 -1.1
BURAR Bucovina Array 68.48 320⇓iP P 09 39 42.4 -0.9
BURAR Bucovina Array 68.48 320 P P 09 39 42.4 -0.9
MPU Maple Canyon 68.55 53 eP P 09 39 43.6 -0.4
comp=Z,10nm,1.2s
STHS Stebnicka Huta 68.59 323 eP P 09 39 43.3 -0.5
STHS e 09 39 47.6
STHS pmax pmax
comp=Z,7.0nm,0.8s
STHS Stebnicka Huta 68.59 323 eP P 09 39 43.3 -0.5
STHS e 09 39 47.6
TESR Tescani 68.77 318⇓iP P 09 39 44.2 -0.7
CRVS Cervenica-Dubn 68.93 323 eP P 09 39 45.1 -0.8
CRVS e 09 39 48.6
CRVS Cervenica-Dubn 68.93 323 eP P 09 39 45.1 -0.8
CRVS e 09 39 48.6
NIE Niedzica 68.95 324 eP P 09 39 46.4 +0.3
NIE Niedzica 68.95 324 eP P 09 39 46.3 +0.3
K22A Casper 69.04 48 eP P 09 39 47.4 +0.5
comp=Z,16nm,1.3s
RSSD Black Hills 69.06 45 eP P 09 39 46.4 -0.6
RSSD pmax pmax
comp=Z,8.0nm,0.9s
RSSD Black Hills 69.06 45 eP P 09 39 46.4 -0.6
comp=Z,8.3nm,0.9s
MARD Mardin 69.06 303 eP P 09 39 47.4 +0.3
comp=Z,46nm,0.6s
TRPA Tarpa 69.14 322⇑eP P 09 39 46.6 -0.6
CFR Carcaliu 69.18 317⇓iP P 09 39 46.9 -0.6
KSP Ksiaz 69.21 327 eP P 09 39 47.4 -0.2
KSP Ksiaz 69.21 327 eP P 09 39 47.4 -0.2
VRI Vrincioaia 69.24 318⇑iP P 09 39 47.7 -0.2
PLOR Plostina 69.29 318⇑iP P 09 39 48.0 -0.2
TMUT Trail Mountain 69.31 53 eP P 09 39 48.8 0.0
comp=Z,8.6nm,0.9s
SHPR Sheep Range 69.33 57 eP P 09 39 48.7 -0.1
comp=Z,7.8nm,1.1s
GSC Goldstone, Bar 69.33 59 eP P 09 39 48.9 +0.1
GSC pmax pmax
comp=Z,11nm,1.3s
GSC Goldstone, Bar 69.33 59 eP P 09 39 48.9 +0.1
comp=Z,11nm,1.3s
OKC Ostrava-Krasne 69.39 325 eP P 09 39 48.3 -0.5
OKC Ostrava-Krasne 69.39 325 eP P 09 39 48.3 -0.5
MSU Marysvale 69.40 54 eP P 09 39 50.0 +0.7
MSU Marysvale 69.40 54 eP P 09 39 50.0 +0.7
P17A Butcher Ranch, 69.41 53 eP P 09 39 49.5 +0.2
comp=Z,16nm,1.3s
MWC Mount Wilson 69.44 61 eP P 09 39 49.9 +0.3
MWC pmax pmax
comp=Z,10.0nm,1.0s
MWC Mount Wilson 69.44 61 eP P 09 39 49.9 +0.3
comp=Z,10nm,1.0s
RWWY Rawlins 69.46 49 eP P 09 39 49.4 -0.2
comp=Z,14nm,1.3s
CCUT Cedar City 69.50 56 eP P 09 39 50.3 +0.3
comp=Z,9.9nm,1.3s
P18A Preston Nutter 69.54 52 eP P 09 39 49.7 -0.5
comp=Z,8.9nm,0.8s
UPC Upice 69.59 327 eP P 09 39 50.0 0.0
UPC Upice 69.59 327 eP P 09 39 50.0 0.0
Q16A Castle Valley 69.61 53 eP P 09 39 51.3 +0.8
comp=Z,5.5nm,1.0s
DPC Dobruska-Polom 69.61 327 eP P 09 39 50.0 -0.2
DPC epP pP 09 39 53.2 -1.5
DPC Dobruska-Polom 69.61 327 eP P 09 39 50.0 -0.2
DPC e 09 39 53.2
SZCU Shurtz Canyon 69.62 55 eP P 09 39 50.3 -0.3
comp=Z,14nm,1.5s
KECS Kecovo 69.65 323 eP P 09 39 50.3 -0.1
KECS pmax pmax
comp=Z,3.0nm,0.9s
KECS Kecovo 69.65 323 eP P 09 39 50.3 -0.1
MORC Moravsky Berou 69.66 326⇑iP P 09 39 50.2 -0.3
MORC Moravsky Berou 69.66 326 eP P 09 39 49.9 -0.6
MORC pmax pmax
comp=Z,49nm,0.8s
MORC Moravsky Berou 69.66 326 eP P 09 39 49.9 -0.6
comp=Z,49nm,0.8s
KRLC Kraliky 69.68 326 eP P 09 39 50.6 0.0
KRLC epP pP 09 39 53.8 -1.3
KRLC Kraliky 69.68 326 eP P 09 39 47.4 -3.2
KRLC e 09 39 50.6
KRLC e 09 39 53.8
DOPR Dopca 69.73 319⇓iP P 09 39 51.3 +0.4
MTPU Mount Pierson 69.75 54 eP P 09 39 52.4 +0.8
comp=Z,14nm,1.3s
ILGA Ilgaz 69.82 311 eP P 09 39 52.7 +0.9
comp=Z,25nm,1.0s
MLR Muntele Rosu 69.87 318⇑iP P 09 39 52.6 +0.6
MLR Muntele Rosu 69.87 318 eP P 09 39 52.5 +0.6
MLR pmax pmax
comp=Z,10.0nm,0.8s
MLR Muntele Rosu 69.87 318 eP P 09 39 52.5 +0.5
comp=Z,9.9nm,0.8s
ISR Istrita 69.92 318⇓iP P 09 39 52.2 +0.1
CLL Collm 69.92 329⇑iP P 09 39 50.9 -1.0
CLL i 09 39 53.9
CLL pmax pmax
comp=Z,26nm,1.0s
CLL Collm 69.92 329⇑iP P 09 39 50.9 -1.0
comp=Z,26nm,1.0s
CLL i pP pP 09 39 53.9 -2.6
comp=Z,28nm,0.9s
CLL i 09 40 02.3
CLL LmH 10 09 00.0
comp=N,2μm,19.0s
CLL LmH 10 09 00.0
comp=E,2μm,20.6s
CLL Collm 69.92 329 eP P 09 39 50.8 -1.2
comp=E,27nm,0.8s
HEC Hector,Ludlow 69.94 59 P P 09 39 53.0 +0.5
baz=318
LCMT Little Creek M 69.97 56 eP P 09 39 53.2 +0.4
comp=E,6.9nm,1.1s
BRG Berggiesshubel 69.98 328 i P P 09 39 51.5 -0.8
BRG pmax pmax
comp=Z,9.0nm,0.9s
PVCC Panska Ves 70.06 328 eP P 09 39 52.8 -0.1
PVCC epP pP 09 39 55.1 -2.3
PVCC Panska Ves 70.06 328 eP P 09 39 52.8 -0.1
PVCC e 09 39 55.1
PKCU Pink Cliffs 70.14 55 eP P 09 39 55.4 +1.4
comp=Z,21nm,1.3s
O20A White River Ci 70.15 51 eP P 09 39 53.5 -0.3
comp=Z,14nm,0.8s
DRGR 70.16 321⇓iP P 09 39 53.3 -0.3
F31A Hecla 70.19 41 P P 09 39 53.0 -0.7
baz=324
KNB Kanab 70.19 56 eP P 09 39 54.7 +0.6
KNB pmax pmax
comp=Z,19nm,1.2s
KNB Kanab 70.19 56 eP P 09 39 54.7 +0.6
comp=Z,19nm,1.2s
VYHS Vyhne 70.26 324 eP P 09 39 53.7 -0.4
VYHS Vyhne 70.26 324 eP P 09 39 53.7 -0.4
VOIR 70.30 319⇓iP P 09 39 54.5 0.0
PSZ Piszkesteto 70.34 323⇑iP P 09 39 55.1 +0.4
PSZ Piszkesteto 70.34 323 eP P 09 39 54.0 -0.7
PSZ pmax pmax
comp=Z,10.0nm,0.8s
PSZ Piszkesteto 70.34 323 eP P 09 39 54.0 -0.7
comp=Z,9.5nm,0.8s
VRAC Vranov 70.39 326⇑iP P 09 39 53.9 -1.0
VRAC Vranov 70.39 326 P P 09 39 53.9 -1.0
LDFC Landfair 70.43 58 eP P 09 39 55.8 +0.3
comp=Z,22nm,1.0s
GOPC GO Pecny, Ondr 70.51 327 eP P 09 39 55.5 -0.2
GOPC GO Pecny, Ondr 70.51 327 eP P 09 39 55.5 -0.2
ARR Arges 70.53 319⇓iP P 09 39 56.4 +0.5
PRU Pruhonice 70.53 328 eP P 09 39 55.6 -0.1
PRU epP pP 09 39 58.7 -1.6
PRU Pruhonice 70.53 328 eP P 09 39 55.6 -0.1
PRU e 09 39 58.7
WRAB Tennant Creek 70.73 189 eP P 09 39 57.7 +0.5
WRAB pmax pmax
comp=Z,13nm,0.8s
WRAB Tennant Creek 70.73 189 eP P 09 39 57.6 +0.5
comp=Z,13nm,0.8s
WB2 Warramunga Arr 70.74 189 eP P 09 39 56.6 -0.6
WR1 Warramunga Arr 70.74 189 eP P 09 39 55.3 -2.0
comp=Z,12nm,0.8s
WRA Warramunga Arr 70.74 189 P P 09 39 55.3 -2.0
comp=Z,15nm,0.8s,baz=5.8,slow=6.8,SNR=31
WRA LR LR 10 10 38.6
comp=Z,108nm,21.1s,baz=70,slow=36
BR101 Keskin Array S 70.88 310 eP P 09 39 58.0 -0.3
BR131 Keskin Array S 70.88 310 eP P 09 39 58.0 -0.2
BRTR Keskin Array B 70.88 310 P P 09 39 58.0 -0.2
comp=Z,14nm,0.8s,baz=72,slow=4.0,SNR=19
BRTR LR LR 10 14 17.5
comp=Z,291nm,18.5s,baz=52,slow=39
BRTR Keskin Array B 70.88 310 P P 09 39 58.0 -0.2
BRTR pmax pmax
comp=Z,14nm,0.8s
BRTR MLR MLR
comp=Z,291nm,18.5s
U15A North Rim 70.91 56 eP P 09 39 59.1 +0.4
comp=Z,9.8nm,1.0s
PV09 Paradox Valley 70.96 52 eP P 09 39 59.0 +0.1
NKC Novy Kostel 71.02 329 eP P 09 39 58.5 -0.3
NKC Novy Kostel 71.02 329 eP P 09 39 58.5 -0.3
PV10 Paradox Valley 71.10 52 eP P 09 40 00.3 +0.5
EYMN Ely 71.12 35 eP P 09 39 57.8 -1.6
comp=Z,21nm,1.0s
BR231 Keskin MP Arra 71.21 310 eP P 09 39 58.1 -2.1
PV05 Paradox Valley 71.30 53 eP P 09 40 00.9 -0.1
CSKK Cs`‡kako 71.41 324⇑eP P 09 40 01.1 -0.1
SMCO Snowmass 71.51 50 eP P 09 40 02.2 -0.2
comp=Z,4.8nm,0.7s
PV01 Paradox Valley 71.52 52 eP P 09 40 02.4 +0.1
KHC Kasperske Hory 71.59 328 eP P 09 40 01.8 -0.4
KHC epP pP 09 40 05.5 -1.3
KHC Kasperske Hory 71.59 328 eP P 09 40 01.9 -0.3
KHC pmax pmax
comp=Z,7.0nm,1.2s
KHC Kasperske Hory 71.59 328 eP P 09 40 01.9 -0.3
comp=Z,6.9nm,1.2s
ISCO Idaho Springs 71.69 49 eP P 09 40 03.4 +0.1
ISCO pmax pmax
comp=Z,7.0nm,1.0s
ISCO Idaho Springs 71.69 49 eP P 09 40 03.4 +0.1
comp=Z,6.9nm,1.0s
Y12C Blythe 71.74 59 eP P 09 40 03.6 +0.3
comp=Z,13nm,1.2s
GEC2 GERESS Array S 71.79 328 eP P 09 40 03.2 -0.4
GEC2 pmax pmax
comp=Z,7.0nm,1.0s
GEC2 GERESS Array S 71.79 328 eP P 09 40 03.2 -0.4
comp=Z,6.9nm,1.0s
GERES GERESS Array B 71.79 328 P P 09 40 02.9 -0.6
comp=Z,3.0nm,0.9s,baz=40,slow=5.2,SNR=12
GERES LR LR 10 13 11.4
comp=Z,568nm,19.0s,baz=26,slow=37
GEA0 GERESS Array S 71.80 328 eP P 09 40 02.6 -1.0
WET Wettzell 71.82 328 P P 09 40 03.3 -0.3
WET pmax pmax
comp=Z,19nm,0.8s
CONA Conrad Observa 71.82 326 eP P 09 40 03.9 +0.2
comp=Z,7.8nm,0.9s
HERR Herculane 71.84 320⇓iP P 09 40 02.8 -0.9
GRF Grafenberg Arr 71.89 329 P P 09 40 03.9 -0.1
GRF pmax pmax
comp=Z,42nm,1.1s
GRFO Grafenberg 71.89 329 eP P 09 40 04.0 0.0
GRFO pmax pmax
comp=Z,23nm,0.9s
GRFO Grafenberg 71.89 329 eP P 09 40 04.0 0.0
comp=Z,23nm,0.9s
SCHQ Schefferville 71.91 18 LR LR 10 14 21.3
comp=Z,422nm,18.9s,baz=360,slow=38
WUAZ Wupatki 72.09 56 eP P 09 40 06.1 +0.4
comp=Z,18nm,1.2s
GLA Glamis 72.10 60 eP P 09 40 05.9 +0.3
GLA pmax pmax
comp=Z,18nm,1.3s
GLA Glamis 72.10 60 eP P 09 40 05.9 +0.3
comp=Z,18nm,1.3s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **MVCO** | **Mesa Verde** | **72.27** | **53** | *e*P | | **P** | **09 40 06.7** | **-0.1** |
| | comp=Z,13nm,1.2s | | | | | | | | |
| **Y14A** | **Wickenburg** | **72.42** | **58** | *e*P | | **P** | **09 40 07.8** | **+0.3** |
| | comp=Z,31nm,1.0s | | | | | | | | |
| **MOA** | **Molln** | **72.45** | **327** | *e*P | | **P** | **09 40 07.2** | **-0.2** |
| | comp=Z,10nm,1.2s | | | | | | | | |
| **OGNE** | **Ogallala** | **72.47** | **46** | *e*P | | **P** | **09 40 07.7** | **0.0** |
| | comp=Z,40nm,1.3s | | | | | | | | |
| **ARSA** | **Arzberg** | **72.51** | **326** | *e*P | | **P** | **09 40 07.3** | **-0.5** |
| | comp=Z,5.2nm,0.8s | | | | | | | | |
| **ECSD** | **EROS Data Cent** | **72.59** | **41** | *e*P | | **P** | **09 40 06.7** | **-1.6** |
| | comp=Z,14nm,0.9s | | | | | | | | |
| **MEM** | **Membach** | **72.68** | **333** | P | | **P** | **09 40 08.0** | **-0.6** |
| | comp=Z,15nm,1.0s | | | | | | | | |
| **S22A** | **4UR Ranch, Cre** | **72.69** | **51** | *e*P | | **P** | **09 40 09.5** | **+0.2** |
| | comp=Z,10nm,1.3s | | | | | | | | |
| **X16A** | **Lo Mia Camp, P** | **72.89** | **56** | *e*P | | **P** | **09 40 11.1** | **+0.6** |
| | comp=Z,7.9nm,0.9s | | | | | | | | |
| **BCLA** | **Clavier** | **73.05** | **333** | P | | **P** | **09 40 10.2** | **-0.6** |
| | comp=Z,10nm,1.3s | | | | | | | | |
| **BGES** | **Gesves** | **73.14** | **333** | P | | **P** | **09 40 10.3** | **-1.1** |
| **SOKA** | **Soboth** | **73.18** | **326** | *e*P | | **P** | **09 40 11.5** | **-0.3** |
| | comp=Z,8.6nm,1.2s | | | | | | | | |
| **W18A** | **Petrified Fore** | **73.25** | **55** | *e*P | | **P** | **09 40 13.1** | **+0.5** |
| | comp=Z,11nm,1.0s | | | | | | | | |
| **BMRD** | **Maredsous** | **73.31** | **334** | P | | **P** | **09 40 11.7** | **-0.7** |
| **SDCO** | **Great Sand Dun** | **73.35** | **50** | *e*P | | **P** | **09 40 12.9** | **-0.3** |
| | comp=Z,7.7nm,1.2s | | | | | | | | |
| **VTS** | **Vitosha** | **73.38** | **318** | *i*P | | **P** | **09 40 12.1** | **-1.1** |
| **VTS** | **Vitosha** | **73.38** | **318** | *e*P | | **P** | **09 40 12.8** | **-0.4** |
| VTS | | | | | pmax | pmax | | | |
| | comp=Z,18nm,0.9s | | | | | | | | |
| **VTS** | **Vitosha** | **73.38** | **318** | *e*P | | **P** | **09 40 12.8** | **-0.4** |
| | comp=Z,18nm,0.9s | | | | | | | | |
| **KBA** | **Koelnbreinsper** | **73.43** | **327** | P | | **P** | **09 40 13.4** | **0.0** |
| KBA | | | | | pmax | pmax | | | |
| | comp=Z,24nm,0.8s | | | | | | | | |
| **KBA** | **Koelnbreinsper** | **73.43** | **327** | *e*P | | **P** | **09 40 13.6** | **+0.2** |
| | comp=Z,22nm,1.0s | | | | | | | | |
| **GIVF** | **Givet** | **73.47** | **333** | *e*P | | **P** | **09 40 11.9** | **-1.5** |
| GIVF | | | | | pmax | pmax | | | |
| | comp=Z,24nm,1.2s | | | | | | | | |
| **WLF** | **Walferdange** | **73.48** | **332** | P | | **P** | **09 40 12.5** | **-1.0** |
| **OBKA** | **Obir** | **73.50** | **326** | *e*P | | **P** | **09 40 13.3** | **-0.4** |
| | comp=Z,9.8nm,1.1s | | | | | | | | |
| **DOU** | **Dourbes** | **73.54** | **334** | P | | **P** | **09 40 13.3** | **-0.5** |
| **X18A** | **Snowflake** | **73.59** | **55** | *e*P | | **P** | **09 40 15.0** | **+0.4** |
| | comp=Z,11nm,1.2s | | | | | | | | |
| **BAIF** | **Baives** | **73.68** | **334** | *e*P | | **P** | **09 40 13.3** | **-1.3** |
| BAIF | | | | | pmax | pmax | | | |
| | comp=Z,17nm,1.0s | | | | | | | | |
| **MYKA** | **Terra Mystica** | **73.72** | **326** | *e*P | | **P** | **09 40 14.2** | **-0.8** |
| | comp=Z,9.6nm,0.8s | | | | | | | | |
| **WATA** | **Walderalm** | **73.82** | **328** | *e*P | | **P** | **09 40 15.8** | **+0.2** |
| | comp=Z,18nm,1.0s | | | | | | | | |
| **WTTA** | **Wattenberg** | **73.86** | **328** | *e*P | | **P** | **09 40 15.2** | **-0.7** |
| | comp=Z,15nm,0.9s | | | | | | | | |
| **MOTA** | **Moosalm** | **73.97** | **328** | *e*P | | **P** | **09 40 16.2** | **-0.3** |
| | comp=Z,15nm,0.7s | | | | | | | | |
| **BFO** | **Black Forest** | **74.00** | **330** | *i*P | | **P** | **09 40 17.0** | **+0.4** |
| **ABTA** | **Abfaltersbach** | **74.01** | **327** | *e*P | | **P** | **09 40 15.7** | **-1.0** |
| | comp=Z,12nm,1.4s | | | | | | | | |
| **MANT** | **Manisa** | **74.29** | **312** | *e*P | | **P** | **09 40 18.6** | **0.0** |
| | comp=Z,54nm,0.9s | | | | | | | | |
| **T25A** | **Trinidad** | **74.36** | **50** | *e*P | | **P** | **09 40 18.9** | **-0.2** |
| | comp=Z,9.9nm,1.3s | | | | | | | | |
| **FETA** | **Feichten** | **74.38** | **328** | *e*P | | **P** | **09 40 18.8** | **-0.1** |
| | comp=Z,8.5nm,1.0s | | | | | | | | |
| **DAVA** | **Damuels** | **74.42** | **329** | P | | **P** | **09 40 21.5** | **+2.3** |
| | comp=Z,12nm,0.8s | | | | | | | | |
| **AS01** | **Alice Springs** | **74.47** | **189** | *e*P | | **P** | **09 40 18.1** | **-1.2** |
| **ECH** | **Echery** | **74.47** | **331** | *e*P | | **P** | **09 40 18.5** | **-0.7** |
| ECH | | | | | pmax | pmax | | | |
| | comp=Z,11nm,0.9s | | | | | | | | |
| **ECH** | **Echery** | **74.47** | **331** | *e*P | | **P** | **09 40 18.5** | **-0.7** |
| | comp=Z,11nm,0.9s | | | | | | | | |
| **AS31** | **Alice Springs** | **74.47** | **189** | *e*P | | **P** | **09 40 18.6** | **-0.8** |
| | comp=Z,4.5nm,0.8s | | | | | | | | |
| **ASAR** | **Alice Springs** | **74.47** | **189** | P | | **P** | **09 40 18.4** | **-1.1** |
| | comp=Z,20nm,0.8s,baz=1.9,slow=5.0,SNR=130 | | | | | | | | |
| ASAR | | | | | LR | LR | 10 12 43.6 | | |
| | comp=Z,240nm,20.8s,baz=2.5,slow=36 | | | | | | | | |
| **SOH** | **Sokhos** | **74.76** | **317** | P | | **P** | **09 40 21.6** | **+0.5** |
| SOH | | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,1.3s | | | | | | | | |
| **GRG** | **Griva** | **75.06** | **318** | P | | **P** | **09 40 22.8** | **-0.1** |
| GRG | | | | | pmax | pmax | | | |
| | comp=Z,64nm,0.9s | | | | | | | | |
| **ANMO** | **Albuquerque** | **75.07** | **53**¶ | *e*P | | **P** | **09 40 22.2** | **-1.0** |
| **LAZ** | **Ladron** | **75.15** | **54** | *e*P | | **P** | **09 40 24.1** | **+0.5** |
| **PDG** | **Podgorica** | **75.15** | **321** | *i*P | | **P** | **09 40 22.3** | **-1.0** |
| **DZM** | **Mont Dzumac** | **75.31** | **158** | LR | | LR | 10 15 00.7 | | |
| | comp=Z,115nm,18.0s,baz=20,slow=37 | | | | | | | | |
| **DZM** | **Mont Dzumac** | **75.31** | **158** | *e*LR | | LR | 10 03 27.0 | | |
| | comp=Z,400nm,27.2s | | | | | | | | |
| **TUE** | **Stuetta** | **75.31** | **329** | *e*P | | **P** | **09 40 23.5** | **-1.0** |
| | comp=Z,8.8nm,0.8s | | | | | | | | |
| **AFI** | **Afiamalu** | **75.42** | **135** | LR | | LR | 10 05 58.0 | | |
| | comp=Z,187nm,22.0s,baz=2.5,slow=30 | | | | | | | | |
| **VLDQ** | **Val d'Or** | **75.59** | **27** | *e*P | | **P** | **09 40 23.4** | **-2.2** |
| | comp=Z,45nm,1.0s | | | | | | | | |
| **AKAS** | **Kas** | **75.59** | **310** | *e*P | | **P** | **09 40 25.9** | **-0.2** |
| | comp=Z,13nm,0.9s | | | | | | | | |
| **FNA** | **Florina** | **75.64** | **318** | P | | **P** | **09 40 25.5** | **-0.7** |
| FNA | | | | | pmax | pmax | | | |
| | comp=Z,25nm,1.0s | | | | | | | | |
| **FLN** | **La Foliniere** | **76.13** | **336** | *e*P | | **P** | **09 40 26.3** | **-2.5** |
| FLN | | | | | pmax | pmax | | | |
| | comp=Z,17nm,0.9s | | | | | | | | |
| **319A** | **Douglas** | **76.39** | **57** | *e*P | | **P** | **09 40 30.4** | **-0.3** |
| | comp=Z,28nm,1.4s | | | | | | | | |
| **KSU1** | **Kansas State U** | **76.40** | **44** | *e*P | | **P** | **09 40 29.0** | **-1.5** |
| | comp=Z,12nm,0.6s | | | | | | | | |
| **RAYN** | **Ar Rayn** | **76.77** | **291** | *e*P | | **P** | **09 40 32.4** | **-0.5** |
| | comp=Z,9.4nm,0.8s | | | | | | | | |
| **LPL** | **La Plagne** | **77.00** | **330** | *e*P | | **P** | **09 40 35.2** | **+1.1** |
| LPL | | | | | pmax | pmax | | | |
| | comp=Z,17nm,1.1s | | | | | | | | |
| **LPG** | **La Plagne** | **77.02** | **330** | *e*P | | **P** | **09 40 33.5** | **-0.7** |
| LPG | | | | | pmax | pmax | | | |
| | comp=Z,19nm,0.9s | | | | | | | | |
| **KARP** | **Karpathos** | **77.32** | **311** | *e*P | | **P** | **09 40 34.7** | **-1.1** |
| | comp=Z,8.2nm,0.9s | | | | | | | | |
| **AQU** | **L'Aquila** | **77.49** | **324** | *e*P | | **P** | **09 40 36.8** | **+0.2** |
| AQU | | | | | pmax | pmax | | | |
| | comp=Z,24nm,0.8s | | | | | | | | |
| **AQU** | **L'Aquila** | **77.49** | **324** | *e*P | | **P** | **09 40 36.8** | **+0.2** |
| | comp=Z,24nm,0.8s | | | | | | | | |
| **TCF** | **Toulx Ste Croi** | **77.67** | **333** | *e*P | | **P** | **09 40 38.3** | **+0.8** |
| TCF | | | | | pmax | pmax | | | |
| | comp=Z,39nm,1.3s | | | | | | | | |
| **ORIF** | **Oris-en-Rattie** | **77.81** | **330** | *e*P | | **P** | **09 40 37.5** | **-0.9** |
| ORIF | | | | | pmax | pmax | | | |
| | comp=Z,21nm,0.9s | | | | | | | | |
| **SSB** | **Saint Sauveur** | **77.90** | **331** | *e*P | | **P** | **09 40 38.3** | **-0.6** |
| SSB | | | | | pmax | pmax | | | |
| | comp=Z,12nm,0.9s | | | | | | | | |
| **SSB** | **Saint Sauveur** | **77.90** | **331** | *e*P | | **P** | **09 40 38.3** | **-0.6** |
| | comp=Z,12nm,0.9s | | | | | | | | |
| **TRQ** | **Mont Tremblant** | **78.12** | **26** | *e*P | | **P** | **09 40 39.6** | **-0.5** |
| **MNTX** | **Cornudas Mount** | **78.18** | **54** | *e*P | | **P** | **09 40 40.9** | **+0.3** |
| | comp=Z,8.9nm,1.1s | | | | | | | | |
| **U35A** | **Pawnee** | **78.59** | **45** | *e*P | | **P** | **09 40 42.3** | **-0.5** |
| | comp=Z,40nm,1.3s | | | | | | | | |
| **WMOK** | **Wichita Mounta** | **78.99** | **48** | *e*P | | **P** | **09 40 44.4** | **-0.6** |
| WMOK | | | | | pmax | pmax | | | |
| | comp=Z,12nm,1.1s | | | | | | | | |
| **WMOK** | **Wichita Mounta** | **78.99** | **48** | *e*P | | **P** | **09 40 44.4** | **-0.6** |
| | comp=Z,12nm,1.1s | | | | | | | | |
| **TUL1** | **Leonard** | **79.40** | **45** | *e*P | | **P** | **09 40 46.7** | **-0.6** |
| | comp=Z,10nm,0.7s | | | | | | | | |
| **V36A** | **Jenks** | **79.44** | **45** | *e*P | | **P** | **09 40 46.9** | **-0.5** |
| | comp=Z,24nm,1.2s | | | | | | | | |
| **CCM** | **Cathedral Cave** | **79.57** | **41** | *e*P | | **P** | **09 40 46.8** | **-1.3** |
| CCM | | | | | pmax | pmax | | | |
| | comp=Z,12nm,0.9s | | | | | | | | |
| **CCM** | **Cathedral Cave** | **79.57** | **41** | *e*P | | **P** | **09 40 46.8** | **-1.3** |
| | comp=Z,12nm,0.9s | | | | | | | | |
| **W36A** | **Wetumka** | **79.84** | **46** | *e*P | | **P** | **09 40 49.2** | **-0.5** |
| | comp=Z,4.4nm,1.1s | | | | | | | | |
| **HHAR** | **Hobbs** | **79.91** | **44** | *e*P | | **P** | **09 40 48.8** | **-1.2** |
| | comp=Z,16nm,1.3s | | | | | | | | |
| **VT1** | **Waterbury** | **80.36** | **25** | *e*P | | **P** | **09 40 51.6** | **-0.6** |
| | comp=Z,26nm,1.0s | | | | | | | | |
| **SIUC** | **Southern Illin** | **80.69** | **40** | *e*P | | **P** | **09 40 53.0** | **-1.2** |
| | comp=Z,22nm,1.1s | | | | | | | | |
| **LTX** | **Lajitas** | **80.96** | **54** | *e*P | | **P** | **09 40 55.9** | **0.0** |
| **LTX** | **Lajitas** | **80.96** | **54** | *e*P | | **P** | **09 40 55.9** | **0.0** |
| **TX31** | **Lajitas Ar. Si** | **80.96** | **54** | *e*P | | **P** | **09 40 55.5** | **-0.4** |
| **TXAR** | **Lajitas Array** | **80.96** | **54** | P | | **P** | **09 40 55.9** | **0.0** |
| | comp=Z,2.7nm,0.7s,baz=295,slow=4.3,SNR=32 | | | | | | | | |
| TXAR | | | | | LR | LR | 10 19 45.8 | | |
| | comp=Z,224nm,18.1s,baz=0.0,slow=38 | | | | | | | | |
| **PBMO** | **Poplar Bluff** | **80.99** | **41** | *e*P | | **P** | **09 40 54.8** | **-1.0** |
| | comp=Z,13nm,1.0s | | | | | | | | |
| **WCI** | **Wyandotte Cave** | **81.40** | **37** | P | | **P** | **09 40 56.4** | **-1.5** |
| WCI | | | | | pmax | pmax | | | |
| | comp=Z,19nm,1.3s | | | | | | | | |
| **X301** | **Greenbrier Sit** | **81.46** | **43** | *e*P | | **P** | **09 40 57.6** | **-0.7** |
| | comp=Z,12nm,1.1s | | | | | | | | |
| **WHAR** | **Wooly Hollow** | **81.47** | **43** | *e*P | | **P** | **09 40 57.7** | **-0.7** |
| | comp=Z,20nm,1.1s | | | | | | | | |
| **MIAR** | **Mount Ida** | **81.53** | **44** | *e*P | | **P** | **09 40 58.4** | **-0.3** |
| MIAR | | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,0.9s | | | | | | | | |
| **MIAR** | **Mount Ida** | **81.53** | **44** | *e*P | | **P** | **09 40 58.4** | **-0.3** |
| | comp=Z,7.2nm,0.9s | | | | | | | | |
| **HPIG** | | **81.83** | **57** | *e*P | | **P** | **09 41 00.6** | **0.0** |
| | comp=Z,12nm,1.2s | | | | | | | | |
| **JCT** | **Junction City** | **81.98** | **51** | *e*P | | **P** | **09 41 00.6** | **-0.6** |
| JCT | | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.9s | | | | | | | | |
| **JCT** | **Junction City** | **81.98** | **51** | *e*P | | **P** | **09 41 00.6** | **-0.6** |
| | comp=Z,10nm,0.9s | | | | | | | | |
| **FORT** | **Forrest** | **82.20** | **193** | *e*P | | **P** | **09 41 03.1** | **+1.2** |
| | comp=Z,312nm,0.8s | | | | | | | | |
| **STKA** | **Stephens Creek** | **82.21** | **181** | P | | **P** | **09 41 01.1** | **-0.9** |
| | comp=Z,4.7nm,0.9s,baz=339,slow=8.0,SNR=7.1 | | | | | | | | |
| STKA | | | | | LR | LR | 10 20 45.7 | | |
| | comp=Z,96nm,19.9s,baz=359,slow=38 | | | | | | | | |
| **STKA** | **Stephens Creek** | **82.21** | **181** | *e*P | | **P** | **09 41 01.5** | **-0.5** |
| STKA | | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.9s | | | | | | | | |
| **STKA** | **Stephens Creek** | **82.21** | **181** | *e*P | | **P** | **09 41 01.5** | **-0.5** |
| | comp=Z,1.4nm,0.9s | | | | | | | | |
| **WVT** | **Waverly** | **82.61** | **39** | *e*P | | **P** | **09 41 03.3** | **-1.0** |
| WVT | | | | | pmax | pmax | | | |
| | comp=Z,15nm,1.1s | | | | | | | | |
| **WVT** | **Waverly** | **82.61** | **39** | *e*P | | **P** | **09 41 03.3** | **-1.0** |
| | comp=Z,15nm,1.1s | | | | | | | | |
| **SWET** | **Sewanee** | **84.17** | **38** | *e*P | | **P** | **09 41 11.3** | **-1.1** |
| | comp=Z,26nm,1.3s | | | | | | | | |
| **PGAV** | **Gavieira, Arco** | **84.40** | **339** | *e*P | | P | 09 41 24.2 | +11 |
| **KEST** | **Kesra** | **84.80** | **324** | P | | **P** | **09 41 14.9** | **-0.8** |
| | comp=Z,14nm,0.9s,baz=308,slow=5.3,SNR=9.9 | | | | | | | | |
| KEST | | | | | LR | LR | 10 22 46.5 | | |
| | comp=Z,914nm,18.8s,baz=342,slow=38 | | | | | | | | |
| **KEST** | **Kesra** | **84.80** | **324** | *e*P | | **P** | **09 41 14.9** | **-0.8** |
| | comp=Z,13nm,0.8s | | | | | | | | |
| **POLO** | **Lamas de Olo** | **84.85** | **338** | *e*P | | **P** | **09 41 15.5** | **-0.4** |
| **MVO** | **Moncorvo** | **84.87** | **338** | *e*P | | **P** | **09 41 15.2** | **-0.7** |
| **PVRL** | **Vila Real** | **84.93** | **338** | *e*P | | **P** | **09 41 15.9** | **-0.3** |
| **ES19** | **SONSECA Array** | **85.45** | **335** | *e*P | | **P** | **09 41 18.5** | **-0.3** |
| **ESDC** | **Sonseca Array** | **85.50** | **335** | P | | **P** | **09 41 18.7** | **-0.4** |
| | comp=Z,7.0nm,0.9s,baz=16,slow=4.3,SNR=19 | | | | | | | | |
| ESDC | | | | | LR | LR | 10 24 26.1 | | |
| | comp=Z,460nm,19.0s,baz=20,slow=39 | | | | | | | | |
| **ESLA** | **Sonseca Array** | **85.50** | **335** | *e*P | | **P** | **09 41 18.9** | **-0.2** |
| | comp=Z,22nm,1.3s | | | | | | | | |
| **MTE** | **Manteigas** | **85.72** | **338** | *e*P | | **P** | **09 41 20.8** | **+0.6** |
| MTE | | | | | | *e*P | **pP** | **09 41 25.4** | **+0.6** |
| **PAB** | **San Pablo** | **85.72** | **335** | *e*P | | **P** | **09 41 19.8** | **-0.4** |
| PAB | | | | | pmax | pmax | | | |
| | comp=Z,18nm,1.1s | | | | | | | | |
| **PAB** | **San Pablo** | **85.72** | **335** | *e*P | | **P** | **09 41 19.8** | **-0.4** |
| | comp=Z,18nm,1.1s | | | | | | | | |
| **PMTG** | **Montargil** | **87.14** | **338** | *e*P | | **P** | **09 41 29.0** | **+1.9** |
| **PBAR** | **Barracos** | **87.70** | **337** | *e*P | | P | 09 41 38.1 | +8.3 |
| **PVAQ** | **Vaqueiros** | **88.60** | **337** | *e*P | | **P** | **09 41 34.7** | **+0.6** |
| **PPT** | **Papeete** | **89.85** | **118** | LR | | LR | 10 15 31.3 | | |
| | comp=Z,164nm,20.2s,baz=320,slow=31 | | | | | | | | |
| **PPT2** | **Papeete2** | **89.86** | **118** | *e*LR | | LR | 10 10 03.5 | | |
| | comp=Z,258nm,21.2s | | | | | | | | |
| **TBI** | **Tubuai** | **94.56** | **122** | *e*LR | | LR | 10 12 25.3 | | |
| | comp=Z,135nm,29.8s | | | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **108.06** | **320** | *e*PP | | PP | 09 47 28.0 | -2.9 |
| **TORD** | **Torodi Ar. Bea** | **108.06** | **320** | PP | | PP | 09 47 28.0 | -3.0 |
| | comp=Z,1.1nm,0.9s,baz=13,slow=6.9,SNR=5.2 | | | | | | | | |
| **LPAZ** | **La Paz** | **137.50** | **48** | PKP | | **PKPdf** | **09 48 05.2** | **-0.7** |
| | comp=Z,1.7nm,1.0s,baz=55,slow=6.1,SNR=4.5 | | | | | | | | |
| **QSPA** | **South Pole Qui** | **140.43** | **180** | *e*PKPdf | | **PKPdf** | **09 48 11.1** | **+2.1** |
| **SYO** | **Syowa Base** | **140.66** | **214**¶ | *e*PP | | PP | 09 51 09.4 | -0.5 |
| **BDFB** | **Brasilia** | **143.91** | **18** | PKP | | **PKPdf** | **09 48 17.0** | **+0.1** |
| | comp=Z,1.9nm,0.5s,baz=350,slow=6.1,SNR=2.4 | | | | | | | | |
| **BDFB** | **Brasilia** | **143.91** | **18** | PKIKP | | **PKPdf** | **09 48 17.0** | **+0.1** |
| BDFB | | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.5s | | | | | | | | |
| **LCO** | **Las Campanas** | **146.63** | **62** | *e*PKPdf | | **PKPbc** | **09 48 22.4** | **-0.6** |
| **CPUP** | **Villa Florida** | **151.08** | **40** | PKPbc | | **PKPbc** | **09 48 33.0** | **-1.1** |
| | comp=Z,6.8nm,1.0s,baz=356,slow=3.7,SNR=11 | | | | | | | | |
| **SNAA** | **Sanae** | **153.99** | **204** | PKP | | **PKPbc** | **09 48 44.0** | **+4.7** |
| **VNA2** | **Neumayer--Watz** | **155.61** | **203** | PKP | | **PKPdf** | **09 48 38.6** | **+5.2** |
| **VNA3** | **Neumayer Olymp** | **155.94** | **201** | PKP | | PKPab | 09 48 48.0 | -13 |
| **VNA1** | **Neumayer--Stat** | **156.01** | **203** | PKP | | **PKPab** | **09 49 01.0** | **-0.3** |

*ISK* **12** *09:34:57.3,38°.86N×42°.95E,h10km,ML2.7*
*ATA* **12** *09:35:00.6±0.7,38°.67N×43°.63E,h22km±7km,ML2.9, MW3.1*
*DDA* **12** *09:35:00.9,38°.64N×43°.75E,h7km,Ml2.8*
*ISCJB* **12** *09:35:01.6±0.8,38°.63N±0°.04×43°.71E±0°.06,h12km±5km, Error ellipse: s-maj=8.8km s-min=5.0km az=27.0*
*CSEM* **12** *09:35:01.8±0.4,38°.66N×43°.64E,h10km,ML2.8, Error ellipse: s-maj=9.9km s-min=6.5km az=111.0*

**ISC 12 09:35:01.8±1.0,38°.64N±0°.03×43°.68E±0°.04,h16km±7km, n29,σ1s57/44,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.23** | **260** | *e*PG | | **Pg** | **09 35 07.2** | **+0.1** |
| VANB | | | | *e*SG | | **Sg** | **09 35 15.1** | **+3.3** |
| **VANB** | **Van** | **0.23** | **260** | *e*Pg | | **Pg** | **09 35 07.2** | **+0.1** |
| **TVAN** | **Van** | **0.24** | **244** | *i* P | | **Pg** | **09 35 06.7** | **-0.6** |
| TVAN | | | | *i* S | | **Sg** | **09 35 11.7** | **+0.6** |
| **TVAN** | **Van** | **0.24** | **244** | P | | **Pg** | **09 35 06.7** | **-0.6** |
| TVAN | | | | S | | **Sg** | **09 35 11.7** | **+0.6** |
| **VMUR** | **Van-Muradiye** | **0.36** | **346** | *i* P | | **Pg** | **09 35 07.9** | **-1.5** |
| VMUR | | | | *i* S | | **Sg** | **09 35 14.8** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.36** | **346** | P | | **Pg** | **09 35 07.9** | **-1.5** |
| VMUR | | | | S | | **Sg** | **09 35 14.8** | **+0.3** |
| **CLDR** | **Caldiran** | **0.54** | **20** | *e*PG | | **Pb** | **09 35 13.4** | **+0.3** |
| CLDR | | | | *e*SG | | **Sn** | **09 35 25.0** | **+1.0** |
| **CLDR** | **Caldiran** | **0.54** | **20** | *i* P | | **Pg** | **09 35 12.4** | **-0.2** |
| CLDR | | | | *i* S | | **Sb** | **09 35 22.2** | **+1.5** |
| **CLDR** | **Caldiran** | **0.54** | **20** | P | | **Pg** | **09 35 12.4** | **-0.2** |
| **CLDR** | **Caldiran** | **0.54** | **20** | *e*Pg | | **Pb** | **09 35 13.4** | **+0.3** |
| **GEVA** | **Gevas** | **0.59** | **237** | *e*P | | **Pg** | **09 35 12.8** | **-0.7** |
| GEVA | | | | *e*S | | **Sg** | **09 35 21.8** | **+0.5** |
| GEVA | | | | IAML | | | 09 35 30.2 | | |
| | comp=Z,44nm,0.4s | | | | | | | | |
| **ADCV** | **BITLIS_Adilcev** | **0.77** | **283** | *i* P | | **Pg** | **09 35 15.3** | **-1.5** |
| ADCV | | | | *i* S | | **Sb** | **09 35 28.9** | **+1.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.77** | **283** | P | | **Pg** | **09 35 15.3** | **-1.5** |
| **DYDN** | **Diyadin** | **0.91** | **0** | *e*P | | **Pg** | **09 35 18.3** | **-1.2** |
| DYDN | | | | IAML | | | 09 35 22.9 | | |
| | comp=Z,14nm,0.4s | | | | | | | | |
| **TUTA** | **Tutak** | **1.02** | **319** | *e*P | | **Pb** | **09 35 19.3** | **-2.0** |
| TUTA | | | | IAML | | | 09 35 42.0 | | |
| | comp=Z,40nm,0.3s | | | | | | | | |
| **TUTA** | **Tutak** | **1.02** | **319** | *i* P | | **Pb** | **09 35 19.5** | **-1.8** |
| TUTA | | | | *i* S | | **Sb** | **09 35 33.7** | **-0.9** |
| **TUTA** | **Tutak** | **1.02** | **319** | P | | **Pb** | **09 35 19.5** | **-1.8** |
| TUTA | | | | S | | **Sb** | **09 35 33.7** | **-0.9** |
| **HAKT** | **HAKKARI** | **1.08** | **179** | *i* P | | **Pg** | **09 35 22.4** | **-0.3** |
| **HAKT** | **HAKKARI** | **1.08** | **179** | P | | **Pg** | **09 35 22.4** | **-0.3** |
| **EKAR** | **Karacoban** | **1.41** | **297** | *e*P | | **Pn** | **09 35 26.8** | **-0.2** |
| EKAR | | | | IAML | | | 09 35 36.0 | | |
| | comp=Z,10nm,0.5s | | | | | | | | |
| **EKAR** | **Karacoban** | **1.41** | **297** | *i* P | | **Pb** | **09 35 28.1** | **+0.2** |
| EKAR | | | | *i* S | | **Sg** | **09 35 51.4** | **+4.2** |
| **EKAR** | **Karacoban** | **1.41** | **297** | P | | **Pb** | **09 35 28.0** | **+0.2** |
| **SIRT** | **Sirnak** | **1.50** | **221** | *e*PN | | **Pn** | **09 35 23.6** | **-4.6** |
| **SRTM** | **Siirt_Merkez** | **1.53** | **246** | *i* P | | **Pb** | **09 35 29.9** | **+0.1** |
| SRTM | | | | *i* S | | **Sg** | **09 35 54.4** | **+3.3** |
| **SRTM** | **Siirt_Merkez** | **1.53** | **246** | P | | **Pb** | **09 35 29.9** | **+0.1** |
| **EATA** | **Eleskirt** | **1.53** | **323** | *e*P | | **Pn** | **09 35 28.7** | **-0.2** |
| EATA | | | | IAML | | | 09 35 32.8 | | |
| | comp=Z,3.8nm,0.4s | | | | | | | | |
| EATA | | | | *e*S | | **Sg** | **09 35 51.3** | **0.0** |
| **EATA** | **Eleskirt** | **1.53** | **323** | *i* P | | **Pb** | **09 35 29.9** | **-0.2** |
| EATA | | | | *i* S | | **Sg** | **09 35 53.8** | **+2.5** |
| **EATA** | **Eleskirt** | **1.53** | **323** | P | | **Pb** | **09 35 29.9** | **-0.2** |
| **DIGO** | **Kars** | **1.79** | **352** | *e*P | | **Pn** | **09 35 32.8** | **+0.4** |
| DIGO | | | | IAML | | | 09 35 41.0 | | |
| | comp=Z,3.3nm,0.7s | | | | | | | | |

**ATA 12 09:39:09.2±0.7,40°.54N×42°.78E,h10km±65km,ML2.7, MW3.7,1C,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **EAK** | **Akyaka** | **0.65** | **77** | *i* P | | Pb | 09 39 22.4 | -0.3 |
| EAK | | | | IAML | | | 09 39 33.6 | | |
| | comp=Z,13nm,0.7s | | | | | | | | |
| **ARTV** | **Artvin** | **0.91** | **315** | *i* P | | Pb | 09 39 27.0 | -0.2 |
| **TUTA** | **Tutak** | **1.14** | **179**¶ | *i* P | | Pb | 09 39 31.2 | +0.1 |
| TUTA | | | | IAML | | | 09 39 36.1 | | |
| | comp=Z,20nm,0.6s | | | | | | | | |
| **ERZM** | **Erzurum** | **1.25** | **240** | *i* P | | Pg | 09 39 34.0 | +0.7 |
| ERZM | | | | *e*S | | Sn | 09 39 52.2 | +2.1 |

*ATA* **12** *09:53:06.4±0.8,38°.33N×42°.69E,h69km±6km,ML4.1, MW3.7*
*ISN* **12** *09:53:11.6±0.3,38°.27N×43°.24E,h0km,ML3.3*
*ISK* **12** *09:53:15.7,38°.71N×43°.23E,h5km,ML3.1*
*CSEM* **12** *09:53:16.6±0.2,38°.71N×43°.24E,h5km,ML3.1,Error ellipse: s-maj=3.9km s-min=3.2km az=88.0*
*DDA* **12** *09:53:16.2,38°.68N×43°.20E,h7km,Ml3.4*

**ISC 12 09:53:16.7±0.8,38°.71N±0°.02×43°.20E±0°.02,h13km±6km, n62,σ1s40/99,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.18** | **128** | *e*PG | | **Pg** | **09 53 21.5** | **+0.4** |
| VANB | | | | *e*SG | | **Sg** | **09 53 26.3** | **+2.3** |
| **VANB** | **Van** | **0.18** | **128** | *e*Pg | | **Pg** | **09 53 21.5** | **+0.4** |
| VANB | | | | *e*Sg | | **Sg** | **09 53 26.3** | **+2.3** |
| **TVAN** | **Van** | **0.24** | **138** | *i* P | | **Pg** | **09 53 19.9** | **-2.1** |
| TVAN | | | | *i* S | | **Sg** | **09 53 24.8** | **-0.8** |
| **TVAN** | **Van** | **0.24** | **138** | P | | **Pg** | **09 53 19.9** | **-2.1** |
| TVAN | | | | S | | **Sg** | **09 53 24.8** | **-0.8** |
| **ERCV** | **ERCIS-VAN** | **0.33** | **19** | *e*PG | | **Pg** | **09 53 23.0** | **-0.6** |
| **ERCV** | **ERCIS-VAN** | **0.33** | **19** | *e*Pg | | **Pg** | **09 53 23.0** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.39** | **285** | *i* P | | **Pg** | **09 53 24.1** | **-0.5** |
| ADCV | | | | *i* S | | **Sb** | **09 53 30.9** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.39** | **285** | P | | **Pg** | **09 53 24.1** | **-0.5** |
| ADCV | | | | S | | **Sb** | **09 53 30.9** | **-0.6** |
| **VMUR** | **Van-Muradiye** | **0.40** | **46** | *i* P | | **Pg** | **09 53 24.9** | **0.0** |
| VMUR | | | | *i* S | | **Sb** | **09 53 32.0** | **+0.1** |
| **VMUR** | **Van-Muradiye** | **0.40** | **46** | P | | **Pg** | **09 53 24.9** | **0.0** |
| VMUR | | | | S | | **Sb** | **09 53 32.0** | **+0.1** |
| **GEVA** | **Gevas** | **0.41** | **196** | *e*P | | **Pg** | 09 53 17.9 | -7.1 |
| GEVA | | | | *e*S | | **Sg** | **09 53 28.2** | **-2.4** |
| GEVA | | | | IAML | | | 09 53 38.5 | | |
| | comp=Z,746nm,0.4s | | | | | | | | |
| **GEVA** | **Gevas** | **0.41** | **196** | *i* P | | **Pg** | **09 53 23.8** | **-1.2** |
| GEVA | | | | *i* S | | **Sb** | **09 53 31.0** | **-1.1** |
| **GEVA** | **Gevas** | **0.41** | **196** | P | | **Pg** | **09 53 23.8** | **-1.2** |
| GEVA | | | | S | | **Sb** | **09 53 31.0** | **-1.1** |
| **CLDR** | **Caldiran** | **0.71** | **52** | *e*PG | | **Pg** | **09 53 30.1** | **-0.4** |
| CLDR | | | | *e*SG | | **Sb** | **09 53 40.6** | **-0.2** |
| **CLDR** | **Caldiran** | **0.71** | **52** | *i* P | | **Pg** | **09 53 29.9** | **-0.6** |
| CLDR | | | | *i* S | | **Sb** | **09 53 41.1** | **+0.3**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KMI** | **Kunming** | **3.46** | **154** | Pn | **Pn** | **09 57 13.4** | **+0.2** |
| KMI | | | | Sn | **Sn** | **09 57 55.4** | **+1.0** |
| KMI | | | | smax | smax | | |
| | comp=N,320nm,0.9s | | | | | | |
| KMI | | | | smax | smax | | |
| | comp=E,250nm,0.9s | | | | | | |
| **CD2** | **Chengdu** | **3.52** | **41** | Pn | Pn | 09 57 19.6 | +5.7 |
| CD2 | | | | Pg | **Pb** | **09 57 25.4** | **+3.9** |
| CD2 | | | | Sn | **Sb** | **09 58 05.8** | **+1.5** |
| CD2 | | | | Sg | **Sg** | **09 58 11.9** | **-0.2** |
| CD2 | | | | smax | smax | | |
| | comp=N,600nm,0.7s | | | | | | |
| CD2 | | | | smax | smax | | |
| | comp=E,590nm,1.0s | | | | | | |
| **GYA** | **Guiyang** | **5.27** | **109** | Pn | **Pn** | **09 57 40.0** | **+1.9** |
| GYA | | | | Pg | **Pb** | **09 57 51.1** | **-0.4** |
| GYA | | | | smax | smax | | |
| | comp=N,130nm,0.6s | | | | | | |
| GYA | | | | smax | smax | | |
| | comp=E,180nm,0.7s | | | | | | |
| **XAN** | **Xi'an** | **8.84** | **47** | Pn | Pn | 09 58 23.4 | -3.7 |
| XAN | | | | Pg | Pg | 09 59 01.9 | -6.5 |
| XAN | | | | Sn | Sn | 10 00 18.0 | +11 |
| XAN | | | | Sg | **Sg** | **10 00 57.8** | **-5.1** |
| XAN | | | | smax | smax | | |
| | comp=N,69nm,1.1s | | | | | | |
| XAN | | | | smax | smax | | |
| | comp=E,70nm,1.0s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **9.96** | **192** | Pn | **Pn** | **09 58 44.9** | **+2.6** |
| | comp=E,0.5nm,0.3s,baz=350,slow=9.3,SNR=4.1 | | | | | | |
| CMAR | | | | Lg | Lg | 10 01 35.6 | |
| | baz=7.5,slow=28,SNR=4.4 | | | | | | |
| **TAPN** | **Taplejung** | **11.88** | **269** | *eP* | **Pn** | **09 59 08.9** | **-0.1** |
| | comp=E,20nm,0.8s | | | | | | |
| **ODAN** | **Odare** | **12.24** | **267** | *eP* | **Pn** | **09 59 12.8** | **-1.0** |
| | comp=E,15nm,0.8s | | | | | | |
| **RAMN** | **Ramite** | **12.92** | **268** | *eP* | **Pn** | **09 59 21.3** | **-1.8** |
| | comp=E,22nm,0.6s | | | | | | |
| **JIRN** | **Jiri** | **13.19** | **271** | *eP* | **Pn** | **09 59 26.9** | **0.0** |
| | comp=E,50nm,0.5s | | | | | | |
| **GUN** | **Gumba** | **13.44** | **272** | *eP* | **Pn** | **09 59 31.1** | **+0.8** |
| | comp=E,20nm,0.8s | | | | | | |
| **PKI** | **Pulchoki** | **13.88** | **271** | *eP* | **Pn** | **09 59 36.3** | **-0.1** |
| | comp=E,9.3nm,0.6s | | | | | | |
| **PKIN** | **Phulchoki** | **13.89** | **271** | *eP* | **Pn** | **09 59 36.2** | **-0.3** |
| | comp=E,9.2nm,0.5s | | | | | | |
| **KKN** | **Kakani** | **13.98** | **272** | *eP* | **Pn** | **09 59 37.0** | **-0.5** |
| **WMQ** | **Urumqi** | **18.89** | **329** | *eP* | **P** | **10 00 40.1** | **+0.3** |
| **SONM** | **Songino Array** | **19.98** | **11** | P | **P** | **10 00 52.7** | **+1.1** |
| | comp=E,0.1nm,0.3s,baz=191,slow=12,SNR=6.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **23.66** | **327** | P | **P** | **10 01 31.6** | **+0.9** |
| | comp=E,3.4nm,0.7s,baz=134,slow=10,SNR=22 | | | | | | |
| **KSRS** | **Korea Array** | **24.27** | **61** | P | **P** | **10 01 34.4** | **-2.1** |
| | comp=E,1.1nm,0.7s,baz=257,slow=9.9,SNR=4.4 | | | | | | |
| KSRS | | | | LR | LR | 10 12 09.9 | |
| | comp=E,135nm,18.9s,baz=360,slow=40 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **28.12** | **329** | P | **P** | **10 02 11.5** | **+0.4** |
| | comp=E,0.6nm,0.4s,baz=141,slow=9.0,SNR=12 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **28.30** | **340** | P | **P** | **10 02 12.3** | **-0.4** |
| | comp=E,0.6nm,0.5s,baz=156,slow=7.7,SNR=3.2 | | | | | | |
| **KVAR** | **Kislovodsk Arr** | **48.73** | **305** | LR | LR | 10 29 56.2 | |
| | comp=E,171nm,21.6s,slow=41 | | | | | | |
| **AKASG** | **Malin Array Be** | **57.45** | **314** | P | **P** | **10 06 07.0** | **-1.0** |
| | comp=E,0.4nm,0.5s,baz=72,slow=6.8,SNR=4.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **57.70** | **142** | P | **P** | **10 06 10.1** | **-0.1** |
| | comp=E,3.8nm,1.0s,baz=332,slow=7.8,SNR=11 | | | | | | |
| **ASAR** | **Alice Springs** | **60.54** | **145** | P | **P** | **10 06 29.6** | **-0.3** |
| | comp=E,0.6nm,0.7s,baz=328,slow=7.1,SNR=7.0 | | | | | | |
| ASAR | | | | LR | LR | 10 35 32.0 | |
| | comp=E,117nm,18.2s,baz=246,slow=39 | | | | | | |

*IDC* ***12*** *09:57:39.3±1.5, 27.52S×178.31W, h279km±13km, mb3.5/9, mb1 3.8/10, mb1mx3.6/27, mbtmp4.2/10, Error ellipse: s-maj=18.1km s-min=16.7km az=96.0*

*ISCJB* ***12*** *09:57:40.1±0.5, 27.85S±0.1×178.3W±0.1, h300km, mb3.5/10, Error ellipse: s-maj=15.2km s-min=13.6km az=169.2*

**ISC 12 09:57:40.2±0.5, 27.68S±0.08×178.1W±0.1, h300km, n26, σ25.51/29, mb3.6/10, 1D, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **1.57** | **173** | P | **Pn** | **09 58 22.0** | **-1.9** |
| | baz=78,slow=13 | | | | | | |
| RAO | | | | S | **S** | **09 58 52.5** | **-6.0** |
| | 1um,0.3s,baz=110,slow=14,SNR=6.9 | | | | | | |
| **URZ** | **Urewera** | **11.27** | **199** | P | **Pn** | **10 00 09.6** | **-4.2** |
| | 4.2nm,0.3s,baz=265,slow=3.6,SNR=26 | | | | | | |
| URZ | | | | S | S | 10 02 09.4 | -10 |
| | 15nm,0.3s,baz=220,slow=22,SNR=13 | | | | | | |
| **AFI** | **Afiamalu** | **14.94** | **25** | P | **Pn** | **10 00 55.7** | **-2.4** |
| | 3.7nm,0.3s,baz=340,slow=2.1,SNR=8.1 | | | | | | |
| AFI | | | | S | **S** | **10 03 32.9** | **-7.1** |
| | 2.9nm,0.3s,baz=204,slow=20,SNR=4.2 | | | | | | |
| **DZM** | **Mont Dzumac** | **15.06** | **288** | P | **Pn** | **10 01 00.8** | **+1.2** |
| | 1.8nm,0.3s,baz=178,slow=14,SNR=27 | | | | | | |
| **RAR** | **Rarotonga** | **17.91** | **73** | P | **P** | **10 01 33.8** | **+4.8** |
| | 0.4nm,0.3s,baz=275,slow=2.8,SNR=3.5 | | | | | | |
| **ASAR** | **Alice Springs** | **43.20** | **264** | P | **P** | **10 05 12.2** | **-0.3** |
| | 1.0nm,0.7s,baz=95,slow=7.3,SNR=17 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.94** | **269** | P | **P** | **10 05 17.8** | **-0.6** |
| | 1.8nm,0.6s,baz=107,slow=7.4,SNR=16 | | | | | | |
| **VNDA** | **Vanda** | **50.78** | **186** | P | **P** | **10 06 12.5** | **+2.6** |
| | 0.7nm,0.6s,baz=7.9,slow=7.6,SNR=8.3 | | | | | | |
| **MAW** | **Mawson** | **74.80** | **200** | P | **P** | **10 08 49.8** | **+2.3** |
| | 2.0nm,0.6s,baz=172,slow=6.8,SNR=5.6 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **75.95** | **325** | P | **P** | **10 08 54.8** | **+0.4** |
| | 2.0nm,0.6s,baz=156,slow=5.8,SNR=7.1 | | | | | | |
| **SYO** | **Syowa Base** | **79.72** | **193** | *eP* | **P** | **10 09 14.0** | **-0.6** |
| **PLCA** | **Paso Flores** | **84.45** | **133** | P | **P** | **10 09 41.6** | **+1.9** |
| | 3.5nm,1.0s,baz=243,slow=2.4,SNR=4.7 | | | | | | |
| **KLR** | **Kul'dur** | **88.63** | **330** | P | **P** | **10 09 59.8** | **+0.5** |
| | 0.1nm,0.6s,baz=130,slow=6.1,SNR=3.9 | | | | | | |
| **TXAR** | **Lajitas Array** | **91.03** | **57** | P | **P** | **10 10 12.9** | **+1.8** |
| | 0.7nm,0.8s,baz=197,slow=3.9,SNR=7.7 | | | | | | |
| **PDAR** | **Pinedale Array** | **94.26** | **43** | P | **P** | **10 10 26.8** | **+1.0** |
| | 0.4nm,0.8s,baz=238,slow=5.1,SNR=4.0 | | | | | | |
| **ILAR** | **Eielson Array** | **95.32** | **13** | P | **P** | **10 10 30.4** | **+0.6** |
| | 0.4nm,0.7s,baz=229,slow=4.7,SNR=6.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **115.92** | **311** | PKP | **PKPdf** | **10 15 46.2** | **-1.0** |
| | 0.7nm,0.7s,baz=62,slow=2.0,SNR=3.7 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **119.11** | **315** | PKP | **PKPdf** | **10 15 53.1** | **0.0** |
| | 1.2nm,0.6s,baz=97,slow=1.9,SNR=9.7 | | | | | | |
| **GEYT** | **Alibeck** | **132.25** | **297** | PKP | **PKPdf** | **10 16 19.8** | **+1.0** |
| | 1.6nm,0.5s,baz=280,slow=2.6,SNR=4.2 | | | | | | |
| **ARCES** | **ARCESS Array B** | **135.92** | **348** | PKP | **PKPdf** | **10 16 25.7** | **+1.1** |
| | 2.2nm,0.7s,baz=50,slow=1.4,SNR=9.2 | | | | | | |
| **FINES** | **FINESS Array B** | **142.55** | **341** | PKhKP | PKPpre | 10 16 34.0 | |
| | 0.9nm,0.4s,baz=64,slow=4.4,SNR=6.3 | | | | | | |
| **NB2** | **NORSAR Subarra** | **146.06** | **352** | PKP | **PKPab** | **10 16 45.0** | **-0.7** |
| | comp=Z,2.5nm,0.6s,baz=13,slow=2.9 | | | | | | |
| **NOA** | **NORSAR Array B** | **146.06** | **352** | PKPbc | **PKPab** | **10 16 45.2** | **-0.5** |
| | comp=Z,5.1nm,0.8s,baz=15,slow=4.6,SNR=8.8 | | | | | | |
| **AKASG** | **Malin Array Be** | **149.04** | **325** | PKPbc | **PKPbc** | **10 16 53.2** | **+0.6** |
| | comp=Z,5.0nm,0.6s,baz=45,slow=3.4,SNR=19 | | | | | | |
| **BRTR** | **Keskin Array B** | **151.11** | **303** | PKPbc | **PKPbc** | **10 16 58.7** | **+0.5** |
| | comp=Z,1.7nm,0.6s,baz=132,slow=4.5,SNR=9.0 | | | | | | |
| BRTR | | | | PKPab | **PKPab** | **10 17 07.2** | **+0.1** |
| | comp=Z,1.0nm,0.8s,baz=169,slow=1.3,SNR=3.9 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **165.54** | **179** | PKP | **PKPdf** | **10 17 09.9** | **+0.2** |
| | comp=Z,0.8nm,0.8s,baz=256,slow=0.3,SNR=5.0 | | | | | | |
| TORD | | | | PKPab | **PKPab** | **10 18 10.3** | **+0.6** |
| | comp=Z,2.4nm,0.9s,baz=170,slow=3.5,SNR=9.1 | | | | | | |

**IDC 12 10:05:17.5±1.8, 2.79S×147.13E, h0km, mb3.8/5, mb1 4.1/5, mb1mx3.7/35, mbtmp3.9/5, MS3.4/2, Ms1 3.4/2, ms1mx3.0/35, Error ellipse: s-maj=72.9km s-min=24.1km az=113.0, Admiralty Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **21.14** | **215** | P | P | 10 10 04.3 | +0.1 |
| | 3.7nm,0.6s,baz=42,slow=10,SNR=46 | | | | | | |
| **ASAR** | **Alice Springs** | **24.38** | **211** | P | P | 10 10 37.5 | -0.2 |
| | 2.2nm,0.4s,baz=38,slow=7.2,SNR=67 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **25.99** | **233** | P | P | 10 10 52.4 | +0.1 |
| | 3.5nm,1.0s,baz=41,slow=10,SNR=5.9 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.60** | **42** | T | T | 10 41 06.3 | |
| | baz=223,slow=76,SNR=113 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.61** | **42** | T | T | 10 41 06.4 | |
| | baz=223,slow=76,SNR=64 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.62** | **42** | T | T | 10 41 07.1 | |
| | baz=223,slow=76,SNR=88 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **29.61** | **40** | T | T | 10 42 22.1 | |
| | baz=222,slow=76,SNR=24 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **29.63** | **40** | T | T | 10 42 22.2 | |
| | baz=222,slow=76,SNR=37 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **29.63** | **40** | T | T | 10 42 23.2 | |
| | baz=222,slow=76,SNR=34 | | | | | | |
| **KSRS** | **Korea Array** | **43.83** | **338** | LR | LR | 10 30 27.3 | |
| | comp=Z,25nm,18.0s,baz=315,slow=34 | | | | | | |
| **MKAR** | **Makanchi Array** | **75.13** | **320** | P | P | 10 17 01.8 | +0.1 |
| | 0.2nm,0.4s,baz=98,slow=11,SNR=2.5 | | | | | | |
| **ILAR** | **Eielson Array** | **82.50** | **23** | P | P | 10 17 41.9 | +0.1 |
| | 0.7nm,0.9s,baz=249,slow=4.9,SNR=4.7 | | | | | | |
| **WSAR** | **Wadi Sarin** | **89.71** | **293** | LR | LR | 11 02 37.8 | |
| | comp=Z,36nm,18.8s,baz=312,slow=38 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **144.31** | **289** | PKP | PKPbc | 10 24 55.6 | +0.6 |
| | 0.3nm,0.5s,baz=69,slow=3.4,SNR=3.5 | | | | | | |

**PGC 12 10:06:58.9±2.4, 47.51N×129.17W, h10km, MLSn3.0/20, Mw3.6/20, 302km Wsw of Tofino, Bc Off Coast Of Washington, Off coast of Washington**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **EDB** | **Eliza Dome** | **2.73** | **29** | Pn | Pn | 10 07 40.8 | -1.9 |
| **TOFB** | **Tofino** | **2.73** | **52** | Pn | Pn | 10 07 41.0 | -1.8 |
| TOFB | | | | Sn | Sn | 10 08 11.4 | -4.3 |
| **BPBC** | **Brooks Peninsu** | **2.81** | **19** | Pn | Pn | 10 07 42.2 | -1.7 |
| **OZB** | **Mount Ozzard** | **2.85** | **58** | Pn | Pn | 10 07 42.8 | -1.8 |
| **B928** | **Bamfield** | **3.01** | **62** | Pn | Pn | 10 07 45.1 | -1.4 |
| **GDR** | **Gold River** | **3.08** | **41** | Pn | Pn | 10 07 46.3 | -1.3 |
| **BTB** | **Buttle Lake** | **3.12** | **50** | Pn | Pn | 10 07 47.0 | -1.3 |
| BTB | | | | Sn | Sn | 10 08 22.3 | -3.4 |
| **OCP** | **Olym-Cheeka Pk** | **3.16** | **74** | Pn | Pn | 10 07 47.3 | -1.4 |
| **WOSB** | **Woss** | **3.16** | **32** | Pn | Pn | 10 07 47.3 | -1.5 |
| **MAYB** | **Maynard** | **3.18** | **24** | Pn | Pn | 10 07 47.2 | -1.9 |
| **HOLB** | **Holberg** | **3.21** | **12** | Pn | Pn | 10 07 48.3 | -1.1 |
| **OFR** | **Olym-F Res Ctr** | **3.25** | **81** | Pn | Pn | 10 07 48.1 | -1.8 |
| **SPLB** | **Strathcona Par** | **3.33** | **43** | Pn | Pn | 10 07 50.5 | -0.6 |
| SPLB | | | | Sn | Sn | 10 08 28.1 | -2.6 |
| **MGB** | **Mount Grey** | **3.34** | **62** | Pn | Pn | 10 07 49.5 | -1.9 |
| MGB | | | | Sn | Sn | 10 08 27.6 | -3.6 |
| **PFB** | **Port Renfrew** | **3.35** | **70** | Pn | Pn | 10 07 49.6 | -1.7 |
| **PHC** | **Port Hardy** | **3.40** | **19** | Pn | Pn | 10 07 51.3 | -0.6 |
| **TLCB** | **Telegraph Cove** | **3.41** | **26** | Pn | Pn | 10 07 51.2 | -0.8 |
| **NCRB** | **Newcastle Ridg** | **3.55** | **34** | Pn | Pn | 10 07 53.3 | -0.9 |
| **CBB** | **Campbell River** | **3.56** | **44** | Pn | Pn | 10 07 53.4 | -0.8 |
| **YOUB** | **Youbou, Lake C** | **3.57** | **65** | Pn | Pn | 10 07 53.1 | -1.2 |
| **B926** | **Mesachie Lake** | **3.62** | **67** | Pn | Pn | 10 07 54.2 | -0.8 |
| **TXB** | **Texada** | **3.83** | **53** | Pn | Pn | 10 07 57.0 | -0.9 |
| **NLLB** | **Nanaimo Lost L** | **3.86** | **62** | Pn | Pn | 10 07 57.5 | -0.7 |
| **SHB** | **Sechelt** | **4.09** | **57** | Pn | Pn | 10 08 00.8 | -0.8 |
| **BBB** | **Bella Bella** | **4.73** | **8** | Pn | Pn | 10 08 09.6 | -0.6 |
| **WSLR** | **Whistler** | **4.89** | **55** | Pn | Pn | 10 08 12.8 | +0.3 |
| **LLLB** | **Lillooet** | **5.71** | **54** | Pn | Pn | 10 08 24.3 | +0.6 |

**IDC 12 10:12:31.2±2.1, 4.22N×126.80E, h0km, mb3.5/3, mb1 3.7/3, mb1mx3.3/46, mbtmp3.5/3, Error ellipse: s-maj=164.7km s-min=25.3km az=66.0, Talaud Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **25.13** | **163** | P | P | 10 17 58.2 | +0.1 |
| | 1.2nm,0.5s,baz=343,slow=11,SNR=14 | | | | | | |
| **ASAR** | **Alice Springs** | **28.57** | **166** | P | P | 10 18 29.0 | -0.2 |
| | 0.3nm,0.5s,baz=351,slow=7.6,SNR=7.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **57.19** | **325** | P | P | 10 22 20.2 | 0.0 |
| | 0.4nm,0.6s,baz=115,slow=7.9,SNR=3.5 | | | | | | |

*ISCJB* ***12*** *10:15:22.9±0.5, 32.23N×0.03×115.25W±0.03, h23km±4km, Error ellipse: s-maj=5.0km s-min=4.6km az=171.8*

*ECX* ***12*** *10:15:24.3±0.6, 32.22N×115.27W, h5km, MD2.7, ML3.0*

*MEX* ***12*** *10:15:25.0±0.3, 32.28N×115.18W, h14km±59km, MD3.7*

**ISC 12 10:15:21.1±1.3, 32.24N±0.03×115.19W±0.03, h14km±10km, n30, σ093/42, 3C-10D, California-Baja California border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MBIG** | **Mexicali** | **0.17** | **358** | *eP* | **Pb** | **10 15 28.0** | **+1.9** |
| MBIG | | | | *eS* | **Sb** | **10 15 30.2** | **+0.9** |
| **MBIG** | **Mexicali** | **0.17** | **358** | ⇓*eP* | **Pb** | **10 15 27.9** | **+1.9** |
| **CPBX** | **Cerro Prieto** | **0.20** | **332** | ⇓*eP* | **Pb** | **10 15 27.9** | **+1.3** |
| CPBX | | | | *eS* | **Sb** | **10 15 31.3** | **+1.0** |
| CPBX | | | | ⇓*e* | | 10 15 33.0 | |
| CPBX | | | | IAML | | 10 15 33.0 | |
| | comp=N,10μm,0.2s | | | | | | |
| **EMSC** | **East Mesa** | **0.53** | **19** | *eP* | **Pn** | **10 15 34.8** | **+0.6** |
| **DREC** | **Desert Rsrch C** | **0.61** | **339** | ⇓*iP* | **Pn** | **10 15 35.5** | **+0.2** |
| **COA** | **Coachella** | **0.63** | **5** | ⇓*iP* | **Pn** | **10 15 35.9** | **+0.4** |
| **YMD** | **Yuma Desert** | **0.63** | **60** | ⇑*iP* | **Pn** | **10 15 36.5** | **+0.9** |
| **ERPC** | **Ernies Place** | **0.64** | **322** | ⇓*iP* | **Pn** | **10 15 35.7** | **0.0** |
| **WESC** | **Westside Schoo** | **0.69** | **319** | ⇓*iP* | **Pn** | **10 15 36.3** | **-0.1** |
| **YUH** | **Yuha Desert** | **0.74** | **304** | ⇓*iP* | **Pb** | **10 15 36.2** | **+0.4** |
| **RMX** | **La Rumorosa** | **0.83** | **296** | *eP* | **Pg** | **10 15 37.2** | **-0.1** |
| RMX | | | | *eS* | **Sg** | **10 15 47.6** | **-0.6** |
| **GLA** | **Glamis** | **0.87** | **21** | P | **Pn** | **10 15 39.7** | **+0.7** |
| | baz=204,SNR=36 | | | | | | |
| GLA | | | | S | **Sn** | **10 15 51.6** | **+0.2** |
| | baz=204 | | | | | | |
| **SWSC** | **Sam W. Stewart** | **0.87** | **324** | P | **Pn** | **10 15 38.4** | **-0.5** |
| | baz=151,SNR=21 | | | | | | |
| SWSC | | | | S | **Sn** | **10 15 50.2** | **-1.3** |
| | baz=151 | | | | | | |
| **IKP** | **In-Ko-Pah, Jac** | **0.88** | **298** | P | **Pg** | **10 15 38.5** | **+0.4** |
| | baz=124,SNR=34 | | | | | | |
| IKP | | | | S | **Sg** | **10 15 49.5** | **-0.1** |
| | baz=124 | | | | | | |
| **IKP** | **In-Ko-Pah, Jac** | **0.88** | **298** | ⇓*iP* | **Pg** | **10 15 38.6** | **+0.5** |
| **SPIG** | **San Pedro Mart** | **1.21** | **191** | *eP* | **Pn** | **10 15 44.5** | **+0.6** |
| SPIG | | | | *eS* | **Sb** | **10 16 00.4** | **+0.8** |
| **SPX** | **San Pedro Mart** | **1.21** | **191** | ⇑*eP* | **Pn** | **10 15 44.6** | **+0.7** |
| **MONP2** | **Monument Peak** | **1.23** | **302** | P | **Pb** | **10 15 44.2** | **0.0** |
| | baz=127,SNR=38 | | | | | | |
| MONP2 | | | | S | **Sb** | **10 16 00.0** | **+0.1** |
| | baz=127 | | | | | | |
| **CBX** | **Cerro Bola** | **1.25** | **274** | *eP* | **Pn** | **10 15 44.5** | **+0.2** |
| CBX | | | | *eS* | **Sb** | **10 16 00.4** | **-0.1** |
| **CBX** | **Cerro Bola** | **1.25** | **274** | ⇓*eP* | **Pn** | **10 15 44.7** | **+0.4** |
| CBX | | | | IAML | | 10 16 03.9 | |
| | comp=E,404nm,0.3s | | | | | | |
| **TJIG** | **Tijuana** | **1.27** | **279** | *eP* | **Pn** | **10 15 44.8** | **+0.3** |
| TJIG | | | | *eS* | **Sb** | **10 16 00.4** | **-0.6** |
| **TJIG** | **Tijuana** | **1.27** | **279** | ⇓*eP* | **Pn** | **10 15 44.9** | **+0.4** |
| **BAR** | **Barrett** | **1.33** | **290** | *eP* | **Pb** | **10 15 45.9** | **+0.1** |
| **BC3** | **Big Chuckawall** | **1.43** | **351** | S | **Sg** | **10 16 06.1** | **-1.2** |
| | baz=174 | | | | | | |
| **Y12C** | **Blythe** | **1.61** | **20** | Pb | **Pg** | **10 15 52.8** | **+0.8** |
| | baz=202,SNR=20 | | | | | | |
| **PFO** | **Pinyon Flats O** | **1.74** | **322** | P | **Pn** | **10 15 51.0** | **+0.1** |
| | baz=145 | | | | | | |
| PFO | | | | Sb | **Sg** | **10 16 16.4** | **-0.6** |
| | baz=145 | | | | | | |
| **109C** | **Camp Elliot, M** | **1.74** | **292** | P | **Pn** | **10 15 51.4** | **+0.5** |
| | baz=115,SNR=11 | | | | | | |
| 109C | | | | Sb | **Sb** | **10 16 14.8** | **+0.3** |
| | baz=115 | | | | | | |
| **BELC** | **Belle Mtn. Jos** | **1.88** | **339** | S | **Sb** | **10 16 16.9** | **-1.9** |
| | baz=162 | | | | | | |
| **IRM** | **Iron Mountain** | **1.92** | **1** | P | **Pb** | **10 15 53.5** | **-2.3** |
| | baz=183 | | | | | | |
| **214A** | **Organ Pipe Nat** | **2.04** | **97** | P | **Pb** | **10 15 56.3** | **-1.7** |
| | baz=276 | | | | | | |

*ISCJB* ***12*** *10:16:10.4±0.6, 37.11N±0.04×27.92E±0.03, h0km, Error ellipse: s-maj=6.0km s-min=3.6km az=3.7*

*CSEM* ***12*** *10:16:10.7±0.3, 37.09N×27.93E, h1km, ML2.5, Error ellipse: s-maj=7.8km s-min=4.5km az=11.0, Suspected Mining explosion.*

*DDA* ***12*** *10:16:11.1, 37.17N×27.89E, h7km, Ml2.5, Suspected Mining explosion.*

*ISK* ***12*** *10:16:11.8, 37.06N×27.78E, h18km, MD2.4*

**ISC 12 10:16:10.6±0.8, 37.10N±0.04×27.96E±0.02, h0km, n16, σ088/29, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BDRM** | **Kayabasi** | **0.41** | **265** | *i* P | **Pg** | **10 16 17.6** | **-0.8** |
| BDRM | | | | *i* S | **Sg** | **10 16 24.4** | **+0.8** |
| **BDRM** | **Kayabasi** | **0.41** | **265** | P | **Pg** | **10 16 17.6** | **-0.8** |
| BDRM | | | | S | **Sg** | **10 16 24.5** | **+0.8** |
| **BODT** | **Bodrum** | **0.52** | **266** | *e*PG | **Pg** | **10 16 19.8** | **-0.7** |
| BODT | | | | *e*SG | **Sg** | **10 16 26.2** | **-1.0** |
| **BODT** | **Bodrum** | **0.52** | **266** | *e*Pg | **Pg** | **10 16 19.8** | **-0.7** |
| BODT | | | | *e*Sg | **Sg** | **10 16 26.2** | **-1.0** |
| **AYDN** | **Tasoluk** | **0.56** | **354** | *i* P | **Pg** | **10 16 20.6** | **-0.7** |
| AYDN | | | | *i* S | **Sg** | **10 16 28.1** | **-0.5** |
| **AYDN** | **Tasoluk** | **0.56** | **354** | P | **Pg** | **10 16 20.6** | **-0.7** |
| AYDN | | | | S | **Sg** | **10 16 28.1** | **-0.5** |
| **TURN** | **Turunc** | **0.57** | **114** | *e*PG | **Pb** | **10 16 22.2** | **-1.1** |
| TURN | | | | *e*SG | **Sg** | **10 16 28.9** | **+0.1** |
| **TURN** | **Turunc** | **0.57** | **114** | *i* P | **Pg** | **10 16 20.6** | **-0.8** |
| TURN | | | | *i* S | **Sg** | **10 16 28.1** | **-0.7** |
| **TURN** | **Turunc** | **0.57** | **114** | P | **Pg** | **10 16 20.6** | **-0.8** |
| **TURN** | **Turunc** | **0.57** | **114** | *e*Pg | **Pb** | **10 16 22.2** | **-1.1** |
| TURN | | | | *e*Sg | **Sg** | **10 16 28.9** | **+0.1** |
| **GCAM** | **G?zelcaml?** | **0.83** | **316** | *e*PG | **Pb** | **10 16 27.6** | **-0.1** |
| **GCAM** | **G?zelcaml?** | **0.83** | **316** | *e*Pg | **Pb** | **10 16 27.7** | **-0.1** |
| **TAVA** | **DENIZLI_Tavas** | **0.85** | **64** | *i* P | **Pb** | **10 16 28.0** | **-0.2** |
| TAVA | | | | *i* S | **Sb** | **10 16 39.8** | **-0.3** |
| **TAVA** | **DENIZLI_Tavas** | **0.85** | **64** | P | **Pb** | **10 16 28.0** | **-0.2** |
| TAVA | | | | S | **Sb** | **10 16 39.8** | **-0.3** |
| **FETY** | **Fethiye** | **1.02** | **117** | *e*PN | **Pn** | **10 16 32.9** | **+0.8** |
| FETY | | | | *e*SN | **Sn** | **10 16 49.1** | **+1.9** |
| **FETY** | **Fethiye** | **1.02** | **117** | *e*Pn | **Pn** | **10 16 32.9** | **+0.8** |
| FETY | | | | *e*Sn | **Sn** | **10 16 49.1** | **+1.9** |

*IDC* ***12*** *10:19:37.0±0.9, 35.01N×142.38E, h0km, mb3.6/6, mb1 3.7/10, mb1mx3.6/56, mbtmp3.7/10, ML3.7/4, MS2.9/2, Ms1 2.9/2, ms1mx2.5/47, Error ellipse: s-maj=24.8km s-min=16.4km az=96.0*

*JMA* ***12*** *10:19:39.5±0.4, 35.12N×142.53E, h61km, M3.5*

*ISCJB* ***12*** *10:19:40.0±0.7, 35.08N±0.04×142.47E±0.06, h42km, mb3.6/6, MS2.8/1, Error ellipse: s-maj=7.5km s-min=5.9km az=24.0*

**ISC 12 10:19:41.7±0.8, 35.06N±0.05×142.48E±0.07, h42km, n25, σ194/32, mb3.6/6, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BSO1** | **Boso 1** | **1.30** | **252** | P | **Pn** | **10 20 02.2** | **-0.7** |
| BSO1 | | | | S | **Sn** | **10 20 19.8** | **+1.0** |
| **CHOJ** | **Chosi** | **1.47** | **296** | P | **Pn** | **10 20 04.9** | **-0.8** |
| CHOJ | | | | *e*S | **Sn** | **10 20 22.2** | **-1.5** |
| **BSO3** | **Boso 3** | **1.64** | **261** | P | **Pn** | **10 20 07.6** | **-0.2** |
| **BSO4** | **Boso 4** | **1.76** | **268** | P | **Pn** | **10 20 09.5** | **-0.1** |
| **JCN** | **Nagara** | **1.90** | **281** | P | **Pn** | **10 20 11.9** | **+0.3** |
| **JIM2** | **Oshima 3** | **2.53** | **263** | P | **Pn** | **10 20 18.7** | **-1.6** |
| **JFK** | **Kawauchi** | **2.64** | **331** | P | **Pn** | **10 20 19.3** | **-2.5** |
| **JOD2** | **Odawara 2** | **2.79** | **275** | P | **Pn** | **10 20 22.8** | **-1.0** |
| JOD2 | | | | *e*S | **Sn** | **10 20 54.5** | **-1.7** |
| **JAG** | **Ashikaga** | **2.81** | **300** | P | **Pn** | **10 20 23.1** | **-1.1** |
| **JHJ2** | **Mitsune** | **2.94** | **229** | *e*S | **Sn** | **10 20 59.5** | **-0.6** |
| **JHJ** | **Hachijo jima 2** | **2.96** | **230** | Pn | **Pn** | **10 20 24.2** | **-2.0** |
| | 14nm,0.3s,baz=68,slow=18,SNR=7.9 | | | | | | |
| JHJ | | | | Sn | **Sn** | **10 20 59.4** | **-1.1** |
| | 42nm,0.3s,baz=52,slow=23,SNR=7.4 | | | | | | |
| **JFT** | **Otama** | **3.00** | **325** | P | **Pn** | **10 20 25.5** | **-1.3** |
| JFT | | | | S | **Sn** | **10 20 58.6** | **-2.9** |
| **JRY** | **Ryogami san** | **3.07** | **289** | P | **Pn** | **10 20 27.5** | **-0.2** |
| **MJAR** | **Matsushiro Arr** | **3.77** | **294** | Pn | **Pn** | **10 20 36.5** | **-0.8** |
| | 2.6nm,0.3s,baz=144,slow=17,SNR=22 | | | | | | |
| MJAR | | | | Sn | **Sn** | **10 21 21.6** | **+1.1** |
| | 0.9nm,0.3s,baz=18,slow=26,SNR=4.9 | | | | | | |
| MJAR | | | | LR | LR | 10 22 10.3 | |
| | comp=Z,132nm,19.9s,baz=100,slow=42 | | | | | | |
| **MAT** | **Matsushiro** | **3.77** | **294** | P | **Pn** | **10 20 37.5** | **+0.1** |
| MAT | | | | S | **Sn** | **10 21 14.6** | **-5.9** |
| **JCJ** | **Chichijima** | **7.95** | **182** | Pn | **Pn** | **10 21 32.1** | **-2.7** |
| | 2.7nm,0.3s,baz=342,slow=20,SNR=4.5 | | | | | | |
| JCJ | | | | Sn | **Sn** | **10 22 59.3** | **-4.0** |
| | 5.1nm,0.3s,baz=258,slow=20,SNR=3.5 | | | | | | |
| **ASAJ** | **Asahikawa** | **9.04** | **1** | Pn | **Pn** | **10 21 48.3** | **-1.3** |
| | 1.5nm,0.3s,baz=217,slow=9.0,SNR=6.5 | | | | | | |
| **PETK** | **Petropavlovsk-** | **21.01** | **26** | LR | LR | 10 34 40.6 | |
| | comp=Z,42nm

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| MONP2 | | | | S | | Sb | 10 21 16.7 | -1.0 |
| | baz=125 | | | | | | | |
| TJIG | Tijuana | 1.23 | 281 | *e*P | | Pn | 10 21 01.8 | -0.4 |
| TJIG | | | | *e*S | | Sb | 10 21 17.2 | -0.9 |
| TJIG | Tijuana | 1.23 | 281⇓ | *e*P | | Pn | 10 21 01.8 | -0.4 |
| BAR | Barrett | 1.29 | 292 | *e*P | | Pn | 10 21 02.9 | -0.2 |
| BAR | Barrett | 1.29 | 292 | *e*Pg | | Pn | 10 21 02.8 | -0.2 |
| BAR | | | | *e*Sg | | Sn | 10 21 19.1 | -0.8 |
| 113A | Mohawk Valley, | 1.38 | 65 | *e*Pn | | Pn | 10 21 03.9 | -0.4 |
| BORC | Borrego Spring | 1.45 | 318 | *e*Pn | | Pn | 10 21 04.2 | -1.1 |
| BORC | | | | *e*Sn | | Sb | 10 21 25.2 | +0.7 |
| BC3 | Big Chuckawall | 1.46 | 353 | S | | Sn | 10 21 23.1 | -1.2 |
| | baz=175 | | | | | | | |
| EML | El Monte Cty P | 1.51 | 298 | *e*Pn | | Pb | 10 21 07.3 | -0.2 |
| DPP | Dos Picos Cty | 1.64 | 300 | *e*Pn | | Pn | 10 21 07.8 | 0.0 |
| DPP | | | | *e*Sn | | Sb | 10 21 30.1 | +0.3 |
| HWB | Hans Werner Br | 1.66 | 300 | *e*Pn | | Pb | 10 21 09.6 | -0.4 |
| HWB | | | | *e*Sn | | Sb | 10 21 30.7 | +0.1 |
| Y12C | Blythe | 1.67 | 21 | Pb | | Pb | 10 21 09.4 | -0.6 |
| | baz=203 | | | | | | | |
| Y12C | | | | S | | Sn | 10 21 28.9 | -0.2 |
| | baz=203 | | | | | | | |
| Y12C | Blythe | 1.67 | 21 | *e*Pn | | Pb | 10 21 10.9 | +0.9 |
| 109C | Camp Elliot, M | 1.71 | 294 | P | | Pn | 10 21 08.5 | -0.3 |
| | baz=113,SNR=32 | | | | | | | |
| 109C | | | | Sb | | Sb | 10 21 31.9 | -0.1 |
| | baz=113 | | | | | | | |
| CPE | Camp Elliot | 1.71 | 294 | *e*Pn | | Pb | 10 21 10.2 | -0.7 |
| CPE | | | | *e*Sn | | Sb | 10 21 32.1 | +0.2 |
| XPFO | Piæon Flat | 1.73 | 325 | *e*Pn | | Pn | 10 21 08.0 | -1.3 |
| PFO | Pinyon Flats O | 1.74 | 325 | P | | Pn | 10 21 08.1 | -1.2 |
| | baz=145,SNR=11 | | | | | | | |
| PFO | | | | S | | Sn | 10 21 30.0 | -1.0 |
| | baz=145 | | | | | | | |
| PFO | Pinyon Flats O | 1.74 | 325 | *e*Pn | | Pn | 10 21 08.0 | -1.3 |
| SNDA | J Saunders Pla | 1.77 | 320 | *e*Sn | | Sb | 10 21 35.2 | +1.4 |
| PLM | Palomar | 1.78 | 311 | *e*Pn | | Pn | 10 21 09.4 | -0.5 |
| DNR | Dunn Ranch,Anz | 1.79 | 320 | *e*Sn | | Sg | 10 21 37.2 | -0.7 |
| CRY | Cary Ranch | 1.85 | 318 | *e*Pn | | Pb | 10 21 14.4 | +1.1 |
| CRY | | | | *e*Sn | | Sb | 10 21 37.6 | +1.5 |
| BELC | Belle Mtn. Jos | 1.90 | 341 | S | | Sn | 10 21 34.2 | -1.0 |
| | baz=162 | | | | | | | |
| IRM | Iron Mountain | 1.96 | 3 | Sb | | Sb | 10 21 38.8 | -0.3 |
| | baz=184 | | | | | | | |
| DGR | Domenigoni Val | 2.07 | 315 | *e*Pn | | Pb | 10 21 18.1 | +1.2 |
| DGR | | | | *e*Sn | | Sb | 10 21 43.9 | +1.6 |
| 214A | Organ Pipe Nat | 2.08 | 96 | P | | Pn | 10 21 13.5 | -0.5 |
| | baz=278 | | | | | | | |
| 214A | | | | S | | Sn | 10 21 40.7 | +1.2 |
| | baz=278 | | | | | | | |
| MURC | Murrieta | 2.15 | 311 | P | | Pn | 10 21 14.4 | -0.5 |
| | baz=130 | | | | | | | |
| MURC | | | | Sb | | Sb | 10 21 46.2 | +1.5 |
| | baz=130 | | | | | | | |
| PDMCI | Parker Dam,Lak | 2.30 | 24 | S | | Sn | 10 21 44.1 | -0.5 |
| | baz=205 | | | | | | | |
| Y14A | Wickenburg | 2.56 | 47 | *e*Pn | | Pb | 10 21 25.7 | +0.3 |
| BFSC | Mount Baldy Ra | 2.87 | 316 | Pb | | Pb | 10 21 30.5 | -0.1 |
| | baz=135 | | | | | | | |
| LDFC | Landfair | 2.88 | 2 | *e*Pn | | Pb | 10 21 30.3 | -0.5 |
| MWC | Mount Wilson | 3.10 | 311 | *e*Pn | | Pn | 10 21 31.3 | +3.2 |
| W13A | Hualapai Mount | 3.11 | 21 | *e*Pn | | Pb | 10 21 32.8 | -2.0 |
| GSC | Goldstone, Bar | 3.36 | 338 | *e*Pn | | Pn | 10 21 34.2 | +2.7 |
| TUC | Tucson | 3.79 | 87 | *e*Sg | | Sg | 10 22 40.5 | -1.2 |
| X16A | Lo Mia Camp, P | 3.88 | 54 | *e*Pn | | Pn | 10 21 40.5 | +1.6 |
| ARVC | Arvin | 4.18 | 315 | *e*Pg | | Pg | 10 22 01.6 | +1.6 |
| VPEM | Volcano Peak E | 4.30 | 331 | *e*Pn | | Pn | 10 21 47.4 | +2.7 |
| ISA | Isabella, Lake | 4.37 | 323 | *e*Pn | | Pn | 10 21 47.3 | +1.8 |
| MCMM | Convict Lake | 6.16 | 332 | *e*Pn | | Pn | 10 22 10.9 | +0.6 |

*IDC* ***12*** *10:23:56.2±1.1,26.˝77N×144.˝22E, h0km, mb3.6/8, mb1 3.7/9, mb1mx3.5/40, mbtmp3.6/9, ML3.5/1, Error ellipse: s-maj=32.7km s-min=19.7km az=75.0*

*ISCJB* ***12*** *10:23:59.6±0.8,26.˚8N±0.˝1×144.˚08E±0.˝10, h33km, mb3.6/8, Error ellipse: s-maj=18.1km s-min=11.8km az=16.5*

**ISC 12 10:24:01.6±1.1, 26.˚8N±0.˝1×144.˚1E±0.˝1, h35km, n10, σ1ᵗ01/11, mb3.6/8, Bonin Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| JCJ | Chichijima | 1.69 | 279 | Pn | Pn | 10 24 28.5 | -0.1 |
| | 13nm,0.3s,baz=312,slow=23,SNR=9.6 | | | | | | |
| JCJ | | | | Sn | Sn | 10 24 48.4 | -0.6 |
| | 180nm,0.3s,baz=284,slow=23,SNR=22 | | | | | | |
| MJAR | Matsushiro Arr | 10.88 | 334 | Pn | Pn | 10 26 33.4 | -1.5 |
| | 0.4nm,0.3s,baz=164,slow=13,SNR=4.5 | | | | | | |
| SONM | Songino Array | 36.06 | 316 | P | P | 10 31 01.3 | +1.4 |
| | 0.4nm,0.5s,baz=94,slow=4.3,SNR=3.1 | | | | | | |
| TIXI | Tiksi | 45.66 | 353 | P | P | 10 32 18.4 | 0.0 |
| | 0.9nm,0.4s,baz=111,slow=3.2,SNR=4.9 | | | | | | |
| WRA | Warramunga Arr | 47.44 | 192 | P | P | 10 32 32.7 | -0.3 |
| | 0.7nm,0.7s,baz=12,slow=8.5,SNR=6.4 | | | | | | |
| ZALV | Zalesovo Beam | 50.78 | 319 | P | P | 10 32 58.9 | +0.7 |
| | 0.2nm,0.3s,baz=95,slow=4.9,SNR=2.7 | | | | | | |
| ASAR | Alice Springs | 51.15 | 192 | P | P | 10 33 00.6 | -0.7 |
| | 0.2nm,0.7s,baz=17,slow=7.8,SNR=4.0 | | | | | | |
| MKAR | Makanchi Array | 51.92 | 310 | P | P | 10 33 08.1 | +1.2 |
| | 0.4nm,0.6s,baz=92,slow=8.3,SNR=4.6 | | | | | | |
| KURBB | Kurchatov Arra | 54.41 | 315 | P | P | 10 33 26.1 | +1.0 |
| | 0.4nm,0.5s,baz=91,slow=8.1,SNR=7.9 | | | | | | |
| PDAR | Pinedale Array | 83.22 | 45 | P | P | 10 36 24.4 | -0.5 |
| | 0.3nm,0.7s,baz=272,slow=4.3,SNR=3.4 | | | | | | |

**DDA 12 10:28:08.3, 37.˚76N×41.˚57E, h7km, Ml2.9, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| BTMN | Batman | 0.27 | 299 | *i* P | Pg | 10 28 13.7 | 0.0 |
| BTMN | | | | *i* S | Sb | 10 28 19.0 | -1.5 |
| SRTM | Siirt_Merkez | 0.36 | 50 | *i* P | Pg | 10 28 16.1 | +0.5 |
| SRTM | | | | *i* S | Sg | 10 28 21.6 | +1.2 |
| BNGL | BINGOL | 1.24 | 345 | *i* P | Pg | 10 28 31.3 | -0.8 |
| BNGL | | | | *i* S | Sn | 10 28 49.4 | 0.0 |

*ISN* ***12*** *10:28:21.7±1.4,38.˚92N×43.˚13E, h0km±68km, ML4.2*

*DDA* ***12*** *10:28:28.9,38.˚60N×43.˚20E, h22km, Ml4.3*

*NEIC* ***12*** *10:28:28.1±0.0,38.˚60N×43.˚19E, h5km, mb4.0/4, ML4.1(ISK), After ISK.*

*IDC* ***12*** *10:28:28.1±1.1,38.˚55N×43.˚17E, h0km, mb3.8/11, mb1 3.8/16, mb1mx3.6/52, mbtmp3.7/16, ML3.0/5, Error ellipse: s-maj=20.5km s-min=10.3km az=153.0*

*ISK* ***12*** *10:28:28.1,38.˚60N×43.˚19E, h5km, ML4.1*

*ATA* ***12*** *10:28:29.0±1.3,38.˚64N×43.˚10E, h12km±10km, ML4.8, MS2.6, MW4.5*

*ISCJB* ***12*** *10:28:29.3±0.4,38.˚56N±0.˝02×43.˚20E±0.˝02, h9km±2km, mb3.6/10, Error ellipse: s-maj=3.1km s-min=2.1km az=165.1*

*CSEM* ***12*** *10:28:29.5±0.1,38.˚56N×43.˚18E, h5km, ML4.1, Error ellipse: s-maj=3.4km s-min=2.7km az=152.0*

*AZER* ***12*** *10:28:31.7±0.5,38.˚60N×43.˚31E, h5km, Error ellipse: s-maj=4.1km s-min=2.8km az=30.0*

**ISC 12 10:28:30.1±0.8, 38.˚58N±0.˝01×43.˚19E±0.˝01, h12km±5km, n195, σ1ᵗ34/265, mb3.7/10, 23C-36D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| VANB | Van | 0.16 | 84 | *e*PG | Pg | 10 28 33.4 | -0.5 |
| VANB | Van | 0.16 | 84 | *e*Pg | Pg | 10 28 33.4 | -0.5 |
| TVAN | Van | 0.18 | 107⇑ | *i*P | Pg | 10 28 33.5 | -0.7 |
| TVAN | | | | *i* S | Sg | 10 28 37.7 | +0.5 |
| TVAN | Van | 0.18 | 107 | P | Pg | 10 28 33.5 | -0.7 |
| TVAN | | | | S | Sg | 10 28 37.7 | +0.5 |
| GEVA | Gevas | 0.29 | 201⇓ | *i*P | Pg | 10 28 35.5 | -0.6 |
| GEVA | | | | *e*S | Sb | 10 28 42.1 | 0.0 |
| GEVA | | | | IAML | | 10 28 43.5 | |
| | comp=Z,14μm,0.5s | | | | | | |
| GEVA | Gevas | 0.29 | 201⇓ | *i*P | Pg | 10 28 35.6 | -0.4 |
| GEVA | | | | *i* S | Sb | 10 28 42.1 | 0.0 |
| GEVA | Gevas | 0.29 | 201 | P | Pg | 10 28 35.6 | -0.4 |
| GEVA | | | | S | Sb | 10 28 42.2 | +0.1 |
| ADCV | BITLIS_Adilcev | 0.43 | 302⇑ | *i*P | Pg | 10 28 37.8 | -0.9 |
| ADCV | | | | *i* S | Sg | 10 28 45.1 | +0.8 |
| ADCV | BITLIS_Adilcev | 0.43 | 302 | P | Pg | 10 28 37.8 | -0.9 |
| ADCV | | | | S | Sg | 10 28 45.2 | +0.8 |
| ERCV | ERCIS-VAN | 0.45 | 15 | *e*PG | Pg | 10 28 37.6 | -1.5 |
| ERCV | | | | *e*SG | Sg | 10 28 44.9 | -0.3 |
| ERCV | ERCIS-VAN | 0.45 | 15 | *e*Pg | Pg | 10 28 37.6 | -1.5 |
| ERCV | | | | *e*Sg | Sg | 10 28 44.9 | -0.3 |
| VMUR | Van-Muradiye | 0.51 | 36⇓ | *i*P | Pg | 10 28 39.2 | -0.9 |
| VMUR | | | | *i* S | Sg | 10 28 47.5 | +0.6 |
| VMUR | Van-Muradiye | 0.51 | 36 | P | Pg | 10 28 39.2 | -0.9 |
| VMUR | | | | S | Sg | 10 28 47.5 | +0.6 |
| CLDR | Caldiran | 0.80 | 45 | *e*PG | Pg | 10 28 43.9 | -1.7 |
| CLDR | Caldiran | 0.80 | 45⇓ | *i*P | Pg | 10 28 44.1 | -1.5 |
| CLDR | | | | *i* S | Sg | 10 28 56.2 | +0.1 |
| CLDR | Caldiran | 0.80 | 45 | P | Pg | 10 28 44.1 | -1.5 |
| CLDR | | | | S | Sg | 10 28 56.2 | +0.1 |
| BASK | Baskale_VAN | 0.83 | 129 | *i* P | Pn | 10 28 47.4 | -0.4 |
| BASK | | | | *e*S | Sn | 10 29 01.6 | +1.6 |
| BASK | | | | IAML | | 10 29 03.8 | |
| | comp=Z,1μm,0.6s | | | | | | |
| BASK | Baskale_VAN | 0.83 | 129⇓ | *i*P | Pg | 10 28 44.1 | -2.0 |
| BASK | | | | *i* S | Sb | 10 28 58.2 | +0.4 |
| BASK | Baskale_VAN | 0.83 | 129 | P | Pg | 10 28 44.2 | -2.0 |
| BASK | | | | S | Sb | 10 28 58.2 | +0.4 |
| TUTA | Tutak | 0.87 | 341⇓ | *i*P | Pg | 10 28 45.0 | -1.9 |
| TUTA | | | | *e*S | Sg | 10 28 57.5 | -0.9 |
| TUTA | | | | IAML | | 10 28 58.5 | |
| | comp=Z,5μm,0.4s | | | | | | |
| TUTA | Tutak | 0.87 | 341⇓ | *i*P | Pg | 10 28 45.1 | -1.9 |
| TUTA | | | | *i* S | Sg | 10 28 57.6 | -0.8 |
| TUTA | Tutak | 0.87 | 341 | P | Pg | 10 28 45.1 | -1.9 |
| AGRB | Hanur-Agry | 1.01 | 351 | *e*PG | Pg | 10 28 47.5 | -2.0 |
| AGRB | Hanur-Agry | 1.01 | 351 | *e*Pg | Pg | 10 28 47.5 | -2.0 |
| DYDN | Diyadin | 1.04 | 22⇓ | *i*P | Pg | 10 28 47.6 | -2.5 |
| DYDN | | | | IAML | | 10 29 10.3 | |
| | comp=Z,719nm,0.4s | | | | | | |
| DYDN | Diyadin | 1.04 | 22⇓ | *i*P | Pg | 10 28 47.7 | -2.4 |
| DYDN | | | | *i* S | Sg | 10 29 02.3 | -1.4 |
| DYDN | Diyadin | 1.04 | 22 | P | Pg | 10 28 47.7 | -2.4 |
| DYDN | | | | S | Sg | 10 29 02.3 | -1.4 |
| EKAR | Karacoban | 1.11 | 308 | *i* P | Pb | 10 28 49.9 | -1.4 |
| EKAR | | | | IAML | | 10 29 20.8 | |
| | comp=Z,1μm,0.5s | | | | | | |
| EKAR | Karacoban | 1.11 | 308⇑ | *i*P | Pb | 10 28 50.0 | -1.4 |
| EKAR | | | | *i* S | Sn | 10 29 11.7 | +4.8 |
| SRTM | Siirt_Merkez | 1.16 | 240 | *i* P | Pb | 10 28 51.9 | -0.2 |
| SRTM | | | | *i* S | Sn | 10 29 13.6 | +5.6 |
| SIRT | Sirnak | 1.23 | 209 | *e*PN | Pn | 10 28 53.0 | -0.2 |
| SIRT | Sirnak | 1.23 | 209 | *e*Pn | Pn | 10 28 53.0 | -0.2 |
| SIRN | S¨–rnak | 1.24 | 210 | *i* P | Pn | 10 28 51.8 | -1.6 |
| SIRN | | | | *i* S | Sn | 10 29 12.6 | +2.5 |
| SIRN | S¨–rnak | 1.24 | 210 | P | Pn | 10 28 51.8 | -1.6 |
| SIRN | | | | S | Sn | 10 29 12.6 | +2.5 |
| CUKT | Cukurca | 1.37 | 166 | *e*PN | Pn | 10 28 55.3 | +0.1 |
| CUKT | Cukurca | 1.37 | 166⇓ | *i*P | Pn | 10 28 55.2 | 0.0 |
| CUKT | | | | *i* S | Sg | 10 29 19.4 | +5.2 |
| CUKT | Cukurca | 1.37 | 166 | *e*Pn | Pn | 10 28 55.3 | +0.1 |
| EATA | Eleskirt | 1.39 | 337⇓ | *i*P | Pn | 10 28 54.5 | -1.1 |
| EATA | | | | *e*S | Sb | 10 29 14.0 | -0.1 |
| EATA | | | | IAML | | 10 29 16.6 | |
| | comp=Z,512nm,0.6s | | | | | | |
| EATA | Eleskirt | 1.39 | 337⇓ | *i*P | Pn | 10 28 54.5 | -1.1 |
| EATA | | | | *i* S | Sn | 10 29 14.2 | +0.1 |
| VRTB | Varto-Mus | 1.47 | 294 | *e*PN | Pn | 10 28 56.4 | -0.2 |
| VRTB | | | | *e*SN | Sg | 10 29 17.6 | +0.1 |
| VRTB | Varto-Mus | 1.47 | 294⇑ | *i*P | Pn | 10 28 56.4 | -0.2 |
| VRTB | | | | *i* S | Sg | 10 29 18.3 | +0.8 |
| VRTB | Varto-Mus | 1.47 | 294 | P | Pn | 10 28 56.4 | -0.2 |
| VRTB | | | | *e*Sn | Sg | 10 29 17.6 | +0.1 |
| VRTB | | | | S | Sg | 10 29 18.3 | +0.8 |
| TASB | TASBURUN-IGDIR | 1.62 | 30 | *e*PN | Pn | 10 28 58.8 | +0.2 |
| TASB | | | | *e*SN | Sb | 10 29 21.2 | +0.8 |
| TASB | TASBURUN-IGDIR | 1.62 | 30 | *e*Pn | Pn | 10 28 58.8 | +0.2 |
| TASB | | | | *e*Sn | Sb | 10 29 21.2 | +0.8 |
| BNGL | BINGOL | 1.64 | 284 | *i* P | Pn | 10 28 59.2 | +0.2 |
| BNGL | | | | *e*S | Sb | 10 29 21.0 | 0.0 |
| BNGL | | | | IAML | | 10 29 27.8 | |
| | comp=Z,2μm,0.4s | | | | | | |
| BNGL | BINGOL | 1.64 | 284 | *i* P | Pn | 10 28 59.1 | +0.2 |
| BNGL | | | | *i* S | Sb | 10 29 21.1 | +0.1 |
| BTMN | Batman | 1.66 | 246 | *i* P | Pn | 10 28 59.5 | +0.4 |
| BTMN | | | | *i* S | Sg | 10 29 23.3 | -0.2 |
| BTMN | Batman | 1.66 | 246 | P | Pn | 10 28 59.5 | +0.4 |
| BTMN | | | | S | Sg | 10 29 23.3 | -0.2 |
| HYR | Heyderabad | 1.72 | 48 | ⇑P | Pb | 10 29 01.0 | -0.7 |
| HYR | | | | ⇓S | Sb | 10 29 23.7 | +0.4 |
| HYR | Heyderabad | 1.72 | 48 | P | Pb | 10 29 01.0 | -0.7 |
| HYR | | | | S | Sb | 10 29 23.7 | +0.4 |
| HOMI | Horasan | 1.77 | 326 | *e*P | Pn | 10 29 01.2 | +0.5 |
| HOMI | Horasan | 1.77 | 326⇑ | *i*P | Pn | 10 29 01.2 | +0.5 |
| HOMI | | | | *i* S | Sg | 10 29 28.9 | +1.8 |
| DIGO | Kars | 1.84 | 4 | *i* P | Pn | 10 29 02.1 | +0.4 |
| DIGO | | | | IAML | | 10 29 07.5 | |
| | comp=Z,381nm,0.8s | | | | | | |
| DIGO | Kars | 1.84 | 4⇓ | *i*P | Pn | 10 29 02.4 | +0.7 |
| DIGO | | | | *i* S | Sg | 10 29 32.1 | +2.9 |
| NAX | Nakhchivan | 1.90 | 71 | P | Pb | 10 29 03.8 | -0.8 |
| | SNR=50 | | | | | | |
| NAX | | | | ⇓S | Sb | 10 29 27.9 | -0.4 |
| NAX | Nakhchivan | 1.90 | 71 | P | Pb | 10 29 03.8 | -0.8 |
| | SNR=50 | | | | | | |
| NAX | | | | S | Sb | 10 29 27.9 | -0.4 |
| ERZM | Erzurum | 1.94 | 314 | *i* P | Pn | 10 29 03.5 | +0.4 |
| ERZM | Erzurum | 1.94 | 314⇓ | *i*P | Pn | 10 29 03.9 | +0.8 |
| ERZM | | | | *i* S | Sg | 10 29 33.4 | +0.9 |
| ERZM | Erzurum | 1.94 | 314 | P | Pn | 10 29 03.9 | +0.8 |
| ERZM | | | | S | Sg | 10 29 33.3 | +0.9 |
| GNI | Garni | 1.98 | 37 | Pn | Pb | 10 29 04.9 | -1.2 |
| | comp=Z,46nm,0.3s,baz=253,slow=4.0,SNR=70 | | | | | | |
| GNI | | | | Sn | Sb | 10 29 31.0 | +0.3 |
| | comp=Z,45nm,0.3s,baz=182,slow=18,SNR=6.0 | | | | | | |
| GNI | Garni | 1.98 | 37 | *e*Pn | Pn | 10 29 04.5 | +1.0 |
| GNI | Garni | 1.98 | 37 | *e*Pn | Pn | 10 29 04.5 | +1.0 |
| GNI | | | | *e*Pn | Pb | 10 29 04.9 | -1.2 |
| GNI | | | | *e*Sn | Sb | 10 29 31.0 | +0.3 |
| BNGB | Bing¨¶l | 2.00 | 283 | *e*PN | Pn | 10 29 04.4 | +0.6 |
| ECAT | Cat-ERZURUM | 2.00 | 301 | *i* P | Pn | 10 29 04.2 | +0.2 |
| ECAT | | | | *e*S | Sb | 10 29 32.9 | +1.3 |
| ECAT | | | | IAML | | 10 29 38.1 | |
| | comp=Z,172nm,0.4s | | | | | | |
| ECAT | Cat-ERZURUM | 2.00 | 301⇑ | *i*P | Pn | 10 29 04.4 | +0.5 |
| ECAT | | | | *i* S | Sg | 10 29 33.6 | -1.0 |
| ECAT | Cat-ERZURUM | 2.00 | 301 | P | Pn | 10 29 04.4 | +0.5 |
| ECAT | | | | S | Sg | 10 29 33.6 | -1.0 |
| SBZ | Shahbuz | 2.02 | 65 | ⇓P | Pn | 10 29 04.8 | +0.8 |
| SBZ | | | | ⇓S | Sn | 10 29 30.6 | +1.4 |
| SBZ | Shahbuz | 2.02 | 65 | P | Pn | 10 29 04.8 | +0.8 |
| SBZ | | | | S | Sn | 10 29 30.6 | +1.4 |
| KARS | Kars | 2.05 | 358 | *e*PN | Pn | 10 29 04.7 | +0.2 |
| KARS | Kars | 2.05 | 358 | *e*Pn | Pn | 10 29 04.7 | +0.2 |
| SENK | Senkaya-Erzuru | 2.08 | 342 | *e*PN | Pn | 10 29 05.2 | +0.2 |
| SENK | Senkaya-Erzuru | 2.08 | 342 | *e*Pn | Pn | 10 29 05.2 | +0.2 |
| EAK | Akyaka | 2.13 | 9 | *i* P | Pn | 10 29 07.2 | +1.5 |
| EAK | | | | IAML | | 10 29 17.3 | |
| | comp=Z,310nm,0.6s | | | | | | |
| EAK | Akyaka | 2.13 | 9⇓ | *i*P | Pb | 10 29 09.1 | +0.4 |
| EAK | | | | *i* S | Sg | 10 29 43.1 | +4.6 |
| EAK | Akyaka | 2.13 | 9 | P | Pb | 10 29 09.1 | +0.4 |
| BINT | Bingol | 2.13 | 279 | *e*Pn | Pn | 10 29 04.4 | -1.2 |
| HANI | Diyarbakir_Han | 2.19 | 267 | ⇓P | Pn | 10 29 08.1 | +1.7 |
| HANI | | | | *i* S | Sg | 10 29 38.9 | -1.7 |
| HANI | Diyarbakir_Han | 2.19 | 267 | P | Pn | 10 29 08.1 | +1.7 |
| HANI | | | | S | Sg | 10 29 38.9 | -1.7 |
| ORD | Ordubad | 2.22 | 80 | P | Pn | 10 29 08.0 | +1.2 |
| ORD | | | | S | Sn | 10 29 35.9 | +1.7 |
| MARD | Mardin | 2.29 | 237 | *e*Pn | Pn | 10 29 08.0 | +0.2 |
| MARD | Mardin | 2.29 | 237 | *e*Pn | Pn | 10 29 08.0 | +0.2 |
| DIY | Diyarbakir | 2.43 | 255 | *e*Pn | Pn | 10 29 11.4 | +1.7 |
| MAZI | Mazidag | 2.44 | 244 | *e*PN | Pn | 10 29 10.7 | +0.9 |
| MAZI | Mazidag | 2.44 | 244 | *e*Pn | Pn | 10 29 10.7 | +0.9 |
| DYBB | Diyarbakir | 2.48 | 256 | *e*PN | Pn | 10 29 11.4 | +1.1 |
| KOPT | Kop Dagi | 2.53 | 305 | *e*P | Pn | 10 29 12.3 | +1.0 |
| KOPT | | | | IAML | | 10 29 35.6 | |
| | comp=Z,131nm,0.5s | | | | | | |
| KOPT | | | | IVMsBB | | 10 30 33.3 | |
| | comp=Z,2μm,8.4s | | | | | | |
| KOPT | Kop Dagi | 2.53 | 305 | *e*Pn | Pn | 10 29 12.6 | +1.3 |
| KOPT | Kop Dagi | 2.53 | 305 | *e*Pn | Pn | 10 29 12.6 | +1.3 |
| BGD | Bogdanovka | 2.70 | 7 | P | Pb | 10 29 18.8 | +0.4 |
| ARTV | Artvin | 2.78 | 340 | *e*P | Pn | 10 29 15.4 | +0.9 |
| ARTV | | | | IAML | | 10 29 34.3 | |
| | comp=Z,42nm,0.6s | | | | | | |
| ARTV | Artvin | 2.78 | 340 | *e*Pn | Pn | 10 29 15.5 | +0.9 |
| ARTV | Artvin | 2.78 | 340 | *e*Pn | Pn | 10 29 15.5 | +0.9 |
| AKH | Akhalkalaki | 2.84 | 5 | *e*PN | Pn | 10 29 16.8 | +1.4 |
| AKH | Akhalkalaki | 2.84 | 5 | P | Pb | 10 29 20.9 | +0.2 |
| AKH | Akhalkalaki | 2.84 | 5 | *e*Pn | Pn | 10 29 16.8 | +1.4 |
| ERZN | Erzincan | 2.88 | 292 | *e*PN | Pn | 10 29 16.9 | +1.0 |
| TNCL | Tunceli-Merkez | 2.90 | 282 | *e*PN12 | Pn | 10 29 17.1 | +1.0 |
| GDB | GEDABAY | 2.91 | 42 | ⇓P | Pn | 10 29 17.7 | +1.3 |
| | SNR=36 | | | | | | |
| GDB | | | | ⇑S | Sn | 10 29 53.8 | +2.3 |
| GDB | GEDABAY | 2.91 | 42 | P | Pn | 10 29 17.7 | +1.3 |
| | SNR=36 | | | | | | |
| GDB | | | | S | Sn | 10 29 53.8 | +2.3 |
| EUZM | Uzumlu | 2.94 | 294 | *e*PN12 | Pn | 10 29 17.7 | +1.0 |
| EPOS | Posof | 2.94 | 353 | *e*P | Pb | 10 29 22.5 | 0.0 |
| PTK | Pertek | 2.99 | 277 | *e*PN | Pn | 10 29 18.9 | +1.5 |
| PTK | Pertek | 2.99 | 277 | *e*Pn | Pn | 10 29 18.9 | +1.5 |
| QZX | Qazax, Azerbai | 2.99 | 33 | ⇓P | Pn | 10 29 18.9 | +1.5 |
| | SNR=35 | | | | | | |
| QZX | | | | ⇑S | Sn | 10 29 55.3 | +2.1 |
| SVRC | Sivrice-ELAZID | 3.05 | 267 | *e*PN | Pn | 10 29 19.4 | +1.1 |
| SVRC | Sivrice-ELAZID | 3.05 | 267 | *e*Pn | Pn | 10 29 19.4 | +1.1 |
| GANJ | Ganja | 3.18 | 49 | ⇓P | Pn | 10 29 21.5 | +1.5 |
| | SNR=13 | | | | | | |
| GANJ | | | | ⇑S | Sn | 10 29 59.9 | +2.1 |
| GANJ | Ganja | 3.18 | 49 | P | Pn | 10 29 21.5 | +1.5 |
| | SNR=13 | | | | | | |
| GANJ | | | | S | Sn | 10 29 59.9 | +2.1 |
| TBLG | Delisi | 3.36 | 20 | *e*PN | Pn | 10 29 23.6 | +1.1 |
| TBLG | Delisi | 3.36 | 20 | P | Pb | 10 29 29.4 | -0.3 |
| TBLG | Delisi | 3.36 | 20 | *e*PN12 | Pn | 10 29 24.4 | +1.9 |
| TBLG | | | | IVMs_BB | IVMs_BB | 10 30 52.4 | |
| | comp=Z,172nm,4.1s | | | | | | |
| TBLG | Delisi | 3.36 | 20 | *e*Pn | Pn | 10 29 23.6 | +1.1 |
| KELT | Kelkit | 3.43 | 298 | *e*PN12 | Pn | 10 29 24.7 | +1.1 |
| BRDA | Brd | 3.52 | 60 | ⇓P | Pn | 10 29 25.5 | +1.0 |
| | SNR=3.0 | | | | | | |
| BRDA | | | | ⇓S | Sn | 10 30 07.6 | +1.6 |
| BRDA | Brd | 3.52 | 60 | P | Pn | 10 29 25.5 | +1.0 |
| | SNR=3.0 | | | | | | |
| URFA | Urfa | 3.63 | 253 | *e*PN | Pn | 10 29 27.4 | +1.2 |
| URFA | Urfa | 3.63 | 253 | *e*Pn | Pn | 10 29 27.4 | +1.2 |
| DDFL | Dedoflistskaro | 3.64 | 37 | P | Pb | 10 29 36.7 | +2.3 |
| MALT | Malatya | 3.75 | 267 | *e*PN | Pn | 10 29 28.9 | +1.1 |
| MALT | Malatya | 3.75 | 267 | *e*Pn | Pn | 10 29 28.9 | +1.1 |
| ZRD | Zardab | 3.87 | 63 | ⇓P | Pn | 10 29 30.6 | +1.2 |
| | SNR=5.5 | | | | | | |
| ZRD | | | | ⇑S | Sn | 10 30 16.6 | +1.8 |
| ZRD | Zardab | 3.87 | 63 | P | Pn | 10 29 30.6 | +1.2 |
| | SNR=5.5 | | | | | | |
| ONI | Oni | 4.01 | 3 | P | Pb | 10 29 42.2 | +1.5 |
| ZKTA | Zakatala | 4.03 | 40 | ⇓P | Pn | 10 29 33.0 | +1.3 |
| | SNR=4.8 | | | | | | |
| ZKTA | | | | ⇑S | Sn | 10 30 20.9 | +2.1 |
| LRK | Lerik | 4.04 | 88 | ⇓P | Pn | 10 29 32.7 | +0.9 |
| | SNR=6.1 | | | | | | |
| LRK | | | | ⇑S | Sn | 10 30 20.8 | +1.7 |
| LRK | Lerik | 4.04 | 88 | P | Pn | 10 29 32.7 | +0.9 |
| | SNR=6.1 | | | | | | |
| SEKA | Sheki | 4.05 | 48 | ⇑P | Pn | 10 29 34.1 | +2.2 |
| | SNR=4.7 | | | | | | |
| SEKA | | | | ⇓S | Sn | 10 30 22.6 | +3.2 |
| GLBA | Clilabad | 4.11 | 79 | ⇑P | Pn | 10 29 33.9 | +1.2 |
| | SNR=6.2 | | | | | | |
| GLBA | | | | ⇑S | Sn | 10 30 22.1 | +1.3 |
| GLBA | Clilabad | 4.11 | 79 | P | Pn | 10 29 33.9 | +1.2 |
| | SNR=6.2 | | | | | | |
| QBL | Gabala | 4.29 | 55 | ⇓P | Pn | 10 29 36.3 | +1.1 |
| QBL | | | | ⇑S | Sn | 10 30 27.0 | +1.8 |
| QBL | Gabala | 4.29 | 55 | P | Pn | 10 29 36.3 | +1.1 |
| QBL | | | | S | Sn | 10 30 27.0 | +1.8 |
| LKRN | Lenkeran, Azer | 4.38 | 87 | ⇑P | Pn | 10 29 37.4 | +1.1 |
| | SNR=5.3 | | | | | | |
| LKRN | | | | ⇓S | Sn | 10 30 28.6 | +1.3 |
| LKRN | Lenkeran, Azer | 4.38 | 87 | P | Pn | 10 29 37.4 | +1.1 |
| | SNR=5.3 | | | | | | |
| ASTR | Astara | 4.39 | 89 | ⇑P | Pn | 10 29 37.7 | +1.2 |
| | SNR=4.1 | | | | | | |
| ASTR | | | | ⇑S | Sn | 10 30 29.0 | +1.4 |
| ASTR | Astara | 4.39 | 89 | P | Pn | 10 29 37.7 | +1.2 |
| | SNR=4.1 | | | | | | |
| IML | Ismayilli | 4.44 | 59 | ⇑S | Sn | 10 30 30.6 | +1.7 |
| IML | Ismayilli | 4.44 | 59 | S | Sn | 10 30 30.6 | +1.7 |
| XNQ | Khinaliq | 4.61 | 54 | ⇓P | Pn | 10 29 40.6 | +0.9 |
| | SNR=5.4 | | | | | | |
| PQL | Pirkuli | 4.72 | 60 | ⇑P | Pn | 10 29 42.3 | +1.1 |
| PQL | Pirkuli | 4.72 | 60 | P | Pn | 10 29 42.3 | +1.1 |
| GBS | Qobustan | 4.86 | 64 | ⇓P | Pn | 10 29 43.9 | +0.9 |
| GBS | Qobustan | 4.86 | 64 | P | Pn | 10 29 43.9 | +0.9 |
| QSAR | Qusar | 4.87 | 51 | ⇓P | Pn | 10 29 44.4 | +1.2 |
| QUBA | Quba, Azerbaij | 4.93 | 54 | ⇓P | Pn | 10 29 45.1 | +1.1 |
| ATGJ | Alt

*ISCJB **12** 10:37:54.5±0.7, 50.67N±0.03×142.66E±0.08, h10km, mb3.4/3, Error ellipse: s-maj=7.4km s-min=3.4km az=167.4*
*IDC **12** 10:37:55.5±2.4, 50.46N×143.13E, h0km, mb3.5/3, mb1 3.6/4, mb1mx3.3/53, mbtmp3.5/4, ML3.0/2, Error ellipse: s-maj=52.8km s-min=26.3km az=31.0*
*SKHL **12** 10:37:56.3±0.9, 50.59N×142.53E, h10km, mb4.3/5*
**ISC 12 10:37:56.5±0.9, 50.65N±0.03×142.78E±0.07, h10km, n13, σ2s12/23, mb3.4/3, Sakhalin Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TYV** | **Tymovskoe** | **0.22** | **339** | *eP*g | **Pg** | **10 38 02.0** | **+0.8** |
| TYV | | | | AMB | AMB | 10 38 02.3 | |
| | 289nm,0.1s | | | | | | |
| TYV | | | | *e*Sg | **Sg** | **10 38 06.6** | **+2.3** |
| TYV | | | | A | A | 10 38 07.1 | |
| | 889nm,0.4s | | | | | | |
| **UGL** | **Uglegorsk** | **1.64** | **197** | *e*Pb | **Pg** | **10 38 25.5** | **-2.6** |
| UGL | | | | AMB | AMB | 10 38 26.5 | |
| | 190nm,1.0s | | | | | | |
| UGL | | | | *e*Pg | **Pb** | **10 38 27.9** | **+1.0** |
| UGL | | | | *i* S | **Sn** | **10 38 42.6** | **-4.0** |
| UGL | | | | A | A | 10 38 43.5 | |
| | 1μm,0.8s | | | | | | |
| UGL | | | | *e*Sg | **Sg** | **10 38 49.4** | **0.0** |
| **NKL** | **Nikolayevsk** | **2.82** | **333** | *e*P | **Pn** | **10 38 40.2** | **-1.4** |
| NKL | | | | AMB | AMB | 10 38 44.3 | |
| | 37nm,0.7s | | | | | | |
| NKL | | | | *e*Pg | **Pg** | **10 38 48.5** | **-2.0** |
| NKL | | | | AMB | AMB | 10 38 50.5 | |
| | 56nm,0.6s | | | | | | |
| NKL | | | | *e*S | **Sn** | **10 39 12.2** | **-3.3** |
| NKL | | | | *e*Sg | **Sg** | **10 39 26.4** | **-0.6** |
| NKL | | | | A | A | 10 39 29.3 | |
| | 283nm,0.5s | | | | | | |
| NKL | | | | A | A | 10 39 29.3 | |
| | 305nm,0.5s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **3.70** | **180** | *e*P | **Pn** | **10 38 53.2** | **-0.6** |
| YSS | | | | *e*Pb | **Pb** | **10 39 00.7** | **-1.3** |
| YSS | | | | AMB | AMB | 10 39 04.4 | |
| | 94nm,0.6s | | | | | | |
| YSS | | | | *e*Pg | **Pg** | **10 39 09.3** | **+1.8** |
| YSS | | | | AMB | AMB | 10 39 11.3 | |
| | 170nm,1.0s | | | | | | |
| YSS | | | | *e*Sg | **Sg** | **10 39 59.0** | **+3.6** |
| YSS | | | | A | A | 10 39 59.8 | |
| | 101nm,0.8s | | | | | | |
| YSS | | | | A | A | 10 39 59.8 | |
| | 95nm,0.8s | | | | | | |
| **GRNR** | **Gornyy** | **4.04** | **274** | *e*P | **Pn** | **10 38 59.2** | **+0.8** |
| GRNR | | | | *e*Pg | **Pg** | **10 39 11.8** | **-2.1** |
| GRNR | | | | AMB | AMB | 10 39 12.5 | |
| | 32nm,0.7s | | | | | | |
| GRNR | | | | *e*Sg | **Sg** | **10 40 06.5** | **+0.2** |
| **ASAJ** | **Asahikawa** | **6.54** | **181** | Pn | **Pn** | **10 39 31.4** | **-1.4** |
| | 0.7nm,0.3s,baz=345,slow=20,SNR=2.7 | | | | | | |
| **EKMR** | **Ekimchan** | **6.55** | **295** | *e*P | Pn | 10 39 37.5 | +4.6 |
| EKMR | | | | *e*Pg | **Pg** | **10 40 03.5** | **+1.6** |
| EKMR | | | | *e*Sg | Sg | 10 41 34.0 | +7.3 |
| **TEY** | **Ternei** | **6.99** | **219** | *e*Sg | Sg | 10 41 45.5 | +4.8 |
| TEY | | | | A | A | 10 41 52.6 | |
| | 32nm,0.7s | | | | | | |
| TEY | | | | A | A | 10 41 52.6 | |
| | 37nm,0.7s | | | | | | |
| **KLR** | **Kul'dur** | **7.26** | **263** | Pn | **Pn** | **10 39 44.5** | **+1.9** |
| | 0.1nm,0.3s,baz=79,slow=13,SNR=7.0 | | | | | | |
| KLR | | | | Lg | Lg | 10 41 53.3 | |
| | 0.1nm,0.3s,baz=270,slow=11,SNR=8.3 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **9.75** | **233** | Lg | Lg | 10 43 15.6 | |
| | 0.2nm,0.3s,baz=45,slow=31,SNR=4.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **39.12** | **289** | P | **P** | **10 45 27.1** | **+3.3** |
| | 0.6nm,0.8s,baz=61,slow=8.4,SNR=3.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **70.68** | **188** | P | **P** | **10 49 11.9** | **-0.4** |
| | 0.2nm,0.7s,baz=5.2,slow=6.1,SNR=3.0 | | | | | | |
| **ASAR** | **Alice Springs** | **74.41** | **188** | P | **P** | **10 49 34.0** | **-0.5** |
| | 0.4nm,0.6s,baz=357,slow=5.2,SNR=8.3 | | | | | | |

**IDC 12 10:38:48.9±2.4, 54.17N×86.49E, h0km, mb1 3.5/2, mb1mx3.1/52, mbtmp3.5/2, ML3.1/2, Error ellipse: s-maj=20.3km s-min=12.5km az=56.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **I46RU** | **ZALESOVO INFRA** | **1.01** | **258** | *i* | | 10 44 20.5 | |
| | baz=80,slow=333,SNR=11 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **1.01** | **258** | Pg | Pg | 10 39 06.3 | -1.9 |
| | 3.2nm,0.3s,baz=77,slow=18,SNR=36 | | | | | | |
| ZALV | | | | Lg | Lg | 10 39 23.0 | |
| | 5.5nm,0.3s,baz=76,slow=30,SNR=20 | | | | | | |
| ZALV | | | | Rg | Rg | 10 39 30.4 | |
| | 16nm,0.8s,baz=51,slow=43,SNR=8.6 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **6.03** | **237** | Pn | Pn | 10 40 20.0 | +0.8 |
| | 0.4nm,0.3s,baz=54,slow=13,SNR=28 | | | | | | |
| KURBB | | | | Lg | Lg | 10 42 01.5 | |
| | 0.1nm,0.3s,baz=52,slow=32,SNR=5.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **7.85** | **202** | Pn | Pn | 10 40 45.4 | +1.1 |
| | 0.4nm,0.3s,baz=25,slow=14,SNR=17 | | | | | | |
| MKAR | | | | Lg | Lg | 10 42 59.5 | |
| | 0.1nm,0.3s,baz=17,slow=32,SNR=3.1 | | | | | | |

*NNC **12** 10:43:09.0±1.9, 51.97N×75.56E, h0km, mb3.2, mpv2.8, Error ellipse: s-maj=27.4km s-min=11.2km az=25.0, Suspected Mining explosion.*
**IDC 12 10:43:12.1±1.1, 51.81N×75.59E, h0km, mb1 2.6/3, mb1mx2.5/50, mbtmp2.6/3, ML2.2/3, 5C-3D, Error ellipse: s-maj=26.6km s-min=8.2km az=31.0, Eastern Kazakhstan**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KURK** | **Kurchatov** | **2.19** | **119** | ⇑Pg | Pb | 10 43 51.4 | -1.3 |
| | 5.4nm,0.9s | | | | | | |
| KURK | | | | ⇑Lg | Lg | 10 44 21.3 | |
| | 16nm,0.8s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **2.19** | **122** | Pg | Pb | 10 43 51.5 | -1.2 |
| | 0.3nm,0.3s,baz=301,slow=18,SNR=20 | | | | | | |
| KURBB | | | | Lg | Lg | 10 44 21.1 | |
| | 0.5nm,0.3s,baz=306,slow=30,SNR=14 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **2.19** | **122** | ⇓Pg | Pb | 10 43 51.3 | -1.4 |
| | 6.5nm,0.8s,baz=301,slow=15 | | | | | | |
| KURBB | | | | ⇓Lg | Lg | 10 44 20.3 | |
| | 24nm,0.6s,baz=310,slow=28 | | | | | | |
| **BVA0** | **Borovoye Array** | **3.41** | **293** | ⇑Lg | Lg | 10 44 54.9 | |
| | 6.7nm,0.8s,baz=116,slow=28,SNR=5.5 | | | | | | |
| **BVAR** | **Borovoye Array** | **3.41** | **293** | Pn | Pn | 10 44 06.8 | +0.2 |
| | 0.3nm,0.3s,baz=103,slow=17,SNR=4.2 | | | | | | |
| BVAR | | | | Sn | Sn | 10 44 46.3 | -1.4 |
| | 0.8nm,0.3s,baz=109,slow=24,SNR=5.1 | | | | | | |
| BVAR | | | | Lg | Lg | 10 44 54.0 | |
| | 1.0nm,0.3s,baz=110,slow=27,SNR=6.8 | | | | | | |
| **BRVK** | **Borovoye** | **3.48** | **293** | ⇑Lg | Lg | 10 44 55.7 | |
| | 9.0nm,0.9s | | | | | | |
| **I46RU** | **ZALESOVO INFRA** | **5.98** | **65** | *i* | | 11 20 30.0 | |
| | baz=249,slow=343,SNR=2.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **5.98** | **65** | Pn | Pn | 10 44 43.5 | +1.7 |
| | 0.2nm,0.3s,baz=258,slow=14,SNR=3.6 | | | | | | |
| **MAKZ** | **Makanchi** | **6.51** | **138** | ⇓Lg | Lg | 10 46 41.0 | |
| | 6.8nm,1.4s | | | | | | |
| **MK31** | **Makanchi Array** | **6.66** | **136** | ⇑Lg | Lg | 10 46 46.4 | |
| | 7.1nm,1.1s,baz=305,slow=24,SNR=5.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **6.66** | **136** | Pn | Pn | 10 44 50.2 | -0.9 |
| | 0.1nm,0.3s,baz=316,slow=12,SNR=2.8 | | | | | | |
| MKAR | | | | Sn | Sn | 10 46 08.6 | +0.9 |
| | 0.1nm,0.3s,baz=293,slow=29,SNR=2.5 | | | | | | |
| MKAR | | | | Lg | Lg | 10 46 41.1 | |
| | 0.3nm,0.3s,baz=338,slow=26,SNR=7.2 | | | | | | |

**TRN 12 10:52:36.7, 11.05N×62.16W, h85km, MD3.7, 1C, Windward Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TCE** | **Chacachacare** | **0.53** | **132** | *e*P | Pn | 10 52 51.3 | 0.0 |
| **TRN** | **Trinidad (W)** | **0.84** | **118** | ⇑*i*P | Pn | 10 52 54.4 | +0.1 |
| TRN | | | | *e*S | Sn | 10 53 06.7 | -0.7 |
| **TPP** | **Pointe-a-Pierr** | **1.01** | **136** | *e*P | Pn | 10 52 56.3 | +0.2 |
| TPP | | | | *e*S | Sn | 10 53 11.3 | +0.6 |
| **GRGR** | **Grenville** | **1.18** | **25** | *e*P | Pn | 10 52 58.6 | +0.4 |
| GRGR | | | | *e*S | Sn | 10 53 14.2 | -0.3 |
| **TBH** | **Brigand Hill** | **1.21** | **118** | *e*P | Pn | 10 52 58.7 | +0.1 |
| TBH | | | | *e*S | Sn | 10 53 15.7 | +0.6 |
| **BOT** | **Bacolet** | **1.42** | **85** | *e*P | Pn | 10 53 01.5 | +0.3 |
| **TOSP** | **Speyside** | **1.61** | **81** | *e*P | Pn | 10 53 03.7 | +0.1 |
| TOSP | | | | *e*S | Sn | 10 53 23.1 | -0.9 |
| **SVB** | **Belmont** | **2.38** | **22** | *e*P | Pn | 10 53 13.6 | -0.2 |
| SVB | | | | *e*S | Sn | 10 53 42.0 | -0.1 |
| **SVCV** | **St. Vincent, C** | **2.42** | **24** | *e*P | Pn | 10 53 14.4 | +0.1 |
| **SVV** | **Soufriere Volc** | **2.43** | **22** | *e*P | Pn | 10 53 14.2 | -0.4 |
| **MCLT** | **Moule a Chique** | **2.90** | **24** | *e*P | Pn | 10 53 21.2 | +0.5 |
| MCLT | | | | *e*S | Sn | 10 53 53.9 | -0.7 |

*NIED **12** 11:12:00, 28.10N×129.60E, h20km, Mw3.9 Best double couple: M0 7.75000×10^14 NP1:φs221.00000°, δ23.00000°, λ94.00000°. NP2:φs37.00000°, δ67.00000°, λ88.00000°.*
*IDC **12** 11:12:34.8±1.5, 28.09N×129.32E, h0km, mb3.8/9, mb1 4.0/9, mb1mx3.7/45, mbtmp3.8/9, MS3.1/2, Ms1 3.1/2, ms1mx2.8/58, Error ellipse: s-maj=58.8km s-min=21.9km az=68.0*
*ISCJB **12** 11:12:38.7±0.5, 28.09N±0.04×129.54E±0.05, h32km±3km, mb3.7/9, MS3.3/1, Error ellipse: s-maj=8.8km s-min=3.8km az=35.5*
*JMA **12** 11:12:39.0±0.1, 28.11N×129.53E, h29km±3km, M3.8*
*JMA Felt I J1.*
**ISC 12 11:12:38.7±1.0, 28.11N±0.04×129.44E±0.05, h26km±8km, n33, σ0s96/36, mb3.9/9, Ryukyu Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JAMN** | **Amaminishikomi** | **0.27** | **299** | P | **Pn** | **11 12 46.8** | **-0.2** |
| JAMN | | | | S | **Sn** | **11 12 53.0** | **+0.8** |
| **JAM** | **Amami Oshima** | **0.33** | **26** | P | **Pb** | **11 12 46.0** | **-0.2** |
| JAM | | | | S | **Sb** | **11 12 51.3** | **-0.1** |
| **JZK** | **Kikaishima** | **0.51** | **67** | P | **Pb** | **11 12 48.2** | **-0.9** |
| JZK | | | | S | **Sb** | **11 12 56.0** | **-0.2** |
| **JTK** | **Tokunoshima** | **0.54** | **233** | P | **Pn** | **11 12 50.7** | **-0.1** |
| JTK | | | | S | **Sn** | **11 12 59.0** | **0.0** |
| **JTAJ** | **Takarajima** | **1.06** | **349** | P | **Pn** | **11 12 58.2** | **+0.4** |
| JTAJ | | | | S | **Sn** | **11 13 12.8** | **+1.1** |
| **JOKE** | **Okinoerabujima** | **1.07** | **226** | P | **Pb** | **11 12 59.2** | **+0.5** |
| JOKE | | | | S | **Sn** | **11 13 13.8** | **+1.6** |
| **JOW** | **Kunigami** | **1.64** | **219** | P | **Pn** | **11 13 06.8** | **+0.8** |
| JOW | | | | *e*S | **Sb** | **11 13 29.6** | **+1.0** |
| **JIH** | **Iheya** | **1.69** | **231** | P | **Pb** | **11 13 08.0** | **-1.2** |
| JIH | | | | S | **Sb** | **11 13 31.3** | **+1.3** |
| **JNN** | **Nakanoshima** | **1.76** | **12** | P | **Pn** | **11 13 08.4** | **+0.8** |
| JNN | | | | *e*S | **Sn** | **11 13 30.4** | **+1.2** |
| **JNTH** | **Nagotoyohara** | **2.03** | **219** | P | **Pn** | **11 13 12.1** | **+0.9** |
| **JYAK** | **Yakushimahirau** | **2.31** | **24** | P | **Pn** | **11 13 16.1** | **+0.9** |
| JYAK | | | | S | **Sn** | **11 13 44.1** | **+1.3** |
| **JKC** | **Kuchinoerabu** | **2.43** | **16** | P | **Pn** | **11 13 18.1** | **+1.3** |
| JKC | | | | S | **Sn** | **11 13 45.9** | **+0.2** |
| **JJT2** | **Tamagusuku 2** | **2.48** | **218** | P | **Pn** | **11 13 18.3** | **+0.9** |
| **JTN** | **Tanegashima 3** | **2.87** | **28** | P | **Pn** | **11 13 23.3** | **+0.5** |
| **JNAR** | **Kushima--Naru** | **3.75** | **25** | P | **Pn** | **11 13 36.6** | **+1.6** |
| **JTZ** | **Takazaki** | **4.04** | **20** | P | **Pn** | **11 13 40.4** | **+1.6** |
| **KSRS** | **Korea Array** | **9.40** | **353** | LR | LR | 11 18 48.7 | |
| | comp=Z,80nm,19.6s,baz=355,slow=40 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **29.54** | **258** | P | **P** | **11 18 40.5** | **-0.9** |
| | 0.6nm,0.3s,baz=66,slow=4.9,SNR=4.2 | | | | | | |
| **PETK** | **Petropavlovsk-** | **32.53** | **32** | LR | LR | 11 34 50.3 | |
| | comp=Z,52nm,18.3s,baz=336,slow=41 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **35.13** | **95** | T | T | 11 56 46.3 | |
| | baz=295 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **35.13** | **95** | T | T | 11 56 34.2 | |
| | baz=295 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **35.15** | **95** | T | T | 11 56 47.8 | |
| | baz=295 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **35.41** | **97** | T | T | 11 57 05.8 | |
| | baz=293 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **35.41** | **97** | T | T | 11 57 15.9 | |
| | baz=293 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **35.42** | **97** | T | T | 11 57 13.1 | |
| | baz=293 | | | | | | |
| **MKAR** | **Makanchi Array** | **41.12** | **310** | P | **P** | **11 20 18.9** | **-1.6** |
| | 0.3nm,0.6s,baz=96,slow=9.7,SNR=4.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.43** | **321** | P | **P** | **11 20 22.1** | **-0.8** |
| | 0.4nm,0.3s,baz=111,slow=6.9,SNR=3.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **48.01** | **174** | P | **P** | **11 21 14.7** | **-1.0** |
| | 0.6nm,0.9s,baz=354,slow=7.9,SNR=3.3 | | | | | | |
| **ASAR** | **Alice Springs** | **51.66** | **175** | P | **P** | **11 21 43.9** | **+0.4** |
| | 0.3nm,0.7s,baz=7.0,slow=16,SNR=5.1 | | | | | | |
| **KBZ** | **Khabaz** | **68.81** | **309** | P | **P** | **11 23 41.2** | **+0.5** |
| | 3.0nm,0.7s,baz=182,slow=1.5,SNR=7.7 | | | | | | |
| **FINES** | **FINESS Array B** | **71.76** | **331** | P | **P** | **11 23 58.6** | **+0.2** |
| | 0.8nm,0.4s,baz=69,slow=7.6,SNR=5.2 | | | | | | |
| **AKASG** | **Malin Array Be** | **74.80** | **320** | P | **P** | **11 24 16.5** | **-0.1** |
| | 0.4nm,0.3s,baz=57,slow=7.0,SNR=5.2 | | | | | | |
| **BRTR** | **Keskin Array B** | **76.73** | **308** | P | **P** | **11 24 28.0** | **0.0** |
| | 1.4nm,0.8s,baz=114,slow=5.4,SNR=8.2 | | | | | | |

*IDC **12** 11:25:13.2±0.9, 32.71N×69.78E, h0km, mb3.9/12, mb1 4.1/15, mb1mx3.9/56, mbtmp4.0/15, ML3.7/3, MS4.8/1, Ms1 4.8/1, ms1mx3.1/41, Error ellipse: s-maj=24.2km s-min=17.1km az=53.0*
*ISCJB **12** 11:25:14.9±0.5, 32.03N±0.04×70.01E±0.05, h29km, mb3.9/14, MS4.8/1, Error ellipse: s-maj=7.5km s-min=4.2km az=44.5*
*NEIC **12** 11:25:20.3±2.1, 32.21N×69.87E, h51km±17km, mb4.2/2, Error ellipse: s-maj=15.9km s-min=11.6km az=195.0*
*MOS **12** 11:25:20.7±0.9, 32.30N×69.97E, h62km, mb4.1/13, Error ellipse: s-maj=18.9km s-min=9.3km az=92.1*
**ISC 12 11:25:16.9±0.7, 31.98N±0.07×69.95E±0.07, h29km, n57, σ1s90/62, mb3.9/15, Pakistan**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KBL** | **Kabul** | **2.67** | **344** | *e*P | **Pn** | **11 25 59.6** | **+1.5** |
| **KBL** | **Kabul** | **2.67** | **344** | *e*Pn | **Pn** | **11 25 59.6** | **+1.5** |
| **THN** | **Thein Dam** | **4.91** | **83** | *e*P | **Pn** | **11 26 30.4** | **+1.8** |
| THN | | | | *ex* | x | 11 27 56.0 | |
| **BHK** | **Bhakra** | **5.54** | **94** | *e*S | **Sn** | **11 27 40.2** | **+0.1** |
| **SDNR** | **Sundarnagar** | **6.00** | **93** | *e*P | **Pn** | **11 26 45.5** | **+1.8** |
| SDNR | | | | *e*S | **Sn** | **11 27 50.5** | **-0.9** |
| **KHET** | **Khetri** | **6.39** | **126** | *e*P | **Pn** | **11 26 51.9** | **+2.7** |
| KHET | | | | *e*S | **Sn** | **11 28 02.6** | **+1.4** |
| **NDI** | **New Delhi** | **7.09** | **116** | *e*P | **Pn** | **11 27 00.0** | **+1.4** |
| **JOSI** | **Joshimath** | **8.34** | **97** | *e*P | **Pn** | **11 27 15.1** | **-1.0** |
| JOSI | | | | *e*S | **Sn** | **11 28 45.4** | **-4.0** |
| JOSI | | | | AML | AML | 11 29 57.0 | |
| | comp=N,81nm,0.8s | | | | | | |
| JOSI | | | | AML | AML | 11 29 57.2 | |
| | comp=E,85nm,1.1s | | | | | | |
| **AML** | **Almayashu** | **10.56** | **15** | P | **Pn** | **11 27 45.7** | **-0.9** |
| | SNR=22 | | | | | | |
| **UCH** | **Uchtor** | **10.86** | **18** | P | **Pn** | **11 27 49.7** | **-0.9** |
| | SNR=24 | | | | | | |
| **AAK** | **Ala-Archa** | **11.23** | **17** | Pn | **Pn** | **11 27 55.1** | **-0.4** |
| | comp=E,1.1nm,0.3s,baz=180,slow=7.3,SNR=44 | | | | | | |
| AAK | | | | Sn | **Sn** | **11 30 01.5** | **+1.3** |
| | comp=E,0.2nm,0.3s,baz=284,slow=19,SNR=2.5 | | | | | | |
| **AAK** | **Ala-Archa** | **11.23** | **17** | P | **Pn** | **11 27 54.7** | **-0.9** |
| | SNR=12 | | | | | | |
| **AAK** | **Ala-Archa** | **11.23** | **17** | *e*Pn | **Pn** | **11 27 54.9** | **-0.7** |
| AAK | | | | *e*Pn | Pn | 11 27 55.1 | -0.4 |
| AAK | | | | *e*Sn | **Sn** | **11 30 01.5** | **+1.3** |
| **KBK** | **Karagaybulak** | **11.37** | **19** | P | **Pn** | **11 27 58.4** | **+0.9** |
| | SNR=5.2 | | | | | | |
| **CHMS** | **Chumysh** | **11.64** | **18** | P | **Pn** | **11 28 00.2** | **-0.8** |
| | SNR=9.6 | | | | | | |
| **TKM2** | **Tokmak 2** | **11.80** | **21** | P | **Pn** | **11 28 03.9** | **+0.5** |
| | SNR=9.7 | | | | | | |
| **PYUN** | **Piuthan** | **11.94** | **106** | *e*P | **Pn** | **11 28 07.3** | **+2.0** |
| | comp=E,20nm,0.3s | | | | | | |
| **JBP** | **Jabalpur** | **12.49** | **132** | *e*P | **Pn** | **11 28 11.6** | **-1.0** |
| JBP | | | | *e*S | **Sn** | **11 30 24.5** | **-6.3** |
| **KOLN** | **Koldanda** | **12.56** | **106** | *e*P | **Pn** | **11 28 14.6** | **+0.7** |
| | comp=E,15nm,0.3s | | | | | | |
| **KKN** | **Kakani** | **13.94** | **103** | *e*P | **Pn** | **11 28 30.3** | **-2.3** |
| | comp=E,26nm,0.5s | | | | | | |
| **PKIN** | **Phulchoki** | **14.11** | **104** | *e*P | **Pn** | **11 28 33.0** | **-2.0** |
| | comp=E,10nm,0.3s | | | | | | |
| **PKI** | **Pulchoki** | **14.12** | **104** | *e*P | **Pn** | **11 28 34.5** | **-0.8** |
| | comp=E,10nm,0.4s | | | | | | |
| **GUN** | **Gumba** | **14.39** | **102** | *e*P | **Pn** | **11 28 37.3** | **-1.7** |
| | comp=E,23nm,0.3s | | | | | | |
| **JIRN** | **Jiri** | **14.74** | **103** | *e*P | **Pn** | **11 28 40.8** | **-2.9** |
| | comp=E,89nm,0.3s | | | | | | |
| **RAMN** | **Ramite** | **15.34** | **105** | *e*P | **Pn** | **11 28 49.3** | **-2.3** |
| | comp=E,17nm,0.5s | | | | | | |
| **TAPN** | **Taplejung** | **16.11** | **102** | *e*P | **Pn** | **11 28 57.2** | **-4.3** |
| | comp=E,7.4nm,0.4s | | | | | | |
| **MK01** | **Makanchi Array** | **17.55** | **29** | *e*Pn | **Pn** | **11 29 19.6** | **+0.2** |
| **MK31** | **Makanchi Array** | **17.57** | **29** | *e*P | **Pn** | **11 29 19.4** | **-0.1** |
| **MK31** | **Makanchi Array** | **17.57** | **29** | *e*Pn | **Pn** | **11 29 19.4** | **-0.1** |
| **MK32** | **Makanchi Array** | **17.57** | **29** | *e*Pn | **Pn** | **11 29 18.3** | **-1.2** |
| **MKAR** | **Makanchi Array** | **17.57** | **29** | P | **Pn** | **11 29 18.3** | **-1.2** |
| | comp=E,0.3nm,0.3s,baz=209,slow=12,SNR=16 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **19.68** | **16** | P | **P** | **11 29 41.5** | **-2.0** |
| | comp=E,0.1nm,0.3s,baz=305,slow=10,SNR=11 | | | | | | |
| **KURK** | **Kurchatov** | **19.79** | **16** | P | **P** | **11 29 41.5** | **-3.2** |
| **KURK** | **Kurchatov** | **19.79** | **16** | *e*P | **P** | **11 29 41.5** | **-3.2** |
| **AKTO** | **Aktyubinsk** | **20.46** | **338** | P | **P** | **11 29 51.7** | **-0.3** |
| | comp=E,9.8nm,0.8s,baz=161,slow=11,SNR=20 | | | | | | |
| **BVAR** | **Borovoye Array** | **21.04** | **1** | P | **P** | **11 29 57.5** | **-0.7** |
| | comp=E,3.1nm,0.7s,baz=188,slow=9.7,SNR=14 | | | | | | |
| **BRVK** | **Borovoye** | **21.07** | **1** | *e*P | **P** | **11 29 57.8** | **-0.7** |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,12nm,1.5s | | | | | | |
| **BRVK** | **Borovoye** | **21.07** | **1** | *e*P | **P** | **11 29 57.8** | **-0.7** |
| | comp=Z,12nm,1.5s | | | | | | |
| **ZEI** | **Tsey** | **23.25** | **305** | *e*P | **P** | **11 30 22.9** | **+0.8** |
| ZEI | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.3s | | | | | | |
| **KBZ** | **Khabaz** | **24.26** | **307** | P | **P** | **11 30 30.2** | **-1.1** |
| | comp=E,1.4nm,0.9s,baz=132,slow=7.6,SNR=3.8 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **24.41** | **22** | P | **P** | **11 30 31.8** | **-0.8** |
| | comp=E,0.9nm,0.3s,baz=226,slow=9.9,SNR=7.9 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **24.41** | **22** | *e*P | **P** | **11 30 31.8** | **-0.8** |
| **CMAR** | **Chiang Mai Arr** | **29.37** | **110** | P | **P** | **11 31 21.0** | **+3.4** |
| | comp=Z,0.7nm,0.5s,baz=302,slow=8.4,SNR=3.5 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **29.37** | **110** | P | **P** | **11 31 21.0** | **+3.4** |
| CMAR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.5s | | | | | | |
| **AKASG** | **Malin Array Be** | **35.28** | **314** | P | **P** | **11 32 08.2** | **-0.8** |
| | comp=Z,0.8nm,0.4s,baz=97,slow=7.2,SNR=9.5 | | | | | | |
| **ARA0** | **ARCESS Array S** | **45.03** | **340** | *e*P | **P** | **11 33 29.6** | **+0.1** |
| **ARCES** | **ARCESS Array B** | **45.03** | **340** | P | **P** | **11 33 29.6** | **+0.1** |
| | comp=Z,1.6nm,0.7s,baz=119,slow=7.4,SNR=5.5 | | | | | | |
| **TIXI** | **Tiksi** | **50.29** | **21** | *e*P | **P** | **11 34 10.5** | **+0.3** |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.8s | | | | | | |
| **TIXI** | **Tiksi** | **50.29** | **21** | *e*P | **P** | **11 34 10.5** | **+0.3** |
| | comp=Z,2.9nm,0.8s | | | | | | |
| **JHJ** | **Hachijo jima 2** | **57.82** | **69** | LR | LR | 12 02 48.5 | |
| | comp=Z,758nm,19.0s,baz=184,slow=39 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **64.80** | **270** | *e*P | **P** | **11 35 51.9** | **-1.3** |
| **TORD** | **Torodi Ar. Bea** | **64.80** | **270** | P | **P** | **11 35 51.9** | **-1.3** |
| | comp=Z,0.9nm,1.0s,baz=48,slow=6.0,SNR=3.9 | | | | | | |
| **INK** | **Inuvik** | **78.49** | **9** | P | **P** | **11 37 15.8** | **+1.1** |
| | comp=Z,1.4nm,0.6s,baz=351,slow=5.7,SNR=12 | | | | | | |
| **ILAR** | **Eielson Array** | **79.36** | **15** | P | **P** | **11 37 19.8** | **+0.2** |
| | comp=Z,0.4nm,0.9s,baz=329,slow=8.5,SNR=3.7 | | | | | | |
| **WR1** | **Warramunga Arr** | **80.39** | **121** | *e*P | **P** | **11 37 27.9** | **+2.0** |
| | comp=Z,28nm,1.9s | | | | | | |
| **WRA** | **Warramunga Arr** | **80.39** | **121** | P | **P** | **11 37 27.9** | **+2.0** |
| | comp=Z,1.0nm,0.6s,baz=322,slow=5.0,SNR=25 | | | | | | |
| **ASAR** | **Alice Springs** | **82.43** | **124** | P | **P** | **11 37 38.4** | **+1.8** |
| | comp=Z,0.8nm,0.8s,baz=306,slow=5.3,SNR=12 | | | | | | |

*NEIC **12** 11:32:36.6±1.3, 48.20N×129.24W, h10km, mb3.9/5, Error ellipse: s-maj=21.4km s-min=11.3km az=59.0*
*IDC **12** 11:32:39.0±2.0, 48.43N×128.07W, h0km, mb3.5/3, mb1 3.6/7, mb1mx3.5/40, mbtmp3.4/7, ML3.3/3, MS3.3/5, Ms1 3.3/5, ms1mx2.9/43, Error ellipse: s-maj=45.1km s-min=14.8km az=64.0*
**ISC 12 11:32:37.8±1.3, 48.30N±0.09×129.0W±0.2, h10km, n34, σ2s86/30, mb3.5/3, Vancouver Island region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **BBB** | **Bella Bella** | **3.94** | **8** | Pn | **Pn** | **11 33 37.0** | **-1.2** |
| | 0.9nm,0.3s,baz=202,slow=14,SNR=9.6 | | | | | | |
| **LON** | **Longmire** | **5.13** | **105** | *e*Pn | **Pn** | **11 33 55.5** | **+0.7** |
| **LTY** | **Liberty** | **5.73** | **97** | *e*Pn | **Pn** | **11 34 03.5** | **+0.5** |
| **YBH** | **Yreka Blue Hor** | **7.94** | **143** | Pn | **Pn** | **11 34 34.1** | **+0.7** |
| | 0.0nm,0.3s,baz=340,slow=13,SNR=3.2 | | | | | | |
| YBH | | | | LR | LR | 11 37 08.5 | |
| | comp=Z,217nm,19.5s,baz=342,slow=35 | | | | | | |
| **NEW** | **Newport** | **7.95** | **86** | LR | LR | 11 37 50.2 | |
| | comp=Z,184nm,19.1s,baz=318,slow=43 | | | | | | |
| **JSFB** | **Stanford Teles** | **11.99** | **153** | *e*Pn | **Pn** | **11 35 27.6** | **-1.1** |
| **NV01** | **Mina Array Sit** | **12.56** | **138** | *e*Pn | **Pn** | **11 35 33.6** | **-3.1** |
| **YHH** | **Holmes Hill** | **12.99** | **99** | *e*Pn | **Pn** | **11 35 44.2** | **+1.5** |
| **TPAW** | **Teton Pass** | **13.47** | **104** | *e*Pn | **Pn** | **11 35 49.8** | **+0.6** |
| **MOOW** | **Moose Ponds** | **13.49** | **103** | *e*Pn | **Pn** | **11 35 49.6** | **+0.3** |
| MOOW | | | | *e*Sn | S | 11 38 34.4 | -8.8 |
| **SPUT** | **South Promonto** | **13.68** | **115** | *e*Pn | **Pn** | **11 35 53.6** | **+1.8** |
| **TCUT** | **Toone Canyon** | **14.42** | **113** | *e*Pn | **Pn** | **11 36 02.9** | **+0.7** |
| **WLHM** | **Little Horse** | **14.48** | **143** | *e*P | **P** | **11 36 10.4** | **+0.5** |
| WLHM | | | | *e*Sn | **Sn** | **11 38 50.1** | **+6.3** |
| **PD31** | **Pinedale Array** | **14.71** | **105** | *e*Pn | **Pn** | **11 36 07.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| CLCH | Cerro Calan | 2.37 | 150 | *e*P | Pb | 11 47 31.5 | +0.5 |
| CLCH | | | | *i* S | Sb | 11 48 00.1 | +0.2 |
| CLCH | | | | IAML | | 11 48 15.5 | |
| | comp=E,286nm,0.6s | | | | | | |
| LCO | Las Campanas | 2.56 | 25 | *e*P | Pb | 11 47 33.4 | -0.9 |
| LCO | | | | *e*S | Sb | 11 48 04.8 | -0.7 |
| ASAL | Salagasta | 2.92 | 116 | *e*P | Pg | 11 47 42.9 | -1.8 |
| ASAL | | | | *e*S | Sg | 11 48 24.8 | +2.1 |
| ASAL | Salagasta | 2.92 | 116 | *i* P | Pb | 11 47 40.5 | +0.1 |
| RTCV | Cerro Valdivia | 2.95 | 101 | *e*P | Pg | 11 47 43.2 | -2.1 |
| RTCV | | | | *e*S | Sg | 11 48 23.3 | -0.2 |
| RTCV | Cerro Valdivia | 2.95 | 101 | *i* P | Pb | 11 47 41.5 | +0.6 |
| ARCO | CERRO ARCO | 2.96 | 121 | *e*P | Pg | 11 47 43.9 | -1.7 |
| ARCO | | | | *e*S | Sg | 11 48 23.8 | -0.2 |
| ARCO | CERRO ARCO | 2.96 | 121 | *i* P | Pb | 11 47 41.1 | 0.0 |
| RTLL | Cerro Villicun | 2.96 | 91 | *e*P | Pb | 11 47 41.9 | +0.8 |
| RTLL | | | | *e*S | Sg | 11 48 22.3 | -1.8 |
| AMOG | MOGNA | 2.98 | 83 | *e*P | Pb | 11 47 43.6 | +2.1 |
| AMOG | MOGNA | 2.98 | 83 | *i* P | Pb | 11 47 41.9 | +0.4 |
| AAGR | Agrelo | 3.16 | 124 | *e*P | Pb | 11 47 45.9 | +1.4 |
| AAGR | Agrelo | 3.16 | 124 | *i* P | Pb | 11 47 43.8 | -0.7 |
| AGUA | GUANDACOL | 3.50 | 59 | *e*P | Pb | 11 47 50.6 | +0.2 |
| ACAN | Cantantal | 4.15 | 104 | *e*P | Pb | 11 47 58.4 | -3.0 |

*IDC* ***12*** *11:48:46.2±0.6,57.°86S×25.°31W,h0km,mb4.2/8, mb1 4.3/9,mb1mx4.0/22,mbtmp4.2/9,ML4.4/1,MS3.8/3, Ms1 3.7/3,ms1mx3.3/23,Error ellipse: s-maj=26.3km s-min=20.0km az=65.0*

*ISCJB* ***12*** *11:48:51.5±0.5,57.°94S±0.°08×25.°5W±0.°2,h49km, mb4.3/11,MS3.8/2,Error ellipse: s-maj=17.8km s-min=10.1km az=159.7*

*NEIC* ***12*** *11:48:54.9±2.4,57.°95S×25.°57W,h65km±20km,mb4.2/3, Error ellipse: s-maj=14.0km s-min=10.1km az=60.0*

**ISC 12 11:48:53.2±0.5,58.°0S±0.°1×25.°6W±0.°1,h49km,n50, σ1ᵗ10/41,mb4.3/11,South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VNA1 | Neumayer--Stat | 14.69 | 157 | P | Pn | 11 52 16.4 | -1.3 |
| SNAA | Sanae | 16.64 | 155 | P | Pn | 11 52 41.7 | -1.0 |
| SNAA | Sanae | 16.64 | 155 | Pn | Pn | 11 52 41.0 | -1.7 |
| | 1.3nm,0.3s,baz=320,slow=14,SNR=16 | | | | | | |
| SNAA | | | | Sn | Sn | 11 55 31.4 | -15 |
| | 0.2nm,0.3s,baz=324,slow=17,SNR=2.7 | | | | | | |
| SNAA | Sanae | 16.64 | 155 | *e*Pn | Pn | 11 52 42.6 | -0.1 |
| SNAA | | | | *e*Sn | Sn | 11 55 31.4 | -15 |
| PMSA | Palmer Station | 19.41 | 233 | LR | LR | 11 59 14.0 | |
| | comp=Z,120nm,18.4s,baz=27,slow=32 | | | | | | |
| USHA | Ushuaia | 23.64 | 259 | LR | LR | 12 01 06.2 | |
| | comp=Z,572nm,20.4s,baz=94,slow=31 | | | | | | |
| QSPA | South Pole Qui | 32.30 | 180 | *e*P | P | 11 55 17.9 | +0.8 |
| | 12nm,1.4s | | | | | | |
| PLCA | Paso Flores | 33.23 | 281 | P | P | 11 55 26.0 | +0.5 |
| | 1.4nm,0.6s,baz=192,slow=5.2,SNR=6.6 | | | | | | |
| PLCA | Paso Flores | 33.23 | 281 | *e*P | P | 11 55 25.6 | +0.1 |
| | 25nm,1.9s | | | | | | |
| CPUP | Villa Florida | 38.74 | 311 | P | P | 11 56 11.7 | -0.7 |
| | 0.9nm,0.4s,baz=195,slow=8.4,SNR=3.4 | | | | | | |
| CPUP | Villa Florida | 38.74 | 311 | *e*P | P | 11 56 11.7 | -0.7 |
| | 22nm,2.0s | | | | | | |
| VNDA | Vanda | 44.71 | 182 | P | P | 11 57 02.3 | +1.6 |
| | 3.6nm,0.7s,baz=187,slow=6.2,SNR=19 | | | | | | |
| VNDA | Vanda | 44.71 | 182 | *e*P | P | 11 57 02.1 | +1.4 |
| BDFB | Brasilia | 45.46 | 329 | P | P | 11 57 08.7 | +1.3 |
| | 1.8nm,0.4s,baz=342,slow=10,SNR=3.1 | | | | | | |
| BOSA | Boshof | 45.63 | 72 | LR | LR | 12 11 31.4 | |
| | comp=Z,78nm,21.4s,baz=24,slow=30 | | | | | | |
| H10S2 | ASCENSION HYDR | 49.59 | 14 | T | T | 12 51 23.0 | |
| | baz=187 | | | | | | |
| H10S3 | ASCENSION HYDR | 49.60 | 14 | T | T | 12 51 23.2 | |
| | baz=187,slow=74 | | | | | | |
| H10S1 | ASCENSION HYDR | 49.61 | 14 | T | T | 12 51 24.9 | |
| | baz=187,slow=74 | | | | | | |
| H10N1 | ASCENSION HYDR | 50.71 | 14 | T | T | 12 52 45.6 | |
| | baz=188 | | | | | | |
| H10N3 | ASCENSION HYDR | 50.72 | 14 | T | T | 12 52 48.9 | |
| | baz=188 | | | | | | |
| H10N2 | ASCENSION HYDR | 50.73 | 14 | T | T | 12 52 48.2 | |
| | baz=188 | | | | | | |
| LPAZ | La Paz | 52.20 | 305 | P | P | 11 57 59.4 | -0.3 |
| | 1.4nm,0.4s,baz=131,slow=2.4,SNR=11 | | | | | | |
| LPAZ | La Paz | 52.20 | 305 | *e*P | P | 11 57 59.4 | -0.3 |
| | 2.2nm,0.9s | | | | | | |
| LSZ | Lusaka | 58.27 | 66 | *e*P | P | 11 58 44.4 | +1.5 |
| | 21nm,1.8s | | | | | | |
| DBIC | Dimbokro | 66.55 | 22 | P | P | 11 59 37.3 | -0.6 |
| | 1.2nm,0.6s,baz=121,slow=5.9,SNR=3.1 | | | | | | |
| DBIC | Dimbokro | 66.55 | 22 | *e*P | P | 11 59 37.4 | -0.5 |
| | 12nm,1.4s | | | | | | |
| TOA0 | Torodi Ar. Sit | 74.30 | 28 | *e*P | P | 12 00 24.9 | -0.2 |
| TORD | Torodi Ar. Bea | 74.30 | 28 | P | P | 12 00 25.1 | 0.0 |
| | 1.4nm,0.5s,baz=198,slow=6.2,SNR=18 | | | | | | |
| TOA1 | Torodi Ar. Sit | 74.30 | 28 | *e*P | P | 12 00 25.1 | -0.1 |
| ASAR | Alice Springs | 96.90 | 161 | P | P | 12 02 18.3 | -0.8 |
| | 0.5nm,0.7s,baz=182,slow=3.8,SNR=9.2 | | | | | | |
| AS31 | Alice Springs | 96.90 | 161 | *e*P | P | 12 02 18.3 | -0.8 |
| | 0.8nm,1.0s | | | | | | |
| PD31 | Pinedale Array | 122.10 | 300 | *e*PKPdf | PKPdf | 12 07 41.0 | -0.7 |
| PDAR | Pinedale Array | 122.10 | 300 | PKP | PKPdf | 12 07 41.0 | -0.7 |
| | 0.2nm,0.4s,baz=160,slow=2.9,SNR=2.9 | | | | | | |
| FIA0 | FINESS Array S | 125.65 | 28 | *e*PKPdf | PKPdf | 12 07 46.6 | -0.9 |
| FINES | FINESS Array B | 125.65 | 28 | PKP | PKPdf | 12 07 46.6 | -0.9 |
| | 2.5nm,0.9s,baz=264,slow=7.7,SNR=4.4 | | | | | | |
| ARA0 | ARCESS Array S | 132.38 | 22 | *e*PKPdf | PKPdf | 12 07 58.2 | -1.9 |
| ARCES | ARCESS Array B | 132.38 | 22 | PKP | PKPdf | 12 07 58.3 | -1.9 |
| | 2.6nm,0.8s,baz=212,slow=3.2,SNR=2.9 | | | | | | |
| BVAR | Borovoye Array | 135.03 | 58 | PKP | PKPdf | 12 08 06.0 | +0.4 |
| | 0.3nm,0.5s,baz=289,slow=4.4,SNR=2.5 | | | | | | |
| YKA | Yellowknife Ar | 138.17 | 316 | PKP | PKPdf | 12 08 10.8 | -0.2 |
| | 1.0nm,0.7s,baz=134,slow=2.2,SNR=7.7 | | | | | | |
| YKB5 | Yellowknife Ar | 138.17 | 316 | *e*PKPdf | PKPdf | 12 08 10.8 | -0.2 |
| GTA | Gaotai | 140.72 | 94 | *e*P | Pdif | 12 05 37.3 | +3.8 |
| GTA | | | | pP | pPdif | 12 05 41.6 | -6.4 |
| GTA | | | | sP | sPdif | 12 05 44.3 | -9.1 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.7s | | | | | | |
| ZALV | Zalesovo Beam | 142.38 | 65 | PKP | PKPdf | 12 08 20.2 | +1.2 |
| | comp=Z,0.5nm,0.4s,baz=222,slow=1.9,SNR=2.5 | | | | | | |
| ZAA1 | Zalesovo Array | 142.38 | 65 | *e*PKPdf | PKPdf | 12 08 20.2 | +1.2 |
| INK | Inuvik | 147.83 | 318 | PKPbc | PKPbc | 12 08 30.8 | -0.1 |
| | comp=Z,3.1nm,0.6s,baz=80,slow=2.9,SNR=15 | | | | | | |
| INK | Inuvik | 147.83 | 318 | *e*PKPbc | PKPbc | 12 08 31.0 | +0.1 |
| SONA0 | Songino Array | 149.91 | 89 | *e*PKPbc | PKPbc | 12 08 36.3 | -0.8 |
| SONM | Songino Array | 149.91 | 89 | PKPbc | PKPbc | 12 08 36.3 | -0.8 |
| | comp=Z,1.9nm,0.6s,baz=232,slow=3.3,SNR=11 | | | | | | |
| ILAR | Eielson Array | 152.03 | 309 | PKPbc | PKPbc | 12 08 41.1 | -0.2 |
| | comp=Z,2.1nm,0.7s,baz=135,slow=3.5,SNR=26 | | | | | | |
| ILB | Eielson Array | 152.03 | 309 | *e*PKPbc | PKPbc | 12 08 41.1 | -0.2 |
| KDAK | Kodiak Island | 152.42 | 293 | PKPbc | PKPbc | 12 08 42.6 | +0.3 |
| | comp=Z,13nm,0.9s,baz=74,slow=3.0,SNR=6.9 | | | | | | |

**IDC 12 11:50:38.1±8.3,6.°97N×93.°44E,h0km,mb3.5/3,mb1 3.6/3, mb1mx3.2/69,mbtmp3.5/3,Error ellipse: s-maj=384.2km s-min=30.3km az=60.0,Nicobar Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| H08S3 | Diego Garcia H | 25.44 | 236 | T | T | 12 23 04.5 | |
| | baz=55 | | | | | | |
| H08S2 | Diego Garcia H | 25.44 | 236 | T | T | 12 23 00.7 | |
| | baz=55 | | | | | | |
| H08S1 | Diego Garcia H | 25.46 | 236 | T | T | 12 22 51.6 | |
| | baz=55 | | | | | | |
| ZALV | Zalesovo Beam | 47.36 | 353 | P | P | 11 59 13.5 | -0.2 |
| | 0.7nm,0.3s,baz=178,slow=7.5,SNR=5.6 | | | | | | |
| WRA | Warramunga Arr | 48.31 | 124 | P | P | 11 59 21.8 | +0.1 |
| | 0.4nm,0.8s,baz=302,slow=9.5,SNR=9.4 | | | | | | |
| ASAR | Alice Springs | 49.88 | 129 | P | P | 11 59 33.5 | -0.2 |
| | 0.3nm,0.8s,baz=304,slow=8.5,SNR=5.3 | | | | | | |

*ISN* ***12*** *11:56:48.2±1.6,38.°99N×43.°45E,h0km±77km,ML4.1*

*IDC* ***12*** *11:56:54.1±0.9,38.°55N×43.°43E,h0km,mb4.1/15, mb1 4.1/21,mb1mx3.9/65,mbtmp4.1/21,ML3.1/6,Error ellipse: s-maj=16.9km s-min=9.5km az=153.0*

*AZER* ***12*** *11:56:54.2±0.5,38.°85N×43.°15E,h2km,Error ellipse: s-maj=4.0km s-min=2.7km az=99.0*

*CSEM* ***12*** *11:56:55.8±0.1,38.°67N×43.°39E,h5km,ML4.1,Error ellipse: s-maj=2.9km s-min=2.6km az=133.0*

*NEIC* ***12*** *11:56:55.1±0.0,38.°69N×43.°38E,h3km,mb4.1/5,*

*ML4.1(ISK),After ISK.*

*ISK* ***12*** *11:56:55.1,38.°69N×43.°38E,h3km,ML4.1*

*ATA* ***12*** *11:56:55.3±1.2,38.°73N×43.°29E,h15km±8km,ML4.5, MW4.4*

*DDA* ***12*** *11:56:55.7,38.°69N×43.°39E,h18km,Ml4.2*

*ISCJB* ***12*** *11:56:56.0±0.3,38.°69N±0.°01×43.°42E±0.°02,h9km±2km, mb4.0/15,Error ellipse: s-maj=2.6km s-min=2.1km az=150.6*

*TEH* ***12*** *11:56:59.1,38.°76N×43.°49E,h18km,ML3.7*

**ISC 12 11:56:56.5±0.7,38.°69N±0.°01×43.°39E±0.°01,h13km±5km, n220,σ1ᵗ38/286,mb4.0/15,21C-32D,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.10 | 181 | PG | Pg | 11 56 59.8 | +0.2 |
| VANB | Van | 0.10 | 181 | *i* Pg | Pg | 11 56 59.8 | +0.2 |
| TVAN | Van | 0.16 | 176 | ⇓*i* P | Pg | 11 56 59.7 | -0.9 |
| TVAN | | | | *i* S | Sg | 11 57 03.9 | +0.5 |
| TVAN | Van | 0.16 | 176 | P | Pg | 11 56 59.7 | -0.9 |
| TVAN | | | | S | Sg | 11 57 03.9 | +0.5 |
| VMUR | Van-Muradiye | 0.33 | 25 | ⇓*i* P | Pg | 11 57 02.7 | -0.7 |
| VMUR | | | | *i* S | Sb | 11 57 09.2 | -0.5 |
| VMUR | Van-Muradiye | 0.33 | 25 | P | Pg | 11 57 02.7 | -0.7 |
| VMUR | | | | S | Sb | 11 57 09.2 | -0.5 |
| ERCV | ERCIS-VAN | 0.33 | 353 | *e*PG | Pg | 11 57 02.3 | -1.1 |
| ERCV | | | | *e*SG | Sg | 11 57 07.8 | -0.2 |
| ERCV | ERCIS-VAN | 0.33 | 353 | *e*Pg | Pg | 11 57 02.3 | -1.1 |
| ERCV | | | | *e*Sg | Sg | 11 57 07.8 | -0.2 |
| GEVA | Gevas | 0.46 | 215 | ⇓*i* P | Pg | 11 57 04.1 | -1.6 |
| GEVA | | | | IAML | | 11 57 17.7 | |
| | comp=Z,3μm,0.4s | | | | | | |
| GEVA | Gevas | 0.46 | 215 | ⇓*i* P | Pg | 11 57 04.3 | -1.4 |
| GEVA | | | | *i* S | Sg | 11 57 12.7 | +0.8 |
| GEVA | Gevas | 0.46 | 215 | P | Pg | 11 57 04.1 | -1.4 |
| GEVA | | | | S | Sg | 11 57 12.7 | +0.8 |
| ADCV | BITLIS_Adilcev | 0.53 | 283 | ⇑*i* P | Pg | 11 57 06.1 | -1.0 |
| ADCV | | | | *i* S | Sg | 11 57 14.8 | +0.6 |
| ADCV | BITLIS_Adilcev | 0.53 | 283 | P | Pg | 11 57 06.1 | -1.0 |
| ADCV | | | | S | Sg | 11 57 14.8 | +0.6 |
| CLDR | Caldiran | 0.61 | 42 | *e*PG | Pg | 11 57 07.7 | -0.9 |
| CLDR | | | | *e*SG | Sg | 11 57 17.1 | +0.4 |
| CLDR | Caldiran | 0.61 | 42 | ⇓*i* P | Pg | 11 57 07.6 | -0.9 |
| CLDR | | | | *i* S | Sb | 11 57 18.1 | +0.3 |
| CLDR | Caldiran | 0.61 | 42 | *e*Pg | Pg | 11 57 07.7 | -0.9 |
| CLDR | | | | *e*Sg | Sg | 11 57 17.1 | +0.4 |
| CLDR | | | | S | Sb | 11 57 18.1 | +0.3 |
| BASK | Baskale_VAN | 0.80 | 143 | ⇓*i* P | Pn | 11 57 13.6 | -0.1 |
| BASK | Baskale_VAN | 0.80 | 143 | ⇓*i* P | Pg | 11 57 09.9 | -2.2 |
| BASK | | | | *i* S | Sg | 11 57 22.9 | +0.3 |
| BASK | Baskale_VAN | 0.80 | 143 | P | Pg | 11 57 09.9 | -2.2 |
| BASK | | | | S | Sg | 11 57 22.9 | +0.3 |
| TUTA | Tutak | 0.84 | 328 | ⇓*i* P | Pg | 11 57 11.1 | -1.8 |
| TUTA | | | | *e*S | Sg | 11 57 23.1 | -0.9 |
| TUTA | | | | IAML | | 11 57 25.1 | |
| | comp=Z,3μm,0.4s | | | | | | |
| TUTA | Tutak | 0.84 | 328 | ⇓*i* P | Pg | 11 57 11.2 | -1.7 |
| TUTA | | | | *i* S | Sg | 11 57 23.3 | -0.6 |
| TUTA | Tutak | 0.84 | 328 | P | Pg | 11 57 11.2 | -1.7 |
| TUTA | | | | S | Sg | 11 57 23.3 | -0.6 |
| DYDN | Diyadin | 0.88 | 15 | *e*P | Pg | 11 57 11.8 | -1.9 |
| DYDN | | | | *e*S | Sb | 11 57 25.9 | +0.2 |
| DYDN | | | | IAML | | 11 57 31.6 | |
| | comp=Z,701nm,0.4s | | | | | | |
| DYDN | Diyadin | 0.88 | 15 | ⇓*i* P | Pg | 11 57 11.9 | -1.8 |
| DYDN | | | | *i* S | Sg | 11 57 25.0 | -0.2 |
| DYDN | Diyadin | 0.88 | 15 | P | Pg | 11 57 11.9 | -1.8 |
| DYDN | | | | S | Sg | 11 57 25.0 | -0.2 |
| AGRB | Hanur-Agry | 0.94 | 341 | *e*PG | Pg | 11 57 13.8 | -0.9 |
| AGRB | | | | *e*SG | Sb | 11 57 27.4 | +0.2 |
| AGRB | Hanur-Agry | 0.94 | 341 | *e*Pg | Pg | 11 57 13.8 | -0.9 |
| AGRB | | | | *e*Sg | Sb | 11 57 27.4 | +0.2 |
| HAKT | HAKKARI | 1.16 | 167 | ⇓*i* P | Pb | 11 57 16.7 | -1.9 |
| HAKT | | | | *i* S | Sn | 11 57 37.7 | +3.2 |
| HAKT | HAKKARI | 1.16 | 167 | P | Pb | 11 57 16.7 | -1.9 |
| EKAR | Karacoban | 1.18 | 299 | *e*PN7 | Pn | 11 57 19.3 | +0.3 |
| EKAR | | | | IAML | | 11 57 46.2 | |
| | comp=Z,778nm,0.5s | | | | | | |
| EKAR | Karacoban | 1.18 | 299 | ⇑*i* P | Pg | 11 57 19.6 | +0.4 |
| EKAR | | | | *i* S | Sn | 11 57 39.1 | +4.1 |
| EKAR | Karacoban | 1.18 | 299 | P | Pg | 11 57 19.6 | +0.4 |
| YOVA | Hakkari_Y`...kse | 1.31 | 147 | ⇓*i* P | Pn | 11 57 19.4 | -1.3 |
| YOVA | | | | *i* S | Sg | 11 57 42.2 | +3.4 |
| YOVA | Hakkari_Y`...kse | 1.31 | 147 | P | Pn | 11 57 19.4 | -1.3 |
| SRTM | Siirt_Merkez | 1.35 | 239 | ⇓*i* P | Pn | 11 57 20.4 | -0.8 |
| SRTM | | | | *i* S | Sg | 11 57 40.6 | +0.5 |
| SRTM | Siirt_Merkez | 1.35 | 239 | P | Pn | 11 57 20.4 | -0.8 |
| EATA | Eleskirt | 1.36 | 329 | ⇓*i* P | Pn | 11 57 20.7 | -0.9 |
| EATA | | | | *e*S | Sn | 11 57 40.0 | +0.3 |
| EATA | | | | IAML | | 11 57 44.1 | |
| | comp=Z,296nm,0.5s | | | | | | |
| EATA | Eleskirt | 1.36 | 329 | ⇓*i* P | Pn | 11 57 20.9 | -0.7 |
| EATA | | | | *i* S | Sg | 11 57 40.5 | 0.0 |
| EATA | Eleskirt | 1.36 | 329 | P | Pn | 11 57 20.9 | -0.7 |
| SIRT | Sirnak | 1.41 | 213 | *e*PN | Pn | 11 57 22.4 | +0.5 |
| SIRT | | | | *e*SN | Sg | 11 57 42.2 | +0.4 |
| SIRT | Sirnak | 1.41 | 213 | *e*Pn | Pn | 11 57 22.4 | +0.5 |
| SIRT | | | | *e*Sn | Sg | 11 57 42.2 | +0.4 |
| SIRN | S¨-rnak | 1.42 | 213 | ⇓*i* P | Pn | 11 57 22.5 | +0.4 |
| SIRN | | | | *i* S | Sg | 11 57 43.8 | +1.5 |
| SIRN | S¨-rnak | 1.42 | 213 | P | Pn | 11 57 22.5 | +0.4 |
| SIRN | | | | S | Sg | 11 57 43.8 | +1.5 |
| TASB | TASBURUN-IGDIR | 1.45 | 27 | *e*PN | Pb | 11 57 23.6 | +0.2 |
| TASB | TASBURUN-IGDIR | 1.45 | 27 | *e*Pn | Pb | 11 57 23.6 | +0.2 |
| CUKT | Cukurca | 1.45 | 173 | *e*PN | Pn | 11 57 22.9 | +0.3 |
| CUKT | Cukurca | 1.45 | 173 | ⇓*i* P | Pn | 11 57 22.1 | -0.6 |
| CUKT | | | | *i* S | Sg | 11 57 45.5 | +2.2 |
| CUKT | Cukurca | 1.45 | 173 | P | Pn | 11 57 22.0 | -0.6 |
| CUKT | Cukurca | 1.45 | 173 | *e*Pn | Pn | 11 57 22.9 | +0.3 |
| CUKT | | | | S | Sg | 11 57 45.5 | +2.2 |
| HYR | Heyderabad | 1.53 | 47 | ⇑P | Pn | 11 57 23.6 | 0.0 |
| HYR | Heyderabad | 1.53 | 47 | P | Pn | 11 57 23.6 | 0.0 |
| VRTB | Varto-Mus | 1.58 | 288 | *e*PN | Pn | 11 57 25.0 | +0.6 |
| VRTB | Varto-Mus | 1.58 | 288 | ⇑*i* P | Pn | 11 57 24.9 | +0.4 |
| VRTB | | | | *i* S | Sg | 11 57 48.2 | +0.8 |
| VRTB | Varto-Mus | 1.58 | 288 | *e*Pn | Pn | 11 57 25.0 | +0.6 |
| VRTB | | | | S | Sg | 11 57 48.2 | +0.8 |
| NAX | Nakhchivan | 1.71 | 73 | P | Pb | 11 57 27.4 | -0.5 |
| | SNR=41 | | | | | | |
| NAX | | | | ⇓S | Sg | 11 57 52.4 | +0.8 |
| NAX | Nakhchivan | 1.71 | 73 | P | Pb | 11 57 27.4 | -0.5 |
| | SNR=41 | | | | | | |
| NAX | | | | S | Sg | 11 57 52.4 | +0.8 |
| DIGO | Kars | 1.72 | 360 | ⇑*i* P | Pn | 11 57 27.2 | +0.8 |
| DIGO | Kars | 1.72 | 360 | ⇑*i* P | Pn | 11 57 27.2 | +0.8 |
| DIGO | | | | *i* S | Sg | 11 57 54.0 | +2.0 |
| DIGO | Kars | 1.72 | 360 | P | Pn | 11 57 27.2 | +0.8 |
| DIGO | | | | S | Sg | 11 57 54.0 | +2.0 |
| BNGL | BINGOL | 1.77 | 279 | *e*P | Pn | 11 57 27.6 | +0.5 |
| BNGL | BINGOL | 1.77 | 279 | ⇑*i* P | Pn | 11 57 27.4 | +0.3 |
| BNGL | | | | *i* S | Sg | 11 57 52.8 | -0.7 |
| HOMI | Horasan | 1.78 | 320 | ⇑*i* P | Pn | 11 57 28.0 | +0.8 |
| HOMI | | | | *i* S | Sg | 11 57 56.3 | +2.6 |
| GNI | Garni | 1.79 | 35 | Pn | Pn | 11 57 28.4 | +1.0 |
| | comp=Z,32nm,0.3s,baz=233,slow=3.7,SNR=37 | | | | | | |
| GNI | | | | Lg | Lg | 11 57 56.1 | |
| | comp=Z,47nm,0.3s,baz=330,slow=23,SNR=10 | | | | | | |
| ISHB | Shabestar | 1.79 | 102 | *e*Pn | Pb | 11 57 28.7 | -0.7 |
| ISHB | | | | *e*AMB | AMB | 11 57 35.0 | |
| | comp=Z,8μm,0.2s | | | | | | |
| ISHB | | | | *e*Sg | Sg | 11 57 53.7 | -0.6 |
| IMRD | Marand | 1.81 | 89 | *e*Pn | Pn | 11 57 28.5 | +0.9 |
| IMRD | | | | *e*AMB | AMB | 11 57 35.2 | |
| | comp=Z,24μm,0.3s | | | | | | |
| IMRD | Marand | 1.81 | 89 | *e*Pn | Pn | 11 57 28.5 | +0.9 |
| SBZ | Shahbuz | 1.82 | 67 | ⇓P | Pn | 11 57 28.3 | +0.6 |
| SBZ | | | | ⇓S | Sg | 11 57 54.2 | -1.1 |
| SBZ | Shahbuz | 1.82 | 67 | P | Pn | 11 57 28.3 | +0.6 |
| SBZ | | | | S | Sg | 11 57 54.2 | -1.1 |
| BTMN | Batman | 1.85 | 245 | ⇑*i* P | Pn | 11 57 28.7 | +0.7 |
| BTMN | | | | *i* S | Sb | 11 57 53.9 | +0.6 |
| BTMN | Batman | 1.85 | 245 | P | Pn | 11 57 28.7 | +0.7 |
| BTMN | | | | S | Sb | 11 57 53.9 | +0.6 |
| KARS | Kars | 1.95 | 353 | *e*PN | Pn | 11 57 30.1 | +0.6 |
| KARS | Kars | 1.95 | 353 | *e*Pn | Pn | 11 57 30.1 | +0.6 |
| ERZM | Erzurum | 1.98 | 308 | *e*P | Pn | 11 57 30.9 | +0.9 |
| ERZM | Erzurum | 1.98 | 308 | *i* P | Pn | 11 57 31.1 | +0.9 |
| ERZM | | | | *i* S | Sg | 11 58 00.7 | +0.3 |
| ERZM | Erzurum | 1.98 | 308 | P | Pn | 11 57 31.0 | +0.9 |
| ERZM | | | | S | Sg | 11 58 00.7 | +0.3 |
| EAK | Akyaka | 2.00 | 5 | *e*PN12 | Pb | 11 57 31.4 | -1.5 |
| EAK | Akyaka | 2.00 | 5 | *i* P | Pb | 11 57 32.1 | -0.8 |
| EAK | | | | *i* S | Sg | 11 58 01.5 | +0.6 |
| EAK | Akyaka | 2.00 | 5 | P | Pb | 11 57 32.1 | -0.8 |
| EAK | | | | S | Sg | 11 58 01.5 | +0.6 |
| SENK | Senkaya-Erzuru | 2.03 | 337 | *e*PN | Pn | 11 57 31.4 | +0.7 |
| SENK | Senkaya-Erzuru | 2.03 | 337 | *e*Pn | Pn | 11 57 31.4 | +0.7 |
| ORD | Ordubad | 2.05 | 83 | P | Pn | 11 57 31.9 | +1.1 |
| ORD | | | | S | Sg | 11 58 01.0 | -1.4 |
| ECAT | Cat-ERZURUM | 2.09 | 297 | ⇑*i* P | Pn | 11 57 32.1 | +0.6 |
| ECAT | | | | IAML | | 11 58 10.1 | |
| | comp=Z,100nm,0.6s | | | | | | |
| ECAT | Cat-ERZURUM | 2.09 | 297 | *i* P | Pn | 11 57 31.0 | -0.4 |
| ECAT | | | | *i* S | Sg | 11 58 03.6 | -0.1 |
| BNGB | Bing¨ll | 2.14 | 279 | *e*PN | Pn | 11 57 33.0 | +0.9 |
| ITBZ | Tabriz | 2.21 | 101 | *e*Pn | Pn | 11 57 33.7 | +0.6 |
| ITBZ | | | | *e*AMB | AMB | 11 57 51.2 | |
| | comp=Z,2μm,0.3s | | | | | | |
| ITBZ | Tabriz | 2.21 | 101 | *e*Pn | Pn | 11 57 33.7 | +0.6 |
| BINT | Bingol | 2.27 | 276 | *e*Pn | Pn | 11 57 33.0 | -0.9 |
| HANI | Diyarbakir_Han | 2.36 | 264 | *i* P | Pn | 11 57 36.7 | +1.6 |
| HANI | | | | *i* S | Sb | 11 58 07.6 | -0.5 |
| HANI | Diyarbakir_Han | 2.36 | 264 | P | Pn | 11 57 36.7 | +1.6 |
| HANI | | | | S | Sb | 11 58 07.6 | -0.5 |
| MARD | Mardin | 2.48 | 237 | *i* P | Pn | 11 57 36.6 | -0.1 |
| MARD | | | | *i* S | Sn | 11 58 06.8 | -0.2 |
| MARD | Mardin | 2.48 | 237 | *e*Pn | Pn | 11 57 37.4 | +0.7 |
| MARD | Mardin | 2.48 | 237 | *e*Pn | Pn | 11 57 37.4 | +0.7 |
| BGD | Bogdanovka | 2.58 | 3 | P | Pb | 11 57 42.8 | +0.1 |
| KOPT | Kop Dagi | 2.60 | 301 | *e*PN12 | Pn | 11 57 39.5 | +0.9 |
| KOPT | Kop Dagi | 2.60 | 301 | *e*Pn | Pb | 11 57 43.2 | -0.1 |
| KOPT | Kop Dagi | 2.60 | 301 | *e*Pn | Pb | 11 57 43.1 | -0.1 |
| DIY | Diyarbakir | 2.61 | 253 | *e*Pn | Pn | 11 57 40.4 | +1.9 |
| MAZI | Mazidag | 2.63 | 243 | *e*PN | Pn | 11 57 39.0 | +0.2 |
| MAZI | Mazidag | 2.63 | 243 | *e*Pn | Pn | 11 57 39.0 | +0.2 |
| DYBB | Diyarbakir | 2.66 | 255 | *e*PN | Pn | 11 57 40.4 | +1.2 |
| AKH | Akhalkalaki | 2.72 | 2 | *e*PN | Pn | 11 57 40.7 | +0.6 |
| AKH | Akhalkalaki | 2.72 | 2 | P | Pg | 11 57 47.5 | -1.1 |
| AKH | Akhalkalaki | 2.72 | 2 | *e*Pn | Pn | 11 57 40.7 | +0.6 |
| GDB | GEDABAY | 2.73 | 41 | ⇑P | Pn | 11 57 39.9 | -0.3 |
| | SNR=27 | | | | | | |
| GDB | | | | ⇓S | Sn | 11 58 14.5 | +1.4 |
| GDB | GEDABAY | 2.73 | 41 | P | Pn | 11 57 39.9 | -0.3 |
| | SNR=27 | | | | | | |
| ARTV | Artvin | 2.73 | 336 | *e*PN12 | Pn | 11 57 41.6 | +1.4 |
| ARTV | | | | IAML | | 11 57 59.9 | |
| | comp=Z,28nm,0.7s | | | | | | |
| ARTV | Artvin | 2.73 | 336 | *e*Pn | Pn | 11 57 41.8 | +1.4 |
| ARTV | Artvin | 2.73 | 336 | *e*Pn | Pn | 11 57 41.8 | +1.4 |
| QZX | Qazax, Azerbai | 2.81 | 32 | ⇑P | Pn | 11 57 40.1 | -1.2 |
| | SNR=23 | | | | | | |
| QZX | Qazax, Azerbai | 2.81 | 32 | P | Pn | 11 57 40.1 | -1.2 |
| | SNR=23 | | | | | | |
| EPOS | Posof | 2.85 | 350 | *e*PN12 | Pn | 11 57 43.5 | +1.6 |
| IHRS | Heris | 2.89 | 96 | *e*Pn | Pn | 11 57 44.1 | +1.6 |
| IHRS | | | | *e*AMB | AMB | 11 57 57.0 | |
| | comp=Z,3μm,0.3s | | | | | | |
| IHRS | Heris | 2.89 | 96 | *e*Pn | Pn | 11 57 44.1 | +1.6 |
| IBST | Bostanabad | 2.93 | 109 | *e*Pn | Pn | 11 57 44.8 | +1.8 |
| IBST | | | | *e*AMB | AMB | 11 58 34.8 | |
| | comp=Z,2μm,0.4s | | | | | | |
| IBST | Bostanabad | 2.93 | 109 | *e*Pn | Pn | 11 57 44.8 | +1.8 |
| GANJ | Ganja | 2.99 | 48 | ⇓P | Pn | 11 57 43.3 | -0.4 |
| | SNR=18 | | | | | | |
| GANJ | | | | ⇑S | Sn | 11 58 21.5 | +2.2 |
| GANJ | Ganja | 2.99 | 48 | P | Pn | 11 57 43.3 | -0.4 |
| | SNR=18 | | | | | | |
| ERZN | Erzincan | 2.99 | 289 | *e*PN | Pn | 11 57 45.1 | +1.3 |
| PTK | Pertek | 3.13 | 275 | *e*PN | Pn | 11 57 46.4 | +0.6 |
| PTK | Pertek | 3.13 | 275 | *e*Pn | Pn | 11 57 46.4 | +0.6 |
| TBLG | Delisi | 3.21 | 18 | *e*PN | Pn | 11 57 48.3 | +1.7 |
| TBLG | Delisi | 3.21 | 18 | P | Pb | 11 57 54.1 | +0.7 |
| TBLG | Delisi | 3.21 | 18 | *e*Pn | Pn | 11 57 48.3 | +1.7 |
| SVRC | Sivrice-ELAZID | 3.22 | 266 | *e*PN | Pn | 11 57 48.2 | +1.3 |
| SVRC | Sivrice-ELAZID | 3.22 | 266 | *e*Pn | Pn | 11 57 48.2 | +1.3 |
| BRDA | Brd | 3.33 | 61 | ⇓P | Pn | 11 57 48.8 | +0.5 |
| | SNR=16 | | | | | | |
| BRDA | | | | ⇑S | Sn | 11 58 30.7 | +3.1 |
| BRDA | Brd | 3.33 | 61 | P | Pn | 11 57 48.8 | +0.5 |
| | SNR=16 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | comp=Z,9.8nm,1.3s | | | | | | | | |
| **AKBB** | **Malin Array Si** | **15.64** | **325** | *e*Pn | | **Pn** | **12 00 36.7** | **+0.2** |
| | comp=Z,9.8nm,1.3s | | | | | | | | |
| **KIEV** | **Kiev** | **15.64** | **325** | *e*Pn | | **Pn** | **12 00 37.6** | **+1.1** |
| | comp=Z,9.2nm,1.2s | | | | | | | | |
| **KIEV** | **Kiev** | **15.64** | **325** | *e*Pn | | **Pn** | **12 00 37.6** | **+1.1** |
| | comp=Z,9.2nm,1.2s | | | | | | | | |
| **AKTO** | **Aktyubinsk** | **15.66** | **37** | Pn | | **Pn** | **12 00 35.5** | **-1.4** |
| | comp=Z,0.1nm,0.3s,baz=228,slow=12,SNR=2.8 | | | | | | | | |
| **BUR04** | **Bucovina Ar. S** | **15.96** | **310** | *e*P | | **P** | **12 00 45.5** | **+1.2** |
| **BUR04** | **Bucovina Ar. S** | **15.96** | **310** | *e*P | | **P** | **12 00 45.5** | **+1.2** |
| **BUR08** | **Bucovina Ar. S** | **15.97** | **310** | *e*Pn | | **P** | **12 00 43.5** | **-1.0** |
| **BUR08** | **Bucovina Ar. S** | **15.97** | **310** | *e*Pn | | **P** | **12 00 43.5** | **-1.0** |
| **OBN** | **Obninsk** | **17.06** | **347** | P | | **P** | **12 00 55.8** | **-0.6** |
| | comp=Z,7.7nm,0.3s,baz=327,slow=13,SNR=5.9 | | | | | | | | |
| **OBN** | **Obninsk** | **17.06** | **347** | *e*Pn | | **P** | **12 00 55.8** | **-0.6** |
| | comp=Z,29nm,0.9s | | | | | | | | |
| **OBN** | **Obninsk** | **17.06** | **347** | *e*Pn | | **P** | **12 00 55.8** | **-0.6** |
| | comp=Z,29nm,0.9s | | | | | | | | |
| **ARU** | **Arti** | **20.41** | **25** | P | | **P** | **12 01 33.9** | **+0.9** |
| | comp=Z,8.5nm,0.7s,baz=230,slow=6.6,SNR=7.5 | | | | | | | | |
| **ARU** | **Arti** | **20.41** | **25** | *e*P | | Pn | 12 01 34.3 | -0.8 |
| | comp=Z,10nm,0.7s | | | | | | | | |
| **ARU** | **Arti** | **20.41** | **25** | *e*P | | Pn | 12 01 34.3 | -0.8 |
| | comp=Z,10nm,0.7s | | | | | | | | |
| **VRAC** | **Vranov** | **21.89** | **308** | P | | **P** | **12 01 50.8** | **+1.6** |
| | comp=Z,5.1nm,0.8s,baz=104,slow=12,SNR=3.6 | | | | | | | | |
| **DPC** | **Dobruska-Polom** | **22.41** | **310** | *e*P | | **P** | **12 01 57.3** | **+2.5** |
| **DPC** | **Dobruska-Polom** | **22.41** | **310** | P | | **P** | **12 01 57.3** | **+2.5** |
| **UPC** | **Upice** | **22.66** | **310** | *e*P | | **P** | **12 01 59.7** | **+2.4** |
| UPC | | | | *ex* | | x | 12 02 03.7 | | |
| **UPC** | **Upice** | **22.66** | **310** | P | | **P** | **12 01 59.7** | **+2.4** |
| **BVAR** | **Borovoye Array** | **23.46** | **44** | P | | **P** | **12 02 06.5** | **+1.0** |
| | comp=Z,0.5nm,0.5s,baz=245,slow=6.0,SNR=4.3 | | | | | | | | |
| **GERES** | **GERESS Array B** | **23.58** | **305** | P | | **P** | **12 02 07.4** | **+0.5** |
| | comp=Z,0.6nm,0.5s,baz=115,slow=7.9,SNR=4.6 | | | | | | | | |
| **KHC** | **Kasperske Hory** | **23.73** | **306** | *e*P | | **P** | **12 02 09.8** | **+1.5** |
| KHC | | | | *ex* | | x | 12 02 17.9 | | |
| **KHC** | **Kasperske Hory** | **23.73** | **306** | P | | **P** | **12 02 09.8** | **+1.5** |
| **CLL** | **Collm** | **24.72** | **311** | *e*P | | **P** | **12 02 17.0** | **-0.3** |
| | comp=Z,10.0nm,1.0s | | | | | | | | |
| **NKC** | **Novy Kostel** | **24.73** | **308** | *e*P | | **P** | **12 02 18.9** | **+1.4** |
| **NKC** | **Novy Kostel** | **24.73** | **308** | P | | **P** | **12 02 18.9** | **+1.4** |
| **FIA0** | **FINESS Array S** | **25.18** | **340** | *e*P | | **P** | **12 02 21.2** | **-0.2** |
| **FIA0** | **FINESS Array S** | **25.18** | **340** | *e*P | | **P** | **12 02 21.2** | **-0.2** |
| **FINES** | **FINESS Array B** | **25.18** | **340** | P | | **P** | **12 02 21.2** | **-0.2** |
| | comp=Z,3.6nm,0.8s,baz=145,slow=12,SNR=4.8 | | | | | | | | |
| **FIA1** | **FINESS Array S** | **25.18** | **340** | *e*P | | **P** | **12 02 21.6** | **+0.2** |
| **FIA1** | **FINESS Array S** | **25.18** | **340** | *e*P | | **P** | **12 02 21.6** | **+0.2** |
| **DAVOX** | **Davos/Dischmat** | **25.75** | **299** | P | | **P** | **12 02 26.5** | **-0.5** |
| | comp=Z,2.3nm,0.8s,baz=200,slow=5.1,SNR=3.2 | | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **27.43** | **53** | P | | **P** | **12 02 43.0** | **+1.2** |
| | comp=Z,3.1nm,0.2s,baz=263,slow=9.1,SNR=12 | | | | | | | | |
| **KURK** | **Kurchatov** | **27.51** | **53** | *e*P | | **P** | **12 02 43.4** | **+0.9** |
| **KURK** | **Kurchatov** | **27.51** | **53** | *e*P | | **P** | **12 02 43.0** | **+0.5** |
| KURK | | | | *e*P | | **P** | **12 02 43.4** | **+0.9** |
| **HFS** | **Hagfors** | **28.45** | **329** | P | | **P** | **12 02 50.3** | **-0.6** |
| | comp=Z,8.3nm,0.9s,baz=173,slow=13,SNR=5.4 | | | | | | | | |
| **MK32** | **Makanchi Array** | **29.45** | **61** | *e*P | | **P** | **12 03 01.1** | **+1.2** |
| **MK32** | **Makanchi Array** | **29.45** | **61** | *e*P | | **P** | **12 03 01.1** | **+1.2** |
| **MKAR** | **Makanchi Array** | **29.45** | **61** | P | | **P** | **12 03 01.1** | **+1.2** |
| | comp=Z,1.1nm,0.9s,baz=264,slow=9.2,SNR=4.3 | | | | | | | | |
| **ARA0** | **ARCESS Array S** | **32.36** | **348** | *e*P | | **P** | **12 03 24.7** | **-0.6** |
| **ARA0** | **ARCESS Array S** | **32.36** | **348** | *e*P | | **P** | **12 03 24.7** | **-0.6** |
| **ARCES** | **ARCESS Array B** | **32.36** | **348** | P | | **P** | **12 03 24.7** | **-0.5** |
| | comp=Z,2.7nm,0.7s,baz=148,slow=9.5,SNR=13 | | | | | | | | |
| **EKA** | **Eskdalemuir Ar** | **35.07** | **314** | P | | **P** | **12 03 48.9** | **-0.1** |
| | comp=Z,7.0nm,0.9s,baz=101,slow=8.6,SNR=7.4 | | | | | | | | |
| **ESDC** | **Sonseca Array** | **36.38** | **287** | P | | **P** | **12 03 59.7** | **-0.8** |
| | comp=Z,0.9nm,0.6s,baz=67,slow=7.4,SNR=6.2 | | | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **44.77** | **247** | *e*P | | **P** | **12 05 08.3** | **-1.7** |
| **TOA1** | **Torodi Ar. Sit** | **44.77** | **247** | *e*P | | **P** | **12 05 08.3** | **-1.7** |
| **TORD** | **Torodi Ar. Bea** | **44.77** | **247** | P | | **P** | **12 05 08.3** | **-1.7** |
| | comp=Z,1.3nm,1.0s,baz=55,slow=8.0,SNR=5.3 | | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **51.97** | **96** | P | | **P** | **12 06 05.3** | **-0.3** |
| | comp=Z,1.6nm,1.0s,baz=296,slow=8.3,SNR=6.5 | | | | | | | | |
| **SEY** | **Seymchan** | **64.08** | **29** | P | | **P** | **12 07 28.6** | **-1.2** |
| | comp=Z,2.9nm,0.9s,baz=335,slow=4.9,SNR=4.4 | | | | | | | | |

*ISCJB **12** 11:59:23.3±0.3,39°.14N±0°.02×28°.78E±0°.03,h11km±3km, Error ellipse: s-maj=3.7km s-min=3.6km az=0.6*
*ISK **12** 11:59:23.0,39°.15N×28°.77E,h11km,ML2.7*
*DDA **12** 11:59:23.6,39°.12N×28°.79E,h11km,Ml2.9*
*CSEM **12** 11:59:23.5±0.1,39°.14N×28°.78E,h10km,ML2.9, Error ellipse: s-maj=1.6km s-min=1.5km az=51.0*

**ISC 12 11:59:23.7**±0.8,**39°.14N**±0°.02×**28°.77E**±0°.02,**h12**km±5km, **n82**,σ0**938**/100,**Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **DEMI** | **Demirci** | **0.10** | **204** | *i* P | | **Pg** | **11 59 26.7** | **0.0** |
| DEMI | | | | *i* S | | **Sg** | **11 59 28.6** | **0.3** |
| **DEMI** | **Demirci** | **0.10** | **204** | P | | **Pg** | **11 59 26.7** | **0.0** |
| DEMI | | | | S | | **Sg** | **11 59 28.5** | **-0.3** |
| **SIMA** | **Simav-Kutahya** | **0.17** | **107** | PG | | **Pg** | **11 59 27.7** | **0.0** |
| SIMA | | | | *e*SG | | **Sg** | **11 59 30.5** | **0.0** |
| **SIMA** | **Simav-Kutahya** | **0.17** | **107** | *i* Pg | | **Pg** | **11 59 27.7** | **0.0** |
| SIMA | | | | *e*Sg | | **Sg** | **11 59 30.5** | **0.0** |
| **DST** | **Dursunbey** | **0.48** | **346** | *e*PG | | **Pg** | **11 59 32.9** | **-0.3** |
| DST | | | | *e*SG | | **Sg** | **11 59 39.2** | **-0.4** |
| **DST** | **Dursunbey** | **0.48** | **346** | *e*Pg | | **Pg** | **11 59 32.9** | **-0.3** |
| DST | | | | *e*Sg | | **Sg** | **11 59 39.2** | **-0.4** |
| **GDZ** | **Gediz** | **0.56** | **95** | *i* P | | **Pg** | **11 59 34.5** | **-0.1** |
| GDZ | | | | *i* S | | **Sg** | **11 59 42.0** | **+0.1** |
| **GDZ** | **Gediz** | **0.56** | **95** | P | | **Pg** | **11 59 34.5** | **-0.1** |
| GDZ | | | | S | | **Sg** | **11 59 42.0** | **+0.1** |
| **TVSB** | **Tavsanli** | **0.62** | **59** | *e*PG | | **Pg** | **11 59 35.5** | **-0.3** |
| TVSB | | | | *e*SG | | **Sg** | **11 59 43.9** | **-0.1** |
| **TVSB** | **Tavsanli** | **0.62** | **59** | *e*Pg | | **Pg** | **11 59 35.5** | **-0.3** |
| TVSB | | | | *e*Sg | | **Sg** | **11 59 43.9** | **-0.1** |
| **KULA** | **Kula-Manisa** | **0.63** | **188** | *e*PG | | **Pg** | **11 59 35.6** | **-0.3** |
| **KULA** | **Kula-Manisa** | **0.63** | **188** | *e*Pg | | **Pg** | **11 59 35.6** | **-0.3** |
| **MANT** | **Manisa** | **0.67** | **195** | *i* P | | **Pg** | **11 59 36.5** | **-0.1** |
| MANT | | | | *i* S | | **Sg** | **11 59 44.7** | **-0.7** |
| **MANT** | **Manisa** | **0.67** | **195** | P | | **Pg** | **11 59 36.5** | **-0.1** |
| MANT | | | | S | | **Sg** | **11 59 44.7** | **-0.7** |
| **AKHS** | **Akhisar** | **0.79** | **251** | *i* P | | **Pb** | **11 59 39.2** | **-0.1** |
| AKHS | | | | *i* S | | **Sb** | **11 59 49.9** | **0.0** |
| **AKHS** | **Akhisar** | **0.79** | **251** | P | | **Pb** | **11 59 39.2** | **-0.1** |
| AKHS | | | | S | | **Sb** | **11 59 49.9** | **0.0** |
| **AKS** | **Akhisar** | **0.79** | **251** | *e*PG | | **Pg** | **11 59 39.0** | **+0.1** |
| **AKS** | **Akhisar** | **0.79** | **251** | *e*Pg | | **Pg** | **11 59 39.0** | **+0.1** |
| **STEP** | **BALIKESIR_Sava** | **0.85** | **287** | *i* P | | **Pg** | **11 59 40.1** | **0.0** |
| STEP | | | | *i* S | | **Sb** | **11 59 52.5** | **+0.8** |
| **STEP** | **BALIKESIR_Sava** | **0.85** | **287** | P | | **Pg** | **11 59 40.1** | **0.0** |
| STEP | | | | S | | **Sb** | **11 59 52.5** | **+0.8** |
| **BALB** | **Balikesir** | **0.85** | **306** | *e*PG | | **Pg** | **11 59 40.6** | **+0.2** |
| **BALB** | **Balikesir** | **0.85** | **306** | *e*Pg | | **Pb** | **11 59 40.6** | **+0.2** |
| **ORLT** | **Orhaneli** | **0.91** | **6** | *e*PG | | **Pg** | **11 59 40.6** | **-0.7** |
| **ORLT** | **Orhaneli** | **0.91** | **6** | *e*Pg | | **Pg** | **11 59 40.6** | **-0.7** |
| **KHAL** | **Karahalli** | **0.95** | **143** | *i* P | | **Pg** | **11 59 41.9** | **-0.2** |
| KHAL | | | | *i* S | | **Sg** | **11 59 54.1** | **-0.3** |
| **KHAL** | **Karahalli** | **0.95** | **143** | P | | **Pg** | **11 59 41.8** | **-0.2** |
| KHAL | | | | S | | **Sg** | **11 59 54.1** | **-0.3** |
| **KHL** | **Karahalli** | **1.00** | **144** | *e*PG | | **Pb** | **11 59 42.6** | **-0.3** |
| **KHL** | **Karahalli** | **1.00** | **144** | *e*Pg | | **Pb** | **11 59 42.6** | **-0.3** |
| **KCTX** | **Karacabey (Bur** | **1.17** | **344** | *e*PN | | **Pg** | **11 59 46.2** | **-0.1** |
| **KCTX** | **Karacabey (Bur** | **1.17** | **344** | *e*Pn | | **Pg** | **11 59 46.2** | **-0.1** |
| **MDNY** | **Mudanya-Bursa** | **1.23** | **4** | *e*PN | | **Pn** | **11 59 46.4** | **-0.3** |
| **MDNY** | **Mudanya-Bursa** | **1.23** | **4** | *e*Pn | | **Pn** | **11 59 46.4** | **-0.3** |
| **GONE** | **Gonen-Balikesi** | **1.24** | **318** | *e*PN | | **Pg** | **11 59 47.3** | **-0.2** |
| **GONE** | **Gonen-Balikesi** | **1.24** | **318** | *e*Pn | | **Pg** | **11 59 47.3** | **-0.2** |
| **GEMT** | **Gemlik** | **1.34** | **14** | *e*PN | | **Pn** | **11 59 48.3** | **+0.2** |
| **GEMT** | **Gemlik** | **1.34** | **14** | *e*Pn | | **Pb** | **11 59 48.3** | **+0.2** |
| **CAVI** | **Cavuskoy** | **1.35** | **38** | *e*PN | | **Pb** | **11 59 49.0** | **+0.1** |
| **CAVI** | **Cavuskoy** | **1.35** | **38** | *e*Pn | | **Pb** | **11 59 49.0** | **+0.1** |
| **EDC** | **Edincik** | **1.40** | **330** | *e*PN | | **Pn** | **11 59 49.0** | **0.0** |
| **EDC** | **Edincik** | **1.40** | **330** | *e*Pn | | **Pn** | **11 59 49.0** | **+0.1** |
| **ARMT** | **Armutlu** | **1.43** | **3** | *e*PN | | **Pn** | **11 59 49.6** | **+0.3** |
| **ARMT** | **Armutlu** | **1.43** | **3** | *e*Pn | | **Pn** | **11 59 49.7** | **+0.3** |
| **ADVT** | **Abdulvahap** | **1.50** | **30** | *e*PN | | **Pn** | **11 59 49.4** | **-0.9** |
| **ADVT** | **Abdulvahap** | **1.50** | **30** | *e*Pn | | **Pn** | **11 59 49.4** | **-0.9** |
| **SBT5** | **Esenkoy-Cinarc** | **1.50** | **3** | *e*PN | | **Pn** | **11 59 50.6** | **+0.4** |
| **SBT5** | **Esenkoy-Cinarc** | **1.50** | **3** | *e*Pn | | **Pn** | **11 59 50.6** | **+0.4** |
| **KRBG** | **Karabiga-Canak** | **1.69** | **318** | *e*PN | | **Pn** | **11 59 52.2** | **-0.8** |
| **KRBG** | **Karabiga-Canak** | **1.69** | **318** | *e*Pn | | **Pn** | **11 59 52.2** | **-0.8** |
| **BUY** | **Buyukada** | **1.73** | **9** | *e*PN | | **Pn** | **11 59 54.0** | **+0.5** |
| **BUY** | **Buyukada** | **1.73** | **9** | *e*Pn | | **Pn** | **11 59 54.1** | **+0.5** |
| **HRT** | **Hereke** | **1.82** | **22** | *e*PN | | **Pn** | **11 59 54.5** | **-0.3** |
| **HRT** | **Hereke** | **1.82** | **22** | *e*Pn | | **Pn** | **11 59 54.5** | **-0.3** |
| **SBT3** | **Marmara-Eregli** | **1.85** | **341** | *e*Pn | | **Pn** | **11 59 55.4** | **+0.4** |
| **SBT3** | **Marmara-Eregli** | **1.85** | **341** | *e*Pn | | **Pn** | **11 59 55.4** | **+0.4** |
| **GULT** | **Gulveren** | **1.87** | **46** | *e*PN | | **Pn** | **11 59 56.1** | **+0.7** |
| **GULT** | **Gulveren** | **1.87** | **46** | *e*Pn | | **Pn** | **11 59 56.1** | **+0.7** |
| **KAVV** | **Kandilli-Istan** | **1.94** | **6** | *e*PN | | **Pn** | **11 59 56.6** | **+0.2** |
| **KAVV** | **Kandilli-Istan** | **1.94** | **6** | *e*Pn | | **Pn** | **11 59 56.6** | **+0.2** |
| **ISK** | **Istanbul-Kandi** | **1.94** | **6** | *e*PN | | **Pn** | **11 59 56.6** | **+0.2** |
| **ISK** | **Istanbul-Kandi** | **1.94** | **6** | *e*Pn | | **Pn** | **11 59 56.6** | **+0.2** |
| **RKY** | **Sarkoy-Tekirda** | **1.98** | **322** | *e*PN | | **Pn** | **11 59 56.8** | **-0.1** |
| **RKY** | **Sarkoy-Tekirda** | **1.98** | **322** | *e*Pn | | **Pn** | **11 59 56.8** | **-0.1** |
| **LPK** | **Lapseki** | **1.98** | **309** | *e*PN | | **Pn** | **11 59 57.3** | **+0.3** |
| **LPK** | **Lapseki** | **1.98** | **309** | *e*Pn | | **Pn** | **11 59 57.3** | **+0.3** |
| **CTKS** | **Kestanelik-??a** | **2.11** | **355** | *e*PN | | **Pn** | **11 59 58.2** | **-0.5** |
| **CTKS** | **Kestanelik-??a** | **2.11** | **355** | *e*Pn | | **Pn** | **11 59 58.2** | **-0.5** |
| **KLYT** | **Kilyos** | **2.12** | **6** | *e*PN | | **Pn** | **11 59 59.4** | **+0.5** |
| **KLYT** | **Kilyos** | **2.12** | **6** | *e*Pn | | **Pn** | **11 59 59.4** | **+0.5** |
| **GELI** | **Tayfur-Gelibol** | **2.17** | **306** | *e*PN | | **Pn** | **12 00 00.1** | **+0.5** |
| **GELI** | **Tayfur-Gelibol** | **2.17** | **306** | *e*Pn | | **Pn** | **12 00 00.1** | **+0.5** |
| **BOZC** | **Bozcaada** | **2.22** | **289** | *e*PN | | **Pn** | **11 59 59.8** | **-0.4** |
| **BOZC** | **Bozcaada** | **2.22** | **289** | *e*Pn | | **Pn** | **11 59 59.8** | **-0.4** |
| **SIGR** | **SIGRI** | **2.27** | **273** | *e*PN | | **Pn** | **12 00 01.2** | **+0.4** |
| **SIGR** | **SIGRI** | **2.27** | **273** | *e*Pn | | **Pn** | **12 00 01.2** | **+0.4** |
| **ERIK** | **Erikli-Kesan** | **2.32** | **312** | *e*PN | | **Pn** | **12 00 01.4** | **-0.1** |
| **ERIK** | **Erikli-Kesan** | **2.32** | **312** | *e*Pn | | **Pn** | **12 00 01.5** | **-0.1** |
| **CTYL** | **Yalikoy Yolu** | **2.37** | **351** | *e*PN | | **Pn** | **12 00 02.8** | **+0.6** |
| **CTYL** | **Yalikoy Yolu** | **2.37** | **351** | *e*Pn | | **Pn** | **12 00 02.8** | **+0.6** |
| **KIZT** | **Kizilcal** | **2.44** | **95** | *e*PN | | **Pn** | **12 00 03.8** | **+0.5** |
| **KIZT** | **Kizilcal** | **2.44** | **95** | *e*Pn | | **Pn** | **12 00 03.8** | **+0.5** |
| **KORT** | **Korkueli** | **2.47** | **149** | *e*PN | | **Pn** | **12 00 04.0** | **+0.2** |
| **KORT** | **Korkueli** | **2.47** | **149** | *e*Pn | | **Pn** | **12 00 04.0** | **+0.2** |

*ISK **12** 12:14:25.4,38°.54N×43°.18E,h5km,MD2.6*
*ATA **12** 12:14:26.0±1.1,38°.62N×43°.26E,h22km±6km, ML2.7, MW2.8*
*ISCJB **12** 12:14:28.0±0.7,38°.62N±0°.04×43°.24E±0°.05,h11km±8km, Error ellipse: s-maj=6.8km s-min=6.0km az=42.1*
*CSEM **12** 12:14:27.8±0.3,38°.62N×43°.25E,h5km,ML2.8,Error ellipse: s-maj=6.8km s-min=5.9km az=63.0*
*DDA **12** 12:14:28.4,38°.63N×43°.20E,h7km,Ml2.8*

**ISC 12 12:14:27.7**±0.9,**38°.63N**±0°.03×**43°.26E**±0°.03,**h13**km±7km, **n18**,σ0**981**/33,**2D**,**Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **VANB** | **Van** | **0.11** | **108** | *e*PG | | **Pg** | **12 14 29.6** | **-1.3** |
| **VANB** | **Van** | **0.11** | **108** | *e*Pg | | **Pg** | **12 14 29.6** | **-1.3** |
| **TVAN** | **Van** | **0.15** | **130** | *i* P | | **Pg** | **12 14 32.0** | **+0.4** |
| TVAN | | | | *i* S | | **Sb** | **12 14 36.7** | **+0.9** |
| **TVAN** | **Van** | **0.15** | **130** | P | | **Pg** | **12 14 32.0** | **+0.4** |
| TVAN | | | | S | | **Sb** | **12 14 36.7** | **+0.9** |
| **GEVA** | **Gevas** | **0.35** | **206** | *i* P | | **Pg** | **12 14 34.0** | **-0.8** |
| GEVA | | | | *e*S | | **Sg** | **12 14 40.5** | **+0.8** |
| GEVA | | | | IAML | | | 12 14 41.9 | |
| | comp=Z,109nm,0.4s | | | | | | | |
| **GEVA** | **Gevas** | **0.35** | **206** | *i* P | | **Pg** | **12 14 34.3** | **-0.6** |
| GEVA | | | | *i* S | | **Sg** | **12 14 40.6** | **+0.9** |
| **GEVA** | **Gevas** | **0.35** | **206** | P | | **Pg** | **12 14 34.3** | **-0.6** |
| GEVA | | | | S | | **Sg** | **12 14 40.6** | **+0.9** |
| **ADCV** | **BITLIS_Adilcev** | **0.45** | **293** | *i* P | | **Pg** | **12 14 36.3** | **-0.4** |
| ADCV | | | | *i* S | | **Sg** | **12 14 43.9** | **+1.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.45** | **293** | P | | **Pg** | **12 14 36.3** | **-0.4** |
| ADCV | | | | S | | **Sg** | **12 14 43.9** | **+1.1** |
| **CLDR** | **Caldiran** | **0.73** | **45** | *e*PG | | **Pg** | **12 14 42.0** | **+0.1** |
| CLDR | | | | *e*SG | | **Sn** | **12 14 54.1** | **-1.0** |
| **CLDR** | **Caldiran** | **0.73** | **45** | *e*Pg | | **Pg** | **12 14 42.0** | **+0.1** |
| CLDR | | | | *e*Sg | | **Sn** | **12 14 54.1** | **-1.0** |
| **TUTA** | **Tutak** | **0.85** | **336** | *i* P | | **Pb** | **12 14 43.7** | **-0.7** |
| TUTA | | | | IAML | | | 12 14 47.9 | |
| | comp=Z,19nm,0.2s | | | | | | | |
| TUTA | | | | *e*S | | **Sb** | **12 14 55.9** | **+0.1** |
| **TUTA** | **Tutak** | **0.85** | **336** | *i* P | | **Pb** | **12 14 44.4** | **0.0** |
| TUTA | | | | *i* S | | **Sb** | **12 14 56.1** | **+0.3** |
| **TUTA** | **Tutak** | **0.85** | **336** | P | | **Pb** | **12 14 44.4** | **0.0** |
| TUTA | | | | S | | **Sb** | **12 14 56.1** | **+0.3** |
| **AGRB** | **Hanur-Agry** | **0.97** | **348** | *e*PG | | **Pb** | **12 14 46.0** | **-0.5** |
| AGRB | | | | *e*SG | | **Sn** | **12 15 00.9** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **0.97** | **348** | *e*Pg | | **Pb** | **12 14 46.0** | **-0.5** |
| AGRB | | | | *e*Sg | | **Sn** | **12 15 00.9** | **-0.1** |
| **EKAR** | **Karacoban** | **1.12** | **304** | *e*PN8 | | **Pn** | **12 14 49.7** | **+0.3** |
| EKAR | | | | IAML | | | 12 14 52.1 | |
| | comp=Z,6.9nm,0.7s | | | | | | | |
| **EATA** | **Eleskirt** | **1.37** | **334** | *e*P | | **Pn** | **12 14 51.9** | **-0.9** |
| EATA | | | | *e*S | | **Sg** | **12 15 13.7** | **+1.8** |
| EATA | | | | IAML | | | 12 15 15.3 | |
| | comp=Z,2.3nm,0.5s | | | | | | | |

*IDC **12** 12:25:29.8±4.5,2°.82S×131°.78E,h0km,mb3.7/2, mb1 3.9/3,mb1mx3.4/38,mbtmp3.6/3,ML3.7/1,Error ellipse: s-maj=298.4km s-min=27.6km az=73.0*
*DJA **12** 12:25:36.8±1.6,3°.5S×13°.1E±°,h13km±13km, M3.4/5, MLv3.4/5*
*ISCJB **12** 12:25:37.6±0.8,3°.14S±0°.08×130°.74E±0°.05,h33km, mb3.1/1, Error ellipse: s-maj=11.9km s-min=6.5km az=167.8*

**ISC 12 12:25:37.7**±1.0,**3°.16S**±0°.07×**130°.81E**±0°.05,**h35**km,**n10**, σ2**961**/12,**Seram**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **FAKI** | **Fak Fak** | **1.45** | **81** | P | | **Pn** | **12 26 02.3** | **+0.8** |
| FAKI | | | | S | | **Sn** | **12 26 22.4** | **+3.1** |
| **BNDI** | **Bandanaira** | **1.63** | **214** | P | | **Pn** | **12 26 05.2** | **+1.3** |
| BNDI | | | | S | | **Sn** | **12 26 22.9** | **-0.7** |
| **MSAI** | **Masohi** | **1.89** | **264** | P | | **Pn** | **12 26 09.5** | **+2.0** |
| MSAI | | | | S | | **Sn** | **12 26 35.0** | **+4.9** |
| **AAI** | **Ambon** | **2.67** | **259** | P | | **Pn** | **12 26 19.2** | **+1.0** |
| **NLAI** | **Namlea** | **3.71** | **269** | P | | Pn | 12 26 42.2 | +10 |
| **LBMI** | **Labuha** | **4.15** | **307** | S | | **Sn** | **12 27 23.2** | **-2.8** |
| **SANI** | **Sanana** | **4.95** | **283** | S | | **Sn** | **12 27 45.6** | **0.0** |
| **WRA** | **Warramunga Arr** | **17.03** | **169** | P | | **Pn** | **12 29 29.9** | **-3.4** |
| | 0.3nm,0.3s,baz=352,slow=11,SNR=19 | | | | | | | |
| **ASAR** | **Alice Springs** | **20.60** | **172** | P | | **P** | **12 30 13.9** | **-0.1** |
| | 3.9nm,0.3s,baz=353,slow=11,SNR=220 | | | | | | | |
| **MKAR** | **Makanchi Array** | **65.51** | **326** | P | | **P** | **12 36 16.8** | **-0.7** |
| | 0.1nm,0.5s,baz=107,slow=7.9,SNR=2.3 | | | | | | | |

*IDC **12** 12:25:56.2±2.7,3°.28S×130°.43E,h0km,mb4.0/2, mb1 4.0/4,mb1mx3.5/40,mbtmp3.8/4,ML3.7/1,Error ellipse: s-maj=135.2km s-min=28.9km az=74.0*
*ISCJB **12** 12:25:58.6±1.3,3°.41S±0°.08×130°.5E±0°.2,h31km,mb3.5/1, Error ellipse: s-maj=24.0km s-min=9.8km az=163.7*

**ISC 12 12:25:59.0**±1.6,**3°.4S**±0°.1×**130°.7E**±0°.2,**h31**km,**n6**,σ3**924**/8, **Seram**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **LBMI** | **Labuha** | **4.20** | **311** | P | | **Pn** | **12 27 00.1** | **-0.8** |
| **SANI** | **Sanana** | **4.87** | **286** | P | | **Pn** | **12 27 09.7** | **-0.4** |
| **FITZ** | **Fitzroy Crossi** | **15.41** | **198** | Pn | | **Pn** | **12 29 34.5** | **+0.1** |
| | baz=22,slow=11 | | | | | | | |
| FITZ | | | | Sn | | **Sn** | **12 32 24.1** | **-0.1** |
| | 0.1nm,0.3s,baz=268,slow=20,SNR=2.7 | | | | | | | |
| **WRA** | **Warramunga Arr** | **16.82** | **168** | Pn | | **Pn** | **12 29 53.4** | **+1.1** |
| | 0.3nm,0.3s,baz=350,slow=12,SNR=7.1 | | | | | | | |
| WRA | | | | Sn | | **Sn** | **12 32 52.8** | **-5.6** |
| | 0.1nm,0.3s,baz=355,slow=22,SNR=3.4 | | | | | | | |
| **ASAR** | **Alice Springs** | **20.38** | **171** | P | | Pn | 12 30 37.7 | +2.2 |
| | 6.7nm,0.3s,baz=352,slow=11,SNR=26 | | | | | | | |
| ASAR | | | | S | | **S** | **12 34 24.6** | **+4.3** |
| | 1.1nm,0.9s,baz=352,slow=20,SNR=5.0 | | | | | | | |
| **MKAR** | **Makanchi Array** | **65.63** | **326** | P | | **P** | **12 36 40.6** | **+0.4** |
| | 0.3nm,0.6s,baz=108,slow=7.2,SNR=3.3 | | | | | | | |

*IDC **12** 12:33:27.1±1.9,3°.22S×130°.46E,h0km,mb4.2/3, mb1 4.3/4,mb1mx3.6/47,mbtmp4.2/4,ML3.8/1,Error ellipse: s-maj=117.0km s-min=24.8km az=71.0*
*ISCJB **12** 12:33:28.2±0.6,3°.16S±0°.05×130°.63E±0°.05,h24km, mb3.8/2,Error ellipse: s-maj=8.0km s-min=6.2km az=158.4*
*DJA **12** 12:33:32.8±1.6,3°.S±4°×13°.1E±°,h38km±42km, M4.1/7, mB5.1/1,mb4.4/1,MLv3.9/7,Mw(mB)4.5/1*

**ISC 12 12:33:29.7**±0.8,**3°.15S**±0°.06×**130°.73E**±0°.05,**h24**km,**n15**, σ1**984**/18,**Seram**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **FAKI** | **Fak Fak** | **1.53** | **81** | P | | **Pb** | **12 33 57.3** | **-0.1** |
| FAKI | | | | S | | **Sb** | **12 34 16.9** | **+0.5** |
| **BNDI** | **Bandanaira** | **1.59** | **211** | P | | **Pb** | **12 34 00.0** | **+1.6** |
| **MSAI** | **Masohi** | **1.81** | **264** | P | | **Pb** | **12 34 02.5** | **+0.3** |
| **SWI** | **Sorong** | **2.34** | **13** | P | | **Pn** | **12 34 07.0** | **+0.4** |
| SWI | | | | S | | **Sn** | **12 34 33.4** | **-1.2** |
| **AAI** | **Ambon** | **2.59** | **258** | P | | Pn | 12 34 03.0 | -7.1 |
| **NLAI** | **Namlea** | **3.63** | **269** | P | | **Pn** | **12 34 26.8** | **+2.4** |
| **RKPI** | **Ransiki, Papua** | **3.81** | **65** | P | | **Pn** | **12 34 29.2** | **+2.3** |
| RKPI | | | | S | | **Sn** | **12 35 12.3** | **+1.3** |
| **LBMI** | **Labuha** | **4.08** | **308** | P | | **Pn** | **12 34 31.4** | **+0.7** |
| **SANI** | **Sanana** | **4.87** | **283** | P | | **Pn** | **12 34 40.1** | **-1.3** |
| **LUWI** | **Luwuk** | **8.23** | **285** | P | | **Pn** | **12 35 27.6** | **-0.1** |
| **FITZ** | **Fitzroy Crossi** | **15.67** | **198** | Pn | | **Pn** | **12 37 06.5** | **-2.6** |
| | 0.3nm,0.3s,baz=27,slow=6.8,SNR=10 | | | | | | | |
| FITZ | | | | Sn | | Sn | 12 39 53.2 | -9.0 |
| | 0.2nm,0.3s,baz=38,slow=12,SNR=2.3 | | | | | | | |
| **WRA** | **Warramunga Arr** | **17.05** | **168** | Pn | | **Pn** | **12 37 22.6** | **-4.2** |
| | 0.3nm,0.3s,baz=354,slow=13,SNR=18 | | | | | | | |
| WRA | | | | Sn | | Sn | 12 40 25.1 | -11 |
| | 0.4nm,0.3s,baz=355,slow=22,SNR=6.2 | | | | | | | |
| **ASAR** | **Alice Springs** | **20.62** | **172** | P | | **P** | **12 38 08.8** | **+1.3** |
| | 17nm,0.3s,baz=353,slow=11,SNR=666 | | | | | | | |
| ASAR | | | | S | | **S** | **12 41 54.8** | **-2.3** |
| | 1.7nm,0.8s,baz=358,slow=26,SNR=8.3 | | | | | | | |
| **STKA** | **Stephens Creek** | **30.34** | **161** | P | | **P** | **12 39 40.3** | **+0.6** |
| | 0.8nm,0.4s,baz=347,slow=8.8,SNR=3.5 | | | | | | | |
| **MKAR** | **Makanchi Array** | **65.46** | **326** | P | | **P** | **12 44 11.4** | **+0.6** |
| | 0.4nm,0.5s,baz=116,slow=8.1,SNR=11 | | | | | | | |

*ISC

**USRK Ussuriysk Ar.** 14.79 264 P **Pn** 12 46 46.0 +0.5
comp=Z,1.0nm,0.3s,baz=70,slow=12,SNR=11
**SEY Seymchan** 15.18 360 P **P** 12 46 51.5 -0.8
comp=Z,0.9nm,0.3s,baz=187,slow=9.9,SNR=29
**SEY Seymchan** 15.18 360⇑ *e*P **Pn** 12 46 48.8 -1.4
**SEY Seymchan** 15.18 360 *e*P **Pn** 12 46 48.8 -1.4
**MJAR Matsushiro Ar** 15.49 229 P **Pn** 12 46 54.9 +0.5
comp=Z,0.3nm,0.3s,baz=24,slow=12,SNR=3.3
**BMKR Bomnak** 16.38 304 *e*P **Pn** 12 47 04.5 -0.6
BMKR AMB AMB 12 47 10.4
comp=Z,6.0nm,0.5s
**ZEA Zeya** 17.07 300 *e*P **P** 12 47 11.0 -2.3
**KROS Kirovskiy** 17.37 302 *e*P **P** 12 47 14.0 -2.6
KROS AMB AMB 12 47 22.8
comp=Z,7.0nm,0.5s
**YAK Yakutsk** 19.27 326 P **P** 12 47 38.0 +0.9
comp=Z,0.0nm,0.3s,baz=220,slow=5.2,SNR=9.4
**YAK Yakutsk** 19.27 326 *e*P **Pn** 12 47 38.7 -0.8
YAK pmax pmax
comp=Z,14nm,0.9s
YAK pmax pmax
comp=N,4.0nm,1.4s
YAK pmax pmax
comp=E,6.0nm,1.2s
**YAK Yakutsk** 19.27 326 *e*P **Pn** 12 47 38.7 -0.8
**YAK Yakutsk** 19.27 326 *e*P **P** 12 47 38.0 +0.9
comp=E,24nm,0.6s
**KSRS Korea Array** 20.83 249 P **P** 12 47 54.6 +0.4
comp=E,4.0nm,0.7s,baz=54,slow=9.8,SNR=13
**KS01 Wonju Array Si** 20.84 249 *e*P **P** 12 47 53.9 -0.3
**KS15 Wonju Array Si** 20.86 249 *e*P **P** 12 47 54.6 0.0
**KSAR Wonju Array Be** 20.86 249 P **P** 12 47 54.6 0.0
**KSAR Wonju Array Be** 20.86 249 *e*P **P** 12 47 54.6 0.0
**KSAR Wonju Array Be** 20.86 249 P **P** 12 47 54.6 0.0
**BOD Bodaibo** 25.08 308 *e*P **P** 12 48 34.3 -0.8
BOD pmax pmax
comp=Z,6.0nm,0.9s
**BOD Bodaibo** 25.08 308 *e*P **P** 12 48 34.3 -0.8
**TIK Tiksi** 26.36 343 *e*P **P** 12 48 45.2 -1.3
**TIXI Tiksi** 26.37 343 P **P** 12 48 45.7 -0.9
comp=Z,3.0nm,0.4s,baz=157,slow=11,SNR=8.3
**TIXI Tiksi** 26.37 343⇑ *e*P **P** 12 48 45.3 -1.3
TIXI *i* *PP **pP** 12 49 15.9 +1.7
TIXI pmax pmax
comp=Z,2.0nm,0.8s
**TIXI Tiksi** 26.37 343 *e*P **P** 12 48 45.6 -1.0
comp=Z,9.8nm,1.4s
**ULN Ulaanbaatar** 30.26 287⇓ *e*P **P** 12 49 19.1 -2.6
ULN pmax pmax
comp=Z,1.0nm,1.0s
**H11N2 WAKE ISLAND Hy** 30.30 153 T T 13 21 03.9
baz=340,slow=76,SNR=297
**H11N1 WAKE ISLAND Hy** 30.31 153 T T 13 21 10.3
baz=340,slow=76,SNR=214
**H11N3 WAKE ISLAND Hy** 30.31 153 T T 13 21 19.6
baz=340,slow=76,SNR=174
**SONA0 Songino Array** 30.70 288 *e*P **P** 12 49 25.2 -0.2
**SONM Songino Array** 30.70 288 P **P** 12 49 25.2 -0.2
comp=Z,1.0nm,0.5s,baz=65,slow=8.2,SNR=5.5
**H11S1 WAKE ISLAND Hy** 31.39 154 T T 13 22 38.8
baz=341,slow=76,SNR=209
**H11S3 WAKE ISLAND Hy** 31.40 154 T T 13 22 25.2
baz=341,slow=76,SNR=262
**H11S2 WAKE ISLAND Hy** 31.41 154 T T 13 22 25.1
baz=341,slow=76,SNR=167
**BPAW Bear Paw Mtn.** 34.16 41 *e*P **P** 12 49 52.3 -3.0
comp=E,68nm,1.7s
**COLD Coldfoot** 34.66 35 *e*P **P** 12 50 00.1 +0.6
comp=Z,2.0nm,0.6s
**COLA College** 35.52 39 *e*P **P** 12 50 07.9 +1.0
**ILAR Eielson Array** 35.94 39 P **P** 12 50 10.8 +0.3
comp=Z,0.6nm,0.4s,baz=266,slow=5.8,SNR=24
**ILAR Eielson Array** 35.94 39 *e*P **P** 12 50 11.1 +0.5
ILAR pmax pmax
comp=Z,1.0nm,0.4s
**ILAR Eielson Array** 35.94 39 *e*P **P** 12 50 11.0 +0.5
**ILB Eielson Array** 35.94 39 *e*P **P** 12 50 10.8 +0.3
**INK Inuvik** 40.95 33 P **P** 12 50 53.6 +1.4
comp=Z,2.4nm,0.5s,baz=300,slow=7.3,SNR=34
**INK Inuvik** 40.95 33 *e*P **P** 12 50 52.9 +0.7
INK pmax pmax
comp=Z,30nm,2.0s
**INK Inuvik** 40.95 33 *e*P **P** 12 50 52.9 +0.7
**INK Inuvik** 40.95 33 *e*P **P** 12 50 52.9 +0.7
comp=Z,30nm,2.0s
**ZAA1 Zalesovo Array** 41.74 305 *e*P **P** 12 50 57.9 -1.1
ZAA1 *e*pP **pP** 12 51 28.9 +0.9
ZAA1 *e*PcP **PcP** 12 52 52.6 -0.1
**ZALV Zalesovo Beam** 41.74 305 P **P** 12 50 57.9 -1.1
comp=Z,6.5nm,0.5s,baz=65,slow=6.9,SNR=26
ZALV pP **pP** 12 51 28.9 +0.9
comp=Z,1.5nm,0.5s,baz=75,slow=6.7,SNR=3.4
ZALV PcP **PcP** 12 52 52.6 -0.1
comp=Z,0.7nm,0.3s,baz=101,slow=2.9,SNR=4.1
**DGZ Jazzator, Alta** 41.82 298⇑ *e*P **P** 12 50 59.6 -0.2
DGZ pmax pmax
comp=Z,2.0nm,1.5s
**NVS Novosibirsk** 42.30 306 *e*P **P** 12 51 03.1 -0.3
NVS pmax pmax
comp=Z,4.0nm,0.6s
NVS pmax pmax
comp=E,3.0nm,0.8s
**NVS Novosibirsk** 42.30 306 *e*P **P** 12 51 03.1 -0.3
**MK31 Makanchi Array** 46.18 296 *e*P **P** 12 51 33.8 -0.7
**MK31 Makanchi Array** 46.18 296 *e*P **P** 12 51 33.8 -0.7
**MK32 Makanchi Array** 46.18 296 *e*P **P** 12 51 33.8 -0.7
MK32 *e*PcP **PcP** 12 53 09.0 +0.9
**MKAR Makanchi Array** 46.18 296 P **P** 12 51 33.7 -0.7
comp=E,2.6nm,0.8s,baz=64,slow=6.9,SNR=23
MKAR PcP **PcP** 12 53 09.0 +0.9
comp=E,0.7nm,0.5s,baz=36,slow=2.7,SNR=4.5
**MKAR Makanchi Array** 46.18 296 *e*P **P** 12 51 33.5 -1.0
MKAR pmax pmax
comp=Z,3.0nm,0.8s
**MK01 Makanchi Array** 46.19 296 *e*P **P** 12 51 33.6 -0.9
**KURK Kurchatov** 46.52 303 *c i*P **P** 12 51 36.0 -1.0
KURK pmax pmax
comp=Z,15nm,0.7s
**KURK Kurchatov** 46.52 303 *e*P **P** 12 51 36.0 -1.0
**KURK Kurchatov** 46.52 303 *e*P **P** 12 51 36.7 -0.3
comp=Z,15nm,0.7s
KURK *e*P **P** 12 51 37.4 +0.4
KURK *e*PcP **PcP** 12 53 09.4 +0.3
**KURBB Kurchatov Arra** 46.62 303 P **P** 12 51 37.4 -0.4
comp=Z,13nm,0.6s,baz=67,slow=8.3,SNR=26
KURBB PcP **PcP** 12 53 09.5 0.0
comp=Z,0.9nm,0.2s,baz=70,slow=4.2,SNR=2.1
**LSA Lhasa** 49.91 272 *e*P **P** 12 52 03.7 -0.1
LSA pmax pmax
comp=Z,8.0nm,0.5s
**LSA Lhasa** 49.91 272 *e*P **P** 12 52 03.7 -0.1
comp=Z,7.7nm,0.5s
**BVAR Borovoye Array** 49.95 309 P **P** 12 52 03.2 -0.2
comp=Z,3.6nm,0.4s,baz=53,slow=8.5,SNR=25
BVAR pP **pP** 12 52 38.2 +4.9
comp=Z,1.6nm,0.6s,baz=51,slow=9.7,SNR=2.7
BVAR PcP **PcP** 12 53 21.7 +0.2
comp=Z,1.4nm,0.5s,baz=76,slow=6.1,SNR=5.0
**BRVK Borovoye** 49.99 309 *d i*P **P** 12 52 03.4 -0.2
BRVK pmax pmax
comp=Z,9.0nm,0.8s
**BRVK Borovoye** 49.99 309 *e*P **P** 12 52 03.4 -0.2
**BRVK Borovoye** 49.99 309 *e*P **P** 12 52 03.6 0.0
comp=Z,7.9nm,0.8s
**YKA Yellowknife Ar** 50.28 37 P **P** 12 52 06.4 +0.8
comp=Z,0.9nm,0.5s,baz=299,slow=7.0,SNR=8.7
**SPITS Spitsbergen Ar** 51.53 350 P **P** 12 52 14.2 -0.6
comp=Z,9.9nm,1.1s,baz=23,slow=11,SNR=12
**CHTO Chiang Mai** 52.06 255 *e*P **P** 12 52 20.2 +0.7
CHTO pmax pmax
comp=Z,5.0nm,0.8s
**CHTO Chiang Mai** 52.06 255 *e*P **P** 12 52 20.2 +0.7
comp=Z,5.3nm,0.8s
**CM31 Chiang Mai Arr** 52.31 255 *e*P **P** 12 52 21.8 +0.4
**CMAR Chiang Mai Arr** 52.31 255 P **P** 12 52 22.0 +0.6
comp=Z,2.5nm,0.7s,baz=34,slow=7.5,SNR=15
**CMAR Chiang Mai Arr** 52.31 255 *e*P **P** 12 52 22.3 +0.9
CMAR pmax pmax
comp=Z,3.0nm,0.8s
**CMAR Chiang Mai Arr** 52.31 255 *e*P **P** 12 52 22.3 +0.9
**CM01 Chiang Mai Arr** 52.33 255 *e*P **P** 12 52 21.4 -0.1
**AAK Ala-Archa** 53.09 295⇓ *e*P **P** 12 52 26.9 -0.1
AAK pmax pmax
comp=Z,3.0nm,1.0s
**AAK Ala-Archa** 53.09 295 *e*P **P** 12 52 26.9 -0.1

**AAK Ala-Archa** 53.09 295 *e*P **P** 12 52 27.0 -0.1
comp=Z,2.1nm,0.7s
**TULEG Thule** 53.16 11 *e*P **P** 12 52 26.7 -0.1
comp=Z,10nm,0.8s
**TAPN Taplejung** 53.73 272 *e*P **P** 12 52 32.2 +0.2
comp=Z,14nm,0.7s
**KSH Kashi** 53.96 291 P P 12 52 38.5 +5.1
KSH PcP **PcP** 12 53 40.9 +3.9
KSH PP **PP** 12 54 43.1 +7.4
KSH pmax pmax
comp=Z,2.0nm,0.6s
KSH pmax pmax
comp=Z,85nm,3.7s
KSH LR LR
comp=Z,190nm,6.7s
KSH LR LR
comp=Z,240nm,6.3s
KSH LR LR
comp=Z,350nm,8.2s
**ARU Arti** 54.03 317 P **P** 12 52 32.8 -0.7
comp=Z,5.7nm,0.3s,baz=76,slow=3.3,SNR=12
**ARU Arti** 54.03 317 *d i*P **P** 12 52 32.7 -0.7
ARU 12 53 35.6
ARU 12 54 31.7
ARU S **S** 12 59 58.7 -0.4
ARU SS **SKiKP** 13 03 32.8 +1.5
ARU pmax pmax
comp=Z,25nm,2.5s
**ARU Arti** 54.03 317 *e*P **P** 12 52 32.6 -0.8
**ARU Arti** 54.03 317 *e*P **P** 12 52 32.5 -0.9
comp=Z,16nm,1.3s
**ODAN Odare** 54.26 272 *e*P **P** 12 52 36.2 +0.4
comp=Z,8.1nm,0.5s
**MNAS Manas** 54.38 296 P **P** 12 52 35.7 -0.7
MNAS pmax pmax
comp=Z,5.0nm,0.9s
**JIRN Jiri** 54.55 273 *e*P **P** 12 52 38.5 +0.4
comp=Z,62nm,0.3s
**GUN Gumba** 54.60 274 *e*P **P** 12 52 38.6 +0.2
comp=Z,7.0nm,0.3s
**RAMN Ramite** 54.74 273 *e*P **P** 12 52 39.4 +0.1
comp=Z,51nm,0.7s
**KKN Kakani** 55.08 274 *e*P **P** 12 52 42.6 +0.9
**PKI Pulchoki** 55.13 274 *e*P **P** 12 52 42.3 +0.1
comp=Z,8.5nm,0.5s
**PKIN Phulchoki** 55.14 274 *e*P **P** 12 52 42.3 +0.1
comp=Z,8.4nm,0.5s
**SFK Sufi-Kurgan** 55.21 293 P **P** 12 52 42.3 -0.2
**DMN Daman** 55.31 274 *e*P **P** 12 52 44.1 +0.7
comp=Z,25nm,0.6s
**GKN Gorkha** 55.37 275 *e*P **P** 12 52 44.6 +0.9
comp=Z,0.7nm,0.2s
**DAG Danmarks Havn** 55.59 358 *i* P **P** 12 52 44.3 0.0
**DAG Danmarks Havn** 55.59 358 *e*P **P** 12 52 44.3 0.0
**DAG Danmarks Havn** 55.59 358 *i* P **P** 12 52 44.3 0.0
**DANN Dangsing** 55.74 276 *e*P **P** 12 52 47.5 +1.0
**KOLN Koldanda** 56.22 275 *e*P **P** 12 52 50.2 +0.4
**KULLO Kullorsuaq** 56.28 9 *i* P **P** 12 52 49.1 -0.2
KULLO pmax pmax
comp=Z,21nm,0.7s
**KULLO Kullorsuaq** 56.28 9 *i* P **P** 12 52 49.1 -0.2
comp=Z,21nm,0.7s
**PYUN Piuthan** 56.42 276 *e*P **P** 12 52 51.7 +0.5
**ARA0 ARCESS Array S** 56.76 340 *e*P **P** 12 52 52.4 -0.4
**ARCES ARCESS Array B** 56.76 340 P **P** 12 52 52.4 -0.4
comp=Z,2.9nm,0.7s,baz=26,slow=7.8,SNR=18
**AKTO Aktyubinsk** 57.79 311 P **P** 12 52 59.2 -1.1
comp=Z,0.9nm,0.4s,baz=67,slow=9.8,SNR=4.8
**SUMG Summit** 59.68 4 *i* P **P** 12 53 14.2 +0.7
SUMG pmax pmax
comp=Z,30nm,0.9s
**SUMG Summit** 59.68 4 *i* P **P** 12 53 14.2 +0.7
comp=Z,30nm,0.9s
**SUMG Summit** 59.68 4 *e*P **P** 12 53 14.6 +1.1
comp=Z,29nm,0.9s
**OUL Oulu** 60.13 337 P **P** 12 53 14.1 -2.0
**FFC Flin Flon** 60.15 40 *e*P **P** 12 53 16.9 +0.4
**JOF Joensuu** 60.26 333 P **P** 12 53 16.3 -0.7
JOF pmax pmax
comp=Z,13nm,2.5s
**KBL Kabul** 61.39 291 P **P** 12 53 23.9 -1.6
KBL pmax pmax
comp=Z,8.0nm,0.7s
**SUF Sumiainen** 61.92 335 P **P** 12 53 27.8 -0.5
SUF pmax pmax
comp=Z,11nm,1.3s
**FIA0 FINESS Array S** 62.96 334 *e*P **P** 12 53 34.8 -0.4
**FIA0 FINESS Array S** 62.96 334 *e*P **P** 12 53 34.8 -0.4
**FINES FINESS Array B** 62.96 334 P **P** 12 53 34.8 -0.4
comp=Z,4.4nm,0.4s,baz=37,slow=7.5,SNR=36
**PD31 Pinedale Array** 64.39 54 *e*P **P** 12 53 45.1 -0.2
**PDAR Pinedale Array** 64.39 54 P **P** 12 53 45.3 +0.1
comp=Z,0.4nm,0.6s,baz=267,slow=1.4,SNR=4.6
**GEYT Alibeck** 65.80 300 P **P** 12 53 53.7 -0.4
comp=Z,1.8nm,0.5s,baz=69,slow=4.9,SNR=5.0
**NB2 NORSAR Subarra** 67.14 341 P **P** 12 54 02.2 0.0
comp=Z,2.7nm,0.6s,baz=29,slow=6.5
**NB200 NORSAR Array S** 67.14 341 *e*P **P** 12 54 02.3 0.0
**NOA NORSAR Array B** 67.14 341 P **P** 12 54 02.3 0.0
comp=Z,2.3nm,0.7s,baz=31,slow=6.7,SNR=9.5
**NOA NORSAR Array B** 67.14 341 *e*P **P** 12 54 02.2 0.0
NOA pmax pmax
comp=Z,3.0nm,0.8s
**MAK Makhachkala** 68.15 310 *e*P **P** 12 54 10.3 +1.5
MAK *e**PP **PcP** 12 54 36.0 +2.1
MAK *e* 12 56 38.3
MAK *e*S **S** 13 03 04.5 +6.3
MAK *e**SS **SKiKP** 13 03 49.5 -0.7
MAK MLR MLR
comp=Z,202nm,10.0s
**WR1 Warramunga Arr** 69.40 198 *e*P **P** 12 54 15.0 -1.7
comp=Z,13nm,1.5s
**WRA Warramunga Arr** 69.40 198 P **P** 12 54 15.0 -1.7
comp=Z,0.8nm,0.7s,baz=16,slow=6.4,SNR=8.3
**KIV Kislovodsk** 69.84 314 *e*P **P** 12 54 18.1 -1.3
KIV pmax pmax
comp=Z,10.0nm,1.0s
**KIV Kislovodsk** 69.84 314 *e*P **P** 12 54 18.1 -1.3
**KBZ Khabaz** 69.91 313 P **P** 12 54 20.2 +0.5
comp=Z,5.2nm,0.8s,baz=76,slow=2.9,SNR=11
**AKASG Malin Array Be** 70.50 326 P **P** 12 54 22.4 -0.8
comp=Z,1.9nm,0.4s,baz=34,slow=6.4,SNR=16
**AKBB Malin Array Si** 70.50 326 *e*P **P** 12 54 22.7 -0.5
AKBB pmax pmax
comp=Z,10.0nm,1.3s
**AKBB Malin Array Si** 70.50 326 *e*P **P** 12 54 22.7 -0.5
comp=Z,10nm,1.3s
**AS31 Alice Springs** 73.10 198 *e*P **P** 12 54 38.2 -0.7
comp=Z,1.0nm,0.9s
AS31 *e*pP **pP** 12 55 11.3 +0.2
**ASAR Alice Springs** 73.10 198 P **P** 12 54 38.2 -0.7
comp=Z,2.7nm,0.8s,baz=9.7,slow=5.3,SNR=37
ASAR pP **pP** 12 55 11.3 +0.2
comp=Z,0.4nm,0.7s,baz=11,slow=5.0,SNR=1.6
**STHS Stebnicka Huta** 74.45 329 *e*P **P** 12 54 47.2 +0.5
STHS pmax pmax
comp=Z,4.0nm,0.9s
**STHS Stebnicka Huta** 74.45 329 *e*P **P** 12 54 47.2 +0.5
**KSP Ksiaz** 74.82 333 P **P** 12 54 49.2 +0.5
KSP pmax pmax
comp=Z,9.0nm,0.9s
**KSP Ksiaz** 74.82 333 *e*P **P** 12 54 49.2 +0.5
**DPC Dobruska-Polom** 75.25 333 *e*P **P** 12 54 51.9 +0.7
**DPC Dobruska-Polom** 75.25 333 *e*P **P** 12 54 51.9 +0.7
**EKA Eskdalemuir Ar** 75.25 346 P **P** 12 54 52.0 +0.9
comp=Z,1.4nm,0.3s,baz=25,slow=4.8,SNR=6.1
**EKA Eskdalemuir Ar** 75.25 346 *e*P **P** 12 54 52.0 +0.9
EKA pmax pmax
comp=Z,1.0nm,0.3s
**LANS Liptovska Anna** 75.28 330 *e*P **P** 12 54 53.0 +1.5
**LANS Liptovska Anna** 75.28 330 *e*P **P** 12 54 53.0 +1.5
**MORC Moravsky Berou** 75.36 332⇓ *i*P **P** 12 54 52.4 +0.5
**MORC Moravsky Berou** 75.36 332 P **P** 12 54 51.4 -0.5
MORC pmax pmax
comp=Z,36nm,1.1s
**CLL Collm** 75.38 335⇑ *i*P **P** 12 54 51.8 -0.1
CLL pmax pmax
comp=Z,18nm,0.6s
**CLL Collm** 75.38 335⇑ *i*P **P** 12 54 51.8 -0.1
comp=Z,18nm,0.6s
CLL *e*PcP **PcP** 12 55 04.0 -0.5
**CLL Collm** 75.38 335 *e*P **P** 12 54 51.8 -0.1
**BRG Berggiesshubel** 75.50 334 P **P** 12 54 52.2 -0.4
BRG pmax pmax
comp=Z,7.0nm,0.8s

**BRG Berggiesshubel** 75.50 334 *e*P **P** 12 54 52.2 -0.4
**KECS Kecovo** 75.51 329 *e*P **P** 12 54 53.5 +0.8
**KECS Kecovo** 75.51 329 *e*P **P** 12 54 53.5 +0.8
**CLZ Clausthal** 75.62 337 P **P** 12 54 54.2 +0.9
CLZ pmax pmax
comp=Z,29nm,0.9s
**MLR Muntele Rosu** 76.03 324 P **P** 12 54 56.7 +0.8
comp=Z,1.5nm,0.5s,baz=336,slow=3.9,SNR=11
**MLR Muntele Rosu** 76.03 324⇑ *i*P **P** 12 54 56.8 +0.9
**MLR Muntele Rosu** 76.03 324 *e*P **P** 12 54 56.1 +0.2
comp=Z,11nm,1.1s
**VYHS Vyhne** 76.06 330 *e*P **P** 12 54 56.4 +0.5
VYHS pmax pmax
comp=Z,19nm,2.3s
**VYHS Vyhne** 76.06 330 *e*P **P** 12 54 56.4 +0.5
**VRAC Vranov** 76.08 332 P **P** 12 54 56.4 +0.4
comp=Z,4.7nm,0.5s,baz=74,slow=3.4,SNR=4.7
**VRAC Vranov** 76.08 332⇑ *i*P **P** 12 54 56.7 +0.8
**ISR Istrita** 76.10 324⇓ *i*P **P** 12 54 57.1 +0.9
**ISR Istrita** 76.10 324 P **P** 12 54 57.1 +0.9
ISR pmax pmax
comp=Z,22nm,1.9s
**GOPC GO Pecny, Ondr** 76.10 333 *e*P **P** 12 54 56.7 +0.6
**GOPC GO Pecny, Ondr** 76.10 333 *e*P **P** 12 54 56.7 +0.6
**PRU Pruhonice** 76.11 334 *e*P **P** 12 54 56.7 +0.6
**PRU Pruhonice** 76.11 334 *e*P **P** 12 54 56.7 +0.6
**PRU Pruhonice** 76.11 334 *e*P **P** 12 54 56.7 +0.6
**MOX Moxa** 76.36 336 P **P** 12 54 57.4 -0.1
**MOX Moxa** 76.36 336 *e*P **P** 12 54 57.4 -0.1
**VOIR** 76.42 325⇑ *i*P **P** 12 54 58.7 +0.7
**VOIR** 76.42 325 P **P** 12 54 58.9 +0.9
**MODS Modra-Piesok** 76.67 331 *e*P **P** 12 54 58.3 -1.0
**MODS Modra-Piesok** 76.67 331 *e*P **P** 12 54 58.3 -1.0
**KHC Kasperske Hory** 77.16 334 *e*P **P** 12 55 02.8 +0.7
KHC *ex* x 12 55 05.9
**KHC Kasperske Hory** 77.16 334 *e*P **P** 12 55 02.8 +0.7
KHC *e* 12 55 05.9
**KHC Kasperske Hory** 77.16 334 *e*P **P** 12 55 02.7 +0.7
**LTX Lajitas** 77.26 60 *e*P **P** 12 55 02.7 -0.4
LTX *e**PP **pP** 12 55 36.7 +1.3
**LTX Lajitas** 77.26 60 *e*P **P** 12 55 02.6 -0.4
LTX *e*pP **pP** 12 55 36.7 +1.3
**TXAR Lajitas Array** 77.26 60 P **P** 12 55 02.6 -0.4
comp=Z,0.9nm,0.5s,baz=299,slow=4.8,SNR=30
TXAR pP **pP** 12 55 36.7 +1.3
comp=Z,1.1nm,0.6s,baz=300,slow=4.5,SNR=6.5
**GRF Grafenberg Arr** 77.33 335 P **P** 12 55 03.9 +0.9
GRF pmax pmax
comp=Z,42nm,0.7s
**WET Wettzell** 77.35 334 P **P** 12 55 03.8 +0.7
WET pmax pmax
comp=Z,18nm,1.8s
**GERES GERESS Array B** 77.38 334 P **P** 12 55 03.6 +0.2
comp=Z,2.3nm,0.4s,baz=33,slow=5.6,SNR=18
**BR101 Keskin Array S** 77.41 316 *e*P **P** 12 55 04.2 +0.4
**BRTR Keskin Array B** 77.41 316 P **P** 12 55 04.2 +0.4
comp=Z,2.8nm,0.9s,baz=80,slow=4.4,SNR=11
**CONA Conrad Observa** 77.52 332 *i* P **P** 12 55 05.5 +1.3
comp=Z,7.4nm,0.6s
**MEM Membach** 77.86 339 P **P** 12 55 06.5 +0.7
MEM pmax pmax
comp=Z,20nm,1.0s
**MOA Molln** 78.09 333 *i* P **P** 12 55 08.4 +1.2
comp=Z,6.9nm,1.0s
**ARSA Arzberg** 78.23 332 *i* P **P** 12 55 08.5 +0.5
comp=Z,4.2nm,0.6s
**SOKA Soboth** 78.89 332 *i* P **P** 12 55 12.4 +0.6
comp=Z,12nm,1.1s
**KBA Koelnbreinsper** 79.06 333 P **P** 12 55 14.0 +1.2
KBA pmax pmax
comp=Z,23nm,1.1s
**KBA Koelnbreinsper** 79.06 333 *i* P **P** 12 55 13.9 +1.2
comp=Z,24nm,0.9s
**WATA Walderalm** 79.36 334 *i* P **P** 12 55 15.2 +0.8
comp=Z,7.7nm,0.5s
**BFO Black Forest** 79.36 337 *i* P **P** 12 55 15.6 +1.4
**MYKA Terra Mystica** 79.37 333 *i* P **P** 12 55 15.1 +0.8
comp=Z,4.7nm,0.8s
**WTTA Wattenberg** 79.41 334 *i* P **P** 12 55 15.5 +0.9
comp=Z,10nm,0.5s
**RETA Reutte** 79.46 335 *i* P **P** 12 55 15.4 +0.6
comp=Z,6.9nm,0.8s
**MOTA Moosalm** 79.49 335 *i* P **P** 12 55 15.8 +0.7
comp=Z,9.1nm,0.6s
**VTS Vitosha** 79.53 325⇑ *i*P **P** 12 55 15.7 +0.3
**VTS Vitosha** 79.53 325 P **P** 12 55 15.9 +0.5
VTS pmax pmax
comp=Z,21nm,1.0s
**ECH Echery** 79.78 337 P **P** 12 55 16.9 +0.5
ECH pmax pmax
comp=Z,16nm,1.6s
**ALN Alexandroupoli** 79.81 322 P **P** 12 55 17.0 +0.3
ALN pmax pmax
comp=Z,8.0nm,0.9s
**SLE Schleitheim** 79.84 336 P **P** 12 55 17.1 +0.3
SLE pmax pmax
comp=Z,10.0nm,0.8s
**DAVOX Davos/Dischmat** 80.35 335 P **P** 12 55 19.8 0.0
comp=Z,7.4nm,0.8s,baz=8.4,slow=2.2,SNR=9.0
**KNT Kendrikon** 80.87 324 P **P** 12 55 22.1 -0.3
KNT pmax pmax
comp=Z,9.0nm,1.2s
**RAR Rarotonga** 80.87 136 P **P** 12 55 22.6 +0.2
comp=Z,6.8nm,0.5s,baz=180,slow=13,SNR=3.1
**RAR Rarotonga** 80.87 136 *e*P **P** 12 55 22.6 +0.2
comp=Z,149nm,1.9s
**PDG Podgorica** 81.17 327⇓ *i*P **P** 12 55 23.9 0.0
**FNA Florina** 81.79 325 P **P** 12 55 27.1 -0.2
FNA pmax pmax
comp=Z,9.0nm,1.5s
**IDI Anoyia** 85.01 320 P **P** 12 55 42.3 -1.6
comp=Z,3.4nm,0.4s,baz=23,slow=12,SNR=7.9
**PLCA Paso Flores** 148.60 93 *e*PKIKP **PKPbc** 13 02 52.6 -1.7
PLCA pmax pmax
comp=Z,1.0nm,0.7s

*JMA* **12** *12:51:35.8±0.1,38.66N×142.15E,h40km±1km,M3.2*
*IDC* **12** *12:51:46.5±5.6,36.61N×140.42E,h164km±36km,mb3.0/3, mb1 3.0/3,mb1mx2.8/36,mbtmp3.5/3,Error ellipse: s-maj=81.0km s-min=22.7km az=69.0*
**ISC 12 12:51:35.1±2.9, 38.63N±0.07×142.2E±0.1, h33km±6km, n12,σ0.9s1/16, mb3.4/3, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **OFUJ** | **Ofunato** | **0.60** | **319** | P | **Pn** | **12 51 47.5** | **+0.2** |
| OFUJ | | | | S | **Sb** | **12 51 55.5** | **-0.3** |
| **JIO** | **Ouri** | **0.67** | **255** | P | **Pn** | **12 51 48.5** | **+0.2** |
| JIO | | | | S | **Sn** | **12 51 57.3** | **-0.3** |
| **JMK** | **Ichinoseki** | **0.82** | **294** | P | **Pn** | **12 51 50.6** | **+0.3** |
| JMK | | | | *e*S | **Sn** | **12 52 00.7** | **-0.5** |
| **JOM** | **Ohasama** | **1.09** | **321** | P | **Pn** | **12 51 54.5** | **+0.4** |
| **JOU** | **Okura** | **1.22** | **258** | P | **Pn** | **12 51 56.4** | **+0.6** |
| **JMM** | **Marumori** | **1.33** | **236** | P | **Pn** | **12 51 57.6** | **+0.3** |
| JMM | | | | *e*S | **Sn** | **12 52 13.3** | **-0.6** |
| **JTH** | **Tanohata** | **1.33** | **350** | P | **Pn** | **12 51 57.7** | **+0.3** |
| JTH | | | | *e*S | **Sn** | **12 52 13.5** | **-0.4** |
| **JRG** | **Rokugo** | **1.43** | **303** | P | **Pn** | **12 51 59.4** | **+0.7** |
| **JYK** | **Kaneyama** | **1.45** | **282** | P | **Pn** | **12 51 59.8** | **+0.8** |
| **ZALV** | **Zalesovo Beam** | **41.31** | **311** | P | **P** | **12 59 17.5** | **+0.2** |
| | 0.4nm,0.5s,baz=92,slow=7.0,SNR=2.6 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **45.52** | **307** | P | **P** | **12 59 50.9** | **-0.3** |
| | 0.7nm,0.5s,baz=82,slow=8.0,SNR=4.9 | | | | | | |
| **ASAR** | **Alice Springs** | **62.45** | **189** | P | P | 13 01 37.7 | -17 |
| | 0.2nm,0.8s,baz=2.4,slow=8.8,SNR=3.0 | | | | | | |

*ISCJB* **12** *12:51:45.0±0.7,36.79N±0.03×140.62E±0.09,h0km±10km, Error ellipse: s-maj=13.1km s-min=4.3km az=17.2*
*JMA* **12** *12:51:45.2,36.79N×140.63E,h8km±1km,M2.6*
**ISC 12 12:51:44.6±1.0, 36.80N±0.04×140.55E±0.06, h13km±11km, n8,σ0.9s41/15, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JHO** | **Hitachi** | **0.18** | **175** | P | **Pg** | **12 51 49.0** | **+0.1** |
| JHO | | | | S | **Sg** | **12 51 51.7** | **0.0** |
| **ONAJ** | **Iwakimizuishiy** | **0.36** | **33** | P | **Pg** | **12 51 51.9** | **-0.1** |
| ONAJ | | | | S | **Sg** | **12 51 56.8** | **-0.2** |
| **JSB** | **Shiboa** | **0.53** | **289** | P | **Pn** | **12 51 57.4** | **-0.6** |
| **JFK** | **Kawauchi** | **0.63** | **24** | P | **Pg** | **12 51 56.7** | **-0.2** |
| JFK | | | | S | **Sg** | **12 52 04.9** | **-0.3** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **JYT** | **Yasato** | **0.64** | **207** | P | **Pb** | **12 51 57.7** | **+0.2** |
| JYT | | | | S | **Sb** | **12 52 06.5** | **+0.2** |
| **JFT** | **Otama** | **0.74** | **347** | P | **Pb** | **12 52 00.0** | **+0.6** |
| JFT | | | | S | **Sb** | **12 52 10.2** | **+0.7** |
| **MJAR** | **Matsushiro Arr** | **1.90** | **263** | P | **Pb** | **12 52 19.6** | **+0.4** |
| | 2.1nm,0.3s,baz=90,slow=15,SNR=16 | | | | | | |
| MJAR | | | | S | **Sg** | **12 52 45.6** | **-0.1** |
| | 2.9nm,0.3s,baz=75,slow=29,SNR=10 | | | | | | |
| **MAT** | **Matsushiro** | **1.90** | **263** | P | **Pb** | **12 52 19.4** | **+0.2** |
| MAT | | | | S | **Sg** | **12 52 45.4** | **-0.4** |

**BUC 12 12:54:11.0±1.0, 46°.33N×23°.11E, h2km±12km, MD2.3/2, 6C-2D, Error ellipse: s-maj=8.5km s-min=6.3km az=66.0, Romania**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CJR** | **Cluj-Napoca** | **0.52** | **41** | ⇑*i*P | Pg | 12 54 21.0 | +0.1 |
| **CJR** | **Cluj-Napoca** | **0.52** | **41** | ⇑*i*P | Pg | 12 54 21.0 | +0.1 |
| CJR | | | | *i*S | Sg | 12 54 28.3 | +0.7 |
| **DRGR** | | **0.54** | **330** | ⇑*i*P | Pg | 12 54 22.2 | +0.9 |
| **DRGR** | | **0.54** | **330** | ⇑*i*P | Pg | 12 54 22.2 | +0.9 |
| DRGR | | | | *i*S | Sg | 12 54 29.4 | +1.1 |
| **LOT** | **Lotru** | **0.99** | **152** | S | Sn | 12 54 45.9 | -0.9 |
| **LOT** | **Lotru** | **0.99** | **152** | *i*S | Sn | 12 54 45.9 | -0.9 |
| **BZS** | **Buzias** | **1.26** | **236** | ⇓*i*P | Pn | 12 54 35.9 | +0.3 |
| BZS | | | | S | Sn | 12 54 52.8 | -0.3 |
| **BZS** | **Buzias** | **1.26** | **236** | ⇓*i*P | Pn | 12 54 35.9 | +0.3 |
| BZS | | | | *i*S | Sn | 12 54 52.8 | -0.3 |
| **BURAR** | **Bucovina Array** | **1.94** | **48** | ⇑*i*P | Pb | 12 54 46.7 | -0.4 |
| **BURAR** | **Bucovina Array** | **1.94** | **48** | ⇑*i*P | Pb | 12 54 46.7 | -0.4 |
| BURAR | | | | *i*S | Sb | 12 55 11.3 | -0.4 |

**IDC 12 12:54:18.9±57.0, 23°.10S×176°.15W, h0km, mb3.9/3, mb1 4.0/3, mb1mx3.7/24, mbtmp3.9/3, Error ellipse: s-maj=1064.0km s-min=168.7km az=87.0, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **STKA** | **Stephens Creek** | **38.30** | **247** | P | P | 13 01 40.6 | -0.7 |
| | 0.9nm,0.3s,baz=95,slow=9.0,SNR=4.8 | | | | | | |
| **ASAR** | **Alice Springs** | **45.66** | **259** | P | P | 13 02 41.4 | -0.3 |
| | 0.3nm,0.3s,baz=93,slow=7.0,SNR=17 | | | | | | |
| **WRA** | **Warramunga Arr** | **46.00** | **264** | P | P | 13 02 44.7 | +0.4 |
| | 0.4nm,0.3s,baz=101,slow=8.3,SNR=29 | | | | | | |

*ISK **12** 13:01:16.8, 40°.17N×36°.70E, h22km, MD3.1*
*CSEM **12** 13:01:19.4±0.4, 39°.69N×36°.95E, h10km, MD2.6, Error ellipse: s-maj=10.2km s-min=6.9km az=149.0*
*DDA **12** 13:01:19.8, 39°.70N×36°.99E, h7km, Md2.6*
**ISC 12 13:01:20.5±0.9, 39°.69N±0°.03×36°.99E±0°.03, h14km±8km, n28, σ1s45/42, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SCER** | **sogukcermik** | **0.20** | **32** | *i*P | **Pg** | **13 01 24.1** | **-1.1** |
| **SCER** | **sogukcermik** | **0.20** | **32** | P | **Pg** | **13 01 24.1** | **-1.1** |
| **SVSK** | **Karacayir** | **0.23** | **2** | *e*PG | **Sg** | **13 01 24.9** | **-0.6** |
| SVSK | | | | *e*SG | **Sg** | **13 01 30.5** | **+1.6** |
| **SVSK** | **Karacayir** | **0.23** | **2** | *e*Pg | **Pg** | **13 01 24.9** | **-0.6** |
| SVSK | | | | *e*Sg | **Sg** | **13 01 30.5** | **+1.6** |
| **CUALT** | **Altinyayla-SIV** | **0.45** | **203** | *i*P | **Pg** | **13 01 28.2** | **-1.4** |
| CUALT | | | | *i*S | **Sb** | **13 01 36.9** | **-0.1** |
| **CUALT** | **Altinyayla-SIV** | **0.45** | **203** | P | **Pg** | **13 01 28.2** | **-1.4** |
| **CUKAN** | **kangal_SIVAS** | **0.53** | **135** | *i*P | **Pg** | **13 01 29.0** | **-1.9** |
| CUKAN | | | | *i*S | **Sb** | **13 01 38.6** | **-0.5** |
| **CUKAN** | **kangal_SIVAS** | **0.53** | **135** | P | **Pg** | **13 01 29.0** | **-1.9** |
| CUKAN | | | | S | **Sb** | **13 01 38.6** | **-0.5** |
| **CUZAR** | **Zara_SIVAS** | **0.63** | **72** | *i*P | **Pg** | **13 01 30.8** | **-2.2** |
| CUZAR | | | | *i*S | **Sb** | **13 01 42.5** | **+0.3** |
| **CUZAR** | **Zara_SIVAS** | **0.63** | **72** | P | **Pg** | **13 01 30.8** | **-2.2** |
| CUZAR | | | | S | **Sb** | **13 01 42.5** | **+0.3** |
| **CUSAR** | **Sarkisla-SIVAS** | **0.64** | **245** | *i*P | **Pg** | **13 01 31.6** | **-1.4** |
| CUSAR | | | | *i*S | **Sb** | **13 01 42.5** | **+0.2** |
| **CUSAR** | **Sarkisla-SIVAS** | **0.64** | **245** | P | **Pg** | **13 01 31.6** | **-1.4** |
| **RSDY** | **Resadiye-TOKAT** | **0.75** | **20** | *e*PG | Pg | 13 01 28.0 | -7.2 |
| **SUSE** | **Susehri** | **1.07** | **61** | *i*P | **Pn** | **13 01 41.0** | **-0.2** |
| SUSE | | | | *i*S | **Sb** | **13 01 55.4** | **+0.7** |
| **SUSE** | **Susehri** | **1.07** | **61** | P | **Pn** | **13 01 41.0** | **-0.2** |
| SUSE | | | | S | **Sb** | **13 01 55.4** | **+0.7** |
| **BNN** | **Bunyan** | **1.22** | **227** | *e*PN | **Pg** | **13 01 43.0** | **-1.0** |
| **BNN** | **Bunyan** | **1.22** | **227** | *e*Pn | **Pg** | **13 01 43.0** | **-1.0** |
| **KEMA** | **Kemaliye** | **1.24** | **109** | *i*P | **Pn** | **13 01 41.9** | **-1.5** |
| KEMA | | | | *i*S | **Sn** | **13 02 01.9** | **+1.9** |
| **KEMA** | **Kemaliye** | **1.24** | **109** | P | **Pn** | **13 01 41.9** | **-1.5** |
| KEMA | | | | S | **Sn** | **13 02 01.9** | **+1.9** |
| **SARI** | **SarD1z-Kayseri** | **1.36** | **199** | *e*PN | **Pg** | **13 01 46.3** | **-0.4** |
| SARI | | | | *e*SN | **Sg** | **13 02 08.8** | **+4.5** |
| **AKCD** | **Akcadag** | **1.57** | **152** | *i*P | **Pn** | **13 01 48.1** | **0.0** |
| AKCD | | | | *i*S | **Sg** | **13 02 12.3** | **+1.1** |
| **AKCD** | **Akcadag** | **1.57** | **152** | P | **Pn** | **13 01 48.1** | **0.0** |
| AKCD | | | | S | **Sg** | **13 02 12.3** | **+1.1** |
| **MALT** | **Malatya** | **1.77** | **140** | *e*PN | **Pg** | **13 01 54.3** | **-0.3** |
| **MALT** | **Malatya** | **1.77** | **140** | *e*Pn | **Pg** | **13 01 54.3** | **-0.3** |
| **PTK** | **Pertek** | **2.03** | **112** | *e*PN | **Pb** | **13 01 56.7** | **-0.5** |
| **PTK** | **Pertek** | **2.03** | **112** | *e*Pn | **Pb** | **13 01 56.7** | **-0.5** |
| **GULA** | **Gulagac** | **2.53** | **239** | *e*PN | **Pn** | **13 01 59.2** | **-2.0** |
| **GULA** | **Gulagac** | **2.53** | **239** | *e*Pn | **Pn** | **13 01 59.3** | **-2.0** |

*THE **12** 13:09:37.0, 37°.13N×21°.97E, h9km, ML2.4/5, Error ellipse: s-maj=0.9km s-min=0.4km az=279.0*
*CSEM **12** 13:09:37.0±0.2, 37°.14N×21°.99E, h5km, ML2.4, Error ellipse: s-maj=3.6km s-min=3.1km az=98.0*
**ATH 12 13:09:37.1, 37°.13N×22°.00E, h9km±1km, ML2.2/9, Error ellipse: s-maj=1.6km s-min=0.7km az=294.0, Southern Greece**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ITM** | **Ithomi** | **0.08** | **314** | P | Pg | 13 09 38.8 | -0.5 |
| ITM | | | | S | Sg | 13 09 40.3 | -0.5 |
| ITM | | | | AML | AML | 13 09 40.7 | |
| | comp=E,13078μm,0.2s | | | | | | |
| ITM | | | | AML | AML | 13 09 41.1 | |
| | comp=N,14221μm,0.1s | | | | | | |
| **ITM** | **Ithomi** | **0.08** | **314** | P | Pg | 13 09 39.0 | -0.2 |
| ITM | | | | S | Sg | 13 09 40.6 | -0.2 |
| **ITM** | **Ithomi** | **0.08** | **314** | P | Pg | 13 09 39.0 | -0.2 |
| ITM | | | | S | Sg | 13 09 40.6 | -0.2 |
| **MES3** | **Kyparissia** | **0.28** | **295** | P | Pg | 13 09 42.4 | -0.4 |
| MES3 | | | | S | Sg | 13 09 47.6 | +1.0 |
| **MES3** | **Kyparissia** | **0.28** | **295** | P | Pg | 13 09 42.4 | -0.4 |
| MES3 | | | | S | Sg | 13 09 47.6 | +1.0 |
| **PYL** | **PYLOS** | **0.31** | **221** | P | Pg | 13 09 42.4 | -0.8 |
| PYL | | | | AML | AML | 13 09 48.8 | |
| | comp=N,2596μm,0.3s | | | | | | |
| PYL | | | | S | Sb | 13 09 48.9 | -1.0 |
| PYL | | | | AML | AML | 13 09 49.5 | |
| | comp=E,2123μm,0.2s | | | | | | |
| **PYL** | **PYLOS** | **0.31** | **221** | P | Pg | 13 09 42.7 | -0.5 |
| PYL | | | | S | Sg | 13 09 47.3 | 0.0 |
| **PYL** | **PYLOS** | **0.31** | **221** | P | Pg | 13 09 42.8 | -0.4 |
| PYL | | | | S | Sg | 13 09 47.5 | +0.2 |
| **MES2** | **Methoni** | **0.38** | **218** | P | Pg | 13 09 44.0 | -0.5 |
| MES2 | | | | S | Sb | 13 09 51.2 | -0.8 |
| MES2 | | | | AML | AML | 13 09 52.2 | |
| | comp=N,2080μm,0.3s | | | | | | |
| MES2 | | | | AML | AML | 13 09 52.7 | |
| | comp=E,1214μm,0.3s | | | | | | |
| **MES2** | **Methoni** | **0.38** | **218** | P | Pg | 13 09 44.0 | -0.5 |
| MES2 | | | | S | Sb | 13 09 51.2 | -0.8 |
| **VLX** | **Vlachokerasia** | **0.39** | **51** | P | Pg | 13 09 45.4 | +0.6 |
| VLX | | | | S | Sg | 13 09 49.7 | -0.2 |
| VLX | | | | AML | AML | 13 09 51.2 | |
| | comp=E,846μm,0.4s | | | | | | |
| VLX | | | | AML | AML | 13 09 52.9 | |
| | comp=N,678μm,0.5s | | | | | | |
| **VLX** | **Vlachokerasia** | **0.39** | **51** | P | Pg | 13 09 44.9 | +0.1 |
| VLX | | | | S | Sg | 13 09 50.0 | 0.0 |
| **VLX** | **Vlachokerasia** | **0.39** | **51** | P | Pg | 13 09 45.0 | +0.2 |
| VLX | | | | S | Sg | 13 09 50.8 | +0.8 |
| **TRIP** | **Tripoli** | **0.46** | **29** | P | Pg | 13 09 46.3 | +0.3 |
| TRIP | | | | S | Sg | 13 09 52.8 | +0.8 |
| TRIP | | | | AML | AML | 13 09 54.4 | |
| | comp=N,284μm,0.4s | | | | | | |
| TRIP | | | | AML | AML | 13 09 55.3 | |
| | comp=E,511μm,0.4s | | | | | | |
| **TRIP** | **Tripoli** | **0.46** | **29** | P | Pg | 13 09 46.3 | +0.3 |
| TRIP | | | | S | Sg | 13 09 52.8 | +0.8 |
| **AMT** | **Artemida-Makis** | **0.47** | **331** | P | Pg | 13 09 46.7 | +0.6 |
| AMT | | | | S | Sb | 13 09 53.7 | -0.8 |
| AMT | | | | AML | AML | 13 09 54.7 | |
| | comp=E,918μm,0.3s | | | | | | |
| AMT | | | | AML | AML | 13 09 57.4 | |
| | comp=N,1304μm,0.4s | | | | | | |
| **AMT** | **Artemida-Makis** | **0.47** | **331** | P | Pg | 13 09 46.1 | -0.1 |
| AMT | | | | S | Sg | 13 09 52.5 | +0.2 |
| **AMT** | | **0.47** | **331** | P | Pg | 13 09 45.5 | -0.7 |
| AMT | | | | S | Sg | 13 09 52.5 | +0.2 |
| **GUR** | **Goura** | **0.85** | **19** | P | Pg | 13 09 52.8 | -0.7 |
| GUR | | | | S | Sb | 13 10 06.1 | +0.2 |
| GUR | | | | AML | AML | 13 10 08.0 | |
| | comp=E,248μm,0.5s | | | | | | |
| GUR | | | | AML | AML | 13 10 10.1 | |
| | comp=N,261μm,0.4s | | | | | | |
| **GUR** | **Goura** | **0.85** | **19** | P | Pg | 13 09 52.9 | -0.6 |
| GUR | | | | S | Sb | 13 10 06.1 | +0.3 |
| **GUR** | **Goura** | **0.85** | **19** | P | Pg | 13 09 52.9 | -0.6 |
| **DRO** | **Drossia** | **0.85** | **345** | P | Pb | 13 09 54.2 | 0.0 |
| DRO | | | | S | Sb | 13 10 05.6 | -0.2 |
| DRO | | | | AML | AML | 13 10 08.3 | |
| | comp=N,344μm,0.5s | | | | | | |
| DRO | | | | AML | AML | 13 10 08.7 | |
| | comp=E,516μm,0.4s | | | | | | |
| **DRO** | **Drossia** | **0.85** | **345** | P | Pb | 13 09 54.2 | 0.0 |
| DRO | | | | S | Sg | 13 10 05.2 | +0.5 |
| **DRO** | **Drossia** | **0.85** | **345** | P | Pg | 13 09 53.1 | -0.5 |
| DRO | | | | S | Sg | 13 10 05.2 | +0.5 |
| **VLI** | **Veliai** | **0.86** | **118** | P | Pg | 13 09 53.3 | -0.3 |
| **VLI** | **Veliai** | **0.86** | **118** | P | Pg | 13 09 53.3 | -0.3 |
| **KLV** | **Kalavryta, Ach** | **0.92** | **8** | P | Pg | 13 09 53.5 | -1.4 |
| KLV | | | | S | Sn | 13 10 08.8 | -1.0 |
| KLV | | | | AML | AML | 13 10 10.0 | |
| | comp=E,141μm,0.4s | | | | | | |
| KLV | | | | AML | AML | 13 10 10.6 | |
| | comp=N,87μm,0.5s | | | | | | |
| **KLV** | **Kalavryta, Ach** | **0.92** | **8** | P | Pg | 13 09 54.2 | -0.7 |
| KLV | | | | S | Sb | 13 10 07.4 | -0.4 |
| **KLV** | **Kalavryta, Ach** | **0.92** | **8** | P | Pg | 13 09 54.0 | -0.9 |
| **KRND** | **KRANIDI** | **0.96** | **74** | P | Pb | 13 09 55.9 | +0.1 |
| **KRND** | **KRANIDI** | **0.96** | **74** | P | Pb | 13 09 55.9 | 0.0 |
| **RLS** | **Riolos of Patr** | **1.02** | **336** | P | Pb | 13 09 56.9 | -0.1 |
| **RLS** | **Riolos of Patr** | **1.02** | **336** | P | Pb | 13 09 56.9 | -0.1 |
| **DID** | **Didima** | **1.06** | **69** | P | Pg | 13 09 56.9 | -0.6 |
| **DID** | **Didima** | **1.06** | **69** | P | Pg | 13 09 57.0 | -0.4 |
| **DID** | **Didima** | **1.06** | **69** | P | Pg | 13 09 57.0 | -0.4 |
| **LAKA** | **Lakka** | **1.11** | **359** | P | Pg | 13 09 57.1 | -1.4 |
| **LAKA** | **Lakka** | **1.11** | **359** | P | Pg | 13 09 57.1 | -1.4 |
| **LOUT** | **Loutraki** | **1.16** | **42** | P | Pb | 13 09 58.7 | -0.6 |
| **LOUT** | **Loutraki** | **1.16** | **42** | P | Pb | 13 09 58.7 | -0.6 |
| **LTK** | **Loutraki** | **1.18** | **40** | P | Pb | 13 09 59.0 | -0.8 |
| **LTK** | **Loutraki** | **1.18** | **40** | P | Pb | 13 09 59.2 | -0.5 |
| **LTK** | **Loutraki** | **1.18** | **40** | P | Pb | 13 09 59.2 | -0.5 |
| **KYTH** | **Kithira** | **1.21** | **135** | P | Pg | 13 10 00.8 | +0.6 |
| **TRIZ** | **Trizonia** | **1.24** | **3** | P | Pn | 13 09 58.7 | -1.9 |
| **TRIZ** | **Trizonia** | **1.24** | **3** | P | Pn | 13 09 58.7 | -1.9 |
| **KALE** | **Kalithea** | **1.27** | **5** | P | Pn | 13 10 00.2 | -0.9 |
| **KALE** | **Kalithea** | **1.27** | **5** | P | Pn | 13 10 00.2 | -0.9 |
| **SERG** | **Sergoula** | **1.28** | **2** | P | Pn | 13 10 00.3 | -1.1 |
| **SERG** | **Sergoula** | **1.28** | **2** | P | Pn | 13 10 00.3 | -1.0 |
| **PROD** | **Prodromos** | **1.34** | **32** | P | Pn | 13 10 01.8 | -0.3 |
| **PROD** | **Prodromos** | **1.34** | **32** | P | Pn | 13 10 01.8 | -0.2 |
| **ANX** | **Ano Chora** | **1.47** | **358** | P | Pb | 13 10 04.4 | -0.2 |
| **ANX** | **Ano Chora** | **1.47** | **358** | P | Pb | 13 10 04.4 | -0.2 |
| **VILL** | **Villia** | **1.47** | **45** | P | Pb | 13 10 04.5 | -0.2 |
| **VIL2** | **Platees** | **1.48** | **43** | P | Pb | 13 10 04.5 | -0.4 |

*ATH **12** 13:09:48.4, 38°.31N×26°.48E, h33km±2km, ML2.7/4, Error ellipse: s-maj=5.2km s-min=1.2km az=249.0*
*ISCJB **12** 13:09:49.3±0.6, 38°.35N±0°.03×26°.53E±0°.05, h10km±4km, Error ellipse: s-maj=6.9km s-min=4.5km az=161.8*
*CSEM **12** 13:09:49.6±0.2, 38°.35N×26°.54E, h10km, MD2.8, Error ellipse: s-maj=5.4km s-min=4.1km az=62.0*
*THE **12** 13:09:50.0, 38°.27N×26°.45E, h21km±1km, ML2.6/4, Error ellipse: s-maj=2.9km s-min=0.4km az=246.0*
*ISK **12** 13:09:50.0, 38°.41N×26°.56E, h6km, MD2.8*
**ISC 12 13:09:48.1±1.1, 38°.28N±0°.02×26°.44E±0°.04, h15km±8km, n37, σ0s97/55, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **URLA** | **Izmir** | **0.15** | **55** | *e*PG | **Pg** | **13 09 51.9** | **-0.1** |
| **URLA** | **Izmir** | **0.15** | **55** | *e*Pg | **Pg** | **13 09 51.9** | **-0.1** |
| **CHOS** | **Chios island** | **0.32** | **290** | *e*PG | **Pn** | **13 09 58.4** | **+0.1** |
| **CHOS** | **Chios island** | **0.32** | **290** | P | **Pn** | **13 09 57.7** | **-0.7** |
| CHOS | | | | S | **Sn** | **13 10 02.6** | **-2.2** |
| CHOS | | | | AML | AML | 13 10 03.1 | |
| | comp=E,1233μm,0.2s | | | | | | |
| CHOS | | | | AML | AML | 13 10 03.6 | |
| | comp=N,956μm,0.2s | | | | | | |
| **CHOS** | **Chios island** | **0.32** | **290** | P | **Pn** | **13 09 57.4** | **-0.9** |
| **CHOS** | **Chios island** | **0.32** | **290** | *e*Pg | **Pn** | **13 09 58.4** | **+0.1** |
| CHOS | | | | S | **Sn** | **13 10 02.9** | **-1.9** |
| **CHOS** | **Chios island** | **0.32** | **290** | P | **Pn** | **13 09 57.4** | **-0.9** |
| CHOS | | | | S | **Sn** | **13 10 02.9** | **-1.9** |
| **SMG** | **Samos** | **0.65** | **151** | P | **Pn** | **13 10 02.0** | **-0.7** |
| SMG | | | | S | **Sb** | **13 10 10.3** | **+0.5** |
| SMG | | | | AML | AML | 13 10 12.7 | |
| | comp=N,2363μm,0.4s | | | | | | |
| SMG | | | | AML | AML | 13 10 12.8 | |
| | comp=E,1834μm,0.4s | | | | | | |
| **SMG** | **Samos** | **0.65** | **151** | P | **Pn** | **13 10 02.1** | **-0.6** |
| SMG | | | | S | **Sn** | **13 10 11.4** | **-1.2** |
| **SMG** | **Samos** | **0.65** | **151** | P | **Pn** | **13 10 02.1** | **-0.6** |
| SMG | | | | S | **Sn** | **13 10 11.4** | **-1.2** |
| **DKL** | **Dikili** | **0.87** | **24** | *e*PG | **Pb** | **13 10 04.3** | **-0.6** |
| DKL | | | | *e*SG | **Sb** | **13 10 14.5** | **-1.9** |
| **DKL** | **Dikili** | **0.87** | **24** | *e*Pg | **Pb** | **13 10 04.3** | **-0.6** |
| DKL | | | | *e*Sg | **Sb** | **13 10 14.5** | **-1.9** |
| **PRK** | **Paraskevi** | **0.98** | **352** | P | **Pb** | **13 10 06.4** | **-0.3** |
| PRK | | | | S | **Sb** | **13 10 19.6** | **+0.1** |
| PRK | | | | AML | AML | 13 10 22.1 | |
| | comp=E,1664μm,0.6s | | | | | | |
| PRK | | | | AML | AML | 13 10 22.4 | |
| | comp=N,1769μm,0.4s | | | | | | |
| **PRK** | **Paraskevi** | **0.98** | **352** | P | **Pb** | **13 10 06.7** | **0.0** |
| PRK | | | | S | **Sb** | **13 10 19.6** | **+0.1** |
| **PRK** | **Paraskevi** | **0.98** | **352** | P | **Pb** | **13 10 06.7** | **0.0** |
| PRK | | | | S | **Sb** | **13 10 20.0** | **+0.6** |
| **SIGR** | **SIGRI** | **1.04** | **334** | *e*PG | **Pg** | **13 10 09.2** | **+1.1** |
| SIGR | | | | *e*SG | **Sn** | **13 10 22.6** | **+0.2** |
| **SIGR** | **SIGRI** | **1.04** | **334** | P | **Pg** | **13 10 08.1** | **-0.1** |
| SIGR | | | | S | **Sb** | **13 10 20.6** | **-0.6** |
| SIGR | | | | AML | AML | 13 10 23.8 | |
| | comp=E,394μm,0.4s | | | | | | |
| SIGR | | | | AML | AML | 13 10 26.2 | |
| | comp=N,361μm,0.4s | | | | | | |
| **SIGR** | **SIGRI** | **1.04** | **334** | P | **Pg** | **13 10 08.1** | **-0.1** |
| **SIGR** | **SIGRI** | **1.04** | **334** | *e*Pg | **Pg** | **13 10 09.3** | **+1.1** |
| SIGR | | | | S | **Sb** | **13 10 21.5** | **+0.3** |
| SIGR | | | | *e*Sg | **Sn** | **13 10 22.6** | **+0.2** |
| **SIGR** | **SIGRI** | **1.04** | **334** | P | **Pn** | **13 10 07.9** | **-0.2** |
| SIGR | | | | S | **Sb** | **13 10 21.5** | **+0.3** |
| **BODT** | **Bodrum** | **1.39** | **150** | *e*PN | **Pg** | **13 10 17.7** | **+2.8** |
| **APE** | **Apeiranthos** | **1.40** | **211** | P | **Pn** | **13 10 12.7** | **-0.4** |
| **APE** | **Apeiranthos** | **1.40** | **211** | P | **Pn** | **13 10 12.7** | **-0.4** |
| **EZN** | **Ezine** | **1.55** | **357** | *e*PN | **Pb** | **13 10 17.0** | **+0.5** |
| EZN | | | | *e*SN | **Sb** | **13 10 36.8** | **+0.9** |
| **EZN** | **Ezine** | **1.55** | **357** | *e*Pn | **Pb** | **13 10 17.0** | **+0.5** |
| EZN | | | | *e*Sn | **Sb** | **13 10 36.8** | **+0.9** |
| **BOZC** | **Bozcaada** | **1.59** | **349** | *e*PN | **Pb** | **13 10 17.8** | **+0.6** |
| **BOZC** | **Bozcaada** | **1.59** | **349** | *e*Pn | **Pb** | **13 10 17.8** | **+0.6** |
| **KULA** | **Kula-Manisa** | **1.76** | **82** | *e*PN | **Pb** | **13 10 20.1** | **0.0** |
| **KULA** | **Kula-Manisa** | **1.76** | **82** | *e*Pn | **Pb** | **13 10 20.1** | **0.0** |
| **LIA** | **Limnos Island** | **1.89** | **329** | P | **Pn** | **13 10 20.1** | **+0.3** |
| **LIA** | **Limnos Island** | **1.89** | **329** | P | **Pn** | **13 10 20.1** | **+0.3** |
| **SANT** | **Santorini** | **2.06** | **203** | P | **Pb** | **13 10 25.2** | **+0.1** |
| **SANT** | **Santorini** | **2.06** | **203** | P | **Pb** | **13 10 25.2** | **+0.1** |
| **SMTH** | **Samothraki Isl** | **2.30** | **342** | P | **Pn** | **13 10 26.8** | **+1.3** |
| **SMTH** | **Samothraki Isl** | **2.30** | **342** | P | **Pn** | **13 10 26.8** | **+1.3** |
| **ALN** | **Alexandroupoli** | **2.64** | **353** | P | **Pn** | **13 10 31.2** | **+1.1** |
| **ALN** | **Alexandroupoli** | **2.64** | **353** | P | **Pn** | **13 10 31.2** | **+1.1** |

*IDC **12** 13:20:57.5±1.8, 11°.59N×85°.02W, h0km, mb3.5/4, mb1 3.9/5, mb1mx3.7/29, mbtmp3.6/5, ML3.4/1, Error ellipse: s-maj=87.3km s-min=40.1km az=45.0*
*ISCJB **12** 13:20:58.1±1.1, 10°.28N±0°.08×86°.30W±0°.06, h33km, mb3.5/4, Error ellipse: s-maj=12.9km s-min=6.2km az=36.0*
*CASC **12** 13:21:00.5±2.3, 10°.38N×86°.12W, h25km±12km, MD4.1, ML3.3*
**ISC 12 13:21:00.8±0.8, 10°.36N±0°.07×86°.15W±0°.08, h35km, n22, σ2s15/24, mb3.5/4, 3C, Off coast of Costa Rica**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VCR** | **Vista de Mar** | **0.56** | **115** | ⇑*e*P | **Pn** | **13 21 10.8** | **-1.5** |
| VCR | | | | *e*S | **Sn** | **13 21 20.6** | **+0.2** |
| **CRZ1** | **La Cruz** | **0.87** | **35** | ⇑*i*P | **Pn** | **13 21 15.7** | **-0.8** |
| **CONN** | **Concepcion** | **1.30** | **23** | *e*P | **Pn** | **13 21 21.8** | **-0.7** |
| **MASN** | **Masaya** | **1.62** | **360** | *e*P | **Pn** | **13 21 28.4** | **+1.6** |
| **CGA2** | **Cerro Gallo 2** | **1.69** | **102** | *e*P | **Pn** | **13 21 28.1** | **+0.2** |
| CGA2 | | | | *e*S | **Sn** | **13 21 50.0** | **+1.6** |
| **MGAN** | **Managua** | **1.78** | **357** | *e*P | **Pn** | **13 21 30.4** | **+1.4** |
| **XAVN** | **Gruta Xavier** | **1.79** | **354** | *e*P | **Pn** | **13 21 30.2** | **+1.0** |
| **ACON** | **Acoyapa** | **1.86** | **31** | ⇑*i*P | **Pn** | **13 21 29.5** | **-0.6** |
| ACON | | | | *e*S | **Sn** | **13 21 53.9** | **+1.4** |
| **COPN** | **Copaltepe** | **1.86** | **346** | *e*P | **Pn** | **13 21 27.9** | **-2.2** |
| COPN | | | | AML | AML | 13 21 50.2 | |
| | comp=Z,336nm,0.4s | | | | | | |
| **APYN** | **Apoyeque** | **1.87** | **354** | *e*P | **Pn** | **13 21 28.9** | **-1.5** |
| **MOMN** | **Momotombo** | **2.07** | **349** | *e*P | **Pn** | **13 21 31.0** | **-2.1** |
| **QCR1** | **Quepos** | **2.16** | **115** | *e*P | **Pn** | **13 21 40.0** | **+5.8** |
| **ESPN** | **Las Esperanzas** | **2.57** | **45** | *e*P | **Pn** | **13 21 39.9** | **0.0** |
| **CMIG** | **Matias Romero** | **10.81** | **309** | Pn | **Pn** | **13 23 36.7** | **+3.7** |
| | comp=Z,0.2nm,0.3s,baz=116,slow=14,SNR=2.7 | | | | | | |
| **TXAR** | **Lajitas Array** | **24.99** | **322** | P | **P** | **13 26 20.5** | **-1.0** |
| | comp=Z,1.0nm,0.8s,baz=135,slow=10,SNR=15 | | | | | | |
| TXAR | | | | PcP | **PcP** | **13 29 58.8** | **+2.6** |
| | comp=Z,0.7nm,1.1s,baz=138,slow=5.6,SNR=3.0 | | | | | | |
| **H06E1** | **SOCORRO T-PHAS** | **25.38** | **292** | T | T | 13 52 38.9 | |
| | SNR=9.5 | | | | | | |
| **PDAR** | **Pinedale Array** | **38.21** | **332** | P | **P** | **13 28 16.1** | **-1.4** |
| | comp=Z,0.4nm,0.7s,baz=130,slow=8.3,SNR=3.9 | | | | | | |
| **YKA** | **Yellowknife Ar** | **55.95** | **345** | P | **P** | **13 30 31.5** | **-3.7** |
| | comp=Z,0.8nm,0.9s,baz=131,slow=6.6,SNR=4.1 | | | | | | |
| **ILAR** | **Eielson Array** | **68.44** | **336** | P | **P** | **13 31 55.9** | **-3.0** |
| | comp=Z,0.4nm,0.9s,baz=100,slow=6.2,SNR=3.9 | | | | | | |
| **KSRS** | **Korea Array** | **122.71** | **328** | PKP | **PKPdf** | **13 39 54.5** | **+1.2** |
| | comp=Z,0.8nm,0.6s,baz=47,slow=2.5,SNR=3.6 | | | | | | |
| **ASAR** | **Alice Springs** | **139.63** | **246** | PKP | **PKPdf** | **13 40 30.6** | **+4.9** |
| | comp=Z,0.2nm,0.7s,baz=113,slow=1.5,SNR=3.4 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **150.93** | **350** | PKPbc | **PKPbc** | **13 40 49.9** | **-0.9** |
| | comp=Z,0.4nm,0.4s,baz=344,slow=2.9,SNR=3.8 | | | | | | |

*ISCJB **12** 13:51:03.1±0.5, 59°.18N±0°.04×18°.09E±0°.06, h0km, Error ellipse: s-maj=5.5km s-min=3.8km az=150.0*
*CSEM **12** 13:51:03.8±0.7, 59°.16N×17°.94E, h1km, ML1.8, Error ellipse: s-maj=22.8km s-min=13.0km az=163.0, Mining explosion.*
*HEL **12** 13:51:04.4±0.7, 59°.14N×17°.99E, h0km, ML1.8, Explosion*
*UPP **12** 13:51:04.3±0.8, 59°.17N×18°.01E, h2km±4km, ML2.2*
*IDC **12** 13:51:09.0±2.2, 59°.55N×18°.03E, h0km, mb1 3.3/2, mb1mx3.0/33, mbtmp3.2/2, ML2.2/2, Error ellipse: s-maj=26.4km s-min=8.5km az=179.0*
**ISC 12 13:51:03.7±0.9, 59°.17N±0°.04×18°.00E±0°.04, h0km, n31, σ0s94/39, Sweden**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **NRTU** | **Norrtaelje** | **0.60** | **32** | P | **Pg** | **13 51 15.3** | **+0.1** |
| NRTU | | | | S | **Sg** | **13 51 23.0** | **-0.1** |
| **UPP** | **Uppsala** | **0.71** | **345** | P | **Pg** | **13 51 17.6** | **+0.2** |
| **FIBU** | **Brunna** | **0.80** | **336** | P | **Pg** | **13 51 19.2** | **+0.1** |
| **ESKU** | **Eskilstuna** | **0.83** | **275** | P | **Pg** | **13 51 19.4** | **-0.1** |
| **VIKU** | **Vikbolandet** | **0.95** | **226** | P | **Pg** | **13 51 22.0** | **+0.1** |
| **FLYU** | **Flymyra** | **0.96** | **357** | P | **Pg** | **13 51 22.0** | **-0.1** |
| **OSTU** | **Oestervaala** | **1.15** | **338** | P | **Pg** | **13 51 25.4** | **-0.3** |
| **GRAU** | **Graesoe** | **1.20** | **13** | P | **Pg** | **13 51 26.4** | **-0.2** |
| **FORU** | **Forsmark** | **1.22** | **4** | P | **Pg** | **13 51 26.8** | **-0.4** |
| **GOTU** | **Gotland** | **1.52** | **168** | P | **Pn** | **13 51 31.6** | **-0.5** |
| **NRAU** | **Nora** | **1.56** | **286** | P | **Pn** | **13 51 32.8** | **+0.1** |
| **LNKU** | **Linkoeping** | **1.61** | **235** | P | **Pn** | **13 51 33.6** | **+0.3** |
| **ASKU** | **Askersund** | **1.66** | **262** | P | **Pn** | **13 51 34.4** | **+0.4** |
| **FALU** | **Falun** | **1.72** | **321** | P | **Pb** | **13 51 35.7** | **-0.4** |
| **ASPU** | **Aespoe** | **1.91** | **203** | P | **

| | | | | | | |
|---|---|---|---|---|---|---|
| **BALB** | **Balikesir** | **1.23 277** | *e*PN | **Pg** | **14 02 37.4** | **+1.4** |
| **BALB** | **Balikesir** | **1.23 277** | *e*Pn | **Pg** | **14 02 37.4** | **+1.4** |
| **STEP** | **BALIKESIR_Sava** | **1.36 265** | *i* P | **Pg** | **14 02 39.9** | **+1.5** |
| STEP | | | *i* S | **Sg** | **14 02 57.4** | **+1.4** |
| **STEP** | **BALIKESIR_Sava** | **1.36 265** | P | **Pg** | **14 02 39.9** | **+1.5** |
| STEP | | | S | **Sg** | **14 02 57.4** | **+1.4** |
| **BUY** | **Buyukada** | **1.36 349** | *e*PN | **Pb** | **14 02 38.9** | **+0.4** |
| **BUY** | **Buyukada** | **1.36 349** | *e*Pn | **Pb** | **14 02 38.9** | **+0.4** |

*ATA **12** 14:04:52.9±1.4, 38°.62N×43°.10E, h17km±8km, ML3.8, MW3.6*
*ISK **12** 14:04:53.0, 38°.66N×43°.21E, h5km, ML3.1*
*DDA **12** 14:04:53.3, 38°.61N×43°.19E, h7km, Ml3.4*
*CSEM **12** 14:04:53.9±0.2, 38°.64N×43°.21E, h2km, ML3.1, Error ellipse: s-maj=4.5km s-min=3.9km az=97.0*

**ISC 12 14:04:54.1±0.8, 38°.63N±0°.02×43°.21E±0°.02, h12km±7km, n64, σ0s.83/91, 2D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.15** | **104** | *e*PG | **Pg** | **14 04 57.8** | **+0.2** |
| **VANB** | **Van** | **0.15** | **104** | *e*Pg | **Pg** | **14 04 57.8** | **+0.2** |
| **TVAN** | **Van** | **0.18** | **123** | *i* P | **Pg** | **14 04 57.6** | **-0.7** |
| TVAN | | | | *i* S | **Sg** | **14 05 01.9** | **+0.7** |
| **TVAN** | **Van** | **0.18** | **123** | P | **Pg** | **14 04 57.6** | **-0.7** |
| TVAN | | | | S | **Sg** | **14 05 01.9** | **+0.7** |
| **GEVA** | **Gevas** | **0.34** | **200** | ⇓*i* P | **Pg** | **14 04 59.7** | **-1.3** |
| GEVA | | | | *e*S | **Sg** | **14 05 05.8** | **+0.2** |
| GEVA | | | | IAML | | 14 05 07.4 | |
| | comp=Z,1μm,0.4s | | | | | | |
| **GEVA** | **Gevas** | **0.34** | **200** | *i* P | **Pg** | **14 04 59.8** | **-1.1** |
| GEVA | | | | *i* S | **Sg** | **14 05 06.0** | **+0.5** |
| **ERCV** | **ERCIS-VAN** | **0.40** | **15** | *e*PG | **Pg** | **14 05 01.8** | **-0.3** |
| **ERCV** | **ERCIS-VAN** | **0.40** | **15** | *e*Pg | **Pg** | **14 05 01.8** | **-0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.42** | **295** | *i* P | **Pg** | **14 05 01.7** | **-0.7** |
| ADCV | | | | *i* S | **Sb** | **14 05 09.1** | **-0.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.42** | **295** | P | **Pg** | **14 05 01.7** | **-0.7** |
| ADCV | | | | S | **Sb** | **14 05 09.1** | **-0.8** |
| **VMUR** | **Van-Muradiye** | **0.46** | **38** | *i* P | **Pg** | **14 05 03.4** | **+0.2** |
| VMUR | | | | *i* S | **Sb** | **14 05 11.7** | **+0.6** |
| **CLDR** | **Caldiran** | **0.75** | **47** | *e*PG | **Pg** | **14 05 08.3** | **-0.4** |
| CLDR | | | | *e*SG | **Sb** | **14 05 19.5** | **-0.1** |
| **CLDR** | **Caldiran** | **0.75** | **47** | *i* P | **Pg** | **14 05 08.3** | **-0.4** |
| CLDR | | | | *i* S | **Sb** | **14 05 20.2** | **+0.6** |
| **CLDR** | **Caldiran** | **0.75** | **47** | *e*Pg | **Pg** | **14 05 08.3** | **-0.4** |
| CLDR | | | | *e*Sg | **Sb** | **14 05 19.5** | **-0.1** |
| CLDR | | | | S | **Sb** | **14 05 20.2** | **+0.6** |
| **TUTA** | **Tutak** | **0.83** | **338** | ⇓*i* P | **Pg** | **14 05 09.2** | **-0.9** |
| TUTA | | | | *e*S | **Sb** | **14 05 21.6** | **-0.2** |
| TUTA | | | | IAML | | 14 05 22.6 | |
| | comp=Z,488nm,0.3s | | | | | | |
| **TUTA** | **Tutak** | **0.83** | **338** | *i* P | **Pg** | **14 05 09.2** | **-0.9** |
| TUTA | | | | *i* S | **Sg** | **14 05 20.8** | **-0.2** |
| **TUTA** | **Tutak** | **0.83** | **338** | P | **Pg** | **14 05 09.2** | **-0.9** |
| TUTA | | | | S | **Sg** | **14 05 20.8** | **-0.2** |
| **BASK** | **Baskale_VAN** | **0.85** | **132** | *e*P | **Pn** | **14 05 11.8** | **-0.3** |
| BASK | | | | IAML | | 14 05 27.1 | |
| | comp=Z,116nm,0.7s | | | | | | |
| **BASK** | **Baskale_VAN** | **0.85** | **132** | *i* P | **Pg** | **14 05 08.9** | **-1.6** |
| **AGRB** | **Hanur-Agry** | **0.96** | **350** | *e*PG | **Pg** | **14 05 11.4** | **-1.2** |
| AGRB | | | | *e*SG | **Sb** | **14 05 25.9** | **+0.4** |
| **AGRB** | **Hanur-Agry** | **0.96** | **350** | *e*Pg | **Pg** | **14 05 11.4** | **-1.2** |
| AGRB | | | | *e*Sg | **Sb** | **14 05 25.9** | **+0.4** |
| **DYDN** | **Diyadin** | **0.98** | **22** | *e*P | **Pg** | **14 05 12.3** | **-0.8** |
| DYDN | | | | IAML | | 14 05 34.3 | |
| | comp=Z,67nm,0.5s | | | | | | |
| **DYDN** | **Diyadin** | **0.98** | **22** | *i* P | **Pg** | **14 05 12.3** | **-0.8** |
| **DYDN** | **Diyadin** | **0.98** | **22** | P | **Pg** | **14 05 12.3** | **-0.8** |
| **EKAR** | **Karacoban** | **1.09** | **305** | *e*PN12 | **Pg** | **14 05 14.9** | **-0.1** |
| EKAR | | | | IAML | | 14 05 44.9 | |
| | comp=Z,91nm,0.5s | | | | | | |
| **HAKT** | **HAKKARI** | **1.14** | **160** | *i* P | **Pb** | **14 05 14.1** | **-1.8** |
| **HAKT** | **HAKKARI** | **1.14** | **160** | P | **Pb** | **14 05 14.1** | **-1.8** |
| **SRTM** | **Siirt_Merkez** | **1.20** | **238** | *i* P | **Pb** | **14 05 16.2** | **-0.5** |
| SRTM | | | | *i* S | **Sn** | **14 05 33.5** | **+0.5** |
| **SRTM** | **Siirt_Merkez** | **1.20** | **238** | P | **Pb** | **14 05 16.2** | **-0.5** |
| SRTM | | | | S | **Sn** | **14 05 33.5** | **+0.5** |
| **SIRT** | **Sirnak** | **1.28** | **209** | *e*PN | **Pg** | **14 05 18.9** | **+0.2** |
| **SIRT** | **Sirnak** | **1.28** | **209** | *e*Pn | **Pg** | **14 05 18.9** | **+0.2** |
| **SIRN** | **S¨–rnak** | **1.29** | **209** | *i* P | **Pb** | **14 05 18.7** | **+0.3** |
| **SIRN** | **S¨–rnak** | **1.29** | **209** | P | **Pb** | **14 05 18.7** | **+0.3** |
| **YOVA** | **Hakkari_Y¨…kse** | **1.35** | **140** | *i* P | **Pn** | **14 05 18.5** | **-0.4** |
| **YOVA** | **Hakkari_Y¨…kse** | **1.35** | **140** | P | **Pn** | **14 05 18.5** | **-0.4** |
| **EATA** | **Eleskirt** | **1.35** | **336** | *e*P | **Pn** | **14 05 18.5** | **-0.6** |
| EATA | | | | *e*S | **Sg** | **14 05 39.4** | **+1.8** |
| EATA | | | | IAML | | 14 05 41.4 | |
| | comp=Z,26nm,0.4s | | | | | | |
| **EATA** | **Eleskirt** | **1.35** | **336** | *i* P | **Pn** | **14 05 18.0** | **-1.1** |
| EATA | | | | *i* S | **Sg** | **14 05 39.0** | **+1.4** |
| **EATA** | **Eleskirt** | **1.35** | **336** | P | **Pn** | **14 05 18.0** | **-1.1** |
| EATA | | | | S | **Sg** | **14 05 39.0** | **+1.4** |
| **CUKT** | **Cukurca** | **1.42** | **167** | *e*PN | **Pg** | **14 05 21.9** | **+0.6** |
| **CUKT** | **Cukurca** | **1.42** | **167** | *i* P | **Pg** | **14 05 22.2** | **+0.9** |
| **CUKT** | **Cukurca** | **1.42** | **167** | *e*Pn | **Pg** | **14 05 21.9** | **+0.6** |
| **CUKT** | **Cukurca** | **1.42** | **167** | P | **Pg** | **14 05 22.2** | **+0.9** |
| **VRTB** | **Varto-Mus** | **1.47** | **292** | *i* P | **Pn** | **14 05 20.6** | **0.0** |
| **VRTB** | **Varto-Mus** | **1.47** | **292** | P | **Pn** | **14 05 20.5** | **0.0** |
| **TASB** | **TASBURUN-IGDIR** | **1.57** | **30** | *e*PN | **Pb** | **14 05 23.1** | **0.0** |
| **TASB** | **TASBURUN-IGDIR** | **1.57** | **30** | *e*Pn | **Pb** | **14 05 23.1** | **0.0** |
| **BNGL** | **BINGOL** | **1.64** | **282** | *e*P | **Pn** | **14 05 23.2** | **+0.3** |
| BNGL | | | | IAML | | 14 05 47.7 | |
| | comp=Z,160nm,0.4s | | | | | | |
| **BNGL** | **BINGOL** | **1.64** | **282** | *i* P | **Pn** | **14 05 23.2** | **+0.3** |
| BNGL | | | | *i* S | **Sb** | **14 05 45.0** | **-0.1** |
| **BTMN** | **Batman** | **1.69** | **245** | *i* P | **Pn** | **14 05 24.0** | **+0.4** |
| BTMN | | | | *i* S | **Sg** | **14 05 47.9** | **-0.7** |
| **BTMN** | **Batman** | **1.69** | **245** | P | **Pn** | **14 05 24.0** | **+0.4** |
| BTMN | | | | S | **Sg** | **14 05 47.9** | **-0.7** |
| **HOMI** | **Horasan** | **1.74** | **325** | *e*PN12 | **Pb** | **14 05 25.6** | **-0.4** |
| HOMI | | | | IAML | | 14 05 53.9 | |
| | comp=Z,27nm,0.6s | | | | | | |
| **HOMI** | **Horasan** | **1.74** | **325** | *i* P | **Pb** | **14 05 25.3** | **-0.7** |
| HOMI | | | | *i* S | **Sg** | **14 05 51.1** | **+1.1** |
| **DIGO** | **Kars** | **1.79** | **4** | *e*P | **Pb** | **14 05 26.8** | **-0.2** |
| DIGO | | | | IAML | | 14 05 31.7 | |
| | comp=Z,20nm,0.6s | | | | | | |
| **ERZM** | **Erzurum** | **1.92** | **312** | *i* P | **Pb** | **14 05 29.5** | **+0.4** |
| **ERZM** | **Erzurum** | **1.92** | **312** | P | **Pb** | **14 05 29.5** | **+0.4** |
| **BNGB** | **Bing¶ll** | **2.01** | **281** | *e*PN | **Pb** | **14 05 29.6** | **-1.0** |
| **EAK** | **Akyaka** | **2.08** | **8** | *e*PN12 | **Pb** | **14 05 31.0** | **-0.8** |
| EAK | | | | IAML | | 14 05 40.4 | |
| | comp=Z,22nm,0.4s | | | | | | |
| **BINT** | **Bingol** | **2.14** | **277** | *e*Pn | **Pn** | **14 05 29.6** | **-0.2** |
| **HANI** | **Diyarbakir_Han** | **2.21** | **265** | *i* P | **Pb** | **14 05 33.1** | **-1.0** |
| HANI | | | | *i* S | **Sb** | **14 06 01.5** | **0.0** |
| **HANI** | **Diyarbakir_Han** | **2.21** | **265** | P | **Pb** | **14 05 33.1** | **-1.0** |
| HANI | | | | S | **Sb** | **14 06 01.5** | **0.0** |
| **MAZI** | **Mazidag** | **2.47** | **243** | *e*PN | **Pn** | **14 05 36.1** | **+1.8** |
| **MAZI** | **Mazidag** | **2.47** | **243** | *e*Pn | **Pn** | **14 05 36.1** | **+1.8** |
| **PTK** | **Pertek** | **3.00** | **276** | *e*PN | **Pn** | **14 05 43.3** | **+1.7** |
| **PTK** | **Pertek** | **3.00** | **276** | *e*Pn | **Pn** | **14 05 43.3** | **+1.7** |

*CSEM **12** 14:07:27.9, 42°.50N×13°.18E, h11km, MD1.8/7*

**ROM 12 14:07:27.9±0.1, 42°.50N×13°.18E, h11km, Md1.8/7, Ml1.5/5, Error ellipse: s-maj=0.9km s-min=0.8km az=64.0, Central Italy**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LNSS** | **Leonessa** | **0.14** | **314** | Pg | Pg | 14 07 31.8 | +0.5 |
| LNSS | | | | Sg | Sg | 14 07 34.4 | +0.7 |
| | 216nm,0.1s | | | | | | |
| **LNSS** | **Leonessa** | **0.14** | **314** | Pg | Pg | 14 07 31.8 | +0.5 |
| LNSS | | | | Sg | Sg | 14 07 34.4 | +0.7 |
| | 216nm,0.1s | | | | | | |
| **SMA1** | **SAN MARTINO** | **0.17** | **42** | Pg | Sg | 14 07 32.4 | +0.7 |
| SMA1 | | | | Sg | Sg | 14 07 35.5 | +1.1 |
| | 155nm,0.3s | | | | | | |
| **SMA1** | **SAN MARTINO** | **0.17** | **42** | Pg | Pg | 14 07 32.4 | +0.7 |
| SMA1 | | | | Sg | Sg | 14 07 35.5 | +1.1 |
| | 155nm,0.3s | | | | | | |
| **CAMP** | **Campotosto** | **0.17** | **79** | Pg | Pb | 14 07 32.5 | -0.7 |
| CAMP | | | | Sg | Sg | 14 07 35.5 | +1.0 |
| | 44nm,0.7s | | | | | | |
| **CAMP** | **Campotosto** | **0.17** | **79** | Pg | Pb | 14 07 32.5 | -0.7 |
| CAMP | | | | Sg | Sg | 14 07 35.5 | +1.0 |
| | 44nm,0.7s | | | | | | |
| **T0104** | **Madonna delle** | **0.18** | **141** | Pg | Pb | 14 07 32.7 | -0.7 |
| T0104 | | | | Sg | Sg | 14 07 36.2 | +1.5 |
| **FIAM** | **Fiamignano** | **0.24** | **191** | Pg | Pg | 14 07 33.6 | +0.7 |
| FIAM | | | | Sg | Sg | 14 07 37.6 | +1.4 |
| | 39nm,0.4s | | | | | | |
| **FIAM** | **Fiamignano** | **0.24** | **191** | Pg | Pg | 14 07 33.6 | +0.7 |
| FIAM | | | | Sg | Sg | 14 07 37.6 | +1.4 |
| | 39nm,0.4s | | | | | | |
| **NRCA** | **Norcia** | **0.33** | **352** | Pg | Pg | 14 07 35.1 | +0.5 |
| NRCA | | | | Sg | Sb | 14 07 41.0 | -0.4 |
| | 53nm,0.1s | | | | | | |
| **NRCA** | **Norcia** | **0.33** | **352** | Pg | Pg | 14 07 35.1 | +0.5 |
| NRCA | | | | Sg | Sb | 14 07 41.0 | -0.4 |
| | 53nm,0.1s | | | | | | |
| **TERO** | **Teramo** | **0.34** | **69** | Pg | Pg | 14 07 34.8 | +0.2 |
| TERO | | | | Sg | Sb | 14 07 40.3 | -1.1 |
| **TERO** | **Teramo** | **0.34** | **69** | Pg | Pg | 14 07 34.8 | +0.2 |
| TERO | | | | Sg | Sb | 14 07 40.3 | -1.1 |

*IDC **12** 14:12:30.7±1.2, 31°.16S×178°.60W, h0km, mb4.4/5, mb1 4.4/6, mb1mx4.1/33, mbtmp4.3/6, ML3.8/1, Error ellipse: s-maj=38.8km s-min=28.3km az=159.0*
*NEIC **12** 14:12:36.5±0.8, 31°.16S×178°.71W, h35km, mb4.8/2, Error ellipse: s-maj=20.3km s-min=18.1km az=84.0*
*ISCJB **12** 14:12:45.7±1.0, 31°.73S±0°.06×179°.14W±0°.2, h100km, mb4.5/7, Error ellipse: s-maj=19.5km s-min=7.8km az=177.0*

**ISC 12 14:12:48.4±1.0, 31°.80S±0°.08×179°.5W±0°.2, h100km, n41, σ2s.05/42, mb4.6/7, 1C, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MXZ** | **Matakaoa Point** | **6.02** | **197** | PN | **Pn** | **14 14 16.2** | **+1.2** |
| MXZ | | | | SN | **Sn** | **14 15 23.9** | **+1.4** |
| **WMGZ** | **Waiomatatini S** | **6.24** | **195** | PN | **Pn** | **14 14 19.1** | **+1.2** |
| **HAZ** | **Te Kaha** | **6.34** | **200** | PN | **Pn** | **14 14 20.1** | **+0.8** |
| **PUZ** | **Puketiti** | **6.52** | **196** | PN | **Pn** | **14 14 21.1** | **-0.6** |
| **RUGZ** | **Raukumara Rang** | **6.57** | **200** | PN | **Pn** | **14 14 23.4** | **+0.9** |
| **TWGZ** | **Tauwhareparae** | **6.69** | **197** | PN | **Pn** | **14 14 24.7** | **+0.7** |
| **MWZ** | **Matawai** | **6.96** | **200** | PN | **Pn** | **14 14 27.4** | **-0.3** |
| **URZ** | **Urewera** | **7.01** | **202** | Pn | **Pn** | **14 14 27.9** | **-0.5** |
| | 1.3nm,0.3s,baz=282,slow=5.3,SNR=14 | | | | | | |
| URZ | | | | Sn | **Sn** | **14 15 50.1** | **+3.6** |
| | 7.2nm,0.3s,baz=178,slow=20,SNR=16 | | | | | | |
| **URZ** | **Urewera** | **7.01** | **202** | PN | **Pn** | **14 14 28.0** | **-0.3** |
| URZ | | | | SN | **Sn** | **14 15 49.2** | **+2.7** |
| **RIGZ** | **Rimuhau** | **7.24** | **197** | PN | **Pn** | **14 14 34.1** | **+2.6** |
| **SNGZ** | **Shannon Statio** | **7.43** | **199** | PN | **Pn** | **14 14 36.4** | **+2.3** |
| **KNZ** | **Kokohu** | **7.56** | **197** | PN | **Pn** | **14 14 34.8** | **-1.1** |
| **MHGZ** | **Mahia Peninsul** | **7.63** | **195** | PN | **Pn** | **14 14 39.0** | **+2.2** |
| **ARHZ** | **Aropaoanui** | **7.97** | **200** | PN | **Pn** | **14 14 43.1** | **+1.7** |
| **KWHZ** | **Kaweka Forest** | **8.29** | **202** | PN | **Pn** | **14 14 45.6** | **-0.3** |
| **KAHZ** | **Kahuranaki** | **8.50** | **199** | PN | **Pn** | **14 14 49.2** | **+0.6** |
| **PRHZ** | **Porangahau** | **9.01** | **199** | PN | **Pn** | **14 14 54.4** | **-1.1** |
| **TSZ** | **Takapari Road** | **9.02** | **203** | PN | **Pn** | **14 14 54.5** | **-1.2** |
| **BFZ** | **Birch Farm** | **9.50** | **200** | PN | **Pn** | **14 15 01.1** | **-1.1** |
| BFZ | | | | *e*SN | **Sn** | **14 16 43.7** | **-3.3** |
| **MRZ** | **Mangatainoka R** | **9.69** | **203** | PN | **Pn** | **14 15 01.7** | **-3.1** |
| MRZ | | | | *e*SN | **Sn** | **14 16 46.8** | **-4.8** |
| **CAW** | **Cannon Point** | **10.26** | **204** | PN | **Pn** | **14 15 10.2** | **-2.3** |
| **CTA** | **Charters Tower** | **32.78** | **282** | P | **P** | **14 19 13.0** | **+0.9** |
| | 3.2nm,0.8s,baz=108,slow=11,SNR=3.2 | | | | | | |
| **CTAO** | **Charters Tower** | **32.78** | **282** | *e*P | **P** | **14 19 12.9** | **+0.8** |
| | 97nm,1.4s | | | | | | |
| **STKA** | **Stephens Creek** | **32.91** | **259** | P | **P** | **14 19 15.0** | **+1.8** |
| | 1.4nm,0.5s,baz=98,slow=10,SNR=6.5 | | | | | | |
| **STKA** | **Stephens Creek** | **32.91** | **259** | P | **P** | **14 19 15.0** | **+1.8** |
| **ASAR** | **Alice Springs** | **41.76** | **269** | P | **P** | **14 20 27.7** | **-0.3** |
| | 5.3nm,0.5s,baz=107,slow=7.4,SNR=174 | | | | | | |
| **WRAB** | **Tennant Creek** | **42.87** | **274** | *e*P | P | 14 20 36.1 | -0.9 |
| | 5.0nm,0.7s | | | | | | |
| **WRA** | **Warramunga Arr** | **42.87** | **274** | P | **P** | **14 20 36.5** | **-0.6** |
| | 4.9nm,0.4s,baz=112,slow=7.9,SNR=181 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **51.07** | **272** | P | **P** | **14 21 40.2** | **-0.6** |
| | 1.6nm,0.6s,baz=136,slow=3.9,SNR=7.5 | | | | | | |
| **QSPA** | **South Pole Qui** | **58.32** | **180** | *e*P | **P** | **14 22 33.8** | **+1.2** |
| | 18nm,0.7s | | | | | | |
| **SYO** | **Syowa Base** | **75.46** | **194** | ⇑*e*X | P | 14 24 17.4 | -3.6 |
| **SNAA** | **Sanae** | **76.79** | **179** | P | P | 14 24 25.8 | -2.8 |
| **VNA3** | **Neumayer Olymp** | **77.00** | **177** | P | **P** | **14 24 29.4** | **-0.3** |
| **VNA2** | **Neumayer--Watz** | **77.42** | **177** | P | **P** | **14 24 30.9** | **-1.2** |
| | baz=178,slow=4.7 | | | | | | |
| **ARCES** | **ARCESS Array B** | **139.66** | **347** | PKP | **PKPdf** | **14 32 00.6** | **-2.8** |
| | 2.2nm,1.0s,baz=57,slow=3.3,SNR=2.8 | | | | | | |
| **KBZ** | **Khabaz** | **144.77** | **302** | PKPbc | PKPbc | 14 32 07.4 | -5.1 |
| | 2.5nm,1.0s,baz=174,slow=1.7,SNR=4.1 | | | | | | |
| **FINES** | **FINESS Array B** | **145.98** | **338** | PKPbc | **PKPdf** | **14 32 10.5** | **-4.3** |
| | 1.3nm,0.3s,baz=52,slow=3.4,SNR=15 | | | | | | |
| **HFS** | **Hagfors** | **150.32** | **347** | PKPbc | **PKPdf** | **14 32 21.3** | **-0.6** |
| | 1.4nm,0.4s,baz=207,slow=0.3,SNR=7.5 | | | | | | |
| **AKASG** | **Malin Array Be** | **151.57** | **320** | PKPbc | **PKPdf** | **14 32 26.7** | **+2.6** |
| | 0.6nm,0.5s,baz=47,slow=2.7,SNR=2.9 | | | | | | |
| **BRTR** | **Keskin Array B** | **152.07** | **296** | PKPbc | **PKPdf** | **14 32 28.9** | **+3.4** |
| | 1.0nm,0.5s,baz=134,slow=4.4,SNR=7.2 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **161.41** | **184** | PKPab | **PKPab** | **14 33 20.3** | **-2.1** |
| | 0.6nm,0.5s,baz=177,slow=4.1,SNR=4.8 | | | | | | |

*BKK **12** 14:14:56.3±1.1, 20°.N±19°×9°.6E±1°.3, h112km±31km, M4.5/11, mb4.1/2, mB4.8/1, MLv4.8/11, Mw(mB)4.0/1*
*IDC **12** 14:15:02.3±1.6, 19°.59N×96°.15E, h0km, mb3.5/3, mb1 3.6/4, mb1mx3.2/65, mbtmp3.3/4, ML3.4/1, MS3.3/2, Ms1 3.3/2, ms1mx2.8/32, Error ellipse: s-maj=24.3km s-min=18.4km az=48.0*

**ISC 12 14:15:02.2±0.9, 19°.7N±0°.1×96°.28E±0°.07, h10km, n17, σ1s.79/20, mb3.5/3, Myanmar**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CHTO** | **Chiang Mai** | **2.66** | **108** | P | **Pb** | **14 15 48.1** | **-1.8** |
| CHTO | | | | S | **Sg** | **14 16 27.7** | **+0.1** |
| **CMMT** | **Chiang Mai** | **2.66** | **108** | P | **Pb** | **14 15 48.1** | **-1.9** |
| CMMT | | | | S | **Sg** | **14 16 27.1** | **-0.7** |
| **CMAR** | **Chiang Mai Arr** | **2.79** | **115** | Pn | **Pn** | **14 15 47.8** | **+0.8** |
| | 1.4nm,0.3s,baz=290,slow=17,SNR=29 | | | | | | |
| CMAR | | | | Pg | **Pg** | **14 15 54.2** | **-1.5** |
| | 28nm,0.3s,baz=289,slow=17,SNR=115 | | | | | | |
| CMAR | | | | Lg | Lg | 14 16 32.4 | |
| | 62nm,0.3s,baz=292,slow=29,SNR=8 | | | | | | |
| **PHRA** | **Phrae** | **3.91** | **107** | P | **Pn** | **14 16 03.9** | **+1.5** |
| **NANT** | **Nan** | **4.27** | **101** | P | **Pb** | **14 16 15.1** | **-2.3** |
| NANT | | | | S | **Sg** | **14 17 21.2** | **+1.9** |
| **UTHA** | **Uthaitani** | **5.08** | **143** | P | **Pn** | **14 16 19.8** | **+1.4** |
| | 22nm,0.6s,981nm0.4nm | | | | | | |
| UTHA | | | | S | **Sg** | **14 17 43.7** | **-1.6** |
| | 22nm,0.6s,981nm0.4nm | | | | | | |
| **BRDH** | **Bariadhala** | **5.26** | **306** | LR | LR | 14 18 21.7 | |
| | comp=Z,66nm,21.8s,baz=324,slow=38 | | | | | | |
| **PBKT** | **Sadao Pong** | **5.42** | **124** | P | **Pn** | **14 16 24.6** | **+1.5** |
| **ODAN** | **Odaran** | **10.86** | **313** | *e*P | **Pn** | **14 17 38.1** | **+0.1** |
| **TAPN** | **Taplejung** | **10.97** | **316** | *e*P | **Pn** | **14 17 38.2** | **-1.3** |
| **RAMN** | **Ramite** | **11.47** | **311** | *e*P | **Pn** | **14 17 45.7** | **-0.7** |
| **PKIN** | **Phulchoki** | **12.70** | **310** | *e*P | **Pn** | **14 18 02.6** | **-0.6** |
| **KOLN** | **Koldanda** | **14.13** | **307** | *e*P | **Pn** | **14 18 20.0** | **-2.7** |
| | 12nm,0.6s | | | | | | |
| **MKAR** | **Makanchi Array** | **29.39** | **340** | P | **P** | **14 21 05.8** | **+0.3** |
| | 0.7nm,0.9s,baz=145,slow=10,SNR=3.6 | | | | | | |
| **YAK** | **Yakutsk** | **48.25** | **20** | LR | LR | 14 45 33.5 | |
| | comp=Z,158nm,18.2s,baz=344,slow=38 | | | | | | |
| **WRA** | **Warramunga Arr** | **54.22** | **134** | P | **P** | **14 24 31.0** | **+2.6** |
| | 0.5nm,0.8s,baz=323,slow=7.9,SNR=4.2 | | | | | | |
| **ASAR** | **Alice Springs** | **56.57** | **138** | P | **P** | **14 24 48.5** | **+3.2** |
| | 0.2nm,0.8s,baz=322,slow=7.1,SNR=6.2 | | | | | | |

*ISCJB **12** 14:19:28.0±1.0, 31°.91S±0°.04×69°.61W±0°.05, h113km±9km, Error ellipse: s-maj=8.4km s-min=5.0km az=38.1*
*GUC **12** 14:19:27.8±0.7, 31°.89S×69°.95W, h129km±12km, ML2.6*
*SJA **12** 14:19:28.5±0.8, 31°.92S×69°.56W, h103km±4km, ML2.4, MW3.2*

**ISC 12 14:19:28.7±1.6, 31°.90S±0°.05×69°.63W±0°.05, h108km±12km, n13, σ0s.74/23, 1C, San Juan Province**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RTLS** | **Leoncito** | **0.30** | **70** | *e*P | **Pn** | **14 19 44.4** | **-0.2** |
| RTLS | | | | *e*S | **Sn** | **14 19 56.8** | **+0.3** |
| RTLS | | | | IAML | | 14 19 57.0 | |
| | comp=Z,113nm,0.2s | | | | | | |
| **AUSP** | **Uspallata** | **0.38** | **147** | *e*P | **Pn** | **14 19 45.1** | **+0.2** |
| AUSP | | | | *e*S | **Sn** | **14 19 56.9** | **-0.2** |
| **RTCV** | **Cerro Valdivia** | **0.93** | **88** | *e*P | **Pn** | **14 19 49.2** | **+0.2** |
| RTCV | | | | *e*S | **Sn** | **14 20 03.5** | **-0.9** |
| **AMOG** | **MOGNA** | **1.37** | **46** | *e*P | **Pn** | **14 19 54.1** | **+0.3** |
| AMOG | | | | *e*S | **Sn** | **14 20 12.6** | **-0.4** |
| **PEL** | **Peldehue** | **1.52** | **215** | *e*P | **Pn** | **14 19 55.5** | **-0.2** |
| PEL | | | | *e*S | **Sn** | **14 20 16.0** | **-0.1** |
| PEL | | | | IAML | | 14 20 16.2 | |
| | comp=N,70nm,0.3s | | | | | | |
| **FCH** | **Farellones** | **1.52** | **201** | *e*P | **Pn** | **14 19 56.8** | **+0.8** |
| FCH | | | | *i* S | **Sn** | **14 20 18.6** | **+1.9** |
| **ROCH** | **El Roble** | **1.58** | **227** | ⇑*i* P | **Pn** | **14 19 55.8** | **-0.7** |
| ROCH | | | | *i* S | **Sn** | **14 20 17.1** | **-0.5** |
| ROCH | | | | IAML | | 14 20 20.1 | |
| | comp=N,143nm,0.2s | | | | | | |
| **CLCH** | **Cerro Calan** | **1.67** | **207** | *i* S | **Sn** | **14 20 20.4** | **+1.0** |
| CLCH | | | | IAML | | 14 20 22.7 | |
| | comp=E,85nm,0.5s | | | | | | |
| **RCDM** | **Rinconada Maip** | **1.86** | **212** | *e*P | **Pn** | **14 19 59.0** | **-0.9** |
| RCDM | | | | *e*S | **Sn** | **14 20 23.5** | **-0.1** |
| **LMEL** | **Las Melosas** | **2.00** | **194** | IAML | | 14 20 37.6 | |
| | comp=N,44nm,0.1s | | | | | | |
| **TLL** | **Tololo Astrono** | **2.00** | **330** | *e*P | **Pn** | **14 20 01.3** | **-0.6** |
| TLL | | | | *e*S | **Sn** | **14 20 27.0** | **-0.1** |
| TLL | | | | IAML | | 14 20 28.8 | |
| | comp=E,55nm,0.4s | | | | | | |
| **ACAN** | **Cantantal** | **2.11** | **101** | *e*P | **Pn** | **14 20 02.4** | **-0.6** |
| ACAN | | | | *e*S | **Sn** | **14 20 28.6** | **-0.6** |
| **AGUA** | **GUANDACOL** | **2.60** | **23** | *e*P | **Pn** | **14 20 10.4** | **+0.9** |
| AGUA | | | | *e*S | **Sn** | **14 20 41.4** | **+0.7** |

**BUC 12 14:23:36.0±0.4, 46°.33N×23°.15E, h5km±4km, MD2.5/4, 8C-8D, Error ellipse: s-maj=3.5km s-min=2.3km az=3.0, Romania**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CJR** | **Cluj-Napoca** | **0.50** | **39** | ⇓*i* P | **Pg** | **14 23 46.0** | **+0.4** |
| **CJR** | **Cluj-Napoca** | **0.50** | **39** | *i* S | **Sb** | **14 23 53.7** | **-1.1** |
| **CJR** | **Cluj-Napoca** | **0.50** | **39** | ⇓*i* P | **Pg** | **14 23 46.0** | **+0.4** |
| CJR | | | | *i* S | **Sb** | **14 23 53.7** | **-1.1** |
| **DRGR** | | **0.55** | **327** | ⇑*i* P | **Pg** | **14 23 47.4** | **+0.8** |
| **DRGR** | | **0.55** | **327** | ⇑*i* P | **Pg** | **14 23 47.4** | **+0.8** |
| DRGR | | | | *i* S | **Sb** | **14 23 55.3** | **-1.1** |
| **LOT** | **Lotru** | **0.98** | **153** | ⇓*i* P | **Pb** | **14 23 55.5** | **-0.1** |
| **LOT** | **Lotru** | **0.98** | **153** | ⇓*i* P | **Pb** | **14 23 55.5** | **-0.1** |
| LOT | | | | *i* S | **Sb** | **14 24 09.4** | **+0.5** |
| **SIRR** | **Siria** | **1.03** | **267** | ⇓*i* P | **Pn** | **14 23 56.8** | **-0.3** |
| **SIRR** | **Siria** | **1.03** | **267** | ⇓*i* P | **Pn** | **14 23 56.8** | **-0.3** |
| SIRR | | | | *i* S | **Sn** | **14 24 11.1** | **-0.8** |
| **BZS** | **Buzias** | **1.28** | **237** | ⇑*i* P | **Pb** | **14 24 00.9** | **+0.3** |
| **BZS** | **Buzias** | **1.28** | **237** | ⇑*i* P | **Pb** | **14 24 00.9** | **+0.3** |
| BZS | | | | *i* S | **Sn** | **14 24 18.6** | **+0.7** |
| **ARR** | **Arges** | **1.42** | **132** | ⇑*i* P | **Pb** | **14 24 03.0** | **+0.1** |
| **ARR** | **Arges** | **1.42** | **132** | ⇑*i* P | **Pb** | **14 24 03.0** | **+0.1** |
| ARR | | | | *i* S | **Sn** | **14 24 22.6** | **+1.1** |
| **VOIR** | | **1.60** | **123** | ⇓*i* P | **Pb** | **14 24 06.2** | **+0.1** |
| **VOIR** | | **1.60** | **123** | ⇓*i* P | **Pb** | **14 24 06.2** | **+0.1** |
| VOIR | | | | *i* S | **Sg** | **14 24 28.4** | **+1.0** |
| **BURAR** | **Bucovina Array** | **1.92** | **47** | ⇑*i* P | **Pn** | **14 24 10.4** | **+1.0** |
| **BURAR** | **Bucovina Array** | **1.92** | **47** | ⇑*i* P | **Pn** | **14 24 10.4** | **+1.0** |
| BURAR | | | | *i* S | **Sb** | **14 24 35.0** | **-0.7** |

**NNC 12 14:24:38.4±4.0, 36°.92N×71°.05E, h0km, mb3.6, mpv3.2, 4C-3D, Error ellipse: s-maj=32.9km s-min=13.9km az=174.0, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC |

*mb1 3.5/4, mb1mx3.3/33, mbtmp3.4/4, ML3.5/2, MS2.6/1, Ms1 2.6/1, ms1mx2.0/28, Error ellipse: s-maj=43.1km s-min=27.4km az=63.0*

*ISCJB* ***12*** *14:37:35.3±1.2, 36.17N±0.05×142.0E±0.1, h23km, mb3.4/2, Error ellipse: s-maj=11.8km s-min=7.0km az=9.8*

*JMA* ***12*** *14:37:36.9±0.1, 36.22N×141.93E, h53km±5km, M3.3*

**ISC 12 14:37:35.6±1.4, 36.17N±0.05×141.95E±0.09, h23km, n21, σ1s43/21, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **CHOJ** | **Chosi** | **1.00** | **242** | P | | **P** | **Pn** | **14 37 55.1** | **+0.9** |
| CHOJ | | | | S | | | **Sn** | **14 38 08.9** | **+1.2** |
| **JHO** | **Hitachi** | **1.20** | **292** | P | | **P** | **Pb** | **14 37 57.0** | **-0.6** |
| **ONAJ** | **Iwakimizuishiy** | **1.31** | **315** | P | | **P** | **Pn** | **14 37 58.7** | **+0.2** |
| **JFK** | **Kawauchi** | **1.47** | **324** | P | | **P** | **Pn** | **14 38 01.3** | **+0.6** |
| JFK | | | | *e*S | | | **Sn** | **14 38 18.3** | **-1.0** |
| **BSO1** | **Boso 1** | **1.71** | **208** | P | | **P** | **Pb** | **14 38 05.9** | **-0.1** |
| **JAG** | **Ashikaga** | **2.03** | **278** | P | | **P** | **Pn** | **14 38 09.3** | **+0.9** |
| **JKT** | **Katashina** | **2.26** | **286** | P | | **P** | **Pn** | **14 38 13.2** | **+1.6** |
| **JRY** | **Ryogami san** | **2.48** | **267** | P | | **P** | **Pn** | **14 38 15.5** | **+1.0** |
| JRY | | | | *e*S | | | **Sn** | **14 38 43.8** | **-0.2** |
| **JOD2** | **Odawara 2** | **2.50** | **250** | P | | **P** | **Pn** | **14 38 16.4** | **+1.5** |
| JOD2 | | | | S | | | **Sn** | **14 38 44.8** | **+0.1** |
| **MJAR** | **Matsushiro Arr** | **3.04** | **278** | Pn | | **P** | **Pn** | **14 38 23.9** | **+1.5** |
| | 6.2nm,0.3s,baz=111,slow=9.1,SNR=59 | | | | | | | | |
| MJAR | | | | | | | **Sn** | **14 39 03.8** | **-2.0** |
| | 2.3nm,0.3s,baz=69,slow=12,SNR=5.4 | | | | | | | | |
| **MAT** | **Matsushiro** | **3.04** | **278** | P | | **P** | **Pn** | **14 38 24.4** | **+2.1** |
| MAT | | | | S | | | **Sn** | **14 38 55.1** | **-3.0** |
| **JHJ** | **Hachijo jima 2** | **3.53** | **211** | Pn | | **P** | **Pn** | **14 38 28.3** | **-0.7** |
| | 9.1nm,0.3s,baz=72,slow=20,SNR=4.4 | | | | | | | | |
| JHJ | | | | | | | **Sn** | **14 39 08.9** | **-1.1** |
| | 24nm,0.3s,baz=87,slow=23,SNR=7.9 | | | | | | | | |
| **KSRS** | **Korea Array** | **11.32** | **281** | LR | | LR | | 14 44 50.3 | |
| | comp=Z,30nm,18.6s,baz=335,slow=38 | | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **27.34** | **120** | T | | T | | 15 12 05.5 | |
| | baz=307 | | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **27.35** | **120** | T | | T | | 15 12 42.7 | |
| | baz=307 | | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **27.36** | **120** | T | | T | | 15 12 19.5 | |
| | baz=307 | | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.03** | **122** | T | | T | | 15 13 26.5 | |
| | baz=318 | | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.03** | **122** | T | | T | | 15 13 31.1 | |
| | baz=318 | | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.05** | **122** | T | | T | | 15 13 39.0 | |
| | baz=318 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **44.95** | **303** | P | | **P** | | **14 45 50.6** | **+2.0** |
| | 0.4nm,0.8s,baz=84,slow=9.7,SNR=2.9 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **56.27** | **189** | P | | **P** | | **14 47 13.4** | **-0.9** |
| | 0.5nm,1.0s,baz=5.0,slow=7.4,SNR=2.7 | | | | | | | | |

*IDC* ***12*** *14:38:22.2±0.9, 13.35S×77.14W, h0km, mb3.7/8, mb1 4.0/9, mb1mx3.8/24, mbtmp3.8/9, ML4.0/1, MS3.6/1, Ms1 3.6/1, ms1mx2.8/29, Error ellipse: s-maj=26.3km s-min=13.5km az=88.0*

*NEIC* ***12*** *14:38:23.8±0.5, 13.33S×77.09W, h10km, mb4.2/1, ML4.3(ARE), Error ellipse: s-maj=12.7km s-min=8.7km az=79.0*

*NEIC Felt [II] at San Vicente de Canete.*

**ISC 12 14:38:26.5±0.9, 13.33S±0.08×77.1W±0.1, h28km, n27, σ0s99/21, mb3.8/8, Off coast of Peru**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **NNA** | **Nana** | **1.36** | **9** | Pg | | **P** | **Pn** | **14 38 48.6** | **-1.0** |
| | 606nm,0.3s,baz=190,slow=14,SNR=847 | | | | | | | | |
| NNA | | | | | | Lg | Lg | 14 39 06.2 | |
| | 336nm,0.3s,baz=170,slow=10,SNR=7.1 | | | | | | | | |
| **NNA** | **Nana** | **1.36** | **9** | Pg | | **P** | **Pn** | **14 38 48.6** | **-1.0** |
| NNA | | | | *e*Pn | | | **Pn** | **14 38 48.6** | **-1.0** |
| NNA | | | | *e*S | | | **Sn** | **14 39 05.9** | **-0.8** |
| NNA | | | | Lg | | Lg | | 14 39 06.2 | |
| **ARE** | **Arequipa** | **6.22** | **121** | *e*P | | Pb | | 14 40 08.0 | -6.3 |
| ARE | | | | *e*S | | | **Sb** | **14 41 29.0** | **+0.5** |
| **ATAH** | **Atahualpa** | **6.30** | **348** | Pn | | **Pn** | | **14 39 58.7** | **+0.8** |
| | 3.1nm,0.3s,baz=136,slow=7.0,SNR=7.9 | | | | | | | | |
| ATAH | | | | | | Lg | Lg | 14 41 27.2 | |
| | 2.4nm,0.3s,baz=286,slow=20,SNR=3.6 | | | | | | | | |
| **LPAZ** | **La Paz** | **9.13** | **110** | Pn | | Pn | | 14 40 41.2 | +4.2 |
| | 1.1nm,0.3s,baz=282,slow=8.0,SNR=16 | | | | | | | | |
| LPAZ | | | | | | | Sn | 14 42 30.7 | +12 |
| | baz=218,slow=19,SNR=4.3 | | | | | | | | |
| **OTAV** | **Otavalo** | **13.55** | **354** | P | | **P** | **Pn** | **14 41 40.3** | **+2.9** |
| | 7.7nm,0.7s | | | | | | | | |
| **SAML** | **Samuel** | **14.30** | **74** | *e*P | | **P** | **Pn** | **14 41 47.1** | **-0.1** |
| | 3.9nm,0.6s | | | | | | | | |
| **ROSC** | **El Rosal** | **18.26** | **9** | LR | | LR | | 14 51 08.9 | |
| | comp=Z,162nm,19.0s,baz=266,slow=42 | | | | | | | | |
| **PTGA** | **Pitinga** | **21.06** | **55** | P | | **P** | | **14 43 08.3** | **-0.3** |
| | 1.6nm,0.4s,baz=288,slow=16,SNR=2.9 | | | | | | | | |
| **CPUP** | **Villa Florida** | **22.58** | **128** | P | | **P** | | **14 43 24.4** | **-0.5** |
| | 1.0nm,0.7s,baz=310,slow=16,SNR=3.0 | | | | | | | | |
| **SDV** | **Santo Domingo** | **22.98** | **16** | P | | **P** | | **14 43 29.1** | **-0.1** |
| | 3.5nm,0.4s,baz=313,slow=11,SNR=7.1 | | | | | | | | |
| **SDV** | **Santo Domingo** | **22.98** | **16** | *e*P | | **P** | | **14 43 29.2** | **-0.1** |
| | 5.3nm,0.6s | | | | | | | | |
| **PLCA** | **Paso Flores** | **27.89** | **169** | P | | **P** | | **14 44 13.7** | **-0.3** |
| | 1.6nm,0.8s,baz=348,slow=9.4,SNR=5.4 | | | | | | | | |
| **TXAR** | **Lajitas Array** | **49.59** | **329** | P | | **P** | | **14 47 15.5** | **0.0** |
| | 0.1nm,0.6s,baz=131,slow=9.7,SNR=2.3 | | | | | | | | |
| **PDAR** | **Pinedale Array** | **63.28** | **334** | P | | **P** | | **14 48 51.9** | **-1.1** |
| | 0.1nm,0.3s,baz=134,slow=7.7,SNR=2.3 | | | | | | | | |
| **ULM** | **Lac du Bonnet** | **65.43** | **347** | P | | **P** | | **14 49 05.6** | **-0.9** |
| | 2.0nm,0.8s,baz=168,slow=12,SNR=3.5 | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **82.36** | **75** | P | | **P** | | **14 50 47.4** | **+0.9** |
| | 1.5nm,0.7s,baz=267,slow=5.2,SNR=12 | | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **18.63** | **285** | T | | T | | 17 07 11.6 | |
| | baz=96,slow=74,SNR=20 | | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **18.64** | **285** | T | | T | | 17 07 13.8 | |
| | baz=96,slow=74,SNR=25 | | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **18.65** | **285** | T | | T | | 17 07 01.6 | |
| | baz=96,slow=74,SNR=14 | | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **18.72** | **284** | T | | T | | 17 07 17.6 | |
| | baz=94,slow=74,SNR=31 | | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **18.72** | **284** | T | | T | | 17 07 10.6 | |
| | baz=94,slow=74,SNR=39 | | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **18.73** | **284** | T | | T | | 17 07 11.6 | |
| | baz=94,slow=74,SNR=27 | | | | | | | | |
| **ASAR** | **Alice Springs** | **132.36** | **220** | PKP | | | **PKPdf** | **14 57 38.5** | **-0.5** |
| | 0.3nm,0.6s,baz=124,slow=1.5,SNR=4.5 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **134.74** | **224** | PKP | | | **PKPdf** | **14 57 43.7** | **+0.2** |
| | 1.1nm,0.8s,baz=129,slow=2.0,SNR=9.4 | | | | | | | | |
| **ULN** | **Ulaanbaatar** | **145.40** | **355** | P | | | **PKPab** | **14 58 03.0** | **+0.8** |
| **SONM** | **Songino Array** | **145.48** | **356** | PKPbc | | | **PKPab** | **14 58 03.3** | **+0.8** |
| | 2.3nm,0.8s,baz=345,slow=2.2,SNR=3.5 | | | | | | | | |

*NNC* ***12*** *14:39:09.1±2.0, 52.14N×75.85E, h0km, mb2.9, mpv2.5, Error ellipse: s-maj=25.7km s-min=11.4km az=25.0, Suspected Mining explosion.*

**IDC 12 14:39:14.0±1.4, 51.91N×75.46E, h0km, mb1 2.5/3, mb1mx2.5/38, mbtmp2.5/3, ML1.9/3, 7C-1D, Error ellipse: s-maj=38.4km s-min=11.6km az=31.0, Eastern Kazakhstan**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **KURK** | **Kurchatov** | **2.31** | **120** | ⇑Pg | | | Pn | 14 39 50.1 | -3.2 |
| | 3.5nm,1.1s | | | | | | | | |
| KURK | | | | ⇑Lg | | Lg | Lg | 14 40 17.6 | |
| | 14nm,0.9s | | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **2.32** | **123** | ⇑Pg | | | Pn | 14 39 51.4 | -1.9 |
| | 2.2nm,0.7s,baz=311,slow=17 | | | | | | | | |
| KURBB | | | | ⇑Lg | | Lg | Lg | 14 40 20.4 | |
| | 15nm,0.7s,baz=315,slow=32 | | | | | | | | |
| **BVA0** | **Borovoye Array** | **3.30** | **292** | ⇓Lg | | Lg | Lg | 14 40 58.6 | |
| | 7.8nm,0.9s,baz=112,slow=26,SNR=6.9 | | | | | | | | |
| **BVAR** | **Borovoye Array** | **3.30** | **292** | Pn | | | Pn | 14 40 06.5 | -0.4 |
| | 0.1nm,0.3s,baz=97,slow=14,SNR=2.5 | | | | | | | | |
| BVAR | | | | | | Lg | Lg | 14 40 58.2 | |
| | 0.5nm,0.3s,baz=105,slow=26,SNR=8.1 | | | | | | | | |
| **BRVK** | **Borovoye** | **3.37** | **292** | ⇑Lg | | Lg | Lg | 14 40 58.8 | |
| | 7.5nm,1.0s | | | | | | | | |
| **I46RU** | **ZALESOVO INFRA** | **6.02** | **66** | *i* | | | | 15 15 20.0 | |
| | baz=250,slow=345,SNR=1.7 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **6.02** | **66** | Pn | | | Pn | 14 40 44.2 | +0.1 |
| | 0.1nm,0.3s,baz=252,slow=12,SNR=3.0 | | | | | | | | |
| **MAKZ** | **Makanchi** | **6.64** | **138** | ⇑Lg | | Lg | Lg | 14 42 43.8 | |
| | 7.2nm,1.4s | | | | | | | | |
| **MK31** | **Makanchi Array** | **6.79** | **136** | ⇑Lg | | Lg | Lg | 14 42 46.5 | |
| | 6.8nm,1.2s,baz=322,slow=28,SNR=5.1 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **6.79** | **136** | Pn | | | Pn | 14 40 54.9 | +0.1 |
| | 0.0nm,0.3s,baz=320,slow=13,SNR=2.5 | | | | | | | | |
| MKAR | | | | | | Lg | Lg | 14 42 45.2 | |
| | 0.1nm,0.3s,baz=329,slow=23,SNR=5.7 | | | | | | | | |

*CSEM* ***12*** *14:53:02.4, 42.75N×12.68E, h6km, MD1.8/8*

**ROM 12 14:53:02.4±0.1, 42.75N×12.68E, h6km±2km, Md1.8/8, Ml1.2/5, Error ellipse: s-maj=2.3km s-min=1.4km az=143.0, Central Italy**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **CESX** | **Cesi** | **0.15** | **207** | Pg | | Pg | Pg | 14 53 05.8 | +0.3 |
| CESX | | | | Sg | | Sg | Sg | 14 53 08.5 | +1.0 |
| **CESX** | **Cesi** | **0.15** | **207** | Pg | | Pg | Pg | 14 53 05.8 | +0.3 |
| CESX | | | | Sg | | Sg | Sg | 14 53 08.5 | +1.0 |
| **LNSS** | **Leonessa** | **0.30** | **118** | Pg | | Pg | Pb | 14 53 09.5 | -0.9 |
| LNSS | | | | Sg | | Sg | Sb | 14 53 14.8 | -0.9 |
| | 38nm,0.5s | | | | | | | | |
| **LNSS** | **Leonessa** | **0.30** | **118** | Pg | | Pg | Pb | 14 53 09.5 | -0.9 |
| LNSS | | | | Sg | | Sg | Sb | 14 53 14.8 | -0.9 |
| | 38nm,0.5s | | | | | | | | |
| **CESI** | **CESI - Serrava** | **0.31** | **33** | Pg | | Pg | Pg | 14 53 09.3 | +0.8 |
| CESI | | | | Sg | | Sg | Sb | 14 53 14.6 | -1.2 |
| | 13nm,0.8s | | | | | | | | |
| **CESI** | **CESI - Serrava** | **0.31** | **33** | Pg | | Pg | Pg | 14 53 09.3 | +0.8 |
| CESI | | | | Sg | | Sg | Sb | 14 53 14.6 | -1.2 |
| | 13nm,0.8s | | | | | | | | |
| **NRCA** | **Norcia** | **0.34** | **75** | Pg | | Pg | Pg | 14 53 09.8 | +0.9 |
| NRCA | | | | Sg | | Sg | Sb | 14 53 15.4 | -1.1 |
| **NRCA** | **Norcia** | **0.34** | **75** | Pg | | Pg | Pg | 14 53 09.8 | +0.9 |
| NRCA | | | | Sg | | Sg | Sb | 14 53 15.4 | -1.1 |
| **FDMO** | **Fiordimonte** | **0.42** | **46** | Pg | | Pg | Pg | 14 53 11.3 | +0.8 |
| FDMO | | | | Sg | | Sg | Sb | 14 53 18.1 | -0.9 |
| | 22nm,0.9s | | | | | | | | |
| **FDMO** | **Fiordimonte** | **0.42** | **46** | Pg | | Pg | Pg | 14 53 11.3 | +0.8 |
| FDMO | | | | Sg | | Sg | Sb | 14 53 18.1 | -0.9 |
| | 22nm,0.9s | | | | | | | | |
| **MGAB** | **Montegabbione** | **0.45** | **292** | Pg | | Pg | Pg | 14 53 11.8 | +0.8 |
| MGAB | | | | Sg | | Sg | Sb | 14 53 19.5 | -0.2 |
| | 18nm,0.3s | | | | | | | | |
| **MGAB** | **Montegabbione** | **0.45** | **292** | Pg | | Pg | Pg | 14 53 11.8 | +0.8 |
| MGAB | | | | Sg | | Sg | Sb | 14 53 19.5 | -0.2 |
| | 18nm,0.3s | | | | | | | | |
| **SMA1** | **SAN MARTINO** | **0.50** | **103** | Pg | | Pg | Pb | 14 53 13.0 | -0.7 |
| **SMA1** | **SAN MARTINO** | **0.50** | **103** | Pg | | Pg | Pb | 14 53 13.0 | -0.7 |
| **MURB** | **Monte Urbino** | **0.53** | **348** | Pg | | Pg | Pb | 14 53 14.8 | +0.6 |
| | 29nm,0.2s | | | | | | | | |
| **MURB** | **Monte Urbino** | **0.53** | **348** | Pg | | Pg | Pb | 14 53 14.8 | +0.6 |
| | 29nm,0.2s | | | | | | | | |

*BJI* ***12*** *15:02:04.7, 12.01S×167.12E, h230km, mb4.8/53, mB5.0/36*

*IDC* ***12*** *15:02:04.2±0.6, 12.26S×167.02E, h216km±4km, mb4.4/20, mb1 4.5/23, mb1mx4.4/34, mbtmp4.9/23, Error ellipse: s-maj=10.1km s-min=8.1km az=110.0*

*GCMT* ***12*** *15:02:05.2±0.3, 12.21S×166.83E, h226km±2km, MW5.1/73, Moment Tensor Solution. s36,c44; s73,c97; Duration: 0 Moment tensor: Scale 10^16 Nm; Mrr3.28±.17; Mθθ-0.38±.19; Mφφ-2.90±.19; Mrθ0.88±.16; Mrφ0.97±.19; Mθφ-3.66±.16; Best double couple: Mw4.97700×10^16 NP1:φs165.00000°, δ70.00000°, λ93.00000°. NP2: φs337.00000°, δ21.00000°, λ83.00000°. Principal axes: T 5.0090, Plg65.0000°, Azm80.0000°; N -0.0640, Plg3.0000°, Azm344.0000°; P -4.9460, Plg25.0000°, Azm253.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC* ***12*** *15:02:05.2±0.1, 12.19S×166.91E, mb4.9/106 Error ellipse: s-maj=4.2km s-min=3.0km az=146.0*

*ISCJB* ***12*** *15:02:06.3±0.9, 12.25S±0.04×166.85E±0.03, h248km±9km, mb4.8/146, Error ellipse: s-maj=6.3km s-min=4.7km az=169.8*

*MOS* ***12*** *15:02:06.6±1.1, 12.14S×166.85E, h246km, mb5.0/32, Error ellipse: s-maj=8.9km s-min=8.6km az=169.7*

**ISC 12 15:02:04.8±0.4, 12.26S±0.04×166.98E±0.05, h222km±2km, h222km:pP-P, n425, σ1s18/490, mb4.9/146, 19C-14D, Santa Cruz Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **HNR** | **Honiara** | **7.46** | **291** | *e*P | | | **Pn** | **15 03 51.0** | **-0.2** |
| HNR | | | | *e*S | | | S | 15 05 30.0 | +14 |
| **HNR** | **Honiara** | **7.46** | **291** | P | | | **Pn** | **15 03 51.7** | **+0.5** |
| | 19nm,0.3s,baz=232,slow=6.1,SNR=24 | | | | | | | | |
| HNR | | | | | | | **S** | **15 05 17.4** | **+1.3** |
| | baz=84,slow=19,SNR=1.1 | | | | | | | | |
| **HNR** | **Honiara** | **7.46** | **291** | *e*P | | | **Pn** | **15 03 51.2** | **0.0** |
| HNR | | | | S | | | **S** | **15 05 17.4** | **+1.3** |
| **HNR** | **Honiara** | **7.46** | **291** | *e*Pn | | | **Pn** | **15 03 51.2** | **0.0** |
| HNR | | | | S | | | **S** | **15 05 17.4** | **+1.3** |
| **DZM** | **Mont Dzumac** | **9.77** | **183** | P | | | **Pn** | **15 04 20.5** | **-0.5** |
| | 3.3nm,0.3s,baz=339,slow=8.6,SNR=38 | | | | | | | | |
| DZM | | | | | | | **S** | **15 06 10.4** | **-0.3** |
| | 1.3nm,0.3s,baz=307,slow=20,SNR=2.1 | | | | | | | | |
| **DZM** | **Mont Dzumac** | **9.77** | **183** | *e*Pn | | | **Pn** | **15 04 22.3** | **+1.4** |
| | 19nm,0.3s | | | | | | | | |
| DZM | | | | *e*Sn | | | **S** | **15 06 10.9** | **+0.2** |
| | 14nm,0.3s | | | | | | | | |
| DZM | | | | *e*LR | | | LR | 15 06 38.7 | |
| | 409nm,24.6s | | | | | | | | |
| **DZM** | **Mont Dzumac** | **9.77** | **183** | *e*Pn | | | **Pn** | **15 04 22.5** | **+1.6** |
| DZM | | | | S | | | **S** | **15 06 10.4** | **-0.3** |
| **MSVF** | **Nonsavu** | **12.00** | **118** | *e*P | | | **P** | **15 04 53.6** | **+0.4** |
| **MSVF** | **Nonsavu** | **12.00** | **118** | *e*Pn | | | **P** | **15 04 53.6** | **+0.4** |
| **RABL** | **Rabaul** | **16.70** | **297** | *e*P | | | **P** | **15 05 44.5** | **-0.7** |
| | 110nm,0.4s | | | | | | | | |
| **PMG** | **Port Moresby** | **19.67** | **276** | P | | | **P** | **15 06 18.0** | **+0.7** |
| | 3.3nm,0.3s,baz=73,slow=7.5,SNR=22 | | | | | | | | |
| **PMG** | **Port Moresby** | **19.67** | **276** | *d* | *i* | | **P** | **15 06 17.2** | **-0.1** |
| **PMG** | **Port Moresby** | **19.67** | **276** | *e*P | | | **P** | **15 06 17.6** | **+0.3** |
| | 128nm,9s | | | | | | | | |
| **EIDS** | **Eidsvold** | **19.88** | **227** | P | | | **P** | **15 06 20.9** | **+1.4** |
| | baz=20,SNR=107 | | | | | | | | |
| **EIDS** | **Eidsvold** | **19.88** | **227** | *e*P | | | **P** | **15 06 20.7** | **+1.2** |
| | 197nm,0.8s | | | | | | | | |
| **CTA** | **Charters Tower** | **21.36** | **246** | P | | | **P** | **15 06 35.5** | **+0.4** |
| | 99nm,0.7s,baz=76,slow=12,SNR=130 | | | | | | | | |
| CTA | | | | | | | **S** | **15 10 20.3** | **+2.6** |
| | 3.1nm,0.9s,baz=35,slow=19,SNR=3.9 | | | | | | | | |
| **CTAO** | **Charters Tower** | **21.36** | **246** | *e*P | | | **P** | **15 06 35.3** | **+0.2** |
| CTAO | | | | | | pmax | pmax | | |
| | comp=Z,98nm,0.8s | | | | | | | | |
| **CTAO** | **Charters Tower** | **21.36** | **246** | *e*P | | | **P** | **15 06 35.3** | **+0.2** |
| | comp=Z,98nm,0.8s | | | | | | | | |
| **RMQ** | **Roma** | **22.22** | **228** | P | | | **P** | **15 06 44.5** | **+1.2** |
| | baz=22,SNR=86 | | | | | | | | |
| **MTSU** | **Mount Surprise** | **22.63** | **252** | P | | | **P** | **15 06 48.1** | **+1.0** |
| | baz=23,SNR=115 | | | | | | | | |
| **ARMA** | **Armidale** | **22.99** | **216** | P | | | **P** | **15 06 51.7** | **+1.3** |
| | baz=23,SNR=27 | | | | | | | | |
| **ARMA** | **Armidale** | **22.99** | **216** | *e*P | | | **P** | **15 06 51.6** | **+1.3** |
| | comp=Z,77nm,0.8s | | | | | | | | |
| **COEN** | **Coen** | **23.25** | **263** | P | | | **P** | **15 06 53.6** | **+1.0** |
| | baz=23,SNR=71 | | | | | | | | |
| **COEN** | **Coen** | **23.25** | **263** | *e*P | | | **P** | **15 06 53.3** | **+0.7** |
| | comp=Z,68nm,0.8s | | | | | | | | |
| **MGCD** | **Mangrove Creek** | **25.41** | **212** | P | | | **P** | **15 07 13.3** | **+1.2** |
| | baz=26,SNR=6.7 | | | | | | | | |
| **QLP** | **Quilpie** | **25.69** | **233** | P | | | **P** | **15 07 15.1** | **+0.4** |
| | baz=26,SNR=20 | | | | | | | | |
| **URZ** | **Urewera** | **27.43** | **163** | P | | | **P** | **15 07 29.6** | **-0.4** |
| | comp=Z,14nm,0.8s,baz=358,slow=6.3,SNR=6.9 | | | | | | | | |
| **URZ** | **Urewera** | **27.43** | **163** | *e*P | | | **P** | **15 07 30.2** | **+0.2** |
| | comp=Z,32nm,1.1s | | | | | | | | |
| **CMSA** | **Cobar Meteorol** | **27.44** | **222** | P | | | **P** | **15 07 30.4** | **+0.1** |
| | baz=28,SNR=16 | | | | | | | | |
| **QIS** | **Mount Isa** | **27.49** | **249** | P | | | **P** | **15 07 30.6** | **-0.3** |
| | baz=28,SNR=6.6 | | | | | | | | |
| **BKZ** | **Black Stump Fm** | **28.10** | **164** | *e*P | | | **P** | **15 07 36.5** | **+0.4** |
| | comp=Z,23nm,0.5s | | | | | | | | |
| **THZ** | **Tophouse** | **29.84** | **171** | *e*P | | | **P** | **15 07 52.1** | **+0.6** |
| | comp=Z,38nm,1.1s | | | | | | | | |
| **STKA** | **Stephens Creek** | **30.43** | **226** | P | | | **P** | **15 07 57.4** | **+0.6** |
| | comp=Z,7.3nm,0.5s,baz=49,slow=9.4,SNR=44 | | | | | | | | |
| STKA | | | | | | pP | **pP** | | **15 08 42.3** | **+0.8** |
| | comp=Z,8.1nm,0.7s,baz=65,slow=8.6,SNR=3.7 | | | | | | | | |
| STKA | | | | | | S | **S** | | **15 12 42.2** | **+1.1** |
| | comp=Z,1.2nm,0.8s,baz=34,slow=11,SNR=2.2 | | | | | | | | |
| **STKA** | **Stephens Creek** | **30.43** | **226** | P | | | **P** | **15 07 57.3** | **+0.6** |
| | baz=31,SNR=32 | | | | | | | | |
| **STKA** | **Stephens Creek** | **30.43** | **226** | *e*P | | | **P** | **15 07 57.1** | **+0.4** |
| STKA | | | | | | *ePP | **pP** | | **15 08 42.3** | **+0.8** |
| STKA | | | | | | S | **S** | | **15 12 42.2** | **+1.1** |
| STKA | | | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.2s | | | | | | | | |
| **STKA** | **Stephens Creek** | **30.43** | **226** | *e*P | | | **P** | **15 07 57.1** | **+0.4** |
| | comp=Z,5.5nm,1.2s | | | | | | | | |
| STKA | | | | | | pP | **pP** | | **15 08 42.3** | **+0.8** |
| STKA | | | | | | S | **S** | | **15 12 42.2** | **+1.1** |
| **LTZ** | **Lake Taylor** | **30.76** | **172** | *e*P | | | **P** | | **15 07 59.7** | **+0.3** |
| | comp=Z,142nm,1.9s | | | | | | | | |
| **RPZ** | **Rata Peaks** | **31.54** | **174** | P | | | **P** | | **15 08 06.3** | **+0.1** |
| | comp=Z,23nm,0.6s,baz=332,slow=1.4,SNR=17 | | | | | | | | |
| **RPZ** | **Rata Peaks** | **31.54** | **174** | *e*P | | | **P** | | **15 08 06.9** | **+0.6** |
| | comp=Z,28nm,0.7s | | | | | | | | |
| **WB2** | **Warramunga Arr** | **32.22** | **252** | *e*P | | | **P** | | **15 08 10.1** | **-2.5** |
| **WRAB** | **Tennant Creek** | **32.22** | **252** | *d* | *i* | P | **P** | | **15 08 11.3** | **-1.2** |
| WRAB | | | | *i* | | *PP | **pP** | | **15 08 59.2** | **+1.7** |
| WRAB | | | | | | pmax | pmax | | |
| | comp=Z,21nm,1.0s | | | | | | | | |
| **WRAB** | **Tennant Creek** | **32.22** | **252** | *e*P | | | **P** | | **15 08 11.2** | **-1.4** |
| | comp=Z,24nm,0.9s | | | | | | | | |
| **WRA** | **Warramunga Arr** | **32.23** | **252** | P | | | **P** | | **15 08 11.7** | **-1.0** |
| | comp=Z,19nm,0.7s,baz=83,slow=8.8,SNR=135 | | | | | | | | |
| WRA | | | | | | pP | **pP** | | **15 08 55.8** | **-1.9** |
| | comp=Z,6.2nm,0.7s,baz=82,slow=8.6,SNR=1.6 | | | | | | | | |
| WRA | | | | | | S | **S** | | **15 13 04.7** | **-4.7** |
| | comp=Z,3.8nm,0.8s,baz=81,slow=14,SNR=5.8 | | | | | | | | |
| **DCZ** | **Deep Cove** | **33.09** | **180** | *e*P | | | **P** | | **15 08 20.7** | **+1.0** |
| | comp=Z,53nm,1.2s | | | | | | | | |
| **AS01** | **Alice Springs** | **33.32** | **245** | *e*P | | | **P** | | **15 08 20.7** | **-1.4** |
| AS01 | | | | *e*pP | | | **pP** | | **15 09 08.1** | **+0.8** |
| **AS31** | **Alice Springs** | **33.36** | **245** | *e*P | | | **P** | | **15 08 21.0** | **-1.4** |
| | comp=Z,9.7nm,0.7s | | | | | | | | |
| **ASAR** | **Alice Springs** | **33.36** | **245** | P | | | **P** | | **15 08 21.4** | **-1.1** |
| | comp=Z,26nm,0.8s,baz=72,slow=9.7,SNR=312 | | | | | | | | |
| ASAR | | | | | | pP | **pP** | | **15 09 05.5** | **-2.1** |
| | comp=Z,28nm,0.7s,baz=71,slow=9.6,SNR=14 | | | | | | | | |
| ASAR | | | | | | S | **S** | | **15 13 23.0** | **-3.8** |
| | comp=Z,1.4nm,0.8s,baz=80,slow=16,SNR=6.4 | | | | | | | | |
| ASAR | | | | | | ScP | **ScP** | | **15 14 22.2** | **+0.1** |
| | comp=Z,2.8nm,1.0s,baz=90,slow=3.7,SNR=8.0 | | | | | | | | |
| **KDU** | **Kakadu** | **33.68** | **265** | P | | | **P** | | **15 08 24.7** | **-0.5** |
| | baz=34,SNR=4.2 | | | | | | | | |
| **BBOO** | **Buckleboo** | **34.92** | **229** | P | | | **P** | | **15 08 35.9** | **+0.3** |
| | baz=35,SNR=63 | | | | | | | | |
| **BBOO** | **Buckleboo** | **34.92** | **229** | *e*P | | | **P** | | **15 08 35.5** | **-0.1** |
| | comp=Z,41nm,0.6s | | | | | | | | |
| **MTN** | **Manton Dam** | **34.98** | **265** | P | | | **P** | | **15 08 36.3** | **0.0** |
| | baz=35,SNR=7.6 | | | | | | | | |
| **MTN** | **Manton Dam** | **34.98** | **265** | *e*P | | | **P** | | **15 08 35.9** | **-0.4** |
| | comp=Z,16nm,0.7s | | | | | | | | |
| **SWI** | **Sorong** | **37.19** | **285** | P | | | **P** | | **15 08 54.3** | **-0.8** |
| | comp=Z,42nm,1.3s | | | | | | | | |
| SWI | | | | | | pP | **pP** | | **15 09 33.8** | **-7.2** |
| | comp=Z,42nm,1.3s | | | | | | | | |
| **KNRA** | **Kununurra** | **37.21** | **260** | P | | | **P** | | **15 08 55.0** | **-0.2** |
| | baz=37,SNR=14 | | | | | | | | |
| **WRKA** | **Warakurna** | **38.65** | **245** | P | | | **P** | | **15 09 06.7** | **-0.5** |
| | baz=39,SNR=35 | | | | | | | | |
| **FORT** | **Forrest** | **40.36** | **237** | P | | | **P** | | **15 09 21.4** | **+0.2** |
| | baz=40,SNR=21 | | | | | | | | |
| **FORT** | **Forrest** | **40.36** | **237** | *e*P | | | **P** | | **15 09 21.0** | **-0.2** |
| | comp=Z,742nm,0.9s | | | | | | | | |
| **NLAI** | **Namlea** | **40.47** | **279** | P | | | **P** | | **15 09 22.4** | **+0.1** |
| | comp=Z,41nm,1.2s | | | | | | | | |
| NLAI | | | | | | pP | **pP** | | **15 10 03.3** | **-5.6** |
| | comp=Z,41nm,1.2s | | | | | | | | |
| **LBMI** | **Labuha** | **40.82** | **283** | P | | | **P** | | **15 09 25.9** | **+0.7** |
| | comp=Z,27nm,1.1s | | | | | | | | |
| **SANI** | **Sanana** | **41.85** | **281** | P | | | **P** | | **15 09 33.2** | **-0.4** |
| | comp=Z,20nm,1.2s | | | | | | | | |
| SANI | | | | | | pP | **pP** | | **15 10 13.2** | **-7.2** |
| | comp=Z,20nm,1.2s | | | | | | | | |
| **PPT2** | **Papeete2** | **42.24** | **103** | *e* | | LR | LR | | 15 21 36.5 | |
| | comp=Z,92nm,27.0s | | | | | | | | |
| **MMRI** | **Maumere** | **44.11** | **270** | P | | | **P** | | **15 09 50.6** | **-1.0** |
| | comp=Z,50nm,1.1s,comp=Z,2μm | | | | | | | | |
| MMRI | | | | | | pP | pP | | 15 10 29.4 | -10 |
| | comp=Z,50nm,1.1s,comp=Z,2μm | | | | | | | | |
| **EDFI** | **Ende, Flores** | **44.63** | **270

GYA pP pP 15 13 48.7 +3.3
GYA sP sP 15 14 13.0 +3.8
GYA PP **PP** **15 15 34.5 +2.6**
GYA S **S** **15 21 45.2 -1.3**
GYA pmax pmax
comp=Z,10.0nm,1.0s
**XAN** **Xi'an** **71.83 312** P **P** **15 13 03.9 +0.3**
XAN pmax pmax
comp=Z,22nm,0.8s
XAN pmax pmax
comp=Z,110nm,4.0s
**NANT** **Nan** **72.25 294** P **P** **15 13 06.9 +0.5**
comp=Z,6.1nm,0.8s
**KMI** **Kunming** **72.78 301** P **P** **15 13 10.8 +1.1**
KMI pmax pmax
comp=Z,19nm,0.6s
KMI pmax pmax
comp=Z,160nm,4.3s
**HHC** **Hu-ho-hao-te** **73.53 319** *e*P **P** **15 13 14.8 +1.2**
HHC pP pP 15 14 07.1 +1.1
HHC PP **PP** **15 16 05.0 +4.0**
HHC S **S** **15 22 28.2 +3.1**
HHC pmax pmax
comp=Z,19nm,0.7s
HHC pmax pmax
comp=Z,110nm,7.5s
**CM01** **Chiang Mai Arr** **73.68 293** *e*P **P** **15 13 14.8 0.0**
**CM31** **Chiang Mai Arr** **73.70 293** *e*P **P** **15 13 14.9 0.0**
**CMAR** **Chiang Mai Arr** **73.70 293** P **P** **15 13 15.9 +1.0**
comp=Z,8.0nm,0.8s,baz=122,slow=4.5,SNR=42
CMAR pP **pP** **15 14 06.2 -1.1**
comp=Z,1.1nm,0.8s,baz=122,slow=5.4,SNR=1.9
**CMMT** **Chiang Mai** **73.81 294** P **P** **15 13 16.5 +0.9**
comp=Z,11nm,1.1s,comp=Z,465nm
**CHTO** **Chiang Mai** **73.82 294** P **P** **15 13 16.5 +0.9**
comp=Z,47nm,1.1s,comp=Z,2µm
**CHTO** **Chiang Mai** **73.82 294** *e*P **P** **15 13 15.2 -0.4**
CHTO pmax pmax
comp=Z,12nm,1.1s
**CHTO** **Chiang Mai** **73.82 294** *e*P **P** **15 13 15.2 -0.4**
comp=Z,12nm,1.1s
**HIA** **Hailar** **74.02 330***d i*P **P** **15 13 16.6 +0.5**
HIA pmax pmax
comp=Z,15nm,1.1s
**CD2** **Chengdu** **74.30 307** *e*P **P** **15 13 18.6 +0.4**
CD2 pmax pmax
comp=Z,30nm,1.0s
**SEY** **Seymchan** **75.81 353**⇑ *i*P **P** **15 13 26.0 0.0**
**LZH** **Lanzhou** **76.46 312** ⇑P **P** **15 13 32.0 +1.5**
LZH pP pP 15 14 27.0 +3.7
LZH sP sP 15 14 51.2 +4.2
LZH PP **PP** **15 16 28.1 +2.3**
LZH *e*S **S** **15 22 56.0 -1.8**
LZH SKS **SKSac** **15 23 17.6 -3.4**
LZH sS sS 15 24 32.0 +1.8
LZH SS **SS** **15 28 03.2 +5.2**
LZH pmax pmax
comp=Z,62nm,1.1s
LZH pmax pmax
comp=Z,250nm,6.5s
**YAK** **Yakutsk** **79.60 343** *e*P **P** **15 13 46.2 -0.7**
YAK pmax pmax
comp=E,5.0nm,1.1s
YAK pmax pmax
comp=Z,33nm,0.9s
YAK pmax pmax
comp=N,7.0nm,1.0s
**YAK** **Yakutsk** **79.60 343** *e*P **P** **15 13 46.5 -0.4**
comp=N,46nm,0.9s
**ULN** **Ulaanbaatar** **79.99 324***c i*P **P** **15 13 49.7 +0.2**
ULN pmax pmax
comp=Z,16nm,1.1s
**ULN** **Ulaanbaatar** **79.99 324** *e*P **P** **15 13 49.8 +0.2**
comp=Z,25nm,1.2s
**SONM** **Songino Array** **80.36 323** P **P** **15 13 51.9 +0.4**
comp=Z,5.2nm,1.0s,baz=132,slow=4.1,SNR=7.4
**GTA** **Gaotai** **80.77 314** *e*P **P** **15 13 54.5 +0.6**
GTA pP pP 15 14 47.7 +0.5
GTA sP sP 15 15 11.8 +1.1
GTA S **S** **15 23 41.6 -1.6**
GTA sS sS 15 25 15.4 -1.2
GTA SS **SS** **15 29 06.3 +4.1**
GTA pmax pmax
comp=Z,12nm,1.0s
GTA pmax pmax
comp=Z,170nm,6.4s
GTA LR LR
comp=Z,180nm,12.8s
GTA LR LR
comp=Z,230nm,10.9s
GTA LR LR
comp=Z,290nm,10.7s
**CAST** **Castle Rocks** **81.73 17** *e*P **P** **15 13 57.2 -1.1**
comp=Z,23nm,0.8s
**KTH** **Kantishna Hill** **82.18 18** *e*P **P** **15 13 59.7 -0.9**
comp=Z,122nm,2.0s
**RND** **Reindeer** **82.69 18** *e*P **P** **15 14 02.7 -0.6**
RND pmax pmax
comp=Z,106nm,1.7s
**RND** **Reindeer** **82.69 18** *e*P **P** **15 14 02.7 -0.6**
comp=Z,106nm,1.7s
**MCK** **McKinley** **82.91 18** *e*P **P** **15 14 03.1 -1.2**
MCK pmax pmax
comp=Z,29nm,1.2s
**MCK** **McKinley** **82.91 18** *e*P **P** **15 14 03.1 -1.2**
comp=Z,29nm,1.2s
**DHY** **Denali Highway** **82.92 19** *e*P **P** **15 14 03.6 -1.0**
comp=Z,60nm,1.6s
**SNCC** **San Nicolas Is** **83.25 54** P **P** **15 14 07.6 +0.8**
baz=251
**IMAR** **Indian Mountai** **83.27 15** *e*P **P** **15 14 05.9 -0.2**
**MLY** **Manley** **83.34 17** *e*P **P** **15 14 06.0 -0.5**
comp=Z,28nm,1.4s
**ZAK** **Zakamensk** **83.39 325** *e*P **P** **15 14 06.4 -0.8**
ZAK pmax pmax
comp=Z,12nm,1.1s
**SCZ2** **Santa Cruz Isl** **83.41 53** P **P** **15 14 08.1 +0.6**
baz=251
**WDC** **Whiskeytown Da** **83.56 46** *e*P **P** **15 14 08.5 +0.3**
WDC pmax pmax
comp=Z,33nm,1.4s
**WDC** **Whiskeytown Da** **83.56 46** *e*P **P** **15 14 08.4 +0.3**
comp=Z,33nm,1.4s
**PKM** **Mcpherson Peak** **83.57 52** P **P** **15 14 09.3 +0.8**
baz=250
**N02D** **Trinity Center** **83.60 46** P **P** **15 14 09.6 +1.1**
baz=248,SNR=6.1
**M02C** **Callahan** **83.65 45** P **P** **15 14 09.6 +0.8**
baz=248
**TLY** **Talaya** **83.80 326** *e*P **P** **15 14 08.9 -0.2**
TLY pmax pmax
comp=Z,13nm,0.9s
**YBH** **Yreka Blue Hor** **83.88 45** *e*P **P** **15 14 10.5 +0.6**
YBH pmax pmax
comp=Z,24nm,1.0s
**YBH** **Yreka Blue Hor** **83.88 45** *e*P **P** **15 14 10.5 +0.6**
comp=Z,24nm,1.0s
**CCB** **Clear Creek Bu** **83.91 18** *e*P **P** **15 14 08.3 -1.1**
comp=Z,17nm,0.8s
**ORV** **Oroville** **83.93 48** *e*P **P** **15 14 10.0 -0.1**
ORV pmax pmax
comp=Z,18nm,1.1s
**ORV** **Oroville** **83.93 48** *e*P **P** **15 14 10.0 -0.1**
comp=Z,18nm,1.1s
**O03D** **Paynes Creek** **83.98 47** P **P** **15 14 10.4 0.0**
baz=249,SNR=9.3
**MDM** **Murphy Dome** **84.01 18** *e*P **P** **15 14 09.1 -0.8**
comp=Z,72nm,1.2s
**LSA** **Lhasa** **84.02 302** *e*P **P** **15 14 11.7 +0.4**
LSA pmax pmax
comp=Z,7.0nm,0.9s
**LSA** **Lhasa** **84.02 302** *e*P **P** **15 14 11.7 +0.4**
comp=Z,6.8nm,0.9s
**HUMO** **Hull Mountain** **84.04 44** *e*P **P** **15 14 11.1 +0.5**
comp=Z,26nm,1.1s
**MAW** **Mawson** **84.06 202** P **P** **15 14 10.3 +0.1**
comp=Z,11nm,1.0s,baz=99,slow=6.8,SNR=10
**MAW** **Mawson** **84.06 202** P **P** **15 14 10.6 +0.5**
baz=84,SNR=7.1
**MAW** **Mawson** **84.06 202** *e*P **P** **15 14 09.7 -0.5**
MAW pmax pmax
comp=Z,4.0nm,1.1s
**MAW** **Mawson** **84.06 202** *e*P **P** **15 14 09.7 -0.5**
comp=Z,3.7nm,1.1s
**COLA** **College** **84.06 18** *e*P **P** **15 14 09.3 -0.8**
COLA pmax pmax
comp=Z,62nm,1.0s
**COLA** **College** **84.06 18** *e*P **P** **15 14 09.2 -0.8**
comp=Z,62nm,1.0s
**AFDM** **Forest Hills D** **84.10 48** *e*P **P** **15 14 10.8 -0.2**
comp=Z,29nm,1.2s
**I03D** **Drain, OR** **84.20 43** P **P** **15 14 12.1 +0.9**
baz=247
**CMB** **Columbia Colle** **84.21 49** *e*P **P** **15 14 11.4 -0.2**
CMB *e**PP **pP** **15 15 08.8 +3.4**
CMB pmax pmax
comp=Z,11nm,1.0s
**CMB** **Columbia Colle** **84.21 49** *e*P **P** **15 14 11.3 -0.2**
comp=Z,11nm,1.0s
CMB *e*pP **pP** **15 15 08.8 +3.4**
**ILAR** **Eielson Array** **84.28 18** P **P** **15 14 10.8 -0.4**
comp=Z,22nm,0.8s,baz=233,slow=5.4,SNR=159
ILAR pP **pP** **15 15 04.7 -0.4**
comp=Z,2.9nm,0.7s,baz=238,slow=5.2,SNR=3.2
**ILB** **Eielson Array** **84.28 18** *e*P **P** **15 14 10.4 -0.9**
**IL1** **Eielson Array** **84.28 18** *e*P **P** **15 14 09.8 -1.4**
**M04C** **Macdoel** **84.50 45** P **P** **15 14 13.7 +0.6**
baz=248,SNR=5.9
**G03D** **McMinnville, O** **84.84 42** P **P** **15 14 15.5 +1.0**
baz=247
**BEKR** **Beckworth** **84.86 48** *e*P **P** **15 14 15.3 +0.4**
comp=Z,33nm,1.4s
**I04A** **Tendick Farm,** **84.86 43** P **P** **15 14 15.4 +0.7**
baz=248
**EDW2** **Edwards Air Fo** **84.98 53** P **P** **15 14 15.8 +0.3**
baz=251,SNR=6.0
**BFSC** **Mount Baldy Ra** **85.04 54** P **P** **15 14 16.2 +0.3**
baz=252
**MDPB** **Devils Postpil** **85.04 50** *e*P **P** **15 14 16.1 0.0**
comp=Z,21nm,1.1s
MDPB *e*pP **pP** **15 15 11.7 +1.8**
**WAKR** **Walker** **85.07 49** *e*P **P** **15 14 16.3 +0.2**
comp=Z,36nm,1.3s
WAKR *e*pP **pP** **15 15 11.3 +1.3**
**PNTR** **Pine Nut** **85.15 48** *e*P **P** **15 14 15.9 -0.5**
comp=Z,26nm,1.1s
**E03A** **Lebam** **85.18 40** *e*P **P** **15 14 17.0 +0.9**
comp=Z,46nm,1.0s
**MURC** **Murrieta** **85.20 54** P **P** **15 14 17.3 +0.7**
baz=252
**MLAC** **Mammoth, Mammo** **85.22 50** P **P** **15 14 17.7 +0.8**
baz=251
**H04A** **Detroit Lake** **85.35 43** *e*P **P** **15 14 16.8 -0.3**
comp=Z,33nm,1.3s
**YERR** **Yerington** **85.38 49** *e*P **P** **15 14 17.7 +0.1**
comp=Z,39nm,1.8s
**CWC** **Cottonwood Cre** **85.41 51** P **P** **15 14 18.4 +0.6**
baz=251
**LRMC** **Laurel Mtn Rad** **85.41 52** P **P** **15 14 18.1 +0.4**
baz=252,SNR=7.5
**J05D** **Fort Rock, OR** **85.47 44** P **P** **15 14 18.8 +1.0**
baz=249
**PAHR** **Pah Rah Range** **85.52 48** *e*P **P** **15 14 18.1 -0.1**
comp=Z,22nm,1.1s
**MONP2** **Monument Peak** **85.61 55** P **P** **15 14 19.6 +0.7**
baz=252
**MOD** **Modoc Plateau** **85.62 46** *e*P **P** **15 14 18.7 +0.1**
comp=Z,24nm,1.4s
**F04A** **Amboy** **85.67 41** *e*P **P** **15 14 18.7 +0.2**
comp=Z,38nm,1.3s
**MPMC** **Manual Prospec** **85.74 52** P **P** **15 14 20.0 +0.6**
baz=252,SNR=7.9
**I05D** **Terrebonne, OR** **85.78 43** P **P** **15 14 20.0 +0.8**
baz=248
**IKP** **In-Ko-Pah, Jac** **85.79 55** P **P** **15 14 20.4 +0.9**
baz=253
**PFO** **Pinyon Flats O** **85.79 54** P **P** **15 14 20.2 +0.6**
baz=252
**NV01** **Mina Array Sit** **85.88 49** *e*P **P** **15 14 19.9 -0.2**
NV01 *e*pP **pP** **15 15 15.5 +1.4**
**NV11** **Mina Array Sit** **86.00 49** *e*P **P** **15 14 20.6 0.0**
comp=Z,1.3nm,1.1s
**GSC** **Goldstone, Bar** **86.03 53** P **P** **15 14 21.2 +0.5**
baz=252
**GSC** **Goldstone, Bar** **86.03 53** *e*P **P** **15 14 20.8 +0.1**
GSC pmax pmax
comp=Z,18nm,1.6s
**GSC** **Goldstone, Bar** **86.03 53** *e*P **P** **15 14 20.8 +0.1**
comp=Z,18nm,1.6s
**EGAK** **Eagle** **86.10 20** *e*P **P** **15 14 20.2 0.0**
comp=Z,19nm,0.9s
**SWSC** **Sam W. Stewart** **86.12 55** P **P** **15 14 21.7 +0.7**
baz=253
**G05D** **Wamic, OR** **86.13 42** P **P** **15 14 21.3 +0.4**
baz=248
**GRAC** **Grapevine Rang** **86.13 51** P **P** **15 14 21.7 +0.6**
baz=252,SNR=6.0
**KVN** **Kaiserville** **86.24 49** P **P** **15 14 20.6 -1.2**
KVN PP **pP** **15 15 17.4 +1.6**
**DAWY** **Dawson** **86.25 21** *e*P **P** **15 14 20.7 -0.4**
comp=Z,38nm,1.9s
**HEC** **Hector Ludlow** **86.26 53** P **P** **15 14 22.2 +0.4**
baz=252
**BELC** **Belle Mtn. Jos** **86.28 54** P **P** **15 14 22.5 +0.5**
baz=253,SNR=6.5
**FURC** **Furnace Creek,** **86.35 52** P **P** **15 14 22.8 +0.7**
baz=252
**LON** **Longmire** **86.37 41** *e*P **P** **15 14 21.6 -0.5**
LON pmax pmax
comp=Z,7.0nm,1.0s
**LON** **Longmire** **86.37 41** *e*P **P** **15 14 21.6 -0.5**
comp=Z,7.1nm,1.0s
**D05A** **Enumclaw** **86.42 40** *e*P **P** **15 14 22.0 -0.2**
comp=Z,57nm,1.3s
**A04D** **Lummi Island** **86.56 39** P **P** **15 14 24.3 +1.5**
baz=247
**BC3** **Big Chuckawall** **86.61 55** P **P** **15 14 24.4 +0.8**
baz=253
**SHOC** **Shoshone, Teco** **86.63 52** P **P** **15 14 23.9 +0.4**
baz=252
**B05A** **Bryant** **86.76 39** P **P** **15 14 24.6 +0.8**
baz=248
**TUQ** **Turquoise Moun** **86.76 53** P **P** **15 14 24.5 +0.2**
baz=253,SNR=7.1
**GMRC** **Granite Mounta** **86.78 54** P **P** **15 14 24.9 +0.5**
baz=253
**I07A** **Izee** **86.93 44** *e*P **P** **15 14 25.1 +0.2**
comp=Z,16nm,1.0s
**GLA** **Glamis** **86.94 55** P **P** **15 14 25.9 +0.8**
baz=253
**GLA** **Glamis** **86.94 55** *e*P **P** **15 14 25.7 +0.6**
GLA pmax pmax
comp=Z,33nm,1.4s
**GLA** **Glamis** **86.94 55** *e*P **P** **15 14 25.7 +0.6**
comp=Z,33nm,1.4s
**WVOR** **Wild Horse Val** **86.96 46** *e*P **P** **15 14 25.4 +0.3**
WVOR pmax pmax
comp=Z,26nm,1.3s
**WVOR** **Wild Horse Val** **86.96 46** *e*P **P** **15 14 25.4 +0.3**
comp=Z,26nm,1.3s
**TPNV** **Topopah Spring** **86.97 51** P **P** **15 14 25.5 +0.2**
baz=252,SNR=6.7
**TPNV** **Topopah Spring** **86.97 51** *e*P **P** **15 14 25.5 +0.2**
**TPNV** **Topopah Spring** **86.97 51** *e*P **P** **15 14 25.5 +0.2**
**IRM** **Iron Mountain** **87.00 54** P **P** **15 14 26.1 +0.7**
baz=253,SNR=8.6
**LTY** **Liberty** **87.28 41** *e*P **P** **15 14 25.9 -0.5**
comp=Z,18nm,1.3s
**LDFC** **Landfair** **87.29 53** *e*P **P** **15 14 27.3 +0.5**
comp=Z,41nm,1.1s
**Y12C** **Blythe** **87.38 55** P **P** **15 14 27.9 +0.8**
baz=254
**Y12C** **Blythe** **87.38 55** *e*P **P** **15 14 27.9 +0.8**
comp=Z,26nm,1.4s
**J08A** **Circle Bar Ran** **87.38 45** *e*P **P** **15 14 26.8 -0.3**
comp=Z,19nm,0.9s
**TIXI** **Tiksi** **87.51 349***c i*P **P** **15 14 25.9 -0.9**
TIXI pmax pmax
comp=Z,10.0nm,1.1s
**TIXI** **Tiksi** **87.51 349** *e*P **P** **15 14 26.3 -0.6**
comp=Z,41nm,1.7s
**E07A** **Sunnyside** **87.56 41** *e*P **P** **15 14 27.4 -0.3**
comp=Z,9.3nm,1.0s
**NEE2** **Needles Airpor** **87.59 54** P **P** **15 14 28.8 +0.7**
baz=253
**SHPR** **Sheep Range** **87.67 52** *e*P **P** **15 14 28.2 -0.5**
comp=Z,34nm,1.5s
**G08A** **Pilot Rock** **87.70 43** *e*P **P** **15 14 28.7 +0.2**
comp=Z,20nm,1.1s
**HAWA** **Hanford** **87.71 42** *e*P **P** **15 14 28.8 +0.4**
comp=Z,16nm,1.0s
**PDMCI** **Parker Dam,Lak** **87.84 54** P **P** **15 14 30.0 +0.8**
baz=254,SNR=6.9
**R11A** **Troy Canyon, C** **87.89 50** P **P** **15 14 29.9 +0.3**
baz=253,SNR=16
**R11A** **Troy Canyon, C** **87.89 50** *e*P **P** **15 14 29.6 -0.1**
comp=Z,14nm,1.3s
**E08A** **Dider Farm, El** **88.05 42** *e*P **P** **15 14 29.9 -0.1**
comp=Z,41nm,1.4s
**W13A** **Hualapai Mount** **88.26 54** *e*P **P** **15 14 31.7 +0.2**
comp=Z,19nm,1.3s
**214A** **Organ Pipe Nat** **88.27 57** P **P** **15 14 32.5 +1.1**
baz=254
**D08A** **Wollman Farm,** **88.33 41** *e*P **P** **15 14 31.7 +0.4**
comp=Z,43nm,1.6s
**E09A** **Wood Farm, Sta** **88.65 42** *e*P **P** **15 14 32.7 -0.1**
comp=Z,38nm,1.5s
**BMO** **Blue Mountains** **88.67 44** *e*P **P** **15 14 32.7 -0.4**
BMO pmax pmax
comp=Z,28nm,1.4s
**BMO** **Blue Mountains** **88.67 44** *e*P **P** **15 14 32.7 -0.4**
comp=Z,28nm,1.4s
**C09A** **Chrisman Ranch** **88.99 41** *e*P **P** **15 14 34.1 -0.3**
comp=Z,22nm,1.6s
**F10A** **Beach Ranch, E** **89.08 43** *e*P **P** **15 14 34.8 -0.2**
comp=Z,46nm,1.4s
**MFID** **Camas Ranch** **89.23 45** *e*P **P** **15 14 35.9 +0.1**
comp=Z,14nm,0.9s
**LCMT** **Little Creek M** **89.29 52** *e*P **P** **15 14 36.8 +0.6**
comp=Z,15nm,1.1s
LCMT *e*pP **pP** **15 15 32.7 +2.0**
**CCUT** **Cedar City** **89.34 51** *e*P **P** **15 14 36.7 +0.1**
comp=Z,21nm,1.3s
**SZCU** **Shurtz Canyon** **89.57 51** *e*P **P** **15 14 37.8 +0.1**
comp=Z,23nm,1.4s
**U15A** **North Rim** **89.87 53** *e*P **P** **15 14 39.2 +0.1**
comp=Z,19nm,1.0s
**NEW** **Newport** **89.88 40** P **P** **15 14 38.8 +0.2**
baz=252
**NEW** **Newport** **89.88 40** *e*P **P** **15 14 37.8 -0.8**
NEW pmax pmax
comp=Z,20nm,1.1s
**NEW** **Newport** **89.88 40** *e*P **P** **15 14 37.8 -0.8**
comp=Z,20nm,1.1s
**TUC** **Tucson** **90.02 57** P **P** **15 14 40.8 +1.1**
baz=256
**TUC** **Tucson** **90.02 57** *e*P **P** **15 14 40.3 +0.6**
TUC pmax pmax
comp=Z,46nm,1.9s
**TUC** **Tucson** **90.02 57** *e*P **P** **15 14 40.3 +0.6**
comp=Z,46nm,1.9s
**HLID** **Hailey** **90.26 45** P **P** **15 14 41.3 +0.7**
baz=253
**HLID** **Hailey** **90.26 45** *e*P **P** **15 14 41.0 +0.3**
comp=Z,14nm,1.1s
**WUAZ** **Wupatki** **90.35 54** P **P** **15 14 41.9 +0.6**
baz=255
**WUAZ** **Wupatki** **90.35 54** *e*P **P** **15 14 42.8 +1.5**
comp=Z,20nm,1.4s
**MTPU** **Mount Pierson** **90.38 51** *e*P **P** **15 14 41.7 +0.1**
comp=Z,14nm,1.0s
**DUG** **Dugway, Tooele** **90.47 49** P **P** **15 14 42.2 +0.6**
baz=254
**DUG** **Dugway, Tooele** **90.47 49** *e*P **P** **15 14 41.9 +0.2**
DUG pmax pmax
comp=Z,26nm,1.5s
**DUG** **Dugway, Tooele** **90.47 49** *e*P **P** **15 14 41.9 +0.2**
comp=Z,26nm,1.5s
**MSU** **Marysvale** **90.50 51** *e*P **P** **15 14 42.0 +0.1**
MSU *e**PP **pP** **15 15 38.5 +2.1**
**MSU** **Marysvale** **90.50 51** *e*P **P** **15 14 42.0 +0.1**
MSU *e*pP **pP** **15 15 38.5 +2.1**
**BGU** **Big Grassy Mou** **90.51 48** *e*P **P** **15 14 41.5 -0.3**
comp=Z,14nm,1.2s
**WMQ** **Urumqi** **90.80 315** P **P** **15 14 42.6 -0.4**
WMQ pP pP 15 15 38.8 +1.3
WMQ sP sP 15 16 02.8 +2.1
WMQ pmax pmax
comp=Z,15nm,0.7s
WMQ pmax pmax
comp=Z,700nm,6.9s
WMQ LR LR
comp=Z,280nm,18.3s
WMQ LR LR
comp=Z,230nm,22.5s
WMQ LR LR
comp=Z,130nm,18.3s
**HVU** **Hansel Valley** **90.93 47** *e*P **P** **15 14 43.9 +0.1**
HVU pmax pmax
comp=Z,30nm,1.2s
**HVU** **Hansel Valley** **90.93 47** *e*P **P** **15 14 43.9 +0.1**
comp=Z,30nm,1.2s
**NLU** **North Lily Min** **90.96 49** *e*P **P** **15 14 44.1 +0.1**
comp=Z,18nm,1.4s
**SYO** **Syowa Base** **90.98 197**‖ *i*X **P** **15 14 40.0 -3.3**
**319A** **Douglas** **91.04 58** *e*P **P** **15 14 44.9 +0.4**
comp=Z,25nm,1.1s
**MPU** **Maple Canyon** **91.30 49** *e*P **P** **15 14 45.6 0.0**
comp=Z,14nm,1.3s
**Q16A** **Castle Valley** **91.37 51** *e*P **P** **15 14 46.5 +0.6**
comp=Z,29nm,1.6s
**MSO** **Missoula** **91.50 42** P **P** **15 14 46.0 -0.2**
baz=254
**W18A** **Petrified Fore** **91.55 55** P **P** **15 14 47.2 +0.4**
baz=256
**MCMT** **McKenzie Canyo** **91.69 45** *e*P **P** **15 14 47.2 -0.1**
**DLMT** **Dillon** **92.00 44** *e*P **P** **15 14 49.0 +0.4**
comp=Z,14nm,1.1s
**WALA** **Waterton Lakes** **92.14 40** *e*P **P** **15 14 49.2 0.0**
comp=Z,41nm,1.8s
**121A** **Cookes Peak, D** **92.54 57** P **P** **15 14 52.0 +0.5**
baz=257
**DGZ** **Jazzator, Alta** **92.60 320** *i* P **P** **15 14 51.0 -0.3**
DGZ pmax pmax
comp=Z,4.0nm,0.9s
**BOZ** **Bozeman (W)** **92.72 44** P **P** **15 14 52.6 +0.7**
baz=255
**BOZ** **Bozeman (W)** **92.72 44** *e*P **P** **15 14 52.4 +0.4**
BOZ pmax pmax
comp=Z,10.0nm,1.3s
**BOZ** **Bozeman (W)** **92.72 44** *e*P **P** **15 14 52.4 +0.4**
comp=Z,10nm,1.3s
**IMW** **Indian Meadow** **92.78 46** *e*P **P** **15 14 52.4 0.0**
comp=Z,26nm,2.0s
**MOOW** **Moose Ponds** **92.88 46** *e*P **P** **15 14 53.1 +0.3**
comp=Z,2.3nm,0.6s
**H17A** **Grant Village** **93.15 45** *e*P **P** **15 14 54.9 +0.8**
comp=Z,3.5nm,0.9s
**BW06** **Boulder Array** **93.48 47** P **P** **15 14 56.2 +0.6**
baz=257
**BW06** **Boulder Array** **93.48 47** *e*P **P** **15 14 55.1 -0.6**
comp=Z,6.4nm,1.4s
**PDAR** **Pinedale Array** **93.48 47** P **P** **15 14 55.4 -0.3**
comp=Z,1.5nm,1.0s,baz=267,slow=3.0,SNR=8.0
PDAR pP **pP** **15 15 49.5 -0.7**
comp=Z,0.5nm,0.9s,baz=243,slow=4.0,SNR=2.6
**PDAR** **Pinedale Array** **93.48 47** *e*P **P** **15 14 55.0 -0.7**
PDAR pP **pP** **15 15 49.5 -0.7**
**O20A** **White River Ci** **93.86 50** P **P** **15 14 57.3 -0.1**
baz=257
**ANMO** **Albuquerque** **94.14 55** P **P** **15 14 58.7 -0.1**
baz=258
**ANMO** **Albuquerque** **94.14 55**⇑ *e*P **P** **15 14 57.4 -1.4**
ANMO pmax pmax
comp=Z,9.0nm,2.7s
**RLMT** **Red Lodge** **94.23 45** P **P** **15 14 59.0 0.0**
baz=257
**MNTX** **Cornudas Mount** **94.36 59** P **P** **15 14 59.7 +0.1**
baz=258
**S22A** **4UR Ranch, Cre** **94.42 52** P **P** **15 15 00.7 +0.5**
baz=258
**S22A** **4UR Ranch, Cre** **94.42 52** *e*P **P** **15 14 57.9 -2.3**
comp=Z,6.5nm,1.3s
**EGMT** **Eagleton** **94.56 42** P **P** **15 15 00.5 +0.3**
baz=257
**MK01** **Makanchi Array** **95.22 317** *e*P **P** **15 15 02.5 -0.7**
MK01 *e*pP **pP** **15 15 57.3 -0.5**
**MKAR** **Makanchi Array** **95.23 317** P **P** **15 15 03.2 0.0**
comp=Z,11nm,0.8s,baz=102,slow=6.3,SNR=24
MKAR pP **pP** **15 15 57.3 -0.6**
comp=Z,1.7nm,0.7s,baz=95,slow=5.2,SNR=3.3
**ZALV** **Zalesovo Beam** **95.24 324** P **P** **15 15 02.1 -1.0**
comp=Z,3.5nm,0.8s,baz=127,slow=3.9,SNR=6.9
**ZALV** **Zalesovo Beam** **95.24 324** *e*P **P** **15 15 01.4 -1.7**
**ZALV** **Zalesovo Beam** **95.24 324** *e*P **P** **15 15 01.4 -1.7**
**TX31** **Lajitas Ar. Si** **95.35 61** *e*P **P** **15 15 03.7 -0.6**
**TXAR** **Lajitas Array** **95.35 61** P **P** **15 15 04.3 0.0**
comp=Z,1.1nm,0.8s,baz=221,slow=5.0,SNR=9.7
**SDCO** **Great Sand Dun** **95.45 53** P **P** **15 15 05.2 +0.4**
baz=259

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YKA | Yellowknife Ar | 95.49 | 27 | P | | P | 15 15 02.7 | -1.3 | |
| | comp=Z,1.1nm,0.7s,baz=256,slow=4.4,SNR=9.2 | | | | | | | | |
| N23A | Red Feather La | 95.73 | 50 | P | | P | 15 15 06.1 | +0.1 | |
| | baz=259 | | | | | | | | |
| SNAA | Sanae | 95.98 | 183 | PKP | | P | 15 15 05.2 | -1.2 | |
| SNAA | Sanae | 95.98 | 183 | *d* iP | | P | 15 15 05.3 | -1.0 | |
| SNAA | Sanae | 95.98 | 183 | *e*P | | P | 15 15 05.2 | -1.2 | |
| | comp=Z,18nm,1.6s | | | | | | | | |
| VNA3 | Neumayer Olymp | 96.66 | 181 | PKP | | P | 15 15 07.8 | -1.5 | |
| VNA2 | Neumayer--Watz | 96.92 | 182 | PKP | | P | 15 15 09.7 | -0.8 | |
| | baz=175,slow=2.9 | | | | | | | | |
| KSH | Kashi | 98.45 | 309 | *e*P | | Pdif | 15 15 21.8 | +3.7 | |
| KSH | | | | PP | | PP | 15 19 27.3 | +5.7 | |
| KSH | | | | SKS | | SKSac | 15 25 35.2 | +0.5 | |
| KSH | | | | pmax | pmax | | | | |
| | comp=Z,4.0nm,0.4s | | | | | | | | |
| KSH | | | | pmax | pmax | | | | |
| | comp=Z,79nm,3.9s | | | | | | | | |
| KSH | | | | LR | LR | | | | |
| | comp=Z,130nm,9.1s | | | | | | | | |
| KSH | | | | LR | LR | | | | |
| | comp=Z,190nm,8.3s | | | | | | | | |
| KSH | | | | LR | LR | | | | |
| | comp=Z,290nm,9.4s | | | | | | | | |
| 833A | Chaparral WMA, | 98.86 | 63 | P | | Pdif | 15 15 19.9 | -0.2 | |
| | baz=261 | | | | | | | | |
| Z48A | Northport | 109.49 | 59 | P | | PKiKP | 15 20 09.2 | -0.1 | |
| | baz=268 | | | | | | | | |
| ARU | Arti | 110.30 | 326 | *e*PKiKP | | PKiKP | 15 20 10.1 | 0.0 | |
| GEYT | Alibeck | 112.28 | 306 | PKiKP | | PKiKP | 15 20 14.5 | 0.0 | |
| | comp=Z,0.3nm,0.3s,baz=85,slow=3.0,SNR=4.4 | | | | | | | | |
| SPITS | Spitsbergen Ar | 112.46 | 354 | PKiKP | | PKiKP | 15 20 13.3 | -0.4 | |
| | comp=Z,10nm,1.1s,baz=340,slow=2.1,SNR=3.2 | | | | | | | | |
| M54A | Oil Creek Stat | 115.49 | 50 | P | | PKPdf | 15 20 20.4 | -0.1 | |
| | baz=276 | | | | | | | | |
| O56A | Blue Knob Stat | 116.45 | 51 | P | | PKPdf | 15 20 22.4 | 0.0 | |
| | baz=276 | | | | | | | | |
| ARCES | ARCESS Array B | 117.80 | 346 | PKP | | PKPdf | 15 20 23.5 | -0.7 | |
| | comp=Z,7.0nm,0.6s,baz=68,slow=1.7,SNR=28 | | | | | | | | |
| ARCES | | | | pPKP | | pPKPdf | 15 21 20.2 | -1.1 | |
| | comp=Z,2.2nm,0.6s,baz=28,slow=2.1,SNR=2.1 | | | | | | | | |
| KLMR | Klimovskoe | 118.36 | 334 | *e*PKiKP | | PKPdf | 15 20 24.0 | -1.4 | |
| KLMR | | | | pmax | pmax | | | | |
| | comp=Z,10.0nm,1.3s | | | | | | | | |
| N59A | State Game Lan | 118.48 | 50 | P | | PKPdf | 15 20 26.2 | -0.1 | |
| | baz=279 | | | | | | | | |
| CPUP | Villa Florida | 122.32 | 132 | PKP | | PKPdf | 15 20 33.0 | -1.1 | |
| | comp=Z,2.1nm,0.9s,baz=188,slow=1.7,SNR=3.8 | | | | | | | | |
| GNI | Garni | 122.36 | 310 | *c* iPKiKP | | PKPdf | 15 20 34.0 | 0.0 | |
| GNI | Garni | 122.36 | 310 | *e*PKPdf | | PKPdf | 15 20 35.0 | +1.0 | |
| ZEI | Tsey | 122.38 | 313 | *e*PKiKP | | PKPdf | 15 20 32.1 | -1.9 | |
| ZEI | | | | pmax | pmax | | | | |
| | comp=Z,5.0nm,1.1s | | | | | | | | |
| OBN | Obninsk | 122.46 | 329 | *i* PKiKP | | PKPdf | 15 20 33.8 | +0.4 | |
| OBN | | | | pmax | pmax | | | | |
| | comp=Z,11nm,1.0s | | | | | | | | |
| VSR | Storozhevoye | 122.75 | 324 | ⇑*e*PKiKP | | PKPdf | 15 20 33.6 | -0.5 | |
| KBZ | Khabaz | 122.85 | 314 | PKP | | PKPdf | 15 20 34.4 | -0.2 | |
| | comp=Z,2.7nm,0.8s,baz=112,slow=3.9,SNR=6.2 | | | | | | | | |
| KIV | Kislovodsk | 122.94 | 315 | *e*PKiKP | | PKPdf | 15 20 35.5 | +0.6 | |
| KIV | | | | pmax | pmax | | | | |
| | comp=Z,8.0nm,1.0s | | | | | | | | |
| AKH | Akhalkalaki | 123.00 | 312 | ⇑*i*P | | PKPdf | 15 20 36.0 | +0.8 | |
| NEY | Neytrino | 123.10 | 314 | ⇑*i* PKiKP | | PKPdf | 15 20 35.9 | +0.6 | |
| FIA1 | FINESS Array S | 123.33 | 339 | *e*PKPdf | | PKPdf | 15 20 34.0 | -0.9 | |
| FINES | FINESS Array B | 123.33 | 339 | PKP | | PKPdf | 15 20 34.2 | -0.8 | |
| | comp=Z,12nm,1.0s,baz=77,slow=3.1,SNR=11 | | | | | | | | |
| SDV | Santo Domingo | 123.35 | 87 | PKP | | PKPdf | 15 20 35.5 | -1.1 | |
| | comp=Z,2.7nm,0.4s,baz=284,slow=4.2,SNR=4.5 | | | | | | | | |
| RAYN | Ar Rayn | 123.52 | 290 | *e*PKPdf | | PKPdf | 15 20 35.6 | -1.0 | |
| ARTV | Artvin | 124.20 | 312 | *e*PKPdf | | PKPdf | 15 20 37.5 | 0.0 | |
| NB2 | NORSAR Subarra | 128.18 | 345 | PKPdf | | PKPdf | 15 20 44.2 | -0.1 | |
| | comp=Z,9.9nm,1.2s,baz=31,slow=1.9 | | | | | | | | |
| NB2 | NORSAR Subarra | 128.18 | 345 | PKPdf | | PKPdf | 15 20 44.2 | -0.1 | |
| | baz=31,slow=1.9 | | | | | | | | |
| NOA | NORSAR Array B | 128.18 | 345 | PKP | | PKPdf | 15 20 43.2 | -1.1 | |
| | comp=Z,2.9nm,0.7s,baz=31,slow=2.0,SNR=6.0 | | | | | | | | |
| HFS | Hagfors | 128.29 | 343 | PKP | | PKPdf | 15 20 43.5 | -1.0 | |
| | comp=Z,5.0nm,1.0s,baz=50,slow=2.3,SNR=3.6 | | | | | | | | |
| AKASG | Malin Array Be | 128.53 | 327 | PKP | | PKPdf | 15 20 45.1 | -0.2 | |
| | comp=Z,0.4nm,0.3s,baz=55,slow=1.9,SNR=7.5 | | | | | | | | |
| AKBB | Malin Array Si | 128.53 | 327 | *e*PKiKP | | PKPdf | 15 20 44.8 | -0.4 | |
| AKBB | Malin Array Si | 128.53 | 327 | *e*PKPdf | | PKPdf | 15 20 44.8 | -0.4 | |
| AK11 | Malin Array Si | 128.58 | 327 | *e*PKPdf | | PKPdf | 15 20 44.6 | -0.7 | |
| SORM | Soroca | 130.39 | 324 | ⇓*i*P | | PKPdf | 15 20 46.5 | -2.3 | |
| SORM | Soroca | 130.39 | 324 | ⇓PKiKP | | PKPdf | 15 20 46.5 | -2.3 | |
| BRTR | Keskin Array B | 130.67 | 312 | PKP | | PKPdf | 15 20 49.6 | -0.2 | |
| | comp=Z,0.8nm,0.6s,baz=143,slow=4.0,SNR=7.6 | | | | | | | | |
| BRTR | | | | SKPbc | | SKPab | 15 23 54.0 | +1.0 | |
| | comp=Z,2.8nm,1.0s,baz=100,slow=3.4,SNR=12 | | | | | | | | |
| BR231 | Keskin MP Arra | 131.25 | 313 | *e*PKPdf | | PKPdf | 15 20 49.7 | -1.2 | |
| MMAI | Mount Meron Ar | 131.26 | 303 | PKP | | PKPdf | 15 20 51.6 | +0.6 | |
| | comp=Z,3.7nm,0.8s,baz=52,slow=5.7,SNR=4.6 | | | | | | | | |
| CFR | Carcaliu | 132.04 | 321 | ⇓*i*P | | PKPdf | 15 20 52.9 | +0.9 | |
| CFR | Carcaliu | 132.04 | 321 | ⇓PKiKP | | PKPdf | 15 20 52.9 | +0.9 | |
| TESR | Tescani | 132.24 | 323 | ⇑*i*P | | PKPdf | 15 20 52.2 | -0.2 | |
| EIL | Elat | 132.34 | 299 | PKP | | PKPdf | 15 20 53.4 | +0.3 | |
| | comp=Z,7.3nm,0.8s,baz=72,slow=3.2,SNR=5.8 | | | | | | | | |
| BUR08 | Bucovina Ar. S | 132.43 | 325 | *e*PKPdf | | PKPdf | 15 20 52.6 | -0.2 | |
| BURAR | Bucovina Array | 132.44 | 325 | ⇑*i*P | | PKPdf | 15 20 54.7 | +1.8 | |
| BURAR | Bucovina Array | 132.44 | 325 | ⇑PKiKP | | PKPdf | 15 20 54.7 | +1.8 | |
| BUR04 | Bucovina Ar. S | 132.44 | 325 | *e*PKPdf | | PKPdf | 15 20 53.2 | +0.3 | |
| MLR | Muntele Rosu | 133.20 | 323 | ⇓*i*P | | PKPdf | 15 20 52.0 | -2.4 | |
| MLR | Muntele Rosu | 133.20 | 323 | ⇓PKiKP | | PKPdf | 15 20 52.0 | -2.4 | |
| DOPR | Dopca | 133.27 | 323 | ⇑*i*P | | PKPdf | 15 20 56.0 | +1.6 | |
| STHS | Stebnicka Huta | 133.42 | 330 | *e*PKiKP | | PKPdf | 15 20 55.5 | +0.9 | |
| STHS | Stebnicka Huta | 133.42 | 330 | *e*PKP | | PKPdf | 15 20 55.5 | +0.9 | |
| ARR | Arges | 134.04 | 323 | ⇑*i*P | | PKPdf | 15 20 57.3 | +1.4 | |
| AKAS | Kas | 134.88 | 309 | *e*PKPdf | | PKPdf | 15 20 57.6 | -0.2 | |
| MORC | Moravsky Berou | 134.94 | 332 | ⇓*i*P | | PKPdf | 15 20 57.3 | -0.1 | |
| MORC | Moravsky Berou | 134.94 | 332 | *e*PKiKP | | PKPdf | 15 20 56.7 | -0.7 | |
| MORC | Moravsky Berou | 134.94 | 332 | *e*PKPdf | | PKPdf | 15 20 56.7 | -0.7 | |
| DPC | Dobruska-Polom | 135.06 | 334 | *e*PKPdf | | PKPdf | 15 20 59.0 | +1.4 | |
| DPC | Dobruska-Polom | 135.06 | 334 | *e*PKiKP | | PKPdf | 15 20 59.0 | +1.4 | |
| PSZ | Piszkesteto | 135.08 | 329 | ⇓*i*P | | PKPdf | 15 20 58.0 | +0.2 | |
| PSZ | Piszkesteto | 135.08 | 329 | *e*PKiKP | | PKPdf | 15 20 57.6 | -0.2 | |
| PSZ | Piszkesteto | 135.08 | 329 | *e*PKPdf | | PKPdf | 15 20 57.6 | -0.2 | |
| UPC | Upice | 135.08 | 334 | *e*PKPdf | | PKPdf | 15 20 57.8 | +0.2 | |
| UPC | Upice | 135.08 | 334 | *e*PKiKP | | PKPdf | 15 20 57.8 | +0.2 | |
| BZS | Buzias | 135.62 | 325 | ⇑*i*P | | PKPdf | 15 20 59.3 | +0.5 | |
| BZS | Buzias | 135.62 | 325 | ⇑PKiKP | | PKPdf | 15 20 59.3 | +0.5 | |
| PVCC | Panska Ves | 135.67 | 335 | *e*PKPdf | | PKPdf | 15 20 59.6 | +0.9 | |
| PVCC | Panska Ves | 135.67 | 335 | *e*PKiKP | | PKPdf | 15 20 59.6 | +0.9 | |
| CLL | Collm | 135.69 | 337 | *e*PKiKP | | PKPdf | 15 20 59.0 | +0.3 | |
| CLL | | | | *e* | | | 15 21 56.0 | | |
| CLL | Collm | 135.69 | 337 | *e*PKPdf | | PKPdf | 15 20 59.0 | +0.3 | |
| CLL | | | | *e*PKiKP | | PKiKP | 15 21 01.0 | +0.7 | |
| | comp=Z,6.0nm,1.0s | | | | | | | | |
| CLL | | | | *e*pPKPdf | | pPKPdf | 15 21 56.0 | +0.1 | |
| CLL | | | | *e* | | | 15 22 03.0 | | |
| GOPC | GO Pecny, Ondr | 136.05 | 334 | *e*PKPdf | | PKPdf | 15 21 00.6 | +1.1 | |
| GOPC | GO Pecny, Ondr | 136.05 | 334 | *e*PKiKP | | PKPdf | 15 21 00.6 | +1.1 | |
| MODS | Modra-Piesok | 136.05 | 331 | *e*PKiKP | | PKPdf | 15 21 00.5 | +1.0 | |
| MODS | Modra-Piesok | 136.05 | 331 | *e*PKP | | PKPdf | 15 21 00.5 | +1.0 | |
| KHC | Kasperske Hory | 137.16 | 334 | *e*PKPdf | | PKPdf | 15 21 02.1 | +0.5 | |
| KHC | Kasperske Hory | 137.16 | 334 | *e*PKiKP | | PKPdf | 15 21 02.1 | +0.5 | |
| GEC2 | GERESS Array S | 137.32 | 334 | *e*PKiKP | | PKPdf | 15 21 01.4 | -0.5 | |
| GEC2 | GERESS Array S | 137.32 | 334 | *e*PKPdf | | PKPdf | 15 21 01.4 | -0.5 | |
| GERES | GERESS Array B | 137.32 | 334 | PKhKP | | PKPpre | 15 20 52.0 | | |
| | comp=Z,0.3nm,0.2s,baz=77,slow=5.9,SNR=4.3 | | | | | | | | |
| GERES | | | | PKP | | PKPdf | 15 21 02.1 | +0.1 | |
| | comp=Z,2.1nm,0.8s,baz=48,slow=1.5,SNR=10 | | | | | | | | |
| GERES | | | | SKPbc | | SKPbc | 15 24 15.3 | +1.1 | |
| | comp=Z,0.9nm,0.8s,baz=56,slow=2.5,SNR=5.4 | | | | | | | | |
| GEA0 | GERESS Array S | 137.33 | 334 | *e*PKPdf | | PKPdf | 15 21 01.0 | -0.9 | |
| MEM | Membach | 138.71 | 342 | PKP | | PKPdf | 15 21 04.6 | +0.3 | |
| IDI | Anoyia | 138.79 | 310 | PKP | | PKPdf | 15 21 05.1 | +0.1 | |
| | comp=Z,4.5nm,0.8s,baz=152,slow=2.7,SNR=3.7 | | | | | | | | |
| PDG | Podgorica | 138.91 | 323 | ⇑*i*P | | PKPdf | 15 21 07.4 | +2.5 | |
| DAVOX | Davos/Dischmat | 140.54 | 335 | PKP | | PKPdf | 15 21 07.9 | -0.1 | |
| | baz=187,slow=2.2,SNR=6.0 | | | | | | | | |
| BNI | Bardonecchia | 143.24 | 336 | *e*PKiKP | | PKPbc | 15 21 10.2 | -0.3 | |
| BNI | Bardonecchia | 143.24 | 336 | *e*PKPdf | | PKPbc | 15 21 10.2 | -0.3 | |
| CEL | Celeste | 143.48 | 320 | *e*PKPdf | | PKPab | 15 21 10.5 | +0.3 | |
| SSB | Saint Sauveur | 143.84 | 339 | *e*PKiKP | | PKPbc | 15 21 11.7 | -0.3 | |
| SSB | Saint Sauveur | 143.84 | 339 | *e*PKPdf | | PKPab | 15 21 11.7 | +0.3 | |
| VAE | Valguarnera | 144.89 | 320 | PKP | | PKPdf | 15 21 17.2 | +1.4 | |
| | comp=Z,12nm,0.6s,baz=292,slow=5.4,SNR=3.8 | | | | | | | | |
| VSL | Villasalto | 146.40 | 328 | *e*PKPdf | | PKPbc | 15 21 20.1 | +0.2 | |
| KEST | Kesra | 149.11 | 323 | PKPbc | | PKPbc | 15 21 27.9 | +0.6 | |
| | comp=Z,31nm,1.0s,baz=66,slow=1.1,SNR=18 | | | | | | | | |
| KEST | Kesra | 149.11 | 323 | *e*PKPbc | | PKPbc | 15 21 27.4 | 0.0 | |
| PBRG | Braganca | 150.06 | 351 | *e*PKP | | PKPbc | 15 21 30.2 | +0.8 | |
| POLO | Lamas de Olo | 150.64 | 352 | *e*PKP | | PKPbc | 15 21 31.6 | +0.7 | |
| PVRL | Vila Real | 150.72 | 352 | *e*PKP | | PKPbc | 15 21 31.8 | +0.8 | |
| MVO | Moncorvo | 150.73 | 351 | *e*PKP | | PKPbc | 15 21 31.8 | +0.7 | |
| PVIS | Viseu | 151.30 | 352 | *e*PKP | | PKPbc | 15 21 32.8 | +0.4 | |
| ES19 | SONSECA Array | 151.50 | 345 | *e*PKPdf | | PKPdf | 15 21 25.3 | -1.2 | |
| ES19 | | | | *e*PKPbc | | PKPbc | 15 21 32.9 | +0.1 | |
| ES19 | | | | *e*PKPab | | PKPab | 15 21 42.7 | +0.7 | |
| ESDC | Sonseca Array | 151.54 | 345 | PKP | | PKPdf | 15 21 26.6 | 0.0 | |
| | comp=Z,0.5nm,0.4s,baz=351,slow=2.4,SNR=5.8 | | | | | | | | |
| ESDC | | | | PKPbc | | PKPbc | 15 21 33.1 | +0.2 | |
| | comp=Z,8.0nm,0.8s,baz=11,slow=2.8,SNR=24 | | | | | | | | |
| ESDC | | | | PKPab | | PKPab | 15 21 43.0 | +0.9 | |
| | comp=Z,5.7nm,0.7s,baz=10,slow=4.3,SNR=16 | | | | | | | | |
| MTE | Manteigas | 151.56 | 351 | *e*PKPbc | | PKPbc | 15 21 33.1 | +0.2 | |
| MTE | Manteigas | 151.56 | 351 | *e*PKP | | PKPbc | 15 21 33.7 | +0.7 | |
| PAB | San Pablo | 151.76 | 346 | *e*PKiKP | | PKPdf | 15 21 26.4 | -0.5 | |
| PAB | San Pablo | 151.76 | 346 | *e*PKPdf | | PKPdf | 15 21 26.4 | -0.5 | |
| PAB | | | | *e*PKPbc | | PKiKP | 15 21 33.8 | 0.0 | |
| PCBR | Castelo Branco | 152.09 | 351 | *e*PKP | | PKPbc | 15 21 34.5 | +0.4 | |
| PTOM | Tomar | 152.45 | 352 | *e*PKP | | PKPbc | 15 21 35.4 | +0.5 | |
| PMRV | Marv??o | 152.48 | 351 | *e*PKP | | PKPbc | 15 21 35.5 | +0.5 | |
| PMTG | Montargil | 152.96 | 352 | *e*PKP | | PKPbc | 15 21 36.1 | +0.1 | |
| PESTR | Estremoz | 153.06 | 351 | *i* P | | PKPab | 15 21 49.6 | +1.1 | |
| PBAR | Barrancos | 153.65 | 349 | *e*PKP | | PKPbc | 15 21 38.3 | +0.7 | |
| PBAR | | | | *i* P | | PKPab | 15 21 51.9 | +0.9 | |
| PBEJ | Beja | 153.93 | 351 | *e*PKP | | PKPbc | 15 21 39.2 | +1.0 | |
| PBEJ | | | | *i* P | | PKPab | 15 21 53.7 | +1.5 | |
| PCVE | Castro Verde | 154.34 | 351 | *i* P | | PKPab | 15 21 55.5 | +1.5 | |
| TOA0 | Torodi Ar. Sit | 165.62 | 275 | *e*PKPdf | | PKPdf | 15 21 41.4 | -2.4 | |
| TOA0 | | | | *e*PKPdf | | PKPdf | 15 21 42.2 | -1.6 | |
| TOA0 | | | | *e*PKPab | | PKPab | 15 22 43.4 | -0.6 | |
| TOA0 | | | | *e*PKPab | | PKPab | 15 22 43.6 | -0.4 | |
| TORD | Torodi Ar. Bea | 165.62 | 275 | PKP | | PKPdf | 15 21 43.4 | -0.4 | |
| | comp=Z,3.5nm,1.1s,baz=42,slow=1.3,SNR=12 | | | | | | | | |
| TORD | | | | PKPab | | pPKPdf | 15 22 42.6 | +1.2 | |
| | comp=Z,5.6nm,1.1s,baz=87,slow=4.0,SNR=17 | | | | | | | | |
| TORD | | | | pPKPab | | pPKPab | 15 23 39.0 | +0.3 | |
| | comp=Z,1.3nm,1.0s,baz=72,slow=3.7,SNR=3.2 | | | | | | | | |
| KOWA | Kowa | 170.96 | 285 | *e*PKPdf | | PKPdf | 15 21 46.6 | -0.8 | |

*ISCJB* ***12*** *15:02:19.7±0.3, 36°.39N±0°.02×71°.28E±0°.03, h140km±3km, mb4.6/79, Error ellipse: s-maj=3.5km s-min=2.5km az=152.2*

*MOS* ***12*** *15:02:20.2±1.0, 36°.43N×71°.21E, h140km, mb4.9/33, Error ellipse: s-maj=6.3km s-min=4.1km az=100.0*

*BJI* ***12*** *15:02:20.4, 36°.50N×71°.19E, h134km, mb4.6/33, mB4.9/24*

*NEIC* ***12*** *15:02:21.8±0.2, 36°.43N×71°.17E, mb4.9/30, Error ellipse: s-maj=5.4km s-min=4.4km az=160.0*

*IDC* ***12*** *15:02:22.1±0.6, 36°.36N×71°.10E, h149km±4km, mb4.1/28, mb1 4.3/32, mb1mx4.1/52, mbtmp4.6/32, MS3.8/5, Ms1 3.9/5, ms1mx3.2/49, Error ellipse: s-maj=11.7km s-min=8.7km az=19.0*

*NNC* ***12*** *15:02:23.0±3.5, 36°.79N×71°.24E, h0km, mb5.7, mpv5.5, Error ellipse: s-maj=28.8km s-min=12.8km az=172.0*

**ISC 12 15:02:21.2±0.3, 36°.36N±0°.03×71°.19E±0°.03, h142km±3km, h142km:pP-P,n303,c1984/365,mb4.8/86,26C-28D, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| KBL | Kabul | 2.52 | 225 | Op *e*PN | | Pn | 15 03 03.0 | +0.6 |
| KBL | Kabul | 2.52 | 225 | *e*Pn | | Pn | 15 03 03.0 | +0.6 |
| CEP | Cherat | 2.60 | 167 | ⇓P | | Pn | 15 03 05.2 | +1.9 |
| CEP | | | | S | | Sn | 15 03 38.0 | +2.3 |
| DZET | Dzherino | 3.08 | 323 | ⇑P | | Pn | 15 03 07.9 | -1.4 |
| | 1μm,0.5s | | | | | | | |
| DZET | | | | ⇓S | | Sn | 15 03 45.8 | -0.8 |
| | 14μm,0.5s | | | | | | | |
| DZET | Dzherino | 3.08 | 323 | PN | | Pn | 15 03 07.9 | -1.4 |
| DZET | | | | S | | Sn | 15 03 45.8 | -0.8 |
| DZET | | | | pmax | pmax | | | |
| | comp=Z,1μm,0.5s | | | | | | | |
| CHCP | Chirah Chowk | 3.19 | 147 | ⇓P | | Pn | 15 03 12.8 | +2.1 |
| THW | Thamme Wali | 3.59 | 173 | ⇓P | | Pn | 15 03 17.4 | +1.6 |
| SFK | Sufi-Kurgan | 4.08 | 26 | ⇓P | | Pn | 15 03 23.4 | +1.0 |
| | comp=Z,214nm,0.3s | | | | | | | |
| SFK | | | | ⇑S | | Sn | 15 04 08.3 | -1.7 |
| | comp=Z,497nm,0.3s | | | | | | | |
| SFK | Sufi-Kurgan | 4.08 | 26 | PN | | Pn | 15 03 23.4 | +1.0 |
| SFK | | | | S | | Sn | 15 04 08.3 | -1.7 |
| SFK | | | | pmax | pmax | | | |
| | comp=Z,214nm,0.3s | | | | | | | |
| SFK | | | | smax | smax | | | |
| | comp=N,497nm,0.3s | | | | | | | |
| SARP | Sargodha | 4.59 | 164 | P | | Pn | 15 03 29.5 | +0.4 |
| JMU | Jammu | 4.75 | 139 | *e*S | | Sn | 15 04 22.5 | -3.1 |
| KSH | Kashi | 4.92 | 49 | P | | Pn | 15 03 29.3 | -4.2 |
| KSH | | | | S | | Sn | 15 04 13.4 | -16 |
| KSH | | | | smax | smax | | | |
| | comp=N,15μm,0.5s | | | | | | | |
| KSH | | | | smax | smax | | | |
| | comp=N,8μm,0.5s | | | | | | | |
| THN | Thein Dam | 5.42 | 135 | *e*P | | Pn | 15 03 39.0 | -1.0 |
| THN | | | | *e*S | | Sn | 15 04 39.1 | -2.3 |
| DHRM | DHARAMSHALA | 5.89 | 133 | *e*P | | Pn | 15 03 47.4 | +0.9 |
| DHRM | | | | *e*S | | Sn | 15 04 51.7 | -1.5 |
| DHRM | | | | AML | AML | | 15 04 55.1 | |
| | comp=N,3μm,0.2s | | | | | | | |
| DHRM | | | | AML | AML | | 15 04 56.2 | |
| | comp=E,2μm,0.6s | | | | | | | |
| PONG | Pong | 5.91 | 137 | *e*P | | Pn | 15 03 47.0 | +0.5 |
| PONG | | | | *e*S | | Sn | 15 04 50.0 | -3.2 |
| AML | Almayashu | 6.08 | 18 | P | | Pn | 15 03 48.1 | -1.0 |
| | SNR=418 | | | | | | | |
| MNAS | Manas | 6.20 | 9 | ⇓P | | Pn | 15 03 49.5 | -1.1 |
| | comp=E,164nm,0.5s | | | | | | | |
| MNAS | | | | ⇑S | | Sn | 15 04 56.0 | -4.5 |
| | comp=E,2μm,0.9s | | | | | | | |
| MNAS | Manas | 6.20 | 9 | PN | | Pn | 15 03 49.5 | -1.1 |
| MNAS | | | | pmax | pmax | | | |
| | comp=Z,164nm,0.5s | | | | | | | |
| UCH | Uchtor | 6.40 | 23 | P | | Pn | 15 03 52.8 | -0.7 |
| | SNR=108 | | | | | | | |
| KZA | Kyzart | 6.52 | 28 | P | | Pn | 15 03 54.5 | -0.6 |
| | SNR=94 | | | | | | | |
| BHK | Bhakra | 6.57 | 137 | *e*P | | Pn | 15 03 54.0 | -1.5 |
| BHK | | | | *e*S | | Sn | 15 05 06.2 | -3.0 |
| EKS2 | Erkin-Say | 6.60 | 17 | P | | Pn | 15 03 55.1 | -0.8 |
| | SNR=222 | | | | | | | |
| KK31 | Karatay Array | 6.76 | 356 | ⇓P | | Pn | 15 03 56.5 | -1.4 |
| | comp=Z,121nm,0.5s,baz=182,slow=13,SNR=1510 | | | | | | | |
| KK31 | | | | ⇓S | | Sn | 15 05 09.4 | -4.1 |
| | comp=Z,168nm,0.3s,baz=179,slow=22,SNR=14 | | | | | | | |
| KK31 | Karatay Array | 6.76 | 356 | PN | | Pn | 15 03 56.5 | -1.4 |
| KK31 | | | | pmax | pmax | | | |
| | comp=Z,121nm,0.5s | | | | | | | |
| AAK | Ala-Archa | 6.77 | 21 | P | | Pn | 15 03 58.4 | +0.3 |
| | comp=Z,63nm,0.3s,baz=187,slow=7.5,SNR=151 | | | | | | | |
| AAK | | | | S | | Sn | 15 05 11.1 | -2.9 |
| | comp=Z,36nm,0.3s,baz=293,slow=18,SNR=12 | | | | | | | |
| AAK | Ala-Archa | 6.77 | 21 | ⇓P | | Pn | 15 03 58.0 | -0.1 |
| | comp=Z,162nm,0.4s | | | | | | | |
| AAK | | | | ⇓S | | Sn | 15 05 10.8 | -3.2 |
| | comp=Z,454nm,0.8s | | | | | | | |
| AAK | Ala-Archa | 6.77 | 21 | P | | Pn | 15 03 57.6 | -0.5 |
| | SNR=325 | | | | | | | |
| AAK | Ala-Archa | 6.77 | 21 | *e*Pn | | Pn | 15 03 57.6 | -0.5 |
| AAK | | | | S | | Sn | 15 05 11.1 | -2.9 |
| SDNR | Sundarnagar | 6.82 | 134 | *e*P | | Pn | 15 03 57.5 | -1.3 |
| SDNR | | | | *e*S | | Sn | 15 05 10.0 | -5.3 |
| KBK | Karagaybulak | 6.93 | 24 | P | | Pn | 15 04 00.2 | -0.1 |
| | SNR=589 | | | | | | | |
| FRU | Bishkek | 6.99 | 21 | *i* PN | | Pn | 15 04 00.0 | -0.9 |
| FRU | | | | *i* S | | Sn | 15 05 18.0 | -1.1 |
| FRU | | | | pmax | pmax | | | |
| | comp=Z,200nm,1.6s | | | | | | | |
| FRU | | | | smax | smax | | | |
| | comp=E,960nm,1.6s | | | | | | | |
| ULHL | Ulahol | 7.06 | 32 | P | | Pn | 15 04 01.5 | -0.6 |
| | SNR=48 | | | | | | | |
| CHMS | Chumysh | 7.18 | 21 | P | | Pn | 15 04 02.7 | -0.8 |
| | SNR=218 | | | | | | | |
| SMLA | Simla | 7.21 | 135 | *e*P | | Pn | 15 04 03.7 | -0.3 |
| SMLA | | | | *e*S | | Sn | 15 05 21.7 | -2.9 |
| SMLA | | | | AML | AML | | 15 05 29.2 | |
| | comp=E,579nm,0.6s | | | | | | | |
| SMLA | | | | AML | AML | | 15 05 30.7 | |
| | comp=N,517nm,0.1s | | | | | | | |
| USP | Ospenovka | 7.35 | 19 | P | | Pn | 15 04 04.7 | -1.2 |
| | SNR=186 | | | | | | | |
| TKM2 | Tokmak 2 | 7.38 | 26 | ⇑P | | Pn | 15 04 08.2 | +1.8 |
| | comp=N,542nm,0.6s | | | | | | | |
| TKM2 | | | | ⇓S | | Sn | 15 05 27.0 | -1.9 |
| | comp=N,199nm,0.8s | | | | | | | |
| TKM2 | Tokmak 2 | 7.38 | 26 | PN | | Pn | 15 04 08.2 | +1.8 |
| TKM2 | | | | pmax | pmax | | | |
| | comp=Z,542nm,0.6s | | | | | | | |
| TKM2 | Tokmak 2 | 7.38 | 26 | P | | Pn | 15 04 05.8 | -0.6 |
| | SNR=31 | | | | | | | |
| AAA | Alma-Ata | 8.13 | 31 | *e*PN | | Pn | 15 04 18.3 | +1.9 |
| AAA | | | | pmax | pmax | | | |
| | comp=Z,178nm,0.7s | | | | | | | |
| DDI | Dehra Dun | 8.32 | 134 | *e*P | | Pn | 15 04 18.9 | 0.0 |
| DDI | | | | *e*S | | Sn | 15 05 46.3 | -5.1 |
| DDI | | | | AML | AML | | 15 05 59.7 | |
| | comp=N,885nm,0.4s | | | | | | | |
| DDI | | | | AML | AML | | 15 06 00.1 | |
| | comp=E,573nm,0.4s | | | | | | | |
| NDI | New Delhi | 9.19 | 145 | *e*P | | Pn | 15 04 30.5 | 0.0 |
| NDI | | | | *e*S | | Sn | 15 06 03.0 | -9.3 |
| PDGK | Podgornoye | 9.44 | 40 | ⇑P | | Pn | 15 04 32.4 | -1.4 |
| | comp=E,39nm,0.8s | | | | | | | |
| PDGK | | | | ⇓S | | Sn | 15 06 20.5 | +2.1 |
| | comp=E,60nm,0.9s | | | | | | | |
| PDGK | Podgornoye | 9.44 | 40 | P | | Pn | 15 04 32.4 | -1.4 |
| PDGK | | | | S | | Sn | 15 06 20.5 | +2.1 |
| PDGK | | | | pmax | pmax | | | |
| | comp=Z,39nm,0.8s | | | | | | | |
| PDGK | | | | pmax | pmax | | | |
| | comp=N,61nm,0.9s | | | | | | | |
| LGTI | Lohaghat | 10.26 | 130 | *e*P | | Pn | 15 04 45.5 | +0.7 |
| LGTI | | | | *e*S | | Sn | 15 06 32.1 | -6.1 |
| GEYT | Alibeck | 10.55 | 282 | P | | Pn | 15 04 45.7 | -2.9 |
| | comp=N,12nm,0.3s,baz=105,slow=11,SNR=59 | | | | | | | |
| GEYT | | | | S | | Sn | 15 06 39.4 | -5.8 |
| | comp=N,20nm,0.3s,baz=112,slow=19,SNR=11 | | | | | | | |
| PYUN | Piuthan | 12.94 | 126 | *e*P | | Pn | 15 05 17.3 | -2.7 |
| BHJ | Bhuj | 13.13 | 186 | *e*P | | Pn | 15 05 17.8 | -4.5 |
| BHJ | | | | AMB | AMB | | 15 05 21.7 | |
| | comp=Z,91nm,1.4s | | | | | | | |
| MAKZ | Makanchi | 13.18 | 34 | *e*P | | Pn | 15 05 21.3 | -1.5 |
| MAKZ | Makanchi | 13.18 | 34 | *e*Pn | | Pn | 15 05 21.3 | -1.5 |
| DANN | Dangsing | 13.28 | 123 | *e*P | | Pn | 15 05 22.0 | -2.6 |
| MK01 | Makanchi Array | 13.30 | 35 | *e*Pn | | Pn | 15 05 21.9 | -2.5 |
| MK31 | Makanchi Array | 13.32 | 35 | *e*P | | Pn | 15 05 22.6 | -2.0 |
| MK31 | Makanchi Array | 13.32 | 35 | *e*Pn | | Pn | 15 05 22.6 | -2.0 |
| MKAR | Makanchi Array | 13.32 | 35 | P | | Pn | 15 05 23.2 | -1.3 |
| | comp=Z,1.4nm,0.3s,baz=218,slow=12,SNR=28 | | | | | | | |
| MKAR | | | | sP | | sP | 15 06 03.3 | |
| | comp=Z,0.7nm,0.3s,baz=219,slow=13,SNR=7.1 | | | | | | | |
| KOLN | Koldanda | 13.56 | 126 | *e*P | | Pn | 15 05 25.5 | -2.5 |
| GKN | Gorkha | 14.10 | 122 | *e*P | | Pn | 15 05 33.2 | -1.6 |
| BHPL | Bhopal | 14.14 | 156 | *e*P | | Pn | 15 05 33.9 | -1.4 |
| BHPL | | | | AMB | AMB | | 15 05 41.7 | |
| | comp=Z,99nm,1.0s | | | | | | | |
| WMQ | Urumqi | 14.65 | 54 | P | | Pn | 15 05 41.2 | -0.4 |
| WMQ | | | | S | | Sn | 15 08 19.4 | -4.5 |
| WMQ | | | | pmax | pmax | | | |
| | comp=Z,45nm,0.9s | | | | | | | |
| WMQ | | | | pmax | pmax | | | |
| | comp=Z,420

GROC pmax pmax
comp=Z,94nm,1.0s
**SHL Shillong 20.71 116** *e*P **P** **15 06 52.6 +2.1**
SHL *ex* Sn 15 10 36.0 -13
**GNI Garni 21.08 288***c i*P **P** **15 06 56.4 +2.0**
GNI pmax pmax
comp=Z,220nm,0.9s
**VIS Vishakhapatnam 21.45 147** *e*P **P** **15 07 00.3 +2.0**
**SVE Sverdlovsk 21.67 344**⇓*e*P **P** **15 07 00.4 +0.1**
SVE *e*S **S** **15 10 55.5 +4.6**
SVE pmax pmax
comp=Z,93nm,1.5s
**ARU Arti 21.82 341** P **P** **15 07 02.3 +0.5**
comp=Z,28nm,0.5s,baz=141,slow=8.3,SNR=34
ARU S **S** **15 10 56.5 +3.1**
comp=Z,2.5nm,0.4s,baz=135,slow=18,SNR=2.0
**ARU Arti 21.82 341***c i*P **P** **15 07 01.6 -0.2**
ARU PPP PPP 15 07 37.1
ARU S **S** **15 10 53.6 +0.2**
ARU SS **SnSn** **15 11 31.2 -2.9**
ARU pmax pmax
comp=Z,124nm,1.7s
**ARU Arti 21.82 341** *e*P **P** **15 07 01.3 -0.5**
comp=Z,50nm,0.7s
ARU S **S** **15 10 56.5 +3.1**
**HVS Khovu-Aksy 21.84 40**⇓*e*P **P** **15 07 02.9 +0.6**
HVS pmax pmax
comp=Z,42nm,1.0s
**ZEI Tsey 21.94 295** *e*P **P** **15 07 02.6 -0.9**
ZEI pmax pmax
comp=Z,6.0nm,0.6s
**BGD Bogdanovka 22.01 291** P **P** **15 07 07.7 +3.5**
**AKH Akhalkalaki 22.10 292**⇓*i*P **P** **15 07 07.2 +2.1**
**ONI Oni 22.24 295** P **P** **15 07 08.6 +2.3**
**ONI Oni 22.24 295** *e*P **P** **15 07 08.6 +2.3**
**NCK Nalchik 22.26 297**⇑*e*P **P** **15 07 07.0 +0.5**
NCK pmax pmax
comp=Z,29nm,0.9s
**GTA Gaotai 22.76 74** *e*P **P** **15 07 13.4 +2.0**
GTA pP pP 15 07 41.8 +3.8
GTA sP sP 15 07 58.8 +3.2
GTA S **S** **15 11 13.8 +4.3**
GTA sS sS 15 12 04.2 +7.1
GTA pmax pmax
comp=Z,23nm,0.9s
GTA pmax pmax
comp=Z,87nm,7.4s
GTA LR LR
comp=Z,170nm,10.0s
GTA LR LR
comp=Z,150nm,13.1s
GTA LR LR
comp=Z,170nm,10.0s
**KBZ Khabaz 22.80 298** P **P** **15 07 11.2 -0.3**
comp=Z,8.6nm,0.8s,baz=120,slow=7.7,SNR=17
KBZ S Sn 15 11 29.8 -8.7
comp=Z,13nm,0.9s,baz=138,slow=12,SNR=5.2
**NEY Neytrino 22.86 296**⇑*e*P **P** **15 07 13.9 +1.5**
NEY pmax pmax
comp=Z,2.0nm,0.6s
**GOF Gofitskoye 22.95 301**⇑*e*P **P** **15 07 14.0 +1.0**
GOF pmax pmax
comp=Z,49nm,0.8s
**KVAR Kislovodsk Arr 22.98 298** P **P** **15 07 12.9 -0.6**
comp=Z,6.7nm,0.6s,baz=236,slow=3.1,SNR=5.6
KVAR S Sn 15 11 28.7 -14
comp=Z,4.1nm,0.6s,baz=128,slow=19,SNR=2.2
**KIV Kislovodsk 22.99 298** *e*P **P** **15 07 13.5 0.0**
KIV *e**PP **pP** **15 07 42.1 +1.7**
KIV *e*S **S** **15 11 13.4 +0.4**
KIV pmax pmax
comp=Z,18nm,1.0s
**KIV Kislovodsk 22.99 298** *e*P **P** **15 07 13.2 -0.3**
comp=Z,40nm,0.7s
**RAYN Ar Rayn 25.59 247** *e*P **P** **15 07 37.0 -0.3**
comp=Z,10nm,1.0s
**VRH Novokhopyorsk 25.72 314** *e*P **P** **15 07 37.8 -0.2**
VRH *e* 15 08 19.3
VRH pmax pmax
comp=Z,20nm,0.8s
**MOY Mondy 26.10 45** *e*P **P** **15 07 48.2 +6.6**
**LZH Lanzhou 26.28 81** *e*P **P** **15 07 43.5 0.0**
LZH pP pP 15 08 12.0 -1.3
LZH sP sP 15 08 28.6 -1.2
LZH PP **PnPn** **15 08 32.3 +0.7**
LZH *e*S **S** **15 12 04.3 -1.4**
LZH sS sS 15 12 53.0 -5.5
LZH SS **SnSn** **15 13 21.2 -1.5**
LZH pmax pmax
comp=Z,37nm,1.0s
LZH pmax pmax
comp=Z,270nm,5.6s
**VSR Storozhevoye 27.21 313** *e*P **P** **15 07 51.1 -0.3**
VSR *e* 15 08 39.5
VSR pmax pmax
comp=Z,20nm,1.1s
**VORR Voronezh 27.35 314** P **P** **15 07 53.0 +0.3**
VORR pmax pmax
comp=Z,250nm,1.2s
**LPSR Galich'ya Gora 27.86 316** *e*P **P** **15 07 57.2 0.0**
LPSR *e* 15 08 46.5
LPSR pmax pmax
comp=Z,30nm,0.8s
**SONM Songino Array 28.29 55** P **P** **15 08 02.8 +1.5**
comp=Z,2.3nm,0.6s,baz=262,slow=10.0,SNR=3.2
**ULN Ulaanbaatar 28.73 55** *e*P **P** **15 08 05.2 0.0**
ULN pmax pmax
comp=Z,7.0nm,1.3s
**ULN Ulaanbaatar 28.73 55** *e*P **P** **15 08 05.2 0.0**
comp=Z,7.2nm,1.3s
**KMI Kunming 29.21 104** P **P** **15 08 11.9 +2.1**
KMI pmax pmax
comp=Z,10.0nm,0.6s
KMI pmax pmax
comp=Z,170nm,4.8s
**MMAI Mount Meron Ar 29.51 274** P **P** **15 08 13.3 +1.1**
comp=Z,0.4nm,0.3s,baz=74,slow=11,SNR=2.8
**BR131 Keskin Array S 29.62 288** *e*P **P** **15 08 14.0 +0.9**
**BRTR Keskin Array B 29.62 288** P **P** **15 08 13.8 +0.6**
comp=Z,2.6nm,0.6s,baz=102,slow=8.8,SNR=20
BRTR pP **pP** **15 08 44.9 +1.5**
comp=Z,1.4nm,0.7s,baz=88,slow=9.3,SNR=3.0
BRTR sP **sP** **15 09 01.5 +1.8**
comp=Z,2.2nm,0.8s,baz=95,slow=8.2,SNR=3.4
**OBN Obninsk 30.14 319** P **P** **15 08 14.2 -3.1**
comp=Z,19nm,0.4s,baz=114,slow=20,SNR=5.6
**OBN Obninsk 30.14 319***c i*P **P** **15 08 17.7 +0.4**
OBN *i *PP **pP** **15 08 47.6 0.0**
OBN pmax pmax
comp=Z,28nm,1.3s
**OBN Obninsk 30.14 319** *e*P **P** **15 08 17.8 +0.5**
comp=Z,24nm,0.7s
**CMAR Chiang Mai Arr 30.25 119** P **P** **15 08 20.8 +2.1**
comp=Z,1.7nm,0.7s,baz=300,slow=8.0,SNR=15
CMAR LR LR 15 23 45.1
comp=Z,64nm,20.7s,baz=249,slow=42
**CM01 Chiang Mai Arr 30.29 119** *e*P **P** **15 08 20.4 +1.3**
**HHC Hu-ho-hao-te 31.67 69** *e*P **P** **15 08 31.7 +0.6**
HHC PP **PnPn** **15 09 41.1 +0.2**
HHC S **S** **15 13 28.0 -2.0**
HHC pmax pmax
comp=Z,12nm,0.9s
HHC pmax pmax
comp=Z,210nm,10.6s
**KLMR Klimovskoe 31.68 331** *e*P **P** **15 08 29.5 -1.3**
KLMR *e**SP **sP** **15 09 19.8 +2.3**
KLMR *e* 15 09 38.5
KLMR pmax pmax
comp=Z,16nm,0.9s
**AKASG Malin Array Be 33.15 309** P **P** **15 08 43.9 +0.2**
comp=Z,17nm,0.5s,baz=80,slow=7.2,SNR=123
AKASG pP **pP** **15 09 14.9 +0.7**
comp=Z,4.6nm,0.6s,baz=88,slow=7.6,SNR=3.3
AKASG sP **sP** **15 09 32.0 +1.5**
comp=Z,7.9nm,0.8s,baz=90,slow=7.4,SNR=3.6
**AKBB Malin Array Si 33.15 309** *e*P **P** **15 08 43.7 -0.1**
AKBB pmax pmax
comp=Z,23nm,0.6s
**AKBB Malin Array Si 33.15 309** *e*P **P** **15 08 43.6 -0.1**
comp=Z,22nm,0.6s
**AK11 Malin Array Si 33.19 309** *e*P **P** **15 08 43.6 -0.5**
**SORM Soroca 33.41 304**⇓*i*P **P** **15 08 46.4 +0.4**
**CFR Carcaliu 33.44 299**⇓*i*P **P** **15 08 47.3 +1.0**
**TMCR Tamitsa 34.24 335** *e*P **P** **15 08 53.4 +0.4**
TMCR pmax pmax

comp=Z,21nm,0.6s
**PLOR Plostina 34.48 300**⇑*i*P **P** **15 08 57.3 +1.9**
**TESR Tescani 34.49 301**⇓*i*P **P** **15 08 56.8 +1.4**
**MLR Muntele Rosu 34.98 299** P **P** **15 08 59.7 -0.1**
comp=Z,2.0nm,0.8s,baz=96,slow=6.3,SNR=10
**MLR Muntele Rosu 34.98 299**⇑*i*P **P** **15 09 01.4 +1.6**
**MLR Muntele Rosu 34.98 299** *e*P **P** **15 08 59.5 -0.3**
MLR pmax pmax
comp=Z,21nm,1.1s
**MLR Muntele Rosu 34.98 299** *e*P **P** **15 08 59.5 -0.3**
comp=Z,21nm,1.1s
**BOD Bodaibo 35.36 39** *e*P **P** **15 09 02.8 +0.1**
BOD pmax pmax
comp=Z,24nm,0.8s
**DOPR Dopca 35.36 300**⇑*i*P **P** **15 09 04.6 +1.7**
**NACGM Naroch 35.42 316** *e* **P** **15 09 04.0 +0.7**
**BURAR Bucovina Array 35.49 303**⇑*i*P **P** **15 09 05.3 +1.2**
**BUR04 Bucovina Ar. S 35.49 303** *e*P **P** **15 09 03.9 -0.3**
**BUR08 Bucovina Ar. S 35.50 303** *e*P **P** **15 09 04.1 -0.1**
**IDID Didziasalis 35.54 316** *e*P **P** **15 09 04.7 +0.5**
IDID IAmb IAmb 15 09 06.3
comp=Z,12nm,0.8s
**VOIR 35.61 299**⇑*i*P **P** **15 09 06.3 +1.1**
**IIGN Ignalina 35.84 316** *e*P **P** **15 09 07.4 +0.6**
IIGN IAmb IAmb 15 09 08.9
comp=Z,16nm,0.7s
**IZAR Zarasai 35.91 317** *e*P **P** **15 09 07.9 +0.5**
IZAR IAmb IAmb 15 09 09.6
comp=Z,18nm,0.8s
**ISAL Salakas 35.94 317** *e*P **P** **15 09 08.2 +0.6**
ISAL IAmb IAmb 15 09 09.8
comp=Z,8.6nm,0.8s
**JOF Joensuu 36.07 330** P **P** **15 09 09.0 +0.4**
**ARCR ARCALIA 36.07 302**⇑*i*P **P** **15 09 10.8 +1.9**
**DRGR 37.20 302**⇓*i*P **P** **15 09 20.0 +1.4**
**KWP Kalwaria Pacla 37.22 306** *e*P **P** **15 09 20.1 +1.4**
**KWP Kalwaria Pacla 37.22 306** P **P** **15 09 20.0 +1.4**
KWP pmax pmax
comp=Z,286nm,1.2s
**SUW Suwalki 37.32 314** *e*P **P** **15 09 19.8 +0.4**
**SUW Suwalki 37.32 314** *e*P **P** **15 09 19.8 +0.4**
**FINES FINESS Array B 37.69 326** P **P** **15 09 22.7 +0.3**
comp=Z,11nm,0.6s,baz=116,slow=9.8,SNR=60
**FINES FINESS Array B 37.69 326** *i*P **P** **15 09 22.8 +0.5**
FINES pmax pmax
comp=Z,11nm,0.6s
**CRVS Cervenica-Dubn 38.02 305** *e*P **P** **15 09 26.0 +0.6**
CRVS *e* 15 11 01.5
**CRVS Cervenica-Dubn 38.02 305** *e*P **P** **15 09 26.0 +0.6**
CRVS *e*PP **PnPn** **15 11 01.4 +3.3**
**SUF Sumiainen 38.12 328** P **P** **15 09 27.1 +1.1**
SUF pmax pmax
comp=Z,31nm,0.7s
**STHS Stebnicka Huta 38.16 306** *e*P **P** **15 09 27.3 +0.7**
STHS pmax pmax
comp=Z,4.0nm,0.8s
**STHS Stebnicka Huta 38.16 306** *e*P **P** **15 09 27.3 +0.7**
**MSF Maaselka 38.38 334** P **P** **15 09 28.4 +0.2**
**KECS Kecovo 38.67 305** *e*P **P** **15 09 31.0 +0.2**
**KECS Kecovo 38.67 305** *e*P **P** **15 09 31.0 +0.2**
KECS *e*PP **PnPn** **15 11 05.3 -0.5**
**NIE Niedzica 38.78 306** *e*P **P** **15 09 33.9 +2.2**
**NIE Niedzica 38.78 306** *e*P **P** **15 09 33.9 +2.2**
**OJC Ojcow 39.11 307** *e*P **P** **15 09 35.5 +1.1**
**OJC Ojcow 39.11 307** *e*P **P** **15 09 35.5 +1.1**
**OUL Oulu 39.17 332** P **P** **15 09 36.0 +1.3**
**NJ2 Nanjing 39.34 82** *e*P **P** **15 09 37.2 +0.6**
NJ2 pmax pmax
comp=Z,16nm,0.5s
**VYHS Vyhne 39.76 305** *e*PP PP 15 11 20.4 +6.4
**MORC Moravsky Berou 40.57 307**⇑*i*P **P** **15 09 48.0 +1.4**
**MORC Moravsky Berou 40.57 307** *e*P **P** **15 09 47.3 +0.7**
MORC pmax pmax
comp=Z,27nm,0.8s
**MORC Moravsky Berou 40.57 307** *e*P **P** **15 09 47.3 +0.7**
comp=Z,27nm,0.8s
**GKP Gorka Klasztor 40.78 312** *e*P **P** **15 09 49.5 +1.4**
**GKP Gorka Klasztor 40.78 312** *e*P **P** **15 09 49.5 +1.4**
**KEV Kevo 40.99 338** *e*P **P** **15 09 50.1 +0.5**
**KEV Kevo 40.99 338** *e*P **P** **15 09 50.1 +0.5**
**KRLC Kraliky 41.05 307** *e*P **P** **15 09 51.9 +1.4**
**KRLC Kraliky 41.05 307** *e*P **P** **15 09 51.9 +1.4**
**VRAC Vranov 41.21 306** P **P** **15 09 52.1 +0.3**
comp=Z,5.0nm,0.6s,baz=88,slow=8.9,SNR=4.7
**VRAC Vranov 41.21 306**⇑*i*P **P** **15 09 53.4 +1.7**
**ARCES ARCESS Array B 41.33 338** P **P** **15 09 53.1 +0.7**
comp=Z,19nm,0.6s,baz=112,slow=8.2,SNR=147
ARCES LR LR 15 30 02.8
comp=Z,236nm,18.5s,baz=248,slow=40
**ARCES ARCESS Array B 41.33 338** *e*P **P** **15 09 52.9 +0.5**
**ARCES ARCESS Array B 41.33 338** *e*P **P** **15 09 52.9 +0.5**
**ARE0 ARCESS Array S 41.33 338** *e*P **P** **15 09 53.1 +0.7**
**ARE0 ARCESS Array S 41.33 338** *e*P **P** **15 09 53.0 +0.5**
comp=Z,126nm,1.9s
**DPC Dobruska-Polom 41.34 308** *e*P **P** **15 09 54.1 +1.3**
DPC *e*pP **pP** **15 10 24.8 +0.5**
DPC *e*PP **PnPn** **15 11 38.8 +1.8**
**DPC Dobruska-Polom 41.34 308** *e*P **P** **15 09 54.1 +1.3**
DPC *e**PP **pP** **15 10 24.8 +0.5**
DPC *e* 15 11 38.8
**KSP Ksiaz 41.34 308** *e*P **P** **15 09 54.1 +1.3**
**KSP Ksiaz 41.34 308** *e*P **P** **15 09 54.1 +1.3**
**HEF Hetta 41.40 336** *e*P **P** **15 09 53.7 +0.6**
**UPC Upice 41.53 308** *e*P **P** **15 09 55.4 +1.0**
**UPC Upice 41.53 308** *e*P **P** **15 09 55.4 +1.0**
**KTK1 Kautokeino 41.81 336** *e*P **P** **15 09 56.9 +0.5**
KTK1 IAmb IAmb 15 09 57.2
comp=Z,22nm,0.6s
**HAMF Hammerfest 42.41 339** *e*P **P** **15 10 02.2 +1.1**
**PRU Pruhonice 42.50 307** *e*P **P** **15 10 03.6 +1.4**
**PRU Pruhonice 42.50 307** *e*P **P** **15 10 03.6 +1.4**
**GSI Gunungsitoli 42.59 139** *e*P **P** **15 10 03.9 +0.7**
comp=Z,107nm,1.9s
**KIF Kilpisjarvi 42.60 336** *e*P **P** **15 10 03.1 +0.4**
**BRG Berggiesshubel 42.83 308** *i* P **P** **15 10 06.1 +1.2**
BRG pmax pmax
comp=Z,14nm,1.0s
**GERES GERESS Array B 43.14 305** P **P** **15 10 07.2 -0.3**
comp=Z,0.7nm,0.5s,baz=83,slow=8.0,SNR=5.2
GERES PP **PP** **15 11 51.5 +1.2**
comp=Z,0.6nm,0.5s,baz=72,slow=8.6,SNR=3.9
**KHC Kasperske Hory 43.19 306** *e*P **P** **15 10 09.5 +1.7**
KHC *e*PP **PP** **15 11 52.4 +1.6**
**KHC Kasperske Hory 43.19 306** *e*P **P** **15 10 09.5 +1.7**
KHC *e* 15 11 52.4
**HFS Hagfors 43.27 322** P **P** **15 10 08.6 +0.3**
comp=Z,34nm,0.6s,baz=94,slow=8.8,SNR=60
**CLL Collm 43.40 309** *e*P **P** **15 10 10.0 +0.6**
CLL pmax pmax
comp=Z,10.0nm,1.0s
**CLL Collm 43.40 309** *e*P **P** **15 10 10.0 +0.6**
comp=Z,10.0nm,1.0s
CLL *e*PP **PcP** **15 11 55.0 -0.2**
CLL *e* 15 12 25.0
**TRO Tromso 43.46 336** *e*P **P** **15 10 14.1 +4.5**
**YAK Yakutsk 43.99 35** *e*P **P** **15 10 12.1 -1.8**
YAK pmax pmax
comp=Z,14nm,0.9s
YAK pmax pmax
comp=E,4.0nm,1.0s
YAK pmax pmax
comp=N,3.0nm,1.1s
**YAK Yakutsk 43.99 35** *e*P **P** **15 10 13.4 -0.6**
comp=N,17nm,0.8s
**MOR8 Moi Rana 44.01 331** *e*P **P** **15 10 13.9 -0.2**
MOR8 IAmb IAmb 15 10 14.4
comp=Z,48nm,0.7s
**STEI Steigen 44.17 333** *e*P **P** **15 10 16.0 +0.7**
**NC405 NORSAR Array S 44.35 323** *e*P **P** **15 10 16.6 -0.3**
**NC303 NORSAR Array S 44.53 323** *e*P **P** **15 10 18.2 -0.1**
**NB201 NORSAR Array S 44.55 323** *e*P **P** **15 10 18.1 -0.3**
**NB2 NORSAR Subarra 44.58 323** P **P** **15 10 18.6 -0.2**
comp=Z,26nm,0.7s,baz=94,slow=7.9
**NB2 NORSAR Subarra 44.58 323** P **P** **15 10 18.6 -0.2**
baz=94,slow=7.9
**NOA NORSAR Array B 44.58 323** P **P** **15 10 18.6 -0.2**
comp=Z,26nm,0.7s,baz=96,slow=7.8,SNR=89
**KONS Konsvik 44.61 331** *e*P **P** **15 10 19.1 +0.4**
**STOK Stokkvaagen 44.61 331** *e*P **P** **15 10 19.1 +0.3**
**NAO01 NORSAR Array S 44.73 323** *e*P **P** **15 10 19.6 -0.2**
**KS01 Wonju Array Si 44.75 71** *e*P **P** **15 10 20.5 +0.1**
**KSAR Wonju Array Be 44.75 71** P **P** **15 10 21.9 +1.5**
**KSAR Wonju Array Be 44.75 71** P **P** **15 10 21.9 +1.5**

**NBO02 NORSAR Array S 44.76 323** *e*P **P** **15 10 19.9 -0.2**
**KSRS Korea Array 44.78 71** P **P** **15 10 21.9 +1.3**
comp=Z,2.3nm,0.6s,baz=274,slow=7.5,SNR=11
**NBO00 NORSAR Array S 44.80 323** *e*P **P** **15 10 19.9 -0.5**
**NC204 NORSAR Array S 44.82 323** *e*P **P** **15 10 19.7 -1.0**
**TIXI Tiksi 45.85 22***c i*P **P** **15 10 28.4 -0.1**
TIXI pmax pmax
comp=Z,12nm,0.8s
**TIXI Tiksi 45.85 22** *e*P **P** **15 10 28.1 -0.4**
comp=Z,11nm,0.7s
**DAVOX Davos/Dischmat 45.97 303** P **P** **15 10 29.1 -0.9**
comp=Z,3.2nm,0.6s,baz=51,slow=14,SNR=3.6
**DAVOX Davos/Dischmat 45.97 303** P **P** **15 10 29.1 -0.9**
DAVOX pmax pmax
comp=Z,2.0nm,0.3s
**SPA0 Spitsbergen Ar 47.66 347** *e*P **P** **15 10 43.9 +1.3**
**SPA0 Spitsbergen Ar 47.66 347** *e*P **P** **15 10 43.4 +0.8**
**SENIN Lac Senin/Sane 47.79 303** *e*P **P** **15 10 43.2 -1.1**
comp=Z,56nm,2.0s
**MEM Membach 47.87 309** P **P** **15 10 45.3 +0.8**
**JNU Nakatsue 48.48 75** *e*P **P** **15 10 49.8 +0.3**
comp=Z,20nm,1.1s
**KBS Kingsbay 48.78 347**⇑*i*P **P** **15 10 52.1 +1.0**
**KBS Kingsbay 48.78 347** *e*P **P** **15 10 52.1 +1.0**
KBS IAmb IAmb 15 10 53.0
comp=Z,21nm,0.7s
**KMBO Kilima Mbogo 48.85 228** P **P** **15 10 57.1 +4.3**
comp=Z,0.9nm,0.3s,baz=41,slow=9.8,SNR=6.2
**YSS Yuzh-Sakhalins 52.78 55**⇓*e*P **P** **15 11 20.0 -1.5**
YSS pmax pmax
comp=Z,118nm,1.8s
**MAT Matsushiro 52.86 68** P P 15 11 17.0 -5.3
**SEY Seymchan 54.45 34**⇓*e*P **P** **15 11 34.0 +0.6**
**DAG Danmarks Havn 54.91 344**⇑*i*P **P** **15 11 37.2 +0.7**
DAG pmax pmax
comp=Z,16nm,0.9s
**DAG Danmarks Havn 54.91 344**⇑*i*P **P** **15 11 37.2 +0.7**
comp=Z,16nm,0.9s
**ESDC Sonseca Array 57.66 298** P **P** **15 11 56.8 +0.2**
comp=Z,0.2nm,0.3s,baz=76,slow=8.0,SNR=5.7
ESDC sP **PcP** **15 12 47.3 -0.9**
comp=Z,3.2nm,0.9s,baz=64,slow=7.7,SNR=3.4
**ABPO Ambohimpanom 59.56 206** *i* P **P** **15 12 12.2 +2.2**
**PET Petropavlovsk 60.53 44**⇓*e*P **P** **15 12 17.5 +1.4**
PET pmax pmax
comp=Z,15nm,1.1s
**MDT Midelt 60.98 291** LR LR 15 42 18.3
comp=Z,139nm,18.2s,baz=298,slow=39
**SUMG Summit 61.24 341** *i* P **P** **15 12 22.5 +1.4**
SUMG *e* 15 13 11.8
SUMG pmax pmax
comp=Z,16nm,0.8s
**SUMG Summit 61.24 341** *i* P **P** **15 12 22.5 +1.4**
comp=Z,16nm,0.8s
SUMG *e* 15 13 11.8
**SUMG Summit 61.24 341** *e*P **P** **15 12 22.0 +0.9**
comp=Z,16nm,0.8s
**TULEG Thule 64.60 350** *e*P **P** **15 12 42.5 -0.2**
comp=Z,7.6nm,0.7s
**TOA0 Torodi Ar. Sit 65.87 269** *e*P **P** **15 12 49.6 -2.2**
**TORD Torodi Ar. Bea 65.87 269** P **P** **15 12 50.2 -1.7**
comp=Z,5.8nm,0.6s,baz=50,slow=6.1,SNR=54
**KOWA Kowa 69.73 273** *e*P **P** **15 13 13.8 -2.2**
comp=Z,8.0nm,0.6s
**COLD Coldfoot 72.06 16** *e*P **P** **15 13 28.8 -0.5**
comp=Z,26nm,1.1s
**IMAR Indian Mountai 72.26 18** *e*P **P** **15 13 29.8 -0.6**
**INK Inuvik 74.02 9** *e*P **P** **15 13 40.7 0.0**
INK pmax pmax
comp=Z,31nm,1.4s
**INK Inuvik 74.02 9** *e*P **P** **15 13 40.7 0.0**
comp=Z,30nm,1.4s
**COLA College 74.57 16** *i* P **P** **15 13 44.7 +0.8**
COLA pmax pmax
comp=Z,11nm,1.0s
**COLA College 74.57 16** *e*P **P** **15 13 43.7 -0.2**
comp=Z,62nm,1.0s
**CAST Castle Rocks 74.77 19** *e*P **P** **15 13 45.2 +0.1**
comp=Z,23nm,0.8s
**DBIC Dimbokro 74.84 267** P **P** **15 13 44.9 -1.5**
comp=Z,1.9nm,0.6s,baz=356,slow=4.9,SNR=6.0
DBIC LR LR 15 49 09.8
comp=Z,62nm,19.4s,baz=347,slow=38
**IL1 Eielson Array 74.87 16** *e*P **P** **15 13 44.8 -1.0**
**ILAR Eielson Array 74.87 16** P **P** **15 13 45.0 -0.8**
comp=Z,2.8nm,1.0s,baz=312,slow=4.6,SNR=21
**KIC Kosan Boka 74.93 267** *e*P **P** **15 13 45.1 -1.8**
comp=Z,30nm,1.3s
**TIC Toumodi 74.99 267** *e*P **P** **15 13 45.6 -1.7**
**HDA Harding Lake 75.17 16** *e*P **P** **15 13 46.7 -0.8**
comp=Z,104nm,1.0s
**LIC Lamto 75.24 267** *e*P **P** **15 13 46.8 -1.9**
comp=Z,52nm,1.7s
**DAWY Dawson 77.02 13** *e*P **P** **15 13 58.0 0.0**
comp=Z,19nm,1.4s
**BOSA Boshof 77.74 220** P **P** **15 14 02.9 +0.4**
comp=Z,12nm,0.8s,baz=23,slow=5.2,SNR=17
**BOSA Boshof 77.74 220** *e*P **P** **15 14 02.4 -0.1**
comp=Z,13nm,0.8s
**KDAK Kodiak Island 79.27 22** P **P** **15 14 10.5 +0.1**
comp=Z,16nm,1.0s,baz=329,slow=14,SNR=3.2
**YKW3 Yellowknife Ar 81.31 3** *e*P **P** **15 14 21.2 0.0**
comp=Z,15nm,1.3s
**YKA Yellowknife Ar 81.38 3** P **P** **15 14 21.8 +0.3**
comp=Z,5.5nm,0.5s,baz=352,slow=5.4,SNR=66
**YKA Yellowknife Ar 81.38 3** *i* P **P** **15 14 21.7 +0.1**
YKA pmax pmax
comp=Z,6.0nm,0.5s
**WRA Warramunga Arr 81.79 122** P **P** **15 14 24.3 -0.1**
comp=Z,1.5nm,0.6s,baz=324,slow=4.8,SNR=11
WRA pP **pP** **15 15 02.1 +2.2**
comp=Z,1.9nm,0.9s,baz=326,slow=4.8,SNR=3.3
WRA LR LR 15 56 12.4
comp=Z,47nm,20.9s,baz=190,slow=40
**WRAB Tennant Creek 81.79 122** *i* P **P** **15 14 23.6 -0.8**
**ASAR Alice Springs 84.05 125** P **P** **15 14 35.9 -0.1**
comp=Z,3.0nm,0.8s,baz=309,slow=4.9,SNR=24
ASAR pP **pP** **15 15 14.6 +2.9**
comp=Z,1.4nm,0.8s,baz=311,slow=4.8,SNR=2.8
**AS01 Alice Springs 84.08 125** *e*P **P** **15 14 35.5 -0.6**
**FFC Flin Flon 89.09 356** *e*P **P** **15 14 59.8 -0.3**
FFC pmax pmax
comp=Z,9.0nm,0.8s
**FFC Flin Flon 89.09 356** *e*P **P** **15 14 59.8 -0.3**
comp=Z,9.2nm,0.8s
**ULM Lac du Bonnet 93.01 352** P **P** **15 15 18.0 -0.3**
comp=Z,3.7nm,0.7s,baz=23,slow=4.3,SNR=7.2
ULM pP **pP** **15 15 55.4 +1.0**
comp=Z,2.1nm,0.9s,baz=3.4,slow=6.5,SNR=2.4
**CPUP Villa Florida 135.36 268** PKP **PKPdf** **15 21 23.0 -1.3**
comp=Z,2.2nm,0.7s,baz=37,slow=4.2,SNR=6.7
**PLCA Paso Flores 149.92 250** PKPbc **PKPbc** **15 21 54.2 -0.4**
comp=Z,6.0nm,0.8s,baz=50,slow=6.9,SNR=3.4
**PLCA Paso Flores 149.92 250** *e*PKPbc **PKPbc** **15 21 54.0 -0.6**

---

*ATA* ***12*** *15:04:25.3±1.4,38°.54N×43°.35E,h12km±20km,ML4.0, MW3.6*
*DDA* ***12*** *15:04:28.1,38°.54N×43°.14E,h22km,Ml3.4*
*ISK* ***12*** *15:04:28.6,38°.73N×43°.43E,h15km,ML3.2*
*CSEM* ***12*** *15:04:29.0±0.3,38°.69N×43°.42E,h20km,ML3.2, Error ellipse: s-maj=9.1km s-min=6.2km az=77.0*
**ISC 12 15:04:28.6±0.9,38°.62N±0°.02×43°.27E±0°.02,h26km±5km, n68,σ1s86/92,1C-1D,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.10** | **105** | *e*PG | **Pb** | **15 04 34.1** | **+0.6** |
| **VANB** | **Van** | **0.10** | **105** | *e*Pg | **Pb** | **15 04 34.1** | **+0.6** |
| **TVAN** | **Van** | **0.14** | **130** | *i* P | **Pb** | **15 04 33.8** | **-0.2** |
| TVAN | | | | *i* S | **Sb** | **15 04 40.2** | **+2.6** |
| **TVAN** | **Van** | **0.14** | **130** | P | **Pb** | **15 04 33.8** | **-0.2** |
| TVAN | | | | S | **Sb** | **15 04 40.2** | **+2.6** |
| **GEVA** | **Gevas** | **0.35** | **208** | ⇓*i*P | **Pb** | **15 04 33.2** | **-3.4** |
| GEVA | | | | IAML | | 15 04 33.8 | |
| GEVA | comp=Z,2μm,0.5s | | | *e*S | **Sb** | **15 04 37.4** | **-4.6** |
| **GEVA** | **Gevas** | **0.35** | **208** | *i* P | **Pb** | **15 04 33.1** | **-3.4** |
| **GEVA** | **Gevas** | **0.35** | **208** | P | **Pb** | **15 04 33.1** | **-3.5** |
| **ERCV** | **ERCIS-VAN** | **0.40** | **8** | *e*PG | **Pb** | **15 04 35.1** | **-2.3** |
| **ERCV** | **ERCIS-VAN** | **0.40** | **8** | *e*Pg | **Pb** | **15 04 35.1** | **-2.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.46** | **294** | *i* P | **Pb** | **15 04 36.3** | **-2.1** |
| ADCV | | | | *i* S | **Sb** | **15 04 43.3** | **-1.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.46** | **294** | P | **Pb** | **15 04 36.3** | **-2.1** |
| ADCV | | | | S | **Sb** | **15 04 43.3** | **-1.7** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **CLDR** | **Caldiran** | **0.73** | **44** | *e*PG | **Pb** | **15 04 39.6** | **-3.2** |
| CLDR | | | | *e*SG | **Sb** | **15 04 48.7** | **-3.8** |
| **CLDR** | **Caldiran** | **0.73** | **44** | *i* P | **Pb** | **15 04 39.4** | **-3.4** |
| **CLDR** | **Caldiran** | **0.73** | **44** | *e*Pg | **Pb** | **15 04 39.6** | **-3.2** |
| CLDR | | | | *e*Sg | **Sb** | **15 04 48.7** | **-3.8** |
| **BASK** | **Baskale_VAN** | **0.81** | **134** | *i* P | **Pb** | **15 04 43.4** | **-0.8** |
| BASK | | | | *i* S | **Sn** | **15 04 56.1** | **+0.2** |
| **BASK** | **Baskale_VAN** | **0.81** | **134** | P | **Pb** | **15 04 43.4** | **-0.8** |
| BASK | | | | S | **Sn** | **15 04 56.1** | **+0.2** |
| **TUTA** | **Tutak** | **0.86** | **336** | *e*P | **Pb** | **15 04 44.9** | **-0.1** |
| TUTA | | | | *e*S | **Sn** | **15 04 58.5** | **+1.4** |
| TUTA | | | | IAML | | 15 05 01.2 | |
| | comp=Z,440nm,0.3s | | | | | | |
| **TUTA** | **Tutak** | **0.86** | **336** | *i* P | **Pb** | **15 04 45.1** | **+0.1** |
| **TUTA** | **Tutak** | **0.86** | **336** | P | **Pb** | **15 04 45.1** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **0.98** | **347** | *e*PG | **Pb** | **15 04 47.1** | **+0.1** |
| AGRB | | | | *e*SG | **Sb** | **15 04 59.7** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **0.98** | **347** | *e*Pg | **Pb** | **15 04 47.1** | **+0.1** |
| AGRB | | | | *e*Sg | **Sb** | **15 04 59.7** | **+0.1** |
| **DYDN** | **Diyadin** | **0.98** | **20** | *e*P | **Pn** | **15 04 44.6** | **-2.3** |
| DYDN | | | | IAML | | 15 05 01.9 | |
| | comp=Z,117nm,0.8s | | | | | | |
| **DYDN** | **Diyadin** | **0.98** | **20** | *i* P | **Pn** | **15 04 44.9** | **-2.0** |
| **DYDN** | **Diyadin** | **0.98** | **20** | P | **Pn** | **15 04 44.9** | **-2.0** |
| **HAKT** | **HAKKARI** | **1.12** | **162** | *i* P | **Pn** | **15 04 48.9** | **+0.1** |
| **HAKT** | **HAKKARI** | **1.12** | **162** | P | **Pn** | **15 04 48.9** | **+0.1** |
| **EKAR** | **Karacoban** | **1.13** | **304** | *e*P | **Pn** | **15 04 49.0** | **-0.1** |
| EKAR | | | | IAML | | 15 05 20.4 | |
| | comp=Z,172nm,0.4s | | | | | | |
| **SRTM** | **Siirt_Merkez** | **1.23** | **240** | *i* P | **Pn** | **15 04 48.9** | **-1.4** |
| SRTM | | | | *i* S | **Sn** | **15 05 04.0** | **-2.1** |
| **SRTM** | **Siirt_Merkez** | **1.23** | **240** | P | **Pn** | **15 04 48.9** | **-1.4** |
| SRTM | | | | S | **Sn** | **15 05 04.0** | **-2.1** |
| **SIRN** | **S¨–rnak** | **1.31** | **211** | *i* P | **Pn** | **15 04 51.9** | **+0.6** |
| **SIRN** | **S¨–rnak** | **1.31** | **211** | P | **Pn** | **15 04 51.9** | **+0.6** |
| **YOVA** | **Hakkari_Y¨…kse** | **1.31** | **142** | *i* P | **Pb** | **15 04 53.1** | **+0.4** |
| **YOVA** | **Hakkari_Y¨…kse** | **1.31** | **142** | P | **Pb** | **15 04 53.1** | **+0.4** |
| **EATA** | **Eleskirt** | **1.38** | **334** | *e*P | **Pb** | **15 04 54.8** | **+0.9** |
| EATA | | | | IAML | | 15 05 25.0 | |
| | comp=Z,27nm,0.6s | | | | | | |
| **EATA** | **Eleskirt** | **1.38** | **334** | *i* P | **Pb** | **15 04 54.9** | **+1.0** |
| EATA | | | | *i* S | **Sb** | **15 05 15.7** | **+4.5** |
| **EATA** | **Eleskirt** | **1.38** | **334** | P | **Pb** | **15 04 54.9** | **+1.0** |
| EATA | | | | S | **Sb** | **15 05 15.7** | **+4.5** |
| **CUKT** | **Cukurca** | **1.40** | **169** | *e*PN | **Pb** | **15 04 55.3** | **+1.2** |
| **CUKT** | **Cukurca** | **1.40** | **169** | *i* P | **Pb** | **15 04 56.6** | **+2.5** |
| **CUKT** | **Cukurca** | **1.40** | **169** | *e*Pn | **Pb** | **15 04 55.3** | **+1.2** |
| **CUKT** | **Cukurca** | **1.40** | **169** | P | **Pb** | **15 04 56.6** | **+2.5** |
| **VRTB** | **Varto-Mus** | **1.51** | **291** | *i* P | **Pn** | **15 04 55.0** | **+0.8** |
| VRTB | | | | *i* S | **Sb** | **15 05 15.0** | **+0.1** |
| **VRTB** | **Varto-Mus** | **1.51** | **291** | P | **Pn** | **15 04 55.0** | **+0.8** |
| VRTB | | | | S | **Sb** | **15 05 15.0** | **+0.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.56** | **29** | *e*PN | **Pn** | **15 04 54.6** | **-0.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.56** | **29** | *e*Pn | **Pn** | **15 04 54.6** | **-0.1** |
| **BNGL** | **BINGOL** | **1.69** | **282** | ⇑*i* P | **Pn** | **15 04 58.0** | **+1.4** |
| BNGL | | | | IAML | | 15 05 24.9 | |
| | comp=Z,294nm,0.4s | | | | | | |
| **BNGL** | **BINGOL** | **1.69** | **282** | *i* P | **Pb** | **15 04 58.2** | **-0.9** |
| BNGL | | | | *i* S | **Sn** | **15 05 18.7** | **+1.2** |
| **BTMN** | **Batman** | **1.73** | **246** | *i* P | **Pn** | **15 04 57.5** | **+0.4** |
| BTMN | | | | *i* S | **Sn** | **15 05 19.8** | **+1.4** |
| **BTMN** | **Batman** | **1.73** | **246** | P | **Pn** | **15 04 57.5** | **+0.4** |
| BTMN | | | | S | **Sn** | **15 05 19.8** | **+1.4** |
| **HOMI** | **Horasan** | **1.77** | **324** | *e*P | **Pb** | **15 05 01.1** | **+0.5** |
| HOMI | | | | IAML | | 15 05 34.0 | |
| | comp=Z,43nm,0.6s | | | | | | |
| **HOMI** | **Horasan** | **1.77** | **324** | *i* P | **Pb** | **15 05 01.6** | **+1.0** |
| **DIGO** | **Kars** | **1.79** | **3** | *e*P | **Pb** | **15 05 00.7** | **-0.2** |
| DIGO | | | | IAML | | 15 05 18.7 | |
| | comp=Z,20nm,0.5s | | | | | | |
| **DIGO** | **Kars** | **1.79** | **3** | *i* P | **Pb** | **15 05 00.2** | **-0.7** |
| **DIGO** | **Kars** | **1.79** | **3** | P | **Pb** | **15 05 00.2** | **-0.7** |
| **ERZM** | **Erzurum** | **1.96** | **312** | *e*P | **Pb** | **15 05 02.6** | **-1.1** |
| **ERZM** | **Erzurum** | **1.96** | **312** | *i* P | **Pb** | **15 05 02.4** | **-1.3** |
| **ERZM** | **Erzurum** | **1.96** | **312** | P | **Pb** | **15 05 02.4** | **-1.3** |
| **SENK** | **Senkaya-Erzuru** | **2.06** | **340** | *e*PN | **Pn** | **15 05 03.0** | **+1.2** |
| SENK | | | | *e*SN | **Sn** | **15 05 28.0** | **+1.2** |
| **SENK** | **Senkaya-Erzuru** | **2.06** | **340** | *e*Pn | **Pn** | **15 05 03.0** | **+1.2** |
| SENK | | | | *e*Sn | **Sn** | **15 05 28.0** | **+1.2** |
| **EAK** | **Akyaka** | **2.08** | **7** | *e*PN12 | **Pn** | **15 05 04.0** | **+2.0** |
| EAK | | | | IAML | | 15 05 23.2 | |
| | comp=Z,26nm,0.6s | | | | | | |
| **HANI** | **Diyarbakir_Han** | **2.26** | **266** | *i* P | **Pn** | **15 05 06.1** | **+1.7** |
| **HANI** | **Diyarbakir_Han** | **2.26** | **266** | P | **Pn** | **15 05 06.1** | **+1.7** |
| **YEDI** | **Yedisu-Bingol** | **2.27** | **292** | *e*PN | **Pb** | **15 05 07.5** | **-1.4** |
| **YEDI** | **Yedisu-Bingol** | **2.27** | **292** | *e*Pn | **Pb** | **15 05 07.6** | **-1.4** |
| **MARD** | **Mardin** | **2.36** | **237** | *i* P | **Pn** | **15 05 06.5** | **+0.7** |
| MARD | | | | *i* S | **Sn** | **15 05 35.9** | **+1.9** |
| **DIY** | **Diyarbakir** | **2.50** | **254** | *e*Pn | **Pb** | **15 05 12.7** | **-0.2** |
| **DYBB** | **Diyarbakir** | **2.55** | **256** | *e*PN | **Pb** | **15 05 12.7** | **-1.0** |
| **PTK** | **Pertek** | **3.04** | **276** | *e*PN | **Pb** | **15 05 19.2** | **-2.9** |
| **PTK** | **Pertek** | **3.04** | **276** | *e*Pn | **Pb** | **15 05 19.2** | **-2.9** |

*IDC **12** 15:14:27.8±15.0, 2˚.13N×98˚.52E, h84km±136km, mb3.7/7, mb1 3.8/8, mb1mx3.4/39, mbtmp4.0/8, ML4.1/1, Error ellipse: s-maj=128.4km s-min=16.0km az=52.0*

*ISCJB **12** 15:14:34.6±0.5, 2˚.50N±0˚.06×98˚.97E±0˚.05, h150km, mb3.8/7, Error ellipse: s-maj=9.6km s-min=5.5km az=35.0*

*DJA **12** 15:14:36.3±0.4, 3˚N±3˚×9˚9E±˚, h143km±4km, M3.7/9, MLv3.7/9*

**ISC 12 15:14:35.7**±0.7, **2˚.51N**±0˚.07×**98˚.95E**±0˚.07, **h150**km, **n15, σ0s88/20, mb3.8/7, Northern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **KCSI** | **Kotacane, Aceh** | **1.54** | **311** | P | | **Pn** | **15 15 05.9** | **+0.2** |
| KCSI | | | | S | | **Sn** | **15 15 28.8** | **0.0** |
| **GSI** | **Gunungsitoli** | **1.82** | **229** | P | | **Pn** | **15 15 09.2** | **+0.5** |
| GSI | | | | S | | **Sn** | **15 15 34.1** | **0.0** |
| **TPTI** | | **1.91** | **293** | P | | **Pn** | **15 15 10.6** | **+0.8** |
| TPTI | | | | S | | **Sn** | **15 15 36.5** | **+0.5** |
| **SNSI** | **Sinabang, Aceh** | **2.62** | **268** | P | | **Pn** | **15 15 19.3** | **+1.1** |
| SNSI | | | | S | | **Sn** | **15 15 50.0** | **-1.1** |
| **BKNI** | **Bangkinang** | **3.01** | **136** | S | | **Sn** | **15 16 00.4** | **+0.4** |
| **MLSI** | **Meulaboh, Aceh** | **3.08** | **305** | P | | **Pn** | **15 15 24.7** | **+0.6** |
| MLSI | | | | S | | **Sn** | **15 16 00.5** | **-1.0** |
| **LHMI** | **Lhok Sumawe** | **3.36** | **324** | P | | **Pn** | **15 15 27.9** | **+0.3** |
| **CMAR** | **Chiang Mai Arr** | **15.85** | **360** | P | | **P** | **15 18 12.6** | **+1.2** |
| | 0.3nm,0.3s,baz=192,slow=11,SNR=7.8 | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **33.33** | **129** | P | | **P** | **15 20 59.1** | **-0.5** |
| | 1.7nm,0.6s,baz=308,slow=6.0 | | | | | | | |
| **WRA** | **Warramunga Arr** | **41.28** | **124** | P | | **P** | **15 22 05.5** | **-1.2** |
| | 0.9nm,0.3s,baz=308,slow=9.2,SNR=29 | | | | | | | |
| **ASAR** | **Alice Springs** | **42.83** | **129** | P | | **P** | **15 22 17.8** | **-1.4** |
| | 0.7nm,0.6s,baz=303,slow=7.8,SNR=19 | | | | | | | |
| **MKAR** | **Makanchi Array** | **46.43** | **344** | P | | **P** | **15 22 47.4** | **+0.1** |
| | 0.4nm,0.5s,baz=157,slow=9.5,SNR=5.8 | | | | | | | |
| **STKA** | **Stephens Creek** | **52.97** | **134** | P | | **P** | **15 23 38.0** | **+1.1** |
| | 1.2nm,0.6s,baz=287,slow=8.5,SNR=4.5 | | | | | | | |
| **BRTR** | **Keskin Array B** | **69.54** | **312** | P | | **P** | **15 25 27.3** | **-1.3** |
| | 0.8nm,0.7s,baz=123,slow=7.1,SNR=4.7 | | | | | | | |
| **HFS** | **Hagfors** | **85.47** | **330** | P | | **P** | **15 26 57.2** | **+0.8** |
| | 11nm,1.2s,baz=122,slow=5.2,SNR=5.4 | | | | | | | |

**MEX 12 15:23:27.7**±0.3, **17˚.80N×99˚.95W, h60**km±5km, **MD3.7, Guerrero**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **MEIG** | **Mezcala** | **0.34** | **68** | *e*P | | Pn | 15 23 36.8 | -1.4 |
| MEIG | | | | *i* S | | Sn | 15 23 44.3 | -1.7 |
| **ARIG** | **Puente Sto Nin** | **0.61** | **322** | *e*P | | Pn | 15 23 39.5 | -1.5 |
| ARIG | | | | *e*S | | Sn | 15 23 48.8 | -1.8 |
| **PLIG** | **Platanillo** | **0.73** | **36** | *i* P | | Pn | 15 23 41.2 | -1.2 |
| PLIG | | | | *i* S | | Sn | 15 23 51.8 | -1.5 |
| **CAIG** | **El Cayaco** | **0.80** | **202** | *e*P | | Pn | 15 23 41.8 | -1.4 |
| CAIG | | | | *i* S | | Sn | 15 23 53.1 | -1.5 |
| **ACX** | **Acapulco** | **0.93** | **174** | *e*P | | Pn | 15 23 53.9 | +9.1 |

*ISCJB **12** 15:43:38.1±0.2, 0˚.02N±0˚.02×123˚.38E±0˚.02, h154km±2km, mb4.8/102, Error ellipse: s-maj=3.7km s-min=3.0km az=143.4*

*BJI **12** 15:43:38.7, 0˚.00N×123˚.40E, h147km, mb4.9/53, mB5.1/38*

*IDC **12** 15:43:38.1±2.1, 0˚.06N×123˚.18E, h141km±18km, mb4.4/27, mb1 4.4/28, mb1mx4.4/37, mbtmp4.8/28, MS3.3/1, Ms1 3.5/1, ms1mx2.7/38, Error ellipse: s-maj=14.3km s-min=7.6km az=76.0*

*MOS **12** 15:43:38.3±1.2, 0˚.08N×123˚.28E, h157km, mb4.9/31, Error ellipse: s-maj=10.6km s-min=5.6km az=119.4*

*NEIC **12** 15:43:38.7±0.1, 0˚.03N×123˚.36E, mb4.9/50, Error ellipse: s-maj=5.4km s-min=3.6km az=65.0*

*NEIC Felt [III] at Luwuk.*

*DJA **12** 15:43:39.7±0.2, 0˚S±2˚×12˚.3E±˚, h122km±3km, M4.9/29, mb5.0/29, mB5.3/18, MLv5.3/18, Mw(mB)4.7/18*

*KLM **12** 15:43:39.4, 0˚.04N×123˚.52E, h151km, mb5.0*

**ISC 12 15:43:38.7**±0.4, **0˚.03S**±0˚.03×**123˚.34E**±0˚.03, **h146**km±3km, **h147km:pP-P, n354,** σ**1s54**/396, **mb4.9**/106, **18C-17D, Minahassa Peninsula, Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **KMSI** | **Cibinong** | **0.88** | **47** | P | | **Pn** | **15 44 02.3** | **+0.2** |
| KMSI | | | | S | | **Sn** | **15 44 20.6** | **+0.7** |
| **LUWI** | **Luwuk** | **1.16** | **210** | P | | **Pn** | **15 44 03.5** | **-1.0** |
| LUWI | | | | S | | **Sn** | **15 44 22.3** | **-2.0** |
| **LUWI** | **Luwuk** | **1.16** | **210** | *e*Pn | | **Sn** | **15 44 03.7** | **-0.8** |
| LUWI | | | | *e*Sn | | **Sn** | **15 44 20.0** | **-4.3** |
| **MRSI** | **Marisa** | **1.49** | **290** | P | | **Pn** | **15 44 06.6** | **-1.3** |
| MRSI | | | | S | | **Sn** | **15 44 27.4** | **-2.8** |
| **APSI** | **Ampana** | **1.91** | **243** | P | | **Pn** | **15 44 12.2** | **-0.3** |
| APSI | | | | S | | **Sn** | **15 44 37.5** | **-1.0** |
| **SANI** | **Sanana** | **3.32** | **127** | P | | **Pn** | **15 44 28.0** | **-2.0** |
| SANI | | | | S | | **Sn** | **15 45 03.7** | **-6.0** |
| **MPSI** | **Mapaga** | **3.46** | **276** | P | | **Pn** | **15 44 31.8** | **-0.1** |
| MPSI | | | | S | | **Sn** | **15 45 13.3** | **+0.2** |
| **LBMI** | **Labuha** | **4.20** | **98** | P | | **Pn** | **15 44 40.6** | **-0.9** |
| LBMI | | | | S | | **Sn** | **15 45 27.5** | **-2.8** |
| **SGSI** | **Sangihe** | **4.29** | **31** | P | | **Pn** | **15 44 43.5** | **+0.8** |
| **TTSI** | **Tana Toraja** | **4.62** | **230** | P | | **Pn** | **15 44 47.9** | **+0.8** |
| **NLAI** | **Namlea** | **4.92** | **130** | P | | **Pn** | **15 44 51.6** | **+0.5** |
| NLAI | | | | S | | **Sn** | **15 45 45.4** | **-2.1** |
| **SPSI** | **Sidrap Palu** | **5.29** | **222** | P | | **Pn** | **15 44 56.2** | **+0.2** |
| | 287nm,0.8s,3μm1.5nm | | | | | | | |
| SPSI | | | | S | | **Sn** | **15 45 55.2** | **-1.1** |
| | 287nm,0.8s,3μm1.5nm | | | | | | | |
| **BNSI** | **Bone** | **5.41** | **217** | P | | **Pn** | **15 44 57.9** | **+0.3** |
| | 254nm,0.7s,3μm1.6nm | | | | | | | |
| **BBSI** | **Bau Bau** | **5.47** | **188** | P | | **Pn** | **15 44 58.7** | **+0.3** |
| | 30nm,0.7s,627nm0.3nm | | | | | | | |
| **SGKI** | **Sangatta, Kali** | **5.76** | **265** | P | | **Pn** | **15 45 02.2** | **0.0** |
| **AAI** | **Ambon** | **6.06** | **127** | P | | **Pn** | **15 45 07.5** | **+1.3** |
| | 455nm,0.9s,4μm1.5nm | | | | | | | |
| **AAI** | **Ambon** | **6.06** | **127** | P | | **Pn** | **15 45 07.4** | **+1.3** |
| AAI | | | | pmax | pmax | | | |
| | comp=Z,451nm,0.9s | | | | | | | |
| **KAPI** | **Kappang** | **6.11** | **216** | *e*Pn | | **Pn** | **15 45 07.0** | **0.0** |
| | comp=Z,149nm,0.8s | | | | | | | |
| **MSAI** | **Masohi** | **6.48** | **121** | P | | **Pn** | **15 45 13.7** | **+1.9** |
| **BSSI** | **Bau Bau, Buton** | **6.71** | **205** | P | | **Pn** | **15 45 16.1** | **+1.2** |
| | comp=Z,455nm,0.7s,comp=Z,4μmcomp=Z,1.6nm | | | | | | | |
| **TSM** | **Tawau** | **6.95** | **308** | ⇓P | | **Pn** | **15 45 18.4** | **+0.2** |
| **MYLDM** | **Lahad Datu** | **7.08** | **317** | ⇑P | | **Pn** | **15 45 22.6** | **+2.7** |
| **MYLDM** | **Lahad Datu** | **7.08** | **317** | *e*Pn | | **Pn** | **15 45 21.5** | **+1.6** |
| **CTBH** | **Cotabato--PC H** | **7.26** | **7** | ⇓*i*P | | **Pn** | **15 45 23.8** | **+1.6** |
| **PAGZ** | **Pagadian** | **7.83** | **0** | *e*P | | **Pn** | **15 45 30.7** | **+0.8** |
| **KBKI** | **Kotabaru** | **7.87** | **246** | P | | **Pn** | **15 45 30.8** | **+0.3** |
| | comp=Z,223nm,1.1s,comp=Z,2μmcomp=Z,0.7nm | | | | | | | |
| **BNDI** | **Bandanaira** | **7.93** | **124** | P | | **Pn** | **15 45 31.4** | **+0.2** |
| | comp=Z,475nm,0.8s,comp=Z,4μmcomp=Z,1.4nm | | | | | | | |
| **SWI** | **Sorong** | **7.96** | **96** | P | | **Pn** | **15 45 31.7** | **+0.1** |
| | comp=Z,200nm,1.0s,comp=Z,2μmcomp=Z,0.7nm | | | | | | | |
| **SWI** | **Sorong** | **7.96** | **96** | P | | **Pn** | **15 45 31.7** | **+0.1** |
| SWI | | | | pmax | pmax | | | |
| | comp=Z,199nm,1.0s | | | | | | | |
| **BUKP** | **Musuan** | **8.04** | **12** | *e*P | | **Pn** | **15 45 33.8** | **+1.0** |
| **SDKM** | **Sandakan** | **8.33** | **313** | ⇓P | | **Pn** | **15 45 39.2** | **+2.5** |
| **MTKI** | **Muara Teweh, K** | **8.50** | **264** | P | | **Pn** | **15 45 39.5** | **+0.7** |
| | comp=Z,228nm,0.7s,comp=Z,2μm | | | | | | | |
| **MMRI** | **Maumere** | **8.62** | **187** | Pn | | **Pn** | **15 45 40.0** | **-0.5** |
| | comp=Z,41nm,0.5s | | | | | | | |
| **EDFI** | **Ende, Flores** | **8.82** | **191** | P | | Pn | 15 45 48.5 | +5.3 |
| **KKM** | **Kota Kinabalu** | **9.33** | **310** | ⇓P | | **Pn** | **15 45 52.6** | **+2.6** |
| **KKM** | **Kota Kinabalu** | **9.33** | **310** | *e*Pn | | **Pn** | **15 45 52.7** | **+2.6** |
| **FAKI** | **Fak Fak** | **9.35** | **108** | P | | **Pn** | **15 45 48.9** | **-1.3** |
| | comp=Z,61nm,1.2s,comp=Z,1μm | | | | | | | |
| **FAKI** | **Fak Fak** | **9.35** | **108** | *e*Pn | | **Pn** | **15 45 48.6** | **-1.7** |
| **SOEI** | **Soe** | **9.70** | **175** | *e*Pn | | **Pn** | **15 45 54.3** | **-0.7** |
| **MSLP** | **Maasin** | **10.21** | **8** | *e*P | | **Pn** | **15 46 05.4** | **+3.7** |
| **PLAI** | **Plampang** | **10.35** | **212** | P | | **Pn** | **15 46 05.5** | **+2.0** |
| | comp=Z,73nm,1.1s,comp=Z,1μm | | | | | | | |
| **SRBI** | **Singaraja** | **11.39** | **225** | P | | **Pn** | **15 46 20.0** | **+2.8** |
| | comp=Z,76nm,1.2s,comp=Z,969nm | | | | | | | |
| **KMMI** | **Kalianget** | **11.67** | **233** | P | | **Pn** | **15 46 23.8** | **+3.0** |
| | comp=Z,48nm,0.8s,comp=Z,1μm | | | | | | | |
| **STKI** | **Sintang** | **11.87** | **270** | P | | **Pn** | **15 46 24.4** | **+0.9** |
| | comp=Z,67nm,1.0s | | | | | | | |
| **ABJI** | **Asem Bagus** | **11.92** | **229** | P | | **Pn** | **15 46 26.2** | **+2.1** |
| **PBKI** | **Pangkalan Bun** | **11.97** | **257** | P | | **Pn** | **15 46 25.4** | **+0.6** |
| | comp=Z,320nm,1.1s,comp=Z,3μm | | | | | | | |
| **BLJI** | **Banyuglugur** | **12.38** | **232** | P | | P | 15 46 41.6 | +5.5 |
| **JAGI** | **Jajag, Banyuwa** | **12.42** | **227** | P | | **Pn** | **15 46 33.0** | **+2.4** |
| | comp=Z,94nm,1.2s | | | | | | | |
| **JAGI** | **Jajag, Banyuwa** | **12.42** | **227** | *e*Pn | | **Pn** | **15 46 32.3** | **+1.7** |
| **GMJI** | **Gumukmas** | **12.82** | **230** | P | | P | 15 46 46.0 | +4.9 |
| **KSM** | **Kuching** | **13.12** | **277** | ⇓P | | **P** | **15 46 42.5** | **-1.9** |
| **KSM** | **Kuching** | **13.12** | **277** | *e*Pn | | **Pn** | **15 46 41.8** | **+2.1** |
| **PALU** | **Palau** | **13.30** | **56** | P | | **Pn** | **15 46 41.5** | **-0.5** |
| | baz=13,SNR=6.3 | | | | | | | |
| **PWJI** | **Pagerwojo** | **13.98** | **235** | P | | **P** | **15 46 52.6** | **-1.3** |
| | comp=Z,43nm,1.3s | | | | | | | |
| **MTN** | **Manton Dam** | **14.89** | **149** | P | | **Pn** | **15 47 02.9** | **+0.9** |
| | baz=15,SNR=77 | | | | | | | |
| **MTN** | **Manton Dam** | **14.89** | **149** | *e*Pn | | **Pn** | **15 47 03.2** | **+1.1** |
| **KDU** | **Kakadu** | **15.49** | **145** | P | | **P** | **15 47 11.2** | **+0.4** |
| | baz=16,SNR=5.4 | | | | | | | |
| **KPJI** | **Karang Pucung** | **16.10** | **243** | P | | **P** | **15 47 20.1** | **+2.6** |
| | comp=Z,92nm,1.3s | | | | | | | |
| **KNRA** | **Kununurra** | **16.44** | **161** | P | | **P** | **15 47 23.1** | **+1.8** |
| | baz=16,SNR=20 | | | | | | | |
| **GENI** | **Genyem** | **17.01** | **99** | P | | **Pn** | **15 47 31.0** | **+2.9** |
| | comp=Z,46nm,1.3s | | | | | | | |
| **CISI** | **Cisompet, Garu** | **17.19** | **244** | P | | **Pn** | **15 47 32.4** | **+2.1** |
| | comp=Z,144nm,1.0s,comp=Z,2μm | | | | | | | |
| **CISI** | **Cisompet, Garu** | **17.19** | **244** | *e*P | | **P** | **15 47 29.1** | **-0.5** |
| | comp=Z,137nm,1.0s | | | | | | | |
| **CBJI** | **Citeko** | **17.64** | **249** | P | | **Pn** | **15 47 36.4** | **+0.8** |
| | comp=Z,115nm,1.1s,comp=Z,8μm | | | | | | | |
| **ABRA** | **Dores** | **17.76** | **352** | *e*P | | **Pn** | **15 47 36.5** | **-0.5** |
| **DBJI** | **Dramaga** | **17.78** | **248** | P | | **Pn** | **15 47 39.0** | **+1.7** |
| | comp=Z,32nm,1.1s | | | | | | | |
| **APYP** | **Conner** | **17.90** | **353** | *e*P | | **P** | **15 47 36.7** | **-0.5** |
| **FITZ** | **Fitzroy Crossi** | **18.10** | **173** | P | | **Pn** | **15 47 40.5** | **-0.4** |
| | comp=Z,4.6nm,0.3s,baz=3.8,slow=8.3,SNR=64 | | | | | | | |
| FITZ | | | | S | | **S** | **15 50 57.6** | **-1.8** |
| | baz=344,slow=3.0 | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **18.10** | **173** | P | | **Pn** | **15 47 40.6** | **-0.4** |
| | baz=18 | | | | | | | |
| **DSRI** | **Dabo** | **18.77** | **269** | P | | **Pn** | **15 47 48.9** | **-0.1** |
| | comp=Z,181nm,0.6s,comp=Z,5μm | | | | | | | |
| **MYKOM** | **Kota Tinggi** | **19.57** | **275** | ⇑P | | **Pn** | **15 47 58.4** | **0.0** |
| **MYKOM** | **Kota Tinggi** | **19.57** | **275** | *e*P | | **P** | **15 47 56.3** | **+0.8** |
| | comp=Z,21nm,0.7s | | | | | | | |
| **KASI** | **Kota Agung** | **19.59** | **254** | P | | **Pn** | **15 47 59.0** | **+0.4** |
| | comp=Z,48nm,0.8s | | | | | | | |
| **KGM** | **Kluang** | **20.12** | **276** | ⇑P | | Pn | 15 48 03.4 | -1.5 |
| **KTGM** | **Kuala Trenggan** | **20.87** | **285** | ⇓P | | **P** | **15 48 11.0** | **+1.5** |
| **MBWA** | **Marble Bar** | **21.29** | **189** | *e*P | | **P** | **15 48 13.6** | **-0.3** |
| | comp=Z,24nm,0.9s | | | | | | | |
| **FRIM** | **Kepong** | **21.95** | **279** | ⇑P | | **P** | **15 48 22.5** | **+1.6** |
| **WRAB** | **Tennant Creek** | **22.53** | **152** | *c i*P | | **P** | **15 48 26.3** | **-0.2** |
| WRAB | | | | pmax | pmax | | | |
| | comp=Z,36nm,0.6s | | | | | | | |
| **WRAB** | **Tennant Creek** | **22.53** | **152** | *e*P | | **P** | **15 48 26.2** | **-0.3** |
| | comp=Z,43nm,0.7s | | | | | | | |
| **WRA** | **Warramunga Arr** | **22.53** | **152** | P | | **P** | **15 48 26.7** | **+0.2** |
| | comp=Z,48nm,0.6s,baz=332,slow=10,SNR=584 | | | | | | | |
| WRA | | | | S | | **S** | **15 52 21.1** | **-1.8** |
| | comp=Z,3.6nm,0.8s,baz=334,slow=16,SNR=6.2 | | | | | | | |
| WRA | | | | ScP | | **ScP** | **15 55 39.6** | **+0.1** |
| | comp=Z,1.2nm,0.8s,baz=327,slow=2.6,SNR=5.3 | | | | | | | |
| **WRA** | **Warramunga Arr** | **22.53** | **152** | *i* P | | **P** | **15 48 26.3** | **-0.3** |
| WRA | | | | pmax | pmax | | | |
| | comp=Z,48nm,0.6s | | | | | | | |
| **WB2** | **Warramunga Arr** | **22.54** | **152** | *e*P | | **P** | **15 48 26.6** | **0.0** |
| **IPM** | **Ipoh** | **22.74** | **282** | ⇑P | | **P** | **15 48 30.7** | **+2.0** |
| **IPM** | **Ipoh** | **22.74** | **282** | *e*P | | **P** | **15 48 29.1** | **+0.4** |
| | comp=Z,42nm,0.7s | | | | | | | |
| **QIZ** | **Qiongzhong** | **23.12** | **326** | P | | **P** | **15 48 32.5** | **+0.5** |
| QIZ | | | | pP | | **pP** | **15 48 58.5** | **-1.4** |
| QIZ | | | | S | | **S** | **15 52 36.4** | **+4.1** |
| QIZ | | | | sS | | **sS** | **15 53 22.8** | **+0.1** |
| QIZ | | | | pmax | pmax | | | |
| | comp=Z,39nm,1.5s | | | | | | | |
| **QIZ** | **Qiongzhong** | **23.12** | **326** | *e*P | | **P** | **15 48 33.2** | **+1.2** |
| | comp=Z,38nm,0.7s | | | | | | | |
| **KULM** | **Kulim** | **23.27** | **283** | ⇑P | | **P** | **15 48 34.3** | **+0.8** |
| **KULM** | **Kulim** | **23.27** | **283** | *e*P | | **P** | **15 48 34.7** | **+1.2** |
| | comp=Z,29nm,0.8s | | | | | | | |
| **UBPT** | **Khong Chiam** | **23.31** | **312** | P | | **P** | **15 48 36.8** | **+3.0** |
| | comp=Z,60nm,1.1s | | | | | | | |
| **TPUB** | **Ta-pu** | **23.34** | **354** | *e*P | | **P** | **15 48 34.9** | **+0.8** |
| | comp=Z,63nm,0.7s | | | | | | | |
| **SSLB** | **Suanglung** | **23.79** | **355** | *e*P | | **P** | **15 48 38.1** | **0.0** |
| | comp=Z,149nm,1.7s | | | | | | | |
| **COEN** | **Coen** | **24.02** | **126** | P | | **P** | **15 48 40.7** | **+0.4** |
| | baz=24,SNR=42 | | | | | | | |
| **COEN** | **Coen** | **24.02** | **126** | *e*P | | **P** | **15 48 40.2** | **-0.1** |
| | comp=Z,32nm,0.8s | | | | | | | |
| **WRKA** | **Warakurna** | **25.32** | **169** | P | | **P** | **15 48 52.7** | **+0.7** |
| | baz=26,SNR=75 | | | | | | | |
| **PMG** | **Port Moresby** | **25.47** | **112** | P | | **P** | **15 48 54.6** | **+1.1** |
| | comp=Z,10.0nm,0.7s,baz=297,slow=4.5,SNR=3.3 | | | | | | | |
| **PMG** | **Port Moresby** | **25.47** | **112** | *c i*P | | **P** | **15 48 54.2** | **+0.7** |
| PMG | | | | pmax | pmax | | | |
| | comp=Z,53nm,1.2s | | | | | | | |
| **SKNT** | **Sakolnakorn** | **25.48** | **312** | P | | **P** | **15 48 56.4** | **+2.8** |
| | comp=Z,142nm,1.3s | | | | | | | |
| **AS31** | **Alice Springs** | **25.63** | **157** | *e*P | | **P** | **15 48 55.3** | **+0.4** |
| | comp=Z,6.3nm,0.6s | | | | | | | |
| **ASAR** | **Alice Springs** | **25.64** | **157** | P | | **P** | **15 48 55.7** | **+0.8** |
| | comp=Z,15nm,0.9s,baz=334,slow=8.2,SNR=130 | | | | | | | |
| ASAR | | | | PcP | | **PcP** | **15 52 22.6** | **+0.6** |
| | comp=Z,6.3nm,0.6s,baz=342,slow=2.2,SNR=11 | | | | | | | |
| ASAR | | | | ScP | | **ScP** | **15 55 47.7** | **-0.2** |
| | comp=Z,0.6nm,0.5s,baz=334,slow=2.6,SNR=4.9 | | | | | | | |
| **AS01** | **Alice Springs** | **25.65** | **157** | *e*P | | **P** | **15 48 55.4** | **+0.3** |
| AS01 | | | | *e*PcP | | **PcP** | **15 52 22.3** | **+0.3** |
| **QIS** | **Mount Isa** | **25.87** | **143** | P | | **P** | **15 48 58.3** | **+1.3** |
| | baz=26,SNR=54 | | | | | | | |
| **KHON** | **Khomkaen** | **25.97** | **310** | P | | P | 15 49 06.8 | +8.9 |
| **NAYO** | **Nakonayok** | **26.04** | **304** | P | | **P** | **15 49 03.3** | **+4.7** |
| | comp=Z,52nm,0.7s,comp=Z,13μm | | | | | | | |
| **NONG** | **Nongkai** | **26.79** | **313** | P | | **P** | **15 49 07.7** | **+2.4** |
| | comp=Z,38nm,1.0s | | | | | | | |
| **MTSU** | **Mount Surprise** | **27.36** | **132** | P | | **P** | **15 49 12.0** | **+1.6** |
| | baz=27,SNR=11 | | | | | | | |
| **PBKT** | **Sadao Pong** | **27.55** | **308** | P | | **P** | **15 49 18.1** | **+6.1** |
| | comp=Z,12nm,1.3s,comp=Z,2μm | | | | | | | |
| **UTHA** | **Uthaitani** | **28.23** | **304** | P | | **P** | **15 

KSRS PcP **PcP** 15 52 53.7 +0.1
comp=Z,1.0nm,0.5s,baz=169,slow=3.5,SNR=4.2
**HNR Honiara** 37.61 105 P **P** 15 50 39.7 0.0
comp=Z,66nm,0.5s,baz=300,slow=14,SNR=8.2
**HNR Honiara** 37.61 105 *e*P **P**
HNR pmax pmax
comp=Z,75nm,0.8s
**HNR Honiara** 37.61 105 *e*P **P** 15 50 39.2 -0.5
comp=Z,75nm,0.8s
**CMSA Cobar Meteorol** 37.81 148 P **P** 15 50 43.0 +1.9
baz=38,SNR=80
**MJAR Matsushiro Arr** 38.92 19 P **P** 15 50 48.8 -1.4
comp=Z,22nm,0.8s,baz=192,slow=9.1,SNR=48
**MAJO Matsushiro** 38.92 19 *d i*P **P**
MAJO pmax pmax
comp=Z,17nm,0.8s
**MAJO Matsushiro** 38.92 19 *e*P **P** 15 50 49.0 -1.2
comp=Z,22nm,0.8s
**MAT Matsushiro** 38.92 19 P **P** 15 50 49.0 -1.3
**MJB9 Matsu-Tunnel** 38.92 19 *e*P **P** 15 50 49.0 -1.3
comp=Z,22nm,0.8s
**SHL Shillong** 39.63 312 *e*P **P** 15 51 00.0 +3.5
**LZH Lanzhou** 40.25 335 ⇓P **P** 15 51 03.7 +2.2
LZH pP pP 15 51 36.5 +2.8
LZH sP sP 15 51 53.6 +3.3
LZH PP **PnPn** 15 52 43.0 +0.7
LZH S **S** 15 57 01.0 +3.0
LZH sS sS 15 57 57.3 +3.2
LZH SS **SS** 15 59 57.2 -5.3
LZH pmax pmax
comp=Z,65nm,1.4s
LZH pmax pmax
comp=Z,190nm,5.2s
**ARPS Mount Arapiles** 40.38 157 P **P** 15 51 04.1 +1.8
baz=40,SNR=44
**ARMA Armidale** 40.45 141 P **P** 15 51 05.7 +2.5
baz=41,SNR=44
**ARMA Armidale** 40.45 141 *e*P **P** 15 51 05.2 +2.1
comp=Z,51nm,0.6s
**YNG Young** 41.38 148 P **P** 15 51 12.9 +2.3
baz=42,SNR=9.9
**HHC Hu-ho-hao-te** 42.07 347 *e*P **P** 15 51 18.5 +2.3
HHC PP **PP** 15 53 00.7 +4.0
HHC S **S** 15 57 27.0 +2.3
HHC pmax pmax
comp=Z,18nm,0.7s
HHC pmax pmax
comp=Z,120nm,7.8s
**MGCD Mangrove Creek** 42.09 144 P **P** 15 51 19.5 +3.2
baz=42,SNR=6.1
**CAN Canberra** 42.49 148 P **P** 15 51 22.3 +2.7
baz=43
**CAN Canberra** 42.49 148 *e*P **P** 15 51 21.4 +1.8
CAN pmax pmax
comp=Z,40nm,0.6s
**CAN Canberra** 42.49 148 *e*P **P** 15 51 21.4 +1.8
comp=Z,40nm,0.6s
**TOO Toolangi** 42.59 154 P **P** 15 51 22.9 +2.5
baz=43,SNR=12
**LSA Lhasa** 42.61 317 *e*P **P** 15 51 22.2 +1.1
LSA pmax pmax
comp=Z,58nm,1.6s
**LSA Lhasa** 42.61 317 *e*P **P** 15 51 22.2 +1.1
comp=Z,58nm,1.6s
**CNB Canberra Magne** 42.67 148 P **P** 15 51 23.4 +2.3
baz=43,SNR=22
**MSHR Mys Shultsa** 43.00 8 ⇓*i*P **P** 15 51 23.4 -0.1
**ODAN Odare** 43.70 311 *e*P **P** 15 51 30.5 +0.7
comp=Z,82nm,0.7s
**TAPN Taplejung** 43.72 311 *e*P **P** 15 51 30.3 +0.3
comp=Z,89nm,0.8s
**RAMN Ramite** 44.35 310 *e*P **P** 15 51 35.8 +0.8
comp=Z,141nm,0.6s
**USRK Ussuriysk Ar.** 44.71 9 P **P** 15 51 36.9 -0.2
comp=Z,6.1nm,0.5s,baz=186,slow=5.6,SNR=26
**GTA Gaotai** 44.77 334 P **P** 15 51 39.7 +1.8
GTA pP pP 15 52 10.9 +0.2
GTA sP sP 15 52 26.9 -0.2
GTA PcP **PcP** 15 53 18.0 +0.5
GTA S **S** 15 58 04.1 +0.1
GTA sS sS 15 59 01.8 +0.8
GTA pmax pmax
comp=Z,33nm,0.9s
GTA pmax pmax
comp=Z,180nm,9.0s
GTA LR LR
comp=Z,140nm,10.7s
GTA LR LR
comp=Z,250nm,11.9s
GTA LR LR
comp=Z,210nm,10.2s
**MDJ Mudanjiang** 44.80 6 P **P** 15 51 37.6 -0.3
MDJ pmax pmax
comp=Z,13nm,0.8s
MDJ pmax pmax
comp=Z,100nm,3.8s
**MDJ Mudanjiang** 44.80 6 *e*P **P** 15 51 37.0 -0.9
comp=Z,14nm,0.6s
**JIRN Jiri** 45.03 311 *e*P **P** 15 51 40.8 +0.3
comp=Z,855nm,0.7s
**GUN Gumba** 45.40 311 *e*P **P** 15 51 44.0 +0.7
comp=Z,181nm,0.7s
**PKI Pulchoki** 45.58 310 *e*P **P** 15 51 44.8 +0.1
comp=Z,43nm,0.6s
**PKIN Phulchoki** 45.59 310 *e*P **P** 15 51 44.6 -0.2
comp=Z,35nm,0.6s
**KKN Kakani** 45.79 310 *e*P **P** 15 51 46.5 +0.2
comp=Z,59nm,0.7s
**DMN Daman** 45.83 310 *e*P **P** 15 51 47.4 +0.8
comp=Z,89nm,0.8s
**GKN Gorkha** 46.39 310 *e*P **P** 15 51 51.9 +1.0
**ASAJ Asahikawa** 47.19 19 *e*P **P** 15 51 56.7 +0.1
comp=Z,24nm,0.7s
**DANN Dangsing** 47.23 310 *e*P **P** 15 51 58.3 +0.7
**DZM Mont Dzumac** 47.35 120 P **P** 15 52 00.3 +1.9
comp=Z,15nm,0.8s,baz=281,slow=5.2,SNR=12
**DZM Mont Dzumac** 47.35 120 *e*P **P** 15 51 59.0 +0.7
comp=Z,22nm,0.9s
**HYB Hyderabad** 47.36 294 *i* P **P** 15 51 58.0 -0.4
HYB *e*pP **pP** 15 52 33.0 +1.5
**HIA Hailar** 49.20 357 *c i*P **P** 15 52 11.2 -0.8
HIA pmax pmax
comp=Z,7.0nm,0.7s
**HIA Hailar** 49.20 357 *e*P **P** 15 52 11.1 -0.9
comp=Z,6.2nm,0.6s
**ULN Ulaanbaatar** 49.77 346 *c i*P **P** 15 52 16.0 -0.4
ULN pmax pmax
comp=Z,14nm,0.7s
**ULN Ulaanbaatar** 49.77 346 *e*P **P** 15 52 16.3 -0.2
comp=Z,15nm,0.5s
**SONM Songino Array** 49.90 345 P **P** 15 52 17.3 -0.2
comp=Z,8.0nm,0.4s,baz=162,slow=8.7,SNR=12
**KUR Kuril'sk** 50.02 23 ⇑*e*P **P** 15 52 19.5 +1.3
**ZAK Zakamensk** 53.06 344 *e*P **P** 15 52 40.9 0.0
ZAK *e* 15 53 45.0
ZAK pmax pmax
comp=Z,4.0nm,1.2s
**WMQ Urumqi** 54.00 329 P **P** 15 52 48.1 +0.3
WMQ pP pP 15 53 21.8 +0.1
WMQ sP sP 15 53 38.8 +1.0
WMQ pmax pmax
comp=Z,33nm,0.7s
WMQ pmax pmax
comp=Z,500nm,7.1s
WMQ LR LR
comp=Z,260nm,17.3s
WMQ LR LR
comp=Z,230nm,15.9s
WMQ LR LR
comp=Z,190nm,10.7s
**HVS Khovu-Aksy** 56.83 338 ⇓*e*P **P** 15 53 08.8 +0.9
HVS pmax pmax
comp=Z,46nm,1.4s
**SKR Severo-Kuril's** 57.69 24 ⇓*e*P **P** 15 53 11.2 -2.6
**BOD Bodaibo** 58.16 354 *e*P **P** 15 53 16.1 -0.8
BOD pmax pmax
comp=Z,11nm,0.9s
**DGZ Jazzator, Alta** 58.30 333 *i* P **P** 15 53 18.1 -0.2
DGZ pmax pmax
comp=Z,6.0nm,0.9s
**KSH Kashi** 58.43 318 P **P** 15 53 20.3 +0.9
KSH pP pP 15 53 54.2 +0.4
KSH PcP **sP** 15 54 09.3 -0.5
KSH PP **PP** 15 55 33.5 +3.1
KSH S **S** 16 01 08.0 -3.2
KSH ScS **ScS** 16 02 48.8 -6.3
KSH SS **SS** 16 05 03.8 -2.3
KSH pmax pmax
comp=Z,7.0nm,0.7s
KSH pmax pmax
comp=Z,190nm,6.0s
KSH LR LR
comp=Z,220nm,10.6s
KSH LR LR
comp=Z,140nm,7.9s
KSH LR LR
comp=Z,330nm,9.7s
**MK01 Makanchi Array** 58.80 328 *e*P **P** 15 53 20.6 -1.0
**MK31 Makanchi Array** 58.82 328 *e*P **P** 15 53 20.9 -0.9
**MK31 Makanchi Array** 58.82 328 *e*P **P** 15 53 20.9 -0.9
**MKAR Makanchi Array** 58.82 328 P **P** 15 53 21.4 -0.5
comp=Z,4.6nm,0.4s,baz=121,slow=8.4,SNR=112
MKAR PcP **PcP** 15 54 09.0 -0.8
comp=Z,2.8nm,0.5s,baz=136,slow=4.1,SNR=6.7
**MAKZ Makanchi** 58.99 328 *e*P **P** 15 53 22.1 -0.9
MAKZ pmax pmax
comp=Z,15nm,1.3s
**MAKZ Makanchi** 58.99 328 *e*P **P** 15 53 22.1 -0.9
comp=Z,15nm,1.3s
**PETK Petropavlovsk-** 60.18 23 P **P** 15 53 31.6 +0.7
comp=Z,8.8nm,0.6s,baz=200,slow=2.9,SNR=28
**TKM2 Tokmak 2** 60.42 321 P **P** 15 53 33.1 -0.1
SNR=8.2
**PET Petropavlovsk** 60.49 24 *e*P **P** 15 53 33.4 +0.3
PET pmax pmax
comp=Z,26nm,1.0s
**UCH Uchtor** 60.75 320 P **P** 15 53 35.7 +0.1
SNR=5.9
**RPZ Rata Peaks** 60.77 142 *e*P **P** 15 53 35.8 +0.6
comp=Z,75nm,0.9s
**AAK Ala-Archa** 60.97 321 *c i*P **P** 15 53 36.5 -0.3
AAK pmax pmax
comp=Z,5.0nm,0.9s
**AAK Ala-Archa** 60.97 321 *e*P **P** 15 53 36.3 -0.5
comp=Z,6.5nm,0.9s
**KBL Kabul** 61.22 310 *e*P **P** 15 53 37.0 -1.7
KBL *e**PP **pP** 15 54 12.6 -0.8
KBL pmax pmax
comp=Z,19nm,0.6s
**KBL Kabul** 61.22 310 *e*P **P** 15 53 37.0 -1.7
comp=Z,19nm,0.6s
KBL *e*pP **pP** 15 54 12.6 -0.8
**AML Almayashu** 61.23 320 P **P** 15 53 39.2 +0.4
SNR=9.8
**USP Ospenovka** 61.29 321 P **P** 15 53 38.4 -0.3
SNR=8.5
**EKS2 Erkin-Say** 61.44 320 P **P** 15 53 40.4 +0.5
SNR=6.4
**YAK Yakutsk** 62.09 3 *e*P **P** 15 53 42.3 -1.3
YAK pmax pmax
comp=Z,58nm,0.7s
**YAK Yakutsk** 62.09 3 *e*P **P** 15 53 42.3 -1.3
comp=Z,58nm,0.7s
**BKZ Black Stump Fm** 62.19 135 *e*P **P** 15 53 45.4 +0.6
comp=Z,30nm,0.6s
**URZ Urewera** 62.25 134 *e*P **P** 15 53 45.6 +0.5
comp=Z,33nm,1.2s
**ZAA0 Zalesovo Array** 62.48 335 *e*P **P** 15 53 44.9 -1.5
comp=Z,15nm,1.1s
**ZALV Zalesovo Beam** 62.48 335 P **P** 15 53 44.7 -1.8
comp=Z,6.1nm,0.4s,baz=126,slow=6.2,SNR=30
**ZALV Zalesovo Beam** 62.48 335 *e*P **P** 15 53 44.2 -2.2
**ZALV Zalesovo Beam** 62.48 335 *e*P **P** 15 53 44.2 -2.2
**KURK Kurchatov** 63.17 330 *e*P **P** 15 53 49.7 -1.4
KURK pmax pmax
comp=Z,12nm,0.4s
**KURK Kurchatov** 63.17 330 *e*P **P** 15 53 49.7 -1.4
comp=Z,12nm,0.4s
**NVS Novosibirsk** 63.77 335 *e*P **P** 15 53 53.5 -1.4
NVS *e* 15 54 24.7
NVS pmax pmax
comp=Z,13nm,0.8s
NVS pmax pmax
comp=N,9.0nm,0.7s
NVS pmax pmax
comp=E,12nm,0.9s
**SEY Seymchan** 66.45 14 ⇓*i*P **P** 15 54 13.1 +1.1
**BRVK Borovoye** 68.76 329 ⇓*e*P **P** 15 54 25.8 -0.9
BRVK pmax pmax
comp=Z,6.0nm,1.1s
**BRVK Borovoye** 68.76 329 *e*P **P** 15 54 25.0 -1.7
comp=Z,9.0nm,1.3s
**TIXI Tiksi** 71.65 2 *d i*P **P** 15 54 42.9 -1.1
TIXI pmax pmax
comp=Z,31nm,1.1s
**TIXI Tiksi** 71.65 2 *e*P **P** 15 54 41.8 -2.2
comp=Z,30nm,1.1s
**AKTO Aktyubinsk** 74.54 323 P **P** 15 55 00.1 -1.3
comp=Z,4.1nm,0.7s,baz=104,slow=7.6,SNR=18
**SVE Sverdlovsk** 75.43 330 ⇑*e*P **P** 15 55 05.4 -0.9
SVE pmax pmax
comp=Z,18nm,1.1s
**ARU Arti** 76.33 329 P **P** 15 55 08.0 -3.5
comp=Z,4.6nm,0.7s,baz=200,slow=1.7,SNR=9.5
**ARU Arti** 76.33 329 *e*P **P** 15 55 09.1 -2.4
ARU pmax pmax
comp=Z,9.0nm,0.9s
**ARU Arti** 76.33 329 *e*P **P** 15 55 09.1 -2.4
comp=Z,8.9nm,0.9s
**LKRN Lenkeran, Azer** 78.00 310 P **P** 15 55 19.9 -1.3
**RAYN Ar Rayn** 78.86 294 *e*P **P** 15 55 22.8 -3.5
comp=Z,6.6nm,0.8s
**MAW Mawson** 79.09 200 P **P** 15 55 26.8 +0.3
comp=Z,8.6nm,0.9s,baz=66,slow=3.2,SNR=9.5
**MAW Mawson** 79.09 200 P **P** 15 55 27.6 +1.2
baz=79,SNR=6.1
**SEKA Sheki** 79.61 312 P **P** 15 55 28.2 -1.8
**MNGR Mingechevir, A** 79.63 311 P **P** 15 55 28.7 -1.3
**ZKTA Zakatala** 80.11 312 P **P** 15 55 30.9 -1.7
**VNDA Vanda** 80.17 172 P **P** 15 55 32.9 +0.7
comp=Z,8.8nm,0.8s,baz=312,slow=6.4,SNR=41
**VNDA Vanda** 80.17 172 *e*P **P** 15 55 32.3 +0.1
VNDA pmax pmax
comp=Z,9.0nm,0.8s
**VNDA Vanda** 80.17 172 *e*P **P** 15 55 32.3 +0.1
comp=Z,9.1nm,0.8s
**GANJ Ganja** 80.18 311 P **P** 15 55 31.8 -1.3
**GNI Garni** 81.31 311 ⇓*e*P **P** 15 55 38.8 -0.4
GNI pmax pmax
comp=Z,20nm,1.2s
**ZEI Tsey** 82.27 313 *e*P **P** 15 55 42.5 -1.8
ZEI pmax pmax
comp=Z,3.0nm,0.9s
**NEY Neytrino** 83.18 313 ⇑*e*P **P** 15 55 47.7 -1.2
NEY pmax pmax
comp=Z,1.0nm,0.9s
**KIV Kislovodsk** 83.29 314 *e*P **P** 15 55 48.6 -0.7
KIV pmax pmax
comp=Z,3.0nm,1.0s
**ARTV Artvin** 83.55 311 *e*P **P** 15 55 50.4 -0.6
comp=Z,4.1nm,0.8s
**VRH Novokhopyorsk** 84.77 321 *e*P **P** 15 55 54.2 -2.3
VRH pmax pmax
comp=Z,20nm,1.4s
**KMBO Kilima Mbogo** 86.09 269 P **P** 15 56 02.7 -1.5
comp=Z,2.9nm,0.7s,baz=73,slow=8.0,SNR=8.9
**KMBO Kilima Mbogo** 86.09 269 *ce*P **P** 15 56 04.4 +0.2
KMBO pmax pmax
comp=Z,3.0nm,0.7s
**KMBO Kilima Mbogo** 86.09 269 *e*P **P** 15 56 03.6 -0.6
comp=Z,2.7nm,0.8s
**VSR Storozhevoye** 86.37 321 *e*P **P** 15 56 01.8 -2.6
VSR pmax pmax
comp=Z,10.0nm,0.6s
**LPSR Galich'ya Gora** 86.62 323 *e*P **P** 15 56 03.3 -2.3
LPSR pmax pmax
comp=Z,20nm,1.0s
**KDAK Kodiak Island** 86.85 32 *i* P **P** 15 56 07.3 +0.7
**ASF Jabal al Asfar** 87.00 302 P **P** 15 56 07.5 -0.6
comp=Z,3.2nm,0.7s,baz=97,slow=4.3,SNR=4.4
**KLMR Klimovskoe** 87.01 331 *e*P **P** 15 56 04.2 -3.1
KLMR *e**PP **pP** 15 56 42.4 -1.9
KLMR pmax pmax
comp=Z,24nm,1.1s
**IMAR Indian Mountai** 87.13 24 *e*P **P** 15 56 07.7 -0.1
**SYO Syowa Base** 87.72 201 ⇓*e*P **P** 15 56 09.4 -1.2
**SYO Syowa Base** 87.72 201 ⇑*e*X **P** 15 56 17.6 +7.0
**OBN Obninsk** 88.17 325 *i* P **P** 15 56 10.4 -2.6
OBN *i* *PP **pP** 15 56 47.7 -2.3
OBN pmax pmax
comp=Z,6.0nm,0.9s
**MMAI Mount Meron Ar** 88.29 303 P **P** 15 56 13.3 -0.8
comp=Z,2.3nm,0.5s,baz=84,slow=7.6,SNR=5.7
**MLY Manley** 88.30 25 *e*P **P** 15 56 12.9 -0.5
comp=Z,17nm,1.3s
**COLD Coldfoot** 88.65 23 *e*P **P** 15 56 14.4 -0.6
comp=Z,8.8nm,1.2s
**BRTR Keskin Array B** 89.79 310 P **P** 15 56 19.1 -2.1
comp=Z,2.1nm,0.9s,baz=104,slow=5.2,SNR=9.6
**ILAR Eielson Array** 89.93 25 P **P** 15 56 19.4 -1.6
comp=Z,1.1nm,0.5s,baz=243,slow=5.0,SNR=39
**PUL Pulkovo** 91.56 330 ⇑*e*P **P** 15 56 26.0 -2.7
**AKASG Malin Array Be** 92.64 321 P **P** 15 56 31.3 -2.5
comp=Z,0.4nm,0.4s,baz=67,slow=4.4,SNR=7.7
**ARCES ARCESS Array B** 92.78 340 P **P** 15 56 33.2 -0.9
comp=Z,2.9nm,0.8s,baz=79,slow=6.3,SNR=6.4
**SPA0 Spitsbergen Ar** 93.48 349 *e*P **P** 15 56 35.5 -1.7
**FINES FINESS Array B** 93.51 331 P **P** 15 56 35.2 -2.5
comp=Z,3.8nm,1.1s,baz=69,slow=6.3,SNR=4.6
**FINES FINESS Array B** 93.51 331 *i* P **P** 15 56 36.0 -1.7
FINES pmax pmax
comp=Z,4.0nm,1.0s
**IDID Didziasalis** 93.80 325 *e*P **P** 15 56 37.6 -1.5
IDID IAmb IAmb 15 56 39.2
comp=Z,7.6nm,1.0s
**IZAR Zarasai** 94.03 326 *e*P **P** 15 56 38.8 -1.4
IZAR IAmb IAmb 15 56 39.2
comp=Z,4.4nm,0.8s
**IIGN Ignalina** 94.08 325 *e*P **P** 15 56 39.0 -1.4
IIGN IAmb IAmb 15 56 40.5
comp=Z,9.4nm,0.9s
**ISAL Salakas** 94.12 326 *e*P **P** 15 56 39.2 -1.4
ISAL IAmb IAmb 15 56 40.4
comp=Z,9.3nm,1.0s
**LSZ Lusaka** 94.97 255 *e*P **P** 15 56 43.8 -1.7
LSZ pmax pmax
comp=Z,14nm,0.8s
**LSZ Lusaka** 94.97 255 *e*P **P** 15 56 43.8 -1.7
comp=Z,14nm,0.8s
**BUR04 Bucovina Ar. S** 95.51 318 *e*P **P** 15 56 45.3 -2.0
**BUR08 Bucovina Ar. S** 95.52 318 *e*P **P** 15 56 45.7 -1.6
**FXWY Fox Creek** 115.04 41 *e*PKiKP **PKPdf** 16 02 03.6 +0.5
**DUG Dugway, Tooele** 115.27 45 *e*PKiKP **PKPdf** 16 02 03.7 +0.2
**DUG Dugway, Tooele** 115.27 45 *e*PKPdf **PKPdf** 16 02 03.7 +0.2
**REDW Red Top Meadow** 115.28 41 *e*PKPdf **PKPdf** 16 02 03.8 +0.2
**NLU North Lily Min** 115.89 45 *e*PKPdf **PKPdf** 16 02 05.2 +0.4
**LCMT Little Creek M** 116.17 48 *e*PKPdf **PKPdf** 16 02 06.3 +1.0
**MSU Marysvale** 116.39 46 *e*PKiKP **PKPdf** 16 02 07.4 +1.6
**MSU Marysvale** 116.39 46 *e*PKPdf **PKPdf** 16 02 07.4 +1.6
**PDAR Pinedale Array** 116.39 41 PKP **PKPdf** 16 02 05.9 +0.2
comp=Z,1.0nm,0.6s,baz=102,slow=0.9,SNR=7.9
**PDAR Pinedale Array** 116.39 41 *e*PKPdf **PKPdf** 16 02 05.6 -0.1
**LAO LASA Array** 116.54 36 *e*PKPdf **PKPdf** 16 02 06.1 +0.5
**TMUT Trail Mountain** 116.77 45 *e*PKPdf **PKPdf** 16 02 06.9 +0.3
**U15A North Rim** 117.10 48 *e*PKPdf **PKPdf** 16 02 08.1 +0.8
**P18A Preston Nutter** 117.31 44 *e*PKPdf **PKPdf** 16 02 08.4 +0.7
**SRU San Rafael Swe** 117.33 45 *e*PKiKP **PKPdf** 16 02 07.6 +0.1
**SRU San Rafael Swe** 117.33 45 *e*PKPdf **PKPdf** 16 02 07.6 +0.1
**WUAZ Wupatki** 118.13 49 *e*PKPdf **PKPdf** 16 02 09.9 +0.8
**RWWY Rawlins** 118.44 41 *e*PKPdf **PKPdf** 16 02 09.6 -0.1
**O20A White River Ci** 118.47 43 *e*PKPdf **PKPdf** 16 02 09.0 -0.7
**X16A Lo Mia Camp, P** 118.49 50 *e*PKPdf **PKPdf** 16 02 09.2 -0.8
**PV09 Paradox Valley** 118.57 45 *e*PKPdf **PKPdf** 16 02 09.1 -1.0
**PV10 Paradox Valley** 118.69 45 *e*PKPdf **PKPdf** 16 02 10.1 -0.2
**RSSD Black Hills** 119.21 37 *e*PKiKP **PKPdf** 16 02 10.3 -0.8
**RSSD Black Hills** 119.21 37 *e*PKPdf **PKPdf** 16 02 10.3 -0.8
**ULM Lac du Bonnet** 119.85 28 PKP **PKPdf** 16 02 10.1 -1.7
comp=Z,6.4nm,0.7s,baz=267,slow=1.8,SNR=12
**ISCO Idaho Springs** 120.41 42 *e*PKiKP **PKPdf** 16 02 14.1 +0.5
**ISCO Idaho Springs** 120.41 42 *e*PKPdf **PKPdf** 16 02 14.1 +0.5
**TOA0 Torodi Ar. Sit** 120.75 285 *e*PKPdf **PKPdf** 16 02 13.3 -1.2
**TORD Torodi Ar. Bea** 120.75 285 PKP **PKPdf** 16 02 13.7 -0.8
comp=Z,2.1nm,0.6s,baz=75,slow=1.7,SNR=18
**SDCO Great Sand Dun** 121.47 44 *e*PKPdf **PKPdf** 16 02 16.0 +0.4
**ANMO Albuquerque** 122.04 48 *d i*PKiKP **PKPdf** 16 02 17.4 +0.7
ANMO pmax pmax
comp=Z,7.0nm,1.2s
**ANMO Albuquerque** 122.04 48 *e*PKPdf **PKPdf** 16 02 16.9 +0.2
**T25A Trinidad** 122.52 45 *e*PKPdf **PKPdf** 16 02 17.3 -0.3
**ECSD EROS Data Cent** 123.78 34 *e*PKPdf **PKPdf** 16 02 19.0 -0.5
**MNTX Cornudas Mount** 124.23 51 *e*PKPdf **PKPdf** 16 02 21.3 +0.5
**BGNE Belgrade** 124.32 37 *e*PKPdf **PKPdf** 16 02 20.3 -0.4
**MSTX Muleshoe** 125.20 47 *e*PKPdf **PKPdf** 16 02 23.0 +0.3
**TX31 Lajitas Ar. Si** 126.56 53 *e*PKPdf **PKPdf** 16 02 24.6 -0.8
**TXAR Lajitas Array** 126.56 53 PKP **PKPdf** 16 02 24.9 -0.5
comp=Z,1.9nm,0.9s,baz=236,slow=1.0,SNR=13
**JFWS Jewell Farm** 127.76 31 *e*PKiKP **PKPdf** 16 02 26.4 -0.8
**JFWS Jewell Farm** 127.76 31 *e*PKPdf **PKPdf** 16 02 26.4 -0.8
**DBIC Dimbokro** 127.90 278 PKP **PKPdf** 16 02 27.3 -0.9
comp=Z,2.2nm,0.7s,baz=90,slow=3.0,SNR=3.1
**JCT Junction City** 129.06 49 *e*PKiKP **PKPdf** 16 02 30.0 -0.1
**JCT Junction City** 129.06 49 *e*PKPdf **PKPdf** 16 02 30.0 -0.1
**MIAR Mount Ida** 131.32 41 *e*PKiKP **PKPdf** 16 02 35.2 +1.0
**MIAR Mount Ida** 131.32 41 *e*PKPdf **PKPdf** 16 02 35.2 +1.0
**WVT Waverly** 133.87 36 *e*PKiKP **PKPdf** 16 02 38.3 -0.6
**WVT Waverly** 133.87 36 *e*PKPdf **PKPdf** 16 02 38.3 -0.6
**PLCA Paso Flores** 137.50 164 PKP **PKPdf** 16 02 46.8 +1.0
comp=Z,2.1nm,0.8s,baz=153,slow=3.9,SNR=5.0
**PEL Peldehue** 144.46 160 *e*PKiKP PKPbc 16 02 57.6 +0.4
**PEL Peldehue** 144.46 160 *e*PKPdf PKPbc 16 02 57.6 +0.4
**ROC1 El Roble** 144.49 159 *e*PKPdf PKPbc 16 02 58.1 +0.5
**LCO Las Campanas** 148.15 156 *e*PKPbc **PKPbc** 16 03 08.8 +0.4
**CPUP Villa Florida** 153.78 179 PKP **PKPdf** 16 03 13.6 +0.2
comp=Z,1.2nm,0.8s,baz=228,slow=2.1,SNR=3.6
CPUP PKPbc **PKiKP** 16 03 22.1 +0.7
comp=Z,5.4nm,0.9s,baz=158,slow=4.3,SNR=9.2
CPUP PKPab **PKPab** 16 03 36.2 +1.7
comp=Z,4.8nm,0.8s,baz=174,slow=5.3,SNR=6.5
**LPAZ La Paz** 160.22 146 PKP **PKPdf** 16 03 23.5 +1.0
comp=Z,1.7nm,0.8s,baz=214,slow=2.3,SNR=6.3
LPAZ PKPab **PKPab** 16 04 05.4 +2.0
comp=Z,3.3nm,0.8s,baz=186,slow=3.6,SNR=7.1
**BDFB Brasilia** 162.24 208 PKPab **PKPab** 16 04 12.6 +1.1
comp=Z,3.2nm,0.6s,baz=299,slow=6.6,SNR=4.1
**SDV Santo Domingo** 163.53 57 PKPab **PKPab** 16 04 18.2 +0.6
baz=339,slow=7.3
**SDV Santo Domingo** 163.53 57 *e*PKPdf **PKPdf** 16 03 24.5 -1.0
SDV PKPab **PKPab** 16 04 18.2 +0.6

*ISCJB* ***12*** *15:50:53.0±0.5, 0.°54N±0.°05×122.°30E±0.°05, h114km, mb3.9/7, Error ellipse: s-maj=8.1km s-min=5.7km az=149.1*

*DJA* ***12*** *15:50:53.9±0.4, 1.°N±3.°×12.°2E±.°, h63km±7km, M4.5/11, mb4.7/6, mB4.9/3, MLv4.5/11, Mw(mB)4.2/3*

*IDC* ***12*** *15:50:56.5±3.5, 0.°52N×122.°33E, h122km±29km, mb3.7/7, mb1 3.8/8, mb1mx3.4/38, mbtmp4.0/8, Error ellipse: s-maj=58.2km s-min=15.3km az=60.0*

**ISC 12 15:50:54.5±0.7, 0.°56N±0.°06×122.°26E±0.°05, h114km, n21, σ2s29/30, mb3.9/7, Minahassa Peninsula, Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **MRSI** | **Marisa** | **0.33** | **256** | P | **Pn** | | **15 51 06.7** | **-4.1** |
| MRSI | | | | S | **Sn** | | **15 51 16.4** | **-6.7** |
| **APSI** | **Ampana** | **1.58** | **203** | P | **Pn** | | **15 51 21.0** | **-1.6** |
| APSI | | | | S | **Sn** | | **15 51 41.1** | **-2.8** |
| **LUWI** | **Luwuk** | **1.67** | **162** | P | **Pn** | | **15 51 22.4** | **-1.2** |
| **KMSI** | **Cibinong** | **1.72** | **90** | P | **Pn** | | **15 51 24.2** | **+0.1** |
| **MPSI** | **Mapaga** | **2.38** | **265** | P | **Pn** | | **15 51 31.4** | **-1.0** |
| **SGSI** | **Sangihe** | **4.50** | **46** | P | **Pn** | | **15 51 59.0** | **-1.7** |
| SGSI | | | | S | **Sn** | | **15 52 48.8** | **-3.4** |
| **SANI** | **Sanana** | **4.54** | **125** | P | **Pn** | | **15 51 58.9** | **-2.2** |
| SANI | | | | S | **Sn** | | **15 52 48.1** | **-4.8** |
| **SPSI** | **Sidrap Palu** 39nm,0.5s,0.2nm | **5.14** | **209** | P | **Pn** | | **15 52 10.5** | **+1.2** |
| SPSI | | | | S | **Sn** | | **15 53 06.1** | **-1.4** |
| **LBMI** | **Labuha** 70nm,0.5s,1μm1.3nm | **5.37** | **103** | P | **Pn** | | **15 52 12.3** | **-0.1** |
| LBMI | | | | S | **Sn** | | **15 53 10.5** | **-2.6** |
| **BBSI** | **Bau Bau** | **6.01** | **177** | P | **Pn** | | **15 52 21.1** | **0.0** |
| **NLAI** | **Namlea** | **6.13** | **128** | P | **Pn** | | **15 52 22.5** | **-0.2** |
| **KBKI** | **Kotabaru** | **7.20** | **238** | P | **Pn** | | **15 52 36.3** | **-0.9** |
| **FITZ** | **Fitzroy Crossi** 1.1nm,0.3s,baz=6.1,slow=7.2,SNR=8.6 | **18.84** | **170** | P | **Pn** | | **15 55 07.3** | **-0.1** |
| **WRA** | **Warramunga Arr** 2.2nm,0.4s,baz=328,slow=9.0,SNR=28 | **23.56** | **151** | P | **P** | | **15 55 55.0** | **+0.1** |
| WRA | | | | PcP | **PcP** | | **15 59 37.0** | **-0.1** |
| **ASAR** | **Alice Springs** 0.9nm,0.4s,baz=344,slow=14,SNR=16 | **26.61** | **156** | P | **P** | | **15 56 23.5** | **+1.1** |
| ASAR | | | | PcP | **PcP** | | **15 59 44.3** | **+0.4** |

0.7nm,0.3s,baz=344,slow=2.1,SNR=16
ASAR ScP **ScP 16 03 14.0 +0.3**
0.3nm,0.8s,baz=336,slow=2.9,SNR=5.1
**CMAR Chiang Mai Arr 29.00 309** P **P 15 56 46.2 +2.5**
0.5nm,0.8s,baz=131,slow=6.2,SNR=4.5
**NWAO Narrogin (SRO) 33.65 188** P **P 15 57 24.5 +0.2**
7.6nm,0.7s,baz=351,slow=16,SNR=4.2
**STKA Stephens Creek 37.09 152** P **P 15 57 54.6 +0.7**
1.0nm,0.3s,baz=329,slow=12,SNR=6.3
**MKAR Makanchi Array 57.75 329** P **P 16 00 35.2 +1.6**
0.6nm,0.5s,baz=126,slow=8.9,SNR=7.6
**VNDA Vanda 80.90 172** P **P 16 02 56.9 +1.4**
0.4nm,0.4s,baz=320,slow=7.5,SNR=6.5
**TORD Torodi Ar. Bea 119.55 285** PKP **PKPdf 16 09 31.6 -0.3**
0.4nm,0.6s,baz=88,slow=2.6,SNR=4.1

**TRN 12 15:51:56.7, 11°.22N × 61°.86W, h19km, MD3.6, Windward Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TCE** | **Chacachacare** | **0.53** | **168** | *e*S | Sg | 15 52 15.7 | +1.1 |
| **TRN** | **Trinidad (W)** | **0.72** | **141** | *e*P | Pb | 15 52 09.9 | -0.7 |
| TRN | | | | *e*S | Sn | 15 52 21.8 | -0.6 |
| **GRGR** | **Grenville** | **0.93** | **13** | *e*P | Pn | 15 52 14.7 | -0.1 |
| GRGR | | | | *e*S | Sn | 15 52 28.8 | +1.1 |
| **TBH** | **Brigand Hill** | **1.07** | **133** | *e*P | Pg | 15 52 17.5 | 0.0 |
| TBH | | | | *e*S | Sg | 15 52 31.9 | +0.3 |
| **TOSP** | **Speyside** | **1.30** | **86** | *e*P | Pn | 15 52 19.8 | -0.1 |
| TOSP | | | | *e*S | Sb | 15 52 36.9 | 0.0 |
| **FCV** | **Fort Charlotte** | **2.02** | **17** | *e*P | Pn | 15 52 29.7 | -0.1 |
| FCV | | | | *e*S | Sn | 15 52 55.3 | +0.8 |
| **SVB** | **Belmont** | **2.13** | **16** | *e*P | Pn | 15 52 31.3 | 0.0 |
| SVB | | | | *e*S | Sn | 15 52 57.9 | +0.7 |
| **SVCV** | **St. Vincent, C** | **2.16** | **19** | *e*P | Pn | 15 52 31.7 | 0.0 |
| SVCV | | | | *e*S | Sn | 15 52 58.6 | +0.6 |
| **SVV** | **Soufriere Volc** | **2.18** | **17** | *e*P | Pn | 15 52 32.5 | +0.5 |
| SVV | | | | *e*S | Sn | 15 52 58.7 | +0.1 |
| **SSV** | **Crater Summit** | **2.20** | **17** | *e*P | Pn | 15 52 32.3 | 0.0 |
| SSV | | | | *e*S | Sn | 15 52 58.4 | -0.6 |

*ISCJB **12** 16:00:25.3±0.3, 2°.20N±0°.04 × 128°.76E±0°.04, h35km, mb4.1/17, Error ellipse: s-maj=6.5km s-min=4.9km az=160.5*
*IDC **12** 16:00:27.7±3.0, 2°.18N × 128°.70E, h40km±27km, mb3.9/13, mb1 4.1/13, mb1mx3.8/33, mbtmp4.1/13, Error ellipse: s-maj=31.1km s-min=12.7km az=81.0*
*DJA **12** 16:00:27.2±1.6, 2°.7N±6° × 12°.9E±°, h18km±13km, M4.5/11, mb4.6/9, mB4.8/3, MLv4.4/11, Mw(mB)4.1/3*
*NEIC **12** 16:00:28.5±1.2, 2°.20N × 128°.81E, h51km±12km, mb4.3/3, Error ellipse: s-maj=12.0km s-min=7.8km az=61.0*
**ISC 12 16:00:27.0±0.5, 2°.18N±0°.07 × 128°.77E±0°.08, h35km, n57, σ1s05/53, mb4.1/17, 1D, Halmahera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LBMI** | **Labuha** | **3.08** | **204** | P | **Pn** | **16 01 13.4** | **+0.2** |
| **SGSI** | **Sangihe** | **3.56** | **295** | P | **Pn** | **16 01 21.9** | **+2.1** |
| **SWI** | **Sorong** | **3.92** | **140** | P | **Pn** | **16 01 26.3** | **+1.5** |
| SWI | | | | S | **Sn** | **16 02 09.7** | **+0.1** |
| **SANI** | **Sanana** | **5.04** | **213** | P | **Pn** | **16 01 40.1** | **-0.1** |
| **KMSI** | **Cibinong** | **5.04** | **252** | P | **Pn** | **16 01 41.7** | **+1.5** |
| **NLAI** | **Namlea** | **5.64** | **197** | P | **Pn** | **16 01 49.3** | **+0.9** |
| | 43nm,0.4s,942nm0.2nm | | | | | | |
| **AAI** | **Ambon** | **5.86** | **186** | P | **Pn** | **16 01 52.0** | **+0.5** |
| **FAKI** | **Fak Fak** | **6.15** | **146** | P | **Pn** | **16 01 56.7** | **+1.3** |
| | 13nm,1.4s,0.1nm | | | | | | |
| **FAKI** | **Fak Fak** | **6.15** | **146** | *e*Pn | **Pn** | **16 01 56.3** | **+0.9** |
| **CTBH** | **Cotabato--PC H** | **6.73** | **318** | ⇓*i*P | **Pn** | **16 02 06.2** | **+2.8** |
| **LUWI** | **Luwuk** | **6.80** | **242** | P | **Pn** | **16 02 04.5** | **+0.2** |
| **LUWI** | **Luwuk** | **6.80** | **242** | *e*Pn | **Pn** | **16 02 06.7** | **+2.4** |
| **MRSI** | **Marisa** | **7.03** | **256** | P | **Pn** | **16 02 08.8** | **+1.3** |
| | 26nm,0.5s,798nm0.1nm | | | | | | |
| **APSI** | **Ampana** | **7.75** | **247** | P | **Pn** | **16 02 18.4** | **+1.0** |
| | 45nm,0.6s,554nm0.2nm | | | | | | |
| **MPSI** | **Mapaga** | **9.05** | **258** | P | **Pn** | **16 02 35.7** | **+0.4** |
| | 7.1nm,0.7s | | | | | | |
| **TTSI** | **Tana Toraja** | **10.34** | **240** | P | **Pn** | **16 02 52.8** | **-0.2** |
| **SPSI** | **Sidrap Palu** | **10.87** | **236** | P | **Pn** | **16 03 00.0** | **-0.2** |
| | 37nm,0.9s | | | | | | |
| **KAPI** | **Kappang** | **11.50** | **232** | *e*Pn | **Pn** | **16 03 11.0** | **+2.1** |
| | 11nm,0.6s | | | | | | |
| **MMPI** | **Merauke** | **15.69** | **133** | pP | pP | 16 04 20.4 | +2.0 |
| **KMMI** | **Kalianget** | **17.39** | **238** | P | **P** | **16 04 26.7** | **-1.4** |
| **WRAB** | **Tennant Creek** | **22.65** | **166** | *e*P | **P** | **16 05 25.3** | **-0.1** |
| | 7.2nm,0.8s | | | | | | |
| **WRA** | **Warramunga Arr** | **22.66** | **166** | P | **P** | **16 05 25.4** | **0.0** |
| | 3.8nm,0.5s,baz=342,slow=10,SNR=28 | | | | | | |
| **ASAR** | **Alice Springs** | **26.18** | **169** | P | **P** | **16 05 58.6** | **+0.2** |
| | 1.5nm,0.5s,baz=355,slow=7.9,SNR=49 | | | | | | |
| ASAR | | | | PcP | **PcP** | **16 09 24.6** | **-0.6** |
| | 0.5nm,0.5s,baz=353,slow=2.1,SNR=6.9 | | | | | | |
| ASAR | | | | ScP | **ScP** | **16 13 01.8** | **-0.6** |
| | 0.4nm,0.9s,baz=342,slow=2.1,SNR=3.5 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **33.40** | **301** | P | **P** | **16 07 03.4** | **+0.7** |
| | 1.4nm,0.8s,baz=117,slow=7.3,SNR=13 | | | | | | |
| **CHTO** | **Chiang Mai** | **33.56** | **302** | *e*P | **P** | **16 07 04.3** | **+0.4** |
| | 1.9nm,0.8s | | | | | | |
| **KSAR** | **Wonju Array Be** | **35.10** | **359** | P | **P** | **16 07 16.1** | **-0.9** |
| **KSRS** | **Korea Array** | **35.11** | **359** | P | **P** | **16 07 16.1** | **-1.0** |
| | 0.6nm,0.4s,baz=170,slow=12,SNR=4.6 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **35.28** | **13** | P | **P** | **16 07 17.1** | **-1.6** |
| | 2.4nm,0.8s,baz=180,slow=8.6,SNR=5.6 | | | | | | |
| **STKA** | **Stephens Creek** | **36.00** | **161** | P | **P** | **16 07 25.6** | **+0.8** |
| | 3.8nm,0.5s,baz=332,slow=9.2,SNR=13 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **40.53** | **64** | T | T | 16 51 27.6 | |
| | baz=251,slow=74,SNR=50 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **40.55** | **64** | T | T | 16 51 28.7 | |
| | baz=251,slow=74,SNR=26 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **40.55** | **64** | T | T | 16 51 29.0 | |
| | baz=251,slow=74,SNR=19 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **41.12** | **62** | T | T | 16 52 09.5 | |
| | baz=250,slow=75,SNR=139 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **41.13** | **62** | T | T | 16 52 09.8 | |
| | baz=250,slow=75,SNR=69 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **41.14** | **62** | T | T | 16 52 10.3 | |
| | baz=250,slow=75,SNR=94 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **41.94** | **3** | P | **P** | **16 08 15.7** | **+1.4** |
| | 3.7nm,0.8s,baz=234,slow=6.9,SNR=4.8 | | | | | | |
| **TAPN** | **Taplejung** | **46.56** | **306** | *e*P | **P** | **16 08 50.9** | **-1.2** |
| | 9.5nm,0.7s | | | | | | |
| **ODAN** | **Odare** | **46.62** | **306** | *e*P | **P** | **16 08 52.7** | **+0.3** |
| | 15nm,0.5s | | | | | | |
| **KLR** | **Kul'dur** | **46.94** | **3** | P | **P** | **16 08 54.9** | **+0.6** |
| | 0.2nm,0.8s,baz=205,slow=7.8,SNR=7.0 | | | | | | |
| **RAMN** | **Ramite** | **47.30** | **305** | *e*P | **P** | **16 08 58.7** | **+1.0** |
| | 21nm,0.7s | | | | | | |
| **JIRN** | **Jiri** | **47.92** | **306** | *e*P | **P** | **16 09 02.5** | **-0.2** |
| | 103nm,0.5s | | | | | | |
| **GUN** | **Gumba** | **48.27** | **306** | *e*P | **P** | **16 09 04.6** | **-0.8** |
| | 22nm,0.5s | | | | | | |
| **PKI** | **Pulchoki** | **48.52** | **306** | *e*P | **P** | **16 09 07.2** | **-0.1** |
| | 2.1nm,0.3s | | | | | | |
| **PKIN** | **Phulchoki** | **48.53** | **306** | *e*P | **P** | **16 09 07.0** | **-0.3** |
| | 4.7nm,0.4s | | | | | | |
| **KKN** | **Kakani** | **48.71** | **306** | *e*P | **P** | **16 09 07.7** | **-0.9** |
| | 6.7nm,0.5s | | | | | | |
| **DMN** | **Daman** | **48.78** | **305** | *e*P | **P** | **16 09 08.3** | **-0.9** |
| | 8.0nm,0.7s | | | | | | |
| **KOLN** | **Koldanda** | **50.07** | **305** | *e*P | **P** | **16 09 19.5** | **+0.5** |
| | 18nm,0.6s | | | | | | |
| **PYUN** | **Piuthan** | **50.69** | **305** | *e*P | **P** | **16 09 24.2** | **+0.5** |
| | 9.8nm,0.5s | | | | | | |
| **PETK** | **Petropavlovsk-** | **56.12** | **21** | P | **P** | **16 10 04.5** | **+1.6** |
| | 3.6nm,0.7s,baz=202,slow=3.2,SNR=7.3 | | | | | | |
| **YAK** | **Yakutsk** | **59.71** | **0** | *e*P | **P** | **16 10 27.6** | **-0.2** |
| | 14nm,0.8s | | | | | | |
| **MKAR** | **Makanchi Array** | **59.98** | **325** | P | **P** | **16 10 29.4** | **-0.7** |
| | 1.1nm,0.5s,baz=120,slow=7.6,SNR=11 | | | | | | |
| **KURK** | **Kurchatov** | **64.13** | **327** | *e*P | **P** | **16 10 57.2** | **-0.6** |
| **VNDA** | **Vanda** | **81.65** | **173** | P | **P** | **16 12 41.0** | **-0.2** |
| | 0.8nm,0.7s,baz=320,slow=6.4,SNR=3.9 | | | | | | |
| **ILAR** | **Eielson Array** | **85.62** | **25** | P | **P** | **16 13 01.9** | **+0.2** |
| | 0.3nm,0.5s,baz=256,slow=3.6,SNR=4.0 | | | | | | |
| **INK** | **Inuvik** | **90.84** | **22** | P | **P** | **16 13 26.4** | **-0.1** |
| | 0.6nm,0.9s,baz=270,slow=2.0,SNR=3.2 | | | | | | |
| **ARCES** | **ARCESS Array B** | **92.59** | **340** | P | **P** | **16 13 33.1** | **-1.5** |
| | 3.0nm,0.9s,baz=79,slow=6.6,SNR=5.1 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **125.33** | **288** | PKP | **PKPdf** | **16 19 24.3** | **-1.0** |
| | 0.6nm,0.6s,baz=75,slow=1.0,SNR=3.9 | | | | | | |

*CSEM **12** 16:07:23.7±0.3, 38°.87N × 43°.56E, h10km, ML2.5, Error ellipse: s-maj=7.0km s-min=4.8km az=114.0*
*ATA **12** 16:07:23.0±1.4, 38°.87N × 43°.48E, h1km±9km, ML2.5, MW2.9*
*ISK **12** 16:07:23.2, 38°.85N × 43°.53E, h8km, ML2.5*
*DDA **12** 16:07:23.2, 38°.83N × 43°.57E, h7km, Ml2.6*
*ISCJB **12** 16:07:24.3±0.6, 38°.87N±0°.03 × 43°.57E±0°.06, h12km±6km, Error ellipse: s-maj=8.9km s-min=4.5km az=23.4*
**ISC 12 16:07:23.1±1.5, 38°.86N±0°.02 × 43°.57E±0°.03, h6km±15km, n31, σ0s65/47, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.30** | **209** | *e*PG | **Pb** | **16 07 30.7** | **-0.2** |
| VANB | | | | *e*SG | **Sb** | **16 07 36.1** | **0.0** |
| **VANB** | **Van** | **0.30** | **209** | *e*Pg | **Pb** | **16 07 30.7** | **-0.2** |
| VANB | | | | *e*Sg | **Sb** | **16 07 36.1** | **0.0** |
| **TVAN** | **Van** | **0.35** | **202** | *i*P | **Pg** | **16 07 30.4** | **+0.4** |
| TVAN | | | | *i*S | **Sb** | **16 07 38.2** | **+0.5** |
| **TVAN** | **Van** | **0.35** | **202** | P | **Pg** | **16 07 30.4** | **+0.4** |
| TVAN | | | | S | **Sb** | **16 07 38.2** | **+0.5** |
| **CLDR** | **Caldiran** | **0.39** | **43** | *e*PG | **Pb** | **16 07 31.8** | **-0.8** |
| CLDR | | | | *e*SG | **Sb** | **16 07 38.1** | **-0.9** |
| **CLDR** | **Caldiran** | **0.39** | **43** | *i*P | **Pb** | **16 07 32.0** | **-0.6** |
| CLDR | | | | *i*S | **Sb** | **16 07 40.4** | **+1.4** |
| **CLDR** | **Caldiran** | **0.39** | **43** | *e*Pg | **Pb** | **16 07 31.8** | **-0.8** |
| **CLDR** | **Caldiran** | **0.39** | **43** | P | **Pb** | **16 07 32.0** | **-0.6** |
| CLDR | | | | *e*Sg | **Sb** | **16 07 38.1** | **-0.9** |
| CLDR | | | | S | **Sb** | **16 07 40.4** | **+1.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.66** | **266** | *i*P | **Pg** | **16 07 35.7** | **-0.2** |
| ADCV | | | | *i*S | **Sb** | **16 07 46.5** | **-0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.66** | **266** | P | **Pg** | **16 07 35.7** | **-0.2** |
| ADCV | | | | S | **Sb** | **16 07 46.5** | **-0.2** |
| **GEVA** | **Gevas** | **0.68** | **217** | *e*P | **Pg** | **16 07 36.0** | **-0.1** |
| GEVA | | | | *e*S | **Sb** | **16 07 47.5** | **+0.4** |
| GEVA | | | | IAML | | 16 07 58.0 | |
| | comp=Z,22nm,0.5s | | | | | | |
| **GEVA** | **Gevas** | **0.68** | **217** | *i*P | **Pg** | **16 07 35.5** | **-0.6** |
| GEVA | | | | *i*S | **Sb** | **16 07 48.3** | **+1.2** |
| **GEVA** | **Gevas** | **0.68** | **217** | P | **Pg** | **16 07 35.5** | **-0.6** |
| GEVA | | | | S | **Sb** | **16 07 48.3** | **+1.2** |
| **TUTA** | **Tutak** | **0.80** | **313** | *e*P | **Pg** | **16 07 37.6** | **-0.9** |
| TUTA | | | | *e*S | **Sb** | **16 07 50.1** | **-0.7** |
| **TUTA** | **Tutak** | **0.80** | **313** | *i*P | **Pg** | **16 07 38.3** | **-0.2** |
| TUTA | | | | *i*S | **Sb** | **16 07 51.0** | **+0.2** |
| **TUTA** | **Tutak** | **0.80** | **313** | P | **Pg** | **16 07 38.3** | **-0.2** |
| TUTA | | | | S | **Sb** | **16 07 51.0** | **+0.2** |
| **AGRB** | **Hanur-Agry** | **0.85** | **328** | *e*PG | **Pg** | **16 07 39.7** | **+0.3** |
| **AGRB** | **Hanur-Agry** | **0.85** | **328** | *e*Pg | **Pg** | **16 07 39.7** | **+0.3** |
| **TASB** | **TASBURUN-IGDIR** | **1.24** | **24** | *e*PN | **Pg** | **16 07 47.6** | **+0.8** |
| **TASB** | **TASBURUN-IGDIR** | **1.24** | **24** | *e*Pn | **Pg** | **16 07 47.6** | **+0.8** |
| **EKAR** | **Karacoban** | **1.24** | **289** | *e*P | **Pn** | **16 07 47.1** | **-0.1** |
| **EKAR** | **Karacoban** | **1.24** | **289** | *i*P | **Pn** | **16 07 48.0** | **+0.8** |
| **EKAR** | **Karacoban** | **1.24** | **289** | P | **Pn** | **16 07 48.0** | **+0.8** |
| **HAKT** | **HAKKARI** | **1.30** | **175** | *i*P | **Pn** | **16 07 47.2** | **-0.8** |
| **HAKT** | **HAKKARI** | **1.30** | **175** | P | **Pn** | **16 07 47.2** | **-0.8** |
| **EATA** | **Eleskirt** | **1.31** | **321** | *e*P | **Pg** | **16 07 48.2** | **0.0** |
| EATA | | | | IAML | | 16 08 16.2 | |
| | comp=Z,3.0nm,0.4s | | | | | | |
| **EATA** | **Eleskirt** | **1.31** | **321** | *i*P | **Pb** | **16 07 48.0** | **-0.3** |
| **EATA** | **Eleskirt** | **1.31** | **321** | P | **Pb** | **16 07 48.0** | **-0.3** |
| **SRTM** | **Siirt_Merkez** | **1.56** | **237** | *i*P | **Pb** | **16 07 52.6** | **+0.2** |
| **SRTM** | **Siirt_Merkez** | **1.56** | **237** | P | **Pb** | **16 07 52.6** | **+0.2** |
| **DIGO** | **Kars** | **1.56** | **354** | *e*P | **Pg** | **16 07 53.6** | **+0.5** |
| DIGO | | | | IAML | | 16 07 57.4 | |
| | comp=Z,3.7nm,0.5s | | | | | | |

**IDC 12 16:07:51.0±9.1, 32°.16S × 13°.82W, h0km, mb4.3/4, mb1 4.3/4, mb1mx3.9/22, mbtmp4.3/4, MS3.7/1, Ms1 3.7/1, ms1mx3.0/22, Error ellipse: s-maj=425.1km s-min=96.4km az=87.0, Southern Mid-Atlantic Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **H09N1** | **TRISTAN DA CUN** | **5.05** | **166** | T | T | 16 14 13.3 | |
| | SNR=73 | | | | | | |
| **H09W1** | **TRISTAN DA CUN** | **5.07** | **166** | T | T | 16 14 10.6 | |
| | SNR=70 | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **23.10** | **358** | T | T | 16 37 48.2 | |
| | baz=182,slow=74,SNR=92 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **23.11** | **358** | T | T | 16 37 48.7 | |
| | baz=182,slow=74,SNR=98 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **23.12** | **358** | T | T | 16 37 49.6 | |
| | baz=182,slow=74,SNR=63 | | | | | | |
| **H10N1** | **ASCENSION HYDR** | **24.20** | **358** | T | T | 16 39 12.0 | |
| | baz=190,slow=78,SNR=9.4 | | | | | | |
| **H10N3** | **ASCENSION HYDR** | **24.21** | **358** | T | T | 16 39 12.4 | |
| | baz=190,slow=78,SNR=73 | | | | | | |
| **H10N2** | **ASCENSION HYDR** | **24.22** | **358** | T | T | 16 39 13.5 | |
| | baz=190,slow=78,SNR=19 | | | | | | |
| **LIC** | **Lamto** | **39.08** | **14** | *e*P | P | 16 15 19.6 | -0.3 |
| | 77nm,1.5s | | | | | | |
| **KIC** | **Kosan Boka** | **39.27** | **14** | *e*P | P | 16 15 21.3 | -0.2 |
| | 39nm,0.8s | | | | | | |
| **TIC** | **Toumodi** | **39.49** | **14** | *e*P | P | 16 15 22.8 | -0.6 |
| **DBIC** | **Dimbokro** | **39.55** | **14** | P | P | 16 15 23.6 | -0.2 |
| | 8.1nm,0.8s,baz=178,slow=6.8,SNR=13 | | | | | | |
| DBIC | | | | LR | LR | 16 27 35.9 | |
| | comp=Z,99nm,19.6s,baz=344,slow=30 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **47.44** | **21** | P | P | 16 16 27.5 | 0.0 |
| | 10nm,0.8s,baz=200,slow=8.6,SNR=65 | | | | | | |
| **BRTR** | **Keskin Array B** | **63.97** | **35** | P | P | 16 20 22.9 | -0.1 |
| | 0.7nm,0.8s,baz=160,slow=4.6,SNR=4.1 | | | | | | |
| **AKASG** | **Malin Array Be** | **90.84** | **26** | P | P | 16 20 55.9 | +0.1 |
| | 0.1nm,0.3s,baz=224,slow=3.9,SNR=4.1 | | | | | | |

*ISK **12** 16:08:37.8, 38°.83N × 43°.53E, h10km, ML2.5*
*ISCJB **12** 16:08:38.7±0.5, 38°.87N±0°.03 × 43°.51E±0°.05, h14km±4km, Error ellipse: s-maj=7.1km s-min=4.3km az=27.5*
*DDA **12** 16:08:38.4, 38°.86N × 43°.48E, h8km, Ml2.7*
*CSEM **12** 16:08:38.2±0.2, 38°.86N × 43°.50E, h15km, ML2.5, Error ellipse: s-maj=6.5km s-min=4.3km az=118.0*
**ISC 12 16:08:38.4±1.0, 38°.84N±0°.03 × 43°.52E±0°.03, h13km±9km, n23, σ0s59/34, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ERCV** | **ERCIS-VAN** | **0.23** | **321** | *e*PG | **Pg** | **16 08 43.2** | **-0.3** |
| ERCV | | | | *e*SG | **Sg** | **16 08 47.3** | **+0.3** |
| **ERCV** | **ERCIS-VAN** | **0.23** | **321** | *e*Pg | **Pg** | **16 08 43.2** | **-0.3** |
| ERCV | | | | *e*Sg | **Sg** | **16 08 47.3** | **+0.3** |
| **VANB** | **Van** | **0.27** | **203** | *e*PG | **Pb** | **16 08 45.0** | **-0.2** |
| VANB | | | | *e*SG | **Sb** | **16 08 50.1** | **+0.5** |
| **VANB** | **Van** | **0.27** | **203** | *e*Pg | **Pb** | **16 08 45.0** | **-0.2** |
| VANB | | | | *e*Sg | **Sb** | **16 08 50.2** | **+0.5** |
| **TVAN** | **Van** | **0.32** | **197** | *i*P | **Pg** | **16 08 44.8** | **-0.3** |
| TVAN | | | | *i*S | **Sb** | **16 08 51.8** | **+0.4** |
| **TVAN** | **Van** | **0.32** | **197** | P | **Pg** | **16 08 44.8** | **-0.3** |
| TVAN | | | | S | **Sb** | **16 08 51.8** | **+0.4** |
| **CLDR** | **Caldiran** | **0.43** | **45** | *e*PG | **Pg** | **16 08 46.8** | **-0.3** |
| CLDR | | | | *e*SG | **Sg** | **16 08 53.5** | **+0.6** |
| **CLDR** | **Caldiran** | **0.43** | **45** | *i*P | **Pg** | **16 08 46.4** | **-0.7** |
| CLDR | | | | *i*S | **Sb** | **16 08 54.6** | **0.0** |
| **CLDR** | **Caldiran** | **0.43** | **45** | P | **Pg** | **16 08 46.4** | **-0.7** |
| **CLDR** | **Caldiran** | **0.43** | **45** | *e*Pg | **Pg** | **16 08 46.8** | **-0.3** |
| CLDR | | | | *e*Sg | **Sg** | **16 08 53.5** | **+0.6** |
| CLDR | | | | S | **Sb** | **16 08 54.6** | **0.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.62** | **267** | *i*P | **Pg** | **16 08 50.1** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.62** | **267** | P | **Pg** | **16 08 50.1** | **-0.6** |
| **GEVA** | **Gevas** | **0.64** | **215** | *i*P | **Pg** | **16 08 49.9** | **-1.1** |
| GEVA | | | | *i*S | **Sb** | **16 09 01.6** | **+1.1** |
| **GEVA** | **Gevas** | **0.64** | **215** | P | **Pg** | **16 08 49.9** | **-1.1** |
| GEVA | | | | S | **Sb** | **16 09 01.6** | **+1.1** |
| **TUTA** | **Tutak** | **0.79** | **316** | *i*P | **Pg** | **16 08 53.0** | **-0.8** |
| **TUTA** | **Tutak** | **0.79** | **316** | P | **Pg** | **16 08 53.0** | **-0.8** |
| **AGRB** | **Hanur-Agry** | **0.84** | **331** | *e*PG | **Pg** | **16 08 54.3** | **-0.5** |
| **AGRB** | **Hanur-Agry** | **0.84** | **331** | *e*Pg | **Pg** | **16 08 54.3** | **-0.5** |
| **EKAR** | **Karacoban** | **1.21** | **291** | *i*P | **Pb** | **16 09 01.4** | **0.0** |
| **EKAR** | **Karacoban** | **1.21** | **291** | P | **Pb** | **16 09 01.4** | **0.0** |
| **TASB** | **TASBURUN-IGDIR** | **1.27** | **26** | *e*PN | **Pb** | **16 09 02.2** | **-0.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.27** | **26** | *e*Pn | **Pb** | **16 09 02.2** | **-0.1** |
| **HAKT** | **HAKKARI** | **1.29** | **173** | *i*P | Pn | 16 08 55.0 | -7.4 |

*ISCJB **12** 16:12:37.6±0.5, 37°.01N±0°.03 × 29°.05E±0°.04, h7km±6km, Error ellipse: s-maj=5.4km s-min=4.6km az=18.3*
*CSEM **12** 16:12:37.7±0.2, 37°.03N × 29°.05E, h2km, MD2.5, Error ellipse: s-maj=3.7km s-min=3.0km az=109.0*
*DDA **12** 16:12:37.3, 37°.02N × 29°.05E, h7km, Ml2.7*
*ISK **12** 16:12:38.2, 36°.96N × 29°.06E, h7km, MD2.5*
**ISC 12 16:12:37.9±1.0, 37°.04N±0°.02 × 29°.04E±0°.02, h5km±12km, n31, σ1s14/44, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DALY** | **Dalyan (Mu˘la** | **0.38** | **235** | *e*PG | **Pg** | **16 12 45.6** | **+0.4** |
| DALY | | | | *e*SG | **Sg** | **16 12 51.1** | **+0.9** |
| **DALY** | **Dalyan (Mu˘la** | **0.38** | **235** | *i*P | **Pg** | **16 12 45.1** | **-0.1** |
| DALY | | | | *i*S | **Sg** | **16 12 51.1** | **+0.9** |
| **DALY** | **Dalyan (Mu˘la** | **0.38** | **235** | P | **Pg** | **16 12 45.1** | **-0.1** |
| **DALY** | **Dalyan (Mu˘la** | **0.38** | **235** | *e*Pg | **Pg** | **16 12 45.6** | **+0.4** |
| DALY | | | | S | **Sg** | **16 12 51.1** | **+0.9** |
| **GLHS** | **Glhisar (BURDU** | **0.38** | **72** | *e*PG | **Pb** | **16 12 46.5** | **-0.7** |
| **GLHS** | **Glhisar (BURDU** | **0.38** | **72** | *e*Pg | **Pb** | **16 12 46.5** | **-0.7** |
| **TURN** | **Turunc** | **0.39** | **245** | *e*PG | **Pn** | **16 12 52.1** | **+2.0** |
| **TURN** | **Turunc** | **0.39** | **245** | *i*P | **Pn** | **16 12 50.9** | **+0.7** |
| **FETY** | **Fethiye** | **0.40** | **175** | *e*PG | **Pg** | **16 12 45.1** | **-0.5** |
| FETY | | | | *e*SG | **Sg** | **16 12 50.2** | **-0.7** |
| **FETY** | **Fethiye** | **0.40** | **175** | P | **Pg** | **16 12 44.6** | **-1.0** |
| **FETY** | **Fethiye** | **0.40** | **175** | *e*Pg | **Pg** | **16 12 45.1** | **-0.5** |
| FETY | | | | *e*Sg | **Sg** | **16 12 50.2** | **-0.7** |
| **TAVA** | **DENIZLI_Tavas** | **0.44** | **346** | *i*P | **Pg** | **16 12 46.0** | **-0.4** |
| TAVA | | | | *i*S | **Sg** | **16 12 53.3** | **+1.1** |
| **TAVA** | **DENIZLI_Tavas** | **0.44** | **346** | P | **Pg** | **16 12 46.0** | **-0.4** |
| TAVA | | | | S | **Sg** | **16 12 53.3** | **+1.1** |
| **GOLH** | **Golhisar** | **0.46** | **64** | *i*P | **Pg** | **16 12 45.6** | **-1.1** |
| GOLH | | | | *i*S | **Sg** | **16 12 53.7** | **+1.0** |
| **GOLH** | **Golhisar** | **0.46** | **64** | P | **Pg** | **16 12 45.6** | **-1.1** |
| GOLH | | | | S | **Sg** | **16 12 53.7** | **+1.0** |
| **DNZL** | **Cakiroluk** | **0.65** | **0** | *i*P | **Pg** | **16 12 50.0** | **-0.4** |
| DNZL | | | | *i*S | **Sb** | **16 13 02.5** | **+1.2** |
| **DNZL** | **Cakiroluk** | **0.65** | **0** | P | **Pg** | **16 12 50.0** | **-0.4** |
| DNZL | | | | S | **Sb** | **16 13 02.5** | **+1.2** |
| **ELL** | **Elmali** | **0.75** | **112** | *e*PG | **Pg** | **16 12 52.3** | **0.0** |
| ELL | | | | *e*SG | **Sb** | **16 13 02.8** | **-1.3** |
| **ELL** | **Elmali** | **0.75** | **112** | *e*Pg | **Pg** | **16 12 52.3** | **0.0** |
| ELL | | | | *e*Sg | **Sb** | **16 13 02.8** | **-1.3** |
| **AKAS** | **Kas** | **0.92** | **150** | *e*PG | **Pg** | **16 12 55.2** | **-0.3** |
| **AKAS** | **Kas** | **0.92** | **150** | *i*P | **Pg** | **16 12 54.9** | **-0.6** |
| **AKAS** | **Kas** | **0.92** | **150** | P | **Pg** | **16 12 54.9** | **-0.6** |
| **AKAS** | **Kas** | **0.92** | **150** | *e*Pg | **Pg** | **16 12 55.2** | **-0.3** |
| **KORT** | **Korkueli** | **1.05** | **92** | *e*PG | **Pb** | **16 12 58.4** | **-0.1** |
| **KORT** | **Korkueli** | **1.05** | **92** | *e*Pg | **Pb** | **16 12 58.4** | **-0.1** |
| **AYDN** | **Tasoluk** | **1.12** | **304** | *i*P | **Pg** | **16 12 55.7** | **-3.6** |
| **AYDN** | **Tasoluk** | **1.12** | **304** | P | **Pg** | **16 12 55.7** | **-3.6** |
| **KHAL** | **Karahalli** | **1.38** | **15** | *i*P | **Pb** | **16 13 03.9** | **-0.3** |
| **KHAL** | **Karahalli** | **1.38** | **15** | P | **Pb** | **16 13 03.9** | **-0.3** |
| **KARP** | **Karpathos** | **2.13** | **226** | *e*PN | **Pn** | **16 13 14.5** | **+0.4** |
| **KARP** | **Karpathos** | **2.13** | **226** | *e*Pn | **Pn** | **16 13 14.5** | **+0.4** |

**MEX 12 16:22:55.3±0.4, 14°.28N × 92°.25W, h35km±96km, MD3.7, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PCIG** | | **1.70** | **327** | *i*P | Pn | 16 23 21.1 | -1.4 |
| PCIG | | | | *e*S | Sn | 16 23 39.1 | -4.0 |
| **CCIG** | **Comitan** | **2.00** | **3** | *e*P | Pn | 16 23 25.3 | -1.4 |
| **TGIG** | | **2.62** | **341** | *i*P | Pn | 16 23 36.0 | +0.7 |

**IDC 12 16:25:07.3±40.0, 22°.89S × 176°.28W, h390km±126km, mb3.6/4, mb1 3.7/4, mb1mx3.2/33, mbtmp4.4/4, Error ellipse: s-maj=520.8km s-min=114.5km az=76.0, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CTA** | **Charters Tower** | **34.91** | **267** | P | P | 16 31 24.2 | 0.0 |
| | 8.6nm,0.4s,baz=92,slow=11,SNR=18 | | | | | | |
| **STKA** | **Stephens Creek** | **38.26** | **247** | P | P | 16 31 51.8 | -0.2 |
| | 1.1nm,0.8s,baz=90,slow=13

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **TWT** | **Tachien** | **0.77** | **247** | ⇓*i* | P | | **Pn** | **16 36 02.3** | **+0.5** |
| | baz=234 | | | | | | | | |
| TWT | | | | *i* | S | | **Sn** | **16 36 13.7** | **+0.4** |
| | baz=234 | | | | | | | | |
| **NCU** | **National Centr** | **0.81** | **301** | ⇓*i* | P | | **Pg** | **16 36 01.1** | **-0.1** |
| | baz=290 | | | | | | | | |
| NCU | | | | *i* | S | | **Sn** | **16 36 12.7** | **-1.3** |
| | baz=290 | | | | | | | | |
| **NSTT** | **Nanjuang** | **0.87** | **275** | ⇓*i* | P | | **Pg** | **16 36 02.1** | **-0.2** |
| | baz=270 | | | | | | | | |
| NSTT | | | | | S | | **Sg** | **16 36 14.1** | **+0.3** |
| | baz=270 | | | | | | | | |
| **ESL** | **Shilin** | **0.88** | **213** | *e*P | | | **Pb** | **16 36 01.7** | **-0.6** |
| | baz=205 | | | | | | | | |
| **JYNG** | **Yonagunijimaku** | **0.91** | **96** | | P | | **Pn** | **16 36 03.8** | **+0.4** |
| JYNG | | | | | S | | **Sn** | **16 36 17.6** | **+1.4** |
| **HSN** | **Hsinchu** | **0.93** | **286** | *e*P | | | **Pb** | **16 36 02.1** | **-1.0** |
| | baz=284 | | | | | | | | |
| HSN | | | | | S | | **Sb** | **16 36 14.8** | **-0.5** |
| | baz=284 | | | | | | | | |
| **YOJ** | **Yonaguni jima** | **0.96** | **95** | *e*P | | | **Pg** | **16 36 04.5** | **+0.4** |
| | baz=92 | | | | | | | | |
| **YOJ** | **Yonaguni jima** | **0.96** | **95** | | P | | **Pg** | **16 36 04.4** | **+0.4** |
| YOJ | | | | | *e*S | | **Sn** | **16 36 18.7** | **+1.0** |
| **TWQ1** | **Liyutan** | **1.10** | **260** | *e*P | | | **Pb** | **16 36 05.1** | **-0.9** |
| | baz=253 | | | | | | | | |
| **NSY** | **Sanyi** | **1.10** | **263** | ⇑*i*P | | | **Pb** | **16 36 05.5** | **-0.5** |
| | baz=257 | | | | | | | | |
| NSY | | | | *i* | S | | **Sb** | **16 36 20.1** | **-0.1** |
| | baz=257 | | | | | | | | |
| **SMLT** | **Sun Moon Lake** | **1.17** | **236** | *e*P | | | **Pb** | **16 36 07.5** | **+0.2** |
| | baz=224 | | | | | | | | |
| SMLT | | | | | *e*S | | **Sg** | **16 36 23.5** | **+0.2** |
| | baz=224 | | | | | | | | |
| **EHY** | **Hungye** | **1.19** | **209** | *e*P | | | **Pb** | **16 36 08.1** | **+0.5** |
| | baz=203 | | | | | | | | |
| **TYC** | **Yuchr** | **1.19** | **237** | ⇑P | | | **Pn** | **16 36 07.5** | **+0.1** |
| | baz=231 | | | | | | | | |
| TYC | | | | | *e*S | | **Sn** | **16 36 23.4** | **+0.1** |
| | baz=231 | | | | | | | | |
| **TCU** | **Taichung** | **1.24** | **251** | *e*P | | | **Pn** | **16 36 07.1** | **-0.9** |
| | baz=244 | | | | | | | | |
| **TWF1** | **Yuli** | **1.34** | **207** | *e*P | | | **Pn** | **16 36 09.3** | **-0.2** |
| | baz=206 | | | | | | | | |
| **WNT** | **Mingjian** | **1.34** | **240** | *e*P | | | **Pn** | **16 36 09.0** | **-0.5** |
| | baz=246 | | | | | | | | |
| WNT | | | | | *e*S | | **Sn** | **16 36 26.5** | **-0.5** |
| | baz=246 | | | | | | | | |
| **YUS** | **Yu-Shan** | **1.40** | **221** | *e*P | | | **Pn** | **16 36 10.9** | **+0.2** |
| | baz=208 | | | | | | | | |
| YUS | | | | | S | | **Sn** | **16 36 29.5** | **+0.3** |
| | baz=208 | | | | | | | | |
| **ALS** | **Alishan** | **1.48** | **226** | ⇓P | | | **Pn** | **16 36 12.2** | **+0.6** |
| | baz=231 | | | | | | | | |
| ALS | | | | | *e*S | | **Sb** | **16 36 31.8** | **+0.4** |
| | baz=231 | | | | | | | | |
| **CHN5** | **Tsauling** | **1.51** | **231** | ⇑*e*P | | | **Pn** | **16 36 11.5** | **-0.3** |
| | baz=236 | | | | | | | | |
| CHN5 | | | | | *e*S | | **Sn** | **16 36 31.3** | **+0.1** |
| | baz=236 | | | | | | | | |
| **WGK** | **Gukeng** | **1.54** | **236** | *e*P | | | **Pn** | **16 36 11.9** | **-0.3** |
| | baz=242 | | | | | | | | |
| WGK | | | | | *e*S | | **Sn** | **16 36 31.7** | **-0.2** |
| | baz=242 | | | | | | | | |
| **ELDTW** | **Lidau** | **1.61** | **213** | *e*P | | | **Pn** | **16 36 12.9** | **-0.4** |
| | baz=200 | | | | | | | | |
| **IRIF** | **Iriomote-Funau** | **1.63** | **97** | | P | | **Pn** | **16 36 13.1** | **-0.3** |
| IRIF | | | | | S | | **Sn** | **16 36 33.7** | **-0.4** |
| **CHN4** | **Tsaushan** | **1.73** | **226** | *e*P | | | **Pn** | **16 36 14.6** | **-0.2** |
| | baz=222 | | | | | | | | |
| CHN4 | | | | | *e*S | | **Sb** | **16 36 38.3** | **0.0** |
| | baz=222 | | | | | | | | |
| **CHY** | **Chiayi** | **1.75** | **233** | *e*P | | | **Pn** | **16 36 14.6** | **-0.5** |
| | baz=237 | | | | | | | | |
| **HATJ** | **Hateruma jima** | **1.76** | **106** | | P | | **Pn** | **16 36 15.6** | **+0.4** |
| HATJ | | | | | *e*S | | **Sn** | **16 36 38.0** | **+0.8** |
| **STYT** | **Tauyuan** | **1.77** | **219** | *e*P | | | **Pn** | **16 36 15.5** | **+0.2** |
| | baz=206 | | | | | | | | |
| STYT | | | | | *e*S | | **Sn** | **16 36 38.8** | **+1.2** |
| | baz=206 | | | | | | | | |
| **WTP** | **Ta-pu** | **1.79** | **224** | *e*P | | | **Pn** | **16 36 15.6** | **-0.1** |
| | baz=230 | | | | | | | | |
| WTP | | | | | *e*S | | **Sn** | **16 36 38.4** | **+0.3** |
| | baz=230 | | | | | | | | |
| **WSF** | **Szhu** | **1.83** | **240** | *e*P | | | **Pn** | **16 36 14.8** | **-1.3** |
| | baz=236 | | | | | | | | |
| WSF | | | | | *e*S | | **Sn** | **16 36 37.3** | **-1.8** |
| | baz=236 | | | | | | | | |
| **TWK** | **Hsinying** | **1.86** | **227** | *e*P | | | **Pn** | **16 36 16.6** | **0.0** |
| | baz=234 | | | | | | | | |
| TWK | | | | | *e*S | | **Sn** | **16 36 40.2** | **+0.3** |
| | baz=234 | | | | | | | | |
| **CHN1** | **Nanshi** | **1.89** | **224** | *e*P | | | **Pn** | **16 36 16.7** | **-0.3** |
| | baz=232 | | | | | | | | |
| CHN1 | | | | | *e*S | | **Sn** | **16 36 40.7** | **+0.1** |
| | baz=232 | | | | | | | | |
| **JKRS** | **Kuro-shima** | **1.90** | **99** | | P | | **Pn** | **16 36 17.2** | **+0.1** |
| JKRS | | | | | S | | **Sn** | **16 36 40.5** | **-0.2** |
| **TWG** | **Pinlang** | **1.91** | **205** | *e*P | | | **Pn** | **16 36 15.9** | **-1.3** |
| | baz=193 | | | | | | | | |
| **SGST** | **Jiashian** | **1.93** | **221** | *e*P | | | **Pn** | **16 36 17.1** | **-0.5** |
| | baz=226 | | | | | | | | |
| **JIJ** | **Ishigaki jima** | **2.00** | **95** | | P | | **Pn** | **16 36 17.9** | **-0.6** |
| JIJ | | | | | *e*S | | **Sn** | **16 36 41.8** | **-1.5** |
| **CHN3** | **Shinhua** | **2.07** | **225** | *e*P | | | **Pn** | **16 36 20.4** | **+0.9** |
| | baz=219 | | | | | | | | |
| **JISG** | **Ishigakijimahi** | **2.14** | **89** | | P | | **Pn** | **16 36 20.0** | **-0.5** |
| JISG | | | | | *e*S | | **Sn** | **16 36 45.8** | **-1.0** |
| **ECL** | **Taimali** | **2.15** | **206** | *e*P | | | **Pn** | **16 36 19.8** | **-0.8** |
| | baz=194 | | | | | | | | |
| **SSD** | **Sandimen** | **2.17** | **214** | *e*P | | | **Pn** | **16 36 21.0** | **+0.1** |
| | baz=209 | | | | | | | | |
| **EAST** | **Anshuo** | **2.39** | **205** | *e*P | | | **Pn** | **16 36 24.1** | **+0.2** |
| | baz=193 | | | | | | | | |
| **SCZT** | **Fangliau** | **2.49** | **210** | *e*P | | | **Pn** | **16 36 25.6** | **+0.3** |
| | baz=204 | | | | | | | | |
| **JTJ** | **Tarama** | **2.50** | **87** | | P | | **Pn** | **16 36 25.7** | **+0.3** |
| JTJ | | | | | *e*S | | **Sn** | **16 36 56.4** | **+0.8** |
| **KNM** | **Kinmen** | **3.21** | **268** | *e*P | | | **Pn** | **16 36 33.9** | **-1.3** |
| | baz=263 | | | | | | | | |

*ATH* ***12*** *16:50:47.2, 38.85N×26.22E, h20km±1km, ML2.3/6, Error ellipse: s-maj=2.5km s-min=0.9km az=72.0*
*DDA* ***12*** *16:50:47.6, 38.85N×26.31E, h18km, Ml3.1*
*ISK* ***12*** *16:50:47.8, 38.85N×26.37E, h15km, ML2.7*
*ISCJB* ***12*** *16:50:47.8±0.4, 38.85N±0.02×26.26E±0.03, h9km±3km, Error ellipse: s-maj=3.7km s-min=2.6km az=171.8*
*THE* ***12*** *16:50:48.6, 38.84N×26.16E, h1km±1km, ML2.4/3, Error ellipse: s-maj=1.9km s-min=0.4km az=84.0*
*CSEM* ***12*** *16:50:48.2±0.1, 38.86N×26.31E, h12km, ML2.3, Error ellipse: s-maj=2.7km s-min=2.0km az=90.0*
**ISC 12 16:50:47.6±1.0, 38.85N±0.01×26.29E±0.02, h13km±8km, n94, σ0.957/129, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | | Time | | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h | m | s | ISC |
| **PRK** | **Paraskevi** | **0.39** | **358** | P | | **Pb** | **16** | **50** | **56.5** | **0.0** |
| PRK | | | | S | | **Sg** | **16** | **51** | **00.7** | **-0.1** |
| PRK | | | | | AML | AML | 16 | 51 | 06.8 | |
| | comp=E,1469μm,0.2s | | | | | | | | | |
| PRK | | | | | AML | AML | 16 | 51 | 07.0 | |
| | comp=N,1939μm,0.2s | | | | | | | | | |
| **PRK** | **Paraskevi** | **0.39** | **358** | P | | **Pb** | **16** | **50** | **56.5** | **0.0** |
| PRK | | | | S | | **Sg** | **16** | **51** | **00.7** | **-0.1** |
| **SIGR** | **SIGRI** | **0.49** | **317** | *e*PG | | **Pb** | **16** | **50** | **58.5** | **+0.4** |
| **SIGR** | **SIGRI** | **0.49** | **317** | P | | **Pb** | **16** | **50** | **58.3** | **+0.1** |
| **SIGR** | **SIGRI** | **0.49** | **317** | *e*Pg | | **Pb** | **16** | **50** | **58.6** | **+0.4** |
| SIGR | | | | S | | **Sb** | **16** | **51** | **05.4** | **+0.1** |
| **SIGR** | **SIGRI** | **0.49** | **317** | P | | **Pb** | **16** | **50** | **58.3** | **+0.1** |
| SIGR | | | | S | | **Sb** | **16** | **51** | **05.4** | **+0.1** |
| **CHOS** | **Chios island** | **0.50** | **202** | *e*PG | | **Pb** | **16** | **50** | **58.8** | **+0.4** |
| **CHOS** | **Chios island** | **0.50** | **202** | P | | **Pb** | **16** | **50** | **58.1** | **-0.3** |
| **CHOS** | **Chios island** | **0.50** | **202** | *e*Pg | | **Pb** | **16** | **50** | **58.8** | **+0.4** |
| CHOS | | | | S | | **Sb** | **16** | **51** | **06.1** | **+0.5** |
| **CHOS** | **Chios island** | **0.50** | **202** | P | | **Pb** | **16** | **50** | **58.1** | **-0.3** |
| CHOS | | | | S | | **Sb** | **16** | **51** | **06.1** | **+0.5** |
| **DKL** | **Dikili** | **0.53** | **65** | *e*PG | | **Pg** | **16** | **50** | **57.8** | **-0.2** |
| DKL | | | | *e*SG | | **Sg** | **16** | **51** | **04.7** | **-0.3** |
| **DKL** | **Dikili** | **0.53** | **65** | *e*Pg | | **Pg** | **16** | **50** | **57.8** | **-0.2** |
| DKL | | | | *e*Sg | | **Sg** | **16** | **51** | **04.7** | **-0.3** |
| **URLA** | **Izmir** | **0.55** | **154** | *e*PG | | **Pg** | **16** | **50** | **58.2** | **-0.2** |
| URLA | | | | *e*SG | | **Sg** | **16** | **51** | **06.2** | **+0.6** |
| **URLA** | **Izmir** | **0.55** | **154** | *i* P | | **Pg** | **16** | **50** | **58.2** | **-0.2** |
| URLA | | | | *i* S | | **Sg** | **16** | **51** | **06.0** | **+0.3** |
| **URLA** | **Izmir** | **0.55** | **154** | P | | **Pg** | **16** | **50** | **58.2** | **-0.2** |
| URLA | | | | S | | **Sg** | **16** | **51** | **06.0** | **+0.3** |
| **ZEY** | **˜zmir** | **0.64** | **165** | *i* P | | **Pg** | **16** | **50** | **59.8** | **-0.2** |
| ZEY | | | | *i* S | | **Sn** | **16** | **51** | **11.1** | **-1.3** |
| **BAYC** | **CANAKKALE_Bayr** | **0.91** | **13** | *i* P | | **Pb** | **16** | **51** | **05.3** | **0.0** |
| BAYC | | | | *i* S | | **Sn** | **16** | **51** | **19.7** | **+0.6** |
| **BAYC** | **CANAKKALE_Bayr** | **0.91** | **13** | P | | **Pb** | **16** | **51** | **05.3** | **0.0** |
| BAYC | | | | S | | **Sn** | **16** | **51** | **19.7** | **+0.6** |
| **DGB** | **˜zmir** | **0.93** | **150** | *i* P | | **Pb** | **16** | **51** | **04.9** | **-0.7** |
| **EZN** | **Ezine** | **0.97** | **2** | *e*PG | | **Pn** | **16** | **51** | **07.8** | **+0.8** |
| **EZN** | **Ezine** | **0.97** | **2** | *e*Pg | | **Pn** | **16** | **51** | **07.8** | **+0.8** |
| **BOZC** | **Bozcaada** | **1.00** | **349** | *e*PG | | **Pn** | **16** | **51** | **07.9** | **+0.4** |
| **BOZC** | **Bozcaada** | **1.00** | **349** | *i* P | | **Pn** | **16** | **51** | **07.5** | **+0.1** |
| BOZC | | | | *i* S | | **Sn** | **16** | **51** | **21.6** | **+0.1** |
| **BOZC** | **Bozcaada** | **1.00** | **349** | *e*Pg | | **Pn** | **16** | **51** | **07.9** | **+0.4** |
| **AKHS** | **Akhisar** | **1.19** | **88** | *i* P | | **Pb** | **16** | **51** | **10.1** | **0.0** |
| **AKHS** | **Akhisar** | **1.19** | **88** | P | | **Pb** | **16** | **51** | **10.1** | **0.0** |
| **SMG** | **Samos** | **1.22** | **159** | P | | **Pb** | **16** | **51** | **10.7** | **+0.1** |
| SMG | | | | S | | **Sg** | **16** | **51** | **27.6** | **+0.5** |
| SMG | | | | | AML | AML | 16 | 51 | 30.0 | |
| | comp=N,547μm,0.4s | | | | | | | | | |
| SMG | | | | | AML | AML | 16 | 51 | 31.7 | |
| | comp=E,488μm,0.4s | | | | | | | | | |
| **SMG** | **Samos** | **1.22** | **159** | P | | **Pb** | **16** | **51** | **10.7** | **+0.1** |
| SMG | | | | S | | **Sg** | **16** | **51** | **27.5** | **+0.5** |
| **STEP** | **BALIKESIR_Sava** | **1.23** | **64** | *i* P | | **Pn** | **16** | **51** | **10.2** | **-0.4** |
| STEP | | | | *i* S | | **Sn** | **16** | **51** | **26.8** | **-0.2** |
| **STEP** | **BALIKESIR_Sava** | **1.23** | **64** | P | | **Pn** | **16** | **51** | **10.2** | **-0.4** |
| STEP | | | | S | | **Sn** | **16** | **51** | **26.8** | **-0.2** |
| **LIA** | **Limnos Island** | **1.35** | **321** | P | | **Pn** | **16** | **51** | **12.3** | **+0.1** |
| LIA | | | | S | | **Sb** | **16** | **51** | **30.3** | **+0.3** |
| LIA | | | | | AML | AML | 16 | 51 | 32.8 | |
| | comp=E,267μm,0.5s | | | | | | | | | |
| LIA | | | | | AML | AML | 16 | 51 | 36.0 | |
| | comp=N,221μm,0.3s | | | | | | | | | |
| **LIA** | **Limnos Island** | **1.35** | **321** | P | | **Pn** | **16** | **51** | **12.3** | **+0.1** |
| LIA | | | | S | | **Sb** | **16** | **51** | **30.3** | **+0.3** |
| **BALY** | **Balya** | **1.36** | **49** | *i* P | | **Pn** | **16** | **51** | **12.3** | **-0.1** |
| BALY | | | | *i* S | | **Sg** | **16** | **51** | **32.0** | **+0.5** |
| **BALY** | **Balya** | **1.36** | **49** | P | | **Pn** | **16** | **51** | **12.3** | **-0.1** |
| BALY | | | | S | | **Sg** | **16** | **51** | **32.0** | **+0.5** |
| **SKY** | **Skiros Island** | **1.36** | **272** | P | | **Pn** | **16** | **51** | **11.3** | **-1.0** |
| **SKY** | **Skiros Island** | **1.36** | **272** | P | | **Pb** | **16** | **51** | **11.3** | **-1.0** |
| **GADA** | **Gvkgeada** | **1.37** | **347** | *e*PN | | **Pb** | **16** | **51** | **13.0** | **-0.1** |
| **GADA** | **Gvkgeada** | **1.37** | **347** | *e*Pn | | **Pb** | **16** | **51** | **13.0** | **-0.1** |
| **GCAM** | **G?zlcaml?** | **1.37** | **147** | *e*PN | | **Pg** | **16** | **51** | **13.7** | **-0.3** |
| **GCAM** | **G?zlcaml?** | **1.37** | **147** | *i* P | | **Pg** | **16** | **51** | **14.1** | **+0.1** |
| **GCAM** | **G?zlcaml?** | **1.37** | **147** | *e*Pn | | **Pg** | **16** | **51** | **13.7** | **-0.3** |
| **GCAM** | **G?zlcaml?** | **1.37** | **147** | P | | **Pg** | **16** | **51** | **14.1** | **+0.1** |
| **BALB** | **Balikesir** | **1.46** | **57** | *e*PN | | **Pn** | **16** | **51** | **13.5** | **-0.3** |
| **BALB** | **Balikesir** | **1.46** | **57** | *e*Pn | | **Pn** | **16** | **51** | **13.5** | **-0.3** |
| **GELI** | **Tayfur-Gelibol** | **1.55** | **5** | *e*PN | | **Pn** | **16** | **51** | **15.5** | **+0.6** |
| **GELI** | **Tayfur-Gelibol** | **1.55** | **5** | *e*Pn | | **Pn** | **16** | **51** | **15.5** | **+0.6** |
| **LPK** | **Lapseki** | **1.56** | **13** | *e*PN | | **Pn** | **16** | **51** | **15.5** | **+0.4** |
| **LPK** | **Lapseki** | **1.56** | **13** | *e*Pn | | **Pn** | **16** | **51** | **15.5** | **+0.4** |
| **GONE** | **Gonen-Balikesi** | **1.61** | **42** | *e*PN | | **Pn** | **16** | **51** | **15.7** | **-0.1** |
| **GONE** | **Gonen-Balikesi** | **1.61** | **42** | *e*Pn | | **Pn** | **16** | **51** | **15.7** | **-0.1** |
| **KARY** | **Karystos** | **1.67** | **241** | P | | **Pn** | **16** | **51** | **16.8** | **+0.2** |
| KARY | | | | | AML | AML | 16 | 51 | 45.8 | |
| | comp=E,67μm,0.4s | | | | | | | | | |
| KARY | | | | | AML | AML | 16 | 51 | 47.7 | |
| | comp=N,50μm,0.3s | | | | | | | | | |
| **KARY** | **Karystos** | **1.67** | **241** | P | | **Pn** | **16** | **51** | **16.8** | **+0.2** |
| **KNL** | **Bal˜kesir** | **1.71** | **34** | *i* P | | **Pb** | **16** | **51** | **19.2** | **+0.4** |
| **SMTH** | **Samothraki Isl** | **1.72** | **340** | P | | **Pb** | **16** | **51** | **19.6** | **+0.5** |
| SMTH | | | | S | | **Sn** | **16** | **51** | **38.7** | **-0.4** |
| SMTH | | | | | AML | AML | 16 | 51 | 48.3 | |
| | comp=E,93μm,0.4s | | | | | | | | | |
| SMTH | | | | | AML | AML | 16 | 51 | 48.8 | |
| | comp=N,98μm,0.2s | | | | | | | | | |
| **SMTH** | **Samothraki Isl** | **1.72** | **340** | P | | **Pb** | **16** | **51** | **19.6** | **+0.5** |
| SMTH | | | | S | | **Sn** | **16** | **51** | **38.7** | **-0.4** |
| **KRBG** | **Karabiga-Canak** | **1.72** | **27** | *e*PN | | **Pn** | **16** | **51** | **17.5** | **+0.2** |
| **KRBG** | **Karabiga-Canak** | **1.72** | **27** | *e*Pn | | **Pn** | **16** | **51** | **17.5** | **+0.2** |
| **AYDN** | **Tasoluk** | **1.73** | **133** | *i* P | | **Pn** | **16** | **51** | **17.8** | **+0.4** |
| **AYDN** | **Tasoluk** | **1.73** | **133** | P | | **Pn** | **16** | **51** | **17.8** | **+0.4** |
| **MANT** | **Manisa** | **1.81** | **101** | *i* P | | **Pb** | **16** | **51** | **20.2** | **-0.6** |
| MANT | | | | *i* S | | **Sg** | **16** | **51** | **45.6** | **-0.3** |
| **MANT** | **Manisa** | **1.81** | **101** | P | | **Pb** | **16** | **51** | **20.2** | **-0.6** |
| MANT | | | | S | | **Sg** | **16** | **51** | **45.6** | **-0.3** |
| **APE** | **Apeiranthos** | **1.88** | **199** | *e*PN | | **Pb** | **16** | **51** | **20.8** | **-1.1** |
| **APE** | **Apeiranthos** | **1.88** | **199** | P | | **Pn** | **16** | **51** | **19.9** | **+0.3** |
| APE | | | | S | | **Sb** | **16** | **51** | **44.8** | **-0.5** |
| APE | | | | | AML | AML | 16 | 51 | 51.4 | |
| | comp=N,92μm,0.6s | | | | | | | | | |
| APE | | | | | AML | AML | 16 | 51 | 52.2 | |
| | comp=E,69μm,0.5s | | | | | | | | | |
| **APE** | **Apeiranthos** | **1.88** | **199** | P | | **Pn** | **16** | **51** | **19.9** | **+0.3** |
| **APE** | **Apeiranthos** | **1.88** | **199** | *e*Pn | | **Pb** | **16** | **51** | **20.8** | **-1.1** |
| APE | | | | S | | **Sb** | **16** | **51** | **44.8** | **-0.5** |
| **KULA** | **Kula-Manisa** | **1.89** | **100** | *e*PN | | **Pn** | **16** | **51** | **20.3** | **+0.6** |
| **KULA** | **Kula-Manisa** | **1.89** | **100** | *e*Pn | | **Pn** | **16** | **51** | **20.3** | **+0.6** |
| **DEMI** | **Demirci** | **1.90** | **84** | *i* P | | **Pb** | **16** | **51** | **22.8** | **+0.5** |
| **DEMI** | **Demirci** | **1.90** | **84** | P | | **Pb** | **16** | **51** | **22.8** | **+0.5** |
| **EDC** | **Edincik** | **1.92** | **39** | *e*PN | | **Pn** | **16** | **51** | **19.9** | **-0.2** |
| **EDC** | **Edincik** | **1.92** | **39** | *e*Pn | | **Pn** | **16** | **51** | **19.9** | **-0.2** |
| **SART** | **Tekirdag** | **1.96** | **20** | *i* P | | **Pn** | **16** | **51** | **21.1** | **+0.5** |
| SART | | | | *i* S | | **Sg** | **16** | **51** | **49.6** | **-0.9** |
| **SART** | **Tekirdag** | **1.96** | **20** | P | | **Pn** | **16** | **51** | **21.1** | **+0.5** |
| SART | | | | S | | **Sg** | **16** | **51** | **49.7** | **-0.9** |
| **BODT** | **Bodrum** | **1.96** | **155** | *e*PN | | **Pn** | **16** | **51** | **21.3** | **+0.6** |
| **BODT** | **Bodrum** | **1.96** | **155** | *e*Pn | | **Pn** | **16** | **51** | **21.3** | **+0.6** |
| **KESN** | **Edirne-Kesan** | **1.99** | **9** | *i* P | | **Pn** | **16** | **51** | **21.8** | **+0.4** |
| KESN | | | | *i* S | | **Sg** | **16** | **51** | **50.9** | **-0.9** |
| **KESN** | **Edirne-Kesan** | **1.99** | **9** | P | | **Pn** | **16** | **51** | **21.8** | **+0.4** |
| KESN | | | | S | | **Sg** | **16** | **51** | **50.9** | **-0.9** |
| **ALN** | **Alexandroupoli** | **2.05** | **355** | P | | **Pn** | **16** | **51** | **22.5** | **+0.7** |
| ALN | | | | S | | **Sb** | **16** | **51** | **48.7** | **-1.4** |
| **ALN** | **Alexandroupoli** | **2.05** | **355** | P | | **Pn** | **16** | **51** | **22.5** | **+0.7** |
| ALN | | | | S | | **Sb** | **16** | **51** | **48.7** | **-1.4** |
| **KCTX** | **Karacabey (Bur** | **2.13** | **48** | *e*PN | | **Pn** | **16** | **51** | **23.2** | **+0.2** |
| **KCTX** | **Karacabey (Bur** | **2.13** | **48** | *e*Pn | | **Pn** | **16** | **51** | **23.2** | **+0.2** |
| **SKIA** | **Skiathos** | **2.22** | **279** | P | | **Pn** | **16** | **51** | **24.9** | **+0.6** |
| **SKIA** | **Skiathos** | **2.22** | **279** | P | | **Pn** | **16** | **51** | **24.9** | **+0.6** |
| **RDO** | **Rodhopi** | **2.36** | **346** | P | | **Pn** | **16** | **51** | **27.3** | **+1.2** |
| **RDO** | **Rodhopi** | **2.36** | **346** | P | | **Pn** | **16** | **51** | **27.3** | **+1.2** |
| **ARMT** | **Armutlu** | **2.62** | **48** | *e*PN | | **Pn** | **16** | **51** | **30.4** | **+0.7** |
| **ARMT** | **Armutlu** | **2.62** | **48** | *e*Pn | | **Pn** | **16** | **51** | **30.4** | **+0.7** |
| **IGD** | **Bursa** | **2.65** | **57** | *i* P | | **Pb** | **16** | **51** | **36.4** | **+1.4** |
| **DID** | **Didima** | **2.76** | **242** | P | | **Pn** | **16** | **51** | **31.9** | **+0.3** |
| **DID** | **Didima** | **2.76** | **242** | P | | **Pn** | **16** | **51** | **31.9** | **+0.3** |
| **KLV** | **Kalavryta, Ach** | **3.35** | **257** | P | | **Pn** | **16** | **51** | **41.0** | **+1.2** |
| **KLV** | **Kalavryta, Ach** | **3.35** | **257** | P | | **Pn** | **16** | **51** | **41.0** | **+1.2** |
| **KARP** | **Karpathos** | **3.37** | **168** | P | | **Pn** | **16** | **51** | **41.2** | **+1.1** |
| **KARP** | **Karpathos** | **3.37** | **168** | P | | **Pn** | **16** | **51** | **41.2** | **+1.1** |

*ISCJB* ***12*** *17:04:42.5±0.2, 43.315N±0.007×19.28E±0.01, h4km±1km, mb4.2/35, MS3.8/6, Error ellipse: s-maj=1.3km s-min=1.2km az=44.3*
*LDG* ***12*** *17:04:42.8±0.1, 43.29N×19.23E, h2km, Ml4.6/10, Error ellipse: s-maj=3.4km s-min=2.1km az=12.0*
*BEO* ***12*** *17:04:42.8±0.2, 43.26N×19.27E, h0km, Ml4.5/9*
*MOS* ***12*** *17:04:42.3±1.0, 43.31N×19.25E, h6km, mb4.4/21, Error ellipse: s-maj=4.2km s-min=2.7km az=101.8*
*ROM* ***12*** *17:04:42.0±0.3, 43.29N×19.59E, h10km, Ml4.8/77, Error ellipse: s-maj=5.2km s-min=1.3km az=72.0*
*CSEM* ***12*** *17:04:43.7±0.1, 43.30N×19.29E, h2km, mb4.3/20, Error ellipse: s-maj=1.4km s-min=1.3km az=129.0*
*NEIC* ***12*** *17:04:43.5±1.0, 43.32N×19.24E, h2km±7km, mb4.5/11, ML4.4(THE), Error ellipse: s-maj=3.6km s-min=2.6km az=211.0*
*IDC* ***12*** *17:04:43.1±0.5, 43.34N×19.18E, h0km, mb4.1/19, mb1 4.2/37, mb1mx4.2/50, mbtmp4.1/37, ML3.7/15, MS3.6/16, Ms1 3.6/16, ms1mx3.4/47, Error ellipse: s-maj=9.1km s-min=7.5km az=27.0*
*PDG* ***12*** *17:04:43.8±0.6, 43.28N×19.29E, h11km, MD6.9/2, ML4.5/12, Error ellipse: s-maj=0.4km s-min=0.7km az=0.0*
*PRU* ***12*** *17:04:46.6, 43.31N×19.38E, h17km, M4.5*
*STR* ***12*** *17:04:49.3±5.5, 43.53N×18.76E, h10km, Ml4.5, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*
*THE* ***12*** *17:04:55.9, 42.94N×20.11E, h26km±6km, ML4.4/3, Error ellipse: s-maj=8.1km s-min=0.9km az=309.0*
*SOF* ***12*** *17:05:04.7, 42.79N×21.32E, h2km, MD4.0*
**ISC 12 17:04:44.4±0.7, 43.28N±0.01×19.28E±0.01, h8km±4km, n987, σ1.569/1120, mb4.3/35, MS3.8/6, 78C-72D, Northwestern Balkan Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID | | | Time | | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h | m | s | ISC |
| **PLE** | **Pljevlja** | **0.09** | **57** | ⇓*i*P | | **Pg** | **17** | **04** | **46.4** | **-0.4** |
| PLE | | | | *e*Sg | | **Sg** | **17** | **04** | **48.3** | **-0.2** |
| **PLE** | **Pljevlja** | **0.09** | **57** | P | | **Pg** | **17** | **04** | **46.3** | **-0.5** |
| **PLE** | **Pljevlja** | **0.09** | **57** | P | | **Pg** | **17** | **04** | **46.3** | **-0.5** |
| **UPM** | **Unac-Piva** | **0.29** | **255** | ⇑*i*Pg | | **Pg** | **17** | **04** | **49.7** | **-0.5** |
| UPM | | | | *e*Sg | | **Sg** | **17** | **04** | **53.9** | **-0.2** |
| **UPM** | **Unac-Piva** | **0.29** | **255** | P | | **Pg** | **17** | **04** | **49.7** | **-0.5** |
| UPM | | | | *e*Sg | | **Sg** | **17** | **04** | **53.9** | **-0.2** |
| **KOME** | **Kolasin** | **0.46** | **158** | ⇑*i*Pg | | **Pg** | **17** | **04** | **52.6** | **-0.8** |
| KOME | | | | *e*Sg | | **Sg** | **17** | **04** | **59.8** | **+0.3** |
| **KOME** | **Kolasin** | **0.46** | **158** | ⇑*i*Pg | | **Pg** | **17** | **04** | **52.6** | **-0.8** |
| KOME | | | | *e*Sg | | **Sg** | **17** | **04** | **59.8** | **+0.3** |
| **SJES** | **Sjenica** | **0.50** | **92** | ⇑*i*Pg | | **Pg** | **17** | **04** | **52.4** | **-1.8** |
| **NKY** | **Niksic** | **0.51** | **205** | ⇓*i*Pg | | **Pg** | **17** | **04** | **53.3** | **-1.1** |
| NKY | | | | *e*Sg | | **Sg** | **17** | **05** | **01.6** | **+0.5** |
| **NKY** | **Niksic** | **0.51** | **205** | P | | **Pg** | **17** | **04** | **53.3** | **-1.1** |
| **NKY** | **Niksic** | **0.51** | **205** | ⇓*i*Pg | | **Pg** | **17** | **04** | **53.3** | **-1.1** |
| NKY | | | | *e*Sg | | **Sg** | **17** | **05** | **01.6** | **+0.5** |
| **NKME** | **Niksic** | **0.57** | **205** | ⇓*i*Pg | | **Pg** | **17** | **04** | **54.1** | **-1.3** |
| NKME | | | | *e*Sg | | **Sg** | **17** | **05** | **03.4** | **+0.6** |
| **NKME** | **Niksic** | **0.57** | **205** | ⇓*i*Pg | | **Pg** | **17** | **04** | **54.1** | **-1.3** |
| NKME | | | | *e*Sg | | **Sg** | **17** | **05** | **03.4** | **+0.6** |
| **BEY** | **Berane** | **0.60** | **132** | P | | **Pg** | **17** | **04** | **55.2** | **-0.9** |
| BEY | | | | *e*Sg | | **Sg** | **17** | **05** | **04.2** | **+0.2** |
| **IVA** | **Berane** | **0.60** | **132** | ⇑*i*Pg | | **Pg** | **17** | **04** | **55.2** | **-0.9** |
| IVA | | | | *e*Sg | | **Sg** | **17** | **05** | **04.2** | **+0.2** |
| **BRY** | **Bratogost** | **0.66** | **236** | ⇓*i*Pg | | **Pg** | **17** | **04** | **55.6** | **-1.6** |
| BRY | | | | *e*Sg | | **Sg** | **17** | **05** | **06.8** | **+0.9** |
| **BRY** | **Bratogost** | **0.66** | **236** | P | | **Pg** | **17** | **04** | **55.3** | **-1.9** |
| **BRY** | **Bratogost** | **0.66** | **236** | P | | **Pg** | **17** | **04** | **55.3** | **-1.9** |
| **BRY** | **Bratogost** | **0.66** | **236** | ⇓*i*Pg | | **Pg** | **17** | **04** | **55.6** | **-1.6** |
| BRY | | | | *e*Sg | | **Sg** | **17** | **05** | **06.8** | **+0.9** |
| **CEME** | **Cevo** | **0.78** | **200** | ⇓*i*Pg | | **Pg** | **17** | **04** | **57.5** | **-1.9** |
| CEME | | | | *e*Sg | | **Sb** | **17** | **05** | **10.6** | **-0.4** |
| **CEME** | **Cevo** | **0.78** | **200** | ⇓*i*Pg | | **Pg** | **17** | **04** | **57.5** | **-1.9** |
| CEME | | | | *e*Sg | | **Sb** | **17** | **05** | **10.6** | **-0.4** |
| **HAPS** | **Han Pijesak,Bl** | **0.84** | **343** | *e*Pg | | **Pg** | **17** | **04** | **58.7** | **-1.9** |
| HAPS | | | | *e*Sg | | **Sg** | **17** | **05** | **09.8** | **-1.8** |
| **HAPS** | **Han Pijesak,Bl** | **0.84** | **343** | *e*Pg | | **Pg** | **17** | **04** | **58.7** | **-1.9** |
| HAPS | | | | *e*Sg | | **Sg** | **17** | **05** | **09.8** | **-1.8** |
| **PVY** | **Plav** | **0.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| BLY | Banja Luka | 2.11 | 315 | *e*Pn | | Pn | 17 05 19.9 | -0.1 |
| ZAGS | Zajecar | 2.21 | 75 | ⇓*j*Pg | | Pn | 17 05 20.6 | -0.7 |
| ZAGS | Zajecar | 2.21 | 75 | ⇓*j*Pg | | Pn | 17 05 20.6 | -0.7 |
| MDVR | Moldovita | 2.31 | 49 | ⇑*j*P | | Pn | 17 05 21.9 | -0.8 |
| MDVR | Moldovita | 2.31 | 49 | ⇑*j*P | | Pn | 17 05 21.9 | -0.8 |
| MDVR | | | | S | | Sb | 17 05 53.6 | -1.3 |
| KRUS | Krusevo | 2.40 | 142 | ⇑*j*Pn | | Pn | 17 05 24.8 | +0.8 |
| KRUS | | | | *j*Pg | | Pb | 17 05 28.3 | +0.3 |
| KRUS | | | | *j*Sn | | Sb | 17 05 58.1 | +0.4 |
| MRAK | Mrakovica | 2.44 | 316 | *e*Pn | | Pn | 17 05 24.9 | +0.3 |
| MRAK | | | | *e*Sn | | Sn | 17 05 54.9 | +0.3 |
| OHR | Ohrid | 2.44 | 152 | P | | Pb | 17 05 26.6 | -2.0 |
| OHR | Ohrid | 2.44 | 152 | P | | Pb | 17 05 26.6 | -2.0 |
| OHR | Ohrid | 2.44 | 152 | ⇑*j*Pn | | Pb | 17 05 26.6 | -1.8 |
| OHR | | | | *j*Sn | | Sb | 17 06 00.5 | +1.7 |
| ZAPS | Zavoj | 2.45 | 89 | ⇑*j*Pg | | Pn | 17 05 25.3 | +0.7 |
| BANR | Banloc | 2.49 | 32 | ⇑*j*P | | Pn | 17 05 24.2 | -0.9 |
| BANR | Banloc | 2.49 | 32 | ⇑*j*P | | Pn | 17 05 24.2 | -0.9 |
| BANR | | | | S | | Sn | 17 05 56.8 | +1.2 |
| DJES | Djerdap | 2.72 | 58 | ⇓*j*Pn | | Pn | 17 05 28.0 | -0.3 |
| BIA | Bitola | 2.72 | 145 | P | | Pn | 17 05 29.6 | +1.2 |
| BIA | Bitola | 2.72 | 145 | *e*Pn | | Pn | 17 05 29.6 | +1.2 |
| BIA | | | | *e*Sn | | Sn | 17 05 55.3 | -6.2 |
| BIA | Bitola | 2.72 | 145 | P | | Pn | 17 05 29.6 | +1.2 |
| BIA | | | | S | | Sn | 17 05 55.3 | -6.2 |
| BIA | Bitola | 2.72 | 145 | ⇑*j*Pn | | Pn | 17 05 30.2 | +1.8 |
| BIA | | | | *e*Sn | | Sb | 17 06 08.6 | +1.7 |
| HERR | Herculane | 2.77 | 54 | ⇓*j*P | | Pn | 17 05 28.5 | -0.5 |
| BAI | Bari | 2.81 | 220 | *j*Pn | | Pn | 17 05 29.5 | -0.1 |
| BAI | | | | Sn | | Sn | 17 06 03.9 | +0.3 |
| TIM | Timisoara | 2.82 | 29 | ⇑*j*P | | Pn | 17 05 29.6 | -0.1 |
| TIM | Timisoara | 2.82 | 29 | P | | Pn | 17 05 29.6 | -0.1 |
| TIM | Timisoara | 2.82 | 29 | P | | Pn | 17 05 29.6 | -0.1 |
| UDBI | Udbina | 2.83 | 297 | *j*Pn | | Pn | 17 05 32.0 | +2.0 |
| UDBI | | | | Sn | | Sb | 17 06 09.8 | -0.3 |
| UDBI | Udbina | 2.83 | 297 | *j*Pn | | Pn | 17 05 32.0 | +2.0 |
| UDBI | | | | Sn | | Sb | 17 06 09.8 | -0.3 |
| FASA | Fasano | 2.85 | 211 | *j*Pn | | Pn | 17 05 30.2 | +0.1 |
| BZS | Buzias | 2.87 | 35 | *e*Pn | | Pn | 17 05 29.2 | -1.2 |
| BZS | Buzias | 2.87 | 35 | ⇓*j*P | | Pn | 17 05 29.2 | -1.2 |
| BZS | Buzias | 2.87 | 35 | ⇓*j*P | | Pn | 17 05 29.2 | -1.2 |
| BZS | | | | S | | Sn | 17 06 07.4 | +2.3 |
| KBN | Korca | 2.88 | 157 | P | | Pn | 17 05 33.2 | +2.6 |
| KBN | Korca | 2.88 | 157 | P | | Pn | 17 05 33.2 | +2.6 |
| MESG | Mesagne<br>3µm,0.8s | 2.89 | 202 | Pn | | Pn | 17 05 30.7 | 0.0 |
| MESG | Mesagne<br>3µm,0.8s | 2.89 | 202 | Pn | | Pn | 17 05 30.7 | 0.0 |
| MS1 | Monte Sant'Ang | 2.93 | 239 | *e*Pn | | Pn | 17 05 31.4 | +0.1 |
| MS1 | | | | Sn | | Sn | 17 06 06.5 | -0.2 |
| FNA | Florina | 2.94 | 147 | P | | Pn | 17 05 32.6 | +1.1 |
| FNA | Florina | 2.94 | 147 | P | | Pn | 17 05 32.6 | +1.1 |
| FNA | Florina | 2.94 | 147 | P | | Pn | 17 05 32.6 | +1.1 |
| FNA | Florina | 2.94 | 147 | P | | Pn | 17 05 32.6 | +1.1 |
| FNA | | | | S | | Sn | 17 06 01.3 | -5.7 |
| MSAG | Monte S. Angel<br>6µm,0.6s | 2.95 | 239 | Pn | | Pn | 17 05 31.5 | 0.0 |
| MSAG | Monte S. Angel<br>6µm,0.6s | 2.95 | 239 | Pn | | Pn | 17 05 31.5 | 0.0 |
| CGL1 | Ceglie Messapi | 2.95 | 208 | *j*Pn | | Pn | 17 05 31.5 | 0.0 |
| VTS | Vitosha | 2.96 | 102 | ⇑*j*Pg | | Pn | 17 05 34.3 | +2.5 |
| VTS | Vitosha | 2.96 | 102 | ⇑*j*P | | Pn | 17 05 31.9 | +0.1 |
| VTS | Vitosha | 2.96 | 102 | S | | Sn | 17 06 09.3 | +1.7 |
| VTS | Vitosha | 2.96 | 102 | *e*P | | Pn | 17 05 32.0 | +0.1 |
| VTS | Vitosha | 2.96 | 102 | *j*P | | Pn | 17 05 31.7 | -0.1 |
| VTS | Vitosha | 2.96 | 102 | P | | Pn | 17 05 32.0 | +0.1 |
| VTS | Vitosha | 2.96 | 102 | *e*Pn | | Pn | 17 05 31.9 | +0.1 |
| VTS | Vitosha | 2.96 | 102 | P | | Pn | 17 05 32.0 | +0.1 |
| VTS | | | | S | | Sn | 17 06 00.1 | -7.5 |
| NOCI | Noci<br>4µm,0.3s | 2.99 | 214 | ⇓*j*Pn | | Pn | 17 05 31.6 | -0.5 |
| NOCI | Noci<br>4µm,0.3s | 2.99 | 214 | ⇓*j*Pn | | Pn | 17 05 31.6 | -0.5 |
| SGRT | San Giovanni R<br>3µm,0.7s | 3.03 | 241 | Pn | | Pn | 17 05 32.7 | 0.0 |
| SGRT | San Giovanni R<br>3µm,0.7s | 3.03 | 241 | Pn | | Pn | 17 05 32.7 | 0.0 |
| MASS | Massafra | 3.09 | 212 | *e*Pn | | Pn | 17 05 33.4 | 0.0 |
| AMUR | Altamura<br>2µm,0.8s | 3.10 | 221 | Pn | | Pn | 17 05 33.1 | -0.5 |
| AMUR | Altamura<br>2µm,0.8s | 3.10 | 221 | Pn | | Pn | 17 05 33.1 | -0.5 |
| SG1 | Sgolgore (BA) | 3.12 | 219 | *e*Pn | | Pn | 17 05 33.7 | -0.1 |
| SG1 | | | | Sn | | Sn | 17 06 12.4 | +1.2 |
| VAY | Valandovo | 3.13 | 128 | *e*Pn | | Pn | 17 05 34.1 | +0.2 |
| VAY | Valandovo | 3.13 | 128 | *e*P | | Pn | 17 05 33.9 | 0.0 |
| VAY | Valandovo | 3.13 | 128 | *e*Pn | | Pn | 17 05 34.1 | +0.2 |
| VAY | Valandovo | 3.13 | 128 | *e*Pn | | Pn | 17 05 33.9 | 0.0 |
| VAY | Valandovo | 3.13 | 128 | P | | Pn | 17 05 33.9 | 0.0 |
| VAY | | | | S | | Sn | 17 06 03.3 | -8.1 |
| VAY | Valandovo | 3.13 | 128 | ⇑*j*Pn | | Pn | 17 05 33.9 | 0.0 |
| VAY | | | | *j*Pg | | Pb | 17 05 42.0 | +1.8 |
| VAY | | | | *e*Sn | | Sg | 17 06 25.2 | +0.4 |
| TAR1 | Taranto | 3.13 | 209 | *j*Pn | | Pn | 17 05 34.0 | 0.0 |
| TAR1 | | | | Sn | | Sn | 17 06 12.7 | +1.2 |
| CDT | Castel del Mon | 3.13 | 227 | *j*Pn | | Pn | 17 05 33.9 | -0.2 |
| CDT | | | | Sn | | Sn | 17 06 11.3 | -0.4 |
| KKB | Krupnik | 3.14 | 115 | *j*P | | Pn | 17 05 34.9 | +0.7 |
| SRE | Strehaia | 3.15 | 63 | ⇓*j*P | | Pn | 17 05 34.6 | +0.3 |
| SRE | Strehaia | 3.15 | 63 | S | | Sn | 17 06 15.1 | +3.1 |
| SRE | Strehaia | 3.15 | 63 | ⇓*j*P | | Pn | 17 05 34.6 | +0.3 |
| NEST | Nestorio | 3.15 | 155 | P | | Pn | 17 05 36.5 | +2.1 |
| NEST | Nestorio | 3.15 | 155 | P | | Pn | 17 05 36.5 | +2.1 |
| MRVN | Minervino Murg<br>1µm,0.7s | 3.19 | 227 | ⇓*j*Pn | | Pn | 17 05 34.8 | -0.1 |
| MRVN | Minervino Murg<br>1µm,0.7s | 3.19 | 227 | ⇓*j*Pn | | Pn | 17 05 34.8 | -0.1 |
| MATE | Matera<br>2µm,0.6s | 3.26 | 217 | ⇓*j*Pn | | Pn | 17 05 35.3 | -0.4 |
| MATE | Matera<br>2µm,0.6s | 3.26 | 217 | ⇓*j*Pn | | Pn | 17 05 35.3 | -0.4 |
| SCTE | Santa Cesarea<br>581nm,0.6s | 3.26 | 191 | Pn | | Pn | 17 05 35.4 | -0.4 |
| SCTE | Santa Cesarea<br>581nm,0.6s | 3.26 | 191 | Pn | | Pn | 17 05 35.4 | -0.4 |
| GRG | Griva | 3.28 | 134 | *e*P | | Pn | 17 05 36.6 | +0.5 |
| GRG | Griva | 3.28 | 134 | P | | Pn | 17 05 36.6 | +0.5 |
| GRG | Griva | 3.28 | 134 | *e*Pn | | Pn | 17 05 36.6 | +0.5 |
| GRG | Griva | 3.28 | 134 | P | | Pn | 17 05 36.6 | +0.5 |
| PALZ | Palazzo San Ge<br>7µm,0.9s | 3.40 | 228 | Pn | | Pn | 17 05 37.8 | +0.1 |
| PALZ | Palazzo San Ge<br>7µm,0.9s | 3.40 | 228 | Pn | | Pn | 17 05 37.8 | +0.1 |
| MIGL | Miglionico<br>10µm,1.1s | 3.41 | 219 | Pn | | Pn | 17 05 37.8 | -0.1 |
| MIGL | Miglionico<br>10µm,1.1s | 3.41 | 219 | Pn | | Pn | 17 05 37.8 | -0.1 |
| KNT | Kendrikon | 3.42 | 127 | P | | Pn | 17 05 38.1 | +0.1 |
| KNT | | | | S | | Sn | 17 06 10.4 | -8.2 |
| KNT | Kendrikon | 3.42 | 127 | P | | Pn | 17 05 38.1 | +0.1 |
| KNT | Kendrikon | 3.42 | 127 | P | | Pn | 17 05 38.1 | +0.1 |
| KNT | | | | S | | Sn | 17 06 10.4 | -8.2 |
| KNT | Kendrikon | 3.42 | 127 | P | | Pn | 17 05 38.1 | +0.1 |
| KNT | | | | S | | Sn | 17 06 10.4 | -8.2 |
| CRAR | CRAIOVA | 3.43 | 71 | ⇑*j*P | | Pn | 17 05 37.4 | -0.7 |
| SIRR | Siria | 3.43 | 29 | ⇑*j*P | | Pn | 17 05 37.1 | -1.1 |
| SIRR | Siria | 3.43 | 29 | ⇑*j*P | | Pn | 17 05 37.1 | -1.1 |
| NVLJ | Novalja | 3.44 | 293 | *e*Pn | | Pn | 17 05 39.5 | +1.4 |
| NVLJ | | | | Sn | | Sb | 17 06 23.5 | -3.8 |
| NVLJ | Novalja | 3.44 | 293 | *e*Pn | | Pn | 17 05 39.5 | +1.4 |
| NVLJ | | | | Sn | | Sb | 17 06 23.5 | -3.8 |
| MELA | Melanico ??? S<br>5µm,0.7s | 3.45 | 244 | Pn | | Pn | 17 05 38.7 | +0.3 |
| MELA | Melanico ??? S<br>5µm,0.7s | 3.45 | 244 | Pn | | Pn | 17 05 38.7 | +0.3 |
| ZAG | Zagreb | 3.47 | 318 | *e*Pn | | Pn | 17 05 39.1 | +0.5 |
| ZAG | | | | *e*Sn | | Sn | 17 06 20.3 | +0.4 |
| ACER | Acerenza<br>4µm,0.7s | 3.52 | 226 | ⇓*j*Pn | | Pn | 17 05 39.5 | +0.1 |
| ACER | Acerenza<br>4µm,0.7s | 3.52 | 226 | ⇓*j*Pn | | Pn | 17 05 39.5 | +0.1 |
| VULT | Monte Vulture<br>4µm,0.9s | 3.58 | 231 | Pn | | Pn | 17 05 40.1 | -0.2 |
| VULT | Monte Vulture<br>4µm,0.9s | 3.58 | 231 | Pn | | Pn | 17 05 40.1 | -0.2 |
| SGTA | Sant Agata di<br>2µm,0.8s | 3.62 | 235 | Pn | | Pn | 17 05 42.1 | +1.4 |
| SGTA | Sant Agata di<br>2µm,0.8s | 3.62 | 235 | Pn | | Pn | 17 05 42.1 | +1.4 |
| CIGN | Sant'Elia a Pi<br>7µm,2.2s | 3.62 | 245 | Pn | | Pn | 17 05 41.5 | +0.7 |
| CIGN | Sant'Elia a Pi | 3.62 | 245 | Pn | | Pn | 17 05 41.5 | +0.7 |
| BOJS | Bojanci | 3.65 | 309 | *j*Pn | | Pn | 17 05 41.5 | +0.4 |
| BOJS | Bojanci | 3.65 | 309 | *j*Pn | | Pn | 17 05 41.5 | +0.4 |
| FRES | Fresagrandinar<br>9µm,1.3s | 3.65 | 251 | Pn | | Pn | 17 05 41.9 | +0.8 |
| FRES | Fresagrandinar<br>9µm,1.3s | 3.65 | 251 | Pn | | Pn | 17 05 41.9 | +0.8 |
| BEHE | Becsehely | 3.65 | 332 | ⇓*e*pPn | | Pn | 17 05 41.2 | 0.0 |
| BEHE | | | | *e*x | | x | 17 06 45.6 | |
| BEHE | Becsehely | 3.65 | 332 | ⇑*j*Pn | | Pn | 17 05 41.1 | -0.1 |
| BEHE | | | | *e*Sn | | Sn | 17 06 23.9 | -0.5 |
| PGB | Panagyurishte | 3.66 | 100 | *j*P | | Pn | 17 05 42.1 | +0.8 |
| DEV | Deva | 3.67 | 44 | ⇑*j*P | | Pn | 17 05 41.7 | +0.3 |
| DEV | Deva | 3.67 | 44 | ⇑*j*P | | Pn | 17 05 41.7 | +0.3 |
| KPRO | Kipourio | 3.67 | 154 | P | | Pn | 17 05 43.6 | +2.1 |
| KPRO | Kipourio | 3.67 | 154 | P | | Pn | 17 05 43.6 | +2.1 |
| PZUN | Potenza<br>3µm,1.1s | 3.69 | 226 | Pn | | Pn | 17 05 42.3 | +0.6 |
| PZUN | Potenza<br>3µm,1.1s | 3.69 | 226 | Pn | | Pn | 17 05 42.3 | +0.6 |
| MMB | Musomiste | 3.70 | 116 | *j*P | | Pn | 17 05 43.3 | +1.5 |
| SGD | Sagiada | 3.73 | 169 | P | | Pn | 17 05 43.6 | +1.3 |
| SGD | Sagiada | 3.73 | 169 | P | | Pn | 17 05 43.6 | +1.3 |
| CRES | Cresnjev | 3.74 | 314 | ⇑*j*Pn | | Pn | 17 05 42.3 | 0.0 |
| CRES | | | | *e*Sn | | Sn | 17 06 26.2 | -0.3 |
| CAFE | Carife<br>4µm,1.1s | 3.76 | 235 | Pn | | Pn | 17 05 43.0 | +0.3 |
| CAFE | Carife<br>4µm,1.1s | 3.76 | 235 | Pn | | Pn | 17 05 43.0 | +0.3 |
| MRLC | Muro Lucano<br>2µm,0.9s | 3.79 | 230 | ⇓*j*Pn | | Pn | 17 05 43.0 | -0.1 |
| MRLC | Muro Lucano<br>2µm,0.9s | 3.79 | 230 | ⇓*j*Pn | | Pn | 17 05 43.0 | -0.1 |
| THE | Thessaloniki | 3.81 | 133 | *e*P | | Pn | 17 05 43.6 | +0.3 |
| THE | Thessaloniki | 3.81 | 133 | P | | Pn | 17 05 43.6 | +0.3 |
| THE | Thessaloniki | 3.81 | 133 | *e*Pn | | Pn | 17 05 43.6 | +0.3 |
| THE | Thessaloniki | 3.81 | 133 | P | | Pn | 17 05 43.6 | +0.3 |
| TRIV | Trivento<br>2µm,0.8s | 3.81 | 248 | Pn | | Pn | 17 05 44.4 | +1.0 |
| TRIV | Trivento<br>2µm,0.8s | 3.81 | 248 | Pn | | Pn | 17 05 44.4 | +1.0 |
| SNAL | S. Angelo Dei<br>4µm,1.1s | 3.84 | 234 | Pn | | Pn | 17 05 44.3 | +0.5 |
| SNAL | S. Angelo Dei<br>4µm,1.1s | 3.84 | 234 | Pn | | Pn | 17 05 44.3 | +0.5 |
| ORI | Oriolo Calabro<br>1µm,0.6s | 3.85 | 214 | Pn | | Pn | 17 05 43.9 | 0.0 |
| ORI | Oriolo Calabro<br>1µm,0.6s | 3.85 | 214 | Pn | | Pn | 17 05 43.9 | 0.0 |
| MRB1 | Monte Rocchett<br>2µm,0.6s | 3.86 | 238 | Pn | | Pn | 17 05 45.0 | +1.0 |
| MRB1 | Monte Rocchett<br>2µm,0.6s | 3.86 | 238 | Pn | | Pn | 17 05 45.0 | +1.0 |
| SRS | Serrai | 3.86 | 123 | *e*P | | Pn | 17 05 44.1 | 0.0 |
| SRS | Serrai | 3.86 | 123 | P | | Pn | 17 05 44.1 | 0.0 |
| SRS | Serrai | 3.86 | 123 | *e*Pn | | Pn | 17 05 44.1 | 0.0 |
| SRS | Serrai | 3.86 | 123 | P | | Pn | 17 05 44.1 | 0.0 |
| LOT | Lotru | 3.88 | 54 | ⇑*j*P | | Pn | 17 05 44.4 | 0.0 |
| LOT | Lotru | 3.88 | 54 | ⇑*j*P | | Pn | 17 05 44.4 | 0.0 |
| LOT | | | | S | | Sn | 17 06 32.5 | +2.4 |
| SACR | S. Croce Del S<br>2µm,1.1s | 3.88 | 243 | Pn | | Pn | 17 05 45.9 | +1.5 |
| SACR | S. Croce Del S<br>2µm,1.1s | 3.88 | 243 | Pn | | Pn | 17 05 45.9 | +1.5 |
| BSSO | Busso<br>2µm,0.9s | 3.88 | 245 | Pn | | Pn | 17 05 45.9 | +1.5 |
| BSSO | Busso<br>2µm,0.9s | 3.88 | 245 | Pn | | Pn | 17 05 45.9 | +1.5 |
| SOH | Sokhos | 3.90 | 128 | *e*P | | Pn | 17 05 44.6 | 0.0 |
| SOH | Sokhos | 3.90 | 128 | P | | Pn | 17 05 44.6 | 0.0 |
| SOH | Sokhos | 3.90 | 128 | *e*Pn | | Pn | 17 05 44.6 | 0.0 |
| SOH | Sokhos | 3.90 | 128 | P | | Pn | 17 05 44.6 | 0.0 |
| SCHR | S. Chirico Rap<br>576nm,0.7s | 3.90 | 219 | Pn | | Pn | 17 05 44.6 | -0.1 |
| PSB1 | Pescosannita<br>2µm,0.9s | 3.91 | 240 | Pn | | Pn | 17 05 45.6 | +0.9 |
| PSB1 | Pescosannita<br>2µm,0.9s | 3.91 | 240 | Pn | | Pn | 17 05 45.6 | +0.9 |
| HORT | Hortiatis | 3.91 | 132 | P | | Pn | 17 05 44.8 | 0.0 |
| HORT | Hortiatis | 3.91 | 132 | P | | Pn | 17 05 44.8 | 0.0 |
| HORT | Hortiatis | 3.91 | 132 | P | | Pn | 17 05 44.8 | 0.0 |
| GUMA | Gualdo di Mace<br>2µm,0.6s | 3.92 | 269 | Pn | | Pb | 17 05 51.9 | -1.8 |
| MCEL | Monticello<br>1µm,0.6s | 3.94 | 223 | Pn | | Pn | 17 05 45.0 | -0.2 |
| MCEL | Monticello<br>1µm,0.6s | 3.94 | 223 | Pn | | Pn | 17 05 45.0 | -0.2 |
| MCRV | Calabrutti - M<br>897nm,0.7s | 3.95 | 232 | Pn | | Pn | 17 05 45.7 | +0.3 |
| MCRV | Calabrutti - M<br>897nm,0.7s | 3.95 | 232 | Pn | | Pn | 17 05 45.7 | +0.3 |
| LIT | Litokhoron | 3.98 | 142 | *e*P | | Pn | 17 05 46.2 | +0.5 |
| LIT | Litokhoron | 3.98 | 142 | P | | Pn | 17 05 46.2 | +0.5 |
| LIT | Litokhoron | 3.98 | 142 | *e*Pn | | Pn | 17 05 46.2 | +0.5 |
| LIT | Litokhoron | 3.98 | 142 | P | | Pn | 17 05 46.2 | +0.5 |
| MTSN | Montesano sull<br>638nm,0.5s | 4.01 | 222 | Pn | | Pn | 17 05 45.5 | -0.6 |
| MTSN | Montesano sull<br>638nm,0.5s | 4.01 | 222 | Pn | | Pn | 17 05 45.5 | -0.6 |
| PTRJ | Pietraroja | 4.01 | 243 | Pn | | Pn | 17 05 46.8 | +0.6 |
| PTRJ | Pietraroja | 4.01 | 243 | Pn | | Pn | 17 05 46.8 | +0.6 |
| SIRI | Monte Sirino -<br>768nm,0.4s | 4.01 | 221 | Pn | | Pn | 17 05 46.3 | +0.1 |
| SIRI | Monte Sirino -<br>768nm,0.4s | 4.01 | 221 | Pn | | Pn | 17 05 46.3 | +0.1 |
| SALB | San Lorenzo Be<br>655nm,0.4s | 4.05 | 214 | Pn | | Pn | 17 05 46.2 | -0.6 |
| SALB | San Lorenzo Be<br>655nm,0.4s | 4.05 | 214 | Pn | | Pn | 17 05 46.2 | -0.6 |
| VISS | Visnje | 4.06 | 310 | *j*Pn | | Pn | 17 05 47.1 | +0.4 |
| VISS | Visnje | 4.06 | 310 | *j*Pn | | Pn | 17 05 47.1 | +0.4 |
| MIDA | Miranda<br>1µm,0.6s | 4.07 | 248 | Pn | | Pn | 17 05 47.5 | +0.6 |
| MIDA | Miranda<br>1µm,0.6s | 4.07 | 248 | Pn | | Pn | 17 05 47.5 | +0.6 |
| CDRU | Civita di Ruta<br>666nm,0.7s | 4.07 | 228 | Pn | | Pn | 17 05 47.0 | -0.1 |
| CDRU | Civita di Ruta<br>666nm,0.7s | 4.07 | 228 | Pn | | Pn | 17 05 47.0 | -0.1 |
| SGG | Gregorio Mates<br>2µm,0.6s | 4.10 | 244 | Pn | | Pn | 17 05 48.6 | +1.2 |
| SGG | Gregorio Mates<br>2µm,0.6s | 4.10 | 244 | Pn | | Pn | 17 05 48.6 | +1.2 |
| VCEL | Villa Celiera<br>2µm,1.0s | 4.10 | 259 | Pn | | Pn | 17 05 48.2 | +0.8 |
| VCEL | Villa Celiera<br>2µm,1.0s | 4.10 | 259 | Pn | | Pn | 17 05 48.2 | +0.8 |
| RNI2 | Rionero Sannit<br>2µm,0.9s | 4.11 | 249 | Pn | | Pn | 17 05 49.0 | +1.5 |
| RNI2 | Rionero Sannit<br>2µm,0.9s | 4.11 | 249 | Pn | | Pn | 17 05 49.0 | +1.5 |
| OFFI | Offida<br>4µm,0.8s | 4.11 | 267 | Pn | | Pn | 17 05 49.7 | +2.2 |
| OFFI | Offida<br>4µm,0.8s | 4.11 | 267 | Pn | | Pn | 17 05 49.7 | +2.2 |
| T0711 | Rotonda (PZ)<br>857nm,0.5s | 4.12 | 217 | Pn | | Pn | 17 05 47.8 | +0.1 |
| CSKK | Cs˙‡kako | 4.15 | 350 | ⇑*e*pPn | | Pn | 17 05 47.9 | -0.1 |
| CSKK | | | | *e*x | | x | 17 06 38.3 | |
| CSKK | Cs˙‡kako | 4.15 | 350 | ⇑*e*Pn | | Pn | 17 05 47.9 | -0.1 |
| CSKK | | | | *e*Sn | | Sn | 17 06 38.3 | +1.7 |
| AOI | Ancona<br>2µm,1.2s | 4.15 | 276 | Pn | | Pn | 17 05 48.8 | +0.8 |
| AOI | Ancona<br>2µm,1.2s | 4.15 | 276 | Pn | | Pn | 17 05 48.8 | +0.8 |
| PLD | Plovdiv | 4.16 | 105 | *j*P | | Pn | 17 05 48.5 | +0.3 |
| PAOL | Paolisi<br>619nm,0.7s | 4.16 | 239 | Pn | | Pn | 17 05 49.0 | +0.7 |
| PAOL | Paolisi<br>619nm,0.7s | 4.16 | 239 | Pn | | Pn | 17 05 49.0 | +0.7 |
| INTR | Introdacqua<br>4µm,0.9s | 4.17 | 254 | Pn | | Pn | 17 05 49.0 | +0.7 |
| INTR | Introdacqua<br>4µm,0.9s | 4.17 | 254 | Pn | | Pn | 17 05 49.0 | +0.7 |
| CUC | Castrocucco<br>619nm,0.7s | 4.19 | 220 | Pn | | Pn | 17 05 49.1 | +0.5 |
| CUC | Castrocucco<br>619nm,0.7s | 4.19 | 220 | Pn | | Pn | 17 05 49.1 | +0.5 |
| CUC | Castrocucco<br>619nm,0.7s | 4.19 | 220 | *e*Pn | | Pn | 17 05 49.1 | +0.5 |
| CMPR | Campora<br>971nm,0.8s | 4.20 | 226 | Pn | | Pn | 17 05 48.5 | -0.2 |
| CMPR | Campora<br>971nm,0.8s | 4.20 | 226 | Pn | | Pn | 17 05 48.5 | -0.2 |
| MGR | Morigerati<br>478nm,0.4s | 4.20 | 223 | Pn | | Pn | 17 05 48.8 | +0.1 |
| MGR | Morigerati | 4.20 | 223 | Pn | | Pn | 17 05 48.8 | +0.1 |
| BUD | Budapest<br>478nm,0.4s | 4.21 | 358 | ⇑*e*Pn | | Pn | 17 05 48.1 | -0.7 |
| BUD | | | | *e*x | | x | 17 06 59.4 | |
| BUD | Budapest | 4.21 | 358 | ⇑*e*Pn | | Pn | 17 05 48.1 | -0.7 |
| TERO | Teramo<br>1µm,0.9s | 4.22 | 263 | Pn | | Pn | 17 05 50.0 | +1.0 |
| TERO | Teramo<br>1µm,0.9s | 4.22 | 263 | Pn | | Pn | 17 05 50.0 | +1.0 |
| PIPA | Pietrapaola<br>1µm,0.4s | 4.22 | 207 | Pn | | Pn | 17 05 48.9 | -0.1 |
| PIPA | Pietrapaola<br>1µm,0.4s | 4.22 | 207 | Pn | | Pn | 17 05 48.9 | -0.1 |
| CEY | Cerknica<br>959nm,0.7s | 4.26 | 307 | ⇑*j*Pn | | Pn | 17 05 50.0 | +0.5 |
| CEY | | | | *e*Sn | | Sn | 17 06 38.1 | -1.2 |
| DRGR | | 4.27 | 33 | ⇓*j*P | | Pn | 17 05 48.5 | -1.2 |
| DRGR | | 4.27 | 33 | ⇓*j*P | | Pn | 17 05 48.5 | -1.2 |
| T0712 | Santa Domenica<br>456nm,0.6s | 4.31 | 218 | Pn | | Pn | 17 05 50.8 | +0.6 |
| RZN | Rozhen | 4.32 | 110 | *j*P | | Pn | 17 05 50.7 | +0.2 |
| BULG | Bulgheria - Ca<br>959nm,0.7s | 4.33 | 224 | Pn | | Pn | 17 05 51.1 | +0.5 |
| BULG | Bulgheria - Ca<br>959nm,0.7s | 4.33 | 224 | Pn | | Pn | 17 05 51.1 | +0.5 |
| DSL | Palaion Diasel | 4.36 | 161 | P | | Pn | 17 05 53.3 | +2.3 |
| DSL | Palaion Diasel | 4.36 | 161 | *e*Pn | | Pn | 17 05 53.3 | +2.3 |
| DSL | Palaion Diasel | 4.36 | 161 | P | | Pn | 17 05 53.3 | +2.3 |
| ARR | Arges | 4.37 | 60 | ⇑*j*P | | Pn | 17 05 51.5 | +0.4 |
| ARR | Arges | 4.37 | 60 | ⇑*j*P | | Pn | 17 05 51.5 | +0.4 |
| LJU | Ljubljana | 4.38 | 311 | *e*Pn | | Pn | 17 05 51.5 | +0.4 |
| LJU | Ljubljana | 4.38 | 311 | *e*Pn | | Pn | 17 05 51.1 | 0.0 |
| LJU | | | | *e*Sn | | Sn | 17 06 42.0 | -0.2 |
| CAMP | Campotosto<br>729nm,0.6s | 4.38 | 262 | Pn | | Pn | 17 05 52.0 | +0.7 |
| CAMP | Campotosto<br>729nm,0.6s | 4.38 | 262 | Pn | | Pn | 17 05 52.0 | +0.7 |
| CELI | Celico<br>605nm,0.8s | 4.40 | 209 | Pn | | Pn | 17 05 51.5 | -0.1 |
| CELI | Celico<br>605nm,0.8s | 4.40 | 209 | Pn | | Pn | 17 05 51.5 | -0.1 |
| SMA1 | SAN MARTINO<br>2µm,0.6s | 4.41 | 264 | Pn | | Pn | 17 05 52.7 | +1.0 |
| SMA1 | SAN MARTINO<br>2µm,0.6s | 4.41 | 264 | Pn | | Pn | 17 05 52.7 | +1.0 |
| PVL | Pavlikeni | 4.42 | 89 | *j*P | | Pn | 17 05 50.4 | -1.3 |
| AQU | L'Aquila | 4.42 | 260 | *e*P | | Pn | 17 05 53.2 | +1.3 |
| AQU | L'Aquila | 4.42 | 260 | *e*Pn | | Pn | 17 05 52.4 | +0.6 |
| AQU | L'Aquila | 4.42 | 260 | *e*P | | Pn | 17 05 53.2 | +1.3 |
| AQU | | | | *e*Sn | | Sn | 17 06 42.7 | -0.8 |
| AQU | L'Aquila | 4.42 | 260 | *e*Pn | | Pn | 17 05 53.2 | +1.3 |
| ZIMR | | 4.44 | 83 | ⇓*j*P | | Pn | 17 05 52.4 | +0.4 |
| ZIMR | | 4.44 | 83 | ⇓*j*P | | Pn | 17 05 52.4 | +0.4 |
| CING | Cingoli<br>930nm,0.9s | 4.44 | 273 | Pn | | Pn | 17 05 52.8 | +0.7 |
| CING | Cingoli<br>930nm,0.9s | 4.44 | 273 | Pn | | Pn | 17 05 52.8 | +0.7 |
| PERS | Pernice | 4.47 | 320 | *j*Pn | | Pn | 17 05 52.1 | -0.4 |
| PERS | Pernice | 4.47 | 320 | *j*Pn | | Pn | 17 05 52.1 | -0.4 |
| KAVA | Kavala | 4.51 | 119 | P | | Pn | 17 05 53.1 | +0.2 |
| KAVA | Kavala | 4.51 | 119 | *e*Pn | | Pn | 17 05 53.1 | +0.2 |
| KAVA | Kavala | 4.51 | 119 | P | | Pn | 17 05 53.1 | +0.2 |
| PTQR | Pietraquaria | 4.52 | 256 | Pn | | Pn | 17 05 55.4 | +2.3 |
| PTQR | Pietraquaria | 4.52 | 256 | Pn | | Pn | 17 05 55.4 | +2.3 |
| FDMO | Fiordimonte<br>691nm,0.8s | 4.54 | 269 | Pn | | Pn | 17 05 54.2 | +0.8 |
| FDMO | Fiordimonte<br>691nm,0.8s | 4.54 | 269 | Pn | | Pn | 17 05 54.2 | +0.8 |
| SOKA | Soboth<br>70nm,0.4s,SNR=76 | 4.54 | 320 | *j*Pn | | Pn | 17 05 53.1 | -0.4 |
| SOKA | Soboth<br>70nm,0.4s,SNR=76 | 4.54 | 320 | Pn | | Pn | 17 05 53.1 | -0.4 |
| MODR | Mondragone<br>864nm,0.6s | 4.55 | 244 | Pn | | Pn | 17 05 54.5 | +1.0 |
| MODR | Mondragone<br>864nm,0.6s | 4.55 | 244 | Pn | | Pn | 17 05 54.5 | +1.0 |
| JAVS | Javornik | 4.55 | 307 | *j*Pn | | Pn | 17 05 54.0 | +0.4 |
| JAVS | Javornik | 4.55 | 307 | *j*Pn | | Pn | 17 05 54.0 | +0.4 |
| OUR | Ouranopolis | 4.58 | 128 | *e*P | | Pn | 17 05 54.2 | +0.3 |
| OUR | Ouranopolis | 4.58 | 128 | P | | Pn | 17 05 54.2 | +0.3 |
| OUR | Ouranopolis | 4.58 | 128 | *e*Pn | | Pn | 17 05 54.2 | +0.3 |
| OUR | Ouranopolis | 4.58 | 128 | P | | Pn | 17 05 54.2 | +0.3 |
| MTUR | Matau | 4.58 | 63 | ⇑*j*P | | Pn | 17 05 54.7 | +0.6 |
| MTUR | Matau | 4.58 | 63 | ⇑*j*P | | Pn | 17 05 54.7 | +0.6 |
| SRO | Srobarova | 4.58 | 352 | *e*P | | Pn | 17 05 54.8 | +0.9 |
| SRO | | | | *e* | | | 17 06 47.0 | |
| SRO | Srobarova | 4.58 | 352 | *e*P | | Pn | 17 05 54.8 | +0.9 |
| SRO | | | | *e*S | | Sn | 17 06 47.0 | -0.3 |
| SRO | Srobarova | 4.58 | 352 | *e*PN | | Pn | 17 05 54.8 | +0.9 |
| SRO | | | | *e*SN | | Sn | 17 06 47.0 | -0.3 |
| CJR | Cluj-Napoca | 4.60 | 40 | ⇑*j*P | | Pn | 17 05 53.8 | -0.4 |
| CJR | Cluj-Napoca | 4.60 | 40 | ⇑*j*P | | Pn | 17 05 53.8 | -0.4 |
| ARVD | Arcevia<br>440nm,0.8s | 4.63 | 275 | Pn | | Pn | 17 05 55.2 | +0.6 |
| ARVD | Arcev

SOP *e*Sn **Sn** 17 06 51.1 -1.6
**AGG Agios Georgios** 4.83 151 *e*P **Pn** 17 05 58.2 +0.7
**AGG Agios Georgios** 4.83 151 P **Pn** 17 05 58.2 +0.7
**AGG Agios Georgios** 4.83 151 *e*Pn **Pn** 17 05 58.2 +0.7
**AGG Agios Georgios** 4.83 151 P **Pn** 17 05 58.2 +0.7
**CERT Cerreto** 4.84 256 Pn **Pn** 17 05 59.0 +1.5
497nm,0.6s
**CERT Cerreto** 4.84 256 Pn **Pn** 17 05 59.0 +1.5
497nm,0.6s
**XOR Xorichti** 4.89 142 P **Pn** 17 05 58.3 0.0
**XOR Xorichti** 4.89 142 P **Pn** 17 05 58.3 0.0
**XOR Xorichti** 4.89 142 P **Pn** 17 05 58.3 0.0
**PIEI Pieia** 4.92 275 Pn **Pn** 17 05 59.4 +0.7
427nm,1.0s
**PIEI Pieia** 4.92 275 Pn **Pn** 17 05 59.4 +0.7
427nm,1.0s
**MURB Monte Urbino** 4.94 272 Pn **Pn** 17 05 59.9 +1.0
1µm,0.4s
**MURB Monte Urbino** 4.94 272 Pn **Pn** 17 05 59.9 +1.0
1µm,0.4s
**SGRR Singureni** 4.94 77⇑ *i*P **Pn** 17 05 59.0 +0.2
**SGRR Singureni** 4.94 77⇑ *i*P **Pn** 17 05 59.0 +0.2
**GRI Girifalco** 4.95 207 Pn **Pn** 17 05 59.5 +0.4
684nm,0.6s
**GRI Girifalco** 4.95 207 Pn **Pn** 17 05 59.5 +0.4
684nm,0.6s
**CESX Cesi** 4.97 265 Pn **Pn** 17 06 00.4 +1.2
994nm,0.7s
**CESX Cesi** 4.97 265 Pn **Pn** 17 06 00.4 +1.2
994nm,0.7s
**ATPC Poggio Castell** 4.98 275 Pn **Pn** 17 06 00.3 +0.8
1µm,0.7s
**ATPC Poggio Castell** 4.98 275 Pn **Pn** 17 06 00.3 +0.8
1µm,0.7s
**ATVO AVT- Monte Val** 5.02 274 Pn **Pn** 17 06 00.8 +0.8
790nm,0.8s
**ATVO AVT- Monte Val** 5.02 274 Pn **Pn** 17 06 00.8 +0.8
790nm,0.8s
**ANX Ano Chora** 5.09 156 P **Pn** 17 06 02.8 +1.8
**ANX Ano Chora** 5.09 156 P **Pn** 17 06 02.8 +1.8
ANX S **Sn** 17 06 53.0 -7.0
**DOPR Dopca** 5.12 56⇑ *i*P **Pn** 17 06 01.8 +0.5
**DOPR Dopca** 5.12 56⇑ *i*P **Pn** 17 06 01.8 +0.5
DOPR S **Sn** 17 07 02.3 +1.7
**PARC Parchiule** 5.14 277 Pn **Pn** 17 06 02.7 +1.0
495nm,0.7s
**PARC Parchiule** 5.14 277 Pn **Pn** 17 06 02.7 +1.0
495nm,0.7s
**ZST Bratislava** 5.15 344 *e*P **Pn** 17 06 01.2 -0.5
ZST *e* 17 06 55.7
**ZST Bratislava** 5.15 344 *e*P **Pn** 17 06 01.2 -0.5
**ZST Bratislava** 5.15 344 *e*PN **Pn** 17 06 01.2 -0.5
ZST *e*SN **Sn** 17 06 55.7 -5.5
**SKIA Skiathos** 5.18 141 P **Pn** 17 06 02.2 0.0
**SKIA Skiathos** 5.18 141 P **Pn** 17 06 02.2 0.0
**SECR** 5.19 68⇑ *i*P **Pn** 17 06 03.3 +1.0
**SECR** 5.19 68⇑ *i*P **Pn** 17 06 03.3 +1.0
**VINO Villanova** 5.21 307 Pn **Pn** 17 06 03.2 +0.6
352nm,0.9s
**VINO Villanova** 5.21 307 Pn **Pn** 17 06 03.2 +0.6
352nm,0.9s
**MYKA Terra Mystica** 5.22 312 *i* Pn **Pn** 17 06 03.4 +0.6
25nm,0.4s,SNR=16
**MYKA Terra Mystica** 5.22 312 Pn **Pn** 17 06 03.4 +0.6
25nm,0.4s,SNR=16
**SULR** 5.22 72⇓ *i*P **Pn** 17 06 03.7 +1.0
**SULR** 5.22 72⇓ *i*P **Pn** 17 06 03.7 +1.0
**VYHS Vyhne** 5.22 357 *e*P **Pn** 17 06 02.3 -0.5
VYHS *e* 17 06 58.7
**VYHS Vyhne** 5.22 357 *e*P **Pn** 17 06 02.3 -0.5
VYHS *e*S **Sn** 17 06 58.7 -4.5
**VYHS Vyhne** 5.22 357 *e*PN **Pn** 17 06 02.3 -0.5
VYHS *e*SN **Sn** 17 06 58.7 -4.5
**ARCR ARCALIA** 5.23 42⇓ *i*P **Pn** 17 06 02.3 -0.5
**ARCR ARCALIA** 5.23 42⇓ *i*P **Pn** 17 06 02.3 -0.5
**CONA Conrad Observa** 5.23 334 *i* Pn **Pn** 17 06 02.7 -0.3
8.7nm,0.4s
CONA *i* Sn **Sn** 17 07 05.3 +1.8
87nm,0.6s
**CONA Conrad Observa** 5.23 334 Pn **Pn** 17 06 02.7 -0.3
8.7nm,0.4s
CONA Sn **Sn** 17 07 05.3 +1.8
87nm,0.6s
**PTCC Patocco-Chiusa** 5.25 309 Pn **Pn** 17 06 03.7 +0.6
174nm,0.7s
**PTCC Patocco-Chiusa** 5.25 309 Pn **Pn** 17 06 03.7 +0.6
174nm,0.7s
**MLR Muntele Rosu** 5.26 63 Pn **Pn** 17 06 04.1 +0.7
baz=262,slow=7.1
MLR Sn **Sn** 17 07 06.2 +2.0
1.7nm,0.3s,baz=288,slow=20,SNR=5.7
MLR Lg Lg 17 07 27.8
1.7nm,0.3s,baz=231,slow=14,SNR=3.7
MLR LR LR 17 08 22.2
comp=Z,263nm,19.0s,baz=261,slow=41
**MLR Muntele Rosu** 5.26 63⇑ *i*P **Pn** 17 06 04.6 +1.2
**MLR Muntele Rosu** 5.26 63 *e*P **Pn** 17 06 04.5 +1.2
MLR *e* 17 07 06.2
**MLR Muntele Rosu** 5.26 63 *e*P **Pn** 17 06 04.5 +1.2
MLR *e*S **Sn** 17 07 06.2 +2.0
**MLR Muntele Rosu** 5.26 63 *e*PN **Pn** 17 06 04.5 +1.1
MLR *e*SN **Sn** 17 07 06.2 +2.0
**MGAB Montegabbione** 5.26 268 Pn **Pn** 17 06 04.4 +1.0
820nm,0.8s
**MGAB Montegabbione** 5.26 268 Pn **Pn** 17 06 04.4 +1.0
820nm,0.8s
**KECS Kecovo** 5.27 9 *e*P **Pn** 17 06 03.6 +0.2
**KECS Kecovo** 5.27 9 *e*P **Pn** 17 06 03.6 +0.2
**KECS Kecovo** 5.27 9 *e*PN **Pn** 17 06 03.6 +0.2
**MODS Modra-Piesok** 5.28 345 *e*P **Pn** 17 06 03.0 -0.6
**MODS Modra-Piesok** 5.28 345 *e*P **Pn** 17 06 03.0 -0.6
**MODS Modra-Piesok** 5.28 345 *e*PN **Pn** 17 06 03.0 -0.6
**PLAC Placanica** 5.29 205 Pn **Pn** 17 06 03.3 -0.4
1µm,0.9s
**PLAC Placanica** 5.29 205 Pn **Pn** 17 06 03.3 -0.4
1µm,0.9s
**BMR Baia Mare** 5.30 33⇓ *i*P **Pn** 17 06 04.0 +0.2
**BMR Baia Mare** 5.30 33⇓ *i*P **Pn** 17 06 04.0 +0.2
**JOPP Joppolo** 5.33 210 Pn **Pn** 17 06 03.6 -0.7
641nm,0.9s
**JOPP Joppolo** 5.33 210 Pn **Pn** 17 06 03.6 -0.7
641nm,0.9s
**CRE Caprese Michel** 5.35 276 Pn **Pn** 17 06 06.4 +1.8
357nm,0.8s
**CRE Caprese Michel** 5.35 276 Pn **Pn** 17 06 06.4 +1.8
357nm,0.8s
**TRPA Tarpa** 5.36 24 *e*Pn **Pn** 17 06 03.1 -1.5
**TRPA Tarpa** 5.36 24 *e*Pn **Pn** 17 06 03.1 -1.5
**SACS San Casciano d** 5.42 268 Pn **Pn** 17 06 05.8 +0.3
890nm,1.1s
**SACS San Casciano d** 5.42 268 Pn **Pn** 17 06 05.8 +0.3
890nm,1.1s
**ISR Istrita** 5.53 68⇑ *i*P **Pn** 17 06 07.8 +0.7
**ALN Alexandroupoli** 5.57 113 P **Pn** 17 06 07.8 +0.4
**ALN Alexandroupoli** 5.57 113 P **Pn** 17 06 07.8 +0.4
**ALN Alexandroupoli** 5.57 113 P **Pn** 17 06 07.8 +0.4
**ALN Alexandroupoli** 5.57 113 P **Pn** 17 06 07.8 +0.4
**DRO Drossia** 5.63 160 P **Pn** 17 06 09.3 +0.9
**DRO Drossia** 5.63 160 P **Pn** 17 06 09.3 +0.9
**CEL Celeste** 5.64 208 *e*Pn **Pn** 17 06 08.0 -0.5
**CEL Celeste** 5.64 208 *e*Pn **Pn** 17 06 08.0 -0.5
**FVI Forni Avoltri** 5.68 308 Pn **Pn** 17 06 09.4 +0.3
176nm,0.7s
**FVI Forni Avoltri** 5.68 308 Pn **Pn** 17 06 09.4 +0.3
176nm,0.7s
**UZH Uzhgorod** 5.75 20 *e*P **Pn** 17 06 11.7 +1.8
UZH *e*S **Sn** 17 07 18.7 +2.7
UZH MLR MLR
comp=N,150nm,1.0s
UZH MLR MLR
comp=E,300nm,1.0s
UZH MLR MLR
comp=Z,120nm,1.0s
**UZH Uzhgorod** 5.75 20 *e*P **Pn** 17 06 11.7 +1.8
**SOI Samo** 5.75 206 Pn **Pn** 17 06 09.8 -0.2
comp=Z,691nm,0.8s
**SOI Samo** 5.75 206 Pn **Pn** 17 06 09.8 -0.2
comp=Z,691nm,0.8s
**MOA Molln** 5.77 324 *e*Pn **Pn** 17 06 10.5 +0.3
comp=Z,33nm,0.4s,SNR=20
MOA *i* Sn **Sn** 17 07 14.6 -2.0
comp=Z,72nm,0.6s
**MSRU Castanea** 5.77 211 Pn **Pn** 17 06 08.9 -1.4
comp=Z,1µm,0.9s
**MSRU Castanea** 5.77 211 Pn **Pn** 17 06 08.9 -1.4
comp=Z,1µm,0.9s
**CRVS Cervenica-Dubn** 5.82 14 *e*P **Pn** 17 06 10.4 -0.6
**CRVS Cervenica-Dubn** 5.82 14 *e*P **Pn** 17 06 10.4 -0.6
**CRVS Cervenica-Dubn** 5.82 14 *e*PN **Pn** 17 06 10.4 -0.6
**PLOR Plostina** 5.86 61⇓ *i*P **Pn** 17 06 11.4 -0.1
**LANS Liptovska Anna** 5.87 1 *e*P **Pn** 17 06 12.9 +1.2
**LANS Liptovska Anna** 5.87 1 *e*P **Pn** 17 06 12.9 +1.2
**LANS Liptovska Anna** 5.87 1 *e*PN **Pn** 17 06 12.9 +1.2
**MILZ Milazzo** 5.87 213 Pn **Pn** 17 06 10.1 -1.6
comp=Z,932nm,1.1s
**MILZ Milazzo** 5.87 213 Pn **Pn** 17 06 10.1 -1.6
comp=Z,932nm,1.1s
**MPAZ Palizzi** 5.88 206 Pn **Pn** 17 06 11.0 -0.8
comp=Z,644nm,0.6s
**MPAZ Palizzi** 5.88 206 Pn **Pn** 17 06 11.0 -0.8
comp=Z,644nm,0.6s
**GRER** 5.90 67⇑ *i*P **Pn** 17 06 12.9 +0.8
**VRI Vrincioaia** 5.91 62⇑ *i*P **Pn** 17 06 12.4 +0.2
**ABTA Abfaltersbach** 5.92 308 *i* Pn **Pn** 17 06 13.1 +0.7
comp=Z,47nm,0.5s,SNR=28
ABTA Sg **Sg** 17 07 58.8 +4.4
comp=Z,107nm,0.6s
**FROS Frosini** 5.94 272 Pn **Pn** 17 06 12.8 +0.2
comp=Z,457nm,1.0s
**FROS Frosini** 5.94 272 Pn **Pn** 17 06 12.8 +0.2
comp=Z,457nm,1.0s
**CGRP Cima Grappa** 5.94 299 Pn **Pn** 17 06 11.4 -1.4
comp=Z,392nm,0.7s
**CGRP Cima Grappa** 5.94 299 Pn **Pn** 17 06 11.4 -1.4
comp=Z,392nm,0.7s
**VILL Villia** 5.96 148 P **Pn** 17 06 13.8 +0.9
**VILL Villia** 5.96 148 P **Pn** 17 06 13.8 +0.9
**AMRR Amara** 5.96 74⇑ *i*P **Pn** 17 06 14.1 +1.2
**BUR04 Bucovina Ar. S** 6.02 42 *e*Pn **Pn** 17 06 13.7 0.0
**BUR04 Bucovina Ar. S** 6.02 42 *e*Pn **Pn** 17 06 13.7 0.0
**BURAR Bucovina Array** 6.02 42⇓ *i*P **Pn** 17 06 14.2 +0.5
**BURAR Bucovina Array** 6.02 42 P **Pn** 17 06 14.1 +0.4
**BUR08 Bucovina Ar. S** 6.03 42 *e*Pn **Pn** 17 06 13.9 0.0
**BUR08 Bucovina Ar. S** 6.03 42 *e*Pn **Pn** 17 06 13.9 0.0
**MCSR Castroreale** 6.04 212 Pn **Pn** 17 06 13.0 -1.1
comp=Z,757nm,0.3s
**MCSR Castroreale** 6.04 212 Pn **Pn** 17 06 13.0 -1.1
comp=Z,757nm,0.3s
**ODBI Odobesti** 6.08 63⇑ *i*P **Pn** 17 06 16.8 +2.2
**TESR Tescani** 6.15 56⇓ *i*P **Pn** 17 06 15.6 +0.2
**NIE Niedzica** 6.18 6 *e*Pn **Pn** 17 06 16.7 +0.8
NIE *e*Sn **Sn** 17 07 33.9 +7.2
**NIE Niedzica** 6.18 6 *e*P **Pn** 17 06 16.7 +0.8
NIE *e* 17 07 33.9
**NIE Niedzica** 6.18 6 *e*P **Pn** 17 06 16.7 +0.8
**ICOR Ion Corvin** 6.23 79⇓ *i*P **Pn** 17 06 16.9 +0.3
**STHS Stebnicka Huta** 6.29 12 *e*P **Pn** 17 06 18.0 +0.6
**STHS Stebnicka Huta** 6.29 12 *e*P **Pn** 17 06 18.0 +0.6
**STHS Stebnicka Huta** 6.29 12 *e*PN **Pn** 17 06 18.0 +0.6
**VRAC Vranov** 6.31 344 Pn **Pn** 17 06 17.2 -0.4
comp=Z,1.0nm,0.3s,baz=186,slow=12,SNR=6.3
VRAC Sn **Sn** 17 07 28.4 -1.5
comp=Z,2.4nm,0.3s,baz=135,slow=11,SNR=3.7
**VRAC Vranov** 6.31 344⇑ *i*P **Pn** 17 06 16.0 -1.7
**BAYC CANAKKALE_Bayr** 6.50 121 *i* P **Pn** 17 06 21.6 +1.3
**BAYC CANAKKALE_Bayr** 6.50 121 P **Pn** 17 06 21.6 +1.3
**VLC Villacollemand** 6.51 281 *e*Pn **Pn** 17 06 21.0 +0.6
**VLC Villacollemand** 6.51 281 *e*Pn **Pn** 17 06 21.1 +0.6
**OKC Ostrava-Krasne** 6.61 354⇓ *e*PN **Pn** 17 06 22.6 +0.9
OKC *e*SN **Sn** 17 07 31.7 -5.4
OKC AMS AMS 17 09 20.0
comp=Z,2µm,11.0s
**OKC Ostrava-Krasne** 6.61 354 *e*P **Pn** 17 06 22.6 +0.9
OKC *e* 17 07 31.7
OKC MLR MLR
comp=Z,2µm,11.0s
**OKC Ostrava-Krasne** 6.61 354 Pn **Pn** 17 06 22.6 +0.9
**MORC Moravsky Berou** 6.61 350⇓ *i*P **Pn** 17 06 21.3 -0.5
**MORC Moravsky Berou** 6.61 350 *e*P **Pn** 17 06 21.9 +0.1
**MORC Moravsky Berou** 6.61 350 *e*P **Pn** 17 06 21.9 +0.1
**MORC Moravsky Berou** 6.61 350 *e*Pn **Pn** 17 06 21.9 +0.1
**CFR Carcaliu** 6.64 70⇑ *i*P **Pn** 17 06 21.1 -1.0
**TIRR Tirgusor** 6.70 77⇓ *i*P **Pn** 17 06 24.2 +1.2
**TIRR Tirgusor** 6.70 77 *e*P **Pn** 17 06 22.5 -0.5
**TIRR Tirgusor** 6.70 77 *e*P **Pn** 17 06 22.5 -0.5
**TIRR Tirgusor** 6.70 77 *e*Pn **Pn** 17 06 22.5 -0.5
**WTTA Wattenberg** 6.71 309 *i* Pn **Pn** 17 06 25.0 +1.7
comp=Z,46nm,0.6s,SNR=19
**GEA0 GERESS Array S** 6.78 327 *e*Pn **Pn** 17 06 23.7 -0.5
**GEA0 GERESS Array S** 6.78 327 *e*Pn **Pn** 17 06 23.7 -0.5
**KWP Kalwaria Pacla** 6.78 19 *e*Pn **Pn** 17 06 25.7 +1.6
**KWP Kalwaria Pacla** 6.78 19 *e*P **Pn** 17 06 25.7 +1.6
**KWP Kalwaria Pacla** 6.78 19 *e*Pn **Pn** 17 06 24.6 +0.5
**KWP Kalwaria Pacla** 6.78 19 *e*P **Pn** 17 06 25.7 +1.6
**KWP Kalwaria Pacla** 6.78 19 *e*Pn **Pn** 17 06 24.6 +0.5
**WATA Walderalm** 6.78 309 *i* Pn **Pn** 17 06 26.0 +1.7
comp=Z,135nm,0.6s,SNR=77
**GEC2 GERESS Array S** 6.79 327 *e*P **Pn** 17 06 24.6 +0.3
**GEC2 GERESS Array S** 6.79 327 *e*P **Pn** 17 06 24.6 +0.3
**GEC2 GERESS Array S** 6.79 327 *e*Pn **Pn** 17 06 24.6 +0.3
**GERES GERESS Array B** 6.79 327 Pn **Pn** 17 06 24.5 +0.2
comp=Z,1.6nm,0.3s,baz=146,slow=12,SNR=47
GERES Sn **Sn** 17 07 38.9 -2.8
comp=Z,2.2nm,0.3s,baz=157,slow=20,SNR=2.2
**VAE Valguarnera** 6.88 214 Pn **Pn** 17 06 27.6 +2.0
comp=Z,2.1nm,0.3s,baz=24,slow=10.0,SNR=9.6
VAE Sn **Sn** 17 07 47.4 +3.2
comp=Z,5.3nm,0.3s,baz=50,slow=17,SNR=2.5
**OJC Ojcow** 6.95 3 *e*Pn **Pn** 17 06 28.6 +2.1
**OJC Ojcow** 6.95 3 *e*P **Pn** 17 06 28.6 +2.1
**OJC Ojcow** 6.95 3 *e*Pn **Pn** 17 06 26.3 -0.1
**OJC Ojcow** 6.95 3 *e*P **Pn** 17 06 28.6 +2.1
**OJC Ojcow** 6.95 3 *e*Pn **Pn** 17 06 26.3 -0.1
**KRLC Kraliky** 7.01 347⇓ *e*PN **Pn** 17 06 29.4 +2.1
KRLC *e*SN **Sn** 17 07 42.6 -4.6
**KRLC Kraliky** 7.01 347 *e*P **Pn** 17 06 29.4 +2.1
KRLC *e* 17 07 42.6
**KRLC Kraliky** 7.01 347 Pn **Pn** 17 06 29.4 +2.1
**MOTA Moosalm** 7.05 308 *e*Pn **Pn** 17 06 29.2 +1.2
comp=Z,140nm,0.6s,SNR=107
**KHC Kasperske Hory** 7.06 328⇓ *e*PN **Pn** 17 06 28.5 +0.4
KHC *e*SN **Sn** 17 07 49.8 +1.3
KHC AMS AMS 17 09 30.0
comp=Z,2µm,9.9s
**KHC Kasperske Hory** 7.06 328 *e*P **Pn** 17 06 28.4 +0.4
**KHC Kasperske Hory** 7.06 328 *e*P **Pn** 17 06 28.4 +0.4
**KHC Kasperske Hory** 7.06 328 *e*Pn **Pn** 17 06 28.4 +0.3
**TLCR** 7.11 71⇓ *i*P **Pn** 17 06 29.5 +0.9
**FETA Feichten** 7.11 305 *e*Pn **Pn** 17 06 30.3 +1.5
comp=Z,32nm,0.5s,SNR=22
FETA Sg **Sg** 17 08 36.7 +4.2
comp=Z,98nm,0.9s
**BALY Balya** 7.18 117 *i* P **Pn** 17 06 31.0 +1.3
**BALY Balya** 7.18 117 P **Pn** 17 06 31.0 +1.3
**FUORN Ofenpass-Fuorn** 7.22 301 *e*Pn **Pn** 17 06 31.4 +1.0
**FUORN Ofenpass-Fuorn** 7.22 301 *e*Pn **Pn** 17 06 31.4 +1.0
**LVV L'vov** 7.31 25 *e*P **Pn** 17 06 30.3 -1.1
LVV *e*S **Sn** 17 07 49.2 -5.3
LVV MLR MLR
comp=Z,200nm,4.0s
**LVV L'vov** 7.31 25 *e*P **Pn** 17 06 30.3 -1.1
comp=Z,200nm,4.0s
**RETA Reutte** 7.33 308 *i* Pn **Pn** 17 06 32.6 +0.9
comp=Z,32nm,0.6s,SNR=6.9
**CLTB Caltabellotta** 7.34 221 *e*Pn **Pn** 17 06 33.3 +1.4
**CLTB Caltabellotta** 7.34 221 *e*Pn **Pn** 17 06 33.3 +1.4
**WET Wettzell** 7.36 325 P **Pn** 17 06 33.5 +1.5
WET pmax pmax
comp=Z,59nm,0.7s
**WET Wettzell** 7.36 325 P **Pn** 17 06 33.5 +1.5
comp=Z,59nm,0.7s
**DPC Dobruska-Polom** 7.36 345⇓ *e*PN **Pn** 17 06 31.5 -0.6
DPC *e*SN **Sn** 17 07 52.8 -2.9
DPC AMS AMS 17 09 20.0
comp=Z,2µm,9.2s
**DPC Dobruska-Polom** 7.36 345 *e*P **Pn** 17 06 31.5 -0.6
DPC *e* 17 07 52.8
DPC MLR MLR
comp=Z,2µm,9.2s
**DPC Dobruska-Polom** 7.36 345 Pn **Pn** 17 06 31.5 -0.6
**URLA Izmir** 7.41 129 *i* P **Pn** 17 06 34.0 +1.2
**URLA Izmir** 7.41 129 P **Pn** 17 06 34.0 +1.2
**STEP BALIKESIR_Sava** 7.45 119 *i* P **Pn** 17 06 34.4 +1.1
**STEP BALIKESIR_Sava** 7.45 119 P **Pn** 17 06 34.4 +1.1
**PRU Pruhonice** 7.46 336⇓ *e*PN **Pn** 17 06 34.4 +1.0
PRU *ex* x 17 06 44.4
PRU *e*PB **Pb** 17 06 54.3 +0.3
PRU *e*SN **Sn** 17 07 54.8 -3.4
**PRU Pruhonice** 7.46 336 *e*P **Pn** 17 06 34.4 +1.0
PRU *e* 17 07 54.8
**PRU Pruhonice** 7.46 336 Pn **Pn** 17 06 34.4 +1.0
**DAVOX Davos/Dischmat** 7.53 301 Pn **Pn** 17 06 35.0 +0.5
comp=Z,6.6nm,0.3s,baz=126,slow=16,SNR=39
DAVOX Sn **Sn** 17 07 54.2 -5.8
comp=Z,2.5nm,0.3s,baz=60,slow=11,SNR=3.4
DAVOX Lg Lg 17 08 31.7
comp=Z,2.9nm,0.3s,baz=121,slow=20,SNR=4.0
DAVOX LR LR 17 09 40.4
comp=Z,471nm,21.9s,baz=96,slow=40
**DAVOX Davos/Dischmat** 7.53 301 Pn **Pn** 17 06 35.0 +0.5
**UPC Upice** 7.57 344⇓ *e*PN **Pn** 17 06 36.3 +1.4
UPC *ex* x 17 06 50.2
UPC *e*SN **Sn** 17 08 04.6 +3.8
**UPC Upice** 7.57 344 *e*P **Pn** 17 06 36.3 +1.4
UPC *e* 17 08 04.6
UPC smax smax
comp=N,9.0nm,0.6s
**UPC Upice** 7.57 344 Pn **Pn** 17 06 36.3 +1.4
**PGF Pioggiola** 7.59 268 *e*P **Pn** 17 06 36.1 +0.8
**PGF Pioggiola** 7.59 268 *e*P **Pn** 17 06 36.1 +0.8
**PGF Pioggiola** 7.59 268 *e*P **Pn** 17 06 36.1 +0.8
**PGF Pioggiola** 7.59 268 *e*Pn **Pn** 17 06 36.1 +0.8
**TUE Stuetta** 7.75 298 *e*Pn **Pn** 17 06 38.3 +0.7
**TUE Stuetta** 7.75 298 *e*Pn **Pn** 17 06 38.3 +0.7
**DAVA Damuels** 7.75 304 *e*Pn **Pn** 17 06 39.7 +2.2
comp=N,20nm,0.6s
DAVA *e*Sn **Sb** 17 08 37.5 +6.1
comp=N,175nm,1.1s
**AKHS Akhisar** 7.80 121 *i* P **Pn** 17 06 40.9 +2.7
**APE Apeiranthos** 7.83 140⇑ *i*P **Pn** 17 06 39.4 +0.8
**APE Apeiranthos** 7.83 140⇑ *e*P **Pn** 17 06 38.6 0.0
**APE Apeiranthos** 7.83 140 *e*P **Pn** 17 06 38.6 0.0
**KSP Ksiaz** 7.84 346 *e*Pn Pn 17 06 47.4 +8.8
KSP *e*Sn **Sb** 17 08 31.3 -2.5
**KSP Ksiaz** 7.84 346 *e*P Pn 17 06 47.4 +8.8
**PVCC Panska Ves** 7.94 338⇓ *e*SN **Sn** 17 08 14.0 +4.2
**SORM Soroca** 7.99 49⇑ *i*P **Pn** 17 06 40.7 +0.1
**DEMI Demirci** 8.28 118 *i* P **Pn** 17 06 45.7 +0.9
**DEMI Demirci** 8.28 118 P **Pn** 17 06 45.7 +0.9
**WDD Wied Dalam** 8.29 208 *e*Pn **Pn** 17 06 43.1 -1.7
WDD *e*Sn **Sn** 17 08 17.2 -1.4
**WDD Wied Dalam** 8.29 208 *e*Pn **Pn** 17 06 43.1 -1.7
WDD *e*Sn **Sn** 17 08 17.2 -1.4
**VSL Villasalto** 8.35 246 *e*Pn **Pn** 17 06 46.6 +0.9
**VSL Villasalto** 8.35 246 *e*Pn **Pn** 17 06 46.6 +0.9
**SANT Santorini** 8.38 143 *e*Pn **Pn** 17 06 46.5 +0.5
**SANT Santorini** 8.38 143 *e*Pn **Pn** 17 06 46.5 +0.5
**NKC Novy Kostel** 8.39 328⇓ *e*PN **Pn** 17 06 47.9 +1.7
NKC *ex* x 17 06 55.1
NKC *ex* x 17 08 30.1
**NKC Novy Kostel** 8.39 328 *e*P **Pn** 17 06 47.9 +1.7
NKC *e* 17 08 30.1
**NKC Novy Kostel** 8.39 328 Pn **Pn** 17 06 47.9 +1.7
**BRG Berggiesshubel** 8.42 336 *e*P **Pn** 17 06 49.9 +3.3
BRG pmax pmax
comp=Z,4.0nm,0.8s
**GRA1 Grafenberg Arr** 8.48 322 P **Pn** 17 06 48.9 +1.4
comp=Z,66nm,0.8s
**GRF Grafenberg Arr** 8.48 322 P **Pn** 17 06 48.9 +1.4
GRF pmax pmax
comp=Z,66nm,0.8s
**GRFO Grafenberg** 8.48 322 *e*P **Pn** 17 06 47.3 -0.2
**GRFO Grafenberg** 8.48 322 *e*P **Pn** 17 06 47.3 -0.2
**GRFO Grafenberg** 8.48 322 *e*Pn **Pn** 17 06 47.3 -0.2
**MANT Manisa** 8.50 121 *i* P **Pn** 17 06 48.8 +0.9
**MANT Manisa** 8.50 121 *e*Pn **Pn** 17 06 48.7 +0.8
**MANT Manisa** 8.50 121 *e*Pn **Pn** 17 06 48.7 +0.8
**AYDN Tasoluk** 8.62 128 *i* P **Pn** 17 06 51.2 +1.7
**AYDN Tasoluk** 8.62 128 P **Pn** 17 06 51.2 +1.7
**SBF Sospel** 8.62 278 *e*P **Pn** 17 06 49.7 +0.2
SBF *e*Sn **Sn** 17 08 19.0 -7.9
comp=Z,91nm,0.6s
**SBF Sospel** 8.62 278 *e*P **Pn** 17 06 49.7 +0.2
**SPAK Spaichingen-Ko** 8.79 307 P **Pn** 17 06 50.1 -1.6
**SLE Schleitheim** 8.80 304 P **Pn** 17 06 51.6 -0.3
SLE pmax pmax
comp=Z,64nm,0.9s
**SLE Schleitheim** 8.80 304 P **Pn** 17 06 51.6 -0.3
comp=Z,64nm,0.9s
**BDRM Kayabasi** 8.80 132 *i* P Pn 17 06 57.8 +5.9
**STU Stuttgart** 8.91 312 *e*P **Pn** 17 06 52.4 -0.9
**STU Stuttgart** 8.91 312 *e*P **Pn** 17 06 52.4 -0.9
**STU Stuttgart** 8.91 312 *e*Pn **Pn** 17 06 52.4 -0.9
**SENIN Lac Senin/Sane** 9.06 294 *e*Pn **Pn** 17 06 57.2 +1.6
**SENIN Lac Senin/Sane** 9.06 294 *e*Pn **Pn** 17 06 57.1 +1.6
**IDI Anoyia** 9.09 150 Pn **Pn** 17 06 53.4 -2.5
comp=Z,2.1nm,0.3s,baz=323,slow=13,SNR=17
IDI Sn **Sn** 17 08 32.2 -6.0
comp=Z,8.7nm,0.3s,baz=300,slow=17,SNR=6.2
IDI LR LR 17 11 05.3
comp=Z,283nm,19.3s,baz=326,slow=42
**CLL Collm** 9.09 334 *e*P **Pn** 17 06 55.9 +0.1
**CLL Collm** 9.09 334 *e*(Pn) **Pn** 17 06 59.0 +3.2
CLL *e*Pg 17 07 34.0
CLL *e*Sn Sn 17 08 21.0 -17
CLL *i* 17 08 35.3
CLL Lm MLR 17 09 00.0
comp=Z,300nm,20.4s
CLL *e*Sb 17 09 04.0
CLL *e*Sg 17 09 35.0
CLL Lmax 17 10 00.0
**CLL Collm** 9.09 334 *e*Pn **Pn** 17 06 55.8 +0.1
**CLL Collm** 9.09 334 *e*Pn **Pn** 17 06 55.9 +0.1
**MBDF Montbardon** 9.13 283 *e*Pn **Pn** 17 06 53.8 -2.8
**MBDF Montbardon** 9.13 283 *e*P **Pn** 17 06 58.3 +1.7
MBDF *e*Sn Sn 17 08 29.3 -10
comp=Z,65nm,0.6s
**MBDF Montbardon** 9.13 283 *e*P **Pn** 17 06 53.8 -2.8
**MBDF Montbardon** 9.13 283 *e*P **Pn** 17 06 58.3 +1.7
**MBDF Montbardon** 9.13 283 *e*Pn **Pn** 17 06 53.8 -2.8
**KHAL Karahalli** 9.16 119 *i* P **Pn** 17 06 58.5 +1.6
**KHAL Karahalli** 9.16 119 P **Pn** 17 06 58.5 +1.6
**BFO Black Forest** 9.16 307 *i* P **Pn** 17 06 56.6 -0.2
**BFO Black Forest** 9.16 307 *e*Pn **Pn** 17 06 56.2 -0.6
**BFO Black Forest** 9.16 307 *i* P **Pn** 17 06 56.6 -0.2
**BFO Black Forest** 9.16 307 *e*Pn **Pn** 17 06 56.2 -0.6
**FRF La Foret Royal** 9.20 276 *e*P **Pn** 17 06 57.1 -0.3
**FRF La Foret Royal** 9.20 276 *e*P **Pn** 17 06 57.1 -0.3
**FRF La Foret Royal** 9.20 276 *e*P **Pn** 17 06 57.1 -0.3
**FRF La Foret Royal** 9.20 276 *e*Pn **Pn** 17 06 57.1 -0.3
**BNI Bardonecchia** 9.23 285 *e*P **Pn** 17 06 56.3 -1.6
**BNI Bardonecchia** 9.23 285 *e*P **Pn** 17 06 56.3 -1.6
**BNI Bardonecchia** 9.23 285 *e*Pn **Pn** 17 06 56.3 -1.6
**LPG La Plagne** 9.24 288 *e*Pn **Pn** 17 06 55.3 -2.9
**LPG La Plagne** 9.24 288 *e*P **Pn** 17 06 59.7 +1.5
**LPG La Plagne** 9.24 288 *e*P **Pn** 17 06 55.3 -2.9
**LPG La Plagne** 9.24 288 *e*P **Pn** 17 06 59.7 +1.5
**LPG La Plagne** 9.24 288 *e*Pn **Pn** 17 06 55.3 -2.9
**LPL La Plagne** 9.26 288 *e*Pn **Pn** 17 06 54.8 -3.5
**LPL La Plagne** 9.26 288 *e*P **Pn** 17 07 00.0 +1.6
LPL *e*Sn Sn 17 08 31.7 -11
comp=Z,165nm,0.8s
**LPL La Plagne** 9.26 288 *e*P **Pn** 17 06 54.8 -3.5
**LPL La Plagne** 9.26 288 *e*P **Pn** 17 07 00.0 +1.6
**LPL La Plagne** 9.26 288 *e*Pn **Pn** 17 06 54.8 -3.5
**LMR La Mourre** 9.32 275 *e*P **Pn** 17 06 58.0 -0.9
**LMR La Mourre** 9.32 275 *e*P **Pn** 17 06 58.0 -0.9
**OG01 Vacheresse** 9.46 293 P **Pn** 17 06 58.9 -2.1
**OG01 Vacheresse** 9.46 293 P **Pn** 17 06 58.9 -2.1
**TURN Turunc** 9.59 129 *i* P **Pn** 17 07 05.7 +3.1
**TOD Tromm** 9.61 315 P **Pn** 17 07 00.9 -2.0
**GDM Grand'Maison** 9.65 286 P **Pn** 17 07 01.9 -1.7
**GDM Grand'Maison** 9.65 286 P **Pn** 17 07 01.9 -1.7
**DALY Dalyan (Mu¨la** 9.65 129 *i* P **Pn** 17 07 06.1 +2.6
**DALY Dalyan (Mu¨la** 9.65 129 P **Pn** 17 07 06.1 +2.6
**MOF Molkenrain** 9.67 302 P **Pn** 17 07 01.6 -2.2
**MOF Molkenrain** 9.67 302 P **Pn** 17 07 01.6 -2.2
**ORIF Oris-en-Rattie** 9.78 284 *e*Pn **Pn** 17 07 02.6 -2.8
**ORIF Oris-en-Rattie** 9.78 284 *e*P **Pn** 17 07 06.0 +0.6
**ORIF Oris-en-Rattie** 9.78 284 *e*P **Pn** 17 07 04.5 -0.9
ORIF pmax pmax
comp=Z,17nm,0.5s
**ORIF Oris-en-Rattie** 9.78 284 *e*P **Pn** 17 07 06.0 +0.6
**ORIF Oris-en-Rattie** 9.78 284 *e*Pn **Pn** 17 07 02.6 -2.8
**LANF Langenberg** 9.79 310 P **Pn** 17 07 03.5 -1.9
**LANF Langenberg** 9.79 310 P **Pn** 17 07 03.5 -1.9
**ECH

**ECH Echery 9.80 304** *e*P **Pn 17 07 04.1 -1.5**
**ECH Echery 9.80 304** *e*Pn **Pn 17 07 04.1 -1.5**
**CDF Champ du Feu 9.82 306** *e*Pn **Pn 17 07 02.6 -3.3**
**CDF Champ du Feu 9.82 306** *e*P **Pn 17 07 07.2 +1.3**
CDF *e*Sn Sn 17 08 46.1 -10
comp=Z,44nm,0.9s
**CDF Champ du Feu 9.82 306** *e*P **Pn 17 07 02.6 -3.3**
**CDF Champ du Feu 9.82 306** *e*P **Pn 17 07 07.2 +1.3**
**CDF Champ du Feu 9.82 306** *e*Pn **Pn 17 07 02.6 -3.3**
CDF *e*Sn Sn 17 08 46.1 -10
**HINF Hinteralfeld 9.83 302** *e*Pn **Pn 17 07 01.7 -4.2**
**HINF Hinteralfeld 9.83 302** *e*P **Pn 17 07 07.2 +1.3**
HINF *e*Sn Sn 17 08 45.9 -11
comp=Z,71nm,0.8s
**HINF Hinteralfeld 9.83 302** *e*P **Pn 17 07 01.7 -4.2**
**HINF Hinteralfeld 9.83 302** *e*P **Pn 17 07 07.2 +1.3**
**HINF Hinteralfeld 9.83 302** *e*Pn **Pn 17 07 01.7 -4.2**
**KARP Karpathos 9.83 139** *e*Pn **Pn 17 07 06.5 +0.5**
**KARP Karpathos 9.83 139** *e*Pn **Pn 17 07 06.5 +0.5**
**GRN Grenoble 9.91 286** P **Pn 17 07 05.2 -1.9**
**GRN Grenoble 9.91 286** P **Pn 17 07 05.2 -1.9**
**BOLV Bolvadin 9.92 113** *e*Pn **Pn 17 07 08.8 +1.4**
**BOLV Bolvadin 9.92 113** *e*Pn **Pn 17 07 08.8 +1.4**
**CABF La Chapelle 9.93 294** *e*Pn **Pn 17 07 03.4 -4.0**
**CABF La Chapelle 9.93 294** *e*P **Pn 17 07 09.0 +1.6**
CABF *e*Sn **Sn 17 08 50.7 -8.3**
comp=Z,196nm,1.2s
**CABF La Chapelle 9.93 294** *e*P **Pn 17 07 03.4 -4.0**
**CABF La Chapelle 9.93 294** *e*P **Pn 17 07 09.0 +1.6**
**CABF La Chapelle 9.93 294** *e*Pn **Pn 17 07 03.4 -4.0**
CABF *e* 17 07 09.0
**SMRF Simiane la Rot 9.97 279** *e*P **Pn 17 07 07.9 0.0**
**SMRF Simiane la Rot 9.97 279** *e*P **Pn 17 07 07.9 0.0**
**KIEV Kiev 10.04 39** *e*P **Pn 17 07 08.5 -0.3**
**KIEV Kiev 10.04 39** *e*P **Pn 17 07 08.5 -0.3**
**KIEV Kiev 10.04 39** *e*Pn **Pn 17 07 08.5 -0.3**
**AKASG Malin Array Be 10.05 39** Pn **Pn 17 07 07.7 -1.2**
comp=Z,0.4nm,0.3s,baz=227,slow=13,SNR=8.8
AKASG Lg Lg 17 09 59.5
baz=220,slow=28,SNR=2.6
AKASG LR LR 17 11 36.4
comp=Z,228nm,19.1s,baz=315,slow=41
**AKASG Malin Array Be 10.05 39***ce*P **Pn 17 07 09.8 +0.8**
AKASG pmax pmax
comp=Z,2.0nm,0.6s
**AKASG Malin Array Be 10.05 39** *e*P **Pn 17 07 09.8 +0.8**
comp=Z,2.0nm,0.6s
**AKBB Malin Array Si 10.05 39** *e*P **Pn 17 07 08.4 -0.6**
**AKBB Malin Array Si 10.05 39** *e*P **Pn 17 07 08.4 -0.6**
**AKBB Malin Array Si 10.05 39** *e*Pn **Pn 17 07 08.4 -0.6**
**ISP Isparta 10.14 119**‖ *e*P **Pn 17 07 09.9 -0.4**
**ISP Isparta 10.14 119** *e*P **Pn 17 07 09.9 -0.4**
**HAU Haudompre 10.21 302** *e*Pn **Pn 17 07 07.0 -3.4**
**HAU Haudompre 10.21 302** *e*P **Pn 17 07 12.6 +1.4**
HAU *e*Sn Sn 17 08 54.7 -11
comp=Z,70nm,0.7s
**HAU Haudompre 10.21 302** *e*P **Pn 17 07 07.8 -3.4**
**HAU Haudompre 10.21 302** *e*P **Pn 17 07 12.6 +1.4**
**HAU Haudompre 10.21 302** *e*Pn **Pn 17 07 07.8 -3.4**
HAU *e* 17 07 12.6
**ABH Alteburg 10.43 313** P **Pn 17 07 11.8 -2.3**
**THEF They Montfort 10.52 303** P **Pn 17 07 13.3 -2.1**
**THEF They Montfort 10.52 303** P **Pn 17 07 13.3 -2.1**
**RUP Ruppelstein 10.59 312** P **Pn 17 07 14.7 -1.7**
**AKAS Kas 10.61 128** *i* P **Pn 17 07 20.2 +3.4**
**AKAS Kas 10.61 128** *e*Pn **Pn 17 07 15.7 -1.0**
**AKAS Kas 10.61 128** *e*Pn **Pn 17 07 15.7 -1.0**
**VIVF Saint-Julien-l 10.63 284** *e*Pn **Pn 17 07 12.9 -4.1**
**VIVF Saint-Julien-l 10.63 284** *e*P **Pn 17 07 17.4 +0.4**
**VIVF Saint-Julien-l 10.63 284** *e*P **Pn 17 07 15.8 -1.2**
VIVF pmax pmax
comp=Z,17nm,0.6s
**VIVF Saint-Julien-l 10.63 284** *e*P **Pn 17 07 17.4 +0.4**
**VIVF Saint-Julien-l 10.63 284** *e*Pn **Pn 17 07 12.9 -4.1**
**KEST Kesra 10.75 229** Pn **Pn 17 07 20.7 +2.0**
comp=Z,0.8nm,0.3s,baz=55,slow=14,SNR=11
KEST LR LR 17 11 10.3
comp=Z,100nm,19.8s,baz=296,slow=36
**KEST Kesra 10.75 229** *e*Pn **Pn 17 07 20.9 +2.2**
**KEST Kesra 10.75 229** *e*Pn **Pn 17 07 20.9 +2.2**
**SSB Saint Sauveur 10.76 286** *e*Pn **Pn 17 07 17.7 -1.0**
**SSB Saint Sauveur 10.76 286** *e*P **Pn 17 07 17.7 -1.0**
**SSB Saint Sauveur 10.76 286** *e*Pn **Pn 17 07 17.7 -1.0**
**PAGF Fort de Pagny 10.81 304** *e*Pn **Pn 17 07 14.8 -4.6**
baz=107
PAGF *e*Sn Sn 17 09 09.8 -11
comp=Z,11nm,0.8s
**PAGF Fort de Pagny 10.81 304** *e*Pn **Pn 17 07 14.8 -4.6**
PAGF *e*Sn Sn 17 09 09.8 -11
**WLF Walferdange 11.07 310** P **Pn 17 07 26.2 +3.2**
**SFTF Sexfontaines 11.10 301** *e*Pn **Pn 17 07 18.8 -4.6**
**SFTF Sexfontaines 11.10 301** *e*Pn **Pn 17 07 18.8 -4.6**
**MEZF Maizieres J'vi 11.20 303** *e*Pn **Pn 17 07 20.0 -4.7**
**MEZF Maizieres J'vi 11.20 303** *e*Pn **Pn 17 07 20.0 -4.7**
**LASF Ste Croix 11.21 279** *e*Pn **Pn 17 07 20.8 +4.0**
**LASF Ste Croix 11.21 279** *e*P **Pn 17 07 25.9 +1.1**
**LASF Ste Croix 11.21 279** *e*P **Pn 17 07 25.9 +1.1**
**LASF Ste Croix 11.21 279** *e*P **Pn 17 07 25.9 +1.1**
**BR101 Keskin Array S 11.34 103** *e*Pn **Pn 17 07 29.9 +3.2**
BR101 *e*Lg Lg 17 10 37.2
BR101 *e* 17 12 37.8
**BR131 Keskin Array S 11.34 103** *e*Pn **Pn 17 07 26.7 0.0**
**BR131 Keskin Array S 11.34 103** *e*Pn **Pn 17 07 26.7 0.0**
**BRTR Keskin Array B 11.34 103** Pn **Pn 17 07 29.9 +3.2**
comp=Z,0.1nm,0.3s,baz=295,slow=11,SNR=7.2
BRTR Lg Lg 17 10 37.2
comp=Z,0.1nm,0.3s,baz=300,slow=35,SNR=3.0
BRTR LR LR 17 12 37.8
comp=Z,169nm,20.5s,baz=292,slow=42
**KLNR Kaliningrad 11.35 3**‖ *e*P **Pn 17 07 24.9 -1.8**
**KLNR Kaliningrad 11.35 3** *e*P **Pn 17 07 24.9 -1.8**
**SMF Signal de Mont 11.45 292** *e*Pn **Pn 17 07 24.3 -3.8**
**SMF Signal de Mont 11.45 292** *e*P **Pn 17 07 28.7 +0.6**
SMF *e*Sn Sn 17 09 24.5 -12
comp=Z,38nm,0.6s
**SMF Signal de Mont 11.45 292** *e*P **Pn 17 07 24.3 -3.8**
**SMF Signal de Mont 11.45 292** *e*P **Pn 17 07 28.7 +0.6**
**SMF Signal de Mont 11.45 292** *e*Pn **Pn 17 07 24.3 -3.8**
**LOR Lormes 11.57 295** *e*Pn **Pn 17 07 27.8 -2.0**
baz=100
LOR *e*Sn Sn 17 09 28.3 -11
comp=Z,29nm,0.6s
**LOR Lormes 11.57 295** *e*P **Pn 17 07 27.8 -2.0**
**LOR Lormes 11.57 295** *e*Pn **Pn 17 07 27.8 -2.0**
**LOR Lormes 11.57 295** *e*Pn **Pn 17 07 27.8 -2.0**
**MEM Membach 11.65 314** P **Pn 17 07 32.4 +1.5**
**SSF Saint Saulge 11.76 294** *e*Pn **Pn 17 07 29.5 -2.8**
**SSF Saint Saulge 11.76 294** *e*P **Pn 17 07 29.5 -2.8**
**SSF Saint Saulge 11.76 294** *e*Pn **Pn 17 07 29.5 -2.8**
**AVF Avril sur Loir 11.80 293** *e*Pn **Pn 17 07 30.2 -2.7**
**AVF Avril sur Loir 11.80 293** *e*P **Pn 17 07 34.5 +1.6**
**AVF Avril sur Loir 11.80 293** *e*P **Pn 17 07 30.2 -2.7**
**AVF Avril sur Loir 11.80 293** *e*P **Pn 17 07 34.5 +1.6**
**AVF Avril sur Loir 11.80 293** *e*Pn **Pn 17 07 30.2 -2.7**
**BCLA Clavier 11.93 312** P **Pn 17 07 38.7 +4.0**
**BGF Bois d'Agland 12.10 291** *e*P **Pn 17 07 37.0 -0.1**
**BGF Bois d'Agland 12.10 291** *e*P **Pn 17 07 37.0 -0.1**
**BGF Bois d'Agland 12.10 291** *e*P **Pn 17 07 37.0 -0.1**
**BGF Bois d'Agland 12.10 291** *e*Pn **Pn 17 07 37.0 -0.1**
**DOU Dourbes 12.16 309** P Pn 17 07 43.6 +5.8
**MTLF Montolieu 12.44 276** *e*P **Pn 17 07 43.1 +1.5**
**MTLF Montolieu 12.44 276** *e*P **Pn 17 07 43.1 +1.5**
**MTLF Montolieu 12.44 276** *e*P **Pn 17 07 43.1 +1.5**
**MTLF Montolieu 12.44 276** *e*Pn **Pn 17 07 43.1 +1.5**
**CAF Calviac 12.49 283** *e*Pn Pn 17 07 36.9 -5.5
**CAF Calviac 12.49 283** *e*P **Pn 17 07 43.8 +1.4**
**CAF Calviac 12.49 283** *e*Pn Pn 17 07 36.9 -5.5
**CAF Calviac 12.49 283** *e*P **Pn 17 07 43.8 +1.4**
**CAF Calviac 12.49 283** *e*Pn Pn 17 07 36.9 -5.5
CAF *e* 17 07 43.8
**NACGM Naroch 12.62 20** *e* Pn 17 07 39.0 -5.0
**IIGN Ignalina 12.89 18** *e*P Pn 17 07 54.1 +6.4
**IDID Didziasalis 12.98 19** *e*P Pn 17 07 58.0 +9.1
**ISAL Salakas 13.07 17** *e*P **Pn 17 07 53.2 +3.0**
**IZAR Zarasai 13.27 17** *e*P **Pn 17 07 52.4 -0.5**
**IZAR Zarasai 13.27 17** *e*P **Pn 17 07 52.3 -0.5**
**LDF La Druitiere 14.50 298** *e*P **P 17 08 15.1 -1.4**
**LDF La Druitiere 14.50 298** *e*P **P 17 08 15.1 -1.4**
**LDF La Druitiere 14.50 298** *e*P **P 17 08 15.1 -1.4**
**LDF La Druitiere 14.50 298** *e*P **P 17 08 15.1 -1.4**
**ETSF Etsaut 14.51 275** *e*P **Pn 17 08 10.5 +0.5**
**ETSF Etsaut 14.51 275** *e*Pn **Pn 17 08 10.5 +0.5**
**FLN La Foliniere 14.77 299** *e*P **Pn 17 08 14.2 +0.8**
baz=114
**FLN La Foliniere 14.77 299** *e*P **Pn 17 08 14.2 +0.8**
**FLN La Foliniere 14.77 299** *e*Pn **Pn 17 08 14.2 +0.8**
**GRR Gorron 14.93 297** *e*P **Pn 17 08 16.0 +0.4**
**GRR Gorron 14.93 297** *e*P **Pn 17 08 16.0 +0.4**
**GRR Gorron 14.93 297** *e*Pn **Pn 17 08 16.0 +0.4**
**VSR Storozhevoye 15.63 53** *e*P **Pn 17 08 24.3 -0.5**
VSR pmax pmax
comp=Z,20nm,1.0s
**VSU Vasula 15.89 14**‖ *e*P **Pn 17 08 26.8 -1.4**
**SGMF Saint Gilles 16.01 296** *e*P **Pn 17 08 30.7 +0.9**
**SGMF Saint Gilles 16.01 296** *e*P **Pn 17 08 30.7 +0.9**
**SGMF Saint Gilles 16.01 296** *e*Pn **Pn 17 08 30.7 +0.9**
**LPSR Galich'ya Gora 16.08 48** *e*P **Pn 17 08 28.5 -2.2**
LPSR pmax pmax
comp=Z,40nm,1.4s
**MMAI Mount Meron Ar 16.28 124** Pn **Pn 17 08 32.9 -0.4**
comp=Z,2.4nm,0.3s,baz=318,slow=10,SNR=11
MMAI LR LR 17 16 07.1
comp=Z,89nm,20.2s,baz=15,slow=42
**OBN Obninsk 16.31 37** LR LR 17 14 10.1
comp=Z,126nm,19.4s,baz=270,slow=35
**OBN Obninsk 16.31 37** *i* P **Pn 17 08 29.7 -3.8**
OBN pmax pmax
comp=Z,14nm,1.3s
**OBN Obninsk 16.31 37** *e*Pn **Pn 17 08 33.7 +0.2**
comp=Z,54nm,1.5s
**OBN Obninsk 16.31 37** *e*Pn **Pn 17 08 33.6 +0.2**
comp=Z,54nm,1.5s
**ARTV Artvin 16.89 89** *e*Pn **P 17 08 42.5 -0.9**
comp=Z,8.1nm,0.9s
**ARTV Artvin 16.89 89** *e*Pn **P 17 08 42.5 -0.9**
comp=Z,8.1nm,0.9s
**KIV Kislovodsk 16.95 80** *e*P **Pn 17 08 41.2 -0.7**
KIV pmax pmax
comp=Z,8.0nm,1.0s
KIV MLR MLR
comp=Z,117nm,12.0s
**KIV Kislovodsk 16.95 80** *e*Pn **Pn 17 08 40.8 -1.1**
comp=Z,8.5nm,0.8s
**KIV Kislovodsk 16.95 80** *e*Pn **Pn 17 08 40.8 -1.1**
comp=Z,8.5nm,0.8s
**KVAR Kislovodsk Arr 16.96 80** Pn **P 17 08 43.9 0.0**
baz=191,slow=6.2,SNR=2.9
KVAR LR LR 17 16 53.3
comp=Z,240nm,18.4s,baz=288,slow=43
**NEY Neytrino 17.07 82**‖ *e*P **Pn 17 08 41.1 -2.3**
**VRH Novokhopyorsk 17.12 55** *e*P **Pn 17 08 42.6 -1.3**
VRH pmax pmax
comp=Z,30nm,0.9s
**GOF Gofitskoye 17.13 76**‖ *e*P **P 17 08 47.1 +1.4**
GOF pmax pmax
comp=Z,16nm,0.8s
**GOF Gofitskoye 17.13 76** *e*P **P 17 08 47.1 +1.4**
comp=Z,16nm,0.8s
**KBZ Khabaz 17.13 80** P **P 17 08 45.7 0.0**
comp=Z,0.1nm,0.3s,baz=256,slow=9.3,SNR=2.2
**MOS Moscow 17.17 37** *e*P **Pn 17 08 42.8 -1.6**
MOS pmax pmax
comp=Z,89nm,1.2s
**HFS Hagfors 17.22 351** P **Pn 17 08 45.4 +0.4**
comp=Z,0.1nm,0.3s,baz=153,slow=9.7,SNR=2.7
HFS LR LR 17 15 19.7
comp=Z,264nm,21.4s,baz=4.0,slow=37
**ASF Jabal al Asfar 17.77 123** P **P 17 08 54.7 +1.8**
comp=Z,0.1nm,0.3s,baz=274,slow=13,SNR=3.2
**ESDC Sonseca Array 17.77 266** P **Pn 17 08 50.0 -2.2**
comp=Z,0.2nm,0.3s,baz=68,slow=12,SNR=11
**ZEI Tsey 17.99 83** *e*P **P 17 08 56.7 +1.2**
ZEI pmax pmax
comp=Z,3.0nm,0.9s
**ZEI Tsey 17.99 83** *e*P **P 17 08 56.7 +1.2**
comp=Z,3.0nm,0.9s
**NB2 NORSAR Subarra 18.44 348** P **P 17 08 59.0 -1.1**
comp=Z,3.1nm,0.7s,baz=161,slow=11
**NB2 NORSAR Subarra 18.44 348** P **P 17 08 59.0 -1.1**
comp=Z,3.1nm,0.7s,SNR=8.3
**NB200 NORSAR Array S 18.44 348** *e*P **P 17 08 59.5 -0.6**
**NB200 NORSAR Array S 18.44 348** *e*P **P 17 08 59.5 -0.6**
**NOA NORSAR Array B 18.44 348** P **P 17 08 59.4 -0.6**
comp=Z,0.2nm,0.3s,baz=170,slow=10,SNR=3.2
**EIL Elat 18.48 132** P **Pn 17 09 00.9 +0.1**
comp=Z,0.2nm,0.3s,baz=324,slow=14,SNR=3.3
EIL S **Sn 17 12 23.2 -4.3**
comp=Z,0.4nm,0.3s,baz=336,slow=17,SNR=3.0
**FIA0 FINESS Array S 18.64 10** *e*P **P 17 09 02.0 -0.2**
**FIA0 FINESS Array S 18.64 10** *e*P **P 17 09 02.0 -0.2**
**FIA0 FINESS Array S 18.64 10** *e*P **P 17 09 02.0 -0.2**
**FINES FINESS Array B 18.64 10** P **P 17 09 02.0 -0.2**
comp=Z,0.3nm,0.3s,baz=171,slow=12,SNR=7.4
**FINES FINESS Array B 18.64 10** *i* P **Pn 17 09 04.8 +2.3**
FINES pmax pmax
comp=Z,4.0nm,0.7s
**EKA Eskdalemuir Ar 18.86 318** P **P 17 09 04.4 -0.3**
baz=114,slow=10,SNR=8.1
**GNI Garni 19.24 91** P **Pn 17 09 10.8 +0.8**
comp=Z,0.6nm,0.3s,baz=325,slow=11,SNR=6.0
**GNI Garni 19.24 91**‖ *e*P **Pn 17 09 11.7 +1.6**
GNI pmax pmax
comp=Z,50nm,1.0s
**GNI Garni 19.24 91** *e*P **P 17 09 08.7 -0.4**
comp=Z,13nm,0.9s
**GNI Garni 19.24 91** *e*P **P 17 09 08.7 -0.4**
comp=Z,13nm,0.9s
**MVO Moncorvo 19.58 273** *e*P **Pn 17 09 14.5 +0.4**
**PVRL Vila Real 20.05 274** *e*P Pn 17 09 20.8 +1.2
**POLO Lamas de Olo 20.08 274** *e*P **P 17 09 18.6 +0.3**
**MTE Manteigas 20.16 271** *e*P **P 17 09 19.2 +0.1**
**PCAB Cabril 20.17 275** *e*P Pn 17 09 20.2 -0.8
**PVIS Viseu 20.33 272** *e*P **P 17 09 21.4 +0.5**
**PMRV Marv??o 20.36 268** *e*P Pn 17 09 24.9 +1.7
**PESTR Estremoz 20.70 267** *e*P **P 17 09 24.6 -0.3**
**COI Coimbra 20.86 271** *e*P **P 17 09 27.1 +0.5**
COI pmax pmax
comp=Z,80nm,1.1s
**COI Coimbra 20.86 271** *e*P **P 17 09 27.1 +0.5**
comp=Z,80nm,1.1s
**COI Coimbra 20.86 271** *e*P **P 17 09 27.1 +0.5**
**PCAS Casmilo, Conde 20.96 271** *e*P **P 17 09 27.9 +0.1**
**KLMR Klimovskoe 21.39 28** *e*P **P 17 09 29.4 -2.7**
KLMR pmax pmax
comp=Z,27nm,0.9s
**MDT Midelt 21.45 249** P **P 17 09 33.8 +0.6**
comp=Z,2.1nm,0.7s,baz=49,slow=14,SNR=3.3
**PCVE Castro Verde 21.49 264** *e*P **P 17 09 33.9 +0.5**
**PNCL Nicolau / Gran 21.66 266** *e*P **P 17 09 37.7 +2.5**
**TAM Tamanrasset 23.40 214** *e*P **P 17 09 55.0 +1.1**
TAM pmax pmax
comp=Z,13nm,1.2s
**TAM Tamanrasset 23.40 214** *e*P **P 17 09 55.0 +1.1**
comp=Z,13nm,1.2s
**TAM Tamanrasset 23.40 214** *e*P **P 17 09 55.0 +1.1**
comp=Z,13nm,1.2s
**TMCR Tamitsa 23.50 21** *e*P **P 17 09 58.7 +4.4**
TMCR pmax pmax
comp=Z,30nm,1.3s
**ARA0 ARCESS Array S 26.52 5** *e*P **P 17 10 21.0 -1.0**
**ARA0 ARCESS Array S 26.52 5** *e*P **P 17 10 21.0 -1.0**
**ARCES ARCESS Array B 26.52 5** P **P 17 10 21.0 -1.0**
comp=Z,3.1nm,0.8s,baz=190,slow=7.3,SNR=11
**ARCES ARCESS Array B 26.52 5** P **P 17 10 21.0 -1.0**
ARCES pmax pmax
comp=Z,3.0nm,0.8s
**ARCES ARCESS Array B 26.52 5** P **P 17 10 21.0 -1.0**
comp=Z,3.0nm,0.8s
**ARCES ARCESS Array B 26.52 5** P **P 17 10 21.0 -1.0**
**AKTK Aktyubinsk 27.19 61** P **P 17 10 29.3 +1.1**
comp=Z,114nm,21.6s
**AKTO Aktyubinsk 27.19 61** P **P 17 10 29.3 +1.1**
comp=Z,1.0nm,0.6s,baz=256,slow=12,SNR=4.0
AKTO LR LR 17 23 27.8
comp=Z,114nm,21.6s,baz=292,slow=41
**ARU Arti 28.11 48** P **P 17 10 35.6 -0.7**
comp=Z,1.9nm,0.6s,baz=264,slow=9.4,SNR=3.9
**ARU Arti 28.11 48***c i*P **P 17 10 36.4 0.0**
ARU S **S 17 15 24.2 +2.9**
ARU SS **SnSn 17 16 42.3 +6.1**
ARU pmax pmax
comp=Z,12nm,1.7s
**ARU Arti 28.11 48** *i* P **P 17 10 36.4 0.0**
comp=Z,12nm,1.7s
ARU S **S 17 15 24.2 +2.9**
**ARU Arti 28.11 48** *e*P **P 17 10 35.9 -0.4**
comp=Z,6.8nm,1.0s
**GEYT Alibeck 29.77 87** P **P 17 10 50.6 -0.8**
comp=Z,2.3nm,0.8s,baz=280,slow=8.6,SNR=2.6
**TOA1 Torodi Ar. Sit 33.64 212** *e*P **P 17 11 26.4 +0.9**
**TOA1 Torodi Ar. Sit 33.64 212** *e*P **P 17 11 26.4 +0.9**
**TOA0 Torodi Ar. Sit 33.64 212** *e*P **P 17 11 26.9 +1.4**
comp=Z,6.3nm,0.9s
**TOA0 Torodi Ar. Sit 33.64 212** *e*P **P 17 11 26.9 +1.4**
comp=Z,3.4nm,0.9s
**TORD Torodi Ar. Bea 33.64 212** P **P 17 11 26.4 +0.9**
comp=Z,3.4nm,0.7s,baz=18,slow=9.0,SNR=19
**BRVK Borovoye 34.71 55***ce*P **P 17 11 35.1 +0.6**
BRVK pmax pmax
comp=Z,19nm,0.8s
**BRVK Borovoye 34.71 55** *e*P **P 17 11 35.0 +0.6**
comp=Z,8.9nm,0.7s
**BRVK Borovoye 34.71 55** *e*P **P 17 11 35.0 +0.6**
comp=Z,8.9nm,0.7s
**BVAR Borovoye Array 34.77 56** P **P 17 11 35.3 +0.2**
comp=Z,4.4nm,0.8s,baz=273,slow=8.3,SNR=11
**AAK Ala-Archa 39.78 71**‖ *e*P **P 17 12 17.5 -0.3**
AAK pmax pmax
comp=Z,6.0nm,1.4s
**AAK Ala-Archa 39.78 71** *e*P **P 17 12 17.5 -0.3**
comp=Z,6.0nm,1.4s
**KURK Kurchatov 40.17 58**‖ *e*P **P 17 12 20.8 0.0**
KURK pmax pmax
comp=Z,1.0nm,0.4s
**KURK Kurchatov 40.17 58** *e*P **P 17 12 20.8 0.0**
comp=Z,1.0nm,0.4s
**KSH Kashi 42.00 75** P **P 17 12 40.3 +4.2**
KSH pP sP 17 12 44.0 +4.3
KSH PP **PnPn 17 14 20.3 +2.1**
KSH PcP **PcP 17 14 36.3 +5.1**
KSH S **S 17 18 56.0 +0.9**
KSH SS **SS 17 21 57.3 -4.4**
KSH ScS **ScS 17 22 40.2 +1.1**
KSH pmax pmax
comp=Z,5.0nm,1.2s
KSH pmax pmax
comp=Z,27nm,3.5s
KSH LR LR
comp=N,170nm,6.8s
KSH LR LR
comp=E,240nm,8.2s
KSH LR LR
comp=Z,230nm,7.2s
**NVS Novosibirsk 42.03 51** *e*P **P 17 12 39.9 +3.9**
NVS pmax pmax
comp=Z,10.0nm,1.3s
NVS pmax pmax
comp=N,3.0nm,0.8s
NVS pmax pmax
comp=E,3.0nm,0.7s
**DBIC Dimbokro 42.20 217** P **P 17 12 36.5 -1.2**
comp=E,1.7nm,0.6s,baz=347,slow=14,SNR=2.3
DBIC LR LR 17 30 33.0
comp=E,105nm,18.6s,baz=343,slow=37
**TIC Toumodi 42.30 217** *e*P P 17 12 47.6 +9.0
**KIC Kosan Boka 42.42 217** *e*P **P 17 12 42.5 +2.9**
comp=E,34nm,1.3s
**LIC Lamto 42.67 217** *e*P **P 17 12 44.5 +2.9**
**ZAA1 Zalesovo Array 43.13 52** *e*P **P 17 12 44.8 -0.1**
**ZAA1 Zalesovo Array 43.13 52** *e*P **P 17 12 44.8 -0.1**
**ZALV Zalesovo Beam 43.13 52** P **P 17 12 44.8 -0.2**
comp=E,1.4nm,0.4s,baz=276,slow=8.5,SNR=5.9
ZALV LR LR 17 31 22.5
comp=E,131nm,20.0s,baz=252,slow=37
**MK32 Makanchi Array 43.61 63** *e*P **P 17 12 48.9 0.0**
**MK32 Makanchi Array 43.61 63** *e*P **P 17 12 48.9 0.0**
**MKAR Makanchi Array 43.61 63** P **P 17 12 48.9 0.0**
comp=E,1.0nm,0.6s,baz=282,slow=7.4,SNR=9.4
MKAR LR LR 17 33 22.9
comp=E,138nm,19.0s,baz=290,slow=39
**MKAR Makanchi Array 43.61 63***ce*P **P 17 12 51.2 +2.3**
MKAR pmax pmax
comp=Z,1.0nm,0.6s
**MK01 Makanchi Array 43.62 63** *e*P **P 17 12 48.8 -0.2**
**MK01 Makanchi Array 43.62 63** *e*P **P 17 12 48.9 -0.2**
**DGZ Jazzator, Alta 45.89 57**‖ *e*P **P 17 13 07.6 +0.3**
DGZ pmax pmax
comp=Z,1.0nm,0.7s
**DGZ Jazzator, Alta 45.89 57** *e*P **P 17 13 07.6 +0.3**
comp=Z,1.0nm,0.7s
**SCHQ Schefferville 54.14 315** P **P 17 14 07.8 -1.9**
comp=Z,2.6nm,0.7s,baz=41,slow=3.6,SNR=3.3
**LSA Lhasa 57.69 78** *e*P **P 17 14 36.3 +0.3**
LSA pmax pmax
comp=Z,8.0nm,0.8s
**LSA Lhasa 57.69 78** *e*P **P 17 14 36.2 +0.3**
comp=Z,7.5nm,0.8s
**LSA Lhasa 57.69 78** *e*P **P 17 14 36.2 +0.3**
comp=Z,7.5nm,0.8s
**SONA0 Songino Array 58.02 52** *e*P **P 17 14 36.7 -1.0**
**SONA0 Songino Array 58.02 52** *e*P **P 17 14 36.7 -1.0**
**SONM Songino Array 58.02 52** P **P 17 14 36.7 -1.0**
comp=Z,1.7nm,0.7s,baz=297,slow=6.5,SNR=3.6
**YAK Yakutsk 61.16 30**‖ *e*P **P 17 14 57.5 -1.3**
YAK pmax pmax
comp=Z,3.0nm,0.9s
**YAK Yakutsk 61.16 30** *e*P **P 17 14 57.5 -1.3**
comp=Z,3.0nm,0.9s
**YKA Yellowknife Ar 68.29 339** P **P 17 15 44.6 -0.8**
comp=Z,1.7nm,0.8s,baz=44,slow=5.7,SNR=6.0
**COLD Coldfoot 69.53 356** *e*P **P 17 15 54.1 +1.1**
comp=Z,4.7nm,1.0s
**COLD Coldfoot 69.53 356** *e*P **P 17 15 54.1 +1.1**
comp=Z,4.7nm,1.0s
**CHTO Chiang Mai 69.93 83** *e*P **P 17 15 56.5 +0.2**
CHTO pmax pmax
comp=Z,4.0nm,0.8s
**CHTO Chiang Mai 69.93 83** *e*P **P 17 15 56.5 +0.2**
comp=Z,4.3nm,0.8s
**CHTO Chiang Mai 69.93 83** *e*P **P 17 15 56.5 +0.2**
comp=Z,4.3nm,0.8s
**CM31 Chiang Mai Arr 70.16 83** *e*P **P 17 15 57.9 +0.2**
**CM31 Chiang Mai Arr 70.16 83** *e*P **P 17 15 57.9 +0.2**
**CMAR Chiang Mai Arr 70.16 83** P **P 17 15 57.9 +0.3**
comp=Z,3.2nm,0.7s,baz=304,slow=6.9,SNR=9.9
CMAR LR LR 17 55 32.0
comp=Z,48nm,18.1s,baz=140,slow=43
**CMAR Chiang Mai Arr 70.16 83** *i* P **P 17 15 58.4 +0.7**
CMAR pmax pmax
comp=Z,3.0nm,0.7s
**IMAR Indian Mountai 70.94 357** *e*P **P 17 16 01.9 +0.2**
**IMAR Indian Mountai 70.94 357** *e*P **P 17 16 01.9 +0.2**
**COLA College 71.72 354**‖ *e*P **P 17 16 06.8 +0.5**
COLA pmax pmax
comp=Z,3.0nm,0.9s
**COLA College 71.72 354** *e*P **P 17 16 06.8 +0.5**
comp=Z,3.0nm,0.9s
**ILAR Eielson Array 71.74 354** P **P 17 16 07.0 +0.4**
comp=Z,1.0nm,0.7s,baz=2,1,slow=6.0,SNR=15
**ILAR Eielson Array 71.74 354** P **P 17 16 07.0 +0.4**
ILAR pmax pmax
comp=Z,1.0nm,0.7s
**ILAR Eielson Array 71.74 354** P **P 17 16 07.0 +0.4**
comp=Z,1.0nm,0.7s
**BOSA Boshof 71.75 174** P **P 17 16 07.6 +0.5**
comp=Z,1.7nm,0.6s,baz=7.5,slow=7.1,SNR=5.1
BOSA LR LR 17 50 21.1
comp=Z,74nm,18.5s,baz=7.5,slow=38
**KSAR Wonju Array Be 76.81 51** P **P 17 16 37.0 +0.4**
**KSAR Wonju Array Be 76.81 51** P **P 17 16 37.0 +0.4**
**KSAR Wonju Array Be 76.81 51** P **P 17 16 37.0 +0.4**
**KSRS Korea Array 76.83 51** P **P 17 16 37.0 +0.4**
comp=Z,1.4nm,0.9s,baz=317,slow=6.2,SNR=3.2
**KSRS Korea Array 76.83 51** P **P 17 16 37.0 +0.4**
KSRS pmax pmax
comp=Z,1.0nm,0.9s
**KSRS Korea Array 76.83 51** P **P 17 16 37.0 +0.4**
comp=Z,1.0nm,0.9s
**PDAR Pinedale Array 82.83 325** P **P 17 17 08.2 -1.2**
comp=Z,0.3nm,0.8s,baz=64,slow=8.2,SNR=2.8
**LTX Lajitas 90.80 313** *e*P **P 17 17 46.9 -1.5**
**LTX Lajitas 90.80 313** *e*P **P 17 17 46.9 -1.5**
**TXAR Lajitas Array 90.80 313** P **P 17 17 46.9 -1.5**
comp=Z,0.4nm,0.7s,baz=76,slow=5.3,SNR=4.4
**BPIM Pinnacles 92.83 329** *e*P **P 17 17 59.0 +1.5**
**BFSC Mount Baldy Ra 93.41 325** *e*P **P 17 18 00.5 +0.1**
**PASC Pasadena Art C 93.69 326** *e*P **P 17 17 59.4 -2.2**
**DPP Dos Picos Cty 94.18 324** *e*P **P 17 18 06.2 +2.3**
**ASAR Alice Springs 123.48 92** PKP **PKPdf 17 23 40.4 -1.9**
comp=Z,0.3nm,0.6s,baz=322,slow=1.5,SNR=7.9
**PMG Port Moresby 123.60 69***c i*PKIKP **PKPdf 17 23 43.9 +1.1**

*CSEM* **12** *17:12:07.0,38°.26N×20°.68E,h8km,ML1.8/9*
**ATH 12 17:12:04.3,38°.23N×20°.57E,h27**km±1km**,ML2.1**/3**,Error ellipse: s-maj=3.2km s-min=1.4km az=303.0,Greece**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VLS** | **Valsamata** | **0.06** | **163** | P | Pb | 17 12 10.0 | +1.0 |
| VLS | | | | S | Sb | 17 12 11.2 | -1.0 |
| VLS | | | | AML | AML | 17 12 12.3 | |
| | comp=E,2471μm,0.1s | | | | | | |
| VLS | | | | AML | AML | 17 12 13.2 | |
| | comp=N,2250μm,0.1s | | | | | | |
| **VLS** | **Valsamata** | **0.06** | **163** | P | Pb | 17 12 09.5 | +0.5 |
| VLS | | | | S | Sb | 17 12 12.4 | +0.1 |
| VLS | | | | AML | AML | 17 12 12.7 | |
| | comp=E,2374μm,0.1s | | | | | | |
| VLS | | | | AML | AML | 17 12 13.2 | |
| | comp=N,2250μm,0.1s | | | | | | |
| **VLS** | **Valsamata** | **0.06** | **163** | P | Pb | 17 12 09.5 | +0.5 |
| VLS | | | | S | Sb | 17 12 12.4 | +0.2 |
| **VLS** | **Valsamata** | **0.06** | **163** | P | Pb | 17 12 10.0 | +1.0 |
| VLS | | | | S | Sb | 17 12 11.2 | -1.0 |
| **PDO** | **Prodromos** | **0.60** | **53** | P | Pb | 17 12 15.8 | -0.5 |
| PDO | | | | S | Sb | 17 12 24.2 | -0.3 |
| PDO | | | | AML | AML | 17 12 24.9 | |
| | comp=E,277μm,0.5s | | | | | | |
| PDO | | | | AML | AML | 17 12 27.3 | |
| | comp=N,321μm,0.2s | | | | | | |
| **PDO** | **Prodromos** | **0.60** | **53** | P | Pb | 17 12 15.3 | -1.0 |
| PDO | | | | S | Sb | 17 12 24.7 | +0.1 |
| PDO | | | | AML | AML | 17 12 25.2 | |
| | comp=E,277μm,0.5s | | | | | | |
| PDO | | | | AML | AML | 17 12 27.4 | |
| | comp=N,321μm,0.2s | | | | | | |
| **PDO** | **Prodromos** | **0.60** | **53** | P | Pb | 17 12 15.4 | -0.9 |
| PDO | | | | S | Sb | 17 12 24.7 | +0.2 |
| **PDO** | **Prodromos** | **0.60** | **53** | P | Pb | 17 12 15.9 | -0.4 |
| PDO | | | | S | Sb | 17 12 24.2 | -0.3 |
| **AXS** | **Araxos** | **0.64** | **93** | P | Pn | 17 12 17.2 | -0.3 |
| **AXS** | **Araxos** | **0.64** | **93** | P | Pn | 17 12 17.2 | -0.3 |
| **RLS** | **Riolos of Patr** | **0.73** | **104** | P | Pn | 17 12 18.6 | -0.1 |
| RLS | | | | S | Sn | 17 12 30.0 | +1.0 |
| RLS | | | | AML | AML | 17 12 30.2 | |
| | comp=N,71μm,0.2s | | | | | | |
| RLS | | | | AML | AML | 17 12 30.5 | |
| | comp=E,126μm,0.5s | | | | | | |
| **RLS** | **Riolos of Patr** | **0.73** | **104** | P | Pn | 17 12 18.6 | -0.2 |
| RLS | | | | S | Sn | 17 12 30.0 | +1.0 |
| **PVO** | **Paravola** | **0.84** | **63** | P | Pn | 17 12 21.1 | +0.7 |
| PVO | | | | S | Sn | 17 12 33.6 | +1.7 |
| **PVO** | **Paravola** | **0.84** | **63** | P | Pn | 17 12 20.6 | +0.2 |
| PVO | | | | AML | AML | 17 12 33.7 | |
| | comp=E,892μm,0.3s | | | | | | |
| PVO | | | | AML | AML | 17 12 33.8 | |
| | comp=N,412μm,0.3s | | | | | | |
| PVO | | | | S | Sn | 17 12 34.0 | +2.1 |
| **PVO** | **Paravola** | **0.84** | **63** | P | Pn | 17 12 20.6 | +0.3 |
| PVO | | | | S | Sn | 17 12 34.0 | +2.1 |
| **PVO** | **Paravola** | **0.84** | **63** | P | Pn | 17 12 21.1 | +0.8 |
| PVO | | | | S | Sn | 17 12 33.6 | +1.7 |
| **DRO** | **Drossia** | **0.94** | **107** | P | Pb | 17 12 22.9 | +0.9 |
| DRO | | | | S | Sn | 17 12 36.4 | +2.0 |
| DRO | | | | AML | AML | 17 12 37.7 | |
| | comp=N,132μm,0.2s | | | | | | |
| DRO | | | | AML | AML | 17 12 38.2 | |
| | comp=E,161μm,0.2s | | | | | | |
| **DRO** | **Drossia** | **0.94** | **107** | P | Pn | 17 12 21.6 | -0.2 |
| DRO | | | | S | Sn | 17 12 36.6 | +2.2 |
| DRO | | | | AML | AML | 17 12 38.1 | |
| | comp=E,161μm,0.2s | | | | | | |
| DRO | | | | AML | AML | 17 12 43.8 | |
| | comp=N,148μm,0.4s | | | | | | |
| **DRO** | **Drossia** | **0.94** | **107** | P | Pn | 17 12 21.6 | -0.2 |
| DRO | | | | S | Sn | 17 12 36.6 | +2.2 |
| **DRO** | **Drossia** | **0.94** | **107** | P | Pb | 17 12 22.9 | +0.9 |
| DRO | | | | S | Sn | 17 12 36.4 | +2.0 |
| **DSL** | **Palaion Diasel** | **0.99** | **25** | P | Pb | 17 12 24.1 | +1.3 |
| **DSL** | **Palaion Diasel** | **0.99** | **25** | P | Pb | 17 12 23.2 | +0.4 |
| DSL | | | | S | Sn | 17 12 38.3 | +2.8 |
| **DSL** | **Palaion Diasel** | **0.99** | **25** | P | Pb | 17 12 23.2 | +0.4 |
| DSL | | | | S | Sn | 17 12 38.3 | +2.8 |
| **DSL** | **Palaion Diasel** | **0.99** | **25** | P | Pb | 17 12 24.1 | +1.3 |
| **EFP** | **Efpalio** | **1.07** | **79** | P | Pb | 17 12 26.3 | +2.1 |
| **EFP** | **Efpalio** | **1.07** | **79** | P | Pb | 17 12 26.3 | +2.2 |
| **LAKA** | **Lakka** | **1.11** | **89** | P | Pn | 17 12 23.8 | -0.2 |
| LAKA | | | | S | Sb | 17 12 41.0 | +2.0 |
| LAKA | | | | AML | AML | 17 12 41.3 | |
| | comp=N,113μm,0.4s | | | | | | |
| LAKA | | | | AML | AML | 17 12 41.7 | |
| | comp=E,89μm,0.2s | | | | | | |
| **LAKA** | **Lakka** | **1.11** | **89** | P | Pn | 17 12 23.8 | -0.3 |
| LAKA | | | | S | Sb | 17 12 41.0 | +2.1 |
| **ANX** | **Ano Chora** | **1.12** | **71** | P | Pb | 17 12 26.9 | +1.8 |
| **ANX** | **Ano Chora** | **1.12** | **71** | P | Pb | 17 12 25.2 | +0.1 |
| ANX | | | | AML | AML | 17 12 47.3 | |
| | comp=N,70μm,0.7s | | | | | | |
| ANX | | | | AML | AML | 17 12 47.7 | |
| | comp=E,68μm,0.5s | | | | | | |
| **ANX** | **Ano Chora** | **1.12** | **71** | P | Pb | 17 12 25.2 | +0.1 |
| **ANX** | **Ano Chora** | **1.12** | **71** | P | Pb | 17 12 26.9 | +1.8 |
| **AMT** | **Artemida-Makis** | **1.14** | **127** | P | Pb | 17 12 25.6 | +0.2 |
| **AMT** | **Artemida-Makis** | **1.14** | **127** | P | Pb | 17 12 29.0 | +3.6 |
| AMT | | | | S | Sb | 17 12 41.8 | +2.0 |
| **AMT** | **Artemida-Makis** | **1.14** | **127** | P | Pb | 17 12 29.0 | +3.6 |
| AMT | | | | S | Sb | 17 12 41.8 | +2.0 |
| **AMT** | **Artemida-Makis** | **1.14** | **127** | P | Pb | 17 12 25.6 | +0.2 |
| **SERG** | **Sergoula** | **1.19** | **81** | P | Pn | 17 12 25.3 | +0.3 |
| **SERG** | **Sergoula** | **1.19** | **81** | P | Pb | 17 12 27.1 | +1.0 |
| SERG | | | | S | Sb | 17 12 41.9 | +0.8 |
| SERG | | | | AML | AML | 17 12 47.8 | |
| | comp=N,68μm,0.7s | | | | | | |
| SERG | | | | AML | AML | 17 12 48.1 | |
| | comp=E,60μm,0.3s | | | | | | |
| **SERG** | **Sergoula** | **1.19** | **81** | P | Pb | 17 12 27.1 | +1.0 |
| SERG | | | | S | Sb | 17 12 41.9 | +0.8 |
| **SERG** | **Sergoula** | **1.19** | **81** | P | Pn | 17 12 25.3 | +0.2 |
| **KALE** | **Kalithea** | **1.25** | **82** | P | Pb | 17 12 29.2 | +2.0 |
| KALE | | | | S | Sb | 17 12 45.4 | +2.6 |
| **KALE** | **Kalithea** | **1.25** | **82** | P | Pb | 17 12 29.2 | +2.0 |
| KALE | | | | S | Sb | 17 12 45.4 | +2.5 |
| **KLV** | **Kalavryta, Ach** | **1.26** | **98** | P | Pb | 17 12 27.5 | 0.0 |
| **KLV** | **Kalavryta, Ach** | **1.26** | **98** | P | Pn | 17 12 26.8 | +0.5 |
| KLV | | | | S | Sb | 17 12 45.6 | +2.2 |
| KLV | | | | AML | AML | 17 12 46.7 | |
| | comp=E,66μm,0.3s | | | | | | |
| KLV | | | | AML | AML | 17 12 47.0 | |
| | comp=N,58μm,0.4s | | | | | | |
| **KLV** | **Kalavryta, Ach** | **1.26** | **98** | P | Pn | 17 12 26.6 | +0.4 |
| KLV | | | | S | Sb | 17 12 45.6 | +2.3 |
| **KLV** | **Kalavryta, Ach** | **1.26** | **98** | P | Pb | 17 12 27.5 | +0.1 |
| **GUR** | **Goura** | **1.43** | **101** | P | Pb | 17 12 30.3 | -0.1 |
| **GUR** | **Goura** | **1.43** | **101** | P | Pb | 17 12 30.3 | 0.0 |
| **DSF** | **Desfina** | **1.55** | **83** | P | Pb | 17 12 36.4 | +4.1 |
| **DSF** | **Desfina** | **1.55** | **83** | P | Pb | 17 12 36.4 | +4.0 |
| **AGG** | **Agios Georgios** | **1.59** | **60** | P | Pb | 17 12 37.5 | +4.6 |
| **AGG** | **Agios Georgios** | **1.59** | **60** | P | Pb | 17 12 37.5 | +4.5 |
| **THL** | **Klokotos Trika** | **1.74** | **40** | P | Pb | 17 12 39.8 | +4.2 |
| **THL** | **Klokotos Trika** | **1.74** | **40** | P | Pb | 17 12 39.8 | +4.2 |
| **DID** | **Didima** | **2.23** | **108** | P | Pb | 17 12 45.6 | +1.6 |
| DID | | | | S | Sb | 17 13 15.2 | +4.1 |
| **DID** | **Didima** | **2.23** | **108** | P | Pb | 17 12 45.6 | +1.6 |
| DID | | | | S | Sb | 17 13 15.2 | +4.0 |

*CSEM* **12** *17:18:38.9±0.3,38°.75N×27°.80E,h5km,ML2.6,Error ellipse: s-maj=8.1km s-min=5.9km az=12.0*
*ISK* **12** *17:18:38.0,38°.76N×27°.82E,h9km,MD2.5*
*ISCJB* **12** *17:18:39.0±0.6,38°.76N±0°.04×27°.83E±0°.04,h4km±6km, Error ellipse: s-maj=6.6km s-min=4.6km az=27.4*
*DDA* **12** *17:18:39.9,38°.83N×27°.84E,h6km,Ml2.6*
**ISC 12 17:18:38.9±1.0,38°.75N±0°.03×27°.82E±0°.03,h6**km±9km**, n23,σ0s68/35,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AKHS** | **Akhisar** | **0.13** | **359** | *i* P | **Pg** | **17 18 41.8** | **+0.1** |
| **AKHS** | **Akhisar** | **0.13** | **359** | P | **Pg** | **17 18 41.8** | **+0.1** |
| **AKS** | **Akhisar** | **0.13** | **359** | *e*PG | **Pg** | **17 18 41.2** | **-0.4** |
| AKS | | | | *e*SG | **Sg** | **17 18 43.5** | **-0.1** |
| **AKS** | **Akhisar** | **0.13** | **359** | *e*Pg | **Pg** | **17 18 41.3** | **-0.4** |
| AKS | | | | *e*Sg | **Sg** | **17 18 43.5** | **-0.1** |
| **MANT** | **Manisa** | **0.64** | **114** | *i* P | **Pb** | **17 18 53.1** | **+0.5** |
| MANT | | | | *i* S | **Sb** | **17 19 00.8** | **-1.0** |
| **MANT** | **Manisa** | **0.64** | **114** | P | **Pb** | **17 18 53.1** | **+0.5** |
| MANT | | | | S | **Sb** | **17 19 00.8** | **-1.0** |
| **KULA** | **Kula-Manisa** | **0.70** | **109** | *e*PG | **Pg** | **17 18 52.0** | **-0.4** |
| KULA | | | | *e*SG | **Sg** | **17 19 02.3** | **+0.7** |
| **KULA** | **Kula-Manisa** | **0.70** | **109** | *e*Pg | **Pg** | **17 18 52.0** | **-0.4** |
| KULA | | | | *e*Sg | **Sg** | **17 19 02.3** | **+0.7** |
| **DEMI** | **Demirci** | **0.76** | **67** | *i* P | **Pg** | **17 18 53.4** | **-0.2** |
| DEMI | | | | *i* S | **Sb** | **17 19 04.6** | **-0.7** |
| **DEMI** | **Demirci** | **0.76** | **67** | P | **Pg** | **17 18 53.4** | **-0.2** |
| DEMI | | | | S | **Sb** | **17 19 04.6** | **-0.7** |
| **SIMA** | **Simav-Kutahya** | **0.97** | **70** | *e*PG | **Pg** | **17 18 57.0** | **-0.6** |
| **SIMA** | **Simav-Kutahya** | **0.97** | **70** | *e*Pg | **Pg** | **17 18 57.0** | **-0.6** |
| **DGB** | **˙zmir** | **1.01** | **227** | *i* P | **Pn** | **17 19 00.1** | **+0.5** |
| **URLA** | **Izmir** | **1.03** | **248** | *e*PG | **Pg** | **17 18 58.6** | **-0.1** |
| **URLA** | **Izmir** | **1.03** | **248** | *e*Pg | **Pg** | **17 18 58.7** | **-0.1** |
| **GCAM** | **G?zelcaml?** | **1.14** | **204** | *e*PN | **Pg** | **17 18 59.9** | **-1.0** |
| **GCAM** | **G?zelcaml?** | **1.14** | **204** | *e*Pn | **Pg** | **17 18 59.9** | **-1.0** |
| **KHAL** | **Karahalli** | **1.37** | **106** | *i* P | **Pg** | **17 19 06.6** | **+1.4** |
| **KHAL** | **Karahalli** | **1.37** | **106** | P | **Pg** | **17 19 06.6** | **+1.4** |
| **BAYC** | **CANAKKALE_Bayr** | **1.40** | **316** | *i* P | **Pg** | **17 19 06.1** | **+0.4** |
| BAYC | | | | *i* S | **Sg** | **17 19 24.4** | **+0.5** |
| **BAYC** | **CANAKKALE_Bayr** | **1.40** | **316** | P | **Pg** | **17 19 06.1** | **+0.4** |
| BAYC | | | | S | **Sg** | **17 19 24.4** | **+0.5** |
| **TVSB** | **Tavsanli** | **1.46** | **61** | *e*PN | **Pn** | **17 19 05.4** | **-0.5** |
| TVSB | | | | *e*SN | **Sb** | **17 19 24.7** | **-0.7** |
| **TVSB** | **Tavsanli** | **1.46** | **61** | *e*Pn | **Pn** | **17 19 05.4** | **-0.5** |
| TVSB | | | | *e*Sn | **Sb** | **17 19 24.7** | **-0.7** |

*ISCJB* **12** *17:21:51.5±0.6,50°.23N±0°.04×19°.19E±0°.03,h0km, Error ellipse: s-maj=5.7km s-min=2.4km az=17.1*
*CSEM* **12** *17:21:52.7±0.3,50°.24N×19°.25E,h2km,ML2.9/10,Error ellipse: s-maj=8.0km s-min=3.3km az=16.0*
*IPEC* **12** *17:21:53.3±0.2,50°.23N×19°.29E,h0km±1km,ML1.9/3, Error ellipse: s-maj=2.9km s-min=1.1km az=169.0*
*PRU* **12** *17:21:53.4,50°.24N×19°.24E,h0km*
*WAR* **12** *17:21:54.3,50°.18N×19°.36E,h1km,Mw2.5*
**ISC 12 17:21:53.4±0.8,50°.15N±0°.03×19°.25E±0°.02,h0**km**,n40, σ0s97/66,Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OJC** | **Ojcow** | **0.36** | **78** | *e*Pg | **Pg** | **17 21 59.7** | **-0.6** |
| OJC | | | | *e*Sg | **Sg** | **17 22 04.0** | **-1.0** |
| **OJC** | **Ojcow** | **0.36** | **78** | *e*Pg | **Pg** | **17 21 59.7** | **-0.6** |
| OJC | | | | *e*Sg | **Sg** | **17 22 04.0** | **-1.0** |
| **OJC** | **Ojcow** | **0.36** | **78** | *e*Pg | **Pg** | **17 21 59.7** | **-0.6** |
| OJC | | | | *e*Sg | **Sg** | **17 22 04.0** | **-1.0** |
| **OKC** | **Ostrava-Krasne** | **0.78** | **247** | *e*PG | **Pb** | **17 22 10.1** | **+0.3** |
| OKC | | | | *e*SG | **Sb** | **17 22 21.6** | **+0.8** |
| | comp=Z,23nm,0.3s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **0.78** | **247** | Pg | **Pb** | **17 22 10.1** | **+0.3** |
| OKC | | | | Sg | **Sb** | **17 22 21.6** | **+0.8** |
| | 23nm,0.3s | | | | | | |
| **NIE** | **Niedzica** | **1.00** | **137** | *e*Pg | **Pg** | **17 22 12.7** | **+0.2** |
| NIE | | | | *e*Sg | **Sb** | **17 22 27.1** | **-0.1** |
| **NIE** | **Niedzica** | **1.00** | **137** | *e*Pg | **Pg** | **17 22 12.7** | **+0.2** |
| NIE | | | | *e*Sg | **Sb** | **17 22 27.1** | **-0.1** |
| **NIE** | **Niedzica** | **1.00** | **137** | *e*Pg | **Pg** | **17 22 12.7** | **+0.2** |
| NIE | | | | *e*Sg | **Sb** | **17 22 27.1** | **-0.1** |
| **LANS** | **Liptovska Anna** | **1.00** | **172** | *e*Pg | **Pb** | **17 22 13.7** | **0.0** |
| LANS | | | | *e*Sg | **Sn** | **17 22 29.0** | **-0.7** |
| **LANS** | **Liptovska Anna** | **1.00** | **172** | *e*PG | **Pb** | **17 22 13.7** | **0.0** |
| LANS | | | | *e*SG | **Sn** | **17 22 29.0** | **-0.7** |
| **MORC** | **Moravsky Berou** | **1.16** | **252** | *e*Pg | **Pn** | **17 22 16.5** | **-0.5** |
| MORC | | | | *e*Sg | **Sb** | **17 22 31.5** | **-0.5** |
| | 24nm,0.3s | | | | | | |
| **STHS** | **Stebnicka Huta** | **1.48** | **119** | *e*Pg | **Pb** | **17 22 22.1** | **+0.3** |
| **STHS** | **Stebnicka Huta** | **1.48** | **119** | *e*PG | **Pb** | **17 22 22.1** | **+0.3** |
| STHS | | | | *e*LG | Lg | 17 22 43.9 | |
| **KRLC** | **Kraliky** | **1.59** | **268** | *e*PG | **Pn** | **17 22 22.8** | **-0.1** |
| KRLC | | | | *e*SG | **Sn** | **17 22 44.0** | **-0.1** |
| | comp=Z,7.3nm,0.6s | | | | | | |
| **KRLC** | **Kraliky** | **1.59** | **268** | Pg | **Pn** | **17 22 22.8** | **-0.1** |
| KRLC | | | | Sg | **Sn** | **17 22 44.0** | **-0.1** |
| | 7.3nm,0.6s | | | | | | |
| **VYHS** | **Vyhne** | **1.67** | **189** | *e*Pn | **Pn** | **17 22 23.9** | **-0.1** |
| VYHS | | | | *e*Sn | **Sn** | **17 22 46.2** | **+0.1** |
| **VYHS** | **Vyhne** | **1.67** | **189** | *e*PN | **Pn** | **17 22 23.9** | **-0.1** |
| VYHS | | | | *e*SN | **Sn** | **17 22 46.1** | **0.0** |
| VYHS | | | | eLG | Lg | 17 22 49.5 | |
| **KECS** | **Kecovo** | **1.85** | **154** | *e*Sn | **Sg** | **17 22 52.6** | **-0.2** |
| **KECS** | **Kecovo** | **1.85** | **154** | *e*SN | **Sg** | **17 22 52.6** | **-0.2** |
| KECS | | | | eLG | Lg | 17 22 56.0 | |
| **DPC** | **Dobruska-Polom** | **1.89** | **277** | *e*PG | **Pn** | **17 22 27.1** | **+0.1** |
| DPC | | | | *e*SG | **Sb** | **17 22 52.8** | **-0.2** |
| | comp=Z,16nm,0.3s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.89** | **277** | Pg | **Pn** | **17 22 27.1** | **+0.1** |
| DPC | | | | Sg | **Sb** | **17 22 52.8** | **-0.2** |
| | 16nm,0.3s | | | | | | |
| **CRVS** | **Cervenica-Dubn** | **1.90** | **130** | *e*Sg | **Sg** | **17 22 55.5** | **+1.0** |
| **CRVS** | **Cervenica-Dubn** | **1.90** | **130** | *e*SG | **Sg** | **17 22 55.5** | **+1.0** |
| **VRAC** | **Vranov** | **1.92** | **245** | *e*Pn | **Pn** | **17 22 28.0** | **+0.7** |
| VRAC | | | | *e*Sg | **Sg** | **17 22 55.0** | **+0.1** |
| | 7.7nm,0.4s | | | | | | |
| **KSP** | **Ksiaz** | **2.01** | **291** | *e*Pg | **Pg** | **17 22 31.9** | **-0.1** |
| KSP | | | | *e*Sg | **Sg** | **17 22 58.8** | **+0.7** |
| **KSP** | **Ksiaz** | **2.01** | **291** | *e*Pg | **Pg** | **17 22 31.9** | **-0.1** |
| KSP | | | | *e*Sg | **Sg** | **17 22 58.8** | **+0.7** |
| **KSP** | **Ksiaz** | **2.01** | **291** | *e*Pg | **Pg** | **17 22 31.9** | **-0.1** |
| KSP | | | | *e*Sg | **Sg** | **17 22 58.8** | **+0.7** |
| **UPC** | **Upice** | **2.11** | **281** | *e*SG | **Sg** | **17 22 59.9** | **-1.2** |
| | comp=Z,9.2nm,0.6s | | | | | | |
| **UPC** | **Upice** | **2.11** | **281** | Sg | **Sg** | **17 22 59.9** | **-1.2** |
| | 9.2nm,0.6s | | | | | | |
| **KRUC** | **Moravsky** | **2.15** | **241** | *e*Pn | **Pn** | **17 22 31.2** | **+0.7** |
| KRUC | | | | *e*Sg | **Sg** | **17 23 02.7** | **+0.3** |
| | 5.3nm,0.2s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **2.89** | **267** | *e*PG | **Pb** | **17 22 46.9** | **+1.1** |
| GOPC | | | | *e*SG | **Sg** | **17 23 24.2** | **-1.9** |
| | comp=Z,7.8nm,0.4s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **2.89** | **267** | Pg | **Pb** | **17 22 46.9** | **+1.1** |
| GOPC | | | | Sg | **Sg** | **17 23 24.2** | **-1.9** |
| | 7.8nm,0.4s | | | | | | |
| **PVCC** | **Panska Ves** | **3.02** | **279** | *e*SG | **Sb** | **17 23 27.7** | **+2.2** |
| | comp=Z,11nm,0.3s | | | | | | |
| **PVCC** | **Panska Ves** | **3.02** | **279** | Sg | **Sb** | **17 23 27.7** | **+2.2** |
| | 11nm,0.3s | | | | | | |
| **PRU** | **Pruhonice** | **3.04** | **269** | *e*SG | **Sg** | **17 23 29.0** | **-1.9** |
| | comp=Z,5.1nm,0.3s | | | | | | |
| **PRU** | **Pruhonice** | **3.04** | **269** | Sg | **Sg** | **17 23 29.0** | **-1.9** |
| | 5.1nm,0.3s | | | | | | |
| **KHC** | **Kasperske Hory** | **3.82** | **257** | *e*PN | **Pn** | **17 22 54.5** | **+1.0** |
| KHC | | | | *e*PG | **Pg** | **17 23 05.6** | **-1.0** |
| KHC | | | | *e*SG | **Sg** | **17 23 52.7** | **-3.5** |
| | comp=Z,4.6nm,0.4s | | | | | | |
| **KHC** | **Kasperske Hory** | **3.82** | **257** | Pn | **Pn** | **17 22 54.5** | **+1.0** |
| **NKC** | **Novy Kostel** | **4.37** | **274** | *e*SG | **Sg** | **17 24 12.6** | **-1.2** |
| **NKC** | **Novy Kostel** | **4.37** | **274** | Sg | **Sg** | **17 24 12.6** | **-1.2** |

**IDC 12 17:22:60.0±67.0,17°.19S×176°.02W,h0**km**,mb3.8**/3**, mb1 4.0/3,mb1mx3.7**/24**,mbtmp3.8**/3**,Error ellipse: s-maj=1249.0km s-min=174.1km az=80.0,Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **STKA** | **Stephens Creek** | **40.97** | **241** | P | P | 17 30 45.2 | +0.5 |
| | 1.6nm,0.9s,baz=100,slow=6.1,SNR=2.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **47.00** | **259** | P | P | 17 31 33.2 | -0.1 |
| | 0.4nm,0.3s,baz=97,slow=7.6,SNR=5.6 | | | | | | |
| **ASAR** | **Alice Springs** | **47.17** | **253** | P | P | 17 31 34.0 | -0.7 |
| | 1.0nm,0.7s,baz=93,slow=7.3,SNR=29 | | | | | | |

*ATA* **12** *17:23:36.0±0.5,38°.73N×43°.51E,h16km±4km,ML2.8, MW2.8*
*ISK* **12** *17:23:37.4,38°.73N×43°.45E,h3km,ML2.4*
*DDA* **12** *17:23:37.8,38°.74N×43°.45E,h7km,Ml2.8*
*CSEM* **12** *17:23:38.1±0.2,38°.74N×43°.47E,h2km,ML2.4,Error ellipse: s-maj=6.4km s-min=4.3km az=106.0*
**ISC 12 17:23:37.5±1.0,38°.71N±0°.02×43°.52E±0°.03,h19**km±2km**, n35,σ0s94/51,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.16** | **222** | *e*PG | **Pg** | **17 23 42.4** | **+0.3** |
| **VANB** | **Van** | **0.16** | **222** | *e*Pg | **Pg** | **17 23 42.4** | **+0.3** |
| **TVAN** | **Van** | **0.20** | **206** | *i* P | **Pb** | **17 23 41.8** | **-0.5** |
| TVAN | | | | *i* S | **Sg** | **17 23 46.4** | **0.0** |
| **TVAN** | **Van** | **0.20** | **206** | P | **Pb** | **17 23 41.8** | **-0.5** |
| TVAN | | | | S | **Sg** | **17 23 46.4** | **0.0** |
| **VMUR** | **Van-Muradiye** | **0.28** | **8** | *i* P | **Pg** | **17 23 43.0** | **-0.9** |
| VMUR | | | | *i* S | **Sb** | **17 23 49.6** | **+1.3** |
| **VMUR** | **Van-Muradiye** | **0.28** | **8** | P | **Pg** | **17 23 43.0** | **-0.9** |
| VMUR | | | | S | **Sb** | **17 23 49.6** | **+1.3** |
| **CLDR** | **Caldiran** | **0.53** | **36** | *e*PG | **Pb** | **17 23 49.1** | **+0.8** |
| CLDR | | | | *e*SG | **Sn** | **17 23 57.4** | **-1.5** |
| **CLDR** | **Caldiran** | **0.53** | **36** | *i* P | **Pg** | **17 23 47.9** | **-0.3** |
| CLDR | | | | *i* S | **Sn** | **17 23 57.6** | **-1.3** |
| **CLDR** | **Caldiran** | **0.53** | **36** | P | **Pg** | **17 23 47.9** | **-0.3** |
| **CLDR** | **Caldiran** | **0.53** | **36** | *e*Pg | **Pb** | **17 23 49.1** | **+0.8** |
| CLDR | | | | *e*Sg | **Sn** | **17 23 57.4** | **-1.5** |
| **GEVA** | **Gevas** | **0.54** | **222** | *e*P | **Pg** | **17 23 47.1** | **-1.4** |
| GEVA | | | | *e*S | **Sb** | **17 23 56.0** | **+0.2** |
| GEVA | | | | IAML | | 17 24 00.3 | |
| | comp=Z,30nm,0.4s | | | | | | |
| **GEVA** | **Gevas** | **0.54** | **222** | *i* P | **Pg** | **17 23 47.9** | **-0.6** |
| **GEVA** | **Gevas** | **0.54** | **222** | P | **Pg** | **17 23 47.9** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.63** | **279** | *i* P | **Pb** | **17 23 49.5** | **-0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.63** | **279** | P | **Pb** | **17 23 49.5** | **-0.5** |
| **TUTA** | **Tutak** | **0.88** | **322** | *e*P | **Pb** | **17 23 53.0** | **-1.4** |
| TUTA | | | | IAML | | 17 23 55.4 | |
| | comp=Z,55nm,0.2s | | | | | | |
| TUTA | | | | *e*S | **Sg** | **17 24 06.6** | **+0.1** |
| **TUTA** | **Tutak** | **0.88** | **322** | *i* P | **Pb** | **17 23 53.3** | **-1.1** |
| TUTA | | | | *i* S | **Sg** | **17 24 06.7** | **+0.2** |
| **TUTA** | **Tutak** | **0.88** | **322** | P | **Pb** | **17 23 53.3** | **-1.1** |
| TUTA | | | | S | **Sg** | **17 24 06.7** | **+0.2** |
| **AGRB** | **Hanur-Agry** | **0.95** | **335** | *e*PG | **Pb** | **17 23 55.8** | **+0.2** |
| AGRB | | | | *e*SG | **Sn** | **17 24 09.3** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **0.95** | **335** | *e*Pg | **Pb** | **17 23 55.8** | **+0.2** |
| AGRB | | | | *e*Sg | **Sn** | **17 24 09.3** | **-0.1** |
| **HAKT** | **HAKKARI** | **1.16** | **173** | *i* P | **Pn** | **17 23 58.4** | **-0.6** |
| **HAKT** | **HAKKARI** | **1.16** | **173** | P | **Pn** | **17 23 58.4** | **-0.6** |
| **EKAR** | **Karacoban** | **1.26** | **296** | *e*PN8 | **Pg** | **17 24 02.0** | **+0.1** |
| EKAR | | | | IAML | | 17 24 28.7 | |
| | comp=Z,9.1nm,0.6s | | | | | | |
| **EKAR** | **Karacoban** | **1.26** | **296** | *i* P | **Pg** | **17 24 02.7** | **+0.8** |
| **EKAR** | **Karacoban** | **1.26** | **296** | P | **Pg** | **17 24 02.7** | **+0.8** |
| **EATA** | **Eleskirt** | **1.40** | **325** | *e*P | **Pb** | **17 24 03.0** | **-0.2** |
| EATA | | | | *e*S | **Sg** | **17 24 23.4** | **+0.5** |
| EATA | | | | IAML | | 17 24 29.1 | |
| | comp=Z,2.5nm,0.5s | | | | | | |
| **EATA** | **Eleskirt** | **1.40** | **325** | *i* P | **Pb** | **17 24 03.2** | **-0.1** |
| **EATA** | **Eleskirt** | **1.40** | **325** | P | **Pb** | **17 24 03.2** | **-0.1** |
| **SRTM** | **Siirt_Merkez** | **1.45** | **241** | *i* P | **Pg** | **17 24 05.0** | **-0.5** |
| SRTM | | | | *i* S | **Sg** | **17 24 27.3** | **+2.9** |
| **SRTM** | **Siirt_Merkez** | **1.45** | **241** | P | **Pg** | **17 24 05.0** | **-0.5** |
| SRTM | | | | S | **Sg** | **17 24 27.3** | **+2.9** |
| **CUKT** | **Cukurca** | **1.47** | **177** | *e*PN | **Pg** | **17 24 06.6** | **+0.8** |
| **CUKT** | **Cukurca** | **1.47** | **177** | *e*Pn | **Pg** | **17 24 06.6** | **+0.8** |
| **SIRT** | **Sirnak** | **1.48** | **216** | *e*PN | **Pg** | **17 24 05.8** | **-0.3** |
| **SIRT** | **Sirnak** | **1.48** | **216** | *e*Pn | **Pg** | **17 24 05.8** | **-0.3** |
| **HOMI** | **Horasan** | **1.83** | **317** | *i* P | **Pb** | **17 24 10.9** | **+0.4** |

*IDC* **12** *17:46:16.9±2.0,1°.13S×126°.75E,h0km,mb3.8/5, mb1 4.0/5,mb1mx3.6/46,mbtmp3.9/5,Error ellipse: s-maj=315.0km s-min=20.3km az=66.0*
*ISCJB* **12** *17:46:21.5±0.5,0°.79S±0°.05×127°.56E±0°.05,h34km, mb3.8/4,Error ellipse: s-maj=7.2km s-min=6.2km az=142.0*
*DJA* **12** *17:46:21.0±0.3,1°.5S±3°×12°.8E±°,h10km,M4.0/9,mB4.9/1, mb4.5/2,MLv3.8/9,Mw(mB)4.2/1*
**ISC 12 17:46:22.2±0.9,0.75S±0°.04×127°.57E±0°.07,h34**km**,n24, σ1s56/28,mb3.9/4,Halmahera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LBMI** | **Labuha** | **0.13** | **327** | P | **Pn** | **17 46 24.0** | **-1.1** |
| **SANI** | **Sanana** | **2.04** | **231** | P | **Pn** | **17 46 53.4** | **-0.9** |
| SANI | | | | S | **Sn** | **17 47 18.8** | **+0.2** |
| **NLAI** | **Namlea** | **2.52** | **191** | P | **Pn** | **17 47 00.2** | **-0.6** |
| NLAI | | | | S | **Sn** | **17 47 30.6** | **+0.2** |
| **MSAI** | **Masohi** | **2.92** | **152** | P | **Pn** | **17 47 06.4** | **+0.1** |
| **AAI** | **Ambon** | **2.99** | **168** | P | **Pn** | **17 47 06.8** | **-0.4** |
| **SWI** | **Sorong** | **3.69** | **92** | P | **Pn** | **17 47 19.1** | **+2.2** |
| **KMSI** | **Cibinong** | **3.82** | **290** | P | **Pn** | **17 47 20.5** | **+1.8** |
| **LUWI** | **Luwuk** | **4.81** | **266** | P | **Pn** | **17 47 31.8** | **-0.5** |
| **FAKI** | **Fak Fak** | **5.15** | **115** | P | **Pn** | **17 47 36.1** | **-0.9** |
| **APSI** | **Ampana** | **5.92** | **268** | P | **Pn** | **17 47 48.9** | **+1.3** |
| APSI | | | | S | **Sn** | **17 48 54.2** | **-0.

**GUC 12 18:06:38.5±0.5, 34.74S×71.85W, h35km±3km, ML3.8, 2C-1D, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GO05** | **Hualaæø** | **0.28** | **194** | ⇑*iP* | Pn | 18 06 45.8 | -0.6 |
| GO05 | | | | *i* S | Sn | 18 06 51.6 | -0.7 |
| **CHPI** | **Pichilemu** | **0.37** | **340** | ⇑*iP* | Pn | 18 06 46.3 | -0.9 |
| CHPI | | | | *i* S | Sn | 18 06 53.1 | -0.4 |
| **NICH** | **Los Niches** | **0.57** | **117** | ⇓*iP* | Pn | 18 06 49.4 | -0.8 |
| NICH | | | | *i* S | Sn | 18 06 57.8 | -0.6 |
| **LMEL** | **Las Melosas** | **1.63** | **57** | *eP* | Pn | 18 07 06.0 | +1.2 |
| LMEL | | | | *i* S | Sn | 18 07 26.4 | +1.8 |
| LMEL | | | | IAML | | 18 07 30.3 | |
| | comp=N,2μm,0.2s | | | | | | |
| **STL** | **Santa Lucia** | **1.64** | **38** | *eP* | Pn | 18 07 05.7 | +0.8 |
| STL | | | | *i* S | Sn | 18 07 26.8 | +2.0 |
| **SJCH** | **San Jose de Ma** | **1.65** | **49** | *eP* | Pn | 18 07 05.8 | -0.7 |
| SJCH | | | | *i* S | Sn | 18 07 26.8 | +1.6 |
| **FSR** | **Penalolen** | **1.67** | **41** | *eP* | Pn | 18 07 06.6 | +1.3 |
| FSR | | | | *i* S | Sn | 18 07 27.1 | +1.6 |
| **CCHI** | **Chillan** | **1.87** | **186** | IAML | | 18 07 41.9 | |
| | comp=N,845nm,0.5s | | | | | | |
| **ROCH** | **El Roble** | **1.90** | **22** | IAML | | 18 07 43.7 | |
| | comp=N,1μm,0.2s | | | | | | |

*DDA* ***12*** *18:08:24.7, 38.74N×43.36E, h5km, Ml3.1*
*ATA* ***12*** *18:08:24.6±0.9, 38.76N×43.29E, h7km±11km, ML3.5, MW3.4*
*ISK* ***12*** *18:08:24.7, 38.75N×43.37E, h5km, ML2.9*
*CSEM* ***12*** *18:08:25.6±0.2, 38.74N×43.39E, h2km, ML2.9, Error ellipse: s-maj=5.4km s-min=3.9km az=89.0*

**ISC 12 18:08:26.0±1.0, 38.74N±0.02×43.37E±0.02, h19km±2km, n82, σ1§30/103, 2D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.15** | **175** | *e*PG | **Pg** | **18 08 30.5** | **+0.1** |
| **VANB** | **Van** | **0.15** | **175** | *e*Pg | **Pg** | **18 08 30.5** | **+0.1** |
| **TVAN** | **Van** | **0.21** | **173** | *i* P | **Pg** | **18 08 30.5** | **-0.9** |
| TVAN | | | | *i* S | **Sg** | **18 08 35.1** | **+0.1** |
| **TVAN** | **Van** | **0.21** | **173** | P | **Pg** | **18 08 30.5** | **-0.9** |
| TVAN | | | | S | **Sg** | **18 08 35.1** | **+0.1** |
| **ERCV** | **ERCIS-VAN** | **0.28** | **354** | *e*PG | **Pg** | **18 08 31.0** | **-1.4** |
| ERCV | | | | *e*SG | **Sb** | **18 08 36.5** | **-0.3** |
| **ERCV** | **ERCIS-VAN** | **0.28** | **354** | *e*Pg | **Pg** | **18 08 31.0** | **-1.4** |
| ERCV | | | | *e*Sg | **Sb** | **18 08 36.5** | **-0.3** |
| **GEVA** | **Gevas** | **0.49** | **210** | *i* P | **Pg** | **18 08 34.3** | **-1.8** |
| GEVA | | | | *e*S | **Sg** | **18 08 41.9** | **-0.9** |
| **GEVA** | **Gevas** | **0.49** | **210** | *i* P | **Pg** | **18 08 34.6** | **-1.5** |
| GEVA | | | | *i* S | **Sb** | **18 08 42.7** | **-0.5** |
| **GEVA** | **Gevas** | **0.49** | **210** | P | **Pg** | **18 08 34.6** | **-1.5** |
| GEVA | | | | S | **Sb** | **18 08 42.7** | **-0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.51** | **278** | *i* P | **Pg** | **18 08 35.0** | **-1.4** |
| ADCV | | | | *i* S | **Sb** | **18 08 43.3** | **-0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.51** | **278** | P | **Pg** | **18 08 35.0** | **-1.4** |
| ADCV | | | | S | **Sb** | **18 08 43.3** | **-0.3** |
| **CLDR** | **Caldiran** | **0.58** | **46** | *e*PG | **Pb** | **18 08 37.2** | **-0.5** |
| CLDR | | | | *e*SG | **Sb** | **18 08 46.2** | **+0.6** |
| **CLDR** | **Caldiran** | **0.58** | **46** | *i* P | **Pb** | **18 08 37.2** | **-0.5** |
| CLDR | | | | *i* S | **Sb** | **18 08 46.9** | **+1.3** |
| **CLDR** | **Caldiran** | **0.58** | **46** | P | **Pb** | **18 08 37.2** | **-0.5** |
| CLDR | | | | *e*Sg | **Sb** | **18 08 46.2** | **+0.6** |
| **TUTA** | **Tutak** | **0.79** | **327** | ⇓*iP* | **Pg** | **18 08 39.7** | **-1.7** |
| TUTA | | | | *e*S | **Sg** | **18 08 50.7** | **-1.4** |
| **TUTA** | **Tutak** | **0.79** | **327** | *i* P | **Pg** | **18 08 39.9** | **-1.7** |
| **TUTA** | **Tutak** | **0.79** | **327** | P | **Pg** | **18 08 39.8** | **-1.7** |
| **DYDN** | **Diyadin** | **0.84** | **17** | *e*P | **Pb** | **18 08 41.2** | **-0.9** |
| DYDN | | | | IAML | | 18 08 55.8 | |
| | comp=Z,54nm,0.3s | | | | | | |
| **DYDN** | **Diyadin** | **0.84** | **17** | *i* P | **Pb** | **18 08 41.2** | **-0.9** |
| **DYDN** | **Diyadin** | **0.84** | **17** | P | **Pb** | **18 08 41.2** | **-0.9** |
| **BASK** | **Baskale_VAN** | **0.85** | **144** | *i* P | **Pg** | **18 08 41.0** | **-1.6** |
| **BASK** | **Baskale_VAN** | **0.85** | **144** | P | **Pg** | **18 08 41.0** | **-1.6** |
| **AGRB** | **Hanur-Agry** | **0.88** | **340** | *e*PG | **Pg** | **18 08 41.7** | **-1.6** |
| **AGRB** | **Hanur-Agry** | **0.88** | **340** | *e*Pg | **Pg** | **18 08 41.7** | **-1.6** |
| **EKAR** | **Karacoban** | **1.14** | **297** | *e*P | **Pg** | **18 08 46.2** | **-2.0** |
| **EKAR** | **Karacoban** | **1.14** | **297** | *i* P | **Pb** | **18 08 46.8** | **-0.5** |
| **EKAR** | **Karacoban** | **1.14** | **297** | P | **Pb** | **18 08 46.8** | **-0.5** |
| **HAKT** | **HAKKARI** | **1.21** | **167** | *i* P | **Pg** | **18 08 47.0** | **-2.4** |
| **HAKT** | **HAKKARI** | **1.21** | **167** | P | **Pg** | **18 08 47.0** | **-2.4** |
| **EATA** | **Eleskirt** | **1.31** | **329** | ⇓*iP* | **Pg** | **18 08 49.3** | **-2.0** |
| EATA | | | | *e*S | **Sn** | **18 09 07.7** | **+0.9** |
| **EATA** | **Eleskirt** | **1.31** | **329** | *i* P | **Pg** | **18 08 49.4** | **-2.0** |
| EATA | | | | *i* S | **Sn** | **18 09 08.8** | **+2.0** |
| **EATA** | **Eleskirt** | **1.31** | **329** | P | **Pg** | **18 08 49.4** | **-2.0** |
| EATA | | | | S | **Sn** | **18 09 08.8** | **+2.0** |
| **YOVA** | **Hakkari_Y˘…kse** | **1.36** | **148** | *i* P | **Pn** | **18 08 50.2** | **0.0** |
| **YOVA** | **Hakkari_Y˘…kse** | **1.36** | **148** | P | **Pn** | **18 08 50.2** | **0.0** |
| **SRTM** | **Siirt_Merkez** | **1.36** | **237** | *i* P | **Pg** | **18 08 51.3** | **-1.0** |
| **SRTM** | **Siirt_Merkez** | **1.36** | **237** | P | **Pg** | **18 08 51.3** | **-1.0** |
| **TASB** | **TASBURUN-IGDIR** | **1.41** | **28** | *e*PN | **Pg** | **18 08 52.5** | **-0.7** |
| **TASB** | **TASBURUN-IGDIR** | **1.41** | **28** | *e*Pn | **Pg** | **18 08 52.5** | **-0.7** |
| **SIRT** | **Sirnak** | **1.44** | **211** | *e*PN | **Pg** | **18 08 53.2** | **-0.6** |
| **SIRT** | **Sirnak** | **1.44** | **211** | *e*Pn | **Pg** | **18 08 53.2** | **-0.6** |
| **SIRN** | **S˘–rnak** | **1.46** | **212** | *i* P | **Pg** | **18 08 53.2** | **-0.9** |
| **SIRN** | **S˘–rnak** | **1.46** | **212** | P | **Pg** | **18 08 53.2** | **-0.9** |
| **CUKT** | **Cukurca** | **1.50** | **173** | *e*PN | **Pg** | **18 08 53.9** | **-1.1** |
| **CUKT** | **Cukurca** | **1.50** | **173** | *i* P | **Pb** | **18 08 53.0** | **-0.4** |
| **CUKT** | **Cukurca** | **1.50** | **173** | P | **Pb** | **18 08 53.0** | **-0.4** |
| **CUKT** | **Cukurca** | **1.50** | **173** | *e*Pn | **Pg** | **18 08 53.9** | **-1.1** |
| **VRTB** | **Varto-Mus** | **1.55** | **286** | *e*PN | **Pg** | **18 08 54.1** | **-1.8** |
| **VRTB** | **Varto-Mus** | **1.55** | **286** | *i* P | **Pg** | **18 08 54.2** | **-1.8** |
| VRTB | | | | *i* S | **Sg** | **18 09 19.3** | **+3.1** |
| **VRTB** | **Varto-Mus** | **1.55** | **286** | P | **Pg** | **18 08 54.2** | **-1.8** |
| **DIGO** | **Kars** | **1.67** | **360** | *e*P | **Pg** | **18 08 56.6** | **-1.6** |
| DIGO | | | | IAML | | 18 09 05.6 | |
| | comp=Z,12nm,0.4s | | | | | | |
| **DIGO** | **Kars** | **1.67** | **360** | *i* P | **Pg** | **18 08 57.1** | **-1.0** |
| **DIGO** | **Kars** | **1.67** | **360** | P | **Pg** | **18 08 57.2** | **-1.0** |
| **HOMI** | **Horasan** | **1.73** | **319** | *e*P | **Pb** | **18 08 56.6** | **-0.7** |
| HOMI | | | | IAML | | 18 09 25.9 | |
| | comp=Z,20nm,0.6s | | | | | | |
| **HOMI** | **Horasan** | **1.73** | **319** | *i* P | **Pb** | **18 08 57.0** | **-0.3** |
| **BNGL** | **BINGOL** | **1.75** | **278** | *e*P | **Pb** | **18 08 57.5** | **-0.2** |
| BNGL | | | | IAML | | 18 09 25.8 | |
| | comp=Z,93nm,0.4s | | | | | | |
| **BNGL** | **BINGOL** | **1.75** | **278** | *i* P | **Pg** | **18 08 58.8** | **-0.9** |
| **BTMN** | **Batman** | **1.86** | **244** | *i* P | **Pb** | **18 08 59.6** | **+0.2** |
| BTMN | | | | *i* S | **Sg** | **18 09 24.6** | **-1.4** |
| **BTMN** | **Batman** | **1.86** | **244** | P | **Pb** | **18 08 59.7** | **+0.2** |
| BTMN | | | | S | **Sg** | **18 09 24.6** | **-1.4** |
| **KARS** | **Kars** | **1.90** | **353** | *e*PN | **Pb** | **18 08 59.2** | **-0.9** |
| **KARS** | **Kars** | **1.90** | **353** | *e*Pn | **Pb** | **18 08 59.2** | **-0.9** |
| **ERZM** | **Erzurum** | **1.94** | **307** | *e*P | **Pb** | **18 09 01.0** | **0.0** |
| **ERZM** | **Erzurum** | **1.94** | **307** | *i* P | **Pb** | **18 09 01.1** | **+0.1** |
| ERZM | | | | *i* S | **Sg** | **18 09 29.4** | **+0.7** |
| **ERZM** | **Erzurum** | **1.94** | **307** | P | **Pb** | **18 09 01.1** | **+0.1** |
| **EAK** | **Akyaka** | **1.95** | **5** | *e*P | **Pg** | **18 09 01.4** | **-2.0** |
| EAK | | | | *e*S | **Sg** | **18 09 30.5** | **+1.7** |
| **EAK** | **Akyaka** | **1.95** | **5** | *i* P | **Pg** | **18 09 01.5** | **-2.0** |
| **EAK** | **Akyaka** | **1.95** | **5** | P | **Pg** | **18 09 01.5** | **-2.0** |
| **SENK** | **Senkaya-Erzuru** | **1.98** | **337** | *e*PN | **Pb** | **18 09 00.6** | **-1.0** |
| **SENK** | **Senkaya-Erzuru** | **1.98** | **337** | *e*Pn | **Pb** | **18 09 00.6** | **-1.0** |
| **ECAT** | **Cat-ERZURUM** | **2.06** | **296** | *e*P | **Pb** | **18 09 01.8** | **-1.1** |
| ECAT | | | | IVMs_BB | IVMs_BB | 18 09 56.3 | |
| | comp=Z,120nm,4.7s | | | | | | |
| **ECAT** | **Cat-ERZURUM** | **2.06** | **296** | *i* P | **Pb** | **18 09 03.0** | **+0.2** |
| **ECAT** | **Cat-ERZURUM** | **2.06** | **296** | P | **Pb** | **18 09 03.0** | **+0.2** |
| **BNGB** | **Bing˘l** | **2.12** | **278** | *e*PN | **Pb** | **18 09 02.8** | **-1.0** |
| **BINT** | **Bingol** | **2.26** | **274** | *e*Pn | **Pn** | **18 09 02.8** | **+0.3** |
| **YEDI** | **Yedisu-Bingol** | **2.31** | **288** | *e*PN | **Pb** | **18 09 05.6** | **-1.5** |
| **YEDI** | **Yedisu-Bingol** | **2.31** | **288** | *e*Pn | **Pb** | **18 09 05.6** | **-1.5** |
| **HANI** | **Diyarbakir_Han** | **2.35** | **263** | *i* P | **Pb** | **18 09 07.7** | **-0.1** |
| **HANI** | **Diyarbakir_Han** | **2.35** | **263** | P | **Pb** | **18 09 07.7** | **-0.1** |
| **DDEM** | **Demirkent** | **2.49** | **330** | *i* P | **Pb** | **18 09 10.8** | **+0.7** |
| **DDEM** | **Demirkent** | **2.49** | **330** | P | **Pb** | **18 09 10.8** | **+0.7** |
| **DAGI** | **Agillar** | **2.59** | **335** | *i* P | **Pg** | **18 09 13.1** | **-2.5** |
| **PTK** | **Pertek** | **3.11** | **274** | *e*PN | **Pn** | **18 09 17.0** | **+2.7** |
| **PTK** | **Pertek** | **3.11** | **274** | *e*Pn | **Pn** | **18 09 17.0** | **+2.7** |

**IDC 12 18:08:57.8±2.2, 7.39S×127.41E, h0km, mb3.3/1, mb1 3.4/3, mb1mx3.2/45, mbtmp3.2/3, ML3.2/2, Error ellipse: s-maj=206.5km s-min=33.0km az=63.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **14.17** | **152** | P | Pn | 18 12 17.9 | -2.1 |
| WRA | | | | Sn | Sn | 18 14 45.2 | -13 |
| | 0.3nm,0.3s,baz=331,slow=13,SNR=5.1 | | | | | | |
| **ASAR** | **Alice Springs** | **17.34** | **160** | Pn | P | 18 13 03.1 | +0.2 |
| | 0.1nm,0.3s,baz=335,slow=11,SNR=9.7 | | | | | | |
| ASAR | | | | Sn | Sn | 18 16 06.4 | -8.8 |
| | 0.0nm,0.3s,baz=322,slow=21,SNR=3.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.17** | **328** | P | P | 18 19 53.7 | 0.0 |
| | 0.1nm,0.3s,baz=114,slow=7.5,SNR=4.4 | | | | | | |

**IDC 12 18:13:29.1±28.0, 23.00S×173.72W, h0km, mb4.0/4, mb1 4.2/4, mb1mx3.8/32, mbtmp4.0/4, Error ellipse: s-maj=524.5km s-min=162.0km az=77.0, Tonga Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CTA** | **Charters Tower** | **37.27** | **267** | P | P | 18 20 43.4 | +0.5 |
| | 2.3nm,0.4s,baz=97,slow=8.3,SNR=9.4 | | | | | | |
| **STKA** | **Stephens Creek** | **40.40** | **247** | P | P | 18 21 07.9 | -1.2 |
| | 1.8nm,0.8s,baz=90,slow=10,SNR=2.8 | | | | | | |
| **ASAR** | **Alice Springs** | **47.87** | **258** | P | P | 18 22 09.3 | +0.1 |
| | 0.4nm,0.5s,baz=97,slow=7.8,SNR=18 | | | | | | |
| **WRA** | **Warramunga Arr** | **48.23** | **263** | P | P | 18 22 11.9 | -0.1 |
| | 1.6nm,0.5s,baz=97,slow=8.2,SNR=15 | | | | | | |

*ISCJB* ***12*** *18:15:23.4±0.6, 52.6S±0.1×27.7E±0.2, h10km, mb4.0/12, MS2.8/5, Error ellipse: s-maj=20.2km s-min=13.8km az=159.5*
*IDC* ***12*** *18:15:23.3±0.8, 52.63S×27.79E, h0km, mb3.9/9, mb1 4.1/9, mb1mx3.9/40, mbtmp3.9/9, MS3.0/5, Ms1 3.0/5, ms1mx2.9/25, Error ellipse: s-maj=27.6km s-min=19.9km az=67.0*
*NEIC* ***12*** *18:15:24.9±0.4, 52.62S×27.81E, h10km, mb4.3/6, Error ellipse: s-maj=14.3km s-min=9.8km az=70.0*

**ISC 12 18:15:24.9±0.8, 52.6S±0.1×27.8E±0.2, h10km, n19, σ0§63/17, mb4.0/12, MS2.9/5, South of Africa**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SUR** | **Sutherland** | **20.85** | **343** | P | Pn | 18 20 11.6 | +2.2 |
| | 0.6nm,1.1s,baz=163,slow=14,SNR=2.5 | | | | | | |
| SUR | | | | LR | LR | 18 27 12.3 | |
| | comp=Z,5.1nm,19.3s,baz=182,slow=34 | | | | | | |
| **MAW** | **Mawson** | **22.58** | **145** | P | **P** | **18 20 25.1** | **0.0** |
| | 2.8nm,1.0s,baz=284,slow=8.3,SNR=2.1 | | | | | | |
| MAW | | | | LR | LR | 18 28 19.9 | |
| | comp=Z,53nm,18.9s,baz=60,slow=34 | | | | | | |
| **MAW** | **Mawson** | **22.58** | **145** | *e*P | **P** | **18 20 25.1** | **0.0** |
| | 1.6nm,0.9s | | | | | | |
| **SNAA** | **Sanae** | **23.37** | **204** | P | **P** | **18 20 33.9** | **+0.6** |
| | 2.7nm,0.8s,baz=64,slow=11,SNR=7.5 | | | | | | |
| SNAA | | | | LR | LR | 18 28 44.9 | |
| | comp=Z,44nm,18.6s,baz=124,slow=34 | | | | | | |
| **SNAA** | **Sanae** | **23.37** | **204** | *e*P | **P** | **18 20 34.4** | **+1.1** |
| | 3.6nm,0.8s | | | | | | |
| **BOSA** | **Boshof** | **24.06** | **355** | P | **P** | **18 20 41.7** | **+1.4** |
| | 2.2nm,0.8s,baz=175,slow=11,SNR=4.3 | | | | | | |
| BOSA | | | | LR | LR | 18 28 17.4 | |
| | comp=Z,45nm,20.6s,baz=211,slow=32 | | | | | | |
| **LBTB** | **Lobatse** | **27.62** | **356** | LR | LR | 18 30 02.2 | |
| | comp=Z,96nm,18.9s,baz=142,slow=32 | | | | | | |
| **QSPA** | **South Pole Qui** | **37.59** | **180** | *e*P | **P** | **18 22 39.4** | **0.0** |
| | 17nm,1.7s | | | | | | |
| **VNDA** | **Vanda** | **47.04** | **168** | P | **P** | **18 23 56.2** | **+0.4** |
| | 1.3nm,0.6s,baz=229,slow=6.0,SNR=11 | | | | | | |
| **PLCA** | **Paso Flores** | **63.37** | **237** | P | **P** | **18 25 54.1** | **-0.1** |
| | 1.2nm,0.9s,baz=185,slow=3.3,SNR=3.3 | | | | | | |
| **CPUP** | **Villa Florida** | **66.65** | **257** | P | **P** | **18 26 15.2** | **-0.5** |
| | 1.6nm,0.7s,baz=117,slow=7.4,SNR=5.0 | | | | | | |
| **CPUP** | **Villa Florida** | **66.65** | **257** | *e*P | **P** | **18 26 14.9** | **-0.8** |
| | 24nm,1.9s | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **69.26** | **333** | P | **P** | **18 26 31.8** | **-0.2** |
| | 1.1nm,0.6s,baz=172,slow=6.9,SNR=9.6 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **69.26** | **333** | *e*P | **P** | **18 26 31.8** | **-0.2** |
| **ASAR** | **Alice Springs** | **80.73** | **117** | P | **P** | **18 27 38.1** | **-0.3** |
| | 0.8nm,0.6s,baz=215,slow=4.5,SNR=19 | | | | | | |
| **AS31** | **Alice Springs** | **80.73** | **117** | *e*P | **P** | **18 27 37.8** | **-0.6** |
| | 1.5nm,1.2s | | | | | | |
| **WR1** | **Warramunga Arr** | **83.96** | **115** | *e*P | **P** | **18 27 54.9** | **-0.4** |
| | 14nm,1.5s | | | | | | |
| **WRA** | **Warramunga Arr** | **83.96** | **115** | P | **P** | **18 27 54.9** | **-0.4** |
| | 0.7nm,0.8s,baz=213,slow=4.2,SNR=3.9 | | | | | | |
| **ULM** | **Lac du Bonnet** | **145.55** | **289** | PKPbc | **PKPdf** | **18 35 01.8** | **-0.5** |
| | 0.9nm,0.3s,baz=142,slow=6.3,SNR=3.6 | | | | | | |

**IDC 12 18:23:57.4±1.9, 4.39N×123.78E, h0km, mb3.6/4, mb1 3.8/4, mb1mx3.5/40, mbtmp3.6/4, Error ellipse: s-maj=147.4km s-min=23.8km az=67.0, Celebes Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **22.42** | **175** | P | P | 18 28 58.0 | +0.2 |
| | 1.0nm,0.6s,baz=349,slow=10,SNR=3.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **26.31** | **157** | P | P | 18 29 35.1 | 0.0 |
| | 0.4nm,0.3s,baz=336,slow=9.5,SNR=6.0 | | | | | | |
| **ASAR** | **Alice Springs** | **29.58** | **161** | P | P | 18 30 04.1 | -0.2 |
| | 0.2nm,0.3s,baz=333,slow=8.5,SNR=13 | | | | | | |
| **MKAR** | **Makanchi Array** | **55.36** | **326** | P | P | 18 33 33.2 | -0.1 |
| | 0.3nm,0.3s,baz=122,slow=8.3,SNR=7.2 | | | | | | |

*DDA* ***12*** *18:40:36.6, 38.41N×26.39E, h7km, Ml2.7*
*ISCJB* ***12*** *18:40:38.2±0.6, 38.36N±0.03×26.54E±0.06, h15km±4km, Error ellipse: s-maj=7.6km s-min=5.2km az=178.2*
*CSEM* ***12*** *18:40:38.2±0.3, 38.36N×26.56E, h15km, MD2.4, Error ellipse: s-maj=9.0km s-min=7.0km az=78.0*
*ISK* ***12*** *18:40:38.3, 38.36N×26.56E, h13km, MD2.4*

**ISC 12 18:40:38.1±0.9, 38.35N±0.04×26.55E±0.05, h15km±5km, n15, σ0§57/24, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **URLA** | **Izmir** | **0.04** | **78** | *e*Pg | **Pg** | **18 40 40.5** | **-0.3** |
| URLA | | | | *e*SG | **Sg** | **18 40 42.9** | **+0.3** |
| **URLA** | **Izmir** | **0.04** | **78** | *i* P | **Pg** | **18 40 40.5** | **-0.3** |
| URLA | | | | *i* S | **Sg** | **18 40 42.7** | **0.0** |
| **URLA** | **Izmir** | **0.04** | **78** | P | **Pg** | **18 40 40.5** | **-0.3** |
| URLA | | | | S | **Sg** | **18 40 42.7** | **0.0** |
| **ZEY** | **˘zmir** | **0.12** | **198** | *i* P | **Pg** | **18 40 41.4** | **-0.1** |
| ZEY | | | | *i* S | **Sg** | **18 40 44.2** | **+0.4** |
| **CHOS** | **Chios island** | **0.39** | **275** | *e*PG | **Pb** | **18 40 47.0** | **+0.2** |
| **CHOS** | **Chios island** | **0.39** | **275** | *e*Pg | **Pb** | **18 40 47.0** | **+0.2** |
| **DGB** | **˘zmir** | **0.40** | **139** | *i* P | **Pg** | **18 40 46.1** | **0.0** |
| DGB | | | | *i* S | **Sb** | **18 40 52.3** | **-0.5** |
| **DKL** | **Dikili** | **0.77** | **21** | *e*PG | **Pb** | **18 40 53.6** | **+0.4** |
| DKL | | | | *e*SG | **Sb** | **18 41 04.6** | **+1.1** |
| **DKL** | **Dikili** | **0.77** | **21** | *e*Pg | **Pb** | **18 40 53.6** | **+0.4** |
| DKL | | | | *e*Sg | **Sb** | **18 41 04.6** | **+1.1** |
| **GCAM** | **G?zelcaml?** | **0.85** | **140** | *e*PG | **Pb** | **18 40 55.0** | **+0.5** |
| **GCAM** | **G?zelcaml?** | **0.85** | **140** | *e*Pg | **Pb** | **18 40 55.0** | **+0.5** |
| **SIGR** | **SIGRI** | **1.01** | **328** | *e*PN | **Pn** | **18 40 58.1** | **+0.3** |
| **SIGR** | **SIGRI** | **1.01** | **328** | *e*Pn | **Pn** | **18 40 58.1** | **+0.3** |
| **BAYC** | **CANAKKALE_Bayr** | **1.39** | **360** | *i* P | **Pn** | **18 41 02.2** | **-0.8** |
| BAYC | | | | *i* S | **Sn** | **18 41 20.3** | **-0.8** |
| **BAYC** | **CANAKKALE_Bayr** | **1.39** | **360** | P | **Pn** | **18 41 02.2** | **-0.8** |
| BAYC | | | | S | **Sn** | **18 41 20.3** | **-0.8** |

**MEX 12 18:43:49.2±0.5, 17.82N×99.89W, h64km±5km, MD3.7, Guerrero**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MEIG** | **Mezcala** | **0.28** | **67** | *e*P | Pn | 18 43 57.8 | -1.9 |
| MEIG | | | | *i* S | Sn | 18 44 05.5 | -1.8 |
| **ARIG** | **Puente Sto Nin** | **0.63** | **317** | *e*P | Pn | 18 44 01.4 | -1.6 |
| ARIG | | | | *e*S | Sn | 18 44 11.5 | -1.6 |
| **PLIG** | **Platanillo** | **0.68** | **33** | *e*P | Pn | 18 44 02.1 | -1.5 |
| PLIG | | | | *e*S | Sn | 18 44 12.2 | -1.8 |
| **ACX** | **Acapulco** | **0.94** | **178** | *e*P | Pn | 18 44 03.0 | -3.8 |
| ACX | | | | *e*S | Sn | 18 44 15.9 | -3.7 |
| **TLIG** | **Tlapa** | **1.28** | **101** | *e*P | Pn | 18 44 10.4 | -0.8 |
| TLIG | | | | *e*S | Sn | 18 44 26.1 | -1.6 |
| **YAIG** | **Yautepec** | **1.30** | **37** | *e*P | Pn | 18 44 10.0 | -1.5 |
| YAIG | | | | *e*S | Sn | 18 44 26.3 | -1.8 |

*ISN* ***12*** *18:55:30.8±1.0, 34.66N×45.26E, h0km±4km, ML2.6*
*CSEM* ***12*** *18:55:32.6±0.4, 34.56N×45.25E, h10km, ML2.6, Error ellipse: s-maj=13.7km s-min=7.1km az=23.0*

**TEH 12 18:55:33.8, 34.62N×45.21E, h18km, ML2.6, Iran-Iraq border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **IGHG** | **Ghaleghazi** | **1.16** | **104** | *e*Pg | Pn | 18 55 54.9 | -0.6 |
| IGHG | | | | *e*Sg | Sb | 18 56 10.7 | +0.3 |
| IGHG | | | | *e*AMB | AMB | 18 56 16.2 | |
| | comp=Z,2μm,0.3s | | | | | | |
| **IGHG** | **Ghaleghazi** | **1.16** | **104** | *e*Pg | Pn | 18 55 54.9 | -0.6 |
| IGHG | | | | *e*Sg | Sb | 18 56 10.7 | +0.3 |
| **IVIS** | **Veis** | **1.36** | **93** | *e*Pg | Pn | 18 55 58.2 | +0.1 |
| IVIS | | | | *e*Sg | Sb | 18 56 16.3 | +0.3 |
| IVIS | | | | *e*AMB | AMB | 18 56 22.8 | |
| | comp=Z,840nm,0.2s | | | | | | |
| **IVIS** | **Veis** | **1.36** | **93** | *e*Pg | Pn | 18 55 58.2 | +0.1 |
| IVIS | | | | *e*Sg | Sb | 18 56 16.3 | +0.3 |
| **ILIN** | **Lien** | **1.48** | **78** | *e*Pg | Pb | 18 56 00.7 | -0.2 |
| ILIN | | | | *e*AMB | AMB | 18 56 04.8 | |
| | comp=Z,1μm,0.1s | | | | | | |
| **ILIN** | **Lien** | **1.48** | **78** | *e*Pg | Pb | 18 56 00.7 | -0.2 |
| **IBST** | **Bostanabad** | **3.37** | **23** | *e*AMB | AMB | 18 56 36.4 | |
| | comp=Z,141nm,0.2s | | | | | | |
| **ISHB** | **Shabestar** | **3.67** | **5** | *e*Pn | Pn | 18 56 29.7 | -0.3 |
| **SHGR** | **Shooshtar-Gavs** | **3.91** | **129** | *e*Pn | Pn | 18 56 29.7 | -3.4 |

**IDC 12 19:02:01.3±1.3, 58.66S×25.74W, h0km, mb4.1/3, mb1 4.0/3, mb1mx3.7/17, mbtmp4.0/3, Error ellipse: s-maj=88.9km s-min=40.4km az=107.0, South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **H10S2** | **ASCENSION HYDR** | **50.31** | **14** | T | T | 20 05 28.0 | |
| | baz=188,slow=75,SNR=8.6 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **50.31** | **14** | T | T | 20 05 26.7 | |
| | baz=188,slow=75,SNR=11 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **50.33** | **14** | T | T | 20 05 27.7 | |
| | baz=188,slow=75,SNR=12 | | | | | | |
| **H10N1** | **ASCENSION HYDR** | **51.43** | **14** | T | T | 20 06 48.7 | |
| | baz=187 | | | | | | |
| **H10N3** | **ASCENSION HYDR** | **51.43** | **14** | T | T | 20 06 49.8 | |
| | baz=187,slow=74 | | | | | | |
| **H10N2** | **ASCENSION HYDR** | **51.44** | **14** | T | T | 20 06 51.8 | |
| | baz=187,slow=74 | | | | | | |
| **DBIC** | **Dimbokro** | **67.25** | **23** | P | P | 19 12 57.5 | +0.2 |
| | 0.7nm,0.4s,baz=162,slow=8.7,SNR=3.0 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **74.98** | **28** | P | P | 19 13 44.1 | -0.1 |
| | 0.7nm,0.4s,baz=195,slow=6.2,SNR=25 | | | | | | |
| **ASAR** | **Alice Springs** | **96.26** | **161** | P | P | 19 15 31.4 | -0.1 |
| | 0.3nm,0.6s,baz=186,slow=5.0,SNR=6.0 | | | | | | |
| **YKA** | **Yellowknife Ar** | **138.61** | **315** | PKP | PKPdf | 19 21 26.8 | -0.6 |
| | 0.7nm,0.5s,baz=126,slow=2.1,SNR=4.9 | | | | | | |
| **ILAR** | **Eielson Array** | **152.39** | **308** | PKPbc | PKPbc | 19 21 57.5 | -0.1 |
| | 1.3nm,0.6s,baz=121,slow=1.6,SNR=17 | | | | | | |

*NIED* ***12*** *19:04:00, 39.80N×141.80E, h53km, Mw3.7 Best double couple: M0 3.37000×10^14 NP1:φs257.00000°, δ35.00000°, λ-174.00000°. NP2:φs162.00000°, δ87.00000°, λ-55.00000°.*
*ISCJB* ***12*** *19:04:37.5±0.6, 39.76N±0.03×141.86E±0.08, h65km±3km, mb3.8/5, Error ellipse: s-maj=9.7km s-min=4.8km az=8.7*
*JMA* ***12*** *19:04:38.6, 39.76N×141.84E, h58km±1km, M3.8 Broadband fault plane solution: P waves. NP1: φs17.00000°, δ61.00000°, λ98.00000°. NP2:φs181.00000°, δ30.00000°, λ76.00000°. Principal axes: T Plg73.0000°, Azm306.0000°; N Plg7.0000°, Azm193.0000°; P Plg15.0000°, Azm101.0000°;*
*JMA Felt II J1.*
*IDC* ***12*** *19:04:40.2±1.9, 39.77N×141.97E, h84km±16km, mb3.5/5, mb1 3.5/10, mb1mx3.3/37, mbtmp3.8/10, MS2.5/1, Ms1 2.5/1, ms1mx2.2/37 Error ellipse: s-maj=31.2km s-min=12.9km az=100.0*

**ISC 12 19:04:38.4±0.9, 39.75N±0.04×141.89E±0.07, h60km±6km, n28, σ1§28/34, mb3.8/5, 3C-8D, Eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MIYJ** | **Miyakonagasawa** | **0.18** | **196** | ⇑P | **Pn** | **19 04 47.9** | **+0.1** |
| MIYJ | | | | *e*S | **Sn** | **19 04 54.1** | **-0.4** |
| **JTH** | **Tanohata** | **0.19** | **355** | ⇑P | **Pn** | **19 04 47.8** | **-0.1** |
| JTH | | | | S | **Sn** | **19 04 54.3** | **-0.4** |
|

583nm,0.3s,baz=17,slow=19,SNR=138
**H11S3 WAKE ISLAND Hy 21.23 74** T T 19 54 41.0
baz=262
**H11S1 WAKE ISLAND Hy 21.25 74** T T 19 54 48.3
baz=262
**H11S2 WAKE ISLAND Hy 21.25 74** T T 19 54 35.4
baz=262
**H11N1 WAKE ISLAND Hy 21.65 71** T T 19 56 00.3
baz=257,slow=74,SNR=2.0
**H11N2 WAKE ISLAND Hy 21.66 71** T T 19 56 00.2
baz=257,slow=74,SNR=4.3
**H11N3 WAKE ISLAND Hy 21.67 71** T T 19 56 01.0
baz=257,slow=74,SNR=6.2
**WRA Warramunga Arr 35.18 198** P P 19 34 47.3 -0.1
1.0nm,0.6s,baz=19,slow=9.3,SNR=12
**FITZ Fitzroy Crossi 37.07 212** P P 19 35 03.7 +0.1
2.6nm,1.0s,baz=15,slow=10,SNR=5.2
**ASAR Alice Springs 38.83 197** P P 19 35 18.4 +0.1
0.3nm,0.5s,baz=19,slow=12,SNR=10
**STKA Stephens Creek 45.55 184** P P 19 36 12.6 0.0
0.9nm,0.3s,baz=22,slow=11,SNR=4.3
**ILAR Eielson Array 68.27 25** P P 19 38 52.0 -0.5
0.1nm,0.3s,baz=247,slow=5.5,SNR=6.2

*SCB **12** 19:31:48.3±0.6,23°.73S×67°.07W,h199km,Ml3.9/1,Error ellipse: s-maj=19.4km s-min=10.1km az=48.0*
*ISCJB **12** 19:31:51.2±0.4,23°.85S±0°.04×66°.84W±0°.04,h200km, mb3.8/10,Error ellipse: s-maj=6.4km s-min=3.9km az=32.1*
*SJA **12** 19:31:51.1±0.8,23°.85S×66°.78W,h208km±11km,ML3.6, MW3.6*
*IDC **12** 19:31:52.3±2.1,23°.74S×66°.55W,h200km±17km,mb3.7/11, mb1 3.8/17,mb1mx3.7/28,mbtmp4.2/17,Error ellipse: s-maj=22.1km s-min=11.9km az=36.0*
*GUC **12** 19:31:53.7±0.4,23°.62S×67°.48W,h258km±9km,ML5.1*

**ISC 12 19:31:51.7±0.6,23°.82S±0°.06×66°.80W±0°.05,h200km,n42,** σ1**f**26/52,**mb3.9/10,5C-2D,Jujuy Province**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **HJA** | **Humahuaca** | **1.41** | **65** | *e*P | **Pn** | **19 32 26.1** | **+1.0** |
| HJA | | | | IAML | | 19 32 29.3 | |
| | comp=Z,347nm,0.6s | | | | | | |
| HJA | | | | *e*S | **Sn** | **19 32 51.7** | **+0.8** |
| **SLA** | **San Lorenzo** | **1.48** | **127** | *e*P | **Pn** | **19 32 26.5** | **+1.0** |
| **AZAP** | **Zapla** | **1.63** | **105** | *e*P | **Pn** | **19 32 27.4** | **+0.5** |
| **YJA** | **Yavi** | **2.02** | **36** | *e*P | **Pn** | **19 32 32.1** | **+1.1** |
| **ASTB** | **Santa Barbara** | **2.15** | **94** | *e*P | **Pn** | **19 32 32.3** | **+0.4** |
| **FSA** | **Cafayete** | **2.40** | **162** | *e*P | **Pn** | **19 32 34.7** | **+0.1** |
| **ALOL** | **LOMAS DE OLMED** | **2.58** | **90** | *e*P | **Pn** | **19 32 36.7** | **+0.2** |
| **MOCB** | **Mochara** | **2.77** | **23** | *e*Pn | **Pn** | **19 32 40.9** | **+1.7** |
| **PB06** | **IPOC Station P** | **2.78** | **293** | ⇑*i*P | **Pn** | **19 32 40.0** | **+1.0** |
| PB06 | | | | *e*S | **Sn** | **19 33 15.0** | **-0.8** |
| **PB09** | **IPOC Station P** | **3.02** | **311** | ⇑*i*P | **Pn** | **19 32 43.3** | **+1.4** |
| PB09 | | | | *e*S | **Sn** | **19 33 20.9** | **-0.1** |
| PB09 | | | | IAML | | 19 33 25.7 | |
| | comp=N,4μm,0.3s | | | | | | |
| **AHML** | **Horco Molle** | **3.23** | **156** | *e*P | **Pn** | **19 32 43.8** | **-0.4** |
| AHML | | | | IAML | | 19 32 44.5 | |
| | comp=Z,84nm,0.5s | | | | | | |
| **PB04** | **IPOC Station P** | **3.42** | **295** | ⇑*i*P | **Pn** | **19 32 46.9** | **+0.3** |
| PB04 | | | | *e*S | **Sn** | **19 33 27.4** | **-2.2** |
| PB04 | | | | IAML | | 19 33 32.2 | |
| | comp=N,2μm,0.7s | | | | | | |
| **PB10** | **IPOC Station P** | **3.46** | **274** | ⇓*i*P | **Pn** | **19 32 47.1** | **+0.2** |
| PB10 | | | | *e*S | **Sn** | **19 33 27.3** | **-2.6** |
| PB10 | | | | IAML | | 19 33 31.2 | |
| | comp=E,2μm,0.4s | | | | | | |
| **PB07** | **IPOC Station P** | **3.53** | **306** | ⇑*i*P | **Pn** | **19 32 48.4** | **+0.5** |
| PB07 | | | | *e*S | **Sn** | **19 33 29.9** | **-2.0** |
| PB07 | | | | IAML | | 19 33 31.1 | |
| | comp=N,3μm,0.4s | | | | | | |
| **PB01** | **IPOC Station P** | **3.72** | **317** | ⇓*i*P | **Pn** | **19 32 50.8** | **+0.6** |
| PB01 | | | | *i* S | **Sn** | **19 33 34.5** | **-1.4** |
| PB01 | | | | IAML | | 19 33 37.7 | |
| | comp=E,2μm,0.3s | | | | | | |
| **PB02** | **IPOC Station P** | **3.79** | **310** | *e*P | **Pn** | **19 32 51.2** | **+0.1** |
| PB02 | | | | *e*S | **Sn** | **19 33 35.2** | **-2.5** |
| PB02 | | | | IAML | | 19 33 39.5 | |
| | comp=E,2μm,0.3s | | | | | | |
| **PB08** | **IPOC Station P** | **4.26** | **329** | ⇑*i*P | **Pn** | **19 32 58.8** | **+1.6** |
| PB08 | | | | IAML | | 19 33 51.7 | |
| | comp=E,686nm,0.5s | | | | | | |
| **BBOJ** | **La Paz, Jacaqu** | **6.94** | **349** | *e*Pn | **Pn** | **19 33 32.7** | **+1.0** |
| **BBOE** | **La Paz, Chanca** | **7.06** | **351** | *e*Pn | **Pn** | **19 33 34.6** | **+1.3** |
| **BBOD** | **La Paz, Gloria** | **7.34** | **346** | *e*Pn | **Pn** | **19 33 38.3** | **+1.3** |
| **LPAZ** | **La Paz** | **7.60** | **350** | P | **Pn** | **19 33 41.1** | **+0.7** |
| | comp=E,2.7nm,0.3s,baz=171,slow=9.1,SNR=62 | | | | | | |
| LPAZ | | | | S | **Sn** | **19 35 05.4** | **-1.3** |
| | comp=E,1.2nm,0.3s,baz=309,slow=19,SNR=5.5 | | | | | | |
| **LPAZ** | **La Paz** | **7.60** | **350** | *e*Pn | **Pn** | **19 33 40.9** | **+0.5** |
| LPAZ | | | | *e*Sn | **Sn** | **19 35 03.8** | **-2.9** |
| **BBOB** | **La Paz, Bander** | **7.74** | **350** | *e*Pn | **Pn** | **19 33 42.6** | **+0.4** |
| BBOB | | | | *e*Sn | **Sn** | **19 35 08.3** | **-1.6** |
| | comp=E,22nm,0.6s | | | | | | |
| **CPUP** | **Villa Florida** | **8.94** | **108** | P | **Pn** | **19 33 55.6** | **-1.6** |
| | comp=E,0.2nm,0.3s,baz=290,slow=14,SNR=6.3 | | | | | | |
| **SIV** | **San Ignacio** | **9.47** | **36** | P | **Pn** | **19 34 02.4** | **-1.8** |
| | comp=E,2.1nm,0.3s,baz=224,slow=14,SNR=20 | | | | | | |
| **NNA** | **Nana** | **15.15** | **319** | P | **P** | **19 35 17.9** | **+1.5** |
| | comp=E,1.2nm,0.3s,baz=153,slow=6.8,SNR=3.1 | | | | | | |
| **PLCA** | **Paso Flores** | **17.16** | **190** | P | **Pn** | **19 35 41.3** | **+1.5** |
| | comp=E,0.2nm,0.3s,baz=27,slow=12,SNR=7.3 | | | | | | |
| **BDFB** | **Brasilia** | **19.45** | **69** | P | **P** | **19 36 02.9** | **-0.6** |
| | comp=E,2.1nm,0.3s,baz=26,slow=13,SNR=37 | | | | | | |
| **ATAH** | **Atahualpa** | **19.98** | **324** | P | **P** | **19 36 10.7** | **+1.3** |
| | comp=E,2.3nm,0.3s,baz=247,slow=13,SNR=2.2 | | | | | | |
| **PTGA** | **Pitinga** | **23.89** | **17** | P | **P** | **19 36 46.8** | **-0.5** |
| | comp=E,2.1nm,0.3s,baz=208,slow=13,SNR=4.0 | | | | | | |
| **CMIG** | **Matias Romero** | **49.05** | **323** | P | **P** | **19 40 20.0** | **+1.3** |
| | comp=E,1.0nm,0.3s,baz=112,slow=5.4,SNR=5.7 | | | | | | |
| **TXAR** | **Lajitas Array** | **63.64** | **324** | P | **P** | **19 42 02.7** | **+1.0** |
| | comp=E,0.5nm,0.4s,baz=148,slow=7.6,SNR=7.7 | | | | | | |
| **DBIC** | **Dimbokro** | **67.57** | **71** | P | **P** | **19 42 25.9** | **-1.1** |
| | comp=E,3.7nm,0.6s,baz=227,slow=4.9,SNR=8.7 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **76.33** | **69** | P | **P** | **19 43 18.2** | **-1.0** |
| | comp=E,3.9nm,0.5s,baz=256,slow=5.7,SNR=88 | | | | | | |
| **PDAR** | **Pinedale Array** | **77.09** | **329** | P | **P** | **19 43 24.4** | **+1.3** |
| | comp=E,0.5nm,0.5s,baz=127,slow=6.0,SNR=5.3 | | | | | | |
| **ULM** | **Lac du Bonnet** | **78.12** | **341** | P | **P** | **19 43 28.2** | **0.0** |
| | comp=E,2.1nm,0.5s,baz=159,slow=5.1,SNR=6.7 | | | | | | |
| **BOSA** | **Boshof** | **80.65** | **117** | P | **P** | **19 43 41.3** | **-1.5** |
| | comp=E,1.0nm,0.4s,baz=240,slow=6.7,SNR=6.0 | | | | | | |
| **ESDC** | **Sonseca Array** | **86.14** | **43** | P | **P** | **19 44 11.0** | **+0.7** |
| | comp=E,0.1nm,0.4s,baz=245,slow=4.7,SNR=4.2 | | | | | | |
| **YKA** | **Yellowknife Ar** | **94.02** | **340** | P | **P** | **19 44 46.1** | **-0.4** |
| | comp=E,0.4nm,0.5s,baz=133,slow=4.5,SNR=5.2 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **143.15** | **28** | PKP | PKPbc | 19 50 59.0 | 0.0 |
| | comp=E,0.4nm,0.4s,baz=313,slow=2.5,SNR=3.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **146.27** | **39** | PKPbc | **PKPab** | **19 51 09.5** | **-0.3** |
| | comp=E,1.7nm,0.8s,baz=309,slow=3.1,SNR=15 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **165.67** | **109** | PKPab | **PKPab** | **19 52 33.2** | **-0.1** |
| | comp=E,1.5nm,0.7s,baz=255,slow=5.0,SNR=10 | | | | | | |

**MAN 12 19:38:53,8.97N×122.81E,h20km,mb4.3,ML3.1,MS2.9, 3C,Mindanao**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SNPH** | **Sibulan** | **0.56** | **49** | ⇑*i*P | Pb | 19 39 04.6 | +0.4 |
| SNPH | | | | *i* S | Sb | 19 39 12.6 | +0.8 |
| **DCPH** | **Dipolog City** | **0.66** | **126** | ⇑*i*P | Pb | 19 39 05.3 | -0.6 |
| DCPH | | | | *i* S | Sb | 19 39 14.1 | -0.6 |
| **PAGZ** | **Pagadian** | **1.25** | **153** | *e*P | Pn | 19 39 14.9 | -0.5 |
| PAGZ | | | | *e*S | Sb | 19 39 32.2 | +0.5 |
| **TBP** | **Tagbilaran** | **1.26** | **55** | *e*P | Pb | 19 39 16.0 | -0.1 |
| TBP | | | | *e*S | Sb | 19 39 32.1 | +0.2 |
| **GUIM** | **Jordan** | **1.66** | **353** | *e*P | Pn | 19 39 21.1 | +0.1 |
| GUIM | | | | *e*S | Sn | 19 39 42.1 | +0.4 |
| **LLP** | **Lapu-Lapu** | **1.76** | **40** | *e*P | Pn | 19 39 22.5 | +0.1 |
| LLP | | | | *e*S | Sn | 19 39 43.1 | -1.1 |
| **CTBH** | **Cotabato--PC H** | **2.25** | **141** | ⇑*i*P | Pn | 19 39 31.0 | +1.9 |
| **MSLP** | **Maasin** | **2.33** | **60** | *e*P | Pb | 19 39 35.0 | +0.7 |
| MSLP | | | | *e*S | Sn | 19 40 00.5 | +2.2 |

**DJA 12 19:54:00.6±0.6,11°.5S±5°×117°.7E±°,h10km,M3.9/9,mB4.8/1, mb3.8/3,MLv3.9/9,Mw(mB)4.0/1,South of Sumbawa**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PLAI** | **Plampang** | **2.39** | **13** | P | Pn | 19 54 41.5 | +1.7 |
| PLAI | | | | S | Sn | 19 55 09.4 | +0.2 |
| **WBSI** | **Waikabubak, Su** | **2.61** | **55** | P | Pn | 19 54 42.3 | -0.7 |
| WBSI | | | | S | Sn | 19 55 13.5 | -1.3 |
| **DNP** | **Denpasar** | **3.18** | **321** | S | Sn | 19 55 29.0 | +0.3 |
| **SRBI** | **Singaraja** | **3.65** | **327** | P | Pn | 19 54 57.8 | +0.6 |
| SRBI | | | | S | Sn | 19 55 41.2 | +0.8 |
| **JAGI** | **Jajag, Banyuwa** | **4.05** | **311** | P | Pn | 19 55 01.7 | -1.0 |
| **GMJI** | **Gumukmas** | **4.71** | **307** | P | Pn | 19 55 10.6 | -1.2 |
| **EDFI** | **Ende, Flores** | **5.01** | **62** | P | Pn | 19 55 16.1 | +0.1 |
| **MMRI** | **Maumere** | **5.54** | **63** | P | Pn | 19 55 23.3 | +0.1 |
| **SOEI** | **Soe** | **7.06** | **79** | P | Pn | 19 55 43.3 | -0.9 |

*IDC **12** 20:00:24.4±2.2,43°.20N×105°.16W,h0km,mb1 3.5/2, mb1mx3.2/49,mbtmp3.3/2,ML2.1/1,Error ellipse: s-maj=45.3km s-min=9.0km az=156.0*
*NEIC **12** 20:00:33.6±0.5,43°.20N×105°.77W,h0km,MN2.6,Error ellipse: s-maj=6.5km s-min=4.8km az=47.0,Suspected Mining explosion.*
*NEIC 48 km [30 miles] ESE of Midwest.*

**ISC 12 20:00:26.5±0.8,43°.57N±0°.05×105°.08W±0°.04,h0km,n47,** σ1**f**81/48,**Wyoming**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **K22A** | **Casper** | **1.40** | **230** | *e*Pb | **Pg** | **20 00 50.4** | **-3.0** |
| **PHWY** | **Pilot Hill** | **2.28** | **187** | *e*Pn | **Pn** | **20 01 05.8** | **+0.1** |
| **RWWY** | **Rawlins** | **2.45** | **221** | *e*Pn | **Pn** | **20 01 08.4** | **+0.4** |
| **N23A** | **Red Feather La** | **2.75** | **194** | *e*Pn | **Pn** | **20 01 12.6** | **+0.4** |
| **LAO** | **LASA Array** | **3.22** | **346** | *e*P | **Pn** | **20 01 17.3** | **-1.1** |
| **PD31** | **Pinedale Array** | **3.38** | **258** | *e*Pn | **Pn** | **20 01 19.3** | **-1.4** |
| PD31 | | | | *e*Lg | Lg | 20 02 06.0 | |
| **PDAR** | **Pinedale Array** | **3.38** | **258** | Pn | **Pn** | **20 01 20.1** | **-0.6** |
| | 2.5nm,0.3s,baz=84,slow=15,SNR=49 | | | | | | |
| PDAR | | | | Pg | **Pb** | **20 01 26.6** | **-0.8** |
| | 6.0nm,0.3s,baz=75,slow=19,SNR=36 | | | | | | |
| PDAR | | | | Lg | Lg | 20 02 06.0 | |
| | 12nm,0.3s,baz=84,slow=34,SNR=14 | | | | | | |
| **RLMT** | **Red Lodge** | **3.38** | **299** | *e*Pn | **Pn** | **20 01 19.8** | **-1.0** |
| **OGNE** | **Ogallala** | **3.46** | **138** | *e*Pn | **Pg** | **20 01 31.8** | **-1.0** |
| **ISCO** | **Idaho Springs** | **3.79** | **186** | *e*Pn | **Pn** | **20 01 27.4** | **+0.9** |
| **GCMT** | **Greycliff** | **3.96** | **306** | *e*Pn | **Pn** | **20 01 28.0** | **-0.6** |
| **LKWY** | **Lake** | **3.96** | **286** | *e*Pn | **Pn** | **20 01 30.1** | **+1.3** |
| **H17A** | **Grant Village** | **4.05** | **284** | *e*Pn | **Pn** | **20 01 31.0** | **+0.9** |
| **MOOW** | **Moose Ponds** | **4.12** | **274** | *e*Pn | **Pn** | **20 01 31.1** | **+0.2** |
| **SNOW** | **Snow King Moun** | **4.13** | **270** | *e*Pn | **Pn** | **20 01 31.1** | **0.0** |
| **O20A** | **White River Ci** | **4.17** | **216** | *e*P | **Pn** | **20 01 31.9** | **+0.3** |
| **YNR** | **Norris Junctio** | **4.19** | **288** | *e*Pn | **Pn** | **20 01 33.6** | **+1.7** |
| **YPP** | **Pitchstone Pla** | **4.20** | **282** | *e*Pn | **Pn** | **20 01 30.8** | **-1.2** |
| **REDW** | **Red Top Meadow** | **4.21** | **269** | *e*Pn | **Pn** | **20 01 33.7** | **+1.5** |
| **YFT** | **Old Faithful** | **4.25** | **284** | *e*Pn | **Pn** | **20 01 35.4** | **+2.7** |
| **IMW** | **Indian Meadow** | **4.26** | **276** | *e*Pn | **Pn** | **20 01 33.5** | **+0.6** |
| **TPAW** | **Teton Pass** | **4.27** | **271** | *e*Pn | **Pn** | **20 01 34.1** | **+1.0** |
| **FXWY** | **Fox Creek** | **4.32** | **273** | *e*Pn | **Pn** | **20 01 34.0** | **+0.3** |
| **YHH** | **Holmes Hill** | **4.33** | **288** | *e*Pn | **Pn** | **20 01 36.6** | **+2.8** |
| **AHID** | **Auburn Hatcher** | **4.48** | **262** | *e*Pn | **Pn** | **20 01 34.9** | **-0.9** |
| **YHB** | **Horse Butte** | **4.56** | **287** | *e*Pn | **Pn** | **20 01 40.1** | **+3.2** |
| **Q24A** | **Divide** | **4.60** | **181** | *e*Pn | **Pn** | **20 01 41.2** | **+3.6** |
| **SMCO** | **Snowmass** | **4.61** | **199** | *e*Pg | **Pb** | **20 01 50.5** | **+1.9** |
| **QLMT** | **Earthquake Lak** | **4.74** | **288** | *e*Pn | **Pn** | **20 01 42.8** | **+3.4** |
| **KSCO** | **Kaye Shedlock'** | **4.91** | **157** | *e*Pn | **Pn** | **20 01 43.1** | **+1.3** |
| **DGMT** | **Dagmar** | **4.94** | **7** | *e*P | **Pn** | **20 01 43.4** | **+1.4** |
| **BOZ** | **Bozeman (W)** | **5.10** | **296** | *e*Pn | **Pn** | **20 01 48.8** | **+4.5** |
| **HWUT** | **Hardware Ranch** | **5.17** | **250** | *e*Pn | **Pn** | **20 01 44.6** | **-0.8** |
| **P18A** | **Preston Nutter** | **5.52** | **226** | *e*Pn | **Pn** | **20 01 49.8** | **-0.5** |
| **EGMT** | **Eagleton** | **5.53** | **325** | *e*P | **Pn** | **20 01 49.1** | **-1.0** |
| | 14nm,0.8s | | | | | | |
| **BGNE** | **Belgrade** | **5.56** | **111** | *e*Pn | **Pb** | **20 02 03.3** | **-1.1** |
| BGNE | | | | *e*Sb | **Sg** | **20 03 27.0** | **+2.0** |
| **LTU** | **Little Mountai** | **5.65** | **252** | *e*Pn | **Pn** | **20 01 52.5** | **+0.6** |
| **HRY** | **Holter Researc** | **5.72** | **306** | *e*Pn | **Pn** | **20 01 56.3** | **+3.6** |
| **MCMT** | **McKenzie Canyo** | **5.73** | **285** | *e*Pn | **Pn** | **20 01 55.0** | **+2.0** |
| **MDND** | **Maddock** | **5.74** | **40** | *e*Pn | **Pb** | **20 02 07.8** | **+0.3** |
| **PV04** | **Paradox Valley** | **5.93** | **211** | *e*Pg | **Pb** | **20 02 14.2** | **+3.4** |
| **PV10** | **Paradox Valley** | **5.99** | **211** | *e*Pn | **Pn** | **20 01 55.8** | **-0.9** |
| **ECSD** | **EROS Data Cent** | **6.14** | **86** | P | **Pb** | **20 02 12.2** | **-2.2** |
| | 3.7nm,0.3s | | | | | | |
| **Q16A** | **Castle Valley** | **6.53** | **227** | *e*Pn | **Pn** | **20 02 03.6** | **-0.4** |
| **MMU** | **Miners Mountai** | **7.14** | **223** | *e*Pn | **Pn** | **20 02 11.5** | **-0.9** |
| **I10CA** | **LAC DU BONNET** | **9.07** | **40** | *i* | | 20 55 15.0 | |
| | baz=219,slow=322,SNR=5.0 | | | | | | |
| **ULM** | **Lac du Bonnet** | **9.18** | **40** | Pn | **Pn** | **20 02 40.2** | **+0.1** |
| | 0.3nm,0.3s,baz=233,slow=12,SNR=4.3 | | | | | | |
| ULM | | | | Lg | Lg | 20 05 15.5 | |
| | 0.7nm,0.3s,baz=338,slow=22,SNR=3.0 | | | | | | |

*ISCJB **12** 20:04:59.7±1.5,36°.24N±0°.05×27°.48E±0°.08,h12km±11km, Error ellipse: s-maj=11.1km s-min=6.6km az=25.9*
*CSEM **12** 20:04:59.9±0.5,36°.27N×27°.47E,h10km,MD2.6,Error ellipse: s-maj=10.2km s-min=7.6km az=114.0*
*ATH **12** 20:05:00.6,36°.18N×27°.52E,h17km±4km,ML1.6/2,Error ellipse: s-maj=12.1km s-min=2.0km az=145.0*
*DDA **12** 20:05:07.3,36°.85N×27°.85E,h7km,Md2.6*

**ISC 12 20:04:59.8±1.2,36°.26N±0°.03×27°.48E±0°.04,h10km±15km,** n**12,**σ1**f**02/21,**Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ARG** | **Arkhangelos** | **0.52** | **95** | P | **Pg** | **20 05 10.0** | **0.0** |
| ARG | | | | S | **Sg** | **20 05 17.4** | **+0.5** |
| ARG | | | | AML | AML | 20 05 19.1 | |
| | comp=E,263μm,0.2s | | | | | | |
| ARG | | | | AML | AML | 20 05 20.0 | |
| | comp=N,219μm,0.1s | | | | | | |
| **ARG** | **Arkhangelos** | **0.52** | **95** | P | **Pg** | **20 05 10.0** | **0.0** |
| ARG | | | | S | **Sg** | **20 05 17.4** | **+0.5** |
| **KARP** | **Karpathos** | **0.76** | **200** | P | **Pg** | **20 05 15.7** | **+1.2** |
| KARP | | | | S | **Sg** | **20 05 22.2** | **-2.2** |
| KARP | | | | AML | AML | 20 05 35.0 | |
| | comp=E,72μm,0.2s | | | | | | |
| KARP | | | | AML | AML | 20 05 37.2 | |
| | comp=N,81μm,0.4s | | | | | | |
| **KARP** | **Karpathos** | **0.76** | **200** | P | **Pg** | **20 05 15.7** | **+1.2** |
| KARP | | | | S | **Sg** | **20 05 22.2** | **-2.2** |
| **BDRM** | **Kayabasi** | **0.80** | **358** | *i* P | **Pg** | **20 05 15.1** | **-0.1** |
| BDRM | | | | *i* S | **Sg** | **20 05 26.5** | **+0.8** |
| **BDRM** | **Kayabasi** | **0.80** | **358** | P | **Pg** | **20 05 15.1** | **-0.1** |
| BDRM | | | | S | **Sg** | **20 05 26.5** | **+0.8** |
| **TURN** | **Turunc** | **1.09** | **56** | *i* P | Pg | 20 05 14.0 | -6.7 |
| TURN | | | | *i* S | Sg | 20 05 25.5 | -9.4 |
| **DALY** | **Dalyan (Mu¨la** | **1.09** | **59** | *i* P | **Pg** | **20 05 20.2** | **-0.6** |
| DALY | | | | *i* S | **Sg** | **20 05 34.1** | **-0.9** |
| **DALY** | **Dalyan (Mu¨la** | **1.09** | **59** | P | **Pg** | **20 05 20.2** | **-0.6** |
| DALY | | | | S | **Sg** | **20 05 34.2** | **-0.9** |
| **FETY** | **Fethiye** | **1.34** | **74** | P | **Pn** | **20 05 24.6** | **-0.1** |
| **KSL** | **Kastellorizon** | **1.71** | **93** | P | **Pn** | **20 05 29.7** | **+0.1** |
| KSL | | | | S | **Sg** | **20 05 55.3** | **+0.7** |
| **KSL** | **Kastellorizon** | **1.71** | **93** | P | **Pn** | **20 05 29.7** | **+0.1** |
| KSL | | | | S | **Sg** | **20 05 55.3** | **+0.7** |

**DJA 12 20:09:54.6±1.1,1°.N±7°×97°.8E±°,h58km±10km,M3.7/6, MLv3.7/6,Northern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GSI** | **Gunungsitoli** | **0.69** | **325** | P | Pn | 20 10 10.0 | +1.3 |
| GSI | | | | S | Sn | 20 10 21.1 | +2.2 |
| **TPTI** | | **2.63** | **343** | P | Pn | 20 10 35.2 | +0.5 |
| TPTI | | | | S | Sn | 20 11 05.6 | +0.1 |
| **KCSI** | **Kotacane, Aceh** | **2.78** | **356** | P | Pn | 20 10 37.7 | +1.0 |
| KCSI | | | | S | Sn | 20 11 10.1 | +1.0 |
| **MLSI** | **Meulaboh, Aceh** | **3.85** | **336** | P | Pn | 20 10 49.7 | -1.6 |
| MLSI | | | | S | Sn | 20 11 35.9 | +0.6 |

*ISCJB **12** 20:11:02.9±0.5,43°.80N±0°.04×105°.18W±0°.05,h0km,Error ellipse: s-maj=5.9km s-min=5.0km az=147.6*
*IDC **12** 20:11:03.2±2.3,43°.59N×105°.30W,h0km,mb1 3.7/2, mb1mx3.3/40,mbtmp3.5/2,ML3.3/2,Error ellipse: s-maj=55.7km s-min=9.7km az=152.0*
*NEIC **12** 20:11:04.6±0.4,43°.78N×105°.19W,h0km,MN2.8,Error ellipse: s-maj=4.7km s-min=4.3km az=71.0,Suspected Mining explosion.*
*NEIC 61 km [38 miles] SSE of Gillette.*

**ISC 12 20:11:04.2±1.2,43°.79N±0°.06×105°.20W±0°.07,h0km,n50,** σ0**f**96/49,**Wyoming**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RSSD** | **Black Hills** | **0.90** | **68** | *e*Pg | **Pg** | **20 11 21.4** | **-0.1** |
| **K22A** | **Casper** | **1.50** | **221** | *e*Pn | **Pn** | **20 11 30.4** | **-2.1** |
| **PHWY** | **Pilot Hill** | **2.50** | **184** | *e*Pn | **Pn** | **20 11 45.6** | **-0.8** |
| **RWWY** | **Rawlins** | **2.57** | **216** | *e*Pn | **Pn** | **20 11 47.6** | **+0.2** |
| **N23A** | **Red Feather La** | **2.95** | **191** | *e*Pn | **Pn** | **20 11 53.0** | **+0.5** |
| **LAO** | **LASA Array** | **2.99** | **346** | *e*Pn | **Pn** | **20 11 53.8** | **+0.8** |
| **BW06** | **Boulder Array** | **3.34** | **254** | *e*Pn | **Pn** | **20 11 58.0** | **0.0** |
| **PD31** | **Pinedale Array** | **3.34** | **254** | *e*Pn | **Pn** | **20 11 57.9** | **-0.1** |
| **PDAR** | **Pinedale Array** | **3.34** | **254** | Pn | **Pn** | **20 11 58.6** | **+0.6** |
| | 3.8nm,0.3s,baz=78,slow=20,SNR=56 | | | | | | |
| PDAR | | | | Lg | Lg | 20 12 43.5 | |
| | 19nm,0.3s,baz=75,slow=29,SNR=12 | | | | | | |
| **PDAR** | **Pinedale Array** | **3.34** | **254** | *e*Pn | **Pn** | **20 11 57.8** | **-0.1** |
| PDAR | | | | Lg | Lg | 20 12 43.5 | |
| **OGNE** | **Ogallala** | **3.69** | **139** | *e*Pn | **Pn** | **20 12 04.2** | **+1.6** |
| **YTP** | **The Promontory** | **3.71** | **281** | *e*Pn | **Pn** | **20 12 03.5** | **+0.4** |
| **GCMT** | **Greycliff** | **3.76** | **304** | *e*Pn | **Pn** | **20 12 03.8** | **+0.2** |
| **LKWY** | **Lake** | **3.82** | **283** | *e*Pn | **Pn** | **20 12 05.3** | **+0.7** |
| **H17A** | **Grant Village** | **3.92** | **281** | *e*Pn | **Pn** | **20 12 06.3** | **+0.4** |
| **ISCO** | **Idaho Springs** | **4.00** | **185** | *e*Pn | **Pn** | **20 12 07.9** | **+0.8** |
| **MOOW** | **Moose Ponds** | **4.02** | **271** | *e*Pn | **Pn** | **20 12 08.2** | **+1.0** |
| **YNR** | **Norris Junctio** | **4.04** | **285** | *e*Pn | **Pn** | **20 12 08.6** | **+1.0** |
| **SNOW** | **Snow King Moun** | **4.05** | **267** | *e*Pn | **Pn** | **20 12 08.7** | **+1.0** |
| **YPP** | **Pitchstone Pla** | **4.07** | **279** | *e*Pn | **Pn** | **20 12 07.8** | **-0.2** |
| **YFT** | **Old Faithful** | **4.11** | **281** | *e*Pn | **Pn** | **20 12 09.4** | **+0.9** |
| **REDW** | **Red Top Meadow** | **4.13** | **266** | *e*Pn | **Pn** | **20 12 09.3** | **+0.6** |
| **IMW** | **Indian Meadow** | **4.15** | **273** | *e*Pn | **Pn** | **20 12 10.3** | **+1.1** |
| **YHH** | **Holmes Hill** | **4.18** | **286** | *e*Pn | **Pn** | **20 12 11.2** | **+1.7** |
| **TPAW** | **Teton Pass** | **4.18** | **268** | *e*Pn | **Pn** | **20 12 10.2** | **+0.6** |
| **YMR** | **Madison River** | **4.24** | **284** | *e*Pn | **Pn** | **20 12 09.1** | **-1.1** |
| **O20A** | **White River Ci** | **4.30** | **213** | *e*Pn | **Pn** | **20 12 11.7** | **+0.6** |
| **YHB** | **Horse Butte** | **4.41** | **285** | *e*Pn | **Pn** | **20 12 12.6** | **-0.1** |
| **AHID** | **Auburn Hatcher** | **4.43** | **259** | *e*Pn | **Pn** | **20 12 13.5** | **+0.7** |
| **QLMT** | **Earthquake Lak** | **4.59** | **285** | *e*Pn | **Pn** | **20 12 16.3** | **+1.2** |
| **SMCO** | **Snowmass** | **4.80** | **197** | *e*Pn | **Pn** | **20 12 19.8** | **+1.6** |
| **BOZ** | **Bozeman (W)** | **4.93** | **294** | *e*Pn | **Pn** | **20 12 18.9** | **-0.8** |
| **HWUT** | **Hardware Ranch** | **5.17** | **247** | *e*Pn | **Pn** | **20 12 22.3** | **-0.8** |
| **EGMT** | **Eagleton** | **5.29** | **325** | *e*Pn | **Pn** | **20 12 23.9** | **-0.7** |
| **TCUT** | **Toone Canyon** | **5.31** | **242** | *e*Pn | **Pn** | **20 12 25.0** | **0.0** |
| **HRY** | **Holter Researc** | **5.52** | **304** | *e*Pn | **Pn** | **20 12 28.0** | **+0.2** |
| **LRM** | **Limekiln Ridge** | **5.54** | **294** | *e*Pn | **Pn** | **20 12 27.4** | **-0.8** |
| **P18A** | **Preston Nutter** | **5.62** | **224** | *e*Pn | **Pn** | **20 12 29.7** | **+0.4** |
| **BGNE** | **Belgrade** | **5.72** | **112** | *e*Pn | **Pn** | **20 12 28.8** | **-1.7** |
| **SPUT** | **South Promonto** | **5.90** | **248** | *e*Pn | **Pn** | **20 12 32.0** | **-0.1** |
| **HYU** | **Hansel Valley** | **5.92** | **253** | *e*Pn | **Pn** | **20 12 34.4** | **+1.0** |
| **P17A** | **Butcher Ranch,** | **5.99** | **226** | *e*Pn | **Pn** | **20 12 35.3** | **+1.1** |
| **PV09** | **Paradox Valley** | **6.06** | **211** | *e*Pn | **Pn** | **20 12 36.4** | **+1.0** |
| **MPU** | **Maple Canyon** | **6.10** | **234** | *e*Pn | **Pn** | **20 12 35.1** | **-0.7** |
| **PV10** | **Paradox Valley** | **6.14** | **209** | *e*Pn | **Pn** | **20 12 38.0** | **+1.6** |
| **SRU** | **San Rafael Swe** | **6.15** | **222** | *e*Pn | **Pn** | **20 12 37.4** | **+0.9** |
| **PV01** | **Paradox Valley** | **6.20** | **205** | *e*Pn | **Pn** | **20 12 35.3** | **-1.9** |
| **TMUT** | **Trail Mountain** | **6.36** | **227** | *e*Pn | **Pn** | **20 12 38.8** | **-0.7** |
| **I10CA** | **LAC DU BONNET** | **8.96** | **41** | *i* | | 21 06 07.3 | |
| | baz=219,slow=317,SNR=1.6 | | | | | | |
| **ULM** | **Lac du Bonnet** | **9.07** | **41** | Pn | **Pn** | **20 13 15.8** | **-0.5** |
| | 0.6nm,0.3s,baz=220,slow=12,SNR=5.4 | | | | | | |
| ULM | | | | Pg | | 20 13 45.3 | |
|

*Claro and San Fernando. Felt in the Linares-Santiago-Vina del Mar area.*
*IDC **12** 20:23:59.8±0.7,34°.74S×71°.75W,h44km±.5km,mb4.4/18, mb1 4.4/21,mb1mx4.3/37,mbtmp4.6/21,ML4.7/3,MS3.8/7, Ms1 3.8/7,ms1mx3.6/20,Error ellipse: s-maj=18.7km s-min=12.0km az=84.0*
*BJI **12** 20:23:59.1,34°.27S×71°.42W,h46km,mB5.2/3,Ms5.1/3, Ms7 4.8/3*
*GUC **12** 20:23:59.3±0.7,34°.76S×71°.87W,h47km±4km,ML5.0*
**ISC 12 20:23:59.6**±0.4,**34°.77S**±0.03×**71°.87W**±0.05,**h43**km±3km, **h43**km:**pP-P,n330,**σ**0:76**/359,**mb4.7**/35,**MS3.9**/5,**6C-4D,**
**Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **GO05** | **HualaæØ** | **0.24** | **191** | *e*Pn | | **Pn** | **20 24 07.9** | **+0.3** |
| GO05 | | | | *e*Sn | | **Sn** | **20 24 13.5** | **+0.3** |
| **GO05** | **HualaæØ** | **0.24** | **191** | *e*P | | **Pn** | **20 24 07.8** | **+0.3** |
| GO05 | | | | *i* S | | **Sn** | **20 24 13.7** | **+0.6** |
| **CHPI** | **Pichilemu** | **0.39** | **344**↑ | *i*P | | **Pn** | **20 24 08.4** | **-0.6** |
| CHPI | | | | *i* S | | **Sn** | **20 24 15.5** | **-0.2** |
| **NICH** | **Los Niches** | **0.58** | **114**↓ | *i*P | | **Pn** | **20 24 11.4** | **0.0** |
| NICH | | | | *i* S | | **Sn** | **20 24 20.0** | **+0.1** |
| NICH | | | | IAML | | | 20 24 25.1 | |
| | comp=E,163μm,0.3s | | | | | | | |
| **RCDM** | **Rinconada Maip** | **1.55** | **35** | *e*P | | **Pn** | **20 24 25.1** | **+0.3** |
| RCDM | | | | *e*S | | **Sn** | **20 24 45.3** | **+1.6** |
| **ANTU** | **Antumapu** | **1.58** | **41**↑ | *i*P | | **Pn** | **20 24 25.8** | **+0.7** |
| ANTU | | | | *e*S | | **Sn** | **20 24 46.1** | **+1.8** |
| **LMEL** | **Las Melosas** | **1.66** | **57**↓ | *i*P | | **Pn** | **20 24 26.9** | **+0.6** |
| LMEL | | | | *i* S | | **Sn** | **20 24 48.7** | **+2.2** |
| LMEL | | | | IAML | | | 20 24 51.6 | |
| | comp=E,32μm,0.5s | | | | | | | |
| **STL** | **Santa Lucia** | **1.68** | **38** | *e*P | | **Pn** | **20 24 27.0** | **+0.5** |
| STL | | | | *i* S | | **Sn** | **20 24 47.9** | **+1.1** |
| **SJCH** | **San Jose de Ma** | **1.69** | **49**↑ | *i*P | | **Pn** | **20 24 27.5** | **+0.8** |
| SJCH | | | | *i* S | | **Sn** | **20 24 49.1** | **+1.9** |
| **CLCH** | **Cerro Calan** | **1.76** | **39**↑ | *i*P | | **Pn** | **20 24 28.4** | **+0.7** |
| CLCH | | | | *i* S | | **Sn** | **20 24 51.3** | **+2.3** |
| CLCH | | | | IAML | | | 20 24 54.4 | |
| | comp=N,33μm,0.5s | | | | | | | |
| **PEL** | **Peldehue** | **1.90** | **32** | *e*Pn | | **Pn** | **20 24 30.7** | **+1.2** |
| **PEL** | **Peldehue** | **1.90** | **32**↑ | *i*P | | **Pn** | **20 24 30.1** | **+0.6** |
| PEL | | | | *e*S | | **Sn** | **20 24 54.3** | **+2.1** |
| PEL | | | | IAML | | | 20 24 58.8 | |
| | comp=N,17μm,0.6s | | | | | | | |
| **ROC1** | **El Roble** | **1.93** | **22** | *e*Pn | | **Pn** | **20 24 30.9** | **+0.8** |
| ROC1 | | | | *e*Sn | | **Sn** | **20 24 53.4** | **+0.2** |
| **FCH** | **Farellones** | **1.95** | **43**↓ | *i*P | | **Pn** | **20 24 31.2** | **+0.8** |
| FCH | | | | *i* S | | **Sn** | **20 24 55.5** | **+1.6** |
| FCH | | | | IAML | | | 20 25 02.4 | |
| | comp=E,18μm,0.3s | | | | | | | |
| **PLCA** | **Paso Flores** | **6.04** | **170** | P | | **Pn** | **20 25 28.6** | **+2.1** |
| | comp=E,4.4nm,0.3s,baz=356,slow=11,SNR=111 | | | | | | | |
| PLCA | | | | LR | | LR | 20 27 56.4 | |
| | comp=E,534nm,20.3s,baz=348,slow=39 | | | | | | | |
| **PLCA** | **Paso Flores** | **6.04** | **170** | *e*Pn | | **Pn** | **20 25 29.2** | **+2.7** |
| **PB01** | **IPOC Station P** | **13.84** | **9** | *e*Pn | | **Pn** | **20 27 13.7** | **+0.5** |
| **PB11** | **IPOC Station P** | **15.08** | **8** | *e*Pn | | **Pn** | **20 27 29.4** | **-0.5** |
| | comp=E,33nm,0.9s | | | | | | | |
| **CPUP** | **Villa Florida** | **15.08** | **60** | P | | **Pn** | **20 27 29.7** | **0.0** |
| | comp=E,0.3nm,0.3s,baz=228,slow=7.9,SNR=4.3 | | | | | | | |
| CPUP | | | | LR | | LR | 20 33 50.4 | |
| | comp=E,618nm,19.1s,baz=235,slow=39 | | | | | | | |
| **CPUP** | **Villa Florida** | **15.08** | **60** | *e*Pn | | **Pn** | **20 27 28.9** | **-0.8** |
| **MNMC** | **Minye Minye** | **15.71** | **8** | *e*Pn | | **Pn** | **20 27 37.8** | **-0.3** |
| | comp=E,85nm,0.9s | | | | | | | |
| **LPAZ** | **La Paz** | **18.71** | **11** | P | | **Pn** | **20 28 16.6** | **+0.8** |
| | comp=E,2.0nm,0.3s,baz=174,slow=6.7,SNR=28 | | | | | | | |
| **LPAZ** | **La Paz** | **18.71** | **11** | *e*P | | **Pn** | **20 28 16.3** | **+0.5** |
| | comp=E,13nm,0.9s | | | | | | | |
| **EFI** | **East Falkland** | **19.61** | **154** | *e*P | | **P** | **20 28 23.3** | **-0.8** |
| | comp=E,219nm,1.6s | | | | | | | |
| **SIV** | **San Ignacio** | **21.06** | **30** | P | | **P** | **20 28 39.0** | **-1.2** |
| | comp=E,34nm,0.8s,baz=220,slow=10,SNR=53 | | | | | | | |
| **SAML** | **Samuel** | **26.91** | **19** | *e*P | | **P** | **20 29 35.8** | **-0.9** |
| | comp=E,7.1nm,0.9s | | | | | | | |
| **ATAH** | **Atahualpa** | **28.15** | **346** | LR | | LR | 20 38 41.2 | |
| | comp=E,63nm,18.0s,baz=225,slow=31 | | | | | | | |
| **BDFB** | **Brasilia** | **28.66** | **54** | P | | **P** | **20 29 50.8** | **-1.8** |
| | comp=E,7.9nm,0.8s,baz=29,slow=9.9,SNR=5.0 | | | | | | | |
| BDFB | | | | LR | | LR | 20 42 21.7 | |
| | comp=E,292nm,19.3s,baz=343,slow=39 | | | | | | | |
| **RPN** | **Rapa Nui** | **32.87** | **273** | LR | | LR | 20 39 50.4 | |
| | comp=E,234nm,19.4s,baz=97,slow=29 | | | | | | | |
| **PTGA** | **Pitinga** | **35.64** | **21** | P | | **P** | **20 30 52.7** | **-0.9** |
| | comp=E,26nm,0.6s,baz=207,slow=9.4,SNR=44 | | | | | | | |
| **RUSC** | **La Rusia** | **40.46** | **358** | *e*P | | **P** | **20 31 35.5** | **+0.9** |
| | comp=E,18nm,1.3s | | | | | | | |
| **HELC** | **Santa Helena** | **40.88** | **354** | *e*P | | **P** | **20 31 38.9** | **+0.9** |
| | comp=E,23nm,0.6s | | | | | | | |
| **SDV** | **Santo Domingo** | **43.43** | **2** | P | | **P** | **20 31 58.4** | **-0.2** |
| | comp=E,7.8nm,0.6s,baz=227,slow=2.4,SNR=12 | | | | | | | |
| **RCBR** | **Riachuelo** | **43.94** | **57** | P | | **P** | **20 32 02.4** | **-0.2** |
| | comp=E,4.2nm,0.5s,baz=225,slow=11,SNR=4.9 | | | | | | | |
| **VNA3** | **Neumayer Olymp** | **48.60** | **158** | P | | **P** | **20 32 39.4** | **+0.9** |
| **VNA1** | **Neumayer--Stat** | **48.91** | **157** | P | | **P** | **20 32 36.8** | **-4.0** |
| **VNA2** | **Neumayer--Watz** | **49.25** | **157** | P | | **P** | **20 32 44.0** | **+0.5** |
| | baz=284,slow=8.4 | | | | | | | |
| **SNAA** | **Sanae** | **50.82** | **158** | P | | **P** | **20 32 55.7** | **+0.2** |
| **SNAA** | **Sanae** | **50.82** | **158** | P | | **P** | **20 32 54.7** | **-0.7** |
| | comp=E,4.5nm,0.8s,baz=227,slow=7.2,SNR=28 | | | | | | | |
| **SNAA** | **Sanae** | **50.82** | **158** | *e*P | | **P** | **20 32 55.9** | **+0.4** |
| | comp=E,13nm,1.2s | | | | | | | |
| **CELP** | **Cerrillos** | **52.79** | **6** | *e*P | | **P** | **20 33 09.1** | **-1.4** |
| **SJG** | **San Juan** | **52.87** | **7** | P | | **P** | **20 33 09.3** | **-1.8** |
| | comp=E,5.2nm,0.3s,baz=170,slow=3.2,SNR=5.1 | | | | | | | |
| **QSPA** | **South Pole Qui** | **55.47** | **180** | *e*P | | **P** | **20 33 31.1** | **+1.4** |
| **VNDA** | **Vanda** | **63.38** | **191** | P | | **P** | **20 34 24.5** | **+0.5** |
| | comp=E,0.7nm,0.7s,baz=127,slow=5.1,SNR=2.7 | | | | | | | |
| **SYO** | **Syowa Base** | **65.10** | **158**‖ | *e*P | | **P** | **20 34 34.0** | **-1.3** |
| **SYO** | **Syowa Base** | **65.10** | **158**‖ | *es*P | | sP | 20 34 51.4 | -1.2 |
| **833A** | **Chaparral WMA,** | **67.93** | **334** | P | | **P** | **20 34 54.5** | **+0.6** |
| | baz=156 | | | | | | | |
| **LRAL** | **Lakeview Retre** | **68.93** | **346** | P | | **P** | **20 34 59.8** | **-0.2** |
| | baz=167 | | | | | | | |
| **Z47A** | **Carrollton** | **69.30** | **346** | P | | **P** | **20 35 02.4** | **+0.2** |
| | baz=166 | | | | | | | |
| **Z48A** | **Northport** | **69.37** | **346** | P | | **P** | **20 35 02.8** | **+0.1** |
| | baz=166 | | | | | | | |
| **336A** | **Riesel** | **69.88** | **337** | P | | **P** | **20 35 06.5** | **+0.6** |
| | baz=158 | | | | | | | |
| **Y47A** | **UCPARC, Winfie** | **69.94** | **346** | P | | **P** | **20 35 06.2** | **0.0** |
| | baz=166,SNR=5.3 | | | | | | | |
| **JCT** | **Junction City** | **70.04** | **335** | *e*P | | **P** | **20 35 08.4** | **+1.5** |
| | comp=E,16nm,0.8s | | | | | | | |
| **KMSC** | **Kings Mountain** | **70.11** | **352** | P | | **P** | **20 35 06.9** | **-0.4** |
| | baz=172 | | | | | | | |
| **Y46A** | **Houston** | **70.12** | **345** | P | | **P** | **20 35 07.5** | **+0.1** |
| | baz=165 | | | | | | | |
| **X49A** | **Woodville** | **70.24** | **347** | P | | **P** | **20 35 07.6** | **-0.4** |
| | baz=167 | | | | | | | |
| **PPT2** | **Papeete2** | **70.26** | **262** | *e*LR | | LR | 20 56 48.2 | |
| | comp=E,142nm,27.8s | | | | | | | |
| **PPT** | **Papeete** | **70.27** | **262** | LR | | LR | 20 58 57.1 | |
| | comp=E,53nm,18.4s,baz=191,slow=30 | | | | | | | |
| **LTX** | **Lajitas** | **70.47** | **331** | *e*P | | **P** | **20 35 10.6** | **+0.9** |
| LTX | | | | *e*pP | | **pP** | **20 35 22.4** | **+0.2** |
| **TXAR** | **Lajitas Array** | **70.47** | **331** | P | | **P** | **20 35 10.6** | **+0.9** |
| | comp=E,0.9nm,0.5s,baz=158,slow=8.6,SNR=28 | | | | | | | |
| TXAR | | | | pP | | **pP** | **20 35 22.4** | **+0.2** |
| | comp=E,2.0nm,0.5s,baz=154,slow=8.7,SNR=16 | | | | | | | |
| **WHTX** | **Lake Whitney,** | **70.63** | **337** | P | | **P** | **20 35 10.8** | **+0.3** |
| | baz=158 | | | | | | | |
| **137A** | **Heron Place, G** | **70.67** | **339** | P | | **P** | **20 35 11.1** | **+0.4** |
| | baz=159 | | | | | | | |
| **X45A** | **UM Field Stati** | **70.76** | **345** | P | | **P** | **20 35 11.1** | **-0.1** |
| | baz=165 | | | | | | | |
| **OXF** | **Oxford** | **70.85** | **345** | P | | **P** | **20 35 11.3** | **-0.4** |
| | baz=165 | | | | | | | |
| **SWET** | **Sewanee** | **70.85** | **348** | *e*P | | **P** | **20 35 11.8** | **0.0** |
| | comp=E,19nm,0.8s | | | | | | | |
| **TKL** | **Tuckaleechee C** | **70.94** | **350** | P | | **P** | **20 35 11.8** | **-0.6** |
| | comp=E,1.9nm,0.4s,baz=160,slow=7.9,SNR=4.9 | | | | | | | |
| **Z36A** | **Blue Ridge** | **71.50** | **338** | P | | **P** | **20 35 16.0** | **+0.3** |
| | baz=159 | | | | | | | |
| **V48A** | **Smith Brothers** | **71.52** | **347** | P | | **P** | **20 35 16.1** | **+0.3** |
| | baz=167 | | | | | | | |
| **ABTX** | **Abilene, Hawle** | **71.93** | **336** | P | | **P** | **20 35 18.8** | **+0.4** |
| | baz=156 | | | | | | | |
| **X39A** | **Fountain Ranch** | **72.00** | **341** | P | | **P** | **20 35 18.8** | **+0.2** |
| | baz=161 | | | | | | | |
| **WVT** | **Waverly** | **72.09** | **346** | P | | **P** | **20 35 19.1** | **-0.1** |
| | baz=166 | | | | | | | |
| **W41B** | **Gary Mavity, V** | **72.14** | **343** | P | | **P** | **20 35 19.5** | **0.0** |
| | baz=162 | | | | | | | |
| **U48A** | **Cassie Pea, Po** | **72.22** | **348** | P | | **P** | **20 35 20.3** | **+0.3** |
| | baz=167 | | | | | | | |
| **X301** | **Greenbrier Sit** | **72.24** | **342** | *e*P | | **P** | **20 35 21.1** | **+1.0** |
| | comp=E,14nm,0.9s | | | | | | | |
| **U47A** | **Clarksville** | **72.29** | **347** | P | | **P** | **20 35 20.3** | **-0.1** |
| | baz=167 | | | | | | | |
| **MAW** | **Mawson** | **72.41** | **163** | P | | **P** | **20 35 21.4** | **+0.6** |
| | comp=E,6.4nm,0.8s,baz=212,slow=7.4,SNR=11 | | | | | | | |
| MAW | | | | LR | | LR | 21 08 44.6 | |
| | comp=E,83nm,18.4s,baz=249,slow=37 | | | | | | | |
| **MAW** | **Mawson** | **72.41** | **163** | *e*P | | **P** | **20 35 21.6** | **+0.8** |
| | comp=E,1.4nm,0.8s | | | | | | | |
| **X37A** | **Clayton** | **72.42** | **340** | P | | **P** | **20 35 21.5** | **+0.3** |
| | baz=160 | | | | | | | |
| **W39A** | **Magazine** | **72.55** | **341** | P | | **P** | **20 35 22.6** | **+0.6** |
| | baz=161 | | | | | | | |
| **W38A** | **Poteau** | **72.63** | **341** | P | | **P** | **20 35 22.9** | **+0.5** |
| | baz=161 | | | | | | | |
| **X36A** | **Centrahoma** | **72.68** | **339** | P | | **P** | **20 35 22.5** | **-0.2** |
| | baz=159 | | | | | | | |
| **V41A** | **Mountainview** | **72.70** | **343** | P | | **P** | **20 35 22.8** | **-0.1** |
| | baz=163 | | | | | | | |
| **T48A** | **Bowling Green** | **72.78** | **348** | P | | **P** | **20 35 23.1** | **-0.2** |
| | baz=168 | | | | | | | |
| **T47A** | **Sharon Grove** | **72.79** | **347** | P | | **P** | **20 35 23.0** | **-0.3** |
| | baz=167 | | | | | | | |
| **W37B** | **Quinton** | **72.95** | **340** | P | | **P** | **20 35 23.8** | **-0.6** |
| | baz=160 | | | | | | | |
| **T46A** | **Princeton** | **72.98** | **347** | P | | **P** | **20 35 24.8** | **+0.3** |
| | baz=166 | | | | | | | |
| **U42A** | **Revenden** | **73.02** | **344** | P | | **P** | **20 35 25.0** | **+0.3** |
| | baz=164 | | | | | | | |
| **T45A** | **Paducah** | **73.11** | **346** | P | | **P** | **20 35 25.2** | **-0.1** |
| | baz=166 | | | | | | | |
| **V39A** | **Pettigrew** | **73.12** | **342** | P | | **P** | **20 35 25.3** | **-0.1** |
| | baz=162 | | | | | | | |
| **U41A** | **Viola** | **73.18** | **343** | P | | **P** | **20 35 25.4** | **-0.3** |
| | baz=163 | | | | | | | |
| **MNTX** | **Cornudas Mount** | **73.25** | **331** | P | | **P** | **20 35 26.4** | **+0.2** |
| | baz=152 | | | | | | | |
| **MNTX** | **Cornudas Mount** | **73.25** | **331** | *e*P | | **P** | **20 35 26.1** | **-0.1** |
| MNTX | | | | *e*pP | | **pP** | **20 35 38.2** | **-0.6** |
| **S48A** | **Wiedeman Farm,** | **73.26** | **348** | P | | **P** | **20 35 25.7** | **-0.4** |
| | baz=168 | | | | | | | |
| **V38A** | **Canehill** | **73.35** | **341** | P | | **P** | **20 35 26.6** | **-0.1** |
| | baz=161 | | | | | | | |
| **W35A** | **Tecumseh** | **73.38** | **339** | P | | **P** | **20 35 26.8** | **-0.1** |
| | baz=159 | | | | | | | |
| **U40A** | **Yellville** | **73.42** | **342** | P | | **P** | **20 35 26.9** | **-0.1** |
| | baz=162 | | | | | | | |
| **T43A** | **Greenville** | **73.51** | **345** | P | | **P** | **20 35 27.2** | **-0.4** |
| | baz=164,SNR=5.5 | | | | | | | |
| **V37A** | **Hulbert** | **73.57** | **340** | P | | **P** | **20 35 28.2** | **+0.2** |
| | baz=160 | | | | | | | |
| **U39A** | **Green Forest** | **73.60** | **342** | P | | **P** | **20 35 28.1** | **-0.1** |
| | baz=162 | | | | | | | |
| **HHAR** | **Hobbs** | **73.62** | **342** | *e*P | | **P** | **20 35 28.2** | **-0.1** |
| | comp=E,7.4nm,0.8s | | | | | | | |
| **T42A** | **Van Buren** | **73.64** | **344** | P | | **P** | **20 35 27.9** | **-0.4** |
| | baz=164 | | | | | | | |
| **V36A** | **Jenks** | **73.70** | **340** | P | | **P** | **20 35 28.5** | **-0.2** |
| | baz=160 | | | | | | | |
| **TUL1** | **Leland** | **73.77** | **340** | P | | **P** | **20 35 29.6** | **+0.4** |
| | baz=160 | | | | | | | |
| **T41A** | **Mountain View** | **73.81** | **344** | P | | **P** | **20 35 28.9** | **-0.4** |
| | baz=163,SNR=5.2 | | | | | | | |
| **S44A** | **Carbondale** | **73.88** | **346** | P | | **P** | **20 35 29.9** | **+0.1** |
| | baz=165 | | | | | | | |
| **S43A** | **Fulton Ridge,** | **73.94** | **345** | P | | **P** | **20 35 29.6** | **-0.5** |
| | baz=164,SNR=14 | | | | | | | |
| **V35A** | **Meyer Ranch, C** | **73.94** | **339** | P | | **P** | **20 35 29.9** | **-0.3** |
| | baz=159 | | | | | | | |
| **V35A** | **Meyer Ranch, C** | **73.94** | **339** | *e*P | | **P** | **20 35 29.9** | **-0.3** |
| | comp=E,16nm,0.7s | | | | | | | |
| **R46A** | **Gibon Southern** | **74.05** | **347** | P | | **P** | **20 35 29.6** | **-1.1** |
| | baz=167 | | | | | | | |
| **T40A** | **Mansfield** | **74.09** | **343** | P | | **P** | **20 35 30.7** | **-0.3** |
| | baz=162 | | | | | | | |
| **T39A** | **Clever** | **74.18** | **342** | P | | **P** | **20 35 31.4** | **-0.1** |
| | baz=162 | | | | | | | |
| **MSTX** | **Muleshoe** | **74.26** | **334** | P | | **P** | **20 35 32.1** | **-0.1** |
| | baz=154 | | | | | | | |
| **MSTX** | **Muleshoe** | **74.26** | **334** | *e*P | | **P** | **20 35 32.5** | **+0.2** |
| MSTX | | | | *e*pP | | **pP** | **20 35 44.9** | **0.0** |
| **R45A** | **Skylar, Fairfi** | **74.27** | **347** | P | | **P** | **20 35 31.7** | **-0.4** |
| | baz=166 | | | | | | | |
| **S42A** | **Caledonia** | **74.28** | **345** | P | | **P** | **20 35 31.5** | **-0.6** |
| | baz=164 | | | | | | | |
| **S41A** | **Jillco Farms,** | **74.32** | **344** | P | | **P** | **20 35 32.5** | **+0.2** |
| | baz=163 | | | | | | | |
| **R44A** | **Waltonville** | **74.38** | **346** | P | | **P** | **20 35 31.8** | **-0.8** |
| | baz=165 | | | | | | | |
| **T38A** | **Diamond** | **74.42** | **342** | P | | **P** | **20 35 33.0** | **+0.1** |
| | baz=161 | | | | | | | |
| **U35A** | **Pawnee** | **74.47** | **339** | P | | **P** | **20 35 33.5** | **+0.2** |
| | baz=159 | | | | | | | |
| **S40A** | **Lebanon** | **74.51** | **343** | P | | **P** | **20 35 33.6** | **+0.1** |
| | baz=162,SNR=5.8 | | | | | | | |
| **R43A** | **Red Bud** | **74.58** | **345** | P | | **P** | **20 35 33.9** | **+0.1** |
| | baz=166 | | | | | | | |
| **CCM** | **Cathedral Cave** | **74.66** | **344** | P | | **P** | **20 35 34.2** | **-0.1** |
| | baz=164 | | | | | | | |
| **T37A** | **Cheneyville 18** | **74.67** | **341** | P | | **P** | **20 35 34.3** | **-0.1** |
| | baz=161 | | | | | | | |
| **AMTX** | **Amarillo** | **74.69** | **335** | P | | **P** | **20 35 34.9** | **+0.2** |
| | baz=155 | | | | | | | |
| **R42A** | **Luebbering** | **74.77** | **345** | P | | **P** | **20 35 34.8** | **-0.1** |
| | baz=164 | | | | | | | |
| **S39A** | **Bolivar** | **74.80** | **343** | P | | **P** | **20 35 35.1** | **0.0** |
| | baz=162 | | | | | | | |
| **T36A** | **Boggs Farm, Ca** | **74.88** | **340** | P | | **P** | **20 35 35.5** | **-0.1** |
| | baz=160 | | | | | | | |
| **S38A** | **Stockton** | **74.89** | **342** | P | | **P** | **20 35 35.4** | **-0.3** |
| | baz=161 | | | | | | | |
| **R41A** | **Rosebud** | **74.92** | **344** | P | | **P** | **20 35 35.7** | **0.0** |
| | baz=164,SNR=9.2 | | | | | | | |
| **T35A** | **Sooner Cattle** | **74.92** | **340** | P | | **P** | **20 35 36.2** | **+0.3** |
| | baz=159 | | | | | | | |
| **121A** | **Cooks Peak, D** | **74.97** | **329** | P | | **P** | **20 35 37.6** | **+1.2** |
| | baz=150 | | | | | | | |
| **R40A** | **Maddies Statio** | **75.11** | **344** | P | | **P** | **20 35 36.7** | **-0.2** |
| | baz=163,SNR=12 | | | | | | | |
| **U32A** | **Winter Ranch,** | **75.17** | **338** | P | | **P** | **20 35 37.6** | **+0.3** |
| | baz=157 | | | | | | | |
| **Q43A** | **New Douglas** | **75.18** | **346** | P | | **P** | **20 35 37.0** | **-0.2** |
| | baz=165 | | | | | | | |
| **T34A** | **McClaskey Farm** | **75.21** | **339** | P | | **P** | **20 35 37.9** | **+0.4** |
| | baz=159 | | | | | | | |
| **S37A** | **Fort Scott** | **75.25** | **341** | P | | **P** | **20 35 37.6** | **-0.1** |
| | baz=161 | | | | | | | |
| **DBIC** | **Dimbokro** | **75.30** | **71** | P | | **P** | **20 35 38.1** | **-0.5** |
| | comp=E,13nm,0.7s,baz=209,slow=6.8,SNR=19 | | | | | | | |
| **DBIC** | **Dimbokro** | **75.30** | **71** | *e*P | | **P** | **20 35 38.2** | **-0.3** |
| | comp=E,15nm,0.8s | | | | | | | |
| DBIC | | | | *e*pP | | **PcP** | **20 35 50.8** | **-0.9** |
| **R39A** | **Chumby, Stover** | **75.32** | **343** | P | | **P** | **20 35 38.0** | **-0.1** |
| | baz=162 | | | | | | | |
| **Q42A** | **Golden Eagle** | **75.32** | **345** | P | | **P** | **20 35 38.0** | **-0.1** |
| | baz=164,SNR=5.0 | | | | | | | |
| **ACSO** | **Alum Creek Sta** | **75.33** | **351** | P | | **P** | **20 35 38.3** | **+0.2** |
| | baz=171 | | | | | | | |
| **ACSO** | **Alum Creek Sta** | **75.33** | **351** | *e*P | | **P** | **20 35 37.9** | **-0.3** |
| **P45A** | **Graceland, Par** | **75.37** | **347** | P | | **P** | **20 35 38.7** | **+0.4** |
| | baz=167 | | | | | | | |
| **R38A** | **Fenwick Farm,** | **75.41** | **342** | P | | **P** | **20 35 38.9** | **+0.3** |
| | baz=161 | | | | | | | |
| **S36A** | **Lake Cedric, C** | **75.42** | **341** | P | | **P** | **20 35 38.6** | **-0.1** |
| | baz=160 | | | | | | | |
| **P44A** | **Sand Creek, Wi** | **75.47** | **347** | P | | **P** | **20 35 38.7** | **-0.2** |
| | baz=166 | | | | | | | |
| **Q41A** | **Truxton** | **75.51** | **345** | P | | **P** | **20 35 39.1** | **0.0** |
| | baz=164,SNR=8.0 | | | | | | | |
| **S35A** | **Otter Creek Ra** | **75.58** | **340** | P | | **P** | **20 35 39.5** | **-0.1** |
| | baz=160 | | | | | | | |
| **N54A** | **Moraine State** | **75.73** | **354** | P | | **P** | **20 35 40.1** | **-0.3** |
| | baz=173 | | | | | | | |
| **Q40A** | **Laux Farm, Aux** | **75.74** | **344** | P | | **P** | **20 35 40.5** | **0.0** |
| | baz=163,SNR=5.7 | | | | | | | |
| **O47A** | **Sheridan** | **75.79** | **349** | P | | **P** | **20 35 39.7** | **-1.1** |
| | baz=168 | | | | | | | |
| **P43A** | **Skaggs, Pawnee** | **75.82** | **346** | P | | **P** | **20 35 40.3** | **-0.5** |
| | baz=165 | | | | | | | |
| **S34A** | **Willow Spring** | **75.82** | **340** | P | | **P** | **20 35 40.6** | **-0.4** |
| | baz=159 | | | | | | | |
| **P42A** | **Winchester** | **75.93** | **345** | P | | **P** | **20 35 41.0** | **-0.5** |
| | baz=164 | | | | | | | |
| **R36A** | **Gordon, Harris** | **75.96** | **341** | P | | **P** | **20 35 42.0** | **+0.2** |
| | baz=160 | | | | | | | |
| **Q39A** | **Willow Grove F** | **76.00** | **343** | P | | **P** | **20 35 41.7** | **-0.3** |
| | baz=162 | | | | | | | |
| **O45A** | **Potomac** | **76.07** | **348** | P | | **P** | **20 35 41.4** | **-0.9** |
| | baz=167 | | | | | | | |
| **Q38A** | **Cooks Store, C** | **76.08** | **343** | P | | **P** | **20 35 42.2** | **-0.2** |
| | baz=162 | | | | | | | |
| **R35A** | **Emporia Munici** | **76.14** | **341** | P | | **P** | **20 35 43.3** | **+0.5** |
| | baz=160 | | | | | | | |
| **P41A** | **Barry, Barry** | **76.17** | **345** | P | | **P** | **20 35 42.8** | **-0.1** |
| | baz=164 | | | | | | | |
| **Q37A** | **Longview Farm,** | **76.20** | **342** | P | | **P** | **20 35 43.1** | **-0.1** |
| | baz=161 | | | | | | | |
| **M54A** | **Oil Creek Stat** | **76.24** | **354** | P | | **P** | **20 35 43.2** | **-0.1** |
| | baz=173 | | | | | | | |
| **P40A** | **Paris** | **76.25** | **344** | P | | **P** | **20 35 43.4** | **+0.1** |
| | baz=163,SNR=10 | | | | | | | |
| **P39B** | **Salisbury** | **76.37** | **344** | P | | **P** | **20 35 43.6** | **-0.4** |
| | baz=162 | | | | | | | |
| **O43A** | **Sugar Creek Fa** | **76.40** | **346** | P | | **P** | **20 35 43.5** | **-0.7** |
| | baz=165 | | | | | | | |
| **R34A** | **Isabella, Hill** | **76.42** | **340** | P | | **P** | **20 35 44.4** | **0.0** |
| | baz=159 | | | | | | | |
| **ANMO** | **Albuquerque** | **76.52** | **331** | P | | **P** | **20 35 46.6** | **+1.3** |
| | comp=E,1.7nm,0.7s,baz=323,slow=8.6,SNR=5.7 | | | | | | | |
| ANMO | | | | pP | | **pP** | **20 35 58.9** | **+1.0** |
| | comp=E,1.8nm,0.7s,baz=334,slow=9.5,SNR=3.0 | | | | | | | |
| **ANMO** | **Albuquerque** | **76.52** | **331** | P | | **P** | **20 35 46.0** | **+0.7** |
| | baz=151 | | | | | | | |
| **N46A** | **Monticello** | **76.53** | **348** | P | | **P** | **20 35 44.3** | **-0.6** |
| | baz=168 | | | | | | | |
| **O41A** | **Passleys Farm,** | **76.55** | **345** | P | | **P** | **20 35 44.5** | **-0.6** |
| | baz=164 | | | | | | | |
| **Q35A** | **Mercer Eighty,** | **76.60** | **341** | P | | **P** | **20 35 45.0** | **-0.4** |
| | baz=160 | | | | | | | |
| **N45A** | **Kentland** | **76.61** | **348** | P | | **P** | **20 35 44.7** | **-0.7** |
| | baz=167 | | | | | | | |
| **N44A** | **Piper City** | **76.67** | **347** | P | | **P** | **20 35 45.1** | **-0.7** |
| | baz=166 | | | | | | | |
| **P38A** | **Dawn** | **76.68** | **343** | P | | **P** | **20 35 45.5** | **-0.3** |
| | baz=162,SNR=5.7 | | | | | | | |
| **O40A** | **La Belle** | **76.77** | **344** | P | | **P** | **20 35 46.0** | **-0.3** |
| | baz=163 | | | | | | | |
| **P37A** | **Lathrop** | **76.85** | **342** | P | | **P** | **20 35 46.5** | **-0.3** |
| | baz=161 | | | | | | | |
| **Q34A** | **Chapman** | **76.91** | **340** | P | | **P** | **20 35 47.1** | **0.0** |
| | baz=159 | | | | | | | |
| **N43A** | **Stutzman Famil** | **77.00** | **347** | P | | **P** | **20 35 47.2** | **-0.4** |
| | baz=166 | | | | | | | |
| **O39A** | **Kirksville** | **77.05** | **344** | P | | **P** | **20 35 47.6** | **-0.3** |
| | baz=163 | | | | | | | |
| **N42A** | **Yates City** | **77.06** | **346** | P | | **P** | **20 35 47.5** | **-0.4** |
| | baz=165 | | | | | | | |
| **P36A** | **Good Intent, A** | **77.10** | **342** | P | | **P** | **20 35 47.9** | **-0.2** |
| | baz=160 | | | | | | | |
| **N41A** | **Harden Midland** | **77.11** | **345** | P | | **P** | **20 35 47.7** | **-0.5** |
| | baz=164 | | | | | | | |
| **O38A** | **Galt** | **77.14** | **343** | P | | **P** | **20 35 48.5** | **+0.1** |
| | baz=162 | | | | | | | |
| **P35A** | **Duane Minner,** | **77.22** | **341** | P | | **P** | **20 35 48.8** | **-0.1** |
| | baz=160 | | | | | | | |
| **M44A** | **Midewin, Midew** | **77.23** | **348** | P | | **P** | **20 35 48.5** | **-0.4** |
| | baz=166 | | | | | | | |
| **O37A** | **Wolven Farm, M** | **77.35** | **343** | P | | **P** | **20 35 49.2** | **-0.3** |
| | baz=161,SNR=6.8 | | | | | | | |
| **N40A** | **Mertquake, Sal** | **77.44** | **345** | P | | **P** | **20 35 49.7** | **-0.3** |
| | baz=164 | | | | | | | |
| **M43A** | **Waltham Townsh** | **77.44** | **347** | P | | **P** | **20 35 49.6** | **-0.5** |
| | baz=166 | | | | | | | |
| **P34A** | **Walnut Farm, R** | **77.46** | **340** | P | | **P** | **20 35 50.2** | **0.0** |
| | baz=159 | | | | | | | |
| **O36A** | **Bolckow** | **77.52** | **342** | P | | **P** | **20 35 50.0** | **-0.5** |
| | baz=161 | | | | | | | |
| **CBKS** | **Cedar Bluff** | **77.63** | **338** | P | | **P** | **20 35 51.9** | **+0.6** |
| | baz=157 | | | | | | | |
| **N39A** | **Derby Farms, D** | **77.64** | **344** | P | | **P** | **20 35 50.8** | **-0.3** |
| | baz=163,SNR=5.5 | | | | | | | |
| **T25A** | **Trinidad** | **77.68** | **334** | P | | **P** | **20 35 52.8** | **+1.0** |
| | baz=153 | | | | | | | |
| **T25A** | **Trinidad** | **77.68** | **334** | *e*P | | **P** | **20 35 52.3** | **+0.5** |
| T25A | | | | *e*pP | | **pP** | **20 36 05.7** | **+1.2** |
| **M41A** | **Milan** | **77.69** | **346** | P | | **P** | **20 35 51.2** | **-0.3** |
| | baz=164 | | | | | | | |
| **N38A** | **Joes South For** | **77.72** | **344** | P | | **P** | **20 35 51.4** | **-0.3** |
| | baz=162 | | | | | | | |
| **N37A** | **Lee Faris, Mou** | **77.92** | **343** | P | | **P** | **20 35 52.5** | **-0.2** |
| | baz=161 | | | | | | | |
| **L42A** | **Oliver, Polo** | **78.13** | **347** | P | | **P** | **20 35 53.9** | **+0.1** |
| | baz=165 | | | | | | | |
| **L43A** | **Garden Prairie** | **78.13** | **347** | P | | **P** | **20 35 53.6** | **-0.2** |
| | baz=166 | | | | | | | |
| **N36A** | **Muff Farm, Cla** | **78.16** | **342** | P | | **P** | **20 35 54.3** | **+0.2** |
| | baz=161 | | | | | | | |
| **O33A** | **Hebron** | **78.16** | **340** | P | | **P** | **20 35 54.3** | **+0.1** |
| | baz=159 | | | | | | | |
| **M38A** | **Pleasantville** | **78.31** | **344** | P | | **P** | **20 35 54.6** | **-0.3** |
| | baz=162,S

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SMCO | Snowmass | 80.42 | 333 | *e*P | | P | 20 36 08.4 | +1.5 |
| SMCO | | | | *ep*P | | *p*P | 20 36 20.6 | +0.9 |
| ISCO | Idaho Springs<br>baz=152 | 80.48 | 334 | P | | P | 20 36 07.9 | +0.8 |
| I38A | Scanlan Farm,<br>baz=163 | 80.62 | 345 | P | | P | 20 36 07.6 | +0.2 |
| J34A | George<br>baz=160 | 80.73 | 342 | P | | P | 20 36 08.5 | +0.5 |
| I37A | Lemond, Waseca<br>baz=162 | 80.83 | 344 | P | | P | 20 36 08.6 | +0.1 |
| K31A | O'Neill<br>baz=158 | 80.85 | 340 | P | | P | 20 36 09.3 | +0.6 |
| BFSC | Mount Baldy Ra | 80.93 | 323 | *e*P | | P | 20 36 10.5 | +1.0 |
| SBI | Santa Barbara | 81.02 | 322 | *e*P | | P | 20 36 12.0 | +2.2 |
| ECSD | EROS Data Cent<br>baz=160 | 81.32 | 342 | P | | P | 20 36 11.4 | +0.2 |
| ECSD | EROS Data Cent<br>comp=E,11nm,0.8s | 81.32 | 342 | *e*P | | P | 20 36 11.5 | +0.4 |
| ECSD | | | | *ep*P | | *p*P | 20 36 23.8 | -0.2 |
| G40A | Rib Lake<br>baz=165 | 81.38 | 347 | P | | P | 20 36 11.5 | +0.1 |
| J31A | Geddes<br>baz=158 | 81.47 | 341 | P | | P | 20 36 12.1 | +0.2 |
| G38A | Ridgeland<br>baz=164 | 81.60 | 346 | P | | P | 20 36 12.0 | -0.5 |
| EDW2 | Edwards Air Fo<br>baz=143 | 81.61 | 323 | P | | P | 20 36 13.8 | +0.8 |
| E45A | Wooded Hills,<br>baz=169 | 81.64 | 351 | P | | P | 20 36 13.1 | +0.4 |
| H35A | Sunnyside Ranc<br>baz=161 | 81.80 | 344 | P | | P | 20 36 13.5 | -0.1 |
| LBTB | Lobatse<br>comp=E,15nm,0.8s | 81.86 | 115 | *e*P | | P | 20 36 14.5 | -0.3 |
| E43A | Lone Tree Farm<br>baz=168 | 81.92 | 349 | P | | P | 20 36 14.3 | +0.1 |
| F40A | Park Falls<br>baz=165 | 81.99 | 347 | P | | P | 20 36 14.5 | -0.2 |
| P18A | Preston Nutter<br>comp=E,6.1nm,0.9s | 82.08 | 331 | *e*P | | P | 20 36 16.9 | +1.2 |
| F39A | Loretta<br>baz=164 | 82.14 | 347 | P | | P | 20 36 15.2 | -0.2 |
| H33A | Prehn Over Nor<br>baz=160 | 82.24 | 342 | P | | P | 20 36 16.1 | +0.1 |
| F38A | Pierce - Schro<br>baz=164 | 82.36 | 346 | P | | P | 20 36 16.5 | 0.0 |
| E40A | Wakefield<br>baz=165 | 82.46 | 348 | P | | P | 20 36 17.5 | +0.4 |
| H31A | Wolsey<br>baz=158 | 82.50 | 341 | P | | P | 20 36 17.2 | -0.1 |
| E39A | Mellen<br>baz=165 | 82.51 | 347 | P | | P | 20 36 16.8 | -0.5 |
| F36A | Milaca<br>baz=162 | 82.61 | 345 | P | | P | 20 36 17.3 | -0.5 |
| D41A | Chassel<br>baz=166 | 82.83 | 349 | P | | P | 20 36 18.9 | -0.1 |
| E38A | The Farm, Brul<br>baz=164 | 82.92 | 346 | P | | P | 20 36 19.1 | -0.4 |
| E36A | McGregor<br>baz=162 | 83.18 | 345 | P | | P | 20 36 20.7 | -0.1 |
| D37A | Cotton<br>baz=163 | 83.62 | 346 | P | | P | 20 36 23.0 | -0.1 |
| D36A | Goodland<br>baz=162 | 83.79 | 346 | P | | P | 20 36 23.8 | -0.1 |
| RSSD | Black Hills<br>baz=154 | 83.80 | 337 | P | | P | 20 36 24.6 | +0.3 |
| D35A | Remer<br>baz=162 | 83.88 | 345 | P | | P | 20 36 24.2 | -0.2 |
| C38A | Sawbill Land.<br>baz=164 | 83.94 | 347 | P | | P | 20 36 24.1 | -0.6 |
| D34A | Park Rapids<br>baz=161 | 84.14 | 344 | P | | P | 20 36 25.5 | -0.2 |
| C36A | Pine Crest Far<br>baz=163 | 84.28 | 346 | P | | P | 20 36 26.3 | -0.1 |
| TOA0 | Torodi Ar. Sit | 84.35 | 70 | *e*P | | P | 20 36 27.1 | -0.4 |
| TOA0 | | | | *ep*P | | *p*P | 20 36 40.2 | -0.1 |
| TORD | Torodi Ar. Bea<br>comp=E,7.6nm,0.9s,baz=242,slow=3.1,SNR=21 | 84.35 | 70 | P | | P | 20 36 26.9 | -0.6 |
| TORD | | | | *p*P | | *p*P | 20 36 40.4 | +0.1 |
| TOA1 | Torodi Ar. Sit<br>comp=E,7.9nm,0.7s,baz=250,slow=3.7,SNR=8.6 | 84.35 | 70 | *e*P | | P | 20 36 26.9 | -0.6 |
| TOA1 | | | | *ep*P | | *p*P | 20 36 40.4 | +0.1 |
| C35A | Jirik Farms, M<br>baz=162 | 84.46 | 345 | P | | P | 20 36 27.2 | -0.1 |
| PD31 | Pinedale Array | 84.51 | 333 | *e*P | | P | 20 36 27.9 | 0.0 |
| PDAR | Pinedale Array<br>comp=E,1.5nm,0.8s,baz=123,slow=5.5,SNR=5.1 | 84.51 | 333 | P | | P | 20 36 27.9 | 0.0 |
| EMT | Emmet | 84.56 | 322 | *e*P | | P | 20 36 28.2 | +0.1 |
| NV01 | Mina Array Sit | 84.59 | 325 | *e*P | | P | 20 36 29.4 | +0.9 |
| NV01 | | | | *ep*P | | *p*P | 20 36 42.0 | +0.7 |
| C34A | RKJ Ranch, Bem<br>baz=161 | 84.61 | 345 | P | | P | 20 36 27.8 | -0.3 |
| HVU | Hansel Valley<br>comp=E,2.9nm,0.8s | 84.92 | 331 | *e*P | | P | 20 36 30.8 | +0.8 |
| B35A | Bob, Littlefor<br>baz=162 | 85.03 | 346 | P | | P | 20 36 29.7 | -0.4 |
| B34A | Aery, Baudette<br>baz=161 | 85.34 | 345 | P | | P | 20 36 31.4 | -0.3 |
| C31A | Landman Farms,<br>baz=159 | 85.39 | 343 | P | | P | 20 36 31.8 | -0.2 |
| B32A | Ashes, Strandq<br>baz=160 | 85.68 | 344 | P | | P | 20 36 33.4 | 0.0 |
| A33A | Warroad<br>baz=161 | 85.93 | 345 | P | | P | 20 36 34.3 | -0.3 |
| B31A | Greenbush Farm<br>baz=159 | 85.96 | 343 | P | | P | 20 36 34.5 | -0.3 |
| RLMT | Red Lodge<br>baz=150 | 86.44 | 334 | P | | P | 20 36 38.1 | +0.6 |
| RLMT | Red Lodge<br>comp=E,4.7nm,0.5s | 86.44 | 334 | *e*P | | P | 20 36 38.2 | +0.7 |
| YHH | Holmes Hill | 86.72 | 333 | *e*P | | P | 20 36 40.1 | +1.1 |
| YHH | | | | *ep*P | | *p*P | 20 36 52.6 | +0.8 |
| LAO | LASA Array<br>baz=152 | 86.78 | 337 | P | | P | 20 36 39.1 | +0.1 |
| HLID | Hailey<br>baz=146 | 87.07 | 331 | P | | P | 20 36 40.5 | -0.1 |
| ULM | Lac du Bonnet<br>comp=E,2.0nm,0.6s,baz=205,slow=5.2,SNR=4.5 | 87.27 | 345 | P | | P | 20 36 41.0 | -0.2 |
| BOZ | Bozeman (W)<br>baz=148 | 87.70 | 333 | P | | P | 20 36 44.1 | +0.5 |
| DGMT | Dagmar<br>baz=154 | 87.75 | 339 | P | | P | 20 36 44.2 | +0.7 |
| J08A | Circle Bar Ran<br>comp=E,11nm,1.1s | 88.61 | 328 | *e*P | | P | 20 36 49.3 | +1.4 |
| ALVY | Alvey | 91.16 | 326 | *e*P | | P | 20 37 01.2 | +1.7 |
| ALST | Alston | 92.78 | 327 | *e*P | | P | 20 37 07.1 | +0.1 |
| ESDC | Sonseca Array<br>comp=E,0.3nm,0.5s,baz=242,slow=2.8,SNR=2.7 | 97.01 | 46 | P | | P | 20 37 26.8 | +0.1 |
| ASAR | Alice Springs<br>comp=E,0.3nm,0.5s,baz=346,slow=3.9,SNR=4.7 | 116.94 | 207 | PKKPbc | | PKKPbc | 20 53 04.8 | -0.1 |
| WR1 | Warramunga Arr | 120.16 | 209 | *e*PKPdf | | PKPdf | 20 42 44.2 | -2.2 |
| WR1 | | | | *ep*PKPdf | | *p*PKPdf | 20 42 59.0 | -0.6 |
| WRA | Warramunga Arr<br>comp=E,0.6nm,0.5s,baz=150,slow=1.7,SNR=16 | 120.16 | 209 | PKP | | PKPdf | 20 42 44.2 | -2.2 |
| WRA | | | | pPKP | | *p*PKPdf | 20 42 59.0 | -0.6 |
| BRTR | Keskin Array B<br>comp=E,0.6nm,0.9s,baz=191,slow=2.5,SNR=3.6 | 122.08 | 61 | PKP | | PKPdf | 20 42 48.8 | -0.7 |
| BR101 | Keskin Array S | 122.09 | 61 | *e*PKPdf | | PKPdf | 20 42 48.8 | -0.7 |
| ARA0 | ARCESS Array S | 124.65 | 25 | *e*PKPdf | | PKPdf | 20 42 52.5 | -0.9 |
| ARCES | ARCESS Array B<br>comp=E,1.5nm,0.7s,baz=57,slow=3.3,SNR=4.1 | 124.65 | 25 | PKP | | PKPdf | 20 42 52.5 | -0.9 |
| H11N3 | WAKE ISLAND Hyl<br>baz=115,slow=78,SNR=4.9 | 126.32 | 270 | T | | T | 23 02 00.3 | |
| H11N1 | WAKE ISLAND Hyl<br>baz=115,slow=78,SNR=6.7 | 126.34 | 270 | T | | T | 23 01 59.1 | |
| H11N2 | WAKE ISLAND Hyl<br>baz=115,slow=78,SNR=5.8 | 126.34 | 270 | T | | T | 23 02 01.7 | |
| GEYT | Alibeck<br>comp=E,15nm,0.6s,baz=269,slow=8.2,SNR=5.0 | 139.98 | 70 | PKP | | PKPdf | 20 43 24.5 | +1.3 |
| BRVK | Borovoye | 147.67 | 44 | *e*PKPbc | | PKPab | 20 43 39.3 | -2.0 |
| HYB | Hyderabad | 148.48 | 116 | *i* PKP | | PKPbc | 20 43 42.0 | -0.1 |
| YAK | Yakutsk<br>comp=E,16nm,0.6s,baz=156,slow=2.2,SNR=8.2 | 149.50 | 340 | PKPbc | | PKPbc | 20 43 43.3 | 0.0 |
| AAK | Ala-Archa | 152.74 | 63 | *e*PKPbc | | PKPbc | 20 43 52.2 | +0.5 |
| ZAA1 | Zalesovo Array | 154.79 | 33 | *e*PKPdf | | PKPdf | 20 43 45.8 | -1.1 |
| ZAA1 | | | | *e*PKPbc | | PKiKP | 20 43 55.4 | -0.2 |
| ZAA1 | | | | *e*PKPab | | pPKPbc | 20 44 08.9 | +0.1 |
| ZALV | Zalesovo Beam<br>comp=E,0.3nm,0.4s,baz=96,slow=1.5,SNR=4.2 | 154.80 | 33 | PKP | | PKPdf | 20 43 45.8 | -1.1 |
| ZALV | | | | PKPbc | | PKiKP | 20 43 55.4 | -0.2 |
| ZALV | comp=E,1.0nm,0.5s,baz=268,slow=3.2,SNR=5.9 | | | PKPab | | pPKPbc | 20 44 08.9 | +0.1 |
| ZALV | comp=E,2.8nm,0.8s,baz=302,slow=3.8,SNR=7.4 | 154.80 | 33 | *e*PKPdf | | PKPdf | 20 43 47.6 | +0.7 |
| ZALV | | | | *e*PKPbc | | PKiKP | 20 43 55.6 | 0.0 |
| ZALV | | | | PKPab | | pPKPbc | 20 44 08.9 | +0.1 |
| MK32 | Makanchi Array | 157.16 | 50 | *e*PKPdif | | PKPbc | 20 44 03.0 | |
| MK32 | | | | *e*PKPab | | PKPab | 20 44 20.4 | -0.8 |
| MKAR | Makanchi Array<br>comp=E,0.9nm,0.9s,baz=247,slow=3.9,SNR=4.1 | 157.16 | 50 | PKPbc | | PKPbc | 20 44 03.0 | |
| MKAR | comp=E,2.2nm,0.8s,baz=303,slow=5.1,SNR=5.9 | | | PKPab | | PKPab | 20 44 20.4 | -0.8 |
| DMN | Daman<br>comp=E,26nm,1.0s | 159.08 | 104 | *e*P | | PKPab | 20 44 29.8 | -0.6 |
| KKN | Kakani | 159.30 | 103 | *e*P | | PKPab | 20 44 30.7 | -0.6 |
| PKIN | Phulchoki<br>comp=E,7.1nm,0.7s | 159.30 | 104 | *e*P | | PKPab | 20 44 30.5 | -0.9 |
| PKI | Pulchoki<br>comp=E,14nm,0.9s | 159.31 | 104 | *e*P | | PKPab | 20 44 30.5 | -1.0 |
| CMAR | Chiang Mai Arr<br>comp=E,0.8nm,0.9s,baz=222,slow=5.2,SNR=4.9 | 161.81 | 151 | PKPab | | PKPab | 20 44 41.1 | -0.9 |
| HHC | Hu-ho-hao-te | 173.35 | 337 | *e*PKP | | PKPdf | 20 44 04.7 | +0.5 |
| HHC | | | | PP | | PP | 20 49 28.1 | +4.2 |
| HHC | | | | SKS | | SKSdf | 20 51 02.6 | -1.3 |
| HHC | | | | SKKS | | SKKSac | 20 56 09.6 | +2.3 |
| HHC | comp=E,40nm,5.2s | | | AMB | | AMB | | |
| HHC | comp=E,100nm,18.2s | | | LR | | LR | | |
| HHC | | | | LR | | LR | | |
| HHC | comp=E,170nm,19.6s | | | LR | | LR | | |
| LZH | Lanzhou<br>comp=E,65nm,18.6s | 176.26 | 68 | *e*PKP | | PKPdf | 20 44 06.5 | +1.2 |
| LZH | | | | pPKP | | pPKPdf | 20 44 19.6 | +0.9 |
| LZH | | | | sPKP | | | 20 44 24.0 | |
| LZH | comp=E,170nm,18.0s | | | LR | | LR | | |
| LZH | comp=E,180nm,18.1s | | | LR | | LR | | |
| LZH | comp=E,210nm,20.3s | | | LR | | LR | | |

*ISCJB **12** 20:26:41.0±0.5, 31.56N±0.09×40.91W±0.06, h14km, mb4.2/27, MS3.8/17, Error ellipse: s-maj=13.4km s-min=7.3km az=180.0*
*IDC **12** 20:26:40.7±0.7, 31.57N×40.88W, h0km, mb4.2/19, mb1 4.3/19, mb1mx4.1/53, mbtmp4.2/19, MS3.8/17, Ms1 3.8/17, ms1mx3.6/41, Error ellipse: s-maj=20.6km s-min=15.3km az=1.0*
*NEIC **12** 20:26:42.0±0.4, 31.52N×40.92W, h10km, mb4.6/8, Error ellipse: s-maj=13.3km s-min=7.1km az=181.0*
**ISC 12 20:26:42.8±0.6, 31.6N±0.1×40.92W±0.09, h14km, n84, σ1§31/63, mb4.3/27, MS3.8/17, 4C-8D, Northern Mid-Atlantic Ridge**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| SJG | San Juan | 26.44 | 246 | LR | | LR | 20 40 18.0 | |
| | comp=Z,53nm,21.7s,baz=78,slow=31 | | | | | | | |
| SCHQ | Schefferville | 29.66 | 329 | LR | | LR | 20 43 56.9 | |
| | comp=Z,289nm,19.7s,baz=86,slow=35 | | | | | | | |
| ESDC | Sonseca Array | 30.95 | 64 | P | | P | 20 32 58.3 | -1.2 |
| | 0.7nm,0.8s,baz=286,slow=9.4,SNR=4.2 | | | | | | | |
| SDV | Santo Domingo | 35.65 | 237 | P | | P | 20 33 41.8 | +1.0 |
| | 7.5nm,0.8s,baz=20,slow=9.5,SNR=5.7 | | | | | | | |
| TKL | Tuckaleechee C | 35.72 | 288 | LR | | LR | 20 45 15.7 | |
| | comp=Z,221nm,20.5s,baz=51,slow=31 | | | | | | | |
| ROSC | El Rosal | 41.07 | 237 | LR | | LR | 20 48 19.8 | |
| | comp=Z,72nm,21.9s,baz=48,slow=32 | | | | | | | |
| DAVOX | Davos/Dischmat | 41.49 | 54 | P | | P | 20 34 29.3 | -0.3 |
| | 3.9nm,0.8s,baz=308,slow=13,SNR=5.2 | | | | | | | |
| DBIC | Dimbokro | 41.79 | 119 | P | | P | 20 34 31.9 | -0.2 |
| | 3.9nm,0.9s,baz=263,slow=7.9,SNR=4.5 | | | | | | | |
| DBIC | | | | LR | | LR | 20 49 27.9 | |
| | comp=Z,197nm,19.0s,baz=328,slow=33 | | | | | | | |
| TAM | Tamanrasset | 41.98 | 90 | *e*P | | P | 20 34 34.6 | +0.8 |
| | 5.1nm,1.0s | | | | | | | |
| TOA1 | Torodi Ar. Sit | 43.13 | 105 | *e*P | | P | 20 34 42.6 | -0.5 |
| TOA0 | Torodi Ar. Sit | 43.14 | 105 | *e*P | | P | 20 34 42.1 | -1.1 |
| TORD | Torodi Ar. Bea<br>3.9nm,1.0s,baz=297,slow=5.9,SNR=19 | 43.14 | 105 | P | | P | 20 34 42.6 | -0.6 |
| TORD | | | | LR | | LR | 20 50 20.6 | |
| | comp=Z,107nm,19.9s,baz=340,slow=33 | | | | | | | |
| NKC | Novy Kostel | 43.42 | 49 | *e*P | | P | 20 34 47.0 | +1.9 |
| CLL | Collm<br>5.4nm,0.8s | 43.87 | 47 | *e*P | | P | 20 34 47.2 | -1.3 |
| KHC | Kaniovske Hory | 44.09 | 50 | *e*P | | P | 20 34 51.3 | +0.8 |
| GEA0 | GERESS Array S | 44.16 | 51 | *e*P | | P | 20 34 50.8 | -0.3 |
| GERES | GERESS Array B<br>1.5nm,0.7s,baz=256,slow=9.5,SNR=12 | 44.16 | 51 | P | | P | 20 34 49.8 | -1.3 |
| GERES | | | | LR | | LR | 20 50 16.2 | |
| | comp=Z,160nm,18.3s,baz=312,slow=32 | | | | | | | |
| ULM | Lac du Bonnet<br>3.3nm,0.9s,baz=72,slow=5.7,SNR=3.6 | 44.44 | 311 | P | | P | 20 34 52.5 | -0.7 |
| PRU | Pruhonice | 44.75 | 49 | *e*P | | P | 20 34 55.3 | -0.4 |
| NB200 | NORSAR Array S | 44.77 | 33 | *e*P | | P | 20 34 56.5 | +0.8 |
| NOA | NORSAR Array B<br>1.1nm,0.7s,baz=255,slow=8.1,SNR=2.9 | 44.77 | 33 | P | | P | 20 34 56.5 | +0.8 |
| UPC | Upice | 45.72 | 48 | *e*P | | P | 20 35 03.9 | +0.5 |
| DPC | Dobruska-Polom | 45.91 | 49 | *e*P | | P | 20 35 04.0 | -1.0 |
| DPC | | | | *ex* | | x | 20 35 11.7 | |
| H10N2 | ASCENSION HYDR | 46.61 | 143 | T | | T | 21 24 38.6 | |
| | baz=328,slow=75,SNR=163 | | | | | | | |
| H10N3 | ASCENSION HYDR | 46.61 | 143 | T | | T | 21 24 38.7 | |
| | baz=328,slow=75,SNR=119 | | | | | | | |
| H10N1 | ASCENSION HYDR | 46.63 | 143 | T | | T | 21 24 39.9 | |
| | baz=328,slow=75,SNR=142 | | | | | | | |
| H10S1 | ASCENSION HYDR | 47.47 | 144 | T | | T | 21 25 43.3 | |
| | baz=329,slow=75,SNR=237 | | | | | | | |
| H10S3 | ASCENSION HYDR | 47.48 | 144 | T | | T | 21 25 43.5 | |
| | baz=329,slow=75,SNR=191 | | | | | | | |
| H10S2 | ASCENSION HYDR | 47.49 | 144 | T | | T | 21 25 44.6 | |
| | baz=329,slow=75,SNR=222 | | | | | | | |
| BZS | Buzias | 49.67 | 55 | *i* P | | P | 20 35 34.8 | +0.7 |
| DRGR | | 50.29 | 53 | *i* P | | P | 20 35 38.0 | -0.9 |
| RES | Resolute Bay<br>5.9nm,1.1s,baz=93,slow=5.7,SNR=5.3 | 50.55 | 344 | P | | P | 20 35 40.5 | +0.2 |
| VTS | Vitosha | 51.23 | 58 | *i* P | | P | 20 35 41.6 | -4.5 |
| ARR | Arges | 51.80 | 55 | *i* P | | P | 20 35 50.2 | -0.1 |
| BUR08 | Bucovina Ar. S | 51.88 | 52 | *e*P | | P | 20 35 51.8 | +0.9 |
| BUR04 | Bucovina Ar. S | 51.89 | 52 | *e*P | | P | 20 35 51.9 | +1.0 |
| BURAR | Bucovina Array | 51.90 | 52 | *i* P | | P | 20 35 51.9 | +0.9 |
| FIA0 | FINESS Array S | 51.91 | 34 | *e*P | | P | 20 35 51.2 | +0.6 |
| FINES | FINESS Array B<br>2.5nm,0.8s,baz=174,slow=2.8,SNR=2.7 | 51.91 | 34 | P | | P | 20 35 51.2 | +0.6 |
| VOIR | | 52.08 | 55 | *i* P | | P | 20 35 52.0 | -0.4 |
| DOPR | Dopca | 52.24 | 54 | *i* P | | P | 20 35 52.1 | -1.4 |
| MLR | Muntele Rosu | 52.70 | 54 | *i* P | | P | 20 35 56.8 | -0.2 |
| PLOR | Plostina | 53.12 | 54 | *i* P | | P | 20 36 02.6 | +2.6 |
| TXAR | Lajitas Array<br>comp=Z,95nm,20.9s,baz=0.0,slow=33 | 53.47 | 285 | LR | | LR | 20 56 23.5 | |
| SORM | Soroca | 53.91 | 51 | *i* P | | P | 20 36 03.8 | -1.9 |
| ANMO | Albuquerque<br>comp=Z,103nm,21.7s,baz=259,slow=32 | 54.03 | 292 | LR | | LR | 20 55 09.1 | |
| AKASG | Malin Array Be<br>4.0nm,0.8s,baz=276,slow=6.4,SNR=12 | 54.11 | 48 | P | | P | 20 36 05.6 | -1.5 |
| AKBB | Malin Array Si<br>6.3nm,0.9s | 54.11 | 48 | *e*P | | P | 20 36 06.5 | -0.5 |
| LPAZ | La Paz<br>comp=Z,43nm,18.2s,baz=29,slow=36 | 54.27 | 213 | LR | | LR | 20 58 47.1 | |
| MILM | Milestii Mici | 54.42 | 52 | *i* P | | P | 20 36 07.3 | -2.1 |
| PD31 | Pinedale Array | 54.46 | 303 | *e*P | | P | 20 36 10.0 | -0.1 |
| PDAR | Pinedale Array<br>3.1nm,0.9s,baz=72,slow=9.5,SNR=18 | 54.46 | 303 | P | | P | 20 36 09.8 | -0.3 |
| PDAR | | | | LR | | LR | 20 58 27.5 | |
| | comp=Z,150nm,18.7s,baz=86,slow=35 | | | | | | | |
| TIRR | Tirgusor | 54.60 | 55 | *i* P | | P | 20 36 08.7 | -2.1 |
| YKA | Yellowknife Ar<br>comp=Z,18nm,19.5s,baz=0.0,slow=35 | 55.07 | 327 | LR | | LR | 20 58 37.9 | |
| DLMT | Dillon<br>24nm,1.9s | 56.05 | 306 | *e*P | | P | 20 36 21.8 | +0.4 |
| MFID | Camas Ranch<br>10nm,1.4s | 58.76 | 305 | *e*P | | P | 20 36 41.4 | +0.8 |
| BR231 | Keskin MP Arra | 58.88 | 60 | *e*P | | P | 20 36 41.9 | +0.5 |
| BR101 | Keskin Array S | 59.55 | 60 | *e*P | | P | 20 36 45.9 | -0.2 |
| BRTR | Keskin Array B<br>1.5nm,0.9s,baz=269,slow=5.9,SNR=7.2 | 59.55 | 60 | P | | P | 20 36 45.9 | -0.2 |
| CPUP | Villa Florida<br>comp=Z,61nm,18.9s,baz=63,slow=34 | 59.65 | 197 | LR | | LR | 21 00 23.4 | |
| G08A | Pilot Rock<br>5.9nm,1.2s | 60.41 | 307 | *e*P | | P | 20 36 52.0 | +0.1 |
| BLYC | Blythe | 60.74 | 294 | *e*P | | P | 20 36 52.7 | -1.5 |
| LPIG | La Paz<br>comp=Z,71nm,19.2s,baz=32,slow=38 | 60.91 | 282 | LR | | LR | 21 04 46.2 | |
| LTY | Liberty<br>8.1nm,1.1s | 61.00 | 310 | *e*P | | P | 20 36 55.6 | -0.2 |
| INK | Inuvik<br>5.4nm,1.1s,baz=66,slow=8.2,SNR=9.2 | 62.03 | 335 | P | | P | 20 37 02.0 | -0.3 |
| CCCA | Chr Cany lake | 62.32 | 296 | *e*P | | P | 20 37 08.2 | +3.2 |
| BBRC | Big Bear Solar | 62.43 | 295 | *e*P | | P | 20 37 03.8 | -2.1 |
| ALST | Alston | 62.90 | 309 | *e*P | | P | 20 37 11.1 | +2.6 |
| SBI | Santa Barbara | 64.34 | 295 | *e*P | | P | 20 37 15.6 | -2.6 |
| KBZ | Khabaz<br>2.0nm,0.9s,baz=335,slow=3.7,SNR=4.8 | 64.83 | 53 | P | | P | 20 37 22.5 | +1.3 |
| IL1 | Eielson Array | 68.29 | 334 | *e*P | | P | 20 37 43.5 | +0.4 |
| ILAR | Eielson Array<br>2.9nm,1.0s,baz=65,slow=4.2,SNR=13 | 68.29 | 334 | P | | P | 20 37 43.5 | +0.4 |
| ILB | Eielson Array | 68.29 | 334 | *e*P | | P | 20 37 43.2 | +0.1 |
| H09N1 | TRISTAN DA CUN<br>SNR=14 | 73.32 | 156 | T | | T | 21 58 05.7 | |
| H09W1 | TRISTAN DA CUN<br>SNR=25 | 73.34 | 156 | T | | T | 21 57 27.0 | |
| TIXI | Tiksi<br>1.7nm,0.9s,baz=320,slow=2.4 | 76.83 | 3 | P | | P | 20 38 33.4 | -0.3 |
| PLCA | Paso Flores<br>2.9nm,1.1s,baz=350,slow=9.3,SNR=2.8 | 76.97 | 203 | P | | P | 20 38 35.0 | +0.1 |
| KMBO | Kilima Mbogo<br>comp=Z,130nm,19.8s,baz=275,slow=35 | 80.52 | 97 | LR | | LR | 21 13 31.3 | |
| ZAA1 | Zalesovo Array | 82.80 | 29 | *e*P | | P | 20 39 07.3 | +0.9 |
| ZAA0 | Zalesovo Array<br>4.4nm,1.2s | 82.81 | 29 | *e*P | | P | 20 39 07.5 | +1.1 |
| ZALV | Zalesovo Beam<br>1.5nm,0.9s,baz=328,slow=7.5,SNR=5.8 | 82.81 | 29 | P | | P | 20 39 07.3 | +0.9 |
| ZALV | Zalesovo Beam | 82.81 | 29 | *e*P | | P | 20 39 06.8 | +0.4 |
| AAK | Ala-Archa<br>comp=Z,97nm,18.8s,baz=314,slow=35 | 85.35 | 42 | LR | | LR | 21 16 57.1 | |
| PETK | Petropavlovsk-<br>comp=Z,35nm,19.1s,baz=5.1,slow=37 | 94.15 | 349 | LR | | LR | 21 25 09.9 | |

*IDC **12** 20:29:42.7±1.4, 5.77S×151.96E, h0km, mb3.9/5, mb1 4.1/6, mb1mx3.8/41, mbtmp4.0/6, ML1.6/1, Error ellipse: s-maj=76.3km s-min=22.2km az=132.0*
*ISCJB **12** 20:29:47.0±1.0, 6.0S±0.2×152.0E±0.2, h36km, mb3.8/7, Error ellipse: s-maj=33.6km s-min=9.6km az=37.8*
*NEIC **12** 20:29:49.2±2.6, 5.88S×151.99E, h45km±18km, mb4.2/3, Error ellipse: s-maj=60.9km s-min=9.1km az=122.0*
**ISC 12 20:29:48.0±1.2, 6.0S±0.2×152.1E±0.2, h36km, n14, σ0§69/16, mb4.0/7, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| RABL | Rabaul | 1.75 | 2 | *e*Pn | | Pn | 20 30 16.3 | +0.5 |
| PMG | Port Moresby<br>1.1nm,0.3s,baz=67,slow=13,SNR=4.0 | 5.98 | 235 | Pn | | Pn | 20 31 14.2 | +0.2 |
| PMG | | | | Sn | | Sn | 20 32 21.1 | -0.1 |
| | 1.6nm,0.3s,baz=27,slow=16,SNR=4.2 | | | | | | | |
| PMG | Port Moresby | 5.98 | 235 | *e*Pn | | Pn | 20 31 14.9 | +0.9 |
| PMG | | | | Sn | | Sn | 20 32 21.1 | -0.1 |
| WR1 | Warramunga Arr<br>29nm,1.9s | 22.16 | 230 | *e*P | | P | 20 34 40.6 | -0.5 |
| WRA | Warramunga Arr<br>0.6nm,0.5s,baz=54,slow=10.0,SNR=8.4 | 22.16 | 230 | P | | P | 20 34 40.6 | -0.5 |
| AS31 | Alice Springs<br>0.7nm,0.7s | 24.83 | 223 | *e*P | | P | 20 35 08.0 | +0.8 |
| ASAR | Alice Springs<br>1.2nm,0.8s,baz=56,slow=8.7,SNR=14 | 24.83 | 223 | P | | P | 20 35 08.0 | +0.8 |
| FITZ | Fitzroy Crossi<br>2.1nm,0.5s,baz=46,slow=8.0,SNR=14 | 28.50 | 243 | P | | P | 20 35 38.9 | -1.3 |
| ILAR | Eielson Array<br>0.7nm,0.6s,baz=247,slow=5.3,SNR=12 | 83.48 | 22 | P | | P | 20 42 11.3 | -0.4 |
| ILB | Eielson Array | 83.48 | 22 | *e*P | | P | 20 42 11.3 | -0.4 |
| MAW | Mawson<br>2.5nm,0.6s,baz=104,slow=4.2,SNR=4.9 | 84.25 | 203 | P | | P | 20 42 15.3 | -0.2 |
| MAW | Mawson<br>5.8nm,1.8s | 84.25 | 203 | *e*P | | P | 20 42 15.3 | -0.2 |
| TORD | Torodi Ar. Bea<br>0.6nm,0.6s,baz=84,slow=2.2,SNR=5.9 | 149.97 | 286 | PKPbc | | PKPbc | 20 49 36.5 | +0.7 |
| TOA1 | Torodi Ar. Sit | 149.97 | 286 | *e*PKPbc | | PKPbc | 20 49 36.5 | +0.7 |

**MAN 12 20:30:39, 13.91N×120.51E, h94km, mb4.1, ML2.9, MS3.6, 1C-1D, Mindoro**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| LUBP | Lubang | 0.31 | 236 | *e*P | | Pn | 20 30 55.4 | +2.4 |
| LUBP | | | | *e*S | | Sn | 20 31 06.8 | +3.5 |
| TGY | Tagaytay City | 0.45 | 65 | *i* *e*P | | Pn | 20 30 46.2 | -7.7 |
| PGP | Puerto Galera | 0.59 | 133 | *i* *e*P | | Pn | 20 30 57.2 | +2.2 |
| PGP | | | | *e*S | | Sn | 20 31 09.9 | +3.1 |
| BOAC | Boac | 1.37 | 109 | *e*P | | Pn | 20 31 04.5 | +1.2 |
| SJMP | San Jose | 1.56 | 158 | *e*P | | Pn | 20 31 07.0 | +1.4 |
| SJMP | | | | *e*S | | Sn | 20 31 28.6 | +2.7 |
| BUSP | Coron | 1.92 | 189 | *e*P | | Pn | 20 31 11.3 | +0.9 |
| BUSP | | | | *e*S | | Sn | 20 31 34.7 | +0.5 |

**IDC 12 20:46:30.8±2.4, 50.03N×114.73W, h0km, mb2.8/1, mb1 3.6/2, mb1mx3.2/39, mbtmp3.4/2, ML3.5/1, MS3.5/1, Ms1 3.5/1, ms1mx2.6/16, Error ellipse: s-maj=45.5km s-min=8.6km az=117.0, Alberta**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| NEW | Newport<br>3.0nm,0.3s,baz=42,slow=15,SNR=26 | 2.36 | 222 | Pg | | Pb | 20 47 14.0 | -0.3 |
| NEW | | | | Lg | | Lg | 20 47 43.9 | |
| | 6.1nm,0.3s,baz=282,slow=21,SNR=10 | | | | | | | |
| I56US | NEWPORT INFRAS | 2.37 | 223 | *i* | | | 21 05 20.0 | |
| | baz=40,slow=320,SNR=1.3 | | | | | | | |
| I10CA | LAC DU BONNET | 12.01 | 82 | *i* | | | 21 56 50.0 | |
| | baz=274,slow=337,SNR=0.7 | | | | | | | |
| YKA | Yellowknife Ar<br>0.4nm,0.3s,baz=180,slow=13,SNR=16 | 12.49 | 0 | Pn | | Pn | 20 49 25.7 | -4.0 |
| YKA | | | | Lg | | Lg | 20 52 55.5 | |
| | 0.1nm,0.3s,baz=172,slow=27,SNR=3.2 | | | | | | | |
| INK | Inuvik<br>0.2nm,0.3s,baz=153,slow=9.0,SNR=2.5 | 20.53 | 340 | P | | P | 20 51 10.6 | +0.2 |
| INK | | | | LR | | LR | 20 59 02.9 | |
| | comp=Z,133nm,20.5s,baz=44,slow=37 | | | | | | | |

**IDC 12 21:09:27.0±12.0, 5.43N×94.48E, h0km, mb3.6/2, mb1 3.9/3, mb1mx3.3/60, mbtmp3.6/3, ML4.1/1, Error ellipse: s-maj=301.9km s-min=46.3km az=83.0, Northern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| CMAR | Chiang Mai Arr<br>0.3nm,0.3s,baz=210,slow=12,SNR=12 | 13.67 | 18 | Pn | | Pn | 21 12 42.0 | -0.2 |
| WRA | Warramunga Arr<br>0.7nm,0.8s,baz=301,slow=9.6,SNR=16 | 46.60 | 124 | P | | P | 21 17 56.7 | -0.6 |
| ASAR | Alice Springs<br>0.4nm,0.5s,baz=301,slow=8.0,SNR=5.8 | 48.12 | 129 | P | | P | 21 18 09.7 | +0.5 |

*

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | SNR=3.0 | | | | | | | |
| **IKOM** | **Komasi** | **1.87** | **100** | *e*Pn | | **Pb** | **21 11 44.8** | **-1.1** |
| IKOM | | | | *e*AMB | | AMB | 21 12 15.3 | |
| | comp=Z,12μm,0.1s | | | | | | | |
| **IKOM** | **Komasi** | **1.87** | **100** | *e*Pn | | **Pb** | **21 11 44.8** | **-1.1** |
| **CUKT** | **Cukurca** | **3.04** | **334** | *i* P | | **Pn** | **21 12 00.6** | **+1.1** |
| **CUKT** | **Cukurca** | **3.04** | **334** | P | | **Pn** | **21 12 00.6** | **+1.1** |
| **YOVA** | **Hakkari_Y`...kse** | **3.17** | **346** | *i* P | | **Pn** | **21 12 02.8** | **+1.5** |
| YOVA | | | | *i* S | | **Sb** | **21 12 48.8** | **+2.5** |
| **YOVA** | **Hakkari_Y`...kse** | **3.17** | **346** | P | | **Pn** | **21 12 02.8** | **+1.5** |
| **HAKT** | **HAKKARI** | **3.29** | **338** | *i* P | | **Pn** | **21 12 03.2** | **+0.2** |
| **HAKT** | **HAKKARI** | **3.29** | **338** | P | | **Pn** | **21 12 03.2** | **+0.2** |
| **IBST** | **Bostanabad** | **3.43** | **22** | *e*Pn | | **Pn** | **21 12 05.3** | **+0.4** |
| IBST | | | | *e*AMB | | AMB | 21 12 59.5 | |
| | comp=Z,953nm,0.3s | | | | | | | |
| **IBST** | **Bostanabad** | **3.43** | **22** | *e*Pn | | **Pn** | **21 12 05.3** | **+0.4** |
| **NSR** | **Nassriya** | **3.57** | **168** | *e*Pn | | **Pn** | **21 12 05.0** | **-1.6** |
| | SNR=3.0 | | | | | | | |
| NSR | | | | *i* Sn | | **Sn** | **21 12 47.0** | **-1.4** |
| | SNR=3.0 | | | | | | | |
| **ISHB** | **Shabestar** | **3.77** | **4** | *e*AMB | | AMB | 21 12 25.6 | |
| | comp=Z,742nm,0.2s | | | | | | | |
| ISHB | | | | *e*Pn | | **Pn** | **21 12 09.4** | **-0.1** |
| **ITBZ** | **Tabriz** | **3.77** | **10** | *e*Pn | | **Pn** | **21 12 10.7** | **+1.2** |
| ITBZ | | | | *e*AMB | | AMB | 21 12 24.1 | |
| | comp=Z,525nm,0.3s | | | | | | | |
| **ITBZ** | **Tabriz** | **3.77** | **10** | *e*Pn | | **Pn** | **21 12 10.7** | **+1.2** |
| **SIRN** | **S`–rnak** | **3.77** | **323** | *i* P | | **Pn** | **21 12 10.7** | **+1.2** |
| SIRN | | | | *i* S | | **Sg** | **21 13 10.8** | **-2.6** |
| **SIRN** | **S`–rnak** | **3.77** | **323** | P | | **Pn** | **21 12 10.7** | **+1.2** |
| **SHGR** | **Shooshtar-Gavs** | **3.80** | **128** | *e*Pn | | **Pn** | **21 12 09.4** | **-0.4** |
| **IRAZ** | **Razeghan** | **3.91** | **76** | *e*Pn | | **Pn** | **21 12 12.4** | **+0.9** |
| IRAZ | | | | *e*AMB | | AMB | 21 12 25.8 | |
| | comp=Z,710nm,0.2s | | | | | | | |
| **IRAZ** | **Razeghan** | **3.91** | **76** | *e*Pn | | **Pn** | **21 12 12.4** | **+0.9** |
| **IHRS** | **Heris** | **4.05** | **20** | *e*Pn | | **Pn** | **21 12 14.2** | **+0.8** |
| IHRS | | | | *e*AMB | | AMB | 21 12 35.3 | |
| | comp=Z,472nm,0.2s | | | | | | | |
| **IHRS** | **Heris** | **4.05** | **20** | *e*Pn | | **Pn** | **21 12 14.2** | **+0.8** |
| **IMRD** | **Marand** | **4.20** | **4** | *e*Pn | | **Pn** | **21 12 15.1** | **-0.3** |
| IMRD | | | | *e*AMB | | AMB | 21 12 30.1 | |
| | comp=Z,842nm,0.2s | | | | | | | |
| **IMRD** | **Marand** | **4.20** | **4** | *e*Pn | | **Pn** | **21 12 15.1** | **-0.3** |
| **SRTM** | **Siirt_Merkez** | **4.40** | **323** | *i* P | | **Pn** | **21 12 19.5** | **+1.4** |
| **SRTM** | **Siirt_Merkez** | **4.40** | **323** | P | | **Pn** | **21 12 19.5** | **+1.4** |
| **RTB** | **Rutbah** | **4.41** | **252** | *e*Pn | | **Pn** | **21 12 17.0** | **-1.1** |
| | SNR=3.0 | | | | | | | |
| RTB | | | | *i* Sn | | **Sn** | **21 13 07.0** | **-2.0** |
| | SNR=3.0 | | | | | | | |
| **ORD** | **Ordubad** | **4.44** | **7** | P | | **Pn** | **21 12 20.4** | **+1.8** |
| ORD | | | | S | | **Sn** | **21 13 09.7** | **-0.1** |
| **LRK** | **Lerik** | **4.79** | **30** | ⇑P | | **Pn** | **21 12 23.8** | **+0.3** |
| LRK | | | | ⇓S | | **Sn** | **21 13 16.3** | **-2.4** |
| **LRK** | **Lerik** | **4.79** | **30** | P | | **Pn** | **21 12 23.8** | **+0.3** |
| LRK | | | | S | | **Sn** | **21 13 16.3** | **-2.4** |
| **SBZ** | **Shahbuz** | **4.87** | **2** | ⇑P | | **Pn** | **21 12 27.4** | **+2.8** |
| SBZ | | | | ⇓S | | **Sn** | **21 13 20.1** | **-0.5** |
| **SBZ** | **Shahbuz** | **4.87** | **2** | P | | **Pn** | **21 12 27.4** | **+2.8** |
| SBZ | | | | S | | **Sn** | **21 13 20.1** | **-0.5** |
| **ASTR** | **Astara** | **4.92** | **34** | ⇓P | | **Pn** | **21 12 25.7** | **+0.6** |
| **ASTR** | **Astara** | **4.92** | **34** | P | | **Pn** | **21 12 25.7** | **+0.6** |
| **IPIR** | **Pirpir** | **5.02** | **110** | *e*Pn | | **Pn** | **21 12 27.6** | **+0.7** |
| IPIR | | | | *e*AMB | | AMB | 21 13 31.3 | |
| | comp=Z,1μm,0.2s | | | | | | | |
| **IPIR** | **Pirpir** | **5.02** | **110** | *e*Pn | | **Pn** | **21 12 27.6** | **+0.7** |
| **LKRN** | **Lenkeran, Azer** | **5.04** | **33** | ⇓P | | **Pn** | **21 12 28.3** | **+1.6** |
| **LKRN** | **Lenkeran, Azer** | **5.04** | **33** | P | | **Pn** | **21 12 28.3** | **+1.6** |
| **QAM** | **Ghamsar** | **5.16** | **97** | *e*Pn | | **Pn** | **21 12 30.1** | **+1.5** |
| QAM | | | | *e*AMB | | AMB | 21 13 35.1 | |
| | comp=Z,1μm,0.2s | | | | | | | |
| **GLBA** | **Clilabad** | **5.33** | **27** | ⇑P | | **Pn** | **21 12 32.1** | **+1.4** |
| GLBA | | | | ⇑S | | **Sn** | **21 13 28.1** | **-3.6** |
| **GLBA** | **Clilabad** | **5.33** | **27** | P | | **Pn** | **21 12 32.1** | **+1.4** |
| **IKLH** | **Kolahrood** | **5.37** | **101** | *e*Pn | | **Pn** | **21 12 32.9** | **+1.4** |
| IKLH | | | | *e*AMB | | AMB | 21 13 47.8 | |
| | comp=Z,601nm,0.2s | | | | | | | |
| **IKLH** | **Kolahrood** | **5.37** | **101** | *e*Pn | | **Pn** | **21 12 32.9** | **+1.4** |
| **IDMV** | **Damavand** | **5.63** | **77** | *e*Pn | | **Pn** | **21 12 36.2** | **+1.0** |
| IDMV | | | | *e*AMB | | AMB | 21 13 11.0 | |
| | comp=Z,189nm,0.4s | | | | | | | |
| **IDMV** | **Damavand** | **5.63** | **77** | *e*Pn | | **Pn** | **21 12 36.2** | **+1.0** |
| **GNI** | **Garni** | **5.64** | **356** | Pn | | Pn | 21 12 40.3 | +5.2 |
| | comp=Z,0.2nm,0.3s,baz=196,slow=15,SNR=2.1 | | | | | | | |
| GNI | | | | Lg | | Lg | 21 14 13.8 | |
| | comp=Z,0.3nm,0.3s,baz=211,slow=19,SNR=2.0 | | | | | | | |
| **IGAR** | **Gharneh** | **6.03** | **109** | *e*Pn | | **Pn** | **21 12 41.2** | **+0.6** |
| IGAR | | | | *e*AMB | | AMB | 21 13 53.5 | |
| | comp=Z,538nm,0.2s | | | | | | | |
| **IZEF** | **Zefreh** | **6.09** | **103** | *e*Pn | | **Pn** | **21 12 42.7** | **+1.2** |
| IZEF | | | | *e*AMB | | AMB | 21 13 59.7 | |
| | comp=Z,166nm,0.2s | | | | | | | |
| **IZEF** | **Zefreh** | **6.09** | **103** | *e*Pn | | **Pn** | **21 12 42.7** | **+1.2** |
| **GDB** | **GEDABAY** | **6.20** | **3** | ⇑P | | **Pn** | **21 12 45.3** | **+2.4** |
| **GDB** | **GEDABAY** | **6.20** | **3** | P | | **Pn** | **21 12 45.3** | **+2.4** |
| **IFIR** | **Firoozkooh** | **6.22** | **78** | *e*Pn | | **Pn** | **21 12 44.5** | **+1.2** |
| IFIR | | | | *e*AMB | | AMB | 21 12 47.7 | |
| | comp=Z,188nm,0.1s | | | | | | | |
| **IFIR** | **Firoozkooh** | **6.22** | **78** | *e*Pn | | **Pn** | **21 12 44.5** | **+1.2** |
| **IRAM** | **Ramesheh** | **6.53** | **112** | *e*Pn | | **Pn** | **21 12 48.8** | **+1.2** |
| IRAM | | | | *e*AMB | | AMB | 21 14 10.0 | |
| | comp=Z,203nm,0.3s | | | | | | | |
| **IRAM** | **Ramesheh** | **6.53** | **112** | *e*Pn | | **Pn** | **21 12 48.8** | **+1.2** |
| **ISHM** | **Shahmirzad** | **6.68** | **77** | *e*Pn | | **Pn** | **21 12 50.8** | **+1.2** |
| ISHM | | | | *e*AMB | | AMB | 21 13 21.2 | |
| | comp=Z,186nm,0.3s | | | | | | | |
| **ASF** | **Jabal al Asfar** | **7.40** | **254** | Pn | | **Pn** | **21 13 04.0** | **+4.6** |
| | comp=Z,0.2nm,0.3s,baz=247,slow=5.9,SNR=3.2 | | | | | | | |
| ASF | | | | Lg | | Lg | 21 15 10.6 | |
| | comp=Z,0.4nm,0.3s,baz=249,slow=23,SNR=3.9 | | | | | | | |
| **IPAR** | **Pars** | **8.06** | **123** | *e*Pn | | **Pn** | **21 13 10.1** | **+1.5** |
| IPAR | | | | *e*AMB | | AMB | 21 14 50.0 | |
| | comp=Z,139nm,0.3s | | | | | | | |
| **IPAR** | **Pars** | **8.06** | **123** | *e*Pn | | **Pn** | **21 13 10.1** | **+1.5** |
| **MMAI** | **Mount Meron Ar** | **8.37** | **262** | Pn | | **Pn** | **21 13 15.2** | **+2.7** |
| | comp=Z,0.1nm,0.3s,baz=44,slow=11,SNR=2.6 | | | | | | | |
| **EIL** | **Elat** | **10.01** | **244** | Lg | | Lg | 21 16 43.0 | |
| | comp=Z,0.6nm,0.3s,baz=296,slow=23,SNR=3.7 | | | | | | | |
| **GEYT** | **Alibeck** | **10.91** | **68** | Pn | | **Pn** | **21 13 46.1** | **-1.2** |
| | comp=Z,0.1nm,0.3s,baz=267,slow=8.7,SNR=2.3 | | | | | | | |
| **BANOM** | **Banah** | **12.80** | **129** | P | | **Pn** | **21 14 13.7** | **+0.4** |
| | SNR=8.3 | | | | | | | |
| **ASHO** | **Ashiyiah** | **13.55** | **133** | P | | **Pn** | **21 14 24.7** | **+1.2** |
| | SNR=5.3 | | | | | | | |
| **WSAR** | **Wadi Sarin** | **16.20** | **130** | Pn | | **Pn** | **21 14 57.0** | **-1.8** |
| | comp=Z,0.3nm,0.3s,baz=328,slow=7.6,SNR=8.6 | | | | | | | |
| **AKTO** | **Aktyubinsk** | **18.43** | **26** | P | | **P** | **21 15 25.7** | **-0.7** |
| | comp=Z,0.1nm,0.3s,baz=232,slow=7.1,SNR=4.4 | | | | | | | |
| **AKASG** | **Malin Array Be** | **19.96** | **329** | P | | **P** | **21 15 42.9** | **-0.2** |
| | comp=Z,0.4nm,0.3s,baz=140,slow=9.5,SNR=3.7 | | | | | | | |
| **BVAR** | **Borovoye Array** | **25.68** | **36** | P | | **P** | **21 16 38.6** | **-2.3** |
| | comp=Z,0.7nm,0.6s,baz=232,slow=7.3,SNR=6.7 | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **28.99** | **46** | P | | **P** | **21 17 10.3** | **-0.3** |
| | comp=Z,0.2nm,0.5s,baz=254,slow=9.1,SNR=3.8 | | | | | | | |
| **FINES** | **FINESS Array B** | **29.61** | **341** | P | | **P** | **21 17 15.4** | **-0.6** |
| | comp=Z,2.3nm,0.7s,baz=159,slow=8.1,SNR=4.3 | | | | | | | |
| **MKAR** | **Makanchi Array** | **30.35** | **55** | P | | **P** | **21 17 22.1** | **-0.6** |
| | comp=Z,1.1nm,0.7s,baz=254,slow=10,SNR=9.4 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **36.74** | **349** | P | | **P** | **21 18 17.0** | **-1.0** |
| | comp=Z,5.0nm,1.0s,baz=173,slow=7.8,SNR=4.0 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **44.76** | **253** | P | | **P** | **21 19 27.7** | **+2.9** |
| | comp=Z,0.3nm,0.7s,baz=42,slow=6.7,SNR=3.0 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **50.06** | **94** | P | | **P** | **21 20 04.7** | **-1.4** |
| | comp=Z,0.5nm,0.7s,baz=295,slow=11,SNR=3.8 | | | | | | | |
| **ILAR** | **Eielson Array** | **80.58** | **5** | P | | **P** | **21 23 23.5** | **+0.4** |
| | comp=Z,0.3nm,0.7s,baz=329,slow=6.3,SNR=3.0 | | | | | | | |

**IDC 12 21:22:53.7±1.7, 4.02S×143.18E, h0km, mb3.4/3, mb1 3.8/4, mb1mx3.6/31, mbtmp3.5/4, ML3.6/1, Error ellipse: s-maj=57.2km s-min=29.1km az=108.0, New Guinea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **18.02** | **208** | P | Pn | 21 27 05.7 | -0.1 |
| | 0.2nm,0.3s,baz=23,slow=12,SNR=9.1 | | | | | | |
| **ASAR** | **Alice Springs** | **21.48** | **204** | P | P | 21 27 43.9 | -0.2 |
| | 0.8nm,0.7s,baz=27,slow=11,SNR=9.6 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **48.97** | **299** | P | P | 21 31 43.0 | +0.7 |
| | 0.2nm,0.3s,baz=125,slow=7.5,SNR=4.4 | | | | | | |
| **ILAR** | **Eielson Array** | **85.20** | **24** | P | P | 21 35 31.3 | -0.5 |
| | 0.2nm,0.5s,baz=265,slow=4.5,SNR=3.7 | | | | | | |

**WEL 12 21:36:04.3±0.4, 43.50S×177.69E, h33km, ML3.6/22, 1C-2D, Error ellipse: s-maj=4.2km s-min=2.8km az=90.0, Off east coast of South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PLWZ** | **Palliser** | **2.63** | **316** | PN | Pn | 21 36 43.9 | -0.6 |
| **PAWZ** | **Paruwai Farm** | **2.69** | **321** | PN | Pn | 21 36 44.8 | -0.6 |
| PAWZ | | | | SN | Sn | 21 37 15.5 | -1.4 |
| **TMWZ** | **Te Maipa** | **2.73** | **330** | PN | Pn | 21 36 45.1 | -0.8 |
| **MTW** | **Mount Morrison** | **2.84** | **324** | PN | Pn | 21 36 46.4 | -0.9 |
| **BHW** | **Baring Head** | **2.95** | **314** | PN | Pn | 21 36 48.2 | -0.6 |
| **BFZ** | **Birch Farm** | **3.01** | **339** | PN | Pn | 21 36 48.7 | -0.9 |
| **TIWZ** | **Tintock** | **3.03** | **333** | PN | Pn | 21 36 49.1 | -0.8 |
| TIWZ | | | | SN | Sn | 21 37 22.1 | -3.0 |
| **HOWZ** | **Holdsworth Sta** | **3.06** | **327** | PN | Pn | 21 36 49.4 | -0.9 |
| **CAW** | **Cannon Point** | **3.08** | **320** | PN | Pn | 21 36 50.0 | -0.6 |
| **PRWZ** | **Pori Road** | **3.21** | **336** | ⇓PN | Pn | 21 36 51.9 | -0.4 |
| **MRZ** | **Mangatainoka R** | **3.24** | **330** | ⇑PN | Pn | 21 36 51.9 | -0.9 |
| MRZ | | | | *e*SN | Sn | 21 37 25.3 | -5.0 |
| **OGWZ** | **Otaki Gorge** | **3.27** | **324** | PN | Pn | 21 36 52.6 | -0.6 |
| **PRHZ** | **Porangahau** | **3.32** | **346** | PN | Pn | 21 36 52.7 | -1.3 |
| **KIW** | **Kapiti Island** | **3.35** | **321** | PN | Pn | 21 36 53.9 | -0.3 |
| **DVHZ** | **Dannevirke** | **3.39** | **340** | ⇓PN | Pn | 21 36 54.0 | -0.9 |
| DVHZ | | | | SN | Sn | 21 37 31.6 | -2.4 |
| **TCW** | **Tory Channel** | **3.41** | **311** | PN | Pn | 21 36 54.7 | -0.4 |
| **POWZ** | **Post Office Ro** | **3.42** | **335** | PN | Pn | 21 36 54.8 | -0.4 |
| **MQZ** | **McQueen's Vall** | **3.66** | **265** | *e*PN | Pn | 21 36 57.6 | -1.0 |
| MQZ | | | | *e*SN | Sn | 21 37 36.9 | -3.7 |
| **PNHZ** | **Pukenui** | **3.75** | **342** | PN | Pn | 21 36 59.1 | -0.8 |
| **DUWZ** | **D'Urville Isla** | **3.88** | **313** | *e*PN | Pn | 21 37 02.0 | +0.3 |
| **OTVZ** | **Oturere** | **4.59** | **340** | PN | Pn | 21 37 10.9 | -0.6 |
| **QRZ** | **Quartz Range** | **4.67** | **303** | PN | Pn | 21 37 12.4 | -0.1 |

**WEL 12 21:38:56.0±0.4, 38.28S×175.89E, h165km±3km, ML3.7/36, 16C-3D, Error ellipse: s-maj=2.9km s-min=2.9km az=90.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MRHZ** | **Matea Rd** | **0.69** | **144** | ⇑PN | Pn | 21 39 20.3 | +0.2 |
| MRHZ | | | | AML | AML | 21 39 20.8 | |
| MRHZ | | | | AML | AML | 21 39 20.8 | |
| **WTVZ** | **West Tongariro** | **0.87** | **196** | PN | Pn | 21 39 21.6 | +0.2 |
| **OTVZ** | **Oturere** | **0.90** | **191** | PN | Pn | 21 39 22.0 | +0.4 |
| **RTZ** | **Ruatahuna** | **0.92** | **112** | PN | Pn | 21 39 21.8 | +0.1 |
| RTZ | | | | SN | Sn | 21 39 41.0 | -0.4 |
| **NGZ** | **Ngauruhoe** | **0.93** | **194** | PN | Pn | 21 39 22.0 | +0.2 |
| **MTHZ** | **Maungataniwha** | **0.94** | **128** | PN | Pn | 21 39 22.0 | +0.2 |
| MTHZ | | | | SN | Sn | 21 39 41.5 | -0.2 |
| **URZ** | **Urewera** | **0.96** | **89** | ⇑PN | Pn | 21 39 21.7 | -0.2 |
| URZ | | | | SN | Sn | 21 39 41.3 | -0.4 |
| URZ | | | | AML | AML | 21 39 42.6 | |
| **BKZ** | **Black Stump Fm** | **1.00** | **152** | PN | Pn | 21 39 22.2 | -0.1 |
| BKZ | | | | *e*SN | Sn | 21 39 41.5 | -1.2 |
| **TUVZ** | **Tukino** | **1.01** | **191** | PN | Pn | 21 39 22.6 | +0.2 |
| **TRVZ** | **Turoa** | **1.06** | **195** | PN | Pn | 21 39 22.9 | 0.0 |
| **WNVZ** | **Wahianoa** | **1.07** | **192** | ⇑PN | Pn | 21 39 23.0 | 0.0 |
| **MOVZ** | **Moawhango** | **1.14** | **185** | PN | Pn | 21 39 23.0 | -0.4 |
| **MTVZ** | **Mangateitei** | **1.16** | **196** | PN | Pn | 21 39 23.4 | -0.2 |
| **BHHZ** | **Black Hill Sta** | **1.22** | **174** | ⇑PN | Pn | 21 39 23.7 | -0.4 |
| BHHZ | | | | AML | AML | 21 39 46.7 | |
| BHHZ | | | | AML | AML | 21 39 48.8 | |
| **KWHZ** | **Kaweka Forest** | **1.22** | **160** | PN | Pn | 21 39 24.1 | 0.0 |
| KWHZ | | | | AML | AML | 21 39 47.7 | |
| KWHZ | | | | AML | AML | 21 39 51.4 | |
| **SNGZ** | **Shannon Statio** | **1.24** | **114** | ⇑PN | Pn | 21 39 24.7 | +0.4 |
| SNGZ | | | | AML | AML | 21 39 46.2 | |
| SNGZ | | | | AML | AML | 21 39 48.0 | |
| **MWZ** | **Matawai** | **1.29** | **93** | ⇑PN | Pn | 21 39 24.7 | 0.0 |
| MWZ | | | | SN | Sn | 21 39 46.1 | -0.7 |
| MWZ | | | | AML | AML | 21 39 46.4 | |
| **ARHZ** | **Aropaoanui** | **1.31** | **139** | PN | Pn | 21 39 25.3 | +0.4 |
| ARHZ | | | | SN | Sn | 21 39 47.5 | +0.3 |
| **WHHZ** | **Waihua** | **1.32** | **128** | PN | Pn | 21 39 25.3 | +0.3 |
| **MCHZ** | **McNeill Hill** | **1.32** | **152** | ⇑PN | Pn | 21 39 25.6 | +0.6 |
| MCHZ | | | | AML | AML | 21 39 51.7 | |
| **KRHZ** | **Kereru** | **1.42** | **165** | ⇑PN | Pn | 21 39 25.6 | -0.2 |
| **RUGZ** | **Raukumara Rang** | **1.44** | **78** | PN | Pn | 21 39 25.4 | -0.8 |
| **RIGZ** | **Rimuhau** | **1.53** | **107** | ⇑PN | Pn | 21 39 27.1 | +0.1 |
| RIGZ | | | | AML | AML | 21 39 52.7 | |
| RIGZ | | | | AML | AML | 21 39 55.6 | |
| **TKGZ** | **Te Karaka** | **1.55** | **97** | PN | Pn | 21 39 27.7 | +0.6 |
| TKGZ | | | | AML | AML | 21 39 52.8 | |
| TKGZ | | | | AML | AML | 21 39 53.6 | |
| **HAZ** | **Te Kaha** | **1.58** | **71** | PN | Pn | 21 39 26.9 | -0.5 |
| HAZ | | | | AML | AML | 21 39 51.8 | |
| HAZ | | | | AML | AML | 21 39 52.0 | |
| **KNZ** | **Kokohu** | **1.58** | **119** | ⇑PN | Pn | 21 39 27.3 | -0.1 |
| **TWGZ** | **Tauwhareparae** | **1.65** | **87** | PN | Pn | 21 39 28.7 | +0.5 |
| TWGZ | | | | AML | AML | 21 39 56.4 | |
| TWGZ | | | | AML | AML | 21 39 59.1 | |
| **PNHZ** | **Pukenui** | **1.65** | **172** | PN | Pn | 21 39 27.5 | -0.7 |
| PNHZ | | | | AML | AML | 21 39 54.2 | |
| PNHZ | | | | AML | AML | 21 39 54.3 | |
| **CKHZ** | **Cape Kidnapper** | **1.66** | **147** | PN | Pn | 21 39 28.4 | +0.1 |
| **PRGZ** | **Paritu Road** | **1.69** | **113** | PN | Pn | 21 39 28.5 | -0.1 |
| **KAHZ** | **Kahuranaki** | **1.70** | **153** | PN | Pn | 21 39 28.7 | -0.1 |
| **TSZ** | **Takapari Road** | **1.78** | **178** | ⇑PN | Pn | 21 39 28.8 | -0.8 |
| TSZ | | | | AML | AML | 21 39 56.4 | |
| TSZ | | | | AML | AML | 21 39 56.9 | |
| **MHGZ** | **Mahia Peninsul** | **1.80** | **120** | ⇑PN | Pn | 21 39 29.9 | +0.1 |
| **CNGZ** | **Carnagh Statio** | **1.83** | **97** | PN | Pn | 21 39 30.5 | +0.4 |
| **WPHZ** | **Waipukurau** | **1.84** | **167** | ⇑PN | Pn | 21 39 29.4 | -0.8 |
| WPHZ | | | | AML | AML | 21 39 57.7 | |
| WPHZ | | | | AML | AML | 21 40 00.9 | |
| **DVHZ** | **Dannevirke** | **2.03** | **174** | ⇑PN | Pn | 21 39 31.0 | -1.4 |
| DVHZ | | | | AML | AML | 21 39 59.8 | |
| DVHZ | | | | AML | AML | 21 40 00.4 | |
| **MXZ** | **Matakaoa Point** | **2.04** | **70** | PN | Pn | 21 39 32.3 | -0.2 |
| **WMGZ** | **Waiomatatini S** | **2.04** | **78** | PN | Pn | 21 39 32.2 | -0.2 |
| WMGZ | | | | SN | Sn | 21 39 59.5 | -1.2 |
| WMGZ | | | | AML | AML | 21 40 00.4 | |
| **PRHZ** | **Porangahau** | **2.07** | **164** | PN | Pn | 21 39 31.8 | -1.0 |
| PRHZ | | | | AML | AML | 21 40 02.3 | |
| PRHZ | | | | AML | AML | 21 40 02.5 | |
| **POWZ** | **Post Office Ro** | **2.12** | **183** | PN | Pn | 21 39 31.8 | -1.5 |
| POWZ | | | | AML | AML | 21 40 04.7 | |
| POWZ | | | | AML | AML | 21 40 06.9 | |
| **ANWZ** | **Angora Road** | **2.23** | **168** | ⇓PN | Pn | 21 39 33.5 | -1.1 |
| ANWZ | | | | AML | AML | 21 40 05.2 | |
| ANWZ | | | | AML | AML | 21 40 06.7 | |
| **PRWZ** | **Pori Road** | **2.28** | **178** | ⇓PN | Pn | 21 39 33.8 | -1.4 |
| PRWZ | | | | AML | AML | 21 40 03.9 | |
| PRWZ | | | | AML | AML | 21 40 08.0 | |
| **MRZ** | **Mangatainoka R** | **2.39** | **186** | ⇑PN | Pn | 21 39 34.5 | -2.0 |
| MRZ | | | | AML | AML | 21 40 06.4 | |
| MRZ | | | | AML | AML | 21 40 06.4 | |
| **BFZ** | **Birch Farm** | **2.42** | **174** | PN | Pn | 21 39 34.9 | -1.9 |
| **TIWZ** | **Tintock** | **2.50** | **180** | PN | Pn | 21 39 35.8 | -2.0 |
| TIWZ | | | | AML | AML | 21 40 08.7 | |
| TIWZ | | | | AML | AML | 21 40 11.5 | |
| **OGWZ** | **Otaki Gorge** | **2.60** | **192** | PN | Pn | 21 39 37.0 | -2.0 |
| OGWZ | | | | AML | AML | 21 40 10.3 | |
| OGWZ | | | | AML | AML | 21 40 11.6 | |
| **HOWZ** | **Holdsworth Sta** | **2.63** | **186** | PN | Pn | 21 39 37.0 | -2.4 |
| HOWZ | | | | AML | AML | 21 40 09.3 | |
| HOWZ | | | | AML | AML | 21 40 10.6 | |
| **CPWZ** | **Castlepoint** | **2.64** | **175** | PN | Pn | 21 39 37.8 | -1.7 |
| CPWZ | | | | AML | AML | 21 40 13.4 | |
| **KIW** | **Kapiti Island** | **2.69** | **196** | PN | Pn | 21 39 37.6 | -2.5 |
| KIW | | | | AML | AML | 21 40 12.1 | |
| KIW | | | | AML | AML | 21 40 12.1 | |
| **TMWZ** | **Te Maipa** | **2.83** | **180** | PN | Pn | 21 39 39.4 | -2.4 |
| TMWZ | | | | AML | AML | 21 40 15.9 | |
| **MTW** | **Mount Morrison** | **2.89** | **186** | PN | Pn | 21 39 39.7 | -2.9 |
| MTW | | | | AML | AML | 21 40 16.3 | |
| MTW | | | | AML | AML | 21 40 16.3 | |
| **CAW** | **Cannon Point** | **2.90** | **192** | PN | Pn | 21 39 40.0 | -2.6 |
| CAW | | | | AML | AML | 21 40 15.8 | |
| CAW | | | | AML | AML | 21 40 17.3 | |
| **DUWZ** | **D'Urville Isla** | **2.95** | **211** | PN | Pn | 21 39 40.4 | -2.9 |
| DUWZ | | | | SN | Sn | 21 40 16.6 | -3.5 |
| **TRWZ** | **Traveller** | **3.12** | **183** | PN | Pn | 21 39 42.6 | -2.8 |
| TRWZ | | | | AML | AML | 21 40 21.5 | |
| **PAWZ** | **Paruwai Farm** | **3.12** | **186** | PN | Pn | 21 39 42.4 | -3.1 |
| **MSWZ** | **Moikau Station** | **3.17** | **189** | PN | Pn | 21 39 42.8 | -3.2 |
| MSWZ | | | | AML | AML | 21 40 21.5 | |
| MSWZ | | | | AML | AML | 21 40 21.8 | |
| **TCW** | **Tory Channel** | **3.19** | **203** | PN | Pn | 21 39 43.3 | -2.9 |
| TCW | | | | AML | AML | 21 40 22.2 | |
| TCW | | | | AML | AML | 21 40 22.3 | |
| **BHW** | **Baring Head** | **3.23** | **194** | AML | AML | 21 40 23.0 | |
| **PLWZ** | **Palliser** | **3.33** | **188** | PN | Pn | 21 39 44.6 | -3.4 |
| PLWZ | | | | AML | AML | 21 40 25.2 | |
| **TUWZ** | **Tuamarina** | **3.49** | **205** | PN | Pn | 21 39 46.9 | -3.1 |
| TUWZ | | | | AML | AML | 21 40 28.2 | |
| TUWZ | | | | AML | AML | 21 40 28.6 | |
| **NNZ** | **Nelson** | **3.52** | **213** | ⇑PN | Pn | 21 39 46.9 | -3.5 |
| **QRZ** | **Quartz Range** | **3.64** | **225** | PN | Pn | 21 39 47.9 | -4.0 |
| **BSWZ** | **Blackbirch Sta** | **3.77** | **204** | PN | Pn | 21 39 50.5 | -3.1 |
| **THZ** | **Tophouse** | **4.17** | **212** | PN | Pn | 21 39 55.1 | -3.7 |
| **KHZ** | **Kahutara** | **4.51** | **203** | ⇓PN | Pn | 21 39 59.3 | -3.8 |
| **LTZ** | **Lake Taylor** | **5.28** | **210** | PN | Pn | 21 40 08.3 | -5.0 |
| **INZ** | **Inchbonnie** | **5.59** | **216** | PN | Pn | 21 40 12.7 | -4.6 |
| **OXZ** | **Oxford** | **5.83** | **209** | PN | Pn | 21 40 14.7 | -5.7 |
| **MQZ** | **McQueen's Vall** | **5.95** | **203** | PN | Pn | 21 40 16.0 | -6.1 |

*NIED 12 21:48:00, 37.80N×142.10E, h53km, Mw3.7 Best double couple: M0 4.49000×10^14 NP1:φs248.00000°, δ29.00000°, λ-41.00000°. NP2:φs15.00000°, δ72.00000°, λ-113.00000°.*
*ISCJB 12 21:48:55.9±1.6, 37.83N±0.04×142.11E±0.09, h27km±8km, mb3.8/4, Error ellipse: s-maj=12.6km s-min=6.6km az=17.0*
*JMA 12 21:48:56.2±0.2, 37.81N×142.10E, h36km±3km, M3.9*
*IDC 12 21:48:58.1±5.5, 37.87N×142.40E, h50km±44km, mb3.6/4, mb1 3.7/6, mb1mx3.3/54, mbtmp3.7/6, ML2.6/2, MS2.6/2, Ms1 2.6/2, ms1mx2.3/44, Error ellipse: s-maj=44.5km s-min=22.5km az=82.0*

**ISC 12 21:48:56.6±2.6, 37.86N±0.06×142.1E±0.1, h25km±15km, n19, σ1°s79/27, mb3.8/4, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JIO** | **Ouri** | **0.85** | **314** | P | **Pb** | **21 49 12.5** | **-0.3** |
| JIO | | | | S | **Sb** | **21 49 23.4** | **-0.4** |
| **JMM** | **Marumori** | **1.05** | **271** | P | **Pn** | **21 49 14.7** | **-1.1** |
| JMM | | | | S | **Sn** | **21 49 27.6** | **-2.1** |
| **JFK** | **Kawauchi** | **1.11** | **244** | P | **Pn** | **21 49 15.0** | **-1.6** |
| JFK | | | | S | **Sn** | **21 49 28.2** | **-2.9** |
| **JOU** | **Okura** | **1.26** | **294** | P | **Pn** | **21 49 18.5** | **-0.1** |
| **JMK** | **Ichinoseki** | **1.30** | **327** | P | **Pn** | **21 49 19.1** | **-0.1** |
| JMK | | | | *e*S | **Sn** | **21 49 35.1** | **-0.7** |
| **JFT** | **Otama** | **1.46** | **257** | P | **Pn** | **21 49 21.2** | **-0.2** |
| JFT | | | | *e*S | **Sn** | **21 49 39.0** | **-0.7** |
| **JYS** | **Shirataka** | **1.67** | **283** | P | **Pn** | **21 49 24.1** | **-0.1** |
| **JOM** | **Ohasama** | **1.74** | **338** | P | **Pn** | **21 49 25.6** | **+0.4** |
| JOM | | | | *e*S | **Sn** | **21 49 46.4** | **-0.2** |
| **JYK** | **Kaneyama** | **1.75** | **308** | P | **Pn** | **21 49 25.5** | **+0.2** |
| JYK | | | | *e*S | **Sn** | **21 49 46.6** | **-0.1** |
| **JRG** | **Rokugo** | **1.93** | **323** | P | **Pn** | **21 49 28.7** | **+0.9** |
| **JFY** | **Yanaizu** | **1.97** | **258** | P | **Pn** | **21 49 28.5** | **0.0** |
| **MJAR** | **Matsushiro Arr** | **3.39** | **248** | P | **Pn** | **21 49 49.9** | **+2.0** |
| | 1.7nm,0.3s,baz=55,slow=10,SNR=13 | | | | | | |
| MJAR | | | | S | **Sn** | **21 50 33.0** | **+5.6** |
| | 1.9nm,0.3s,baz=317,slow=32,SNR=4.5 | | | | | | |
| MJAR | | | | LR | LR | 21 51 22.4 | |
| | comp=Z,97nm,20.2s,baz=80,slow=40 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **JRG** | **Rokugo** | **1.98** | **323** | P | **Pn** | **22 00 10.2** | **+0.8** |
| **JFY** | **Yanaizu** | **2.00** | **259** | P | **Pn** | **22 00 10.0** | **+0.3** |
| JFY | | | | *e*S | **Sn** | **22 00 33.7** | **-0.6** |
| **JYA** | **Atsumi** | **2.08** | **292** | P | **Pn** | **22 00 11.3** | **+0.5** |
| **JNS** | **Sasagawa** | **2.26** | **271** | P | **Pn** | **22 00 13.8** | **+0.6** |
| **MJAR** | **Matsushiro Arr** | **3.41** | **249** | P | **Pn** | **22 00 31.2** | **+2.1** |
| | 1.5nm,0.3s,baz=79,slow=17,SNR=11 | | | | | | |
| MJAR | | | | S | **Sb** | **22 01 16.4** | **-1.4** |
| | 1.6nm,0.3s,baz=312,slow=17,SNR=5.0 | | | | | | |
| MJAR | | | | LR | LR | 22 02 03.4 | |
| | comp=Z,238nm,19.1s,baz=50,slow=41 | | | | | | |
| **MAT** | **Matsushiro** | **3.41** | **249** | P | **Pn** | **22 00 31.8** | **+2.7** |
| MAT | | | | *e*S | **Sn** | **22 01 13.1** | **+4.0** |
| **USRK** | **Ussuriysk Ar.** | **9.98** | **313** | P | **Pn** | **22 02 03.6** | **+4.4** |
| | 0.2nm,0.3s,baz=120,slow=13,SNR=5.1 | | | | | | |
| USRK | | | | LR | LR | 22 05 24.5 | |
| | comp=Z,78nm,20.6s,baz=39,slow=34 | | | | | | |
| **KSRS** | **Korea Array** | **11.30** | **272** | P | Pn | 22 02 23.0 | +5.7 |
| | 0.2nm,0.3s,baz=74,slow=13,SNR=4.5 | | | | | | |
| KSRS | | | | LR | LR | 22 06 29.1 | |
| | comp=Z,47nm,19.1s,baz=90,slow=36 | | | | | | |
| **KLR** | **Kul'dur** | **13.66** | **330** | LR | LR | 22 08 26.0 | |
| | comp=Z,6.6nm,18.4s,baz=359,slow=38 | | | | | | |
| **PETK** | **Petropavlovsk-** | **18.70** | **30** | LR | LR | 22 12 34.0 | |
| | comp=Z,36nm,18.6s,baz=302,slow=41 | | | | | | |
| **SONM** | **Songino Array** | **27.86** | **303** | P | **P** | **22 05 26.5** | **+1.1** |
| | 2.7nm,0.8s,baz=102,slow=9.2,SNR=7.9 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.05** | **123** | T | T | 22 34 54.0 | |
| | baz=315,slow=75,SNR=54 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.06** | **123** | T | T | 22 34 53.1 | |
| | baz=315,slow=75,SNR=45 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.07** | **123** | T | T | 22 35 05.2 | |
| | baz=315,slow=75,SNR=36 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.80** | **125** | T | T | 22 35 51.5 | |
| | baz=317,slow=76,SNR=14 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.80** | **125** | T | T | 22 35 40.3 | |
| | baz=317,slow=76,SNR=16 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.82** | **125** | T | T | 22 35 52.6 | |
| | baz=317,slow=76,SNR=18 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.83** | **312** | P | **P** | **22 07 25.7** | **+0.4** |
| | 1.8nm,0.6s,baz=85,slow=6.6,SNR=9.7 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **42.28** | **255** | LR | LR | 22 27 27.7 | |
| | comp=Z,23nm,18.9s,baz=60,slow=39 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.21** | **302** | P | **P** | **22 07 44.6** | **-0.1** |
| | 0.6nm,0.6s,baz=88,slow=8.6,SNR=4.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **57.93** | **189** | P | **P** | **22 09 27.6** | **-0.4** |
| | 2.1nm,0.6s,baz=5.6,slow=7.2,SNR=33 | | | | | | |
| **ASAR** | **Alice Springs** | **61.65** | **189** | P | **P** | **22 09 53.1** | **-0.4** |
| | 0.7nm,0.7s,baz=8.2,slow=5.5,SNR=6.8 | | | | | | |
| **RES** | **Resolute Bay** | **61.69** | **15** | P | **P** | **22 09 52.1** | **-1.1** |
| | 1.0nm,0.5s,baz=304,slow=3.6,SNR=5.7 | | | | | | |
| **TXAR** | **Lajitas Array** | **89.17** | **53** | P | **P** | **22 12 31.8** | **+0.1** |
| | 0.3nm,0.8s,baz=316,slow=6.3,SNR=3.0 | | | | | | |

*NNC* ***12*** *22:03:19.0±8.2,36°.78N×70°.55E,h0km,mb3.9,mpv3.5, Error ellipse: s-maj=65.7km s-min=30.4km az=2.0*

**ISC 12 22:03:15.3±1.4,36°.35N±0°.09×70°.5E±0°.1,h110km,n13, σ1§89/16,5C-2D,Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DZET** | **Dzherino** | **2.79** | **332** | ⇑Pn | **Pn** | **22 04 00.2** | **+1.7** |
| | 36nm,0.4s | | | | | | |
| DZET | | | | ⇓Sn | **Sn** | **22 04 32.9** | **+1.1** |
| | 109nm,0.5s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **4.36** | **32** | ⇑Pn | **Pn** | **22 04 22.0** | **+2.3** |
| | 1.7nm,0.3s | | | | | | |
| SFK | | | | ⇑Sn | **Sn** | **22 05 11.9** | **+2.4** |
| | 12nm,0.6s | | | | | | |
| **MNAS** | **Manas** | **6.32** | **14** | ⇓Pn | Pn | 22 04 44.9 | -1.1 |
| | 4.4nm,1.0s | | | | | | |
| MNAS | | | | ⇑Sn | **Sn** | **22 05 53.8** | **-3.2** |
| | 13nm,1.2s | | | | | | |
| **KK31** | **Karatay Array** | **6.75** | **0** | Pn | **Pn** | **22 04 51.4** | **-0.3** |
| | 1.4nm,0.3s,baz=188,slow=14,SNR=19 | | | | | | |
| KK31 | | | | ⇑Sn | **Sn** | **22 06 04.9** | **-2.1** |
| | 0.9nm,0.3s,baz=191,slow=22,SNR=4.7 | | | | | | |
| **GKN** | **Gorkha** | **14.57** | **121** | *e*P | **P** | **22 06 38.5** | **-1.2** |
| | 0.7nm,0.2s | | | | | | |
| **DMN** | **Daman** | **15.14** | **121** | *e*P | **Pn** | **22 06 45.0** | **+1.4** |
| | 4.4nm,0.4s | | | | | | |
| **KKN** | **Kakani** | **15.15** | **120** | *e*P | **Pn** | **22 06 44.7** | **+1.0** |
| | 4.3nm,0.2s | | | | | | |
| **PKIN** | **Phulchoki** | **15.36** | **120** | *e*P | **Pn** | **22 06 47.4** | **+1.0** |
| | 7.8nm,0.4s | | | | | | |
| **PKI** | **Pulchoki** | **15.38** | **120** | *e*P | **Pn** | **22 06 47.5** | **+0.9** |
| | 12nm,0.5s | | | | | | |
| **GUN** | **Gumba** | **15.50** | **119** | *e*P | **Pn** | **22 06 48.4** | **+0.2** |
| | 10nm,0.6s | | | | | | |
| **JIRN** | **Jiri** | **15.87** | **119** | *e*P | **Pn** | **22 06 52.9** | **+0.1** |
| | 26nm,0.6s | | | | | | |
| **TAPN** | **Taplejung** | **17.14** | **117** | *e*P | **Pn** | **22 07 05.6** | **-2.7** |
| | 4.0nm,0.5s | | | | | | |
| **ODAN** | **Odare** | **17.20** | **119** | *e*P | **Pn** | **22 07 07.3** | **-1.7** |

**IDC 12 22:22:31.2±2.1,6°.95S×128°.78E,h0km,mb3.3/1, mb1 3.8/4,mb1mx3.4/42,mbtmp3.6/4,ML3.7/2,MS3.4/1, Ms1 3.6/1,ms1mx3.0/11,Error ellipse: s-maj=85.1km s-min=28.9km az=75.0,Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **FITZ** | **Fitzroy Crossi** | **11.50** | **195** | Pn | Pn | 22 25 16.7 | -0.1 |
| | baz=18,slow=11 | | | | | | |
| FITZ | | | | Sn | Sn | 22 27 13.6 | -12 |
| | 0.3nm,0.3s,baz=127,slow=20,SNR=3.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **14.00** | **158** | Pn | Pn | 22 25 50.1 | -0.9 |
| | 0.5nm,0.3s,baz=337,slow=10,SNR=10 | | | | | | |
| WRA | | | | Sn | Sn | 22 28 15.2 | -12 |
| | 0.4nm,0.3s,baz=338,slow=22,SNR=5.0 | | | | | | |
| **ASAR** | **Alice Springs** | **17.34** | **164** | P | P | 22 26 35.6 | -0.7 |
| | 0.2nm,0.3s,baz=341,slow=10.0,SNR=5.1 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **38.78** | **311** | LR | LR | 22 47 44.8 | |
| | comp=Z,51nm,18.9s,baz=202,slow=39 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.52** | **327** | P | P | 22 33 29.3 | 0.0 |
| | 0.1nm,0.4s,baz=120,slow=7.5,SNR=4.4 | | | | | | |

**JMA 12 22:22:50.4±0.3,37°.53N×144°.35E,h46km,M3.6,Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JIO** | **Ouri** | **2.54** | **292** | P | Pn | 22 23 30.7 | +1.6 |
| JIO | | | | *e*S | Sn | 22 24 00.3 | +1.4 |
| **OFUJ** | **Ofunato** | **2.62** | **307** | P | Pn | 22 23 31.3 | +1.2 |
| **JMK** | **Ichinoseki** | **2.84** | **301** | P | Pn | 22 23 34.9 | +1.6 |
| JMK | | | | *e*S | Sn | 22 24 08.1 | +1.8 |
| **JOM** | **Ohasama** | **3.08** | **310** | P | Pn | 22 23 38.3 | +1.7 |
| JOM | | | | *e*S | Sn | 22 24 14.6 | +2.4 |
| **JFT** | **Otama** | **3.19** | **271** | P | Pn | 22 23 40.4 | +2.3 |
| JFT | | | | *e*S | Sn | 22 24 16.6 | +1.7 |
| **JYK** | **Kaneyama** | **3.44** | **295** | P | Pn | 22 23 43.8 | +2.4 |
| **JOT** | **Ohata** | **4.62** | **327** | P | Pn | 22 23 59.7 | +2.1 |
| **JRY** | **Ryogami san** | **4.63** | **253** | P | Pn | 22 23 58.8 | +1.0 |
| **JOD2** | **Odawara 2** | **4.81** | **244** | *e*S | Sn | 22 24 53.5 | -1.2 |
| **JKB** | **Kayabe** | **5.05** | **331** | P | Pn | 22 24 05.5 | +2.0 |
| **JCH** | **Churui** | **5.13** | **352** | P | Pn | 22 24 04.2 | -0.5 |
| JCH | | | | *e*S | Sn | 22 24 59.4 | -3.2 |
| **NEM2** | **Nemuro 2** | **5.92** | **10** | P | Pn | 22 24 13.9 | -1.6 |
| NEM2 | | | | *e*S | Sn | 22 25 15.0 | -7.0 |
| **JTKR** | **Abashiri--Toko** | **6.44** | **357** | P | Pn | 22 24 21.9 | -0.7 |
| JTKR | | | | *e*S | Sn | 22 25 31.0 | -3.8 |
| **JHR** | **Hokuryu** | **6.52** | **343** | P | Pn | 22 24 25.9 | +2.2 |
| JHR | | | | *e*S | Sn | 22 25 38.2 | +1.5 |

*ISCJB* ***12*** *22:27:52.5±0.6,27°.64S±0°.08×178°.3W±0°.2,h250km, mb3.7/11,Error ellipse: s-maj=22.0km s-min=10.8km az=166.1*

*IDC* ***12*** *22:27:52.7±1.5,27°.56S×178°.26W,h242km±13km, mb3.5/11,mb1 3.6/12,mb1mx3.5/37,mbtmp4.1/12,Error ellipse: s-maj=24.6km s-min=16.6km az=81.0*

**ISC 12 22:27:53.5±0.6,27°.75S±0°.08×178°.2W±0°.1,h250km,n27, σ1§81/27,mb3.8/11,Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **1.53** | **169** | P | **Pn** | **22 28 31.6** | **-0.4** |
| | 742nm,0.3s,baz=75,slow=7.0,SNR=43 | | | | | | |
| RAO | | | | S | **S** | **22 29 02.7** | **+0.4** |
| | 520nm,0.3s,baz=253,slow=23,SNR=5.6 | | | | | | |
| **URZ** | **Urewera** | **11.18** | **199** | P | **Pn** | **22 30 28.8** | **+2.0** |
| | 1.6nm,0.3s,baz=271,slow=8.1,SNR=5.5 | | | | | | |
| URZ | | | | S | S | 22 32 22.2 | -10 |
| | 5.6nm,0.3s,baz=37,slow=23,SNR=9.2 | | | | | | |
| **DZM** | **Mont Dzumac** | **14.99** | **289** | P | **Pn** | **22 31 16.0** | **+2.1** |
| | 0.3nm,0.3s,baz=136,slow=18,SNR=2.6 | | | | | | |
| **RPZ** | **Rata Peaks** | **18.12** | **206** | S | **S** | **22 34 54.4** | **-7.2** |
| | 1.2nm,0.3s,baz=319,slow=20,SNR=8.3 | | | | | | |
| **ASAR** | **Alice Springs** | **43.10** | **264** | P | **P** | **22 35 29.0** | **-0.6** |
| | 0.5nm,0.9s,baz=97,slow=7.3,SNR=3.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.85** | **270** | P | **P** | **22 35 34.9** | **-0.6** |
| | 0.5nm,0.5s,baz=109,slow=7.3,SNR=4.7 | | | | | | |
| **VNDA** | **Vanda** | **50.70** | **185** | P | **P** | **22 36 29.1** | **+1.8** |
| | 0.7nm,0.6s,baz=7.7,slow=7.2,SNR=5.5 | | | | | | |
| **MAW** | **Mawson** | **74.71** | **200** | P | **P** | **22 39 06.0** | **+0.5** |
| | 2.5nm,0.9s,baz=160,slow=3.9,SNR=3.6 | | | | | | |
| **SNAA** | **Sanae** | **80.80** | **179** | P | **P** | **22 39 39.8** | **+0.7** |
| **SNAA** | **Sanae** | **80.80** | **179** | P | **P** | **22 39 39.7** | **+0.7** |
| | 2.5nm,0.8s,baz=268,slow=8.3,SNR=14 | | | | | | |
| **VNA3** | **Neumayer Olymp** | **80.96** | **176** | P | **P** | **22 39 40.3** | **+0.5** |
| **VNA2** | **Neumayer--Watz** | **81.39** | **177** | P | **P** | **22 39 43.2** | **+1.2** |
| | baz=188,slow=4.5 | | | | | | |
| **KSRS** | **Korea Array** | **82.20** | **320** | P | **P** | **22 39 46.1** | **-0.5** |
| | 1.6nm,0.8s,baz=144,slow=5.8,SNR=5.2 | | | | | | |
| **PETK** | **Petropavlovsk-** | **83.20** | **346** | P | **P** | **22 39 50.7** | **-0.7** |
| | 5.5nm,0.7s,baz=97,slow=8.2,SNR=4.2 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **84.84** | **327** | P | **P** | **22 40 00.2** | **+0.3** |
| | 1.9nm,0.5s,baz=133,slow=6.9,SNR=4.6 | | | | | | |
| **KLR** | **Kul'dur** | **88.64** | **330** | P | **P** | **22 40 18.4** | **+0.4** |
| | 0.3nm,0.7s,baz=72,slow=2.7,SNR=9.8 | | | | | | |
| **SEY** | **Seymchan** | **93.35** | **347** | P | **P** | **22 40 39.0** | **-0.6** |
| | 0.9nm,0.2s,baz=112,slow=6.9,SNR=4.7 | | | | | | |
| **ILAR** | **Eielson Array** | **95.40** | **13** | P | **P** | **22 40 48.3** | **-0.6** |
| | 0.3nm,0.6s,baz=227,slow=5.8,SNR=5.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **115.89** | **311** | PKP | **PKPdf** | **22 46 05.3** | **-0.9** |
| | 0.2nm,0.5s,baz=139,slow=1.3,SNR=3.2 | | | | | | |
| **GEYT** | **Alibeck** | **132.20** | **297** | PKP | **PKPdf** | **22 46 37.9** | **+0.2** |
| | 9.6nm,0.7s,baz=101,slow=7.9,SNR=4.5 | | | | | | |
| **ARCES** | **ARCESS Array B** | **135.96** | **348** | PKP | **PKPdf** | **22 46 44.8** | **+1.0** |
| | 0.8nm,0.5s,baz=48,slow=1.8,SNR=6.7 | | | | | | |
| **FINES** | **FINESS Array B** | **142.58** | **341** | PKhKP | PKPpre | 22 46 50.9 | |
| | 2.9nm,0.8s,baz=42,slow=4.6,SNR=8.6 | | | | | | |
| **NB2** | **NORSAR Subarra** | **146.10** | **352** | PKP | **PKPbc** | **22 47 02.6** | **-1.0** |
| | comp=Z,1.3nm,0.7s,baz=16,slow=3.2 | | | | | | |
| **NOA** | **NORSAR Array B** | **146.10** | **352** | PKPbc | **PKPdf** | **22 46 59.9** | **-2.3** |
| | comp=Z,2.9nm,0.8s,baz=15,slow=4.5,SNR=6.0 | | | | | | |
| **AKASG** | **Malin Array Be** | **149.04** | **325** | PKPbc | **PKPbc** | **22 47 11.1** | **-0.6** |
| | comp=Z,4.3nm,0.7s,baz=40,slow=3.2,SNR=18 | | | | | | |
| **BRTR** | **Keskin Array B** | **151.07** | **303** | PKPbc | **PKPbc** | **22 47 16.7** | **-0.4** |
| | comp=Z,1.3nm,0.7s,baz=137,slow=3.9,SNR=8.6 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **165.47** | **180** | PKPab | **PKPab** | **22 48 29.1** | **+0.9** |
| | comp=Z,1.2nm,0.6s,baz=184,slow=3.6,SNR=16 | | | | | | |

*ISCJB* ***12*** *22:34:22.9±0.8,38°.00N±0°.04×144°.05E±0°.06,h33km, mb4.0/4,Error ellipse: s-maj=7.1km s-min=5.4km az=23.3*

*IDC* ***12*** *22:34:23.1±2.0,37°.44N×143°.99E,h0km,mb4.0/4, mb1 4.0/5,mb1mx3.6/44,mbtmp3.8/5,ML3.2/1,MS1.9/1, Ms1 1.9/1,ms1mx1.8/34,Error ellipse: s-maj=49.3km s-min=25.7km az=56.0*

*JMA* ***12*** *22:34:24.5±0.2,37°.95N×143°.92E,h46km,M3.8*

**ISC 12 22:34:25.9±1.2,37°.97N±0°.06×143°.99E±0°.08,h35km,n22, σ2§43/35,mb4.0/4,Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **OFUJ** | **Ofunato** | **2.13** | **302** | P | **Pn** | **22 34 58.2** | **-0.8** |
| **JIO** | **Ouri** | **2.13** | **284** | P | **Pn** | **22 34 58.1** | **-0.9** |
| JIO | | | | *e*S | **Sn** | **22 35 22.8** | **-1.5** |
| **MIYJ** | **Miyakonagasawa** | **2.33** | **314** | P | **Pn** | **22 35 00.9** | **-0.8** |
| MIYJ | | | | *e*S | **Sn** | **22 35 28.0** | **-1.2** |
| **JMK** | **Ichinoseki** | **2.38** | **295** | P | **Pn** | **22 35 01.8** | **-0.6** |
| **JOM** | **Ohasama** | **2.59** | **306** | P | **Pn** | **22 35 05.2** | **0.0** |
| JOM | | | | *e*S | **Sn** | **22 35 35.6** | **+0.1** |
| **JFT** | **Otama** | **2.93** | **262** | P | **Pn** | **22 35 09.6** | **-0.4** |
| JFT | | | | *e*S | **Sn** | **22 35 42.3** | **-1.7** |
| **JYK** | **Kaneyama** | **3.00** | **289** | P | **Pn** | **22 35 10.9** | **-0.1** |
| JYK | | | | S | **Sn** | **22 35 45.6** | **-0.1** |
| **JANG** | **Nango** | **3.07** | **322** | P | **Pn** | **22 35 11.5** | **-0.4** |
| JANG | | | | *e*S | **Sn** | **22 35 46.3** | **-1.1** |
| **JOT** | **Ohata** | **4.09** | **327** | P | **Pn** | **22 35 26.6** | **+0.7** |
| JOT | | | | *e*S | **Sn** | **22 36 10.5** | **-2.0** |
| **JRY** | **Ryogami san** | **4.52** | **246** | P | **Pn** | **22 35 30.3** | **-1.5** |
| JRY | | | | *e*S | **Sn** | **22 36 17.8** | **-5.3** |
| **JKB** | **Kayabe** | **4.52** | **331** | P | **Pn** | **22 35 31.6** | **-0.2** |
| JKB | | | | *e*S | **Sn** | **22 36 20.7** | **-2.4** |
| **JCH** | **Churui** | **4.66** | **354** | P | **Pn** | **22 35 32.7** | **-1.0** |
| JCH | | | | *e*S | **Sn** | **22 36 23.3** | **-3.2** |
| **JOD2** | **Odawara 2** | **4.78** | **237** | *e*S | **Sn** | **22 36 23.6** | **-6.0** |
| **MJAR** | **Matsushiro Arr** | **4.83** | **255** | Pn | **Pn** | **22 35 36.1** | **0.0** |
| | 1.2nm,0.3s,baz=84,slow=15,SNR=7.1 | | | | | | |
| MJAR | | | | Sn | **Sn** | **22 36 30.4** | **-0.4** |
| | 1.2nm,0.3s,baz=298,slow=31,SNR=5.1 | | | | | | |
| **NEM2** | **Nemuro 2** | **5.55** | **13** | P | **Pn** | **22 35 43.5** | **-2.4** |
| NEM2 | | | | *e*S | **Sn** | **22 36 43.4** | **-5.0** |
| **JTKR** | **Abashiri--Toko** | **5.99** | **359** | P | **Pn** | **22 35 51.1** | **-0.9** |
| JTKR | | | | *e*S | **Sn** | **22 36 55.9** | **-3.4** |
| **JHR** | **Hokuryu** | **6.01** | **344** | P | **Pn** | **22 35 53.5** | **+1.2** |
| JHR | | | | *e*S | **Sn** | **22 36 59.5** | **-0.4** |
| **KLR** | **Kul'dur** | **14.30** | **326** | LR | LR | 22 43 16.9 | |
| | comp=Z,4.8nm,20.9s,baz=310,slow=36 | | | | | | |
| **MKAR** | **Makanchi Array** | **45.36** | **302** | P | **P** | **22 42 45.3** | **+4.7** |
| | 0.7nm,0.7s,baz=81,slow=12,SNR=5.5 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **47.04** | **308** | P | **P** | **22 42 58.2** | **+4.5** |
| | 0.8nm,0.4s,baz=90,slow=9.3,SNR=4.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **58.32** | **191** | P | **P** | **22 44 16.2** | **-1.2** |
| | 3.5nm,0.7s,baz=12,slow=7.3,SNR=2.2 | | | | | | |
| **ASAR** | **Alice Springs** | **62.04** | **190** | P | **P** | **22 44 41.9** | **-1.0** |
| | 0.5nm,0.5s,baz=13,slow=6.6,SNR=7.5 | | | | | | |

**JMA 12 22:38:00.9,37°.64N×141°.75E,h47km±2km,M3.5,Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JFK** | **Kawauchi** | **0.75** | **249** | P | Pn | 22 38 15.2 | 0.0 |
| JFK | | | | S | Sn | 22 38 25.4 | -0.2 |
| **JMM** | **Marumori** | **0.79** | **287** | P | Pn | 22 38 15.7 | 0.0 |
| **JIO** | **Ouri** | **0.87** | **339** | P | Pn | 22 38 17.0 | +0.2 |
| JIO | | | | *e*S | Sn | 22 38 28.1 | -0.4 |
| **ONAJ** | **Iwakimizuishiy** | **0.93** | **235** | P | Pn | 22 38 17.5 | -0.1 |
| ONAJ | | | | *e*S | Sn | 22 38 29.6 | -0.3 |
| **JOU** | **Okura** | **1.12** | **311** | P | Pn | 22 38 20.6 | +0.4 |
| JOU | | | | *e*S | Sn | 22 38 35.2 | +0.6 |
| **JFT** | **Otama** | **1.13** | **264** | P | Pn | 22 38 21.0 | +0.7 |
| JFT | | | | *e*S | Sn | 22 38 35.8 | +1.1 |
| **JMK** | **Ichinoseki** | **1.38** | **342** | P | Pn | 22 38 24.2 | +0.6 |
| **JYS** | **Shirataka** | **1.45** | **294** | P | Pn | 22 38 25.1 | +0.4 |
| **JFY** | **Yanaizu** | **1.64** | **262** | P | Pn | 22 38 27.9 | +0.6 |
| JFY | | | | *e*S | Sn | 22 38 48.2 | +0.9 |
| **JYK** | **Kaneyama** | **1.68** | **320** | P | Pn | 22 38 28.4 | +0.6 |
| JYK | | | | *e*S | Sn | 22 38 48.8 | +0.6 |
| **JOM** | **Ohasama** | **1.86** | **349** | P | Pn | 22 38 31.3 | +0.9 |
| JOM | | | | *e*S | Sn | 22 38 53.4 | +0.7 |
| **JYA** | **Atsumi** | **1.87** | **301** | P | Pn | 22 38 31.1 | +0.7 |
| **MAT** | **Matsushiro** | **3.04** | **250** | P | Pn | 22 38 48.0 | +1.5 |
| MAT | | | | *e*S | Sn | 22 39 24.0 | +2.4 |

*DDA* ***12*** *22:51:51.5,38°.93N×25°.97E,h7km,Ml2.8*

*ISCJB* ***12*** *22:51:52.3±0.6,38°.94N±0°.03×26°.09E±0°.06,h6km±6km, Error ellipse: s-maj=7.7km s-min=4.2km az=167.6*

*THE* ***12*** *22:51:52.4,38°.96N×26°.12E,h8km±1km,ML2.3/4,Error ellipse: s-maj=1.4km s-min=0.5km az=96.0*

*CSEM* ***12*** *22:51:52.4±0.2,38°.95N×26°.06E,h10km,ML2.3,Error ellipse: s-maj=6.1km s-min=3.8km az=78.0*

**ISC 12 22:51:52.3±1.0,38°.94N±0°.02×26°.07E±0°.04,h11km±9km, n25,σ0§48/38,Aegean Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SIGR** | **SIGRI** | **0.32** | **328** | P | **Pg** | **22 51 59.0** | **+0.3** |
| SIGR | | | | S | **Sg** | **22 52 03.7** | **+0.7** |
| **SIGR** | **SIGRI** | **0.32** | **328** | P | **Pg** | **22 51 59.0** | **+0.3** |
| SIGR | | | | S | **Sg** | **22 52 03.7** | **+0.7** |
| **PRK** | **Paraskevi** | **0.34** | **27** | P | **Pg** | **22 51 58.8** | **-0.4** |
| PRK | | | | S | **Sg** | **22 52 03.4** | **-0.4** |
| **PRK** | **Paraskevi** | **0.34** | **27** | P | **Pg** | **22 51 58.8** | **-0.4** |
| PRK | | | | S | **Sg** | **22 52 03.4** | **-0.4** |
| **CHOS** | **Chios island** | **0.55** | **181** | P | **Pg** | **22 52 03.2** | **+0.1** |
| CHOS | | | | S | **Sb** | **22 52 12.1** | **0.0** |
| **CHOS** | **Chios island** | **0.55** | **181** | P | **Pg** | **22 52 03.2** | **+0.1** |
| CHOS | | | | S | **Sb** | **22 52 12.1** | **0.0** |
| **URLA** | **Izmir** | **0.71** | **144** | *i* P | **Pg** | **22 52 05.8** | **-0.3** |
| **URLA** | **Izmir** | **0.71** | **144** | P | **Pg** | **22 52 05.8** | **-0.3** |
| **ZEY** | **˙zmir** | **0.78** | **154** | *i* P | **Pg** | **22 52 07.2** | **-0.2** |
| **BAYC** | **CANAKKALE_Bayr** | **0.88** | **25** | *i* P | **Pb** | **22 52 10.0** | **+0.3** |
| BAYC | | | | *i* S | **Sb** | **22 52 22.8** | **+1.3** |
| **BAYC** | **CANAKKALE_Bayr** | **0.88** | **25** | P | **Pb** | **22 52 10.0** | **+0.3** |
| BAYC | | | | S | **Sb** | **22 52 22.8** | **+1.3** |
| **BOZC** | **Bozcaada** | **0.90** | **359** | *i* P | **Pg** | **22 52 09.2** | **-0.5** |
| BOZC | | | | *i* S | **Sb** | **22 52 21.9** | **-0.2** |
| **EZN** | **Ezine** | **0.91** | **13** | P | **Pg** | **22 52 09.1** | **-0.7** |
| EZN | | | | S | **Sg** | **22 52 21.4** | **-0.2** |
| **EZN** | **Ezine** | **0.91** | **13** | P | **Pg** | **22 52 09.1** | **-0.7** |
| EZN | | | | S | **Sg** | **22 52 21.4** | **-0.2** |
| **DGB** | **˙zmir** | **1.09** | **144** | *i* P | **Pg** | **22 52 12.9** | **-0.4** |
| **LIA** | **Limnos Island** | **1.18** | **325** | P | **Pb** | **22 52 14.4** | **-0.3** |
| LIA | | | | S | **Sn** | **22 52 30.9** | **+0.1** |
| **LIA** | **Limnos Island** | **1.18** | **325** | P | **Pb** | **22 52 14.4** | **-0.3** |
| LIA | | | | S | **Sn** | **22 52 30.9** | **+0.1** |
| **STEP** | **BALIKESIR_Sava** | **1.35** | **71** | *i* P | **Pn** | **22 52 17.2** | **0.0** |
| **STEP** | **BALIKESIR_Sava** | **1.35** | **71** | P | **Pn** | **22 52 17.2** | **0.0** |
| **AKHS** | **Akhisar** | **1.36** | **92** | *i* P | **Pg** | **22 52 18.9** | **+0.4** |
| **AKHS** | **Akhisar** | **1.36** | **92** | P | **Pg** | **22 52 18.9** | **+0.4** |
| **BALY** | **Balya** | **1.44** | **56** | *i* P | **Pn** | **22 52 18.2** | **-0.3** |
| **BALY** | **Balya** | **1.44** | **56** | P | **Pn** | **22 52 18.2** | **-0.3** |
| **SMTH** | **Samothraki Isl** | **1.58** | **345** | P | **Pn** | **22 52 20.1** | **-0.3** |
| **SMTH** | **Samothraki Isl** | **1.58** | **345** | P | **Pn** | **22 52 20.1** | **-0.3** |

**IDC 12 23:03:44.9±3.5,12°.00S×117°.93E,h0km,mb3.4/1, mb1 3.6/4,mb1mx3.4/28,mbtmp3.4/4,ML3.6/3,Error ellipse: s-maj=230.6km s-min=23.0km az=46.0,South of Sumbawa**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **FITZ** | **Fitzroy Crossi** | **9.60** | **130** | Pn | Pn | 23 06 05.7 | +1.2 |
| | 0.9nm,0.3s,baz=318,slow=11,SNR=18 | | | | | | |
| FITZ | | | | Sn | Sn | 23 07 52.4 | -0.7 |
| | 0.1nm,0.3s,baz=342,slow=20,SNR=4.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **17.63** | **119** | P | Pn | 23 07 52.2 | +0.1 |
| | 0.1nm,0.3s,baz=284,slow=14,SNR=5.0 | | | | | | |
| **ASAR** | **Alice Springs** | **19.10** | **130** | P | P | 23 08 09.3 | -0.1 |
| | 0.2nm,0.3s,baz=316,slow=14,SNR=10 | | | | | | |
| **MKAR** | **Makanchi Array** | **66.66** | **334** | P | P | 23 14 37.3 | -0.1 |
| | 0.2nm,0.4s,baz=138,slow=6.1,SNR=3.1 | | | | | | |

*CSEM* ***12*** *23:49:01.9±0.2,43°.13N×13°.58E,h2km,ML2.7/4,Error ellipse: s-maj=3.5km s-min=3.1km az=40.0*

*ROM* ***12*** *23:49:02.5±0.2,43°.11N×13°.48E,h22km±2km,Md2.0/15, Ml2.0/5,Error ellipse: s-maj=2.3km s-min=1.2km az=64.0*

**ISC 12 23:49:01.7±0.9,43°.14N±0°.02×13°.58E±0°.02,h11km±9km, n33,σ0§55/56,4D,Central Italy**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **OFFI** | **Offida** | **0.22** | **159** | Pg | **Pb** | **23 49 09.6** | **+1.9** |
| | 388nm,0.5s | | | | | | |
| **GUMA** | **Gualdo di Mace** | **0.27** | **106** | *i* Pg | **Pg** | **23 49 06.8** | **-0.4** |
| GUMA | | | | Sg | **Sg** | **23 49 10.3** | **-0.6** |
| **GUMA** | **Gualdo di Mace** | **0.27** | **106** | *i* Pg | **Pg** | **23 49 06.8** | **-0.4** |
| GUMA | | | | Sg | **Sg** | **23 49 10.3** | **-0.6** |
| **CING** | **Cingoli** | **0.37** | **310** | Pg | **Pg** | **23 49 09.8** | **+0.8** |
| CING | | | | Sg | **Sb** | **23 49 15.4** | **-0.7** |
| | 81nm,0.3s | | | | | | |
| **CING** | **Cingoli** | **0.37** | **310** | Pg | **Pg** | **23 49 09.8** | **+0.8** |
| CING | | | | Sg | **Sb** | **23 49 15.4** | **-0.7** |
| | 81nm,0.3s | | | | | | |
| **FDMO** | **Fiordimonte** | **0.38** | **254** | *i* Pg | **Pg** | **23 49 09.1** | **0.0** |
| FDMO | | | | Sg | **Sg** | **23 49 14.4** | **+0.3** |
| | 71nm,0.3s | | | | | | |
| **FDMO** | **Fiordimonte** | **0.38** | **254** | *i* Pg | **Pg** | **23 49 09.1** | **0.0** |
| FDMO | | | | Sg | **Sg** | **23 49 14.4** | **+0.3** |
| | 71nm,0.3s | | | | | | |
| **NRCA** | **Norcia** | **0.46** | **228** | Pg | **Pg** | **23 49 10.6** | **-0.1** |
| NRCA | | | | Sg | **Sb** | **23 49 17.2** | **-1.5** |
| | 

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **GEVA** | **Gevas** | **0.67 222** | *i* P | **Pg** | **23 59 11.1** | **-2.4** |
| GEVA | | | *i* S | **Sb** | **23 59 23.8** | **-0.9** |
| **ADCV** | **BITLIS_Adilcev** | **0.71 270** | *i* P | **Pg** | **23 59 12.2** | **-2.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.71 270** | P | **Pg** | **23 59 12.2** | **-2.0** |
| **DYDN** | **Diyadin** | **0.73 3** | *i* P | **Pg** | **23 59 12.9** | **-1.8** |
| **TUTA** | **Tutak** | **0.87 313** | *i* P | **Pb** | **23 59 17.6** | **-0.8** |
| **AGRB** | **Hanur-Agry** | **0.91 327** | *e*PG | **Pg** | **23 59 16.8** | **-1.3** |
| AGRB | | | *e*SG | **Sb** | **23 59 29.9** | **-1.8** |
| **AGRB** | **Hanur-Agry** | **0.91 327** | *e*Pg | **Pg** | **23 59 16.8** | **-1.3** |
| AGRB | | | *e*Sg | **Sb** | **23 59 29.9** | **-1.8** |
| **HAKT** | **HAKKARI** | **1.25 177** | *i* P | **Pn** | **23 59 22.9** | **-2.1** |
| **HAKT** | **HAKKARI** | **1.25 177** | P | **Pn** | **23 59 22.9** | **-2.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.26 22** | *e*PN | **Pg** | **23 59 24.3** | **-0.4** |
| **TASB** | **TASBURUN-IGDIR** | **1.26 22** | *e*Pn | **Pg** | **23 59 24.3** | **-0.4** |
| **EKAR** | **Karacoban** | **1.30 290** | *i* P | **Pg** | **23 59 26.9** | **+1.3** |
| EKAR | | | *i* S | **Sn** | **23 59 48.8** | **+5.1** |
| EKAR | | | *e*S | **Sg** | **23 59 49.0** | **+6.6** |
| EKAR | | | IAML | | 23 59 55.8 | |
| | comp=Z,8.2nm,0.6s | | | | | |
| **YOVA** | **Hakkari_Y`…kse** | **1.33 157** | *i* P | **Pg** | **23 59 27.1** | **+1.1** |
| **YOVA** | **Hakkari_Y`…kse** | **1.33 157** | P | **Pg** | **23 59 27.1** | **+1.1** |
| **EATA** | **Eleskirt** | **1.38 320** | *i* P | **Pg** | **23 59 26.9** | **-0.1** |
| **EATA** | **Eleskirt** | **1.38 320** | *i* P | **Pn** | **23 59 25.7** | **-1.1** |
| **EATA** | **Eleskirt** | **1.38 320** | P | **Pn** | **23 59 25.7** | **-1.1** |
| **CUKT** | **Cukurca** | **1.56 181** | *e*PN | **Pb** | **23 59 29.1** | **-0.9** |
| **CUKT** | **Cukurca** | **1.56 181** | *i* P | **Pg** | **23 59 30.7** | **+0.3** |
| **CUKT** | **Cukurca** | **1.56 181** | *e*Pn | **Pb** | **23 59 29.2** | **-0.9** |
| **CUKT** | **Cukurca** | **1.56 181** | P | **Pg** | **23 59 30.7** | **+0.3** |
| **SRTM** | **Siirt_Merkez** | **1.57 239** | *i* P | **Pn** | **23 59 28.8** | **-0.5** |
| **SRTM** | **Siirt_Merkez** | **1.57 239** | P | **Pn** | **23 59 28.8** | **-0.5** |
| **DIGO** | **Kars** | **1.61 353** | *i* P | **Pn** | **23 59 29.6** | **-1.5** |
| **DIGO** | **Kars** | **1.61 353** | *e*P | **Pg** | **23 59 32.5** | **+1.0** |
| **VRTB** | **Varto-Mus** | **1.73 282** | *e*PN | **Pn** | **23 59 31.0** | **-0.6** |
| **VRTB** | **Varto-Mus** | **1.73 282** | *e*Pn | **Pn** | **23 59 31.0** | **-0.6** |
| **HOMI** | **Horasan** | **1.82 313** | *i* P | **Pg** | **23 59 34.3** | **-1.2** |
| **EAK** | **Akyaka** | **1.87 359** | *i* P | **Pn** | **23 59 32.9** | **-0.6** |
| **SENK** | **Senkaya-Erzuru** | **2.01 331** | *e*PN | **Pn** | **23 59 35.2** | **-0.2** |
| **SENK** | **Senkaya-Erzuru** | **2.01 331** | *e*Pn | **Pn** | **23 59 35.2** | **-0.2** |
| **ECAT** | **Cat-ERZURUM** | **2.21 292** | *i* P | **Pb** | **23 59 40.6** | **-0.7** |

*SOME* ***13*** *00:06:45.9, 41.60N×80.88E, h5km*
*NNC* ***13*** *00:06:48.8±3.8, 41.77N×81.39E, h0km, mb3.6, mpv3.2, Error ellipse: s-maj=28.2km s-min=18.7km az=151.0*

**ISC 13 00:06:50.2±2.3, 41.74N±0.09×81.03E±0.08, h10km, n18, σ1ş97/35, 7C-2D, Southern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KTMS** | **Ketmen** | **1.78 344** | | *e*P | **Pb** | **00 07 21.4** | **-1.5** |
| | 59nm,0.2s | | | | | | |
| KTMS | | | | *e*S | **Sg** | **00 07 46.6** | **-0.7** |
| | 216nm,0.3s | | | | | | |
| **PDGK** | **Podgornoye** | **1.95 325** | | ⇓Pn | **Pb** | **00 07 24.2** | **-1.7** |
| | 14nm,0.4s | | | | | | |
| PDGK | | | | ⇑Sn | **Sg** | **00 07 52.5** | **-0.5** |
| | 62nm,0.4s | | | | | | |
| **UZB** | **Uzynbulak** | **2.04 314** | | *e*P | **Pb** | **00 07 25.9** | **-1.6** |
| | 64nm,0.3s | | | | | | |
| UZB | | | | *e*S | **Sg** | **00 07 54.2** | **-1.7** |
| | 288nm,0.3s | | | | | | |
| **KPKS** | **Kokpek** | **2.44 316** | | *e*P | **Pb** | **00 07 32.2** | **-2.1** |
| | 74nm,0.3s | | | | | | |
| KPKS | | | | *e*S | **Sb** | **00 08 05.1** | **+0.6** |
| | 159nm,0.3s | | | | | | |
| **KURS** | **Kuram** | **2.74 311** | | *e*P | **Pb** | **00 07 37.3** | **-1.9** |
| KURS | | | | *e*S | **Sb** | **00 08 14.4** | **+1.4** |
| **DJR** | **Jarkent** | **2.75 341** | | *e*P | **Pb** | **00 07 37.0** | **-2.4** |
| | 3.1nm,0.2s | | | | | | |
| DJR | | | | *e*S | **Sb** | **00 08 13.8** | **+0.6** |
| | 16nm,0.2s | | | | | | |
| **KOTS** | **Kotyrbulak** | **3.26 299** | | *e*P | **Pb** | **00 07 46.0** | **-2.1** |
| KOTS | | | | *e*S | **Sb** | **00 08 29.5** | **+1.5** |
| **MDOK** | **Medeo** | **3.27 297** | | Pn | **Pn** | **00 07 43.4** | **+1.8** |
| MDOK | | | | Sn | **Sb** | **00 08 29.4** | **+1.1** |
| **MDOK** | **Medeo** | **3.27 297** | | *e*P | **Pb** | **00 07 45.1** | **-3.3** |
| | 20nm,1.7s | | | | | | |
| MDOK | | | | *e*S | **Sb** | **00 08 27.9** | **-0.5** |
| | 29nm,0.6s | | | | | | |
| **TNSS** | **Tian-Shan** | **3.29 295** | | *e*P | **Pb** | **00 07 46.2** | **-2.7** |
| | 9.4nm,0.9s | | | | | | |
| TNSS | | | | *e*S | **Sb** | **00 08 29.7** | **+0.6** |
| | 28nm,0.3s | | | | | | |
| **ARXS** | **Arharly** | **3.41 318** | | *e*P | **Pb** | **00 07 48.0** | **-2.8** |
| | 6.4nm,0.5s | | | | | | |
| ARXS | | | | *e*S | **Sb** | **00 08 32.9** | **+0.7** |
| | 13nm,0.5s | | | | | | |
| **IZV** | **Izvestkoviy** | **3.52 293** | | *e*P | **Pb** | **00 07 49.0** | **-3.7** |
| | 17nm,1.5s | | | | | | |
| IZV | | | | *e*S | **Sb** | **00 08 34.4** | **-1.1** |
| | 33nm,0.7s | | | | | | |
| **CHKK** | **Chushkaly** | **3.65 307** | | *e*P | **Pb** | **00 07 53.0** | **-1.7** |
| | 7.2nm,0.3s | | | | | | |
| CHKK | | | | *e*S | **Sb** | **00 08 41.4** | **+2.4** |
| **KST** | **Kastek** | **3.97 291** | | *e*P | **Pb** | **00 07 58.0** | **-2.3** |
| | 3.4nm,0.6s | | | | | | |
| KST | | | | ⇑*i*S | **Sb** | **00 08 49.9** | **+1.4** |
| | 16nm,0.9s | | | | | | |
| **DGS** | **Degeres** | **4.17 293** | | *e*P | **Pb** | **00 08 02.6** | **-1.0** |
| | 5.1nm,0.6s | | | | | | |
| DGS | | | | *e*S | **Sb** | **00 08 57.7** | **+3.7** |
| | 11nm,0.6s | | | | | | |
| **TKM2** | **Tokmak 2** | **4.20 288** | | ⇑Pn | **Pn** | **00 07 57.0** | **+2.6** |
| | 2.2nm,0.4s | | | | | | |
| TKM2 | | | | ⇑Sn | **Sb** | **00 08 52.7** | **-2.3** |
| | 7.8nm,0.6s | | | | | | |
| **AAK** | **Ala-Archa** | **4.94 283** | | ⇑Pg | **Pg** | **00 08 25.1** | **+0.4** |
| | 2.6nm,0.5s | | | | | | |
| AAK | | | | ⇓Lg | Lg | 00 09 33.1 | |
| | 9.1nm,1.0s | | | | | | |
| **MK31** | **Makanchi Array** | **5.13 10** | | Pn | **Pn** | **00 08 07.6** | **+0.5** |
| | 0.4nm,0.3s,baz=202,slow=14,SNR=34 | | | | | | |
| MK31 | | | | ⇑Sn | **Sn** | **00 09 07.6** | **+1.2** |
| | 0.8nm,0.5s,baz=215,slow=20,SNR=4.8 | | | | | | |
| MK31 | | | | ⇑Lg | Lg | 00 09 30.5 | |
| | 2.4nm,0.7s | | | | | | |

*IDC* ***13*** *00:07:04.6±1.4, 3.41S×135.73E, h0km, mb3.9/5, mb1 4.1/7, mb1mx3.8/36, mbtmp3.9/7, ML3.5/2, Error ellipse: s-maj=61.1km s-min=23.7km az=90.0*
*ISCJB* ***13*** *00:07:07.0±0.6, 3.52S±0.05×135.53E±0.06, h22km, mb3.9/5, Error ellipse: s-maj=10.0km s-min=5.7km az=139.4*
*NEIC* ***13*** *00:07:10.0±0.8, 3.50S×135.58E, h35km, mb4.1/1, Error ellipse: s-maj=15.6km s-min=11.0km az=73.0*
*NEIC Felt [III] at Nabire.*
*DJA* ***13*** *00:07:09.7±1.4, 3°S±5'×13°5E±°, h11km±12km, M4.6/6, mb4.9/2, MLv4.4/6*

**ISC 13 00:07:08.7±0.7, 3.38S±0.07×135.51E±0.06, h22km, n19, σ1ş58/24, mb4.0/5, Irian Jaya region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KMPI** | **Kaimana, Papua** | **1.82 261** | | P | **Pn** | **00 07 40.4** | **+1.7** |
| KMPI | | | | S | **Sb** | **00 08 03.3** | **-0.4** |
| **RKPI** | **Ransiki, Papua** | **2.28 324** | | P | **Pb** | **00 07 47.4** | **-1.9** |
| RKPI | | | | S | **Sb** | **00 08 16.2** | **-0.9** |
| **FAKI** | **Fak Fak** | **3.28 278** | | P | **Pn** | **00 07 59.5** | **+0.6** |
| FAKI | | | | S | **Sn** | **00 08 38.2** | **+0.9** |
| **FAKI** | **Fak Fak** | **3.28 278** | | *e*Pn | **Pn** | **00 07 59.3** | **+0.4** |
| FAKI | | | | *e*Sn | **Sn** | **00 08 37.9** | **+0.6** |
| **SWI** | **Sorong** | **4.92 300** | | P | **Pn** | **00 08 22.1** | **+0.6** |
| SWI | | | | S | **Sn** | **00 09 19.5** | **+1.7** |
| **JAY** | **Jayapura** | **5.26 81** | | P | **Pn** | **00 08 29.7** | **+3.5** |
| **SOEI** | **Soe** | **12.83 240** | | P | **Pn** | **00 10 10.6** | **+0.5** |
| **SOEI** | **Soe** | **12.83 240** | | *e*Pn | **Pn** | **00 10 10.5** | **+0.5** |
| | 32nm,0.9s | | | | | | |
| **COEN** | **Coen** | **12.95 145** | | *e*Pn | **Pn** | **00 10 09.7** | **-2.0** |
| | 4.5nm,0.6s | | | | | | |
| COEN | | | | *e*S | Sn | 00 12 16.7 | -19 |
| **WRAB** | **Tennant Creek** | **16.49 184** | | *e*Pn | **Pn** | **00 10 57.3** | **-1.6** |
| | 17nm,1.1s | | | | | | |
| WRAB | | | | *e*S | Sn | 00 13 46.4 | -15 |
| **WRA** | **Warramunga Arr** | **16.50 184** | | Pn | **Pn** | **00 10 55.5** | **-3.5** |
| | 0.2nm,0.3s,baz=8.4,slow=13,SNR=5.6 | | | | | | |
| WRA | | | | Sn | Sn | 00 13 52.1 | -10 |
| | 0.2nm,0.3s,baz=11,slow=22,SNR=5.7 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **17.54 213** | | P | **Pn** | **00 11 10.1** | **-1.8** |
| | 0.1nm,0.3s,baz=35,slow=13,SNR=3.7 | | | | | | |
| FITZ | | | | S | Sn | 00 14 15.4 | -11 |
| | 0.1nm,0.3s,baz=192,slow=16,SNR=3.3 | | | | | | |
| **CTA** | **Charters Tower** | **19.64 149** | | P | **P** | **00 11 37.6** | **+1.5** |
| | 0.4nm,0.3s,baz=339,slow=15,SNR=3.6 | | | | | | |
| **ASAR** | **Alice Springs** | **20.23 184** | | P | **P** | **00 11 43.1** | **+0.6** |
| | 12nm,0.7s,baz=8.3,slow=11,SNR=74 | | | | | | |
| **MBWA** | **Marble Bar** | **23.41 220** | | *e*P | **P** | **00 12 17.4** | **+1.1** |
| | 19nm,0.8s | | | | | | |
| **MKAR** | **Makanchi Array** | **68.40 324** | | P | **P** | **00 18 09.6** | **+0.8** |
| | 1.4nm,0.6s,baz=108,slow=8.4,SNR=4.5 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **70.94 331** | | P | **P** | **00 18 24.0** | **-0.3** |
| | 0.8nm,0.7s,baz=142,slow=4.9,SNR=3.6 | | | | | | |
| **BVAR** | **Borovoye Array** | **78.05 326** | | P | **P** | **00 19 06.3** | **+0.6** |
| | 0.7nm,0.9s,baz=101,slow=7.9,SNR=3.7 | | | | | | |
| **ILAR** | **Eielson Array** | **87.77 25** | | P | **P** | **00 19 55.0** | **-0.8** |
| | 0.2nm,0.5s,baz=260,slow=4.5,SNR=4.6 | | | | | | |

*DDA* ***13*** *00:09:20.2, 38.66N×43.42E, h20km, MI2.8*
*CSEM* ***13*** *00:09:20.9±0.2, 38.69N×43.42E, h2km, ML2.4, Error ellipse: s-maj=4.7km s-min=3.0km az=101.0*
*ISK* ***13*** *00:09:20.0, 38.72N×43.38E, h5km, ML2.4*
*ISCJB* ***13*** *00:09:21.2±0.4, 38.70N±0.02×43.42E±0.04, h6km±4km, Error ellipse: s-maj=5.7km s-min=3.3km az=13.2*
*ATA* ***13*** *00:09:31.5±1.4, 40.22N×42.72E, h81km±18km, ML2.8, MW2.5*

**ISC 13 00:09:20.4±0.9, 38.71N±0.02×43.43E±0.03, h12km±7km, n54, σ0ş98/73, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.12 195** | | PG | **Pb** | **00 09 24.7** | **0.0** |
| **VANB** | **Van** | **0.12 195** | | *i* Pg | **Pb** | **00 09 24.7** | **0.0** |
| **TVAN** | **Van** | **0.18 185** | | *i* P | **Pg** | **00 09 24.4** | **-0.1** |
| TVAN | | | | *i* S | **Sg** | **00 09 28.1** | **+0.7** |
| **TVAN** | **Van** | **0.18 185** | | P | **Pg** | **00 09 24.5** | **-0.1** |
| TVAN | | | | S | **Sg** | **00 09 28.1** | **+0.7** |
| **VMUR** | **Van-Muradiye** | **0.30 22** | | *i* P | **Pb** | **00 09 27.8** | **-0.2** |
| VMUR | | | | *i* S | **Sb** | **00 09 33.9** | **+0.9** |
| **VMUR** | **Van-Muradiye** | **0.30 22** | | P | **Pb** | **00 09 27.8** | **-0.2** |
| VMUR | | | | S | **Sb** | **00 09 33.9** | **+0.9** |
| **ERCV** | **ERCIS-VAN** | **0.32 347** | | *e*PG | **Pg** | **00 09 27.3** | **+0.3** |
| ERCV | | | | *e*SG | **Sb** | **00 09 32.8** | **-0.7** |
| **ERCV** | **ERCIS-VAN** | **0.32 347** | | *e*Pg | **Pg** | **00 09 27.3** | **+0.3** |
| ERCV | | | | *e*Sg | **Sb** | **00 09 32.8** | **-0.7** |
| **GEVA** | **Gevas** | **0.49 216** | | *i* P | **Pg** | **00 09 29.5** | **-0.6** |
| GEVA | | | | *i* S | **Sg** | **00 09 36.0** | **-0.6** |
| **GEVA** | **Gevas** | **0.49 216** | | P | **Pg** | **00 09 29.5** | **-0.6** |
| GEVA | | | | S | **Sg** | **00 09 36.0** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.56 281** | | *i* P | **Pg** | **00 09 31.6** | **+0.2** |
| ADCV | | | | *i* S | **Sb** | **00 09 41.1** | **+0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.56 281** | | P | **Pg** | **00 09 31.6** | **+0.2** |
| ADCV | | | | S | **Sb** | **00 09 41.1** | **+0.7** |
| **CLDR** | **Caldiran** | **0.58 41** | | *e*PG | **Pb** | **00 09 32.8** | **+0.1** |
| **CLDR** | **Caldiran** | **0.58 41** | | *i* P | **Pb** | **00 09 32.6** | **-0.1** |
| CLDR | | | | *i* S | **Sb** | **00 09 41.8** | **+0.8** |
| **CLDR** | **Caldiran** | **0.58 41** | | P | **Pb** | **00 09 32.6** | **-0.1** |
| **CLDR** | **Caldiran** | **0.58 41** | | *e*Pg | **Pb** | **00 09 32.8** | **+0.1** |
| CLDR | | | | S | **Sb** | **00 09 41.8** | **+0.8** |
| **TUTA** | **Tutak** | **0.84 326** | | *i* P | **Sb** | **00 09 49.0** | **+0.5** |
| TUTA | | | | IAML | | 00 09 51.7 | |
| | comp=Z,51nm,0.2s | | | | | | |
| **TUTA** | **Tutak** | **0.84 326** | | *i* P | **Pg** | **00 09 36.7** | **-0.1** |
| TUTA | | | | *i* S | **Sb** | **00 09 48.8** | **+0.2** |
| **TUTA** | **Tutak** | **0.84 326** | | P | **Pg** | **00 09 36.7** | **-0.1** |
| TUTA | | | | S | **Sb** | **00 09 48.8** | **+0.2** |
| **DYDN** | **Diyadin** | **0.86 14** | | *i* P | **Sn** | **00 09 53.1** | **+1.8** |
| **AGRB** | **Hanur-Agry** | **0.93 339** | | *e*PG | **Pg** | **00 09 38.7** | **+0.3** |
| AGRB | | | | *e*SG | **Sb** | **00 09 51.7** | **+0.6** |
| **AGRB** | **Hanur-Agry** | **0.93 339** | | *e*Pg | **Pg** | **00 09 38.7** | **+0.3** |
| AGRB | | | | *e*Sg | **Sb** | **00 09 51.7** | **+0.6** |
| **HAKT** | **HAKKARI** | **1.17 169** | | *i* P | **Pb** | **00 09 41.7** | **-1.0** |
| **HAKT** | **HAKKARI** | **1.17 169** | | P | **Pb** | **00 09 41.7** | **-1.0** |
| **EATA** | **Eleskirt** | **1.36 328** | | *i* P | **Pn** | **00 09 46.0** | **+0.3** |
| EATA | | | | IAML | | 00 10 07.9 | |
| | comp=Z,4.4nm,0.4s | | | | | | |
| **EATA** | **Eleskirt** | **1.36 328** | | *i* P | **Pn** | **00 09 45.9** | **+0.3** |
| EATA | | | | *i* S | **Sg** | **00 10 05.1** | **+0.7** |
| **EATA** | **Eleskirt** | **1.36 328** | | P | **Pn** | **00 09 45.9** | **+0.3** |
| EATA | | | | S | **Sg** | **00 10 05.1** | **+0.7** |
| **SRTM** | **Siirt_Merkez** | **1.38 239** | | *i* P | **Pg** | **00 09 47.0** | **0.0** |
| SRTM | | | | *i* S | **Sg** | **00 10 06.4** | **+1.5** |
| **SRTM** | **Siirt_Merkez** | **1.38 239** | | P | **Pg** | **00 09 47.0** | **0.0** |
| SRTM | | | | S | **Sg** | **00 10 06.4** | **+1.5** |
| **TASB** | **TASBURUN-IGDIR** | **1.42 26** | | *e*PN | **Pg** | **00 09 48.3** | **+0.6** |
| **TASB** | **TASBURUN-IGDIR** | **1.42 26** | | *e*Pn | **Pg** | **00 09 48.3** | **+0.6** |
| **SIRT** | **Sirnak** | **1.43 213** | | *e*PN | **Pg** | **00 09 48.6** | **+0.6** |
| **SIRT** | **Sirnak** | **1.43 213** | | *e*Pn | **Pg** | **00 09 48.6** | **+0.6** |
| **CUKT** | **Cukurca** | **1.46 174** | | *e*PN | **Pg** | **00 09 48.9** | **+0.3** |
| **CUKT** | **Cukurca** | **1.46 174** | | *i* P | **Pn** | **00 09 46.7** | **-0.1** |
| **CUKT** | **Cukurca** | **1.46 174** | | P | **Pn** | **00 09 46.7** | **-0.1** |
| **CUKT** | **Cukurca** | **1.46 174** | | *e*Pn | **Pg** | **00 09 48.9** | **+0.3** |
| **VRTB** | **Varto-Mus** | **1.60 287** | | *e*PN | **Pb** | **00 09 50.6** | **+0.5** |
| **VRTB** | **Varto-Mus** | **1.60 287** | | *e*Pn | **Pb** | **00 09 50.6** | **+0.5** |
| **DIGO** | **Kars** | **1.71 359** | | *i* P | **Pn** | **00 09 47.2** | **-3.1** |
| DIGO | | | | IAML | | 00 10 07.5 | |
| | comp=Z,1.7nm,0.6s | | | | | | |
| **DIGO** | **Kars** | **1.71 359** | | *i* P | **Pb** | **00 09 52.3** | **+0.4** |
| **DIGO** | **Kars** | **1.71 359** | | P | **Pb** | **00 09 52.3** | **+0.4** |
| **HOMI** | **Horasan** | **1.78 319** | | *i* P | **Pn** | **00 09 48.5** | **-2.8** |
| HOMI | | | | IAML | | 00 09 58.5 | |
| | comp=Z,4.0nm,0.4s | | | | | | |
| **BNGL** | **BINGOL** | **1.80 279** | | *i* P | Pg | 00 10 03.0 | +8.1 |
| BNGL | | | | IAML | | 00 10 19.4 | |
| | comp=Z,11nm,0.3s | | | | | | |
| **BTMN** | **Batman** | **1.88 245** | | *i* P | **Pb** | **00 09 53.9** | **-0.9** |
| BTMN | | | | *i* S | **Sb** | **00 10 19.2** | **+0.9** |
| **BTMN** | **Batman** | **1.88 245** | | P | **Pb** | **00 09 53.9** | **-0.9** |
| BTMN | | | | S | **Sb** | **00 10 19.2** | **+0.9** |
| **EAK** | **Akyaka** | **1.98 4** | | *i* P | **Pn** | **00 09 49.6** | **-4.4** |
| EAK | | | | IAML | | 00 10 06.7 | |
| | comp=Z,2.1nm,0.6s | | | | | | |
| **ERZM** | **Erzurum** | **2.00 307** | | *i* P | **Pn** | **00 09 53.7** | **-0.6** |
| **SENK** | **Senkaya-Erzuru** | **2.03 336** | | *e*PN | **Pb** | **00 09 56.5** | **-0.9** |
| **SENK** | **Senkaya-Erzuru** | **2.03 336** | | *e*Pn | **Pb** | **00 09 56.5** | **-0.9** |
| **ECAT** | **Cat-ERZURUM** | **2.11 296** | | *i* P | **Pb** | **00 09 58.1** | **-0.6** |
| ECAT | | | | IAML | | 00 10 05.1 | |
| | comp=Z,69nm,0.2s | | | | | | |
| **ARTV** | **Artvin** | **2.73 336** | | *i* P | Pn | 00 09 53.3 | -11 |
| ARTV | | | | IAML | | 00 10 48.0 | |
| | comp=Z,0.8nm,0.5s | | | | | | |
| **EPOS** | **Posof** | **2.84 349** | | *i* P | Pn | 00 09 56.0 | -10 |
| EPOS | | | | IAML | | 00 10 25.0 | |
| | comp=Z,1.5nm,0.4s | | | | | | |
| **EUZM** | **Uzumlu** | **3.06 290** | | *i* P | **Pn** | **00 10 07.4** | **-1.4** |
| EUZM | | | | IAML | | 00 11 11.6 | |
| | comp=Z,0.7nm,0.1s | | | | | | |

*SOME* ***13*** *00:14:52.3, 41.60N×81.12E, h15km*
*NNC* ***13*** *00:14:57.6±3.0, 41.78N×81.29E, h0km, mb3.7, mpv3.3, Error ellipse: s-maj=22.1km s-min=14.8km az=150.0*

**ISC 13 00:15:02.0±3.6, 41.91N±0.10×81.09E±0.09, h2km±19km, n19, σ2ş11/37, 4C-5D, Southern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KTMS** | **Ketmen** | **1.63 341** | | *e*P | **Pn** | **00 15 28.7** | **-3.1** |
| | 45nm,0.2s | | | | | | |
| KTMS | | | | *e*S | **Sg** | **00 15 55.1** | **+0.9** |
| | 255nm,0.3s | | | | | | |
| **PDGK** | **Podgornoye** | **1.84 321** | | ⇑Pn | **Pn** | **00 15 31.8** | **-3.0** |
| | 14nm,0.4s | | | | | | |
| PDGK | | | | ⇑Sn | **Sb** | **00 16 00.1** | **+0.1** |
| | 71nm,0.4s | | | | | | |
| **UZB** | **Uzynbulak** | **1.96 310** | | *e*P | **Pn** | **00 15 33.4** | **-3.0** |
| | 65nm,0.3s | | | | | | |
| UZB | | | | *e*S | **Sb** | **00 16 02.7** | **-0.8** |
| | 258nm,0.3s | | | | | | |
| **SATY** | **Saty** | **2.29 301** | | *e*P | **Pn** | **00 15 38.9** | **-2.0** |
| | 75nm,0.5s | | | | | | |
| SATY | | | | *e*S | **Sb** | **00 16 12.6** | **-0.3** |
| | 76nm,0.3s | | | | | | |
| **ZHN** | **Zhinishke** | **2.33 304** | | *e*P | **Pn** | **00 15 39.1** | **-2.3** |
| | 43nm,0.2s | | | | | | |
| ZHN | | | | *e*S | **Sb** | **00 16 12.7** | **-1.3** |
| | 138nm,0.4s | | | | | | |
| **KPKS** | **Kokpek** | **2.36 312** | | *e*P | **Pn** | **00 15 40.1** | **-1.7** |
| | 73nm,0.3s | | | | | | |
| KPKS | | | | *e*S | **Sb** | **00 16 14.6** | **-0.2** |
| | 170nm,0.3s | | | | | | |
| **DJR** | **Jarkent** | **2.60 339** | | *e*P | **Pn** | **00 15 44.0** | **-1.1** |
| | 10.0nm,0.7s | | | | | | |
| DJR | | | | *e*S | **Sb** | **00 16 21.2** | **-0.5** |
| | 19nm,0.6s | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **KURS** | **Kuram** | **2.67 307** | | *e*P | **Pn** | **00 15 44.6** | **-1.4** |
| KURS | | | | *e*S | **Sb** | **00 16 22.6** | **-1.0** |
| **KOTS** | **Kotyrbulak** | **3.22 296** | | *e*P | **Pn** | **00 15 53.7** | **0.0** |
| KOTS | | | | *e*S | **Sb** | **00 16 38.2** | **-1.4** |
| **MDOK** | **Medeo** | **3.24 294** | | Pn | **Pn** | **00 15 52.9** | **-1.0** |
| MDOK | | | | Sn | **Sb** | **00 16 36.1** | **-4.0** |
| **MDOK** | **Medeo** | **3.24 294** | | *e*P | **Pn** | **00 15 53.1** | **-0.7** |
| | 18nm,1.5s | | | | | | |
| MDOK | | | | *e*S | **Sb** | **00 16 37.3** | **-2.8** |
| | 32nm,0.5s | | | | | | |
| **TNSS** | **Tian-Shan** | **3.26 292** | | *e*P | **Pn** | **00 15 53.2** | **-1.3** |
| | 5.0nm,0.3s | | | | | | |
| TNSS | | | | *e*S | **Sb** | **00 16 37.1** | **-4.0** |
| | 25nm,0.4s | | | | | | |
| **ARXS** | **Arharly** | **3.32 315** | | *e*P | **Pn** | **00 15 54.5** | **-0.4** |
| | 9.3nm,0.6s | | | | | | |
| ARXS | | | | *e*S | **Sb** | **00 16 39.6** | **-2.7** |
| | 16nm,0.7s | | | | | | |
| **IZV** | **Izvestkoviy** | **3.49 290** | | *e*P | **Pn** | **00 15 56.1** | **-1.4** |
| | 17nm,1.2s | | | | | | |
| IZV | | | | *e*S | **Sn** | **00 16 42.2** | **+2.7** |
| | 21nm,0.6s | | | | | | |
| **CHKK** | **Chushkaly** | **3.58 304** | | *e*P | **Pn** | **00 16 00.0** | **+1.5** |
| | 9.2nm,0.4s | | | | | | |
| CHKK | | | | *e*S | **Sb** | **00 16 48.9** | **-1.1** |
| | 28nm,0.5s | | | | | | |
| **KST** | **Kastek** | **3.95 288** | | *e*P | **Pn** | **00 16 05.0** | **+1.2** |
| | 2.8nm,0.5s | | | | | | |
| KST | | | | *e*S | **Sb** | **00 16 57.5** | **-3.3** |
| | 14nm,0.6s | | | | | | |
| **TKM2** | **Tokmak 2** | **4.19 286** | | ⇓Pn | **Pn** | **00 16 04.4** | **-2.7** |
| | 1.9nm,0.3s | | | | | | |
| TKM2 | | | | ⇓Sn | **Sn** | **00 16 59.7** | **+3.1** |
| | 8.7nm,0.6s | | | | | | |
| **AAK** | **Ala-Archa** | **4.94 281** | | ⇑Pg | **Pb** | **00 16 31.3** | **+2.0** |
| | 3.0nm,0.6s | | | | | | |
| AAK | | | | ⇑Lg | Lg | 00 17 40.2 | |
| | 9.2nm,0.8s | | | | | | |
| **MK31** | **Makanchi Array** | **4.96 10** | | ⇓Pn | **Pn** | **00 16 16.5** | **-1.0** |
| | 1.4nm,0.6s,baz=192,slow=13,SNR=26 | | | | | | |
| MK31 | | | | ⇓Sn | **Sn** | **00 17 16.6** | **+1.2** |
| | 0.6nm,0.3s,baz=217,slow=21,SNR=4.6 | | | | | | |
| MK31 | | | | ⇓Lg | Lg | 00 17 36.7 | |
| | 2.4nm,0.7s | | | | | | |

**IDC 13 00:18:59.6±1.6, 16.47S×178.32W, h0km, mb4.1/5, mb1 4.4/5, mb1mx4.0/26, mbtmp4.1/5, Error ellipse: s-maj=148.3km s-min=23.6km az=153.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **STKA** | **Stephens Creek** | **39.41 240** | | P | P | 00 26 31.6 | +0.1 |
| | 2.2nm,0.3s,baz=91,slow=9.2,SNR=5.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.99 258** | | P | P | 00 27 17.0 | -0.2 |
| | 1.9nm,0.7s,baz=93,slow=7.9,SNR=28 | | | | | | |
| **ASAR** | **Alice Springs** | **45.28 253** | | P | P | 00 27 19.2 | -0.2 |
| | 14nm,0.6s,baz=88,slow=8.1,SNR=152 | | | | | | |
| **TXAR** | **Lajitas Array** | **85.16 58** | | P | P | 00 31 38.7 | +0.4 |
| | 0.5nm,0.8s,baz=202,slow=6.2,SNR=5.6 | | | | | | |
| **PDAR** | **Pinedale Array** | **86.25 43** | | P | P | 00 31 43.3 | -0.4 |
| | 0.1nm,0.6s,baz=238,slow=8.4,SNR=2.4 | | | | | | |

*ISCJB* ***13*** *00:35:52.9±0.8, 44.15N±0.07×148.04E±0.09, h96km±5km, mb4.0/13, Error ellipse: s-maj=14.0km s-min=6.5km az=137.1*
*MOS* ***13*** *00:35:53.9±1.1, 44.33N×147.92E, h102km, mb4.1/9, Error ellipse: s-maj=13.5km s-min=13.0km az=54.4*
*JMA* ***13*** *00:35:55.4±0.2, 43.95N×147.98E, h75km, M4.5*
*SKHL* ***13*** *00:35:55.3±0.3, 44.26N×147.86E, h102km±8km, mb4.4/4, msh5.2/2*
*IDC* ***13*** *00:35:57.2±3.4, 44.53N×147.86E, h103km±28km, mb3.7/13, mb1 3.9/14, mb1mx3.7/38, mbtmp4.1/14, Error ellipse: s-maj=39.4km s-min=15.6km az=168.0*

**ISC 13 00:35:52.7±1.2, 44.06N±0.07×148.15E±0.08, h84km±8km, n51, σ1ş42/69, mb4.0/13, 2C-2D, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SHO** | **Shikotan** | **0.97 260** | | *d*iPN | **Pn** | **00 36 12.7** | **+1.0** |
| SHO | | | | *i* S | **Sn** | **00 36 25.8** | **-0.1** |
| SHO | | | | pmax | pmax | | |
| | comp=E,986nm,0.5s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=Z,2μm,0.5s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=N,612nm,0.4s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=E,4μm,0.3s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=N,6μm,0.6s | | | | | | |
| **SHO** | **Shikotan** | **0.97 260** | | *i* P | **Pn** | **00 36 12.7** | **+1.0** |
| SHO | | | | AMB | AMB | 00 36 13.0 | |
| | comp=N,230nm,0.5s | | | | | | |
| SHO | | | | *e*S | **Sn** | **00 36 25.8** | **-0.1** |
| SHO | | | | A | A | 00 36 25.8 | |
| | comp=N,370nm,

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| JAR | | | | *e*S | **Sn** | **00 37 19.7** | **+0.1** |
| **JCH** | **Churui** | **3.78** | **249** | P | **Pn** | **00 36 49.7** | **+1.1** |
| JCH | | | | *e*S | **Sn** | **00 37 29.9** | **-2.1** |
| **JKK2** | **Kamakawa 2** | **3.91** | **269** | P | **Pn** | **00 36 52.4** | **+2.0** |
| **JKA** | **Kamikawa-asahi** | **4.00** | **273** | *e*P | **Pn** | **00 36 53.1** | **+1.5** |
| **ASAJ** | **Asahikawa** | **4.00** | **273** | P | **Pn** | **00 36 53.0** | **+1.4** |
| | comp=E,2.6nm,0.3s,baz=42,slow=15,SNR=6.5 | | | | | | |
| ASAJ | | | | S | Sn | 00 37 50.3 | +13 |
| | comp=E,3.6nm,0.3s,baz=351,slow=18,SNR=3.9 | | | | | | |
| **JSE** | **Soyaes** | **4.08** | **285** | P | **Pn** | **00 36 53.5** | **+0.7** |
| **JFR** | **Furan** | **4.13** | **259** | *e*S | **Sn** | **00 37 41.4** | **+0.8** |
| **JNBK** | **Urakawa-nobuka** | **4.33** | **248** | P | **Pn** | **00 36 56.8** | **+0.7** |
| **JWK2** | **Keihoku** | **4.63** | **288** | P | **Pn** | **00 37 02.4** | **+2.2** |
| **YSS** | **Yuzh-Sakhalins** | **4.78** | **309**⇑ | *e*PN | **Pn** | **00 37 02.0** | **-0.1** |
| YSS | | | | pmax | pmax | | |
| | comp=Z,40nm,0.8s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **4.78** | **309** | *e*P | **Pn** | **00 37 02.4** | **+0.3** |
| YSS | | | | AMB | AMB | 00 37 02.6 | |
| | comp=Z,40nm,0.8s | | | | | | |
| **JKB** | **Kayabe** | **5.65** | **250** | P | **Pn** | **00 37 15.1** | **+1.0** |
| JKB | | | | *e*S | **Sn** | **00 38 14.0** | **-3.7** |
| **JOT** | **Ohata** | **5.88** | **245** | P | **Pn** | **00 37 17.3** | **+0.1** |
| JOT | | | | *e*S | **Sn** | **00 38 18.7** | **-4.4** |
| **JANG** | **Nango** | **6.15** | **236** | P | **Pn** | **00 37 20.9** | **0.0** |
| JANG | | | | *e*S | **Sn** | **00 38 24.9** | **-4.9** |
| **SEY** | **Seymchan** | **19.07** | **6** | P | **P** | **00 40 06.9** | **-1.2** |
| | comp=E,0.2nm,0.3s,baz=210,slow=22,SNR=4.7 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.87** | **141** | T | T | 01 12 40.8 | |
| | baz=332,slow=76,SNR=86 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.88** | **141** | T | T | 01 12 50.2 | |
| | baz=332,slow=76,SNR=99 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.89** | **141** | T | T | 01 12 46.3 | |
| | baz=332,slow=76,SNR=96 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.86** | **143** | T | T | 01 13 53.7 | |
| | baz=332,slow=76,SNR=149 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.86** | **143** | T | T | 01 13 48.4 | |
| | baz=332,slow=76,SNR=134 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.87** | **143** | T | T | 01 14 01.7 | |
| | baz=332,slow=76,SNR=112 | | | | | | |
| **ILAR** | **Eielson Array** | **40.81** | **36** | P | **P** | **00 43 26.2** | **+0.8** |
| | comp=Z,2.2nm,0.7s,baz=269,slow=7.7,SNR=21 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.39** | **307** | P | **P** | **00 43 29.0** | **-1.3** |
| | comp=Z,0.3nm,0.3s,baz=88,slow=9.0,SNR=3.3 | | | | | | |
| ZALV | | | | PcP | **PcP** | **00 45 27.1** | **+0.3** |
| | comp=Z,0.4nm,0.5s,baz=66,slow=3.6,SNR=3.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **45.09** | **298** | P | **P** | **00 44 00.1** | **-0.1** |
| | comp=Z,1.3nm,0.6s,baz=80,slow=8.0,SNR=7.8 | | | | | | |
| MKAR | | | | PcP | **PcP** | **00 45 39.7** | **+0.2** |
| | comp=Z,0.4nm,0.7s,baz=90,slow=4.3,SNR=2.9 | | | | | | |
| **INK** | **Inuvik** | **45.77** | **31** | P | **P** | **00 44 06.1** | **+0.8** |
| | comp=Z,1.4nm,0.3s,baz=300,slow=9.6,SNR=19 | | | | | | |
| **YKA** | **Yellowknife Ar** | **55.15** | **34** | P | **P** | **00 45 16.9** | **+1.0** |
| | comp=Z,1.3nm,0.6s,baz=302,slow=7.2,SNR=6.6 | | | | | | |
| **ARCES** | **ARCESS Array B** | **59.21** | **340** | P | **P** | **00 45 42.3** | **-2.1** |
| | comp=Z,1.4nm,0.8s,baz=50,slow=9.8,SNR=3.1 | | | | | | |
| **GEYT** | **Alibeck** | **64.92** | **299** | P | **P** | **00 46 24.0** | **+0.8** |
| | comp=Z,6.4nm,0.3s,baz=46,slow=4.2,SNR=3.7 | | | | | | |
| **FINES** | **FINESS Array B** | **64.93** | **333** | P | **P** | **00 46 20.8** | **-1.9** |
| | comp=Z,1.7nm,0.6s,baz=39,slow=9.0,SNR=12 | | | | | | |
| **PDAR** | **Pinedale Array** | **69.16** | **50** | P | **P** | **00 46 51.4** | **+1.1** |
| | comp=Z,0.6nm,0.7s,baz=294,slow=1.5,SNR=4.5 | | | | | | |
| **NOA** | **NORSAR Array B** | **69.58** | **339** | P | **P** | **00 46 50.9** | **-1.3** |
| | comp=Z,1.2nm,0.7s,baz=32,slow=6.6,SNR=5.6 | | | | | | |
| **KBZ** | **Khabaz** | **70.14** | **312** | P | **P** | **00 46 56.8** | **+0.9** |
| | comp=Z,1.3nm,0.5s,baz=147,slow=3.6,SNR=8.6 | | | | | | |
| **AKASG** | **Malin Array Be** | **71.76** | **324** | P | **P** | **00 47 04.7** | **-0.8** |
| | comp=Z,0.3nm,0.4s,baz=31,slow=5.5,SNR=3.0 | | | | | | |
| **TXAR** | **Lajitas Array** | **81.88** | **57** | P | **P** | **00 48 04.5** | **+1.6** |
| | comp=Z,1.1nm,0.5s,baz=296,slow=4.1,SNR=24 | | | | | | |

*NIED* ***13*** *00:57:00, 37.˚90N×143.˚50E, h5km, Mw4.6 Best double couple: M₀7.66000×10¹⁵ NP1:φ₀85.00000°, δ 19.00000°, λ-87.00000°. NP2:φ₀261.00000°, δ71.00000°, λ-91.00000°.*

*IDC* ***13*** *00:57:06.0±0.5, 37.˚71N×143.˚73E, h0km, mb4.7/28, mb1 4.8/35, mb1mx4.8/48, mbtmp4.7/35, ML3.9/6, MS3.7/16, Ms1 3.7/16, ms1mx3.5/51, Error ellipse: s-maj=13.7km s-min=11.0km az=124.0*

*BJI* ***13*** *00:57:07.6, 37.˚90N×143.˚68E, h23km, mb4.9/66, mB5.0/50, Ms4.4/47, Ms7 4.1/43*

*NEIC* ***13*** *00:57:08.1±2.1, 37.˚75N×143.˚65E, h11km±13km, mb5.0/47, Error ellipse: s-maj=6.2km s-min=3.8km az=131.0*

*NEIC Recorded [1 JMA] in Miyagi.*

*MOS* ***13*** *00:57:09.5±1.0, 38.˚10N×143.˚53E, h20km, mb5.0/60, Error ellipse: s-maj=6.5km s-min=4.0km az=104.6*

*JMA* ***13*** *00:57:09.3±0.2, 37.˚87N×143.˚59E, h49km, M4.6*

*JMA Felt I J1.*

*ISCJB* ***13*** *00:57:10.2±0.2, 37.˚81N±0.˚03×143.˚55E±0.˚02, h33km, mb4.8/128, MS4.1/22, Error ellipse: s-maj=4.3km s-min=2.5km az=161.5*

**ISC 13 00:57:10.1±0.5, 37.80N±0.˚04×143.71E±0.˚04, h27km±2km, h27km:pP-P, n365, σt²84/419, mb4.9/135, MS4.1/22, 31C-29D, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **JIO** | **Ouri** | **1.98** | **290** | P | | **Pn** | **Pn** | **00 57 39.7** | **-2.0** |
| JIO | | | | *e*S | | **Sn** | **Sn** | **00 58 01.5** | **-4.1** |
| **OFUJ** | **Ofunato** | **2.05** | **309** | P | | **Pn** | **Pn** | **00 57 40.6** | **-2.2** |
| **JMK** | **Ichinoseki** | **2.27** | **301** | P | | **Pn** | **Pn** | **00 57 44.0** | **-1.8** |
| JMK | | | | *e*S | | **Sn** | **Sn** | **00 58 09.4** | **-3.5** |
| **JFT** | **Otama** | **2.69** | **265** | P | | **Pn** | **Pn** | **00 57 50.3** | **-1.3** |
| JFT | | | | S | | **Sn** | **Sn** | **00 58 20.2** | **-3.2** |
| **JYK** | **Kaneyama** | **2.86** | **294** | P | | **Pn** | **Pn** | **00 57 52.6** | **-1.4** |
| JYK | | | | *e*S | | **Sn** | **Sn** | **00 58 24.8** | **-2.7** |
| **JANG** | **Nango** | **3.09** | **327** | P | | **Pn** | **Pn** | **00 57 54.5** | **-2.5** |
| JANG | | | | *e*S | | **Sn** | **Sn** | **00 58 29.0** | **-4.1** |
| **JNS** | **Sasagawa** | **3.48** | **272** | P | | **Pn** | **Pn** | **00 58 01.6** | **-0.8** |
| JNS | | | | *e*S | | **Sn** | **Sn** | **00 58 40.2** | **-2.5** |
| **JAW** | **Awa shima** | **3.58** | **282** | P | | **Pn** | **Pn** | **00 58 03.2** | **-0.6** |
| **JAG** | **Ashikaga** | **3.67** | **249** | P | | **Pn** | **Pn** | **00 58 03.6** | **-1.5** |
| JAG | | | | *e*S | | **Sn** | **Sn** | **00 58 43.9** | **-3.5** |
| **BSO1** | **Boso 1** | **3.84** | **216** | P | | **Pn** | **Pn** | **00 58 05.0** | **-1.9** |
| **JOT** | **Ohata** | **4.13** | **331** | P | | **Pn** | **Pn** | **00 58 10.2** | **-1.1** |
| **ERM** | **Erimo** | **4.23** | **354** | *c i*P | | **Pn** | **Pn** | **00 58 11.0** | **-1.8** |
| ERM | | | | pmax | | pmax | pmax | | |
| | comp=Z,174nm,0.7s | | | | | | | | |
| **ERM** | **Erimo** | **4.23** | **354** | *e*Pn | | **Pn** | **Pn** | **00 58 10.8** | **-2.0** |
| ERM | | | | *e*S | | **Sn** | **Sn** | **00 58 56.5** | **-4.7** |
| **JRY** | **Ryogami san** | **4.25** | **247** | P | | **Pn** | **Pn** | **00 58 11.3** | **-1.7** |
| JRY | | | | *e*S | | **Sn** | **Sn** | **00 58 56.4** | **-5.3** |
| **JSD** | **Sado** | **4.32** | **275** | P | | **Pn** | **Pn** | **00 58 12.7** | **-1.2** |
| **JOD2** | **Odawara 2** | **4.50** | **237** | P | | **Pn** | **Pn** | **00 58 14.6** | **-1.9** |
| JOD2 | | | | *e*S | | **Sn** | **Sn** | **00 59 02.3** | **-5.7** |
| **MJAR** | **Matsushiro Arr** | **4.57** | **256** | Pn | | **Pn** | **Pn** | **00 58 17.1** | **-0.4** |
| | comp=Z,22nm,0.3s,baz=78,slow=15,SNR=119 | | | | | | | | |
| MJAR | | | | Sn | | **Sn** | **Sn** | **00 59 10.6** | **+0.9** |
| | comp=Z,18nm,0.3s,baz=186,slow=17,SNR=5.5 | | | | | | | | |
| MJAR | | | | LR | | LR | LR | 01 00 11.4 | |
| | comp=Z,342nm,20.1s,baz=105,slow=41 | | | | | | | | |
| **MAJO** | **Matsushiro** | **4.57** | **256** | *d i*P | | **Pn** | **Pn** | **00 58 17.4** | **0.0** |
| **MAJO** | **Matsushiro** | **4.57** | **256** | *e*Pn | | **Pn** | **Pn** | **00 58 17.5** | **0.0** |
| MAJO | | | | *e*S | | **Sn** | **Sn** | **00 59 10.7** | **+1.0** |
| **MAT** | **Matsushiro** | **4.57** | **256** | P | | **Pn** | **Pn** | **00 58 17.2** | **-0.3** |
| MAT | | | | *e*S | | **Sn** | **Sn** | **00 59 07.1** | **-2.6** |
| **MJB9** | **Matsu-Tunnel** | **4.57** | **256** | *e*Pn | | **Pn** | **Pn** | **00 58 17.7** | **+0.2** |
| **JKB** | **Kayabe** | **4.57** | **334** | P | | **Pn** | **Pn** | **00 58 16.7** | **-0.8** |
| JKB | | | | *e*S | | **Sn** | **Sn** | **00 59 05.1** | **-4.6** |
| **JCH** | **Churui** | **4.82** | **357** | P | | **Pn** | **Pn** | **00 58 18.4** | **-2.4** |
| JCH | | | | *e*S | | **Sn** | **Sn** | **00 59 09.9** | **-5.8** |
| **JHJ2** | **Mitsune** | **5.65** | **215** | *e*Pn | | **Pn** | **Pn** | **00 58 29.2** | **-3.2** |
| JHJ2 | | | | *e*S | | Sn | Sn | 00 59 25.2 | -11 |
| **JHJ** | **Hachijo jima 2** | **5.66** | **216** | Pn | | **Pn** | **Pn** | **00 58 29.1** | **-3.4** |
| | comp=Z,53nm,0.3s,baz=341,slow=23,SNR=36 | | | | | | | | |
| JHJ | | | | Sn | | **Sn** | **Sn** | **00 59 29.2** | **-7.4** |
| | comp=Z,144nm,0.3s,baz=84,slow=22,SNR=8.7 | | | | | | | | |
| **INU** | **Inuyama** | **5.92** | **248** | *e*Pn | | **Pn** | **Pn** | **00 58 35.5** | **-0.5** |
| **GLVR** | **Golovnino** | **6.09** | **12** | *e*P | | **Pn** | **Pn** | **00 58 36.3** | **-2.0** |
| GLVR | | | | *e*S | | **Sn** | **Sn** | **00 59 41.8** | **-5.2** |
| **ASAJ** | **Asahikawa** | **6.37** | **353** | Pn | | **Pn** | **Pn** | **00 58 40.9** | **-1.2** |
| | comp=Z,58nm,0.3s,baz=210,slow=9.6,SNR=58 | | | | | | | | |
| ASAJ | | | | Sn | | **Sn** | **Sn** | **00 59 48.9** | **-5.0** |
| | comp=Z,8.3nm,0.3s,baz=66,slow=20,SNR=2.4 | | | | | | | | |
| **ASAJ** | **Asahikawa** | **6.37** | **353** | *e*Pn | | **Pn** | **Pn** | **00 58 40.9** | **-1.2** |
| ASAJ | | | | *e*S | | **Sn** | **Sn** | **00 59 50.6** | **-3.2** |
| **GRPR** | **Tuman** | **6.38** | **14** | *e*P | | **Pn** | **Pn** | **00 58 39.0** | **-3.3** |
| GRPR | | | | *e*S | | **Sn** | **Sn** | **00 59 47.4** | **-6.8** |
| **YUK** | **Yuzh-Kuril'sk** | **6.44** | **14** | *i*P | | **Pn** | **Pn** | **00 58 40.3** | **-2.7** |
| YUK | | | | *e*S | | **Sn** | **Sn** | **00 59 49.1** | **-6.5** |
| YUK | | | | pmax | | pmax | pmax | | |
| | comp=N,295nm,0.3s | | | | | | | | |
| YUK | | | | pmax | | pmax | | | |
| | comp=E,228nm,0.3s | | | | | | | | |
| YUK | | | | pmax | | pmax | | | |
| | comp=Z,1μm,0.3s | | | | | | | | |
| YUK | | | | smax | | smax | | | |
| | comp=N,1μm,0.6s | | | | | | | | |
| YUK | | | | smax | | smax | | | |
| | comp=E,3μm,0.6s | | | | | | | | |
| **LAGR** | **Lagunnoye** | **6.45** | **13** | *e*P | | **Pn** | | **00 58 40.1** | **-3.0** |
| LAGR | | | | *e*S | | **Sn** | | **00 59 49.4** | **-6.3** |
| **SHO** | **Shikotan** | **6.51** | **20** | *i*P | | **Pn** | | **00 58 40.8** | **-3.2** |
| SHO | | | | *i*S | | **Sn** | | **00 59 50.2** | **-7.1** |
| SHO | | | | pmax | | pmax | | | |
| | comp=Z,539nm,0.5s | | | | | | | | |
| SHO | | | | pmax | | pmax | | | |
| | comp=N,452nm,0.4s | | | | | | | | |
| SHO | | | | pmax | | pmax | | | |
| | comp=E,150nm,0.3s | | | | | | | | |
| SHO | | | | smax | | smax | | | |
| | comp=N,725nm,0.4s | | | | | | | | |
| SHO | | | | smax | | smax | | | |
| | comp=E,1μm,0.4s | | | | | | | | |
| **KUR** | **Kuril'sk** | **8.05** | **21** | *e*P | | **Pn** | | **00 59 03.0** | **-2.2** |
| KUR | | | | *e*S | | **Sn** | | **01 00 29.3** | **-6.0** |
| KUR | | | | pmax | | pmax | | | |
| | comp=Z,162nm,0.4s | | | | | | | | |
| KUR | | | | pmax | | pmax | | | |
| | comp=N,54nm,0.3s | | | | | | | | |
| KUR | | | | pmax | | pmax | | | |
| | comp=E,44nm,0.3s | | | | | | | | |
| KUR | | | | smax | | smax | | | |
| | comp=E,126nm,0.3s | | | | | | | | |
| KUR | | | | smax | | smax | | | |
| | comp=N,285nm,0.4s | | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **9.18** | **356**⇑ | *e*P | | **Pn** | | **00 59 20.1** | **-0.5** |
| YSS | | | | *e*S | | **Sn** | | **01 00 59.2** | **-3.7** |
| YSS | | | | pmax | | pmax | | | |
| | comp=Z,80nm,0.6s | | | | | | | | |
| YSS | | | | pmax | | pmax | | | |
| | comp=N,90nm,0.8s | | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **9.18** | **356** | *e*Pn | | **Pn** | | **00 59 19.9** | **-0.7** |
| **VLA** | **Vladivostok** | **10.46** | **304**⇑ | *e*P | | **Pn** | | **00 59 37.2** | **-1.0** |
| **MSHR** | **Mys Shultsa** | **10.72** | **300** | *d i*P | | **Pn** | | **00 59 41.1** | **-0.7** |
| **CBIJ** | **Chichi jima** | **10.75** | **187** | *e*Pn | | Pn | | 00 59 37.3 | -5.0 |
| CBIJ | | | | *e*S | | Sn | | 01 01 26.6 | -15 |
| CBIJ | | | | Sn | | Sn | | 01 01 27.6 | -14 |
| **JCJ** | **Chichijima** | **10.75** | **187** | Pn | | Pn | | 00 59 37.2 | -5.0 |
| | comp=N,12nm,0.3s,baz=70,slow=20,SNR=12 | | | | | | | | |
| JCJ | | | | Sn | | Sn | | 01 01 27.6 | -14 |
| | comp=N,26nm,0.3s,baz=286,slow=22,SNR=10 | | | | | | | | |
| JCJ | | | | LR | | LR | | 01 04 05.0 | |
| | comp=N,81nm,21.4s,baz=64,slow=39 | | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **10.92** | **310** | Pn | | **Pn** | | **00 59 45.4** | **+0.9** |
| | comp=N,1.9nm,0.3s,baz=114,slow=15,SNR=19 | | | | | | | | |
| USRK | | | | LR | | LR | | 01 04 17.5 | |
| | comp=N,237nm,18.3s,baz=118,slow=39 | | | | | | | | |
| **JNU** | **Nakatsue** | **11.46** | **250** | Pn | | **Pn** | | **00 59 50.7** | **-1.3** |
| | comp=N,0.7nm,0.3s,baz=58,slow=8.1,SNR=10 | | | | | | | | |
| **JNU** | **Nakatsue** | **11.46** | **250** | *e*Pn | | **Pn** | | **00 59 50.9** | **-1.0** |
| **HABR** | **Khabarovsk** | **12.39** | **332** | *e*P | | **Pn** | | **01 00 01.8** | **-2.8** |
| HABR | | | | *e*S | | **Sn** | | **01 02 17.7** | **-4.0** |
| HABR | | | | pmax | | pmax | | | |
| | comp=E,23nm,1.3s | | | | | | | | |
| HABR | | | | pmax | | pmax | | | |
| | comp=Z,52nm,1.3s | | | | | | | | |
| HABR | | | | pmax | | pmax | | | |
| | comp=N,20nm,1.3s | | | | | | | | |
| HABR | | | | MLR | | MLR | | | |
| | comp=Z,246nm,14.0s | | | | | | | | |
| **KSRS** | **Korea Array** | **12.53** | **273** | Pn | | **Pn** | | **01 00 08.1** | **+1.6** |
| | comp=Z,0.6nm,0.3s,baz=86,slow=14,SNR=25 | | | | | | | | |
| KSRS | | | | LR | | LR | | 01 04 36.9 | |
| | comp=Z,224nm,19.4s,baz=84,slow=36 | | | | | | | | |
| **KS01** | **Wonju Array Si** | **12.55** | **273** | *e*Pn | | **Pn** | | **01 00 09.7** | **+2.9** |
| **KS15** | **Wonju Array Si** | **12.56** | **273** | *e*Pn | | **Pn** | | **01 00 08.5** | **+1.6** |
| **KSAR** | **Wonju Array Be** | **12.56** | **273** | P | | **Pn** | | **01 00 08.1** | **+1.2** |
| **KSAR** | **Wonju Array Be** | **12.56** | **273** | Pn | | **Pn** | | **01 00 08.1** | **+1.2** |
| **MDJ** | **Mudanjiang** | **12.62** | **307** | P | | **Pn** | | **01 00 09.9** | **+2.2** |
| MDJ | | | | S | | **Sn** | | **01 02 29.1** | **+1.9** |
| MDJ | | | | ScP | | **ScP** | | **01 09 15.8** | **0.0** |
| MDJ | | | | PcS | | **PcS** | | **01 09 20.5** | **+1.7** |
| MDJ | | | | ScS | | **ScS** | | **01 12 52.7** | **+0.8** |
| MDJ | | | | pmax | | pmax | | | |
| | comp=Z,14nm,0.8s | | | | | | | | |
| MDJ | | | | pmax | | pmax | | | |
| | comp=Z,120nm,7.7s | | | | | | | | |
| MDJ | | | | LR | | LR | | | |
| | comp=Z,460nm,17.8s | | | | | | | | |
| MDJ | | | | LR | | LR | | | |
| | comp=Z,85nm,8.9s | | | | | | | | |
| MDJ | | | | LR | | LR | | | |
| | comp=Z,340nm,16.6s | | | | | | | | |
| **MDJ** | **Mudanjiang** | **12.62** | **307** | *e*Pn | | **Pn** | | **01 00 07.6** | **-0.1** |
| | comp=Z,21nm,0.8s | | | | | | | | |
| **KLR** | **Kul'dur** | **14.33** | **327** | Pn | | **Pn** | | **01 00 28.5** | **-2.5** |
| | comp=Z,0.1nm,0.3s,baz=133,slow=11,SNR=43 | | | | | | | | |
| **CN2** | **Changchun** | **15.06** | **299** | *e*P | | **Pn** | | **01 00 43.2** | **+2.2** |
| CN2 | | | | *e*sP | | sP | | 01 00 55.4 | -1.4 |
| CN2 | | | | *e*S | | **Sn** | | **01 03 28.9** | **+2.0** |
| CN2 | | | | pmax | | pmax | | | |
| | comp=Z,10.0nm,0.6s | | | | | | | | |
| CN2 | | | | pmax | | pmax | | | |
| | comp=Z,200nm,3.0s | | | | | | | | |
| **NKL** | **Nikolayevsk** | **15.50** | **353** | *e*P | | **Pn** | | **01 00 44.0** | **-2.6** |
| NKL | | | | pmax | | pmax | | | |
| | comp=N,56nm,1.2s | | | | | | | | |
| NKL | | | | pmax | | pmax | | | |
| | comp=Z,70nm,1.2s | | | | | | | | |
| **SKR** | **Severo-Kuril's** | **15.62** | **31**⇑ | *e*P | | **Pn** | | **01 00 49.5** | **+1.3** |
| **DL2** | **Dalian** | **17.36** | **280** | P | | **Pn** | | **01 01 10.8** | **+0.5** |
| DL2 | | | | *e*S | | **Sn** | | **01 04 21.2** | **-1.4** |
| DL2 | | | | pmax | | pmax | | | |
| | comp=Z,54nm,1.2s | | | | | | | | |
| DL2 | | | | pmax | | pmax | | | |
| | comp=Z,250nm,8.0s | | | | | | | | |
| DL2 | | | | LR | | LR | | | |
| | comp=Z,290nm,13.9s | | | | | | | | |
| DL2 | | | | LR | | LR | | | |
| | comp=Z,300nm,11.2s | | | | | | | | |
| DL2 | | | | LR | | LR | | | |
| | comp=Z,290nm,16.3s | | | | | | | | |
| **PETK** | **Petropavlovsk-** | **18.13** | **28** | P | | **Pn** | | **01 01 19.7** | **-0.1** |
| | comp=Z,0.7nm,0.3s,baz=194,slow=11,SNR=5.1 | | | | | | | | |
| PETK | | | | LR | | LR | | 01 11 05.5 | |
| | comp=Z,167nm,18.0s,baz=216,slow=46 | | | | | | | | |
| **HIA** | **Hailar** | **20.72** | **311** | *e*P | | **P** | | **01 01 47.5** | **-0.8** |
| HIA | | | | pmax | | pmax | | | |
| | comp=Z,14nm,0.6s | | | | | | | | |
| **HIA** | **Hailar** | **20.72** | **311** | *e*P | | **P** | | **01 01 47.5** | **-0.8** |
| | comp=Z,14nm,0.6s | | | | | | | | |
| **NJ2** | **Nanjing** | **21.14** | **262** | *e*P | | **P** | | **01 01 52.0** | **-0.9** |
| NJ2 | | | | pmax | | pmax | | | |
| | comp=Z,26nm,0.7s | | | | | | | | |
| **TIA** | **Tai'an** | **21.27** | **274** | ⇓P | | **P** | | **01 01 53.0** | **-1.3** |
| TIA | | | | pmax | | pmax | | | |
| | comp=Z,50nm,1.0s | | | | | | | | |
| **BJI** | **Beijing** | **21.51** | **285** | P | | **P** | | **01 01 54.2** | **-2.6** |
| BJI | | | | sP | | **sP** | | **01 02 08.9** | **+1.2** |
| BJI | | | | S | | **S** | | **01 05 53.4** | **-0.5** |
| BJI | | | | sS | | **sS** | | **01 06 05.9** | **+0.2** |
| BJI | | | | pmax | | pmax | | | |
| | comp=Z,18nm,1.0s | | | | | | | | |
| **BJT** | **Baijiatuan** | **21.52** | **284** | *e*P | | **P** | | **01 01 54.3** | **-2.6** |
| BJT | | | | pmax | | pmax | | | |
| | comp=Z,33nm,0.8s | | | | | | | | |
| **BJT** | **Baijiatuau** | **21.52** | **284** | *e*P | | **P** | | **01 01 54.3** | **-2.6** |
| | comp=Z,33nm,0.8s | | | | | | | | |
| **MA2** | **Magadan** | **22.26** | **10** | P | | **P** | | **01 02 06.2** | **+1.5** |
| | comp=Z,16nm,0.6s,baz=198,slow=9.5,SNR=9.8 | | | | | | | | |
| MA2 | | | | LR | | LR | | 01 12 34.6 | |
| | comp=Z,107nm,18.2s,baz=232,slow=42 | | | | | | | | |
| **CLNS** | **Chul'man** | **22.78** | **333** | *e*P | | P | | 01 02 01.6 | -8.7 |
| CLNS | | | | pmax | | pmax | | | |
| | comp=Z,23nm,1.4s | | | | | | | | |
| CLNS | | | | pmax | | pmax | | | |
| | comp=N,28nm,0.9s | | | | | | | | |
| CLNS | | | | pmax | | pmax | | | |
| | comp=E,8.0nm,0.9s | | | | | | | | |
| **TPUB** | **Ta-pu** | **24.49** | **240** | *e*P | | **P** | | **01 02 26.8** | **-0.3** |
| | comp=E,56nm,0.8s | | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **24.98** | **287** | *e*P | | **P** | | **01 02 30.1** | **-1.4** |
| HHC | | | | S | | **S** | | **01 06 52.7** | **-1.0** |
| HHC | | | | sS | | pS | | 01 06 58.9 | -3.3 |
| HHC | | | | pmax | | pmax | | | |
| | comp=E,18nm,1.0s | | | | | | | | |
| HHC | | | | pmax | | pmax | | | |
| | comp=E,110nm,5.5s | | | | | | | | |
| HHC | | | | LR | | LR | | | |
| | comp=E,460nm,17.3s | | | | | | | | |
| HHC | | | | LR | | LR | | | |
| | comp=E,300nm,16.0s | | | | | | | | |
| **WHN** | **Wuhan** | **25.28** | **262** | ⇓P | | **P** | | **01 02 33.8** | **-0.3** |
| WHN | | | | S | | **S** | | **01 07 03.0** | **+4.7** |
| WHN | | | | LR | | LR | | | |
| | comp=E,580nm,4.7s | | | | | | | | |
| WHN | | | | LR | | LR | | | |
| | comp=E,1μm,4.7s | | | | | | | | |
| WHN | | | | LR | | LR | | | |
| | comp=E,810nm,14.5s | | | | | | | | |
| **SEY** | **Seymchan** | **25.72** | **9** | P | | **P** | | **01 02 39.5** | **+1.7** |
| | comp=E,20nm,0.8s,baz=200,slow=8.1,SNR=12 | | | | | | | | |
| **SEY** | **Seymchan** | **25.72** | **9**⇓ | *e*P | | **P** | | **01 02 39.1** | **+1.3** |
| **YAK** | **Yakutsk** | **25.77** | **345** | P | | **P** | | **01 02 38.6** | **+0.3** |
| | comp=E,77nm,0.7s,baz=162,slow=2.0,SNR=8.1 | | | | | | | | |
| **YAK** | **Yakutsk** | **25.77** | **345** | *e*P | | **P** | | **01 02 38.4** | **+0.1** |
| YAK | | | | *e**PP | | **sP** | | **01 02 49.5** | **0.0** |
| YAK | | | | *e* | | | | 01 03 15.3 | |
| YAK | | | | *e*PPP | | PPP | | 01 03 24.3 | |
| YAK | | | | *e* | | | | 01 06 03.6 | |
| YAK | | | | *e*S | | **S** | | **01 07 05.9** | **+0.4** |
| YAK | | | | *e*SS | | **SnSn** | | **01 08 03.8** | **+2.1** |
| YAK | | | | *e*SSS | | SSS | | 01 08 13.8 | |
| YAK | | | | *e* | | | | 01 13 30.8 | |
| YAK | | | | pmax | | pmax | | | |
| | comp=Z,15nm,0.9s | | | | | | | | |
| YAK | | | | pmax | | pmax | | | |
| | comp=Z,52nm,1.5s | | | | | | | | |
| YAK | | | | pmax | | pmax | | | |
| | comp=N,34nm,1.4s | | | | | | | | |
| YAK | | | | pmax | | pmax | | | |
| | comp=E,26nm,1.6s | | | | | | | | |
| YAK | | | | smax | | smax | | | |
| | comp=N,130nm,3.1s | | | | | | | | |
| YAK | | | | smax | | smax | | | |
| | comp=E,66nm,2.1s | | | | | | | | |
| **YAK** | **Yakutsk** | **25.77** | **345** | *e*P | | **P** | | **01 02 38.5** | **+0.3** |
| | comp=E,92nm,0.7s | | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **27.03** | **125** | T | | T | | 01 31 09.4 | |
| | baz=317,slow=74,SNR=101 | | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **27.04** | **125** | T | | T | | 01 31 14.5 | |
| | baz=317,slow=74,SNR=43 | | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **27.05** | **125** | T | | T | | 01 31 09.8 | |
| | baz=317,slow=74,SNR=52 | | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **27.80** | **127** | T | | T | | 01 32 09.2 | |
| | baz=319,slow=76,SNR=13 | | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **27.80** | **127** | T | | T | | 01 32 08.0 | |
| | baz=319,slow=76,SNR=9.8 | | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **27.82** | **127** | T | | T | | 01 32 08.1 | |
| | baz=319,slow=76,SNR=15 | | | | | | | | |
| **BOD** | **Bodaibo** | **27.90** | **325** | *e*P | | **P** | | **01 02 56.8** | **-0.7** |
| BOD | | | | pmax | | pmax | | | |
| | comp=Z,31nm,1.6s | | | | | | | | |
| **XAN** | **Xi'an** | **28.32** | **273** | P | | **P** | | **01 03 01.2** | **-0.4** |
| XAN | | | | pP | | pP | | 01 03 11.2 | +1.6 |
| XAN | | | | sP | | sP | | 01 03 15.2 | +2.3 |
| XAN | | | | S | | **S** | | **01 07 49.3** | **+2.8** |
| XAN | | | | pmax | | pmax | | | |
| | comp=Z,11nm,0.8s | | | | | | | | |
| XAN | | | | pmax | | pmax | | | |
| | comp=Z,180nm,4.5s | | | | | | | | |
| XAN | | | | LR | | LR | | | |
| | comp=Z,180nm,12.2s | | | | | | | | |
| XAN | | | | LR | | LR | | | |
| | comp=Z,160nm,10.9s | | | | | | | | |
| XAN | | | | LR | | LR | | | |
| | comp=Z,290nm,11.3s | | | | | | | | |
| **ULN** | **Ulaanbaatar** | **28.46** | **302** | *de*P | | **P** | | **01 03 03.2** | **+0.4** |
| ULN | | | | pmax | | pmax | | | |
| | comp=Z,17nm,1.0s | | | | | | | | |
| **ULN** | **Ulaanbaatar** | **28.46** | **302** | *e*P | | **P** | | **01 03 03.3** | **+0.4** |
| | comp=Z,12nm,0.7s | | | | | | | | |
| ULN | | | | *e*PcP | | **PcP** | | **01 06 14.6** | **+0.3** |
| **SONA1** | **Songino Array** | **28.90** | **302** | *e*P | | **P** | | **01 03 07.4** | **+0.7** |
| **SONM** | **Songino Array** | **28.90** | **302** | P | | **P** | | **01 03 07.7** | **+1.0** |
| | comp=Z,7.9nm,0.6s,baz=99,slow=8.2,SNR=16 | | | | | | | | |
| SONM | | | | PcP | | **PcP** | | **01 06 16.0** | **+0.7** |
| | comp=Z,1.9nm,0.7s,baz=116,slow=4.2,SNR=3.5 | | | | | | | | |
| SONM | | | | LR | | LR | | 01 15 05.1 | |
| | comp=Z,190nm,19.4s,baz=28,slow=37 | | | | | | | | |
| **ENH** | **Enshi** | **29.22** | **265** | *e*P | | **P** | | **01 03 10.6** | **+1.0** |
| | comp=Z,58nm,0.9s | | | | | | | | |
| **TLY** | **Talaya** | **31.24** | **309** | *e*P | | P | | 01 03 34.5 | +7.3 |
| TLY | | | | pmax | | pmax | | | |
| | comp=Z,10.0nm,0.7s | | | | | | | | |
| TLY | | | | MLR | | MLR | | | |
| | comp=Z,173nm,17.0s | | | | | | | | |
| **ZAK** | **Zakamensk

comp=Z,210nm,5.1s
**HVS Khovu-Aksy 37.37 307⇑** *e*P **P 01 04 20.9 +0.5**
HVS pmax pmax
comp=Z,9.0nm,0.8s
**DGZ Jazzator, Alta 41.44 305** *i* P **P 01 04 55.2 +0.8**
DGZ pmax pmax
comp=Z,11nm,1.0s
**WMQ Urumqi 42.13 297** P **P 01 05 01.0 +1.0**
WMQ pP pP 01 05 05.3 -2.9
WMQ sP sP 01 05 09.2 -2.3
WMQ pmax pmax
comp=Z,31nm,0.9s
WMQ pmax pmax
comp=Z,130nm,6.7s
WMQ LR LR
comp=Z,200nm,20.7s
WMQ LR LR
comp=Z,140nm,24.7s
WMQ LR LR
comp=Z,170nm,20.7s
**PHRA Phrae 42.45 255** P **P 01 05 03.3 +0.5**
comp=Z,13nm,0.8s,comp=Z,27µm
**ZALV Zalesovo Beam 42.76 312** P **P 01 05 05.5 +0.6**
comp=Z,20nm,0.5s,baz=93,slow=8.0,SNR=34
ZALV PcP **PcP 01 06 56.3 +0.3**
comp=Z,9.6nm,0.7s,baz=90,slow=3.4,SNR=9.1
ZALV LR LR 01 23 47.9
comp=Z,82nm,18.2s,baz=83,slow=37
**ZALV Zalesovo Beam 42.76 312** P **P 01 05 05.5 +0.6**
ZALV 01 06 56.3
ZALV pmax pmax
comp=Z,17nm,0.4s
ZALV MLR MLR
comp=Z,82nm,18.2s
**PBKT Sadao Pong 43.04 252** P **P 01 05 08.3 +0.7**
comp=Z,18nm,0.9s
**CMMT Chiang Mai 43.25 257** P **P 01 05 09.9 +0.6**
comp=Z,13nm,0.8s
**CHTO Chiang Mai 43.25 257** P **P 01 05 09.9 +0.6**
comp=Z,59nm,1.3s
**CHTO Chiang Mai 43.25 257** *e*P **P 01 05 09.4 +0.1**
CHTO pmax pmax
comp=Z,15nm,1.1s
**CHTO Chiang Mai 43.25 257** *e*P **P 01 05 09.4 +0.1**
comp=Z,16nm,1.1s
**CMAR Chiang Mai Arr 43.46 256** P **P 01 05 11.8 +0.8**
comp=Z,4.4nm,0.6s,baz=46,slow=6.4,SNR=22
CMAR PcP **PcP 01 06 59.8 +0.8**
comp=Z,0.8nm,0.3s,baz=27,slow=4.4,SNR=4.3
**NVS Novosibirsk 43.64 313** *e*P **P 01 05 12.3 +0.3**
NVS *e* 01 06 56.6
NVS pmax pmax
comp=Z,7.0nm,0.4s
NVS pmax pmax
comp=E,6.0nm,0.4s
**SRAK Srakaew 43.85 249** P **P 01 05 13.5 -0.6**
comp=E,48nm,1.0s
**LSA Lhasa 43.96 276** *e*P **P 01 05 16.5 +1.0**
LSA pmax pmax
comp=Z,8.0nm,0.7s
**LSA Lhasa 43.96 276** *e*P **P 01 05 16.5 +1.0**
comp=Z,8.4nm,0.7s
**IMAR Indian Mountai 45.06 31** *e*P **P 01 05 24.1 +0.9**
IMAR *e*PcP **PcP 01 07 05.1 +1.5**
**MK01 Makanchi Array 45.26 302** *e*P **P 01 05 25.1 0.0**
**MK31 Makanchi Array 45.27 302** *ce*P **P 01 05 25.1 -0.1**
MK31 pmax pmax
comp=Z,14nm,0.7s
**MK31 Makanchi Array 45.27 302** *e*P **P 01 05 25.2 +0.1**
**MKAR Makanchi Array 45.27 302** P **P 01 05 25.4 +0.2**
comp=Z,10.0nm,0.7s,baz=86,slow=9.8,SNR=56
MKAR LR LR 01 24 31.0
comp=Z,125nm,19.4s,baz=33,slow=36
**KDAK Kodiak Island 45.30 43** P **P 01 05 25.8 +0.6**
comp=Z,30nm,1.2s,baz=326,slow=8.1,SNR=5.9
KDAK LR LR 01 23 57.7
comp=Z,102nm,21.1s,baz=305,slow=36
**KDAK Kodiak Island 45.30 43** *i* P **P 01 05 26.1 +0.9**
**MAKZ Makanchi 45.47 302** *i* P **P 01 05 25.8 -1.0**
MAKZ pmax pmax
comp=Z,10.0nm,0.8s
**MAKZ Makanchi 45.47 302** *e*P **P 01 05 27.0 +0.2**
comp=Z,10.0nm,0.7s
**PPLA Purkeypile 45.49 35** *e*P **P 01 05 29.3 +2.4**
comp=Z,95nm,1.8s
**SPU Mount Spurr 45.51 38** *e*P **P 01 05 28.7 +1.8**
**KTH Kantishna Hill 46.09 34** *e*P **P 01 05 32.5 +1.1**
comp=Z,23nm,1.5s
**SUA Susitna One 46.15 37** *e*P **P 01 05 34.6 +2.6**
comp=Z,16nm,0.8s
**MLY Manley 46.23 32** *e*P **P 01 05 34.9 +2.3**
comp=Z,10nm,0.9s
**PHET Kaeng Krachan 46.34 250** P **P 01 05 35.5 +1.6**
comp=Z,23nm,0.8s,comp=Z,236nm
**RC01 Rabbit Creek A 46.64 38** *e*P **P 01 05 37.7 +2.0**
comp=Z,17nm,0.8s
**KURK Kurchatov 46.90 308** *d i*P **P 01 05 37.7 -0.2**
KURK pmax pmax
comp=Z,135nm,1.0s
**KURK Kurchatov 46.90 308** *e*P **P 01 05 37.9 0.0**
comp=Z,45nm,0.8s
**PMR Palmer 46.92 37** *e*P **P 01 05 38.2 +0.3**
PMR pmax pmax
comp=Z,16nm,1.0s
**PMR Palmer 46.92 37** *e*P **P 01 05 38.2 +0.3**
comp=Z,16nm,1.0s
**KURBB Kurchatov Arra 46.98 308** P **P 01 05 38.4 -0.1**
comp=Z,20nm,0.6s,baz=82,slow=8.1,SNR=202
**RND Reindeer 47.01 35** *e*P **P 01 05 39.8 +1.1**
RND pmax pmax
comp=Z,16nm,1.1s
**RND Reindeer 47.01 35** *e*P **P 01 05 39.8 +1.1**
comp=Z,16nm,1.1s
**PMG Port Moresby 47.07 175⇓** *e*P **P 01 05 38.8 -0.7**
PMG pmax pmax
comp=Z,70nm,1.0s
**PMG Port Moresby 47.07 175** *e*P **P 01 05 38.2 -1.3**
comp=Z,4.4nm,0.4s
**SML Sawmill 47.29 37** *e*P **P 01 05 42.1 +1.2**
SML pmax pmax
comp=Z,63nm,1.4s
**SML Sawmill 47.29 37** *e*P **P 01 05 42.0 +1.2**
comp=Z,63nm,1.4s
**MDM Murphy Dome 47.29 32** *e*P **P 01 05 43.0 +2.2**
comp=Z,23nm,1.0s
**COLA College 47.45 33** *e*P **P 01 05 44.1 +2.1**
COLA pmax pmax
comp=Z,12nm,0.8s
**COLA College 47.45 33** *e*P **P 01 05 44.1 +2.1**
comp=Z,12nm,0.8s
**IL1 Eielson Array 47.87 33** *e*P **P 01 05 45.7 +0.5**
**ILAR Eielson Array 47.87 33** P **P 01 05 46.2 +1.0**
comp=Z,6.1nm,0.7s,baz=261,slow=6.5,SNR=71
**ILB Eielson Array 47.87 33** *e*P **P 01 05 46.3 +1.0**
**PDGK Podgornoye 48.03 298** *i* P **P 01 05 46.9 -0.1**
PDGK pmax pmax
comp=Z,11nm,0.8s
**KAPI Kappang 48.07 213** *e*P **P 01 05 47.3 0.0**
comp=Z,9.1nm,0.9s
KAPI *e*PcP **PcP 01 07 16.1 +1.2**
**DIV Divide 48.56 38** *e*P **P 01 05 52.3 +1.5**
comp=Z,17nm,0.7s
**MENT Mentasta 49.36 35** *e*P **P 01 05 59.3 +2.5**
comp=Z,13nm,1.0s
**TKM2 Tokmak 2 50.87 299** *i* P **P 01 06 09.0 +0.2**
TKM2 pmax pmax
comp=Z,35nm,0.8s
**TKM2 Tokmak 2 50.87 299** P **P 01 06 09.9 +1.1**
SNR=19
**DAWY Dawson 51.16 33** *e*P **P 01 06 12.3 +1.8**
comp=Z,0.4nm,0.5s
**BVA0 Borovoye Array 51.41 312** P **P 01 06 12.1 -0.3**
BVA0 pmax pmax
comp=Z,9.0nm,0.7s
**KBK Karagaybulak 51.41 298** P **P 01 06 13.6 +0.8**
SNR=24
**CHMS Chumysh 51.44 299** P **P 01 06 13.5 +0.7**
SNR=7.0
**BRVK Borovoye 51.47 312⇓** *e*P **P 01 06 13.0 +0.2**
BRVK pmax pmax
comp=Z,30nm,1.0s
**BRVK Borovoye 51.47 312** *e*P **P 01 06 13.4 +0.6**
comp=Z,12nm,0.9s
**COEN Coen 51.48 181** *e*P **P 01 06 13.8 +0.5**
comp=Z,16nm,0.8s
**USP Ospenovka 51.52 299** P **P 01 06 14.3 +0.8**
SNR=12

**AAK Ala-Archa 51.73 299** *d i*P **P 01 06 15.2 0.0**
AAK pmax pmax
comp=Z,6.0nm,0.9s
**AAK Ala-Archa 51.73 299** *e*P **P 01 06 15.2 0.0**
comp=Z,7.9nm,0.8s
AAK *e*PcP **PcP 01 07 27.5 -0.8**
**MTN Manton Dam 51.74 196** *e*P **P 01 06 15.1 -0.1**
comp=Z,27nm,0.8s
**KSH Kashi 51.76 294** P **P 01 06 20.0 +4.6**
KSH pP sP 01 06 30.2 +3.2
KSH PcP **PcP 01 07 31.9 +3.5**
KSH PP **PP 01 08 18.8 +5.8**
KSH S **S 01 13 39.0 +3.3**
KSH ScS **ScS 01 16 02.3 -1.5**
KSH SS **SS 01 17 13.2 +1.1**
KSH pmax pmax
comp=Z,6.0nm,0.7s
KSH pmax pmax
comp=Z,130nm,4.8s
KSH LR LR
comp=Z,190nm,6.2s
KSH LR LR
comp=Z,160nm,4.9s
KSH LR LR
comp=Z,350nm,8.5s
**EKS2 Erkin-Say 52.22 299** P **P 01 06 19.6 +0.8**
SNR=5.5
**AML Almayashu 52.46 298** P **P 01 06 22.1 +1.2**
SNR=10
**HYT Haines Junctio 52.59 37** *e*P **P 01 06 25.2 +4.0**
**INK Inuvik 52.87 28** P **P 01 06 24.6 +1.6**
comp=Z,2.6nm,0.5s,baz=298,slow=5.7,SNR=27
**INK Inuvik 52.87 28** *e*P **P 01 06 24.3 +1.3**
**INK Inuvik 52.87 28** *e*P **P 01 06 24.3 +1.3**
**MNAS Manas 53.17 299** *i* P **P 01 06 26.1 +0.3**
MNAS pmax pmax
comp=Z,33nm,0.8s
**SFK Sufi-Kurgan 53.35 296** *i* P **P 01 06 27.4 +0.1**
SFK pmax pmax
comp=Z,18nm,0.9s
**KK31 Karatay Array 54.32 300** *ce*P **P 01 06 33.2 -0.9**
KK31 pmax pmax
comp=Z,11nm,0.9s
**GSI Gunungsitoli 55.77 241** *e*P **P 01 06 45.2 +0.4**
comp=Z,18nm,1.0s
**SVE Sverdlovsk 55.78 319⇓** *i*P **P 01 06 45.5 +1.1**
SVE pmax pmax
comp=Z,21nm,0.9s
**ARU Arti 57.00 319** *d i*P **P 01 06 53.0 0.0**
ARU *PP **sP 01 07 04.4 -0.3**
ARU 01 09 00.9
ARU S **S 01 14 46.3 +0.9**
ARU SS **SS 01 18 34.2 +0.6**
ARU pmax pmax
comp=Z,20nm,1.0s
**ARU Arti 57.00 319** *e*P **P 01 06 53.4 +0.4**
comp=Z,16nm,0.9s
**DZET Dzherino 57.16 296** P **P 01 06 54.7 +0.1**
DZET pmax pmax
comp=Z,51nm,0.7s
**WRAB Tennant Creek 58.09 190** *d i*P **P 01 06 59.9 -1.2**
WRAB pmax pmax
comp=Z,77nm,1.0s
**WRAB Tennant Creek 58.09 190** *e*P **P 01 07 00.1 -1.0**
comp=Z,19nm,0.8s
WRAB *e*PcP **PcP 01 07 51.5 -1.1**
**WRA Warramunga Arr 58.11 190** P **P 01 07 00.4 -0.8**
comp=Z,24nm,0.9s,baz=9.5,slow=7.4,SNR=82
**AB31 Akbulak array 58.84 310** *ce*P **P 01 07 06.0 -0.1**
AB31 pmax pmax
comp=Z,8.0nm,0.6s
**KBL Kabul 58.84 292** *e*P **P 01 07 06.5 -0.1**
**KBL Kabul 58.84 292** *e*P **P 01 07 06.5 -0.1**
**HYB Hyderabad 60.05 269⇑** *i*P **P 01 07 15.0 +0.1**
**AS31 Alice Springs 61.83 190** *e*P **P 01 07 26.3 -0.4**
**ASAR Alice Springs 61.83 190** P **P 01 07 26.4 -0.4**
comp=Z,6.3nm,0.9s,baz=13,slow=5.5,SNR=43
**YKA Yellowknife Ar 62.22 31** P **P 01 07 29.4 +0.6**
comp=Z,1.8nm,0.7s,baz=304,slow=6.7,SNR=7.1
**APA Apatity 62.74 336⇑** *i*P **P 01 07 32.0 -0.3**
APA pmax pmax
comp=Z,8.0nm,0.7s
APA MLR MLR
comp=Z,1µm,15.0s
**TMCR Tamitsa 62.95 332** *e*P **P 01 07 34.2 +0.5**
TMCR pmax pmax
comp=Z,28nm,1.0s
**ARCES ARCESS Array B 63.92 340** P **P 01 07 40.0 -0.1**
comp=Z,5.7nm,0.8s,baz=52,slow=7.9,SNR=12
ARCES LR LR 01 38 58.0
comp=Z,116nm,18.6s,baz=268,slow=39
**KLMR Klimovskoe 64.08 328** *e*P **P 01 07 38.1 -3.1**
KLMR *e* 01 09 58.7
KLMR pmax pmax
comp=Z,9.0nm,1.4s
**SGF Sodankyl 64.95 338** P **P 01 07 50.1 +3.3**
SGF pmax pmax
comp=Z,24nm,0.8s
**GEYT Alibeck 65.06 300** P **P 01 07 48.5 +0.3**
comp=Z,15nm,0.7s,baz=13,slow=3.3,SNR=42
**DAG Danmarks Havn 65.16 356** *i* P **P 01 07 47.8 -0.3**
DAG pmax pmax
comp=Z,5.0nm,0.8s
**DAG Danmarks Havn 65.16 356** *i* P **P 01 07 47.8 -0.3**
comp=Z,4.6nm,0.8s
**B08A Colville Reser 67.00 46** *e*P **P 01 08 02.0 +1.6**
**C09A Chrisman Ranch 67.89 46** *e*P **P 01 08 07.7 +1.6**
**VRH Novokhopyorsk 68.23 318** *e*P **P 01 08 07.7 -0.3**
VRH *e*SP **sP 01 08 19.5 -0.3**
VRH pmax pmax
comp=Z,10.0nm,0.7s
**OBN Obninsk 68.57 324⇑** *i*P **P 01 08 10.0 -0.1**
OBN *e* 01 10 42.8
OBN pmax pmax
comp=Z,40nm,2.5s
OBN MLR MLR
comp=Z,160nm,12.0s
**LPSR Galich'ya Gora 68.88 321** *e*P **P 01 08 12.1 +0.1**
LPSR *e*SP **sP 01 08 24.1 +0.3**
LPSR pmax pmax
comp=Z,10.0nm,0.8s
**FINES FINESS Array B 68.98 333** P **P 01 08 12.9 +0.4**
comp=Z,12nm,0.6s,baz=39,slow=8.6,SNR=39
FINES LR LR 01 40 14.8
comp=Z,233nm,18.3s,baz=318,slow=38
**FINES FINESS Array B 68.98 333** *i* P **P 01 08 12.8 +0.3**
FINES pmax pmax
comp=Z,12nm,0.6s
**STKA Stephens Creek 69.35 182** P **P 01 08 14.2 -0.8**
comp=Z,5.1nm,0.7s,baz=358,slow=6.0,SNR=7.9
**VSR Storozhevoye 69.55 319** *e*P **P 01 08 16.3 0.0**
VSR *e*SP **sP 01 08 27.7 -0.3**
VSR pmax pmax
comp=Z,10.0nm,1.0s
**SUMG Summit 69.91 1** *i* P **P 01 08 19.7 +1.1**
**SUMG Summit 69.91 1** *i* P **P 01 08 19.7 +1.1**
**SEKA Sheki 70.56 307** P **P 01 08 20.7 -2.1**
**ZKTA Zakatala 70.69 308** P **P 01 08 21.5 -2.0**
**VSU Vasula 70.71 330** *de*P **P 01 08 23.5 +0.3**
VSU pmax pmax
comp=Z,35nm,0.8s
**MNGR Mingechevir, A 70.88 307** P **P 01 08 23.3 -1.3**
**LKRN Lenkeran, Azer 70.92 304** P **P 01 08 23.6 -1.3**
**GOF Gofitskoye 70.94 313⇑** *e*P **P 01 08 25.5 +0.6**
GOF pmax pmax
comp=Z,38nm,0.9s
**DDFL Dedoflistskaro 71.11 308** P **P 01 08 28.4 +2.3**
**GANJ Ganja 71.43 307** P **P 01 08 26.3 -1.7**
**NCK Nalchik 71.50 311⇑** *i*P **P 01 08 28.9 +0.6**
NCK pmax pmax
comp=Z,16nm,1.1s
**GUDG Gudauri 71.55 310** P **P 01 08 29.9 +1.0**
**ZEI Tsey 71.72 310** *e*P **P 01 08 26.9 -3.0**
ZEI pmax pmax
comp=Z,5.0nm,0.7s
**KIV Kislovodsk 71.78 312** *e*P **P 01 08 30.8 +0.7**
KIV pmax pmax
comp=Z,58nm,1.1s
**KIV Kislovodsk 71.78 312** *e*P **P 01 08 30.9 +0.7**
comp=Z,39nm,0.8s
**KBZ Khabaz 71.78 311** P **P 01 08 31.0 +1.1**
comp=Z,18nm,0.9s,baz=65,slow=3.7,SNR=40
**TBLG Delisi 71.81 309** P **P 01 08 31.0 +0.8**
**TBLG Delisi 71.81 309** *e*P **P 01 08 31.0 +0.8**
**FFC Flin Flon 72.06 34** *e*P **P 01 08 32.0 +0.5**

FFC pmax pmax
comp=Z,12nm,1.0s
**FFC Flin Flon 72.06 34** *e*P **P 01 08 31.9 +0.5**
comp=Z,12nm,1.0s
**ONI Oni 72.10 310** P **P 01 08 33.6 +1.6**
**ONI Oni 72.10 310** *e*P **P 01 08 33.6 +1.6**
**NEY Neytrino 72.16 311⇑** *e*P **P 01 08 33.0 +0.5**
NEY pmax pmax
comp=Z,2.0nm,1.0s
**GNI Garni 72.70 308⇓** *e*P **P 01 08 36.9 +1.1**
GNI pmax pmax
comp=Z,60nm,1.2s
**GNI Garni 72.70 308** *e*P **P 01 08 36.8 +1.1**
comp=Z,122nm,1.1s
**AKH Akhalkalaki 72.75 309** P **P** 01 08 43.5 +7.4
**AKH Akhalkalaki 72.75 309⇑** *i*P **P 01 08 37.8 +1.7**
**AKH Akhalkalaki 72.75 309** *e*P **P** 01 08 43.4 +7.3
**BGD Bogdanovka 72.77 309** P **P 01 08 37.9 +1.6**
**NAX Nakhchivan 72.78 306** P **P 01 08 35.4 -0.8**
**CHVG Ch'k'valeri 72.85 311** P **P 01 08 37.0 +0.6**
**BOZ Bozeman (W) 72.91 45** *e*P **P 01 08 37.8 +0.9**
BOZ pmax pmax
comp=Z,7.0nm,1.0s
**BOZ Bozeman (W) 72.91 45** *e*P **P 01 08 37.8 +0.9**
comp=Z,7.2nm,1.0s
**NACGM Naroch 73.08 327** *e* **P 01 08 37.0 -0.5**
**NB2 NORSAR Subarra 74.17 338** P **P 01 08 44.1 +0.1**
comp=Z,2.0nm,0.6s,baz=36,slow=6.2
**NB2 NORSAR Subarra 74.17 338** P **P 01 08 44.0 +0.1**
NB2 pmax pmax
comp=Z,2.0nm,0.6s
**NOA NORSAR Array B 74.17 338** P **P 01 08 44.5 +0.6**
comp=Z,4.7nm,0.8s,baz=28,slow=4.5,SNR=12
NOA LR LR 01 45 26.7
comp=Z,92nm,18.5s,baz=290,slow=39
**NOA NORSAR Array B 74.17 338** P **P 01 08 44.5 +0.6**
NOA pmax pmax
comp=Z,1.0nm,0.4s
NOA MLR MLR
comp=Z,92nm,18.5s
**H17A Grant Village 74.23 46** *e*P **P 01 08 47.8 +3.0**
comp=Z,15nm,1.0s
**IMW Indian Meadow 74.33 46** *e*P **P 01 08 47.2 +1.7**
comp=Z,22nm,1.4s
**AKASG Malin Array Be 74.80 323** P **P 01 08 47.6 0.0**
comp=Z,6.3nm,0.6s,baz=45,slow=6.0,SNR=30
**AKASG Malin Array Be 74.80 323** P **P 01 08 47.7 0.0**
AKASG pmax pmax
comp=Z,5.0nm,0.6s
**DUG Dugway, Tooele 75.47 50** *e*P **P 01 08 52.9 +1.0**
DUG pmax pmax
comp=Z,7.0nm,0.9s
**DUG Dugway, Tooele 75.47 50** *e*P **P 01 08 52.9 +1.0**
comp=Z,6.6nm,0.9s
**BW06 Boulder Array 75.82 47** *e*P **P 01 08 54.9 +0.9**
comp=Z,4.5nm,0.9s
**PDAR Pinedale Array 75.82 47** P **P 01 08 54.8 +0.8**
comp=Z,4.1nm,0.8s,baz=272,slow=2.1,SNR=37
**SORM Soroca 76.94 322⇓** *i*P **P 01 08 59.9 0.0**
**K22A Casper 77.62 45** *e*P **P 01 09 04.6 +0.5**
comp=Z,17nm,1.4s
**ULM Lac du Bonnet 77.85 34** P **P 01 09 05.2 +0.2**
comp=Z,5.2nm,0.8s,baz=320,slow=6.7,SNR=9.3
**IAS Iasi 77.98 321⇑** *i*P **P 01 09 06.5 +0.8**
**RSSD Black Hills 78.03 43** *e*P **P 01 09 06.9 +0.5**
RSSD pmax pmax
comp=Z,2.0nm,0.7s
**RSSD Black Hills 78.03 43** *e*P **P 01 09 06.9 +0.5**
comp=Z,1.6nm,0.7s
**A32A Rocking H Ranc 78.52 36** P **P 01 09 08.8 +0.1**
baz=316
**BURAR Bucovina Array 78.83 323⇑** *i*P **P 01 09 11.6 +1.0**
**BURAR Bucovina Array 78.83 323** P **P 01 09 11.6 +1.0**
**B32A Ashes, Strandq 78.87 36** P **P 01 09 10.8 +0.1**
baz=316
**TESR Tescani 78.90 321⇑** *i*P **P 01 09 11.8 +0.9**
**A33A Warroad 79.01 35** P **P 01 09 11.5 +0.1**
baz=316
**CFR Carcaliu 79.07 319⇑** *i*P **P 01 09 12.2 +0.4**
**PETR Petresti 79.16 320⇑** *i*P **P 01 09 14.2 +1.9**
**ODBI Odobesti 79.22 320⇓** *i*P **P 01 09 14.6 +2.0**
**VRI Vrincioaia 79.31 321⇓** *i*P **P 01 09 14.8 +1.6**
**VRI Vrincioaia 79.31 321** P **P 01 09 14.8 +1.6**
**PLOR Plostina 79.36 321⇓** *i*P **P 01 09 14.2 +0.7**
**OJC Ojcow 79.41 327** *e*P **P 01 09 14.5 +0.9**
**OJC Ojcow 79.41 327** *e*P **P 01 09 14.5 +0.9**
**ARCR ARCALIA 79.62 323⇑** *i*P **P 01 09 17.0 +2.2**
**CRVS Cervenica-Dubn 79.65 325** *e*P **P 01 09 16.1 +1.2**
**CRVS Cervenica-Dubn 79.65 325** *e*P **P 01 09 16.1 +1.2**
CRVS *e* 01 34 38.8
**BRTR Keskin Array B 79.70 313** P **P 01 09 16.2 +0.7**
comp=Z,5.3nm,1.0s,baz=89,slow=5.2,SNR=14
**PGOR Pogoanele 79.85 320⇑** *i*P **P 01 09 17.6 +1.6**
**DOPR Dopca 79.91 321⇑** *i*P **P 01 09 18.1 +1.7**
**ISR Istrita 79.93 320⇑** *i*P **P 01 09 17.4 +0.8**
**MLR Muntele Rosu 79.97 321⇓** *i*P **P 01 09 17.7 +0.8**
**LANS Liptovska Anna 80.35 327** *e*P **P 01 09 20.7 +2.0**
**LANS Liptovska Anna 80.35 327** *e*P **P 01 09 20.7 +2.0**
**KSP Ksiaz 80.40 329** *e*P **P 01 09 20.0 +1.1**
**KSP Ksiaz 80.40 329** *e*P **P 01 09 20.0 +1.1**
**OKC Ostrava-Krasne 80.40 328** *e*P **P 01 09 20.1 +1.2**
OKC *ex* x 01 09 34.6
**OKC Ostrava-Krasne 80.40 328** *e*P **P 01 09 20.1 +1.2**
**VOIR 80.45 321** P **P 01 09 20.7 +1.3**
**DRGR 80.61 323⇓** *i*P **P 01 09 20.8 +0.6**
**MORC Moravsky Berou 80.70 328⇓** *i*P **P 01 09 21.5 +0.9**
**MORC Moravsky Berou 80.70 328** *e*P **P 01 09 20.9 +0.3**
MORC pmax pmax
comp=Z,45nm,1.1s
**MORC Moravsky Berou 80.70 328** *e*P **P 01 09 20.9 +0.3**
comp=Z,46nm,1.1s
**ARR Arges 80.71 321⇑** *i*P **P 01 09 22.6 +1.8**
**DPC Dobruska-Polom 80.77 329** *e*P **P 01 09 22.1 +1.1**
DPC epP **sP 01 09 32.9 +0.1**
**DPC Dobruska-Polom 80.77 329** *e*P **P 01 09 22.1 +1.1**
DPC *e* 01 09 32.9
**UPC Upice 80.77 329** *e*P **P 01 09 21.8 +0.9**
**UPC Upice 80.77 329** *e*P **P 01 09 21.8 +0.9**
**KRLC Kraliky 80.79 329** *e*P **P 01 09 22.1 +1.0**
**KRLC Kraliky 80.79 329** *e*P **P 01 09 22.1 +1.0**
**LOT Lotru 81.07 322⇑** *i*P **P 01 09 23.6 +0.8**
**PSZ Piszkesteto 81.08 326⇑** *i*P **P 01 09 22.3 -0.4**
**VYHS Vyhne 81.12 326** *e*P **P 01 09 24.0 +1.2**
VYHS pmax pmax
comp=Z,65nm,3.4s
**VYHS Vyhne 81.12 326** *e*P **P 01 09 24.0 +1.2**
**HUMR Humele 81.13 321⇑** *i*P **P 01 09 23.8 +0.8**
**BRG Berggiesshubel 81.31 330** *e*P **P 01 09 24.2 +0.4**
BRG pmax pmax
comp=Z,7.0nm,1.2s
**CLL Collm 81.33 331⇓** *i*P **P 01 09 24.1 +0.3**
CLL pmax pmax
comp=Z,11nm,0.9s
**CLL Collm 81.33 331⇓** *i*P **P 01 09 24.1 +0.3**
comp=Z,11nm,0.9s
CLL *i* 01 09 36.1
**PVCC Panska Ves 81.33 330** *e*P **P 01 09 25.2 +1.3**
**PVCC Panska Ves 81.33 330** *e*P **P 01 09 25.2 +1.3**
**VRAC Vranov 81.46 328⇑** *i*P **P 01 09 25.5 +0.9**
**EYMN Ely 81.49 34** *e*P **P 01 09 25.7 +0.9**
**PRA Prague 81.75 330** *e*P **P 01 09 27.1 +1.0**
**PRA Prague 81.75 330** *e*P **P 01 09 27.1 +1.0**
**PRU Pruhonice 81.77 330** *e*P **P 01 09 27.4 +1.2**
**PRU Pruhonice 81.77 330** *e*P **P 01 09 27.4 +1.2**
**MODS Modra-Piesok 81.88 327** *e*P **P 01 09 27.7 +0.8**
**MODS Modra-Piesok 81.88 327** *e*P **P 01 09 27.7 +0.8**
**BZS Buzias 81.99 323⇓** *i*P **P 01 09 27.9 +0.4**
**RAYN Ar Rayn 82.04 293** *e*P **P 01 09 28.0 -0.2**
comp=Z,16nm,1.3s
**NKC Novy Kostel 82.40 331** *e*P **P 01 09 30.4 +0.8**
**NKC Novy Kostel 82.40 331** *e*P **P 01 09 30.4 +0.8**
**ANMO Albuquerque 82.69 51⇓** *e*P **P 01 09 32.6 +1.0**
ANMO pmax pmax
comp=Z,6.0nm,1.2s
**SOP Sopron 82.72 327** P **P 01 09 33.2 +1.9**
**KHC Kasperske Hory 82.83 330** *e*P **P 01 09 32.6 +0.7**
KHC epP **sP 01 09 44.5 +0.8**
**KHC Kasperske Hory 82.83 330** *e*P **P 01 09 32.6 +0.7**
KHC *e* 01 09 44.5
**CONA Conrad Observa 82.83 328** *i* pP **P 01 09 33.5 +1.6**
comp=Z,9.2nm,1.1s
**GERES GERESS Array B 83.01 329** P **P 01 09 33.4 +0.6**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | comp=Z,2.0nm,0.7s,baz=50,slow=4.2,SNR=11 | | | | | | | |
| **CSS** | **Mathiatis** | **83.02** | **309** | *e*P | | **P** | **01 09 33.4** | **+0.4** |
| | comp=Z,2.7nm,0.7s | | | | | | | |
| **VTS** | **Vitosha** | **83.42** | **320** | ⇓*i*P | | **P** | **01 09 36.0** | **+0.8** |
| **ARSA** | **Arzberg** | **83.50** | **327** | *i* pP | | **P** | **01 09 36.4** | **+1.0** |
| | comp=Z,4.5nm,0.8s | | | | | | | |
| **MOA** | **Molln** | **83.56** | **328** | *e*pP | | **P** | **01 09 37.9** | **+2.3** |
| | comp=Z,5.6nm,1.1s | | | | | | | |
| **SCHQ** | **Schefferville** | **84.08** | **17** | LR | | LR | 01 53 19.5 | |
| | comp=Z,60nm,18.2s,baz=178,slow=40 | | | | | | | |
| **SOKA** | **Soboth** | **84.16** | **327** | *i* P | | **P** | **01 09 39.6** | **+0.8** |
| | comp=Z,10nm,0.8s | | | | | | | |
| **SRS** | **Serrai** | **84.29** | **319** | P | | **P** | **01 09 40.2** | **+0.7** |
| **OBKA** | **Obir** | **84.50** | **327** | *i* pP | | **P** | **01 09 41.7** | **+1.2** |
| | comp=Z,5.6nm,0.8s | | | | | | | |
| **VAY** | **Valandovo** | **84.67** | **320** | *i* P | | **P** | **01 09 41.1** | **-0.2** |
| **MYKA** | **Terra Mystica** | **84.79** | **328** | *i* P | | **P** | **01 09 42.1** | **+0.1** |
| | comp=Z,6.0nm,0.8s | | | | | | | |
| **WTTA** | **Wattenberg** | **85.10** | **330** | *i* PcP | | **P** | **01 09 44.5** | **+0.8** |
| | comp=Z,2.5nm,0.6s | | | | | | | |
| **PAIG** | **Paliouri** | **85.11** | **318** | P | | **P** | **01 09 44.0** | **+0.4** |
| **ABTA** | **Abfaltersbach** | **85.16** | **329** | *i* P | | **P** | **01 09 43.5** | **-0.4** |
| | comp=Z,11nm,1.1s | | | | | | | |
| **MOTA** | **Moosalm** | **85.25** | **330** | *i* P | | **P** | **01 09 44.8** | **+0.4** |
| | comp=Z,9.0nm,1.0s | | | | | | | |
| **RETA** | **Reutte** | **85.27** | **330** | *i* PcP | | **P** | **01 09 45.3** | **+0.9** |
| | comp=Z,15nm,0.8s | | | | | | | |
| **KRUS** | **Krusevo** | **85.31** | **320** | *i* P | | **P** | **01 09 45.3** | **+0.6** |
| **EIL** | **Elat** | **85.48** | **304** | LR | | LR | 01 51 45.6 | |
| | comp=Z,76nm,19.1s,baz=336,slow=38 | | | | | | | |
| **PDG** | **Podgorica** | **85.50** | **322** | ⇑*i*P | | **P** | **01 09 45.5** | **0.0** |
| **BFO** | **Black Forest** | **85.51** | **332** | *i* P | | **P** | **01 09 46.2** | **+0.7** |
| **BFO** | **Black Forest** | **85.51** | **332** | *e*P | | **P** | **01 09 45.5** | **0.0** |
| | comp=Z,14nm,1.0s | | | | | | | |
| **BIA** | **Bitola** | **85.53** | **320** | *i* P | | **P** | **01 09 46.0** | **+0.3** |
| **AMTX** | **Amarillo** | **85.62** | **49** | *e*P | | **P** | **01 09 47.4** | **+1.0** |
| | comp=Z,12nm,0.9s | | | | | | | |
| **FETA** | **Feichten** | **85.66** | **330** | *e*PcP | | **P** | **01 09 47.2** | **+0.7** |
| | comp=Z,8.5nm,0.9s | | | | | | | |
| **FNA** | **Florina** | **85.68** | **320** | P | | **P** | **01 09 47.4** | **+0.9** |
| **DAVA** | **Damuels** | **85.78** | **330** | *i* PcP | | **P** | **01 09 47.8** | **+0.8** |
| | comp=Z,22nm,1.0s | | | | | | | |
| **TXAR** | **Lajitas Array** | **88.20** | **54** | P | | **P** | **01 09 59.6** | **+0.6** |
| | comp=Z,1.4nm,0.8s,baz=294,slow=3.4,SNR=17 | | | | | | | |
| **CCM** | **Cathedral Cave** | **89.11** | **40** | *e*P | | **P** | **01 10 03.4** | **+0.4** |
| CCM | | | | pmax | | pmax | | |
| | comp=Z,72nm,1.2s | | | | | | | |
| **CCM** | **Cathedral Cave** | **89.11** | **40** | *e*P | | **P** | **01 10 03.4** | **+0.4** |
| | comp=Z,72nm,1.2s | | | | | | | |
| **ESDC** | **Sonseca Array** | **97.39** | **335** | P | | Pdif | 01 10 41.3 | +0.1 |
| | comp=Z,0.5nm,0.8s,baz=9.9,slow=4.3,SNR=5.5 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **118.05** | **317** | PKP | | **PKPdf** | **01 15 54.2** | **-0.8** |
| | comp=Z,0.1nm,0.5s,baz=323,slow=6.6,SNR=3.8 | | | | | | | |
| TORD | | | | PP | | **PP** | **01 17 03.1** | **-5.7** |
| | comp=Z,1.0nm,0.9s,baz=34,slow=7.7,SNR=3.9 | | | | | | | |
| **DBIC** | **Dimbokro** | **126.94** | **320** | PKP | | **PKPdf** | **01 16 11.8** | **-0.2** |
| | comp=Z,2.4nm,0.9s,baz=128,slow=2.3,SNR=3.0 | | | | | | | |
| **SNAA** | **Sanae** | **142.01** | **196** | PKP | | **PKPdf** | **01 16 33.0** | **-5.4** |
| **VNA2** | **Neumayer--Watz** | **143.55** | **196** | PKP | | PKPbc | 01 16 38.7 | +0.2 |
| | baz=115,slow=2.8 | | | | | | | |
| **VNA3** | **Neumayer Olymp** | **143.76** | **194** | PKP | | PKPbc | 01 16 39.1 | -0.1 |
| **VNA1** | **Neumayer--Stat** | **143.95** | **195** | PKP | | PKPab | 01 16 38.8 | -0.3 |
| **LPAZ** | **La Paz** | **144.72** | **61** | PKP | | PKPbc | 01 16 44.6 | +0.1 |
| | comp=Z,3.5nm,0.8s,baz=350,slow=3.9,SNR=10 | | | | | | | |
| **LCO** | **Las Campanas** | **150.10** | **83** | *e*PKPdf | | **PKPdf** | **01 16 55.3** | **+1.6** |
| LCO | | | | *e*PKPbc | | **PKiKP** | **01 16 59.8** | **+0.2** |
| **PLCA** | **Paso Flores** | **153.41** | **107** | PKPbc | | **PKPbc** | **01 17 06.6** | **+0.9** |
| | comp=Z,2.5nm,1.0s,baz=284,slow=4.9,SNR=4.6 | | | | | | | |

**WEL 13 01:09:19.2±0.3, 37°57S×175°81E, h248km±3km, ML4.0/41, 10C-1D, Error ellipse: s-maj=4.8km s-min=4.3km az=90.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MUGZ** | **Murupara** | **1.19** | **140** | PN | Pn | 01 09 55.5 | +0.4 |
| MUGZ | | | | SN | S | 01 10 23.2 | -0.2 |
| **URZ** | **Urewera** | **1.24** | **124** | ⇑PN | Pn | 01 09 55.5 | +0.1 |
| URZ | | | | SN | S | 01 10 23.4 | -0.5 |
| **MRHZ** | **Matea Rd** | **1.35** | **159** | ⇑PN | Pn | 01 09 56.3 | +0.1 |
| MRHZ | | | | AML | AML | 01 10 27.1 | |
| MRHZ | | | | AML | AML | 01 10 29.4 | |
| **RTZ** | **Ruatahuna** | **1.40** | **139** | ⇑PN | Pn | 01 09 56.7 | +0.1 |
| **MTHZ** | **Maungataniwha** | **1.52** | **148** | PN | Pn | 01 09 57.3 | -0.1 |
| **RUGZ** | **Raukumara Rang** | **1.53** | **106** | PN | Pn | 01 09 57.2 | -0.4 |
| RUGZ | | | | SN | S | 01 10 27.2 | -0.7 |
| **MWZ** | **Matawai** | **1.56** | **120** | PN | Pn | 01 09 57.8 | +0.1 |
| MWZ | | | | SN | S | 01 10 27.2 | -1.0 |
| MWZ | | | | AML | AML | 01 10 28.3 | |
| **RAGZ** | **Rawiri** | **1.57** | **127** | PN | Pn | 01 09 58.3 | +0.4 |
| RAGZ | | | | SN | S | 01 10 27.7 | -0.7 |
| RAGZ | | | | AML | AML | 01 10 30.3 | |
| **HAZ** | **Te Kaha** | **1.58** | **98** | ⇑PN | Pn | 01 09 57.8 | -0.1 |
| HAZ | | | | SN | S | 01 10 28.0 | -0.2 |
| HAZ | | | | AML | AML | 01 10 29.6 | |
| HAZ | | | | AML | AML | 01 10 29.9 | |
| HAZ | | | | AML | AML | 01 10 30.1 | |
| **OTVZ** | **Oturere** | **1.60** | **184** | PN | Pn | 01 09 58.3 | +0.1 |
| **NGZ** | **Ngauruhoe** | **1.62** | **186** | PN | Pn | 01 09 58.5 | +0.2 |
| **BKZ** | **Black Stump Fm** | **1.69** | **162** | PN | Pn | 01 09 58.4 | -0.3 |
| BKZ | | | | SN | S | 01 10 27.6 | -2.4 |
| BKZ | | | | AML | AML | 01 10 28.4 | |
| **SNGZ** | **Shannon Statio** | **1.71** | **136** | ⇑PN | Pn | 01 09 59.3 | +0.3 |
| SNGZ | | | | AML | AML | 01 10 30.5 | |
| SNGZ | | | | AML | AML | 01 10 33.5 | |
| **NMHZ** | **Naumai** | **1.72** | **153** | PN | Pn | 01 09 59.4 | +0.4 |
| NMHZ | | | | AML | AML | 01 10 30.7 | |
| NMHZ | | | | AML | AML | 01 10 31.7 | |
| **WNVZ** | **Wahianoa** | **1.77** | **185** | ⇑PN | Pn | 01 09 59.4 | -0.2 |
| **TWGZ** | **Tauwhareparae** | **1.82** | **110** | PN | Pn | 01 10 00.4 | +0.5 |
| TWGZ | | | | AML | AML | 01 10 35.0 | |
| TWGZ | | | | AML | AML | 01 10 35.4 | |
| **TKGZ** | **Te Karaka** | **1.83** | **119** | PN | Pn | 01 10 00.4 | +0.5 |
| TKGZ | | | | AML | AML | 01 10 33.7 | |
| TKGZ | | | | AML | AML | 01 10 34.4 | |
| **WHHZ** | **Waihua** | **1.88** | **144** | PN | Pn | 01 10 00.3 | 0.0 |
| WHHZ | | | | SN | S | 01 10 31.3 | -1.5 |
| WHHZ | | | | AML | AML | 01 10 34.7 | |
| **RIGZ** | **Rimuhau** | **1.92** | **127** | ⇑PN | Pn | 01 10 01.0 | +0.3 |
| RIGZ | | | | SN | S | 01 10 32.3 | -1.1 |
| RIGZ | | | | AML | AML | 01 10 35.1 | |
| **KWHZ** | **Kaweka Forest** | **1.92** | **166** | PN | Pn | 01 10 00.6 | -0.1 |
| KWHZ | | | | AML | AML | 01 10 32.7 | |
| KWHZ | | | | AML | AML | 01 10 35.8 | |
| **BHHZ** | **Black Hill Sta** | **1.93** | **174** | PN | Pn | 01 10 00.2 | -0.7 |
| BHHZ | | | | AML | AML | 01 10 33.4 | |
| BHHZ | | | | AML | AML | 01 10 35.4 | |
| **ARHZ** | **Aropaoanui** | **1.94** | **152** | ⇑PN | Pn | 01 10 00.7 | -0.1 |
| ARHZ | | | | AML | AML | 01 10 35.1 | |
| ARHZ | | | | AML | AML | 01 10 35.3 | |
| **MXZ** | **Matakaoa Point** | **1.98** | **91** | PN | Pn | 01 10 01.9 | +0.6 |
| **MCHZ** | **McNeill Hill** | **2.00** | **160** | PN | Pn | 01 10 01.3 | -0.1 |
| MCHZ | | | | AML | AML | 01 10 34.8 | |
| MCHZ | | | | AML | AML | 01 10 35.5 | |
| **PUZ** | **Puketiti** | **2.00** | **105** | PN | Pn | 01 10 01.6 | +0.1 |
| **KNZ** | **Kokohu** | **2.07** | **135** | ⇑PN | Pn | 01 10 01.5 | -0.5 |
| **WMGZ** | **Waiomatatini S** | **2.08** | **98** | PN | Pn | 01 10 02.6 | +0.4 |
| WMGZ | | | | AML | AML | 01 10 37.9 | |
| WMGZ | | | | AML | AML | 01 10 38.2 | |
| **CNGZ** | **Carnagh Statio** | **2.10** | **117** | PN | Pn | 01 10 02.5 | +0.2 |
| **KRHZ** | **Kereru** | **2.12** | **168** | PN | Pn | 01 10 01.7 | -0.9 |
| KRHZ | | | | AML | AML | 01 10 34.7 | |
| KRHZ | | | | AML | AML | 01 10 34.7 | |
| **PRGZ** | **Paritu Road** | **2.12** | **130** | PN | Pn | 01 10 02.3 | -0.3 |
| PRGZ | | | | AML | AML | 01 10 37.9 | |
| **WAZ** | **Wanganui** | **2.28** | **196** | PN | Pn | 01 10 03.5 | -0.5 |
| **MHGZ** | **Mahia Peninsul** | **2.29** | **134** | PN | Pn | 01 10 03.6 | -0.5 |
| **CKHZ** | **Cape Kidnapper** | **2.31** | **155** | PN | Pn | 01 10 03.5 | -0.9 |
| CKHZ | | | | AML | AML | 01 10 39.2 | |
| **PNHZ** | **Pukenui** | **2.36** | **173** | PN | Pn | 01 10 03.5 | -1.3 |
| PNHZ | | | | AML | AML | 01 10 40.0 | |
| PNHZ | | | | AML | AML | 01 10 40.4 | |
| **KAHZ** | **Kahuranaki** | **2.38** | **160** | PN | Pn | 01 10 04.1 | -0.9 |
| KAHZ | | | | AML | AML | 01 10 41.8 | |
| **TSZ** | **Takapari Road** | **2.49** | **177** | PN | Pn | 01 10 04.6 | -1.6 |
| TSZ | | | | AML | AML | 01 10 41.2 | |
| **WPHZ** | **Waipukurau** | **2.54** | **169** | PN | Pn | 01 10 05.2 | -1.4 |
| WPHZ | | | | AML | AML | 01 10 46.2 | |
| **OHWZ** | **Ohakea** | **2.66** | **188** | PN | Pn | 01 10 07.0 | -0.8 |
| **DVHZ** | **Dannevirke** | **2.74** | **174** | PN | Pn | 01 10 06.7 | -2.0 |
| DVHZ | | | | AML | AML | 01 10 43.1 | |
| DVHZ | | | | AML | AML | 01 10 43.8 | |
| **PRHZ** | **Porangahau** | **2.77** | **167** | PN | Pn | 01 10 07.1 | -1.9 |
| PRHZ | | | | AML | AML | 01 10 46.6 | |
| PRHZ | | | | AML | AML | 01 10 50.8 | |
| **POWZ** | **Post Office Ro** | **2.82** | **181** | PN | Pn | 01 10 07.4 | -2.1 |
| POWZ | | | | AML | AML | 01 10 54.5 | |
| POWZ | | | | AML | AML | 01 10 57.8 | |
| **ANWZ** | **Angora Road** | **2.94** | **170** | ⇓PN | Pn | 01 10 08.8 | -2.0 |
| ANWZ | | | | AML | AML | 01 10 49.6 | |
| ANWZ | | | | AML | AML | 01 10 50.2 | |
| **PRWZ** | **Pori Road** | **2.99** | **178** | PN | Pn | 01 10 09.6 | -1.7 |
| PRWZ | | | | AML | AML | 01 10 49.3 | |
| **MRZ** | **Mangatainoka R** | **3.10** | **183** | PN | Pn | 01 10 09.9 | -2.6 |
| MRZ | | | | AML | AML | 01 10 51.1 | |
| MRZ | | | | AML | AML | 01 10 51.5 | |
| **BFZ** | **Birch Farm** | **3.13** | **174** | PN | Pn | 01 10 10.3 | -2.5 |
| BFZ | | | | AML | AML | 01 10 51.4 | |
| BFZ | | | | AML | AML | 01 10 52.0 | |
| **TIWZ** | **Tintock** | **3.21** | **179** | AML | AML | 01 10 53.5 | |
| TIWZ | | | | AML | AML | 01 10 53.9 | |
| **OGWZ** | **Otaki Gorge** | **3.28** | **188** | PN | Pn | 01 10 12.0 | -2.6 |
| OGWZ | | | | AML | AML | 01 10 54.7 | |
| OGWZ | | | | AML | AML | 01 10 54.8 | |
| **HOWZ** | **Holdsworth Sta** | **3.33** | **184** | PN | Pn | 01 10 12.0 | -3.2 |
| HOWZ | | | | AML | AML | 01 10 55.0 | |
| HOWZ | | | | AML | AML | 01 10 56.4 | |
| **CPWZ** | **Castlepoint** | **3.35** | **175** | PN | Pn | 01 10 13.1 | -2.2 |
| **KIW** | **Kapiti Island** | **3.36** | **192** | PN | Pn | 01 10 12.7 | -2.7 |
| KIW | | | | AML | AML | 01 10 55.0 | |
| KIW | | | | AML | AML | 01 10 55.5 | |
| **TMWZ** | **Te Maipa** | **3.54** | **179** | PN | Pn | 01 10 14.1 | -3.3 |
| TMWZ | | | | AML | AML | 01 10 59.6 | |
| **DUWZ** | **D'Urville Isla** | **3.55** | **204** | PN | Pn | 01 10 15.0 | -2.6 |
| **CAW** | **Cannon Point** | **3.58** | **189** | PN | Pn | 01 10 14.8 | -3.2 |
| CAW | | | | AML | AML | 01 10 59.9 | |
| CAW | | | | AML | AML | 01 11 01.5 | |
| **MTW** | **Mount Morrison** | **3.59** | **184** | PN | Pn | 01 10 14.7 | -3.4 |
| MTW | | | | AML | AML | 01 11 00.1 | |
| MTW | | | | AML | AML | 01 11 00.4 | |
| **TCW** | **Tory Channel** | **3.83** | **198** | PN | Pn | 01 10 17.9 | -2.9 |
| TCW | | | | AML | AML | 01 11 04.8 | |
| TCW | | | | AML | AML | 01 11 04.8 | |
| **TRWZ** | **Traveller** | **3.83** | **181** | PN | Pn | 01 10 17.6 | -3.2 |
| **MSWZ** | **Moikau Station** | **3.87** | **186** | PN | Pn | 01 10 17.6 | -3.7 |
| MSWZ | | | | AML | AML | 01 11 05.0 | |
| MSWZ | | | | AML | AML | 01 11 05.5 | |
| **BHW** | **Baring Head** | **3.91** | **190** | PN | Pn | 01 10 18.6 | -3.1 |
| **PLWZ** | **Palliser** | **4.02** | **186** | PN | Pn | 01 10 19.1 | -4.0 |
| **NNZ** | **Nelson** | **4.10** | **207** | PN | Pn | 01 10 21.0 | -3.0 |
| **TUWZ** | **Tuamarina** | **4.12** | **200** | PN | Pn | 01 10 21.1 | -3.1 |
| TUWZ | | | | AML | AML | 01 11 10.0 | |
| TUWZ | | | | AML | AML | 01 11 10.3 | |
| **QRZ** | **Quartz Range** | **4.13** | **217** | PN | Pn | 01 10 20.9 | -3.4 |
| **BSWZ** | **Blackbirch Sta** | **4.40** | **199** | PN | Pn | 01 10 24.8 | -2.8 |
| **THZ** | **Tophouse** | **4.75** | **207** | PN | Pn | 01 10 27.6 | -4.3 |
| **KHZ** | **Kahutara** | **5.15** | **199** | ⇑PN | Pn | 01 10 33.0 | -3.6 |
| KHZ | | | | AML | AML | 01 11 32.6 | |
| KHZ | | | | AML | AML | 01 11 33.9 | |
| **DSZ** | **Denniston Nort** | **5.19** | **215** | PN | Pn | 01 10 32.7 | -4.5 |
| **LTZ** | **Lake Taylor** | **5.87** | **206** | PN | Pn | 01 10 40.7 | -4.9 |
| **INZ** | **Inchbonnie** | **6.14** | **212** | PN | Pn | 01 10 44.1 | -4.8 |
| **OXZ** | **Oxford** | **6.43** | **205** | PN | Pn | 01 10 46.9 | -5.6 |
| **MQZ** | **McQueen's Vall** | **6.59** | **200** | PN | Pn | 01 10 49.0 | -5.5 |
| **WVZ** | **Waitaha Valley** | **6.73** | **214** | PN | Pn | 01 10 51.7 | -4.5 |
| **JCZ** | **Jackson Bay** | **8.40** | **217** | PN | Pn | 01 11 12.3 | -5.2 |

*ISCJB **13** 01:09:29.7±0.6, 24°.80N±0°.05×122°.40E±0°.02, h5km±5km, Error ellipse: s-maj=8.2km s-min=3.1km az=10.6*
*JMA **13** 01:09:30.3±0.1, 24°.72N×122°.36E, h6km, M2.8*
*TAP **13** 01:09:30.4, 24°.82N×122°.33E, h11km±1km, ML3.1, D*
**ISC 13 01:09:30.1±1.1, 24°.78N±0°.06×122°.38E±0°.03, h10km±10km, n15, σ0°42/29, 1D, Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TWB1** | **Santiao Chiao** | **0.42** | **303** | ⇓*i*P | | **01 09 38.7** | **+0.2** |
| | baz=301 | | | | | | |
| TWB1 | | | | *i* S | | **Sg** | **01 09 44.2** | **+0.1** |
| | baz=301 | | | | | | |
| **TWC** | **Suao** | **0.51** | **251** | P | | **Pg** | **01 09 39.9** | **-0.2** |
| | baz=244 | | | | | | |
| TWC | | | | S | | **Sb** | **01 09 48.5** | **-0.3** |
| | baz=244 | | | | | | |
| **JYNG** | **Yonaguni jima** | **0.61** | **122** | P | | **Pg** | **01 09 42.1** | **+0.2** |
| JYNG | | | | S | | **Sg** | **01 09 50.1** | **+0.2** |
| **NWF** | **Wu-fen Shan** | **0.62** | **298** | *e*P | | **Pg** | **01 09 41.7** | **-0.4** |
| | baz=296 | | | | | | | |
| NWF | | | | *e*S | | **Sg** | **01 09 50.6** | **+0.3** |
| | baz=296 | | | | | | | |
| **TWE** | **Neicheng** | **0.65** | **265** | P | | **Pg** | **01 09 42.6** | **-0.1** |
| | baz=260 | | | | | | | |
| TWE | | | | *e*S | | **Sg** | **01 09 51.8** | **+0.5** |
| | baz=260 | | | | | | | |
| **YOJ** | **Yonaguni jima** | **0.65** | **118** | P | | **Pg** | **01 09 42.9** | **+0.1** |
| YOJ | | | | S | | **Sg** | **01 09 51.3** | **-0.1** |
| **ENA** | **Nanau** | **0.68** | **239** | *e*P | | **Pg** | **01 09 43.1** | **-0.2** |
| | baz=233 | | | | | | | |
| ENA | | | | *e*S | | **Sb** | **01 09 53.3** | **-0.2** |
| | baz=233 | | | | | | | |
| **ENTT** | **Nioudou** | **0.75** | **260** | P | | **Pg** | **01 09 44.8** | **+0.1** |
| | baz=255 | | | | | | | |
| ENTT | | | | S | | **Sb** | **01 09 55.3** | **-0.5** |
| | baz=255 | | | | | | | |
| **NSK** | **Sanguang** | **0.94** | **264** | P | | **Pg** | **01 09 48.1** | **0.0** |
| | baz=260 | | | | | | | |
| NSK | | | | *e*S | | **Sg** | **01 10 00.4** | **0.0** |
| | baz=260 | | | | | | | |
| **NNS** | **Nan Shan** | **0.98** | **250** | P | | **Pg** | **01 09 48.8** | **-0.2** |
| | baz=246 | | | | | | | |
| NNS | | | | S | | **Sb** | **01 10 02.5** | **+0.2** |
| | baz=246 | | | | | | | |
| **WHF** | **Hehuan Shan** | **1.20** | **238** | P | | **Pb** | **01 09 52.8** | **-0.4** |
| | baz=235 | | | | | | | |
| WHF | | | | S | | **Sg** | **01 10 09.1** | **+0.4** |
| | baz=235 | | | | | | | |
| **TWT** | **Tachien** | **1.21** | **245** | *e*P | | **Pb** | **01 09 52.5** | **-0.8** |
| | baz=242 | | | | | | | |
| TWT | | | | *e*S | | **Sn** | **01 10 10.5** | **+0.4** |
| | baz=242 | | | | | | | |
| **NSTT** | **Nanjuang** | **1.26** | **264** | *e*P | | **Pg** | **01 09 54.6** | **+0.2** |
| | baz=261 | | | | | | | |
| NSTT | | | | *e*S | | **Sb** | **01 10 10.1** | **-0.3** |
| | baz=261 | | | | | | | |
| **IRIF** | **Iriomote-Funau** | **1.30** | **109** | P | | **Pn** | **01 09 54.8** | **+0.3** |
| IRIF | | | | *e*S | | **Sb** | **01 10 10.6** | **-1.0** |
| **JKRS** | **Kuro-shima** | **1.58** | **110** | P | | **Pn** | **01 09 59.1** | **+0.9** |

*BJI **13** 01:20:41.9, 2°.59N×128°.60E, h123km, mb5.3/70, mB5.3/47*
*ISCJB **13** 01:20:45.2±0.4, 2°.97N±0°.02×128°.26E±0°.02, h120km±3km, mb5.2/171, Error ellipse: s-maj=4.2km s-min=2.7km az=162.2*
*IDC **13** 01:20:45.8±0.7, 2°.93N×128°.29E, h112km±6km, mb4.5/25, mb1 4.5/25, mb1mx4.5/33, mbtmp4.8/25, MS3.9/17, Ms1 3.9/17, ms1mx3.7/35, Error ellipse: s-maj=16.7km s-min=8.1km az=74.0*
*MOS **13** 01:20:46.3±1.0, 2°.96N×128°.18E, h131km, mb5.1/51, Error ellipse: s-maj=10.9km s-min=4.8km az=109.6*
*GCMT **13** 01:20:46.9±0.2, 3°.05N×128°.17E, h125km±2km, MW5.2/104, Moment Tensor Solution. s46,c65; s104,c165; Duration: 0 Moment tensor: Scale 10^16Nm; Mrr1.34±.18; Mθθ3.85±.18; Mθφ-5.18±.19; Mφφ2.94±.12; Mφr2.71±.19; Mrr2.97±.15; Best double couple: M=6.80900×10^16 NP1=φ26.00000°, δ79.00000°, λ142.00000°. NP2=φ124.00000°, δ53.00000°, λ13.00000°. Principal axes: T 7.0470, Plg34.0000°, Azm338.0000°; N -0.4660, Plg51.0000°, Azm192.0000°; P -6.5720, Plg17.0000°, Azm80.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*NEIC **13** 01:20:46.9±0.7, 2°.97N×128°.29E, h121km±6km, mb5.2/84 Error ellipse: s-maj=5.7km s-min=3.7km az=74.0*
*DJA **13** 01:20:47.3±0.3, 3°N±3°×12°8E±°, h102km±3km, M5.2/58, mb5.4/58, mB5.6/37, MLv5.9/13, Mw(mB)5.1/37*
*KLM **13** 01:20:49.4, 2°.90N×128°.16E, h91km, mb5.3*
**ISC 13 01:20:46.0±0.3, 2°.97N±0°.03×128°.27E±0°.04, h113km±2km, h114km: pP-P, n440, σ1°55/497, mb5.2/170, 35C-16D, Halmahera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SGSI** | **Sangihe** | **2.83** | **285** | P | Pn | **01 21 29.1** | **-0.8** |
| SGSI | | | | S | Sn | **01 22 02.0** | **-1.6** |
| **LBMI** | **Labuha** | **3.66** | **192** | P | Pn | **01 21 41.3** | **+0.4** |
| **GSPH** | **General Santos** | **4.54** | **313** | ⇓*e*P | Pn | **01 21 52.1** | **-0.7** |
| GSPH | | | | *e*S | Sn | **01 22 43.5** | **-1.1** |
| **SWI** | **Sorong** | **4.84** | **142** | P | Pn | **01 21 57.7** | **+1.0** |
| **SWI** | **Sorong** | **4.84** | **142** | P | Pn | **01 21 57.7** | **+1.0** |
| **DAV** | **Davao City (W)** | **4.88** | **327** | *e*Pn | Pn | **01 21 60.0** | **+2.7** |
| DAV | | | | *e*Sn | Sn | **01 22 49.8** | **-3.0** |
| **DAV** | **Davao City (W)** | **4.88** | **327** | P | Pn | **01 21 59.0** | **+1.7** |
| | SNR=20 | | | | | | |
| **DAV** | **Davao City (W)** | **4.88** | **327** | Pn | Pn | **01 21 59.0** | **+1.7** |
| | SNR=20 | | | | | | |
| **KMSI** | **Cibinong** | **4.90** | **241** | P | Pn | **01 21 57.5** | **-0.1** |
| **KCP** | **Kidapawan** | **5.12** | **322** | ⇓*e*P | Pn | **01 22 01.1** | **+0.6** |
| **SANI** | **Sanana** | **5.48** | **205** | P | Pn | **01 22 03.7** | **-1.7** |
| **BIPH** | **Bislig** | **5.52** | **340** | ⇑*e*P | Pn | 01 22 12.6 | +6.7 |
| BIPH | | | | *e*S | Sn | **01 23 09.3** | **+1.0** |
| **CTBH** | **Cotabato--PC H** | **5.83** | **317** | ⇑*i*P | Pn | **01 22 09.4** | **-0.7** |
| **BUKP** | **Musuan** | **5.83** | **327** | *e*P | Pn | **01 22 10.8** | **+0.6** |
| BUKP | | | | *e*S | Sn | **01 23 17.9** | **+2.0** |
| **NLAI** | **Namlea** | **6.27** | **191** | P | Pn | **01 22 16.8** | **+0.7** |
| **MSAI** | **Masohi** | **6.30** | **174** | P | Pn | **01 22 18.7** | **+2.1** |
| **BUTP** | **Butuan** | **6.52** | **336** | *e*P | Pn | **01 22 20.7** | **+1.2** |
| BUTP | | | | *e*S | Sn | **01 23 24.7** | **-7.8** |
| **AAI** | **Ambon** | **6.61** | **181** | P | Pn | **01 22 22.5** | **+1.8** |
| **AAI** | **Ambon** | **6.61** | **181** | P | Pn | **01 22 23.3** | **+2.6** |
| AAI | | | | pmax | pmax | | |
| | comp=Z,498nm,0.8s | | | | | | |
| **LUWI** | **Luwuk** | **6.79** | **234** | P | Pn | **01 22 23.5** | **+0.4** |
| **LUWI** | **Luwuk** | **6.79** | **234** | *e*Pn | Pn | **01 22 21.2** | **-1.9** |
| LUWI | | | | *e*Sn | Sn | **01 23 37.8** | **-1.1** |
| **MRSI** | **Marisa** | **6.79** | **249** | P | Pn | **01 22 23.2** | **0.0** |
| **PAGZ** | **Pagadian** | **6.87** | **315** | *e*P | Pn | **01 22 23.5** | **-0.8** |
| **FAKI** | **Fak Fak** | **7.07** | **146** | P | Pn | **01 22 28.3** | **+1.3** |
| **FAKI** | **Fak Fak** | **7.07** | **146** | *e*Pn | Pn | **01 22 28.4** | **+1.4** |
| FAKI | | | | *e*Sn | Sn | **01 23 44.6** | **-1.3** |
| **RKPI** | **Ransiki, Papua** | **7.39** | **127** | P | Pn | **01 22 35.2** | **+3.9** |
| **BNDI** | **Bandanaira** | **7.61** | **168** | P | Pn | **01 22 36.5** | **+2.2** |
| **APSI** | **Ampana** | **7.66** | **240** | P | Pn | **01 22 33.6** | **-1.3** |
| **MPSI** | **Mapaga** | **8.77** | **253** | P | Pn | **01 22 49.4** | **-0.5** |
| **MYLDM** | **Lahad Datu** | **9.99** | **283** | ⇑P | Pn | **01 23 09.3** | **+2.8** |
| **MYLDM** | **Lahad Datu** | **9.99** | **283** | *e*Pn | Pn | **01 23 07.9** | **+1.3** |
| MYLDM | | | | *e*Sn | Sn | 01 24 40.9 | -16 |
| **BBSI** | **Bau Bau** | **10.14** | **214** | P | Pn | **01 23 09.6** | **+1.0** |
| **TSM** | **Tawau** | **10.46** | **278** | ⇓P | Pn | **01 23 13.1** | **+0.2** |
| **SPSI** | **Sidrap Palu** | **10.93** | **231** | P | Pn | **01 23 17.3** | **-2.0** |
| **BNSI** | **Bone** | **10.96** | **228** | P | Pn | **01 23 18.1** | **-1.5** |
| **SAUI** | **Saumlaki** | **11.29** | **164** | *e*Pn | Pn | **01 23 24.0** | **-0.1** |
| **SDKM** | **Sandakan** | **11.36** | **284** | ⇓P | Pn | **01 23 26.9** | **+1.9** |
| **KAPI** | **Kappang** | **11.63** | **227** | P | Pn | **01 23 26.8** | **-1.8** |
| | SNR=52 | | | | | | |
| **KAPI** | **Kappang** | **11.63** | **227** | Pn | Pn | **01 23 26.8** | **-1.8** |
| | SNR=52 | | | | | | |
| **BSSI** | **Bau Bau, Buton** | **11.92** | **221** | P | Pn | **01 23 33.4** | **+0.9** |
| **KDM** | **Kudat** | **12.05** | **289** | ⇓P | P | **01 23 40.1** | **-2.1** |
| **BKB** | **Balikpapan** | **12.12** | **250** | P | Pn | **01 23 34.8** | **-0.3** |
| **KKM** | **Kota Kinabalu** | **12.40** | **285** | ⇓P | P | **01 23 43.0** | **-3.2** |
| **KKM** | **Kota Kinabalu** | **12.40** | **285** | *e*Pn | Pn | **01 23 41.6** | **+2.8** |
| **MMRI** | **Maumere** | **13.00** | **208** | P | P | 01 23 57.6 | +4.9 |
| **MMRI** | **Maumere** | **13.00** | **208** | *e*Pn | Pn | **01 23 49.5** | **+2.9** |
| **GENI** | **Genyem** | **13.11** | **115** | P | P | **01 23 52.5** | **-1.5** |
| **TGY** | **Tagaytay City** | **13.22** | **327** | P | Pn | **01 23 50.9** | **+1.3** |
| | comp=Z,19nm,0.3s,baz=186,slow=2.2,SNR=22 | | | | | | |
| TGY | | | | LR | LR | 01 29 14.2 | |
| | comp=Z,780nm,19.5s,baz=190,slow=38 | | | | | | |
| **SOEI** | **Soe** | **13.25** | **197** | P | Pn | **01 23 51.4** | **+1.4** |
| **SOEI** | **Soe** | **13.25** | **197** | *e*Pn | P | **01 23 53.2** | **-2.4** |
| **EDFI** | **Ende, Flores** | **13.36** | **209** | P | Pn | **01 23 52.5** | **+1.1** |
| **JAY** | **Jayapura** | **13.57** | **114** | P | Pn | **01 23 58.4** | **-0.7** |
| **KBKI** | **Kotabaru** | **13.60** | **243** | P | Pn | **01 23 53.7** | **-0.7** |
| **MTKI** | **Muara Teweh, K** | **13.92** | **254** | P | Pn | **01 23 58.7** | **+0.1** |
| **BTM** | **Bintulu** | **15.17** | **271** | ⇑P | P | **01 24 18.9** | **+2.1** |
| **BASI** | **Baing, Sumba** | **15.17** | **210** | P | P | **01 24 15.8** | **-1.0** |
| **WBSI** | **Waikabubak, Su** | **15.33** | **215** | P | P | **01 24 17.7** | **-1.0** |
| **PLAI** | **Plampang** | **15.71** | **222** | P | P | **01 24 22.1** | **-0.7** |
| **MTN** | **Manton Dam** | **15.96** | **170** | P | Pn | **01 24 23.5** | **-0.8** |
| | baz=16,SNR=17 | | | | | | |
| **MTN** | **Manton Dam** | **15.96** | **170** | *e*Pn | Pn | **01 24 23.5** | **-0.8** |
| | comp=Z,

WR1 Warramunga Arr 23.53 166 eP P 01 25 45.1 -1.1
WR1 epP pP 01 26 08.7 -0.5
WRA Warramunga Arr 23.53 166 P P 01 25 45.1 -1.1
comp=Z,9.9nm,0.6s,baz=347,slow=9.4,SNR=16
WRA pP pP 01 26 08.7 -0.5
comp=Z,40nm,0.9s,baz=345,slow=10,SNR=5.4
WB2 Warramunga Arr 23.54 166 eP P 01 25 45.4 -0.8
JOW Kunigami 23.73 0 eP P 01 25 48.8 +0.9
comp=Z,208nm,1.1s
QZH Quanzhou 23.76 338⇓iP P 01 25 48.4 +0.3
QZH S S 01 29 54.2 -1.1
QZH pmax pmax
comp=Z,310nm,0.9s
QIZ Qiongzhong 24.08 313 P P 01 25 52.2 +1.1
QIZ sP sP 01 26 29.6 +0.8
QIZ S S 01 30 02.1 +1.4
QIZ sS sS 01 30 45.3 +1.9
QIZ pmax pmax
comp=Z,80nm,1.0s
QIZ Qiongzhong 24.08 313 eP P 01 25 52.6 +1.5
comp=Z,144nm,1.1s
MYKOM Kota Tinggi 24.43 268 ⇓P P 01 25 57.5 +3.1
MYKOM Kota Tinggi 24.43 268 eP P 01 25 55.5 +1.1
comp=Z,118nm,1.3s
RABL Rabaul 24.91 106 eP P 01 25 55.6 -3.2
comp=Z,191nm,0.5s
KGM Kluang 24.95 268 ⇑P P 01 26 02.4 +3.3
KTGM Kuala Trenggan 25.18 276 ⇓P P 01 26 04.9 +3.7
KASI Kota Agung 25.20 250 P P 01 26 02.8 +1.4
MBWA Marble Bar 25.39 199 eP P 01 26 03.5 +0.4
comp=Z,40nm,0.9s
MBWA epP pP 01 26 26.0 -1.6
LWLI Liwa 25.45 252 P pP 01 26 23.7 -4.7
UBPT Khong Chiam 25.58 300 P P 01 26 05.3 +0.5
comp=Z,92nm,0.9s
QIS Mount Isa 25.89 155 P P 01 26 07.2 -0.3
baz=26,SNR=26
XMIS Christmas Isla 26.18 239 eP P 01 26 12.7 +2.5
comp=Z,105nm,0.9s
MTSU Mount Surprise 26.26 144 P P 01 26 11.1 +0.2
baz=26,SNR=5.9
MASI Maura Aman, Be 26.71 257 P P 01 26 24.1 +9.0
AS31 Alice Springs 27.03 169 eP P 01 26 17.2 -0.6
AS31 epP pP 01 26 41.0 -1.4
AS31 eScP ScP 01 33 04.7 -2.0
ASAR Alice Springs 27.03 169 P P 01 26 17.1 -0.7
comp=Z,3.8nm,0.5s,baz=357,slow=8.0,SNR=53
ASAR pP pP 01 26 41.0 -1.5
comp=Z,26nm,0.8s,baz=351,slow=10,SNR=12
ASAR ScP ScP 01 33 04.7 -2.0
comp=Z,3.1nm,0.8s,baz=340,slow=2.0,SNR=7.2
ASAR LR LR 01 37 29.4
comp=Z,188nm,20.7s,baz=51,slow=37
AS01 Alice Springs 27.04 168 eP P 01 26 17.8 -0.1
CBIJ Chichi jima 27.45 28 eP P 01 26 20.3 -1.1
comp=Z,349nm,1.4s
KULM Kulim 27.64 276 eP P 01 26 23.2 -0.1
comp=Z,80nm,1.5s
WRKA Warakurna 27.84 180 P P 01 26 24.4 -0.6
baz=28,SNR=16
SRAK Srakaew 28.13 295 P P 01 26 23.0 -4.6
KHON Khomkaen 28.33 300 P P 01 26 30.3 +0.8
comp=Z,46nm,1.0s,comp=Z,4μm
CHAI Chaiyaphum 28.89 298 P P 01 26 34.5 +0.1
comp=Z,40nm,0.8s,comp=Z,304nm
NAYO Nakonayok 28.89 295 P P 01 26 35.2 +0.8
comp=Z,28nm,1.0s,comp=Z,5μm
CTA Charters Tower 28.92 143 P P 01 26 35.1 +0.4
comp=Z,3.2nm,0.6s,baz=328,slow=13,SNR=4.8
CTA pP pP 01 26 59.5 -0.1
comp=Z,16nm,0.9s,baz=319,slow=12,SNR=4.9
CTAO Charters Tower 28.92 143 eP P 01 26 34.9 +0.2
CTAO e*PP pP 01 27 01.0 +1.5
CTAO pmax pmax
comp=Z,26nm,1.0s
CTAO Charters Tower 28.92 143 eP P 01 26 34.9 +0.2
comp=Z,26nm,1.0s
CTAO epP pP 01 27 01.0 +1.5
PBKT Sadao Pong 30.05 299 P P 01 26 45.4 +0.8
comp=Z,49nm,1.4s,comp=Z,1μm
JNU Nakatsue 30.10 4 P P 01 26 44.9 0.0
comp=Z,16nm,0.7s,baz=193,slow=2.7,SNR=9.9
JNU Nakatsue 30.10 4 eP P 01 26 43.2 -1.8
NJ2 Nanjing 30.26 344 eP P 01 26 47.3 +1.0
NJ2 pmax pmax
comp=Z,26nm,0.7s
WHN Wuhan 30.43 336 ⇑P P 01 26 49.6 +1.8
WHN S S 01 31 46.3 +5.8
WHN pmax pmax
comp=Z,84nm,1.0s
WHN LR LR
comp=Z,1μm,27.8s
GSI Gunungsitoli 30.72 268 P P 01 26 50.5 -0.1
comp=Z,38nm,1.2s
GSI Gunungsitoli 30.72 268 eP P 01 26 49.0 -1.6
comp=Z,40nm,1.0s
SRDT SRDT 30.91 293 P P 01 26 53.6 +1.3
comp=Z,122nm,1.2s,comp=Z,4μm
UTHA Uthaitani 31.02 296 P P 01 26 53.9 +0.7
comp=Z,18nm,0.8s,comp=Z,131nm
GYA Guiyang 31.23 320⇑iP P 01 26 56.2 +1.1
GYA pP pP 01 27 22.6 +2.5
GYA sP sP 01 27 36.0 +2.9
GYA PP PnPn 01 28 04.5 +2.6
GYA PcP PcP 01 29 49.8 +2.5
GYA S S 01 31 56.0 +2.6
GYA ScS ScS 01 37 17.7 -0.1
GYA pmax pmax
comp=Z,30nm,0.8s
GYA pmax pmax
comp=Z,140nm,5.2s
NANT Nan 31.23 302 P P 01 26 56.0 +0.9
comp=Z,12nm,0.8s,comp=Z,2μm
PHRA Phrae 31.50 301 P P 01 26 58.6 +1.2
comp=Z,14nm,2.1s,comp=Z,78μm
PAYA Payao 32.18 303 P P 01 27 04.3 +0.8
comp=Z,21nm,0.9s,comp=Z,615nm
ENH Enshi 32.46 329 eP P 01 27 06.5 +0.7
comp=Z,153nm,0.8s
CM01 Chiang Mai Arr 32.55 300 eP P 01 27 06.6 0.0
CM31 Chiang Mai Arr 32.58 300 eP P 01 27 08.1 +1.2
CM31 eScP ScP 01 33 24.8 +0.1
CMAR Chiang Mai Arr 32.58 300 P P 01 27 08.1 +1.2
comp=Z,18nm,0.8s,baz=119,slow=7.3,SNR=73
CMAR ScP ScP 01 33 24.8 +0.1
comp=Z,1.6nm,0.7s,baz=140,slow=3.0,SNR=5.3
CMAR LR LR 01 40 05.7
comp=Z,105nm,21.8s,baz=105,slow=36
CMMT Chiang Mai 32.73 301 P P 01 27 09.0 +0.8
comp=Z,68nm,1.1s,comp=Z,817nm
CHTO Chiang Mai 32.73 301 P P 01 27 09.0 +0.8
comp=Z,302nm,1.0s,comp=Z,3μm
CHTO Chiang Mai 32.73 301 eP P 01 27 09.3 +1.1
CHTO pmax pmax
comp=Z,47nm,0.9s
CHTO Chiang Mai 32.73 301 eP P 01 27 09.3 +1.1
comp=Z,47nm,0.9s
CHTO Chiang Mai 32.73 301 P P 01 27 10.2 +1.9
SNR=12
CHTO Chiang Mai 32.73 301 P P 01 27 10.2 +1.9
SNR=12
KMI Kunming 33.01 314 P P 01 27 12.5 +1.7
KMI pmax pmax
comp=Z,50nm,1.1s
KMI pmax pmax
comp=Z,300nm,4.5s
KMI LR LR
comp=Z,350nm,11.7s
KMI LR LR
comp=Z,280nm,10.8s
KMI LR LR
comp=Z,300nm,18.3s
QLP Quilpie 33.18 153 P P 01 27 10.9 -1.1
baz=33,SNR=18
INU Inuyama 33.23 13 eP P 01 27 11.4 -0.9
comp=Z,29nm,0.7s
TJN Taejon 33.26 359ceP P 01 27 12.8 +0.3
FORT Forrest 33.55 180 P P 01 27 16.9 +1.7
baz=34,SNR=8.1
FORT Forrest 33.55 180 eP P 01 27 14.5 -0.7
comp=Z,886nm,1.0s
FORT epP pP 01 27 39.2 -1.1
KS15 Wonju Array Si 34.31 359 eP P 01 27 21.7 0.0
KS15 ePcP PcP 01 29 56.5 +1.1
KSAR Wonju Array Be 34.31 359 P P 01 27 21.7 0.0
KSAR Wonju Array Be 34.31 359 P P 01 27 21.7 0.0

KSRS Korea Array 34.33 360 P P 01 27 21.7 -0.1
comp=Z,23nm,0.7s,baz=175,slow=9.3
KSRS PcP PcP 01 29 56.5 +1.1
comp=Z,2.3nm,0.8s,baz=191,slow=3.9,SNR=5.0
KSRS LR LR 01 40 35.3
comp=Z,108nm,20.6s,baz=179,slow=35
MAJO Matsushiro 34.65 14⇓eP P 01 27 25.2 +0.6
MAJO pmax pmax
comp=Z,18nm,1.0s
MAJO Matsushiro 34.65 14 eP P 01 27 23.6 -1.0
comp=Z,25nm,0.9s
MAT Matsushiro 34.65 14 P P 01 27 23.1 -1.5
MJAR Matsushiro Arr 34.65 14 P P 01 27 23.4 -1.2
comp=Z,9.3nm,0.7s,baz=184,slow=9.6,SNR=22
MJAR LR LR 01 40 45.9
comp=Z,117nm,19.7s,baz=185,slow=35
MJAR Matsushiro Arr 34.65 14 P P 01 27 23.4 -1.2
MJAR pmax pmax
comp=Z,12nm,0.7s
MJAR MLR MLR
comp=Z,117nm,19.7s
TIA Tai'an 34.65 344⇑P P 01 27 24.5 -0.1
TIA pmax pmax
comp=Z,40nm,0.8s
KMBL Kambalda 34.68 190 P P 01 27 27.5 +2.6
baz=35,SNR=5.3
RMQ Roma 35.35 147 P P 01 27 29.8 -1.0
baz=35,SNR=6.8
XAN Xi'an 35.80 332 P P 01 27 35.0 +0.4
XAN pmax pmax
comp=Z,90nm,0.8s
XAN pmax pmax
comp=Z,260nm,5.5s
EIDS Eidsvold 35.81 143 eP P 01 27 34.1 -0.7
comp=Z,97nm,1.0s
EIDS epP pP 01 27 56.5 -3.6
CD2 Chengdu 36.17 323⇑iP P 01 27 38.4 +0.6
CD2 PP PnPn 01 29 04.5 +1.4
CD2 S S 01 33 10.7 +1.2
CD2 pmax pmax
comp=Z,180nm,0.8s
CD2 pmax pmax
comp=Z,190nm,8.3s
PBA Port Blair 36.24 286 eP P 01 27 38.3 -0.2
DL2 Dalian 36.28 351 P P 01 27 39.2 +0.7
DL2 pmax pmax
comp=Z,77nm,0.8s
BBOO Buckleboo 36.34 169 P P 01 27 38.9 -0.2
baz=36,SNR=9.7
BBOO Buckleboo 36.34 169 eP P 01 27 38.3 -0.7
comp=Z,37nm,0.9s
BBOO epP pP 01 28 03.8 -0.6
DGPR DIGLIPUR 36.38 288 eP P 01 27 38.9 -0.8
STKA Stephens Creek 36.89 161 P P 01 27 43.5 -0.4
comp=Z,14nm,0.4s,baz=334,slow=9.3,SNR=50
STKA pP pP 01 28 08.7 -0.6
comp=Z,39nm,0.7s,baz=1.0,slow=7.8,SNR=6.6
STKA LR LR 01 45 16.9
comp=Z,354nm,18.2s,baz=308,slow=40
STKA Stephens Creek 36.89 161 P P 01 27 43.4 -0.4
baz=37,SNR=43
STKA Stephens Creek 36.89 161 eP P 01 27 43.4 -0.4
comp=Z,13nm,0.8s
STKA pP pP 01 28 08.7 -0.6
NWAO Narrogin (SRO) 37.19 195 P P 01 27 48.9 +2.6
comp=Z,10nm,0.8s,baz=242,slow=7.7,SNR=5.6
NWAO Narrogin (SRO) 37.19 195 eP P 01 27 48.6 +2.3
NWAO pmax pmax
comp=Z,174nm,1.8s
NWAO Narrogin (SRO) 37.19 195 eP P 01 27 48.6 +2.3
comp=Z,174nm,1.8s
CMSA Cobar Meteorol 38.11 156 P P 01 27 53.8 -0.2
baz=38,SNR=6.6
BJT Baijiatuau 38.48 345 eP P 01 27 57.4 +0.3
BJT pmax pmax
comp=Z,80nm,0.8s
BJT Baijiatuau 38.48 345 eP P 01 27 57.4 +0.3
comp=Z,80nm,0.8s
BJI Beijing 38.50 345 P P 01 27 57.3 +0.1
BJI pmax pmax
comp=Z,98nm,0.8s
BJI pmax pmax
comp=Z,380nm,5.0s
BJI LR LR
comp=Z,94nm,26.3s
MSHR Mys Shultsa 39.53 3ceP P 01 28 06.2 +0.5
MOKO MOKOCHONG 39.84 309 eP P 01 28 04.9 -3.9
LZH Lanzhou 39.95 329 ⇑P P 01 28 11.3 +1.8
LZH pP pP 01 28 37.0 +1.7
LZH sP sP 01 28 50.0 +1.8
LZH PP PnPn 01 29 49.5 +1.4
LZH PcP PcP 01 30 14.2 +1.3
LZH ScP ScP 01 33 50.6 -1.1
LZH S S 01 34 08.5 +1.9
LZH SS SS 01 37 04.7 -3.2
LZH pmax pmax
comp=Z,230nm,1.3s
LZH pmax pmax
comp=Z,580nm,6.2s
LZH LR LR
comp=Z,320nm,12.1s
LZH LR LR
comp=Z,360nm,12.6s
LZH LR LR
comp=Z,690nm,16.2s
ARMA Armidale 39.99 148 P P 01 28 09.7 -0.2
baz=40,SNR=20
ARMA Armidale 39.99 148 eP P 01 28 09.8 -0.2
comp=Z,70nm,1.0s
VLA Vladivostok 40.11 4ceP P 01 28 10.8 +0.2
VLA pmax pmax
comp=Z,77nm,1.6s
SILR SILCHAR 40.47 306 eP P 01 28 13.2 -0.6
SILR SILCHAR 40.47 306 ex P 01 28 13.2 -0.6
BRDH Bariadhala 40.54 302 P P 01 28 16.2 +1.7
comp=Z,80nm,0.4s,baz=107,slow=14,SNR=6.2
HHC Hu-ho-hao-te 40.62 340 eP P 01 28 15.7 +0.8
HHC pmax pmax
comp=Z,46nm,1.0s
HHC pmax pmax
comp=Z,160nm,5.3s
H11S3 WAKE ISLAND Hy 40.65 65 T T 02 12 07.3
baz=252,slow=75,SNR=11
H11S2 WAKE ISLAND Hy 40.66 65 T T 02 12 00.6
baz=252,slow=75,SNR=13
H11S1 WAKE ISLAND Hy 40.66 65 T T 02 11 56.9
baz=252,slow=75,SNR=16
CN2 Changchun 40.74 357 eP P 01 28 15.0 -0.8
CN2 esP sP 01 28 53.0 -1.4
CN2 eS S 01 34 18.6 +0.7
CN2 pmax pmax
comp=Z,10.0nm,0.6s
CN2 pmax pmax
comp=Z,200nm,3.0s
CN2 LR LR
comp=Z,200nm,16.0s
CN2 LR LR
comp=Z,200nm,16.0s
CN2 LR LR
comp=Z,200nm,17.0s
ITAN ITANAGAR 40.86 309 ex P 01 28 18.3 +1.3
ZIRO ZIRO 40.95 310 ex P 01 28 19.8 +1.8
ERM Erimo 41.11 17 eP P 01 28 18.7 -0.1
ERM pmax pmax
comp=Z,210nm,1.8s
ERM Erimo 41.11 17 eP P 01 28 18.7 -0.1
comp=Z,210nm,1.8s
USRK Ussuriysk Ar. 41.20 4 P P 01 28 19.8 +0.3
comp=Z,22nm,0.7s,baz=183,slow=6.6,SNR=30
H11N1 WAKE ISLAND Hy 41.21 63 T T 02 12 42.6
baz=250,slow=75,SNR=10
H11N2 WAKE ISLAND Hy 41.22 63 T T 02 12 41.2
baz=250,slow=75,SNR=8.7
H11N3 WAKE ISLAND Hy 41.23 63 T T 02 12 44.8
baz=250,slow=75,SNR=10
TEZP TEZPUR 41.32 308 ex P 01 28 18.3 -2.5
MDJ Mudanjiang 41.50 1 P P 01 28 22.3 +0.4
MDJ pP pP 01 28 48.0 +0.2
MDJ sP sP 01 29 00.7 0.0
MDJ PP PP 01 30 00.2 +0.1
MDJ PcP PcP 01 30 16.6 -0.9
MDJ S S 01 34 32.6 +3.6
MDJ sS sS 01 35 14.6 +0.9
MDJ pmax pmax
comp=Z,31nm,0.8s
MDJ pmax pmax
comp=Z,70nm,6.2s
MDJ Mudanjiang 41.50 1 eP P 01 28 22.8 +0.9
comp=Z,34nm,1.0s
ARPS Mount Arapiles 41.50 163 P P 01 28 22.5 +0.4
baz=42,SNR=16
SHL Shillong 41.56 306 eP P 01 28 23.5 +0.4
SHL Shillong 41.56 306 eS P 01 28 19.9 -3.1
SHL AML AML 01 28 25.1
comp=E,95nm,0.5s
SHL AML AML 01 28 30.1
comp=N,80nm,0.5s
CAN Canberra 42.76 155 eP P 01 28 33.4 +1.0
CAN pmax pmax
comp=Z,55nm,1.2s
CAN Canberra 42.76 155 eP P 01 28 33.4 +1.0
comp=Z,55nm,1.2s
ASAJ Asahikawa 42.90 15 P P 01 28 34.7 +1.4
comp=Z,9.8nm,0.6s,baz=139,slow=7.7,SNR=4.7
ASAJ Asahikawa 42.90 15 eP P 01 28 34.7 +1.4
comp=Z,38nm,1.3s
TOO Toolangi 43.38 160 P P 01 28 38.2 +0.8
baz=44,SNR=4.8
LSA Lhasa 44.10 311 eP P 01 28 45.6 +1.9
LSA pmax pmax
comp=Z,52nm,0.8s
LSA Lhasa 44.10 311 eP P 01 28 45.6 +1.9
comp=Z,52nm,0.8s
GTA Gaotai 44.55 328 P P 01 28 47.9 +1.1
GTA pP pP 01 29 13.1 +0.2
GTA sP sP 01 29 26.3 +0.6
GTA PcP PcP 01 30 29.1 +1.0
GTA S S 01 35 15.7 +1.6
GTA SS ScS 01 38 31.7 -1.7
GTA pmax pmax
comp=Z,83nm,0.9s
GTA pmax pmax
comp=Z,340nm,7.4s
GTA LR LR
comp=Z,150nm,13.5s
GTA LR LR
comp=Z,150nm,14.3s
GTA LR LR
comp=Z,240nm,16.4s
BOK Bokaro 45.87 301 eP P 01 28 58.2 +0.8
BOK AMB AMB 01 28 59.1
comp=Z,46nm,1.4s
VIS Vishakhapatnam 46.42 292 eP P 01 29 01.8 +0.1
VIS AMB AMB 01 29 03.5
comp=Z,56nm,1.6s
HIA Hailar 46.70 352c iP P 01 29 03.4 -0.1
HIA i *PP pP 01 29 30.3 +0.5
HIA pmax pmax
comp=Z,18nm,1.0s
ULN Ulaanbaatar 48.33 341ceP P 01 29 16.6 +0.4
ULN pmax pmax
comp=Z,59nm,0.7s
ULN Ulaanbaatar 48.33 341 eP P 01 29 16.8 +0.5
comp=Z,63nm,0.8s
ULN Ulaanbaatar 48.33 341 P P 01 29 17.0 +0.8
SNR=19
ULN Ulaanbaatar 48.33 341 P P 01 29 17.0 +0.8
SNR=19
MDRS Chennai 48.52 285 eP P 01 29 18.2 +0.2
MDRS AMB AMB 01 29 19.7
comp=Z,56nm,1.0s
SONA0 Songino Array 48.52 340 eP P 01 29 18.0 +0.3
SONA0 ePcP PcP 01 30 42.0 0.0
SONM Songino Array 48.52 340 P P 01 29 18.0 +0.3
comp=Z,26nm,0.7s,baz=153,slow=9.0,SNR=69
SONM PcP PcP 01 30 42.0 0.0
comp=Z,5.1nm,0.7s,baz=156,slow=3.3,SNR=2.7
SONM Songino Array 48.52 340 P P 01 29 18.0 +0.3
SONM 01 30 42.0
SONM pmax pmax
comp=Z,26nm,0.7s
SONA1 Songino Array 48.53 340 eP P 01 29 18.0 +0.2
NFK Norfolk Island 49.59 133 P P 01 29 25.7 -0.3
baz=50,SNR=6.3
HYB Hyderabad 50.82 290⇑iP P 01 29 36.0 +0.5
comp=Z,190nm,1.0s
HYB epP pP 01 30 09.0 +6.8
HYB Hyderabad 50.82 290 eP P 01 29 35.5 0.0
NKL Nikolayevsk 51.06 10 eP P 01 29 37.0 +0.4
NKL pmax pmax
comp=N,10.0nm,0.9s
NKL pmax pmax
comp=Z,40nm,0.9s
TRD Trivandrum 51.31 278 eP P 01 29 37.7 -1.5
TRD AMB AMB 01 29 39.8
comp=Z,66nm,1.1s
ZAK Zakamensk 51.76 340 eP P 01 29 41.4 -0.6
ZAK e 01 30 53.9
ZAK pmax pmax
comp=Z,11nm,0.9s
TLY Talaya 52.74 341 eP P 01 29 46.8 -2.4
TLY pmax pmax
comp=Z,12nm,0.7s
TLY Talaya 52.74 341 eP P 01 29 46.8 -2.4
comp=Z,12nm,0.7s
BHPL Bhopal 53.12 297 eP P 01 29 52.4 0.0
BHPL eP P 01 29 52.8 +0.3
BHPL AMB AMB 01 29 53.1
comp=Z,84nm,1.1s
MOY Mondy 53.63 339 eP P 01 29 56.6 +0.8
MOY pmax pmax
comp=Z,58nm,2.4s
CLNS Chul'man 53.78 358 eP P 01 29 48.3 -8.4
CLNS pmax pmax
comp=Z,20nm,0.8s
CLNS pmax pmax
comp=E,8.0nm,0.8s
CLNS pmax pmax
comp=N,10.0nm,0.8s
WMQ Urumqi 54.23 325 P P 01 30 01.7 +1.4
WMQ pP pP 01 30 25.6 -1.7
WMQ sP sP 01 30 41.2 +1.3
WMQ pmax pmax
comp=N,150nm,0.9s
WMQ pmax pmax
comp=N,280nm,3.7s
WMQ LR LR
comp=N,660nm,21.5s
WMQ LR LR
comp=N,440nm,31.5s
WMQ LR LR
comp=N,370nm,28.1s
DDI Dehra Dun 54.66 305 eP P 01 30 03.4 -0.2
DDI AMB AMB 01 30 04.9
comp=Z,166nm,0.9s
GOA Goa 55.00 287 eP P 01 30 05.9 -0.3
GOA AMB AMB 01 30 06.7
comp=Z,31nm,1.1s
MNCY Minicoy 55.18 278 eP P 01 30 08.2 +0.6
MNCY AMB AMB 01 30 32.3
comp=Z,132nm,1.9s
POO Poona 55.42 290 eP P 01 30 08.7 -0.5
POO AMB AMB 01 30 09.3
comp=Z,44nm,1.6s
PEA0B Petropavlovsk- 55.57 21 eP P 01 30 10.9 +1.3
comp=Z,56nm,0.8s
PETK Petropavlovsk- 55.57 21 P P 01 30 10.6 +0.9
comp=Z,43nm,0.8s,baz=193,slow=4.3,SNR=27
PETK LR LR 01 53 00.8
comp=Z,29nm,21.2s,baz=209,slow=35
PETK Petropavlovsk- 55.57 21 eP P 01 30 10.4 +0.8
PETK Petropavlovsk- 55.57 21 eP P 01 30 10.4 +0.8
PEA1 Petropavlovsk- 55.58 21 eP P 01 30 10.6 +0.9
SMLA Simla 55.65 306 eP P 01 30 11.3 +0.7
SMLA AMB AMB 01 30 12.0
comp=Z,102nm,0.6s
BOD Bodaibo 55.85 351 eP P 01 30 10.7 -0.8
BOD pmax pmax
comp=Z,39nm,1.4s
PET Petropavlovsk 55.85 22⇓eP P 01 30 12.8 +1.2
PET pmax pmax
comp=Z,58nm,1.3s
HVS Khovu-Aksy 56.08 334ceP P 01 30 14.2 +0.8
HVS pmax pmax
comp=Z,84nm,1.0s
DHRM DHARAMSHALA 56.73 307 eP P 01 30 18.7 +0.1
THN Thein Dam 57.25 307 eP P 01 30 20.7 -1.2
DGZ Jazzator, Alta 58.02 330 iP P 01 30 27.4 +0.2
DGZ pmax pmax
comp=Z,12nm,0.9s
YAK Yakutsk 58.94 1c iP P 01 30 33.2 +0.1
YAK e*PP sP 01 31 08.0 -5.0

YAK *e* 01 31 20.6
YAK *e* 01 32 43.3
YAK *eS* **S** **01 38 31.0 +0.8**
YAK *e* 01 40 08.5
YAK *eSS* **SS** **01 42 26.6 +0.9**
YAK pmax pmax
comp=Z,116nm,0.8s
YAK pmax pmax
comp=N,30nm,1.1s
YAK pmax pmax
comp=E,6.0nm,0.9s
YAK pmax pmax
comp=Z,60nm,3.2s
YAK pmax pmax
comp=N,55nm,3.7s
YAK pmax pmax
comp=E,69nm,3.8s
YAK smax smax
comp=N,79nm,3.6s
YAK smax smax
comp=E,80nm,5.8s
**YAK Yakutsk 58.94 1** *eP* **P** **01 30 33.1 +0.1**
comp=E,168nm,0.7s
**PDGK Podgornoye 58.98 320** *i* P **P** **01 30 34.2 +0.2**
PDGK pmax pmax
comp=Z,51nm,0.9s
**MK01 Makanchi Array 59.04 325** *eP* **P** **01 30 34.0 -0.1**
**MK31 Makanchi Array 59.06 325** *ceP* **P** **01 30 34.2 -0.1**
MK31 pmax pmax
comp=Z,43nm,0.7s
**MK31 Makanchi Array 59.06 325** *eP* **P** **01 30 34.8 +0.5**
**MK32 Makanchi Array 59.06 325** *eP* **P** **01 30 34.8 +0.5**
MK32 *eScP* **ScP** **01 35 10.1 -2.2**
**MKAR Makanchi Array 59.06 325** P **P** **01 30 34.8 +0.4**
comp=Z,42nm,0.6s,baz=121,slow=8.2,SNR=357
MKAR ScP **ScP** **01 35 10.1 -2.2**
comp=Z,1.0nm,0.8s,baz=115,slow=5.1,SNR=3.0
MKAR LR LR 01 57 09.8
comp=Z,148nm,20.3s,baz=102,slow=37
**MKAR Makanchi Array 59.06 325** *ceP* **P** **01 30 34.7 +0.4**
MKAR pmax pmax
comp=Z,43nm,0.6s
**MAKZ Makanchi 59.25 325** *i* P **P** **01 30 36.0 +0.4**
MAKZ pmax pmax
comp=Z,60nm,0.8s
**MAKZ Makanchi 59.25 325** *eP* **P** **01 30 35.6 0.0**
comp=Z,60nm,0.8s
**KSH Kashi 59.67 315** P **P** **01 30 40.6 +1.8**
KSH pP pP 01 31 07.3 +1.0
KSH PcP **PcP** **01 31 25.6 +0.9**
KSH PP **PP** **01 32 55.8 +4.0**
KSH S **S** **01 38 36.9 -3.9**
KSH ScS **ScS** **01 40 10.4 -8.2**
KSH pmax pmax
comp=Z,51nm,1.3s
KSH pmax pmax
comp=Z,240nm,3.1s
KSH LR LR
comp=Z,170nm,4.9s
KSH LR LR
comp=Z,140nm,5.8s
KSH LR LR
comp=Z,240nm,5.2s
**BHJ Bhuj 60.10 295** *eP* **P** **01 30 41.0 -0.9**
BHJ AMB AMB 01 30 44.7
comp=Z,49nm,1.4s
**LBZ Lake Benmore 60.20 146** *eP* **P** **01 30 42.7 +0.6**
comp=Z,124nm,1.8s
**KZA Kyzart 61.21 317** P **P** **01 30 50.8 +1.2**
SNR=11
**TKM2 Tokmak 2 61.34 318** *i* P **P** **01 30 50.1 -0.1**
TKM2 pmax pmax
comp=Z,25nm,0.8s
**TKM2 Tokmak 2 61.34 318** P **P** **01 30 50.7 +0.5**
SNR=9.5
**SFK Sufi-Kurgan 61.62 315** *i* P **P** **01 30 52.4 +0.3**
SFK pmax pmax
comp=Z,20nm,0.7s
**KBK Karagaybulak 61.66 318** P **P** **01 30 53.1 +0.8**
SNR=11
**UCH Uchtor 61.77 317** P **P** **01 30 54.4 +1.0**
SNR=17
**CHMS Chumysh 61.93 318** P **P** **01 30 54.2 +0.2**
SNR=8.0
**AAK Ala-Archa 61.95 318** *ceP* **P** **01 30 54.4 +0.1**
AAK pmax pmax
comp=Z,6.0nm,0.9s
**AAK Ala-Archa 61.95 318** *eP* **P** **01 30 53.8 -0.5**
comp=Z,14nm,1.1s
**ZAA0 Zalesovo Array 61.97 333** *eP* **P** **01 30 53.0 -0.9**
comp=Z,20nm,0.8s
**ZALV Zalesovo Beam 61.97 333** P **P** **01 30 53.0 -0.9**
comp=Z,18nm,0.7s,baz=116,slow=6.2,SNR=86
ZALV LR LR 01 58 36.0
comp=Z,87nm,20.1s,baz=68,slow=37
**ZALV Zalesovo Beam 61.97 333** P **P** **01 30 53.0 -0.9**
ZALV pmax pmax
comp=Z,18nm,0.7s
ZALV MLR MLR
comp=Z,87nm,20.1s
**ZALV Zalesovo Beam 61.97 333** *eP* **P** **01 30 52.1 -1.8**
**ZAA1 Zalesovo Array 61.97 333** *eP* **P** **01 30 53.0 -0.9**
**USP Ospenovka 62.21 318** P **P** **01 30 56.2 +0.4**
SNR=21
**AML Almayashu 62.30 317** P **P** **01 30 57.8 +0.9**
SNR=13
**SEY Seymchan 62.44 12** *ceP* **P** **01 30 58.5 +1.6**
**EKS2 Erkin-Say 62.45 317** P **P** **01 30 58.4 +0.9**
SNR=11
**KBL Kabul 63.20 307** *eP* **P** **01 31 02.7 -0.1**
KBL pmax pmax
comp=Z,20nm,0.8s
**KBL Kabul 63.20 307** *eP* **P** **01 31 02.7 -0.1**
comp=Z,20nm,0.8s
**KURK Kurchatov 63.21 327** *ceP* **P** **01 31 02.0 -0.2**
**KURK Kurchatov 63.21 327** *eP* **P** **01 31 02.1 -0.2**
comp=Z,76nm,0.8s
**KURK Kurchatov 63.21 327** P **P** **01 31 02.4 +0.2**
SNR=19
**KURK Kurchatov 63.21 327** P **P** **01 31 02.4 +0.2**
SNR=19
**MNAS Manas 63.25 317** *i* P **P** **01 31 01.8 -1.0**
MNAS pmax pmax
comp=Z,33nm,1.1s
**NVS Novosibirsk 63.25 333** *eP* **P** **01 31 01.8 -0.6**
NVS *e* 01 31 34.9
NVS pmax pmax
comp=Z,35nm,0.8s
NVS pmax pmax
comp=N,16nm,0.7s
NVS pmax pmax
comp=E,21nm,0.8s
**KK31 Karatay Array 64.84 317** *ceP* **P** **01 31 12.7 -0.4**
KK31 pmax pmax
comp=Z,26nm,1.0s
**ATKA Atka Island 68.26 34** *eP* **P** **01 31 35.6 +1.0**
comp=Z,901nm,2.0s
**TIXI Tiksi 68.59 0** *c i*P **P** **01 31 35.4 -0.9**
TIXI pmax pmax
comp=Z,43nm,0.8s
**TIXI Tiksi 68.59 0** *eP* **P** **01 31 36.1 -0.2**
comp=Z,36nm,0.7s
**BRVK Borovoye 68.87 327** *c i*P **P** **01 31 38.0 -0.4**
BRVK pmax pmax
comp=Z,44nm,0.9s
**BRVK Borovoye 68.87 327** *eP* **P** **01 31 37.4 -0.9**
comp=Z,41nm,0.9s
**BRVK Borovoye 68.87 327** P **P** **01 31 38.4 0.0**
SNR=14
**BRVK Borovoye 68.87 327** P **P** **01 31 38.4 0.0**
SNR=14
**UOSS Minazif 72.50 295** *eP* **P** **01 31 58.8 -2.2**
comp=Z,33nm,1.5s
**GEYT Alibeck 72.57 309** P **P** **01 32 01.6 +0.4**
comp=Z,6.8nm,0.7s,baz=144,slow=5.3,SNR=24
GEYT LR LR 02 10 06.3
comp=Z,80nm,18.2s,baz=330,slow=41
**AB31 Akbulak array 73.71 321** *ceP* **P** **01 32 07.0 -0.6**
AB31 pmax pmax
comp=Z,15nm,1.0s
**GAMB Gambell 74.47 24** *eP* **P** **01 32 11.9 +0.2**
comp=Z,30nm,0.9s
**ARU Arti 76.40 328** *c i*P **P** **01 32 21.7 -1.2**
ARU *PP **pP** **01 32 50.1 -1.5**
ARU 01 35 10.7
ARU S **S** **01 41 58.6 -0.3**
ARU SS **SS** **01 46 49.6 -6.0**
ARU pmax pmax
comp=Z,44nm,1.7s
**ARU Arti 76.40 328** *eP* **P** **01 32 21.4 -1.6**
comp=Z,132nm,2.0s
**LKRN Lenkeran, Azer 79.95 309** P **P** **01 32 41.8 -1.1**
**SEKA Sheki 81.33 311** P **P** **01 32 48.9 -1.4**
**MNGR Mingechevir, A 81.39 311** P **P** **01 32 49.6 -0.9**
**KDAK Kodiak Island 81.71 32** *i* P **P** **01 32 52.8 +1.0**
**ZKTA Zakatala 81.79 311** P **P** **01 32 51.6 -1.1**
**GANJ Ganja 81.97 310** P **P** **01 32 52.5 -1.1**
**DDFL Dedoflistskaro 82.16 311** P **P** **01 32 55.9 +1.3**
**RAYN Ar Rayn 82.19 293** *eP* **P** **01 32 54.6 -0.6**
comp=Z,12nm,0.8s
**IMAR Indian Mountai 82.42 24** *eP* **P** **01 32 56.1 +0.7**
**VNDA Vanda 82.48 173** P **P** **01 32 55.6 +0.2**
comp=Z,4.0nm,0.7s,baz=320,slow=6.0,SNR=26
VNDA LR LR 02 10 33.5
comp=Z,101nm,18.1s,baz=340,slow=36
**VNDA Vanda 82.48 173** *eP* **P** **01 32 56.0 +0.5**
VNDA pmax pmax
comp=Z,7.0nm,0.8s
**VNDA Vanda 82.48 173** *eP* **P** **01 32 56.0 +0.5**
comp=Z,7.1nm,0.8s
**GROC Groznyy 82.49 313** *eP* **P** **01 32 53.7 -2.5**
GROC *e*PP **pP** **01 33 23.8 -1.5**
GROC *e* 01 36 06.0
GROC *eS* **S** **01 42 59.5 -4.2**
GROC pmax pmax
comp=Z,25nm,1.2s
**NAX Nakhchivan 82.53 309** P **P** **01 32 55.5 -1.2**
**PPLA Purkeypile 82.61 27** *eP* **P** **01 32 57.9 +1.3**
comp=Z,135nm,1.8s
**CAST Castle Rocks 82.73 26** *eP* **P** **01 32 58.4 +1.3**
comp=Z,23nm,0.8s
**SUA Susitna One 83.10 29** *eP* **P** **01 32 59.2 0.0**
comp=Z,27nm,0.9s
**GNI Garni 83.15 310** *ceP* **P** **01 33 00.2 +0.3**
GNI pmax pmax
comp=Z,44nm,1.4s
**GNI Garni 83.15 310** *eP* **P** **01 33 03.4 +3.5**
comp=Z,13nm,0.9s
**TBLG Delisi 83.21 311** P **P** **01 33 00.1 +0.1**
**TBLG Delisi 83.21 311** *eP* **P** **01 33 00.1 +0.1**
**KTH Kantishna Hill 83.26 26** *eP* **P** **01 33 00.8 +0.9**
comp=Z,52nm,1.3s
**BPAW Bear Paw Mtn. 83.30 26** *eP* **P** **01 32 59.5 -0.5**
comp=Z,20nm,1.0s
**PPT Papeete 83.42 108** LR LR 02 07 02.7
comp=Z,30nm,21.1s,baz=258,slow=33
**GUDG Gudauri 83.43 312** P **P** **01 33 01.3 -0.1**
**MLY Manley 83.52 25** *eP* **P** **01 33 02.6 +1.5**
comp=Z,24nm,0.8s
**TRF Thorofare Moun 83.53 27** *eP* **P** **01 33 02.0 +0.6**
comp=Z,29nm,1.0s
**RC01 Rabbit Creek A 83.54 29** *eP* **P** **01 33 01.6 +0.3**
comp=Z,23nm,0.8s
**MAW Mawson 83.58 201** P **P** **01 33 00.6 -0.6**
comp=Z,2.0nm,0.6s,baz=75,slow=12,SNR=4.0
**MAW Mawson 83.58 201** *eP* **P** **01 33 00.6 -0.6**
comp=Z,2.6nm,1.0s
**ZEI Tsey 83.86 313** *eP* **P** **01 33 00.7 -2.9**
ZEI pmax pmax
comp=Z,4.0nm,0.8s
**PMR Palmer 83.88 28** *eP* **P** **01 33 02.2 -0.7**
PMR pmax pmax
comp=Z,35nm,0.9s
**PMR Palmer 83.88 28** *eP* **P** **01 33 02.2 -0.7**
comp=Z,35nm,0.9s
**COLD Coldfoot 84.00 23** *eP* **P** **01 33 05.0 +1.6**
comp=Z,45nm,0.7s
**BGD Bogdanovka 84.05 311** P **P** **01 33 02.4 -2.2**
**NCK Nalchik 84.11 313** *eP* **P** **01 33 03.0 -1.6**
NCK pmax pmax
comp=Z,8.0nm,1.4s
**MCK McKinley 84.16 26** *eP* **P** **01 33 05.0 +0.6**
MCK pmax pmax
comp=Z,31nm,0.9s
**MCK McKinley 84.16 26** *eP* **P** **01 33 05.0 +0.6**
comp=Z,31nm,0.9s
**RND Reindeer 84.17 27** *eP* **P** **01 33 04.8 +0.3**
RND pmax pmax
comp=Z,30nm,0.8s
**RND Reindeer 84.17 27** *eP* **P** **01 33 04.8 +0.3**
comp=Z,30nm,0.8s
**ONI Oni 84.19 312** P **P** **01 33 05.0 -0.1**
**ONI Oni 84.19 312** *eP* **P** **01 33 04.9 -0.1**
**SML Sawmill 84.28 28** *eP* **P** **01 33 06.2 +1.2**
SML pmax pmax
comp=Z,59nm,0.8s
**SML Sawmill 84.28 28** *eP* **P** **01 33 06.2 +1.2**
comp=Z,59nm,0.8s
**KBZ Khabaz 84.62 313** P **P** **01 33 06.5 -0.6**
comp=Z,4.4nm,1.1s,baz=31,slow=3.8,SNR=7.4
**COLA College 84.73 25** *eP* **P** **01 33 07.5 +0.4**
COLA pmax pmax
comp=Z,3.0nm,0.9s
**CCB Clear Creek Bu 84.73 25** *eP* **P** **01 33 07.8 +0.6**
comp=Z,15nm,1.0s
**NEY Neytrino 84.74 313** *eP* **P** **01 33 08.0 +0.1**
NEY pmax pmax
comp=Z,2.0nm,1.0s
**SCM Sheep Creek Mo 84.75 28** *eP* **P** **01 33 08.8 +1.3**
SCM pmax pmax
comp=Z,55nm,1.0s
**SCM Sheep Creek Mo 84.75 28** *eP* **P** **01 33 08.8 +1.3**
comp=Z,55nm,1.0s
**KIV Kislovodsk 84.77 314** *eP* **P** **01 33 07.1 -0.9**
KIV pmax pmax
comp=Z,7.0nm,1.1s
**GLI Glacier Island 84.81 29** *eP* **P** **01 33 08.9 +1.2**
comp=Z,259nm,1.8s
**IL1 Eielson Array 85.13 25** *eP* **P** **01 33 07.8 -1.4**
**ILAR Eielson Array 85.13 25** P **P** **01 33 08.3 -0.9**
comp=Z,1.8nm,0.6s,baz=245,slow=5.6,SNR=31
ILAR LR LR 02 04 43.2
comp=Z,35nm,20.9s,baz=312,slow=31
**ILB Eielson Array 85.13 25** *eP* **P** **01 33 09.3 +0.1**
**CHVG Ch'k'valeri 85.20 312** P **P** **01 33 09.7 -0.3**
**ARTV Artvin 85.31 311** *eP* **P** **01 33 11.2 +0.3**
comp=Z,25nm,1.2s
**DIV Divide 85.47 29** *eP* **P** **01 33 12.8 +1.8**
comp=Z,49nm,0.8s
**VRH Novokhopyorsk 85.54 321** *eP* **P** **01 33 10.3 -1.2**
VRH pmax pmax
comp=Z,30nm,0.9s
**MARD Mardin 86.22 307** *eP* **P** **01 33 15.8 +0.4**
comp=Z,16nm,1.0s
**KOPT Kop Dagi 86.40 310** *eP* **P** **01 33 17.6 +1.1**
comp=Z,35nm,1.0s
**KLMR Klimovskoe 86.82 331** *eP* **P** **01 33 14.0 -3.6**
KLMR pmax pmax
comp=Z,23nm,1.0s
**VSR Storozhevoye 87.15 321** *eP* **P** **01 33 17.3 -2.1**
VSR pmax pmax
comp=Z,9.0nm,0.7s
**LPSR Galich'ya Gora 87.27 322** *eP* **P** **01 33 18.8 -1.1**
LPSR pmax pmax
comp=Z,20nm,0.9s
**DAWY Dawson 88.38 26** *eP* **P** **01 33 25.5 +0.4**
comp=Z,8.0nm,0.8s
**OBN Obninsk 88.57 325** *d i*P **P** **01 33 24.9 -1.1**
OBN pmax pmax
comp=Z,40nm,1.7s
**OBN Obninsk 88.57 325** *eP* **P** **01 33 25.0 -1.1**
**INK Inuvik 90.31 22** *eP* **P** **01 33 33.6 -0.3**
INK pmax pmax
comp=Z,5.0nm,0.8s
**INK Inuvik 90.31 22** *eP* **P** **01 33 33.5 -0.3**
comp=Z,5.0nm,0.8s
**BR101 Keskin Array S 91.69 310** *eP* **P** **01 33 39.8 -1.4**
BR101 *ePP **PP** **01 37 22.7 +1.6**
**BRTR Keskin Array B 91.69 310** P **P** **01 33 39.8 -1.4**
comp=Z,0.9nm,0.8s,baz=90,slow=2.5,SNR=4.2
BRTR PP **PP** **01 37 22.7 +1.6**
comp=Z,1.9nm,0.9s,baz=109,slow=6.8,SNR=6.9
**ARA0 ARCESS Array S 91.69 340** *eP* **P** **01 33 39.0 -1.4**
**ARCES ARCESS Array B 91.69 340** P **P** **01 33 39.0 -1.4**
comp=Z,5.7nm,0.7s,baz=88,slow=5.4,SNR=18
**ARCES ARCESS Array B 91.69 340** P **P** **01 33 39.0 -1.4**
ARCES pmax pmax
comp=Z,6.0nm,0.7s
**SYO Syowa Base 92.27 201** *eX* **P** **01 33 40.2 -2.7**
**SYO Syowa Base 92.27 201** *ePcP* **PcP** **01 33 46.2 +2.6**
**QSPA South Pole Qui 92.88 180** *eP* **P** **01 33 47.3 +1.3**
comp=Z,7.3nm,0.8s
**FIA0 FINESS Array S 93.23 332** *eP* **P** **01 33 46.0 -1.5**
**FIA0 FINESS Array S 93.23 332** *eP* **P** **01 33 46.0 -1.5**
**FINES FINESS Array B 93.23 332** P **P** **01 33 46.0 -1.5**
comp=Z,3.7nm,1.0s,baz=60,slow=4.6,SNR=5.5
FINES LR LR 02 18 30.3
comp=Z,245nm,18.4s,baz=304,slow=37
**FINES FINESS Array B 93.23 332** *ceP* **P** **01 33 48.0 +0.5**
FINES pmax pmax
comp=Z,4.0nm,1.0s
**AKASG Malin Array Be 93.45 321** P **P** **01 33 46.5 -2.3**
comp=Z,1.1nm,0.7s,baz=69,slow=4.6,SNR=9.7
AKASG LR LR 02 17 56.6
comp=Z,69nm,20.3s,baz=330,slow=37
**AKBB Malin Array Si 93.45 321** *eP* **P** **01 33 46.5 -2.3**
AKBB pmax pmax
comp=Z,17nm,1.4s
**AKBB Malin Array Si 93.45 321** *eP* **P** **01 33 46.5 -2.3**
comp=Z,17nm,1.4s
**YKA Yellowknife Ar 99.55 25** P **Pdif** **01 34 16.1 0.0**
comp=Z,1.5nm,0.6s,baz=295,slow=4.2,SNR=8.6
**YKB5 Yellowknife Ar 99.55 25** *ePdif* **Pdif** **01 34 16.1 0.0**
**NB2 NORSAR Subarra 100.15 334** P **Pdif** **01 34 16.6 -2.3**
comp=Z,7.0nm,1.1s,baz=65,slow=4.6
**NB2 NORSAR Subarra 100.15 334** P **Pdif** **01 34 16.6 -2.3**
baz=65,slow=4.6
**NB200 NORSAR Array S 100.15 334** *ePdif* **Pdif** **01 34 17.4 -1.5**
**NOA NORSAR Array B 100.15 334** P **Pdif** **01 34 17.4 -1.5**
comp=Z,2.9nm,0.9s,baz=65,slow=4.7,SNR=4.4
**GERES GERESS Array B 103.64 322** PP PP 01 38 54.6 +2.5
comp=Z,0.7nm,0.9s,baz=73,slow=6.6,SNR=4.8
**PD31 Pinedale Array 110.91 42** *ePKKPbc* PKKPbc 01 50 08.2 +2.3
**PDAR Pinedale Array 110.91 42** PKKPbc PKKPbc 01 50 08.2 +2.3
comp=Z,0.2nm,0.5s,baz=117,slow=5.5,SNR=3.6
**ES19 SONSECA Array 118.98 319** *ePKPdf* **PKPdf** **01 39 22.4 +0.5**
**MSTX Muleshoe 119.56 48** *ePKPdf* **PKPdf** **01 39 24.2 +1.0**
**LTX Lajitas 120.84 53** *ePKIKP* **PKPdf** **01 39 26.1 +0.3**
**LTX Lajitas 120.84 53** *ePKPdf* **PKPdf** **01 39 26.1 +0.3**
LTX *ePKKPbc* **PKKPab** **01 49 31.4 -0.4**
**TXAR Lajitas Array 120.84 53** PKP **PKPdf** **01 39 26.1 +0.3**
comp=Z,0.7nm,0.8s,baz=266,slow=1.4,SNR=3.8
TXAR PKKPab **PKKPab** **01 49 31.4 -0.4**
comp=Z,0.4nm,0.7s,baz=120,slow=5.3,SNR=3.5
TXAR PKKP **PKKPdf** **01 50 00.3 -3.6**
comp=Z,0.2nm,0.6s,baz=130,slow=4.9,SNR=2.5
**WMOK Wichita Mounta 122.09 45** *ePKPpre* PKPpre 01 39 22.8
**JCT Junction City 123.38 50** *ePKIKP* **PKPdf** **01 39 31.3 +0.7**
**JCT Junction City 123.38 50** *ePKPdf* **PKPdf** **01 39 31.3 +0.7**
**TOA0 Torodi Ar. Sit 124.62 288** *ePKPdf* **PKPdf** **01 39 33.0 -0.3**
**TORD Torodi Ar. Bea 124.62 288** PKP **PKPdf** **01 39 32.7 -0.5**
comp=Z,3.5nm,0.8s,baz=58,slow=1.9,SNR=21
TORD pPKP **pPKPdf** **01 40 01.7 -2.3**
comp=Z,3.1nm,0.8s,baz=49,slow=1.9,SNR=5.4
**TOA1 Torodi Ar. Sit 124.62 288** *ePKPdf* **PKPdf** **01 39 32.7 -0.6**
**DBIC Dimbokro 132.24 282** PKP **PKPdf** **01 39 48.7 +0.8**
comp=Z,3.0nm,0.9s,baz=90,slow=3.1,SNR=3.4
**PLCA Paso Flores 138.74 158** PKP **PKPdf** **01 40 02.3 +2.9**
comp=Z,2.8nm,1.0s,baz=225,slow=4.3,SNR=3.6
**ROC1 El Roble 145.10 151** *ePKPbc* **PKPdf** **01 40 11.8 +0.6**
**CPUP Villa Florida 156.15 167** PKPab **PKPab** **01 40 56.3 +0.4**
comp=Z,7.4nm,1.0s,baz=149,slow=4.9,SNR=6.1
**CPUP Villa Florida 156.15 167** *ePKPab* **PKPab** **01 40 57.6 +1.7**
**SDV Santo Domingo 157.78 58** *ePKPab* **PKPab** **01 41 04.8 +1.1**
**LPAZ La Paz 159.13 130** PKPab **PKPab** **01 41 09.9 +0.1**
comp=Z,1.9nm,0.8s,baz=74,slow=1.9,SNR=6.6
**LPAZ La Paz 159.13 130** PKP2 **PKPab** **01 41 10.0 +0.1**
LPAZ pmax pmax
comp=Z,2.0nm,0.8s
**LPAZ La Paz 159.13 130** *ePKPab* **PKPab** **01 41 10.2 +0.3**

*SGS* ***13*** *01:22:01.9, 14°.21N×42°.16E, h40km*
*ISCJB* ***13*** *01:22:10.5±2.7, 15°.11N±0°.07×42°.1E±0°.1, h13km±18km, Error ellipse: s-maj=21.2km s-min=6.4km az=153.7*
*CSEM* ***13*** *01:22:12.2, 15°.04N×42°.18E, h37km, ML3.7*
*DHMR* ***13*** *01:22:12.2±1.8, 15°.04N×42°.18E, h38km±30km, ML3.7*

**ISC 13 01:22:11.2±3.7, 15°.13N±0°.06×42°.15E±0°.10, h5km±18km, n11, σ0°96/22, 1C, Western Arabian Peninsula**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **HAJJ** | **Hajjah** | **1.50** | **68** | *i* P | | **Pn** | **01 22 38.0** | **-1.0** |
| HAJJ | | | | *i* S | | **Sg** | **01 22 59.6** | **0.0** |
| HAJJ | | | | AML | AML | | 01 23 10.1 | |
| comp=N,741nm,0.5s | | | | | | | | |
| **HAJJ** | **Hajjah** | **1.50** | **68** | *i* P | | **Pn** | **01 22 38.0** | **-1.0** |
| HAJJ | | | | *i* S | | **Sg** | **01 22 59.6** | **0.0** |
| comp=N,370nm,0.5s | | | | | | | | |
| **FRSS** | **Farasan al Kab** | **1.60** | **359** | S | | **Sn** | **01 22 59.5** | **-1.7** |
| FRSS | | | | P | | **Pn** | **01 22 39.0** | **-1.1** |
| **DHBB** | **Dhamar BB** | **2.23** | **104** | *i* P | | **Pn** | **01 22 49.9** | **+0.8** |
| DHBB | | | | *i* S | | **Sn** | **01 23 17.4** | **+0.2** |
| DHBB | | | | AML | AML | | 01 23 39.8 | |
| comp=N,858nm,0.7s | | | | | | | | |
| **DHBB** | **Dhamar BB** | **2.23** | **104** | *i* P | | **Pn** | **01 22 49.9** | **+0.8** |
| DHBB | | | | *i* S | | **Sn** | **01 23 17.4** | **+0.2** |
| comp=N,429nm,0.7s | | | | | | | | |
| **TRBA** | **At Turbah** | **2.68** | **135** | *i* P | | **Pn** | **01 22 55.4** | **+0.2** |
| TRBA | | | | *i* S | | **Sn** | **01 23 27.6** | **-0.6** |
| **DJNS** | **Zahran al Janu** | **2.88** | **27** | S | | **Sn** | **01 23 32.3** | **-1.0** |
| DJNS | | | | P | | **Pn** | **01 22 59.0** | **+1.0** |
| **BDHA** | **Al Bayda'** | **3.50** | **109** | *i* P | | **Pn** | **01 23 05.5** | **-1.0** |
| BDHA | | | | *i* S | | **Sn** | **01 23 48.9** | **+0.5** |
| **BDHA** | **Al Bayda'** | **3.50** | **109** | *i* P | | **Pn** | **01 23 05.5** | **-1.0** |
| BDHA | | | | *i* S | | **Sn** | **01 23 48.9** | **+0.5** |
| **NAMS** | **An Nimas** | **4.02** | **1** | S | | **Sn** | **01 24 01.3** | **0.0** |
| NAMS | | | | P | | **Pn** | **01 23 14.6** | **+0.9** |
| **TATS** | **Tathlith** | **4.57** | **16** | S | | **Sn** | **01 24 16.2** | **+1.6** |
| TATS | | | | P | | **Pn** | **01 23 22.1** | **+1.1** |

**IDC 13 02:19:08.7±1.6, 16°.43S×178°.66W, h0km, mb4.0/5, mb1 4.3/5, mb1mx3.9/25, mbtmp4.0/5, Error ellipse: s-maj=141.1km s-min=23.9km az=152.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **STKA** | **Stephens Creek** | **39.15** | **239** | P | | P | 02 26 38.6 | +0.3 |
| 1.8nm,0.4s,baz=83,slow=9.4,SNR=9.0 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **44.68** | **258** | P | | P | 02 27 23.4 | -0.4 |
| 0.4nm,0.3s,baz=94,slow=7.8,SNR=15 | | | | | | | | |
| **ASAR** | **Alice Springs** | **44.98** | **253** | P | | P | 02 27 25.8 | -0.3 |
| 5.9nm,0.5s,baz=88,slow=8.1,SNR=98 | | | | | | | | |
| **TXAR** | **Lajitas Array** | **85.41** | **58** | P | | P | 02 31 48.8 | +0.2 |
| 0.3nm,0.7s,baz=234,slow=4.1,SNR=3.9 | | | | | | | | |
| **PDAR** | **Pinedale Array** | **86.45** | **44** | P | | P | 02 31 53.4 | -0.2 |
| 0.4nm,0.8s,baz=212,slow=3.2,SNR=2.9 | | | | | | | | |

*ISCJB* ***13*** *03:08:57.6±1.4, 35°.60N±0°.06×141°.1E±0°.1, h12km±7km, mb3.5/3, Error ellipse: s-maj=15.3km s-min=7.8km az=154.4*
*IDC* ***13*** *03:08:57.5±1.4, 35°.47N×141°.03E, h0km, mb3.4/3, mb1 3.6/5, mb1mx3.4/53, mbtmp3.4/5, ML3.0/2, Error ellipse: s-maj=34.3km s-min=25.6km az=89.0*
*JMA* ***13*** *03:08:59.5±0.1, 35°.61N×140°.99E, h17km±1km, M3.4*
*JMA Felt I J1.*

**ISC 13 03:08:59.1±1.4, 35°.60N±0°.04×141°.02E±0°.09, h14km±7km, n12, σ0°94/15, mb3.4/3, 1C-1D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **CHOJ** | **Chosi** | **0.17** | **310** | P | | **Pg** | **03 09 03.5** | **+0.4** |
| CHOJ | | | | S | | **Sg** | **03 09 06.3** | **+0.5** |
| **JCN** | **Nagara** | **0.69** | **255** | P | | **Pg** | **03 09 13.2** | **+0.7** |
| **BSO3** | **Boso 3** | **0.89** | **208** | P | | **Pg** | **03 09 16.3** | **0.0** |
| **JYT** | **Yasato** | **0.92** | **314** | P | | **Pg** | **03 09 15.9** | **-0.9** |
| JYT | | | | S | | **Sg** | **03 09 27.8** | **-1.1** |
| **BSO1** | **Boso 1** | **0.94** | **182** | P | | **Pb** | **03 09 16.4** | **-0.5** |
| **JHO** | **Hitachi** | **1.07** | **340** | P | | **Pb** | **03 09 18.4** | **-1.1** |
| **MJAR** | **Matsushiro Arr** | **2.46** | **293** | Pn | | **Pn** | **03 09 39.5** | **+0.6** |
| 3.6nm,0.3s,baz=124,slow=15,SNR=20 | | | | | | | | |
| **MAT** | **Matsushiro** | **2.46** | **293** | P | | **Pn** | **03 09 39.0** | **+0.1** |
| MAT | | | | *e*S | | **Sb** | **03 10 13.2** | **-0.2** |
| **JHJ** | **Hachijo jima 2** | **2.67** | **203** | Pn | | **Pn** | **03 09 40.3** | **-1.4** |
| 6.4nm,0.3s,baz=43,slow=19,SNR=4.1 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **44.62** | **303** | P | | P | **03 17 11.9** | **+0.9** |
| 0.4nm,0.7s,baz=87,slow=9.8,SNR=2.4 | | | | | | | | |
| **ILAR** | **Eielson Array** | **50.88** | **32** | P | | P | **03 18 00.7** | **+1.4** |
| 0.4nm,0.8s,baz=276,slow=5.5,SNR=4.7 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **55.60** | **188** | P | | P | **03 18 34.0** | **-0.4** |
| 0.5nm,0.7s,baz=7.7,slow=7.9,SNR=4.5 | | | | | | | | |

*IDC* ***13*** *03:21:24.1±0.6,37.°19S×94.°59W,h0km,mb4.6/14, mb1 4.7/15,mb1mx4.4/35,mbtmp4.5/15,ML3.7/1,MS4.5/16, Ms1 4.4/16,ms1mx4.4/18,Error ellipse: s-maj=20.8km s-min=15.5km az=94.0*

*ISCJB* ***13*** *03:21:25.2±0.3,37.°36S±0.°06×94.°39W±0.°07,h10km, mb4.7/35,MS4.5/15,Error ellipse: s-maj=9.9km s-min=6.7km az=136.9*

*BJI* ***13*** *03:21:25.8,37.°45S×94.°40W,h9km,mB5.3/11,Ms5.1/4, Ms7 4.8/3*

*GCMT* ***13*** *03:21:26.4±0.2,37.°37S×94.°74W,h13km±1km,MW5.2/113, Moment Tensor Solution. s77,c118; s113,c194; Duration: 1s0 Moment tensor: Scale 10^16^Nm; Mrr~0.79±.15; Mθθ0.42±.14; Mϕϕ0.37±.14; Mrθ1.30±.32; Mθϕ~8.11±.14; Mϕr~2.11±.37; Best double couple: M=8.43000×10^16^ NP1:ϕs181.00000°,δ84.00000°, λ13.00000°. NP2:ϕs89.00000°,δ77.00000°,λ174.00000°. Principal axes: T 9.0950, Plg14.0000°, Azm45.0000°; N -1.3310, Plg75.0000°, Azm205.0000°; P -7.7640, Plg5.0000°, Azm314.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC* ***13*** *03:21:26.4±0.4,37.°47S×94.°35W,h10km,mb4.9/30 Error ellipse: s-maj=12.1km s-min=9.9km az=214.0*

**ISC 13 03:21:25.7±0.4,37.°31S×0.°07×94.°58W±0.°07,h10km,n131, c2e35/129,mb4.9/36,MS4.5/15,1D,West Chile Rise**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RPN** | **Rapa Nui** | **16.07** | **305** | *e*Pn | **Pn** | **03 25 11.6** | **-0.3** |
| | 446nm,1.9s | | | | | | |
| **GO05** | **HualaæØ** | **18.43** | **90** | *e*Pn | **P** | **03 25 41.3** | **+0.1** |
| | 80nm,1.4s | | | | | | |
| **PLCA** | **Paso Flores** | **18.96** | **108** | P | **Pn** | **03 25 49.0** | **+1.1** |
| | 0.1nm,0.3s,baz=314,slow=13,SNR=6.5 | | | | | | |
| PLCA | | | | LR | LR | 03 31 18.0 | |
| | comp=Z,810nm,20.2s,baz=296,slow=31 | | | | | | |
| **PLCA** | **Paso Flores** | **18.96** | **108** | *e*P | **Pn** | **03 25 49.4** | **+1.5** |
| | 48nm,1.3s | | | | | | |
| **PEL** | **Peldehue** | **19.94** | **85** | *e*P | **Pn** | **03 26 01.2** | **+1.7** |
| | 316nm,2.0s | | | | | | |
| **GO09** | **Cerro Castillo** | **21.06** | **139** | *e*P | **P** | **03 26 10.2** | **+0.3** |
| | 239nm,1.8s | | | | | | |
| **LCO** | **Las Campanas** | **21.59** | **74** | *e*P | **P** | **03 26 16.1** | **+0.1** |
| | 87nm,1.3s | | | | | | |
| **USHA** | **Ushuaia** | **24.99** | **143** | P | **P** | **03 26 51.1** | **+1.8** |
| | 74nm,0.9s,baz=279,slow=12,SNR=4.2 | | | | | | |
| USHA | | | | LR | LR | 03 34 26.6 | |
| | comp=Z,7μm,21.2s,baz=278,slow=31 | | | | | | |
| **TRQA** | **Tornquist** | **25.74** | **102** | *e*P | **P** | **03 26 56.5** | **+0.1** |
| | 37nm,1.4s | | | | | | |
| **PB04** | **IPOC Station P** | **25.82** | **62** | *e*P | **P** | **03 26 59.2** | **+1.8** |
| | 66nm,1.2s | | | | | | |
| **PB01** | **IPOC Station P** | **27.13** | **60** | *e*P | **P** | **03 27 08.6** | **-0.5** |
| | 34nm,1.5s | | | | | | |
| **PB11** | **IPOC Station P** | **27.89** | **58** | *e*P | **P** | **03 27 15.3** | **-0.7** |
| | 33nm,1.3s | | | | | | |
| **MNMC** | **Minye Minye** | **28.37** | **57** | *e*P | **P** | **03 27 19.8** | **-0.6** |
| | 57nm,1.3s | | | | | | |
| **NNA** | **Nana** | **29.81** | **37** | LR | LR | 03 36 19.1 | |
| | comp=Z,2μm,20.4s,baz=223,slow=30 | | | | | | |
| **LPAZ** | **La Paz** | **31.37** | **55** | P | **P** | **03 27 47.4** | **0.0** |
| | 19nm,1.1s,baz=216,slow=6.9,SNR=29 | | | | | | |
| LPAZ | | | | LR | LR | 03 37 47.8 | |
| | comp=Z,238nm,18.6s,baz=241,slow=31 | | | | | | |
| **LPAZ** | **La Paz** | **31.37** | **55** | *e*P | **P** | **03 27 47.4** | **0.0** |
| | 39nm,1.4s | | | | | | |
| **CPUP** | **Villa Florida** | **33.30** | **82** | P | **P** | **03 28 01.5** | **-2.1** |
| | 5.3nm,1.1s,baz=274,slow=7.1,SNR=5.3 | | | | | | |
| CPUP | | | | LR | LR | 03 39 17.9 | |
| | comp=Z,539nm,20.0s,baz=249,slow=32 | | | | | | |
| **CPUP** | **Villa Florida** | **33.30** | **82** | *e*P | **P** | **03 28 02.0** | **-1.6** |
| **ATAH** | **Atahualpa** | **33.45** | **30** | P | **P** | **03 28 06.1** | **+0.6** |
| | 12nm,0.7s,baz=182,slow=4.5,SNR=9.8 | | | | | | |
| ATAH | | | | LR | LR | 03 38 21.3 | |
| | comp=Z,1μm,20.4s,baz=219,slow=30 | | | | | | |
| **RKT** | **Rikitea** | **37.38** | **281** | *e*S | **S** | **03 34 22.0** | **-4.8** |
| | 228nm,28.2s | | | | | | |
| RKT | | | | eLQ | LQ | 03 37 08.0 | |
| | 2μm,28.2s | | | | | | |
| RKT | | | | eLR | LR | 03 38 43.6 | |
| | 942nm,26.5s | | | | | | |
| **RKT** | **Rikitea** | **37.38** | **281** | *e*T | T | 04 07 46.0 | |
| | 0.9nm,0.2s | | | | | | |
| **OTAV** | **Otavalo** | **40.23** | **25** | *e*P | **P** | **03 29 03.2** | **0.0** |
| | 12nm,1.3s | | | | | | |
| **PRAC** | **Prado** | **44.74** | **29** | *e*P | **P** | **03 29 38.9** | **-0.5** |
| | 13nm,0.8s | | | | | | |
| **ROSC** | **El Rosal** | **45.99** | **29** | P | **P** | **03 29 50.1** | **+0.4** |
| | 6.1nm,0.6s,baz=196,slow=7.1,SNR=6.9 | | | | | | |
| ROSC | | | | LR | LR | 03 47 07.7 | |
| | comp=Z,569nm,18.1s,baz=217,slow=34 | | | | | | |
| **ROSC** | **El Rosal** | **45.99** | **29** | *e*P | **P** | **03 29 50.5** | **+0.7** |
| | 10.0nm,0.9s | | | | | | |
| **BDFB** | **Brasilia** | **46.38** | **75** | P | **P** | **03 29 51.4** | **-1.1** |
| | 3.4nm,0.9s,baz=63,slow=9.0,SNR=5.2 | | | | | | |
| BDFB | | | | LR | LR | 03 47 58.4 | |
| | comp=Z,605nm,21.8s,baz=35,slow=34 | | | | | | |
| **HELC** | **Santa Helena** | **46.79** | **26** | *e*P | **P** | **03 29 55.1** | **-0.8** |
| | 17nm,0.9s | | | | | | |
| **RUSC** | **La Rusia** | **47.43** | **30** | *e*P | **P** | **03 29 58.8** | **-2.3** |
| | 3.0nm,0.8s | | | | | | |
| **PTGA** | **Pitinga** | **48.41** | **49** | *e*P | **P** | **03 30 05.8** | **-2.4** |
| | 8.8nm,1.0s | | | | | | |
| **TBI** | **Tubuai** | **48.75** | **270** | *e*S | **S** | **03 37 10.6** | **-3.0** |
| | 76nm,27.2s | | | | | | |
| TBI | | | | eLQ | LQ | 03 41 56.3 | |
| | 607nm,27.0s | | | | | | |
| TBI | | | | eLR | LR | 03 43 36.7 | |
| | 493nm,30.0s | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **49.92** | **293** | *e*S | S | 03 37 23.9 | -6.5 |
| | 301nm,24.7s | | | | | | |
| TAOE | | | | eLR | LR | 03 44 32.8 | |
| | 543nm,28.4s | | | | | | |
| **SDV** | **Santo Domingo** | **51.13** | **31** | P | **P** | **03 30 26.4** | **-2.7** |
| | 5.3nm,0.7s,baz=224,slow=9.3 | | | | | | |
| **SDV** | **Santo Domingo** | **51.13** | **31** | *e*P | **P** | **03 30 26.4** | **-2.7** |
| | 6.9nm,0.8s | | | | | | |
| **PPT2** | **Papeete2** | **51.87** | **277** | *e*S | **S** | **03 37 53.0** | **-4.3** |
| | 464nm,26.5s | | | | | | |
| PPT2 | | | | eLQ | LQ | 03 43 14.0 | |
| | 790nm,29.8s | | | | | | |
| PPT2 | | | | eLR | LR | 03 45 29.6 | |
| | 648nm,24.5s,baz=121 | | | | | | |
| **PPT** | **Papeete** | **51.88** | **277** | LR | LR | 03 46 11.8 | |
| | comp=Z,378nm,21.9s,baz=120,slow=29 | | | | | | |
| **QSPA** | **South Pole Qui** | **52.91** | **180** | *e*P | **P** | **03 30 42.5** | **+0.7** |
| | 7.7nm,0.9s | | | | | | |
| **VNA3** | **Neumayer Olymp** | **53.56** | **156** | P | **P** | **03 30 46.3** | **0.0** |
| **VNA1** | **Neumayer--Stat** | **54.12** | **156** | P | P | 03 30 44.2 | -6.1 |
| **VNA2** | **Neumayer--Watz** | **54.35** | **156** | P | **P** | **03 30 52.3** | **+0.2** |
| | baz=252,slow=7.6 | | | | | | |
| **SNAA** | **Sanae** | **55.61** | **157** | P | **P** | **03 30 60.0** | **-1.3** |
| **SNAA** | **Sanae** | **55.61** | **157** | *e*P | **P** | **03 30 59.6** | **-1.6** |
| SNAA | | | | *ep*P | **pP** | **03 31 01.5** | **-2.9** |
| **VNDA** | **Vanda** | **56.74** | **195** | P | **P** | **03 31 09.6** | **+0.5** |
| | 6.1nm,1.0s,baz=106,slow=6.9,SNR=7.8 | | | | | | |
| VNDA | | | | LR | LR | 03 50 30.1 | |
| | comp=Z,306nm,20.4s,baz=112,slow=31 | | | | | | |
| **VNDA** | **Vanda** | **56.74** | **195** | *e*P | **P** | **03 31 08.1** | **-1.0** |
| VNDA | | | | *ep*P | **P** | **03 31 09.7** | **+0.5** |
| **SDDR** | **Presa de Saban** | **60.14** | **26** | *e*P | **P** | **03 31 29.8** | **-3.8** |
| | 27nm,1.5s | | | | | | |
| **ZAIG** | **Zacatecas** | **60.23** | **352** | *e*P | **P** | **03 31 33.9** | **-0.5** |
| ZAIG | | | | *es*P | **pP** | **03 31 38.0** | **+0.4** |
| **SJG** | **San Juan** | **61.29** | **31** | *e*P | **P** | **03 31 37.2** | **-4.1** |
| SJG | | | | *es*P | **pP** | **03 31 38.3** | **-6.2** |
| **HPIG** | | **64.75** | **349** | *e*P | **P** | **03 32 05.4** | **+1.0** |
| | 14nm,1.3s | | | | | | |
| **TXAR** | **Lajitas Array** | **66.84** | **351** | P | **P** | **03 32 17.5** | **-0.2** |
| | 3.4nm,0.9s,baz=167,slow=7.4,SNR=18 | | | | | | |
| TXAR | | | | LR | LR | 03 56 45.2 | |
| | comp=Z,202nm,18.2s,baz=0.0,slow=32 | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **66.84** | **351** | *e*P | **P** | **03 32 17.8** | **0.0** |
| **JCT** | **Junction City** | **67.61** | **355** | *e*P | **P** | **03 32 21.7** | **-0.9** |
| | 10nm,1.3s | | | | | | |
| **SYO** | **Syowa Base** | **68.73** | **164‖** | *e*P | **P** | **03 32 26.2** | **-2.9** |
| **WHTX** | **Lake Whitney,** | **68.99** | **357** | *e*P | **P** | **03 32 32.5** | **+1.3** |
| | 9.8nm,0.9s | | | | | | |
| **MNTX** | **Cornudas Mount** | **69.39** | **350** | *e*P | **P** | **03 32 34.1** | **+0.4** |
| | 3.6nm,0.9s | | | | | | |
| **TUC** | **Tucson** | **70.89** | **346** | *e*P | **P** | **03 32 45.9** | **+2.9** |
| | 6.3nm,1.3s | | | | | | |
| **MSTX** | **Muleshoe** | **71.32** | **353** | *e*P | **P** | **03 32 46.5** | **+0.9** |
| | 9.3nm,1.0s | | | | | | |
| **WMOK** | **Wichita Mounta** | **71.79** | **356** | *e*P | P | 03 32 52.9 | +4.7 |
| | 24nm,1.9s | | | | | | |
| **WHAR** | **Woody Hollow** | **72.26** | **2** | *e*P | **P** | **03 32 51.6** | **+0.6** |
| | 53nm,1.8s | | | | | | |
| **ANMO** | **Albuquerque** | **72.73** | **350** | P | **P** | **03 32 53.5** | **-0.6** |
| | 3.4nm,1.0s,baz=343,slow=12,SNR=6.1 | | | | | | |
| **ANMO** | **Albuquerque** | **72.73** | **350** | *e*P | **P** | **03 32 56.3** | **+2.2** |
| | 6.0nm,1.2s | | | | | | |
| **Y14A** | **Wickenburg** | **72.93** | **344** | *e*P | **P** | **03 32 59.0** | **+3.9** |
| **TKL** | **Tuckaleechee C** | **73.29** | **9** | P | **P** | **03 32 56.1** | **-1.0** |
| | 4.7nm,0.9s,baz=164,slow=12,SNR=3.1 | | | | | | |
| **MAW** | **Mawson** | **74.02** | **171** | P | **P** | **03 33 02.2** | **+1.1** |
| | 3.8nm,0.3s,baz=209,slow=13,SNR=46 | | | | | | |
| MAW | | | | LR | LR | 04 03 16.9 | |
| | comp=Z,194nm,20.6s,baz=234,slow=34 | | | | | | |
| **MAW** | **Mawson** | **74.02** | **171** | *e*P | **P** | **03 32 58.6** | **-2.5** |
| **T25A** | **Trinidad** | **74.63** | **352** | *e*P | **P** | **03 33 09.0** | **+3.8** |
| **CCM** | **Cathedral Cave** | **75.06** | **3** | *e*P | **P** | **03 33 07.9** | **+0.5** |
| **MVCO** | **Mesa Verde** | **75.26** | **349** | *e*P | **P** | **03 33 12.4** | **+3.6** |
| **SDCO** | **Great Sand Dun** | **75.36** | **351** | *e*P | **P** | **03 33 11.2** | **+1.7** |
| **S22A** | **4UR Ranch, Cre** | **75.54** | **350** | *e*P | **P** | **03 33 13.7** | **+3.1** |
| **SHPR** | **Sheep Range** | **75.88** | **343** | *e*P | **P** | **03 33 13.2** | **+0.9** |
| **PV01** | **Paradox Valley** | **76.17** | **349** | *e*P | **P** | **03 33 17.8** | **+3.7** |
| **CCUT** | **Cedar City** | **76.48** | **345** | *e*P | **P** | **03 33 20.2** | **+4.4** |
| **SMCO** | **Snowmass** | **76.96** | **350** | *e*P | **P** | **03 33 20.1** | **+1.4** |
| **Q16A** | **Castle Valley** | **77.38** | **347** | *e*P | **P** | **03 33 24.8** | **+4.0** |
| **SRU** | **San Rafael Swe** | **77.45** | **347** | *e*P | **P** | **03 33 24.7** | **+3.5** |
| **R11A** | **Troy Canyon, C** | **77.74** | **343** | *e*P | **P** | **03 33 25.6** | **+2.8** |
| **P18A** | **Preston Nutter** | **77.91** | **348** | *e*P | **P** | **03 33 26.9** | **+3.0** |
| **BGNE** | **Belgrade** | **78.41** | **357** | *e*P | **P** | **03 33 29.0** | **+2.7** |
| **DUG** | **Dugway, Tooele** | **78.92** | **346** | *e*P | **P** | **03 33 33.3** | **+4.0** |
| **YERR** | **Yerington** | **79.25** | **341** | *e*P | **P** | **03 33 34.7** | **+3.5** |
| **RWWY** | **Rawlins** | **79.46** | **350** | *e*P | **P** | **03 33 36.4** | **+4.1** |
| **PAHR** | **Pah Rah Range** | **79.96** | **341** | *e*P | **P** | **03 33 39.2** | **+4.2** |
| **K22A** | **Casper** | **80.32** | **351** | *e*P | **P** | **03 33 37.4** | **+0.5** |
| **BEKR** | **Beckworth** | **80.37** | **340** | *e*P | **P** | **03 33 37.9** | **+0.7** |
| **HVU** | **Hansel Valley** | **80.45** | **346** | *e*P | **P** | **03 33 39.9** | **+2.3** |
| **ECSD** | **EROS Data Cent** | **80.69** | **359** | *e*P | **P** | **03 33 41.7** | **+3.1** |
| **PD31** | **Pinedale Array** | **80.86** | **349** | *e*P | **P** | **03 33 39.5** | **-0.3** |
| **PDAR** | **Pinedale Array** | **80.86** | **349** | P | **P** | **03 33 39.0** | **-0.8** |
| | 2.3nm,0.7s,baz=158,slow=6.0,SNR=15 | | | | | | |
| **BW06** | **Boulder Array** | **80.86** | **349** | *e*P | **P** | **03 33 39.5** | **-0.3** |
| **RSSD** | **Black Hills** | **81.50** | **353** | *e*P | **P** | **03 33 47.1** | **+3.9** |
| **REDW** | **Red Top Meadow** | **81.64** | **348** | *e*P | **P** | **03 33 47.4** | **+3.5** |
| **TPAW** | **Teton Pass** | **81.78** | **348** | *e*P | **P** | **03 33 44.9** | **+0.1** |
| **FXWY** | **Fox Creek** | **81.94** | **348** | *e*P | **P** | **03 33 45.1** | **-0.4** |
| **MOOW** | **Moose Ponds** | **82.00** | **348** | *e*P | **P** | **03 33 49.5** | **+3.7** |
| **SPMN** | **Marine on St.** | **82.17** | **1** | *e*P | **P** | **03 33 49.6** | **+3.2** |
| **IMW** | **Indian Meadow** | **82.18** | **348** | *e*P | **P** | **03 33 49.7** | **+2.9** |
| **MOD** | **Modoc Plateau** | **82.26** | **341** | *e*P | **P** | **03 33 47.6** | **+0.5** |
| **WVOR** | **Wild Horse Val** | **82.34** | **342** | *e*P | **P** | **03 33 48.1** | **+0.6** |
| **HLID** | **Hailey** | **82.48** | **346** | *e*P | **P** | **03 33 48.8** | **+0.5** |
| **YHH** | **Holmes Hill** | **83.03** | **348** | *e*P | **P** | **03 33 55.2** | **+3.9** |
| **RLMT** | **Red Lodge** | **83.12** | **350** | *e*P | **P** | **03 33 55.9** | **+4.3** |
| **J08A** | **Circle Bar Ran** | **83.17** | **343** | *e*P | **P** | **03 33 52.7** | **+0.9** |
| **DZM** | **Mont Dzumac** | **83.68** | **247** | eLR | LR | 04 00 12.7 | |
| | 647nm,29.6s | | | | | | |
| **I07A** | **Izee** | **84.11** | **342** | *e*P | **P** | **03 33 56.8** | **+0.2** |
| **LAO** | **LASA Array** | **84.27** | **352** | *e*P | **P** | **03 34 01.9** | **+4.6** |
| **MDND** | **Maddock** | **84.90** | **357** | *e*P | **P** | **03 34 04.2** | **+3.9** |
| **G08A** | **Pilot Rock** | **85.11** | **343** | *e*P | **P** | **03 34 02.5** | **+0.8** |
| **F10A** | **Beach Ranch, E** | **85.37** | **344** | *e*P | P | 03 34 07.8 | +4.9 |
| **F07A** | **Phinny Hill Vi** | **85.91** | **343** | *e*P | P | 03 34 10.1 | +4.6 |
| **E08A** | **Dider Farm, El** | **86.27** | **343** | *e*P | **P** | **03 34 11.2** | **+4.0** |
| **HAWA** | **Hanford** | **86.29** | **343** | *e*P | **P** | **03 34 07.7** | **+0.4** |
| **D08A** | **Wollman Farm,** | **86.77** | **344** | *e*P | **P** | **03 34 13.6** | **+3.9** |
| **ULM** | **Lac du Bonnet** | **87.19** | **359** | LR | LR | 04 10 14.4 | |
| | comp=Z,196nm,19.5s,baz=146,slow=34 | | | | | | |
| **STKA** | **Stephens Creek** | **93.47** | **225** | LR | LR | 04 10 00.9 | |
| | comp=Z,212nm,18.4s,baz=194,slow=31 | | | | | | |
| **BOSA** | **Boshof** | **93.51** | **130** | P | **P** | **03 34 42.4** | **+0.2** |
| | 2.4nm,0.8s,baz=169,slow=5.2,SNR=4.2 | | | | | | |
| BOSA | | | | LR | LR | 04 10 25.0 | |
| | comp=Z,147nm,20.6s,baz=231,slow=31 | | | | | | |
| **SCHQ** | **Schefferville** | **94.82** | **16** | LR | LR | 04 15 28.7 | |
| | comp=Z,189nm,21.4s,baz=19,slow=34 | | | | | | |
| **CLL** | **Collm** | **128.39** | **50** | *e*PKPdf | **PKPdf** | **03 40 32.0** | **0.0** |
| CLL | | | | *e*PP | **PP** | **03 42 36.0** | **-1.4** |
| **USRK** | **Ussuriysk Ar.** | **144.45** | **296** | PKP | **PKPdf** | **03 41 05.2** | **+3.4** |
| | 5.4nm,0.9s,baz=132,slow=2.8,SNR=7.2 | | | | | | |
| **KSRS** | **Korea Array** | **146.44** | **283** | PKPbc | **PKPdf** | **03 41 07.0** | **+1.5** |
| | 0.6nm,0.4s,baz=166,slow=1.1,SNR=4.4 | | | | | | |
| **KSAR** | **Wonju Array Be** | **146.47** | **283** | PKPbc | **PKPdf** | **03 41 07.0** | **+1.4** |
| **KBZ** | **Khabaz** | **147.32** | **65** | PKPbc | **PKPbc** | **03 41 08.6** | **-0.6** |
| | 1.6nm,0.8s,baz=330,slow=5.7,SNR=5.3 | | | | | | |
| **NJ2** | **Nanjing** | **152.10** | **269** | *e*PKPbc | **PKPdf** | **03 41 15.8** | **+1.0** |
| **CMAR** | **Chiang Mai Arr** | **157.79** | **216** | PKPab | **PKPab** | **03 41 54.8** | **-0.6** |
| | 1.0nm,0.3s,baz=180,slow=0.9,SNR=4.3 | | | | | | |
| **GYA** | **Guiyang** | **159.01** | **245** | *e*PKP | **PKPdf** | **03 41 24.0** | **-0.4** |
| GYA | | | | PKPab | **PKPab** | **03 42 02.8** | **+1.9** |
| GYA | | | | PP | **PP** | **03 45 44.6** | **+2.8** |
| GYA | | | | AMB | AMB | | |
| | comp=Z,120nm,8.4s | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **159.43** | **288** | *e*PKP | **PKPdf** | **03 41 25.5** | **+1.1** |
| HHC | | | | AMB | AMB | | |
| | comp=Z,82nm,5.3s | | | | | | |
| **KMI** | **Kunming** | **160.88** | **235** | PKP | **PKPdf** | **03 41 26.5** | **-0.2** |
| KMI | | | | AMB | AMB | | |
| | comp=Z,150nm,4.2s | | | | | | |
| **SONM** | **Songino Array** | **161.37** | **311** | PKPab | **PKPab** | **03 42 09.4** | **-1.2** |
| | 0.8nm,0.7s,baz=96,slow=1.4,SNR=4.7 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **163.35** | **1** | PKP | **PKPdf** | **03 41 28.3** | **+0.4** |
| | 0.8nm,0.6s,baz=350,slow=3.5,SNR=4.2 | | | | | | |
| **LZH** | **Lanzhou** | **165.17** | **271** | *e*PKP | **PKPdf** | **03 41 28.5** | **-1.9** |
| LZH | | | | pPKP | pPKPdf | 03 41 31.8 | -2.0 |
| LZH | | | | sPKP | | 03 41 33.0 | |
| LZH | | | | LR | LR | | |
| | comp=N,130nm,18.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=E,120nm,18.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,140nm,20.2s | | | | | | |
| **MKAR** | **Makanchi Array** | **170.24** | **13** | PKP | **PKPdf** | **03 41 32.2** | **-1.2** |
| | 0.6nm,0.9s,baz=313,slow=3.2,SNR=2.9 | | | | | | |
| **KSH** | **Kashi** | **172.26** | **71** | *e*PKP | **PKPdf** | **03 41 36.4** | **+1.6** |
| KSH | | | | PP | **PP** | **03 46 55.9** | **+5.2** |
| KSH | | | | SKS | **SKSdf** | **03 48 40.3** | **+2.1** |
| KSH | | | | SKKS | **SKKSac** | **03 53 40.8** | **+3.7** |
| KSH | | | | AMB | AMB | | |
| | comp=Z,110nm,6.7s | | | | | | |
| **WMQ** | **Urumqi** | **173.27** | **346** | *e*PKP | **PKPdf** | **03 41 34.5** | **-0.5** |
| WMQ | | | | LR | LR | | |
| | comp=N,110nm,17.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,120nm,16.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,100nm,16.1s | | | | | | |

**IDC 13 03:27:37.1±2.3,33.°09S×56.°67E,h0km,mb3.9/5, mb1 4.2/5,mb1mx3.7/33,mbtmp3.9/5,MS3.5/2,Ms1 3.5/2, ms1mx3.1/33,Error ellipse: s-maj=89.2km s-min=31.4km az=38.0,Southwest Indian Ridge**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **OPO** | **Ambohidratompo** | **16.77** | **327** | LR | LR | 03 36 38.3 | |
| | comp=Z,64nm,18.5s,baz=181,slow=32 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **65.25** | **45** | P | P | 03 38 20.6 | -0.2 |
| | 1.4nm,0.4s,baz=226,slow=7.5,SNR=6.4 | | | | | | |
| **ASAR** | **Alice Springs** | **67.24** | **104** | P | P | 03 38 34.2 | +0.5 |
| | 0.5nm,0.7s,baz=244,slow=6.3,SNR=6.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **69.34** | **101** | P | P | 03 38 46.7 | -0.2 |
| | 1.3nm,1.0s,baz=240,slow=5.4,SNR=5.0 | | | | | | |
| **BRTR** | **Keskin Array B** | **75.52** | **342** | P | P | 03 39 25.0 | +1.6 |
| | 0.6nm,0.8s,baz=156,slow=7.4,SNR=3.8 | | | | | | |
| **AAK** | **Ala-Archa** | **77.11** | **13** | LR | LR | 04 11 20.0 | |
| | comp=Z,62nm,18.1s,baz=132,slow=34 | | | | | | |
| **GERES** | **GERESS Array B** | **90.12** | **333** | P | P | 03 40 37.8 | -1.1 |
| | 0.3nm,0.4s,baz=146,slow=2.6,SNR=4.1 | | | | | | |
| **YKA** | **Yellowknife Ar** | **150.05** | **352** | PKPab | PKPab | 03 47 33.4 | -1.3 |
| | 0.5nm,0.5s,baz=357,slow=3.0,SNR=5.9 | | | | | | |

**WEL 13 03:33:54.2±0.4,37.°92S×175.°88E,h175km±4km,ML3.5/24, 6C,Error ellipse: s-maj=4.9km s-min=3.7km az=90.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **URZ** | **Urewera** | **1.03** | **109** | ⇑PN | Pn | 03 34 21.7 | +0.2 |
| URZ | | | | SN | Sn | 03 34 42.7 | 0.0 |
| **RTZ** | **Ruatahuna** | **1.11** | **129** | PN | Pn | 03 34 22.5 | +0.2 |
| RTZ | | | | SN | Sn | 03 34 44.6 | +0.5 |
| **MTHZ** | **Maungataniwha** | **1.20** | **141** | PN | Pn | 03 34 23.4 | +0.4 |
| MTHZ | | | | SN | Sn | 03 34 45.0 | -0.3 |
| **OTVZ** | **Oturere** | **1.25** | **188** | ⇑PN | Pn | 03 34 24.1 | +0.5 |
| **BKZ** | **Black Stump Fm** | **1.33** | **159** | ⇑PN | Pn | 03 34 23.9 | -0.3 |
| BKZ | | | | SN | Sn | 03 34 46.0 | -1.5 |
| BKZ | | | | AML | AML | 03 34 48.0 | |
| **TUVZ** | **Tukino** | **1.36** | **187** | PN | Pn | 03 34 24.8 | +0.3 |
| **MWZ** | **Matawai** | **1.37** | **108** | PN | Pn | 03 34 24.7 | +0.2 |
| MWZ | | | | SN | Sn | 03 34 47.7 | -0.1 |
| MWZ | | | | AML | AML | 03 34 48.6 | |
| **NMHZ** | **Naumai** | **1.38** | **148** | PN | Pn | 03 34 25.5 | +0.8 |
| NMHZ | | | | AML | AML | 03 34 50.3 | |
| NMHZ | | | | AML | AML | 03 34 50.4 | |
| **WNVZ** | **Wahianoa** | **1.42** | **189** | PN | Pn | 03 34 24.9 | -0.2 |
| **RUGZ** | **Raukumara Rang** | **1.43** | **92** | PN | Pn | 03 34 24.5 | -0.6 |
| **HAZ** | **Te Kaha** | **1.52** | **84** | PN | Pn | 03 34 25.9 | +0.1 |
| HAZ | | | | SN | Sn | 03 34 49.7 | -0.5 |
| HAZ | | | | AML | AML | 03 34 51.0 | |
| **KWHZ** | **Kaweka Forest** | **1.56** | **164** | PN | Pn | 03 34 26.1 | -0.2 |
| KWHZ | | | | AML | AML | 03 34 52.6 | |
| KWHZ | | | | AML | AML | 03 34 58.2 | |
| **WHNZ** | **Waihua** | **1.57** | **138** | PN | Pn | 03 34 26.6 | +0.2 |
| WHHZ | | | | AML | AML | 03 35 03.9 | |
| WHHZ | | | | AML | AML | 03 35 12.7 | |
| **BHHZ** | **Black Hill Sta** | **1.57** | **175** | PN | Pn | 03 34 25.8 | -0.6 |
| BHHZ | | | | SN | Sn | 03 34 49.1 | -2.5 |
| **ARHZ** | **Aropaoanui** | **1.60** | **147** | PN | Pn | 03 34 26.7 | +0.1 |
| ARHZ | | | | SN | Sn | 03 34 51.2 | -0.7 |
| ARHZ | | | | AML | AML | 03 34 51.4 | |
| **MCHZ** | **McNeill Hill** | **1.65** | **157** | PN | Pn | 03 34 27.4 | +0.2 |
| MCHZ | | | | AML | AML | 03 34 54.8 | |
| MCHZ | | | | AML | AML | 03 34 54.9 | |
| **RIGZ** | **Rimuhau** | **1.68** | **118** | PN | Pn | 03 34 27.7 | +0.2 |
| RIGZ | | | | AML | AML | 03 34 54.0 | |
| RIGZ | | | | AML | AML | 03 34 56.1 | |
| **TWGZ** | **Tauwhareparae** | **1.68** | **99** | PN | Pn | 03 34 28.0 | +0.5 |
| TWGZ | | | | AML | AML | 03 34 56.9 | |
| TWGZ | | | | AML | AML | 03 34 58.0 | |
| **KRHZ** | **Kereru** | **1.76** | **168** | PN | Pn | 03 34 27.6 | -0.7 |
| KRHZ | | | | AML | AML | 03 35 01.7 | |
| **KNZ** | **Kokohu** | **1.79** | **128** | PN | Pn | 03 34 28.2 | -0.4 |
| **PRGZ** | **Paritu Road** | **1.87** | **123** | PN | Pn | 03 34 29.3 | -0.2 |
| PRGZ | | | | AML | AML | 03 35 25.9 | |
| **PUZ** | **Puketiti** | **1.89** | **95** | PN | Pn | 03 34 29.4 | -0.3 |
| **WAZ** | **Wanganui** | **1.96** | **201** | PN | Pn | 03 34 29.5 | -0.9 |
| **MXZ** | **Matakaoa Point** | **1.96** | **80** | PN | Pn | 03 34 31.1 | +0.7 |
| **CKHZ** | **Cape Kidnapper** | **1.97** | **152** | PN | Pn | 03 34 30.1 | -0.4 |
| CKHZ | | | | AML | AML | 03 34 59.7 | |
| CKHZ | | | | AML | AML | 03 35 00.1 | |
| **PNHZ** | **Pukenui** | **2.00** | **173** | PN | Pn | 03 34 29.5 | -1.5 |
| PNHZ | | | | AML | AML | 03 34 58.9 | |
| **WMGZ** | **Waiomatatini S** | **2.01** | **88** | PN | Pn | 03 34 30.9 | 0.0 |
| WMGZ | | | | AML | AML | 03 35 01.1 | |
| WMGZ | | | | AML | AML | 03 35 01.6 | |
| **KAHZ** | **Kahuranaki** | **2.03** | **158** | PN | Pn | 03 34 30.5 | -0.7 |
| KAHZ | | | | AML | AML | 03 35 00.8 | |
| **TSZ** | **Takapari Road** | **2.13** | **178** | PN | Pn | 03 34 30.8 | -1.6 |
| **WPHZ** | **Waipukurau** | **2.19** | **169** | PN | Pn | 03 34 31.5 | -1.4 |
| **DVHZ** | **Dannevirke** | **2.38** | **175** | PN | Pn | 03 34 33.0 | -2.2 |
| DVHZ | | | | AML | AML | 03 35 04.6 | |
| DVHZ | | | | AML | AML | 03 35 05.6 | |
| **PRHZ** | **Porangahau** | **2.42** | **166** | PN | Pn | 03 34 33.7 | -1.8 |
| PRHZ | | | | AML | AML | 03 35 07.5 | |
| **POWZ** | **Post Office Ro** | **2.47** | **182** | PN | Pn | 03 34 33.8 | -2.4 |
| **ANWZ** | **Angora Road** | **2.58** | **170** | ⇑PN | Pn | 03 34 35.5 | -2.0 |
| ANWZ | | | | AML | AML | 03 35 10.1 | |
| ANWZ | | | | AML | AML | 03 35 11.2 | |
| **PRWZ** | **Pori Road** | **2.63** | **178** | PN | Pn | 03 34 35.9 | -2.2 |
| **MRZ** | **Mangatainoka R** | **2.75** | **185** | PN | Pn | 03 34 36.5 | -2.9 |
| MRZ | | | | AML | AML | 03 35 11.4 | |
| MRZ | | | | AML | AML | 03 35 11.7 | |
| **BFZ** | **Birch Farm** | **2.77** | **174** | PN | Pn | 03 34 36.9 | -2.8 |
| **TIWZ** | **Tintock** | **2.85** | **180** | PN | Pn | 03 34 37.9 | -2.8 |
| **OGWZ** | **Otaki Gorge** | **2.94** | **190** | PN | Pn | 03 34 38.8 | -3.1 |
| OGWZ | | | | AML | AML | 03 35 14.7 | |
| **HOWZ** | **Holdsworth Sta** | **2.98** | **185** | ⇑PN | Pn | 03 34 39.1 | -3.3 |
| **CPWZ** | **Castlepoint** | **

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| UPI | | | | *i* S | | **Sg** | **03 37 54.9** | **+4.2** |
| **MSNA** | **Messina** | **5.42** | **34** | *e*P | | **Pn** | **03 36 28.7** | **+1.6** |
| MSNA | | | | *e*S | | **Sn** | **03 37 26.4** | **-3.2** |
| MSNA | | | | AML | | AML | 03 37 59.9 | |
| | comp=Z,60nm,0.3s | | | | | | | |
| **ARMS** | **Ukamas** | **6.37** | **258** | *i* S | | **Sg** | **03 38 28.4** | **-2.2** |
| **KOMG** | **Komaggas** | **8.69** | **249** | *e*P | | **Pn** | **03 37 13.7** | **+1.7** |
| KOMG | | | | *e*S | | **Sn** | **03 38 48.4** | **-1.8** |
| KOMG | | | | AML | | AML | 03 39 49.8 | |
| | comp=Z,32nm,0.5s | | | | | | | |
| **KOMG** | **Komaggas** | **8.69** | **249** | *i* P | | **Pn** | **03 37 13.8** | **+1.8** |
| KOMG | | | | *i* S | | **Sg** | **03 39 38.0** | **-7.1** |
| **KJAB** | **KAMANJAB** | **13.16** | **301** | *i* P | | **Pn** | **03 38 13.4** | **+0.1** |
| KJAB | | | | *i* S | | **S** | **03 40 58.2** | **-6.8** |
| **TORD** | **Torodi Ar. Bea** | **46.70** | **325** | P | | **P** | **03 43 37.1** | **+1.6** |
| | comp=Z,0.7nm,0.7s,baz=159,slow=7.6,SNR=18 | | | | | | | |
| **BDFB** | **Brasilia** | **69.75** | **262** | P | | **P** | **03 46 19.6** | **+2.4** |
| | comp=Z,0.5nm,0.3s,baz=333,slow=11,SNR=2.2 | | | | | | | |

*JMA* ***13*** *03:40:54.8±0.1, 33.7N×137.8E, h328km, M2.8*
*ISCJB* ***13*** *03:40:56.9±0.8, 33.6N±0.1×137.9E±0.1, h300km, mb2.8/2, Error ellipse: s-maj=18.9km s-min=10.3km az=152.2*
*IDC* ***13*** *03:40:56.2±3.5, 33.6N×137.6E, h295km±97km, mb2.7/2, mb1 2.9/3, mb1mx2.6/29, mbtmp3.3/3, Error ellipse: s-maj=213.4km s-min=25.4km az=61.0*

**ISC 13 03:40:57.0±1.1, 33.7N±0.1×137.9E±0.1, h300km, n18, σ1°33/19, Near south coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TK04** | **Tokai 4** | **0.64** | **0** | P | **Pn** | **03 41 37.7** | **+1.9** |
| **TTO2** | **TONANKAI O.B.S** | **0.70** | **270** | P | **Pn** | **03 41 37.8** | **+2.0** |
| **TTO1** | **TONANKAI O.B.S** | **0.91** | **263** | P | **Pn** | **03 41 38.3** | **+1.7** |
| **JHMK** | **Hamakita** | **1.07** | **355** | P | **Pn** | **03 41 38.6** | **+1.1** |
| **JIE** | **Ise** | **1.16** | **304** | P | **Pn** | **03 41 39.0** | **+0.9** |
| **JKN2** | **Miekihoku** | **1.42** | **291** | P | **Pn** | **03 41 40.2** | **+0.6** |
| **JAO** | **Obara** | **1.60** | **342** | P | **Pn** | **03 41 41.7** | **+0.8** |
| JAO | | | | S | **S** | **03 42 18.5** | **+2.8** |
| **JNY** | **Yasuok** | **1.61** | **360** | P | **Pn** | **03 41 41.5** | **+0.5** |
| **JWZ** | **Kozaga** | **1.81** | **264** | P | **Pn** | **03 41 42.7** | **+0.4** |
| **JOD2** | **Odawara 2** | **1.82** | **33** | P | **Pn** | **03 41 43.5** | **+1.1** |
| **BSO4** | **Boso 4** | **2.39** | **58** | *e*S | **S** | **03 42 27.4** | **+0.7** |
| **JHU** | **Hanno** | **2.40** | **29** | P | **Pn** | **03 41 47.5** | **+0.4** |
| **JRY** | **Ryogami san** | **2.42** | **20** | P | **Pn** | **03 41 48.4** | **+1.1** |
| **BSO3** | **Boso 3** | **2.43** | **63** | *e*S | **S** | **03 42 27.2** | **+0.2** |
| **MJAR** | **Matsushiro Arr** | **2.81** | **6** | P | **Pn** | **03 41 50.8** | **0.0** |
| | 1.1nm,0.3s,baz=187,slow=9.9,SNR=12 | | | | | | | |
| **MAT** | **Matsushiro** | **2.81** | **6** | P | **Pn** | **03 41 50.6** | **-0.2** |
| **MKAR** | **Makanchi Array** | **43.50** | **305** | P | **P** | **03 48 29.9** | **-1.5** |
| | 0.4nm,0.7s,baz=90,slow=9.2,SNR=3.1 | | | | | | | |
| **WRA** | **Warramunga Arr** | **53.49** | **184** | P | **P** | **03 49 45.9** | **-1.3** |
| | 0.2nm,0.3s,baz=360,slow=7.8,SNR=7.3 | | | | | | | |

**TRN 13 03:47:22.8, 12.34N×60.38W, h119km, MD4.0, Windward Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TOSP** | **Speyside** | **1.04** | **189** | *e*P | Pn | 03 47 46.0 | +0.8 |
| TOSP | | | | *e*S | Sn | 03 48 03.9 | +1.7 |
| **BBGH** | **Gun Hill** | **1.13** | **45** | *e*P | Pn | 03 47 46.5 | +0.4 |
| BBGH | | | | *e*S | Sn | 03 48 05.6 | +1.8 |
| **FCV** | **Fort Charlotte** | **1.18** | **314** | *e*P | Pn | 03 47 48.5 | +1.9 |
| FCV | | | | *e*S | Sn | 03 48 06.3 | +1.7 |
| **BBSP** | **Saint Philip** | **1.18** | **49** | *e*P | Pn | 03 47 47.4 | +0.8 |
| **SVCV** | **St. Vincent, C** | **1.20** | **321** | *e*P | Pn | 03 47 48.1 | +1.3 |
| SVCV | | | | *e*S | Sn | 03 48 06.1 | +1.1 |
| **SVB** | **Belmont** | **1.26** | **317** | *e*P | Pn | 03 47 48.4 | +0.9 |
| SVB | | | | *e*S | Sn | 03 48 07.8 | +1.5 |
| **GRGR** | **Grenville** | **1.27** | **261** | *e*P | Pn | 03 47 48.4 | +0.9 |
| GRGR | | | | *e*S | Sn | 03 48 07.2 | +0.9 |
| **SVV** | **Soufriere Volc** | **1.27** | **320** | *e*P | Pn | 03 47 49.0 | +1.4 |
| SVV | | | | *e*S | Sn | 03 48 08.3 | +1.8 |
| **MCLT** | **Moule a Chique** | **1.47** | **338** | *e*P | Pn | 03 47 51.4 | +1.5 |
| MCLT | | | | *e*S | Sn | 03 48 11.2 | +0.7 |
| **SLDE** | **Delcer** | **1.60** | **336** | *e*P | Pn | 03 47 53.6 | +2.2 |
| **SLB** | **Belfond** | **1.62** | **336** | *e*P | Pn | 03 47 53.1 | +1.4 |
| SLB | | | | *e*S | Sn | 03 48 15.6 | +1.9 |
| **SLTA** | **Morne Tabac** | **1.66** | **337** | *e*S | Sn | 03 48 14.9 | +0.5 |
| **SLW** | **Petit Monier** | **1.76** | **342** | *e*P | Pn | 03 47 53.9 | +0.5 |
| **MVM** | **Montagne Vaucl** | **2.26** | **347** | *e*P | Pn | 03 48 01.3 | +1.7 |
| **FDF** | **Fort de France** | **2.50** | **343** | *e*P | Pn | 03 48 04.3 | +1.7 |
| FDF | | | | *e*S | Sn | 03 48 33.7 | +0.5 |
| **PML** | **Morne Lenard** | **2.55** | **342** | *e*P | Pn | 03 48 05.4 | +2.1 |
| **CXM** | **Morne La Croix** | **2.58** | **343** | *e*P | Pn | 03 48 05.2 | +1.4 |

*IDC* ***13*** *04:03:54.5±0.8, 28.2N×43.1W, h0km, mb3.9/13, mb1 4.1/13, mb1mx3.8/50, mbtmp3.9/13, MS3.7/12, Ms1 3.7/12, ms1mx3.5/43, Error ellipse: s-maj=24.5km s-min=19.5km az=157.0*
*ISCJB* ***13*** *04:03:55.9±0.5, 28.2N±0.1×43.8W±0.07, h19km, mb4.4/35, MS3.8/12, Error ellipse: s-maj=16.4km s-min=8.3km az=2.1*
*NEIC* ***13*** *04:03:56.3±0.5, 28.2N×43.8W, h10km, mb4.7/23, Error ellipse: s-maj=14.9km s-min=7.6km az=181.0*

**ISC 13 04:03:57.8±0.7, 28.2N±0.1×43.9W±0.1, h19km, n64, σ1°25/49, mb4.6/35, MS3.8/12, Northern Mid-Atlantic Ridge**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SJG** | **San Juan** | **22.76** | **249** | LR | LR | 04 15 49.9 | |
| | comp=Z,57nm,20.1s,baz=76,slow=31 | | | | | | |
| **SADO** | **Sadowa** | **32.49** | **310** | LR | LR | 04 21 45.6 | |
| | comp=Z,133nm,19.4s,baz=123,slow=33 | | | | | | |
| **TKL** | **Tuckaleechee C** | **34.46** | **293** | LR | LR | 04 22 25.8 | |
| | comp=Z,101nm,19.7s,slow=32 | | | | | | |
| **TUL1** | **Leonard** | **44.21** | **294** | *e*P | **P** | **04 12 06.8** | **+1.0** |
| | 14nm,1.1s | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **44.94** | **100** | *e*P | **P** | **04 12 12.1** | **+0.3** |
| **TORD** | **Torodi Ar. Bea** | **44.94** | **100** | P | **P** | **04 12 12.1** | **+0.3** |
| | 1.0nm,1.0s,baz=296,slow=9.3,SNR=4.1 | | | | | | |
| TORD | | | | LR | LR | 04 28 32.7 | |
| | comp=Z,98nm,21.0s,baz=325,slow=33 | | | | | | |
| **H10N2** | **ASCENSION HYDR** | **45.73** | **137** | T | T | 05 00 54.7 | |
| | baz=323,slow=75,SNR=36 | | | | | | |
| **H10N3** | **ASCENSION HYDR** | **45.73** | **137** | T | T | 05 01 03.7 | |
| | baz=323,slow=75,SNR=38 | | | | | | |
| **H10N1** | **ASCENSION HYDR** | **45.75** | **137** | T | T | 05 00 57.6 | |
| | baz=323,slow=75,SNR=39 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **46.52** | **138** | T | T | 05 02 02.6 | |
| | baz=324,slow=75,SNR=56 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **46.52** | **138** | T | T | 05 02 01.6 | |
| | baz=324,slow=75,SNR=55 | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **46.54** | **138** | T | T | 05 02 02.8 | |
| | baz=324,slow=75,SNR=68 | | | | | | |
| **GERES** | **GERESS Array B** | **48.28** | **48** | P | **P** | **04 12 37.5** | **-0.3** |
| | 0.7nm,0.8s,baz=267,slow=6.7,SNR=3.7 | | | | | | |
| **LPAZ** | **La Paz** | **50.08** | **211** | P | **P** | **04 12 52.6** | **+0.3** |
| | 1.5nm,0.8s,baz=352,slow=12,SNR=5.0 | | | | | | |
| **LTX** | **Lajitas** | **51.88** | **286** | *e*P | **P** | **04 13 04.0** | **-1.3** |
| **TXAR** | **Lajitas Array** | **51.88** | **286** | P | **P** | **04 13 04.0** | **-1.3** |
| | 0.3nm,0.8s,baz=71,slow=5.8,SNR=2.7 | | | | | | |
| **ANMO** | **Albuquerque** | **52.97** | **294** | LR | LR | 04 33 16.4 | |
| | comp=Z,79nm,18.9s,baz=276,slow=33 | | | | | | |
| **RES** | **Resolute Bay** | **53.05** | **345** | P | **P** | **04 13 13.4** | **+0.2** |
| | 1.9nm,1.0s,baz=97,slow=5.5,SNR=5.9 | | | | | | |
| **PDAR** | **Pinedale Array** | **54.12** | **304** | P | **P** | **04 13 21.1** | **-0.8** |
| | 2.5nm,0.9s,baz=72,slow=9.8,SNR=18 | | | | | | |
| PDAR | | | | LR | LR | 04 35 01.9 | |
| | comp=Z,100nm,19.2s,baz=50,slow=34 | | | | | | |
| **YMR** | **Madison River** | **54.91** | **307** | *e*P | **P** | **04 13 29.9** | **+2.4** |
| | 30nm,1.9s | | | | | | |
| **IMW** | **Indian Meadow** | **54.98** | **306** | *e*P | **P** | **04 13 29.3** | **+1.1** |
| | 5.2nm,1.1s | | | | | | |
| **TPAW** | **Teton Pass** | **55.04** | **305** | *e*P | **P** | **04 13 29.6** | **+1.1** |
| | 6.1nm,1.0s | | | | | | |
| **YHB** | **Horse Butte** | **55.06** | **307** | *e*P | **P** | **04 13 30.7** | **+2.0** |
| | 10nm,1.1s | | | | | | |
| **FXWY** | **Fox Creek** | **55.08** | **305** | *e*P | **P** | **04 13 29.6** | **+0.8** |
| | 4.8nm,1.1s | | | | | | |
| **P18A** | **Preston Nutter** | **55.09** | **300** | *e*P | **P** | **04 13 30.3** | **+1.2** |
| | 40nm,1.1s | | | | | | |
| **DCM** | **Dugout Coal Mi** | **55.34** | **301** | *e*P | **P** | **04 13 32.3** | **+1.5** |
| **SRU** | **San Rafael Swe** | **55.40** | **300** | *e*P | **P** | **04 13 32.4** | **+1.3** |
| | 4.4nm,0.9s | | | | | | |
| **JLU** | **Jordanelle** | **55.84** | **302** | *e*P | **P** | **04 13 35.4** | **+1.0** |
| | 7.7nm,1.3s | | | | | | |
| **BUR04** | **Bucovina Ar. S** | **56.00** | **50** | *e*P | **P** | **04 13 36.0** | **+0.8** |
| **FIA0** | **FINESS Array S** | **56.10** | **33** | *e*P | **P** | **04 13 34.6** | **-0.9** |
| **FINES** | **FINESS Array B** | **56.10** | **33** | P | **P** | **04 13 34.6** | **-0.9** |
| | 5.4nm,0.9s,baz=219,slow=11,SNR=3.3 | | | | | | |
| **NLU** | **North Lily Min** | **56.42** | **301** | *e*P | **P** | **04 13 40.1** | **+1.6** |
| | 7.2nm,1.2s | | | | | | |
| **SPUT** | **South Promonto** | **56.47** | **303** | *e*P | **P** | **04 13 39.6** | **+0.9** |
| | 8.1nm,1.1s | | | | | | |
| **YKA** | **Yellowknife Ar** | **56.50** | **328** | LR | LR | 04 36 40.0 | |
| | comp=Z,11nm,19.7s,baz=0.0,slow=35 | | | | | | |
| **DUG** | **Dugway, Tooele** | **56.94** | **301** | *e*P | **P** | **04 13 43.5** | **+1.4** |
| | 7.4nm,1.2s | | | | | | |
| **BGU** | **Big Grassy Mou** | **56.96** | **302** | *e*P | **P** | **04 13 42.8** | **+0.5** |
| | 5.2nm,1.1s | | | | | | |
| **TCRU** | **Three Creeks R** | **56.96** | **300** | *e*P | **P** | **04 13 42.4** | **0.0** |
| | 5.4nm,0.5s | | | | | | |
| **SZCU** | **Shurtz Canyon** | **57.67** | **299** | *e*P | **P** | **04 13 46.5** | **-0.8** |
| | 12nm,1.9s | | | | | | |
| **CCUT** | **Cedar City** | **57.89** | **299** | *e*P | **P** | **04 13 50.8** | **+1.8** |
| | 3.8nm,1.1s | | | | | | |
| **AKASG** | **Malin Array Be** | **58.27** | **46** | P | **P** | **04 13 49.4** | **-1.6** |
| | 1.9nm,0.7s,baz=277,slow=5.6,SNR=8.9 | | | | | | |
| **AKBB** | **Malin Array Si** | **58.27** | **46** | *e*P | **P** | **04 13 49.4** | **-1.6** |
| | 19nm,1.6s | | | | | | |
| **NEW** | **Newport** | **58.66** | **311** | *e*P | **P** | **04 13 54.2** | **+0.4** |
| | 19nm,1.5s | | | | | | |
| **113A** | **Mohawk Valley,** | **59.38** | **293** | *e*P | **P** | **04 13 58.6** | **-0.5** |
| | 6.9nm,0.9s | | | | | | |
| **D08A** | **Wollman Farm,** | **60.05** | **310** | *e*P | **P** | **04 14 04.3** | **+0.8** |
| | 5.8nm,1.0s | | | | | | |
| **HAWA** | **Hanford** | **60.59** | **310** | *e*P | **P** | **04 14 08.2** | **+1.0** |
| | 6.5nm,1.0s | | | | | | |
| **VPEM** | **Volcano Peak E** | **61.75** | **298** | *e*P | **P** | **04 14 14.2** | **-1.2** |
| **PAHR** | **Pah Rah Range** | **61.97** | **302** | *e*P | **P** | **04 14 18.2** | **+1.4** |
| | 7.6nm,1.1s | | | | | | |
| **PASC** | **Pasadena Art C** | **62.54** | **296** | *e*P | **P** | **04 14 18.9** | **-1.7** |
| **FMP** | **Fort Macarthur** | **62.76** | **295** | *e*P | **P** | **04 14 20.6** | **-1.4** |
| **BR231** | **Keskin MP Arra** | **62.82** | **57** | *e*P | **P** | **04 14 26.7** | **+4.2** |
| **BR101** | **Keskin Array S** | **63.49** | **57** | *e*P | **P** | **04 14 27.0** | **0.0** |
| **BRTR** | **Keskin Array B** | **63.49** | **57** | P | **P** | **04 14 27.0** | **0.0** |
| | 0.9nm,0.8s,baz=273,slow=7.2,SNR=4.6 | | | | | | |
| **IL1** | **Eielson Array** | **70.12** | **334** | *e*P | **P** | **04 15 08.0** | **-0.6** |
| **ILAR** | **Eielson Array** | **70.12** | **334** | P | **P** | **04 15 08.3** | **-0.2** |
| | 1.7nm,0.9s,baz=78,slow=4.3,SNR=17 | | | | | | |
| ILAR | | | | LR | LR | 04 44 48.0 | |
| | comp=Z,87nm,19.6s,baz=216,slow=35 | | | | | | |
| **ILB** | **Eielson Array** | **70.12** | **334** | *e*P | **P** | **04 15 09.1** | **+0.5** |
| **PLCA** | **Paso Flores** | **72.93** | **201** | P | **P** | **04 15 25.4** | **-0.3** |
| | 19nm,1.7s | | | | | | |
| **PLCA** | **Paso Flores** | **72.93** | **201** | *e*P | **P** | **04 15 25.4** | **-0.3** |
| | 19nm,1.7s | | | | | | |
| **AKTO** | **Aktyubinsk** | **75.81** | **40** | P | **P** | **04 15 41.9** | **-0.7** |
| | 0.8nm,0.4s,baz=221,slow=8.5,SNR=3.2 | | | | | | |
| **KMBO** | **Kilima Mbogo** | **82.73** | **95** | LR | LR | 04 51 24.8 | |
| | comp=Z,88nm,21.1s,baz=284,slow=34 | | | | | | |
| **KURK** | **Kurchatov** | **86.47** | **32** | *e*P | **P** | **04 16 38.7** | **-0.5** |
| **KURBB** | **Kurchatov Arra** | **86.49** | **33** | P | **P** | **04 16 38.7** | **-0.6** |
| | 0.6nm,0.8s,baz=312,slow=5.5,SNR=4.6 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **86.95** | **28** | LR | LR | 04 53 25.4 | |
| | comp=Z,120nm,19.7s,baz=72,slow=34 | | | | | | |
| **MKAR** | **Makanchi Array** | **90.93** | **34** | LR | LR | 04 54 46.2 | |
| | comp=Z,115nm,20.1s,baz=7.5,slow=34 | | | | | | |
| **PETK** | **Petropavlovsk-** | **96.86** | **347** | LR | LR | 05 01 14.8 | |
| | comp=Z,37nm,19.7s,baz=67,slow=36 | | | | | | |

*CSEM* ***13*** *04:20:08.5±0.4, 50.2N×19.2E, h1km, Error ellipse: s-maj=12.2km s-min=7.0km az=5.0*

**PRU 13 04:20:09.4, 50.22N×19.29E, h0km, Poland**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **OJC** | **Ojcow** | **0.33** | **90** | *e*Pg | Pg | 04 20 16.0 | +0.3 |
| OJC | | | | *e*Sg | Sg | 04 20 20.4 | +0.5 |
| **OJC** | **Ojcow** | **0.33** | **90** | *e*Pg | Pg | 04 20 16.0 | +0.4 |
| OJC | | | | *e*Sg | Sg | 04 20 20.4 | +0.5 |
| **OKC** | **Ostrava-Krasne** | **0.83** | **243** | *e*SG | Sb | 04 20 37.9 | -0.5 |
| **OKC** | **Ostrava-Krasne** | **0.83** | **243** | Sg | Sb | 04 20 37.9 | -0.5 |
| **LANS** | **Liptovska Anna** | **1.08** | **174** | *e*Pg | Pg | 04 20 29.3 | -0.7 |
| **LANS** | **Liptovska Anna** | **1.08** | **174** | *e*PG | Pg | 04 20 29.3 | -0.7 |
| LANS | | | | *e*SG | Sg | 04 20 43.8 | -0.1 |
| **KRLC** | **Kraliky** | **1.62** | **266** | *e*PG | Pn | 04 20 38.7 | -0.6 |
| KRLC | | | | *e*SG | Sn | 04 21 01.0 | +0.1 |
| **KRLC** | **Kraliky** | **1.62** | **266** | Pg | Pn | 04 20 38.7 | -0.6 |
| KRLC | | | | Sg | Sn | 04 21 01.0 | +0.1 |
| **VYHS** | **Vyhne** | **1.75** | **190** | *e*Pg | Pn | 04 20 39.7 | -1.3 |
| **VYHS** | **Vyhne** | **1.75** | **190** | *e*PG | Pn | 04 20 39.7 | -1.3 |
| VYHS | | | | *e*SN | Sn | 04 21 01.7 | -2.4 |
| **DPC** | **Dobruska-Polom** | **1.91** | **275** | *e*PG | Pn | 04 20 43.9 | +0.7 |
| DPC | | | | *e*SG | Sn | 04 21 08.7 | +0.7 |
| **DPC** | **Dobruska-Polom** | **1.91** | **275** | Pg | Pn | 04 20 43.9 | +0.7 |
| DPC | | | | Sg | Sn | 04 21 08.7 | +0.7 |

**IDC 13 04:26:58.4±5.6, 13.98S×166.61E, h0km, mb3.6/3, mb1 4.0/3, mb1mx3.7/21, mbtmp3.6/3, Error ellipse: s-maj=275.7km s-min=34.9km az=142.0, Vanuatu Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **31.39** | **255** | P | P | 04 33 21.9 | +0.5 |
| | 0.5nm,0.4s,baz=86,slow=9.4,SNR=7.5 | | | | | | |
| **ASAR** | **Alice Springs** | **32.35** | **248** | P | P | 04 33 29.2 | -0.6 |
| | 0.6nm,0.8s,baz=70,slow=11,SNR=5.1 | | | | | | |
| **ILAR** | **Eielson Array** | **86.02** | **18** | P | P | 04 39 40.4 | 0.0 |
| | 0.2nm,0.9s,baz=235,slow=3.8,SNR=5.7 | | | | | | |

*ISCJB* ***13*** *04:41:02.7±0.7, 44.46N±0.03×68.62W±0.03, h4km±4km, Error ellipse: s-maj=5.3km s-min=3.1km az=153.3*
*OTT* ***13*** *04:41:02.9±0.2, 44.32N×68.66W, h5km, MN2.6/6, Maine, U.S. 145km southwest from St. Stephen, Nb Northern Appalachians Seismic Zone.*
*NEIC* ***13*** *04:41:03.2±0.0, 44.33N×68.65W, h10km, MN2.3(WES), After WES.*
*NEIC Felt [III] at Brooklin and Sedgwick; [II] at Blue Hill, Brooksville, Castine, Deer Isle and Little Deer Isle. Also felt at Belfast, Ellsworth, Harborside, Harpswell, Searsport, Stonington and Sunset.*

**ISC 13 04:41:02.4±1.2, 44.33N±0.03×68.65W±0.02, h2km±10km, n34, σ1°55/58, Maine**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WVL** | **Waterville** | **0.76** | **288** | PG | **Pg** | **04 41 16.9** | **-0.1** |
| WVL | | | | SG | **Sg** | **04 41 26.2** | **-0.6** |
| **WVL** | **Waterville** | **0.76** | **288** | *e*Pg | **Pg** | **04 41 17.0** | **0.0** |
| WVL | | | | *e*Pn | Pn | 04 41 26.3 | +6.3 |
| **EMMW** | **East Machias** | **0.93** | **66** | PG | **Pg** | **04 41 19.9** | **-0.3** |
| EMMW | | | | SG | **Sg** | **04 41 32.8** | **+0.6** |
| **EMMW** | **East Machias** | **0.93** | **66** | *e*Pg | **Pg** | **04 41 20.0** | **-0.1** |
| EMMW | | | | *e*Sg | **Sg** | **04 41 32.5** | **+0.3** |
| **PKME** | **Peaks-Kenny Pk** | **1.04** | **334** | PG | **Pg** | **04 41 22.2** | **0.0** |
| PKME | | | | SG | **Sg** | **04 41 35.6** | **-0.1** |
| **PKME** | **Peaks-Kenny Pk** | **1.04** | **334** | *e*Pg | **Pg** | **04 41 22.5** | **+0.2** |
| PKME | | | | *e*Sg | **Sg** | **04 41 35.7** | **-0.1** |
| **GGN** | **Saint George** | **1.51** | **58** | PG | **Pn** | **04 41 29.7** | **-0.6** |
| GGN | | | | SG | **Sn** | **04 41 49.9** | **-0.5** |
| GGN | | | | Trac | | 04 41 51.5 | |
| | comp=Z,23nm,0.1s | | | | | | |
| **GGN** | **Saint George** | **1.51** | **58** | *e*Pn | **Pn** | **04 41 29.4** | **-0.8** |
| GGN | | | | *e*Sn | **Sn** | **04 41 49.8** | **-0.7** |
| **FFD** | **Franklin Falls** | **2.34** | **249** | *e*Pn | **Pb** | **04 41 44.1** | **-1.1** |
| FFD | | | | *e*Sn | **Sn** | **04 42 11.1** | **+0.1** |
| **LBNH** | **Lisbon** | **2.36** | **269** | PN | **Pn** | **04 41 41.6** | **-0.4** |
| LBNH | | | | SN | **Sn** | **04 42 09.3** | **-2.2** |
| LBNH | | | | LG | Lg | 04 42 16.2 | |
| **LBNH** | **Lisbon** | **2.36** | **269** | *e*Pn | **Pn** | **04 41 43.8** | **+1.7** |
| LBNH | | | | *e*Sn | **Sb** | **04 42 16.1** | **+1.0** |
| **PQI** | **Presque Isle** | **2.38** | **10** | PN | **Pn** | **04 41 43.0** | **+0.7** |
| PQI | | | | SN | **Sn** | **04 42 11.0** | **-1.0** |
| PQI | | | | LG | Lg | 04 42 19.0 | |
| **PQI** | **Presque Isle** | **2.38** | **10** | *e*Pn | **Pn** | **04 41 41.2** | **-1.1** |
| PQI | | | | *e*Sn | **Sb** | **04 42 17.6** | **+2.0** |
| **HNH** | **Hanover** | **2.70** | **258** | *e*Pn | **Pn** | **04 41 48.6** | **+1.9** |
| HNH | | | | *e*Sn | **Sb** | **04 42 25.6** | **+0.8** |
| **BCX** | **Boston College** | **2.72** | **224** | *e*Sn | **Sb** | **04 42 25.2** | **-0.2** |
| **MOQ** | **Mont Orford** | **2.75** | **292** | PN | **Pn** | **04 41 44.0** | **-3.5** |
| MOQ | | | | SN | **Sn** | **04 42 20.6** | **-0.7** |
| MOQ | | | | Trac | | 04 42 33.8 | |
| | comp=Z,3.4nm,0.1s | | | | | | |
| **WES** | **Weston** | **2.76** | **226** | *e*Pn | **Pn** | **04 41 45.5** | **-2.0** |
| WES | | | | *e*Sn | **Sn** | **04 42 19.0** | **-2.3** |
| **VT1** | **Waterbury** | **2.95** | **271** | *e*Pn | **Pb** | **04 41 57.5** | **+1.9** |
| VT1 | | | | *e*Sn | **Sb** | **04 42 32.4** | **+0.3** |
| **A11** | **Saint Roch-des** | **3.10** | **340** | SN | **Sn** | **04 42 29.7** | **-0.2** |
| A11 | | | | LG | Lg | 04 42 42.5 | |
| **LMN** | **Caledonia Moun** | **3.11** | **59** | PN | **Pn** | **04 41 51.9** | **-0.6** |
| LMN | | | | SN | **Sn** | **04 42 29.1** | **-1.1** |
| LMN | | | | LG | Lg | 04 42 41.4 | |
| LMN | | | | Trac | | 04 42 44.3 | |
| | comp=Z,4.8nm,0.2s | | | | | | |
| **LMN** | **Caledonia Moun** | **3.11** | **59** | *e*Pn | **Pn** | **04 41 49.7** | **-2.7** |
| LMN | | | | *e*Pg | **Pb** | **04 41 59.2** | **+0.8** |
| LMN | | | | *e*Sn | **Sb** | **04 42 39.0** | **+2.3** |
| **BRYW** | **Bryant College** | **3.21** | **222** | *e*Sb | **Sg** | **04 42 44.2** | **-1.4** |
| **QUA2** | **Belchertown** | **3.40** | **234** | *e*Pn | **Pn** | **04 41 59.5** | **+3.2** |
| QUA2 | | | | *e*Sn | **Sn** | **04 42 39.9** | **+2.8** |
| **LMQ** | **La Malbaie** | **3.42** | **341** | PN | **Pn** | **04 41 56.0** | **-0.7** |
| LMQ | | | | SN | **Sn** | **04 42 35.9** | **-1.9** |
| LMQ | | | | Trac | | 04 42 43.4 | |
| | comp=Z,19nm,0.7s | | | | | | |
| LMQ | | | | LG | Lg | 04 42 51.1 | |
| **LMQ** | **La Malbaie** | **3.42** | **341** | *e*Pn | **Pn** | **04 41 55.5** | **-1.2** |
| **A21** | **Saint Andre** | **3.45** | **348** | PN | **Pn** | **04 41 56.7** | **-0.3** |
| A21 | | | | SN | **Sn** | **04 42 36.0** | **-2.3** |
| A21 | | | | LG | Lg | 04 42 54.3 | |
| A21 | | | | Trac | | 04 42 59.2 | |
| | comp=Z,1.6nm,0.1s | | | | | | |
| **BATG** | **Bathurst New B** | **3.45** | **31** | PN | **Pn** | **04 41 56.3** | **-0.8** |
| BATG | | | | SN | **Sn** | **04 42 37.6** | **-0.9** |
| BATG | | | | LG | Lg | 04 42 52.9 | |
| BATG | | | | Trac | | 04 42 54.7 | |
| | comp=Z,4.4nm,0.1s | | | | | | |
| **FRNY** | **Flat Rock** | **3.57** | **280** | PN | **Pn** | **04 41 57.9** | **-0.7** |
| FRNY | | | | SN | **Sn** | **04 42 40.4** | **-0.9** |
| FRNY | | | | LG | Lg | 04 42 53.9 | |
| **FRNY** | **Flat Rock** | **3.57** | **280** | *e*Pb | **Pb** | **04 42 06.1** | **0.0** |
| **ACCN** | **Adirondack Com** | **3.75** | **257** | *e*Sb | **Sg** | **04 43 00.1** | **-2.8** |
| **TRY** | **Troy** | **3.99** | **248** | *e*Sb | **Sb** | **04 43 03.7** | **+1.8** |
| **NCB** | **Newcomb** | **4.03** | **267** | *e*Sb | **Sb** | **04 43 05.7** | **+2.5** |
| **LONY** | **Lake Ozonia** | **4.26** | **276** | *e*Sb | **Sb** | **04 43 12.2** | **+2.5** |
| **TRQ** | **Mont Tremblant** | **4.58** | **296** | *e*Sb | **Sb** | **04 43 22.1** | **+3.1** |

**MEX 13 04:44:01.5±0.8, 17.82N×99.93W, h56km±7km, MD3.9, Guerrero**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MEIG** | **Mezcala** | **0.32** | **71** | *e*P | Pn | 04 44 09.8 | -1.7 |
| MEIG | | | | *e*S | Sn | 04 44 17.1 | -1.5 |
| **ARIG** | **Puente Sto Nin** | **0.60** | **319** | *e*P | Pn | 04 44 12.9 | -1.5 |
| ARIG | | | | *e*S | Sn | 04 44 22.3 | -1.5 |
| **PLIG** | **Platanillo** | **0.70** | **36** | *e*P | Pn | 04 44 14.2 | -1.5 |
| PLIG | | | | *e*S | Sn | 04 44 23.3 | -2.7 |
| **CAIG** | **El Cayaco** | **0.83** | **203** | *e*P | Pn | 04 44 15.1 | -2.1 |
| CAIG | | | | *e*S | Sn | 04 44 27.1 | -1.7 |
| **TLIG** | **Tlapa** | **1.33** | **101** | *e*P | Pn | 04 44 22.7 | -1.2 |
| TLIG | | | | *e*S | Sn | 04 44 38.7 | -1.9 |
| **ZIIG** | **Zihuatanejo** | **1.48** | **262** | *e*P | Pn | 04 44 23.6 | -2.2 |
| ZIIG | | | | *e*S | Sn | 04 44 42.3 | -1.8 |
| **PPM** | **Popocatepetl** | **1.75** | **45** | *e*P | Pn | 04 44 28.8 | -1.3 |
| PPM | | | | *e*S | Sn | 04 44 50.5 | -1.0 |
| **TPIG** | **Tehuac#an** | **2.52** | **76** | *e*S | Sn | 04 45 07.5 | -2.3 |

*ATH* ***13*** *04:47:01.4, 35.17N×27.60E, h18km±2km, ML2.3/3, Error ellipse: s-maj=4.9km s-min=1.4km az=333.0*
*THE* ***13*** *04:47:02.7, 35.26N×27.50E, h0km, ML2.4/3, Error ellipse: s-maj=1.8km s-min=1.0km az=152.0*
*ISCJB* ***13*** *04:47:03.6±1.2, 35.28N±0.07×27.55E±0.05, h21km±8km, Error ellipse: s-maj=13.5km s-min=4.6km az=154.8*
*CSEM* ***13*** *04:47:04.0±0.5, 35.30N×27.56E, h20km, ML2.4, Error ellipse: s-maj=14.7km s-min=5.5km az=156.0*
*DDA* ***13*** *04:47:36.5, 35.27N×27.52E, h43km, Ml2.8*

**ISC 13 04:47:02.9±1.5, 35.23N±0.06×27.56E±0.04, h16km±9km, n46, σ1°28/63, Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KARP** | **Karpathos** | **0.45** | **315** | P | **Pg** | **04 47 11.7** | **-0.4** |
| KARP | | | | S | **Sb** | **04 47 19.4** | **+0.3** |
| **KARP** | **Karpathos** | **0.45** | **315** | P | **Pg** | **04 47 11.6** | **-0.4** |
| KARP | | | | S | **Sg** | **04 47 18.4** | **+0.1** |
| **KARP** | **Karpathos** | **0.45** | **315** | P | **Pg** | **04 47 11.1** |

*TEH **13** 04:47:11.6, 30°.94N × 56°.92E, h5km, ML3.8*
*CSEM **13** 04:47:12.6 ± 0.2, 30°.86N × 56°.95E, h20km, ML3.8, Error ellipse: s-maj=5.5km s-min=3.9km az=105.0*

**ISC 13 04:47:11.6 ± 0.7, 30°.89N ± 0°.06 × 56°.97E ± 0°.04, h10km, n33, σ0.73/37, mb4.1/4, Northern and central Iran**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KHGB** | **Koh Gabri** | **0.66** | **220** | *e*Pg | **Pg** | **04 47 24.3** | **-0.2** |
| **KHGB** | **Koh Gabri** | **0.66** | **220** | *e*Pg | **Pg** | **04 47 24.3** | **-0.2** |
| **TVBK** | **TV Kerman** | **0.92** | **191** | *e*Pg | **Pb** | **04 47 29.8** | **0.0** |
| **TVBK** | **TV Kerman** | **0.92** | **191** | *e*Pg | **Pb** | **04 47 29.8** | **0.0** |
| **KRBR** | **Kerman** | **0.92** | **191** | *e*Pg | **Pb** | **04 47 29.8** | **0.0** |
| **CHMN** | **Cheshme madani** | **1.14** | **154** | *e*Pn | **Pg** | **04 47 33.5** | **0.0** |
| **CHMN** | **Cheshme madani** | **1.14** | **154** | *e*Pn | **Pg** | **04 47 33.5** | **0.0** |
| **NGRK** | **Negar Kerman** | **1.25** | **190** | *e*Pn | **Pg** | **04 47 36.5** | **+0.7** |
| **NGRK** | **Negar Kerman** | **1.25** | **190** | *e*Pn | **Pg** | **04 47 36.5** | **+0.7** |
| **IBAF** | **Bafgh** | **1.39** | **301** | *e*AMB | AMB | 04 47 57.3 | |
| | comp=Z,12μm,0.2s | | | | | | |
| **IMEH** | **Mehriz** | **2.08** | **285** | *e*Pn | **Pn** | **04 47 46.8** | **0.0** |
| IMEH | | | | *e*Sg | **Sn** | **04 48 14.1** | **+1.2** |
| IMEH | | | | *e*AMB | AMB | 04 48 16.5 | |
| | comp=Z,9μm,0.3s | | | | | | |
| **IMEH** | **Mehriz** | **2.08** | **285** | *e*Pn | **Pn** | **04 47 46.8** | **0.0** |
| IMEH | | | | *e*Sg | **Sn** | **04 48 14.1** | **+1.2** |
| **IKOO** | **Kooshah** | **2.32** | **48** | *e*Pn | **Pn** | **04 47 49.9** | **-0.2** |
| IKOO | | | | *e*Sg | **Sb** | **04 48 23.7** | **+1.3** |
| IKOO | | | | *e*AMB | AMB | 04 48 28.3 | |
| | comp=Z,7μm,0.2s | | | | | | |
| **IKOO** | **Kooshah** | **2.32** | **48** | *e*Pn | **Pn** | **04 47 49.9** | **-0.2** |
| IKOO | | | | *e*Sg | **Sb** | **04 48 23.7** | **+1.3** |
| **ITEG** | **Tejag** | **2.51** | **37** | *e*Pn | **Pn** | **04 47 52.5** | **-0.2** |
| ITEG | | | | *e*AMB | AMB | 04 48 39.7 | |
| | comp=Z,2μm,0.2s | | | | | | |
| **ITEG** | **Tejag** | **2.51** | **37** | *e*Pn | **Pn** | **04 47 52.5** | **-0.2** |
| **ICHK** | **Chekchek** | **2.57** | **302** | *e*Pn | **Pn** | **04 47 53.0** | **-0.6** |
| ICHK | | | | *e*AMB | AMB | 04 48 32.9 | |
| | comp=Z,7μm,0.4s | | | | | | |
| **ICHK** | **Chekchek** | **2.57** | **302** | *e*Pn | **Pn** | **04 47 53.0** | **-0.6** |
| **ISAD** | **Sadrabad** | **2.99** | **291** | *e*Pn | **Pn** | **04 47 59.8** | **+0.5** |
| **ISAD** | **Sadrabad** | **2.99** | **291** | *e*Pn | **Pn** | **04 47 59.8** | **+0.5** |
| **IDAH** | **Dahanechah** | **3.08** | **52** | *e*Pn | **Pn** | **04 48 01.6** | **+1.0** |
| IDAH | | | | *e*AMB | AMB | 04 48 58.2 | |
| | comp=N,4μm,0.2s | | | | | | |
| **IDAH** | **Dahanechah** | **3.08** | **52** | *e*Pn | **Pn** | **04 48 01.6** | **+1.0** |
| **IMON** | **Monand** | **3.25** | **44** | *e*AMB | AMB | 04 48 19.3 | |
| | comp=Z,2μm,0.1s | | | | | | |
| IMON | | | | *e*Pn | **Pn** | **04 48 03.0** | **+0.2** |
| **NASN** | **Na'in** | **4.02** | **299** | *e*Pn | **Pn** | **04 48 13.6** | **0.0** |
| NASN | | | | *e*Sg | **Sb** | **04 49 13.4** | **+1.8** |
| **SHRO** | **Shahrood** | **5.15** | **351** | *e*Pn | **Pn** | **04 48 29.0** | **+0.1** |
| **IPAY** | **Payeh** | **5.80** | **16** | *e*Pn | **Pn** | **04 48 37.8** | **-0.1** |
| IPAY | | | | *e*AMB | AMB | 04 50 29.8 | |
| | comp=Z,186nm,0.3s | | | | | | |
| **IPAY** | **Payeh** | **5.80** | **16** | *e*Pn | **Pn** | **04 48 37.8** | **-0.1** |
| **MRVT** | **Maraveh tapeh** | **6.80** | **354** | *e*Pn | **Pn** | **04 48 51.7** | **+0.2** |
| **BRTR** | **Keskin Array B** | **20.94** | **301** | P | **P** | **04 51 54.1** | **-0.6** |
| | comp=Z,1.0nm,0.8s,baz=101,slow=13,SNR=6.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **25.17** | **44** | P | **P** | **04 52 36.9** | **-0.1** |
| | comp=Z,0.6nm,0.3s,baz=233,slow=7.2,SNR=3.9 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **25.44** | **33** | P | **P** | **04 52 38.7** | **-0.7** |
| | comp=Z,3.6nm,0.2s,baz=233,slow=9.2,SNR=3.4 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **30.54** | **33** | P | **P** | **04 53 23.4** | **-1.5** |
| | comp=Z,0.7nm,0.3s,baz=241,slow=9.6,SNR=5.8 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **53.66** | **264** | P | **P** | **04 56 32.6** | **-1.1** |
| | comp=Z,2.0nm,0.7s,baz=59,slow=7.2,SNR=19 | | | | | | |

*IDC **13** 04:48:04.8 ± 1.3, 37°.53N × 141°.94E, h0km, mb3.4/4, mb1 3.6/5, mb1mx3.3/51, mbtmp3.4/5, ML3.0/1, Error ellipse: s-maj=29.3km s-min=25.4km az=131.0*
*ISCJB **13** 04:48:05.0 ± 1.6, 37°.59N ± 0°.04 × 141°.90E ± 0°.06, h6km ± 9km, mb3.5/4, Error ellipse: s-maj=9.3km s-min=6.0km az=28.4*
*JMA **13** 04:48:07.8 ± 0.1, 37°.59N × 141°.81E, h27km ± 3km, M3.6*

**ISC 13 04:48:05.5 ± 2.2, 37°.62N ± 0°.05 × 141°.88E ± 0°.08, h3km ± 12km, n19, σ1.17/22, mb3.4/4, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JFK** | **Kawauchi** | **0.84** | **253** | P | **Pg** | **04 48 22.3** | **+0.7** |
| JFK | | | | S | **Sg** | **04 48 32.1** | **-0.4** |
| **JMM** | **Marumori** | **0.90** | **286** | P | **Pg** | **04 48 23.6** | **+0.9** |
| JMM | | | | S | **Sg** | **04 48 34.5** | **+0.1** |
| **JIO** | **Ouri** | **0.94** | **333** | P | **Pb** | **04 48 24.8** | **+0.4** |
| JIO | | | | S | **Sb** | **04 48 36.1** | **-1.1** |
| **ONAJ** | **Iwakimizuishiy** | **1.01** | **240** | P | **Pb** | **04 48 24.6** | **-0.9** |
| ONAJ | | | | S | **Sg** | **04 48 36.0** | **-1.8** |
| **JOU** | **Okura** | **1.22** | **308** | P | **Pn** | **04 48 29.3** | **-0.1** |
| JOU | | | | S | **Sb** | **04 48 44.7** | **-0.7** |
| **JFT** | **Otama** | **1.23** | **266** | P | **Pn** | **04 48 29.1** | **-0.5** |
| JFT | | | | *e*S | **Sb** | **04 48 44.1** | **-1.6** |
| **JMK** | **Ichinoseki** | **1.43** | **339** | P | **Pn** | **04 48 32.7** | **+0.4** |
| JMK | | | | S | **Sn** | **04 48 50.4** | **-1.2** |
| **MJAR** | **Matsushiro Arr** | **3.13** | **251** | Pn | **Pn** | **04 48 56.8** | **+1.2** |
| | 1.7nm,0.3s,baz=73,slow=15,SNR=7.1 | | | | | | |
| MJAR | | | | Sn | **Sn** | **04 49 35.6** | **+2.1** |
| | 2.9nm,0.3s,baz=70,slow=18,SNR=4.8 | | | | | | |
| **MAT** | **Matsushiro** | **3.13** | **251** | P | **Pn** | **04 48 57.2** | **+1.5** |
| MAT | | | | *e*S | **Sn** | **04 49 35.4** | **+1.8** |
| **SONM** | **Songino Array** | **27.78** | **303** | P | **P** | **04 53 55.6** | **0.0** |
| | 0.3nm,0.6s,baz=111,slow=7.9,SNR=2.3 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.13** | **122** | T | T | 05 23 28.3 | |
| | baz=315,slow=75,SNR=46 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.14** | **122** | T | T | 05 23 26.6 | |
| | baz=315,slow=75,SNR=40 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.15** | **122** | T | T | 05 23 28.3 | |
| | baz=315,slow=75,SNR=35 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.87** | **124** | T | T | 05 24 21.9 | |
| | baz=316,slow=76,SNR=72 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.87** | **124** | T | T | 05 24 23.0 | |
| | baz=316,slow=76,SNR=105 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.89** | **124** | T | T | 05 24 23.0 | |
| | baz=316,slow=76,SNR=82 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **45.94** | **308** | P | **P** | **04 56 29.4** | **0.0** |
| | 0.6nm,0.4s,baz=86,slow=7.7,SNR=6.3 | | | | | | |
| **ILAR** | **Eielson Array** | **48.80** | **33** | P | **P** | **04 56 52.2** | **+0.7** |
| | 0.4nm,0.9s,baz=281,slow=6.2,SNR=3.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **57.69** | **188** | P | **P** | **04 57 56.2** | **-1.1** |
| | 0.2nm,0.5s,baz=5.5,slow=7.3,SNR=4.4 | | | | | | |

*ISK **13** 04:50:08.8, 38°.70N × 43°.11E, h13km, ML2.3*
*ISCJB **13** 04:50:10.8 ± 0.7, 38°.69N ± 0°.04 × 43°.20E ± 0°.05, h22km ± 9km, Error ellipse: s-maj=7.8km s-min=6.4km az=152.1*
*CSEM **13** 04:50:10.3 ± 0.3, 38°.73N × 43°.18E, h15km, ML2.5, Error ellipse: s-maj=6.4km s-min=6.1km az=81.0*
*DDA **13** 04:50:10.9, 38°.70N × 43°.20E, h7km, Ml2.5*

**ISC 13 04:50:10.4 ± 1.0, 38°.73N ± 0°.03 × 43°.19E ± 0°.03, h12km ± 9km, n22, σ0.93/32, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.20** | **129** | *e*PG | **Pb** | **04 50 15.4** | **-0.7** |
| VANB | | | | *e*SG | **Sb** | **04 50 20.2** | **+2.2** |
| **VANB** | **Van** | **0.20** | **129** | *e*Pg | **Pb** | **04 50 15.4** | **-0.7** |
| VANB | | | | *e*Sg | **Sb** | **04 50 20.2** | **+2.2** |
| **TVAN** | **Van** | **0.26** | **139** | *i* P | **Pg** | **04 50 15.6** | **-0.4** |
| TVAN | | | | *i* S | **Sg** | **04 50 20.1** | **+0.4** |
| **TVAN** | **Van** | **0.26** | **139** | P | **Pg** | **04 50 15.6** | **-0.4** |
| TVAN | | | | S | **Sg** | **04 50 20.1** | **+0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.37** | **283** | *i* P | **Pb** | **04 50 18.4** | **-0.6** |
| ADCV | | | | *i* S | **Sb** | **04 50 25.4** | **+0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.37** | **283** | P | **Pb** | **04 50 18.4** | **-0.6** |
| ADCV | | | | S | **Sb** | **04 50 25.4** | **+0.5** |
| **VMUR** | **Van-Muradiye** | **0.40** | **48** | *i* P | **Pg** | **04 50 18.9** | **+0.4** |
| VMUR | | | | *i* S | **Sb** | **04 50 25.9** | **+0.2** |
| **VMUR** | **Van-Muradiye** | **0.40** | **48** | P | **Pg** | **04 50 18.9** | **+0.4** |
| VMUR | | | | S | **Sb** | **04 50 25.9** | **+0.2** |
| **GEVA** | **Gevas** | **0.42** | **194** | *i* P | **Pg** | **04 50 18.5** | **-0.4** |
| **GEVA** | **Gevas** | **0.42** | **194** | P | **Pg** | **04 50 18.5** | **-0.4** |
| **CLDR** | **Caldiran** | **0.71** | **53** | *e*PG | **Pg** | **04 50 24.1** | **-0.1** |
| CLDR | | | | *e*SG | **Sb** | **04 50 35.3** | **+0.7** |
| **CLDR** | **Caldiran** | **0.71** | **53** | *i* P | **Pb** | **04 50 24.8** | **0.0** |
| **CLDR** | **Caldiran** | **0.71** | **53** | P | **Pb** | **04 50 24.8** | **0.0** |
| CLDR | | | | *e*Sg | **Sb** | **04 50 35.3** | **+0.7** |
| **TUTA** | **Tutak** | **0.74** | **337** | *i* P | **Pg** | **04 50 24.7** | **0.0** |
| **TUTA** | **Tutak** | **0.74** | **337** | P | **Pg** | **04 50 24.7** | **0.0** |
| **AGRB** | **Hanur-Agry** | **0.86** | **350** | *e*PG | **Pg** | **04 50 26.2** | **-0.9** |
| **AGRB** | **Hanur-Agry** | **0.86** | **350** | *e*Pg | **Pg** | **04 50 26.2** | **-0.9** |
| **EKAR** | **Karacoban** | **1.02** | **302** | *i* P | **Pn** | **04 50 33.0** | **+2.2** |
| **SRTM** | **Siirt_Merkez** | **1.23** | **234** | *i* P | **Pg** | **04 50 34.5** | **+0.3** |
| **EATA** | **Eleskirt** | **1.26** | **335** | *i* P | **Pn** | **04 50 32.8** | **-1.3** |
| **EATA** | **Eleskirt** | **1.26** | **335** | P | **Pn** | **04 50 32.8** | **-1.3** |

**GUC 13 04:52:18.7 ± 0.7, 18°.91S × 70°.70W, h42km ± 2km, ML3.7, Near coast of northern Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PB12** | **IPOC Station P** | **0.46** | **50** | *e*P | Pn | 04 52 29.1 | 0.0 |
| PB12 | | | | *e*S | Sn | 04 52 36.2 | -0.1 |
| PB12 | | | | IAML | | 04 52 36.4 | |
| | comp=N,27μm,0.2s | | | | | | |
| **PSGC** | **Pisagua** | **0.87** | **142** | *e*P | Pn | 04 52 35.1 | +0.4 |
| PSGC | | | | *e*S | Sn | 04 52 47.1 | +0.9 |
| **MNMC** | **Minye Minye** | **1.06** | **102** | *e*P | Pn | 04 52 38.5 | +1.1 |
| MNMC | | | | *e*S | Sn | 04 52 52.8 | +1.6 |
| MNMC | | | | IAML | | 04 52 59.6 | |
| | comp=N,4μm,0.3s | | | | | | |
| **PB11** | **IPOC Station P** | **1.29** | **131** | *e*P | Pn | 04 52 42.0 | +1.5 |
| PB11 | | | | *e*S | Sn | 04 52 59.2 | +2.4 |
| **PB08** | **IPOC Station P** | **1.90** | **130** | *e*P | Pn | 04 52 50.9 | +1.9 |
| PB08 | | | | *e*S | Sn | 04 53 15.1 | +3.2 |
| PB08 | | | | IAML | | 04 53 19.3 | |
| | comp=E,376nm,0.2s | | | | | | |
| **PB01** | **IPOC Station P** | **2.41** | **152** | *e*P | Pn | 04 52 57.0 | +1.3 |
| PB01 | | | | *e*S | Sn | 04 53 26.6 | +2.6 |
| PB01 | | | | IAML | | 04 53 36.0 | |
| | comp=N,234nm,0.4s | | | | | | |
| **PB02** | **IPOC Station P** | **2.51** | **163** | *e*P | Pn | 04 52 58.5 | +1.4 |

*CSEM **13** 05:01:47.4, 15°.17N × 42°.17E, h6km, ML3.9*
*DHMR **13** 05:01:47.4 ± 2.7, 15°.17N × 42°.17E, h6km ± 32km, ML3.9*
*SGS **13** 05:01:48.1, 15°.06N × 41°.89E, h1km*
*IDC **13** 05:01:50.4 ± 1.2, 14°.99N × 42°.16E, h0km, mb3.5/5, mb1 3.6/6, mb1mx3.4/42, mbtmp3.5/6, ML3.6/1, Error ellipse: s-maj=28.1km s-min=23.3km az=88.0*

**ISC 13 05:01:48.7 ± 2.7, 15°.20N ± 0°.04 × 42°.23E ± 0°.06, h2km ± 18km, n17, σ1.92/25, mb3.6/5, Western Arabian Peninsula**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **HAJJ** | **Hajjah** | **1.41** | **69** | *i* P | **Pn** | **05 02 14.4** | **-1.1** |
| HAJJ | | | | *i* S | **Sg** | **05 02 36.2** | **+2.2** |
| **HAJJ** | **Hajjah** | **1.41** | **69** | *i* P | **Pn** | **05 02 14.4** | **-1.1** |
| HAJJ | | | | *i* S | **Sg** | **05 02 36.2** | **+2.2** |
| **FRSS** | **Farasan al Kab** | **1.53** | **356** | S | **Sb** | **05 02 36.6** | **-1.0** |
| FRSS | | | | P | **Pb** | **05 02 15.9** | **-1.9** |
| **DHBB** | **Dhamar BB** | **2.18** | **106** | *i* P | **Pb** | **05 02 28.4** | **-0.6** |
| DHBB | | | | *i* S | **Sb** | **05 02 56.2** | **-0.4** |
| DHBB | | | | AML | AML | 05 03 16.1 | |
| | comp=N,1μm,0.9s | | | | | | |
| **DHBB** | **Dhamar BB** | **2.18** | **106** | *i* P | **Pb** | **05 02 28.4** | **-0.6** |
| DHBB | | | | *i* S | **Sb** | **05 02 56.2** | **-0.4** |
| **TRBA** | **At Turbah** | **2.68** | **137** | *i* P | **Pn** | **05 02 32.6** | **-0.5** |
| TRBA | | | | *i* S | **Sb** | **05 03 11.5** | **+0.6** |
| **DJNS** | **Zahran al Janu** | **2.79** | **27** | S | **Sb** | **05 03 11.5** | **-2.6** |
| DJNS | | | | P | **Pb** | **05 02 36.0** | **-3.4** |
| **BDHA** | **Al Bayda'** | **3.45** | **110** | *i* P | **Pn** | **05 02 45.1** | **+1.5** |
| BDHA | | | | *i* S | **Sb** | **05 03 30.1** | **-3.1** |
| **BDHA** | **Al Bayda'** | **3.45** | **110** | *i* P | **Pn** | **05 02 45.2** | **+1.5** |
| BDHA | | | | *i* S | **Sb** | **05 03 30.1** | **-3.1** |
| **ATD** | **Arta Tunnel** | **3.70** | **171** | Pn | **Pn** | **05 02 46.9** | **-0.1** |
| | comp=N,5.7nm,0.3s,baz=26,slow=2.1,SNR=12 | | | | | | |
| ATD | | | | Sn | **Sn** | **05 03 30.4** | **-0.7** |
| | comp=N,4.5nm,0.3s,baz=300,slow=20,SNR=2.4 | | | | | | |
| **NAMS** | **An Nimas** | **3.95** | **360** | S | **Sn** | **05 03 38.9** | **+1.3** |
| NAMS | | | | P | **Pn** | **05 02 51.1** | **+0.6** |
| **TATS** | **Tathlith** | **4.48** | **15** | S | **Sn** | **05 03 53.4** | **+3.0** |
| TATS | | | | P | **Pn** | **05 02 59.7** | **+2.0** |
| **BRTR** | **Keskin Array B** | **25.56** | **345** | P | P | 05 07 24.9 | +5.7 |
| | comp=N,0.4nm,0.7s,baz=148,slow=8.5,SNR=3.4 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **39.32** | **272** | P | **P** | **05 09 20.6** | **+1.0** |
| | comp=N,0.6nm,1.0s,baz=98,slow=6.6,SNR=3.3 | | | | | | |
| **GERES** | **GERESS Array B** | **40.89** | **331** | P | P | 05 09 34.7 | +2.4 |
| | comp=N,1.1nm,0.8s,baz=127,slow=8.5,SNR=8.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **45.81** | **38** | P | P | 05 10 15.5 | +3.5 |
| | comp=N,0.7nm,0.8s,baz=234,slow=8.8,SNR=4.1 | | | | | | |
| **SONM** | **Songino Array** | **61.57** | **44** | P | P | 05 12 10.6 | +2.9 |
| | comp=N,0.7nm,1.0s,baz=256,slow=5.8,SNR=3.0 | | | | | | |

**KRSC 13 05:02:11.3 ± 2.6, 52°.86N × 156°.58E, h304km ± 22km, ML4.0, Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **APC** | **Apacha** | **0.35** | **78** | *e*P | Pn | 05 02 51.2 | +1.2 |
| **KRMR** | **Karymshinskiy** | **0.94** | **91** | *e*P | Pn | 05 02 50.2 | -1.6 |
| **GNL** | **Ganaly** | **1.17** | **44** | *e*P | Pn | 05 02 54.2 | +1.2 |
| **RUS** | **Russkaya** | **1.25** | **109** | *e*P | Pn | 05 02 54.6 | +1.3 |
| RUS | | | | *e*S | S | 05 03 27.5 | +0.7 |
| **KDTR** | **Khodutka, Kamc** | **1.39** | **138** | *e*P | Pn | 05 02 55.0 | +0.8 |
| KDTR | | | | *e*S | S | 05 03 27.9 | -0.4 |
| **UGLR** | **Uglovaya** | **1.40** | **74** | *e*P | Pn | 05 02 56.3 | +2.0 |
| **SDLR** | **Sedlovina** | **1.45** | **72** | *e*P | Pn | 05 02 56.3 | +1.7 |
| **SPN** | **Mys Shipunski** | **2.09** | **82** | *e*P | Pn | 05 02 59.7 | +0.6 |
| SPN | | | | *e*S | S | 05 03 35.6 | -1.6 |
| **TUMR** | **Tumrok** | **3.21** | **39** | *e*P | Pn | 05 03 11.4 | +2.0 |
| **BDR** | **Baidarnaya** | **4.59** | **34** | *e*S | S | 05 04 20.5 | -2.2 |
| **KBTR** | **Krutoberegovo** | **4.95** | **45** | *e*P | Pn | 05 03 27.4 | -0.8 |
| **BKI** | **Bering** | **6.01** | **63** | *e*S | S | 05 04 50.4 | -2.4 |

**IDC 13 05:21:23.7 ± 1.9, 26°.18S × 177°.37W, h0km, mb3.7/2, mb1 4.1/3, mb1mx3.8/18, mbtmp4.0/3, ML4.9/1, MS3.5/7, Ms1 3.5/7, ms1mx3.3/27, Error ellipse: s-maj=52.3km s-min=39.4km az=103.0, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **3.10** | **189** | Pn | Pn | 05 22 13.9 | 0.0 |
| | 147nm,0.3s,baz=66,slow=20,SNR=6.0 | | | | | | |
| **AFI** | **Afiamalu** | **13.28** | **24** | LR | LR | 05 29 20.1 | |
| | comp=Z,71nm,19.3s,baz=155,slow=36 | | | | | | |
| **DZM** | **Mont Dzumac** | **15.34** | **282** | LR | LR | 05 29 01.3 | |
| | comp=Z,176nm,18.2s,baz=185,slow=30 | | | | | | |
| **DZM** | **Mont Dzumac** | **15.34** | **282** | *e*LR | LR | 05 28 42.8 | |
| | 344nm,24.8s | | | | | | |
| **RAR** | **Rarotonga** | **16.85** | **77** | LR | LR | 05 30 13.5 | |
| | comp=Z,149nm,21.5s,baz=256,slow=31 | | | | | | |
| **TBI** | **Tubuai** | **25.48** | **90** | *e*LR | LR | 05 33 04.7 | |
| | 188nm,28.0s | | | | | | |
| **TBI** | **Tubuai** | **25.48** | **90** | *e*T | T | 05 52 47.2 | |
| | 12nm,0.3s | | | | | | |
| **PAE** | **Paea** | **27.09** | **77** | *e*T | T | 05 55 10.5 | |
| | 4.8nm,0.2s | | | | | | |
| **PPT2** | **Papeete2** | **27.12** | **77** | *e*LR | LR | 05 33 49.0 | |
| | 226nm,27.2s,baz=233 | | | | | | |
| **PPT2** | **Papeete2** | **27.12** | **77** | *e*T | T | 05 55 14.0 | |
| | 5.8nm,0.2s | | | | | | |
| **PPT** | **Papeete** | **27.13** | **77** | LR | LR | 05 34 45.9 | |
| | comp=Z,80nm,21.2s,baz=250,slow=30 | | | | | | |
| **HNR** | **Honiara** | **27.20** | **304** | LR | LR | 05 35 55.6 | |
| | comp=Z,82nm,18.7s,baz=196,slow=32 | | | | | | |
| **TVO** | **Taravao** | **27.33** | **78** | *e*T | T | 05 55 27.5 | |
| | 3.4nm,0.3s | | | | | | |
| **TIAR** | **Tiarei** | **27.34** | **77** | *e*T | T | 05 55 27.3 | |
| | 2.1nm,0.2s | | | | | | |
| **VAH** | **Vaihoa** | **29.80** | **74** | *e*T | T | 05 58 37.1 | |
| | 6.8nm,0.2s | | | | | | |
| **RKT** | **Rikitea** | **38.53** | **95** | *e*T | T | 06 09 01.7 | |
| | 5.8nm,0.3s | | | | | | |
| **ASAR** | **Alice Springs** | **44.06** | **262** | P | P | 05 29 33.5 | -0.1 |
| | 0.7nm,0.8s,baz=112,slow=8.0,SNR=5.6 | | | | | | |
| ASAR | | | | LR | LR | 05 46 01.2 | |
| | comp=Z,77nm,20.3s,baz=164,slow=34 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.67** | **268** | P | | 05 29 38.3 | -0.3 |
| | 0.9nm,0.8s,baz=106,slow=7.9,SNR=6.3 | | | | | | |
| **LPAZ** | **La Paz** | **99.32** | **113** | LR | LR | 06 11 14.4 | |
| | comp=Z,29nm,18.1s,baz=327,slow=30 | | | | | | |
| **NOA** | **NORSAR Array B** | **144.66** | **353** | PKP | PKPbc | 05 41 00.8 | +0.1 |
| | 2.2nm,0.9s,baz=21,slow=3.8,SNR=4.2 | | | | | | |
| **AKASG** | **Malin Array Be** | **148.17** | **327** | PKPbc | PKPbc | 05 41 10.8 | -0.4 |
| | 0.2nm,0.3s,baz=42,slow=3.9,SNR=2.6 | | | | | | |
| **BRTR** | **Keskin Array B** | **150.85** | **305** | PKPbc | PKPbc | 05 41 17.8 | -0.7 |
| | 0.3nm,0.6s,baz=48,slow=2.1,SNR=3.0 | | | | | | |
| BRTR | | | | PKPab | PKPab | 05 41 25.8 | +0.1 |
| | 0.7nm,0.6s,baz=90,slow=2.9,SNR=5.3 | | | | | | |

*CSEM **13** 05:23:02.2, 36°.94N × 21°.50E, h12km, ML1.7/7*

**ATH 13 05:23:02.2, 36°.94N × 21°.50E, h12km ± 2km, ML1.7/7, Error ellipse: s-maj=2.9km s-min=0.9km az=101.0, Southern Greece**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PYL** | **PYLOS** | **0.20** | **102** | P | Pg | 05 23 06.2 | -0.3 |
| PYL | | | | S | Sg | 05 23 09.5 | 0.0 |
| PYL | | | | AML | AML | 05 23 09.9 | |
| | comp=E,764μm,0.2s | | | | | | |
| PYL | | | | AML | AML | 05 23 09.9 | |
| | comp=N,1520μm,0.1s | | | | | | |
| **PYL** | **PYLOS** | **0.20** | **102** | P | Pg | 05 23 06.2 | -0.3 |
| PYL | | | | S | Sg | 05 23 09.4 | -0.1 |
| PYL | | | | AML | AML | 05 23 09.9 | |
| | comp=E,764μm,0.2s | | | | | | |
| PYL | | | | AML | AML | 05 23 09.9 | |
| | comp=N,1520μm,0.1s | | | | | | |
| **PYL** | **PYLOS** | **0.20** | **102** | P | Pg | 05 23 06.2 | -0.3 |
| PYL | | | | S | Sg | 05 23 09.4 | -0.1 |
| **MES2** | **Methoni** | **0.20** | **124** | P | Pg | 05 23 06.5 | 0.0 |
| MES2 | | | | S | Sg | 05 23 10.2 | +0.7 |
| MES2 | | | | AML | AML | 05 23 10.2 | |
| | comp=N,598μm,0.4s | | | | | | |
| MES2 | | | | AML | AML | 05 23 10.9 | |
| | comp=E,357μm,0.3s | | | | | | |
| **MES2** | **Methoni** | **0.20** | **124** | P | Pg | 05 23 06.4 | -0.1 |
| MES2 | | | | S | Sg | 05 23 10.2 | +0.7 |
| MES2 | | | | AML | AML | 05 23 10.0 | |
| | comp=N,598μm,0.4s | | | | | | |
| MES2 | | | | S | Sg | 05 23 10.2 | +0.7 |
| MES2 | | | | AML | AML | 05 23 10.9 | |
| | comp=E,357μm,0.3s | | | | | | |
| **MES2** | **Methoni** | **0.20** | **124** | P | Pg | 05 23 06.4 | -0.1 |
| MES2 | | | | S | Sg | 05 23 10.2 | +0.7 |
| **MES3** | **Kyparissia** | **0.34** | **24** | P | Pg | 05 23 09.1 | 0.0 |
| MES3 | | | | S | Sg | 05 23 14.6 | +0.9 |
| **MES3** | **Kyparissia** | **0.34** | **24** | P | Pg | 05 23 09.0 | -0.1 |
| MES3 | | | | S | Sg | 05 23 13.8 | +0.1 |
| **MES3** | **Kyparissia** | **0.34** | **24** | P | Pg | 05 23 09.0 | -0.1 |
| MES3 | | | | S | Sg | 05 23 13.8 | +0.1 |
| **ITM** | **Ithomi** | **0.42** | **55** | P | Pg | 05 23 09.4 | -1.2 |
| ITM | | | | S | Sb | 05 23 17.3 | -0.7 |
| ITM | | | | AML | AML | 05 23 19.4 | |
| | comp=E,150μm,0.2s | | | | | | |
| ITM | | | | AML | AML | 05 23 21.4 | |
| | comp=N,153μm,0.4s | | | | | | |
| **ITM** | **Ithomi** | **0.42** | **55** | P | Pg | 05 23 09.4 | -1.1 |
| ITM | | | | S | Sb | 05 23 17.5 | -0.5 |
| ITM | | | | AML | AML | 05 23 20.3 | |
| | comp=N,136μm,0.1s | | | | | | |
| ITM | | | | AML | AML | 05 23 21.7 | |
| | comp=E,167μm,0.4s | | | | | | |
| **ITM** | **Ithomi** | **0.42** | **55** | P | Pg | 05 23 09.4 | -1.1 |
| ITM | | | | S | Sb | 05 23 17.5 | -0.5 |
| **AMT** | **Artemida-Makis** | **0.62** | **16** | P | Pg | 05 23 14.6 | +0.3 |
| **VLX** | **Vlachokerasia** | **0.83** | **58** | P | Pg | 05 23 17.4 | -0.8 |
| VLX | | | | S | Sg | 05 23 29.3 | +0.3 |
| VLX | | | | AML | AML | 05 23 32.4 | |
| | comp=N,118μm,0.5s | | | | | | |
| VLX | | | | AML | AML | 05 23 32.7 | |
| | comp=E,172μm,0.7s | | | | | | |
| **VLX** | **Vlachokerasia** | **0.83** | **58** | P | Pg | 05 23 18.0 | -0.2 |
| VLX | | | | S | Sg | 05 23 29.2 | +0.1 |
| VLX | | | | AML | AML | 05 23 32.1 | |
| | comp=N,118μm,0.5s | | | | | | |
| VLX | | | | AML | AML | 05 23 33.1 | |
| | comp=E,172μm,0.7s | | | | | | |
| **VLX** | **Vlachokerasia** | **0.83** | **58** | P | Pg | 05 23 18.0 | -0.2 |
| VLX | | | | S | Sg | 05 23 29.2 | +0.2 |
| **TRIP** | **Tripoli** | **0.85** | **46** | P | Pg | 05 23 18.5 | -0.2 |
| **TRIP** | **Tripoli** | **0.85** | **46** | P | Pg | 05 23 18.5 | -0.2 |
| TRIP | | | | S | Sb | 05 23 31.2 | +0.7 |
| TRIP | | | | AML | AML | 05 23 32.8 | |
| | comp=N,76μm,0.5s | | | | | | |
| TRIP | | | | AML | AML | 05 23 33.7 | |
| | comp=E,41μm,0.4s | | | | | | |
| **TRIP** | **Tripoli** | **0.85** | **46** | P | Pg | 05 23 18.5 | -0.2 |
| TRIP | | | | S | Sb | 05 23 31.2 | +0.7 |
| **DRO** | **Drossia** | **1.03** | **9** | P | Pb | 05 23 20.7 | -1.3 |
| DRO | | | | S | Sn | 05 23 36.2 | -0.7 |
| **VLI** | **Veliai** | **1.18** | **100** | P | Pg | 05 23 24.7 | -0.1 |
| **VLI** | **Veliai** | **1.18** | **100** | P | Pb | 05 23 24.4 | -0.1 |
| VLI | | | | S | Sb | 05 23 39.8 | +0.1 |
| **VLI** | **Veliai** | **1.18** | **100** | P | Pb | 05 23 24.4 | -0.1 |
| VLI | | | | S | Sb | 05 23 39.8 | +0.1 |
| **GUR** | **Goura** | **1.20** | **34** | P | Pn | 05 23 24.4 | -0.6 |
| **GUR** | **Goura** | **1.20** | **34** | P |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1.1nm,0.3s,baz=84,slow=17,SNR=12 | | | | | | |
| ZALV | | | | Lg | Lg | 05 47 54.3 | |
| | 1.9nm,0.3s,baz=82,slow=26,SNR=18 | | | | | | |
| KURBB | **Kurchatov Arra** | **5.98** | **237** | Pn | Pn | 05 48 52.6 | +0.7 |
| | 0.1nm,0.3s,baz=55,slow=14,SNR=7.5 | | | | | | |
| KURBB | | | | Sn | Sn | 05 50 01.4 | +0.5 |
| | baz=51,slow=22,SNR=2.3 | | | | | | |
| KURBB | | | | Lg | Lg | 05 50 33.7 | |
| | 0.0nm,0.3s,baz=55,slow=31,SNR=5.8 | | | | | | |
| KURBB | **Kurchatov Arra** | **5.98** | **237** | ⇓Pn | Pn | 05 48 53.0 | +1.2 |
| | 1.0nm,0.4s | | | | | | |
| KURBB | | | | ⇑Sn | Sn | 05 50 01.0 | 0.0 |
| | 1.9nm,0.6s | | | | | | |
| KURBB | | | | ⇑Lg | Lg | 05 50 33.4 | |
| | 5.9nm,0.7s | | | | | | |
| **MK31** | **Makanchi Array** | **7.79** | **202** | ⇑Pn | Pn | 05 49 16.4 | -0.3 |
| | 1.0nm,0.8s,baz=24,slow=13,SNR=9.1 | | | | | | |
| MK31 | | | | ⇓Lg | Lg | 05 51 33.2 | |
| | 3.0nm,0.9s,baz=29,slow=33,SNR=3.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **7.79** | **202** | Pn | Pn | 05 49 17.8 | +1.1 |
| | 0.1nm,0.3s,baz=55,slow=14,SNR=8.7 | | | | | | |
| MKAR | | | | Lg | Lg | 05 51 29.1 | |
| | 0.0nm,0.3s,baz=24,slow=31,SNR=5.1 | | | | | | |

**IDC 13 05:54:05.8±2.9, 6.61S×148.10E, h0km, mb3.8/3, mb1 3.9/4, mb1mx3.5/26, mbtmp3.8/4, ML3.6/1, Error ellipse: s-maj=64.9km s-min=45.2km az=105.0, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **18.82** | **224** | P | Pn | 05 58 27.7 | 0.0 |
| | 0.2nm,0.3s,baz=51,slow=11,SNR=6.7 | | | | | | |
| **ASAR** | **Alice Springs** | **21.77** | **217** | P | P | 05 59 00.1 | +0.8 |
| | 1.8nm,0.5s,baz=51,slow=9.5,SNR=30 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **24.70** | **240** | P | P | 05 59 28.5 | -0.4 |
| | 1.4nm,0.4s,baz=54,slow=8.3,SNR=14 | | | | | | |
| **STKA** | **Stephens Creek** | **25.86** | **193** | P | P | 05 59 39.3 | +0.1 |
| | 1.5nm,0.7s,baz=0.6,slow=7.0,SNR=3.2 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **146.30** | **284** | PKPbc | PKPdf | 06 13 48.2 | -0.2 |
| | 0.2nm,0.6s,baz=70,slow=2.4,SNR=4.0 | | | | | | |

**IDC 13 05:54:56.8±4.3, 17.97S×172.11W, h0km, mb3.5/2, mb1 3.8/3, mb1mx3.6/28, mbtmp3.6/3, ML3.3/1, Error ellipse: s-maj=134.8km s-min=36.1km az=124.0, Tonga Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **AFI** | **Afiamalu** | **4.05** | **5** | Pn | Pn | 05 56 00.4 | +0.2 |
| | 1.8nm,0.3s,baz=216,slow=17,SNR=3.0 | | | | | | |
| AFI | | | | Sn | Sn | 05 56 42.1 | -6.3 |
| | 3.1nm,0.3s,baz=108,slow=20,SNR=4.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **50.51** | **259** | P | P | 06 03 57.2 | +0.1 |
| | 0.2nm,0.3s,baz=96,slow=7.0,SNR=5.4 | | | | | | |
| **ASAR** | **Alice Springs** | **50.54** | **254** | P | P | 06 03 57.1 | -0.3 |
| | 0.5nm,0.7s,baz=86,slow=8.6,SNR=6.5 | | | | | | |
| **BRTR** | **Keskin Array B** | **148.91** | **320** | PKPbc | PKPbc | 06 14 46.4 | -0.7 |
| | 0.3nm,0.4s,baz=27,slow=6.6,SNR=2.7 | | | | | | |

**WEL 13 06:29:18.6±0.2, 41.96S×179.99W, h33km, ML4.0/24, 4C-5D, Error ellipse: s-maj=2.2km s-min=1.9km az=90.0, East of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CTZ** | **Chatham Island** | **3.05** | **127** | ⇓PN | Pn | 06 30 04.1 | -0.3 |
| CTZ | | | | SN | Sn | 06 30 36.1 | -3.6 |
| **ANWZ** | **Angora Road** | **3.06** | **298** | PN | Pn | 06 30 04.2 | -0.4 |
| ANWZ | | | | SN | Sn | 06 30 36.1 | -4.1 |
| **PRHZ** | **Porangahau** | **3.06** | **303** | PN | Pn | 06 30 04.4 | -0.4 |
| **PXZ** | **Pawanui** | **3.07** | **308** | ⇑PN | Pn | 06 30 04.5 | -0.2 |
| PXZ | | | | SN | Sn | 06 30 37.7 | -2.6 |
| **CKHZ** | **Cape Kidnapper** | **3.20** | **315** | PN | Pn | 06 30 06.5 | -0.1 |
| CKHZ | | | | AML | AML | 06 30 45.1 | |
| **KAHZ** | **Kahuranaki** | **3.22** | **311** | PN | Pn | 06 30 06.8 | 0.0 |
| **MHGZ** | **Mahia Peninsul** | **3.23** | **330** | PN | Pn | 06 30 06.9 | -1.2 |
| **WPHZ** | **Waipukurau** | **3.30** | **304** | PN | Pn | 06 30 07.8 | -0.2 |
| **TIWZ** | **Tintock** | **3.33** | **290** | PN | Pn | 06 30 08.1 | -0.2 |
| **DVHZ** | **Dannevirke** | **3.35** | **299** | PN | Pn | 06 30 07.8 | -0.8 |
| DVHZ | | | | AML | AML | 06 30 46.1 | |
| DVHZ | | | | AML | AML | 06 30 46.9 | |
| **PRWZ** | **Pori Road** | **3.36** | **293** | ⇓PN | Pn | 06 30 08.2 | -0.5 |
| PRWZ | | | | AML | AML | 06 30 50.8 | |
| **KNZ** | **Kokohu** | **3.44** | **328** | PN | Pn | 06 30 08.6 | -1.3 |
| **MTW** | **Mount Morrison** | **3.48** | **282** | PN | Pn | 06 30 08.6 | -1.8 |
| **PNHZ** | **Pukenui** | **3.54** | **304** | PN | Pn | 06 30 10.7 | -0.6 |
| PNHZ | | | | AML | AML | 06 30 52.1 | |
| PNHZ | | | | AML | AML | 06 30 52.4 | |
| **ARHZ** | **Aropaoanui** | **3.54** | **319** | PN | Pn | 06 30 11.5 | +0.2 |
| ARHZ | | | | AML | AML | 06 30 53.8 | |
| ARHZ | | | | AML | AML | 06 30 58.7 | |
| **HOWZ** | **Holdsworth Sta** | **3.54** | **286** | PN | Pn | 06 30 10.0 | -1.4 |
| **POWZ** | **Post Office Ro** | **3.57** | **295** | PN | Pn | 06 30 11.2 | -0.4 |
| **WHHZ** | **Waihua** | **3.58** | **323** | PN | Pn | 06 30 11.2 | -0.6 |
| WHHZ | | | | AML | AML | 06 30 54.4 | |
| WHHZ | | | | AML | AML | 06 30 59.3 | |
| **PLWZ** | **Palliser** | **3.58** | **275** | PN | Pn | 06 30 09.7 | -2.1 |
| **MRZ** | **Mangatainoka R** | **3.58** | **290** | PN | Pn | 06 30 10.7 | -1.2 |
| MRZ | | | | AML | AML | 06 31 18.8 | |
| MRZ | | | | AML | AML | 06 31 18.9 | |
| **KRHZ** | **Kereru** | **3.61** | **309** | PN | Pn | 06 30 11.6 | -0.6 |
| KRHZ | | | | AML | AML | 06 30 52.6 | |
| **TSZ** | **Takapari Road** | **3.61** | **301** | ⇓PN | Pn | 06 30 11.7 | -0.5 |
| TSZ | | | | SN | Sn | 06 30 49.7 | -4.0 |
| TSZ | | | | AML | AML | 06 30 53.1 | |
| **RIGZ** | **Rimuhau** | **3.68** | **331** | PN | Pn | 06 30 12.3 | -1.0 |
| RIGZ | | | | AML | AML | 06 30 55.0 | |
| RIGZ | | | | AML | AML | 06 30 57.3 | |
| **KWHZ** | **Kaweka Forest** | **3.73** | **312** | PN | Pn | 06 30 13.3 | -0.6 |
| KWHZ | | | | AML | AML | 06 30 56.5 | |
| KWHZ | | | | AML | AML | 06 30 57.2 | |
| **NMHZ** | **Naumai** | **3.76** | **318** | PN | Pn | 06 30 13.9 | -0.6 |
| NMHZ | | | | AML | AML | 06 30 57.2 | |
| NMHZ | | | | AML | AML | 06 30 59.2 | |
| **SNGZ** | **Shannon Statio** | **3.78** | **326** | ⇑PN | Pn | 06 30 13.8 | -0.7 |
| SNGZ | | | | AML | AML | 06 30 57.1 | |
| SNGZ | | | | AML | AML | 06 30 57.5 | |
| **CAW** | **Cannon Point** | **3.81** | **281** | PN | Pn | 06 30 13.6 | -1.4 |
| **OGWZ** | **Otaki Gorge** | **3.82** | **286** | PN | Pn | 06 30 14.0 | -1.1 |
| OGWZ | | | | AML | AML | 06 30 56.1 | |
| OGWZ | | | | AML | AML | 06 30 57.9 | |
| **BKZ** | **Black Stump Fm** | **3.87** | **315** | PN | Pn | 06 30 15.3 | -0.6 |
| **BHHZ** | **Black Hill Sta** | **3.89** | **308** | PN | Pn | 06 30 15.7 | -0.4 |
| **MTHZ** | **Maungataniwha** | **3.94** | **321** | PN | Pn | 06 30 16.0 | -0.8 |
| **KIW** | **Kapiti Island** | **3.99** | **284** | PN | Pn | 06 30 16.5 | -1.0 |
| **RTZ** | **Ruatahuna** | **4.07** | **324** | PN | Pn | 06 30 17.9 | -0.8 |
| **TWGZ** | **Tauwhareparae** | **4.09** | **337** | PN | Pn | 06 30 17.8 | -1.1 |
| TWGZ | | | | AML | AML | 06 31 07.1 | |
| TWGZ | | | | AML | AML | 06 31 07.7 | |
| **MWZ** | **Matawai** | **4.09** | **331** | ⇑PN | Pn | 06 30 17.7 | -1.2 |
| MWZ | | | | AML | AML | 06 31 03.8 | |
| MWZ | | | | AML | AML | 06 31 05.7 | |
| **PUZ** | **Puketiti** | **4.12** | **340** | PN | Pn | 06 30 17.3 | -1.9 |
| **MRHZ** | **Matea Rd** | **4.16** | **318** | PN | Pn | 06 30 19.9 | +0.1 |
| MRHZ | | | | AML | AML | 06 31 07.6 | |
| MRHZ | | | | AML | AML | 06 31 09.3 | |
| **WNVZ** | **Wahianoa** | **4.27** | **307** | ⇓PN | Pn | 06 30 22.0 | +0.6 |
| **TUVZ** | **Tukino** | **4.27** | **308** | PN | Pn | 06 30 22.4 | +0.9 |
| **TRVZ** | **Turoa** | **4.32** | **307** | PN | Pn | 06 30 22.5 | +0.4 |
| TRVZ | | | | AML | AML | 06 30 31.3 | |
| **URZ** | **Urewera** | **4.32** | **328** | ⇓PN | Pn | 06 30 21.1 | -0.8 |
| URZ | | | | AML | AML | 06 31 09.8 | |
| URZ | | | | AML | AML | 06 31 11.7 | |
| **WMGZ** | **Waiomatatini S** | **4.32** | **343** | PN | Pn | 06 30 20.7 | -1.3 |
| WMGZ | | | | AML | AML | 06 31 10.5 | |
| WMGZ | | | | AML | AML | 06 31 11.5 | |
| **OTVZ** | **Oturere** | **4.33** | **309** | ⇑PN | Pn | 06 30 22.6 | +0.2 |
| **NGZ** | **Ngauruhoe** | **4.36** | **308** | PN | Pn | 06 30 23.0 | +0.3 |
| **TCW** | **Tory Channel** | **4.37** | **278** | PN | Pn | 06 30 22.1 | -0.5 |
| **RUGZ** | **Raukumara Rang** | **4.38** | **335** | PN | Pn | 06 30 21.2 | -1.7 |
| **KRVZ** | **Karewarewa** | **4.39** | **309** | PN | Pn | 06 30 23.7 | +0.6 |
| **WAZ** | **Wanganui** | **4.41** | **298** | PN | Pn | 06 30 24.1 | +1.0 |
| **HAZ** | **Te Kaha** | **4.54** | **337** | PN | Pn | 06 30 23.6 | -1.4 |
| HAZ | | | | AML | AML | 06 31 16.3 | |
| HAZ | | | | AML | AML | 06 31 17.0 | |
| **MXZ** | **Matakaoa Point** | **4.59** | **343** | PN | Pn | 06 30 24.6 | -1.1 |
| MXZ | | | | AML | AML | 06 31 16.8 | |
| **TARZ** | **Mount Tarawera** | **4.59** | **323** | PN | Pn | 06 30 25.3 | -0.6 |
| TARZ | | | | AML | AML | 06 30 26.8 | |
| **MQZ** | **McQueen's Vall** | **5.68** | **250** | PN | Pn | 06 30 39.8 | -0.9 |
| **QRZ** | **Quartz Range** | **5.74** | **279** | PN | Pn | 06 30 41.0 | -0.5 |

**MEX 13 06:30:47.7±0.5, 16.95N×96.60W, h66km±11km, MD3.6, Oaxaca**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VHO** | **Vista Hermosa** | **0.18** | **312** | *i* P | Pn | 06 30 56.6 | -1.5 |
| VHO | | | | *e*S | Sn | 06 31 04.0 | -1.6 |
| **HUIG** | **Huatulco** | **1.27** | **158** | *i* P | Pn | 06 31 08.3 | -1.2 |
| HUIG | | | | *i* S | Sn | 06 31 23.2 | -2.6 |
| **PNIG** | **Pinotepa** | **1.57** | **249** | *e*P | Pn | 06 31 12.1 | -1.4 |
| PNIG | | | | *e*S | Sn | 06 31 31.4 | -1.6 |
| **TLIG** | **Tlapa** | **1.98** | **288** | *e*P | Pn | 06 31 27.9 | +8.8 |

**IDC 13 06:33:15.9±4.5, 23.39S×177.04W, h0km, mb4.0/2, mb1 4.3/3, mb1mx3.7/37, mbtmp4.2/3, ML4.0/1, MS3.4/1, Ms1 3.4/1, ms1mx2.7/25, Error ellipse: s-maj=177.4km s-min=32.3km az=142.0, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **AFI** | **Afiamalu** | **10.66** | **29** | Pn | Pn | 06 35 52.3 | +2.1 |
| | 1.1nm,0.3s,baz=168,slow=18,SNR=2.0 | | | | | | |
| AFI | | | | Sn | Sn | 06 37 45.4 | -5.0 |
| | 1.3nm,0.3s,baz=0.0,slow=19,SNR=2.2 | | | | | | |
| **TBI** | **Tubuai** | **25.31** | **95** | *e*LR | LR | 06 44 29.2 | |
| | 74nm,25.2s | | | | | | |
| **TBI** | **Tubuai** | **25.31** | **95** | *e*T | T | 07 03 41.0 | |
| | 13nm,0.3s | | | | | | |
| **HNR** | **Honiara** | **26.01** | **298** | LR | LR | 06 47 14.6 | |
| | comp=Z,74nm,19.1s,baz=204,slow=32 | | | | | | |
| **PAE** | **Paea** | **26.32** | **83** | *e*T | T | 07 05 16.0 | |
| | 4.3nm,0.2s | | | | | | |
| **PPT2** | **Papeete2** | **26.34** | **82** | *e*LR | LR | 06 45 11.0 | |
| | 61nm,22.8s | | | | | | |
| **PPT2** | **Papeete2** | **26.34** | **82** | *e*T | T | 07 05 18.9 | |
| | 4.4nm,0.3s | | | | | | |
| **TVO** | **Taravao** | **26.58** | **83** | *e*T | T | 07 05 34.8 | |
| | 0.9nm,0.3s | | | | | | |
| **VAH** | **Vaihoa** | **28.88** | **79** | *e*T | T | 07 08 33.1 | |
| | 4.8nm,0.3s | | | | | | |
| **RKT** | **Rikitea** | **38.55** | **98** | *e*T | T | 07 20 08.9 | |
| | 4.1nm,0.3s | | | | | | |
| **ASAR** | **Alice Springs** | **44.79** | **259** | P | P | 06 41 32.3 | +0.5 |
| | 1.8nm,0.8s,baz=97,slow=8.6,SNR=15 | | | | | | |
| **WRA** | **Warramunga Arr** | **45.15** | **265** | P | P | 06 41 34.5 | -0.1 |
| | 1.3nm,0.6s,baz=99,slow=7.1,SNR=16 | | | | | | |
| **AKASG** | **Malin Array Be** | **145.95** | **330** | PKPbc | PKPdf | 06 52 56.1 | -0.5 |
| | 0.7nm,0.4s,baz=44,slow=4.0,SNR=5.0 | | | | | | |
| **BRTR** | **Keskin Array B** | **149.39** | **309** | PKPbc | PKPbc | 06 53 05.8 | -1.5 |
| | 0.2nm,0.4s,baz=96,slow=4.3,SNR=2.7 | | | | | | |

**IDC 13 06:38:33.3±3.4, 32.40S×178.37W, h0km, mb3.6/2, mb1 3.9/4, mb1mx3.6/35, mbtmp3.8/4, ML3.7/2, Error ellipse: s-maj=74.2km s-min=41.1km az=108.0, South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **URZ** | **Urewera** | **6.92** | **211** | Pn | Pn | 06 40 15.9 | +0.1 |
| | 1.4nm,0.3s,baz=115,slow=19,SNR=9.8 | | | | | | |
| URZ | | | | Sn | Sn | 06 41 26.2 | -9.0 |
| | 2.7nm,0.3s,baz=26,slow=23,SNR=9.8 | | | | | | |
| **RPZ** | **Rata Peaks** | **14.02** | **213** | Pn | Pn | 06 41 52.5 | -0.7 |
| | 0.4nm,0.3s,baz=45,slow=13,SNR=3.1 | | | | | | |
| **ASAR** | **Alice Springs** | **42.73** | **269** | P | P | 06 46 32.3 | -0.1 |
| | 0.4nm,0.6s,baz=109,slow=7.0,SNR=5.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.90** | **274** | P | P | 06 46 41.8 | -0.1 |
| | 0.4nm,0.4s,baz=114,slow=7.7,SNR=7.0 | | | | | | |
| **FINES** | **FINESS Array B** | **146.90** | **339** | PKPbc | PKPbc | 06 58 16.1 | -0.7 |
| | 3.0nm,0.9s,baz=48,slow=4.5,SNR=2.2 | | | | | | |

*NIED* ***13*** *06:44:00, 38.50N×142.20E, h50km, Mw3.7 Best double couple: M₀4.46000×10¹⁴ NP1:ϕs70.00000°, δ43.00000°, λ132.00000°. NP2:ϕs200.00000°, δ60.00000°, λ59.00000°.*

*ISCJB* ***13*** *06:44:15.3±1.1, 38.48N±0.05×142.2E±0.1, h63km±8km, mb3.4/4, Error ellipse: s-maj=14.7km s-min=6.7km az=15.1*

*JMA* ***13*** *06:44:16.7±0.1, 38.48N×142.14E, h47km±1km, M3.7*

*JMA Felt I J1.*

*IDC* ***13*** *06:44:16.5±4.1, 38.65N×142.37E, h65km±37km, mb3.2/4, mb1 3.4/6, mb1mx3.1/44, mbtmp3.5/6, ML2.7/2, Error ellipse: s-maj=35.0km s-min=23.9km az=89.0*

**ISC 13 06:44:14.8±2.1, 38.49N±0.06×142.3E±0.1, h47km±19km, n24, σ1s49/29, mb3.4/4, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JIO** | **Ouri** | **0.77** | **268** | P | **Pn** | **06 44 29.3** | **0.0** |
| JIO | | | | S | **Sn** | **06 44 38.0** | **-1.8** |
| **OFUJ** | **Ofunato** | **0.78** | **319** | P | **Pn** | **06 44 30.5** | **+1.0** |
| OFUJ | | | | *e*S | **Sn** | **06 44 40.3** | **+0.1** |
| **JMK** | **Ichinoseki** | **0.98** | **299** | P | **Pn** | **06 44 32.7** | **+0.5** |
| JMK | | | | *e*S | **Sn** | **06 44 44.3** | **-0.7** |
| **JOM** | **Ohasama** | **1.27** | **321** | P | **Pn** | **06 44 37.5** | **+1.3** |
| JOM | | | | *e*S | **Sn** | **06 44 53.0** | **+0.9** |
| **JOU** | **Okura** | **1.31** | **265** | P | **Pn** | **06 44 37.0** | **+0.3** |
| JOU | | | | *e*S | **Sn** | **06 44 51.9** | **-1.1** |
| **JMM** | **Marumori** | **1.36** | **243** | P | **Pn** | **06 44 37.1** | **-0.2** |
| JMM | | | | *e*S | **Sn** | **06 44 52.3** | **-1.8** |
| **JYK** | **Kaneyama** | **1.60** | **286** | P | **Pn** | **06 44 41.2** | **+0.6** |
| JYK | | | | *e*S | **Sn** | **06 44 59.6** | **-0.4** |
| **JRG** | **Rokugo** | **1.60** | **305** | P | **Pn** | **06 44 41.5** | **+0.9** |
| **JFK** | **Kawauchi** | **1.60** | **226** | P | **Pn** | **06 44 40.9** | **+0.2** |
| JFK | | | | *e*S | **Sn** | **06 44 58.9** | **-1.3** |
| **JYS** | **Shirataka** | **1.79** | **262** | P | **Pn** | **06 44 44.0** | **+0.7** |
| JYS | | | | *e*S | **Sn** | **06 45 04.1** | **-0.8** |
| **JFT** | **Otama** | **1.84** | **239** | P | **Pn** | **06 44 44.5** | **+0.5** |
| JFT | | | | *e*S | **Sn** | **06 45 05.2** | **-0.9** |
| **MAT** | **Matsushiro** | **3.80** | **241** | P | **Pn** | **06 45 13.2** | **+2.3** |
| MAT | | | | *e*S | **Sn** | **06 45 58.8** | **+4.4** |
| **MJAR** | **Matsushiro Arr** | **3.80** | **241** | P | **Pn** | **06 45 13.3** | **+2.4** |
| | 1.4nm,0.3s,baz=58,slow=10,SNR=6.3 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **9.64** | **310** | P | **Pn** | **06 46 32.2** | **+1.4** |
| | 0.3nm,0.3s,baz=121,slow=14,SNR=2.9 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.32** | **124** | T | T | 07 20 23.0 | |
| | baz=317,slow=76,SNR=36 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.33** | **124** | T | T | 07 20 22.4 | |
| | baz=317,slow=76,SNR=32 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.34** | **124** | T | T | 07 20 24.1 | |
| | baz=317,slow=76,SNR=25 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.09** | **126** | T | T | 07 21 23.1 | |
| | baz=318,slow=76,SNR=12 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.10** | **126** | T | T | 07 21 24.2 | |
| | baz=318,slow=76,SNR=22 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.11** | **126** | T | T | 07 21 23.6 | |
| | baz=318,slow=76,SNR=5.4 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.49** | **311** | P | **P** | **06 51 55.4** | **-1.6** |
| | 0.8nm,0.3s,baz=79,slow=9.0,SNR=2.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.97** | **301** | P | **P** | **06 52 17.0** | **-0.3** |
| | 0.3nm,0.6s,baz=260,slow=9.9,SNR=2.5 | | | | | | |
| **ILAR** | **Eielson Array** | **47.88** | **33** | P | **P** | **06 52 46.2** | **-1.6** |
| | 0.2nm,0.7s,baz=260,slow=5.4,SNR=2.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **58.60** | **189** | P | **P** | **06 54 08.0** | **+1.1** |
| | 0.3nm,0.6s,baz=7.7,slow=7.1,SNR=4.8 | | | | | | |

**GUC 13 06:48:12.0±0.3, 36.23S×73.66W, h42km±2km, ML3.8, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **COCH** | **Cobquecura** | **0.71** | **82** | *e*P | Pn | 06 48 25.3 | -0.3 |
| COCH | | | | *e*S | Sn | 06 48 35.3 | -0.1 |
| COCH | | | | IAML | | 06 48 38.6 | |
| | comp=N,12μm,0.4s | | | | | | |
| **CCSP** | **San Pedro de C** | **0.76** | **144** | *e*P | Pn | 06 48 25.8 | -0.4 |
| CCSP | | | | *e*S | Sn | 06 48 36.4 | -0.1 |
| CCSP | | | | IAML | | 06 48 41.2 | |
| | comp=N,7μm,0.3s | | | | | | |
| **CCHI** | **Chillan** | **1.33** | **107** | *e*P | Pn | 06 48 34.4 | +0.3 |
| CCHI | | | | *e*S | Sn | 06 48 49.4 | -1.2 |
| **GO05** | **HualaæØ** | **1.86** | **50** | *e*P | Pn | 06 48 41.9 | +0.4 |
| GO05 | | | | *e*S | Sn | 06 49 04.4 | +0.5 |
| GO05 | | | | IAML | | 06 49 16.3 | |
| | comp=E,905nm,0.5s | | | | | | |
| **RCDM** | **Rinconada Maip** | **3.61** | **41** | *e*P | Pn | 06 49 06.1 | +0.7 |
| **LMEL** | **Las Melosas** | **3.70** | **51** | *e*P | Pn | 06 49 07.3 | +0.4 |
| **CLCH** | **Cerro Calan** | **3.82** | **43** | *e*P | Pn | 06 49 09.1 | +0.7 |
| **ROCH** | **El Roble** | **3.92** | **35** | *e*P | Pn | 06 49 10.6 | +0.7 |
| **PEL** | **Peldehue** | **3.94** | **39** | *e*P | Pn | 06 49 10.5 | +0.5 |

**MAN 13 07:04:46, 13.48N×120.19E, h37km, mb4.3, ML3.1, MS2.9, 2C, Mindoro**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **LUBP** | **Lubang** | **0.26** | **13** | *e*P | Pn | 07 04 55.7 | +1.4 |
| LUBP | | | | *e*S | Sn | 07 05 01.2 | -0.7 |
| **PGP** | **Puerto Galera** | **0.75** | **88** | ⇑*i*P | Pn | 07 05 01.1 | +1.0 |
| PGP | | | | *i* S | Sn | 07 05 11.8 | +1.7 |
| **TGY** | **Tagaytay City** | **0.96** | **49** | *e*P | Pn | 07 05 04.7 | +1.7 |
| TGY | | | | *e*S | Sn | 07 05 18.1 | +2.7 |
| **SJMP** | **San Jose** | **1.36** | **138** | *e*P | Pn | 07 05 10.1 | +1.7 |
| SJMP | | | | *e*S | Sn | 07 05 26.6 | +1.5 |
| **BUSP** | **Coron** | **1.46** | **180** | *e*P | Pn | 07 05 04.8 | -5.1 |
| BUSP | | | | *e*S | Sn | 07 05 29.7 | +1.9 |
| **BOAC** | **Boac** | **1.61** | **90** | *e*P | Pn | 07 05 12.1 | +0.3 |
| BOAC | | | | *e*S | Sn | 07 05 30.1 | -1.3 |
| **OTRP** | **Odiongan** | **2.10** | **122** | *e*P | Pn | 07 05 20.0 | +1.3 |
| **PCPH** | **Palayan** | **2.25** | **23** | ⇑*e*P | Pn | 07 05 21.7 | +1.0 |
| PCPH | | | | *e*S | Sn | 07 05 47.5 | +0.3 |
| **BALP** | **Baler** | **2.62** | **31** | *e*P | Pn | 07 05 28.0 | +2.2 |
| **BOLP** | **Bolinao** | **2.90** | **355** | *e*P | Pn | 07 05 27.3 | -2.3 |

**MEX 13 07:16:47.3±0.3, 18.27N×100.07W, h58km±5km, MD3.6, Guerrero**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ARIG** | **Puente Sto Nin** | **0.27** | **272** | *i* P | Pn | 07 16 55.4 | -1.6 |
| ARIG | | | | *i* S | Sn | 07 17 02.1 | -1.8 |
| **MEIG** | **Mezcala** | **0.55** | **129** | *e*P | Pn | 07 16 58.1 | -1.6 |
| MEIG | | | | *e*S | Sn | 07 17 06.9 | -1.8 |
| **PLIG** | **Platanillo** | **0.55** | **77** | *e*P | Pn | 07 16 58.2 | -1.5 |
| PLIG | | | | *e*S | Sn | 07 17 06.9 | -1.9 |
| **YAIG** | **Yautepec** | **1.11** | **58** | *e*P | Pn | 07 17 05.5 | -1.4 |
| YAIG | | | | *e*S | Sn | 07 17 19.8 | -1.7 |
| **CAIG** | **El Cayaco** | **1.23** | **189** | *e*P | Pn | 07 17 06.9 | -1.5 |
| CAIG | | | | *i* S | Sn | 07 17 21.8 | -2.2 |
| **ACX** | **Acapulco** | **1.41** | **172** | *e*P | Pn | 07 16 54.6 | -16 |

**IDC 13 07:26:48.5±1.2, 15.24N×119.06E, h0km, mb3.5/4, mb1 3.7/4, mb1mx3.3/62, mbtmp3.5/4, Error ellipse: s-maj=137.7km s-min=20.4km az=66.0, Luzon**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SONM** | **Songino Array** | **34.15** | **345** | P | P | 07 33 35.8 | +0.3 |
| | 0.3nm,0.4s,baz=167,slow=8.9,SNR=2.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **38.05** | **156** | P | P | 07 34 08.6 | -0.4 |
| | 0.5nm,0.6s,baz=338,slow=9.3,SNR=8.5 | | | | | | |
| **ASAR** | **Alice Springs** | **41.30** | **159** | P | P | 07 34 36.2 | +0.2 |
| | 0.2nm,0.3s,baz=336,slow=7.6,SNR=9.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.86** | **324** | P | P | 07 34 56.0 | -0.6 |
| | 0.6nm,0.9s,baz=124,slow=7.8,SNR=3.7 | | | | | | |

*IDC* ***13*** *07:28:09.4±0.5, 4.81N×82.50W, h0km, mb5.0/29, mb1 5.1/33, mb1mx5.0/48, mbtmp5.0/33, ML4.6/4, MS4.7/20, Ms1 4.7/20, ms1mx4.5/38, Error ellipse: s-maj=18.3km s-min=9.5km az=57.0*

*NEIC* ***13*** *07:28:11.1±0.1, 4.76N×82.58W, h7km, mb5.5/297, MS5.1/127, MW5.4, Error ellipse: s-maj=3.2km s-min=2.3km az=35.0, Moment Tensor Solution. s20 Moment tensor: Scale 10¹⁷Nm; Mrr0.02; Mθθ-0.28; Mϕϕ0.26; Mrθ1.16; Mrϕ1.33; Mθϕ0.00; Best double couple: M₀1.80000×10¹⁷ NP1:ϕs265.00000°, δ89.00000°, λ-41.00000°. NP2:ϕs355.00000°, δ49.00000°, λ-179.00000°. Principal axes: T 1.7200, Plg27.0000°, Azm318.00000°; N 0.1300, Plg49.0000°, Azm84.00000°; P -1.8400, Plg28.0000°, Azm212.0000°;*

*GCMT* ***13*** *07:28:11.1±0.2, 4.71N×82.64W, h25km, MW5.5/121, Moment Tensor Solution. s75,c123; s121,c227; Duration: 1s4 Moment tensor: Scale 10¹⁷Nm; Mrr0.14±.05; Mθθ0.11±.04; Mϕϕ-0.25±.05; Mrθ0.08±.09; Mθϕ2.58±.04; Mrϕ0.28±.10; Best double couple: M₀2.60300×10¹⁷ NP1:ϕs2.00000°, δ88.00000°, λ174.00000°. NP2:ϕs92.00000°, δ84.00000°, λ2.00000°. Principal axes: T 2.5420, Plg6.0000°, Azm317.0000°; N 0.1230, Plg83.0000°, Azm165.0000°; P -2.6650, Plg3.0000°, Azm47.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*MOS* ***13*** *07:28:11.1±1.8, 4.80N×82.60W, h10km, mb5.5/80, MS4.9/5 Error ellipse: s-maj=11.5km s-min=4.5km az=111.5*

*BJI* ***13*** *07:28:11.1, 4.80N×82.60W, h7km, mB5.6/20, Ms5.7/7, Ms7 5.4/7*

*CASC* ***13*** *07:28:12.8±2.5, 5.06N×82.63W, h3km±25km, MD4.0, ML4.7, mb5.5(NEIC)*

*ISCJB* ***13*** *07:28:12.1±0.8, 4.95N±0.02×82.57W±0.02, h22km±5km, mb5.4/380, MS5.1/145, Error ellipse: s-maj=3.9km s-min=2.4km az=32.6*

**ISC 13 07:28:11.9±0.8, 4.73N±0.04×82.64W±0.04, h15km±4km, h15km:pP-P, n1265, σ1s29/1201, mb5.5/379, MS5.0/147, 5C, South of Panama**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MAPC** | **Malpelo** | **1.26** | **125** | *e*P | Pn | 07 28 30.1 | -4.9 |
| **AZU** | **Azuero** | **3.84** | **38** | *e*P | **Pn** | **07 29 07.8** | **-2.7** |
| AZU | | | | *e*S | **Sn** | **07 29 51.5** | **-3.9** |
| **ACR** | **Cerro Adams** | **3.93** | **352** | *e*P | **Pn** | **07 29 08.3** | **-3.4** |
| **BRU2** | **Volcan** | **4.04** | **359** | ⇑*e*

ESPN Las Esperanzas 7.59 348 eP Pn 07 29 59.9 -2.2
ACON Acoyapa 7.61 341 eP Pn 07 30 00.6 -1.7
ACON eS Sn 07 31 24.2 -4.1
NORC Norcasia 7.79 84 eP Pn 07 30 06.6 +1.8
PRAC Prado 7.80 97 eP Pn 07 30 05.7 +0.7
PRAC Prado 7.80 97 ePn Pn 07 30 05.9 +0.9
PRAC eSn Sn 07 31 33.6 +0.4
MOTC Monteria, Cord 8.01 60 eP Pn 07 30 09.3 +1.5
MOTC eP Pn 07 30 09.5 +1.7
MGAN Managua 8.18 334 eP Pn 07 30 09.7 -0.4
TISN Laguna Tiscapa 8.19 334 eP Pn 07 30 10.4 +0.1
ROSC El Rosal 8.30 89 Pn Pn 07 30 14.6 +2.5
comp=Z,43nm,0.3s,baz=53,slow=7.3,SNR=67
ROSC LR LR 07 33 35.3
comp=Z,3µm,19.1s,baz=334,slow=40
ROSC El Rosal 8.30 89 eP Pn 07 30 14.8 +2.7
ROSC El Rosal 8.30 89 ePn Pn 07 30 15.1 +3.1
APYN Apoyeque 8.30 334 eP Pn 07 30 13.8 +1.9
PTBC PUERTO BERRIO, 8.34 77 eP Pn 07 30 12.6 +0.3
COPN Copaltepe 8.37 332 eP Pn 07 30 13.1 +0.5
CTAB Cerro Tablazo, 8.41 88 eP Pn 07 30 16.3 +2.6
CVER Cruz Verde, Cu 8.54 91 eP Pn 07 30 18.1 +2.6
CTAU Tausa, Cundina 8.58 87 eP Pn 07 30 18.1 +2.1
BRAN Las Pilas 8.74 335 eP Pn 07 30 11.9 -5.8
CHIC Chingaza 8.88 90 eP Pn 07 30 22.4 +2.2
CRIN San Cristobal 9.03 331 eP Pn 07 30 21.9 0.0
ESTN Estel 9.09 336 eP Pn 07 30 22.4 -0.3
BRRC Barranca, Sant 9.19 75 eP Pn 07 30 17.9 -6.1
PAYG Puerto Ayora 9.34 235 ePn Pn 07 30 28.8 +2.8
RUSC La Rusia 9.59 83 eP Pn 07 30 30.3 +0.4
RUSC La Rusia 9.59 83 ePn Pn 07 30 31.2 +1.3
BARC Barichara 9.60 78 eP Pn 07 30 31.6 +1.9
GIRC Giron, Santand 9.69 76 eP Pn 07 30 32.7 +1.8
OCAC Ocana 9.90 69 eP Pn 07 30 36.3 +2.4
PAMC Pamplona, Colo 10.22 75 eP Pn 07 30 40.7 +2.1
GUVC San Jose del G 10.23 102 eP Pn 07 30 39.5 +1.2
TGUH Tegucigalpa,Un 10.33 334 ePn Pn 07 30 40.4 +0.8
TGUH Tegucigalpa,Un 10.33 334 eP Pn 07 30 39.7 +0.2
TGUH AML AML 07 30 44.4
comp=Z,534nm,0.6s
CODC Agust´›n Codaz 10.48 60 eP Pn 07 30 42.7 +1.0
SNET Serv Nac Est T 11.02 324 ePn Pn 07 30 51.3 +2.2
SNET Serv Nac Est T 11.02 324 eP Pn 07 30 51.5 +2.4
ATAH Atahualpa 12.53 160 Pn Pn 07 31 11.2 +1.1
comp=Z,4.0nm,0.3s,baz=353,slow=16,SNR=10
ATAH LR LR 07 35 39.3
comp=Z,17µm,19.7s,baz=335,slow=36
SDV Santo Domingo 12.62 70 Pn Pn 07 31 11.3 +0.1
comp=Z,1.8nm,0.3s,baz=248,slow=10,SNR=109
SDV LR LR 07 36 20.9
comp=Z,791nm,18.1s,baz=242,slow=40
SDV Santo Domingo 12.62 70 eP Pn 07 31 10.8 -0.3
SDV Santo Domingo 12.62 70 ePn Pn 07 31 12.0 +0.9
SDV Santo Domingo 12.62 70 eP Pn 07 31 11.4 +0.3
MTDJ Mount Denham 14.31 20 ePn Pn 07 31 35.5 +1.3
MTDJ Mount Denham 14.31 20 eP Pn 07 31 36.0 +1.8
CCIG Comitan 14.78 322 ePn Pn 07 31 41.4 +0.6
GTBY Guantanamo Bay 16.79 25 ePn P 07 32 08.2 -0.5
comp=Z,532nm,1.4s
LGNH LØogne 16.84 35 ePn Pn 07 32 07.3 0.0
comp=Z,1µm,1.2s
CMIG Matias Romero 17.17 317 P Pn 07 32 11.2 -0.2
comp=Z,0.4nm,0.3s,baz=123,slow=9.7,SNR=32
CMIG LR LR 07 37 46.4
comp=Z,3µm,19.5s,baz=124,slow=34
MYIG MÛrida 17.54 337 ePn Pn 07 32 16.2 +0.3
comp=Z,1µm,1.3s
NNA Nana 17.59 161 P Pn 07 32 16.1 -0.5
comp=Z,4.9nm,0.3s,baz=341,slow=12,SNR=16
NNA LR LR 07 38 32.9
comp=Z,3µm,20.6s,baz=316,slow=35
NNA Nana 17.59 161 i P P 07 32 18.4 +0.8
NNA Nana 17.59 161 ePn P 07 32 17.2 -0.4
comp=Z,193nm,1.1s
SDDR Presa de Saban 17.98 37 ePn P 07 32 23.1 +1.1
comp=Z,344nm,1.2s
SDDR Presa de Saban 17.98 37 eP P 07 32 23.9 +1.8
SDD Santo Domingo 18.46 41 ePn Pn 07 32 28.0 +0.7
comp=Z,2µm,1.9s
PCRV Puerto La Cruz 18.65 72 P P 07 32 28.4 -1.0
comp=Z,4.3nm,0.3s,baz=249,slow=5.5,SNR=32
PCRV LR LR 07 41 19.5
comp=Z,3µm,22.0s,baz=260,slow=43
LVIG Laguna Verde 20.05 319 eP Pn 07 32 46.8 +0.3
comp=Z,152nm,1.4s
GRTK Grand Turk 20.07 33 eP Pn 07 32 45.5 -1.1
comp=Z,934nm,1.8s
GRTK LR LR
comp=Z,3µm,20.0s
IDE Isla Desecheo 20.10 46 eP Pn 07 32 46.1 -0.9
TLIG Tlapa 20.14 311 eP Pn 07 32 47.6 0.0
comp=Z,247nm,1.2s
MPR Mayaguez 20.23 47 eP Pn 07 32 47.2 -1.3
comp=Z,484nm,1.6s
AGP Aguadilla 20.35 47 eP Pn 07 32 49.8 -0.2
comp=Z,633nm,1.2s
CELP Cerrillos 20.56 49 eP Pn 07 32 50.9 -1.5
SJG San Juan 20.90 49 LR LR 07 39 50.6
comp=Z,1µm,19.5s,baz=251,slow=34
SJG San Juan 20.90 49 eP P 07 32 54.3 +0.4
SJG pmax pmax
comp=Z,360nm,1.0s
SJG San Juan 20.90 49 eP P 07 32 54.3 +0.4
comp=Z,362nm,1.0s
CBYP Canovanas 21.22 49 eP P 07 32 57.8 +0.4
comp=Z,637nm,1.1s
UNM Universidad Na 21.69 313 eP P 07 33 05.2 +2.6
UNM pmax pmax
comp=Z,780nm,1.3s
UNM Universidad Na 21.69 313 eP P 07 33 05.2 +2.6
comp=Z,775nm,1.3s
STVI Saint Thomas 21.96 51 eP P 07 33 05.0 -0.2
comp=Z,345nm,1.3s
GRGR Grenville 22.01 69 eP P 07 33 06.7 +0.8
comp=Z,361nm,1.0s
GRGR LR LR
comp=Z,2µm,21.0s
GRGR Grenville 22.01 69 eP P 07 33 12.5 +6.7
TBVI Tortola 22.25 51 eP P 07 33 09.2 +0.8
ABVI Anegada Island 22.66 51 eP P 07 33 12.3 -0.4
comp=Z,975nm,1.5s
SVB Belmont 22.75 67 eP P 07 33 13.5 -0.3
comp=Z,349nm,0.9s
SVB Belmont 22.75 67 eP P 07 33 13.6 -0.2
SABA Saba 22.91 54 eP P 07 33 16.8 +1.4
comp=Z,244nm,1.1s
SEUS St. Eustatius 23.05 55 eP P 07 33 18.2 +1.3
comp=Z,319nm,0.9s
MCLT Moule a Chique 23.18 66 eP P 07 33 17.8 -0.5
SMRT St. Maarten 23.27 54 eP P 07 33 18.3 -0.8
comp=Z,291nm,1.1s
DWPF Disney Wildern 23.28 3 eP P 07 33 20.0 +1.0
comp=Z,355nm,1.1s
PTGA Pitinga 23.30 103 P P 07 33 18.5 -0.9
comp=Z,30nm,0.9s,baz=292,slow=10,SNR=30
PTGA LR LR 07 42 01.9
comp=Z,2µm,18.6s,baz=282,slow=36
PTGA Pitinga 23.30 103 eP P 07 33 18.7 -0.7
comp=Z,105nm,1.4s
BIM Bigot 23.36 64 eP P 07 33 20.5 +0.4
PML Morne Lenard 23.36 63 eP P 07 33 21.3 +1.2
FDF Fort de France 23.37 63 eP P 07 33 20.8 +0.6
FDF pmax pmax
comp=Z,360nm,1.1s
FDF Fort de France 23.37 63 eP P 07 33 20.8 +0.6
comp=Z,358nm,1.1s
FDF LR LR
comp=Z,2µm,21.0s
FDF Fort de France 23.37 63 eP P 07 33 20.3 +0.1
TRMF Trois Ilets 23.39 64 eP P 07 33 18.3 -2.0
CXM Morne La Croix 23.39 63 eP P 07 33 21.5 +1.1
MOIG Morelia 23.39 311 eP P 07 33 22.1 +1.5
comp=Z,667nm,1.7s
BAMF Morne Balai 23.41 63 eP P 07 33 20.9 +0.3
ZAM Aeronautique 23.42 64 eP P 07 33 22.4 +1.8
GDHS Morne Mazeau, 23.48 59 eP P 07 33 21.8 +0.5
comp=Z,311nm,1.2s
MVM Montagne Vaucl 23.53 64 eP P 07 33 22.8 +1.0
SAML Samuel 23.69 125 eP P 07 33 21.4 -1.8
comp=Z,192nm,1.1s
ANWB Willy Bob 24.12 56 eP P 07 33 25.5 -1.9
comp=Z,57nm,0.6s
BBGH Gun Hill 24.27 68 PFAKE 07 33 40.0 +11
BBGH LR LR
comp=Z,4µm,19.0s

LPAZ La Paz 25.34 146 P P 07 33 39.4 +0.2
comp=Z,31nm,0.8s,baz=332,slow=8.1,SNR=76
LPAZ LR LR 07 44 48.1
comp=Z,4µm,19.6s,baz=302,slow=39
LPAZ La Paz 25.34 146 eP P 07 33 39.3 +0.2
comp=Z,93nm,1.2s
646A Port Sulphur 25.63 345 P P 07 33 41.8 +0.8
baz=163
645A Chauvin 25.72 344 P P 07 33 42.3 +0.6
baz=161
LNIG Linares 25.75 323 eP P 07 33 43.0 +0.9
comp=Z,351nm,1.1s
546A Slidell 26.23 346 P P 07 33 46.5 +0.2
baz=164
ZAIG Zacatecas 26.31 315 eP P 07 33 49.3 +1.8
comp=Z,116nm,1.3s
544A White Castle 26.49 343 P P 07 33 49.0 +0.3
baz=161
448A Bay Minette 26.52 350 P P 07 33 49.2 +0.3
baz=168
447A Lucedale 26.54 348 P P 07 33 49.8 +0.7
baz=166
TIGA Tifton 26.58 358 P P 07 33 49.4 -0.1
baz=178
BRAL Brewton 26.62 352 P P 07 33 50.6 +0.7
baz=170,SNR=8.7
BRAL 26.62 352 eP P 07 33 50.5 +0.6
comp=Z,715nm,1.6s
BRAL LR LR
comp=Z,2µm,22.0s
543A St. Martinvill 26.68 342 P P 07 33 51.4 +1.0
baz=159
446A Poplarville 26.68 347 P P 07 33 51.1 +0.6
baz=165
445A Amite 26.86 345 P P 07 33 52.4 +0.4
baz=163
542A Morse 26.93 341 P P 07 33 53.8 +1.1
baz=158
KVTX Kingsville 26.94 329 eP P 07 33 53.6 +0.8
comp=Z,683nm,1.6s
KVTX LR LR
comp=Z,2µm,19.0s
444A Pine Grove 26.95 344 P P 07 33 53.5 +0.7
baz=162
MNMC Minyo Minye 26.97 152 eP P 07 33 54.3 +0.8
comp=Z,148nm,0.9s
348A Jackson 27.00 350 P P 07 33 53.9 +0.7
baz=168,SNR=6.9
541A Lake Charles 27.09 340 P P 07 33 54.9 +0.8
baz=156
347A Saraland 27.10 349 P P 07 33 54.7 +0.6
baz=167,SNR=6.8
346A Big Creek Wild 27.28 347 P P 07 33 56.2 +0.4
baz=165
443A Delhi Plantat 27.29 343 P P 07 33 56.1 +0.2
baz=160
345A Thompson Farm, 27.33 346 P P 07 33 56.7 +0.4
baz=164,SNR=5.3
442A Mamou 27.44 341 P P 07 33 57.8 +0.6
baz=158
PB11 IPOC Station P 27.49 153 eP P 07 33 58.3 +0.3
comp=Z,74nm,1.0s
248A Dixon Mills 27.64 351 P P 07 33 59.4 +0.4
baz=169,SNR=24
344A Westbrook Farm 27.64 345 P P 07 33 59.7 +0.7
baz=162,SNR=22
441A DeRidder 27.72 340 P P 07 34 00.4 +0.7
baz=157
343A Vidalia 27.73 343 P P 07 33 59.9 +0.1
baz=160
247A Quitman 27.75 349 P P 07 34 00.4 +0.5
baz=167,SNR=28
246A Jackson Lee, B 27.81 348 P P 07 34 00.2 -0.3
baz=166
245A Little AP, Sta 28.00 347 P P 07 34 02.3 +0.1
baz=164,SNR=11
HKT Hockley 28.01 335 eP P 07 34 03.2 +0.9
HKT pmax pmax
comp=Z,48nm,1.2s
HKT Hockley 28.01 335 eP P 07 34 03.2 +0.9
comp=Z,48nm,1.2s
342A Flagon Creek P 28.02 342 P P 07 34 02.4 0.0
baz=159,SNR=12
RGRS Roger Stewart 28.12 4 eP P 07 34 03.7 +0.4
comp=Z,407nm,0.7s
244A Avery, Jackson 28.19 345 P P 07 34 03.8 -0.2
baz=163,SNR=9.1
243A Waterproof 28.25 344 P P 07 34 04.1 -0.4
baz=161
341A Kurthwood 28.25 341 P P 07 34 04.1 -0.3
baz=157,SNR=22
147A Livingston 28.29 350 P P 07 34 04.8 -0.1
baz=168,SNR=13
VBMS Vicksburg 28.32 346 P P 07 34 04.7 -0.4
baz=163
VBMS Vicksburg 28.32 346 eP P 07 34 05.2 +0.1
comp=Z,122nm,1.4s
NHSC New Hope 28.32 4 eP P 07 34 04.8 -0.3
comp=Z,212nm,1.2s
NHSC LR LR
comp=Z,2µm,20.0s
439A Center Grove, 28.33 338 P P 07 34 05.5 +0.3
baz=154,SNR=24
833A Chaparral WMA, 28.35 328 P P 07 34 05.8 +0.4
baz=143,SNR=18
146A Union 28.40 349 P P 07 34 06.0 +0.2
baz=166,SNR=22
LRAL Lakeview Retre 28.45 352 P P 07 34 06.2 -0.1
baz=171,SNR=22
LRAL Lakeview Retre 28.45 352 eP P 07 34 06.2 -0.1
comp=Z,64nm,1.0s
GOGA Godfrey 28.54 359 eP P 07 34 07.1 0.0
GOGA pmax pmax
comp=Z,49nm,1.2s
GOGA Godfrey 28.54 359 eP P 07 34 07.1 0.0
comp=Z,50nm,1.2s
GOGA LR LR
comp=Z,2µm,19.0s
145A Houston Renfro 28.55 347 P P 07 34 07.0 -0.2
baz=165,SNR=6.9
438A Sam Houston St 28.56 336 P P 07 34 07.4 +0.2
baz=152,SNR=9.0
242A Grayson 28.61 343 P P 07 34 07.4 -0.3
baz=160
PB01 IPOC Station P 28.68 154 eP P 07 34 09.3 +0.8
comp=Z,65nm,1.4s
144A Alexander Plac 28.69 346 P P 07 34 08.2 -0.1
baz=164
Z47A Carrollton 28.77 351 P P 07 34 08.9 -0.2
baz=169,SNR=25
241A Mo Tay, Goldon 28.81 342 P P 07 34 09.1 -0.3
baz=158
Z48A Northport 28.86 351 P P 07 34 09.5 -0.4
baz=170,SNR=14
Z46A Louisville 28.92 349 P P 07 34 10.6 +0.2
baz=167,SNR=10
143A Socs Landing, 29.01 345 P P 07 34 10.4 -0.8
baz=162
142A Monroe 29.01 344 P P 07 34 10.6 -0.6
baz=160
240A Hunter Patters 29.09 340 P P 07 34 11.5 -0.5
baz=157
NATX Nacogdoches 29.16 339 P P 07 34 12.6 +0.1
baz=155,SNR=14
NATX Nacogdoches 29.16 339 eP P 07 34 12.8 +0.2
comp=Z,258nm,1.3s
NATX LR LR
comp=Z,1µm,22.0s
Z45A Winona 29.24 348 P P 07 34 13.0 -0.3
baz=165,SNR=5.4
Z44A Pea Ridge, Bel 29.31 347 P P 07 34 13.4 -0.5
baz=164,SNR=7.6
141A Papa Simpson, 29.34 342 P P 07 34 14.0 -0.2
baz=159,SNR=6.0
HODGE Hodges 29.35 1 eP P 07 34 14.2 -0.1
comp=Z,62nm,1.0s
Y47A UCPARC, Winfie 29.42 351 P P 07 34 14.1 -0.8
baz=169,SNR=21
JSC Jenkinsville 29.43 2 eP P 07 34 15.4 +0.5
JSC pmax pmax
comp=Z,85nm,1.2s
JSC Jenkinsville 29.43 2 eP P 07 34 15.2 +0.3
comp=Z,85nm,1.3s
Z43A Armstrong Fami 29.45 345 P P 07 34 14.3 -0.8
baz=162
435B Jarrell 29.49 333 P P 07 34 15.6 0.0
baz=148
PB04 IPOC Station P 29.55 156 eP P 07 34 17.0 +0.7
comp=Z,54nm,1.1s
Y46A Houston 29.57 349 P P 07 34 15.9 -0.3
baz=167,SNR=27
140A Cam and Jess, 29.59 341 P P 07 34 16.2 -0.1
baz=157
SIV San Ignacio 29.66 134 P P 07 34 16.9 -0.3
comp=Z,18nm,0.8s,baz=311,slow=9.2,SNR=36
SIV LR LR 07 46 20.3
comp=Z,7µm,19.1s,baz=318,slow=37
336A Riesel 29.68 335 P P 07 34 17.0 -0.3
baz=150
Y45A Yeager Farm, C 29.69 348 P P 07 34 17.3 0.0
baz=166,SNR=25
Z42A Norrel Spur, H 29.69 344 P P 07 34 16.6 -0.6
baz=161
237A Washetta, Mont 29.80 337 P P 07 34 18.3 0.0
baz=153,SNR=10.0
139A Bunkhouse Ranc 29.89 340 P P 07 34 19.0 -0.1
baz=156
Z41A Richland Creek 29.92 343 P P 07 34 18.9 -0.4
baz=159,SNR=7.4
Y44A Strider, Charl 29.92 347 P P 07 34 18.7 -0.6
baz=165
Y43A Makayla and Ka 30.04 346 P P 07 34 19.6 -0.7
baz=163
236A Katherine and 30.09 336 P P 07 34 20.6 -0.2
baz=152
Z40A Long Farm, Mag 30.10 342 P P 07 34 20.6 -0.3
baz=158,SNR=6.2
BG3 Lake Jocassee 30.11 360 eP P 07 34 21.1 +0.1
comp=Z,62nm,0.9s
138A Matatall Enter 30.12 339 P P 07 34 21.5 +0.4
baz=155,SNR=24
Y42A Garnett, Star 30.18 345 P P 07 34 20.9 -0.6
baz=162,SNR=6.1
X45A UM Field Stati 30.20 349 P P 07 34 20.8 -0.9
baz=166,SNR=15
CCAR Cane Creek 30.25 345 eP P 07 34 22.1 -0.2
comp=Z,249nm,1.6s
KMSC Kings Mountain 30.28 2 P P 07 34 22.5 +0.1
baz=182,SNR=16
KMSC Kings Mountain 30.28 2 eP P 07 34 22.6 +0.1
comp=Z,78nm,1.1s
OXF Oxford 30.29 349 P P 07 34 21.3 -1.2
baz=166,SNR=13
OXF Oxford 30.29 349 eP P 07 34 21.7 -0.8
OXF pmax pmax
comp=Z,130nm,1.0s
OXF Oxford 30.29 349 eP P 07 34 21.7 -0.8
comp=Z,132nm,1.0s
JCT Junction City 30.29 330 P P 07 34 23.1 +0.4
baz=144,SNR=13
JCT Junction City 30.29 330 eP P 07 34 23.1 +0.4
JCT pmax pmax
comp=Z,140nm,1.7s
JCT Junction City 30.29 330 eP P 07 34 23.1 +0.4
comp=Z,139nm,1.8s
JCT LR LR
comp=Z,1µm,20.0s
137A Heron Place, G 30.31 338 P P 07 34 23.1 +0.4
baz=153,SNR=8.8
Z39A Irene McRaven, 30.34 341 P P 07 34 22.9 -0.1
baz=157
WLAR White Oak Lake 30.41 343 eP P 07 34 24.0 +0.4
comp=Z,324nm,1.9s
X44A Crenshaw 30.43 348 P P 07 34 22.6 -1.2
baz=165
Y41A Eaglette Beard 30.45 343 P P 07 34 23.3 -0.6
baz=160
WHTX Lake Whitney, 30.46 335 P P 07 34 24.0 -0.1
baz=150,SNR=12
WHTX Lake Whitney, 30.46 335 eP P 07 34 24.1 0.0
comp=Z,120nm,1.3s
SWET Sewanee 30.49 355 eP P 07 34 24.0 -0.3
comp=Z,122nm,1.4s
136A Ennis 30.50 336 P P 07 34 24.3 -0.2
baz=152,SNR=16
PLAL Pickwick Lake 30.52 351 eP P 07 34 24.0 -0.6
comp=Z,57nm,1.1s
X43A Marvell 30.61 347 P P 07 34 24.6 -0.7
baz=164
CPCT Cooper Cave 30.62 357 eP P 07 34 25.5 +0.1
comp=Z,186nm,1.7s
Z38A Mt. Pleasant 30.63 339 P P 07 34 25.5 0.0
baz=155,SNR=24
CNNC Cliffs of the 30.67 8 PFAKE 07 34 40.0 +14
CNNC LR LR
comp=Z,2µm,21.0s
Y40A Okolona 30.77 343 P P 07 34 26.5 -0.3
baz=159,SNR=8.4
TKL Tuckaleechee C 30.79 358 P P 07 34 26.4 -0.6
comp=Z,33nm,1.1s,baz=174,slow=10,SNR=12
TKL Tuckaleechee C 30.79 358 eP P 07 34 26.7 -0.3
TKL pmax pmax
comp=Z,100nm,1.4s
TKL Tuckaleechee C 30.79 358 eP P 07 34 26.6 -0.3
comp=Z,101nm,1.4s
Z37A Pogue Cattle C 30.80 338 P P 07 34 26.9 -0.2
baz=154,SNR=12
X42A Stuttgart 30.82 345 P P 07 34 26.6 -0.7
baz=182
W45A Hickory Valley 30.87 350 P P 07 34 26.5 -1.2
baz=167,SNR=11
H06E1 SOCORRO T-PHAS 30.94 299 T T 08 06 58.5
SNR=177
Y39A Lockesburg 30.95 341 P P 07 34 27.9 -0.4
baz=157,SNR=8.7
W44A Shelby Farms P 30.98 349 P P 07 34 27.5 -1.1
baz=166
MET Memphis--Engin 30.98 348 eP P 07 34 27.9 -0.7
comp=Z,521nm,1.8s
X41A Kaden, Bauxite 31.00 344 P P 07 34 27.9 -0.8
baz=161,SNR=8.5
X40A Basin Creek Fa 31.08 344 P P 07 34 28.7 -0.8
baz=160
W43A Forest City 31.11 347 P P 07 34 29.1 -0.7
baz=164
Y38A Idabel 31.15 340 P P 07 34 29.5 -0.6
baz=156,SNR=8.8
HPIG 31.15 318 eP P 07 34 31.8 +1.3
comp=Z,33nm,1.0s
Z36A Blue Ridge 31.17 337 P P 07 34 29.9 -0.5
baz=153,SNR=8.3
UALR University of 31.21 344 eP P 07 34 30.3 -0.4
comp=Z,79nm,1.2s
MIAR Mount Ida 31.35 342 P P 07 34 31.1 -0.8
baz=159,SNR=19
MIAR Mount Ida 31.35 342 eP P 07 34 31.1 -0.8
MIAR pmax pmax
comp=Z,85nm,1.4s
MIAR Mount Ida 31.35 342 eP P 07 34 31.1 -0.8
comp=Z,85nm,1.4s
MIAR LR LR
comp=Z,1µm,21.0s
V45A Humboldt 31.40 350 P P 07 34 30.9 -1.4
baz=168,SNR=16
W42A Bald Knob 31.48 346 P P 07 34 32.2 -0.9
baz=163
X39A Fountain Ranch 31.48 342 P P 07 34 32.7 -0.4
baz=158,SNR=15
Y37A Hugo 31.50 339 P P 07 34 33.3 +0.1
baz=155,SNR=45
TXAR Lajitas Array 31.54 323 P P 07 34 34.6 +0.8
comp=Z,13nm,1.1s,baz=144,slow=9.2,SNR=55
TXAR LR LR 07 47 16.7
comp=Z,709nm,21.2s,baz=0.0,slow=36
TX31 Lajitas Ar. Si 31.54 323 eP P 07 34 34.8 +0.9
HBAR Harrisburg 31.55 347 eP P 07 34 33.5 -0.2
comp=Z,168nm,1.1s
W41B Gary Mavity, V 31.57 345 P P 07 34 32.9 -0.9
baz=161,SNR=11
WVT Waverly 31.61 352 P P 07 34 32.8 -1.3
baz=170
WVT Waverly 31.61 352 eP P 07 34 32.7 -1.4
WVT pmax pmax
comp=Z,82nm,1.1s
WVT Waverly 31.61 352 eP P 07 34 32.7 -1.4
comp=Z,82nm,1.1s
HALT Halls 31.63 350 eP P 07 34 33.9 -0.5
comp=Z,258nm,1.1s
V44A Blytheville 31.66 349 P P 07 34 33.9 -0.7
baz=166
X301 Greenbrier Sit 31.67 345 eP P 07 34 33.8 -0.9
comp=Z,68nm,1.2s
Y36A Durant 31.67 338 P P 07 34 34.5 -0.3
baz=153,SNR=12
WHAR Wooly Hollow 31.69 345 eP P 07 34 34.1 -0.7
comp=Z,96nm,1.2s

V43A Jonesboro 31.75 348 P P 07 34 34.3 -1.1
baz=165
W40A Ferguson Farm, 31.81 344 P P 07 34 35.4 -0.5
baz=160,SNR=7.7
W40A Ferguson Farm, 31.81 344 eP P 07 34 35.6 -0.4
comp=Z,88nm,1.4s
GNAR Gosnell 31.82 349 eP P 07 34 35.9 0.0
comp=Z,273nm,1.3s
X38A Whitesboro 31.86 341 P P 07 34 36.1 -0.2
baz=156,SNR=17
V42A Cord 31.96 346 P P 07 34 36.0 -1.3
baz=163,SNR=16
U45A Rockin P Farm, 31.96 351 P P 07 34 36.1 -1.2
baz=168,SNR=10
Y35A Marietta 31.96 337 P P 07 34 37.6 +0.3
baz=152,SNR=62
X37A Clayton 31.97 340 P P 07 34 36.9 -0.4
baz=156,SNR=11
X37A Clayton 31.97 340 eP P 07 34 37.6 +0.3
comp=Z,191nm,1.8s
UTMT University of 31.97 350 eP P 07 34 37.2 -0.2
comp=Z,224nm,1.0s
GLAT Glass 31.97 350 eP P 07 34 37.1 -0.3
comp=Z,218nm,1.2s
ABTX Abilene, Hawle 31.98 332 P P 07 34 37.2 -0.3
baz=147
ABTX Abilene, Hawle 31.98 332 eP P 07 34 37.5 0.0
comp=Z,25nm,1.0s
W39A Magazine 32.02 343 P P 07 34 37.6 -0.2
baz=159,SNR=22
U44B Burton Farm, H 32.05 350 P P 07 34 37.2 -0.9
baz=167,SNR=14
V41A Mountainview 32.12 345 P P 07 34 37.5 -1.2
baz=162,SNR=33
W38A Poteau 32.12 341 P P 07 34 38.4 -0.3
baz=157,SNR=16
PVMO Portageville 32.19 349 eP P 07 34 38.9 -0.3
comp=Z,265nm,0.3s
U44A Portageville 32.27 349 P P 07 34 39.3 -0.7
baz=167
U43A Rector 32.28 348 P P 07 34 39.2 -0.9
baz=165,SNR=12
X36A Centrahoma 32.30 339 P P 07 34 39.6 -0.6
baz=154,SNR=17
V40A Witts Springs 32.31 344 P P 07 34 39.4 -1.1
baz=161,SNR=12
T47A Sharon Grove 32.36 353 P P 07 34 39.6 -1.2
baz=172,SNR=29
X35A Drake 32.38 338 P P 07 34 40.5 -0.4
baz=153,SNR=24
X35A Drake 32.38 338 eP P 07 34 40.6 -0.3
comp=Z,108nm,1.4s
BLA Blacksburg 32.39 3 eP P 07 34 41.2 +0.1
BLA pmax pmax
comp=Z,96nm,1.1s
BLA Blacksburg 32.39 3 eP P 07 34 41.2 +0.1
comp=Z,96nm,1.1s
BLA LR LR
comp=Z,2µm,20.0s
PARMO Parma 32.44 349 eP P 07 34 40.8 -0.7
comp=Z,238nm,1.2s
U42A Revenden 32.44 347 P P 07 34 40.3 -1.2
baz=164,SNR=34
VWCC Virginia Weste 32.45 4 eP P 07 34 41.8 +0.2
W37B Quinton 32.49 340 P P 07 34 41.4 -0.5
baz=156,SNR=19
W37B Quinton 32.49 340 eP P 07 34 41.4 -0.5
comp=Z,166nm,1.5s
T46A Princeton 32.51 352 P P 07 34 41.0 -1.1
baz=170,SNR=49
V39A Pettigrew 32.57 343 P P 07 34 41.9 -0.8
baz=159
U41A Viola 32.60 346 P P 07 34 41.6 -1.2
baz=163,SNR=18
T45A Paducah 32.60 351 P P 07 34 41.7 -1.2
baz=169
PBMO Poplar Bluff 32.68 348 eP P 07 34 42.5 -1.1
comp=Z,74nm,1.4s
W36A Wetumka 32.76 339 P P 07 34 43.2 -1.1
baz=154,SNR=10
W36A Wetumka 32.76 339 eP P 07 34 43.6 -0.7
comp=Z,22nm,1.4s
V38A Canehill 32.82 342 P P 07 34 43.8 -1.1
baz=158,SNR=20
T44A Benton 32.82 350 P P 07 34 43.7 -1.2
baz=167,SNR=11
U40A Yellville 32.84 345 P P 07 34 44.2 -0.8
baz=161,SNR=21
LPIG La Paz 32.87 309 P P 07 34 46.9 +1.5
comp=Z,9.4nm,0.4s,baz=115,slow=3.3,SNR=4.5
LPIG LR LR 07 45 10.3
comp=Z,1µm,20.2s,baz=124,slow=31
T43A Greenville 32.95 349 P P 07 34 44.7 -1.2
baz=166,SNR=28
W35A Tecumseh 33.01 338 P P 07 34 45.2 -1.3
baz=153,SNR=27
W35A Tecumseh 33.01 338 eP P 07 34 45.2 -1.3
comp=Z,136nm,1.4s
U39A Green Forest 33.04 344 P P 07 34 45.7 -1.0
baz=160,SNR=10
T42A Van Buren 33.06 348 P P 07 34 45.6 -1.4
baz=164,SNR=35
V37A Hulbert 33.07 341 P P 07 34 45.9 -1.1
baz=157,SNR=29
HHAR Hobbs 33.07 343 eP P 07 34 46.1 -0.9
comp=Z,43nm,1.4s
JSRW J. Sargeant Re 33.09 7 eP P 07 34 47.1 -0.1
S46A Don Dixon Farm 33.12 353 P P 07 34 46.1 -1.3
baz=171,SNR=10.0
T41A Mountain View 33.23 347 P P 07 34 47.2 -1.2
baz=163,SNR=22
S45A Carrier Mills 33.24 351 P P 07 34 47.0 -1.4
baz=169,SNR=5.9
IP05 Hopewell Churc 33.24 7 eP P 07 34 48.8 +0.3
comp=Z,58nm,1.1s
V36A Jenks 33.25 340 P P 07 34 47.6 -0.9
baz=155,SNR=25
V36A Jenks 33.25 340 eP P 07 34 47.7 -0.8
comp=Z,162nm,1.3s
IP07 Quail 33.30 7 eP P 07 34 49.5 +0.5
comp=Z,50nm,1.0s
TUL1 Leonard 33.31 340 P P 07 34 48.2 -0.9
baz=156,SNR=25
TUL1 Leonard 33.31 340 eP P 07 34 48.2 -0.9
comp=Z,200nm,1.4s
IP06 Yanceyville 33.32 7 eP P 07 34 49.1 -0.1
comp=Z,50nm,1.1s
IP01 Cuckoo 33.35 7 eP P 07 34 50.0 +0.6
comp=Z,62nm,1.2s
U38A Gravette 33.35 343 P P 07 34 48.5 -1.0
baz=158,SNR=17
OK020 N3440 Road, Me 33.35 339 eP P 07 34 48.7 -0.8
comp=Z,165nm,1.3s
OK021 N3530 Road, Sp 33.35 339 eP P 07 34 48.2 -1.3
comp=Z,108nm,1.3s
S44A Carbondale 33.36 350 P P 07 34 48.4 -1.1
baz=168,SNR=36
SIUC Southern Illin 33.37 350 eP P 07 34 48.7 -0.9
comp=Z,122nm,1.1s
S43A Fulton Ridge, 33.38 349 P P 07 34 48.2 -1.5
baz=166,SNR=20
WMOK Wichita Mounta 33.39 335 P P 07 34 49.1 -0.8
baz=150,SNR=9.0
WMOK Wichita Mounta 33.39 335 eP P 07 34 49.0 -0.9
WMOK pmax pmax
comp=Z,37nm,1.3s
WMOK MLR MLR
comp=Z,1µm,20.0s
WMOK Wichita Mounta 33.39 335 eP P 07 34 49.0 -0.9
comp=Z,37nm,1.3s
WMOK LR LR
comp=Z,1µm,20.0s
USIN University of 33.39 353 eP P 07 34 49.1 -0.7
comp=Z,288nm,1.4s
IP03 Louisa 33.40 7 eP P 07 34 50.0 +0.1
comp=Z,61nm,1.0s
SPRD Spring Road, M 33.42 7 eP P 07 34 50.0 0.0
comp=Z,83nm,1.1s
IP04 Greensprings 33.46 7 eP P 07 34 50.7 +0.3
comp=Z,77nm,1.0s
CVRD Centerville Ro 33.47 7 eP P 07 34 50.9 +0.4
comp=Z,105nm,1.1s
WCI Wyandotte Cave 33.51 355 P P 07 34 49.6 -1.2
baz=173
WCI Wyandotte Cave 33.51 355 eP P 07 34 49.6 -1.2
WCI pmax pmax
comp=Z,150nm,1.2s
WCI Wyandotte Cave 33.51 355 eP P 07 34 49.6 -1.2
comp=Z,152nm,1.3s
T40A Mansfield 33.51 346 P P 07 34 50.0 -0.8
baz=162,SNR=20
V35A Meyer Ranch, C 33.54 339 P P 07 34 49.8 -1.3
baz=154,SNR=8.4
V35A Meyer Ranch, C 33.54 339 eP P 07 34 50.0 -1.2
comp=Z,171nm,1.4s
U37A Salina 33.54 342 P P 07 34 50.2 -0.9
baz=157,SNR=18
PTRD Partlow Road 33.55 7 eP P 07 34 51.8 +0.7
comp=Z,108nm,1.0s
SPFD Spotsylvania F 33.57 7 eP P 07 34 51.4 +0.1
comp=Z,82nm,1.0s
R47A Wooly Knot Far 33.59 354 P P 07 34 50.1 -1.4
baz=173,SNR=15
T39A Clever 33.61 344 P P 07 34 50.6 -1.1
baz=160,SNR=9.9
R46A Gibon Southern 33.62 353 P P 07 34 50.5 -1.2
baz=171,SNR=14
CBN Corbin Frederi 33.66 8 eP P 07 34 51.8 -0.3
CBN LR LR
comp=Z,52nm,0.8s
comp=Z,2µm,22.0s
S42A Caledonia 33.72 348 P P 07 34 50.8 -1.8
baz=165,SNR=16
U36A Oologah 33.73 341 P P 07 34 51.9 -0.9
baz=156,SNR=5.2
S41A Jillco Farms, 33.74 347 P P 07 34 51.5 -1.4
baz=163,SNR=13
R45A Skylar, Fairfi 33.80 352 P P 07 34 52.3 -1.0
baz=170,SNR=26
CLNB Carlsbad 33.84 327 eP P 07 34 55.0 +1.0
R44A Waltonville 33.87 351 P P 07 34 52.9 -1.1
baz=168,SNR=25
T38A Diamond 33.88 343 P P 07 34 53.1 -0.9
baz=159,SNR=12
S40A Lebanon 33.93 346 P P 07 34 53.5 -1.0
baz=162,SNR=33
R43A Red Bud 34.04 350 P P 07 34 54.6 -0.9
baz=167,SNR=40
U35A Pawnee 34.05 339 P P 07 34 54.7 -0.9
baz=154,SNR=8.2
U35A Pawnee 34.05 339 eP P 07 34 54.5 -1.1
comp=Z,91nm,1.3s
CCM Cathedral Cave 34.08 348 P P 07 34 54.6 -1.3
baz=164
CCM Cathedral Cave 34.08 348 eP P 07 34 54.5 -1.3
CCM pmax pmax
comp=Z,130nm,1.2s
CCM Cathedral Cave 34.08 348 eP P 07 34 54.5 -1.3
comp=Z,127nm,1.2s
T37A Cheneyville 18 34.14 342 P P 07 34 55.8 -0.5
baz=158,SNR=70
OLIL Olney 34.21 352 eP P 07 34 55.9 -1.0
comp=Z,332nm,1.5s
R42A Luebbering 34.21 349 P P 07 34 55.6 -1.3
baz=165,SNR=23
Q47A Bedord North L 34.22 355 P P 07 34 55.8 -1.2
baz=173,SNR=24
S39A Bolivar 34.22 345 P P 07 34 56.0 -1.0
baz=161,SNR=36
MNTX Cornudas Mount 34.27 324 P P 07 34 58.4 +0.8
baz=137,SNR=80
MNTX Coudas Mount 34.27 324 eP P 07 34 58.2 +0.6
comp=Z,193nm,1.5s
MNTX LR LR
comp=Z,794nm,20.0s
S38A Stockton 34.32 344 P P 07 34 56.7 -1.2
baz=160,SNR=16
R41A Rosebud 34.34 348 P P 07 34 56.9 -1.2
baz=164,SNR=41
Q45A Warren Harvey, 34.37 352 P P 07 34 57.2 -1.1
baz=170,SNR=33
T36A Boggs Farm, Ca 34.38 341 P P 07 34 57.8 -0.6
baz=156,SNR=14
Q46A CEJHS Indians, 34.40 353 P P 07 34 57.2 -1.3
baz=172
SLM Saint Louis 34.45 349 eP P 07 34 58.1 -0.8
SLM pmax pmax
comp=Z,160nm,1.2s
SLM Saint Louis 34.45 349 eP P 07 34 58.1 -0.8
comp=Z,160nm,1.3s
BLO Bloomington 34.46 355 eP P 07 34 57.9 -1.2
BLO pmax pmax
comp=Z,73nm,1.1s
BLO Bloomington 34.46 355 eP P 07 34 57.9 -1.2
comp=Z,73nm,1.1s
T35A Sooner Cattle 34.46 340 P P 07 34 58.5 -0.6
baz=155,SNR=50
Q44A Meyer Farm, Va 34.50 351 P P 07 34 58.1 -1.3
baz=169,SNR=16
R40A Maddies Statio 34.53 347 P P 07 34 58.3 -1.4
baz=163,SNR=13
MSTX Muleshoe 34.59 330 P P 07 35 00.3 -0.1
baz=143,SNR=26
MSTX Muleshoe 34.59 330 eP P 07 35 00.3 -0.1
comp=Z,54nm,1.1s
Q43A New Douglas 34.65 350 P P 07 34 59.5 -1.2
baz=168,SNR=15
S37A Fort Scott 34.70 343 P P 07 35 00.4 -0.8
baz=158,SNR=29
R39A Chumby, Stover 34.74 346 P P 07 35 00.2 -1.3
baz=162,SNR=19
P47A Martinsville 34.75 355 P P 07 35 00.0 -1.6
baz=174,SNR=10
Q42A Golden Eagle 34.77 349 P P 07 35 00.6 -1.1
baz=166,SNR=14
T34A McClaskey Farm 34.79 339 P P 07 35 01.3 -0.7
baz=154,SNR=8.8
AMTX Amarillo 34.80 332 P P 07 35 01.8 -0.4
baz=145
AMTX Amarillo 34.80 332 eP P 07 35 02.1 0.0
comp=Z,29nm,0.9s
R38A Fenwick Farm, 34.84 344 P P 07 35 01.3 -1.1
baz=160,SNR=19
MCWV Mont Chateau 34.86 4 eP P 07 35 02.3 -0.2
comp=Z,44nm,0.9s
U32A Winter Ranch, 34.90 337 P P 07 35 02.2 -0.8
baz=151,SNR=11
S36A Lake Cedric, C 34.90 342 P P 07 35 02.0 -0.9
baz=157,SNR=40
SDMD Soldier's Deli 34.92 8 eP P 07 35 03.3 +0.3
comp=Z,40nm,1.0s
P45A Graceland, Par 34.94 353 P P 07 35 01.7 -1.5
baz=171,SNR=15
Q41A Truxton 34.95 348 P P 07 35 02.1 -1.1
baz=165,SNR=22
P46A Rosedale 34.97 354 P P 07 35 02.0 -1.5
baz=172,SNR=8.3
EPT El Paso 34.99 323 eP P 07 35 04.2 +0.3
comp=Z,66nm,1.5s
P44A Sand Creek, Wi 35.00 352 P P 07 35 02.3 -1.4
baz=170,SNR=14
S35A Otter Creek Ra 35.09 341 P P 07 35 04.0 -0.6
baz=156,SNR=34
Q40A Laux Farm, Aux 35.16 347 P P 07 35 03.9 -1.3
baz=164,SNR=29
P43A Skaggs, Pawnee 35.30 351 P P 07 35 05.3 -1.1
baz=168,SNR=16
ACSO Alum Creek Sta 35.34 360 P P 07 35 05.7 -0.9
baz=179,SNR=22
ACSO Alum Creek Sta 35.34 360 eP P 07 35 05.8 -0.8
comp=Z,80nm,0.8s
ACSO LR LR
comp=Z,2µm,21.0s
S34A Willow Spring 35.38 340 P P 07 35 06.2 -0.8
baz=154,SNR=20
P42A Winchester 35.39 350 P P 07 35 05.5 -1.5
baz=167,SNR=14
Q39A Willow Grove F 35.42 346 P P 07 35 05.9 -1.4
baz=162,SNR=17
R36A Gordon, Harris 35.43 342 P P 07 35 06.5 -0.9
baz=158,SNR=25
LCO Las Campanas 35.46 162 PFAKE 07 35 20.0 +12
LCO LR LR
comp=Z,1µm,20.0s
O47A Sheridan 35.49 355 P P 07 35 06.0 -1.9
baz=174,SNR=8.9
Q38A Cooks Store, C 35.50 345 P P 07 35 07.1 -0.9
baz=161,SNR=20
MVL Millersville 35.56 8 eP P 07 35 09.1 +0.6
comp=Z,86nm,1.1s
O56A Blue Knob Stat 35.57 5 P P 07 35 08.9 +0.2
baz=187,SNR=16
P41A Barry, Barry 35.61 349 P P 07 35 07.3 -1.7
baz=165
PSUB Penn St. - Bra 35.63 10 eP P 07 35 08.9 -0.3
comp=Z,52nm,1.1s
Q37A Longview Farm, 35.64 344 P P 07 35 08.0 -1.2
baz=160,SNR=6.5
R35A Emporia Munici 35.64 342 P P 07 35 08.8 -0.5
baz=156,SNR=20
O44A Mansfield 35.65 352 P P 07 35 07.7 -1.6
baz=170,SNR=14
O45A Potomac 35.65 353 P P 07 35 07.6 -1.8
baz=171,SNR=9.4
P40A Paris 35.67 347 P P 07 35 08.0 -1.5
baz=164,SNR=19
SFIN Lafayette 35.71 354 P P 07 35 07.9 -1.9
baz=172,SNR=19
SFIN Lafayette 35.71 354 eP P 07 35 08.2 -1.6
comp=Z,117nm,1.4s
P39B Salisbury 35.79 347 P P 07 35 09.1 -1.4
baz=162,SNR=42
O43A Sugar Creek Fa 35.90 351 P P 07 35 09.9 -1.6
baz=169,SNR=5.2
O42A Bath 35.94 350 P P 07 35 10.2 -1.5
baz=167,SNR=18
R34A Isabella, Hill 35.96 340 P P 07 35 11.9 -0.1
baz=155,SNR=45
SSPA Standing Stone 36.00 6 eP P 07 35 12.3 0.0
comp=Z,126nm,1.3s
O41A Passleys Farm, 36.00 349 P P 07 35 10.6 -1.7
baz=166,SNR=22
Q36A Arnold C. Orve 36.00 343 P P 07 35 11.4 -0.9
baz=158,SNR=27
SRIG Santa Rosalia 36.06 312 eP P 07 35 14.4 +1.4
comp=Z,67nm,1.1s
Q35A Mercer Eighty, 36.08 342 P P 07 35 12.4 -0.6
baz=157,SNR=38
HSIG 36.09 315 eP P 07 35 13.8 +0.5
comp=Z,45nm,1.5s
P38A Dawn 36.10 346 P P 07 35 11.8 -1.4
baz=161,SNR=16
N54A Moraine State 36.15 3 P P 07 35 13.1 -0.5
baz=184
HDIL Hopedale 36.16 351 P P 07 35 12.0 -1.7
baz=169,SNR=16
HDIL Hopedale 36.16 351 eP P 07 35 12.2 -1.6
comp=Z,361nm,1.7s
HDIL LR LR
comp=Z,1µm,20.0s
N46A Monticello 36.19 355 P P 07 35 11.9 -2.0
baz=173,SNR=13
O40A La Belle 36.20 348 P P 07 35 12.3 -1.7
baz=164,SNR=6.9
N45A Kentland 36.22 354 P P 07 35 12.0 -2.2
baz=172,SNR=11
N44A Piper City 36.24 353 P P 07 35 12.2 -2.1
baz=171,SNR=18
P37A Lathrop 36.28 345 P P 07 35 13.4 -1.4
baz=160,SNR=27
121A Cookes Peak, D 36.29 323 P P 07 35 17.7 +2.5
baz=134,SNR=111
121A Cookes Peak, D 36.29 323 eP P 07 35 17.1 +2.0
comp=Z,278nm,1.1s
LUPA Lehigh Univers 36.30 9 eP P 07 35 16.1 +1.2
comp=Z,7.4nm,1.2s
Q34A Chapman 36.42 341 P P 07 35 15.5 -0.5
baz=156,SNR=41
319A Douglas 36.44 320 eP P 07 35 18.3 +1.9
comp=Z,130nm,1.1s
O39A Kirksville 36.47 347 P P 07 35 15.2 -1.1
baz=163,SNR=21
KSU1 Kansas State U 36.48 342 P P 07 35 15.8 -0.7
baz=156,SNR=21
KSU1 Kansas State U 36.48 342 eP P 07 35 15.9 -0.5
comp=Z,152nm,1.0s
KSU1 LR LR
comp=Z,2µm,20.0s
BRNJ Basking Ridge 36.52 10 eP P 07 35 18.0 +1.2
comp=Z,124nm,1.3s
N43A Stutzman Famil 36.52 352 P P 07 35 15.1 -1.7
baz=169,SNR=13
P36A Good Intent, A 36.54 344 P P 07 35 16.2 -0.7
baz=159,SNR=60
N42A Yates City 36.55 351 P P 07 35 15.4 -1.5
baz=168,SNR=15
N59A State Game Lan 36.55 9 P P 07 35 17.6 +0.5
baz=191,SNR=9.3
O38A Galt 36.56 346 P P 07 35 15.5 -1.7
baz=162,SNR=7.8
N41A Harden Midland 36.57 350 P P 07 35 15.6 -1.6
baz=166,SNR=12
M46A Old House Fiel 36.67 355 P P 07 35 15.7 -2.3
baz=174
P35A Duane Minner, 36.69 343 P P 07 35 17.4 -0.9
baz=157,SNR=23
M54A Oil Creek Stat 36.71 4 P P 07 35 17.5 -0.9
baz=185,SNR=8.2
M45A Boilermakers S 36.73 354 P P 07 35 16.3 -2.2
baz=172
CPNY Central Park 36.74 11 eP P 07 35 18.6 0.0
comp=Z,68nm,1.4s
O37A Wolven Farm, M 36.77 345 P P 07 35 17.6 -1.3
baz=161,SNR=13
BNM Barren Site 36.78 326 eP P 07 35 21.0 +1.6
M44A Midewin, Midew 36.81 353 P P 07 35 16.8 -2.4
baz=171,SNR=6.7
ALLY Alegheny Colle 36.82 3 eP P 07 35 19.0 -0.3
comp=Z,53nm,1.1s
N40A Mertquake, Sal 36.88 349 P P 07 35 18.3 -1.5
baz=165
Y22D IRIS PASSCAL I 36.89 325 P P 07 35 22.5 +2.3
baz=137
Y22D IRIS PASSCAL I 36.89 325 eP P 07 35 22.8 +2.6
comp=Z,453nm,1.5s
Y22E IRIS PASSCAL I 36.89 325 P P 07 35 22.5 +2.3
baz=137
LPM Los Pinos Moun 36.90 326 eP P 07 35 21.8 +1.5
ODNJ Ogdensburg 36.90 10 eP P 07 35 21.2 +1.2
comp=Z,41nm,1.1s
O36A Bolckow 36.95 344 P P 07 35 19.1 -1.4
baz=159,SNR=14
PAL Palisades 36.96 11 eP P 07 35 21.1 +0.7
PAL pmax pmax
comp=Z,210nm,2.0s
PAL Palisades 36.96 11 eP P 07 35 21.1 +0.7
comp=Z,208nm,2.0s
P34A Walnut Farm, R 36.96 342 P P 07 35 20.1 -0.4
baz=156,SNR=40
M43A Waltham Townsh 36.98 352 P P 07 35 18.6 -2.1
baz=169,SNR=16
N39A Derby Farms, D 37.06 348 P P 07 35 20.0 -1.3
baz=164,SNR=16
M42A Sheffield 37.11 351 P P 07 35 19.7 -2.1
baz=168,SNR=6.3
N38A Joes South For 37.14 347 P P 07 35 21.0 -1.0
baz=162,SNR=7.2
M41A Milan 37.16 350 P P 07 35 20.4 -1.8
baz=167,SNR=14
LAZ Ladron 37.25 326 eP P 07 35 24.9 +1.6
ANMO Albuquerque 37.27 327 P P 07 35 25.1 +1.6
comp=Z,84nm,1.1s,baz=327,slow=11,SNR=215
ANMO Albuquerque 37.27 327 P P 07 35 25.2 +1.7
baz=138
ANMO Albuquerque 37.27 327⇧iP P 07 35 23.1 -0.4
ANMO pmax pmax
comp=Z,56nm,0.9s
ANMO Albuquerque 37.27 327 eP P 07 35 25.1 +1.7
comp=Z,175nm,1.2s
ANMO LR LR
comp=Z,1µm,22.0s
CBKS Cedar Bluff 37.31 338 P P 07 35 23.7 +0.1
baz=151,SNR=28
CBKS Cedar Bluff 37.31 338 eP P 07 35 23.7 +0.1
CBKS pmax pmax
comp=Z,170nm,1.3s
CBKS Cedar Bluff 37.31 338 eP P 07 35 23.7 +0.1
comp=Z,168nm,1.3s
CBKS LR LR
comp=Z,1µm,20.0s
O35A Humboldt 37.34 343 P P 07 35 22.4 -1.4
baz=158,SNR=23
N37A Lee Faris, Mou 37.34 345 P P 07 35 22.6 -1.2
baz=161,SNR=8.4
M40A Post Highland 37.37 349 P P 07 35 22.1 -1.9
baz=165,SNR=8.2
AAM Ann Arbor 37.42 359 P P 07 35 22.7 -1.6
baz=178
AAM Ann Arbor 37.42 359 eP P 07 35 23.7 -0.7
AAM pmax pmax
comp=Z,65nm,1.2s
AAM Ann Arbor 37.42 359 eP P 07 35 23.6 -0.7
comp=Z,65nm,1.3s
AAM LR LR

comp=Z,2µm,19.0s
YLE Yale 37.45 12 eP P 07 35 25.6 +1.0
comp=Z,88nm,1.1s
O34A Beatrice 37.50 342 P P 07 35 24.5 -0.6
baz=157,SNR=49
M39A Webster 37.57 348 P P 07 35 24.1 -1.6
baz=164,SNR=15
L44A Lake County Fo 37.58 354 P P 07 35 23.1 -2.7
baz=171
N36A Muff Farm, Cla 37.59 345 P P 07 35 24.5 -1.4
baz=160,SNR=5.7
L42A Oliver, Polo 37.64 351 P P 07 35 24.2 -2.1
baz=168,SNR=17
O33A Hebron 37.68 341 P P 07 35 26.2 -0.4
baz=155,SNR=39
L43A Garden Prairie 37.69 353 P P 07 35 24.5 -2.2
baz=170,SNR=12
M38A Pleasantville 37.73 347 P P 07 35 25.5 -1.5
baz=163,SNR=11
BINY Binghamton 37.78 8 eP P 07 35 27.8 +0.4
comp=Z,102nm,1.0s
BINY LR LR
comp=Z,2µm,20.0s
N35A Tabor 37.82 344 P P 07 35 26.7 -1.1
baz=158,SNR=11
L41A Preston 37.84 350 P P 07 35 26.0 -1.9
baz=167,SNR=14
M37A Trindle Farm, 37.91 346 P P 07 35 27.5 -1.1
baz=161,SNR=12
T25A Trinidad 37.91 331 P P 07 35 30.7 +1.7
baz=143,SNR=52
T25A Trinidad 37.91 331 eP P 07 35 30.4 +1.4
comp=Z,204nm,1.3s
L40A Anamosa 37.95 350 P P 07 35 27.2 -1.7
baz=166,SNR=14
HGTCO Madrid Canyon 38.02 331 eP P 07 35 31.8 +1.9
comp=Z,372nm,1.8s
TUC Tucson 38.02 320 P P 07 35 31.1 +1.4
baz=130
TUC Tucson 38.02 320 eP P 07 35 31.1 +1.4
TUC pmax pmax
comp=Z,62nm,1.0s
TUC Tucson 38.02 320 eP P 07 35 31.1 +1.4
TUC comp=Z,62nm,1.0s
LR LR
comp=Z,4µm,20.0s
N34A Lincoln 38.04 343 P P 07 35 28.4 -1.3
baz=157,SNR=20
MMNY Mt. Morris Dam 38.07 6 eP P 07 35 29.6 -0.3
comp=Z,102nm,1.1s
K43A Burlington 38.15 353 P P 07 35 28.2 -2.3
baz=171,SNR=5.6
M36A Felix, Anita 38.15 345 P P 07 35 29.3 -1.3
baz=160,SNR=17
L39A Vinton 38.16 349 P P 07 35 28.6 -2.0
baz=165
SCIA State Center 38.20 347 P P 07 35 29.7 -1.3
baz=163,SNR=7.8
SCIA State Center 38.20 347 eP P 07 35 29.9 -1.1
comp=Z,210nm,1.8s
SCIA LR LR
comp=Z,2µm,20.0s
N33A J Bar K, Exete 38.24 342 P P 07 35 31.1 -0.3
baz=156,SNR=22
K41A Shullsburg 38.33 351 P P 07 35 30.2 -1.9
baz=168,SNR=9.2
BRYW Bryant College 38.33 13 eP P 07 35 33.0 +0.9
comp=Z,56nm,1.1s
K42A Prairie Point, 38.35 352 P P 07 35 30.1 -2.1
baz=169,SNR=8.4
L38A Oak Wood Farm, 38.37 348 P P 07 35 30.9 -1.5
baz=163,SNR=14
M35A Neola 38.40 344 P P 07 35 31.6 -1.1
baz=159,SNR=13
L37A Phoenix Point, 38.53 347 P P 07 35 32.1 -1.6
baz=162
K40A Colesburg 38.55 350 P P 07 35 32.0 -1.9
baz=166,SNR=6.2
JFWS Jewell Farm 38.62 351 P P 07 35 32.6 -1.9
baz=168,SNR=11
JFWS Jewell Farm 38.62 351 eP P 07 35 32.8 -1.7
JFWS pmax pmax
comp=Z,37nm,1.0s
JFWS Jewell Farm 38.62 351 eP P 07 35 32.8 -1.7
comp=Z,37nm,0.9s
JFWS LR LR
comp=Z,1µm,21.0s
KSCO Kaye Shedlock' 38.64 335 P P 07 35 35.6 +0.7
baz=147,SNR=16
KSCO Kaye Shedlock' 38.64 335 eP P 07 35 35.6 +0.7
comp=Z,168nm,1.4s
TRY Troy 38.67 11 eP P 07 35 35.6 +0.7
comp=Z,123nm,1.2s
M34A Aspy Farms, Fr 38.68 343 P P 07 35 34.0 -1.1
baz=157
K39A Oelwein 38.69 349 P P 07 35 33.1 -2.1
baz=165,SNR=9.8
L36A Harm Buss Farm 38.72 346 P P 07 35 33.7 -1.7
baz=161
BCX Boston College 38.81 14 eP P 07 35 37.2 +1.1
comp=Z,153nm,1.5s
K38A Parkersburg 38.81 348 P P 07 35 34.5 -1.7
baz=164
WES Weston 38.82 13 eP P 07 35 37.3 +1.1
WES pmax pmax
comp=Z,61nm,1.2s
WES Weston 38.82 13 eP P 07 35 37.2 +1.1
comp=Z,61nm,1.3s
J43A Natural Harves 38.83 353 P P 07 35 33.9 -2.3
baz=171,SNR=9.3
J42A Columbus 38.85 352 P P 07 35 34.4 -2.0
baz=170,SNR=7.7
HRV Adam Dziewonsk 38.89 13 eP P 07 35 38.0 +1.3
HRV pmax pmax
comp=Z,58nm,1.3s
HRV Adam Dziewonsk 38.89 13 eP P 07 35 38.0 +1.3
comp=Z,58nm,1.4s
M33A Taylor Creek F 38.92 343 P P 07 35 36.2 -0.9
baz=156,SNR=12
SDCO Great Sand Dun 38.92 331 P P 07 35 39.4 +1.8
baz=142,SNR=192
SDCO Great Sand Dun 38.92 331 eP P 07 35 39.4 +1.8
comp=Z,202nm,1.1s
SDCO LR LR
comp=Z,1µm,20.0s
L35A Bielow Farm, R 38.96 345 P P 07 35 36.2 -1.2
baz=159,SNR=21
X18A Snowflake 38.98 323 eP P 07 35 39.9 +2.0
comp=Z,137nm,1.0s
J41A Loganville 39.02 351 P P 07 35 36.1 -1.8
baz=168,SNR=16
L34A Svendsen Farm, 39.05 344 P P 07 35 36.7 -1.4
baz=158,SNR=6.0
BGNE Belgrade 39.07 341 P P 07 35 37.8 -0.5
baz=155,SNR=14
BGNE Belgrade 39.07 341 eP P 07 35 38.4 0.0
comp=Z,194nm,1.3s
ROC1 El Roble 39.09 164 eP P 07 35 39.4 +0.5
comp=Z,38nm,1.0s
K37A Belmond 39.11 347 P P 07 35 36.9 -1.8
baz=162,SNR=18
214A Organ Pipe Nat 39.14 317 P P 07 35 40.6 +1.5
baz=128
214A Organ Pipe Nat 39.14 317 eP P 07 35 40.6 +1.5
comp=Z,393nm,1.0s
J40A Soldiers Grove 39.16 351 P P 07 35 37.1 -2.0
baz=167,SNR=14
K36A Gilmore City 39.18 346 P P 07 35 38.2 -1.0
baz=161,SNR=14
W18A Petrified Fore 39.26 324 P P 07 35 42.4 +2.2
baz=134,SNR=20
W18A Petrified Fore 39.26 324 eP P 07 35 42.3 +2.0
comp=Z,419nm,1.1s
J39A Decorah 39.27 350 P P 07 35 37.7 -2.3
baz=166,SNR=9.9
I43A Langenfeld Bro 39.29 354 P P 07 35 38.0 -2.1
baz=171,SNR=20
ACCN Adirondack Com 39.30 10 eP P 07 35 40.5 +0.3
comp=Z,73nm,1.1s
PEL Peldehue 39.34 164 eP P 07 35 42.9 +2.2
PEL pmax pmax
comp=Z,60nm,1.3s
PEL Peldehue 39.34 164 eP P 07 35 42.9 +2.2
comp=Z,60nm,1.3s
I42A Draeger Farm, 39.39 353 P P 07 35 39.0 -1.9
baz=170,SNR=15
J38A Wedel Dairy, R 39.40 349 P P 07 35 38.7 -2.3
baz=164

CPUP Villa Florida 39.43 143 P P 07 35 40.3 -1.3
comp=Z,12nm,0.9s,baz=321,slow=9.4,SNR=25
CPUP LR LR 07 53 10.5
comp=Z,2µm,18.4s,baz=320,slow=38
K35A Storm Lake 39.45 345 P P 07 35 40.1 -1.4
baz=160,SNR=13
L33A Hoskins 39.49 343 P P 07 35 41.1 -0.8
baz=157,SNR=22
L32A Elgin 39.56 342 P P 07 35 41.9 -0.6
baz=156,SNR=34
S22A 4UR Ranch, Cre 39.59 329 P P 07 35 44.7 +1.7
baz=140,SNR=97
S22A 4UR Ranch, Cre 39.59 329 eP P 07 35 44.6 +1.5
comp=Z,114nm,1.1s
J37A Redenius Farm, 39.61 347 P P 07 35 41.0 -1.9
baz=163,SNR=6.5
I40A Norwalk 39.63 351 P P 07 35 40.8 -2.1
baz=167,SNR=7.8
K34A Le Mars 39.64 344 P P 07 35 41.7 -1.4
baz=159,SNR=15
I41A Arkdale 39.68 352 P P 07 35 41.3 -2.1
baz=169,SNR=7.4
Q24A Divide 39.72 332 P P 07 35 45.4 +1.2
baz=143,SNR=40
Q24A Divide 39.72 332 eP P 07 35 45.5 +1.3
comp=Z,79nm,1.1s
I39A Houston 39.74 350 P P 07 35 41.8 -2.1
baz=166,SNR=14
NCB Newcomb 39.78 10 eP P 07 35 44.2 0.0
comp=Z,33nm,1.1s
J36A Seneca 1, Swea 39.81 347 P P 07 35 42.9 -1.6
baz=162,SNR=42
X16A Lo Mia Camp, P 39.81 322 eP P 07 35 46.6 +1.7
comp=Z,119nm,1.1s
BDFB Brasilia 39.81 121 P P 07 35 43.7 -1.3
comp=Z,11nm,0.9s,baz=85,slow=8.4,SNR=12
BDFB Brasilia 39.81 121 eP P 07 35 44.4 -0.6
BDFB pmax pmax
comp=Z,48nm,1.2s
BDFB Brasilia 39.81 121 eP P 07 35 44.4 -0.6
comp=Z,48nm,1.2s
K33A Hardington 39.81 343 P P 07 35 43.6 -1.0
baz=157,SNR=6.7
H43A Windswept, Lux 39.83 354 P P 07 35 42.7 -1.9
baz=172,SNR=9.2
HNH Hanover 39.88 12 eP P 07 35 45.8 +0.8
comp=Z,45nm,0.9s
H42A Shiocton 39.95 353 P P 07 35 43.5 -2.1
baz=171,SNR=6.8
GLMI Grayling 39.97 358 P P 07 35 43.9 -1.9
baz=177,SNR=5.9
GLMI Grayling 39.97 358 eP P 07 35 44.5 -1.3
GLMI comp=Z,69nm,0.9s
LR LR
comp=Z,2µm,20.0s
SADO Sadowa 39.99 4 P P 07 35 44.5 -1.4
comp=Z,14nm,0.6s,baz=210,slow=6.7,SNR=13
SADO Sadowa 39.99 4 eP P 07 35 44.2 -1.7
comp=Z,103nm,1.7s
OGNE Ogallala 40.03 337 P P 07 35 47.5 +1.0
baz=149,SNR=19
OGNE Ogallala 40.03 337 eP P 07 35 47.4 +0.9
comp=Z,333nm,1.4s
OGNE LR LR
comp=Z,1µm,19.0s
J35A Milford 40.05 346 P P 07 35 44.8 -1.6
baz=160,SNR=8.7
MVCO Mesa Verde 40.06 327 P P 07 35 48.5 +1.6
baz=138,SNR=96
MVCO Mesa Verde 40.06 327 eP P 07 35 48.5 +1.6
comp=Z,498nm,1.6s
MVCO LR LR
comp=Z,1µm,21.0s
I38A Scanlan Farm, 40.07 349 P P 07 35 44.4 -2.2
baz=165,SNR=6.1
K32A Verdigre 40.15 342 P P 07 35 46.2 -1.1
baz=156,SNR=43
J34A George 40.16 345 P P 07 35 46.0 -1.4
baz=159,SNR=11
H41A Junction City 40.20 352 P P 07 35 45.5 -2.1
baz=169
I37A Lemond, Waseca 40.25 348 P P 07 35 46.1 -2.0
baz=163,SNR=5.1
113A Mohawk Valley, 40.27 318 eP P 07 35 49.9 +1.5
comp=Z,110nm,1.2s
H40A Chili 40.31 351 P P 07 35 46.5 -2.0
baz=168,SNR=10
LONY Lake Ozonia 40.35 9 eP P 07 35 48.7 -0.3
comp=Z,53nm,1.1s
LONY LR LR
comp=Z,1µm,20.0s
K31A O'Neill 40.36 342 P P 07 35 48.9 -0.2
baz=155,SNR=82
VT1 Waterbury 40.39 11 eP P 07 35 49.6 +0.4
comp=Z,92nm,1.0s
I36A Fitzsimmons Fa 40.39 347 P P 07 35 47.3 -2.0
baz=162
PLVO Plevna 40.44 6 eP P 07 35 48.8 -0.9
comp=Z,74nm,1.0s
I35A Creekview Farm 40.46 346 P P 07 35 48.6 -1.2
baz=161,SNR=10
LBNH Lisbon 40.46 12 eP P 07 35 50.2 +0.3
LBNH pmax pmax
comp=Z,140nm,1.6s
LBNH Lisbon 40.46 12 eP P 07 35 50.2 +0.3
comp=Z,140nm,1.6s
J33A Davis 40.46 344 P P 07 35 48.5 -1.4
baz=158,SNR=41
Y14A Wickenburg 40.49 320 eP P 07 35 51.8 +1.4
comp=Z,288nm,1.1s
H39A Augusta 40.50 351 P P 07 35 48.3 -1.9
baz=167,SNR=12
WUAZ Wupatki 40.50 323 P P 07 35 52.4 +1.9
baz=132,SNR=168
WUAZ Wupatki 40.50 323 eP P 07 35 52.5 +1.9
comp=Z,233nm,1.0s
WUAZ LR LR
comp=Z,1µm,20.0s
G43A Wallace 40.60 355 P P 07 35 48.9 -2.1
baz=172,SNR=10
ISCO Idaho Springs 40.61 332 P P 07 35 52.9 +1.3
baz=143,SNR=62
ISCO Idaho Springs 40.61 332 eP P 07 35 52.8 +1.3
ISCO pmax pmax
comp=Z,48nm,1.0s
ISCO Idaho Springs 40.61 332 eP P 07 35 52.8 +1.2
comp=Z,48nm,1.0s
ISCO LR LR
comp=Z,2µm,20.0s
G42A Mountain 40.66 354 P P 07 35 49.6 -1.9
baz=171,SNR=12
H38A Maiden Rock 40.67 349 P P 07 35 49.7 -1.9
baz=165,SNR=14
H37A Dierke Farm, C 40.70 349 P P 07 35 49.7 -2.1
baz=164
G41A Antigo 40.72 353 P P 07 35 50.0 -2.0
baz=170,SNR=8.8
FRNY Flock 40.72 10 eP P 07 35 51.8 -0.2
comp=Z,41nm,1.0s
ECSD EROS Data Cent 40.75 344 P P 07 35 50.9 -1.4
baz=158,SNR=48
ECSD EROS Data Cent 40.75 344 eP P 07 35 50.8 -1.4
comp=Z,102nm,1.4s
ECSD LR LR
comp=Z,1µm,21.0s
SMCO Snowmass 40.76 331 eP P 07 35 54.4 +1.5
comp=Z,157nm,1.3s
J32A Parkston 40.76 343 P P 07 35 51.0 -1.4
baz=156,SNR=30
PV01 Paradox Valley 40.78 328 eP P 07 35 54.4 +1.5
GO05 HualaæØ 40.80 166 eP P 07 35 53.8 +1.0
comp=Z,33nm,1.0s
I34A Hadley 40.84 345 P P 07 35 51.9 -1.2
baz=160,SNR=33
RPN Rapa Nui 40.85 218 P P 07 35 55.0 +1.7
comp=Z,47nm,1.0s,baz=37,slow=8.1,SNR=4.1
RPN Rapa Nui 40.85 218 P P 07 35 55.0 +1.7
RPN pmax pmax
comp=Z,47nm,1.0s
RPN Rapa Nui 40.85 218 eP P 07 35 54.3 +1.0
comp=Z,442nm,1.9s
RPN LR LR
comp=Z,1µm,20.0s
H36A Jessenland, He 40.90 348 P P 07 35 51.9 -1.6
baz=163,SNR=10
G40A Rib Lake 40.91 352 P P 07 35 51.5 -2.0
baz=168,SNR=18
F46A Macinaw City C 40.92 358 P P 07 35 52.0 -1.6
baz=177
J31A Geddes 40.96 342 P P 07 35 52.5 -1.5
baz=155
PV05 Paradox Valley 41.02 328 eP P 07 35 56.0 +1.1
G38A Ridgeland 41.07 350 P P 07 35 52.8 -2.1
baz=166,SNR=18
G39A Holcombe 41.08 351 P P 07 35 53.1 -1.8
baz=167,SNR=23
I33A Coleman 41.09 344 P P 07 35 53.6 -1.5
baz=158,SNR=14
F43A Flat Rock, Esc 41.13 355 P P 07 35 53.2 -2.1
baz=173,SNR=5.6
F42A Maple Grove Fa 41.14 354 P P 07 35 53.6 -1.9
baz=172
PV04 Paradox Valley 41.15 328 eP P 07 35 57.0 +1.1
GLA Glamis 41.16 317 P P 07 35 57.4 +1.5
baz=126,SNR=27
GLA Glamis 41.16 317 eP P 07 35 57.3 +1.5
GLA pmax pmax
comp=Z,96nm,1.1s
GLA Glamis 41.16 317 eP P 07 35 57.3 +1.5
comp=Z,96nm,1.1s
PV10 Paradox Valley 41.21 328 eP P 07 35 57.1 +0.6
F44A Big Bay de Noc 41.21 356 P P 07 35 54.2 -1.8
baz=174,SNR=6.8
H35A Sunnyside Ranc 41.22 347 P P 07 35 54.2 -1.9
baz=161,SNR=24
F41A Three Lakes 41.23 353 P P 07 35 54.3 -1.9
baz=170,SNR=12
I32A Karley and Nic 41.26 344 P P 07 35 54.7 -1.7
baz=157
WVL Waterville 41.28 14 eP P 07 35 58.5 +1.9
comp=Z,56nm,1.3s
SPMN Marine on St. 41.30 349 P P 07 35 54.7 -2.0
baz=164,SNR=21
SPMN Marine on St. 41.30 349 eP P 07 35 54.8 -2.0
comp=Z,82nm,1.2s
PV09 Paradox Valley 41.35 328 eP P 07 35 58.7 +1.1
Y12C Blythe 41.37 318 P P 07 35 59.0 +1.4
baz=127,SNR=19
Y12C Blythe 41.37 318 eP P 07 35 59.1 +1.6
comp=Z,100nm,1.4s
H34A Spellman Lake, 41.41 346 P P 07 35 56.3 -1.4
baz=160,SNR=21
PDMCI Parker Dam,Lak 41.46 319 P P 07 35 59.5 +1.3
baz=128,SNR=13
G36A St. Michael 41.49 348 P P 07 35 56.5 -1.9
baz=163
E45A Wooded Hills, 41.52 357 P P 07 35 57.1 -1.4
baz=176
F40A Park Falls 41.54 352 P P 07 35 56.8 -1.9
baz=169,SNR=11
I31A Royce, Wessing 41.57 343 P P 07 35 57.6 -1.4
baz=156,SNR=12
G35A Watkins 41.63 347 P P 07 35 57.5 -2.0
baz=162
N23A Red Feather La 41.64 333 P P 07 36 01.1 +1.2
baz=144,SNR=39
N23A Red Feather La 41.64 333 eP P 07 36 01.2 +1.3
comp=Z,73nm,1.1s
F39A Loretta 41.65 351 P P 07 35 57.5 -2.1
baz=168,SNR=5.2
E43A Lone Tree Farm 41.65 355 P P 07 35 57.9 -1.8
baz=173,SNR=9.7
U15A North Rim 41.67 323 eP P 07 36 02.2 +2.0
comp=Z,203nm,1.1s
H33A Prehn Over Nor 41.67 345 P P 07 35 58.3 -1.5
baz=158,SNR=43
H32A Carlson Farm, 41.69 344 P P 07 35 58.7 -1.3
baz=158,SNR=54
F37A Hinrichs Farm, 41.75 349 P P 07 35 58.4 -2.0
baz=165,SNR=7.3
PHWY Pilot Hill 41.75 334 eP P 07 36 01.9 +1.1
comp=Z,28nm,0.9s
SWSC Sam W. Stewart 41.76 316 P P 07 36 02.1 +1.4
baz=125,SNR=13
E42A Champion 41.79 355 P P 07 35 59.3 -1.5
baz=172,SNR=14
W13A Hualapai Mount 41.79 320 eP P 07 36 03.0 +1.8
comp=Z,128nm,1.2s
IKP In-Ko-Pah, Jac 41.81 316 P P 07 36 02.6 +1.4
baz=124,SNR=14
E44A Grand Marais A 41.82 357 P P 07 35 59.9 -1.1
baz=175,SNR=6.1
F38A Pierce - Schro 41.84 350 P P 07 35 59.4 -1.8
baz=166,SNR=16
G34A Benson 41.92 346 P P 07 36 00.0 -1.8
baz=160,SNR=13
TRQ Mont Tremblant 41.92 8 eP P 07 36 01.5 -0.4
E41A Kenton 41.93 353 P P 07 36 00.1 -1.8
baz=170
BC3 Big Chuckawall 41.94 317 P P 07 36 03.6 +1.3
baz=126,SNR=37
H31A Wolsey 41.96 343 P P 07 36 01.0 -1.2
baz=156
EMMW East Machias 41.99 16 eP P 07 36 04.0 +1.7
comp=Z,59nm,1.3s
E40A Wakefield 42.02 353 P P 07 36 01.1 -1.6
baz=169,SNR=10
PKME Peaks-Kenny Pk 42.02 14 eP P 07 36 04.0 +1.3
comp=Z,82nm,1.1s
PKME LR LR
comp=Z,1µm,21.0s
IRM Iron Mountain 42.03 318 P P 07 36 04.4 +1.4
baz=127,SNR=40
E39A Mellen 42.05 352 P P 07 36 01.1 -1.8
baz=168,SNR=10
F36A Milaca 42.05 349 P P 07 36 00.8 -2.1
baz=164,SNR=17
NEE2 Needles Airpor 42.05 319 P P 07 36 04.3 +1.2
baz=128
SUSD Miller 42.07 343 P P 07 36 01.8 -1.2
baz=155,SNR=28
G33A Ortonville 42.07 345 P P 07 36 01.4 -1.6
baz=159,SNR=18
O20A White River Ci 42.12 330 P P 07 36 05.2 +1.4
baz=140,SNR=29
O20A White River Ci 42.12 330 eP P 07 36 05.3 +1.4
comp=Z,90nm,1.3s
MONP2 Monument Peak 42.16 316 P P 07 36 05.6 +1.3
baz=124,SNR=9.7
BAR Barrett 42.22 315 eP P 07 36 05.8 +1.3
comp=Z,41nm,1.1s
EKU East Kanab 42.22 324 eP P 07 36 06.7 +2.0
F35A Swanville 42.26 348 P P 07 36 02.7 -1.9
baz=162,SNR=11
F34A Alexandria 42.35 347 P P 07 36 03.5 -1.9
baz=161,SNR=10
PKCU Pink Cliffs 42.36 324 eP P 07 36 07.9 +1.9
comp=Z,0.5nm,0.8s
G32A Webster 42.40 344 P P 07 36 04.6 -1.2
baz=158,SNR=32
E38A The Farm, Brul 42.42 351 P P 07 36 04.0 -1.9
baz=167
D41A Chassel 42.48 354 P P 07 36 05.0 -1.3
baz=171
BELC Belle Mtn. Jos 42.51 317 P P 07 36 08.4 +1.4
baz=126,SNR=54
E37A Wrenshall 42.52 350 P P 07 36 05.0 -1.7
baz=166
SRU San Rafael Swe 42.53 327 eP P 07 36 08.4 +1.2
SRU pmax pmax
comp=Z,181nm,1.1s
SRU San Rafael Swe 42.53 327 eP P 07 36 08.4 +1.2
comp=Z,181nm,1.1s
G31A Conde 42.57 344 P P 07 36 05.6 -1.5
baz=157,SNR=7.6
XPFO Piæon Flat 42.59 317 eP P 07 36 09.1 +1.5
comp=Z,66nm,1.2s
PFO Pinyon Flats O 42.59 317 P P 07 36 09.2 +1.5
baz=125,SNR=18
PFO Pinyon Flats O 42.59 317 eP P 07 36 09.1 +1.5
PFO pmax pmax
comp=Z,74nm,1.1s
PFO Pinyon Flats O 42.59 317 eP P 07 36 09.1 +1.5
comp=Z,74nm,1.1s
PFO LR LR
comp=Z,2µm,20.0s
LCMT Little Creek M 42.63 323 eP P 07 36 08.7 +0.8
comp=Z,118nm,1.3s
E36A McGregor 42.63 349 P P 07 36 05.8 -1.8
baz=164,SNR=6.0
109C Camp Elliot, M 42.63 315 P P 07 36 09.0 +1.1
baz=124,SNR=14
F33A 5 Mile Ranch, 42.64 346 P P 07 36 06.0 -1.7
baz=160,SNR=19
MTPU Mount Pierson 42.70 325 eP P 07 36 10.1 +1.4
comp=Z,61nm,1.2s

GMRC **Granite Mounta** 42.74 319 P P 07 36 10.2 +1.3
baz=127,SNR=29
Q16A **Castle Valley** 42.75 327 eP P 07 36 10.4 +1.5
comp=Z,208nm,1.9s
P18A **Preston Nutter** 42.76 328 eP P 07 36 10.4 +1.2
comp=Z,275nm,2.0s
RWWY **Rawlins** 42.84 333 eP P 07 36 11.0 +1.3
comp=Z,185nm,1.1s
F32A **Veblen** 42.87 345 P P 07 36 07.9 -1.7
baz=158,SNR=9.3
E35A **Pequot Lakes** 42.89 348 P P 07 36 08.0 -1.7
baz=163,SNR=7.6
P17A **Butcher Ranch,** 42.91 328 eP P 07 36 11.5 +1.3
comp=Z,78nm,1.0s
SZCU **Shurtz Canyon** 42.92 324 eP P 07 36 12.1 +1.7
comp=Z,126nm,1.1s
E34A **Wadena** 43.01 347 P P 07 36 09.2 -1.5
baz=162,SNR=7.4
MSU **Marysvale** 43.02 325 eP P 07 36 12.7 +1.5
MSU **Marysvale** 43.02 325 eP P 07 36 12.7 +1.5
TMUT **Trail Mountain** 43.04 327 eP P 07 36 12.8 +1.3
comp=Z,50nm,1.3s
CCUT **Cedar City** 43.05 324 eP P 07 36 13.4 +1.9
comp=Z,125nm,1.2s
MURC **Murrieta** 43.09 316 P P 07 36 13.1 +1.5
baz=124,SNR=23
D37A **Cotton** 43.10 350 P P 07 36 09.9 -1.6
baz=166,SNR=15
F31A **Hecla** 43.16 344 P P 07 36 10.3 -1.7
baz=157,SNR=21
E33A **Westby DABS, E** 43.19 347 P P 07 36 10.1 -2.0
baz=160,SNR=7.0
HEC **Hector,Ludlow** 43.22 318 P P 07 36 14.3 +1.6
baz=126,SNR=14
TCRU **Three Creeks R** 43.24 325 eP P 07 36 14.6 +1.6
comp=Z,128nm,1.1s
D36A **Goodland** 43.25 350 P P 07 36 10.6 -2.0
baz=164,SNR=8.7
BBRC **Big Bear Solar** 43.28 317 P P 07 36 15.2 +1.8
baz=125,SNR=17
TUQ **Turquoise Moun** 43.31 319 P P 07 36 14.6 +1.2
baz=127,SNR=37
K22A **Casper** 43.31 334 P P 07 36 14.4 +1.0
baz=144,SNR=39
K22A **Casper** 43.31 334 eP P 07 36 14.4 +1.0
comp=Z,105nm,1.1s
D35A **Remer** 43.32 349 P P 07 36 11.0 -2.3
baz=163,SNR=6.2
C39A **Grand Marais** 43.40 353 P P 07 36 11.9 -2.0
baz=169,SNR=6.6
VLDQ **Val d'Or** 43.45 5 eP P 07 36 13.0 -1.2
comp=Z,42nm,1.1s
C38A **Sawbill Land.** 43.46 352 P P 07 36 12.0 -2.4
baz=167,SNR=6.4
SHPR **Sheep Range** 43.48 321 eP P 07 36 16.5 +1.7
comp=Z,196nm,1.1s
RSSD **Black Hills** 43.52 338 P P 07 36 16.3 +1.2
baz=148
RSSD **Black Hills** 43.52 338 eP P 07 36 16.3 +1.2
RSSD pmax pmax
comp=Z,200nm,1.3s
RSSD **Black Hills** 43.52 338 eP P 07 36 16.3 +1.2
comp=Z,198nm,1.3s
E32A **Braaten, Kindr** 43.53 346 P P 07 36 13.2 -1.7
baz=159,SNR=8.8
D34A **Park Rapids** 43.56 348 P P 07 36 13.2 -1.9
baz=162,SNR=12
C37A **Embarrass** 43.61 351 P P 07 36 13.9 -1.7
baz=166,SNR=13
PQI **Presque Isle** 43.66 15 eP P 07 36 16.9 +1.0
comp=Z,132nm,1.4s
RRX **Edison Barstow** 43.68 318 P P 07 36 17.9 +1.6
baz=126
SCI2 **San Clemente I** 43.70 314 P P 07 36 15.4 -1.1
baz=122
E31A **Nome** 43.71 345 P P 07 36 15.0 -1.4
baz=158,SNR=10
EYMN **Ely** 43.72 351 P P 07 36 14.5 -1.9
baz=167,SNR=5.8
EYMN **Ely** 43.72 351 eP P 07 36 14.6 -1.9
comp=Z,32nm,1.0s
EYMN LR LR
comp=Z,2µm,22.0s
C36A **Pine Crest Far** 43.75 350 P P 07 36 15.0 -1.6
baz=165,SNR=20
D33A **AnnSam, Waubun** 43.76 347 P P 07 36 15.1 -1.6
baz=161,SNR=19
BFSC **Mount Baldy Ra** 43.77 317 P P 07 36 18.3 +1.1
baz=124,SNR=20
MPU **Maple Canyon** 43.78 327 eP P 07 36 18.4 +1.1
comp=Z,62nm,1.1s
LMN **Caledonia Moun** 43.80 18 eP P 07 36 17.9 +0.8
comp=Z,92nm,1.2s
GSC **Goldstone, Bar** 43.81 318 P P 07 36 18.8 +1.4
baz=126,SNR=37
GSC **Goldstone, Bar** 43.81 318 eP P 07 36 19.0 +1.6
GSC pmax pmax
comp=Z,120nm,1.3s
GSC **Goldstone, Bar** 43.81 318 eP P 07 36 19.0 +1.6
comp=Z,121nm,1.4s
SHOC **Shoshone, Teco** 43.81 319 P P 07 36 18.8 +1.4
baz=127,SNR=49
CIS **Catalina Islan** 43.83 315 P P 07 36 18.5 +0.9
baz=123,SNR=8.6
DAU **Daniels Canyon** 43.87 328 eP P 07 36 19.5 +1.4
DAU **Daniels Canyon** 43.87 328 eP P 07 36 19.5 +1.4
C35A **Jirik Farms, M** 43.90 349 P P 07 36 15.9 -1.9
baz=164,SNR=9.7
FMP **Fort Macarthur** 43.92 316 P P 07 36 19.4 +1.2
baz=123
LMQ **La Malbaie** 43.95 12 eP P 07 36 18.5 +0.2
NLU **North Lily Min** 43.98 327 eP P 07 36 20.0 +1.1
comp=Z,59nm,1.4s
PSUT **Pine Spring** 44.00 324 eP P 07 36 20.8 +1.8
comp=Z,102nm,1.2s
D32A **Dogwood Acres,** 44.03 346 P P 07 36 17.1 -1.8
baz=159,SNR=9.8
MWC **Mount Wilson** 44.03 316 eP P 07 36 20.6 +1.2
MWC pmax pmax
comp=Z,100nm,1.2s
MWC **Mount Wilson** 44.03 316 eP P 07 36 20.6 +1.2
comp=Z,100nm,1.3s
C34A **RKJ Ranch, Bem** 44.04 348 P P 07 36 17.1 -1.9
baz=162,SNR=9.2
PASC **Pasadena Art C** 44.09 316 eP P 07 36 21.1 +1.5
comp=Z,100nm,1.3s
JLU **Jordanelle** 44.10 328 eP P 07 36 21.1 +1.2
comp=Z,127nm,1.5s
D31A **Mcclaflin, Tow** 44.12 345 P P 07 36 18.3 -1.3
baz=158,SNR=21
DECC **Green Verdugo** 44.24 316 P P 07 36 22.3 +1.4
baz=124,SNR=17
CTU **Camp Tracy** 44.33 328 eP P 07 36 22.8 +1.2
comp=Z,123nm,1.3s
EDW2 **Edwards Air Fo** 44.36 317 P P 07 36 22.9 +1.0
baz=124,SNR=35
TPNV **Topopah Spring** 44.44 321 P P 07 36 24.3 +1.7
baz=128,SNR=60
TPNV **Topopah Spring** 44.44 321 eP P 07 36 24.4 +1.9
TPNV pmax pmax
comp=Z,94nm,1.1s
TPNV **Topopah Spring** 44.44 321 eP P 07 36 24.4 +1.9
comp=Z,94nm,1.1s
TCUT **Toone Canyon** 44.46 329 eP P 07 36 23.9 +1.2
comp=Z,221nm,1.2s
B35A **Bob, Littlefor** 44.49 349 P P 07 36 20.5 -2.0
baz=164,SNR=5.7
LRMC **Laurel Mtn Rad** 44.49 318 P P 07 36 24.2 +1.2
baz=125,SNR=44
FURC **Furnace Creek,** 44.53 320 P P 07 36 24.8 +1.7
baz=127,SNR=60
DUG **Dugway, Tooele** 44.55 327 P P 07 36 24.7 +1.3
baz=134,SNR=32
DUG **Dugway, Tooele** 44.55 327 eP P 07 36 24.6 +1.3
DUG pmax pmax
comp=Z,110nm,1.5s
DUG **Dugway, Tooele** 44.55 327 eP P 07 36 24.6 +1.2
comp=Z,109nm,1.5s
DUG LR LR
comp=Z,2µm,19.0s
C32A **Crookston** 44.56 347 P P 07 36 21.7 -1.4
baz=160
BLG **Laguna Peak, P** 44.67 316 P P 07 36 25.5 +1.2
baz=123
MPMC **Manual Prospec** 44.70 319 P P 07 36 25.7 +1.0
baz=126,SNR=38
OSI **Osito Audit: C** 44.71 316 P P 07 36 25.6 +1.0
baz=124
OSI **Osito Audit: C** 44.71 316 eP P 07 36 25.7 +1.1
comp=Z,76nm,1.4s
MCU **Monte Cristo P** 44.76 329 eP P 07 36 25.9 +0.7
B33A **Robert and Kas** 44.77 348 P P 07 36 23.2 -1.6
baz=162,SNR=6.2
BW06 **Boulder Array** 44.77 332 P P 07 36 25.6 +0.3
baz=140,SNR=48
BW06 **Boulder Array** 44.77 332 eP P 07 36 25.5 +0.3
BW06 LR LR
comp=Z,2µm,20.0s
PD31 **Pinedale Array** 44.77 332 eP P 07 36 25.6 +0.4
PDAR **Pinedale Array** 44.77 332 P P 07 36 25.5 +0.3
comp=Z,16nm,0.9s,baz=131,slow=8.2,SNR=97
PDAR **Pinedale Array** 44.77 332 eP P 07 36 24.4 -0.8
B34A **Aery, Baudette** 44.78 349 P P 07 36 23.3 -1.7
baz=163,SNR=20
C31A **Landman Farms,** 44.82 346 P P 07 36 23.8 -1.4
baz=158,SNR=29
AGMN **Agassiz Nation** 44.86 347 P P 07 36 24.2 -1.3
baz=161,SNR=21
AGMN **Agassiz Nation** 44.86 347 eP P 07 36 24.1 -1.3
comp=Z,102nm,1.5s
AGMN LR LR
comp=Z,2µm,22.0s
R11A **Troy Canyon, C** 44.90 323 P P 07 36 27.9 +1.6
baz=130,SNR=134
R11A **Troy Canyon, C** 44.90 323 eP P 07 36 27.7 +1.4
comp=Z,99nm,1.1s
BMUT **Black Mountain** 44.98 330 eP P 07 36 27.4 +0.4
SCZ2 **Santa Cruz Isl** 45.01 315 P P 07 36 27.9 +0.9
baz=122
ARVC **Arvin** 45.06 317 P P 07 36 29.0 +1.6
baz=124,SNR=16
B32A **Ashes, Strandq** 45.10 347 P P 07 36 26.3 -1.1
baz=160,SNR=33
ISA **Isabella, Lake** 45.12 318 P P 07 36 29.3 +1.3
baz=125,SNR=11
ISA **Isabella, Lake** 45.12 318 eP P 07 36 29.5 +1.5
ISA pmax pmax
comp=Z,61nm,1.2s
ISA **Isabella, Lake** 45.12 318 eP P 07 36 29.5 +1.5
comp=Z,61nm,1.2s
SPUT **South Promonto** 45.14 328 eP P 07 36 29.1 +1.0
comp=Z,134nm,1.2s
BGU **Big Grassy Mou** 45.17 327 eP P 07 36 29.3 +0.9
comp=Z,196nm,1.2s
GRAC **Greevine Rang** 45.17 320 P P 07 36 30.0 +1.7
baz=127,SNR=74
SBC **Santa Barbara** 45.30 316 P P 07 36 30.5 +1.2
baz=122
CWC **Cottonwood Cre** 45.31 319 P P 07 36 30.8 +1.2
baz=126
MDND **Maddock** 45.36 344 P P 07 36 29.1 -0.3
baz=156,SNR=9.1
MDND **Maddock** 45.36 344 eP P 07 36 29.6 +0.1
comp=Z,154nm,1.2s
A33A **Warroad** 45.36 348 P P 07 36 28.2 -1.4
baz=162,SNR=16
B31A **Greenbush Farm** 45.38 346 P P 07 36 28.3 -1.4
baz=159,SNR=19
AHID **Auburn Hatcher** 45.52 331 eP P 07 36 31.5 +0.4
comp=Z,150nm,1.8s
AHID LR LR
comp=Z,2µm,20.0s
A32A **Rocking H Ranc** 45.58 347 P P 07 36 29.7 -1.6
baz=160,SNR=17
PKM **Mcpherson Peak** 45.61 316 P P 07 36 33.1 +1.2
baz=123,SNR=20
VES **Vestal, Richgr** 45.63 318 P P 07 36 33.4 +1.5
baz=124,SNR=52
HVU **Hansel Valley** 45.65 328 eP P 07 36 32.7 +0.6
HVU pmax pmax
comp=Z,69nm,1.2s
HVU **Hansel Valley** 45.65 328 eP P 07 36 32.6 +0.6
comp=Z,69nm,1.2s
A31A **Linda, St. Vin** 45.75 347 P P 07 36 31.1 -1.5
baz=160
TIN **Tinemaha, Big** 45.77 319 P P 07 36 34.5 +1.4
baz=126,SNR=8.1
REDW **Red Top Meadow** 45.84 331 eP P 07 36 34.1 +0.4
comp=Z,161nm,1.3s
SNOW **Snow King Moun** 45.87 331 eP P 07 36 34.7 +0.8
comp=Z,154nm,1.5s
LOHW **Long Hollow** 45.91 332 eP P 07 36 35.2 +1.0
comp=Z,23nm,0.8s
SMMC **Simmler** 45.97 316 P P 07 36 36.2 +1.6
baz=123,SNR=21
TPAW **Teton Pass** 45.99 331 eP P 07 36 35.4 +0.5
comp=Z,99nm,1.3s
RCTC **Rector, Farmer** 46.00 318 P P 07 36 35.6 +0.8
baz=124,SNR=11
MOOW **Mose Ponds** 46.08 332 eP P 07 36 35.8 +0.2
comp=Z,32nm,1.1s
FXWY **Fox Creek** 46.13 331 eP P 07 36 36.4 +0.4
comp=Z,28nm,1.3s
IMW **Indian Meadow** 46.29 332 eP P 07 36 37.7 +0.4
comp=Z,27nm,1.0s
PAGB **Antelope Grade** 46.37 317 eP P 07 36 38.7 +1.0
comp=Z,86nm,1.2s
RLMT **Red Lodge** 46.48 334 P P 07 36 39.1 +0.5
baz=142,SNR=38
RLMT **Red Lodge** 46.48 334 eP P 07 36 38.9 +0.2
comp=Z,77nm,1.3s
RLMT LR LR
comp=Z,2µm,21.0s
MLAC **Mammoth, Mammo** 46.49 320 P P 07 36 39.7 +0.7
baz=126
H17A **Grant Village** 46.50 332 P P 07 36 39.9 +1.0
baz=140,SNR=18
H17A **Grant Village** 46.50 332 eP P 07 36 40.4 +1.5
comp=Z,82nm,1.5s
LAO **LASA Array** 46.51 338 P P 07 36 39.2 +0.6
baz=147,SNR=35
LAO **LASA Array** 46.51 338 eP P 07 36 39.1 +0.5
comp=Z,221nm,1.4s
LAO LR LR
comp=Z,1µm,20.0s
YPP **Pitchstone Pla** 46.51 332 eP P 07 36 40.2 +1.2
comp=Z,52nm,1.4s
LKWY **Lake** 46.55 333 eP P 07 36 40.6 +1.3
LKWY pmax pmax
comp=Z,41nm,1.1s
LKWY MLR MLR
comp=Z,3µm,19.0s
LKWY **Lake** 46.55 333 eP P 07 36 40.6 +1.3
comp=Z,41nm,1.1s
LKWY LR LR
comp=Z,3µm,19.0s
PLCA **Paso Flores** 46.59 167 P P 07 36 39.1 -0.2
comp=Z,6.8nm,0.9s,baz=13,slow=9.7,SNR=12
PLCA **Paso Flores** 46.59 167 eP P 07 36 39.6 +0.2
PLCA pmax pmax
comp=Z,25nm,1.0s
PLCA **Paso Flores** 46.59 167 eP P 07 36 39.6 +0.2
comp=Z,25nm,1.0s
MDPB **Devils Postpil** 46.65 320 eP P 07 36 41.5 +1.3
comp=Z,132nm,1.0s
YFT **Old Faithful** 46.66 332 eP P 07 36 42.2 +2.1
comp=Z,79nm,1.1s
TRQA **Tornquist** 46.70 157 eP P 07 36 40.3 0.0
comp=Z,77nm,1.6s
TRQA LR LR
comp=Z,1µm,21.0s
ULM **Lac du Bonnet** 46.71 348 P P 07 36 38.4 -1.7
comp=Z,35nm,1.1s,baz=161,slow=7.2,SNR=24
ULM PcP PcP 07 38 12.6 -0.9
comp=Z,3.5nm,0.6s,baz=152,slow=3.7,SNR=5.3
ULM **Lac du Bonnet** 46.71 348 eP P 07 36 38.4 -1.7
ULM pmax pmax
comp=Z,77nm,1.2s
ULM **Lac du Bonnet** 46.71 348 eP P 07 36 38.4 -1.7
comp=Z,77nm,1.3s
ULM PcP PcP 07 38 12.6 -0.9
YNR **Norris Junctio** 46.79 333 eP P 07 36 42.1 +0.9
comp=Z,25nm,1.0s
YMR **Madison River** 46.89 332 eP P 07 36 42.9 +1.0
comp=Z,96nm,1.2s
YHH **Holmes Hill** 46.92 333 eP P 07 36 43.3 +1.1
comp=Z,58nm,1.2s
PMPB **Monarch Peak** 47.00 317 eP P 07 36 43.1 +0.4
comp=Z,113nm,1.2s
YHB **Horse Butte** 47.06 332 eP P 07 36 44.1 +0.9
comp=Z,97nm,1.5s
GCMT **Greycliff** 47.18 334 eP P 07 36 44.6 +0.6
QLMT **Earthquake Lak** 47.23 332 eP P 07 36 46.2 +1.7
DGMT **Dagmar** 47.31 341 P P 07 36 45.7 +0.8
baz=150,SNR=41
DGMT **Dagmar** 47.31 341 eP P 07 36 45.6 +0.8
comp=Z,239nm,1.1s
DGMT LR LR
comp=Z,2µm,19.0s
WAKR **Walker** 47.39 320 eP P 07 36 47.3 +1.4
comp=Z,114nm,1.1s
YERR **Yerington** 47.55 321 eP P 07 36 48.2 +1.1
comp=Z,99nm,1.1s
CMB **Columbia Colle** 47.73 319 eP P 07 36 49.2 +0.8
CMB pmax pmax
comp=Z,42nm,1.4s
CMB **Columbia Colle** 47.73 319 eP P 07 36 49.2 +0.8
comp=Z,42nm,1.4s
SAO **San Andreas Ge** 47.74 317 eP P 07 36 49.2 +0.8
SAO pmax pmax
comp=Z,29nm,1.1s
SAO **San Andreas Ge** 47.74 317 eP P 07 36 49.2 +0.8
comp=Z,28nm,1.1s
HLID **Hailey** 47.76 329 P P 07 36 49.4 +0.8
baz=135,SNR=39
HLID **Hailey** 47.76 329 eP P 07 36 49.5 +0.8
comp=Z,66nm,1.4s
HLID LR LR
comp=Z,2µm,21.0s
PNTR **Pine Nut** 47.84 321 eP P 07 36 50.4 +1.1
comp=Z,56nm,1.0s
RCBR **Riachuelo** 47.84 102 PFAKE 07 37 00.0 +10
RCBR LR LR
comp=Z,997nm,20.0s
MCMT **McKenzie Canyo** 47.89 331 eP P 07 36 51.0 +1.2
BOZ **Bozeman (W)** 47.90 333 P P 07 36 50.6 +0.9
baz=139,SNR=77
BOZ **Bozeman (W)** 47.90 333 eP P 07 36 50.5 +0.9
BOZ pmax pmax
comp=Z,100nm,1.2s
BOZ **Bozeman (W)** 47.90 333 eP P 07 36 50.5 +0.8
comp=Z,103nm,1.2s
BOZ LR LR
comp=Z,1µm,19.0s
PAHR **Pah Rah Range** 48.07 322 eP P 07 36 52.0 +1.0
comp=Z,60nm,1.3s
DLMT **Dillon** 48.17 332 eP P 07 36 52.6 +0.8
comp=Z,32nm,1.2s
MFID **Camas Ranch** 48.40 328 eP P 07 36 54.4 +0.9
comp=Z,122nm,1.4s
LRM **Limekiln Ridge** 48.45 332 eP P 07 36 54.4 +0.4
AFDM **Forest Hills D** 48.63 320 eP P 07 36 55.9 +0.6
comp=Z,99nm,1.1s
BEKR **Beckworth** 48.77 321 eP P 07 36 57.5 +1.0
comp=Z,65nm,1.2s
HRY **Holter Researc** 48.84 334 eP P 07 36 57.5 +0.7
EGMT **Eagleton** 48.98 336 P P 07 36 58.5 +0.6
baz=143,SNR=25
EGMT **Eagleton** 48.98 336 eP P 07 36 58.6 +0.6
comp=Z,104nm,1.2s
EGMT LR LR
comp=Z,2µm,22.0s
WVOR **Wild Horse Val** 49.30 325 eP P 07 37 01.0 +0.5
WVOR pmax pmax
comp=Z,300nm,1.2s
WVOR **Wild Horse Val** 49.30 325 eP P 07 37 01.0 +0.5
comp=Z,304nm,1.2s
WVOR LR LR
comp=Z,2µm,19.0s
ORV **Oroville** 49.31 320 eP P 07 37 02.2 +1.8
ORV pmax pmax
comp=Z,150nm,1.2s
ORV **Oroville** 49.31 320 eP P 07 37 01.7 +1.2
comp=Z,146nm,1.2s
MCCM **Marconi Confer** 49.44 318 eP P 07 37 01.9 +0.5
comp=Z,326nm,1.9s
GDXM **Geysers** 49.73 319 eP P 07 37 03.8 0.0
comp=Z,28nm,1.1s
J08A **Circle Bar Ran** 49.80 326 eP P 07 37 04.4 +0.1
comp=Z,82nm,1.1s
MSO **Missoula** 49.88 332 P P 07 37 05.2 +0.4
baz=137,SNR=55
MSO **Missoula** 49.88 332 eP P 07 37 05.2 +0.4
comp=Z,81nm,1.2s
O03D **Paynes Creek** 49.92 321 P P 07 37 04.9 -0.3
baz=125,SNR=18
MOD **Modoc Plateau** 49.94 323 eP P 07 37 05.5 +0.1
comp=Z,49nm,1.3s
HOPS **Hopland Field** 50.02 319 eP P 07 37 07.0 +1.2
comp=Z,69nm,1.4s
BMO **Blue Mountains** 50.16 328 eP P 07 37 06.4 -0.5
BMO pmax pmax
comp=Z,52nm,1.4s
BMO MLR MLR
comp=Z,1µm,22.0s
BMO **Blue Mountains** 50.16 328 eP P 07 37 06.4 -0.5
comp=Z,52nm,1.4s
BMO LR LR
comp=Z,1µm,22.0s
WDC **Whiskeytown Da** 50.54 321 eP P 07 37 08.6 -1.2
WDC pmax pmax
comp=Z,28nm,1.1s
WDC **Whiskeytown Da** 50.54 321 eP P 07 37 08.3 -1.5
comp=Z,28nm,1.1s
JTMT **Jette** 50.72 333 eP P 07 37 11.8 +0.6
comp=Z,50nm,1.2s
KCPM **Cahto Peak** 50.72 319 eP P 07 37 13.0 +1.7
comp=Z,126nm,1.2s
M04C **Macdoel** 50.80 322 P P 07 37 12.2 +0.4
baz=126,SNR=24
I07A **Izee** 50.84 326 eP P 07 37 12.1 -0.1
comp=Z,52nm,1.0s
N02D **Trinity Center** 50.87 321 P P 07 37 11.2 -1.1
baz=124,SNR=9.6
F10A **Beach Ranch, E** 50.88 329 eP P 07 37 12.3 0.0
comp=Z,22nm,1.0s
KMRM **Mail Ridge** 51.09 320 eP P 07 37 14.6 +0.6
comp=Z,233nm,1.3s
M02C **Callahan** 51.20 321 P P 07 37 14.2 -0.6
baz=124,SNR=11
K04D **Chiloquin, OR** 51.24 323 P P 07 37 15.6 +0.4
baz=126,SNR=18
YBH **Yreka Blue Hor** 51.30 322 P P 07 37 14.7 -0.9
comp=Z,32nm,1.0s,baz=101,slow=3.8,SNR=34
YBH **Yreka Blue Hor** 51.30 322 eP P 07 37 14.5 -1.1
comp=Z,46nm,1.0s
G08A **Pilot Rock** 51.32 328 eP P 07 37 15.8 +0.1
comp=Z,90nm,1.3s
J05D **Fort Rock, OR** 51.33 324 P P 07 37 16.4 +0.5
baz=127,SNR=25
KHMM **Horse Mountain** 51.46 320 eP P 07 37 17.9 +1.0
comp=Z,241nm,1.1s
WALA **Waterton Lakes** 51.53 334 eP P 07 37 17.9 +0.6
comp=Z,59nm,1.1s
SCHQ **Schefferville** 51.56 12 P P 07 37 16.2 -1.0
comp=Z,95nm,1.1s,baz=184,slow=5.9,SNR=15
SCHQ LR LR 07 58 34.7
comp=Z,433nm,21.9s,baz=190,slow=36
SCHQ **Schefferville** 51.56 12 eP P 07 37 16.4 -0.8
comp=Z,132nm,1.1s
E09A **Wood Farm, Sta** 51.71 329 eP P 07 37 18.8 +0.4
comp=Z,209nm,1.4s
J04D **Umpqua Nationa** 51.81 324 P P 07 37 20.0 +0.5
baz=126,SNR=21
KRMB **Red Mountain** 51.93 321 eP P 07 37 21.2 +0.9
comp=Z,230nm,1.1s
HUMO **Hull Mountain** 51.95 323 eP P 07 37 19.8 -0.5
comp=Z,30nm,1.3s
I05D **Terrebonne, OR** 52.03 325 P P 07 37 21.8 +0.8
baz=128,SNR=24
L02D **Cave Junction,** 52.09 322 P P 07 37 21.5 +0.1
baz=124,SNR=6.8
E08A **Dider Farm, El** 52.17 329 eP P 07 37 21.6 -0.2
comp=Z,96nm,1.5s
G06A **Carlson Farm,** 52.19 327 eP P 07 37 23.2 +1.1
comp=Z,220nm,1.4s
F07A **Phinny Hill Vi** 52.23 328 eP P 07 37 23.2 +0.9
comp=Z,160nm,1.4s
FFC **Flin Flon** 52.24 346 eP P 07 37 22.2 -0.1
FFC pmax pmax
comp=Z,88nm,1.3s
FFC **Flin Flon** 52.24 346 eP P 07 37 22.2 -0.1
comp=Z,88nm,1.4s
FFC LR LR
comp=Z,1µm,21.0s
I04A **Tendick Farm,** 52.32 324 P P 07 37 22.9 -0.2
baz=126,SNR=19
HAWA **Hanford** 52.35 328 eP P 07 37 23.5 +0.2
comp=Z,145nm,1.7s
HAWA LR LR
comp=Z,1µm,20.0s
NEW **Newport** 52.41 331 P P 07 37 23.6 -0.1
comp=Z,22nm,1.2s,baz=138,slow=7.0,SNR=16

**NEW Newport** 52.41 331 P P 07 37 23.6 -0.1
baz=135,SNR=20
**NEW Newport** 52.41 331 *e*P P 07 37 23.7 -0.1
NEW pmax pmax
comp=Z,58nm,1.2s
**NEW Newport** 52.41 331 *e*P P 07 37 23.7 -0.1
comp=Z,58nm,1.3s
NEW LR LR
comp=Z,1µm,20.0s
**D08A Wollman Farm,** 52.47 329 *e*P P 07 37 24.5 +0.4
comp=Z,50nm,1.2s
**KBO Bosley Butte** 52.51 322 *e*P P 07 37 25.6 +1.0
comp=Z,443nm,1.2s
**CHRN Cochrane** 52.52 171 *e*P P 07 37 25.7 +1.4
comp=Z,5.2nm,0.8s
**G05D Wamic, OR** 52.57 326 P P 07 37 26.4 +1.4
baz=128,SNR=26
**E07A Sunnyside** 52.62 328 *e*P P 07 37 26.1 +0.8
comp=Z,8.5nm,0.9s
**C09A Chrisman Ranch** 52.65 330 *e*P P 07 37 26.1 +0.6
comp=Z,93nm,1.8s
**H04A Detroit Lake** 52.72 325 *e*P P 07 37 26.2 +0.2
comp=Z,73nm,1.0s
**I03D Drain, OR** 52.81 324 P P 07 37 27.0 +0.3
baz=125,SNR=13
**KEBM Edson Butte** 52.94 322 *e*P P 07 37 27.4 -0.3
comp=Z,191nm,1.2s
**COR Corvallis** 53.30 325 *e*P P 07 37 30.8 +0.5
COR pmax pmax
comp=Z,110nm,1.1s
**COR Corvallis** 53.30 325 *e*P P 07 37 30.8 +0.5
comp=Z,115nm,1.1s
**LTY Liberty** 53.50 329 *e*P P 07 37 32.4 +0.6
comp=Z,92nm,1.1s
**B08A Colville Reser** 53.55 330 *e*P P 07 37 32.2 +0.1
comp=Z,56nm,1.3s
**F04A Amboy** 53.61 326 *e*P P 07 37 33.0 +0.5
comp=Z,64nm,1.1s
**G03D McMinnville, O** 53.65 325 P P 07 37 33.4 +0.6
baz=126,SNR=9.8
**LVP Lakeview Peak** 53.69 326 *e*P P 07 37 34.2 +1.0
**LON Longmire** 53.78 327 *e*P P 07 37 34.4 +0.5
LON pmax pmax
comp=Z,26nm,0.9s
**LON Longmire** 53.78 327 *e*P P 07 37 34.4 +0.5
comp=Z,26nm,0.9s
**F04D Rainier, OR** 54.03 326 P P 07 37 36.3 +0.7
baz=127,SNR=6.9
**D05A Enumclaw** 54.15 328 *e*P P 07 37 37.0 +0.5
comp=Z,167nm,1.1s
**F03A Seaside** 54.24 326 *e*P P 07 37 38.7 +1.5
comp=Z,175nm,1.1s
**E03A Lebam** 54.61 326 *e*P P 07 37 40.2 +0.4
comp=Z,126nm,1.1s
**B06A Marblemount** 54.74 329 *e*P P 07 37 41.1 +0.4
comp=Z,77nm,1.0s
**B05A Bryant** 54.89 329 P P 07 37 41.5 -0.3
baz=129,SNR=12
**A04D Lummi Island** 55.49 329 P P 07 37 46.7 +0.6
baz=129,SNR=9.8
**PGC Sidney** 55.83 328 *e*P P 07 37 49.4 +0.8
comp=Z,67nm,1.2s
**LLLB Lillooet** 56.29 331 *e*P P 07 37 52.7 +0.8
comp=Z,100nm,1.2s
**RKT Rikitea** 58.08 239 *e*S S 07 46 05.0 -0.8
comp=Z,1µm,30.2s
RKT *e*LR LR 07 55 36.9
comp=Z,2µm,27.5s
**SACV Santiago Islan** 58.89 75 PFAKE 07 38 20.0 +9.2
SACV LR LR
comp=Z,642nm,19.0s
**TAOE Nuku Hiva Isla** 58.90 257 *e*S S 07 46 14.4 -2.5
comp=Z,220nm,27.3s
TAOE *e*LQ LQ 07 53 00.4
comp=Z,2µm,30.0s
TAOE *e*LR LR 07 55 35.2
comp=Z,853nm,25.3s,baz=79
**FRB Frobisher Bay** 59.78 7 P P 07 38 14.7 -1.4
comp=Z,37nm,1.0s,baz=9.5,slow=4.7,SNR=5.0
**EFI East Falkland** 59.99 163 PFAKE 07 38 30.0 +12
EFI LR LR
comp=Z,2µm,20.0s
**YKA Yellowknife Ar** 62.28 344 P P 07 38 32.6 -0.4
comp=Z,14nm,0.9s,baz=137,slow=6.7,SNR=42
**DLBC Dease Lake** 64.87 335 *e*P P 07 38 51.7 +1.3
comp=Z,49nm,1.0s
**SFJD Kangerlussuaq** 65.95 13 LR LR 08 07 04.6
comp=Z,324nm,21.2s,baz=268,slow=36
**SKAG Skagway** 67.73 334 *e*P P 07 39 09.0 +0.4
comp=Z,38nm,1.3s
**ASCN Ascension** 69.27 100 PFAKE 07 39 30.0 +11
ASCN LR LR
comp=Z,687nm,19.0s
**PPT2 Papeete2** 69.64 249 *e*S S 07 48 25.4 -4.5
comp=Z,553nm,28.8s
PPT2 *e*SS SS 07 52 54.2 -4.1
comp=Z,296nm,34.2s
PPT2 *e*LQ LQ 07 57 30.2
comp=Z,1µm,26.8s
PPT2 *e*LR LR 08 00 27.0
comp=Z,1µm,28.2s,baz=75
**RES Resolute Bay** 70.25 357 P P 07 39 22.5 -1.4
comp=Z,11nm,1.1s,baz=171,slow=11,SNR=4.4
RES LR LR 08 11 00.7
comp=Z,847nm,19.5s,baz=175,slow=37
**DAWY Dawson** 71.70 337 *e*P P 07 39 33.2 +0.1
comp=Z,38nm,1.1s
**TULEG Thule** 72.16 3 *e*P P 07 39 35.4 -0.1
comp=Z,79nm,1.4s
**BMRM Bremner River** 72.54 333 *e*P P 07 39 39.3 +1.2
comp=Z,79nm,1.5s
**EGAK Eagle** 72.72 338 *e*P P 07 39 39.6 +0.6
comp=Z,25nm,1.1s
EGAK LR LR
comp=Z,1µm,21.0s
**SUMG Summit** 72.94 13 *i* P P 07 39 39.8 -0.9
**SUMG Summit** 72.94 13 *i* P P 07 39 39.8 -0.9
**SUMG Summit** 72.94 13 *e*P P 07 39 40.5 -0.2
comp=Z,86nm,1.3s
**SUMG Summit** 72.94 13 *i* P 07 39 39.5 -1.2
**MENT Mentasta** 72.94 335 *e*P P 07 39 41.1 +0.6
comp=Z,44nm,1.6s
**KLU Kluina** 73.33 333 *e*P P 07 39 43.7 +0.9
comp=Z,38nm,1.1s
**PAX Paxson** 73.69 335 *e*P P 07 39 45.0 +0.1
PAX pmax pmax
comp=Z,21nm,1.2s
**PAX Paxson** 73.69 335 *e*P P 07 39 45.0 +0.1
comp=Z,21nm,1.2s
**SCM Sheep Creek Mo** 74.08 334 *e*P P 07 39 47.7 +0.5
SCM pmax pmax
comp=Z,52nm,1.2s
**SCM Sheep Creek Mo** 74.08 334 *e*P P 07 39 47.6 +0.5
comp=Z,52nm,1.2s
**MORF Marmelete** 74.42 53 *e*P P 07 39 50.0 +0.3
MORF AMb AMB 07 39 56.4
comp=Z,116nm,2.0s
**MORF Marmelete** 74.42 53 *e*P P 07 39 50.0 +0.3
MORF pmax pmax
comp=Z,116nm,2.0s
**MORF Marmelete** 74.42 53 *e*P P 07 39 50.7 +1.0
comp=Z,104nm,1.6s
**SML Sawmill** 74.52 333 *e*P P 07 39 50.2 +0.4
SML pmax pmax
comp=Z,67nm,1.4s
**SML Sawmill** 74.52 333 *e*P P 07 39 50.1 +0.4
comp=Z,67nm,1.4s
**PNCL Nicolau / Gran** 74.60 52 *e*P P 07 39 51.6 +1.0
comp=Z,63nm,1.5s
**PMR Palmer** 74.80 333 *e*P P 07 39 51.7 +0.4
PMR pmax pmax
comp=Z,23nm,1.0s
**PMR Palmer** 74.80 333 *e*P P 07 39 51.7 +0.4
comp=Z,23nm,1.0s
**MESJ Messejana** 74.81 52 *e*P P 07 39 52.1 +0.2
MESJ AMb AMB 07 39 56.1
comp=Z,38nm,1.0s
**MESJ Messejana** 74.81 52 *e*P P 07 39 52.1 +0.2
MESJ pmax pmax
comp=Z,38nm,1.0s
**PCAS Casmilo, Conde** 74.84 50 *e*P P 07 39 52.9 +0.9
comp=Z,216nm,1.7s
**HDA Harding Lake** 74.84 336 *e*P P 07 39 51.9 +0.3
comp=Z,34nm,1.1s
**RC01 Rabbit Creek A** 74.92 332 *e*P P 07 39 52.7 +0.7
comp=Z,44nm,1.3s
**COI Coimbra** 74.92 50 *e*P P 07 39 53.6 +1.1
comp=Z,214nm,1.5s
**PCVE Castro Verde** 74.94 52 *e*P P 07 39 53.6 +1.0
comp=Z,72nm,1.8s
**PMTG Montargil** 74.94 51 *e*P P 07 39 53.0 +0.4
comp=Z,44nm,1.3s
**IL1 Eielson Array** 74.95 336 *e*P P 07 39 52.4 +0.3
**ILAR Eielson Array** 74.95 336 P P 07 39 52.0 -0.2
comp=Z,7.4nm,0.9s,baz=118,slow=4.1,SNR=57
ILAR PP PP 07 42 36.5 -3.3
comp=Z,3.1nm,1.1s,baz=105,slow=6.1,SNR=4.9
**ILAR Eielson Array** 74.95 336 P P 07 39 52.0 -0.2
ILAR 07 42 36.5
ILAR pmax pmax
comp=Z,8.0nm,0.9s
ILAR pmax pmax
comp=Z,3.0nm,1.1s
**ILB Eielson Array** 74.95 336 *e*P P 07 39 52.3 +0.2
**FYU Fort Yukon** 75.01 338 *e*P P 07 39 52.5 +0.1
comp=Z,55nm,1.2s
**BRLK Bradley Lake** 75.07 331 *e*P P 07 39 53.0 0.0
comp=Z,149nm,1.9s
**CCB Clear Creek Bu** 75.27 336 *e*P P 07 39 54.8 +0.8
comp=Z,46nm,1.2s
**RND Reindeer** 75.28 335 *e*P P 07 39 54.8 +0.7
RND pmax pmax
comp=Z,52nm,1.0s
**RND Reindeer** 75.28 335 *e*P P 07 39 54.8 +0.7
comp=Z,52nm,1.1s
**COLA College** 75.37 336 *e*P P 07 39 54.8 +0.3
COLA pmax pmax
comp=Z,52nm,1.4s
**COLA College** 75.37 336 *e*P P 07 39 54.8 +0.3
comp=Z,52nm,1.4s
COLA LR LR
comp=Z,986nm,20.0s
**KDAK Kodiak Island** 75.38 329 PFAKE 07 40 10.0 +15
KDAK LR LR
comp=Z,972nm,21.0s
**PESTR Estremoz** 75.41 51 *e*P P 07 39 55.3 -0.1
comp=Z,119nm,1.5s
**MCK McKinley** 75.42 335 *e*P P 07 39 55.5 +0.6
MCK pmax pmax
comp=Z,35nm,1.2s
**MCK McKinley** 75.42 335 *e*P P 07 39 55.5 +0.6
comp=Z,35nm,1.2s
**SUA Susitna One** 75.50 333 *e*P P 07 39 56.3 +0.8
comp=Z,68nm,1.6s
**POLO Lamas de Olo** 75.52 49 *e*P P 07 39 55.9 -0.1
comp=Z,57nm,1.7s
**MDM Murphy Dome** 75.55 336 *e*P P 07 39 56.0 +0.3
comp=Z,64nm,1.6s
**PCBR Castelo Branco** 75.60 50 *e*P P 07 39 57.1 +0.7
comp=Z,81nm,1.7s
**MTE Manteigas** 75.60 50 *e*P P 07 39 57.3 +0.8
comp=Z,102nm,1.5s
**MTE Manteigas** 75.60 50 *e*P P 07 39 57.3 +0.8
comp=Z,87nm,1.7s
**PBAR Barrancos** 75.78 52 *e*P P 07 39 58.0 +0.6
comp=Z,114nm,1.6s
**TRF Thorofare Moun** 75.90 335 *e*P P 07 39 58.3 +0.4
comp=Z,28nm,1.1s
**SPU Mount Spurr** 76.02 332 *e*P P 07 39 58.5 +0.1
**MVO Moncorvo** 76.07 49 *e*P P 07 39 59.6 +0.4
comp=Z,75nm,1.4s
**RSO Redoubt South** 76.16 331 *e*P P 07 39 59.7 +0.3
**BPAW Bear Paw Mtn.** 76.40 335 *e*P P 07 40 00.4 -0.1
comp=Z,27nm,1.0s
**PPLA Purkeytile** 76.56 334 *e*P P 07 40 01.9 +0.3
comp=Z,72nm,1.3s
**MLY Manley** 76.58 336 *e*P P 07 40 01.5 0.0
comp=Z,74nm,1.6s
**CAST Castle Rocks** 76.66 334 *e*P P 07 40 02.0 0.0
comp=Z,34nm,1.2s
**COLD Coldfoot** 77.08 338 *e*P P 07 40 05.3 +1.0
comp=Z,55nm,1.4s
**TIC Toumodi** 77.20 84 *e*P P 07 40 05.1 -0.9
**LIC Lamto** 77.21 85 *e*P P 07 40 05.3 -0.7
comp=Z,64nm,1.0s
**TRIS Tristan da Cun** 77.34 129 PFAKE 07 40 20.0 +14
TRIS LR LR
comp=Z,1µm,20.0s
**DBIC Dimbokro** 77.36 84 P P 07 40 06.3 -0.5
comp=Z,11nm,0.9s,baz=255,slow=7.4,SNR=8.6
**DBIC Dimbokro** 77.36 84 *e*P P 07 40 06.8 0.0
**DBIC Dimbokro** 77.36 84 *e*P P 07 40 06.8 0.0
comp=Z,19nm,1.0s
**KIC Kosan Boka** 77.49 85 *e*P P 07 40 07.0 -0.6
comp=Z,41nm,1.0s
**SVW2 Sparrevohn** 77.66 332 *e*P P 07 40 07.1 -0.5
comp=Z,24nm,1.2s
**KOWA Kowa** 77.83 76 *e*P P 07 40 09.9 +0.4
comp=Z,84nm,1.8s
**PAB San Pablo** 77.98 51 *e*P P 07 40 10.4 +0.5
PAB pmax pmax
comp=Z,140nm,1.9s
**PAB San Pablo** 77.98 51 *e*P P 07 40 10.4 +0.5
comp=Z,144nm,1.9s
PAB LR LR
comp=Z,824nm,19.0s
**IMAR Indian Mountai** 78.06 337 *e*P P 07 40 09.5 -0.3
**CHGN Chignik** 78.19 326 *e*P P 07 40 10.8 +0.2
comp=Z,49nm,1.1s
**TTA Tatalina** 78.26 333 *e*P P 07 40 10.3 -0.7
TTA pmax pmax
comp=Z,19nm,1.1s
**TTA Tatalina** 78.26 333 *e*P P 07 40 10.3 -0.7
comp=Z,19nm,1.1s
**ESDC Sonseca Array** 78.28 51 P P 07 40 12.0 +0.4
comp=Z,5.3nm,0.7s,baz=268,slow=5.2,SNR=22
**ESLA Sonseca Array** 78.28 51 *e*P P 07 40 12.2 +0.6
comp=Z,171nm,1.9s
**ES19 SONSECA Array** 78.33 51 *e*P P 07 40 12.0 +0.1
**SHEL Horse Pasture** 78.76 107 PFAKE 07 40 30.0 +15
SHEL LR LR
comp=Z,300nm,20.0s
**DAG Danmarks Havn** 79.61 12 *i* P P 07 40 17.2 -0.8
DAG pmax pmax
comp=Z,44nm,1.5s
**DAG Danmarks Havn** 79.61 12 *i* P P 07 40 17.2 -0.8
comp=Z,44nm,1.5s
**DAG Danmarks Havn** 79.61 12 *i* P 07 40 17.0 -1.0
**EKA Eskdalemuir Ar** 80.14 35 P P 07 40 20.4 -1.0
comp=Z,15nm,0.9s,baz=256,slow=4.6,SNR=14
**TOA0 Torodi Ar. Sit** 83.44 77 *e*P P 07 40 39.1 -0.4
comp=Z,47nm,1.6s
**TORD Torodi Ar. Bea** 83.44 77 P P 07 40 38.8 -0.8
comp=Z,4.7nm,1.0s,baz=288,slow=7.2,SNR=16
**WLF Walferdange** 85.65 41 PFAKE 07 41 00.0 +10
WLF LR LR
comp=Z,1µm,20.0s
**JOHN Johnston Islan** 85.68 286 PFAKE 07 41 00.0 +9.2
JOHN LR LR
comp=Z,203nm,20.0s
**KBS Kingsbay** 86.27 11 *e*P P 07 40 52.8 +0.3
**KBS Kingsbay** 86.27 11 *e*P P 07 40 52.8 +0.3
comp=Z,64nm,1.4s
KBS LR LR
comp=Z,914nm,22.0s
**ECH Echery** 86.37 42 *e*P P 07 40 53.5 -0.2
**ECH Echery** 86.37 42 *e*P P 07 40 53.5 -0.2
comp=Z,54nm,1.3s
**TAM Tamanrasset** 86.50 68 *e*P P 07 40 55.1 +0.1
TAM pmax pmax
comp=Z,18nm,1.4s
TAM MLR MLR
comp=Z,725nm,20.0s
**TAM Tamanrasset** 86.50 68 *e*P P 07 40 55.1 +0.1
comp=Z,18nm,1.4s
TAM LR LR
comp=Z,725nm,20.0s
**NBO02 NORSAR Array S** 87.59 29 *e*P P 07 40 59.6 +0.2
**NB2 NORSAR Subarra** 87.77 29 P P 07 40 59.8 -0.4
comp=Z,2.7nm,0.9s,baz=271,slow=4.8
**NOA NORSAR Array B** 87.77 29 P P 07 41 00.2 0.0
comp=Z,8.8nm,1.0s,baz=274,slow=4.4,SNR=4.2
**TUE Stuetta** 87.98 44 PFAKE 07 41 10.0 +8.3
TUE LR LR
comp=Z,439nm,20.0s
**DAVOX Davos/Dischmat** 88.32 43 P P 07 41 03.5 +0.2
comp=Z,5.2nm,1.0s,baz=295,slow=10,SNR=3.5
**VSL Villasalto** 88.58 51 PFAKE 07 41 20.0 +15
VSL LR LR
comp=Z,949nm,19.0s
**VLC Villacollemand** 88.91 46 PFAKE 07 41 20.0 +14
VLC LR LR
comp=Z,758nm,19.0s
**HFS Hagfors** 89.09 30 LR LR 08 15 15.1
comp=Z,516nm,21.3s,baz=260,slow=32
**CLL Collm** 89.87 39 *e*P P 07 41 11.0 +0.7
CLL pmax pmax
comp=Z,33nm,1.7s
**CLL Collm** 89.87 39 *e*P P 07 41 11.0 +0.7
comp=Z,33nm,1.7s
CLL Lm MLR 08 13 00.0
comp=N,400nm,20.2s
CLL Lm MLR 08 13 00.0
comp=E,500nm,20.3s
**AFI Afiamalu** 90.28 256 PFAKE 07 41 30.0 +17
AFI LR LR
comp=Z,1µm,22.0s
**KHC Kasperske Hory** 90.52 41 *e*P P 07 41 12.4 -1.0
KHC *e*pP pP 07 41 16.3 -2.2
**KHC Kasperske Hory** 90.52 41 *e*P P 07 41 14.2 +0.7
KHC pmax pmax
comp=Z,35nm,2.2s
**KHC Kasperske Hory** 90.52 41 *e*P P 07 41 14.2 +0.7
comp=Z,35nm,2.2s
**GERES GERESS Array B** 90.64 41 P P 07 41 13.8 -0.2
comp=Z,1.8nm,0.8s,baz=299,slow=2.7,SNR=6.7
GERES LR LR 08 15 25.7
comp=Z,357nm,20.9s,baz=16,slow=31
**GEA0 GERESS Array S** 90.64 41 *e*P P 07 41 13.8 -0.3
**PRU Pruhonice** 91.02 40 *e*P P 07 41 16.0 +0.3
PRU *e*pP pP 07 41 18.9 -1.9
PRU AMS AMS 08 14 30.0
comp=Z,2µm,20.5s
**PRU Pruhonice** 91.02 40 *e*P P 07 41 16.0 +0.3
PRU *e* 07 41 18.9
PRU MLR MLR
comp=Z,2µm,20.5s
**SNAA Sanae** 91.26 162 *e*P P 07 41 17.1 +0.8
**AQU L'Aquila** 91.31 48 PFAKE 07 41 30.0 +13
AQU LR LR
comp=Z,591nm,19.0s
**CLTB Caltabellotta** 91.78 52 PFAKE 07 41 30.0 +10
CLTB LR LR
comp=Z,438nm,19.0s
**UPC Upice** 91.87 39 *e*P P 07 41 18.8 -0.8
UPC *e*pP pP 07 41 22.6 -2.1
**UPC Upice** 91.87 39 *e*P P 07 41 18.8 -0.8
UPC *e* 07 41 22.6
**DPC Dobruska-Polom** 92.10 39 *e*P P 07 41 21.3 +0.6
DPC *e*pP pP 07 41 24.1 -1.7
**DPC Dobruska-Polom** 92.10 39 *e*P P 07 41 21.3 +0.6
DPC *e* 07 41 24.1
**KEV Kevo** 92.28 19 PFAKE 07 41 30.0 +8.9
KEV LR LR
comp=Z,1µm,22.0s
**VRAC Vranov** 92.45 40 LR LR 08 16 56.6
comp=Z,354nm,21.0s,baz=324,slow=32
**MORC Moravsky Berou** 92.97 40 *e*P P 07 41 24.8 0.0
**MORC Moravsky Berou** 92.97 40 *e*P P 07 41 24.8 0.0
comp=Z,56nm,1.3s
**WDD Wied Dalam** 93.05 54 PFAKE 07 41 40.0 +15
WDD LR LR
comp=Z,576nm,21.0s
**CUC Castrocucco** 93.45 50 PFAKE 07 41 40.0 +13
CUC LR LR
comp=Z,573nm,19.0s
**CEL Celeste** 93.78 51 PFAKE 07 41 40.0 +11
CEL LR LR
comp=Z,624nm,22.0s
**PSZ Piszkesteto** 94.87 41 PFAKE 07 41 50.0 +16
PSZ LR LR
comp=Z,1µm,22.0s
**LVZ Lovozero** 95.57 20 PFAKE 07 41 50.0 +14
LVZ LR LR
comp=Z,1µm,22.0s
**VSU Vasula** 95.97 30 *e*P P 07 41 36.7 -1.5
VSU pmax pmax
comp=Z,89nm,1.1s
**TIR Tirane** 96.23 48 PFAKE 07 41 50.0 +10
TIR LR LR
comp=Z,685nm,19.0s
**RAO Raoul Island** 96.89 241 LR LR 08 16 39.1
comp=Z,692nm,19.3s,baz=102,slow=30
**FUNA Funafuti** 98.74 262 PFAKE 07 42 00.0 +8.3
FUNA LR LR
comp=Z,3µm,19.0s
**SBA Scott Base** 98.88 192 PFAKE 07 42 00.0 +9.1
SBA LR LR
comp=Z,2µm,20.0s
**MLR Muntele Rosu** 99.51 43 P Pdif 07 41 54.9 +0.2
comp=Z,1.8nm,1.0s,baz=351,slow=4.0,SNR=3.6
**MLR Muntele Rosu** 99.51 43 *e*P Pdif 07 41 54.4 -0.3
comp=Z,14nm,1.1s
**MSVF Nonsavu** 100.28 253 PFAKE 07 42 10.0 +11
MSVF LR LR
comp=Z,1µm,20.0s
**TIXI Tiksi** 101.03 350 PFAKE 07 42 10.0 +9.3
TIXI LR LR
comp=Z,4µm,21.0s
**SANT Santorini** 101.63 52 PFAKE 07 42 20.0 +16
SANT LR LR
comp=Z,372nm,20.0s
**OBN Obninsk** 102.26 31 PFAKE 07 42 20.0 +14
OBN LR LR
comp=Z,2µm,20.0s
**SNZO South Karori** 102.61 229 PFAKE 07 42 20.0 +12
SNZO LR LR
comp=Z,2µm,21.0s
**PET Petropavlovsk** 102.93 327 PFAKE 07 42 20.0 +11
PET LR LR
comp=Z,2µm,21.0s
**SUR Sutherland** 103.88 122 PFAKE 07 42 30.0 +16
SUR LR LR
comp=Z,2µm,21.0s
**TARA Tarawa** 104.27 273 PFAKE 07 42 30.0 +14
TARA LR LR
comp=Z,109nm,22.0s
**SYO Syowa Base** 105.55 162 *e*PP PP 07 46 42.8 +0.3
**ANTO Ankara** 106.09 46 PFAKE 07 46 50.0
ANTO LR LR
comp=Z,608nm,22.0s
**H11N3 WAKE ISLAND Hyl** 107.49 292 T T 09 42 52.7
baz=78,slow=75,SNR=156
**H11N2 WAKE ISLAND Hyl** 107.50 292 T T 09 42 48.9
baz=78,slow=75,SNR=127
**H11N1 WAKE ISLAND Hyl** 107.51 292 T T 09 42 54.1
baz=78,slow=75,SNR=159
**CSS Mathiatis** 108.17 51 PFAKE 07 46 50.0
CSS LR LR
comp=Z,113nm,21.0s
**YAK Yakutsk** 108.95 345 PFAKE 07 46 50.0
YAK LR LR
comp=Z,3µm,21.0s
**KIV Kislovodsk** 111.07 39 PFAKE 07 47 00.0
KIV LR LR
comp=Z,782nm,21.0s
**ARU Arti** 111.31 22 PFAKE 07 47 00.0
ARU LR LR
comp=Z,1µm,20.0s
**LSZ Lusaka** 111.32 104 PFAKE 07 47 00.0
LSZ LR LR
comp=Z,1µm,20.0s
**GNI Garni** 114.28 42 PFAKE 07 47 00.0 +8.4
GNI LR LR
comp=Z,1µm,22.0s
**MAK Makhachkala** 114.59 38 *i* PKIKP PKPpre 07 46 45.0
MAK *e*PPP PPP 07 50 12.9
MAK pmax pmax
comp=Z,21nm,0.4s
MAK MLR MLR
comp=Z,530nm,19.0s
**YSS Yuzh-Sakhalins** 114.81 327 PFAKE 07 47 00.0 +7.9
YSS LR LR
comp=Z,936nm,20.0s
**ERM Erimo** 117.59 323 PFAKE 07 47 10.0 +12
ERM LR LR
comp=Z,1µm,20.0s
**HNR Honiara** 117.78 262 PFAKE 07 47 10.0 +11
HNR LR LR
comp=Z,902nm,21.0s
**BRVK Borovoye** 118.05 18 PFAKE 07 47 10.0 +12
BRVK LR LR
comp=Z,1µm,20.0s
**KMBO Kilima Mbogo** 119.89 89 PFAKE 07 47 20.0 +17
KMBO LR LR
comp=Z,898nm,20.0s
**ZALV Zalesovo Beam** 120.59 9 PKP PKPdf 07 47 02.2 -0.9
comp=Z,1.0nm,0.4s,baz=329,slow=2.5,SNR=4.4
**ZALV Zalesovo Beam** 120.59 9 *e*PKPdf PKPdf 07 47 02.0 -1.1

ZALV ep PKPdf **PKiKP** 07 47 02.3 -0.9
**RAYN Ar Rayn 122.18 59** PFAKE 07 47 20.0 +13
RAYN LR LR
comp=Z,408nm,20.0s
**KURK Kurchatov 122.46 14** PFAKE 07 47 20.0 +13
KURK LR LR
comp=Z,3μm,19.0s
**HIA Hailar 122.80 343** PFAKE 07 47 20.0 +12
HIA LR LR
comp=Z,2μm,20.0s
**MDJ Mudanjiang 123.00 333** PKP **PKPdf** 07 47 08.3 +0.3
MDJ AMB AMB
comp=Z,190nm,6.0s
**MDJ Mudanjiang 123.00 333** PFAKE 07 47 20.0 +12
MDJ LR LR
comp=Z,706nm,20.0s
**TLY Talaya 123.55 355** PFAKE 07 47 20.0 +11
TLY LR LR
comp=Z,3μm,19.0s
**MAJO Matsushiro 123.95 321** PFAKE 07 47 20.0 +10
MAJO LR LR
comp=Z,722nm,21.0s
**GEYT Alibeck 124.07 37** PKP **PKPdf** 07 47 10.7 +0.4
comp=Z,4.0nm,0.8s,baz=229,slow=9.0,SNR=4.9
**CN2 Changchun 125.46 335** ep PKP **PKPdf** 07 47 09.4 -3.3
**MAKZ Makanchi 126.91 13** ep PKiKP **PKPdf** 07 47 17.2 +1.7
**MAKZ Makanchi 126.91 13** ep PKPdf **PKPdf** 07 47 17.2 +1.7
**ULN Ulaanbaatar 126.93 352** PFAKE 07 47 30.0 +14
ULN LR LR
comp=Z,1μm,19.0s
**MK31 Makanchi Array 126.99 13** ep PKiKP **PKPdf** 07 47 15.8 +0.2
**MK31 Makanchi Array 126.99 13** ep PKPdf **PKPdf** 07 47 15.8 +0.2
**MKAR Makanchi Array 126.99 13** PKP **PKPdf** 07 47 14.5 -1.2
comp=Z,5.9nm,0.8s,baz=325,slow=1.9,SNR=13
**MK01 Makanchi Array 127.01 13** ep PKPdf **PKPdf** 07 47 14.4 -1.2
**SONA1 Songino Array 127.04 352** ep PKPdf **PKPdf** 07 47 15.4 -0.4
**SONM Songino Array 127.05 352** PKP **PKPdf** 07 47 14.4 -1.4
comp=Z,2.1nm,0.8s,baz=264,slow=1.5,SNR=5.3
SONM PP **PP** 07 49 13.0 +0.1
comp=Z,1.1nm,0.8s,baz=247,slow=1.1,SNR=4.4
**AAK Ala-Archa 128.49 21** ep PKiKP **PKPdf** 07 47 20.0 +1.2
AAK MLR MLR
comp=Z,3μm,20.0s
**AAK Ala-Archa 128.49 21** ep PKPdf **PKPdf** 07 47 20.0 +1.2
AAK LR LR
comp=Z,3μm,20.0s
**ABPO Ambohimpanom 129.12 111** PFAKE 07 47 30.0 +9.4
ABPO LR LR
comp=Z,409nm,20.0s
**KS01 Wonju Array Si 129.29 329** ep PKPdf **PKPdf** 07 47 19.2 -1.0
**KSRS Korea Array 129.29 328** PKP **PKPdf** 07 47 19.8 -0.5
comp=Z,3.7nm,0.9s,baz=22,slow=0.9,SNR=10
**KSAR Wonju Array Be 129.32 328** PKiKP **PKPdf** 07 47 19.8 -0.5
**KSAR Wonju Array Be 129.32 328** PKP **PKPdf** 07 47 19.8 -0.5
**INCN Inchon 129.93 330** PFAKE 07 47 30.0 +8.5
INCN LR LR
comp=Z,1μm,19.0s
**PAF Port-aux-Franc 129.94 157** PFAKE 07 47 30.0 +9.0
PAF LR LR
comp=Z,2μm,21.0s
**CTAO Charters Tower 130.08 248** PFAKE 07 47 30.0 +7.8
CTAO LR LR
comp=Z,1μm,19.0s
**PMG Port Moresby 130.39 262** PFAKE 07 47 40.0 +17
PMG LR LR
comp=Z,561nm,19.0s
**WMQ Urumqi 130.89 9** PKP **PKPdf** 07 47 22.8 -0.4
WMQ LR LR
comp=Z,590nm,22.1s
WMQ LR LR
comp=Z,750nm,20.1s
WMQ LR LR
comp=Z,680nm,20.1s
**KSH Kashi 131.75 22** ep PKP **PKPdf** 07 47 26.9 +1.9
KSH PP **PP** 07 49 50.9 +7.0
KSH PKS **PKSdf** 07 51 00.8 -0.8
KSH SKS **SKSdf** 07 54 35.8 -0.6
KSH SKKS **SKKSac** 07 56 40.4 -0.8
KSH LR LR
comp=Z,270nm,6.0s
KSH LR LR
comp=Z,220nm,6.5s
KSH LR LR
comp=Z,340nm,8.1s
**BJT Baijiatuau 132.22 340** PFAKE 07 47 40.0 +14
BJT LR LR
comp=Z,890nm,19.0s
**HHC Hu-ho-hao-te 132.81 345** ep PKP **PKPdf** 07 47 27.9 +0.9
HHC AMB AMB
comp=Z,87nm,4.7s
**GTA Gaotai 136.02 357** ep PKP **PKPdf** 07 47 33.1 +0.1
GTA PP **PP** 07 50 17.6 +6.9
GTA SKKS 07 57 04.0
GTA SS **SS** 08 08 10.8 +1.8
GTA AMB AMB
comp=Z,93nm,9.0s
GTA LR LR
comp=Z,320nm,14.7s
GTA LR LR
comp=Z,420nm,18.3s
GTA LR LR
comp=Z,250nm,12.6s
**NJ2 Nanjing 138.09 332** ep PKP **PKPdf** 07 47 38.9 +2.0
**MSEY Mahe Island 138.27 92** PFAKE 07 47 50.0 +12
MSEY LR LR
comp=Z,2μm,19.0s
**LZH Lanzhou 138.94 352** ep PKP **PKPdf** 07 47 35.5 -3.1
LZH sPKP 07 47 40.0
LZH PP **PP** 07 50 30.0 +1.0
LZH AMB AMB
comp=Z,230nm,7.2s
LZH LR LR
comp=Z,430nm,18.0s
LZH LR LR
comp=Z,470nm,17.9s
LZH LR LR
comp=Z,520nm,20.5s
**AS01 Alice Springs 140.03 238** ep PKPpre PKPpre 07 47 31.9
AS01 ep PKPdf **PKPdf** 07 47 40.5 -0.2
**AS31 Alice Springs 140.07 238** ep PKPdf **PKPdf** 07 47 40.6 -0.2
**ASAR Alice Springs 140.07 238** PKhKP PKPpre 07 47 32.2
comp=Z,0.8nm,0.7s,baz=112,slow=3.3,SNR=8.7
**WC3 Warramunga Arr 140.93 244** ep PKPdf **PKPdf** 07 47 39.8 -2.6
**WB2 Warramunga Arr 140.95 244** ep PKPpre PKPpre 07 47 35.8
WB2 ep PKPpre PKPpre 07 47 36.1
WB2 ep PKPdf **PKPdf** 07 47 40.1 -2.3
**WRAB Tennant Creek 140.96 244** PFAKE 07 47 50.0 +7.6
WRAB LR LR
comp=Z,884nm,19.0s
**WRA Warramunga Arr 140.97 244** PKhKP PKPpre 07 47 35.6
comp=Z,2.9nm,0.9s,baz=108,slow=2.7,SNR=14
**ENH Enshi 143.31 342** PFAKE 07 48 00.0 +14
ENH LR LR
comp=Z,650nm,22.0s
**CD2 Chengdu 144.03 351** PKP **PKPab** 07 47 45.3 +0.3
CD2 pPKP sPKPdf 07 47 52.8 -1.9
**PYUN Piuthan 144.54 22** ep **PKPab** 07 47 46.6 -0.6
comp=Z,120nm,1.2s
**DANN Dangsing 144.60 21** ep **PKPdf** 07 47 48.5 -0.6
comp=Z,7.7nm,0.9s
**KOLN Koldanda 145.06 22** ep **PKPab** 07 47 48.1 -1.0
comp=Z,147nm,1.3s
**GKN Gorkha 145.22 20** ep **PKPab** 07 47 49.7 +0.1
**LSA Lhasa 145.25 9** PFAKE 07 48 00.0 +10
LSA LR LR
comp=Z,566nm,19.0s
**KKN Kakani 145.63 19** ep **PKPdf** 07 47 50.6 -0.2
comp=Z,522nm,1.4s
**MTN Manton Dam 145.70 254** ep PKPdf **PKPdf** 07 47 51.2 +0.4
**GUN Gumba 145.71 18** ep **PKPdf** 07 47 51.1 0.0
comp=Z,621nm,1.2s
**DMN Daman 145.74 20** ep **PKPdf** 07 47 50.9 -0.1
comp=Z,450nm,1.3s
**PKIN Phulchoki 145.87 19** ep **PKPdf** 07 47 50.8 -0.4
comp=Z,398nm,1.7s
**PKI Pulchoki 145.88 19** ep **PKPdf** 07 47 51.0 -0.3
comp=Z,228nm,1.3s
**JIRN Jiri 146.04 18** ep **PKPdf** 07 47 51.5 -0.2
comp=Z,3μm,1.6s
**H01W1 Cape Leeuwin H 146.20 205** T T 10 31 59.3
baz=137,slow=73,SNR=11
**H01W2 Cape Leeuwin H 146.20 205** T T 10 31 56.6
baz=137,slow=73,SNR=13
**H01W3 Cape Leeuwin H 146.22 205** T T 10 31 50.2
baz=137,slow=73,SNR=13

**TAPN Taplejung 146.77 16** ep P **PKPdf** 07 47 53.6 +0.8
comp=Z,96nm,1.0s
**RAMN Ramite 146.83 18** ep P **PKPdf** 07 47 52.5 -0.4
comp=Z,110nm,1.0s
**ODAN Odare 147.15 17** ep P **PKPdf** 07 47 53.1 -0.3
comp=Z,86nm,1.2s
**GYA Guiyang 147.71 344** i PKPbc **PKPdf** 07 47 55.3 +1.1
GYA PKPab **pPKPbc** 07 48 00.8 -1.3
GYA PP **PP** 07 51 25.6 +3.7
GYA AMB AMB
comp=Z,140nm,8.3s
**DAV Davao City (W) 149.49 292** PFAKE 07 48 10.0 +3.4
DAV LR LR
comp=Z,437nm,21.0s
**KMI Kunming 149.87 350** PKPbc **PKPdf** 07 47 57.0 -0.8
KMI AMB AMB
comp=Z,120nm,4.6s
**HYB Hyderabad 151.20 40** i PKP **PKPbc** 07 48 06.5 +0.8
**MBWA Marble Bar 152.83 231** ep PKPbc **PKPbc** 07 48 08.7 -0.6
**QIZ Qiongzhong 153.38 333** PFAKE 07 48 10.0 -0.6
QIZ LR LR
comp=Z,478nm,20.0s
**CHTO Chiang Mai 156.55 356** PFAKE 07 48 20.0 +13
CHTO LR LR
comp=Z,306nm,20.0s
**CMAR Chiang Mai Arr 156.90 356** PKP **PKPdf** 07 48 08.0 +0.2
comp=Z,3.4nm,0.7s,baz=311,slow=3.7,SNR=6.0
CMAR PKPab **PKPab** 07 48 36.8 -0.6
comp=Z,2.0nm,0.4s,baz=345,slow=4.9,SNR=10
**KAPI Kappang 157.68 268** PFAKE 07 48 20.0 +11
KAPI LR LR
comp=Z,400nm,20.0s
**KSM Kuching 165.67 295** PFAKE 07 48 30.0 +13
KSM LR LR
comp=Z,452nm,19.0s
**KULM Kulim 169.51 342** PFAKE 07 48 30.0 +10
KULM LR LR
comp=Z,440nm,20.0s

*BJI* ***13*** *07:28:51.6, 28°.30N×43°.80W, h10km, mb5.1/4, mB5.6/9, Ms5.7/6, Ms7 5.4/6*
*IDC* ***13*** *07:28:52.6±0.6, 28°.25N×43°.86W, h0km, mb4.6/33, mb1 4.7/33, mb1mx4.5/67, mbtmp4.6/33, MS4.5/11, Ms1 4.5/11, ms1mx4.1/58, Error ellipse: s-maj=17.2km s-min=12.1km az=173.0*
*ISCJB* ***13*** *07:28:52.9±0.2, 28°.30N±0°.05×43°.88W±0°.02, h14km, mb5.1/152, MS4.9/169, Error ellipse: s-maj=7.5km s-min=2.3km az=177.2*
*MOS* ***13*** *07:28:52.6±0.9, 28°.35N×43°.87W, h10km, mb5.4/48, MS4.8/9, Error ellipse: s-maj=8.8km s-min=5.2km az=49.1*
*GCMT* ***13*** *07:28:54.5±0.3, 28°.36N×43°.81W, h12km, MW5.2/95, Moment Tensor Solution. s28,c32; s95,c143; Duration: 1s0 Moment tensor: Scale 10^17 Nm; Mrr=0.78±.02; Mθθ 0.28±.03; Mφφ 0.50±.02; Mrθ -0.03±.08; Mφθ 0.35±.02; Mφr -0.11±.07; Best double couple: M0 .78000×10^17 NP1: θ=33.00000°, δ=49.00000°, λ=-94.00000°. NP2: φ=219.00000°, δ=41.00000°, λ=-86.00000°. Principal axes: T 0.7690, Plg4.0000°, Azm126.0000°; N 0.0220, Plg3.0000°, Azm35.0000°; P -0.7910, Plg85.0000°, Azm270.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*NEIC* ***13*** *07:28:54.5±0.2, 28°.32N×43°.82W, h10km, mb5.3/95 Error ellipse: s-maj=6.5km s-min=2.7km az=177.0*

**ISC 13 07:28:54.9±0.4, 28°.34N±0°.08×43°.89W±0°.06, h14km, n854, σ0°98/724, mb5.2/155, MS4.9/169, 29C-2D, Northern Mid-Atlantic Ridge**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res |
|---|---|---|---|---|---|---|---|---|
| **SMRT** | **St. Maarten** | **20.37** | **244** | PFAKE | | | 07 33 40.0 | +6.7 |
| SMRT | | | | LR | LR | | | |
| comp=Z,2μm,22.0s | | | | | | | | |
| **GDHS** | **Morne Mazeau,** | **20.41** | **238** | PFAKE | | | 07 33 40.0 | +6.2 |
| GDHS | | | | LR | LR | | | |
| comp=Z,2μm,18.0s | | | | | | | | |
| **SEUS** | **St. Eustatius** | **20.61** | **243** | PFAKE | | | 07 33 50.0 | +14 |
| SEUS | | | | LR | LR | | | |
| comp=Z,2μm,20.0s | | | | | | | | |
| **SABA** | **Saba** | **20.74** | **243** | ep P | | **P** | **07 33 31.9** | **-3.3** |
| comp=Z,137nm,0.8s | | | | | | | | |
| SABA | | | | LR | LR | | | |
| comp=Z,3μm,21.0s | | | | | | | | |
| **H05S1** | **Guadeloupe/Mar** | **20.96** | **232** | T | T | | 07 55 00.3 | |
| SNR=5.6 | | | | | | | | |
| **ABVI** | **Anegada Island** | **21.02** | **247** | ep P | | **P** | **07 33 41.7** | **+3.5** |
| comp=Z,159nm,0.9s | | | | | | | | |
| ABVI | | | | LR | LR | | | |
| comp=Z,2μm,19.0s | | | | | | | | |
| **BBGH** | **Gun Hill** | **21.02** | **227** | PFAKE | | | 07 33 50.0 | +12 |
| BBGH | | | | LR | LR | | | |
| comp=Z,4μm,19.0s | | | | | | | | |
| **CBYP** | **Canovanas** | **22.50** | **248** | PFAKE | | | 07 34 10.0 | +16 |
| CBYP | | | | LR | LR | | | |
| comp=Z,2μm,20.0s | | | | | | | | |
| **SACV** | **Santiago Islan** | **23.02** | **121** | PFAKE | | | 07 34 10.0 | +10 |
| SACV | | | | LR | LR | | | |
| comp=Z,1μm,22.0s | | | | | | | | |
| **LMN** | **Caledonia Moun** | **24.05** | **322** | PFAKE | | | 07 34 20.0 | +10 |
| LMN | | | | LR | LR | | | |
| comp=Z,2μm,20.0s | | | | | | | | |
| **GGN** | **Saint George** | **24.75** | **319** | PFAKE | | | 07 34 30.0 | +14 |
| GGN | | | | LR | LR | | | |
| comp=Z,2μm,20.0s | | | | | | | | |
| **EMMW** | **East Machias** | **24.89** | **317** | PFAKE | | | 07 34 30.0 | +13 |
| EMMW | | | | LR | LR | | | |
| comp=Z,2μm,21.0s | | | | | | | | |
| **BCX** | **Boston College** | **26.14** | **310** | PFAKE | | | 07 34 40.0 | +11 |
| BCX | | | | LR | LR | | | |
| comp=Z,2μm,21.0s | | | | | | | | |
| **WVL** | **Waterville** | **26.15** | **315** | PFAKE | | | 07 34 40.0 | +11 |
| WVL | | | | LR | LR | | | |
| comp=Z,2μm,21.0s | | | | | | | | |
| **BRYW** | **Bryant College** | **26.23** | **308** | PFAKE | | | 07 34 40.0 | +11 |
| BRYW | | | | LR | LR | | | |
| comp=Z,2μm,20.0s | | | | | | | | |
| **WES** | **Weston** | **26.27** | **310** | PFAKE | | | 07 34 40.0 | +10 |
| WES | | | | LR | LR | | | |
| comp=Z,2μm,21.0s | | | | | | | | |
| **PKME** | **Peaks-Kenny Pk** | **26.28** | **317** | PFAKE | | | 07 34 40.0 | +10 |
| PKME | | | | LR | LR | | | |
| comp=Z,2μm,22.0s | | | | | | | | |
| **PQI** | **Presque Isle** | **26.32** | **321** | PFAKE | | | 07 34 40.0 | +10 |
| PQI | | | | LR | LR | | | |
| comp=Z,2μm,22.0s | | | | | | | | |
| **HRV** | **Adam Dziewonsk** | **26.47** | **310** | PFAKE | | | 07 34 40.0 | +8.4 |
| HRV | | | | LR | LR | | | |
| comp=Z,2μm,19.0s | | | | | | | | |
| **QUA2** | **Belchertown** | **26.93** | **309** | PFAKE | | | 07 34 50.0 | +14 |
| QUA2 | | | | LR | LR | | | |
| comp=Z,2μm,20.0s | | | | | | | | |
| **FFD** | **Franklin Falls** | **26.93** | **312** | PFAKE | | | 07 34 50.0 | +14 |
| FFD | | | | LR | LR | | | |
| comp=Z,2μm,20.0s | | | | | | | | |
| **YLE** | **Yale** | **27.00** | **306** | PFAKE | | | 07 34 50.0 | +14 |
| YLE | | | | LR | LR | | | |
| comp=Z,2μm,20.0s | | | | | | | | |
| **LBNH** | **Lisbon** | **27.44** | **313** | PFAKE | | | 07 34 50.0 | +10 |
| LBNH | | | | LR | LR | | | |
| comp=Z,1μm,22.0s | | | | | | | | |
| **HNH** | **Hanover** | **27.45** | **312** | PFAKE | | | 07 34 50.0 | +10 |
| HNH | | | | LR | LR | | | |
| comp=Z,2μm,20.0s | | | | | | | | |
| **CPNY** | **Central Park** | **27.57** | **305** | PFAKE | | | 07 34 50.0 | +8.6 |
| CPNY | | | | LR | LR | | | |
| comp=Z,2μm,22.0s | | | | | | | | |
| **PAL** | **Palisades** | **27.59** | **305** | PFAKE | | | 07 34 50.0 | +8.3 |
| PAL | | | | LR | LR | | | |
| comp=Z,2μm,21.0s | | | | | | | | |
| **BRNJ** | **Basking Ridge** | **27.98** | **304** | PFAKE | | | 07 35 00.0 | +15 |
| BRNJ | | | | LR | LR | | | |
| comp=Z,2μm,19.0s | | | | | | | | |
| **TRY** | **Troy** | **28.00** | **309** | PFAKE | | | 07 35 00.0 | +15 |
| TRY | | | | LR | LR | | | |
| comp=Z,2μm,20.0s | | | | | | | | |
| **VT1** | **Waterbury** | **28.02** | **312** | PFAKE | | | 07 35 00.0 | +15 |
| VT1 | | | | LR | LR | | | |
| comp=Z,1μm,20.0s | | | | | | | | |
| **LMQ** | **La Malbaie** | **28.11** | **320** | PFAKE | | | 07 35 00.0 | +14 |
| LMQ | | | | LR | LR | | | |
| comp=Z,2μm,21.0s | | | | | | | | |
| **ODNJ** | **Ogdensburg** | **28.12** | **305** | PFAKE | | | 07 35 00.0 | +14 |
| ODNJ | | | | LR | LR | | | |
| comp=Z,2μm,22.0s | | | | | | | | |
| **ACCN** | **Adirondack Com** | **28.24** | **310** | PFAKE | | | 07 35 00.0 | +13 |
| ACCN | | | | LR | LR | | | |
| comp=Z,2μm,19.0s | | | | | | | | |
| **PSUB** | **Penn St. - Bra** | **28.43** | **302** | PFAKE | | | 07 35 00.0 | +11 |
| PSUB | | | | LR | LR | | | |
| comp=Z,2μm,21.0s | | | | | | | | |
| **LUPA** | **Lehigh Univers** | **28.54** | **304** | PFAKE | | | 07 35 00.0 | +10 |
| LUPA | | | | LR | LR | | | |
| comp=Z,200nm,20.0s | | | | | | | | |
| **FRNY** | **Flat Rock** | **28.77** | **313** | ep P | | **P** | **07 34 53.1** | **+0.9** |
| comp=Z,41nm,1.0s | | | | | | | | |
| FRNY | | | | LR | LR | | | |
| comp=Z,1μm,20.0s | | | | | | | | |
| **NCB** | **Newcomb** | **28.84** | **311** | PFAKE | | | 07 35 10.0 | +17 |
| NCB | | | | LR | LR | | | |
| comp=Z,2μm,21.0s | | | | | | | | |
| **N59A** | **State Game Lan** | **28.92** | **304** | P | | **P** | **07 34 53.5** | **-0.1** |
| baz=106 | | | | | | | | |
| **MVL** | **Millersville** | **29.12** | **302** | ep P | | **P** | **07 34 57.0** | **+1.7** |
| comp=Z,86nm,1.1s | | | | | | | | |
| MVL | | | | LR | LR | | | |
| comp=Z,2μm,21.0s | | | | | | | | |
| **LONY** | **Lake Ozonia** | **29.33** | **312** | PFAKE | | | 07 35 10.0 | +13 |
| LONY | | | | LR | LR | | | |
| comp=Z,1μm,20.0s | | | | | | | | |
| **SDMD** | **Soldier's Deli** | **29.36** | **301** | PFAKE | | | 07 35 10.0 | +13 |
| SDMD | | | | LR | LR | | | |
| comp=Z,1μm,21.0s | | | | | | | | |
| **BINY** | **Binghamton** | **29.44** | **307** | ep P | | **P** | **07 34 59.3** | **+1.2** |
| comp=Z,102nm,1.0s | | | | | | | | |
| BINY | | | | LR | LR | | | |
| comp=Z,2μm,20.0s | | | | | | | | |
| **CBN** | **Corbin Frederi** | **29.54** | **298** | PFAKE | | | 07 35 10.0 | +11 |
| CBN | | | | LR | LR | | | |
| comp=Z,2μm,22.0s | | | | | | | | |
| **CNNC** | **Cliffs of the** | **29.61** | **292** | PFAKE | | | 07 35 10.0 | +10 |
| CNNC | | | | LR | LR | | | |
| comp=Z,2μm,21.0s | | | | | | | | |
| **SPFD** | **Spotsylvania F** | **29.64** | **298** | PFAKE | | | 07 35 10.0 | +10 |
| SPFD | | | | LR | LR | | | |
| comp=Z,2μm,18.0s | | | | | | | | |
| **PTRD** | **Partlow Road** | **29.72** | **298** | PFAKE | | | 07 35 10.0 | +9.3 |
| PTRD | | | | LR | LR | | | |
| comp=Z,2μm,19.0s | | | | | | | | |
| **IP05** | **Hopewell Churc** | **29.78** | **297** | PFAKE | | | 07 35 10.0 | +8.8 |
| IP05 | | | | LR | LR | | | |
| comp=Z,3μm,18.0s | | | | | | | | |
| **CVRD** | **Centerville Ro** | **29.86** | **298** | PFAKE | | | 07 35 10.0 | +8.1 |
| CVRD | | | | LR | LR | | | |
| comp=Z,2μm,19.0s | | | | | | | | |
| **SPRD** | **Spring Road, M** | **29.91** | **298** | PFAKE | | | 07 35 20.0 | +18 |
| SPRD | | | | LR | LR | | | |
| comp=Z,3μm,18.0s | | | | | | | | |
| **IP01** | **Cuckoo** | **29.92** | **298** | PFAKE | | | 07 35 20.0 | +18 |
| IP01 | | | | LR | LR | | | |
| comp=Z,3μm,19.0s | | | | | | | | |
| **IP06** | **Yanceyville** | **29.97** | **297** | PFAKE | | | 07 35 20.0 | +17 |
| IP06 | | | | LR | LR | | | |
| comp=Z,2μm,19.0s | | | | | | | | |
| **IP07** | **Quail** | **30.01** | **297** | PFAKE | | | 07 35 20.0 | +17 |
| IP07 | | | | LR | LR | | | |
| comp=Z,2μm,20.0s | | | | | | | | |
| **IP03** | **Louisa** | **30.01** | **298** | PFAKE | | | 07 35 20.0 | +17 |
| IP03 | | | | LR | LR | | | |
| comp=Z,2μm,18.0s | | | | | | | | |
| **IP04** | **Greensprings** | **30.09** | **298** | PFAKE | | | 07 35 20.0 | +16 |
| IP04 | | | | LR | LR | | | |
| comp=Z,3μm,20.0s | | | | | | | | |
| **SSPA** | **Standing Stone** | **30.41** | **303** | PFAKE | | | 07 35 20.0 | +13 |
| SSPA | | | | LR | LR | | | |
| comp=Z,2μm,21.0s | | | | | | | | |
| **MMNY** | **Mt. Morris Dam** | **30.96** | **307** | PFAKE | | | 07 35 20.0 | +8.5 |
| MMNY | | | | LR | LR | | | |
| comp=Z,2μm,21.0s | | | | | | | | |
| **PLVO** | **Plevna** | **31.13** | **311** | ep P | | **P** | **07 35 13.2** | **+0.2** |
| comp=Z,74nm,1.0s | | | | | | | | |
| PLVO | | | | LR | LR | | | |
| comp=Z,2μm,20.0s | | | | | | | | |
| **SCHQ** | **Schefferville** | **31.27** | **334** | LR | LR | | 07 48 13.5 | |
| comp=Z,711nm,18.1s,baz=178,slow=37 | | | | | | | | |
| **MCWV** | **Mont Chateau** | **31.68** | **300** | PFAKE | | | 07 35 30.0 | +12 |
| MCWV | | | | LR | LR | | | |
| comp=Z,2μm,21.0s | | | | | | | | |
| **BLA** | **Blacksburg** | **31.81** | **296** | PFAKE | | | 07 35 30.0 | +11 |
| BLA | | | | LR | LR | | | |
| comp=Z,2μm,18.0s | | | | | | | | |
| **N54A** | **Moraine State** | **32.03** | **303** | P | | **P** | **07 35 21.6** | **+0.5** |
| baz=102 | | | | | | | | |
| **ERPA** | **Erie** | **32.29** | **305** | ep P | | **P** | **07 35 22.8** | **-0.4** |
| comp=Z,206nm,1.8s | | | | | | | | |
| **ERPA** | **Erie** | **32.29** | **305** | ep P | | **P** | **07 35 22.8** | **-0.4** |
| comp=Z,206nm,1.8s | | | | | | | | |
| ERPA | | | | LR | LR | | | |
| comp=Z,2μm,21.0s | | | | | | | | |
| **JSC** | **Jenkinsville** | **32.35** | **290** | PFAKE | | | 07 35 40.0 | +16 |
| JSC | | | | LR | LR | | | |
| comp=Z,2μm,19.0s | | | | | | | | |
| **SADO** | **Sadowa** | **32.42** | **310** | LR | LR | | 07 46 52.4 | |
| comp=Z,2μm,19.0s,baz=190,slow=33 | | | | | | | | |
| **KMSC** | **Kings Mountain** | **32.42** | **292** | P | | **P** | **07 35 24.8** | **+0.3** |
| baz=92 | | | | | | | | |
| **KMSC** | **Kings Mountain** | **32.42** | **292** | PFAKE | | | 07 35 40.0 | +15 |
| KMSC | | | | LR | LR | | | |
| comp=Z,3μm,19.0s | | | | | | | | |
| **HODGE** | **Hodges** | **33.18** | **290** | PFAKE | | | 07 35 40.0 | +8.9 |
| HODGE | | | | LR | LR | | | |
| comp=Z,2μm,21.0s | | | | | | | | |
| **BG3** | **Lake Jocassee** | **33.73** | **291** | PFAKE | | | 07 35 50.0 | +14 |
| BG3 | | | | LR | LR | | | |
| comp=Z,2μm,20.0s | | | | | | | | |
| **ACSO** | **Alum Creek Sta** | **34.16** | **301** | PFAKE | | | 07 35 50.0 | +10 |
| ACSO | | | | LR | LR | | | |
| comp=Z,2μm,21.0s | | | | | | | | |
| **GOGA** | **Godfrey** | **34.20** | **289** | PFAKE | | | 07 35 50.0 | +10 |
| GOGA | | | | LR | LR | | | |
| comp=Z,2μm,18.0s | | | | | | | | |
| **TKL** | **Tuckaleechee C** | **34.43** | **293** | P | | **P** | **07 35 43.6** | **+1.6** |
| comp=Z,35nm,1.1s,baz=95,slow=7.7,SNR=3.6 | | | | | | | | |
| **TKL** | **Tuckaleechee C** | **34.43** | **293** | P | | **P** | **07 35 43.6** | **+1.6** |
| TKL | | | | MLR | MLR | | | |
| comp=Z,3μm,22.0s | | | | | | | | |
| **TKL** | **Tuckaleechee C** | **34.43** | **293** | P | | **P** | **07 35 43.6** | **+1.6** |
| TKL | | | | LR | LR | | | |
| comp=Z,3μm,22.0s | | | | | | | | |
| **ESDC** | **Sonseca Array** | **34.71** | **60** | P | | **P** | **07 35 45.9** | **+1.3** |
| comp=Z,1.6nm,0.9s,baz=252,slow=8.9,SNR=5.6 | | | | | | | | |
| ESDC | | | | LR | LR | | 07 46 17.1 | |
| comp=Z,327nm,21.1s,baz=260,slow=30 | | | | | | | | |
| **ES19** | **SONSECA Array** | **34.77** | **60** | ep P | | **P** | **07 35 44.8** | **-0.1** |
| **RCBR** | **Riachuelo** | **34.83** | **166** | PFAKE | | | 07 36 00.0 | +14 |
| RCBR | | | | LR | LR | | | |
| comp=Z,500nm,21.0s | | | | | | | | |
| **AAM** | **Ann Arbor** | **34.99** | **304** | PFAKE | | | 07 36 00.0 | +13 |
| AAM | | | | LR | LR | | | |
| comp=Z,2μm,19.0s | | | | | | | | |
| **CPCT** | **Cooper Cave** | **35.04** | **292** | PFAKE | | | 07 36 00.0 | +13 |
| CPCT | | | | LR | LR | | | |
| comp=Z,3μm,18.0s | | | | | | | | |
| **GLMI** | **Grayling** | **36.19** | **308** | P | | **P** | **07 35 57.5** | **+0.4** |
| baz=103 | | | | | | | | |
| **GLMI** | **Grayling** | **36.19** | **308** | PFAKE | | | 07 36 10.0 | +13 |
| GLMI | | | | LR | LR | | | |
| comp=Z,2μm,20.0s | | | | | | | | |
| **SWET** | **Sewanee** | **36.19** | **292** | PFAKE | | | 07 36 10.0 | +13 |
| SWET | | | | LR | LR | | | |
| comp=Z,2μm,20.0s | | | | | | | | |
| **O47A** | **Sheridan** | **36.58** | **300** | P | | **P** | **07 36 00.4** | **-0.1** |
| baz=96 | | | | | | | | |
| **P47A** | **Martinsville** | **36.59** | **299** | P | | **P** | **07 36 00.4** | **-0.1** |
| baz=94 | | | | | | | | |
| **BLO** | **Bloomington** | **36.76** | **298** | PFAKE | | | 07 36 10.0 | +8.0 |
| BLO | | | | LR | LR | | | |
| comp=Z,2μm,19.0s | | | | | | | | |
| **E45A** | **Wooded Hills,** | **36.94** | **310** | P | | **P** | **07 36 03.9** | **+0.5** |
| baz=104 | | | | | | | | |
| **N46A** | **Monticello** | **37.07** | **301** | P | | **P** | **07 36 04.6** | **-0.1** |
| baz=96 | | | | | | | | |
| **T47A** | **Sharon Grove** | **37.13** | **295** | P | | **P** | **07 36 05.2** | **0.0** |
| baz=91 | | | | | | | | |
| **ROSC** | **El Rosal** | **37.16** | **237** | LR | LR | | 07 50 42.4 | |
| comp=Z,404nm,21.6s,baz=18,slow=35 | | | | | | | | |
| **HELC** | **Santa Helena** | **37.18** | **240** | ep P | | **P** | **07 36 06.7** | **+0.4** |
| comp=Z,60nm,1.0s | | | | | | | | |
| **SFIN** | **Lafayette** | **37.30** | **300** | P | | **P** | **07 36 06.6** | **+0.1** |

baz=95
**BRAL Brewton** 37.41 285 P P 07 36 07.7 +0.1
baz=83
**BRAL Brewton** 37.41 285 PFAKE 07 36 20.0 +12
BRAL LR LR
comp=Z,2µm,20.0s
**R46A Gibson Southern** 37.49 297 P P 07 36 08.3 +0.1
baz=92
**E44A Grand Marais A** 37.50 311 P P 07 36 08.5 +0.3
baz=104
**M45A Boilermakers S** 37.51 302 P P 07 36 09.0 +0.7
baz=96
**Z48A Northport** 37.62 289 P P 07 36 09.4 +0.1
baz=86
**S46A Don Dixon Farm** 37.63 296 P P 07 36 09.6 +0.2
baz=91
**N45A Kentland** 37.66 301 P P 07 36 09.8 +0.2
baz=95
**WVT Waverly** 37.72 293 P P 07 36 10.7 +0.5
baz=89
**WVT Waverly** 37.72 293 PFAKE 07 36 20.0 +10
WVT LR LR
comp=Z,2µm,20.0s
**O45A Potomac** 37.77 300 P P 07 36 11.0 +0.4
baz=94
**T46A Princeton** 37.77 295 P P 07 36 11.2 +0.7
baz=90
**Y47A UCPARC, Winfie** 37.83 290 P P 07 36 11.3 +0.1
baz=86
**248A Dixon Mills** 37.89 287 P P 07 36 12.3 +0.6
baz=84
**PLAL Pickwick Lake** 37.95 291 eP P 07 36 13.1 +0.9
comp=Z,42nm,1.1s
**OLIL Olney** 37.97 298 PFAKE 07 36 20.0 +7.8
OLIL LR LR
comp=Z,2µm,22.0s
**Q45A Warren Harvey,** 38.02 298 P P 07 36 12.9 +0.2
baz=92
**Z47A Carrollton** 38.06 289 P P 07 36 13.3 +0.1
baz=85
**R45A Skylar, Fairfi** 38.09 297 P P 07 36 13.6 +0.3
baz=92
**L44A Lake County Fo** 38.10 303 P P 07 36 13.6 +0.3
baz=97
**M44A Midewin, Midew** 38.11 302 P P 07 36 13.6 +0.2
baz=96
**N44A Piper City** 38.12 301 P P 07 36 13.5 0.0
baz=95
**147A Livingston** 38.28 288 P P 07 36 15.2 +0.3
baz=84
**S45A Carrier Mills** 38.32 296 P P 07 36 14.8 -0.4
baz=91
**T45A Paducah** 38.37 295 P P 07 36 16.8 +1.1
baz=90
**P44A Sand Creek, Wi** 38.40 299 P P 07 36 16.3 +0.4
baz=93
**K43A Burlington** 38.47 304 P P 07 36 15.3 -1.1
baz=97
**I43A Langenfeld Bro** 38.50 306 P P 07 36 15.8 -0.8
baz=99
**J43A Natural Harves** 38.62 305 P P 07 36 17.3 -0.4
baz=98
**V45A Humboldt** 38.65 293 P P 07 36 18.1 +0.1
baz=88
**347A Saraland** 38.65 286 P P 07 36 18.7 +0.7
baz=83
**Y46A Houston** 38.66 290 P P 07 36 18.5 +0.3
baz=86
**Q44A Meyer Farm, Va** 38.69 298 P P 07 36 18.8 +0.5
baz=92
**L43A Garden Prairie** 38.71 303 P P 07 36 17.7 -0.8
baz=96
**M43A Waltham Townsh** 38.80 302 P P 07 36 19.1 -0.1
baz=95
**S44A Carbondale** 38.85 296 P P 07 36 19.9 +0.2
baz=90
**W45A Hickory Valley** 38.86 292 P P 07 36 20.3 +0.5
baz=87
**GLAT Glass** 38.90 294 PFAKE 07 36 30.0 +10
GLAT LR LR
comp=Z,2µm,21.0s
**N43A Stutzman Famil** 38.92 301 P P 07 36 20.9 +0.7
baz=94
**146A Union** 38.94 288 P P 07 36 21.2 +0.7
baz=84
**U44B Burton Farm, H** 38.95 294 P P 07 36 20.2 -0.3
baz=88
**HALT Halls** 38.95 293 PFAKE 07 36 30.0 +9.5
HALT LR LR
comp=Z,2µm,20.0s
**O43A Sugar Creek Fa** 38.98 300 P P 07 36 20.5 -0.3
baz=93
**HDIL Hopedale** 38.98 300 P P 07 36 20.9 +0.1
baz=94
**I42A Draeger Farm,** 39.05 306 P P 07 36 21.2 0.0
baz=98
**X45A UM Field Stati** 39.07 291 P P 07 36 21.4 -0.2
baz=86
**246A Jackson Lee, B** 39.07 287 P P 07 36 21.2 -0.4
baz=83
**OXF Oxford** 39.08 291 P P 07 36 20.8 -0.8
baz=86
**OXF Oxford** 39.08 291 eP P 07 36 21.8 +0.2
OXF pmax pmax
comp=Z,44nm,1.1s
**OXF Oxford** 39.08 291 eP P 07 36 21.8 +0.2
comp=Z,44nm,1.1s
**P43A Skaggs, Pawnee** 39.11 299 P P 07 36 21.4 -0.5
baz=92
**J42A Columbus** 39.12 305 P P 07 36 21.3 -0.6
baz=97
**T44A Benton** 39.12 295 P P 07 36 21.8 -0.1
baz=89
**K42A Prairie Point,** 39.22 304 P P 07 36 22.2 -0.5
baz=96
**Q43A New Douglas** 39.22 298 P P 07 36 23.1 +0.3
baz=92
**Y45A Yeager Farm, C** 39.23 290 P P 07 36 23.0 0.0
baz=85
**D41A Chassel** 39.37 311 P P 07 36 23.9 +0.1
baz=102
**W44A Shelby Farms P** 39.37 292 P P 07 36 24.4 +0.3
baz=87
**L42A Oliver, Polo** 39.38 303 P P 07 36 24.1 0.0
baz=95
**R43A Red Bud** 39.39 297 P P 07 36 24.5 +0.3
baz=90
**KOWA Kowa** 39.40 102 eP P 07 36 24.4 -0.1
KOWA LR LR
comp=Z,48nm,1.8s
comp=Z,3µm,19.0s
**M42A Sheffield** 39.40 302 P P 07 36 24.3 +0.1
baz=94
**Z45A Winona** 39.40 289 P P 07 36 23.9 -0.5
baz=85
**V44A Blytheville** 39.40 293 P P 07 36 24.6 +0.2
baz=88
**446A Poplarville** 39.43 285 P P 07 36 25.2 +0.6
baz=82
**G41A Antigo** 39.44 308 P P 07 36 24.5 0.0
baz=100
**F41A Three Lakes** 39.48 309 P P 07 36 25.2 +0.4
baz=100
**GNAR Gosnell** 39.50 293 PFAKE 07 36 40.0 +15
GNAR LR LR
comp=Z,1µm,20.0s
**S43A Fulton Ridge,** 39.51 296 P P 07 36 25.4 +0.2
baz=90
**E41A Kenton** 39.51 310 P P 07 36 24.9 -0.3
baz=101
**N42A Yates City** 39.56 301 P P 07 36 25.9 +0.3
baz=94
**O42A Bath** 39.56 300 P P 07 36 25.5 -0.1
baz=93
**SLM Saint Louis** 39.63 297 PFAKE 07 36 40.0 +14
SLM LR LR
comp=Z,2µm,22.0s
**145A Houston Renfro** 39.68 288 P P 07 36 26.6 -0.1
baz=84
**H41A Junction City** 39.68 307 P P 07 36 26.9 +0.4
baz=98
**T43A Greenville** 39.68 295 P P 07 36 26.1 -0.5
baz=89
**245A Little AP, Sta** 39.72 287 P P 07 36 26.8 -0.2
baz=83
**P42A Winchester** 39.74 299 P P 07 36 26.5 -0.6
baz=92
**J41A Loganville** 39.77 305 P P 07 36 27.6 +0.2
baz=97
**Y44A Strider, Charl** 39.78 290 P P 07 36 27.5 0.0
baz=85
**U43A Rector** 39.80 294 P P 07 36 27.6 0.0
baz=88
**PBMO Poplar Bluff** 39.80 294 eP P 07 36 28.4 +0.8
comp=Z,65nm,1.4s
**546A Slidell** 39.82 284 P P 07 36 27.8 0.0
baz=81
**Q42A Golden Eagle** 39.87 298 P P 07 36 28.1 -0.1
baz=91
**JFWS Jewell Farm** 39.89 304 P P 07 36 28.5 +0.1
baz=96
**JFWS Jewell Farm** 39.89 304 eP P 07 36 28.4 +0.1
JFWS pmax pmax
comp=Z,84nm,1.6s
**JFWS Jewell Farm** 39.89 304 eP P 07 36 28.4 +0.1
comp=Z,84nm,1.6s
**K41A Shullsburg** 39.90 304 P P 07 36 28.6 +0.2
baz=96
**345A Thompson Farm,** 39.92 286 P P 07 36 29.1 +0.4
baz=82
**V43A Jonesboro** 39.93 293 P P 07 36 28.5 -0.2
baz=87
**M41A Milan** 39.98 302 P P 07 36 29.1 0.0
baz=94
**L41A Preston** 40.00 303 P P 07 36 29.0 -0.3
baz=95
**Z44A Pea Ridge, Bel** 40.03 289 P P 07 36 29.7 +0.1
baz=84
**HBAR Harrisburg** 40.04 293 PFAKE 07 36 40.0 +10
HBAR LR LR
comp=Z,2µm,20.0s
**R42A Luebbering** 40.07 297 P P 07 36 29.9 +0.1
baz=90
**S42A Caledonia** 40.07 296 P P 07 36 29.8 -0.1
baz=89
**144A Alexander Plac** 40.09 288 P P 07 36 29.8 -0.3
baz=84
**W43A Forest City** 40.10 292 P P 07 36 30.1 -0.1
baz=86
**E40A Wakefield** 40.15 309 P P 07 36 30.4 0.0
baz=100
**G40A Rib Lake** 40.16 308 P P 07 36 30.9 +0.3
baz=99
**O41A Passleys Farm,** 40.17 300 P P 07 36 30.6 -0.1
baz=92
**N41A Harden Midland** 40.18 301 P P 07 36 30.5 -0.2
baz=93
**F40A Park Falls** 40.21 309 P P 07 36 30.8 -0.1
baz=100
**VBMS Vicksburg** 40.22 287 PFAKE 07 36 40.0 +8.9
VBMS LR LR
comp=Z,2µm,21.0s
**I40A Norwalk** 40.27 305 P P 07 36 31.5 0.0
baz=97
**X43A Marvell** 40.29 291 P P 07 36 31.9 +0.2
baz=86
**J40A Soldiers Grove** 40.30 305 P P 07 36 31.8 0.0
baz=96
**T42A Van Buren** 40.33 295 P P 07 36 32.0 0.0
baz=88,SNR=8.4
**244A Avery, Jackson** 40.38 287 P P 07 36 32.5 0.0
baz=83
**Q41A Truxton** 40.42 298 P P 07 36 32.9 +0.2
baz=90
**CCM Cathedral Cave** 40.43 296 P P 07 36 33.0 +0.1
baz=89
**CCM Cathedral Cave** 40.43 296 eP P 07 36 34.1 +1.3
CCM pmax pmax
comp=Z,49nm,1.3s
**CCM Cathedral Cave** 40.43 296 eP P 07 36 34.1 +1.3
comp=Z,49nm,1.3s
**U42A Renden** 40.47 294 P P 07 36 33.2 0.0
baz=87
**344A Westbrook Farm** 40.50 286 P P 07 36 33.7 +0.3
baz=82
**K40A Colesburg** 40.52 304 P P 07 36 33.4 -0.2
baz=95
**R41A Rosebud** 40.53 297 P P 07 36 33.4 -0.2
baz=90
**L40A Anamosa** 40.54 303 P P 07 36 33.9 +0.2
baz=94
**E39A Mellen** 40.58 309 P P 07 36 34.0 0.0
baz=100
**444A Pine Grove** 40.62 285 P P 07 36 34.0 -0.5
baz=81
**V42A Cord** 40.62 293 P P 07 36 34.1 -0.4
baz=87
**645A Chauvin** 40.70 283 P P 07 36 35.4 +0.3
baz=80
**M40A Post Highland** 40.71 302 P P 07 36 35.4 +0.3
baz=93
**Z43A Armstrong Fami** 40.71 289 P P 07 36 35.1 -0.1
baz=84
**N40A Mertquake, Sal** 40.74 301 P P 07 36 35.0 -0.4
baz=92
**F39A Loretta** 40.76 309 P P 07 36 35.9 +0.4
baz=99
**W42A Bald Knob** 40.76 292 P P 07 36 35.2 -0.4
baz=86
**S41A Jillco Farms,** 40.83 296 P P 07 36 36.0 -0.2
baz=89
**G39A Holcombe** 40.84 308 P P 07 36 36.3 +0.2
baz=98
**H39A Augusta** 40.84 307 P P 07 36 36.5 +0.3
baz=97
**T41A Mountain View** 40.86 295 P P 07 36 36.3 -0.1
baz=88,SNR=8.8
**X42A Stuttgart** 40.90 291 P P 07 36 36.5 -0.3
baz=85
**143A Socs Landing,** 40.90 288 P P 07 36 36.0 -0.8
baz=83
**I39A Houston** 40.91 305 P P 07 36 36.8 0.0
baz=96
**O40A La Belle** 40.93 300 P P 07 36 36.1 -0.9
baz=91
**J39A Decorah** 41.00 304 P P 07 36 37.7 +0.2
baz=95
**U41A Viola** 41.02 294 P P 07 36 37.3 -0.4
baz=87
**P40A Paris** 41.06 299 P P 07 36 37.3 -0.7
baz=91
**243A Waterproof** 41.07 287 P P 07 36 38.0 -0.2
baz=82
**Q40A Laux Farm, Aux** 41.07 298 P P 07 36 38.2 0.0
baz=90
**K39A Oelwein** 41.08 304 P P 07 36 37.8 -0.3
baz=94
**CCAR Cane Creek** 41.08 290 eP P 07 36 39.0 +0.8
CCAR LR LR
comp=Z,59nm,1.1s
comp=Z,1µm,20.0s
**Y42A Garnett, Star** 41.10 290 P P 07 36 38.5 +0.1
baz=84
**L39A Vinton** 41.12 303 P P 07 36 38.1 -0.4
baz=94
**M39A Webster** 41.21 302 P P 07 36 39.0 -0.2
baz=93
**R40A Maddies Statio** 41.23 297 P P 07 36 39.2 -0.3
baz=89
**V41A Mountainview** 41.24 293 P P 07 36 39.5 0.0
baz=86
**Z42A Norrel Spur, H** 41.29 289 P P 07 36 39.8 -0.2
baz=84
**E38A The Farm, Brul** 41.30 309 P P 07 36 39.7 -0.2
baz=99
**C38A Sawbill Land.** 41.30 311 P P 07 36 39.4 -0.5
baz=101
**W41B Gary Mavity, V** 41.36 292 P P 07 36 40.0 -0.5
baz=86
**WHAR Wooly Hollow** 41.38 292 eP P 07 36 40.9 +0.2
comp=Z,39nm,1.1s
**F38A Pierce - Schro** 41.42 308 P P 07 36 40.9 0.0
baz=98
**S40A Lebanon** 41.43 296 P P 07 36 41.0 -0.1
baz=88
**N39A Derby Farms, D** 41.43 301 P P 07 36 40.7 -0.4
baz=92
**O39A Kirksville** 41.45 300 P P 07 36 41.0 -0.2
baz=91
**T40A Mansfield** 41.46 295 P P 07 36 41.4 0.0
baz=88
**UALR University of** 41.47 292 eP P 07 36 41.8 +0.4
comp=Z,91nm,1.3s
**X301 Greenbrier Sit** 41.48 292 eP P 07 36 41.6 +0.1
comp=Z,45nm,1.2s
X301 LR LR
comp=Z,1µm,20.0s
**EYMN Ely** 41.49 311 P P 07 36 41.2 -0.3
baz=101
**EYMN Ely** 41.49 311 PFAKE 07 36 50.0 +8.5
EYMN LR LR
comp=Z,2µm,22.0s
**I38A Scanlan Farm,** 41.51 305 P P 07 36 41.3 -0.4
baz=96
**H38A Maiden Rock** 41.55 306 P P 07 36 41.8 -0.2
baz=96
**J38A Wedel Dairy, R** 41.55 304 P P 07 36 42.0 0.0
baz=95
**P39B Salisbury** 41.60 299 P P 07 36 42.3 -0.2
baz=90
**242A Grayson** 41.61 287 P P 07 36 42.9 +0.2
baz=82
**X41A Kaden, Bauxite** 41.63 291 P P 07 36 42.0 -0.8
baz=85
**543A St. Martinvill** 41.67 284 P P 07 36 42.8 -0.3
baz=80
**K38A Parkersburg** 41.72 303 P P 07 36 43.1 -0.3
baz=94
**U40A Yellville** 41.77 294 P P 07 36 42.7 -1.2
baz=87
**Y41A Eaglette Beard** 41.77 290 P P 07 36 43.2 -0.8
baz=84
**Q39A Willow Grove F** 41.78 298 P P 07 36 43.4 -0.5
baz=90
**V40A Witts Springs** 41.78 293 P P 07 36 43.1 -0.9
baz=86
**L38A Oak Wood Farm,** 41.83 303 P P 07 36 44.2 -0.1
baz=93
**R39A Chumby, Stover** 41.84 297 P P 07 36 43.9 -0.5
baz=89
**342A Flagon Creek P** 41.86 286 P P 07 36 44.8 +0.1
baz=81
**HDC Heredia** 41.89 252 eP P 07 36 47.1 +1.8
comp=Z,40nm,0.7s
**X40A Basin Creek Fa** 41.90 291 P P 07 36 44.6 -0.3
baz=84
**F37A Hinrichs Farm,** 41.91 308 P P 07 36 45.1 +0.1
baz=97
**SPMN Marine on St.** 41.98 307 P P 07 36 45.6 +0.1
baz=96
**SPMN Marine on St.** 41.98 307 PFAKE 07 37 00.0 +15
SPMN LR LR
comp=Z,2µm,19.0s
**D37A Cotton** 41.98 310 P P 07 36 45.7 +0.2
baz=99
**M38A Pleasantville** 41.98 301 P P 07 36 45.4 -0.1
baz=92
**H37A Dierke Farm, C** 41.99 306 P P 07 36 45.8 +0.2
baz=96
**Z41A Richland Creek** 42.00 289 P P 07 36 45.7 -0.1
baz=83
**SCIA State Center** 42.01 302 P P 07 36 45.8 0.0
baz=92
**SCIA State Center** 42.01 302 eP P 07 36 47.3 +1.5
comp=Z,65nm,1.1s
SCIA LR LR
comp=Z,2µm,20.0s
**W40A Ferguson Farm,** 42.03 292 P P 07 36 46.5 +0.5
baz=85
**S39A Bolivar** 42.08 296 P P 07 36 46.2 -0.2
baz=88
**T39A Clever** 42.15 295 P P 07 36 47.4 +0.3
baz=87,SNR=6.6
**O38A Galt** 42.16 300 P P 07 36 46.9 -0.2
baz=90
**141A Papa Simpson,** 42.17 288 P P 07 36 47.0 -0.2
baz=82
**P38A Dawn** 42.20 299 P P 07 36 47.4 0.0
baz=90
**542A Morse** 42.25 285 P P 07 36 48.0 +0.1
baz=80
**241A Mo Tay, Goldon** 42.26 287 P P 07 36 47.9 0.0
baz=82
**U39A Green Forest** 42.27 294 P P 07 36 47.9 -0.2
baz=86,SNR=8.5
**Q38A Cooks Store, C** 42.28 298 P P 07 36 47.5 -0.5
baz=89
**I37A Lemond, Waseca** 42.28 305 P P 07 36 48.2 +0.3
baz=95
**Y40A Okolona** 42.31 290 P P 07 36 48.2 -0.1
baz=84
**J37A Redenius Farm,** 42.34 304 P P 07 36 48.4 0.0
baz=94
**C36A Pine Crest Far** 42.35 311 P P 07 36 48.2 -0.2
baz=99
**K37A Belmond** 42.37 303 P P 07 36 48.7 0.0
baz=93
**L37A Phoenix Point,** 42.42 303 P P 07 36 48.3 -0.8
baz=92
**V39A Pettigrew** 42.45 293 P P 07 36 48.7 -0.8
baz=86
**E36A McGregor** 42.45 309 P P 07 36 49.6 +0.3
baz=98
**Z40A Long Farm, Mag** 42.50 289 P P 07 36 49.2 -0.7
baz=83
**MIAR Mount Ida** 42.50 291 P P 07 36 49.8 -0.1
baz=84
**MIAR Mount Ida** 42.50 291 eP P 07 36 50.9 +1.0
MIAR pmax pmax
comp=Z,26nm,1.1s
**MIAR Mount Ida** 42.50 291 eP P 07 36 50.9 +1.0
comp=Z,26nm,1.1s
**R38A Fenwick Farm,** 42.52 297 P P 07 36 49.6 -0.4
baz=88,SNR=8.2
**S38A Stockton** 42.55 296 P P 07 36 50.0 -0.2
baz=87
**F36A Milaca** 42.55 308 P P 07 36 50.0 -0.2
baz=97
**341A Kurthwood** 42.58 287 P P 07 36 50.4 -0.2
baz=81
**TIC Toumodi** 42.60 113 eP P 07 36 48.5 -2.4
**W39A Magazine** 42.61 292 P P 07 36 50.7 0.0
baz=85
**M37A Trindle Farm,** 42.62 301 P P 07 36 50.8 0.0
baz=91
**G36A St. Michael** 42.64 307 P P 07 36 50.2 -0.7
baz=96
**O37A Wolven Farm, M** 42.68 300 P P 07 36 51.0 -0.3
baz=90
**441A DeRidder** 42.69 286 P P 07 36 51.2 -0.3
baz=80
**H36A Jessenland, He** 42.70 306 P P 07 36 50.9 -0.5
baz=95
**DBIC Dimbokro** 42.72 113 P P 07 36 50.1 -1.7
comp=Z,2.8nm,0.6s,baz=291,slow=7.9,SNR=7.3
DBIC PcP PcP 07 38 44.5 +1.0
comp=Z,5.2nm,1.1s,baz=290,slow=4.9,SNR=4.1
DBIC LR LR 07 52 34.3
comp=Z,2µm,18.0s,baz=262,slow=33
**DBIC Dimbokro** 42.72 113 eP P 07 36 50.8 -1.0
DBIC 07 38 44.6
DBIC pmax pmax
comp=Z,9.0nm,1.0s
**DBIC Dimbokro** 42.72 113 eP P 07 36 50.8 -1.0
comp=Z,9.0nm,1.0s
DBIC PcP PcP 07 38 44.5 +1.0
**I36A Fitzsimmons Fa** 42.72 305 P P 07 36 51.4 -0.2
baz=94
**N37A Lee Faris, Mou** 42.73 300 P P 07 36 51.6 -0.1
baz=91
**541A Lake Charles** 42.81 285 P P 07 36 52.1 -0.3
baz=80
**P37A Lathrop** 42.84 299 P P 07 36 52.2 -0.4
baz=89
**LIC Lamto** 42.84 113 eP P 07 36 50.6 -2.2
comp=Z,63nm,1.4s
**T38A Diamond** 42.88 295 P P 07 36 52.4 -0.6
baz=86
**J36A Seneca 1, Swea** 42.91 304 P P 07 36 52.8 -0.3
baz=93
**Q37A Longview Farm,** 42.93 298 P P 07 36 52.9 -0.4
baz=88
**X39A Fountain Ranch** 42.95 291 P P 07 36 53.5 0.0
baz=84,SNR=9.1
**K36A Gilmore City** 42.96 303 P P 07 36 53.4 -0.1
baz=92
**KIC Kosan Boka** 42.99 113 eP P 07 36 52.7 -1.4
comp=Z,42nm,1.4s
**Y39A Lockesburg** 42.99 290 P P 07 36 53.8 -0.1
baz=83
**U38A Gravette** 43.00 294 P P 07 36 53.8 -0.2
baz=86,SNR=11
**B35A Bob, Littlefor** 43.03 312 P P 07 36 53.8 -0.2
baz=99

V38A **Canehill** 43.06 293 P P 07 36 53.5 -0.9
baz=85
D35A **Remer** 43.06 310 P P 07 36 53.5 -0.8
baz=98
C35A **Jirik Farms, M** 43.10 311 P P 07 36 54.0 -0.5
baz=98
BNI **Bardonecchia** 43.12 53 *e*P P 07 36 54.3 -0.6
BNI pmax pmax
comp=Z,83nm,1.7s
BNI **Bardonecchia** 43.12 53 *e*P P 07 36 54.3 -0.6
comp=Z,83nm,1.7s
G35A **Watkins** 43.16 307 P P 07 36 54.8 -0.3
baz=95
M36A **Felix, Anita** 43.19 302 P P 07 36 54.5 -0.9
baz=91
W38A **Poteau** 43.22 292 P P 07 36 54.7 -1.0
baz=84
E35A **Pequot Lakes** 43.24 309 P P 07 36 54.7 -1.0
baz=97
S37A **Fort Scott** 43.27 296 P P 07 36 55.9 -0.1
baz=87,SNR=8.8
F35A **Swanville** 43.28 308 P P 07 36 55.7 -0.4
baz=96
OTAV **Otavalo** 43.30 236 *e*P P 07 36 57.8 +0.8
comp=Z,18nm,1.1s
N36A **Muff Farm, Cla** 43.30 301 P P 07 36 56.1 -0.2
baz=90
O36A **Bolckow** 43.30 300 P P 07 36 56.5 +0.2
baz=89
ISO **Isola** 43.31 55 P P 07 37 00.1 +3.7
H35A **Sunnyside Ranc** 43.36 306 P P 07 36 56.3 -0.4
baz=94
T37A **Cheneyville 18** 43.38 295 P P 07 36 56.4 -0.5
baz=86
139A **Bunkhouse Ranc** 43.40 289 P P 07 36 56.7 -0.5
baz=82
I35A **Creekview Farm** 43.41 305 P P 07 36 56.4 -0.7
baz=93
P36A **Good Intent, A** 43.50 299 P P 07 36 57.0 -0.9
baz=89
X38A **Whitesboro** 43.52 292 P P 07 36 57.9 -0.3
baz=84
Y38A **Idabel** 43.52 291 P P 07 36 57.9 -0.3
baz=83
K35A **Storm Lake** 43.54 303 P P 07 36 57.5 -0.7
baz=92
J35A **Milford** 43.55 304 P P 07 36 58.0 -0.3
baz=93
U37A **Salina** 43.59 294 P P 07 36 58.6 -0.1
baz=85,SNR=10
V37A **Hulbert** 43.65 293 P P 07 36 58.8 -0.3
baz=85,SNR=11
B34A **Aery, Baudette** 43.66 312 P P 07 36 59.1 0.0
baz=98
Q36A **Arnold C. Orve** 43.71 298 P P 07 36 59.0 -0.7
baz=88
C34A **RKJ Ranch, Bem** 43.72 310 P P 07 36 59.2 -0.4
baz=97
F34A **Alexandria** 43.75 308 P P 07 36 59.6 -0.2
baz=95
L35A **Bielow Farm, R** 43.75 302 P P 07 36 59.4 -0.6
baz=91
E34A **Wadena** 43.76 309 P P 07 36 59.7 -0.2
baz=96
NATX **Nacogdoches** 43.77 287 P P 07 37 00.2 0.0
baz=81
NATX **Nacogdoches** 43.77 287 *e*P P 07 37 01.2 +1.1
R36A **Gordon, Harris** 43.77 297 P P 07 36 59.3 -0.8
baz=87
N35A **Tabor** 43.81 301 P P 07 36 59.4 -1.1
baz=90
Z38A **Mt. Pleasant** 43.82 290 P P 07 37 00.1 -0.5
baz=82
D34A **Park Rapids** 43.84 310 P P 07 37 00.5 -0.1
baz=97
M35A **Neola** 43.85 302 P P 07 37 00.6 -0.2
baz=90
S36A **Lake Cedric, C** 43.88 296 P P 07 37 00.5 -0.4
baz=86
BDFB **Brasilia** 43.90 186 PFAKE 07 37 10.0 +8.6
BDFB LR LR
comp=Z,5µm,18.0s
W37B **Quinton** 43.96 292 P P 07 37 01.4 -0.3
baz=84
W37B **Quinton** 43.96 292 *e*P P 07 37 02.9 +1.2
comp=Z,36nm,1.4s
G34A **Benson** 43.97 307 P P 07 37 01.7 +0.1
baz=94
X37A **Clayton** 43.97 292 P P 07 37 01.6 -0.2
baz=83
X37A **Clayton** 43.97 292 *e*P P 07 37 02.9 +1.1
comp=Z,52nm,1.4s
SCO **Scoresbysund** 43.98 10 *i*P P 07 37 02.4 +1.1
SCO pmax pmax
comp=Z,84nm,1.4s
SCO **Scoresbysund** 43.98 10 *i*P P 07 37 02.4 +1.1
comp=Z,84nm,1.4s
138A **Matatall Enter** 43.99 289 P P 07 37 02.0 +0.1
baz=82
439A **Center Grove,** 44.02 286 P P 07 37 02.4 +0.2
baz=80
O35A **Humboldt** 44.02 300 P P 07 37 01.0 -1.2
baz=89
H34A **Spellman Lake,** 44.03 306 P P 07 37 01.9 -0.2
baz=94
I34A **Hadley** 44.05 305 P P 07 37 02.1 -0.3
baz=93
U36A **Oologah** 44.09 294 P P 07 37 02.0 -0.6
baz=85
J34A **George** 44.09 304 P P 07 37 01.9 -0.8
baz=92
P35A **Duane Minner,** 44.13 299 P P 07 37 02.5 -0.4
baz=88
T36A **Boggs Farm, Ca** 44.15 295 P P 07 37 02.7 -0.4
baz=86
Q35A **Mercer Eighty,** 44.17 298 P P 07 37 02.3 -1.0
baz=88
K34A **Le Mars** 44.17 303 P P 07 37 02.5 -0.8
baz=91
TUL1 **Leonard** 44.18 294 P P 07 37 02.8 -0.6
baz=84
TUL1 **Leonard** 44.18 294 *e*P P 07 37 04.3 +0.9
comp=Z,82nm,1.1s
A33A **Warroad** 44.21 312 P P 07 37 03.2 -0.2
baz=98
B33A **Robert and Kas** 44.25 311 P P 07 37 03.8 0.0
baz=98
Y37A **Hugo** 44.25 291 P P 07 37 03.0 -1.0
baz=83
D33A **AnnSam, Waubun** 44.29 310 P P 07 37 04.2 +0.1
baz=96
C33A **Trail** 44.31 311 P P 07 37 03.9 -0.4
baz=97
V36A **Jenks** 44.31 293 P P 07 37 03.7 -0.7
baz=84
V36A **Jenks** 44.31 293 *e*P P 07 37 05.3 +0.8
comp=Z,73nm,1.3s
R35A **Emporia Munici** 44.32 297 P P 07 37 03.8 -0.7
baz=87
E33A **Westby DABS, E** 44.33 309 P P 07 37 04.3 -0.2
baz=95
Z37A **Pogue Cattle C** 44.35 290 P P 07 37 04.1 -0.8
baz=82
L34A **Svendsen Farm,** 44.37 302 P P 07 37 04.0 -0.9
baz=90
SUMG **Summit** 44.39 2 *i*P P 07 37 05.3 +0.3
SUMG pmax pmax
comp=Z,25nm,1.1s
SUMG **Summit** 44.39 2 *i*P P 07 37 05.3 +0.3
comp=Z,25nm,1.1s
SUMG **Summit** 44.39 2 *e*P P 07 37 05.2 +0.1
comp=Z,21nm,1.0s
AGMN **Agassiz Nation** 44.43 311 P P 07 37 05.3 0.0
baz=97
S35A **Otter Creek Ra** 44.45 296 P P 07 37 04.8 -0.8
baz=86
N34A **Lincoln** 44.47 301 P P 07 37 05.2 -0.5
baz=89
F33A **5 Mile Ranch,** 44.48 308 P P 07 37 05.5 -0.1
baz=94
M34A **Aspy Farms, Fr** 44.52 302 P P 07 37 05.5 -0.6
baz=90
G33A **Ortonville** 44.53 307 P P 07 37 06.0 -0.1
baz=94
137A **Heron Place, G** 44.55 289 P P 07 37 06.3 -0.2
baz=81
ECSD **EROS Data Cent** 44.58 305 P P 07 37 06.3 -0.3
baz=92
BFO **Black Forest** 44.59 49 *i*P P 07 37 07.4 +0.8
BFO **Black Forest** 44.59 49 *e*P P 07 37 06.0 -0.7
comp=Z,41nm,1.3s
KSU1 **Kansas State U** 44.60 298 P P 07 37 05.7 -1.1
baz=87
W36A **Wetumka** 44.61 292 P P 07 37 06.3 -0.6
baz=84
438A **Sam Houston St** 44.62 286 P P 07 37 07.1 +0.1
baz=80
O34A **Beatrice** 44.63 300 P P 07 37 06.4 -0.5
baz=88
T35A **Sooner Cattle** 44.66 295 P P 07 37 06.5 -0.9
baz=85
TAM **Tamanrasset** 44.67 85 *e*P P 07 37 09.3 +1.6
TAM pmax pmax
comp=Z,20nm,1.3s
TAM **Tamanrasset** 44.67 85 *e*P P 07 37 09.3 +1.6
comp=Z,20nm,1.3s
237A **Washetta, Mont** 44.69 288 P P 07 37 06.7 -0.9
baz=81
H33A **Prehn Over Nor** 44.72 306 P P 07 37 07.4 -0.3
baz=93
ULM **Lac du Bonnet** 44.72 314 LR LR 07 53 18.7
comp=Z,298nm,21.1s,baz=152,slow=33
I33A **Coleman** 44.73 305 P P 07 37 06.8 -1.0
baz=92
P34A **Walnut Farm, R** 44.75 299 P P 07 37 07.0 -1.0
baz=88
X36A **Centrahoma** 44.78 292 P P 07 37 07.6 -0.7
baz=83
Y36A **Durant** 44.81 291 P P 07 37 07.2 -1.2
baz=82
C32A **Crookston** 44.82 311 P P 07 37 08.2 -0.2
baz=96
J33A **Davis** 44.83 304 P P 07 37 07.9 -0.7
baz=91
K33A **Hardington** 44.84 303 P P 07 37 08.5 -0.2
baz=91
Q34A **Chapman** 44.87 298 P P 07 37 08.0 -0.9
baz=87
U35A **Pawnee** 44.89 294 P P 07 37 07.9 -1.2
baz=84
B32A **Ashes, Strandq** 44.89 311 P P 07 37 09.0 +0.1
baz=97
TOC6 **Torodi Ar. Sit** 44.92 100 PFAKE 07 37 20.0 +10
TOC6 LR LR
comp=Z,2µm,20.0s
TOC7 **Torodi Ar. Sit** 44.93 100 PFAKE 07 37 20.0 +10
TOC7 LR LR
comp=Z,2µm,21.0s
A32A **Rocking H Ranc** 44.93 312 P P 07 37 09.2 -0.1
baz=97
TOB5 **Torodi Ar. Sit** 44.93 100 PFAKE 07 37 20.0 +10
TOB5 LR LR
comp=Z,2µm,20.0s
TOC5 **Torodi Ar. Sit** 44.94 100 PFAKE 07 37 20.0 +10
TOC5 LR LR
comp=Z,2µm,19.0s
TOA1 **Torodi Ar. Sit** 44.94 100 PFAKE 07 37 20.0 +10
TOA1 LR LR
comp=Z,2µm,20.0s
TOB4 **Torodi Ar. Sit** 44.94 100 PFAKE 07 37 20.0 +10
TOB4 LR LR
comp=Z,2µm,20.0s
TOC1 **Torodi Ar. Sit** 44.94 100 PFAKE 07 37 20.0 +10
TOC1 LR LR
comp=Z,2µm,20.0s
TOA0 **Torodi Ar. Sit** 44.95 100 *e*P P 07 37 08.6 -1.2
comp=Z,13nm,1.1s
TOA0 LR LR
comp=Z,2µm,20.0s
TORD **Torodi Ar. Bea** 44.95 100 P P 07 37 08.3 -1.5
comp=Z,4.6nm,0.8s,baz=299,slow=8.1,SNR=22
TORD LR LR 07 54 13.4
comp=Z,1µm,20.3s,baz=285,slow=34
TOB2 **Torodi Ar. Sit** 44.96 100 PFAKE 07 37 20.0 +10
TOB2 LR LR
comp=Z,2µm,20.0s
TOB3 **Torodi Ar. Sit** 44.96 100 PFAKE 07 37 20.0 +10
TOB3 LR LR
comp=Z,2µm,20.0s
TOC4 **Torodi Ar. Sit** 44.97 100 PFAKE 07 37 20.0 +10
TOC4 LR LR
comp=Z,2µm,20.0s
TOC2 **Torodi Ar. Sit** 44.97 100 PFAKE 07 37 20.0 +10
TOC2 LR LR
comp=Z,2µm,20.0s
TOC3 **Torodi Ar. Sit** 44.98 100 PFAKE 07 37 20.0 +10
TOC3 LR LR
comp=Z,2µm,20.0s
M33A **Taylor Creek F** 44.98 302 P P 07 37 09.1 -0.7
baz=90
Z36A **Blue Ridge** 45.02 290 P P 07 37 09.3 -0.9
baz=82
V35A **Meyer Ranch, C** 45.04 293 P P 07 37 09.2 -1.1
baz=84
L33A **Hoskins** 45.04 303 P P 07 37 09.4 -0.8
baz=90
F32A **Veblen** 45.06 308 P P 07 37 09.6 -0.7
baz=94
E32A **Braaten, Kindr** 45.07 309 P P 07 37 10.3 -0.1
baz=95
D32A **Dogwood Acres,** 45.08 310 P P 07 37 10.3 -0.2
baz=95
TUE **Stuetta** 45.09 51 *e*P P 07 37 11.5 +0.7
comp=Z,80nm,1.7s
W35A **Tecumseh** 45.13 293 P P 07 37 10.3 -0.8
baz=83
W35A **Tecumseh** 45.13 293 *e*P P 07 37 11.6 +0.5
comp=Z,117nm,1.6s
R34A **Isabella, Hill** 45.14 297 P P 07 37 10.0 -1.1
baz=86
N33A **J Bar K, Exete** 45.19 300 P P 07 37 10.7 -0.7
baz=88
T34A **McClaskey Farm** 45.20 295 P P 07 37 11.3 -0.2
baz=85,SNR=8.1
H32A **Carlson Farm,** 45.20 306 P P 07 37 10.4 -1.2
baz=92
136A **Ennis** 45.22 289 P P 07 37 10.3 -1.4
baz=81
KEST **Kesra** 45.26 67 P P 07 37 12.3 +0.1
comp=Z,13nm,1.0s,baz=249,slow=7.6,SNR=5.1
KEST **Kesra** 45.26 67 *e*P P 07 37 12.3 +0.1
comp=Z,40nm,1.4s
G32A **Webster** 45.28 307 P P 07 37 10.9 -1.2
baz=93
236A **Katherine and** 45.30 288 P P 07 37 11.9 -0.5
baz=80
X35A **Drake** 45.31 292 P P 07 37 12.2 -0.2
baz=82,SNR=6.6
X35A **Drake** 45.31 292 *e*P P 07 37 13.1 +0.6
comp=Z,35nm,1.0s
O33A **Hebron** 45.31 300 P P 07 37 11.3 -1.1
baz=88
A31A **Linda, St. Vin** 45.39 312 P P 07 37 12.8 -0.1
baz=97
Y35A **Marietta** 45.43 291 P P 07 37 13.1 -0.3
baz=82
J32A **Parkston** 45.47 304 P P 07 37 12.6 -1.1
baz=91
DAVOX **Davos/Dischmat** 45.48 51 P P 07 37 14.9 +1.0
comp=Z,5.1nm,0.8s,baz=291,slow=10,SNR=4.7
DAVOX LR LR 07 52 35.4
comp=Z,455nm,21.6s,baz=257,slow=31
DAVA **Damuels** 45.53 50 *i*pP P 07 37 15.1 +0.9
comp=Z,48nm,1.3s
D31A **Mcclaflin, Tow** 45.56 309 P P 07 37 13.9 -0.3
baz=94
K32A **Verdigre** 45.56 303 P P 07 37 13.8 -0.5
baz=90
L32A **Elgin** 45.59 302 P P 07 37 13.9 -0.7
baz=89
C31A **Landman Farms,** 45.63 310 P P 07 37 14.6 -0.2
baz=95
B31A **Greenbush Farm** 45.63 311 P P 07 37 14.1 -0.8
baz=96
E31A **Nome** 45.63 309 P P 07 37 14.4 -0.4
baz=94
336A **Riesel** 45.67 287 P P 07 37 15.0 -0.3
baz=80
BGNE **Belgrade** 45.70 301 P P 07 37 14.1 -1.4
baz=89
G31A **Conde** 45.78 307 P P 07 37 15.0 -1.0
baz=92
H10N2 **ASCENSION HYDR** 45.81 137 T T 08 26 10.5
baz=323,slow=76,SNR=121
H10N3 **ASCENSION HYDR** 45.81 137 T T 08 26 10.7
baz=323,slow=76,SNR=138
H10N1 **ASCENSION HYDR** 45.83 137 T T 08 26 12.0
baz=323,slow=76,SNR=151
F31A **Hecla** 45.84 308 P P 07 37 15.7 -0.8
baz=93
H31A **Wolsey** 45.95 306 P P 07 37 16.5 -0.9
baz=92
I31A **Royce, Wessing** 45.98 305 P P 07 37 16.8 -0.9
baz=91
WHTX **Lake Whitney,** 46.07 288 P P 07 37 18.2 -0.3
baz=80
FETA **Feichten** 46.08 51 *e*P P 07 37 18.5 -0.2
comp=Z,29nm,1.5s
K31A **O'Neill** 46.13 303 P P 07 37 18.6 -0.4
baz=90
RETA **Reutte** 46.14 50 *i*pP P 07 37 19.7 +0.7
comp=Z,33nm,1.4s
SUSD **Miller** 46.29 306 P P 07 37 19.5 -0.6
baz=91
MOTA **Moosalm** 46.36 50 *i*P P 07 37 21.1 +0.3
comp=Z,31nm,1.4s
435B **Jarrell** 46.40 287 P P 07 37 20.7 -0.4
baz=79
H10S1 **ASCENSION HYDR** 46.60 138 T T 08 27 00.1
baz=324,slow=75,SNR=483
H10S3 **ASCENSION HYDR** 46.60 138 T T 08 27 00.1
baz=324,slow=75,SNR=529
H10S2 **ASCENSION HYDR** 46.62 138 T T 08 27 01.3
baz=324,slow=75,SNR=583
WATA **Walderalm** 46.68 50 *i*pP P 07 37 24.6 +1.3
comp=Z,8.1nm,0.7s
U32A **Winter Ranch,** 46.71 295 P P 07 37 22.5 -1.0
baz=83
BSEG **Bad Segeberg** 46.71 41 P P 07 37 25.3 +2.1
BSEG pmax pmax
comp=Z,62nm,1.6s
WMOK **Wichita Mounta** 46.74 292 P P 07 37 22.8 -1.0
baz=82
WMOK **Wichita Mounta** 46.74 292 *e*P P 07 37 24.1 +0.3
WMOK pmax pmax
comp=Z,48nm,1.3s
WMOK **Wichita Mounta** 46.74 292 *e*P P 07 37 24.1 +0.3
comp=Z,48nm,1.3s
MDND **Maddock** 46.89 310 P P 07 37 24.4 -0.4
baz=94
MDND **Maddock** 46.89 310 PFAKE 07 37 40.0 +15
MDND LR LR
comp=Z,2µm,19.0s
CBKS **Cedar Bluff** 47.05 298 P P 07 37 25.2 -1.0
baz=85
CBKS **Cedar Bluff** 47.05 298 *e*P P 07 37 26.2 0.0
CBKS pmax pmax
comp=Z,28nm,1.2s
CBKS **Cedar Bluff** 47.05 298 *e*P P 07 37 26.2 0.0
comp=Z,28nm,1.2s
ABTA **Abfaltersbach** 47.29 51 *i*P P 07 37 28.2 +0.2
comp=Z,22nm,0.9s
NKC **Novy Kostel** 47.49 46 *e*P P 07 37 30.0 +0.6
NKC *e*pP sP 07 37 35.9 +0.4
NKC **Novy Kostel** 47.49 46 *e*P P 07 37 30.0 +0.6
NKC *e* 07 37 35.9
WET **Wettzell** 47.67 48 P P 07 37 32.3 +1.5
WET pmax pmax
comp=Z,17nm,2.0s
ABTX **Abilene, Hawle** 47.78 290 P P 07 37 30.8 -1.2
baz=80
ABTX **Abilene, Hawle** 47.78 290 *e*P P 07 37 33.0 +1.0
comp=Z,41nm,1.3s
KBA **Koelnbreinsper** 47.87 51 P P 07 37 34.4 +1.8
KBA pmax pmax
comp=Z,51nm,1.8s
KBA **Koelnbreinsper** 47.87 51 *e*P P 07 37 32.4 -0.2
comp=Z,12nm,1.2s
CLL **Collm** 47.95 45 *e*P P 07 37 33.0 +0.1
CLL pmax pmax
comp=Z,57nm,1.8s
CLL MLR MLR
comp=Z,600nm,19.6s
CLL **Collm** 47.95 45 *e*P P 07 37 33.0 +0.1
comp=Z,57nm,1.8s
CLL Lm MLR 07 54 00.0
comp=Z,600nm,19.6s
KHC **Kasperske Hory** 48.13 48 *e*P P 07 37 34.2 -0.1
KHC *e*pP sP 07 37 40.5 0.0
KHC **Kasperske Hory** 48.13 48 *e*P P 07 37 34.3 -0.1
KHC pmax pmax
comp=Z,25nm,1.7s
KHC **Kasperske Hory** 48.13 48 *e*P P 07 37 34.2 -0.1
comp=Z,25nm,1.7s
GEA0 **GERESS Array S** 48.19 48 *e*P P 07 37 34.3 -0.6
GEC2 **GERESS Array S** 48.19 48 *e*P P 07 37 35.0 0.0
GEC2 pmax pmax
comp=Z,24nm,1.3s
GEC2 **GERESS Array S** 48.19 48 *e*P P 07 37 35.0 0.0
comp=Z,24nm,1.3s
GERES **GERESS Array B** 48.19 48 P P 07 37 34.7 -0.2
comp=Z,4.6nm,0.9s,baz=269,slow=6.7,SNR=16
JCT **Junction City** 48.34 287 P P 07 37 34.8 -1.5
baz=78
833A **Chaparral WMA,** 48.48 284 P P 07 37 36.1 -1.2
baz=76
BRG **Berggiesshubel** 48.49 46 *e*P P 07 37 37.2 +0.1
BRG *e* 07 44 55.5
BRG pmax pmax
comp=Z,15nm,1.3s
BRG pmax pmax
comp=Z,8.0nm,1.0s
MOA **Molln** 48.52 50 *e*P P 07 37 37.1 -0.3
comp=Z,18nm,1.5s
RGN **Rugen** 48.55 41 PFAKE 07 37 50.0 +13
RGN LR LR
comp=Z,1µm,20.0s
OGNE **Ogallala** 48.65 301 P P 07 37 37.8 -0.8
baz=86
OGNE **Ogallala** 48.65 301 *e*P P 07 37 39.7 +1.1
comp=Z,77nm,1.3s
OBKA **Obir** 48.69 52 *e*P P 07 37 38.7 -0.1
comp=Z,30nm,1.0s
PRU **Pruhonice** 48.81 47 *e*P P 07 37 40.3 +0.7
PRU *e*pP sP 07 37 45.9 +0.2
PRU **Pruhonice** 48.81 47 *e*P P 07 37 40.3 +0.7
PRU *e* 07 37 45.9
NOA **NORSAR Array B** 48.86 32 P P 07 37 40.3 +0.5
comp=Z,4.4nm,1.1s,baz=252,slow=7.2,SNR=2.5
PVCC **Panska Ves** 48.86 46 P P 07 37 42.8 +2.8
PVCC pmax pmax
comp=Z,19nm,1.3s
GOPC **GO Pecny, Ondr** 48.96 47 *e*P P 07 37 41.5 +0.7
GOPC *e*pP sP 07 37 47.3 +0.4
GOPC **GO Pecny, Ondr** 48.96 47 *e*P P 07 37 41.5 +0.7
GOPC *e* 07 37 47.3
SOKA **Soboth** 49.02 51 *e*P P 07 37 40.8 -0.6
comp=Z,22nm,1.4s
AMTX **Amarillo** 49.08 293 P P 07 37 41.6 -0.4
baz=81
AMTX **Amarillo** 49.08 293 *e*P P 07 37 42.9 +0.9
comp=Z,102nm,1.4s
KSCO **Kaye Shedlock'** 49.28 299 P P 07 37 42.9 -0.6
baz=84
ARSA **Arzberg** 49.36 51 *e*P P 07 37 43.4 -0.4
comp=Z,37nm,1.3s
LNIG **Linares** 49.45 280 *e*P P 07 37 44.9 +0.1
comp=Z,38nm,1.4s
CONA **Conrad Observa** 49.60 50 *e*P P 07 37 45.6 -0.1
comp=Z,8.7nm,1.4s
UPC **Upice** 49.78 46 *e*P P 07 37 46.9 -0.1
UPC **Upice** 49.78 46 *e*P P 07 37 46.9 -0.1
RSSD **Black Hills** 49.94 305 PFAKE 07 38 00.0 +11
RSSD LR LR
comp=Z,1µm,20.0s
DPC **Dobruska-Polom** 49.97 47 *e*P P 07 37 48.8 +0.3
DPC *e*pP sP 07 37 54.2 -0.5
DPC AMS AMS 07 56 00.0
comp=Z,800nm,20.5s
DAG **Danmarks Havn** 49.98 7 *i*P P 07 37 47.8 -0.3
DAG pmax pmax
comp=Z,26nm,1.1s
DAG **Danmarks Havn** 49.98 7 *i*P P 07 37 47.8 -0.3
comp=Z,26nm,1.1s
KSP **Ksiaz** 49.98 46 *e*P P 07 37 48.9 +0.4
KSP **Ksiaz** 49.98 46 *e*P P 07 37 48.9 +0.4
DGMT **Dagmar** 49.98 311 P P 07 37 48.0 -0.6
baz=91
DGMT **Dagmar** 49.98 311 PFAKE 07 38 00.0 +11
DGMT LR LR
comp=Z,2µm,18.0s
VRAC **Vranov** 50.11 48 P P 07 37 49.5 -0.1

comp=Z,1.6nm,0.3s,baz=281,slow=10,SNR=4.3
**MSTX Muleshoe** 50.12 292 P P 07 37 48.9 -1.1
baz=80
**MSTX Muleshoe** 50.12 292 eP P 07 37 49.7 -0.3
comp=Z,32nm,1.1s
**LPAZ La Paz** 50.19 211 P P 07 37 50.8 -0.3
comp=Z,6.1nm,0.8s,baz=11,slow=6.9,SNR=4.5
**LPAZ La Paz** 50.19 211 eP P 07 37 51.2 +0.1
LPAZ pmax pmax
comp=Z,16nm,1.1s
**LPAZ La Paz** 50.19 211 eP P 07 37 51.2 +0.1
comp=Z,16nm,1.1s
**MODS Modra-Piesok** 50.55 49 eP P 07 37 52.9 0.0
**MODS Modra-Piesok** 50.55 49 eP P 07 37 52.9 0.0
**MORC Moravsky Berou** 50.74 47⇑iP P 07 37 54.7 +0.4
**MORC Moravsky Berou** 50.74 47 eP P 07 37 54.4 +0.1
MORC pmax pmax
comp=Z,75nm,1.3s
**MORC Moravsky Berou** 50.74 47 eP P 07 37 54.4 +0.1
comp=Z,75nm,1.3s
**T25A Trinidad** 50.92 296 P P 07 37 55.8 -0.3
baz=81
**T25A Trinidad** 50.92 296 PFAKE 07 38 10.0 +14
T25A LR LR
comp=Z,2µm,20.0s
**HGTCO Madrid Canyon** 51.13 296 PFAKE 07 38 10.0 +12
HGTCO LR LR
comp=Z,2µm,22.0s
**OKC Ostrava-Krasne** 51.13 47 eP P 07 37 57.6 +0.4
OKC epP sP 07 38 03.4 0.0
**OKC Ostrava-Krasne** 51.13 47 eP P 07 37 57.6 +0.4
OKC e 07 38 03.4
**Q24A Divide** 51.24 299 P P 07 37 58.5 -0.1
baz=82
**Q24A Divide** 51.24 299 eP P 07 37 59.5 +1.0
comp=Z,44nm,1.1s
**ISCO Idaho Springs** 51.49 300 P P 07 37 59.9 -0.6
baz=83
**ISCO Idaho Springs** 51.49 300 eP P 07 37 59.0 -1.4
ISCO pmax pmax
comp=Z,47nm,1.8s
ISCO MLR MLR
comp=Z,2µm,20.0s
**ISCO Idaho Springs** 51.49 300 eP P 07 37 59.0 -1.4
comp=Z,47nm,1.8s
ISCO LR LR
comp=Z,2µm,20.0s
**VYHS Vyhne** 51.59 49 eP P 07 38 00.4 -0.3
**VYHS Vyhne** 51.59 49 eP P 07 38 00.4 -0.3
**TXAR Lajitas Array** 51.86 286 P P 07 38 03.0 -0.1
comp=Z,2.2nm,0.9s,baz=64,slow=6.1,SNR=3.1
**TXAR Lajitas Array** 51.86 286 P P 07 38 03.0 -0.1
**OJC Ojcow** 52.20 47 eP P 07 38 06.0 +0.8
**OJC Ojcow** 52.20 47 eP P 07 38 06.0 +0.8
**NIE Niedzica** 52.53 48 eP P 07 38 09.1 +1.3
**NIE Niedzica** 52.53 48 eP P 07 38 09.1 +1.3
**ANMO Albuquerque** 52.93 294 P P 07 38 12.3 +1.2
comp=Z,5.9nm,1.1s,baz=272,slow=10,SNR=3.6
**ANMO Albuquerque** 52.93 294 P P 07 38 09.6 -1.5
baz=79
**ANMO Albuquerque** 52.93 294 iP P 07 38 09.9 -1.2
ANMO pmax pmax
comp=Z,36nm,2.5s
**RES Resolute Bay** 52.95 345 P P 07 38 10.7 +0.4
comp=Z,12nm,1.0s,baz=127,slow=6.8,SNR=13
**LPM Los Pinos Moun** 53.20 293 eP P 07 38 13.8 +0.7
**BNM Barren Site** 53.23 293 eP P 07 38 14.4 +1.0
**CRVS Cervenica-Dubn** 53.31 48 eP P 07 38 14.6 +1.1
**CRVS Cervenica-Dubn** 53.31 48 eP P 07 38 14.6 +1.1
CRVS e 08 08 35.8
**LAZ Ladron** 53.59 293 eP P 07 38 17.7 +1.7
**RLMT Red Lodge** 53.60 307 P P 07 38 15.8 -0.1
baz=85
**SIRR Siria** 53.61 52⇑iP P 07 38 16.5 +0.8
**BZS Buzias** 53.64 52⇑iP P 07 38 14.8 -1.1
**BZS Buzias** 53.64 52⇑P P 07 38 14.8 -1.1
**EGMT Eagleton** 53.71 311 P P 07 38 16.3 -0.2
baz=86
**EGMT Eagleton** 53.71 311 PFAKE 07 38 30.0 +14
EGMT LR LR
comp=Z,2µm,22.0s
**MDVR Moldovita** 53.78 53⇑iP P 07 38 17.4 +0.4
**UZH Uzhgorod** 53.88 49 eP P 07 38 16.8 -0.8
UZH e 07 38 21.5
**PB11 IPOC Station P** 53.92 210 eP P 07 38 14.8 -3.5
comp=Z,71nm,1.3s
**PD31 Pinedale Array** 54.06 304 eP P 07 38 19.1 -0.3
**PDAR Pinedale Array** 54.06 304 P P 07 38 19.6 +0.2
comp=Z,11nm,0.8s,baz=76,slow=7.4,SNR=12
PDAR LR LR 07 59 38.3
comp=Z,1µm,20.4s,baz=121,slow=34
**PDAR Pinedale Array** 54.06 304 eP P 07 38 19.0 -0.3
**BW06 Boulder Array** 54.07 304 P P 07 38 18.4 -0.9
baz=83
**BW06 Boulder Array** 54.07 304 eP P 07 38 18.9 -0.4
comp=Z,50nm,1.1s
**MVCO Mesa Verde** 54.12 297 P P 07 38 20.0 +0.1
baz=79
**DRGR** 54.29 51⇑iP P 07 38 20.5 -0.2
**DRGR** 54.29 51⇑P P 07 38 20.5 -0.2
**LKWY Lake** 54.46 306 eP P 07 38 23.6 +1.4
LKWY MLR MLR
comp=Z,3µm,19.0s
**LKWY Lake** 54.46 306 eP P 07 38 23.6 +1.4
LKWY LR LR
comp=Z,3µm,19.0s
**121A Cookes Peak, D** 54.53 291 P P 07 38 22.2 -0.7
baz=76
**H17A Grant Village** 54.60 306 P P 07 38 23.2 -0.1
baz=83
**GRG Griva** 54.77 58 P P 07 38 25.7 +1.4
GRG pmax pmax
comp=Z,29nm,2.0s
**YFT Old Faithful** 54.78 306 PFAKE 07 38 40.0 +15
YFT LR LR
comp=Z,2µm,18.0s
**SNOW Snow King Moun** 54.85 305 eP P 07 38 25.9 +0.9
comp=Z,43nm,1.1s
**LVV L'vov** 54.94 47 eP P 07 38 24.7 -0.6
LVV e 07 39 34.3
**TPAW Teton Pass** 54.98 305 eP P 07 38 26.7 +0.6
comp=Z,57nm,1.1s
**YHB Horse Butte** 55.00 307 eP P 07 38 28.1 +2.0
comp=Z,62nm,1.1s
**LOT Lotru** 55.16 52⇓iP P 07 38 27.8 +0.7
**AHID Auburn Hatcher** 55.19 304 eP P 07 38 27.8 +0.3
comp=Z,71nm,1.6s
**BOZ Bozeman (W)** 55.21 308 P P 07 38 27.7 +0.2
baz=83
**SRU San Rafael Swe** 55.35 300 eP P 07 38 29.2 +0.6
SRU pmax pmax
comp=Z,31nm,1.0s
**SRU San Rafael Swe** 55.35 300 eP P 07 38 29.2 +0.6
comp=Z,31nm,1.0s
**ARCR ARCALIA** 55.38 50⇑iP P 07 38 28.5 -0.1
**W18A Petrified Fore** 55.52 295 P P 07 38 29.8 -0.2
baz=77
**ARR Arges** 55.77 53⇑iP P 07 38 31.6 +0.1
**JLU Jordanelle** 55.79 302 eP P 07 38 32.6 +0.7
comp=Z,37nm,1.3s
**BUR08 Bucovina Ar. S** 55.90 50 eP P 07 38 33.2 +0.8
**BUR04 Bucovina Ar. S** 55.91 50 eP P 07 38 32.9 +0.4
**BURAR Bucovina Array** 55.91 50⇑iP P 07 38 32.6 +0.1
**BURAR Bucovina Array** 55.91 50⇑P P 07 38 32.6 +0.1
**FINES FINESS Array B** 56.00 33 P P 07 38 33.0 +0.3
comp=Z,4.1nm,0.6s,baz=306,slow=6.4,SNR=7.2
**FIA1 FINESS Array S** 56.00 33 eP P 07 38 33.8 +1.1
**VOIR** 56.06 52⇑iP P 07 38 33.7 +0.2
**VOIR** 56.06 52⇑P P 07 38 33.7 +0.2
**DOPR Dopca** 56.22 52⇑iP P 07 38 34.1 -0.5
**VSU Vasula** 56.26 37 eP P 07 38 34.8 +0.2
VSU pmax pmax
comp=Z,93nm,1.2s
**PLD Plovdiv** 56.30 56 P P 07 38 40.9 +5.7
**NLU North Lily Min** 56.37 301 eP P 07 38 36.9 +0.8
comp=Z,49nm,1.3s
**WALA Waterton Lakes** 56.38 312 eP P 07 38 36.2 +0.4
comp=Z,37nm,1.3s
**YKA Yellowknife Ar** 56.40 328 LR LR 08 02 37.9
comp=Z,171nm,19.0s,baz=180,slow=36
**SPUT South Promonto** 56.41 303 eP P 07 38 37.4 +1.2
comp=Z,43nm,1.1s
**ARCES ARCESS Array B** 56.55 23 P P 07 38 36.4 -0.2
comp=Z,7.1nm,0.9s,baz=251,slow=3.7,SNR=7.5
**ARCES ARCESS Array B** 56.55 23 eP P 07 38 37.4 +0.8
baz=74
**PAHR Pah Rah Range** 61.92 302 eP P 07 39 14.7 +0.3
comp=Z,47nm,1.1s
**OBN Obninsk** 61.94 40 P P 07 39 13.9 0.0
comp=Z,24nm,0.4s,baz=214,slow=4.2,SNR=8.3
**OBN Obninsk** 61.94 40c iP P 07 39 14.3 +0.3
OBN i 07 39 19.5
OBN pmax pmax
comp=Z,144nm,2.5s
OBN MLR MLR
comp=Z,358nm,16.0s
**109C Camp Elliot, M** 62.01 294 P P 07 39 14.5 -0.4
baz=73
**MOD Modoc Plateau** 62.05 305 eP P 07 39 15.7 +0.5
comp=Z,48nm,1.4s
**EDW2 Edwards Air Fo** 62.15 297 P P 07 39 15.0 -0.9
baz=73
**I05D Terrebonne, OR** 62.21 308 P P 07 39 15.7 -0.5
baz=76
**ISA Isabella, Lake** 62.30 298 P P 07 39 14.1 -2.9
baz=74
**ISA Isabella, Lake** 62.30 298 eP P 07 39 14.5 -2.4
ISA pmax pmax
comp=Z,18nm,0.8s
**ISA Isabella, Lake** 62.30 298 eP P 07 39 14.5 -2.4
comp=Z,18nm,0.8s
**J05D Fort Rock, OR** 62.38 306 P P 07 39 16.9 -0.6
baz=76
**MOS Moscow** 62.42 39 eP P 07 39 16.3 -0.9
MOS pmax pmax
comp=Z,54nm,1.1s
**KLMR Klimovskoe** 62.53 33 eP P 07 39 15.4 -2.5
KLMR pmax pmax
comp=Z,32nm,1.5s
**LVP Lakeview Peak** 62.55 310 eP P 07 39 21.1 +2.7
**F04A Amboy** 62.58 310 PFAKE 07 39 30.0 +11
F04A LR LR
comp=Z,2µm,20.0s
**DECC Green Verdugo** 62.59 296 P P 07 39 19.2 +0.3
baz=73
**RCTC Rector, Farmer** 62.72 298 P P 07 39 19.2 -0.4
baz=74
**ARVC Arvin** 62.73 297 P P 07 39 19.3 -0.4
baz=73
**ARVC Arvin** 62.73 297 eP P 07 39 21.4 +1.7
**ANTO Ankara** 62.76 57 PFAKE 07 39 30.0 +10
ANTO LR LR
comp=Z,500nm,19.0s
**OSI Osito Audit: C** 62.80 296 P P 07 39 19.3 -0.9
baz=73
**K04D Chiloquin, OR** 62.91 306 P P 07 39 20.4 -0.6
baz=75
**J04D Umpqua Nationa** 63.01 307 P P 07 39 20.3 -1.4
baz=76
**I04A Tendick Farm,** 63.09 307 P P 07 39 21.6 -0.5
baz=76
**CMB Columbia Colle** 63.12 301 eP P 07 39 23.9 +1.6
CMB pmax pmax
comp=Z,44nm,1.6s
**CMB Columbia Colle** 63.12 301 eP P 07 39 23.9 +1.6
comp=Z,44nm,1.6s
**ILGA Ilgaz** 63.12 56 PFAKE 07 39 30.0 +7.5
ILGA LR LR
comp=Z,400nm,19.0s
**M04C Macdoel** 63.19 305 P P 07 39 23.8 +1.0
baz=75
**G03D McMinnville, O** 63.33 309 P P 07 39 23.1 -0.4
baz=76
**F03A Seaside** 63.36 310 PFAKE 07 39 40.0 +16
F03A LR LR
comp=Z,2µm,22.0s
**BR131 Keskin Array S** 63.42 57 eP P 07 39 23.9 -0.5
**BRTR Keskin Array B** 63.42 57 P P 07 39 24.2 -0.2
comp=Z,6.8nm,1.0s,baz=276,slow=4.6,SNR=14
**ORV Oroville** 63.53 302 eP P 07 39 25.1 +0.1
ORV pmax pmax
comp=Z,58nm,1.6s
**ORV Oroville** 63.53 302 eP P 07 39 25.1 +0.1
comp=Z,58nm,1.6s
**O03D Paynes Creek** 63.56 303 P P 07 39 24.7 -0.5
baz=74
**I03D Drain, OR** 63.77 307 P P 07 39 25.7 -0.8
baz=75
**LPSR Galich'ya Gora** 63.80 42 eP P 07 39 26.4 -0.1
LPSR pmax pmax
comp=Z,80nm,1.6s
**YBH Yreka Blue Hor** 63.83 305 LR LR 08 05 26.0
comp=Z,471nm,21.8s,baz=100,slow=34
**SNCC San Nicolas Is** 63.84 295 P P 07 39 24.3 -2.8
baz=72
**INK Inuvik** 63.87 336 P P 07 39 26.7 0.0
comp=Z,9.6nm,1.0s,baz=71,slow=9.0,SNR=19
**INK Inuvik** 63.87 336 eP P 07 39 26.8 +0.2
comp=Z,71nm,1.3s
INK LR LR
comp=Z,1µm,18.0s
**VSR Storozhevoye** 64.27 44 eP P 07 39 28.7 -0.9
VSR pmax pmax
comp=Z,40nm,1.5s
**CSS Mathiatis** 64.56 62 PFAKE 07 39 40.0 +8.2
CSS LR LR
comp=Z,300nm,21.0s
**TOKA Tokat** 65.34 56 PFAKE 07 39 50.0 +13
TOKA LR LR
comp=Z,600nm,22.0s
**VRH Novokhopyorsk** 65.83 43 eP P 07 39 39.4 -0.3
VRH pmax pmax
comp=Z,20nm,0.8s
**WHY Whitehorse** 66.21 327 PFAKE 07 39 50.0 +7.8
WHY LR LR
comp=Z,2µm,19.0s
**DAWY Dawson** 67.24 332 PFAKE 07 40 00.0 +11
DAWY LR LR
comp=Z,2µm,22.0s
**KOPT Kop Dagi** 68.36 55 PFAKE 07 40 10.0 +14
KOPT LR LR
comp=Z,900nm,18.0s
**KIV Kislovodsk** 68.61 51 eP P 07 39 58.3 +0.6
KIV pmax pmax
comp=Z,23nm,1.1s
**KIV Kislovodsk** 68.61 51 eP P 07 39 58.8 +1.1
comp=Z,30nm,1.2s
**KVAR Kislovodsk Arr** 68.62 51 P P 07 39 58.5 +0.7
comp=Z,14nm,0.9s,baz=331,slow=2.9,SNR=10
**FYU Fort Yukon** 68.69 335 PFAKE 07 40 10.0 +12
FYU LR LR
comp=Z,1µm,22.0s
**KBZ Khabaz** 68.83 51 P P 07 40 00.0 +1.2
comp=Z,8.3nm,1.1s,baz=271,slow=8.5,SNR=8.5
**ARTV Artvin** 69.00 54 PFAKE 07 40 10.0 +10
ARTV LR LR
comp=Z,900nm,19.0s
**NCK Nalchik** 69.39 51 eP P 07 40 02.4 0.0
NCK pmax pmax
comp=Z,21nm,0.9s
**MENT Mentasta** 69.45 331 PFAKE 07 40 10.0 +7.6
MENT LR LR
comp=Z,1µm,20.0s
**MARD Mardin** 69.49 58 eP P 07 40 03.7 +0.4
comp=Z,43nm,1.6s
MARD LR LR
comp=Z,700nm,20.0s
**ZEI Tsey** 69.84 52 eP P 07 40 04.2 -1.2
ZEI pmax pmax
comp=Z,7.0nm,1.1s
**ILAR Eielson Array** 70.02 334 P P 07 40 06.2 +0.3
comp=Z,9.5nm,0.9s,baz=86,slow=4.2,SNR=16
**COLD Coldfoot** 70.21 337 PFAKE 07 40 20.0 +13
COLD LR LR
comp=Z,1µm,20.0s
**CCB Clear Creek Bu** 70.44 334 PFAKE 07 40 20.0 +12
CCB LR LR
comp=Z,2µm,21.0s
**KLU Klutina** 70.97 330 eP P 07 40 11.6 -0.2
comp=Z,38nm,1.1s
**EYAK Cordova Ski Ar** 71.28 329 PFAKE 07 40 30.0 +16
EYAK LR LR
comp=Z,3µm,19.0s
**GNI Garni** 71.37 54 P P 07 40 15.9 +1.1
comp=Z,4.6nm,0.5s,baz=144,slow=2.3,SNR=6.6
**GNI Garni** 71.37 54 cP P 07 40 15.8 +1.1
GNI pmax pmax
comp=Z,80nm,1.7s
**GNI Garni** 71.37 54 eP P 07 40 15.5 +0.8
comp=Z,60nm,1.4s
GNI LR LR
comp=Z,1µm,21.0s

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MLY | Manley | 71.39 | 335 | PFAKE | | 07 40 30.0 | +16 |
| MLY | | | | LR | LR | | |
| | comp=Z,1μm,20.0s | | | | | | |
| H09N1 | TRISTAN DA CUN | 71.50 | 154 | T | T | 08 58 12.1 | |
| | SNR=7.9 | | | | | | |
| PMR | Palmer | 72.31 | 331 | eP | P | 07 40 20.2 | +0.4 |
| PMR | | | | pmax | pmax | | |
| | comp=Z,23nm,1.0s | | | | | | |
| PMR | Palmer | 72.31 | 331 | eP | P | 07 40 20.2 | +0.4 |
| | comp=Z,23nm,1.0s | | | | | | |
| PPLA | Purkeypile | 72.97 | 333 | PFAKE | | 07 40 40.0 | +16 |
| PPLA | | | | LR | LR | | |
| | comp=Z,1μm,21.0s | | | | | | |
| PLCA | Paso Flores | 73.04 | 201 | P | P | 07 40 23.7 | -0.6 |
| | comp=Z,3.9nm,0.7s,baz=49,slow=7.3,SNR=8.6 | | | | | | |
| PLCA | Paso Flores | 73.04 | 201 | eP | P | 07 40 24.4 | +0.1 |
| PLCA | | | | pmax | pmax | | |
| | comp=Z,40nm,1.8s | | | | | | |
| PLCA | Paso Flores | 73.04 | 201 | eP | P | 07 40 24.4 | +0.1 |
| | comp=Z,40nm,1.8s | | | | | | |
| ARU | Arti | 73.32 | 34 | P | P | 07 40 26.5 | +0.7 |
| | comp=Z,3.9nm,0.2s,baz=273,slow=5.4,SNR=12 | | | | | | |
| ARU | Arti | 73.32 | 34 d | iP | P | 07 40 25.9 | 0.0 |
| ARU | | | | | | 07 43 04.6 | |
| ARU | | | | S | S | 07 49 52.9 | -1.1 |
| ARU | | | | pmax | pmax | | |
| | comp=Z,61nm,2.5s | | | | | | |
| ARU | Arti | 73.32 | 34 | eP | P | 07 40 25.7 | -0.2 |
| | comp=Z,39nm,1.4s | | | | | | |
| SVE | Sverdlovsk | 74.16 | 34 | eP | P | 07 40 30.8 | 0.0 |
| SVE | | | | pmax | pmax | | |
| | comp=Z,46nm,1.8s | | | | | | |
| AKTO | Aktyubinsk | 75.72 | 40 | P | P | 07 40 40.0 | +0.1 |
| | comp=Z,7.4nm,0.9s,baz=300,slow=8.4,SNR=15 | | | | | | |
| AKTO | Aktyubinsk | 75.72 | 40 | P | P | 07 40 40.0 | +0.1 |
| RAYN | Ar Rayn | 78.69 | 69 | PFAKE | | 07 41 10.0 | +13 |
| RAYN | | | | LR | LR | | |
| | comp=Z,1μm,18.0s | | | | | | |
| FURI | Furi | 79.32 | 86 | PFAKE | | 07 41 10.0 | +8.9 |
| FURI | | | | LR | LR | | |
| | comp=Z,900nm,19.0s | | | | | | |
| GAMB | Gambell | 79.46 | 339 | PFAKE | | 07 41 10.0 | +9.5 |
| GAMB | | | | LR | LR | | |
| | comp=Z,1μm,21.0s | | | | | | |
| TIXI | Tiksi | 80.16 | 2 | eP | P | 07 41 03.0 | -1.2 |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.2s | | | | | | |
| TIXI | Tiksi | 80.16 | 2 | eP | P | 07 41 04.2 | -0.1 |
| | comp=Z,22nm,1.4s | | | | | | |
| BRVK | Borovoye | 80.87 | 34 | iP | P | 07 41 07.7 | -0.7 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.2s | | | | | | |
| BRVK | Borovoye | 80.87 | 34 | eP | P | 07 41 08.3 | -0.1 |
| | comp=Z,23nm,1.8s | | | | | | |
| BVAR | Borovoye Array | 80.94 | 34 | P | P | 07 41 09.3 | +0.5 |
| | comp=Z,1.3nm,0.8s,baz=267,slow=7.4,SNR=6.6 | | | | | | |
| GEYT | Alibeck | 81.72 | 51 | P | P | 07 41 13.9 | +0.7 |
| | comp=Z,23nm,0.7s,baz=268,slow=4.0,SNR=5.5 | | | | | | |
| KMBO | Kilima Mbogo | 82.73 | 95 | iP | P | 07 41 23.2 | +4.0 |
| KMBO | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.4s | | | | | | |
| SUR | Sutherland | 86.15 | 130 | PFAKE | | 07 41 50.0 | +14 |
| SUR | | | | LR | LR | | |
| | comp=Z,2μm,20.0s | | | | | | |
| KURK | Kurchatov | 86.37 | 32 | iP | P | 07 41 35.0 | -1.6 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.4s | | | | | | |
| KURK | Kurchatov | 86.37 | 32 | eP | P | 07 41 35.8 | -0.8 |
| | comp=Z,14nm,1.4s | | | | | | |
| UOSS | Minazif | 86.68 | 64 | eP | P | 07 41 39.1 | +0.4 |
| | comp=Z,28nm,1.1s | | | | | | |
| ZAA0 | Zalesovo Array | 86.84 | 28 | PFAKE | | 07 41 50.0 | +11 |
| ZAA0 | | | | LR | LR | | |
| | comp=Z,2μm,20.0s | | | | | | |
| ZALV | Zalesovo Beam | 86.84 | 28 | P | P | 07 41 38.9 | 0.0 |
| | comp=Z,0.7nm,0.6s,baz=305,slow=5.2,SNR=4.9 | | | | | | |
| ZALV | Zalesovo Beam | 86.84 | 28 | eP | P | 07 41 39.2 | +0.3 |
| SEY | Seymchan | 88.12 | 353 | eP | P | 07 41 43.4 | -1.5 |
| AAK | Ala-Archa | 89.46 | 40 | eP | P | 07 41 51.8 | 0.0 |
| AAK | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.3s | | | | | | |
| AAK | Ala-Archa | 89.46 | 40 | PFAKE | | 07 42 00.0 | +8.2 |
| AAK | | | | LR | LR | | |
| | comp=Z,3μm,20.0s | | | | | | |
| YAK | Yakutsk | 89.80 | 3 | eP | P | 07 41 51.7 | -1.1 |
| YAK | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.8s | | | | | | |
| YAK | Yakutsk | 89.80 | 3 | PFAKE | | 07 42 00.0 | +7.2 |
| YAK | | | | LR | LR | | |
| | comp=Z,3μm,21.0s | | | | | | |
| MAKZ | Makanchi | 90.66 | 34 | eP | P | 07 41 57.1 | -0.1 |
| MAKZ | | | | pmax | pmax | | |
| | comp=Z,16nm,1.4s | | | | | | |
| MAKZ | | | | MLR | MLR | | |
| | comp=Z,4μm,22.0s | | | | | | |
| MAKZ | Makanchi | 90.66 | 34 | eP | P | 07 41 57.1 | -0.1 |
| | comp=Z,16nm,1.4s | | | | | | |
| MAKZ | | | | LR | LR | | |
| | comp=Z,4μm,22.0s | | | | | | |
| MK31 | Makanchi Array | 90.83 | 34 | eP | P | 07 41 57.9 | -0.1 |
| MK31 | Makanchi Array | 90.83 | 34 | eP | P | 07 41 57.9 | -0.1 |
| MKAR | Makanchi Array | 90.83 | 34 | P | P | 07 41 57.9 | -0.1 |
| | comp=Z,2.1nm,1.1s,baz=332,slow=4.7,SNR=11 | | | | | | |
| MK01 | Makanchi Array | 90.85 | 34 | eP | P | 07 41 57.6 | -0.5 |
| KBL | Kabul | 90.97 | 49 | PFAKE | | 07 42 10.0 | +11 |
| KBL | | | | LR | LR | | |
| | comp=Z,1μm,20.0s | | | | | | |
| DGZ | Jazzator, Alta | 91.08 | 29 | eP | P | 07 41 59.1 | -0.1 |
| DGZ | | | | pmax | pmax | | |
| | comp=Z,1.0nm,1.8s | | | | | | |
| KSH | Kashi | 92.31 | 42 | eP | P | 07 42 01.1 | -4.0 |
| KSH | | | | pP | PcP | 07 42 05.5 | -0.3 |
| KSH | | | | PP | PP | 07 45 43.3 | -1.7 |
| KSH | | | | SKS | SKSac | 07 52 29.6 | -8.8 |
| KSH | | | | S | SKKSac | 07 52 57.8 | +2.2 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.3s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,110nm,4.1s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,580nm,9.4s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,580nm,9.0s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,1μm,12.0s | | | | | | |
| WMQ | Urumqi | 95.60 | 33 | P | P | 07 42 20.3 | +0.2 |
| WMQ | | | | pP | pP | 07 42 25.4 | +0.7 |
| WMQ | | | | sP | sP | 07 42 28.4 | +2.0 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,15nm,0.8s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,270nm,5.9s | | | | | | |
| ABPO | Ambohimpanom | 99.74 | 106 | PFAKE | | 07 42 50.0 | +11 |
| ABPO | | | | LR | LR | | |
| | comp=Z,900nm,20.0s | | | | | | |
| ULN | Ulaanbaatar | 99.77 | 19 | eP | Pdif | 07 42 38.5 | -0.4 |
| ULN | | | | pmax | pmax | | |
| | comp=Z,1.0nm,1.1s | | | | | | |
| LZH | Lanzhou | 109.08 | 27 | ePdif | Pdif | 07 43 22.3 | +1.8 |
| LZH | | | | PP | PP | 07 47 57.0 | +5.4 |
| LZH | | | | SS | SS | 08 03 12.5 | +2.3 |
| LZH | | | | AMB | AMB | | |
| | comp=Z,250nm,8.2s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,810nm,17.5s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,630nm,17.3s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,920nm,19.2s | | | | | | |
| SYO | Syowa Base | 113.85 | 157 | ⇑epPdiff | pPdif | 07 43 44.0 | -1.2 |
| NJ2 | Nanjing | 117.74 | 17 | ePKP | PKPdf | 07 47 36.4 | -4.7 |
| KMI | Kunming | 117.90 | 34 | PKP | PKPdf | 07 47 40.4 | -1.5 |
| GYA | Guiyang | 118.61 | 30 | ePdif | Pdif | 07 44 01.0 | -2.0 |
| GYA | | | | PKP | PKPdf | 07 47 41.3 | -1.8 |
| GYA | | | | PP | PP | 07 49 02.4 | +3.1 |
| GYA | | | | AMB | AMB | | |
| | comp=Z,120nm,7.8s | | | | | | |
| CMAR | Chiang Mai Arr | 121.21 | 42 | PKP | PKPdf | 07 47 47.2 | -0.9 |
| | comp=Z,1.0nm,0.3s,baz=316,slow=2.9,SNR=4.1 | | | | | | |
| MAW | Mawson | 122.24 | 154 | PFAKE | | 07 48 00.0 | +11 |
| MAW | | | | LR | LR | | |
| | comp=Z,300nm,20.0s | | | | | | |
| VNDA | Vanda | 129.32 | 187 | PKP | PKPdf | 07 48 02.2 | +0.4 |
| | comp=Z,1.7nm,0.8s,baz=223,slow=3.1,SNR=3.7 | | | | | | |
| VNDA | Vanda | 129.32 | 187 | ePKPdf | PKPdf | 07 48 03.3 | +1.4 |
| BKZ | Black Stump Fm | 144.99 | 241 | ePKPbc | PKPbc | 07 48 31.4 | +0.2 |
| BFZ | Birch Farm | 145.00 | 239 | ePKPbc | PKPdf | 07 48 32.2 | +0.4 |
| OXZ | Oxford | 147.54 | 233 | PFAKE | | 07 48 50.0 | +9.3 |
| OXZ | | | | LR | LR | | |
| | comp=Z,1μm,19.0s | | | | | | |

**IDC 13 07:33:30.6±8.0, 14°.73N×91°.18W, h58km±57km, mb3.7/3, mb1 3.8/4, mb1mx3.4/49, mbtmp3.9/4, ML3.5/1, Error ellipse: s-maj=65.9km s-min=44.9km az=179.0, Guatemala**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CMIG | Matias Romero | 4.27 | 304 | P | Pn | 07 34 32.1 | -1.0 |
| | 2.5nm,0.3s,baz=132,slow=13,SNR=15 | | | | | | |
| CMIG | | | | S | Sn | 07 35 22.7 | +1.0 |
| | 5.3nm,0.3s,baz=109,slow=23,SNR=5.8 | | | | | | |
| SCHQ | Schefferville | 44.27 | 20 | P | P | 07 41 34.8 | +0.5 |
| | 9.0nm,1.1s,baz=236,slow=6.8,SNR=7.4 | | | | | | |
| INK | Inuvik | 59.98 | 343 | P | P | 07 43 30.5 | -0.1 |
| | 0.4nm,0.5s,baz=142,slow=6.7,SNR=3.3 | | | | | | |
| ILAR | Eielson Array | 62.49 | 336 | P | P | 07 43 47.3 | -0.5 |
| | 0.6nm,0.9s,baz=118,slow=5.4,SNR=4.3 | | | | | | |
| WRA | Warramunga Arr | 136.34 | 256 | PKP | PKPdf | 07 52 46.1 | -0.5 |
| | 0.2nm,0.6s,baz=83,slow=2.4,SNR=3.3 | | | | | | |

**WEL 13 07:37:53.7±0.3, 36°.93S×176°.46E, h312km±5km, ML3.7/5, 7C-1D, Error ellipse: s-maj=11.7km s-min=9.9km az=90.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| HAZ | Te Kaha | 1.34 | 129 | ⇑PN | Pn | 07 38 37.3 | +0.3 |
| HAZ | | | | SN | S | 07 39 10.8 | -0.7 |
| HAZ | | | | AML | AML | 07 39 13.2 | |
| RUGZ | Raukumara Rang | 1.42 | 137 | PN | Pn | 07 38 37.3 | -0.3 |
| RUGZ | | | | SN | S | 07 39 11.1 | -1.5 |
| URZ | Urewera | 1.43 | 159 | ⇑PN | Pn | 07 38 37.7 | +0.2 |
| URZ | | | | SN | S | 07 39 11.9 | -0.4 |
| URZ | | | | AML | AML | 07 39 14.5 | |
| MXZ | Matakaoa Point | 1.60 | 114 | PN | Pn | 07 38 38.8 | +0.2 |
| MXZ | | | | SN | S | 07 39 14.4 | 0.0 |
| PKGZ | Pakihiroa | 1.60 | 127 | AML | AML | 07 39 15.0 | |
| PKGZ | | | | AML | AML | 07 39 19.7 | |
| MWZ | Matawai | 1.64 | 149 | ⇑PN | Pn | 07 38 39.1 | +0.2 |
| MWZ | | | | AML | AML | 07 39 18.5 | |
| WMGZ | Waiomatatini S | 1.79 | 120 | PN | Pn | 07 38 40.1 | +0.2 |
| WMGZ | | | | AML | AML | 07 39 18.0 | |
| WMGZ | | | | AML | AML | 07 39 20.6 | |
| PUZ | Puketiti | 1.83 | 129 | PN | Pn | 07 38 40.3 | +0.1 |
| MRHZ | Matea Rd | 1.90 | 181 | PN | Pn | 07 38 41.0 | +0.3 |
| MTHZ | Maungataniwha | 1.94 | 171 | PN | Pn | 07 38 41.2 | +0.2 |
| MTHZ | | | | SN | S | 07 39 20.6 | +1.7 |
| SNGZ | Shannon Statio | 1.98 | 160 | PN | Pn | 07 38 41.5 | +0.3 |
| RIGZ | Rimuhau | 2.05 | 150 | PN | Pn | 07 38 42.2 | +0.3 |
| CNGZ | Carnagh Statio | 2.08 | 139 | PN | Pn | 07 38 42.1 | +0.1 |
| NMHZ | Naumai | 2.18 | 173 | PN | Pn | 07 38 43.5 | +0.6 |
| BKZ | Black Stump Fm | 2.23 | 179 | ⇑PN | Pn | 07 38 43.1 | -0.2 |
| KNZ | Kokohu | 2.30 | 156 | ⇓PN | Pn | 07 38 43.7 | -0.1 |
| OTVZ | Oturere | 2.32 | 195 | ⇑PN | Pn | 07 38 44.8 | +0.7 |
| ARHZ | Aropaoanui | 2.37 | 170 | PN | Pn | 07 38 44.5 | +0.1 |
| WNVZ | Wahianoa | 2.49 | 196 | ⇑PN | Pn | 07 38 45.8 | +0.2 |
| KWHZ | Kaweka Forest | 2.49 | 181 | PN | Pn | 07 38 45.4 | -0.2 |
| BHHZ | Black Hill Sta | 2.58 | 187 | PN | Pn | 07 38 46.1 | -0.2 |
| KRHZ | Kereru | 2.71 | 181 | PN | Pn | 07 38 46.9 | -0.6 |
| KAHZ | Kahuranaki | 2.88 | 174 | PN | Pn | 07 38 48.7 | -0.3 |
| PNHZ | Pukenui | 2.99 | 184 | PN | Pn | 07 38 49.3 | -0.8 |
| WAZ | Wanganui | 3.05 | 202 | PN | Pn | 07 38 50.8 | +0.1 |
| PXZ | Pawanui | 3.11 | 174 | PN | Pn | 07 38 50.6 | -0.6 |
| TSZ | Takapari Road | 3.15 | 187 | PN | Pn | 07 38 50.9 | -0.7 |
| PRHZ | Porangahau | 3.34 | 178 | PN | Pn | 07 38 52.6 | -0.9 |
| ANWZ | Angora Road | 3.53 | 180 | PN | Pn | 07 38 54.6 | -0.8 |
| MRZ | Mangatainoka R | 3.79 | 190 | PN | Pn | 07 38 56.3 | -1.9 |
| OGWZ | Otaki Gorge | 4.01 | 194 | PN | Pn | 07 38 58.7 | -1.8 |
| HOWZ | Holdsworth Sta | 4.03 | 190 | PN | Pn | 07 38 59.0 | -1.8 |
| KIW | Kapiti Island | 4.11 | 197 | PN | Pn | 07 38 59.7 | -1.9 |
| MTW | Mount Morrison | 4.29 | 190 | PN | Pn | 07 39 01.2 | -2.3 |
| CAW | Cannon Point | 4.31 | 194 | PN | Pn | 07 39 02.0 | -1.8 |
| DUWZ | D'Urville Isla | 4.35 | 206 | PN | Pn | 07 39 02.3 | -1.9 |
| TCW | Tory Channel | 4.60 | 201 | PN | Pn | 07 39 05.3 | -1.7 |
| TUWZ | Tuamarina | 4.90 | 203 | PN | Pn | 07 39 08.4 | -2.0 |
| NNZ | Nelson | 4.91 | 208 | ⇑PN | Pn | 07 39 08.0 | -2.5 |
| QRZ | Quartz Range | 4.96 | 217 | PN | Pn | 07 39 08.5 | -2.5 |
| KHZ | Kahutara | 5.93 | 201 | PN | Pn | 07 39 19.9 | -2.4 |

**MEX 13 07:51:23.4±0.3, 17°.79N×99°.88W, h60km±3km, MD3.5, Guerrero**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MEIG | Mezcala | 0.28 | 62 | eP | Pn | 07 51 32.0 | -1.5 |
| MEIG | | | | iS | Sn | 07 51 39.1 | -1.8 |
| ARIG | Puente Sto Nin | 0.66 | 318 | eP | Pn | 07 51 35.7 | -1.5 |
| ARIG | | | | eS | Sn | 07 51 45.3 | -1.9 |
| PLIG | Platanillo | 0.70 | 31 | eP | Pn | 07 51 36.5 | -1.3 |
| PLIG | | | | iS | Sn | 07 51 46.6 | -1.7 |
| CAIG | El Cayaco | 0.83 | 206 | eP | Pn | 07 51 37.7 | -1.5 |
| CAIG | | | | eS | Sn | 07 51 49.5 | -1.4 |
| YAIG | Yautepec | 1.32 | 36 | eP | Pn | 07 51 44.3 | -1.5 |
| YAIG | | | | iS | Sn | 07 52 00.7 | -1.9 |

*GCMT **13** 07:52:11.9±0.1, 0°.01N×123°.14E, h164km, MW6.1/155, Moment Tensor Solution. s146,c327; s155,c505; Duration: 2s6 Moment tensor: Scale $10^{18}$Nm; $M_{rr}$1.29±.01; $M_{\theta\theta}$-1.23±.01; $M_{\phi\phi}$-0.05±.01; $M_{r\theta}$0.76±.01; $M_{\theta\phi}$0.40±.01; $M_{\phi r}$0.23±.01; Best double couple: $M_0$1.54000×$10^{18}$ NP1:$\phi_s$91.00000°,δ60.00000°, λ73.00000°. NP2:$\phi_s$302.00000°,δ34.00000°,λ117.00000°. Principal axes: T 1.5670, Plg70.0000°, Azm325.0000°; N -0.0490, Plg15.0000°, Azm99.0000°; P -1.5120, Plg14.0000°, Azm193.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

*BJI **13** 07:52:11.4, 0°.10N×123°.15E, h160km, mb6.1/87, mB6.3/61*

*MOS **13** 07:52:11.5±0.8, 0°.07N×123°.09E, h176km, mb6.3/93, MS5.3/19, Error ellipse: s-maj=7.0km s-min=5.0km az=114.8*

*NEIC **13** 07:52:11.9±0.1, 0°.04N×123°.03E, h161km, mb6.3/225, MW6.0, MW6.0, MW6.0, Error ellipse: s-maj=3.1km s-min=2.6km az=58.0, Moment Tensor Solution. s23 Moment tensor: Scale $10^{18}$Nm; $M_{rr}$1.09; $M_{\theta\theta}$-0.81; $M_{\phi\phi}$-0.28; $M_{r\theta}$0.81; $M_{\theta\phi}$0.35; $M_{\phi r}$0.11; Best double couple: $M_0$1.30000×$10^{18}$ NP1:$\phi_s$309.00000°,δ30.00000°, λ118.00000°. NP2:$\phi_s$98.00000°,δ64.00000°,λ75.00000°. Principal axes: T 1.4200, Plg68.0000°, Azm339.0000°; N -0.2200, Plg13.0000°, Azm104.0000°; P -1.2000, Plg18.0000°, Azm199.0000°;*

*NEIC Felt [IV] at Gorontalo and Luwuk and [III] at Labuha. Also felt [III] on Pulau Ternate.*

*IDC **13** 07:52:11.3±0.6, 0°.08N×123°.00E, h157km±5km, mb5.6/52, mb1 5.6/53, mb1mx5.6/57, mbtmp6.0/53, MS5.0/28, Ms1 5.0/28, ms1mx4.8/51 Error ellipse: s-maj=7.8km s-min=5.5km az=64.0*

*DJA **13** 07:52:12.6±0.1, 0°S±1°×12°3E±°, h161km±1km, M6.1/103, mb6.0/103, mB6.4/97, MLv6.6/18, Mw(mB)6.2/97, Mwp6.0/24*

*NEIC **13** 07:52:12.0±0.0, 0°.07S×123°.30E, h170km, Moment Tensor Solution. s57 Moment tensor: Scale $10^{18}$Nm; $M_{rr}$1.26; $M_{\theta\theta}$-1.03; $M_{\phi\phi}$-0.23; $M_{r\theta}$0.40; $M_{\theta\phi}$0.34; $M_{\phi r}$0.27; Best double couple: $M_0$1.30000×$10^{18}$ NP1:$\phi_s$95.00000°, δ54.00000°,λ72.00000°. NP2:$\phi_s$303.00000°,δ40.00000°, λ112.00000°. Principal axes: T 1.3900, Plg74.0000°, Azm313.0000°; N -0.2000, Plg14.0000°, Azm106.0000°; P -1.1900, Plg7.0000°, Azm197.0000°;*

*ISCJB **13** 07:52:12.6±0.2, 0°.03S±0°.01×123°.10E±0°.01, h186km±1km, mb6.2/350 Error ellipse: s-maj=2.2km s-min=1.9km az=137.1*

*KLM **13** 07:52:14.9, 0°.06S×123°.12E, h175km, mb6.1*

*NEIC **13** 07:52:24.7±0.0, 0°.16S×123°.07E, h152km, Moment Tensor Solution. s23 Moment tensor: Scale $10^{18}$Nm; $M_{rr}$1.14; $M_{\theta\theta}$-1.29; $M_{\phi\phi}$0.15; $M_{r\theta}$0.65; $M_{\theta\phi}$0.35; $M_{\phi r}$0.20; Best double couple: $M_0$1.40000×$10^{18}$ NP1:$\phi_s$300.00000°, δ35.00000°,λ118.00000°. NP2:$\phi_s$88.00000°,δ60.00000°, λ72.00000°. Principal axes: T 1.3700, Plg70.0000°, Azm319.0000°; N 0.1400, Plg15.0000°, Azm97.0000°; P -1.5100, Plg13.0000°, Azm190.0000°;*

**ISC 13 07:52:12.0±0.2, 0°.05N±0°.02×123°.06E±0°.02, h167km±1km, h168km:pP-P, n2114, σ1s65/2569, mb6.3/367, 104C-35D, Minahassa Peninsula, Sulawesi**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KMSI | Cibinong | 1.06 | 60 | P | Pn | 07 52 38.9 | 0.0 |
| KMSI | | | | S | Sn | 07 52 57.8 | -1.8 |
| LUWI | Luwuk | 1.12 | 195 | P | Pn | 07 52 38.5 | -1.0 |
| LUWI | | | | S | Sn | 07 52 58.2 | -2.5 |
| LUWI | Luwuk | 1.12 | 195 | ePn | Pn | 07 52 38.5 | -1.0 |
| LUWI | | | | eSn | Sn | 07 52 57.0 | -3.7 |
| MRSI | Marisa | 1.20 | 291 | P | Pn | 07 52 40.3 | +0.2 |
| MRSI | | | | S | Sn | 07 53 03.4 | +1.6 |
| APSI | Ampana | 1.71 | 236 | P | Pn | 07 52 45.4 | +0.4 |
| APSI | | | | S | Sn | 07 53 11.0 | +0.5 |
| MPSI | Mapaga | 3.18 | 275 | P | Pn | 07 53 04.7 | +2.4 |
| MPSI | | | | S | Sn | 07 53 43.9 | +2.5 |
| PCI | Palu | 3.36 | 254 | P | Pn | 07 53 06.7 | +2.0 |
| PCI | | | | S | Sn | 07 53 48.0 | +2.4 |
| PCI | Palu | 3.36 | 254 | P | Pn | 07 53 06.2 | +1.5 |
| SANI | Sanana | 3.59 | 125 | P | Pn | 07 53 05.0 | -2.5 |
| KDI | Kendari | 4.00 | 186 | P | Pn | 07 53 12.2 | -0.6 |
| SGSI | Sangihe | 4.37 | 34 | P | Pn | 07 53 19.5 | +1.9 |
| SGSI | | | | S | Sn | 07 54 10.5 | +1.6 |
| TTSI | Tana Toraja | 4.47 | 227 | P | Pn | 07 53 20.5 | +1.7 |
| TTSI | | | | S | Sn | 07 54 12.9 | +1.9 |
| LBMI | Labuha | 4.49 | 99 | P | Pn | 07 53 17.3 | -1.8 |
| SPSI | Sidrap Palu | 5.17 | 220 | P | Pn | 07 53 30.0 | +2.0 |
| | 3μm,0.9s,87μm154μm24nm | | | | | | |
| SPSI | | | | S | Sn | 07 54 29.1 | +1.6 |
| | 3μm,0.9s,87μm154μm24nm | | | | | | |
| NLAI | Namlea | 5.19 | 129 | P | Pn | 07 53 27.5 | -0.8 |
| | 6μm,1.3s,373μm88μm392nm | | | | | | |
| NLAI | | | | S | Sn | 07 54 25.0 | -3.0 |
| | 6μm,1.3s,373μm88μm392nm | | | | | | |
| BNSI | Bone | 5.32 | 214 | P | Pn | 07 53 30.4 | +0.5 |
| | 4μm,1.2s,116μm116μm30nm | | | | | | |
| BBSI | Bau Bau | 5.52 | 185 | P | Pn | 07 53 32.3 | -0.3 |
| | 1μm,1.1s,18μm6.9nm | | | | | | |
| KAPI | Kappang | 6.02 | 213 | P | Pn | 07 53 40.2 | +1.0 |
| | SNR=1968 | | | | | | |
| GSPH | General Santos | 6.29 | 17 | ⇓eP | Pn | 07 53 46.2 | +3.4 |
| BKB | Balikpapan | 6.30 | 258 | P | Pn | 07 53 44.7 | +1.8 |
| | 4μm,1.1s,50μm137μm18nm | | | | | | |
| AAI | Ambon | 6.33 | 126 | P | Pn | 07 53 43.4 | +0.1 |
| | 5μm,0.8s,57μm121μm85nm | | | | | | |
| AAI | | | | S | Sn | 07 54 53.4 | -1.6 |
| | 5μm,0.8s,57μm121μm85nm | | | | | | |
| AAI | Ambon | 6.33 | 126 | P | Pn | 07 53 43.2 | -0.1 |
| BSSI | Bau Bau, Buton | 6.66 | 203 | P | Pn | 07 53 48.2 | +0.5 |
| | 4μm,1.2s,125μm28nm | | | | | | |
| TSM | Tawau | 6.68 | 309 | ⇑P | Pn | 07 53 50.6 | +2.6 |
| MSAI | Masohi | 6.76 | 120 | P | Pn | 07 53 48.7 | -0.3 |
| MSAI | | | | S | Sn | 07 55 03.3 | -2.0 |
| MYLDM | Lahad Datu | 6.84 | 318 | ⇓P | Pn | 07 53 55.1 | +5.1 |
| MYLDM | Lahad Datu | 6.84 | 318 | ePn | Pn | 07 53 54.3 | +4.2 |
| ZCP | Zamboanga City | 6.91 | 352 | ⇓eP | Pn | 07 53 54.2 | +3.2 |
| KCP | Kidapawan | 7.21 | 16 | ⇓iP | Pn | 07 53 59.0 | +4.0 |
| CTBH | Cotabato--PC H | 7.22 | 9 | ⇓iP | Pn | 07 53 58.8 | +3.6 |
| DAV | Davao City (W) | 7.41 | 20 | P | Pn | 07 54 01.8 | +4.1 |
| | 86nm,0.3s,baz=120,slow=1.6,SNR=193 | | | | | | |
| DAV | | | | LR | LR | 07 57 15.4 | |
| | comp=Z,31μm,21.4s,baz=205,slow=41 | | | | | | |
| DAV | Davao City (W) | 7.41 | 20 | ⇓iP | Pn | 07 54 02.0 | +4.4 |
| DAV | Davao City (W) | 7.41 | 20 | ePn | Pn | 07 54 01.6 | +3.9 |
| DAV | Davao City (W) | 7.41 | 20 | P | Pn | 07 54 02.2 | +4.5 |
| | SNR=656 | | | | | | |
| KBKI | Kotabaru | 7.65 | 244 | P | Pn | 07 54 02.5 | +1.7 |
| | 4μm,1.1s,47μm65μm14nm | | | | | | |
| PAGZ | Pagadian | 7.76 | 2 | eP | Pn | 07 54 05.3 | +3.1 |
| BUKP | Musuan | 8.03 | 14 | eP | Pn | 07 54 08.2 | +2.4 |
| SDKM | Sandakan | 8.07 | 314 | ⇑P | Pn | 07 54 11.1 | +4.6 |
| BNDI | Bandanaira | 8.21 | 124 | P | Pn | 07 54 07.1 | -1.0 |
| | 6μm,1.1s,62μm | | | | | | |
| BNDI | | | | S | Sn | 07 55 37.8 | -2.1 |
| | 6μm,1.1s,62μm | | | | | | |
| MTKI | Muara Teweh, K | 8.23 | 263 | P | Pn | 07 54 10.9 | +2.5 |
| SWI | Sorong | 8.25 | 96 | P | Pn | 07 54 07.6 | -1.1 |
| | 1μm,0.8s,14μm79μm | | | | | | |
| SWI | | | | S | Sn | 07 55 39.3 | -1.6 |
| | 1μm,0.8s,14μm79μm | | | | | | |
| SWI | Sorong | 8.25 | 96 | P | Pn | 07 54 07.5 | -1.1 |
| SWI | | | | pmax | pmax | | |
| | comp=Z,1μm,0.8s | | | | | | |
| DCPH | Dipolog City | 8.48 | 2 | ⇓eP | Pn | 07 54 10.7 | -1.1 |
| MMRI | Maumere | 8.66 | 185 | P | Pn | 07 54 14.0 | -0.2 |
| | comp=Z,2μm,1.1s,comp=Z,55μmcomp=Z,68μm | | | | | | |
| MMRI | Maumere | 8.66 | 185 | ePn | Pn | 07 54 13.6 | -0.6 |
| BIPH | Bislig | 8.73 | 22 | ⇓eP | Pn | 07 54 17.1 | +2.1 |
| BIPH | | | | eS | Sn | 07 55 54.5 | +2.1 |
| EDFI | Ende, Flores | 8.85 | 189 | P | Pn | 07 54 16.2 | -0.5 |
| | comp=Z,3μm,1.5s,comp=Z,49μmcomp=Z,73μm | | | | | | |
| KKM | Kota Kinabalu | 9.07 | 311 | ⇓P | Pn | 07 54 24.8 | +5.1 |
| KKM | Kota Kinabalu | 9.07 | 311 | ePn | Pn | 07 54 23.5 | +3.8 |
| BUTP | Butuan | 9.22 | 16 | eP | Pn | 07 54 25.5 | +3.9 |
| SNPH | Sibulan | 9.24 | 1 | ⇓eP | Pn | 07 54 27.2 | +5.4 |
| FAKI | Fak Fak | 9.64 | 108 | P | Pn | 07 54 24.9 | -2.3 |
| FAKI | Fak Fak | 9.64 | 108 | ePn | Pn | 07 54 25.6 | -1.5 |
| SOEI | Soe | 9.81 | 173 | P | Pn | 07 54 30.3 | +0.8 |
| | comp=Z,9μm,1.4s,comp=Z,167μm | | | | | | |
| SOEI | Soe | 9.81 | 173 | ePn | Pn | 07 54 31.8 | +2.4 |
| BATP | Bataraza | 10.15 | 329 | eP | Pn | 07 54 33.4 | -0.4 |
| MSLP | Maasin | 10.18 | 10 | eP | Pn | 07 54 37.8 | +3.6 |
| LLP | Lapu-Lapu | 10.24 | 5 | ⇓eP | Pn | 07 54 39.4 | +4.3 |
| LLP | | | | eS | S | 07 56 42.9 | +13 |
| PLAI | Plampang | 10.27 | 211 | P | Pn | 07 54 36.1 | +0.7 |
| | comp=Z,7μm,1.6s,comp=Z,120μmcomp=Z,66μm | | | | | | |
| WBSI | Waikabubak, Su | 10.29 | 201 | P | Pn | 07 54 36.1 | +0.3 |
| | comp=Z,7μm,1.8s,comp=Z,148μm | | | | | | |
| BTM | Bintulu | 10.46 | 288 | ⇓P | Pn | 07 54 41.0 | +3.2 |
| BASI | Baing, Sumba | 10.49 | 194 | P | Pn | 07 54 38.5 | +0.2 |
| GUIM | Jordan | 10.52 | 357 | eP | Pn | 07 54 42.5 | +3.9 |
| PPR | Puerto Princes | 10.58 | 336 | ⇑eP | P | 07 54 46.6 | -1.2 |
| JAP | San Jose, Anti | 10.69 | 354 | ⇑eP | P | 07 54 45.6 | -3.4 |
| SBUM | Sibu | 11.10 | 282 | ⇑P | Pn | 07 54 49.9 | +3.7 |
| SBUM | Sibu | 11.10 | 282 | ePn | Pn | 07 54 48.5 | +2.3 |
| PLP | Palo | 11.21 | 10 | ⇓eP | Pn | 07 54 51.2 | +3.6 |
| PLP | | | | eS | Sn | 07 56 56.4 | +4.4 |
| RKPI | Ransiki, Papua | 11.22 | 98 | P | P | 07 55 02.1 | +6.9 |
| SRBI | Singaraja | 11.25 | 224 | P | Pn | 07 54 49.3 | +1.2 |
| KMPI | Kaimana, Papua | 11.25 | 109 | P | Pn | 07 54 47.1 | -1.2 |
| RCP | Roxas | 11.44 | 358 | ⇓eP | P | 07 54 54.3 | -3.3 |
| SAUI | Saumlaki | 11.45 | 134 | P | Pn | 07 54 49.9 | -0.9 |
| SAUI | Saumlaki | 11.45 | 134 | ePn | Pn | 07 54 50.1 | -0.7 |
| KMMI | Kalianget | 11.49 | 232 | P | Pn | 07 54 54.1 | +2.8 |
| STKI | Sintang | 11.59 | 270 | P | P | 07 54 56.0 | -3.2 |
| DNP | Denpasar | 11.68 | 222 | P | Pn | 07 54 54.5 | +0.8 |
| | comp=Z,16μm,1.4s,comp=Z,194μm | | | | | | |
| DNP | Denpasar | 11.68 | 222 | P | P | 07 54 57.7 | -2.5 |
| PBKI | Pangkalan Bun | 11.71 | 256 | P | Pn | 07 54 56.3 | +2.1 |
| BWJI | Bawean | 11.93 | 240 | P | Pn | 07 54 58.2 | +1.2 |
| BLJI | Banyuglugur | 12.21 | 230 | P | Pn | 07 55 02.1 | +1.5 |
| | comp=Z,2μm,1.3s,comp=Z,24μm | | | | | | |
| BUSP | Coron | 12.21 | 347 | eP | P | 07 55 04.1 | -2.1 |
| JAGI | Jajag, Banyuwa | 12.27 | 226 | P | Pn | 07 55 03.6 | +2.3 |
| JAGI | Jajag, Banyuwa | 12.27 | 226 | ePn | Pn | 07 55 03.4 | +2.0 |
| OTRP | Odiongan | 12.28 | 355 | eP | P | 07 55 05.3 | -1.6 |
| SJMP | San Jose | 12.48 | 351 | eP | P | 07 55 09.0 | -0.2 |
| CNP | Catarman | 12.48 | 7 | eP | P | 07 55 07.9 | -1.3 |
| GRJI | Gresik | 12.62 | 237 | P | Pn | 07 55 08.1 | +2.2 |
| KSM | Kuching | 12.83 | 276 | ⇓P | P | 07 55 11.8 | -1.2 |
| KSM | Kuching | 12.83 | 276 | ePn | Pn | 07 55 10.6 | +2.0 |
| TBJI | Tambak Boyo | 13.10 | 238 | P | Pn | 07 55 13.2 | +1.2 |
| AUQP | San Andres | 13.20 | 358 | eP | P | 07 55 20.0 | +2.9 |
| BOAC | Boac | 13.38 | 355 | eP | P | 07 55 20.1 | +0.9 |
| PVCP | Virac | 13.51 | 5 | eP | P | 07 55 20.7 | +0.2 |
| PVCP | | | | eS | Sn | 07 57 42.8 | -4.3 |
| PGP | Puerto Galera | 13.53 | 351 | ⇑eP | P | 07 55 22.9 | +2.0 |
| UWJI | Ujung Watu | 13.69 | 242 | P | P | 07 55 21.4 | -1.2 |
| | comp=Z,1μm,1.6s,comp=Z,11μm | | | | | | |
| GQP | Guinayangan | 13.78 | 357 | ⇓iP | P | 07 55 24.7 | +1.1 |
| PWJI | Pagerwojo | 13.79 | 234 | P | P | 07 55 22.9 | -0.8 |
| | comp=Z,2μm,1.4s,comp=Z,19μm | | | | | | |
| LUBP | Lubang | 13.88 | 349 | eP | P | 07 55 25.6 | +0.9 |
| LQP | Lukban | 14.05 | 354 | eP | P | 07 55 29.1 | +2.3 |
| TGY | Tagaytay City | 14.12 | 352 | P | P | 07 55 30.3 | +2.8 |
| | comp=Z,68nm,0.3s,baz=245,slow=2.5,SNR=99 | | | | | | |

TGY Tagaytay City 14.12 352 eP P 07 55 30.6 +3.1
PCJI Pacitan 14.40 235 P P 07 55 30.1 -0.4
comp=Z,1µm,1.5s,comp=Z,16µm
SMRI Semarang 14.43 241 P P 07 55 30.8 -0.1
SMRI Semarang 14.43 241 ePn P 07 55 31.4 +0.6
UGM Wanagama 14.79 237 P P 07 55 35.0 +0.1
comp=Z,2µm,1.7s,comp=Z,22µm
UGM Wanagama 14.79 237 ⇓P P 07 55 36.1 +1.2
UGM Wanagama 14.79 237 ePn P 07 55 35.2 +0.3
MTN Manton Dam 15.10 148 P Pn 07 55 35.4 -1.6
baz=15,SNR=584
MTN Manton Dam 15.10 148 ePn Pn 07 55 36.5 -0.6
comp=Z,1µm,0.6s
BALP Baler 15.66 355 eP P 07 55 45.3 +0.9
KDU Kakadu 15.72 144 P Pn 07 55 42.8 -1.8
baz=16,SNR=82
KPJI Karang Pucung 15.89 242 P P 07 55 49.1 +2.1
SCZP Santa Cruz 15.94 349 eP P 07 55 50.5 +3.1
JCJI Jatiwangi 16.13 246 P P 07 55 53.1 +3.5
BOLP Bolinao 16.52 349 eP Pn 07 55 55.5 +1.1
KNRA Kununurra 16.61 160 P P 07 55 54.2 -0.6
baz=17,SNR=318
CAUP Cauayan 16.83 356 eP Pn 07 56 00.4 +2.3
CISI Cisompet, Garu 16.98 243 P Pn 07 55 59.5 -0.4
CISI Cisompet, Garu 16.98 243 eP P 07 55 59.3 +0.2
comp=Z,1µm,1.0s
PPBI Pangkal Pinang 17.06 263 P Pn 07 56 02.3 +1.4
GENI Genyem 17.30 99 P Pn 07 56 03.4 -0.3
CBJI Citeko 17.41 248 P Pn 07 56 06.0 +1.0
CNJI Cibinong 17.49 245 P Pn 07 56 05.4 -0.6
comp=Z,1µm,1.4s,comp=Z,15µm
TNG Tangerang 17.51 249 P Pn 07 56 07.0 +0.8
DBJI Dramaga 17.55 248 P Pn 07 56 07.6 +0.9
comp=Z,2µm,1.4s,comp=Z,29µm
CVP Callao Caves 17.59 356 i P Pn 07 56 08.4 +1.3
ABRA Dolores 17.64 353 eP Pn 07 56 08.4 +0.7
APYP Conner 17.79 354 eP Pn 07 56 10.1 +0.6
JAY Jayapura 17.82 98 P P 07 56 08.4 +0.1
comp=Z,3µm,1.2s,comp=Z,37µm
JAY Jayapura 17.82 98 P P 07 56 09.1 +0.8
SKJI Sukabumi 17.89 247 P Pn 07 56 11.3 +0.5
comp=Z,1µm,1.5s,comp=Z,24µmcomp=Z,20µm
SBJI Serang 17.98 250 P Pn 07 56 11.9 +0.2
SGCP Mt. Cagua 18.11 357 eP Pn 07 56 14.3 +1.1
FITZ Fitzroy Crossi 18.21 172 P P 07 56 12.3 -0.1
comp=Z,81nm,0.3s,baz=4.2,slow=9.5,SNR=903
FITZ S S 07 59 28.2 -4.0
baz=141,slow=23,SNR=12
FITZ Fitzroy Crossi 18.21 172 P P 07 56 12.4 -0.1
baz=18,SNR=1000
DSRI Dabo 18.49 268 P Pn 07 56 18.3 +0.5
comp=Z,7µm,1.1s,comp=Z,86µmcomp=Z,365µm
PMBI Palembang 18.52 261 P Pn 07 56 19.0 +0.9
TPRI Tanjung Pinang 18.56 273 P Pn 07 56 18.8 +0.3
BLSI Bandar Lampung 18.59 253 P Pn 07 56 19.0 +0.1
comp=Z,1µm,1.4s,comp=Z,15µm
KLI Kotabumi 18.83 255 P Pn 07 56 21.2 -0.5
KLI Kotabumi 18.83 255 P Pn 07 56 21.5 -0.2
KLI pmax pmax
comp=Z,837nm,1.4s
MMPI Merauke 19.22 117 P P 07 56 23.8 +0.3
MYKOM Kota Tinggi 19.29 275 ⇑P Pn 07 56 27.1 0.0
MYKOM Kota Tinggi 19.29 275 eP P 07 56 24.1 -0.2
comp=Z,4µm,1.9s
KASI Kota Agung 19.35 253 P Pn 07 56 27.3 -0.5
comp=Z,1µm,0.6s,comp=Z,14µm
JMBI JAMBI 19.49 265 P Pn 07 56 30.2 +0.7
LWLI Liwa 19.64 255 P Pn 07 56 30.4 -1.0
comp=Z,603nm,0.9s,comp=Z,12µm
KGM Kluang 19.84 276 ⇑P Pn 07 56 33.6 0.0
XMIS Christmas Isla 20.23 238 eP P 07 56 33.4 -1.0
comp=Z,1µm,1.0s
MNAI Manna 20.56 257 P P 07 56 39.6 +1.7
comp=Z,1µm,1.6s,comp=Z,29µm
MNAI Manna 20.56 257 eP P 07 56 37.7 -0.2
comp=Z,2µm,1.4s
KTGM Kuala Trenggan 20.58 285 ⇑P Pn 07 56 41.2 -1.4
RGRI Rengat 20.73 269 P Pn 07 56 42.5 -2.0
comp=Z,1µm,1.2s,comp=Z,45µm
MASI Maura Aman, Be 21.05 261 P P 07 56 44.8 +1.6
comp=Z,3µm,1.0s,comp=Z,38µm
MBWA Marble Bar 21.33 189 eP P 07 56 45.0 -1.0
comp=Z,1µm,1.3s
MBWA Marble Bar 21.33 189 P P 07 56 45.2 -0.8
SNR=40
FRIM Kepong 21.66 279 ⇓P P 07 56 52.5 +2.9
BKNI Bangkinang 22.02 271 P P 07 56 55.4 +2.1
BKNI Bangkinang 22.02 271 eP P 07 56 54.7 +1.4
comp=Z,2µm,1.3s
IPM Ipoh 22.45 282 ⇑P P 07 57 00.5 +3.1
IPM Ipoh 22.45 282 eP P 07 56 59.6 +2.1
comp=Z,5µm,1.5s
PDSI Padang 22.62 268 P P 07 57 01.6 +2.6
comp=Z,2µm,1.2s,comp=Z,24µm
TWG Pinlang 22.72 355 eP P 07 57 00.2 +0.5
comp=Z,2µm,0.9s
WRAB Tennant Creek 22.73 152 d iP P 07 56 58.6 -1.3
WRAB pmax pmax
comp=Z,881nm,1.1s
WRAB Tennant Creek 22.73 152 eP P 07 56 58.9 -1.0
comp=Z,3µm,1.5s
WRA Warramunga Arr 22.73 152 P P 07 56 58.7 -1.2
comp=Z,734nm,0.5s,baz=330,slow=10,SNR=786
WRA PcP PcP 08 00 47.2 +0.8
comp=Z,51nm,0.8s,baz=325,slow=2.4,SNR=6.5
WRA S S 08 00 50.5 -5.4
comp=Z,110nm,1.0s,baz=323,slow=17,SNR=8.6
WRA ScP ScP 08 04 08.8 +0.2
comp=Z,61nm,1.0s,baz=329,slow=2.6,SNR=9.4
WRA P3KPbc 08 30 23.6
comp=Z,2.3nm,0.9s,baz=144,slow=3.5,SNR=8.7
WRA Warramunga Arr 22.73 152 P P 07 56 58.7 -1.2
WRA 08 00 47.2
WRA S S 08 00 50.5 -5.4
WRA pmax pmax
comp=Z,463nm,0.6s
WRA smax smax
comp=N,110nm,1.0s
WB2 Warramunga Arr 22.74 152 eP P 07 56 58.8 -1.2
comp=N,3µm,1.5s
QIZ Qiongzhong 22.89 326 P P 07 57 03.4 +1.9
QIZ pP pP 07 57 33.8 +1.5
QIZ sP sP 07 57 51.5 -1.7
QIZ S S 08 01 03.9 +5.3
QIZ pmax pmax
comp=N,8µm,7.0s
QIZ Qiongzhong 22.89 326 eP P 07 57 03.3 +1.9
comp=N,3µm,1.1s
KULM Kulim 22.98 283 ⇓P P 07 57 04.9 +2.6
KULM Kulim 22.98 283 eP P 07 57 03.9 +1.7
comp=N,3µm,1.1s
PPSI Pulau Pagai 23.21 263 P P 07 57 05.4 +1.0
comp=N,3µm,1.1s,comp=N,34µm
TPUB Ta-pu 23.23 354 eP P 07 57 05.0 +0.6
comp=N,4µm,1.1s
TPUB eS S 08 01 09.0 +5.0
YULB Yu-li 23.27 356 eP P 07 57 05.8 +1.0
comp=N,2µm,1.3s
SKLT Songkhla 23.48 288 P P 07 57 09.7 +2.9
comp=N,4µm,1.2s
SSLB Suanglung 23.69 355 eP P 07 57 09.2 +0.6
comp=N,2µm,1.2s
SISI Saibi 24.01 267 P P 07 57 12.9 +1.2
comp=N,1µm,1.5s,comp=N,23µm
NACB Ninganchiao 24.03 357 eP P 07 57 12.4 +0.8
comp=N,993nm,1.6s
CHBT CHBT 24.13 302 P P 07 57 16.0 +3.3
comp=N,4µm,1.2s,comp=N,131µm
GIRL Giralia 24.14 200 P P 07 57 13.3 +0.6
baz=24,SNR=17
YOJ Yonaguni jima 24.27 360 eP P 07 57 15.0 +1.2
YOJ pmax pmax
comp=Z,2µm,1.1s
YOJ Yonaguni jima 24.27 360 eP P 07 57 15.0 +1.2
comp=Z,2µm,1.1s
PSI Prapat 24.28 277 P P 07 57 14.7 +0.4
comp=Z,207nm,0.9s,baz=105,slow=5.3,SNR=114
PSI PcP PcP 08 00 50.8 +0.8
comp=Z,138nm,1.0s,baz=200,slow=3.8,SNR=6.5
PSI ScP ScP 08 04 12.2 -0.9
comp=Z,63nm,1.0s,baz=84,slow=1.5,SNR=13
PSI Prapat 24.28 277 eP P 07 57 14.7 +0.4
PSI pmax pmax
comp=Z,420nm,1.1s
PSI Prapat 24.28 277 eP P 07 57 14.7 +0.4
comp=Z,415nm,1.1s
PSI PcP PcP 08 00 50.8 +0.8
PSI ScP ScP 08 04 12.2 -0.9
COEN Coen 24.29 126 P P 07 57 13.3 -0.9
baz=24,SNR=65
COEN Coen 24.29 126 eP P 07 57 13.4 -0.9
comp=Z,336nm,0.8s
YHNB Yeheng 24.53 356 eP P 07 57 16.9 +0.6
comp=Z,4µm,2.0s
TRTT Trang 24.55 289 P P 07 57 18.9 +2.3
comp=Z,2µm,1.2s,comp=Z,22µm
GZH Guangzhou 24.77 338 P P 07 57 24.3 +5.9
GZH pP pP 07 57 56.8 +4.4
GZH sP PP 07 58 15.8 -2.3
GZH S S 08 01 34.9 +6.4
GZH pmax pmax
comp=Z,11µm,6.1s
PBSI Pulau Batu 24.78 270 P P 07 57 21.3 +2.6
comp=Z,517nm,0.8s,comp=Z,9µm
TATO Taipei 24.83 357 eP P 07 57 19.6 +0.7
comp=Z,1µm,1.4s
TATO Taipei 24.83 357 P P 07 57 23.3 +4.4
SNR=6.2
QZH Quanzhou 25.12 350 ⇑iP P 07 57 21.8 +0.2
QZH sP sP 07 58 15.0 -0.5
QZH S S 08 01 33.1 -0.9
QZH pmax pmax
comp=Z,4µm,1.4s
QZH LR LR
comp=Z,6µm,14.2s
QZH LR LR
comp=Z,3µm,7.1s
QZH LR LR
comp=Z,12µm,20.6s
SKNT Sakolnakorn 25.23 313 P P 07 57 24.8 +2.2
comp=Z,3µm,1.1s,comp=Z,38µm
WRKA Warakurna 25.45 169 P P 07 57 24.0 -0.5
baz=26,SNR=898
GUMO Guam 25.45 57 P P 07 57 24.4 -0.2
comp=Z,353nm,0.9s,baz=194,slow=5.7,SNR=9.4
GUMO LR LR 08 05 51.8
comp=Z,3µm,20.7s,baz=238,slow=32
GUMO Guam 25.45 57 P P 07 57 24.4 -0.2
GUMO pmax pmax
comp=Z,316nm,0.8s
GUMO MLR MLR
comp=Z,3µm,20.7s
GUMO Guam 25.45 57 eP P 07 57 24.3 -0.3
comp=Z,1µm,1.3s
KCSI Kotacane, Aceh 25.51 278 P P 07 57 27.1 +1.8
comp=Z,320nm,1.2s,comp=Z,7µmcomp=Z,10µm
GSI Gunungsitoli 25.52 273 P P 07 57 27.9 +2.6
comp=Z,418nm,1.3s,comp=Z,6µm
GSI Gunungsitoli 25.52 273 eP P 07 57 25.6 +0.2
comp=Z,471nm,1.1s
KHON Khomkaen 25.70 310 P P 07 57 29.6 +2.7
comp=Z,1µm,0.9s,comp=Z,10µm
SURT Suratani 25.74 291 P P 07 57 29.6 +2.3
comp=Z,406nm,1.2s,comp=Z,5µm
PMG Port Moresby 25.76 112 P P 07 57 27.5 -0.1
comp=Z,605nm,1.0s,baz=328,slow=4.9,SNR=178
PMG Port Moresby 25.76 112 c iP P 07 57 27.3 -0.2
PMG pmax pmax
comp=Z,3µm,1.1s
PMG Port Moresby 25.76 112 eP P 07 57 27.4 -0.1
comp=Z,982nm,1.1s
AS31 Alice Springs 25.82 157 eP P 07 57 27.4 -0.6
comp=Z,93nm,0.9s
ASAR Alice Springs 25.82 157 P P 07 57 27.4 -0.5
comp=Z,74nm,0.6s,baz=325,slow=7.4,SNR=248
ASAR PcP PcP 08 00 53.6 +0.5
comp=Z,85nm,0.5s,baz=342,slow=2.2,SNR=17
ASAR ScP ScP 08 04 17.4 +0.3
comp=Z,42nm,1.0s,baz=321,slow=2.1,SNR=8.3
ASAR PKiKP PKiKP 08 08 32.4 -0.7
comp=Z,7.3nm,0.9s,baz=2.2,slow=1.2,SNR=5.4
ASAR P3KPbc 08 30 12.0
comp=Z,3.1nm,1.3s,baz=150,slow=4.3,SNR=5.1
ASAR Alice Springs 25.82 157 P P 07 57 27.5 -0.5
ASAR 08 00 53.7
ASAR pmax pmax
comp=Z,87nm,0.6s
AS01 Alice Springs 25.83 157 eP P 07 57 27.6 -0.5
PKDT Phuket 25.85 288 P P 07 57 30.8 +2.5
comp=Z,584nm,0.9s,comp=Z,8µm
TPTI 26.07 277 P P 07 57 31.3 +1.0
CHAI Chaiyaphum 26.09 308 P P 07 57 32.8 +2.3
comp=Z,551nm,1.1s,comp=Z,4µm
QIS Mount Isa 26.10 143 P P 07 57 30.4 -0.1
baz=26,SNR=285
PHET Kaeng Krachan 26.52 300 P P 07 57 37.1 +2.8
comp=Z,126nm,1.0s,comp=Z,916nm
NONG Nongkai 26.53 313 P P 07 57 36.1 +1.7
comp=Z,1µm,1.2s,comp=Z,13µm
LHMI Lhok Sumawe 26.58 282 P P 07 57 37.6 +2.7
comp=Z,724nm,0.9s,comp=Z,12µm
LHMI Lhok Sumawe 26.58 282 eP P 07 57 36.5 +1.6
comp=Z,716nm,1.0s
SNSI Sinabang, Aceh 26.83 275 P P 07 57 40.0 +2.9
comp=Z,454nm,1.6s,comp=Z,8µm
MLSI Meulaboh, Aceh 26.96 279 P P 07 57 39.4 +1.1
JOW Kunigami 27.10 10 eP P 07 57 39.5 +0.2
comp=Z,741nm,1.4s
PBKT Sadao Pong 27.28 308 P P 07 57 43.1 +2.1
comp=Z,461nm,1.2s,comp=Z,6µm
MTSU Mount Surprise 27.62 132 P P 07 57 44.3 +0.2
baz=28,SNR=73
SRDT SRDT 27.62 302 P P 07 57 47.3 +3.2
comp=Z,1µm,1.4s,comp=Z,28µm
SARN Sarigan 27.84 52 eP P 07 57 47.0 +0.9
UTHA Uthaitani 27.96 305 P P 07 57 49.6 +2.5
comp=Z,213nm,1.2s,comp=Z,2µm
COCO West Island 28.73 244 i P P 07 57 53.9 0.0
COCO West Island 28.73 244 eP P 07 57 53.6 -0.4
comp=Z,140nm,0.8s
PHRA Phrae 28.97 311 P P 07 57 59.8 +3.7
comp=Z,15nm,0.6s,comp=Z,76µm
RABL Rabaul 29.38 99 eP P 07 58 00.7 +0.9
comp=Z,4µm,0.8s
MORW Morawa 29.72 192 P P 07 58 01.9 -0.6
baz=30,SNR=33
CM01 Chiang Mai Arr 29.90 309 eP P 07 58 07.0 +2.7
CM31 Chiang Mai Arr 29.94 309 eP P 07 58 07.5 +2.9
CMAR Chiang Mai Arr 29.94 309 P P 07 58 07.3 +2.7
comp=Z,155nm,0.8s,baz=135,slow=6.5,SNR=244
CMAR PcP PcP 08 01 04.5 +1.3
comp=Z,167nm,1.0s,baz=161,slow=1.9,SNR=29
CMAR ScP ScP 08 04 30.8 +0.9
comp=Z,18nm,1.1s,baz=153,slow=3.0,SNR=5.8
CMAR PKiKP PKiKP 08 08 36.0 +0.4
comp=Z,8.6nm,0.8s,baz=280,slow=1.2,SNR=11
CMAR LR LR 08 11 43.1
comp=Z,2µm,21.5s,baz=116,slow=39
CMMT Chiang Mai 30.14 310 P P 07 58 08.7 +2.3
comp=Z,928nm,1.4s,comp=Z,13µm
CHTO Chiang Mai 30.14 310 P P 07 58 08.7 +2.3
comp=Z,4µm,1.4s,comp=Z,57µm
CHTO Chiang Mai 30.14 310 eP P 07 58 09.2 +2.8
CHTO pmax pmax
comp=Z,770nm,1.0s
CHTO Chiang Mai 30.14 310 eP P 07 58 09.2 +2.8
comp=Z,768nm,0.9s
CHTO Chiang Mai 30.14 310 P P 07 58 09.4 +2.9
SNR=347
CTA Charters Tower 30.27 133 P P 07 58 08.1 +0.6
comp=Z,139nm,1.0s,baz=315,slow=12,SNR=121
CTA ScP ScP 08 04 31.9 +1.0
comp=Z,52nm,1.1s,baz=49,slow=20,SNR=3.8
CTA LR LR 08 11 07.4
comp=Z,2µm,19.0s,baz=260,slow=38
CTAO Charters Tower 30.27 133 eP P 07 58 08.1 +0.6
CTAO pmax pmax
comp=Z,320nm,1.2s
CTAO Charters Tower 30.27 133 eP P 07 58 08.1 +0.6
comp=Z,321nm,1.2s
GYA Guiyang 30.64 330 ⇑iP P 07 58 13.3 +2.4
GYA pP pP 07 58 47.8 +1.9
GYA sP sP 07 59 08.8 +3.6
GYA PP PP 07 59 21.0 -2.6
GYA PcP PcP 08 01 06.8 +1.7
GYA S S 08 03 04.0 +2.9
GYA sS sS 08 04 02.8 -0.1
GYA ScP ScP 08 04 34.3 +2.1
GYA PcS PcS 08 04 50.0 +0.6
GYA SS SnSn 08 04 59.6 -0.6
GYA ScS ScS 08 08 29.5 +0.4
GYA pmax pmax
comp=Z,1µm,0.9s
GYA pmax pmax
comp=Z,3µm,7.2s
GYA LR LR
comp=Z,5µm,18.7s
GYA LR LR
comp=Z,11µm,15.2s
GYA LR LR
comp=Z,6µm,14.9s
SSE Sheshan 30.93 357 P P 07 58 15.3 +2.1
SSE pP pP 07 58 49.0 +0.8
SSE sP sP 07 59 07.3 -0.2
SSE S S 08 03 12.5 +7.4
SSE pmax pmax
comp=Z,200nm,1.0s
SSE pmax pmax
comp=Z,1µm,5.7s
SSE LR LR
comp=Z,4µm,31.5s
SSE LR LR
comp=Z,5µm,31.5s
SSE LR LR
comp=Z,6µm,26.6s
FORT Forrest 31.02 172 P P 07 58 13.5 -0.5
baz=31,SNR=228
FORT Forrest 31.02 172 eP P 07 58 13.4 -0.6
comp=Z,6µm,0.6s
BLDU Ballidu 31.09 191 P P 07 58 13.7 -0.9
baz=31,SNR=69
KMBL Kambalda 31.26 182 P P 07 58 15.3 -0.8
baz=31,SNR=33
WHN Wuhan 31.44 345 ⇑P P 07 58 20.8 +3.2
WHN pP pP 07 58 54.3 +1.6
WHN sP sP 07 59 13.6 +1.6
WHN S S 08 03 12.1 -1.0
WHN LR LR
comp=Z,14µm,14.4s
WHN LR LR
comp=Z,21µm,17.9s
WHN LR LR
comp=Z,13µm,18.2s
KMI Kunming 31.74 323 P P 07 58 23.6 +2.9
KMI pP pP 07 58 58.8 +3.0
KMI sP sP 07 59 17.8 +2.7
KMI PP PP 07 59 36.6 +0.7
KMI S S 08 03 21.5 +3.0
KMI sS sS 08 04 24.3 +3.9
KMI SS SnSn 08 05 19.8 -7.0
KMI pmax pmax
comp=Z,170nm,0.8s
KMI pmax pmax
comp=Z,4µm,5.7s
KMI LR LR
comp=Z,4µm,12.7s
KMI LR LR
comp=Z,4µm,14.3s
KMI LR LR
comp=Z,4µm,14.7s
KLBR Kellerberrin 31.87 189 P P 07 58 20.6 -0.8
baz=32,SNR=73
NJ2 Nanjing 32.08 353 eP P 07 58 25.1 +1.9
NJ2 pP pP 07 59 02.6 +4.2
NJ2 PP PnPn 07 59 36.4 +0.3
NJ2 S S 08 03 23.4 +0.4
NJ2 ScP ScP 08 04 35.6 -1.1
NJ2 pmax pmax
comp=Z,280nm,1.4s
NJ2 pmax pmax
comp=Z,4µm,4.6s
NJ2 LR LR
comp=Z,3µm,13.8s
NJ2 LR LR
comp=Z,2µm,13.0s
NJ2 LR LR
comp=Z,10µm,17.9s
PBA Port Blair 32.24 292 eP P 07 58 24.9 0.0
MUN Mundaring 32.51 191 P P 07 58 26.6 -0.4
baz=33,SNR=7.7
CBIJ Chichi jima 32.58 33 eP P 07 58 26.8 -0.8
comp=Z,4µm,0.9s
CBIJ S S 08 03 24.9 -6.0
JCJ Chichijima 32.58 33 P P 07 58 26.7 -0.9
comp=Z,3µm,0.8s,baz=102,slow=3.2,SNR=126
JCJ S S 08 03 24.9 -6.0
comp=Z,929nm,1.1s,baz=346,slow=23,SNR=15
JCJ LR LR 08 10 15.2
comp=Z,2µm,21.3s,baz=264,slow=33
DGPR DIGLIPUR 32.59 295 eP P 07 58 27.9 0.0
ENH Enshi 32.72 338 eP P 07 58 30.6 +1.8
comp=Z,3µm,1.1s
NWAO Narrogin (SRO) 33.26 189 P P 07 58 33.0 -0.4
comp=Z,121nm,0.9s,baz=255,slow=7.7,SNR=50
NWAO PcP PcP 08 01 13.0 +1.0
comp=Z,160nm,1.0s,baz=357,slow=0.7,SNR=5.7
NWAO Narrogin (SRO) 33.26 189 P P 07 58 33.0 -0.4
baz=33,SNR=44
NWAO P P 07 58 33.0 -0.4
baz=33,SNR=44
NWAO Narrogin (SRO) 33.26 189 eP P 07 58 33.1 -0.4
NWAO pmax pmax
comp=Z,320nm,1.2s
NWAO Narrogin (SRO) 33.26 189 eP P 07 58 33.1 -0.4
comp=Z,324nm,1.2s
NWAO PcP PcP 08 01 13.0 +1.0
NWAO Narrogin (SRO) 33.26 189 P P 07 58 34.1 +0.6
SNR=7.8
QLP Quilpie 33.42 144 P P 07 58 35.0 0.0
baz=33,SNR=14
JNU Nakatsue 33.71 12 P P 07 58 37.4 -0.1
comp=Z,181nm,0.8s,baz=191,slow=3.5,SNR=49
JNU Nakatsue 33.71 12 eP P 07 58 37.6 +0.1
comp=Z,206nm,0.9s
BBOO Buckleboo 34.90 161 P P 07 58 47.1 -0.6
baz=35,SNR=47
BBOO Buckleboo 34.90 161 eP P 07 58 47.2 -0.6
comp=Z,682nm,1.6s
RKGY Rocky Gully 34.94 189 P P 07 58 48.7 +0.7
baz=35,SNR=22
CD2 Chengdu 35.75 331 ⇑iP P 07 58 56.4 +1.4
CD2 pP pP 07 59 33.0 +2.4
CD2 sP sP 07 59 49.9 +0.1
CD2 PP PnPn 08 00 23.3 +2.2
CD2 PcP PcP 08 01 20.6 +1.3
CD2 S S 08 04 22.6 +2.9
CD2 sS sS 08 05 28.8 +4.4
CD2 SS SS 08 06 55.4 -6.2
CD2 ScS ScS 08 08 57.9 +2.5
CD2 pmax pmax
comp=Z,2µm,1.2s
CD2 pmax pmax
comp=Z,5µm,4.8s
PATS Pohnpei 35.80 78 P P 07 58 56.3 +0.7
baz=36,SNR=22
PATS Pohnpei 35.80 78 eP P 07 58 56.2 +0.5
comp=Z,2µm,1.3s
RMQ Roma 36.17 139 P P 07 58 58.5 -0.1
baz=36,SNR=27
STKA Stephens Creek 36.27 153 P P 07 58 59.4 0.0
comp=Z,104nm,0.6s,baz=325,slow=8.9,SNR=319
STKA PcP PcP 08 01 21.1 +0.3
comp=Z,134nm,0.7s,baz=353,slow=3.2,SNR=6.2
STKA ScP ScP 08 04 52.3 +0.7
comp=Z,96nm,1.1s,baz=266,slow=3.7,SNR=5.3
STKA Stephens Creek 36.27 153 P P 07 58 59.4 0.0
baz=36,SNR=307
STKA Stephens Creek 36.27 153 eP P 07 58 59.3 -0.1
STKA pmax pmax
comp=Z,80nm,1.1s
STKA Stephens Creek 36.27 153 eP P 07 58 59.3 -0.1
comp=Z,80nm,1.1s
STKA PcP PcP 08 01 21.1 +0.3
STKA ScP ScP 08 04 52.3 +0.7
XAN Xi'an 36.32 340 P P 07 59 00.5 +0.7
XAN pP pP 07 59 35.3 -0.3
XAN sP sP 07 59 53.8 -0.9
XAN PP PnPn 08 00 29.1 +1.1
XAN S S 08 04 27.8 -0.6
XAN sS sS 08 05 28.8 -2.3
XAN SS SS 08 07 02.9 -11
XAN ScS ScS 08 08 57.6 -0.8
XAN pmax pmax
comp=Z,1µm,1.2s
XAN pmax pmax
comp=Z,4µm,6.4s
XAN LR LR
comp=Z,2µm,12.5s
XAN LR LR

comp=Z,2µm,13.8s
XAN LR LR
comp=Z,5µm,14.4s
**TJN Taejon 36.37 6** *i* P **P 07 58 59.7 -0.4**
**TIA Tai'an 36.40 352** ⇑P **P 07 59 00.8 +0.4**
TIA S **S 08 04 27.8 -1.6**
TIA pmax pmax
comp=Z,160nm,1.4s
TIA pmax pmax
comp=Z,3µm,6.7s
TIA LR LR
comp=Z,5µm,14.0s
TIA LR LR
comp=Z,4µm,14.0s
TIA LR LR
comp=Z,6µm,16.0s
**JHJ Hachijo jima 2 36.47 24** P **P 07 59 01.1 +0.1**
comp=Z,114nm,0.4s,baz=249,slow=24,SNR=5.7
**EIDS Eidsvold 37.03 135** P **P 07 59 05.0 -0.9**
baz=37,SNR=26
**EIDS Eidsvold 37.03 135** *eP* **P 07 59 05.1 -0.9**
comp=Z,256nm,1.4s
**INCN Inchon 37.40 5** *eP* **P 07 59 09.9 +1.1**
comp=Z,83nm,0.8s
**INCN Inchon 37.40 5** P **P 07 59 11.1 +2.3**
SNR=11
**INU Inuyama 37.46 19** *eP* **P 07 59 09.7 +0.3**
comp=Z,1µm,1.1s
**KS15 Wonju Array Si 37.48 6** *eP* **P 07 59 10.4 +1.0**
**KSAR Wonju Array Be 37.48 6** P **P 07 59 10.3 +0.8**
KSAR 08 01 25.6
**KSAR Wonju Array Be 37.48 6** P **P 07 59 10.2 +0.8**
KSAR PcP **PcP 08 01 25.6 +1.2**
KSAR ScP **ScP 08 04 56.2 +0.3**
KSAR PKiKP **PKiKP 08 08 40.4 -0.3**
**KSRS Korea Array 37.49 6** P **P 07 59 10.2 +0.7**
comp=Z,94nm,0.9s,baz=183,slow=10,SNR=89
KSRS PcP **PcP 08 01 25.6 +1.2**
comp=Z,41nm,0.9s,baz=188,slow=2.4,SNR=9.5
KSRS ScP **ScP 08 04 56.2 +0.2**
comp=Z,16nm,1.0s,baz=190,slow=3.6,SNR=9.1
KSRS PKiKP **PKiKP 08 08 40.4 -0.3**
comp=Z,4.5nm,0.9s,baz=201,slow=2.3,SNR=7.4
KSRS LR LR 08 14 19.2
comp=Z,5µm,21.9s,baz=190,slow=36
**KSRS Korea Array 37.49 6** P **P 07 59 10.3 +0.7**
KSRS 08 01 25.6
KSRS pmax pmax
comp=Z,89nm,0.9s
**KS01 Wonju Array Si 37.51 6** *eP* **P 07 59 10.3 +0.6**
**HNR Honiara 37.90 105** *eP* **P 07 59 12.0 -1.4**
HNR *eS* **S 08 04 50.0 -2.7**
**HNR Honiara 37.90 105** P **P 07 59 12.9 -0.5**
comp=Z,2µm,0.9s,baz=215,slow=2.3,SNR=87
**HNR Honiara 37.90 105** *eP* **P 07 59 12.9 -0.5**
comp=Z,2µm,0.8s
**CMSA Cobar Meteorol 38.03 148** P **P 07 59 14.8 +0.6**
baz=38,SNR=269
**DL2 Dalian 38.69 358** ⇑*i*P **P 07 59 18.6 -1.0**
DL2 pP **pP 07 59 56.3 +0.6**
DL2 sP **sP 08 00 12.6 -2.1**
DL2 PcP **PcP 08 01 31.1 +3.0**
DL2 S **S 08 05 00.4 -3.5**
DL2 PcS **PcS 08 05 17.0 -0.6**
DL2 sS **sS 08 06 05.5 -1.6**
DL2 SS **SS 08 07 51.8 -10**
DL2 pmax pmax
comp=Z,290nm,1.1s
DL2 pmax pmax
comp=Z,2µm,5.6s
**TIY Taiyuan 38.74 346** *eP* **P 07 59 20.8 +0.7**
TIY pP **pP 07 59 59.9 +3.7**
TIY sP **sP 08 00 14.9 -0.3**
TIY S **S 08 05 04.8 -0.1**
TIY pmax pmax
comp=Z,390nm,0.8s
TIY LR LR
comp=Z,4µm,14.1s
TIY LR LR
comp=Z,2µm,12.1s
TIY LR LR
comp=Z,3µm,13.8s
**MAJO Matsushiro 38.94 20***c i*P **P 07 59 21.0 -0.7**
MAJO pmax pmax
comp=Z,891nm,1.1s
**MAJO Matsushiro 38.94 20** *eP* **P 07 59 21.2 -0.5**
comp=Z,965nm,1.0s
**MAT Matsushiro 38.94 20** P **P 07 59 21.0 -0.7**
MAT S **S 08 05 09.5 +1.8**
**MJAR Matsushiro Arr 38.94 20** P **P 07 59 21.1 -0.6**
comp=Z,550nm,0.9s,baz=193,slow=9.0,SNR=609
MJAR PcP **PcP 08 01 29.3 +0.3**
comp=Z,78nm,1.1s,baz=210,slow=2.9,SNR=5.7
MJAR ScP **ScP 08 05 01.6 0.0**
comp=Z,26nm,1.2s,baz=196,slow=6.7,SNR=8.1
MJAR LR LR 08 14 23.4
comp=Z,3µm,21.9s,baz=230,slow=34
**MJB9 Matsu-Tunnel 38.94 20** *eP* **P 07 59 21.3 -0.4**
comp=Z,1µm,1.0s
**SHL Shillong 39.37 313** *eP* **P 07 59 26.5 +0.8**
SHL AMB AMB 07 59 30.0
comp=Z,1µm,1.7s
SHL *eS* **S 08 05 16.0 +1.2**
**LZH Lanzhou 40.06 336** ⇑P **P 07 59 33.3 +2.1**
LZH pP pP 08 00 07.4 -0.1
LZH sP sP 08 00 26.0 -0.5
LZH PP **PnPn 08 01 10.6 -1.5**
LZH PcP **PcP 08 01 34.3 +1.6**
LZH ScP **ScP 08 05 06.4 +0.2**
LZH PcS **PcS 08 05 24.0 +0.6**
LZH S **S 08 05 27.0 +2.2**
LZH sS sS 08 06 28.1 -0.2
LZH SS **SS 08 08 27.0 -2.4**
LZH pmax pmax
comp=Z,3µm,1.3s
LZH pmax pmax
comp=Z,6µm,4.5s
LZH LR LR
comp=Z,9µm,14.5s
LZH LR LR
comp=Z,5µm,13.2s
LZH LR LR
comp=Z,8µm,15.2s
**BJT Baijiatuau 40.28 352** *eP* **P 07 59 32.9 +0.2**
BJT pmax pmax
comp=Z,1µm,2.0s
**BJT Baijiatuau 40.28 352** *eP* **P 07 59 32.9 +0.2**
comp=Z,1µm,2.0s
**BJI Beijing 40.30 352** P **P 07 59 33.3 +0.5**
BJI pP **pP 08 00 08.0 -1.1**
BJI sP **sP 08 00 29.3 +1.2**
BJI PP **PnPn 08 01 12.9 -1.7**
BJI PcP **PcP 08 01 34.3 +1.2**
BJI ScP **ScP 08 05 06.9 +0.1**
BJI PcS **PcS 08 05 24.3 +0.5**
BJI S **S 08 05 29.9 +2.1**
BJI sS **sS 08 06 32.5 +1.2**
BJI pmax pmax
comp=Z,170nm,1.3s
BJI pmax pmax
comp=Z,3µm,4.1s
BJI LR LR
comp=Z,3µm,16.8s
BJI LR LR
comp=Z,3µm,15.0s
**ARPS Mount Arapiles 40.56 157** P **P 07 59 35.5 +0.5**
baz=41,SNR=76
**ARMA Armidale 40.69 141** P **P 07 59 36.3 -0.1**
baz=41,SNR=68
**ARMA Armidale 40.69 141** *eP* **P 07 59 37.9 +1.5**
comp=Z,226nm,0.8s
**SNY Shenyang 41.59 1** ⇑P **P 07 59 43.0 -0.4**
SNY S **S 08 05 43.3 -3.6**
SNY pmax pmax
comp=Z,160nm,1.3s
SNY pmax pmax
comp=Z,2µm,3.3s
SNY LR LR
comp=Z,5µm,22.1s
SNY LR LR
comp=Z,4µm,20.1s
SNY LR LR
comp=Z,8µm,23.0s
**YNG Young 41.60 148** P **P 07 59 43.6 -0.1**
baz=42,SNR=47

**HHC Hu-ho-hao-te 41.94 347** ⇑P **P 07 59 47.3 +0.9**
HHC pP pP 08 00 20.1 -2.8
HHC sP sP 08 00 42.3 +0.5
HHC S **S 08 05 56.8 +4.6**
HHC SS **SS 08 08 59.3 -6.7**
HHC pmax pmax
comp=Z,180nm,1.9s
HHC pmax pmax
comp=Z,3µm,4.6s
**BTO Baotou 42.08 345** *eP* **P 07 59 47.6 +0.1**
**MGCD Mangrove Creek 42.31 144** P **P 07 59 49.6 +0.2**
baz=42,SNR=24
**LSA Lhasa 42.36 317** P **P 07 59 53.5 +3.1**
LSA S **S 08 06 06.8 +7.3**
LSA pmax pmax
comp=Z,750nm,1.0s
LSA pmax pmax
comp=Z,4µm,4.0s
LSA LR LR
comp=Z,760nm,20.6s
LSA LR LR
comp=Z,2µm,18.3s
LSA LR LR
comp=Z,3µm,21.7s
**LSA Lhasa 42.36 317** *eP* **P 07 59 52.8 +2.4**
LSA pmax pmax
comp=Z,813nm,0.9s
**LSA Lhasa 42.36 317** *eP* **P 07 59 52.8 +2.4**
comp=Z,813nm,0.9s
**CHLP Challavanipeta 42.47 298** *eP* **P 07 59 52.0 +1.1**
CHLP IAmb IAmb 07 59 54.7
comp=Z,996nm,1.2s
CHLP *es*P **sP 08 00 45.9 -0.5**
CHLP *eP*cP **PcP 08 01 37.4 -3.4**
CHLP *eS*cP **ScP 08 05 17.0 +1.1**
CHLP *eS*S **S 08 06 00.3 -0.2**
**CAN Canberra 42.70 148** *eP* **P 07 59 53.8 +1.2**
CAN pmax pmax
comp=Z,230nm,0.7s
**CAN Canberra 42.70 148** *eP* **P 07 59 53.8 +1.2**
comp=Z,228nm,0.7s
**TOO Toolangi 42.78 153** P **P 07 59 53.2 +0.1**
baz=43,SNR=35
**VIS Vishakhapatnam 42.84 296** *i* P **P 07 59 54.1 +0.2**
VIS *i* x 08 01 43.0
**PALK Pallekele 42.85 281** P **P 07 59 53.4 -0.7**
comp=Z,98nm,1.0s,baz=116,slow=7.0,SNR=28
PALK PcP **PcP 08 01 43.8 +1.6**
comp=Z,68nm,0.9s,baz=117,slow=2.4,SNR=7.2
PALK ScP **ScP 08 05 18.6 +0.9**
comp=Z,60nm,1.1s,baz=116,slow=1.5,SNR=6.6
PALK LR LR 08 18 37.5
comp=Z,1µm,19.1s,baz=116,slow=37
**PALK Pallekele 42.85 281** *i* P **P 07 59 53.9 -0.2**
SNR=24
**PALK Pallekele 42.85 281** *eP* **P 07 59 55.0 +0.9**
PALK 08 01 43.8
PALK pmax pmax
comp=Z,269nm,1.1s
**PALK Pallekele 42.85 281** *eP* **P 07 59 55.0 +0.9**
comp=Z,269nm,1.1s
PALK PcP **PcP 08 01 43.8 +1.6**
PALK ScP **ScP 08 05 18.6 +0.9**
**PALK Pallekele 42.85 281** P **P 07 59 54.9 +0.8**
SNR=17
**CNB Canberra Magne 42.89 148** P **P 07 59 54.3 +0.2**
baz=43,SNR=40
**MSHR Mys Shultsa 42.96 9***c i*P **P 07 59 55.2 +0.7**
**BOK Bokaro 43.10 306** *eP* **P 07 59 57.5 +1.6**
**ODAN Odare 43.44 311** *eP* **P 08 00 00.3 +1.4**
comp=Z,3µm,1.2s
**TAPN Taplejung 43.46 312** *eP* **P 08 00 00.6 +1.5**
comp=Z,3µm,1.1s
**VLA Vladivostok 43.60 9***c i*P **P 07 59 59.7 +0.1**
VLA pmax pmax
comp=Z,199nm,1.0s
**CN2 Changchun 43.61 3** *eP* **P 08 00 00.5 +0.8**
CN2 *es*P sP 08 00 54.3 -1.0
CN2 PP **PP 08 01 46.3 +1.6**
CN2 *eS* **S 08 06 18.4 +2.0**
CN2 SS **SS 08 09 31.5 -6.8**
CN2 LR LR
comp=Z,2µm,22.0s
CN2 LR LR
comp=Z,1µm,22.0s
CN2 LR LR
comp=Z,2µm,23.0s
**RAMN Ramite 44.09 310** *eP* **P 08 00 05.7 +1.6**
**MILA Mila 44.11 150** P **P 08 00 04.0 +0.1**
baz=44,SNR=11
**PVM Polavaram 44.23 295** *eP* **P 08 00 05.8 +0.8**
PVM IAmb IAmb 08 00 08.0
comp=Z,824nm,1.5s
PVM *es*P **sP 08 01 00.3 -0.4**
PVM *eP*cP **PcP 08 01 47.1 +0.4**
PVM *eP*P **PP 08 01 54.1 +2.5**
PVM *eS*cP **ScP 08 05 20.4 -2.6**
PVM *eS*S **S 08 06 26.2 +0.1**
PVM *eS*cS **ScS 08 09 43.0 -3.2**
**MDRS Chennai 44.36 289** *eP* **P 08 00 07.1 +1.0**
**GTA Gaotai 44.58 334** ⇑P **P 08 00 08.8 +1.2**
GTA pP pP 08 00 44.3 -0.2
GTA sP sP 08 01 03.3 0.0
GTA PcP **PcP 08 01 49.3 +1.6**
GTA ScP **ScP 08 05 25.3 +1.1**
GTA PcS **PcS 08 05 40.0 -1.4**
GTA S **S 08 06 31.9 +1.1**
GTA sS sS 08 07 37.5 +2.2
GTA ScS **ScS 08 09 47.8 -0.1**
GTA SS **SS 08 09 51.8 -3.7**
GTA pmax pmax
comp=Z,1µm,1.4s
GTA pmax pmax
comp=Z,5µm,8.1s
GTA LR LR
comp=Z,4µm,20.4s
GTA LR LR
comp=Z,4µm,18.8s
GTA LR LR
comp=Z,3µm,21.9s
**USRK Ussuriysk Ar. 44.67 9** P **P 08 00 08.6 +0.4**
comp=Z,173nm,0.8s,baz=193,slow=7.0,SNR=266
USRK ScP **ScP 08 05 24.2 -0.1**
comp=Z,23nm,1.1s,baz=202,slow=3.1,SNR=5.2
USRK LR LR 08 17 23.9
comp=Z,2µm,22.0s,baz=189,slow=34
**MDJ Mudanjiang 44.76 7** P **P 08 00 09.3 +0.5**
MDJ pP pP 08 00 42.8 -2.9
MDJ sP sP 08 00 59.8 -4.7
MDJ PcP **PcP 08 01 48.4 +0.4**
MDJ PP **PP 08 01 55.3 -1.5**
MDJ ScP **ScP 08 05 24.3 -0.4**
MDJ PcS **PcS 08 05 42.3 +0.7**
MDJ S **S 08 06 31.8 -1.1**
MDJ pmax pmax
comp=Z,510nm,1.1s
MDJ pmax pmax
comp=Z,2µm,6.7s
MDJ LR LR
comp=Z,3µm,18.8s
MDJ LR LR
comp=Z,2µm,20.7s
MDJ LR LR
comp=Z,4µm,18.8s
**MDJ Mudanjiang 44.76 7** *eP* **P 08 00 09.2 +0.5**
comp=Z,516nm,0.9s
**JIRN Jiri 44.77 311** *eP* **P 08 00 11.1 +1.5**
**SKHT Srikalahasti 45.03 289** *eP* **P 08 00 11.3 -0.1**
SKHT IAmb IAmb 08 00 13.6
comp=Z,642nm,1.6s
SKHT *es*P **sP 08 01 09.5 +2.4**
SKHT *eP*cP **PcP 08 01 50.1 +0.6**
SKHT *eP*P **PP 08 02 03.0 +2.8**
SKHT *eS*cP **ScP 08 05 26.3 -0.1**
SKHT *eS*S **S 08 06 36.0 -1.7**
SKHT *eS*cS **ScS 08 09 49.4 -2.0**
**GUN Gumba 45.13 311** *eP* **P 08 00 13.9 +1.4**
**KWAJ Kwajalein Atol 45.21 78** *eP* **P 08 00 13.8 +0.9**
KWAJ pmax pmax
comp=Z,871nm,1.1s
**KWAJ Kwajalein Atol 45.21 78** *eP* **P 08 00 13.8 +0.9**
comp=Z,871nm,1.1s
**PKI Pulchoki 45.32 310** *eP* **P 08 00 14.9 +1.0**
**ADKI Addanki 45.33 292** *eP* **P 08 00 13.9 +0.2**

ADKI IAmb IAmb 08 00 16.3
comp=Z,1µm,1.8s
ADKI *ep*P **pP 08 00 52.4 +1.6**
ADKI *es*P **sP 08 01 09.4 -0.1**
ADKI *eP*cP **PcP 08 01 50.3 -0.3**
ADKI *eP*P **PP 08 02 04.9 +1.7**
ADKI *eS*cP **ScP 08 05 27.8 +0.1**
ADKI *eS*S **S 08 06 40.5 -1.4**
ADKI *eS*cS **ScS 08 09 51.2 -2.0**
**PKIN Phulchoki 45.33 310** *eP* **P 08 00 14.8 +0.9**
**KKN Kakani 45.53 310** *eP* **P 08 00 16.5 +1.1**
comp=Z,3µm,1.1s
**ERM Erimo 45.54 21** *eP* **P 08 00 16.3 +1.3**
ERM pmax pmax
comp=Z,480nm,1.1s
**ERM Erimo 45.54 21** *eP* **P 08 00 16.3 +1.3**
comp=Z,484nm,1.1s
**DMN Daman 45.57 310** *eP* **P 08 00 17.0 +1.2**
**GKN Gorkha 46.12 310** *eP* **P 08 00 21.3 +1.3**
**NJS Nagarjunasagar 46.14 293** *eP* **P 08 00 19.0 -1.0**
NJS IAmb IAmb 08 00 22.0
comp=Z,1µm,1.9s
NJS *ep*P **pP 08 00 57.8 +0.5**
NJS *es*P **sP 08 01 16.4 +0.4**
NJS *eP*cP **PcP 08 01 53.8 +0.4**
NJS *eP*P **PP 08 02 12.9 +1.7**
NJS *eS*cP **ScP 08 05 30.4 -0.6**
NJS *eS*S **S 08 06 50.7 -2.9**
NJS *eS*cS **ScS 08 09 55.2 -3.3**
**SRLM Srisailam 46.39 292** *eP* **P 08 00 21.9 -0.2**
SRLM IAmb IAmb 08 00 23.9
comp=Z,774nm,1.6s
SRLM *ep*P **pP 08 01 00.3 +0.9**
SRLM *es*P **sP 08 01 19.9 +1.9**
SRLM *eP*cP **PcP 08 01 54.2 -0.2**
SRLM *eP*P **PP 08 02 15.4 +1.7**
SRLM *eS*cP **ScP 08 05 29.8 -2.4**
SRLM *eS*S **S 08 06 53.5 -3.8**
SRLM *eS*cS **ScS 08 09 57.2 -3.1**
**H11S3 WAKE ISLAND Hy 46.59 64** P **P 08 00 24.9 +1.5**
baz=246,slow=5.3,SNR=4.3
**H11S2 WAKE ISLAND Hy 46.60 64** P **P 08 00 25.0 +1.5**
baz=246,slow=5.3,SNR=4.5
**H11S1 WAKE ISLAND Hy 46.61 64** P **P 08 00 25.0 +1.5**
baz=246,slow=5.3,SNR=3.6
**TRD Trivandrum 46.69 282** *eP* **P 08 00 24.8 +0.4**
**KOLN Koldanda 46.80 309** *eP* **P 08 00 26.7 +1.3**
**WAKE Wake Island 46.81 63** *eP* **P 08 00 26.3 +1.0**
comp=Z,2µm,1.6s
**RPR Rampur 46.83 296** *eP* **P 08 00 25.8 +0.4**
RPR IAmb IAmb 08 00 27.8
comp=Z,1µm,1.7s
RPR *ep*P **pP 08 01 04.2 +1.4**
RPR *es*P **sP 08 01 22.7 +1.3**
RPR *eP*cP **PcP 08 01 55.6 -0.2**
RPR *eP*P **PP 08 02 19.3 +1.7**
RPR *eS*cP **ScP 08 05 34.6 +0.7**
RPR *eP*cS **PcS 08 05 52.2 +1.0**
RPR *eS*S **S 08 07 01.6 -1.9**
RPR *eS*cS **ScS 08 09 58.1 -5.0**
**DANN Dangsing 46.97 310** *eP* **P 08 00 28.5 +1.8**
**HYB Hyderabad 47.07 294** ⇑*i*P **P 08 00 27.5 +0.1**
comp=Z,400nm,0.8s
HYB *ep*P **pP 08 01 05.0 +0.3**
HYB *es*P **sP 08 01 24.5 +1.1**
HYB *eP*cP **PcP 08 01 57.0 +0.2**
HYB *eP*P **PP 08 02 23.0 +3.2**
HYB *eS*cP **ScP 08 05 33.0 -2.0**
HYB *eS*S **S 08 07 06.0 -1.0**
HYB *es*S **sS 08 08 08.0 -3.9**
HYB *eS*S **SS 08 10 40.0 +3.6**
**HYB Hyderabad 47.07 294** *eP* **P 08 00 28.3 +0.9**
**HYBB Hyderabad (bro 47.07 294** *eP* **P 08 00 27.2 -0.2**
HYBB IAmb IAmb 08 00 29.2
comp=Z,1µm,1.6s
HYBB *ep*P **pP 08 01 06.8 +2.1**
HYBB *es*P **sP 08 01 22.2 -1.2**
HYBB *eP*cP **PcP 08 01 57.3 +0.6**
HYBB *eP*P **PP 08 02 19.0 -0.8**
HYBB *eS*cP **ScP 08 05 34.3 -0.7**
HYBB *eS*S **S 08 07 03.8 -3.2**
HYBB *eS*cS **ScS 08 10 00.8 -3.9**
**H11N1 WAKE ISLAND Hy 47.16 63** P **P 08 00 29.3 +1.6**
baz=238,slow=10,SNR=6.4
**H11N2 WAKE ISLAND Hy 47.17 63** P **P 08 00 29.4 +1.5**
baz=238,slow=10,SNR=5.8
**H11N3 WAKE ISLAND Hy 47.18 63** P **P 08 00 29.6 +1.7**
baz=238,slow=10,SNR=7.7
**ASAJ Asahikawa 47.20 19** P **P 08 00 28.8 +0.9**
comp=Z,520nm,0.8s,baz=236,slow=13,SNR=157
**ASAJ Asahikawa 47.20 19** *eP* **P 08 00 29.0 +1.1**
comp=Z,706nm,0.9s
**PYUN Piuthan 47.44 309** *eP* **P 08 00 30.6 +0.3**
**URV Uravakonda 47.62 290** *eP* **P 08 00 31.0 -0.6**
URV IAmb IAmb 08 00 36.6
comp=Z,227nm,1.1s
URV *ep*P **pP 08 01 10.2 +1.2**
URV *es*P **sP 08 01 26.5 -1.2**
URV *eP*cP **PcP 08 01 58.9 +0.1**
URV *eP*P **PP 08 02 28.6 +3.8**
URV *eS*cP **ScP 08 05 34.7 -2.6**
URV *eS*S **S 08 07 10.0 -4.8**
URV *eS*cS **ScS 08 10 02.1 -6.3**
**DZM Mont Dzumac 47.63 120** P **P 08 00 32.6 +0.8**
comp=Z,280nm,0.9s,baz=289,slow=6.5,SNR=149
**DZM Mont Dzumac 47.63 120** *eP* **P 08 00 32.5 +0.8**
comp=Z,1µm,1.1s
**DZM Mont Dzumac 47.63 120** *eP* **P 08 00 32.6 +0.8**
comp=Z,514nm,1.1s
**SRSP Sriramsagar 47.71 296** *eP* **P 08 00 32.1 -0.2**
SRSP IAmb IAmb 08 00 34.1
comp=Z,807nm,1.5s
SRSP *ep*P **pP 08 01 10.7 +1.0**
SRSP *es*P **sP 08 01 27.8 -0.6**
SRSP *eP*cP **PcP 08 01 58.9 -0.1**
SRSP *eP*P **PP 08 02 25.1 -0.5**
SRSP *eS*cP **ScP 08 05 35.4 -2.2**
SRSP *eS*S **S 08 07 12.9 -3.0**
SRSP *eS*cS **ScS 08 10 04.1 -4.8**
**JBP Jabalpur 47.74 302** ⇑*e*P **P 08 00 33.3 +0.9**
JBP *ex* x 08 07 15.6
**TAU Tasmania Unive 47.99 156** *eP* **P 08 00 35.6 +1.6**
TAU pmax pmax
comp=Z,200nm,1.1s
**TAU Tasmania Unive 47.99 156** *eP* **P 08 00 35.6 +1.6**
comp=Z,204nm,1.1s
**YUK Yuzh-Kuril'sk 48.28 22** *eP* P 08 00 27.2 -9.0
YUK *eS* **S 08 07 14.9 -8.2**
YUK pmax pmax
comp=Z,4µm,1.4s
YUK pmax pmax
comp=N,416nm,1.1s
YUK pmax pmax
comp=E,301nm,1.1s
YUK pmax pmax
comp=Z,3µm,1.1s
**KLRI Killari 49.04 294** *eP* **P 08 00 42.0 -0.6**
KLRI IAmb IAmb 08 00 43.8
comp=Z,2µm,2.1s
KLRI *ep*P **pP 08 01 21.1 +1.0**
KLRI *es*P **sP 08 01 38.0 -0.8**
KLRI *eP*cP **PcP 08 02 03.2 -0.6**
KLRI *eP*P **PP 08 02 33.4 -4.4**
KLRI *eS*cP **ScP 08 05 38.6 -4.7**
KLRI *eS*S **S 08 07 32.4 -2.3**
**HIA Hailar 49.11 357***c i*P **P 08 00 42.6 +0.1**
HIA pmax pmax
comp=Z,227nm,1.0s
**HIA Hailar 49.11 357** *eP* **P 08 00 43.0 +0.5**
comp=Z,220nm,0.8s
HIA *eP*cP **PcP 08 02 04.8 +1.4**
**HABR Khabarovsk 49.34 10***c i*P **P 08 00 42.6 -1.6**
HABR *e**PP **pP 08 01 18.5 -3.3**
HABR *e* 08 02 02.2
HABR *e* 08 02 38.0
HABR *e*PPP PPP 08 03 36.5
HABR *eS* **S 08 07 37.8 +0.1**
HABR *e* 08 10 17.7
HABR *eS*S **SS 08 11 12.9 +1.1**
HABR pmax pmax
comp=N,169nm,1.4s
HABR pmax pmax
comp=E,120nm,1.4s

HABR pmax pmax
comp=Z,551nm,1.4s
HABR pmax pmax
comp=Z,3μm,1.9s
HABR MLR MLR
comp=Z,1μm,18.0s
**MNGI Mangalore 49.50 287** *i* x **P 08 00 46.1 +0.2**
**KLR Kul'dur 49.56 7** P **P 08 00 45.8 -0.1**
comp=Z,10nm,1.0s,baz=206,slow=5.3,SNR=190
KLR PcP **PcP 08 02 05.6 +0.6**
comp=Z,6.2nm,0.8s,baz=188,slow=4.5,SNR=5.4
KLR LR LR 08 22 35.0
comp=Z,177nm,19.8s,baz=184,slow=37
**ULN Ulaanbaatar 49.62 346***c i*P **P 08 00 47.2 +0.7**
ULN pmax pmax
comp=Z,584nm,1.0s
**ULN Ulaanbaatar 49.62 346** *e*P **P 08 00 47.4 +0.9**
comp=Z,689nm,1.0s
**ULN Ulaanbaatar 49.62 346** P **P 08 00 48.0 +1.5**
SNR=183
**SONM Songino Array 49.76 345** P **P 08 00 48.3 +0.7**
comp=Z,448nm,0.8s,baz=158,slow=6.4,SNR=277
SONM PcP **PcP 08 02 05.8 -0.1**
comp=Z,153nm,1.0s,baz=166,slow=5.3,SNR=11
SONM ScP **ScP 08 05 45.3 -0.5**
comp=Z,9.4nm,1.0s,baz=166,slow=4.2,SNR=4.4
SONM LR LR 08 22 13.7
comp=Z,3μm,21.2s,baz=156,slow=36
**SONA1 Songino Array 49.77 345** *e*P **P 08 00 48.5 +0.9**
**YSS Yuzh-Sakhalins 49.79 18⇑** *e*P **P 08 00 48.0 +0.4**
YSS *i* S **S 08 07 40.7 -3.4**
YSS *e*SSS SSS 08 12 49.0
YSS pmax pmax
comp=Z,790nm,1.3s
YSS pmax pmax
comp=N,330nm,1.2s
YSS pmax pmax
comp=E,100nm,1.4s
YSS MLR MLR
comp=Z,1μm,17.0s
**YSS Yuzh-Sakhalins 49.79 18** *e*P **P 08 00 48.0 +0.4**
comp=Z,1μm,1.2s
**TARA Tarawa 49.87 88** *e*P **P 08 00 49.9 +1.1**
comp=Z,921nm,0.9s
**BHPL Bhopal 49.95 301** *e*P **P 08 00 50.1 +0.8**
BHPL AMB AMB 08 00 52.4
comp=Z,920nm,1.2s
**KUR Kuril'sk 50.06 23***c i*P **P 08 00 49.6 0.0**
KUR *e**PP **pP 08 01 25.4 -2.0**
KUR *i **SP **sP 08 01 47.0 +1.0**
KUR *e* 08 02 07.7
KUR *e*S **S 08 07 43.7 -4.1**
KUR *i **SS **sS 08 08 53.5 0.0**
KUR *e*SS **SS 08 11 17.2 -6.1**
KUR pmax pmax
comp=N,595nm,1.3s
KUR pmax pmax
comp=Z,1μm,1.3s
KUR pmax pmax
comp=E,137nm,1.1s
KUR pmax pmax
comp=Z,5μm,4.6s
KUR pmax pmax
comp=Z,793nm,15.0s
**PTH Pithoragarh 50.26 310** *e*P **P 08 00 52.0 +0.2**
PTH *ex* x 08 02 53.5
**MNCY Minicoy 50.51 281** *e*P **P 08 00 53.1 -0.5**
**GOA Goa 50.97 290** *e*P **P 08 00 56.2 -0.8**
**DGAR Diego Garcia 51.01 260***c i*P **P 08 00 55.1 -2.2**
**DGAR Diego Garcia 51.01 260** *e*P **P 08 00 55.7 -1.6**
DGAR *e*PcP **PcP 08 02 11.3 +0.2**
**DGAR Diego Garcia 51.01 260** P **P 08 00 56.1 -1.2**
SNR=5.6
**NFK Norfolk Island 51.68 128** P **P 08 01 02.0 0.0**
baz=52,SNR=4.8
**POO Poona 51.68 294** *e*P **P 08 01 01.9 -0.4**
**DDI Dehra Dun 52.28 309** *e*P **P 08 01 05.5 -1.1**
DDI *e*P **P 08 01 07.2 +0.5**
DDI AMB AMB 08 01 09.8
comp=Z,1μm,1.2s
**ZAK Zakamensk 52.91 344** *e*P **P 08 01 10.8 -0.1**
ZAK *e* 08 02 17.7
ZAK pmax pmax
comp=Z,265nm,1.1s
**SMLA Simla 53.33 310** *e*P **P 08 01 16.3 +2.2**
SMLA AMB AMB 08 01 17.9
comp=Z,5μm,1.7s
**SDNR Sundarnagar 53.64 310** *e*P **P 08 01 16.5 0.0**
**WMQ Urumqi 53.79 329** P **P 08 01 18.6 +1.2**
WMQ pP pP 08 01 57.0 +1.4
WMQ sP sP 08 02 15.5 +1.4
WMQ PcP **PcP 08 02 21.9 +0.8**
WMQ PP **PP 08 03 25.8 +5.5**
WMQ ScP **ScP 08 06 03.8 +0.5**
WMQ S **S 08 08 41.6 +2.6**
WMQ sS sS 08 09 46.4 +1.0
WMQ SS **SS 08 12 24.9 +2.4**
WMQ pmax pmax
comp=Z,910nm,2.2s
WMQ pmax pmax
comp=Z,10μm,3.8s
WMQ LR LR
comp=Z,8μm,23.3s
WMQ LR LR
comp=Z,6μm,24.5s
WMQ LR LR
comp=Z,6μm,23.3s
**TLY Talaya 54.00 345** P **P 08 01 19.7 +1.0**
comp=Z,276nm,1.0s,baz=184,slow=8.2
TLY PcP **PcP 08 02 22.6 +1.0**
comp=Z,44nm,0.7s,baz=239,slow=5.6,SNR=4.0
TLY LR LR 08 27 24.0
comp=Z,2μm,18.2s,baz=145,slow=39
**TLY Talaya 54.00 345***c i*P **P 08 01 19.9 +1.2**
TLY *e* 08 02 03.9
TLY *e* 08 02 17.1
TLY *e* 08 02 22.1
TLY *e* 08 03 25.3
TLY *e*S **S 08 08 41.6 +0.1**
TLY pmax pmax
comp=Z,688nm,1.4s
TLY MLR MLR
comp=Z,3μm,20.0s
**TLY Talaya 54.00 345** *e*P **P 08 01 19.8 +1.0**
comp=Z,508nm,1.1s
TLY PcP **PcP 08 02 22.6 +1.0**
**TLY Talaya 54.00 345** P **P 08 01 20.1 +1.4**
SNR=89
**JWA Jwalamukhi 54.29 310** *e*P **P 08 01 22.0 +0.8**
JWA *ex* x 08 02 06.0
**IRK Irkutsk 54.36 346** *e*P **P 08 01 20.4 -0.9**
IRK pmax pmax
comp=Z,1μm,3.4s
**DHRM DHARAMSHALA 54.49 311** *e*P **P 08 01 24.2 +1.3**
DHRM AMB AMB 08 01 26.1
comp=Z,3μm,1.1s
**PONG Pong 54.62 310** *e*P **P 08 01 24.0 +0.5**
**MOY Mondy 54.70 343** *e*P **P 08 01 24.8 +0.9**
MOY pmax pmax
comp=Z,1μm,1.7s
**NKL Nikolayevsk 54.92 13** *i*P **P 08 01 26.0 +0.8**
NKL *i* S **S 08 08 52.0 -1.6**
NKL pmax pmax
comp=N,2μm,4.0s
NKL pmax pmax
comp=E,900nm,4.0s
NKL pmax pmax
comp=Z,4μm,6.0s
NKL smax smax
comp=N,2μm,8.0s
NKL smax smax
comp=E,2μm,8.0s
NKL MLR MLR
comp=N,2μm,14.0s
NKL MLR MLR
comp=E,900nm,14.0s
NKL MLR MLR
comp=Z,2μm,16.0s
**THN Thein Dam 55.01 311** *e*P **P 08 01 25.0 -1.3**
THN *ex* x 08 08 18.2
**FUNA Funafuti 56.56 100** *e*P **P 08 01 38.3 +0.6**
comp=Z,1μm,1.1s
**CLNS Chul'man 56.63 1** *e*P **P 08 01 37.6 +0.1**
CLNS *e**PP **sP 08 02 33.4 -1.1**
CLNS *e* 08 03 42.8
CLNS *e*PPP PPP 08 05 05.1
CLNS *e*S **S 08 09 12.3 -4.0**
CLNS *e* 08 11 09.6
CLNS pmax pmax
comp=Z,269nm,1.0s
CLNS pmax pmax
comp=E,82nm,1.0s
CLNS pmax pmax
comp=N,162nm,0.9s
CLNS pmax pmax
comp=N,74nm,1.1s
CLNS pmax pmax
comp=Z,38nm,1.2s
CLNS pmax pmax
comp=E,19nm,1.0s
CLNS smax smax
comp=E,290nm,11.2s
CLNS smax smax
comp=N,582nm,12.8s
**HVS Khovu-Aksy 56.65 338***d i*P **P 08 01 38.7 +0.9**
HVS pmax pmax
comp=Z,743nm,1.1s
**BHJ Bhuj 56.73 298** *e*P **P 08 01 38.5 -0.3**
**MSVF Nonsavu 56.87 111** *e*P **P 08 01 41.4 +1.6**
MSVF pmax pmax
comp=Z,560nm,1.2s
**MSVF Nonsavu 56.87 111** *e*P **P 08 01 41.4 +1.6**
comp=Z,559nm,1.2s
**ZSN Zaisan 57.73 330** *i* P **P 08 01 45.0 -0.3**
comp=Z,699nm,1.5s
ZSN *i* S **S 08 09 33.1 +2.2**
**SKR Severo-Kuril's 57.73 24***c i*P **P 08 01 45.3 +0.1**
SKR *e**PP **PcP 08 02 35.8 -0.3**
SKR *i* S **S 08 09 30.0 -0.8**
SKR pmax pmax
comp=Z,3μm,3.3s
SKR pmax pmax
comp=Z,401nm,1.1s
SKR MLR MLR
comp=Z,1μm,20.0s
SKR MLR MLR
comp=Z,2μm,19.0s
**SHLS Shalkode 57.96 323** *i* P **P 08 01 43.3 -3.8**
comp=Z,5μm,1.4s
SHLS *e*S **S 08 09 30.2 -4.2**
**PDGK Podgornoye 58.05 324** *i* P **P 08 01 48.6 +0.8**
PDGK pmax pmax
comp=Z,639nm,1.1s
**BOD Bodaibo 58.05 354⇓** *i*P **P 08 01 47.1 -0.2**
BOD *e* 08 02 33.2
BOD pmax pmax
comp=Z,539nm,1.9s
**KSH Kashi 58.19 318** P **P 08 01 50.4 +1.6**
KSH pP pP 08 02 27.5 -0.1
KSH PcP **PcP 08 02 39.3 +0.9**
KSH PP **PP 08 04 03.5 +3.9**
KSH S **S 08 09 34.1 -3.3**
KSH pmax pmax
comp=Z,380nm,1.2s
KSH pmax pmax
comp=Z,3μm,2.7s
KSH LR LR
comp=Z,1μm,13.3s
KSH LR LR
comp=Z,2μm,12.5s
KSH LR LR
comp=Z,3μm,14.6s
**UZB Uzynbulak 58.22 323** *i* P **P 08 01 46.8 -2.2**
comp=Z,2μm,1.4s
UZB *e*S **S 08 09 36.1 -1.7**
**SATY Saty 58.54 323** *e*P **P 08 01 49.9 -1.3**
comp=Z,8μm,1.1s
SATY *e*S **S 08 09 41.9 0.0**
SATY *i* sS **sS 08 10 51.1 +1.7**
SATY *i* LRM MLR 08 29 28.1
comp=Z,410nm,14.2s
**ZHN Zhinishke 58.58 323** *i* P **P 08 01 49.2 -2.3**
comp=Z,3μm,1.2s
ZHN *e*S **S 08 09 41.0 -1.5**
ZHN *i* sS **sS 08 10 52.5 +2.6**
**MK01 Makanchi Array 58.59 328** *e*P **P 08 01 52.1 +0.8**
**MK31 Makanchi Array 58.61 328** *i* P **P 08 01 52.1 +0.7**
MK31 pmax pmax
comp=Z,765nm,1.3s
**MK31 Makanchi Array 58.61 328** *e*P **P 08 01 52.3 +0.8**
**MKAR Makanchi Array 58.61 328** P **P 08 01 52.1 +0.7**
comp=Z,179nm,0.8s,baz=122,slow=8.1,SNR=819
MKAR ScP **ScP 08 06 23.5 -0.9**
comp=Z,6.7nm,0.6s,baz=148,slow=4.7,SNR=4.3
MKAR LR LR 08 27 04.5
comp=Z,2μm,21.3s,baz=122,slow=36
**OUZ Omahuta 58.67 132** *e*P **P 08 01 53.9 +1.9**
comp=Z,389nm,1.4s
**MAKZ Makanchi 58.78 328** *i* P **P 08 01 53.0 +0.4**
MAKZ pmax pmax
comp=Z,428nm,1.1s
**MAKZ Makanchi 58.78 328** *e*P **P 08 01 53.3 +0.6**
comp=Z,733nm,1.4s
**MDOK Medeo 59.42 322** *i* P **P 08 01 54.8 -2.5**
comp=Z,3μm,1.2s
MDOK *e*S **S 08 09 51.9 -1.4**
MDOK *i* LRM MLR 08 30 07.9
comp=Z,635nm,15.0s
**ULHL Ulahol 59.43 321** P **P 08 01 58.8 +1.4**
SNR=16
**AAA Alma-Ata 59.53 322** *i* P **P 08 01 59.1 +1.2**
AAA pmax pmax
comp=Z,5μm,2.7s
AAA MLR MLR
comp=Z,2μm,10.0s
**AAA Alma-Ata 59.53 322** *e*P **P 08 01 55.9 -2.0**
comp=Z,3μm,1.1s
AAA *e*pP **pP 08 02 33.3 -3.6**
AAA *i* LRM MLR 08 30 17.4
comp=Z,667nm,15.2s
**TDK Taldyqorghan 59.65 325** *e*P **P 08 01 56.9 -1.8**
comp=Z,5μm,1.1s
**DCZ Deep Cove 59.68 145** *e*P **P 08 01 59.5 +0.8**
comp=Z,349nm,1.2s
**JCZ Jackson Bay 59.83 143** PN **P 08 02 00.9 +1.0**
**PYZ Puysegur Point 59.83 146** *e*P **P 08 02 00.8 +1.0**
comp=Z,256nm,1.2s
**KZA Kyzart 59.97 320** P **P 08 02 03.0 +1.6**
SNR=92
**SFK Sufi-Kurgan 60.09 318** *i* P **P 08 02 02.8 +0.8**
SFK pmax pmax
comp=Z,395nm,1.4s
**FOZ Fox Glacier 60.15 142** *e*P **P 08 02 02.1 +0.1**
comp=Z,196nm,1.1s
**MLZ Mavora Lakes 60.17 145** *e*P **P 08 02 02.5 +0.3**
comp=Z,204nm,1.0s
**TKM2 Tokmak 2 60.19 321** *i* P **P 08 02 03.5 +0.9**
TKM2 pmax pmax
comp=Z,516nm,1.2s
**TKM2 Tokmak 2 60.19 321** P **P 08 02 03.7 +1.1**
SNR=204
**PEA0B Petropavlovsk- 60.22 23** *e*P **P 08 02 03.6 +1.3**
comp=Z,931nm,1.0s
**PETK Petropavlovsk- 60.22 23** P **P 08 02 03.5 +1.2**
comp=Z,480nm,0.9s,baz=196,slow=4.3,SNR=195
PETK PcP **PcP 08 02 46.9 +0.8**
comp=Z,74nm,0.8s,baz=221,slow=2.2,SNR=6.9
PETK LR LR 08 25 28.9
comp=Z,635nm,21.7s,baz=199,slow=33
PETK PKPPKP **P'P'df 08 31 26.4 +2.7**
comp=Z,14nm,1.0s,baz=64,slow=3.4,SNR=3.8
**WHZ Wether Hill Ro 60.38 145** *e*P **P 08 02 03.8 +0.2**
comp=Z,376nm,1.1s
**WHZ Wether Hill Ro 60.38 145** PN **P 08 02 03.6 +0.1**
**WKZ Wanaka 60.39 144** *e*P **P 08 02 03.9 +0.2**
comp=Z,180nm,1.1s
**KBK Karagaybulak 60.46 321** P **P 08 02 05.8 +1.4**
SNR=171
**DSZ Denniston Nort 60.47 140** PN **P 08 02 05.0 +0.8**
**QRZ Quartz Range 60.48 138** PN **P 08 02 05.5 +1.2**
QRZ pP **pP 08 02 41.8 -1.7**
**UCH Uchtor 60.51 320** P **P 08 02 06.5 +1.4**
SNR=139
**PET Petropavlovsk 60.54 24**α *i*P **P 08 02 05.6 +1.1**
PET *e**SP **sP 08 03 03.7 +1.9**
PET *i* S **S 08 10 06.6 -0.2**
PET *e*SS **SS 08 14 05.3 -2.7**
PET pmax pmax
comp=Z,4μm,5.6s
PET pmax pmax
comp=Z,1μm,1.2s
PET pmax pmax
comp=Z,1μm,14.7s
**PET Petropavlovsk 60.54 24** *e*P **P 08 02 05.5 +1.1**
comp=Z,2μm,1.3s
**MKAZ Moumakai 60.62 134** PN **P 08 02 07.0 +1.7**
MKAZ pP **pP 08 02 42.5 -2.0**
**AAK Ala-Archa 60.73 321** P **P 08 02 07.5 +1.3**
comp=Z,123nm,0.9s,baz=123,slow=4.9,SNR=190
**AAK Ala-Archa 60.73 321** *i* P **P 08 02 07.2 +1.0**
AAK pmax pmax
comp=Z,440nm,1.2s
**AAK Ala-Archa 60.73 321** P **P 08 02 07.6 +1.4**
SNR=131
**AAK Ala-Archa 60.73 321** *e*P **P 08 02 07.6 +1.3**
comp=Z,366nm,1.1s
**AAK Ala-Archa 60.73 321** P **P 08 02 07.6 +1.4**
SNR=160
**CHMS Chumysh 60.76 321** P **P 08 02 06.8 +0.6**
SNR=66
**FRU Bishkek 60.76 321⇑** *i*P **P 08 02 07.0 +0.8**
FRU *e* 08 02 49.0
FRU *e* 08 10 07.0
FRU pmax pmax
comp=Z,1μm,2.0s
**LBZ Lake Benmore 60.84 143** *e*P **P 08 02 06.9 +0.2**
comp=Z,355nm,1.0s
**LBZ Lake Benmore 60.84 143** PN **P 08 02 06.8 +0.2**
**KBL Kabul 60.96 310** *e*P **P 08 02 08.5 +0.5**
KBL pmax pmax
comp=Z,2μm,1.5s
**KBL Kabul 60.96 310** *e*P **P 08 02 08.4 +0.5**
comp=Z,2μm,1.5s
KBL *e*S **S 08 10 15.3 +2.0**
**AML Almayashu 60.99 320** P **P 08 02 09.5 +1.2**
SNR=141
**HIZ Hauiti 61.01 135** *e*P **P 08 02 09.8 +1.8**
comp=Z,513nm,1.1s
**HIZ Hauiti 61.01 135** *e*PN **P 08 02 09.5 +1.5**
**RPZ Rata Peaks 61.01 142** P **P 08 02 08.5 +0.7**
comp=Z,940nm,0.9s,baz=296,slow=2.0,SNR=195
**RPZ Rata Peaks 61.01 142** *e*P **P 08 02 08.7 +0.8**
comp=Z,1μm,1.0s
RPZ *e*S **S 08 10 15.6 +2.4**
**RPZ Rata Peaks 61.01 142** *e*PN **P 08 02 08.5 +0.7**
**USP Ospenovka 61.05 321** P **P 08 02 09.0 +0.8**
SNR=172
**THZ Tophouse 61.19 139** *e*P **P 08 02 09.1 -0.1**
comp=Z,373nm,1.3s
**THZ Tophouse 61.19 139** PN **P 08 02 09.6 +0.5**
**EKS2 Erkin-Say 61.20 320** P **P 08 02 10.8 +1.5**
SNR=130
**NNZ Nelson 61.24 139** PN **P 08 02 09.2 -0.3**
**LTZ Lake Taylor 61.29 141** *e*P **P 08 02 10.2 +0.4**
comp=Z,312nm,1.2s
**LTZ Lake Taylor 61.29 141** PN **P 08 02 10.0 +0.2**
**DUWZ D'Urville Isla 61.40 138** PN **P 08 02 10.7 +0.2**
**OXZ Oxford 61.42 141** *e*P **P 08 02 10.5 -0.1**
comp=Z,188nm,0.9s
**ODZ Otahua Downs 61.47 143** *e*P **P 08 02 10.8 -0.1**
comp=Z,58nm,1.0s
**TUWZ Tuamarina 61.71 139** *e*PN **P 08 02 12.3 -0.3**
**MCQ Macquarie Isla 61.84 157** P **P 08 02 14.3 +1.1**
baz=62,SNR=7.7
**MCQ Macquarie Isla 61.84 157** *e*P **P 08 02 14.8 +1.6**
MCQ pmax pmax
comp=Z,470nm,1.1s
**MCQ Macquarie Isla 61.84 157** *e*P **P 08 02 14.8 +1.6**
comp=Z,469nm,1.1s
**OTVZ Oturere 61.86 136** *e*PN **P 08 02 14.7 +0.9**
**WNVZ Wahianoa 61.88 136** *e*PN **P 08 02 14.6 +0.5**
**CRLZ Canterbury Las 61.91 141** *e*P **P 08 02 14.8 +0.9**
comp=Z,320nm,1.3s
**KHZ Kahutara 61.92 140** *e*P **P 08 02 14.2 +0.2**
comp=Z,957nm,1.6s
**KHZ Kahutara 61.92 140** PN **P 08 02 13.9 0.0**
**MNAS Manas 61.94 320** *i* P **P 08 02 15.2 +0.9**
MNAS pmax pmax
comp=Z,562nm,1.2s
**SEM Semipalatinsk 61.97 330** *i* P **P 08 02 11.6 -2.8**
comp=Z,2μm,1.6s
SEM *e*S **S 08 10 23.6 -1.8**
SEM *i* LRM MLR 08 31 25.3
comp=Z,383nm,14.2s
**MQZ McQueen's Vall 61.99 141** *e*P **P 08 02 14.9 +0.5**
comp=Z,380nm,1.2s
**YAK Yakutsk 62.03 4***c i*P **P 08 02 14.4 +0.1**
YAK *e**PP **PcP 08 02 52.6 -0.5**
YAK *e* 08 02 58.0
YAK *e* 08 04 29.1
YAK *e*S **S 08 10 27.1 +1.8**
YAK *e* 08 11 45.9
YAK *e*SS **SS 08 14 32.0 +1.0**
YAK *e*SSS SSS 08 17 21.2
YAK pmax pmax
comp=Z,1μm,0.9s
YAK pmax pmax
comp=N,459nm,1.1s
YAK pmax pmax
comp=E,150nm,1.2s
YAK pmax pmax
comp=Z,360nm,2.4s
YAK pmax pmax
comp=N,272nm,1.8s
YAK pmax pmax
comp=E,81nm,1.6s
YAK smax smax
comp=N,1μm,3.1s
YAK smax smax
comp=E,195nm,1.9s
**YAK Yakutsk 62.03 4** *e*P **P 08 02 13.2 -1.1**
comp=E,1μm,0.9s
**SNZO South Karori 62.16 138** *e*P **P 08 02 15.0 -0.6**
comp=E,628nm,1.0s
**BTLS Baital 62.25 323** *i* P **P 08 02 14.0 -2.1**
comp=E,1μm,1.4s
BTLS *e*S **S 08 10 27.9 -1.0**
**BHHZ Black Hill Sta 62.28 136** PN **P 08 02 16.5 0.0**
**ZAA0 Zalesovo Array 62.30 336** *e*P **P 08 02 15.7 -0.6**
comp=E,1μm,1.7s
**ZALV Zalesovo Beam 62.30 336** P **P 08 02 15.6 -0.6**
comp=E,60nm,0.6s,baz=128,slow=4.4,SNR=238
ZALV pP **PcP 08 02 53.3 -1.1**
comp=E,74nm,1.0s,baz=134,slow=4.3,SNR=3.6
ZALV PP **PP 08 04 34.7 -0.7**
comp=E,150nm,1.2s,baz=133,slow=8.3,SNR=7.7
ZALV LR LR 08 29 39.5
comp=E,2μm,20.6s,baz=138,slow=36
ZALV PKPPKP **P'P'df 08 31 22.1 +1.6**
comp=E,20nm,1.0s,baz=276,slow=4.3,SNR=13
**BKZ Black Stump Fm 62.44 135** *e*P **P 08 02 17.9 +0.3**
comp=E,920nm,1.3s
**BKZ Black Stump Fm 62.44 135** PN **P 08 02 17.7 +0.1**
**MRZ Mangatainoka R 62.46 137** PN **P 08 02 17.0 -0.6**
**URZ Urewera 62.50 134** P **P 08 02 17.6 -0.3**
comp=E,295nm,1.0s,baz=263,slow=4.7,SNR=91
URZ PKP2bc 08 31 28.4
comp=E,17nm,1.0s,baz=214,slow=3.3,SNR=3.8
URZ PKP2ab 08 31 35.7
comp=E,16nm,0.9s,baz=269,slow=10,SNR=3.9
**URZ Urewera 62.50 134** *e*P **P 08 02 17.8 -0.1**
comp=E,494nm,1.2s
URZ ⇑*e* 08 31 28.4
URZ P'P'ab **P'P'ab 08 31 35.7 -1.5**
**URZ Urewera 62.50 134** PN **P 08 02 17.6 -0.3**
**MCHZ McNeill Hill 62.70 135** PN **P 08 02 20.1 +0.8**
**RUGZ Raukumara Rang 62.79 134** *e*PN **P 08 02 18.9 -1.1**
**DZET Dzherino 62.80 315** P **P 08 02 20.0 0.0**
DZET pmax pmax
comp=Z,699nm,1.6s
**MWZ Matawai 62.83 134** *e*PN **P 08 02 20.2 0.0**
**DZA Taraz 62.89 320** *i* P **P 08 02 18.3 -2.2**
comp=Z,2μm,1.6s
**BFZ Birch Farm 62.92 137** *e*P **P 08 02 20.6 -0.1**
comp=Z,341nm,0.9s
**KURBB Kurchatov Arra 62.95 330** P **P 08 02 20.8 +0.1**
comp=Z,255nm,0.9s,baz=130,slow=6.2,SNR=665
KURBB pP **PcP 08 02 57.0 -0.2**
comp=Z,114nm,1.0s,baz=132,slow=4.0,SNR=3.3
KURBB PP **PP 08 04 37.6 -3.7**
comp=Z,87nm,1.2s,baz=132,slow=9.4,SNR=7.2
KURBB PKPPKP **P'P'df 08 31 19.1 -0.6**
comp=Z,9.9nm,0.9s,baz=298,slow=3.5,SNR=11
KURBB PKP2bc 08 31 29.3
comp=Z,5.8nm,0.9s,baz=312,slow=3.1,SNR=5.7
**KURK Kurchatov 62.97 330** *e*P **P 08 02 21.1 +0.4**
KURK pmax pmax

comp=Z,2µm,1.4s
**KURK Kurchatov 62.97 330** *e*P **P 08 02 21.1 +0.4**
comp=Z,2µm,1.4s
KURK pP **PcP 08 02 57.0 -0.2**
KURK PP **PP 08 04 37.6 -3.8**
KURK P'P' 08 31 19.1
KURK ⇑*e* 08 31 29.3
**KURK Kurchatov 62.97 330** P **P 08 02 21.3 +0.5**
SNR=266
**MXZ Matakaoa Point 63.09 133** *e*P **P 08 02 21.9 +0.1**
comp=Z,181nm,0.6s
**TKGZ Te Karaka 63.11 134** PN **P 08 02 21.9 0.0**
**RIGZ Rimuhau 63.15 134** PN **P 08 02 21.9 -0.4**
**MA2 Magadan 63.17 15** LR LR 08 31 35.2
comp=Z,702nm,18.7s,baz=190,slow=37
**PUZ Puketiti 63.26 133** PN **P 08 02 23.3 +0.3**
**WMGZ Waiomatatini S 63.27 133** *e*PN **P 08 02 23.2 +0.1**
**IUG Iuzhnay 63.40 318** *i* P **P 08 02 21.3 -2.6**
comp=Z,2µm,1.3s
**MIDW Midway 63.42 58** *e*P **P 08 02 25.5 +1.3**
comp=Z,998nm,1.1s
**KK31 Karatay Array 63.52 319** *i* P **P 08 02 24.6 0.0**
KK31 pmax pmax
comp=Z,258nm,1.2s
**NVS Novosibirsk 63.58 336**⇓*i*P **P 08 02 24.6 -0.1**
NVS *e**PP **PcP 08 02 57.9 -1.7**
NVS *e* 08 04 45.6
NVS *e*S **S 08 10 37.9 -7.0**
NVS *e**SS **sS 08 11 53.4 0.0**
NVS pmax pmax
comp=Z,541nm,1.5s
NVS pmax pmax
comp=N,311nm,1.6s
NVS pmax pmax
comp=E,317nm,1.6s
NVS pmax pmax
comp=Z,256nm,2.0s
NVS pmax pmax
comp=E,194nm,1.8s
NVS smax smax
comp=E,170nm,1.8s
NVS smax smax
comp=N,39nm,1.7s
**BRLS Borolday 63.93 319** *i* P **P 08 02 25.3 -2.0**
comp=N,159nm,1.3s
BRLS *e*pP **PcP 08 03 02.3 +0.9**
BRLS *e*S **S 08 10 48.4 -1.3**
**KNTN Kanton 65.25 93** *e*P **P 08 02 37.9 +1.5**
comp=N,886nm,0.9s
**AFI Afiamalu 65.94 105** P **P 08 02 42.4 +1.5**
comp=N,469nm,1.1s,baz=253,slow=2.5,SNR=33
**AFI Afiamalu 65.94 105** *e*P **P 08 02 42.3 +1.5**
AFI pmax pmax
comp=Z,1µm,1.4s
**AFI Afiamalu 65.94 105** *e*P **P 08 02 42.3 +1.4**
comp=Z,1µm,1.4s
**WBK Wadi Bani Khal 66.17 295** P **P 08 02 44.0 +1.8**
SNR=8.8
**SEY Seymchan 66.45 14** LR LR 08 31 14.6
comp=Z,613nm,20.4s,baz=148,slow=35
**SEY Seymchan 66.45 14***c i*P **P 08 02 44.3 +1.3**
**WSAR Wadi Sarin 66.59 295** P **P 08 02 43.7 -1.1**
comp=Z,228nm,1.0s,baz=116,slow=10
WSAR PKPPKP **P'P'df 08 31 09.3 -6.5**
comp=Z,5.3nm,0.9s,baz=281,slow=4.7,SNR=4.1
WSAR PKP2bc 08 31 16.7
comp=Z,40nm,1.2s,baz=305,slow=3.6,SNR=9.5
**JMDO Jabal Madar 66.92 294** P **P 08 02 50.0 +3.1**
SNR=7.9
**SMDO Samad 67.08 295** P **P 08 02 51.0 +3.0**
SNR=19
**BIDO Bidbid 67.10 295** P **P 08 02 48.0 0.0**
SNR=46
**MRIV Mauritius Mete 67.17 248** *e*P **P 08 02 48.3 -0.2**
**SMY Shemya 67.48 31** *e*P **P 08 02 51.0 +1.3**
SMY pmax pmax
comp=Z,1µm,1.0s
**SMY Shemya 67.48 31** *e*P **P 08 02 51.0 +1.3**
comp=Z,1µm,1.0s
**MSEY Mahe Island 67.67 265** *i* P **P 08 02 50.8 -1.0**
SNR=13
**MSEY Mahe Island 67.67 265** *i* P **P 08 02 51.7 -0.1**
**MSEY Mahe Island 67.67 265** *e*P **P 08 02 51.1 -0.7**
comp=Z,290nm,1.3s
**MSEY Mahe Island 67.67 265** P **P 08 02 51.7 -0.1**
SNR=10.0
**BSY Bisya 67.80 295** P **P 08 02 55.0 +2.5**
SNR=30
**NIUE Niue 68.34 110** P **P 08 02 54.7 -1.1**
baz=68,SNR=16
**JOHN Johnston Islan 68.39 72** *e*P **P 08 02 57.1 +1.0**
comp=Z,1µm,1.1s
**BVAR Borovoye Array 68.47 329** P **P 08 02 55.9 -0.1**
comp=Z,249nm,1.1s,baz=126,slow=7.5,SNR=394
**BVAR Borovoye Array 68.47 329** P **P 08 02 55.9 -0.1**
BVAR pmax pmax
comp=Z,252nm,1.1s
**ARQ Araqi 68.52 295** P **P 08 02 58.0 +1.1**
SNR=33
**BRVK Borovoye 68.55 329***c i*P **P 08 02 56.2 -0.2**
BRVK pmax pmax
comp=Z,357nm,1.2s
**BRVK Borovoye 68.55 329** *e*P **P 08 02 56.5 +0.1**
comp=Z,703nm,1.4s
**BRVK Borovoye 68.55 329** P **P 08 02 56.2 -0.2**
SNR=153
**SHAO Shalim 68.57 289** P **P 08 02 58.8 +1.5**
SNR=6.0
**RER Riviere de l'E 68.92 247** *e*P **P 08 02 59.4 -0.1**
comp=Z,228nm,1.2s
**UOSS Minazif 69.08 297** *e*P **P 08 03 00.5 +0.2**
comp=Z,149nm,1.0s
**HATD Hatta, Dubai 69.12 297** *i* P **P 08 02 59.5 -1.1**
SNR=44
**HATD Hatta, Dubai 69.12 297** P **P 08 03 00.1 -0.5**
SNR=27
**ASHO Ashiyiah 69.16 296** *i* P **P 08 02 59.8 -1.1**
SNR=59
**ASHO Ashiyiah 69.16 296** P **P 08 03 01.7 +0.8**
SNR=21
**BANOM Banah 69.17 298** *i* P **P 08 02 59.5 -1.4**
SNR=21
**BANOM Banah 69.17 298** P **P 08 03 02.7 +1.8**
SNR=7.7
**NAZ Nazwa, Dubai 69.57 297** *i* P **P 08 03 02.2 -1.2**
SNR=17
**NAZ Nazwa, Dubai 69.57 297** P **P 08 03 05.0 +1.6**
SNR=8.3
**MIR Mirnyy 69.78 192**⇑*i*P **P 08 03 04.0 +0.3**
MIR *i* 08 03 43.0
MIR *i*S **S 08 12 00.0 +1.0**
MIR *i*PS **PnS 08 12 49.0 -1.5**
MIR pmax pmax
comp=Z,32nm,1.4s
MIR pmax pmax
comp=Z,1µm,2.0s
MIR smax smax
comp=N,4µm,10.0s
**GEYT Alibeck 70.41 311** P **P 08 03 08.3 +0.1**
comp=N,140nm,1.1s,baz=129,slow=2.1,SNR=116
GEYT PP **PP 08 05 39.2 -7.2**
comp=N,50nm,1.1s,baz=94,slow=6.5,SNR=4.3
GEYT PKP2bc 08 31 03.8
comp=N,13nm,1.2s,baz=230,slow=3.5,SNR=15
GEYT LR LR 08 38 26.8
comp=N,1µm,20.5s,baz=70,slow=40
**ABTO Aybut 70.70 288** P **P 08 03 12.0 +1.6**
SNR=6.0
**TIXI Tiksi 71.58 2***c i*P **P 08 03 13.6 -0.9**
TIXI pmax pmax
comp=Z,1µm,1.0s
**ADK Adak 72.05 34** *e*P **P 08 03 18.6 +0.9**
ADK pmax pmax
comp=Z,830nm,1.2s
**ADK Adak 72.05 34** *e*P **P 08 03 18.6 +0.9**
comp=Z,827nm,1.2s
**AB31 Akbulak array 72.73 322** *i* P **P 08 03 21.3 -0.5**
AB31 pmax pmax
comp=Z,338nm,1.4s
**ATKA Atka Island 73.59 35** *e*P **P 08 03 27.6 +0.8**
comp=Z,1µm,0.8s
**AKTO Aktyubinsk 74.31 323** P **P 08 03 30.9 -0.1**
comp=Z,145nm,0.9s,baz=107,slow=6.3,SNR=282
AKTO LR LR 08 40 37.1
comp=Z,1µm,19.7s,baz=107,slow=39
**AKTO Aktyubinsk 74.31 323** *i* P **P 08 03 30.6 -0.4**
AKTO pmax pmax
comp=Z,423nm,1.1s
**SVE Sverdlovsk 75.22 330***d i*P **P 08 03 35.9 -0.2**
SVE *e*S **SKiKP 08 12 51.0 +8.8**
SVE *e* 08 13 57.6
SVE pmax pmax
comp=Z,791nm,1.4s
**ARU Arti 76.12 329** P **P 08 03 40.4 -0.8**
comp=Z,145nm,0.6s,baz=109,slow=2.2,SNR=240
**ARU Arti 76.12 329***c i*P **P 08 03 40.3 -0.9**
ARU 08 03 50.8
ARU *PP **pP 08 04 18.7 -3.3**
ARU 08 06 32.5
ARU S **S 08 13 12.1 +1.0**
ARU *SS sS 08 14 12.6 -9.2
ARU pmax pmax
comp=Z,715nm,1.7s
**ARU Arti 76.12 329** *e*P **P 08 03 40.6 -0.6**
comp=Z,342nm,0.9s
**ABPO Ambohimpanom 76.63 251** *e*P **P 08 03 44.7 -0.4**
**ABPO Ambohimpanom 76.63 251** *e*P **P 08 03 44.7 -0.4**
comp=Z,117nm,1.2s
**OPO Ambohidratompo 76.63 251** P **P 08 03 45.4 +0.3**
comp=Z,50nm,1.0s,baz=51,slow=22,SNR=24
**NIKH Nikolski High 76.92 35** *e*P **P 08 03 46.8 +1.0**
comp=Z,698nm,1.1s
**SPIA Saint Paul Isl 77.52 31** *e*P **P 08 03 51.2 +2.2**
comp=Z,2µm,1.4s
**RAR Rarotonga 78.05 112** P **P 08 03 55.1 +2.3**
comp=Z,114nm,1.1s,baz=240,slow=5.5,SNR=16
**RAR Rarotonga 78.05 112** *e*P **P 08 03 54.5 +1.8**
comp=Z,598nm,1.5s
**KEKH Kekaha 78.14 68** *e*P **P 08 03 55.6 +2.4**
comp=Z,1µm,1.2s
**RAYN Ar Rayn 78.58 294** *e*P **P 08 03 54.9 -0.8**
comp=Z,368nm,1.1s
**AKUT Akutan 79.01 35** *e*P **P 08 03 58.1 +0.8**
comp=Z,3µm,1.1s
**MAW Mawson 79.06 200** P **P 08 03 58.0 +0.8**
comp=Z,156nm,1.1s,baz=59,slow=6.3,SNR=117
MAW pP **pP 08 04 36.8 -1.6**
comp=Z,47nm,1.0s,baz=47,slow=5.8,SNR=2.9
MAW S **S 08 13 41.8 -0.4**
comp=Z,17nm,1.4s,baz=224,slow=18,SNR=4.6
MAW PKKPbc **PKKPbc 08 22 48.6 -3.0**
comp=Z,4.4nm,0.5s,baz=187,slow=3.4,SNR=20
MAW PKP2ab 08 30 40.9
comp=Z,8.6nm,1.1s,baz=100,slow=3.2,SNR=7.4
MAW PKPPKP **P'P'df 08 30 46.8 -4.5**
comp=Z,14nm,1.2s,baz=270,slow=3.0,SNR=6.1
MAW LR LR 08 38 53.8
comp=Z,638nm,18.0s,baz=31,slow=35
**MAW Mawson 79.06 200** P **P 08 03 57.5 +0.3**
baz=79,SNR=46
**MAW Mawson 79.06 200** *e*P **P 08 03 58.2 +0.9**
**MAW Mawson 79.06 200** *e*P **P 08 03 58.2 +0.9**
comp=Z,91nm,1.3s
MAW pP **pP 08 04 36.8 -1.6**
MAW S **S 08 13 41.8 -0.4**
MAW PKKPbc **PKKPbc 08 22 48.6 -3.0**
MAW P'P'ab 08 30 40.9
MAW P'P' 08 30 46.8
**GAMB Gambell 79.23 24** *e*P **P 08 03 59.5 +1.3**
comp=Z,631nm,1.2s
**MAK Makhachkala 79.42 314** *e*P **P 08 04 00.2 +0.5**
MAK *e**PP **pP 08 04 38.9 -2.0**
MAK *e*PPP PPP 08 08 49.5
MAK *e*S **S 08 13 48.6 +1.7**
MAK *e**SS **sS 08 14 55.8 -2.5**
MAK pmax pmax
comp=Z,431nm,1.3s
**XMAS Kiritimati 79.50 88** *e*P **P 08 04 02.9 +2.1**
comp=Z,719nm,1.3s
**KIP Kipapa 79.67 68***c i*P **P 08 04 01.4 -0.2**
KIP pmax pmax
comp=Z,4µm,1.4s
**KIP Kipapa 79.67 68** *e*P **P 08 04 03.5 +1.9**
comp=Z,921nm,1.4s
**HON Honolulu 79.68 68** *e*P **P 08 04 04.4 +2.8**
**HON Honolulu 79.68 68** *e*P **P 08 04 04.4 +2.8**
**DDFL Dedoflistskaro 80.19 312** P **P 08 04 06.1 +2.0**
**VNDA Vanda 80.28 172** P **P 08 04 04.1 +0.4**
comp=Z,97nm,0.8s,baz=316,slow=5.9,SNR=210
VNDA S **S 08 13 54.3 -0.6**
comp=Z,4.5nm,1.1s,baz=68,slow=23,SNR=9.1
VNDA PKKPbc **PKKPbc 08 22 46.5 -2.8**
comp=Z,5.0nm,1.0s,baz=264,slow=3.0,SNR=7.0
VNDA LR LR 08 39 47.8
comp=Z,2µm,18.3s,baz=346,slow=36
**VNDA Vanda 80.28 172** *e*P **P 08 04 04.2 +0.4**
comp=Z,141nm,0.9s
VNDA S **S 08 13 54.3 -0.6**
VNDA PKKPbc **PKKPbc 08 22 46.5 -2.8**
**ATD Arta Tunnel 80.40 282** *e*P **P 08 04 06.1 +0.4**
comp=Z,148nm,1.2s
**FALS False Pass 80.52 34** *e*P **P 08 04 05.8 +0.4**
comp=Z,2µm,0.9s
**GROC Groznyy 80.69 314** *e*P **P 08 04 06.1 -0.5**
GROC *e**PP **pP 08 04 45.5 -2.3**
GROC *e* 08 07 11.3
GROC *e*S **S 08 14 00.0 -0.3**
GROC *e* 08 14 48.6
GROC *e* 08 15 09.5
GROC pmax pmax
comp=Z,378nm,1.2s
**GNI Garni 81.04 311** P **P 08 04 09.3 +0.5**
comp=Z,66nm,1.0s,baz=188,slow=1.7,SNR=34
**GNI Garni 81.04 311** *i* P **P 08 04 09.3 +0.5**
SNR=11
**GNI Garni 81.04 311***c i*P **P 08 04 09.2 +0.5**
GNI pmax pmax
comp=Z,97nm,0.7s
**GNI Garni 81.04 311** *e*P **P 08 04 09.4 +0.6**
comp=Z,126nm,1.0s
**GNI Garni 81.04 311** P **P 08 04 09.3 +0.5**
SNR=33
**SEAG Tbilisi Sea 81.21 312** P **P 08 04 10.2 +0.7**
**SBA Scott Base 81.24 171** *e*P **P 08 04 10.2 +1.4**
**SBA Scott Base 81.24 171** *e*P **P 08 04 10.2 +1.4**
comp=Z,181nm,1.1s
**TBLG Delisi 81.26 312** P **P 08 04 09.9 +0.2**
**TBLG Delisi 81.26 312** *e*P **P 08 04 09.9 +0.2**
**HLK Haleakala 81.27 69** *e*P **P 08 04 12.5 +2.0**
comp=Z,1µm,1.3s
**GUDG Gudauri 81.55 313** P **P 08 04 12.3 +0.9**
**HPAH Hawaii Prepara 81.75 70** *e*P **P 08 04 14.8 +2.0**
comp=Z,1µm,1.2s
**MWH Moku'aweowe 81.82 70** *e*P **P 08 04 16.1 +2.4**
comp=Z,1µm,1.2s
**HPO Honuapo 81.84 71** *e*P **P 08 04 15.1 +2.0**
**MLOA Mauna Loa Obse 81.84 70** *e*P **P 08 04 15.7 +2.0**
comp=Z,1µm,1.1s
**POHA Pohakuloa 81.89 70** *e*P **P 08 04 15.7 +2.0**
comp=Z,1µm,1.1s
**ZEI Tsey 82.01 313** *e*P **P 08 04 09.1 -4.7**
ZEI *e* 08 07 24.3
ZEI *e*S **S 08 14 14.7 +0.3**
ZEI pmax pmax
comp=Z,142nm,1.3s
**MLH Mauna Loa 82.02 70** *e*P **P 08 04 17.2 +2.8**
**MLH Mauna Loa 82.02 70** *e*P **P 08 04 17.2 +2.8**
comp=Z,2µm,1.0s
**BGD Bogdanovka 82.05 312** P **P 08 04 14.9 +0.8**
**SDHHI Sand Hill 82.10 71** *e*P **P 08 04 17.4 +2.8**
comp=Z,1µm,0.9s
**UWE Uwekahuna 82.10 71** *e*P **P 08 04 17.0 +2.3**
comp=Z,2µm,1.1s
**RIM Rim 82.12 71** *e*P **P 08 04 17.5 +2.8**
comp=Z,2µm,1.2s
**KKO Keanakako'i 82.12 71** *e*P **P 08 04 16.8 +2.0**
comp=Z,2µm,1.1s
**AKH Akhalkalaki 82.14 312** P **P 08 04 14.0 -0.5**
**AKH Akhalkalaki 82.14 312**⇑*i*P **P 08 04 15.5 +1.0**
**AKH Akhalkalaki 82.14 312** *e*P **P 08 04 14.0 -0.5**
**PUH Pauahi 82.17 71** *e*P **P 08 04 17.4 +2.4**
comp=Z,2µm,1.1s
**STCH Steam Cracks 82.26 71** *e*P **P 08 04 17.3 +1.9**
comp=Z,1µm,1.1s
**NPOC North of Pu'u 82.27 71** *e*P **P 08 04 18.1 +2.7**
comp=Z,1µm,1.2s
**SDPT Sand Point 82.28 34** *e*P **P 08 04 14.9 +0.3**
comp=Z,2µm,1.0s
**JCUZ Jacuzzi 82.28 71** *e*P **P 08 04 16.9 +1.3**
comp=Z,1µm,1.2s
**ONI Oni 82.31 313** P **P 08 04 15.6 +0.4**
**ONI Oni 82.31 313** *e*P **P 08 04 15.6 +0.4**
**NCK Nalchik 82.32 314** *e*P **P 08 04 15.7 +0.5**
NCK pmax pmax
comp=Z,67nm,1.0s
**HULD Heiheiahulu Di 82.40 71** *e*P **P 08 04 18.0 +1.9**
comp=Z,564nm,1.2s
**KBZ Khabaz 82.86 314** P **P 08 04 17.6 -0.3**
comp=Z,73nm,0.9s,baz=117,slow=3.5,SNR=73
KBZ PKKPbc **PKKPbc 08 22 41.6 -0.3**
comp=Z,13nm,1.0s,baz=226,slow=0.4,SNR=16
KBZ PKPPKP **P'P'df 08 30 43.1 -2.7**
comp=Z,2.9nm,0.9s,baz=134,slow=1.4,SNR=5.0
**GOF Gofitskoye 82.91 315**⇑*e*P **P 08 04 18.2 0.0**
GOF pmax pmax
comp=Z,208nm,1.3s
**KIV Kislovodsk 83.03 314** *i* P **P 08 04 18.6 -0.4**
SNR=38
**KIV Kislovodsk 83.03 314** *e*P **P 08 04 18.5 -0.4**
KIV *e* 08 07 31.6
KIV *e*S **S 08 14 24.0 -0.5**
KIV pmax pmax
comp=Z,659nm,3.7s
KIV pmax pmax
comp=Z,70nm,1.1s
**KIV Kislovodsk 83.03 314** *e*P **P 08 04 18.7 -0.2**
comp=Z,114nm,1.1s
**KIV Kislovodsk 83.03 314** P **P 08 04 18.8 -0.2**
SNR=41
**ARTV Artvin 83.29 311** *e*P **P 08 04 20.6 +0.2**
comp=Z,150nm,1.0s
**CHVG Ch'k'valeri 83.33 313** P **P 08 04 20.0 -0.4**
**CHGN Chignik 83.59 33** *e*P **P 08 04 21.5 +0.2**
comp=Z,1µm,1.2s
**MARD Mardin 83.83 307** *e*P **P 08 04 23.3 +0.1**
comp=Z,336nm,1.4s
**KOPT Kop Dagi 84.27 310** *e*P **P 08 04 26.4 +0.8**
comp=Z,248nm,1.2s
**FURI Furi 84.44 279** *e*P **P 08 04 28.7 +1.7**
comp=Z,263nm,1.1s
**VRH Novokhopyorsk 84.53 321** *e*P **P 08 04 25.3 -0.9**
VRH pmax pmax
comp=Z,840nm,1.3s
**SOC Sochi 85.14 314***c i*P **P 08 04 28.3 -1.2**
SOC *e**PP **pP 08 05 09.4 -1.7**
SOC *e**SP **sP 08 05 26.9 -1.8**
SOC *e* 08 07 49.1
SOC *e*S **SKSac 08 14 36.7 -1.8**
SOC pmax pmax
comp=Z,218nm,1.0s
**SVW2 Sparrevohn 85.77 29** *e*P **P 08 04 33.3 +1.1**
comp=Z,165nm,1.0s
**KMBO Kilima Mbogo 85.81 269** P **P 08 04 34.2 +0.5**
comp=Z,100nm,1.1s,baz=74,slow=6.4,SNR=128
KMBO PKKPbc **PKKPbc 08 22 38.0 +4.0**
comp=Z,4.2nm,1.0s,baz=350,slow=2.5,SNR=5.3
**KMBO Kilima Mbogo 85.81 269** *e*P **P 08 04 34.2 +0.5**
comp=Z,268nm,1.3s
KMBO PKKPbc **PKKPbc 08 22 38.0 +4.0**
**KMBO Kilima Mbogo 85.81 269** P **P 08 04 34.5 +0.7**
SNR=77
**VSR Storozhevoye 86.13 321** *e*P **P 08 04 33.0 -1.2**
VSR pmax pmax
comp=Z,930nm,1.1s
**VORR Voronezh 86.14 322**⇑*i*P **P 08 04 33.0 -1.2**
VORR pmax pmax
comp=Z,2µm,1.2s
**LPSR Galich'ya Gora 86.39 323** *e*P **P 08 04 34.8 -0.6**
LPSR pmax pmax
comp=Z,860nm,1.1s
**OHAK Old Harbor 86.51 33** *e*P **P 08 04 36.7 +0.8**
comp=Z,1µm,1.1s
**KLMR Klimovskoe 86.80 331***c i*P **P 08 04 36.0 -1.2**
KLMR *e* 08 07 58.2
KLMR *e*S **SKSac 08 14 46.1 -2.0**
KLMR pmax pmax
comp=Z,569nm,1.1s
**ANN Anapa 86.86 315** *e*P **P 08 04 36.1 -1.7**
ANN *e**PP **pP 08 05 17.1 -2.5**
ANN *e* 08 08 05.8
ANN *e*S **SKSac 08 14 48.9 -0.2**
ANN pmax pmax
comp=Z,804nm,1.1s
**KDAK Kodiak Island 86.94 32** P **P 08 04 38.5 +0.6**
comp=Z,113nm,0.8s,baz=126,slow=1.0,SNR=146
**KDAK Kodiak Island 86.94 32** *i* P **P 08 04 38.2 +0.3**
**KDAK Kodiak Island 86.94 32** *e*P **P 08 04 38.6 +0.6**
comp=Z,231nm,1.0s
**RSO Redoubt South 87.08 30** *e*P **P 08 04 38.8 -0.1**
**IMAR Indian Mountai 87.17 24** *e*P **P 08 04 39.7 +0.8**
IMAR *e*S **S 08 15 04.8 +0.7**
**FKH Fakeheh 87.20 304** *e*P **P 08 04 40.0 +0.1**
**TOKA Tokat 87.36 310** *e*P **P 08 04 40.7 +0.2**
comp=Z,401nm,1.1s
**MOS Moscow 87.38 326** *e*P **P 08 04 38.2 -1.9**
MOS *e**PP **pP 08 05 22.1 +0.1**
MOS *e* 08 08 04.4
MOS *e*S **S 08 15 00.8 -5.6**
MOS pmax pmax
comp=Z,2µm,2.5s
MOS pmax pmax
comp=Z,595nm,1.5s
**SPU Mount Spurr 87.48 29** *e*P **P 08 04 39.8 -0.8**
**PAE Paea 87.49 108** *e*P **P 08 04 44.0 +2.5**
comp=Z,14nm,1.3s
**PPT Papeete 87.50 107** P **P 08 04 44.3 +2.7**
comp=Z,83nm,1.1s,baz=317,slow=1.7,SNR=7.9
**PPT Papeete 87.50 107** *e*P **P 08 04 45.1 +3.6**
**PPT Papeete 87.50 107** *e*P **P 08 04 41.3 -0.2**
**PPT2 Papeete2 87.50 107** *e*P **P 08 04 44.3 +2.7**
comp=Z,97nm,1.2s
**PPT2 Papeete2 87.50 107** *e*S **S 08 15 03.9 -5.2**
comp=Z,3µm,30.0s
**PPT2 Papeete2 87.50 107** *e*LR LR 08 32 12.8
comp=Z,1µm,26.8s
**PPTF Pamatai, Papee 87.51 107** *e*P **P 08 04 44.2 +2.6**
comp=Z,99nm,1.1s
**PPLA Purkeypile 87.56 27** *e*P **P 08 04 41.0 -0.1**
comp=Z,486nm,1.4s
**HOM Homer 87.57 30** *e*P **P 08 04 41.8 +0.8**
comp=Z,633nm,1.0s
**HWQ Hawqa 87.59 304** *e*P **P 08 04 41.3 -0.5**
**CAST Castle Rocks 87.65 27** *e*P **P 08 04 41.2 -0.1**
comp=Z,125nm,1.2s
CAST *e*S **S 08 15 10.8 +2.1**
**RCY Rachaya 87.66 303** *e*P **P 08 04 42.2 +0.1**
**SYO Syowa Base 87.70 201**⇓*i*P **P 08 04 40.2 -1.1**
**SYO Syowa Base 87.70 201**⇓*i*PcP **PcP 08 04 43.2 +0.1**
**TBI Tubuai 87.70 113** *e*P **P 08 04 45.0 +2.7**
comp=Z,656nm,1.3s
**TIAR Tiarei 87.72 107** *e*P **P 08 04 45.4 +2.8**
comp=Z,103nm,1.5s
**SHBL Chebaa 87.73 303** *e*P **P 08 04 42.5 0.0**
**CNPM China Poot 87.77 31** *e*P **P 08 04 42.2 +0.2**
comp=Z,604nm,1.2s
**TMCR Tamitsa 87.78 334** *e*P **P 08 04 38.0 -3.8**
TMCR pmax pmax
comp=Z,419nm,1.0s
**QRWL Qaraoun 87.79 303** *e*P **P 08 04 42.5 -0.2**
**TVO Taravao 87.81 108** *e*P **P 08 04 45.9 +2.9**
comp=Z,69nm,1.2s
**BHL Bhannes 87.82 304** *e*P **P 08 04 42.5 -0.3**
**DQRL Deir Qamar 87.88 304** *e*P **P 08 04 43.3 +0.1**
**OBN Obninsk 87.95 325** P **P 08 04 41.9 -0.9**
comp=Z,166nm,0.8s,baz=63,slow=1.6,SNR=75
OBN LR LR 08 44 45.1
comp=Z,1µm,21.4s,baz=90,slow=36
**OBN Obninsk 87.95 325***c i*P **P 08 04 41.8 -1.0**
OBN *i* *PP **pP 08 05 26.8 +2.1**
OBN *i* 08 08 16.9
OBN *e*S **SKSac 08 14 58.2 +2.9**
OBN *e*SS **SS 08 21 00.5 -2.7**
OBN pmax pmax
comp=Z,375nm,1.2s
**OBN Obninsk 87.95 325** *e*P **P 08 04 41.9 -0.9**
comp=Z,845nm,1.4s
**BRLK Bradley Lake 87.96 30** *e*P **P 08 04 42.4 -0.4**
comp=Z,644nm,1.1s
**SUA Susitna One 88.13 29** *e*P **P 08 04 43.6 -0.1**
comp=Z,352nm,1.0s
**BPAW Bear Paw Mtn. 88.18 26** *e*P **P 08 04 43.6 -0.2**
comp=Z,233nm,1.0s
**MLY Manley 88.34 25** *e*P **P 08 04 45.0 +0.4**
comp=Z,370nm,1.0s
**TRF Thorofare Moun 88.45 27** *e*P **P 08 04 44.9 -0.3**
comp=Z,351nm,1.2s
**RC01 Rabbit Creek A 88.60 29** *e*P **P 08 04 45.7 -0.1**
comp=Z,360nm,1.2s
**COLD Coldfoot 88.69 23** *e*P **P 08 04 47.5 +1.4**

comp=Z,248nm,0.9s
COLD eS S 08 15 21.2 +2.9
**PMR Palmer 88.91 29** *e*P **P** 08 04 46.8 -0.4
**PMR Palmer 88.91 29** *e*P **P** 08 04 46.8 -0.4
comp=Z,399nm,1.4s
**MCK McKinley 89.07 26** *e*P **P** 08 04 48.2 +0.2
MCK pmax pmax
comp=Z,483nm,1.1s
**MCK McKinley 89.07 26** *e*P **P** 08 04 48.2 +0.2
comp=Z,483nm,1.1s
**PMOR Pomariorio Ree 89.09 105** *e*P **P** 08 04 51.8 +2.8
comp=Z,2µm,1.2s
**RND Reindeer 89.10 27** *e*P **P** 08 04 47.6 -0.6
RND pmax pmax
comp=Z,336nm,1.0s
**RND Reindeer 89.10 27** *e*P **P** 08 04 47.6 -0.6
comp=Z,336nm,1.0s
**PHNC Paralimni 89.18 305** P **P** 08 04 48.3 -0.8
**SIM Simferopol' 89.22 315***c*e**P** **P** 08 04 48.1 -1.0
SIM *e* 08 08 27.2
SIM pmax pmax
comp=Z,78nm,0.9s
**SML Sawmill 89.30 28** *e*P **P** 08 04 49.0 -0.1
**SML Sawmill 89.30 28** *e*P **P** 08 04 49.0 -0.1
comp=Z,526nm,1.1s
**VAH Vaihoa 89.35 105** *e*P **P** 08 04 52.9 +2.7
comp=Z,1µm,1.2s
**LVZ Lovozero 89.36 338***c i*P **P** 08 04 47.7 -1.5
LVZ pmax pmax
comp=Z,258nm,1.3s
**LVZ Lovozero 89.36 338** *e*P **P** 08 04 48.5 -0.8
comp=Z,277nm,1.1s
**MDM Murphy Dome 89.41 25** *e*P **P** 08 04 50.0 +0.5
comp=Z,298nm,1.5s
**ILGA Ilgaz 89.47 311** *e*P **P** 08 04 50.2 -0.5
comp=Z,78nm,1.1s
**BR131 Keskin Array S 89.53 310** *e*P **P** 08 04 50.1 -0.7
**BRTR Keskin Array B 89.53 310** P **P** 08 04 49.5 -1.4
comp=Z,62nm,1.0s,baz=122,slow=4.5,SNR=97
BRTR PP PP 08 08 15.7 -9.0
comp=Z,6.8nm,0.9s,baz=118,slow=4.7,SNR=5.1
BRTR PKKPbc **PKKPbc** **08 22 25.9 -0.2**
comp=Z,6.4nm,1.1s,baz=201,slow=2.4,SNR=9.1
BRTR PKPPKP **P'P'df** **08 30 31.7 -2.4**
comp=Z,1.7nm,1.1s,baz=248,slow=1.3,SNR=5.6
BRTR LR LR 08 51 26.3
comp=Z,304nm,19.8s,baz=85,slow=40
**COLA College 89.57 25** *e*P **P** 08 04 49.5 -0.7
COLA pmax pmax
comp=Z,80nm,1.0s
**COLA College 89.57 25** *e*P **P** 08 04 49.5 -0.7
comp=Z,80nm,1.0s
**CCB Clear Creek Bu 89.58 26** *e*P **P** 08 04 49.9 -0.4
comp=Z,311nm,1.1s
**CSS Mathiatis 89.75 305** *e*P **P** 08 04 51.1 -0.7
comp=Z,121nm,1.4s
**CSS Mathiatis 89.75 305** P **P** 08 04 51.9 +0.1
**CSS Mathiatis 89.75 305** P **P** 08 04 50.4 -1.4
**DHY Denali Highway 89.76 27** *e*P **P** 08 04 51.8 +0.4
comp=Z,120nm,0.8s
**SCM Sheep Creek Mo 89.77 28** *e*P **P** 08 04 51.5 +0.1
SCM pmax pmax
comp=Z,499nm,1.2s
**SCM Sheep Creek Mo 89.77 28** *e*P **P** 08 04 51.5 +0.1
comp=Z,499nm,1.2s
**APA Apatity 89.83 337**⇑*i*P **P** 08 04 49.1 -2.3
APA *i* S S 08 15 19.0 -10
APA *i* PS **PS** **08 16 56.0 -0.8**
APA *i* SS **SS** **08 21 26.0 -3.9**
APA pmax pmax
comp=Z,90nm,1.1s
APA MLR MLR
comp=Z,2µm,21.0s
**GLI Glacier Island 89.88 29** *e*P **P** 08 04 52.1 +0.3
comp=Z,363nm,1.1s
**HDA Harding Lake 89.95 26** *e*P **P** 08 04 52.2 +0.1
comp=Z,204nm,1.1s
**IL1 Eielson Array 89.98 25** *e*P **P** 08 04 51.5 -0.7
**ILAR Eielson Array 89.98 25** P **P** 08 04 50.6 -1.6
comp=Z,56nm,1.0s,baz=243,slow=3.6,SNR=235
ILAR PP **PP** **08 08 22.7 -4.6**
comp=Z,9.8nm,1.0s,baz=261,slow=7.3,SNR=4.6
ILAR PKKP **PKKPdf** **08 22 18.5 -2.3**
comp=Z,11nm,1.0s,baz=42,slow=0.5,SNR=9.7
ILAR PKKPbc **PKKPbc** **08 22 23.5 -2.2**
comp=Z,12nm,1.0s,baz=75,slow=1.4,SNR=21
ILAR PKPPKP **P'P'df** **08 30 25.8 -5.7**
comp=Z,2.3nm,1.0s,baz=153,slow=1.9,SNR=9.0
**ILB Eielson Array 89.98 25** *e*P **P** 08 04 51.6 -0.6
**SZAC Souni 90.12 305** P **P** 08 04 52.9 -0.7
**ANTO Ankara 90.18 310** *e*P **P** 08 04 53.2 -0.5
**ANTO Ankara 90.18 310** *e*P **P** 08 04 53.2 -0.5
comp=Z,91nm,1.1s
**ANTO Ankara 90.18 310** P **P** 08 04 53.9 +0.1
SNR=18
**FID Port Fidalgo 90.18 29** *e*P **P** 08 04 53.5 +0.3
comp=Z,371nm,1.2s
**BR231 Keskin MP Arra 90.19 310** *e*P **P** 08 04 50.8 -3.1
**ALFC Alefka 90.35 305** P **P** 08 04 54.2 -0.4
**KLU Klutina 90.45 29** *e*P **P** 08 04 55.1 +0.6
comp=Z,190nm,1.1s
**DIV Divide 90.52 29** *e*P **P** 08 04 55.7 +0.9
comp=Z,717nm,1.3s
**EYAK Cordova Ski Ar 90.55 30** *e*P **P** 08 04 55.5 +0.7
comp=Z,436nm,1.4s
**PPCY Paphos 90.56 305** P **P** 08 04 54.5 -1.0
**AKMC Akamas 90.58 305** P **P** 08 04 54.3 -1.3
**PAX Paxson 90.63 27** *e*P **P** 08 04 56.3 +1.0
PAX pmax pmax
comp=Z,662nm,1.4s
**PAX Paxson 90.63 27** *e*P **P** 08 04 56.3 +1.0
comp=Z,662nm,1.4s
**FYU Fort Yukon 90.64 24** *e*P **P** 08 04 56.3 +1.2
comp=Z,756nm,1.4s
**HARP HAARP 90.79 28** *e*P **P** 08 04 56.8 +0.8
comp=Z,482nm,1.1s
**RAGM Ragged Mountai 91.08 30** *e*P **P** 08 04 58.8 +1.3
comp=Z,531nm,1.4s
**BMRM Bremner River 91.10 29** *e*P **P** 08 04 58.0 +0.5
comp=Z,520nm,1.3s
**PUL Pulkovo 91.35 330** *i* P **P** 08 04 57.9 -0.7
PUL pmax pmax
comp=Z,289nm,1.0s
**MENT Mentasta 91.43 27** *e*P **P** 08 05 00.0 +1.0
comp=Z,344nm,1.4s
**BOLV Bolvadin 91.62 309** *e*P **P** 08 05 00.0 -0.6
comp=Z,252nm,1.0s
**HOPEN Hopen 91.84 347** *e*P **P** 08 04 59.3 -1.3
HOPEN IAmb IAmb 08 05 00.8
comp=Z,376nm,1.4s
**KEV Kevo 92.06 340** *e*P **P** 08 05 00.7 -1.0
KEV pmax pmax
comp=Z,81nm,1.1s
**KEV Kevo 92.06 340** *e*P **P** 08 05 00.7 -1.0
comp=Z,81nm,1.1s
**AKASG Malin Array Be 92.40 321** P **P** 08 05 02.0 -1.6
comp=Z,16nm,0.5s,baz=73,slow=4.4,SNR=160
AKASG PKiKP **PKiKP** **08 09 51.6 -0.2**
comp=Z,2.9nm,0.6s,baz=73,slow=2.2,SNR=7.0
AKASG PKKPbc **PKKPdf** **08 22 17.3 +1.2**
comp=Z,2.3nm,0.5s,baz=274,slow=3.1,SNR=7.3
AKASG LR LR 08 51 44.9
comp=Z,759nm,21.5s,baz=60,slow=39
**AKBB Malin Array Si 92.40 321** *e*P **P** 08 05 02.1 -1.6
AKBB pmax pmax
comp=Z,105nm,1.1s
**AKBB Malin Array Si 92.40 321** *e*P **P** 08 05 02.0 -1.6
comp=Z,105nm,1.1s
**EGAK Eagle 92.43 25** *e*P **P** 08 05 03.6 +0.1
comp=Z,355nm,1.3s
**AK11 Malin Array Si 92.44 321** *e*P **P** 08 05 02.1 -1.8
**ARCES ARCESS Array B 92.61 340** P **P** 08 05 02.8 -1.4
comp=Z,85nm,0.9s,baz=76,slow=5.1,SNR=87
ARCES PKiKP **PKiKP** **08 09 52.1 +0.4**
comp=Z,5.0nm,0.7s,baz=96,slow=1.6,SNR=5.9
ARCES PKKP **PKKPdf** **08 22 16.2 0.0**
comp=Z,3.4nm,0.5s,baz=253,slow=2.8,SNR=34
ARCES LR LR 08 52 06.9
comp=Z,1µm,18.2s,baz=88,slow=39
**ARE0 ARCESS Array S 92.61 340** *e*P **P** 08 05 02.4 -1.9
**ARE0 ARCESS Array S 92.61 340** *e*P **P** 08 05 02.9 -1.4
comp=Z,144nm,1.0s
**AKAS Kas 92.77 306** *e*P **P** 08 05 04.1 -1.8
comp=Z,91nm,1.6s
**KSL Kastellorizon 92.79 306** P **P** 08 05 03.4 -2.4
**KIS Kishinev 92.87 317**⇑*i*P **P** 08 05 04.0 -1.9
comp=Z,400nm,1.0s
KIS *i* pP **pP** **08 05 50.0 +2.0**
**KIS Kishinev 92.87 317** *i* PP PP 08 08 52.0 +1.4
comp=Z,1µm,6.0s
KIS *e*S **S** **08 15 50.0 -7.1**
**KIS Kishinev 92.87 317**⇑*i*P **P** **08 05 04.0 -1.9**
KIS *i* *PP **pP** **08 05 50.0 +2.0**
KIS *i* 08 08 52.0
KIS *e*S **S** **08 15 50.0 -7.1**
KIS pmax pmax
comp=Z,400nm,1.0s
KIS pmax pmax
comp=Z,1µm,6.0s
KIS MLR MLR
comp=Z,1µm,18.0s
KIS MLR MLR
comp=Z,1µm,20.0s
**MICGM Minsk 92.98 324**⇑*i*P **P** **08 05 05.0 -1.3**
MICGM PM 08 05 06.0
comp=Z,0.9nm,1.0s
MICGM *e*sP PcP 08 05 20.0 +13
MICGM *e*pP **pP** **08 05 48.0 -0.3**
MICGM *e*PP PP 08 08 07.0 -44
MICGM *e*SKS **SKSac** **08 15 24.0 -0.3**
MICGM *e*S **S** **08 15 57.0 -0.8**
MICGM *e*LR LR 08 40 10.0
**MNK Minsk 92.98 324**⇑*i*P **P** **08 05 05.0 -1.3**
MNK *e**PP **pP** **08 05 48.0 -0.3**
MNK *e* 08 15 24.0
MNK *e*S **S** **08 15 57.0 -0.8**
MNK pmax pmax
comp=Z,930nm,1.0s
**HAMF Hammerfest 93.07 341** *e*P **P** **08 05 05.0 -1.3**
HAMF IAmb IAmb 08 05 05.8
comp=Z,142nm,0.7s
**SORM Soroca 93.12 318**⇑*i*P **P** **08 05 05.5 -1.5**
**SORM Soroca 93.12 318**⇑*i*P **PKKPbc** **08 22 16.3 -0.8**
**FETY Fethiye 93.17 307** P **P** **08 05 05.1 -2.5**
**DAWY Dawson 93.27 26** *e*P **P** **08 05 08.0 +0.6**
comp=Z,426nm,1.1s
**VSU Vasula 93.28 328***c i*P **P** **08 05 06.4 -1.1**
VSU pmax pmax
comp=Z,911nm,1.2s
**TIRR Tirgusor 93.30 314**⇑*i*P **P** **08 05 06.6 -1.3**
**TIRR Tirgusor 93.30 314**⇓*i*P **PP** **08 08 52.6 -1.4**
**TIRR Tirgusor 93.30 314** *e*P **P** **08 05 07.1 -0.8**
**TIRR Tirgusor 93.30 314** *e*P **P** **08 05 07.1 -0.8**
comp=Z,60nm,1.2s
**FIA1 FINESS Array S 93.31 331** *e*P **P** **08 05 06.3 -1.3**
comp=Z,156nm,1.3s
**FINES FINESS Array B 93.31 331** P **P** **08 05 05.9 -1.7**
comp=Z,39nm,0.9s,baz=63,slow=5.0,SNR=45
FINES PKiKP **PKiKP** **08 09 53.7 +0.6**
comp=Z,6.9nm,0.6s,baz=103,slow=4.5,SNR=7.7
FINES PKKPbc **PKKPbc** **08 22 17.1 0.0**
comp=Z,2.6nm,0.8s,baz=179,slow=34,SNR=3.3
FINES LR LR 08 52 18.2
comp=Z,784nm,18.6s,baz=78,slow=39
**FINES FINESS Array B 93.31 331** *i* P **P** **08 05 06.4 -1.2**
FINES pmax pmax
comp=Z,38nm,0.9s
**SPA0 Spitsbergen Ar 93.35 349** *e*P **P** **08 05 06.9 -0.6**
SPA0 IAmb IAmb 08 05 08.0
comp=Z,2µm,1.2s
**SPA0 Spitsbergen Ar 93.35 349** *e*P **P** **08 05 06.8 -0.7**
**SPITS Spitsbergen Ar 93.35 349** P **P** **08 05 06.7 -0.8**
comp=Z,968nm,1.0s,baz=63,slow=5.7,SNR=233
**CFR Carcaliu 93.45 315**⇑*i*P **P** **08 05 07.4 -1.2**
**CFR Carcaliu 93.45 315**⇑*i*P **PP** **08 08 55.0 -0.1**
**KTK1 Kautokeino 93.48 339** *e*P **P** **08 05 05.4 -2.9**
KTK1 IAmb IAmb 08 05 07.7
comp=Z,214nm,1.5s
**MANT Manisa 93.50 308** *e*P **P** **08 05 08.7 -0.7**
comp=Z,568nm,1.2s
**IDID Didziasalis 93.57 325** *e*P **P** **08 05 08.8 -0.2**
IDID IAmb IAmb 08 05 10.4
comp=Z,221nm,1.1s
**NACGM Naroch 93.58 325** *e*P **P** **08 05 08.0 -1.0**
NACGM PM 08 05 10.0
comp=Z,1.1nm,1.0s
NACGM *e*LR LR 08 45 40.0
**IZAR Zarasai 93.81 326** *e*P **P** **08 05 09.7 -0.3**
IZAR IAmb IAmb 08 05 11.4
comp=Z,181nm,1.0s
**IIGN Ignalina 93.86 325** *e*P **P** **08 05 10.1 -0.2**
IIGN IAmb IAmb 08 05 11.8
comp=Z,242nm,1.1s
**HSPB Hornsund (broa 93.86 348** *e*P **P** **08 05 08.9 -1.0**
HSPB IAmb IAmb 08 05 10.1
comp=Z,378nm,1.0s
**ISAL Salakas 93.89 326** *e*P **P** **08 05 10.1 -0.3**
ISAL IAmb IAmb 08 05 11.8
comp=Z,157nm,1.1s
**KBS Kingsbay 93.95 350** *e*P **P** **08 05 09.5 -0.8**
KBS pmax pmax
comp=Z,347nm,1.1s
**KBS Kingsbay 93.95 350** *e*P **P** **08 05 09.5 -0.8**
comp=Z,347nm,1.1s
**PETR Petresti 94.05 316**⇑*i*P **P** **08 05 11.4 0.0**
**PRD Provadia 94.11 313** *e*P **P** **08 05 10.4 -1.3**
**VRI Vrincioaia 94.39 316**⇑*i*P **P** **08 05 12.3 -0.7**
**VRI Vrincioaia 94.39 316**⇑*i*P **PP** **08 09 01.4 -1.1**
**VRI Vrincioaia 94.39 316**⇑*i*P **PKKPbc** **08 22 13.3 -0.4**
**TESR Tescani 94.39 317**⇑*i*P **P** **08 05 11.9 -1.1**
**TESR Tescani 94.39 317**⇑*i*P **PP** **08 09 01.6 -0.9**
**PLOR Plostina 94.44 316**⇑*i*P **P** **08 05 12.4 -0.9**
**PLOR Plostina 94.44 316**⇑*i*P **PP** **08 09 03.0 +0.1**
**PLOR Plostina 94.44 316** P **P** **08 05 13.0 -0.3**
**HYT Haines Junctio 94.56 29** *e*P **P** **08 05 14.7 +1.1**
comp=Z,432nm,1.1s
**BODT Bodrum 94.57 307** P **P** **08 05 12.0 -2.0**
**ISR Istrita 94.58 315**⇑*i*P **PP** **08 09 03.3 -0.7**
**PRAR RASCA 94.61 317**⇑*i*P **P** **08 05 12.8 -1.1**
**LSZ Lusaka 94.72 255** P **P** **08 05 15.2 0.0**
comp=Z,252nm,1.0s,baz=93,slow=4.2,SNR=265
LSZ LR LR 08 43 43.9
comp=Z,1µm,21.8s,baz=114,slow=33
**LSZ Lusaka 94.72 255** *e*P **P** **08 05 15.0 -0.2**
comp=Z,568nm,1.1s
**LSZ Lusaka 94.72 255** P **P** **08 05 15.2 0.0**
SNR=150
**NISR Nisiros 94.74 307** P **P** **08 05 12.5 -2.3**
**JMB Yambol 94.76 312** *e*P **P** **08 05 12.8 -1.9**
**KARP Karpathos 94.78 306** *e*P **P** **08 05 14.1 -1.0**
comp=Z,98nm,1.0s
**KARP Karpathos 94.78 306** P **P** **08 05 13.8 -1.2**
**TRO Tromso 94.86 340** *e*P **P** **08 05 16.9 +2.3**
TRO IAmb IAmb 08 05 17.6
comp=Z,153nm,1.1s
**INK Inuvik 94.91 21** P **P** **08 05 14.6 -0.2**
comp=Z,119nm,1.0s,baz=280,slow=4.9,SNR=257
INK PKKPbc **PKKPdf** **08 22 09.9 -2.1**
comp=Z,20nm,1.1s,baz=105,slow=2.6,SNR=12
**INK Inuvik 94.91 21** *e*P **P** **08 05 14.5 -0.3**
comp=Z,264nm,1.2s
INK PKKPbc **PKKPdf** **08 22 09.9 -2.1**
**SECR 94.92 315**⇑*i*P **PP** **08 09 06.6 0.0**
**MLR Muntele Rosu 94.97 316**⇑*i*P **P** **08 05 14.6 -1.2**
**MLR Muntele Rosu 94.97 316**⇓*i*P **PP** **08 09 06.5 -0.6**
**MLR Muntele Rosu 94.97 316** *e*P **P** **08 05 14.6 -1.2**
MLR pmax pmax
comp=Z,141nm,1.3s
**MLR Muntele Rosu 94.97 316** *e*P **P** **08 05 14.6 -1.2**
comp=Z,141nm,1.3s
**EZN Ezine 95.15 310** P **P** **08 05 14.5 -2.1**
**SZH Strazhica 95.17 313** *e*P **P** **08 05 14.9 -1.7**
**BURAR Bucovina Array 95.27 318**⇑*i*P **P** **08 05 16.5 -0.5**
**BURAR Bucovina Array 95.27 318** P **P** **08 05 16.6 -0.5**
**BUR04 Bucovina Ar. S 95.27 318** *e*P **P** **08 05 15.6 -1.4**
**BUR08 Bucovina Ar. S 95.27 318** *e*P **P** **08 05 16.6 -0.5**
**DOPR Dopca 95.31 316**⇑*i*P **P** **08 05 16.9 -1.3**
**DOPR Dopca 95.31 316**⇓*i*P **PP** **08 09 09.6 0.0**
**DOPR Dopca 95.31 316**⇓*i*P **PKKPbc** **08 22 11.1 -0.2**
**GADA Gvkgeada 95.45 310** P **P** **08 05 15.7 -2.2**
**SIGR SIGRI 95.56 309** P **P** **08 05 16.2 -2.2**
**ZKR Zakros 95.58 305** P **P** **08 05 16.7 -2.0**
**ZKR Zakros 95.58 305** P **PP** **08 09 07.7 -4.3**
**VOIR 95.60 316**⇑*i*P **P** **08 05 17.1 -1.5**
**VOIR 95.60 316**⇑*i*P **PP** **08 09 11.4 -0.5**
**VOIR 95.60 316**⇑*i*P **PKKPbc** **08 22 09.8 -0.8**
**PVL Pavlikeni 95.61 313** *e*P **P** **08 05 17.8 -0.8**
**SMTH Samothraki Isl 95.71 311** P **P** **08 05 16.2 -2.9**
**SUW Suwalki 95.78 324** *e*P **P** **08 05 18.1 -0.9**
SUW *e*pP **pP** **08 05 57.2 -4.0**
SUW *e*PP **PP** **08 09 13.8 +0.9**
SUW *e*S S 08 16 56.0 +34
**SUW Suwalki 95.78 324** *e*P **P** **08 05 18.1 -0.9**
SUW *e* 08 09 13.8
**LVV L'vov 95.80 320** *e*P **P** **08 05 18.3 -1.0**
LVV *e* 08 09 14.6
**SKAG Skagway 95.86 30** *e*P **P** **08 05 20.5 +1.2**
comp=Z,530nm,1.1s
**WHY Whitehorse 95.86 29** *e*P **P** **08 05 20.7 +1.2**
comp=Z,651nm,1.0s
**ARR Arges 95.90 315**⇓*i*P **P** **08 05 18.5 -1.4**
**ARR Arges 95.90 315**⇑*i*P **PP** **08 09 14.0 -0.2**
**ARR Arges 95.90 315**⇑*i*P **PKKPbc** **08 22 09.3 -0.4**
**ARCR ARCALIA 95.91 317**⇑*i*P **P** **08 05 19.6 -0.2**
**NPS Neapolis 96.06 305** P **P** **08 05 20.2 -0.7**
**SANT Santorini 96.10 306** *e*P **P** **08 05 20.6 -0.5**
comp=Z,177nm,1.4s
**PLD Plovdiv 96.18 312** P **P** **08 05 20.8 -0.4**
**LAST Lasithi 96.18 305** P **P** **08 05 20.2 -1.3**
**LAST Lasithi 96.18 305** P **PP** **08 09 13.2 -3.6**
**THR5 Thira Island, 96.19 306** P **PP** **08 09 16.0 -0.7**
**RZN Rozhen 96.21 312** *e*P **P** **08 05 19.5 -2.1**
**BESE Bessie Mountai 96.25 31** *e*P **P** **08 05 23.0 +1.8**
comp=Z,502nm,1.2s
**SIT Sitka 96.27 33** *e*P **P** **08 05 23.0 +1.8**
**SIT Sitka 96.27 33** *e*P **P** **08 05 23.0 +1.8**
comp=Z,404nm,1.3s
**BMR Baia Mare 96.41 318**⇑*i*P **P** **08 05 21.8 -0.3**
**KAVA Kavala 96.43 311** P **P** **08 05 19.9 -2.4**
**KAVA Kavala 96.43 311** P **PP** **08 09 18.9 +0.5**
**CJR Cluj-Napoca 96.46 317**⇑*i*P **P** **08 05 22.3 -0.1**
**LOT Lotru 96.49 316**⇑*i*P **P** **08 05 21.6 -1.1**
**PGB Panagyurishte 96.53 313** *e*P **P** **08 05 20.9 -2.0**
**STEI Steigen 96.60 339** *e*P **P** **08 05 20.7 -1.8**
STEI IAmb IAmb 08 05 21.7
comp=Z,201nm,1.1s
**IDI Anoyia 96.65 305** P **P** **08 05 21.4 -2.2**
**IDI Anoyia 96.65 305** P **PP** **08 09 15.6 -4.8**
**KWP Kalwaria Pacla 96.68 320** *e*P **P** **08 05 23.1 -0.2**
KWP *e*PP **PP** **08 09 22.1 +2.1**
**KWP Kalwaria Pacla 96.68 320** *e*P **P** **08 05 23.1 -0.2**
KWP *e* 08 09 22.1
**TAOE Nuku Hiva Isla 96.72 99** *e*S **S** **08 16 25.5 -6.6**
comp=Z,672nm,27.7s
**TAOE Nuku Hiva Isla 96.72 99** *e*LR LR 08 36 21.2
comp=Z,869nm,25.2s
**SIVA Sivas 96.74 305** P **P** **08 05 22.6 -1.3**
**KARY Karystos 96.77 308** P **PP** **08 09 18.1 -3.0**
**LBTB Lobatse 96.79 245** P **P** **08 05 24.1 -0.4**
comp=Z,9.7nm,0.6s,baz=136,slow=12,SNR=24
LBTB PKKP **PKKPdf** **08 22 08.4 +0.4**
comp=Z,15nm,1.1s,baz=276,slow=3.4,SNR=8.1
**LBTB Lobatse 96.79 245** *e*P **P** **08 05 24.1 -0.4**
comp=Z,148nm,1.6s
LBTB PKKP **PKKPdf** **08 22 08.4 +0.4**
**BOSA Boshof 96.88 241** P **P** **08 05 24.5 -0.3**
comp=Z,27nm,1.1s,baz=99,slow=5.4,SNR=20
BOSA PKiKP **PKiKP** **08 10 01.3 +0.8**
comp=Z,4.6nm,1.0s,baz=105,slow=2.6,SNR=4.7
BOSA PKKPbc **PKKPbc** **08 22 06.3 -0.2**
comp=Z,16nm,1.1s,baz=275,slow=4.0,SNR=11
BOSA LR LR 08 46 37.7
comp=Z,602nm,18.1s,baz=100,slow=34
**BOSA Boshof 96.88 241** *e*P **P** **08 05 24.6 -0.3**
BOSA pmax pmax
comp=Z,244nm,1.6s
**BOSA Boshof 96.88 241** *e*P **P** **08 05 24.6 -0.3**
comp=Z,244nm,1.6s
BOSA PKiKP **PKiKP** **08 10 01.3 +0.8**
BOSA PKKPbc **PKKPbc** **08 22 06.3 -0.2**
**NVR Nevrokopi 96.88 312** P **PP** **08 09 14.7 -7.2**
**OUR Ouranopolis 96.90 311** P **P** **08 05 22.4 -2.1**
**MHLO Agia Marina, M 96.92 307** P **PP** **08 09 21.9 -0.4**
**NVL N'lazarevskaya 96.94 198** *e*P **P** **08 05 22.8 -1.2**
NVL *e**PP **pP** **08 06 04.4 -1.7**
NVL *e*S **SKSac** **08 15 43.6 -1.1**
NVL *e**SS **S** **08 16 31.0 -0.5**
NVL *e*SP **SP** **08 17 52.8 -0.3**
NVL *e*SS **SS** **08 23 04.7 -6.2**
**MMB Musomiste 96.96 312** *e*P **P** **08 05 22.3 -2.5**
**TRPA Tarpa 96.99 318**⇑*e*P **P** **08 05 23.9 -0.8**
TRPA *ex* x 08 09 26.6
**DEV Deva 97.04 316**⇓*i*P **P** **08 05 24.7 -0.3**
**DRGR 97.06 317**⇑*i*P **P** **08 05 24.3 -0.9**
**DRGR 97.06 317** P **P** **08 05 24.3 -0.9**
**UZH Uzhgorod 97.09 319** *e*P **P** **08 05 23.1 -2.0**
UZH *e* 08 09 22.3
UZH *e*S S 08 16 24.6 -9.0
UZH pmax pmax
comp=Z,700nm,3.5s
**SRS Serrai 97.11 311** P Pdif 08 05 26.5 +1.0
**SRS Serrai 97.11 311** P PP 08 09 15.8 -7.8
**EREA Eretria 97.13 309** P **PP** **08 09 21.5 -2.4**
**LOF Lofoten 97.15 339** *e*P **P** **08 05 20.7 -4.3**
**PAIG Paliouri 97.17 310** P **P** **08 05 23.1 -2.6**
**PAIG Paliouri 97.17 310** P **PP** **08 09 19.7 -4.4**
**VTS Vitosha 97.23 313** *e*P **P** **08 05 24.5 -1.6**
**ATHU Athens Univers 97.29 308** P **PP** **08 09 23.3 -1.8**
**VLY Voula,Athens 97.30 308** P **P** **08 05 23.6 -2.8**
**SOH Sokhos 97.32 311** P **PP** **08 09 27.9 +2.6**
**ATH Athens Observa 97.34 308** P **PP** **08 09 24.2 -1.3**
**GVD Gavdhos 97.35 305** P **P** **08 05 24.6 -2.0**
**IMMV Iera Moni Meta 97.38 306** P **P** **08 05 25.6 -1.2**
**IMMV Iera Moni Meta 97.38 306** P **PP** **08 09 22.8 -3.0**
**MOR8 Moi Rana 97.41 337** *e*P **P** **08 05 22.5 -3.8**
**SKIA Skiathos 97.42 309** P **PP** **08 09 23.3 -2.7**
**HERR Herculane 97.51 315**⇑*i*P **P** **08 05 26.6 -0.6**
**BEL Belsk 97.54 322** *e*P **P** **08 05 26.8 -0.3**
BEL *e*PP **PP** **08 09 30.7 +4.2**
**BEL Belsk 97.54 322** *e*P **P** **08 05 26.8 -0.3**
BEL *e* 08 09 30.7
**NEO Neokhori 97.59 310** P **PP** **08 09 24.9 -2.5**
**CRVS Cervenica-Dubn 97.59 319** *e*P **P** **08 05 27.3 -0.1**
CRVS *e* **PP** **08 09 31.7 +4.7**
**CRVS Cervenica-Dubn 97.59 319** *e*PDIFF Pdif 08 05 27.3 -0.2
CRVS *e*PP **PP** **08 09 31.7 +4.7**
**XOR Xorichti 97.61 310** P **PP** **08 09 26.2 -1.3**
**KNT Kendrikon 97.63 311** P **P** **08 05 24.9 -2.9**
**KNT Kendrikon 97.63 311** P **PP** **08 09 24.9 -2.7**
**THE Thessaloniki 97.64 311** P **PP** **08 09 29.7 +2.1**
**VILL Villia 97.64 308** P **PP** **08 09 27.5 -0.3**
**STHS Stebnicka Huta 97.65 320** *e*P Pdif 08 05 27.9 +0.2
**STHS Stebnicka Huta 97.65 320** *e*PDIFF Pdif 08 05 27.9 +0.2
**DID Didima 97.77 308** P **P** **08 05 24.9 -3.6**
**DID Didima 97.77 308** P **PP** **08 09 23.7 -5.1**
**CRAG Craig 97.78 34** *e*P Pdif 08 05 29.7 +1.6
comp=Z,133nm,1.1s
**FYTO Fytoko, Volos 97.80 310** P **PP** **08 09 24.4 -4.5**
**SIRR Siria 97.85 317**⇑*i*P **P** **08 05 27.8 -0.9**
**VAY Valandovo 97.85 312** P **PP** **08 09 30.2 +0.9**
**VAY Valandovo 97.85 312** *i* P **P** **08 05 25.4 -3.4**
**STOK Stokkvaagen 97.91 337** *e*P **P** **08 05 25.3 -3.1**
**LOUT Loutraki 97.93 308** P **PP** **08 09 24.2 -5.8**
**BZS Buzias 97.97 316**⇓*i*P Pdif 08 05 29.4 +0.2
**WRAK Wrangell Islan 98.01 33** *e*P Pdif 08 05 29.8 +0.7
comp=Z,253nm,1.1s
**GRG Griva 98.02 311** P **PP** **08 09 25.8 -4.8**
**MDVR Moldovita 98.02 315**⇓*i*P **P** **08 05 28.6 -0.9**
**LIT Litokhoron 98.06 310** P **P** **08 05 26.6 -3.2**
**LIT Litokhoron 98.06 310** P **PP** **08 09 25.6 -5.3**
**VLI Veliai 98.09 307** P **PP** **08 09 26.4 -4.9**
**NIE Niedzica 98.26 320** *e*P **P** **08 05 30.2 -0.2**
NIE *e*PP **PP** **08 09 35.1 +3.0**
**NIE Niedzica 98.26 320** *e*P **P** **08 05 30.2 -0.2**
NIE *e* 08 09 35.1
**KECS Kecovo 98.30 319** *e*P **P** **08 05 30.0 -0.6**
KECS *e* 08 09 34.6
**KECS Kecovo 98.30 319** *e*PDIFF **P** **08 05 30.0 -0.6**
KECS *e*PP **PP** **08 09 34.6 +2.2**
**AGG Agios Georgios 98.31 309** *e*P **P** **08 05 30.4 -0.5**
AGG pmax pmax
comp=Z,181nm,1.4s
**AGG Agios Georgios 98.31 309** *e*P **P** **08 05 30.4 -0.5**
comp=Z,181nm,1.4s
**AGG Agios Georgios 98.31 309** P PP 08 09 24.6 -8.3
**GUR Goura 98.43 308** P P 08 05 26.6 -5.0
**OJC Ojcow 98.44 321** *e*P **P** **08 05 30.7 -0.5**
OJC *e*PP **PP** **08 09 34.5 +1.1**
**OJC Ojcow 98.44 321** *e*P **P** **08 05 31.1 -0.1**
OJC pmax pmax
comp=Z,112nm,1.2s
**OJC Ojcow 98.44 321** *e*P **P** **08 05 31.1 -0.1**
comp=Z,112nm,1.2s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| VLX | Vlachokerasia | 98.47 | 308 | P | | PP | 08 09 27.8 | -6.4 | |
| THL | Klokotos Trika | 98.49 | 310 | P | | P | 08 09 27.6 | -6.6 | |
| KALE | Kalithea | 98.53 | 309 | P | | P | 08 05 29.1 | -2.9 | |
| KALE | Kalithea | 98.53 | 309 | P | | PP | 08 09 31.4 | -3.2 | |
| KLV | Kalavryta, Ach | 98.57 | 308 | P | | P | 08 05 29.5 | -2.6 | |
| KLV | Kalavryta, Ach | 98.57 | 308 | P | | PP | 08 09 25.6 | -9.3 | |
| KZN | Kozani | 98.58 | 311 | P | | PP | 08 09 20.6 | -14 | |
| SERG | Sergoula | 98.60 | 309 | P | | P | 08 05 29.5 | -2.7 | |
| DIB | Dawson Inlet, comp=Z,129nm,1.1s | 98.60 | 36 | eP | | Pdif | 08 05 33.1 | +1.4 | |
| H02S1 | DAWSON INLET T SNR=3.2 | 98.60 | 36 | P | | P | 08 05 31.8 | 0.0 | |
| SKO | Skopje | 98.61 | 312 | P | | Pdif | 08 05 33.9 | +1.7 | |
| SKO | Skopje | 98.61 | 312 | P | | PP | 08 09 33.6 | -1.4 | |
| SKO | Skopje | 98.61 | 312 | i P | | Pdif | 08 05 32.3 | +0.1 | |
| ANX | Ano Chora | 98.68 | 309 | P | | PP | 08 09 29.6 | -6.2 | |
| DLBC | Dease Lake comp=Z,187nm,1.3s | 98.76 | 31 | eP | | Pdif | 08 05 34.4 | +1.9 | |
| PSZ | Piszkesteto | 98.78 | 318⇑ | i P | | P | 08 05 31.6 | -1.3 | |
| PSZ | Piszkesteto | 98.78 | 318 | eP | | P | 08 05 32.1 | -0.8 | |
| PSZ | comp=Z,83nm,1.3s | | | pmax | | pmax | | | |
| PSZ | Piszkesteto | 98.78 | 318⇑ | ex | | P | 08 05 32.1 | -0.8 | |
| PSZ | | | | ex | | PP | 08 09 39.8 | +3.6 | |
| PSZ | Piszkesteto comp=Z,83nm,1.3s | 98.78 | 318 | eP | | P | 08 05 32.0 | -0.8 | |
| FNA | Florina | 98.82 | 311 | P | | PP | 08 09 30.3 | -6.4 | |
| BIA | Bitola | 98.83 | 311 | i P | | P | 08 05 29.4 | -3.8 | |
| KRUS | Krusevo | 98.83 | 312 | i P | | P | 08 05 30.4 | -2.9 | |
| LANS | Liptovska Anna | 98.84 | 320 | eP | | Pdif | 08 05 33.5 | +0.4 | |
| LANS | Liptovska Anna | 98.84 | 320 | ePDIFF | | Pdif | 08 05 33.5 | +0.4 | |
| ITM | Ithomi | 98.84 | 308 | P | | PP | 08 09 33.7 | -3.3 | |
| DRO | Drossia | 98.92 | 308 | P | | P | 08 05 32.0 | -1.7 | |
| AMT | Artemida-Makis | 98.97 | 308 | P | | PP | 08 09 35.5 | -2.5 | |
| PYL | PYLOS | 99.03 | 307 | P | | PP | 08 09 35.9 | -2.5 | |
| PENT | Pentalofos | 99.08 | 311 | P | | PP | 08 09 40.2 | +1.4 | |
| RLS | Riolos of Patr | 99.10 | 308 | P | | Pdif | 08 05 33.0 | -1.4 | |
| RLS | Riolos of Patr | 99.10 | 308 | P | | PP | 08 09 36.6 | -2.3 | |
| NEST | Nestorio | 99.11 | 311 | P | | PP | 08 09 40.5 | +1.5 | |
| OHR | Ohrid | 99.20 | 312 | P | | Pdif | 08 05 35.7 | +0.8 | |
| OHR | Ohrid | 99.20 | 312 | i P | | Pdif | 08 05 32.2 | -2.6 | |
| DSL | Palaion Diasel | 99.25 | 310 | P | | PP | 08 09 24.9 | -15 | |
| PDO | Prodromos | 99.25 | 309 | P | | PP | 08 09 32.5 | -7.5 | |
| JAN | Janina | 99.37 | 310 | P | | PP | 08 09 39.7 | -1.2 | |
| VYHS | Vyhne | 99.37 | 319 | eP | | Pdif | 08 05 35.7 | +0.3 | |
| VYHS | | | | e | | PP | 08 09 41.7 | +1.1 | |
| VYHS | Vyhne | 99.37 | 319 | ePDIFF | | Pdif | 08 05 35.7 | +0.3 | |
| VYHS | | | | ePP | | PP | 08 09 41.7 | +1.1 | |
| GKP | Gorka Klasztor | 99.39 | 324 | eP | | Pdif | 08 05 35.1 | -0.2 | |
| GKP | | | | ePP | | PP | 08 09 44.5 | +4.0 | |
| GKP | Gorka Klasztor | 99.39 | 324 | eP | | Pdif | 08 05 35.1 | -0.2 | |
| GKP | | | | e | | | 08 09 44.5 | | |
| BUD | Budapest | 99.44 | 318 | P | | Pdif | 08 05 36.8 | +1.1 | |
| BUD | Budapest | 99.44 | 318 | ePKPPKPab | | PP | 08 09 45.1 | +4.0 | |
| HFS | Hagfors comp=Z,20nm,0.5s,baz=95,slow=4.6,SNR=61 | 99.51 | 331 | P | | Pdif | 08 05 34.3 | -1.5 | |
| OKC | Ostrava-Krasne | 99.56 | 321 | ePDIFF | | Pdif | 08 05 36.2 | 0.0 | |
| OKC | | | | ePP | | PP | 08 09 48.5 | +6.6 | |
| OKC | | | | ePKKP | | PKKPbc | 08 21 59.7 | 0.0 | |
| OKC | Ostrava-Krasne | 99.56 | 321 | eP | | Pdif | 08 05 36.2 | 0.0 | |
| OKC | | | | e | | | 08 09 48.5 | | |
| VLS | Valsamata | 99.77 | 309 | P | | PP | 08 09 37.5 | -6.5 | |
| TIR | Tirane | 99.87 | 312⇑ | i P | | PKKPdf | 08 22 11.2 | +8.6 | |
| MORC | Moravsky Berou | 99.95 | 321⇑ | i P | | Pdif | 08 05 37.8 | -0.2 | |
| MORC | Moravsky Berou | 99.95 | 321⇑ | i P | | PP | 08 09 47.2 | +2.2 | |
| MORC | Moravsky Berou | 99.95 | 321 | i P | | PKKPbc | 08 21 58.7 | 0.0 | |
| MORC | Moravsky Berou comp=Z,192nm,1.3s | 99.95 | 321 | eP | | Pdif | 08 05 37.2 | -0.8 | |
| MORC | | | | pmax | | pmax | | | |
| MORC | Moravsky Berou comp=Z,192nm,1.3s | 99.95 | 321 | eP | | Pdif | 08 05 37.2 | -0.8 | |
| BSD | Bornholm Skovb comp=Z,370nm,1.2s | 100.27 | 326⇑ | i P | | Pdif | 08 05 38.7 | -0.5 | |
| BSD | | | | pmax | | pmax | | | |
| BSD | Bornholm Skovb comp=Z,368nm,1.2s | 100.27 | 326⇑ | i P | | Pdif | 08 05 38.7 | -0.5 | |
| NC602 | NORSAR Array S | 100.34 | 332 | eP | | Pdif | 08 05 38.0 | -1.4 | |
| DAG | Danmarks Havn | 100.37 | 352⇑ | i P | | Pdif | 08 05 38.2 | -1.0 | |
| DAG | comp=Z,280nm,1.1s | | | pmax | | pmax | | | |
| DAG | Danmarks Havn comp=Z,278nm,1.1s | 100.37 | 352⇑ | i P | | Pdif | 08 05 38.2 | -1.0 | |
| DAG | Danmarks Havn comp=Z,30nm,1.5s | 100.37 | 352 | i P | | PKKPbc | 08 21 54.1 | -4.1 | |
| SUR | Sutherland comp=Z,1.3nm,0.8s,baz=109,slow=7.7,SNR=12 | 100.37 | 237 | P | | Pdif | 08 05 40.2 | -0.3 | |
| SUR | | | | PP | | PP | 08 09 47.2 | -1.7 | |
| SUR | comp=Z,1.0nm,1.0s,baz=105,slow=3.7,SNR=3.6 | | | PKKPbc | | PKKPbc | 08 21 57.6 | +0.6 | |
| SUR | comp=Z,1.7nm,1.1s,baz=12,slow=0.7,SNR=6.0 | 100.37 | 237 | eP | | Pdif | 08 05 41.5 | +1.0 | |
| SUR | comp=Z,448nm,1.8s | | | PP | | PP | 08 09 47.2 | -1.7 | |
| SUR | | | | PKKPbc | | PKKPbc | 08 21 57.6 | +0.6 | |
| SUR | Sutherland SNR=5.9 | 100.37 | 237 | P | | Pdif | 08 05 42.3 | +1.9 | |
| KRLC | Kraliky | 100.37 | 321 | ePDIFF | | Pdif | 08 05 39.7 | -0.2 | |
| KRLC | | | | ePP | | PP | 08 09 47.7 | -0.4 | |
| KRLC | Kraliky | 100.37 | 321 | eP | | Pdif | 08 05 39.7 | -0.2 | |
| KRLC | | | | e | | | 08 09 47.7 | | |
| NB2 | NORSAR Subarra comp=Z,56nm,1.1s,baz=75,slow=4.4 | 100.39 | 333 | P | | Pdif | 08 05 37.4 | -2.3 | |
| NB2 | NORSAR Subarra comp=Z,47nm,1.2s | 100.39 | 333 | P | | Pdif | 08 05 37.3 | -2.4 | |
| NB2 | | | | pmax | | pmax | | | |
| NB2 | NORSAR Subarra baz=75,slow=4.4 | 100.39 | 333 | P | | Pdif | 08 05 37.4 | -2.3 | |
| NB2 | baz=75,slow=4.4 | | | P | | Pdif | 08 05 37.4 | -2.3 | |
| NOA | NORSAR Array B comp=Z,25nm,1.0s,baz=72,slow=4.6,SNR=24 | 100.39 | 333 | P | | Pdif | 08 05 37.7 | -2.0 | |
| NOA | comp=Z,7.4nm,0.9s,baz=71,slow=7.1,SNR=5.0 | | | PP | | PP | 08 09 48.9 | +0.9 | |
| MODS | Modra-Piesok | 100.42 | 319 | eP | | Pdif | 08 05 39.4 | -0.7 | |
| MODS | | | | e | | PP | 08 09 49.2 | +0.7 | |
| MODS | Modra-Piesok | 100.42 | 319 | ePDIFF | | Pdif | 08 05 39.4 | -0.7 | |
| MODS | | | | ePP | | PP | 08 09 49.2 | +0.7 | |
| KSP | Ksiaz | 100.50 | 322 | eP | | Pdif | 08 05 40.9 | +0.5 | |
| KSP | Ksiaz | 100.50 | 322 | eP | | Pdif | 08 05 40.9 | +0.5 | |
| DPC | Dobruska-Polom | 100.60 | 321 | ePDIFF | | Pdif | 08 05 40.9 | 0.0 | |
| DPC | | | | ePP | | PP | 08 09 54.4 | +4.6 | |
| DPC | | | | ePKKP | | PKKPbc | 08 21 56.4 | -0.5 | |
| DPC | | | | ex | | x | 08 22 21.9 | | |
| DPC | comp=Z,2µm,22.3s | | | AMS | | AMS | 08 51 30.0 | | |
| DPC | Dobruska-Polom | 100.60 | 321 | eP | | Pdif | 08 05 40.9 | 0.0 | |
| DPC | | | | e | | | 08 09 54.4 | | |
| DPC | comp=Z,2µm,22.3s | | | MLR | | MLR | | | |
| VRAC | Vranov comp=Z,30nm,1.0s,baz=70,slow=4.4,SNR=19 | 100.66 | 320 | P | | Pdif | 08 05 41.1 | 0.0 | |
| VRAC | comp=Z,25nm,1.1s,baz=82,slow=6.0,SNR=7.8 | | | PP | | PP | 08 09 52.5 | +2.3 | |
| VRAC | Vranov | 100.66 | 320⇑ | i P | | Pdif | 08 05 41.2 | +0.1 | |
| SNAA | Sanae | 100.74 | 195 | P | | Pdif | 08 05 41.7 | +0.7 | |
| SNAA | Sanae | 100.74 | 195 | P | | PKKPdf | 08 22 18.7 | +17 | |
| SNAA | Sanae | 100.74 | 195 | eP | | Pdif | 08 05 41.4 | +0.3 | |
| SNAA | Sanae comp=Z,11µm,2.1s | 100.74 | 195 | ePdif | | Pdif | 08 05 41.4 | +0.3 | |
| UPC | Upice | 100.75 | 322 | ePDIFF | | Pdif | 08 05 41.4 | -0.1 | |
| UPC | | | | ePP | | PP | 08 09 54.4 | +3.4 | |
| UPC | | | | ePKKP | | PKKPbc | 08 21 56.2 | -0.2 | |
| UPC | comp=Z,2µm,19.1s | | | AMS | | AMS | 08 51 20.0 | | |
| UPC | Upice | 100.75 | 322 | eP | | Pdif | 08 05 41.4 | -0.1 | |
| UPC | | | | e | | | 08 09 54.4 | | |
| UPC | comp=Z,2µm,19.1s | | | MLR | | MLR | | | |
| DOMB | Dombas | 101.01 | 334 | eP | | Pdif | 08 05 40.6 | -1.8 | |
| RKT | Rikitea comp=Z,653nm,30.0s | 101.02 | 113 | eSKSac | | SKSac | 08 16 08.9 | +1.9 | |
| SOP | Sopron | 101.03 | 319 | ePKPPKPab | | PP | 08 09 56.2 | +3.1 | |
| BEHE | Becsehely | 101.14 | 317⇑ | ePdiff | | Pdif | 08 05 42.9 | -0.4 | |
| BEHE | | | | ePP | | PP | 08 09 57.8 | +3.8 | |
| CONA | Conrad Observa comp=Z,20nm,1.4s | 101.44 | 319 | i Pdiff | | Pdif | 08 05 44.5 | -0.2 | |
| CONA | | | | ePP | | PP | 08 09 55.4 | -0.9 | |
| CONA | comp=Z,55nm,1.3s | | | i PKKPbc | | PKKPbc | 08 21 53.4 | -1.0 | |
| KOGS | comp=Z,17nm,1.4s Kog | 101.50 | 318 | ePdiff | | Pdif | 08 05 44.1 | -0.8 | |
| PVCC | Panska Ves | 101.64 | 322 | ePDIFF | | Pdif | 08 05 45.7 | +0.3 | |
| PVCC | | | | ePP | | PP | 08 09 59.5 | +1.9 | |
| PVCC | | | | ePKKP | | PKKPbc | 08 21 53.6 | -0.2 | |
| PVCC | Panska Ves | 101.64 | 322 | eP | | Pdif | 08 05 45.7 | +0.3 | |
| PVCC | | | | e | | | 08 09 59.5 | | |
| GOPC | GO Pecny, Ondr | 101.66 | 321 | ePDIFF | | Pdif | 08 05 45.7 | +0.1 | |
| GOPC | | | | ePP | | PP | 08 09 53.4 | -4.4 | |
| GOPC | | | | ex | | x | 08 10 01.1 | | |
| GOPC | | | | ePKKP | | PKKPbc | 08 21 53.4 | -0.4 | |
| GOPC | GO Pecny, Ondr | 101.66 | 321 | eP | | Pdif | 08 05 45.7 | +0.1 | |
| GOPC | | | | e | | | 08 10 01.1 | | |
| PRU | Pruhonice | 101.80 | 321 | ePDIFF | | Pdif | 08 05 46.1 | 0.0 | |
| PRU | | | | ePP | | PP | 08 09 53.9 | -4.9 | |
| PRU | | | | ePKKP | | PKKPbc | 08 21 52.9 | -0.4 | |
| PRU | comp=Z,2µm,24.0s | | | AMS | | AMS | 08 47 50.0 | | |
| PRU | Pruhonice | 101.80 | 321 | eP | | Pdif | 08 05 46.1 | 0.0 | |
| PRU | | | | e | | | 08 09 53.9 | | |
| PRU | comp=Z,2µm,24.0s | | | MLR | | MLR | | | |
| ARSA | Arzberg comp=Z,26nm,1.5s,SNR=6.4 | 101.81 | 318 | ePdiff | | Pdif | 08 05 45.9 | -0.4 | |
| ARSA | comp=Z,53nm,1.4s | | | ePP | | PP | 08 09 59.2 | +0.1 | |
| ARSA | comp=Z,12nm,1.3s | | | ePKKPbc | | PKKPbc | 08 21 52.3 | -0.9 | |
| PRA | Prague | 101.84 | 321 | ePP | | PP | 08 10 02.3 | +3.2 | |
| BRG | Berggiesshubel | 101.94 | 322 | eP | | Pdif | 08 05 46.7 | 0.0 | |
| BRG | | | | e | | | 08 10 05.0 | | |
| BRG | comp=Z,73nm,1.4s | | | pmax | | pmax | | | |
| BRG | comp=Z,200nm,2.1s | | | pmax | | pmax | | | |
| BRG | comp=N,2µm,20.8s | | | MLR | | MLR | | | |
| BRG | comp=E,1µm,16.9s | | | MLR | | MLR | | | |
| BRG | comp=Z,3µm,23.7s | | | MLR | | MLR | | | |
| GROS | Grobnik | 102.00 | 318 | ePdiff | | Pdif | 08 05 45.8 | -1.4 | |
| GROS | | | | ePP | | PP | 08 10 02.5 | +1.9 | |
| RES | Resolute Bay comp=Z,40nm,1.0s,baz=323,slow=5.1,SNR=46 | 102.05 | 10 | P | | Pdif | 08 05 46.7 | 0.0 | |
| SOKA | Soboth comp=Z,15nm,1.2s | 102.27 | 318 | ePdiff | | Pdif | 08 05 47.2 | -1.2 | |
| SOKA | comp=Z,185nm,1.5s | | | ePP | | PP | 08 10 04.1 | +1.5 | |
| VNA2 | Neumayer--Watz baz=118,slow=3.0 | 102.36 | 195 | P | | Pdif | 08 05 48.5 | +0.3 | |
| VNA2 | Neumayer--Watz baz=309,slow=3.1 | 102.36 | 195 | P | | PKKPdf | 08 22 11.2 | +13 | |
| CLL | Collm | 102.40 | 323 | eP | | Pdif | 08 05 49.0 | +0.2 | |
| CLL | | | | e | | | 08 10 02.0 | | |
| CLL | | | | eS | | Sdif | 08 17 10.0 | -8.1 | |
| CLL | comp=Z,54nm,1.4s | | | pmax | | pmax | | | |
| CLL | comp=Z,58nm,1.5s | | | pmax | | pmax | | | |
| CLL | comp=Z,1µm,18.0s | | | MLR | | MLR | | | |
| CLL | Collm comp=Z,54nm,1.4s | 102.40 | 323 | ePdif | | Pdif | 08 05 49.0 | +0.2 | |
| CLL | | | | e | | | 08 05 59.0 | | |
| CLL | | | | ePP | | PP | 08 10 02.0 | -1.2 | |
| CLL | comp=Z,58nm,1.5s | | | ePPlp | | | 08 10 11.0 | | |
| CLL | comp=Z,400nm,25.6s | | | e(Sdif) | | | 08 17 10.0 | | |
| CLL | | | | ePPS | | PPS | 08 19 57.0 | | |
| CLL | | | | esPPS | | | 08 20 56.0 | | |
| CLL | | | | i PKKPbc | | PKKPbc | 08 21 50.3 | -1.3 | |
| CLL | comp=Z,33nm,1.2s | | | eSS | | SS | 08 24 30.0 | +2.1 | |
| CLL | | | | esSS | | | 08 25 39.0 | | |
| CLL | | | | eSSS | | SSS | 08 28 30.0 | | |
| CLL | | | | esSSS | | | 08 29 24.0 | | |
| CLL | | | | esSSSS | | | 08 32 54.0 | | |
| CLL | comp=Z,1µm,18.0s | | | LmV | | | 08 58 00.0 | | |
| MOA | Molln comp=Z,35nm,1.2s,SNR=6.7 | 102.50 | 319 | ePdiff | | Pdif | 08 05 49.4 | 0.0 | |
| MOA | comp=Z,51nm,1.3s | | | ePKiKP | | PKiKP | 08 10 07.2 | -2.6 | |
| MOA | comp=Z,17nm,1.1s | | | ePKKPbc | | PKKPbc | 08 21 49.7 | -1.5 | |
| GERES | GERESS Array B comp=Z,23nm,1.1s,baz=72,slow=4.3,SNR=37 | 102.61 | 320 | P | | Pdif | 08 05 49.2 | -0.8 | |
| GERES | comp=Z,15nm,1.0s,baz=64,slow=3.1,SNR=8.7 | | | PKiKP | | PKiKP | 08 10 07.8 | -2.3 | |
| GERES | | | | PKKPbc | | PKKPbc | 08 21 50.6 | -0.4 | |
| GERES | comp=Z,6.3nm,0.9s,baz=246,slow=2.3,SNR=16 | | | PKPPKP | | P'P'df | 08 30 08.6 | 0.0 | |
| KHC | comp=Z,0.3nm,0.2s,baz=358,slow=4.0,SNR=4.6 Kasperske Hory | 102.62 | 321 | ePDIFF | | Pdif | 08 05 49.9 | 0.0 | |
| KHC | | | | ePP | | PP | 08 10 02.5 | -2.5 | |
| KHC | | | | ex | | x | 08 10 09.3 | | |
| KHC | | | | ePKKP | | PKKPbc | 08 21 50.4 | -0.6 | |
| KHC | comp=Z,2µm,18.2s | | | AMS | | AMS | 08 53 00.0 | | |
| KHC | Kasperske Hory | 102.62 | 321 | eP | | Pdif | 08 05 49.9 | 0.0 | |
| KHC | | | | e | | | 08 10 09.3 | | |
| KHC | comp=Z,2µm,18.2s | | | MLR | | MLR | | | |
| KHC | Kasperske Hory comp=Z,7.2nm,1.1s | 102.62 | 321 | ePdif | | Pdif | 08 05 49.6 | -0.3 | |
| OBKA | Obir comp=Z,134nm,1.4s | 102.63 | 318 | ePKiKP | | PKiKP | 08 10 08.5 | -1.8 | |
| VNA3 | Neumayer Olymp | 102.73 | 194 | P | | Pdif | 08 05 50.0 | +0.1 | |
| VNA3 | Neumayer Olymp | 102.73 | 194 | P | | PKKPdf | 08 22 10.1 | +12 | |
| LJU | Ljubljana | 102.76 | 317 | i Pdiff | | Pdif | 08 05 49.8 | -0.7 | |
| LJU | | | | ePP | | PP | 08 10 06.2 | +0.1 | |
| LJU | | | | e | | | 08 10 12.9 | | |
| NKC | Novy Kostel | 103.03 | 322 | ePDIFF | | Pdif | 08 05 52.0 | +0.3 | |
| NKC | | | | ePP | | PP | 08 09 59.0 | -9.0 | |
| NKC | | | | ePKKP | | PKKPbc | 08 21 49.0 | -0.8 | |
| NKC | comp=Z,2µm,22.3s | | | AMS | | AMS | 08 53 40.0 | | |
| NKC | Novy Kostel | 103.03 | 322 | eP | | Pdif | 08 05 52.0 | +0.3 | |
| NKC | comp=Z,2µm,22.3s | | | MLR | | MLR | | | |
| WET | Wettzell | 103.06 | 321 | P | | Pdif | 08 05 52.3 | +0.5 | |
| BLS5 | Blasjo | 103.19 | 332 | eP | | Pdif | 08 05 51.1 | -1.1 | |
| KBA | Koelnbreinsper comp=Z,18nm,1.2s | 103.30 | 319 | ePdiff | | Pdif | 08 05 51.5 | -1.6 | |
| KBA | comp=Z,47nm,1.1s | | | ePP | | PP | 08 10 10.4 | +0.1 | |
| KBA | comp=Z,12nm,1.1s | | | i PKKPbc | | PKKPbc | 08 21 48.6 | -0.5 | |
| ABTA | Abfaltersbach comp=Z,16nm,1.2s | 103.93 | 318 | ePdiff | | Pdif | 08 05 54.6 | -1.3 | |
| ABTA | comp=Z,46nm,1.3s | | | ePKiKP | | PKiKP | 08 10 10.2 | -2.4 | |
| ABTA | comp=Z,27nm,1.2s | | | i PKKPbc | | PKKPbc | 08 21 45.5 | -1.6 | |
| YKA | Yellowknife Ar comp=Z,6.6nm,0.8s,baz=296,slow=4.7,SNR=18 | 104.33 | 24 | Pdiff | | Pdif | 08 05 57.4 | +0.3 | |
| YKA | | | | PKiKP | | PKiKP | 08 10 12.4 | -0.3 | |
| YKA | comp=Z,9.9nm,0.9s,baz=295,slow=1.8,SNR=35 | | | PKKPbc | | PKKPbc | 08 21 43.2 | -3.1 | |
| YKA | comp=Z,9.7nm,0.7s,baz=117,slow=2.7,SNR=20 | | | SKKPbc | | SKKPbc | 08 25 10.0 | -2.7 | |
| YKA | comp=Z,1.4nm,0.8s,baz=122,slow=1.4,SNR=4.3 | | | PKPPKP | | P'P'df | 08 30 03.0 | -1.2 | |
| WTTA | comp=Z,1.0nm,0.8s,baz=199,slow=1.5,SNR=3.9 Wattenberg | 104.37 | 319 | i Pdiff | | Pdif | 08 05 56.8 | -1.1 | |
| WTTA | comp=Z,26nm,1.1s | | | ePKKPbc | | PKKPbc | 08 21 44.7 | -1.2 | |
| WTTA | comp=Z,15nm,1.2s | | | i PKKPbc | | PKKPbc | 08 21 44.0 | -0.8 | |
| WATA | Walderalm comp=Z,31nm,1.2s | 104.39 | 319 | ePdiff | | Pdif | 08 05 56.8 | -1.2 | |
| WATA | comp=Z,9.1nm,0.9s | | | i PKKPbc | | PKKPbc | 08 21 44.9 | -0.8 | |
| MOTA | Moosalm comp=Z,12nm,0.8s,SNR=7.9 | 104.70 | 319 | ePdiff | | Pdif | 08 05 58.0 | -1.3 | |
| MOTA | comp=Z,50nm,1.1s | | | ePKiKP | | PKiKP | 08 10 14.5 | +0.4 | |
| MOTA | comp=Z,23nm,1.2s | | | i PKKPbc | | PKKPbc | 08 21 44.0 | -0.8 | |
| RETA | Reutte comp=Z,14nm,1.2s | 104.88 | 320 | ePdiff | | Pdif | 08 06 00.1 | +0.1 | |
| RETA | comp=Z,70nm,1.6s | | | ePKiKP | | PKiKP | 08 10 10.7 | -3.6 | |
| RETA | comp=Z,25nm,1.3s | | | ePKKPbc | | PKKPbc | 08 21 42.6 | -1.6 | |
| FETA | Feichten comp=Z,28nm,1.2s | 105.03 | 319 | ePdiff | | Pdif | 08 05 59.6 | -1.2 | |
| FETA | comp=Z,37nm,1.1s | | | ePKiKP | | PKiKP | 08 10 15.8 | +1.1 | |
| FETA | | | | ePKKPbc | | PKKPbc | 08 21 43.6 | -0.2 | |
| PGC | comp=Z,28nm,1.5s Sidney comp=Z,96nm,1.2s | 105.29 | 39 | ePdif | | Pdif | 08 06 03.0 | +1.3 | |
| FUORN | Ofenpass-Fuorn | 105.46 | 319 | ePdif | | Pdif | 08 06 03.0 | +0.2 | |
| DAVA | Damuels comp=Z,27nm,1.7s | 105.51 | 319 | ePdiff | | Pdif | 08 06 03.3 | +0.4 | |
| DAVA | comp=Z,126nm,1.4s | | | ePKiKP | | PKiKP | 08 10 13.8 | -1.8 | |
| DAVA | comp=Z,22nm,1.5s | | | ePKKPbc | | PKKPbc | 08 21 42.3 | -0.1 | |
| DAVOS | Davos/Dischmat comp=Z,4.3nm,0.7s,baz=180,slow=7.9,SNR=3.9 | 105.66 | 319 | PKKPbc | | PKKPbc | 08 21 41.8 | -0.2 | |
| DAVOX | | | | PKKPab | | PKKPab | 08 21 59.5 | +1.1 | |
| WTSB | comp=Z,17nm,0.9s,baz=285,slow=6.5,SNR=11 Winterswijk | 105.85 | 325 | ePKPdf | | PP | 08 10 34.1 | +5.4 | |
| SCO | Scoresbysund | 105.94 | 348 | i P | | Pdif | 08 06 04.6 | +0.5 | |
| SCO | comp=Z,82nm,1.3s | | | pmax | | pmax | | | |
| SCO | Scoresbysund comp=Z,82nm,1.3s | 105.94 | 348 | i P | | Pdif | 08 06 04.6 | +0.5 | |
| B05A | Bryant baz=289 | 106.27 | 39 | P | | PKiKP | 08 10 17.7 | +1.0 | |
| F04D | Rainier, OR baz=288 | 106.36 | 42 | P | | PKiKP | 08 10 18.4 | +1.4 | |
| G03D | McMinnville, O baz=287 | 106.45 | 42 | P | | PKiKP | 08 10 18.3 | +1.2 | |
| SUMG | Summit | 106.56 | 354 | i P | | Pdif | 08 06 07.7 | +0.4 | |
| SUMG | comp=Z,52nm,1.1s | | | pmax | | pmax | | | |
| SUMG | Summit comp=Z,52nm,1.1s | 106.56 | 354 | i P | | Pdif | 08 06 07.7 | +0.4 | |
| SUMG | Summit comp=Z,33nm,1.2s | 106.56 | 354 | i P | | PKKPbc | 08 21 37.5 | -2.8 | |
| SUMG | | | | i | | | 08 21 53.4 | | |
| SUMG | Summit comp=Z,51nm,1.1s | 106.56 | 354 | ePdif | | Pdif | 08 06 07.3 | 0.0 | |
| HGN | Heimansgroeve | 106.80 | 324 | ePKPdf | | PP | 08 10 38.1 | +2.4 | |
| I03D | Drain, OR baz=287,SNR=5.6 | 106.84 | 44 | P | | PKiKP | 08 10 18.7 | +0.8 | |
| L02D | Cave Junction, baz=286 | 107.09 | 46 | P | | PKiKP | 08 10 19.7 | +1.3 | |
| HUMO | Hull Mountain comp=Z,111nm,1.4s | 107.43 | 45 | ePdif | | Pdif | 08 06 12.5 | +1.1 | |
| I04A | Tendick Farm, baz=288 | 107.46 | 44 | P | | PKiKP | 08 10 19.3 | +0.1 | |
| G05D | Wamic, OR baz=289 | 107.75 | 42 | P | | PKiKP | 08 10 19.7 | +0.1 | |
| J04D | Umpqua Nationa baz=288,SNR=10 | 107.84 | 44 | P | | PKiKP | 08 10 20.7 | +0.6 | |
| M02C | Callahan baz=286,SNR=12 | 107.85 | 46 | P | | PKiKP | 08 10 21.4 | +1.4 | |
| YBH | Yreka Blue Hor comp=Z,5.7nm,1.0s,baz=159,slow=1.7,SNR=5.8 | 107.85 | 46 | Pdiff | | Pdif | 08 06 14.6 | +1.2 | |
| YBH | comp=Z,8.4nm,0.8s,baz=248,slow=8.9,SNR=14 | | | PKiKP | | PKiKP | 08 10 20.6 | +0.6 | |
| I05D | Terrebonne, OR baz=289 | 108.03 | 43 | P | | PKiKP | 08 10 21.2 | +1.0 | |
| N02D | Trinity Center baz=286,SNR=7.7 | 108.07 | 47 | P | | PKiKP | 08 10 21.9 | +1.5 | |
| K04D | Chiloquin, OR baz=288 | 108.27 | 45 | P | | PKiKP | 08 10 21.7 | +0.9 | |
| J05D | Fort Rock, OR baz=288 | 108.43 | 44 | P | | PKiKP | 08 10 22.3 | +1.2 | |
| M04C | Macdoel baz=287,SNR=8.6 | 108.46 | 46 | P | | PKiKP | 08 10 22.2 | +1.0 | |
| HAWA | Hanford | 108.54 | 40 | ePdif | | Pdif | 08 06 17.2 | +1.0 | |
| D08A | Wollman Farm, | 108.70 | 40 | ePdif | | Pdif | 08 06 17.7 | +0.8 | |
| O03D | Paynes Creek baz=287 | 108.93 | 47 | P | | PKiKP | 08 10 22.6 | +0.6 | |
| KEST | Kesra comp=Z,16nm,0.9s,baz=338,slow=1.4,SNR=8.2 | 109.07 | 308 | PKiKP | | PKiKP | 08 10 23.4 | +1.0 | |
| G08A | Pilot Rock | 109.30 | 41 | ePdif | | Pdif | 08 06 20.5 | +0.7 | |
| ORV | Oroville | 109.36 | 48 | eP | | Pdif | 08 06 21.2 | +1.1 | |
| ORV | Oroville | 109.36 | 48 | ePdif | | Pdif | 08 06 21.2 | +1.1 | |
| NEW | Newport comp=Z,10nm,1.1s,baz=258,slow=0.3,SNR=8.3 | 109.37 | 38 | PKiKP | | PKiKP | 08 10 23.6 | +1.1 | |
| NEW | | | | PKKPab | | PKKPab | 08 21 40.4 | -1.3 | |
| NEW | comp=Z,2.4nm,0.8s,baz=112,slow=5.3,SNR=5.1 Newport baz=293 | 109.37 | 38 | P | | PKiKP | 08 10 23.3 | +0.7 | |
| NEW | Newport | 109.37 | 38 | eP | | Pdif | 08 06 20.6 | +0.7 | |
| NEW | Newport | 109.37 | 38 | ePdif | | Pdif | 08 06 20.6 | +0.7 | |
| NEW | | | | PKiKP | | PKiKP | 08 10 23.6 | +1.1 | |
| NEW | | | | PKKPab | | PKKPab | 08 21 40.4 | -1.3 | |
| MOD | Modoc Plateau | 109.52 | 45 | ePdif | | Pdif | 08 06 21.0 | +0.1 | |
| EKA | Eskdalemuir Ar comp=Z,4.0nm,0.6s,baz=15,slow=3.6,SNR=7.7 | 109.69 | 331 | PKiKP | | PKiKP | 08 10 23.3 | +0.4 | |
| AFDM | Forest Hills D | 109.93 | 49 | ePdif | | Pdif | 08 06 24.2 | +1.5 | |
| WVOR | Wild Horse Val | 110.51 | 44 | eP | | Pdif | 08 06 26.4 | +1.2 | |
| WVOR | Wild Horse Val | 110.51 | 44 | ePdif | | Pdif | 08 06 26.4 | +1.2 | |
| BMO | Blue Mountains | 110.55 | 41 | eP | | Pdif | 08 06 25.9 | +0.6 | |
| BMO | Blue Mountains | 110.55 | 41 | ePdif | | Pdif | 08 06 25.9 | +0.6 | |
| CMB | Columbia Colle | 110.64 | 49 | eP | | Pdif | 08 06 26.7 | +0.9 | |
| CMB | Columbia Colle | 110.64 | 49 | ePdif | | Pdif | 08 06 26.7 | +0.9 | |
| PAHR | Pah Rah Range | 110.87 | 47 | ePdif | | Pdif | 08 06 28.3 | +1.4 | |
| PNTR | Pine Nut | 110.91 | 48 | ePdif | | Pdif | 08 06 29.3 | +2.1 | |
| WALA | Waterton Lakes | 110.97 | 36 | ePKPdf | | PKiKP | 08 10 26.4 | +0.7 | |
| YERR | Yerington | 111.21 | 48 | ePdif | | Pdif | 08 06 30.1 | +1.6 | |
| SMMC | Simmler baz=286,SNR=8.7 | 111.72 | 52 | P | | PKiKP | 08 10 29.3 | +1.9 | |
| MSO | Missoula baz=295 | 111.92 | 38 | P | | PKiKP | 08 10 27.9 | +0.3 | |
| MLAC | Mammoth, Mamm baz=288 | 111.93 | 49 | P | | PKiKP | 08 10 29.3 | +1.2 | |
| PKM | Mcpherson Peak baz=286,SNR=19 | 111.98 | 52 | P | | PKiKP | 08 10 29.6 | +1.5 | |
| RCTC | Rector, Farmer baz=287,SNR=7.1 | 112.02 | 50 | P | | PKiKP | 08 10 28.5 | +0.6 | |
| MFID | Camas Ranch | 112.08 | 42 | ePKPdf | | PKiKP | 08 10 28.8 | +0.8 | |
| SBC | Santa Barbara baz=286 | 112.19 | 53 | P | | PKiKP | 08 10 29.0 | +0.8 | |
| VES | Vestal, Richgr baz=287,SNR=9.4 | 112.28 | 51 | P | | PKiKP | 08 10 28.9 | +0.5 | |
| SCZ2 | Santa Cruz Isl baz=286 | 112.37 | 53 | P | | PKiKP | 08 10 29.9 | +1.2 | |
| TIN | Tinemaha, Big baz=288,SNR=8.7 | 112.57 | 49 | P | | PKiKP | 08 10 30.5 | +1.4 | |
| SNCC | San Nicolas Is baz=286 | 112.67 | 54 | P | | PKiKP | 08 10 30.7 | +1.5 | |
| ARVC | Arvin baz=287,SNR=18 | 112.69 | 52 | P | | PKiKP | 08 10 30.7 | +1.5 | |
| BLG | Laguna Peak, P baz=287 | 112.79 | 53 | P | | PKiKP | 08 10 30.7 | +1.

baz=297
BOZ Bozeman (W) 113.90 39 ePKIKP PKiKP 08 10 32.2 +0.8
BOZ Bozeman (W) 113.90 39 ePKPdf PKiKP 08 10 32.2 +0.8
TPNV Topopah Spring 114.10 49 P PKPdf 08 10 33.4 +1.3
baz=290
R11A Troy Canyon, C 114.12 47 P PKPdf 08 10 33.3 +1.2
baz=291,SNR=50
R11A Troy Canyon, C 114.12 47 ePKPdf PKPdf 08 10 32.9 +0.8
FFC Flin Flon 114.16 27 eP Pdif 08 06 42.6 +1.6
FFC Flin Flon 114.16 27 ePdif Pdif 08 06 42.6 +1.6
RRX Edison Barstow 114.20 51 P PKPdf 08 10 33.7 +1.5
baz=288
GSC Goldstone, Bar 114.21 51 P PKPdf 08 10 33.8 +1.5
baz=289,SNR=44
SHOC Shoshone, Teco 114.43 50 P PKPdf 08 10 34.2 +1.6
baz=289,SNR=42
MURC Murrieta 114.43 53 P PKPdf 08 10 33.8 +1.1
baz=288,SNR=16
BBRC Big Bear Solar 114.45 52 P PKPdf 08 10 33.9 +1.0
baz=288,SNR=9.2
109C Camp Elliot, M 114.72 53 P PKPdf 08 10 34.5 +1.4
baz=287,SNR=8.3
HEC Hector,Ludlow 114.73 51 P PKPdf 08 10 34.5 +1.3
baz=289,SNR=19
TUQ Turquoise Moun 114.85 50 P PKPdf 08 10 35.1 +1.6
baz=289
PFO Pinyon Flats O 115.01 53 PKKPab PKKPab 08 21 16.6 -0.2
comp=Z,2.8nm,0.8s,baz=121,slow=6.6,SNR=3.7
PFO Pinyon Flats O 115.01 53 P PKPdf 08 10 35.4 +1.5
baz=288
PFO Pinyon Flats O 115.01 53 ePKIKP PKPdf 08 10 34.8 +0.9
PFO 08 21 16.6
PFO Pinyon Flats O 115.01 53 ePKPdf PKPdf 08 10 34.8 +0.9
PFO PKKPab PKKPab 08 21 16.6 -0.2
SHPR Sheep Range 115.08 49 ePKPdf PKPdf 08 10 35.8 +1.8
IMW Indian Meadow 115.11 40 ePKPdf PKPdf 08 10 35.1 +1.1
H17A Grant Village 115.11 40 P PKPdf 08 10 35.9 +1.9
baz=297
H17A Grant Village 115.11 40 ePKPdf PKPdf 08 10 34.8 +0.8
BAR Barrett 115.12 54 ePKPdf PKPdf 08 10 35.4 +1.4
MLI Malad Range 115.14 43 ePKPdf PKPdf 08 10 35.1 +1.1
LKWY Lake 115.15 39 ePKIKP PKPdf 08 10 35.6 +1.6
LKWY Lake 115.15 39 ePKPdf PKPdf 08 10 35.6 +1.6
FXWY Fox Creek 115.17 41 ePdif Pdif 08 06 47.4 +1.4
FXWY ePKPdf PKPdf 08 10 35.3 +1.2
PMSA Palmer Station 115.21 177 PKKP PKKPdf 08 21 33.5 -0.7
comp=Z,43nm,0.5s,baz=14,slow=18,SNR=16
SPUT South Promonto 115.22 43 ePKPdf PKPdf 08 10 35.0 +0.9
TAM Tamanrasset 115.24 295 ePKIKP PKPdf 08 10 36.2 +1.6
TAM Tamanrasset 115.24 295 ePKPdf PKPdf 08 10 36.2 +1.6
BELC Belle Mtn. Jos 115.26 52 P PKPdf 08 10 36.0 +1.6
baz=289,SNR=56
MONP2 Monument Peak 115.26 53 P PKPdf 08 10 36.2 +1.7
baz=288,SNR=35
GMRC Granite Mounta 115.27 51 P PKPdf 08 10 36.2 +1.8
baz=289
TPAW Teton Pass 115.28 41 ePKPdf PKPdf 08 10 35.5 +1.1
MOOW Moose Ponds 115.30 40 ePKPdf PKPdf 08 10 35.1 +0.9
PSUT Pine Spring 115.31 47 ePKPdf PKPdf 08 10 35.6 +1.2
BEI Bear River Ran 115.33 42 ePKPdf PKPdf 08 10 35.5 +1.1
SNUT Stansbury Nort 115.35 44 ePKPdf PKPdf 08 10 35.5 +1.1
REDW Red Top Meadow 115.40 41 ePKPdf PKPdf 08 10 35.7 +1.2
DUG Dugway, Tooele 115.42 45 P PKPdf 08 10 35.9 +1.4
baz=294
DUG Dugway, Tooele 115.42 45 ePKIKP PKPdf 08 10 35.7 +1.2
DUG Dugway, Tooele 115.42 45 ePKPdf PKPdf 08 10 35.7 +1.2
SNOW Snow King Moun 115.42 41 ePKPdf PKPdf 08 10 35.8 +1.2
LOHW Long Hollow 115.45 40 ePKPdf PKPdf 08 10 35.7 +1.1
GZU Grizzly Peak 115.49 43 ePKPdf PKPdf 08 10 35.5 +0.7
AHID Auburn Hatcher 115.50 41 ePKPdf PKPdf 08 10 35.5 +0.9
IKP In-Ko-Pah, Jac 115.59 53 P PKPdf 08 10 36.5 +1.5
baz=288,SNR=34
RLMT Red Lodge 115.60 38 P PKPdf 08 10 36.0 +1.2
baz=299
RLMT Red Lodge 115.60 38 ePKPdf PKPdf 08 10 35.8 +1.0
SWSC Sam W. Stewart 115.74 53 P PKPdf 08 10 36.7 +1.5
baz=288,SNR=41
BC3 Big Chuckawall 115.80 52 P PKPdf 08 10 36.9 +1.5
baz=289,SNR=34
IRM Iron Mountain 115.88 52 P PKPdf 08 10 37.0 +1.6
baz=289,SNR=39
CTU Camp Tracy 115.95 44 ePKPdf PKPdf 08 10 36.3 +0.8
TCUT Toone Canyon 116.01 43 ePKPdf PKPdf 08 10 36.6 +0.9
NLU North Lily Min 116.03 45 ePKPdf PKPdf 08 10 36.8 +1.0
CCUT Cedar City 116.04 47 ePKPdf PKPdf 08 10 37.5 +1.6
NEE2 Needles Airpor 116.08 51 P PKPdf 08 10 37.1 +1.4
baz=290
JLU Jordanelle 116.20 44 ePKPdf PKPdf 08 10 37.1 +0.9
SZCU Shurtz Canyon 116.23 47 ePKPdf PKPdf 08 10 37.9 +1.7
TCRU Three Creeks R 116.30 46 ePKPdf PKPdf 08 10 38.0 +1.6
MPU Maple Canyon 116.31 44 ePKPdf PKPdf 08 10 37.2 +0.9
HTU Hoyt Peak 116.33 44 ePKPdf PKPdf 08 10 37.5 +1.1
LCMT Little Creek M 116.33 48 ePKPdf PKPdf 08 10 38.0 +1.6
GLA Glamis 116.49 53 P PKPdf 08 10 38.1 +1.6
baz=289,SNR=26
GLA Glamis 116.49 53 ePKIKP PKPdf 08 10 38.2 +1.6
GLA Glamis 116.49 53 ePKPdf PKPdf 08 10 38.2 +1.6
Y12C Blythe 116.50 52 P PKPdf 08 10 38.2 +1.6
baz=290,SNR=35
Y12C Blythe 116.50 52 ePKPdf PKPdf 08 10 38.0 +1.5
BW06 Boulder Array 116.52 41 P PKPdf 08 10 37.0 +0.3
baz=298
BW06 Boulder Array 116.52 41 ePKPdf PKPdf 08 10 37.0 +0.3
PD31 Pinedale Array 116.52 41 ePKPdf PKPdf 08 10 36.9 +0.2
PDAR Pinedale Array 116.52 41 Pdiff Pdif 08 06 53.6 +1.5
comp=Z,1.5nm,0.9s,baz=270,slow=1.5,SNR=9.7
PDAR PKP PKiKP 08 10 36.8 +0.1
comp=Z,57nm,1.1s,baz=187,slow=1.2,SNR=60
PDAR PKKPbc PKKPbc 08 21 04.0 -2.4
comp=Z,4.7nm,0.9s,baz=115,slow=5.2,SNR=14
PDAR PKKPab PKKPab 08 21 09.2 -1.0
comp=Z,15nm,0.8s,baz=113,slow=6.1,SNR=26
PDAR SKKPbc SKKPbc 08 24 34.0 -2.9
comp=Z,2.5nm,1.0s,baz=108,slow=4.8,SNR=3.9
PDAR Pinedale Array 116.52 41 Pdif Pdif 08 06 53.6 +1.5
PDAR ePKPdf PKPdf 08 10 36.4 -0.3
PDAR PKKPbc PKKPbc 08 21 04.0 -2.4
PDAR PKKPab PKKPab 08 21 09.2 -1.0
PDAR SKKPbc SKKPbc 08 24 34.0 -2.9
W13A Hualapai Mount 116.53 50 ePKPdf PKPdf 08 10 38.1 +1.2
MSU Marysvale 116.54 46 ePKIKP PKPdf 08 10 38.4 +1.6
MSU Marysvale 116.54 46 ePKPdf PKPdf 08 10 38.4 +1.6
PDMCI Parker Dam,Lak 116.61 51 P PKPdf 08 10 37.9 +1.1
baz=290,SNR=23
LAO LASA Array 116.64 36 P PKPdf 08 10 37.9 +1.3
baz=302
LAO LASA Array 116.64 36 ePKPdf PKPdf 08 10 37.9 +1.3
SGU Sterling 116.65 45 ePKPdf PKPdf 08 10 38.8 +1.8
MTPU Mount Pierson 116.72 47 ePKPdf PKPdf 08 10 39.2 +1.8
DGMT Dagmar 116.81 33 P PKPdf 08 10 37.2 +0.5
baz=305
DGMT Dagmar 116.81 33 ePKPdf PKPdf 08 10 37.6 +0.9
PKCU Pink Cliffs 116.86 47 ePKPdf PKPdf 08 10 39.9 +2.3
TMUT Trail Mountain 116.91 45 ePKPdf PKPdf 08 10 38.9 +1.2
Q16A Castle Valley 117.09 45 ePKPdf PKPdf 08 10 39.0 +1.1
ARGU Argyle Ridge 117.16 44 ePKPdf PKPdf 08 10 39.2 +1.1
P17A Butcher Ranch, 117.17 45 ePKPdf PKPdf 08 10 38.9 +1.0
U15A North Rim 117.26 48 ePKPdf PKPdf 08 10 40.1 +1.8
113A Mohawk Valley, 117.42 53 ePKPdf PKPdf 08 10 39.4 +1.0
P18A Preston Nutter 117.45 44 ePKPdf PKPdf 08 10 40.1 +1.4
SRU San Rafael Swe 117.47 45 ePKIKP PKPdf 08 10 39.3 +0.8
SRU San Rafael Swe 117.47 45 ePKPdf PKPdf 08 10 39.3 +0.8
ES19 SONSECA Array 117.61 316 ePKPdf PKPdf 08 10 38.8 +0.2
Y14A Wickenburg 117.62 51 ePKPdf PKPdf 08 10 40.1 +1.3
ESDC Sonseca Array 117.66 316 PKP PKPdf 08 10 38.6 -0.1
comp=Z,26nm,1.0s,baz=16,slow=3.6,SNR=35
ESDC PP PP 08 11 51.6 -1.9
comp=Z,20nm,1.0s,baz=66,slow=4.7,SNR=4.6
ESDC PKKPbc PKKPbc 08 21 02.1 +0.1
comp=Z,25nm,1.1s,baz=262,slow=3.8,SNR=7.9
ESDC PKKPab PKKPab 08 21 05.9 +0.9
comp=Z,16nm,1.0s,baz=264,slow=4.3,SNR=22
ESLA Sonseca Array 117.66 316 ePKPdf PKPdf 08 10 39.5 +0.8
PAB San Pablo 117.98 316 ePKIKP PKPdf 08 10 40.3 +0.9
PAB San Pablo 117.98 316 ePKPdf PKPdf 08 10 40.3 +0.9
WUAZ Wupatki 118.29 49 P PKPdf 08 10 41.7 +1.5
baz=293
WUAZ Wupatki 118.29 49 ePKPdf PKPdf 08 10 41.8 +1.5
214A Organ Pipe Nat 118.45 53 P PKPdf 08 10 41.7 +1.3
baz=290
K22A Casper 118.54 40 P PKPdf 08 10 40.7 +0.2
baz=300
K22A Casper 118.54 40 ePKPdf PKPdf 08 10 40.4 -0.1
PBRG Braganca 118.56 319 ePKPdf PKPdf 08 10 41.0 +0.6
RWWY Rawlins 118.56 41 ePKPdf PKPdf 08 10 41.1 +0.4
O20A White River Ci 118.61 43 P PKPdf 08 10 41.8 +1.0
baz=297,SNR=116
O20A White River Ci 118.61 43 ePKPdf PKPdf 08 10 41.8 +1.0
X16A Lo Mia Camp, P 118.66 50 ePKPdf PKPdf 08 10 42.5 +1.5
PV09 Paradox Valley 118.72 45 ePKPdf PKPdf 08 10 42.6 +1.5
PV10 Paradox Valley 118.83 45 ePKPdf PKPdf 08 10 42.5 +1.2
PV05 Paradox Valley 118.92 45 ePKPdf PKPdf 08 10 42.9 +1.5
PV04 Paradox Valley 118.92 45 ePKPdf PKPdf 08 10 42.0 +0.6
MVO Moncorvo 119.06 319 ePKPdf PKPdf 08 10 42.1 +0.7
PV01 Paradox Valley 119.27 45 ePKPdf PKPdf 08 10 43.4 +1.2
RSSD Black Hills 119.32 37 P PKPdf 08 10 42.0 0.0
baz=303
RSSD Black Hills 119.32 37 ePKIKP PKPdf 08 10 42.0 0.0
RSSD Black Hills 119.32 37 ePKPdf PKPdf 08 10 42.0 0.0
PCAB Cabril 119.44 320 ePKPdf PKPdf 08 10 43.1 +1.0
PVRL Vila Real 119.46 319 ePKPdf PKPdf 08 10 43.1 +1.0
POLO Lamas de Olo 119.46 319 ePKPdf PKPdf 08 10 43.3 +1.1
PGAV Gavieira, Arco 119.47 320 ePKPdf PKPdf 08 10 43.1 +0.9
MDND Maddock 119.65 32 P PKPdf 08 10 42.4 +0.2
baz=309
MDND Maddock 119.65 32 ePKPdf PKPdf 08 10 42.3 +0.1
W18A Petrified Fore 119.68 49 P PKPdf 08 10 44.5 +1.6
baz=294,SNR=57
W18A Petrified Fore 119.68 49 ePKPdf PKPdf 08 10 44.6 +1.6
MVCO Mesa Verde 119.72 46 P PKPdf 08 10 44.6 +1.6
baz=296
MVCO Mesa Verde 119.72 46 ePKPdf PKPdf 08 10 44.3 +1.3
X18A Snowflake 119.75 49 ePKPdf PKPdf 08 10 44.4 +1.3
MTE Manteigas 119.77 318 ePKPdf PKPdf 08 10 43.8 +1.1
MTE Manteigas 119.77 318 ePKPdf PKPdf 08 10 43.5 +0.7
N23A Red Feather La 119.78 41 P PKPdf 08 10 43.6 +0.6
baz=300,SNR=26
N23A Red Feather La 119.78 41 ePKPdf PKPdf 08 10 43.6 +0.6
PVIS Viseu 119.85 319 ePKPdf PKPdf 08 10 43.9 +1.0
PHWY Pilot Hill 119.90 41 ePKPdf PKPdf 08 10 43.3 0.0
SMCO Snowmass 119.92 43 ePKPdf PKPdf 08 10 44.8 +1.2
ULM Lac du Bonnet 119.92 28 PKP PKPdf 08 10 42.1 -0.5
comp=Z,117nm,0.9s,baz=312,slow=3.1,SNR=110
ULM PKKPbc PKKPbc 08 20 52.2 -2.0
comp=Z,5.3nm,0.6s,baz=117,slow=3.8,SNR=12
ULM Lac du Bonnet 119.92 28 ePKIKP PKPdf 08 10 42.3 -0.3
TUC Tucson 119.94 52 P PKPdf 08 10 44.8 +1.5
baz=291
TUC Tucson 119.94 52 ePKIKP PKPdf 08 10 44.7 +1.3
TUC Tucson 119.94 52 ePKPdf PKPdf 08 10 44.7 +1.3
PCBR Castelo Branco 120.00 317 ePKPdf PKPdf 08 10 43.9 +0.8
PMRV Marv??o 120.13 317 ePKPdf PKPdf 08 10 43.9 +0.5
A31A Linda, St. Vin 120.18 30 P PKPdf 08 10 42.6 -0.6
baz=312
B31A Greenbush Farm 120.28 30 P PKPdf 08 10 43.2 -0.2
baz=311
SRIG Santa Rosalia 120.40 58 ePKPdf PKPdf 08 10 45.4 +1.1
COI Coimbra 120.44 318 ePKPdf PKPdf 08 10 44.9 +0.9
TOA0 Torodi Ar. Sit 120.46 285 ePKPdf PKPdf 08 10 44.1 -0.5
TOA0 ePKPdf PKiKP 08 10 44.3 -0.5
TORD Torodi Ar. Bea 120.46 285 PKP PKPdf 08 10 44.3 -0.3
comp=Z,91nm,0.9s,baz=63,slow=1.9,SNR=203
TORD PP PP 08 12 09.6 -4.0
comp=Z,15nm,1.1s,baz=70,slow=4.7,SNR=5.0
TORD PKKPbc PKKPbc 08 20 52.2 -0.7
comp=Z,30nm,0.8s,baz=291,slow=1.9,SNR=42
PBAR Barrancos 120.48 316 ePKPdf PKPdf 08 10 45.2 +1.1
A32A Rocking H Ranc 120.53 29 P PKPdf 08 10 43.6 -0.3
baz=312
PESTR Estremoz 120.53 317 ePKPdf PKPdf 08 10 44.5 +0.3
ISCO Idaho Springs 120.54 42 P PKPdf 08 10 45.3 +0.8
baz=299
ISCO Idaho Springs 120.54 42 ePKIKP PKPdf 08 10 45.4 +0.8
ISCO Idaho Springs 120.54 42 ePKPdf PKPdf 08 10 45.4 +0.8
PCAS Casmilo, Conde 120.58 318 ePKPdf PKPdf 08 10 45.2 +1.0
C31A Landman Farms, 120.65 31 P PKPdf 08 10 44.1 -0.1
baz=311
S22A 4UR Ranch, Cre 120.68 45 P PKPdf 08 10 46.4 +1.5
baz=297,SNR=94
S22A 4UR Ranch, Cre 120.68 45 ePKPdf PKPdf 08 10 46.4 +1.5
PTOM Tomar 120.73 318 ePKPdf PKPdf 08 10 45.2 +0.7
B32A Ashes, Strandq 120.86 30 P PKPdf 08 10 44.0 -0.5
baz=312
PMTG Montargil 120.87 317 ePKPdf PKPdf 08 10 46.0 +1.2
HSIG 120.95 56 ePKPdf PKPdf 08 10 45.6 +0.3
A33A Warroad 121.05 29 P PKPdf 08 10 44.5 -0.4
baz=314
PBEJ Beja 121.12 316 ePKPdf PKPdf 08 10 47.0 +1.7
D31A Mcclaflin, Tow 121.14 31 P PKPdf 08 10 45.2 +0.1
baz=310
C32A Crookston 121.24 30 P PKPdf 08 10 44.7 -0.6
baz=312
AGMN Agassiz Nation 121.26 29 P PKPdf 08 10 44.7 -0.6
baz=313
AGMN Agassiz Nation 121.26 29 ePKPdf PKPdf 08 10 44.9 -0.4
Q24A Divide 121.27 43 P PKPdf 08 10 46.3 +0.2
baz=299,SNR=34
Q24A Divide 121.27 43 ePKPdf PKPdf 08 10 46.5 +0.5
E31A Nome 121.37 32 P PKPdf 08 10 45.4 -0.2
baz=310
B33A Robert and Kas 121.41 29 P PKPdf 08 10 45.2 -0.4
baz=313
PCVE Castro Verde 121.43 315 ePKPdf PKPdf 08 10 47.0 +1.1
D32A Dogwood Acres, 121.45 31 P PKPdf 08 10 45.4 -0.3
baz=311
MESJ Messejana 121.46 316 eP PKPdf 08 10 45.6 -0.4
319A Douglas 121.47 53 ePKPdf PKPdf 08 10 48.0 +1.7
PBDV Barranco-do-Ve 121.53 315 ePKPdf PKPdf 08 10 47.6 +1.4
PNCL Nicolau / Gran 121.54 316 ePKPdf PKPdf 08 10 47.4 +1.3
SDCO Great Sand Dun 121.61 44 P PKPdf 08 10 47.8 +1.1
baz=298
SDCO Great Sand Dun 121.61 44 ePKPdf PKPdf 08 10 47.8 +1.1
F31A Hecla 121.62 33 P PKPdf 08 10 45.7 -0.4
baz=309,SNR=39
PMAFR Mafra 121.65 317 ePKPdf PKPdf 08 10 47.6 +1.3
C33A Trail 121.67 30 P PKPdf 08 10 45.6 -0.5
baz=313,SNR=34
PMST Lisbon--Monsan 121.69 317 ePKPdf PKPdf 08 10 47.8 +1.4
B34A Aery, Baudette 121.72 29 P PKPdf 08 10 45.9 -0.2
baz=314,SNR=60
E32A Braaten, Kindr 121.78 32 P PKPdf 08 10 46.2 -0.2
baz=311,SNR=24
LAZ Ladron 121.92 48 ePKPdf PKPdf 08 10 48.5 +1.2
PTEO Sao Teotonio 121.95 316 ePKPdf PKPdf 08 10 48.5 +1.6
MORF Marmelete 122.01 315 eP PKPdf 08 10 46.7 -0.4
MORF Marmelete 122.01 315 ePKPdf PKPdf 08 10 48.1 +1.0
G31A Conde 122.04 33 P PKPdf 08 10 46.5 -0.4
baz=309
D33A AnnSam, Waubun 122.05 30 P PKPdf 08 10 46.6 -0.3
baz=312,SNR=44
SUSD Miller 122.11 34 P PKPdf 08 10 46.9 -0.2
baz=308,SNR=49
LENM Lemitar 122.15 49 ePKPdf PKPdf 08 10 49.3 +1.7
C34A RKJ Ranch, Bem 122.17 29 P PKPdf 08 10 46.5 -0.6
baz=314,SNR=56
ANMO Albuquerque 122.20 48 P PKPdf 08 10 49.2 +1.4
baz=296
ANMO Albuquerque 122.20 48 ePKIKP PKPdf 08 10 49.2 +1.4
ANMO Albuquerque 122.20 48 ePKPdf PKPdf 08 10 49.2 +1.4
121A Cookes Peak, D 122.20 51 P PKPdf 08 10 49.5 +1.7
baz=294
121A Cookes Peak, D 122.20 51 ePKPdf PKPdf 08 10 49.2 +1.4
PFVI Vila Bisbo 122.22 315 ePKPdf PKPdf 08 10 48.5 +1.0
PFVI Vila Bisbo 122.22 315 ePKPdf PKPdf 08 10 48.7 +1.2
F32A Veblen 122.22 32 P PKPdf 08 10 46.9 -0.3
baz=310,SNR=11
Y22D IRIS PASSCAL I 122.23 49 P PKPdf 08 10 49.6 +1.8
baz=295,SNR=33
Y22D IRIS PASSCAL I 122.23 49 ePKPdf PKPdf 08 10 49.7 +1.9
Y22E IRIS PASSCAL I 122.23 49 P PKPdf 08 10 49.6 +1.8
baz=295,SNR=31
B35A Bob, Littlefor 122.24 28 P PKPdf 08 10 46.8 -0.4
baz=315,SNR=39
OGNE Ogallala 122.29 39 P PKPdf 08 10 47.6 0.0
baz=303
OGNE Ogallala 122.29 39 ePKPdf PKPdf 08 10 47.6 0.0
LPM Los Pinos Moun 122.34 48 ePKPdf PKPdf 08 10 49.2 +1.2
H31A Wolsey 122.36 34 P PKPdf 08 10 47.5 -0.1
baz=308,SNR=29
E33A Westby DABS, E 122.39 31 P PKPdf 08 10 47.4 -0.2
baz=312,SNR=65
D34A Park Rapids 122.41 30 P PKPdf 08 10 47.4 -0.2
baz=313,SNR=54
G32A Webster 122.41 33 P PKPdf 08 10 47.7 0.0
baz=310,SNR=64
BNM Barren Site 122.41 49 ePKPdf PKPdf 08 10 49.4 +1.1
C35A Jirik Farms, M 122.59 29 P PKPdf 08 10 47.1 -0.8
baz=314,SNR=39
I31A Royce, Wessing 122.61 35 P PKPdf 08 10 48.2 +0.2
baz=308,SNR=95
T25A Trinidad 122.66 44 P PKPdf 08 10 49.9 +1.3
baz=299,SNR=89
T25A Trinidad 122.66 44 ePKPdf PKPdf 08 10 49.8 +1.1
F33A 5 Mile Ranch, 122.68 32 P PKPdf 08 10 48.0 -0.1
baz=311,SNR=77
E34A Wadena 122.81 31 P PKPdf 08 10 48.2 -0.2
baz=313,SNR=14
H32A Carlson Farm, 122.92 34 P PKPdf 08 10 48.7 +0.1
baz=309,SNR=70
KSCO Kaye Shedlock' 122.94 42 P PKPdf 08 10 49.5 +0.5
baz=302,SNR=43
KSCO Kaye Shedlock' 122.94 42 ePKPdf PKPdf 08 10 49.5 +0.5
J31A Geddes 122.94 35 P PKPdf 08 10 48.5 -0.3
baz=308,SNR=15
RPN Rapa Nui 122.97 123 ePKIKP PKPdf 08 10 51.2 +2.0
RPN Rapa Nui 122.97 123 ePKPdf PKPdf 08 10 51.2 +2.0
D35A Remer 122.98 29 P PKPdf 08 10 48.2 -0.5
baz=314,SNR=62
LPIG La Paz 123.02 61 PKP PKPdf 08 10 50.5 +1.2
comp=Z,246nm,1.1s,baz=247,slow=0.3,SNR=32
G33A Ortonville 123.03 32 P PKPdf 08 10 48.5 -0.2
baz=311,SNR=51
C36A Pine Crest Far 123.09 28 P PKPdf 08 10 48.6 -0.2
baz=316,SNR=33
E35A Pequot Lakes 123.17 30 P PKPdf 08 10 48.9 -0.2
baz=314,SNR=51
H33A Prehn Over Nor 123.19 33 P PKPdf 08 10 49.3 +0.1
baz=310,SNR=25
I32A Karley and Nic 123.21 34 P PKPdf 08 10 49.2 0.0
baz=309,SNR=12
F34A Alexandria 123.25 31 P PKPdf 08 10 49.1 -0.1
baz=312,SNR=31
K31A O'Neill 123.33 36 P PKPdf 08 10 49.5 0.0
baz=307,SNR=55
D36A Goodland 123.35 29 P PKPdf 08 10 49.0 -0.4
baz=315,SNR=23
J32A Parkston 123.40 35 P PKPdf 08 10 49.3 -0.2
baz=308,SNR=53
C37A Embarrass 123.42 28 P PKPdf 08 10 49.2 -0.3
baz=316,SNR=5.6
G34A Benson 123.42 32 P PKPdf 08 10 49.7 +0.1
baz=312,SNR=50
EPT El Paso 123.50 51 ePKPdf PKPdf 08 10 51.6 +1.3
F35A Swanville 123.56 31 P PKPdf 08 10 49.8 0.0
baz=313,SNR=55
I33A Coleman 123.57 34 P PKPdf 08 10 50.0 +0.1
baz=310,SNR=58
EYMN Ely 123.58 27 P PKPdf 08 10 49.8 0.0
baz=317
EYMN Ely 123.58 27 ePKPdf PKPdf 08 10 49.7 -0.1
D37A Cotton 123.71 28 P PKPdf 08 10 49.9 -0.1
baz=316,SNR=28
H34A Spellman Lake, 123.72 33 P PKPdf 08 10 50.4 +0.3
baz=311,SNR=58
E36A McGregor 123.77 29 P PKPdf 08 10 50.2 0.0
baz=315,SNR=64
K32A Verdigre 123.77 36 P PKPdf 08 10 50.1 -0.2
baz=308,SNR=116
H06S1 SOCORRO T 123.81 67 PKP PKPdf 08 10 52.1 +1.1
SNR=18
H06E1 SOCORRO T-PHAS 123.83 67 PKP PKPdf 08 10 51.9 +0.9
SNR=31
C38A Sawbill Land. 123.85 27 P PKPdf 08 10 49.9 -0.4
baz=317,SNR=9.5
ECSD EROS Data Cent 123.87 34 P PKPdf 08 10 50.6 +0.1
baz=310
ECSD EROS Data Cent 123.87 34 ePKPpre PKPpre 08 10 42.5
ECSD ePKPdf PKPdf 08 10 50.6 +0.1
J33A Davis 123.94 34 P PKPdf 08 10 50.4 -0.3
baz=309,SNR=80
G35A Watkins 124.04 31 P PKPdf 08 10 51.0 +0.3
baz=313,SNR=63
F36A Milaca 124.09 30 P PKPdf 08 10 50.9 +0.1
baz=314,SNR=98
I34A Hadley 124.09 33 P PKPdf 08 10 51.2 +0.3
baz=311,SNR=80
L32A Elgin 124.15 36 P PKPdf 08 10 50.9 -0.2
baz=308,SNR=51
E37A Wrenshall 124.15 29 P PKPdf 08 10 50.9 0.0
baz=316,SNR=11
H35A Sunnyside Ranc 124.21 32 P PKPdf 08 10 51.4 +0.3
baz=312,SNR=94
C39A Grand Marais 124.29 27 P PKPdf 08 10 50.8 -0.4
baz=315,SNR=12
K33A Hardington 124.37 35 P PKPdf 08 10 51.5 0.0
baz=309,SNR=23
MNTX Cornudas Mount 124.40 51 P PKPdf 08 10 53.1 +1.3
baz=295
MNTX Cornudas Mount 124.40 51 ePKPdf PKPdf 08 10 53.2 +1.3
G36A St. Michael 124.41 31 P PKPdf 08 10 51.6 +0.2
baz=314,SNR=53
BGNE Belgrade 124.42 37 P PKPdf 08 10 51.4 -0.2
baz=308,SNR=93
BGNE Belgrade 124.42 37 ePKPdf PKPdf 08 10 52.0 +0.3
L33A Hoskins 124.48 36 P PKPdf 08 10 51.6 -0.2
baz=308,SNR=44
J34A George 124.53 34 P PKPdf 08 10 51.5 -0.2
baz=310,SNR=50
E38A The Farm, Brul 124.53 28 P PKPdf 08 10 51.5 -0.1
baz=316,SNR=39
F37A Hinrichs Farm, 124.64 30 P PKPdf 08 10 52.0 +0.1
baz=315,SNR=66
I35A Creekview Farm 124.69 33 P PKPdf 08 10 52.0 0.0
baz=312,SNR=70
SCHQ Schefferville 124.70 7 PKP PKPdf 08 10 52.1 +0.4
comp=Z,67nm,0.7s,baz=318,slow=1.6,SNR=64
SCHQ Schefferville 124.70 7 ePKPdf PKPdf 08 10 52.2 +0.5
TRIS Tristan da Cun 124.74 223 ePKPdf PKPdf 08 10 53.8 +1.5
H36A Jessenland, He 124.77 32 P PKPdf 08 10 52.9 +0.8
baz=313,SNR=77
K34A Le Mars 124.83 35 P PKPdf 08 10 52.1 -0.3
baz=310,SNR=63
F38A Pierce - Schro 124.84 29 P PKPdf 08 10 52.5 +0.3
baz=316,SNR=72
J35A Milford 124.89 33 P PKPdf 08 10 52.0 -0.4
baz=311,SNR=36
M33A Taylor Creek F 124.89 36 P PKPdf 08 10 51.9 -0.6
baz=308,SNR=34
SPMN Marine on St. 124.90 30 P PKPdf 08 10 52.3 -0.1
baz=314,SNR=71
SPMN Marine on St. 124.90 30 ePKPdf PKPdf 08 10 52.2 -0.1
CBKS Cedar Bluff 124.94 40 P PKPdf 08 10 53.1 +0.4
baz=304
CBKS Cedar Bluff 124.94 40 ePKIKP PKPdf 08 10 53.1 +0.4
CBKS Cedar Bluff 124.94 40 ePKPdf PKPdf 08 10 53.1 +0.4
CPRX Cap Rock 124.97 48 ePKPdf PKPdf 08 10 53.8 +0.8
I36A Fitzsimmons Fa 125.10 32 P PKPdf 08 10 52.8 0.0
baz=313,SNR=39
L34A Svendsen Farm, 125.13 35 P PKPdf 08 10 52.6 -0.4
baz=309,SNR=61
E39A Mellen 125.17 28 P PKPdf 08 10 52.8 -0.1
baz=318,SNR=58
N33A J Bar K, Exete 125.25 37 P PKPdf 08 10 52.8 -0.4
baz=307,SNR=39
H37A Dierke Farm, C 125.29 31 P PKPdf 08 10 53.0 -0.1
baz=314,SNR=43
K35A Storm Lake 125.30 34 P PKPdf 08 10 53.0 -0.3
baz=311,SNR=53
M34A Aspy Farms, Fr 125.30 36 P PKPdf 08 10 52.9 -0.4
baz=309,SNR=25
CLNB Carlsbad 125.31 49 ePKPdf PKPdf 08 10 54.6 +0.9
F39A Loretta 125.33 29 P PKPdf 08 10 53.2 0.0
baz=317,SNR=68
MSTX Muleshoe 125.35 47 P PKPdf 08 10 54.3 +0.6
baz=299
MSTX Muleshoe 125.35 47 ePKPdf PKPdf 08 10 53.7 -0.1
J36A Seneca 1, Swea 125.39 33 P PKPdf 08 10 53.2 -0.2
baz=312,SNR=54
G38A Ridgeland 125.41 30 P PKPdf 08 10 53.0 -0.4
baz=316,SNR=48
E40A Wakefield 125.42 27 P PKPdf 08 10 53.7 +0.3
baz=318,SNR=61
I37A Lemond, Waseca 125.43 32 P PKPdf 08 10 53.7 +0.3
baz=313,SNR=70
L35A Bielow Farm, R 125.51 35 P PKPdf 08 10 53.8 +0.1
baz=310,SNR=80
H38A Maiden Rock 125.55 30 P PKPdf 08 10 53.5 -0.1
baz=315,SNR=39
D41A Chassel 125.56 26 P PKPdf 08 10 53.9 +0.3
baz=320,SNR=27
O33A Hebron 125.57 38 P PKPdf 08 10 53.8 -0.1
baz=307,SNR=119
G39A Holcombe 125.67 29 P PKPdf 08 10 53.9 0.0
baz=316,SNR=49
AMTX Amarillo 125.69 45 P PKPdf 08 10 54.9 +0.6

baz=300
AMTX Amarillo 125.69 45 ePKPdf PKPdf 08 10 55.7 +1.4
F40A Park Falls 125.71 28 P PKPdf 08 10 53.8 -0.1
baz=318,SNR=87
KOWA Kowa 125.72 288 ePKPdf PKPdf 08 10 54.8 +0.1
N34A Lincoln 125.76 37 P PKPdf 08 10 53.3 -0.9
baz=308,SNR=25
K36A Gilmore City 125.79 34 P PKPdf 08 10 54.2 +0.1
baz=312,SNR=96
J37A Redenius Farm, 125.83 32 P PKPdf 08 10 54.1 -0.1
baz=313,SNR=41
E41A Kenton 125.83 27 P PKPdf 08 10 54.2 0.0
baz=319,SNR=42
M35A Neola 125.84 35 P PKPdf 08 10 53.9 -0.4
baz=310,SNR=26
I38A Scanlan Farm, 125.97 31 P PKPdf 08 10 54.1 -0.3
baz=314,SNR=42
L36A Harm Buss Farm 126.02 34 P PKPdf 08 10 54.5 -0.2
baz=311,SNR=61
O34A Beatrice 126.05 37 P PKPdf 08 10 54.2 -0.6
baz=308,SNR=26
H39A Augusta 126.05 30 P PKPdf 08 10 54.5 -0.1
baz=316,SNR=60
HPIG 126.05 56 ePKPdf PKPdf 08 10 56.2 +0.8
K37A Belmond 126.15 33 P PKPdf 08 10 54.4 -0.4
baz=312,SNR=67
G40A Rib Lake 126.15 29 P PKPdf 08 10 54.8 0.0
baz=317,SNR=86
N35A Tabor 126.25 36 P PKPdf 08 10 55.1 0.0
baz=309,SNR=30
F41A Three Lakes 126.32 28 P PKPdf 08 10 55.3 +0.2
baz=319,SNR=83
E42A Champion 126.33 26 P PKPdf 08 10 55.2 +0.1
baz=320,SNR=44
P34A Walnut Farm, R 126.35 38 P PKPdf 08 10 55.5 +0.1
baz=307,SNR=85
M36A Felix, Anita 126.36 35 P PKPdf 08 10 55.1 -0.2
baz=310,SNR=22
J38A Wedel Dairy, R 126.39 32 P PKPdf 08 10 54.9 -0.4
baz=314,SNR=46
O35A Humboldt 126.47 37 P PKPdf 08 10 55.0 -0.6
baz=309,SNR=19
L37A Phoenix Point, 126.51 34 P PKPdf 08 10 55.1 -0.4
baz=312,SNR=27
I39A Houston 126.51 31 P PKPdf 08 10 55.1 -0.5
baz=315,SNR=55
H40A Chili 126.53 29 P PKPdf 08 10 55.6 +0.1
baz=317,SNR=61
Q34A Chapman 126.66 39 P PKPdf 08 10 56.4 +0.4
baz=307,SNR=53
G41A Antigo 126.67 28 P PKPdf 08 10 55.7 -0.1
baz=318,SNR=65
N36A Muff Farm, Cla 126.68 36 P PKPdf 08 10 56.1 +0.2
baz=310,SNR=38
K38A Parkersburg 126.70 33 P PKPdf 08 10 55.6 -0.3
baz=313,SNR=20
TX31 Lajitas Ar. Si 126.73 52 ePKPdf PKPdf 08 10 57.1 +0.6
TXAR Lajitas Array 126.73 52 PKP PKPdf 08 10 57.0 +0.5
comp=Z,57nm,0.9s,baz=252,slow=1.2,SNR=101
TXAR Lajitas Array 126.73 52 PKIKP PKPdf 08 10 57.0 +0.5
TXAR pmax pmax
comp=Z,57nm,1.0s
F42A Maple Grove Fa 126.75 27 P PKPdf 08 10 56.0 +0.1
baz=320,SNR=13
KSU1 Kansas State U 126.75 38 P PKPdf 08 10 56.5 +0.3
baz=307
KSU1 Kansas State U 126.75 38 ePKPdf PKPdf 08 10 57.9 +1.8
U32A Winter Ranch, 126.77 42 P PKPdf 08 10 56.9 +0.7
baz=303,SNR=57
E43A Lone Tree Farm 126.77 26 P PKPdf 08 10 56.2 +0.2
baz=321,SNR=40
J39A Decorah 126.78 31 P PKPdf 08 10 55.5 -0.6
baz=315,SNR=50
M37A Trindle Farm, 126.82 35 P PKPdf 08 10 56.4 +0.2
baz=311,SNR=41
R34A Isabella, Hill 126.83 39 P PKPdf 08 10 56.6 +0.3
baz=306,SNR=57
P35A Duane Minner, 126.86 38 P PKPdf 08 10 56.2 -0.1
baz=308,SNR=43
H41A Junction City 126.89 29 P PKPdf 08 10 56.0 -0.2
baz=318,SNR=41
L38A Oak Wood Farm, 126.94 33 P PKPdf 08 10 56.2 -0.2
baz=313,SNR=34
I40A Norwalk 126.94 30 P PKPdf 08 10 55.9 -0.4
baz=316,SNR=27
SCIA State Center 126.96 34 P PKPdf 08 10 56.6 +0.1
baz=312
SCIA State Center 126.96 34 ePKPdf PKPdf 08 10 57.0 +0.6
G42A Mountain 127.00 28 P PKPdf 08 10 56.7 +0.3
baz=319,SNR=70
E44A Grand Marais A 127.04 25 P PKPdf 08 10 57.1 +0.7
baz=323,SNR=24
O36A Bolckow 127.11 36 P PKPdf 08 10 56.7 -0.1
baz=310,SNR=28
F43A Flat Rock, Esc 127.12 26 P PKPdf 08 10 56.8 +0.2
baz=321,SNR=38
K39A Oelwein 127.13 32 P PKPdf 08 10 55.9 -0.9
baz=314,SNR=40
N37A Lee Faris, Mou 127.15 35 P PKPdf 08 10 56.7 -0.1
baz=311,SNR=32
I41A Arkdale 127.19 29 P PKPdf 08 10 56.4 -0.4
baz=317,SNR=11
J40A Soldiers Grove 127.24 31 P PKPdf 08 10 56.2 -0.7
baz=316,SNR=28
Q35A Mercer Eighty, 127.26 38 P PKPdf 08 10 57.2 +0.1
baz=308,SNR=91
S34A Willow Spring 127.27 40 P PKPdf 08 10 57.2 0.0
baz=306,SNR=26
P36A Good Intent, A 127.29 37 P PKPdf 08 10 56.7 -0.4
baz=309,SNR=22
M38A Pleasantville 127.30 34 P PKPdf 08 10 56.9 -0.1
baz=312,SNR=66
G43A Wallace 127.33 27 P PKPdf 08 10 57.1 +0.1
baz=320,SNR=36
F44A Big Bay de Noc 127.34 26 P PKPdf 08 10 57.3 +0.3
baz=322,SNR=28
L39A Vinton 127.47 33 P PKPdf 08 10 57.0 -0.3
baz=314,SNR=33
R35A Emporia Munici 127.48 39 P PKPdf 08 10 57.9 +0.4
baz=307,SNR=34
H42A Shiocton 127.51 28 P PKPdf 08 10 57.2 -0.1
baz=319,SNR=33
K40A Colesburg 127.53 32 P PKPdf 08 10 57.0 -0.5
baz=315,SNR=53
KIC Kosan Boka 127.53 278 ePKIKP PKPdf 08 10 58.1 -0.2
comp=Z,623nm,1.4s
Q36A Arnold C. Orve 127.55 38 P PKPdf 08 10 57.5 -0.2
baz=308,SNR=22
E45A Wooded Hills, 127.56 24 P PKPdf 08 10 57.7 +0.3
baz=324,SNR=52
O37A Wolven Farm, M 127.57 36 P PKPdf 08 10 57.6 -0.1
baz=310,SNR=38
T34A McClaskey Farm 127.61 41 P PKPdf 08 10 58.1 +0.3
baz=306,SNR=41
DBIC Dimbokro 127.61 278 PKP PKPdf 08 10 58.4 0.0
comp=Z,92nm,1.0s,baz=73,slow=1.7,SNR=51
DBIC Dimbokro 127.61 278 ePKIKP PKPdf 08 10 59.1 +0.7
DBIC Dimbokro 127.61 278 ePKPdf PKPdf 08 10 59.0 +0.7
J41A Loganville 127.63 30 P PKPdf 08 10 57.1 -0.6
baz=317,SNR=29
N38A Joes South For 127.69 35 P PKPdf 08 10 57.5 -0.4
baz=312,SNR=28
TIC Toumodi 127.78 278 ePKIKP PKPdf 08 10 58.6 -0.2
I42A Draeger Farm, 127.79 29 P PKPdf 08 10 57.7 -0.2
baz=318,SNR=28
S35A Otter Creek Ra 127.79 40 P PKPdf 08 10 58.5 +0.4
baz=307,SNR=50
WMOK Wichita Mounta 127.81 44 P PKPdf 08 10 58.6 +0.3
baz=302
WMOK Wichita Mounta 127.81 44 ePKIKP PKPdf 08 10 59.3 +1.0
WMOK Wichita Mounta 127.81 44 ePKPdf PKPdf 08 10 59.3 +1.0
M39A Webster 127.82 33 P PKPdf 08 10 57.9 -0.2
baz=313,SNR=22
LIC Lamto 127.82 278 ePKIKP PKPdf 08 10 57.8 -1.0
comp=Z,546nm,1.3s
P37A Lathrop 127.83 36 P PKPdf 08 10 57.8 -0.3
baz=310,SNR=56
JFWS Jewell Farm 127.83 31 P PKPdf 08 10 57.6 -0.5
baz=316
JFWS Jewell Farm 127.83 31 ePKIKP PKPdf 08 10 58.3 +0.2
JFWS Jewell Farm 127.83 31 ePKPpre PKPdf 08 10 58.3 +0.2
JFWS ePKPdf PKPdf 08 10 58.5 +0.4
H43A Windswept, Lux 127.89 28 P PKPdf 08 10 58.0 -0.2
baz=320,SNR=14
R36A Gordon, Harris 127.91 38 P PKPdf 08 10 58.5 +0.1
baz=308,SNR=71
L40A Anamosa 127.93 32 P PKPdf 08 10 57.9 -0.4
baz=315,SNR=35

F45A CMU Biological 127.95 25 P PKPdf 08 10 58.4 +0.3
baz=323,SNR=28
O38A Galt 128.00 35 P PKPdf 08 10 58.4 -0.1
baz=311,SNR=18
K41A Shullsburg 128.03 31 P PKPdf 08 10 58.0 -0.4
baz=316,SNR=31
N39A Derby Farms, D 128.05 34 P PKPdf 08 10 58.3 -0.2
baz=312,SNR=33
J42A Columbus 128.11 30 P PKPdf 08 10 58.0 -0.6
baz=318,SNR=27
T35A Sooner Cattle 128.12 40 P PKPdf 08 10 59.2 +0.4
baz=306
I43A Langenfeld Bro 128.16 28 P PKPdf 08 10 58.0 -0.7
baz=319,SNR=20
F46A Macinaw City C 128.20 25 P PKPdf 08 10 59.0 +0.3
baz=324
Q37A Longview Farm, 128.22 37 P PKPdf 08 10 58.2 -0.8
baz=309,SNR=23
S36A Lake Cedric, C 128.22 39 P PKPdf 08 10 59.0 +0.1
baz=308
M40A Post Highland 128.23 33 P PKPdf 08 10 58.6 -0.2
baz=314,SNR=22
P38A Dawn 128.28 36 P PKPdf 08 10 58.9 -0.1
baz=311,SNR=47
U35A Pawnee 128.29 41 P PKPdf 08 10 59.7 +0.6
baz=306
U35A Pawnee 128.29 41 ePKPdf PKPdf 08 11 00.0 +0.9
ABTX Abilene, Hawle 128.29 47 P PKPdf 08 10 60.0 +0.7
baz=300
ABTX Abilene, Hawle 128.29 47 ePKPdf PKPdf 08 11 00.7 +1.4
L41A Preston 128.31 32 P PKPdf 08 10 58.3 -0.7
baz=315,SNR=24
K42A Prairie Point, 128.39 30 P PKPdf 08 10 58.6 -0.6
baz=317,SNR=33
J43A Natural Harves 128.41 29 P PKPdf 08 10 58.5 -0.6
baz=318,SNR=22
T36A Boggs Farm, Ca 128.44 40 P PKPdf 08 10 59.8 +0.4
baz=307
O39A Kirksville 128.44 35 P PKPdf 08 10 59.3 0.0
baz=312,SNR=40
EFI East Falkland 128.55 179 ePKIKP PKPdf 08 11 00.3 +1.2
EFI East Falkland 128.55 179 ePKPdf PKPdf 08 11 00.3 +1.2
N40A Mertquake, Sal 128.55 33 P PKPdf 08 10 59.2 -0.2
baz=314,SNR=20
V35A Meyer Ranch, C 128.57 42 P PKPdf 08 11 00.2 +0.5
baz=305
V35A Meyer Ranch, C 128.57 42 ePKPdf PKPdf 08 11 01.4 +1.7
Q38A Cooks Store, C 128.66 37 P PKPdf 08 10 59.4 -0.4
baz=310
OK020 N3440 Road, Me 128.67 42 ePKPdf PKPdf 08 11 01.7 +1.8
S37A Fort Scott 128.68 39 P PKPdf 08 10 59.8 0.0
baz=308
OK021 N3530 Road, Sp 128.74 42 ePKPdf PKPdf 08 11 01.7 +1.7
M41A Milan 128.78 32 P PKPdf 08 10 59.3 -0.5
baz=315,SNR=22
L42A Oliver, Polo 128.79 31 P PKPdf 08 10 59.3 -0.6
baz=316,SNR=29
P39B Salisbury 128.83 36 P PKPdf 08 10 60.0 -0.1
baz=311
VLDQ Val d'Or 128.83 18 ePKPdf PKPdf 08 10 59.5 -0.3
W35A Tecumseh 128.89 43 P PKPdf 08 11 00.8 +0.5
baz=305
W35A Tecumseh 128.89 43 ePKPdf PKPdf 08 11 01.9 +1.6
O40A La Belle 128.91 34 P PKPdf 08 11 00.0 -0.1
baz=313
U36A Oologah 128.93 41 P PKPdf 08 11 00.7 +0.4
baz=306
K43A Burlington 128.95 30 P PKPdf 08 10 59.8 -0.4
baz=318,SNR=20
R38A Fenwick Farm, 128.98 38 P PKPdf 08 10 59.8 -0.6
baz=310
Q39A Willow Grove F 128.99 36 P PKPdf 08 11 00.6 +0.2
baz=311
T37A Cheneyville 18 129.01 39 P PKPdf 08 11 00.7 +0.3
baz=308
GLMI Grayling 129.02 25 P PKPdf 08 11 00.7 +0.4
baz=323
GLMI Grayling 129.02 25 ePKPdf PKPdf 08 11 01.6 +1.3
N41A Harden Midland 129.07 33 P PKPdf 08 10 60.0 -0.5
baz=314
L43A Garden Prairie 129.13 30 P PKPdf 08 11 00.1 -0.4
baz=317
M42A Sheffield 129.13 32 P PKPdf 08 10 59.9 -0.7
baz=316,SNR=15
V36A Jenks 129.15 41 P PKPdf 08 11 01.3 +0.5
baz=306
V36A Jenks 129.15 41 ePKPdf PKPdf 08 11 02.7 +1.9
TUL1 Leonard 129.18 41 P PKPdf 08 11 01.4 +0.5
baz=306
TUL1 Leonard 129.18 41 ePKPdf PKPdf 08 11 02.1 +1.3
P40A Paris 129.21 35 P PKPdf 08 11 00.7 -0.1
baz=312
JCT Junction City 129.22 49 P PKPdf 08 11 01.9 +0.7
baz=299
JCT Junction City 129.22 49 ePKIKP PKPdf 08 11 02.9 +1.7
JCT Junction City 129.22 49 ePKPdf PKPdf 08 11 02.9 +1.7
X35A Drake 129.24 43 P PKPdf 08 11 01.3 +0.3
baz=304
X35A Drake 129.24 43 ePKPdf PKPdf 08 11 02.4 +1.4
U37A Salina 129.32 40 P PKPdf 08 11 01.5 +0.4
baz=307
S38A Stockton 129.33 38 P PKPdf 08 11 00.9 -0.2
baz=309
W36A Wetumka 129.33 42 P PKPdf 08 11 01.8 +0.7
baz=305
W36A Wetumka 129.33 42 ePKPdf PKPdf 08 11 02.9 +1.7
R39A Chumby, Stover 129.43 37 P PKPdf 08 11 01.3 +0.1
baz=310
N42A Yates City 129.43 32 P PKPdf 08 11 00.8 -0.3
baz=315
T38A Diamond 129.46 39 P PKPdf 08 11 01.6 +0.2
baz=308
O41A Passleys Farm, 129.47 34 P PKPdf 08 11 01.0 -0.2
baz=314
Y35A Marietta 129.47 44 P PKPdf 08 11 01.8 +0.4
baz=304
L44A Lake County Fo 129.55 30 P PKPdf 08 11 01.4 0.0
baz=318
Q40A Laux Farm, Aux 129.55 36 P PKPdf 08 11 01.7 +0.2
baz=312
M43A Waltham Townsh 129.56 31 P PKPdf 08 11 01.1 -0.2
baz=317
X36A Centrahoma 129.57 43 P PKPdf 08 11 02.1 +0.5
baz=305
V37A Hulbert 129.62 41 P PKPdf 08 11 02.0 +0.4
baz=307
S39A Bolivar 129.65 38 P PKPdf 08 11 01.8 +0.1
baz=310
P41A Barry, Barry 129.67 34 P PKPdf 08 11 01.6 0.0
baz=313
U38A Gravette 129.77 40 P PKPdf 08 11 02.0 0.0
baz=308
N43A Stutzman Famil 129.81 32 P PKPdf 08 11 01.6 -0.3
baz=316
O42A Bath 129.85 33 P PKPdf 08 11 01.8 -0.2
baz=315
W37B Quinton 129.87 42 P PKPdf 08 11 02.6 +0.5
baz=306
W37B Quinton 129.87 42 ePKPdf PKPdf 08 11 04.0 +1.8
R40A Maddies Statio 129.90 36 P PKPdf 08 11 02.2 +0.1
baz=311
Y36A Durant 130.00 44 P PKPdf 08 11 03.0 +0.6
baz=304
HDIL Hopedale 130.02 32 P PKPdf 08 11 02.3 0.0
baz=316
HDIL Hopedale 130.02 32 ePKPdf PKPdf 08 11 03.5 +1.2
T39A Clever 130.04 38 P PKPdf 08 11 02.6 +0.2
baz=309
Q41A Truxton 130.06 35 P PKPdf 08 11 02.7 +0.3
baz=313
M44A Midewin, Midew 130.07 31 P PKPdf 08 11 02.5 +0.2
baz=318
V38A Canehill 130.11 40 P PKPdf 08 11 02.5 -0.1
baz=308
P42A Winchester 130.13 34 P PKPdf 08 11 02.5 0.0
baz=314
HHAR Hobbs 130.15 40 ePKPdf PKPdf 08 11 03.4 +0.7
ZAIG Zacatecas 130.18 60 ePKPdf PKPdf 08 11 05.7 +2.3
WHTX Lake Whitney, 130.20 46 P PKPdf 08 11 03.5 +0.6
baz=302
WHTX Lake Whitney, 130.20 46 ePKPdf PKPdf 08 11 04.9 +2.0
O43A Sugar Creek Fa 130.21 32 P PKPdf 08 11 02.6 0.0
baz=316
S40A Lebanon 130.21 37 P PKPdf 08 11 02.6 -0.2
baz=310
X37A Clayton 130.22 42 P PKPdf 08 11 03.5 +0.7
baz=306

X37A Clayton 130.22 42 ePKPdf PKPdf 08 11 04.5 +1.6
Z36A Blue Ridge 130.24 44 P PKPdf 08 11 03.8 +0.9
baz=304
U39A Green Forest 130.38 39 P PKPdf 08 11 03.0 -0.1
baz=309
Y37A Hugo 130.41 43 P PKPdf 08 11 03.8 +0.6
baz=305
R41A Rosebud 130.42 36 P PKPdf 08 11 03.5 +0.3
baz=312
N44A Piper City 130.46 31 P PKPdf 08 11 03.2 +0.1
baz=317
M45A Boilermakers S 130.47 30 P PKPdf 08 11 03.2 +0.1
baz=319
T40A Mansfield 130.49 38 P PKPdf 08 11 03.2 -0.1
baz=310
Q42A Golden Eagle 130.49 35 P PKPdf 08 11 03.4 +0.2
baz=314
W38A Poteau 130.51 41 P PKPdf 08 11 04.0 +0.6
baz=307
X38A Whitesboro 130.54 42 P PKPdf 08 11 04.2 +0.8
baz=306
833A Chaparral WMA, 130.54 52 P PKPdf 08 11 05.1 +1.4
baz=298
P43A Skaggs, Pawnee 130.55 33 P PKPdf 08 11 03.5 +0.2
baz=315
136A Ennis 130.61 45 P PKPdf 08 11 04.5 +0.9
baz=303
V39A Pettigrew 130.61 40 P PKPdf 08 11 03.5 -0.1
baz=308
CCM Cathedral Cave 130.66 36 P PKPdf 08 11 03.7 +0.1
baz=312
CCM Cathedral Cave 130.66 36 ePKIKP PKPdf 08 11 04.7 +1.1
CCM Cathedral Cave 130.66 36 ePKPdf PKPdf 08 11 04.7 +1.1
S41A Jillco Farms, 130.67 37 P PKPdf 08 11 03.8 +0.1
baz=311
435B Jarrell 130.74 48 P PKPdf 08 11 04.7 +0.8
baz=301
N45A Kentland 130.74 31 P PKPdf 08 11 03.9 +0.2
baz=318
O44A Mansfield 130.75 32 P PKPdf 08 11 03.8 +0.1
baz=316
R42A Luebbering 130.77 35 P PKPdf 08 11 03.9 +0.1
baz=313
U40A Yellville 130.79 39 P PKPdf 08 11 03.8 -0.1
baz=309
Z37A Pogue Cattle C 130.85 44 P PKPdf 08 11 05.1 +1.0
baz=304
SLM Saint Louis 130.85 35 ePKIKP PKPdf 08 11 05.2 +1.3
SLM Saint Louis 130.85 35 ePKPdf PKPdf 08 11 05.2 +1.3
236A Katherine and 130.87 46 P PKPdf 08 11 05.3 +1.1
baz=303
M46A Old House Fiel 130.90 29 P PKPdf 08 11 04.3 +0.3
baz=320
W39A Magazine 130.91 41 P PKPdf 08 11 04.4 +0.2
baz=308
Q43A New Douglas 130.94 34 P PKPdf 08 11 04.3 +0.2
baz=314
336A Riesel 130.97 47 P PKPdf 08 11 05.1 +0.8
baz=302
T41A Mountain View 131.02 37 P PKPdf 08 11 04.5 +0.2
baz=311
Y38A Idabel 131.04 42 P PKPdf 08 11 04.6 +0.2
baz=306
CHRN Cochrane 131.04 166 ePKPdf PKPdf 08 11 06.1 +2.1
O45A Potomac 131.07 31 P PKPdf 08 11 04.6 +0.3
baz=317
137A Heron Place, G 131.09 45 P PKPdf 08 11 06.2 +1.7
baz=304
N46A Monticello 131.09 30 P PKPdf 08 11 04.4 +0.1
baz=319
X39A Fountain Ranch 131.11 41 P PKPdf 08 11 05.4 +0.8
baz=307
S42A Caledonia 131.12 36 P PKPdf 08 11 04.6 +0.1
baz=312
V40A Witts Springs 131.16 39 P PKPdf 08 11 04.6 0.0
baz=309
P44A Sand Creek, Wi 131.16 33 P PKPdf 08 11 04.8 +0.4
baz=316
SADO Sadowa 131.22 21 ePKPdf PKPdf 08 11 05.0 +0.6
Z38A Mt. Pleasant 131.25 43 P PKPdf 08 11 05.7 +0.8
baz=305
R43A Red Bud 131.27 35 P PKPdf 08 11 04.6 -0.1
baz=314
SFIN Lafayette 131.30 31 P PKPdf 08 11 04.9 +0.2
baz=318
Q44A Meyer Farm, Va 131.35 34 P PKPdf 08 11 05.2 +0.4
baz=315
U41A Viola 131.38 38 P PKPdf 08 11 05.0 0.0
baz=310
W40A Ferguson Farm, 131.38 40 P PKPdf 08 11 05.3 +0.3
baz=308
W40A Ferguson Farm, 131.38 40 ePKPdf PKPdf 08 11 06.8 +1.8
237A Washetta, Mont 131.38 45 P PKPdf 08 11 06.3 +1.2
baz=303
TRQ Mont Tremblant 131.39 16 ePKPdf PKPdf 08 11 05.9 +1.1
T42A Van Buren 131.43 37 P PKPdf 08 11 05.2 +0.1
baz=312
MIAR Mount Ida 131.44 41 P PKPdf 08 11 05.9 +0.7
baz=307
MIAR Mount Ida 131.44 41 ePKIKP PKPdf 08 11 06.4 +1.2
MIAR Mount Ida 131.44 41 ePKPdf PKPdf 08 11 06.4 +1.2
AAM Ann Arbor 131.46 26 P PKPdf 08 11 04.9 0.0
baz=323
Y39A Lockesburg 131.46 42 P PKPdf 08 11 05.7 +0.5
baz=306
138A Matatall Enter 131.52 44 P PKPdf 08 11 06.8 +1.4
baz=305
P45A Graceland, Par 131.59 32 P PKPdf 08 11 05.5 +0.2
baz=317
V41A Mountainview 131.59 39 P PKPdf 08 11 05.2 -0.3
baz=310
S43A Fulton Ridge, 131.67 36 P PKPdf 08 11 05.3 -0.2
baz=313
PLVO Plevna 131.69 19 ePKPdf PKPdf 08 11 05.8 +0.5
R44A Waltonville 131.77 34 P PKPdf 08 11 05.8 +0.1
baz=315
X301 Greenbrier Sit 131.78 40 ePKPdf PKPdf 08 11 06.5 +0.8
U42A Revenden 131.79 38 P PKPdf 08 11 05.8 +0.1
baz=311
P46A Rosedale 131.80 31 P PKPdf 08 11 05.8 +0.1
baz=318
Z39A Irene McRaven, 131.81 43 P PKPdf 08 11 07.0 +1.1
baz=306
WHAR Wooly Hollow 131.82 39 ePKPdf PKPdf 08 11 06.8 +0.9
Q45A Warren Harvey, 131.82 33 P PKPdf 08 11 06.1 +0.3
baz=316
O47A Sheridan 131.87 30 P PKPdf 08 11 05.5 -0.3
baz=319
T43A Greenville 131.88 36 P PKPdf 08 11 05.8 -0.1
baz=313
W41B Gary Mavity, V 131.92 40 P PKPdf 08 11 06.0 0.0
baz=309
Y40A Okolona 131.96 41 P PKPdf 08 11 06.7 +0.5
baz=307
X40A Basin Creek Fa 131.97 41 P PKPdf 08 11 06.5 +0.3
baz=308
OLIL Olney 131.97 33 ePKPdf PKPdf 08 11 07.3 +1.2
LNIG Linares 131.98 56 ePKPdf PKPdf 08 11 08.1 +1.7
139A Bunkhouse Ranc 131.99 44 P PKPdf 08 11 07.3 +1.0
baz=305
PBMO Poplar Bluff 132.00 37 ePKPdf PKPdf 08 11 07.7 +1.5
V42A Cord 132.05 38 P PKPdf 08 11 06.2 -0.1
baz=310
S44A Carbondale 132.06 35 P PKPdf 08 11 06.5 +0.3
baz=314
KVTX Kingsville 132.08 52 ePKPdf PKPdf 08 11 09.2 +2.7
UALR University of 132.10 40 ePKPdf PKPdf 08 11 08.5 +2.1
Q46A CEJHS Indians, 132.16 32 P PKPdf 08 11 06.6 +0.2
baz=317
X41A Kaden, Bauxite 132.17 40 P PKPdf 08 11 06.8 +0.3
baz=308
R45A Skylar, Fairfi 132.19 34 P PKPdf 08 11 06.9 +0.5
baz=316
WLAR White Oak Lake 132.27 42 ePKPdf PKPdf 08 11 08.8 +2.1
T44A Benton 132.28 36 P PKPdf 08 11 06.9 +0.2
baz=313
U43A Rector 132.28 37 P PKPdf 08 11 06.7 0.0
baz=312
438A Sam Houston St 132.30 46 P PKPdf 08 11 08.3 +1.5
baz=303
W42A Bald Knob 132.31 39 P PKPdf 08 11 06.8 0.0
baz=310
NATX Nacogdoches 132.33 45 P PKPdf 08 11 07.8 +0.9
baz=304
NATX Nacogdoches 132.33 45 ePKPdf PKPdf 08 11 09.7 +2.8
Z40A Long Farm, Mag 132.33 42 P PKPdf 08 11 07.7 +0.8
baz=307

P47A **Martinsville** 132.39 31 P PKPdf 08 11 07.1 +0.3
baz=319
S45A **Carrier Mills** 132.45 34 P PKPdf 08 11 07.4 +0.4
baz=315
HKT **Hockley** 132.46 48 *e*PKIKP PKPdf 08 11 10.1 +3.0
HKT **Hockley** 132.46 48 *e*PKPdf PKPdf 08 11 10.1 +3.0
PQI **Presque Isle** 132.47 10 *e*PKPdf PKPdf 08 11 07.2 +0.5
PARMO **Parma** 132.47 36 *e*PKPdf PKPdf 08 11 08.4 +1.4
Y41A **Eaglette Beard** 132.48 41 P PKPdf 08 11 07.8 +0.7
baz=308
BLO **Bloomington** 132.49 31 *e*PKIKP PKPdf 08 11 08.2 +1.2
BLO **Bloomington** 132.49 31 *e*PKPdf PKPdf 08 11 08.2 +1.2
140A **Cam and Jess,** 132.58 43 P PKPdf 08 11 08.2 +0.9
baz=306
V43A **Jonesboro** 132.59 38 P PKPdf 08 11 07.8 +0.5
baz=311
U44A **Portageville** 132.62 36 P PKPdf 08 11 07.6 +0.3
baz=313
R46A **Gibon Southern** 132.66 33 P PKPdf 08 11 07.7 +0.3
baz=316
HBAR **Harrisburg** 132.67 38 *e*PKPdf PKPdf 08 11 08.9 +1.5
PVMO **Portageville** 132.68 36 *e*PKPdf PKPdf 08 11 08.8 +1.4
X42A **Stuttgart** 132.70 40 P PKPdf 08 11 07.7 +0.2
baz=309
Q47A **Bedord North L** 132.72 32 P PKPdf 08 11 07.7 +0.3
baz=318
Z41A **Richland Creek** 132.73 42 P PKPdf 08 11 08.3 +0.7
baz=307
USIN **University of** 132.76 33 *e*PKPdf PKPdf 08 11 08.9 +1.3
439A **Center Grove,** 132.79 46 P PKPdf 08 11 09.0 +1.2
baz=304
PSMN **Pico do Norte,** 132.79 325 *e*PKPdf PKPdf 08 11 08.8 +1.1
240A **Hunter Patters** 132.80 44 P PKPdf 08 11 08.8 +1.0
baz=305
PSMA **Santa Maria** 132.84 325 *e*PKPdf PKPdf 08 11 08.9 +1.2
LONY **Lake Ozonia** 132.84 17 *e*PKPdf PKPdf 08 11 08.4 +0.9
T45A **Paducah** 132.88 35 P PKPdf 08 11 08.1 +0.3
baz=314
FRNY **Flat Rock** 132.93 16 *e*PKPdf PKPdf 08 11 08.2 +0.5
S46A **Don Dixon Farm** 132.93 34 P PKPdf 08 11 08.1 +0.2
baz=316
U44B **Burton Farm, H** 132.93 36 P PKPdf 08 11 08.3 +0.4
baz=313
W43A **Forest City** 132.94 39 P PKPdf 08 11 08.1 +0.1
baz=311
V44A **Blytheville** 132.95 37 P PKPdf 08 11 08.5 +0.5
baz=312
GLAT **Glass** 133.02 36 *e*PKPdf PKPdf 08 11 10.6 +2.5
Y42A **Garnett, Star** 133.05 41 P PKPdf 08 11 08.8 +0.6
baz=309
141A **Papa Simpson,** 133.05 43 P PKPdf 08 11 09.1 +0.8
baz=307
R47A **Wooly Knot Far** 133.13 32 P PKPdf 08 11 08.5 +0.2
baz=318
ERPA **Erie** 133.16 24 *e*PKPdf PKPdf 08 11 08.9 +0.7
X43A **Marvell** 133.20 39 P PKPdf 08 11 09.0 +0.5
baz=310
UTMT **University of** 133.22 36 *e*PKPdf PKPdf 08 11 08.7 +0.3
U45A **Rockin P Farm,** 133.27 36 P PKPdf 08 11 08.8 +0.3
baz=314
PMAN **Manadas** 133.28 329 *e*PKPdf PKPdf 08 11 10.2 +1.7
T46A **Princeton** 133.29 34 P PKPdf 08 11 09.2 +0.6
baz=315
Z42A **Norrel Spur, H** 133.29 41 P PKPdf 08 11 09.2 +0.5
baz=308
WCI **Wyandotte Cave** 133.31 32 P PKPdf 08 11 08.9 +0.3
baz=318
WCI **Wyandotte Cave** 133.31 32 *e*PKIKP PKPdf 08 11 10.0 +1.4
WCI **Wyandotte Cave** 133.31 32 *e*PKPdf PKPdf 08 11 10.0 +1.4
241A **Mo Tay, Goldon** 133.39 43 P PKPdf 08 11 10.0 +1.1
baz=306
MET **Memphis--Engin** 133.40 38 *e*PKPdf PKPdf 08 11 09.7 +0.9
ACSO **Alum Creek Sta** 133.42 28 P PKPdf 08 11 08.8 0.0
baz=323
ACSO **Alum Creek Sta** 133.42 28 *e*PKPdf PKPdf 08 11 09.5 +0.7
MMNY **Mt. Morris Dam** 133.43 21 *e*PKPdf PKPdf 08 11 08.5 -0.1
W44A **Shelby Farms P** 133.46 38 P PKPdf 08 11 09.2 +0.3
baz=312
ALLY **Alegheny Colle** 133.49 24 *e*PKPdf PKPdf 08 11 08.9 +0.1
NCB **Newcomb** 133.54 17 *e*PKPdf PKPdf 08 11 09.8 +0.9
Y43A **Makayla and Ka** 133.56 40 P PKPdf 08 11 09.7 +0.6
baz=310
V45A **Humboldt** 133.57 37 P PKPdf 08 11 09.3 +0.2
baz=313
PKME **Peaks-Kenny Pk** 133.57 12 *e*PKPdf PKPdf 08 11 09.6 +0.8
341A **Kurthwood** 133.62 44 P PKPdf 08 11 10.5 +1.2
baz=305
VT1 **Waterbury** 133.62 16 *e*PKPdf PKPdf 08 11 09.8 +0.7
X44A **Crenshaw** 133.67 39 P PKPdf 08 11 09.7 +0.3
baz=311
142A **Monroe** 133.73 42 P PKPdf 08 11 10.2 +0.7
baz=308
LMN **Caledonia Moun** 133.77 8 *e*PKPdf PKPdf 08 11 09.4 +0.2
T47A **Sharon Grove** 133.77 34 P PKPdf 08 11 09.7 +0.2
baz=316
Z43A **Armstrong Fami** 133.79 41 P PKPdf 08 11 09.9 +0.3
baz=309
M54A **Oil Creek Stat** 133.81 24 P PKPdf 08 11 09.5 +0.1
baz=328
W45A **Hickory Valley** 133.83 37 P PKPdf 08 11 09.6 -0.1
baz=312
242A **Grayson** 133.89 43 P PKPdf 08 11 10.7 +0.9
baz=307
LBNH **Lisbon** 133.93 15 *e*PKIKP PKPdf 08 11 11.0 +1.4
LBNH **Lisbon** 133.93 15 *e*PKPdf PKPdf 08 11 10.9 +1.4
441A **DeRidder** 133.93 45 P PKPdf 08 11 11.3 +1.3
baz=305
WVT **Waverly** 133.97 35 P PKPdf 08 11 10.1 +0.2
baz=315
WVT **Waverly** 133.97 35 *e*PKIKP PKPdf 08 11 10.6 +0.7
WVT **Waverly** 133.97 35 *e*PKPdf PKPdf 08 11 10.6 +0.7
Y44A **Strider, Charl** 133.98 39 P PKPdf 08 11 10.3 +0.4
baz=310
143A **Socs Landing,** 134.00 42 P PKPdf 08 11 10.4 +0.4
baz=308
OXF **Oxford** 134.12 38 P PKPdf 08 11 10.3 +0.1
baz=312
OXF **Oxford** 134.12 38 *e*PKIKP PKPdf 08 11 10.7 +0.5
OXF **Oxford** 134.12 38 *e*PKPdf PKPdf 08 11 10.7 +0.5
N54A **Moraine State** 134.13 24 P PKPdf 08 11 10.1 +0.1
baz=327
WVL **Waterville** 134.16 13 *e*PKPdf PKPdf 08 11 09.3 -0.7
342A **Flagon Creek P** 134.18 44 P PKPdf 08 11 11.7 +1.3
baz=306
GGN **Saint George** 134.18 10 *e*PKPdf PKPdf 08 11 10.3 +0.4
X45A **UM Field Stati** 134.19 38 P PKPdf 08 11 10.4 +0.1
baz=312
ACCN **Adirondack Com** 134.24 17 *e*PKPdf PKPdf 08 11 10.7 +0.5
Z44A **Pea Ridge, Bel** 134.28 40 P PKPdf 08 11 11.0 +0.5
baz=310
541A **Lake Charles** 134.33 46 P PKPdf 08 11 11.3 +0.6
baz=304
HNH **Hanover** 134.33 16 *e*PKPdf PKPdf 08 11 11.4 +1.1
UNM **Universidad Na** 134.33 63 *e*PKIKP PKPdf 08 11 12.3 +1.0
UNM **Universidad Na** 134.33 63 *e*PKPdf PKPdf 08 11 12.3 +1.0
243A **Waterproof** 134.45 43 P PKPdf 08 11 11.9 +1.1
baz=308
EMMW **East Machias** 134.47 11 *e*PKPdf PKPdf 08 11 10.2 -0.3
Y45A **Yeager Farm, C** 134.47 39 P PKPdf 08 11 11.2 +0.3
baz=311
442A **Mamou** 134.49 45 P PKPdf 08 11 12.2 +1.2
baz=306
BINY **Binghamton** 134.57 20 *e*PKPdf PKPdf 08 11 11.7 +0.8
PLAL **Pickwick Lake** 134.62 37 *e*PKPdf PKPdf 08 11 11.1 -0.1
144A **Alexander Plac** 134.69 41 P PKPdf 08 11 11.9 +0.5
baz=309
Z45A **Winona** 134.69 40 P PKPdf 08 11 12.0 +0.6
baz=311
FFD **Franklin Falls** 134.72 15 *e*PKPdf PKPdf 08 11 12.0 +1.0
343A **Vidalia** 134.72 43 P PKPdf 08 11 12.4 +1.1
baz=307
542A **Morse** 134.74 45 P PKPdf 08 11 13.0 +1.6
baz=305
TRY **Troy** 134.84 17 *e*PKPdf PKPdf 08 11 12.0 +0.7
Y46A **Houston** 134.88 38 P PKPdf 08 11 11.7 0.0
baz=312
244A **Avery, Jackson** 134.89 42 P PKPdf 08 11 12.0 +0.3
baz=308
VBMS **Vicksburg** 134.89 41 P PKPdf 08 11 12.1 +0.4
baz=309
VBMS **Vicksburg** 134.89 41 *e*PKPdf PKPdf 08 11 12.8 +1.1
443A **Delano Plantat** 134.91 44 P PKPdf 08 11 13.1 +1.3
baz=306
145A **Houston Renfro** 135.03 41 P PKPdf 08 11 12.3 +0.3
baz=310
344A **Westbrook Farm** 135.22 42 P PKPdf 08 11 13.2 +0.8
baz=308
SSPA **Standing Stone** 135.25 23 *e*PKPpre PKPpre 08 10 58.3
SSPA *e*PKPdf **PKPdf** **08 11 12.8 +0.6**
543A **St. Martinvill** 135.26 45 P **PKPdf** **08 11 13.2 +0.8**
baz=306
MCWV **Mont Chateau** 135.28 25 *e*PKPpre PKPpre 08 10 58.9
MCWV *e*PKPdf **PKPdf** **08 11 12.6 +0.4**
Z46A **Louisville** 135.28 39 P **PKPdf** **08 11 13.1 +0.7**
baz=311
O56A **Blue Knob Stat** 135.30 24 P **PKPdf** **08 11 12.4 +0.1**
baz=328
245A **Little AP, Sta** 135.42 41 P **PKPdf** **08 11 13.2 +0.5**
baz=309
TLIG **Tlapa** 135.46 65 *e*PKPpre PKPpre 08 11 01.8
TLIG *e*PKPdf **PKiKP** **08 11 15.2 +0.4**
Y47A **UCPARC, Winfie** 135.49 38 P **PKPdf** **08 11 12.8 0.0**
baz=313
146A **Union** 135.57 40 P **PKPdf** **08 11 13.6 +0.6**
baz=311
QUA2 **Belchertown** 135.63 16 *e*PKPpre PKPpre 08 11 04.1
QUA2 *e*PKPdf **PKiKP** **08 11 13.7 -0.7**
HRV **Adam Dziewonsk** 135.64 15 *e*PKHKP PKPpre 08 11 02.1
HRV *e* 08 11 13.3
HRV **Adam Dziewonsk** 135.64 15 *e*PKPpre PKPpre 08 11 02.1
HRV *e*PKPdf **PKPdf** **08 11 13.3 +0.5**
444A **Pine Grove** 135.66 43 P **PKPdf** **08 11 14.2 +1.1**
baz=307
SWET **Sewanee** 135.70 35 *e*PKPpre PKPpre 08 10 58.5
SWET *e*PKPdf **PKPdf** **08 11 13.3 +0.1**
544A **White Castle** 135.73 44 P **PKPdf** **08 11 15.0 +1.7**
baz=306
345A **Thompson Farm,** 135.78 42 P **PKPdf** **08 11 14.1 +0.7**
baz=309
N59A **State Game Lan** 135.78 21 P **PKPdf** **08 11 13.6 +0.5**
baz=333
WES **Weston** 135.82 15 *e*PKIKP **PKPdf** **08 11 14.0 +0.9**
WES **Weston** 135.82 15 *e*PKPdf **PKPdf** **08 11 14.0 +0.9**
Z47A **Carrollton** 135.83 38 P **PKPdf** **08 11 13.6 +0.1**
baz=312
445A **Amite** 135.93 43 P **PKPdf** **08 11 14.7 +1.1**
baz=308
246A **Jackson Lee, B** 135.93 41 P **PKPdf** **08 11 14.2 +0.5**
baz=310
Z48A **Northport** 136.03 38 P **PKPdf** **08 11 13.7 -0.1**
baz=313
ODNJ **Ogdensburg** 136.03 19 *e*PKPpre PKPpre 08 11 03.8
ODNJ *e*PKPdf **PKPdf** **08 11 14.2 +0.6**
147A **Livingston** 136.05 39 P **PKPdf** **08 11 13.8 0.0**
baz=312
346A **Big Creek Wild** 136.11 42 P **PKPdf** **08 11 14.6 +0.6**
baz=309
BRYW **Bryant College** 136.19 16 *e*PKPdf **PKPdf** **08 11 14.6 +0.7**
LUPA **Lehigh Univers** 136.21 20 *e*PKPpre PKPpre 08 11 02.7
LUPA *e*PKPdf **PKPdf** **08 11 14.0 +0.1**
247A **Quitman** 136.24 40 P **PKPdf** **08 11 15.0 +0.7**
baz=311
CPCT **Cooper Cave** 136.32 33 *e*PKPpre PKPpre 08 11 01.0
CPCT *e*PKPdf **PKPdf** **08 11 14.3 0.0**
PAL **Palisades** 136.33 19 *e*PKHKP PKPpre 08 11 05.6
PAL *e* 08 11 14.6
PAL **Palisades** 136.33 19 *e*PKPpre PKPpre 08 11 05.6
PAL *e*PKPdf **PKPdf** **08 11 14.6 +0.5**
YLE **Yale** 136.35 18 *e*PKPdf **PKPdf** **08 11 14.7 +0.6**
MVL **Millersville** 136.38 22 *e*PKPpre PKPpre 08 11 02.4
MVL *e*PKPdf **PKPdf** **08 11 14.7 +0.4**
BRNJ **Basking Ridge** 136.41 20 *e*PKPpre PKPpre 08 11 04.6
BRNJ *e*PKPdf **PKPdf** **08 11 14.8 +0.5**
CPNY **Central Park** 136.51 19 *e*PKPpre PKPpre 08 11 06.9
CPNY *e*PKPdf **PKPdf** **08 11 14.9 +0.5**
645A **Chauvin** 136.51 45 P **PKPdf** **08 11 16.5 +1.7**
baz=306
446A **Poplarville** 136.55 42 P **PKPdf** **08 11 15.6 +0.8**
baz=309
TKL **Tuckaleechee C** 136.57 32 PP PP 08 13 54.1 -3.3
comp=Z,53nm,1.2s,baz=307,slow=2.0,SNR=7.2
TKL SKPbc **SKPbc** **08 14 32.1 +0.3**
comp=Z,9.8nm,0.6s,baz=209,slow=2.2,SNR=4.3
TKL **Tuckaleechee C** 136.57 32 *e*PKHKP PKPpre 08 11 02.1
TKL *e* 08 11 15.2
TKL 08 13 54.1
TKL **Tuckaleechee C** 136.57 32 *e*PKPpre PKPpre 08 11 02.1
TKL *e*PKPdf **PKPdf** **08 11 15.2 +0.4**
TKL PP **PP** **08 13 54.1 -3.3**
TKL SKPbc **SKPbc** **08 14 32.1 +0.3**
LRAL **Lakeview Retre** 136.60 38 P **PKPdf** **08 11 15.2 +0.3**
baz=313
LRAL **Lakeview Retre** 136.60 38 *e*PKPpre PKPpre 08 11 01.1
LRAL *e*PKPdf **PKPdf** **08 11 15.6 +0.7**
LVIG **Laguna Verde** 136.62 61 *e*PKPdf **PKPdf** **08 11 15.6 +0.3**
546A **Slidell** 136.65 43 P **PKPdf** **08 11 15.5 +0.5**
baz=308
347A **Saraland** 136.71 41 P **PKPdf** **08 11 16.1 +1.1**
baz=310
SDMD **Soldier's Deli** 136.71 23 *e*PKPpre PKPpre 08 11 03.5
SDMD *e*PKPdf **PKPdf** **08 11 15.3 +0.4**
248A **Dixon Mills** 136.77 39 P **PKPdf** **08 11 16.1 +0.9**
baz=312
PSUB **Penn St. - Bra** 136.77 21 *e*PKPpre PKPpre 08 11 02.2
PSUB *e*PKPdf **PKPdf** **08 11 15.2 +0.3**
ASCN **Ascension** 136.85 258 *e*PKPpre PKPpre 08 11 05.5
ASCN *e*PKPdf **PKiKP** **08 11 17.5 -0.2**
447A **Lucedale** 137.02 42 P **PKPdf** **08 11 16.6 +0.9**
baz=310
BLA **Blacksburg** 137.03 28 *e*PKHKP PKPpre 08 11 04.0
BLA *e* 08 11 15.5
BLA **Blacksburg** 137.03 28 *e*PKPpre PKPpre 08 11 04.0
BLA *e*PKPdf **PKPdf** **08 11 15.5 -0.1**
348A **Jackson** 137.11 40 P **PKPdf** **08 11 16.8 +0.9**
baz=311
IP04 **Greensprings** 137.34 25 *e*PKPpre PKPpre 08 11 05.1
IP04 *e*PKPdf **PKPdf** **08 11 16.7 +0.6**
IP03 **Louisa** 137.43 25 *e*PKPpre PKPpre 08 11 05.9
IP03 *e*PKPdf **PKPdf** **08 11 16.9 +0.6**
448A **Bay Minette** 137.45 41 P **PKPdf** **08 11 17.3 +0.8**
baz=311
CVRD **Centerville Ro** 137.47 25 *e*PKPpre PKPpre 08 11 05.0
CVRD *e*PKPdf **PKPdf** **08 11 17.0 +0.7**
SPRD **Spring Road, M** 137.48 25 *e*PKPpre PKPpre 08 11 05.6
SPRD *e*PKPdf **PKPdf** **08 11 16.5 +0.2**
IP07 **Quail** 137.51 25 *e*PKPpre PKPpre 08 11 05.7
IP07 *e*PKPdf **PKPdf** **08 11 16.9 +0.5**
PTRD **Partlow Road** 137.51 24 *e*PKPpre PKPpre 08 11 06.4
PTRD *e*PKPdf **PKPdf** **08 11 16.9 +0.6**
IP06 **Yanceyville** 137.52 25 *e*PKPpre PKPpre 08 11 05.7
IP06 *e*PKPdf **PKPdf** **08 11 16.9 +0.4**
BG3 **Lake Jocassee** 137.52 32 *e*PKPpre PKPpre 08 11 06.3
BG3 *e*PKPdf **PKiKP** **08 11 17.7 -0.8**
IP01 **Cuckoo** 137.53 25 *e*PKPpre PKPpre 08 11 05.5
IP01 *e*PKPdf **PKPdf** **08 11 17.2 +0.8**
SPFD **Spotsylvania F** 137.54 24 *e*PKPpre PKPpre 08 11 06.5
SPFD *e*PKPdf **PKPdf** **08 11 17.4 +1.0**
CBN **Corbin Frederi** 137.54 24 *e*PKPpre PKPpre 08 11 06.0
CBN *e*PKPdf **PKPdf** **08 11 17.2 +0.8**
PLCA **Paso Flores** 137.66 165 PKhKP PKPpre 08 11 07.1
comp=Z,12nm,1.0s,baz=248,slow=3.6,SNR=21
PLCA PKP **PKiKP** **08 11 18.0 -0.7**
comp=Z,78nm,1.0s,baz=244,slow=3.9,SNR=22
PLCA SKPbc **SKPbc** **08 14 36.1 +1.2**
comp=Z,18nm,0.9s,baz=231,slow=3.6,SNR=7.3
IP05 **Hopewell Churc** 137.70 25 *e*PKPpre PKPpre 08 11 06.1
IP05 *e*PKPdf **PKPdf** **08 11 17.7 +1.0**
JSRW **J. Sargeant Re** 137.76 25 *e*PKPpre PKPpre 08 11 05.9
JSRW *e*PKPdf **PKPdf** **08 11 17.0 +0.2**
BRAL **Brewton** 137.82 40 P **PKPdf** **08 11 18.2 +1.1**
baz=312
BRAL **Brewton** 137.82 40 *e*PKPpre PKPpre 08 11 08.1
BRAL *e*PKPdf **PKiKP** **08 11 18.4 -0.8**
KMSC **Kings Mountain** 138.24 31 P **PKPdf** **08 11 18.4 +0.5**
baz=322
KMSC **Kings Mountain** 138.24 31 *e*PKPpre PKPpre 08 11 07.2
KMSC *e*PKPdf **PKPdf** **08 11 18.4 +0.5**
GOGA **Godfrey** 138.41 34 *e*PKHKP PKPpre 08 11 08.3
GOGA *e* 08 11 18.7
GOGA **Godfrey** 138.41 34 *e*PKPpre PKPpre 08 11 08.3
GOGA *e*PKPdf **PKPdf** **08 11 18.7 +0.5**
HODGE **Hodges** 138.46 32 *e*PKPpre PKPpre 08 11 09.8
HODGE *e*PKPdf **PKPdf** **08 11 19.0 +0.8**
CMIG **Matias Romero** 138.93 64 PKhKP PKPpre 08 11 11.3
comp=Z,13nm,0.6s,baz=299,slow=3.8,SNR=25
CMIG PKP **PKiKP** **08 11 20.7 -1.1**
comp=Z,111nm,1.0s,baz=273,slow=1.6,SNR=26
CMIG PP **PP** **08 14 12.3 -1.0**
comp=Z,10nm,1.1s,baz=312,slow=2.4,SNR=4.0
CMIG SKPbc **SKPbc** **08 14 39.2 +0.2**
comp=Z,7.6nm,0.6s,baz=328,slow=7.1,SNR=7.5
JSC **Jenkinsville** 138.94 31 *e*PKHKP PKPpre 08 11 10.6
JSC *e* 08 11 20.2
JSC **Jenkinsville** 138.94 31 *e*PKPpre PKPpre 08 11 10.6
JSC *e*PKPdf **PKPdf** **08 11 20.2 +1.1**
TIGA **Tifton** 139.77 36 P **PKPdf** **08 11 21.5 +0.8**
baz=316
TIGA **Tifton** 139.77 36 *e*PKPpre PKPpre 08 11 12.9
TIGA *e*PKPdf **PKPdf** **08 11 20.8 0.0**
CNNC **Cliffs of the** 139.81 27 *e*PKPpre PKPpre 08 11 10.6
NHSC **New Hope** 140.42 31 *e*PKPpre PKPpre 08 11 15.6
RGRS **Roger Stewart** 140.57 32 *e*PKPpre PKPpre 08 11 16.6
CCIG **Comitan** 141.68 63 *e*PKPpre PKPpre 08 11 19.3
MYIG **MØrida** 141.75 55 *e*PKPpre PKPpre 08 11 20.9
TRQA **Tornquist** 141.89 174 *e*PKPpre PKPpre 08 11 20.0
GO05 **HualaæØ** 142.50 160 *e*PKPpre PKPpre 08 11 22.0
DWPF **Disney Wildern** 143.46 38 *e*PKPdf PKPbc 08 11 25.9 +0.8
SACV **Santiago Islan** 143.84 296 *e*PKPdf PKPbc 08 11 26.7 +0.2
PEL **Peldehue** 144.63 160 *e*PKIKP **PKPdf** **08 11 29.1 -0.3**
PEL **Peldehue** 144.63 160 *e*PKPdf **PKPdf** **08 11 29.1 -0.3**
ROC1 **El Roble** 144.66 159 *e*PKPbc **PKPdf** **08 11 29.8 0.0**
SNET **Serv Nac Est T** 145.23 66 *e*PKPdf **PKPab** **08 11 31.3 +0.2**
PAYG **Puerto Ayora** 146.65 91 *e*PKPdf **PKPab** **08 11 36.2 -0.4**
TGUH **Tegucigalpa,Un** 146.86 64 *e*PKPdf **PKPdf** **08 11 34.6 +1.0**
LCO **Las Campanas** 148.34 157 *e*PKPdf **PKPdf** **08 11 37.5 +1.4**
LCO *e*PKPbc **PKiKP** **08 11 41.0 -0.2**
JTS **JuntasAbangare** 150.30 69 *e*PKIKP **PKPdf** **08 11 39.7 +0.4**
JTS *e* 08 11 45.6
JTS **JuntasAbangare** 150.30 69 *e*PKPdf **PKPdf** **08 11 39.6 +0.4**
JTS *e*PKPbc **PKiKP** **08 11 45.6 +0.3**
HDC **Heredia** 151.18 69 *e*PKPdf **PKPdf** **08 11 41.6 +0.9**
MTDJ **Mount Denham** 152.80 47 *e*PKPdf **PKPdf** **08 11 43.8 +0.8**
MTDJ *e*PKPbc **PKiKP** **08 11 50.6 +0.2**
PB10 **IPOC Station P** 153.19 151 *e*PKPdf **PKPdf** **08 11 45.0 +1.7**
PB10 *e*PKPbc **PKiKP** **08 11 52.4 +1.4**
GTBY **Guantanamo Bay** 153.34 41 *e*PKPdf **PKPdf** **08 11 44.7 +1.1**
GTBY *e*PKPbc **PKiKP** **08 11 51.8 +0.5**
CPUP **Villa Florida** 153.87 179 PKP **PKPdf** **08 11 45.1 +0.9**
comp=Z,94nm,1.1s,baz=115,slow=0.7,SNR=83
CPUP PKPbc **PKiKP** **08 11 53.0 +0.7**
comp=Z,129nm,1.0s,baz=164,slow=1.4,SNR=49
CPUP PKPab **PKPab** **08 12 07.1 +1.4**
comp=Z,118nm,1.1s,baz=189,slow=6.3,SNR=8.5
CPUP **Villa Florida** 153.87 179 *e*PKPdf **PKPdf** **08 11 45.0 +0.9**
CPUP *e*PKPbc **PKiKP** **08 11 53.5 +1.1**
CPUP PKPab **PKPab** **08 12 07.1 +1.4**
PB04 **IPOC Station P** 154.38 151 *e*PKPdf **PKPdf** **08 11 46.5 +1.2**
PB04 *e*PKPbc **PKiKP** **08 11 55.7 +2.0**
GRTK **Grand Turk** 154.48 32 *e*PKPdf **PKPdf** **08 11 46.3 +1.2**
GRTK *e*PKPab **PKPab** **08 12 09.1 +0.6**
BCIP **Isla Barro Col** 155.43 68 *e*P **PKPdf** **08 11 46.3 -0.4**
BCIP **Isla Barro Col** 155.43 68 *e*PKPdf **PKPdf** **08 11 46.9 +0.2**
PB01 **IPOC Station P** 155.79 150 *e*PKPdf **PKPdf** **08 11 48.1 +1.0**
LGNH **LØogne** 155.98 39 *e*PKPdf **PKPdf** **08 11 48.9 +1.6**
LGNH *e*PKPab **PKPab** **08 12 15.6 +0.5**
SDDR **Presa de Saban** 156.42 36 *e*PKPdf **PKPdf** **08 11 48.8 +0.8**
SDDR *e*PKPab **PKPab** **08 12 17.1 +0.1**
SDDR **Presa de Saban** 156.42 36 *e*P **PKPdf** **08 11 48.0 0.0**
PB11 **IPOC Station P** 156.78 148 *e*PKPdf **PKPdf** **08 11 49.4 +0.9**
PB11 *e*PKPab **PKPab** **08 12 20.4 +1.7**
NNA **Nana** 156.95 122 PKP **PKPdf** **08 11 49.9 +1.1**
comp=Z,101nm,1.1s,baz=302,slow=3.0,SNR=33
NNA PKPab **PKPab** **08 12 21.4 +1.8**
comp=Z,51nm,0.9s,baz=238,slow=5.5,SNR=6.9
NNA **Nana** 156.95 122 *e*PKPdf **PKPdf** **08 11 49.8 +1.1**
NNA *e*PKPab **PKPab** **08 12 20.1 +0.6**
MNMC **Minye Minye** 157.33 147 *e*PKPdf **PKPdf** **08 11 50.7 +1.4**
MNMC *e*PKPab **PKPab** **08 12 23.4 +2.2**
ATAH **Atahualpa** 157.47 109 PKP **PKPdf** **08 11 52.1 +2.2**
comp=Z,227nm,1.2s,baz=340,slow=0.9,SNR=113
ATAH PKPab **PKPab** **08 12 25.9 +3.6**
comp=Z,142nm,1.1s,baz=253,slow=2.8,SNR=8.4
ATAH PP **PP** **08 16 04.9 +2.8**
comp=Z,20nm,1.1s,baz=277,slow=2.7,SNR=5.0
SDD **Santo Domingo** 157.62 34 *e*PKPdf **PKPdf** **08 11 49.5 +0.2**
SDD *e*PKPab **PKPab** **08 12 22.3 +0.2**
CAPC **Capurgana** 157.91 67 *e*P **PKPdf** **08 11 50.1 +0.3**
RCBR **Riachuelo** 158.23 254 PKP **PKPdf** **08 11 51.3 +0.9**
comp=Z,103nm,1.1s,baz=91,slow=1.5,SNR=19
RCBR PKPab **PKPab** **08 12 25.5 +0.3**
comp=Z,447nm,1.2s,baz=96,slow=5.5,SNR=26
RCBR **Riachuelo** 158.23 254 *e*PKPdf **PKPdf** **08 11 51.7 +1.4**
RCBR *e*PKPab **PKPab** **08 12 25.8 +0.6**
OTAV **Otavalo** 158.48 89 *e*P **PKPdf** **08 11 52.0 +0.8**
OTAV **Otavalo** 158.48 89 *e*PKPdf **PKPdf** **08 11 52.0 +0.8**
OTAV *e*PKPab **PKPab** **08 12 29.1 +2.2**
IDE **Isla Desecheo** 158.96 29 *e*PKPdf **PKPdf** **08 11 51.4 +0.4**
IDE *e*PKPab **PKPab** **08 12 28.0 +0.1**
CMBC **Cumbal** 159.09 87 *e*P **PKPdf** **08 11 53.3 +1.4**
AGP **Aguadilla** 159.10 28 *e*PKPdf **PKPdf** **08 11 51.6 +0.5**
AGP *e*PKPab **PKPab** **08 12 29.0 +0.5**
MPR **Mayaguez** 159.27 28 *e*PKPdf **PKPdf** **08 11 50.9 -0.5**
MPR *e*PKPab **PKPab** **08 12 29.7 +0.5**
MOTC **Monteria, Cord** 159.39 64 *e*P **PKPdf** **08 11 52.3 +0.7**
CELP **Cerrillos** 159.65 27 *e*PKPdf **PKPdf** **08 11 51.6 -0.2**
CELP *e*PKPab **PKPab** **08 12 31.1 +0.2**
CBYP **Canovanas** 159.79 25 *e*PKPdf **PKPdf** **08 11 51.2 -0.9**
CBYP *e*PKPab **PKPab** **08 12 31.6 +0.1**
SJG **San Juan** 159.81 26 PKP **PKPdf** **08 11 51.5 -0.4**
comp=Z,24nm,0.5s,baz=35,slow=3.2,SNR=34
SJG PKPab **PKPab** **08 12 31.7 +0.1**
comp=Z,137nm,1.0s,baz=332,slow=4.9,SNR=16
SJG **San Juan** 159.81 26 *e*PKIKP **PKPdf** **08 11 51.6 -0.4**
SJG *e* 08 12 32.3
SJG **San Juan** 159.81 26 *e*PKPdf **PKPdf** **08 11 51.6 -0.4**
SJG *e*PKPab **PKPab** **08 12 32.3 +0.7**
CRUC **La Cruz** 159.92 85 *e*P **PKPdf** **08 11 54.3 +1.6**
ABVI **Anegada Island** 159.98 21 *e*PKPdf **PKPdf** **08 11 52.9 +0.8**
ABVI *e*PKPab **PKPab** **08 12 33.1 +0.8**
PLMC **San Jos^ del** 160.06 75 *e*P **PKPdf** **08 11 52.0 -0.5**
STVI **Saint Thomas** 160.09 23 *e*PKPdf **PKPdf** **08 11 51.7 -0.5**
STVI *e*PKPab **PKPab** **08 12 33.3 +0.5**
TBVI **Tortola** 160.16 22 *e*PKPab **PKPab** **08 12 33.0 0.0**
HELC **Santa Helena** 160.44 71 *e*P **PKPdf** **08 11 53.2 0.0**
HELC **Santa Helena** 160.44 71 *e*PKPdf **PKPdf** **08 11 52.5 -0.8**
HELC *e*PKPab **pPKPdf** **08 12 37.5 0.0**
LPAZ **La Paz** 160.45 146 PKP **PKPdf** **08 11 54.9 +1.3**
comp=Z,106nm,1.1s,baz=26,slow=1.2,SNR=229
LPAZ PKPab **pPKPdf** **08 12 37.3 -0.5**
comp=Z,85nm,1.0s,baz=208,slow=3.4,SNR=11
CODC **Agust^›n Codaz** 160.81 58 *e*P **PKPdf** **08 11 53.5 +0.3**
GUYC **Guyana, Colomb** 160.84 74 *e*P **PKPdf** **08 11 53.9 +0.1**
SMRT **St. Maarten** 161.03 18 *e*PKPdf **PKPdf** **08 11 53.3 0.0**
SMRT *e*PKPab **PKPab** **08 12 37.2 +0.4**
SMRT **St. Maarten** 161.03 18 *e*P **PKPdf** **08 11 52.8 -0.5**
NORC **Norcasia** 161.25 72 *e*P **PKPdf** **08 11 53.5 -0.2**
BETC **Betania** 161.31 82 *e*P **PKPdf** **08 11 54.5 +0.7**
SABA **Saba** 161.38 19 *e*PKPdf **PKPdf** **08 11 54.1 +0.4**
SABA *e*PKPab **PKPab** **08 12 38.6 +0.2**
SABA **Saba** 161.38 19 *e*P **PKPdf** **08 11 53.5 -0.2**
SEUS **St. Eustatius** 161.58 19 *e*PKPdf **PKPdf** **08 11 54.1 +0.2**
SEUS **St. Eustatius** 161.58 19 *e*P **PKPdf** **08 11 51.5 -2.3**
PRAC **Prado** 161.68 78 *e*PKPdf **PKPdf** **08 11 54.3 +0.1**
PRAC *e*PKPab **PKPab** **08 12 42.8 +2.5**
OCAC **Ocana** 161.72 63 *e*P **PKPdf** **08 11 55.1 +0.7**
BSK **Brimstone Hill** 161.76 18 *e* **PKPab** **08 12 47.0 +6.9**
BRRC **Barranca, Sant** 161.82 67 *e*P **PKPdf** **08 11 54.3 0.0**
ROSC **El Rosal** 161.97 74 PKP **PKPdf** **08 11 55.8 +0.9**
comp=Z,133nm,1.1s,baz=112,slow=1.6,SNR=117
ROSC PKPab **PKPab** **08 12 45.0 +3.1**
comp=Z,220nm,1.0s,baz=146,slow=4.8,SNR=15
NVRH **Round Hill, Ne** 161.99 18 *e*P **PKPdf** **08 11 54.9 +0.5**
CTAB **Cerro Tablazo,** 162.04 74 *e*P **PKPdf** **08 11 55.0 -0.1**
NEV **Hard Times** 162.05 18 *e*P **PKPdf** **08 11 53.5 -0.9**
NEV **Hard Times** 162.05 18 *e* **PKPab** **08 12 40.3 -1.0**
CTAU **Tausa, Cundina** 162.14 73 *e*P **PKPdf** **08 11 55.4 +0.2**
BDFB **Brasilia** 162.18 209 PKP **PKPdf** **08 11 55.3 +0.6**
comp=Z,66nm,1.2s,baz=345,slow=0.4,SNR=40
BDFB PKPab **PKPab** **08 12 43.4 +1.3**
comp=Z,81nm,1.1s,baz=317,slow=3.6,SNR=12
CVER **Cruz Verde, Cu** 162.29 75 *e*P **PKPdf** **08 11 56.2 +0.8**
GIRC **Giron, Santand** 162.31 66 *e*P **PKPdf** **08 11 55.0 +0.1**
BPA **Boggy Peak** 162.34 16 *e*P **PKPdf** **08 11 53.6 -1.1**
BPA **Boggy Peak** 162.34 16 *e* **PKPab** **08 12 41.9 -0.7**
CBRI **Barrientos, No** 162.41 64 *e*P **PKPdf** **08 11 55.5 +0.4**
BARC **Barichara** 162.50 68 *e*P **P

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **RUSC** | **La Rusia** | **162.84** | **70** | *e*PKPdf | **PKPdf** | **08 11 55.6** | **-0.4** |
| RUSC | | | | *e*PKPab | **PKPab** | **08 12 45.0** | **-0.9** |
| **GDHS** | **Morne Mazeau,** | **163.10** | **16** | *e*PKPdf | **PKPdf** | **08 11 55.4** | **-0.1** |
| GDHS | | | | *e*PKPab | **PKPab** | **08 12 46.0** | **+0.1** |
| **H05N1** | **Guadeloupe/Mar** | **163.24** | **14** | PKP | **PKPdf** | **08 11 55.3** | **-0.3** |
| | SNR=42 | | | | | | |
| H05N1 | | | | PKPab | **PKPab** | **08 12 46.7** | **+0.1** |
| | SNR=44 | | | | | | |
| **DEG** | **La Desirade** | **163.24** | **14** | *e*P | **PKPdf** | **08 11 55.3** | **-0.3** |
| **DEG** | **La Desirade** | **163.24** | **14** | *e* | **PKPab** | **08 12 46.7** | **+0.1** |
| **TBG** | **Guadaloupe-3** | **163.53** | **16** | *e*P | **PKPdf** | **08 11 55.8** | **-0.1** |
| **SIV** | **San Ignacio** | **163.64** | **166** | PKP | **PKPdf** | **08 11 56.9** | **+0.9** |
| | comp=Z,104nm,1.1s,baz=209,slow=1.4,SNR=85 | | | | | | |
| SIV | | | | PKPab | **PKPab** | **08 12 49.3** | **+0.9** |
| | comp=Z,66nm,0.9s,baz=217,slow=3.6,SNR=14 | | | | | | |
| **SDV** | **Santo Domingo** | **163.72** | **57** | PKP | **PKPdf** | **08 11 56.2** | **-0.2** |
| | comp=Z,170nm,1.0s,baz=311,slow=0.6,SNR=142 | | | | | | |
| SDV | | | | PKPab | **PKPab** | **08 12 50.1** | **+0.8** |
| | comp=Z,171nm,0.8s,baz=312,slow=1.3,SNR=30 | | | | | | |
| SDV | | | | PP | **PP** | **08 16 32.7** | **-2.2** |
| | comp=Z,17nm,0.9s,baz=288,slow=6.8,SNR=5.0 | | | | | | |
| **SDV** | **Santo Domingo** | **163.72** | **57** | *e*PKPdf | **PKPdf** | **08 11 56.0** | **-0.4** |
| SDV | | | | *e*PKPab | **PKPab** | **08 12 50.8** | **+1.5** |
| SDV | | | | PP | **PP** | **08 16 32.7** | **-2.2** |
| **MDPV** | **Dominica, Penn** | **163.81** | **16** | *e*P | **PKPdf** | **08 11 58.4** | **+2.2** |
| **MDPV** | **Dominica, Penn** | **163.81** | **16** | *e* | **PKPab** | **08 12 50.9** | **+1.9** |
| **MDVC** | **Dominica, Viel** | **163.82** | **16** | *e*P | **PKPdf** | **08 11 56.3** | **+0.2** |
| **MDVC** | **Dominica, Viel** | **163.82** | **16** | *e* | **PKPab** | **08 12 48.5** | **-0.6** |
| **BBL** | **Barber's Block** | **163.89** | **16** | *e*P | **PKPdf** | **08 11 55.7** | **-0.5** |
| **MDN** | **Morne-Daniel** | **164.11** | **16** | *e*P | **PKPdf** | **08 11 57.8** | **+1.4** |
| **MDN** | **Morne-Daniel** | **164.11** | **16** | *e* | **PKPab** | **08 12 50.8** | **+0.4** |
| **DLPL** | **La Plaine** | **164.14** | **15** | *e*P | **PKPdf** | **08 11 53.6** | **-2.8** |
| **DLPL** | **La Plaine** | **164.14** | **15** | *e* | **PKPab** | **08 12 49.2** | **-1.3** |
| **DBCT** | **Belle View Cho** | **164.17** | **16** | *e*P | **PKPdf** | **08 11 58.4** | **+1.8** |
| **DBCT** | **Belle View Cho** | **164.17** | **16** | *e* | **PKPab** | **08 12 51.9** | **+1.2** |
| **DSHT** | **Scott's Head** | **164.22** | **16** | *e*P | **PKPdf** | **08 11 57.6** | **+1.1** |
| **DSHT** | **Scott's Head** | **164.22** | **16** | *e* | **PKPab** | **08 12 52.2** | **+1.3** |
| **CXM** | **Morne La Croix** | **164.66** | **16** | *e*P | **PKPdf** | **08 11 56.5** | **-0.6** |
| **BAMF** | **Morne Balai** | **164.66** | **16** | *e*P | **PKPdf** | **08 11 57.8** | **+0.8** |
| **PML** | **Morne Lenard** | **164.68** | **16** | *e*P | **PKPdf** | **08 11 57.7** | **+0.8** |
| **FDF** | **Fort de France** | **164.73** | **16** | *e*PKIKP | **PKPdf** | **08 11 57.5** | **+0.5** |
| FDF | | | | *e* | | 08 12 53.4 | |
| **FDF** | **Fort de France** | **164.73** | **16** | *e*PKPdf | **PKPdf** | **08 11 57.5** | **+0.5** |
| FDF | | | | *e*PKPab | **PKPab** | **08 12 53.4** | **+0.2** |
| **FDF** | **Fort de France** | **164.73** | **16** | *e*P | **PKPdf** | **08 11 57.0** | **+0.1** |
| **FDF** | **Fort de France** | **164.73** | **16** | *e*P | **PKPdf** | **08 11 57.1** | **+0.1** |
| **ZAM** | **Aeronautique** | **164.92** | **15** | *e*P | **PKPdf** | **08 11 58.0** | **+0.9** |
| **TRMF** | **Trois Ilets** | **164.95** | **16** | *e*P | **PKPdf** | **08 11 57.8** | **+0.7** |
| **BIM** | **Bigot** | **164.96** | **16** | *e*P | **PKPdf** | **08 11 57.2** | **0.0** |
| **MVM** | **Montagne Vaucl** | **164.97** | **15** | *e*P | **PKPdf** | **08 11 57.2** | **0.0** |
| **H05S1** | **Guadeloupe/Mar** | **165.11** | **15** | PKP | **PKPdf** | **08 11 57.0** | **-0.2** |
| H05S1 | | | | PKPab | **PKPab** | **08 12 54.9** | **+0.1** |
| | SNR=9.3 | | | | | | |
| **SLB** | **Belfond** | **165.63** | **16** | *e*P | **PKPdf** | **08 11 57.1** | **-0.6** |
| **SLB** | **Belfond** | **165.63** | **16** | *e* | **PKPab** | **08 12 55.2** | **-1.9** |
| **SLDE** | **Delcer** | **165.65** | **16** | *e* | **PKPab** | **08 12 54.5** | **-2.7** |
| **MCLT** | **Moule a Chique** | **165.77** | **16** | *e*P | **PKPdf** | **08 11 57.1** | **-0.8** |
| **SVV** | **Soufriere Volc** | **166.06** | **18** | *e*P | **PKPdf** | **08 11 59.3** | **+1.3** |
| **SVB** | **Belmont** | **166.09** | **18** | *e*PKPdf | **PKPdf** | **08 11 58.1** | **0.0** |
| SVB | | | | *e*PKPab | **PKPab** | **08 12 58.9** | **-0.3** |
| **SVB** | **Belmont** | **166.09** | **18** | *e*P | **PKPdf** | **08 11 57.1** | **-1.0** |
| **SVB** | **Belmont** | **166.09** | **18** | *e* | **PKPab** | **08 12 58.4** | **-0.8** |
| **SVCV** | **St. Vincent, C** | **166.12** | **17** | *e*P | **PKPdf** | **08 11 57.1** | **-1.0** |
| **FCV** | **Fort Charlotte** | **166.20** | **18** | *e*P | **PKPdf** | **08 11 58.2** | **0.0** |
| **BBGH** | **Gun Hill** | **166.64** | **11** | *e*P | **PKPdf** | **08 12 00.9** | **+2.4** |
| **BBSP** | **Saint Philip** | **166.70** | **11** | *e*P | PKPdf | 08 11 48.0 | -11 |
| **GRGR** | **Grenville** | **167.03** | **21** | *e*P | **PKPdf** | **08 11 56.1** | **-2.7** |
| **PCRV** | **Puerto La Cruz** | **167.28** | **37** | PKP | **PKPdf** | **08 11 57.3** | **-1.8** |
| | comp=Z,91nm,1.2s,baz=324,slow=1.3,SNR=11 | | | | | | |
| PCRV | | | | PKPab | **PKPab** | **08 13 04.4** | **-0.2** |
| | comp=Z,79nm,1.0s,baz=316,slow=3.1,SNR=12 | | | | | | |
| PCRV | | | | PP | **PP** | **08 16 48.9** | **-3.3** |
| | comp=Z,15nm,1.1s,baz=38,slow=11,SNR=2.6 | | | | | | |
| **TOSP** | **Speyside** | **168.18** | **17** | *e*P | **PKPdf** | **08 12 00.9** | **+1.3** |
| **TOSP** | **Speyside** | **168.18** | **17** | *e*P | **PKPab** | **08 13 08.4** | **+0.1** |
| **PTGA** | **Pitinga** | **176.90** | **103** | PKP | **PKPdf** | **08 12 03.0** | **-0.4** |
| | comp=Z,83nm,1.1s,baz=310,slow=1.2,SNR=65 | | | | | | |
| PTGA | | | | PKPab | **PKPab** | **08 13 48.4** | **+0.8** |
| | comp=Z,15nm,0.6s,baz=255,slow=4.1,SNR=4.3 | | | | | | |
| PTGA | | | | PP | **PP** | **08 17 39.0** | **-2.1** |
| | comp=Z,20nm,1.0s,baz=242,slow=6.2,SNR=7.0 | | | | | | |

*ISCJB* ***13*** *08:07:48.2±1.0,46.7N±0.2×152.8E±0.2,h52km,mb3.8/6, Error ellipse: s-maj=28.2km s-min=15.9km az=152.6*
*IDC* ***13*** *08:07:53.1±5.5,46.72N×152.68E,h80km±48km,mb3.5/7, mb1 3.7/9,mb1mx3.4/69,mbtmp3.8/9,ML3.1/2,Error ellipse: s-maj=35.2km s-min=27.8km az=105.0*

**ISC 13 08:07:50.3±1.0,46.8N±0.2×152.8E±0.1,h52km,n16, σ1§02/10,mb4.0/6,Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PETK** | **Petropavlovsk-** | **7.10** | **25** | P | Pn | 08 09 37.6 | +6.2 |
| | 0.4nm,0.3s,baz=192,slow=14,SNR=4.2 | | | | | | |
| **ASAJ** | **Asahikawa** | **7.64** | **253** | P | **Pn** | **08 09 40.1** | **+1.2** |
| | 0.8nm,0.3s,baz=94,slow=15,SNR=4.5 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **14.81** | **268** | P | **Pn** | **08 11 16.5** | **0.0** |
| | 0.1nm,0.3s,baz=72,slow=17,SNR=2.2 | | | | | | |
| **KSRS** | **Korea Array** | **20.59** | **252** | P | **P** | **08 12 25.6** | **+0.8** |
| | 1.3nm,0.8s,baz=55,slow=10,SNR=5.4 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **29.33** | **152** | T | T | 08 45 11.9 | |
| | baz=340,slow=76,SNR=119 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **29.35** | **152** | T | T | 08 45 13.4 | |
| | baz=340,slow=76,SNR=53 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **29.35** | **152** | T | T | 08 45 14.5 | |
| | baz=340,slow=76,SNR=37 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **30.42** | **153** | T | T | 08 46 20.5 | |
| | baz=341,slow=76,SNR=44 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **30.42** | **153** | T | T | 08 46 30.0 | |
| | baz=341,slow=76,SNR=31 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **30.43** | **153** | T | T | 08 46 28.0 | |
| | baz=341,slow=76,SNR=68 | | | | | | |
| **MKAR** | **Makanchi Array** | **46.74** | **297** | P | **P** | **08 16 14.2** | **+0.2** |
| | 0.3nm,0.5s,baz=73,slow=9.4,SNR=4.0 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **52.16** | **256** | P | **P** | **08 16 55.0** | **-0.7** |
| | 1.6nm,0.4s,baz=6.8,slow=9.2,SNR=5.0 | | | | | | |
| **FINES** | **FINESS Array B** | **63.94** | **335** | P | **P** | **08 18 16.4** | **-1.0** |
| | 1.1nm,0.5s,baz=45,slow=8.6,SNR=5.2 | | | | | | |
| **NOA** | **NORSAR Array B** | **68.14** | **341** | P | **P** | **08 18 43.9** | **-0.6** |
| | 1.1nm,0.6s,baz=31,slow=6.4,SNR=4.7 | | | | | | |
| **ASAR** | **Alice Springs** | **72.15** | **198** | P | **P** | **08 19 08.0** | **-1.3** |
| | 0.3nm,0.6s,baz=12,slow=7.0,SNR=5.0 | | | | | | |
| **TXAR** | **Lajitas Array** | **77.68** | **60** | P | **P** | **08 19 42.5** | **+1.0** |
| | 0.4nm,0.7s,baz=296,slow=4.1,SNR=3.8 | | | | | | |
| TXAR | | | | pP | **pP** | **08 19 57.2** | **+0.9** |
| | 0.6nm,0.5s,baz=302,slow=5.7,SNR=3.7 | | | | | | |

*NNC* ***13*** *08:33:29.5±2.5,53.42N×87.72E,h0km,mb3.3,mpv3.0, Error ellipse: s-maj=21.1km s-min=10.6km az=64.0*

**IDC 13 08:33:28.7±3.4,53.55N×87.82E,h0km,mb1 3.2/2, mb1mx3.0/44,mbtmp3.2/2,ML2.9/2,7C-2D,Error ellipse: s-maj=38.9km s-min=17.7km az=85.0,Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **I46RU** | **ZALESOVO INFRA** | **1.83** | **284** | *i* | | 08 46 30.0 | |
| | baz=98,slow=338,SNR=1.1 | | | | | | |
| **ZAA0** | **Zalesovo Array** | **1.83** | **284** | ⇓Pn | Pn | 08 34 00.9 | -0.5 |
| | 1.4nm,0.5s | | | | | | |
| ZAA0 | | | | ⇑Sn | Sb | 08 34 26.8 | +0.4 |
| | 9.7nm,0.8s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **1.83** | **284** | Pn | Pn | 08 34 00.7 | -0.7 |
| | 6.0nm,0.3s,baz=100,slow=15,SNR=45 | | | | | | |
| ZALV | | | | Sn | Sn | 08 34 25.8 | +0.6 |
| | 8.0nm,0.3s,baz=105,slow=23,SNR=14 | | | | | | |
| **KURK** | **Kurchatov** | **6.34** | **247** | ⇑Lg | Lg | 08 36 46.7 | |
| | 14nm,1.0s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **6.43** | **247** | Pn | Pn | 08 35 05.5 | +0.9 |
| | 0.2nm,0.3s,baz=62,slow=14,SNR=4.1 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **6.43** | **247** | ⇑Pn | Pn | 08 35 05.3 | +0.7 |
| | 2.0nm,0.5s | | | | | | |
| KURBB | | | | ⇑Sn | Sn | 08 36 16.3 | -2.4 |
| | 7.9nm,0.7s | | | | | | |
| KURBB | | | | ⇑Lg | Lg | 08 36 49.3 | |
| | 14nm,0.7s | | | | | | |
| **MK31** | **Makanchi Array** | **7.64** | **210** | ⇑Pn | Pn | 08 35 21.8 | +0.6 |
| | 0.9nm,0.7s,baz=27,slow=13,SNR=10 | | | | | | |
| MK31 | | | | ⇑Sn | Sn | 08 36 46.5 | -1.8 |
| | 0.8nm,0.6s,baz=30,slow=28,SNR=4.9 | | | | | | |
| MK31 | | | | ⇓Lg | Lg | 08 37 26.5 | |
| | 2.9nm,0.8s,baz=25,slow=30,SNR=6.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **7.64** | **210** | Pn | | 08 35 22.7 | +1.5 |
| | 0.3nm,0.3s,baz=28,slow=14,SNR=11 | | | | | | |
| MKAR | | | | Sn | Sn | 08 36 47.3 | -1.0 |
| | 0.2nm,0.3s,baz=30,slow=27,SNR=5.6 | | | | | | |
| MKAR | | | | Lg | Lg | 08 37 29.2 | |
| | 0.1nm,0.3s,baz=21,slow=25,SNR=6.4 | | | | | | |

*IDC* ***13*** *08:38:02.2±1.7,36.16S×73.47W,h0km,mb3.3/2, mb1 3.7/3,mb1mx3.5/22,mbtmp3.3/3,ML3.4/1,Error ellipse: s-maj=79.2km s-min=21.1km az=69.0*
*GUC* ***13*** *08:38:03.7±0.5,36.26S×73.64W,h44km±2km,ML3.7*
*ISCJB* ***13*** *08:38:04.0±1.0,36.23S±0.06×73.59W±0.10,h35km, mb3.2/1,Error ellipse: s-maj=11.4km s-min=7.6km az=163.0*

**ISC 13 08:38:06.1±1.3,36.25S±0.06×73.5W±0.1,h35km,n9, σ1§18/12,Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **COCH** | **Cobquecura** | **0.58** | **79** | *e*P | **Pn** | **08 38 17.2** | **-0.7** |
| COCH | | | | *e*S | **Sn** | **08 38 26.9** | **+0.6** |
| COCH | | | | IAML | | 08 38 29.1 | |
| | comp=E,4μm,0.7s | | | | | | |
| **CCSP** | **San Pedro de C** | **0.67** | **152** | *e*P | **Pn** | **08 38 17.0** | **-2.2** |
| CCSP | | | | *e*S | **Sn** | **08 38 27.6** | **-0.8** |
| CCSP | | | | IAML | | 08 38 31.8 | |
| | comp=N,7μm,0.3s | | | | | | |
| **CCHI** | **Chillan** | **1.20** | **108** | *e*P | **Pn** | **08 38 25.6** | **-0.7** |
| CCHI | | | | *e*S | **Sn** | **08 38 42.2** | **+0.8** |
| CCHI | | | | IAML | | 08 38 50.4 | |
| | comp=E,3μm,0.5s | | | | | | |
| **GO05** | **HualaæØ** | **1.78** | **46** | *e*P | **Pn** | **08 38 33.4** | **-0.9** |
| **CLCH** | **Cerro Calan** | **3.75** | **41** | *e*P | **Pn** | **08 39 00.5** | **-1.0** |
| **PEL** | **Peldehue** | **3.87** | **38** | *e*P | **Pn** | **08 39 02.4** | **-0.7** |
| **PLCA** | **Paso Flores** | **5.04** | **154** | Pn | **Pn** | **08 39 20.5** | **+1.3** |
| | comp=E,0.3nm,0.3s,baz=354,slow=13,SNR=16 | | | | | | |
| PLCA | | | | Lg | Lg | 08 40 44.2 | |
| | comp=E,0.8nm,0.3s,baz=293,slow=18,SNR=4.4 | | | | | | |
| **LPAZ** | **La Paz** | **20.45** | **15** | P | **P** | **08 42 40.9** | **-0.4** |
| | comp=E,1.1nm,0.7s,baz=190,slow=12,SNR=2.2 | | | | | | |
| **TXAR** | **Lajitas Array** | **71.14** | **332** | P | **P** | **08 49 22.2** | **+1.0** |
| | comp=E,0.2nm,0.7s,baz=155,slow=6.7,SNR=3.3 | | | | | | |

*CSEM* ***13*** *08:54:41.3±0.7,36.42N×28.41E,h1km,MD2.9,Error ellipse: s-maj=13.4km s-min=8.2km az=31.0,Suspected Mining explosion.*
*DDA* ***13*** *08:54:42.8,36.95N×28.74E,h7km,Md2.9,Suspected Mining explosion.*

**ISK 13 08:54:41.4,36.44N×28.46E,h17km,MD2.4, Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MRSB** | **Marmaris-Mugla** | **0.35** | **323** | *e*PG | Pb | 08 54 49.1 | -0.1 |
| **MRSB** | **Marmaris-Mugla** | **0.35** | **323** | *e*Pg | Pb | 08 54 49.1 | -0.1 |
| **DALY** | **Dalyan (Mu¨la** | **0.41** | **22** | *e*PG | Pb | 08 54 50.2 | 0.0 |
| DALY | | | | *e*SG | Sb | 08 54 56.5 | +0.3 |
| **DALY** | **Dalyan (Mu¨la** | **0.41** | **22** | *e*Pg | Pb | 08 54 50.3 | +0.1 |
| DALY | | | | *e*Sg | Sb | 08 54 56.6 | +0.4 |
| **TURN** | **Turunc** | **0.45** | **15** | *e*PG | Pg | 08 54 49.5 | -1.0 |
| TURN | | | | *e*SG | Sg | 08 54 55.6 | -1.1 |
| **TURN** | **Turunc** | **0.45** | **15** | *i* P | Pb | 08 54 51.5 | +0.6 |
| **TURN** | **Turunc** | **0.45** | **15** | *e*Pg | Pg | 08 54 49.5 | -1.0 |
| **TURN** | **Turunc** | **0.45** | **15** | P | Pb | 08 54 51.5 | +0.6 |
| TURN | | | | *e*Sg | Sg | 08 54 55.7 | -1.0 |
| **FETY** | **Fethiye** | **0.54** | **68** | *e*PG | Pg | 08 54 52.2 | 0.0 |
| **FETY** | **Fethiye** | **0.54** | **68** | P | Pg | 08 54 51.3 | -0.9 |
| **FETY** | **Fethiye** | **0.54** | **68** | *e*Pg | Pg | 08 54 52.2 | 0.0 |
| FETY | | | | S | Sb | 08 55 00.9 | +0.9 |
| **AKAS** | **Kas** | **0.95** | **102** | *e*PG | Pn | 08 55 00.2 | +0.2 |
| **AKAS** | **Kas** | **0.95** | **102** | *i* P | Pn | 08 55 01.8 | +1.7 |
| AKAS | | | | *i* S | Sn | 08 55 19.1 | +5.8 |
| **AKAS** | **Kas** | **0.95** | **102** | *e*Pg | Pn | 08 55 00.2 | +0.1 |
| **AKAS** | **Kas** | **0.95** | **102** | P | Pn | 08 55 01.8 | +1.7 |
| **TAVA** | **DENIZLI_Tavas** | **1.09** | **19** | *i* P | Pb | 08 54 59.2 | -2.7 |
| TAVA | | | | *i* S | Sb | 08 55 06.6 | -9.2 |
| **TAVA** | **DENIZLI_Tavas** | **1.09** | **19** | P | Pb | 08 54 59.2 | -2.7 |
| **BODT** | **Bodrum** | **1.11** | **304** | *e*PN | Pg | 08 55 02.7 | -0.3 |
| **BODT** | **Bodrum** | **1.11** | **304** | *e*Pn | Pg | 08 55 02.7 | -0.3 |

**GUC 13 09:21:04.0±0.5,36.25S×73.68W,h41km±2km,ML4.1, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **COCH** | **Cobquecura** | **0.73** | **82** | *e*P | Pn | 09 21 17.6 | -0.3 |
| COCH | | | | *e*S | Sn | 09 21 27.7 | -0.2 |
| COCH | | | | IAML | | 09 21 28.6 | |
| | comp=N,12μm,0.5s | | | | | | |
| **CCSP** | **San Pedro de C** | **0.76** | **143** | *e*P | Pn | 09 21 17.9 | -0.5 |
| CCSP | | | | *e*S | Sn | 09 21 28.2 | -0.4 |
| CCSP | | | | IAML | | 09 21 33.2 | |
| | comp=N,15μm,0.4s | | | | | | |
| **CCHI** | **Chillan** | **1.35** | **106** | *e*P | Pn | 09 21 26.9 | +0.6 |
| CCHI | | | | *e*S | Sn | 09 21 43.8 | +0.8 |
| CCHI | | | | IAML | | 09 21 51.8 | |
| | comp=E,6μm,0.6s | | | | | | |
| **GO05** | **HualaæØ** | **1.88** | **50** | *e*P | Pn | 09 21 33.9 | +0.2 |
| GO05 | | | | *e*S | Sn | 09 21 56.7 | +0.5 |
| **NICH** | **Los Niches** | **2.35** | **59** | *e*P | Pn | 09 21 40.7 | +0.6 |
| **ROCH** | **El Roble** | **3.93** | **35** | *e*P | Pn | 09 22 02.7 | +0.6 |
| **PEL** | **Peldehue** | **3.95** | **40** | *e*P | Pn | 09 22 03.0 | +0.8 |

*ISCJB* ***13*** *09:24:26.0±0.7,34.64S±0.09×16.0W±0.1,h10km, mb4.6/11,MS4.3/4,Error ellipse: s-maj=17.9km s-min=8.5km az=140.7*
*NEIC* ***13*** *09:24:27.9±0.7,34.69S×15.94W,h10km,mb4.5/3,Error ellipse: s-maj=17.8km s-min=12.8km az=222.0*
*IDC* ***13*** *09:24:30.7±2.4,34.30S×15.28W,h0km,mb4.3/5, mb1 4.3/5,mb1mx3.9/39,mbtmp4.3/5,MS4.2/4,Ms1 4.2/4, ms1mx3.7/23,Error ellipse: s-maj=72.8km s-min=28.5km az=75.0*

**ISC 13 09:24:28.5±0.8,34.6S±0.1×15.9W±0.1,h10km,n27, σ1§60/14,mb4.5/11,MS4.2/4,Tristan da Cunha region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **H09N1** | **TRISTAN DA CUN** | **3.83** | **132** | T | T | 09 29 20.7 | |
| | SNR=83 | | | | | | |
| **TRIS** | **Tristan da Cun** | **3.83** | **132** | *e*Pn | **Pn** | **09 25 25.6** | **-1.8** |
| TRIS | | | | *e*Sn | **Sn** | **09 26 11.9** | **-0.5** |
| **H09W1** | **TRISTAN DA CUN** | **3.83** | **132** | T | T | 09 29 22.8 | |
| | SNR=1388 | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **25.52** | **3** | T | T | 09 56 32.9 | |
| | baz=182,slow=74,SNR=441 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **25.53** | **3** | T | T | 09 56 33.3 | |
| | baz=182,slow=74,SNR=356 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **25.54** | **3** | T | T | 09 56 34.2 | |
| | baz=182,slow=74,SNR=310 | | | | | | |
| **H10N1** | **ASCENSION HYDR** | **26.64** | **3** | T | T | 09 57 54.8 | |
| | baz=180,slow=72,SNR=50 | | | | | | |
| **H10N3** | **ASCENSION HYDR** | **26.64** | **3** | T | T | 09 58 00.2 | |
| | baz=180,slow=72,SNR=149 | | | | | | |
| **H10N2** | **ASCENSION HYDR** | **26.65** | **3** | T | T | 09 57 54.9 | |
| | baz=180,slow=72,SNR=61 | | | | | | |
| **TSUM** | **Tsumeb** | **33.37** | **71** | *e*P | **P** | **09 31 07.1** | **-0.1** |
| | 8.0nm,1.3s | | | | | | |
| **BOSA** | **Boshof** | **35.37** | **92** | P | **P** | **09 31 23.9** | **-0.6** |
| | 4.7nm,1.1s,baz=247,slow=6.8,SNR=5.0 | | | | | | |
| **LIC** | **Lamto** | **41.86** | **16** | *e*P | **P** | **09 32 19.2** | **+0.3** |
| | 74nm,1.5s | | | | | | |
| **KIC** | **Kosan Boka** | **42.06** | **17** | *e*P | **P** | **09 32 20.8** | **+0.3** |
| | 33nm,1.2s | | | | | | |
| **TIC** | **Toumodi** | **42.27** | **16** | *e*P | **P** | **09 32 20.2** | **-2.0** |
| **DBIC** | **Dimbokro** | **42.33** | **16** | P | **P** | **09 32 23.0** | **+0.3** |
| | 6.3nm,1.0s,baz=177,slow=7.8,SNR=5.2 | | | | | | |
| DBIC | | | | LR | LR | 09 45 23.0 | |
| | comp=Z,288nm,21.0s,baz=236,slow=30 | | | | | | |
| **SAML** | **Samuel** | **50.19** | **289** | *e*P | **P** | **09 33 24.0** | **-0.7** |
| | 14nm,1.6s | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **50.32** | **22** | P | **P** | **09 33 25.9** | **+0.4** |
| | 6.7nm,0.9s,baz=199,slow=8.0,SNR=37 | | | | | | |
| **MAW** | **Mawson** | **54.31** | **152** | P | **P** | **09 33 58.3** | **+3.8** |
| | 2.6nm,0.8s,baz=288,slow=5.4,SNR=3.7 | | | | | | |
| **QSPA** | **South Pole Qui** | **55.67** | **180** | *e*P | **P** | **09 34 04.4** | **-0.3** |
| | 54nm,1.1s | | | | | | |
| **SDV** | **Santo Domingo** | **67.42** | **299** | *e*P | **P** | **09 35 23.0** | **-1.7** |
| | 1.1nm,0.5s | | | | | | |
| **MDT** | **Midelt** | **67.87** | **10** | P | **P** | **09 35 28.6** | **+1.5** |
| | 2.9nm,0.9s,baz=190,slow=4.0,SNR=4.1 | | | | | | |
| **KEST** | **Kesra** | **73.81** | **21** | LR | LR | 10 07 22.6 | |
| | comp=Z,180nm,18.1s,baz=223,slow=35 | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **96.57** | **141** | T | T | 11 26 15.0 | |
| | baz=224 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **96.58** | **141** | T | T | 11 26 15.9 | |
| | baz=224 | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **96.59** | **141** | T | T | 11 26 16.3 | |
| | baz=224 | | | | | | |
| **NOA** | **NORSAR Array B** | **97.82** | **13** | LR | LR | 10 19 42.8 | |
| | comp=Z,67nm,19.5s,baz=245,slow=34 | | | | | | |
| **GEYT** | **Alibeck** | **99.56** | **50** | LR | LR | 10 23 14.3 | |
| | comp=Z,102nm,18.4s,baz=290,slow=36 | | | | | | |

*ISCJB* ***13*** *09:27:00.4±1.6,33.30N±0.03×141.66E±0.07, h18km±11km,mb4.0/17,MS3.8/2,Error ellipse: s-maj=9.8km s-min=5.1km az=160.5*
*IDC* ***13*** *09:27:00.1±0.7,33.30N×141.54E,h0km,mb3.9/14, mb1 4.1/16,mb1mx3.9/59,mbtmp3.9/16,ML3.2/3,MS3.8/2, Ms1 3.8/2,ms1mx2.8/42,Error ellipse: s-maj=19.3km s-min=15.3km az=66.0*
*NIED* ***13*** *09:27:00,33.30N×141.70E,h8km,Mw4.0 Best double couple: M₀1.24000×10¹⁵ NP1:φ=162.00000°,δ52.00000°, λ35.00000°. NP2:φ=49.00000°,δ64.00000°,λ136.00000°.*
*NEIC* ***13*** *09:27:01.4±0.4,33.30N×141.54E,h10km,mb4.5/2,Error ellipse: s-maj=10.2km s-min=6.0km az=67.0*
*JMA* ***13*** *09:27:02.1±0.3,33.34N×141.72E,h78km,M3.6*

**ISC 13 09:27:02.4±2.0,33.25N±0.06×141.46E±0.08,h17km±11km, n46,σ1§11/60,mb4.0/17,Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JHJ2** | **Mitsune** | **1.39** | **265** | P | **Pg** | **09 27 29.2** | **+0.1** |
| **JHJ2** | **Mitsune** | **1.39** | **265** | *e*Pn | **Pg** | **09 27 29.5** | **+0.4** |
| JHJ2 | | | | *e*Sn | **Sn** | **09 27 42.0** | **-3.0** |
| **JHCJ** | **Hachijojimakas** | **1.41** | **263** | P | **Pg** | **09 27 29.1** | **-0.4** |
| **JHJ** | **Hachijo jima 2** | **1.41** | **265** | Pn | **Pg** | **09 27 29.2** | **-0.4** |
| | 65nm,0.3s,baz=42,slow=22,SNR=12 | | | | | | |
| JHJ | | | | Sn | **Sg** | **09 27 48.8** | **+0.7** |
| | 128nm,0.3s,baz=73,slow=19,SNR=6.8 | | | | | | |
| **BSO1** | **Boso 1** | **1.46** | **344** | P | **Pn** | **09 27 26.9** | **-0.6** |
| **BSO3** | **Boso 3** | **1.74** | **333** | P | **Pn** | **09 27 31.4** | **-0.2** |
| **BSO4** | **Boso 4** | **1.97** | **332** | P | **Pn** | **09 27 35.3** | **+0.3** |
| **JIM2** | **Oshima 3** | **2.23** | **312** | P | **Pn** | **09 27 38.8** | **+0.1** |
| **JHO** | **Hitachi** | **3.43** | **348** | P | **Pn** | **09 27 54.0** | **-1.2** |
| **JAG** | **Ashikaga** | **3.57** | **333** | P | **Pn** | **09 27 57.4** | **+0.3** |
| **INU** | **Inuyama** | **4.23** | **301** | *e*Pn | **Pn** | **09 28 05.3** | **-0.9** |
| **MJAR** | **Matsushiro Arr** | **4.24** | **322** | Pn | **Pn** | **09 28 07.5** | **+1.2** |
| | 1.3nm,0.3s,baz=158,slow=12,SNR=11 | | | | | | |
| MJAR | | | | Sn | **Sn** | **09 28 56.2** | **+0.9** |
| | 2.1nm,0.3s,baz=92,slow=14,SNR=5.6 | | | | | | |
| **MAJO** | **Matsushiro** | **4.24** | **322** | *e*Pn | **Pn** | **09 28 05.2** | **-1.0** |
| MAJO | | | | *e*Sn | **Sn** | **09 28 57.3** | **+2.0** |
| **MJB9** | **Matsu-Tunnel** | **4.24** | **322** | *e*Pn | **Pn** | **09 28 05.1** | **-1.2** |
| MJB9 | | | | *e*Sn | **Sn** | **09 28 57.4** | **+1.9** |
| **JFT** | **Otama** | **4.36** | **348** | P | **Pn** | **09 28 06.7** | **-1.2** |
| **CBIJ** | **Chichi jima** | **6.16** | **174** | *e*Pn | **Pn** | **09 28 33.3** | **+0.6** |
| CBIJ | | | | *e*Sn | **Sn** | **09 29 45.4** | **+2.6** |
| **JCJ** | **Chichijima** | **6.16** | **174** | Pn | **Pn** | **09 28 33.2** | **+0.4** |
| | 5.4nm,0.3s,baz=320,slow=16,SNR=6.6 | | | | | | |
| JCJ | | | | Sn | **Sn** | **09 29 41.2** | **-1.7** |
| | 5.4nm,0.3s,baz=279,slow=22,SNR=3.5 | | | | | | |
| **KLR** | **Kul'dur** | **17.53** | **338** | P | **Pn** | **09 31 05.5** | **-0.5** |
| | 0.0nm,0.3s,baz=150,slow=16,SNR=2.8 | | | | | | |
| **SONA0** | **Songino Array** | **30.08** | **309** | *e*P | **P** | **09 33 10.2** | **-0.7** |
| **SONM** | **Songino Array** | **30.08** | **309** | P | **P** | **09 33 10.2** | **-0.7** |
| | 1.2nm,0.8s,baz=92,slow=9.5,SNR=4.5 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **40.71** | **260** | P | **P** | **09 34 41.9** | **-0.5** |
| | 1.5nm,0.4s,baz=47,slow=6.7,SNR=4.6 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **44.56** | **315** | *e*P | **P** | **

| | | | | | | |
|---|---|---|---|---|---|---|
| **GDZ** | **Gediz** | **0.25 233** | *i* P | **Pg** | **09 41 05.2 +0.3** |
| GDZ | | | *i* S | **Sg** | **09 41 09.3 +1.2** |
| **GDZ** | **Gediz** | **0.25 233** | P | **Pg** | **09 41 05.2 +0.3** |
| GDZ | | | S | **Sg** | **09 41 09.3 +1.2** |
| **TVSB** | **Tavsanli** | **0.30 314** | *e*PG | **Pg** | **09 41 05.9 +0.1** |
| TVSB | | | *e*SG | **Sg** | **09 41 10.6 +0.9** |
| **TVSB** | **Tavsanli** | **0.30 314** | *e*Pg | **Pg** | **09 41 05.9 +0.1** |
| TVSB | | | *e*Sg | **Sg** | **09 41 10.6 +0.9** |
| **KHAL** | **Karahalli** | **0.89 193** | *i* P | **Pg** | **09 41 17.5 +0.4** |
| KHAL | | | *i* S | **Sg** | **09 41 28.8 +0.2** |
| **KHAL** | **Karahalli** | **0.89 193** | P | **Pg** | **09 41 17.5 +0.4** |
| KHAL | | | S | **Sg** | **09 41 28.8 +0.2** |
| **SHUT** | **Suhut-Afyon** | **0.93 137** | *e*PG | **Pg** | **09 41 18.2 +0.3** |
| SHUT | | | *e*SG | **Sb** | **09 41 31.8 -0.3** |
| **SHUT** | **Suhut-Afyon** | **0.93 137** | *e*Pg | **Pg** | **09 41 18.2 +0.3** |
| **CAVI** | **Cavuskoy** | **0.96 5** | *e*PG | **Pb** | **09 41 19.5 -0.1** |
| **CAVI** | **Cavuskoy** | **0.96 5** | *e*Pg | **Pb** | **09 41 19.5 -0.1** |
| **IGD** | **Bursa** | **1.10 338** | *i* P | **Pb** | **09 41 21.7 -0.2** |
| IGD | | | *i* S | **Sn** | **09 41 39.1 +0.4** |
| **MANT** | **Manisa** | **1.19 231** | *i* P | **Pb** | **09 41 23.8 +0.2** |
| MANT | | | *i* S | **Sg** | **09 41 36.4 -1.8** |
| **MANT** | **Manisa** | **1.19 231** | P | **Pb** | **09 41 23.8 +0.2** |
| MANT | | | S | **Sg** | **09 41 36.4 -1.8** |
| **GULT** | **Gulveren** | **1.33 26** | *e*PN | **Pn** | **09 41 26.1 +0.1** |
| **GULT** | **Gulveren** | **1.33 26** | *e*Pn | **Pn** | **09 41 26.1 +0.1** |
| **SVRH** | **Sivrihisar-ESK** | **1.40 81** | *e*PN | **Pg** | **09 41 26.7 -0.1** |
| **SVRH** | **Sivrihisar-ESK** | **1.40 81** | *e*Pn | **Pg** | **09 41 26.7 -0.1** |
| **KCTX** | **Karacabey (Bur** | **1.48 314** | *e*PN | **Pn** | **09 41 27.2 -0.7** |
| **KCTX** | **Karacabey (Bur** | **1.48 314** | *e*Pn | **Pn** | **09 41 27.2 -0.7** |
| **ARMT** | **Armutlu** | **1.49 333** | *e*PN | **Pn** | **09 41 27.6 -0.4** |
| **ARMT** | **Armutlu** | **1.49 333** | *e*Pn | **Pn** | **09 41 27.6 -0.4** |

*ATA* ***13*** *09:42:56.5±1.5, 39°.39N×43°.89E, h2*$^{km}$*±22*$^{km}$*, ML2.8, MW3.2*
*CSEM* ***13*** *09:43:12.6, 38°.78N×43°.24E, h7*$^{km}$*, MD2.5*
*DDA* ***13*** *09:43:12.6, 38°.78N×43°.24E, h7*$^{km}$*, Md2.5*

**ISC 13 09:43:12.3±1.1, 38°.71N±0°.04×43°.21E±0°.06, h24**$^{km}$**±9**$^{km}$**, n12, σ0°.57/22, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TVAN** | **Van** | **0.23 140** | | *i* P | **Pb** | **09 43 18.2** | **-0.4** |
| TVAN | | | | *i* S | **Sb** | **09 43 23.3** | **+0.5** |
| **TVAN** | **Van** | **0.23 140** | | P | **Pb** | **09 43 18.2** | **-0.4** |
| TVAN | | | | S | **Sb** | **09 43 23.3** | **+0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.40 285** | | *i* P | **Pb** | **09 43 20.3** | **-0.6** |
| ADCV | | | | *i* S | **Sb** | **09 43 27.5** | **+0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.40 285** | | P | **Pb** | **09 43 20.3** | **-0.6** |
| ADCV | | | | S | **Sb** | **09 43 27.5** | **+0.7** |
| **GEVA** | **Gevas** | **0.41 197** | | *e*P | **Pb** | **09 43 21.3** | **+0.1** |
| GEVA | | | | *i* Pg | **Pn** | **09 43 22.9** | **0.0** |
| GEVA | comp=Z,31nm,0.6s | | | IAML | | 09 43 32.7 | |
| **GEVA** | **Gevas** | **0.41 197** | | *i* P | **Pb** | **09 43 21.3** | **+0.1** |
| GEVA | | | | *i* S | **Sn** | **09 43 29.5** | **-0.5** |
| **GEVA** | **Gevas** | **0.41 197** | | P | **Pb** | **09 43 21.3** | **+0.1** |
| GEVA | | | | S | **Sn** | **09 43 29.5** | **-0.5** |
| **TUTA** | **Tutak** | **0.76 336** | | *i* P | **Pb** | **09 43 26.5** | **-0.6** |
| TUTA | | | | *i* S | **Sb** | **09 43 36.8** | **-0.3** |
| **TUTA** | **Tutak** | **0.76 336** | | P | **Pb** | **09 43 26.5** | **-0.6** |
| TUTA | | | | S | **Sb** | **09 43 36.8** | **-0.3** |
| **EKAR** | **Karacoban** | **1.05 302** | | *e*P | Pn | 09 43 25.1 | -6.7 |
| **EATA** | **Eleskirt** | **1.28 334** | | *i* P | **Pb** | **09 43 52.8** | **+0.7** |
| EATA | | | | *i* S | **Sb** | **09 43 52.8** | **+0.7** |
| **EATA** | **Eleskirt** | **1.28 334** | | P | **Pb** | **09 43 36.7** | **+0.7** |
| EATA | | | | S | **Sb** | **09 43 52.8** | **+0.7** |

*IDC* ***13*** *09:44:42.7±0.9, 10°.30S×123°.92E, h0*$^{km}$*, mb4.2/9, mb1 4.3/11, mb1mx4.1/41, mbtmp4.2/11, ML4.1/2, MS3.3/1, Ms1 3.3/1, ms1mx2.8/28, Error ellipse: s-maj=44.7km s-min=18.8km az=69.0*
*ISCJB* ***13*** *09:44:44.4±0.5, 10°.49S±0°.03×124°.06E±0°.03, h37*$^{km}$*±6*$^{km}$*, mb4.3/13, Error ellipse: s-maj=6.1km s-min=3.2km az=138.5*
*NEIC* ***13*** *09:44:46.8±0.4, 10°.47S×124°.04E, h35*$^{km}$*, mb4.7/5, Error ellipse: s-maj=13.8km s-min=5.8km az=56.0*
*NEIC Felt [III] at Kupang.*
*DJA* ***13*** *09:44:47.4±0.5, 10°.3S±3°×12°.4E±°, h10*$^{km}$*, M4.6/13, mb4.7/7, mB5.1/4, MLv4.5/13, Mw(mB)4.5/4*

**ISC 13 09:44:45.6±1.5, 10°.47S±0°.04×124°.02E±0°.05, h25**$^{km}$**±11**$^{km}$**, n47, σ1s78/72, mb4.2/13, Timor region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SOEI** | **Soe** | **0.74** | **19** | P | **Pb** | **09 45 00.2** | **+0.2** |
| SOEI | | | | S | **Sb** | **09 45 09.5** | **-0.3** |
| **SOEI** | **Soe** | **0.74** | **19** | *e*Pn | **Pn** | **09 45 01.0** | **+0.4** |
| SOEI | | | | *e*Sn | **Sb** | **09 45 10.0** | **+0.2** |
| **MMRI** | **Maumere** | **2.53 316** | | P | **Pn** | **09 45 25.3** | **+0.2** |
| MMRI | | | | S | **Sn** | **09 45 54.5** | **-0.6** |
| **MMRI** | **Maumere** | **2.53 316** | | *e*Pn | **Pn** | **09 45 26.2** | **+1.1** |
| MMRI | | | | *e*Sn | **Sn** | **09 45 49.5** | **-5.4** |
| **EDFI** | **Ende, Flores** | **2.86 306** | | P | **Pn** | **09 46 30.0** | **+0.3** |
| EDFI | | | | S | **Sn** | **09 46 02.5** | **-1.0** |
| **BASI** | **Baing, Sumba** | **3.40 274** | | P | **Pn** | **09 45 38.2** | **+1.2** |
| BASI | | | | S | **Sn** | **09 46 17.8** | **+1.2** |
| **WSI** | **Waingapu** | **3.75 282** | | P | **Pn** | **09 45 43.7** | **+1.8** |
| WSI | | | | S | **Sn** | **09 46 26.0** | **+0.7** |
| **WBSI** | **Waikabubak, Su** | **4.63 280** | | P | **Pn** | **09 45 54.7** | **+0.6** |
| WBSI | | | | S | **Sn** | **09 46 47.5** | **+0.4** |
| **BBSI** | **Bau Bau** | **5.15 344** | | P | **Pn** | **09 46 01.8** | **+0.7** |
| BBSI | | | | S | **Sn** | **09 46 59.7** | **-0.1** |
| **BSSI** | **Bau Bau, Buton** | **5.54 321** | | P | **Pn** | **09 46 07.2** | **+0.8** |
| **PLAI** | **Plampang** | **6.37 284** | | P | **Pn** | **09 46 18.8** | **+0.9** |
| PLAI | | | | S | **Sn** | **09 47 29.6** | **-0.3** |
| **KDI** | **Kendari** | **6.61 348** | | P | **Pn** | **09 46 22.6** | **+1.4** |
| KDI | | | | S | **Sn** | **09 47 35.6** | **-0.3** |
| **KAPI** | **Kappang** | **6.87 322** | | *e*Pn | **Pn** | **09 46 25.6** | **+0.8** |
| KAPI | | | | *e*Sn | **Sn** | **09 47 34.3** | **-8.0** |
| **BNSI** | **Bone** | **7.17 327** | | P | **Pn** | **09 46 29.4** | **+0.6** |
| BNSI | | | | S | **Sn** | **09 47 49.7** | **+0.2** |
| **MTN** | **Manton Dam** | **7.35 109** | | *e*Pn | **Pn** | **09 46 33.5** | **+2.1** |
| MTN | | | | *e*Sn | **Sn** | **09 47 54.4** | **+0.3** |
| **SPSI** | **Sidrap Palu** | **7.71 327** | | P | **Pn** | **09 46 35.5** | **-0.8** |
| SPSI | | | | S | **Sn** | **09 48 03.1** | **+0.1** |
| **FITZ** | **Fitzroy Crossi** | **7.75 169** | | Pn | **Pn** | **09 46 38.7** | **+1.8** |
| FITZ | 1.8nm,0.3s,baz=348,slow=11,SNR=36 | | | Sn | **Sn** | **09 48 01.6** | **-2.3** |
| FITZ | 2.9nm,0.3s,baz=345,slow=19,SNR=4.8 | | | LR | LR | 09 50 35.5 | |
| **LUWI** | **Luwuk** | **9.44 352** | | *e*Pn | **Pn** | **09 46 59.7** | **-0.4** |
| **JAGI** | **Jajag, Banyuwa** | **9.94 281** | | *e*Pn | **Pn** | **09 47 05.0** | **-1.8** |
| JAGI | | | | *e*Sn | **Sn** | **09 48 54.4** | **-3.3** |
| **WR1** | **Warramunga Arr** | **13.70 135** | | *e*Pn | **Pn** | **09 47 56.2** | **-2.1** |
| WR1 | | | | *e*Sn | **Sn** | **09 50 27.3** | **-2.5** |
| **WRA** | **Warramunga Arr** | **13.70 135** | | Pn | **Pn** | **09 47 56.2** | **-2.1** |
| WRA | 0.9nm,0.3s,baz=308,slow=15,SNR=20 | | | Sn | **Sn** | **09 50 27.3** | **-2.5** |
| **WRAB** | 1.0nm,0.3s,baz=313,slow=26,SNR=7.0 **Tennant Creek** | **13.70 135** | | *e*Pn | **Pn** | **09 47 57.4** | **-0.9** |
| WRAB | | | | *e*Sn | **Sn** | **09 50 27.6** | **-2.3** |
| **AS31** | **Alice Springs** | **16.16 146** | | *e*Pn | **Pn** | **09 48 31.5** | **+0.3** |
| AS31 | 4.0nm,0.4s | | | *e*Sn | **Sn** | **09 51 26.9** | **-2.9** |
| **ASAR** | **Alice Springs** | **16.16 146** | | Pn | **Pn** | **09 48 31.7** | **+0.6** |
| ASAR | 1.1nm,0.3s,baz=322,slow=13,SNR=46 | | | Sn | **Sn** | **09 51 27.9** | **-1.9** |
| **AS01** | 0.5nm,0.3s,baz=320,slow=24,SNR=5.1 **Alice Springs** | **16.18 145** | | *e*Pn | **Pn** | **09 48 32.2** | **+0.7** |
| AS01 | | | | *e*Sn | **Sn** | **09 51 27.2** | **-3.2** |
| **STKA** | **Stephens Creek** | **26.80 145** | | P | **P** | **09 50 27.1** | **+3.3** |
| **STKA** | 1.8nm,0.8s,baz=306,slow=9.9,SNR=4.2 **Stephens Creek** | **26.80 145** | | *e*P | **P** | **09 50 23.6** | **-0.2** |
| **CMAR** | 1.6nm,1.0s **Chiang Mai Arr** | **37.93 319** | | P | **P** | **09 52 00.5** | **-0.7** |
| **KS15** | 0.9nm,0.3s,baz=147,slow=6.9,SNR=5.4 **Wonju Array Si** | **47.79** | **4** | *e*P | **P** | **09 53 21.3** | **+0.4** |
| **KSAR** | **Wonju Array Be** | **47.79** | **4** | P | **P** | **09 53 21.3** | **+0.5** |
| **KSRS** | **Korea Array** | **47.80** | **4** | P | **P** | **09 53 21.3** | **+0.4** |
| **MJAR** | 0.8nm,0.8s,baz=153,slow=31,SNR=4.4 **Matsushiro Arr** | **48.63** | **15** | P | **P** | **09 53 26.1** | **-1.2** |
| **USRK** | 1.9nm,0.7s,baz=192,slow=7.7,SNR=5.4 **Ussuriysk Ar.** | **54.88** | **7** | P | **P** | **09 54 14.4** | **+0.5** |
| **MDJ** | 2.3nm,0.8s,baz=183,slow=8.1,SNR=3.7 **Mudanjiang** | **55.05** | **5** | *e*P | **P** | **09 54 15.8** | **+0.7** |
| **SONA0** | 13nm,1.0s **Songino Array** | **60.12 346** | | *e*P | **P** | **09 54 51.4** | **+0.4** |
| SONA0 | | | | *e*PcP | **PcP** | **09 55 37.3** | **+0.8** |
| **SONM** | **Songino Array** | **60.12 346** | | P | **P** | **09 54 51.4** | **+0.4** |
| SONM | 0.8nm,0.5s,baz=165,slow=8.3,SNR=5.1 | | | PcP | **PcP** | **09 55 37.3** | **+0.8** |
| **MK32** | 0.2nm,0.4s,baz=155,slow=4.8,SNR=3.0 **Makanchi Array** | **68.09 330** | | *e*P | **P** | **09 55 43.1** | **-0.1** |
| **MKAR** | **Makanchi Array** | **68.09 330** | | P | **P** | **09 55 43.1** | **-0.1** |
| **ZAA0** | 8.5nm,0.7s,baz=136,slow=8.0,SNR=60 **Zalesovo Array** | **72.24 337** | | *e*P | **P** | **09 56 07.2** | **-1.2** |
| **ZALV** | 12nm,1.1s **Zalesovo Beam** | **72.24 337** | | P | **P** | **09 56 07.5** | **-1.0** |
| **ZALV** | 12nm,0.9s,baz=132,slow=4.4,SNR=26 **Zalesovo Beam** | **72.24 337** | | *e*P | **P** | **09 56 07.0** | **-1.4** |
| **ZAA1** | **Zalesovo Array** | **72.25 337** | | *e*P | **P** | **09 56 07.5** | **-1.0** |
| **KURK** | **Kurchatov** | **72.56 332** | | *e*P | **P** | **09 56 10.2** | **-0.2** |
| **BVAR** | 10nm,1.0s **Borovoye Array** | **77.97 330** | | P | **P** | **09 56 41.8** | **+0.3** |
| **RAYN** | 1.8nm,0.9s,baz=119,slow=5.2,SNR=6.4 **Ar Rayn** | **83.80 295** | | *e*P | **P** | **09 57 15.0** | **+1.7** |
| **TORD** | 6.3nm,1.0s **Torodi Ar. Bea** | **123.58 279** | | PKP | **PKPdf** | **10 03 43.5** | **+1.6** |
| **TOA1** | 0.3nm,0.7s,baz=125,slow=2.5,SNR=2.7 **Torodi Ar. Sit** | **123.59 279** | | *e*PKPdf | **PKPdf** | **10 03 43.5** | **+1.6** |

*SOME* ***13*** *09:50:20.4, 40°.63N×70°.62E, h0*$^{km}$

**NNC 13 09:50:21.2±1.6, 43°.76N×69°.94E, h0**$^{km}$**, mpv1.5, 3C-1D, Error ellipse: s-maj=15.5km s-min=8.5km az=62.0, Suspected Mining explosion., Central Kazakhstan**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KK31** | **Karatay Array** | **0.78 148** | | ⇑P | Pg | 09 50 36.4 | +0.3 |
| KK31 | 0.2nm,0.2s,baz=327,slow=17,SNR=27 | | | S | Sg | 09 50 47.2 | +1.1 |
| **IUG** | 3.0nm,0.3s,baz=330,slow=19,SNR=29 **Iuzhnay** | **1.62 178** | | *e*P | Pn | 09 50 50.0 | -1.0 |
| IUG | 7.2nm,0.2s | | | *e*S | Sn | 09 51 11.7 | -1.0 |
| **MNAS** | 17nm,0.4s **Manas** | **2.27 123** | | ⇓Sn | Sn | 09 51 28.8 | 0.0 |
| **MRKS** | 2.2nm,0.3s **Merke** | **2.60 112** | | *e*P | Pg | 09 51 13.2 | +2.1 |
| MRKS | 1.0nm,0.2s | | | *e*S | Sg | 09 51 50.8 | +5.9 |
| **AAK** | 3.6nm,0.5s **Ala-Archa** | **3.51 107** | | ⇑Lg | Lg | 09 52 14.9 | |
| **TKM2** | 3.8nm,1.0s **Tokmak 2** | **4.21 100** | | ⇑Lg | Lg | 09 52 36.7 | |
| | 5.2nm,1.1s | | | | | | |

*ISCJB* ***13*** *10:23:56.1±0.7, 5°.00S±0°.08×151°.9E±0°.1, h70*$^{km}$*, mb3.7/12, Error ellipse: s-maj=17.5km s-min=8.8km az=25.4*
*IDC* ***13*** *10:24:01.0±3.9, 5°.13S×151°.84E, h104*$^{km}$*±35*$^{km}$*, mb3.6/12, mb1 3.7/14, mb1mx3.5/41, mbtmp3.9/14, Error ellipse: s-maj=25.2km s-min=19.2km az=91.0*

**ISC 13 10:23:57.4±0.9, 5°.01S±0°.10×152°.0E±0°.1, h70**$^{km}$**, n15, σ1s02/16, mb3.8/12, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PMG** | **Port Moresby** | **6.45 227** | | P | **Pn** | **10 25 31.4** | **+1.6** |
| PMG | 0.8nm,0.3s,baz=54,slow=8.7,SNR=3.4 | | | S | **Sn** | **10 26 42.3** | **+0.1** |
| **CTA** | 8.0nm,0.3s,baz=105,slow=19,SNR=10 **Charters Tower** | **15.98 200** | | P | **Pn** | **10 27 38.9** | **+0.9** |
| **DZM** | 0.2nm,0.3s,baz=15,slow=16,SNR=2.7 **Mont Dzumac** | **22.02 142** | | P | **P** | **10 28 46.9** | **+0.7** |
| **WRA** | 8.7nm,0.8s,baz=29,slow=13,SNR=4.7 **Warramunga Arr** | **22.67 228** | | P | **P** | **10 28 52.0** | **-1.3** |
| **ASAR** | 2.6nm,0.5s,baz=52,slow=9.8,SNR=40 **Alice Springs** | **25.43 221** | | P | **P** | **10 29 18.4** | **-0.3** |
| **STKA** | 2.7nm,0.7s,baz=52,slow=9.4,SNR=31 **Stephens Creek** | **28.44 199** | | P | **P** | **10 29 44.4** | **-1.3** |
| **FITZ** | 0.6nm,0.3s,baz=23,slow=13,SNR=3.3 **Fitzroy Crossi** | **28.82 241** | | P | **P** | **10 29 47.8** | **-1.4** |
| **JNU** | 0.9nm,0.3s,baz=64,slow=3.6,SNR=6.5 **Nakatsue** | **42.87 334** | | P | **P** | **10 31 49.3** | **+0.4** |
| **KSRS** | 4.1nm,0.8s,baz=126,slow=2.8,SNR=4.7 **Korea Array** | **47.81 334** | | P | **P** | **10 32 28.1** | **+0.2** |
| **SONM** | 0.4nm,0.4s,baz=280,slow=36,SNR=3.8 **Songino Array** | **66.05 328** | | P | **P** | **10 34 37.8** | **+0.8** |
| **MKAR** | 0.5nm,0.6s,baz=139,slow=5.4,SNR=4.4 **Makanchi Array** | **79.93 319** | | P | **P** | **10 35 59.1** | **+0.2** |
| **ZALV** | 0.5nm,0.7s,baz=104,slow=6.1,SNR=3.7 **Zalesovo Beam** | **80.86 327** | | P | **P** | **10 36 03.8** | **+0.1** |
| **ILAR** | 0.6nm,0.5s,baz=100,slow=7.7,SNR=4.1 **Eielson Array** | **82.67 22** | | P | **P** | **10 36 13.3** | **+0.3** |
| **KURBB** | 0.4nm,0.6s,baz=259,slow=4.3,SNR=5.4 **Kurchatov Arra** | **83.44 322** | | P | **P** | **10 36 16.7** | **-0.5** |
| **TORD** | 0.6nm,0.8s,baz=114,slow=4.7,SNR=6.3 **Torodi Ar. Bea** | **149.56 287** | | PKPbc | **PKPbc** | **10 43 38.2** | **-1.8** |
| | 0.3nm,0.5s,baz=67,slow=2.0,SNR=5.1 | | | | | | |

*ISCJB* ***13*** *10:28:56.7±0.6, 22°.04S±0°.05×68°.64W±0°.09, h106*$^{km}$*±7*$^{km}$*, mb3.3/3, Error ellipse: s-maj=13.3km s-min=7.5km az=12.2*
*GUC* ***13*** *10:28:58.4±0.4, 21°.99S×68°.83W, h106*$^{km}$*±3*$^{km}$*, ML4.0*
*IDC* ***13*** *10:28:59.7±0.9, 21°.95S×68°.42W, h113*$^{km}$*±7*$^{km}$*, mb3.2/3, mb1 3.5/7, mb1mx3.4/24, mbtmp3.7/7, Error ellipse: s-maj=23.5km s-min=15.6km az=78.0*

**ISC 13 10:28:58.2±0.7, 22°.02S±0°.06×68°.66W±0°.08, h103**$^{km}$**±7**$^{km}$**, n17, σ1s29/27, mb3.2/3, 3C-2D, Northern Chile**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PB09** | **IPOC Station P** | **0.59 292** | | ⇓*e*P | **Pn** | **10 29 15.0** | **-0.2** |
| PB09 | | | | *e*S | **Sn** | **10 29 27.4** | **-0.5** |
| **PB06** | **IPOC Station P** | **1.09 231** | | ⇑*i*P | **Pn** | **10 29 19.9** | **-0.1** |
| PB06 | | | | *e*S | **Sn** | **10 29 36.3** | **-0.1** |
| PB06 | comp=E,4μm,0.0s | | | IAML | | 10 29 37.0 | |
| **PB07** | **IPOC Station P** | **1.18 284** | | ⇑*i*P | **Pn** | **10 29 20.2** | **-0.7** |
| PB07 | | | | *e*S | **Sn** | **10 29 36.7** | **-1.6** |
| PB07 | comp=E,10μm,0.3s | | | IAML | | 10 29 37.6 | |
| **PB01** | **IPOC Station P** | **1.24 321** | | ⇓*e*P | **Pn** | **10 29 20.9** | **-0.8** |
| PB01 | | | | *e*S | **Sn** | **10 29 38.5** | **-0.8** |
| PB01 | comp=E,3μm,0.3s | | | IAML | | 10 29 39.6 | |
| **PB02** | **IPOC Station P** | **1.35 301** | | *e*P | **Pn** | **10 29 22.0** | **-0.9** |
| PB02 | | | | *e*S | **Sn** | **10 29 39.7** | **-1.9** |
| PB02 | comp=E,6μm,0.4s | | | IAML | | 10 29 41.4 | |
| **PB04** | **IPOC Station P** | **1.42 257** | | ⇑*i*P | **Pn** | **10 29 22.9** | **-0.9** |
| PB04 | | | | *e*S | **Sn** | **10 29 42.0** | **-1.2** |
| PB04 | comp=E,3μm,0.4s | | | IAML | | 10 29 48.6 | |
| **PB08** | **IPOC Station P** | **1.93 346** | | *e*P | **Pn** | **10 29 30.9** | **+0.5** |
| PB08 | | | | *e*S | **Sn** | **10 29 55.9** | **+1.1** |
| **LPAZ** | **La Paz** | **5.72 5** | | P | **Pn** | **10 30 23.1** | **+1.8** |
| LPAZ | comp=E,1.3nm,0.3s,baz=166,slow=4.9,SNR=26 | | | S | **Sn** | **10 31 24.5** | **-1.5** |
| **SIV** | comp=E,0.3nm,0.3s,baz=123,slow=13,SNR=2.5 **San Ignacio** | **9.35 51** | | P | **Pn** | **10 31 07.2** | **-2.9** |
| **CPUP** | comp=E,2.7nm,0.3s,baz=242,slow=12,SNR=45 **Villa Florida** | **11.20 115** | | P | **Pn** | **10 31 33.6** | **-1.4** |
| **PLCA** | comp=E,0.2nm,0.3s,baz=285,slow=12,SNR=2.6 **Paso Flores** | **18.73 184** | | P | **P** | **10 33 09.0** | **+0.2** |
| **TXAR** | comp=E,0.1nm,0.3s,baz=24,slow=13,SNR=5.7 **Lajitas Array** | **61.19 325** | | P | **P** | **10 39 02.6** | **+0.3** |
| **PDAR** | comp=E,0.1nm,0.5s,baz=158,slow=7.4,SNR=2.6 **Pinedale Array** | **74.67 330** | | P | **P** | **10 40 28.3** | **+1.6** |
| PDAR | comp=E,0.2nm,0.6s,baz=134,slow=3.9,SNR=3.1 | | | pP | **pP** | **10 40 55.2** | **+2.2** |
| **TORD** | comp=E,0.2nm,0.5s,baz=146,slow=8.3,SNR=1.8 **Torodi Ar. Bea** | **77.31 70** | | P | **P** | **10 40 41.3** | **-0.6** |
| TORD | comp=E,1.0nm,0.4s,baz=256,slow=5.2,SNR=24 | | | pP | **pP** | **10 41 09.4** | **+1.1** |
| **ASAR** | comp=E,1.2nm,0.6s,baz=249,slow=5.4,SNR=3.5 **Alice Springs** | **129.56 207** | | PKP | **PKPdf** | **10 47 55.5** | **-0.3** |
| **WRA** | comp=E,0.7nm,1.0s,baz=141,slow=1.4,SNR=5.1 **Warramunga Arr** | **132.62 210** | | PKP | **PKPdf** | **10 48 02.1** | **+0.5** |
| **MKAR** | comp=E,0.5nm,0.7s,baz=150,slow=1.7,SNR=6.5 **Makanchi Array** | **145.91 37** | | PKPbc | **PKPbc** | **10 48 25.5** | **-0.2** |
| MKAR | comp=E,0.5nm,0.6s,baz=307,slow=2.6,SNR=6.0 | | | pPKPbc | pPKPab | 10 48 55.9 | +2.0 |
| | comp=E,0.8nm,0.8s,baz=302,slow=2.7,SNR=4.7 | | | | | | |

*NIED* ***13*** *10:33:00, 37°.30N×141°.40E, h71*$^{km}$*, Mw3.8 Best double couple: M*$_0$*4.78000×10*$^{14}$ *NP1:*$\phi_{\delta}$*21.00000°,* $\delta$*22.00000°,* $\lambda$*99.00000°. NP2:*$\phi_{\delta}$*191.00000°,* $\delta$*68.00000°,* $\lambda$*86.00000°.*
*ISCJB* ***13*** *10:33:27.2±0.8, 37°.22N±0°.04×141°.38E±0°.10, h66*$^{km}$*±6*$^{km}$*, mb3.4/7, Error ellipse: s-maj=13.0km s-min=5.9km az=6.2*
*JMA* ***13*** *10:33:28.7±0.1, 37°.27N×141°.32E, h58*$^{km}$*±1*$^{km}$*, M3.7*
*JMA Felt I J1.*
*IDC* ***13*** *10:33:47.1±1.1, 36°.33N×138°.71E, h155*$^{km}$*±4*$^{km}$*, mb3.1/7, mb1 3.4/7, mb1mx3.2/34, mbtmp3.6/7, Error ellipse: s-maj=35.4km s-min=19.8km az=62.0*

**ISC 13 10:33:27.8±1.2, 37°.24N±0°.04×141°.40E±0°.09, h56**$^{km}$**±9**$^{km}$**, n20, σ1s43/29, mb3.5/7, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JFK** | **Kawauchi** | **0.44 287** | | P | **Pn** | **10 33 39.1** | **+0.3** |
| JFK | | | | *e*S | **Sn** | **10 33 46.9** | **+0.2** |
| **ONAJ** | **Iwakimizuishiy** | **0.50 254** | | P | **Pn** | **10 33 39.9** | **+0.4** |
| ONAJ | | | | S | **Sn** | **10 33 47.9** | **0.0** |
| **JMM** | **Marumori** | **0.79 322** | | P | **Pn** | **10 33 43.3** | **+0.4** |
| JMM | | | | S | **Sn** | **10 33 53.8** | **-0.1** |
| **JFT** | **Otama** | **0.89 288** | | P | **Pn** | **10 33 45.1** | **+0.9** |
| JFT | | | | S | **Sn** | **10 33 56.5** | **+0.1** |
| **JHO** | **Hitachi** | **0.92 227** | | P | **Pn** | **10 33 44.9** | **+0.3** |
| JHO | | | | S | **Sn** | **10 33 57.5** | **+0.6** |
| **JIO** | **Ouri** | **1.21 358** | | P | **Pn** | **10 33 49.3** | **+0.8** |
| JIO | | | | S | **Sn** | **10 34 05.0** | **+1.1** |
| **JOU** | **Okura** | **1.26 333** | | P | **Pn** | **10 33 49.9** | **+0.7** |
| JOU | | | | *e*S | **Sn** | **10 34 05.3** | **+0.1** |
| **JFY** | **Yanaizu** | **1.36 277** | | P | **Pn** | **10 33 51.0** | **+0.5** |
| JFY | | | | S | **Sn** | **10 34 07.5** | **-0.1** |
| **JYS** | **Shirataka** | **1.44 313** | | P | **Pn** | **10 33 52.4** | **+0.8** |
| JYS | | | | S | **Sn** | **10 34 10.0** | **+0.6** |
| **MJAR** | **Matsushiro Arr** | **2.65 256** | | P | **Pn** | **10 34 09.5** | **+1.4** |
| MJAR | 5.5nm,0.3s,baz=85,slow=16,SNR=32 | | | S | Sn | 10 34 26.6 | -12 |
| **MAT** | 7.2nm,0.3s,baz=112,slow=31,SNR=12 **Matsushiro** | **2.65 256** | | P | **Pn** | **10 34 09.6** | **+1.5** |
| MAT | | | | S | **Sn** | **10 34 43.1** | **+4.0** |
| **JHJ** | **Hachijo jima 2** | **4.32 198** | | P | **Pn** | **10 34 31.5** | **+0.6** |
| JHJ | 16nm,0.3s,baz=146,slow=22,SNR=2.5 | | | S | **Sn** | **10 35 19.4** | **-0.7** |
| **KSRS** | 22nm,0.3s,baz=123,slow=23,SNR=3.9 **Korea Array** | **10.73 275** | | P | **Pn** | **10 35 54.6** | **-4.1** |
| **SONM** | 0.0nm,0.3s,baz=85,slow=14,SNR=2.3 **Songino Array** | **27.66 304** | | P | **P** | **10 39 10.2** | **-0.2** |
| **CMAR** | 0.8nm,0.6s,baz=102,slow=8.1,SNR=5.4 **Chiang Mai Arr** | **41.54 255** | | P | P | 10 41 01.0 | -8.9 |
| **ZALV** | 0.7nm,0.3s,baz=57,slow=3.3,SNR=2.9 **Zalesovo Beam** | **41.77 312** | | P | **P** | **10 41 11.9** | **+0.6** |
| **MKAR** | 0.5nm,0.3s,baz=87,slow=5.0,SNR=4.7 **Makanchi Array** | **44.00 302** | | P | **P** | **10 41 27.0** | **-2.6** |
| **WRA** | 0.2nm,0.6s,baz=67,slow=11,SNR=2.8 **Warramunga Arr** | **57.27 188** | | P | **P** | **10 43 09.8** | **+0.2** |
| **ASAR** | 0.2nm,0.5s,baz=6.8,slow=7.5,SNR=7.0 **Alice Springs** | **60.99 188** | | P | **P** | **10 43 36.4** | **+1.0** |
| **TXAR** | 0.3nm,0.9s,baz=24,slow=9.2,SNR=3.6 **Lajitas Array** | **90.00 52** | | P | P | 10 46 40.1 | +19 |
| | 0.2nm,0.6s,baz=295,slow=3.9,SNR=4.6 | | | | | | |

**KRSC 13 10:52:58.2±1.5, 55°.25N×164°.04E, h15**$^{km}$**±41**$^{km}$**, ML3.8, Komandorsky Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **BKI** | **Bering** | **1.11 92** | | *e*P | Pg | 10 53 20.0 | +0.5 |
| BKI | | | | *e*S | Sn | 10 53 35.0 | +0.9 |
| **KBTR** | **Krutoberegovo** | **1.18 325** | | *e*P | Pn | 10 53 18.1 | -2.0 |
| KBTR | | | | *e*S | Sb | 10 53 31.4 | -3.9 |
| **SMKR** | **Semkarok** | **1.97 314** | | *e*P | Pn | 10 53 31.3 | +0.3 |
| SMKR | | | | *e*S | Sb | 10 53 56.8 | -1.2 |
| **ZLN** | **Zelenaya** | **1.99 294** | | *e*P | Pb | 10 53 33.6 | -0.5 |
| ZLN | | | | *e*S | Sb | 10 53 58.9 | +0.3 |
| **CIRR** | **Tsirk** | **2.05 296** | | *e*P | Pb | 10 53 35.1 | -0.1 |
| **BDR** | **Baidarnaya** | **2.07 311** | | *e*P | Pn | 10 53 33.2 | +0.8 |
| BDR | | | | *e*S | Sn | 10 53 58.9 | +1.0 |
| **TUMD** | **Tumrok D** | **2.08 270** | | *e*P | Pb | 10 53 35.2 | -0.5 |
| TUMD | | | | *e*S | Sb | 10 54 01.1 | -0.3 |
| **BZMR** | **Bezymyannaya** | **2.13 290** | | *e*P | Pb | 10 53 35.1 | -1.4 |
| BZMR | | | | *e*S | Sb | 10 54 02.0 | -0.7 |
| **BZWR** | **Bezymyannyi-We** | **2.13 291** | | *e*P | Pb | 10 53 35.5 | -1.1 |
| BZWR | | | | *e*S | Sb | 10 54 02.9 | 0.0 |
| **SRKR** | **Sorokina** | **2.14 312** | | *e*P | Pn | 10 53 34.4 | +1.0 |

*ellipse: s-maj=5.3km s-min=4.3km az=70.0*
*ISK **13** 10:55:07.6,38°.93N×43°.02E,h9km,ML2.9*
**ISC 13 10:55:07.6±1.1,38°.90N±0°.02×42°.90E±0°.02,h1km±10km, n71,σ1ŝ15/96,1C-1D,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **ADCV** | **BITLIS_Adilcev** | **0.16** | **236** | ⇑*iP* | | **Pg** | | **10 55 09.5** | **-1.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.16** | **236** | P | | **Pg** | | **10 55 09.5** | **-1.3** |
| **VANB** | **Van** | **0.49** | **128** | *e*PG | | **Pb** | | **10 55 18.2** | **-0.8** |
| **VANB** | **Van** | **0.49** | **128** | *e*Pg | | **Pb** | | **10 55 18.2** | **-0.8** |
| **TUTA** | **Tutak** | **0.51** | **353** | ⇓*iP* | | **Pg** | | **10 55 16.5** | **-0.8** |
| TUTA | | | | *e*S | | **Sg** | | **10 55 24.7** | **+0.8** |
| TUTA | | | | IAML | | | | 10 55 26.7 | |
| | comp=Z,630nm,0.4s | | | | | | | | |
| **TUTA** | **Tutak** | **0.51** | **353** | *e*P | | **Pg** | | **10 55 16.5** | **-0.8** |
| TUTA | | | | *i* Pg | | **Pg** | | **10 55 17.1** | **-0.3** |
| TUTA | | | | *e*S | | **Sg** | | **10 55 24.7** | **+0.8** |
| TUTA | | | | IAML | | | | 10 55 26.7 | |
| | comp=Z,630nm,0.4s | | | | | | | | |
| **TUTA** | **Tutak** | **0.51** | **353** | *i* P | | **Pg** | | **10 55 17.0** | **-0.3** |
| TUTA | | | | *i* S | | **Sg** | | **10 55 25.0** | **+1.1** |
| **TUTA** | **Tutak** | **0.51** | **353** | P | | **Pg** | | **10 55 17.0** | **-0.3** |
| TUTA | | | | S | | **Sg** | | **10 55 25.0** | **+1.1** |
| **VMUR** | **Van-Muradiye** | **0.53** | **80** | *i* P | | **Pg** | | **10 55 18.1** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.53** | **80** | P | | **Pg** | | **10 55 18.1** | **+0.3** |
| **TVAN** | **Van** | **0.54** | **133** | *i* P | | **Pg** | | **10 55 17.6** | **-0.4** |
| **TVAN** | **Van** | **0.54** | **133** | P | | **Pg** | | **10 55 17.6** | **-0.4** |
| **GEVA** | **Gevas** | **0.60** | **168** | *e*P | | **Pg** | | **10 55 18.8** | **-0.3** |
| GEVA | | | | *e*S | | **Sb** | | **10 55 29.3** | **-0.7** |
| GEVA | | | | IAML | | | | 10 55 38.1 | |
| | comp=Z,100nm,0.5s | | | | | | | | |
| **GEVA** | **Gevas** | **0.60** | **168** | *e*P | | **Pg** | | **10 55 18.8** | **-0.3** |
| GEVA | | | | *e*S | | **Sb** | | **10 55 29.8** | **-0.2** |
| GEVA | | | | IAML | | | | 10 55 38.1 | |
| | comp=Z,100nm,0.5s | | | | | | | | |
| **GEVA** | **Gevas** | **0.60** | **168** | *i* P | | **Pg** | | **10 55 18.7** | **-0.4** |
| GEVA | | | | *i* S | | **Sb** | | **10 55 29.6** | **-0.4** |
| **GEVA** | **Gevas** | **0.60** | **168** | P | | **Pg** | | **10 55 18.7** | **-0.4** |
| **AGRB** | **Hanur-Agry** | **0.68** | **6** | *e*PG | | **Pg** | | **10 55 20.5** | **-0.2** |
| AGRB | | | | *e*SG | | **Sg** | | **10 55 30.0** | **+0.5** |
| **AGRB** | **Hanur-Agry** | **0.68** | **6** | *e*Pg | | **Pg** | | **10 55 20.5** | **-0.2** |
| AGRB | | | | *e*Sg | | **Sg** | | **10 55 30.0** | **+0.5** |
| **EKAR** | **Karacoban** | **0.74** | **299** | *e*P | | **Pg** | | **10 55 20.9** | **-0.9** |
| **EKAR** | **Karacoban** | **0.74** | **299** | *e*P | | **Pg** | | **10 55 21.1** | **-0.7** |
| **EKAR** | **Karacoban** | **0.74** | **299** | *i* P | | **Pg** | | **10 55 21.1** | **-0.7** |
| **EKAR** | **Karacoban** | **0.74** | **299** | P | | **Pg** | | **10 55 21.1** | **-0.7** |
| **CLDR** | **Caldiran** | **0.83** | **73** | *e*PG | | **Pg** | | **10 55 22.2** | **-1.4** |
| **CLDR** | **Caldiran** | **0.83** | **73** | *i* P | | **Pg** | | **10 55 23.5** | **-0.1** |
| **CLDR** | **Caldiran** | **0.83** | **73** | *e*Pg | | **Pg** | | **10 55 22.2** | **-1.4** |
| **CLDR** | **Caldiran** | **0.83** | **73** | P | | **Pg** | | **10 55 23.5** | **-0.1** |
| **DYDN** | **Diyadin** | **0.89** | **43** | *e*P | | **Pg** | | **10 55 24.7** | **0.0** |
| **DYDN** | **Diyadin** | **0.89** | **43** | *e*P | | **Pg** | | **10 55 22.9** | **-1.8** |
| **EATA** | **Eleskirt** | **1.01** | **342** | *e*P | | **Pg** | | **10 55 25.6** | **-1.4** |
| EATA | | | | *e*S | | **Sb** | | **10 55 41.4** | **-0.6** |
| EATA | | | | IAML | | | | 10 55 44.5 | |
| | comp=Z,30nm,0.5s | | | | | | | | |
| **EATA** | **Eleskirt** | **1.01** | **342** | *e*P | | **Pg** | | **10 55 25.7** | **-1.4** |
| EATA | | | | *e*S | | **Sb** | | **10 55 41.3** | **-0.8** |
| EATA | | | | IAML | | | | 10 55 44.5 | |
| | comp=Z,30nm,0.5s | | | | | | | | |
| **EATA** | **Eleskirt** | **1.01** | **342** | *i* P | | **Pg** | | **10 55 25.6** | **-1.4** |
| EATA | | | | *i* S | | **Sb** | | **10 55 41.0** | **-1.0** |
| **EATA** | **Eleskirt** | **1.01** | **342** | P | | **Pg** | | **10 55 25.0** | **-1.4** |
| EATA | | | | S | | **Sb** | | **10 55 41.0** | **-1.0** |
| **SRTM** | **Siirt_Merkez** | **1.19** | **220** | *i* P | | **Pg** | | **10 55 30.0** | **-0.3** |
| **SRTM** | **Siirt_Merkez** | **1.19** | **220** | P | | **Pg** | | **10 55 30.0** | **-0.3** |
| **BNGL** | **BINGOL** | **1.36** | **273** | *e*P | | **Pg** | | **10 55 33.5** | **-0.2** |
| BNGL | | | | *e*S | | **Sn** | | **10 55 51.7** | **-1.0** |
| BNGL | | | | IAML | | | | 10 55 59.1 | |
| | comp=Z,64nm,0.5s | | | | | | | | |
| **BNGL** | **BINGOL** | **1.36** | **273** | *e*P | | **Pg** | | **10 55 33.6** | **-0.2** |
| BNGL | | | | *e*S | | **Sn** | | **10 55 55.7** | **+2.9** |
| BNGL | | | | IAML | | | | 10 55 59.1 | |
| | comp=Z,64nm,0.5s | | | | | | | | |
| **BNGL** | **BINGOL** | **1.36** | **273** | *i* P | | **Pn** | | **10 55 32.5** | **-1.5** |
| **HOMI** | **Horasan** | **1.38** | **326** | *e*P | | **Pn** | | **10 55 32.4** | **-1.7** |
| HOMI | | | | *e*S | | **Sn** | | **10 55 54.1** | **+1.0** |
| HOMI | | | | IAML | | | | 10 56 01.1 | |
| | comp=Z,38nm,0.6s | | | | | | | | |
| **HOMI** | **Horasan** | **1.38** | **326** | *e*P | | **Pn** | | **10 55 32.7** | **-1.5** |
| HOMI | | | | *e*S | | **Sn** | | **10 55 53.9** | **+0.7** |
| HOMI | | | | IAML | | | | 10 56 01.1 | |
| | comp=Z,38nm,0.6s | | | | | | | | |
| **HOMI** | **Horasan** | **1.38** | **326** | *i* P | | **Pn** | | **10 55 32.3** | **-1.9** |
| **HAKT** | **HAKKARI** | **1.48** | **154** | *i* P | | **Pg** | | **10 55 36.5** | **+0.5** |
| **HAKT** | **HAKKARI** | **1.48** | **154** | P | | **Pg** | | **10 55 36.5** | **+0.5** |
| **TASB** | **TASBURUN-IGDIR** | **1.50** | **43** | *e*PN | | **Pn** | | **10 55 34.1** | **-1.6** |
| **TASB** | **TASBURUN-IGDIR** | **1.50** | **43** | *e*Pn | | **Pn** | | **10 55 34.1** | **-1.6** |
| **ERZM** | **Erzurum** | **1.56** | **311** | *e*P | | **Pb** | | **10 55 36.6** | **-0.8** |
| **ERZM** | **Erzurum** | **1.56** | **311** | *e*P | | **Pb** | | **10 55 36.5** | **-0.8** |
| **ERZM** | **Erzurum** | **1.56** | **311** | *i* P | | **Pg** | | **10 55 37.0** | **-0.4** |
| **ERZM** | **Erzurum** | **1.56** | **311** | P | | **Pg** | | **10 55 37.0** | **-0.4** |
| **DIGO** | **Kars** | **1.56** | **14** | *e*P | | **Pb** | | **10 55 37.1** | **-0.4** |
| DIGO | | | | *i* Pg | | **Pg** | | **10 55 38.4** | **+0.9** |
| DIGO | | | | *e*S | | **Sg** | | **10 56 02.1** | **+4.4** |
| **DIGO** | **Kars** | **1.56** | **14** | *e*P | | **Pb** | | **10 55 37.0** | **-0.4** |
| **DIGO** | **Kars** | **1.56** | **14** | *i* P | | **Pn** | | **10 55 36.5** | **-0.1** |
| **DIGO** | **Kars** | **1.56** | **14** | P | | **Pn** | | **10 55 36.5** | **-0.1** |
| **BTMN** | **Batman** | **1.63** | **232** | *i* P | | **Pb** | | **10 55 38.1** | **-0.3** |
| BTMN | | | | *i* S | | **Sg** | | **10 56 00.4** | **+0.5** |
| **BTMN** | **Batman** | **1.63** | **232** | P | | **Pb** | | **10 55 38.1** | **-0.3** |
| BTMN | | | | S | | **Sg** | | **10 56 00.4** | **+0.5** |
| **ECAT** | **Cat-ERZURUM** | **1.65** | **296** | *e*P | | **Pn** | | **10 55 37.7** | **-0.2** |
| ECAT | | | | *i* Pg | | **Pg** | | **10 55 39.1** | **-0.2** |
| ECAT | | | | *e*S | | **Sg** | | **10 56 03.0** | **+2.4** |
| ECAT | | | | IAML | | | | 10 56 12.2 | |
| | comp=Z,9.4nm,0.5s | | | | | | | | |
| **ECAT** | **Cat-ERZURUM** | **1.65** | **296** | *e*P | | **Pn** | | **10 55 37.6** | **-0.3** |
| **ECAT** | **Cat-ERZURUM** | **1.65** | **296** | *i* P | | **Pn** | | **10 55 37.2** | **-0.7** |
| **ECAT** | **Cat-ERZURUM** | **1.65** | **296** | P | | **Pn** | | **10 55 37.2** | **-0.7** |
| **KARS** | **Kars** | **1.73** | **5** | *e*PN | | **Pn** | | **10 55 37.9** | **-1.1** |
| **KARS** | **Kars** | **1.73** | **5** | *e*Pn | | **Pn** | | **10 55 37.9** | **-1.1** |
| **EAK** | **Akyaka** | **1.87** | **17** | *e*P | | **Pg** | | **10 55 44.1** | **+0.7** |
| **EAK** | **Akyaka** | **1.87** | **17** | *e*P | | **Pg** | | **10 55 44.1** | **+0.7** |
| **KOPT** | **Kop Dagi** | **2.17** | **302** | *e*P | | **Pb** | | **10 55 46.8** | **-1.0** |
| **KOPT** | **Kop Dagi** | **2.17** | **302** | *e*P | | **Pb** | | **10 55 46.8** | **-1.0** |
| KOPT | | | | *i* Pg | | **Pg** | | **10 55 51.6** | **+2.4** |
| **DAGI** | **Agillar** | **2.30** | **341** | *i* P | | **Pb** | | **10 55 48.0** | **-2.0** |
| **ARTV** | **Artvin** | **2.40** | **342** | *e*P | | **Pb** | | **10 55 50.4** | **-1.3** |
| **ARTV** | **Artvin** | **2.40** | **342** | *e*P | | **Pb** | | **10 55 50.5** | **-1.3** |
| **ARTV** | **Artvin** | **2.40** | **342** | *i* P | | **Pn** | | **10 55 49.3** | **+1.1** |
| **ARTV** | **Artvin** | **2.40** | **342** | P | | **Pn** | | **10 55 49.3** | **+1.1** |
| **KELT** | **Kelkit** | **3.08** | **295** | *e*P | | **Pn** | | **10 55 59.8** | **+2.3** |
| KELT | | | | IAML | | | | 10 57 21.3 | |
| | comp=Z,4.1nm,0.1s | | | | | | | | |
| **KELT** | **Kelkit** | **3.08** | **295** | *e*P | | **Pn** | | **10 55 59.9** | **+2.3** |

*SJA **13** 10:59:15.5±0.6,27°.41S×66°.85W,h24km±5km,ML4.1, MW4.2*
*IDC **13** 10:59:16.5±0.5,27°.55S×66°.93W,h33km±3km,mb3.9/7, mb1 4.0/12,mb1mx3.8/29,mbtmp4.0/12,ML3.9/5,MS3.5/3, Ms1 3.5/3,ms1mx3.2/18,Error ellipse: s-maj=23.7km s-min=15.3km az=78.0*
*NEIC **13** 10:59:16.3±0.4,27°.59S×66°.66W,mb4.7/6,MD4.2(SJA), Error ellipse: s-maj=10.1km s-min=6.8km az=92.0*
*NEIC Felt [III] in the epicentral area.*
**ISC 13 10:59:16.3±0.5,27°.47S±0°.04×66°.79W±0°.04,h30km±3km, h30km:pP-P,n51,σ1ŝ60/73,mb4.4/12,1C,Catamarca Province**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **CYA** | **Choya** | **1.30** | **138** | *i* P | | **Pb** | | **10 59 41.5** | **+1.3** |
| CYA | | | | *e*S | | **Sb** | | **11 00 00.4** | **+3.9** |
| CYA | | | | IAML | | | | 11 00 02.8 | |
| | comp=Z,3μm,0.3s | | | | | | | | |
| **AHML** | **Horco Molle** | **1.47** | **62** | IAML | | | | 11 00 08.8 | |
| | comp=Z,1μm,0.5s | | | | | | | | |
| **FSA** | **Cafayete** | **1.54** | **28** | *i* P | | **Pb** | | **10 59 43.8** | **-0.4** |
| FSA | | | | *e*S | | **Sb** | | **11 00 04.1** | **+0.7** |
| FSA | | | | IAML | | | | 11 00 05.8 | |
| | comp=Z,1μm,0.3s | | | | | | | | |
| **VCA** | **Vinchina** | **1.78** | **225** | *i* P | | **Pb** | | **10 59 47.1** | **-1.2** |
| VCA | | | | *i* S | | **Sb** | | **11 00 10.6** | **+0.4** |
| VCA | | | | IAML | | | | 11 00 12.3 | |
| | comp=Z,6μm,0.4s | | | | | | | | |
| **AGUA** | **GUANDACOL** | **2.51** | **216** | *i* P | | **Pn** | | **10 59 57.3** | **+2.1** |
| AGUA | | | | *i* S | | **Sb** | | **11 00 29.1** | **-2.1** |
| **LCO** | **Las Campanas** | **3.78** | **245** | *e*Pn | | **Pn** | | **11 00 13.7** | **+0.9** |
| LCO | | | | *e*Sn | | **Sn** | | **11 01 01.2** | **+4.8** |
| **PB10** | **IPOC Station P** | **5.21** | **318** | *e*Pn | | **Pn** | | **11 00 35.0** | **+2.8** |
| **PB04** | **IPOC Station P** | **5.96** | **328** | *e*Pn | | **Pn** | | **11 00 44.5** | **+1.8** |
| PB04 | | | | *e*Sn | | **Sn** | | **11 01 49.1** | **-1.0** |
| **PEL** | **Peldehue** | **6.58** | **210** | *e*Pn | | **Pn** | | **11 00 52.0** | **+0.9** |
| **ROC1** | **El Roble** | **6.59** | **213** | *e*Pn | | **Pn** | | **11 00 50.9** | **-0.5** |
| **PB01** | **IPOC Station P** | **6.86** | **338** | *e*Pn | | **Pn** | | **11 00 54.3** | **-0.6** |
| **PB11** | **IPOC Station P** | **8.11** | **340** | *e*Pn | | **Pn** | | **11 01 13.8** | **+1.6** |
| **CPUP** | **Villa Florida** | **8.52** | **84** | Pn | | **Pn** | | **11 01 19.2** | **+1.5** |
| | comp=Z,0.7nm,0.3s,baz=252,slow=11,SNR=10 | | | | | | | | |
| CPUP | | | | Sn | | **Sn** | | **11 02 48.9** | **-3.9** |
| | comp=Z,0.5nm,0.3s,baz=234,slow=19,SNR=2.1 | | | | | | | | |
| CPUP | | | | LR | | LR | | 11 04 30.9 | |
| | comp=Z,145nm,20.7s,baz=256,slow=36 | | | | | | | | |
| **MNMC** | **Minye Minye** | **8.69** | **342** | *e*Pn | | **Pn** | | **11 01 23.2** | **+2.8** |
| **GO05** | **HualaæØ** | **8.71** | **209** | *e*Pn | | **Pn** | | **11 01 17.4** | **-2.9** |
| **LPAZ** | **La Paz** | **11.20** | **353** | Pn | | **Pn** | | **11 01 57.3** | **+2.3** |
| | comp=Z,0.3nm,0.3s,baz=151,slow=5.7,SNR=5.6 | | | | | | | | |
| LPAZ | | | | LR | | LR | | 11 06 54.6 | |
| | comp=Z,288nm,19.3s,baz=126,slow=41 | | | | | | | | |
| **LPAZ** | **La Paz** | **11.20** | **353** | *e*Pn | | **Pn** | | **11 01 56.2** | **+1.3** |
| LPAZ | | | | *e*Sn | | **Sn** | | **11 03 59.6** | **+0.1** |
| **SIV** | **San Ignacio** | **12.60** | **26** | Pn | | **Pn** | | **11 02 15.1** | **+1.5** |
| | comp=Z,0.2nm,0.3s,baz=221,slow=5.1,SNR=2.4 | | | | | | | | |
| SIV | | | | Sn | | Sn | | 11 04 43.8 | +11 |
| | comp=Z,0.2nm,0.3s,baz=156,slow=20,SNR=2.3 | | | | | | | | |
| **PLCA** | **Paso Flores** | **13.59** | **192** | Pn | | **Pn** | | **11 02 24.7** | **-2.3** |
| | comp=Z,0.1nm,0.3s,baz=9.6,slow=13,SNR=5.1 | | | | | | | | |
| PLCA | | | | LR | | LR | | 11 08 18.3 | |
| | comp=Z,347nm,21.0s,baz=342,slow=40 | | | | | | | | |
| **NNA** | **Nana** | **18.06** | **327** | P | | **P** | | **11 03 26.0** | **+0.6** |
| | comp=Z,1.1nm,0.3s,baz=177,slow=17,SNR=2.2 | | | | | | | | |
| **CHRN** | **Cochrane** | **20.26** | **191** | *e*P | | **P** | | **11 03 49.3** | **+0.1** |
| | comp=Z,12nm,1.1s | | | | | | | | |
| **BDFB** | **Brasilia** | **21.02** | **60** | P | | **P** | | **11 03 57.5** | **-0.3** |
| | comp=Z,1.8nm,0.4s,baz=10,slow=11,SNR=3.3 | | | | | | | | |
| **USHA** | **Ushuaia** | **27.36** | **182** | P | | **P** | | **11 04 58.2** | **-0.5** |
| | comp=Z,13nm,0.6s,baz=329,slow=5.9,SNR=1.6 | | | | | | | | |
| **SNAA** | **Sanae** | **56.03** | **160** | P | | **P** | | **11 08 52.1** | **+0.2** |
| | comp=Z,2.5nm,0.6s,baz=264,slow=12,SNR=10 | | | | | | | | |
| SNAA | | | | pP | | **pP** | | **11 09 01.1** | **0.0** |
| | comp=Z,2.3nm,0.6s,baz=272,slow=9.6,SNR=3.9 | | | | | | | | |
| **SNAA** | **Sanae** | **56.03** | **160** | *e*P | | **P** | | **11 08 52.1** | **+0.2** |
| | comp=Z,11nm,1.3s | | | | | | | | |
| SNAA | | | | pP | | **pP** | | **11 09 01.1** | **0.0** |
| **QSPA** | **South Pole Qui** | **62.75** | **180** | *e*P | | **P** | | **11 09 38.8** | **+0.3** |
| | comp=Z,5.0nm,0.7s | | | | | | | | |
| **JCT** | **Junction City** | **65.70** | **329** | *e*P | | **P** | | **11 10 01.6** | **+3.5** |
| | comp=Z,3.4nm,0.8s | | | | | | | | |
| **LTX** | **Lajitas** | **66.61** | **325** | *e*P | | **P** | | **11 10 04.0** | **-0.1** |
| LTX | | | | *e*pP | | **pP** | | **11 10 13.6** | **+0.2** |
| **TXAR** | **Lajitas Array** | **66.61** | **325** | P | | **P** | | **11 10 04.0** | **-0.1** |
| | comp=Z,0.3nm,0.9s,baz=146,slow=8.7,SNR=3.2 | | | | | | | | |
| TXAR | | | | pP | | **pP** | | **11 10 13.6** | **+0.2** |
| | comp=Z,0.6nm,0.8s,baz=126,slow=8.4,SNR=5.3 | | | | | | | | |
| **SYO** | **Syowa Base** | **70.26** | **158** | ⇑*eP* | | **P** | | **11 10 25.1** | **-1.1** |
| **PLM** | **Palomar** | **76.93** | **319** | *e*P | | **P** | | **11 11 07.8** | **+1.7** |
| **TOA0** | **Torodi Ar. Sit** | **77.66** | **68** | *e*P | | **P** | | **11 11 08.0** | **-2.4** |
| **TOA1** | **Torodi Ar. Sit** | **77.66** | **68** | *e*P | | **P** | | **11 11 08.0** | **-2.4** |
| TOA1 | | | | *e*pP | | **pP** | | **11 11 18.7** | **-1.1** |
| **TORD** | **Torodi Ar. Bea** | **77.66** | **68** | P | | **P** | | **11 11 08.0** | **-2.4** |
| | comp=Z,1.3nm,0.7s,baz=252,slow=5.7,SNR=8.8 | | | | | | | | |
| TORD | | | | pP | | **pP** | | **11 11 18.7** | **-1.1** |
| | comp=Z,0.8nm,0.9s,baz=250,slow=4.9,SNR=3.3 | | | | | | | | |
| **MAW** | **Mawson** | **78.08** | **162** | P | | **P** | | **11 11 11.8** | **-0.1** |
| | comp=Z,2.8nm,0.8s,baz=195,slow=4.6,SNR=7.8 | | | | | | | | |
| **MAW** | **Mawson** | **78.08** | **162** | *e*P | | **P** | | **11 11 10.0** | **-1.8** |
| **BOSA** | **Boshof** | **79.00** | **116** | P | | **P** | | **11 11 16.9** | **-1.0** |
| | comp=Z,1.8nm,0.7s,baz=240,slow=3.3,SNR=5.3 | | | | | | | | |
| **PD31** | **Pinedale Array** | **80.22** | **330** | *e*P | | **P** | | **11 11 23.9** | **-0.2** |
| **PDAR** | **Pinedale Array** | **80.22** | **330** | P | | **P** | | **11 11 23.9** | **-0.2** |
| | comp=Z,0.5nm,1.0s,baz=122,slow=8.6,SNR=2.6 | | | | | | | | |
| PDAR | | | | pP | | **pP** | | **11 11 32.9** | **-0.7** |
| | comp=Z,0.8nm,0.8s,baz=101,slow=6.2,SNR=4.9 | | | | | | | | |
| **MDND** | **Maddock** | **80.57** | **338** | *e*P | | **P** | | **11 11 25.5** | **-0.1** |
| | comp=Z,18nm,1.0s | | | | | | | | |
| **HLID** | **Hailey** | **83.10** | **327** | *e*P | | **P** | | **11 11 41.7** | **+2.5** |
| | comp=Z,11nm,1.8s | | | | | | | | |
| **ASAR** | **Alice Springs** | **125.38** | **203** | PKP | | **PKPdf** | | **11 18 13.6** | **-1.4** |
| | comp=Z,0.4nm,0.8s,baz=162,slow=1.9,SNR=5.1 | | | | | | | | |
| ASAR | | | | pPKP | | **pPKPdf** | | **11 18 24.4** | **-0.4** |
| | comp=Z,0.3nm,0.5s,baz=128,slow=1.9,SNR=2.6 | | | | | | | | |
| **WR1** | **Warramunga Arr** | **128.62** | **206** | pPKPdf | | **PKPdf** | | **11 18 20.1** | **-1.2** |
| WR1 | | | | *ep*PKPdf | | **pPKPdf** | | **11 18 29.7** | **-1.4** |
| **WRA** | **Warramunga Arr** | **128.62** | **206** | PKP | | **PKPdf** | | **11 18 20.1** | **-1.2** |
| | comp=Z,0.4nm,0.7s,baz=174,slow=1.7,SNR=6.3 | | | | | | | | |
| WRA | | | | pPKP | | **pPKPdf** | | **11 18 29.7** | **-1.4** |
| | comp=Z,0.6nm,0.6s,baz=159,slow=1.8,SNR=4.2 | | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **145.00** | **39** | PKPbc | | **PKPab** | | **11 18 49.7** | **+0.1** |
| | comp=Z,4.0nm,0.8s,baz=299,slow=3.6,SNR=10.0 | | | | | | | | |
| KURBB | | | | pPKPbc | | **pPKPdf** | | **11 19 00.5** | **+0.4** |
| | comp=Z,2.5nm,0.8s,baz=301,slow=3.4,SNR=5.2 | | | | | | | | |
| **KURK** | **Kurchatov** | **145.00** | **39** | *e*PKPbc | | **PKPab** | | **11 18 49.8** | **+0.1** |
| KURK | | | | *ep*PKPdf | | **pPKPdf** | | **11 19 00.5** | **+0.4** |
| **AAK** | **Ala-Archa** | **145.21** | **54** | PKPbc | | **PKPbc** | | **11 18 50.0** | **-0.9** |
| | comp=Z,5.9nm,0.8s,baz=247,slow=3.0,SNR=14 | | | | | | | | |
| AAK | | | | pPKPbc | | **pPKPdf** | | **11 19 02.1** | **+1.1** |
| | comp=Z,3.2nm,0.8s,baz=294,slow=8.3,SNR=5.7 | | | | | | | | |
| **ZAA1** | **Zalesovo Array** | **146.32** | **30** | *e*PKPdf | | **PKPdf** | | **11 18 52.5** | **0.0** |
| ZAA1 | | | | *ep*PKPab | | pPKPab | | 11 19 04.2 | 0.0 |
| **ZALV** | **Zalesovo Beam** | **146.32** | **30** | PKPbc | | **PKPdf** | | **11 18 52.5** | **0.0** |
| | comp=Z,4.6nm,0.8s,baz=288,slow=3.6,SNR=20 | | | | | | | | |
| ZALV | | | | pPKPbc | | pPKPab | | 11 19 04.2 | 0.0 |
| | comp=Z,5.3nm,0.8s,baz=286,slow=3.8,SNR=8.3 | | | | | | | | |
| **MK32** | **Makanchi Array** | **148.99** | **43** | *e*PKPbc | | **PKPbc** | | **11 19 01.0** | **-0.2** |
| MK32 | | | | *ep*PKPab | | **pPKPbc** | | **11 19 11.5** | **+0.4** |
| **MKAR** | **Makanchi Array** | **148.99** | **43** | PKPbc | | **PKPbc** | | **11 19 01.0** | **-0.2** |
| | comp=Z,2.7nm,0.7s,baz=312,slow=2.6,SNR=31 | | | | | | | | |
| MKAR | | | | pPKPbc | | **pPKPbc** | | **11 19 11.5** | **+0.4** |
| | comp=Z,1.6nm,0.7s,baz=317,slow=2.3,SNR=9.4 | | | | | | | | |

**IDC 13 11:00:26.7±13.0,15°.73N×119°.95E,h0km,mb3.1/3, mb1 3.4/3,mb1mx3.1/44,mbtmp3.1/3,Error ellipse: s-maj=433.1km s-min=34.5km az=36.0,Luzon**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **CMAR** | **Chiang Mai Arr** | **20.26** | **281** | P | | P | P | 11 05 03.9 | -0.1 |
| | 0.3nm,0.5s,baz=110,slow=8.2,SNR=4.0 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **38.17** | **158** | P | | P | P | 11 07 47.8 | -0.4 |
| | 0.2nm,0.6s,baz=340,slow=9.1,SNR=2.1 | | | | | | | | |
| **ASAR** | **Alice Springs** | **41.46** | **160** | P | | P | P | 11 08 15.7 | +0.1 |
| | 0.1nm,0.5s,baz=336,slow=7.1,SNR=5.4 | | | | | | | | |

*SOME **13** 11:08:03.1,42°.03N×77°.58E,h5km*
*KRNET **13** 11:08:03.4±0.1,42°.06N×77°.49E,h20km,mb3.0*
*NNC **13** 11:08:05.6±0.8,42°.11N×77°.55E,h0km,mb3.3,mpv3.0, Error ellipse: s-maj=5.8km s-min=3.9km az=169.0*
*MOS **13** 11:08:06.7±2.0,42°.35N×77°.60E,h9km,mb4.2/2,Error ellipse: s-maj=14.8km s-min=10.8km az=94.6*
*KNET **13** 11:08:18.0±0.9,42°.31N×76°.45E,h11km±1km,ml2.5,Error ellipse: s-maj=8.9km s-min=2.4km az=94.0*
**ISC 13 11:08:01.8±1.3,41°.93N±0°.04×77°.49E±0°.02,h2km±10km, n67,σ1ŝ01/104,33C-25D,Kyrgyzstan-Xinjiang border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **PRZ** | **Przheval'sk** | **0.88** | **50** | ⇑*iP* | | **Pb** | | **11 08 19.1** | **-0.8** |
| | baz=58 | | | | | | | | |
| PRZ | | | | ⇑*iS* | | **Sb** | | **11 08 30.5** | **-1.6** |
| | baz=58 | | | | | | | | |
| **ULHL** | **Ulahol** | **0.98** | **289** | ⇑*iP* | | **Pn** | | **11 08 22.2** | **-0.7** |
| | baz=281 | | | | | | | | |
| ULHL | | | | ⇑*iS* | | **Sn** | | **11 08 35.6** | **-1.9** |
| | baz=281 | | | | | | | | |
| **ULHL** | **Ulahol** | **0.98** | **289** | P | | **Pn** | | **11 08 22.1** | **-0.7** |
| | 13nm,0.1s,SNR=173 | | | | | | | | |
| **TNSS** | **Tian-Shan** | **1.18** | **340** | ⇓*iP* | | **Pn** | | **11 08 24.8** | **-0.9** |
| | 44nm,0.2s | | | | | | | | |
| TNSS | | | | ⇓*iS* | | **Sg** | | **11 08 40.3** | **+0.5** |
| | 89nm,0.2s | | | | | | | | |
| **MDOK** | **Medeo** | **1.28** | **345** | ⇓*iP* | | **Pb** | | **11 08 26.2** | **-0.5** |
| MDOK | | | | ⇑*iS* | | **Sb** | | **11 08 42.6** | **-1.1** |
| **MDOK** | **Medeo** | **1.28** | **345** | *e*P | | **Pg** | | **11 08 26.4** | **0.0** |
| | 107nm,0.3s | | | | | | | | |
| MDOK | | | | *e*S | | **Sb** | | **11 08 42.8** | **-0.9** |
| | 60nm,0.4s | | | | | | | | |
| **BOOM** | **Boomskoye usch** | **1.28** | **297** | ⇓*iP* | | **Pg** | | **11 08 27.2** | **+0.8** |
| | baz=291 | | | | | | | | |
| BOOM | | | | ⇓*iS* | | **Sn** | | **11 08 44.6** | **-0.2** |
| | baz=291 | | | | | | | | |
| **IZV** | **Izvestkoviy** | **1.28** | **330** | *e*P | | **Pg** | | **11 08 26.6** | **+0.1** |
| | 88nm,0.3s | | | | | | | | |
| IZV | | | | *e*S | | **Sg** | | **11 08 43.5** | **+0.4** |
| | 158nm,0.2s | | | | | | | | |
| **SATY** | **Saty** | **1.32** | **31** | *e*P | | **Pb** | | **11 08 26.6** | **-0.8** |
| | 103nm,0.2s | | | | | | | | |
| SATY | | | | *e*S | | **Sb** | | **11 08 43.3** | **-1.5** |
| | 328nm,0.1s | | | | | | | | |
| **KOTS** | **Kotyrbulak** | **1.34** | **348** | *e*P | | **Pb** | | **11 08 27.4** | **-0.3** |
| KOTS | | | | *e*S | | **Sn** | | **11 08 44.9** | **-1.2** |
| **AAA** | **Alma-Ata** | **1.35** | **342** | *i* PG | | **Pg** | | **11 08 28.2** | **+0.5** |
| AAA | | | | *i* S | | **Sg** | | **11 08 46.1** | **+0.9** |
| AAA | | | | pmax | | pmax | | | |
| | comp=Z,522nm,0.2s | | | | | | | | |
| AAA | | | | smax | | smax | | | |
| | comp=N,293nm,0.2s | | | | | | | | |
| **AAA** | **Alma-Ata** | **1.35** | **342** | ⇑*iP* | | **Pg** | | **11 08 28.3** | **+0.5** |
| | comp=N,522nm,0.2s | | | | | | | | |
| AAA | | | | *e*S | | **Sg** | | **11 08 46.1** | **+0.9** |
| | comp=N,293nm,0.2s | | | | | | | | |
| **ZHN** | **Zhinishke** | **1.42** | **29** | *e*P | | **Pb** | | **11 08 28.4** | **-0.8** |
| | comp=N,52nm,0.2s | | | | | | | | |
| ZHN | | | | *e*S | | **Sn** | | **11 08 46.4** | **-1.9** |
| | comp=N,518nm,0.2s | | | | | | | | |
| **KST** | **Kastek** | **1.59** | **315** | ⇓*iP* | | **Pg** | | **11 08 32.1** | **-0.1** |
| | comp=N,12nm,0.1s | | | | | | | | |
| KST | | | | *e*S | | **Sg** | | **11 08 53.1** | **+0.3** |
| | comp=N,112nm,0.3s | | | | | | | | |
| **KURS** | **Kuram** | **1.64** | **18** | *e*P | | **Pb** | | **11 08 32.4** | **-0.4** |
| KURS | | | | *e*S | | **Sb** | | **11 08 53.5** | **-0.5** |
| **UZB** | **Uzynbulak** | **1.66** | **42** | *e*P | | **Pb** | | **11 08 32.7** | **-0.6** |
| | comp=N,29nm,0.2s | | | | | | | | |
| UZB | | | | *e*S | | **Sb** | | **11 08 53.9** | **-0.9** |
| | comp=N,204nm,0.2s | | | | | | | | |
| **KZA** | **Kyzart** | **1.68** | **276** | ⇓*iP* | | **Pg** | | **11 08 35.1** | **+1.1** |
| | baz=272 | | | | | | | | |
| KZA | | | | ⇓*iS* | | **Sg** | | **11 08 57.6** | **+1.9** |
| | baz=272 | | | | | | | | |
| **KZA** | **Kyzart** | **1.68** | **276** | P | | **Pg** | | **11 08 35.8** | **+1.8** |
| | comp=N,3.5nm,0.2s,SNR=15 | | | | | | | | |
| **TKM2** | **Tokmak 2** | **1.72** | **306** | ⇑*iP* | | **Pg** | | **11 08 34.7** | **-0.1** |
| | baz=302 | | | | | | | | |
| TKM2 | | | | ⇑*iS* | | **Sg** | | **11 08 57.6** | **+0.6** |
| | baz=302 | | | | | | | | |
| **TKM2** | **Tokmak 2** | **1.72** | **306** | ⇓P | | **Pg** | | **11 08 34.7** | **-0.1** |
| | comp=N,9.7nm,0.4s | | | | | | | | |
| TKM2 | | | | ⇓S | | **Sg** | | **11 08 58.0** | **+1.0** |
| | comp=N,136n

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | comp=Z,1.9nm,0.8s | | | | | | | | |
| KK31 | | | | | ⇓Lg | Lg | 11 10 53.8 | | |
| | comp=Z,1.9nm,0.4s | | | | | | | | |
| **KK31** | **Karatay Array** | **5.29** | **285** | | PN | **Pg** | **11 09 43.2** | **0.0** | |
| KK31 | | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.8s | | | | | | | | |
| **MAKZ** | **Makanchi** | **5.84** | **32** | ⇑ | Lg | Lg | 11 11 05.0 | | |
| | comp=Z,3.3nm,1.2s | | | | | | | | |
| **MK31** | **Makanchi Array** | **5.96** | **34** | ⇑ | Pn | **Pn** | **11 09 33.9** | **+2.9** | |
| | comp=Z,0.2nm,0.3s | | | | | | | | |
| MK31 | | | | | ⇑Pg | Pg | 11 09 51.4 | -4.6 | |
| | comp=Z,0.3nm,0.3s | | | | | | | | |
| MK31 | | | | | ⇑Lg | Lg | 11 11 09.1 | | |
| | comp=Z,2.1nm,0.7s,baz=219,slow=28,SNR=4.3 | | | | | | | | |
| **MK31** | **Makanchi Array** | **5.96** | **34** | | PN | **Pn** | **11 09 33.9** | **+2.9** | |
| MK31 | | | | | PG | Pg | 11 09 51.4 | -4.6 | |
| MK31 | | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.3s | | | | | | | | |
| MK31 | | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,0.3s | | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **8.73** | **4** | ⇑ | Lg | Lg | 11 12 36.4 | | |
| | comp=Z,9.3nm,0.7s | | | | | | | | |
| **KURK** | **Kurchatov** | **8.83** | **5** | ⇑ | Lg | Lg | 11 12 39.0 | | |
| | comp=Z,5.9nm,1.0s | | | | | | | | |
| **KURK** | **Kurchatov** | **8.83** | **5** | | *e*P | **Pn** | **11 10 09.4** | **-0.9** | |
| **BRVK** | **Borovoye** | **12.15** | **339** | | *e*P | **Pn** | **11 10 57.7** | **+1.9** | |
| BRVK | | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.9s | | | | | | | | |
| **ARU** | **Arti** | **18.98** | **326** | | *i* P | **Pn** | **11 12 26.6** | **+1.7** | |
| ARU | | | | | pmax | pmax | | | |
| | comp=Z,20nm,2.7s | | | | | | | | |
| **ULN** | **Ulaanbaatar** | **21.69** | **64** | | *i* P | **P** | **11 12 53.6** | **-0.4** | |
| ULN | | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.9s | | | | | | | | |
| **OBN** | **Obninsk** | **29.68** | **311** | | *i* P | **P** | **11 14 10.9** | **+2.2** | |
| OBN | | | | | pmax | pmax | | | |
| | comp=Z,5.0nm,1.0s | | | | | | | | |
| **FFC** | **Flin Flon** | **83.72** | **360** | | *i* P | P | 11 20 35.6 | +3.6 | |

**IDC 13 11:08:44.9±4.6, 11°08'S×131°81'E, h0km, mb3.3/2, mb1 3.3/3, mb1mx3.0/44, mbtmp3.2/3, ML2.8/1, MS3.5/1, Ms1 3.5/1, ms1mx2.9/12, Error ellipse: s-maj=261.8km s-min=55.1km az=92.0, Irian Jaya region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **18.91** | **173** | P | Pn | 11 13 08.3 | +0.4 |
| | 0.0nm,0.3s,baz=350,slow=11,SNR=1.3 | | | | | | |
| **ASAR** | **Alice Springs** | **22.54** | **175** | P | P | 11 13 47.6 | +0.8 |
| | 0.1nm,0.3s,baz=351,slow=11,SNR=4.9 | | | | | | |
| **STKA** | **Stephens Creek** | **31.99** | **164** | P | P | 11 15 11.1 | -2.0 |
| | 1.7nm,0.9s,baz=323,slow=10,SNR=2.0 | | | | | | |
| **DZM** | **Mont Dzumac** | **39.64** | **124** | LR | LR | 11 31 47.8 | |
| | comp=Z,68nm,19.0s,baz=3.0,slow=35 | | | | | | |
| **LPAZ** | **La Paz** | **153.82** | **132** | PKPbc | PKPbc | 11 28 48.6 | +0.6 |
| | 0.5nm,0.3s,baz=201,slow=3.2,SNR=2.5 | | | | | | |

*NEIC **13** 11:16:54.3±0.0, 46°.91S×166°.34E, h12km, ML4.0(WEL), After WEL.*

**WEL 13 11:16:55.2±0.5, 46°.86S×166°.46E, h5km, ML3.9/12, 5C-2D, Error ellipse: s-maj=4.4km s-min=2.0km az=90.0, Off west coast of South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PYZ** | **Puysegur Point** | **0.71** | **13** | P* | Pg | 11 17 09.2 | +0.3 |
| PYZ | | | | S* | Sb | 11 17 19.3 | -0.8 |
| **PYZ** | **Puysegur Point** | **0.71** | **13** | ⇑P* | Pg | 11 17 09.2 | +0.3 |
| PYZ | | | | AML | AML | 11 17 09.8 | |
| PYZ | | | | S* | Sb | 11 17 19.3 | -0.8 |
| PYZ | | | | AML | AML | 11 17 19.9 | |
| PYZ | | | | AML | AML | 11 17 19.9 | |
| **APZ** | **The Paps** | **1.05** | **89** | P* | Pg | 11 17 15.0 | -0.4 |
| APZ | | | | S* | Sg | 11 17 29.4 | +0.3 |
| **APZ** | **The Paps** | **1.05** | **89** | ⇓P* | Pg | 11 17 15.0 | -0.4 |
| APZ | | | | S* | Sg | 11 17 29.3 | +0.3 |
| APZ | | | | AML | AML | 11 17 30.6 | |
| **WHZ** | **Wether Hill Ro** | **1.42** | **47** | Pn | Pn | 11 17 20.5 | -1.1 |
| WHZ | | | | Sn | Sb | 11 17 39.6 | -0.8 |
| **WHZ** | **Wether Hill Ro** | **1.42** | **47** | PN | Pn | 11 17 20.5 | -1.1 |
| WHZ | | | | SN | Sb | 11 17 39.6 | -0.8 |
| WHZ | | | | AML | AML | 11 17 40.9 | |
| **DCZ** | **Deep Cove** | **1.48** | **19** | Pn | Pn | 11 17 19.9 | -2.5 |
| **DCZ** | **Deep Cove** | **1.48** | **19** | PN | Pn | 11 17 19.9 | -2.5 |
| DCZ | | | | AML | AML | 11 17 22.9 | |
| DCZ | | | | AML | AML | 11 17 44.1 | |
| DCZ | | | | AML | AML | 11 17 45.1 | |
| DCZ | | | | AML | AML | 11 17 45.7 | |
| **SYZ** | **Scrubby Hill** | **1.87** | **81** | Pn | Pn | 11 17 27.5 | -0.4 |
| **SYZ** | **Scrubby Hill** | **1.87** | **81** | ⇓PN | Pn | 11 17 27.5 | -0.4 |
| SYZ | | | | AML | AML | 11 17 54.4 | |
| SYZ | | | | AML | AML | 11 17 54.4 | |
| SYZ | | | | AML | AML | 11 17 55.1 | |
| SYZ | | | | AML | AML | 11 17 55.2 | |
| **MLZ** | **Mavora Lakes** | **1.89** | **38** | Pn | Pn | 11 17 27.7 | -0.5 |
| MLZ | | | | Sn | Sn | 11 17 52.8 | +0.4 |
| **MLZ** | **Mavora Lakes** | **1.89** | **38** | ⇑PN | Pn | 11 17 27.7 | -0.5 |
| MLZ | | | | SN | Sn | 11 17 52.8 | +0.4 |
| MLZ | | | | AML | AML | 11 17 53.8 | |
| **TUZ** | **Tuapeka** | **2.38** | **69** | Pn | Pn | 11 17 34.2 | -0.6 |
| **TUZ** | **Tuapeka** | **2.38** | **69** | PN | Pn | 11 17 34.2 | -0.6 |
| TUZ | | | | AML | AML | 11 18 03.8 | |
| TUZ | | | | AML | AML | 11 18 04.0 | |
| TUZ | | | | AML | AML | 11 18 05.1 | |
| TUZ | | | | AML | AML | 11 18 06.0 | |
| **MSZ** | **Milford Sound** | **2.42** | **26** | Pn | Pn | 11 17 34.8 | -0.5 |
| **MSZ** | **Milford Sound** | **2.42** | **26** | PN | Pn | 11 17 34.8 | -0.5 |
| MSZ | | | | AML | AML | 11 18 14.3 | |
| MSZ | | | | AML | AML | 11 18 14.5 | |
| MSZ | | | | AML | AML | 11 18 15.2 | |
| MSZ | | | | AML | AML | 11 18 17.7 | |
| **EAZ** | **Earnscleugh** | **2.57** | **52** | Pn | Pn | 11 17 36.5 | -1.0 |
| **EAZ** | **Earnscleugh** | **2.57** | **52** | PN | Pn | 11 17 36.5 | -1.0 |
| EAZ | | | | AML | AML | 11 18 09.5 | |
| EAZ | | | | AML | AML | 11 18 10.2 | |
| EAZ | | | | AML | AML | 11 18 10.6 | |
| EAZ | | | | AML | AML | 11 18 11.2 | |
| **WKZ** | **Wanaka** | **2.71** | **42** | Pn | Pn | 11 17 39.3 | -0.1 |
| **WKZ** | **Wanaka** | **2.71** | **42** | ⇑PN | Pn | 11 17 39.3 | -0.1 |
| WKZ | | | | AML | AML | 11 18 14.3 | |
| WKZ | | | | AML | AML | 11 18 14.3 | |
| WKZ | | | | AML | AML | 11 18 14.4 | |
| WKZ | | | | AML | AML | 11 18 16.2 | |
| **HHSZ** | **Highcliff Hill** | **3.03** | **73** | Pn | Pn | 11 17 43.2 | -0.6 |
| **HHSZ** | **Highcliff Hill** | **3.03** | **73** | PN | Pn | 11 17 43.2 | -0.6 |
| **JCZ** | **Jackson Bay** | **3.23** | **31** | Pn | Pn | 11 17 47.0 | +0.3 |
| **JCZ** | **Jackson Bay** | **3.23** | **31** | PN | Pn | 11 17 47.0 | +0.3 |
| JCZ | | | | AML | AML | 11 18 30.7 | |
| JCZ | | | | AML | AML | 11 18 36.2 | |
| **ODZ** | **Otahua Downs** | **3.44** | **60** | Pn | Pn | 11 17 47.1 | -2.4 |
| **ODZ** | **Otahua Downs** | **3.44** | **60** | ⇑PN | Pn | 11 17 47.1 | -2.4 |
| ODZ | | | | AML | AML | 11 18 27.9 | |
| ODZ | | | | AML | AML | 11 18 29.1 | |
| ODZ | | | | AML | AML | 11 18 41.6 | |
| ODZ | | | | AML | AML | 11 18 48.6 | |
| **LBZ** | **Lake Benmore** | **3.60** | **48** | Pn | Pn | 11 17 49.1 | -2.6 |
| **LBZ** | **Lake Benmore** | **3.60** | **48** | PN | Pn | 11 17 49.1 | -2.6 |
| **FOZ** | **Fox Glacier** | **4.09** | **37** | Pn | Pn | 11 17 57.7 | -0.6 |
| **FOZ** | **Fox Glacier** | **4.09** | **37** | PN | Pn | 11 17 57.7 | -0.6 |
| **RPZ** | **Rata Peaks** | **4.52** | **48** | Pn | Pn | 11 18 00.6 | -3.7 |
| **RPZ** | **Rata Peaks** | **4.52** | **48** | ⇑PN | Pn | 11 18 00.6 | -3.7 |
| **DSZ** | **Denniston Nort** | **6.39** | **39** | PN | Pn | 11 18 27.4 | -2.7 |

*ISCJB **13** 11:32:32.8±1.3, 38°.70N±0°.06×43°.6E±0°.1, h33km±7km, Error ellipse: s-maj=14.5km s-min=8.3km az=30.6*
*ISK **13** 11:32:32.9, 38°.78N×43°.47E, h5km, MD2.4*
*DDA **13** 11:32:33.8, 38°.73N×43°.44E, h7km, Ml2.5*
*CSEM **13** 11:32:34.1±0.4, 38°.77N×43°.46E, h5km, ML2.5, Error ellipse: s-maj=10.8km s-min=7.7km az=113.0*

**ISC 13 11:32:34.2±1.4, 38°.76N±0°.05×43°.51E±0°.05, h23km±10km, n14, σ1s21/24, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.19** | **211** | *e*PG | **Pb** | **11 32 39.0** | **-0.6** |
| VANB | | | | *e*SG | **Sb** | **11 32 45.1** | **+1.8** |
| **VANB** | **Van** | **0.19** | **211** | *e*Pg | **Pb** | **11 32 39.0** | **-0.6** |
| VANB | | | | *e*Sg | **Sb** | **11 32 45.1** | **+1.8** |
| **VMUR** | **Van-Muradiye** | **0.24** | **12** | *i* P | **Pb** | **11 32 39.2** | **-1.2** |
| VMUR | | | | *i* S | **Sb** | **11 32 44.9** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.24** | **12** | P | **Pb** | **11 32 39.2** | **-1.2** |
| VMUR | | | | S | **Sb** | **11 32 44.9** | **+0.3** |
| **TVAN** | **Van** | **0.24** | **200** | *i* P | **Pb** | **11 32 38.7** | **-1.7** |
| **TVAN** | **Van** | **0.24** | **200** | P | **Pb** | **11 32 38.7** | **-1.7** |
| **CLDR** | **Caldiran** | **0.50** | **39** | *e*PG | **Pb** | **11 32 43.4** | **-1.1** |
| CLDR | | | | *e*SG | **Sb** | **11 32 52.5** | **+1.0** |
| **CLDR** | **Caldiran** | **0.50** | **39** | *i* P | **Pb** | **11 32 44.0** | **-0.5** |
| CLDR | | | | *i* S | **Sb** | **11 32 53.2** | **+1.7** |
| **CLDR** | **Caldiran** | **0.50** | **39** | *e*Pg | **Pb** | **11 32 43.4** | **-1.1** |
| **CLDR** | **Caldiran** | **0.50** | **39** | P | **Pb** | **11 32 44.0** | **-0.5** |
| CLDR | | | | *e*Sg | **Sb** | **11 32 52.5** | **+1.0** |
| CLDR | | | | S | **Sb** | **11 32 53.2** | **+1.7** |
| **TUTA** | **Tutak** | **0.84** | **320** | *i* P | **Pb** | **11 32 49.7** | **-0.6** |
| TUTA | | | | *i* S | **Sn** | **11 33 02.6** | **0.0** |
| **TUTA** | **Tutak** | **0.84** | **320** | P | **Pb** | **11 32 49.7** | **-0.6** |
| TUTA | | | | S | **Sn** | **11 33 02.6** | **0.0** |
| **AGRB** | **Hanur-Agry** | **0.91** | **334** | *e*PG | **Pb** | **11 32 50.5** | **-0.9** |
| **AGRB** | **Hanur-Agry** | **0.91** | **334** | *e*Pg | **Pb** | **11 32 50.5** | **-0.9** |

**IDC 13 11:37:17.7±1.1, 12°.62N×58°.24E, h0km, mb3.5/7, mb1 3.7/7, mb1mx3.5/33, mbtmp3.5/7, Error ellipse: s-maj=32.8km s-min=23.9km az=18.0, Owen Fracture Zone region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **H08N2** | **Diego Garcia H** | **22.69** | **145** | T | T | 12 06 44.5 | |
| | baz=325 | | | | | | |
| **H08N3** | **Diego Garcia H** | **22.71** | **145** | T | T | 12 06 46.8 | |
| | baz=325 | | | | | | |
| **H08N1** | **Diego Garcia H** | **22.72** | **145** | T | T | 12 06 47.4 | |
| | baz=325 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **39.58** | **76** | P | P | 11 44 52.2 | +1.1 |
| | 0.6nm,0.6s,baz=277,slow=8.1,SNR=5.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **39.63** | **26** | P | P | 11 44 51.8 | +0.6 |
| | 0.1nm,0.4s,baz=220,slow=11,SNR=2.3 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **46.28** | **21** | P | P | 11 45 44.2 | -0.8 |
| | 0.6nm,0.4s,baz=238,slow=6.8,SNR=2.9 | | | | | | |
| **GERES** | **GERESS Array B** | **51.49** | **324** | P | P | 11 46 24.0 | -1.2 |
| | 0.3nm,0.4s,baz=132,slow=15,SNR=3.4 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **55.02** | **277** | P | P | 11 46 52.7 | +1.0 |
| | 0.3nm,0.7s,baz=89,slow=7.5,SNR=2.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **81.54** | **113** | P | P | 11 49 37.6 | -0.3 |
| | 0.8nm,0.8s,baz=299,slow=5.2,SNR=6.4 | | | | | | |
| **ASAR** | **Alice Springs** | **82.24** | **116** | P | P | 11 49 40.8 | -0.8 |
| | 0.4nm,0.8s,baz=290,slow=4.9,SNR=3.8 | | | | | | |

*ISK **13** 11:38:42.4, 38°.76N×43°.48E, h25km, MD2.5*
*CSEM **13** 11:38:43.8±0.3, 38°.77N×43°.49E, h10km, MD2.5, Error ellipse: s-maj=7.6km s-min=5.1km az=115.0*
*DDA **13** 11:38:43.8, 38°.75N×43°.50E, h7km, Ml2.8*
*ATA **13** 11:38:43.1±1.5, 38°.78N×43°.50E, h1km±10km, ML2.5, MW2.8*

**ISC 13 11:38:44.3±1.2, 38°.77N±0°.03×43°.51E±0°.03, h19km±2km, n29, σ0s99/38, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.20** | **208** | *e*PG | **Pg** | **11 38 49.2** | **-0.2** |
| **VANB** | **Van** | **0.20** | **208** | *e*Pg | **Pg** | **11 38 49.2** | **-0.2** |
| **VMUR** | **Van-Muradiye** | **0.22** | **13** | *i* P | **Pg** | **11 38 49.0** | **-0.8** |
| VMUR | | | | *i* S | **Sg** | **11 38 54.0** | **+0.4** |
| **VMUR** | **Van-Muradiye** | **0.22** | **13** | P | **Pg** | **11 38 49.0** | **-0.8** |
| VMUR | | | | S | **Sg** | **11 38 54.0** | **+0.4** |
| **TVAN** | **Van** | **0.26** | **198** | *i* P | **Pg** | **11 38 49.1** | **-1.2** |
| **TVAN** | **Van** | **0.26** | **198** | P | **Pg** | **11 38 49.1** | **-1.2** |
| **ERCV** | **ERCIS-VAN** | **0.28** | **332** | *e*PG | **Pg** | **11 38 49.6** | **-1.1** |
| ERCV | | | | *e*SG | **Sb** | **11 38 54.9** | **-0.2** |
| **ERCV** | **ERCIS-VAN** | **0.28** | **332** | *e*Pg | **Pg** | **11 38 49.6** | **-1.1** |
| ERCV | | | | *e*Sg | **Sb** | **11 38 54.9** | **-0.2** |
| **CLDR** | **Caldiran** | **0.49** | **41** | *e*PG | **Pg** | **11 38 53.6** | **-0.7** |
| CLDR | | | | *e*SG | **Sb** | **11 39 01.6** | **+0.3** |
| **CLDR** | **Caldiran** | **0.49** | **41** | *i* P | **Pg** | **11 38 54.0** | **-0.3** |
| **CLDR** | **Caldiran** | **0.49** | **41** | *e*Pg | **Pg** | **11 38 53.6** | **-0.7** |
| **CLDR** | **Caldiran** | **0.49** | **41** | P | **Pg** | **11 38 54.0** | **-0.3** |
| CLDR | | | | *e*Sg | **Sb** | **11 39 01.6** | **+0.3** |
| **GEVA** | **Gevas** | **0.58** | **218** | *e*P | **Pg** | **11 38 54.8** | **-1.1** |
| GEVA | | | | *e*S | **Sb** | **11 39 52.2** | **+1.6** |
| GEVA | | | | IAML | | 11 39 12.1 | |
| | comp=Z,21nm,0.4s | | | | | | |
| **GEVA** | **Gevas** | **0.58** | **218** | *i* P | **Pg** | **11 38 54.5** | **-1.4** |
| **GEVA** | **Gevas** | **0.58** | **218** | P | **Pg** | **11 38 54.5** | **-1.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.61** | **274** | *i* P | **Pg** | **11 38 55.9** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.61** | **274** | P | **Pg** | **11 38 55.9** | **-0.6** |
| **TUTA** | **Tutak** | **0.83** | **320** | *e*P | **Pg** | **11 38 59.9** | **-0.7** |
| TUTA | | | | *e*S | **Sb** | **11 39 12.3** | **+1.2** |
| TUTA | | | | IAML | | 11 39 13.5 | |
| | comp=Z,23nm,0.2s | | | | | | |
| **TUTA** | **Tutak** | **0.83** | **320** | *i* P | **Pg** | **11 38 59.9** | **-0.7** |
| **TUTA** | **Tutak** | **0.83** | **320** | P | **Pg** | **11 38 59.9** | **-0.7** |
| **AGRB** | **Hanur-Agry** | **0.90** | **334** | *e*PG | **Pg** | **11 38 59.7** | **-2.1** |
| **AGRB** | **Hanur-Agry** | **0.90** | **334** | *e*Pg | **Pg** | **11 38 59.7** | **-2.1** |
| **EKAR** | **Karacoban** | **1.22** | **294** | *e*P | **Pb** | **11 39 06.7** | **-0.3** |
| **EATA** | **Eleskirt** | **1.34** | **324** | *e*P | **Pg** | **11 39 10.8** | **+0.5** |
| EATA | | | | *e*S | **Sg** | **11 39 29.7** | **+1.8** |
| EATA | | | | IAML | | 11 39 33.3 | |
| | comp=Z,1.8nm,0.6s | | | | | | |
| **EATA** | **Eleskirt** | **1.34** | **324** | *i* P | **Pg** | **11 39 09.9** | **-0.4** |
| **EATA** | **Eleskirt** | **1.34** | **324** | P | **Pg** | **11 39 09.9** | **-0.4** |
| **DIGO** | **Kars** | **1.65** | **356** | *e*P | **Pb** | **11 39 14.2** | **+0.1** |
| **HOMI** | **Horasan** | **1.78** | **316** | *e*P | **Pb** | **11 39 16.5** | **+0.1** |
| **BNGL** | **BINGOL** | **1.85** | **276** | *e*P | **Pg** | **11 39 18.9** | **-1.0** |

**HEL 13 11:46:06.6±2.0, 67°.93N×20°.34E, h0km, Explosion, Sweden**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LANU** | **Lannavaara** | **0.63** | **78** | SG | Sg | 11 46 24.2 | -2.7 |
| **HEF** | **Hetta** | **1.33** | **67** | SN | Sn | 11 46 51.2 | +0.4 |
| **ERTU** | **Ertsjaerv** | **1.55** | **152** | SG | Sn | 11 46 52.7 | -3.6 |
| **ARE0** | **ARCESS Array S** | **2.48** | **47** | PN | Pn | 11 46 46.6 | -1.6 |
| | baz=233 | | | | | | |
| ARE0 | | | | SG | Sb | 11 47 24.6 | +1.5 |
| **RNF** | **Rovaniemi** | **2.57** | **118** | SB | Sb | 11 47 25.0 | -0.6 |

*CSEM **13** 11:47:19.6±0.3, 63°.82N×28°.05E, h1km, ML1.6, Error ellipse: s-maj=7.7km s-min=5.6km az=67.0, Mining explosion.*
*UPP **13** 11:47:22.8, 63°.84N×27°.43E, h0km, Suspected Mining explosion.*

**HEL 13 11:47:19.6±0.1, 63°.98N×28°.13E, h0km, ML1.6, Explosion, Finland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OUL** | **Oulu** | **1.47** | **320** | SN | Pn | 11 47 45.4 | -1.9 |
| **OUL** | **Oulu** | **1.47** | **320** | PG | Pn | 11 47 45.5 | -1.7 |
| | baz=133 | | | | | | |
| OUL | | | | SG | Sg | 11 48 05.5 | -1.2 |
| **OUF** | **Merijarvi** | **1.54** | **286** | Pg | Pn | 11 47 47.5 | -0.7 |
| OUF | | | | Sn | Sn | 11 48 08.1 | -0.7 |
| **OUF** | **Merijarvi** | **1.54** | **286** | PG | Pn | 11 47 47.5 | -0.7 |
| | baz=103 | | | | | | |
| OUF | | | | SN | Sn | 11 48 08.1 | -0.7 |
| **SUF** | **Sumiainen** | **1.55** | **216** | PG | Pn | 11 47 47.4 | -1.0 |
| SUF | | | | MSG | | 11 48 06.0 | |
| | comp=Z,3.2nm,0.2s | | | | | | |
| **JOF** | **Joensuu** | **1.79** | **125** | Pg | Pn | 11 47 51.5 | -0.2 |
| JOF | | | | Sg | Sn | 11 48 15.5 | +0.5 |
| **JOF** | **Joensuu** | **1.79** | **125** | PG | Pn | 11 47 51.5 | -0.1 |
| JOF | | | | SG | Sn | 11 48 15.5 | +0.5 |
| **MSF** | **Maaselka** | **1.97** | **11** | Pg | Pn | 11 47 55.0 | +0.7 |
| **MSF** | **Maaselka** | **1.97** | **11** | SN | Pn | 11 47 55.5 | +1.2 |
| **MSF** | **Maaselka** | **1.97** | **11** | PG | Pn | 11 47 55.1 | +0.8 |
| **KU6** | **Riekki** | **2.18** | **19** | Pg | Pb | 11 47 58.8 | -1.1 |
| KU6 | | | | Sg | Sb | 11 48 26.9 | -0.6 |
| **KU6** | **Riekki** | **2.18** | **19** | SN | Pn | 11 47 58.8 | +1.7 |
| **KU6** | **Riekki** | **2.18** | **19** | PG | Pb | 11 47 58.9 | -1.1 |
| | baz=198 | | | | | | |
| KU6 | | | | MSG | | 11 48 24.4 | |
| | comp=Z,1.1nm,0.2s | | | | | | |
| KU6 | | | | SG | Sb | 11 48 26.9 | -0.6 |
| **KEF** | **Keuruu** | **2.35** | **221** | Pg | Pn | 11 48 00.9 | +1.5 |
| KEF | | | | Sg | Sb | 11 48 31.6 | -0.7 |
| **KEF** | **Keuruu** | **2.35** | **221** | PG | Pn | 11 48 01.0 | +1.6 |
| | baz=33 | | | | | | |
| KEF | | | | MSG | | 11 48 29.1 | |
| | comp=Z,3.4nm,0.2s | | | | | | |
| KEF | | | | SG | Sb | 11 48 31.6 | -0.7 |
| **VAF** | **Ylistaro** | **2.62** | **251** | Pb | Pb | 11 48 05.3 | -2.1 |
| **VAF** | **Ylistaro** | **2.62** | **251** | PB | Pb | 11 48 05.3 | -2.0 |
| VAF | | | | MSG | | 11 48 36.8 | |
| | comp=Z,2.7nm,0.2s | | | | | | |
| VAF | | | | SG | Sb | 11 48 39.8 | -0.2 |
| **TOF** | **Tornio** | **2.65** | **324** | Pb | Pn | 11 48 05.1 | +1.6 |
| **TOF** | **Tornio** | **2.65** | **324** | PB | Pn | 11 48 05.2 | +1.7 |
| **FIA0** | **FINESS Array S** | **2.72** | **201** | Pb | Pn | 11 48 06.7 | +2.2 |
| FIA0 | | | | Sb | Sb | 11 48 40.7 | -2.2 |
| **FIA0** | **FINESS Array S** | **2.72** | **201** | PB | Pn | 11 48 06.7 | +2.2 |
| FIA0 | | | | SB | Sb | 11 48 40.7 | -2.2 |
| **KALU** | **Kalix** | **2.77** | **315** | Pg | Pb | 11 48 08.8 | -1.1 |
| **KALU** | **Kalix** | **2.77** | **315** | PG | Pb | 11 48 08.8 | -1.1 |
| **SJUU** | **Sjulsmark** | **3.19** | **302** | P | Pn | 11 48 11.3 | +0.4 |
| **SGF** | **Sodankyl** | **3.54** | **350** | Pb | Pn | 11 48 17.9 | +2.2 |
| **SGF** | **Sodankyl** | **3.54** | **350** | PB | Pn | 11 48 18.0 | +2.3 |
| **ERTU** | **Ertsjaerv** | **3.59** | **319** | P | Pn | 11 48 17.7 | +1.3 |
| **ERTU** | **Ertsjaerv** | **3.59** | **319** | Pb | Pn | 11 48 18.1 | +1.7 |
| ERTU | | | | S | Sn | 11 49 00.7 | +1.3 |
| **ERTU** | **Ertsjaerv** | **3.59** | **319** | PB | Pn | 11 48 18.1 | +1.7 |
| **PAJU** | **Pajala** | **3.70** | **328** | P | Pn | 11 48 20.5 | +2.6 |
| **HARU** | **Harads** | **3.73** | **309** | P | Pn | 11 48 19.9 | +1.5 |
| **LILU** | **Lilltraesk** | **3.79** | **294** | P | Pn | 11 48 19.6 | +0.4 |
| **RAF** | **Rauma** | **4.19** | **228** | PN | Pn | 11 48 26.6 | +2.1 |
| **MASU** | **Masugnsbyn** | **4.31** | **327** | P | Pn | 11 48 29.3 | +3.0 |
| **DUNU** | **Dundret** | **4.45** | **318** | P | Pn | 11 48 29.7 | +1.5 |
| **HEMU** | **Hemsoen** | **4.73** | **258** | Pn | Pn | 11 48 32.5 | +0.4 |
| **HEMU** | **Hemsoen** | **4.73** | **258** | PN | Pn | 11 48 32.6 | +0.5 |
| **LANU** | **Lannavaara** | **4.79** | **331** | P | Pn | 11 48 34.7 | +1.8 |
| **RATU** | **Laukkuluspa** | **5.20** | **322** | P | Pn | 11 48 40.3 | +1.7 |
| **NIKU** | **Nikkaluokta** | **5.39** | **320** | P | Pn | 11 48 42.5 | +1.4 |

**IDC 13 11:56:47.2±7.1, 8°.52S×127°.18E, h369km±75km, mb3.3/1, mb1 2.7/4, mb1mx2.5/30, mbtmp3.4/4, Error ellipse: s-maj=82.0km s-min=66.4km az=91.0, Timor region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **9.64** | **189** | P | Pn | 11 59 00.3 | -0.6 |
| | 0.1nm,0.3s,baz=347,slow=9.1,SNR=3.7 | | | | | | |
| FITZ | | | | S | S | 12 00 50.5 | -0.1 |
| | 0.1nm,0.3s,baz=139,slow=20,SNR=3.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **13.30** | **149** | P | P | 11 59 42.6 | +0.3 |
| | 0.1nm,0.3s,baz=330,slow=12,SNR=7.6 | | | | | | |
| WRA | | | | S | S | 12 02 07.4 | -0.2 |
| | 0.2nm,0.3s,baz=324,slow=27,SNR=8.8 | | | | | | |
| **ASAR** | **Alice Springs** | **16.38** | **158** | P | P | 12 00 16.9 | +0.9 |
| | baz=340,slow=12,SNR=2.7 | | | | | | |
| **STKA** | **Stephens Creek** | **26.82** | **152** | P | P | 12 01 55.1 | -0.2 |
| | 2.4nm,0.9s,baz=306,slow=14,SNR=2.6 | | | | | | |

*ISCJB **13** 11:58:32.1±1.1, 11°.34N±0°.06×73°.92W±0°.07, h33km, mb3.7/2, Error ellipse: s-maj=10.9km s-min=7.3km az=38.2*
*RSNC **13** 11:58:35.5±0.7, 11°.27N×73°.89W, h32km±17km, ML3.8*
*IDC **13** 11:58:39.4±4.4, 11°.26N×73°.54W, h83km±35km, mb3.5/2, mb1 3.8/6, mb1mx3.4/29, mbtmp4.1/6, Error ellipse: s-maj=38.0km s-min=23.2km az=159.0*

**ISC 13 11:58:33.5±1.1, 11°.33N±0°.07×73°.90W±0°.07, h35km, n14, σ1s32/19, 1C-1D, Near north coast of Colombia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CODC** | **Agust`n Codaz** | **1.45** | **162** | ⇓*i*P | **Pn** | **11 58 58.0** | **+0.7** |
| CODC | | | | *e*S | **Sn** | **11 59 14.9** | **-0.2** |
| CODC | | | | *i* | | 11 59 19.1 | |
| | comp=Z,2μm,0.3s | | | | | | |
| **URIC** | **Uribia, Colomb** | **1.91** | **79** | ⇑*i*P | **Pn** | **11 59 05.1** | **+1.6** |
| URIC | | | | *e*S | **Sn** | **11 59 27.7** | **+1.4** |
| URIC | | | | *i* | | 11 59 32.9 | |
| | comp=Z,554nm,0.5s | | | | | | |
| **OCAC** | **Ocana** | **3.12** | **169** | *e*P | **Pn** | **11 59 20.9** | **+0.5** |
| OCAC | | | | *e*S | **Sn** | **11 59 57.5** | **+1.0** |
| **SDV** | **Santo Domingo** | **4.03** | **127** | P | **Pn** | **11 59 34.0** | **+1.2** |
| | comp=Z,22nm,0.3s,baz=318,slow=6.8,SNR=90 | | | | | | |
| SDV | | | | S | **Sn** | **12 00 17.9** | **-1.1** |
| | comp=Z,25nm,0.3s,baz=356,slow=19,SNR=9.6 | | | | | | |
| **PAMC** | **Pamplona, Colo** | **4.13** | **163** | *e*P | **Pn** | **11 59 36.0** | **+1.4** |
| PAMC | | | | *e*S | **Sn** | **12 00 22.4** | **+0.4** |
| **BRRC** | **Barranca, Sant** | **4.20** | **177** | *e*P | **Pn** | **11 59 36.2** | **+1.2** |
| BRRC | | | | *i* | | 12 00 48.5 | |
| | comp=Z,162nm,0.5s | | | | | | |
| **CAPC** | **Capurgana** | **4.33** | **232** | *e*S | **Sn** | **12 00 26.0** | **-0.1** |
| **ROSC** | **El Rosal** | **6.46** | **184** | P | Pn | 12 00 12.7 | +6.2 |
| | comp=Z,3.4nm,0.3s,baz=138,slow=22,SNR=9.4 | | | | | | |
| ROSC | | | | S | Sn | 12 01 33.2 | +14 |
| | comp=Z,8.2nm,0.3s,baz=185,slow=23,SNR=12 | | | | | | |
| **PCRV** | **Puerto La Cruz** | **9.17** | **96** | P | **Pn** | **12 00 44.8** | **+1.3** |
| | comp=Z,2.3nm,0.3s,baz=280,slow=5.1,SNR=7.2 | | | | | | |
| PCRV | | | | S | **Sn** | **12 02 22.0** | **-3.6** |
| | comp=Z,0.8nm,0.3s,baz=351,slow=13,SNR=3.1 | | | | | | |
| **PTGA** | **Pitinga** | **18.31** | **130** | P | **Pn** | **12 02 44.3** | **-0.5** |
| | comp=Z,0.6nm,0.3s,baz=90,slow=20,SNR=3.0 | | | | | | |
| **PLCA** | **Paso Flores** | **51.89** | **177** | P | **P** | **12 07 38.3** | **-0.3** |
| | comp=Z,1.9nm,

*JMA 13 12:23:23.8±0.2,36.44N×141.82E,h54km,M3.4*
**ISC 13 12:23:21.5±1.1,36°31'N±0'.06×142°00'E±0'.09,h19km,n27,**
**σ1°§31/25,mb3.5/5,Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| CHOJ | Chosi | 1.11 | 237 | P | Pg | 12 23 43.3 | +0.3 |
| CHOJ | | | | S | Sg | 12 23 57.5 | -0.1 |
| JHO | Hitachi | 1.20 | 285 | P | Pn | 12 23 41.8 | -1.4 |
| ONAJ | Iwakimizuishiy | 1.25 | 310 | P | Pn | 12 23 42.5 | -1.5 |
| JFK | Kawauchi | 1.39 | 320 | P | Pn | 12 23 44.6 | -1.4 |
| JFT | Otama | 1.80 | 313 | P | Pn | 12 23 51.4 | -0.2 |
| JFT | | | | *e*S | Sn | 12 24 11.7 | -2.2 |
| JMM | Marumori | 1.83 | 328 | P | Pn | 12 23 50.6 | -1.4 |
| BSO1 | Boso 1 | 1.85 | 207 | P | Pb | 12 23 53.9 | -0.5 |
| BSO3 | Boso 3 | 1.94 | 219 | P | Pb | 12 23 55.3 | -0.7 |
| JAG | Ashikaga | 2.06 | 274 | P | Pn | 12 23 54.8 | -0.3 |
| JFY | Yanaizu | 2.15 | 301 | P | Pn | 12 23 56.5 | +0.2 |
| MJAR | Matsushiro Arr | 3.07 | 275 | Pn | Pn | 12 24 09.4 | +0.3 |
| | 12nm,0.3s,baz=112,slow=9.4,SNR=114 | | | | | | |
| MJAR | | | | Sn | Sn | 12 24 46.7 | +1.4 |
| | 3.1nm,0.3s,baz=217,slow=15,SNR=5.6 | | | | | | |
| MAT | Matsushiro | 3.07 | 275 | P | Pn | 12 24 09.8 | +0.8 |
| MAT | | | | S | Sn | 12 24 42.9 | -2.4 |
| JHJ | Hachijo jima 2 | 3.67 | 211 | Pn | Pn | 12 24 18.2 | +0.9 |
| | 12nm,0.3s,baz=47,slow=13,SNR=4.4 | | | | | | |
| JHJ | | | | Sn | Sn | 12 24 59.1 | -0.9 |
| | 22nm,0.3s,baz=70,slow=19,SNR=4.0 | | | | | | |
| ASAJ | Asahikawa | 7.81 | 3 | Pn | Pn | 12 25 15.9 | +1.8 |
| | 0.2nm,0.3s,baz=223,slow=19,SNR=2.6 | | | | | | |
| KSRS | Korea Array | 11.34 | 280 | LR | LR | 12 29 54.2 | |
| | comp=Z,23nm,20.6s,baz=155,slow=35 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 27.37 | 120 | T | T | 12 58 03.5 | |
| | baz=312,slow=75,SNR=8.4 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 27.38 | 120 | T | T | 12 58 01.9 | |
| | baz=312,slow=75,SNR=5.6 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 27.39 | 120 | T | T | 12 58 29.1 | |
| | baz=312,slow=75,SNR=6.6 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 28.07 | 123 | T | T | 12 59 25.4 | |
| | baz=314,slow=74 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 28.07 | 123 | T | T | 12 59 27.7 | |
| | baz=314,slow=74 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 28.08 | 123 | T | T | 12 59 26.2 | |
| | baz=314 | | | | | | |
| SONM | Songino Array | 28.59 | 305 | P | P | 12 29 17.6 | +1.2 |
| | 0.5nm,0.6s,baz=102,slow=9.3,SNR=3.8 | | | | | | |
| ZALV | Zalesovo Beam | 42.75 | 313 | P | P | 12 31 19.9 | +2.5 |
| | 0.2nm,0.3s,baz=99,slow=8.9,SNR=2.9 | | | | | | |
| MKAR | Makanchi Array | 44.91 | 303 | P | P | 12 31 34.8 | -0.1 |
| | 0.2nm,0.6s,baz=80,slow=12,SNR=2.9 | | | | | | |
| WRA | Warramunga Arr | 56.41 | 189 | P | P | 12 33 00.2 | -1.6 |
| | 0.2nm,0.4s,baz=8.0,slow=7.1,SNR=5.5 | | | | | | |
| ASAR | Alice Springs | 60.14 | 189 | P | P | 12 33 28.0 | +0.1 |
| | 0.4nm,0.8s,baz=18,slow=9.4,SNR=4.9 | | | | | | |
| LPAZ | La Paz | 146.64 | 61 | PKPbc | PKPab | 12 43 04.6 | +0.4 |
| | 0.5nm,0.5s,baz=124,slow=3.6,SNR=3.1 | | | | | | |

*ISCJB 13 12:29:53.5±0.7, 19°.22S±0°.06×69°.5W±0°.1,h104km±6km, mb3.9/3, Error ellipse: s-maj=16.4km s-min=8.2km az=162.4*
*GUC 13 12:29:53.4±0.5, 19°.23S×69°.44W,h100km±2km, ML3.6*
*IDC 13 12:30:07.6±2.4, 18°.06S×68°.57W,h181km±18km, mb2.9/2, mb1 3.2/2, mb1mx2.9/20, mbtmp3.4/2, Error ellipse: s-maj=42.3km s-min=23.3km az=159.0*
**ISC 13 12:29:55.6±1.1,19°.23S±0°.05×69°.45W±0°.09,h88km±8km, n12,σ1°§05/16,mb3.7/3,2C-4D,Northern Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| MNMC | Minye Minye | 0.17 | 306 | ↓*i*P | Pn | 12 30 08.1 | -0.5 |
| MNMC | | | | *i* S | Sn | 12 30 19.1 | +0.8 |
| PB11 | IPOC Station P | 0.56 | 200 | ↓*i*P | Pn | 12 30 10.3 | -0.6 |
| PB11 | | | | *i* S | Sn | 12 30 22.9 | +0.6 |
| PSGC | Pisagua | 0.73 | 240 | ↑*i*P | Pn | 12 30 11.7 | -0.7 |
| PSGC | | | | *i* S | Sn | 12 30 25.4 | +0.5 |
| PSGC | | | | IAML | | 12 30 29.3 | |
| | comp=E,2μm,0.5s | | | | | | |
| PB08 | IPOC Station P | 0.95 | 163 | ↓*i*P | Pn | 12 30 14.3 | -0.8 |
| PB08 | | | | *i* S | Sn | 12 30 29.8 | +0.3 |
| PB08 | | | | IAML | | 12 30 31.4 | |
| | comp=E,2μm,0.2s | | | | | | |
| PB12 | IPOC Station P | 1.03 | 306 | ↑*i*P | Pn | 12 30 14.7 | -0.9 |
| PB12 | | | | *i* S | Sn | 12 30 30.6 | 0.0 |
| PB01 | IPOC Station P | 1.81 | 181 | ↓*i*P | Pn | 12 30 24.2 | -1.1 |
| PB01 | | | | *i* S | Sn | 12 30 47.7 | -0.2 |
| PB01 | | | | IAML | | 12 30 52.8 | |
| | comp=N,885nm,0.3s | | | | | | |
| PB07 | IPOC Station P | 2.52 | 189 | *e*P | Pn | 12 30 34.1 | -0.8 |
| LPAZ | La Paz | 3.19 | 24 | P | Pn | 12 30 43.3 | -0.9 |
| | comp=N,1.8nm,0.3s,baz=288,slow=3.5,SNR=35 | | | | | | |
| RPN | Rapa Nui | 37.37 | 250 | P | P | 12 37 13.0 | +13 |
| | comp=N,16nm,0.7s,baz=73,slow=4.5,SNR=2.5 | | | | | | |
| TXAR | Lajitas Array | 58.48 | 325 | P | P | 12 39 42.2 | -0.7 |
| | comp=N,0.1nm,0.7s,baz=134,slow=7.7,SNR=2.4 | | | | | | |
| TORD | Torodi Ar. Bea | 77.09 | 71 | P | P | 12 41 35.4 | -4.5 |
| | comp=N,0.5nm,0.5s,baz=251,slow=5.7,SNR=6.9 | | | | | | |
| SONM | Songino Array | 151.27 | 6 | PKPbc | PKPdf | 12 49 35.5 | +2.5 |
| | comp=N,0.4nm,0.6s,baz=358,slow=4.3,SNR=2.8 | | | | | | |

**IDC 13 13:28:58.1±14.0,3°.07S×144°.66E,h94km±138km,mb3.1/2, mb1 3.4/4,mb1mx3.1/28,mbtmp3.5/4,ML3.5/2,Error ellipse: s-maj=96.8km s-min=41.8km az=128.0,Near north coast of New Guinea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| CTA | Charters Tower | 16.99 | 175 | P | P | 13 32 50.7 | +0.4 |
| | 0.3nm,0.3s,baz=11,slow=10,SNR=2.9 | | | | | | |
| WRA | Warramunga Arr | 19.56 | 300 | P | P | 13 33 18.6 | 0.0 |
| | 0.1nm,0.3s,baz=32,slow=11,SNR=9.7 | | | | | | |
| ASAR | Alice Springs | 22.97 | 206 | P | P | 13 33 54.5 | -0.2 |
| | 0.5nm,0.6s,baz=38,slow=8.5,SNR=9.6 | | | | | | |
| ILAR | Eielson Array | 83.74 | 24 | P | P | 13 41 16.4 | 0.0 |
| | 0.5nm,0.9s,baz=238,slow=5.2,SNR=3.9 | | | | | | |

*ISK 13 13:35:40.3,37°.24N×28°.07E,h5km,MD2.5*
*ISCJB 13 13:35:41.5±0.6,37°.21N±0°.05×28°.15E±0°.06,h0km, Error ellipse: s-maj=9.3km s-min=4.2km az=44.3*
*CSEM 13 13:35:41.7±0.3,37°.21N×28°.17E,h2km,MD2.5, Error ellipse: s-maj=10.4km s-min=5.9km az=32.0,Suspected Mining explosion.*
*DDA 13 13:35:41.1,37°.20N×28°.16E,h7km,Ml2.3,Suspected Mining explosion.*
**ISC 13 13:35:39.9±0.9,37°.19N±0°.04×28°.06E±0°.04,h0km,n19,**
**σ0§31/25,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| AYDN | Tasoluk | 0.49 | 343 | *i* P | Pb | 13 35 51.4 | 0.0 |
| AYDN | | | | *i* S | Sb | 13 35 59.0 | -0.2 |
| AYDN | Tasoluk | 0.49 | 343 | P | Pb | 13 35 51.4 | 0.0 |
| AYDN | | | | S | Sb | 13 35 59.0 | -0.2 |
| BDRM | Kayabasi | 0.51 | 256 | *i* P | Pn | 13 35 54.5 | 0.0 |
| BDRM | Kayabasi | 0.51 | 256 | P | Pn | 13 35 54.5 | 0.0 |
| TURN | Turunc | 0.54 | 126 | *e*PG | Pg | 13 35 50.2 | 0.0 |
| TURN | | | | *e*SG | Sg | 13 35 57.2 | +0.1 |
| TURN | Turunc | 0.54 | 126 | *i* P | Pg | 13 35 49.6 | -0.5 |
| TURN | Turunc | 0.54 | 126 | P | Pg | 13 35 49.7 | -0.5 |
| TURN | Turunc | 0.54 | 126 | *e*Pg | Pg | 13 35 50.2 | 0.0 |
| TURN | | | | *e*Sg | Sg | 13 35 57.2 | +0.1 |
| DALY | Dalyan (Mu¨la | 0.60 | 128 | *e*PG | Pb | 13 35 53.0 | -0.3 |
| DALY | | | | *e*SG | Sb | 13 36 02.0 | -0.3 |
| DALY | Dalyan (Mu¨la | 0.60 | 128 | *e*Pg | Pb | 13 35 53.0 | -0.3 |
| DALY | | | | *e*Sg | Sb | 13 36 02.0 | -0.3 |
| BODT | Bodrum | 0.61 | 258 | *e*PG | Pb | 13 35 53.9 | +0.4 |
| BODT | Bodrum | 0.61 | 258 | *e*Pg | Pb | 13 35 53.9 | +0.4 |
| TAVA | DENIZLI_Tavas | 0.73 | 68 | *i* P | Pg | 13 35 54.2 | +0.3 |
| TAVA | DENIZLI_Tavas | 0.73 | 68 | P | Pg | 13 35 54.2 | +0.3 |
| GCAM | G?zelcaml? | 0.83 | 308 | *e*PG | Pg | 13 35 55.4 | -0.4 |
| FETY | Fethiye | 0.99 | 124 | *e*PG | Pb | 13 36 00.2 | +0.3 |
| FETY | Fethiye | 0.99 | 124 | *e*Pg | Pb | 13 36 00.2 | +0.3 |
| AKAS | Kas | 1.57 | 127 | *e*PN | Pg | 13 36 10.2 | +0.4 |
| AKAS | Kas | 1.57 | 127 | *e*Pn | Pg | 13 36 10.3 | +0.4 |

*ISCJB 13 13:38:36.2±0.6,38°.42N±0°.04×35°.88E±0°.05,h0km, Error ellipse: s-maj=5.7km s-min=4.8km az=38.4*
*CSEM 13 13:38:36.3±0.2,38°.43N×35°.88E,h1km,MD2.5, Error ellipse: s-maj=6.6km s-min=5.0km az=94.0,Suspected Mining explosion.*
*ISK 13 13:38:36.1,38°.43N×35°.90E,h8km,MD2.5*
*DDA 13 13:38:37.6,38°.32N×35°.90E,h7km,Ml2.4,Suspected Mining explosion.*
**ISC 13 13:38:35.1±0.9,38°.46N±0°.03×35°.81E±0°.04,h0km,n18,**
**σ0§36/23,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| BNN | Bunyan | 0.39 | 4 | *e*PG | Pb | 13 38 44.8 | -0.3 |
| BNN | | | | *e*SG | Sb | 13 38 51.2 | -0.6 |
| BNN | Bunyan | 0.39 | 4 | *e*Pg | Pb | 13 38 44.8 | -0.3 |
| BNN | | | | *e*Sg | Sb | 13 38 51.2 | -0.6 |
| SARI | SarD1z-Kayseri | 0.48 | 96 | *e*PG | Pg | 13 38 44.3 | 0.0 |
| SARI | | | | *e*SG | Sg | 13 38 50.9 | +0.4 |
| YAHY | KAYSERI_Yahyal | 0.51 | 224 | *i* P | Pb | 13 38 46.6 | -0.4 |
| YAHY | | | | *i* S | Sb | 13 38 54.8 | -0.2 |
| YAHY | KAYSERI_Yahyal | 0.51 | 224 | P | Pb | 13 38 46.6 | -0.4 |
| YAHY | | | | S | Sb | 13 38 54.8 | -0.2 |
| SAIM | ADANA | 0.53 | 156 | *i* P | Pg | 13 38 45.2 | 0.0 |
| SAIM | ADANA | 0.53 | 156 | P | Pg | 13 38 45.2 | 0.0 |
| KOZT | Kozan | 0.98 | 179 | *e*PG | Pb | 13 38 54.8 | -0.1 |
| KOZT | Kozan | 0.98 | 179 | *e*Pg | Pb | 13 38 54.8 | -0.1 |
| AKO | Adana | 1.04 | 196 | *i* P | Pg | 13 38 55.2 | +0.2 |
| ELBS | KAHRAMANMARAS | 1.05 | 97 | *i* P | Pb | 13 38 56.3 | +0.1 |
| ELBS | KAHRAMANMARAS | 1.05 | 97 | P | Pb | 13 38 56.3 | +0.1 |
| YOZ | Yozgat | 1.24 | 342 | *e*PN | Pn | 13 39 00.6 | +0.7 |
| YOZ | Yozgat | 1.24 | 342 | *e*Pn | Pn | 13 39 00.6 | +0.7 |
| KMRS | Kahramanmaras | 1.28 | 138 | *e*PN | Pn | 13 39 00.5 | +0.2 |
| KMRS | Kahramanmaras | 1.28 | 138 | *e*Pn | Pn | 13 39 00.5 | +0.2 |
| DARE | Darende-Malaty | 1.32 | 85 | *e*PN | Pn | 13 39 00.7 | -0.2 |
| DARE | Darende-Malaty | 1.32 | 85 | *e*Pn | Pn | 13 39 00.7 | -0.2 |

**MAN 13 13:47:28,9°.66N×122°.03E,h25km,mb3.9,ML2.7,MS2.3, 1D,Negros**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| GUIM | Jordan | 1.11 | 30 | *e*P | Pn | 13 47 47.8 | -0.1 |
| GUIM | | | | *e*S | Sb | 13 48 03.3 | +0.7 |
| SNPH | Sibulan | 1.23 | 105 | ↓*i*P | Pn | 13 47 49.7 | 0.0 |
| SNPH | | | | *i* S | Sb | 13 48 06.4 | +0.1 |
| PAGZ | Pagadian | 2.25 | 143 | *e*P | Pn | 13 48 04.7 | +1.1 |
| MSLP | Maasin | 2.83 | 80 | *e*P | Pn | 13 48 14.1 | +2.4 |

*DDA 13 13:52:55.1,37°.44N×35°.45E,h6km,Ml2.5*
**ISC 13 13:52:54.3±3.0,37°.4N±0°.2×35°.49E±0°.10,h2km±23km,n4,**
**σ0§33/5,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| AKO | Adana | 0.10 | 343 | *i* P | Pg | 13 52 56.5 | +0.1 |
| YAHY | KAYSERI_Yahyal | 0.74 | 353 | *i* P | Pg | 13 53 08.2 | -0.3 |
| KERG | Konya-Eregli | 1.08 | 273 | *i* P | Pg | 13 53 15.0 | -0.1 |
| KERG | | | | *i* S | Sb | 13 53 30.6 | +0.1 |
| BNGB | Bing¨¶l | 4.40 | 67 | *e*PN | Pn | 13 54 02.3 | +0.1 |

*ATA 13 13:53:20.0±1.8,38°.39N×43°.70E,h32km±18km, ML3.8, MW3.7*
*ISK 13 13:53:24.0,38°.58N×43°.32E,h2km,MD2.9*
*CSEM 13 13:53:24.9±0.2,38°.57N×43°.37E,h5km,MD2.9, Error ellipse: s-maj=5.9km s-min=4.5km az=77.0*
*IASPEI 13 13:53:24.7±0.9,38°.57N±0°.02×43°.35E±0°.03,h8km±5km, Error ellipse: s-maj=4.6km s-min=3.4km az=103.5,GT5 selection from ISC bulletin GT5 identified by Bond¨jr and McLaughlin (2009) selection criteria Bond¨jr and McLaughlin, A new ground truth data set for seismic studies, Seism. Res. Let., 80, 465-472, 2009*
*DDA 13 13:53:24.8,38°.58N×43°.38E,h9km,Ml3.1*
*ISCJB 13 13:53:25.2±0.4,38°.58N±0°.03×43°.40E±0°.04,h8km±3km, Error ellipse: s-maj=5.7km s-min=4.5km az=20.0*
**ISC 13 13:53:24.7±0.8,38°.57N±0°.02×43°.37E±0°.02,h8km±4km,**
**n50,σ0§94/63,3C-1D,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| VANB | Van | 0.03 | 32 | *e*PG | Pg | 13 53 26.4 | 0.0 |
| VANB | | | | *e*SG | Sg | 13 53 28.2 | +0.5 |
| VANB | Van | 0.03 | 32 | *e*Pg | Pg | 13 53 26.4 | 0.0 |
| VANB | | | | *e*Sg | Sg | 13 53 28.2 | +0.5 |
| TVAN | Van | 0.05 | 143 | *i* P | Pg | 13 53 26.3 | -0.4 |
| TVAN | | | | *i* S | Sg | 13 53 28.8 | +0.7 |
| TVAN | Van | 0.05 | 143 | P | Pg | 13 53 26.3 | -0.4 |
| TVAN | | | | S | Sg | 13 53 28.8 | +0.7 |
| GEVA | Gevas | 0.35 | 224 | ↓*i*P | Pg | 13 53 31.2 | -0.5 |
| GEVA | | | | *i* Pg | Pb | 13 53 31.9 | -1.4 |
| GEVA | | | | IAML | | 13 53 44.3 | |
| | comp=Z,292nm,0.6s | | | | | | |
| GEVA | Gevas | 0.35 | 224 | *i* P | Pg | 13 53 31.3 | -0.4 |
| GEVA | | | | *i* S | Sb | 13 53 38.9 | -0.2 |
| GEVA | Gevas | 0.35 | 224 | P | Pg | 13 53 31.3 | -0.4 |
| GEVA | | | | S | Sb | 13 53 38.9 | -0.2 |
| VMUR | Van-Muradiye | 0.45 | 21 | *i* P | Pb | 13 53 34.2 | -0.9 |
| VMUR | | | | *i* S | Sb | 13 53 44.4 | +2.4 |
| VMUR | Van-Muradiye | 0.45 | 21 | P | Pb | 13 53 34.2 | -0.9 |
| VMUR | | | | S | Sb | 13 53 44.4 | +2.4 |
| ADCV | BITLIS_Adilcev | 0.56 | 296 | *i* P | Pg | 13 53 35.4 | -0.2 |
| ADCV | | | | *i* S | Sb | 13 53 45.1 | 0.0 |
| ADCV | BITLIS_Adilcev | 0.56 | 296 | P | Pg | 13 53 35.4 | -0.2 |
| ADCV | | | | S | Sb | 13 53 45.1 | 0.0 |
| CLDR | Caldiran | 0.72 | 37 | *e*PG | Pb | 13 53 39.0 | -0.7 |
| CLDR | | | | *e*SG | Sb | 13 53 49.9 | +0.2 |
| CLDR | Caldiran | 0.72 | 37 | *i* P | Pb | 13 53 38.9 | -0.7 |
| CLDR | Caldiran | 0.72 | 37 | *e*Pg | Pb | 13 53 39.0 | -0.7 |
| CLDR | | | | *e*Sg | Sb | 13 53 49.9 | +0.2 |
| BASK | Baskale_VAN | 0.72 | 136 | *e*P | Pg | 13 53 29.8 | -8.8 |
| BASK | Baskale_VAN | 0.72 | 136 | *i* P | Pb | 13 53 39.2 | -0.4 |
| BASK | Baskale_VAN | 0.72 | 136 | P | Pb | 13 53 39.2 | -0.4 |
| TUTA | Tutak | 0.94 | 333 | ‖*e*P | Pg | 13 53 41.8 | -1.0 |
| TUTA | | | | IAML | | 13 54 09.0 | |
| | comp=Z,79nm,0.5s | | | | | | |
| TUTA | Tutak | 0.94 | 333 | *i* P | Pg | 13 53 41.8 | -1.0 |
| TUTA | Tutak | 0.94 | 333 | P | Pg | 13 53 41.8 | -1.0 |
| DYDN | Diyadin | 1.01 | 14 | *e*P | Pg | 13 53 43.2 | -0.8 |
| HAKT | HAKKARI | 1.04 | 165 | *i* P | Pg | 13 53 44.2 | -0.6 |
| HAKT | HAKKARI | 1.04 | 165 | P | Pg | 13 53 44.2 | -0.6 |
| AGRB | Hanur-Agry | 1.05 | 344 | *e*PG | Pg | 13 53 44.1 | -0.8 |
| AGRB | Hanur-Agry | 1.05 | 344 | *e*Pg | Pg | 13 53 44.1 | -0.8 |
| YOVA | Hakkari_Y¨…kse | 1.22 | 143 | *i* P | Pg | 13 53 48.6 | +0.5 |
| YOVA | Hakkari_Y¨…kse | 1.22 | 143 | P | Pg | 13 53 48.6 | +0.5 |
| EKAR | Karacoban | 1.23 | 304 | ‖*e*P | Pg | 13 53 49.5 | +1.2 |
| EKAR | Karacoban | 1.23 | 304 | *i* P | Pg | 13 53 49.7 | +1.4 |
| EKAR | Karacoban | 1.23 | 304 | P | Pg | 13 53 49.7 | +1.4 |
| SIRT | Sirnak | 1.29 | 215 | *e*PN | Pn | 13 53 49.2 | +0.1 |
| SIRT | Sirnak | 1.29 | 215 | *e*Pn | Pn | 13 53 49.2 | +0.1 |
| CUKT | Cukurca | 1.33 | 172 | *e*PN | Pg | 13 53 50.6 | +0.3 |
| CUKT | Cukurca | 1.33 | 172 | *e*Pn | Pg | 13 53 50.6 | +0.3 |
| EATA | Eleskirt | 1.46 | 332 | ‖*e*P | Pn | 13 53 51.2 | -0.4 |
| EATA | Eleskirt | 1.46 | 332 | *i* P | Pn | 13 53 51.7 | 0.0 |
| EATA | Eleskirt | 1.46 | 332 | P | Pn | 13 53 51.7 | 0.0 |
| TASB | TASBURUN-IGDIR | 1.57 | 25 | *e*PN | Pb | 13 53 54.0 | 0.0 |
| TASB | TASBURUN-IGDIR | 1.57 | 25 | *e*Pn | Pb | 13 53 54.0 | 0.0 |
| BNGL | BINGOL | 1.78 | 283 | *e*P | Pn | 13 53 56.6 | +0.7 |
| BNGL | | | | *e*S | Sg | 13 54 24.1 | +2.3 |
| BNGL | | | | IAML | | 13 54 37.7 | |
| | comp=Z,47nm,0.7s | | | | | | |
| BTMN | Batman | 1.79 | 248 | *i* P | Pg | 13 53 58.7 | -0.2 |
| BTMN | Batman | 1.79 | 248 | P | Pg | 13 53 58.7 | -0.2 |
| DIGO | Kars | 1.84 | 0 | *e*P | Pn | 13 53 53.9 | -3.0 |
| HOMI | Horasan | 1.86 | 323 | *e*P | Pb | 13 53 58.7 | -0.4 |
| HOMI | | | | IAML | | 13 54 17.9 | |
| | comp=Z,14nm,0.7s | | | | | | |
| HOMI | Horasan | 1.86 | 323 | *i* P | Pb | 13 53 59.2 | +0.1 |
| EAK | Akyaka | 2.12 | 5 | *e*P | Pn | 13 54 00.8 | +0.1 |
| ECAT | Cat-ERZURUM | 2.13 | 300 | *e*P | Pb | 13 54 02.8 | -0.9 |
| SENK | Senkaya-Erzuru | 2.14 | 339 | *e*PN | Pb | 13 54 02.3 | -1.6 |
| SENK | Senkaya-Erzuru | 2.14 | 339 | *e*Pn | Pb | 13 54 02.3 | -1.6 |
| BINT | Bingol | 2.27 | 279 | *e*Pn | Pn | 13 54 02.3 | -0.4 |

*ISCJB 13 14:22:05.7±0.7,3°.58S±0°.07×144°.2E±0°.1,h26km,mb3.8/9, MS3.6/2, Error ellipse: s-maj=18.3km s-min=8.4km az=160.8*
*IDC 13 14:22:10.2±5.0,3°.67S×144°.30E,h51km±52km,mb3.6/9, mb1 3.7/11,mb1mx3.6/36,mbtmp3.8/11,ML3.7/1,MS3.3/3, Ms1 3.3/3,ms1mx2.8/33,Error ellipse: s-maj=33.1km s-min=22.0km az=111.0*
**ISC 13 14:22:07.8±0.8,3°.58S±0°.09×144°.2E±0°.2,h26km,n13,**
**σ0§95/13,mb3.8/9,Near north coast of New Guinea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| PMG | Port Moresby | 6.50 | 153 | P | Pn | 14 23 42.4 | +0.6 |
| | 0.6nm,0.3s,baz=342,slow=6.4,SNR=3.1 | | | | | | |
| PMG | | | | S | Sn | 14 24 55.8 | +0.7 |
| | 0.4nm,0.3s,baz=292,slow=19,SNR=3.8 | | | | | | |
| PMG | | | | LR | LR | 14 26 10.4 | |
| | comp=Z,60nm,21.3s,baz=298,slow=38 | | | | | | |
| WRA | Warramunga Arr | 18.88 | 210 | P | Pn | 14 26 27.2 | +0.1 |
| | 0.2nm,0.3s,baz=33,slow=11,SNR=14 | | | | | | |
| ASAR | Alice Springs | 22.30 | 206 | P | P | 14 27 02.9 | -0.6 |
| | 1.3nm,0.6s,baz=33,slow=9.5,SNR=20 | | | | | | |
| ASAR | | | | LR | LR | 14 36 43.6 | |
| | comp=Z,158nm,20.0s,baz=101,slow=39 | | | | | | |
| FITZ | Fitzroy Crossi | 23.19 | 230 | P | P | 14 27 11.6 | -1.2 |
| | 1.0nm,0.3s,baz=45,slow=14,SNR=15 | | | | | | |
| STKA | Stephens Creek | 28.25 | 185 | P | P | 14 27 58.1 | -0.8 |
| | 2.2nm,0.9s,baz=3.8,slow=15,SNR=2.7 | | | | | | |
| KSRS | Korea Array | 43.54 | 341 | P | P | 14 30 09.2 | -0.2 |
| | 1.3nm,0.8s,baz=161,slow=9.1,SNR=6.9 | | | | | | |
| CMAR | Chiang Mai Arr | 49.64 | 298 | P | P | 14 30 59.5 | +1.9 |
| | 0.8nm,0.6s,baz=112,slow=5.3,SNR=7.6 | | | | | | |
| PETK | Petropavlovsk- | 57.62 | 10 | P | P | 14 31 55.1 | -0.4 |
| | 2.5nm,0.7s,baz=166,slow=7.7,SNR=4.5 | | | | | | |
| SONM | Songino Array | 60.95 | 332 | LR | LR | 14 59 08.2 | |
| | comp=Z,58nm,18.7s,baz=14,slow=36 | | | | | | |
| MKAR | Makanchi Array | 73.86 | 321 | P | P | 14 33 40.8 | +0.3 |
| | 0.2nm,0.5s,baz=107,slow=8.0,SNR=3.3 | | | | | | |
| ZALV | Zalesovo Beam | 75.49 | 328 | P | P | 14 33 49.6 | 0.0 |
| | 1.1nm,0.7s,baz=117,slow=5.0,SNR=4.1 | | | | | | |
| ILAR | Eielson Array | 84.39 | 24 | P | P | 14 34 36.7 | -1.0 |
| | 0.4nm,0.7s,baz=240,slow=4.7,SNR=3.0 | | | | | | |
| TORD | Torodi Ar. Bea | 141.74 | 287 | PKP | PKPdf | 14 41 39.1 | +1.0 |
| | 0.3nm,0.5s,baz=58,slow=2.9,SNR=2.6 | | | | | | |

*ISCJB 13 14:26:26.7±0.3,1°.73N±0°.03×126°.50E±0°.04,h47km, mb4.3/19, Error ellipse: s-maj=6.7km s-min=4.2km az=157.2*
*IDC 13 14:26:28.6±2.8,1°.61N×126°.43E,h47km±25km,mb4.0/16, mb1 4.1/17,mb1mx3.9/41,mbtmp4.2/17,ML4.2/1, Error ellipse: s-maj=29.7km s-min=9.5km az=77.0*
*DJA 13 14:26:28.8±1.2,2°.N±3°×12°.7E±°,h32km±18km,M4.5/13, mB5.0/2,mb4.5/7,MLv4.5/13,Mw(mB)4.3/2*
*NEIC 13 14:26:31.3±1.7,1°.58N×126°.40E,h76km±16km,mb4.6/1, Error ellipse: s-maj=15.5km s-min=7.6km az=68.0*
**ISC 13 14:26:28.3±0.5,1°.70N±0.05×126°.51E±0°.06,h47km,n54,**
**σ1§46/59,mb4.2/19,1C-1D,Northern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| SGSI | Sangihe | 2.21 | 334 | P | Pn | 14 27 02.5 | +0.1 |
| SGSI | | | | S | Sn | 14 27 29.5 | +1.0 |
| LBMI | Labuha | 2.52 | 157 | P | Pn | 14 27 07.6 | +0.8 |
| LBMI | | | | S | Sn | 14 27 37.9 | +1.6 |
| KMSI | Cibinong | 2.76 | 246 | P | Pn | 14 27 11.2 | +1.1 |
| KMSI | | | | S | Sn | 14 27 44.6 | +2.4 |
| SANI | Sanana | 3.76 | 188 | P | Pn | 14 27 22.9 | -0.8 |
| LUWI | Luwuk | 4.62 | 234 | P | Pn | 14 27 37.4 | +1.8 |
| LUWI | Luwuk | 4.62 | 234 | *e*Pn | Pn | 14 27 37.2 | +1.6 |
| MRSI | Marisa | 4.72 | 255 | P | Pn | 14 27 38.5 | +1.5 |
| NLAI | Namlea | 4.94 | 173 | P | Pn | 14 27 41.2 | +1.2 |
| SWI | Sorong | 5.39 | 118 | P | Pn | 14 27 47.7 | +1.5 |
| | 29nm,0.9s,830nm | | | | | | |
| APSI | Ampana | 5.50 | 242 | P | Pn | 14 27 49.2 | +1.4 |
| MSAI | Masohi | 5.56 | 154 | P | Pn | 14 27 49.7 | +1.1 |
| AAI | Ambon | 5.61 | 163 | P | Pn | 14 27 49.9 | +0.7 |
| | 47nm,1.0s | | | | | | |
| CTBH | Cotabato--PC H | 5.93 | 338 | ↑*i*P | Pn | 14 27 55.6 | +2.0 |
| MPSI | Mapaga | 6.75 | 259 | P | Pn | 14 28 05.9 | +1.1 |
| KDI | Kendari | 6.83 | 215 | P | Pn | 14 28 16.0 | +10 |
| PCI | Palu | 7.15 | 249 | P | Pn | 14 28 20.8 | +10 |
| KAPI | Kappang | 9.49 | 225 | *e*Pn | Pn | 14 28 43.1 | +0.7 |
| | 14nm,0.6s | | | | | | |
| FITZ | Fitzroy Crossi | 19.69 | 182 | P | P | 14 30 52.0 | -1.7 |
| | 0.5nm,0.3s,baz=6.8,slow=8.7,SNR=14 | | | | | | |
| COEN | Coen | 22.69 | 134 | *e*P | P | 14 31 27.0 | +0.9 |
| WRAB | Tennant Creek | 22.83 | 161 | *e*P | P | 14 31 26.7 | -0.8 |
| | 22nm,0.8s | | | | | | |
| WRA | Warramunga Arr | 22.84 | 161 | P | P | 14 31 26.2 | -1.4 |
| | 9.7nm,0.5s,baz=336,slow=11,SNR=110 | | | | | | |
| WRA | | | | PcP | PcP | 14 35 17.7 | +0.1 |
| | 0.8nm,0.7s,baz=326,slow=2.5,SNR=6.5 | | | | | | |
| WRA | | | | S | S | 14 35 32.9 | -0.9 |
| | 2.4nm,1.0s,baz=338,slow=18,SNR=5.2 | | | | | | |
| MBWA | Marble Bar | 23.66 | 196 | *e*P | P | 14 31 34.3 | -1.4 |
| ASAR | Alice Springs | 26.22 | 165 | P | P | 14 31 59.4 | +0.5 |
| | 2.9nm,0.5s,baz=345,slow=7.5,SNR=33 | | | | | | |
| ASAR | | | | PcP | PcP | 14 35 25.6 | +0.6 |
| | 0.9nm,0.5s,baz=338,slow=2.1,SNR=5.3 | | | | | | |
| ASAR | | | | S | S | 14 36 29.3 | +1.2 |
| | 0.9nm,1.0s,baz=348,slow=20,SNR=3.3 | | | | | | |
| JNU | Nakatsue | 31.53 | 7 | P | P | 14 32 48.6 | +2.5 |
| | 2.1nm,0.7s,baz=184,slow=13,SNR=2.7 | | | | | | |
| CMAR | Chiang Mai Arr | 31.75 | 303 | P | P | 14 32 48.8 | +0.5 |
| | 0.5nm,0.3s,baz=128,slow=7.3,SNR=4.7 | | | | | | |
| CHTO | Chiang Mai | 31.92 | 304 | *e*P | P | 14 

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MKAR | **Makanchi Array** | **57.19** | **325** | P | | P | | 14 49 38.9 | 0.0 |
| | 0.3nm,0.6s,baz=111,slow=7.9,SNR=3.0 | | | | | | | | |

*CSEM **13** 14:41:49.5±0.1, 61.08N×10.61E, h2km, ML1.8, Error ellipse: s-maj=3.3km s-min=1.8km az=114.0, Suspected Mining explosion.*
*NAO **13** 14:41:49.1±1.1, 61.10N×10.52E, ML1.8*
**BER 13 14:41:50.1±1.4, 61.12N×10.54E, h0km, ML1.1, ML1.8(NAO), Suspected explosion, Southern Norway**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **NBO** | **NORSAR Subarra** | **0.14** | **126** | Pg | Pg | 14 41 51.4 | -1.4 |
| **NBO** | **NORSAR Subarra** | **0.14** | **126** | Pg | Pg | 14 41 51.4 | -1.4 |
| **NBO** | **NORSAR Subarra** | **0.14** | **126** | Pg | Pg | 14 41 51.4 | -1.4 |
| **NC2** | **NORSAR Subarra** | **0.22** | **40** | Pg | Pg | 14 41 54.0 | -0.3 |
| NC2 | | | | Lg | Lg | 14 41 57.4 | |
| **NC2** | **NORSAR Subarra** | **0.22** | **40** | Pg | Pg | 14 41 54.0 | -0.3 |
| NC2 | | | | Lg | Lg | 14 41 57.4 | |
| **NC2** | **NORSAR Subarra** | **0.22** | **40** | Pg | Pg | 14 41 54.0 | -0.3 |
| NC2 | | | | Lg | Lg | 14 41 57.4 | |
| **NAO** | **NORSAR Subarra** | **0.33** | **154** | Pg | Pg | 14 41 55.3 | -1.0 |
| NAO | | | | Lg | Lg | 14 41 59.7 | |
| **NAO** | **NORSAR Subarra** | **0.33** | **154** | Pg | Pg | 14 41 55.3 | -1.0 |
| NAO | | | | Lg | Lg | 14 41 59.7 | |
| **NAO** | **NORSAR Subarra** | **0.33** | **154** | Pg | Pg | 14 41 55.3 | -1.0 |
| NAO | | | | Lg | Lg | 14 41 59.7 | |
| **NC3** | **NORSAR Subarra** | **0.45** | **70** | Pg | Pg | 14 41 58.0 | -0.7 |
| NC3 | | | | Lg | Lg | 14 42 03.7 | |
| NC3 | | | | Rg | Rg | 14 42 06.0 | |
| **NC3** | **NORSAR Subarra** | **0.45** | **70** | Pg | Pg | 14 41 58.0 | -0.7 |
| NC3 | | | | Lg | Lg | 14 42 03.7 | |
| NC3 | | | | Rg | Rg | 14 42 06.0 | |
| **NC3** | **NORSAR Subarra** | **0.45** | **70** | Pg | Pg | 14 41 58.0 | -0.6 |
| NC3 | | | | Lg | Lg | 14 42 03.7 | |
| | SNR=50 | | | | | | |
| **NC4** | **NORSAR Subarra** | **0.57** | **93** | Pg | Pg | 14 41 59.6 | -1.5 |
| NC4 | | | | Lg | Lg | 14 42 07.8 | |
| NC4 | | | | Rg | Rg | 14 42 12.3 | |
| **NC4** | **NORSAR Subarra** | **0.57** | **93** | Pg | Pg | 14 41 59.6 | -1.5 |
| NC4 | | | | Lg | Lg | 14 42 07.8 | |
| NC4 | | | | Rg | Rg | 14 42 12.3 | |
| **NC4** | **NORSAR Subarra** | **0.57** | **93** | Pg | Pg | 14 41 59.6 | -1.4 |
| NC4 | | | | Lg | Lg | 14 42 07.8 | |
| | SNR=20 | | | | | | |
| **NC6** | **NORSAR Subarra** | **0.58** | **129** | Pg | Pg | 14 41 59.5 | -1.7 |
| NC6 | | | | Lg | Lg | 14 42 07.8 | |
| NC6 | | | | Rg | Rg | 14 42 12.4 | |
| **NC6** | **NORSAR Subarra** | **0.58** | **129** | Pg | Pg | 14 41 59.5 | -1.7 |
| NC6 | | | | Lg | Lg | 14 42 07.8 | |
| NC6 | | | | Rg | Rg | 14 42 12.4 | |
| **NC6** | **NORSAR Subarra** | **0.58** | **129** | Pg | Pg | 14 41 59.5 | -1.7 |
| NC6 | | | | Lg | Lg | 14 42 07.8 | |
| | SNR=50 | | | | | | |
| **KONO** | **Kongsberg** | **1.54** | **198** | *e*P | Pn | 14 42 17.5 | -1.3 |
| KONO | | | | *e*S | Sn | 14 42 37.0 | -2.5 |
| KONO | | | | IAML | | 14 42 42.1 | |
| | comp=Z,3.9nm,0.4s | | | | | | |
| **KONO** | **Kongsberg** | **1.54** | **198** | *e*P | Pn | 14 42 17.5 | -1.3 |
| | SNR=50 | | | | | | |
| KONO | | | | *e*S | Sn | 14 42 37.0 | -2.5 |
| | SNR=50 | | | | | | |
| **HFS** | **Hagfors** | **1.84** | **121** | Pn | Pn | 14 42 21.7 | -1.2 |
| | baz=301,slow=16 | | | | | | |
| HFS | | | | Lg | Lg | 14 42 46.6 | |
| | baz=304,slow=28 | | | | | | |
| **HFS** | **Hagfors** | **1.84** | **121** | Pn | Pn | 14 42 21.7 | -1.2 |
| | baz=301,slow=16 | | | | | | |
| HFS | | | | Lg | Lg | 14 42 46.6 | |
| | baz=304,slow=28 | | | | | | |
| **HFS** | **Hagfors** | **1.84** | **121** | Pn | Pn | 14 42 21.7 | -1.2 |
| | SNR=4.8 | | | | | | |
| HFS | | | | Lg | Lg | 14 42 46.6 | |
| | SNR=19 | | | | | | |

*THR **13** 14:42:51.7±0.4, 27.14N×53.49E, h42km±4km, ML3.5*
*CSEM **13** 14:42:56.3±0.8, 27.24N×53.22E, h2km, ML3.5, Error ellipse: s-maj=35.5km s-min=7.6km az=63.0*
*TEH **13** 14:42:57.4, 27.12N×53.68E, h15km, ML3.6*
*OMAN **13** 14:42:57.4, 27.12N×53.68E, h15km, Error ellipse: s-maj=1.0km s-min=1.0km az=1.0*
*IDC **13** 14:42:59.2±3.2, 27.05N×53.15E, h41km±30km, mb3.5/7, mb1 3.7/9, mb1mx3.4/43, mbtmp3.7/9, ML3.3/3, MS3.2/2, Ms1 3.2/2, ms1mx2.7/34, Error ellipse: s-maj=37.4km s-min=16.2km az=50.0*
**ISC 13 14:42:57.8±0.8, 27.23N±0.05×53.19E±0.07, h20km, n58, σ2s29/62, mb3.6/6, Southern Iran**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GHIR** | **Ghir-Karzin** | **1.07** | **350** | *e*Pg | **Pb** | **14 43 14.7** | **-3.0** |
| GHIR | | | | *e*Sg | **Sb** | **14 43 31.3** | **0.0** |
| GHIR | | | | AML | AML | 14 43 40.0 | |
| | comp=N,1μm,1.0s | | | | | | |
| **GHIR** | **Ghir-Karzin** | **1.07** | **350** | *e*Pg | **Pb** | **14 43 14.7** | **-3.0** |
| GHIR | | | | *e*Sg | **Sb** | **14 43 31.3** | **0.0** |
| **ISRV** | **Sarvestan** | **2.14** | **358** | *e*Pn | **Pb** | **14 43 35.5** | **-0.7** |
| ISRV | | | | *e*Sg | **Sb** | **14 44 09.4** | **+6.9** |
| ISRV | | | | *e*AMB | AMB | 14 44 25.4 | |
| | comp=Z,4μm,0.5s | | | | | | |
| **ISRV** | **Sarvestan** | **2.14** | **358** | *e*Pn | **Pb** | **14 43 35.5** | **-0.7** |
| ISRV | | | | *e*Sg | **Sb** | **14 44 09.4** | **+6.9** |
| **AHBU** | **AHRAM** | **2.34** | **315** | *e*Pn | **Pn** | **14 43 32.5** | **-2.6** |
| AHBU | | | | *e*Sg | **Sb** | **14 44 10.9** | **+3.2** |
| **IPAR** | **Pars** | **2.60** | **357** | *e*Pn | **Pn** | **14 43 41.4** | **+2.3** |
| IPAR | | | | *e*AMB | AMB | 14 44 35.8 | |
| | comp=N,4μm,0.5s | | | | | | |
| **IPAR** | **Pars** | **2.60** | **357** | *e*Pn | **Pn** | **14 43 41.4** | **+2.3** |
| **BNDS** | **Bandar-Abbas** | **2.65** | **86** | *e*Pn | Pn | 14 43 30.3 | -9.4 |
| BNDS | | | | *e*Sg | **Sn** | **14 44 05.6** | **-5.8** |
| BNDS | | | | AML | AML | 14 44 17.9 | |
| | comp=E,200nm,0.6s | | | | | | |
| BNDS | | | | AML | AML | 14 44 21.7 | |
| | comp=N,245nm,0.4s | | | | | | |
| **BNDS** | **Bandar-Abbas** | **2.65** | **86** | *e*Pn | Pn | 14 43 30.3 | -9.4 |
| BNDS | | | | *e*Sg | **Sn** | **14 44 05.6** | **-5.8** |
| **UOSS** | **Minazif** | **3.54** | **129** | P | **Pn** | **14 43 52.3** | **+0.7** |
| | SNR=10 | | | | | |

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **8.95** | **184** | P | **Pn** | **16 18 31.2** | **+1.0** |
| | 0.5nm,0.3s,baz=306,slow=6.9,SNR=16 | | | | | | |
| DZM | | | | S | **Sn** | **16 20 11.6** | **+1.4** |
| | 0.3nm,0.3s,baz=217,slow=20,SNR=2.1 | | | | | | |
| **PMG** | **Port Moresby** | **19.85** | **279** | P | **P** | **16 20 43.3** | **+1.6** |
| | 0.4nm,0.3s,baz=111,slow=8.6,SNR=4.7 | | | | | | |
| **CTA** | **Charters Tower** | **21.10** | **248** | P | **P** | **16 20 55.9** | **+0.9** |
| | 3.7nm,0.5s,baz=73,slow=13,SNR=6.4 | | | | | | |
| **URZ** | **Urewera** | **26.61** | **162** | P | **P** | **16 21 45.1** | **-1.0** |
| | 5.4nm,0.5s,baz=271,slow=3.1,SNR=27 | | | | | | |
| **STKA** | **Stephens Creek** | **29.91** | **227** | P | **P** | **16 22 15.6** | **+0.1** |
| | 1.7nm,0.3s,baz=45,slow=9.8,SNR=14 | | | | | | |
| STKA | | | | PcP | **PcP** | **16 25 13.3** | **-0.5** |
| | 3.6nm,0.7s,baz=56,slow=3.0,SNR=7.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **32.05** | **253** | P | **P** | **16 22 34.0** | **-0.4** |
| | 0.9nm,0.4s,baz=86,slow=9.1,SNR=20 | | | | | | |
| WRA | | | | ScP | **ScP** | **16 28 46.0** | **-0.5** |
| | 1.6nm,1.0s,baz=78,slow=2.8,SNR=8.4 | | | | | | |
| **ASAR** | **Alice Springs** | **33.09** | **247** | P | **P** | **16 22 42.8** | **-0.6** |
| | 1.1nm,0.4s,baz=78,slow=9.9,SNR=55 | | | | | | |
| ASAR | | | | PcP | **PcP** | **16 25 21.6** | **-0.9** |
| | 0.8nm,0.7s,baz=73,slow=2.1,SNR=7.8 | | | | | | |
| ASAR | | | | S | **S** | **16 27 46.1** | **-3.2** |
| | 0.9nm,1.0s,baz=70,slow=17,SNR=5.6 | | | | | | |
| ASAR | | | | ScP | **ScP** | **16 28 49.4** | **-0.6** |
| | 1.3nm,0.8s,baz=94,slow=3.1,SNR=10 | | | | | | |
| **VNDA** | **Vanda** | **64.48** | **181** | P | **P** | **16 26 40.5** | **-0.8** |
| | 1.1nm,0.8s,baz=45,slow=5.7,SNR=3.1 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **74.10** | **294** | P | **P** | **16 27 42.4** | **+1.1** |
| | 0.8nm,0.6s,baz=127,slow=4.8,SNR=8.2 | | | | | | |
| **SEY** | **Seymchan** | **76.64** | **353** | P | **P** | **16 27 55.6** | **+0.9** |
| | 2.0nm,0.7s,baz=168,slow=9.3,SNR=4.7 | | | | | | |
| **SONM** | **Songino Array** | **81.06** | **324** | P | **P** | **16 28 20.5** | **+1.1** |
| | 0.4nm,0.7s,baz=130,slow=4.5,SNR=3.4 | | | | | | |
| **ILAR** | **Eielson Array** | **85.05** | **18** | P | **P** | **16 28 38.9** | **-0.4** |
| | 1.7nm,0.5s,baz=239,slow=5.2,SNR=33 | | | | | | |
| **MKAR** | **Makanchi Array** | **95.88** | **317** | P | **P** | **16 29 30.8** | **+0.3** |
| | 0.8nm,0.6s,baz=92,slow=6.3,SNR=8.7 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **95.95** | **324** | P | **P** | **16 29 30.6** | **-0.1** |
| | 0.8nm,0.5s,baz=116,slow=6.6,SNR=4.4 | | | | | | |
| **ARCES** | **ARCESS Array B** | **118.62** | **346** | PKP | **PKPdf** | **16 34 49.9** | **-0.4** |
| | 3.7nm,0.8s,baz=66,slow=2.6,SNR=12 | | | | | | |
| **FINES** | **FINESS Array B** | **124.13** | **339** | PKP | **PKPdf** | **16 35 00.7** | **-0.3** |
| | 1.2nm,0.6s,baz=104,slow=4.4,SNR=5.7 | | | | | | |
| **AKASG** | **Malin Array Be** | **129.26** | **327** | PKP | **PKPdf** | **16 35 10.9** | **-0.3** |
| | 0.2nm,0.4s,baz=62,slow=2.5,SNR=4.6 | | | | | | |
| **KEST** | **Kesra** | **149.81** | **322** | PKPbc | **PKPbc** | **16 35 53.6** | **+0.1** |
| | 3.6nm,0.7s,baz=63,slow=2.3,SNR=4.2 | | | | | | |
| **ESDC** | **Sonseca Array** | **152.36** | **345** | PKPbc | **PKPbc** | **16 35 59.5** | **+0.1** |
| | 1.3nm,0.7s,baz=2.5,slow=3.8,SNR=5.9 | | | | | | |
| ESDC | | | | PKPab | **PKPab** | **16 36 08.9** | **-1.0** |
| | 0.3nm,0.3s,baz=13,slow=4.8,SNR=5.3 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **165.73** | **272** | PKP | **PKPdf** | **16 36 08.0** | **-0.5** |
| | 0.9nm,0.9s,baz=357,slow=0.9,SNR=4.1 | | | | | | |
| TORD | | | | PKPab | **PKPab** | **16 37 08.7** | **-0.1** |
| | 0.4nm,0.7s,baz=95,slow=4.3,SNR=2.9 | | | | | | |

*NIED* ***13*** *16:19:00,36˚80N×143˚60E,h5km,Mw3.7 Best double couple: M₀4.13000×10¹⁴ NP1:φ₅43.00000°,δ31.00000°, λ-54.00000°. NP2:φ₅182.00000°,δ66.00000°, λ-110.00000°.*

*IDC* ***13*** *16:19:03.4±0.8,36˚75N×143˚87E,h0km,mb3.6/10, mb1 3.8/13,mb1mx3.7/43,mbtmp3.7/13,ML3.7/3,Error ellipse: s-maj=21.5km s-min=17.8km az=102.0*

*ISCJB* ***13*** *16:19:06.6±0.6,36˚77N±0˚05×143˚58E±0˚05,h33km, mb3.6/10,Error ellipse: s-maj=6.5km s-min=5.6km az=10.2*

*JMA* ***13*** *16:19:06.4±0.3,36˚77N×143˚60E,h56km,M3.8*

**ISC 13 16:19:08.3±0.8,36˚76N±0˚05×143˚66E±0˚07,h35km,n31, σ1s88/36,mb3.5/10,Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JFK** | **Kawauchi** | **2.31** | **286** | P | **Pn** | **16 19 42.3** | **-1.6** |
| JFK | | | | S | **Sn** | **16 20 08.6** | **-2.5** |
| **ONAJ** | **Iwakimizuishiy** | **2.32** | **279** | P | **Pn** | **16 19 42.6** | **-1.4** |
| ONAJ | | | | S | **Sn** | **16 20 09.3** | **-2.0** |
| **JHO** | **Hitachi** | **2.49** | **268** | P | **Pn** | **16 19 44.6** | **-1.7** |
| **JIO** | **Ouri** | **2.50** | **313** | P | **Pn** | **16 19 44.9** | **-1.5** |
| JIO | | | | S | **Sn** | **16 20 13.2** | **-2.4** |
| **JFT** | **Otama** | **2.76** | **287** | P | **Pn** | **16 19 49.4** | **-0.7** |
| JFT | | | | eS | **Sn** | **16 20 21.0** | **-1.2** |
| **JMK** | **Ichinoseki** | **2.92** | **319** | P | **Pn** | **16 19 50.7** | **-1.5** |
| **BSO1** | **Boso 1** | **3.03** | **227** | P | **Pn** | **16 19 51.9** | **-1.3** |
| **JOM** | **Ohasama** | **3.29** | **326** | P | **Pn** | **16 19 56.0** | **-1.4** |
| JOM | | | | S | **Sn** | **16 20 32.9** | **-2.4** |
| **JYK** | **Kaneyama** | **3.39** | **311** | P | **Pn** | **16 19 58.0** | **-0.7** |
| JYK | | | | S | **Sn** | **16 20 36.9** | **-0.7** |
| **JAG** | **Ashikaga** | **3.40** | **266** | P | **Pn** | **16 19 57.8** | **-1.1** |
| **JRY** | **Ryogami san** | **3.91** | **261** | P | **Pn** | **16 20 04.5** | **-1.4** |
| JRY | | | | S | **Sn** | **16 20 47.8** | **-2.7** |
| **MJAR** | **Matsushiro Arr** | **4.39** | **269** | Pn | **Pn** | **16 20 12.3** | **-0.1** |
| | 2.1nm,0.3s,baz=104,slow=11,SNR=22 | | | | | | |
| MJAR | | | | Sn | **Sn** | **16 21 02.7** | **+0.4** |
| | 1.1nm,0.3s,baz=91,slow=27,SNR=5.4 | | | | | | |
| **MAT** | **Matsushiro** | **4.39** | **269** | P | **Pn** | **16 20 12.7** | **+0.2** |
| MAT | | | | eS | **Sn** | **16 21 00.4** | **-2.0** |
| **JHJ** | **Hachijo jima 2** | **4.83** | **222** | Pn | **Pn** | **16 20 17.4** | **-1.1** |
| | 10nm,0.3s,baz=59,slow=19,SNR=3.8 | | | | | | |
| JHJ | | | | Sn | **Sn** | **16 21 08.0** | **-5.2** |
| | 27nm,0.3s,baz=64,slow=22,SNR=5.8 | | | | | | |
| **ASAJ** | **Asahikawa** | **7.39** | **354** | Pn | **Pn** | **16 20 51.8** | **-1.9** |
| | 1.3nm,0.3s,baz=200,slow=13,SNR=15 | | | | | | |
| ASAJ | | | | Sn | **Sn** | **16 22 12.6** | **-3.8** |
| | 0.4nm,0.3s,baz=267,slow=18,SNR=2.8 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **26.48** | **124** | T | T | 16 51 46.9 | |
| | baz=317,slow=75,SNR=12 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **26.49** | **124** | T | T | 16 51 45.1 | |
| | baz=317,slow=75,SNR=6.9 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **26.50** | **124** | T | T | 16 51 46.9 | |
| | baz=317,slow=75,SNR=8.9 | | | | | | |
| **YAK** | **Yakutsk** | **26.76** | **345** | P | **P** | **16 24 44.4** | **-0.1** |
| | 3.0nm,0.4s,baz=54,slow=8.3,SNR=4.5 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **27.22** | **126** | T | T | 16 52 40.9 | |
| | baz=318,slow=76,SNR=4.8 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **27.22** | **126** | T | T | 16 52 42.5 | |
| | baz=318,slow=76,SNR=4.2 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **27.23** | **126** | T | T | 16 52 44.5 | |
| | baz=318,slow=76,SNR=4.6 | | | | | | |
| **SONM** | **Songino Array** | **29.43** | **304** | P | **P** | **16 25 11.7** | **+3.1** |
| | 0.5nm,0.8s,baz=90,slow=7.2,SNR=2.6 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **43.43** | **313** | P | **P** | **16 27 08.6** | **+1.1** |
| | 0.3nm,0.4s,baz=75,slow=6.6,SNR=2.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **45.78** | **303** | P | **P** | **16 27 27.6** | **+1.2** |
| | 0.2nm,0.8s,baz=73,slow=8.4,SNR=2.6 | | | | | | |
| **ILAR** | **Eielson Array** | **48.77** | **32** | P | **P** | **16 27 48.9** | **-0.5** |
| | 0.9nm,0.8s,baz=263,slow=6.7,SNR=11 | | | | | | |
| **WRA** | **Warramunga Arr** | **57.08** | **190** | P | **P** | **16 28 51.7** | **+0.7** |
| | 0.4nm,0.7s,baz=7.3,slow=7.3,SNR=3.8 | | | | | | |
| **ASAR** | **Alice Springs** | **60.80** | **190** | P | **P** | **16 29 17.3** | **+0.4** |
| | 0.3nm,1.0s,baz=14,slow=8.6,SNR=3.3 | | | | | | |
| **KBZ** | **Khabaz** | **72.44** | **312** | P | **P** | **16 30 32.4** | **+1.4** |
| | 1.7nm,0.9s,baz=122,slow=4.2,SNR=4.8 | | | | | | |
| **PDAR** | **Pinedale Array** | **76.56** | **46** | P | **P** | **16 30 55.5** | **+0.2** |
| | 0.3nm,0.7s,baz=294,slow=2.9,SNR=3.0 | | | | | | |
| **TXAR** | **Lajitas Array** | **88.85** | **54** | P | **P** | **16 31 59.0** | **-0.1** |
| | 0.2nm,0.6s,baz=322,slow=2.8,SNR=3.2 | | | | | | |

**MAN 13 16:20:56,13˚35N×120˚55E,h15km,mb3.6,ML2.4,MS1.9, 1D,Mindoro**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PGP** | **Puerto Galera** | **0.42** | **69** | ⇓eP | Pb | 16 21 06.2 | +1.0 |
| PGP | | | | eS | Sn | 16 21 16.7 | +1.5 |
| **LUBP** | **Lubang** | **0.48** | **323** | eP | Pb | 16 21 07.1 | +0.9 |
| LUBP | | | | eS | Sn | 16 21 18.1 | +1.5 |
| **SJMP** | **San Jose** | **1.04** | **148** | eP | Pb | 16 21 15.0 | -0.8 |
| SJMP | | | | eS | Sn | 16 21 32.0 | +1.6 |
| **OTMP** | **Odiongan** | **1.74** | **124** | eP | Sb | 16 21 51.7 | +2.4 |
| OTRP | | | | eS | Sg | 16 21 56.5 | +4.4 |

*ISCJB* ***13*** *16:23:03.9±0.5,50˚07N±0˚03×18˚39E±0˚03,h0km,Error ellipse: s-maj=4.9km s-min=2.6km az=13.9*

*IPEC* ***13*** *16:23:04.2±0.2,50˚08N×18˚50E,h0km,ML1.9/3,Error ellipse: s-maj=2.1km s-min=1.1km az=161.0*

*CSEM* ***13*** *16:23:04.9±0.3,50˚04N×18˚41E,h1km,ML2.6/8,Error ellipse: s-maj=7.1km s-min=4.1km az=13.0*

*WAR* ***13*** *16:23:04.4,50˚07N×18˚46E,h1km,Mw2.5*

*PRU* ***13*** *16:23:05.7,50˚05N×18˚39E,h0km*

**ISC 13 16:23:04.4±0.8,50˚08N±0˚03×18˚48E±0˚02,h0km,n36, σ0s86/54,Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RAC** | **Raciborz** | **0.19** | **272** | *e*Sg | **Sg** | **16 23 11.5** | **+1.2** |
| **OKC** | **Ostrava-Krasne** | **0.33** | **222** | *e*PG | **Pg** | **16 23 10.5** | **-0.1** |
| OKC | | | | *e*SG | **Sg** | **16 23 16.1** | **+1.3** |
| | comp=Z,52nm,0.4s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **0.33** | **222** | Pg | **Pg** | **16 23 10.5** | **-0.1** |
| OKC | | | | Sg | **Sg** | **16 23 16.1** | **+1.3** |
| | 52nm,0.4s | | | | | | |
| **MORC** | **Moravsky Berou** | **0.68** | **244** | *e*Pg | **Pg** | **16 23 17.7** | **+0.3** |
| MORC | | | | *e*Sg | **Sg** | **16 23 25.8** | **-0.3** |
| | 18nm,0.3s | | | | | | |
| **OJC** | **Ojcow** | **0.86** | **80** | *e*Pg | **Pg** | **16 23 21.0** | **+0.2** |
| OJC | | | | *e*Sg | **Sb** | **16 23 34.3** | **+0.1** |
| **OJC** | **Ojcow** | **0.86** | **80** | *e*Pg | **Pg** | **16 23 21.0** | **+0.2** |
| OJC | | | | *e*Sg | **Sb** | **16 23 34.3** | **+0.1** |
| **OJC** | **Ojcow** | **0.86** | **80** | *e*Pg | **Pg** | **16 23 21.0** | **+0.2** |
| OJC | | | | *e*Sg | **Sb** | **16 23 34.3** | **+0.1** |
| **KRLC** | **Kraliky** | **1.10** | **270** | *e*SG | **Sg** | **16 23 38.8** | **-0.8** |
| | comp=Z,6.7nm,0.6s | | | | | | |
| **KRLC** | **Kraliky** | **1.10** | **270** | Sg | **Sg** | **16 23 38.8** | **-0.8** |
| | 6.7nm,0.6s | | | | | | |
| **LANS** | **Liptovska Anna** | **1.13** | **145** | *e*Pg | **Pn** | **16 23 27.5** | **+0.1** |
| LANS | | | | *e*Sg | **Sg** | **16 23 40.4** | **-0.2** |
| **LANS** | **Liptovska Anna** | **1.13** | **145** | *e*PG | **Pn** | **16 23 27.5** | **+0.1** |
| LANS | | | | *e*SG | **Sg** | **16 23 40.4** | **-0.2** |
| LANS | | | | *e* | | 17 02 38.8 | |
| **DPC** | **Dobruska-Polom** | **1.42** | **282** | *e*PG | **Pn** | **16 23 30.2** | **-1.2** |
| DPC | | | | *e*SG | **Sg** | **16 23 49.4** | **-0.4** |
| | comp=Z,18nm,0.4s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.42** | **282** | Pg | **Pn** | **16 23 30.2** | **-1.2** |
| DPC | | | | Sg | **Sg** | **16 23 49.4** | **-0.4** |
| | 18nm,0.4s | | | | | | |
| **VRAC** | **Vranov** | **1.45** | **239** | *e*Pg | **Pn** | **16 23 31.0** | **-0.8** |
| VRAC | | | | *e*Sg | **Sg** | **16 23 50.0** | **-0.9** |
| | 14nm,0.3s | | | | | | |
| **KSP** | **Ksiaz** | **1.60** | **300** | *e*Pg | **Pg** | **16 23 36.2** | **+1.3** |
| KSP | | | | *e*Sg | **Sg** | **16 23 55.7** | **+0.1** |
| **KSP** | **Ksiaz** | **1.60** | **300** | *e*Pg | **Pg** | **16 23 36.2** | **+1.3** |
| KSP | | | | *e*Sg | **Sg** | **16 23 55.7** | **+0.1** |
| **KSP** | **Ksiaz** | **1.60** | **300** | *e*Pg | **Pg** | **16 23 36.2** | **+1.3** |
| KSP | | | | *e*Sg | **Sg** | **16 23 55.7** | **+0.1** |
| **VYHS** | **Vyhne** | **1.60** | **172** | *e*Pg | **Pn** | **16 23 33.1** | **-0.8** |
| VYHS | | | | *e*Sn | **Sg** | **16 23 55.9** | **+0.1** |
| **VYHS** | **Vyhne** | **1.60** | **172** | *e*PG | **Pn** | **16 23 33.1** | **-0.8** |
| VYHS | | | | *e*SN | **Sg** | **16 23 55.9** | **+0.1** |
| VYHS | | | | *e*LG | Lg | 16 23 58.7 | |
| VYHS | | | | *e* | | 17 02 42.3 | |
| **UPC** | **Upice** | **1.64** | **286** | *e*SG | **Sn** | **16 23 56.3** | **0.0** |
| | comp=Z,12nm,0.5s | | | | | | |
| **UPC** | **Upice** | **1.64** | **286** | Sg | **Sn** | **16 23 56.3** | **0.0** |
| | 12nm,0.5s | | | | | | |
| **KRUC** | **Moravsky** | **1.70** | **234** | *e*Pn | **Pn** | **16 23 35.3** | **+0.1** |
| KRUC | | | | *e*Sg | **Sb** | **16 23 57.8** | **-0.5** |
| | 13nm,0.6s | | | | | | |
| **STHS** | **Stebnicka Huta** | **1.91** | **109** | *e*Pn | **Pg** | **16 23 41.2** | **+0.3** |
| STHS | | | | *e*Sn | **Sg** | **16 24 06.4** | **+0.8** |
| **STHS** | **Stebnicka Huta** | **1.91** | **109** | *e*PN | **Pg** | **16 23 41.2** | **+0.3** |
| STHS | | | | *e*SN | **Sg** | **16 24 06.4** | **+0.8** |
| STHS | | | | *e*LG | Lg | 16 24 10.9 | |
| STHS | | | | *e* | | 17 02 50.1 | |
| **KECS** | **Kecovo** | **2.07** | **140** | *e*Sn | **Sn** | **16 24 06.0** | **-0.7** |
| **KECS** | **Kecovo** | **2.07** | **140** | *e*LG | Lg | 16 24 05.9 | |
| **KECS** | **Kecovo** | **2.07** | **140** | *e*SN | **Sn** | **16 24 06.0** | **-0.7** |
| KECS | | | | *e* | | 17 02 51.0 | |
| **GOPC** | **GO Pecny, Ondr** | **2.39** | **267** | *e*SG | **Sb** | **16 24 18.2** | **-0.1** |
| **GOPC** | **GO Pecny, Ondr** | **2.39** | **267** | Sg | **Sb** | **16 24 40.2** | **-0.2** |
| **PRU** | **Pruhonice** | **2.54** | **269** | *e*SG | **Sb** | **16 24 22.1** | **-0.6** |
| **PVCC** | **Panska Ves** | **2.55** | **282** | *e*SG | **Sg** | **16 24 25.3** | **-1.0** |
| | comp=Z,13nm,0.5s | | | | | | |
| **PVCC** | **Panska Ves** | **2.55** | **282** | Sg | **Sg** | **16 24 25.3** | **-1.0** |
| | 13nm,0.5s | | | | | | |
| **KHC** | **Kasperske Hory** | **3.33** | **255** | *e*SG | **Sb** | **16 24 48.0** | **+2.7** |
| **KHC** | **Kasperske Hory** | **3.33** | **255** | Sg | **Sb** | **16 24 48.0** | **+2.7** |
| **NKC** | **Novy Kostel** | **3.88** | **275** | *e*SG | **Sg** | **16 25 08.4** | **-0.7** |
| **NKC** | **Novy Kostel** | **3.88** | **275** | Sg | **Sg** | **16 25 08.4** | **-0.7** |

*IDC* ***13*** *16:30:11.1±6.8,20˚56S×178˚32W,h544km±69km,mb3.1/7, mb1 3.3/7,mb1mx3.1/19,mbtmp3.9/7,Error ellipse: s-maj=47.9km s-min=25.2km az=133.0*

*ISCJB* ***13*** *16:30:13.5±1.6,20˚6S±0˚4×178˚5W±0˚3,h587km,mb3.5/7, Error ellipse: s-maj=57.1km s-min=22.2km az=151.3*

**ISC 13 16:30:14.9±1.5,20˚6S±0˚4×178˚4W±0˚2,h587km,n11, σ0s51/12,mb3.6/7,Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ASAR** | **Alice Springs** | **44.13** | **257** | P | **P** | **16 37 32.5** | **-0.2** |
| | 1.8nm,0.8s,baz=90,slow=7.9,SNR=28 | | | | | | |
| ASAR | | | | PcP | **PcP** | **16 39 04.7** | **0.0** |
| | 0.4nm,0.6s,baz=105,slow=4.1,SNR=7.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.21** | **262** | P | **P** | **16 37 32.6** | **-0.7** |
| | 1.0nm,0.6s,baz=96,slow=7.4,SNR=23 | | | | | | |
| WRA | | | | PcP | **PcP** | **16 39 05.7** | **+0.7** |
| | 0.5nm,1.0s,baz=91,slow=3.9,SNR=3.0 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **70.03** | **324** | P | **P** | **16 40 28.8** | **+0.2** |
| | 0.9nm,0.7s,baz=129,slow=8.8,SNR=3.5 | | | | | | |
| **PETK** | **Petropavlovsk-** | **76.23** | **345** | P | **P** | **16 41 03.8** | **+0.3** |
| | 4.4nm,1.1s,baz=142,slow=4.6,SNR=2.8 | | | | | | |
| **TXAR** | **Lajitas Array** | **87.41** | **57** | P | **P** | **16 42 01.0** | **0.0** |
| | 0.2nm,0.7s,baz=254,slow=6.5,SNR=2.8 | | | | | | |
| **ILAR** | **Eielson Array** | **88.45** | **13** | P | **P** | **16 42 04.1** | **-0.8** |
| | 0.3nm,0.4s,baz=224,slow=5.0,SNR=4.9 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **89.77** | **290** | P | **P** | **16 42 12.5** | **+0.4** |
| | 0.6nm,0.7s,baz=134,slow=2.7,SNR=8.3 | | | | | | |
| **ARCES** | **ARCESS Array B** | **128.91** | **349** | PKP | **PKPdf** | **16 48 16.1** | **+0.3** |
| | 4.4nm,1.0s,baz=117,slow=1.0,SNR=3.7 | | | | | | |
| **AKASG** | **Malin Array Be** | **142.87** | **331** | PKhKP | PKPpre | 16 48 39.1 | |
| | 1.9nm,0.5s,baz=43,slow=4.1,SNR=11 | | | | | | |
| **BRTR** | **Keskin Array B** | **146.59** | **312** | PKPbc | **PKPbc** | **16 48 51.5** | **-0.3** |
| | 0.6nm,0.6s,baz=48,slow=2.1,SNR=4.5 | | | | | | |
| **GERES** | **GERESS Array B** | **150.15** | **344** | PKPbc | **PKPbc** | **16 49 00.5** | **+0.3** |
| | 0.3nm,0.3s,baz=29,slow=4.5,SNR=5.2 | | | | | | |

*ISCJB* ***13*** *16:38:35.8±0.2,43˚29N±0˚01×19˚32E±0˚02,h11km±3km, Error ellipse: s-maj=2.9km s-min=2.0km az=40.2*

*CSEM* ***13*** *16:38:36.5±0.1,43˚27N×19˚30E,h2km,ML2.8,Error ellipse: s-maj=2.8km s-min=2.0km az=128.0*

*PDG* ***13*** *16:38:37.2±0.2,43˚25N×19˚28E,h6km±1km,ML2.8/14, Error ellipse: s-maj=0.3km s-min=0.5km az=0.0*

*BEO* ***13*** *16:38:37.6±0.2,43˚27N×19˚31E,h0km,M2.3/1*

**ISC 13 16:38:36.9±0.8,43˚27N±0˚01×19˚30E±0˚02,h11km±5km, n72,σ0s82/130,5C-28D,Northwestern Balkan Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PLE** | **Pljevlja** | **0.09** | **44** | ⇓iPg | **Pg** | **16 38 39.6** | **-0.1** |
| PLE | | | | eSg | **Sg** | **16 38 41.4** | **-0.3** |
| **PLE** | **Pljevlja** | **0.09** | **44** | ⇓iPg | **Pg** | **16 38 39.6** | **-0.1** |
| PLE | | | | eSg | **Sg** | **16 38 41.4** | **-0.3** |
| **UPM** | **Unac-Piva** | **0.30** | **258** | ⇓iPg | **Pg** | **16 38 42.8** | **-0.2** |
| UPM | | | | eSg | **Sg** | **16 38 47.1** | **0.0** |
| **UPM** | **Unac-Piva** | **0.30** | **258** | ⇓iPg | **Pg** | **16 38 42.8** | **-0.2** |
| UPM | | | | eSg | **Sg** | **16 38 46.9** | **-0.2** |
| **KOME** | **Kolasin** | **0.44** | **159** | ⇑iPg | **Pg** | **16 38 45.6** | **0.0** |
| KOME | | | | eSg | **Sg** | **16 38 51.9** | **+0.4** |
| **KOME** | **Kolasin** | **0.44** | **159** | ⇑iPg | **Pg** | **16 38 45.6** | **0.0** |
| KOME | | | | eSg | **Sg** | **16 38 51.9** | **+0.4** |
| **SJES** | **Sjenica** | **0.49** | **90** | *e*Pg | **Pb** | **16 38 46.9** | **-0.6** |
| **NKY** | **Niksic** | **0.51** | **207** | ⇓iPg | **Pg** | **16 38 46.5** | **-0.3** |
| NKY | | | | eSg | **Sg** | **16 38 54.1** | **+0.5** |
| **NKY** | **Niksic** | **0.51** | **207** | ⇓iPg | **Pg** | **16 38 46.5** | **-0.3** |
| NKY | | | | eSg | **Sg** | **16 38 54.1** | **+0.5** |
| **NKME** | **Niksic** | **0.56** | **207** | ⇓iPg | **Pg** | **16 38 47.1** | **-0.7** |
| NKME | | | | eSg | **Sg** | **16 38 55.5** | **+0.2** |
| **NKME** | **Niksic** | **0.56** | **207** | ⇓iPg | **Pg** | **16 38 47.1** | **-0.7** |
| NKME | | | | eSg | **Sg** | **16 38 55.5** | **+0.2** |
| **BEY** | **Berane** | **0.58** | **132** | ⇑iPg | **Pg** | **16 38 48.3** | **0.0** |
| BEY | | | | eSg | **Sb** | **16 38 57.0** | **-0.5** |
| **IVA** | **Berane** | **0.58** | **132** | ⇑iPg | **Pg** | **16 38 48.3** | **0.0** |
| IVA | | | | eSg | **Sb** | **16 38 57.0** | **-0.5** |
| **BRY** | **Bratogost** | **0.67** | **237** | ⇓iPg | **Pg** | **16 38 48.8** | **-1.1** |
| BRY | | | | eSg | **Sg** | **16 38 59.4** | **+0.7** |
| **BRY** | **Bratogost** | **0.67** | **237** | ⇓iPg | **Pg** | **16 38 48.8** | **-1.1** |
| BRY | | | | eSg | **Sg** | **16 38 58.7** | **0.0** |
| **IVAS** | **Ivanjica** | **0.69** | **63** | ⇓iPg | **Pg** | **16 38 49.8** | **-0.5** |
| IVAS | | | | *e*Sg | **Sg** | **16 38 58.1** | **-1.3** |
| **IVAS** | **Ivanjica** | **0.69** | **63** | ⇓iPg | **Pg** | **16 38 49.8** | **-0.5** |
| IVAS | | | | eSg | **Sg** | **16 38 58.1** | **-1.3** |
| **CEME** | **Cevo** | **0.77** | **202** | ⇓iPg | **Pg** | **16 38 50.4** | **-1.4** |
| CEME | | | | *e*Sg | **Sb** | **16 39 03.2** | **+0.3** |
| **CEME** | **Cevo** | **0.77** | **202** | ⇓iPg | **Pg** | **16 38 50.4** | **-1.4** |
| CEME | | | | eSg | **Sb** | **16 39 03.2** | **+0.3** |
| **PVY** | **Plav** | **0.83** | **144** | ⇓iPg | **Pg** | **16 38 52.5** | **-0.4** |
| PVY | | | | eSg | **Sn** | **16 39 05.3** | **-1.5** |
| **PVY** | **Plav** | **0.83** | **144** | ⇓iPg | **Pg** | **16 38 52.5** | **-0.4** |
| PVY | | | | eSg | **Sn** | **16 39 05.3** | **-1.5** |
| **PDG** | **Podgorica** | **0.84** | **182** | *e*Pg | **Pg** | **16 38 52.1** | **-0.9** |
| PDG | | | | *e*Sg | **Sb** | **16 39 04.9** | **+0.3** |
| **PDG** | **Podgorica** | **0.84** | **182** | *e*Pg | **Pg** | **16 38 52.8** | **-0.2** |
| PDG | | | | *e*Sg | **Sb** | **16 39 04.9** | **+0.3** |
| **TTG** | **Podgorica** | **0.84** | **182** | ⇑iPg | **Pg** | **16 38 51.8** | **-1.2** |
| TTG | | | | eSg | **Sb** | **16 39 05.0** | **+0.3** |
| **HAPS** | **Han Pijesak,Bl** | **0.86** | **343** | *e*Pg | **Pg** | **16 38 52.0** | **-1.5** |
| HAPS | | | | *e*Sg | **Sg** | **16 39 04.1** | **-0.6** |
| **HAPS** | **Han Pijesak,Bl** | **0.86** | **343** | *e*Pg | **Pg** | **16 38 52.0** | **-1.5** |
| HAPS | | | | *e*Sg | **Sg** | **16 39 04.1** | **-0.6** |
| **TREB** | **Trebinje** | **0.89** | **232** | *e*Pg | **Pg** | **16 38 52.7** | **-1.3** |
| TREB | | | | *e*Sg | **Sb** | **16 39 06.8** | **+0.7** |
| **TREB** | **Trebinje** | **0.89** | **232** | *e*Pg | **Pg** | **16 38 52.7** | **-1.3** |
| TREB | | | | *e*Sg | **Sg** | **16 39 06.1** | **+0.5** |
| **DIVS** | **Divibare** | **0.97** | **31** | *e*Pg | **Pg** | **16 38 55.2** | **-0.4** |
| DIVS | | | | *e*Sg | **Sb** | **16 39 09.0** | **+0.4** |
| **DIVS** | **Divibare** | **0.97** | **31** | ⇓iPg | **Pg** | **16 38 55.2** | **-0.4** |
| DIVS | | | | *e*Sg | **Sb** | **16 39 08.6** | **0.0** |
| **BUM** | **Brajici-Budva** | **1.01** | **198** | ⇓iPg | **Pb** | **16 38 55.4** | **-1.0** |
| BUM | | | | eSg | **Sb** | **16 39 10.6** | **+0.9** |
| **BUM** | **Brajici-Budva** | **1.01** | **198** | ⇓iPg | **Pb** | **16 38 55.4** | **-1.0** |
| BUM | | | | eSg | **Sb** | **16 39 10.6** | **+0.9** |
| **HCY** | **Herceg Novi** | **1.01** | **216** | ⇓iPg | **Pb** | **16 38 55.5** | **-0.9** |
| HCY | | | | eSg | **Sn** | **16 39 11.1** | **-0.1** |
| **HCY** | **Herceg Novi** | **1.01** | **216** | *e*Pg | **Pb** | **16 38 56.3** | **-0.1** |
| HCY | | | | *e*Sg | **Sb** | **16 39 09.8** | **+0.1** |
| **DRME** | **Dracevica, Mon** | **1.08** | **185** | *e*Pg | **Pb** | **16 38 56.5** | **-1.1** |
| DRME | | | | *e*Sg | **Sn** | **16 39 13.2** | **+0.3** |
| **DRME** | **Dracevica, Mon** | **1.08** | **185** | *e*Pg | **Pb** | **16 38 57.4** | **-0.2** |
| DRME | | | | *e*Sg | **Sn** | **16 39 13.2** | **+0.3** |
| **GRUS** | **Gruza** | **1.20** | **58** | ⇓iPg | **Pg** | **16 39 00.4** | **+0.5** |
| GRUS | | | | eSg | **Sn** | **16 39 16.6** | **+0.8** |
| **GRUS** | **Gruza** | **1.20** | **58** | ⇓iPg | **Pg** | **16 39 00.4** | **+0.5** |
| GRUS | | | | eSg | **Sn** | **16 39 16.6** | **+0.8** |
| **STON** | **Ston** | **1.24** | **252** | *e*Pg | **Pn** | **16 38 59.0** | **-1.1** |
| STON | | | | Sg | **Sg** | **16 39 18.4** | **+1.5** |
| **STON** | **Ston** | **1.24** | **252** | *e*Pg | **Pn** | **16 38 58.9** | **-1.1** |
| STON | | | | Sg | **Sg** | **16 39 18.3** | **+1.5** |
| **TRUS** | **Trudelj** | **1.25** | **39** | *e*Pg | **Pg** | **16 39 00.7** | **-0.1** |
| **TRUS** | **Trudelj** | **1.25** | **39** | *e*Pg | **Pg** | **16 39 00.7** | **-0.1** |
| **TEKS** | **Tekeris** | **1.29** | **7** | *e*Pg | **Pg** | **16 39 01.6** | **-0.1** |
| TEKS | | | | *e*Sg | **Sg** | **16 39 19.7** | **+1.2** |
| **TEKS** | **Tekeris** | **1.29** | **7

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| VILC | | | | *e*S | **Sn** | **17 01 37.3** | **+0.3** |
| VILC | | | | *i* | | 17 01 41.4 | |
| | comp=Z,169nm,0.4s | | | | | | |
| **GUYC** | **Guyana, Colomb** | **2.77** | **235** | *e*P | **Pn** | **17 01 03.8** | **+0.7** |
| GUYC | | | | *i* | | 17 01 47.4 | |
| | comp=Z,287nm,0.4s | | | | | | |
| **CODC** | **Agust´›n Codaz** | **3.11** | **354** | *e*S | **Sn** | **17 01 45.4** | **+0.9** |
| CODC | | | | *i* | | 17 01 52.5 | |
| | comp=Z,103nm,0.4s | | | | | | |
| **TOLC** | **Tolima** | **3.13** | **225** | *e*P | **Pn** | **17 01 08.8** | **+1.4** |
| TOLC | | | | *e*S | **Sn** | **17 01 45.7** | **+0.1** |
| **SDV** | **Santo Domingo** | **3.19** | **50** | P | **Pn** | **17 01 08.7** | **+0.6** |
| | comp=Z,15nm,0.3s,baz=239,slow=12,SNR=47 | | | | | | |
| SDV | | | | S | **Sn** | **17 01 46.5** | **-0.3** |
| | comp=Z,16nm,0.3s,baz=254,slow=22,SNR=32 | | | | | | |
| **PRAC** | **Prado** | **3.56** | **210** | *e*P | **Pn** | **17 01 12.8** | **0.0** |
| PRAC | | | | *e*S | **Sn** | **17 01 55.1** | **0.0** |
| **TXAR** | **Lajitas Array** | **36.47** | **312** | P | **P** | **17 07 09.2** | **+0.2** |
| | comp=Z,0.4nm,0.6s,baz=128,slow=8.3,SNR=5.5 | | | | | | |
| **PDAR** | **Pinedale Array** | **48.08** | **324** | P | **P** | **17 08 42.6** | **-0.3** |
| | comp=Z,0.4nm,0.8s,baz=133,slow=7.8,SNR=3.3 | | | | | | |
| **YKA** | **Yellowknife Ar** | **63.26** | **340** | P | **P** | **17 10 29.5** | **-1.1** |
| | comp=Z,0.9nm,0.6s,baz=133,slow=7.1,SNR=5.8 | | | | | | |
| **ASAR** | **Alice Springs** | **149.12** | **234** | PKPbc | **PKPdf** | **17 19 48.0** | **+2.5** |
| | comp=Z,0.5nm,0.9s,baz=117,slow=3.8,SNR=6.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **150.35** | **241** | PKPbc | **PKPbc** | **17 19 51.1** | **-1.7** |
| | comp=Z,0.2nm,0.6s,baz=108,slow=2.5,SNR=11 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **153.68** | **17** | PKPbc | **PKPbc** | **17 19 59.3** | **-1.0** |
| | comp=Z,0.2nm,0.3s,baz=317,slow=2.0,SNR=2.8 | | | | | | |

*LDG* ***13*** *17:01:44.5±0.2, 51°.63N×16°.14E, h1km, Ml3.9/3, Error ellipse: s-maj=5.9km s-min=2.3km az=15.0, Suspected Mining induced.*

*IPEC* ***13*** *17:01:45.8±0.3, 51°.60N×16°.20E, h0km, ML3.2/3, Error ellipse: s-maj=3.2km s-min=1.7km az=66.0*

*ISCJB* ***13*** *17:01:45.5±0.3, 51°.45N±0°.02×16°.09E±0°.02, h0km, mb3.0/2, Error ellipse: s-maj=2.8km s-min=1.7km az=5.7*

*NEIC* ***13*** *17:01:45.3±0.8, 51°.65N×16°.06E, h5km, mb4.1/2, ML3.9(CSEM), Error ellipse: s-maj=14.4km s-min=5.8km az=173.0*

*CSEM* ***13*** *17:01:46.6±0.1, 51°.53N×16°.11E, h2km, ML3.8/22, Ms4.1, Error ellipse: s-maj=2.9km s-min=1.7km az=4.0*

*IDC* ***13*** *17:01:47.2±0.7, 51°.52N×15°.98E, h0km, mb3.2/2, mb1 3.6/8, mb1mx3.4/47, mbtmp3.5/8, ML3.2/6, Error ellipse: s-maj=10.7km s-min=6.9km az=124.0*

*BGR* ***13*** *17:01:47.6±0.3, 51°.52N×16°.10E, h1km, ML3.5/16, Error ellipse: s-maj=4.4km s-min=2.2km az=13.0*

*VIE* ***13*** *17:01:50.7±0.5, 51°.25N×16°.00E, h0km, mb2.8/13, ML3.0/15, Ms4.1/1, Error ellipse: s-maj=5.5km s-min=3.6km az=156.0, Suspected Mining induced.*

**ISC 13 17:01:45.1±0.6, 51°.58N±0°.03×16°.11E±0°.02, h0km, n162, σ1§43/276, 11C-6D, Poland**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | h m s | ISC |
| **KSP** | **Ksiaz** | **0.75** | **171** | *e*Px | | | **Pg** | **17 02 00.6** | **+1.2** |
| KSP | | | | *i* Pg | | | **Pg** | **17 02 01.0** | **+1.6** |
| KSP | | | | *e*Sg | | | **Sg** | **17 02 10.4** | **+1.4** |
| **KSP** | **Ksiaz** | **0.75** | **171** | *e*Pg | | | **Pb** | **17 02 00.7** | **-0.3** |
| KSP | | | | *e*Sg | | | **Sg** | **17 02 10.4** | **+1.4** |
| **KSP** | **Ksiaz** | **0.75** | **171** | P | | | **Pg** | **17 02 00.5** | **+1.2** |
| KSP | | | | Sg | | | **Sg** | **17 02 10.4** | **+1.4** |
| **KSP** | **Ksiaz** | **0.75** | **171** | P | | | **Pg** | **17 02 00.5** | **+1.2** |
| **KSP** | **Ksiaz** | **0.75** | **171** | *e*Px | | | **Pg** | **17 02 00.6** | **+1.2** |
| KSP | | | | *i* Pg | | | **Pg** | **17 02 01.0** | **+1.6** |
| KSP | | | | *e*Sg | | | **Sg** | **17 02 10.4** | **+1.4** |
| **UPC** | **Upice** | **1.08** | **183** | ⇑*e*PG | | | **Pb** | **17 02 06.9** | **+0.3** |
| UPC | | | | *e*SG | | | **Sg** | **17 02 20.6** | **+1.0** |
| | comp=Z,517nm,0.4s | | | | | | | | |
| **UPC** | **Upice** | **1.08** | **183** | Pg | | | **Pb** | **17 02 06.9** | **+0.3** |
| UPC | | | | Sg | | | **Sg** | **17 02 20.6** | **+1.0** |
| | 517nm,0.4s | | | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.24** | **174** | *e*PG | | | **Pb** | **17 02 09.6** | **+0.2** |
| DPC | | | | *e*SG | | | **Sg** | **17 02 25.3** | **+0.5** |
| | comp=Z,153nm,0.3s | | | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.24** | **174** | *e*Pg | | | **Pb** | **17 02 09.6** | **+0.2** |
| DPC | | | | *e*Sg | | | **Sb** | **17 02 25.8** | **-0.1** |
| **DPC** | **Dobruska-Polom** | **1.24** | **174** | Pg | | | **Pb** | **17 02 09.6** | **+0.2** |
| DPC | | | | Sg | | | **Sb** | **17 02 25.8** | **-0.1** |
| **PVCC** | **Panska Ves** | **1.43** | **223** | ⇑*e*PG | | | **Pb** | **17 02 13.2** | **+0.5** |
| PVCC | | | | *e*SG | | | **Sn** | **17 02 32.5** | **+0.6** |
| | comp=Z,558nm,0.2s | | | | | | | | |
| **PVCC** | **Panska Ves** | **1.43** | **223** | Pg | | | **Pb** | **17 02 13.2** | **+0.5** |
| PVCC | | | | Sg | | | **Sn** | **17 02 32.5** | **+0.6** |
| | 558nm,0.2s | | | | | | | | |
| **PVCC** | **Panska Ves** | **1.43** | **223** | P | | | **Pb** | **17 02 13.0** | **+0.3** |
| **BRG** | **Berggiesshubel** | **1.54** | **243** | *e*Pn | | | **Pn** | **17 02 14.0** | **+0.3** |
| BRG | | | | *e*Pg | | | **Pg** | **17 02 15.9** | **+1.4** |
| BRG | | | | *e*Sg | | | **Sb** | **17 02 36.1** | **+1.7** |
| **BRG** | **Berggiesshubel** | **1.54** | **243** | P | | | **Pn** | **17 02 13.8** | **+0.1** |
| **BRG** | **Berggiesshubel** | **1.54** | **243** | P | | | **Pn** | **17 02 13.8** | **+0.1** |
| **KRLC** | **Kraliky** | **1.56** | **164** | ⇓*i* PG | | | **Pb** | **17 02 15.1** | **+0.1** |
| KRLC | | | | *e*SG | | | **Sn** | **17 02 35.4** | **+0.2** |
| | comp=Z,65nm,0.5s | | | | | | | | |
| **KRLC** | **Kraliky** | **1.56** | **164** | Pg | | | **Pb** | **17 02 15.1** | **+0.1** |
| KRLC | | | | Sg | | | **Sn** | **17 02 35.4** | **+0.2** |
| | 65nm,0.5s | | | | | | | | |
| **PRA** | **Prague** | **1.85** | **216** | ⇑*e*PN | | | **Pn** | **17 02 18.9** | **+0.9** |
| PRA | | | | *e*SG | | | **Sg** | **17 02 44.5** | **+0.1** |
| | comp=Z,195nm,0.7s | | | | | | | | |
| **PRA** | **Prague** | **1.85** | **216** | Pn | | | **Pn** | **17 02 18.9** | **+0.9** |
| PRA | | | | Sg | | | **Sg** | **17 02 44.5** | **+0.1** |
| | 195nm,0.7s | | | | | | | | |
| **FBE** | **Freiberg** | **1.85** | **250** | *e*Pn | | | **Pn** | **17 02 18.7** | **+0.6** |
| FBE | | | | *e*Pg | | | **Pg** | **17 02 21.6** | **+1.0** |
| FBE | | | | *e*Sg | | | **Sg** | **17 02 45.3** | **+0.7** |
| **FBE** | **Freiberg** | **1.85** | **250** | Pn | | | **Pn** | **17 02 18.7** | **+0.6** |
| **GOPC** | **GO Pecny, Ondr** | **1.87** | **207** | *e*PN | | | **Pn** | **17 02 19.0** | **+0.7** |
| GOPC | | | | *e*PG | | | **Pg** | **17 02 21.0** | **+0.1** |
| GOPC | | | | *e*SG | | | **Sb** | **17 02 44.1** | **+0.1** |
| | comp=Z,78nm,0.3s | | | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **1.87** | **207** | Pn | | | **Pn** | **17 02 19.0** | **+0.7** |
| **PRU** | **Pruhonice** | **1.88** | **213** | ⇑*e*PN | | | **Pn** | **17 02 19.1** | **+0.6** |
| PRU | | | | *e*PG | | | **Pg** | **17 02 21.1** | **0.0** |
| PRU | | | | *ex* | | | x | 17 02 38.2 | |
| PRU | | | | *e*SG | | | **Sb** | **17 02 44.7** | **+0.4** |
| | comp=Z,83nm,0.3s | | | | | | | | |
| **PRU** | **Pruhonice** | **1.88** | **213** | Pn | | | **Pn** | **17 02 19.1** | **+0.6** |
| **CLL** | **Collm** | **1.96** | **263** | *i* Pn | | | **Pn** | **17 02 19.9** | **+0.3** |
| | comp=Z,46nm,0.5s | | | | | | | | |
| CLL | | | | *i* Pg | | | **Pg** | **17 02 22.9** | **+0.2** |
| CLL | | | | *i* | | | | 17 02 27.1 | |
| CLL | | | | *i* Sg | | | **Sg** | **17 02 48.9** | **+0.8** |
| | comp=Z,78nm,0.6s | | | | | | | | |
| **CLL** | **Collm** | **1.96** | **263** | *e*Pn | | | **Pn** | **17 02 20.0** | **+0.3** |
| CLL | | | | *e*Sg | | | **Sg** | **17 02 49.1** | **+0.9** |
| **CLL** | **Collm** | **1.96** | **263** | Pn | | | **Pn** | **17 02 20.0** | **+0.3** |
| CLL | | | | Sg | | | **Sg** | **17 02 49.1** | **+0.9** |
| **CLL** | **Collm** | **1.96** | **263** | *e*Pn | | | **Pn** | **17 02 19.3** | **-0.3** |
| CLL | | | | *e*Sn | | | **Sg** | **17 02 48.6** | **+0.5** |
| **RAC** | **Raciborz** | **2.00** | **138** | *e*Pg | | | **Pg** | **17 02 24.1** | **+0.7** |
| RAC | | | | *e*Sg | | | **Sg** | **17 02 50.5** | **+1.3** |
| **MORC** | **Moravsky Berou** | **2.02** | **153** | ⇑*i* P | | | **Pn** | **17 02 21.2** | **+0.8** |
| **MORC** | **Moravsky Berou** | **2.02** | **153** | *e*Pn | | | **Pn** | **17 02 21.3** | **+0.8** |
| MORC | | | | *e*Sg | | | **Sb** | **17 02 49.2** | **+0.7** |
| **MORC** | **Moravsky Berou** | **2.02** | **153** | Pn | | | **Pn** | **17 02 21.3** | **+0.8** |
| MORC | | | | S | | | **Sb** | **17 02 48.8** | **+0.4** |
| MORC | | | | Sg | | | **Sb** | **17 02 49.2** | **+0.7** |
| **MORC** | **Moravsky Berou** | **2.02** | **153** | *e*Pn | | | **Pn** | **17 02 21.0** | **+0.6** |
| MORC | | | | *e*Sn | | | **Sg** | **17 02 49.8** | **-0.3** |
| **OKC** | **Ostrava-Krasne** | **2.17** | **143** | ⇑*e*PN | | | **Pn** | **17 02 22.9** | **+0.4** |
| OKC | | | | *e*PG | | | **Pg** | **17 02 26.7** | **0.0** |
| OKC | | | | *e*SG | | | **Sg** | **17 02 54.5** | **-0.3** |
| | comp=Z,355nm,0.7s | | | | | | | | |
| **OKC** | **Ostrava-Krasne** | **2.17** | **143** | *e*Pn | | | **Pn** | **17 02 23.5** | **+1.0** |
| OKC | | | | *e*Pg | | | **Pg** | **17 02 27.7** | **+1.0** |
| OKC | | | | *e*Sg | | | **Sg** | **17 02 55.6** | **+0.7** |
| **OKC** | **Ostrava-Krasne** | **2.17** | **143** | Pn | | | **Pn** | **17 02 23.5** | **+1.0** |
| **VRAC** | **Vranov** | **2.29** | **172** | Pn | | | **Pn** | **17 02 25.4** | **+1.3** |
| | comp=Z,6.6nm,0.3s,baz=345,slow=16,SNR=22 | | | | | | | | |
| VRAC | | | | Lg | | | Lg | 17 02 58.6 | |
| | comp=Z,15nm,0.3s,baz=72,slow=20,SNR=12 | | | | | | | | |
| **VRAC** | **Vranov** | **2.29** | **172** | ⇓*i* P | | | **Pn** | **17 02 25.5** | **+1.3** |
| **VRAC** | **Vranov** | **2.29** | **172** | S | | | **Sg** | **17 02 59.4** | **+0.6** |
| **VRAC** | **Vranov** | **2.29** | **172** | *e*Pn | | | **Pn** | **17 02 25.2** | **+1.0** |
| **VRAC** | **Vranov** | **2.29** | **172** | ⇓*i* P | | | **Pn** | **17 02 25.5** | **+1.3** |
| VRAC | | | | *e*Sg | | | **Sg** | **17 02 58.2** | **-0.6** |
| | comp=Z,155nm,0.6s,baz=354 | | | | | | | | |
| **KRUC** | **Moravsky** | **2.53** | **176** | *e*Pn | | | **Pn** | **17 02 28.4** | **+1.0** |
| | baz=357 | | | | | | | | |
| KRUC | | | | *e*Sg | | | **Sg** | **17 03 05.7** | **-0.5** |
| | comp=Z,120nm,0.8s,baz=357 | | | | | | | | |
| **WERD** | **Werda** | **2.66** | **246** | *e*Pn | | | **Pn** | **17 02 30.1** | **+0.9** |
| WERD | | | | *e*Pg | | | **Pg** | **17 02 36.5** | **+0.5** |
| WERD | | | | *e*Sg | | | **Sg** | **17 03 10.8** | **+0.4** |
| **WERD** | **Werda** | **2.66** | **246** | Pn | | | **Pn** | **17 02 30.1** | **+0.9** |
| **NKC** | **Novy Kostel** | **2.68** | **241** | ⇑*i* PN | | | **Pn** | **17 02 30.6** | **+1.1** |
| NKC | | | | *e*PG | | | **Pg** | **17 02 37.6** | **+1.1** |
| NKC | | | | *e*SG | | | **Sg** | **17 03 11.6** | **+0.4** |
| | comp=Z,172nm,0.3s | | | | | | | | |
| **NKC** | **Novy Kostel** | **2.68** | **241** | Pn | | | **Pn** | **17 02 30.6** | **+1.1** |
| **OJC** | **Ojcow** | **2.70** | **119** | *e*Pn | | | **Pn** | **17 02 29.5** | **-0.3** |
| OJC | | | | *e*Pg | | | **Pg** | **17 02 37.4** | **+0.5** |
| OJC | | | | *e*Sn | | | **Sn** | **17 03 01.7** | **-1.5** |
| OJC | | | | *e*Sg | | | **Sg** | **17 03 12.5** | **+0.6** |
| **OJC** | **Ojcow** | **2.70** | **119** | *e*Pn | | | **Pn** | **17 02 29.7** | **-0.1** |
| OJC | | | | *e*Pg | | | **Pg** | **17 02 37.5** | **+0.6** |
| OJC | | | | *e*Sg | | | **Sg** | **17 03 13.9** | **+2.0** |
| **OJC** | **Ojcow** | **2.70** | **119** | Pn | | | **Pn** | **17 02 29.7** | **-0.1** |
| **OJC** | **Ojcow** | **2.70** | **119** | Pg | | | **Pg** | **17 02 37.5** | **+0.6** |
| OJC | | | | *e*Sn | | | **Sn** | **17 03 01.7** | **-1.5** |
| OJC | | | | Sg | | | **Sg** | **17 03 13.9** | **+2.0** |
| **OJC** | **Ojcow** | **2.70** | **119** | *e*Pn | | | **Pn** | **17 02 29.7** | **-0.1** |
| OJC | | | | *e*Sn | | | **Sg** | **17 03 10.4** | **-1.5** |
| **OJC** | **Ojcow** | **2.70** | **119** | *e*Pn | | | **Pn** | **17 02 29.5** | **-0.3** |
| OJC | | | | *e*Pg | | | **Pg** | **17 02 37.4** | **+0.5** |
| OJC | | | | *e*Sn | | | **Sn** | **17 03 01.7** | **-1.5** |
| OJC | | | | *e*Sg | | | **Sg** | **17 03 12.5** | **+0.6** |
| **KHC** | **Kasperske Hory** | **2.94** | **214** | ⇓*i* PN | | | **Pn** | **17 02 33.8** | **+0.7** |
| KHC | | | | *e*PG | | | **Pg** | **17 02 40.2** | **-1.2** |
| KHC | | | | *e*SN | | | **Sn** | **17 03 08.3** | **-0.8** |
| KHC | | | | *e*SG | | | **Sg** | **17 03 18.3** | **-1.2** |
| | comp=Z,46nm,0.3s | | | | | | | | |
| **KHC** | **Kasperske Hory** | **2.94** | **214** | *e*Pn | | | **Pn** | **17 02 33.7** | **+0.7** |
| **KHC** | **Kasperske Hory** | **2.94** | **214** | *e*Pn | | | **Pn** | **17 02 33.7** | **+0.7** |
| KHC | | | | *e*Sg | | | **Sg** | **17 03 18.9** | **-0.6** |
| **MOX** | **Moxa** | **2.98** | **253** | *e*Pn | | | **Pn** | **17 02 34.4** | **+0.7** |
| MOX | | | | *e*Pg | | | **Pg** | **17 02 42.6** | **+0.4** |
| MOX | | | | *e*Sg | | | **Sg** | **17 03 22.8** | **+1.9** |
| **MOX** | **Moxa** | **2.98** | **253** | Pn | | | **Pn** | **17 02 34.4** | **+0.7** |
| **MANZ** | **Manzenberg** | **3.00** | **239** | *e*Pn | | | **Pn** | **17 02 35.1** | **+1.2** |
| MANZ | | | | *e*Pg | | | **Pg** | **17 02 43.6** | **+1.0** |
| MANZ | | | | *e*Sg | | | **Sg** | **17 03 22.9** | **+1.5** |
| **MANZ** | **Manzenberg** | **3.00** | **239** | Pn | | | **Pn** | **17 02 35.1** | **+1.2** |
| **ROTZ** | **Rotzenmuhle** | **3.08** | **235** | *e*Pn | | | **Pn** | **17 02 36.0** | **+1.1** |
| ROTZ | | | | *e*Sg | | | **Sg** | **17 03 24.5** | **+0.7** |
| **ROTZ** | **Rotzenmuhle** | **3.08** | **235** | Pn | | | **Pn** | **17 02 36.0** | **+1.1** |
| ROTZ | | | | Sg | | | **Sg** | **17 03 24.5** | **+0.7** |
| **GEC2** | **GERESS Array S** | **3.14** | **210** | *e*Pn | | | **Pn** | **17 02 36.9** | **+1.0** |
| GEC2 | | | | *e*Pg | | | **Pg** | **17 02 45.2** | **-0.2** |
| GEC2 | | | | *e*Sg | | | **Sg** | **17 03 24.4** | **-1.7** |
| **GEC2** | **GERESS Array S** | **3.14** | **210** | Pn | | | **Pn** | **17 02 36.9** | **+1.0** |
| **GEC2** | **GERESS Array S** | **3.14** | **210** | *e*Pb | | | **Pg** | **17 02 44.5** | **-0.8** |
| **GEC2** | **GERESS Array S** | **3.14** | **210** | *e*Pn | | | **Pn** | **17 02 37.0** | **+1.0** |
| GEC2 | | | | *e*Pb | | | **Pg** | **17 02 44.5** | **-0.8** |
| GEC2 | | | | *e*Sg | | | **Sg** | **17 03 23.6** | **-2.4** |
| **GERES** | **GERESS Array B** | **3.14** | **210** | Pn | | | **Pn** | **17 02 36.7** | **+0.7** |
| | comp=Z,4.9nm,0.3s,baz=30,slow=13,SNR=105 | | | | | | | | |
| GERES | | | | Pg | | | **Pb** | **17 02 43.1** | **+1.2** |
| | comp=Z,9.0nm,0.3s,baz=32,slow=15,SNR=40 | | | | | | | | |
| GERES | | | | Sn | | | **Sn** | **17 03 14.7** | **+0.5** |
| | comp=Z,6.8nm,0.3s,baz=22,slow=27,SNR=5.8 | | | | | | | | |
| GERES | | | | Lg | | | Lg | 17 03 23.9 | |
| | comp=Z,14nm,0.3s,baz=31,slow=29,SNR=6.0 | | | | | | | | |
| **GEA0** | **GERESS Array S** | **3.15** | **210** | *e*Pn | | | **Pn** | **17 02 36.6** | **+0.6** |
| **GEA0** | **GERESS Array S** | **3.15** | **210** | *e*Pn | | | **Pn** | **17 02 36.6** | **+0.6** |
| **SMOL** | **Smolenice** | **3.19** | **164** | *e*Pg | | | **Pg** | **17 02 46.4** | **+0.3** |
| SMOL | | | | *e*Sg | | | **Sg** | **17 03 28.1** | **+0.7** |
| **SMOL** | **Smolenice** | **3.19** | **164** | *e*PG | | | **Pg** | **17 02 46.4** | **+0.3** |
| SMOL | | | | *e*SG | | | **Sg** | **17 03 28.1** | **+0.7** |
| **WET** | **Wettzell** | **3.20** | **222** | *e*Pn | | | **Pn** | **17 02 37.9** | **+1.3** |
| WET | | | | *e*Sg | | | **Sg** | **17 03 26.9** | **-0.9** |
| **WET** | **Wettzell** | **3.20** | **222** | Pn | | | **Pn** | **17 02 37.9** | **+1.3** |
| WET | | | | Sg | | | **Sg** | **17 03 26.9** | **-0.9** |
| **LANS** | **Liptovska Anna** | **3.25** | **137** | *e*Pg | | | **Pg** | **17 02 47.0** | **-0.3** |
| LANS | | | | *e*Sg | | | **Sg** | **17 03 28.8** | **-0.5** |
| **LANS** | **Liptovska Anna** | **3.25** | **137** | *e*PG | | | **Pg** | **17 02 47.0** | **-0.3** |
| LANS | | | | *e*SG | | | **Sg** | **17 03 28.8** | **-0.5** |
| **NIE** | **Niedzica** | **3.44** | **127** | *e*P | | | **Pg** | **17 02 51.9** | **+0.9** |
| NIE | | | | *e*S | | | **Sg** | **17 03 37.9** | **+2.3** |
| **NIE** | **Niedzica** | **3.44** | **127** | *e*P | | | **Pg** | **17 02 51.9** | **+0.9** |
| NIE | | | | *e*S | | | **Sg** | **17 03 37.9** | **+2.3** |
| **VYHS** | **Vyhne** | **3.55** | **149** | *e*Pg | | | **Pg** | **17 02 52.4** | **-0.8** |
| VYHS | | | | *e*Sg | | | **Sg** | **17 03 38.6** | **-0.6** |
| **VYHS** | **Vyhne** | **3.55** | **149** | *e*PG | | | **Pg** | **17 02 52.4** | **-0.8** |
| VYHS | | | | *e*SG | | | **Sg** | **17 03 38.6** | **-0.6** |
| VYHS | | | | *e*LG | | | Lg | 17 03 52.6 | |
| **CLZ** | **Clausthal** | **3.58** | **276** | *e*Pn | | | **Pn** | **17 02 43.6** | **+1.7** |
| **CLZ** | **Clausthal** | **3.58** | **276** | Pn | | | **Pn** | **17 02 43.6** | **+1.7** |
| **BSD** | **Bornholm Skovb** | **3.61** | **349** | *i* P | | | **Pn** | **17 02 43.5** | **+1.3** |
| **BSD** | **Bornholm Skovb** | **3.61** | **349** | *i* P | | | **Pn** | **17 02 43.6** | **+1.3** |
| | SNR=91 | | | | | | | | |
| **GRA1** | **Grafenberg Arr** | **3.64** | **241** | Pn | | | **Pn** | **17 02 44.1** | **+1.4** |
| **GRA1** | **Grafenberg Arr** | **3.64** | **241** | Pg | | | **Pg** | **17 02 57.6** | **+2.8** |
| GRA1 | | | | Sg | | | **Sg** | **17 03 41.5** | **-0.5** |
| **GRF** | **Grafenberg Arr** | **3.64** | **241** | *e*Pn | | | **Pn** | **17 02 44.1** | **+1.4** |
| GRF | | | | *e*Pg | | | **Pg** | **17 02 57.6** | **+2.8** |
| GRF | | | | *e*Sg | | | **Sg** | **17 03 41.5** | **-0.5** |
| **GRFO** | **Grafenberg** | **3.64** | **241** | *e*Pn | | | **Pn** | **17 02 43.5** | **+0.8** |
| **GRFO** | **Grafenberg** | **3.64** | **241** | *e*Pg | | | **Pg** | **17 02 57.1** | **+2.3** |
| **GRFO** | **Grafenberg** | **3.64** | **241** | *e*Pn | | | **Pn** | **17 02 43.5** | **+0.8** |
| GRFO | | | | *e*Pg | | | **Pg** | **17 02 57.1** | **+2.3** |
| GRFO | | | | *e*Sg | | | **Sg** | **17 03 43.5** | **+1.5** |
| **CONA** | **Conrad Observa** | **3.66** | **183** | Pn | | | **Pn** | **17 02 44.5** | **+1.5** |
| | comp=Z,2.6nm,0.2s,SNR=5.4 | | | | | | | | |
| CONA | | | | Sg | | | **Sg** | **17 03 40.3** | **-2.3** |
| | comp=Z,111nm,0.7s | | | | | | | | |
| **MOA** | **Molln** | **3.92** | **198** | Pn | | | **Pn** | **17 02 48.0** | **+1.4** |
| | comp=Z,13nm,0.3s,SNR=9.1 | | | | | | | | |
| MOA | | | | Sg | | | **Sg** | **17 03 49.6** | **-1.4** |
| | comp=Z,0.9nm,0.0s | | | | | | | | |
| **STHS** | **Stebnicka Huta** | **3.93** | **121** | *e*Pg | | | **Pg** | **17 03 02.2** | **+1.9** |
| STHS | | | | *e*Sg | | | **Sg** | **17 03 52.8** | **+1.6** |
| **STHS** | **Stebnicka Huta** | **3.93** | **121** | *e*PG | | | **Pg** | **17 03 02.1** | **+1.8** |
| STHS | | | | *e*SG | | | **Sg** | **17 03 52.8** | **+1.6** |
| STHS | | | | *e*LG | | | Lg | 17 04 02.2 | |
| **KECS** | **Kecovo** | **4.19** | **136** | *e*Pg | | | **Pg** | **17 03 07.1** | **+1.7** |
| **KECS** | **Kecovo** | **4.19** | **136** | *e*PG | | | **Pg** | **17 03 07.1** | **+1.7** |
| KECS | | | | *e*LG | | | Lg | 17 04 05.3 | |
| **ARSA** | **Arzberg** | **4.35** | **185** | Pn | | | **Pn** | **17 02 54.0** | **+1.5** |
| | comp=Z,5.0nm,0.3s | | | | | | | | |
| ARSA | | | | Sg | | | **Sg** | **17 04 04.6** | **-0.2** |
| | comp=Z,75nm,0.6s | | | | | | | | |
| **CRVS** | **Cervenica-Dubn** | **4.36** | **126** | *e*Pg | | | **Pg** | **17 03 08.2** | **-0.3** |
| CRVS | | | | *e*Sg | | | **Sg** | **17 04 06.9** | **+1.9** |
| **CRVS** | **Cervenica-Dubn** | **4.36** | **126** | *e* | | | **Pn** | **17 02 54.8** | **+2.3** |
| **CRVS** | **Cervenica-Dubn** | **4.36** | **126** | *e*PG | | | **Pg** | **17 03 08.2** | **-0.3** |
| CRVS | | | | *e*SG | | | **Sg** | **17 04 06.9** | **+1.9** |
| **PSZ** | **Piszkesteto** | **4.41** | **145** | ⇑*i* P | | | **Pn** | **17 02 54.3** | **+1.0** |
| **PSZ** | **Piszkesteto** | **4.41** | **145** | ⇑*i* P | | | **Pn** | **17 02 54.3** | **+1.0** |
| **PSZ** | **Piszkesteto** | **4.41** | **145** | *e*Pn | | | **Pn** | **17 02 54.7** | **+1.4** |
| **PSZ** | **Piszkesteto** | **4.41** | **145** | *e*Pg | | | **Pg** | **17 03 10.6** | **+1.0** |
| **PSZ** | **Piszkesteto** | **4.41** | **145** | *e*Pn | | | **Pn** | **17 02 54.7** | **+1.4** |
| PSZ | | | | *e*Pg | | | **Pg** | **17 03 10.6** | **+1.0** |
| **KWP** | **Kalwaria Pacla** | **4.63** | **112** | *e*Pn | | | **Pn** | **17 02 57.6** | **+1.3** |
| **KWP** | **Kalwaria Pacla** | **4.63** | **112** | *e*Pg | | | **Pg** | **17 03 12.9** | **-0.9** |
| **KWP** | **Kalwaria Pacla** | **4.63** | **112** | *e*Pn | | | **Pn** | **17 02 57.6** | **+1.3** |
| KWP | | | | *e*Pg | | | **Pg** | **17 03 12.9** | **-0.9** |
| KWP | | | | *e*Sg | | | **Sg** | **17 04 21.9** | **+8.1** |
| **KBA** | **Koelnbreinsper** | **4.85** | **203** | Pn | | | **Pn** | **17 03 01.2** | **+1.7** |
| | comp=Z,16nm,0.5s,SNR=7.4 | | | | | | | | |
| KBA | | | | Sg | | | **Sg** | **17 04 20.5** | **-0.5** |
| | comp=Z,20nm,0.6s | | | | | | | | |
| **SOKA** | **Soboth** | **4.96** | **189** | Pn | | | **Pn** | **17 03 02.2** | **+1.4** |
| | comp=Z,1.1nm,0.2s | | | | | | | | |
| SOKA | | | | Sg | | | **Sg** | **17 04 23.1** | **-1.2** |
| | comp=Z,16nm,0.6s | | | | | | | | |
| **WATA** | **Walderalm** | **5.17** | **217** | Pn | | | **Pn** | **17 03 05.8** | **+1.9** |
| | comp=Z,10nm,0.6s | | | | | | | | |
| WATA | | | | Sg | | | **Sg** | **17 04 31.0** | **-0.3** |
| | comp=Z,3.9nm,0.3s | | | | | | | | |
| **OBKA** | **Obir** | **5.18** | **192** | Pn | | | **Pn** | **17 03 04.9** | **+1.0** |
| | comp=Z,1.5nm,0.3s | | | | | | | | |
| OBKA | | | | Sg | | | **Sg** | **17 04 33.7** | **+2.4** |
| | comp=Z,12nm,0.6s | | | | | | | | |
| **MYKA** | **Terra Mystica** | **5.21** | **199** | Pn | | | **Pn** | **17 03 04.7** | **+0.4** |
| | comp=Z,2.4nm,0.4s | | | | | | | | |
| MYKA | | | | Sg | | | **Sg** | **17 04 32.4** | **-0.1** |
| | comp=Z,3.9nm,0.4s | | | | | | | | |
| **WTTA** | **Wattenberg** | **5.21** | **216** | Pn | | | **Pn** | **17 03 05.2** | **+0.7** |
| | comp=Z,2.8nm,0.3s | | | | | | | | |
| WTTA | | | | Sg | | | **Sg** | **17 04 32.6** | **+0.1** |
| | comp=Z,7.9nm,0.4s | | | | | | | | |
| **STU** | **Stuttgart** | **5.26** | **240** | *e*Pn | | | **Pn** | **17 03 04.6** | **-0.3** |
| STU | | | | *e*Sg | | | **Sg** | **17 04 32.5** | **-1.4** |
| **STU** | **Stuttgart** | **5.26** | **240** | *e*Pn | | | **Pn** | **17 03 04.6** | **-0.3** |
| STU | | | | *e*Sg | | | **Sg** | **17 04 32.5** | **-1.4** |
| **MOTA** | **Moosalm** | **5.35** | **220** | Pn | | | **Pn** | **17 03 07.3** | **+1.0** |
| MOTA | | | | Sg | | | **Sg** | **17 04 37.4** | **+0.6** |
| | comp=Z,12nm,0.8s | | | | | | | | |
| **RETA** | **Reutte** | **5.38** | **222** | Sg | | | **Sg** | **17 04 38.3** | **+0.6** |
| | comp=Z,14nm,0.5s | | | | | | | | |
| **ABTA** | **Abfaltersbach** | **5.38** | **207** | Pn | | | **Pn** | **17 03 08.6** | **+1.9** |
| | comp=Z,3.2nm,0.4s | | | | | | | | |
| ABTA | | | | Sg | | | **Sg** | **17 04 38.5** | **+0.6** |
| | comp=Z,6.6nm,0.4s | | | | | | | | |
| **FETA** | **Feichten** | **5.76** | **220** | Pn | | | **Pn** | **17 03 13.8** | **+1.8** |
| | comp=Z,2.4nm,0.4s | | | | | | | | |
| FETA | | | | Sg | | | **Sg** | **17 04 51.2** | **+1.1** |
| | comp=Z,6.3nm,0.9s | | | | | | | | |
| **DAVA** | **Damuels** | **5.91** | **226** | Sg | | | **Sg** | **17 04 57.0** | **+2.1** |
| | comp=Z,39nm,0.7s | | | | | | | | |
| **BFO** | **Black Forest** | **5.98** | **240** | *e*Pn | | | **Pn** | **17 03 16.3** | **+1.4** |
| **BFO** | **Black Forest** | **5.98** | **240** | *e*Pn | | | **Pn** | **17 03 16.3** | **+1.4** |
| BFO | | | | *e*Sg | | | **Sg** | **17 04 53.7** | **-3.4** |
| **TRI** | **Trieste** | **6.08** | **196** | *e*Pn | | | **Pn** | **17 03 13.6** | **-2.5** |
| **FUORN** | **Ofenpass-Fuorn** | **6.27** | **220** | *e*Pn | | | **Pn** | **17 03 20.1** | **+1.0** |
| **FUORN** | **Ofenpass-Fuorn** | **6.27** | **220** | *e*Pn | | | **Pn** | **17 03 20.1** | **+1.0** |
| **DAVOX** | **Davos/Dischmat** | **6.30** | **223** | Pn | | | **Pn** | **17 03 20.3** | **+0.9** |
| | comp=Z,0.9nm,0.3s,baz=40,slow=9.6,SNR=7.8 | | | | | | | | |
| DAVOX | | | | Lg | | | Lg | 17 05 04.5 | |
| | comp=Z,0.6nm,0.3s,baz=354,slow=18,SNR=3.6 | | | | | | | | |
| **DRGR** | | **6.46** | **135** | ⇓*i* P | | | **Pn** | **17 03 22.6** | **+1.2** |
| **DRGR** | | **6.46** | **135** | ⇓*i* P | | | **Pn

*Ms1 3.9/21,ms1mx3.6/47,Error ellipse: s-maj=16.6km s-min=11.3km az=70.0*
*MOS* ***13*** *17:51:03.9±0.9,30°.28N×131°.55E,h21km,mb4.7/22,Error ellipse: s-maj=11.1km s-min=6.4km az=104.5*
*NEIC* ***13*** *17:51:05.2±1.8,30°.26N×131°.45E,h15km±11km,mb4.9/34, Error ellipse: s-maj=4.5km s-min=4.2km az=139.0*
*ISCJB* ***13*** *17:51:05.4±0.8,30°.23N±0°.02×131°.58E±0°.03,h32km±5km, mb4.6/65,MS3.9/25,Error ellipse: s-maj=3.9km s-min=3.2km az=22.6*
*JMA* ***13*** *17:51:06.5±0.1,30°.25N×131°.59E,h45km±2km,M4.1*
*BJI* ***13*** *17:51:08.0,30°.30N×131°.40E,h35km,mb4.4/43,mB4.7/32, Ms4.1/30,Ms7 4.0/31*
**ISC 13 17:51:06.0±0.8,30°.25N±0°.03×131°.52E±0°.04,h17km±4km, n211,σ1§79/255,mb4.7/71,MS3.9/25,20C-8D,Kyushu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JTN** | **Tanegashima 3** | **0.62** | **311** | ⇑P | **Pn** | **17 51 19.6** | **-0.4** |
| **JYAK** | **Yakushimahirau** | **0.88** | **269** | P | **Pb** | **17 51 23.3** | **+0.6** |
| JYAK | | | | S | **Sg** | **17 51 35.7** | **+1.1** |
| **JTSR** | **Tashiro 2** | **1.05** | **331** | ⇑P | **Pb** | **17 51 25.5** | **-0.2** |
| JTSR | | | | S | **Sb** | **17 51 39.2** | **0.0** |
| **JKC** | **Kuchinoerabu** | **1.17** | **281** | ⇑P | **Pn** | **17 51 27.6** | **+0.1** |
| JKC | | | | S | **Sn** | **17 51 43.9** | **+0.9** |
| **JNAR** | **Kushima--Naru** | **1.29** | **350** | ⇑P | **Pn** | **17 51 29.0** | **-0.2** |
| JNAR | | | | S | **Sb** | **17 51 45.1** | **-1.0** |
| **JNN** | **Nakanoshima** | **1.49** | **255** | ⇑P | **Pn** | **17 51 32.3** | **+0.4** |
| JNN | | | | *e*S | **Sn** | **17 51 51.5** | **+0.6** |
| **JSU** | **Suzuyama** | **1.55** | **324** | ⇑P | **Pn** | **17 51 32.4** | **-0.4** |
| JSU | | | | S | **Sn** | **17 51 51.9** | **-0.7** |
| **JTZ** | **Takazaki** | **1.69** | **347** | ⇑P | **Pn** | **17 51 34.8** | **+0.1** |
| JTZ | | | | S | **Sn** | **17 51 55.2** | **-0.7** |
| **JTSN** | **Tsuno** | **1.99** | **360** | P | **Pn** | **17 51 38.2** | **-0.6** |
| JTSN | | | | *e*S | **Sn** | **17 52 01.5** | **-1.8** |
| **JZO** | **Okuchi** | **2.04** | **337** | ⇑P | **Pn** | **17 51 39.5** | **-0.1** |
| JZO | | | | S | **Sn** | **17 52 04.5** | **-0.2** |
| **JSJ** | **Shimokoshiki** | **2.11** | **313** | ⇑P | **Pn** | **17 51 39.4** | **-1.0** |
| JSJ | | | | S | **Sn** | **17 52 04.6** | **-1.6** |
| **JTAJ** | **Takarajima** | **2.29** | **242** | P | **Pn** | **17 51 44.1** | **+1.1** |
| **JZK** | **Kikaishima** | **2.36** | **215** | P | **Pn** | **17 51 44.0** | **+0.1** |
| **JIJ2** | **Izumi 2** | **2.37** | **345** | ⇑P | **Pn** | **17 51 44.0** | **0.0** |
| **JAM** | **Amami Oshima** | **2.48** | **223** | ⇓P | **Pn** | **17 51 45.3** | **-0.3** |
| **JAMN** | **Amaminishikomi** | **2.87** | **226** | P | **Pn** | **17 51 50.6** | **-0.2** |
| JAMN | | | | S | **Sn** | **17 52 24.1** | **-0.8** |
| **JNU** | **Nakatsue** | **2.92** | **349** | Pn | **Pn** | **17 51 51.6** | **0.0** |
| | 16nm,0.3s,baz=186,slow=13,SNR=126 | | | | | | |
| JNU | | | | Sn | **Sn** | **17 52 24.9** | **-1.3** |
| | 22nm,0.3s,baz=351,slow=21,SNR=6.9 | | | | | | |
| **JNU** | **Nakatsue** | **2.92** | **349** | *e*Pn | **Pn** | **17 51 51.4** | **-0.2** |
| JNU | | | | *e*Sn | **Sn** | **17 52 23.8** | **-2.4** |
| **JTK** | **Tokunoshima** | **3.33** | **223** | ⇑P | **Pn** | **17 51 57.0** | **-0.3** |
| **JOKE** | **Okinoerabujima** | **3.87** | **223** | P | **Pn** | **17 52 04.6** | **-0.1** |
| JOKE | | | | S | **Sn** | **17 52 48.4** | **-1.4** |
| **JOW** | **Kunigami** | **4.45** | **221** | P | **Pn** | **17 52 12.0** | **-0.6** |
| **JOW** | **Kunigami** | **4.45** | **221** | *e*Pn | **Pn** | **17 52 11.8** | **-0.8** |
| JOW | | | | *e*Sn | **Sn** | **17 53 00.2** | **-3.8** |
| **JIH** | **Iheya** | **4.47** | **225** | P | **Pn** | **17 52 12.5** | **-0.5** |
| **JNTH** | **Nagotoyohara** | **4.83** | **221** | S | **Sn** | **17 53 10.1** | **-3.3** |
| **JAGN** | **Aguni-jima** | **5.25** | **227** | S | **Sn** | **17 53 20.0** | **-3.7** |
| **JKE** | **Kume jima 2** | **5.72** | **228** | P | **Pn** | **17 52 29.3** | **-0.8** |
| JKE | | | | S | **Sn** | **17 53 31.5** | **-3.9** |
| **INU** | **Inuyama** | **6.87** | **41** | *e*Pn | **Pn** | **17 52 47.0** | **+1.0** |
| INU | | | | *e*Sn | **Sn** | **17 54 01.8** | **-1.9** |
| **TJN** | **Taejon** | **7.03** | **331** | ⇓*e*P | **Pn** | **17 52 47.2** | **-0.9** |
| **KSRS** | **Korea Array** | **7.78** | **338** | Pn | **Pn** | **17 52 59.4** | **+1.0** |
| | 0.7nm,0.3s,baz=156,slow=14,SNR=12 | | | | | | |
| **KS15** | **Wonju Array Si** | **7.79** | **338** | *e*Pn | **Pn** | **17 52 57.5** | **-1.0** |
| **KSAR** | **Wonju Array Be** | **7.79** | **338** | P | **Pn** | **17 52 59.4** | **+1.0** |
| **KSAR** | **Wonju Array Be** | **7.79** | **338** | Pn | **Pn** | **17 52 59.4** | **+1.0** |
| **KS01** | **Wonju Array Si** | **7.81** | **338** | *e*Pn | **Pn** | **17 52 58.9** | **+0.1** |
| **MAJO** | **Matsushiro** | **8.40** | **40** | *e*P | **Pn** | **17 53 05.4** | **-1.5** |
| **MAJO** | **Matsushiro** | **8.40** | **40** | *e*Pn | **Pn** | **17 53 05.4** | **-1.5** |
| **MJAR** | **Matsushiro Arr** | **8.40** | **40** | Pn | **Pn** | **17 53 06.3** | **-0.6** |
| | 1.2nm,0.3s,baz=239,slow=14,SNR=7.4 | | | | | | |
| **MJB9** | **Matsu-Tunnel** | **8.40** | **40** | *e*Pn | **Pn** | **17 53 05.0** | **-1.9** |
| **CBIJ** | **Chichi jima** | **9.88** | **106** | Pn | **Pn** | **17 53 26.9** | **-0.3** |
| **JCJ** | **Chichijima** | **9.88** | **106** | Pn | **Pn** | **17 53 26.9** | **-0.3** |
| | 5.4nm,0.3s,baz=287,slow=19,SNR=3.9 | | | | | | |
| JCJ | | | | LR | LR | 17 56 57.1 | |
| | comp=Z,386nm,18.4s,baz=9.0,slow=36 | | | | | | |
| **NJ2** | **Nanjing** | **11.00** | **283** | *e*P | **Pn** | **17 53 41.8** | **-0.8** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,16nm,0.5s | | | | | | |
| **TIA** | **Tai'an** | **13.43** | **300** | *e*P | **P** | **17 54 26.6** | **+1.5** |
| TIA | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **13.93** | **1** | Pn | **Pn** | **17 54 26.1** | **+3.6** |
| | comp=Z,0.1nm,0.3s,baz=210,slow=8.3,SNR=2.5 | | | | | | |
| **MDJ** | **Mudanjiang** | **14.42** | **354** | P | **Pn** | **17 54 30.9** | **+1.6** |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.1s | | | | | | |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,110nm,5.6s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=Z,160nm,8.9s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=Z,61nm,5.7s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=Z,270nm,11.4s | | | | | | |
| **BJT** | **Baijiatuau** | **15.88** | **312** | *e*P | **P** | **17 54 50.9** | **-1.3** |
| BJT | | | | pmax | pmax | | |
| | comp=Z,49nm,0.9s | | | | | | |
| **BJT** | **Baijiatuau** | **15.88** | **312** | *e*Pn | **P** | **17 54 50.9** | **-1.3** |
| | comp=Z,49nm,0.9s | | | | | | |
| **BJI** | **Beijing** | **15.89** | **312** | P | **P** | **17 54 53.6** | **+1.3** |
| BJI | | | | S | **Sn** | **17 57 42.3** | **-2.1** |
| BJI | | | | pmax | pmax | | |
| | comp=Z,26nm,0.8s | | | | | | |
| BJI | | | | pmax | pmax | | |
| | comp=Z,200nm,4.7s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,320nm,16.9s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,400nm,16.4s | | | | | | |
| **KLR** | **Kul'dur** | **18.96** | **0** | P | **P** | **17 55 26.1** | **0.0** |
| | comp=Z,0.0nm,0.3s,baz=168,slow=12,SNR=11 | | | | | | |
| **ENH** | **Enshi** | **19.04** | **276** | *e*P | **P** | **17 55 26.9** | **-0.4** |
| | comp=Z,15nm,0.9s | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **19.34** | **309** | *e*P | **P** | **17 55 29.8** | **-0.8** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,29nm,1.4s | | | | | | |
| **XAN** | **Xi'an** | **19.50** | **287** | P | **P** | **17 55 31.9** | **-0.4** |
| XAN | | | | pP | sP | 17 55 40.5 | +1.1 |
| XAN | | | | sP | pP | 17 55 45.0 | +7.8 |
| XAN | | | | S | **S** | **17 59 08.9** | **-3.2** |
| XAN | | | | sS | sS | 17 59 20.6 | +0.8 |
| XAN | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.8s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,240nm,13.4s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,300nm,16.3s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,490nm,15.7s | | | | | | |
| **GYA** | **Guiyang** | **22.19** | **266** | ⇑*i*P | **P** | **17 56 01.5** | **0.0** |
| GYA | | | | pP | sP | 17 56 10.5 | +1.9 |
| GYA | | | | PP | **PnPn** | **17 56 28.0** | **+4.1** |
| GYA | | | | S | **S** | **17 59 56.8** | **-8.6** |
| GYA | | | | sS | pS | 18 00 12.3 | -0.3 |
| GYA | | | | SS | **SnSn** | **18 00 37.8** | **+5.4** |
| GYA | | | | pmax | pmax | | |
| | comp=Z,20nm,0.8s | | | | | | |
| GYA | | | | pmax | pmax | | |
| | comp=Z,130nm,4.9s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,550nm,16.7s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,500nm,17.2s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,520nm,17.5s | | | | | | |
| **QIZ** | **Qiongzhong** | **22.61** | **245** | P | **P** | **17 56 05.1** | **-0.9** |
| QIZ | | | | PP | **PnPn** | **17 56 35.3** | **+5.7** |
| QIZ | | | | S | **S** | **18 00 10.9** | **-2.2** |
| QIZ | | | | sS | Sn | 18 00 24.4 | -2.5 |
| QIZ | | | | pmax | pmax | | |
| | comp=Z,31nm,2.1s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=Z,440nm,7.2s | | | | | | |
| **LZH** | **Lanzhou** | **23.85** | **291** | *e*P | **P** | **17 56 17.0** | **-1.5** |
| LZH | | | | pP | sP | 17 56 26.5 | +0.7 |
| LZH | | | | sP | pP | 17 56 30.6 | +6.9 |
| LZH | | | | PP | **PnPn** | **17 56 50.6** | **+4.0** |
| LZH | | | | pmax | pmax | | |
| | comp=Z,27nm,1.0s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,140nm,4.6s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,280nm,12.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,360nm,12.2s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,580nm,15.6s | | | | | | |
| **CD2** | **Chengdu** | **23.89** | **279** | *e*P | **P** | **17 56 17.9** | **-1.0** |
| CD2 | | | | pP | sP | 17 56 26.9 | +0.7 |
| CD2 | | | | sP | pP | 17 56 30.6 | +6.6 |
| CD2 | | | | S | S | 18 00 18.3 | -16 |
| CD2 | | | | sS | sS | 18 00 44.6 | +1.6 |
| CD2 | | | | SS | **SnSn** | **18 01 16.8** | **+2.8** |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,20nm,1.4s | | | | | | |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,200nm,8.3s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,300nm,11.9s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,310nm,16.6s | | | | | | |
| **ULN** | **Ulaanbaatar** | **25.72** | **320** | ⇓*i*P | **P** | **17 56 34.2** | **-1.3** |
| ULN | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.8s | | | | | | |
| **ULN** | **Ulaanbaatar** | **25.72** | **320** | *e*P | **P** | **17 56 34.0** | **-1.5** |
| | comp=Z,5.2nm,0.9s | | | | | | |
| **KMI** | **Kunming** | **25.96** | **266** | P | **P** | **17 56 37.6** | **-0.3** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,11nm,0.8s | | | | | | |
| KMI | | | | pmax | pmax | | |
| | comp=Z,110nm,4.4s | | | | | | |
| **SONA0** | **Songino Array** | **26.07** | **319** | *e*P | **P** | **17 56 37.6** | **-1.1** |
| **SONM** | **Songino Array** | **26.07** | **319** | P | **P** | **17 56 37.6** | **-1.1** |
| | comp=Z,5.5nm,1.0s,baz=141,slow=9.5,SNR=14 | | | | | | |
| SONM | | | | LR | LR | 18 08 36.1 | |
| | comp=Z,289nm,18.7s,baz=172,slow=40 | | | | | | |
| **SONA1** | **Songino Array** | **26.08** | **319** | *e*P | **P** | **17 56 37.2** | **-1.5** |
| **GTA** | **Gaotai** | **27.47** | **298** | *e*P | **P** | **17 56 52.1** | **+0.7** |
| GTA | | | | pP | sP | 17 56 59.4 | +0.7 |
| GTA | | | | sP | pP | 17 57 02.5 | +5.9 |
| GTA | | | | S | **S** | **18 01 28.4** | **-3.0** |
| GTA | | | | sS | sS | 18 01 43.8 | +3.8 |
| GTA | | | | SS | **SnSn** | **18 02 45.8** | **+4.3** |
| GTA | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.1s | | | | | | |
| GTA | | | | pmax | pmax | | |
| | comp=Z,100nm,7.6s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,170nm,13.8s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,170nm,14.5s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,230nm,14.5s | | | | | | |
| **TLY** | **Talaya** | **29.72** | **324** | LR | LR | 18 10 49.2 | |
| | comp=Z,243nm,18.2s,baz=109,slow=40 | | | | | | |
| **TLY** | **Talaya** | **29.72** | **324** | *e*P | P | 17 57 04.9 | -6.2 |
| TLY | | | | pmax | pmax | | |
| | comp=Z,16nm,0.6s | | | | | | |
| TLY | | | | MLR | MLR | | |
| | comp=Z,191nm,18.0s | | | | | | |
| **PETK** | **Petropavlovsk-** | **29.76** | **32** | LR | LR | 18 10 58.3 | |
| | comp=Z,89nm,18.0s,baz=228,slow=40 | | | | | | |
| **CHTO** | **Chiang Mai** | **31.64** | **256** | *e*P | **P** | **17 57 27.5** | **-0.9** |
| CHTO | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.8s | | | | | | |
| **CHTO** | **Chiang Mai** | **31.64** | **256** | *e*P | **P** | **17 57 27.5** | **-0.9** |
| | comp=Z,5.8nm,0.8s | | | | | | |
| **CM31** | **Chiang Mai Arr** | **31.81** | **256** | *e*P | **P** | **17 57 28.6** | **-1.2** |
| **CMAR** | **Chiang Mai Arr** | **31.81** | **256** | P | **P** | **17 57 29.0** | **-0.8** |
| | comp=Z,1.3nm,0.6s,baz=54,slow=7.2,SNR=17 | | | | | | |
| CMAR | | | | PcP | **PcP** | **18 00 20.7** | **-0.1** |
| | comp=Z,0.7nm,0.7s,baz=35,slow=1.4,SNR=7.3 | | | | | | |
| CMAR | | | | LR | LR | 18 12 20.3 | |
| | comp=Z,212nm,18.0s,baz=68,slow=40 | | | | | | |
| **CM01** | **Chiang Mai Arr** | **31.81** | **256** | *e*P | **P** | **17 57 28.8** | **-1.1** |
| **YAK** | **Yakutsk** | **31.81** | **358** | P | **P** | **17 57 29.3** | **0.0** |
| | comp=Z,3.0nm,0.4s,baz=177,slow=5.1,SNR=4.8 | | | | | | |
| **YAK** | **Yakutsk** | **31.81** | **358** | *e*P | **P** | **17 57 29.3** | **0.0** |
| | comp=Z,10nm,0.7s | | | | | | |
| **MA2** | **Magadan** | **32.09** | **18** | LR | LR | 18 11 00.3 | |
| | comp=Z,61nm,18.8s,baz=66,slow=37 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **33.61** | **100** | T | T | 18 33 52.7 | |
| | baz=296,slow=75,SNR=5.1 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **33.61** | **100** | T | T | 18 33 49.4 | |
| | baz=296,slow=75,SNR=4.3 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **33.62** | **100** | T | T | 18 33 54.8 | |
| | baz=296,slow=75,SNR=4.4 | | | | | | |
| **WMQ** | **Urumqi** | **37.09** | **304** | P | **P** | **17 58 15.3** | **-0.1** |
| WMQ | | | | pP | sP | 17 58 24.4 | +1.6 |
| WMQ | | | | sP | pP | 17 58 28.0 | +7.3 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,12nm,0.7s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,280nm,10.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,140nm,20.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,220nm,26.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,330nm,23.1s | | | | | | |
| **TAPN** | **Taplejung** | **38.33** | **277** | *e*P | **P** | **17 58 25.4** | **-0.9** |
| **ODAN** | **Odare** | **38.73** | **276** | *e*P | **P** | **17 58 28.4** | **-1.3** |
| | comp=Z,12nm,0.7s | | | | | | |
| **RAMN** | **Ramite** | **39.39** | **277** | *e*P | **P** | **17 58 33.8** | **-1.4** |
| **JIRN** | **Jiri** | **39.55** | **278** | *e*P | **P** | **17 58 35.8** | **-0.9** |
| | comp=Z,96nm,0.7s | | | | | | |
| **GUN** | **Gumba** | **39.76** | **278** | *e*P | **P** | **17 58 37.6** | **-0.8** |
| | comp=Z,23nm,0.4s | | | | | | |
| **PKI** | **Pulchoki** | **40.25** | **278** | *e*P | **P** | **17 58 41.3** | **-1.1** |
| | comp=Z,7.2nm,0.5s | | | | | | |
| **PKIN** | **Phulchoki** | **40.26** | **278** | *e*P | **P** | **17 58 41.3** | **-1.1** |
| | comp=Z,8.3nm,0.5s | | | | | | |
| **KKN** | **Kakani** | **40.30** | **278** | *e*P | **P** | **17 58 41.7** | **-1.0** |
| | comp=Z,5.4nm,0.4s | | | | | | |
| **ZAA0** | **Zalesovo Array** | **40.97** | **319** | *e*P | **P** | **17 58 45.7** | **-2.0** |
| | comp=Z,2.2nm,0.9s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **40.97** | **319** | P | **P** | **17 58 45.8** | **-1.9** |
| | comp=Z,0.4nm,0.3s,baz=103,slow=6.7,SNR=6.0 | | | | | | |
| ZALV | | | | PcP | **PcP** | **18 00 47.0** | **-0.5** |
| | comp=Z,1.4nm,0.8s,baz=100,slow=3.3,SNR=5.0 | | | | | | |
| ZALV | | | | ScP | **ScP** | **18 04 42.5** | **+5.9** |
| | comp=Z,0.4nm,0.5s,baz=116,slow=3.4,SNR=3.6 | | | | | | |
| ZALV | | | | LR | LR | 18 17 28.6 | |
| | comp=Z,175nm,19.2s,baz=68,slow=39 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **40.97** | **319** | *e*P | **P** | **17 58 45.7** | **-1.9** |
| ZALV | | | | *e* | | 18 00 46.1 | |
| **ZALV** | **Zalesovo Beam** | **40.97** | **319** | *e*P | **P** | **17 58 45.7** | **-1.9** |
| ZALV | | | | *e*PcP | **PcP** | **18 00 46.0** | **-1.5** |
| ZALV | | | | *e*ScP | **ScP** | **18 04 42.5** | **+5.9** |
| **ZAA1** | **Zalesovo Array** | **40.97** | **319** | *e*P | **P** | **17 58 45.8** | **-1.8** |
| ZAA1 | | | | *e*PcP | **PcP** | **18 00 47.0** | **-0.5** |
| ZAA1 | | | | *e*ScP | **ScP** | **18 04 42.5** | **+5.9** |
| **MK01** | **Makanchi Array** | **41.19** | **308** | *e*P | **P** | **17 58 48.2** | **-1.4** |
| **MK31** | **Makanchi Array** | **41.20** | **308** | *e*P | **P** | **17 58 48.1** | **-1.6** |
| **MK31** | **Makanchi Array** | **41.20** | **308** | *e*P | **P** | **17 58 48.1** | **-1.6** |
| **MK32** | **Makanchi Array** | **41.20** | **308** | *e*P | **P** | **17 58 48.3** | **-1.4** |
| MK32 | | | | *e*PcP | **PcP** | **18 00 48.0** | **-0.5** |
| MK32 | | | | *e*ScP | **ScP** | **18 04 42.4** | **+4.7** |
| **MKAR** | **Makanchi Array** | **41.20** | **308** | P | **P** | **17 58 48.3** | **-1.4** |
| | comp=Z,2.4nm,0.8s,baz=96,slow=10,SNR=20 | | | | | | |
| MKAR | | | | PcP | **PcP** | **18 00 48.0** | **-0.6** |
| | comp=Z,1.2nm,0.7s,baz=76,slow=3.3,SNR=7.1 | | | | | | |
| MKAR | | | | ScP | **ScP** | **18 04 42.4** | **+4.7** |
| | comp=Z,0.3nm,0.7s,baz=106,slow=3.1,SNR=3.5 | | | | | | |
| MKAR | | | | LR | LR | 18 17 50.4 | |
| | comp=Z,174nm,18.1s,baz=72,slow=39 | | | | | | |
| **TIXI** | **Tiksi** | **41.48** | **359** | LR | LR | 18 16 54.0 | |
| | comp=Z,132nm,21.4s,baz=167,slow=37 | | | | | | |
| **TIXI** | **Tiksi** | **41.48** | **359** | ⇑*e*P | **P** | **17 58 51.4** | **-0.1** |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.0s | | | | | | |
| **KOLN** | **Koldanda** | **41.74** | **279** | *e*P | **P** | **17 58 53.8** | **-0.8** |
| | comp=Z,3.1nm,0.5s | | | | | | |
| **NVS** | **Novosibirsk** | **42.10** | **320** | *e*P | **P** | **17 58 55.3** | **-1.6** |
| **PYUN** | **Piuthan** | **42.18** | **280** | *e*P | **P** | **17 58 57.0** | **-1.1** |
| | comp=Z,27nm,0.9s | | | | | | |
| **PMG** | **Port Moresby** | **42.20** | **157** | LR | LR | 18 13 16.7 | |
| | comp=Z,98nm,21.4s,baz=338,slow=32 | | | | | | |
| **GSI** | **Gunungsitoli** | **43.20** | **235** | *e*P | **P** | **17 59 07.3** | **+1.1** |
| | comp=Z,25nm,1.4s | | | | | | |
| **KURK** | **Kurchatov** | **44.05** | **313** | *c i*P | **P** | **17 59 11.3** | **-1.4** |
| KURK | | | | pmax | pmax | | |
| | comp=Z,19nm,0.7s | | | | | | |
| **KURK** | **Kurchatov** | **44.05** | **313** | *e*P | **P** | **17 59 11.2** | **-1.5** |
| | comp=Z,6.9nm,0.6s | | | | | | |
| KURK | | | | *e*PcP | **PP** | **18 00 56.9** | **+1.6** |
| **KURBB** | **Kurchatov Arra** | **44.10** | **313** | P | **P** | **17 59 11.8** | **-1.3** |
| | comp=Z,2.2nm,0.7s,baz=99,slow=9.0,SNR=14 | | | | | | |
| KURBB | | | | PcP | **PP** | **18 00 56.9** | **+1.1** |
| | comp=Z,0.4nm,0.5s,baz=95,slow=4.6,SNR=2.9 | | | | | | |
| **KSH** | **Kashi** | **45.87** | **297** | P | **P** | **17 59 30.3** | **+2.8** |
| KSH | | | | pP | sP | 17 59 40.1 | +5.1 |
| KSH | | | | PcP | **PcP** | **18 01 07.5** | **+2.9** |
| KSH | | | | PP | **PP** | **18 01 19.1** | **+4.1** |
| KSH | | | | S | **S** | **18 06 13.1** | **+2.0** |
| KSH | | | | ScS | **ScS** | **18 09 21.3** | **-1.7** |
| KSH | | | | SS | **SS** | **18 09 30.4** | **-5.2** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.6s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,210nm,2.9s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,130nm,6.4s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,170nm,6.6s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,230nm,7.2s | | | | | | |
| **AAK** | **Ala-Archa** | **46.70** | **302** | P | **P** | **17 59 33.4** | **-0.7** |
| | comp=Z,1.8nm,0.7s,baz=118,slow=5.1,SNR=5.0 | | | | | | |
| **AAK** | **Ala-Archa** | **46.70** | **302** | ⇓*e*P | **P** | **17 59 33.6** | **-0.5** |
| AAK | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.8s | | | | | | |
| **BRVK** | **Borovoye** | **49.39** | **316** | *d i*P | **P** | **17 59 53.9** | **-0.6** |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,26nm,2.5s | | | | | | |
| **BRVK** | **Borovoye** | **49.39** | **316** | *e*P | **P** | **17 59 53.6** | **-0.9** |
| | comp=Z,5.3nm,0.6s | | | | | | |
| **WRAB** | **Tennant Creek** | **49.97** | **177** | ⇓*i*P | **P** | **17 59 58.8** | **-0.4** |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,20nm,1.2s | | | | | | |
| **WRAB** | **Tennant Creek** | **49.97** | **177** | *e*P | **P** | **17 59 58.1** | **-1.1** |
| | comp=Z,7.6nm,0.8s | | | | | | |
| **WR1** | **Warramunga Arr** | **49.98** | **177** | *e*P | **P** | **17 59 58.6** | **-0.6** |
| | comp=Z,23nm,0.8s | | | | | | |
| WR1 | | | | *e*PcP | **PcP** | **18 01 19.1** | **-0.1** |
| **WRA** | **Warramunga Arr** | **49.98** | **177** | P | **P** | **17 59 58.6** | **-0.6** |
| | comp=Z,7.7nm,0.8s,baz=352,slow=8.2,SNR=38 | | | | | | |
| WRA | | | | PcP | **PcP** | **18 01 19.1** | **-0.1** |
| | comp=Z,0.3nm,0.6s,baz=354,slow=4.2,SNR=4.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **49.98** | **177** | P | **P** | **17 59 58.7** | **-0.6** |
| WRA | | | | | | 18 01 19.1 | |
| WRA | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.8s | | | | | | |
| **WB2** | **Warramunga Arr** | **49.98** | **177** | *e*P | **P** | **17 59 57.5** | **-1.7** |
| **AS31** | **Alice Springs** | **53.66** | **177** | *e*P | **P** | **18 00 25.9** | **-0.8** |
| | comp=Z,1.9nm,0.7s | | | | | | |
| AS31 | | | | *e*PcP | **PcP** | **18 01 31.1** | **-1.8** |
| **AS01** | **Alice Springs** | **53.66** | **177** | *e*P | **P** | **18 00 26.7** | **0.0** |
| AS01 | | | | *e*PcP | **PcP** | **18 01 32.9** | **-0.1** |
| **ASAR** | **Alice Springs** | **53.66** | **177** | P | **P** | **18 00 26.6** | **0.0** |
| | comp=Z,5.1nm,0.7s,baz=9.7,slow=10,SNR=84 | | | | | | |
| ASAR | | | | PcP | **PcP** | **18 01 33.0** | **0.0** |
| | comp=Z,1.2nm,0.7s,baz=347,slow=3.8,SNR=4.7 | | | | | | |
| **ARU** | **Arti** | **56.11** | **320** | *d i*P | **P** | **18 00 44.2** | **+0.1** |
| ARU | | | | | | 18 02 49.8 | |
| ARU | | | | S | **S** | **18 08 33.8** | **+1.7** |
| ARU | | | | SS | **SS** | **18 12 21.5** | **+3.5** |
| ARU | | | | pmax | pmax | | |
| | comp=Z,14nm,2.5s | | | | | | |
| **IMAR** | **Indian Mountai** | **56.59** | **28** | *e*P | **P** | **18 00 47.8** | **+0.4** |
| IMAR | | | | *e*PcP | **PcP** | **18 01 42.7** | **-1.0** |
| **PPLA** | **Purkeypile** | **57.35** | **32** | *e*P | **P** | **18 00 53.7** | **+0.7** |
| | comp=Z,39nm,1.6s | | | | | | |
| **CAST** | **Castle Rocks** | **57.37** | **31** | *e*P | **P** | **18 00 53.8** | **+0.8** |
| | comp=Z,9.9nm,1.2s | | | | | | |
| **KDAK** | **Kodiak Island** | **57.57** | **38** | P | **P** | **18 00 54.1** | **-0.3** |
| | comp=Z,5.0nm,0.6s,baz=268,slow=4.7,SNR=8.5 | | | | | | |
| **KDAK** | **Kodiak Island** | **57.57** | **38** | *e*P | **P** | **18 00 54.0** | **-0.5** |
| **KDAK** | **Kodiak Island** | **57.57** | **38** | *e*P | **P** | **18 00 53.9** | **-0.5** |
| | comp=Z,152nm,2.0s | | | | | | |
| **MLY** | **Manley** | **57.87** | **29** | *e*P | **P** | **18 00 56.4** | **-0.2** |
| | comp=Z,7.2nm,1.2s | | | | | | |
| **SUA** | **Susitna One** | **58.13** | **34** | *e*P | **P** | **18 00 59.2** | **+0.7** |
| | comp=Z,43nm,1.6s | | | | | | |
| **RND** | **Reindeer** | **58.82** | **31** | *e*P | **P** | **18 01 03.2** | **0.0** |
| RND | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.1s | | | | | | |
| **RND** | **Reindeer** | **58.82** | **31** | *e*P | **P** | **18 01 03.2** | **0.0** |
| | comp=Z,10nm,1.1s | | | | | | |
| **PMR** | **Palmer** | **58.89** | **33** | *e*P | **P** | **18 01 03.2** | **-0.4** |
| PMR | | | | pmax | pmax | | |
| | comp=Z,44nm,1.8s | | | | | | |
| **PMR** | **Palmer** | **58.89** | **33** | *e*P | **P** | **18 01 03.2** | **-0.4** |
| | comp=Z,44nm,1.8s | | | | | | |
| **MDM** | **Murphy Dome** | **58.94** | **29** | *e*P | **P** | **18 01 04.4** | **+0.4** |
| | comp=Z,12nm,1.0s | | | | | | |
| **SML** | **Sawmill** | **59.24** | **33** | *e*P | **P** | **18 01 04.0** | **-2.1** |
| SML | | | | pmax | pmax | | |
| | comp=Z,69nm,1.9s | | | | | | |
| **SML** | **Sawmill** | **59.24** | **33** | *e*P | **P** | **18 01 04.0** | **-2.1** |
| | comp=Z,69nm,1.9s | | | | | | |
| **IL1** | **Eielson Array** | **59.53** | **29** | *e*P | **P** | **18 01 07.3** | **-0.7** |
| **ILAR** | **Eielson Array** | **59.53** | **29** | P | **P** | **18 01 07.4** | **-0.6** |
| | comp=Z,0.7nm,0.8s,baz=264,slow=6.1,SNR=8.8 | | | | | | |
| **ILB** | **Eielson Array** | **59.53** | **29** | *e*P | **P** | **18 01 07.3** | **-0.7** |
| **HDA** | **Harding Lake** | **59.55** | **30** | *e*P | **P** | **18 01 07.3** | **-0.8** |
| | comp=Z,29nm,1.9s | | | | | | |
| **GEYT** | **Alibeck** | **59.85** | **299** | P | **P** | **18 01 10.1** | **-0.7** |
| | comp=Z,1.2nm,0.7s,baz=90,slow=5.8,SNR=3.7 | | | | | | |
| GEYT | | | | LR | LR | 18 31 18.0 | |
| | comp=Z,102nm,18.4s,baz=285,slow=40 | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| FINES | | | | LR | LR | 18 35 41.8 | | |
| | comp=Z,256nm,20.0s,baz=45,slow=38 | | | | | | | |
| **FINES** | **FINESS Array B** | **70.80** | **331** | *ceP* | **P** | **18 02 21.1** | **-0.1** | |
| FINES | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.4s | | | | | | | |
| **MARD** | **Mardin** | **72.93** | **303** | *eP* | **P** | **18 02 32.9** | **-1.7** | |
| | comp=Z,17nm,0.8s | | | | | | | |
| **AKASG** | **Malin Array Be** | **74.36** | **320** | *P* | **P** | **18 02 42.0** | **-0.5** | |
| | comp=Z,1.6nm,0.5s,baz=56,slow=6.6,SNR=7.7 | | | | | | | |
| AKASG | | | | LR | LR | 18 36 39.4 | | |
| | comp=Z,103nm,18.8s,baz=295,slow=37 | | | | | | | |
| **AKASG** | **Malin Array Be** | **74.36** | **320** | *ceP* | **P** | **18 02 42.4** | **-0.2** | |
| AKASG | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.5s | | | | | | | |
| **AKBB** | **Malin Array Si** | **74.36** | **320** | *eP* | **P** | **18 02 42.0** | **-0.5** | |
| **AKBB** | **Malin Array Si** | **74.36** | **320** | *eP* | **P** | **18 02 42.0** | **-0.5** | |
| **RAYN** | **Ar Rayn** | **75.28** | **289** | *eP* | **P** | **18 02 48.3** | **-0.2** | |
| | comp=Z,21nm,1.5s | | | | | | | |
| **LLLB** | **Lillooet** | **76.77** | **39** | *eP* | **P** | **18 02 57.0** | **+0.5** | |
| | comp=Z,15nm,1.4s | | | | | | | |
| **BR101** | **Keskin Array S** | **76.85** | **308** | *eP* | **P** | **18 02 56.3** | **-0.9** | |
| **BR131** | **Keskin Array S** | **76.85** | **308** | *eP* | **P** | **18 02 56.2** | **-1.0** | |
| **BRTR** | **Keskin Array B** | **76.85** | **308** | *P* | **P** | **18 02 56.3** | **-1.0** | |
| | comp=Z,6.2nm,0.8s,baz=103,slow=4.5,SNR=36 | | | | | | | |
| BRTR | | | | LR | LR | 18 43 42.7 | | |
| | comp=Z,42nm,20.5s,baz=340,slow=41 | | | | | | | |
| **BRTR** | **Keskin Array B** | **76.85** | **308** | *ceP* | **P** | **18 02 56.9** | **-0.4** | |
| BRTR | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,0.8s | | | | | | | |
| **NB2** | **NORSAR Subarra** | **76.98** | **334** | *P* | **P** | **18 02 57.3** | **-0.1** | |
| | comp=Z,1.1nm,0.7s,baz=50,slow=5.6 | | | | | | | |
| **NB200** | **NORSAR Array S** | **76.98** | **334** | *eP* | **P** | **18 02 56.6** | **-0.9** | |
| **NOA** | **NORSAR Array B** | **76.98** | **334** | *P* | **P** | **18 02 56.6** | **-0.9** | |
| | comp=Z,1.8nm,0.8s,baz=50,slow=5.7,SNR=3.2 | | | | | | | |
| NOA | | | | LR | LR | 18 38 20.3 | | |
| | comp=Z,66nm,18.3s,baz=95,slow=37 | | | | | | | |
| **B04A** | **Port Angeles** | **77.19** | **42** | *eP* | **P** | **18 03 02.2** | **+3.4** | |
| **BR231** | **Keskin MP Arra** | **77.38** | **309** | *eP* | **P** | **18 02 56.9** | **-3.3** | |
| **E03A** | **Lebam** | **77.94** | **43** | *eP* | **P** | **18 03 02.6** | **-0.4** | |
| | comp=Z,26nm,1.2s | | | | | | | |
| **BUR08** | **Bucovina Ar. S** | **78.18** | **318** | *eP* | **P** | **18 03 04.5** | **0.0** | |
| **BUR04** | **Bucovina Ar. S** | **78.19** | **318** | *eP* | **P** | **18 03 03.9** | **-0.6** | |
| **VYHS** | **Vyhne** | **81.24** | **322** | *eP* | **P** | **18 03 22.2** | **+1.2** | |
| **VYHS** | **Vyhne** | **81.24** | **322** | *eP* | **P** | **18 03 22.2** | **+1.2** | |
| **CLL** | **Collm** | **82.48** | **326** | *eP* | **P** | **18 03 29.0** | **+1.6** | |
| **CLL** | **Collm** | **82.48** | **326** | *eP* | **P** | **18 03 29.0** | **+1.6** | |
| **CONA** | **Conrad Observa** | **83.17** | **322** | *i* PcP | **P** | **18 03 33.2** | **+2.0** | |
| | comp=Z,4.4nm,0.8s | | | | | | | |
| **FFC** | **Flin Flon** | **83.70** | **28** | *eP* | **P** | **18 03 34.0** | **+0.3** | |
| **GERES** | **GERESS Array B** | **83.71** | **324** | *P* | **P** | **18 03 33.2** | **-0.8** | |
| | comp=Z,0.4nm,0.6s,baz=44,slow=5.9,SNR=4.7 | | | | | | | |
| **GERES** | **GERESS Array B** | **83.71** | **324** | *P* | **P** | **18 03 33.2** | **-0.8** | |
| GERES | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.8s | | | | | | | |
| **SOKA** | **Soboth** | **84.39** | **322** | *i* PcP | **P** | **18 03 37.2** | **-0.2** | |
| | comp=Z,5.9nm,1.3s | | | | | | | |
| **OBKA** | **Obir** | **84.76** | **322** | *i* PcP | **P** | **18 03 41.2** | **+1.8** | |
| | comp=Z,3.0nm,0.8s | | | | | | | |
| **KBA** | **Koelnbreinsper** | **85.03** | **323** | *i* P | **P** | **18 03 40.1** | **-0.7** | |
| | comp=Z,3.8nm,1.0s | | | | | | | |
| **MYKA** | **Terra Mystica** | **85.16** | **322** | *i* pP | **P** | **18 03 43.8** | **+2.5** | |
| | comp=Z,1.8nm,0.4s | | | | | | | |
| **KVN** | **Kaiserville** | **85.42** | **47** | *eP* | **P** | **18 03 42.7** | **-0.2** | |
| KVN | | | | pmax | pmax | | | |
| | comp=Z,5.0nm,0.8s | | | | | | | |
| **KVN** | **Kaiserville** | **85.42** | **47** | *eP* | **P** | **18 03 42.7** | **-0.2** | |
| | comp=Z,4.9nm,0.8s | | | | | | | |
| **ABTA** | **Abfaltersbach** | **85.68** | **323** | *i* PcP | **P** | **18 03 44.1** | **+0.2** | |
| | comp=Z,12nm,1.4s | | | | | | | |
| **FETA** | **Feichten** | **86.42** | **324** | *i* PcP | **P** | **18 03 48.4** | **+0.7** | |
| | comp=Z,8.2nm,1.3s | | | | | | | |
| **CCCA** | **Chr Cany lake** | **87.95** | **50** | *eP* | **P** | **18 03 58.7** | **+3.5** | |
| **PASC** | **Pasadena Art C** | **88.20** | **51** | *eP* | **P** | **18 03 56.9** | **+0.6** | |
| **PD31** | **Pinedale Array** | **88.22** | **40** | *eP* | **P** | **18 03 55.5** | **-1.1** | |
| **PDAR** | **Pinedale Array** | **88.22** | **40** | *P* | **P** | **18 03 56.1** | **-0.5** | |
| | comp=Z,0.7nm,0.7s,baz=304,slow=2.1,SNR=6.8 | | | | | | | |
| **PDAR** | **Pinedale Array** | **88.22** | **40** | *eP* | **P** | **18 03 56.2** | **-0.4** | |
| **FMP** | **Fort Macarthur** | **88.39** | **52** | *eP* | **P** | **18 04 00.8** | **+3.5** | |
| **DEVC** | **Devers** | **89.42** | **50** | *eP* | **P** | **18 03 58.2** | **-3.9** | |
| **PPT** | **Papeete** | **89.51** | **111** | LR | LR | 18 41 17.1 | | |
| | comp=Z,38nm,19.2s,baz=164,slow=34 | | | | | | | |
| **ARGU** | **Argyle Ridge** | **89.57** | **43** | *eP* | **P** | **18 03 59.7** | **-3.4** | |
| **EML** | **El Monte Cty P** | **89.86** | **51** | *eP* | **P** | **18 04 06.1** | **+2.0** | |
| **SCHQ** | **Schefferville** | **93.80** | **11** | LR | LR | 18 49 49.5 | | |
| | comp=Z,65nm,18.8s,baz=346,slow=38 | | | | | | | |

*NIED* ***13*** *18:05:00,38°.20N×141°.80E,h53km,Mw3.5 Best double couple: M0 1.78000×10^14 NP1:φs=350.00000°,δ35.00000°, λ=-119.00000°. NP2:φs=204.00000°,δ60.00000°, λ=-71.00000°.*

**JMA 13 18:05:51.6±0.1,38°.18N×141°.78E,h56km±1km,M3.6, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **JIO** | **Ouri** | **0.44** | **309** | P | P | Pn | 18 06 02.6 | 0.0 |
| JIO | | | | S | S | Sn | 18 06 10.2 | -0.3 |
| **JMM** | **Marumori** | **0.84** | **248** | P | P | Pn | 18 06 07.1 | -0.3 |
| JMM | | | | S | eS | Sn | 18 06 18.0 | -0.3 |
| **JMK** | **Ichinoseki** | **0.89** | **330** | P | P | Pn | 18 06 08.3 | +0.3 |
| JMK | | | | S | S | Sn | 18 06 20.1 | 0.0 |
| **JOU** | **Okura** | **0.90** | **282** | P | P | Pn | 18 06 08.4 | +0.2 |
| JOU | | | | S | S | Sn | 18 06 20.6 | +0.2 |
| **OFUJ** | **Ofunato** | **0.90** | **355** | P | P | Pn | 18 06 08.2 | 0.0 |
| OFUJ | | | | S | S | Sn | 18 06 20.1 | -0.4 |
| **JFK** | **Kawauchi** | **1.08** | **222** | P | P | Pn | 18 06 10.6 | 0.0 |
| JFK | | | | S | S | Sn | 18 06 24.2 | -0.5 |
| **JFT** | **Otama** | **1.32** | **240** | P | P | Pn | 18 06 14.5 | +0.7 |
| JFT | | | | S | S | Sn | 18 06 31.0 | +0.6 |
| **JYK** | **Kaneyama** | **1.34** | **304** | P | P | Pn | 18 06 14.2 | +0.2 |
| JYK | | | | S | eS | Sn | 18 06 31.4 | +0.7 |
| **JOM** | **Ohasama** | **1.35** | **344** | P | P | Pn | 18 06 14.5 | +0.4 |
| JOM | | | | S | eS | Sn | 18 06 31.9 | +0.9 |
| **JYS** | **Shirataka** | **1.35** | **272** | P | P | Pn | 18 06 14.6 | +0.4 |
| JYS | | | | S | S | Sn | 18 06 31.9 | +0.8 |
| **JRG** | **Rokugo** | **1.51** | **324** | P | P | Pn | 18 06 17.1 | +0.8 |
| **JYA** | **Atsumi** | **1.68** | **285** | P | P | Pn | 18 06 19.1 | +0.5 |
| JYA | | | | S | eS | Sn | 18 06 40.2 | +1.2 |
| **JFY** | **Yanaizu** | **1.82** | **245** | P | P | Pn | 18 06 21.6 | +1.1 |
| JFY | | | | S | eS | Sn | 18 06 43.5 | +1.1 |

*ISCJB* ***13*** *18:06:40.8±0.3,44°.16N±0°.06×140°.31E±0°.08, h245km±4km,mb3.6/11,Error ellipse: s-maj=10.6km s-min=7.5km az=141.9*

*JMA* ***13*** *18:06:41.4±0.2,44°.16N×140°.30E,h243km±2km,M3.6*

*IDC* ***13*** *18:06:41.5±0.7,44°.18N×140°.27E,h235km±8km,mb3.4/12, mb1 3.5/16,mb1mx3.3/45,mbtmp4.0/16,Error ellipse: s-maj=21.7km s-min=10.7km az=163.0*

**ISC 13 18:06:41.7±0.7,44°.14N±0°.07×140°.30E±0°.07,h241km±7km, n32,σ0°73/41,mb3.7/11,Eastern Sea of Japan**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **JSK** | **Shakotan** | **0.80** | **171** | P | P | **Pn** | **18 07 14.7** | **0.0** |
| JSK | | | | S | eS | **S** | **18 07 39.9** | **-0.6** |
| **JHR** | **Hokuryu** | **1.10** | **111** | P | P | **Pn** | **18 07 16.7** | **+0.4** |
| JHR | | | | S | eS | **S** | **18 07 44.3** | **+0.8** |
| **JSS** | **Shosan** | **1.15** | **76** | P | P | **Pn** | **18 07 16.9** | **+0.4** |
| **JEW** | **Eniwo** | **1.54** | **147** | P | P | **Pn** | **18 07 20.0** | **+0.5** |
| JEW | | | | S | eS | **S** | **18 07 50.6** | **+1.5** |
| **JWK2** | **Keihoku** | **1.64** | **43** | P | P | **Pn** | **18 07 20.2** | **+0.1** |
| JWK2 | | | | S | eS | **S** | **18 07 50.4** | **0.0** |
| **ASAJ** | **Asahikawa** | **1.65** | **90** | P | P | **Pn** | **18 07 20.2** | **-0.1** |
| | 11nm,0.3s,baz=179,slow=16,SNR=126 | | | | | | | |
| ASAJ | | | | S | S | **S** | **18 07 49.7** | **-1.0** |
| | 2,5nm,0.3s,baz=83,slow=32,SNR=9.4 | | | | | | | |
| **JKK2** | **Kamakawa 2** | **1.79** | **98** | P | P | **Pn** | **18 07 21.4** | **-0.1** |
| JKK2 | | | | S | eS | **S** | **18 07 52.2** | **-0.5** |
| **JSE** | **Soyaes** | **1.83** | **63** | P | P | **Pn** | **18 07 21.5** | **-0.2** |
| JSE | | | | S | eS | **S** | **18 07 52.0** | **-1.2** |
| **JFR** | **Furan** | **1.93** | **120** | P | P | **Pn** | **18 07 22.6** | **-0.2** |
| JFR | | | | S | eS | **S** | **18 07 54.4** | **-0.6** |
| **JOSM** | **Okushiri--Mats** | **2.14** | **197** | P | P | **Pn** | **18 07 25.1** | **+0.3** |
| **JKB** | **Kayabe** | **2.31** | **166** | P | P | **Pn** | **18 07 26.2** | **-0.2** |
| **JTKR** | **Abashiri--Toko** | **2.61** | **92** | P | P | **Pn** | **18 07 29.3** | **0.0** |
| JTKR | | | | S | eS | **S** | **18 08 06.7** | **-0.1** |
| **JAR** | **Ashorobuto** | **2.65** | **107** | P | P | **Pn** | **18 07 30.0** | **+0.2** |
| **JRA** | **Rausu** | **3.48** | **92** | P | P | **Pn** | **18 07 39.5** | **+0.6** |
| **JANG** | **Nango** | **3.87** | **166** | P | P | **Pn** | **18 07 42.3** | **-1.3** |
| **USRK** | **Ussuriysk Ar.** | **5.98** | **273** | P | P | **Pn** | **18 08 10.1** | **+0.8** |
| | 3.3nm,0.3s,baz=82,slow=15,SNR=35 | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **7.75** | **193** | P | P | **Pn** | **18 08 32.2** | **+0.3** |
| | 1.7nm,0.3s,baz=6.5,slow=12,SNR=11 | | | | | | | |
| **KLR** | **Kul'dur** | **7.78** | **314** | P | P | **Pn** | **18 08 31.9** | **0.0** |
| | 0.0nm,0.3s,baz=119,slow=15,SNR=7.6 | | | | | | | |
| **KSRS** | **Korea Array** | **11.51** | **239** | P | P | **Pn** | **18 09 18.4** | **-0.8** |
| | 0.1nm,0.3s,baz=49,slow=14,SNR=4.1 | | | | | | | |
| **PETK** | **Petropavlovsk-** | **14.56** | **46** | P | P | | **18 09 56.4** | **-0.5** |
| | 0.2nm,0.3s,baz=220,slow=7.6,SNR=5.3 | | | | | | | |
| **SEY** | **Seymchan** | **20.09** | **16** | P | P | | **18 10 56.2** | **-0.6** |
| | 7.5nm,0.7s,baz=204,slow=8.2,SNR=24 | | | | | | | |
| **SONM** | **Songino Array** | **23.73** | **291** | P | P | | **18 11 33.3** | **+1.2** |
| | 0.5nm,0.6s,baz=88,slow=7.7,SNR=3.5 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **36.78** | **306** | P | P | | **18 13 26.8** | **+0.7** |
| | 1.3nm,0.5s,baz=84,slow=8.5,SNR=6.6 | | | | | | | |
| **MKAR** | **Makanchi Array** | **39.98** | **295** | P | P | | **18 13 52.6** | **-0.2** |
| | 0.2nm,0.3s,baz=84,slow=8.2,SNR=7.2 | | | | | | | |
| **ILAR** | **Eielson Array** | **44.09** | **36** | P | P | | **18 14 26.1** | **+0.4** |
| | 1.2nm,0.6s,baz=276,slow=9.6,SNR=22 | | | | | | | |
| **INK** | **Inuvik** | **48.54** | **30** | P | P | | **18 15 00.5** | **+0.4** |
| | 4.6nm,0.3s,baz=300,slow=6.7,SNR=18 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **57.08** | **338** | P | P | | **18 16 02.2** | **-0.1** |
| | 3.3nm,0.9s,baz=41,slow=6.4,SNR=4.0 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **58.16** | **32** | P | P | | **18 16 10.7** | **+0.8** |
| | 0.5nm,0.7s,baz=304,slow=6.7,SNR=3.8 | | | | | | | |
| **FINES** | **FINESS Array B** | **62.18** | **330** | P | P | | **18 16 37.4** | **+0.3** |
| | 3.6nm,0.6s,baz=61,slow=8.0,SNR=16 | | | | | | | |
| **NOA** | **NORSAR Array B** | **67.34** | **336** | P | P | | **18 17 08.8** | **-1.6** |
| | 1.6nm,0.7s,baz=38,slow=6.4,SNR=3.1 | | | | | | | |
| **AKASG** | **Malin Array Be** | **68.23** | **320** | P | P | | **18 17 14.7** | **-1.4** |
| | 1.0nm,0.7s,baz=42,slow=6.5,SNR=4.8 | | | | | | | |
| **PDAR** | **Pinedale Array** | **73.32** | **46** | P | P | | **18 17 48.2** | **+1.0** |
| | 0.3nm,0.5s,baz=284,slow=1.9,SNR=4.8 | | | | | | | |

*ISCJB* ***13*** *18:09:42.3±0.5,4°.59S±0°.07×152°.92E±0°.08,h55km, mb4.0/14,MS3.3/1,Error ellipse: s-maj=12.1km s-min=8.9km az=39.6*

*IDC* ***13*** *18:09:46.2±2.0,4°.67S×152°.91E,h75km±18km,mb3.7/14, mb1 3.9/16,mb1mx3.8/34,mbtmp4.1/16,MS3.3/2, Ms1 3.3/2,ms1mx2.7/34,Error ellipse: s-maj=16.8km s-min=11.5km az=117.0*

**ISC 13 18:09:44.2±0.6,4°.59S±0°.09×152°.92E±0°.09,h55km,n19, σ1s08/22,mb3.8/14,New Britain region**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **7.46** | **230** | P | P | **Pn** | **18 11 32.8** | **+2.3** |
| | 1.9nm,0.3s,baz=25,slow=9.6,SNR=11 | | | | | | | |
| PMG | | | | S | S | **Sn** | **18 12 53.6** | **-0.1** |
| | 14nm,0.3s,baz=98,slow=17,SNR=14 | | | | | | | |
| **HNR** | **Honiara** | **8.47** | **125** | P | P | **Pn** | **18 11 46.0** | **+1.6** |
| | 2.5nm,0.3s,baz=225,slow=8.6,SNR=2.0 | | | | | | | |
| HNR | | | | LR | LR | | 18 15 01.1 | |
| | comp=Z,156nm,20.2s,baz=284,slow=37 | | | | | | | |
| **DZM** | **Mont Dzumac** | **21.77** | **144** | P | P | | **18 14 30.5** | **-1.0** |
| | 4.1nm,0.6s,baz=254,slow=8.0,SNR=16 | | | | | | | |
| **WRA** | **Warramunga Arr** | **23.68** | **228** | P | P | | **18 14 50.6** | **-0.4** |
| | 6.7nm,0.5s,baz=53,slow=9.9,SNR=103 | | | | | | | |
| WRA | | | | PcP | PcP | | **18 18 34.5** | **+0.2** |
| | 0.2nm,0.5s,baz=55,slow=2.8,SNR=4.4 | | | | | | | |
| WRA | | | | S | S | | **18 18 59.9** | **-2.2** |
| | 0.3nm,0.8s,baz=50,slow=16,SNR=3.7 | | | | | | | |
| **ASAR** | **Alice Springs** | **26.39** | **222** | P | P | | **18 15 15.0** | **-0.7** |
| | 1.3nm,0.7s,baz=56,slow=8.9,SNR=21 | | | | | | | |
| **STKA** | **Stephens Creek** | **29.16** | **200** | P | P | | **18 15 39.4** | **-0.9** |
| | 2.9nm,1.0s,baz=21,slow=14,SNR=3.8 | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **29.87** | **241** | P | P | | **18 15 46.0** | **-0.7** |
| | 5.0nm,0.7s,baz=54,slow=8.6,SNR=24 | | | | | | | |
| FITZ | | | | LR | LR | | 18 29 54.0 | |
| | comp=Z,65nm,19.2s,baz=110,slow=40 | | | | | | | |
| **KSRS** | **Korea Array** | **47.86** | **333** | P | P | | **18 18 17.1** | **+0.5** |
| | 0.8nm,0.8s,baz=134,slow=8.7,SNR=3.2 | | | | | | | |
| **PETK** | **Petropavlovsk-** | **57.62** | **3** | P | P | | **18 19 28.4** | **0.0** |
| | 1.7nm,0.6s,baz=166,slow=6.9,SNR=4.7 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **57.90** | **295** | P | P | | **18 19 32.0** | **+0.9** |
| | 0.6nm,0.7s,baz=115,slow=4.3,SNR=7.1 | | | | | | | |
| **SONM** | **Songino Array** | **66.21** | **328** | P | P | | **18 20 27.3** | **+0.8** |
| | 0.6nm,0.6s,baz=134,slow=6.2,SNR=4.5 | | | | | | | |
| **VNDA** | **Vanda** | **73.04** | **178** | P | P | | **18 21 07.7** | **-0.1** |
| | 1.3nm,0.8s,baz=324,slow=7.0,SNR=5.0 | | | | | | | |
| **MKAR** | **Makanchi Array** | **80.24** | **319** | P | P | | **18 21 49.4** | **+0.2** |
| | 0.6nm,0.5s,baz=101,slow=7.0,SNR=12 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **81.04** | **326** | P | P | | **18 21 52.5** | **-0.6** |
| | 0.3nm,0.3s,baz=107,slow=4.8,SNR=2.9 | | | | | | | |
| **ILAR** | **Eielson Array** | **81.92** | **22** | P | P | | **18 21 55.9** | **-1.7** |
| | 0.6nm,0.7s,baz=230,slow=4.7,SNR=7.3 | | | | | | | |
| **MAW** | **Mawson** | **85.81** | **203** | P | P | | **18 22 17.0** | **-0.3** |
| | 1.5nm,0.5s,baz=90,slow=4.0,SNR=4.8 | | | | | | | |
| **GERES** | **GERESS Array B** | **123.94** | **329** | PKP | | **PKPdf** | **18 28 36.9** | **+0.5** |
| | 0.6nm,0.8s,baz=0.0,slow=2.1,SNR=5.8 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **150.35** | **289** | PKPbc | | **PKPbc** | **18 29 29.9** | **-0.6** |
| | 1.8nm,0.5s,baz=89,slow=2.1,SNR=5.6 | | | | | | | |
| **BDFB** | **Brasilia** | **151.13** | **135** | PKPbc | | **PKPbc** | **18 29 32.2** | **-0.2** |
| | 5.0nm,0.5s,baz=273,slow=1.1,SNR=6.0 | | | | | | | |

*ISCJB* ***13*** *18:25:11.4±0.4,24°.87N±0°.02×122°.07E±0°.02,h7km±3km, Error ellipse: s-maj=3.9km s-min=3.2km az=158.0*

*JMA* ***13*** *18:25:11.4±0.1,24°.89N×121°.97E,h41km,M2.2*

*TAP* ***13*** *18:25:11.2,24°.87N×122°.00E,h5km,ML2.8,D*

**ISC 13 18:25:11.1±0.9,24°.89N±0°.02×122°.04E±0°.03,h14km±6km, n30,σ0°66/57,1D,Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **TWB1** | **Santiao Chiao** | **0.13** | **338** | *iP* | **P** | **Pg** | **18 25 14.6** | **+0.1** |
| | baz=359 | | | | | | | |
| TWB1 | | | | *i* S | S | **Sg** | **18 25 17.1** | **+0.3** |
| | baz=359 | | | | | | | |
| **NWF** | **Wu-fen Shan** | **0.30** | **307** | *i* P | P | **Pb** | **18 25 18.2** | **-0.1** |
| | baz=314 | | | | | | | |
| NWF | | | | *i* S | S | **Sb** | **18 25 23.3** | **+0.1** |
| | baz=314 | | | | | | | |
| **TWC** | **Suao** | **0.33** | **212** | P | P | **Pg** | **18 25 17.7** | **-0.2** |
| | baz=205 | | | | | | | |
| TWC | | | | *i* S | S | **Sb** | **18 25 23.8** | **-0.1** |
| | baz=205 | | | | | | | |
| **TWE** | **Neicheng** | **0.38** | **244** | P | P | **Pb** | **18 25 18.8** | **-0.8** |
| | baz=241 | | | | | | | |
| TWE | | | | S | S | **Sg** | **18 25 24.0** | **+0.1** |
| | baz=241 | | | | | | | |
| **TWA** | **Mucha** | **0.42** | **282** | *eP* | **P** | **Pb** | **18 25 20.3** | **-0.1** |
| | baz=285 | | | | | | | |
| TWA | | | | *i* S | S | **Sb** | **18 25 25.9** | **-0.8** |
| | baz=285 | | | | | | | |
| **TAP1** | **Taipei** | **0.49** | **288** | P | P | **Pb** | **18 25 22.1** | **+0.5** |
| | baz=290 | | | | | | | |
| TAP1 | | | | S | S | **Sb** | **18 25 29.1** | **+0.4** |
| | baz=290 | | | | | | | |
| **ENTT** | **Nioudou** | **0.50** | **240** | P | P | **Pb** | **18 25 21.1** | **-0.6** |
| | baz=238 | | | | | | | |
| ENTT | | | | S | eS | **Sb** | **18 25 28.5** | **-0.3** |
| | baz=238 | | | | | | | |
| **TAP** | **Taipei** | **0.51** | **287** | *eP* | **P** | **Pb** | **18 25 21.6** | **-0.2** |
| | baz=290 | | | | | | | |
| TAP | | | | S | S | **Sb** | **18 25 29.2** | **+0.2** |
| | baz=290 | | | | | | | |
| **ENA** | **Nanau** | **0.54** | **211** | *eP* | **P** | **Pb** | **18 25 22.1** | **-0.2** |
| | baz=207 | | | | | | | |
| ENA | | | | S | eS | **Sb** | **18 25 29.9** | **+0.1** |
| | baz=207 | | | | | | | |
| **TWY** | **Chenhua** | **0.56** | **314** | P | P | **Pb** | **18 25 23.1** | **+0.5** |
| | baz=318 | | | | | | | |
| TWY | | | | S | eS | **Sn** | **18 25 32.1** | **-1.6** |
| | baz=318 | | | | | | | |
| **TWS1** | **Kuangyinshan** | **0.60** | **290** | *eP* | **P** | **Pb** | **18 25 23.8** | **+0.4** |
| | baz=293 | | | | | | | |
| TWS1 | | | | S | eS | **Sb** | **18 25 32.4** | **+0.5** |
| | baz=293 | | | | | | | |
| **NSK** | **Sanguang** | **0.66** | **251** | P | P | **Pg** | **18 25 23.6** | **-0.3** |
| | baz=251 | | | | | | | |
| NSK | | | | S | eS | **Sb** | **18 25 34.1** | **+0.6** |
| | baz=251 | | | | | | | |
| **PCYT** | **Pengchaiyu** | **0.74** | **2** | P | P | **Pn** | **18 25 27.1** | **0.0** |
| | baz=5.0 | | | | | | | |
| PCYT | | | | S | eS | **Sn** | **18 25 38.2** | **+0.1** |
| | baz=5.0 | | | | | | | |
| **NNS** | **Nan Shan** | **0.76** | **234** | *eP* | **P** | **Pb** | **18 25 26.2** | **+0.1** |
| | baz=232 | | | | | | | |
| NNS | | | | S | eS | **Sb** | **18 25 37.0** | **+0.7** |
| | baz=232 | | | | | | | |
| **NCU** | **National Centr** | **0.78** | **276** | *eP* | **P** | **Pn** | **18 25 26.8** | **-0.9** |
| | baz=277 | | | | | | | |
| NCU | | | | S | eS | **Sn** | **18 25 38.1** | **-1.1** |
| | baz=277 | | | | | | | |
| **TWD** | **Chiawan** | **0.90** | **207** | *eP* | **P** | **Pn** | **18 25 29.6** | **+0.2** |
| | baz=204 | | | | | | | |
| TWD | | | | *eS* | **Sn** | | **18 25 42.3** | **+0.1** |
| | baz=204 | | | | | | | |
| **JYNG** | **Yonagunijimaku** | **0.93** | **118** | P | P | **Pb** | **18 25 28.7** | **-0.3** |
| JYNG | | | | *eS* | **Sb** | | **18 25 41.9** | **+0.7** |
| **YOJ** | **Yonaguni jima** | **0.98** | **116** | P | P | **Pn** | **18 25 30.0** | **-0.4** |
| YOJ | | | | *eS* | **Sb** | | **18 25 42.7** | **+0.1** |
| **NSTT** | **Nanjuang** | **0.98** | **255** | *eP* | **P** | **Pn** | **18 25 31.1** | **+0.6** |
| | baz=254 | | | | | | | |
| NSTT | | | | *eS* | **Sn** | | **18 25 44.1** | **-0.1** |
| | baz=254 | | | | | | | |
| **WHF** | **Hehuan Shan** | **1.02** | **224** | *eP* | **P** | **Pn** | **18 25 31.3** | **-0.2** |
| | baz=222 | | | | | | | |
| WHF | | | | *eS* | **Sb** | | **18 25 45.4** | **+1.0** |
| | baz=222 | | | | | | | |
| **ESL** | **Shilin** | **1.21** | **208** | *eP* | **P** | **Pg** | **18 25 34.0** | **-0.3** |
| | baz=205 | | | | | | | |
| ESL | | | | *eS* | **Sn** | | **18 25 50.8** | **+1.1** |
| | baz=205 | | | | | | | |
| **TWQ1** | **Liyutan** | **1.27** | **245** | *eP* | **P** | **Pg** | **18 25 35.5** | **-0.1** |
| | baz=244 | | | | | | | |
| TWQ1 | | | | *eS* | **Sn** | | **18 25 53.0** | **+1.5** |
| | baz=244 | | | | | | | |
| **TYC** | **Yuchr** | **1.46** | **228** | *eP* | **P** | **Pg** | **18 25 38.8** | **-0.3** |
| | baz=226 | | | | | | | |
| TYC | | | | *eS* | **Sg** | | **18 25 58.2** | **0.0** |
| | baz=226 | | | | | | | |
| **IRIF** | **Iriomote-Funau** | **1.63** | **109** | P | P | **Pn** | **18 25 38.6** | **-0.8** |
| **ALS** | **Alishan** | **1.78** | **220** | *eP* | **P** | **Pn** | **18 25 41.7** | **0.0** |
| | baz=218 | | | | | | | |
| ALS | | | | *eS* | **Sn** | | **18 26 04.9** | **+0.7** |
| | baz=218 | | | | | | | |
| **CHN5** | **Tsauling** | **1.79** | **224** | *eP* | **P** | **Pb** | **18 25 43.3** | **-0.5** |
| | baz=223 | | | | | | | |
| CHN5 | | | | *eS* | **Sn** | | **18 26 05.3** | **+1.0** |
| | baz=223 | | | | | | | |
| **JKRS** | **Kuro-shima** | **1.91** | **110** | P | P | **Pn** | **18 25 43.0** | **-0.2** |
| **CHN4** | **Tsaushan** | **2.02** | **221** | *eP* | **P** | **Pb** | **18 25 46.6** | **-1.1** |
| | baz=220 | | | | | | | |
| CHN4 | | | | *eS* | **Sn** | | **18 26 10.9** | **+1.0** |
| | baz=220 | | | | | | | |
| **JISG** | **Ishigakijimahi** | **2.08** | **98** | P | P | **Pn** | **18 25 46.2** | **+0.6** |
| **WTP** | **Ta-pu** | **2.09** | **219** | *eP* | **P** | **Pb** | **18 25 47.7** | **-1.2** |
| | baz=217 | | | | | | | |
| WTP | | | | *eS* | **Sn** | | **18 26 13.2** | **+1.5** |
| | baz=217 | | | | | | | |

**IDC 13 18:27:58.8±6.8,18°.07S×178°.29W,h417km±67km, mb3.3/4,mb1 3.5/5,mb1mx3.1/32,mbtmp4.0/5,Error ellipse: s-maj=94.8km s-min=33.4km az=153.0,Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **14.89** | **252** | P | P | | **18 31 09.0** | **-0.7** |
| | 0.1nm,0.3s,baz=60,slow=20,SNR=2.2 | | | | | | | |
| **STKA** | **Stephens Creek** | **38.65** | **241** | P | P | | **18 34 45.0** | **+0.3** |
| | 1.2nm,0.5s,baz=91,slow=9.9,SNR=8.1 | | | | | | | |
| **WRA** | **Warramunga Arr** | **44.72** | **260** | P | P | | **18 35 32.6** | **-0.6** |
| | 0.6nm,0.3s,baz=90,slow=8.5,SNR=41 | | | | | | | |
| WRA | | | | PcP | PcP | | **18 37 06.5** | **-0.8** |
| | 0.1nm,0.4s,baz=92,slow=3.4,SNR=3.1 | | | | | | | |
| **ASAR** | **Alice Springs** | **44.86** | **254** | P | P | | **18 35 34.5** | **+0.2** |
| | 3.9nm,0.4s,baz=89,slow=9.0,SNR=85 | | | | | | | |
| ASAR | | | | PcP | PcP | | **18 37 07.1** | **-0.7** |
| | 0.5nm,0.7s,baz=104,slow=3.9,SNR=4.7 | | | | | | | |
| **TXAR** | **Lajitas Array** | **85.98** | **58** | P | P | | **18 39 53.7** | **-0.3** |
| | 0.5nm,0.8s,baz=226,slow=6.1,SNR=5.2 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **126.49** | **350** | PKP | | **PKPdf** | **18 46 11.8** | **-0.8** |
| | 3.4nm,0.9s,baz=11,slow=0.9,SNR=4.9 | | | | | | | |
| **GERES** | **GERESS Array B** | **147.80** | **345** | PKPbc | | **PKPbc** | **18 46 55.8** | **+0.2** |
| | 0.4nm,0.4s,baz=36,slow=1.8,SNR=3.7 | | | | | | | |

**KRSC 13 18:32:23.0±1.7,50°.38N×157°.01E,h53km±20km,ML3.5, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **SKR** | **Severo-Kuril's** | **0.65** | **299** | *eP* | P | Pn | 18 32 36.5 | +0.3 |
| SKR | | | | *eS* | S | Sn | 18 32 45.4 | -0.3 |
| **KDTR** | **Khodutka, Kamc** | **1.59** | **25** | *eP* | P | Pn | 18 32 51.0 | +2.3 |
| KDTR | | | | *eS* | S | Sn | 18 33 11.0 | +2.9 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **36.70** | **134** | *e*P | | **P** | **19 00 05.1** | **-1.5** | |
| | 286nm,0.9s | | | | | | | | |
| **SBUM** | **Sibu** | **41.10** | **280** | *e*P | | **P** | **19 00 41.0** | **-2.6** | |
| | 52nm,2.0s | | | | | | | | |
| **UGM** | **Wanagama** | **41.93** | **264** | *e*P | | **P** | **19 00 50.6** | **+0.1** | |
| | 252nm,1.5s | | | | | | | | |
| **CISI** | **Cisompet, Garu** | **44.61** | **265** | *e*P | | **P** | **19 01 11.0** | **-1.2** | |
| | 102nm,1.7s | | | | | | | | |
| **KSRS** | **Korea Array** | **48.28** | **334** | P | | **P** | **19 01 40.8** | **+0.4** | |
| | 0.4nm,0.5s,baz=145,slow=5.6,SNR=2.7 | | | | | | | | |
| KSRS | | | | LR | | LR | 19 20 54.4 | | |
| | comp=Z,20nm,18.5s,baz=75,slow=35 | | | | | | | | |
| **KSAR** | **Wonju Array Be** | **48.29** | **333** | P | | **P** | **19 01 40.8** | **+0.3** | |
| **RAR** | **Rarotonga** | **48.75** | **114** | LR | | LR | 19 18 49.5 | | |
| | comp=Z,37nm,20.7s,baz=312,slow=32 | | | | | | | | |
| **KLR** | **Kul'dur** | **57.18** | **344** | P | | **P** | **19 02 45.9** | **0.0** | |
| | 0.0nm,0.4s,baz=255,slow=5.9,SNR=3.5 | | | | | | | | |
| **CM01** | **Chiang Mai Arr** | **57.89** | **295** | *e*P | | **P** | **19 02 52.5** | **+0.9** | |
| **CM31** | **Chiang Mai Arr** | **57.92** | **295** | *e*P | | **P** | **19 02 52.2** | **+0.5** | |
| **CMAR** | **Chiang Mai Arr** | **57.92** | **295** | P | | **P** | **19 02 52.8** | **+1.1** | |
| | 2.1nm,0.8s,baz=108,slow=4.9,SNR=18 | | | | | | | | |
| **CHTO** | **Chiang Mai** | **58.03** | **296** | *e*P | | **P** | **19 02 53.2** | **+0.7** | |
| | 4.9nm,1.2s | | | | | | | | |
| **PETK** | **Petropavlovsk-** | **58.24** | **4** | LR | | LR | 19 23 53.7 | | |
| | comp=Z,22nm,21.2s,baz=66,slow=32 | | | | | | | | |
| **GSTR** | **Great Sitkin T** | **62.98** | **21** | *e*P | | **P** | **19 03 28.0** | **+2.4** | |
| **SONA0** | **Songino Array** | **66.58** | **328** | *e*P | | **P** | **19 03 51.8** | **+2.5** | |
| **SONM** | **Songino Array** | **66.58** | **328** | P | | **P** | **19 03 51.8** | **+2.5** | |
| | 0.5nm,0.5s,baz=148,slow=5.9,SNR=4.6 | | | | | | | | |
| **LSA** | **Lhasa** | **68.34** | **305** | *e*P | | **P** | **19 04 02.3** | **+1.1** | |
| | 2.6nm,0.9s | | | | | | | | |
| **TAPN** | **Taplejung** | **70.49** | **301** | *e*P | | **P** | **19 04 15.1** | **+0.8** | |
| | 10.0nm,0.8s | | | | | | | | |
| **ODAN** | **Odare** | **70.62** | **301** | *e*P | | **P** | **19 04 15.8** | **+0.7** | |
| | 8.7nm,0.5s | | | | | | | | |
| **RAMN** | **Ramite** | **71.32** | **301** | *e*P | | **P** | **19 04 19.3** | **-0.1** | |
| **JIRN** | **Jiri** | **71.87** | **301** | *e*P | | **P** | **19 04 23.7** | **+0.9** | |
| | 32nm,0.7s | | | | | | | | |
| **GUN** | **Gumba** | **72.20** | **301** | *e*P | | **P** | **19 04 25.8** | **+1.0** | |
| | 7.8nm,0.5s | | | | | | | | |
| **PKI** | **Pulchoki** | **72.51** | **301** | *e*P | | **P** | **19 04 26.8** | **+0.2** | |
| **PKIN** | **Phulchoki** | **72.52** | **301** | *e*P | | **P** | **19 04 27.2** | **+0.6** | |
| | 3.7nm,0.6s | | | | | | | | |
| **KKN** | **Kakani** | **72.68** | **301** | *e*P | | **P** | **19 04 28.0** | **+0.5** | |
| | 5.3nm,0.6s | | | | | | | | |
| **DMN** | **Daman** | **72.78** | **301** | *e*P | | **P** | **19 04 28.8** | **+0.7** | |
| **KOLN** | **Koldanda** | **74.11** | **301** | *e*P | | **P** | **19 04 36.6** | **+0.7** | |
| | 8.9nm,0.8s | | | | | | | | |
| **DANN** | **Dangsing** | **74.12** | **301** | *e*P | | **P** | **19 04 35.8** | **-0.2** | |
| **PYUN** | **Piuthan** | **74.72** | **301** | *e*P | | **P** | **19 04 39.6** | **+0.2** | |
| **SVW2** | **Sparrevohn** | **77.24** | **23** | *e*P | | **P** | **19 04 54.6** | **+1.9** | |
| | 31nm,1.7s | | | | | | | | |
| **RSO** | **Redoubt South** | **78.00** | **24** | *e*P | | **P** | **19 04 57.7** | **+0.5** | |
| **CNPM** | **China Poot** | **78.13** | **26** | *e*P | | **P** | **19 04 58.6** | **+0.8** | |
| | 62nm,1.6s | | | | | | | | |
| **TTA** | **Tatalina** | **78.18** | **21** | *e*P | | **P** | **19 04 59.8** | **+1.8** | |
| **BRLK** | **Bradley Lake** | **78.41** | **26** | *e*P | | **P** | **19 04 59.9** | **+0.6** | |
| | 46nm,1.5s | | | | | | | | |
| **SPU** | **Mount Spurr** | **78.69** | **24** | *e*P | | **P** | **19 05 01.2** | **+0.4** | |
| **SUA** | **Susitna One** | **79.37** | **24** | *e*P | | **P** | **19 05 05.4** | **+0.7** | |
| | 6.6nm,0.8s | | | | | | | | |
| **PPLA** | **Purkeypile** | **79.59** | **22** | *e*P | | **P** | **19 05 06.2** | **+0.3** | |
| | 66nm,1.9s | | | | | | | | |
| **RC01** | **Rabbit Creek A** | **79.59** | **25** | *e*P | | **P** | **19 05 06.2** | **+0.5** | |
| | 51nm,1.8s | | | | | | | | |
| RC01 | | | | *e*S | | **S** | **19 15 03.9** | **+0.6** | |
| **CAST** | **Castle Rocks** | **79.92** | **22** | *e*P | | **P** | **19 05 08.2** | **+0.7** | |
| | 5.8nm,0.8s | | | | | | | | |
| **MK01** | **Makanchi Array** | **80.51** | **319** | *e*P | | **P** | **19 05 11.4** | **+0.3** | |
| **MK32** | **Makanchi Array** | **80.53** | **319** | *e*P | | **P** | **19 05 11.9** | **+0.8** | |
| **MKAR** | **Makanchi Array** | **80.53** | **319** | P | | **P** | **19 05 11.9** | **+0.8** | |
| | 0.4nm,0.4s,baz=92,slow=7.8,SNR=12 | | | | | | | | |
| **SML** | **Sawmill** | **80.54** | **24** | *e*P | | **P** | **19 05 12.0** | **+1.1** | |
| | 15nm,0.8s | | | | | | | | |
| **TRF** | **Thorofare Moun** | **80.61** | **22** | *e*P | | **P** | **19 05 11.9** | **+0.4** | |
| | 58nm,1.9s | | | | | | | | |
| **BPAW** | **Bear Paw Mtn.** | **80.70** | **22** | *e*P | | **P** | **19 05 12.2** | **+0.5** | |
| | 26nm,1.9s | | | | | | | | |
| **IMAR** | **Indian Mountai** | **80.80** | **19** | *e*P | | **P** | **19 05 13.4** | **+1.3** | |
| **RND** | **Reindeer** | **81.14** | **23** | *e*P | | **P** | **19 05 13.7** | **-0.4** | |
| | 5.7nm,0.7s | | | | | | | | |
| **MCK** | **McKinley** | **81.28** | **23** | *e*P | | **P** | **19 05 14.9** | **+0.2** | |
| | 9.3nm,0.8s | | | | | | | | |
| **MLY** | **Manley** | **81.30** | **21** | *e*P | | **P** | **19 05 15.9** | **+1.0** | |
| | 9.4nm,0.6s | | | | | | | | |
| **ZAA0** | **Zalesovo Array** | **81.40** | **326** | *e*P | | **P** | **19 05 15.7** | **+0.1** | |
| | 9.0nm,1.8s | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **81.40** | **326** | P | | **P** | **19 05 15.4** | **-0.2** | |
| | 1.7nm,0.5s,baz=115,slow=5.8,SNR=11 | | | | | | | | |
| ZALV | | | | LR | | LR | 19 43 42.6 | | |
| | comp=Z,41nm,18.4s,baz=250,slow=37 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **81.40** | **326** | *e*P | | **P** | **19 05 15.2** | **-0.4** | |
| **ZAA1** | **Zalesovo Array** | **81.40** | **326** | *e*P | | **P** | **19 05 15.4** | **-0.2** | |
| **CCB** | **Clear Creek Bu** | **82.17** | **22** | *e*P | | **P** | **19 05 19.4** | **0.0** | |
| | 4.4nm,0.8s | | | | | | | | |
| **HDA** | **Harding Lake** | **82.37** | **22** | *e*P | | **P** | **19 05 20.8** | **+0.3** | |
| | 26nm,1.7s | | | | | | | | |
| **IL1** | **Eielson Array** | **82.57** | **22** | *e*P | | **P** | **19 05 20.8** | **-0.7** | |
| **ILAR** | **Eielson Array** | **82.57** | **22** | P | | **P** | **19 05 21.4** | **-0.1** | |
| | 3.8nm,0.7s,baz=245,slow=5.8,SNR=39 | | | | | | | | |
| **ILB** | **Eielson Array** | **82.57** | **22** | *e*P | | **P** | **19 05 21.2** | **-0.3** | |
| **COLD** | **Coldfoot** | **82.67** | **19** | *e*P | | **P** | **19 05 21.6** | **-0.3** | |
| | 16nm,1.9s | | | | | | | | |
| **QSPA** | **South Pole Qui** | **84.77** | **180** | *e*P | | **P** | **19 05 34.0** | **+1.0** | |
| | 15nm,1.8s | | | | | | | | |
| **AAK** | **Ala-Archa** | **84.83** | **314** | *e*P | | **P** | **19 05 35.4** | **+1.7** | |
| | 3.2nm,0.9s | | | | | | | | |
| **HYT** | **Haines Junctio** | **84.85** | **28** | *e*P | | **P** | **19 05 34.5** | **+1.1** | |
| | 27nm,1.7s | | | | | | | | |
| **DAWY** | **Dawson** | **85.20** | **24** | *e*P | | **P** | **19 05 37.2** | **+2.2** | |
| | 14nm,1.5s | | | | | | | | |
| **PASC** | **Pasadena Art C** | **92.18** | **56** | *e*P | | **P** | **19 06 10.8** | **+2.0** | |
| **EML** | **El Monte Cty P** | **93.20** | **57** | *e*P | | **P** | **19 06 13.2** | **-0.3** | |
| **SYO** | **Syowa Base** | **93.25** | **199** | ĪeX | | P | 19 06 20.2 | +7.2 | |
| **HEC** | **Hector,Ludlow** | **93.76** | **56** | *e*P | | **P** | **19 06 16.0** | **-0.2** | |
| **YKA** | **Yellowknife Ar** | **95.84** | **28** | P | | **P** | **19 06 24.3** | **-0.7** | |
| | 0.7nm,0.8s,baz=287,slow=4.3,SNR=2.6 | | | | | | | | |
| **GERES** | **GERESS Array B** | **124.31** | **328** | PKP | | **PKPdf** | **19 11 58.9** | **+1.2** | |
| | 0.6nm,0.5s,baz=107,slow=1.4,SNR=4.6 | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **150.29** | **287** | PKPbc | | **PKPbc** | **19 12 51.5** | **+0.6** | |
| | 1.0nm,0.5s,baz=81,slow=2.5,SNR=11 | | | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **150.29** | **287** | *e*PKPbc | | **PKPbc** | **19 12 51.5** | **+0.6** | |

*SJA **13** 18:56:18.5±1.8,28°.06S×71°.56W,h2km±51km, ML3.6, MW3.6*
*GUC **13** 18:56:22.2±0.4,28°.01S×71°.10W,h51km±6km, ML3.5*
**ISC 13 18:56:20.3**±1.8,**27°.98S**±0°.03×**71°.26W**±0°.07,**h6**km±12km,
**n20,σ3°13/31,3D,Near coast of northern Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VACH** | **Vallenar** | **0.74** | **143** | ⇓*i*P | **Pb** | **18 56 36.1** | **+0.6** |
| VACH | | | | *i* S | **Sn** | **18 56 46.4** | **-2.5** |
| **GO03** | **Copiap** | **0.99** | **67** | ⇓*i*P | **Pb** | **18 56 39.7** | **-0.2** |
| GO03 | | | | IAML | | 18 56 58.4 | |
| | comp=E,1μm,0.3s | | | | | | |
| **CPCH** | **Copiapo** | **1.02** | **52** | *e*P | **Pg** | **18 56 39.8** | **-0.1** |
| **LCO** | **Las Campanas** | **1.14** | **154** | *e*P | **Pg** | **18 56 42.6** | **+0.5** |
| LCO | | | | *e*S | **Sn** | **18 56 58.6** | **-0.4** |
| **LCO** | **Las Campanas** | **1.14** | **154** | ⇓*i*P | **Pg** | **18 56 42.6** | **+0.5** |
| LCO | | | | *i* S | **Sn** | **18 56 58.1** | **-0.9** |
| LCO | | | | IAML | | 18 57 02.1 | |
| | comp=N,2μm,0.3s | | | | | | |
| **TLL** | **Tololo Astrono** | **2.21** | **170** | *e*P | **Pn** | **18 56 58.5** | **+0.7** |
| TLL | | | | *e*S | **Sn** | **18 57 26.0** | **+0.4** |
| TLL | | | | IAML | | 18 57 34.9 | |
| | comp=E,1μm,0.6s | | | | | | |
| **VCA** | **Vinchina** | **2.79** | **106** | *e*P | **Pb** | **18 57 10.9** | **+0.2** |
| VCA | | | | *i* S | **Sg** | **18 57 51.6** | **+1.5** |
| VCA | | | | IAML | | 18 57 57.8 | |
| | comp=Z,237nm,0.3s | | | | | | |
| **AGUA** | **GUANDACOL** | **2.86** | **122** | *e*P | **Pb** | **18 57 11.8** | **0.0** |
| AGUA | | | | *e*S | **Sg** | **18 57 49.2** | **-2.9** |
| **PB14** | **IPOC Station P** | **3.43** | **13** | *e*P | **Pn** | **18 57 11.4** | **-3.2** |
| PB14 | | | | *e*S | **Sb** | **18 58 06.7** | **+2.9** |
| **AMOG** | **MOGNA** | **3.81** | **141** | *e*P | **Pb** | **18 57 23.8** | **-4.1** |
| AMOG | | | | *e*S | **Sb** | **18 58 15.5** | **+1.1** |
| **RTLL** | **Cerro Villicun** | **4.12** | **145** | *e*P | **Pn** | **18 57 27.6** | **+3.8** |
| RTLL | | | | *e*S | **Sb** | **18 58 18.8** | **-4.5** |
| **RTLS** | **Leoncito** | **4.17** | **156** | *e*P | **Pn** | **18 57 28.9** | **+4.3** |
| **AUSP** | **Uspallata** | **4.53** | **159** | *e*P | **Pn** | **18 57 33.4** | **+3.8** |
| AUSP | | | | *e*S | **Sb** | **18 58 39.4** | **+4.1** |
| **RTCV** | **Cerro Valdivia** | **4.53** | **149** | *e*P | **Pn** | **18 57 32.8** | **+3.3** |
| **CYA** | **Choya** | **4.84** | **97** | *e*P | **Pn** | **18 57 37.3** | **+3.6** |
| CYA | | | | IAML | | 18 57 40.9 | |
| | comp=Z,29nm,0.3s | | | | | | |
| CYA | | | | *e*S | **Sb** | **18 58 40.0** | **-4.0** |
| **ROC1** | **El Roble** | **4.98** | **178** | *e*S | **Sb** | **18 58 46.0** | **-2.2** |
| **FSA** | **Cafayete** | **5.07** | **70** | *e*P | Pb | 18 57 43.1 | -6.3 |
| FSA | | | | *e*S | **Sb** | **18 58 53.6** | **+2.9** |
| **AHML** | **Horco Molle** | **5.40** | **79** | *i* P | Pn | 18 57 47.2 | +5.7 |
| AHML | | | | *e*P | Pb | 18 57 48.0 | -7.2 |
| **ACAN** | **Cantantal** | **5.54** | **141** | *e*P | **Pn** | **18 57 47.1** | **+3.7** |
| ACAN | | | | *e*S | **Sb** | **18 58 57.0** | **-7.3** |
| **TCA** | **Tanti** | **6.69** | **122** | *e*P | **Pn** | **18 58 01.1** | **+1.8** |

*ATH **13** 19:11:39.1,37°.67N×25°.89E,h17km±3km, ML2.3/3, Error ellipse: s-maj=3.7km s-min=1.1km az=116.0*
*CSEM **13** 19:11:39.7±0.3,37°.70N×25°.77E,h2km, ML2.3, Error ellipse: s-maj=8.2km s-min=5.0km az=133.0*
*DDA **13** 19:11:41.2,37°.73N×25°.88E,h7km, Ml2.6*
**ISC 13 19:11:39.5**±1.1,**37.71N**±0°.03×**25.80E**±0°.03,**h7**km±11km,
**n24,σ0s94/40,Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **APE** | **Apeiranthos** | **0.67** | **199** | P | **Pg** | **19 11 51.1** | **-1.3** |
| APE | | | | S | **Sg** | **19 12 02.0** | **+0.8** |
| **APE** | **Apeiranthos** | **0.67** | **199** | P | **Pg** | **19 11 51.1** | **-1.3** |
| APE | | | | S | **Sg** | **19 12 02.0** | **+0.8** |
| **CHOS** | **Chios island** | **0.71** | **17** | P | **Pg** | **19 11 52.5** | **-0.6** |
| CHOS | | | | S | **Sb** | **19 12 04.2** | **+0.1** |
| CHOS | | | | AML | AML | 19 12 09.9 | |
| | comp=E,672μm,0.4s | | | | | | |
| CHOS | | | | AML | AML | 19 12 11.9 | |
| | comp=N,374μm,0.4s | | | | | | |
| **CHOS** | **Chios island** | **0.71** | **17** | P | **Pg** | **19 11 52.5** | **-0.6** |
| CHOS | | | | S | **Sb** | **19 12 04.2** | **+0.1** |
| **ZEY** | **¯zmir** | **0.77** | **46** | *i* P | **Pb** | **19 11 55.2** | **0.0** |
| ZEY | | | | *i* S | **Sb** | **19 12 06.8** | **+0.9** |
| **SMG** | **Samos** | **0.82** | **90** | P | **Pg** | **19 11 54.4** | **-0.9** |
| SMG | | | | S | **Sg** | **19 12 03.4** | **-2.7** |
| SMG | | | | AML | AML | 19 12 08.8 | |
| | comp=N,466μm,0.6s | | | | | | |
| SMG | | | | AML | AML | 19 12 10.4 | |
| | comp=E,383μm,0.3s | | | | | | |
| **SMG** | **Samos** | **0.82** | **90** | P | **Pg** | **19 11 54.4** | **-0.9** |
| **URLA** | **Izmir** | **0.91** | **44** | *i* P | **Pb** | **19 11 57.6** | **+0.1** |
| URLA | | | | *i* S | **Sb** | **19 12 10.4** | **+0.6** |
| **URLA** | **Izmir** | **0.91** | **44** | P | **Pb** | **19 11 57.6** | **+0.1** |
| URLA | | | | S | **Sb** | **19 12 10.4** | **+0.6** |
| **DGB** | **¯zmir** | **0.92** | **68** | *i* P | **Pb** | **19 11 57.5** | **-0.3** |
| DGB | | | | *i* S | **Sb** | **19 12 10.5** | **+0.2** |
| **GCAM** | **G?zelcaml?** | **1.14** | **90** | *i* P | **Pn** | **19 12 01.6** | **-0.2** |
| GCAM | | | | *i* S | **Sn** | **19 12 17.1** | **-0.5** |
| **GCAM** | **G?zelcaml?** | **1.14** | **90** | P | **Pn** | **19 12 01.6** | **-0.2** |
| GCAM | | | | S | **Sn** | **19 12 17.1** | **-0.5** |
| **CMBO** | **Columbo, Santo** | **1.27** | **194** | P | **Pn** | **19 12 03.2** | **-0.5** |
| **CMBO** | **Columbo, Santo** | **1.27** | **194** | P | **Pn** | **19 12 03.2** | **-0.5** |
| **SANT** | **Santorini** | **1.36** | **192** | P | **Pn** | **19 12 04.3** | **-0.6** |
| **SANT** | **Santorini** | **1.36** | **192** | P | **Pn** | **19 12 04.3** | **-0.6** |
| **BDRM** | **Kayabasi** | **1.46** | **116** | *i* P | **Pg** | **19 12 08.1** | **+0.6** |
| BDRM | | | | *i* S | **Sg** | **19 12 27.9** | **+1.5** |
| **BDRM** | **Kayabasi** | **1.46** | **116** | P | **Pg** | **19 12 08.1** | **+0.6** |
| BDRM | | | | S | **Sg** | **19 12 27.9** | **+1.5** |
| **MHLA** | **Plaka, Milos I** | **1.46** | **229** | P | **Pb** | **19 12 07.4** | **+0.4** |
| **MHLA** | **Plaka, Milos I** | **1.46** | **229** | P | **Pb** | **19 12 07.4** | **+0.4** |
| **VLY** | **Voula,Athens** | **1.59** | **276** | P | **Pb** | **19 12 09.2** | **0.0** |
| VLY | | | | S | **Sg** | **19 12 33.1** | **+2.4** |
| VLY | | | | AML | AML | 19 12 33.8 | |
| | comp=N,238μm,0.4s | | | | | | |
| VLY | | | | AML | AML | 19 12 35.8 | |
| | comp=E,169μm,0.4s | | | | | | |
| **VLY** | **Voula,Athens** | **1.59** | **276** | P | **Pb** | **19 12 09.2** | **0.0** |
| **AYDN** | **Tasoluk** | **1.65** | **91** | *i* P | **Pg** | **19 12 11.3** | **+0.1** |
| AYDN | | | | *i* S | **Sg** | **19 12 33.8** | **+1.2** |
| **AYDN** | **Tasoluk** | **1.65** | **91** | P | **Pg** | **19 12 11.3** | **+0.1** |
| AYDN | | | | S | **Sg** | **19 12 33.8** | **+1.2** |

*ATA **13** 19:41:55.6±1.4,40°.84N×42°.80E,h4km±21km, ML2.4, MW2.6*
*CSEM **13** 19:41:56.3,40°.82N×42°.76E,h7km, ML2.8*
*TIF **13** 19:41:56.9,40°.79N×42°.92E,h23km±3km*
*DDA **13** 19:41:56.3,40°.82N×42°.76E,h7km, Ml2.8*
**ISC 13 19:41:56.9**±1.1,**40.86N**±0°.02×**42.80E**±0°.03,**h9**km±11km,
**n26,σ1s46/50,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DIGO** | **Kars** | **0.62** | **135** | *i* P | **Pg** | **19 42 08.1** | **-0.9** |
| DIGO | | | | *e*S | **Sb** | **19 42 17.2** | **-1.8** |
| DIGO | | | | IAML | | 19 42 18.6 | |
| | comp=Z,9.7nm,0.4s | | | | | | |
| **DIGO** | **Kars** | **0.62** | **135** | *i* P | **Pg** | **19 42 08.1** | **-0.9** |
| DIGO | | | | *i* S | **Sb** | **19 42 17.9** | **-1.1** |
| **DIGO** | **Kars** | **0.62** | **135** | P | **Pg** | **19 42 08.1** | **-0.9** |
| DIGO | | | | S | **Sb** | **19 42 17.9** | **-1.1** |
| **EAK** | **Akyaka** | **0.64** | **105** | *i* P | **Pg** | **19 42 08.7** | **-0.6** |
| EAK | | | | *e*S | **Sb** | **19 42 18.2** | **-1.2** |
| EAK | | | | IAML | | 19 42 24.8 | |
| | comp=Z,20nm,0.4s | | | | | | |
| **EAK** | **Akyaka** | **0.64** | **105** | *i* P | **Pg** | **19 42 08.7** | **-0.6** |
| EAK | | | | *i* S | **Sb** | **19 42 18.4** | **-1.0** |
| **EAK** | **Akyaka** | **0.64** | **105** | P | **Pg** | **19 42 08.7** | **-0.6** |
| EAK | | | | S | **Sb** | **19 42 18.4** | **-1.0** |
| **EPOS** | **Posof** | **0.65** | **355** | *i* P | **Pg** | **19 42 09.4** | **-0.1** |
| EPOS | | | | *e*S | **Sb** | **19 42 20.0** | **+0.2** |
| EPOS | | | | IAML | | 19 42 21.6 | |
| | comp=Z,6.7nm,0.3s | | | | | | |
| **EPOS** | **Posof** | **0.65** | **355** | *i* P | **Pg** | **19 42 09.6** | **+0.1** |
| EPOS | | | | *i* S | **Sb** | **19 42 20.4** | **+0.6** |
| **EPOS** | **Posof** | **0.65** | **355** | P | **Pg** | **19 42 09.6** | **+0.1** |
| EPOS | | | | S | **Sb** | **19 42 20.4** | **+0.6** |
| **DAGI** | **Agillar** | **0.70** | **289** | *i* P | **Pg** | **19 42 10.0** | **-0.6** |
| DAGI | | | | *i* S | **Sg** | **19 42 20.0** | **+0.2** |
| **ARTV** | **Artvin** | **0.74** | **297** | *e*P | **Pg** | **19 42 10.6** | **-0.5** |
| ARTV | | | | *i* Pg | **Pb** | **19 42 11.0** | **-1.0** |
| ARTV | | | | *e*S | **Sg** | **19 42 21.3** | **+0.6** |
| ARTV | | | | IAML | | 19 42 22.7 | |
| | comp=Z,12nm,0.2s | | | | | | |
| **ARTV** | **Artvin** | **0.74** | **297** | *i* P | **Pg** | **19 42 10.6** | **-0.5** |
| ARTV | | | | *i* S | **Sg** | **19 42 21.0** | **+0.2** |
| **ARTV** | **Artvin** | **0.74** | **297** | P | **Pg** | **19 42 10.6** | **-0.5** |
| ARTV | | | | S | **Sg** | **19 42 21.0** | **+0.2** |
| **DDEM** | **Demirkent** | **0.80** | **273** | *i* P | **Pg** | **19 42 11.0** | **-1.2** |
| DDEM | | | | *i* S | **Sg** | **19 42 21.5** | **-1.1** |
| **DDEM** | **Demirkent** | **0.80** | **273** | P | **Pg** | **19 42 11.0** | **-1.2** |
| DDEM | | | | S | **Sg** | **19 42 21.5** | **-1.1** |
| **EATA** | **Eleskirt** | **1.02** | **193** | *e*P | **Pg** | **19 42 15.2** | **-1.3** |
| **EATA** | **Eleskirt** | **1.02** | **193** | *i* P | **Pg** | **19 42 15.2** | **-1.3** |
| EATA | | | | *i* S | **Sn** | **19 42 32.0** | **-0.3** |
| **EATA** | **Eleskirt** | **1.02** | **193** | P | **Pg** | **19 42 15.2** | **-1.3** |
| EATA | | | | S | **Sn** | **19 42 32.0** | **-0.3** |
| **HOMI** | **Horasan** | **1.06** | **220** | *e*P | **Pg** | **19 42 16.3** | **-0.9** |
| **TUTA** | **Tutak** | **1.45** | **180** | *e*P | **Pg** | **19 42 23.7** | **-1.1** |
| **TUTA** | **Tutak** | **1.45** | **180** | *i* P | **Pg** | **19 42 23.7** | **-1.1** |
| TUTA | | | | *i* S | **Sg** | **19 42 42.9** | **-0.7** |
| **TUTA** | **Tutak** | **1.45** | **180** | P | **Pg** | **19 42 23.7** | **-1.1** |
| TUTA | | | | S | **Sg** | **19 42 42.9** | **-0.7** |
| **EKAR** | **Karacoban** | **1.69** | **200** | *e*P | **Pg** | **19 42 28.9** | **-0.4** |
| EKAR | | | | *i* Pg | **Pb** | **19 42 30.7** | **+2.4** |
| **EKAR** | **Karacoban** | **1.69** | **200** | *i* P | **Pg** | **19 42 28.9** | **-0.4** |
| EKAR | | | | *i* S | **Sg** | **19 42 56.8** | **+5.4** |
| **EKAR** | **Karacoban** | **1.69** | **200** | P | **Pg** | **19 42 29.0** | **-0.4** |
| EKAR | | | | S | **Sg** | **19 42 56.8** | **+5.4** |
| **ONI** | **Oni** | **1.80** | **16** | P | **Pb** | **19 42 30.1** | **0.0** |
| ONI | | | | S | **Sb** | **19 42 53.7** | **+0.9** |

*DDA **13** 19:45:55.9,37°.69N×25°.82E,h7km, Ml3.4*
*ISCJB **13** 19:45:55.7±0.5,37°.69N±0°.02×25°.79E±0°.02,h4km±4km, Error ellipse: s-maj=2.9km s-min=2.3km az=152.6*
*THE **13** 19:45:56.8,37°.67N×25°.86E,h6km±1km,ML3.3/10, Error ellipse: s-maj=1.6km s-min=0.4km az=120.0*
*ISK **13** 19:45:56.9,37°.68N×25°.90E,h15km, ML3.2*
*CSEM **13** 19:45:56.6±0.1,37°.67N×25°.81E,h10km,ML3.3, Error ellipse: s-maj=2.9km s-min=2.4km az=137.0*
*ATH **13** 19:45:56.2,37°.68N×25°.85E,h32km±1km,ML3.3/11, Error ellipse: s-maj=1.6km s-min=0.8km az=162.0*
**ISC 13 19:45:56.5**±1.0,**37.67N**±0°.02×**25.83E**±0°.02,**h12**km±9km,
**n151,σ0s86/210,Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **APE** | **Apeiranthos** | **0.65** | **201** | *e*PG | **Pb** | **19 46 10.6** | **+0.8** |
| APE | | | | *e*SG | **Sn** | **19 46 20.6** | **-1.2** |
| **APE** | **Apeiranthos** | **0.65** | **201** | P | **Pg** | **19 46 08.7** | **-0.4** |
| APE | | | | S | **Sb** | **19 46 19.2** | **+0.4** |
| APE | | | | AML | AML | 19 46 22.0 | |
| | comp=N,3192μm,0.2s | | | | | | |
| APE | | | | AML | AML | 19 46 22.7 | |
| | comp=E,3388μm,0.4s | | | | | | |
| **APE** | **Apeiranthos** | **0.65** | **201** | P | **Pg** | **19 46 08.7** | **-0.4** |
| **APE** | **Apeiranthos** | **0.65** | **201** | *e*Pg | **Pb** | **19 46 10.6** | **+0.8** |
| APE | | | | S | **Sb** | **19 46 19.2** | **+0.4** |
| APE | | | | *e*Sg | **Sn** | **19 46 20.6** | **-1.2** |
| **APE** | **Apeiranthos** | **0.65** | **201** | P | **Pg** | **19 46 09.2** | **+0.1** |
| APE | | | | S | **Sb** | **19 46 19.5** | **+0.7** |
| **CHOS** | **Chios island** | **0.73** | **14** | *e*PG | **Pb** | **19 46 11.3** | **0.0** |
| **CHOS** | **Chios island** | **0.73** | **14** | P | **Pb** | **19 46 11.3** | **0.0** |
| CHOS | | | | S | **Sn** | **19 46 22.8** | **-1.2** |
| CHOS | | | | AML | AML | 19 46 25.9 | |
| | comp=E,7062μm,0.5s | | | | | | |
| CHOS | | | | AML | AML | 19 46 28.3 | |
| | comp=N,4311μm,0.4s | | | | | | |
| **CHOS** | **Chios island** | **0.73** | **14** | P | **Pb** | **19 46 11.3** | **0.0** |
| CHOS | | | | S | **Sb** | **19 46 22.4** | **+1.1** |
| **CHOS** | **Chios island** | **0.73** | **14** | P | **Pg** | **19 46 11.0** | **+0.2** |
| CHOS | | | | S | **Sb** | **19 46 22.4** | **+1.1** |
| **ZEY** | **¯zmir** | **0.78** | **43** | *i* P | **Pg** | **19 46 10.7** | **-0.8** |
| ZEY | | | | *i* S | **Sb** | **19 46 22.7** | **+0.3** |
| **SMG** | **Samos** | **0.80** | **87** | P | **Pb** | **19 46 12.6** | **+0.2** |
| SMG | | | | S | **Sg** | **19 46 22.1** | **-0.4** |
| SMG | | | | AML | AML | 19 46 24.7 | |
| | comp=N,4849μm,0.5s | | | | | | |
| SMG | | | | AML | AML | 19 46 26.6 | |
| | comp=E,4116μm,0.4s | | | | | | |
| **SMG** | **Samos** | **0.80** | **87** | P | **Pb** | **19 46 12.2** | **-0.2** |
| SMG | | | | S | **Sb** | **19 46 23.5** | **+0.3** |
| **SMG** | **Samos** | **0.80** | **87** | P | **Pb** | **19 46 12.5** | **-0.2** |
| SMG | | | | S | **Sb** | **19 46 23.5** | **+0.3** |
| **URLA** | **Izmir** | **0.92** | **41** | *e*PG | **Pg** | **19 46 13.9** | **-0.3** |
| URLA | | | | *e*SG | **Sb** | **19 46 27.2** | **+0.7** |
| **URLA** | **Izmir** | **0.92** | **41** | *i* P | **Pg** | **19 46 13.3** | **-0.9** |
| URLA | | | | *i* S | **Sg** | **19 46 26.0** | **-0.1** |
| **URLA** | **Izmir** | **0.92** | **41** | P | **Pg** | **19 46 13.3** | **-0.9** |
| **URLA** | **Izmir** | **0.92** | **41** | *e*Pg | **Pg** | **19 46 13.9** | **-0.3** |
| URLA | | | | S | **Sg** | **19 46 26.0** | **-0.1** |
| URLA | | | | *e*Sg | **Sb** | **19 46 27.2** | **+0.7** |
| **DGB** | **¯zmir** | **0.92** | **65** | *i* P | **Pg** | **19 46 13.4** | **-0.8** |
| DGB | | | | *i* S | **Sb** | **19 46 27.0** | **+0.5** |
| **GCAM** | **G?zelcaml?** | **1.12** | **88** | *e*PG | **Pb** | **19 46 17.7** | **0.0** |
| **GCAM** | **G?zelcaml?** | **1.12** | **88** | *i* P | **Pg** | **19 46 17.9** | **-0.1** |
| GCAM | | | | *i* S | **Sb** | **19 46 32.2** | **0.0** |
| **GCAM** | **G?zelcaml?** | **1.12** | **88** | P | **Pg** | **19 46 17.9** | **-0.1** |
| GCAM | | | | S | **Sb** | **19 46 32.2** | **0.0** |
| **KARY** | **Karystos** | **1.16** | **288** | P | **Pb** | **19 46 17.9** | **-0.5** |
| KARY | | | | S | **Sb** | **19 46 33.2** | **-0.2** |
| KARY | | | | AML | AML | 19 46 34.8 | |
| | comp=N,3109μm,0.4s | | | | | | |
| KARY | | | | AML | AML | 19 46 35.0 | |
| | comp=E,3033μm,0.1s | | | | | | |
| **KARY** | **Karystos** | **1.16** | **288** | P | **Pb** | **19 46 18.2** | **-0.2** |
| KARY | | | | S | **Sb** | **19 46 33.2** | **-0.2** |
| **KARY** | **Karystos** | **1.16** | **288** | P | **Pb** | **19 46 18.2** | **-0.2** |
| KARY | | | | S | **Sg** | **19 46 34.1** | **+0.3** |
| **CMBO** | **Columbo, Santo** | **1.25** | **196** | P | **Pn** | **19 46 19.5** | **-0.2** |
| CMBO | | | | S | **Sn** | **19 46 36.5** | **+0.1** |
| CMBO | | | | AML | AML | 19 46 45.3 | |
| | comp=N,3860μm,0.4s | | | | | | |
| CMBO | | | | AML | AML | 19 46 46.7 | |
| | comp=E,2603μm,0.4s | | | | | | |
| **CMBO** | **Columbo, Santo** | **1.25** | **196** | P | **Pn** | **19 46 19.5** | **-0.2** |
| CMBO | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ATHU | | | | S | Sn | 19 46 45.5 | -0.7 |
| **EREA** | **Eretria** | **1.67** | **297** | P | Pn | 19 46 25.4 | -0.2 |
| **EREA** | **Eretria** | **1.67** | **297** | P | Pn | 19 46 25.4 | -0.2 |
| **EREA** | **Eretria** | **1.67** | **297** | P | Pn | 19 46 25.1 | -0.5 |
| **ATH** | **Athens Observa** | **1.70** | **281** | P | Pb | 19 46 27.0 | -0.6 |
| ATH | | | | S | Sb | 19 46 49.0 | +0.1 |
| ATH | | | | AML | AML | 19 46 53.7 | |
| | comp=N,2079μm,0.3s | | | | | | |
| ATH | | | | AML | AML | 19 46 54.1 | |
| | comp=E,1999μm,0.5s | | | | | | |
| **ATH** | **Athens Observa** | **1.70** | **281** | P | Pb | 19 46 27.0 | -0.6 |
| ATH | | | | S | Sb | 19 46 49.0 | +0.1 |
| **VILL** | **Villia** | **2.05** | **285** | P | Pn | 19 46 30.7 | -0.1 |
| **VILL** | **Villia** | **2.05** | **285** | P | Pn | 19 46 30.7 | -0.1 |
| **DID** | **Didima** | **2.06** | **266** | P | Pn | 19 46 30.0 | -1.0 |
| **DID** | **Didima** | **2.06** | **266** | P | Pn | 19 46 30.5 | -0.5 |
| DID | | | | S | Sn | 19 46 56.3 | -0.4 |
| **DID** | **Didima** | **2.06** | **266** | P | Pn | 19 46 30.5 | -0.5 |
| DID | | | | S | Sn | 19 46 56.3 | -0.4 |
| **VIL2** | **Platees** | **2.09** | **286** | P | Pn | 19 46 30.9 | -0.5 |
| **BOZC** | **Bozcaada** | **2.17** | **5** | *e*PN | Pn | 19 46 33.6 | +1.1 |
| **BOZC** | **Bozcaada** | **2.17** | **5** | *e*Pn | Pn | 19 46 33.6 | +1.1 |
| **EZN** | **Ezine** | **2.18** | **10** | *e*PN | Pn | 19 46 33.6 | +1.0 |
| **EZN** | **Ezine** | **2.18** | **10** | *e*Pn | Pn | 19 46 33.6 | +1.0 |
| **LIA** | **Limnos Island** | **2.28** | **347** | P | Pn | 19 46 32.4 | -1.5 |
| **LIA** | **Limnos Island** | **2.28** | **347** | P | Pn | 19 46 32.4 | -1.5 |
| **LOUT** | **Loutraki** | **2.28** | **279** | P | Pn | 19 46 34.3 | +0.4 |
| **LOUT** | **Loutraki** | **2.28** | **279** | P | Pn | 19 46 34.3 | +0.4 |
| **LTK** | **Loutraki** | **2.29** | **280** | P | Pn | 19 46 33.8 | -0.3 |
| **LTK** | **Loutraki** | **2.29** | **280** | P | Pn | 19 46 33.8 | -0.3 |
| **LTK** | **Loutraki** | **2.29** | **280** | P | Pn | 19 46 33.6 | -0.5 |
| **MANT** | **Manisa** | **2.31** | **68** | *i* P | Pg | 19 46 39.4 | -1.3 |
| MANT | | | | *i* S | Sb | 19 47 07.8 | +1.2 |
| **MANT** | **Manisa** | **2.31** | **68** | P | Pg | 19 46 39.4 | -1.3 |
| MANT | | | | S | Sb | 19 47 07.8 | +1.2 |
| **TURN** | **Turunc** | **2.35** | **109** | *e*PN | Pn | 19 46 32.0 | -3.0 |
| **TURN** | **Turunc** | **2.35** | **109** | *i* P | Pn | 19 46 32.4 | -2.5 |
| TURN | | | | *i* S | Sb | 19 47 07.6 | -0.3 |
| **TURN** | **Turunc** | **2.35** | **109** | *e*Pn | Pn | 19 46 32.0 | -3.0 |
| **TURN** | **Turunc** | **2.35** | **109** | P | Pn | 19 46 32.4 | -2.5 |
| TURN | | | | S | Sb | 19 47 07.6 | -0.3 |
| **SKIA** | **Skiathos** | **2.38** | **310** | P | Pn | 19 46 35.5 | +0.2 |
| **SKIA** | **Skiathos** | **2.38** | **310** | P | Pn | 19 46 35.5 | +0.2 |
| **KARP** | **Karpathos** | **2.38** | **153** | *e*PN | Pn | 19 46 35.5 | +0.1 |
| **KARP** | **Karpathos** | **2.38** | **153** | P | Pn | 19 46 34.8 | -0.5 |
| **KARP** | **Karpathos** | **2.38** | **153** | P | Pn | 19 46 34.8 | -0.5 |
| **KARP** | **Karpathos** | **2.38** | **153** | *e*Pn | Pn | 19 46 35.5 | +0.1 |
| **PROD** | **Prodromos** | **2.38** | **285** | P | Pn | 19 46 35.4 | 0.0 |
| **PROD** | **Prodromos** | **2.38** | **285** | P | Pn | 19 46 35.4 | 0.0 |
| **KULA** | **Kula-Manisa** | **2.39** | **69** | *e*PN | Pn | 19 46 36.2 | +0.7 |
| **KULA** | **Kula-Manisa** | **2.39** | **69** | *e*Pn | Pn | 19 46 36.2 | +0.7 |
| **DALY** | **Dalyan (Mu¨la** | **2.41** | **110** | *e*PN | Pn | 19 46 36.7 | +1.0 |
| **DALY** | **Dalyan (Mu¨la** | **2.41** | **110** | *e*Pn | Pn | 19 46 36.7 | +1.0 |
| **TAVA** | **DENIZLI_Tavas** | **2.46** | **94** | *i* P | Pg | 19 46 42.3 | -1.4 |
| TAVA | | | | *i* S | Sg | 19 47 16.5 | +0.9 |
| **VLI** | **Veliai** | **2.50** | **248** | P | Pn | 19 46 36.1 | -0.7 |
| **VLI** | **Veliai** | **2.50** | **248** | P | Pn | 19 46 36.2 | -0.7 |
| **IDI** | **Anoyia** | **2.50** | **198** | P | Pn | 19 46 36.7 | -0.3 |
| **IDI** | **Anoyia** | **2.50** | **198** | P | Pn | 19 46 36.7 | -0.3 |
| **GADA** | **Gvkgeada** | **2.51** | **1** | *e*PN | Pn | 19 46 38.3 | +1.2 |
| **GADA** | **Gvkgeada** | **2.51** | **1** | *e*Pn | Pn | 19 46 38.3 | +1.2 |
| **BALB** | **Balikesir** | **2.54** | **39** | *e*PN | Pn | 19 46 37.8 | +0.3 |
| **BALB** | **Balikesir** | **2.54** | **39** | *e*Pn | Pn | 19 46 37.8 | +0.3 |
| **DNZL** | **Cakiroluk** | **2.56** | **89** | *i* P | Pg | 19 46 44.9 | -0.6 |
| DNZL | | | | *i* S | Sg | 19 47 17.4 | -1.2 |
| **NEO** | **Neokhori** | **2.61** | **309** | P | Pn | 19 46 38.5 | -0.1 |
| **NEO** | **Neokhori** | **2.61** | **309** | P | Pn | 19 46 38.5 | -0.1 |
| **GELI** | **Tayfur-Gelibol** | **2.77** | **10** | *e*PN | Pn | 19 46 41.7 | +1.1 |
| **GELI** | **Tayfur-Gelibol** | **2.77** | **10** | *e*Pn | Pn | 19 46 41.7 | +1.1 |
| **GUR** | **Goura** | **2.77** | **276** | P | Pn | 19 46 41.0 | +0.2 |
| **GUR** | **Goura** | **2.77** | **276** | P | Pn | 19 46 41.0 | +0.2 |
| **LPK** | **Lapseki** | **2.79** | **15** | *e*PN | Pn | 19 46 41.9 | +0.9 |
| **LPK** | **Lapseki** | **2.79** | **15** | *e*Pn | Pn | 19 46 41.9 | +0.9 |
| **SMTH** | **Samothraki Isl** | **2.80** | **355** | P | Pn | 19 46 39.3 | -1.8 |
| **SMTH** | **Samothraki Isl** | **2.80** | **355** | P | Pn | 19 46 39.3 | -1.8 |
| **KLV** | **Kalavryta, Ach** | **2.93** | **278** | P | Pn | 19 46 43.5 | +0.5 |
| **KLV** | **Kalavryta, Ach** | **2.93** | **278** | P | Pn | 19 46 43.5 | +0.5 |
| **KRBG** | **Karabiga-Canak** | **2.95** | **22** | *e*PN | Pn | 19 46 44.4 | +1.3 |
| **KRBG** | **Karabiga-Canak** | **2.95** | **22** | *e*Pn | Pn | 19 46 44.4 | +1.3 |
| **KALE** | **Kalithea** | **3.00** | **285** | P | Pn | 19 46 45.5 | +1.6 |
| **KALE** | **Kalithea** | **3.00** | **285** | P | Pn | 19 46 45.5 | +1.6 |
| **TRIZ** | **Trizonia** | **3.04** | **284** | P | Pn | 19 46 44.2 | +1.8 |
| **TRIZ** | **Trizonia** | **3.04** | **284** | P | Pn | 19 46 46.2 | +1.8 |
| **SERG** | **Sergoula** | **3.07** | **285** | P | Pn | 19 46 46.3 | +1.5 |
| **SERG** | **Sergoula** | **3.07** | **285** | P | Pn | 19 46 46.3 | +1.5 |
| **EDC** | **Edincik** | **3.10** | **30** | *e*PN | Pn | 19 46 46.8 | +1.5 |
| **EDC** | **Edincik** | **3.10** | **30** | *e*Pn | Pn | 19 46 46.8 | +1.5 |
| **ANX** | **Ano Chora** | **3.21** | **288** | P | Pn | 19 46 49.4 | +2.5 |
| **ANX** | **Ano Chora** | **3.21** | **288** | P | Pn | 19 46 49.4 | +2.5 |
| **AKAS** | **Kas** | **3.35** | **114** | *e*PN | Pn | 19 46 49.5 | +0.7 |
| **AKAS** | **Kas** | **3.35** | **114** | *e*Pn | Pn | 19 46 49.5 | +0.7 |
| **TVSB** | **Tavsanli** | **3.36** | **57** | *e*PN | Pn | 19 46 49.9 | +1.1 |
| **TVSB** | **Tavsanli** | **3.36** | **57** | *e*Pn | Pn | 19 46 49.9 | +1.1 |
| **ELL** | **Elmali** | **3.39** | **105** | *e*PN | Pn | 19 46 49.9 | +0.6 |
| **ELL** | **Elmali** | **3.39** | **105** | *e*Pn | Pn | 19 46 49.9 | +0.6 |

**IDC 13 19:47:58.3±2.7, 34°38N×140°07E, h0km, mb3.3/3, mb1 3.6/3, mb1mx3.3/39, mbtmp3.3/3, ML2.4/1, Error ellipse: s-maj=93.9km s-min=23.5km az=67.0, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MJAR** | **Matsushiro Arr** | **2.64** | **325** | Pn | Pn | 19 48 41.4 | -0.7 |
| | 0.7nm,0.3s,baz=146,slow=16,SNR=13 | | | | | | |
| MJAR | | | | Sn | Sg | 19 49 26.0 | +2.8 |
| | 0.2nm,0.3s,baz=142,slow=12,SNR=2.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.65** | **304** | P | P | 19 56 12.6 | 0.0 |
| | 0.1nm,0.5s,baz=72,slow=7.6,SNR=2.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **54.29** | **187** | P | P | 19 57 26.6 | +0.2 |
| | 0.6nm,0.6s,baz=6.1,slow=7.6,SNR=15 | | | | | | |
| **ASAR** | **Alice Springs** | **58.02** | **187** | P | P | 19 57 52.5 | -0.4 |
| | 0.3nm,0.8s,baz=3.4,slow=6.1,SNR=3.4 | | | | | | |

*ISCJB **13** 20:02:43.8±0.5,39°.10N±0°.03×29°.05E±0°.03,h3km±5km, Error ellipse: s-maj=4.6km s-min=3.6km az=162.0*
*ISK **13** 20:02:43.3,39°.09N×29°.07E,h8km,MD2.6*
*IASPEI **13** 20:02:44.0±0.9,39°.08N±0°.02×29°.06E±0°.02,h7km±7km, Error ellipse: s-maj=3.6km s-min=2.8km az=3.3,GT5 selection from ISC bulletin GT5 identified by Bond¨ji and McLaughlin (2009) selection criteria Bond¨ji and McLaughlin, A new ground truth data set for seismic studies, Seism. Res. Let., 80, 465-472, 2009*
*CSEM **13** 20:02:44.1±0.1,39°.09N×29°.05E,h8km,MD2.6, Error ellipse: s-maj=2.0km s-min=1.9km az=73.0*
*DDA **13** 20:02:44.0,39°.09N×29°.05E,h7km,Ml3.0*

**ISC 13 20:02:44.0±0.9, 39°.08N±0°.02×29°.05E±0°.02, h7km±7km, n44, σ0°35/64, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SIMA** | **Simav-Kutahya** | **0.06** | **270** | PG | Pg | 20 02 45.7 | 0.0 |
| **SIMA** | **Simav-Kutahya** | **0.06** | **270** | *i* Pg | Pg | 20 02 45.7 | 0.0 |
| **DEMI** | **Demirci** | **0.27** | **261** | *i* P | Pg | 20 02 49.6 | +0.3 |
| DEMI | | | | *i* S | Sg | 20 02 53.2 | +0.4 |
| **DEMI** | **Demirci** | **0.27** | **261** | P | Pg | 20 02 49.6 | +0.3 |
| DEMI | | | | S | Sg | 20 02 53.2 | +0.4 |
| **GDZ** | **Gediz** | **0.33** | **89** | *i* P | Pg | 20 02 50.9 | +0.3 |
| GDZ | | | | *i* S | Sg | 20 02 55.7 | +0.7 |
| **GDZ** | **Gediz** | **0.33** | **89** | P | Pg | 20 02 50.9 | +0.3 |
| GDZ | | | | S | Sg | 20 02 55.7 | +0.7 |
| **TVSB** | **Tavsanli** | **0.48** | **41** | *e*PG | Pg | 20 02 53.4 | 0.0 |
| TVSB | | | | *e*SG | Sg | 20 02 59.5 | -0.2 |
| **TVSB** | **Tavsanli** | **0.48** | **41** | *e*Pg | Pg | 20 02 53.4 | 0.0 |
| TVSB | | | | *e*Sg | Sg | 20 02 59.6 | -0.2 |
| **KULA** | **Kula-Manisa** | **0.65** | **209** | *e*PG | Pg | 20 02 56.8 | +0.3 |
| KULA | | | | *e*SG | Sg | 20 03 05.2 | +0.3 |
| **KULA** | **Kula-Manisa** | **0.65** | **209** | *e*Pg | Pg | 20 02 56.9 | +0.3 |
| KULA | | | | *e*Sg | Sg | 20 03 05.2 | +0.3 |
| **MANT** | **Manisa** | **0.71** | **213** | *i* P | Pg | 20 02 57.6 | -0.1 |
| MANT | | | | *i* S | Sg | 20 03 07.0 | +0.1 |
| **MANT** | **Manisa** | **0.71** | **213** | P | Pg | 20 02 57.6 | -0.1 |
| MANT | | | | S | Sg | 20 03 07.0 | +0.1 |
| **KHAL** | **Karahalli** | **0.79** | **154** | *i* P | Pb | 20 02 59.8 | -0.4 |
| KHAL | | | | *i* S | Sb | 20 03 10.7 | -0.4 |
| **KHAL** | **Karahalli** | **0.79** | **154** | P | Pb | 20 02 59.8 | -0.4 |
| KHAL | | | | S | Sb | 20 03 10.7 | -0.4 |
| **AKHS** | **Akhisar** | **0.99** | **258** | *i* P | Pb | 20 03 03.4 | -0.1 |
| AKHS | | | | *i* S | Sb | 20 03 16.6 | -0.2 |
| **AKHS** | **Akhisar** | **0.99** | **258** | P | Pb | 20 03 03.4 | -0.1 |
| AKHS | | | | S | Sb | 20 03 16.6 | -0.2 |
| **BALB** | **Balikesir** | **1.07** | **302** | *e*PN | Pn | 20 03 05.0 | -0.5 |
| **BALB** | **Balikesir** | **1.07** | **302** | *e*Pn | Pn | 20 03 05.0 | -0.5 |
| **STEP** | **BALIKESIR_Sava** | **1.08** | **286** | *i* P | Pb | 20 03 04.8 | -0.2 |
| STEP | | | | *i* S | Sb | 20 03 19.6 | +0.2 |
| **STEP** | **BALIKESIR_Sava** | **1.08** | **286** | P | Pb | 20 03 04.8 | -0.2 |
| STEP | | | | S | Sb | 20 03 19.6 | +0.2 |
| **KZIL** | **AFYON_Kizioren** | **1.19** | **134** | *i* P | Pg | 20 03 06.7 | -0.1 |
| KZIL | | | | *i* S | Sn | 20 03 23.9 | +0.3 |
| **KZIL** | **AFYON_Kizioren** | **1.19** | **134** | P | Pg | 20 03 06.7 | -0.1 |
| KZIL | | | | S | Sn | 20 03 23.9 | +0.3 |
| **BALY** | **Balya** | **1.29** | **301** | *i* P | Pg | 20 03 08.7 | -0.1 |
| BALY | | | | *i* S | Sn | 20 03 26.8 | +0.7 |
| **BALY** | **Balya** | **1.29** | **301** | P | Pg | 20 03 08.7 | -0.1 |
| BALY | | | | S | Sn | 20 03 26.8 | +0.7 |
| **MDNY** | **Mudanya-Bursa** | **1.29** | **354** | *e*PN | Pn | 20 03 08.4 | -0.1 |
| **MDNY** | **Mudanya-Bursa** | **1.29** | **354** | *e*Pn | Pn | 20 03 08.4 | -0.1 |
| **KCTX** | **Karacabey (Bur** | **1.30** | **336** | *e*PN | Pn | 20 03 08.0 | -0.6 |
| **KCTX** | **Karacabey (Bur** | **1.30** | **336** | *e*Pn | Pn | 20 03 08.0 | -0.6 |
| **GONE** | **Gonen-Balikesi** | **1.43** | **313** | *e*PN | Pn | 20 03 10.4 | 0.0 |
| **GONE** | **Gonen-Balikesi** | **1.43** | **313** | *e*Pn | Pn | 20 03 10.4 | 0.0 |
| **ARMT** | **Armutlu** | **1.49** | **354** | *e*PN | Pn | 20 03 11.2 | -0.1 |
| **ARMT** | **Armutlu** | **1.49** | **354** | *e*Pn | Pn | 20 03 11.2 | -0.1 |
| **SBT5** | **Esenkoy-Cinarc** | **1.55** | **355** | *e*PN | Pb | 20 03 12.8 | -0.3 |
| **SBT5** | **Esenkoy-Cinarc** | **1.55** | **355** | *e*Pn | Pb | 20 03 12.8 | -0.3 |
| **EDC** | **Edincik** | **1.56** | **324** | *e*PN | Pn | 20 03 11.5 | -0.8 |
| **EDC** | **Edincik** | **1.56** | **324** | *e*Pn | Pn | 20 03 11.5 | -0.8 |
| **GULT** | **Gulveren** | **1.76** | **39** | *e*PN | Pn | 20 03 15.2 | +0.2 |
| **GULT** | **Gulveren** | **1.76** | **39** | *e*Pn | Pn | 20 03 15.2 | +0.2 |
| **SBT3** | **Marmara-Eregli** | **1.98** | **336** | *e*PN | Pn | 20 03 17.6 | -0.3 |
| **SBT3** | **Marmara-Eregli** | **1.98** | **336** | *e*Pn | Pn | 20 03 17.6 | -0.3 |
| **RKY** | **Sarkoy-Tekirda** | **2.16** | **319** | *e*PN | Pn | 20 03 20.0 | -0.5 |
| **RKY** | **Sarkoy-Tekirda** | **2.16** | **319** | *e*Pn | Pn | 20 03 20.0 | -0.5 |
| **CTKS** | **Kestanelik-??a** | **2.19** | **349** | *e*PN | Pn | 20 03 21.1 | +0.2 |
| **CTKS** | **Kestanelik-??a** | **2.19** | **349** | *e*Pn | Pn | 20 03 21.1 | +0.2 |

*ISK **13** 20:07:13.5,38°.95N×43°.59E,h5km,ML2.6*
*IASPEI **13** 20:07:14.8±0.8,38°.95N±0°.02×43°.56E±0°.02,h6km±5km, Error ellipse: s-maj=3.5km s-min=3.1km az=134.9,GT5 selection from ISC bulletin GT5 identified by Bond¨ji and McLaughlin (2009) selection criteria Bond¨ji and McLaughlin, A new ground truth data set for seismic studies, Seism. Res. Let., 80, 465-472, 2009*
*CSEM **13** 20:07:14.9±0.2,38°.96N×43°.57E,h5km,ML3.4, Error ellipse: s-maj=4.7km s-min=3.4km az=101.0*
*DDA **13** 20:07:14.6,38°.95N×43°.59E,h9km,Ml3.4*
*ATA **13** 20:07:14.5±1.5,38°.98N×43°.56E,h10km±16km,ML3.3, MW3.4*

**ISC 13 20:07:14.7±0.9, 38°.93N±0°.02×43°.57E±0°.02, h5km±6km, n71, σ1°30/114, 1D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VMUR** | **Van-Muradiye** | **0.06** | **4** | *i* P | Pg | 20 07 16.1 | -0.2 |
| VMUR | | | | *i* S | Sg | 20 07 18.0 | +0.6 |
| **VMUR** | **Van-Muradiye** | **0.06** | **4** | P | Pg | 20 07 16.1 | -0.2 |
| VMUR | | | | S | Sg | 20 07 18.0 | +0.6 |
| **ERCV** | **ERCIS-VAN** | **0.20** | **296** | *e*PG | Pg | 20 07 18.2 | -0.4 |
| ERCV | | | | *e*SG | Sg | 20 07 22.1 | +0.9 |
| **ERCV** | **ERCIS-VAN** | **0.20** | **296** | *e*Pg | Pg | 20 07 18.2 | -0.4 |
| ERCV | | | | *e*Sg | Sg | 20 07 22.2 | +0.9 |
| **CLDR** | **Caldiran** | **0.34** | **52** | *e*PG | Pg | 20 07 21.0 | -0.4 |
| CLDR | | | | *e*SG | Sg | 20 07 27.0 | +0.9 |
| **CLDR** | **Caldiran** | **0.34** | **52** | *i* P | Pg | 20 07 20.9 | -0.6 |
| CLDR | | | | *i* S | Sb | 20 07 27.7 | -1.7 |
| **CLDR** | **Caldiran** | **0.34** | **52** | *e*Pg | Pg | 20 07 21.0 | -0.4 |
| CLDR | | | | *e*Sg | Sg | 20 07 27.0 | +0.9 |
| **VANB** | **Van** | **0.36** | **202** | *e*PG | Pb | 20 07 23.5 | -0.2 |
| **VANB** | **Van** | **0.36** | **202** | *e*Pg | Pb | 20 07 23.5 | -0.2 |
| **TVAN** | **Van** | **0.42** | **197** | *i* P | Pg | 20 07 23.0 | +0.1 |
| TVAN | | | | *i* S | Sb | 20 07 31.8 | +0.2 |
| **TVAN** | **Van** | **0.42** | **197** | P | Pg | 20 07 23.0 | +0.1 |
| TVAN | | | | S | Sb | 20 07 31.8 | +0.2 |
| **DYDN** | **Diyadin** | **0.62** | **9** | *e*P | Pg | 20 07 26.2 | -0.4 |
| DYDN | | | | *e*S | Sg | 20 07 35.3 | +0.7 |
| DYDN | | | | IAML | | 20 07 37.0 | |
| | comp=Z,63nm,0.3s | | | | | | |
| **DYDN** | **Diyadin** | **0.62** | **9** | *e*P | Pg | 20 07 26.2 | -0.4 |
| DYDN | | | | *e*S | Sb | 20 07 35.8 | -1.5 |
| DYDN | | | | IAML | | 20 07 37.0 | |
| | comp=Z,63nm,0.3s | | | | | | |
| **DYDN** | **Diyadin** | **0.62** | **9** | *i* P | Pg | 20 07 26.2 | -0.4 |
| DYDN | | | | *i* S | Sb | 20 07 35.8 | -1.5 |
| **DYDN** | **Diyadin** | **0.62** | **9** | P | Pg | 20 07 26.2 | -0.4 |
| DYDN | | | | S | Sb | 20 07 35.8 | -1.5 |
| **ADCV** | **BITLIS_Adilcev** | **0.67** | **260** | *i* P | Pg | 20 07 27.3 | -0.2 |
| ADCV | | | | *i* S | Sb | 20 07 38.1 | -0.6 |
| **ADCV** | **BITLIS_Adilcev** | **0.67** | **260** | P | Pg | 20 07 27.3 | -0.2 |
| ADCV | | | | S | Sb | 20 07 38.1 | -0.6 |
| **GEVA** | **Gevas** | **0.74** | **213** | *e*P | Pg | 20 07 28.8 | 0.0 |
| GEVA | | | | *i* Pg | Pg | 20 07 30.6 | -1.3 |
| **GEVA** | **Gevas** | **0.74** | **213** | *e*P | Pg | 20 07 28.5 | -0.3 |
| **GEVA** | **Gevas** | **0.74** | **213** | *i* P | Pg | 20 07 28.6 | -0.3 |
| GEVA | | | | *i* S | Sn | 20 07 41.6 | -2.0 |
| **GEVA** | **Gevas** | **0.74** | **213** | P | Pg | 20 07 28.6 | -0.3 |
| GEVA | | | | S | Sn | 20 07 41.7 | -2.0 |
| **TUTA** | **Tutak** | **0.75** | **309** | *e*P | Pg | 20 07 28.1 | -1.0 |
| TUTA | | | | *e*S | Sg | 20 07 39.2 | +0.4 |
| TUTA | | | | IAML | | 20 07 40.9 | |
| | comp=Z,188nm,0.2s | | | | | | |
| **TUTA** | **Tutak** | **0.75** | **309** | *e*P | Pg | 20 07 28.1 | -1.0 |
| TUTA | | | | *e*S | Sg | 20 07 39.0 | +0.1 |
| TUTA | | | | IAML | | 20 07 41.0 | |
| | comp=Z,188nm,0.2s | | | | | | |
| **TUTA** | **Tutak** | **0.75** | **309** | *i* P | Pg | 20 07 28.1 | -1.0 |
| TUTA | | | | *i* S | Sg | 20 07 39.2 | +0.4 |
| **TUTA** | **Tutak** | **0.75** | **309** | P | Pg | 20 07 28.1 | -1.0 |
| TUTA | | | | S | Sg | 20 07 39.2 | +0.4 |
| **AGRB** | **Hanur-Agry** | **0.78** | **325** | *e*PG | Pg | 20 07 29.8 | +0.1 |
| AGRB | | | | *e*SG | Sb | 20 07 41.6 | -0.4 |
| **AGRB** | **Hanur-Agry** | **0.78** | **325** | *e*Pg | Pg | 20 07 29.8 | +0.1 |
| AGRB | | | | *e*Sg | Sb | 20 07 41.6 | -0.4 |
| **BASK** | **Baskale_VAN** | **0.94** | **159** | *e*P | Pn | 20 07 33.9 | -0.9 |
| **BASK** | **Baskale_VAN** | **0.94** | **159** | *e*P | Pn | 20 07 34.5 | -0.4 |
| **TASB** | **TASBURUN-IGDIR** | **1.17** | **26** | *e*PN | Pg | 20 07 36.6 | -0.6 |
| TASB | | | | *e*SN | Sn | 20 07 54.0 | -0.3 |
| **TASB** | **TASBURUN-IGDIR** | **1.17** | **26** | *e*Pn | Pg | 20 07 36.6 | -0.6 |
| TASB | | | | *e*Sn | Sn | 20 07 54.0 | -0.3 |
| **EKAR** | **Karacoban** | **1.21** | **286** | *e*P | Pg | 20 07 37.6 | -0.3 |
| EKAR | | | | *e*S | Sn | 20 07 56.9 | +1.4 |
| **EKAR** | **Karacoban** | **1.21** | **286** | *e*P | Pg | 20 07 37.0 | -1.0 |
| **EKAR** | **Karacoban** | **1.21** | **286** | *i* P | Pg | 20 07 37.5 | -0.5 |
| EKAR | | | | *i* S | Sn | 20 07 57.7 | +2.2 |
| **EKAR** | **Karacoban** | **1.21** | **286** | P | Pg | 20 07 37.5 | -0.5 |
| **EATA** | **Eleskirt** | **1.25** | **318** | *e*P | Pg | 20 07 37.5 | -1.1 |
| EATA | | | | *e*S | Sn | 20 07 56.9 | +0.3 |
| EATA | | | | IAML | | 20 08 00.8 | |
| | comp=Z,8.7nm,0.5s | | | | | | |
| **EATA** | **Eleskirt** | **1.25** | **318** | *e*P | Pg | 20 07 37.7 | -0.9 |
| **EATA** | **Eleskirt** | **1.25** | **318** | *i* P | Pg | 20 07 37.5 | -1.1 |
| EATA | | | | *i* S | Sn | 20 07 56.7 | +0.2 |
| **EATA** | **Eleskirt** | **1.25** | **318** | P | Pg | 20 07 37.5 | -1.1 |
| EATA | | | | S | Sn | 20 07 56.7 | +0.2 |
| **HAKT** | **HAKKARI** | **1.38** | **175** | *i* P | Pb | 20 07 40.2 | -0.9 |
| HAKT | | | | *i* S | Sn | 20 08 02.0 | +2.5 |
| **HAKT** | **HAKKARI** | **1.38** | **175** | P | Pb | 20 07 40.2 | -0.9 |
| HAKT | | | | S | Sn | 20 08 02.0 | +2.5 |
| **DIGO** | **Kars** | **1.49** | **354** | *e*P | Pg | 20 07 43.0 | -0.2 |
| **DIGO** | **Kars** | **1.49** | **354** | *e*P | Pg | 20 07 43.0 | -0.2 |
| **DIGO** | **Kars** | **1.49** | **354** | *i* P | Pg | 20 07 42.7 | -0.3 |
| DIGO | | | | *i* S | Sg | 20 08 10.5 | +8.0 |
| **DIGO** | **Kars** | **1.49** | **354** | P | Pb | 20 07 42.7 | -0.3 |
| **SRTM** | **Siirt_Merkez** | **1.60** | **234** | *i* P | Pb | 20 07 44.2 | -0.6 |
| SRTM | | | | *i* S | Sg | 20 08 08.8 | +2.8 |
| **SRTM** | **Siirt_Merkez** | **1.60** | **234** | P | Pb | 20 07 44.2 | -0.6 |
| **VRTB** | **Varto-Mus** | **1.66** | **279** | *e*PN | Pb | 20 07 45.1 | -0.8 |
| **VRTB** | **Varto-Mus** | **1.66** | **279** | *e*Pn | Pb | 20 07 45.1 | -0.8 |
| **SIRT** | **Sirnak** | **1.68** | **212** | *e*PN | Pb | 20 07 45.8 | -0.4 |
| **SIRT** | **Sirnak** | **1.68** | **212** | *e*Pn | Pb | 20 07 45.8 | -0.4 |
| **CUKT** | **Cukurca** | **1.68** | **179** | *e*PN | Pb | 20 07 45.7 | -0.6 |
| **CUKT** | **Cukurca** | **1.68** | **179** | *e*Pn | Pb | 20 07 45.7 | -0.6 |
| **HOMI** | **Horasan** | **1.70** | **311** | *e*P | Pb | 20 07 45.8 | -0.8 |
| HOMI | | | | IAML | | 20 08 08.2 | |
| | comp=Z,9.6nm,0.5s | | | | | | |
| HOMI | | | | *e*S | Sg | 20 08 10.8 | +1.5 |
| **HOMI** | **Horasan** | **1.70** | **311** | *e*P | Pb | 20 07 46.0 | -0.5 |
| HOMI | | | | IAML | | 20 08 08.2 | |
| | comp=Z,9.4nm,0.5s | | | | | | |
| HOMI | | | | *e*S | Sg | 20 08 11.7 | +2.4 |
| **HOMI** | **Horasan** | **1.70** | **311** | *i* P | Pb | 20 07 46.6 | 0.0 |
| HOMI | | | | *i* S | Sg | 20 08 12.3 | +3.0 |
| **KARS** | **Kars** | **1.73** | **348** | *e*PN | Pn | 20 07 45.9 | +0.2 |
| **KARS** | **Kars** | **1.73** | **348** | *e*Pn | Pn | 20 07 45.9 | +0.2 |
| **EAK** | **Akyaka** | **1.75** | **1** | *e*P | Pg | 20 07 48.6 | +0.3 |
| **EAK** | **Akyaka** | **1.75** | **1** | *e*P | Pg | 20 07 48.7 | +0.4 |
| EAK | | | | *e*S | Sg | 20 08 14.7 | +3.6 |
| **SENK** | **Senkaya-Erzuru** | **1.88** | **330** | *e*PN | Pb | 20 07 48.3 | -1.3 |
| **SENK** | **Senkaya-Erzuru** | **1.88** | **330** | *e*Pn | Pb | 20 07 48.3 | -1.3 |
| **BNGL** | **BINGOL** | **1.88** | **271** | *e*P | Pb | 20 07 49.8 | 0.0 |
| BNGL | | | | *e*S | Sg | 20 08 17.6 | +2.3 |
| BNGL | | | | IAML | | 20 08 22.1 | |
| | comp=Z,53nm,0.5s | | | | | | |
| **BNGL** | **BINGOL** | **1.88** | **271** | *e*P | Pb | 20 07 49.5 | -0.2 |
| **BNGL** | **BINGOL** | **1.88** | **271** | *i* P | Pb | 20 07 49.4 | -0.3 |
| BNGL | | | | *i* S | Sg | 20 08 17.6 | +2.3 |
| **ERZM** | **Erzurum** | **1.96** | **300** | *e*P | Pb | 20 07 50.3 | -0.8 |
| ERZM | | | | *e*S | Sg | 20 08 19.3 | +1.5 |
| **ERZM** | **Erzurum** | **1.96** | **300** | *e*P | Pb | 20 07 51.2 | +0.1 |
| **BTMN** | **Batman** | **2.08** | **241** | *i* P | Pb | 20 07 52.5 | -0.5 |
| BTMN | | | | *i* S | Sg | 20 08 20.6 | -1.0 |
| **BTMN** | **Batman** | **2.08** | **241** | P | Pb | 20 07 52.5 | -0.5 |
| **ECAT** | **Cat-ERZURUM** | **2.12** | **289** | *e*P | Pb | 20 07 52.8 | -1.0 |
| **ECAT** | **Cat-ERZURUM** | **2.12** | **289** | *e*P | Pb | 20 07 52.8 | -1.0 |

*ISCJB **13** 20:07:45.2±1.1,29°.26S±0°.05×68°.52W±0°.05, h116km±11km, Error ellipse: s-maj=9.2km s-min=7.1km az=149.8*
*GUC **13** 20:07:45.3±0.4,29°.38S×68°.51W,h110km±3km,ML3.2*
*SJA **13** 20:07:45.0±0.6,29°.28S×68°.54W,h114km±4km,ML3.2, MW3.6*

**ISC 13 20:07:45.8±1.7, 29°.26S±0°.06×68°.54W±0°.05, h111km±13km, n13, σ0°57/20, 4C-1D, San Juan Province**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **AGUA** | **GUACANDOL** | **0.23** | **169** | *i* P | Pn | 20 08 01.3 | -0.4 |
| **VCA** | **Vinchina** | **0.60** | **30** | *i* P | Pn | 20 08 03.8 | +0.1 |
| VCA | | | | *i* S | Sn | 20 08 18.1 | +1.0 |
| VCA | | | | IAML | | 20 08 20.0 | |
| | comp=Z,890nm,0.5s | | | | | | |
| **VCA** | **Vinchina** | **0.60** | **30** | ↑*i* P | Pn | 20 08 03.8 | +0.1 |
| VCA | | | | *e*S | Sn | 20 08 16.8 | -0.3 |
| VCA | | | | IAML | | 20 08 20.9 | |
| | comp=E,973nm,0.4s | | | | | | |
| **AMOG** | **MOGNA** | **1.67** | **179** | *i* P | Pn | 20 08 15.0 | 0.0 |
| AMOG | | | | *i* S | Sn | 20 08 37.0 | 0.0 |
| **LCO** | **Las Campanas** | **1.91** | **277** | ↑*i* P | Pn | 20 08 18.3 | +0.3 |
| LCO | | | | *e*S | Sn | 20 08 42.4 | 0.0 |
| LCO | | | | IAML | | 20 08 44.4 | |
| | comp=E,302nm,0.3s | | | | | | |
| **RTLL** | **Cerro Villicun** | **2.06** | **178** | ↑*i* P | Pn | 20 08 20.3 | +0.5 |
| RTLL | | | | *e*S | Sn | 20 08 45.7 | 0.0 |
| **TLL** | **Tololo Astrono** | **2.17** | **245** | *e*P | Pn | 20 

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **GO05** | **HualaæØ** | **1.22** | **75** | *e*Pn | | **Pn** | **20 26 19.9** | **-1.1** |
| GO05 | | | | *e*Sn | | **Sn** | **20 26 34.6** | **-1.7** |
| **GO05** | **HualaæØ** | **1.22** | **75** | *i*P | | **Pn** | **20 26 19.8** | **-1.1** |
| GO05 | | | | *i* S | | **Sn** | **20 26 34.5** | **-1.7** |
| GO05 | | | | IAML | | | 20 26 40.2 | |
| | comp=N,4µm,0.2s | | | | | | | |
| **CHPI** | **Pichilemu** | **1.46** | **51** | *e*P | | **Pn** | **20 26 23.1** | **-1.1** |
| **CCSP** | **San Pedro de C** | **1.53** | **172** | IAML | | | 20 26 49.6 | |
| | comp=N,3µm,0.3s | | | | | | | |
| **CCHI** | **Chillan** | **1.65** | **141** | *e*P | | **Pn** | **20 26 26.2** | **-0.7** |
| CCHI | | | | *i* S | | **Sn** | **20 26 45.7** | **-1.1** |
| CCHI | | | | IAML | | | 20 27 00.0 | |
| | comp=E,4µm,1.1s | | | | | | | |
| **NICH** | **Los Niches** | **1.78** | **80** | *e*P | | **Pn** | **20 26 30.3** | **+1.7** |
| NICH | | | | *i* S | | **Sn** | **20 26 51.4** | **+1.4** |
| **ANTU** | **Antumapu** | **2.86** | **53** | IAML | | | 20 27 35.6 | |
| | comp=E,1µm,0.3s | | | | | | | |
| **LMEL** | **Las Melosas** | **3.00** | **61** | IAML | | | 20 27 34.6 | |
| | comp=N,802nm,0.5s | | | | | | | |
| **CLCH** | **Cerro Calan** | **3.03** | **51** | ⇓ *i*P | | **Pn** | **20 26 46.6** | **+0.6** |
| CLCH | | | | IAML | | | 20 27 44.3 | |
| | comp=N,1µm,1.3s | | | | | | | |
| **ROC1** | **El Roble** | **3.05** | **40** | *e*Pn | | **Pn** | **20 26 46.8** | **+0.4** |
| ROC1 | | | | *e*Lg | | Lg | 20 27 38.5 | |
| **ROC1** | **El Roble** | **3.05** | **40** | *i* P | | **Pn** | **20 26 47.1** | **+0.8** |
| ROC1 | | | | *i* S | | Sn | 20 27 41.7 | +20 |
| **ROCH** | **El Roble** | **3.05** | **40** | *e*P | | **Pn** | **20 26 47.1** | **+0.7** |
| ROCH | | | | IAML | | | 20 27 50.0 | |
| | comp=N,653nm,0.4s | | | | | | | |
| **PEL** | **Peldehue** | **3.11** | **46** | *e*Pn | | **Pn** | **20 26 47.9** | **+0.9** |
| PEL | | | | *e*Lg | | Lg | 20 27 39.6 | |
| **PEL** | **Peldehue** | **3.11** | **46** | ⇓ *i*P | | **Pn** | **20 26 47.8** | **+0.8** |
| PEL | | | | IAML | | | 20 27 43.5 | |
| | comp=N,653nm,0.8s | | | | | | | |
| **TMU** | **Temuco** | **3.46** | **170** | ⇓ *i*P | | **Pn** | **20 26 52.0** | **+0.3** |
| TMU | | | | IAML | | | 20 27 58.1 | |
| | comp=E,591nm,0.9s | | | | | | | |
| **AUSP** | **Uspallata** | **4.53** | **48** | *i* P | | **Pn** | **20 27 08.9** | **+2.1** |
| **RTLS** | **Leoncito** | **4.89** | **45** | *i* P | | **Pn** | **20 27 13.5** | **+1.8** |
| RTLS | | | | IAML | | | 20 28 48.2 | |
| | comp=Z,42nm,0.6s | | | | | | | |
| **RTCV** | **Cerro Valdivia** | **5.30** | **51** | *i* P | | **Pn** | **20 27 18.3** | **+1.1** |
| **PLCA** | **Paso Flores** | **5.84** | **158** | Pn | | **Pn** | **20 27 24.4** | **-0.1** |
| | comp=Z,0.7nm,0.3s,baz=360,slow=15,SNR=16 | | | | | | | |
| PLCA | | | | Sn | | **Sn** | **20 28 34.5** | **+4.2** |
| | comp=Z,0.6nm,0.3s,baz=95,slow=19,SNR=1.4 | | | | | | | |
| **PLCA** | **Paso Flores** | **5.84** | **158** | *e*Pn | | **Pn** | **20 27 25.5** | **+1.0** |
| PLCA | | | | *e*Sn | | **Sn** | **20 28 33.7** | **+3.5** |
| PLCA | | | | *e*Sg | | | 20 28 53.5 | |
| **ACAN** | **Cantantal** | **5.97** | **61** | *i* P | | **Pn** | **20 27 26.6** | **+0.2** |
| **AMOG** | **MOGNA** | **5.99** | **44** | *i* P | | **Pn** | **20 27 27.5** | **+1.0** |
| **LCO** | **Las Campanas** | **6.69** | **20** | *e*Pn | | **Pn** | **20 27 34.1** | **-2.3** |
| **AGUA** | **GUANDACOL** | **7.13** | **37** | *i* P | | **Pn** | **20 27 43.3** | **+0.9** |
| **TRQA** | **Tornquist** | **9.54** | **110** | *e*Pn | | **Pn** | **20 28 14.6** | **-0.6** |
| **CHRN** | **Cochrane** | **11.93** | **177** | *e*Pn | | **Pn** | **20 28 45.4** | **-2.5** |
| **PB01** | **IPOC Station P** | **14.63** | **14** | *e*Pn | | **Pn** | **20 29 25.1** | **+0.1** |
| **PB11** | **IPOC Station P** | **15.85** | **13** | *e*Pn | | **P** | **20 29 44.9** | **+0.5** |
| | comp=Z,13nm,0.9s | | | | | | | |
| **CPUP** | **Villa Florida** | **16.42** | **61** | *e*Pn | | **Pn** | **20 29 47.9** | **-0.2** |
| | comp=Z,31nm,2.0s | | | | | | | |
| **MNMC** | **Minye Minye** | **16.47** | **13** | *e*Pn | | **P** | **20 29 55.6** | **+4.1** |
| **LPAZ** | **La Paz** | **19.53** | **15** | *e*P | | **P** | **20 30 20.9** | **-4.6** |
| | comp=Z,3.7nm,0.8s | | | | | | | |
| **SIV** | **San Ignacio** | **22.18** | **33** | P | | **P** | **20 30 52.6** | **-0.9** |
| | comp=Z,2.0nm,0.5s,baz=222,slow=3.8,SNR=2.6 | | | | | | | |
| SIV | | | | LR | | LR | 20 39 21.7 | |
| | comp=Z,63nm,19.6s,baz=179,slow=36 | | | | | | | |
| **BDFB** | **Brasilia** | **29.98** | **56** | *e*P | | **P** | **20 32 05.6** | **-0.2** |
| | comp=Z,47nm,1.8s | | | | | | | |
| **PTGA** | **Pitinga** | **36.61** | **23** | P | | **P** | **20 33 03.5** | **+0.1** |
| | comp=Z,1.5nm,0.5s,baz=173,slow=15,SNR=2.8 | | | | | | | |
| **ROSC** | **El Rosal** | **39.96** | **359** | *e*P | | **P** | **20 33 29.4** | **-2.5** |
| | comp=Z,5.5nm,0.6s | | | | | | | |
| **SNAA** | **Sanae** | **50.78** | **157** | *e*P | | **P** | **20 34 59.0** | **+2.3** |
| | comp=Z,16nm,1.4s | | | | | | | |
| **TBVI** | **Tortola** | **54.09** | **10** | *e*P | | **P** | **20 35 21.6** | **0.0** |
| **LTX** | **Lajitas** | **70.37** | **332** | *e*P | | **P** | **20 37 09.8** | **-0.9** |
| **TXAR** | **Lajitas Array** | **70.37** | **332** | P | | **P** | **20 37 09.8** | **-0.9** |
| | comp=Z,0.1nm,0.5s,baz=164,slow=9.9,SNR=2.7 | | | | | | | |
| **BOSA** | **Boshof** | **80.46** | **118** | P | | **P** | **20 38 10.8** | **+2.1** |
| | comp=Z,2.1nm,0.9s,baz=222,slow=14,SNR=3.3 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **85.69** | **71** | P | | **P** | **20 38 37.7** | **+1.8** |
| | comp=Z,1.2nm,1.1s,baz=217,slow=6.9,SNR=3.5 | | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **85.69** | **71** | *e*P | | **P** | **20 38 37.7** | **+1.8** |

*ISCJB* ***13*** *20:30:07.8±1.5,5.1S±0.2×152.5E±0.3, h55km, mb3.7/8, MS3.0/1, Error ellipse: s-maj=48.7km s-min=10.2km az=37.5*

*IDC* ***13*** *20:30:08.6±5.7,5.16S×152.61E, h52km±48km, mb3.5/8, mb1 3.7/9, mb1mx3.4/40, mbtmp3.8/9, ML1.7/1, MS3.1/1, Ms1 3.1/1, ms1mx2.5/19, Error ellipse: s-maj=54.4km s-min=26.2km az=121.0*

**ISC 13 20:30:08.9±1.8,5.2S±0.3×152.6E±0.3, h55km, n11, σ0.55/11, mb3.8/8, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **PMG** | **Port Moresby** | **6.87** | **232** | P | | **Pn** | **20 31 47.6** | **+0.6** |
| | 0.9nm,0.3s,baz=35,slow=5.9,SNR=4.0 | | | | | | | |
| PMG | | | | S | | **Sn** | **20 33 03.3** | **-0.6** |
| | 2.4nm,0.3s,baz=338,slow=18,SNR=4.9 | | | | | | | |
| **WRA** | **Warramunga Arr** | **23.08** | **229** | P | | **P** | **20 35 09.4** | **-0.6** |
| | 0.7nm,0.5s,baz=52,slow=9.7,SNR=16 | | | | | | | |
| **ASAR** | **Alice Springs** | **25.77** | **223** | P | | **P** | **20 35 35.4** | **+0.7** |
| | 0.3nm,0.5s,baz=58,slow=9.3,SNR=8.9 | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **29.34** | **242** | P | | **P** | **20 36 06.1** | **-0.6** |
| | 1.0nm,0.4s,baz=59,slow=9.4,SNR=10.0 | | | | | | | |
| **DAV** | **Davao City (W)** | **29.59** | **294** | LR | | LR | 20 48 48.6 | |
| | comp=Z,34nm,18.0s,baz=336,slow=38 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **57.87** | **295** | P | | **P** | **20 39 55.9** | **+0.4** |
| | 0.6nm,0.7s,baz=111,slow=5.0,SNR=4.6 | | | | | | | |
| **PETK** | **Petropavlovsk-** | **58.20** | **4** | P | | **P** | **20 39 57.3** | **0.0** |
| | 4.4nm,1.1s,baz=160,slow=6.1,SNR=4.0 | | | | | | | |
| **MKAR** | **Makanchi Array** | **80.48** | **319** | P | | **P** | **20 42 15.3** | **+0.3** |
| | 0.1nm,0.4s,baz=100,slow=7.4,SNR=5.2 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **81.35** | **326** | P | | **P** | **20 42 19.0** | **-0.4** |
| | 0.6nm,0.6s,baz=121,slow=6.2,SNR=3.4 | | | | | | | |
| **ILAR** | **Eielson Array** | **82.55** | **22** | P | | **P** | **20 42 25.4** | **-0.2** |
| | 1.5nm,0.7s,baz=245,slow=5.9,SNR=4.7 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **150.25** | **287** | PKPbc | | **PKPbc** | **20 49 54.6** | **-0.3** |
| | 0.6nm,0.6s,baz=87,slow=2.6,SNR=6.5 | | | | | | | |

*IDC* ***13*** *20:36:18.9±1.1,55.20N×157.55W, h0km, mb4.1/17, mb1 4.2/19, mb1mx4.0/49, mbtmp4.1/19, ML3.7/2, MS3.5/9, Ms1 3.5/9, ms1mx3.2/46, Error ellipse: s-maj=30.3km s-min=14.7km az=176.0*

*ISCJB* ***13*** *20:36:19.2±1.2,55.21N±0.03×157.46W±0.04, h12km±7km, mb4.4/84, MS3.7/7, Error ellipse: s-maj=4.6km s-min=3.5km az=170.1*

*NEIC* ***13*** *20:36:22.0±1.0,55.15N×157.52W, h22km±8km, mb4.4/65, ML4.1(AEIC), Error ellipse: s-maj=4.3km s-min=2.6km az=176.0*

**ISC 13 20:36:22.4±1.0,55.12N±0.06×157.49W±0.04, h28km±6km, n194, σ1.9/69/200, mb4.4/84, MS3.7/7, Alaska Peninsula**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **CHGN** | **Chignik** | **1.30** | **336** | P | | **Pb** | **20 36 45.6** | **-0.5** |
| CHGN | | | | S | | **Sb** | **20 37 05.0** | **+2.7** |
| **VNHG** | **Veniaminof 1** | **1.46** | **320** | P | | **Pb** | **20 36 48.1** | **-0.8** |
| VNHG | | | | S | | **Sb** | **20 37 10.8** | **+3.8** |
| **VNWF** | **Veniaminof 8** | **1.57** | **312** | P | | **Pb** | **20 36 49.7** | **-1.1** |
| **SDPT** | **Sand Point** | **1.73** | **279** | P | | **Pn** | **20 36 50.1** | **-0.5** |
| SDPT | | | | S | | **Sn** | **20 37 13.1** | **+1.4** |
| **ANPK** | **Aniakchak Peak** | **1.76** | **348** | P | | **Pn** | **20 36 52.4** | **+1.2** |
| ANPK | | | | S | | **Sb** | **20 37 19.3** | **+3.5** |
| **ANNE** | **Aniakchak Nort** | **1.83** | **350** | P | | **Pn** | **20 36 53.2** | **+1.2** |
| **DOL** | **Dolgoi Island** | **2.51** | **272** | P | | **Pn** | **20 37 00.9** | **-0.5** |
| **PS4A** | **Pavlof South-4** | **2.51** | **277** | P | | **Pn** | **20 37 01.1** | **-0.3** |
| PS4A | | | | S | | **Sb** | **20 37 35.2** | **-2.1** |
| **PLK4** | **Peulik 4** | **2.59** | **14** | P | | **Pn** | **20 37 03.7** | **+1.1** |
| **PLK3** | **Peulik 3** | **2.66** | **14** | P | | **Pn** | **20 37 03.8** | **+0.3** |
| **DRIA** | **Deer Island** | **2.75** | **269** | P | | **Pn** | **20 37 03.7** | **-1.0** |
| **PLK5** | **Peulik 5** | **2.91** | **6** | P | | **Pn** | **20 37 07.3** | **+0.6** |
| **KELA** | **Mount Kelaz** | **3.46** | **15** | P | | **Pn** | **20 37 15.1** | **+0.5** |
| **ISLZ** | **Isanotski Laza** | **3.62** | **266** | P | | **Pn** | **20 37 16.2** | **-0.4** |
| **SSLN** | **Shishaldin Nor** | **3.77** | **268** | P | | **Pn** | **20 37 18.3** | **-0.3** |
| **KDAK** | **Kodiak Island** | **3.81** | **44** | Pn | | **Pn** | **20 37 17.9** | **-1.2** |
| | 2.7nm,0.3s,baz=183,slow=6.1,SNR=134 | | | | | | | |
| KDAK | | | | Sn | | **Sn** | **20 38 00.6** | **-2.4** |
| | 8.8nm,0.3s,baz=249,slow=9.3,SNR=4.6 | | | | | | | |
| **KDAK** | **Kodiak Island** | **3.81** | **44** | P | | **Pn** | **20 37 18.0** | **-1.2** |
| KDAK | | | | S | | **Sn** | **20 38 06.1** | **+3.1** |
| **KAPH** | **Katmai Pasha** | **3.89** | **25** | P | | **Pn** | **20 37 21.0** | **+0.7** |
| **WESN** | **West Dahl Nort** | **4.14** | **265** | P | | **Pn** | **20 37 23.5** | **-0.3** |
| **FOPK** | **Fourpeaked Vol** | **4.26** | **29** | P | | **Pn** | **20 37 25.7** | **+0.3** |
| **CDD** | **Cape Douglas** | **4.36** | **27** | P | | **Pn** | **20 37 27.2** | **+0.5** |
| **AKSA** | **Akutan Strait** | **4.87** | **262** | P | | **Pn** | **20 37 34.0** | **+0.2** |
| **AKUT** | **Akutan** | **4.92** | **262** | *e*Pn | | **Pn** | **20 37 30.9** | **-3.4** |
| **MTBL** | **Makushin Table** | **5.47** | **262** | P | | **Pn** | **20 37 41.5** | **-0.6** |
| **HOM** | **Homer** | **5.54** | **32** | *e*Pn | | **Pn** | **20 37 42.4** | **-0.4** |
| **MSW** | **Makushin Switc** | **5.55** | **261** | P | | **Pn** | **20 37 42.2** | **-0.9** |
| **CNPM** | **China Poot** | **5.56** | **35** | P | | **Pn** | **20 37 43.1** | **-0.2** |
| **BRLK** | **Bradley Lake** | **5.86** | **35** | P | | **Pn** | **20 37 46.4** | **-1.0** |
| **RED** | **Redoubt Volcan** | **5.88** | **23** | P | | **Pn** | **20 37 48.7** | **+1.0** |
| **RSO** | **Redoubt South** | **5.92** | **23** | *e*Pn | | **Pn** | **20 37 49.0** | **+0.6** |
| **RDWB** | **Redoubt West** | **5.93** | **23** | P | | **Pn** | **20 37 49.2** | **+0.8** |
| **SVW2** | **Sparrevohn** | **6.08** | **9** | *e*Pn | | **Pn** | **20 37 51.5** | **+1.1** |
| **SPU** | **Mount Spurr** | **6.72** | **23** | *e*Pn | | **Pn** | **20 37 59.7** | **+0.5** |
| **STLK** | **Strandline Lak** | **7.05** | **23** | P | | **Pn** | **20 38 04.3** | **+0.5** |
| **SUA** | **Susitna One** | **7.28** | **26** | P | | **Pn** | **20 38 07.2** | **+0.3** |
| **PMR** | **Palmer** | **7.83** | **31** | *e*Pn | | **Pn** | **20 38 11.9** | **-2.4** |
| **TTA** | **Tatalina** | **7.87** | **5** | *e*Pn | | **Pn** | **20 38 14.9** | **-0.1** |
| **KNK** | **Knik Glacier** | **7.90** | **33** | P | | **Pn** | **20 38 15.4** | **+0.1** |
| **GLI** | **Glacier Island** | **7.98** | **39** | P | | **Pn** | **20 38 16.2** | **-0.2** |
| **GHO** | **Glory Hole Cre** | **8.04** | **30** | P | | **Pn** | **20 38 17.6** | **+0.4** |
| **FID** | **Port Fidalgo** | **8.13** | **42** | P | | **Pn** | **20 38 17.4** | **-1.0** |
| **PPLA** | **Purkeypile** | **8.26** | **17** | *e*Pn | | **Pn** | **20 38 22.4** | **+2.0** |
| **JPK** | **Jack Peak** | **8.28** | **40** | P | | **Pn** | **20 38 20.4** | **-0.2** |
| **EYAK** | **Cordova Ski Ar** | **8.29** | **44** | P | | **Pn** | **20 38 20.4** | **-0.2** |
| **SGAM** | **Sherman Glacie** | **8.48** | **46** | P | | **Pn** | **20 38 23.2** | **-0.1** |
| **KAIM** | **Kayak Island** | **8.52** | **50** | P | | **Pn** | **20 38 23.9** | **+0.1** |
| **SCM** | **Sheep Creek Mo** | **8.57** | **34** | P | | **Pn** | **20 38 24.4** | **-0.2** |
| **DIV** | **Divide** | **8.63** | **41** | *e*Pn | | **Pn** | **20 38 25.2** | **-0.2** |
| DIV | | | | *e*Sn | | **Sn** | **20 39 55.0** | **-6.7** |
| **RAGM** | **Ragged Mountai** | **8.64** | **47** | *e*Pn | | **Pn** | **20 38 25.5** | **+0.1** |
| RAGM | | | | *e*Sn | | **Sn** | **20 39 55.6** | **-6.3** |
| **CAST** | **Castle Rocks** | **8.77** | **16** | *e*Pn | | **Pn** | **20 38 27.7** | **+0.5** |
| **HMT** | **Hamilton** | **8.79** | **48** | P | | **Pn** | **20 38 27.4** | **-0.2** |
| **KLU** | **Klutina** | **8.81** | **39** | *e*Pn | | **Pn** | **20 38 28.5** | **+0.6** |
| KLU | | | | *e*Sn | | **Sn** | **20 39 58.0** | **-8.2** |
| **BMRM** | **Bremner River** | **8.99** | **44** | *e*Pn | | **Pn** | **20 38 29.7** | **-0.6** |
| BMRM | | | | *e*Sn | | **Sn** | **20 40 03.4** | **-7.2** |
| **TRF** | **Thorofare Moun** | **9.12** | **21** | *e*Pn | | **Pn** | **20 38 31.8** | **-0.5** |
| TRF | | | | *e*Sn | | **Sn** | **20 40 13.7** | **-0.3** |
| **RND** | **Reindeer** | **9.40** | **24** | *e*Pn | | **Pn** | **20 38 35.9** | **-0.1** |
| **DHY** | **Denali Highway** | **9.51** | **29** | *e*Pn | | **Pn** | **20 38 36.2** | **-1.3** |
| **BPAW** | **Bear Paw Mtn.** | **9.59** | **17** | *e*Pn | | **Pn** | **20 38 38.0** | **-0.4** |
| **MCK** | **McKinley** | **9.66** | **23** | *e*Pn | | **Pn** | **20 38 38.9** | **-0.6** |
| **HARP** | **HAARP** | **9.70** | **36** | *e*Pn | | **Pn** | **20 38 40.5** | **+0.5** |
| **PAX** | **Paxson** | **10.00** | **33** | *e*Pn | | **Pn** | **20 38 44.5** | **+0.4** |
| **PCA** | **Pinnacle** | **10.49** | **55** | *e*Pn | | **Pn** | **20 38 51.3** | **+0.5** |
| **MLY** | **Manley** | **10.49** | **16** | *e*Pn | | **Pn** | **20 38 52.7** | **+2.0** |
| **MENT** | **Mentasta** | **10.55** | **36** | *e*Pn | | **Pn** | **20 38 53.3** | **+1.7** |
| **CCB** | **Clear Creek Bu** | **10.71** | **23** | *e*Pn | | **Pn** | **20 38 50.9** | **-2.7** |
| **HDA** | **Harding Lake** | **10.71** | **25** | *e*Pn | | **Pn** | **20 38 52.1** | **-1.6** |
| **MDM** | **Murphy Dome** | **10.88** | **21** | *e*Pn | | **Pn** | **20 38 53.7** | **-2.5** |
| **COLA** | **College** | **10.89** | **22** | *e*Pn | | **Pn** | **20 38 53.9** | **-2.3** |
| | 7.6nm,0.8s | | | | | | | |
| **ILAR** | **Eielson Array** | **11.02** | **24** | Pn | | **Pn** | **20 38 55.6** | **-2.5** |
| | 0.5nm,0.3s,baz=219,slow=13,SNR=23 | | | | | | | |
| ILAR | | | | | | **Sn** | **20 40 53.7** | **-6.5** |
| | 0.1nm,0.3s,baz=208,slow=25,SNR=2.7 | | | | | | | |
| ILAR | | | | LR | | LR | 20 44 04.9 | |
| | comp=Z,145nm,19.8s,baz=193,slow=42 | | | | | | | |
| **ILB** | **Eielson Array** | **11.02** | **24** | *e*Pn | | **Pn** | **20 38 54.6** | **-3.4** |
| **IL1** | **Eielson Array** | **11.02** | **24** | *e*Pn | | **Pn** | **20 38 55.7** | **-2.4** |
| **IMAR** | **Indian Mountai** | **11.05** | **8** | *e*Pn | | **Pn** | **20 38 58.5** | **+0.1** |
| **HYT** | **Haines Junctio** | **12.02** | **54** | *e*Pn | | **Pn** | **20 39 11.7** | **-0.1** |
| **EGAK** | **Eagle** | **12.63** | **33** | *e*Pn | | **Pn** | **20 39 20.1** | **+0.2** |
| **COLD** | **Coldfoot** | **12.63** | **13** | *e*Pn | | **Pn** | **20 39 19.6** | **-0.4** |
| **DAWY** | **Dawson** | **12.77** | **38** | *e*Pn | | **Pn** | **20 39 21.0** | **-0.9** |
| **BESE** | **Bessie Mountai** | **12.84** | **65** | *e*Pn | | **Pn** | **20 39 23.3** | **+0.4** |
| **WHY** | **Whitehorse** | **13.20** | **56** | *e*Pn | | **Pn** | **20 39 28.6** | **+0.7** |
| **DLBC** | **Dease Lake** | **15.36** | **66** | *e*Pn | | **Pn** | **20 39 58.9** | **+1.8** |
| | 29nm,1.5s | | | | | | | |
| **INK** | **Inuvik** | **17.25** | **31** | P | | **Pn** | **20 40 18.9** | **-1.9** |
| | 0.3nm,0.3s,baz=232,slow=14,SNR=8.8 | | | | | | | |
| INK | | | | LR | | LR | 20 47 42.6 | |
| | comp=Z,154nm,21.6s,baz=213,slow=40 | | | | | | | |
| **INK** | **Inuvik** | **17.25** | **31** | *e*Pn | | **Pn** | **20 40 19.0** | **-1.9** |
| | 10nm,0.8s | | | | | | | |
| INK | | | | *e*Sn | | **Sn** | **20 43 28.9** | **-2.7** |
| **BBB** | **Bella Bella** | **17.59** | **87** | LR | | LR | 20 45 33.2 | |
| | comp=Z,274nm,18.1s,baz=289,slow=31 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **23.01** | **54** | P | | **P** | **20 41 25.0** | **+0.3** |
| | 1.1nm,0.7s,baz=276,slow=10,SNR=4.7 | | | | | | | |
| **D05A** | **Enumclaw** | **23.42** | **95** | *e*P | | **P** | **20 41 32.1** | **+3.1** |
| | 35nm,1.4s | | | | | | | |
| **LON** | **Longmire** | **23.77** | **96** | *e*P | | **P** | **20 41 33.8** | **+1.4** |
| | 20nm,1.9s | | | | | | | |
| **H04A** | **Detroit Lake** | **24.76** | **100** | *e*P | | **P** | **20 41 41.7** | **+0.3** |
| | 17nm,1.3s | | | | | | | |
| **C09A** | **Chrisman Ranch** | **25.23** | **90** | *e*P | | **P** | **20 41 46.0** | **+0.3** |
| | 19nm,1.5s | | | | | | | |
| **HAWA** | **Hanford** | **25.27** | **94** | *e*P | | **P** | **20 41 47.4** | **+1.4** |
| | 9.3nm,1.0s | | | | | | | |
| **F07A** | **Phinny Hill Vi** | **25.33** | **96** | *e*P | | **P** | **20 41 47.7** | **+1.2** |
| | 64nm,2.0s | | | | | | | |
| **NEW** | **Newport** | **25.65** | **89** | *e*P | | **P** | **20 41 50.5** | **+0.9** |
| | 5.7nm,1.1s | | | | | | | |
| **E09A** | **Wood Farm, Sta** | **26.00** | **93** | *e*P | | **P** | **20 41 53.4** | **+0.7** |
| | 6.5nm,1.0s | | | | | | | |
| **PETK** | **Petropavlovsk-** | **26.01** | **284** | P | | **P** | **20 41 52.4** | **-0.3** |
| | 10nm,0.8s,baz=77,slow=14,SNR=9.8 | | | | | | | |
| PETK | | | | LR | | LR | 20 52 22.4 | |
| | comp=Z,38nm,20.4s,baz=77,slow=37 | | | | | | | |
| **G08A** | **Pilot Rock** | **26.23** | **96** | *e*P | | **P** | **20 41 55.8** | **+0.9** |
| | 7.1nm,1.3s | | | | | | | |
| **JCC** | **Jacoby Creek,** | **26.27** | **109** | *e*P | | **P** | **20 41 59.0** | **+3.9** |
| **SEY** | **Seymchan** | **26.32** | **308** | P | | **P** | **20 41 54.7** | **-0.7** |
| | 2.5nm,0.7s,baz=114,slow=7.3,SNR=5.2 | | | | | | | |
| **MOD** | **Modoc Plateau** | **27.59** | **103** | *e*P | | **P** | **20 42 08.5** | **+1.4** |
| | 3.3nm,0.9s | | | | | | | |
| **J08A** | **Circle Bar Ran** | **27.68** | **99** | *e*P | | **P** | **20 42 09.1** | **+1.1** |
| | 25nm,2.0s | | | | | | | |
| **WVOR** | **Wild Horse Val** | **28.18** | **100** | *e*P | | **P** | **20 42 13.5** | **+1.1** |
| | 10.0nm,1.6s | | | | | | | |
| **MSO** | **Missoula** | **28.24** | **89** | *e*P | | **P** | **20 42 12.5** | **-0.4** |
| | 14nm,1.9s | | | | | | | |
| **BEKR** | **Beckworth** | **28.94** | **106** | *e*P | | **P** | **20 42 21.5** | **+2.3** |
| | 4.4nm,0.9s | | | | | | | |
| **MFID** | **Camas Ranch** | **29.15** | **96** | *e*P | | **P** | **20 42 21.8** | **+0.7** |
| | 19nm,1.9s | | | | | | | |
| **PAHR** | **Pah Rah Range** | **29.59** | **105** | *e*P | | **P** | **20 42 25.0** | **0.0** |
| | 3.9nm,1.1s | | | | | | | |
| **HLID** | **Hailey** | **29.87** | **95** | *e*P | | **P** | **20 42 29.1** | **+1.6** |
| | 5.1nm,1.3s | | | | | | | |
| **PNTR** | **Pine Nut** | **29.90** | **107** | *e*P | | **P** | **20 42 29.1** | **+1.3** |
| | 7.5nm,1.1s | | | | | | | |
| **YERR** | **Yerington** | **30.18** | **106** | *e*P | | **P** | **20 42 29.6** | **-0.6** |
| | 6.4nm,1.3s | | | | | | | |
| **YHB** | **Horse Butte** | **31.00** | **90** | *e*P | | **P** | **20 42 38.6** | **+1.1** |
| | 20nm,1.8s | | | | | | | |
| **NV01** | **Mina Array Sit** | **31.09** | **106** | *e*P | | **P** | **20 42 39.2** | **+0.9** |
| **NV11** | **Mina Array Sit** | **31.17** | **106** | *e*P | | **P** | **20 42 40.0** | **+1.1** |
| | 0.3nm,1.3s | | | | | | | |
| **YHH** | **Holmes Hill** | **31.18** | **90** | *e*P | | **P** | **20 42 39.9** | **+0.8** |
| | 3.3nm,1.0s | | | | | | | |
| **MDPB** | **Devils Postpil** | **31.23** | **108** | *e*P | | **P** | **20 42 40.9** | **+1.2** |
| | 4.6nm,1.0s | | | | | | | |
| **GCMT** | **Greycliff** | **31.27** | **87** | *e*P | | **P** | **20 42 41.7** | **+1.9** |
| **HVU** | **Hansel Valley** | **31.93** | **96** | *e*P | | **P** | **20 42 46.8** | **+1.2** |
| | 5.6nm,1.0s | | | | | | | |
| **PAGB** | **Antelope Grade** | **32.00** | **112** | *e*P | | **P** | **20 42 48.0** | **+1.8** |
| | 31nm,1.6s | | | | | | | |
| **LOHW** | **Long Hollow** | **32.03** | **91** | *e*P | | **P** | **20 42 44.3** | **-2.3** |
| | 134nm,1.4s | | | | | | | |
| **BGU** | **Big Grassy Mou** | **32.34** | **97** | *e*P | | **P** | **20 42 50.4** | **+1.1** |
| | 6.0nm,1.4s | | | | | | | |
| **SPUT** | **South Promonto** | **32.42** | **96** | *e*P | | **P** | **20 42 50.4** | **+0.4** |
| | 4.9nm,1.3s | | | | | | | |
| **R11A** | **Troy Canyon, C** | **32.65** | **103** | *e*P | | **P** | **20 42 53.2** | **+1.2** |
| | 1.8nm,0.9s | | | | | | | |
| **DUG** | **Dugway, Tooele** | **32.95** | **98** | *e*P | | **P** | **20 42 55.2** | **+0.7** |
| | 5.5nm,1.0s | | | | | | | |
| **TCUT** | **Toone Canyon** | **33.14** | **96** | *e*P | | **P** | **20 42 56.6** | **+0.3** |
| | 18nm,1.6s | | | | | | | |
| **TPNV** | **Topopah Spring** | **33.28** | **106** | *e*P | | **P** | **20 42 58.4** | **+0.9** |
| | 5.6nm,0.8s | | | | | | | |
| **JLU** | **Jordanelle** | **33.46** | **96** | *e*P | | **P** | **20 43 00.2** | **+1.1** |
| | 2.2nm,0.8s | | | | | | | |
| **NLU** | **North Lily Min** | **33.53** | **98** | *e*P | | **P** | **20 43 00.7** | **+1.0** |
| | 2.5nm,0.9s | | | | | | | |
| **TIXI** | **Tiksi** | **34.15** | **327** | P | | **P** | **20 43 03.8** | **-0.6** |
| | 2.9nm,0.8s,baz=82,slow=9.0,SNR=5.5 | | | | | | | |
| **TIXI** | **Tiksi** | **34.15** | **327** | *e*P | | **P** | **20 43 04.3** | **-0.1** |
| | 4.6nm,1.1s | | | | | | | |
| **CHFC** | **Chilao Flat St** | **34.25** | **111** | *e*P | | **P** | **20 43 02.6** | **-3.3** |
| **SNCC** | **San Nicolas Is** | **34.29** | **114** | *e*P | | **P** | **20 43 06.0** | **-0.1** |
| | 195nm,1.4s | | | | | | | |
| **MSU** | **Marysvale** | **34.46** | **100** | *e*P | | **P** | **20 43 09.0** | **+1.2** |
| **CCUT** | **Cedar City** | **34.46** | **102** | *e*P | | **P** | **20 43 08.8** | **+1.0** |
| | 2.3nm,0.9s | | | | | | | |
| **Q16A** | **Castle Valley** | **34.75** | **98** | *e*P | | **P** | **20 43 11.1** | **+0.8** |
| | 4.3nm,0.9s | | | | | | | |
| **MTPU** | **Mount Pierson** | **34.78** | **100** | *e*P | | **P** | **20 43 12.1** | **+1.3** |
| | 5.5nm,1.5s | | | | | | | |
| **P18A** | **Preston Nutter** | **34.80** | **96** | *e*P | | **P** | **20 43 11.9** | **+1.1** |
| | 6.7nm,1.2s | | | | | | | |
| **SRU** | **San Rafael Swe** | **34.99** | **97** | *e*P | | **P** | **20 43 13.3** | **+1.0** |
| | 6.8nm,0.9s | | | | | | | |
| **RWWY** | **Rawlins** | **35.18** | **91** | *e*P | | **P** | **20 43 13.0** | **-1.0** |
| | 8.0nm,1.0s | | | | | | | |
| **LDFC** | **Landfair** | **35.28** | **107** | *e*P | | **P** | **20 43 15.1** | **+0.3** |
| | 8.8nm,0.6s | | | | | | | |
| **RSSD** | **Black Hills** | **35.49** | **85** | *e*P | | **P** | **20 43 16.9** | **+0.3** |
| | 3.7nm,0.7s | | | | | | | |
| **O20A** | **White River Ci** | **35.60** | **94** | *e*P | | **P** | **20 43 17.9** | **+0.3** |
| | 13nm,1.0s | | | | | | | |
| **PFO** | **Pinyon Flats O** | **35.64** | **110** | *e*P | | **P** | **20 43 19.1** | **+1.2** |
| | 13nm,1.4s | | | | | | | |
| **XPFO** | **Piæon Flat** | **35.65** | **110** | *e*P | | **P** | **20 43 19.4** | **+1.4** |
| | 14nm,1.4s | | | | | | | |
| **U15A** | **North Rim** | **35.86** | **102** | *e*P | | **P** | **20 43 19.1** | **-0.8** |
| | 15nm,1.9s | | | | | | | |
| **W13A** | **Hualapai Mount** | **35.94** | **106** | *e*P | | **P** | **20 43 21.5** | **+1.0** |
| | 4.4nm,1.1s | | | | | | | |
| **ULM** | **Lac du Bonnet** | **36.59** | **71** | P | | **P** | **20 43 25.6** | **-0.1** |
| | 0.8nm,0.3s,baz=311,slow=11,SNR=3.2 | | | | | | | |
| **WUAZ** | **Wupatki** | **37.03** | **103** | *e*P | | **P** | **20 43 30.9** | **+1.0** |
| | 4.9nm,1.0s | | | | | | | |
| **Y14A** | **Wickenburg** | **37.28** | **106** | *e*P | | **P** | **20 43 32.4** | **+0.5** |
| | 25nm,1.1s | | | | | | | |
| **X16A** | **Lo Mia Camp, P** | **37.80** | **104** | *e*P | | **P** | **20

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **RUSC** | **La Rusia** | **0.88** | **175** | *e*P | Pn | 20 48 38.5 | -0.4 |
| RUSC | | | | *e*S | Sn | 20 48 57.1 | +0.2 |
| RUSC | | | | *i* | | 20 48 58.3 | |
| | comp=Z,18nm,0.2s | | | | | | |
| **RUSC** | **La Rusia** | **0.88** | **175** | *e*P | Pn | 20 48 38.4 | -0.6 |
| | comp=Z,7.1nm,0.3s | | | | | | |
| **PTBC** | **PUERTO BERRIO,** | **1.31** | **260** | *e*P | Pn | 20 48 41.0 | -1.3 |
| PTBC | | | | *e*S | Sn | 20 49 02.3 | -0.6 |
| **NORC** | **Norcasia** | **2.08** | **235** | *e*P | Pn | 20 48 50.7 | -0.3 |
| NORC | | | | *e*S | Sn | 20 49 18.3 | -0.2 |
| **CHIC** | **Chingaza** | **2.20** | **195** | *e*P | Pn | 20 48 52.2 | -0.7 |
| CHIC | | | | *e*S | Sn | 20 49 21.0 | -0.6 |
| CHIC | | | | *i* | | 20 49 27.6 | |
| | comp=Z,7.5nm,0.2s | | | | | | |
| **HELC** | **Santa Helena** | **2.43** | **256** | *e*P | Pn | 20 48 54.9 | -0.6 |
| HELC | | | | *e*S | Sn | 20 49 25.7 | -0.6 |
| **GUYC** | **Guyana, Colomb** | **2.70** | **235** | *e*S | Sn | 20 49 32.8 | +0.1 |
| **PRAC** | **Prado** | **3.49** | **210** | *e*P | Pn | 20 49 08.7 | -0.1 |
| PRAC | | | | *e*S | Sn | 20 49 49.7 | -0.6 |

*ISK* ***13*** *20:58:11.7, 38.97N×42.69E, h5km, MD2.5*
*DDA* ***13*** *20:58:12.2, 38.95N×42.64E, h7km, Ml2.9*
*CSEM* ***13*** *20:58:12.3±0.4, 38.99N×42.62E, h2km, ML2.9, Error ellipse: s-maj=7.1km s-min=5.7km az=54.0*

**ISC 13 20:58:11.5±1.1, 39.02N±0.03×42.67E±0.04, h6km±10km, n20, σ0.68/37, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | | ISC | h m s | ISC |
| **ADCV** | **BITLIS_Adilcev** | **0.21** | **169** | *i* P | | **Pg** | **20 58 15.2** | **-0.6** |
| ADCV | | | | *i* S | | **Sg** | **20 58 19.0** | **+0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.21** | **169** | P | | **Pg** | **20 58 15.2** | **-0.6** |
| ADCV | | | | S | | **Sg** | **20 58 19.0** | **+0.3** |
| **TUTA** | **Tutak** | **0.40** | **16** | *i* P | | **Pb** | **20 58 20.7** | **-0.5** |
| TUTA | | | | *i* S | | **Sb** | **20 58 28.4** | **+0.8** |
| **TUTA** | **Tutak** | **0.40** | **16** | P | | **Pb** | **20 58 20.7** | **-0.5** |
| TUTA | | | | S | | **Sb** | **20 58 28.4** | **+0.8** |
| **EKAR** | **Karacoban** | **0.53** | **297** | *i* P | | **Pb** | **20 58 23.3** | **-0.1** |
| EKAR | | | | *i* S | | **Sn** | **20 58 34.2** | **-1.0** |
| **EKAR** | **Karacoban** | **0.53** | **297** | P | | **Pb** | **20 58 23.3** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **0.61** | **24** | *e*PG | | **Pb** | **20 58 24.7** | **0.0** |
| AGRB | | | | *e*SG | | **Sn** | **20 58 35.7** | **-1.5** |
| **AGRB** | **Hanur-Agry** | **0.61** | **24** | *e*Pg | | **Pb** | **20 58 24.7** | **0.0** |
| AGRB | | | | *e*Sg | | **Sn** | **20 58 35.7** | **-1.5** |
| **VANB** | **Van** | **0.70** | **127** | *e*PG | | **Pb** | **20 58 26.4** | **+0.2** |
| VANB | | | | *e*SG | | **Sn** | **20 58 37.8** | **-1.5** |
| **VANB** | **Van** | **0.70** | **127** | *e*Pg | | **Pb** | **20 58 26.4** | **+0.2** |
| VANB | | | | *e*Sg | | **Sn** | **20 58 37.8** | **-1.5** |
| **VMUR** | **Van-Muradiye** | **0.70** | **92** | *i* P | | **Pb** | **20 58 26.2** | **-0.1** |
| VMUR | | | | *i* S | | **Sb** | **20 58 37.1** | **+0.9** |
| **VMUR** | **Van-Muradiye** | **0.70** | **92** | P | | **Pb** | **20 58 26.2** | **-0.1** |
| VMUR | | | | S | | **Sb** | **20 58 37.1** | **+0.9** |
| **EATA** | **Eleskirt** | **0.85** | **351** | *i* P | | **Pg** | **20 58 27.8** | **-0.2** |
| EATA | | | | *i* S | | **Sn** | **20 58 43.8** | **+0.4** |
| **EATA** | **Eleskirt** | **0.85** | **351** | P | | **Pg** | **20 58 27.8** | **-0.2** |
| EATA | | | | S | | **Sn** | **20 58 43.8** | **+0.4** |
| **CLDR** | **Caldiran** | **0.98** | **82** | *e*PG | | **Pn** | **20 58 32.0** | **0.0** |
| CLDR | | | | *e*SG | | **Sn** | **20 58 45.9** | **-0.4** |
| **CLDR** | **Caldiran** | **0.98** | **82** | *i* P | | **Pn** | **20 58 32.2** | **+0.2** |
| CLDR | | | | *i* S | | **Sn** | **20 58 46.3** | **0.0** |
| **CLDR** | **Caldiran** | **0.98** | **82** | *e*Pg | | **Pn** | **20 58 32.0** | **0.0** |
| **CLDR** | **Caldiran** | **0.98** | **82** | P | | **Pn** | **20 58 32.2** | **+0.2** |
| CLDR | | | | *e*Sg | | **Sn** | **20 58 45.9** | **-0.4** |
| CLDR | | | | S | | **Sn** | **20 58 46.3** | **0.0** |
| **SIRT** | **Sirnak** | **1.53** | **187** | *e*PN | | **Pg** | **20 58 41.2** | **+0.4** |
| **SIRT** | **Sirnak** | **1.53** | **187** | *e*Pn | | **Pg** | **20 58 41.2** | **+0.4** |

*ISCJB* ***13*** *21:09:31.1±0.8, 29.55S±0.05×178.69W±0.07, h164km±8km, mb4.7/50, Error ellipse: s-maj=10.2km s-min=7.4km az=18.7*
*BJI* ***13*** *21:09:33.8, 29.50S×178.50W, h188km, mb5.0/23, mB5.2/20*
*MOS* ***13*** *21:09:34.5±1.9, 29.28S×178.67W, h188km, mb5.1/5, Error ellipse: s-maj=11.7km s-min=10.9km az=107.1*
*IDC* ***13*** *21:09:34.9±0.3, 29.20S×178.58W, h185km±3km, mb4.2/16, mb1 4.3/17, mb1mx4.2/28, mbtmp4.6/17, MS3.5/4, Ms1 3.5/4, ms1mx3.1/31, Error ellipse: s-maj=13.7km s-min=12.6km az=3.0*
*NEIC* ***13*** *21:09:34.7±0.7, 29.51S×178.57W, h188km±6km, mb4.8/29, Error ellipse: s-maj=8.8km s-min=6.5km az=120.0*
*GCMT* ***13*** *21:09:34.7±0.4, 29.20S×178.41W, h204km±3km, MW5.0/77, Moment Tensor Solution. s20,c22; s77,c99; Duration: 0 Moment tensor: Scale 10^16Nm; Mrr=0.80±.21; Mθθ 1.10±.23; Mφφ -0.29±.20; Mrθ -0.63±.19; Mθφ 2.50±. 17; Mφr~3.76±. 15; Best double couple: M=4.66300×10^16 NP1: φs 274.00000°, δ 84.00000°, λ -123.00000°. NP2: φs 274.00000°, δ 34.00000°, λ -11.00000°. Principal axes: T 4.7020, Plg31.0000°, Azm130.0000°; N -0.0760, Plg33.0000°, Azm17.0000°; P -4.6250, Plg41.0000°, Azm251.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

**ISC 13 21:09:35.2±0.5, 29.53S±0.04×178.61W±0.06, h190km±4km, n351, σ1s82/359, mb4.7/50, 20C-22D, Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **0.66** | **65** | P | | **Pn** | **21 10 00.9** | **-0.9** |
| | 2μm,0.3s,baz=270,slow=20,SNR=69 | | | | | | | |
| RAO | | | | S | | **Sn** | **21 10 21.4** | **-0.9** |
| | 1μm,0.3s,baz=253,slow=20,SNR=19 | | | | | | | |
| **RAO** | **Raoul Island** | **0.66** | **65** | *e*P | | **Pn** | **21 10 01.3** | **-0.5** |
| RAO | | | | *e*S | | **Sn** | **21 10 21.8** | **-0.5** |
| **RAO** | **Raoul Island** | **0.66** | **65** | *e*Pn | | **Pn** | **21 10 01.3** | **-0.5** |
| RAO | | | | *e*S | | **Sn** | **21 10 21.8** | **-0.5** |
| **MXZ** | **Matakaoa Point** | **8.41** | **197** | *e*Pn | | **Pn** | **21 11 36.3** | **+2.5** |
| **MXZ** | **Matakaoa Point** | **8.41** | **197** | PN | | **Pn** | **21 11 32.9** | **-0.8** |
| **WMGZ** | **Waiomatatini S** | **8.63** | **196** | PN | | **Pn** | **21 11 34.4** | **-2.2** |
| WMGZ | | | | SN | | **Sn** | **21 11 15.6** | **+2.3** |
| **OUZ** | **Omahuta** | **8.70** | **227** | *e*Pn | | **Pn** | **21 11 42.7** | **+5.2** |
| **HAZ** | **Te Kaha** | **8.74** | **199** | PN | | **Pn** | **21 11 36.6** | **-1.4** |
| **PKGZ** | **Pakihiroa** | **8.78** | **197** | *e*PN | | **Pn** | **21 11 36.1** | **-2.5** |
| **PUZ** | **Puketiti** | **8.91** | **196** | *e*PN | | **Pn** | **21 11 37.1** | **-3.2** |
| **RUGZ** | **Raukumara Rang** | **8.96** | **199** | *e*PN | | **Pn** | **21 11 38.7** | **-2.4** |
| **TWGZ** | **Tauwhareparae** | **9.08** | **197** | *e*PN | | **Pn** | **21 11 41.7** | **-0.8** |
| **CNGZ** | **Carnagh Statio** | **9.31** | **196** | *e*PN | | **Pn** | **21 11 42.5** | **-3.0** |
| **MWZ** | **Matawai** | **9.35** | **199** | *e*PN | | **Pn** | **21 11 42.7** | **-3.3** |
| **URZ** | **Urewera** | **9.40** | **201** | P | | **Pn** | **21 11 45.7** | **-1.0** |
| | 3.4nm,0.3s,baz=205,slow=2.3,SNR=17 | | | | | | | |
| URZ | | | | S | | **Sn** | **21 13 32.4** | **+0.7** |
| | 37nm,0.3s,baz=0.0,slow=20,SNR=10 | | | | | | | |
| **URZ** | **Urewera** | **9.40** | **201** | *e*PN | | **Pn** | **21 11 43.5** | **-3.2** |
| **RIGZ** | **Rimuhau** | **9.63** | **197** | *e*PN | | **Pn** | **21 11 48.9** | **-0.9** |
| **MUGZ** | **Murupara** | **9.71** | **202** | *e*PN | | **Pn** | **21 11 47.2** | **-3.5** |
| **KNZ** | **Kokohu** | **9.95** | **197** | *e*PN | | **Pn** | **21 11 50.6** | **-3.2** |
| **NMHZ** | **Naumai** | **10.27** | **200** | *e*PN | | **Pn** | **21 11 54.2** | **-3.8** |
| **BKZ** | **Black Stump Fm** | **10.43** | **202** | *e*Pn | | **Pn** | **21 11 58.1** | **-2.0** |
| **HIZ** | **Hauiti** | **10.47** | **209** | *e*Pn | | **Pn** | **21 12 03.5** | **+2.9** |
| **KWHZ** | **Kaweka Forest** | **10.69** | **201** | *e*PN | | **Pn** | **21 12 00.6** | **-2.8** |
| **OTVZ** | **Oturere** | **10.71** | **205** | *e*PN | | **Pn** | **21 12 00.9** | **-2.9** |
| **BHHZ** | **Black Hill Sta** | **10.86** | **202** | *e*PN | | **Pn** | **21 12 03.4** | **-2.3** |
| **WNVZ** | **Wahianoa** | **10.88** | **205** | *e*PN | | **Pn** | **21 12 03.1** | **-2.9** |
| **KAHZ** | **Kahuranaki** | **10.89** | **199** | *e*PN | | **Pn** | **21 12 01.5** | **-4.5** |
| **MOVZ** | **Moawhango** | **10.89** | **204** | PN | | **Pn** | **21 12 05.5** | **-0.7** |
| **KRHZ** | **Kereru** | **10.90** | **201** | *e*PN | | **Pn** | **21 12 01.7** | **-4.5** |
| **PNHZ** | **Pukenui** | **11.20** | **201** | *e*PN | | **Pn** | **21 12 05.4** | **-4.6** |
| **PRHZ** | **Porangahau** | **11.40** | **199** | *e*PN | | **Pn** | **21 12 07.9** | **-4.7** |
| **TSZ** | **Takapari Road** | **11.41** | **202** | *e*PN | | **Pn** | **21 12 08.4** | **-4.3** |
| **DVHZ** | **Dannevirke** | **11.56** | **200** | PN | | **Pn** | **21 12 10.8** | **-3.9** |
| **POWZ** | **Post Office Ro** | **11.77** | **202** | *e*PN | | **Pn** | **21 12 15.5** | **-1.9** |
| **BFZ** | **Birch Farm** | **11.89** | **199** | *e*Pn | | **Pn** | **21 12 16.0** | **-2.8** |
| BFZ | | | | *e*Sn | | **Sn** | **21 14 28.1** | **-3.1** |
| **BFZ** | **Birch Farm** | **11.89** | **199** | *e*PN | | Pn | 21 12 13.3 | -5.6 |
| **TIWZ** | **Tintock** | **12.09** | **200** | *e*PN | | **Pn** | **21 12 17.0** | **-4.4** |
| **CPWZ** | **Castlepoint** | **12.12** | **199** | PN | | **Pn** | **21 12 19.6** | **-2.1** |
| **MSVF** | **Nonsavu** | **12.13** | **345** | *e*P | | **Pn** | **21 12 20.0** | **-2.3** |
| **MSVF** | **Nonsavu** | **12.13** | **345** | *e*Pn | | **Pn** | **21 12 19.9** | **-2.3** |
| **HOWZ** | **Holdsworth Sta** | **12.31** | **201** | *e*PN | | Pn | 21 12 19.2 | -5.0 |
| **OGWZ** | **Otaki Gorge** | **12.35** | **203** | *e*PN | | Pn | 21 12 17.8 | -6.9 |
| **KIW** | **Kapiti Island** | **12.48** | **203** | *e*PN | | Pn | 21 12 21.2 | -5.1 |
| **MTW** | **Mount Morrison** | **12.55** | **201** | *e*PN | | Pn | 21 12 22.4 | -4.9 |
| **TRWZ** | **Traveller** | **12.72** | **200** | *e*PN | | Pn | 21 12 24.3 | -5.1 |
| **PAWZ** | **Paruwai Farm** | **12.78** | **201** | *e*PN | | **Pn** | **21 12 25.8** | **-4.4** |
| **DUWZ** | **D'Urville Isla** | **12.79** | **206** | *e*PN | | **Pn** | **21 12 25.6** | **-4.7** |
| **MSWZ** | **Moikau Station** | **12.87** | **201** | *e*PN | | **Pn** | **21 12 27.0** | **-4.2** |
| **SNZO** | **South Karori** | **12.95** | **203** | *e*Pn | | **Pn** | **21 12 30.2** | **-2.0** |
| SNZO | | | | *e*S | | Sn | 21 14 46.4 | -10 |
| **BHW** | **Baring Head** | **12.98** | **202** | *e*PN | | Pn | 21 12 27.2 | -5.5 |
| **PLWZ** | **Palliser** | **13.01** | **201** | *e*PN | | **Pn** | **21 12 29.8** | **-3.2** |
| **TCW** | **Tory Channel** | **13.01** | **205** | *e*PN | | **Pn** | **21 12 28.8** | **-4.2** |
| **TUWZ** | **Tuamarina** | **13.33** | **205** | *e*PN | | Pn | 21 12 31.9 | -5.0 |
| **NNZ** | **Nelson** | **13.36** | **207** | *e*PN | | **Pn** | **21 12 34.3** | **-3.1** |
| **BSWZ** | **Blackbirch Sta** | **13.60** | **205** | PN | | **Pn** | **21 12 37.4** | **-3.0** |
| **THZ** | **Tophouse** | **14.01** | **207** | *e*Pn | | **Pn** | **21 12 45.2** | **-0.3** |
| **THZ** | **Tophouse** | **14.01** | **207** | *e*PN | | **Pn** | **21 12 41.3** | **-4.3** |
| **CTZ** | **Chatham Island** | **14.27** | **174** | *e*PN | | **P** | **21 12 53.6** | **+3.2** |
| **KHZ** | **Kahutara** | **14.34** | **204** | *e*Pn | | **Pn** | **21 12 48.1** | **-1.4** |
| **KHZ** | **Kahutara** | **14.34** | **204** | *e*PN | | Pn | 21 12 44.2 | -5.3 |
| **LTZ** | **Lake Taylor** | **15.12** | **207** | *e*Pn | | **Pn** | **21 12 58.4** | **-0.9** |
| | 52nm,1.2s | | | | | | | |
| **DZM** | **Mont Dzumac** | **15.37** | **295** | P | | **P** | **21 13 04.5** | **+1.5** |
| | 0.6nm,0.3s,baz=109,slow=15,SNR=15 | | | | | | | |
| **DZM** | **Mont Dzumac** | **15.37** | **295** | *e*P | | **P** | **21 13 05.8** | **+2.8** |
| | 173nm,1.2s | | | | | | | |
| **DZM** | **Mont Dzumac** | **15.37** | **295** | *e*Pn | | **P** | **21 13 05.0** | **+2.1** |
| **INZ** | **Inchbonnie** | **15.41** | **209** | *e*PN | | **Pn** | **21 12 59.6** | **-3.1** |
| **OXZ** | **Oxford** | **15.68** | **206** | *e*P | | **Pn** | **21 13 03.7** | **-2.2** |
| | 64nm,1.1s | | | | | | | |
| **MQZ** | **McQueen's Vall** | **15.78** | **204** | *e*PN | | **Pn** | **21 13 01.8** | **-5.3** |
| **RPZ** | **Rata Peaks** | **16.39** | **207** | P | | **P** | **21 13 12.1** | **-1.9** |
| | 4.4nm,0.3s,baz=103,slow=2.1,SNR=13 | | | | | | | |
| RPZ | | | | S | | **S** | **21 16 04.8** | **-11** |
| | 6.0nm,0.3s,baz=51,slow=18,SNR=16 | | | | | | | |
| **RPZ** | **Rata Peaks** | **16.39** | **207** | *e*PN | | **P** | **21 13 09.5** | **-4.5** |
| **AFI** | **Afiamalu** | **16.78** | **24** | P | | P | 21 13 10.8 | -7.7 |
| | 2.4nm,0.3s,baz=288,slow=20,SNR=4.0 | | | | | | | |
| **AFI** | **Afiamalu** | **16.78** | **24** | *e*P | | **P** | **21 13 18.1** | **-0.4** |
| **AFI** | **Afiamalu** | **16.78** | **24** | *e*P | | **P** | **21 13 18.1** | **-0.4** |
| **ODZ** | **Otahua Downs** | **17.66** | **206** | *e*PN | | **P** | **21 13 27.0** | **-0.9** |
| **RAR** | **Rarotonga** | **18.91** | **68** | P | | **P** | **21 13 38.8** | **-2.8** |
| | 1.0nm,0.3s,baz=236,slow=6.9,SNR=3.8 | | | | | | | |
| **RAR** | **Rarotonga** | **18.91** | **68** | *e*P | | **P** | **21 13 40.6** | **-1.0** |
| **RAR** | **Rarotonga** | **18.91** | **68** | *e*P | | **P** | **21 13 40.6** | **-1.0** |
| **ARMA** | **Armidale** | **25.77** | **261** | *e*P | | **P** | **21 14 52.5** | **+3.8** |
| | 34nm,0.7s | | | | | | | |
| **TBI** | **Tubuai** | **26.77** | **84** | *e*LR | | LR | 21 21 33.4 | |
| | 114nm,27.8s | | | | | | | |
| **EIDS** | **Eidsvold** | **27.18** | **271** | *e*P | | **P** | **21 15 02.8** | **+1.7** |
| | 28nm,0.8s | | | | | | | |
| **CAN** | **Canberra** | **27.87** | **250** | *e*P | | **P** | **21 15 10.8** | **+3.5** |
| CAN | | | | | pmax | pmax | | |
| | comp=Z,36nm,0.7s | | | | | | | |
| **CAN** | **Canberra** | **27.87** | **250** | *e*P | | **P** | **21 15 10.8** | **+3.5** |
| | comp=Z,36nm,0.7s | | | | | | | |
| **PPT2** | **Papeete2** | **29.06** | **72** | *e*LR | | LR | 21 22 41.1 | |
| | comp=Z,129nm,27.8s | | | | | | | |
| **PPT** | **Papeete** | **29.07** | **72** | LR | | LR | 21 25 22.2 | |
| | comp=Z,60nm,20.5s,baz=208,slow=33 | | | | | | | |
| **CTA** | **Charters Tower** | **33.15** | **278** | P | | **P** | **21 15 54.6** | **+0.8** |
| | comp=Z,22nm,0.7s,baz=104,slow=11,SNR=31 | | | | | | | |
| **CTAO** | **Charters Tower** | **33.15** | **278** | *e*P | | **P** | **21 15 54.9** | **+1.2** |
| CTAO | | | | | pmax | pmax | | |
| | comp=Z,29nm,0.8s | | | | | | | |
| **CTAO** | **Charters Tower** | **33.15** | **278** | *e*P | | **P** | **21 15 54.9** | **+1.2** |
| | comp=Z,28nm,0.8s | | | | | | | |
| **STKA** | **Stephens Creek** | **34.17** | **256** | P | | **P** | **21 16 03.1** | **+0.6** |
| | comp=Z,14nm,0.9s,baz=94,slow=8.9,SNR=15 | | | | | | | |
| **PMG** | **Port Moresby** | **37.76** | **295** | P | | **P** | **21 16 32.3** | **-0.8** |
| | comp=Z,2.5nm,0.4s,baz=135,slow=7.1,SNR=2.8 | | | | | | | |
| PMG | | | | | PcP | **PcP** | **21 18 46.1** | **+0.1** |
| | comp=Z,24nm,0.8s,baz=128,slow=1.4,SNR=14 | | | | | | | |
| **COEN** | **Coen** | **38.53** | **285** | *e*P | | **P** | **21 16 40.6** | **+1.0** |
| | comp=Z,8.7nm,0.9s | | | | | | | |
| COEN | | | | | *e*PcP | **PcP** | **21 18 49.2** | **+0.8** |
| **ASAR** | **Alice Springs** | **42.63** | **266** | P | | **P** | **21 17 13.3** | **+0.2** |
| | comp=Z,12nm,0.7s,baz=101,slow=7.8,SNR=74 | | | | | | | |
| ASAR | | | | | PcP | **PcP** | **21 19 01.4** | **-0.2** |
| | comp=Z,5.1nm,0.9s,baz=118,slow=4.5,SNR=5.0 | | | | | | | |
| ASAR | | | | | ScP | **ScP** | **21 22 35.8** | **+1.3** |
| | comp=Z,1.9nm,0.8s,baz=120,slow=4.1,SNR=7.6 | | | | | | | |
| ASAR | | | | | PKiKP | **PKiKP** | **21 26 04.5** | **-1.1** |
| | comp=Z,0.4nm,0.7s,baz=64,slow=2.2,SNR=4.1 | | | | | | | |
| **WB2** | **Warramunga Arr** | **43.53** | **272** | *e*P | | **P** | **21 17 19.9** | **-0.4** |
| **WRAB** | **Tennant Creek** | **43.54** | **272** | *d i*P | | **P** | **21 17 19.7** | **-0.7** |
| WRAB | | | | | pmax | pmax | | |
| | comp=Z,22nm,0.9s | | | | | | | |
| **WRAB** | **Tennant Creek** | **43.54** | **272** | *e*P | | **P** | **21 17 19.8** | **-0.6** |
| | comp=Z,22nm,0.8s | | | | | | | |
| WRAB | | | | | *e*PcP | **PcP** | **21 19 04.0** | **-0.7** |
| **WRA** | **Warramunga Arr** | **43.54** | **272** | P | | **P** | **21 17 20.2** | **-0.2** |
| | comp=Z,17nm,0.7s,baz=109,slow=8.1,SNR=113 | | | | | | | |
| WRA | | | | | PcP | **PcP** | **21 19 04.0** | **-0.8** |
| | comp=Z,5.5nm,0.9s,baz=112,slow=3.4,SNR=6.6 | | | | | | | |
| WRA | | | | | ScP | **ScP** | **21 22 39.3** | **+1.1** |
| | comp=Z,1.9nm,0.8s,baz=101,slow=3.8,SNR=7.2 | | | | | | | |
| WRA | | | | | PKiKP | **PKiKP** | **21 26 05.4** | **-1.2** |
| | comp=Z,0.1nm,0.4s,baz=92,slow=0.9,SNR=6.1 | | | | | | | |
| **FORT** | **Forrest** | **45.77** | **254** | *e*P | | **P** | **21 17 37.9** | **0.0** |
| | comp=Z,239nm,0.6s | | | | | | | |
| **SBA** | **Scott Base** | **48.86** | **184** | *e*P | | P | 21 18 06.2 | +5.2 |
| SBA | | | | | pmax | pmax | | |
| | comp=Z,64nm,1.2s | | | | | | | |
| **SBA** | **Scott Base** | **48.86** | **184** | *e*P | | P | 21 18 06.2 | +5.2 |
| | comp=Z,64nm,1.2s | | | | | | | |
| **VNDA** | **Vanda** | **48.91** | **186** | P | | **P** | **21 18 05.2** | **+3.9** |
| | comp=Z,7.1nm,0.6s,baz=4.4,slow=8.2,SNR=52 | | | | | | | |
| **SWI** | **Sorong** | **55.53** | **291** | P | | **P** | **21 18 50.2** | **-0.8** |
| **MBWA** | **Marble Bar** | **55.80** | **263** | *e*P | | **P** | **21 18 53.2** | **+0.4** |
| | comp=Z,17nm,0.5s | | | | | | | |
| **SANI** | **Sanana** | **59.21** | **287** | P | | **P** | **21 19 16.5** | **-0.2** |
| **QSPA** | **South Pole Qui** | **60.58** | **180** | *e*P | | **P** | **21 19 29.0** | **+3.5** |
| | comp=Z,32nm,0.8s | | | | | | | |
| **PCI** | **Palu** | **64.99** | **284** | P | | **P** | **21 19 57.2** | **+2.0** |
| **STKI** | **Sintang** | **72.62** | **280** | P | | **P** | **21 20 43.4** | **+1.1** |
| **MAW** | **Mawson** | **72.93** | **201** | P | | **P** | **21 20 44.9** | **+1.6** |
| | comp=Z,7.2nm,0.5s,baz=139,slow=7.4,SNR=28 | | | | | | | |
| **MAW** | **Mawson** | **72.93** | **201** | P | | **P** | **21 20 44.9** | **+1.6** |
| MAW | | | | | *e*S | **SKiKP** | **21 29 58.2** | **+2.0** |
| **MAW** | **Mawson** | **72.93** | **201** | P | | **P** | **21 20 44.9** | **+1.6** |
| MAW | | | | | *e*S | **SKiKP** | **21 29 58.2** | **+2.0** |
| **SBUM** | **Sibu** | **73.22** | **283** | *e*P | | **P** | **21 20 45.5** | **-0.4** |
| | comp=Z,19nm,1.1s | | | | | | | |
| **KSM** | **Kuching** | **74.34** | **281** | *e*P | | **P** | **21 20 51.6** | **-0.7** |
| | comp=Z,33nm,1.4s | | | | | | | |
| **KASI** | **Kota Agung** | **75.90** | **272** | P | | **P** | **21 20 59.9** | **-1.4** |
| **LWLI** | **Liwa** | **76.53** | **272** | P | | **P** | **21 21 03.9** | **-1.1** |
| **MJAR** | **Matsushiro Arr** | **77.23** | **326** | P | | **P** | **21 21 06.4** | **-1.8** |
| | comp=Z,9.7nm,0.8s,baz=162,slow=5.5,SNR=18 | | | | | | | |
| **MAJO** | **Matsushiro** | **77.23** | **326** | *e*P | | **P** | **21 21 07.3** | **-0.9** |
| MAJO | | | | | pmax | pmax | | |
| | comp=Z,18nm,1.0s | | | | | | | |
| **MAJO** | **Matsushiro** | **77.23** | **326** | *e*P | | **P** | **21 21 07.2** | **-1.0** |
| | comp=Z,22nm,1.0s | | | | | | | |
| **MAT** | **Matsushiro** | **77.23** | **326** | P | | **P** | **21 21 06.9** | **-1.3** |
| **SYO** | **Syowa Base** | **77.84** | **193** | *j i*P | | **P** | **21 21 11.0** | **-0.1** |
| **SYO** | **Syowa Base** | **77.84** | **193** | *j e*PcP | | **PcP** | **21 21 19.0** | **-1.3** |
| **JNU** | **Nakatsue** | **78.56** | **319** | *e*P | | **P** | **21 21 15.5** | **-0.1** |
| | comp=Z,17nm,1.1s | | | | | | | |
| **MASI** | **Maura Aman, Be** | **79.02** | **273** | P | | **P** | **21 21 17.8** | **-0.9** |
| **SNAA** | **Sanae** | **79.03** | **179** | P | | **P** | **21 21 19.6** | **+1.8** |
| **SNAA** | **Sanae** | **79.03** | **179** | *e*P | | **P** | **21 21 18.9** | **+1.1** |
| **SNAA** | **Sanae** | **79.03** | **179** | *e*P | | **P** | **21 21 19.6** | **+1.8** |
| | comp=Z,9.9nm,1.0s | | | | | | | |
| **VNA3** | **Neumayer Olymp** | **79.20** | **176** | P | | **P** | **21 21 20.6** | **+1.9** |
| **VNA2** | **Neumayer--Watz** | **79.63** | **177** | P | | **P** | **21 21 23.2** | **+2.3** |
| | baz=177,slow=3.9 | | | | | | | |
| **NVL** | **N'lazarevskaya** | **79.71** | **183** | *e*P | | **P** | **21 21 20.9** | **-0.4** |
| **ASAJ** | **Asahikawa** | **81.43** | **333** | *e*P | | **P** | **21 21 31.4** | **+0.7** |
| | comp=Z,13nm,0.8s | | | | | | | |
| **PDSI** | **Padang** | **81.66** | **274** | P | | **P** | **21 21 31.4** | **-1.3** |
| **TJN** | **Taejon** | **82.90** | **319** | *c i*P | | **P** | **21 21 38.2** | **-0.3** |
| **KSRS** | **Korea Array** | **83.35** | **320** | P | | **P** | **21 21 41.0** | **+0.3** |
| | comp=Z,5.1nm,0.8s,baz=139,slow=5.4,SNR=16 | | | | | | | |
| **KSAR** | **Wonju Array Be** | **83.36** | **320** | P | | **P** | **21 21 41.0** | **+0.2** |
| **KSAR** | **Wonju Array Be** | **83.36** | **320** | P | | **P** | **21 21 41.0** | **+0.2** |
| **KS01** | **Wonju Array Si** | **83.38** | **320** | *e*P | | **P** | **21 21 39.8** | **-1.2** |
| **PLCA** | **Paso Flores** | **83.48** | **133** | P | | **P** | **21 21 43.8** | **+2.0** |
| | comp=Z,2.4nm,0.8s,baz=235,slow=9.4,SNR=3.5 | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **83.74** | **335** | *i* P | | **P** | **21 21 43.2** | **+0.7** |
| YSS | | | | | pmax | pmax | | |
| | comp=Z,60nm,1.0s | | | | | | | |
| YSS | | | | | pmax | pmax | | |
| | comp=Z,200nm,4.2s | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **83.74** | **335** | *e*P | | **P** | **21 21 43.1** | **+0.7** |
| | comp=Z,61nm,0.9s | | | | | | | |
| **IPM** | **Ipoh** | **83.84** | **279** | *e*P | | **P** | **21 21 43.3** | **-0.6** |
| | comp=Z,19nm,0.7s | | | | | | | |
| **KULM** | **Kulim** | **84.57** | **279** | *e*P | | **P** | **21 21 46.8** | **-0.7** |
| | comp=Z,9.9nm,0.7s | | | | | | | |
| **PETK** | **Petropavlovsk-** | **84.84** | **346** | P | | **P** | **21 21 47.0** | **-0.9** |
| | comp=Z,10nm,0.8s,baz=140,slow=6.1,SNR=8.4 | | | | | | | |
| **PETK** | **Petropavlovsk-** | **84.84** | **346** | *e*P | | **P** | **21 21 47.4** | **-0.6** |
| **PETK** | **Petropavlovsk-** | **84.84** | **346** | *e*P | | **P** | **21 21 47.4** | **-0.6** |
| **GSI** | **Gunungsitoli** | **85.25** | **274** | P | | **P** | **21 21 50.7** | **-0.3** |
| **GSI** | **Gunungsitoli** | **85.25** | **274** | *e*P | | **P** | **21 21 50.6** | **-0.3** |
| | comp=Z,28nm,0.8s | | | | | | | |
| **NJ2** | **Nanjing** | **85.28** | **311** | *e*P | | **P** | **21 21 50.0** | **-0.6** |
| NJ2 | | | | | pmax | pmax | | |
| | comp=Z,18nm,0.5s | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **86.15** | **327** | P | | **P** | **21 21 54.6** | **0.0** |
| | comp=Z,8.2nm,0.8s,baz=143,slow=3.5,SNR=18 | | | | | | | |
| **YBH** | **Yreka Blue Hor** | **87.68** | **38** | P | | **P** | **21 22 01.9** | **-0.2** |
| | comp=Z,3.0nm,1.1s,baz=222,slow=8.5,SNR=3.4 | | | | | | | |
| YBH | | | | | LR | LR | 21 53 09.4 | |
| | comp=Z,28nm,19.2s,baz=342,slow=30 | | | | | | | |
| **TUC** | **Tucson** | **88.98** | **52** | *e*P | | **P** | **21 22 10.0** | **+1.4** |
| TUC | | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.2s | | | | | | | |
| **TUC** | **Tucson** | **88.98** | **52** | *e*P | | **P** | **21 22 10.0** | **+1.4** |
| | comp=Z,6.6nm,1.2s | | | | | | | |
| **TIA** | **Tai'an** | **89.00** | **313** | ⇑P | | **P** | **21 22 09.0** | **+0.6** |
| TIA | | | | | pmax | pmax | | |
| | comp=Z,40nm,1.4s | | | | | | | |
| **CN2** | **Changchun** | **89.13** | **323** | *e*P | | **P** | **21 22 08.8** | **0.0** |
| CN2 | | | | | pmax | pmax | | |
| | comp=Z,40nm,1.0s | | | | | | | |
| **X16A** | **Lo Mia Camp, P** | **89.79** | **50** | *e*P | | **P** | **21 22 13.6** | **+1.2** |
| | comp=Z,4.9nm,0.9s | | | | | | | |
| **U15A** | **North Rim** | **90.43** | **48** | *e*P | | **P** | **21 22 16.5** | **+1.0** |
| | comp=Z,3.7nm,0.8s | | | | | | | |
| **ENH** | **Enshi** | **90.68** | **305** | *e*P | | **P** | **21 22 16.8** | **+0.3** |
| | comp=Z,71nm,1.4s | | | | | | | |
| **I07A** | **Izee** | **91.00** | **38** | *e*P | | **P** | **21 22 17.9** | **+0.2** |
| | comp=Z,3.9nm,0.9s | | | | | | | |
| **G06A** | **Carlson Farm,** | **91.17** | **37** | *e*P | | **P** | **21 22 17.6** | **-0.7** |
| | comp=Z,5.4nm,1.0s | | | | | | | |
| **BJI** | **Beijing** | **91.94** | **316** | P | | **P** | **21 22 22.3** | **+0.4** |
| BJI | | | | | pmax | pmax | | |
| | comp=Z,18nm,1.0s | | | | | | | |
| **G08A** | **Pilot Rock** | **92.09** | **38** | *e*P | | **P** | **21 22 19.6** | **-3.1** |
| | comp=Z,5.2nm,1.0s | | | | | | | |
| **TXAR** | **Lajitas Array** | **92.36** | **58** | P | | **P** | **21 22 24.5** | **+0.1** |
| | comp=Z,0.5nm,0.8s,baz=237,slow=6.3

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| GOF | | | | pmax | pmax | | | |
| | comp=Z,43nm,0.8s | | | | | | | |
| **ONI** | **Oni** | **143.95 303** | | P | PKPbc | 21 28 46.6 | +0.3 | |
| **ONI** | **Oni** | **143.95 303** | | *e*PKIKP | PKPbc | 21 28 46.5 | +0.2 | |
| **AKH** | **Akhalkalaki** | **144.05 301** | ⇓ | *i*P | **PKPab** | **21 28 46.3** | **0.0** | |
| **LPSR** | **Galich'ya Gora** | **144.11 321** | | *e*PKIKP | **PKPab** | **21 28 44.9** | **-1.0** | |
| LPSR | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.8s | | | | | | | |
| **FINES** | **FINESS Array B** | **144.15 340** | | PKP | **PKPab** | **21 28 44.6** | **-1.1** | |
| | comp=Z,23nm,0.8s,baz=56,slow=3.5,SNR=76 | | | | | | | |
| **OBN** | **Obninsk** | **144.16 326** | | *d*PKIKP | **PKPab** | **21 28 45.0** | **-0.9** | |
| OBN | | | | *i* | | 21 32 07.6 | | |
| OBN | | | | *e*SS | SS | 21 50 36.1 | +2.5 | |
| OBN | | | | pmax | pmax | | | |
| | comp=Z,68nm,1.4s | | | | | | | |
| **OBN** | **Obninsk** | **144.16 326** | | *e*PKPdf | **PKPab** | **21 28 45.4** | **-0.6** | |
| **KBZ** | **Khabaz** | **144.19 305** | | PKP | **PKPab** | **21 28 46.4** | **-0.1** | |
| | comp=Z,13nm,1.0s,baz=125,slow=2.8,SNR=36 | | | | | | | |
| **BEYR** | **Belyy Ugol+** | **144.20 305** | | *ce*PKIKP | **PKPab** | **21 28 46.9** | **+0.3** | |
| **KIV** | **Kislovodsk** | **144.30 305** | | *e*PKIKP | **PKPab** | **21 28 46.6** | **-0.4** | |
| KIV | | | | pmax | pmax | | | |
| | comp=Z,31nm,1.1s | | | | | | | |
| **KIV** | **Kislovodsk** | **144.30 305** | | *e*PKPdf | **PKPab** | **21 28 47.0** | **-0.1** | |
| **VSR** | **Storozhevoye** | **144.54 318** | | *e*PKIKP | **PKPab** | **21 28 45.7** | **-1.9** | |
| VSR | | | | pmax | pmax | | | |
| | comp=Z,30nm,0.7s | | | | | | | |
| **CHVG** | **Ch'k'valeri** | **144.93 303** | | P | **PKPab** | **21 28 49.6** | **+0.2** | |
| **ARTV** | **Artvin** | **145.25 301** | | *e*PKPdf | **PKPbc** | **21 28 50.8** | **+0.3** | |
| **VSU** | **Vasula** | **146.22 336** | | *i* PKIKP | **PKPdf** | **21 28 50.8** | **-0.4** | |
| **MARD** | **Mardin** | **146.41 294** | | *e*PKPdf | **PKPbc** | **21 28 54.6** | **+0.5** | |
| **SOC** | **Sochi** | **146.48 305** | | *i* PKP2 | **PKPbc** | **21 28 53.2** | **-0.7** | |
| SOC | | | | *e* | | 21 32 15.5 | | |
| SOC | | | | *e*SS | SS | 21 50 59.5 | -1.7 | |
| SOC | | | | pmax | pmax | | | |
| | comp=Z,49nm,0.8s | | | | | | | |
| **NC303** | **NORSAR Array S** | **147.62 351** | | *e*PKPbc | **PKPbc** | **21 28 55.6** | **-0.8** | |
| **ANN** | **Anapa** | **147.79 308** | | *i* PKP2 | **PKPbc** | **21 28 56.7** | **-0.7** | |
| ANN | | | | pmax | pmax | | | |
| | comp=Z,112nm,1.2s | | | | | | | |
| **NB2** | **NORSAR Subarra** | **147.81 351** | | PKP | **PKPbc** | **21 28 55.7** | **-1.3** | |
| | comp=Z,16nm,0.8s,baz=16,slow=4.4 | | | | | | | |
| **NOA** | **NORSAR Array B** | **147.81 351** | | PKPbc | **PKPbc** | **21 28 55.7** | **-1.3** | |
| | comp=Z,12nm,0.8s,baz=16,slow=4.3,SNR=18 | | | | | | | |
| **NBO02** | **NORSAR Array S** | **147.85 351** | | *e*PKPbc | **PKPbc** | **21 28 56.2** | **-0.9** | |
| **IZAR** | **Zarasai** | **148.38 333** | | *e*P | **PKPdf** | **21 28 56.7** | **+1.8** | |
| IZAR | | | | IAmb | IAmb | 21 29 00.1 | | |
| | comp=Z,29nm,0.9s | | | | | | | |
| **ISAL** | **Salakas** | **148.56 333** | | *e*P | **PKPdf** | **21 28 56.6** | **+1.4** | |
| ISAL | | | | IAmb | IAmb | 21 29 00.5 | | |
| | comp=Z,14nm,0.8s | | | | | | | |
| **NACGM** | **Naroch** | **148.76 331** | | *e* | **PKPbc** | **21 29 00.0** | **+0.4** | |
| **TOKA** | **Tokat** | **149.47 300** | | *e*PKPbc | **PKPbc** | **21 29 02.6** | **+0.7** | |
| **SIM** | **Simferopol'** | **149.99 310** | | *d* PKP2 | **PKPbc** | **21 29 02.8** | **-0.1** | |
| SIM | | | | pmax | pmax | | | |
| | comp=Z,31nm,0.9s | | | | | | | |
| **AKASG** | **Malin Array Be** | **150.29 323** | | PKP | **PKPdf** | **21 28 57.4** | **-0.6** | |
| | comp=Z,7.5nm,0.9s,baz=46,slow=2.8,SNR=7.7 | | | | | | | |
| AKASG | | | | PKPbc | **PKPbc** | **21 29 02.7** | **-0.7** | |
| | comp=Z,49nm,0.8s,baz=46,slow=2.8,SNR=130 | | | | | | | |
| **AKBB** | **Malin Array Si** | **150.29 323** | | *e*PKIKP | **PKPbc** | **21 29 02.9** | **-0.5** | |
| **AKBB** | **Malin Array Si** | **150.29 323** | | *e*PKPbc | **PKPbc** | **21 29 02.9** | **-0.5** | |
| **AK11** | **Malin Array Si** | **150.33 323** | | *e*PKPdf | **PKPdf** | **21 28 57.5** | **-0.6** | |
| AK11 | | | | *e*PKPbc | **PKPbc** | **21 29 02.0** | **-1.5** | |
| **RCY** | **Rachaya** | **150.45 287** | | *e*P | **PKPbc** | **21 29 04.8** | **+0.2** | |
| **DQRL** | **Deir Qamar** | **150.68 287** | | *e*P | **PKPbc** | **21 29 05.7** | **+0.6** | |
| **SUW** | **Suwalki** | **150.87 333** | | *e*PKP | **PKPbc** | **21 29 03.9** | **-0.8** | |
| **SUW** | **Suwalki** | **150.87 333** | | *e*PKIKP | **PKPbc** | **21 29 03.9** | **-0.8** | |
| **ILGA** | **Ilgaz** | **151.38 302** | | *e*PKPbc | **PKPbc** | **21 29 06.7** | **+0.1** | |
| **BR131** | **Keskin Array S** | **151.72 300** | | *e*PKPdf | **PKPdf** | **21 29 01.6** | **+0.7** | |
| BR131 | | | | *e*PKPbc | **PKPbc** | **21 29 06.6** | **-0.7** | |
| **BRTR** | **Keskin Array B** | **151.72 300** | | PKP | **PKPdf** | **21 28 59.5** | **-1.3** | |
| | comp=Z,1.5nm,0.9s,baz=105,slow=2.3,SNR=7.5 | | | | | | | |
| BRTR | | | | PKPbc | **PKPbc** | **21 29 06.5** | **-0.8** | |
| | comp=Z,13nm,0.9s,baz=126,slow=2.7,SNR=48 | | | | | | | |
| **SORM** | **Soroca** | **152.19 319** | ⇓ | *i* P | **PKPbc** | **21 29 07.1** | **-0.8** | |
| **SORM** | **Soroca** | **152.19 319** | ⇓ | PKIKP | **PKPbc** | **21 29 07.1** | **-0.8** | |
| **ANTO** | **Ankara** | **152.33 300** | | *e*PKIKP | **PKPbc** | **21 29 08.4** | **-0.2** | |
| **ANTO** | **Ankara** | **152.33 300** | | *e*PKPbc | **PKPbc** | **21 29 08.4** | **-0.2** | |
| **BR231** | **Keskin MP Arra** | **152.35 300** | | *e*PKPdf | **PKPdf** | **21 29 01.3** | **-0.4** | |
| BR231 | | | | *e*PKPbc | **PKPbc** | **21 29 07.4** | **-1.3** | |
| BR231 | | | | *e*PKPbc | **PKiKP** | **21 29 08.9** | **-0.1** | |
| **CSS** | **Mathiatis** | **152.52 290** | | *e*PKPdf | **PKPdf** | **21 29 02.4** | **+0.4** | |
| CSS | | | | *e*PKPbc | **PKPbc** | **21 29 08.2** | **-0.9** | |
| **TLCR** | | **153.35 313** | ⇓ | *i* P | **PKPbc** | **21 29 10.6** | **+0.1** | |
| **TLCR** | | **153.35 313** | ⇓ | PKIKP | **PKPbc** | **21 29 10.6** | **+0.1** | |
| **CFR** | **Carcaliu** | **153.78 314** | ⇓ | *i* P | **PKPbc** | **21 29 10.7** | **-0.8** | |
| **CFR** | **Carcaliu** | **153.78 314** | ⇓ | PKIKP | **PKPbc** | **21 29 10.7** | **-0.8** | |
| **TESR** | **Tescani** | **154.03 318** | ⇑ | *i* P | **PKPbc** | **21 29 11.2** | **-0.8** | |
| **BUR08** | **Bucovina Ar. S** | **154.22 321** | | *e*PKPbc | **PKPbc** | **21 29 13.5** | **+1.0** | |
| **KWP** | **Kalwaria Pacla** | **154.22 327** | | *e*PKP | **PKPab** | **21 29 26.5** | **-0.5** | |
| **KWP** | **Kalwaria Pacla** | **154.22 327** | | *e*PKP2 | **PKPab** | **21 29 26.5** | **-0.5** | |
| **BURAR** | **Bucovina Array** | **154.22 321** | ⇑ | *i* P | **PKPbc** | **21 29 13.5** | **+1.0** | |
| **BURAR** | **Bucovina Array** | **154.22 321** | ⇑ | PKIKP | **PKPbc** | **21 29 13.5** | **+1.0** | |
| **BUR04** | **Bucovina Ar. S** | **154.23 321** | | *e*PKPdf | **PKPdf** | **21 29 04.7** | **+0.5** | |
| BUR04 | | | | *e*PKPbc | **PKiKP** | **21 29 14.1** | **+1.5** | |
| BUR04 | | | | *e*PKPab | **PKPab** | **21 29 26.8** | **-0.4** | |
| **VRI** | **Vrincioaia** | **154.32 316** | ⇓ | *i* P | **PKPab** | **21 29 27.9** | **+0.4** | |
| **VRI** | **Vrincioaia** | **154.32 316** | ⇓ | PKP2 | **PKPab** | **21 29 27.9** | **+0.4** | |
| **ICOR** | **Ion Corvin** | **154.47 312** | ⇓ | *i* P | **PKPbc** | **21 29 13.1** | **+0.1** | |
| **PGOR** | **Pogoanele** | **154.63 314** | ⇓ | *i* P | **PKPab** | **21 29 30.3** | **+1.4** | |
| **ARCR** | **ARCALIA** | **155.01 321** | ⇑ | *i* P | **PKPab** | **21 29 30.8** | **+0.4** | |
| **STHS** | **Stebnicka Huta** | **155.05 328** | | *e*PKP2 | **PKPab** | **21 29 31.1** | **+0.5** | |
| **STHS** | **Stebnicka Huta** | **155.05 328** | | *e*PKP | **PKPab** | **21 29 31.1** | **+0.5** | |
| **DOPR** | **Dopca** | **155.06 318** | ⇓ | *i* P | PKPdf | 21 29 14.9 | +10 | |
| **CRVS** | **Cervenica-Dubn** | **155.32 327** | | *e*PKP2 | **PKPab** | **21 29 31.1** | **-0.6** | |
| **CRVS** | **Cervenica-Dubn** | **155.32 327** | | *e*PKP | **PKPab** | **21 29 31.1** | **-0.6** | |
| **NIE** | **Niedzica** | **155.48 329** | | *e*PKP | **PKPab** | **21 29 32.4** | **0.0** | |
| **NIE** | **Niedzica** | **155.48 329** | | *e*PKP2 | **PKPab** | **21 29 32.4** | **0.0** | |
| **VOIR** | | **155.54 317** | ⇑ | *i* P | **PKPab** | **21 29 27.0** | **-5.9** | |
| **VOIR** | | **155.54 317** | ⇑ | PKP2 | **PKPab** | **21 29 27.0** | **-5.9** | |
| **ARR** | **Arges** | **155.83 317** | ⇓ | *i* P | **PKPab** | **21 29 34.0** | **-0.1** | |
| **KSP** | **Ksiaz** | **155.95 336** | | *e*PKP | **PKPab** | **21 29 33.6** | **-0.7** | |
| **KSP** | **Ksiaz** | **155.95 336** | | *e*PKP2 | **PKPab** | **21 29 33.6** | **-0.7** | |
| **LIC** | **Lamto** | **156.04 164** | | *e*PKP1 | **PKPdf** | **21 29 07.6** | **+0.1** | |
| | comp=Z,19nm,1.0s | | | | | | | |
| **LANS** | **Liptovska Anna** | **156.04 330** | | *e*PKP2 | **PKPab** | **21 29 34.7** | **-0.1** | |
| **LANS** | **Liptovska Anna** | **156.04 330** | | *e*PKP | **PKPab** | **21 29 34.7** | **-0.1** | |
| **HUMR** | **Humele** | **156.06 315** | ⇑ | *i* P | **PKPab** | **21 29 34.2** | **-0.8** | |
| **KECS** | **Kecovo** | **156.07 328** | | *e*PKP2 | **PKPab** | **21 29 34.1** | **-0.9** | |
| **KES** | **Kecovo** | **156.07 328** | | *e*PKP | **PKPab** | **21 29 34.0** | **-0.9** | |
| **DRGR** | | **156.08 322** | ⇓ | *i* P | PKPdf | 21 29 16.6 | +10 | |
| **DRGR** | | **156.08 322** | ⇓ | PKIKP | PKPdf | 21 29 16.6 | +10 | |
| **KIC** | **Kosan Boka** | **156.24 165** | | *e*PKP1 | **PKPdf** | **21 29 08.4** | **+0.6** | |
| | comp=Z,14nm,1.0s | | | | | | | |
| **LOT** | **Lotru** | **156.29 318** | ⇑ | *i* P | **PKPab** | **21 29 35.5** | **-0.6** | |
| **UPC** | **Upice** | **156.33 336** | | *e*PKPAB | **PKPab** | **21 29 35.6** | **-0.3** | |
| **UPC** | **Upice** | **156.33 336** | | *e*PKP2 | **PKPab** | **21 29 35.6** | **-0.3** | |
| **DPC** | **Dobruska-Polom** | **156.35 336** | | *e*PKPAB | **PKPab** | **21 29 35.8** | **-0.3** | |
| DPC | | | | *ex* | x | 21 29 45.4 | | |
| DPC | | | | *ep*PKP | **pPKPab** | **21 30 26.7** | **+3.1** | |
| **DPC** | **Dobruska-Polom** | **156.35 336** | | *e*PKP2 | **PKPab** | **21 29 35.8** | **-0.3** | |
| **KRLC** | **Kraliky** | **156.41 335** | | *e*PKPAB | **PKPab** | **21 29 35.8** | **-0.6** | |
| **KRLC** | **Kraliky** | **156.41 335** | | *e*PKP2 | **PKPab** | **21 29 35.8** | **-0.6** | |
| **TIC** | **Toumodi** | **156.44 164** | | *e*PKP1 | **PKPdf** | **21 29 08.3** | **+0.2** | |
| **DBIC** | **Dimbokro** | **156.51 164** | | PKP | **PKPdf** | **21 29 08.4** | **+0.3** | |
| | comp=Z,4.1nm,1.0s,baz=199,slow=6.0,SNR=4.8 | | | | | | | |
| DBIC | | | | PKPab | **PKPab** | **21 29 39.0** | **+1.4** | |
| | comp=Z,2.8nm,0.6s,baz=194,slow=7.0,SNR=5.2 | | | | | | | |
| **CLL** | **Collm** | **156.58 341** | | *e*PKP2 | **PKPab** | **21 29 35.9** | **-1.0** | |
| **CLL** | **Collm** | **156.58 341** | ⇑ | PKPab | **PKPab** | **21 29 35.9** | **-1.0** | |
| | comp=Z,20nm,1.0s | | | | | | | |
| **CLL** | **Collm** | **156.58 341** | | *e*PKPab | **PKPab** | **21 29 35.9** | **-1.0** | |
| **BRG** | **Berggiesshubel** | **156.69 340** | | *e*PKP2 | **PKPab** | **21 29 36.5** | **-1.0** | |
| BRG | | | | pmax | pmax | | | |
| | comp=Z,17nm,1.1s | | | | | | | |
| **PSZ** | **Piszkesteto** | **156.75 327** | ⇑ | *i* P | **PKPab** | **21 29 37.7** | **-0.3** | |
| **PSZ** | **Piszkesteto** | **156.75 327** | | *e*PKP2 | **PKPab** | **21 29 37.4** | **-0.5** | |
| **PSZ** | **Piszkesteto** | **156.75 327** | | *e*PKPab | **PKPab** | **21 29 37.4** | **-0.5** | |
| **PVCC** | **Panska Ves** | **156.80 338** | | *e*PKPAB | **PKPab** | **21 29 37.6** | **-0.3** | |
| **PVCC** | **Panska Ves** | **156.80 338** | | *e*PKP2 | **PKPab** | **21 29 37.6** | **-0.3** | |
| **VYHS** | **Vyhne** | **156.81 330** | | *e*PKP2 | **PKPab** | **21 29 37.2** | **-0.9** | |
| **VYHS** | **Vyhne** | **156.81 330** | | *e*PKP | **PKPab** | **21 29 37.2** | **-0.9** | |
| **VRAC** | **Vranov** | **157.10 334** | ⇓ | *i* P | **PKPab** | **21 29 39.0** | **-0.3** | |
| **VRAC** | **Vranov** | **157.10 334** | ⇓ | PKP2 | **PKPab** | **21 29 39.0** | **-0.3** | |
| **PRA** | **Prague** | **157.24 338** | | *e*PKPAB | **PKPab** | **21 29 39.4** | **-0.4** | |
| **PRA** | **Prague** | **157.24 338** | | *e*PKP2 | **PKPab** | **21 29 39.4** | **-0.4** | |
| **GOPC** | **GO Pecny, Ondr** | **157.25 337** | | *e*PKPAB | **PKPab** | **21 29 39.7** | **-0.3** | |
| **GOPC** | **GO Pecny, Ondr** | **157.25 337** | | *e*PKP2 | **PKPab** | **21 29 39.7** | **-0.3** | |
| **PRU** | **Pruhonice** | **157.27 338** | | *e*PKPAB | **PKPab** | **21 29 39.6** | **-0.4** | |
| **PRU** | **Pruhonice** | **157.27 338** | | *e*PKP2 | **PKPab** | **21 29 39.6** | **-0.4** | |
| **HERR** | **Herculane** | **157.40 318** | ⇑ | *i* P | **PKPab** | **21 29 40.0** | **-0.8** | |
| **NKC** | **Novy Kostel** | **157.70 341** | | *e*PKP2 | **PKPab** | **21 29 41.1** | **-0.8** | |
| **NKC** | **Novy Kostel** | **157.70 341** | | *e*PKP2 | **PKPab** | **21 29 41.1** | **-0.8** | |
| **VTS** | **Vitosha** | **158.15 313** | ⇑ | *i* P | **PKPab** | **21 29 44.7** | **+0.4** | |
| **VTS** | **Vitosha** | **158.15 313** | ⇑ | PKP2 | **PKPab** | **21 29 44.7** | **+0.4** | |
| **KHC** | **Kasperske Hory** | **158.33 338** | | *e*PKPAB | **PKPab** | **21 29 44.2** | **-0.5** | |
| KHC | | | | *ep*PKP | **pPKPab** | **21 30 34.6** | **+2.5** | |
| **KHC** | **Kasperske Hory** | **158.33 338** | | *e*PKP2 | **PKPab** | **21 29 44.2** | **-0.5** | |
| **KHC** | **Kasperske Hory** | **158.33 338** | | *e*PKPab | **PKPab** | **21 29 43.8** | **-0.9** | |
| **CONA** | **Conrad Observa** | **158.50 333** | | *i* PKPab | **PKPab** | **21 29 45.2** | **-0.4** | |
| | comp=Z,7.3nm,1.0s | | | | | | | |
| **GEC2** | **GERESS Array S** | **158.53 337** | | *e*PKP2 | **PKPab** | **21 29 45.2** | **-0.5** | |
| **GEC2** | **GERESS Array S** | **158.53 337** | | *e*PKPab | **PKPab** | **21 29 45.2** | **-0.5** | |
| **GERES** | **GERESS Array B** | **158.53 337** | | PKP | **PKPdf** | **21 29 09.2** | **-0.5** | |
| | comp=Z,0.8nm,0.8s,baz=42,slow=3.1,SNR=4.0 | | | | | | | |
| GERES | | | | PKPab | **PKPab** | **21 29 44.4** | **-1.2** | |
| | comp=Z,2.5nm,0.7s,baz=43,slow=4.4,SNR=13 | | | | | | | |
| **GEA0** | **GERESS Array S** | **158.54 337** | | *e*PKPab | **PKPab** | **21 29 44.6** | **-1.0** | |
| **VAY** | **Valandovo** | **159.18 310** | | *i* PKP | **PKPab** | **21 29 47.6** | **-1.0** | |
| **MOA** | **Molln** | **159.18 335** | | *i* PKPab | **PKPab** | **21 29 47.8** | **-0.6** | |
| | comp=Z,11nm,1.5s | | | | | | | |
| **ARSA** | **Arzberg** | **159.19 332** | | *i* PKPab | **PKPab** | **21 29 48.0** | **-0.5** | |
| | comp=Z,4.5nm,1.1s | | | | | | | |
| **SKO** | **Skopje** | **159.59 313** | | *i* PKP | **PKPab** | **21 29 50.7** | **+0.3** | |
| **SOKA** | **Soboth** | **159.85 332** | | *i* PKPab | **PKPab** | **21 29 50.6** | **-0.9** | |
| | comp=Z,7.7nm,1.2s | | | | | | | |
| **KRUS** | **Krusevo** | **160.02 312** | | *i* PKP | **PKPab** | **21 29 51.7** | **-0.7** | |
| **KBA** | **Koelnbreinsper** | **160.17 335** | | *i* PKPab | **PKPab** | **21 29 52.2** | **-0.7** | |
| | comp=Z,3.4nm,0.8s | | | | | | | |
| **MYKA** | **Terra Mystica** | **160.44 334** | | *i* PKPab | **PKPab** | **21 29 52.4** | **-1.6** | |
| | comp=Z,12nm,1.2s | | | | | | | |
| **WATA** | **Walderalm** | **160.55 339** | | *i* PKPab | **PKPab** | **21 29 54.1** | **-0.4** | |
| | comp=Z,8.5nm,0.9s | | | | | | | |
| **WTTA** | **Wattenberg** | **160.59 339** | | *i* PKPab | **PKPab** | **21 29 54.2** | **-0.5** | |
| | comp=Z,12nm,0.9s | | | | | | | |
| **RETA** | **Reutte** | **160.66 341** | | *i* PKPab | **PKPab** | **21 29 54.6** | **-0.2** | |
| | comp=Z,18nm,1.0s | | | | | | | |
| **MOTA** | **Moosalm** | **160.68 340** | | *i* PKPab | **PKPab** | **21 29 54.3** | **-0.8** | |
| | comp=Z,21nm,1.1s | | | | | | | |
| **ABTA** | **Abfaltersbach** | **160.75 336** | | *i* PKPab | **PKPab** | **21 29 53.9** | **-1.4** | |
| | comp=Z,14nm,1.1s | | | | | | | |
| **DAVA** | **Damuels** | **161.09 342** | | *i* PKPab | **PKPab** | **21 29 56.6** | **-0.3** | |
| | comp=Z,8.2nm,0.8s | | | | | | | |
| **FETA** | **Feichten** | **161.09 340** | | *i* PKPab | **PKPab** | **21 29 56.7** | **-0.1** | |
| | comp=Z,13nm,1.0s | | | | | | | |
| **TUE** | **Stuetta** | **161.98 342** | | *e*PKPab | **PKPab** | **21 30 00.7** | **-0.2** | |
| **TOA0** | **Torodi Ar. Sit** | **163.69 181** | | *e*PKPdf | **PKPdf** | **21 29 16.2** | **+0.2** | |
| TOA0 | | | | *e*PKPab | **PKPab** | **21 30 10.1** | **+1.3** | |
| TOA0 | | | | *e*PKPab | **pPKPdf** | **21 30 10.2** | **+4.5** | |
| **TORD** | **Torodi Ar. Bea** | **163.69 181** | | PKP | **PKPdf** | **21 29 16.4** | **+0.3** | |
| | comp=Z,3.4nm,0.9s,baz=148,slow=1.5,SNR=19 | | | | | | | |
| TORD | | | | PKPab | **PKPab** | **21 30 10.1** | **+1.3** | |
| | comp=Z,6.0nm,0.6s,baz=169,slow=3.6,SNR=17 | | | | | | | |
| **KOWA** | **Kowa** | **164.22 160** | | *e*PKPdf | **PKPdf** | **21 29 17.3** | **+0.8** | |
| **ES19** | **VONSECA Array** | **168.96 22** | | *e*PKPdf | **PKPdf** | **21 29 21.1** | **+1.6** | |
| **ESDC** | **Sonseca Array** | **168.96 22** | | PKP | **PKPdf** | **21 29 19.5** | **0.0** | |
| | comp=Z,0.8nm,0.7s,baz=358,slow=3.9,SNR=3.7 | | | | | | | |
| **KEST** | **Kesra** | **170.88 315** | | PKPab | **PKPab** | **21 30 39.5** | **-0.9** | |
| | comp=Z,3.7nm,1.0s,baz=297,slow=4.5,SNR=3.5 | | | | | | | |

*GUC* ***13*** *21:13:22.9±0.4, 32.49S×71.60W, h19km±24km, ML3.1*
*SJA* ***13*** *21:13:22.7±0.5, 32.80S×71.76W, h28km±8km, ML2.7, MW3.3*

**ISC 13 21:13:23.1±4.0, 32.85S±0.09×71.8W±0.2, h11km±22km, n10, σ0.61, 16, 1C-3D, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **ROC1** | **El Roble** | **0.68** | **101** | *i* | P | **Pb** | **21 13 36.3** | **-0.8** |
| ROC1 | | | | *i* | S | **Sb** | **21 13 46.4** | **-0.2** |
| **ROCH** | **El Roble** | **0.68** | **101** | ⇓ | *i*P | **Pb** | **21 13 36.8** | **-0.4** |
| ROCH | | | | | *e*S | **Sb** | **21 13 46.9** | **+0.2** |
| ROCH | | | | | IAML | | 21 13 47.7 | |
| | comp=N,1μm,0.2s | | | | | | | |
| **PEL** | **Peldehue** | **0.99** | **108** | ⇓ | *i*P | **Pb** | **21 13 42.0** | **-0.4** |
| PEL | | | | | *e*S | **Sb** | **21 13 55.9** | **+0.5** |
| PEL | | | | | IAML | | 21 13 58.7 | |
| | comp=E,1μm,0.2s | | | | | | | |
| **CLCH** | **Cerro Calan** | **1.20** | **118** | ⇓ | *i*P | **Pn** | **21 13 45.5** | **-0.4** |
| CLCH | | | | | *e*S | **Sb** | **21 14 02.7** | **+1.3** |
| CLCH | | | | | IAML | | 21 14 06.2 | |
| | comp=N,757nm,0.6s | | | | | | | |
| **FCH** | **Farellones** | **1.36** | **111** | ⇑ | *i*P | **Pn** | **21 13 48.0** | **-0.3** |
| FCH | | | | | *e*S | **Sg** | **21 14 06.9** | **-0.2** |
| FCH | | | | | IAML | | 21 14 07.8 | |
| | comp=N,384nm,0.5s | | | | | | | |
| **LMEL** | **Las Melosas** | **1.68** | **127** | | *e*P | **Pb** | **21 13 53.8** | **-0.2** |
| LMEL | | | | | *e*S | **Sg** | **21 14 17.8** | **+0.8** |
| LMEL | | | | | IAML | | 21 14 20.2 | |
| | comp=N,310nm,0.3s | | | | | | | |
| **AUSP** | **Uspallata** | **2.14** | **74** | *i* | P | **Pn** | **21 13 59.0** | **0.0** |
| **RTLS** | **Leoncito** | **2.37** | **65** | *i* | P | **Pn** | **21 14 02.2** | **0.0** |
| RTLS | | | | | IAML | | 21 14 12.6 | |
| | comp=Z,42nm,0.5s | | | | | | | |
| **AMOG** | **MOGNA** | **3.40** | **57** | *i* | P | **Pn** | **21 14 15.8** | **-0.4** |
| **AGUA** | **GUANDACOL** | **4.39** | **41** | *i* | P | **Pn** | **21 14 30.5** | **+0.6** |

**MAN 13 21:14:52, 12.84N×122.88E, h18km, mb4.3, ML3.2, MS3.0, 1C-3D, Luzon**

| Code | Station Name | Δ° | AZ° | | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **AUQP** | **San Andres** | **0.52** | **338** | | *e*P | Pb | 21 15 03.0 | +0.3 |
| AUQP | | | | | *e*S | Sn | 21 15 13.9 | +0.8 |
| **MMPH** | **Masbate** | **0.87** | **123** | | *e*P | Pb | 21 15 07.9 | -0.6 |
| MMPH | | | | | *e*S | Sb | 21 15 18.1 | -1.8 |
| **OTRP** | **Odiongan** | **0.96** | **241** | | *e*P | Pg | 21 15 10.8 | +0.1 |
| OTRP | | | | | *e*S | Sn | 21 15 24.9 | +1.1 |
| **GQP** | **Guinayangan** | **1.14** | **338** | ⇓ | *e*P | Pn | 21 15 12.7 | -0.4 |
| GQP | | | | | *e*S | Sg | 21 15 29.6 | +0.4 |
| **BOAC** | **Boac** | **1.18** | **302** | | *e*P | Pn | 21 15 13.7 | 0.0 |
| BOAC | | | | | *e*S | Sb | 21 15 29.0 | 0.0 |
| **RCP** | **Roxas** | **1.27** | **186** | ⇓ | *e*P | Pn | 21 15 14.6 | -0.3 |
| **PVCP** | **Virac** | **1.45** | **59** | | *e*P | Pn | 21 15 17.0 | -0.4 |
| **SJMP** | **San Jose** | **1.76** | **258** | | *e*P | Pb | 21 15 23.2 | -0.5 |
| **CNP** | **Catarman** | **1.77** | **100** | | *e*P | Pn | 21 15 21.4 | -0.4 |
| CNP | | | | | *e*S | Sb | 21 15 45.8 | -0.1 |
| **LQP** | **Lukban** | **1.82** | **314** | ⇓ | *e*P | Pg | 21 15 32.8 | +5.7 |
| **JAP** | **San Jose, Anti** | **2.27** | **204** | ⇓ | *e*P | Pg | 21 15 35.9 | +0.3 |
| **BUSP** | **Coron** | **2.75** | **253** | | *e*P | Pn | 21 15 35.4 | +0.2 |
| **BALP** | **Baler** | **3.15** | **337** | | *e*P | Pn | 21 15 42.4 | +1.6 |
| **MSLP** | **Maasin** | **3.31** | **144** | | *e*P | Pn | 21 15 43.8 | +0.9 |
| **CAUP** | **Cauayan** | **4.21** | **346** | | *e*P | Pn | 21 15 56.5 | +1.2 |

*JMA* ***13*** *21:28:44.8±0.1, 24.41N×121.77E, h45km±2km, M2.4*
*ISCJB* ***13*** *21:28:46.1±0.3, 24.48N±0.02×121.91E±0.02, h19km±3km, Error ellipse: s-maj=3.2km s-min=2.3km az=140.3*
*TAP* ***13*** *21:28:46.2, 24.50N×121.81E, h19km, ML3.3, D*

**ISC 13 21:28:45.8±0.9, 24.47N±0.02×121.84E±0.02, h24km±4km, n48, σ1.920, 88, Taiwan**

| Code | Station Name | Δ° | AZ° | | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **ENA** | **Nanau** | **0.10** | **245** | | P | **Pb** | **21 28 50.4** | **+0.1** |
| | baz=220 | | | | | | | |
| ENA | | | | | S | **Sb** | **21 28 53.5** | **+0.2** |
| | baz=220 | | | | | | | |
| **TWC** | **Suao** | **0.14** | **3** | *i* | P | **Pb** | **21 28 50.7** | **0.0** |
| | baz=20 | | | | | | | |
| TWC | | | | | S | **Sn** | **21 28 54.0** | **+0.1** |
| | baz=20 | | | | | | | |
| **TWE** | **Neicheng** | **0.29** | **328** | *i* | P | **Pb** | **21 28 52.7** | **0.0** |
| | baz=331 | | | | | | | |
| TWE | | | | | S | **Sb** | **21 28 57.6** | **+0.3** |
| | baz=331 | | | | | | | |
| **ENTT** | **Nioudou** | **0.30** | **304** | | *e*P | **Pb** | **21 28 52.6** | **-0.2** |
| | baz=302 | | | | | | | |
| ENTT | | | | | *e*S | **Sb** | **21 28 57.9** | **+0.4** |
| | baz=302 | | | | | | | |
| **ILA** | **Ilan** | **0.31** | **344** | | P | **Pb** | **21 28 52.9** | **+0.1** |
| | baz=348 | | | | | | | |
| ILA | | | | | *e*S | **Sb** | **21 28 58.2** | **+0.7** |
| | baz=348 | | | | | | | |
| **NNS** | **Nan Shan** | **0.43** | **266** | | *e*P | **Pn** | **21 28 54.8** | **-1.8** |
| | baz=261 | | | | | | | |
| NNS | | | | | *e*S | **Sn** | **21 29 01.6** | **-2.1** |
| | baz=261 | | | | | | | |
| **TWD** | **Chiawan** | **0.45** | **210** | | *e*P | **Pn** | **21 28 55.9** | **-0.9** |
| | baz=204 | | | | | | | |
| TWD | | | | | *e*S | **Sn** | **21 29 01.6** | **-2.4** |
| | baz=204 | | | | | | | |
| **NSK** | **Sanguang** | **0.48** | **295** | | P | **Pb** | **21 28 55.6** | **-0.2** |
| | baz=293 | | | | | | | |
| NSK | | | | | S | **Sb** | **21 29 02.5** | **0.0** |
| | baz=293 | | | | | | | |
| **TWB1** | **Santiao Chiao** | **0.55** | **14** | | *e*S | **Sb** | **21 29 04.0** | **-0.4** |
| | baz=18 | | | | | | | |
| **TWA** | **Mucha** | **0.56** | **335** | | *e*P | **Pn** | **21 28 57.2** | **-1.1** |
| | baz=337 | | | | | | | |
| TWA | | | | | *e*S | **Sn** | **21 29 05.4** | **-1.5** |
| | baz=337 | | | | | | | |
| **NWF** | **Wu-fen Shan** | **0.60** | **355** | | P | **Pb** | **21 28 58.0** | **+0.2** |
| | baz=356 | | | | | | | |
| NWF | | | | | S | **Sb** | **21 29 06.2** | **+0.3** |
| | baz=356 | | | | | | | |
| **WHF** | **Hehuan Shan** | **0.62** | **238** | | *e*P | **Pn** | **21 28 57.7** | **-1.8** |
| | baz=234 | | | | | | | |
| WHF | | | | | *e*S | **Sn** | **21 29 07.0** | **-1.8** |
| | baz=234 | | | | | | | |
| **TAP1** | **Taipei** | **0.64** | **333** | | *e*P | **Pn** | **21 28 58.7** | **-0.6** |
| | baz=333 | | | | | | | |
| TAP1 | | | | | *e*S | **Sn** | **21 29 07.8** | **-0.8** |
| | baz=333 | | | | | | | |
| **TAP** | **Taipei** | **0.64** | **332** | | P | **Pn** | **21 28 58.7** | **-0.8** |
| | baz=333 | | | | | | | |
| TAP | | | | | S | **Sn** | **21 29 07.9** | **-1.0** |
| | baz=333 | | | | | | | |
| **TWT** | **Tachien** | **0.64** | **251** | | *e*S | **Sn** | **21 29 08.8** | **-0.4** |
| | baz=247 | | | | | | | |
| **TWS1** | **Kuangyinshan** | **0.74** | **329** | | *e*P | **Pb** | **21 29 00.7** | **+0.7** |
| | baz=329 | | | | | | | |
| TWS1 | | | | | *e*S | **Sn** | **21 29 11.6** | **+0.4** |
| | baz=329 | | | | | | | |
| **ESL** | **Shilin** | **0.75** | **210** | | *e*P | **Pb** | **21 29 00.5** | **+0.2** |
| | baz=206 | | | | | | | |
| ESL | | | | | *e*S | **Sn** | **21 29 13.1** | **+1.5** |
| | baz=206 | | | | | | | |
| **NCU** | **National Centr

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| HAZ | | | | AML | AML | 21 46 26.1 | |
| **WMGZ** | **Waiomatatini S** | **1.94** | **173** | PN | Pn | 21 45 56.2 | +0.1 |
| WMGZ | | | | AML | AML | 21 46 26.6 | |
| WMGZ | | | | AML | AML | 21 46 28.9 | |
| **PKGZ** | **Pakihiroa** | **2.00** | **181** | PN | Pn | 21 45 56.8 | +0.1 |
| PKGZ | | | | AML | AML | 21 46 28.9 | |
| PKGZ | | | | AML | AML | 21 46 30.0 | |
| **RUGZ** | **Raukumara Rang** | **2.10** | **189** | PN | Pn | 21 45 57.6 | -0.2 |
| RUGZ | | | | SN | Sn | 21 46 28.2 | -0.3 |
| **MWZ** | **Matawai** | **2.48** | **191** | PN | Pn | 21 46 02.5 | +0.5 |
| MWZ | | | | SN | Sn | 21 46 36.1 | +0.2 |
| **URZ** | **Urewera** | **2.50** | **198** | PN | Pn | 21 46 02.3 | +0.2 |
| **CNGZ** | **Carnagh Statio** | **2.59** | **178** | PN | Pn | 21 46 03.3 | +0.2 |
| **RIGZ** | **Rimuhau** | **2.82** | **185** | PN | Pn | 21 46 05.6 | -0.3 |
| RIGZ | | | | AML | AML | 21 46 45.2 | |
| RIGZ | | | | AML | AML | 21 46 45.3 | |

*IDC* ***13*** *21:46:14.5±1.0, 33°.33N×91°.85E, h0km, mb3.4/5, mb1 3.5/8, mb1mx3.4/51, mbtmp3.4/8, ML2.9/3, MS3.1/1, Ms1 3.1/1, ms1mx2.6/30, Error ellipse: s-maj=44.9km s-min=19.5km az=60.0*

*ISCJB* ***13*** *21:46:17.9±0.7, 33°.51N±0°.06×92°.0E±0°.1, h33km, mb3.4/5, Error ellipse: s-maj=15.3km s-min=7.0km az=24.3*

**ISC 13 21:46:19.9±1.0, 33°.5N±0°.1×92°.1E±0°.1, h35km, n21, σ1s28/20, mb3.4/5, Qinghai**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **TAPN** | **Taplejung** | **7.20** | **213** | *e*P | | **Pn** | | **21 48 02.6** | **-0.4** |
| **GUN** | **Gumba** | **7.72** | **225** | *e*P | | **Pn** | | **21 48 11.8** | **+1.7** |
| | 9.7nm,0.6s | | | | | | | | |
| **JIRN** | **Jiri** | **7.73** | **223** | *e*P | | **Pn** | | **21 48 10.6** | **+0.4** |
| | 34nm,0.3s | | | | | | | | |
| **ODAN** | **Odare** | **7.77** | **213** | *e*P | | **Pn** | | **21 48 09.3** | **-1.4** |
| **RAMN** | **Ramite** | **8.07** | **217** | *e*P | | **Pn** | | **21 48 13.9** | **-0.9** |
| | 10nm,0.4s | | | | | | | | |
| **KKN** | **Kakani** | **8.17** | **228** | *e*P | | **Pn** | | **21 48 18.1** | **+1.9** |
| | 9.5nm,0.5s | | | | | | | | |
| **PKI** | **Pulchoki** | **8.25** | **226** | *e*P | | **Pn** | | **21 48 19.0** | **+1.6** |
| | 14nm,0.6s | | | | | | | | |
| **PKIN** | **Phulchoki** | **8.25** | **226** | *e*P | | **Pn** | | **21 48 18.9** | **+1.6** |
| | 13nm,0.6s | | | | | | | | |
| **DMN** | **Daman** | **8.41** | **227** | *e*P | | **Pn** | | **21 48 20.8** | **+1.4** |
| | 5.3nm,0.4s | | | | | | | | |
| **GKN** | **Gorkha** | **8.43** | **231** | *e*P | | **Pn** | | **21 48 21.5** | **+1.8** |
| | 0.7nm,0.3s | | | | | | | | |
| **KOLN** | **Koldanda** | **9.27** | **234** | *e*P | | **Pn** | | **21 48 31.4** | **+0.1** |
| | 12nm,0.7s | | | | | | | | |
| **PYUN** | **Piuthan** | **9.49** | **238** | *e*P | | **Pn** | | **21 48 33.1** | **-1.2** |
| | 8.5nm,0.5s | | | | | | | | |
| **MKAR** | **Makanchi Array** | **15.22** | **334** | Pn | | **Pn** | | **21 49 50.6** | **-1.5** |
| | 0.1nm,0.3s,baz=144,slow=12,SNR=5.4 | | | | | | | | |
| **AAK** | **Ala-Archa** | | **16.55 309** | LR | | LR | | 21 57 46.1 | |
| | comp=Z,66nm,18.4s,baz=358,slow=42 | | | | | | | | |
| **SONM** | **Songino Array** | **17.92** | **33** | P | | **P** | | **21 50 28.1** | **+1.5** |
| | 0.1nm,0.3s,baz=224,slow=10.0,SNR=6.1 | | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **19.79** | **334** | P | | **P** | | **21 50 47.7** | **+0.8** |
| | 0.0nm,0.3s,baz=147,slow=10,SNR=6.0 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **21.08** | **348** | P | | **P** | | **21 51 00.5** | **-0.4** |
| | 1.1nm,0.7s,baz=156,slow=12,SNR=5.8 | | | | | | | | |
| **BVAR** | **Borovoye Array** | **24.93** | **328** | P | | **P** | | **21 51 39.9** | **+0.3** |
| | 0.5nm,0.6s,baz=122,slow=11,SNR=5.8 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **66.70** | **136** | P | | **P** | | **21 57 07.6** | **+0.2** |
| | 0.3nm,0.8s,baz=310,slow=11,SNR=2.4 | | | | | | | | |
| **ASAR** | **Alice Springs** | **69.42** | **139** | P | | **P** | | **21 57 24.7** | **+0.3** |
| | 0.5nm,0.9s,baz=328,slow=6.8,SNR=5.6 | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **83.18** | **281** | P | | **P** | | **21 58 41.8** | **-1.1** |
| | 0.5nm,0.9s,baz=65,slow=3.4,SNR=5.6 | | | | | | | | |

*ATA* ***13*** *21:46:31.9±1.7, 38°.47N×43°.20E, h24km±11km, ML3.3, MW3.3*

*CSEM* ***13*** *21:46:32.9±0.2, 38°.50N×43°.23E, h5km, ML3.0, Error ellipse: s-maj=4.9km s-min=3.8km az=112.0*

*ISK* ***13*** *21:46:32.0, 38°.55N×43°.21E, h5km, ML2.2*

*ISCJB* ***13*** *21:46:33.4±0.5, 38°.52N±0°.02×43°.25E±0°.03, h2km±5km, Error ellipse: s-maj=4.6km s-min=3.8km az=27.3*

*DDA* ***13*** *21:46:33.0, 38°.50N×43°.23E, h7km, Ml3.0*

**ISC 13 21:46:33.3±0.9, 38°.52N±0°.02×43°.23E±0°.02, h7km±8km, n41, σ0s93/63, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **TVAN** | **Van** | **0.14** | **85** | *i* P | | **Pg** | | **21 46 36.2** | **-0.1** |
| TVAN | | | | *i* S | | **Sg** | | **21 46 39.3** | **+0.9** |
| **TVAN** | **Van** | **0.14** | **85** | P | | **Pg** | | **21 46 36.2** | **-0.1** |
| TVAN | | | | S | | **Sg** | | **21 46 39.3** | **+0.9** |
| **VANB** | **Van** | **0.15** | **58** | *e*PG | | **Pg** | | **21 46 35.5** | **-0.9** |
| **VANB** | **Van** | **0.15** | **58** | *e*Pg | | **Pg** | | **21 46 35.5** | **-0.9** |
| **GEVA** | **Gevas** | **0.24** | **213** | *e*P | | **Pg** | | **21 46 37.6** | **-0.6** |
| GEVA | | | | *e*S | | **Sg** | | **21 46 42.8** | **+1.4** |
| GEVA | | | | IAML | | | | 21 46 43.2 | |
| | comp=Z,435nm,0.4s | | | | | | | | |
| **GEVA** | **Gevas** | **0.24** | **213** | *i* P | | **Pg** | | **21 46 37.5** | **-0.6** |
| GEVA | | | | *i* S | | **Sg** | | **21 46 42.4** | **+1.0** |
| **GEVA** | **Gevas** | **0.24** | **213** | P | | **Pg** | | **21 46 37.5** | **-0.6** |
| GEVA | | | | S | | **Sg** | | **21 46 42.4** | **+1.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.49** | **307** | *i* P | | **Pg** | | **21 46 42.5** | **-0.3** |
| ADCV | | | | *i* S | | **Sb** | | **21 46 51.3** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.49** | **307** | P | | **Pg** | | **21 46 42.5** | **-0.3** |
| ADCV | | | | S | | **Sb** | | **21 46 51.3** | **-0.6** |
| **VMUR** | **Van-Muradiye** | **0.54** | **30** | *i* P | | **Pg** | | **21 46 44.3** | **+0.4** |
| VMUR | | | | *i* S | | **Sb** | | **21 46 53.3** | **-0.2** |
| **VMUR** | **Van-Muradiye** | **0.54** | **30** | P | | **Pg** | | **21 46 44.3** | **+0.4** |
| VMUR | | | | S | | **Sb** | | **21 46 53.3** | **-0.2** |
| **CLDR** | **Caldiran** | **0.83** | **41** | *e*PG | | **Pg** | | **21 46 48.9** | **-0.3** |
| CLDR | | | | *e*SG | | **Sb** | | **21 47 01.3** | **-0.3** |
| **CLDR** | **Caldiran** | **0.83** | **41** | *i* P | | **Pg** | | **21 46 49.0** | **-0.2** |
| CLDR | | | | *i* S | | **Sb** | | **21 47 02.0** | **+0.4** |
| **CLDR** | **Caldiran** | **0.83** | **41** | P | | **Pg** | | **21 46 49.0** | **-0.2** |
| CLDR | | | | *e*Sg | | **Sb** | | **21 47 01.3** | **-0.3** |
| CLDR | | | | S | | **Sb** | | **21 47 02.0** | **+0.4** |
| **TUTA** | **Tutak** | **0.94** | **340** | *e*P | | **Pg** | | **21 46 50.3** | **-1.1** |
| **TUTA** | **Tutak** | **0.94** | **340** | *i* P | | **Pg** | | **21 46 50.4** | **-1.1** |
| TUTA | | | | *i* S | | **Sg** | | **21 47 04.1** | **+0.4** |
| **TUTA** | **Tutak** | **0.94** | **340** | P | | **Pg** | | **21 46 50.3** | **-1.1** |
| TUTA | | | | S | | **Sg** | | **21 47 04.1** | **+0.4** |
| **HAKT** | **HAKKARI** | **1.03** | **158** | *i* P | | **Pg** | | **21 46 51.9** | **-1.2** |
| HAKT | | | | *i* S | | **Sn** | | **21 47 08.7** | **-0.5** |
| **HAKT** | **HAKKARI** | **1.03** | **158** | P | | **Pg** | | **21 46 51.9** | **-1.2** |
| **AGRB** | **Hanur-Agry** | **1.07** | **350** | *e*PG | | **Pg** | | **21 46 52.8** | **-1.1** |
| **AGRB** | **Hanur-Agry** | **1.07** | **350** | *e*Pg | | **Pg** | | **21 46 52.8** | **-1.1** |
| **DYDN** | **Diyadin** | **1.09** | **19** | *e*P | | **Pb** | | **21 46 54.4** | **-0.2** |
| **SRTM** | **Siirt_Merkez** | **1.15** | **243** | *i* P | | **Pn** | | **21 46 55.8** | **-0.2** |
| SRTM | | | | *i* S | | **Sn** | | **21 47 13.3** | **+1.2** |
| **SRTM** | **Siirt_Merkez** | **1.15** | **243** | P | | **Pn** | | **21 46 55.8** | **-0.2** |
| **EKAR** | **Karacoban** | **1.17** | **310** | *e*P | | **Pn** | | **21 46 56.4** | **0.0** |
| EKAR | | | | *e*S | | **Sn** | | **21 47 12.5** | **-0.2** |
| EKAR | | | | IAML | | | | 21 47 22.4 | |
| | comp=Z,15nm,0.8s | | | | | | | | |
| **EKAR** | **Karacoban** | **1.17** | **310** | *i* P | | **Pn** | | **21 46 56.6** | **+0.2** |
| EKAR | | | | *i* S | | **Sn** | | **21 47 16.8** | **+4.0** |
| **EKAR** | **Karacoban** | **1.17** | **310** | P | | **Pn** | | **21 46 56.6** | **+0.2** |
| **SIRT** | **Sirnak** | **1.19** | **212** | *e*PN | | **Pn** | | **21 46 56.6** | **+0.1** |
| **SIRT** | **Sirnak** | **1.19** | **212** | *e*Pn | | **Pn** | | **21 46 56.6** | **+0.1** |
| **CUKT** | **Cukurca** | **1.30** | **166** | *e*PN | | **Pg** | | **21 46 58.4** | **+0.1** |
| **CUKT** | **Cukurca** | **1.30** | **166** | *e*Pn | | **Pg** | | **21 46 58.4** | **+0.1** |
| **EATA** | **Eleskirt** | **1.46** | **337** | *e*P | | **Pn** | | **21 46 59.8** | **-0.6** |
| **EATA** | **Eleskirt** | **1.46** | **337** | *i* P | | **Pn** | | **21 46 59.9** | **-0.6** |
| EATA | | | | *i* S | | **Sg** | | **21 47 22.8** | **+2.5** |
| **EATA** | **Eleskirt** | **1.46** | **337** | P | | **Pn** | | **21 46 59.9** | **-0.6** |
| **BTMN** | **Batman** | **1.66** | **249** | *i* P | | **Pn** | | **21 47 02.4** | **-0.6** |
| BTMN | | | | *i* S | | **Sg** | | **21 47 27.8** | **+1.0** |
| **BTMN** | **Batman** | **1.66** | **249** | P | | **Pn** | | **21 47 02.4** | **-0.6** |
| **TASB** | **TASBURUN-IGDIR** | **1.66** | **28** | *e*PN | | **Pb** | | **21 47 03.5** | **-0.8** |
| **TASB** | **TASBURUN-IGDIR** | **1.66** | **28** | *e*Pn | | **Pb** | | **21 47 03.5** | **-0.8** |
| **BNGL** | **BINGOL** | **1.68** | **286** | *e*P | | **Pn** | | **21 47 01.9** | **-1.4** |
| BNGL | | | | *e*S | | **Sg** | | **21 47 28.0** | **+0.6** |
| BNGL | | | | IAML | | | | 21 47 30.0 | |
| | comp=Z,20nm,0.4s | | | | | | | | |
| **DIGO** | **Kars** | **1.90** | **3** | *e*P | | **Pb** | | **21 47 07.7** | **-0.8** |
| **EAK** | **Akyaka** | **2.19** | **8** | *e*P | | **Pn** | | **21 47 10.0** | **-0.3** |

**KRNET 13 21:51:52.9±0.1, 40°.33N×76°.97E, mb2.5, 12C-4D, Kyrgyzstan-Xinjiang border region**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **KZA** | **Kyzart** | **2.18** | **324** | ⇑*i* P | | Pg | | 21 52 36.9 | +2.2 |
| | baz=320 | | | | | | | | |
| KZA | | | | ⇑*i* S | | Sb | | 21 53 00.7 | -0.5 |
| | baz=320 | | | | | | | | |
| **BOOM** | **Boomskoye usch** | **2.30** | **341** | ⇑*i* P | | Pb | | 21 52 34.8 | -0.5 |
| | baz=341 | | | | | | | | |
| BOOM | | | | ⇑*i* S | | Sb | | 21 53 04.7 | +0.3 |
| | baz=341 | | | | | | | | |
| **PRZ** | **Przheval'sk** | **2.41** | **26** | ⇑*i* P | | Pb | | 21 52 35.9 | -1.4 |
| | baz=26 | | | | | | | | |
| PRZ | | | | ⇑*i* S | | Sb | | 21 53 07.5 | -0.1 |
| | baz=26 | | | | | | | | |
| **UCH** | **Uchtor** | **2.65** | **317** | ⇓*i* P | | Pg | | 21 52 44.5 | +0.7 |
| | baz=312 | | | | | | | | |
| UCH | | | | ⇓*i* S | | Sb | | 21 53 13.4 | -1.5 |
| | baz=312 | | | | | | | | |
| **SFK** | **Sufi-Kurgan** | **2.67** | **264** | ⇑*i* P | | Pb | | 21 52 39.7 | -2.1 |
| | baz=265 | | | | | | | | |
| SFK | | | | ⇑*i* S | | Sb | | 21 53 14.0 | -1.3 |
| | baz=265 | | | | | | | | |
| **KBK** | **Karagaybulak** | **2.78** | **328** | ⇓*i* P | | Pg | | 21 52 45.8 | -0.4 |
| | baz=325 | | | | | | | | |
| KBK | | | | ⇓*i* S | | Sb | | 21 53 15.8 | -2.5 |
| | baz=325 | | | | | | | | |
| **AML** | **Almayashu** | **3.06** | **307** | ⇑*i* P | | Pg | | 21 52 50.9 | -0.7 |
| | baz=302 | | | | | | | | |
| AML | | | | ⇑*i* S | | Sb | | 21 53 24.7 | -1.8 |
| | baz=302 | | | | | | | | |
| **PDGK** | **Podgornoye** | **3.54** | **31** | ⇑*i* P | | Pn | | 21 52 51.3 | +2.0 |
| | baz=31 | | | | | | | | |
| PDGK | | | | ⇑*i* S | | Sn | | 21 53 34.5 | +2.5 |
| | baz=31 | | | | | | | | |

*IDC* ***13*** *22:04:29.0±2.8, 10°.87S×117°.75E, h0km, mb3.8/3, mb1 4.0/5, mb1mx3.7/27, mbtmp3.8/5, ML4.2/2, Error ellipse: s-maj=155.9km s-min=23.8km az=49.0*

*ISCJB* ***13*** *22:04:30.8±0.8, 11°.34S±0°.07×117°.36E±0°.05, h33km, mb3.7/3, Error ellipse: s-maj=10.5km s-min=6.6km az=20.0*

*DJA* ***13*** *22:04:37.1±0.6, 11°.5S±1°.1×117°.7E±°, h82km±37km, M4.5/12, mB5.2/2, mb4.6/3, MLv4.4/12, Mw(mB)4.6/2*

**ISC 13 22:04:32.5±1.1, 11°.3S±0°.1×117°.31E±0°.05, h35km, n17, σ1s71/20, mb3.9/3, South of Sumbawa**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **PLAI** | **Plampang** | **2.52** | **11** | P | | **Pn** | | **22 05 11.4** | **+0.5** |
| PLAI | | | | S | | **Sn** | | **22 05 37.8** | **-2.6** |
| **WBSI** | **Waikabubak, Su** | **2.64** | **51** | P | | **Pn** | | **22 05 15.9** | **+3.3** |
| WBSI | | | | S | | **Sn** | | **22 05 42.6** | **-0.9** |
| **DNP** | **Denpasar** | **3.34** | **322** | P | | **Pn** | | **22 05 24.7** | **+2.4** |
| DNP | | | | S | | **Sn** | | **22 06 01.7** | **+0.9** |
| **WSI** | **Waingapu** | **3.37** | **61** | P | | Pn | | 22 05 26.7 | +4.1 |
| **SRBI** | **Singaraja** | **3.82** | **327** | P | | **Pn** | | **22 05 30.8** | **+1.9** |
| **JAGI** | **Jajag, Banyuwa** | **4.21** | **312** | P | | **Pn** | | **22 05 34.2** | **0.0** |
| **ABJI** | **Asem Bagus** | **4.63** | **319** | P | | **Pn** | | **22 05 42.2** | **+2.2** |
| **GMJI** | **Gumukmas** | **4.87** | **308** | P | | **Pn** | | **22 05 43.2** | **0.0** |
| GMJI | | | | S | | **Sn** | | **22 06 36.9** | **-1.5** |
| **EDFI** | **Ende, Flores** | **5.01** | **60** | P | | **Pn** | | **22 05 46.4** | **+1.1** |
| **BLJI** | **Banyuglugur** | **5.10** | **314** | P | | **Pn** | | **22 05 48.1** | **+1.6** |
| **KMMI** | **Kalianget** | **5.38** | **322** | P | | **Pn** | | **22 05 51.1** | **+0.9** |
| | 41nm,0.9s,0.3nm | | | | | | | | |
| **PWJI** | **Pagerwojo** | **6.34** | **301** | P | | **Pn** | | **22 06 05.8** | **+2.3** |
| **WRA** | **Warramunga Arr** | **18.49** | **120** | P | | **P** | | **22 08 44.2** | **-1.6** |
| | 0.8nm,0.3s,baz=285,slow=14,SNR=25 | | | | | | | | |
| WRA | | | | S | | Sn | | 22 11 55.8 | -16 |
| | 0.3nm,0.3s,baz=293,slow=23,SNR=3.6 | | | | | | | | |
| **ASAR** | **Alice Springs** | **20.00** | **130** | P | | **Pn** | | **22 09 04.0** | **-0.2** |
| | 0.7nm,0.3s,baz=312,slow=13,SNR=43 | | | | | | | | |
| ASAR | | | | S | | S | | 22 12 33.1 | -12 |
| | 0.3nm,0.3s,baz=304,slow=22,SNR=9.3 | | | | | | | | |
| **SONM** | **Songino Array** | **59.69** | **352** | P | | **P** | | **22 14 32.5** | **-0.9** |
| | 0.2nm,0.5s,baz=176,slow=10,SNR=3.1 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **65.78** | **334** | P | | **P** | | **22 15 14.7** | **+0.7** |
| | 0.5nm,0.4s,baz=159,slow=5.4,SNR=20 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **70.63** | **340** | P | | **P** | | **22 15 44.2** | **+0.1** |
| | 0.7nm,0.5s,baz=150,slow=7.7,SNR=5.1 | | | | | | | | |

*TRN* ***13*** *22:04:28.3, 19°.53N×64°.47W, h3km, MD4.4*

*IDC* ***13*** *22:04:30.0±0.6, 19°.49N×64°.37W, h0km, mb4.0/14, mb1 4.2/15, mb1mx4.0/34, mbtmp4.0/15, ML3.6/1, MS3.2/4, Ms1 3.3/4, ms1mx2.9/36, Error ellipse: s-maj=20.0km s-min=14.8km az=58.0*

*ISCJB* ***13*** *22:04:32.4±0.2, 19°.57N±0°.03×64°.38W±0°.03, h27km, mb4.3/31, MS3.4/2, Error ellipse: s-maj=4.7km s-min=3.1km az=138.3*

*NEIC* ***13*** *22:04:33.0±0.0, 19°.70N×64°.38W, h16km, mb4.5/18, MD4.1(RSPR), After RSPR.*

*NEIC Felt at Juncos and Trujillo Alto, Puerto Rico.*

**ISC 13 22:04:34.1±0.4, 19°.45N±0°.04×64°.49W±0°.04, h27km, n88, σ2s07/104, mb4.3/31, 1C, Virgin Islands**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **ABVI** | **Anegada Island** | **0.73** | **168** | *e*Pn | | **Pn** | | **22 04 49.0** | **+0.4** |
| **TBVI** | **Tortola** | **1.03** | **187** | *e*Pn | | **Pb** | | **22 04 53.6** | **+0.2** |
| **STVI** | **Saint Thomas** | **1.18** | **202** | *e*Pn | | **Pb** | | **22 04 55.8** | **0.0** |
| **CDVI** | **St. Croix** | **1.71** | **189** | *e*Pn | | **Pb** | | **22 05 04.7** | **-0.2** |
| **CBYP** | **Canovanas** | **1.75** | **228** | *e*Pn | | **Pn** | | **22 05 03.6** | **+0.9** |
| **SMRT** | **St. Maarten** | **1.93** | **136** | *e*Pn | | **Pn** | | **22 05 04.6** | **-0.6** |
| **SMRT** | **St. Maarten** | **1.93** | **136** | *e*P | | **Pn** | | **22 05 04.9** | **-0.3** |
| **SJG** | **San Juan** | **2.06** | **230** | *e*Pn | | **Pn** | | **22 05 08.2** | **+1.3** |
| SJG | | | | *e*S | | **Sb** | | **22 05 35.6** | **-0.4** |
| **SABA** | **Saba** | **2.17** | **147** | *e*Pn | | **Pn** | | **22 05 10.4** | **+1.9** |
| **SABA** | **Saba** | **2.17** | **147** | *e*P | | **Pn** | | **22 05 09.1** | **+0.6** |
| **CELP** | **Cerrillos** | **2.41** | **236** | *e*Pn | | **Pn** | | **22 05 13.4** | **+1.7** |
| **SEUS** | **St. Eustatius** | **2.42** | **143** | *e*Pn | | **Pb** | | **22 05 15.1** | **-1.8** |
| SEUS | | | | *e*Sn | | Sn | | 22 05 27.3 | -13 |
| **SKI** | **Saint Kitts** | **2.68** | **141** | *e*Pn | | **Pn** | | **22 05 15.7** | **+0.2** |
| **SKI** | **Saint Kitts** | **2.68** | **141** | *e*P | | **Pn** | | **22 05 15.6** | **0.0** |
| **AGP** | **Aguadilla** | **2.71** | **248** | *e*Pn | | **Pn** | | **22 05 16.4** | **+0.5** |
| **MPR** | **Mayaguez** | **2.79** | **244** | *e*Pn | | **Pn** | | **22 05 18.3** | **+1.2** |
| **NEV** | **Hard Times** | **2.94** | **141** | *e*P | | **Pn** | | **22 05 19.7** | **+0.7** |
| **IDE** | **Isla Desecheo** | **3.02** | **250** | *e*Pn | | **Pn** | | **22 05 21.3** | **+1.2** |
| **ANWB** | **Willy Bob** | **3.12** | **124** | *e*Pn | | **Pn** | | **22 05 19.4** | **-2.2** |
| ANWB | | | | *e*S | | **Sn** | | **22 05 55.0** | **-2.9** |
| **ANWB** | **Willy Bob** | **3.12** | **124** | *e*P | | **Pn** | | **22 05 22.0** | **+0.5** |
| **BPA** | **Boggy Peak** | **3.46** | **133** | *e*P | | **Pn** | | **22 05 26.0** | **-0.2** |
| BPA | | | | *e*S | | **Sn** | | **22 06 09.8** | **+3.4** |
| **MLYT** | **Lee's Yard** | **3.49** | **141** | *e*P | | **Pn** | | **22 05 27.4** | **+0.8** |
| MLYT | | | | *e*S | | **Sn** | | **22 06 09.8** | **+2.8** |
| **GDHS** | **Morne Mazeau,** | **4.09** | **140** | *e*Pn | | **Pn** | | **22 05 35.0** | **0.0** |
| **SSG** | **Sans Toucher** | **4.28** | **141** | *e*P | | **Pn** | | **22 05 37.5** | **-0.2** |
| **TBG** | **Guadaloupe-3** | **4.49** | **142** | *e*P | | **Pn** | | **22 05 41.0** | **+0.6** |
| **TBG** | **Guadaloupe-3** | **4.49** | **142** | *e*S | | **Sn** | | **22 06 35.1** | **+3.4** |
| **DEG** | **La Desirade** | **4.52** | **133** | *e*P | | **Pn** | | **22 05 42.9** | **+2.0** |
| **MDMP** | **Dominica, Moor** | **4.83** | **142** | *e*P | | **Pn** | | **22 05 45.0** | **0.0** |
| **BBL** | **Barber's Block** | **4.85** | **143** | *e*P | | **Pn** | | **22 05 45.9** | **+0.5** |
| **SDD** | **Santo Domingo** | **5.23** | **260** | *e*Pn | | **Pn** | | **22 05 54.3** | **+3.8** |
| **CXM** | **Morne La Croix** | **5.60** | **145** | *e*P | | **Pn** | | **22 05 56.5** | **+0.7** |
| **BAMF** | **Morne Balai** | **5.61** | **145** | *e*P | | **Pn** | | **22 05 56.3** | **+0.5** |
| **BANI** | **BANI** | **5.65** | **260** | *e*Pn | | **Pn** | | **22 05 58.4** | **+1.9** |
| **FDF** | **Fort de France** | **5.67** | **145** | *e*Pn | | **Pn** | | **22 05 56.3** | **-0.4** |
| **FDF** | **Fort de France** | **5.67** | **145** | *e*P | | **Pn** | | **22 05 56.5** | **-0.3** |
| **ZAM** | **Aeronautique** | **5.87** | **145** | *e*P | | **Pn** | | **22 06 00.9** | **+1.6** |
| **SDDR** | **Presa de Saban** | **6.44** | **267** | *e*Pn | | **Pn** | | **22 06 09.2** | **+1.9** |
| SDDR | | | | *e*S | | **Sn** | | **22 07 19.1** | **-0.8** |
| **GRTK** | **Grand Turk** | **6.56** | **289** | *e*Pn | | **Pn** | | **22 06 06.7** | **-2.1** |
| GRTK | | | | *e*S | | **Sn** | | **22 07 18.0** | **-4.7** |
| **SVB** | **Belmont** | **6.88** | **153** | *e*Pn | | **Pn** | | **22 06 14.2** | **+0.9** |
| **GRGR** | **Grenville** | **7.77** | **159** | *e*Pn | | **Pn** | | **22 06 26.4** | **+0.9** |
| **PCRV** | **Puerto La Cruz** | **9.22** | **181** | Pn | | **Pn** | | **22 06 45.4** | **0.0** |
| | 0.6nm,0.3s,baz=346,slow=4.2,SNR=2.3 | | | | | | | | |
| **GTBY** | **Guantanamo Bay** | **10.02** | **274** | *e*Pn | | **Pn** | | **22 06 54.0** | **-2.2** |
| GTBY | | | | *e*S | | Sn | | 22 08 37.9 | -10 |
| **SDV** | **Santo Domingo** | **12.07** | **210** | Pn | | **Pn** | | **22 07 27.9** | **+3.3** |
| | 1.4nm,0.3s,baz=24,slow=6.3,SNR=9.5 | | | | | | | | |
| SDV | | | | Sn | | **Sn** | | **22 09 34.1** | **-4.4** |
| | 0.8nm,0.3s,baz=212,slow=17,SNR=1.9 | | | | | | | | |
| SDV | | | | LR | | LR | | 22 12 11.5 | |
| | comp=Z,88nm,20.7s,baz=59,slow=38 | | | | | | | | |
| **SDV** | **Santo Domingo** | **12.07** | **210** | Pn | | **Pn** | | **22 07 29.1** | **+4.5** |
| SDV | | | | Sn | | **Sn** | | **22 09 34.1** | **-4.4** |
| **MTDJ** | **Mount Denham** | **12.41** | **266** | *e*Pn | | **Pn** | | **22 07 28.6** | **-0.6** |
| **RUSC** | **La Rusia** | **15.86** | **213** | *e*Pn | | **P** | | **22 08 18.7** | **-0.9** |
| | 10.0nm,1.0s | | | | | | | | |
| **HELC** | **Santa Helena** | **17.00** | **221** | *e*Pn | | **Pn** | | **22 08 31.4** | **+0.9** |
| | 23nm,0.6s | | | | | | | | |
| **ROSC** | **El Rosal** | **17.40** | **215** | Pn | | **P** | | **22 08 38.8** | **+2.2** |
| | 2.3nm,0.3s,baz=311,slow=9.3,SNR=5.1 | | | | | | | | |
| ROSC | | | | LR | | LR | | 22 15 54.4 | |
| | comp=Z,49nm,20.2s,baz=318,slow=39 | | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **DWPF** | **Disney Wildern** | **17.73** | **302** | *e*Pn | | **P** | | **22 08 39.6** | **-0.1** |
| **PRAC** | **Prado** | **18.64** | **214** | *e*P | | **Pn** | | **22 08 50.8** | **+0.4** |
| | 28nm,1.5s | | | | | | | | |
| **RGRS** | **Roger Stewart** | **19.41** | **317** | *e*P | | **Pn** | | **22 09 03.4** | **+3.8** |
| | 2µm,0.6s | | | | | | | | |
| **PTGA** | **Pitinga** | | **20.54 167** | P | | **P** | | **22 09 10.3** | **-0.3** |
| | 2.7nm,0.5s,baz=341,slow=16,SNR=6.4 | | | | | | | | |
| **HODGE** | **Hodges** | **21.59** | **317** | *e*P | | **P** | | **22 09 18.4** | **-3.4** |
| | 16nm,0.6s | | | | | | | | |
| HODGE | | | | *e*S | | **S** | | **22 13 21.9** | **+2.3** |
| **KMSC** | **Kings Mountain** | **21.59** | **320** | *e*P | | **P** | | **22 09 25.2** | **+3.4** |
| | 17nm,0.4s | | | | | | | | |
| **IP06** | **Yanceyville** | **21.84** | **330** | *e*P | | **P** | | **22 09 22.4** | **-2.1** |
| | 12nm,0.9s | | | | | | | | |
| IP06 | | | | *e*S | | **S** | | **22 13 21.2** | **-3.4** |
| **CVRD** | **Centerville Ro** | **21.87** | **331** | *e*P | | **P** | | **22 09 24.8** | **0.0** |
| | 18nm,0.4s | | | | | | | | |
| CVRD | | | | *e*S | | **S** | | **22 13 27.7** | **+2.5** |
| **GOGA** | **Godfrey** | **21.91** | **313** | *e*P | | **P** | | **22 09 27.2** | **+2.0** |
| | 3.6nm,0.6s | | | | | | | | |
| GOGA | | | | *e*S | | **S** | | **22 13 25.3** | **-0.6** |
| **IP03** | **Louisa** | **21.93** | **330** | *e*P | | **P** | | **22 09 23.1** | **-2.3** |
| | 14nm,0.5s | | | | | | | | |
| IP03 | | | | *e*S | | **S** | | **22 13 26.9** | **+0.6** |
| **IP04** | **Greensprings** | **22.03** | **330** | *e*P | | **P** | | **22 09 25.3** | **-1.2** |
| | 15nm,0.5s | | | | | | | | |
| IP04 | | | | *e*S | | **S** | | **22 13 27.0** | **-1.1** |
| **BG3** | **Lake Jocassee** | **22.49** | **317** | *e*P | | **P** | | **22 09 31.6** | **+0.1** |
| | 54nm,0.6s | | | | | | | | |
| BG3 | | | | *e*Sn | | Sn | | 22 13 44.2 | -6.4 |
| **BLA** | **Blacksburg** | **22.52** | **325** | *e*P | | **P** | | **22 09 32.0** | **+0.2** |
| | 6.1nm,0.7s | | | | | | | | |
| **SDMD** | **Soldier's Deli** | **22.57** | **334** | *e*P | | **P** | | **22 09 31.4** | **-0.8** |
| | 8.8nm,0.4s | | | | | | | | |
| SDMD | | | | *e*S | | **S** | | **22 13 41.1** | **+3.0** |
| **CPNY** | **Central Park** | **22.76** | **341** | *e*P | | **P** | | **22 09 30.7** | **-3.6** |
| | 23nm,0.9s | | | | | | | | |
| CPNY | | | | *e*Sn | | **S** | | **22 13 48.1** | **+6.6** |
| **BRNJ** | **Basking Ridge** | **22.86** | **340** | *e*P | | **P** | | **22 09 33.5** | **-1.8** |
| | 23nm,0.9s | | | | | | | | |
| BRNJ | | | | *e*Sn | | **S** | | **22 13 49.5** | **+6.4** |
| **PAL** | **Palisades** | **22.94** | **341** | *e*P | | **P** | | **22 09 35.8** | **-0.4** |
| | 33nm,0.7s | | | | | | | | |
| PAL | | | | *e*Sn | | **S** | | **22 13 50.6** | **+6.0** |
| **CPCT** | **Cooper Cave** | **23.80** | **316** | *e*P | | **P** | | **22 09 45.2** | **+0.4** |
| | 25nm,0.6s | | | | | | | | |
| CPCT | | | | *e*Sn | | Sn | | 22 14 16.5 | -5.4 |
| **SAML** | **Samuel** | **28.25** | **177** | *e*P | | **P** | | **22 10 25.0** | **-0.1** |
| | 3.0nm,1.1s | | | | | | | | |
| **LPAZ** | **La Paz** | | **35.69 186** | LR | | LR | | 22 27 08.0 | |
| | comp=Z,46nm,18.3s,baz=326,slow=38 | | | | | | | | |
| **TXAR** | **Lajitas Array** | **36.86** | **293** | P | | **P** | | **22 11 40.7** | **+0.2** |
| | 0.9nm,0.8s,baz=96,slow=9.2,SNR=8.2 | | | | | | | | |
| **BDFB** | **Brasilia** | | **38.45 154** | P | | **P** | |

0.3nm,0.3s,baz=24,slow=12,SNR=6.4
FITZ Sn Sn 22 29 16.8 -12
0.4nm,0.3s,baz=277,slow=17,SNR=3.2
**WRA Warramunga Arr 14.22 162** Pn Pn 22 27 36.3 -0.2
0.7nm,0.3s,baz=341,slow=13,SNR=9.6
WRA Sn Sn 22 30 00.9 -14
0.4nm,0.3s,baz=338,slow=22,SNR=6.2
**ASAR Alice Springs 17.66 167** P Pn 22 28 21.7 +0.4
0.4nm,0.3s,baz=345,slow=10,SNR=20
ASAR S Sn 22 31 39.4 +0.6
0.2nm,0.3s,baz=352,slow=22,SNR=3.2
**MKAR Makanchi Array 67.54 327** P P 22 35 11.7 -0.1
0.2nm,0.3s,baz=115,slow=8.1,SNR=10

*ISCJB* ***13*** *22:36:17.5±2.0,52.°1N±0.°4×177.°3W±0.°3, h75km, mb3.5/4, Error ellipse: s-maj=50.6km s-min=24.8km az=175.7*
*IDC* ***13*** *22:36:21.7±15.0,52.°15N×177.°14W, h91km±129km, mb3.1/4, mb1 3.5/6, mb1mx3.1/41, mbtmp3.5/6, ML3.6/2, Error ellipse: s-maj=96.5km s-min=26.9km az=14.0*
**ISC 13 22:36:19.5±2.1,52.°0N±0.°4×177.°2W±0.°2, h75km, n6, σ0§46/6, mb3.5/4, Andreanof Islands**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **KDAK** | **Kodiak Island** | **15.21** | **58** | P | | **Pn** | **22 39 50.0** | **+0.3** |
| | 0.7nm,0.3s,baz=277,slow=8.1,SNR=27 | | | | | | | |
| **ILAR** | **Eielson Array** | **20.09** | **39** | P | | **P** | **22 40 46.8** | **+0.1** |
| | 0.1nm,0.3s,baz=231,slow=8.4,SNR=7.3 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **34.04** | **47** | P | | **P** | **22 42 55.7** | **-0.2** |
| | 0.5nm,0.6s,baz=284,slow=9.0,SNR=3.6 | | | | | | | |
| **PDAR** | **Pinedale Array** | **45.15** | **74** | P | | **P** | **22 44 28.1** | **-0.6** |
| | 0.4nm,0.6s,baz=307,slow=2.3,SNR=3.5 | | | | | | | |
| **TXAR** | **Lajitas Array** | **57.56** | **83** | P | | **P** | **22 46 01.8** | **+0.5** |
| | 0.6nm,0.6s,baz=298,slow=4.9,SNR=9.6 | | | | | | | |
| **MKAR** | **Makanchi Array** | **60.41** | **309** | P | | **P** | **22 46 20.8** | **0.0** |
| | 0.2nm,0.8s,baz=54,slow=5.7,SNR=3.0 | | | | | | | |

*ISK* ***13*** *22:48:15.2, 38.°77N×43.°24E, h2km, MD2.6*
*CSEM* ***13*** *22:48:16.7±0.2, 38.°78N×43.°26E, h8km, MD2.6, Error ellipse: s-maj=3.9km s-min=3.3km az=86.0*
*DDA* ***13*** *22:48:16.5, 38.°77N×43.°26E, h7km, Ml2.9*
*ISCJB* ***13*** *22:48:17.1±0.4, 38.°78N±0.°02×43.°26E±0.°04, h2km±7km, Error ellipse: s-maj=4.8km s-min=3.7km az=172.1*
**ISC 13 22:48:17.0±0.9, 38.°79N±0.°03×43.°28E±0.°03, h13km±8km, n28, σ0§85/50, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.21** | **156** | PG | | **Pg** | **22 48 21.8** | **0.0** |
| VANB | | | | *e*SG | | **Sg** | **22 48 26.8** | **+1.7** |
| **VANB** | **Van** | **0.21** | **156** | *i* Pg | | **Pg** | **22 48 21.8** | **0.0** |
| VANB | | | | *e*Sg | | **Sg** | **22 48 26.8** | **+1.7** |
| **TVAN** | **Van** | **0.28** | **159** | *i* P | | **Pg** | **22 48 21.9** | **-1.1** |
| TVAN | | | | *i* S | | **Sg** | **22 48 26.8** | **-0.2** |
| **TVAN** | **Van** | **0.28** | **159** | P | | **Pg** | **22 48 21.9** | **-1.1** |
| TVAN | | | | S | | **Sg** | **22 48 26.8** | **-0.2** |
| **VMUR** | **Van-Muradiye** | **0.30** | **49** | *i* P | | **Pb** | **22 48 23.5** | **-0.9** |
| VMUR | | | | *i* S | | **Sb** | **22 48 29.1** | **-0.3** |
| **VMUR** | **Van-Muradiye** | **0.30** | **49** | P | | **Pb** | **22 48 23.5** | **-0.9** |
| VMUR | | | | S | | **Sb** | **22 48 29.1** | **-0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.43** | **272** | *i* P | | **Pg** | **22 48 25.1** | **-0.6** |
| ADCV | | | | *i* S | | **Sg** | **22 48 32.0** | **+0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.43** | **272** | P | | **Pg** | **22 48 25.1** | **-0.6** |
| ADCV | | | | S | | **Sg** | **22 48 32.0** | **+0.5** |
| **GEVA** | **Gevas** | **0.51** | **200** | *i* P | | **Pg** | **22 48 25.7** | **-1.4** |
| GEVA | | | | *i* S | | **Sg** | **22 48 33.5** | **-0.4** |
| **GEVA** | **Gevas** | **0.51** | **200** | P | | **Pg** | **22 48 25.7** | **-1.4** |
| GEVA | | | | S | | **Sg** | **22 48 33.5** | **-0.4** |
| **CLDR** | **Caldiran** | **0.61** | **55** | *e*PG | | **Pb** | **22 48 29.0** | **-0.7** |
| CLDR | | | | *e*SG | | **Sb** | **22 48 38.6** | **+0.3** |
| **CLDR** | **Caldiran** | **0.61** | **55** | *i* P | | **Pg** | **22 48 28.4** | **-0.6** |
| CLDR | | | | *i* S | | **Sb** | **22 48 37.9** | **-0.4** |
| **CLDR** | **Caldiran** | **0.61** | **55** | P | | **Pg** | **22 48 28.4** | **-0.6** |
| **CLDR** | **Caldiran** | **0.61** | **55** | *e*Pg | | **Pb** | **22 48 29.0** | **-0.7** |
| CLDR | | | | S | | **Sb** | **22 48 37.9** | **-0.4** |
| CLDR | | | | *e*Sg | | **Sb** | **22 48 38.6** | **+0.3** |
| **TUTA** | **Tutak** | **0.71** | **330** | *i* P | | **Pg** | **22 48 30.2** | **-0.7** |
| TUTA | | | | *i* S | | **Sb** | **22 48 40.5** | **-0.6** |
| **TUTA** | **Tutak** | **0.71** | **330** | P | | **Pg** | **22 48 30.2** | **-0.7** |
| TUTA | | | | S | | **Sb** | **22 48 40.5** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **0.81** | **344** | *e*PG | | **Pg** | **22 48 31.9** | **-1.0** |
| AGRB | | | | *e*SG | | **Sb** | **22 48 44.5** | **+0.4** |
| **AGRB** | **Hanur-Agry** | **0.81** | **344** | *e*Pg | | **Pg** | **22 48 31.9** | **-1.0** |
| AGRB | | | | *e*Sg | | **Sb** | **22 48 44.5** | **+0.4** |
| **EKAR** | **Karacoban** | **1.05** | **297** | *i* P | | **Pn** | **22 48 38.3** | **+0.6** |
| EKAR | | | | *i* S | | **Sn** | **22 48 54.2** | **+1.9** |
| **EKAR** | **Karacoban** | **1.05** | **297** | P | | **Pn** | **22 48 38.3** | **+0.6** |
| EKAR | | | | S | | **Sn** | **22 48 54.2** | **+1.9** |
| **EATA** | **Eleskirt** | **1.23** | **331** | *i* P | | **Pn** | **22 48 40.0** | **-0.2** |
| EATA | | | | *i* S | | **Sn** | **22 48 57.7** | **+0.9** |
| **EATA** | **Eleskirt** | **1.23** | **331** | P | | **Pn** | **22 48 40.0** | **-0.2** |
| EATA | | | | S | | **Sn** | **22 48 57.7** | **+0.9** |
| **TASB** | **TASBURUN-IGDIR** | **1.41** | **32** | *e*PN | | **Pg** | **22 48 43.5** | **-0.6** |
| **TASB** | **TASBURUN-IGDIR** | **1.41** | **32** | *e*Pn | | **Pg** | **22 48 43.5** | **-0.6** |
| **SIRT** | **Sirnak** | **1.45** | **207** | *e*PN | | **Pn** | **22 48 43.1** | **+0.1** |
| **SIRT** | **Sirnak** | **1.45** | **207** | *e*Pn | | **Pn** | **22 48 43.1** | **+0.1** |
| **CUKT** | **Cukurca** | **1.56** | **170** | *e*PN | | **Pn** | **22 48 45.4** | **+0.8** |
| **CUKT** | **Cukurca** | **1.56** | **170** | *e*Pn | | **Pn** | **22 48 45.4** | **+0.8** |

*IDC* ***13*** *23:05:19.7±1.0,35.°99S×73.°61W, h0km, mb3.9/6, mb1 4.1/7, mb1mx3.9/31, mbtmp3.9/7, ML3.8/1, MS3.5/6, Ms1 3.4/6, ms1mx3.2/22, Error ellipse: s-maj=38.9km s-min=21.9km az=71.0*
*NEIC* ***13*** *23:05:20.0±0.0, 36.°04S×73.°72W, h20km, mb4.2/4, ML4.2(GUC), After GUC.*
*GUC* ***13*** *23:05:20.7±0.6, 36.°04S×73.°72W, h20km±11km, ML4.2*
*ISCJB* ***13*** *23:05:22.0±0.5, 36.°01S±0.°04×73.°58W±0.°06, h33km, mb4.2/11, MS3.6/4, Error ellipse: s-maj=7.3km s-min=5.0km az=165.7*
**ISC 13 23:05:24.1±0.7, 36.°04S±0.°05×73.°58W±0.°08, h35km, n39, σ1§72/39, mb4.1/11, MS3.7/4, 2C-1D, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **COCH** | **Cobquecura** | **0.65** | **98** | *i* P | | **Pn** | **23 05 34.2** | **-2.7** |
| COCH | | | | *i* S | | **Sn** | **23 05 43.7** | **-2.2** |
| COCH | | | | IAML | | | 23 05 45.6 | |
| | comp=N,11μm,0.8s | | | | | | | |
| **CCSP** | **San Pedro de C** | **0.89** | **155** | *e*P | | **Pn** | **23 05 36.9** | **-3.3** |
| CCSP | | | | *i* S | | **Sn** | **23 05 49.1** | **-2.8** |
| CCSP | | | | IAML | | | 23 05 53.4 | |
| | comp=N,13μm,0.4s | | | | | | | |
| **CCHI** | **Chillan** | **1.34** | **115** | *i* P | | **Pn** | **23 05 44.9** | **-1.5** |
| CCHI | | | | *i* S | | **Sn** | **23 06 03.6** | **+0.6** |
| CCHI | | | | IAML | | | 23 06 11.5 | |
| | comp=E,12μm,1.5s | | | | | | | |
| **GO05** | **HualaæØ** | **1.69** | **53** | *i* P | | **Pn** | **23 05 48.9** | **-2.3** |
| **TMU** | **Temuco** | **2.80** | **164** | *e*P | | **Pn** | **23 06 05.2** | **-1.3** |
| TMU | | | | IAML | | | 23 07 02.7 | |
| | comp=E,1μm,0.9s | | | | | | | |
| **LMEL** | **Las Melosas** | **3.53** | **53** | *e*P | | **Pn** | **23 06 16.9** | **+0.2** |
| **ROC1** | **El Roble** | **3.72** | **36** | *i* P | | **Pn** | **23 06 18.3** | **-1.0** |
| ROC1 | | | | *i* S | | Sn | 23 07 27.6 | +26 |
| **AUSP** | **Uspallata** | **5.16** | **44** | *i* P | | **Pn** | **23 06 39.1** | **0.0** |
| **PLCA** | **Paso Flores** | **5.26** | **154** | Pn | | **Pn** | **23 06 40.4** | **+0.1** |
| | comp=E,0.7nm,0.3s,baz=0.5,slow=12,SNR=24 | | | | | | | |
| PLCA | | | | Sn | | **Sn** | **23 07 46.2** | **+6.5** |
| | comp=E,0.7nm,0.3s,baz=356,slow=19,SNR=2.3 | | | | | | | |
| PLCA | | | | LR | | LR | 23 08 14.9 | |
| | comp=E,116nm,21.6s,baz=327,slow=33 | | | | | | | |
| **RTLS** | **Leoncito** | **5.53** | **41** | *i* P | | **Pn** | **23 06 43.7** | **-0.5** |
| RTLS | | | | IAML | | | 23 06 46.2 | |
| | comp=Z,131nm,0.9s | | | | | | | |
| **RTCV** | **Cerro Valdivia** | **5.91** | **47** | *i* P | | **Pn** | **23 06 48.8** | **-0.5** |
| **ACAN** | **Cantantal** | **6.50** | **57** | *i* P | | **Pn** | **23 06 56.6** | **-0.7** |
| **AMOG** | **MOGNA** | **6.63** | **41** | *i* P | | **Pn** | **23 06 57.9** | **-1.2** |
| **LCO** | **Las Campanas** | **7.42** | **20** | *e*Pn | | **Pn** | **23 07 09.6** | **-0.5** |
| **AGUA** | **GUANDACOL** | **7.81** | **35** | *i* P | | **Pn** | **23 07 13.9** | **-1.5** |
| **TRQA** | **Tornquist** | **9.49** | **106** | *e*Pn | | **Pn** | **23 07 39.5** | **+1.1** |
| | comp=Z,16nm,1.1s | | | | | | | |
| **CPUP** | **Villa Florida** | **16.92** | **60** | LR | | LR | 23 15 07.9 | |
| | comp=Z,94nm,21.6s,baz=240,slow=35 | | | | | | | |
| **LPAZ** | **La Paz** | **20.26** | **15** | P | | Pn | 23 09 58.6 | -0.7 |
| | comp=Z,1.9nm,0.7s,baz=220,slow=9.0,SNR=3.4 | | | | | | | |
| **SIV** | **San Ignacio** | **22.87** | **32** | P | | **P** | **23 10 24.3** | **-0.4** |
| | comp=Z,3.7nm,0.8s,baz=222,slow=12,SNR=11 | | | | | | | |
| SIV | | | | LR | | LR | 23 21 07.4 | |
| | comp=Z,312nm,19.6s,baz=214,slow=42 | | | | | | | |
| **NNA** | **Nana** | **24.13** | **352** | LR | | LR | 23 17 44.0 | |
| | comp=Z,60nm,19.3s,baz=178,slow=31 | | | | | | | |
| **SAML** | **Samuel** | **28.58** | **22** | *e*P | | **P** | **23 11 16.0** | **-1.0** |
| | comp=Z,2.7nm,1.0s | | | | | | | |
| **JTS** | **JuntasAbangare** | **47.31** | **345** | *e*P | | **P** | **23 13 53.6** | **-0.8** |
| | comp=Z,11nm,0.9s | | | | | | | |
| **VNA3** | **Neumayer Olymp** | **47.97** | **157** | P | | **P** | **23 14 00.1** | **+1.1** |
| **VNA2** | **Neumayer--Watz** | **48.64** | **156** | P | | **P** | **23 14 05.0** | **+0.8** |
| | baz=294,slow=10 | | | | | | | |
| **SNAA** | **Sanae** | **50.19** | **157** | P | | **P** | **23 14 17.2** | **+1.1** |
| **SNAA** | **Sanae** | **50.19** | **157** | *e*P | | **P** | **23 14 16.5** | **+0.5** |
| **QSPA** | **South Pole Qui** | **54.20** | **180** | *e*P | | **P** | **23 14 46.6** | **+0.6** |
| | comp=Z,19nm,1.0s | | | | | | | |
| **PPT** | **Papeete** | **68.72** | **263** | LR | | LR | 23 39 19.9 | |
| | comp=Z,35nm,20.1s,baz=194,slow=30 | | | | | | | |
| **TXAR** | **Lajitas Array** | **70.92** | **332** | P | | **P** | **23 16 39.4** | **+1.6** |
| | comp=Z,1.0nm,0.6s,baz=155,slow=8.5,SNR=17 | | | | | | | |
| **MAW** | **Mawson** | **71.58** | **164** | LR | | LR | 23 49 33.1 | |
| | comp=Z,108nm,18.7s,baz=240,slow=37 | | | | | | | |
| **WMOK** | **Wichita Mounta** | **74.23** | **339** | *e*P | | **P** | **23 16 56.1** | **-1.2** |
| | comp=Z,12nm,0.8s | | | | | | | |
| **ANMO** | **Albuquerque** | **76.98** | **333** | P | | **P** | **23 17 13.1** | **-0.2** |
| | comp=Z,0.7nm,0.5s,baz=188,slow=7.1,SNR=3.2 | | | | | | | |
| **SDCO** | **Great Sand Dun** | **79.15** | **335** | *e*P | | **P** | **23 17 24.1** | **-1.2** |
| | comp=Z,2.9nm,1.3s | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **86.09** | **71** | P | | **P** | **23 18 01.8** | **+0.1** |
| | comp=Z,0.3nm,0.8s,baz=258,slow=2.7,SNR=4.0 | | | | | | | |
| **HLID** | **Hailey** | **87.50** | **332** | *e*P | | **P** | **23 18 07.2** | **-0.9** |
| | comp=Z,2.4nm,1.2s | | | | | | | |
| **ULM** | **Lac du Bonnet** | **88.15** | **346** | P | | **P** | **23 18 11.2** | **+0.5** |
| | comp=Z,1.9nm,0.7s,baz=216,slow=3.6,SNR=4.3 | | | | | | | |
| **BRVK** | **Borovoye** | **149.56** | **45** | *e*PKPbc | | **PKPbc** | **23 25 08.9** | **-0.3** |
| **MKAR** | **Makanchi Array** | **159.04** | **52** | PKP | | **PKPdf** | **23 25 18.5** | **+0.4** |
| | comp=Z,0.3nm,0.8s,baz=263,slow=2.5,SNR=2.9 | | | | | | | |
| MKAR | | | | PKPab | | **PKPab** | **23 25 55.7** | **+0.9** |
| | comp=Z,0.3nm,0.7s,baz=340,slow=3.8,SNR=3.0 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **161.28** | **157** | PKPab | | **PKPbc** | **23 26 06.4** | **+1.3** |
| | comp=Z,0.5nm,0.5s,baz=190,slow=4.4,SNR=4.6 | | | | | | | |

*IDC* ***13*** *23:06:15.3±1.7, 5.°20S×152.°79E, h0km, mb3.9/8, mb1 4.1/9, mb1mx3.9/39, mbtmp3.9/9, ML1.9/1, MS3.1/2, Ms1 3.1/2, ms1mx2.7/37, Error ellipse: s-maj=56.0km s-min=19.9km az=128.0*
*NEIC* ***13*** *23:06:21.0±2.6, 5.°16S×152.°71E, h35km±22km, mb4.4/4, Error ellipse: s-maj=31.4km s-min=15.8km az=127.0*
*ISCJB* ***13*** *23:06:21.6±1.3, 5.°1S±0.°2×152.°6E±0.°2, h55km, mb4.0/13, MS3.3/1, Error ellipse: s-maj=41.0km s-min=9.1km az=39.2*
**ISC 13 23:06:22.8±1.6, 5.°2S±0.°2×152.°7E±0.°3, h55km, n16, σ1§17/17, mb4.0/13, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **6.87** | **232** | Pn | | **Pn** | **23 08 00.1** | **-0.8** |
| | 1.2nm,0.3s,baz=21,slow=14,SNR=5.2 | | | | | | | |
| PMG | | | | Sn | | **Sn** | **23 09 18.1** | **+0.3** |
| | 3.9nm,0.3s,baz=345,slow=20,SNR=3.5 | | | | | | | |
| PMG | | | | LR | | LR | 23 10 41.3 | |
| | comp=Z,123nm,19.4s,baz=55,slow=38 | | | | | | | |
| **WRAB** | **Tennant Creek** | **23.06** | **229** | *e*P | | **P** | **23 11 25.2** | **+1.5** |
| | 2.2nm,0.7s | | | | | | | |
| **WRA** | **Warramunga Arr** | **23.07** | **229** | P | | **P** | **23 11 24.1** | **+0.3** |
| | 0.8nm,0.5s,baz=50,slow=9.9,SNR=7.0 | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **29.35** | **242** | P | | **P** | **23 12 20.6** | **-0.1** |
| | 1.6nm,0.6s,baz=51,slow=8.3,SNR=6.2 | | | | | | | |
| **KULM** | **Kulim** | **52.98** | **281** | *e*P | | **P** | **23 15 33.4** | **-1.0** |
| | 5.1nm,0.8s | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **57.94** | **295** | P | | **P** | **23 16 11.3** | **+1.4** |
| | 0.7nm,0.4s,baz=110,slow=5.2,SNR=7.0 | | | | | | | |
| **PETK** | **Petropavlovsk-** | **58.26** | **4** | P | | **P** | **23 16 11.5** | **0.0** |
| | 0.9nm,0.4s,baz=148,slow=6.4,SNR=5.4 | | | | | | | |
| PETK | | | | LR | | LR | 23 37 38.6 | |
| | comp=Z,23nm,20.1s,baz=113,slow=32 | | | | | | | |
| **SONM** | **Songino Array** | **66.61** | **328** | P | | **P** | **23 17 08.1** | **+0.6** |
| | 0.2nm,0.5s,baz=149,slow=7.1,SNR=4.7 | | | | | | | |
| **MKAR** | **Makanchi Array** | **80.55** | **319** | P | | **P** | **23 18 29.9** | **+0.6** |
| | 0.2nm,0.5s,baz=97,slow=7.8,SNR=5.8 | | | | | | | |
| **MCK** | **McKinley** | **81.30** | **23** | *e*P | | **P** | **23 18 32.5** | **-0.4** |
| | 4.9nm,0.7s | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **81.43** | **326** | P | | **P** | **23 18 33.7** | **0.0** |
| | 0.9nm,0.6s,baz=118,slow=5.3,SNR=5.4 | | | | | | | |
| **ILAR** | **Eielson Array** | **82.59** | **22** | P | | **P** | **23 18 39.6** | **-0.1** |
| | 2.1nm,0.8s,baz=243,slow=5.6,SNR=2.7 | | | | | | | |
| **AAK** | **Ala-Archa** | **84.86** | **314** | *e*P | | **P** | **23 18 53.0** | **+1.1** |
| | 1.4nm,0.8s | | | | | | | |
| **BVAR** | **Borovoye Array** | **89.50** | **323** | P | | **P** | **23 19 10.9** | **-3.0** |
| | 0.4nm,0.4s,baz=74,slow=7.9,SNR=7.5 | | | | | | | |
| **GERES** | **GERESS Array B** | **124.34** | **328** | PKP | | **PKPdf** | **23 25 17.2** | **+1.4** |
| | 0.2nm,0.4s,baz=53,slow=2.9,SNR=2.9 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **150.31** | **287** | PKPbc | | **PKPbc** | **23 26 09.3** | **+0.3** |
| | 0.8nm,0.7s,baz=82,slow=2.4,SNR=7.3 | | | | | | | |

*NEIC* ***13*** *23:07:55.2±0.0, 19.°87N×63.°73W, h50km, MD3.9(RSPR), After RSPR.*
**RSPR 13 23:07:55.2, 19.°87N×63.°73W, h50km±18km, MD3.9/6, 7C-4D, Leeward Islands**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **ABV** | **Anegada** | **1.27** | **207** | *i* P | | Pn | 23 08 15.4 | -1.2 |
| **ABV** | **Anegada** | **1.27** | **207** | *e*S | | Sn | 23 08 31.3 | -1.2 |
| **ABVI** | **Anegada Island** | **1.27** | **207** | *i* P | | Pn | 23 08 15.4 | -1.2 |
| ABVI | | | | *e*S | | Sn | 23 08 31.3 | -1.3 |
| **STVI** | **Saint Thomas** | **1.90** | **218** | *i* P | | Pn | 23 08 24.8 | -0.5 |
| **STVI** | **Saint Thomas** | **1.90** | **218** | *e*S | | Sn | 23 08 46.9 | -1.2 |
| **STVI** | **Saint Thomas** | **1.90** | **218** | *i* P | | Pn | 23 08 24.8 | -0.5 |
| STVI | | | | *e*S | | Sn | 23 08 46.9 | -1.2 |
| **SMRT** | **St. Maarten** | **1.92** | **161** | *e*P | | Pn | 23 08 23.6 | -1.8 |
| SMRT | | | | *e*S | | Sn | 23 08 44.9 | -3.5 |
| **CUPR** | **Culebra, Puert** | **2.14** | **224** | *i* P | | Pn | 23 08 28.0 | -0.4 |
| **CUPR** | **Culebra, Puert** | **2.14** | **224** | *e*S | | Sn | 23 08 53.2 | -0.6 |
| **CBYP** | **Canovanas** | **2.56** | **232** | *i* P | | Pn | 23 08 33.5 | -0.9 |
| **CBYP** | **Canovanas** | **2.56** | **232** | *e*S | | Sn | 23 09 04.0 | -0.4 |
| **CBYP** | **Canovanas** | **2.56** | **232** | *i* P | | Pn | 23 08 33.5 | -0.9 |
| CBYP | | | | *e*S | | Sn | 23 09 04.0 | -0.4 |
| **AOPR** | **Arecibo Observ** | **3.23** | **243** | *i* P | | Pn | 23 08 42.7 | -0.8 |
| **AOPR** | **Arecibo Observ** | **3.23** | **243** | *e*S | | Sn | 23 09 20.4 | -0.4 |
| **AOPR** | **Arecibo Observ** | **3.23** | **243** | *i* P | | Pn | 23 08 42.7 | -0.8 |
| AOPR | | | | *e*S | | Sn | 23 09 20.4 | -0.4 |
| **CRPR** | **Cabo Rojo, PR** | **3.70** | **240** | *i* P | | Pn | 23 08 49.4 | -0.4 |
| CRPR | | | | *e*S | | Sn | 23 09 31.5 | -0.7 |
| **CRPR** | **Cabo Rojo, PR** | **3.70** | **240** | *i* P | | Pn | 23 08 49.4 | -0.4 |
| **SSG** | **Sans Toucher** | **4.24** | **152** | *e*P | | Pn | 23 08 55.4 | -2.1 |
| **SDDR** | **Presa de Saban** | **7.18** | **264** | *e*Pn | | Pn | 23 09 37.0 | -0.7 |
| SDDR | | | | *e*Sn | | Sn | 23 10 57.2 | -0.9 |

**MEX 13 23:17:34.7±0.7, 16.°82N×100.°35W, h6km, MD3.8, Near coast of Guerrero**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **CAIG** | **El Cayaco** | **0.24** | **19** | *i* P | | Pg | 23 17 39.2 | -0.3 |
| CAIG | | | | *e*S | | Sg | 23 17 42.2 | -0.6 |
| **ACP2** | **Acapulco** | **0.45** | **82** | *e*P | | Pg | 23 17 42.6 | -0.7 |
| ACP2 | | | | *i* S | | Sg | 23 17 49.5 | +0.3 |
| **ACX** | **Acapulco** | **0.47** | **83** | *i* P | | Pn | 23 17 48.8 | +0.7 |
| ACX | | | | *e*S | | Sb | 23 17 55.2 | +2.6 |
| **ZIIG** | **Zihuatanejo** | **1.33** | **307** | *e*P | | Pn | 23 17 57.3 | -2.5 |
| ZIIG | | | | *e*S | | Sb | 23 18 13.6 | -3.6 |
| **ARIG** | **Puente Sto Nin** | **1.46** | **0** | *e*P | | Pn | 23 17 58.4 | -3.3 |
| ARIG | | | | *i* S | | Sn | 23 18 16.4 | -4.7 |

*ISCJB* ***13*** *23:41:02.8±0.3, 2.°53S±0.°04×126.°81E±0.°03, h33km, mb4.1/11, MS3.5/5, Error ellipse: s-maj=6.6km s-min=3.5km az=32.8*
*DJA* ***13*** *23:41:02.9±0.7, 3.°S±4.°×12.°7E±.°, h21km±7km, M4.6/12, mb5.0/5, mB5.2/5, MLv4.4/12, Mw(mB)4.6/5*
*NEIC* ***13*** *23:41:03.5±2.9, 2.°55S×126.°96E, h26km±22km, mb4.3/5, Error ellipse: s-maj=14.0km s-min=7.5km az=46.0*
*IDC* ***13*** *23:41:06.9±4.6, 2.°66S×127.°01E, h57km±41km, mb3.7/7, mb1 4.0/9, mb1mx3.6/43, mbtmp4.0/9, ML4.0/2, MS3.4/5, Ms1 3.5/5, ms1mx3.1/29, Error ellipse: s-maj=84.0km s-min=9.5km az=66.0*
**ISC 13 23:41:04.5±0.6, 2.°60S±0.°05×126.°80E±0.°05, h35km, n42, σ1§34/42, mb4.1/11, MS3.3/5, Ceram Sea**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **NLAI** | **Namlea** | **0.71** | **155** | P | | **Pn** | **23 41 17.3** | **-0.7** |
| NLAI | | | | S | | **Sn** | **23 41 27.8** | **+0.1** |
| **SANI** | **Sanana** | **0.97** | **304** | P | | Pn | 23 41 18.5 | -3.2 |
| **AAI** | **Ambon** | **1.77** | **128** | P | | Pn | 23 41 34.1 | +1.5 |
| **LBMI** | **Labuha** | **2.07** | **20** | P | | Pn | 23 41 36.1 | -0.7 |
| **MSAI** | **Masohi** | **2.25** | **109** | P | | Pn | 23 41 40.8 | +1.5 |
| MSAI | | | | S | | Sn | 23 42 05.3 | -0.6 |
| **BNDI** | **Bandanaira** | **3.64** | **122** | P | | Pn | 23 41 59.9 | +1.5 |
| BNDI | | | | S | | Sn | 23 42 40.0 | -0.2 |
| **LUWI** | **Luwuk** | **4.31** | **291** | P | | Pn | 23 42 07.4 | -0.2 |
| **LUWI** | **Luwuk** | **4.31** | **291** | *e*Pn | | Pn | 23 42 06.8 | -0.9 |
| LUWI | | | | *e*Sn | | Sn | 23 42 58.3 | +1.6 |
| **KDI** | **Kendari** | **4.39** | **252** | P | | Pn | 23 42 09.0 | +0.3 |
| **SWI** | **Sorong** | **4.78** | **69** | P | | Pn | 23 42 13.2 | -0.9 |
| **BBSI** | **Bau Bau** | **5.10** | **236** | P | | Pn | 23 42 19.1 | +0.6 |
| **APSI** | **Ampana** | **5.41** | **288** | P | | Pn | 23 42 22.6 | -0.2 |
| **FAKI** | **Fak Fak** | **5.45** | **94** | P | | Pn | 23 42 23.1 | -0.3 |
| **FAKI** | **Fak Fak** | **5.45** | **94** | *e*Pn | | Pn | 23 42 22.2 | -1.2 |
| **MRSI** | **Marisa** | **5.74** | **302** | P | | Pn | 23 42 26.6 | -0.6 |
| **SPSI** | **Sidrap Palu** | **7.15** | **259** | P | | Pn | 23 42 47.1 | +0.4 |
| **PCI** | **Palu** | **7.16** | **283** | P | | Pn | 23 42 46.8 | 0.0 |
| **KAPI** | **Kappang** | **7.43** | **251** | *e*Pn | | Pn | 23 42 54.4 | +3.9 |
| | 26nm,0.8s | | | | | | | |
| **KKM** | **Kota Kinabalu** | **13.62** | **309** | *e*Pn | | Pn | 23 44 15.5 | +0.1 |
| **FITZ** | **Fitzroy Crossi** | **15.45** | **184** | P | | **P** | **23 44 42.2** | **-1.9** |
| | 0.1nm,0.3s,baz=15,slow=14,SNR=2.6 | | | | | | | |
| **WRAB** | **Tennant Creek** | **18.75** | **157** | *e*P | | **P** | **23 45 19.1** | **-1.4** |
| | 9.6nm,0.6s | | | | | | | |
| **WRA** | **Warrnunga Arr** | **18.75** | **157** | P | | **P** | **23 45 19.8** | **-0.8** |
| | 1.9nm,0.3s,baz=339,slow=11,SNR=68 | | | | | | | |
| WRA | | | | S | | **Sn** | **23 48 49.0** | **-1.1** |
| | 0.1nm,0.3s,baz=336,slow=20,SNR=3.8 | | | | | | | |
| **MBWA** | **Marble Bar** | **19.69** | **200** | *e*P | | **Pn** | **23 45 32.7** | **+0.2** |
| | 49nm,1.1s | | | | | | | |
| **COEN** | **Coen** | **19.73** | **126** | *e*P | | **P** | **23 45 29.9** | **-1.5** |
| | 18nm,0.5s | | | | | | | |
| **ASAR** | **Alice Springs** | **22.05** | **162** | P | | **P** | **23 45 55.3** | **-1.1** |
| | 4.3nm,0.4s,baz=343,slow=12,SNR=61 | | | | | | | |
| ASAR | | | | S | | **S** | **23 49 55.2** | **-2.6** |
| | 0.8nm,0.8s,baz=345,slow=24,SNR=4.6 | | | | | | | |
| **STKA** | **Stephens Creek** | **32.29** | **156** | P | | **P** | **23 47 29.4** | **-0.8** |
| | 1.4nm,0.5s,baz=329,slow=10,SNR=4.9 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **34.49** | **308** | P | | **P** | **23 47 51.2** | **+1.7** |
| | 0.7nm,0.3s,baz=150,slow=6.1,SNR=4.0 | | | | | | | |
| CMAR | | | | LR | | LR | 00 04 16.3 | |
| | comp=Z,41nm,19.0s,baz=166,slow=40 | | | | | | | |
| **CHTO** | **Chiang Mai** | **34.69** | **309** | *e*P | | **P** | **23 47 52.8** | **+1.5** |
| | 1.9nm,0.6s | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **40.36** | **14** | LR | | LR | 00 03 26.2 | |
| | comp=Z,26nm,20.9s,baz=345,slow=33 | | | | | | | |
| **LSA** | **Lhasa** | **46.83** | **316** | *e*P | | **P** | **23 49 33.7** | **+1.9** |
| | 2.9nm,0.4s | | | | | | | |
| **ULN** | **Ulaanbaatar** | **53.14** | **343** | *e*P | | P | 23 50 24.3 | +5.3 |
| | 1.5nm,0.7s | | | | | | | |
| **SONM** | **Songino Array** | **53.30** | **343** | P | | P | 23 50 25.7 | +5.6 |
| | 1.2nm,0.9s,baz=155,slow=6.6,SNR=6.8 | | | | | | | |
| **TLY** | **Talaya** | **57.54** | **343** | LR | | LR | 00 18 52.4 | |
| | comp=Z,22nm,18.2s,baz=332,slow=39 | | | | | | | |
| **MKAR** | **Makanchi Array** | **62.82** | **327** | P | | **P** | **23 51 27.5** | **+0.7** |
| | 1.1nm,0.8s,baz=117,slow=8.2,SNR=9.8 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **66.25** | **334** | P | | **P** | **23 51 50.3** | **+1.3** |
| | 0.5nm,0.3s,baz=85,slow=1.6,SNR=3.2 | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **67.11** | **329** | P | | **P** | **23 51 55.1** | **+0.6** |
| | 1.2nm,0.6s,baz=127,slow=6.2,SNR=11 | | | | | | | |
| **KURK** | **Kurchatov** | **67.12** | **329** | *e*P | | **P** | **23 51 54.8** | **+0.2** |
| **BVAR** | **Borovoye Array** | **72.66** | **328** | P | | **P** | **23 52 29.1** | **+0.4** |
| | 0.5nm,0.6s,baz=134,slow=6.2,SNR=3.4

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| KURBB | **Kurchatov Arra** | 18.70 | 293 | P | | **Pn** | 23 54 54.4 | +0.9 |
| | 0.1nm,0.3s,baz=97,slow=11,SNR=5.3 | | | | | | | |
| **BVAR** | **Borovoye Array** | 23.85 | 299 | P | | **P** | 23 55 49.8 | +1.7 |
| | 0.2nm,0.4s,baz=53,slow=5.6,SNR=3.5 | | | | | | | |
| **YKA** | **Yellowknife Ar** | 66.75 | 19 | P | | **P** | 00 01 24.7 | -1.0 |
| | 0.5nm,0.7s,baz=337,slow=6.7,SNR=2.9 | | | | | | | |
| **ASAR** | **Alice Springs** | 74.11 | 154 | P | | **P** | 00 02 12.4 | +1.3 |
| | 0.4nm,0.7s,baz=342,slow=6.0,SNR=4.3 | | | | | | | |

*ISCJB **13** 23:52:34.9±1.5, 38°.84N±0°.02×26°.29E±0°.05, h15km±11km, Error ellipse: s-maj=6.0km s-min=3.3km az=167.3*
*CSEM **13** 23:52:34.5±0.2, 38°.83N×26°.36E, h12km, ML1.7, Error ellipse: s-maj=6.1km s-min=3.5km az=81.0*
*DDA **13** 23:52:34.5, 38°.88N×26°.40E, h7km, Ml2.7*
*ATH **13** 23:52:34.3, 38°.88N×26°.34E, h29km± 1km, ML1.7/4, Error ellipse: s-maj=3.0km s-min=1.0km az=262.0*
**ISC 13 23:52:34.7±1.1, 38°.85N±0°.02×26°.37E±0°.03, h20km±4km, n28, σ0°.974/54, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PRK** | **Paraskevi** | **0.41** | **349** | P | **Pg** | **23 52 42.6** | **-0.6** |
| PRK | | | | S | **Sg** | **23 52 48.4** | **-0.6** |
| PRK | | | | AML | AML | 23 52 49.9 | |
| | comp=N,330μm,0.3s | | | | | | |
| PRK | | | | AML | AML | 23 52 50.1 | |
| | comp=E,282μm,0.3s | | | | | | |
| **PRK** | **Paraskevi** | **0.41** | **349** | P | **Pg** | **23 52 42.6** | **-0.6** |
| PRK | | | | S | **Sg** | **23 52 48.3** | **-0.6** |
| **URLA** | **Izmir** | **0.52** | **160** | *i* P | **Pb** | **23 52 44.6** | **-0.5** |
| URLA | | | | *i* S | **Sb** | **23 52 52.1** | **-0.1** |
| **URLA** | **Izmir** | **0.52** | **160** | P | **Pb** | **23 52 44.6** | **-0.5** |
| URLA | | | | S | **Sb** | **23 52 52.1** | **-0.1** |
| **CHOS** | **Chios island** | **0.52** | **208** | P | **Pb** | **23 52 44.4** | **-0.8** |
| CHOS | | | | S | **Sn** | **23 52 55.5** | **0.0** |
| CHOS | | | | AML | AML | 23 52 56.4 | |
| | comp=E,282μm,0.2s | | | | | | |
| CHOS | | | | AML | AML | 23 52 56.7 | |
| | comp=N,152μm,0.2s | | | | | | |
| **CHOS** | **Chios island** | **0.52** | **208** | P | **Pb** | **23 52 44.4** | **-0.8** |
| **SIGR** | **SIGRI** | **0.54** | **312** | P | **Pg** | **23 52 45.8** | **+0.2** |
| SIGR | | | | S | **Sb** | **23 52 52.2** | **-0.7** |
| **SIGR** | **SIGRI** | **0.54** | **312** | P | **Pg** | **23 52 45.8** | **+0.2** |
| SIGR | | | | S | **Sb** | **23 52 52.2** | **-0.7** |
| **ZEY** | **¯zmir** | **0.62** | **170** | *i* P | **Pb** | **23 52 46.6** | **-0.1** |
| ZEY | | | | *i* S | **Sn** | **23 52 58.1** | **+0.4** |
| **DGB** | **¯zmir** | **0.89** | **153** | *i* P | **Pb** | **23 52 51.4** | **-0.1** |
| DGB | | | | *i* S | **Sg** | **23 53 03.9** | **0.0** |
| **BAYC** | **CANAKKALE_Bayr** | **0.90** | **9** | *i* P | **Pg** | **23 52 52.0** | **-0.4** |
| BAYC | | | | *i* S | **Sg** | **23 53 04.1** | **-0.2** |
| **BAYC** | **CANAKKALE_Bayr** | **0.90** | **9** | P | **Pg** | **23 52 52.0** | **-0.4** |
| BAYC | | | | S | **Sg** | **23 53 04.1** | **-0.2** |
| **STEP** | **BALIKESIR_Sava** | **1.17** | **63** | *i* P | **Pg** | **23 52 56.9** | **-0.6** |
| STEP | | | | *i* S | **Sg** | **23 53 13.4** | **+0.6** |
| **STEP** | **BALIKESIR_Sava** | **1.17** | **63** | P | **Pg** | **23 52 56.9** | **-0.6** |
| STEP | | | | S | **Sg** | **23 53 13.4** | **+0.6** |
| **SMG** | **Samos** | **1.19** | **162** | P | **Pb** | **23 52 56.9** | **+0.2** |
| SMG | | | | S | **Sg** | **23 53 14.8** | **+1.3** |
| SMG | | | | AML | AML | 23 53 17.0 | |
| | comp=E,62μm,0.2s | | | | | | |
| SMG | | | | AML | AML | 23 53 17.9 | |
| | comp=N,89μm,0.4s | | | | | | |
| **SMG** | **Samos** | **1.19** | **162** | P | **Pb** | **23 52 56.9** | **+0.2** |
| SMG | | | | S | **Sg** | **23 53 14.8** | **+1.3** |
| **BALY** | **Balya** | **1.32** | **47** | *i* P | **Pn** | **23 52 57.2** | **-0.9** |
| BALY | | | | *i* S | **Sg** | **23 53 18.4** | **+1.0** |
| **BALY** | **Balya** | **1.32** | **47** | P | **Pn** | **23 52 57.2** | **-0.9** |
| BALY | | | | S | **Sg** | **23 53 18.4** | **+1.0** |
| **LIA** | **Limnos Island** | **1.40** | **319** | P | **Pb** | **23 53 00.0** | **-0.1** |
| LIA | | | | S | **Sb** | **23 53 17.6** | **+0.1** |
| **LIA** | **Limnos Island** | **1.40** | **319** | P | **Pb** | **23 53 00.0** | **-0.1** |
| LIA | | | | S | **Sb** | **23 53 17.6** | **+0.1** |
| **SMTH** | **Samothraki Isl** | **1.75** | **338** | P | **Pb** | **23 53 06.2** | **+0.1** |
| SMTH | | | | S | **Sn** | **23 53 25.1** | **-0.5** |
| SMTH | | | | AML | AML | 23 53 33.9 | |
| | comp=N,15μm,0.3s | | | | | | |
| SMTH | | | | AML | AML | 23 53 36.3 | |
| | comp=E,13μm,0.2s | | | | | | |
| **SMTH** | **Samothraki Isl** | **1.75** | **338** | P | **Pb** | **23 53 06.2** | **+0.1** |
| SMTH | | | | S | **Sn** | **23 53 25.1** | **-0.5** |
| **APE** | **Apeiranthos** | **1.90** | **201** | P | **Pn** | **23 53 05.6** | **-0.4** |
| APE | | | | S | **Sn** | **23 53 29.4** | **+0.1** |
| **APE** | **Apeiranthos** | **1.90** | **201** | P | **Pn** | **23 53 05.6** | **-0.4** |
| APE | | | | S | **Sn** | **23 53 29.4** | **+0.1** |
| **ALN** | **Alexandroupoli** | **2.06** | **353** | P | **Pn** | **23 53 09.3** | **+1.1** |
| ALN | | | | S | **Sn** | **23 53 34.6** | **+1.2** |
| **ALN** | **Alexandroupoli** | **2.06** | **353** | P | **Pn** | **23 53 09.3** | **+1.1** |
| ALN | | | | S | **Sn** | **23 53 34.6** | **+1.2** |
| **RDO** | **Rodhopi** | **2.38** | **345** | P | **Pn** | **23 53 14.3** | **+1.7** |
| RDO | | | | S | **Sn** | **23 53 39.7** | **-1.7** |
| **RDO** | **Rodhopi** | **2.38** | **345** | P | **Pn** | **23 53 14.3** | **+1.7** |

*ISN **14** 00:07:53.4±1.9, 33°.42N×47°.71E, h0km±15km, ML3.4*
*IDC **14** 00:07:55.4±4.9, 33°.41N×47°.49E, h0km, mb3.6/6, mb1 3.9/7, mb1mx3.6/37, mbtmp3.7/7, ML4.2/1, Error ellipse: s-maj=88.6km s-min=35.3km az=113.0*
*ISCJB **14** 00:07:55.7±0.8, 33°.33N±0°.03×47°.36E±0°.05, h1km±6km, mb3.7/5, Error ellipse: s-maj=7.0km s-min=4.6km az=148.8*
*TEH **14** 00:07:56.9, 33°.43N×47°.47E, h9km, ML3.4*
*CSEM **14** 00:07:57.2±0.2, 33°.35N×47°.39E, h2km, ML3.4, Error ellipse: s-maj=5.4km s-min=5.0km az=12.0*
*THR **14** 00:07:59.0±1.6, 33°.43N×47°.55E, h14km± 14km, ML3.5*
**ISC 14 00:07:56.9±1.4, 33°.35N±0°.04×47°.35E±0°.04, h5km±11km, n29, σ0°.992/39, mb3.5/5, Western Iran**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **IKOM** | **Komasi** | **0.84** | **9** | *e*Pg | **Pg** | **00 08 12.4** | **-0.6** |
| IKOM | | | | *e*Sg | **Sg** | **00 08 24.2** | **+0.3** |
| IKOM | | | | *e*AMB | AMB | 00 08 25.3 | |
| | comp=Z,33μm,0.3s | | | | | | |
| **IKOM** | **Komasi** | **0.84** | **9** | *e*Pg | **Pg** | **00 08 12.4** | **-0.6** |
| IKOM | | | | *e*Sg | **Sg** | **00 08 24.2** | **+0.3** |
| **IGHG** | **Ghaleghazi** | **1.17** | **327** | *e*Pg | **Pn** | **00 08 20.2** | **0.0** |
| IGHG | | | | *e*AMB | AMB | 00 08 42.9 | |
| | comp=Z,10μm,0.3s | | | | | | |
| **IGHG** | **Ghaleghazi** | **1.17** | **327** | *e*Pg | **Pn** | **00 08 20.2** | **0.0** |
| **IVIS** | **Veis** | **1.25** | **341** | *e*Pg | **Pn** | **00 08 21.3** | **+0.2** |
| IVIS | | | | *e*AMB | AMB | 00 08 49.8 | |
| | comp=Z,9μm,0.4s | | | | | | |
| **IVIS** | **Veis** | **1.25** | **341** | *e*Pg | **Pn** | **00 08 21.3** | **+0.2** |
| **ILIN** | **Lien** | **1.60** | **349** | *e*Pn | **Pb** | **00 08 27.4** | **+0.3** |
| ILIN | | | | *e*Sg | **Sg** | **00 08 49.2** | **+0.8** |
| ILIN | | | | *e*AMB | AMB | 00 08 52.2 | |
| | comp=Z,8μm,0.2s | | | | | | |
| **ILIN** | **Lien** | **1.60** | **349** | *e*Pn | **Pb** | **00 08 27.4** | **+0.3** |
| ILIN | | | | *e*Sg | **Sg** | **00 08 49.2** | **+0.8** |
| **SHGR** | **Shooshtar-Gavs** | **1.74** | **135** | *e*Pg | **Pb** | **00 08 29.5** | **+0.1** |
| SHGR | | | | *e*Sg | **Sg** | **00 08 52.8** | **-0.1** |
| SHGR | | | | AML | AML | 00 09 01.4 | |
| | comp=N,513nm,0.9s | | | | | | |
| **SNGE** | **Sanandaj** | **1.74** | **0** | *e*Pg | **Pb** | **00 08 29.4** | **0.0** |
| SNGE | | | | AML | AML | 00 08 58.7 | |
| | comp=N,627nm,0.4s | | | | | | |
| SNGE | | | | AML | AML | 00 09 00.1 | |
| | comp=E,408nm,0.5s | | | | | | |
| **SNGE** | **Sanandaj** | **1.74** | **0** | *e*Pn | **Pb** | **00 08 29.5** | **0.0** |
| **KHMZ** | **Khomeyn** | **2.22** | **79** | *e*Pg | **Pn** | **00 08 35.3** | **+0.7** |
| **KHMZ** | **Khomeyn** | **2.22** | **79** | *e*Pn | **Pn** | **00 08 35.3** | **+0.7** |
| KHMZ | | | | *e*Sg | **Sb** | **00 09 05.3** | **-0.2** |
| **BHD** | **Baghdad** | **2.48** | **269** | *e*Pn | **Pn** | **00 08 39.0** | **+1.0** |
| | SNR=3.0 | | | | | | |
| BHD | | | | *i* Sn | **Sb** | **00 09 12.0** | **-0.9** |
| | SNR=3.0 | | | | | | |
| **ASAO** | **Ashtian** | **2.53** | **61** | *e*Pn | **Pn** | **00 08 39.8** | **+0.9** |
| **ASAO** | **Ashtian** | **2.53** | **61** | *e*Pn | **Pn** | **00 08 39.8** | **+0.9** |
| **NSR** | **Nassriya** | **2.54** | **204** | *e*Pn | **Pn** | **00 08 39.0** | **+0.2** |
| | SNR=3.0 | | | | | | |
| NSR | | | | *i* Sn | **Sn** | **00 09 10.0** | **-0.2** |
| | SNR=3.0 | | | | | | |
| **IKRK** | **Kirkuk** | **3.22** | **310** | *e*Pn | **Pn** | **00 08 47.5** | **-0.7** |
| | SNR=3.0 | | | | | | |
| IKRK | | | | *i* Sn | **Sn** | **00 09 28.0** | **+1.1** |
| | SNR=3.0 | | | | | | |
| **QAM** | **Ghamsar** | **3.44** | **82** | *e*Pn | **Pn** | **00 08 52.1** | **+0.7** |
| QAM | | | | *e*AMB | AMB | 00 09 47.5 | |
| | comp=Z,760nm,0.2s | | | | | | |
| **GHVR** | **GHOM** | **3.47** | **70** | *e*Pn | **Pn** | **00 08 51.9** | **+0.2** |
| **GHVR** | **GHOM** | **3.47** | **70** | *e*Pn | **Pn** | **00 08 52.1** | **+0.4** |
| **RTB** | **Rutbah** | **5.91** | **269** | *e*Pn | **Pn** | **00 09 28.0** | **+2.8** |
| | SNR=3.0 | | | | | | |
| RTB | | | | *i* Sn | **Sn** | **00 10 35.0** | **+1.7** |
| | SNR=3.0 | | | | | | |
| **IDI** | **Anoyia** | **18.65** | **282** | P | **Pn** | **00 12 17.2** | **+1.3** |
| | comp=Z,0.7nm,0.3s,baz=88,slow=11,SNR=13 | | | | | | |
| **MLR** | **Muntele Rosu** | **20.43** | **313** | P | **P** | **00 12 33.9** | **-1.3** |
| | comp=Z,0.2nm,0.5s,baz=66,slow=10.0,SNR=6.1 | | | | | | |
| **AKASG** | **Malin Array Be** | **21.85** | **328** | P | **P** | **00 12 50.8** | **+0.6** |
| | comp=Z,0.3nm,0.4s,baz=135,slow=10,SNR=3.0 | | | | | | |
| **GERES** | **GERESS Array B** | **29.41** | **312** | P | **P** | **00 13 59.1** | **-2.2** |
| | comp=Z,0.7nm,0.8s,baz=131,slow=5.4,SNR=4.0 | | | | | | |
| **FINES** | **FINESS Array B** | **31.28** | **340** | P | **P** | **00 14 16.6** | **-0.8** |
| | comp=Z,3.6nm,0.9s,baz=149,slow=11,SNR=7.2 | | | | | | |
| **HFS** | **Hagfors** | **34.67** | **331** | P | **P** | **00 14 46.8** | **-0.4** |
| | comp=Z,6.8nm,1.0s,baz=111,slow=7.9,SNR=6.4 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **46.08** | **255** | P | **P** | **00 16 22.3** | **+0.2** |
| | comp=Z,0.3nm,0.8s,baz=55,slow=6.7,SNR=3.4 | | | | | | |

**NNC 14 00:13:36.0±1.9, 36°.81N×70°.89E, h158km±19km, mb2.8, mpv3.7, 4C-7D, Error ellipse: s-maj=19.9km s-min=9.6km az=152.0, Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DZET** | **Dzherino** | **2.58** | **321** | ⇓P | Pn | 00 14 18.2 | -0.4 |
| | 8.9nm,0.3s | | | | | | |
| DZET | | | | ⇓S | Sn | 00 14 52.2 | +0.7 |
| | 140nm,0.6s | | | | | | |
| **MNAS** | **Manas** | **5.81** | **12** | ⇓P | Pn | 00 15 00.5 | +0.2 |
| | 4.2nm,0.5s | | | | | | |
| MNAS | | | | ⇑S | Sn | 00 16 07.3 | +0.9 |
| | 29nm,1.1s | | | | | | |
| **KK31** | **Karatay Array** | **6.29** | **357** | ⇓P | Pn | 00 15 07.1 | +0.4 |
| | 6.0nm,0.3s | | | | | | |
| KK31 | | | | ⇑S | Sn | 00 16 18.6 | +0.8 |
| | 2.8nm,0.4s,baz=183,slow=24,SNR=2.8 | | | | | | |
| **AAK** | **Ala-Archa** | **6.45** | **24** | P | Pn | 00 15 08.7 | -0.2 |
| | 1.1nm,0.3s | | | | | | |
| AAK | | | | ⇓S | Sn | 00 16 21.1 | -0.7 |
| | 3.3nm,0.7s | | | | | | |
| **TKM2** | **Tokmak 2** | **7.10** | **29** | ⇓P | Pn | 00 15 17.4 | -0.1 |
| | 2.0nm,0.6s | | | | | | |
| TKM2 | | | | ⇓S | Sn | 00 16 38.6 | +1.4 |
| | 2.4nm,0.8s | | | | | | |
| **AB31** | **Akbulak array** | **14.77** | **331** | P | Pn | 00 16 56.4 | -0.7 |
| | 0.7nm,0.5s,baz=146,slow=8.3,SNR=15 | | | | | | |
| AB31 | | | | ⇑S | Sn | 00 19 37.7 | -3.4 |
| | 0.7nm,0.7s,baz=155,slow=21,SNR=3.7 | | | | | | |
| **AKTO** | **Aktyubinsk** | **16.47** | **330** | ⇑P | Pn | 00 17 19.8 | +1.9 |
| | 2.0nm,0.8s | | | | | | |

**IDC 14 00:15:25.1±3.2, 28°.57S×177°.98W, h104km±17km, mb3.5/2, mb1 3.7/2, mb1mx3.4/21, mbtmp3.8/2, Error ellipse: s-maj=76.4km s-min=37.2km az=26.0, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **0.68** | **176** | P | Pn | 00 15 43.6 | +0.8 |
| | 179nm,0.3s,baz=75,slow=12,SNR=32 | | | | | | |
| RAO | | | | S | Sn | 00 15 57.2 | +1.2 |
| | 1μm,0.3s,baz=107,slow=19,SNR=16 | | | | | | |
| **ASAR** | **Alice Springs** | **43.26** | **265** | P | P | 00 23 16.8 | +0.2 |
| | 0.5nm,0.6s,baz=98,slow=7.0,SNR=7.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.08** | **270** | P | P | 00 23 22.6 | -0.5 |
| | 1.1nm,0.4s,baz=111,slow=6.6,SNR=19 | | | | | | |
| **FINES** | **FINESS Array B** | **143.43** | **341** | PKP | PKPdf | 00 34 45.5 | -1.2 |
| | 1.2nm,0.6s,baz=55,slow=4.1,SNR=6.2 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **164.65** | **179** | PKPab | PKPab | 00 36 12.8 | -0.1 |
| | 0.4nm,1.0s,baz=170,slow=4.5,SNR=3.2 | | | | | | |

*DDA **14** 00:23:57.2, 39°.19N×28°.29E, h7km, Ml3.0*
*ISCJB **14** 00:23:58.0±0.4, 39°.14N±0°.02×28°.30E±0°.02, h3km±4km, Error ellipse: s-maj=3.9km s-min=3.2km az=179.1*
*ISK **14** 00:23:58.1, 39°.16N×28°.35E, h4km, MD2.7*
*CSEM **14** 00:23:58.3±0.1, 39°.14N×28°.30E, h2km, ML3.0, Error ellipse: s-maj=2.9km s-min=2.9km az=7.0*
**ISC 14 00:23:58.1±1.0, 39°.15N±0°.02×28°.28E±0°.02, h7km±9km, n54, σ0°.962/77, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DEMI** | **Demirci** | **0.35** | **108** | *i* P | **Pg** | **00 24 05.2** | **+0.2** |
| DEMI | | | | *i* S | **Sg** | **00 24 09.9** | **+0.2** |
| **DEMI** | **Demirci** | **0.35** | **108** | P | **Pg** | **00 24 05.2** | **+0.2** |
| DEMI | | | | S | **Sg** | **00 24 09.9** | **+0.2** |
| **AKHS** | **Akhisar** | **0.46** | **233** | *i* P | **Pg** | **00 24 06.9** | **0.0** |
| AKHS | | | | *i* S | **Sg** | **00 24 13.6** | **+0.7** |
| **AKHS** | **Akhisar** | **0.46** | **233** | P | **Pg** | **00 24 06.9** | **0.0** |
| AKHS | | | | S | **Sg** | **00 24 13.6** | **+0.7** |
| **AKS** | **Akhisar** | **0.46** | **233** | *e*PG | **Pb** | **00 24 08.5** | **+0.1** |
| AKS | | | | *e*SG | **Sb** | **00 24 16.0** | **+0.6** |
| **AKS** | **Akhisar** | **0.46** | **233** | *e*Pg | **Pb** | **00 24 08.5** | **+0.1** |
| AKS | | | | *e*Sg | **Sb** | **00 24 16.0** | **+0.6** |
| **STEP** | **BALIKESIR_Sava** | **0.49** | **297** | *i* P | **Pg** | **00 24 07.1** | **-0.5** |
| STEP | | | | *i* S | **Sg** | **00 24 14.2** | **+0.1** |
| **STEP** | **BALIKESIR_Sava** | **0.49** | **297** | P | **Pg** | **00 24 07.1** | **-0.5** |
| STEP | | | | S | **Sg** | **00 24 14.2** | **+0.1** |
| **SIMA** | **Simav-Kutahya** | **0.55** | **97** | *e*PG | **Pg** | **00 24 08.6** | **-0.1** |
| SIMA | | | | *e*SG | **Sg** | **00 24 15.8** | **-0.1** |
| **SIMA** | **Simav-Kutahya** | **0.55** | **97** | *e*Pg | **Pg** | **00 24 08.6** | **-0.1** |
| SIMA | | | | *e*Sg | **Sg** | **00 24 15.8** | **-0.1** |
| **BALB** | **Balikesir** | **0.58** | **328** | *e*PG | **Pb** | **00 24 10.6** | **+0.1** |
| **BALB** | **Balikesir** | **0.58** | **328** | *e*Pg | **Pb** | **00 24 10.6** | **+0.1** |
| **MANT** | **Manisa** | **0.69** | **162** | *i* P | **Pg** | **00 24 11.5** | **+0.1** |
| MANT | | | | *i* S | **Sg** | **00 24 19.5** | **-1.0** |
| **MANT** | **Manisa** | **0.69** | **162** | P | **Pg** | **00 24 11.5** | **+0.1** |
| MANT | | | | S | **Sg** | **00 24 19.5** | **-1.0** |
| **KULA** | **Kula-Manisa** | **0.70** | **155** | *e*PG | **Pg** | **00 24 11.9** | **+0.3** |
| **KULA** | **Kula-Manisa** | **0.70** | **155** | *e*Pg | **Pg** | **00 24 11.9** | **+0.3** |
| **GDZ** | **Gediz** | **0.94** | **93** | *i* P | **Pg** | **00 24 15.7** | **-0.3** |
| GDZ | | | | *i* S | **Sg** | **00 24 28.2** | **0.0** |
| **GDZ** | **Gediz** | **0.94** | **93** | P | **Pg** | **00 24 15.7** | **-0.3** |
| GDZ | | | | S | **Sg** | **00 24 28.2** | **0.0** |
| **TVSB** | **Tavsanli** | **0.96** | **72** | *e*PG | **Pg** | **00 24 16.8** | **+0.2** |
| TVSB | | | | *e*SG | **Sg** | **00 24 29.2** | **+0.1** |
| **TVSB** | **Tavsanli** | **0.96** | **72** | *e*Pg | **Pg** | **00 24 16.8** | **+0.2** |
| TVSB | | | | *e*Sg | **Sg** | **00 24 29.2** | **+0.1** |
| **ORLT** | **Orhaneli** | **1.01** | **28** | *e*PG | **Pb** | **00 24 17.9** | **+0.1** |
| **ORLT** | **Orhaneli** | **1.01** | **28** | *e*Pg | **Pb** | **00 24 18.0** | **+0.1** |
| **KCTX** | **Karacabey (Bur** | **1.11** | **3** | *e*PN | **Pg** | **00 24 19.4** | **-0.1** |
| **KCTX** | **Karacabey (Bur** | **1.11** | **3** | *e*Pn | **Pg** | **00 24 19.4** | **-0.1** |
| **KHAL** | **Karahalli** | **1.23** | **129** | *i* P | **Pg** | **00 24 20.9** | **-0.7** |
| KHAL | | | | *i* S | **Sg** | **00 24 36.3** | **-1.2** |
| **KHAL** | **Karahalli** | **1.23** | **129** | P | **Pg** | **00 24 20.9** | **-0.7** |
| KHAL | | | | S | **Sg** | **00 24 36.3** | **-1.2** |
| **EDC** | **Edincik** | **1.24** | **345** | *e*PN | **Pn** | **00 24 21.9** | **+0.2** |
| **EDC** | **Edincik** | **1.24** | **345** | *e*Pn | **Pn** | **00 24 21.9** | **+0.2** |
| **MDNY** | **Mudanya-Bursa** | **1.30** | **21** | *e*PN | **Pb** | **00 24 23.0** | **+0.2** |
| **MDNY** | **Mudanya-Bursa** | **1.30** | **21** | *e*Pn | **Pb** | **00 24 23.0** | **+0.2** |
| **BAYC** | **CANAKKALE_Bayr** | **1.47** | **294** | *i* P | **Pn** | **00 24 24.5** | **-0.4** |
| BAYC | | | | *i* S | **Sn** | **00 24 42.7** | **-1.7** |
| **BAYC** | **CANAKKALE_Bayr** | **1.47** | **294** | P | **Pn** | **00 24 24.5** | **-0.4** |
| **ARMT** | **Armutlu** | **1.48** | **17** | *e*PN | **Pb** | **00 24 26.1** | **+0.2** |
| **ARMT** | **Armutlu** | **1.48** | **17** | *e*Pn | **Pb** | **00 24 26.1** | **+0.2** |
| **AYDN** | **Tasoluk** | **1.52** | **192** | *i* P | **Pb** | **00 24 26.4** | **-0.2** |
| AYDN | | | | *i* S | **Sn** | **00 24 46.1** | **+0.3** |
| **AYDN** | **Tasoluk** | **1.52** | **192** | P | **Pb** | **00 24 26.4** | **-0.2** |
| AYDN | | | | S | **Sn** | **00 24 46.1** | **+0.3** |
| **SBT5** | **Esenkoy-Cinarc** | **1.55** | **17** | *e*PN | **Pn** | **00 24 26.5** | **+0.6** |
| **SBT5** | **Esenkoy-Cinarc** | **1.55** | **17** | *e*Pn | **Pn** | **00 24 26.5** | **+0.6** |
| **CAVI** | **Cavuskoy** | **1.60** | **48** | *e*PN | **Pb** | **00 24 27.6** | **-0.3** |
| **CAVI** | **Cavuskoy** | **1.60** | **48** | *e*Pn | **Pb** | **00 24 27.6** | **-0.3** |
| **GCAM** | **G?zelcaml?** | **1.67** | **210** | *e*PN | **Pb** | **00 24 28.7** | **-0.3** |
| **GCAM** | **G?zelcaml?** | **1.67** | **210** | *e*Pn | **Pb** | **00 24 28.7** | **-0.3** |
| **RKY** | **Sarkoy-Tekirda** | **1.75** | **331** | *e*PN | **Pb** | **00 24 31.1** | **+0.5** |
| **RKY** | **Sarkoy-Tekirda** | **1.75** | **331** | *e*Pn | **Pb** | **00 24 31.1** | **+0.5** |
| **BUY** | **Buyukada** | **1.82** | **20** | *e*PN | **Pb** | **00 24 31.3** | **-0.3** |
| BUY | | | | *e*SN | **Sb** | **00 24 54.8** | **+0.3** |
| **BUY** | **Buyukada** | **1.82** | **20** | *e*Pn | **Pb** | **00 24 31.3** | **-0.3** |
| BUY | | | | *e*Sn | **Sb** | **00 24 54.8** | **+0.3** |
| **ISK** | **Istanbul-Kandi** | **2.00** | **17** | *e*PN | **Pb** | **00 24 33.7** | **-1.1** |
| **ISK** | **Istanbul-Kandi** | **2.00** | **17** | *e*Pn | **Pb** | **00 24 33.7** | **-1.1** |
| **CTKS** | **Kestanelik-??a** | **2.09** | **5** | *e*PN | **Pb** | **00 24 35.1** | **-1.2** |
| **CTKS** | **Kestanelik-??a** | **2.09** | **5** | *e*Pn | **Pb** | **00 24 35.1** | **-1.2** |
| **GULT** | **Gulveren** | **2.14** | **53** | *e*PN | **Pn** | **00 24 35.9** | **+1.6** |
| **GULT** | **Gulveren** | **2.14** | **53** | *e*Pn | **Pn** | **00 24 35.9** | **+1.6** |
| **SILT** | **Sile** | **2.25** | **27** | *e*PN | **Pb** | **00 24 37.7** | **-1.4** |
| **SILT** | **Sile** | **2.25** | **27** | *e*Pn | **Pb** | **00 24 37.7** | **-1.4** |

*IDC **14** 00:23:25.1±19.0, 45°.13N×148°.64E, h0km, mb4.0/4, mb1 4.2/4, mb1mx3.6/33, mbtmp4.0/4, Error ellipse: s-maj=433.5km s-min=76.4km az=146.0*
*ISCJB **14** 00:24:15.2±1.0, 46°.50N±0°.07×146°.3E±0°.2, h350km, mb3.5/4, Error ellipse: s-maj=22.9km s-min=7.9km az=12.3*
*JMA **14** 00:24:16.9±0.4, 46°.20N×146°.67E, h363km, M3.4*
**ISC 14 00:24:15.9±1.4, 46°.40N±0°.10×146°.4E±0°.2, h350km, n10, σ1°.938/16, mb3.7/4, Northeast of Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **NEM2** | **Nemuro 2** | **3.06** | **189** | P | **Pn** | **00 25 16.2** | **+0.3** |
| NEM2 | | | | *e*S | **S** | **00 26 03.5** | **-0.6** |
| **JAK** | **Akkeshi** | **3.60** | **200** | P | **Pn** | **00 25 22.1** | **+1.1** |
| JAK | | | | *e*S | **S** | **00 26 13.1** | **-0.3** |
| **JCH** | **Churui** | **4.35** | **211** | P | **Pn** | **00 25 29.9** | **+1.3** |
| JCH | | | | *e*S | **S** | **00 26 26.9** | **-0.4** |
| **JNBK** | **Urakawa-nobuka** | **4.87** | **214** | P | **Pn** | **00 25 35.4** | **+1.3** |
| JNBK | | | | *e*S | **S** | **00 26 36.2** | **-1.1** |
| **JKB** | **Kayabe** | **5.93** | **222** | P | **Pn** | **00 25 47.6** | **+1.7** |
| JKB | | | | *e*S | **S** | **00 26 57.4** | **-1.4** |
| **JANG** | **Nango** | **6.99** | **212** | P | **Pn** | **00 26 00.0** | **+1.9** |
| JANG | | | | *e*S | **S** | **00 27 18.7** | **-2.5** |
| **MKAR** | **Makanchi Array** | **42.93** | **295** | P | **P** | **00 31 41.1** | **-0.2** |
| | 0.4nm,0.5s,baz=71,slow=6.4,SNR=5.7 | | | | | | |
| **ARCES** | **ARCESS Array B** | **56.58** | **339** | P | **P** | **00 33 21.8** | **-0.8** |
| | 3.5nm,1.0s,baz=50,slow=8.4,SNR=3.2 | | | | | | |
| **FINES** | **FINESS Array B** | **62.28** | **322** | P | **P** | **00 33 59.9** | **-1.3** |
| | 2.3nm,0.6s,baz=55,slow=7.2,SNR=11 | | | | | | |
| **KBZ** | **Khabaz** | **67.65** | **310** | P | **P** | **00 34 36.8** | **+0.9** |
| | 0.9nm,0.6s,baz=45,slow=5.7,SNR=5.8 | | | | | | |

*ISCJB **14** 00:36:32.8±1.2, 28°.68S±0°.07×177°.8W±0°.2, h33km, mb4.5/10, Error ellipse: s-maj=24.4km s-min=8.2km az=168.3*
*NEIC **14** 00:36:33.7±1.6, 28°.81S×177°.61W, h39km±12km, mb4.4/5, Error ellipse: s-maj=17.3km s-min=13.2km az=86.0*
*IDC **14** 00:36:35.4±1.6, 28°.93S×177°.97W, h45km±17km, mb4.2/4, mb1 4.4/4, mb1mx3.9/22, mbtmp4.4/4, Error ellipse: s-maj=34.9km s-min=20.5km az=162.0*
**ISC 14 00:36:34.4±0.8, 28.79S±0°.08×177.8W±0°.1, h35km, n45, σ1°.887/39, mb4.4/10, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **0.47** | **191** | P | **Pn** | **00 36 44.8** | **+0.1** |
| | 3μm,0.3s,baz=94,slow=8.9,SNR=158 | | | | | | |
| RAO | | | | S | **Sn** | **00 36 53.5** | **+1.8** |
| | 5μm,0.3s,baz=90,slow=20,SNR=29 | | | | | | |
| **URZ** | **Urewera** | **10.35** | **203** | S | Sn | 00 40 33.4 | -22 |
| | 2.5nm,0.3s,baz=33,slow=17,SNR=10 | | | | | | |
| **MSVF** | **Nonsavu** | **11.64** | **340** | *e*Pn | **Pn** | **00 39 18.3** | **0.0** |
| **DZM** | **Mont Dzumac** | **15.71** | **292** | *e*Pn | **Pn** | **00 40 13.8** | **+0.6** |
| **ARMA** | **Armidale** | **26.58** | **259** | *e*P | **P** | **00 42 11.2** | **+1.7** |
| | 6.9nm,0.7s | | | | | | |
| **EIDS** | **Eidsvold** | **27.86** | **270** | *e*P | **P** | **00 42 22.5** | **+1.6** |
| | 6.2nm,0.8s | | | | | | |
| **CTAO** | **Charters Tower** | **33.73** | **277** | *e*P | **P** | **00 43 15.2** | **+2.4** |
| | 46nm,0.6s | | | | | | |
| **STKA** | **Stephens Creek** | **35.03** | **255** | P | **P** | **00 43 22.7** | **-1.2** |
| | 2.7nm,0.6s,baz=100,slow=15,SNR=6.0 | | | | | | |
| **COEN** | **Coen** | **39.01** | **284** | *e*P | **P** | **00 44 00.1** | **+2.2** |
| | 4.2nm,0.9s | | | | | | |
| **ASAR** | **Alice Springs** | **43.38** | **265** | P | **P** | **00 44 32.6** | **-1.1** |
| | 3.5nm,0.6s,baz=100,slow=6.9,SNR=39 | | | | | | |
| ASAR | | | | PcP | **PcP** | **00 46 22.6** | **+0.7** |
| | 0.4nm,0.6s,baz=125,slow=3.5,SNR=4.3 | | | | | | |
| **WRAB** | **Tennant Creek** | **44.22** | **270** | *e*P | **P** | **00 44 39.5** | **-1.0** |
| | 6.4nm,0.6s | | | | | | |
| **WRA** | **Warramunga Arr** | **44.22** | **270** | P | **P** | **00 44

*s-maj=7.4km s-min=4.6km az=161.4*
*MOS 14 00:48:12.8s 1.4, 15°34S 174°82W h33km mb5.4/53, MS5.6/38, Error ellipse: s-maj=10.0km s-min=7.0km az=51.1*

**ISC 14 00:48:11.4** ±0.9, **15°52S** ±0°05 **174°65W** ±0°05, **h16**km ±5km, **n986**, σ1♀**40**/895, **mb5.2**/239, **MS5.5**/194, **29C-27D, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AFI** | **Afiamalu** | **3.21** | **60** | Pn | Pn | 00 48 54.8 | -6.4 |
| | 63nm,0.3s,baz=6.4,slow=1.1,SNR=118 | | | | | | |
| AFI | | | | LR | LR | 00 50 02.9 | |
| | comp=Z,18μm,18.1s,baz=354,slow=34 | | | | | | |
| AFI | | | | T | T | 00 52 05.9 | |
| | 83nm,0.3s,baz=315,slow=23,SNR=6.2 | | | | | | |
| **AFI** | **Afiamalu** | **3.21** | **60** | *e*P | Pn | 00 48 54.5 | -6.7 |
| **NIUE** | **Niue** | **5.73** | **129** | P | **Pn** | **00 49 33.5** | **-2.3** |
| | baz=5.8,SNR=8.5 | | | | | | |
| **MSVF** | **Nonsavu** | **7.34** | **252** | *e*P | **Pn** | **00 49 59.3** | **+1.3** |
| **MSVF** | **Nonsavu** | **7.34** | **252** | *e*Pn | **Pn** | **00 49 59.3** | **+1.3** |
| **KNTN** | **Kanton** | **12.99** | **13** | *e*Pn | Pn | 00 51 07.6 | -7.8 |
| **RAO** | **Raoul Island** | **13.99** | **192** | LR | LR | 00 56 14.7 | |
| | comp=Z,44μm,18.1s,baz=31,slow=35 | | | | | | |
| **RAR** | **Rarotonga** | **15.21** | **114** | Pn | **Pn** | **00 51 42.0** | **-3.6** |
| | 0.8nm,0.3s,baz=260,slow=7.7,SNR=8.1 | | | | | | |
| RAR | | | | LR | LR | 00 56 19.0 | |
| | comp=Z,18μm,20.7s,baz=272,slow=32 | | | | | | |
| **RAR** | **Rarotonga** | **15.21** | **114** | *e*P | **Pn** | **00 51 41.1** | **-4.5** |
| RAR | | | | pmax | pmax | | |
| | comp=Z,129nm,1.1s | | | | | | |
| **RAR** | **Rarotonga** | **15.21** | **114** | *e*Pn | **Pn** | **00 51 41.1** | **-4.5** |
| | comp=Z,129nm,1.1s | | | | | | |
| **DZM** | **Mont Dzumac** | **19.04** | **247** | P | **P** | **00 52 32.3** | **-0.7** |
| | comp=Z,0.8nm,0.3s,baz=75,slow=18,SNR=21 | | | | | | |
| DZM | | | | LR | LR | 00 57 55.8 | |
| | comp=Z,4μm,21.9s,baz=81,slow=31 | | | | | | |
| **DZM** | **Mont Dzumac** | **19.04** | **247** | *e*P | **Pn** | **00 52 35.2** | **+1.4** |
| | comp=Z,347nm,1.6s | | | | | | |
| DZM | | | | *e*LQ | LQ | 00 56 10.4 | |
| | comp=Z,49μm,25.9s | | | | | | |
| DZM | | | | *e*LR | LR | 00 56 57.9 | |
| | comp=Z,14μm,29.4s | | | | | | |
| **DZM** | **Mont Dzumac** | **19.04** | **247** | *e*P | **Pn** | **00 52 34.3** | **+0.5** |
| | comp=Z,105nm,1.1s | | | | | | |
| **TARA** | **Tarawa** | **20.79** | **323** | PFAKE | | 00 53 00.0 | +5.5 |
| TARA | | | | LR | LR | | |
| | comp=Z,939nm,20.0s | | | | | | |
| **URZ** | **Urewera** | **23.79** | **196** | P | **P** | **00 53 19.1** | **-4.3** |
| | comp=Z,9.1nm,0.7s,baz=66,slow=18,SNR=3.0 | | | | | | |
| URZ | | | | LR | LR | 01 01 52.6 | |
| | comp=Z,12μm,19.4s,baz=30,slow=35 | | | | | | |
| **URZ** | **Urewera** | **23.79** | **196** | *e*P | **P** | **00 53 24.6** | **+1.3** |
| | comp=Z,123nm,1.4s | | | | | | |
| **PAE** | **Paea** | **24.11** | **99** | *e*P | **P** | **00 53 27.4** | **+0.8** |
| | comp=Z,10nm,1.0s | | | | | | |
| **PAE** | **Paea** | **24.11** | **99** | *e*T | T | 01 18 24.3 | |
| | comp=Z,14nm,0.3s | | | | | | |
| **PPT** | **Papeete** | **24.12** | **98** | P | **P** | **00 53 28.7** | **+2.0** |
| | comp=Z,89nm,1.0s,baz=254,slow=7.4,SNR=6.2 | | | | | | |
| PPT | | | | LR | LR | 01 00 42.7 | |
| | comp=Z,7μm,19.6s,baz=272,slow=31 | | | | | | |
| PPT | | | | T | T | 01 18 44.5 | |
| | comp=Z,47nm,0.4s,baz=44,slow=23,SNR=6.1 | | | | | | |
| **PPT** | **Papeete** | **24.12** | **98** | *e*P | **P** | **00 53 26.9** | **+0.2** |
| **PPT** | **Papeete** | **24.12** | **98** | *e*P | **P** | **00 53 26.9** | **+0.2** |
| PPT | | | | TT | | 01 18 44.5 | |
| **PPT2** | **Papeete2** | **24.12** | **98** | *e*P | **P** | **00 53 27.8** | **+1.1** |
| | comp=Z,68nm,1.0s | | | | | | |
| PPT2 | | | | *e*LQ | LQ | 00 58 14.5 | |
| | comp=Z,32μm,25.2s | | | | | | |
| PPT2 | | | | *e*LR | LR | 00 59 16.0 | |
| | comp=Z,22μm,26.5s,baz=268 | | | | | | |
| **PPT2** | **Papeete2** | **24.12** | **98** | *e*T | T | 01 18 25.4 | |
| | comp=Z,17nm,0.3s | | | | | | |
| **PPTF** | **Pamatai, Papee** | **24.13** | **98** | *e*P | **P** | **00 53 28.1** | **+1.2** |
| | comp=Z,104nm,1.1s | | | | | | |
| **TIAR** | **Tiarei** | **24.34** | **98** | *e*P | **P** | **00 53 29.7** | **+1.0** |
| | comp=Z,22nm,1.1s | | | | | | |
| **TIAR** | **Tiarei** | **24.34** | **98** | *e*T | T | 01 18 41.0 | |
| | comp=Z,9.3nm,0.3s | | | | | | |
| **XMAS** | **Kiritimati** | **24.38** | **46** | PFAKE | | 00 53 40.0 | +11 |
| XMAS | | | | LR | LR | | |
| | comp=Z,3.0nm,21.0s | | | | | | |
| **TVO** | **Taravao** | **24.43** | **99** | *e*P | **P** | **00 53 30.7** | **+1.1** |
| | comp=Z,12nm,0.8s | | | | | | |
| **HIZ** | **Hauiti** | **24.70** | **200** | *e*P | **P** | **00 53 31.8** | **0.0** |
| | comp=Z,459nm,1.9s | | | | | | |
| **BKZ** | **Black Stump Fm** | **24.81** | **197** | *e*P | **P** | **00 53 34.2** | **+1.4** |
| | comp=Z,42nm,1.3s | | | | | | |
| **TBI** | **Tubuai** | **24.97** | **112** | *e*P | **P** | **00 53 35.8** | **+1.4** |
| | comp=Z,341nm,1.2s | | | | | | |
| TBI | | | | *e*LQ | LQ | 00 58 37.4 | |
| | comp=Z,12μm,29.0s | | | | | | |
| TBI | | | | *e*LR | LR | 00 59 49.0 | |
| | comp=Z,32μm,26.8s,baz=286 | | | | | | |
| **TBI** | **Tubuai** | **24.97** | **112** | *e*T | T | 01 19 31.0 | |
| | comp=Z,131nm,0.2s | | | | | | |
| **HNR** | **Honiara** | **25.52** | **281** | LR | LR | 01 02 07.7 | |
| | comp=Z,19μm,21.7s,baz=129,slow=33 | | | | | | |
| **PMOR** | **Pomariorio Ree** | **25.81** | **92** | *e*T | T | 01 20 30.8 | |
| | comp=Z,19nm,0.3s | | | | | | |
| **VAH** | **Vaihoa** | **26.05** | **93** | *e*P | **P** | **00 53 45.3** | **+1.1** |
| | comp=Z,114nm,1.2s | | | | | | |
| **VAH** | **Vaihoa** | **26.05** | **93** | *e*T | T | 01 20 48.2 | |
| | comp=Z,38nm,0.3s | | | | | | |
| **BFZ** | **Birch Farm** | **26.29** | **196** | *e*P | **P** | **00 53 46.3** | **+0.1** |
| | comp=Z,72nm,0.9s | | | | | | |
| **SNZO** | **South Karori** | **27.30** | **198** | PFAKE | | 00 54 10.0 | +15 |
| SNZO | | | | LR | LR | | |
| | comp=Z,9μm,19.0s | | | | | | |
| **JOHN** | **Johnston Islan** | **32.44** | **9** | PFAKE | | 00 54 50.0 | +9.0 |
| JOHN | | | | LR | LR | | |
| | comp=Z,713nm,22.0s | | | | | | |
| **EIDS** | **Eidsvold** | **33.49** | **247** | *e*P | **P** | **00 54 49.2** | **-1.0** |
| | comp=Z,28nm,1.4s | | | | | | |
| **ARMA** | **Armidale** | **34.25** | **238** | *e*P | **P** | **00 54 55.2** | **-1.7** |
| | comp=Z,30nm,1.3s | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **34.33** | **83** | *e*S | **S** | **01 00 24.8** | **-0.2** |
| | comp=Z,718nm,27.0s | | | | | | |
| TAOE | | | | *e*LQ | LQ | 01 02 43.1 | |
| | comp=Z,5μm,24.4s | | | | | | |
| TAOE | | | | *e*LR | LR | 01 03 53.2 | |
| | comp=Z,7μm,29.8s,baz=262 | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **34.33** | **83** | *e*T | T | 01 31 07.3 | |
| | comp=Z,188nm,0.2s | | | | | | |
| **RMQ** | **Roma** | **35.74** | **246** | P | **P** | **00 55 10.2** | **+0.5** |
| | baz=36,SNR=4.6 | | | | | | |
| **CTAO** | **Charters Tower** | **37.44** | **257** | *e*P | **P** | **00 55 20.7** | **-3.6** |
| CTAO | | | | pmax | pmax | | |
| | comp=Z,56nm,1.5s | | | | | | |
| CTAO | | | | MLR | MLR | | |
| | comp=Z,6μm,20.0s | | | | | | |
| **CTAO** | **Charters Tower** | **37.44** | **257** | *e*P | **P** | **00 55 20.7** | **-3.6** |
| | comp=Z,56nm,1.5s | | | | | | |
| CTAO | | | | LR | LR | | |
| | comp=Z,6μm,20.0s | | | | | | |
| **PMG** | **Port Moresby** | **37.74** | **275** | *ce*P | **P** | **00 55 24.7** | **-2.2** |
| PMG | | | | pmax | pmax | | |
| | comp=Z,348nm,1.7s | | | | | | |
| **PMG** | **Port Moresby** | **37.74** | **275** | *e*P | **P** | **00 55 24.4** | **-2.5** |
| | comp=Z,80nm,1.3s | | | | | | |
| PMG | | | | LR | LR | | |
| | comp=Z,7μm,21.0s | | | | | | |
| **CAN** | **Canberra** | **38.01** | **232** | PFAKE | | 00 55 40.0 | +11 |
| CAN | | | | LR | LR | | |
| | comp=Z,4μm,19.0s | | | | | | |
| **RKT** | **Rikitea** | **38.10** | **108** | *e*P | **P** | **00 55 30.9** | **+1.1** |
| | comp=Z,40nm,1.1s | | | | | | |
| RKT | | | | *e*S | **S** | **01 01 22.8** | **+0.5** |
| | comp=Z,896nm,31.5s | | | | | | |
| RKT | | | | *e*LQ | LQ | 01 04 18.8 | |
| | comp=Z,3μm,27.5s | | | | | | |
| RKT | | | | *e*LR | LR | 01 05 56.6 | |
| | comp=Z,18μm,25.5s | | | | | | |
| **RKT** | **Rikitea** | **38.10** | **108** | *e*T | T | 01 35 55.3 | |
| | comp=Z,33nm,0.3s | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **38.46** | **331** | T | T | 01 36 01.7 | |
| | baz=150,slow=76,SNR=912 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **38.48** | **331** | T | T | 01 36 06.8 | |
| | baz=150,slow=76,SNR=862 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **38.48** | **331** | T | T | 01 36 03.1 | |
| | baz=150,slow=76,SNR=909 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **39.44** | **332** | T | T | 01 37 19.0 | |
| | baz=152,slow=76,SNR=1898 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **39.44** | **332** | T | T | 01 37 15.4 | |
| | baz=152,slow=76,SNR=4693 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **39.45** | **332** | T | T | 01 37 14.2 | |
| | baz=152,slow=76,SNR=2409 | | | | | | |
| **QLP** | **Quilpie** | **39.76** | **247** | P | **P** | **00 55 42.1** | **-1.6** |
| | baz=40,SNR=4.8 | | | | | | |
| **POHA** | **Pohakuloa** | **39.78** | **29** | PFAKE | | 00 56 00.0 | +16 |
| POHA | | | | LR | LR | | |
| | comp=Z,6μm,20.0s | | | | | | |
| **KIP** | **Kipapa** | **40.18** | **24** | PFAKE | | 00 56 00.0 | +13 |
| KIP | | | | LR | LR | | |
| | comp=Z,11μm,20.0s | | | | | | |
| **COEN** | **Coen** | **40.77** | **267** | P | **P** | **00 55 50.5** | **-1.7** |
| | baz=41,SNR=24 | | | | | | |
| **COEN** | **Coen** | **40.77** | **267** | *e*P | **P** | **00 55 50.8** | **-1.4** |
| | comp=Z,73nm,1.4s | | | | | | |
| **TOO** | **Toolangi** | **41.46** | **230** | P | **P** | **00 55 57.5** | **-0.1** |
| | baz=42,SNR=5.5 | | | | | | |
| **TAU** | **Tasmania Unive** | **42.42** | **222** | PFAKE | | 00 56 20.0 | +15 |
| TAU | | | | LR | LR | | |
| | comp=Z,8μm,20.0s | | | | | | |
| **PTCN** | **Pitcairn Islan** | **42.69** | **110** | PFAKE | | 00 56 20.0 | +12 |
| PTCN | | | | LR | LR | | |
| | comp=Z,6μm,20.0s | | | | | | |
| **STKA** | **Stephens Creek** | **42.94** | **240** | P | **P** | **00 56 06.9** | **-2.8** |
| | comp=Z,6.0nm,0.8s,baz=83,slow=9.0,SNR=7.7 | | | | | | |
| STKA | | | | LR | LR | 01 13 20.1 | |
| | comp=Z,4μm,18.2s,baz=71,slow=35 | | | | | | |
| **STKA** | **Stephens Creek** | **42.94** | **240** | P | **P** | **00 56 10.0** | **+0.3** |
| | baz=43,SNR=5.1 | | | | | | |
| **STKA** | **Stephens Creek** | **42.94** | **240** | *e*P | **P** | **00 56 07.5** | **-2.2** |
| STKA | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.3s | | | | | | |
| **STKA** | **Stephens Creek** | **42.94** | **240** | *e*P | **P** | **00 56 07.5** | **-2.2** |
| | comp=Z,7.0nm,1.3s | | | | | | |
| **MIDW** | **Midway** | **43.56** | **357** | PFAKE | | 00 56 20.0 | +5.4 |
| MIDW | | | | LR | LR | | |
| | comp=Z,7μm,19.0s | | | | | | |
| **BBOO** | **Buckleboo** | **47.71** | **240** | *e*P | **P** | **00 56 47.2** | **-0.4** |
| **WB2** | **Warramunga Arr** | **48.63** | **257** | *e*P | **P** | **00 56 52.6** | **-2.3** |
| | comp=Z,102nm,1.9s | | | | | | |
| **WRAB** | **Tennant Creek** | **48.63** | **257** | *i* P | **P** | **00 56 52.2** | **-2.7** |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,98nm,1.7s | | | | | | |
| **WRAB** | **Tennant Creek** | **48.63** | **257** | *e*P | **P** | **00 56 52.6** | **-2.3** |
| | comp=Z,81nm,1.8s | | | | | | |
| WRAB | | | | LR | LR | | |
| | comp=Z,10μm,20.0s | | | | | | |
| **WRA** | **Warramunga Arr** | **48.64** | **257** | P | **P** | **00 56 52.2** | **-2.8** |
| | comp=Z,5.0nm,0.9s,baz=91,slow=7.1,SNR=33 | | | | | | |
| WRA | | | | PcP | **PcP** | **00 58 21.6** | **+1.2** |
| | comp=Z,4.7nm,1.1s,baz=82,slow=3.7,SNR=2.7 | | | | | | |
| WRA | | | | LR | LR | 01 16 01.2 | |
| | comp=Z,10μm,19.2s,baz=95,slow=34 | | | | | | |
| **AS01** | **Alice Springs** | **48.88** | **252** | *e*P | **P** | **00 56 54.5** | **-2.3** |
| **AS31** | **Alice Springs** | **48.93** | **252** | *e*P | **P** | **00 56 54.3** | **-2.9** |
| | comp=Z,5.2nm,0.8s | | | | | | |
| **ASAR** | **Alice Springs** | **48.93** | **252** | P | **P** | **00 56 54.6** | **-2.6** |
| | comp=Z,16nm,0.7s,baz=86,slow=8.1,SNR=70 | | | | | | |
| ASAR | | | | LR | LR | 01 15 58.2 | |
| | comp=Z,6μm,19.7s,baz=97,slow=34 | | | | | | |
| **GUMO** | **Guam** | **49.39** | **304** | PFAKE | | 00 57 10.0 | +9.3 |
| GUMO | | | | LR | LR | | |
| | comp=Z,3μm,20.0s | | | | | | |
| **MTN** | **Manton Dam** | **52.52** | **266** | *e*P | **P** | **00 57 23.9** | **-0.5** |
| | comp=Z,27nm,1.0s | | | | | | |
| **FAKI** | **Fak Fak** | **53.74** | **278** | *e*P | **P** | **00 57 33.1** | **-0.2** |
| | comp=Z,68nm,1.4s | | | | | | |
| **WRKA** | **Warakurna** | **54.02** | **250** | P | **P** | **00 57 34.8** | **-0.5** |
| | baz=54,SNR=7.9 | | | | | | |
| **FORT** | **Forrest** | **54.29** | **243** | *e*P | **P** | **00 57 36.9** | **-0.2** |
| **FITZ** | **Fitzroy Crossi** | **57.01** | **258** | P | **P** | **00 57 56.6** | **-0.3** |
| | baz=57,SNR=3.3 | | | | | | |
| **SOEI** | **Soe** | **59.72** | **268** | *e*P | **P** | **00 58 14.4** | **-1.6** |
| | comp=Z,135nm,1.0s | | | | | | |
| **RPN** | **Rapa Nui** | **61.35** | **113** | PFAKE | | 00 58 40.0 | +13 |
| RPN | | | | LR | LR | | |
| | comp=Z,2μm,19.0s | | | | | | |
| **MBWA** | **Marble Bar** | **62.17** | **254** | PFAKE | | 00 58 40.0 | +7.6 |
| MBWA | | | | LR | LR | | |
| | comp=Z,5μm,22.0s | | | | | | |
| **SBA** | **Scott Base** | **63.04** | **184** | *e*P | **P** | **00 58 38.2** | **+0.9** |
| SBA | | | | pmax | pmax | | |
| | comp=Z,47nm,1.2s | | | | | | |
| SBA | | | | MLR | MLR | | |
| | comp=Z,2μm,19.0s | | | | | | |
| **SBA** | **Scott Base** | **63.04** | **184** | *e*P | **P** | **00 58 38.2** | **+0.9** |
| | comp=Z,47nm,1.2s | | | | | | |
| SBA | | | | LR | LR | | |
| | comp=Z,2μm,19.0s | | | | | | |
| **VNDA** | **Vanda** | **63.14** | **186** | P | **P** | **00 58 37.6** | **-0.3** |
| | comp=Z,7.3nm,1.0s,baz=13,slow=7.0,SNR=8.4 | | | | | | |
| VNDA | | | | LR | LR | 01 24 14.5 | |
| | comp=Z,1μm,18.4s,baz=26,slow=34 | | | | | | |
| **VNDA** | **Vanda** | **63.14** | **186** | *e*P | **P** | **00 58 40.0** | **+2.1** |
| VNDA | | | | pmax | pmax | | |
| | comp=Z,22nm,1.0s | | | | | | |
| **VNDA** | **Vanda** | **63.14** | **186** | *e*P | **P** | **00 58 40.0** | **+2.1** |
| | comp=Z,22nm,1.0s | | | | | | |
| **DAV** | **Davao City (W)** | **63.31** | **286** | PFAKE | | 00 58 50.0 | +10 |
| DAV | | | | LR | LR | | |
| | comp=Z,2μm,20.0s | | | | | | |
| **LUWI** | **Luwuk** | **63.34** | **277** | *e*P | **P** | **00 58 39.2** | **-1.1** |
| **NWAO** | **Narrogin (SRO)** | **63.51** | **241** | PFAKE | | 00 58 50.0 | +8.8 |
| NWAO | | | | LR | LR | | |
| | comp=Z,4μm,19.0s | | | | | | |
| **KAPI** | **Kappang** | **65.18** | **272** | *e*P | **P** | **00 58 51.5** | **-0.9** |
| | comp=Z,21nm,1.2s | | | | | | |
| KAPI | | | | LR | LR | | |
| | comp=Z,1μm,22.0s | | | | | | |
| **MJAR** | **Matsushiro Arr** | **68.26** | **321** | P | **P** | **00 59 11.4** | **-0.2** |
| | comp=Z,0.8nm,0.5s,baz=158,slow=7.8,SNR=4.0 | | | | | | |
| MJAR | | | | LR | LR | 01 23 39.2 | |
| | comp=Z,2μm,21.8s,baz=140,slow=31 | | | | | | |
| **MAJO** | **Matsushiro** | **68.26** | **321** | PFAKE | | 00 59 20.0 | +8.4 |
| MAJO | | | | LR | LR | | |
| | comp=Z,3μm,21.0s | | | | | | |
| **ERM** | **Erimo** | **69.21** | **328** | PFAKE | | 00 59 30.0 | +13 |
| ERM | | | | LR | LR | | |
| | comp=Z,3μm,20.0s | | | | | | |
| **MYLDM** | **Lahad Datu** | **69.29** | **282** | *e*P | **P** | **00 59 21.5** | **+3.0** |
| | comp=Z,59nm,1.5s | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **69.37** | **331** | *e*P | **P** | **00 59 20.7** | **+2.4** |
| YUK | | | | *e* | | 00 59 45.0 | |
| YUK | | | | *e*S | **S** | **01 08 27.6** | **+3.1** |
| YUK | | | | *e*SS | **SS** | **01 12 44.2** | **-7.9** |
| YUK | | | | pmax | pmax | | |
| | comp=E,137nm,0.9s | | | | | | |
| **JAGI** | **Jajag, Banyuwa** | **69.74** | **267** | *e*P | **P** | **00 59 18.8** | **-2.5** |
| | comp=E,32nm,0.9s | | | | | | |
| **KKM** | **Kota Kinabalu** | **71.72** | **282** | PFAKE | | 00 59 40.0 | +6.5 |
| KKM | | | | LR | LR | | |
| | comp=Z,992nm,20.0s | | | | | | |
| **SCZ2** | **Santa Cruz Isl** | **71.87** | **46** | P | **P** | **00 59 33.6** | **-0.2** |
| | baz=236 | | | | | | |
| **PET** | **Petropavlovsk** | **72.04** | **343** | *e*P | **P** | **00 59 36.3** | **+1.9** |
| PET | | | | *e* | | 01 02 18.3 | |
| PET | | | | *e*S | **S** | **01 08 55.4** | **+0.1** |
| PET | | | | *e*PS | **PnS** | **01 09 25.3** | **-0.8** |
| PET | | | | *e*SS | **SS** | **01 13 34.4** | **+1.5** |
| PET | | | | pmax | pmax | | |
| | comp=Z,18nm,0.8s | | | | | | |
| **PET** | **Petropavlovsk** | **72.04** | **343** | PFAKE | | 00 59 50.0 | +16 |
| PET | | | | LR | LR | | |
| | comp=Z,2μm,20.0s | | | | | | |
| **SAO** | **San Andreas Ge** | **72.23** | **42** | *e*P | **P** | **00 59 34.3** | **-1.6** |
| SAO | | | | pmax | pmax | | |
| | comp=Z,46nm,1.2s | | | | | | |
| **SAO** | **San Andreas Ge** | **72.23** | **42** | *e*P | **P** | **00 59 34.3** | **-1.6** |
| | comp=Z,46nm,1.2s | | | | | | |
| **PKM** | **Mcpherson Peak** | **72.24** | **45** | P | **P** | **00 59 35.7** | **-0.6** |
| | baz=236 | | | | | | |
| **PMPB** | **Monarch Peak** | **72.33** | **43** | *e*P | **P** | **00 59 37.6** | **+0.9** |
| | comp=Z,45nm,1.1s | | | | | | |
| **PETK** | **Petropavlovsk-** | **72.38** | **343** | P | **P** | **00 59 36.0** | **-0.4** |
| | comp=Z,3.6nm,0.8s,baz=106,slow=7.7,SNR=3.0 | | | | | | |
| PETK | | | | LR | LR | 01 34 00.1 | |
| | comp=Z,592nm,18.1s,baz=159,slow=38 | | | | | | |
| **PAGB** | **Antelope Grade** | **72.42** | **44** | *e*P | **P** | **00 59 39.7** | **+2.6** |
| | comp=Z,43nm,1.3s | | | | | | |
| **GDXM** | **Geysers** | **72.59** | **40** | *e*P | **P** | **00 59 38.3** | **+0.2** |
| | comp=Z,26nm,1.4s | | | | | | |
| **KCPM** | **Cahto Peak** | **72.64** | **39** | *e*P | **P** | **00 59 37.3** | **-1.1** |
| | comp=Z,35nm,1.2s | | | | | | |
| **KMRM** | **Mail Ridge** | **72.90** | **38** | *e*P | **P** | **00 59 40.9** | **+1.0** |
| | comp=Z,54nm,1.0s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **73.00** | **331⇑** | *e*P | **P** | **00 59 39.4** | **-0.8** |
| YSS | | | | *e*S | **S** | **01 09 07.0** | **+0.5** |
| YSS | | | | pmax | pmax | | |
| | comp=Z,30nm,1.4s | | | | | | |
| YSS | | | | MLR | MLR | | |
| | comp=Z,1μm,17.0s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **73.00** | **331** | *e*P | **P** | **00 59 39.1** | **-1.1** |
| | comp=Z,49nm,1.0s | | | | | | |
| YSS | | | | LR | LR | | |
| | comp=Z,644nm,19.0s | | | | | | |
| **MWC** | **Mount Wilson** | **73.08** | **46** | *e*P | **P** | **00 59 42.9** | **+1.6** |
| MWC | | | | pmax | pmax | | |
| | comp=Z,22nm,0.9s | | | | | | |
| **MWC** | **Mount Wilson** | **73.08** | **46** | *e*P | **P** | **00 59 42.9** | **+1.6** |
| | comp=Z,22nm,0.9s | | | | | | |
| **VES** | **Vestal, Richgr** | **73.27** | **44** | P | **P** | **00 59 41.3** | **-0.8** |
| | baz=236,SNR=7.1 | | | | | | |
| **KHMM** | **Horse Mountain** | **73.29** | **38** | *e*P | **P** | **00 59 46.0** | **+3.6** |
| | comp=Z,47nm,1.4s | | | | | | |
| **MURC** | **Murrieta** | **73.36** | **47** | P | **P** | **00 59 41.8** | **-0.9** |
| | baz=238 | | | | | | |
| **EDW2** | **Edwards Air Fo** | **73.48** | **46** | P | **P** | **00 59 42.6** | **-0.9** |
| | baz=237,SNR=15 | | | | | | |
| **MONP2** | **Monument Peak** | **73.54** | **48** | P | **P** | **00 59 42.7** | **-1.3** |
| | baz=239 | | | | | | |
| **ISA** | **Isabella, Lake** | **73.58** | **45** | P | **P** | **00 59 43.8** | **-0.3** |
| | baz=237 | | | | | | |
| **ISA** | **Isabella, Lake** | **73.58** | **45** | *e*P | **P** | **00 59 44.1** | **0.0** |
| ISA | | | | pmax | pmax | | |
| | comp=Z,33nm,1.3s | | | | | | |
| **ISA** | **Isabella, Lake** | **73.58** | **45** | *e*P | **P** | **00 59 44.1** | **0.0** |
| | comp=Z,33nm,1.3s | | | | | | |
| **KRMB** | **Red Mountain** | **73.59** | **37** | *e*P | **P** | **00 59 43.2** | **-0.8** |
| | comp=Z,38nm,1.4s | | | | | | |
| **IKP** | **In-Ko-Pah, Jac** | **73.64** | **49** | P | **P** | **00 59 43.9** | **-0.6** |
| | baz=239 | | | | | | |
| **CMB** | **Columbia Colle** | **73.65** | **42** | *e*P | **P** | **00 59 44.0** | **-0.4** |
| CMB | | | | pmax | pmax | | |
| | comp=Z,20nm,1.0s | | | | | | |
| **CMB** | **Columbia Colle** | **73.65** | **42** | *e*P | **P** | **00 59 44.0** | **-0.4** |
| | comp=Z,20nm,1.0s | | | | | | |
| **AFDM** | **Forest Hills D** | **73.81** | **41** | *e*P | **P** | **00 59 45.0** | **-0.3** |
| | comp=Z,24nm,1.2s | | | | | | |
| **WDC** | **Whiskeytown Da** | **73.82** | **39** | *e*P | **P** | **00 59 45.1** | **-0.1** |
| WDC | | | | pmax | pmax | | |
| | comp=Z,46nm,1.5s | | | | | | |
| **WDC** | **Whiskeytown Da** | **73.82** | **39** | *e*P | **P** | **00 59 45.1** | **-0.1** |
| | comp=Z,46nm,1.5s | | | | | | |
| **ORV** | **Oroville** | **73.84** | **40** | *e*P | **P** | **00 59 47.1** | **+1.7** |
| ORV | | | | pmax | pmax | | |
| | comp=Z,33nm,1.4s | | | | | | |
| **ORV** | **Oroville** | **73.84** | **40** | *e*P | **P** | **00 59 47.1** | **+1.7** |
| | comp=Z,33nm,1.4s | | | | | | |
| **PFO** | **Pinyon Flats O** | **73.89** | **48** | P | **P** | **00 59 45.3** | **-0.7** |
| | baz=239 | | | | | | |
| **PFO** | **Pinyon Flats O** | **73.89** | **48** | *e*P | **P** | **00 59 44.4** | **-1.5** |
| PFO | | | | pmax | pmax | | |
| | comp=Z,21nm,1.4s | | | | | | |
| PFO | | | | MLR | MLR | | |
| | comp=Z,4μm,20.0s | | | | | | |
| **PFO** | **Pinyon Flats O** | **73.89** | **48** | *e*P | **P** | **00 59 44.4** | **-1.5** |
| | comp=Z,21nm,1.4s | | | | | | |
| PFO | | | | LR | LR | | |
| | comp=Z,4μm,20.0s | | | | | | |
| **XPFO** | **Piæon Flat** | **73.89** | **48** | *e*P | **P** | **00 59 45.5** | **-0.5** |
| | comp=Z,22nm,1.4s | | | | | | |
| **N02D** | **Trinity Center** | **73.96** | **38** | P | **P** | **00 59 46.2** | **0.0** |
| | baz=232,SNR=11 | | | | | | |
| **SWSC** | **Sam W. Stewart** | **74.02** | **48** | P | **P** | **00 59 46.0** | **-0.6** |
| | baz=239 | | | | | | |
| **LRMC** | **Laurel Mtn Rad** | **74.02** | **45** | P | **P** | **00 59 45.9** | **-0.8** |
| | baz=237,SNR=9.0 | | | | | | |
| **YHNB** | **Yeheng** | **74.07** | **302** | PFAKE | | 01 00 00.0 | +13 |
| YHNB | | | | LR | LR | | |
| | comp=Z,3μm,19.0s | | | | | | |
| **O03D** | **Paynes Creek** | **74.10** | **39** | P | **P** | **00 59 46.5** | **-0.5** |
| | baz=233,SNR=30 | | | | | | |
| **TATO** | **Taipei** | **74.11** | **302** | PFAKE | | 01 00 00.0 | +13 |
| TATO | | | | LR | LR | | |
| | comp=Z,4μm,19.0s | | | | | | |
| **M02C** | **Callahan** | **74.13** | **38** | P | **P** | **00 59 46.9** | **-0.2** |
| | baz=232 | | | | | | |
| **L02D** | **Cave Junction,** | **74.17** | **37** | P | **P** | **00 59 47.0** | **-0.3** |
| | baz=231 | | | | | | |
| **MDPB** | **Devils Postpil** | **74.27** | **43** | *e*P | **P** | **00 59 48.2** | **-0.1** |
| | comp=Z,50nm,1.4s | | | | | | |
| **CWC** | **Cottonwood Cre** | **74.28** | **44** | P | **P** | **00 59 47.7** | **-0.6** |
| | baz=237 | | | | | | |
| **BELC** | **Belle Mtn. Jos** | **74.42** | **47** | P | **P** | **00 59 48.5** | **-0.5** |
| | baz=239 | | | | | | |
| **YBH** | **Yreka Blue Hor** | **74.42** | **38** | *e*P | **P** | **00 59 49.0** | **+0.1** |
| YBH | | | | pmax | pmax | | |
| | comp=Z,23nm,1.0s | | | | | | |
| **YBH** | **Yreka Blue Hor** | **74.42** | **38** | *e*P | **P** | **00 59 49.0** | **+0.1** |
| | comp=Z,23nm,1.0s | | | | | | |
| **MPMC** | **Manual Prospec** | **74.47** | **45** | P | **P** | **00 59 48.8** | **-0.6** |
| | baz=237,SNR=18 | | | | | | |
| **TIN** | **Tinemaha, Big** | **74.51** | **44** | P | **P** | **00 59 48.8** | **-0.7** |
| | baz=237 | | | | | | |
| **QSPA** | **South Pole Qui** | **74.52** | **180** | *e*P | **P** | **00 59 48.4** | **-0.7** |
| QSPA | | | | LR | LR | | |
| | comp=Z,2μm,20.0s | | | | | | |
| **GSC** | **Goldstone, Bar** | **74.53** | **46** | P | **P** | **00 59 48.8** | **-0.9** |
| | baz=238,SNR=15 | | | | | | |
| **GSC** | **Goldstone, Bar** | **74.53** | **46** | *e*P | **P** | **00 59 49.2** | **-0.4** |
| GSC | | | | pmax | pmax | | |
| | comp=Z,22nm,1.0s | | | | | | |
| **GSC** | **Goldstone, Bar** | **74.53** | **46** | *e*P | **P** | **00 59 49.2** | **-0.4** |
| | comp=Z,22nm,1.0s | | | | | | |
| **WAKR** | **Walker** | **74.53** | **42** | *e*P | **P** | **00 59 49.8** | **+0.1** |
| | comp=Z,39nm,1.2s | | | | | | |
| **HEC** | **Hector,Ludlow** | **74.61** | **47** | P | **P** | **00 59 49.1** | **-1.0** |
| | baz=238,SNR=13 | | | | | | |
| **BC3** | **Big Chuckawall** | **74.63** | **48** | P | **P** | **00 59 49.5** | **-0.7** |
| | baz=239 | | | | | | |
| **BEKR** | **Beckworth** | **74.73** | **40** | *e*P | **P** | **00 59 51.2** | **+0.4** |
| | comp=Z,24nm,0.8s | | | | | | |
| **PNTR** | **Pine Nut** | **74.76** | **41** | *e*P | **P** | **00 59 51.5** | **+0.5** |
| | comp=Z,43nm,1.1s | | | | | | |
| **GLA** | **Glamis** | **74.77** | **49** | P | **P** | **00 59 50.4** | **-0.6** |
| | baz=240 | | | | | | |
| **GLA** | **Glamis** | **74.77** | **49** | *e*P | **P** | **00 59 51.7** | **+0.7** |
| GLA | | | | pmax | pmax | | |
| | comp=Z,33nm,1.4s | | | | | | |
| **GLA** | **Glamis** | **74.77** | **49** | *e*P | **P** | **00 59 51.7** | **+0.7** |
| | comp=Z,32nm,1.4s | | | | | | |
| **HUMO** | **Hull Mountain** | **74.82** | **37** | *e*P | **P** | **00 59 50.9** | **-0.1** |
| | comp=Z,23n

comp=Z,50nm,1.0s
**J04D Umpqua Nationa** 75.70 37 P P 00 59 55.9 -0.4
baz=232,SNR=14
**214A Organ Pipe Nat** 75.72 51 P P 00 59 55.6 -0.9
baz=241
**TPNV Topopah Spring** 75.79 45 P P 00 59 56.2 -0.7
baz=238,SNR=14
**TPNV Topopah Spring** 75.79 45 eP P 00 59 56.8 -0.2
TPNV pmax pmax
comp=Z,18nm,1.1s
**TPNV Topopah Spring** 75.79 45 eP P 00 59 56.8 -0.2
comp=Z,18nm,1.1s
**I04A Tendick Farm,** 75.87 36 P P 00 59 56.5 -0.6
baz=232
**PDMCI Parker Dam,Lak** 75.89 48 P P 00 59 56.8 -0.6
baz=240
**MOD Modoc Plateau** 75.96 39 eP P 00 59 57.5 -0.3
comp=Z,74nm,1.7s
**KSM Kuching** 76.00 276 PFAKE 01 00 10.0 +12
KSM LR LR
comp=Z,906nm,20.0s
**J05D Fort Rock, OR** 76.24 37 P P 00 59 58.9 -0.4
baz=233
**G03D McMinnville, O** 76.28 35 P P 00 59 59.1 -0.2
baz=231
**INCN Inchon** 76.29 316 PFAKE 01 00 10.0 +10
INCN LR LR
comp=Z,3µm,20.0s
**SHPR Sheep Range** 76.30 46 eP P 00 59 59.9 0.0
comp=Z,24nm,1.2s
**W13A Hualapai Mount** 76.47 47 eP P 01 00 01.0 0.0
**QZH Quanzhou** 76.48 301 ⇓iP P 01 00 02.6 +1.7
QZH S S 01 09 47.0 +0.7
QZH LR LR
comp=Z,2µm,13.0s
QZH LR LR
comp=Z,6µm,23.8s
QZH LR LR
comp=Z,5µm,17.2s
**H04A Detroit Lake** 76.55 36 eP P 01 00 00.2 -0.7
comp=Z,19nm,1.0s
**USRK Ussuriysk Ar.** 76.76 324 P P 01 00 02.6 +0.5
comp=Z,2.1nm,0.7s,baz=123,slow=7.1,SNR=6.5
USRK LR LR 01 27 54.6
comp=Z,3µm,21.0s,baz=117,slow=31
**I05D Terrebonne, OR** 76.81 36 P P 01 00 02.0 -0.5
baz=233
**E03A Lebam** 76.97 33 eP P 01 00 05.6 +2.5
comp=Z,23nm,0.9s
**R11A Troy Canyon, C** 76.98 44 P P 01 00 02.9 -0.8
baz=238,SNR=19
**R11A Troy Canyon, C** 76.98 44 eP P 01 00 03.2 -0.5
comp=Z,27nm,1.4s
**SSE Sheshan** 77.07 308 P P 01 00 04.0 -0.1
SSE S S 01 09 53.5 +1.0
SSE sS pS 01 09 59.9 +0.7
SSE pmax pmax
comp=Z,31nm,0.7s
SSE pmax pmax
comp=Z,230nm,6.4s
SSE LR LR
comp=Z,4µm,36.0s
SSE LR LR
comp=Z,2µm,36.1s
SSE LR LR
comp=Z,2µm,33.6s
**CNPM China Post** 77.17 12 eP P 01 00 05.8 +1.8
comp=Z,54nm,1.1s
**WVOR Wild Horse Val** 77.28 39 eP P 01 00 04.8 -0.4
WVOR pmax pmax
comp=Z,25nm,1.2s
WVOR MLR MLR
comp=Z,3µm,20.0s
**WVOR Wild Horse Val** 77.28 39 eP P 01 00 04.8 -0.4
comp=Z,25nm,1.2s
WVOR LR LR
comp=Z,3µm,20.0s
**G05D Wamic, OR** 77.38 36 P P 01 00 05.3 -0.2
baz=232
**TUC Tucson** 77.40 51 P P 01 00 05.8 -0.2
baz=243
**TUC Tucson** 77.40 51 eP P 01 00 06.3 +0.2
TUC pmax pmax
comp=Z,25nm,1.4s
TUC MLR MLR
comp=Z,6µm,20.0s
**TUC Tucson** 77.40 51 eP P 01 00 06.3 +0.2
comp=Z,25nm,1.4s
TUC LR LR
comp=Z,6µm,20.0s
**BRLK Bradley Lake** 77.46 12 eP P 01 00 05.3 -0.4
comp=Z,59nm,1.1s
**I07A Izee** 77.72 37 eP P 01 00 07.3 -0.3
comp=Z,18nm,1.0s
**RSO Redoubt South** 77.75 11 eP P 01 00 06.7 -0.8
**G06A Carlson Farm,** 77.76 36 eP P 01 00 09.2 +1.4
comp=Z,10.0nm,1.0s
**SVW2 Sparrevohn** 77.87 9 eP P 01 00 09.6 +1.7
comp=Z,30nm,1.1s
**LCMT Little Creek M** 77.88 46 eP P 01 00 08.7 -0.1
comp=Z,32nm,1.4s
**X16A Lo Mia Camp, P** 77.90 49 eP P 01 00 09.3 +0.3
**J08A Circle Bar Ran** 77.91 38 eP P 01 00 08.2 -0.5
comp=Z,17nm,1.0s
**LON Longmire** 78.03 34 eP P 01 00 10.3 +1.1
LON pmax pmax
comp=Z,19nm,1.5s
**LON Longmire** 78.03 34 eP P 01 00 10.3 +1.1
comp=Z,19nm,1.5s
**CCUT Cedar City** 78.07 45 eP P 01 00 10.1 +0.3
comp=Z,21nm,1.1s
**319A Douglas** 78.12 53 eP P 01 00 10.4 +0.3
**KNB Kanab** 78.18 46 eP P 01 00 10.7 +0.3
KNB pmax pmax
comp=Z,60nm,1.3s
**KNB Kanab** 78.18 46 eP P 01 00 10.7 +0.3
comp=Z,60nm,1.3s
**D05A Enumclaw** 78.21 34 eP P 01 00 10.8 +0.7
comp=Z,79nm,1.4s
**U15A North Rim** 78.26 47 eP P 01 00 11.3 +0.3
**SZCU Shurtz Canyon** 78.28 46 eP P 01 00 11.3 +0.2
comp=Z,19nm,1.1s
**PGC Sidney** 78.37 32 eP P 01 00 10.3 -0.6
comp=Z,26nm,1.0s
**MDJ Mudanjiang** 78.39 323 PFAKE 01 00 20.0 +8.8
MDJ LR LR
comp=Z,2µm,22.0s
**WUAZ Wupatki** 78.47 48 P P 01 00 11.9 -0.2
baz=242
**WUAZ Wupatki** 78.47 48 eP P 01 00 11.3 -0.7
comp=Z,49nm,1.3s
WUAZ LR LR
comp=Z,3µm,19.0s
**SPU Mount Spurr** 78.54 11 eP P 01 00 09.9 -1.8
**G08A Pilot Rock** 78.74 36 eP P 01 00 12.7 -0.6
comp=Z,25nm,1.1s
**PKCU Pink Cliffs** 78.74 46 eP P 01 00 14.8 +1.1
comp=Z,101nm,1.7s
**A04D Lummi Island** 78.80 32 P P 01 00 13.4 +0.1
baz=231
**B05A Bryant** 78.82 33 P P 01 00 14.0 +0.5
baz=231
**RC01 Rabbit Creek A** 78.90 12 eP P 01 00 12.7 -1.0
comp=Z,54nm,1.1s
**X18A Snowflake** 79.04 49 eP P 01 00 15.5 +0.3
**SUA Susitna One** 79.05 11 eP P 01 00 13.3 -1.2
comp=Z,47nm,0.9s
**HAWA Hanford** 79.07 35 eP P 01 00 14.4 -0.5
comp=Z,12nm,0.9s
HAWA LR LR
comp=Z,4µm,20.0s
**HPIG** 79.11 58 eP P 01 00 17.7 +1.8
comp=Z,25nm,1.3s
**MTPU Mount Pierson** 79.12 45 eP P 01 00 16.5 +0.7
comp=Z,53nm,1.5s
**GLI Glacier Island** 79.27 13 eP P 01 00 17.8 +2.1
comp=Z,97nm,1.2s
**NJ2 Nanjing** 79.28 308 eP P 01 00 17.3 +1.0
NJ2 pmax pmax
comp=Z,19nm,0.5s
**MSU Marysvale** 79.36 45 eP P 01 00 17.3 +0.3
**MSU Marysvale** 79.36 45 eP P 01 00 17.3 +0.3
**E08A Dider Farm, El** 79.39 35 eP P 01 00 18.2 +1.6
comp=Z,16nm,1.1s
**BMO Blue Mountains** 79.45 38 eP P 01 00 16.2 -0.9
BMO pmax pmax
comp=Z,16nm,1.2s
BMO MLR MLR
comp=Z,3µm,19.0s
**BMO Blue Mountains** 79.45 38 eP P 01 00 16.2 -0.9
comp=Z,16nm,1.2s
BMO LR LR
comp=Z,3µm,19.0s
**W18A Petrified Fore** 79.47 49 P P 01 00 17.1 -0.4
**W18A Petrified Fore** 79.47 49 eP P 01 00 17.8 +0.2
comp=Z,24nm,1.3s
**PMR Palmer** 79.48 12 eP P 01 00 15.6 -1.2
PMR pmax pmax
comp=Z,57nm,1.1s
**PMR Palmer** 79.48 12 eP P 01 00 15.6 -1.2
comp=Z,57nm,1.1s
**MFID Camas Ranch** 79.54 39 eP P 01 00 16.9 -0.7
comp=Z,25nm,1.3s
**121A Cookes Peak, D** 79.77 52 P P 01 00 18.8 -0.4
baz=244
**121A Cookes Peak, D** 79.77 52 eP P 01 00 19.3 +0.1
comp=Z,16nm,0.9s
**DUG Dugway, Tooele** 79.77 43 P P 01 00 18.1 -0.9
baz=240
**DUG Dugway, Tooele** 79.77 43 eP P 01 00 18.5 -0.5
DUG pmax pmax
comp=Z,28nm,1.5s
DUG MLR MLR
comp=Z,2µm,21.0s
**DUG Dugway, Tooele** 79.77 43 eP P 01 00 18.5 -0.5
comp=Z,28nm,1.5s
DUG LR LR
comp=Z,2µm,21.0s
**DIV Divide** 79.79 14 eP P 01 00 18.1 -0.5
comp=Z,61nm,1.0s
**SML Sawmill** 79.84 12 eP P 01 00 17.2 -1.6
SML pmax pmax
comp=Z,44nm,1.2s
**SML Sawmill** 79.84 12 eP P 01 00 17.1 -1.6
comp=Z,44nm,1.2s
**WRAK Wrangell Islan** 79.91 22 eP P 01 00 16.5 -2.7
WRAK LR LR
comp=Z,4µm,20.0s
**E09A Wood Farm, Sta** 79.92 36 eP P 01 00 18.6 -0.8
comp=Z,18nm,1.1s
**MA2 Magadan** 79.92 343 iP P 01 00 17.5 -1.7
**BMRM Bremner River** 79.93 14 eP P 01 00 18.5 -0.8
comp=Z,98nm,1.0s
**BGU Big Grassy Mou** 80.00 43 eP P 01 00 20.9 +0.6
comp=Z,32nm,1.9s
**SCM Sheep Creek Mo** 80.08 13 eP P 01 00 19.2 -0.9
SCM pmax pmax
comp=Z,61nm,1.0s
**SCM Sheep Creek Mo** 80.08 13 eP P 01 00 19.2 -0.9
comp=Z,61nm,1.0s
**KLU Klutina** 80.08 14 eP P 01 00 19.1 -1.1
comp=Z,42nm,1.2s
**PPLA Purkeypile** 80.12 10 eP P 01 00 20.8 +0.4
comp=Z,26nm,1.1s
**F10A Beach Ranch, E** 80.13 37 eP P 01 00 19.6 -1.2
comp=Z,36nm,1.4s
**ZAIG Zacatecas** 80.13 63 eP P 01 00 23.8 +2.3
comp=Z,14nm,1.3s
**NLU North Lily Min** 80.14 44 eP P 01 00 20.9 -0.2
comp=Z,17nm,1.4s
**Q16A Castle Valley** 80.24 45 eP P 01 00 24.2 +2.5
comp=Z,22nm,1.4s
**B08A Colville Reser** 80.34 34 eP P 01 00 20.6 -1.3
comp=Z,15nm,1.1s
**TMUT Trail Mountain** 80.40 45 eP P 01 00 23.1 +0.4
comp=Z,24nm,1.1s
**LLLB Lillooet** 80.41 31 eP P 01 00 21.8 -0.3
comp=Z,36nm,1.1s
**DL2 Dalian** 80.41 315 P P 01 00 17.8 -4.5
**DL2 Dalian** 80.41 315 eS S 01 10 18.8 -9.1
DL2 pmax pmax
comp=Z,390nm,4.0s
DL2 LR LR
comp=N,1µm,17.6s
DL2 LR LR
comp=E,2µm,18.4s
DL2 LR LR
comp=Z,2µm,19.6s
**CN2 Changchun** 80.41 321 eP P 01 00 22.1 -0.1
CN2 eS S 01 10 29.0 +1.3
CN2 SS SS 01 15 40.9 +0.8
CN2 pmax pmax
comp=Z,200nm,5.0s
CN2 LR LR
comp=Z,600nm,22.0s
CN2 LR LR
comp=Z,1µm,22.0s
CN2 LR LR
comp=Z,1µm,21.0s
**MPU Maple Canyon** 80.47 44 eP P 01 00 23.2 +0.3
comp=Z,7.3nm,1.0s
**HLID Hailey** 80.49 40 P P 01 00 22.4 -0.5
baz=238,SNR=19
**HLID Hailey** 80.49 40 eP P 01 00 22.7 -0.2
comp=Z,23nm,1.1s
HLID LR LR
comp=Z,2µm,21.0s
**SPUT South Promonto** 80.57 42 eP P 01 00 23.1 -0.3
comp=Z,56nm,1.9s
**C09A Chinaman Ranch** 80.59 35 eP P 01 00 22.8 -0.4
comp=Z,15nm,1.0s
**HVU Hansel Valley** 80.60 42 eP P 01 00 23.1 -0.4
HVU pmax pmax
comp=Z,16nm,1.1s
**HVU Hansel Valley** 80.60 42 eP P 01 00 23.1 -0.4
comp=Z,16nm,1.1s
**CAST Castle Rocks** 80.62 10 eP P 01 00 21.0 -1.9
comp=Z,19nm,1.2s
**BESE Bessie Mountai** 80.70 20 eP P 01 00 27.0 +3.5
comp=Z,77nm,1.4s
**CTU Camp Tracy** 80.72 43 eP P 01 00 24.8 +0.6
comp=Z,15nm,1.2s
**SRU San Rafael Swe** 80.78 45 eP P 01 00 24.5 -0.1
SRU pmax pmax
comp=Z,18nm,1.1s
**SRU San Rafael Swe** 80.78 45 eP P 01 00 24.5 -0.1
comp=Z,18nm,1.1s
**P17A Butcher Ranch,** 80.81 45 eP P 01 00 25.3 +0.6
comp=Z,26nm,1.5s
**JLU Jordanelle** 80.88 43 eP P 01 00 24.8 -0.4
comp=Z,12nm,1.0s
**TRF Thorofare Moun** 80.96 11 eP P 01 00 23.4 -1.6
comp=Z,28nm,0.9s
**HARP HAARP** 81.06 13 eP P 01 00 25.3 0.0
comp=Z,40nm,1.0s
**LAZ Ladron** 81.06 51 eP P 01 00 26.5 +0.3
**Y22D IRIS PASSCAL I** 81.08 51 P P 01 00 25.1 -1.1
baz=245
**Y22E IRIS PASSCAL I** 81.08 51 P P 01 00 25.0 -1.2
baz=245
**TCUT Toone Canyon** 81.16 43 eP P 01 00 26.3 -0.3
comp=Z,104nm,1.3s
**DHY Denali Highway** 81.18 12 eP P 01 00 25.1 -1.0
comp=Z,32nm,1.3s
**RND Reindeer** 81.19 11 eP P 01 00 25.2 -0.8
RND pmax pmax
comp=Z,83nm,1.2s
**RND Reindeer** 81.19 11 eP P 01 00 25.2 -0.8
comp=Z,83nm,1.2s
**P18A Preston Nutter** 81.22 45 eP P 01 00 28.4 +1.4
comp=Z,7.7nm,1.0s
**SKAG Skagway** 81.24 19 eP P 01 00 25.9 -0.4
comp=Z,35nm,1.1s
**MNTX Cornudas Mount** 81.27 54 P P 01 00 26.6 -0.6
baz=246,SNR=18
**MNTX Cornudas Mount** 81.27 54 eP P 01 00 25.9 -1.2
comp=Z,23nm,1.4s
MNTX LR LR
comp=Z,3µm,20.0s
**PV05 Paradox Valley** 81.28 47 eP P 01 00 27.6 +0.3
**HWUT Hardware Ranch** 81.29 43 eP P 01 00 26.4 -0.9
comp=Z,18nm,1.4s
HWUT LR LR
comp=Z,3µm,21.0s
**MVCO Mesa Verde** 81.31 48 P P 01 00 26.5 -1.0
baz=243
**MVCO Mesa Verde** 81.31 48 eP P 01 00 27.1 -0.5
comp=Z,36nm,1.6s
MVCO LR LR
comp=Z,4µm,20.0s
**BNM Barren Site** 81.34 51 eP P 01 00 27.9 +0.2
**LPM Los Pinos Moun** 81.40 51 eP P 01 00 28.1 +0.1
**BPAW Bear Paw Mtn.** 81.44 10 eP P 01 00 25.9 -1.4
comp=Z,26nm,1.4s
**PV09 Paradox Valley** 81.45 46 eP P 01 00 28.1 -0.2
**PV10 Paradox Valley** 81.46 46 eP P 01 00 27.7 -0.6
**MCK McKinley** 81.47 11 eP P 01 00 26.3 -1.1
MCK pmax pmax
comp=Z,58nm,1.0s
**MCK McKinley** 81.47 11 eP P 01 00 26.3 -1.1
comp=Z,58nm,1.0s
**NEW Newport** 81.49 35 P P 01 00 27.5 -0.4
baz=236
**NEW Newport** 81.49 35 PFAKE 01 00 40.0 +12
NEW LR LR
comp=Z,3µm,20.0s
**PAX Paxson** 81.49 13 eP P 01 00 25.1 -2.6
PAX pmax pmax
comp=Z,33nm,1.4s
**PAX Paxson** 81.49 13 eP P 01 00 25.1 -2.6
comp=Z,33nm,1.4s
**PV04 Paradox Valley** 81.56 46 eP P 01 00 27.6 -1.1
**PV01 Paradox Valley** 81.68 47 eP P 01 00 29.1 -0.3
**HYT Haines Junctio** 81.68 17 eP P 01 00 29.2 +0.5
comp=Z,47nm,1.3s
**TX31 Lajitas Ar. Si** 81.68 57 eP P 01 00 29.4 0.0
**TXAR Lajitas Array** 81.68 57 P P 01 00 29.4 -0.1
comp=Z,6.6nm,1.1s,baz=225,slow=3.4,SNR=23
TXAR LR LR 01 29 08.6
comp=Z,2µm,20.9s,baz=0.0,slow=30
**ANMO Albuquerque** 81.80 50 P P 01 00 29.5 -0.7
baz=245
**ANMO Albuquerque** 81.80 50 eP P 01 00 29.7 -0.4
ANMO pmax pmax
comp=Z,30nm,1.1s
ANMO MLR MLR
comp=Z,4µm,20.0s
**ANMO Albuquerque** 81.80 50 eP P 01 00 29.7 -0.4
comp=Z,30nm,1.1s
ANMO LR LR
comp=Z,4µm,20.0s
**QIZ Qiongzhong** 81.83 292 P P 01 00 31.9 +1.6
QIZ S S 01 10 46.8 +3.2
QIZ pmax pmax
comp=Z,300nm,5.5s
QIZ LR LR
comp=Z,2µm,22.9s
QIZ LR LR
comp=Z,3µm,25.4s
**QIZ Qiongzhong** 81.83 292 PFAKE 01 00 40.0 +10
QIZ LR LR
comp=Z,1µm,21.0s
**MENT Mentasta** 81.85 14 eP P 01 00 28.9 -0.6
comp=Z,32nm,1.0s
**MCMT McKenzie Canyo** 82.11 39 eP P 01 00 31.2 -0.3
**AHID Auburn Hatcher** 82.17 42 eP P 01 00 31.8 0.0
comp=Z,45nm,1.5s
AHID LR LR
comp=Z,2µm,19.0s
**WHN Wuhan** 82.17 305 ⇓P P 01 00 33.9 +2.1
WHN LR LR
comp=Z,860nm,10.6s
WHN LR LR
comp=Z,3µm,18.9s
WHN LR LR
comp=Z,8µm,38.6s
**DLBC Dease Lake** 82.26 22 eP P 01 00 33.8 +2.0
comp=Z,38nm,1.4s
**SEY Seymchan** 82.33 345 iP P 01 00 29.5 -2.4
**WHY Whitehorse** 82.33 19 eP P 01 00 34.1 +1.9
comp=Z,26nm,1.1s
**MLY Manley** 82.34 10 eP P 01 00 30.5 -1.6
comp=Z,23nm,1.0s
**HDA Harding Lake** 82.46 12 eP P 01 00 31.5 -1.1
comp=Z,34nm,1.0s
**MSO Missoula** 82.50 37 P P 01 00 33.0 -0.4
baz=238
**MSO Missoula** 82.50 37 eP P 01 00 32.1 -1.3
comp=Z,36nm,1.5s
**CCB Clear Creek Bu** 82.51 11 eP P 01 00 31.0 -1.9
comp=Z,51nm,1.2s
**DLMT Dillon** 82.53 39 eP P 01 00 33.2 -0.5
comp=Z,27nm,1.1s
**REDW Red Top Meadow** 82.62 41 eP P 01 00 33.6 -0.6
comp=Z,57nm,1.4s
**TPAW Teton Pass** 82.62 41 eP P 01 00 32.7 -1.6
comp=Z,52nm,1.5s
**FXWY Fox Creek** 82.64 41 eP P 01 00 33.4 -0.9
comp=Z,32nm,1.4s
**COLA College** 82.71 11 eP P 01 00 32.5 -1.3
COLA pmax pmax
comp=Z,71nm,1.1s
COLA MLR MLR
comp=Z,4µm,21.0s
**COLA College** 82.71 11 eP P 01 00 32.5 -1.3
comp=Z,71nm,1.1s
COLA LR LR
comp=Z,4µm,21.0s
**MDM Murphy Dome** 82.72 11 eP P 01 00 32.2 -1.8
comp=Z,50nm,1.2s
**SNOW Snow King Moun** 82.73 41 eP P 01 00 34.6 -0.2
comp=Z,41nm,1.3s
**S22A 4UR Ranch, Cre** 82.74 48 P P 01 00 34.5 -0.6
baz=244,SNR=37
**S22A 4UR Ranch, Cre** 82.74 48 eP P 01 00 34.8 -0.3
comp=Z,44nm,1.1s
**IMAR Indian Mountai** 82.76 8 eP P 01 00 32.6 -1.5
**JTMT Jette** 82.79 36 eP P 01 00 35.1 +0.2
comp=Z,12nm,1.1s
**IL1 Eielson Array** 82.80 12 eP P 01 00 31.6 -2.7
**ILAR Eielson Array** 82.80 12 P P 01 00 33.0 -1.4
comp=Z,8.4nm,1.0s,baz=218,slow=4.6,SNR=17
ILAR LR LR 01 30 28.3
comp=Z,2µm,21.7s,baz=218,slow=31
**ILAR Eielson Array** 82.80 12 P P 01 00 33.0 -1.4
**ILB Eielson Array** 82.80 12 eP P 01 00 32.6 -1.8
**O20A White River Ci** 82.81 45 P P 01 00 34.7 -0.6
baz=243,SNR=8.1
**O20A White River Ci** 82.81 45 eP P 01 00 35.0 -0.3
comp=Z,109nm,1.9s
**IMW Indian Meadow** 82.82 41 eP P 01 00 35.1 -0.2
comp=Z,33nm,1.2s
**MOOW Moose Ponds** 82.87 41 eP P 01 00 35.0 -0.5
comp=Z,18nm,1.3s
**QLMT Earthquake Lak** 82.98 40 eP P 01 00 36.2 +0.2
**YHB Horse Butte** 83.08 40 eP P 01 00 37.3 +0.7
comp=Z,32nm,1.1s
**YPP Pitchstone Pla** 83.09 41 eP P 01 00 37.5 +0.8
comp=Z,40nm,1.8s
**BW06 Boulder Array** 83.16 42 P P 01 00 35.7 -1.4
baz=242,SNR=13
**BW06 Boulder Array** 83.16 42 eP P 01 00 36.0 -1.1
comp=Z,20nm,1.0s
BW06 LR LR
comp=Z,2µm,21.0s
**YFT Old Faithful** 83.16 40 eP P 01 00 38.5 +1.5
comp=Z,21nm,1.1s
**PD31 Pinedale Array** 83.16 42 eP P 01 00 36.0 -1.1
**PDAR Pinedale Array** 83.16 42 P P 01 00 35.9 -1.1
comp=Z,4.1nm,0.8s,baz=217,slow=3.3,SNR=32
PDAR LR LR 01 32 59.8
comp=Z,2µm,18.9s,baz=254,slow=32
**PDAR Pinedale Array** 83.16 42 eP P 01 00 35.4 -1.6
**YMR Madison River** 83.19 40 eP P 01 00 37.6 +0.4
comp=Z,34nm,1.1s
**BOZ Bozeman (W)** 83.24 39 P P 01 00 36.6 -0.7
baz=240,SNR=16
**BOZ Bozeman (W)** 83.24 39 eP P 01 00 36.8 -0.5
BOZ pmax pmax
comp=Z,25nm,1.3s
BOZ MLR MLR
comp=Z,3µm,22.0s
**BOZ Bozeman (W)** 83.24 39 eP P 01 00 36.8 -0.5
comp=Z,25nm,1.3s
BOZ LR LR
comp=Z,3µm,22.0s
**SMCO Snowmass** 83.26 46 eP P 01 00 37.1 -0.7
comp=Z,114nm,1.9s
**H17A Grant Village** 83.29 40 eP P 01 00 37.8 0.0
comp=Z,46nm,1.5s
**YHH Holmes Hill** 83.32 40 eP P 01 00 38.0 +0.1
comp=Z,35nm,1.4s
**YNR Norris Junctio** 83.39 40 eP P 01 00 40.3 +2.1
comp=Z,43nm,1.4s
**LKWY Lake** 83.49 40 eP P 01 00 38.7 0.0
LKWY pmax pmax
comp=Z,27nm,1.1s
LKWY MLR MLR
comp=Z,3µm,19.0s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **LKWY** | **Lake** | **83.49** | **40** | *eP* | **P** | **01 00 38.7** | **0.0** |
| | comp=Z,27nm,1.1s | | | | | | |
| LKWY | | | | LR | LR | | |
| | comp=Z,3µm,19.0s | | | | | | |
| **LNIG** | **Linares** | **83.54** | **62** | *eP* | **P** | **01 00 37.9** | **-1.2** |
| | comp=Z,13nm,1.0s | | | | | | |
| **HRY** | **Holter Researc** | **83.68** | **38** | *eP* | **P** | **01 00 38.9** | **-0.6** |
| **SDCO** | **Great Sand Dun** | **83.69** | **48** | P | **P** | **01 00 38.8** | **-1.2** |
| | baz=245,SNR=21 | | | | | | |
| **SDCO** | **Great Sand Dun** | **83.69** | **48** | *eP* | **P** | **01 00 38.8** | **-1.2** |
| | comp=Z,17nm,1.1s | | | | | | |
| SDCO | | | | LR | LR | | |
| | comp=Z,3µm,19.0s | | | | | | |
| **WALA** | **Waterton Lakes** | **83.70** | **35** | *eP* | **P** | **01 00 40.7** | **+1.2** |
| | comp=Z,42nm,1.6s | | | | | | |
| **DAWY** | **Dawson** | **83.84** | **15** | *eP* | **P** | **01 00 39.0** | **-0.8** |
| | comp=Z,48nm,1.1s | | | | | | |
| **EGAK** | **Eagle** | **84.02** | **14** | *eP* | **P** | **01 00 40.1** | **-0.5** |
| | comp=Z,38nm,1.1s | | | | | | |
| EGAK | | | | LR | LR | | |
| | comp=Z,3µm,22.0s | | | | | | |
| **MSTX** | **Muleshoe** | **84.19** | **53** | P | **P** | **01 00 41.3** | **-1.1** |
| | baz=247,SNR=18 | | | | | | |
| **MSTX** | **Muleshoe** | **84.19** | **53** | *eP* | **P** | **01 00 41.7** | **-0.7** |
| | comp=Z,53nm,1.2s | | | | | | |
| **RWWY** | **Rawlins** | **84.21** | **44** | *eP* | **P** | **01 00 41.7** | **-0.8** |
| | comp=Z,44nm,1.1s | | | | | | |
| **T25A** | **Trinidad** | **84.23** | **49** | P | **P** | **01 00 41.6** | **-1.1** |
| | baz=246 | | | | | | |
| **T25A** | **Trinidad** | **84.23** | **49** | *eP* | **P** | **01 00 41.9** | **-0.7** |
| | comp=Z,14nm,1.1s | | | | | | |
| **PAYG** | **Puerto Ayora** | **84.39** | **89** | PFAKE | | 01 01 00.0 | +16 |
| PAYG | | | | LR | LR | | |
| | comp=Z,2µm,19.0s | | | | | | |
| **COLD** | **Coldfoot** | **84.45** | **9** | *eP* | **P** | **01 00 42.8** | **0.0** |
| | comp=Z,40nm,1.2s | | | | | | |
| **Q24A** | **Divide** | **84.45** | **47** | P | **P** | **01 00 42.7** | **-1.2** |
| | baz=245 | | | | | | |
| **Q24A** | **Divide** | **84.45** | **47** | *eP* | **P** | **01 00 43.5** | **-0.3** |
| | comp=Z,37nm,1.5s | | | | | | |
| **RLMT** | **Red Lodge** | **84.46** | **40** | P | **P** | **01 00 43.2** | **-0.5** |
| | baz=242,SNR=7.5 | | | | | | |
| **RLMT** | **Red Lodge** | **84.46** | **40** | *eP* | **P** | **01 00 43.5** | **-0.2** |
| | comp=Z,44nm,1.5s | | | | | | |
| RLMT | | | | LR | LR | | |
| | comp=Z,2µm,22.0s | | | | | | |
| **ISCO** | **Idaho Springs** | **84.48** | **46** | P | **P** | **01 00 43.1** | **-0.9** |
| | baz=245 | | | | | | |
| **ISCO** | **Idaho Springs** | **84.48** | **46** | *eP* | **P** | **01 00 43.5** | **-0.5** |
| ISCO | | | | pmax | pmax | | |
| | comp=Z,11nm,1.1s | | | | | | |
| ISCO | | | | MLR | MLR | | |
| | comp=Z,2µm,19.0s | | | | | | |
| **ISCO** | **Idaho Springs** | **84.48** | **46** | *eP* | **P** | **01 00 43.5** | **-0.5** |
| | comp=Z,11nm,1.1s | | | | | | |
| ISCO | | | | LR | LR | | |
| | comp=Z,2µm,19.0s | | | | | | |
| **GCMT** | **Greycliff** | **84.53** | **40** | *eP* | **P** | **01 00 43.7** | **-0.2** |
| **BJT** | **Baijiatuan** | **84.68** | **314** | PFAKE | | 01 00 50.0 | +5.5 |
| BJT | | | | LR | LR | | |
| | comp=Z,2µm,19.0s | | | | | | |
| **BJI** | **Beijing** | **84.68** | **314** | P | **P** | **01 00 45.9** | **+1.4** |
| BJI | | | | S | **S** | **01 11 13.6** | **+2.0** |
| **N23A** | **Red Feather La** | **84.72** | **45** | P | **P** | **01 00 44.2** | **-0.9** |
| | baz=245 | | | | | | |
| **N23A** | **Red Feather La** | **84.72** | **45** | *eP* | **P** | **01 00 44.6** | **-0.5** |
| | comp=Z,22nm,1.0s | | | | | | |
| **833A** | **Chaparral WMA,** | **84.79** | **59** | P | **P** | **01 00 44.7** | **-0.7** |
| | baz=250 | | | | | | |
| **K22A** | **Casper** | **85.10** | **43** | P | **P** | **01 00 46.0** | **-0.8** |
| | baz=244 | | | | | | |
| **K22A** | **Casper** | **85.10** | **43** | *eP* | **P** | **01 00 45.8** | **-1.0** |
| | comp=Z,34nm,1.4s | | | | | | |
| **JCT** | **Junction City** | **85.22** | **57** | *eP* | **P** | **01 00 49.3** | **+1.7** |
| JCT | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.0s | | | | | | |
| JCT | | | | MLR | MLR | | |
| | comp=Z,2µm,20.0s | | | | | | |
| **JCT** | **Junction City** | **85.22** | **57** | *eP* | **P** | **01 00 49.3** | **+1.7** |
| | comp=Z,9.1nm,1.0s | | | | | | |
| JCT | | | | LR | LR | | |
| | comp=Z,2µm,20.0s | | | | | | |
| **AMTX** | **Amarillo** | **85.37** | **52** | P | **P** | **01 00 47.3** | **-1.0** |
| | baz=248 | | | | | | |
| **AMTX** | **Amarillo** | **85.37** | **52** | *eP* | **P** | **01 00 47.9** | **-0.4** |
| | comp=Z,29nm,1.2s | | | | | | |
| **COCO** | **West Island** | **85.40** | **259** | PFAKE | | 01 01 00.0 | +11 |
| COCO | | | | LR | LR | | |
| | comp=Z,2µm,20.0s | | | | | | |
| **EGMT** | **Eagleton** | **85.56** | **38** | P | **P** | **01 00 48.2** | **-0.7** |
| | baz=241 | | | | | | |
| **EGMT** | **Eagleton** | **85.56** | **38** | *eP* | **P** | **01 00 47.5** | **-1.4** |
| | comp=Z,32nm,1.5s | | | | | | |
| EGMT | | | | LR | LR | | |
| | comp=Z,2µm,21.0s | | | | | | |
| **IPM** | **Ipoh** | **85.73** | **276** | *eP* | **P** | **01 00 50.0** | **-0.5** |
| | comp=Z,9.7nm,0.6s | | | | | | |
| **KVTX** | **Kingsville** | **85.77** | **60** | PFAKE | | 01 01 00.0 | +10 |
| KVTX | | | | LR | LR | | |
| | comp=Z,1µm,19.0s | | | | | | |
| **ENH** | **Enshi** | **85.97** | **303** | *eP* | **P** | **01 00 50.2** | **-1.1** |
| | comp=Z,9.4nm,0.4s | | | | | | |
| ENH | | | | LR | LR | | |
| | comp=Z,1µm,20.0s | | | | | | |
| **ABTX** | **Abilene, Hawle** | **86.11** | **55** | P | **P** | **01 00 51.0** | **-0.9** |
| | baz=249 | | | | | | |
| **ABTX** | **Abilene, Hawle** | **86.11** | **55** | *eP* | **P** | **01 00 51.4** | **-0.5** |
| | comp=Z,67nm,1.1s | | | | | | |
| **KSCO** | **Kaye Shedlock'** | **86.27** | **48** | *eP* | **P** | **01 00 53.0** | **+0.3** |
| | comp=Z,70nm,1.7s | | | | | | |
| **KULM** | **Kulim** | **86.31** | **276** | *eP* | **P** | **01 00 52.4** | **-0.9** |
| | comp=Z,39nm,1.5s | | | | | | |
| KULM | | | | LR | LR | | |
| | comp=Z,1µm,19.0s | | | | | | |
| **HIA** | **Hailar** | **86.57** | **323** | *eP* | **P** | **01 00 51.1** | **-2.7** |
| HIA | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.0s | | | | | | |
| **HIA** | **Hailar** | **86.57** | **323** | PFAKE | | 01 01 00.0 | +6.2 |
| HIA | | | | LR | LR | | |
| | comp=Z,3µm,20.0s | | | | | | |
| **GYA** | **Guiyang** | **87.04** | **298** | *eP* | **P** | **01 00 57.8** | **+1.1** |
| **LAO** | **LASA Array** | **87.07** | **40** | P | **P** | **01 00 55.9** | **-0.4** |
| | baz=244 | | | | | | |
| **LAO** | **LASA Array** | **87.07** | **40** | *eP* | **P** | **01 00 56.3** | **0.0** |
| | comp=Z,34nm,1.2s | | | | | | |
| LAO | | | | LR | LR | | |
| | comp=Z,1µm,22.0s | | | | | | |
| **435B** | **Jarrell** | **87.12** | **57** | P | **P** | **01 00 55.9** | **-1.0** |
| | baz=250 | | | | | | |
| **MAW** | **Mawson** | **87.29** | **199** | P | **P** | **01 00 56.6** | **-0.4** |
| | comp=Z,17nm,1.2s,baz=103,slow=7.2,SNR=7.8 | | | | | | |
| MAW | | | | LR | LR | 01 38 12.5 | |
| | comp=Z,5µm,18.2s,baz=110,slow=34 | | | | | | |
| **MAW** | **Mawson** | **87.29** | **199** | P | **P** | **01 00 57.3** | **+0.3** |
| | baz=87,SNR=15 | | | | | | |
| **MAW** | **Mawson** | **87.29** | **199** | *eP* | **P** | **01 00 58.4** | **+1.4** |
| MAW | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.3s | | | | | | |
| **MAW** | **Mawson** | **87.29** | **199** | *eP* | **P** | **01 00 58.4** | **+1.4** |
| | comp=Z,9.8nm,1.3s | | | | | | |
| **PSI** | **Prapat** | **87.30** | **274** | *eP* | **P** | **01 00 59.3** | **+1.0** |
| PSI | | | | pmax | pmax | | |
| | comp=Z,33nm,1.5s | | | | | | |
| **PSI** | **Prapat** | **87.30** | **274** | *eP* | **P** | **01 00 59.3** | **+1.0** |
| | comp=Z,33nm,1.5s | | | | | | |
| **RSSD** | **Black Hills** | **87.36** | **43** | P | **P** | **01 00 57.0** | **-1.1** |
| | baz=246 | | | | | | |
| **RSSD** | **Black Hills** | **87.36** | **43** | *eP* | **P** | **01 00 56.2** | **-1.9** |
| RSSD | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.0s | | | | | | |
| **RSSD** | **Black Hills** | **87.36** | **43** | *eP* | **P** | **01 00 56.2** | **-1.9** |
| | comp=Z,6.9nm,1.0s | | | | | | |
| **WMOK** | **Wichita Mounta** | **87.53** | **53** | P | **P** | **01 00 58.6** | **-0.2** |
| | baz=250 | | | | | | |
| **WMOK** | **Wichita Mounta** | **87.53** | **53** | PFAKE | | 01 01 10.0 | +11 |
| WMOK | | | | LR | LR | | |
| | comp=Z,3µm,20.0s | | | | | | |
| **WHTX** | **Lake Whitney,** | **87.63** | **56** | P | **P** | **01 00 58.1** | **-1.3** |
| | baz=250 | | | | | | |
| **WHTX** | **Lake Whitney,** | **87.63** | **56** | *eP* | **P** | **01 01 00.6** | **+1.3** |
| | comp=Z,19nm,1.1s | | | | | | |
| **XAN** | **Xi'an** | **87.73** | **306** | P | **P** | **01 00 58.3** | **-1.5** |
| XAN | | | | pP | PcP | 01 01 02.3 | +0.6 |
| XAN | | | | sP | pP | 01 01 04.3 | -0.9 |
| XAN | | | | PP | **PP** | **01 04 31.8** | **+6.1** |
| XAN | | | | SKS | **SKSac** | **01 11 26.5** | **-1.1** |
| XAN | | | | S | **ScS** | **01 11 48.4** | **0.0** |
| XAN | | | | sS | pS | 01 11 51.4 | +2.8 |
| XAN | | | | pmax | pmax | | |
| | comp=Z,350nm,5.4s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,490nm,20.0s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,980nm,21.6s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,2µm,22.4s | | | | | | |
| **336A** | **Riesel** | **87.92** | **57** | P | **P** | **01 00 59.7** | **-1.0** |
| | baz=251 | | | | | | |
| **GSI** | **Gunungsitoli** | **88.20** | **272** | *eP* | **P** | **01 01 02.9** | **+0.4** |
| | comp=Z,43nm,1.1s | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **88.23** | **313** | *eP* | **P** | **01 01 00.9** | **-1.2** |
| HHC | | | | S | **S** | **01 11 46.8** | **+0.4** |
| HHC | | | | SS | **SS** | **01 17 34.8** | **-1.2** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,400nm,7.3s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,950nm,18.1s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,860nm,18.8s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,1µm,18.9s | | | | | | |
| **HKT** | **Hockley** | **88.27** | **58** | *eP* | **P** | **01 01 05.5** | **+3.2** |
| HKT | | | | pmax | pmax | | |
| | comp=Z,25nm,1.5s | | | | | | |
| **HKT** | **Hockley** | **88.27** | **58** | *eP* | **P** | **01 01 05.5** | **+3.2** |
| | comp=Z,25nm,1.5s | | | | | | |
| **CBKS** | **Cedar Bluff** | **88.28** | **49** | PFAKE | | 01 01 10.0 | +7.7 |
| CBKS | | | | LR | LR | | |
| | comp=Z,3µm,19.0s | | | | | | |
| **Y35A** | **Marietta** | **88.60** | **54** | P | **P** | **01 01 03.1** | **-0.8** |
| | baz=250 | | | | | | |
| **INK** | **Inuvik** | **88.68** | **14** | *eP* | **P** | **01 01 02.5** | **-0.9** |
| INK | | | | pmax | pmax | | |
| | comp=Z,31nm,1.3s | | | | | | |
| **INK** | **Inuvik** | **88.68** | **14** | *eP* | **P** | **01 01 02.5** | **-0.9** |
| | comp=Z,31nm,1.3s | | | | | | |
| **YAK** | **Yakutsk** | **88.75** | **337** | *eP* | **P** | **01 01 02.2** | **-1.7** |
| YAK | | | | pmax | pmax | | |
| | comp=Z,14nm,1.1s | | | | | | |
| **YAK** | **Yakutsk** | **88.75** | **337** | PFAKE | | 01 01 10.0 | +6.1 |
| YAK | | | | LR | LR | | |
| | comp=Z,990nm,20.0s | | | | | | |
| **X35A** | **Drake** | **88.82** | **54** | P | **P** | **01 01 04.2** | **-0.7** |
| | baz=250 | | | | | | |
| **X35A** | **Drake** | **88.82** | **54** | *eP* | **P** | **01 01 07.5** | **+2.6** |
| | comp=Z,20nm,1.4s | | | | | | |
| **Z36A** | **Blue Ridge** | **88.87** | **55** | P | **P** | **01 01 04.3** | **-0.9** |
| | baz=251 | | | | | | |
| **DGMT** | **Dagmar** | **89.07** | **39** | P | **P** | **01 01 05.5** | **-0.3** |
| | baz=246 | | | | | | |
| **DGMT** | **Dagmar** | **89.07** | **39** | *eP* | **P** | **01 01 05.2** | **-0.6** |
| | comp=Z,38nm,1.1s | | | | | | |
| DGMT | | | | LR | LR | | |
| | comp=Z,4µm,20.0s | | | | | | |
| **PBKT** | **Sadao Pong** | **89.13** | **287** | P | **P** | **01 01 09.4** | **+2.7** |
| | comp=Z,50nm,1.9s | | | | | | |
| **W35A** | **Tecumseh** | **89.15** | **53** | P | **P** | **01 01 05.9** | **-0.5** |
| | baz=251 | | | | | | |
| **W35A** | **Tecumseh** | **89.15** | **53** | *eP* | **P** | **01 01 08.7** | **+2.2** |
| | comp=Z,26nm,1.4s | | | | | | |
| **Y36A** | **Durant** | **89.19** | **55** | P | **P** | **01 01 06.1** | **-0.6** |
| | baz=251 | | | | | | |
| **BTO** | **Baotou** | **89.23** | **313** | *eP* | **P** | **01 01 08.6** | **+1.8** |
| **X36A** | **Centrahoma** | **89.36** | **54** | P | **P** | **01 01 06.3** | **-1.1** |
| | baz=251 | | | | | | |
| **V35A** | **Meyer Ranch, C** | **89.38** | **53** | P | **P** | **01 01 06.7** | **-0.8** |
| | baz=251 | | | | | | |
| **Z37A** | **Pogue Cattle C** | **89.49** | **55** | P | **P** | **01 01 07.1** | **-1.0** |
| | baz=251 | | | | | | |
| **W36A** | **Wetumka** | **89.64** | **53** | P | **P** | **01 01 07.8** | **-1.0** |
| | baz=251 | | | | | | |
| **138A** | **Matatall Enter** | **89.74** | **56** | P | **P** | **01 01 08.0** | **-1.3** |
| | baz=252 | | | | | | |
| **NATX** | **Nacogdoches** | **89.80** | **57** | P | **P** | **01 01 08.3** | **-1.2** |
| | baz=252 | | | | | | |
| **NATX** | **Nacogdoches** | **89.80** | **57** | PFAKE | | 01 01 20.0 | +10 |
| NATX | | | | LR | LR | | |
| | comp=Z,2µm,22.0s | | | | | | |
| **S34A** | **Willow Spring** | **89.82** | **51** | P | **P** | **01 01 08.5** | **-1.1** |
| | baz=250 | | | | | | |
| **R34A** | **Isabella, Hill** | **89.92** | **50** | P | **P** | **01 01 09.0** | **-1.0** |
| | baz=250 | | | | | | |
| **KMI** | **Kunming** | **89.99** | **296** | P | **P** | **01 01 11.3** | **+0.4** |
| KMI | | | | pP | PcP | 01 01 13.9 | +1.7 |
| KMI | | | | sP | pP | 01 01 15.3 | -1.0 |
| KMI | | | | SKS | **SKSac** | **01 11 41.0** | **-0.8** |
| KMI | | | | S | **S** | **01 12 04.0** | **+0.2** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,11nm,1.1s | | | | | | |
| KMI | | | | pmax | pmax | | |
| | comp=Z,420nm,5.4s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,770nm,20.0s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,1µm,20.7s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,2µm,19.3s | | | | | | |
| **NANT** | **Nan** | **90.00** | **289** | P | **P** | **01 01 13.2** | **+2.4** |
| | comp=Z,3.5nm,1.2s | | | | | | |
| **T35A** | **Sooner Cattle** | **90.01** | **52** | P | **P** | **01 01 08.9** | **-1.6** |
| | baz=251 | | | | | | |
| **X37A** | **Clayton** | **90.13** | **54** | P | **P** | **01 01 10.1** | **-1.0** |
| | baz=251 | | | | | | |
| **TUL1** | **Leonard** | **90.23** | **53** | P | **P** | **01 01 10.6** | **-0.9** |
| | baz=251 | | | | | | |
| **UTHA** | **Uthaitani** | **90.26** | **286** | P | **P** | **01 01 16.2** | **+4.2** |
| | comp=Z,2.9nm,1.1s,comp=Z,131nm | | | | | | |
| **PLCA** | **Paso Flores** | **90.32** | **133** | P | **P** | **01 01 12.0** | **-0.1** |
| | comp=Z,2.7nm,1.1s,baz=265,slow=15,SNR=2.5 | | | | | | |
| PLCA | | | | LR | LR | 01 32 39.7 | |
| | comp=Z,3µm,21.8s,baz=286,slow=30 | | | | | | |
| **K31A** | **O'Neill** | **90.34** | **46** | P | **P** | **01 01 10.6** | **-1.3** |
| | baz=249 | | | | | | |
| **S35A** | **Otter Creek Ra** | **90.41** | **51** | P | **P** | **01 01 11.3** | **-1.0** |
| | baz=251 | | | | | | |
| **Y38A** | **Idabel** | **90.42** | **55** | P | **P** | **01 01 10.6** | **-1.8** |
| | baz=252 | | | | | | |
| **U36A** | **Oologah** | **90.43** | **52** | P | **P** | **01 01 12.0** | **-0.4** |
| | baz=251 | | | | | | |
| **T36A** | **Boggs Farm, Ca** | **90.54** | **52** | P | **P** | **01 01 12.0** | **-0.9** |
| | baz=251 | | | | | | |
| **X38A** | **Whitesboro** | **90.58** | **54** | P | **P** | **01 01 11.9** | **-1.3** |
| | baz=252 | | | | | | |
| **240A** | **Hunter Patters** | **90.61** | **57** | P | **P** | **01 01 12.5** | **-0.9** |
| | baz=252 | | | | | | |
| **KSU1** | **Kansas State U** | **90.66** | **50** | PFAKE | | 01 01 20.0 | +6.6 |
| KSU1 | | | | LR | LR | | |
| | comp=Z,4µm,20.0s | | | | | | |
| **YKA** | **Yellowknife Ar** | **90.69** | **24** | P | **P** | **01 01 12.7** | **-0.2** |
| | comp=Z,2.5nm,1.0s,baz=241,slow=4.0,SNR=6.9 | | | | | | |
| YKA | | | | LR | LR | 01 38 59.8 | |
| | comp=Z,260nm,18.1s,baz=180,slow=34 | | | | | | |
| **441A** | **DeRidder** | **90.69** | **58** | P | **P** | **01 01 13.0** | **-0.7** |
| | baz=253 | | | | | | |
| **R35A** | **Emporia Munici** | **90.71** | **50** | P | **P** | **01 01 13.7** | **+0.1** |
| | baz=251 | | | | | | |
| **V37A** | **Hulbert** | **90.72** | **53** | P | **P** | **01 01 13.6** | **-0.1** |
| | baz=252 | | | | | | |
| **CD2** | **Chengdu** | **90.85** | **302** | *eP* | **P** | **01 01 14.6** | **+0.1** |
| CD2 | | | | pP | pP | 01 01 19.4 | -0.5 |
| CD2 | | | | PP | **PP** | **01 04 47.8** | **-2.9** |
| CD2 | | | | SKS | **SKSac** | **01 11 44.1** | **-2.1** |
| CD2 | | | | S | **ScS** | **01 12 13.8** | **-0.6** |
| CD2 | | | | SS | **SS** | **01 18 10.8** | **-3.5** |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.1s | | | | | | |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,270nm,5.9s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,1µm,15.5s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,2µm,21.4s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,2µm,19.0s | | | | | | |
| **SUSD** | **Miller** | **90.86** | **44** | P | **P** | **01 01 13.9** | **-0.3** |
| | baz=249 | | | | | | |
| **341A** | **Kurthwood** | **90.88** | **58** | P | **P** | **01 01 14.1** | **-0.6** |
| | baz=253 | | | | | | |
| **U37A** | **Salina** | **90.91** | **53** | P | **P** | **01 01 15.0** | **+0.3** |
| | baz=252 | | | | | | |
| **140A** | **Cam and Jess,** | **90.95** | **56** | P | **P** | **01 01 14.8** | **0.0** |
| | baz=252 | | | | | | |
| **I31A** | **Royce, Wessing** | **90.99** | **44** | P | **P** | **01 01 14.2** | **-0.6** |
| | baz=250 | | | | | | |
| **Q35A** | **Mercer Eighty,** | **91.00** | **50** | P | **P** | **01 01 13.7** | **-1.4** |
| | baz=251 | | | | | | |
| **R36A** | **Gordon, Harris** | **91.23** | **51** | P | **P** | **01 01 15.6** | **-0.4** |
| | baz=251 | | | | | | |
| **V38A** | **Canehill** | **91.28** | **53** | P | **P** | **01 01 15.1** | **-1.3** |
| | baz=252 | | | | | | |
| **T37A** | **Cheneyville 18** | **91.29** | **52** | P | **P** | **01 01 15.4** | **-0.9** |
| | baz=252 | | | | | | |
| **241A** | **Mo Tay, Goldon** | **91.29** | **57** | P | **P** | **01 01 15.8** | **-0.7** |
| | baz=253 | | | | | | |
| **Q36A** | **Arnold C. Orve** | **91.46** | **50** | P | **P** | **01 01 16.9** | **-0.3** |
| | baz=251 | | | | | | |
| **U38A** | **Gravette** | **91.48** | **53** | P | **P** | **01 01 16.6** | **-0.7** |
| | baz=252 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **91.51** | **289** | P | **P** | **01 01 17.7** | **-0.1** |
| | comp=Z,2.8nm,0.6s,baz=89,slow=2.7,SNR=14 | | | | | | |
| CMAR | | | | LR | LR | 01 37 19.6 | |
| | comp=Z,1µm,21.9s,baz=100,slow=32 | | | | | | |
| **MIAR** | **Mount Ida** | **91.53** | **55** | P | **P** | **01 01 16.2** | **-1.3** |
| | baz=252 | | | | | | |
| **MIAR** | **Mount Ida** | **91.53** | **55** | PFAKE | | 01 01 30.0 | +12 |
| MIAR | | | | LR | LR | | |
| | comp=Z,2µm,19.0s | | | | | | |
| **CMMT** | **Chiang Mai** | **91.60** | **289** | P | **P** | **01 01 20.5** | **+2.2** |
| | comp=Z,15nm,1.6s | | | | | | |
| **CHTO** | **Chiang Mai** | **91.61** | **289** | P | **P** | **01 01 20.6** | **+2.3** |
| | comp=Z,65nm,1.9s | | | | | | |
| **CHTO** | **Chiang Mai** | **91.61** | **289** | *eP* | **P** | **01 01 16.7** | **-1.6** |
| CHTO | | | | pmax | pmax | | |
| | comp=Z,12nm,1.0s | | | | | | |
| CHTO | | | | MLR | MLR | | |
| | comp=Z,1µm,22.0s | | | | | | |
| **CHTO** | **Chiang Mai** | **91.61** | **289** | *eP* | **P** | **01 01 16.7** | **-1.6** |
| | comp=Z,12nm,1.0s | | | | | | |
| CHTO | | | | LR | LR | | |
| | comp=Z,1µm,22.0s | | | | | | |
| **T38A** | **Diamond** | **91.73** | **52** | P | **P** | **01 01 17.7** | **-0.8** |
| | baz=252 | | | | | | |
| **Z41A** | **Richland Creek** | **91.75** | **56** | P | **P** | **01 01 17.6** | **-1.0** |
| | baz=253 | | | | | | |
| **F31A** | **Hecla** | **91.82** | **43** | P | **P** | **01 01 18.0** | **-0.6** |
| | baz=250 | | | | | | |
| **P36A** | **Good Intent, A** | **91.86** | **49** | P | **P** | **01 01 18.1** | **-0.9** |
| | baz=252 | | | | | | |
| **V39A** | **Pettigrew** | **91.86** | **53** | P | **P** | **01 01 18.1** | **-1.1** |
| | baz=252 | | | | | | |
| **H32A** | **Carlson Farm,** | **91.90** | **44** | P | **P** | **01 01 18.7** | **-0.3** |
| | baz=250 | | | | | | |
| **N35A** | **Tabor** | **91.94** | **48** | P | **P** | **01 01 18.0** | **-1.4** |
| | baz=251 | | | | | | |
| **Y41A** | **Eaglette Beard** | **92.09** | **56** | P | **P** | **01 01 19.9** | **-0.2** |
| | baz=253 | | | | | | |
| **G32A** | **Webster** | **92.11** | **44** | P | **P** | **01 01 19.4** | **-0.7** |
| | baz=250 | | | | | | |
| **W40A** | **Ferguson Farm,** | **92.12** | **54** | P | **P** | **01 01 19.4** | **-0.8** |
| | baz=253 | | | | | | |
| **I33A** | **Coleman** | **92.17** | **45** | P | **P** | **01 01 20.2** | **-0.2** |
| | baz=251 | | | | | | |
| **Q37A** | **Longview Farm,** | **92.18** | **50** | P | **P** | **01 01 20.4** | **-0.1** |
| | baz=252 | | | | | | |
| **ECSD** | **EROS Data Cent** | **92.19** | **45** | P | **P** | **01 01 19.9** | **-0.5** |
| | baz=251 | | | | | | |
| **ECSD** | **EROS Data Cent** | **92.19** | **45** | *eP* | **P** | **01 01 22.1** | **+1.6** |
| | comp=Z,18nm,1.6s | | | | | | |
| ECSD | | | | LR | LR | | |
| | comp=Z,5µm,20.0s | | | | | | |
| **O36A** | **Bolckow** | **92.20** | **49** | P | **P** | **01 01 20.0** | **-0.6** |
| | baz=252 | | | | | | |
| **S38A** | **Stockton** | **92.21** | **52** | P | **P** | **01 01 20.2** | **-0.5** |
| | baz=252 | | | | | | |
| **K34A** | **Le Mars** | **92.21** | **46** | P | **P** | **01 01 20.5** | **-0.1** |
| | baz=251 | | | | | | |
| **142A** | **Monroe** | **92.23** | **57** | P | **P** | **01 01 20.4** | **-0.4** |
| | baz=253 | | | | | | |
| **SYO** | **Syowa Base** | **92.24** | **192** | IceX | P | 01 01 29.2 | +9.0 |
| **E31A** | **Nome** | **92.30** | **42** | P | **P** | **01 01 20.1** | **-0.8** |
| | baz=250 | | | | | | |
| **R38A** | **Fenwick Farm,** | **92.38** | **51** | P | **P** | **01 01 20.2** | **-1.3** |
| | baz=252 | | | | | | |
| **L35A** | **Bielow Farm, R** | **92.41** | **47** | P | **P** | **01 01 20.6** | **-0.9** |
| | baz=252 | | | | | | |
| **JTS** | **JuntasAbangare** | **92.42** | **80** | PFAKE | | 01 01 30.0 | +7.9 |
| JTS | | | | LR | LR | | |
| | comp=Z,1µm,19.0s | | | | | | |
| **N36A** | **Muff Farm, Cla** | **92.42** | **48** | P | **P** | **01 01 21.1** | **-0.4** |
| | baz=252 | | | | | | |
| **H33A** | **Prehn Over Nor** | **92.42** | **44** | P | **P** | **01 01 21.1** | **-0.4** |
| | baz=251 | | | | | | |
| **Z42A** | **Norrel Spur, H** | **92.44** | **56** | P | **P** | **01 01 21.2** | **-0.5** |
| | baz=253 | | | | | | |
| **P37A** | **Lathrop** | **92.48** | **50** | P | **P** | **01 01 21.4** | **-0.4** |
| | baz=252 | | | | | | |
| **V40A** | **Witts Springs** | **92.49** | **54** | P | **P** | **01 01 21.8** | **-0.2** |
| | baz=253 | | | | | | |
| **U40A** | **Yellville** | **92.63** | **53** | P | **P** | **01 01 21.8** | **-0.8** |
| | baz=253 | | | | | | |
| **S39A** | **Bolivar** | **92.67** | **52** | P | **P** | **01 01 22.4** | **-0.3** |
| | baz=253 | | | | | | |
| **M36A** | **Felix, Anita** | **92.73** | **48** | P | **P** | **01 01 22.2** | **-0.7** |
| | baz=252 | | | | | | |
| **WHAR** | **Wooly Hollow** | **92.76** | **54** | *eP* | **P** | **01 01 23.6** | **+0.4** |
| | comp=Z,26nm,1.5s | | | | | | |
| **G33A** | **Ortonville** | **92.80** | **44** | P | **P** | **01 01 22.7** | **-0.5** |
| | baz=251 | | | | | | |
| **O37A** | **Wolven Farm, M** | **92.81** | **49** | P | **P** | **01 01 21.8** | **-1.6** |
| | baz=252 | | | | | | |
| **C31A** | **Landman Farms,** | **92.82** | **41** | P | **P** | **01 01 21.8** | **-1.4** |
| | baz=250 | | | | | | |
| **K35A** | **Storm Lake** | **92.82** | **46** | P | **P** | **01 01 22.8** | **-0.6** |
| | baz=252 | | | | | | |
| **Q38A** | **Cooks Store, C** | **92.83** | **50** | P | **P** | **01 01 22.7** | **-0.8** |
| | baz=253 | | | | | | |
| **VNA3** | **Neumayer Olymp** | **92.84** | **175** | P | **P** | **01 01 25.0** | **+2.0** |
| **SNAA** | **Sanae** | **92.84** | **177** | P | **P** | **01 01 25.2** | **+2.1** |
| **SNAA** | **Sanae** | **92.84** | **177** | *eP* | **P** | **01 01 23.0** | **-0.1** |
| **SNAA** | **Sanae** | **92.84** | **177** | *eP* | **P** | **01 01 25.1** | **+2.1** |
| | comp=Z,40nm,1.7s | | | | | | |
| **FFC** | **Flin Flon** | **92.87** | **34** | *eP* | **P** | **01 01 22.8** | **-0.4** |
| FFC | | | | pmax | pmax | | |
| | comp=Z,18nm,1.4s | | | | | | |
| FFC | | | | MLR | MLR | | |
| | comp=Z,2µm,21.0s | | | | | | |
| **FFC** | **Flin Flon** | **92.87** | **34** | *eP* | **P** | **01 01 22.8** | **-0.4** |
| | comp=Z,18nm,1.4s | | | | | | |
| FFC | | | | LR | LR | | |
| | comp=Z,2µm,21.0s | | | | | | |
| **344A** | **Westbrook Farm** | **92.91** | **58** | P | **P** | **01 01 23.1** | **-0.9** |
| | baz=254 | | | | | | |
| **N37A** | **Lee Faris, Mou** | **92.94** | **49** | P | **P** | **01 01 23.9** | **-0.1** |
| | baz=252 | | | | | | |
| **V41A** | **Mountainview** | **93.00** | **54** | P | **P** | **01 01 24.1** | **-0.2** |
| | baz=253 | | | | | | |
| **X42A** | **Stuttgart** | **93.06** | **55** | P | **P** | **01 01 23.9** | **-0.7** |
| | baz=254 | | | | | | |
| **H34A** | **Spellman Lake,** | **93.07** | **45** | P | **P** | **01 01 23.9** | **-0.5** |
| | baz=252 | | | | | | |
| **R39A** | **Chumby, Stover** | **93.07** | **51** | P | **P** | **01 01 23.5** | **-1.1** |
| | baz=253 | | | | | | |
| **B31A** | **Greenbush Farm** | **93.09** | **41** | P | **P** | **01 01 24.7** | **+0.2** |
| | baz=250 | | | | | | |
| **P38A** | **Dawn** | **93.09** | **50** | P | **P** | **01 01 24.7** | **0.0** |
| | baz=253 | | | | | | |
| **F33A** | **5 Mile Ranch,** | **93.10** | **43** | P | **P** | **01 01 24.7** | **+0.2** |
| | baz=251 | | | | | | |
| **244A** | **Avery, Jackson** | **93.11** | **58** | P | **P** | **01 01 25.3** | **+0.4** |
| | baz=254 | | | | | | |
| **T40A** | **Mansfield** | **93.12** | **52** | P | **P** | **01 01 24.0** | **-0.9** |
| | baz=253 | | | | | | |
| **M37A** | **Trindle Farm,** | **93.25** | **48** | P | **P** | **01 01 24.8** | **-0.6** |
| | baz=252 | | | | | | |
| **S40A** | **Lebanon** | **93.26** | **52** | P | **P** | **01 01 24.9** | **-0.7** |
| | baz=253 | | | | | | |
| **O38A** | **Galt** | **93.28** | **49** | P | **P** | **01 01 25.1** | **-0.4** |
| |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Y43A** | **Makayla and Ka** | **93.44** | **56** | P | | **P** | | **01 01 26.1** | **-0.2** |
| | baz=254 | | | | | | | | |
| **EFI** | **East Falkland** | **93.47** | **146** | PFAKE | | | | 01 01 40.0 | +14 |
| EFI | | | | LR | | LR | | | |
| | comp=Z,2μm,21.0s | | | | | | | | |
| **V42A** | **Cord** | **93.61** | **54** | P | | **P** | | **01 01 26.4** | **-0.7** |
| | baz=254 | | | | | | | | |
| **P39B** | **Salisbury** | **93.63** | **50** | P | | **P** | | **01 01 26.5** | **-0.6** |
| | baz=253 | | | | | | | | |
| **R40A** | **Maddies Statio** | **93.64** | **51** | P | | **P** | | **01 01 26.1** | **-1.1** |
| | baz=253 | | | | | | | | |
| **N38A** | **Joes South For** | **93.66** | **49** | P | | **P** | | **01 01 26.6** | **-0.6** |
| | baz=253 | | | | | | | | |
| **Z44A** | **Pea Ridge, Bel** | **93.66** | **57** | P | | **P** | | **01 01 26.7** | **-0.7** |
| | baz=254 | | | | | | | | |
| **T41A** | **Mountain View** | **93.67** | **53** | P | | **P** | | **01 01 26.7** | **-0.7** |
| | baz=254 | | | | | | | | |
| **L37A** | **Phoenix Point,** | **93.68** | **47** | P | | **P** | | **01 01 26.8** | **-0.6** |
| | baz=253 | | | | | | | | |
| **H35A** | **Sunnyside Ranc** | **93.72** | **45** | P | | **P** | | **01 01 27.1** | **-0.4** |
| | baz=252 | | | | | | | | |
| **ULN** | **Ulaanbaatar** | **93.72** | **319** | *e*P | | **P** | | **01 01 24.1** | **-3.5** |
| ULN | | | | pmax | | pmax | | | |
| | comp=Z,2.0nm,1.2s | | | | | | | | |
| **ULN** | **Ulaanbaatar** | **93.72** | **319** | PFAKE | | | | 01 01 40.0 | +12 |
| ULN | | | | LR | | LR | | | |
| | comp=Z,1μm,22.0s | | | | | | | | |
| **B32A** | **Ashes, Strandq** | **93.78** | **41** | P | | **P** | | **01 01 26.7** | **-0.9** |
| | baz=251 | | | | | | | | |
| **D33A** | **AnnSam, Waubun** | **93.81** | **42** | P | | **P** | | **01 01 27.4** | **-0.5** |
| | baz=252 | | | | | | | | |
| **NVL** | **N'lazarevskaya** | **93.81** | **182** | *e*P | | **P** | | **01 01 27.6** | **+0.1** |
| NVL | | | | *e*S | | **SKSac** | | **01 11 57.7** | **-3.6** |
| NVL | | | | *e**SS | | **S** | | **01 12 36.6** | **+0.4** |
| NVL | | | | *e*SS | | **SS** | | **01 18 58.4** | **+4.8** |
| **PAF** | **Port-aux-Franc** | **93.82** | **216** | PFAKE | | | | 01 01 40.0 | +12 |
| PAF | | | | LR | | LR | | | |
| | comp=Z,3μm,21.0s | | | | | | | | |
| **S41A** | **Jillco Farms,** | **93.84** | **52** | P | | **P** | | **01 01 27.6** | **-0.5** |
| | baz=254 | | | | | | | | |
| **M38A** | **Pleasantville** | **93.87** | **48** | P | | **P** | | **01 01 27.8** | **-0.4** |
| | baz=253 | | | | | | | | |
| **U42A** | **Revenden** | **93.88** | **53** | P | | **P** | | **01 01 27.8** | **-0.5** |
| | baz=254 | | | | | | | | |
| **K37A** | **Belmond** | **93.95** | **47** | P | | **P** | | **01 01 26.9** | **-1.7** |
| | baz=253 | | | | | | | | |
| **A32A** | **Rocking H Ranc** | **93.97** | **40** | P | | **P** | | **01 01 27.1** | **-1.4** |
| | baz=251 | | | | | | | | |
| **Q40A** | **Laux Farm, Aux** | **93.99** | **51** | P | | **P** | | **01 01 27.4** | **-1.5** |
| | baz=254 | | | | | | | | |
| **SCIA** | **State Center** | **94.00** | **48** | P | | **P** | | **01 01 27.6** | **-1.2** |
| | baz=253 | | | | | | | | |
| **SCIA** | **State Center** | **94.00** | **48** | PFAKE | | | | 01 01 40.0 | +11 |
| SCIA | | | | LR | | LR | | | |
| | comp=Z,3μm,20.0s | | | | | | | | |
| **O39A** | **Kirksville** | **94.00** | **49** | P | | **P** | | **01 01 28.2** | **-0.6** |
| | baz=253 | | | | | | | | |
| **C33A** | **Trail** | **94.06** | **42** | P | | **P** | | **01 01 28.0** | **-1.0** |
| | baz=252 | | | | | | | | |
| **I36A** | **Fitzsimmons Fa** | **94.07** | **46** | P | | **P** | | **01 01 27.9** | **-1.2** |
| | baz=253 | | | | | | | | |
| **G35A** | **Watkins** | **94.11** | **44** | P | | **P** | | **01 01 28.1** | **-1.2** |
| | baz=252 | | | | | | | | |
| **SONM** | **Songino Array** | **94.13** | **318** | P | | **P** | | **01 01 27.4** | **-2.0** |
| | comp=Z,0.4nm,0.4s,baz=104,slow=4.6,SNR=4.4 | | | | | | | | |
| SONM | | | | LR | | LR | | 01 38 10.5 | |
| | comp=Z,1μm,21.9s,baz=118,slow=32 | | | | | | | | |
| **P40A** | **Paris** | **94.16** | **50** | P | | **P** | | **01 01 28.8** | **-0.8** |
| | baz=254 | | | | | | | | |
| **AGMN** | **Agassiz Nation** | **94.17** | **41** | P | | **P** | | **01 01 28.5** | **-0.9** |
| | baz=252 | | | | | | | | |
| **AGMN** | **Agassiz Nation** | **94.17** | **41** | *e*P | | **P** | | **01 01 27.8** | **-1.6** |
| | comp=Z,16nm,1.3s | | | | | | | | |
| AGMN | | | | LR | | LR | | | |
| | comp=Z,4μm,19.0s | | | | | | | | |
| **J37A** | **Redenius Farm,** | **94.18** | **46** | P | | **P** | | **01 01 28.4** | **-1.2** |
| | baz=253 | | | | | | | | |
| **T42A** | **Van Buren** | **94.18** | **53** | P | | **P** | | **01 01 28.4** | **-1.3** |
| | baz=254 | | | | | | | | |
| **NNA** | **Nana** | **94.20** | **104** | PFAKE | | | | 01 01 40.0 | +10 |
| NNA | | | | LR | | LR | | | |
| | comp=Z,654nm,20.0s | | | | | | | | |
| **N39A** | **Derby Farms, D** | **94.21** | **49** | P | | **P** | | **01 01 28.9** | **-0.9** |
| | baz=253 | | | | | | | | |
| **D34A** | **Park Rapids** | **94.22** | **42** | P | | **P** | | **01 01 29.4** | **-0.3** |
| | baz=252 | | | | | | | | |
| **X44A** | **Crenshaw** | **94.22** | **56** | P | | **P** | | **01 01 29.2** | **-0.7** |
| | baz=254 | | | | | | | | |
| **F35A** | **Swanville** | **94.25** | **44** | P | | **P** | | **01 01 29.2** | **-0.7** |
| | baz=252 | | | | | | | | |
| **L38A** | **Oak Wood Farm,** | **94.25** | **48** | P | | **P** | | **01 01 29.4** | **-0.6** |
| | baz=253 | | | | | | | | |
| **LCO** | **Las Campanas** | **94.31** | **122** | PFAKE | | | | 01 01 40.0 | +9.0 |
| LCO | | | | LR | | LR | | | |
| | comp=Z,2μm,19.0s | | | | | | | | |
| **R41A** | **Rosebud** | **94.31** | **52** | P | | **P** | | **01 01 29.5** | **-0.8** |
| | baz=254 | | | | | | | | |
| **B33A** | **Robert and Kas** | **94.34** | **41** | P | | **P** | | **01 01 29.4** | **-0.8** |
| | baz=252 | | | | | | | | |
| **CCM** | **Cathedral Cave** | **94.35** | **52** | P | | **P** | | **01 01 29.6** | **-0.8** |
| | baz=254 | | | | | | | | |
| **CCM** | **Cathedral Cave** | **94.35** | **52** | *e*P | | **P** | | **01 01 28.6** | **-1.9** |
| CCM | | | | pmax | | pmax | | | |
| | comp=Z,19nm,1.4s | | | | | | | | |
| **CCM** | **Cathedral Cave** | **94.35** | **52** | *e*P | | **P** | | **01 01 28.6** | **-1.9** |
| | comp=Z,19nm,1.4s | | | | | | | | |
| **O40A** | **La Belle** | **94.46** | **50** | P | | **P** | | **01 01 30.1** | **-0.8** |
| | baz=254 | | | | | | | | |
| **I37A** | **Lemond, Waseca** | **94.49** | **46** | P | | **P** | | **01 01 30.4** | **-0.6** |
| | baz=253 | | | | | | | | |
| **K38A** | **Parkersburg** | **94.53** | **47** | P | | **P** | | **01 01 31.3** | **+0.1** |
| | baz=253 | | | | | | | | |
| **E35A** | **Pequot Lakes** | **94.57** | **43** | P | | **P** | | **01 01 31.0** | **-0.4** |
| | baz=253 | | | | | | | | |
| **C34A** | **RKJ Ranch, Bem** | **94.58** | **42** | P | | **P** | | **01 01 30.8** | **-0.5** |
| | baz=252 | | | | | | | | |
| **146A** | **Union** | **94.60** | **58** | P | | **P** | | **01 01 31.0** | **-0.8** |
| | baz=255 | | | | | | | | |
| **Q41A** | **Truxton** | **94.61** | **51** | P | | **P** | | **01 01 30.7** | **-1.0** |
| | baz=254 | | | | | | | | |
| **G36A** | **St. Michael** | **94.61** | **44** | P | | **P** | | **01 01 31.1** | **-0.4** |
| | baz=253 | | | | | | | | |
| **S42A** | **Caledonia** | **94.61** | **52** | P | | **P** | | **01 01 31.2** | **-0.6** |
| | baz=254 | | | | | | | | |
| **M39A** | **Webster** | **94.62** | **48** | P | | **P** | | **01 01 30.7** | **-0.9** |
| | baz=254 | | | | | | | | |
| **A33A** | **Warroad** | **94.67** | **41** | P | | **P** | | **01 01 30.9** | **-0.8** |
| | baz=252 | | | | | | | | |
| **ULM** | **Lac du Bonnet** | **94.78** | **39** | P | | **P** | | **01 01 33.3** | **+1.1** |
| | comp=Z,3.0nm,0.8s,baz=255,slow=3.9,SNR=5.7 | | | | | | | | |
| ULM | | | | LR | | LR | | 01 38 01.1 | |
| | comp=Z,4μm,20.7s,baz=254,slow=32 | | | | | | | | |
| **ULM** | **Lac du Bonnet** | **94.78** | **39** | *e*P | | **P** | | **01 01 33.6** | **+1.4** |
| **ULM** | **Lac du Bonnet** | **94.78** | **39** | *e*P | | **P** | | **01 01 33.6** | **+1.4** |
| **TIXI** | **Tiksi** | **94.80** | **345** | *i* P | | **P** | | **01 01 30.1** | **-1.6** |
| TIXI | | | | pmax | | pmax | | | |
| | comp=Z,6.0nm,1.1s | | | | | | | | |
| **TIXI** | **Tiksi** | **94.80** | **345** | *e*P | | **P** | | **01 01 32.4** | **+0.7** |
| | comp=Z,8.0nm,1.1s | | | | | | | | |
| TIXI | | | | LR | | LR | | | |
| | comp=Z,1μm,21.0s | | | | | | | | |
| **X45A** | **UM Field Stati** | **94.80** | **56** | P | | **P** | | **01 01 32.0** | **-0.6** |
| | baz=255 | | | | | | | | |
| **OXF** | **Oxford** | **94.81** | **56** | P | | **P** | | **01 01 31.8** | **-0.9** |
| | baz=255 | | | | | | | | |
| **T43A** | **Greenville** | **94.81** | **53** | P | | **P** | | **01 01 31.9** | **-0.7** |
| | baz=254 | | | | | | | | |
| **N40A** | **Mertquake, Sal** | **94.88** | **49** | P | | **P** | | **01 01 32.1** | **-0.8** |
| | baz=254 | | | | | | | | |
| **L39A** | **Vinton** | **94.93** | **48** | P | | **P** | | **01 01 32.1** | **-0.9** |
| | baz=254 | | | | | | | | |
| **P41A** | **Barry, Barry** | **94.93** | **50** | P | | **P** | | **01 01 32.8** | **-0.3** |
| | baz=254 | | | | | | | | |
| **F36A** | **Milaca** | **94.95** | **44** | P | | **P** | | **01 01 32.8** | **-0.2** |
| | baz=253 | | | | | | | | |
| **D35A** | **Remer** | **94.96** | **43** | P | | **P** | | **01 01 32.6** | **-0.5** |
| | baz=253 | | | | | | | | |
| **H37A** | **Dierke Farm, C** | **94.99** | **45** | P | | **P** | | **01 01 32.9** | **-0.4** |
| | baz=253 | | | | | | | | |
| **B34A** | **Aery, Baudette** | **95.00** | **41** | P | | **P** | | **01 01 32.6** | **-0.6** |
| | baz=252 | | | | | | | | |
| **M40A** | **Post Highland** | **95.08** | **49** | P | | **P** | | **01 01 33.3** | **-0.5** |
| | baz=254 | | | | | | | | |
| **Y46A** | **Houston** | **95.09** | **56** | P | | **P** | | **01 01 33.2** | **-0.8** |
| | baz=255 | | | | | | | | |
| **S43A** | **Fulton Ridge,** | **95.11** | **53** | P | | **P** | | **01 01 33.3** | **-0.7** |
| | baz=255 | | | | | | | | |
| **Q42A** | **Golden Eagle** | **95.12** | **51** | P | | **P** | | **01 01 33.3** | **-0.7** |
| | baz=254 | | | | | | | | |
| **W45A** | **Hickory Valley** | **95.16** | **55** | P | | **P** | | **01 01 33.3** | **-0.9** |
| | baz=255 | | | | | | | | |
| **K39A** | **Oelwein** | **95.17** | **47** | P | | **P** | | **01 01 33.2** | **-0.9** |
| | baz=254 | | | | | | | | |
| **O41A** | **Passleys Farm,** | **95.19** | **50** | P | | **P** | | **01 01 33.3** | **-1.0** |
| | baz=254 | | | | | | | | |
| **C35A** | **Jirik Farms, M** | **95.19** | **42** | P | | **P** | | **01 01 32.7** | **-1.5** |
| | baz=253 | | | | | | | | |
| **I38A** | **Scanlan Farm,** | **95.24** | **46** | P | | **P** | | **01 01 33.2** | **-1.2** |
| | baz=254 | | | | | | | | |
| **SPMN** | **Marine on St.** | **95.25** | **45** | P | | **P** | | **01 01 33.4** | **-1.0** |
| | baz=254 | | | | | | | | |
| **E36A** | **McGregor** | **95.32** | **43** | P | | **P** | | **01 01 33.9** | **-0.9** |
| | baz=253 | | | | | | | | |
| **T44A** | **Benton** | **95.35** | **53** | P | | **P** | | **01 01 34.2** | **-0.9** |
| | baz=255 | | | | | | | | |
| **N41A** | **Harden Midland** | **95.37** | **49** | P | | **P** | | **01 01 33.9** | **-1.1** |
| | baz=254 | | | | | | | | |
| **R43A** | **Red Bud** | **95.41** | **52** | P | | **P** | | **01 01 34.1** | **-1.2** |
| | baz=255 | | | | | | | | |
| **P42A** | **Winchester** | **95.44** | **51** | P | | **P** | | **01 01 34.1** | **-1.3** |
| | baz=255 | | | | | | | | |
| **L40A** | **Anamosa** | **95.47** | **48** | P | | **P** | | **01 01 34.2** | **-1.3** |
| | baz=254 | | | | | | | | |
| **J39A** | **Decorah** | **95.47** | **47** | P | | **P** | | **01 01 34.3** | **-1.3** |
| | baz=254 | | | | | | | | |
| **F37A** | **Hinrichs Farm,** | **95.51** | **44** | P | | **P** | | **01 01 34.9** | **-0.7** |
| | baz=254 | | | | | | | | |
| **B35A** | **Bob, Littlefor** | **95.55** | **41** | P | | **P** | | **01 01 34.7** | **-1.0** |
| | baz=253 | | | | | | | | |
| **D36A** | **Goodland** | **95.57** | **43** | P | | **P** | | **01 01 34.5** | **-1.4** |
| | baz=254 | | | | | | | | |
| **K40A** | **Colesburg** | **95.70** | **47** | P | | **P** | | **01 01 35.1** | **-1.4** |
| | baz=254 | | | | | | | | |
| **I39A** | **Houston** | **95.75** | **46** | P | | **P** | | **01 01 35.0** | **-1.8** |
| | baz=254 | | | | | | | | |
| **Q43A** | **New Douglas** | **95.75** | **51** | P | | **P** | | **01 01 35.1** | **-1.8** |
| | baz=255 | | | | | | | | |
| **M41A** | **Milan** | **95.77** | **49** | P | | **P** | | **01 01 35.9** | **-1.0** |
| | baz=255 | | | | | | | | |
| **O42A** | **Bath** | **95.80** | **50** | P | | **P** | | **01 01 36.2** | **-0.8** |
| | baz=255 | | | | | | | | |
| **U45A** | **Rockin P Farm,** | **95.80** | **54** | P | | **P** | | **01 01 36.2** | **-0.9** |
| | baz=255 | | | | | | | | |
| **BRAL** | **Brewton** | **95.87** | **59** | PFAKE | | | | 01 01 50.0 | +12 |
| BRAL | | | | LR | | LR | | | |
| | comp=Z,1μm,19.0s | | | | | | | | |
| **G38A** | **Ridgeland** | **95.88** | **45** | P | | **P** | | **01 01 36.6** | **-0.8** |
| | baz=254 | | | | | | | | |
| **C36A** | **Pine Crest Far** | **95.95** | **42** | P | | **P** | | **01 01 37.2** | **-0.4** |
| | baz=254 | | | | | | | | |
| **L41A** | **Preston** | **95.99** | **48** | P | | **P** | | **01 01 37.2** | **-0.7** |
| | baz=255 | | | | | | | | |
| **N42A** | **Yates City** | **96.00** | **49** | P | | **P** | | **01 01 37.6** | **-0.4** |
| | baz=255 | | | | | | | | |
| **Z48A** | **Northport** | **96.01** | **57** | P | | **P** | | **01 01 38.0** | **-0.2** |
| | baz=256 | | | | | | | | |
| **OTAV** | **Otavalo** | **96.04** | **91** | PFAKE | | | | 01 01 50.0 | +11 |
| OTAV | | | | LR | | LR | | | |
| | comp=Z,501nm,20.0s | | | | | | | | |
| **D37A** | **Cotton** | **96.05** | **43** | P | | **P** | | **01 01 37.8** | **-0.3** |
| | baz=254 | | | | | | | | |
| **P43A** | **Skaggs, Pawnee** | **96.07** | **51** | P | | **P** | | **01 01 37.3** | **-1.0** |
| | baz=255 | | | | | | | | |
| **F38A** | **Pierce - Schro** | **96.08** | **44** | P | | **P** | | **01 01 37.1** | **-1.1** |
| | baz=254 | | | | | | | | |
| **H39A** | **Augusta** | **96.14** | **45** | P | | **P** | | **01 01 37.6** | **-0.9** |
| | baz=255 | | | | | | | | |
| **J40A** | **Soldiers Grove** | **96.17** | **47** | P | | **P** | | **01 01 37.7** | **-1.0** |
| | baz=255 | | | | | | | | |
| **K41A** | **Shullsburg** | **96.27** | **48** | P | | **P** | | **01 01 38.5** | **-0.7** |
| | baz=255 | | | | | | | | |
| **GTA** | **Gaotai** | **96.32** | **309** | *e*P | | P | | 01 01 44.9 | +5.3 |
| GTA | | | | pP | | sP | | 01 01 49.3 | +2.4 |
| GTA | | | | sP | | pP | | 01 01 52.5 | +7.5 |
| GTA | | | | pmax | | pmax | | | |
| | comp=Z,6.0nm,1.3s | | | | | | | | |
| **G39A** | **Holcombe** | **96.38** | **45** | P | | **P** | | **01 01 39.6** | **0.0** |
| | baz=255 | | | | | | | | |
| **I40A** | **Norwalk** | **96.39** | **46** | P | | **P** | | **01 01 37.7** | **-2.0** |
| | baz=255 | | | | | | | | |
| **JFWS** | **Jewell Farm** | **96.39** | **47** | P | | **P** | | **01 01 37.9** | **-1.7** |
| | baz=255 | | | | | | | | |
| **JFWS** | **Jewell Farm** | **96.39** | **47** | *e*P | | **P** | | **01 01 38.0** | **-1.7** |
| JFWS | | | | pmax | | pmax | | | |
| | comp=Z,12nm,0.9s | | | | | | | | |
| JFWS | | | | MLR | | MLR | | | |
| | comp=Z,4μm,21.0s | | | | | | | | |
| **JFWS** | **Jewell Farm** | **96.39** | **47** | *e*P | | **P** | | **01 01 38.0** | **-1.7** |
| | comp=Z,12nm,0.9s | | | | | | | | |
| JFWS | | | | LR | | LR | | | |
| | comp=Z,4μm,21.0s | | | | | | | | |
| **HDIL** | **Hopedale** | **96.47** | **50** | P | | **P** | | **01 01 38.4** | **-1.7** |
| | baz=255 | | | | | | | | |
| **HDIL** | **Hopedale** | **96.47** | **50** | PFAKE | | | | 01 01 50.0 | +10 |
| HDIL | | | | LR | | LR | | | |
| | comp=Z,3μm,19.0s | | | | | | | | |
| **T46A** | **Princeton** | **96.65** | **54** | P | | **P** | | **01 01 39.7** | **-1.3** |
| | baz=256 | | | | | | | | |
| **J41A** | **Loganville** | **96.67** | **47** | P | | **P** | | **01 01 39.5** | **-1.5** |
| | baz=255 | | | | | | | | |
| **F39A** | **Loretta** | **96.71** | **44** | P | | **P** | | **01 01 39.3** | **-1.8** |
| | baz=255 | | | | | | | | |
| **H40A** | **Chili** | **96.73** | **46** | P | | **P** | | **01 01 39.4** | **-1.8** |
| | baz=255 | | | | | | | | |
| **EYMN** | **Ely** | **96.87** | **42** | PFAKE | | | | 01 01 50.0 | +8.2 |
| EYMN | | | | LR | | LR | | | |
| | comp=Z,2μm,21.0s | | | | | | | | |
| **I41A** | **Arkdale** | **96.95** | **46** | P | | **P** | | **01 01 41.9** | **-0.3** |
| | baz=255 | | | | | | | | |
| **TLY** | **Talaya** | **96.98** | **322** | PFAKE | | | | 01 01 50.0 | +7.8 |
| TLY | | | | LR | | LR | | | |
| | comp=Z,1μm,20.0s | | | | | | | | |
| **K42A** | **Prairie Point,** | **97.00** | **48** | P | | **P** | | **01 01 41.6** | **-0.9** |
| | baz=256 | | | | | | | | |
| **BCIP** | **Isla Barro Col** | **97.00** | **82** | PFAKE | | | | 01 01 50.0 | +6.8 |
| BCIP | | | | LR | | LR | | | |
| | comp=Z,488nm,19.0s | | | | | | | | |
| **G40A** | **Rib Lake** | **97.03** | **45** | P | | **P** | | **01 01 41.9** | **-0.7** |
| | baz=255 | | | | | | | | |
| **H41A** | **Junction City** | **97.24** | **46** | P | | **P** | | **01 01 42.2** | **-1.3** |
| | baz=256 | | | | | | | | |
| **F40A** | **Park Falls** | **97.25** | **44** | P | | **P** | | **01 01 42.4** | **-1.2** |
| | baz=256 | | | | | | | | |
| **L43A** | **Garden Prairie** | **97.28** | **48** | P | | **P** | | **01 01 42.7** | **-1.0** |
| | baz=256 | | | | | | | | |
| **TRQA** | **Tornquist** | **97.47** | **133** | PFAKE | | | | 01 02 00.0 | +15 |
| TRQA | | | | LR | | LR | | | |
| | comp=Z,3μm,20.0s | | | | | | | | |
| **I42A** | **Draeger Farm,** | **97.58** | **47** | P | | **P** | | **01 01 43.2** | **-1.8** |
| | baz=256 | | | | | | | | |
| **K43A** | **Burlington** | **97.70** | **48** | P | | Pdif | | 01 01 46.2 | +0.5 |
| | baz=256 | | | | | | | | |
| **G41A** | **Antigo** | **97.71** | **45** | P | | Pdif | | 01 01 46.2 | +0.5 |
| | baz=256 | | | | | | | | |
| **J43A** | **Natural Harves** | **97.80** | **47** | P | | **P** | | **01 01 46.2** | **+0.1** |
| | baz=256 | | | | | | | | |
| **F41A** | **Three Lakes** | **97.89** | **45** | P | | **P** | | **01 01 45.4** | **-1.0** |
| | baz=256 | | | | | | | | |
| **I43A** | **Langenfeld Bro** | **98.11** | **47** | P | | **P** | | **01 01 47.5** | **+0.1** |
| | baz=257 | | | | | | | | |
| **E41A** | **Kenton** | **98.17** | **44** | P | | Pdif | | 01 01 48.1 | +0.4 |
| | baz=256 | | | | | | | | |
| **G42A** | **Mountain** | **98.24** | **45** | P | | **P** | | **01 01 46.8** | **-1.2** |
| | baz=257 | | | | | | | | |
| **G43A** | **Wallace** | **98.75** | **46** | P | | Pdif | | 01 01 51.0 | +0.7 |
| | baz=257 | | | | | | | | |
| **E42A** | **Champion** | **98.86** | **44** | P | | **P** | | **01 01 50.8** | **0.0** |
| | baz=257 | | | | | | | | |
| **GOGA** | **Godfrey** | **99.34** | **58** | PFAKE | | | | 01 02 00.0 | +6.8 |
| GOGA | | | | LR | | LR | | | |
| | comp=Z,2μm,19.0s | | | | | | | | |
| **GLMI** | **Grayling** | **100.79** | **46** | PFAKE | | | | 01 02 10.0 | +11 |
| GLMI | | | | LR | | LR | | | |
| | comp=Z,2μm,22.0s | | | | | | | | |
| **AAM** | **Ann Arbor** | **100.99** | **49** | PFAKE | | | | 01 02 10.0 | +10 |
| AAM | | | | LR | | LR | | | |
| | comp=Z,2μm,22.0s | | | | | | | | |
| **LSA** | **Lhasa** | **101.10** | **298** | PFAKE | | | | 01 02 10.0 | +8.3 |
| LSA | | | | LR | | LR | | | |
| | comp=Z,1μm,22.0s | | | | | | | | |
| **ACSO** | **Alum Creek Sta** | **101.10** | **51** | PFAKE | | | | 01 02 10.0 | +9.1 |
| ACSO | | | | LR | | LR | | | |
| | comp=Z,4μm,20.0s | | | | | | | | |
| **MTDJ** | **Mount Denham** | **101.31** | **74** | PFAKE | | | | 01 02 10.0 | +7.6 |
| MTDJ | | | | LR | | LR | | | |
| | comp=Z,563nm,20.0s | | | | | | | | |
| **HOPE** | **Hope Point** | **101.87** | **156** | PFAKE | | | | 01 02 20.0 | +16 |
| HOPE | | | | LR | | LR | | | |
| | comp=Z,997nm,20.0s | | | | | | | | |
| **NHSC** | **New Hope** | **101.98** | **59** | PFAKE | | | | 01 02 20.0 | +15 |
| NHSC | | | | LR | | LR | | | |
| | comp=Z,1μm,20.0s | | | | | | | | |
| **BLA** | **Blacksburg** | **102.53** | **55** | PFAKE | | | | 01 02 20.0 | +13 |
| BLA | | | | LR | | LR | | | |
| | comp=Z,2μm,22.0s | | | | | | | | |
| **GTBY** | **Guantanamo Bay** | **103.91** | **73** | PFAKE | | | | 01 02 30.0 | +16 |
| GTBY | | | | LR | | LR | | | |
| | comp=Z,633nm,19.0s | | | | | | | | |
| **CNNC** | **Cliffs of the** | **104.22** | **57** | PFAKE | | | | 01 02 30.0 | +15 |
| CNNC | | | | LR | | LR | | | |
| | comp=Z,1μm,19.0s | | | | | | | | |
| **CBN** | **Corbin Frederi** | **105.07** | **54** | PFAKE | | | | 01 06 40.0 | |
| CBN | | | | LR | | LR | | | |
| | comp=Z,3μm,20.0s | | | | | | | | |
| **SDV** | **Santo Domingo** | **105.75** | **85** | PFAKE | | | | 01 06 50.0 | |
| SDV | | | | LR | | LR | | | |
| | comp=Z,463nm,20.0s | | | | | | | | |
| **WMQ** | **Urumqi** | **106.05** | **312** | Pdif | | **Pdif** | | **01 02 22.5** | **-0.4** |
| WMQ | | | | PP | | **PP** | | **01 06 53.3** | **+6.6** |
| WMQ | | | | S | | **Sdif** | | **01 14 11.9** | **-8.8** |
| WMQ | | | | SS | | **SS** | | **01 21 48.8** | **+1.6** |
| WMQ | | | | AMB | | AMB | | | |
| | comp=Z,140nm,11.8s | | | | | | | | |
| WMQ | | | | LR | | LR | | | |
| | comp=Z,1μm,20.1s | | | | | | | | |
| WMQ | | | | LR | | LR | | | |
| | comp=Z,1μm,22.1s | | | | | | | | |
| WMQ | | | | LR | | LR | | | |
| | comp=Z,2μm,22.1s | | | | | | | | |
| **BINY** | **Binghamton** | **106.61** | **50** | PFAKE | | | | 01 06 50.0 | |
| BINY | | | | LR | | LR | | | |
| | comp=Z,3μm,20.0s | | | | | | | | |
| **SDDR** | **Presa de Saban** | **107.26** | **75** | PFAKE | | | | 01 06 50.0 | |
| SDDR | | | | LR | | LR | | | |
| | comp=Z,1μm,19.0s | | | | | | | | |
| **LONY** | **Lake Ozonia** | **107.85** | **48** | PFAKE | | | | 01 06 50.0 | |
| LONY | | | | LR | | LR | | | |
| | comp=Z,2μm,20.0s | | | | | | | | |
| **GRTK** | **Grand Turk** | **107.86** | **72** | PFAKE | | | | 01 06 50.0 | |
| GRTK | | | | LR | | LR | | | |
| | comp=Z,633nm,19.0s | | | | | | | | |
| **SAML** | **Samuel** | **107.91** | **105** | PFAKE | | | | 01 06 50.0 | |
| SAML | | | | LR | | LR | | | |
| | comp=Z,2μm,22.0s | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **108.58** | **322** | PKiKP | | **PKiKP** | | **01 06 40.0** | **+0.7** |
| | comp=Z,0.5nm,0.2s,baz=160,slow=4.6,SNR=3.1 | | | | | | | | |
| **DGAR** | **Diego Garcia** | **109.75** | **256** | PFAKE | | | | 01 06 50.0 | |
| DGAR | | | | LR | | LR | | | |
| | comp=Z,2μm,20.0s | | | | | | | | |
| **MKAR** | **Makanchi Array** | **110.05** | **315** | PKiKP | | **PKiKP** | | **01 06 43.4** | **+1.1** |
| | comp=Z,1.4nm,0.7s,baz=70,slow=1.2,SNR=10 | | | | | | | | |
| **PKME** | **Peaks-Kenny Pk** | **111.63** | **47** | PFAKE | | | | 01 07 00.0 | |
| PKME | | | | LR | | LR | | | |
| | comp=Z,2μm,19.0s | | | | | | | | |
| **SJG** | **San Juan** | **111.90** | **76** | PFAKE | | | | 01 07 00.0 | |
| SJG | | | | LR | | LR | | | |
| | comp=Z,663nm,20.0s | | | | | | | | |
| **KURK** | **Kurchatov** | **112.44** | **319** | *e*PKiKP | | **PKiKP** | | **01 06 46.5** | **-0.1** |
| KURK | | | | MLR | | MLR | | | |
| | comp=Z,2μm,20.0s | | | | | | | | |
| **KURK** | **Kurchatov** | **112.44** | **319** | *e*PKP | | **PKiKP** | | **01 06 46.5** | **-0.1** |
| KURK | | | | LR | | LR | | | |
| | comp=Z,2μm,20.0s | | | | | | | | |
| **KSH** | **Kashi** | **114.58** | **307** | *e*PKP | | PKPdf | | 01 06 54.3 | +3.0 |
| KSH | | | | PP | | PP | | 01 07 57.4 | +8.8 |
| KSH | | | | PKS | | **PKSdf** | | **01 10 30.4** | **+2.3** |
| KSH | | | | SKKS | | | | 01 14 50.5 | |
| KSH | | | | AMB | | AMB | | | |
| | comp=Z,180nm,5.4s | | | | | | | | |
| KSH | | | | LR | | LR | | | |
| | comp=Z,67nm,4.0s | | | | | | | | |
| KSH | | | | LR | | LR | | | |
| | comp=Z,150nm,4.6s | | | | | | | | |
| KSH | | | | LR | | LR | | | |
| | comp=Z,1μm,17.4s | | | | | | | | |
| **GRGR** | **Grenville** | **115.08** | **84** | PFAKE | | | | 01 07 00.0 | +7.3 |
| GRGR | | | | LR | | LR | | | |
| | comp=Z,478nm,20.0s | | | | | | | | |
| **AAK** | **Ala-Archa** | **115.64** | **310** | *e*PKiKP | | **PKPdf** | | **01 06 52.2** | **-1.1** |
| AAK | | | | MLR | | MLR | | | |
| | comp=Z,1μm,20.0s | | | | | | | | |
| **AAK** | **Ala-Archa** | **115.64** | **310** | *e*PKPdf | | **PKPdf** | | **01 06 52.2** | **-1.1** |
| AAK | | | | LR | | LR | | | |
| | comp=Z,1μm,20.0s | | | | | | | | |
| **ANWB** | **Willy Bob** | **115.93** | **78** | PFAKE | | | | 01 07 10.0 | +16 |
| ANWB | | | | LR | | LR | | | |
| | comp=Z,550nm,20.0s | | | | | | | | |
| **FDF** | **Fort de France** | **116.05** | **81** | PFAKE | | | | 01 07 10.0 | +15 |
| FDF | | | | LR | | LR | | | |
| | comp=Z,647nm,20.0s | | | | | | | | |
| **KBS** | **Kingsbay** | **116.49** | **359** | PFAKE | | | | 01 07 00.0 | +6.3 |
| KBS | | | | LR | | LR | | | |
| | comp=Z,684nm,19.0s | | | | | | | | |
| **SFJD** | **Kangerlussuaq** | **117.16** | **21** | PFAKE | | | | 01 07 10.0 | +15 |
| SFJD | | | | LR | | LR | | | |
| | comp=Z,4μm,21.0s | | | | | | | | |
| **BRVK** | **Borovoye** | **117.29** | **322** | *e*PKiKP | | **PKPdf** | | **01 06 55.3** | **-0.6** |
| **BRVK** | **Borovoye** | **117.29** | **322** | *e*PKPdf | | **PKPdf** | | **01 06 56.0** | **+0.1** |
| BRVK | | | | LR | | LR | | | |
| | comp=Z,804nm,20.0s | | | | | | | | |
| **ARU** | **Arti** | **122.81** | **328** | PKP | | **PKPdf** | | **01 07 07.6** | **+1.3** |
| | comp=Z,3.4nm,0.8s,baz=98,slow=7.1,SNR=5.7 | | | | | | | | |
| **ARU** | **Arti** | **122.81** | **328** | *i* PKiKP | | **PKPdf** | | **01 07 04.0** | **-2.4** |
| ARU | | | | | | | | 01 08 41.4 | |
| ARU | | | | | | | | 01 14 12.8 | |
| ARU | | | | MLR | | MLR | | | |
| | comp=Z,2μm,21.0s | | | | | | | | |
| **ARU** | **Arti** | **122.81** | **328** | *e*PKPdf | | **PKPdf** | | **01 07 06.3** | **0.0** |
| ARU | | | | LR | | LR | | | |
| | comp=Z,2μm,20.0s | | | | | | | | |
| **KEV** | **Kevo** | **124.14** | **351** | PFAKE | | | | 01 07 20.0 | +11 |
| KEV | | | | LR | | LR | | | |
| | comp=Z,1μm,20.0s | | | | | | | | |
| **LVZ** | **Lovozero** | **124.35** | **347** | PFAKE | | | | 01 07 20.0 | +11 |
| LVZ | | | | LR | | LR | | | |
| | comp=Z,972nm,19.0s | | | | | | | | |
| **ARCES** | **ARCESS Array B** | **124.56** | **352** | PKP | | **PKPdf** | | **01 07 08.8** | **-0.6** |
| | comp=Z,5.8nm,0.8s,baz=43,slow=5.4,SNR=5.8 | | | | | | | | |
| **AKTO** | **Aktyubinsk** | **125.33** | **321** | PKP | | **PKPdf** | | **01 07 12.2** | **+0.7** |
| | comp=Z,1.7nm,0.7s,baz=80,slow=4.8,SNR=3.1 | | | | | | | | |
| **ABPO** | **Ambohimpanom** | **126.37** | **232** | PFAKE | | | | 01 07 30.0 | +15 |
| ABPO | | | | LR | | LR | | | |
| | comp=Z,495nm,20.0s | | | | | | | | |
| **MSEY** | **Mahe Island** | **126.47** | **252** | PFAKE | | | | 01 07 30.0 | +

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **KIV** | **Kislovodsk** | **137.52** | **320** | PFAKE | | | 01 07 50.0 | +15 |
| KIV | | | | LR | LR | | | |
| | comp=Z,807nm,21.0s | | | | | | | |
| **GNI** | **Garni** | **137.89** | **314** | *i* PKIKP | | **PKPdf** | **01 07 36.2** | **+0.5** |
| **GNI** | **Garni** | **137.89** | **314** | *e*PKPdf | | **PKPdf** | **01 07 34.9** | **-0.8** |
| GNI | | | | LR | LR | | | |
| | comp=Z,984nm,22.0s | | | | | | | |
| **AKH** | **Akhalkalaki** | **138.20** | **316** | ⇓*i* P | | **PKPdf** | **01 07 35.3** | **-1.0** |
| **AKASG** | **Malin Array Be** | **139.98** | **336** | PKP | | **PKPdf** | **01 07 38.8** | **-0.1** |
| | comp=Z,0.3nm,0.3s,baz=32,slow=2.8,SNR=11 | | | | | | | |
| **ANN** | **Anapa** | **140.19** | **324** | *i* PKIKP | | **PKPdf** | **01 07 34.4** | **-5.1** |
| ANN | | | | pmax | pmax | | | |
| | comp=Z,28nm,1.3s | | | | | | | |
| **RAYN** | **Ar Rayn** | **141.43** | **288** | *e*PKPdf | | **PKPdf** | **01 07 38.7** | **-3.8** |
| RAYN | | | | LR | LR | | | |
| | comp=Z,832nm,22.0s | | | | | | | |
| **LSZ** | **Lusaka** | **141.98** | **217** | *e*PKHKP | | PKPpre | 01 07 36.6 | |
| LSZ | | | | MLR | MLR | | | |
| | comp=Z,1μm,20.0s | | | | | | | |
| **LSZ** | **Lusaka** | **141.98** | **217** | *e*PKPpre | | PKPpre | 01 07 36.6 | |
| LSZ | | | | LR | LR | | | |
| | comp=Z,1μm,20.0s | | | | | | | |
| **TSUM** | **Tsumeb** | **143.46** | **200** | *e*PKPdf | | **PKPdf** | **01 07 46.0** | **-0.3** |
| **KSP** | **Ksiaz** | **143.68** | **348** | *e*PKP | | **PKPdf** | **01 07 44.7** | **-0.9** |
| **KSP** | **Ksiaz** | **143.68** | **348** | *e*PKIKP | | **PKPdf** | **01 07 44.7** | **-0.9** |
| **CLL** | **Collm** | **143.78** | **352** | *e*PKIKP | | **PKPdf** | **01 07 45.0** | **-0.7** |
| CLL | | | | *i* | | | 01 07 49.7 | |
| CLL | | | | pmax | pmax | | | |
| | comp=Z,53nm,2.0s | | | | | | | |
| CLL | | | | MLR | MLR | | | |
| | comp=Z,900nm,20.5s | | | | | | | |
| **CLL** | **Collm** | **143.78** | **352** | *e*PKPdf | | **PKPdf** | **01 07 45.0** | **-0.7** |
| | comp=Z,53nm,2.0s | | | | | | | |
| CLL | | | | *i* PKiKP | | **PKiKP** | **01 07 49.7** | **+0.6** |
| | comp=Z,28nm,1.5s | | | | | | | |
| CLL | | | | *e*SS | SS | | 01 29 30.0 | -9.2 |
| CLL | | | | *e*SSS | SSS | | 01 35 06.0 | |
| CLL | | | | *e* | | | 01 43 48.0 | |
| CLL | | | | Lm | MLR | | 02 13 00.0 | |
| | comp=Z,900nm,20.5s | | | | | | | |
| **STHS** | **Stebnicka Huta** | **143.79** | **342** | *e*PKIKP | | **PKPdf** | **01 07 46.3** | **+0.4** |
| **STHS** | **Stebnicka Huta** | **143.79** | **342** | *e*PKP | | **PKPdf** | **01 07 46.3** | **+0.4** |
| **BURAR** | **Bucovina Array** | **144.02** | **337** | ⇓*i* P | | **PKPdf** | **01 07 47.0** | **+0.6** |
| **BURAR** | **Bucovina Array** | **144.02** | **337** | ⇓PKIKP | | **PKPdf** | **01 07 47.0** | **+0.6** |
| **UPC** | **Upice** | **144.05** | **348** | *e*PKP | | **PKPdf** | **01 07 46.1** | **-0.2** |
| UPC | | | | *e*pPKP | | **PKiKP** | **01 07 48.9** | **-0.9** |
| **UPC** | **Upice** | **144.05** | **348** | *e*PKIKP | | **PKPdf** | **01 07 46.1** | **-0.2** |
| **BRG** | **Berggiesshubel** | **144.06** | **351** | *e*PKIKP | | **PKPdf** | **01 07 47.7** | **+1.5** |
| BRG | | | | pmax | pmax | | | |
| | comp=Z,18nm,1.4s | | | | | | | |
| **DPC** | **Dobruska-Polom** | **144.14** | **348** | *e*PKP | | **PKPab** | **01 07 43.7** | **-0.4** |
| DPC | | | | *e*pPKP | | **PKPdf** | **01 07 46.7** | **+0.2** |
| **DPC** | **Dobruska-Polom** | **144.14** | **348** | *e*PKIKP | | **PKPab** | **01 07 43.7** | **-0.4** |
| **UZH** | **Uzhgorod** | **144.17** | **341** | *e*PKIKP | | **PKPab** | **01 07 42.4** | **-1.7** |
| UZH | | | | *i* | | | 01 07 51.0 | |
| UZH | | | | MLR | MLR | | | |
| | comp=N,350nm,20.0s | | | | | | | |
| UZH | | | | MLR | MLR | | | |
| | comp=E,400nm,20.0s | | | | | | | |
| UZH | | | | MLR | MLR | | | |
| | comp=Z,150nm,20.0s | | | | | | | |
| **CRVS** | **Cervenica-Dubn** | **144.19** | **342** | *e*PKIKP | | **PKPdf** | **01 07 47.5** | **+0.9** |
| **CRVS** | **Cervenica-Dubn** | **144.19** | **342** | *e*PKP | | **PKPdf** | **01 07 47.5** | **+0.9** |
| **KRLC** | **Kraliky** | **144.31** | **347** | *e*PKP | | **PKPdf** | **01 07 46.4** | **-0.4** |
| KRLC | | | | *e*pPKP | | **PKiKP** | **01 07 48.6** | **-1.8** |
| **KRLC** | **Kraliky** | **144.31** | **347** | *e*PKIKP | | **PKPdf** | **01 07 46.4** | **-0.4** |
| **KMBO** | **Kilima Mbogo** | **144.40** | **245** | PKP | | PKPbc | 01 07 47.1 | +0.5 |
| | comp=Z,9.0nm,1.0s,baz=105,slow=2.7,SNR=21 | | | | | | | |
| **KMBO** | **Kilima Mbogo** | **144.40** | **245** | *e*PKIKP | | PKPbc | 01 07 47.0 | +0.3 |
| KMBO | | | | MLR | MLR | | | |
| | comp=Z,1μm,21.0s | | | | | | | |
| **KMBO** | **Kilima Mbogo** | **144.40** | **245** | *e*PKPdf | | PKPbc | 01 07 47.0 | +0.3 |
| KMBO | | | | LR | LR | | | |
| | comp=Z,1μm,21.0s | | | | | | | |
| **MORC** | **Moravsky Berou** | **144.42** | **346** | ⇓*i* P | | **PKPab** | **01 07 44.8** | **-0.3** |
| **MORC** | **Moravsky Berou** | **144.42** | **346** | *e*PKIKP | | **PKPab** | **01 07 44.6** | **-0.5** |
| **MORC** | **Moravsky Berou** | **144.42** | **346** | *e*PKPdf | | **PKPab** | **01 07 44.6** | **-0.5** |
| **TRPA** | **Tarpa** | **144.53** | **340** | ⇑*e*PKPdf | | PKPbc | 01 07 46.2 | +0.5 |
| **LANS** | **Liptovska Anna** | **144.53** | **344** | *e*PKIKP | | **PKPdf** | **01 07 50.5** | **+3.3** |
| **LANS** | **Liptovska Anna** | **144.53** | **344** | *e*PKP | | **PKPdf** | **01 07 50.5** | **+3.3** |
| **BMR** | **Baia Mare** | **144.60** | **339** | ⇓*i* P | | **PKPab** | **01 07 45.8** | **0.0** |
| **BMR** | **Baia Mare** | **144.60** | **339** | ⇓PKIKP | | **PKPab** | **01 07 45.8** | **0.0** |
| **CFR** | **Carcaliu** | **144.75** | **332** | ⇓*i* P | | **PKPab** | **01 07 46.0** | **-0.4** |
| **CFR** | **Carcaliu** | **144.75** | **332** | ⇓PKIKP | | **PKPab** | **01 07 46.0** | **-0.4** |
| **PRA** | **Prague** | **144.76** | **350** | *e*PKIKP | | **PKPab** | **01 07 45.8** | **-0.5** |
| PRA | | | | *e*pPKP | | **PKPdf** | **01 07 48.6** | **+1.1** |
| **PRA** | **Prague** | **144.76** | **350** | *e*PKIKP | | **PKPab** | **01 07 45.8** | **-0.5** |
| **ARCR** | **ARCALIA** | **144.78** | **337** | ⇓*i* P | | **PKPab** | **01 07 46.2** | **-0.3** |
| **PRU** | **Pruhonice** | **144.82** | **350** | *e*PKP | | **PKPab** | **01 07 46.0** | **-0.5** |
| PRU | | | | *e*pPKP | | **PKPdf** | **01 07 48.1** | **+0.5** |
| PRU | | | | AMS | AMS | | 02 12 00.0 | |
| | comp=Z,1μm,16.8s | | | | | | | |
| **PRU** | **Pruhonice** | **144.82** | **350** | *e*PKIKP | | **PKPab** | **01 07 46.0** | **-0.5** |
| PRU | | | | MLR | MLR | | | |
| | comp=Z,1μm,16.8s | | | | | | | |
| **VRI** | **Vrincioaia** | **144.83** | **334** | ⇓*i* P | | **PKPab** | **01 07 45.9** | **-0.8** |
| **VRI** | **Vrincioaia** | **144.83** | **334** | ⇓PKIKP | | **PKPab** | **01 07 45.9** | **-0.8** |
| **GOPC** | **GO Pecny, Ondr** | **144.85** | **349** | *e*PKP | | **PKPab** | **01 07 45.8** | **-0.9** |
| GOPC | | | | *e*pPKP | | **PKPdf** | **01 07 48.3** | **+0.6** |
| **GOPC** | **GO Pecny, Ondr** | **144.85** | **349** | *e*PKIKP | | **PKPab** | **01 07 45.8** | **-0.9** |
| **KECS** | **Kecovo** | **144.85** | **342** | *e*PKIKP | | **PKPdf** | **01 07 48.4** | **+0.7** |
| **KECS** | **Kecovo** | **144.85** | **342** | *e*PKP | | **PKPdf** | **01 07 48.4** | **+0.7** |
| **PLOR** | **Plostina** | **144.88** | **334** | ⇑*i* P | | **PKPab** | **01 07 43.8** | **-3.1** |
| **PLOR** | **Plostina** | **144.88** | **334** | ⇑PKHKP | | PKPpre | 01 07 43.8 | |
| **NKC** | **Novy Kostel** | **144.90** | **352** | *e*PKP | | **PKPdf** | **01 07 48.5** | **+0.7** |
| NKC | | | | AMS | AMS | | 02 25 20.0 | |
| | comp=Z,2μm,14.7s | | | | | | | |
| **NKC** | **Novy Kostel** | **144.90** | **352** | *e*PKIKP | | **PKPdf** | **01 07 48.5** | **+0.7** |
| NKC | | | | MLR | MLR | | | |
| | comp=Z,2μm,14.7s | | | | | | | |
| **MEM** | **Membach** | **145.00** | **359** | PKP | | **PKPab** | **01 07 45.9** | **-1.3** |
| **VRAC** | **Vranov** | **145.07** | **347** | ⇑*i* P | | **PKPbc** | **01 07 46.9** | **-0.6** |
| **VRAC** | **Vranov** | **145.07** | **347** | ⇑PKIKP | | **PKPbc** | **01 07 46.9** | **-0.6** |
| **TIRR** | **Tirgusor** | **145.16** | **331** | *e*PKIKP | | **PKPdf** | **01 07 49.2** | **+0.9** |
| **TIRR** | **Tirgusor** | **145.16** | **331** | *e*PKPbc | | **PKPdf** | **01 07 49.2** | **+0.9** |
| **BCLA** | **Clavier** | **145.19** | **0** | PKP | | **PKPdf** | **01 07 49.0** | **+0.8** |
| **VYHS** | **Vyhne** | **145.30** | **344** | *e*PKIKP | | **PKPbc** | **01 07 47.8** | **-0.4** |
| **VYHS** | **Vyhne** | **145.30** | **344** | *e*PKP | | **PKPbc** | **01 07 47.8** | **-0.4** |
| **DOPR** | **Dopca** | **145.31** | **335** | ⇓*i* P | | **PKPbc** | **01 07 48.4** | **+0.1** |
| **CJR** | **Cluj-Napoca** | **145.38** | **338** | ⇑*i* P | | **PKPbc** | **01 07 47.0** | **-1.5** |
| **CJR** | **Cluj-Napoca** | **145.38** | **338** | ⇑PKIKP | | **PKPbc** | **01 07 47.1** | **-1.5** |
| **MLR** | **Muntele Rosu** | **145.46** | **334** | ⇑*i* P | | **PKPbc** | **01 07 47.7** | **-1.3** |
| **MLR** | **Muntele Rosu** | **145.46** | **334** | ⇑PKIKP | | **PKPbc** | **01 07 47.7** | **-1.3** |
| **BRTR** | **Keskin Array B** | **145.48** | **320** | PKPbc | | **PKPdf** | **01 07 47.8** | **-1.5** |
| | comp=Z,4.1nm,0.8s,baz=114,slow=2.0,SNR=18 | | | | | | | |
| **ISR** | **Istrita** | **145.50** | **333** | ⇓*i* P | | **PKPdf** | **01 07 47.4** | **-1.6** |
| **ISR** | **Istrita** | **145.50** | **333** | ⇓PKIKP | | **PKPdf** | **01 07 47.4** | **-1.6** |
| **DOU** | **Dourbes** | **145.51** | **1** | PKP | | **PKPdf** | **01 07 49.1** | **+0.3** |
| **PSZ** | **Piszkesteto** | **145.53** | **343** | ⇑*i* P | | **PKPdf** | **01 07 48.1** | **-1.0** |
| **PSZ** | **Piszkesteto** | **145.53** | **343** | *e*PKIKP | | **PKPdf** | **01 07 48.0** | **-1.0** |
| PSZ | | | | MLR | MLR | | | |
| | comp=Z,2μm,21.0s | | | | | | | |
| **PSZ** | **Piszkesteto** | **145.53** | **343** | ⇑*e*PKPbc | | **PKPab** | **01 07 50.2** | **+0.9** |
| **PSZ** | **Piszkesteto** | **145.53** | **343** | *e*PKPbc | | **PKPdf** | **01 07 48.0** | **-1.0** |
| PSZ | | | | LR | LR | | | |
| | comp=Z,2μm,21.0s | | | | | | | |
| **GRFO** | **Grafenberg** | **145.59** | **353** | *e*PKIKP | | **PKPdf** | **01 07 47.5** | **-1.4** |
| **GRFO** | **Grafenberg** | **145.59** | **353** | *e*PKPdf | | **PKPdf** | **01 07 47.5** | **-1.4** |
| **DRGR** | | **145.63** | **339** | ⇑*i* P | | **PKPdf** | **01 07 47.4** | **-1.8** |
| **DRGR** | | **145.63** | **339** | ⇑PKP2 | | **PKPdf** | **01 07 47.4** | **-1.8** |
| **SMOL** | **Smolenice** | **145.63** | **346** | *e*PKIKP | | **PKPab** | **01 07 49.8** | **+0.2** |
| **SMOL** | **Smolenice** | **145.63** | **346** | *e*PKP | | **PKPab** | **01 07 49.8** | **+0.2** |
| **SECR** | | **145.78** | **334** | ⇑*i* P | | **PKPbc** | **01 07 50.0** | **+0.2** |
| **KHC** | **Kasperske Hory** | **145.81** | **350** | *e*PKP | | **PKPdf** | **01 07 48.3** | **-1.1** |
| KHC | | | | *e*pPKP | | **PKPab** | **01 07 51.7** | **+1.5** |
| KHC | | | | AMS | AMS | | 02 12 00.0 | |
| | comp=Z,2μm,26.2s | | | | | | | |
| **KHC** | **Kasperske Hory** | **145.81** | **350** | *e*PKP2 | | **PKPdf** | **01 07 49.0** | **-0.4** |
| **KHC** | **Kasperske Hory** | **145.81** | **350** | *e*PKPbc | | **PKPdf** | **01 07 49.0** | **-0.4** |
| **PSN** | **Preselentsi** | **145.85** | **330** | *e*P | | **PKPab** | **01 07 52.3** | **+1.8** |
| **VOIR** | | **145.88** | **335** | ⇓*i* P | | **PKPdf** | **01 07 49.1** | **-0.6** |
| **VOIR** | | **145.88** | **335** | ⇓PKP2 | | **PKPdf** | **01 07 49.1** | **-0.6** |
| **ANTO** | **Ankara** | **145.92** | **321** | *e*PKP2 | | **PKPdf** | **01 07 49.8** | **-0.1** |
| ANTO | | | | MLR | MLR | | | |
| | comp=Z,635nm,20.0s | | | | | | | |
| **ANTO** | **Ankara** | **145.92** | **321** | *e*PKPbc | | **PKPdf** | **01 07 49.8** | **-0.1** |
| ANTO | | | | LR | LR | | | |
| | comp=Z,635nm,20.0s | | | | | | | |
| **WLF** | **Walferdange** | **145.94** | **359** | PKP | | **PKPab** | **01 07 52.0** | **+1.3** |
| **WLF** | **Walferdange** | **145.94** | **359** | *e*PKP2 | | **PKPab** | **01 07 51.6** | **+1.0** |
| WLF | | | | MLR | MLR | | | |
| | comp=Z,3μm,19.0s | | | | | | | |
| **WLF** | **Walferdange** | **145.94** | **359** | *e*PKPbc | | **PKPab** | **01 07 51.6** | **+1.0** |
| WLF | | | | LR | LR | | | |
| | comp=Z,3μm,19.0s | | | | | | | |
| **SULR** | | **145.98** | **333** | ⇓*i* P | | **PKPdf** | **01 07 50.1** | **+0.4** |
| **MTUR** | **Matau** | **146.04** | **335** | ⇓*i* P | | **PKPab** | **01 07 52.2** | **+0.9** |
| **MTUR** | **Matau** | **146.04** | **335** | ⇓PKP2 | | **PKPab** | **01 07 52.2** | **+0.9** |
| **GERES** | **GERESS Array B** | **146.07** | **350** | PKPbc | | **PKPdf** | **01 07 48.6** | **-1.3** |
| | comp=Z,8.3nm,0.8s,baz=31,slow=3.1,SNR=23 | | | | | | | |
| **ARR** | **Arges** | **146.10** | **335** | ⇑*i* P | | **PKPdf** | **01 07 50.1** | **+0.1** |
| **DEV** | **Deva** | **146.34** | **338** | ⇑*i* P | | **PKPab** | **01 07 53.3** | **+1.0** |
| **DEV** | **Deva** | **146.34** | **338** | ⇑PKP2 | | **PKPab** | **01 07 53.3** | **+1.0** |
| **LOT** | **Lotru** | **146.38** | **336** | ⇑*i* P | | **PKPdf** | **01 07 47.2** | **-3.4** |
| **SIRR** | **Siria** | **146.44** | **339** | ⇓*i* P | | **PKPdf** | **01 07 50.7** | **+0.2** |
| **CSKK** | **Cs˘tkako** | **146.49** | **344** | ⇑*e*PKPdf | | **PKPab** | **01 07 57.9** | **+5.1** |
| **CONA** | **Conrad Observa** | **146.54** | **347** | *i* pPKPdf | | **PKPbc** | **01 07 52.2** | **0.0** |
| | comp=Z,45nm,1.0s,SNR=15 | | | | | | | |
| **SOP** | **Sopron** | **146.61** | **346** | ⇑*e*PKPdf | | **PKPab** | **01 07 55.4** | **+2.1** |
| **HUMR** | **Humele** | **146.64** | **334** | ⇑*i* P | | **PKPbc** | **01 07 52.6** | **+0.2** |
| **STU** | **Stuttgart** | **146.69** | **355** | *e*PKP2 | | **PKPab** | **01 07 53.4** | **-0.1** |
| **STU** | **Stuttgart** | **146.69** | **355** | *e*PKPbc | | **PKPab** | **01 07 53.4** | **-0.1** |
| **SHEL** | **Horse Pasture** | **146.86** | **160** | PFAKE | | | 01 08 00.0 | +4.9 |
| SHEL | | | | LR | LR | | | |
| | comp=Z,484nm,19.0s | | | | | | | |
| **ASF** | **Jabal al Asfar** | **146.89** | **306** | PKPbc | | **PKPbc** | **01 07 53.4** | **-0.3** |
| | comp=Z,3.3nm,0.8s,baz=176,slow=2.0,SNR=7.7 | | | | | | | |
| **MOA** | **Molln** | **146.93** | **349** | *i* sPKPdf | | **PKPab** | **01 07 54.5** | **-0.1** |
| | comp=Z,24nm,0.9s,SNR=6.4 | | | | | | | |
| **BZS** | **Buzias** | **147.03** | **339** | ⇑*i* P | | **PKPbc** | **01 07 54.1** | **+0.6** |
| **BZS** | **Buzias** | **147.03** | **339** | ⇑PKP2 | | **PKPbc** | **01 07 54.1** | **+0.6** |
| **BFO** | **Black Forest** | **147.19** | **356** | *c* PKP2 | | **PKPbc** | **01 07 53.7** | **-0.2** |
| **BFO** | **Black Forest** | **147.19** | **356** | *e*PKPbc | | **PKPbc** | **01 07 54.2** | **+0.3** |
| BFO | | | | LR | LR | | | |
| | comp=Z,1μm,20.0s | | | | | | | |
| **ARSA** | **Arzberg** | **147.25** | **347** | *i* PKPbc | | **PKPdf** | **01 07 52.8** | **+0.9** |
| | comp=Z,23nm,1.4s | | | | | | | |
| **ECH** | **Echery** | **147.36** | **358** | PKP | | **PKPdf** | **01 07 51.6** | **-0.4** |
| **ECH** | **Echery** | **147.36** | **358** | *e*PKP2 | | **PKPbc** | **01 07 54.6** | **+0.2** |
| ECH | | | | MLR | MLR | | | |
| | comp=Z,2μm,20.0s | | | | | | | |
| **ECH** | **Echery** | **147.36** | **358** | *e*PKPbc | | **PKPbc** | **01 07 54.6** | **+0.2** |
| ECH | | | | LR | LR | | | |
| | comp=Z,2μm,20.0s | | | | | | | |
| **HERR** | **Herculane** | **147.37** | **337** | ⇑*i* P | | **PKPdf** | **01 07 53.3** | **+1.2** |
| **THEF** | **They Montfort** | **147.38** | **359** | PKP | | **PKPdf** | **01 07 52.1** | **+0.1** |
| **BANR** | **Banloc** | **147.40** | **339** | ⇑*i* P | | **PKPab** | **01 07 55.9** | **-0.5** |
| **BEHE** | **Becsehely** | **147.70** | **345** | ⇓*e*PKPdf | | **PKPab** | **01 07 58.9** | **+1.3** |
| **MMAI** | **Mount Meron Ar** | **147.70** | **308** | PKPbc | | **PKPdf** | **01 07 54.6** | **+1.5** |
| | comp=Z,4.3nm,0.7s,baz=77,slow=4.4,SNR=14 | | | | | | | |
| **MDVR** | **Moldovita** | **147.71** | **338** | ⇓*i* P | | **PKPdf** | **01 07 54.1** | **+1.4** |
| **MOF** | **Molkenrain** | **147.73** | **358** | PKP | | **PKPbc** | **01 07 56.6** | **+1.1** |
| **RETA** | **Reutte** | **147.81** | **353** | *i* PKiKP | | **PKPbc** | **01 07 56.6** | **+0.9** |
| | comp=Z,49nm,1.3s | | | | | | | |
| **KBA** | **Koelnbreinsper** | **147.84** | **350** | *i* pPKPdf | | **PKPbc** | **01 07 55.0** | **-1.0** |
| | comp=Z,19nm,0.8s | | | | | | | |
| **WATA** | **Walderalm** | **147.86** | **352** | *i* sPKPdf | | **PKPbc** | **01 07 55.8** | **-0.1** |
| | comp=Z,26nm,0.8s | | | | | | | |
| **SOKA** | **Soboth** | **147.90** | **347** | *i* PKPbc | | **PKPdf** | **01 07 54.1** | **+1.1** |
| | comp=Z,20nm,1.3s,SNR=11 | | | | | | | |
| **MOTA** | **Moosalm** | **147.91** | **353** | *i* sPKPdf | | **PKPbc** | **01 07 55.8** | **-0.3** |
| | comp=Z,36nm,1.1s,SNR=14 | | | | | | | |
| **WTTA** | **Wattenberg** | **147.92** | **352** | *i* sPKPdf | | **PKPbc** | **01 07 55.7** | **-0.5** |
| | comp=Z,20nm,0.8s | | | | | | | |
| **PERS** | **Pernice** | **147.92** | **347** | *i* PKPdf | | **PKPdf** | **01 07 54.1** | **+1.0** |
| **DAVA** | **Damuels** | **148.10** | **354** | *i* pPKPbc | | **PKPbc** | **01 07 58.1** | **+1.5** |
| | comp=Z,34nm,1.0s | | | | | | | |
| **OBKA** | **Obir** | **148.16** | **348** | *i* PKPab | | **PKPbc** | **01 07 57.7** | **+1.0** |
| | comp=Z,15nm,1.3s | | | | | | | |
| **MYKA** | **Terra Mystica** | **148.22** | **349** | *i* pPKPdf | | **PKPdf** | **01 07 55.3** | **+1.8** |
| | comp=Z,19nm,1.1s | | | | | | | |
| **FETA** | **Feichten** | **148.27** | **353** | *i* PKPbc | | **PKPdf** | **01 07 55.1** | **+1.3** |
| | comp=Z,19nm,1.2s | | | | | | | |
| **ABTA** | **Abfaltersbach** | **148.30** | **351** | *i* PKPbc | | **PKPdf** | **01 07 54.0** | **+0.3** |
| | comp=Z,32nm,1.1s,SNR=8.3 | | | | | | | |
| **CSS** | **Mathiatis** | **148.31** | **313** | *e*PKPbc | | **PKPbc** | **01 07 57.5** | **+0.1** |
| CSS | | | | *e*PKPab | | **PKPab** | **01 08 00.3** | **-0.1** |
| CSS | | | | LR | LR | | | |
| | comp=Z,216nm,22.0s | | | | | | | |
| **KDZ** | **Kurdzhali** | **148.72** | **330** | *e*P | | **PKPbc** | **01 07 57.7** | **-0.5** |
| **VISS** | **Visnje** | **148.78** | **347** | *i* PKPdf | | **PKPbc** | **01 07 59.7** | **+1.5** |
| **JAVS** | **Javornik** | **148.85** | **348** | *i* PKPdf | | **PKPbc** | **01 07 59.6** | **+1.1** |
| **TUE** | **Stuetta** | **148.96** | **355** | *e*PKPbc | | **PKPdf** | **01 07 57.1** | **+2.1** |
| TUE | | | | LR | LR | | | |
| | comp=Z,2μm,19.0s | | | | | | | |
| **BOJS** | **Bojanci** | **148.97** | **346** | *i* PKPdf | | **PKPbc** | **01 08 00.3** | **+1.6** |
| **VTS** | **Vitosha** | **148.97** | **334** | ⇓*i* P | | **PKPbc** | **01 07 59.9** | **+0.9** |
| **VTS** | **Vitosha** | **148.97** | **334** | ⇓PKP2 | | **PKPbc** | **01 07 59.9** | **+0.9** |
| **VTS** | **Vitosha** | **148.97** | **334** | *e*P | | **PKPbc** | **01 07 59.2** | **+0.2** |
| **EIL** | **Elat** | **149.37** | **302** | PKPbc | | **PKPbc** | **01 07 59.8** | **-0.4** |
| | comp=Z,6.6nm,0.8s,baz=87,slow=6.0,SNR=6.5 | | | | | | | |
| **AGO** | **Saint Agoulin** | **149.50** | **3** | PKP | | **PKPbc** | **01 08 01.6** | **+1.5** |
| **ASCN** | **Ascension** | **149.60** | **139** | PFAKE | | | 01 08 10.0 | +3.9 |
| ASCN | | | | LR | LR | | | |
| | comp=Z,1μm,22.0s | | | | | | | |
| **KKB** | **Krupnik** | **149.61** | **333** | *e*P | | **PKPbc** | **01 07 59.8** | **-0.7** |
| **PYM** | **Petit Puy Mans** | **149.80** | **3** | PKP | | **PKPbc** | **01 08 02.3** | **+1.4** |
| **SKO** | **Skopje** | **150.21** | **335** | *i* PKP | | **PKPbc** | **01 08 02.6** | **+0.7** |
| **VAY** | **Valandovo** | **150.28** | **333** | *e*PKP | | **PKPbc** | **01 08 02.0** | **-0.1** |
| **SSB** | **Saint Sauveur** | **150.33** | **1** | *e*PKIKP | | **PKPbc** | **01 08 01.2** | **-0.9** |
| SSB | | | | MLR | MLR | | | |
| | comp=Z,2μm,20.0s | | | | | | | |
| **SSB** | **Saint Sauveur** | **150.33** | **1** | *e*PKPbc | | **PKPbc** | **01 08 01.2** | **-0.9** |
| SSB | | | | LR | LR | | | |
| | comp=Z,2μm,20.0s | | | | | | | |
| **LBL** | **Lubilhac** | **150.33** | **3** | PKP | | **PKPbc** | **01 08 04.4** | **+2.2** |
| **BNI** | **Bardonecchia** | **150.54** | **358** | PFAKE | | | 01 08 10.0 | +0.7 |
| BNI | | | | LR | LR | | | |
| | comp=Z,4μm,21.0s | | | | | | | |
| **KRUS** | **Krusevo** | **150.80** | **335** | *i* PKP | | **PKPbc** | **01 08 01.9** | **-1.6** |
| **BIA** | **Bitola** | **151.06** | **335** | *e*PKP | | **PKPbc** | **01 08 01.5** | **-2.5** |
| **VLC** | **Villacollemand** | **151.13** | **352** | PFAKE | | | 01 08 10.0 | -1.6 |
| VLC | | | | LR | LR | | | |
| | comp=Z,2μm,22.0s | | | | | | | |
| **PGAV** | **Gavieira, Arco** | **151.15** | **21** | *i* P | | **PKPdf** | **01 07 58.0** | **-0.4** |
| **PGAV** | **Gavieira, Arco** | **151.15** | **21** | *e*PKP | | **PKPbc** | **01 08 06.2** | **+2.0** |
| **OHR** | **Ohrid** | **151.20** | **335** | *i* PKP | | **PKPbc** | **01 08 03.9** | **-0.4** |
| **TIR** | **Tirane** | **151.36** | **337** | PFAKE | | | 01 08 10.0 | -2.6 |
| TIR | | | | LR | LR | | | |
| | comp=Z,2μm,20.0s | | | | | | | |
| **POLO** | **Lamas de Olo** | **151.84** | **21** | *i* P | | **PKPdf** | **01 08 01.7** | **+2.3** |
| **POLO** | **Lamas de Olo** | **151.84** | **21** | *e*PKP | | **PKPbc** | **01 08 10.5** | **+4.7** |
| **PVRL** | **Vila Real** | **151.95** | **21** | *e*PKP | | **PKPbc** | **01 08 10.1** | **+4.1** |
| **SACV** | **Santiago Islan** | **152.06** | **87** | PFAKE | | | 01 08 10.0 | +3.0 |
| SACV | | | | LR | LR | | | |
| | comp=Z,595nm,19.0s | | | | | | | |
| **MVO** | **Moncorvo** | **152.28** | **20** | *i* P | | **PKPbc** | **01 08 04.5** | **-2.3** |
| **MVO** | **Moncorvo** | **152.28** | **20** | *e*PKP | | **PKPbc** | **01 08 11.0** | **+4.2** |
| **AQU** | **L'Aquila** | **152.38** | **347** | PFAKE | | | 01 08 10.0 | +3.0 |
| AQU | | | | LR | LR | | | |
| | comp=Z,2μm,19.0s | | | | | | | |
| **PVIS** | **Viseu** | **152.38** | **22** | *e*PKP | | **PKPbc** | **01 08 09.5** | **+2.5** |
| **SANT** | **Santorini** | **152.57** | **323** | PFAKE | | | 01 08 10.0 | +2.4 |
| SANT | | | | LR | LR | | | |
| | comp=Z,746nm,19.0s | | | | | | | |
| **PCAS** | **Casmilo, Conde** | **152.73** | **24** | *e*PKP | | **PKPbc** | **01 08 10.9** | **+3.1** |
| **MTE** | **Manteigas** | **152.78** | **22** | PFAKE | | | 01 08 10.0 | +2.0 |
| MTE | | | | LR | LR | | | |
| | comp=Z,2μm,19.0s | | | | | | | |
| **MTE** | **Manteigas** | **152.78** | **22** | *i* P | | **PKPdf** | **01 08 03.1** | **+2.3** |
| **MTE** | **Manteigas** | **152.78** | **22** | *e*PKP | | **PKPbc** | **01 08 11.8** | **+3.8** |
| **PTOM** | **Tomar** | **153.14** | **24** | *i* P | | **PKPdf** | **01 08 03.1** | **+1.8** |
| **PTOM** | **Tomar** | **153.14** | **24** | *e*PKP | | **PKPbc** | **01 08 07.3** | **-1.4** |
| **PCBR** | **Castelo Branco** | **153.30** | **22** | *e*PKP | | **PKPbc** | **01 08 07.8** | **-1.2** |
| **IDI** | **Anoyia** | **153.66** | **322** | PKPbc | | **PKPbc** | **01 08 10.4** | **+0.3** |
| | comp=Z,8.7nm,1.1s,baz=280,slow=1.9,SNR=4.6 | | | | | | | |
| **PMRV** | **Marv??o** | **153.69** | **23** | *i* P | | **PKPdf** | **01 08 05.5** | **+3.4** |
| **PMRV** | **Marv??o** | **153.69** | **23** | *e*PKP | | **PKPbc** | **01 08 11.9** | **+2.0** |
| **CUC** | **Castrocucco** | **153.96** | **341** | PFAKE | | | 01 08 10.0 | -0.5 |
| CUC | | | | LR | LR | | | |
| | comp=Z,1μm,21.0s | | | | | | | |
| **ESDC** | **Sonseca Array** | **154.59** | **17** | PKP | | **PKPdf** | **01 08 05.8** | **+2.4** |
| | comp=Z,0.7nm,0.7s,baz=284,slow=0.8,SNR=3.7 | | | | | | | |
| **PAB** | **San Pablo** | **154.60** | **18** | PFAKE | | | 01 08 10.0 | -1.9 |
| PAB | | | | LR | LR | | | |
| | comp=Z,2μm,22.0s | | | | | | | |
| **CEL** | **Celeste** | **155.51** | **340** | PFAKE | | | 01 08 20.0 | -10 |
| CEL | | | | LR | LR | | | |
| | comp=Z,2μm,21.0s | | | | | | | |
| **VSL** | **Villasalto** | **155.85** | **352** | PFAKE | | | 01 08 20.0 | -12 |
| VSL | | | | LR | LR | | | |
| | comp=Z,2μm,20.0s | | | | | | | |
| **CLTB** | **Caltabellotta** | **156.95** | **344** | PFAKE | | | 01 08 20.0 | +13 |
| CLTB | | | | LR | LR | | | |
| | comp=Z,1μm,21.0s | | | | | | | |
| **WDD** | **Wied Dalam** | **158.17** | **340** | PFAKE | | | 01 08 20.0 | +12 |
| WDD | | | | LR | LR | | | |
| | comp=Z,2μm,21.0s | | | | | | | |
| **KEST** | **Kesra** | **159.56** | **351** | PKPab | | **PKPab** | **01 08 47.0** | **-0.8** |
| | comp=Z,13nm,1.2s,baz=163,slow=2.5,SNR=4.9 | | | | | | | |
| **MDT** | **Midelt** | **160.55** | **26** | PKP | | **PKPdf** | **01 08 12.1** | **+0.9** |
| | comp=Z,2.0nm,0.9s,baz=345,slow=5.9,SNR=3.1 | | | | | | | |
| **LIC** | **Lamto** | **166.25** | **131** | *e*P | | **PKPdf** | **01 08 13.6** | **-3.3** |
| | comp=Z,47nm,1.5s | | | | | | | |
| **TIC** | **Toumodi** | **166.54** | **130** | *e*P | | **PKPdf** | **01 08 17.5** | **+0.4** |
| **KIC** | **Kosan Boka** | **166.55** | **132** | *e*P | | **PKPdf** | **01 08 14.8** | **-2.3** |
| | comp=Z,49nm,1.5s | | | | | | | |
| **DBIC** | **Dimbokro** | **166.68** | **130** | PKP | | **PKPdf** | **01 08 17.1** | **-0.1** |
| | comp=Z,4.3nm,1.1s,baz=210,slow=4.7,SNR=5.1 | | | | | | | |
| DBIC | | | | PKPab | | **PKPab** | **01 09 20.8** | **+1.1** |
| | comp=Z,4.6nm,1.1s,baz=208,slow=7.5,SNR=2.5 | | | | | | | |
| **TAM** | **Tamanrasset** | **172.76** | **359** | *e*PKIKP | | **PKPdf** | **01 08 20.4** | **-0.4** |
| TAM | | | | *e* | | | 01 09 45.8 | |
| TAM | | | | MLR | MLR | | | |
| | comp=Z,2μm,20.0s | | | | | | | |
| **TAM** | **Tamanrasset** | **172.76** | **359** | *e*PKPdf | | **PKPdf** | **01 08 20.4** | **-0.4** |
| TAM | | | | *e*

comp=N,5.0nm,0.3s
CLNS pmax pmax
comp=Z,12nm,0.3s
**YLYR Ulyunkhan 4.05 250** *e*Pn **Pn 01 31 02.0 -0.4**
YLYR *e* 01 31 06.7
YLYR *e*Pg **Pb 01 31 11.2 -0.9**
YLYR Pmax 01 31 15.7
comp=Z,30nm,0.6s
YLYR *e*Sg **Sb 01 32 03.3 +2.5**
YLYR Smax 01 32 04.7
comp=Z,535nm,0.8s
**YLYR Ulyunkhan 4.05 250** *e*P **Pn 01 31 02.1 -0.4**
YLYR *e*S **Sn 01 31 46.8 -2.8**
YLYR pmax pmax
comp=Z,30nm,0.6s
YLYR smax smax
comp=N,541nm,0.9s
**VTMR Vitim 4.08 319** *e*Pg **Pb 01 31 15.0 +2.6**
VTMR *e* 01 31 56.6
VTMR *e*Sg **Sg 01 32 08.5 -3.3**
**TNDR Tynda 4.15 106** *e*Pg **Pg 01 31 16.9 -3.5**
TNDR *e* 01 31 55.6
TNDR *e*Sg **Sg 01 32 11.4 -2.7**
TNDR *e* 01 32 16.9
**NIZ Nizh Angarsk 4.65 265** *e*Pn **Pn 01 31 11.6 +1.0**
NIZ *e*Pg **Pb 01 31 22.9 +0.7**
NIZ Pmax 01 31 24.9
comp=N,25nm,0.6s
NIZ *e*Sg **Sb 01 32 22.9 +5.1**
NIZ Smax 01 32 27.2
comp=N,212nm,0.8s
**NIZ Nizh Angarsk 4.65 265** *e*P **Pb 01 31 23.9 +1.7**
NIZ pmax pmax
comp=Z,24nm,0.6s
**CIT Chita 5.08 211** *e*Pn **Pb 01 31 26.3 -3.3**
CIT *e*Pg Pg 01 31 30.8 -7.6
CIT Pmax 01 31 31.3
comp=Z,113nm,0.3s
CIT *e*Sn **Sn 01 32 12.2 -2.8**
CIT *e*Sg **Sb 01 32 36.1 +5.7**
CIT Smax 01 32 43.2
comp=Z,300nm,0.2s
**CIT Chita 5.08 211** *e*P **Pb 01 31 29.0 -0.6**
CIT *e*S **Sn 01 32 11.5 -3.5**
CIT pmax pmax
comp=Z,156nm,0.3s
CIT smax smax
comp=E,298nm,0.7s
**SYVR Suvo 5.27 241** *e*Pn **Pn 01 31 18.2 -0.9**
SYVR *e*Pg **Pb 01 31 32.9 +0.2**
SYVR Pmax 01 31 34.1
comp=E,41nm,0.9s
SYVR *e*Sg **Sb 01 32 40.3 +4.6**
SYVR Smax 01 32 43.3
comp=E,433nm,1.1s
**SYVR Suvo 5.27 241** *e*P **Pb 01 31 31.7 -1.0**
SYVR pmax pmax
comp=Z,42nm,0.9s
**MXMB Maximikha 6.11 242** *e*Sg **Sb 01 33 06.7 +6.9**
**OGRR Ongureny 6.48 248** *e*Pg **Pb 01 31 55.1 +1.7**
OGRR *e* 01 31 59.9
OGRR max 01 32 33.4
comp=Z,24nm,1.4s
OGRR *e*Sg **Sb 01 33 17.6 +7.0**
OGRR Smax 01 33 23.9
comp=Z,185nm,1.4s
**OGRR Ongureny 6.48 248** *e*P **Pn 01 31 35.3 -0.5**
OGRR pmax pmax
comp=Z,1.0nm,0.6s
**TRTB Turuntaevo 7.28 239** *e*Pg **Pb 01 32 09.4 +2.5**
TRTB Pmax 01 32 19.9
comp=Z,7.0nm,0.4s
TRTB *e*Sg **Sb 01 33 41.3 +7.9**
TRTB Smax 01 33 45.0
comp=Z,222nm,1.2s
**UUDB Ulan-Yde 7.50 236** *e*Pg **Pb 01 32 12.6 +1.9**
UUDB Pmax 01 32 23.3
comp=Z,42nm,0.7s
UUDB *e*Sg Sb 01 33 48.7 +9.0
UUDB *e* 01 33 54.5
UUDB max 01 33 55.1
comp=Z,332nm,0.8s
**KPC Khapcheranga 7.50 208** *e*Pn **Pn 01 31 47.2 -2.6**
KPC *e*Pg **Pb 01 32 12.7 +1.9**
KPC Pmax 01 32 15.9
comp=Z,8.0nm,0.6s
KPC *e*Sg Sb 01 33 48.7 +8.8
KPC Smax 01 33 53.9
comp=Z,122nm,1.1s
**KPC Khapcheranga 7.50 208** *e*P **Pn 01 31 47.1 -2.7**
KPC pmax pmax
comp=Z,9.0nm,0.4s
**TRG Tyrgan 7.59 246** *e*Pg **Pb 01 32 14.6 +2.4**
TRG Pmax 01 32 40.8
comp=Z,10.0nm,1.0s
TRG *e*Sg Sb 01 33 52.5 +10
TRG Smax 01 34 03.2
comp=Z,100nm,1.1s
**KAB Kabansk 7.86 240** *e*Sg Sb 01 34 00.2 +10
KAB *e* 01 34 06.5
KAB max 01 34 19.4
comp=Z,653nm,0.8s
**STDB Stepnoy Dvoret 7.92 242** *e*Sg Sb 01 34 02.7 +11
**HRMR Khuramsha 7.98 237** *e*Pn **Pn 01 31 55.3 -1.1**
HRMR *e* 01 32 05.0
HRMR *e*Pg **Pb 01 32 21.6 +2.6**
HRMR Pmax 01 32 30.4
comp=Z,10.0nm,0.4s
HRMR *e*Sg Sb 01 34 04.1 +10
HRMR *e* 01 34 14.4
HRMR max 01 34 15.0
comp=Z,653nm,0.9s
**YAK Yakutsk 8.27 43** *e*P **Pn 01 31 59.4 -0.8**
YAK *e* 01 33 35.7
YAK pmax pmax
comp=Z,12nm,0.6s
YAK pmax pmax
comp=N,3.0nm,0.5s
YAK pmax pmax
comp=E,3.0nm,0.6s
YAK smax smax
comp=N,15nm,0.6s
YAK smax smax
comp=E,6.0nm,0.6s
**BGT Bolshoye Golou 8.47 244** *e*Sg Sb 01 34 20.9 +13
BGT Smax 01 34 55.4
comp=E,118nm,1.9s
**LSTR Listvyanka 8.86 244** *e* 01 34 09.4
LSTR *e*Sg Sn 01 34 31.9 +44
LSTR Smax 01 34 45.8
comp=E,119nm,1.7s
**IRK Irkutsk 8.93 247** *e* 01 34 07.3
IRK *e*Sg Sn 01 34 33.7 +44
IRK Smax 01 34 39.8
comp=E,163nm,1.4s
**IVK Ivanovka 9.11 245** *e* 01 33 57.8
IVK *e*Sg Sn 01 34 39.9 +46
IVK Smax 01 34 59.3
comp=E,71nm,1.6s
**TLY Talaya 9.57 246** *e* Pn 01 32 44.3 +26
TLY *e*Sg Sn 01 34 51.6 +46
TLY Smax 01 35 02.5
comp=E,47nm,1.9s
**TLY Talaya 9.57 246** *e*P **Pn 01 32 19.3 +1.2**
**ARS Arshan 10.06 250** *e* Pn 01 32 58.4 +34
ARS max 01 33 14.1
comp=E,7.0nm,0.6s
ARS *e* 01 34 43.9
ARS *e*Sg Sn 01 35 08.5 +51
ARS *e* 01 35 15.4
ARS max 01 35 17.5
comp=E,166nm,1.0s
**ZAK Zakamensk 10.55 241** *e*Sg Sn 01 35 23.9 +54
ZAK Smax 01 35 42.3
comp=E,60nm,1.2s
**ULN Ulaanbaatar 10.82 222** *e*P **Pn 01 32 34.0 -1.3**
**MOY Mondy 10.95 251** *e*Pg Pn 01 33 16.2 +39
MOY Pmax 01 33 46.7
comp=E,8.0nm,1.3s
MOY *e* 01 35 03.5
MOY *e*Sg Sn 01 35 36.5 +57
MOY Smax 01 35 43.4
comp=E,79nm,1.5s
**ORL Orlik 11.14 257** *e* Pn 01 32 52.9 +13
ORL max 01 33 17.8
comp=E,2.0nm,0.5s
ORL *e* 01 35 00.1
ORL *e*Sg Sn 01 35 39.4 +56
ORL Smax 01 35 56.0
comp=E,73nm,2.4s
**TIXI Tiksi 15.95 13** *e*P **Pn 01 33 43.1 -1.4**
TIXI pmax pmax
comp=Z,1.0nm,0.8s
**YSS Yuzh-Sakhalins 18.09 111** P **Pn 01 34 11.2 -0.2**
**KURK Kurchatov 23.68 273** *e*P **P 01 35 12.7 +1.0**
KURK pmax pmax
comp=Z,1.0nm,1.0s
**BRVK Borovoye 27.17 283** *e*P **P 01 35 44.1 +0.7**
BRVK pmax pmax
comp=Z,2.0nm,1.2s

*NIED* **14** *01:50:00,43.70N×147.80E,h23km,Mw4.3 Best double couple: M○3.38000×10^15 NP1:ϕs219.00000°,δ21.00000°, λ92.00000°. NP2:ϕs37.00000°,δ69.00000°,λ89.00000°.*
*JMA* **14** *01:50:29.2±0.3,43.66N×147.81E,h0km,M4.8*
*ISCJB* **14** *01:50:31.9±0.6,43.88N±0.04×147.89E±0.04,h42km±4km, mb4.5/69,MS4.7/1, Error ellipse: s-maj=7.2km s-min=3.9km az=146.9*
*SKHL* **14** *01:50:32.4±0.4,43.84N×147.99E,h48km±3km,mb5.0/5*
*MOS* **14** *01:50:33.6±1.0,44.18N×147.71E,h44km,mb4.7/32,Error ellipse: s-maj=7.0km s-min=5.9km az=96.9*
*NEIC* **14** *01:50:34.5±0.7,43.95N×147.83E,h49km±6km,mb4.7/31, Error ellipse: s-maj=8.5km s-min=3.9km az=149.0*
*IDC* **14** *01:50:35.8±2.2,43.99N×147.87E,h60km±19km,mb3.9/22, mb1 4.1/28,mb1mx4.0/44,mbtmp4.2/28,Error ellipse: s-maj=17.1km s-min=11.6km az=149.0*

**ISC 14 01:50:31.4±1.3,43.88N±0.05×147.91E±0.05,h27km±8km, n221,σ1§07/231,mb4.6/69,18C-12D,Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SHO** | **Shikotan** | **0.78** | **270** | *d i*PN | **Pb** | **01 50 46.0** | **-0.3** |
| SHO | | | | *e*S | **Sb** | **01 50 56.0** | **-0.6** |
| SHO | | | | pmax | pmax | | |
| | comp=N,687nm,0.2s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=Z,787nm,0.2s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=E,674nm,0.3s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=N,10μm,0.4s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=E,7μm,0.4s | | | | | | |
| **SHO** | **Shikotan** | **0.78** | **270** | *e*P | **Pb** | **01 50 46.1** | **-0.3** |
| SHO | | | | AMB | AMB | 01 50 47.4 | |
| | comp=E,1μm,0.2s | | | | | | |
| SHO | | | | *i* S | **Sb** | **01 50 55.8** | **-0.8** |
| SHO | | | | A | A | 01 50 57.9 | |
| | comp=E,4μm,0.3s | | | | | | |
| SHO | | | | A | A | 01 50 57.9 | |
| | comp=E,8μm,0.3s | | | | | | |
| **KUR** | **Kuril'sk** | **1.36** | **359** | *d i*PN | **Pb** | **01 50 55.0** | **-1.2** |
| KUR | | | | pmax | pmax | | |
| | comp=N,26nm,0.2s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=Z,166nm,0.2s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=E,77nm,0.1s | | | | | | |
| **KUR** | **Kuril'sk** | **1.36** | **359** | *e*P | **Pb** | **01 50 55.2** | **-1.0** |
| KUR | | | | AMB | AMB | 01 50 56.3 | |
| | comp=E,174nm,0.4s | | | | | | |
| KUR | | | | AMB | AMB | 01 50 56.3 | |
| | comp=E,162nm,0.4s | | | | | | |
| KUR | | | | AMB | AMB | 01 50 56.3 | |
| | comp=E,793nm,0.4s | | | | | | |
| KUR | | | | *i* S | **Sb** | **01 51 12.1** | **-1.0** |
| KUR | | | | A | A | 01 51 14.3 | |
| | comp=E,4μm,0.4s | | | | | | |
| KUR | | | | A | A | 01 51 14.3 | |
| | comp=E,2μm,0.4s | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **1.49** | **277** | *d i*PN | **Pn** | **01 50 56.3** | **-0.1** |
| YUK | | | | *i* S | **Sn** | **01 51 14.5** | **-0.4** |
| YUK | | | | pmax | pmax | | |
| | comp=N,192nm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=E,252nm,0.2s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,2μm,0.2s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=E,4μm,0.2s | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **1.49** | **277** | *e*P | **Pn** | **01 50 56.2** | **-0.1** |
| YUK | | | | AMB | AMB | 01 50 57.7 | |
| | comp=E,192nm,0.2s | | | | | | |
| YUK | | | | AMB | AMB | 01 50 57.7 | |
| | comp=E,252nm,0.2s | | | | | | |
| YUK | | | | AMB | AMB | 01 50 57.7 | |
| | comp=E,944nm,0.2s | | | | | | |
| YUK | | | | *e*S | **Sn** | **01 51 14.0** | **-0.9** |
| YUK | | | | A | A | 01 51 18.2 | |
| | comp=E,4μm,0.3s | | | | | | |
| YUK | | | | A | A | 01 51 18.2 | |
| | comp=E,5μm,0.3s | | | | | | |
| **LAGR** | **Lagunnoye** | **1.54** | **277** | *d i*PN | **Pn** | **01 50 57.1** | **0.0** |
| LAGR | | | | *i* S | **Sn** | **01 51 15.8** | **-0.5** |
| **LAGR** | **Lagunnoye** | **1.54** | **277** | *e*P | **Pn** | **01 50 57.1** | **0.0** |
| LAGR | | | | *e*S | **Sn** | **01 51 15.8** | **-0.5** |
| **GRPR** | **Tuman** | **1.55** | **275** | *d i*PN | **Pn** | **01 50 57.2** | **0.0** |
| GRPR | | | | *e*S | **Sn** | **01 51 16.0** | **-0.4** |
| **GRPR** | **Tuman** | **1.55** | **275** | *e*P | **Pn** | **01 50 57.2** | **0.0** |
| GRPR | | | | *e*S | **Sn** | **01 51 16.0** | **-0.4** |
| **NEM2** | **Nemuro 2** | **1.65** | **253** | P | **Pn** | **01 50 57.6** | **-1.0** |
| NEM2 | | | | *e*S | **Sn** | **01 51 18.6** | **-0.4** |
| **GLVR** | **Golovnino** | **1.73** | **266** | *d i*PN | **Pn** | **01 51 00.1** | **+0.3** |
| GLVR | | | | *e*S | **Sn** | **01 51 21.2** | **+0.2** |
| **GLVR** | **Golovnino** | **1.73** | **266** | *e*P | **Pn** | **01 51 00.1** | **+0.3** |
| GLVR | | | | *e*S | **Sn** | **01 51 21.2** | **+0.2** |
| **JRA** | **Rausu** | **2.02** | **273** | P | **Pn** | **01 51 04.1** | **+0.5** |
| JRA | | | | *e*S | **Sn** | **01 51 29.2** | **+1.3** |
| **JNK** | **Nakash** | **2.33** | **264** | P | **Pn** | **01 51 07.9** | **-0.1** |
| **JAK** | **Akkeshi** | **2.50** | **251** | P | **Pn** | **01 51 09.6** | **-0.7** |
| **JTKR** | **Abashiri--Toko** | **2.89** | **273** | P | **Pn** | **01 51 17.1** | **+1.4** |
| JTKR | | | | *e*S | **Sn** | **01 51 51.9** | **+2.4** |
| **JAR** | **Ashorobuto** | **3.06** | **261** | P | **Pn** | **01 51 18.7** | **+0.7** |
| **JOB** | **Onbets** | **3.12** | **253** | P | **Pn** | **01 51 19.2** | **+0.3** |
| JOB | | | | *e*S | **Sn** | **01 51 55.9** | **+0.6** |
| **JMP** | **Maruseppu** | **3.29** | **274** | P | **Pn** | **01 51 22.7** | **+1.5** |
| **JCH** | **Churui** | **3.55** | **251** | P | **Pn** | **01 51 25.1** | **+0.3** |
| JCH | | | | *e*S | **Sn** | **01 52 07.1** | **+1.2** |
| **JKA** | **Kamikawa-asahi** | **3.84** | **275** | *e*P | **Pn** | **01 51 32.0** | **+3.3** |
| **ASAJ** | **Asahikawa** | **3.84** | **275** | P | **Pn** | **01 51 32.0** | **+3.3** |
| | comp=E,4.0nm,0.3s,baz=96,slow=16,SNR=15 | | | | | | |
| **ASAJ** | **Asahikawa** | **3.84** | **275** | *e*Pn | **Pn** | **01 51 32.0** | **+3.3** |
| **ERM** | **Erimo** | **3.95** | **244** | *e*PN | **Pn** | **01 51 33.1** | **+2.8** |
| **ERM** | **Erimo** | **3.95** | **244** | *e*P | **Pn** | **01 51 33.1** | **+2.8** |
| **ERM** | **Erimo** | **3.95** | **244** | *e*Pn | **Pn** | **01 51 32.6** | **+2.3** |
| **YSS** | **Yuzh-Sakhalins** | **4.76** | **312** | *i*ePN | **Pn** | **01 51 43.1** | **+1.8** |
| YSS | | | | *e*S | **Sn** | **01 52 37.0** | **+1.5** |
| YSS | | | | pmax | pmax | | |
| | comp=Z,40nm,0.3s | | | | | | |
| YSS | | | | smax | smax | | |
| | comp=E,50nm,1.0s | | | | | | |
| YSS | | | | MLR | MLR | | |
| | comp=Z,500nm,14.0s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **4.76** | **312** | *e*P | **Pn** | **01 51 43.4** | **+2.1** |
| YSS | | | | AMB | AMB | 01 51 43.8 | |
| | comp=Z,40nm,0.3s | | | | | | |
| YSS | | | | *e*S | **Sn** | **01 52 37.0** | **+1.5** |
| **YSS** | **Yuzh-Sakhalins** | **4.76** | **312** | *e*Pn | **Pn** | **01 51 43.0** | **+1.7** |
| **UGL** | **Uglegorsk** | **6.58** | **324** | *e*PN | **Pn** | **01 52 04.5** | **-1.8** |
| **TYV** | **Tymovskoe** | **7.84** | **335** | *e*PN | Pn | 01 52 16.5 | -7.2 |
| TYV | | | | pmax | pmax | | |
| | comp=Z,6.0nm,2.1s | | | | | | |
| **TYV** | **Tymovskoe** | **7.84** | **335** | *e*P | **Pn** | **01 52 25.9** | **+2.2** |
| **TEY** | **Ternei** | **8.17** | **282** | *e*rx | rx | 01 52 37.5 | |
| **HABR** | **Khabarovsk** | **10.03** | **302** | *e*PN | **Pn** | **01 52 52.2** | **-1.4** |
| HABR | | | | pmax | pmax | | |
| | comp=N,7.0nm,0.9s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=E,17nm,0.9s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.9s | | | | | | |
| **MJA0** | **Matsu Arr-Jizo** | **10.40** | **228** | *e*PN | Pn | 01 53 06.8 | +8.0 |
| MJA0 | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.3s | | | | | | |
| **MAJO** | **Matsushiro** | **10.42** | **229** | *i*ePN | Pn | 01 53 05.3 | +6.3 |
| MAJO | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.2s | | | | | | |
| **MAJO** | **Matsushiro** | **10.42** | **229** | *e*P | **Pn** | **01 53 00.2** | **+1.2** |
| **MJAR** | **Matsushiro Arr** | **10.42** | **229** | P | Pn | 01 53 04.4 | +5.4 |
| | comp=Z,0.6nm,0.3s,baz=28,slow=13,SNR=4.5 | | | | | | |
| **PEA0B** | **Petropavlovsk-** | **11.28** | **32** | *e*Pn | **Pn** | **01 53 12.1** | **+1.3** |
| **PETK** | **Petropavlovsk-** | **11.28** | **32** | P | **Pn** | **01 53 12.2** | **+1.5** |
| | comp=Z,0.5nm,0.3s,baz=204,slow=9.4,SNR=4.9 | | | | | | |
| **PETK** | **Petropavlovsk-** | **11.28** | **32** | *e*Pn | **Pn** | **01 53 10.1** | **-0.7** |
| **PEA1** | **Petropavlovsk-** | **11.29** | **32** | *e*Pn | **Pn** | **01 53 12.2** | **+1.5** |
| **USRK** | **Ussuriysk Ar.** | **11.47** | **277** | P | **Pn** | **01 53 17.7** | **+4.4** |
| | comp=Z,0.2nm,0.3s,baz=98,slow=16,SNR=5.5 | | | | | | |
| **KLR** | **Kul'dur** | **12.34** | **301** | P | Pn | 01 53 30.8 | +5.6 |
| | comp=Z,0.0nm,0.3s,baz=103,slow=13,SNR=16 | | | | | | |
| **EKMR** | **Ekimchan** | **13.51** | **318** | *e*P | **Pn** | **01 53 44.0** | **+2.9** |
| **BMKR** | **Bomnak** | **16.44** | **318** | *e*P | **Pn** | **01 54 21.0** | **+1.0** |
| BMKR | | | | AMB | AMB | 01 54 25.0 | |
| | comp=Z,10.0nm,0.6s | | | | | | |
| **KSRS** | **Korea Array** | **16.45** | **254** | P | **P** | **01 54 21.6** | **-1.2** |
| | comp=Z,0.2nm,0.3s,baz=48,slow=16,SNR=3.2 | | | | | | |
| **KS15** | **Wonju Array Si** | **16.48** | **254** | *e*Pn | **Pn** | **01 54 21.6** | **+0.9** |
| **KSAR** | **Wonju Array Be** | **16.48** | **254** | P | **Pn** | **01 54 21.6** | **+0.9** |
| **KSAR** | **Wonju Array Be** | **16.48** | **254** | P | **Pn** | **01 54 21.6** | **+0.9** |
| **ZEA** | **Zeya** | **16.75** | **313** | *e*rx | rx | 01 54 27.2 | |
| **CBIJ** | **Chichi jima** | **17.37** | **197** | *e*Pn | **Pn** | **01 54 29.6** | **-2.2** |
| | comp=Z,158nm,1.0s | | | | | | |
| **SEY** | **Seymchan** | **19.27** | **6** | P | **P** | **01 54 52.5** | **-1.2** |
| | comp=Z,0.4nm,0.3s,baz=127,slow=20,SNR=5.5 | | | | | | |
| **YAK** | **Yakutsk** | **21.10** | **336** | *i*P | **P** | **01 55 13.5** | **0.0** |
| YAK | | | | pmax | pmax | | |
| | comp=Z,16nm,1.0s | | | | | | |
| **YAK** | **Yakutsk** | **21.10** | **336** | *e*P | **P** | **01 55 14.8** | **+1.3** |
| **ULN** | **Ulaanbaatar** | **28.49** | **293** | *i*P | **P** | **01 56 23.7** | **-0.7** |
| ULN | | | | pmax | pmax | | |
| | comp=Z,1.0nm,1.0s | | | | | | |
| **ULN** | **Ulaanbaatar** | **28.49** | **293** | *e*P | **P** | **01 56 23.7** | **-0.7** |
| **H11N2** | **WAKE ISLAND Hy** | **28.84** | **141** | T | T | 02 27 04.6 | |
| | baz=331,slow=76,SNR=228 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.86** | **141** | T | T | 02 27 05.6 | |
| | baz=331,slow=76,SNR=268 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.86** | **141** | T | T | 02 27 13.5 | |
| | baz=331,slow=76,SNR=210 | | | | | | |
| **YHNB** | **Yeheng** | | **28.92** | **237** | *e*P | **P** | **01 56 28.8** | **+0.6** |
| | comp=Z,123nm,1.5s | | | | | | |
| **SONA1** | **Songino Array** | | **28.92** | **293** | *e*P | **P** | **01 56 26.1** | **-2.2** |
| **SONA0** | **Songino Array** | | **28.93** | **293** | *e*P | **P** | **01 56 28.6** | **+0.4** |
| **SONM** | **Songino Array** | | **28.93** | **293** | P | **P** | **01 56 28.6** | **+0.4** |
| | comp=Z,0.9nm,0.5s,baz=86,slow=7.9,SNR=7.4 | | | | | | |
| **SONM** | **Songino Array** | | **28.93** | **293** | *e*P | **P** | **01 56 28.8** | **+0.5** |
| SONM | | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.4s | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | | **29.82** | **142** | T | T | 02 28 12.0 | |
| | baz=332,slow=76,SNR=746 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | | **29.83** | **142** | T | T | 02 28 21.4 | |
| | baz=332,slow=76,SNR=391 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | | **29.84** | **142** | T | T | 02 28 16.5 | |
| | baz=332,slow=76,SNR=298 | | | | | | |
| **TPUB** | **Ta-pu** | | **30.39** | **236** | *e*P | **P** | **01 56 39.9** | **-1.3** |
| | comp=Z,119nm,1.7s | | | | | | |
| **SVW2** | **Sparrevohn** | | **37.10** | **42** | *e*P | **P** | **01 57 39.3** | **+0.1** |
| | comp=Z,55nm,1.8s | | | | | | |
| **IMAR** | **Indian Mountai** | | **38.23** | **34** | *e*P | **P** | **01 57 49.5** | **+0.8** |
| **KDAK** | **Kodiak Island** | | **38.76** | **48** | P | **P** | **01 57 53.5** | **+0.4** |
| | comp=Z,2.7nm,0.6s,baz=292,slow=5.4,SNR=9.5 | | | | | | |
| **KDAK** | **Kodiak Island** | | **38.76** | **48** | *i* P | **P** | **01 57 53.7** | **+0.6** |
| **KDAK** | **Kodiak Island** | | **38.76** | **48** | *e*P | **P** | **01 57 53.7** | **+0.6** |
| **KDAK** | **Kodiak Island** | | **38.76** | **48** | *e*P | **P** | **01 57 53.2** | **+0.1** |
| | comp=Z,123nm,2.0s | | | | | | |
| **CAST** | **Castle Rocks** | | **38.79** | **38** | *e*P | **P** | **01 57 54.8** | **+1.4** |
| | comp=Z,21nm,1.8s | | | | | | |
| **MLY** | **Manley** | | **39.42** | **36** | *e*P | **P** | **01 57 59.8** | **+1.1** |
| | comp=Z,3.0nm,0.7s | | | | | | |
| **COLD** | **Coldfoot** | | **39.75** | **32** | *e*P | **P** | **01 58 02.6** | **+1.3** |
| | comp=Z,7.2nm,1.3s | | | | | | |
| **MCK** | **McKinley** | | **40.20** | **38** | *e*P | **P** | **01 58 04.6** | **-0.5** |
| MCK | | | | | pmax | pmax | | |
| | comp=Z,40nm,1.8s | | | | | | |
| **MCK** | **McKinley** | | **40.20** | **38** | *e*P | **P** | **01 58 04.6** | **-0.5** |
| **MCK** | **McKinley** | | **40.20** | **38** | *e*P | **P** | **01 58 04.6** | **-0.5** |
| | comp=Z,40nm,1.8s | | | | | | |
| **MDM** | **Murphy Dome** | | **40.48** | **36** | *e*P | **P** | **01 58 09.0** | **+1.5** |
| | comp=Z,16nm,1.4s | | | | | | |
| **SML** | **Sawmill** | | **40.56** | **41** | *e*P | **P** | **01 58 08.5** | **+0.3** |
| SML | | | | | pmax | pmax | | |
| | comp=Z,16nm,1.2s | | | | | | |
| **SML** | **Sawmill** | | **40.56** | **41** | *e*P | **P** | **01 58 08.5** | **+0.3** |
| | comp=Z,16nm,1.2s | | | | | | |
| **COLA** | **College** | | **40.65** | **36** | *i*P | **P** | **01 58 09.9** | **+1.2** |
| COLA | | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.9s | | | | | | |
| **COLA** | **College** | | **40.65** | **36** | *e*P | **P** | **01 58 09.8** | **+1.1** |
| **CCB** | **Clear Creek Bu** | | **40.67** | **37** | *e*P | **P** | **01 58 09.6** | **+0.6** |
| | comp=Z,3.2nm,0.6s | | | | | | |
| **DHY** | **Denali Highway** | | **40.93** | **39** | *e*P | **P** | **01 58 11.4** | **+0.1** |
| | comp=Z,18nm,1.5s | | | | | | |
| **SCM** | **Sheep Creek Mo** | | **41.04** | **41** | *e*P | **P** | **01 58 12.9** | **+0.7** |
| SCM | | | | | pmax | pmax | | |
| | comp=Z,110nm,2.0s | | | | | | |
| **SCM** | **Sheep Creek Mo** | | **41.04** | **41** | *e*P | **P** | **01 58 12.9** | **+0.7** |
| | comp=Z,110nm,2.0s | | | | | | |
| **HDA** | **Harding Lake** | | **41.05** | **37** | *e*P | **P** | **01 58 12.6** | **+0.5** |
| | comp=Z,19nm,1.4s | | | | | | |
| **ILAR** | **Eielson Array** | | **41.06** | **36** | P | **P** | **01 58 12.8** | **+0.6** |
| | comp=Z,1.7nm,0.5s,baz=268,slow=8.4,SNR=34 | | | | | | |
| **ILB** | **Eielson Array** | | **41.06** | **36** | *e*P | **P** | **01 58 12.8** | **+0.6** |
| **IL1** | **Eielson Array** | | **41.06** | **36** | *e*P | **P** | **01 58 11.6** | **-0.6** |
| **ZAA1** | **Zalesovo Array** | | **41.36** | **307** | *e*P | **P** | **01 58 14.8** | **0.0** |
| ZAA1 | | | | | *e*PcP | **PcP** | **02 00 12.8** | **+0.2** |
| **ZALV** | **Zalesovo Beam** | | **41.36** | **307** | P | **P** | **01 58 14.8** | **0.0** |
| | comp=Z,0.7nm,0.3s,baz=68,slow=9.5,SNR=3.4 | | | | | | |
| ZALV | | | | | PcP | **PcP** | **02 00 12.8** | **+0.2** |
| | comp=Z,1.9nm,0.7s,baz=76,slow=3.9,SNR=7.2 | | | | | | |
| **FID** | **Port Fidalgo** | | **41.56** | **42** | *e*P | **P** | **01 58 14.5** | **-1.9** |
| | comp=Z,38nm,1.2s | | | | | | |
| **FYU** | **Fort Yukon** | | **41.70** | **34** | *e*P | **P** | **01 58 19.5** | **+2.2** |
| | comp=Z,35nm,1.6s | | | | | | |
| **KLU** | **Klutina** | | **41.74** | **41** | *e*P | **P** | **01 58 18.9** | **+1.0** |
| | comp=Z,12nm,1.3s | | | | | | |
| **HARP** | **HAARP** | | **42.00** | **40** | *e*P | **P** | **01 58 20.6** | **+0.6** |
| | comp=Z,89nm,1.9s | | | | | | |
| **BMRM** | **Bremner River** | | **42.44** | **42** | *e*P | **P** | **01 58 24.3** | **+0.7** |
| | comp=Z,37nm,1.6s | | | | | | |
| **MENT** | **Mentasta** | | **42.60** | **39** | *e*P | **P** | **01 58 26.8** | **+1.9** |
| | comp=Z,17nm,1.8s | | | | | | |
| **EGAK** | **Eagle** | | **43.51** | **36** | *e*P | **P** | **01 58 33.0** | **+0.9** |
| | comp=Z,31nm,2.0s | | | | | | |
| **DAWY** | **Dawson** | | **44.37** | **37** | *e*P | **P** | **01 58 39.5** | **+0.4** |
| | comp=Z,14nm,1.6s | | | | | | |
| **MK31** | **Makanchi Array** | | **45.01** | **298** | *c*e*e*P | **P** | **01 58 44.3** | **-0.1** |
| MK31 | | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.6s | | | | | | |
| **MK31** | **Makanchi Array** | | **45.01** | **298** | *e*P | **P** | **01 58 44.6** | **+0.2** |
| **MK32** | **Makanchi Array** | | **45.01** | **298** | *e*P | **P** | **01 58 44.2** | **-0.2** |
| MK32 | | | | | *e*PcP | **PcP** | **02 00 25.5** | **+0.4** |
| **MKAR** | **Makanchi Array** | | **45.01** | **298** | P | **P** | **01 58 44.2** | **-0.2** |
| | comp=Z,2.1nm,0.7s,baz=78,slow=8.5,SNR=20 | | | | | | |
| MKAR | | | | | PcP | **PcP** | **02 00 25.5** | **+0.4** |
| | comp=Z,0.8nm,0.8s,baz=84,slow=3.9,SNR=3.4 | | | | | | |
| **MKAR** | **Makanchi Array** | | **45.01** | **298** | *e*P | **P** | **01 58 44.5** | **+0.1** |
| MKAR | | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | |
| **MKAR** | **Makanchi Array** | | **45.01** | **298** | *e*P | **P** | **01 58 44.5** | **+0.1** |
| **MK01** | **Makanchi Array** | | **45.02** | **298** | *e*P | **P** | **01 58 44.3** | **-0.1** |
| **MAKZ** | **Makanchi** | | **45.21** | **298** | *i* P | **P** | **01 58 45.9** | **-0.1** |
| MAKZ | | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | |
| **MAKZ** | **Makanchi** | | **45.21** | **298** | *e*P | **P** | **01 58 45.9** | **-0.1** |
| | comp=Z,2.6nm,0.8s | | | | | | |
| **HYT** | **Haines Junctio** | | **45.87** | **41** | *e*P | **P** | **01 58 53.8** | **+2.7** |
| | comp=Z,8.7nm,0.9s | | | | | | |
| **KURK** | **Kurchatov** | | **45.91** | **304** | *c*e*e*P | **P** | **01 58 54.3** | **+2.9** |
| KURK | | | | | pmax | pmax | | |
| | comp=Z,32nm,2.5s | | | | | | |
| **KURK** | **Kurchatov** | | **45.91** | **304** | *e*P | **P** | **01 58 51.7** | **+0.3** |
| **INK** | **Inuvik** | | **46.02** | **30** | P | **P** | **01 58 53.1** | **+1.1** |
| | comp=Z,2.6nm,0.5s,baz=314,slow=7.3,SNR=10 | | | | | | |
| **INK** | **Inuvik** | | **46.02** | **30** | *e*P | **P** | **01 58 53.4** | **+1.4** |
| INK | | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.9s | | | | | | |
| **INK** | **Inuvik** | | **46.02** | **30** | *e*P | **P** | **01 58 53.4** | **+1.4** |
| **INK** | **Inuvik** | | **46.02** | **30** | *e*P | **P** | **01 58 53.4** | **+1.4** |
| | comp=Z,4.7nm,0.9s | | | | | | |
| **CM31** | **Chiang Mai Arr** | | **48.09** | **254** | *e*P | **P** | **01 59 09.9** | **+1.1** |
| **CMAR** | **Chiang Mai Arr** | | **48.09** | **254** | P | **P** | **01 59 09.9** | **+1.1** |
| | comp=Z,1.1nm,0.3s,baz=39,slow=7.5,SNR=4.9 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | | **48.09** | **254** | *i* P | **P** | **01 59 10.3** | **+1.5** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| CMAR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.3s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **48.09** | **254** | *eP* | **P** | **01 59 10.3** | **+1.5** |
| **PDGK** | **Podgornoye** | **48.21** | **294** | *i* P | **P** | **01 59 09.3** | **-0.4** |
| PDGK | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.8s | | | | | | |
| **BRVK** | **Borovoye** | **49.89** | **310⇑** | *eP* | **P** | **01 59 22.5** | **+0.3** |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.1s | | | | | | |
| **BRVK** | **Borovoye** | **49.89** | **310** | *eP* | **P** | **01 59 22.5** | **+0.3** |
| **TKM2** | **Tokmak 2** | **50.95** | **296** | *i* P | **P** | **01 59 31.0** | **+0.4** |
| TKM2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.1s | | | | | | |
| **ODAN** | **Odare** | **51.07** | **272** | *eP* | **P** | **01 59 32.6** | **+0.8** |
| **JIRN** | **Jiri** | **51.48** | **273** | *eP* | **P** | **01 59 34.8** | **-0.2** |
| | comp=Z,38nm,0.4s | | | | | | |
| **GUN** | **Gumba** | **51.55** | **274** | *eP* | **P** | **01 59 36.0** | **+0.5** |
| | comp=Z,8.1nm,0.4s | | | | | | |
| **RAMN** | **Ramite** | **51.59** | **272** | *eP* | **P** | **01 59 35.8** | **+0.1** |
| | comp=Z,23nm,0.5s | | | | | | |
| **AAK** | **Ala-Archa** | **51.80** | **296⇑** | *i* P | **P** | **01 59 37.1** | **+0.2** |
| AAK | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | |
| **AAK** | **Ala-Archa** | **51.80** | **296** | *eP* | **P** | **01 59 37.1** | **+0.2** |
| **AAK** | **Ala-Archa** | **51.80** | **296** | *eP* | **P** | **01 59 37.3** | **+0.3** |
| | comp=Z,2.6nm,0.5s | | | | | | |
| **KKN** | **Kakani** | **52.06** | **274** | *eP* | **P** | **01 59 39.6** | **+0.5** |
| **PKI** | **Pulchoki** | **52.09** | **274** | *eP* | **P** | **01 59 40.1** | **+0.6** |
| | comp=Z,4.7nm,0.5s | | | | | | |
| **PKIN** | **Phulchoki** | **52.10** | **274** | *eP* | **P** | **01 59 39.6** | **+0.1** |
| | comp=Z,8.4nm,0.5s | | | | | | |
| **DMN** | **Daman** | **52.29** | **274** | *eP* | **P** | **01 59 41.2** | **+0.3** |
| **DANN** | **Dangsing** | **52.83** | **275** | *eP* | **P** | **01 59 46.2** | **+1.3** |
| | comp=Z,2.5nm,0.9s | | | | | | |
| **KOLN** | **Koldanda** | **53.28** | **275** | *eP* | **P** | **01 59 48.7** | **+0.6** |
| | comp=Z,23nm,0.8s | | | | | | |
| **PYUN** | **Piuthan** | **53.53** | **276** | *eP* | **P** | **01 59 50.5** | **+0.5** |
| | comp=Z,26nm,0.9s | | | | | | |
| **KK31** | **Karatay Array** | **54.14** | **298** | *i* P | **P** | **01 59 53.5** | **-0.5** |
| KK31 | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.7s | | | | | | |
| **ARU** | **Arti** | **54.63** | **317** | P | **P** | **01 59 56.9** | **-0.4** |
| | baz=99,slow=14 | | | | | | |
| **ARU** | **Arti** | **54.63** | **317** | *d i*P | **P** | **01 59 56.9** | **-0.4** |
| ARU | | | | | | 02 00 58.7 | |
| ARU | | | | | | 02 01 57.7 | |
| ARU | | | | S | **S** | **02 07 33.6** | **-1.5** |
| ARU | | | | SS | **SS** | **02 11 16.0** | **-1.4** |
| ARU | | | | pmax | pmax | | |
| | comp=Z,17nm,2.5s | | | | | | |
| **ARU** | **Arti** | **54.63** | **317** | *eP* | **P** | **01 59 56.9** | **-0.4** |
| | comp=Z,9.9nm,1.3s | | | | | | |
| **RES** | **Resolute Bay** | **54.69** | **17** | P | **P** | **01 59 56.8** | **-0.7** |
| | comp=Z,2.9nm,0.7s,baz=339,slow=4.7,SNR=7.1 | | | | | | |
| **YKA** | **Yellowknife Ar** | **55.39** | **34** | P | **P** | **02 00 03.1** | **+0.4** |
| | comp=Z,0.5nm,0.6s,baz=302,slow=7.2,SNR=5.4 | | | | | | |
| **YKA** | **Yellowknife Ar** | **55.39** | **34** | *eP* | **P** | **02 00 03.3** | **+0.6** |
| YKA | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.5s | | | | | | |
| **YKA** | **Yellowknife Ar** | **55.39** | **34** | *eP* | **P** | **02 00 03.3** | **+0.6** |
| **YKB5** | **Yellowknife Ar** | **55.39** | **34** | *eP* | **P** | **02 00 03.1** | **+0.4** |
| **AB31** | **Akbulak array** | **57.41** | **309** | *i* P | **P** | **02 00 16.8** | **-0.5** |
| AB31 | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.4s | | | | | | |
| **AKTO** | **Aktyubinsk** | **57.87** | **311** | *i* P | **P** | **02 00 20.0** | **-0.6** |
| AKTO | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.0s | | | | | | |
| **ARA0** | **ARCESS Array S** | **59.32** | **340** | *eP* | **P** | **02 00 28.6** | **-1.7** |
| **ARCES** | **ARCESS Array B** | **59.32** | **340** | P | **P** | **02 00 28.6** | **-1.7** |
| | comp=Z,2.2nm,0.8s,baz=51,slow=7.7,SNR=5.9 | | | | | | |
| **KLMR** | **Klimovskoe** | **60.62** | **328** | *eP* | P | 02 00 33.6 | -5.8 |
| KLMR | | | | pmax | pmax | | |
| | comp=Z,14nm,1.4s | | | | | | |
| **WR1** | **Warramunga Arr** | **64.71** | **194** | *eP* | **P** | **02 01 07.5** | **+0.5** |
| | comp=Z,18nm,1.8s | | | | | | |
| **WRA** | **Warramunga Ar** | **64.71** | **194** | P | **P** | **02 01 07.5** | **+0.4** |
| | comp=Z,0.3nm,0.9s,baz=9.1,slow=6.6,SNR=4.8 | | | | | | |
| **GEYT** | **Alibeck** | **64.86** | **299** | P | **P** | **02 01 08.3** | **+0.3** |
| | comp=Z,7.6nm,0.4s,baz=20,slow=4.7,SNR=6.2 | | | | | | |
| **FIA0** | **FINESS Array S** | **65.01** | **333** | *eP* | **P** | **02 01 07.7** | **-0.9** |
| **FIA0** | **FINESS Array S** | **65.01** | **333** | *eP* | **P** | **02 01 07.7** | **-0.9** |
| **FINES** | **FINESS Array B** | **65.01** | **333** | P | **P** | **02 01 07.7** | **-0.9** |
| | comp=Z,4.1nm,0.5s,baz=41,slow=7.4,SNR=36 | | | | | | |
| **FINES** | **FINESS Array B** | **65.01** | **333** | *eP* | **P** | **02 01 07.6** | **-1.0** |
| **VRH** | **Novokhopyorsk** | **65.79** | **319** | *eP* | **P** | **02 01 12.5** | **-1.3** |
| VRH | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.7s | | | | | | |
| **LPSR** | **Galich'ya Gora** | **66.18** | **321** | *eP* | **P** | **02 01 15.6** | **-0.7** |
| LPSR | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.6s | | | | | | |
| **VSR** | **Storozhevoye** | **66.99** | **320** | *eP* | **P** | **02 01 21.1** | **-0.4** |
| VSR | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.6s | | | | | | |
| **AS31** | **Alice Springs** | **68.43** | **194** | *eP* | **P** | **02 01 31.1** | **+0.4** |
| | comp=Z,3.7nm,1.7s | | | | | | |
| **ASAR** | **Alice Springs** | **68.43** | **194** | P | **P** | **02 01 31.1** | **+0.4** |
| | comp=Z,0.3nm,0.7s,baz=18,slow=6.3,SNR=2.9 | | | | | | |
| **FRB** | **Frobisher Bay** | **68.90** | **16** | P | **P** | **02 01 32.7** | **-0.6** |
| | comp=Z,5.7nm,0.4s,baz=255,slow=9.8,SNR=8.5 | | | | | | |
| **PD31** | **Pinedale Array** | **69.41** | **50** | *eP* | **P** | **02 01 37.2** | **+0.1** |
| **PDAR** | **Pinedale Array** | **69.41** | **50** | P | **P** | **02 01 37.2** | **+0.1** |
| | comp=Z,0.4nm,0.5s,baz=266,slow=2.5,SNR=7.8 | | | | | | |
| **NB2** | **NORSAR Subarra** | **69.68** | **339** | P | **P** | **02 01 37.8** | **-0.4** |
| | comp=Z,2.2nm,0.6s,baz=31,slow=6.5 | | | | | | |
| **NB200** | **NORSAR Array S** | **69.68** | **339** | *eP* | **P** | **02 01 38.1** | **-0.1** |
| **NOA** | **NORSAR Array B** | **69.68** | **339** | P | **P** | **02 01 38.1** | **-0.1** |
| | comp=Z,0.9nm,0.5s,baz=33,slow=5.8,SNR=3.9 | | | | | | |
| **NOA** | **NORSAR Array B** | **69.68** | **339** | *eP* | **P** | **02 01 37.9** | **-0.3** |
| NOA | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.6s | | | | | | |
| **KIV** | **Kislovodsk** | **70.09** | **312** | *eP* | **P** | **02 01 41.9** | **+0.8** |
| KIV | | | | pmax | pmax | | |
| | comp=Z,30nm,1.1s | | | | | | |
| **KIV** | **Kislovodsk** | **70.09** | **312** | *eP* | **P** | **02 01 41.9** | **+0.8** |
| **KBZ** | **Khabaz** | **70.13** | **312** | P | **P** | **02 01 42.4** | **+1.2** |
| | comp=Z,11nm,0.8s,baz=81,slow=3.0,SNR=35 | | | | | | |
| **ZEI** | **Tsey** | **70.21** | **311** | *eP* | **P** | **02 01 40.9** | **-1.1** |
| ZEI | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.7s | | | | | | |
| **ZEI** | **Tsey** | **70.21** | **311** | *eP* | **P** | **02 01 40.9** | **-1.1** |
| **AKASG** | **Malin Array Be** | **71.80** | **324** | P | **P** | **02 01 50.8** | **-0.4** |
| | comp=Z,4.4nm,0.5s,baz=40,slow=6.3,SNR=23 | | | | | | |
| **AKBB** | **Malin Array Si** | **71.80** | **324** | *eP* | **P** | **02 01 51.0** | **-0.2** |
| AKBB | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.9s | | | | | | |
| **AKBB** | **Malin Array Si** | **71.80** | **324** | *eP* | **P** | **02 01 51.0** | **-0.2** |
| | comp=Z,7.6nm,0.9s | | | | | | |
| **BURAR** | **Bucovina Array** | **75.86** | **324⇑** | *i*P | **P** | **02 02 14.8** | **-0.4** |
| **BURAR** | **Bucovina Array** | **75.86** | **324⇑** | P | **P** | **02 02 14.8** | **-0.4** |
| **STHS** | **Stebnicka Huta** | **76.05** | **327** | *eP* | **P** | **02 02 16.6** | **+0.4** |
| STHS | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.2s | | | | | | |
| **STHS** | **Stebnicka Huta** | **76.05** | **327** | *eP* | **P** | **02 02 16.6** | **+0.4** |
| **CFR** | **Carcaliu** | **76.45** | **321⇓** | *i*P | **P** | **02 02 18.6** | **+0.2** |
| **CFR** | **Carcaliu** | **76.45** | **321⇓** | P | **P** | **02 02 18.6** | **+0.2** |
| **DPC** | **Dobruska-Polom** | **77.12** | **331** | *eP* | **P** | **02 02 23.1** | **+0.8** |
| **DPC** | **Dobruska-Polom** | **77.12** | **331** | *eP* | **P** | **02 02 23.1** | **+0.8** |
| **MORC** | **Moravsky Berou** | **77.16** | **330⇑** | *i*P | **P** | **02 02 23.4** | **+0.9** |
| **MORC** | **Moravsky Berou** | **77.16** | **330⇑** | P | **P** | **02 02 23.4** | **+0.9** |
| **KRLC** | **Kraliky** | **77.19** | **330** | *eP* | **P** | **02 02 23.7** | **+1.1** |
| **KRLC** | **Kraliky** | **77.19** | **330** | *eP* | **P** | **02 02 23.7** | **+1.1** |
| **CLL** | **Collm** | **77.45** | **333⇓** | *i*P | **P** | **02 02 24.0** | **0.0** |
| CLL | | | | pmax | pmax | | |
| | comp=Z,13nm,1.0s | | | | | | |
| CLL | | | | MLR | MLR | | |
| | comp=Z,400nm,21.2s | | | | | | |
| **CLL** | **Collm** | **77.45** | **333⇓** | *i*P | **P** | **02 02 24.0** | **0.0** |
| | comp=Z,13nm,1.0s | | | | | | |
| CLL | | | | Lm | MLR | 02 44 00.0 | |
| | comp=Z,400nm,21.2s | | | | | | |
| **CLL** | **Collm** | **77.45** | **333** | *eP* | **P** | **02 02 24.0** | **0.0** |
| **VOIR** | | **77.63** | **323⇑** | *i*P | **P** | **02 02 25.0** | **-0.2** |
| **VOIR** | | **77.63** | **323⇑** | P | **P** | **02 02 25.0** | **-0.2** |
| **BR101** | **Keskin Array S** | **77.85** | **314** | *eP* | **P** | **02 02 26.8** | **+0.1** |
| **BRTR** | **Keskin Array B** | **77.85** | **314** | P | **P** | **02 02 26.8** | **+0.1** |
| | comp=Z,0.8nm,0.5s,baz=112,slow=2.4,SNR=7.1 | | | | | | |
| **BRTR** | **Keskin Array B** | **77.85** | **314** | *eP* | **P** | **02 02 27.0** | **+0.4** |
| BRTR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.5s | | | | | | |
| **VRAC** | **Vranov** | **77.89** | **330⇑** | *i*P | **P** | **02 02 26.8** | **+0.3** |
| **VRAC** | **Vranov** | **77.89** | **330⇑** | P | **P** | **02 02 26.8** | **+0.3** |
| **PRU** | **Pruhonice** | **78.05** | **331** | *eP* | **P** | **02 02 27.7** | **+0.3** |
| **PRU** | **Pruhonice** | **78.05** | **331** | *eP* | **P** | **02 02 27.7** | **+0.3** |
| **PRU** | **Pruhonice** | **78.05** | **331** | *eP* | **P** | **02 02 27.7** | **+0.3** |
| **KHC** | **Kasperske Hory** | **79.11** | **331** | *eP* | **P** | **02 02 33.7** | **+0.4** |
| **KHC** | **Kasperske Hory** | **79.11** | **331** | *eP* | **P** | **02 02 33.7** | **+0.4** |
| **GERES** | **GERESS Array B** | **79.31** | **331** | P | **P** | **02 02 34.2** | **-0.2** |
| | comp=Z,0.9nm,0.5s,baz=44,slow=5.6,SNR=11 | | | | | | |
| **VTS** | **Vitosha** | **80.69** | **322⇓** | *i*P | **P** | **02 02 42.5** | **+0.4** |
| **VTS** | **Vitosha** | **80.69** | **322⇓** | P | **P** | **02 02 42.5** | **+0.4** |
| **LTX** | **Lajitas** | **82.12** | **57** | *eP* | **P** | **02 02 50.4** | **+0.6** |
| **LTX** | **Lajitas** | **82.12** | **57** | *eP* | **P** | **02 02 50.4** | **+0.6** |
| **TXAR** | **Lajitas Array** | **82.12** | **57** | P | **P** | **02 02 50.4** | **+0.5** |
| | comp=Z,0.9nm,0.5s,baz=297,slow=4.0,SNR=27 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **115.42** | **323** | *e*PKPdf | **PKPdf** | **02 09 09.7** | **-1.4** |
| **TORD** | **Torodi Ar. Bea** | **115.43** | **323** | PKP | **PKPdf** | **02 09 09.7** | **-1.4** |
| | comp=Z,1.0nm,1.2s,baz=352,slow=1.7,SNR=3.2 | | | | | | |
| **BDFB** | **Brasilia** | **148.76** | **31** | PKPbc | **PKPbc** | **02 10 17.3** | **+0.6** |
| | comp=Z,2.3nm,1.0s,baz=292,slow=5.4,SNR=3.2 | | | | | | |

*IDC* ***14*** *02:16:07.9±2.7,37.14N×142.57E,h0km,mb3.4/2, mb1 3.5/3,mb1mx3.3/43,mbtmp3.3/3,ML3.0/1,Error ellipse: s-maj=56.7km s-min=35.1km az=39.0*
*JMA* ***14*** *02:16:09.5±0.2,37.26N×142.21E,h23km±4km,M3.7*
*ISCJB* ***14*** *02:16:10.3±1.3,37.28N±0.09×142.21E±0.10,h24km, mb3.4/2,Error ellipse: s-maj=12.5km s-min=11.2km az=21.4*

**ISC 14 02:16:11.5±1.6,37.25N±0.08×142.08E±0.10,h24km,n12, σ1s51/17,Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JFK** | **Kawauchi** | **0.97** | **277** | P | **Pn** | **02 16 29.1** | **-0.5** |
| JFK | | | | *e*S | **Sb** | **02 16 42.5** | **+0.5** |
| **ONAJ** | **Iwakimizuishiy** | **1.03** | **262** | P | **Pn** | **02 16 30.0** | **-0.6** |
| **JMM** | **Marumori** | **1.19** | **302** | P | **Pn** | **02 16 32.3** | **-0.4** |
| **JIO** | **Ouri** | **1.33** | **335** | P | **Pn** | **02 16 33.4** | **-1.3** |
| **JFT** | **Otama** | **1.41** | **282** | P | **Pb** | **02 16 36.5** | **-0.7** |
| JFT | | | | *e*S | **Sb** | **02 16 55.2** | **+0.4** |
| **JOU** | **Okura** | **1.58** | **315** | P | **Pn** | **02 16 38.0** | **-0.1** |
| JOU | | | | *e*S | **Sb** | **02 16 58.9** | **-0.7** |
| **JFY** | **Yanaizu** | **1.90** | **275** | P | **Pn** | **02 16 43.5** | **+1.1** |
| **JYK** | **Kaneyama** | **2.15** | **321** | P | **Pn** | **02 16 45.8** | **-0.1** |
| **MJAR** | **Matsushiro Arr** | **3.18** | **258** | Pn | **Pb** | **02 17 04.5** | **-2.9** |
| | 1.5nm,0.3s,baz=87,slow=17,SNR=6.0 | | | | | | |
| MJAR | | | | Sn | **Sb** | **02 17 47.1** | **+1.4** |
| | 2.1nm,0.3s,baz=44,slow=18,SNR=4.2 | | | | | | |
| **MAT** | **Matsushiro** | **3.18** | **258** | P | **Pb** | **02 17 04.7** | **-2.7** |
| MAT | | | | S | **Sb** | **02 17 45.8** | **+0.1** |
| **MKAR** | **Makanchi Array** | **44.45** | **302** | P | **P** | **02 24 23.6** | **+3.1** |
| | 0.4nm,0.8s,baz=82,slow=9.9,SNR=3.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **57.35** | **189** | P | **P** | **02 25 57.5** | **-0.3** |
| | 0.2nm,0.5s,baz=5.0,slow=7.2,SNR=7.6 | | | | | | |

*ISCJB* ***14*** *02:19:38.3±0.4,17.82S±0.07×97.99E±0.07,h10km, mb4.5/27,MS3.5/3,Error ellipse: s-maj=10.1km s-min=8.8km az=44.7*
*IDC* ***14*** *02:19:38.9±0.6,17.82S×98.02E,h0km,mb4.3/15, mb1 4.4/15,mb1mx4.1/44,mbtmp4.3/15,MS3.6/3, Ms1 3.6/3,ms1mx3.2/30,Error ellipse: s-maj=18.3km s-min=16.2km az=50.0*
*NEIC* ***14*** *02:19:39.8±0.5,17.76S×97.96E,h10km,mb4.8/20,Error ellipse: s-maj=11.6km s-min=9.8km az=58.0*

**ISC 14 02:19:40.2±0.5,17.69S±0.07×97.92E±0.09,h10km,n54, σ1s52/55,mb4.5/27,MS3.6/3,South Indian Ocean**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **COCO** | **West Island** | **5.57** | **349** | *e*Pn | **Pn** | **02 21 00.5** | **-2.7** |
| COCO | | | | *e*Sn | **Sn** | **02 22 05.5** | **-1.8** |
| **XMIS** | **Christmas Isla** | **10.38** | **47** | *e*Pn | **Pn** | **02 22 06.9** | **-2.3** |
| **UGM** | **Wanagama** | **15.66** | **53** | *e*Pn | **Pn** | **02 23 20.8** | **-0.4** |
| | 164nm,1.2s | | | | | | |
| **JAGI** | **Jajag, Banyuwa** | **18.27** | **62** | *e*Pn | **P** | **02 23 56.6** | **+2.5** |
| | 100nm,1.0s | | | | | | |
| **MBWA** | **Marble Bar** | **20.86** | **103** | *eP* | Pn | 02 24 26.2 | +1.2 |
| | 31nm,0.8s | | | | | | |
| **KSM** | **Kuching** | **22.62** | **34** | *eP* | **P** | **02 24 41.4** | **0.0** |
| | 23nm,1.1s | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **23.07** | **135** | P | **P** | **02 24 48.8** | **+2.7** |
| | 5.5nm,0.3s,baz=200,slow=11,SNR=21 | | | | | | |
| NWAO | | | | S | S | 02 28 43.8 | -13 |
| | 13nm,1.0s,baz=90,slow=20,SNR=2.1 | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **23.07** | **135** | *eP* | **P** | **02 24 44.4** | **-1.6** |
| | 79nm,1.6s | | | | | | |
| NWAO | | | | S | S | 02 28 43.8 | -13 |
| **SBUM** | **Sibu** | **24.48** | **37** | *eP* | **P** | **02 25 00.2** | **+0.5** |
| | 30nm,0.9s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **26.38** | **95** | P | **P** | **02 25 16.3** | **-0.6** |
| | 3.0nm,1.0s,baz=248,slow=11,SNR=3.0 | | | | | | |
| FITZ | | | | S | S | 02 30 09.7 | +19 |
| | 1.5nm,0.6s,baz=54,slow=19,SNR=2.5 | | | | | | |
| **DGAR** | **Diego Garcia** | **26.84** | **289** | *eP* | **P** | **02 25 22.7** | **+1.6** |
| | 172nm,1.8s | | | | | | |
| **MTN** | **Manton Dam** | **32.38** | **86** | *eP* | **P** | **02 26 08.0** | **-2.4** |
| | 14nm,1.3s | | | | | | |
| **ASAR** | **Alice Springs** | **34.13** | **106** | P | **P** | **02 26 24.6** | **-0.9** |
| | 3.4nm,0.9s,baz=284,slow=7.9,SNR=13 | | | | | | |
| ASAR | | | | LR | LR | 02 41 21.6 | |
| | comp=Z,101nm,18.9s,baz=282,slow=38 | | | | | | |
| **AS31** | **Alice Springs** | **34.13** | **106** | *eP* | **P** | **02 26 24.6** | **-1.0** |
| | 2.3nm,0.8s | | | | | | |
| **WRA** | **Warramunga Arr** | **34.51** | **100** | P | **P** | **02 26 28.1** | **-0.8** |
| | 3.4nm,0.8s,baz=275,slow=9.7,SNR=34 | | | | | | |
| **WR1** | **Warramunga Arr** | **34.51** | **100** | *eP* | **P** | **02 26 28.1** | **-0.8** |
| | 6.3nm,1.1s | | | | | | |
| **WB2** | **Warramunga Ar** | **34.52** | **100** | *eP* | **P** | **02 26 28.1** | **-0.9** |
| | 6.3nm,1.0s | | | | | | |
| **WRAB** | **Tennant Creek** | **34.52** | **100** | *eP* | **P** | **02 26 26.5** | **-2.5** |
| | 6.2nm,0.7s | | | | | | |
| **CM31** | **Chiang Mai Arr** | **35.94** | **2** | *eP* | **P** | **02 26 42.9** | **+1.8** |
| **CMAR** | **Chiang Mai Arr** | **35.94** | **2** | P | **P** | **02 26 42.9** | **+1.8** |
| | 1.6nm,0.3s,baz=194,slow=7.0,SNR=4.1 | | | | | | |
| **DAV** | **Davao City (W)** | **36.77** | **50** | LR | LR | 02 40 56.3 | |
| | comp=Z,56nm,21.2s,baz=315,slow=35 | | | | | | |
| **BBOO** | **Buckleboo** | **37.41** | **121** | *eP* | **P** | **02 26 55.3** | **+1.7** |
| | 68nm,1.6s | | | | | | |
| **STKA** | **Stephens Creek** | **41.82** | **118** | P | **P** | **02 27 29.1** | **-1.2** |
| | 8.0nm,0.7s,baz=298,slow=8.2,SNR=18 | | | | | | |
| STKA | | | | LR | LR | 02 44 58.7 | |
| | comp=Z,113nm,19.8s,baz=349,slow=36 | | | | | | |
| **STKA** | **Stephens Creek** | **41.82** | **118** | *eP* | **P** | **02 27 32.9** | **+2.6** |
| | 1.9nm,0.8s | | | | | | |
| **MAW** | **Mawson** | **54.69** | **196** | P | **P** | **02 29 09.0** | **-0.1** |
| | 2.2nm,0.8s,baz=72,slow=6.4,SNR=3.7 | | | | | | |
| **MAW** | **Mawson** | **54.69** | **196** | *eP* | **P** | **02 29 09.0** | **-0.1** |
| | 6.0nm,1.8s | | | | | | |
| **JNU** | **Nakatsue** | **59.54** | **32** | P | **P** | **02 29 44.9** | **+0.9** |
| | 3.1nm,0.6s,baz=187,slow=8.1,SNR=2.4 | | | | | | |
| **JNU** | **Nakatsue** | **59.54** | **32** | *eP* | **P** | **02 29 44.9** | **+0.9** |
| | 11nm,1.2s | | | | | | |
| **KS15** | **Wonju Array Si** | **61.68** | **27** | *eP* | **P** | **02 30 00.2** | **+1.8** |
| **KSAR** | **Wonju Array Be** | **61.68** | **27** | P | **P** | **02 30 00.2** | **+1.8** |
| **KSRS** | **Korea Array** | **61.70** | **27** | P | **P** | **02 30 00.2** | **+1.6** |
| | 0.3nm,0.8s,baz=206,slow=7.2,SNR=8.6 | | | | | | |
| **KS01** | **Wonju Array Si** | **61.71** | **27** | *eP* | **P** | **02 30 00.3** | **+1.6** |
| **SONA0** | **Songino Array** | **65.67** | **6** | *eP* | **P** | **02 30 25.8** | **+1.0** |
| **SONM** | **Songino Array** | **65.67** | **6** | P | **P** | **02 30 25.8** | **+1.0** |
| | 1.8nm,0.9s,baz=191,slow=7.1,SNR=8.8 | | | | | | |
| **SONA1** | **Songino Array** | **65.68** | **6** | *eP* | **P** | **02 30 26.0** | **+1.1** |
| **MK01** | **Makanchi Array** | **65.69** | **348** | *eP* | **P** | **02 30 24.8** | **0.0** |
| **MK31** | **Makanchi Array** | **65.71** | **348** | *eP* | **P** | **02 30 25.5** | **+0.5** |
| **LSZ** | **Lusaka** | **66.56** | **261** | P | **P** | **02 30 31.9** | **+0.7** |
| | 0.5nm,0.3s,baz=114,slow=12,SNR=4.5 | | | | | | |
| **LSZ** | **Lusaka** | **66.56** | **261** | *eP* | **P** | **02 30 29.0** | **-2.2** |
| | 21nm,1.9s | | | | | | |
| **GEYT** | **Alibeck** | **66.78** | **327** | P | **P** | **02 30 34.6** | **+2.6** |
| | 15nm,0.6s,baz=156,slow=11,SNR=3.1 | | | | | | |
| **BOSA** | **Boshof** | **66.81** | **246** | P | **P** | **02 30 33.4** | **+0.7** |
| | 2.4nm,0.6s,baz=132,slow=4.7,SNR=5.7 | | | | | | |
| **VNDA** | **Vanda** | **67.30** | **168** | P | **P** | **02 30 34.5** | **-0.2** |
| | 1.2nm,0.8s,baz=303,slow=7.7,SNR=3.5 | | | | | | |
| **VNDA** | **Vanda** | **67.30** | **168** | *eP* | **P** | **02 30 34.3** | **-0.4** |
| | 17nm,1.8s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **69.02** | **26** | P | **P** | **02 30 46.8** | **+0.9** |
| | 4.5nm,0.7s,baz=223,slow=5.4,SNR=8.9 | | | | | | |
| **KURK** | **Kurchatov** | **70.19** | **347** | *eP* | **P** | **02 30 50.7** | **-2.3** |
| | 2.6nm,0.8s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **72.23** | **352** | P | **P** | **02 31 05.2** | **-0.1** |
| | 1.5nm,0.6s,baz=163,slow=3.9,SNR=8.3 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **72.23** | **352** | *eP* | **P** | **02 31 05.0** | **-0.2** |
| **ZAA1** | **Zalesovo Array** | **72.23** | **352** | *eP* | **P** | **02 31 05.2** | **-0.1** |
| **QSPA** | **South Pole Qui** | **72.37** | **180** | *eP* | **P** | **02 31 04.7** | **-1.6** |
| | 13nm,1.4s | | | | | | |
| **ULM** | **Lac du Bonnet** | **145.68** | **16** | PKPbc | **PKPdf** | **02 39 16.9** | **-2.0** |
| | 1.7nm,0.5s,baz=322,slow=3.3,SNR=6.1 | | | | | | |
| **PD31** | **Pinedale Array** | **145.81** | **37** | *e*PKPdf | **PKPdf** | **02 39 18.8** | **-0.9** |
| **PDAR** | **Pinedale Array** | **145.81** | **37** | PKPbc | **PKPdf** | **02 39 18.8** | **-0.9** |
| | 0.5nm,0.6s,baz=295,slow=0.6,SNR=6.5 | | | | | | |
| **LTX** | **Lajitas** | **157.11** | **56** | *e*PKPdf | **PKPdf** | **02 39 35.0** | **-2.0** |
| LTX | | | | *e*PKPab | **PKPab** | **02 40 07.0** | **-0.5** |
| **TXAR** | **Lajitas Array** | **157.11** | **56** | PKP | **PKPdf** | **02 39 35.0** | **-2.0** |
| | 0.5nm,0.8s,baz=318,slow=1.7,SNR=4.9 | | | | | | |
| TXAR | | | | PKPab | **PKPab** | **02 40 07.0** | **-0.5** |
| | 0.2nm,0.7s,baz=221,slow=1.3,SNR=3.6 | | | | | | |

**TAP 14 02:39:09.3,21.85N×122.27E,h105km±1km,ML3.6,D, Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **LAY** | **Lan-yu** | **0.69** | **286** | *eP* | Pn | 02 39 26.8 | -0.4 |
| | baz=290 | | | | | | |
| **SCZT** | **Fangliau** | **1.61** | **289** | *eP* | Pn | 02 39 38.4 | +1.2 |
| | baz=292 | | | | | | |
| SCZT | | | | *e*S | Sn | 02 39 58.1 | -0.3 |
| | baz=292 | | | | | | |
| **TWF1** | **Yuli** | **1.74** | **329** | *eP* | Pn | 02 39 39.0 | +0.1 |
| | baz=333 | | | | | | |
| **EHY** | **Hungye** | **1.86** | **332** | P | Pn | 02 39 40.8 | +0.4 |
| | baz=334 | | | | | | |
| EHY | | | | S | Sn | 02 40 04.5 | +0.4 |
| | baz=334 | | | | | | |
| **STYT** | **Tauyuan** | **1.91** | **313** | *eP* | Pn | 02 39 42.0 | +0.9 |
| | baz=313 | | | | | | |
| STYT | | | | *e*S | Sn | 02 40 07.1 | +1.8 |
| | baz=313 | | | | | | |
| **SGST** | **Jiashian** | **1.98** | **309** | *eP* | Pn | 02 39 42.9 | +1.0 |
| | baz=308 | | | | | | |
| SGST | | | | *e*S | Sn | 02 40 08.9 | +2.1 |
| | baz=308 | | | | | | |
| **YUS** | **Yu-Shan** | **2.04** | **324** | *eP* | Pn | 02 39 43.9 | +0.8 |
| | baz=327 | | | | | | |
| **WTP** | **Ta-pu** | **2.07** | **313** | *eP* | Pn | 02 39 45.2 | +2.2 |
| | baz=312 | | | | | | |
| WTP | | | | *e*S | Sn | 02 40 13.0 | +4.2 |
| | baz=312 | | | | | | |
| **CHN1** | **Nanshi** | **2.09** | **310** | *eP* | Pn | 02 39 45.8 | +2.5 |
| | baz=299 | | | | | | |
| CHN1 | | | | *e*S | Sn | 02 40 10.9 | +1.7 |
| | baz=299 | | | | | | |
| **ALS** | **Alishan** | **2.13** | **321** | *eP* | Pn | 02 39 45.7 | +1.5 |
| | baz=308 | | | | | | |
| ALS | | | | *e*S | Sn | 02 40 10.9 | +0.2 |
| | baz=308 | | | | | | |
| **CHN4** | **Tsaushan** | **2.15** | **314** | *eP* | Pn | 02 39 44.8 | +0.8 |
| | baz=314 | | | | | | |
| CHN4 | | | | *e*S | Sn | 02 40 11.9 | +1.3 |
| | baz=314 | | | | | | |
| **TWK** | **Hsinying** | **2.17** | **311** | *eP* | Pn | 02 39 46.3 | +2.0 |
| | baz=311 | | | | | | |
| TWK | | | | *e*S | Sn | 02 40 12.1 | +1.1 |
| | baz=311 | | | | | | |
| **CHN5** | **Tsauling** | **2.28** | **320** | *eP* | Pn | 02 39 49.0 | +3.2 |
| | baz=308 | | | | | | |
| CHN5 | | | | *e*S | Sn | 02 40 16.7 | +3.1 |
| | baz=308 | | | | | | |
| **SMLT** | **Sun Moon Lake** | **2.38** | **328** | *eP* | Pn | 02 39 49.2 | +2.0 |
| | baz=329 | | | | | | |
| **TYC** | **Yuchr** | **2.42** | **328** | *eP* | Pn | 02 39 50.9 | +3.4 |
| | baz=316 | | | | | | |
| TYC | | | | *e*S | Sn | 02 40 18.6 | +1.7 |
| | baz=316 | | | | | | |
| **WHF** | **Hehuan Shan** | **2.46** | **338** | *eP* | Pn | 02 39 50.1 | +1.5 |
| | baz=344 | | | | | | |
| WHF | | | | *e*S | Sn | 02 40 19.0 | +0.5 |
| | baz=344 | | | | | | |
| **TWT** | **Tachien** | **2.59** | **337** | *eP* | Pn | 02 39 51.7 | +1.6 |
| | baz=341 | | | | | | |
| TWT | | | | *e*S | Sn | 02 40 21.5 | +0.3 |
| | baz=341 | | | | | | |
| **TWQ1** | **Liyutan** | **2.84** | **331** | *eP* | Pn | 02 39 54.9 | +1.8 |
| | baz=321 | | | | | | |
| **ENTT** | **Nioudou** | **2.85** | **347** | *eP* | Pn | 02 39 51.8 | -1.5 |
| | baz=347 | | | | | | |

*NIED* ***14*

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SKT | Skwentna | 2.45 | 284 | P | | Pn | 02 51 42.1 | +0.5 |
| MCK | McKinley | 2.54 | 335 | P | | Pn | 02 51 43.8 | +1.0 |
| STLK | Strandline Lak | 2.56 | 273 | P | | Pn | 02 51 43.8 | +0.7 |
| TRF | Thorofare Moun | 2.65 | 320 | P | | Pn | 02 51 45.2 | +0.6 |
| BCA3 | Beaver Creek A | 2.73 | 52 | P | | Pn | 02 51 46.5 | +1.0 |
| SPCP | Crater Peak Br | 2.73 | 268 | P | | Pn | 02 51 45.9 | +0.3 |
| BRLK | Bradley Lake | 2.75 | 234 | P | | Pn | 02 51 46.9 | +1.1 |
| TABL | Table Mountain | 2.81 | 109 | P | | Pn | 02 51 46.2 | -0.6 |
| CKL | Chakachamna La | 2.83 | 267 | P | | Pn | 02 51 47.3 | +0.4 |
| SPWE | Spurr West | 2.92 | 269 | P | | Pn | 02 51 49.2 | +1.0 |
| HDA | Harding Lake | 2.96 | 356 | P | | Pn | 02 51 48.9 | +0.3 |
| PPLA | Purkeypile | 3.02 | 301 | P | | Pn | 02 51 50.1 | +0.5 |
| CNPM | China Poot | 3.05 | 232 | P | | Pn | 02 51 50.7 | +0.9 |
| DFR | Drift River | 3.13 | 256 | P | | Pn | 02 51 51.5 | +0.4 |
| RED | Redoubt Volcan | 3.23 | 254 | P | | Pn | 02 51 52.7 | +0.2 |
| RDWB | Redoubt West | 3.24 | 255 | P | | Pn | 02 51 52.8 | +0.1 |
| CCB | Clear Creek Bu | 3.25 | 350 | P | | Pn | 02 51 52.4 | -0.1 |
| CAST | Castle Rocks | 3.25 | 309 | P | | Pn | 02 51 53.0 | +0.4 |
| IL1 | Eielson Array | 3.32 | 357 | P | | Pn | 02 51 53.1 | -0.4 |
| ILAR | Eielson Array | 3.32 | 357 | P | | Pn | 02 51 53.2 | -0.4 |
| | 6.9nm,0.3s,baz=176,slow=13,SNR=101 | | | | | | | |
| ILAR | | | | S | | Sn | 02 52 34.8 | +3.1 |
| | 9.7nm,0.3s,baz=179,slow=20,SNR=8.1 | | | | | | | |
| ILB | Eielson Array | 3.32 | 357 | P | | Pn | 02 51 53.1 | -0.4 |
| BPAW | Bear Paw Mtn. | 3.35 | 324 | P | | Pn | 02 51 54.2 | +0.2 |
| COLA | College | 3.47 | 350 | *e*Pn | | Pn | 02 51 55.5 | -0.1 |
| COLA | | | | *e*Sn | | Sn | 02 52 36.7 | +1.3 |
| MDM | Murphy Dome | 3.59 | 348 | P | | Pn | 02 51 57.1 | -0.2 |
| CHUM | Lake Minchumin | 3.61 | 315 | P | | Pn | 02 51 58.0 | +0.5 |
| MLY | Manley | 4.05 | 334 | P | | Pn | 02 52 03.7 | 0.0 |
| EGAK | Eagle | 4.11 | 34 | P | | Pn | 02 52 05.1 | +0.6 |
| DAWY | Dawson | 4.18 | 48 | *e*Pn | | Pn | 02 52 06.1 | +0.6 |
| DAWY | | | | *e*Sn | | Sn | 02 52 54.1 | +1.1 |
| TT01 | Tatalina | 4.69 | 292 | P | | Pn | 02 52 11.7 | -0.7 |
| TTA | Tatalina | 4.69 | 292 | P | | Pn | 02 52 11.6 | -0.8 |
| KDAK | Kodiak Island | 4.81 | 223 | P | | Pn | 02 52 14.2 | +0.1 |
| | 0.8nm,0.3s,baz=25,slow=12,SNR=36 | | | | | | | |
| KDAK | | | | S | | Sn | 02 53 06.3 | -2.2 |
| | 1.6nm,0.3s,baz=268,slow=20,SNR=9.0 | | | | | | | |
| PLBC | Pleasant Camp | 5.41 | 107 | P | | Pn | 02 52 23.5 | +1.3 |
| IM3 | Indian Mountai | 5.55 | 328 | P | | Pn | 02 52 24.0 | -0.2 |
| SKAG | Skagway | 5.88 | 105 | *e*Pn | | Pn | 02 52 29.8 | +1.0 |
| | 12nm,0.7s | | | | | | | |
| COLD | Coldfoot | 6.00 | 346 | *e*Pn | | Pn | 02 52 31.2 | +0.9 |
| | 41μm,0.4s | | | | | | | |
| INK | Inuvik | 8.79 | 33 | P | | Pn | 02 53 09.9 | +1.4 |
| | 0.3nm,0.3s,baz=254,slow=11,SNR=4.3 | | | | | | | |
| YKA | Yellowknife Ar | 14.95 | 72 | P | | P | 02 54 36.8 | -0.8 |
| | 0.1nm,0.3s,baz=280,slow=10.0,SNR=5.5 | | | | | | | |
| TXAR | Lajitas Array | 42.70 | 119 | P | | P | 02 58 58.0 | +0.6 |
| | 0.3nm,0.6s,baz=331,slow=5.3,SNR=5.5 | | | | | | | |
| FINES | FINESS Array B | 57.28 | 4 | P | | P | 03 00 46.0 | -1.5 |
| | 6.6nm,1.0s,baz=346,slow=5.0,SNR=5.3 | | | | | | | |
| AKASG | Malin Array Be | 68.13 | 3 | P | | P | 03 01 58.1 | -1.7 |
| | 0.8nm,0.4s,baz=348,slow=5.8,SNR=5.8 | | | | | | | |

**IDC 14 02:57:34.9±3.4, 6°01'S×150°79'E, h0km, mb3.5/3, mb1 3.8/3, mb1mx3.5/24, mbtmp3.6/3, Error ellipse: s-maj=116.0km s-min=46.6km az=122.0, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PMG | Port Moresby | 4.93 | 227 | Sn | Sb | 02 59 59.4 | -2.7 |
| | 1.8nm,0.3s,baz=323,slow=20,SNR=4.7 | | | | | | |
| WRA | Warramunga Arr | 21.15 | 228 | P | P | 03 02 22.0 | +0.2 |
| | 0.6nm,0.5s,baz=53,slow=10,SNR=11 | | | | | | |
| ASAR | Alice Springs | 23.92 | 221 | P | P | 03 02 50.5 | -0.4 |
| | 0.6nm,0.7s,baz=59,slow=9.1,SNR=7.6 | | | | | | |
| FITZ | Fitzroy Crossi | 27.32 | 242 | P | P | 03 03 21.7 | 0.0 |
| | 1.7nm,0.8s,baz=45,slow=3.4,SNR=4.0 | | | | | | |
| TORD | Torodi Ar. Bea | 148.74 | 285 | PKPbc | PKPbc | 03 17 25.0 | -0.5 |
| | 0.4nm,0.7s,baz=92,slow=3.2,SNR=3.8 | | | | | | |

*THE **14** 03:05:26.8, 39°.17N×25°.81E, h10km±1km, ML2.1/4, Error ellipse: s-maj=1.5km s-min=0.7km az=64.0*
*CSEM **14** 03:05:26.7±0.2, 39°.22N×25°.76E, h5km, MD2.7, Error ellipse: s-maj=3.9km s-min=2.9km az=79.0*
*ISK **14** 03:05:26.8, 39°.23N×25°.80E, h5km, MD2.7*
*ISCJB **14** 03:05:26.5±0.5, 39°.21N±0°.02×25°.76E±0°.03, h7km±3km, Error ellipse: s-maj=4.2km s-min=3.0km az=174.9*
*ATH **14** 03:05:26.1, 39°.24N×25°.78E, h16km±1km, ML2.1/6, Error ellipse: s-maj=2.7km s-min=1.3km az=64.0*
*DDA **14** 03:05:26.6, 39°.20N×25°.85E, h7km, Ml3.0*
**ISC 14 03:05:26.6±0.8, 39°.21N±0°.02×25°.77E±0°.02, h12km±4km, n71, σ0°68/109, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SIGR | SIGRI | 0.06 | 87 | PG | Pg | 03 05 29.0 | 0.0 |
| SIGR | SIGRI | 0.06 | 87 | P | Pg | 03 05 29.1 | 0.0 |
| SIGR | | | | S | Sg | 03 05 30.7 | -0.1 |
| SIGR | | | | AML | AML | 03 05 31.0 | |
| | comp=E,8757μm,0.3s | | | | | | |
| SIGR | | | | AML | AML | 03 05 31.2 | |
| | comp=N,6777μm,0.2s | | | | | | |
| SIGR | SIGRI | 0.06 | 87 | P | Pg | 03 05 29.1 | 0.0 |
| SIGR | | | | S | Sg | 03 05 30.7 | -0.1 |
| SIGR | SIGRI | 0.06 | 87 | P | Pg | 03 05 29.1 | 0.0 |
| SIGR | | | | S | Sg | 03 05 30.8 | -0.1 |
| PRK | Paraskevi | 0.39 | 84 | P | Pb | 03 05 34.8 | -0.6 |
| PRK | | | | S | Sg | 03 05 38.8 | -0.8 |
| PRK | | | | AML | AML | 03 05 41.1 | |
| | comp=E,1084μm,0.4s | | | | | | |
| PRK | | | | AML | AML | 03 05 41.2 | |
| | comp=N,612μm,0.4s | | | | | | |
| PRK | Paraskevi | 0.39 | 84 | P | Pg | 03 05 34.5 | +0.1 |
| PRK | | | | S | Sb | 03 05 40.4 | -0.9 |
| PRK | Paraskevi | 0.39 | 84 | P | Pg | 03 05 34.5 | +0.1 |
| PRK | | | | S | Sb | 03 05 40.4 | -0.9 |
| BOZC | Bozcaada | 0.67 | 19 | *e*PG | Pg | 03 05 39.5 | -0.1 |
| BOZC | | | | *e*SG | Sb | 03 05 48.9 | -0.5 |
| BOZC | Bozcaada | 0.67 | 19 | *i* P | Pg | 03 05 39.3 | -0.3 |
| BOZC | | | | *i* S | Sb | 03 05 50.1 | +0.7 |
| BOZC | Bozcaada | 0.67 | 19 | *e*Pg | Pg | 03 05 39.5 | -0.1 |
| BOZC | | | | *e*Sg | Sb | 03 05 48.9 | -0.5 |
| EZN | Ezine | 0.75 | 35 | *e*PG | Pg | 03 05 40.9 | -0.3 |
| EZN | | | | *e*SG | Sb | 03 05 51.5 | -0.2 |
| EZN | Ezine | 0.75 | 35 | *e*Pg | Pg | 03 05 40.9 | -0.3 |
| EZN | | | | *e*Sg | Sb | 03 05 51.5 | -0.2 |
| BAYC | CANAKKALE_Bayr | 0.80 | 48 | *i* P | Pg | 03 05 42.2 | -0.2 |
| BAYC | | | | *i* S | Sb | 03 05 53.3 | +0.1 |
| BAYC | CANAKKALE_Bayr | 0.80 | 48 | P | Pb | 03 05 42.2 | -0.2 |
| BAYC | | | | S | Sb | 03 05 53.3 | +0.1 |
| LIA | Limnos Island | 0.83 | 327 | P | Pg | 03 05 42.1 | -0.4 |
| LIA | | | | S | Sg | 03 05 53.2 | -0.2 |
| LIA | | | | AML | AML | 03 05 55.2 | |
| | comp=E,421μm,0.3s | | | | | | |
| LIA | | | | AML | AML | 03 05 55.6 | |
| | comp=N,360μm,0.5s | | | | | | |
| LIA | Limnos Island | 0.83 | 327 | P | Pg | 03 05 42.5 | -0.1 |
| LIA | | | | S | Sg | 03 05 53.2 | -0.2 |
| LIA | Limnos Island | 0.83 | 327 | P | Pg | 03 05 42.5 | -0.1 |
| CHOS | Chios island | 0.85 | 165 | *e*PG | Pb | 03 05 43.6 | +0.3 |
| CHOS | Chios island | 0.85 | 165 | P | Pg | 03 05 42.3 | -0.7 |
| CHOS | | | | S | Sg | 03 05 54.4 | +0.3 |
| CHOS | | | | AML | AML | 03 05 56.7 | |
| | comp=N,784μm,0.2s | | | | | | |
| CHOS | | | | AML | AML | 03 05 58.5 | |
| | comp=E,842μm,0.3s | | | | | | |
| CHOS | Chios island | 0.85 | 165 | P | Pg | 03 05 42.6 | -0.4 |
| CHOS | Chios island | 0.85 | 165 | *e*Pg | Pb | 03 05 43.6 | +0.3 |
| CHOS | | | | S | Sg | 03 05 54.4 | +0.3 |
| CHOS | Chios island | 0.85 | 165 | P | Pg | 03 05 42.6 | -0.4 |
| CHOS | | | | S | Sg | 03 05 53.8 | -0.3 |
| DKL | Dikili | 0.89 | 98 | *e*PG | Pg | 03 05 43.7 | -0.1 |
| DKL | Dikili | 0.89 | 98 | *e*Pg | Pg | 03 05 43.7 | -0.1 |
| GADA | Gvkgeada | 0.99 | 6 | *e*PG | Pb | 03 05 45.7 | +0.1 |
| GADA | | | | *e*SG | Sb | 03 05 59.2 | +0.6 |
| GADA | Gvkgeada | 0.99 | 6 | *e*Pg | Pb | 03 05 45.7 | +0.1 |
| GADA | | | | *e*Sg | Sb | 03 05 59.2 | +0.6 |
| SKY | Skiros Island | 1.01 | 251 | P | Pg | 03 05 46.0 | 0.0 |
| SKY | | | | S | Sg | 03 05 59.7 | +0.6 |
| SKY | Skiros Island | 1.01 | 251 | P | Pg | 03 05 46.0 | 0.0 |
| SKY | | | | S | Sg | 03 05 59.7 | +0.6 |
| URLA | Izmir | 1.06 | 143 | *e*PG | Pb | 03 05 47.3 | +0.4 |
| URLA | Izmir | 1.06 | 143 | *i* P | Pg | 03 05 46.3 | -0.8 |
| URLA | | | | *i* S | Sg | 03 06 00.7 | -0.2 |
| URLA | Izmir | 1.06 | 143 | P | Pg | 03 05 46.3 | -0.8 |
| URLA | Izmir | 1.06 | 143 | *e*Pg | Pb | 03 05 47.3 | +0.4 |
| URLA | | | | S | Sg | 03 06 00.7 | -0.2 |
| ZEY | ˜zmir | 1.12 | 149 | *i* P | Pg | 03 05 47.2 | -1.0 |
| ZEY | | | | *i* S | Sg | 03 06 01.9 | -0.9 |
| SMTH | Samothraki Isl | 1.27 | 352 | P | Pn | 03 05 49.0 | -1.2 |
| SMTH | | | | AML | AML | 03 06 11.7 | |
| | comp=N,32μm,0.3s | | | | | | |
| SMTH | | | | AML | AML | 03 06 12.1 | |
| | comp=E,28μm,0.2s | | | | | | |
| SMTH | Samothraki Isl | 1.27 | 352 | P | Pn | 03 05 49.3 | -0.9 |
| SMTH | | | | S | Sg | 03 06 07.1 | -0.6 |
| SMTH | Samothraki Isl | 1.27 | 352 | P | Pn | 03 05 49.3 | -0.9 |
| SMTH | | | | S | Sg | 03 06 07.1 | -0.6 |
| GELI | Tayfur-Gelibol | 1.31 | 24 | *e*PN | Pg | 03 05 51.5 | -0.2 |
| GELI | | | | *e*SN | Sn | 03 06 09.5 | +1.6 |
| GELI | Tayfur-Gelibol | 1.31 | 24 | *e*Pn | Pg | 03 05 51.5 | -0.2 |
| GELI | | | | *e*Sn | Sn | 03 06 09.5 | +1.6 |
| LPK | Lapseki | 1.39 | 33 | *e*PN | Pb | 03 05 52.8 | +0.3 |
| LPK | Lapseki | 1.39 | 33 | *e*Pn | Pb | 03 05 52.8 | +0.3 |
| STEP | BALIKESIR_Sava | 1.52 | 83 | *i* P | Pb | 03 05 54.9 | +0.2 |
| STEP | | | | *i* S | Sg | 03 06 16.5 | +1.0 |
| STEP | BALIKESIR_Sava | 1.52 | 83 | P | Pb | 03 05 54.9 | +0.2 |
| STEP | | | | S | Sg | 03 06 16.5 | +1.0 |
| BALY | Balya | 1.52 | 69 | *i* P | Pn | 03 05 53.1 | -0.6 |
| BALY | | | | *i* S | Sn | 03 06 13.1 | -0.3 |
| BALY | Balya | 1.52 | 69 | P | Pn | 03 05 53.1 | -0.6 |
| BALY | | | | S | Sn | 03 06 13.1 | -0.3 |
| ERIK | Erikli-Kesan | 1.57 | 21 | *e*PN | Pb | 03 05 55.4 | -0.1 |
| ERIK | | | | *e*SN | Sg | 03 06 16.2 | -0.9 |
| ERIK | Erikli-Kesan | 1.57 | 21 | *e*Pn | Pb | 03 05 55.4 | -0.1 |
| ERIK | | | | *e*Sn | Sg | 03 06 16.2 | -0.9 |
| KRBG | Karabiga-Canak | 1.67 | 44 | *e*PN | Pb | 03 05 57.0 | -0.2 |
| KRBG | Karabiga-Canak | 1.67 | 44 | *e*Pn | Pb | 03 05 57.0 | -0.2 |
| BALB | Balikesir | 1.69 | 75 | *e*PN | Pb | 03 05 57.0 | -0.5 |
| BALB | Balikesir | 1.69 | 75 | *e*Pn | Pb | 03 05 57.0 | -0.5 |
| ALN | Alexandroupoli | 1.70 | 7 | *e*PN | Pb | 03 05 57.5 | -0.2 |
| ALN | Alexandroupoli | 1.70 | 7 | P | Pn | 03 05 55.2 | -0.8 |
| ALN | | | | AML | AML | 03 06 22.9 | |
| | comp=N,17μm,0.3s | | | | | | |
| ALN | | | | AML | AML | 03 06 24.9 | |
| | comp=E,29μm,0.5s | | | | | | |
| ALN | Alexandroupoli | 1.70 | 7 | P | Pn | 03 05 55.2 | -0.8 |
| ALN | Alexandroupoli | 1.70 | 7 | *e*Pn | Pb | 03 05 57.5 | -0.2 |
| SMG | Samos | 1.71 | 151 | P | Pg | 03 05 59.2 | -0.3 |
| SMG | Samos | 1.71 | 151 | P | Pg | 03 05 59.2 | -0.3 |
| KNL | Bal˜–kesir | 1.72 | 51 | *i* P | Pn | 03 05 56.0 | -0.2 |
| KNL | | | | *i* S | Sn | 03 06 18.8 | +0.7 |
| OUR | Ouranopolis | 1.78 | 310 | *e*PN | Pb | 03 05 59.3 | +0.2 |
| OUR | Ouranopolis | 1.78 | 310 | *e*Pn | Pb | 03 05 59.3 | +0.2 |
| SART | Tekirdag | 1.83 | 36 | *i* P | Pn | 03 05 59.0 | +1.1 |
| SART | | | | *i* S | Sb | 03 06 22.9 | -0.1 |
| SART | Tekirdag | 1.83 | 36 | P | Pn | 03 05 59.0 | +1.1 |
| SART | | | | S | Sb | 03 06 22.9 | -0.1 |
| GCAM | G?zelcaml? | 1.89 | 142 | *e*PN | Pb | 03 06 00.5 | -0.5 |
| GCAM | G?zelcaml? | 1.89 | 142 | *e*Pn | Pb | 03 06 00.5 | -0.5 |
| RDO | Rodhopi | 1.94 | 355 | P | Pn | 03 05 58.1 | -1.3 |
| RDO | Rodhopi | 1.94 | 355 | P | Pn | 03 05 58.1 | -1.3 |
| EDC | Edincik | 1.97 | 54 | *e*PN | Pb | 03 06 01.6 | -0.8 |
| EDC | Edincik | 1.97 | 54 | *e*Pn | Pb | 03 06 01.6 | -0.8 |
| SBT3 | Marmara-Eregli | 2.38 | 45 | *e*PN | Pn | 03 06 06.9 | +1.7 |
| SBT3 | Marmara-Eregli | 2.38 | 45 | *e*Pn | Pn | 03 06 06.9 | +1.7 |
| ARMT | Armutlu | 2.74 | 59 | *e*PN | Pn | 03 06 12.3 | +2.0 |
| ARMT | Armutlu | 2.74 | 59 | *e*Pn | Pn | 03 06 12.3 | +2.0 |

**DJA 14 03:12:38.2±0.6, 8°S±12°×107°8E±°, h53km±18km, M3.6/6, MLv3.6/6, Jawa**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CISI | Cisompet, Garu | 0.37 | 345 | P | Pn | 03 12 50.2 | +1.8 |
| CNJI | Cibinong | 0.98 | 308 | P | Pn | 03 12 55.7 | -0.1 |
| CNJI | | | | S | Sn | 03 13 09.1 | +0.3 |
| KPJI | Karang Pucung | 1.17 | 60 | P | Pn | 03 12 58.0 | -0.3 |
| KPJI | | | | S | Sn | 03 13 13.8 | +0.6 |
| SKJI | Sukabumi | 1.62 | 304 | P | Pn | 03 13 04.6 | +0.2 |
| UGM | Wanagama | 2.59 | 90 | P | Pn | 03 13 17.7 | 0.0 |
| UGM | | | | S | Sn | 03 13 47.9 | -0.1 |
| PCJI | Pacitan | 3.25 | 95 | P | Pn | 03 13 26.7 | 0.0 |
| PWJI | Pagerwojo | 3.86 | 92 | P | Pn | 03 13 35.5 | +0.4 |

*CSEM **14** 03:16:13.1, 39°.93N×15°.99E, h9km, MD1.8/9*
**ROM 14 03:16:13.1±0.1, 39°.93N×15°.99E, h9km±1km, Md1.8/9, Ml1.6/5, Error ellipse: s-maj=1.8km s-min=1.4km az=24.0, Southern Italy**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MMN | Mormanno | 0.04 | 181 | Pg | Pg | 03 16 15.4 | +0.6 |
| MMN | | | | Sg | Sg | 03 16 16.5 | +0.5 |
| MMN | Mormanno | 0.04 | 181 | Pg | Pg | 03 16 15.4 | +0.6 |
| MMN | | | | Sg | Sg | 03 16 16.5 | +0.5 |
| T0711 | Rotonda (PZ) | 0.06 | 83 | Pg | Pg | 03 16 15.4 | +0.3 |
| T0711 | | | | Sg | Sg | 03 16 16.9 | +0.4 |
| CUC | Castrocucco | 0.15 | 295 | Pg | Pg | 03 16 17.0 | +0.6 |
| CUC | | | | Sg | Sg | 03 16 19.5 | +0.8 |
| CUC | Castrocucco | 0.15 | 295 | Pg | Pg | 03 16 17.0 | +0.6 |
| CUC | | | | Sg | Sg | 03 16 19.5 | +0.8 |
| SIRI | Monte Sirino - | 0.27 | 339 | Pg | Pg | 03 16 19.2 | +0.6 |
| SIRI | | | | Sg | Sb | 03 16 24.5 | -0.5 |
| SIRI | Monte Sirino - | 0.27 | 339 | Pg | Pg | 03 16 19.2 | +0.6 |
| SIRI | | | | Sg | Sb | 03 16 24.5 | -0.5 |
| SALB | San Lorenzo Be | 0.28 | 101 | Pg | Pg | 03 16 19.0 | +0.3 |
| SALB | | | | Sg | Sb | 03 16 25.2 | 0.0 |
| | 78nm,0.4s | | | | | | |
| SALB | San Lorenzo Be | 0.28 | 101 | Pg | Pg | 03 16 19.0 | +0.3 |
| SALB | | | | Sg | Sb | 03 16 25.2 | 0.0 |
| | 78nm,0.4s | | | | | | |
| SCHR | S. Chirico Rap | 0.28 | 14 | Pg | Pg | 03 16 18.9 | +0.2 |
| SCHR | | | | Sg | Sb | 03 16 24.3 | -0.9 |
| | 46nm,0.5s | | | | | | |
| ORI | Oriolo Calabro | 0.38 | 69 | Pg | Pb | 03 16 21.6 | -0.4 |
| | 74nm,0.5s | | | | | | |
| ORI | Oriolo Calabro | 0.38 | 69 | Pg | Pb | 03 16 21.6 | -0.4 |
| | 74nm,0.5s | | | | | | |
| MGR | Morigerati | 0.40 | 302 | Pg | Pg | 03 16 21.3 | +0.4 |
| MGR | | | | Sg | Sb | 03 16 28.1 | -0.4 |
| | 76nm,0.6s | | | | | | |
| MGR | Morigerati | 0.40 | 302 | Pg | Pg | 03 16 21.3 | +0.4 |
| MGR | | | | Sg | Sb | 03 16 28.1 | -0.4 |
| | 76nm,0.6s | | | | | | |
| CET2 | Cetraro | 0.40 | 184 | Pg | Pb | 03 16 21.7 | -0.7 |
| | 79nm,0.8s | | | | | | |
| CET2 | Cetraro | 0.40 | 184 | Pg | Pb | 03 16 21.7 | -0.7 |
| | 79nm,0.8s | | | | | | |

*CSEM **14** 03:16:44.2, 38°.45N×14°.61E, h16km, MD2.4/19*
**ROM 14 03:16:44.2±0.1, 38°.45N×14°.61E, h16km±3km, Md2.4/19, Ml2.6/7, Error ellipse: s-maj=1.5km s-min=1.1km az=169.0, Sicily**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| IFIL | Filicudi I Eol | 0.12 | 343 | Pg | Pb | 03 16 48.0 | -0.1 |
| IFIL | | | | Sg | Sb | 03 16 50.7 | 0.0 |
| IFIL | Filicudi I Eol | 0.12 | 343 | Pg | Pb | 03 16 48.0 | -0.1 |
| IFIL | | | | Sg | Sb | 03 16 50.7 | 0.0 |
| LLI | Lipari | 0.27 | 91 | Pg | Pb | 03 16 50.7 | 0.0 |
| LLI | | | | Sg | Sb | 03 16 54.9 | -0.1 |
| | 1μm,0.5s | | | | | | |
| LLI | Lipari | 0.27 | 91 | Pg | Pb | 03 16 50.7 | 0.0 |
| LLI | | | | Sg | Sb | 03 16 54.9 | -0.1 |
| | 1μm,0.5s | | | | | | |
| VPL | Vulcano Piano | 0.30 | 104 | Pg | Pg | 03 16 50.8 | +0.2 |
| VPL | | | | Sg | Sb | 03 16 55.6 | -0.5 |
| | 1μm,0.6s | | | | | | |
| VPL | Vulcano Piano | 0.30 | 104 | Pg | Pg | 03 16 50.8 | +0.2 |
| VPL | | | | Sg | Sb | 03 16 55.6 | -0.5 |
| | 1μm,0.6s | | | | | | |
| MSFR | San Fratello | 0.42 | 182 | Pg | Pg | 03 16 52.3 | -0.4 |
| MSFR | | | | Sg | Sg | 03 16 58.9 | +0.5 |
| MSFR | San Fratello | 0.42 | 182 | Pg | Pg | 03 16 52.3 | -0.4 |
| MSFR | | | | Sg | Sg | 03 16 58.9 | +0.5 |
| MUCR | Ucria | 0.46 | 153 | Pg | Pg | 03 16 53.2 | -0.2 |
| MUCR | | | | Sg | Sb | 03 17 00.7 | +0.1 |
| | 446nm,0.3s | | | | | | |
| MUCR | Ucria | 0.46 | 153 | Pg | Pg | 03 16 53.2 | -0.2 |
| MUCR | | | | Sg | Sb | 03 17 00.7 | +0.1 |
| | 446nm,0.3s | | | | | | |
| MILZ | Milazzo | 0.52 | 110 | Pg | Pg | 03 16 54.1 | -0.4 |
| MILZ | Milazzo | 0.52 | 110 | Pg | Pg | 03 16 54.1 | -0.4 |
| MNO | Monte Soro | 0.52 | 173 | Pg | Pg | 03 16 54.7 | +0.1 |
| MNO | | | | Sg | Sb | 03 17 02.8 | +0.3 |
| MNO | Monte Soro | 0.52 | 173 | Pg | Pg | 03 16 54.7 | +0.1 |
| MNO | | | | Sg | Sb | 03 17 02.8 | +0.3 |
| PLLN | Pollina | 0.59 | 219 | Pg | Pg | 03 16 55.4 | -0.4 |
| PLLN | | | | Sg | Sb | 03 17 04.0 | -0.3 |
| PLLN | Pollina | 0.59 | 219 | Pg | Pg | 03 16 55.4 | -0.4 |
| PLLN | | | | Sg | Sb | 03 17 04.0 | -0.3 |
| NOV | Novara | 0.59 | 135 | Pg | Pg | 03 16 55.4 | -0.5 |
| NOV | | | | Sg | Sb | 03 17 04.4 | -0.1 |
| | 358nm,0.3s | | | | | | |
| NOV | Novara | 0.59 | 135 | Pg | Pg | 03 16 55.4 | -0.5 |
| NOV | | | | Sg | Sb | 03 17 04.4 | -0.1 |
| | 358nm,0.3s | | | | | | |
| MCSR | Castroreale | 0.64 | 127 | Pg | Pg | 03 16 56.0 | -0.7 |
| MCSR | | | | Sg | Sg | 03 17 05.0 | -0.2 |
| MCSR | Castroreale | 0.64 | 127 | Pg | Pg | 03 16 56.0 | -0.7 |
| MCSR | | | | Sg | Sg | 03 17 05.0 | -0.2 |
| GIB | Gibilmanna | 0.65 | 225 | Pg | Pg | 03 16 57.0 | 0.0 |
| GIB | | | | Sg | Sb | 03 17 06.1 | 0.0 |
| GIB | Gibilmanna | 0.65 | 225 | Pg | Pg | 03 16 57.0 | 0.0 |
| GIB | | | | Sg | Sb | 03 17 06.1 | 0.0 |
| MPNC | Port Mandanici | 0.66 | 117 | Pg | Pg | 03 16 56.6 | -0.5 |
| MPNC | | | | Sg | Sb | 03 17 06.6 | +0.3 |
| MPNC | Port Mandanici | 0.66 | 117 | Pg | Pg | 03 16 56.6 | -0.5 |
| MPNC | | | | Sg | Sb | 03 17 06.6 | +0.3 |
| MMME | Mongiuffi-Meli | 0.72 | 135 | Pg | Pg | 03 16 58.2 | -0.2 |
| MMME | Mongiuffi-Meli | 0.72 | 135 | Pg | Pg | 03 16 58.2 | -0.2 |
| MSRU | Castanea | 0.73 | 105 | Pg | Pg | 03 16 57.9 | -0.6 |
| MSRU | Castanea | 0.73 | 105 | Pg | Pg | 03 16 57.9 | -0.6 |
| GALF | Gagliano Caste | 0.74 | 183 | Pg | Pb | 03 16 59.0 | +0.2 |
| | 113nm,0.5s | | | | | | |
| GALF | Gagliano Caste | 0.74 | 183 | Pg | Pb | 03 16 59.0 | +0.2 |
| | 113nm,0.5s | | | | | | |
| ALJA | Alia | 0.97 | 224 | Pg | Pb | 03 17 02.3 | -0.4 |
| | 110nm,0.9s | | | | | | |
| ALJA | Alia | 0.97 | 224 | Pg | Pb | 03 17 02.3 | -0.4 |
| | 110nm,0.9s | | | | | | |
| HLNI | Lentini | 1.12 | 169 | Pg | Pb | 03 17 05.1 | -0.1 |
| | 55nm,0.6s | | | | | | |
| HLNI | Lentini | 1.12 | 169 | Pg | Pb | 03 17 05.1 | -0.1 |
| | 55nm,0.6s | | | | | | |
| HVZN | Vizzini | 1.27 | 176 | Pg | Pb | 03 17 08.1 | +0.2 |
| HVZN | Vizzini | 1.27 | 176 | Pg | Pb | 03 17 08.1 | +0.2 |
| SSY | Sortino | 1.35 | 164 | Pg | Pn | 03 17 08.7 | +0.3 |
| SSY | Sortino | 1.35 | 164 | Pg | Pn | 03 17 08.7 | +0.3 |
| MEU | Monte Lauro | 1.37 | 169 | Pg | Pb | 03 17 09.3 | -0.3 |
| | 32nm,0.2s | | | | | | |
| MEU | Monte Lauro | 1.37 | 169 | Pg | Pb | 03 17 09.3 | -0.3 |
| | 32nm,0.2s | | | | | | |

**MAN 14 03:29:49, 10°.76N×122°.40E, h14km, mb4.5, ML3.4, MS3.3, 2C-2D, Panay**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GUIM | Jordan | 0.22 | 125 | *e*P | Pb | 03 29 54.9 | 0.0 |
| GUIM | | | | *e*S | Sb | 03 29 59.3 | +0.5 |
| JAP | San Jose, Anti | 0.45 | 269 | *e*P | Pb | 03 29 59.6 | +0.9 |
| JAP | | | | *e*S | Sn | 03 30 14.3 | +5.4 |
| RCP | Roxas | 0.87 | 23 | *e*P | Pg | 03 30 05.8 | -0.1 |
| RCP | | | | *e*S | Sn | 03 30 20.1 | +0.8 |
| LLP | Lapu-Lapu | 1.60 | 106 | *e*P | Pn | 03 30 17.1 | +0.2 |
| LLP | | | | *i* S | Sb | 03 30 38.3 | -0.1 |
| SNPH | Sibulan | 1.63 | 150 | *i* P | Pn | 03 30 17.4 | +0.1 |
| SNPH | | | | *i* S | Sg | 03 30 41.7 | +0.3 |
| OTRP | Odiongan | 1.64 | 347 | *e*P | Pn | 03 30 17.7 | +0.2 |
| BUSP | Coron | 2.49 | 300 | *e*P | Pn | 03 30 29.0 | -0.1 |
| MSLP | Maasin | 2.49 | 104 | *e*P | Pn | 03 30 31.3 | +2.1 |
| MSLP | | | | *e*S | Sn | 03 31 01.3 | +1.8 |
| PAGZ | Pagadian | 3.05 | 161 | *e*P | Pn | 03 30 38.2 | +1.4 |

**JMA 14 03:30:37.2±0.2, 37°.26N×142°.17E, h31km±4km, M3.5, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JFK | Kawauchi | 1.04 | 276 | P | Pn | 03 30 55.7 | 0.0 |
| JFK | | | | S | Sn | 03 31 09.3 | +0.2 |
| ONAJ | Iwakimizuishiy | 1.11 | 262 | P | Pb | 03 30 57.3 | -0.5 |
| ONAJ | | | | eS | Sn | 03 31 10.4 | -0.5 |
| JMM | Marumori | 1.25 | 299 | P | Pn | 03 30 59.0 | +0.5 |
| JMM | | | | S | Sn | 03 31 14.8 | +0.5 |
| JIO | Ouri | 1.36 | 332 | P | Pn | 03 31 00.3 | +0.3 |
| JIO | | | | eS | Sn | 03 31 17.3 | +0.3 |
| JFT | Otama | 1.48 | 281 | P | Pb | 03 31 03.3 | -0.8 |
| JFT | | | | S | Sb | 03 31 21.6 | -1.0 |
| JOU | Okura | 1.62 | 313 | P | Pb | 03 31 05.2 | -1.4 |
| JOU | | | | S | Sn | 03 31 25.0 | +1.4 |
| JMK | Ichinoseki | 1.85 | 336 | P | Pn | 03 31 08.1 | +1.4 |
| JYS | Shirataka | 1.92 | 301 | P | Pb | 03 31 10.4 | -1.2 |
| JFY | Yanaizu | 1.97 | 275 | P | Pn | 03 31 10.3 | +1.8 |
| JFY | | | | S | Sn | 03 31 34.1 | +2.0 |
| JYK | Kaneyama | 2.19 | 320 | P | Pn | 03 31 12.9 | +1.5 |
| JYK | | | | S | Sn | 03 31 39.1 | +1.7 |
| JOM | Ohasama | 2.31 | 343 | P | Pn | 03 31 14.6 | +1.4 |
| JAG | Ashikaga | 2.33 | 250 | P | Pn | 03 31 15.0 | +1.6 |
| JAG | | | | eS | Sn | 03 31 42.0 | +1.0 |

*CSEM **14** 03:58:26.1, 35°.79N×22°.16E, h31km, ML1.9/2*
**ATH 14 03:58:26.1, 35°.79N×22°.16E, h31km±9km, ML1.9/2, Error ellipse: s-maj=10.0km s-min=1.7km az=209.0, Central Mediterranean Sea**

| Code | Station Name | Δ° | AZ° | Phase ID

**ISC 14 03:59:53.6±1.1, 25°.7N±0°.2×141°.1E±0°.2, h160km, n7, σ1§10/8, mb3.6/5, Volcano Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JCJ** | **Chichijima** | **1.73** | **36** | P | **Pn** | **04 00 26.7** | **+0.4** |
| | 117nm,0.3s,baz=9,3,slow=22,SNR=127 | | | | | | |
| JCJ | | | | S | **Sn** | **04 00 49.8** | **-1.7** |
| | 70nm,0.3s,baz=296,slow=24,SNR=21 | | | | | | |
| **WRA** | **Warramunga Arr** | **45.83** | **189** | P | **P** | **04 07 59.1** | **-0.5** |
| | 0.7nm,0.4s,baz=11,slow=8.8,SNR=22 | | | | | | |
| **KDAK** | **Kodiak Island** | **56.09** | **36** | P | **P** | **04 09 17.2** | **+1.4** |
| | baz=280,slow=12 | | | | | | |
| **BVAR** | **Borovoye Array** | **58.40** | **318** | P | **P** | **04 09 32.2** | **+0.1** |
| | 0.8nm,0.5s,baz=73,slow=6.1,SNR=5.0 | | | | | | |
| **ILAR** | **Eielson Array** | **59.42** | **28** | P | **P** | **04 09 39.8** | **+0.8** |
| | 0.5nm,0.8s,baz=244,slow=6.6,SNR=4.3 | | | | | | |
| **YKA** | **Yellowknife Ar** | **73.85** | **28** | P | **P** | **04 11 10.4** | **0.0** |
| | 0.7nm,0.9s,baz=286,slow=5.1,SNR=3.4 | | | | | | |
| **FINES** | **FINESS Array B** | **78.75** | **334** | P | **P** | **04 11 37.5** | **-0.5** |
| | 4.6nm,1.0s,baz=72,slow=4.5,SNR=5.9 | | | | | | |

*NIED* ***14*** *04:01:00, 35°.40N×137°.30E, h50km, Mw5.1 Best double couple: M₀5.24000×10¹⁶ NP1:φ₈329.00000°, δ35.00000°, λ-125.00000°. NP2:φ₈190.00000°, δ62.00000°, λ-68.00000°.*

*BJI* ***14*** *04:01:03.5, 35°.11N×137°.54E, h51km, mb4.8/73, mB5.0/57, Ms4.7/70, Ms7 4.5/67*

*MOS* ***14*** *04:01:05.1±0.9, 35°.31N×137°.19E, h40km, mb5.3/87, Error ellipse: s-maj=6.2km s-min=3.9km az=102.8*

*ISCJB* ***14*** *04:01:07.2±0.2, 35°.32N±0°.02×137°.21E±0°.02, h58km±1km, mb5.0/302, MS4.4/36, Error ellipse: s-maj=2.8km s-min=2.0km az=164.8*

*NEIC* ***14*** *04:01:07.6±0.1, 35°.31N×137°.19E, mb5.1/222, Error ellipse: s-maj=2.8km s-min=2.1km az=158.0*

*NEIC Felt [IV] at Nagoya, [III] at Okazaki and [II] at Osaka and Yokosuka. Felt in much of south-central Honshu. Recorded [4 JMA] in Aichi, Gifu, Nagano and Yamanashi.*

*IDC* ***14*** *04:01:07.5±0.5, 35°.31N×137°.16E, h50km±4km, mb4.5/31, mb1 4.7/36, mb1mx4.6/48, mbtmp4.8/36, MS4.3/23, Ms1 4.3/23, ms1mx4.2/33, Error ellipse: s-maj=7.5km s-min=5.7km az=129.0*

*GCMT* ***14*** *04:01:07.6±0.2, 35°.32N×136°.91E, h64km±1km, MW5.1/81, Moment Tensor Solution. s67,c89; s81,c125; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr-4.27±.18; Mθθ-1.32±.15; Mφφ5.60±.14; Mrθ1.07±.13; Mθφ-0.87±.14; Mφr2.62±.15; Best double couple: M₀5.80600×10¹⁶ NP1:φ₈190.00000°, δ61.00000°, λ-69.00000°. NP2: φ₈332.00000°, δ35.00000°, λ-122.00000°. Principal axes: T 6.2980, Plg13.0000°, Azm265.0000°; N -0.9730, Plg18.0000°, Azm360.0000°; P -5.3150, Plg67.0000°, Azm141.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*JMA* ***14*** *04:01:08.2, 35°.36N×137°.24E, h49km, M5.1 Broadband fault plane solution: P waves. NP1:φ₈197.00000°, δ62.00000°, λ-65.00000°. NP2:φ₈332.00000°, δ36.00000°, λ-128.00000°. Principal axes: T Plg14.0000°, Azm269.0000°; N Plg22.0000°, Azm5.0000°; P Plg64.0000°, Azm149.0000°;*

*JMA Felt IV J1.*

**ISC 14 04:01:07.6±0.3, 35°.34N±0°.03×137°.26E±0°.03, h50km±2km, h50km:pP-P, n1022, σ1§14/1111, mb5.1/304, MS4.5/36, 62C-45D, Eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JAO** | **Obara** | **0.07** | **180** | ⇓P | **Pn** | **04 01 15.8** | **+0.3** |
| JAO | | | | S | **Sn** | **04 01 21.5** | **+0.5** |
| **INU** | **Inuyama** | **0.20** | **272** | *e*Pn | **Pn** | **04 01 16.1** | **+0.1** |
| **JGF** | **Kuroka** | **0.27** | **17** | ⇓P | **Pn** | **04 01 16.8** | **+0.2** |
| JGF | | | | S | **Sn** | **04 01 23.0** | **0.0** |
| **JNY** | **Yasuok** | **0.49** | **88** | ⇑P | **Pn** | **04 01 19.1** | **+0.2** |
| **HMMJ** | **Hamamatsu 2** | **0.62** | **142** | ⇑P | **Pn** | **04 01 20.7** | **+0.4** |
| **JAA** | **Atsumi** | **0.71** | **188** | ⇓P | **Pn** | **04 01 22.5** | **+0.9** |
| **JEG** | **Eigenji** | **0.74** | **254** | ⇑P | **Pn** | **04 01 22.4** | **+0.5** |
| **SHZ3** | **Shizuoka 3** | **0.83** | **109** | ⇑P | **Pn** | **04 01 23.2** | **+0.1** |
| SHZ3 | | | | *e*S | **Sn** | **04 01 35.2** | **+0.8** |
| **JGN** | **Niukaw** | **0.88** | **3** | ⇓P | **Pn** | **04 01 24.3** | **+0.4** |
| **JNT** | **Takato** | **0.89** | **53** | ⇑P | **Pn** | **04 01 24.6** | **+0.5** |
| **TSUJ** | **Tsu 2** | **0.93** | **228** | ⇑P | **Pn** | **04 01 24.8** | **+0.3** |
| TSUJ | | | | S | **Sn** | **04 01 37.0** | **+0.2** |
| **JIE** | **Ise** | **1.05** | **206** | P | **Pn** | **04 01 26.6** | **+0.6** |
| JIE | | | | S | **Sn** | **04 01 39.7** | **+0.1** |
| **JFM** | **Mihama** | **1.06** | **281** | ⇑P | **Pn** | **04 01 26.3** | **+0.2** |
| **JYN** | **Shimob** | **1.06** | **81** | ⇑P | **Pn** | **04 01 27.2** | **+0.9** |
| **TK04** | **Tokai 4** | **1.08** | **152** | P | **Pn** | **04 01 27.5** | **+1.1** |
| **JKG** | **Kaga** | **1.20** | **321** | P | **Pn** | **04 01 29.1** | **+1.1** |
| JKG | | | | S | **Sn** | **04 01 44.6** | **+1.4** |
| **JTT** | **Ttatey** | **1.26** | **3** | ⇓P | **Pn** | **04 01 29.7** | **+0.8** |
| JTT | | | | S | **Sn** | **04 01 46.3** | **+1.5** |
| **JNG** | **Nsakai** | **1.26** | **33** | ⇑P | **Pn** | **04 01 30.4** | **+1.4** |
| **JKN2** | **Miekihoku** | **1.37** | **217** | ⇑P | **Pn** | **04 01 30.5** | **+0.2** |
| **MAJO** | **Matsushiro** | **1.43** | **32** | ⇑*i*P | **Pn** | **04 01 32.5** | **+1.3** |
| **MAJO** | **Matsushiro** | **1.43** | **32** | *e*Pn | **Pn** | **04 01 32.4** | **+1.3** |
| MAJO | | | | *e*Sn | **Sn** | **04 01 48.4** | **-0.3** |
| **MAT** | **Matsushiro** | **1.43** | **32** | P | **Pn** | **04 01 32.3** | **+1.1** |
| MAT | | | | S | **Sn** | **04 01 51.5** | **+2.7** |
| **MAT** | **Matsushiro** | **1.43** | **32** | P | **Pn** | **04 01 32.3** | **+1.1** |
| **MJAR** | **Matsushiro Arr** | **1.43** | **33** | P | **Pn** | **04 01 32.3** | **+1.2** |
| | 1μm,0.3s,baz=205,slow=13,SNR=5398 | | | | | | |
| MJAR | | | | S | **Sn** | **04 01 51.1** | **+2.3** |
| | 3μm,0.3s,baz=234,slow=48,SNR=27 | | | | | | |
| MJAR | | | | LR | LR | 04 02 18.3 | |
| | comp=Z,6μm,19.2s,baz=220,slow=47 | | | | | | |
| **MJB9** | **Matsu-Tunnel** | **1.43** | **32** | *e*Pn | **Pn** | **04 01 32.7** | **+1.6** |
| MJB9 | | | | *e*Sn | **Sn** | **04 01 48.4** | **-0.4** |
| **JOD2** | **Odawara 2** | **1.50** | **92** | ⇑P | **Pn** | **04 01 33.2** | **+1.0** |
| **JWT** | **Wachi** | **1.52** | **268** | ⇑P | **Pn** | **04 01 32.7** | **+0.3** |
| **AJI** | **Ajiro2** | **1.53** | **101** | ⇓P | **Pn** | **04 01 33.8** | **+1.2** |
| **JGK** | **Kuni** | **1.66** | **42** | ⇑P | **Pn** | **04 01 35.7** | **+1.4** |
| **JWY** | **Kouya** | **1.77** | **231** | ⇑P | **Pn** | **04 01 36.0** | **+0.1** |
| **JMIK** | **Miki** | **1.89** | **254** | ⇑P | **Pn** | **04 01 37.9** | **+0.5** |
| **JJN** | **Nakama** | **1.90** | **22** | ⇑P | **Pn** | **04 01 39.6** | **+1.9** |
| **JKS** | **Kasai** | **2.01** | **260** | ⇑P | **Pn** | **04 01 39.3** | **+0.2** |
| **JKSM** | **Kasumi** | **2.13** | **277** | ⇑P | **Pn** | **04 01 40.6** | **-0.2** |
| **JWM** | **Minabe** | **2.16** | **227** | ⇑P | **Pn** | **04 01 40.6** | **-0.6** |
| **JWZ** | **Kozaga** | **2.21** | **216** | ⇑P | **Pn** | **04 01 41.5** | **-0.4** |
| **I30JP** | **ISUMI INFRASON** | **2.50** | **90** | P | **Pn** | **04 01 50.1** | **+4.3** |
| | baz=271,slow=21,SNR=0.8 | | | | | | |
| **BSO4** | **Boso 4** | **2.55** | **97** | P | **Pn** | **04 01 48.6** | **+2.2** |
| **JAD** | **Aida** | **2.56** | **262** | ⇑P | **Pn** | **04 01 46.9** | **+0.2** |
| **JAI** | **Aioi** | **2.78** | **237** | ⇑P | **Pn** | **04 01 49.8** | **+0.1** |
| **JSD** | **Sado** | **2.81** | **16** | P | **Pn** | **04 01 50.8** | **+0.7** |
| **JKR** | **Kurayoshi** | **2.81** | **272** | ⇑P | **Pn** | **04 01 50.5** | **+0.4** |
| **JHO** | **Hitachi** | **2.97** | **64** | ⇑P | **Pn** | **04 01 53.1** | **+0.8** |
| **JHJ** | **Hachijo jima 2** | **3.05** | **136** | P | **Pn** | **04 01 54.3** | **+1.0** |
| | 294nm,0.3s,baz=353,slow=4.6,SNR=50 | | | | | | |
| JHJ | | | | S | **Sn** | **04 02 30.3** | **+1.7** |
| | 245nm,0.3s,baz=73,slow=19,SNR=5.2 | | | | | | |
| JHJ | | | | LR | LR | 04 03 20.5 | |
| | comp=Z,36nm,18.7s,baz=42,slow=43 | | | | | | |
| **JHJ2** | **Mitsune** | **3.07** | **136** | *e*Pn | **Pn** | **04 01 54.4** | **+0.7** |
| JHJ2 | | | | *e*Sn | **Sn** | **04 02 28.8** | **-0.4** |
| **JMN** | **Monobe** | **3.22** | **241** | ⇑P | **Pn** | **04 01 55.9** | **+0.1** |
| **ONAJ** | **Iwakimizuishiy** | **3.36** | **57** | ⇑P | **Pn** | **04 01 59.5** | **+1.8** |
| **JOI** | **OKI** | **3.39** | **287** | ⇑P | **Pn** | **04 01 57.3** | **-0.8** |
| **JHS** | **Saijyo** | **3.41** | **265** | ⇑P | **Pn** | **04 01 59.2** | **+0.9** |
| **JJG** | **Jouge** | **3.44** | **259** | ⇑P | **Pn** | **04 01 59.2** | **+0.4** |
| **JNM** | **Ikuma** | **3.46** | **274** | ⇑P | **Pn** | **04 01 59.5** | **+0.6** |
| **JET** | **Tanbara** | **3.81** | **247** | ⇑P | **Pn** | **04 02 04.1** | **+0.3** |
| **JHT** | **Toyohira** | **4.03** | **262** | ⇑P | **Pn** | **04 02 07.5** | **+0.7** |
| **JHM** | **Kurahashi** | **4.07** | **254** | ⇑P | **Pn** | **04 02 08.0** | **+0.6** |
| **JKI** | **Kunimi** | **5.00** | **252** | ⇑P | **Pn** | **04 02 21.5** | **+1.4** |
| **JKIT** | **Kitakata** | **5.53** | **242** | ⇑P | **Pn** | **04 02 28.3** | **+0.9** |
| **JFA** | **Akaike** | **5.58** | **255** | P | **Pn** | **04 02 28.7** | **+0.7** |
| **JNU** | **Nakatsue** | **5.73** | **249** | P | **Pn** | **04 02 30.8** | **+0.6** |
| | 91nm,0.3s,baz=64,slow=9.4,SNR=320 | | | | | | |
| JNU | | | | S | **Sn** | **04 03 33.2** | **-1.5** |
| | 6.1nm,0.3s,baz=168,slow=16,SNR=1.9 | | | | | | |
| **JNU** | **Nakatsue** | **5.73** | **249** | P | **Pn** | **04 02 30.9** | **+0.7** |
| **KSRS** | **Korea Array** | **7.82** | **288** | P | **Pn** | **04 02 59.7** | **+1.0** |
| | 7.0nm,0.3s,baz=101,slow=14,SNR=79 | | | | | | |
| KSRS | | | | S | **Sn** | **04 04 25.8** | **0.0** |
| | 8.7nm,0.3s,baz=102,slow=24,SNR=12 | | | | | | |
| KSRS | | | | LR | LR | 04 05 59.1 | |
| | comp=Z,3μm,20.5s,baz=88,slow=38 | | | | | | |
| **KS15** | **Wonju Array Si** | **7.84** | **288** | *e*Pn | **Pn** | **04 02 59.9** | **+0.8** |
| KS15 | | | | *e*Sn | **Sn** | **04 04 24.7** | **-1.8** |
| **KSAR** | **Wonju Array Be** | **7.84** | **288** | P | **Pn** | **04 02 59.8** | **+0.7** |
| KSAR | | | | S | **Sn** | **04 04 25.8** | **-0.7** |
| **KSAR** | **Wonju Array Be** | **7.84** | **288** | P | **Pn** | **04 02 59.8** | **+0.7** |
| KSAR | | | | S | **Sn** | **04 04 25.8** | **-0.7** |
| **KS01** | **Wonju Array Si** | **7.84** | **288** | *e*Pn | **Pn** | **04 02 59.2** | **+0.1** |
| KS01 | | | | *e*Sn | **Sn** | **04 04 24.1** | **-2.4** |
| **ERM** | **Erimo** | **8.10** | **33** | ⇑*i*P | **Pn** | **04 03 04.1** | **+1.5** |
| ERM | | | | pmax | pmax | | |
| | comp=Z,107nm,0.8s | | | | | | |
| **ERM** | **Erimo** | **8.10** | **33** | *e*Pn | **Pn** | **04 03 03.9** | **+1.3** |
| **MSHR** | **Mys Shultsa** | **8.65** | **329** | ⇓*e*P | **Pn** | **04 03 10.0** | **-0.1** |
| **VLA** | **Vladivostok** | **8.81** | **333** | ⇓*e*P | **Pn** | **04 03 11.0** | **-1.3** |
| **INCN** | **Inchon** | **8.83** | **287** | *e*Pn | **Pn** | **04 03 15.8** | **+3.2** |
| **CBIJ** | **Chichi jima** | **9.24** | **152** | *e*Pn | **Pn** | **04 03 17.4** | **-0.8** |
| **JCJ** | **Chichijima** | **9.24** | **152** | P | **Pn** | **04 03 17.4** | **-0.8** |
| | comp=Z,4.2nm,0.3s,baz=338,slow=19,SNR=2.4 | | | | | | |
| JCJ | | | | LR | LR | 04 07 14.4 | |
| | comp=Z,921nm,18.5s,baz=315,slow=40 | | | | | | |
| **ASAJ** | **Asahikawa** | **9.68** | **23** | P | **Pn** | **04 03 24.3** | **+0.1** |
| | comp=Z,7.9nm,0.3s,baz=225,slow=12,SNR=28 | | | | | | |
| ASAJ | | | | LR | LR | 04 07 10.2 | |
| | comp=Z,5.7nm,21.3s,baz=166,slow=37 | | | | | | |
| **ASAJ** | **Asahikawa** | **9.68** | **23** | *e*Pn | **Pn** | **04 03 25.0** | **+0.8** |
| **USRK** | **Ussuriysk Ar.** | **9.73** | **337** | P | **Pn** | **04 03 27.8** | **+2.9** |
| | comp=Z,2.3nm,0.3s,baz=150,slow=13,SNR=27 | | | | | | |
| USRK | | | | LR | LR | 04 06 54.1 | |
| | comp=Z,2μm,21.8s,baz=144,slow=36 | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **10.92** | **35** | P | **Pn** | **04 03 45.5** | **+4.4** |
| YUK | | | | S | **Sn** | **04 05 35.6** | **-6.1** |
| YUK | | | | pmax | pmax | | |
| | comp=E,69nm,0.4s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=Z,218nm,0.4s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=N,60nm,0.3s | | | | | | |
| YUK | | | | MLR | MLR | | |
| | comp=Z,3μm,19.0s | | | | | | |
| YUK | | | | MLR | MLR | | |
| | comp=N,3μm,17.0s | | | | | | |
| **MDJ** | **Mudanjiang** | **10.97** | **330** | P | **Pn** | **04 03 45.8** | **+4.1** |
| MDJ | | | | S | **Sn** | **04 05 44.1** | **+1.2** |
| MDJ | | | | pmax | pmax | | |
| | comp=N,22nm,0.8s | | | | | | |
| MDJ | | | | pmax | pmax | | |
| | comp=N,170nm,5.8s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=N,1μm,24.9s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=N,1μm,18.0s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=N,2μm,20.7s | | | | | | |
| **MDJ** | **Mudanjiang** | **10.97** | **330** | *e*Pn | **Pn** | **04 03 45.9** | **+4.1** |
| **YSS** | **Yuzh-Sakhalins** | **12.31** | **18** | ⇓*e*P | **Pn** | **04 03 59.5** | **-0.6** |
| YSS | | | | *e*S | **Sn** | **04 06 16.2** | **+0.4** |
| YSS | | | | pmax | pmax | | |
| | comp=Z,70nm,0.7s | | | | | | |
| YSS | | | | MLR | MLR | | |
| | comp=Z,900nm,16.0s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **12.31** | **18** | *e*Pn | **Pn** | **04 03 59.6** | **-0.6** |
| **CN2** | **Changchun** | **12.41** | **316** | *e*P | P | 04 04 06.9 | -5.2 |
| CN2 | | | | *e*sP | sP | 04 04 21.8 | |
| CN2 | | | | *e*S | Sn | 04 06 27.8 | +9.5 |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,40nm,1.6s | | | | | | |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,200nm,3.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,800nm,15.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,2μm,15.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,2μm,20.0s | | | | | | |
| **SNY** | **Shenyang** | **12.50** | **305** | ⇑P | **Pn** | **04 04 05.6** | **+2.9** |
| SNY | | | | S | **Sn** | **04 06 29.3** | **+8.8** |
| SNY | | | | pmax | pmax | | |
| | comp=Z,22nm,2.2s | | | | | | |
| SNY | | | | pmax | pmax | | |
| | comp=Z,440nm,8.7s | | | | | | |
| SNY | | | | LR | LR | | |
| | comp=Z,1μm,16.1s | | | | | | |
| SNY | | | | LR | LR | | |
| | comp=Z,1μm,21.6s | | | | | | |
| SNY | | | | LR | LR | | |
| | comp=Z,2μm,22.6s | | | | | | |
| **KUR** | **Kuril'sk** | **12.76** | **36** | *i*P | **Pn** | **04 04 05.5** | **-0.8** |
| **DL2** | **Dalian** | **12.97** | **291** | P | **Pn** | **04 04 07.3** | **-1.9** |
| DL2 | | | | S | **Sn** | **04 06 28.0** | **-3.9** |
| DL2 | | | | pmax | pmax | | |
| | comp=Z,44nm,1.2s | | | | | | |
| DL2 | | | | pmax | pmax | | |
| | comp=Z,730nm,7.6s | | | | | | |
| DL2 | | | | LR | LR | | |
| | comp=Z,2μm,13.5s | | | | | | |
| DL2 | | | | LR | LR | | |
| | comp=Z,2μm,15.7s | | | | | | |
| DL2 | | | | LR | LR | | |
| | comp=Z,3μm,16.9s | | | | | | |
| **HABR** | **Khabarovsk** | **13.22** | **354** | *e*P | **Pn** | **04 04 10.8** | **-1.7** |
| HABR | | | | *e*S | **Sn** | **04 06 37.0** | **-0.9** |
| HABR | | | | pmax | pmax | | |
| | comp=E,19nm,1.9s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=N,82nm,1.9s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=Z,96nm,1.9s | | | | | | |
| HABR | | | | MLR | MLR | | |
| | comp=Z,360nm,14.0s | | | | | | |
| **KLR** | **Kul'dur** | **14.46** | **345** | P | **Pn** | **04 04 30.9** | **+1.7** |
| | comp=Z,0.0nm,0.3s,baz=147,slow=13,SNR=20 | | | | | | |
| KLR | | | | PcP | **PcP** | **04 09 41.8** | **+0.3** |
| | comp=Z,0.0nm,0.3s,baz=88,slow=2.9,SNR=3.8 | | | | | | |
| KLR | | | | LR | LR | 04 09 54.3 | |
| | comp=Z,166nm,20.1s,baz=160,slow=36 | | | | | | |
| **KLR** | **Kul'dur** | **14.46** | **345** | P | **Pn** | **04 04 31.0** | **+1.7** |
| KLR | | | | MLR | MLR | | |
| | comp=Z,166nm,20.1s | | | | | | |
| **NJ2** | **Nanjing** | **15.66** | **263** | *e*P | **Pn** | **04 04 46.5** | **+1.5** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,22nm,1.0s | | | | | | |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,560nm,3.6s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,900nm,6.9s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,540nm,5.7s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,740nm,7.5s | | | | | | |
| **TYV** | **Tymovskoe** | **16.00** | **12** | *e*P | **Pn** | **04 04 50.2** | **+1.0** |
| TYV | | | | pmax | pmax | | |
| | comp=Z,43nm,1.1s | | | | | | |
| **TIA** | **Tai'an** | **16.37** | **279** | ⇓P | **P** | **04 04 55.8** | **-0.3** |
| TIA | | | | pmax | pmax | | |
| | comp=Z,50nm,1.2s | | | | | | |
| TIA | | | | pmax | pmax | | |
| | comp=Z,450nm,4.3s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,560nm,16.3s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,1μm,13.9s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,2μm,14.1s | | | | | | |
| **BJI** | **Beijing** | **17.32** | **292** | P | **P** | **04 05 07.3** | **+0.7** |
| BJI | | | | sP | **sP** | **04 05 23.6** | **-0.8** |
| BJI | | | | S | **S** | **04 08 21.6** | **-2.6** |
| BJI | | | | pmax | pmax | | |
| | comp=Z,39nm,1.7s | | | | | | |
| BJI | | | | pmax | pmax | | |
| | comp=Z,930nm,4.5s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,910nm,16.9s | | | | | | |
| **BJT** | **Baijiatuau** | **17.33** | **292** | *e*P | **P** | **04 05 08.8** | **+2.1** |
| BJT | | | | pmax | pmax | | |
| | comp=Z,54nm,0.6s | | | | | | |
| **BJT** | **Baijiatuau** | **17.33** | **292** | *e*Pn | **P** | **04 05 08.8** | **+2.1** |
| | comp=Z,54nm,0.6s | | | | | | |
| **NKL** | **Nikolayevsk** | **17.97** | **7** | *e*P | **Pn** | **04 05 08.5** | **-5.1** |
| NKL | | | | pmax | pmax | | |
| | comp=Z,26nm,1.0s | | | | | | |
| NKL | | | | MLR | MLR | | |
| | comp=E,700nm,15.0s | | | | | | |
| NKL | | | | MLR | MLR | | |
| | comp=Z,1μm,15.0s | | | | | | |
| **YULB** | **Yu-li** | **18.28** | **234** | *e*P | **P** | **04 05 12.8** | **-4.5** |
| | comp=Z,81nm,1.6s | | | | | | |
| **HIA** | **Hailar** | **18.95** | **323** | *e*P | **Pn** | **04 05 25.4** | **-0.2** |
| HIA | | | | pmax | pmax | | |
| | comp=Z,67nm,0.9s | | | | | | |
| **HIA** | **Hailar** | **18.95** | **323** | *e*P | **Pn** | **04 05 25.4** | **-0.2** |
| | comp=Z,67nm,0.9s | | | | | | |
| **QZH** | **Quanzhou** | **19.15** | **242** | ⇑*i*P | **P** | **04 05 27.3** | **+0.5** |
| QZH | | | | sP | **sP** | **04 05 43.8** | **-0.8** |
| QZH | | | | pmax | pmax | | |
| | comp=Z,1μm,3.7s | | | | | | |
| QZH | | | | LR | LR | | |
| | comp=Z,2μm,11.0s | | | | | | |
| QZH | | | | LR | LR | | |
| | comp=Z,1μm,12.1s | | | | | | |
| QZH | | | | LR | LR | | |
| | comp=Z,3μm,13.2s | | | | | | |
| **WHN** | **Wuhan** | **19.80** | **262** | ⇑P | **Pn** | **04 05 36.0** | **+0.3** |
| WHN | | | | S | **Sn** | **04 09 18.8** | **+1.3** |
| WHN | | | | pmax | pmax | | |
| | comp=Z,400nm,0.9s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=Z,2μm,12.9s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=Z,3μm,16.0s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=Z,2μm,23.2s | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **20.92** | **293** | *e*P | **P** | **04 05 46.1** | **0.0** |
| HHC | | | | PP | **PnPn** | **04 06 07.4** | **+1.2** |
| HHC | | | | S | **S** | **04 09 29.9** | **-6.6** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,30nm,0.9s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,190nm,3.8s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,420nm,12.0s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,470nm,11.2s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,510nm,11.8s | | | | | | |
| **BTO** | **Baotou** | **22.06** | **292** | *e*P | P | 04 06 06.1 | +7.8 |
| **PEA0B** | **Petropavlovsk-** | **22.89** | **33** | *e*P | **P** | **04 06 06.3** | **-0.5** |
| | comp=Z,56nm,1.1s | | | | | | |
| **PETK** | **Petropavlovsk-** | **22.89** | **33** | P | **P** | **04 06 06.8** | **0.0** |
| | comp=Z,27nm,1.0s,baz=223,slow=9.9,SNR=10 | | | | | | |
| PETK | | | | LR | LR | 04 14 52.2 | |
| | comp=Z,1μm,20.9s,baz=227,slow=36 | | | | | | |
| **PEA1** | **Petropavlovsk-** | **22.89** | **33** | *e*P | **P** | **04 06 06.8** | **0.0** |
| **PET** | **Petropavlovsk** | **23.26** | **34** | *e*P | **P** | **04 06 10.0** | **-0.5** |
| PET | | | | *e*S | **S** | **04 10 18.5** | **-0.3** |
| PET | | | | pmax | pmax | | |
| | comp=Z,38nm,1.0s | | | | | | |
| PET | | | | MLR | MLR | | |
| | comp=Z,2μm,18.0s | | | | | | |
| PET | | | | MLR | MLR | | |
| | comp=Z,1μm,15.0s | | | | | | |
| **XAN** | **Xi'an** | **23.31** | **275** | P | **P** | **04 06 10.3** | **-0.9** |
| XAN | | | | pP | pP | 04 06 22.3 | -1.0 |
| XAN | | | | sP | sP | 04 06 27.8 | -1.7 |
| XAN | | | | S | **S** | **04 10 18.6** | **-1.5** |
| XAN | | | | sS | sS | 04 10 38.3 | -3.2 |
| XAN | | | | SS | **SnSn** | **04 11 11.3** | **+13** |
| XAN | | | | pmax | pmax | | |
| | comp=Z,53nm,1.1s | | | | | | |
| XAN | | | | pmax | pmax | | |
| | comp=Z,160nm,5.6s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,710nm,18.5s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,1μm,16.7s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,2μm,17.8s | | | | | | |
| **ENH** | **Enshi** | **23.84** | **266** | *e*P | **P** | **04 06 16.3** | **0.0** |
| | comp=Z,111nm,0.8s | | | | | | |
| **ULN** | **Ulaanbaatar** | **25.64** | **308** | *c i*P | **P** | **04 06 32.2** | **-0.4** |
| ULN | | | | *e**sP | **pP** | **04 06 44.2** | **-1.2** |
| ULN | | | | pmax | pmax | | |
| | comp=Z,11nm,1.7s | | | | | | |
| **ULN** | **Ulaanbaatar** | **25.64** | **308** | *e*P | **P** | **04 06 32.2** | **-0.4** |
| | comp=Z,65nm,1.6s | | | | | | |
| **MA2** | **Magadan** | **25.81** | **16** | P | **P** | **04 06 33.6** | **-0.2** |
| | comp=Z,43nm,0.7s,baz=200,slow=8.6,SNR=19 | | | | | | |
| **MA2** | **Magadan** | **25.81** | **16** | ⇓*i*P | **P** | **04 06 34.3** | **+0.5** |
| **SONA1** | **Songino Array** | **26.05** | **308** | *e*P | **P** | **04 06 35.5** | **-0.9** |
| **SONA0** | **Songino Array** | **26.06** | **308** | *e*P | **P** | **04 06 36.0** | **-0.3** |
| SONA0 | | | | *e*PcP | **PcP** | **04 10 03.0** | **-0.1** |
| SONA0 | | | | *e*ScP | **ScP** | **04 13 37.5** | **-1.0** |
| **SONM** | **Songino Array** | **26.06** | **308** | P | **P** | **04 06 36.0** | **-0.3** |
| | comp=Z,5.0nm,0.9s,baz=111,slow=8.8,SNR=21 | | | | | | |
| SONM | | | | PcP | **PcP** | **04 10 02.9** | **-0.1** |
| | comp=Z,0.9nm,0.7s,baz=169,slow=3.0,SNR=3.7 | | | | | | |
| SONM | | | | ScP | **ScP** | **04 13 37.5** | **-1.0** |
| | comp=Z,2.7nm,1.1s,baz=134,slow=4.3,SNR=8.6 | | | | | | |
| SONM | | | | LR | LR | 04 17 24.6 | |
| | comp=Z,2μm,18.1s,baz=124,slow=38 | | | | | | |
| **LZH** | **Lanzhou** | **27.07** | **281** | ⇓P | **P** | **04 06 44.8** | **-0.8** |
| LZH | | | | pP | pP | 04 06 59.0 | +0.5 |
| LZH | | | | sP | sP | 04 07 06.3 | +1.8 |
| LZH | | | | PP | **PnPn** | **04 07 31.8** | **+1.5** |
| LZH | | | | *e*S | **S** | **04 11 16.1** | **-4.1** |
| LZH | | | | sS | sS | 04 11 44.3 | +2.3 |
| LZH | | | | SS | **SnSn** | **04 12 35.3** | **+5.0** |
| LZH | | | | pmax | pmax | | |
| | comp=Z,44nm,1.0s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,160nm,4.4s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,1μm,14.6s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,840nm,14.2s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,1μm,15.6s | | | | | | |
| **YAK** | **Yakutsk** | **27.14** | **352** | *e*P | P | 04 06 57.1 | +11 |
| YAK | | | | *e* | | 04 07 50.8 | |
| YAK | | | | *e* | | 04 10 05.0 | |
| YAK | | | | pmax | pmax | | |
| | comp=Z,30nm,1.0s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,6.0nm,1.1s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,13nm,1.3s | | | | | | |
| YAK | | | | MLR | MLR | | |
| | comp=Z,1μm,18.0s | | | | | | |
| YAK | | | | MLR | MLR | | |
| | comp=N,3μm,19.0s | | | | | | |
| YAK | | | | MLR | MLR | | |
| | comp=E,312nm,13.0s | | | | | | |
| **YAK** | **Yakutsk** | **27.14** | **352** | *e*P | **P** | **04 06 45.0** | **-0.7** |
| | comp=E,39nm,0.9s | | | | | | |
| **BOD** | **Bodaibo** | **27.32** | **333** | *e*P | **P** | **04 06 47.0** | **-0.5** |
| BOD | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.5s | | | | | | |
| **GYA** | **Guiyang** | **27.62** | **260** | ⇑*i*P | **P** | **04 06 50.3** | **-0.3** |
| GYA | | | | pP | pP | 04 07 04.6 | +1.2 |
| GYA | | | | sP | sP | 04 07 11.0 | +1.6 |
| GYA | | | | PP | **PnPn** | **04 07 41.6** | **+3.8** |
| GYA | | | | PcP | **PcP** | **04 10 09.8** | **+2.7** |
| GYA | | | | S | **S** | **04 11 28.3** | **-0.6** |
| GYA | | | | sS | sS | 04 11 51.4 | +0.7 |
| GYA | | | | SS |

TLY pmax pmax
comp=Z,15nm,0.9s
TLY MLR MLR
comp=Z,1µm,17.0s
**QIZ Qiongzhong 29.17 243** P **P** **04 07 03.4 -0.9**
QIZ sP **sP** **04 07 23.4 +0.3**
QIZ S **S** **04 11 54.8 +1.6**
QIZ pmax pmax
comp=Z,59nm,1.7s
QIZ LR LR
comp=Z,780nm,16.1s
QIZ LR LR
comp=Z,790nm,12.7s
**SEY Seymchan 29.18 14** P **P** **04 07 03.5 -0.4**
comp=Z,1.3nm,0.3s,baz=207,slow=7.2,SNR=4.7
**GTA Gaotai 29.89 289** *eP* **P** **04 07 12.0 +1.3**
GTA pP pP 04 07 24.0 +0.4
GTA sP sP 04 07 29.6 0.0
GTA PcP **PcP** **04 10 13.1 +0.5**
GTA S **S** **04 12 02.1 -2.4**
GTA sS sS 04 12 23.3 -3.0
GTA pmax pmax
comp=Z,6.0nm,0.8s
GTA pmax pmax
comp=Z,120nm,8.3s
GTA LR LR
comp=Z,450nm,16.4s
GTA LR LR
comp=Z,800nm,15.7s
GTA LR LR
comp=Z,830nm,15.9s
**KMI Kunming 31.38 261** P **P** **04 07 24.8 +0.8**
KMI sP sP 04 07 42.3 -0.6
KMI PP **PP** **04 08 33.4 -2.1**
KMI S **S** **04 12 27.3 -0.8**
KMI sS sS 04 12 51.5 +1.5
KMI SS **SnSn** **04 14 16.5 +1.1**
KMI pmax pmax
comp=Z,14nm,1.0s
KMI pmax pmax
comp=Z,94nm,4.9s
KMI LR LR
comp=Z,430nm,22.8s
KMI LR LR
comp=Z,480nm,23.2s
KMI LR LR
comp=Z,730nm,24.1s
**TIXI Tiksi 36.64 356** P **P** **04 08 07.5 -1.4**
comp=Z,1.7nm,0.3s,baz=161,slow=8.2,SNR=7.8
TIXI PcP **PcP** **04 10 31.2 +0.5**
comp=Z,2.8nm,0.5s,baz=89,slow=5.7,SNR=3.9
**TIXI Tiksi 36.64 356** *eP* **P** **04 08 07.5 -1.4**
comp=Z,0.8nm,0.8s
TIXI *e*PcP **PcP** **04 10 31.2 +0.5**
**CHTO Chiang Mai 37.61 254** *eP* **P** **04 08 15.2 -2.5**
CHTO pmax pmax
comp=Z,8.0nm,0.8s
**CHTO Chiang Mai 37.61 254** *eP* **P** **04 08 15.2 -2.5**
comp=Z,7.8nm,0.8s
**CM31 Chiang Mai Arr 37.81 254** *eP* **P** **04 08 19.5 +0.2**
CM31 *e*PcP **PcP** **04 10 35.4 +0.2**
**CMAR Chiang Mai Arr 37.81 254** P **P** **04 08 19.5 +0.2**
comp=Z,1.6nm,0.4s,baz=67,slow=6.2,SNR=5.7
CMAR PcP **PcP** **04 10 35.4 +0.2**
comp=Z,2.2nm,0.4s,baz=20,slow=2.0,SNR=7.6
CMAR LR LR 04 25 25.3
comp=Z,536nm,18.4s,baz=60,slow=39
**CM01 Chiang Mai Arr 37.81 254** *eP* **P** **04 08 19.6 +0.2**
**FAKI Fak Fak 38.35 188** *eP* **P** **04 08 23.7 -0.1**
comp=Z,54nm,1.0s
**WMQ Urumqi 38.63 298** P **P** **04 08 27.3 +1.2**
WMQ sP sP 04 08 46.1 +0.9
WMQ PP **PnPn** **04 10 05.3 +7.7**
WMQ S **S** **04 14 13.5 -5.6**
WMQ PcS **PcS** **04 14 29.3 +2.5**
WMQ pmax pmax
comp=Z,38nm,1.7s
WMQ pmax pmax
comp=Z,48nm,3.6s
WMQ LR LR
comp=Z,630nm,19.1s
WMQ LR LR
comp=Z,580nm,21.3s
WMQ LR LR
comp=Z,680nm,21.3s
**DGZ Jazzator, Alta 38.70 307** *i* P **P** **04 08 27.2 +0.5**
DGZ pmax pmax
comp=Z,6.0nm,1.0s
**SHL Shillong 40.02 269** *eP* **P** **04 08 38.0 0.0**
SHL *eS* **S** **04 14 40.0 -0.4**
**SHL Shillong 40.02 269** *eSG* **S** **04 14 40.0 -0.4**
**ZAA0 Zalesovo Array 40.62 314** *eP* **P** **04 08 44.1 +1.7**
comp=Z,4.9nm,1.1s
**ZAA1 Zalesovo Array 40.62 314** *eP* **P** **04 08 41.0 -1.4**
ZAA1 *e*PcP **PcP** **04 10 43.3 -0.2**
**ZALV Zalesovo Beam 40.62 314** P **P** **04 08 41.0 -1.4**
comp=Z,2.0nm,0.7s,baz=111,slow=9.0,SNR=6.6
ZALV PcP **PcP** **04 10 43.3 -0.2**
comp=Z,11nm,0.8s,baz=96,slow=3.0,SNR=17
ZALV LR LR 04 26 19.7
comp=Z,830nm,18.0s,baz=68,slow=37
**MK01 Makanchi Array 42.19 303** *eP* **P** **04 08 54.8 -0.6**
**MK31 Makanchi Array 42.20 303** *i* P **P** **04 08 55.8 +0.3**
MK31 pmax pmax
comp=Z,5.0nm,0.7s
**MK31 Makanchi Array 42.20 303** *eP* **P** **04 08 54.4 -1.0**
**MK32 Makanchi Array 42.20 303** *eP* **P** **04 08 55.4 -0.1**
MK32 *e*PcP **PcP** **04 10 48.9 0.0**
MK32 *e*ScP **ScP** **04 14 33.3 -1.9**
**MKAR Makanchi Array 42.20 303** P **P** **04 08 55.4 -0.1**
comp=Z,3.1nm,0.6s,baz=91,slow=9.6,SNR=27
MKAR PcP **PcP** **04 10 48.9 0.0**
comp=Z,3.2nm,0.8s,baz=74,slow=5.2,SNR=5.4
MKAR ScP **ScP** **04 14 33.3 -1.9**
comp=Z,2.1nm,1.0s,baz=84,slow=5.6,SNR=5.8
MKAR LR LR 04 27 07.2
comp=Z,597nm,21.3s,baz=72,slow=37
**MKAR Makanchi Array 42.20 303** *ceP* **P** **04 08 55.9 +0.4**
MKAR pmax pmax
comp=Z,3.0nm,0.6s
**MAKZ Makanchi 42.41 303** *eP* **P** **04 08 56.9 -0.3**
MAKZ *e* 04 10 50.0
MAKZ pmax pmax
comp=Z,7.0nm,0.8s
**MAKZ Makanchi 42.41 303** *eP* **P** **04 08 56.9 -0.3**
comp=Z,6.5nm,0.8s
MAKZ *e*PcP **PcP** **04 10 50.0 +0.4**
**ODAN Odare 43.15 273** *eP* **P** **04 09 04.0 +0.3**
comp=Z,19nm,0.6s
**RAMN Ramite 43.76 274** *eP* **P** **04 09 08.4 -0.2**
comp=Z,38nm,0.7s
**JIRN Jiri 43.81 275** *eP* **P** **04 09 09.4 +0.2**
comp=Z,226nm,0.7s
**GUN Gumba 43.97 275** *eP* **P** **04 09 10.1 -0.3**
comp=Z,33nm,0.8s
**KURK Kurchatov 44.36 309** *ci* P **P** **04 09 12.6 -0.2**
KURK *i* *SP **pP** **04 09 24.3 -1.9**
KURK pmax pmax
comp=Z,97nm,1.2s
**KURK Kurchatov 44.36 309** *eP* **P** **04 09 12.0 -0.8**
comp=Z,24nm,1.1s
**PKI Pulchoki 44.48 275** *eP* **P** **04 09 14.1 -0.4**
comp=Z,9.9nm,0.6s
**PDGK Podgornoye 44.61 298** P **P** **04 09 14.7 -0.4**
PDGK pmax pmax
comp=Z,53nm,1.1s
**PMG Port Moresby 45.48 166** P **P** **04 09 21.5 -0.5**
comp=Z,17nm,0.6s,baz=333,slow=11,SNR=9.0
**PMG Port Moresby 45.48 166** *di* P **P** **04 09 21.4 -0.5**
PMG pmax pmax
comp=Z,59nm,0.8s
**PMG Port Moresby 45.48 166** *eP* **P** **04 09 21.4 -0.5**
comp=Z,20nm,0.6s
**DANN Dangsing 45.52 277** *eP* **P** **04 09 23.1 +0.4**
comp=Z,6.9nm,0.9s
**KOLN Koldanda 45.88 276** *eP* **P** **04 09 25.3 -0.1**
comp=Z,32nm,1.0s
**PYUN Piuthan 46.24 277** *eP* **P** **04 09 28.5 +0.2**
comp=Z,106nm,0.8s
**TKM2 Tokmak 2 47.48 299** P **P** **04 09 38.6 +0.8**
TKM2 pmax pmax
comp=Z,64nm,1.4s
**TKM2 Tokmak 2 47.48 299** P **P** **04 09 38.8 +1.0**
SNR=44
**KZA Kyzart 47.92 298** P **P** **04 09 42.2 +0.8**
SNR=16

**KBK Karagaybulak 48.01 298** P **P** **04 09 42.7 +0.8**
SNR=28
**KSH Kashi 48.03 294** P **P** **04 09 45.8 +3.8**
KSH pP sP 04 09 58.8 -2.5
KSH PcP **PcP** **04 11 12.6 +3.3**
KSH PP **PP** **04 11 37.3 +3.1**
KSH S **S** **04 16 40.6 +4.0**
KSH ScS **ScS** **04 19 31.6 +0.8**
KSH SS **SS** **04 20 04.5 -1.2**
KSH pmax pmax
comp=Z,11nm,1.0s
KSH LR LR
comp=Z,300nm,8.2s
KSH LR LR
comp=Z,270nm,6.9s
KSH LR LR
comp=Z,330nm,9.3s
**CHMS Chumysh 48.07 299** P **P** **04 09 42.6 +0.5**
SNR=11
**USP Ospenovka 48.19 299** P **P** **04 09 43.5 +0.4**
SNR=16
**FRU Bishkek 48.20 299** *i* *eP* **P** **04 09 44.0 +0.8**
FRU *i* 04 09 54.0
FRU *e* 04 16 40.0
FRU pmax pmax
comp=Z,70nm,1.6s
**MTN Manton Dam 48.27 188** *eP* **P** **04 09 42.0 -1.7**
comp=Z,50nm,1.2s
**AAK Ala-Archa 48.34 299** *di* P **P** **04 09 44.9 +0.5**
AAK pmax pmax
comp=Z,20nm,1.2s
**AAK Ala-Archa 48.34 299** P **P** **04 09 45.2 +0.8**
SNR=11
**AAK Ala-Archa 48.34 299** *eP* **P** **04 09 44.7 +0.4**
comp=Z,16nm,0.9s
**UCH Uchtor 48.42 298** P **P** **04 09 46.7 +1.3**
SNR=12
**EKS2 Erkin-Say 48.85 299** P **P** **04 09 48.6 +0.4**
SNR=9.2
**SVW2 Sparrevohn 48.89 36** *eP* **P** **04 09 48.5 +0.4**
comp=Z,16nm,1.0s
**AML Almayashu 49.03 298** P **P** **04 09 51.1 +1.1**
SNR=43
**BVA0 Borovoye Array 49.24 313** *i* P **P** **04 09 49.5 -1.4**
BVA0 pmax pmax
comp=Z,13nm,1.1s
**BVAR Borovoye Array 49.24 313** P **P** **04 09 50.3 -0.6**
comp=Z,4.1nm,0.9s,baz=99,slow=9.1,SNR=17
BVAR PcP **PcP** **04 11 13.5 +0.2**
comp=Z,11nm,0.9s,baz=90,slow=2.9,SNR=8.4
**BVAR Borovoye Array 49.24 313** P **P** **04 09 50.3 -0.6**
BVAR 04 11 13.5
BVAR pmax pmax
comp=Z,3.0nm,0.7s
**BRVK Borovoye 49.30 313** *i* P **P** **04 09 51.4 +0.1**
BRVK pmax pmax
comp=Z,12nm,1.2s
**BRVK Borovoye 49.30 313** *eP* **P** **04 09 51.0 -0.3**
comp=Z,13nm,1.0s
**COEN Coen 49.35 172** *eP* **P** **04 09 52.4 +0.3**
comp=Z,92nm,1.0s
**SFK Sufi-Kurgan 49.73 295** P **P** **04 09 55.2 +0.1**
SFK pmax pmax
comp=Z,17nm,0.9s
**MNAS Manas 49.80 299** P **P** **04 09 56.0 +0.5**
MNAS pmax pmax
comp=Z,25nm,1.1s
**IMAR Indian Mountai 49.81 30** *eP* **P** **04 09 54.9 -0.1**
IMAR *e*pP **pP** **04 10 10.9 +2.3**
**GSI Gunungsitoli 50.06 236** *eP* **P** **04 09 57.7 +0.1**
comp=Z,54nm,1.2s
**RSO Redoubt South 50.30 37** *eP* **P** **04 09 59.8 +0.7**
**PPLA Purkynje 50.46 34** *eP* **P** **04 10 01.5 +1.3**
comp=Z,21nm,0.8s
**CAST Castle Rocks 50.50 33** *eP* **P** **04 10 01.4 +1.0**
comp=Z,19nm,0.9s
**SPU Mount Spurr 50.60 36** *eP* **P** **04 10 02.3 +1.1**
**HOM Homer 50.91 38** *eP* **P** **04 10 05.1 +1.7**
comp=Z,381nm,1.3s
**BPAW Bear Paw Mtn. 50.97 32** *eP* **P** **04 10 04.7 +0.8**
comp=Z,11nm,1.0s
**KTH Kantishna Hill 51.02 33** *eP* **P** **04 10 05.2 +1.0**
**MLY Manley 51.05 31** *eP* **P** **04 10 05.5 +1.0**
comp=Z,37nm,1.4s
**KK31 Karatay Array 51.06 300** *i* P **P** **04 10 04.8 -0.1**
KK31 pmax pmax
comp=Z,44nm,1.1s
**SUA Susitna One 51.21 36** *eP* **P** **04 10 05.9 +0.1**
comp=Z,24nm,0.8s
**COLD Coldfoot 51.25 28** *eP* **P** **04 10 07.0 +1.1**
comp=Z,35nm,1.8s
**BRLK Bradley Lake 51.28 38** *eP* **P** **04 10 07.8 +1.5**
comp=Z,39nm,0.9s
**TRF Thorofare Moun 51.30 33** *eP* **P** **04 10 07.2 +0.7**
comp=Z,13nm,0.8s
**RC01 Rabbit Creek A 51.73 36** *eP* **P** **04 10 09.6 +0.1**
comp=Z,30nm,1.2s
**MCK McKinley 51.89 33** *eP* **P** **04 10 10.9 +0.1**
MCK pmax pmax
comp=Z,12nm,0.9s
**MCK McKinley 51.89 33** *eP* **P** **04 10 10.9 +0.1**
comp=Z,12nm,0.9s
**RND Reindeer 51.95 33** *eP* **P** **04 10 11.6 +0.3**
RND pmax pmax
comp=Z,30nm,0.9s
**RND Reindeer 51.95 33** *eP* **P** **04 10 11.6 +0.3**
comp=Z,30nm,0.9s
**PMR Palmer 51.97 36** *eP* **P** **04 10 11.4 +0.1**
PMR pmax pmax
comp=Z,22nm,1.0s
**PMR Palmer 51.97 36** *eP* **P** **04 10 11.4 +0.1**
comp=Z,22nm,1.0s
**MDM Murphy Dome 52.12 31** *eP* **P** **04 10 13.3 +0.9**
comp=Z,72nm,1.2s
**COLA College 52.29 31** *eP* **P** **04 10 14.7 +1.1**
COLA pmax pmax
comp=Z,15nm,0.8s
**COLA College 52.29 31** *eP* **P** **04 10 14.7 +1.1**
comp=Z,15nm,0.8s
**CCB Clear Creek Bu 52.32 32** *eP* **P** **04 10 14.0 +0.1**
comp=Z,34nm,1.9s
**SML Sawmill 52.33 35** *eP* **P** **04 10 14.4 +0.3**
SML pmax pmax
comp=Z,34nm,0.8s
**SML Sawmill 52.33 35** *eP* **P** **04 10 14.4 +0.3**
comp=Z,34nm,0.8s
**DHY Denali Highway 52.65 34** *eP* **P** **04 10 17.2 +0.7**
comp=Z,15nm,0.9s
**ILAR Eielson Array 52.70 31** P **P** **04 10 16.2 -0.6**
comp=Z,6.8nm,0.9s,baz=271,slow=5.6,SNR=46
ILAR LR LR 04 34 44.2
comp=Z,89nm,19.2s,baz=290,slow=38
**ILB Eielson Array 52.70 31** *eP* **P** **04 10 16.7 0.0**
**IL1 Eielson Array 52.71 31** *eP* **P** **04 10 15.6 -1.1**
**HDA Harding Lake 52.71 32** *eP* **P** **04 10 16.9 +0.1**
comp=Z,54nm,1.4s
**SCM Sheep Creek Mo 52.80 35** *eP* **P** **04 10 18.4 +0.8**
SCM pmax pmax
comp=Z,34nm,0.9s
**SCM Sheep Creek Mo 52.80 35** *eP* **P** **04 10 18.4 +0.8**
comp=Z,34nm,0.9s
**FYU Fort Yukon 53.24 29** *eP* **P** **04 10 22.5 +1.9**
comp=Z,68nm,1.3s
**KLU Klutina 53.51 36** *eP* **P** **04 10 23.7 +0.9**
comp=Z,22nm,1.1s
**PAX Paxson 53.52 34** *eP* **P** **04 10 23.5 +0.6**
PAX pmax pmax
comp=Z,12nm,0.8s
**PAX Paxson 53.52 34** *eP* **P** **04 10 23.5 +0.6**
comp=Z,12nm,0.8s
**DZET Dzherino 53.54 295** P **P** **04 10 23.3 -0.2**
DZET pmax pmax
comp=Z,28nm,0.9s
**DIV Divide 53.63 36** *eP* **P** **04 10 24.7 +1.0**
comp=Z,28nm,1.1s
**HARP HAARP 53.74 34** *eP* **P** **04 10 25.7 +1.3**
comp=Z,28nm,0.9s
**SVE Sverdlovsk 54.20 319** *eP* **P** **04 10 28.2 +0.4**
SVE pmax pmax
comp=Z,57nm,0.9s
**BMRM Bremner River 54.22 36** *eP* **P** **04 10 29.0 +1.0**
comp=Z,22nm,0.8s
**MENT Mentasta 54.32 34** *eP* **P** **04 10 29.7 +1.1**
comp=Z,21nm,1.0s
**HYB Hyderabad 54.78 267** *eP* P 04 10 46.0 +13
**KBL Kabul 54.87 290** *eP* **P** **04 10 33.7 +0.4**

KBL *e**PP **pP** **04 10 46.2 -0.8**
KBL pmax pmax
comp=Z,26nm,1.4s
**KBL Kabul 54.87 290** *eP* **P** **04 10 33.7 +0.4**
comp=Z,26nm,1.4s
KBL *e*pP **pP** **04 10 46.2 -0.8**
**WRAB Tennant Creek 55.04 183** *di* P **P** **04 10 33.6 -0.6**
WRAB pmax pmax
comp=Z,65nm,1.0s
**WRAB Tennant Creek 55.04 183** *eP* **P** **04 10 33.7 -0.5**
comp=Z,88nm,1.1s
**WB2 Warramunga Arr 55.05 183** *eP* **P** **04 10 32.5 -1.8**
comp=Z,89nm,1.1s
**WR1 Warramunga Arr 55.05 183** *eP* **P** **04 10 33.8 -0.5**
comp=Z,92nm,1.1s
**WRA Warramunga Arr 55.05 183** P **P** **04 10 33.8 -0.5**
comp=Z,48nm,0.9s,baz=2.7,slow=7.7,SNR=134
WRA LR LR 04 33 34.5
comp=Z,107nm,20.5s,baz=40,slow=35
**WRA Warramunga Arr 55.05 183** *ceP* **P** **04 10 33.7 -0.6**
WRA *e**SP **pP** **04 10 46.2 -1.9**
WRA pmax pmax
comp=Z,48nm,0.9s
**EGAK Eagle 55.14 31** *eP* **P** **04 10 34.5 0.0**
comp=Z,16nm,1.0s
**ARU Arti 55.40 319** *di* P **P** **04 10 36.2 -0.3**
ARU *PP **pP** **04 10 48.7 -1.6**
ARU 04 12 38.1
ARU S **S** **04 18 18.8 +1.6**
ARU SS **SS** **04 22 01.5 -0.3**
ARU pmax pmax
comp=Z,74nm,1.2s
ARU MLR MLR
comp=Z,476nm,17.0s
**ARU Arti 55.40 319** *eP* **P** **04 10 35.8 -0.7**
comp=Z,55nm,1.0s
**CTAO Charters Tower 55.78 170** *eP* **P** **04 10 39.7 +0.1**
CTAO pmax pmax
comp=Z,33nm,1.4s
**CTAO Charters Tower 55.78 170** *eP* **P** **04 10 39.7 +0.1**
comp=Z,33nm,1.4s
**DAWY Dawson 56.03 32** *eP* **P** **04 10 41.6 +0.7**
comp=Z,14nm,1.2s
**AB31 Akbulak array 56.45 310** *i* P **P** **04 10 43.2 -0.9**
AB31 pmax pmax
comp=Z,8.0nm,0.8s
**INK Inuvik 57.40 26** P **P** **04 10 50.6 +0.1**
comp=Z,7.8nm,0.9s,baz=281,slow=7.7,SNR=19
**INK Inuvik 57.40 26** *eP* **P** **04 10 50.8 +0.2**
INK pmax pmax
comp=Z,12nm,0.9s
**INK Inuvik 57.40 26** *eP* **P** **04 10 50.8 +0.2**
comp=Z,12nm,0.9s
**HYT Haines Junctio 57.64 35** *eP* **P** **04 10 54.3 +1.8**
comp=Z,21nm,0.9s
**MBWA Marble Bar 58.60 199** *eP* **P** **04 10 59.5 0.0**
comp=Z,60nm,1.0s
**AS01 Alice Springs 58.77 184** *eP* **P** **04 10 59.2 -1.4**
**AS31 Alice Springs 58.77 184** *eP* **P** **04 11 00.2 -0.4**
comp=Z,6.4nm,0.6s
**ASAR Alice Springs 58.77 184** P **P** **04 11 00.1 -0.5**
comp=Z,18nm,0.8s,baz=10,slow=8.6,SNR=111
ASAR LR LR 04 35 38.7
comp=Z,130nm,20.9s,baz=8.5,slow=35
ASAR PKP2bc 04 40 46.4
comp=Z,1.4nm,0.9s,baz=186,slow=0.9,SNR=4.3
**WHY Whitehorse 58.92 35** *eP* **P** **04 11 02.5 +1.1**
comp=Z,16nm,1.0s
**SKAG Skagway 59.07 36** *eP* **P** **04 11 04.0 +1.6**
comp=Z,22nm,1.2s
**GEYT Alibeck 61.69 298** P **P** **04 11 20.1 -0.5**
comp=Z,3.5nm,0.5s,baz=43,slow=6.5,SNR=8.7
GEYT LR LR 04 40 11.8
comp=Z,346nm,18.6s,baz=85,slow=38
**EIDS Eidsvold 61.78 166** *eP* **P** **04 11 21.8 +0.6**
comp=Z,63nm,1.6s
**TMCR Tamitsa 62.60 331** *eP* **P** **04 11 25.9 -0.3**
TMCR pmax pmax
comp=Z,30nm,0.9s
**KLMR Klimovskoe 63.37 327** *eP* **P** **04 11 26.8 -4.6**
KLMR pmax pmax
comp=Z,24nm,0.9s
**DZM Mont Dzumac 63.45 150** *eP* **P** **04 11 32.9 +0.4**
comp=Z,121nm,1.3s
**DZM Mont Dzumac 63.45 150** *eLR* LR 04 30 27.5
comp=Z,510nm,25.4s
**DZM Mont Dzumac 63.45 150** *eP* **P** **04 11 33.9 +1.5**
comp=Z,64nm,1.2s
**ARA0 ARCESS Array S 64.37 339** *eP* **P** **04 11 37.6 -0.2**
**ARCES ARCESS Array B 64.37 339** P **P** **04 11 37.6 -0.2**
comp=Z,4.8nm,0.8s,baz=56,slow=7.1,SNR=14
ARCES pP **pP** **04 11 51.9 0.0**
comp=Z,6.7nm,0.7s,baz=67,slow=8.8,SNR=4.9
ARCES LR LR 04 43 53.6
comp=Z,484nm,18.0s,baz=68,slow=40
**RES Resolute Bay 65.05 13** P **P** **04 11 41.3 -0.8**
comp=Z,3.1nm,0.4s,baz=315,slow=8.0,SNR=21
**MSVF Nonsavu 65.44 137** *eP* **P** **04 11 47.1 +1.6**
MSVF pmax pmax
comp=Z,35nm,1.1s
**MSVF Nonsavu 65.44 137** *eP* **P** **04 11 47.1 +1.6**
comp=Z,35nm,1.1s
**VRH Novokhopyorsk 66.55 317** *eP* **P** **04 11 51.4 -0.8**
VRH pmax pmax
comp=Z,20nm,0.7s
**MOS Moscow 66.58 323** *eP* **P** **04 11 50.8 -1.5**
MOS pmax pmax
comp=Z,82nm,1.1s
**YKA Yellowknife Ar 66.93 29** P **P** **04 11 53.8 -0.6**
comp=Z,4.2nm,0.9s,baz=299,slow=6.4,SNR=15
YKA PKP2bc 04 40 21.8
comp=Z,0.9nm,1.0s,baz=116,slow=4.2,SNR=4.0
YKA LR LR 04 43 28.9
comp=Z,10nm,19.8s,baz=0.0,slow=38
**YKB5 Yellowknife Ar 66.93 29** *eP* **P** **04 11 53.8 -0.6**
**STKA Stephens Creek 66.99 176** P **P** **04 11 55.1 +0.1**
comp=Z,8.2nm,0.7s,baz=340,slow=6.7,SNR=12
STKA LR LR 04 38 37.5
comp=Z,142nm,22.0s,baz=17,slow=34
**DAG Danmarks Havn 67.14 354** *i* P **P** **04 11 55.0 -0.5**
DAG pmax pmax
comp=Z,18nm,1.0s
**DAG Danmarks Havn 67.14 354** *i* P **P** **04 11 55.0 -0.5**
comp=Z,18nm,1.0s
**OBN Obninsk 67.41 322** *ceP* **P** **04 11 57.5 0.0**
OBN *e* 04 14 33.2
OBN *eS* **PnS** **04 21 18.3 +1.2**
OBN pmax pmax
comp=Z,23nm,1.1s
OBN MLR MLR
comp=Z,503nm,15.0s
**LPSR Galich'ya Gora 67.41 319** *eP* **P** **04 11 56.4 -1.2**
LPSR pmax pmax
comp=Z,40nm,1.0s
**BBOO Buckleboo 67.80 181** *eP* **P** **04 12 00.2 0.0**
comp=Z,52nm,1.4s
**SEKA Sheki 67.83 305** P **P** **04 11 58.3 -2.3**
**VSR Storozhevoye 67.95 318** *eP* **P** **04 12 00.2 -0.9**
VSR pmax pmax
comp=Z,40nm,0.9s
**ZKTA Zakatala 68.01 306** P **P** **04 11 59.6 -2.1**
**GANJ Ganja 68.69 305** P **P** **04 12 03.8 -2.1**
**FIA1 FINESS Array S 68.71 331** *eP* **P** **04 12 05.2 -0.4**
**FIA0 FINESS Array S 68.71 331** *eP* **P** **04 12 05.3 -0.3**
**FIA0 FINESS Array S 68.71 331** *eP* **P** **04 12 05.3 -0.3**
**FINES FINESS Array B 68.71 331** P **P** **04 12 05.3 -0.3**
comp=Z,16nm,0.8s,baz=64,slow=6.3,SNR=53
FINES pP **pP** **04 12 19.0 -0.8**
comp=Z,14nm,0.6s,baz=95,slow=6.0,SNR=8.9
FINES LR LR 04 43 13.6
comp=Z,247nm,18.1s,baz=44,slow=37
**ZEI Tsey 69.24 308** *eP* **P** **04 12 05.8 -3.7**
ZEI pmax pmax
comp=Z,4.0nm,0.9s
**KBZ Khabaz 69.42 309** P **P** **04 12 10.8 +0.5**
comp=Z,14nm,0.9s,baz=45,slow=4.3,SNR=24
KBZ LR LR 04 45 03.3
comp=Z,371nm,19.7s,baz=56,slow=38
**KIV Kislovodsk 69.44 310** *eP* **P** **04 12 11.8 +1.2**
KIV pmax pmax
comp=Z,31nm,1.0s
KIV MLR MLR
comp=Z,242nm,17.0s
**KIV Kislovodsk 69.44 310** *eP* **P** **04 12 11.6 +1.0**
comp=Z,35nm,1.1s
**PGC Sidney 69.91 44** *eP* **P** **04 12 14.1 +0.8**

comp=Z,21nm,1.3s
**GNI Garni 69.98 305** ⇑*i*P **P** **04 12 14.9 +0.8**
GNI pmax pmax
comp=Z,42nm,1.2s
**GNI Garni 69.98 305** *e*P **P** **04 12 15.6 +1.5**
comp=Z,22nm,1.1s
**VSU Vasula 70.17 328** ⇓P **P** **04 12 15.4 +0.7**
VSU pmax pmax
comp=Z,80nm,0.9s
**A04D Lummi Island 70.30 44** P **P** **04 12 16.2 +0.6**
baz=301,SNR=7.4
**NWAO Narrogin (SRO) 70.46 198** *e*P **P** **04 12 16.5 -0.2**
NWAO pmax pmax
comp=Z,76nm,1.2s
**NWAO Narrogin (SRO) 70.46 198** *e*P **P** **04 12 16.5 -0.2**
comp=Z,76nm,1.2s
**B05A Bryant 70.88 44** P **P** **04 12 19.8 +0.6**
baz=302
**E03A Lebam 70.93 46** *e*P **P** **04 12 20.8 +1.3**
comp=Z,35nm,1.0s
**B06A Marblemount 71.09 44** *e*P **P** **04 12 21.0 +0.5**
comp=Z,29nm,1.2s
**ARTV Artvin 71.31 308** *e*P **P** **04 12 23.3 +1.0**
comp=Z,5.6nm,1.0s
**F04D Rainier, OR 71.50 46** P **P** **04 12 23.9 +0.8**
baz=302
**D05A Enumclaw 71.51 45** *e*P **P** **04 12 24.4 +1.3**
comp=Z,23nm,0.9s
**C06D Leavenworth 71.75 44** P **P** **04 12 25.0 +0.4**
baz=303
**G03D McMinnville, O 71.81 47** P **P** **04 12 25.6 +0.8**
baz=302
**LON Longmire 71.85 45** *e*P **P** **04 12 25.5 +0.3**
LON pmax pmax
comp=Z,8.0nm,1.0s
**LON Longmire 71.85 45** *e*P **P** **04 12 25.5 +0.3**
comp=Z,8.1nm,1.0s
**F04A Amboy 71.93 46** *e*P **P** **04 12 26.7 +1.1**
comp=Z,42nm,0.9s
**IZAR Zarasai 71.99 326** *e*P **P** **04 12 25.2 -0.6**
IZAR IAmb IAmb 04 12 28.0
comp=Z,17nm,0.7s
**COR Corvallis 72.12 48** *e*P **P** **04 12 28.6 +1.9**
COR pmax pmax
comp=Z,40nm,1.0s
**COR Corvallis 72.12 48** *e*P **P** **04 12 28.6 +1.9**
comp=Z,40nm,1.0s
**ISAL Salakas 72.15 326** *e*P **P** **04 12 26.2 -0.6**
ISAL IAmb IAmb 04 12 29.1
comp=Z,30nm,1.2s
**LTY Liberty 72.23 44** *e*P **P** **04 12 27.6 +0.1**
comp=Z,16nm,1.1s
**ANN Anapa 72.24 313** *e*P **P** **04 12 24.8 -2.6**
ANN *e*S **S** **04 21 43.1 -3.3**
ANN *e*SSS SSS 04 29 42.6
ANN pmax pmax
comp=Z,72nm,1.4s
**NACGM Naroch 72.25 325** *e* **P** **04 12 27.0 -0.3**
**SUMG Summit 72.33 359** *e*P **P** **04 12 28.5 +0.4**
SUMG pmax pmax
comp=Z,28nm,1.0s
**SUMG Summit 72.33 359** *i* P **P** **04 12 28.4 +0.4**
comp=Z,26nm,0.9s
**SUMG Summit 72.33 359** *e*P **P** **04 12 28.5 +0.4**
comp=Z,28nm,1.0s
**B08A Colville Reser 72.39 43** *e*P **P** **04 12 28.6 +0.2**
comp=Z,16nm,1.0s
**KEBM Edson Butte 72.39 50** *e*P **P** **04 12 30.3 +1.8**
comp=Z,48nm,1.0s
**I03D Drain, OR 72.56 49** P **P** **04 12 30.6 +1.1**
baz=302,SNR=8.0
**H04A Detroit Lake 72.74 47** *e*P **P** **04 12 31.1 +0.6**
comp=Z,25nm,0.9s
**KOPT Kop Dagi 72.85 307** *e*P **P** **04 12 33.2 +1.7**
comp=Z,9.7nm,1.1s
**G05D Wamic, OR 72.95 46** P **P** **04 12 32.5 +0.8**
baz=303,SNR=6.8
**I04A Tendick Farm, 73.08 48** P **P** **04 12 33.0 +0.4**
baz=303,SNR=5.2
**L02D Cave Junction, 73.23 50** P **P** **04 12 34.3 +0.8**
baz=303,SNR=5.2
**C09A Chrisman Ranch 73.29 43** *e*P **P** **04 12 34.1 +0.5**
comp=Z,24nm,0.9s
**G06A Carlson Farm, 73.36 46** *e*P **P** **04 12 34.8 +0.6**
comp=Z,23nm,1.1s
**HAWA Hanford 73.36 45** *e*P **P** **04 12 34.8 +0.7**
comp=Z,18nm,0.9s
**HUMO Hull Mountain 73.39 49** *e*P **P** **04 12 35.7 +1.3**
comp=Z,28nm,1.8s
**F07A Phinny Hill Vi 73.41 45** *e*P **P** **04 12 35.6 +1.2**
comp=Z,28nm,0.8s
**I05D Terrebonne, OR 73.44 47** P **P** **04 12 35.3 +0.7**
baz=303,SNR=7.8
**AKASG Malin Array Be 73.53 321** P **P** **04 12 34.5 -0.5**
comp=Z,6.1nm,0.7s,baz=50,slow=6.4,SNR=34
AKASG pP **pP** **04 12 48.1 -1.2**
comp=Z,5.8nm,0.7s,baz=48,slow=6.3,SNR=7.4
AKASG LR LR 04 47 19.7
comp=Z,592nm,19.4s,baz=50,slow=38
**AKBB Malin Array Si 73.53 321** *e*P **P** **04 12 34.9 -0.1**
AKBB pmax pmax
comp=Z,11nm,0.8s
**AKBB Malin Array Si 73.53 321** *e*P **P** **04 12 34.9 -0.1**
comp=Z,11nm,0.8s
**J04D Umpqua Nationa 73.57 48** P **P** **04 12 36.3 +0.6**
baz=303,SNR=10
**AK11 Malin Array Si 73.57 321** *e*P **P** **04 12 35.0 -0.2**
**E08A Dider Farm, El 73.58 44** *e*P **P** **04 12 36.0 +0.6**
comp=Z,18nm,0.8s
**NEW Newport 73.66 42** P **P** **04 12 36.1 +0.2**
comp=Z,9.6nm,1.0s,baz=312,slow=4.9,SNR=14
**NEW Newport 73.66 42** P **P** **04 12 35.9 +0.1**
baz=305
**NEW Newport 73.66 42** *e*P **P** **04 12 36.5 +0.6**
NEW pmax pmax
comp=Z,13nm,1.0s
**NEW Newport 73.66 42** *e*P **P** **04 12 36.5 +0.6**
comp=Z,13nm,1.0s
**KHMM Horse Mountain 73.84 51** *e*P **P** **04 12 38.9 +1.7**
comp=Z,23nm,1.1s
**YBH Yreka Blue Hor 74.02 50** P **P** **04 12 39.1 +0.9**
comp=Z,13nm,0.9s,baz=308,slow=4.3,SNR=45
**YBH Yreka Blue Hor 74.02 50** *e*P **P** **04 12 39.4 +1.2**
YBH pmax pmax
comp=Z,19nm,0.9s
**YBH Yreka Blue Hor 74.02 50** *e*P **P** **04 12 39.4 +1.2**
comp=Z,19nm,0.9s
**J05D Fort Rock, OR 74.08 48** P **P** **04 12 39.6 +1.0**
baz=304,SNR=16
**E09A Wood Farm, Sta 74.09 44** *e*P **P** **04 12 38.9 +0.5**
comp=Z,21nm,0.9s
**MARD Mardin 74.09 305** *e*P **P** **04 12 39.9 +1.2**
comp=Z,31nm,1.2s
**M02C Callahan 74.12 50** P **P** **04 12 40.0 +1.3**
baz=303,SNR=12
**K04D Chiloquin, OR 74.13 49** P **P** **04 12 39.6 +0.8**
baz=304
**SIM Simferopol' 74.13 314** *e*P **P** **04 12 39.5 +0.9**
SIM pmax pmax
comp=Z,14nm,0.9s
**KMRM Mail Ridge 74.21 52** *e*P **P** **04 12 41.1 +1.8**
comp=Z,26nm,1.1s
**G08A Pilot Rock 74.31 45** *e*P **P** **04 12 40.4 +0.5**
comp=Z,9.2nm,1.0s
**NB2 NORSAR Subarra 74.40 336** P **P** **04 12 39.8 -0.2**
comp=Z,16nm,0.9s,baz=45,slow=5.9
**NB2 NORSAR Subarra 74.40 336** P **P** **04 12 39.5 -0.5**
NB2 pmax pmax
comp=Z,2.0nm,0.6s
**NB2 NORSAR Subarra 74.40 336** P **P** **04 12 39.8 -0.2**
baz=45,slow=5.9
**NB200 NORSAR Array S 74.40 336** *e*P **P** **04 12 39.5 -0.5**
**NOA NORSAR Array B 74.40 336** P **P** **04 12 39.5 -0.5**
comp=Z,10nm,0.9s,baz=42,slow=5.8,SNR=11
NOA pP **pP** **04 12 53.3 -1.0**
comp=Z,6.9nm,0.7s,baz=42,slow=5.9,SNR=7.7
NOA LR LR 04 49 06.4
comp=Z,150nm,18.1s,baz=45,slow=39
**N02D Trinity Center 74.44 51** P **P** **04 12 41.7 +1.1**
baz=303,SNR=13
**SUW Suwalki 74.45 326** *e*P **P** **04 12 40.0 -0.3**
**SUW Suwalki 74.45 326** *e*P **P** **04 12 40.0 -0.3**
**M04C Macdoel 74.54 50** P **P** **04 12 42.1 +0.9**
baz=304,SNR=37
**KCPM Cahto Peak 74.58 52** *e*P **P** **04 12 42.9 +1.4**
comp=Z,28nm,1.0s
**I07A Izee 74.67 47** *e*P **P** **04 12 42.5 +0.6**

comp=Z,11nm,1.0s
**WDC Whiskeytown Da 74.76 51** *e*P **P** **04 12 43.2 +0.8**
WDC pmax pmax
comp=Z,20nm,1.1s
**WDC Whiskeytown Da 74.76 51** *e*P **P** **04 12 43.2 +0.8**
comp=Z,20nm,1.1s
**F10A Beach Ranch, E 74.92 44** *e*P **P** **04 12 43.7 +0.4**
comp=Z,10.0nm,0.9s
**WALA Waterton Lakes 74.92 40** *e*P **P** **04 12 44.0 +0.7**
comp=Z,22nm,1.4s
**O03D Paynes Creek 75.39 51** P **P** **04 12 46.2 +0.1**
baz=304
**MOD Modoc Plateau 75.42 49** *e*P **P** **04 12 46.8 +0.5**
comp=Z,13nm,0.8s
**JTMT Jette 75.51 41** *e*P **P** **04 12 47.4 +0.7**
comp=Z,23nm,0.9s
**BMO Blue Mountains 75.52 45** *e*P **P** **04 12 47.2 +0.4**
BMO pmax pmax
comp=Z,17nm,0.9s
**BMO Blue Mountains 75.52 45** *e*P **P** **04 12 47.2 +0.4**
comp=Z,17nm,0.9s
**J08A Circle Bar Ran 75.70 47** *e*P **P** **04 12 48.8 +0.9**
comp=Z,22nm,0.9s
**ORV Oroville 75.99 51** *e*P **P** **04 12 49.6 +0.1**
ORV pmax pmax
comp=Z,14nm,0.9s
**ORV Oroville 75.99 51** *e*P **P** **04 12 49.6 +0.1**
comp=Z,14nm,0.9s
**WVOR Wild Horse Val 76.14 48** *e*P **P** **04 12 51.0 +0.6**
WVOR pmax pmax
comp=Z,15nm,0.9s
**WVOR Wild Horse Val 76.14 48** *e*P **P** **04 12 51.0 +0.6**
comp=Z,15nm,0.9s
**MSO Missoula 76.25 42** P **P** **04 12 50.9 0.0**
baz=307
**MSO Missoula 76.25 42** *e*P **P** **04 12 50.9 0.0**
comp=Z,13nm,1.1s
**BEKR Beckworth 76.54 51** *e*P **P** **04 12 53.1 +0.3**
comp=Z,30nm,1.0s
**ILGA Ilgaz 76.59 311** *e*P **P** **04 12 54.4 +1.3**
comp=Z,22nm,0.9s
**AFDM Forest Hills D 76.67 52** *e*P **P** **04 12 54.1 +0.7**
comp=Z,14nm,1.2s
**LVV L'vov 76.71 322** *e*P **P** **04 12 53.6 +0.3**
LVV MLR MLR
comp=Z,500nm,16.0s
LVV MLR MLR
comp=N,300nm,15.0s
LVV MLR MLR
comp=E,380nm,16.0s
**FFC Flin Flon 76.91 31** *e*P **P** **04 12 54.0 -0.4**
FFC pmax pmax
comp=Z,20nm,0.8s
**FFC Flin Flon 76.91 31** *e*P **P** **04 12 54.0 -0.4**
comp=Z,20nm,0.8s
**BEL Belsk 76.97 325** *e*P **P** **04 12 55.0 +0.3**
**BEL Belsk 76.97 325** *e*P **P** **04 12 55.0 +0.3**
**MFID Camas Ranch 77.23 46** *e*P **P** **04 12 57.2 +0.7**
comp=Z,16nm,0.9s
**PAHR Pah Rah Range 77.25 50** *e*P **P** **04 12 57.2 +0.4**
comp=Z,33nm,1.1s
**BR101 Keskin Array S 77.40 310** *e*P **P** **04 12 58.0 +0.4**
**BR131 Keskin Array S 77.40 310** *e*P **P** **04 12 58.3 +0.7**
**BRTR Keskin Array B 77.40 310** P **P** **04 12 58.0 +0.4**
comp=Z,11nm,1.0s,baz=97,slow=5.1,SNR=56
BRTR LR LR 04 50 51.0
comp=Z,156nm,20.0s,baz=52,slow=39
**TESR Tescani 77.42 319** ⇑*i*P **P** **04 12 57.7 +0.3**
**CFR Carcaliu 77.43 317** ⇓*i*P **P** **04 12 57.3 -0.1**
**HRY Holter Researc 77.46 41** *e*P **P** **04 12 58.4 +0.6**
**PNTR Pine Nut 77.47 51** *e*P **P** **04 12 59.2 +1.1**
comp=Z,22nm,1.0s
**BUR08 Bucovina Ar. S 77.49 320** *e*P **P** **04 12 58.1 +0.3**
**KWP Kalwaria Pacla 77.49 323** *e*P **P** **04 12 58.9 +1.2**
**KWP Kalwaria Pacla 77.49 323** *e*P **P** **04 12 58.9 +1.2**
**KWP Kalwaria Pacla 77.49 323** *e*P **P** **04 12 58.4 +0.7**
comp=Z,489nm,1.1s
**BUR04 Bucovina Ar. S 77.50 320** *e*P **P** **04 12 58.1 +0.1**
**BURAR Bucovina Array 77.50 320** ⇓*i*P **P** **04 12 58.6 +0.6**
**BURAR Bucovina Array 77.50 320** P **P** **04 12 58.5 +0.6**
**CMB Columbia Colle 77.57 52** *e*P **P** **04 12 59.0 +0.5**
CMB pmax pmax
comp=Z,23nm,1.1s
**CMB Columbia Colle 77.57 52** *e*P **P** **04 12 59.0 +0.5**
comp=Z,23nm,1.1s
**LRM Limekiln Ridge 77.68 42** *e*P **P** **04 13 00.0 +0.8**
**EGMT Eagleton 77.73 39** P **P** **04 12 59.5 +0.3**
baz=310
**EGMT Eagleton 77.73 39** *e*P **P** **04 12 59.5 +0.3**
comp=Z,37nm,1.0s
**YERR Yerington 77.76 51** *e*P **P** **04 13 00.3 +0.6**
comp=Z,31nm,1.1s
**VRI Vrincioaia 77.78 318** ⇓*i*P **P** **04 13 01.0 +1.5**
**VRI Vrincioaia 77.78 318** P **P** **04 13 01.0 +1.5**
**PLOR Plostina 77.83 318** ⇓*i*P **P** **04 13 00.9 +1.1**
**PLOR Plostina 77.83 318** P **P** **04 13 00.9 +1.1**
**ANTO Ankara 77.85 310** *e*P **P** **04 13 00.7 +0.7**
ANTO pmax pmax
comp=Z,27nm,1.1s
**ANTO Ankara 77.85 310** *e*P **P** **04 13 00.7 +0.7**
comp=Z,27nm,1.1s
**BR231 Keskin MP Arra 77.87 310** *e*P **P** **04 12 58.4 -1.8**
**DLMT Dillon 77.88 43** *e*P **P** **04 13 01.1 +0.9**
comp=Z,33nm,1.0s
**WAKR Walker 77.91 51** *e*P **P** **04 13 01.4 +0.9**
comp=Z,12nm,1.0s
**HLID Hailey 77.96 45** P **P** **04 13 01.3 +0.7**
baz=308
**HLID Hailey 77.96 45** *e*P **P** **04 13 01.4 +0.7**
comp=Z,12nm,0.9s
**MCMT McKenzie Canyo 78.08 43** *e*P **P** **04 13 01.7 +0.3**
**RAYN Ar Rayn 78.14 290** *e*P **P** **04 13 02.3 +0.5**
comp=Z,20nm,1.2s
**BOZ Bozeman (W) 78.27 42** P **P** **04 13 02.7 +0.3**
baz=309
**UZH Uzhgorod 78.35 322** *d*i P **P** **04 13 03.2 +0.7**
UZH *e* 04 13 15.4
**ISR Istrita 78.35 317** ⇑*i*P **P** **04 13 03.5 +0.8**
**ISR Istrita 78.35 317** P **P** **04 13 03.4 +0.8**
**STHS Stebnicka Huta 78.35 323** *e*P **P** **04 13 01.6 -0.9**
STHS pmax pmax
comp=Z,10.0nm,1.3s
**STHS Stebnicka Huta 78.35 323** *e*P **P** **04 13 01.6 -0.9**
**KVN Kaiserville 78.44 50** *e*P **P** **04 13 04.1 +0.7**
KVN pmax pmax
comp=Z,28nm,0.9s
**KVN Kaiserville 78.44 50** *e*P **P** **04 13 04.1 +0.7**
comp=Z,28nm,0.9s
**MLR Muntele Rosu 78.45 318** ⇓*i*P **P** **04 13 03.6 +0.3**
**MLR Muntele Rosu 78.45 318** *e*P **P** **04 13 03.2 -0.1**
MLR pmax pmax
comp=Z,19nm,1.3s
**MLR Muntele Rosu 78.45 318** *e*P **P** **04 13 03.2 -0.1**
comp=Z,19nm,1.3s
**DOPR Dopca 78.45 319** ⇑*i*P **P** **04 13 04.5 +1.4**
**OJC Ojcow 78.51 324** *e*P **P** **04 13 03.5 +0.1**
**OJC Ojcow 78.51 324** *e*P **P** **04 13 04.1 +0.7**
OJC pmax pmax
comp=Z,36nm,1.0s
**OJC Ojcow 78.51 324** *e*P **P** **04 13 04.1 +0.7**
comp=Z,36nm,1.0s
**CRVS Cervenica-Dubn 78.58 323** *e*P **P** **04 13 04.1 +0.3**
**CRVS Cervenica-Dubn 78.58 323** *e*P **P** **04 13 04.1 +0.3**
**MDPB Devils Postpil 78.65 52** *e*P **P** **04 13 05.5 +0.8**
comp=Z,11nm,1.1s
**NV01 Mina Array Sit 78.68 51** *e*P **P** **04 13 04.7 -0.1**
**NV11 Mina Array Sit 78.77 51** *e*P **P** **04 13 05.8 +0.6**
comp=Z,0.7nm,0.9s
**MLAC Mammoth, Mammo 78.81 52** P **P** **04 13 06.4 +0.9**
baz=306
**NIE Niedzica 78.81 324** *e*P **P** **04 13 05.9 +0.8**
**NIE Niedzica 78.81 324** *e*P **P** **04 13 05.9 +0.8**
**QLMT Earthquake Lak 78.86 43** *e*P **P** **04 13 06.7 +1.0**
**CJR Cluj-Napoca 78.92 320** ⇑*i*P **P** **04 13 07.3 +1.5**
**VOIR 78.97 318** ⇑*i*P **P** **04 13 06.4 +0.3**
**VOIR 78.97 318** P **P** **04 13 06.4 +0.3**
**PAGB Antelope Grade 78.99 54** *e*P **P** **04 13 07.5 +1.1**
comp=Z,29nm,1.1s
**YHB Horse Butte 79.04 42** *e*P **P** **04 13 07.8 +1.2**
comp=Z,16nm,0.9s
**YHH Holmes Hill 79.21 42** *e*P **P** **04 13 08.3 +0.6**
comp=Z,16nm,1.3s
**GCMT Greycliff 79.21 41** *e*P **P** **04 13 08.5 +1.0**
**YMR Madison River 79.22 42** *e*P **P** **04 13 09.0 +1.3**
comp=Z,22nm,1.2s
**ARR Arges 79.24 319** ⇓*i*P **P** **04 13 08.8 +1.3**

**RCTC Rector, Farmer 79.32 53** P **P** **04 13 08.1 +0.1**
baz=306
**DRGR 79.34 321** ⇑*i*P **P** **04 13 08.8 +0.7**
**DRGR 79.34 321** P **P** **04 13 08.7 +0.7**
**KECS Kecovo 79.34 323** *e*P **P** **04 13 05.2 -2.8**
KECS pmax pmax
comp=Z,5.0nm,1.4s
**KECS Kecovo 79.34 323** *e*P **P** **04 13 05.1 -2.9**
**YNR Norris Junctio 79.35 42** *e*P **P** **04 13 10.3 +1.9**
comp=Z,17nm,1.2s
**LANS Liptovska Anna 79.39 324** *e*P **P** **04 13 09.5 +1.2**
**LANS Liptovska Anna 79.39 324** *e*P **P** **04 13 09.5 +1.2**
**SMMC Simmler 79.41 54** P **P** **04 13 09.3 +0.7**
baz=306
**TIN Tinemaha, Big 79.54 52** P **P** **04 13 10.0 +0.6**
baz=306
**OKC Ostrava-Krasne 79.55 325** *e*P **P** **04 13 09.7 +0.6**
**OKC Ostrava-Krasne 79.55 325** *e*P **P** **04 13 09.7 +0.6**
**YPP Pitchstone Pla 79.56 43** *e*P **P** **04 13 11.8 +2.1**
comp=Z,6.4nm,0.9s
**HUMR Humele 79.58 318** ⇓*i*P **P** **04 13 09.6 +0.2**
**ASF Jabal al Asfar 79.60 302** LR LR 04 52 32.3
comp=Z,227nm,18.5s,baz=220,slow=39
**H17A Grant Village 79.61 42** P **P** **04 13 12.1 +2.3**
baz=310
**H17A Grant Village 79.61 42** *e*P **P** **04 13 11.1 +1.2**
comp=Z,27nm,0.9s
**LOT Lotru 79.65 319** ⇓*i*P **P** **04 13 10.4 +0.5**
**BOLV Bolvadin 79.68 310** *e*P **P** **04 13 11.1 +1.0**
comp=Z,34nm,1.1s
**VES Vestal, Richgr 79.70 53** P **P** **04 13 09.8 -0.3**
baz=306
**KSP Ksiaz 79.71 326** *e*P **P** **04 13 10.3 +0.4**
**KSP Ksiaz 79.71 326** *e*P **P** **04 13 10.3 +0.4**
**PKM Mcpherson Peak 79.77 55** P **P** **04 13 11.3 +0.4**
baz=306
**FXWY Fox Creek 79.84 43** *e*P **P** **04 13 12.2 +1.2**
comp=Z,10.0nm,1.0s
**RLMT Red Lodge 79.86 41** P **P** **04 13 11.7 +0.6**
baz=310
**RLMT Red Lodge 79.86 41** *e*P **P** **04 13 11.7 +0.6**
comp=Z,22nm,1.2s
**MORC Moravsky Berou 79.88 325** ⇑*i*P **P** **04 13 11.4 +0.5**
**MORC Moravsky Berou 79.88 325** *e*P **P** **04 13 11.1 +0.2**
MORC pmax pmax
comp=Z,102nm,1.2s
**MORC Moravsky Berou 79.88 325** *e*P **P** **04 13 11.1 +0.2**
comp=Z,102nm,1.2s
**TPAW Teton Pass 79.98 43** *e*P **P** **04 13 12.6 +0.7**
comp=Z,10nm,0.8s
**CWC Cottonwood Cre 80.00 52** P **P** **04 13 12.0 0.0**
baz=307
**HVU Hansel Valley 80.01 46** *e*P **P** **04 13 12.8 +0.8**
HVU pmax pmax
comp=Z,17nm,0.8s
**HVU Hansel Valley 80.01 46** *e*P **P** **04 13 12.8 +0.8**
comp=Z,17nm,0.8s
**PSZ Piszkesteto 80.02 323** ⇓*i*P **P** **04 13 12.0 +0.3**
**PSZ Piszkesteto 80.02 323** *e*P **P** **04 13 12.0 +0.3**
PSZ pmax pmax
comp=Z,30nm,1.2s
**PSZ Piszkesteto 80.02 323** *e*P **P** **04 13 12.0 +0.3**
comp=Z,30nm,1.2s
**KRLC Kraliky 80.02 326** *e*P **P** **04 13 12.1 +0.4**
**KRLC Kraliky 80.02 326** *e*P **P** **04 13 12.1 +0.4**
**DPC Dobruska-Polom 80.04 326** *e*P **P** **04 13 12.3 +0.5**
DPC *e*pP **pP** **04 13 26.0 -0.2**
**DPC Dobruska-Polom 80.04 326** *e*P **P** **04 13 12.3 +0.5**
DPC *e* 04 13 26.0
**UPC Upice 80.07 326** *e*P **P** **04 13 12.8 +0.9**
**UPC Upice 80.07 326** *e*P **P** **04 13 12.8 +0.9**
**SNOW Snow King Moun 80.11 43** *e*P **P** **04 13 14.0 +1.4**
comp=Z,13nm,0.9s
**REDW Red Top Meadow 80.11 43** *e*P **P** **04 13 13.7 +1.1**
comp=Z,15nm,1.1s
**GRAC Grapevine Rang 80.12 52** P **P** **04 13 13.0 +0.5**
baz=307,SNR=12
**MMAI Mount Meron Ar 80.14 303** LR LR 04 51 55.1
comp=Z,118nm,20.7s,baz=210,slow=38
**VYHS Vyhne 80.15 324** *e*P **P** **04 13 12.6 +0.3**
VYHS pmax pmax
comp=Z,12nm,1.4s
**VYHS Vyhne 80.15 324** *e*P **P** **04 13 12.6 +0.3**
**ISA Isabella, Lake 80.20 53** P **P** **04 13 12.5 -0.4**
baz=307
**DGMT Dagmar 80.22 36** P **P** **04 13 12.6 -0.2**
baz=313
**SIRR Siria 80.23 321** ⇑*i*P **P** **04 13 13.5 +0.7**
**ARVC Arvin 80.29 54** P **P** **04 13 13.3 0.0**
baz=306
**BGU Big Grassy Mou 80.40 46** *e*P **P** **04 13 14.7 +0.7**
comp=Z,8.3nm,0.9s
**LAO LASA Array 80.42 39** P **P** **04 13 14.0 +0.1**
baz=312
**LAO LASA Array 80.42 39** *e*P **P** **04 13 14.6 +0.7**
comp=Z,33nm,1.2s
**R11A Troy Canyon, C 80.43 50** P **P** **04 13 14.8 +0.5**
baz=308
**R11A Troy Canyon, C 80.43 50** *e*P **P** **04 13 14.8 +0.5**
comp=Z,17nm,1.2s
**SPUT South Promonto 80.50 46** *e*P **P** **04 13 15.3 +0.8**
comp=Z,6.4nm,0.9s
**MPMC Manual Prospec 80.61 52** P **P** **04 13 15.6 +0.3**
baz=307,SNR=14
**VRAC Vranov 80.65 325** ⇑*i*P **P** **04 13 15.9 +0.9**
**VRAC Vranov 80.65 325** P **P** **04 13 15.9 +0.9**
**BZS Buzias 80.68 320** ⇓*i*P **P** **04 13 15.3 +0.1**
**PVCC Panska Ves 80.70 327** *e*P **P** **04 13 16.1 +0.8**
**PVCC Panska Ves 80.70 327** *e*P **P** **04 13 16.1 +0.8**
**BLG Laguna Peak, P 80.73 55** P **P** **04 13 15.5 -0.3**
baz=306
**BRG Berggiesshubel 80.73 328** *e*P **P** **04 13 15.6 +0.2**
BRG *e* 04 13 30.1
BRG pmax pmax
comp=Z,29nm,1.5s
**HERR Herculane 80.75 319** ⇓*i*P **P** **04 13 15.8 +0.2**
**FURC Furnace Creek, 80.77 52** P **P** **04 13 16.3 +0.5**
baz=307,SNR=22
**SMOL Smolenice 80.81 324** *e*P **P** **04 13 16.8 +0.9**
**SMOL Smolenice 80.81 324** *e*P **P** **04 13 16.8 +0.9**
**HWUT Hardware Ranch 80.83 45** *e*P **P** **04 13 17.0 +0.7**
comp=Z,21nm,1.0s
**CLL Collm 80.83 328** *e*P **P** **04 13 15.8 -0.1**
CLL pmax pmax
comp=Z,28nm,1.0s
**CLL Collm 80.83 328** ⇓*i*P **P** **04 13 15.8 -0.1**
comp=Z,34nm,1.1s
CLL *i* pP **pP** **04 13 28.5 -1.8**
**CLL Collm 80.83 328** *e*P **P** **04 13 15.8 -0.1**
comp=Z,28nm,1.0s
**LRMC Laurel Mtn Rad 80.83 53** P **P** **04 13 16.4 -0.1**
baz=307
**DIM Dimitrovgrad 80.86 316** *e*P **P** **04 13 18.3 +2.1**
**TPNV Topopah Spring 80.87 51** P **P** **04 13 17.1 +0.4**
baz=308,SNR=27
**TPNV Topopah Spring 80.87 51** *e*P **P** **04 13 17.1 +0.4**
TPNV pmax pmax
comp=Z,27nm,0.9s
**TPNV Topopah Spring 80.87 51** *e*P **P** **04 13 17.1 +0.4**
comp=Z,27nm,0.9s
**SNCC San Nicolas Is 80.93 56** P **P** **04 13 17.3 +0.5**
baz=306
**DUG Dugway, Tooele 80.98 47** P **P** **04 13 17.7 +0.6**
baz=309
**EDW2 Edwards Air Fo 80.98 54** P **P** **04 13 17.5 +0.4**
baz=307,SNR=7.1
**GOPC GO Pecny, Ondr 81.05 326** *e*P **P** **04 13 17.6 +0.4**
**GOPC GO Pecny, Ondr 81.05 326** *e*P **P** **04 13 17.6 +0.4**
**PRU Pruhonice 81.11 327** *e*P **P** **04 13 17.5 +0.1**
**PRU Pruhonice 81.11 327** *e*P **P** **04 13 17.5 +0.1**
**DECC Green Verdugo 81.13 54** P **P** **04 13 18.0 0.0**
baz=307
**MDVR Moldovita 81.19 319** ⇑*i*P **P** **04 13 18.0 0.0**
**BW06 Boulder Array 81.22 43** P **P** **04 13 18.3 -0.2**
baz=311
**BW06 Boulder Array 81.22 43** *e*P **P** **04 13 18.3 -0.2**
comp=Z,7.8nm,0.9s
**PD31 Pinedale Array 81.22 43** *e*P **P** **04 13 18.4 -0.1**
**PDAR Pinedale Array 81.22 43** P **P** **04 13 18.4 -0.1**
comp=Z,5.3nm,0.8s,baz=278,slow=2.1,SNR=47
**PDAR Pinedale Array 81.22 43** *e*P **P** **04 13 17.6 -0.9**
**TCUT Toone Canyon 81.23 45** *e*P **P** **04 13 19.4 +0.8**
comp=Z,23nm,0.8s
**CTU Camp Tracy 81.30 46** *e*P **P** **04 13 19.7 +0.8**
comp=Z,11nm,0.9s
**MANT Manisa 81.30 311** *e*P **P** **04 13 19.6 +0.6**

comp=Z,104nm,1.3s
FMP Fort Macarthur 81.48 55 P P 04 13 19.7 -0.1
baz=307
SHOC Shoshone, Teco 81.49 52 P P 04 13 20.0 +0.2
baz=308,SNR=6.3
GSC Goldstone, Bar 81.51 53 P P 04 13 20.1 +0.1
baz=308,SNR=13
GSC Goldstone, Bar 81.51 53 eP P 04 13 20.1 +0.1
GSC pmax pmax
comp=Z,26nm,1.1s
GSC Goldstone, Bar 81.51 53 eP P 04 13 20.1 +0.1
comp=Z,26nm,1.1s
JLU Jordanelle 81.53 46 eP P 04 13 21.2 +1.0
comp=Z,19nm,1.4s
RZN Rozhen 81.56 316 eP P 04 13 21.2 +1.0
NLU North Lily Min 81.57 47 eP P 04 13 21.1 +0.7
comp=Z,15nm,0.9s
CIS Catalina Islan 81.59 55 P P 04 13 20.8 +0.5
baz=307
BFSC Mount Baldy Ra 81.59 54 P P 04 13 20.2 -0.3
baz=307
SCI2 San Clemente I 81.75 55 P P 04 13 21.2 +0.1
baz=307
MPU Maple Canyon 81.80 46 eP P 04 13 22.2 +0.7
comp=Z,18nm,0.8s
SOP Sopron 81.81 324 P P 04 13 25.1 +3.9
VTS Vitosha 81.82 317⇑ iP P 04 13 22.2 +0.7
VTS Vitosha 81.82 317 eP P 04 13 21.4 -0.1
VTS pmax pmax
comp=Z,16nm,1.0s
VTS Vitosha 81.82 317 eP P 04 13 22.7 +1.2
VTS Vitosha 81.82 317 eP P 04 13 21.4 -0.1
comp=Z,16nm,1.0s
SHPR Sheep Range 81.83 51 eP P 04 13 22.4 +0.7
comp=Z,16nm,0.9s
NKC Novy Kostel 81.85 328 eP P 04 13 22.0 +0.6
NKC Novy Kostel 81.85 328 eP P 04 13 22.0 +0.6
CONA Conrad Observa 81.97 325 iP P 04 13 23.1 +0.9
comp=Z,15nm,1.0s,SNR=6.5
TUQ Turquoise Moun 82.00 52 P P 04 13 22.9 +0.3
baz=308,SNR=12
BBRC Big Bear Solar 82.06 54 P P 04 13 23.0 -0.1
baz=308
HEC Hector,Ludlow 82.10 53 P P 04 13 23.4 +0.3
baz=308
KHC Kasperske Hory 82.16 327 eP P 04 13 23.7 +0.6
KHC epP pP 04 13 36.8 -0.7
KHC Kasperske Hory 82.16 327 eP P 04 13 23.7 +0.6
KHC e 04 13 36.8
KHC Kasperske Hory 82.16 327 eP P 04 13 23.4 +0.4
comp=Z,4.6nm,1.0s
MMB Musomiste 82.19 316 eP P 04 13 24.5 +1.2
MURC Murrieta 82.28 54 P P 04 13 23.9 -0.1
baz=308
CCUT Cedar City 82.31 49 eP P 04 13 25.4 +1.1
comp=Z,6.5nm,0.9s
GEC2 GERESS Array S 82.31 326 eP P 04 13 24.2 +0.3
GEC2 pmax pmax
comp=Z,24nm,1.8s
GEC2 GERESS Array S 82.31 326 eP P 04 13 24.2 +0.3
comp=Z,24nm,1.8s
GERES GERESS Array B 82.31 326 P P 04 13 23.7 -0.2
comp=Z,3.1nm,0.8s,baz=38,slow=5.0,SNR=23
GERES LR LR 04 53 47.2
comp=Z,202nm,19.5s,baz=52,slow=38
GEA0 GERESS Array S 82.32 326 eP P 04 13 23.7 -0.2
KKB Krupnik 82.37 317 eP P 04 13 25.0 +0.8
MSU Marysvale 82.43 48 eP P 04 13 25.9 +1.0
MSU Marysvale 82.43 48 eP P 04 13 25.9 +1.0
SZCU Shurtz Canyon 82.45 49 eP P 04 13 25.8 +0.8
comp=Z,7.7nm,1.1s
TMUT Trail Mountain 82.51 47 eP P 04 13 26.4 +0.9
comp=Z,25nm,0.7s
DIVS Divibare 82.56 320 eP P 04 13 25.7 +0.4
comp=Z,30nm,1.5s
GMRC Granite Mounta 82.57 53 P P 04 13 25.8 +0.2
baz=308,SNR=14
SRS Serrai 82.57 316 P P 04 13 26.2 +0.9
ARSA Arzberg 82.61 324 iP P 04 13 26.1 +0.7
comp=Z,16nm,1.4s,SNR=5.5
P17A Butcher Ranch, 82.67 46 eP P 04 13 26.9 +0.8
comp=Z,26nm,0.8s
LCMT Little Creek M 82.72 50 eP P 04 13 27.1 +0.8
comp=Z,18nm,1.0s
MTPU Mount Pierson 82.72 48 eP P 04 13 27.8 +1.2
comp=Z,17nm,0.8s
ULM Lac du Bonnet 82.72 31 P P 04 13 25.2 -0.7
comp=Z,12nm,0.9s,baz=318,slow=5.8,SNR=18
ULM Lac du Bonnet 82.72 31 eP P 04 13 25.2 -0.7
comp=Z,30nm,1.1s
LDFC Landfair 82.74 52 eP P 04 13 26.7 +0.2
comp=Z,20nm,0.9s
PFO Pinyon Flats O 82.76 54 P P 04 13 26.6 0.0
baz=308,SNR=8.1
PFO Pinyon Flats O 82.76 54 eP P 04 13 26.2 -0.4
PFO pmax pmax
comp=Z,15nm,0.9s
PFO Pinyon Flats O 82.76 54 eP P 04 13 26.2 -0.4
comp=Z,15nm,0.9s
XPFO Pizon Flat 82.77 54 eP P 04 13 26.3 -0.3
comp=Z,15nm,0.9s
109C Camp Elliot, M 82.77 55 P P 04 13 26.4 -0.1
baz=308
MOA Molln 82.77 325 iP P 04 13 27.2 +0.9
comp=Z,20nm,1.4s
Q16A Castle Valley 82.77 47 eP P 04 13 27.5 +0.8
comp=Z,9.3nm,0.8s
GRFO Grafenberg 82.79 328 eP P 04 13 27.0 +0.7
GRFO pmax pmax
comp=Z,74nm,1.4s
GRFO Grafenberg 82.79 328 eP P 04 13 27.0 +0.7
comp=Z,74nm,1.4s
BELC Belle Mtn. Jos 82.83 53 P P 04 13 26.7 -0.3
baz=308
MDND Maddock 82.84 35 P P 04 13 26.6 0.0
baz=316
P18A Preston Nutter 82.86 46 eP P 04 13 28.0 +0.8
comp=Z,21nm,0.8s
K22A Casper 82.98 42 P P 04 13 27.3 -0.3
baz=312
K22A Casper 82.98 42 eP P 04 13 27.8 +0.2
comp=Z,45nm,2.0s
KNB Kanab 82.98 49 eP P 04 13 28.8 +1.1
KNB pmax pmax
comp=Z,30nm,1.1s
KNB Kanab 82.98 49 eP P 04 13 28.8 +1.1
comp=Z,30nm,1.1s
VAY Valandovo 83.02 316 iP P 04 13 28.1 +0.5
PKCU Pink Cliffs 83.02 49 eP P 04 13 29.8 +1.6
comp=Z,16nm,1.1s
SRU San Rafael Swe 83.03 47 eP P 04 13 28.5 +0.5
SRU pmax pmax
comp=Z,23nm,0.8s
SRU San Rafael Swe 83.03 47 eP P 04 13 28.5 +0.5
comp=Z,23nm,0.8s
BAR Barrett 83.19 55 eP P 04 13 29.0 +0.3
comp=Z,15nm,0.9s
SKO Skopje 83.21 317 iP P 04 13 29.6 +1.0
MONP2 Monument Peak 83.23 54 P P 04 13 28.8 -0.3
baz=308,SNR=5.7
RWWY Rawlins 83.24 43 eP P 04 13 29.1 -0.1
comp=Z,17nm,1.1s
PERS Pernice 83.25 324 iP P 04 13 28.9 +0.1
SOKA Soboth 83.25 324 iP P 04 13 29.1 +0.3
comp=Z,44nm,1.0s,SNR=13
IRM Iron Mountain 83.29 53 P P 04 13 29.2 0.0
baz=308,SNR=9.7
RSSD Black Hills 83.30 39 P P 04 13 29.0 -0.3
baz=314
RSSD Black Hills 83.30 39 eP P 04 13 29.4 +0.1
RSSD pmax pmax
comp=Z,20nm,1.5s
RSSD Black Hills 83.30 39 eP P 04 13 29.4 +0.1
comp=Z,20nm,1.5s
PAIG Paliouri 83.30 315 P P 04 13 29.5 +0.4
B31A Greenbush Farm 83.31 33 P P 04 13 28.6 -0.4
baz=318,SNR=5.2
BC3 Big Chuckawall 83.40 53 P P 04 13 29.7 -0.1
baz=308,SNR=5.6
PLE Pljevlja 83.40 320 iP P 04 13 29.3 -0.4
PLE Pljevlja 83.40 320 P P 04 13 31.2 +1.5
IVA Berane 83.45 319 eP P 04 13 29.8 -0.1
A32A Rocking H Ranc 83.46 32 P P 04 13 28.8 -0.9
baz=318,SNR=6.6
W13A Hualapai Mount 83.51 51 eP P 04 13 30.6 +0.1
comp=Z,16nm,1.3s
BLY Banja Luka 83.56 322 eP P 04 13 30.3 0.0
comp=Z,16nm,1.0s
IKP In-Ko-Pah, Jac 83.58 54 P P 04 13 30.7 -0.1
baz=308,SNR=5.7
SWSC Sam W. Stewart 83.61 54 P P 04 13 30.5 -0.3
baz=308
OBKA Obir 83.61 324 i P P 04 13 29.8 -0.9
comp=Z,9.2nm,0.8s
KOME Kolasin 83.67 319 iP P 04 13 30.7 -0.3
U15A North Rim 83.68 49 eP P 04 13 32.4 +0.9
comp=Z,14nm,0.8s
O20A White River Ci 83.70 45 P P 04 13 31.3 -0.1
baz=312
O20A White River Ci 83.70 45 eP P 04 13 31.6 +0.2
comp=Z,15nm,1.0s
KRUS Krusevo 83.72 317 i P P 04 13 31.6 +0.3
C31A Landman Farms, 83.74 34 P P 04 13 30.7 -0.5
baz=318,SNR=7.2
UPM Unac-Piva 83.75 320 iP P 04 13 31.3 -0.3
KBA Koelnbreinsper 83.76 325 i P P 04 13 31.9 +0.3
comp=Z,26nm,1.6s
B32A Ashes, Strandq 83.83 33 P P 04 13 30.7 -0.9
baz=319,SNR=6.8
PDMCI Parker Dam,Lak 83.85 52 P P 04 13 32.0 0.0
baz=309,SNR=7.0
BIA Bitola 83.92 317 eP P 04 13 32.2 -0.1
Y12C Blythe 83.94 53 P P 04 13 32.7 +0.2
baz=309,SNR=6.7
Y12C Blythe 83.94 53 eP P 04 13 33.2 +0.7
comp=Z,18nm,1.0s
MYKA Terra Mystica 83.95 325 i P P 04 13 32.0 -0.4
comp=Z,20nm,1.5s,SNR=6.1
NKY Niksic 83.97 319 iP P 04 13 33.4 +0.8
NKY Niksic 83.97 319 P P 04 13 33.7 +1.1
VISS Visnje 83.98 324 i P P 04 13 32.4 -0.1
BOJS Bojanci 83.99 323 i P P 04 13 33.1 +0.6
KARP Karpathos 84.02 310 eP P 04 13 33.0 +0.1
comp=Z,20nm,1.2s
NKME Niksic 84.02 319 iP P 04 13 32.8 0.0
FNA Florina 84.05 317 P P 04 13 33.2 +0.2
APE Apeiranthos 84.06 312 eP P 04 13 31.7 -1.4
APE pmax pmax
comp=Z,26nm,1.0s
TTG Podgorica 84.09 319 iP P 04 13 33.4 +0.3
TTG Podgorica 84.09 319 eP P 04 13 33.4 +0.3
TTG pmax pmax
comp=Z,49nm,0.8s
TTG Podgorica 84.09 319 eP P 04 13 33.4 +0.3
comp=Z,49nm,0.8s
OHR Ohrid 84.15 317 P P 04 13 34.0 +0.5
OHR Ohrid 84.15 317 i P P 04 13 33.5 0.0
BRY Bratogost 84.15 320 iP P 04 13 33.3 -0.3
GLA Glamis 84.18 53 P P 04 13 34.1 +0.3
baz=309,SNR=6.4
GLA Glamis 84.18 53 eP P 04 13 34.3 +0.5
GLA pmax pmax
comp=Z,17nm,0.8s
GLA Glamis 84.18 53 eP P 04 13 34.3 +0.5
comp=Z,17nm,0.8s
CEME Cevo 84.19 319 iP P 04 13 33.6 -0.1
AGMN Agassiz Nation 84.20 32 P P 04 13 32.6 -0.9
baz=319
AGMN Agassiz Nation 84.20 32 eP P 04 13 32.9 -0.6
comp=Z,9.8nm,1.1s
PV09 Paradox Valley 84.26 46 eP P 04 13 35.1 +0.7
JAVS Javornik 84.29 324 i P P 04 13 33.5 -0.6
DRME Dracevica, Mon 84.30 319 iP P 04 13 34.6 +0.4
D31A Mcclaflin, Tow 84.30 34 P P 04 13 33.3 -0.7
baz=318
B33A Robert and Kas 84.34 32 P P 04 13 33.3 -0.9
baz=319
STU Stuttgart 84.35 328 eP P 04 13 34.3 0.0
STU pmax pmax
comp=Z,42nm,1.1s
STU Stuttgart 84.35 328 eP P 04 13 34.3 0.0
comp=Z,42nm,1.1s
BUM Brajici-Budva 84.38 319 iP P 04 13 34.6 0.0
WATA Walderalm 84.39 326 i P P 04 13 34.9 +0.2
comp=Z,7.0nm,0.8s
PV10 Paradox Valley 84.39 46 eP P 04 13 36.0 +0.9
ABTA Abfaltersbach 84.39 325 i P P 04 13 34.0 -0.7
comp=Z,21nm,1.0s,SNR=7.7
WTTA Wattenberg 84.41 326 i P P 04 13 35.0 +0.1
comp=Z,14nm,1.2s
ULC Ulcinj 84.42 319 iP P 04 13 34.7 -0.1
PV04 Paradox Valley 84.46 46 eP P 04 13 35.4 +0.1
PHWY Pilot Hill 84.48 42 eP P 04 13 35.9 +0.4
comp=Z,27nm,1.5s
N23A Red Feather La 84.48 43 P P 04 13 35.7 +0.2
baz=313
N23A Red Feather La 84.48 43 eP P 04 13 36.5 +1.0
comp=Z,26nm,1.3s
HCY Herceg Novi 84.49 319 iP P 04 13 34.6 -0.5
HCY Herceg Novi 84.49 319 P P 04 13 35.5 +0.4
TIR Tirane 84.50 318 iP P 04 13 35.8 +0.6
TIR Tirane 84.50 318 P P 04 13 35.8 +0.6
SANT Santorini 84.55 311 eP P 04 13 35.0 -0.6
comp=Z,77nm,1.2s
PV05 Paradox Valley 84.55 47 eP P 04 13 36.5 +0.7
D32A Dogwood Acres, 84.56 34 P P 04 13 34.3 -1.0
baz=318
E31A Nome 84.58 35 P P 04 13 35.0 -0.6
baz=318
B34A Aery, Baudette 84.58 32 P P 04 13 34.5 -0.9
baz=320
MOTA Mosalm 84.59 327 i P P 04 13 35.6 -0.2
comp=Z,9.6nm,1.0s
RETA Reutte 84.64 327 i P P 04 13 36.1 +0.2
comp=Z,32nm,1.2s,SNR=7.3
C33A Trail 84.65 33 P P 04 13 34.9 -1.0
baz=319
Y14A Wickenburg 84.81 52 eP P 04 13 37.0 +0.1
comp=Z,64nm,0.9s
PV01 Paradox Valley 84.83 46 eP P 04 13 37.7 +0.5
WUAZ Wupatki 84.83 50 P P 04 13 37.7 +0.5
baz=310,SNR=18
WUAZ Wupatki 84.83 50 eP P 04 13 37.7 +0.5
comp=Z,25nm,0.9s
F31A Hecla 84.93 35 P P 04 13 36.9 -0.4
baz=318,SNR=9.4
E32A Braaten, Kindr 84.94 34 P P 04 13 36.5 -0.8
baz=318
FETA Feichten 85.01 327 i P P 04 13 37.6 -0.2
comp=Z,25nm,1.1s
BFO Black Forest 85.06 329 ceP P 04 13 38.0 +0.1
BFO Black Forest 85.06 329 eP P 04 13 37.8 -0.1
comp=Z,25nm,1.1s
SMCO Snowmass 85.06 45 eP P 04 13 39.0 +0.4
comp=Z,14nm,1.1s
B35A Bob, Littlefor 85.08 31 P P 04 13 37.3 -0.6
baz=320,SNR=6.8
D33A AnnSam, Waubun 85.08 33 P P 04 13 37.1 -1.0
baz=319
C34A RJ Ranch, Bem 85.11 32 P P 04 13 36.9 -1.3
baz=320
DAVA Damuels 85.19 327 i P P 04 13 38.5 -0.2
comp=Z,35nm,1.1s,SNR=5.9
D34A Park Rapids 85.41 33 P P 04 13 38.6 -1.1
baz=320
ISCO Idaho Springs 85.41 43 P P 04 13 40.5 +0.3
baz=313,SNR=5.7
ISCO Idaho Springs 85.41 43 eP P 04 13 40.8 +0.6
ISCO pmax pmax
comp=Z,5.0nm,0.9s
ISCO Idaho Springs 85.41 43 eP P 04 13 40.8 +0.6
comp=Z,4.8nm,0.9s
G31A Conde 85.42 36 P P 04 13 39.4 -0.4
baz=318
F32A Veblen 85.45 35 P P 04 13 38.9 -1.0
baz=318
C35A Jirik Farms, M 85.48 32 P P 04 13 39.0 -1.0
baz=320,SNR=7.0
MVCO Mesa Verde 85.48 47 P P 04 13 40.8 +0.3
baz=312,SNR=8.3
MVCO Mesa Verde 85.48 47 eP P 04 13 41.0 +0.5
comp=Z,14nm,0.9s
E33A Westby DABS, E 85.49 34 P P 04 13 39.4 -0.7
baz=319
X16A Lo Mia Camp, P 85.50 51 eP P 04 13 41.5 +0.9
comp=Z,12nm,1.0s
FUORN Ofenpass-Fuorn 85.52 326 eP P 04 13 40.7 +0.1
comp=Z,46nm,1.0s
SUSD Miller 85.63 37 P P 04 13 40.5 -0.4
baz=317,SNR=7.2
G32A Webster 85.73 35 P P 04 13 40.9 -0.4
baz=318,SNR=11
H31A Wolsey 85.84 36 P P 04 13 41.0 -0.9
baz=318
F33A 5 Mile Ranch, 85.86 34 P P 04 13 41.6 -0.3
baz=319,SNR=8.6
E34A Wadena 85.86 33 P P 04 13 40.9 -1.0
baz=320
C36A Pine Crest Far 85.92 31 P P 04 13 41.5 -0.7
baz=321
D35A Remer 85.92 32 P P 04 13 40.9 -1.3
baz=320
TUE Stuetta 86.04 327 eP P 04 13 42.7 -0.3
comp=Z,20nm,1.0s
W18A Petrified Fore 86.11 49 P P 04 13 43.9 +0.3
baz=311
S22A 4UR Ranch, Cre 86.11 46 P P 04 13 44.5 +0.8
baz=313,SNR=20
S22A 4UR Ranch, Cre 86.11 46 eP P 04 13 44.6 +0.8
comp=Z,12nm,0.9s
I31A Royce, Wessing 86.14 37 P P 04 13 42.7 -0.6
baz=318
E35A Pequot Lakes 86.17 33 P P 04 13 42.6 -0.8
baz=320
214A Organ Pipe Nat 86.19 53 P P 04 13 43.7 -0.2
baz=310
C37A Embarrass 86.22 31 P P 04 13 42.5 -1.2
baz=322
D36A Goodland 86.23 32 P P 04 13 42.7 -1.0
baz=321
Q24A Divide 86.25 44 P P 04 13 43.9 -0.5
baz=314
G33A Ortonville 86.28 35 P P 04 13 43.5 -0.5
baz=319,SNR=12
H32A Carlson Farm, 86.32 36 P P 04 13 43.3 -1.0
baz=318
EYMN Ely 86.34 30 P P 04 13 43.7 -0.5
baz=322
F34A Alexandria 86.37 34 P P 04 13 43.8 -0.6
baz=320
H33A Prehn Over Nor 86.52 35 P P 04 13 44.9 -0.3
baz=319,SNR=14
D37A Cotton 86.56 31 P P 04 13 43.7 -1.7
baz=322
J31A Geddes 86.58 37 P P 04 13 45.1 -0.5
baz=317
C38A Sawbill Land. 86.61 30 P P 04 13 44.9 -0.7
baz=322
G34A Benson 86.61 34 P P 04 13 45.2 -0.4
baz=319,SNR=7.9
F35A Swanville 86.63 33 P P 04 13 44.6 -1.1
baz=320
E36A McGregor 86.70 32 P P 04 13 45.4 -0.6
baz=321
SDCO Great Sand Dun 86.88 45 P P 04 13 47.8 +0.3
baz=313,SNR=10
SDCO Great Sand Dun 86.88 45 eP P 04 13 48.0 +0.5
comp=Z,6.7nm,0.9s
J32A Parkston 86.96 37 P P 04 13 46.8 -0.6
baz=318
I33A Coleman 86.97 36 P P 04 13 46.7 -0.7
baz=319
PPT2 Papeete2 86.97 114 eLQ LQ 04 37 12.7
comp=Z,225nm,26.5s
PPT2 eLR LR 04 41 40.0
comp=Z,327nm,24.2s,baz=307
H34A Spellman Lake, 86.98 35 P P 04 13 47.1 -0.4
baz=319
K31A O'Neill 87.06 38 P P 04 13 47.5 -0.4
baz=317,SNR=7.6
F36A Milaca 87.09 33 P P 04 13 47.9 -0.1
baz=321
G35A Watkins 87.16 34 P P 04 13 48.1 -0.1
baz=320
ECSD EROS Data Cent 87.29 36 P P 04 13 48.5 -0.4
baz=319,SNR=13
ECSD EROS Data Cent 87.29 36 eP P 04 13 48.6 -0.4
comp=Z,14nm,0.9s
E38A The Farm, Brul 87.37 31 P P 04 13 48.5 -0.7
baz=322
H35A Sunnyside Ranc 87.40 34 P P 04 13 49.5 0.0
baz=320,SNR=18
I34A Hadley 87.42 35 P P 04 13 49.4 -0.2
baz=319
K32A Verdigre 87.43 37 P P 04 13 48.7 -1.0
baz=318
J33A Davis 87.43 36 P P 04 13 49.3 -0.4
baz=318
G36A St. Michael 87.48 33 P P 04 13 49.5 -0.3
baz=321
F37A Hinrichs Farm, 87.60 32 P P 04 13 49.9 -0.5
baz=321
KSCO Kaye Shedlock' 87.62 42 P P 04 13 50.5 -0.3
baz=315
F38A Pierce Schro 87.74 32 P P 04 13 50.8 -0.2
baz=322,SNR=7.6
SCHQ Schefferville 87.83 14 P P 04 13 51.4 +0.1
comp=Z,22nm,0.7s,baz=354,slow=5.0,SNR=13
SCHQ Schefferville 87.83 14 eP P 04 13 51.4 +0.1
comp=Z,28nm,0.8s
L32A Elgin 87.89 38 P P 04 13 51.4 -0.5
baz=318
H36A Jessenland, He 87.90 34 P P 04 13 52.2 +0.3
baz=320
SPMN Marine on St. 87.91 33 P P 04 13 51.3 -0.6
baz=321
SPMN Marine on St. 87.91 33 eP P 04 13 51.8 -0.1
comp=Z,13nm,1.1s
T25A Trinidad 87.93 45 P P 04 13 52.5 0.0
baz=314,SNR=6.6
T25A Trinidad 87.93 45 eP P 04 13 53.1 +0.6
comp=Z,13nm,1.0s
J34A George 87.94 36 P P 04 13 51.5 -0.6
baz=319
K33A Hardington 87.95 37 P P 04 13 51.6 -0.5
baz=318
I35A Creekview Farm 87.97 35 P P 04 13 51.6 -0.7
baz=320
E39A Mellen 87.97 31 P P 04 13 51.8 -0.4
baz=323
L33A Hoskins 88.14 37 P P 04 13 52.5 -0.6
baz=318
F39A Loretta 88.18 31 P P 04 13 52.9 -0.3
baz=323
E40A Wakefield 88.19 30 P P 04 13 53.4 +0.2
baz=323,SNR=7.5
ANMO Albuquerque 88.23 47 P P 04 13 54.1 +0.2
baz=313
ANMO Albuquerque 88.23 47⇑ iP P 04 13 55.2 +1.4
ANMO pmax pmax
comp=Z,4.0nm,1.7s
ANMO Albuquerque 88.23 47 eP P 04 13 54.7 +0.9
comp=Z,5.7nm,1.1s
J35A Milford 88.24 35 P P 04 13 52.7 -0.8
baz=320
D41A Chassel 88.24 29 P P 04 13 53.2 -0.1
baz=324
BGNE Belgrade 88.26 38 P P 04 13 52.7 -0.9
baz=318
BGNE Belgrade 88.26 38 eP P 04 13 53.6 0.0
comp=Z,34nm,0.9s
I36A Fitzsimmons Fa 88.29 34 P P 04 13 53.5 -0.2
baz=320
K34A Le Mars 88.33 36 P P 04 13 53.4 -0.6
baz=319
H37A Dierke Farm, C 88.36 33 P P 04 13 54.1 +0.1
baz=321
G38A Ridgeland 88.37 32 P P 04 13 53.3 -0.8
baz=322
F40A Park Falls 88.52 31 P P 04 13 54.3 -0.5
baz=323
Y22E IRIS PASSCAL I 88.53 48 P P 04 13 55.5 +0.2
baz=313
E41A Kenton 88.56 30 P P 04 13 54.6 -0.4
baz=324
H38A Maiden Rock 88.57 33 P P 04 13 54.6 -0.4
baz=322,SNR=6.1
G39A Holcombe 88.57 32 P P 04 13 54.2 -0.8
baz=322
I37A Lemond, Waseca 88.58 34 P P 04 13 54.6 -0.4
baz=321,SNR=7.7
M33A Taylor Creek F 88.62 38 P P 04 13 54.9 -0.5
baz=318
J36A Seneca 1, Swea 88.67 35 P P 04 13 55.3 -0.2
baz=320,SNR=11
K35A Storm Lake 88.72 36 P P 04 13 55.1 -0.7
baz=320
L34A Svendsen Farm, 88.73 37 P P 04 13 55.6 -0.3
baz=319,SNR=5.9
M34A Aspy Farms, Fr 88.98 37 P P 04 13 56.4 -0.7
baz=319
G40A Rib Lake 89.00 31 P P 04 13 56.8 -0.3

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | baz=323,SNR=7.4 | | | | | | | |
| H39A | **Augusta** baz=322 | 89.00 | 32 | P | P | 04 13 56.8 | -0.3 | |
| E42A | **Champion** baz=325 | 89.01 | 29 | P | P | 04 13 56.9 | -0.1 | |
| 121A | **Cookes Peak, D** baz=312 | 89.04 | 50 | P | P | 04 13 57.8 | +0.1 | |
| I38A | **Scanlan Farm,** baz=322,SNR=6.0 | 89.04 | 33 | P | P | 04 13 56.9 | -0.4 | |
| J37A | **Redenius Farm,** baz=321 | 89.05 | 34 | P | P | 04 13 56.9 | -0.5 | |
| TAOE | **Nuku Hiva Isla** comp=Z,470nm,33.8s | 89.08 | 101 | *e*LR | LR | 04 42 24.0 | | |
| F41A | **Three Lakes** baz=324 | 89.09 | 30 | P | P | 04 13 57.2 | -0.3 | |
| K36A | **Gilmore City** baz=320,SNR=6.8 | 89.15 | 35 | P | P | 04 13 57.6 | -0.2 | |
| CBKS | **Cedar Bluff** baz=317 | 89.34 | 41 | P | P | 04 13 58.0 | -0.8 | |
| E43A | **Lone Tree Farm** baz=325 | 89.42 | 29 | P | P | 04 13 58.7 | -0.3 | |
| K37A | **Belmond** baz=321,SNR=14 | 89.43 | 35 | P | P | 04 13 58.8 | -0.3 | |
| H40A | **Chili** baz=323 | 89.44 | 32 | P | P | 04 13 58.6 | -0.5 | |
| M35A | **Neola** baz=319 | 89.44 | 37 | P | P | 04 13 59.2 | 0.0 | |
| L36A | **Harm Buss Farm** baz=320 | 89.46 | 36 | P | P | 04 13 59.1 | -0.2 | |
| G41A | **Antigo** baz=324 | 89.48 | 31 | P | P | 04 13 59.1 | -0.2 | |
| N34A | **Lincoln** baz=319 | 89.52 | 38 | P | P | 04 13 58.8 | -0.8 | |
| J38A | **Wedel Dairy, R** baz=322,SNR=6.3 | 89.54 | 34 | P | P | 04 13 59.2 | -0.4 | |
| I39A | **Houston** baz=322 | 89.55 | 33 | P | P | 04 13 59.1 | -0.6 | |
| E44A | **Grand Marais A** baz=326 | 89.64 | 28 | P | P | 04 13 59.7 | -0.3 | |
| H41A | **Junction City** baz=324 | 89.76 | 31 | P | P | 04 14 00.4 | -0.2 | |
| G42A | **Mountain** baz=324 | 89.77 | 30 | P | P | 04 14 00.5 | -0.1 | |
| F43A | **Flat Rock, Esc** baz=325 | 89.80 | 29 | P | P | 04 14 00.8 | +0.1 | |
| L37A | **Phoenix Point,** baz=321 | 89.88 | 35 | P | P | 04 14 00.7 | -0.5 | |
| J39A | **Decorah** baz=322,SNR=5.4 | 89.88 | 33 | P | P | 04 14 00.2 | -1.0 | |
| M36A | **Felix, Anita** baz=320,SNR=6.4 | 89.89 | 36 | P | P | 04 14 01.1 | -0.2 | |
| O34A | **Beatrice** baz=319 | 89.91 | 38 | P | P | 04 14 00.3 | -1.1 | |
| N35A | **Tabor** baz=319,SNR=6.2 | 89.93 | 37 | P | P | 04 14 01.6 | +0.1 | |
| F44A | **Big Bay de Noc** baz=326 | 89.98 | 29 | P | P | 04 14 01.6 | 0.0 | |
| G43A | **Wallace** baz=325 | 90.06 | 30 | P | P | 04 14 02.0 | 0.0 | |
| I41A | **Arkdale** baz=323 | 90.11 | 32 | P | P | 04 14 01.7 | -0.5 | |
| E45A | **Wooded Hills,** baz=327 | 90.14 | 28 | P | P | 04 14 02.0 | -0.3 | |
| L38A | **Oak Wood Farm,** baz=321 | 90.24 | 35 | P | P | 04 14 02.7 | -0.1 | |
| J40A | **Soldiers Grove** baz=323 | 90.26 | 33 | P | P | 04 14 02.3 | -0.7 | |
| M37A | **Trindle Farm,** baz=320,SNR=5.7 | 90.29 | 36 | P | P | 04 14 03.2 | +0.1 | |
| K39A | **Oelwein** baz=322,SNR=5.5 | 90.29 | 34 | P | P | 04 14 02.4 | -0.8 | |
| N36A | **Muff Farm, Cla** baz=320,SNR=5.6 | 90.30 | 37 | P | P | 04 14 03.0 | -0.2 | |
| SCIA | **State Center** baz=321 | 90.30 | 35 | P | P | 04 14 03.2 | 0.0 | |
| H42A | **Shiocton** baz=324 | 90.32 | 31 | P | P | 04 14 02.8 | -0.4 | |
| P34A | **Walnut Farm, R** baz=319,SNR=6.1 | 90.32 | 39 | P | P | 04 14 02.9 | -0.5 | |
| F45A | **CMU Biological** baz=326 | 90.57 | 28 | P | P | 04 14 04.3 | -0.1 | |
| J41A | **Loganville** baz=323 | 90.60 | 32 | P | P | 04 14 04.4 | -0.2 | |
| TBI | **Tubuai** comp=Z,636nm,37.2s | 90.62 | 118 | *e*LQ | LQ | 04 39 19.2 | | |
| TBI | comp=Z,389nm,24.5s,baz=310 | | | *e*LR | LR | 04 43 19.3 | | |
| K40A | **Colesburg** baz=322,SNR=5.9 | 90.63 | 33 | P | P | 04 14 04.2 | -0.5 | |
| I42A | **Draeger Farm,** baz=324 | 90.66 | 31 | P | P | 04 14 04.5 | -0.3 | |
| H43A | **Windswept, Lux** baz=325 | 90.67 | 30 | P | P | 04 14 04.9 | 0.0 | |
| M38A | **Pleasantville** baz=321,SNR=9.0 | 90.69 | 35 | P | P | 04 14 05.1 | +0.1 | |
| L39A | **Vinton** baz=322 | 90.69 | 34 | P | P | 04 14 04.7 | -0.3 | |
| N37A | **Lee Faris, Mou** baz=320 | 90.71 | 36 | P | P | 04 14 05.1 | -0.1 | |
| Q34A | **Chapman** baz=319 | 90.73 | 39 | P | P | 04 14 05.0 | -0.3 | |
| KSU1 | **Kansas State U** baz=319 | 90.77 | 39 | P | P | 04 14 04.9 | -0.5 | |
| F46A | **Macinaw City C** baz=327 | 90.79 | 28 | P | P | 04 14 05.2 | -0.2 | |
| O36A | **Bolckow** baz=320 | 90.82 | 37 | P | P | 04 14 05.4 | -0.3 | |
| JFWS | **Jewell Farm** baz=323 | 90.86 | 33 | P | P | 04 14 05.2 | -0.6 | |
| I43A | **Langenfeld Bro** baz=324 | 90.99 | 31 | P | P | 04 14 06.2 | -0.2 | |
| J42A | **Columbus** baz=324 | 91.03 | 32 | P | P | 04 14 06.2 | -0.4 | |
| R34A | **Isabella, Hill** baz=318 | 91.03 | 40 | P | P | 04 14 06.1 | -0.6 | |
| K41A | **Shullsburg** baz=323 | 91.08 | 33 | P | P | 04 14 06.3 | -0.5 | |
| AMTX | **Amarillo** baz=316 | 91.08 | 45 | P | P | 04 14 07.3 | +0.2 | |
| AMTX | **Amarillo** comp=Z,16nm,0.8s | 91.08 | 45 | *e*P | P | 04 14 07.8 | +0.8 | |
| P36A | **Good Intent, A** baz=320 | 91.09 | 38 | P | P | 04 14 06.3 | -0.6 | |
| MSTX | **Muleshoe** baz=315 | 91.10 | 46 | P | P | 04 14 06.7 | -0.4 | |
| MSTX | **Muleshoe** comp=Z,9.3nm,1.0s | 91.10 | 46 | *e*P | P | 04 14 07.3 | +0.1 | |
| MNTX | **Cornudas Mount** baz=314 | 91.10 | 49 | P | P | 04 14 07.1 | 0.0 | |
| MNTX | **Cornudas Mount** comp=Z,2.3nm,0.8s | 91.10 | 49 | *e*P | P | 04 14 07.5 | +0.4 | |
| L40A | **Anamosa** baz=322,SNR=5.1 | 91.10 | 34 | P | P | 04 14 06.4 | -0.5 | |
| M39A | **Webster** baz=322,SNR=8.4 | 91.12 | 35 | P | P | 04 14 06.8 | -0.2 | |
| N38A | **Joes South For** baz=321,SNR=5.9 | 91.15 | 36 | P | P | 04 14 07.1 | -0.1 | |
| O37A | **Wolven Farm, M** baz=320 | 91.19 | 37 | P | P | 04 14 07.4 | 0.0 | |
| Q35A | **Mercer Eighty,** baz=319,SNR=5.6 | 91.24 | 39 | P | P | 04 14 07.3 | -0.3 | |
| J43A | **Natural Harves** baz=324 | 91.28 | 31 | P | P | 04 14 07.4 | -0.3 | |
| VLDQ | **Val d'Or** comp=Z,24nm,1.3s | 91.32 | 22 | *e*P | P | 04 14 07.3 | -0.5 | |
| K42A | **Prairie Point,** baz=324 | 91.37 | 32 | P | P | 04 14 07.4 | -0.7 | |
| L41A | **Preston** baz=323 | 91.42 | 33 | P | P | 04 14 07.7 | -0.7 | |
| N39A | **Derby Farms, D** baz=322,SNR=7.6 | 91.44 | 35 | P | P | 04 14 08.3 | -0.2 | |
| Q36A | **Arnold C. Orve** baz=320 | 91.46 | 38 | P | P | 04 14 08.2 | -0.4 | |
| M40A | **Post Highland** baz=322 | 91.48 | 34 | P | P | 04 14 08.5 | -0.2 | |
| U32A | **Winter Ranch,** baz=317 | 91.51 | 42 | P | P | 04 14 08.8 | -0.1 | |
| P37A | **Lathrop** baz=320 | 91.54 | 37 | P | P | 04 14 08.7 | -0.2 | |
| S34A | **Willow Spring** baz=318 | 91.55 | 40 | P | P | 04 14 08.8 | -0.3 | |
| O38A | **Galt** baz=321 | 91.56 | 36 | P | P | 04 14 08.9 | -0.1 | |
| R35A | **Emporia Munici** baz=319,SNR=6.8 | 91.56 | 39 | P | P | 04 14 09.1 | -0.1 | |
| L42A | **Oliver, Polo** baz=323 | 91.85 | 33 | P | P | 04 14 09.7 | -0.7 | |
| N40A | **Mertquake, Sal** baz=322 | 91.86 | 35 | P | P | 04 14 10.2 | -0.2 | |
| K43A | **Burlington** baz=324 | 91.87 | 32 | P | P | 04 14 09.2 | -1.2 | |
| O39A | **Kirksville** baz=322 | 91.90 | 36 | P | P | 04 14 10.3 | -0.4 | |
| P38A | **Dawn** baz=321,SNR=6.1 | 91.91 | 37 | P | P | 04 14 10.6 | -0.1 | |
| R36A | **Gordon, Harris** baz=320 | 91.92 | 39 | P | P | 04 14 10.3 | -0.5 | |
| M41A | **Milan** baz=323,SNR=5.1 | 91.95 | 34 | P | P | 04 14 10.5 | -0.3 | |
| S35A | **Otter Creek Ra** baz=319 | 91.98 | 40 | P | P | 04 14 10.9 | -0.1 | |
| T34A | **McClaskey Farm** baz=318 | 92.02 | 41 | P | P | 04 14 11.0 | -0.2 | |
| L43A | **Garden Prairie** baz=324 | 92.11 | 32 | P | P | 04 14 11.0 | -0.5 | |
| M42A | **Sheffield** baz=323 | 92.25 | 33 | P | P | 04 14 11.6 | -0.5 | |
| O40A | **La Belle** baz=322,SNR=6.4 | 92.33 | 35 | P | P | 04 14 12.3 | -0.3 | |
| S36A | **Lake Cedric, C** baz=319 | 92.33 | 39 | P | P | 04 14 12.2 | -0.5 | |
| Q38A | **Cooks Store, C** baz=321 | 92.38 | 37 | P | P | 04 14 12.3 | -0.6 | |
| P39B | **Salisbury** baz=321 | 92.40 | 36 | P | P | 04 14 12.1 | -0.8 | |
| T35A | **Sooner Cattle** baz=319 | 92.46 | 40 | P | P | 04 14 13.3 | 0.0 | |
| M43A | **Waltham Townsh** baz=324 | 92.62 | 33 | P | P | 04 14 13.7 | -0.2 | |
| N42A | **Yates City** baz=323 | 92.62 | 34 | P | P | 04 14 13.6 | -0.3 | |
| Q39A | **Willow Grove F** baz=321,SNR=13 | 92.63 | 37 | P | P | 04 14 13.8 | -0.3 | |
| T36A | **Boggs Farm, Ca** baz=319,SNR=5.8 | 92.68 | 40 | P | P | 04 14 14.3 | 0.0 | |
| S37A | **Fort Scott** baz=320,SNR=6.8 | 92.69 | 39 | P | P | 04 14 13.8 | -0.6 | |
| P40A | **Paris** baz=322,SNR=7.5 | 92.70 | 36 | P | P | 04 14 14.1 | -0.2 | |
| O41A | **Passleys Farm,** baz=323 | 92.80 | 35 | P | P | 04 14 14.3 | -0.4 | |
| R38A | **Fenwick Farm,** baz=320 | 92.83 | 38 | P | P | 04 14 13.9 | -1.1 | |
| WMOK | **Wichita Mounta** baz=317 | 92.84 | 43 | P | P | 04 14 14.8 | -0.3 | |
| WMOK | **Wichita Mounta** comp=Z,9.0nm,1.0s | 92.84 | 43 | *e*P | P | 04 14 15.3 | +0.2 | |
| WMOK | **Wichita Mounta** comp=Z,8.8nm,1.0s | 92.84 | 43 | *e*P | P | 04 14 15.3 | +0.2 | |
| M44A | **Midewin, Midew** baz=325 | 93.06 | 32 | P | P | 04 14 15.6 | -0.4 | |
| P41A | **Barry, Barry** baz=322 | 93.06 | 35 | P | P | 04 14 15.6 | -0.3 | |
| Q40A | **Laux Farm, Aux** baz=322 | 93.11 | 36 | P | P | 04 14 15.7 | -0.5 | |
| T37A | **Cheneyville 18** baz=320 | 93.13 | 39 | P | P | 04 14 15.9 | -0.5 | |
| V35A | **Meyer Ranch, C** baz=319 | 93.14 | 41 | P | P | 04 14 15.9 | -0.5 | |
| R39A | **Chumby, Stover** baz=321 | 93.17 | 37 | P | P | 04 14 15.9 | -0.7 | |
| HDIL | **Hopedale** baz=324 | 93.18 | 34 | P | P | 04 14 16.1 | -0.4 | |
| S38A | **Stockton** baz=320 | 93.26 | 38 | P | P | 04 14 16.1 | -0.9 | |
| P42A | **Winchester** baz=323 | 93.47 | 35 | P | P | 04 14 17.5 | -0.4 | |
| N44A | **Piper City** baz=324 | 93.50 | 33 | P | P | 04 14 17.8 | -0.2 | |
| S39A | **Bolivar** baz=321 | 93.51 | 38 | P | P | 04 14 17.4 | -0.7 | |
| T38A | **Diamond** baz=320 | 93.52 | 39 | P | P | 04 14 17.5 | -0.7 | |
| Q41A | **Truxton** baz=322 | 93.55 | 36 | P | P | 04 14 17.6 | -0.7 | |
| R40A | **Maddies Statio** baz=322 | 93.57 | 37 | P | P | 04 14 17.8 | -0.6 | |
| U37A | **Salina** baz=320 | 93.58 | 40 | P | P | 04 14 18.1 | -0.3 | |
| W35A | **Tecumseh** baz=319 | 93.58 | 42 | P | P | 04 14 18.2 | -0.3 | |
| TUL1 | **Leonard** baz=319 | 93.59 | 41 | P | P | 04 14 18.2 | -0.3 | |
| V36A | **Jenks** baz=319 | 93.61 | 41 | P | P | 04 14 18.2 | -0.4 | |
| N45A | **Kentland** baz=325 | 93.73 | 32 | P | P | 04 14 18.8 | -0.3 | |
| TX31 | **Lajitas Ar. Si** | 93.80 | 50 | *e*P | P | 04 14 20.1 | +0.4 | |
| LTX | **Lajitas** | 93.80 | 50 | *e*P | P | 04 14 19.8 | +0.1 | |
| LTX | **Lajitas** | 93.80 | 50 | *e*P | P | 04 14 19.8 | +0.1 | |
| TXAR | **Lajitas Array** comp=Z,8.9nm,0.8s,baz=293,slow=3.3,SNR=93 | 93.80 | 50 | P | P | 04 14 19.8 | +0.1 | |
| P43A | **Skaggs, Pawnee** baz=324 | 93.81 | 34 | P | P | 04 14 19.0 | -0.4 | |
| ABTX | **Abilene, Hawle** baz=317 | 93.89 | 45 | P | P | 04 14 19.5 | -0.4 | |
| Q42A | **Golden Eagle** baz=323 | 93.92 | 35 | P | P | 04 14 19.9 | 0.0 | |
| U38A | **Gravette** baz=320 | 93.93 | 39 | P | P | 04 14 19.4 | -0.7 | |
| W36A | **Wetumka** baz=319 | 93.94 | 41 | P | P | 04 14 19.9 | -0.3 | |
| V37A | **Hulbert** baz=320 | 93.96 | 40 | P | P | 04 14 19.8 | -0.4 | |
| S40A | **Lebanon** baz=321 | 93.99 | 37 | P | P | 04 14 19.4 | -0.9 | |
| R41A | **Rosebud** baz=322 | 94.00 | 36 | P | P | 04 14 19.9 | -0.4 | |
| T39A | **Clever** baz=321 | 94.00 | 38 | P | P | 04 14 19.5 | -0.9 | |
| X35A | **Drake** baz=318 | 94.09 | 42 | P | P | 04 14 20.1 | -0.8 | |
| X35A | **Drake** comp=Z,7.5nm,0.9s | 94.09 | 42 | *e*P | P | 04 14 20.0 | -0.8 | |
| HPIG | comp=Z,13nm,1.0s | 94.17 | 53 | *e*P | P | 04 14 22.5 | +0.9 | |
| CCM | **Cathedral Cave** baz=322 | 94.25 | 36 | P | P | 04 14 20.9 | -0.5 | |
| CCM | **Cathedral Cave** comp=Z,6.0nm,0.8s | 94.25 | 36 | *e*P | P | 04 14 21.5 | 0.0 | |
| CCM | **Cathedral Cave** comp=Z,5.9nm,0.8s | 94.25 | 36 | *e*P | P | 04 14 21.5 | 0.0 | |
| Q43A | **New Douglas** baz=323 | 94.28 | 35 | P | P | 04 14 21.2 | -0.5 | |
| R42A | **Luebbering** baz=323 | 94.29 | 36 | P | P | 04 14 21.1 | -0.6 | |
| SFIN | **Lafayette** baz=325 | 94.30 | 32 | P | P | 04 14 21.2 | -0.4 | |
| X36A | **Centrahoma** baz=319 | 94.30 | 42 | P | P | 04 14 21.3 | -0.5 | |
| V38A | **Canehill** baz=320 | 94.36 | 40 | P | P | 04 14 21.6 | -0.4 | |
| S41A | **Jillco Farms,** baz=322 | 94.37 | 37 | P | P | 04 14 21.2 | -0.9 | |
| U39A | **Green Forest** baz=321 | 94.44 | 39 | P | P | 04 14 21.7 | -0.7 | |
| S42A | **Caledonia** baz=323 | 94.69 | 36 | P | P | 04 14 23.1 | -0.5 | |
| R43A | **Red Bud** baz=323 | 94.71 | 35 | P | P | 04 14 22.8 | -0.8 | |
| V39A | **Pettigrew** baz=321 | 94.78 | 39 | P | P | 04 14 23.1 | -1.0 | |
| U40A | **Yellville** baz=321 | 94.78 | 38 | P | P | 04 14 23.2 | -0.8 | |
| T41A | **Mountain View** baz=322 | 94.79 | 37 | P | P | 04 14 22.7 | -1.3 | |
| Y36A | **Durant** baz=319 | 94.84 | 42 | P | P | 04 14 24.3 | +0.1 | |
| Q45A | **Warren Harvey,** baz=324 | 95.03 | 34 | P | P | 04 14 25.0 | 0.0 | |
| R44A | **Waltonville** baz=324 | 95.13 | 35 | P | P | 04 14 24.8 | -0.7 | |
| T42A | **Van Buren** baz=322 | 95.13 | 37 | P | P | 04 14 25.1 | -0.4 | |
| W39A | **Magazine** baz=320 | 95.20 | 40 | P | P | 04 14 26.0 | +0.2 | |
| U41A | **Viola** baz=322 | 95.26 | 38 | P | P | 04 14 25.3 | -0.8 | |
| JCT | **Junction City** baz=317 | 95.34 | 47 | P | P | 04 14 26.2 | -0.5 | |
| JCT | **Junction City** comp=Z,8.0nm,0.9s | 95.34 | 47 | *e*P | P | 04 14 26.9 | +0.2 | |
| JCT | **Junction City** comp=Z,7.8nm,0.9s | 95.34 | 47 | *e*P | P | 04 14 26.9 | +0.2 | |
| T43A | **Greenville** baz=323 | 95.48 | 36 | P | P | 04 14 26.4 | -0.8 | |
| S44A | **Carbondale** baz=324 | 95.49 | 35 | P | P | 04 14 26.5 | -0.7 | |
| SIUC | **Southern Illin** comp=Z,11nm,0.8s | 95.49 | 35 | *e*P | P | 04 14 27.4 | +0.2 | |
| W40A | **Ferguson Farm,** baz=321 | 95.57 | 39 | P | P | 04 14 27.1 | -0.4 | |
| V41A | **Mountainview** baz=322 | 95.58 | 38 | P | P | 04 14 26.6 | -1.0 | |
| U42A | **Revenden** baz=322 | 95.60 | 37 | P | P | 04 14 27.0 | -0.7 | |
| PBMO | **Poplar Bluff** comp=Z,9.8nm,1.0s | 95.66 | 37 | *e*P | P | 04 14 28.0 | 0.0 | |
| W41B | **Gary Mavity, V** baz=322 | 96.01 | 39 | P | P | 04 14 29.2 | -0.4 | |
| R47A | **Wooly Knot Far** baz=325 | 96.26 | 33 | P | P | 04 14 30.3 | -0.4 | |
| M54A | **Oil Creek Stat** baz=330 | 96.36 | 27 | P | P | 04 14 30.7 | -0.4 | |
| T46A | **Princeton** baz=324 | 96.66 | 35 | P | P | 04 14 32.4 | -0.1 | |
| S48A | **Wiedeman Farm,** baz=326 | 96.99 | 33 | P | P | 04 14 33.8 | -0.2 | |
| WVT | **Waverly** baz=324 | 97.43 | 35 | P | P | 04 14 35.4 | -0.5 | |
| TOA1 | **Torodi Ar. Sit** | 116.00 | 311 | *e*PKPdf | PKPdf | 04 19 44.6 | -1.0 | |
| TOA1 | | | | *e*PP | PP | 04 20 50.0 | +0.4 | |
| TOA1 | | | | *e*PKKPbc | PKKPbc | 04 30 15.5 | +0.5 | |
| TOA1 | | | | *e*SP | SP | 04 30 22.5 | -3.5 | |
| TOA0 | **Torodi Ar. Sit** | 116.01 | 311 | *e*PKPdf | PKPdf | 04 19 44.8 | -0.8 | |
| TOA0 | | | | *e*PKPdf | PKiKP | 04 19 45.1 | -0.5 | |
| TORD | **Torodi Ar. Bea** comp=Z,2.8nm,0.9s,baz=16,slow=2.5,SNR=16 | 116.01 | 311 | PKP | PKPdf | 04 19 44.6 | -1.0 | |
| TORD | comp=Z,2.3nm,1.2s,baz=28,slow=5.5,SNR=5.4 | | | PP | PP | 04 20 50.0 | +0.4 | |
| TORD | comp=Z,2.9nm,1.0s,baz=228,slow=2.9,SNR=7.2 | | | PKKPbc | PKKPbc | 04 30 15.5 | +0.5 | |
| TORD | comp=Z,2.7nm,1.0s,baz=217,slow=5.5,SNR=11 | | | PKKPab | PKKPab | 04 30 22.5 | -0.3 | |
| KOWA | **Kowa** | 118.33 | 316 | *e*PKPdf | PKPdf | 04 19 49.9 | -0.1 | |
| DBIC | **Dimbokro** comp=Z,5.7nm,0.9s,baz=78,slow=3.2,SNR=8.9 | 125.06 | 312 | PKP | PKPdf | 04 20 01.8 | -1.2 | |
| DBIC | **Dimbokro** | 125.06 | 312 | *e*PKIKP | PKPdf | 04 20 02.5 | -0.5 | |
| DBIC | **Dimbokro** | 125.06 | 312 | *e*PKPdf | PKPdf | 04 20 02.5 | -0.5 | |
| QSPA | **South Pole Qui** | 125.09 | 180 | *e*PKPdf | PKPdf | 04 20 01.2 | -0.2 | |
| TIC | **Toumodi** | 125.18 | 312 | *e*PKIKP | PKPdf | 04 20 02.5 | -0.8 | |
| SYO | **Syowa Base** | 125.20 | 206 | ⇓*i*X | PKPdf | 04 20 00.2 | -1.3 | |
| KIC | **Kosan Boka** comp=Z,35nm,1.2s | 125.23 | 311 | *e*PKIKP | PKPdf | 04 20 02.7 | -0.6 | |
| LIC | **Lamto** comp=Z,42nm,1.3s | 125.52 | 312 | *e*PKIKP | PKPdf | 04 20 03.1 | -0.8 | |
| SDV | **Santo Domingo** | 128.73 | 36 | *e*PKPdf | PKPdf | 04 20 10.2 | 0.0 | |
| RUSC | **La Rusia** | 130.03 | 41 | *e*PKPdf | PKPdf | 04 20 13.5 | +0.4 | |
| ROSC | **El Rosal** comp=Z,2.0nm,0.3s,baz=231,slow=21,SNR=5.4 | 130.22 | 43 | PKP | PKPdf | 04 20 13.8 | +0.4 | |
| ROSC | **El Rosal** | 130.22 | 43 | *e*PKPdf | PKPdf | 04 20 14.2 | +0.8 | |
| LPAZ | **La Paz** comp=Z,6.2nm,0.8s,baz=288,slow=6.4,SNR=16 | 150.44 | 57 | PKP | PKPdf | 04 20 50.2 | +0.6 | |
| LPAZ | comp=Z,6.3nm,0.8s,baz=315,slow=4.3,SNR=21 | | | PKPbc | PKPbc | 04 20 54.9 | 0.0 | |
| LPAZ | **La Paz** | 150.44 | 57 | *e*PKIKP | PKPdf | 04 20 50.6 | +1.0 | |
| LPAZ | **La Paz** | 150.44 | 57 | *e*PKPdf | PKPdf | 04 20 50.6 | +1.0 | |
| PB11 | **IPOC Station P** | 151.66 | 64 | *e*PKPdf | PKPdf | 04 20 51.6 | +0.9 | |
| PLCA | **Paso Flores** comp=Z,3.5nm,0.9s,baz=252,slow=3.8,SNR=3.8 | 157.49 | 112 | PKPab | PKPab | 04 21 30.1 | 0.0 | |
| BDFB | **Brasilia** comp=Z,1.5nm,0.5s,baz=270,slow=1.0,SNR=3.7 | 159.82 | 15 | PKP | PKPdf | 04 21 01.6 | -0.1 | |
| BDFB | comp=Z,3.1nm,0.7s,baz=338,slow=5.4,SNR=4.7 | | | PKPab | PKPab | 04 21 40.5 | -0.2 | |

*ISK* ***14*** *04:21:03.6,37.˙27N×36.˙97E, h5km, MD2.7*
*DDA* ***14*** *04:21:03.8,37.˙23N×36.˙96E, h5km, Ml3.0*
*ISCJB* ***14*** *04:21:04.3±0.5, 37.˙22N±0.˙02×36.˙96E±0.˙03, h1km±5km, Error ellipse: s-maj=4.8km s-min=3.5km az=43.2*
*CSEM* ***14*** *04:21:04.5±0.2, 37.˙23N×36.˙97E, h5km, MD2.7, Error ellipse: s-maj=4.1km s-min=3.3km az=40.0*

**ISC 14 04:21:04.4±0.9, 37.˙24N±0.˙02×36.˙97E±0.˙02, h7km±7km, n33, σ0°64/54, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| HCB | **Kahramanmara~** | 0.11 | 335 | *i* P | **Pg** | 04 21 06.7 | -0.2 |
| HCB | | | | *i* S | **Sg** | 04 21 08.7 | 0.0 |
| GAZ | **Gaziantep** | 0.21 | 110 | *e*PG | **Pg** | 04 21 08.4 | -0.2 |
| GAZ | | | | *e*SG | **Sg** | 04 21 12.8 | +1.4 |
| GAZ | **Gaziantep** | 0.21 | 110 | *e*Pg | **Pg** | 04 21 08.4 | -0.2 |
| GAZ | | | | *e*Sg | **Sg** | 04 21 12.8 | +1.4 |
| KAMA | **Osmaniye** | 0.25 | 257 | *i* P | **Pg** | 04 21 08.7 | -0.7 |
| KAMA | | | | *i* S | **Sg** | 04 21 12.3 | -0.3 |
| KMRS | **Kahramanmaras** | 0.27 | 348 | *e*PG | **Pg** | 04 21 09.5 | -0.3 |
| KMRS | | | | *e*SG | **Sg** | 04 21 14.0 | +0.7 |
| KMRS | **Kahramanmaras** | 0.27 | 348 | *e*Pg | **Pg** | 04 21 09.5 | -0.3 |
| KMRS | | | | *e*Sg | **Sg** | 04 21 14.0 | +0.7 |
| KUZU | **Kuzuini** | 0.48 | 170 | *i* P | **Pg** | 04 21 13.6 | -0.1 |
| KUZU | | | | *i* S | **Sg** | 04 21 20.1 | +0.2 |
| KUZU | **Kuzuini** | 0.48 | 170 | P | **Pg** | 04 21 13.6 | -0.1 |
| KUZU | | | | S | **Sg** | 04 21 20.1 | +0.2 |
| ANDN | **Andirin** | 0.60 | 304 | *i* P | **Pg** | 04 21 15.5 | -0.5 |
| ANDN | | | | *i* S | **Sg** | 04 21 24.0 | +0.2 |
| ANDN | **Andirin** | 0.60 | 304 | P | **Pg** | 04 21 15.5 | -0.5 |
| ANDN | | | | S | **Sg** | 04 21 24.0 | +0.2 |
| KOZT | **Kozan** | 0.94 | 285 | *e*PG | **Pg** | 04 21 22.2 | -0.2 |
| KOZT | **Kozan** | 0.94 | 285 | *e*Pg | **Pg** | 04 21 22.2 | -0.2 |
| SAIM | **ADANA** | 1.01 | 316 | *i* P | **Pb** | 04 21 24.5 | +0.1 |
| SAIM | | | | *i* S | **Sn** | 04 21 38.9 | -0.8 |
| SAIM | **ADANA** | 1.01 | 316 | P | **Pb** | 04 21 24.5 | +0.1 |
| SAIM | | | | S | **Sn** | 04 21 38.9 | -0.8 |
| TAHT | **Tahtakopru-Hat** | 1.07 | 216 | *e*PN | **Pn** | 04 21 25.7 | -0.1 |
| TAHT | **Tahtakopru-Hat** | 1.07 | 216 | *e*Pn | **Pn** | 04 21 25.7 | -0.1 |
| ATAB | **Bozova** | 1.08 | 78 | *i* P | **Pb** | 04 21 25.0 | -0.5 |
| ATAB | | | | *i* S | **Sb** | 04 21 40.1 | +0.3 |
| ATAB | **Bozova** | 1.08 | 78 | P | **Pb** | 04 21 25.0 | -0.5 |
| ATAB | | | | S | **Sb** | 04 21 40.1 | +0.3 |
| ELBS | **KAHRAMANMARAS** | 1.09 | 7 | *i* P | **Pn** | 04 21 26.6 | +0.4 |
| ELBS | | | | *i* S | **Sn** | 04 21 42.7 | +1.2 |
| ELBS | **KAHRAMANMARAS** | 1.09 | 7 | P | **Pn** | 04 21 26.6 | +0.4 |
| ELBS | | | | S | **Sn** | 04 21 42.7 | +1.2 |
| SARI | **SarD1z-Kayseri** | 1.24 | 340 | *e*PN | **Pn** | 04 21 28.4 | +0.1 |
| SARI | | | | *e*SN | **Sn** | 04 21 46.2 | +0.8 |
| AKCD | **Akcadag** | 1.29 | 35 | *i* P | **Pb** | 04 21 29.6 | +0.4 |
| AKCD | | | | *i* S | **Sn** | 04 21 47.1 | +0.4 |
| AKCD | **Akcadag** | 1.29 | 35 | P | **Pb** | 04 21 29.5 | +0.4 |
| AKCD | | | | S | **Sn** | 04 21 47.1 | +0.4 |
| SURC | **SANLIURFA_SURC** | 1.37 | 105 | *i* P | **Pn** | 04 21 28.6 | -1.3 |
| SURC | | | | *i* S | **Sb** | 04 21 47.0 | -1.0 |
| SURC | **SANLIURFA_SURC** | 1.37 | 105 | P | **Pn** | 04 21 28.6 | -1.3 |
| SURC | | | | S | **Sb** | 04 21 47.0 | -1.0 |
| DARE | **Darende-Malaty** | 1.39 | 17 | *e*PN | **Pg** | 04 21 30.8 | -0.2 |
| DARE | **Darende-Malaty** | 1.39 | 17 | *e*Pn | **Pg** | 04 21 30.8 | -0.2 |
| YAYL | **Yayladag** | 1.39 | 210 | *e*PN | **Pg** | 04 21 32.2 | +1.1 |
| YAYL | **Yayladag** | 1.39 | 210 | *e*Pn | **Pg** | 04 21 32.2 | +1.1 |
| URFA | **Urfa** | 1.49 | 82 | *e*PN | **Pg** | 04 21 32.7 | -0.3 |
| URFA | **Urfa** | 1.49 | 82 | *e*Pn | **Pg** | 04 21 32.7 | -0.3 |
| MALT | **Malatya** | 1.57 | 47 | *e*PN | **Pb** | 04 21 33.6 | -0.3 |
| MALT | **Malatya** | 1.57 | 47 | *e*Pn | **Pb** | 04 21 33.6 | -0.3 |

*ISCJB* ***14*** *04:43:16.3±0.4, 36.˙45N±0.˙03×70.˙06E±0.˙05, h204km, mb3.4/10, Error ellipse: s-maj=6.4km s-min=3.4km az=161.4*
*IDC* ***14*** *04:43:17.7±2.5, 36.˙38N×70.˙08E, h224km±23km, mb3.3/11, mb1 3.5/17, mb1mx3.3/53, mbtmp4.0/17, Error ellipse: s-maj=18.2km s-min=12.8km az=5.0*
*NNC* ***14*** *04:43:20.9±7.1, 36.˙69N×70.˙51E, h0km, mb4.4, mpv4.1, Error ellipse: s-maj=56.4km s-min=29.5km az=179.0*

**ISC 14 04:43:16.9±0.6, 36.˙52N±0.˙05×70.˙06E±0.˙06, h204km, n49, σ1°61/60, mb3.5/10, 8C-5D, Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DZET | **Dzherino** 100nm,0.4s | 2.49 | 337 | ⇓Pn | **Pn** | 04 44 04.1 | +3.1 |
| DZET | 219nm,0.4s | | | ⇑Sn | **S** | 04 44 37.1 | +2.1 |
| CEP | **Cherat** | 3.08 | 150 | ⇓P | **Pn** | 04 44 10.9 | +3.0 |
| CEP | | | | S | **S** | 04 44 50.0 | +2.8 |
| THW | **Thamme Wali** | 3.96 | 159 | P | **Pn** | 04 44 20.7 | +2.2 |
| THW | | | | S | **S** | 04 45 07.0 | +0.8 |
| SFK | **Sufi-Kurgan** 13nm,0.3s | 4.42 | 37 | ⇓Pn | **Pn** | 04 44 26.8 | +2.5 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SFK | | | | ⇓Sn | S | 04 45 18.5 | +1.7 | |
| | 117nm,0.5s | | | | | | | |
| SARP | Sargodha | 5.07 | 154 | P | Pn | 04 44 33.8 | +1.5 | |
| THN | Thein Dam | 6.20 | 129 | *e*P | Pn | 04 44 46.0 | -0.8 | |
| THN | | | | *e*S | S | 04 45 55.0 | -2.6 | |
| MNAS | Manas | 6.26 | 17 | ⇑Pn | Pn | 04 44 49.5 | +1.9 | |
| | 6.4nm,0.4s | | | | | | | |
| MNAS | | | | ⇑Sn | S | 04 46 00.2 | +0.9 | |
| | 6.9nm,0.4s | | | | | | | |
| AML | Almayashu | 6.28 | 26 | P | Pn | 04 44 49.7 | +1.6 | |
| | SNR=29 | | | | | | | |
| KK31 | Karatay Array | 6.59 | 3 | Pn | Pn | 04 44 53.0 | +1.2 | |
| | 1.7nm,0.4s,baz=183,slow=12,SNR=45 | | | | | | | |
| KK31 | | | | ⇑Sn | S | 04 46 07.3 | +0.4 | |
| | 2.6nm,0.3s,baz=189,slow=23 | | | | | | | |
| UCH | Uchtor | 6.67 | 30 | P | Pn | 04 44 54.9 | +1.7 | |
| | SNR=19 | | | | | | | |
| EKS2 | Erkin-Say | 6.78 | 24 | P | Pn | 04 44 56.2 | +1.9 | |
| | SNR=19 | | | | | | | |
| KZA | Kyzart | 6.86 | 34 | P | Pn | 04 44 56.9 | +1.3 | |
| | SNR=7.9 | | | | | | | |
| AAK | Ala-Archa | 7.01 | 28 | P | Pn | 04 44 58.9 | +1.6 | |
| | 5.2nm,0.3s,baz=163,slow=6.3,SNR=61 | | | | | | | |
| AAK | | | | S | S | 04 46 16.7 | -0.2 | |
| | 2.9nm,0.3s,baz=315,slow=19,SNR=16 | | | | | | | |
| AAK | Ala-Archa | 7.01 | 28 | ⇑Pn | Pn | 04 44 59.2 | +1.9 | |
| | 8.7nm,0.4s | | | | | | | |
| AAK | | | | ⇓Sn | S | 04 46 16.5 | -0.4 | |
| | 18nm,0.5s | | | | | | | |
| AAK | Ala-Archa | 7.01 | 28 | P | Pn | 04 44 59.2 | +1.9 | |
| | SNR=15 | | | | | | | |
| KBK | Karagaybulak | 7.20 | 30 | P | Pn | 04 45 01.4 | +1.5 | |
| | SNR=7.6 | | | | | | | |
| USP | Ospenovka | 7.56 | 25 | P | Pn | 04 45 06.2 | +1.9 | |
| | SNR=8.8 | | | | | | | |
| SDNR | Sundarnagar | 7.61 | 129 | *e*P | Pn | 04 45 02.5 | -2.6 | |
| TKM2 | Tokmak 2 | 7.69 | 32 | ⇑Pn | Pn | 04 45 07.4 | +1.2 | |
| | 7.6nm,0.7s | | | | | | | |
| TKM2 | | | | ⇑Sn | S | 04 46 33.4 | +0.3 | |
| | 13nm,0.7s | | | | | | | |
| TKM2 | Tokmak 2 | 7.69 | 32 | P | Pn | 04 45 07.6 | +1.4 | |
| | SNR=7.2 | | | | | | | |
| GEYT | Alibeck | 9.63 | 282 | P | Pn | 04 45 31.9 | +0.6 | |
| | 2.2nm,0.3s,baz=113,slow=11,SNR=20 | | | | | | | |
| GEYT | | | | S | S | 04 47 08.9 | -10 | |
| | 0.8nm,0.3s,baz=108,slow=19,SNR=2.9 | | | | | | | |
| MK31 | Makanchi Array | 13.73 | 38 | ⇑P | Pn | 04 46 24.2 | +0.9 | |
| | 3.5nm,0.7s,baz=209,slow=9.3,SNR=5.2 | | | | | | | |
| MKAR | Makanchi Array | 13.73 | 38 | P | Pn | 04 46 24.0 | +0.7 | |
| | 0.4nm,0.3s,baz=222,slow=15,SNR=20 | | | | | | | |
| MKAR | | | | S | S | 04 48 57.5 | +1.8 | |
| | baz=257,slow=23,SNR=2.5 | | | | | | | |
| PYUN | Piuthan | 13.77 | 124 | *e*P | Pn | 04 46 23.0 | -1.1 | |
| | 23nm,0.3s | | | | | | | |
| KOLN | Koldanda | 14.39 | 123 | *e*P | Pn | 04 46 30.7 | -1.1 | |
| | 22nm,0.4s | | | | | | | |
| GKN | Gorkha | 14.96 | 120 | *e*P | Pn | 04 46 38.2 | -0.4 | |
| | 2.1nm,0.2s | | | | | | | |
| KURBB | Kurchatov Arra | 15.36 | 21 | P | Pn | 04 46 42.6 | -0.5 | |
| | 0.2nm,0.3s,baz=210,slow=11,SNR=11 | | | | | | | |
| DMN | Daman | 15.53 | 121 | *e*P | Pn | 04 46 45.5 | -0.1 | |
| | 36nm,0.4s | | | | | | | |
| KKN | Kakani | 15.54 | 120 | *e*P | Pn | 04 46 45.6 | -0.1 | |
| | 37nm,0.5s | | | | | | | |
| PKIN | Phulchoki | 15.75 | 120 | *e*P | Pn | 04 46 49.0 | +0.7 | |
| | 29nm,0.4s | | | | | | | |
| PKI | Pulchoki | 15.76 | 120 | *e*P | P | 04 46 49.0 | +0.7 | |
| | 32nm,0.4s | | | | | | | |
| GUN | Gumba | 15.88 | 118 | *e*P | P | 04 46 50.0 | +0.3 | |
| | 27nm,0.4s | | | | | | | |
| JIRN | Jiri | 16.25 | 118 | *e*P | P | 04 46 54.2 | +0.4 | |
| | 269nm,0.3s | | | | | | | |
| AKTO | Aktyubinsk | 16.40 | 332 | P | Pn | 04 46 56.7 | +1.1 | |
| | 0.6nm,0.3s,baz=140,slow=11,SNR=10 | | | | | | | |
| AKTO | | | | S | S | 04 49 52.6 | -3.3 | |
| | 0.1nm,0.3s,baz=180,slow=15,SNR=2.2 | | | | | | | |
| BVAR | Borovoye Array | 16.51 | 1 | P | Pn | 04 46 58.1 | +1.1 | |
| | 1.2nm,0.3s,baz=163,slow=11,SNR=16 | | | | | | | |
| RAMN | Ramite | 16.98 | 120 | *e*P | P | 04 47 02.8 | +1.2 | |
| | 25nm,0.4s | | | | | | | |
| ODAN | Odare | 17.59 | 118 | *e*P | Pn | 04 47 11.3 | +1.1 | |
| | 28nm,0.5s | | | | | | | |
| GNI | Garni | 20.17 | 288 | P | Pn | 04 47 39.2 | -1.5 | |
| | 8.8nm,0.7s,baz=102,slow=9.3,SNR=6.3 | | | | | | | |
| ZALV | Zalesovo Beam | 20.22 | 26 | P | P | 04 47 36.5 | +0.4 | |
| | 5.8nm,0.5s,baz=218,slow=12,SNR=24 | | | | | | | |
| SONM | Songino Array | 28.95 | 56 | P | P | 04 48 57.9 | +0.7 | |
| | 1.0nm,0.7s,baz=267,slow=9.9,SNR=5.7 | | | | | | | |
| CMAR | Chiang Mai Arr | 31.13 | 118 | P | P | 04 49 16.4 | -0.2 | |
| | 1.0nm,0.3s,baz=297,slow=8.0,SNR=5.2 | | | | | | | |
| AKASG | Malin Array Be | 32.35 | 309 | P | P | 04 49 27.7 | +0.8 | |
| | 0.3nm,0.4s,baz=85,slow=7.0,SNR=2.8 | | | | | | | |
| ARCES | ARCESS Array B | 40.84 | 338 | P | P | 04 50 38.2 | 0.0 | |
| | 3.5nm,1.1s,baz=121,slow=6.8,SNR=2.6 | | | | | | | |
| KSRS | Korea Array | 45.59 | 71 | P | P | 04 51 16.2 | -0.4 | |
| | 0.8nm,0.4s,baz=281,slow=7.1,SNR=3.6 | | | | | | | |
| TORD | Torodi Ar. Bea | 64.96 | 268 | P | P | 04 53 33.7 | -1.5 | |
| | 0.4nm,0.7s,baz=53,slow=5.9,SNR=9.4 | | | | | | | |
| ILAR | Eielson Array | 74.97 | 15 | P | P | 04 54 33.3 | -1.9 | |
| | 0.4nm,0.9s,baz=287,slow=4.9,SNR=4.7 | | | | | | | |
| YKA | Yellowknife Ar | 81.26 | 2 | P | P | 04 55 09.6 | -0.2 | |
| | 0.3nm,0.5s,baz=354,slow=5.0,SNR=5.1 | | | | | | | |
| WRA | Warramunga Arr | 82.64 | 121 | P | P | 04 55 14.1 | -3.5 | |
| | 0.7nm,0.6s,baz=323,slow=4.9,SNR=4.8 | | | | | | | |
| ASAR | Alice Springs | 84.89 | 124 | P | P | 04 55 27.0 | -2.0 | |
| | 0.5nm,0.5s,baz=314,slow=5.1,SNR=4.7 | | | | | | | |

*IDC **14** 04:44:00.3±6.9, 6°.97S×129°.33E, h102km±61km, mb3.5/2, mb1 3.9/5, mb1mx3.5/38, mbtmp4.1/5, Error ellipse: s-maj=101.0km s-min=28.4km az=62.0*

**ISC 14 04:44:03.9±1.3, 7°.2S±0°.1×129°.3E±0°.3, h139km, n7, σ1ᵍ53/7, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| FITZ | Fitzroy Crossi | 11.44 | 198 | P | Pn | 04 46 42.8 | -0.4 |
| | 1.0nm,0.3s,baz=28,slow=11,SNR=26 | | | | | | |
| FITZ | | | | S | Sn | 04 48 37.7 | -12 |
| | 0.4nm,0.3s,baz=91,slow=18,SNR=1.9 | | | | | | |
| WRA | Warramunga Arr | 13.61 | 159 | P | Pn | 04 47 10.3 | -1.1 |
| | 1.1nm,0.3s,baz=335,slow=13,SNR=46 | | | | | | |
| WRA | | | | S | Sn | 04 49 29.8 | -12 |
| | 0.6nm,0.3s,baz=336,slow=22,SNR=7.4 | | | | | | |
| ASAR | Alice Springs | 16.99 | 165 | P | Pn | 04 47 55.6 | +2.3 |
| | 1.4nm,0.3s,baz=346,slow=10,SNR=73 | | | | | | |
| ASAR | | | | S | S | 04 50 52.8 | -10 |
| | 0.2nm,0.3s,baz=350,slow=26,SNR=4.3 | | | | | | |
| MKAR | Makanchi Array | 67.98 | 327 | P | P | 04 54 48.5 | +0.5 |
| | 0.5nm,0.5s,baz=123,slow=7.5,SNR=7.8 | | | | | | |
| ZALV | Zalesovo Beam | 71.42 | 334 | P | P | 04 55 07.7 | -1.2 |
| | 0.5nm,0.5s,baz=118,slow=8.3,SNR=2.7 | | | | | | |
| TORD | Torodi Ar. Bea | 128.15 | 281 | PKP | PKPdf | 05 02 54.6 | -0.1 |
| | 0.4nm,0.7s,baz=70,slow=1.1,SNR=4.4 | | | | | | |
| LPAZ | La Paz | 151.01 | 144 | PKPbc | PKPbc | 05 03 43.4 | +1.2 |
| | 0.8nm,0.4s,baz=214,slow=1.6,SNR=9.4 | | | | | | |

*IDC **14** 04:49:01.6±8.4, 32°.76S×179°.63W, h132km±63km, mb3.5/2, mb1 3.6/3, mb1mx3.4/32, mbtmp3.9/3, Error ellipse: s-maj=82.5km s-min=30.0km az=35.0*

*ISCJB **14** 04:49:05.5±2.0, 32°.99S±0°.07×179°.8E±0°.3, h150km, mb3.6/2, Error ellipse: s-maj=40.0km s-min=10.2km az=177.9*

**ISC 14 04:49:04.1±1.4, 32°.92S±0°.10×180°.0W±0°.3, h150km, n16, σ1ᵍ54/20, South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| WMGZ | Waiomatatini S | 5.06 | 195 | *e*PN | Pn | 04 50 19.4 | +1.2 |
| WMGZ | | | | SN | Sn | 04 51 18.4 | +2.3 |
| PKGZ | Pakihiroa | 5.20 | 197 | *e*PN | Pn | 04 50 20.7 | +0.5 |
| PKGZ | | | | SN | Sn | 04 51 19.7 | 0.0 |
| PUZ | Puketiti | 5.33 | 195 | PN | Pn | 04 50 22.2 | +0.2 |
| PUZ | | | | SN | Sn | 04 51 22.3 | -0.5 |
| RUGZ | Raukumara Rang | 5.38 | 200 | *e*PN | Pn | 04 50 24.4 | +1.7 |
| TWGZ | Tauwhareparae | 5.50 | 197 | *e*PN | Pn | 04 50 24.0 | -0.1 |
| URZ | Urewera | 5.83 | 203 | P | Pn | 04 50 29.0 | +0.6 |
| | 0.9nm,0.3s,baz=268,slow=4.9,SNR=10 | | | | | | |
| URZ | | | | S | Sn | 04 51 33.4 | -1.0 |
| | 4.8nm,0.3s,baz=0.0,slow=20,SNR=18 | | | | | | |
| URZ | Urewera | 5.83 | 203 | *e*PN | Pn | 04 50 29.1 | +0.6 |
| URZ | | | | SN | Sn | 04 51 32.8 | -1.7 |
| MRZ | Mangatainoka R | 8.50 | 203 | *e*PN | Pn | 04 51 00.5 | -3.6 |
| MRZ | | | | *e*SN | Sn | 04 52 29.0 | -10 |
| KIW | Kapiti Island | 8.91 | 206 | *e*PN | Pn | 04 51 05.6 | -4.0 |
| NNZ | Nelson | 9.83 | 211 | *e*SN | Sn | 04 53 03.0 | -7.5 |
| ASAR | Alice Springs | 41.37 | 271 | P | P | 04 56 38.0 | +2.4 |
| | 0.5nm,0.4s,baz=111,slow=7.5,SNR=5.5 | | | | | | |
| WRA | Warramunga Arr | 42.59 | 276 | P | P | 04 56 46.7 | +1.1 |
| | 0.8nm,0.3s,baz=115,slow=7.8,SNR=16 | | | | | | |
| WRA | | | | PcP | PcP | 04 58 34.5 | -0.6 |
| | 0.2nm,0.7s,baz=130,slow=3.0,SNR=3.2 | | | | | | |
| FINES | FINESS Array B | 146.87 | 337 | PKPbc | PKPab | 05 08 28.1 | -1.6 |
| | 3.2nm,1.0s,baz=46,slow=6.0,SNR=4.0 | | | | | | |
| BRTR | Keskin Array B | 152.19 | 294 | PKPbc | PKPbc | 05 08 40.7 | -1.3 |
| | 0.2nm,0.6s,baz=82,slow=2.0,SNR=2.8 | | | | | | |
| DBIC | Dimbokro | 153.49 | 169 | PKPbc | PKPbc | 05 08 46.0 | +0.6 |
| | 0.5nm,0.3s,baz=182,slow=5.6,SNR=4.1 | | | | | | |
| TORD | Torodi Ar. Bea | 160.26 | 185 | PKPab | PKPab | 05 09 27.4 | +0.1 |
| | 0.3nm,0.5s,baz=163,slow=4.5,SNR=8.5 | | | | | | |

*ISCJB **14** 05:04:55.7±0.5, 7°.54S±0°.02×146°.77E±0°.02, h121km±4km, mb6.7/363, Error ellipse: s-maj=3.1km s-min=2.1km az=32.0*

*NEIC **14** 05:04:56.0±0.0, 7°.51S×146°.59E, h140km, Moment Tensor Solution. s40 Moment tensor: Scale 10¹⁹Nm; Mrr=0.21; Mθθ-1.66; Mϕϕ1.87; Mrθ-0.93; Mθϕ1.08; Mϕr4.59; Best double couple: Mo5.10000×10¹⁹ NP1:ϕs166.00000°, δ87.00000°, λ-111.00000°. NP2:ϕs66.00000°, δ21.00000°, λ-8.00000°. Principal axes: T 5.5500, Plg38.0000°, Azm272.0000°; N -0.9900, Plg21.0000°, Azm164.0000°; P -4.5600, Plg44.0000°, Azm52.0000°;*

*BJI **14** 05:04:56.2, 7°.50S×146°.80E, h120km, mb6.8/91, mB7.1/70*

*MOS **14** 05:04:57.1±0.8, 7°.54S×146°.80E, h132km, mb6.6/90, MS6.3/22, Error ellipse: s-maj=7.1km s-min=4.7km az=103.0 Broadband fault plane solution: P waves. NP1:ϕs177.00000°, δ84.00000°, λ-119.00000°. NP2: ϕs77.00000°, δ30.00000°, λ-11.00000°. Principal axes: T Plg33.0000°, Azm291.0000°; N Plg29.0000°, Azm180.0000°; P Plg43.0000°, Azm58.0000°;*

*DJA **14** 05:04:58.1±0.5, 8°.5S×14°.7E±°, h131km±4km, M7.2/88, mb6.9/88, mB7.3/88, MLv7.1/4, Mw(mB)7.3/88, Mwp6.9/72*

*NEIC **14** 05:04:58.6±0.1, 7°.55S×146°.81E, h135km, mb6.6/239, ME7.1, MW7.1, MW7.1, MW7.1, Error ellipse: s-maj=2.3km s-min=2.2km az=109.0, Moment Tensor Solution. s56 Moment tensor: Scale 10¹⁹Nm; Mrr0.44; Mθθ-1.22; Mϕϕ0.77; Mrθ-0.94; Mθϕ0.91; Mϕr4.48; Best double couple: Mo4.80000×10¹⁹ NP1:ϕs78.00000°, δ16.00000°, λ4.00000°. NP2:ϕs344.00000°, δ89.00000°, λ106.00000°. Principal axes: T 5.0900, Plg44.0000°, Azm270.0000°; N -0.6800, Plg16.0000°, Azm164.0000°; P -4.4100, Plg42.0000°, Azm59.0000°; Broadband fault plane solution: P waves. NP1:ϕs88.00000°, δ21.00000°, λ14.00000°. NP2:ϕs345.00000°, δ85.00000°, λ110.00000°. Principal axes: T Plg46.0000°, Azm276.0000°; N Plg0.0000°, Azm0.0000°; P Plg37.0000°, Azm57.0000°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.*

*NEIC Felt [VI] at Kainantu and Lae; [IV] at Goroka, Madang, Mount Hagen and Port Moresby. Also felt at Kerema, Mendi, Popondetta, Tari and Wau. Felt at Kimbe, New Britain. Felt [II] at Cairns, Australia. Also felt at Atherton and Cairns Northern Beaches.*

*GCMT **14** 05:04:59.3±0.1, 7°.49S×146°.83E, h133km, MW7.1/154, Moment Tensor Solution. s154,c418; s153,c745; Duration: 8ˢ5 Moment tensor: Scale 10¹⁹Nm; Mrr-0.09±.02; Mθθ-1.78±.02; Mϕϕ1.88±.02; Mrθ-1.17±.01; Mθϕ1.32±.01; Mϕr4.72±.02; Best double couple: Mo5.31400×10¹⁹ NP1:ϕs162.00000°, δ88.00000°, λ-114.00000°. NP2:ϕs67.00000°, δ24.00000°, λ-4.00000°. Principal axes: T 5.7270, Plg39.0000°, Azm273.0000°; N -0.8190, Plg24.0000°, Azm162.0000°; P -4.9010, Plg42.0000°, Azm49.0000°; nsta1 refers to body waves, cutoff=50s. nsta2 refers to surface/mantle waves, cutoff=50s.*

*IDC **14** 05:04:59.6±0.5, 7°.54S×146°.87E, h142km±4km, mb6.2/40, mb1 6.2/43, mb1mx6.1/46, mbtmp6.6/43, MS6.2/19, Ms1 6.2/19, ms1mx6.0/31 Error ellipse: s-maj=8.1km s-min=6.0km az=75.0*

*NEIC **14** 05:05:19.2±0.0, 7°.23S×146°.66E, h153km, Moment Tensor Solution. s179 Moment tensor: Scale 10¹⁹Nm; Mrr-0.14; Mθθ-1.82; Mϕϕ1.96; Mrθ-0.90; Mθϕ1.39; Mϕr4.30; Best double couple: Mo4.90000×10¹⁹ NP1:ϕs162.00000°, δ88.00000°, λ-117.00000°. NP2:ϕs68.00000°, δ27.00000°, λ-5.00000°. Principal axes: T 5.3800, Plg37.0000°, Azm276.0000°; N -0.9200, Plg27.0000°, Azm163.0000°; P -4.4500, Plg41.0000°, Azm47.0000°;*

**ISC 14 05:04:57.8±0.2, 7°.53S±0°.03×146°.81E±0°.03, h128km±1km, h129km: pP-P, n2287, σ1ᵍ71/2590, mb6.7/361, 142C-82D, Eastern New Guinea region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| PMG | Port Moresby | 1.90 | 170 | P | Pn | 05 05 30.0 | -0.5 |
| | 7μm,0.3s,baz=5.5,slow=5.9,SNR=2483 | | | | | | |
| PMG | Port Moresby | 1.90 | 170 | *c* iP | Pn | 05 05 29.8 | -0.7 |
| PMG | Port Moresby | 1.90 | 170 | *e*Pn | Pn | 05 05 31.1 | +0.7 |
| RABL | Rabaul | 6.27 | 58 | *e*Pn | Pn | 05 06 28.9 | +0.9 |
| MMPI | Merauke | 6.44 | 261 | P | Pn | 05 06 32.9 | +2.7 |
| | 35μm,1.5s,518μm798μm145nm | | | | | | |
| COEN | Coen | 7.32 | 209 | *e*Pn | Pn | 05 06 44.3 | +2.1 |
| JAY | Jayapura | 7.86 | 309 | P | Pn | 05 06 48.6 | -0.9 |
| JAY | Jayapura | 7.86 | 309 | P | Pn | 05 06 59.4 | +10 |
| GENI | Genyem | 8.24 | 306 | P | Pn | 05 06 53.8 | -0.7 |
| SMPI | Sarmi | 9.77 | 304 | P | Pn | 05 07 14.8 | -0.3 |
| CTA | Charters Tower | 12.50 | 182 | P | Pn | 05 07 52.8 | +1.5 |
| | 31nm,0.3s,baz=0.2,slow=14,SNR=112 | | | | | | |
| CTA | | | | LR | LR | 05 12 52.0 | |
| | comp=Z,136μm,18.3s,baz=7.5,slow=38 | | | | | | |
| CTAO | Charters Tower | 12.50 | 182 | *e*P | Pn | 05 07 53.0 | +1.7 |
| CTAO | Charters Tower | 12.50 | 182 | *e*Pn | Pn | 05 07 53.0 | +1.7 |
| HNR | Honiara | 13.13 | 99 | *e*P | Pn | 05 07 55.0 | -4.5 |
| HNR | Honiara | 13.13 | 99 | P | Pn | 05 08 00.7 | +1.2 |
| | 56nm,0.3s,baz=246,slow=7.8,SNR=49 | | | | | | |
| HNR | Honiara | 13.13 | 99 | *e*Pn | Pn | 05 08 00.7 | +1.2 |
| HNR | | | | *e*Pn | P | 05 08 00.9 | -3.9 |
| KMPI | Kaimana, Papua | 13.60 | 286 | P | Pn | 05 08 04.6 | -1.0 |
| RKPI | Ransiki, Papua | 13.94 | 295 | P | Pn | 05 08 09.4 | -0.6 |
| FAKI | Fak Fak | 15.21 | 287 | P | Pn | 05 08 23.8 | -2.2 |
| FAKI | Fak Fak | 15.21 | 287 | *e*Pn | Pn | 05 08 24.2 | -1.7 |
| | 10μm,1.4s | | | | | | |
| SAUI | Saumlaki | 15.38 | 267 | P | P | 05 08 29.0 | -0.9 |
| SAUI | Saumlaki | 15.38 | 267 | *e*Pn | P | 05 08 29.3 | -0.6 |
| | 27μm,1.0s | | | | | | |
| MTN | Manton Dam | 16.31 | 250 | *e*Pn | Pn | 05 08 38.7 | -0.8 |
| | 5μm,1.0s | | | | | | |
| SWI | Sorong | 16.86 | 292 | P | P | 05 08 45.2 | -1.0 |
| SWI | Sorong | 16.86 | 292 | P | P | 05 08 45.3 | -1.0 |
| SWI | | | | pmax | pmax | | |
| | comp=Z,5μm,1.3s | | | | | | |
| BNDI | Bandanaira | 17.08 | 279 | P | P | 05 08 47.1 | -1.5 |
| WRAB | Tennant Creek | 17.27 | 223 | *c* iP | P | 05 08 49.6 | -1.1 |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,2μm,0.8s | | | | | | |
| WRAB | Tennant Creek | 17.27 | 223 | *e*P | P | 05 08 50.0 | -0.7 |
| | comp=Z,5μm,1.3s | | | | | | |
| WB2 | Warramunga Arr | 17.27 | 223 | *e*P | P | 05 08 49.9 | -0.9 |
| | comp=Z,3μm,0.9s | | | | | | |
| WR1 | Warramunga Arr | 17.28 | 223 | *e*P | P | 05 08 50.7 | -0.2 |
| | comp=Z,13μm,1.7s | | | | | | |
| WR1 | | | | *e*S | Sn | 05 12 00.0 | -4.3 |
| WRA | Warramunga Arr | 17.28 | 223 | P | P | 05 08 50.7 | -0.2 |
| | comp=Z,13nm,0.3s,baz=48,slow=12,SNR=597 | | | | | | |
| WRA | | | | S | Sn | 05 12 00.0 | -4.3 |
| | baz=53,slow=23,SNR=3.4 | | | | | | |
| WRA | | | | ScP | ScP | 05 16 51.4 | +1.1 |
| | baz=23,slow=2.2,SNR=6.0 | | | | | | |
| WRA | | | | P3KPbc | | 05 43 43.3 | |
| | comp=Z,0.1nm,0.3s,baz=128,slow=1.5,SNR=4.8 | | | | | | |
| WRA | | | | P3KP | | 05 44 15.1 | |
| | comp=Z,0.1nm,0.3s,baz=140,slow=1.9,SNR=5.8 | | | | | | |
| WRA | Warramunga Arr | 17.28 | 223 | *c*eP | P | 05 08 46.9 | -3.9 |
| WRA | | | | pmax | pmax | | |
| | comp=Z,319nm,0.8s | | | | | | |
| I07AU | WARRAMUNGA INF | 17.28 | 223 | *i* | | 06 40 20.0 | |
| | baz=41,slow=320,SNR=0.3 | | | | | | |
| EIDS | Eidsvold | 18.20 | 168 | *e*P | Pn | 05 09 02.0 | -0.4 |
| | comp=Z,2μm,0.8s | | | | | | |
| MSAI | Masohi | 18.28 | 282 | P | P | 05 09 01.2 | -0.7 |
| PATS | Pohnpei | 18.31 | 39 | *e*P | Pn | 05 09 03.0 | -0.6 |
| | comp=Z,24μm,1.1s | | | | | | |
| AAI | Ambon | 18.92 | 281 | P | P | 05 09 06.7 | -2.1 |
| AAI | Ambon | 18.92 | 281 | P | P | 05 09 08.6 | -0.2 |
| AAI | | | | pmax | pmax | | |
| | comp=Z,6μm,0.8s | | | | | | |
| NLAI | Namlea | 20.08 | 281 | P | Pn | 05 09 23.5 | -0.9 |
| AS01 | Alice Springs | 20.24 | 216 | *e*P | P | 05 09 23.2 | +0.1 |
| AS31 | Alice Springs | 20.27 | 216 | *e*P | P | 05 09 24.1 | +0.7 |
| | comp=Z,1μm,0.7s | | | | | | |
| AS31 | | | | *e*S | S | 05 13 08.5 | +4.6 |
| ASAR | Alice Springs | 20.27 | 216 | P | P | 05 09 23.1 | -0.3 |
| | comp=Z,799nm,0.6s,baz=57,slow=9.1,SNR=912 | | | | | | |
| ASAR | | | | S | S | 05 13 07.4 | +3.4 |
| | comp=Z,2μm,1.0s,baz=35,slow=20,SNR=9.8 | | | | | | |
| ASAR | | | | ScP | ScP | 05 16 58.9 | +2.1 |
| | comp=Z,722nm,1.1s,baz=60,slow=1.8,SNR=14 | | | | | | |
| ASAR | | | | P3KPbc | | 05 43 33.6 | |
| | comp=Z,6.6nm,0.9s,baz=210,slow=4.3,SNR=17 | | | | | | |
| ASAR | | | | P3KP | | 05 44 10.2 | |
| | comp=Z,11nm,1.1s,baz=210,slow=1.7,SNR=7.0 | | | | | | |
| ASAR | | | | P4KP | | 05 52 53.7 | |
| | comp=Z,1.9nm,0.9s,baz=35,slow=5.0,SNR=7.1 | | | | | | |
| LBMI | Labuha | 20.43 | 289 | P | P | 05 09 24.8 | -0.4 |
| GUMO | Guam | 21.07 | 355 | P | P | 05 09 31.8 | -0.2 |
| | comp=Z,5μm,0.8s,baz=185,slow=8.8,SNR=48 | | | | | | |
| GUMO | Guam | 21.07 | 355 | *e*P | P | 05 09 32.1 | +0.2 |
| GUMO | | | | pmax | pmax | | |
| | comp=Z,5μm,0.9s | | | | | | |
| GUMO | Guam | 21.07 | 355 | *e*P | P | 05 09 31.8 | -0.2 |
| GUMO | | | | *e*P | P | 05 09 32.1 | +0.2 |
| TNTI | Ternate | 21.08 | 292 | *e*pP | pP | 05 09 50.2 | -5.4 |
| SANI | Sanana | 21.45 | 284 | P | P | 05 09 33.9 | -2.2 |
| SOEI | Soe | 22.40 | 263 | P | P | 05 09 44.1 | -2.0 |
| SOEI | Soe | 22.40 | 263 | *e*P | P | 05 09 45.7 | -0.4 |
| | comp=Z,15μm,1.2s | | | | | | |
| FITZ | Fitzroy Crossi | 23.14 | 241 | P | P | 05 09 53.0 | +0.1 |
| | comp=Z,1μm,0.6s,baz=59,slow=11,SNR=155 | | | | | | |
| FITZ | | | | P3KPbc | | 05 43 22.4 | |
| | comp=Z,17nm,0.8s,baz=220,slow=4.5,SNR=16 | | | | | | |
| ARMA | Armidale | 23.22 | 169 | *e*P | P | 05 09 53.9 | +0.2 |
| | comp=Z,4μm,1.4s | | | | | | |
| DZM | Mont Dzumac | 23.81 | 129 | P | P | 05 09 58.1 | -1.1 |
| | comp=Z,2μm,0.9s,baz=339,slow=6.9,SNR=286 | | | | | | |
| DZM | | | | ScP | ScP | 05 17 08.8 | +2.9 |
| | comp=Z,180nm,1.0s,baz=58,slow=7.7,SNR=7.2 | | | | | | |
| DZM | | | | LR | LR | 05 19 06.2 | |
| | comp=Z,124μm,18.6s,baz=318,slow=36 | | | | | | |
| DZM | Mont Dzumac | 23.81 | 129 | *e*P | P | 05 09 58.2 | -1.0 |
| | comp=Z,4μm,1.1s | | | | | | |
| SGSI | Sangihe | 23.98 | 297 | P | P | 05 10 02.6 | +1.9 |
| | comp=Z,12μm,1.5s,comp=Z,331μmcomp=Z,456μm | | | | | | |
| SARN | Sarigan | 24.09 | 358 | *e*P | P | 05 10 01.6 | -0.1 |
| KMSI | Cibinong | 24.15 | 288 | P | P | 05 10 02.3 | +0.1 |
| BBSI | Bau Bau | 24.17 | 273 | P | P | 05 10 03.3 | +0.9 |
| KDI | Kendari | 24.33 | 277 | P | P | 05 10 03.1 | -0.8 |
| MMRI | Maumere | 24.36 | 266 | P | P | 05 10 01.8 | -2.3 |
| MMRI | Maumere | 24.36 | 266 | *e*P | P | 05 10 03.1 | -1.0 |
| | comp=Z,8μm,0.4s | | | | | | |
| STKA | Stephens Creek | 24.71 | 191 | P | P | 05 10 07.0 | -0.1 |
| | comp=Z,974nm,0.7s,baz=356,slow=9.2,SNR=257 | | | | | | |
| STKA | | | | LR | LR | 05 19 53.9 | |
| | comp=Z,113μm,19.7s,baz=6.2,slow=36 | | | | | | |
| STKA | | | | P3KPbc | | 05 43 14.9 | |
| | comp=Z,6.6nm,0.9s,baz=154,slow=4.6,SNR=8.4 | | | | | | |
| STKA | | | | P3KP | | 05 44 05.0 | |
| | comp=Z,7.1nm,0.8s,baz=271,slow=3.3,SNR=5.3 | | | | | | |
| STKA | Stephens Creek | 24.71 | 191 | *e*P | P | 05 10 07.5 | +0.4 |
| STKA | | | | pmax | pmax | | |
| | comp=Z,914nm,1.4s | | | | | | |
| STKA | Stephens Creek | 24.71 | 191 | *e*P | P | 05 10 07.5 | +0.4 |
| | comp=Z,914nm,1.4s | | | | | | |
| STKA | | | | *e* | | 05 43 14.9 | |
| LUWI | Luwuk | 24.81 | 284 | P | P | 05 10 09.3 | +1.0 |
| | comp=Z,5μm,0.8s,comp=Z,188μmcomp=Z,518μm | | | | | | |
| LUWI | Luwuk | 24.81 | 284 | *e*P | P | 05 10 08.6 | +0.3 |
| | comp=Z,19μm,1.4s | | | | | | |
| EDFI | Ende, Flores | 24.90 | 265 | P | P | 05 10 06.4 | -2.8 |
| DAV | Davao City (W) | 25.67 | 304 | P | P | 05 10 17.0 | +1.0 |
| | comp=Z,825nm,0.4s,baz=98,slow=2.5,SNR=28 | | | | | | |
| DAV | Davao City (W) | 25.67 | 304 | *i* P | P | 05 10 15.1 | -0.8 |
| DAV | Davao City (W) | 25.67 | 304 | *e*P | P | 05 10 16.5 | +0.6 |
| | comp=Z,8μm,1.3s | | | | | | |
| DAV | Davao City (W) | 25.67 | 304 | P | P | 05 10 16.7 | +0.7 |
| | SNR=159 | | | | | | |
| BIPH | Bislig | 25.68 | 307 | *e*P | P | 05 10 18.1 | +2.0 |
| DMPH | Davao City--Mi | 25.73 | 304 | *e*P | P | 05 10 11.6 | -5.0 |
| APSI | Ampana | 25.93 | 284 | P | P | 05 10 18.7 | +0.3 |
| KCP | Kidapawan | 26.04 | 303 | *e*P | P | 05 10 19.6 | +0.2 |
| MRSI | Marisa | 26.05 | 287 | P | P | 05 10 18.6 | -0.8 |
| | comp=Z,956nm,1.1s,comp=Z,44μmcomp=Z,279μm | | | | | | |
| BASI | Baing, Sumba | 26.06 | 262 | P | P | 05 10 18.5 | -1.0 |
| BSSI | Bau Bau, Buton | 26.17 | 271 | P | P | 05 10 21.1 | +0.5 |
| | comp=Z,5μm,1.3s,comp=Z,131μmcomp=Z,496μm | | | | | | |
| WSI | Wangapu | 26.30 | 263 | P | P | 05 10 20.6 | -1.1 |
| KWAJ | Kwajalein Atol | 26.32 | 52 | *e*P | P | 05 10 23.1 | +1.2 |
| KWAJ | | | | pmax | pmax | | |
| | comp=Z,3μm,1.0s | | | | | | |
| KWAJ | Kwajalein Atol | 26.32 | 52 | *e*P | P | 05 10 23.1 | +1.2 |
| | comp=Z,3μm,0.9s | | | | | | |
| LHI | Lord Howe Isla | 26.47 | 156 | *e*P | P | 05 10 23.2 | +0.3 |
| | comp=Z,1μm,1.1s | | | | | | |
| BUKP | Musuan | 26.54 | 305 | *e*P | P | 05 10 23.8 | -0.1 |
| BUTP | Butuan | 26.73 | 307 | *e*P | P | 05 10 25.5 | -0.1 |
| BNSI | Bone | 26.74 | 275 | P | P | 05 10 24.9 | -0.8 |
| CTBH | Kotabato--PC H | 26.86 | 303 | *e*P | P | 05 10 26.2 | -0.4 |
| KAPI | Kappang | 27.01 | 274 | *e*P | P | 05 10 27.1 | -1.0 |
| | comp=Z,7μm,1.5s | | | | | | |
| BBOO | Buck

H11S3 T T 05 44 32.5
baz=220,slow=76,SNR=9.7
**H11S2 WAKE ISLAND Hy 32.46 37 P P 05 11 16.2 +0.3**
baz=75,slow=75,SNR=19
H11S2 T T 05 44 26.8
baz=220,slow=76,SNR=9.8
**H11S1 WAKE ISLAND Hy 32.47 37 P P 05 11 16.3 +0.3**
baz=75,slow=75,SNR=13
H11S1 T T 05 44 30.1
baz=220,slow=76,SNR=9.3
**MTKI Muara Teweh, K 32.48 280 P P 05 11 17.2 +0.8**
**KMMI Kalianget 32.58 269 P P 05 11 17.2 -0.1**
**BUSP Coron 32.82 306 eP P 05 11 18.6 -0.7**
**BUSP Coron 32.82 306 eP P 05 11 18.6 -0.7**
**PPR Puerto Princes 32.83 301 ⇓eP P 05 11 19.9 +0.4**
**BLJI Banyuglugur 32.92 267 P P 05 11 18.0 -2.3**
**WAKE Wake Island 33.05 36 eP P 05 11 20.2 -1.0**
comp=Z,2μm,1.6s
**GMJI Gumukmas 33.06 266 P P 05 11 17.8 -3.6**
**PGP Puerto Galera 33.11 309 ⇑eP P 05 11 21.4 -0.5**
**BATP Bataraza 33.15 299 eP P 05 11 20.9 -1.4**
**KDM Kudat 33.17 295 ⇓P P 05 11 22.7 +0.3**
**KKM Kota Kinabalu 33.37 293 ⇓P P 05 11 24.1 -0.2**
**KKM Kota Kinabalu 33.37 293 eP P 05 11 23.9 -0.3**
comp=Z,2μm,1.1s
**TGY Tagaytay City 33.48 310 ⇓eP P 05 11 26.7 +1.5**
**H11N1 WAKE ISLAND Hy 33.52 36 P P 05 11 26.3 +1.2**
baz=163,slow=10,SNR=12
H11N1 T T 05 46 13.6
baz=219,slow=76,SNR=37
**H11N3 WAKE ISLAND Hy 33.53 36 P P 05 11 25.6 +0.3**
baz=163,slow=10,SNR=16
H11N3 T T 05 45 47.0
baz=219,slow=76,SNR=9.1
**H11N2 WAKE ISLAND Hy 33.54 36 P P 05 11 26.0 +0.7**
baz=163,slow=10,SNR=13
H11N2 T T 05 45 47.7
baz=219,slow=76,SNR=159
**BWJI Bawean 33.96 271 P P 05 11 29.7 +0.4**
**BALP Baler 34.05 313 eP P 05 11 29.5 -0.5**
**GRJI Gresik 34.06 269 P P 05 11 29.3 -0.9**
**PCPH Palayan 34.28 312 ⇑eP P 05 11 32.2 +0.2**
**CAUP Cauayan 34.67 315 eP P 05 11 35.2 -0.1**
**PWJI Pagerwojo 34.69 267 P P 05 11 34.2 -1.3**
comp=Z,2μm,1.3s,comp=Z,29μmcomp=Z,265μm
**TBJI Tambak Boyo 34.69 269 P P 05 11 35.9 +0.3**
comp=Z,549nm,1.2s,comp=Z,20μmcomp=Z,172μm
**CBIJ Chichi jima 34.71 353 eP P 05 11 35.1 -0.4**
comp=Z,3μm,1.1s
**CVP Callao Caves 35.19 316 ⇓iP P 05 11 39.6 -0.1**
**TAU Tasmania Unive 35.24 179 eP P 05 11 40.7 +0.8**
TAU pmax pmax
comp=Z,550nm,1.0s
**TAU Tasmania Unive 35.24 179 eP P 05 11 40.7 +0.8**
comp=Z,553nm,1.0s
**SCZP Santa Cruz 35.30 311 eP P 05 11 38.7 -2.0**
**PCJI Pacitan 35.30 266 P P 05 11 39.0 -1.8**
comp=Z,7μm,1.5s,comp=Z,104μmcomp=Z,275μm
**BTM Bintulu 35.30 286 ⇑P P 05 11 42.0 +1.1**
**PBKI Pangkalan Bun 35.32 276 P P 05 11 43.0 +2.0**
**SGCP Mt. Cagua 35.40 317 eP P 05 11 41.5 0.0**
**UWJI Ujung Watu 35.61 269 P P 05 11 43.7 +0.2**
**BOLP Bolinao 35.68 312 eP P 05 11 41.6 -2.4**
**APYP Conner 35.70 315 eP P 05 11 43.9 -0.2**
**SBUM Sibu 35.91 285 ⇑P P 05 11 46.9 +0.9**
**SBUM Sibu 35.91 285 eP P 05 11 46.1 +0.1**
comp=Z,3μm,1.5s
**ABRA Dolores 35.93 314 eP P 05 11 44.6 -1.5**
**UGM Wanagama 35.96 267 P P 05 11 44.7 -1.8**
**UGM Wanagama 35.96 267 eP P 05 11 45.6 -0.9**
comp=Z,7μm,1.1s
**STKI Sintang 36.03 281 P P 05 11 48.0 +0.9**
comp=Z,2μm,2.0s,comp=Z,42μmcomp=Z,217μm
**SMRI Semarang 36.08 268 P P 05 11 47.8 +0.3**
**SMRI Semarang 36.08 268 eP P 05 11 47.1 -0.3**
comp=Z,25μm,1.8s
**OUZ Omahuta 36.92 142 eP P 05 11 55.6 +1.3**
comp=Z,2μm,0.9s
**OUZ Omahuta 36.92 142 ePN P 05 11 55.6 +1.3**
**NWAO Narrogin (SRO) 37.29 223 P P 05 11 57.5 0.0**
comp=Z,492nm,0.5s,baz=285,slow=8.4,SNR=100
**NWAO Narrogin (SRO) 37.29 223 eP P 05 11 57.1 -0.4**
comp=Z,7μm,1.6s
NWAO eP P 05 11 57.5 0.0
**KSM Kuching 37.50 282 ⇓P P 05 12 00.1 +0.6**
**KSM Kuching 37.50 282 eP P 05 11 59.6 +0.1**
comp=Z,10μm,2.0s
**KPJI Karang Pucung 37.56 268 P P 05 12 00.0 0.0**
comp=Z,5μm,1.2s,comp=Z,62μmcomp=Z,262μm
**WCZ Waipu Caves 37.86 142 ePN P 05 12 03.2 +1.0**
**JCJI Jatiwangi 38.26 269 P P 05 12 06.9 +1.0**
comp=Z,15μm,1.4s,comp=Z,228μmcomp=Z,270μm
**JOW Kunigami 38.60 333 eP P 05 12 09.6 +1.1**
comp=Z,5μm,1.6s
**CISI Cisompet, Garu 38.65 267 P P 05 12 07.4 -1.8**
**CISI Cisompet, Garu 38.65 267 eP P 05 12 07.5 -1.8**
comp=Z,70μm,1.9s
CISI eS S 05 17 53.8 -2.9
**MKAZ Moumakai 39.12 143 ePN P 05 12 13.6 +0.9**
**KUZ Kuaotunu 39.22 142 ePN P 05 12 14.4 +0.8**
**TWG Pinlang 39.30 321 eP P 05 12 13.8 -0.7**
comp=Z,18μm,1.9s
**CNJI Cibinong 39.34 268 P P 05 12 14.6 -0.3**
comp=Z,22μm,1.5s,comp=Z,223μm
**YOJ Yonaguni jima 39.37 325 eP P 05 12 16.2 +1.3**
YOJ pmax pmax
comp=Z,9μm,1.4s
**YOJ Yonaguni jima 39.37 325 eP P 05 12 16.2 +1.3**
comp=Z,9μm,1.4s
**YULB Yu-li 39.58 322 eP P 05 12 16.9 +0.1**
comp=Z,3μm,1.5s
**RAO Raoul Island 39.58 128 P P 05 12 17.0 +0.3**
comp=Z,2μm,0.9s,baz=274,slow=12,SNR=14
RAO LR LR 05 26 46.1
comp=Z,41μm,19.9s,baz=296,slow=33
**RAO Raoul Island 39.58 128 eP P 05 12 17.4 +0.7**
RAO pmax pmax
comp=Z,3μm,1.0s
**RAO Raoul Island 39.58 128 eP P 05 12 17.0 +0.3**
RAO eP P 05 12 17.4 +0.7
RAO e 05 26 46.1
**TOZ Tahuroa Road 39.74 143 ePN P 05 12 19.1 +1.2**
**DBJI Dramaga 39.77 269 P P 05 12 18.9 +0.4**
**HIZ Hauiti 39.90 145 eP P 05 12 21.1 +1.9**
comp=Z,2μm,1.0s
**HIZ Hauiti 39.90 145 ePN P 05 12 21.1 +1.9**
**SKJI Sukabumi 39.93 268 P P 05 12 19.1 -0.7**
**TPUB Ta-pu 39.93 321 eP P 05 12 19.6 0.0**
comp=Z,3μm,0.9s
**NACB Ninganchiao 39.98 323 eP P 05 12 21.1 +1.1**
comp=Z,15μm,1.5s
NACB eS S 05 18 19.6 +3.4
**SSLB Suanglung 40.08 322 eP P 05 12 21.7 +0.7**
comp=Z,1μm,0.9s
**VRZ Vera Road 40.26 146 PN P 05 12 23.9 +1.7**
**SBJI Serang 40.41 269 P P 05 12 22.4 -1.4**
**OPRZ Ohinepanea 40.44 143 ePN P 05 12 24.5 +0.8**
**YHNB Yeheng 40.48 323 eP P 05 12 25.6 +1.3**
comp=Z,5μm,1.2s
YHNB eS S 05 18 22.4 -1.3
**GRRZ Galatos Road 40.51 144 ePN P 05 12 25.5 +1.2**
**H01W1 Cape Leeuwin H 40.51 223 P P 05 12 25.8 +1.7**
baz=68,slow=6.8,SNR=169
**H01W3 Cape Leeuwin H 40.52 223 P P 05 12 25.8 +1.7**
baz=68,slow=6.8,SNR=192
**H01W2 Cape Leeuwin H 40.53 223 P P 05 12 26.2 +2.0**
baz=68,slow=6.8,SNR=105
**WATZ Wairara 40.53 144 ePN P 05 12 26.0 +1.5**
**HSRZ Hossack Road 40.56 144 ePN P 05 12 26.1 +1.3**
**TATO Taipei 40.65 323 eP P 05 12 27.0 +1.4**
comp=Z,25μm,1.5s
**TATO Taipei 40.65 323 P P 05 12 27.6 +2.1**
SNR=124
**RATZ Rangitukua 40.66 145 PN P 05 12 27.4 +1.8**
**XMIS Christmas Isla 40.74 263 eP P 05 12 26.4 -0.1**
comp=Z,12μm,1.8s
**NGZ Ngauruhoe 40.77 145 ePN P 05 12 28.2 +1.6**
**PRRZ Plateau Road 40.78 144 ePN P 05 12 27.6 +1.1**
**OTVZ Oturere 40.80 145 ePN P 05 12 28.7 +1.9**
**PPBI Pangkal Pinang 40.86 275 P P 05 12 28.4 +0.9**
comp=Z,13nm,1.7s,comp=Z,198nm
**WNVZ Wahianoa 40.87 145 ePN P 05 12 29.4 +2.0**
**JHJ2 Mitsune 40.96 351 eP P 05 12 28.8 +0.9**
comp=Z,1μm,0.8s
**DUWZ D'Urville Isla 41.00 148 PN P 05 12 28.9 +0.7**

**NNZ Nelson 41.02 149 ePN P 05 12 28.8 +0.4**
**URZ Urewera 41.05 143 P P 05 12 28.8 +0.2**
comp=Z,769nm,0.6s,baz=285,slow=3.0,SNR=137
**URZ Urewera 41.05 143 eP P 05 12 28.8 +0.2**
URZ eP P 05 12 28.9 +0.2
**URZ Urewera 41.05 143 ePN P 05 12 28.8 +0.2**
**AFI Afiamalu 41.13 102 P P 05 12 30.1 +0.3**
comp=Z,4μm,1.2s,baz=257,slow=2.2,SNR=103
**AFI Afiamalu 41.13 102 eP P 05 12 30.2 +0.4**
AFI pmax pmax
comp=Z,4μm,1.2s
**AFI Afiamalu 41.13 102 eP P 05 12 30.2 +0.4**
comp=Z,4μm,1.2s
**FOZ Fox Glacier 41.14 154 eP P 05 12 29.4 +0.1**
comp=Z,348nm,1.0s
**THZ Tophouse 41.19 150 eP P 05 12 30.1 +0.2**
comp=Z,644nm,1.0s
**THZ Tophouse 41.19 150 ePN P 05 12 29.9 0.0**
**RUGZ Raukumara Rang 41.20 142 ePN P 05 12 29.5 -0.6**
**BHHZ Black Hill Sta 41.25 145 ePN P 05 12 31.0 +0.6**
**MTHZ Maungataniwha 41.27 144 ePN P 05 12 30.8 +0.3**
**BKZ Black Stump Fm 41.28 144 eP P 05 12 30.9 +0.3**
comp=Z,1μm,0.9s
**MXZ Matakaoa Point 41.34 141 eP P 05 12 31.8 +0.8**
comp=Z,1μm,1.0s
**MWZ Matawai 41.34 143 ePN P 05 12 31.3 +0.1**
**BLSI Bandar Lampung 41.35 270 P P 05 12 29.7 -1.8**
**PKGZ Pakihiroa 41.40 142 ePN P 05 12 32.0 +0.4**
**KWHZ Kaweka Forest 41.41 145 ePN P 05 12 32.5 +0.8**
**NMHZ Naumai 41.41 144 ePN P 05 12 32.9 +1.2**
**TUWZ Tuamarina 41.47 149 ePN P 05 12 32.2 +0.1**
**TCW Tory Channel 41.48 148 ePN P 05 12 32.5 +0.4**
**TWGZ Tauwhareparae 41.52 142 ePN P 05 12 33.0 +0.4**
**SNGZ Shannon Statio 41.52 143 ePN P 05 12 31.6 -1.0**
**KRHZ Kereru 41.53 145 ePN P 05 12 33.2 +0.6**
**KNTN Kanton 41.55 86 eP P 05 12 33.4 +0.3**
comp=Z,4μm,1.0s
**WMGZ Waiomatatini S 41.56 141 ePN P 05 12 33.3 +0.5**
**PNHZ Pukenui 41.61 145 PN P 05 12 33.8 +0.5**
**PUZ Puketiti 41.62 142 ePN P 05 12 33.7 +0.3**
**ARHZ Aropaoanui 41.63 144 ePN P 05 12 33.9 +0.5**
**BSWZ Blackbirch Sta 41.64 149 ePN P 05 12 33.5 0.0**
**WHHZ Waihua 41.65 144 ePN P 05 12 34.1 +0.5**
**LTZ Lake Taylor 41.66 152 eP P 05 12 34.0 +0.3**
comp=Z,1μm,1.3s
**LTZ Lake Taylor 41.66 152 ePN P 05 12 33.8 +0.2**
**OGWZ Otaki Gorge 41.67 147 ePN P 05 12 33.9 +0.2**
**DCZ Deep Cove 41.69 158 eP P 05 12 34.6 +0.9**
comp=Z,861nm,1.0s
**DCZ Deep Cove 41.69 158 ePN P 05 12 34.8 +1.0**
**POWZ Post Office Ro 41.70 146 ePN P 05 12 34.3 +0.3**
**RIGZ Rimuhau 41.72 143 ePN P 05 12 34.7 +0.5**
**SNZO South Karori 41.78 148 eP P 05 12 34.7 +0.2**
comp=Z,3μm,1.8s
**MRZ Mangatainoka R 41.78 147 ePN P 05 12 34.8 +0.2**
**KLI Kotabumi 41.78 271 P P 05 12 32.6 -2.4**
**RPZ Rata Peaks 41.83 153 P P 05 12 34.6 -0.3**
comp=Z,616nm,0.8s,baz=300,slow=2.1,SNR=94
**RPZ Rata Peaks 41.83 153 eP P 05 12 34.6 -0.3**
RPZ eP P 05 12 35.1 +0.2
**RPZ Rata Peaks 41.83 153 ePN P 05 12 34.2 -0.7**
**WPHZ Waipukurau 41.85 145 ePN P 05 12 35.6 +0.4**
**DVHZ Dannevirke 41.86 146 ePN P 05 12 35.4 +0.1**
**WKZ Wanaka 41.87 156 eP P 05 12 36.3 +1.0**
comp=Z,490nm,1.0s
**WKZ Wanaka 41.87 156 ePN P 05 12 35.6 +0.3**
**KNZ Kokohu 41.87 143 ePN P 05 12 35.3 -0.1**
**HOWZ Holdsworth Sta 41.91 147 ePN P 05 12 35.5 -0.3**
**KAHZ Kahuranaki 41.92 145 ePN P 05 12 36.4 +0.6**
**PRWZ Pori Road 41.92 146 ePN P 05 12 36.1 +0.3**
**PRGZ Paritu Road 41.94 143 ePN P 05 12 35.9 0.0**
**CKHZ Cape Kidnapper 41.94 144 ePN P 05 12 36.3 +0.4**
**OXZ Oxford 41.97 152 eP P 05 12 35.5 -0.6**
comp=Z,740nm,1.3s
**OXZ Oxford 41.97 152 ePN P 05 12 34.9 -1.2**
**MLZ Mavora Lakes 41.97 157 eP P 05 12 36.8 +0.7**
comp=Z,1μm,1.3s
**MLZ Mavora Lakes 41.97 157 ePN P 05 12 36.6 +0.5**
**LBZ Lake Benmore 41.99 155 eP P 05 12 36.2 0.0**
comp=Z,594nm,1.0s
**LBZ Lake Benmore 41.99 155 ePN P 05 12 35.9 -0.3**
**KHZ Kahutara 41.99 150 eP P 05 12 36.2 -0.1**
comp=Z,866nm,1.2s
**KHZ Kahutara 41.99 150 ePN P 05 12 35.8 -0.5**
**TIWZ Tintock 42.03 147 ePN P 05 12 36.8 +0.1**
**KASI Kota Agung 42.08 270 P P 05 12 34.7 -2.7**
**MTW Mount Morrison 42.09 147 ePN P 05 12 36.9 -0.3**
**PRHZ Pongahaugu 42.10 145 ePN P 05 12 37.6 +0.4**
**PMBI Palembang 42.10 274 P P 05 12 38.2 +0.6**
**PYZ Puysegur Point 42.13 159 eP P 05 12 37.9 +0.6**
comp=Z,584nm,0.8s
**MSWZ Moikau Station 42.14 148 ePN P 05 12 36.9 -0.6**
**ANWZ Angora Road 42.14 146 ePN P 05 12 37.8 +0.3**
**BFZ Birch Farm 42.16 146 eP P 05 12 37.9 +0.2**
comp=Z,2μm,1.0s
**BFZ Birch Farm 42.16 146 ePN P 05 12 37.7 0.0**
**PLWZ Palliser 42.25 148 ePN P 05 12 37.8 -0.7**
**EAZ Earnscleugh 42.32 156 ePN P 05 12 38.7 -0.2**
**WHZ Wether Hill Ro 42.35 158 eP P 05 12 39.2 0.0**
comp=Z,733nm,1.3s
**WHZ Wether Hill Ro 42.35 158 ePN P 05 12 39.1 -0.1**
**TRWZ Traveller 42.36 147 ePN P 05 12 39.1 -0.2**
**QZH Quanzhou 42.40 320 ⇑iP P 05 12 40.0 +0.2**
QZH sP sP 05 13 20.4 -2.9
QZH S S 05 18 48.5 -3.3
QZH sS sS 05 19 42.0 -0.1
QZH SS SS 05 22 04.8 -1.2
QZH ScS ScS 05 22 25.5 -3.0
QZH pmax pmax
comp=Z,4μm,1.0s
QZH pmax pmax
comp=Z,62μm,8.9s
QZH LR LR
comp=Z,50μm,12.1s
QZH LR LR
comp=Z,79μm,10.1s
QZH LR LR
comp=Z,55μm,19.2s
**CRLZ Canterbury Las 42.43 152 eP P 05 12 40.3 +0.5**
comp=Z,4μm,1.9s
**MQZ McQueen's Vall 42.54 152 eP P 05 12 40.7 0.0**
comp=Z,3μm,1.9s
**MQZ McQueen's Vall 42.54 152 ePN P 05 12 40.1 -0.6**
**LWLI Liwa 42.56 271 P P 05 12 40.1 -1.4**
**DSRI Dabo 42.68 277 P P 05 12 42.6 +0.3**
**ODZ Otahua Downs 42.71 155 eP P 05 12 42.3 +0.2**
comp=Z,333nm,1.2s
**ODZ Otahua Downs 42.71 155 ePN P 05 12 41.9 -0.2**
**TPRI Tanjung Pinang 43.00 279 P P 05 12 45.0 +0.1**
comp=Z,6μm,1.6s,comp=Z,86μmcomp=Z,229μm
**TUZ Tuapeka 43.04 157 ePN P 05 12 44.9 +0.2**
**APZ The Paps 43.16 159 ePN P 05 12 45.7 0.0**
**JNU Nakatsue 43.17 340 P P 05 12 47.1 +1.2**
comp=Z,767nm,1.0s,baz=142,slow=4.6,SNR=185
JNU ScP ScP 05 18 10.8 -1.9
comp=Z,76nm,1.0s,baz=20,slow=1.7,SNR=3.9
**JNU Nakatsue 43.17 340 eP P 05 12 46.8 +0.8**
comp=Z,796nm,1.0s
**JMBI JAMBI 43.41 276 P P 05 12 51.1 +3.0**
**HKC Hong Kong Obse 43.61 314 ⇑P P 05 12 52.0 +2.4**
**INU Inuyama 43.64 348 eP P 05 12 50.2 +0.7**
comp=Z,1μm,1.2s
**MNAI Manna 43.72 272 P P 05 12 48.4 -2.3**
**MNAI Manna 43.72 272 eP P 05 12 49.0 -1.7**
comp=Z,6μm,1.3s
**MYKOM Kota Tinggi 43.85 280 eP P 05 12 51.9 +0.2**
comp=Z,6μm,1.3s
**MCO Taipa Grande 43.94 313 P P 05 12 55.0 +2.8**
**MJAR Matsushiro Arr 44.57 350 P P 05 12 57.0 -0.1**
comp=Z,551nm,0.8s,baz=181,slow=9.5,SNR=467
MJAR PKPPKP P'P'df 05 44 33.5 -2.0
comp=Z,2.8nm,0.9s,baz=47,slow=2.0,SNR=4.2
**MAJO Matsushiro 44.58 350 ⇓iP P 05 12 57.5 +0.4**
MAJO pmax pmax
comp=Z,907nm,0.8s
**MAJO Matsushiro 44.58 350 eP P 05 12 56.5 -0.5**
comp=Z,1μm,0.8s
**MASI Maura Aman, Be 44.58 273 P P 05 12 57.0 -0.5**
**MAT Matsushiro 44.58 350 P P 05 12 56.7 -0.4**
MAT S S 05 19 19.9 -3.4
**GZH Guangzhou 44.69 314 P P 05 13 01.6 +3.4**
GZH pP pP 05 13 32.1 +4.6
GZH S S 05 19 33.3 +8.0
GZH pmax pmax

comp=Z,88μm,8.2s
**RGRI Rengat 44.91 277 P P 05 13 00.1 -0.1**
**QIZ Qiongzhong 44.99 306 P P 05 13 02.1 +1.4**
QIZ sP sP 05 13 42.6 -1.8
QIZ PP PP 05 14 47.6 -0.8
QIZ S S 05 19 28.3 -1.5
QIZ sS sS 05 20 18.1 -2.4
QIZ SS SS 05 22 52.0 -2.6
QIZ pmax pmax
comp=Z,5μm,1.0s
**QIZ Qiongzhong 44.99 306 eP P 05 13 02.1 +1.4**
comp=Z,14μm,1.5s
**KTGM Kuala Trenggan 45.41 285 ⇓P P 05 13 05.1 +1.0**
**SSE Sheshan 45.57 329 P P 05 13 06.0 +1.0**
SSE S S 05 19 41.1 +3.3
SSE sS sS 05 20 29.5 +1.0
SSE pmax pmax
comp=Z,3μm,1.2s
SSE pmax pmax
comp=Z,16μm,9.6s
SSE LR LR
comp=Z,33μm,27.1s
SSE LR LR
comp=Z,86μm,27.1s
SSE LR LR
comp=Z,36μm,23.0s
**BKNI Bangkinang 46.31 278 P P 05 13 10.9 -0.2**
**BKNI Bangkinang 46.31 278 eP P 05 13 11.4 +0.3**
comp=Z,25μm,2.0s
**FRIM Kepong 46.34 282 ⇓P P 05 13 11.9 +0.5**
**PDSI Padang 46.66 276 P P 05 13 12.4 -1.5**
**PPSI Pulau Pagai 46.83 273 P P 05 13 13.8 -1.4**
**IPM Ipoh 47.22 283 eP P 05 13 18.6 +0.3**
comp=Z,11μm,1.5s
**TJN Taejon 47.34 339 ⇑iP P 05 13 19.2 +0.5**
**NJ2 Nanjing 47.55 327 eP P 05 13 22.0 +1.6**
NJ2 sP sP 05 14 03.1 -1.3
NJ2 PP PP 05 15 13.3 +0.1
NJ2 ScP ScP 05 18 28.8 -2.0
NJ2 S S 05 20 07.0 +1.1
NJ2 sS sS 05 20 58.0 +1.0
NJ2 ScS ScS 05 23 01.8 +0.5
NJ2 SS SS 05 23 33.6 -2.2
NJ2 pmax pmax
comp=Z,2μm,1.5s
NJ2 pmax pmax
comp=Z,32μm,10.6s
NJ2 LR LR
comp=Z,38μm,16.2s
NJ2 LR LR
comp=Z,49μm,13.2s
NJ2 LR LR
comp=Z,29μm,17.3s
**KULM Kulim 47.79 284 eP P 05 13 23.4 +0.7**
comp=Z,8μm,1.4s
**MCQ Macquarie Isla 47.85 170 eP P 05 13 22.9 +0.5**
**MCQ Macquarie Isla 47.85 170 eP P 05 13 22.9 +0.5**
comp=Z,2μm,1.6s
**SISI Saibi 47.95 275 P P 05 13 22.8 -1.1**
**KSRS Korea Array 48.11 340 P P 05 13 25.4 +0.8**
comp=Z,560nm,0.7s,baz=157,slow=8.4,SNR=565
KSRS LR LR 05 31 22.5
comp=Z,34μm,21.4s,baz=143,slow=33
KSRS P4KPbc 05 51 06.5
comp=Z,1.4nm,0.6s,baz=157,slow=6.5,SNR=4.1
**KS15 Wonju Array Si 48.11 340 eP P 05 13 25.6 +0.9**
**KSAR Wonju Array Be 48.11 340 P P 05 13 25.4 +0.7**
**KSAR Wonju Array Be 48.11 340 P P 05 13 25.4 +0.7**
KSAR e 05 51 06.5
**KS01 Wonju Array Si 48.14 340 eP P 05 13 25.6 +0.8**
**CTZ Chatham Island 48.17 145 ePN P 05 13 26.0 +0.9**
**INCN Inchon 48.59 339 eP P 05 13 30.1 +1.7**
comp=Z,759nm,0.9s
**INCN Inchon 48.59 339 P P 05 13 30.4 +2.0**
SNR=62
**PSI Prapat 48.87 280 PKPPKP P'P'df 05 44 34.0 0.0**
comp=Z,10.0nm,1.0s,baz=231,slow=2.9,SNR=5.4
**PSI Prapat 48.87 280 eP P 05 13 30.4 -0.7**
**PSI Prapat 48.87 280 eP P 05 13 30.4 -0.7**
comp=Z,17μm,1.9s
**PBSI Pulau Batu 48.95 276 P P 05 13 30.7 -0.9**
**WHN Wuhan 49.01 322 ⇑P P 05 13 33.8 +2.1**
WHN sP sP 05 14 19.5 +3.8
WHN S S 05 20 29.8 +3.3
WHN LR LR
comp=Z,54μm,18.8s
WHN LR LR
comp=Z,18μm,9.9s
WHN LR LR
comp=Z,86μm,21.0s
**TSI Tuntungan 49.37 281 P P 05 13 34.2 -0.6**
**COCO West Island 49.41 260 iP P 05 13 36.7 +1.7**
**COCO West Island 49.41 260 eP P 05 13 36.4 +1.4**
comp=Z,18μm,1.6s
**ERM Erimo 49.41 356 ⇑iP P 05 13 36.7 +2.2**
ERM pmax pmax
comp=Z,350nm,0.7s
**ERM Erimo 49.41 356 eP P 05 13 36.3 +1.8**
comp=Z,374nm,0.8s
**JOHN Johnston Islan 49.45 61 eP P 05 13 35.9 +0.7**
comp=Z,1μm,1.1s
**MIDW Midway 49.59 43 eP P 05 13 36.2 +0.1**
comp=Z,3μm,1.5s
**GSI Gunungsitoli 49.89 278 P P 05 13 38.0 -0.7**
**GSI Gunungsitoli 49.89 278 eP P 05 13 38.2 -0.5**
comp=Z,3μm,0.8s
**KCSI Kotacane, Aceh 50.15 281 P P 05 13 39.6 -1.1**
**TPTI 50.67 280 P P 05 13 43.4 -1.2**
**SNSI Sinabang, Aceh 51.33 279 P P 05 13 49.2 -0.3**
**YUK Yuzh-Kuril'sk 51.33 359 diP P 05 13 49.8 +0.9**
YUK i *PP pP 05 14 24.7 +5.9
YUK i i 05 15 01.9
YUK i S S 05 20 58.3 +0.1
YUK i 05 23 27.3
YUK pmax pmax
comp=Z,5μm,2.9s
YUK pmax pmax
comp=Z,2μm,1.4s
YUK pmax pmax
comp=N,1μm,1.1s
**LHMI Lhok Sumawe 51.34 283 P P 05 13 49.6 0.0**
comp=N,7μm,0.7s,comp=N,112μmcomp=N,208μm
**LHMI Lhok Sumawe 51.34 283 eP P 05 13 49.4 -0.2**
comp=N,25μm,1.8s
LHMI eS S 05 20 58.8 -0.6
**ASAJ Asahikawa 51.54 356 P P 05 13 51.8 +1.2**
comp=N,328nm,0.7s,baz=202,slow=8.4,SNR=86
**ASAJ Asahikawa 51.54 356 eP P 05 13 51.7 +1.2**
comp=N,320nm,0.7s
**GYA Guiyang 51.56 312 ⇑iP P 05 13 52.1 +1.0**
GYA pP pP 05 14 22.4 +1.3
GYA sP sP 05 14 36.0 +0.6
GYA PcP PcP 05 15 03.6 +0.2
GYA PP PP 05 15 53.3 +3.4
GYA ScP ScP 05 18 49.9 +1.6
GYA PcS PcS 05 19 01.0 -0.8
GYA S S 05 21 02.6 +0.3
GYA sS sS 05 21 53.0 -1.0
GYA ScS ScS 05 23 27.5 -1.5
GYA pmax pmax
comp=N,2μm,1.2s
GYA pmax pmax
comp=N,29μm,13.1s
GYA LR LR
comp=N,21μm,21.1s
GYA LR LR
comp=N,27μm,19.2s
GYA LR LR
comp=N,29μm,24.2s
**MLSI Meulaboh, Aceh 51.65 281 P P 05 13 51.2 -0.7**
comp=N,21μm,0.7s,comp=N,174μmcomp=N,187μm
**TIA Tai'an 51.68 329 ⇑P P 05 13 52.0 +0.3**
TIA sP sP 05 14 36.8 +0.8
TIA S S 05 21 03.3 -0.1
TIA sS sS 05 21 54.3 -0.9
TIA ScS ScS 05 23 29.3 +0.1
TIA pmax pmax
comp=N,1μm,1.3s
TIA pmax pmax
comp=N,22μm,8.5s
TIA LR LR
comp=N,18μm,24.5s
TIA LR LR
comp=N,26μm,16.0s
TIA LR LR

comp=N,24µm,21.9s
**DL2 Dalian 51.78 335** ⇑*i* P **P** **05 13 52.9 +0.5**
DL2 sP **sP** **05 14 39.0 +2.4**
DL2 S **S** **05 21 05.5 +0.9**
DL2 ScS **ScS** **05 23 30.4 +0.7**
DL2 pmax pmax
comp=N,1µm,1.0s
DL2 pmax pmax
comp=N,13µm,11.2s
**MSHR Mys Shultsa 51.87 345***c i* P **P** **05 13 55.4 +2.4**
**ENH Enshi 51.92 318** *e*P **P** **05 13 54.6 +1.0**
comp=N,13µm,1.8s
**VLA Vladivostok 52.20 346***c i* P **P** **05 13 57.6 +2.2**
VLA pmax pmax
comp=Z,2µm,1.2s
**KUR Kuril'sk 52.53 1***d i* P **P** **05 13 59.2 +1.5**
KUR *e* 05 15 05.8
KUR *e* 05 15 57.3
KUR *i* S **S** **05 21 14.3 -0.2**
KUR *e* 05 23 39.1
KUR *e*SS **SS** **05 24 52.6 -2.1**
KUR pmax pmax
comp=Z,4µm,1.3s
KUR pmax pmax
comp=N,780nm,1.0s
KUR pmax pmax
comp=E,525nm,1.4s
KUR pmax pmax
comp=Z,11µm,4.5s
KUR MLR MLR
comp=E,4µm,17.0s
KUR MLR MLR
comp=Z,8µm,17.0s
KUR MLR MLR
comp=N,6µm,12.0s
**USRK Ussuriysk Ar. 53.20 347** P **P** **05 14 03.5 +0.7**
comp=N,1µm,0.7s,baz=149,slow=5.2,SNR=580
USRK LR LR 05 35 03.8
comp=N,15µm,20.4s,baz=153,slow=34
USRK PKPPKP **P'P'df** **05 44 28.7 +4.7**
comp=N,6.0nm,0.8s,baz=276,slow=7.3,SNR=5.1
**RAR Rarotonga 53.26 111** P **P** **05 14 03.4 -0.2**
comp=N,526nm,1.1s,baz=245,slow=6.8,SNR=26
**RAR Rarotonga 53.26 111** *e*P **P** **05 14 03.7 +0.1**
RAR pmax pmax
comp=Z,2µm,1.3s
**RAR Rarotonga 53.26 111** *e*P **P** **05 14 03.7 +0.1**
comp=Z,2µm,1.3s
**SNY Shenyang 53.53 338** ⇑P **P** **05 14 05.4 +0.2**
SNY sP **sP** **05 14 50.0 +0.5**
SNY S **S** **05 21 28.6 +0.4**
SNY sS **sS** **05 22 16.6 -3.7**
SNY ScS **ScS** **05 23 37.8 -4.0**
SNY pmax pmax
comp=Z,520nm,1.3s
SNY pmax pmax
comp=Z,13µm,4.1s
SNY LR LR
comp=Z,43µm,19.1s
SNY LR LR
comp=Z,56µm,18.6s
SNY LR LR
comp=Z,41µm,32.0s
**CM01 Chiang Mai Arr 53.79 299** *e*P **P** **05 14 09.6 +2.0**
**KMI Kunming 53.79 309** P **P** **05 14 09.9 +2.2**
KMI pP pP 05 14 41.8 +3.9
KMI sP sP 05 14 55.3 +3.2
KMI PP **PP** **05 16 14.8 +4.6**
KMI S **S** **05 21 36.8 +4.0**
KMI SS **SS** **05 25 15.4 -0.4**
KMI pmax pmax
comp=Z,4µm,1.2s
KMI pmax pmax
comp=Z,21µm,3.1s
KMI LR LR
comp=Z,35µm,18.7s
KMI LR LR
comp=Z,23µm,17.8s
KMI LR LR
comp=Z,42µm,34.2s
**CM31 Chiang Mai Arr 53.82 299** *e*P **P** **05 14 09.6 +1.8**
**CMAR Chiang Mai Arr 53.82 299** P **P** **05 14 09.1 +1.3**
comp=Z,3µm,0.9s,baz=124,slow=5.6,SNR=2897
CMAR LR LR 05 37 36.2
comp=Z,10µm,21.6s,baz=110,slow=36
CMAR PKPPKP P'P'df 05 44 13.2 -13
comp=Z,8.7nm,0.7s,baz=341,slow=9.3,SNR=24
CMAR PKP2bc 05 44 33.6
comp=Z,13nm,0.9s,baz=281,slow=4.0,SNR=9.0
CMAR PKP2ab 05 45 05.5
comp=Z,7.5nm,0.7s,baz=285,slow=5.9,SNR=4.7
CMAR P4KPbc 05 51 33.3
comp=Z,8.5nm,1.0s,baz=131,slow=3.1,SNR=14
**CMAR Chiang Mai Arr 53.82 299** P P'P'df 05 44 13.2 -13
CMAR 05 44 33.7
CMAR pmax pmax
comp=Z,9.0nm,0.7s
CMAR pmax pmax
comp=Z,13nm,0.9s
**CHTO Chiang Mai 53.96 300** *e*P **P** **05 14 10.4 +1.6**
CHTO pmax pmax
comp=Z,6µm,1.3s
**CHTO Chiang Mai 53.96 300** *e*P **P** **05 14 10.4 +1.6**
comp=Z,6µm,1.3s
**MDJ Mudanjiang 54.18 345** P **P** **05 14 11.3 +1.4**
MDJ pP pP 05 14 37.8 -2.3
MDJ sP sP 05 14 53.0 -1.3
MDJ S **S** **05 21 35.8 -1.1**
MDJ sS sS 05 22 31.6 +2.5
MDJ ScS **ScS** **05 23 43.3 -3.1**
MDJ pmax pmax
comp=Z,620nm,0.8s
MDJ pmax pmax
comp=Z,6µm,8.4s
MDJ LR LR
comp=Z,39µm,23.9s
MDJ LR LR
comp=Z,85µm,29.0s
MDJ LR LR
comp=Z,55µm,34.1s
**MDJ Mudanjiang 54.18 345** *e*P **P** **05 14 10.8 +0.9**
comp=Z,574nm,0.9s
**YSS Yuzh-Sakhalins 54.36 357**ᴋ *i* P **P** **05 14 12.0 +0.9**
YSS *e* 05 16 23.0
YSS *e*S **S** **05 21 39.5 +0.2**
YSS *e* 05 23 48.0
YSS *e*SSS SSS 05 27 31.0
YSS pmax pmax
comp=Z,340nm,0.8s
YSS pmax pmax
comp=N,150nm,0.9s
YSS pmax pmax
comp=E,1µm,3.0s
YSS pmax pmax
comp=Z,4µm,3.0s
YSS pmax pmax
comp=N,2µm,3.2s
YSS smax smax
comp=N,22µm,14.8s
YSS smax smax
comp=E,75µm,13.9s
YSS MLR MLR
comp=E,8µm,17.0s
YSS MLR MLR
comp=Z,12µm,17.0s
YSS MLR MLR
comp=N,9µm,15.0s
**YSS Yuzh-Sakhalins 54.36 357** *e*P **P** **05 14 11.5 +0.4**
comp=N,549nm,0.8s
**CN2 Changchun 54.63 341** *e*P **P** **05 14 13.6 +0.4**
CN2 *es*P sP 05 14 56.5 -1.1
CN2 *e*S **S** **05 21 40.9 -2.2**
CN2 LR LR
comp=N,20µm,20.0s
CN2 LR LR
comp=N,26µm,20.0s
CN2 LR LR
comp=N,20µm,28.0s
**XAN Xi'an 54.74 321** P **P** **05 14 14.9 +0.7**
XAN pP pP 05 14 44.6 +0.1
XAN sP sP 05 14 58.8 +0.1
XAN PP **PP** **05 16 21.1 +2.7**
XAN S **S** **05 21 45.1 +0.1**
XAN sS sS 05 22 37.1 -0.2
XAN ScS **ScS** **05 23 47.8 -3.2**
XAN SS **SS** **05 25 30.6 +0.4**
XAN pmax pmax
comp=N,2µm,1.1s
XAN pmax pmax
comp=N,31µm,8.3s
XAN LR LR
comp=N,16µm,19.1s
XAN LR LR
comp=N,14µm,19.6s
XAN LR LR
comp=N,26µm,17.3s
**BJT Baijiatuan 55.13 332** *e*P **P** **05 14 17.4 +0.6**
BJT pmax pmax
comp=Z,4µm,1.6s
**BJT Baijiatuan 55.13 332** *e*P **P** **05 14 17.4 +0.6**
comp=Z,4µm,1.6s
**BJI Beijing 55.14 332** P **P** **05 14 17.8 +0.9**
BJI sP **sP** **05 14 58.8 -2.6**
BJI PcP **PcP** **05 15 15.5 -1.1**
BJI PP **PP** **05 16 21.3 -0.4**
BJI ScP **ScP** **05 19 05.6 +2.2**
BJI pmax pmax
comp=Z,2µm,1.6s
BJI pmax pmax
comp=Z,24µm,6.2s
**TIY Taiyuan 55.27 327** *e*P **P** **05 14 18.5 +0.5**
TIY sP **sP** **05 14 57.6 -4.9**
TIY S **S** **05 21 51.6 -0.4**
TIY sS **sS** **05 22 47.0 +2.7**
TIY SS **SS** **05 25 37.0 -1.5**
TIY pmax pmax
comp=Z,4µm,1.7s
TIY pmax pmax
comp=Z,15µm,5.8s
TIY LR LR
comp=Z,9µm,14.3s
TIY LR LR
comp=Z,12µm,12.2s
TIY LR LR
comp=Z,18µm,16.7s
**CD2 Chengdu 56.21 315** ⇑*i* P **P** **05 14 26.0 +1.2**
CD2 pP pP 05 14 56.4 +1.2
CD2 sP sP 05 15 10.8 +1.4
CD2 S **S** **05 22 05.8 +1.1**
CD2 sS sS 05 22 59.3 +2.2
CD2 ScS **ScS** **05 24 02.3 +0.6**
CD2 SS **SS** **05 25 47.8 -5.6**
CD2 pmax pmax
comp=Z,3µm,0.8s
CD2 pmax pmax
comp=Z,39µm,11.3s
CD2 LR LR
comp=Z,54µm,22.6s
CD2 LR LR
comp=Z,53µm,21.4s
CD2 LR LR
comp=Z,27µm,21.4s
**XMAS Kiritimati 56.41 83** *e*P **P** **05 14 27.1 +0.6**
comp=Z,2µm,1.1s
**HABR Khabarovsk 56.72 351***ce*P **P** **05 14 27.2 -0.7**
HABR *e**PP **pP** **05 14 54.6 -3.8**
HABR *e* 05 15 21.7
HABR *e* 05 16 34.6
HABR *e*S **S** **05 22 11.5 +1.0**
HABR *e* 05 24 04.7
HABR *e*SS **SS** **05 26 01.9 +1.3**
HABR pmax pmax
comp=N,151nm,0.9s
HABR pmax pmax
comp=E,33nm,0.9s
HABR pmax pmax
comp=Z,539nm,0.9s
HABR pmax pmax
comp=Z,4µm,2.0s
HABR MLR MLR
comp=Z,11µm,18.0s
**PBA Port Blair 57.06 289** *e*P P 05 14 28.8 -2.2
PBA AMB AMB 05 14 32.8
comp=Z,2µm,1.9s
**DGPR DIGLIPUR 57.33 291** *e*P **P** **05 14 31.3 -1.6**
DGPR AMB AMB 05 14 37.7
comp=Z,2µm,2.9s
**HHC Hu-ho-hao-te 58.03 329** *e*P **P** **05 14 38.8 +1.3**
HHC sP sP 05 15 20.3 -1.9
HHC PP **PP** **05 16 46.3 -1.3**
HHC S **S** **05 22 26.4 -1.9**
HHC sS sS 05 23 23.9 +2.8
HHC pmax pmax
comp=Z,1µm,0.9s
HHC pmax pmax
comp=Z,19µm,6.4s
**KLR Kul'dur 58.04 348** P **P** **05 14 37.8 +0.6**
comp=Z,23nm,0.6s,baz=179,slow=4.4,SNR=401
KLR LR LR 05 39 34.0
comp=Z,1µm,18.9s,baz=157,slow=36
KLR SKKS 05 42 52.8
comp=Z,0.1nm,0.6s,baz=320,slow=5.0,SNR=3.5
KLR PKPPKP **P'P'df** **05 44 14.5 -2.3**
comp=Z,0.7nm,1.0s,baz=348,slow=4.8,SNR=6.3
KLR P4KPbc 05 51 47.2
comp=Z,0.3nm,0.8s,baz=189,slow=2.4,SNR=8.6
**TYV Tymovskoe 58.26 357***d i* P **P** **05 14 39.7 +1.0**
TYV *e* 05 15 12.3
TYV *e*S **S** **05 22 28.4 -2.3**
TYV pmax pmax
comp=Z,580nm,0.7s
TYV smax smax
comp=E,69µm,9.9s
TYV MLR MLR
comp=Z,13µm,16.0s
**SKR Severo-Kuril's 58.53 7** *e*P **P** **05 14 41.5 +0.9**
SKR *e**PP **pP** **05 15 10.5 -0.7**
SKR *e*S **S** **05 22 35.7 +1.6**
SKR *e*SS **SS** **05 26 25.9 -3.2**
SKR pmax pmax
comp=Z,1µm,1.0s
SKR pmax pmax
comp=Z,5µm,11.8s
SKR pmax pmax
comp=Z,5µm,6.8s
SKR MLR MLR
comp=Z,11µm,18.0s
SKR MLR MLR
comp=Z,10µm,16.0s
**BTO Baotou 58.66 328** *e*P **P** **05 14 42.8 +1.0**
**LZH Lanzhou 59.25 320** ⇑P **P** **05 14 48.1 +2.0**
LZH pP pP 05 15 18.4 +1.6
LZH sP sP 05 15 30.0 -0.9
LZH PP **PP** **05 17 02.0 +3.5**
LZH S **S** **05 22 48.0 +3.6**
LZH sS sS 05 23 37.4 +0.1
LZH SS **SS** **05 26 44.0 +2.7**
LZH pmax pmax
comp=Z,3µm,1.1s
LZH pmax pmax
comp=Z,17µm,6.8s
LZH LR LR
comp=Z,20µm,15.8s
LZH LR LR
comp=Z,14µm,15.1s
LZH LR LR
comp=Z,57µm,17.8s
**KEKH Kekaha 60.05 59** *e*P **P** **05 14 51.6 0.0**
comp=Z,1µm,1.3s
**NKL Nikolayevsk 60.67 356** *i* P **P** **05 14 56.0 +0.8**
NKL *i* S **S** **05 23 03.0 +1.5**
NKL *e* 05 24 33.0
NKL pmax pmax
comp=N,300nm,0.9s
NKL pmax pmax
comp=Z,980nm,0.9s
NKL pmax pmax
comp=N,2µm,3.0s
NKL pmax pmax
comp=Z,4µm,3.0s
NKL smax smax
comp=N,12µm,12.0s
NKL smax smax
comp=E,62µm,12.0s
**PEA0B Petropavlovsk- 61.11 7** *e*P **P** **05 14 59.2 +1.0**
comp=E,1µm,1.0s
**PETK Petropavlovsk- 61.11 7** P **P** **05 14 59.2 +1.0**
comp=E,862nm,0.7s,baz=165,slow=5.0,SNR=278
PETK LR LR 05 38 24.5
comp=E,39µm,21.4s,baz=190,slow=33
PETK PKP2bc 05 44 21.6
comp=E,14nm,0.9s,baz=90,slow=5.9,SNR=4.3
PETK P4KPbc 05 52 00.7
comp=E,7.5nm,0.8s,baz=177,slow=6.3,SNR=5.2
**PETK Petropavlovsk- 61.11 7** *e*P **P** **05 14 59.0 +0.8**
**PEA1 Petropavlovsk- 61.11 7** *e*P **P** **05 14 59.2 +1.0**
PEA1 *e* 05 38 24.5
PEA1 *e* 05 52 00.7
**PET Petropavlovsk 61.15 8***de*P **P** **05 14 58.9 +0.4**
PET *e**PP **pP** **05 15 28.2 -1.2**
PET *e**SP **sP** **05 15 41.8 -1.6**
PET *e*S **S** **05 23 07.4 -0.2**
PET *e* 05 24 34.8
PET pmax pmax
comp=Z,8µm,11.3s
PET pmax pmax
comp=Z,690nm,0.9s
PET pmax pmax
comp=Z,10µm,16.8s
PET smax smax
comp=E,115nm,7.1s
PET smax smax
comp=E,60µm,10.6s
PET smax smax
comp=N,25µm,10.5s
PET smax smax
comp=E,81µm,23.8s
**PET Petropavlovsk 61.15 8** *e*P **P** **05 14 59.2 +0.7**
comp=E,496nm,0.9s
**HON Honolulu 61.27 61** *e*P **P** **05 15 00.9 +1.0**
**HON Honolulu 61.27 61** *e*P **P** **05 15 00.9 +1.0**
**KIP Kipapa 61.29 61** ⇓*i* P **P** **05 15 00.9 +0.8**
KIP *e**SP **PcP** **05 15 41.0 -0.3**
KIP pmax pmax
comp=Z,6µm,1.1s
**KIP Kipapa 61.29 61** *e*P **P** **05 15 00.1 0.0**
comp=Z,2µm,1.2s
**HIA Hailar 61.32 340** *e*P **P** **05 15 01.3 +1.6**
HIA pmax pmax
comp=Z,1µm,1.0s
**HIA Hailar 61.32 340** *e*P **P** **05 15 01.3 +1.6**
comp=Z,1µm,1.0s
**OPA Opana 61.39 60** *e*P **P** **05 15 01.6 +0.8**
OPA pmax pmax
comp=Z,1µm,1.0s
**OPA Opana 61.39 60** *e*P **P** **05 15 01.6 +0.8**
comp=Z,1µm,1.0s
**BRDH Bariadhala 61.76 301** P **P** **05 15 05.2 +2.0**
comp=Z,2µm,0.9s,baz=118,slow=2.0,SNR=212
BRDH PKP2bc 05 44 23.2
comp=Z,49nm,0.4s,baz=69,slow=4.3,SNR=6.5
**HLK Haleakala 62.59 62** *e*P **P** **05 15 09.3 +0.2**
comp=Z,1µm,1.2s
**HPO Honuapo 62.63 64** *e*P **P** **05 15 10.1 +1.0**
**PAE Paea 62.65 106** *e*P **P** **05 15 09.6 +0.4**
comp=Z,182nm,1.3s
**PAE Paea 62.65 106** *e*P'P'df P'P'df 05 44 10.4 -2.9
comp=Z,21nm,1.1s
**PPT Papeete 62.65 106** P **P** **05 15 10.3 +1.0**
comp=Z,332nm,0.7s,baz=94,slow=1.1,SNR=22
PPT LR LR 05 37 42.7
comp=Z,28µm,21.9s,baz=264,slow=31
PPT PKP2bc 05 44 21.8
comp=Z,51nm,0.9s,baz=65,slow=8.3,SNR=7.3
**PPT Papeete 62.65 106** *e*P **P** **05 15 10.1 +0.8**
PPT *e*P **P** **05 15 10.3 +1.0**
PPT *e* 05 37 42.8
**PPT2 Papeete2 62.65 106** *e*P **P** **05 15 09.9 +0.6**
comp=Z,597nm,1.0s
PPT2 *e*S **S** **05 23 25.2 -2.8**
comp=Z,111µm,28.0s
PPT2 *e*LQ LQ 05 31 16.8
comp=Z,256µm,33.2s
PPT2 *e*LR LR 05 33 54.6
comp=Z,115µm,30.0s
**PPT2 Papeete2 62.65 106** *e*P'P'df P'P'df 05 44 10.5 -2.9
comp=Z,137nm,1.4s
**PPTF Pamatai, Papee 62.66 106** *e*P **P** **05 15 09.9 +0.5**
comp=Z,580nm,0.9s
**SHL Shillong 62.70 304** *e*P **P** **05 15 10.0 +0.4**
SHL AMB AMB 05 15 14.9
comp=Z,5µm,1.3s
SHL *e*S **S** **05 23 29.0 +0.5**
**MWH Moku'aweowe 62.73 64** *e*P **P** **05 15 12.1 +1.8**
comp=Z,2µm,1.5s
**MLOA Mauna Loa Obse 62.76 64** *e*P **P** **05 15 10.3 -0.2**
comp=Z,1µm,1.3s
**HPAH Hawaii Prepara 62.82 63** *e*P **P** **05 15 10.7 +0.2**
comp=Z,783nm,0.9s
**TIAR Tiarei 62.87 106** *e*P **P** **05 15 11.3 +0.6**
comp=Z,371nm,1.0s
**TIAR Tiarei 62.87 106** *e*P'P'df P'P'df 05 44 11.3 -1.7
comp=Z,25nm,0.8s
**POHA Pohakuloa 62.88 63** *e*P **P** **05 15 11.0 +0.1**
comp=Z,970nm,0.8s
**MLH Mauna Loa 62.92 64** *e*P **P** **05 15 13.6 +2.4**
MLH pmax pmax
comp=Z,3µm,1.9s
**MLH Mauna Loa 62.92 64** *e*P **P** **05 15 13.6 +2.4**
comp=Z,3µm,1.9s
**TBI Tubuai 62.96 112** *e*P **P** **05 15 11.8 +0.6**
comp=Z,2µm,1.0s
TBI *e*S **S** **05 23 29.5 -2.0**
comp=Z,112µm,28.5s
TBI *e*LQ LQ 05 31 25.3
comp=Z,58µm,35.8s
TBI *e*LR LR 05 34 10.7
comp=Z,108µm,29.0s
**TBI Tubuai 62.96 112** *e*P'P'df P'P'df 05 44 06.3 -6.3
comp=Z,208nm,1.2s
**TVO Taravao 62.96 106** *e*P **P** **05 15 11.9 +0.5**
comp=Z,207nm,1.0s
**TVO Taravao 62.96 106** *e*P'P'df P'P'df 05 44 11.3 -1.6
comp=Z,32nm,0.8s
**PUH Pauahi 63.03 64** *e*P **P** **05 15 12.0 +0.2**
comp=Z,1µm,1.6s
**STCH Steam Cracks 63.12 64** *e*P **P** **05 15 12.1 -0.3**
comp=Z,340nm,0.9s
**HULD Heiheiahulu Di 63.26 64** *e*P **P** **05 15 12.9 -0.4**
comp=Z,896nm,1.3s
**GTA Gaotai 63.80 321** ⇑P **P** **05 15 18.0 +1.5**
GTA pP pP 05 15 49.0 +1.3
GTA sP sP 05 16 02.8 +1.2
GTA PP **PP** **05 17 40.8 +2.2**
GTA ScP 05 19 41.6
GTA PcS 05 19 55.4
GTA S **S** **05 23 43.5 +1.9**
GTA sS sS 05 24 33.6 -1.6
GTA SS **SS** **05 27 54.8 +2.5**
GTA pmax pmax
comp=Z,750nm,1.6s
GTA pmax pmax
comp=Z,25µm,10.7s
GTA LR LR
comp=Z,15µm,19.7s
GTA LR LR
comp=Z,13µm,19.2s
GTA LR LR
comp=Z,16µm,22.6s
**PMOR Pomariorio Ree 64.28 103** *e*P **P** **05 15 20.6 +0.6**
comp=Z,2µm,1.1s
**PMOR Pomariorio Ree 64.28 103** *e*P'P'df P'P'df 05 44 07.6 -3.1
comp=Z,711nm,1.5s
**SMY Shemya 64.37 18** *e*P **P** **05 15 21.1 +1.3**
SMY pmax pmax
comp=Z,2µm,1.0s
**SMY Shemya 64.37 18** *e*P **P** **05 15 21.1 +1.3**
comp=Z,2µm,1.0s
**VAH Vaihoa 64.53 103** *e*P **P** **05 15 22.0 +0.4**
comp=Z,1µm,1.1s
**VAH Vaihoa 64.53 103** *e*P'P'df P'P'df 05 44 05.4 -4.9
comp=Z,202nm,1.1s
**LSA Lhasa 65.01 308** P **P** **05 15 27.5 +2.4**
LSA sP **sP** **05 16 09.8 -0.5**
LSA S **S** **05 24 00.5 +2.9**
LSA pmax pmax
comp=Z,3µm,0.9s
LSA pmax pmax
comp=Z,26µm,10.0s
LSA LR LR
comp=Z,18µm,25.2s
LSA LR LR
comp=Z,9µm,20.8s
LSA LR LR
comp=Z,17µm,27.4s
**LSA Lhasa 65.01 308** *e*P **P** **05 15 26.9 +1.8**
LSA pmax pmax
comp=Z,3µm,0.8s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| LSA | Lhasa | 65.01 | 308 | eP | | P | 05 15 26.9 | +1.8 | |
| | comp=Z,3μm,0.8s | | | | | | | | |
| ULN | Ulaanbaatar | 65.36 | 332 | ceP | | P | 05 15 27.7 | +1.2 | |
| ULN | | | | | pmax | pmax | | | |
| | comp=Z,2μm,1.7s | | | | | | | | |
| ULN | Ulaanbaatar | 65.36 | 332 | eP | | P | 05 15 28.7 | +2.2 | |
| | comp=Z,778nm,0.8s | | | | | | | | |
| ULN | Ulaanbaatar | 65.36 | 332 | P | | P | 05 15 28.2 | +1.6 | |
| | SNR=571 | | | | | | | | |
| SONA0 | Songino Array | 65.64 | 331 | eP | | P | 05 15 29.4 | +1.0 | |
| SONM | Songino Array | 65.64 | 331 | P | | P | 05 15 29.4 | +1.0 | |
| | comp=Z,448nm,1.0s,baz=164,slow=2.7,SNR=674 | | | | | | | | |
| SONM | | | | | PKPPKP | P'P'df | 05 44 01.9 | -3.6 | |
| | comp=Z,5.4nm,0.9s,baz=321,slow=1.9,SNR=5.3 | | | | | | | | |
| SONM | | | | | PKP2bc | | 05 44 12.1 | | |
| | comp=Z,32nm,0.9s,baz=265,slow=2.9,SNR=18 | | | | | | | | |
| SONM | Songino Array | 65.64 | 331 | P | | P | 05 15 29.4 | +1.0 | |
| SONM | | | | | pmax | pmax | | | |
| | comp=Z,658nm,1.0s | | | | | | | | |
| SONA1 | Songino Array | 65.65 | 331 | eP | | P | 05 15 29.8 | +1.4 | |
| CIT | Chita | 65.80 | 338 | eP | | P | 05 15 30.8 | +1.7 | |
| CIT | | | | e | | | 05 16 20.8 | | |
| CIT | | | | e | | | 05 24 07.2 | | |
| CIT | | | | | pmax | pmax | | | |
| | comp=Z,3μm,1.8s | | | | | | | | |
| CLNS | Chul'man | 66.62 | 347 | eP | | P | 05 15 35.8 | +1.5 | |
| CLNS | | | | e | | | 05 16 04.9 | | |
| CLNS | | | | eS | | S | 05 24 17.3 | +2.0 | |
| CLNS | | | | e*SS | | sS | 05 25 03.6 | -5.7 | |
| CLNS | | | | | pmax | pmax | | | |
| | comp=Z,678nm,0.9s | | | | | | | | |
| CLNS | | | | | pmax | pmax | | | |
| | comp=N,302nm,0.8s | | | | | | | | |
| CLNS | | | | | pmax | pmax | | | |
| | comp=E,117nm,0.7s | | | | | | | | |
| CLNS | | | | | smax | smax | | | |
| | comp=N,18μm,11.9s | | | | | | | | |
| CLNS | | | | | smax | smax | | | |
| | comp=E,49μm,11.9s | | | | | | | | |
| TAPN | Taplejung | 66.84 | 304 | eP | | P | 05 15 37.7 | +1.1 | |
| ODAN | Odare | 66.92 | 303 | eP | | P | 05 15 38.0 | +1.0 | |
| ODAN | Odare | 66.92 | 303 | eP | | P | 05 15 38.3 | +1.3 | |
| | comp=E,15μm,1.4s | | | | | | | | |
| ADK | Adak | 66.93 | 24 | eP | | P | 05 15 37.2 | +1.0 | |
| ADK | | | | | pmax | pmax | | | |
| | comp=Z,1μm,0.9s | | | | | | | | |
| ADK | Adak | 66.93 | 24 | eP | | P | 05 15 37.2 | +1.0 | |
| | comp=Z,1μm,0.9s | | | | | | | | |
| MA2 | Magadan | 66.96 | 2 | P | | P | 05 15 37.0 | +0.7 | |
| | comp=Z,1μm,0.8s,baz=158,slow=5.7,SNR=242 | | | | | | | | |
| MA2 | Magadan | 66.96 | 2⇑ | iP | | P | 05 15 37.4 | +1.1 | |
| CHLP | Challavanipeta | 67.07 | 294 | eP | | P | 05 15 39.2 | +1.4 | |
| CHLP | | | | | lAmb | lAmb | 05 15 43.7 | | |
| | comp=Z,6μm,1.3s | | | | | | | | |
| CHLP | | | | eS | | S | 05 24 20.5 | -1.4 | |
| CHLP | | | | | IVMs_BB | IVMs_BB | 05 39 20.0 | | |
| | comp=Z,16μm,44.3s | | | | | | | | |
| BOK | Bokaro | 67.10 | 300 | eP | | P | 05 15 39.6 | +1.6 | |
| BOK | | | | | AMB | AMB | 05 15 44.1 | | |
| | comp=Z,2μm,2.2s | | | | | | | | |
| VIS | Vishakhapatnam | 67.51 | 293 | iP | | P | 05 15 42.2 | +1.6 | |
| VIS | | | | | AMB | AMB | 05 15 46.4 | | |
| | comp=Z,3μm,1.9s | | | | | | | | |
| VIS | | | | ⇑ix | | x | 05 24 35.4 | | |
| PALK | Pallekele | 67.55 | 281 | LR | | LR | 05 46 01.0 | | |
| | comp=Z,10μm,21.9s,baz=116,slow=36 | | | | | | | | |
| PALK | Pallekele | 67.55 | 281 | P | | P | 05 15 40.9 | -0.1 | |
| PALK | Pallekele | 67.55 | 281 | iP | | P | 05 15 42.0 | +1.0 | |
| PALK | Pallekele | 67.55 | 281 | eP | | P | 05 15 41.5 | +0.5 | |
| | comp=Z,3μm,1.0s | | | | | | | | |
| RAMN | Ramite | 67.61 | 303 | eP | | P | 05 15 42.4 | +1.0 | |
| ATKA | Atka Island | 68.18 | 25 | eP | | P | 05 15 44.5 | +0.4 | |
| | comp=Z,862nm,0.9s | | | | | | | | |
| JIRN | Jiri | 68.20 | 304 | eP | | P | 05 15 46.2 | +0.9 | |
| GUN | Gumba | 68.55 | 304 | eP | | P | 05 15 48.4 | +1.0 | |
| GUN | Gumba | 68.55 | 304 | eP | | P | 05 15 48.5 | +1.0 | |
| | comp=Z,18μm,1.5s | | | | | | | | |
| PKI | Pulchoki | 68.82 | 303 | eP | | P | 05 15 49.5 | +0.4 | |
| PKIN | Phulchoki | 68.83 | 303 | eP | | P | 05 15 49.7 | +0.6 | |
| ZAK | Zakamensk | 68.89 | 332 | eP | | P | 05 15 49.6 | +0.9 | |
| ZAK | | | | e | | | 05 16 21.4 | | |
| ZAK | | | | e | | | 05 24 44.1 | | |
| ZAK | | | | | pmax | pmax | | | |
| | comp=Z,1μm,1.2s | | | | | | | | |
| PVM | Polavaram | 68.95 | 292 | eP | | P | 05 15 48.6 | -1.0 | |
| PVM | | | | | lAmb | lAmb | 05 15 54.6 | | |
| | comp=Z,4μm,1.4s | | | | | | | | |
| PVM | | | | eS | | S | 05 24 42.7 | -1.6 | |
| PVM | | | | | lVMs_BB | lVMs_BB | 05 40 16.0 | | |
| | comp=Z,14μm,47.5s | | | | | | | | |
| KKN | Kakani | 69.00 | 303 | eP | | P | 05 15 51.0 | +0.9 | |
| | comp=Z,11μm,1.4s | | | | | | | | |
| DMN | Daman | 69.08 | 303 | eP | | P | 05 15 51.6 | +1.0 | |
| DMN | Daman | 69.08 | 303 | eP | | P | 05 15 51.7 | +1.1 | |
| | comp=Z,10μm,1.2s | | | | | | | | |
| MDRS | Chennai | 69.21 | 287 | eP | | P | 05 15 51.4 | +0.2 | |
| MDRS | | | | | AMB | AMB | 05 15 56.6 | | |
| | comp=Z,2μm,1.1s | | | | | | | | |
| MIR | Mirnyy | 69.29 | 200⇑ | iP | | P | 05 15 50.5 | -0.3 | |
| MIR | | | | iS | | S | 05 24 43.0 | -3.7 | |
| MIR | | | | | pmax | pmax | | | |
| | comp=Z,202nm,2.0s | | | | | | | | |
| MIR | | | | | pmax | pmax | | | |
| | comp=Z,20μm,5.0s | | | | | | | | |
| MIR | | | | | smax | smax | | | |
| | comp=N,27μm,10.0s | | | | | | | | |
| GKN | Gorkha | 69.61 | 303 | eP | | P | 05 15 54.4 | +0.7 | |
| TLY | Talaya | 69.61 | 333 | P | | P | 05 15 54.9 | +1.8 | |
| | comp=N,292nm,0.7s,baz=178,slow=3.9,SNR=193 | | | | | | | | |
| TLY | | | | | PKPPKP | P'P'df | 05 43 59.3 | +0.8 | |
| | comp=N,19nm,0.8s,baz=330,slow=8.5,SNR=7.5 | | | | | | | | |
| TLY | | | | | LR | LR | 05 45 35.2 | | |
| | comp=N,15μm,21.4s,baz=132,slow=35 | | | | | | | | |
| TLY | Talaya | 69.61 | 333 | ciP | | P | 05 15 54.2 | +1.1 | |
| TLY | | | | i | | | 05 16 38.2 | | |
| TLY | | | | i | | | 05 18 25.8 | | |
| TLY | | | | iPPP | | PPP | 05 20 14.9 | | |
| TLY | | | | eS | | S | 05 24 47.8 | -3.2 | |
| TLY | | | | e*SS | | pS | 05 25 23.8 | -4.5 | |
| TLY | | | | e | | | 05 25 34.5 | | |
| TLY | | | | eSS | | SS | 05 29 15.4 | -6.3 | |
| TLY | | | | | pmax | pmax | | | |
| | comp=Z,508nm,1.2s | | | | | | | | |
| TLY | | | | | MLR | MLR | | | |
| | comp=Z,11μm,17.0s | | | | | | | | |
| TLY | Talaya | 69.61 | 333 | P | | P | 05 15 54.5 | +1.5 | |
| | SNR=115 | | | | | | | | |
| IRK | Irkutsk | 69.72 | 334⇓ | iP | | P | 05 15 55.2 | +1.5 | |
| IRK | | | | eS | | S | 05 24 57.5 | +5.3 | |
| IRK | | | | | pmax | pmax | | | |
| | comp=Z,2μm,1.8s | | | | | | | | |
| SKHT | Srikalahasti | 69.87 | 288 | eP | | P | 05 15 55.5 | +0.2 | |
| SKHT | | | | | lAmb | lAmb | 05 16 00.4 | | |
| | comp=Z,3μm,1.4s | | | | | | | | |
| SKHT | | | | eS | | S | 05 24 53.8 | -1.4 | |
| SKHT | | | | | lVMs_BB | lVMs_BB | 05 41 05.3 | | |
| | comp=Z,14μm,31.0s | | | | | | | | |
| ADKI | Addanki | 70.13 | 290 | eP | | P | 05 15 57.0 | +0.2 | |
| ADKI | | | | | lAmb | lAmb | 05 16 01.9 | | |
| | comp=Z,4μm,1.2s | | | | | | | | |
| ADKI | | | | ePP | | PP | 05 18 32.5 | -1.3 | |
| ADKI | | | | eS | | S | 05 24 56.9 | -1.3 | |
| ADKI | | | | | lVMs_BB | lVMs_BB | 05 40 48.3 | | |
| | comp=Z,14μm,46.6s | | | | | | | | |
| BOD | Bodaibo | 70.36 | 342⇓ | iP | | P | 05 15 57.7 | +0.2 | |
| BOD | | | | | pmax | pmax | | | |
| | comp=Z,844nm,1.5s | | | | | | | | |
| SEY | Seymchan | 70.39 | 3 | P | | P | 05 15 58.2 | +0.8 | |
| | comp=Z,454nm,0.8s,baz=178,slow=5.0,SNR=303 | | | | | | | | |
| SEY | Seymchan | 70.39 | 3d | iP | | P | 05 15 58.4 | +0.9 | |
| KOLN | Koldanda | 70.39 | 303 | eP | | P | 05 15 59.3 | +0.7 | |
| | comp=Z,9μm,1.1s | | | | | | | | |
| VNDA | Vanda | 70.41 | 177 | P | | P | 05 15 57.6 | +0.1 | |
| | comp=Z,225nm,0.7s,baz=329,slow=6.9,SNR=179 | | | | | | | | |
| VNDA | | | | | PKP2bc | | 05 43 49.0 | | |
| | comp=Z,3.9nm,1.0s,baz=216,slow=4.7,SNR=4.2 | | | | | | | | |
| VNDA | | | | | LR | LR | 05 46 29.3 | | |
| | comp=Z,17μm,19.3s,baz=350,slow=35 | | | | | | | | |
| VNDA | Vanda | 70.41 | 177 | eP | | P | 05 15 57.6 | +0.1 | |
| VNDA | | | | ePcP | | P | 05 15 57.8 | +0.3 | |
| DANN | Dangsing | 70.46 | 304 | eP | | P | 05 15 59.8 | +0.7 | |
| YAK | Yakutsk | 70.61 | 352 | P | | P | 05 15 59.3 | +0.4 | |
| | comp=Z,803nm,0.8s,baz=163,slow=1.1,SNR=162 | | | | | | | | |
| YAK | | | | | LR | LR | 05 43 11.7 | | |
| | comp=Z,14μm,21.2s,baz=141,slow=32 | | | | | | | | |
| YAK | Yakutsk | 70.61 | 352 | ciP | | P | 05 15 59.6 | +0.7 | |
| YAK | | | | e | | | 05 16 19.7 | | |
| YAK | | | | e*PP | | pP | 05 16 32.6 | +2.0 | |
| YAK | | | | eS | | S | 05 25 04.2 | +2.1 | |
| YAK | | | | e | | | 05 25 42.8 | | |
| YAK | | | | | pmax | pmax | | | |
| | comp=Z,741nm,1.0s | | | | | | | | |
| YAK | | | | | pmax | pmax | | | |
| | comp=N,114nm,1.0s | | | | | | | | |
| YAK | | | | | pmax | pmax | | | |
| | comp=E,42nm,0.9s | | | | | | | | |
| YAK | | | | | smax | smax | | | |
| | comp=N,13μm,7.4s | | | | | | | | |
| YAK | | | | | smax | smax | | | |
| | comp=E,24μm,6.1s | | | | | | | | |
| YAK | Yakutsk | 70.61 | 352 | eP | | P | 05 15 59.2 | +0.3 | |
| | comp=E,938nm,0.8s | | | | | | | | |
| MOY | Mondy | 70.82 | 332 | eP | | P | 05 16 01.7 | +1.2 | |
| MOY | | | | | pmax | pmax | | | |
| | comp=Z,3μm,2.1s | | | | | | | | |
| NJS | Nagarjunasagar | 70.92 | 290 | eP | | P | 05 16 01.4 | -0.2 | |
| NJS | | | | | lAmb | lAmb | 05 16 06.2 | | |
| | comp=Z,5μm,1.5s | | | | | | | | |
| NJS | | | | eS | | S | 05 25 06.0 | -1.4 | |
| NJS | | | | | lVMs_BB | lVMs_BB | 05 41 11.1 | | |
| | comp=Z,15μm,44.2s | | | | | | | | |
| PYUN | Piuthan | 71.01 | 303 | eP | | P | 05 16 02.7 | +0.4 | |
| PYUN | Piuthan | 71.01 | 303 | eP | | P | 05 16 03.0 | +0.7 | |
| | comp=Z,2μm,0.9s | | | | | | | | |
| NIKH | Nikolski High | 71.02 | 27 | eP | | P | 05 16 02.3 | +0.8 | |
| | comp=Z,1μm,1.3s | | | | | | | | |
| SBA | Scott Base | 71.06 | 176 | eP | | P | 05 16 02.4 | +1.0 | |
| SBA | | | | | pmax | pmax | | | |
| | comp=Z,1μm,1.4s | | | | | | | | |
| SBA | Scott Base | 71.06 | 176 | eP | | P | 05 16 02.4 | +1.0 | |
| | comp=Z,1μm,1.4s | | | | | | | | |
| SRLM | Srisailam | 71.19 | 290 | eP | | P | 05 16 03.1 | -0.2 | |
| SRLM | | | | | lAmb | lAmb | 05 16 07.9 | | |
| | comp=Z,4μm,1.2s | | | | | | | | |
| SRLM | | | | eS | | S | 05 25 08.6 | -2.0 | |
| SRLM | | | | | lVMs_BB | lVMs_BB | 05 41 14.2 | | |
| | comp=Z,13μm,50.8s | | | | | | | | |
| TRD | Trivandrum | 71.42 | 282 | eP | | P | 05 16 05.8 | +1.0 | |
| RPR | Rampur | 71.51 | 293 | eP | | P | 05 16 04.7 | -0.4 | |
| RPR | | | | | lAmb | lAmb | 05 16 09.9 | | |
| | comp=Z,4μm,1.1s | | | | | | | | |
| RPR | | | | eS | | S | 05 25 10.7 | -3.4 | |
| RPR | | | | | lVMs_BB | lVMs_BB | 05 40 57.8 | | |
| | comp=Z,13μm,50.6s | | | | | | | | |
| HYB | Hyderabad | 71.83 | 291⇑ | iP | | P | 05 16 06.5 | -0.6 | |
| | comp=Z,354nm,0.8s | | | | | | | | |
| HYB | | | | eS | | S | 05 25 16.0 | -1.9 | |
| HYB | | | | ePKPPKP | | P'P'df | 05 43 52.0 | -5.4 | |
| HYB | Hyderabad | 71.83 | 291 | eP | | P | 05 16 06.6 | -0.6 | |
| HYB | | | | | AMB | AMB | 05 16 11.4 | | |
| | comp=Z,2μm,0.6s | | | | | | | | |
| HYBB | Hyderabad (bro | 71.83 | 291 | eP | | P | 05 16 06.5 | -0.6 | |
| HYBB | | | | | lAmb | lAmb | 05 16 11.4 | | |
| | comp=Z,3μm,1.3s | | | | | | | | |
| HYBB | | | | eS | | S | 05 25 14.7 | -3.3 | |
| HYBB | | | | | lVMs_BB | lVMs_BB | 05 41 34.4 | | |
| | comp=Z,13μm,39.7s | | | | | | | | |
| JBP | Jabalpur | 72.06 | 297⇑ | eP | | P | 05 16 09.1 | +0.8 | |
| JBP | | | | | AMB | AMB | 05 16 13.2 | | |
| | comp=Z,3μm,1.3s | | | | | | | | |
| JBP | | | | eS | | S | 05 25 21.0 | +0.8 | |
| TAOE | Nuku Hiva Isla | 72.20 | 97 | eP | | P | 05 16 09.8 | +0.3 | |
| | comp=Z,2μm,1.2s | | | | | | | | |
| TAOE | | | | eS | | S | 05 25 19.8 | -2.6 | |
| | comp=Z,24μm,26.1s | | | | | | | | |
| TAOE | Nuku Hiva Isla | 72.20 | 97 | eLQ | | LQ | 05 35 23.1 | | |
| | comp=Z,45μm,24.0s | | | | | | | | |
| TAOE | | | | eLR | | LR | 05 38 00.3 | | |
| | comp=Z,65μm,33.2s | | | | | | | | |
| TAOE | Nuku Hiva Isla | 72.20 | 97 | eP | | P | 05 16 10.3 | +0.7 | |
| | comp=Z,1μm,1.1s | | | | | | | | |
| NGP | Nagpur | 72.33 | 295 | eP | | P | 05 16 08.8 | -1.3 | |
| NGP | | | | | AMB | AMB | 05 16 15.5 | | |
| | comp=Z,2μm,3.8s | | | | | | | | |
| NGP | | | | ex | | x | 05 25 06.7 | | |
| SRSP | Sriramsagar | 72.39 | 293 | eP | | P | 05 16 10.2 | -0.4 | |
| SRSP | | | | | lAmb | lAmb | 05 16 14.8 | | |
| | comp=Z,4μm,1.2s | | | | | | | | |
| SRSP | | | | eS | | S | 05 25 21.7 | -2.6 | |
| SRSP | | | | | lVMs_BB | lVMs_BB | 05 41 50.1 | | |
| | comp=Z,14μm,45.1s | | | | | | | | |
| URV | Uravakonda | 72.46 | 288 | eP | | P | 05 16 11.1 | +0.1 | |
| URV | | | | | lAmb | lAmb | 05 16 15.0 | | |
| | comp=Z,3μm,1.5s | | | | | | | | |
| URV | | | | eS | | S | 05 25 23.8 | -1.3 | |
| URV | | | | | lVMs_BB | lVMs_BB | 05 42 16.9 | | |
| | comp=Z,13μm,29.7s | | | | | | | | |
| AKUT | Akutan | 73.17 | 27 | eP | | P | 05 16 15.0 | +0.7 | |
| | comp=Z,3μm,1.4s | | | | | | | | |
| SPIA | Saint Paul Isl | 73.37 | 23 | eP | | P | 05 16 17.0 | +1.6 | |
| | comp=Z,5μm,1.7s | | | | | | | | |
| H08S2 | Diego Garcia H | 73.57 | 264 | P | | P | 05 16 12.3 | -4.9 | |
| | baz=47,slow=6.9,SNR=437 | | | | | | | | |
| H08S3 | Diego Garcia H | 73.58 | 264 | P | | P | 05 16 12.2 | -5.1 | |
| | baz=47,slow=6.9,SNR=1683 | | | | | | | | |
| H08S1 | Diego Garcia H | 73.59 | 264 | P | | P | 05 16 12.6 | -4.8 | |
| | baz=47,slow=6.9,SNR=34 | | | | | | | | |
| DGAR | Diego Garcia | 73.64 | 264 | iP | | P | 05 16 18.0 | +0.1 | |
| DGAR | Diego Garcia | 73.64 | 264 | eP | | P | 05 16 17.8 | -0.1 | |
| | comp=Z,10μm,1.3s | | | | | | | | |
| DGAR | Diego Garcia | 73.64 | 264 | P | | P | 05 16 18.2 | +0.3 | |
| | SNR=158 | | | | | | | | |
| DGAR | Diego Garcia | 73.64 | 264 | P | | P | 05 16 18.2 | +0.3 | |
| | SNR=158 | | | | | | | | |
| LGTI | Lohaghat | 73.73 | 304 | eP | | P | 05 16 19.2 | +1.1 | |
| PTH | Pithoragarh | 73.78 | 304 | eP | | P | 05 16 17.2 | -1.5 | |
| PTH | | | | ex | | x | 05 25 42.9 | | |
| KLRI | Killari | 73.79 | 291 | eP | | P | 05 16 18.3 | -0.5 | |
| KLRI | | | | | lAmb | lAmb | 05 16 22.0 | | |
| | comp=Z,10μm,2.0s | | | | | | | | |
| KLRI | | | | eS | | SKiKP | 05 25 37.7 | +2.1 | |
| KLRI | | | | | lVMs_BB | lVMs_BB | 05 42 47.0 | | |
| | comp=Z,21μm,47.6s | | | | | | | | |
| WMQ | Urumqi | 73.83 | 320 | P | | P | 05 16 20.0 | +1.5 | |
| WMQ | | | | PcP | | PcP | 05 16 33.8 | +0.4 | |
| WMQ | | | | pP | | pP | 05 16 53.4 | +3.0 | |
| WMQ | | | | PP | | PP | 05 19 04.1 | -1.0 | |
| WMQ | | | | S | | S | 05 25 40.9 | +1.2 | |
| WMQ | | | | SKS | | SKSac | 05 26 08.3 | -5.4 | |
| WMQ | | | | ScS | | ScS | 05 26 17.3 | +0.7 | |
| WMQ | | | | SS | | SS | 05 30 28.4 | +1.8 | |
| WMQ | | | | | pmax | pmax | | | |
| | comp=Z,4μm,2.1s | | | | | | | | |
| WMQ | | | | | pmax | pmax | | | |
| | comp=Z,44μm,5.5s | | | | | | | | |
| WMQ | | | | | LR | LR | | | |
| | comp=Z,36μm,24.7s | | | | | | | | |
| WMQ | | | | | LR | LR | | | |
| | comp=Z,38μm,24.7s | | | | | | | | |
| WMQ | | | | | LR | LR | | | |
| | comp=Z,39μm,24.7s | | | | | | | | |
| HVS | Khovu-Aksy | 74.10 | 328d | iP | | P | 05 16 23.0 | +3.0 | |
| HVS | | | | | pmax | pmax | | | |
| | comp=Z,3μm,1.4s | | | | | | | | |
| BHPL | Bhopal | 74.34 | 297 | eP | | P | 05 16 21.9 | 0.0 | |
| BHPL | | | | | AMB | AMB | 05 16 26.8 | | |
| | comp=Z,2μm,1.7s | | | | | | | | |
| MNGI | Mangalore | 74.34 | 286 | ex | | P | 05 16 27.4 | +5.4 | |
| MNGI | | | | | AMB | AMB | 05 16 30.5 | | |
| | comp=Z,1μm,2.9s | | | | | | | | |
| PAF | Port-aux-Franc | 75.60 | 221 | eP | | P | 05 16 29.2 | +0.7 | |
| PAF | | | | | pmax | pmax | | | |
| | comp=Z,2μm,1.4s | | | | | | | | |
| PAF | Port-aux-Franc | 75.60 | 221 | eP | | P | 05 16 29.2 | +0.7 | |
| | comp=Z,2μm,1.4s | | | | | | | | |
| DDI | Dehra Dun | 75.81 | 304 | eP | | P | 05 16 29.0 | -1.2 | |
| DDI | | | | eP | | P | 05 16 29.9 | -0.3 | |
| DDI | | | | | AMB | AMB | 05 16 33.8 | | |
| | comp=Z,3μm,2.0s | | | | | | | | |
| DDI | | | | ex | | x | 05 26 09.8 | | |
| GOA | Goa | 75.81 | 288 | eP | | P | 05 16 30.1 | -0.3 | |
| GOA | | | | | AMB | AMB | 05 16 35.3 | | |
| | comp=Z,2μm,0.3s | | | | | | | | |
| NDI | New Delhi | 76.02 | 302 | eP | | P | 05 16 31.5 | +0.1 | |
| RKT | Rikitea | 76.27 | 112 | eP | | P | 05 16 32.8 | -0.1 | |
| | comp=Z,1μm,1.1s | | | | | | | | |
| RKT | | | | epP | | pP | 05 17 05.1 | +0.1 | |
| | comp=Z,2μm,1.6s | | | | | | | | |
| RKT | | | | eS | | S | 05 26 04.5 | -3.0 | |
| | comp=Z,53μm,31.2s | | | | | | | | |
| RKT | Rikitea | 76.27 | 112 | eLR | | LR | 05 40 21.3 | | |
| | comp=Z,104μm,35.0s | | | | | | | | |
| SDPT | Sand Point | 76.33 | 28 | eP | | P | 05 16 32.6 | +0.1 | |
| | comp=Z,1μm,0.9s | | | | | | | | |
| POO | Poona | 76.44 | 291⇑ | iP | | P | 05 16 27.0 | -7.0 | |
| | comp=Z,93nm,1.2s | | | | | | | | |
| POO | | | | iPCP | | PcP | 05 16 42.5 | -2.7 | |
| POO | | | | ePP | | PP | 05 19 14.5 | -13 | |
| POO | | | | ePPP | | PPP | 05 20 59.5 | | |
| POO | | | | iS | | S | 05 26 00.0 | -9.5 | |
| POO | | | | eSKS | | SKSac | 05 26 31.0 | -3.1 | |
| POO | | | | iPS | | PnS | 05 26 34.0 | -31 | |
| POO | | | | eSCS | | ScS | 05 26 39.0 | +0.4 | |
| POO | | | | iPPS | | PPS | 05 26 49.0 | | |
| POO | | | | eSS | | SS | 05 30 47.5 | -20 | |
| POO | | | | iSSS | | SSS | 05 33 59.5 | | |
| POO | | | | eLQ | | LQ | 05 35 54.0 | | |
| POO | | | | iLR | | LR | 05 39 25.5 | | |
| POO | Poona | 76.44 | 291 | eP | | P | 05 16 33.0 | -1.0 | |
| POO | | | | | AMB | AMB | 05 16 38.9 | | |
| | comp=Z,2μm,2.7s | | | | | | | | |
| DGZ | Jazzator, Alta | 76.77 | 325⇓ | eP | | P | 05 16 37.7 | +2.4 | |
| DGZ | | | | | pmax | pmax | | | |
| | comp=Z,516nm,0.8s | | | | | | | | |
| SMLA | Simla | 76.78 | 304 | eP | | P | 05 16 35.8 | +0.3 | |
| SMLA | | | | | AMB | AMB | 05 16 40.2 | | |
| | comp=Z,2μm,1.3s | | | | | | | | |
| SDNR | Sundarnagar | 77.05 | 305 | eP | | P | 05 16 36.5 | -0.6 | |
| BHK | Bhakra | 77.47 | 304 | eP | | P | 05 16 38.8 | -0.7 | |
| BHK | | | | ex | | x | 05 17 08.6 | | |
| BOM | Bombay | 77.48 | 291 | eP | | P | 05 16 46.3 | +6.6 | |
| BOM | | | | | AMb | AMB | 05 16 48.2 | | |
| | comp=Z,11μm,3.0s | | | | | | | | |
| BOM | | | | eS | | S | 05 26 28.0 | +7.4 | |
| JWA | Jwalamukhi | 77.67 | 305 | eP | | P | 05 16 40.0 | -0.5 | |
| JWA | | | | ex | | x | 05 17 28.0 | | |
| GAMB | Gambell | 77.68 | 18 | eP | | P | 05 16 40.7 | +0.9 | |
| | comp=Z,288nm,0.9s | | | | | | | | |
| DHRM | DHARAMSHALA | 77.81 | 305 | eP | | P | 05 16 41.2 | -0.4 | |
| DHRM | | | | | AMB | AMB | 05 16 44.5 | | |
| | comp=Z,2μm,1.1s | | | | | | | | |
| CHGN | Chignik | 77.83 | 28 | eP | | P | 05 16 41.1 | +0.3 | |
| | comp=Z,910nm,1.0s | | | | | | | | |
| CHGN | | | | eS | | S | 05 26 26.0 | +3.0 | |
| PONG | Pong | 78.01 | 305 | eP | | P | 05 16 42.0 | -0.4 | |
| THN | Thein Dam | 78.34 | 305 | eP | | P | 05 16 42.5 | -1.7 | |
| THN | | | | ex | | x | 05 26 23.0 | | |
| MK01 | Makanchi Array | 78.54 | 321 | eP | | P | 05 16 46.1 | +1.0 | |
| MK31 | Makanchi Array | 78.55 | 321 | iP | | P | 05 16 45.7 | +0.6 | |
| MK31 | | | | | pmax | pmax | | | |
| | comp=Z,7μm,2.0s | | | | | | | | |
| MK31 | Makanchi Array | 78.55 | 321 | eP | | P | 05 16 45.8 | +0.7 | |
| MK32 | Makanchi Array | 78.55 | 321 | eP | | P | 05 16 45.8 | +0.6 | |
| MK32 | | | | epP | | pP | 05 17 22.8 | +5.4 | |
| MK32 | | | | eS | | S | 05 26 30.4 | -0.8 | |
| MK32 | | | | e | | | 05 49 43.6 | | |
| MKAR | Makanchi Array | 78.55 | 321 | P | | P | 05 16 45.8 | +0.6 | |
| | comp=Z,493nm,0.7s,baz=105,slow=6.1,SNR=1602 | | | | | | | | |
| MKAR | | | | | pP | pP | 05 17 22.8 | +5.4 | |
| | comp=Z,129nm,0.7s,baz=98,slow=7.5,SNR=2.8 | | | | | | | | |
| MKAR | | | | | S | S | 05 26 30.4 | -0.8 | |
| | comp=Z,17nm,1.1s,baz=94,slow=12,SNR=3.7 | | | | | | | | |
| MKAR | | | | | PKKPbc | PKKPbc | 05 35 41.7 | -0.9 | |
| | comp=Z,13nm,0.8s,baz=311,slow=1.4,SNR=15 | | | | | | | | |
| MKAR | | | | | PKPPKP | P'P'df | 05 43 49.0 | +5.5 | |
| | comp=Z,13nm,0.9s,baz=316,slow=3.3,SNR=6.9 | | | | | | | | |
| MKAR | | | | | LR | LR | 05 49 43.6 | | |
| | comp=Z,15μm,22.0s,baz=108,slow=34 | | | | | | | | |
| MKAR | Makanchi Array | 78.55 | 321 | iP | | P | 05 16 45.7 | +0.6 | |
| MKAR | | | | | pmax | pmax | | | |
| | comp=Z,494nm,0.7s | | | | | | | | |
| MAKZ | Makanchi | 78.76 | 321 | eP | | P | 05 16 47.3 | +1.1 | |
| MAKZ | | | | | pmax | pmax | | | |
| | comp=Z,2μm,1.3s | | | | | | | | |
| MAKZ | Makanchi | 78.76 | 321 | eP | | P | 05 16 47.3 | +1.1 | |
| | comp=Z,2μm,1.3s | | | | | | | | |
| PDGK | Podgornoye | 79.05 | 317 | iP | | P | 05 16 48.3 | +0.2 | |
| PDGK | | | | | pmax | pmax | | | |
| | comp=Z,3μm,1.5s | | | | | | | | |
| SATY | Saty | 79.69 | 316 | iP | | P | 05 16 49.9 | -1.7 | |
| | comp=Z,7μm,0.9s | | | | | | | | |
| SATY | | | | iS | | S | 05 26 43.0 | -0.6 | |
| ZHN | Zhinishke | 79.71 | 316 | iP | | P | 05 16 49.7 | -1.9 | |
| | comp=Z,2μm,0.8s | | | | | | | | |
| ZHN | | | | iS | | S | 05 26 43.0 | -0.8 | |
| ZHN | | | | isS | | sS | 05 27 34.2 | -5.4 | |
| TIXI | Tiksi | 79.90 | 354⇓ | iP | | P | 05 16 52.1 | +0.2 | |
| TIXI | | | | | pmax | pmax | | | |
| | comp=Z,483nm,0.9s | | | | | | | | |
| TIXI | Tiksi | 79.90 | 354 | eP | | P | 05 16 51.0 | -0.8 | |
| | comp=Z,456nm,0.9s | | | | | | | | |
| ZAA0 | Zalesovo Array | 80.20 | 328 | eP | | P | 05 16 54.6 | +0.8 | |
| | comp=Z,794nm,0.9s | | | | | | | | |
| ZALV | Zalesovo Beam | 80.20 | 328 | P | | P | 05 16 53.4 | -0.5 | |
| | comp=Z,566nm,0.8s,baz=115,slow=5.5,SNR=559 | | | | | | | | |
| ZALV | | | | | pP | pP | 05 17 30.3 | +4.0 | |
| | comp=Z,191nm,0.7s,baz=115,slow=4.3,SNR=2.8 | | | | | | | | |
| ZALV | | | | | PP | PP | 05 20 01.4 | +3.3 | |
| | comp=Z,40nm,0.8s,baz=127,slow=9.4,SNR=3.7 | | | | | | | | |
| ZALV | | | | | S | S | 05 26 45.4 | -2.8 | |
| | comp=Z,19nm,0.9s,baz=112,slow=6.6,SNR=3.8 | | | | | | | | |
| ZALV | | | | | PKKPbc | PKKPbc | 05 35 36.2 | -3.1 | |
| | comp=Z,23nm,0.7s,baz=296,slow=2.5,SNR=20 | | | | | | | | |
| ZALV | | | | | PKPPKP | P'P'df | 05 43 37.6 | -2.3 | |
| | comp=Z,8.4nm,0.9s,baz=305,slow=5.2,SNR=6.7 | | | | | | | | |
| ZALV | | | | | LR | LR | 05 52 25.1 | | |
| | comp=Z,12μm,21.6s,baz=126,slow=36 | | | | | | | | |
| ZALV | Zalesovo Beam | 80.20 | 328 | eP | | P | 05 16 54.5 | +0.7 | |
| ZALV | | | | | *PP | pP | 05 17 30.3 | +4.0 | |
| ZALV | | | | | | | 05 20 01.4 | | |
| ZALV | | | | eS | | S | 05 26 45.6 | -2.6 | |
| ZALV | Zalesovo Beam | 80.20 | 328 | eP | | P | 05 16 54.5 | +0.7 | |
| ZALV | | | | | pP | pP | 05 17 30.3 | +4.0 | |
| ZALV | | | | | PP | PP | 05 20 01.4 | +3.3 | |
| ZALV | | | | eS | | S | 05 26 45.5 | -2.6 | |
| ZAA1 | Zalesovo Array | 80.20 | 328 | eP | | P | 05 16 53.4 | -0.5 | |
| ZAA1 | | | | epP | | pP | 05 17 30.3 | +4.0 | |
| ZAA1 | | | | ePP | | PP | 05 20 01.4 | +3.3 | |
| ZAA1 | | | | eS | | S | 05 26 45.4 | -2.8 | |
| ZAA1 | | | | e | | | 05 52 25.1 | | |
| KSH | Kashi | 80.26 | 312 | P | | P | 05 16 56.3 | +1.6 | |
| KSH | | | | pP | | pP | 05 17 28.1 | +1.0 | |
| KSH | | | | PP | | PP | 05 20 03.3 | +4.1 | |
| KSH | | | | S | | S | 05 26 47.5 | -2.2 | |
| KSH | | | | SKS | | SKSac | 05 26 54.6 | -6.2 | |
| KSH | | | | SS | | SS | 05 32 04.1 | +0.2 | |
| KSH | | | | | pmax | pmax | | | |
| | comp=Z,540nm,0.9s | | | | | | | | |
| KSH | | | | | pmax | pmax | | | |
| | comp=Z,15μm,5.8s | | | | | | | | |
| KSH | | | | | LR | LR | | | |
| | comp=Z,3μm,10.4s | | | | | | | | |
| KSH | | | | | LR | LR | | | |
| | comp=Z,8μm,13.7s | | | | | | | | |
| KSH | | | | | LR

AAA LRM MLR 05 55 09.3
comp=N,3µm,16.9s
**MAW Mawson 80.78 203** P **P** **05 16 56.9 +0.2**
comp=N,298nm,1.0s,baz=86,slow=6.5,SNR=118
MAW PKKPbc **PKKPbc** **05 35 34.4 -3.4**
comp=N,9.5nm,0.8s,baz=297,slow=1.0,SNR=7.4
MAW LR LR 05 52 45.6
comp=N,11µm,19.4s,baz=84,slow=36
**MAW Mawson 80.78 203** *e*P **P** **05 16 56.5 -0.2**
MAW pmax pmax
comp=Z,106nm,1.1s
**MAW Mawson 80.78 203** *e*P **P** **05 16 56.5 -0.2**
comp=Z,106nm,1.1s
**ULHL Ulahol 80.93 315** P **P** **05 17 00.2 +1.9**
SNR=19
**SEM Semipalatinsk 81.24 324** *i* P **P** **05 16 58.0 -1.7**
comp=Z,7µm,1.5s
SEM *i* S **S** **05 26 58.9 -0.8**
SEM LRM MLR 05 54 07.0
comp=Z,5µm,18.2s
**BHJ Bhuj 81.28 295** *e*P **P** **05 17 00.9 +0.7**
BHJ AMB AMB 05 17 05.3
comp=Z,3µm,1.4s
**KDAK Kodiak Island 81.33 28** *i* P **P** **05 16 59.9 +0.2**
**KDAK Kodiak Island 81.33 28** *e*P **P** **05 17 00.1 +0.3**
comp=Z,614nm,1.0s
**KUU Kurty 81.39 316** *i* P **P** **05 16 59.2 -1.3**
comp=Z,7µm,0.9s
KUU *i* S **S** **05 27 00.5 -0.6**
**NVS Novosibirsk 81.43 328**⇑ *i*P **P** **05 17 01.2 +0.9**
NVS *e* 05 17 35.5
NVS *e*S **S** **05 26 59.4 -1.5**
NVS pmax pmax
comp=N,509nm,1.9s
NVS pmax pmax
comp=E,1µm,1.9s
NVS pmax pmax
comp=Z,2µm,1.9s
NVS smax smax
comp=N,14nm,1.3s
NVS smax smax
comp=E,2µm,2.2s
**KZA Kyzart 81.57 314** P **P** **05 17 03.5 +1.6**
SNR=824
**TKM2 Tokmak 2 81.59 315** *i* P **P** **05 17 02.3 +0.5**
TKM2 pmax pmax
comp=Z,2µm,1.5s
**TKM2 Tokmak 2 81.59 315** P **P** **05 17 02.5 +0.7**
SNR=471
**SVW2 Sparrevohn 81.70 24** *e*P **P** **05 17 02.3 +0.6**
comp=Z,595nm,0.9s
**KBK Karagaybulak 81.97 315** P **P** **05 17 04.5 +0.8**
SNR=219
**UCH Uchtor 82.14 314** P **P** **05 17 06.3 +1.3**
SNR=626
**CHMS Chumysh 82.21 315** P **P** **05 17 05.3 +0.6**
SNR=348
**SFK Sufi-Kurgan 82.22 312** *i* P **P** **05 17 05.6 +0.4**
SFK pmax pmax
comp=Z,3µm,1.9s
**FRU Bishkek 82.25 315** *e*P **P** **05 17 06.0 +1.0**
FRU *e* 05 22 06.0
FRU *i* S **S** **05 27 11.0 +1.0**
FRU *e*SSS SSS 05 35 54.0
FRU pmax pmax
comp=Z,3µm,2.0s
FRU smax smax
comp=E,14µm,10.0s
**AAK Ala-Archa 82.28 315** P **P** **05 17 06.2 +0.9**
comp=E,380nm,0.9s,baz=111,slow=4.6,SNR=416
AAK PKKPbc **PKKPbc** **05 35 33.9 -0.2**
comp=E,27nm,0.8s,baz=204,slow=2.7,SNR=15
AAK PKPPKP **P'P'df** **05 43 42.6 +5.3**
comp=E,24nm,1.0s,baz=98,slow=21,SNR=6.2
**AAK Ala-Archa 82.28 315***c* *i*P **P** **05 17 07.1 +1.8**
AAK pmax pmax
comp=Z,3µm,2.2s
**AAK Ala-Archa 82.28 315** P **P** **05 17 06.2 +0.9**
SNR=362
**AAK Ala-Archa 82.28 315** *e*P **P** **05 17 06.2 +0.9**
comp=Z,976nm,1.1s
**AAK Ala-Archa 82.28 315** P **P** **05 17 06.3 +0.9**
SNR=642
**AAK Ala-Archa 82.28 315** P **P** **05 17 06.3 +0.9**
SNR=642
**KURK Kurchatov 82.32 323**⇓ *i*P **P** **05 17 06.5 +1.4**
KURK pmax pmax
comp=Z,10µm,1.7s
**KURK Kurchatov 82.32 323** *e*P **P** **05 17 05.7 +0.6**
comp=Z,2µm,1.3s
KURK *e*PP **PP** **05 20 19.0 +3.3**
KURK *e*S **S** **05 27 07.3 -2.9**
**KURK Kurchatov 82.32 323** P **P** **05 17 05.8 +0.7**
SNR=972
**KURK Kurchatov 82.32 323** P **P** **05 17 05.8 +0.7**
SNR=972
**KURBB Kurchatov Arra 82.34 323** P **P** **05 17 05.7 +0.5**
comp=Z,287nm,0.8s,baz=114,slow=4.2,SNR=407
KURBB PP **PP** **05 20 19.0 +3.2**
comp=Z,52nm,1.1s,baz=120,slow=7.1,SNR=4.3
KURBB PKKPbc **PKKPbc** **05 35 31.5 -2.7**
comp=Z,9.1nm,1.0s,baz=293,slow=2.5,SNR=4.3
KURBB PKPPKP **P'P'df** **05 43 40.0 +3.6**
comp=Z,17nm,0.9s,baz=305,slow=2.8,SNR=8.8
**QSPA South Pole Qui 82.45 180** *e*P **P** **05 17 05.2 -0.6**
comp=Z,724nm,0.7s
**USP Ospenovka 82.47 315** P **P** **05 17 06.9 +0.8**
SNR=570
**HOM Homer 82.66 27** *e*P **P** **05 17 07.4 +0.7**
comp=Z,2µm,0.8s
**AML Almayashu 82.69 314** P **P** **05 17 08.7 +0.9**
SNR=631
**CNPM China Poot 82.78 27** *e*P **P** **05 17 07.6 +0.2**
comp=Z,1µm,1.0s
CNPM *e*S **S** **05 27 15.1 +0.5**
**EKS2 Erkin-Say 82.79 315** P **P** **05 17 09.0 +1.1**
SNR=378
**BRLK Bradley Lake 83.05 27** *e*P **P** **05 17 08.4 -0.4**
comp=Z,434nm,0.8s
BRLK *e*S **S** **05 27 18.5 +1.1**
**BTLS Baital 83.31 317** *i* P **P** **05 17 09.1 -1.3**
comp=Z,7µm,1.2s
BTLS *i* S **S** **05 27 19.5 -1.1**
**MNAS Manas 83.64 314** *i* P **P** **05 17 12.8 +0.5**
MNAS pmax pmax
comp=Z,6µm,2.0s
**SUA Susitna One 83.91 25** *e*P **P** **05 17 12.2 -1.0**
comp=Z,306nm,0.7s
SUA *e*S **S** **05 27 24.0 -2.2**
**PPLA Purkeypile 84.00 24** *e*P **P** **05 17 13.1 -0.7**
comp=Z,678nm,1.3s
**RC01 Rabbit Creek A 84.17 26** *e*P **P** **05 17 14.0 -0.4**
comp=Z,544nm,0.7s
**KBL Kabul 84.27 306** *e*P **P** **05 17 15.1 -0.7**
KBL pmax pmax
comp=Z,2µm,1.8s
**KBL Kabul 84.27 306** *e*P **P** **05 17 15.1 -0.7**
comp=Z,2µm,1.8s
**CAST Castle Rocks 84.30 23** *e*P **P** **05 17 14.2 -0.9**
comp=Z,978nm,1.2s
**DZA Taraz 84.58 314** *i* P **P** **05 17 15.8 -1.1**
comp=Z,10µm,1.1s
DZA *i* S **S** **05 27 28.0 -5.5**
DZA LRM MLR 05 56 35.0
comp=Z,3µm,19.6s
**PMR Palmer 84.66 26** *e*P **P** **05 17 16.1 -0.7**
PMR pmax pmax
comp=Z,497nm,1.0s
**PMR Palmer 84.66 26** *e*P **P** **05 17 16.1 -0.7**
comp=Z,497nm,1.0s
**MID Middleton Isla 84.98 28** *e*P **P** **05 17 19.6 +1.1**
MID pmax pmax
comp=Z,889nm,1.3s
**MID Middleton Isla 84.98 28** *e*P **P** **05 17 19.6 +1.1**
comp=Z,889nm,1.3s
**TRF Thorofare Moun 85.03 24** *e*P **P** **05 17 17.7 -1.2**
comp=Z,263nm,0.8s
**BPAW Bear Paw Mtn. 85.06 23** *e*P **P** **05 17 18.0 -0.8**
comp=Z,226nm,0.8s
**SML Sawmill 85.09 26** *e*P **P** **05 17 19.0 -0.1**
SML pmax pmax
comp=Z,2µm,1.5s
**SML Sawmill 85.09 26** *e*P **P** **05 17 19.0 -0.1**
comp=Z,2µm,1.5s
**KK31 Karatay Array 85.22 314** *i* P **P** **05 17 20.3 +0.2**
KK31 pmax pmax
comp=Z,4µm,2.0s

**GLI Glacier Island 85.24 27** *e*P **P** **05 17 20.0 +0.2**
comp=Z,955nm,1.2s
**DZET Dzherino 85.41 310** P **P** **05 17 20.7 -0.6**
DZET pmax pmax
comp=Z,2µm,2.0s
**FID Port Fidalgo 85.46 27** *e*P **P** **05 17 20.9 +0.1**
comp=Z,2µm,1.8s
**SCM Sheep Creek Mo 85.53 26** *e*P **P** **05 17 21.5 +0.2**
SCM pmax pmax
comp=Z,1µm,1.2s
**SCM Sheep Creek Mo 85.53 26** *e*P **P** **05 17 21.5 +0.2**
comp=Z,1µm,1.2s
**RND Reindeer 85.58 24** *e*P **P** **05 17 20.5 -1.0**
RND pmax pmax
comp=Z,582nm,0.8s
**RND Reindeer 85.58 24** *e*P **P** **05 17 20.5 -1.0**
comp=Z,582nm,0.8s
**MLY Manley 85.59 22** *e*P **P** **05 17 21.1 -0.4**
comp=Z,462nm,0.7s
**BRLS Borolday 85.68 314** *i* P **P** **05 17 21.6 -0.8**
comp=Z,469nm,1.1s
BRLS *i* sP **sP** **05 18 03.7 -5.1**
BRLS *i* S **SKSac** **05 27 35.2 -1.0**
BRLS *i* sS **pS** **05 28 29.0 +3.6**
BRLS LRM MLR 05 56 53.0
comp=Z,212nm,18.2s
**MCK McKinley 85.69 24** *e*P **P** **05 17 21.0 -1.0**
MCK pmax pmax
comp=Z,605nm,0.8s
**MCK McKinley 85.69 24** *e*P **P** **05 17 21.0 -1.0**
comp=Z,605nm,0.8s
**EYAK Cordova Ski Ar 85.71 27** *e*P **P** **05 17 22.4 +0.3**
comp=Z,272nm,0.9s
**DIV Divide 85.93 27** *e*P **P** **05 17 23.6 +0.3**
comp=Z,777nm,1.1s
**KLU Klutina 86.01 26** *e*P **P** **05 17 23.8 +0.2**
comp=Z,749nm,1.1s
**DHY Denali Highway 86.04 25** *e*P **P** **05 17 23.2 -0.7**
comp=Z,394nm,0.8s
**RAGM Ragged Mountai 86.13 28** *e*P **P** **05 17 25.0 +0.7**
comp=Z,1µm,1.4s
**BMRM Bremner River 86.39 27** *e*P **P** **05 17 25.6 +0.1**
comp=Z,833nm,1.2s
**COLA College 86.62 23**⇑ *i*P **P** **05 17 26.3 -0.1**
COLA pmax pmax
comp=Z,473nm,0.8s
**HARP HAARP 86.70 26** *e*P **P** **05 17 27.2 +0.3**
comp=Z,623nm,1.3s
**PAX Paxson 86.79 25** *e*P **P** **05 17 27.1 -0.4**
PAX pmax pmax
comp=Z,1µm,1.9s
**PAX Paxson 86.79 25** *e*P **P** **05 17 27.1 -0.4**
comp=Z,1µm,1.9s
**MRIV Mauritius Mete 86.79 250** *e*P **P** **05 17 28.6 +0.3**
**COLD Coldfoot 86.82 20** *e*P **P** **05 17 28.0 +0.6**
comp=Z,292nm,0.9s
**ILAR Eielson Array 86.95 23** P **P** **05 17 26.5 -1.6**
comp=Z,375nm,0.8s,baz=251,slow=3.8,SNR=988
ILAR PKKPbc **PKKPdf** **05 35 19.5 +2.4**
comp=Z,4.8nm,0.7s,baz=356,slow=0.7,SNR=18
ILAR PKPPKP **P'P'df** **05 43 27.2 +0.1**
comp=Z,2.5nm,0.8s,baz=30,slow=2.0,SNR=6.2
ILAR LR LR 05 53 08.6
comp=Z,9µm,21.8s,baz=250,slow=33
**ILAR Eielson Array 86.95 23** P **P** **05 17 26.5 -1.6**
ILAR pmax pmax
comp=Z,387nm,0.8s
**ILB Eielson Array 86.95 23** *e*P **P** **05 17 26.1 -2.0**
**MENT Mentasta 87.52 25** *e*P **P** **05 17 30.5 -0.4**
comp=Z,402nm,1.0s
**BVA0 Borovoye Array 87.89 324** *i* P **P** **05 17 32.3 -0.5**
BVA0 pmax pmax
comp=Z,591nm,1.8s
**BVAR Borovoye Array 87.89 324** P **P** **05 17 32.3 -0.5**
comp=Z,291nm,0.8s,baz=110,slow=5.4,SNR=345
BVAR S **SKSac** **05 27 46.5 -2.7**
comp=Z,73nm,1.2s,baz=165,slow=6.2,SNR=9.3
BVAR PKKPbc **PKKPbc** **05 35 20.3 -0.8**
comp=Z,7.6nm,0.7s,baz=271,slow=2.5,SNR=9.6
BVAR PKPPKP **P'P'df** **05 43 26.4 +0.3**
comp=Z,4.9nm,1.0s,baz=259,slow=3.9,SNR=7.5
**BRVK Borovoye 87.96 324***c* *i*P **P** **05 17 33.5 +0.3**
BRVK pmax pmax
comp=Z,1µm,1.7s
**BRVK Borovoye 87.96 324** *e*P **P** **05 17 32.6 -0.5**
comp=Z,268nm,0.9s
**BRVK Borovoye 87.96 324** P **P** **05 17 33.0 -0.2**
SNR=151
**BRVK Borovoye 87.96 324** P **P** **05 17 33.0 -0.2**
SNR=151
**CRZF Crozet Islands 88.01 224** *e*P **P** **05 17 33.4 -0.2**
comp=Z,896nm,1.4s
**PCA Pinnacle 88.10 29** *e*P **P** **05 17 34.3 +0.5**
comp=Z,462nm,0.9s
**FYU Fort Yukon 88.31 22** *e*P **P** **05 17 34.5 0.0**
comp=Z,1µm,1.3s
**RER Riviere de l'E 88.31 249** *e*P **P** **05 17 36.0 +0.3**
comp=Z,2µm,1.0s
**SYO Syowa Base 89.11 200**‖ *e*P **P** **05 17 36.0 -2.3**
**EGAK Eagle 89.23 24** *e*P **P** **05 17 37.8 -1.1**
comp=Z,267nm,0.8s
**HYT Haines Junctio 89.62 28** *e*P **P** **05 17 41.7 +0.8**
comp=Z,531nm,1.1s
**SIT Sitka 89.72 32** *e*P **P** **05 17 42.5 +1.2**
SIT pmax pmax
comp=Z,723nm,1.8s
**SIT Sitka 89.72 32** *e*P **P** **05 17 42.5 +1.2**
comp=Z,723nm,1.8s
**DAWY Dawson 89.73 25** *e*P **P** **05 17 41.6 +0.4**
comp=Z,415nm,1.1s
**SKAG Skagway 90.31 30** *e*P **P** **05 17 44.7 +0.7**
comp=Z,647nm,1.4s
**BESE Bessie Mountai 90.33 31** *e*P **P** **05 17 45.0 +0.8**
comp=Z,828nm,1.5s
**DIB Dawson Inlet, 90.44 36** *e*P **P** **05 17 45.6 +0.9**
comp=Z,220nm,1.1s
**H02S1 DAWSON INLET T 90.44 36** P **P** **05 17 45.0 +0.3**
SNR=76
**CRAG Craig 90.55 34** *e*P **P** **05 17 45.9 +0.7**
comp=Z,568nm,1.8s
**MSEY Mahe Island 90.72 265** *i* P **P** **05 17 47.1 +0.1**
SNR=28
**MSEY Mahe Island 90.72 265** *i* P **P** **05 17 47.3 +0.3**
**MSEY Mahe Island 90.72 265** *e*P **P** **05 17 47.2 +0.1**
comp=Z,2µm,1.9s
**MSEY Mahe Island 90.72 265** P **P** **05 17 47.8 +0.7**
SNR=46
**MSEY Mahe Island 90.72 265** P **P** **05 17 47.8 +0.7**
SNR=46
**WHY Whitehorse 90.82 29** *e*P **P** **05 17 46.8 +0.3**
comp=Z,594nm,1.8s
**WBK Wadi Bani Khal 90.88 293** P **P** **05 17 49.0 +1.5**
SNR=27
**WBK Wadi Bani Khal 90.88 293** P **P** **05 17 49.0 +1.5**
SNR=27
**WSAR Wadi Sarin 91.27 293** P **P** **05 17 49.4 0.0**
comp=Z,233nm,0.9s,baz=134,slow=6.1,SNR=110
WSAR PP **PP** **05 21 34.2 +5.8**
comp=Z,142nm,1.2s,baz=114,slow=10,SNR=3.9
WSAR PKKPbc **PKKPbc** **05 35 11.2 -0.1**
comp=Z,18nm,0.8s,baz=232,slow=2.1,SNR=10
**JMDO Jabal Madar 91.64 292** P **P** **05 17 54.0 +2.9**
SNR=13
**JMDO Jabal Madar 91.64 292** P **P** **05 17 54.0 +2.9**
SNR=13
**BIDO Bidbid 91.77 293** P **P** **05 17 52.0 +0.4**
SNR=102
**BIDO Bidbid 91.77 293** P **P** **05 17 52.0 +0.4**
SNR=102
**SMDO Samad 91.78 293** P **P** **05 17 54.0 +2.2**
SNR=30
**SMDO Samad 91.78 293** P **P** **05 17 54.0 +2.2**
SNR=30
**BSY Bisya 92.51 292** P P 05 18 00.0 +4.9
SNR=35
**BSY Bisya 92.51 292** P P 05 18 00.0 +4.9
SNR=35
**DLBC Dease Lake 92.78 32** *e*P **P** **05 17 55.2 -0.4**
comp=Z,294nm,1.4s
**INK Inuvik 93.14 21** P **P** **05 17 56.1 -0.7**
comp=Z,135nm,0.8s,baz=257,slow=5.3,SNR=101
INK LR LR 05 56 54.4
comp=Z,12µm,21.2s,baz=248,slow=33
**INK Inuvik 93.14 21** *e*P **P** **05 17 56.1 -0.7**
comp=Z,220nm,1.1s
**ARQ Araqi 93.20 293** P **P** **05 18 01.0 +2.7**
SNR=21

**ARQ Araqi 93.20 293** P **P** **05 18 01.0 +2.7**
SNR=21
**SHAO Shalim 93.42 288** P **P** **05 18 03.7 +4.3**
SNR=6.4
**SHAO Shalim 93.42 288** P **P** **05 18 03.7 +4.3**
SNR=6.4
**GEYT Alibeck 93.55 308** P **P** **05 17 59.4 -0.2**
comp=Z,245nm,1.1s,baz=132,slow=2.2,SNR=176
GEYT pP **pP** **05 18 36.2 +3.6**
comp=Z,96nm,1.1s,baz=169,slow=3.0,SNR=1.7
GEYT PP **PP** **05 21 49.0 +3.0**
comp=Z,136nm,1.0s,baz=106,slow=4.8,SNR=6.7
GEYT PKKPbc **PKKPdf** **05 35 03.4 -1.3**
comp=Z,2.7nm,0.5s,baz=256,slow=6.0,SNR=3.7
**AB31 Akbulak array 93.60 319** *i* P **P** **05 17 58.3 -1.2**
AB31 pmax pmax
comp=Z,175nm,0.7s
**UOSS Minazif 93.68 295** *e*P **P** **05 17 59.7 -0.7**
comp=Z,337nm,1.3s
**BANOM Banah 93.70 296** *i* P **P** **05 18 00.3 -0.3**
SNR=58
**BANOM Banah 93.70 296** P **P** **05 18 01.7 +1.1**
SNR=55
**BANOM Banah 93.70 296** P **P** **05 18 01.7 +1.1**
SNR=55
**HATD Hatta, Dubai 93.73 294** *i* P **P** **05 18 00.0 -0.7**
SNR=51
**HATD Hatta, Dubai 93.73 294** P **P** **05 18 01.0 +0.3**
SNR=67
**HATD Hatta, Dubai 93.73 294** P **P** **05 18 01.0 +0.3**
SNR=67
**ASHO Ashiyiah 93.78 294** *i* P **P** **05 18 00.7 -0.2**
SNR=44
**ASHO Ashiyiah 93.78 294** P **P** **05 18 00.8 -0.2**
SNR=53
**ASHO Ashiyiah 93.78 294** P **P** **05 18 00.8 -0.2**
SNR=53
**SVE Sverdlovsk 94.15 327***de*P **P** **05 18 00.8 -1.0**
SVE *e* 05 21 49.5
SVE *e*S **SKSac** **05 28 21.3 -3.4**
SVE *e* 05 28 53.8
SVE *e* 05 35 19.3
SVE *e* 05 39 06.2
SVE pmax pmax
comp=Z,663nm,2.0s
SVE pmax pmax
comp=Z,2µm,12.0s
**NAZ Nazwa, Dubai 94.17 295** *i* P **P** **05 18 02.0 -0.7**
SNR=18
**NAZ Nazwa, Dubai 94.17 295** P **P** **05 18 03.0 +0.3**
SNR=19
**NAZ Nazwa, Dubai 94.17 295** P **P** **05 18 03.0 +0.3**
SNR=19
**KEBM Edson Butte 94.22 47** *e*P **P** **05 18 03.5 +0.9**
comp=Z,364nm,1.4s
**JCC Jacoby Creek, 94.22 50** *e*P **P** **05 18 03.7 +1.2**
comp=Z,519nm,1.5s
**KBO Bosley Butte 94.23 48** *e*P **P** **05 18 03.9 +1.3**
comp=Z,570nm,1.4s
**KRMB Red Mountain 94.39 49** *e*P **P** **05 18 04.3 +0.8**
comp=Z,277nm,1.3s
**KMRM Mail Ridge 94.40 50** *e*P **P** **05 18 04.8 +1.3**
comp=Z,299nm,1.3s
**KCPM Cahto Peak 94.44 51** *e*P **P** **05 18 04.3 +0.6**
comp=Z,549nm,1.5s
**KHMM Horse Mountain 94.46 50** *e*P **P** **05 18 04.7 +0.8**
comp=Z,317nm,1.2s
**L02D Cave Junction, 94.68 48** P **P** **05 18 05.0 +0.4**
baz=264,SNR=33
**HOPS Hopland Field 94.77 51** *e*P **P** **05 18 05.8 +0.7**
comp=Z,518nm,1.6s
**KTRM Thompson Ridge 94.83 49** *e*P **P** **05 18 06.2 +0.7**
**AKTO Aktyubinsk 94.98 320** P **P** **05 18 04.6 -1.2**
comp=Z,90nm,0.9s,baz=100,slow=5.6,SNR=150
AKTO PP **PP** **05 21 57.8 +1.1**
comp=Z,175nm,1.3s,baz=74,slow=11,SNR=7.5
AKTO PKPPKP **P'P'df** **05 43 12.8 -0.3**
comp=Z,2.2nm,0.8s,baz=341,slow=1.9,SNR=4.5
**AKTO Aktyubinsk 94.98 320** *i* P **P** **05 18 04.4 -1.4**
AKTO pmax pmax
comp=Z,728nm,2.0s
**I03D Drain, OR 95.02 47** P **P** **05 18 06.1 0.0**
baz=264,SNR=22
**F03A Seaside 95.09 44** *e*P **P** **05 18 07.0 +0.6**
comp=Z,189nm,1.1s
**COR Corvallis 95.14 46** *e*P **P** **05 18 07.5 +0.9**
COR pmax pmax
comp=Z,491nm,1.6s
**COR Corvallis 95.14 46** *e*P **P** **05 18 07.5 +0.9**
comp=Z,491nm,1.6s
**E03A Lebam 95.14 44** *e*P **P** **05 18 07.2 +0.7**
comp=Z,130nm,0.9s
**M02C Callahan 95.17 49** P **P** **05 18 07.5 +0.5**
baz=264,SNR=153
**HUMO Hull Mountain 95.20 48** *e*P **P** **05 18 07.3 +0.3**
comp=Z,141nm,1.0s
**G03D McMinnville, O 95.23 45** P **P** **05 18 06.9 -0.1**
baz=265
**N02D Trinity Center 95.24 49** P **P** **05 18 07.8 +0.5**
baz=265,SNR=93
**ARU Arti 95.25 326** P **P** **05 18 06.1 -0.8**
comp=Z,171nm,0.7s,baz=108,slow=1.6,SNR=179
ARU PP **PP** **05 21 56.3 -2.3**
comp=Z,26nm,0.6s,baz=118,slow=3.1,SNR=5.2
ARU PKKPbc **PKKPdf** **05 35 01.0 -1.1**
comp=Z,13nm,0.7s,baz=175,slow=0.8,SNR=9.4
**ARU Arti 95.25 326***c* *i*P **P** **05 18 05.3 -1.5**
ARU *PP **pP** **05 18 37.9 -2.0**
ARU *SP **sP** **05 18 48.8 -4.6**
ARU 05 21 56.0
ARU S **SKSac** **05 28 26.3 -4.2**
ARU SP **SP** **05 30 26.6 -2.3**
ARU pmax pmax
comp=Z,720nm,1.7s
**ARU Arti 95.25 326** *e*P **P** **05 18 05.3 -1.5**
comp=Z,342nm,0.9s
ARU PP **PP** **05 21 56.3 -2.3**
**YBH Yreka Blue Hor 95.31 49** *e*P **P** **05 18 07.9 +0.3**
YBH pmax pmax
comp=Z,174nm,1.1s
**YBH Yreka Blue Hor 95.31 49** *e*P **P** **05 18 07.9 +0.3**
comp=Z,174nm,1.1s
**WDC Whiskeytown Da 95.33 50** *e*P **P** **05 18 07.9 +0.3**
WDC pmax pmax
comp=Z,235nm,1.3s
**WDC Whiskeytown Da 95.33 50** *e*P **P** **05 18 07.9 +0.3**
comp=Z,234nm,1.3s
**PGC Sidney 95.42 42** *e*P **P** **05 18 08.2 +0.5**
comp=Z,174nm,1.4s
**F04D Rainier, OR 95.48 44** P **P** **05 18 08.2 +0.1**
baz=265
**ABTO Aybut 95.55 287** P P 05 18 15.0 +5.8
SNR=5.7
**ABTO Aybut 95.55 287** P P 05 18 15.0 +5.8
SNR=5.7
**LGBM Gray Butte 95.66 49** *e*P **P** **05 18 09.8 +0.4**
**I04A Tendick Farm, 95.71 47** P **P** **05 18 09.0 -0.3**
baz=265,SNR=21
**FRP Fremont Peak 95.80 54** *e*P **P** **05 18 10.3 +0.3**
**FRP Fremont Peak 95.80 54** *e*P **P** **05 18 10.3 +0.3**
**SAO San Andreas Ge 95.84 54** *e*P **P** **05 18 10.8 +0.8**
SAO pmax pmax
comp=Z,405nm,1.9s
**SAO San Andreas Ge 95.84 54** *e*P **P** **05 18 10.8 +0.8**
comp=Z,405nm,1.9s
**IRO Indian Ridge 95.84 46** *e*P **P** **05 18 09.7 -0.4**
**O03D Paynes Creek 95.86 50** P **P** **05 18 09.9 -0.3**
baz=265,SNR=71
**O03D Paynes Creek 95.86 50** *e*P **P** **05 18 10.1 -0.1**
**F04A Amboy 95.88 45** *e*P **P** **05 18 09.4 -0.5**
comp=Z,196nm,1.4s
**J04D Umpqua Nationa 95.88 47** P **P** **05 18 10.2 -0.2**
baz=265,SNR=32
**A04D Lummi Island 95.91 42** P **P** **05 18 10.2 +0.1**
baz=265
**H04A Detroit Lake 95.94 46** *e*P **P** **05 18 09.8 -0.6**
comp=Z,322nm,1.8s
**OGOM Van Goodin Ran 95.95 51** *e*P **P** **05 18 10.4 -0.1**
**M04C Macdoel 95.96 49** P **P** **05 18 10.6 0.0**
baz=265,SNR=36
**BVL Bear Valley 96.03 54** *e*P **P** **05 18 11.6 +0.6**
**ORV Oroville 96.03 51** *e*P **P** **05 18 10.7 -0.1**
ORV pmax pmax
comp=Z,198nm,1.3s
**ORV Oroville 96.03 51** *e*P **P** **05 18 10.7 -0.1**
comp=Z,198nm,1.3s
**K04D Chiloquin, OR 96.09 48** P **P** **05 18 11.3 +0.1**

baz=265,SNR=9.1
**LBCM Butte Creek Ri 96.25 50** *e*P **P** **05 18 12.1 +0.1**
**D05A Enumclaw 96.28 43** *e*P **P** **05 18 12.1 +0.3**
comp=Z,446nm,1.5s
**B05A Bryant 96.28 42** P **P** **05 18 11.0 -0.8**
baz=266
**NVL N'lazarevskaya 96.28 194** *e*P **P** **05 18 10.2 -1.1**
NVL *e**PP **pP** **05 18 44.8 +0.3**
NVL *e* 05 22 03.9
NVL *e*S **SKSac** **05 28 33.3 -2.3**
NVL MLR MLR
comp=Z,36µm,20.0s
**PMPB Monarch Peak 96.31 54** *e*P **P** **05 18 13.6 +1.3**
comp=Z,240nm,1.4s
**LON Longmire 96.36 44** *e*P **P** **05 18 11.4 -0.9**
LON pmax pmax
comp=Z,81nm,1.3s
**LON Longmire 96.36 44** *e*P **P** **05 18 11.4 -0.9**
comp=Z,81nm,1.3s
**AFDM Forest Hills D 96.39 52** *e*P **P** **05 18 12.6 0.0**
comp=Z,603nm,1.9s
**I05D Terrebonne, OR 96.52 46** P **P** **05 18 12.8 -0.3**
baz=266,SNR=21
**J05D Fort Rock, OR 96.52 47** P **P** **05 18 13.3 +0.1**
baz=266,SNR=48
**ABPO Ambohimpanom 96.55 250** *e*P **P** **05 18 13.4 -0.5**
ABPO pmax pmax
comp=Z,866nm,2.0s
**ABPO Ambohimpanom 96.55 250** *e*P **P** **05 18 13.4 -0.5**
comp=Z,866nm,2.0s
**LLLB Lillooet 96.59 40** *e*P **P** **05 18 13.4 +0.2**
comp=Z,128nm,1.1s
**G05D Wamic, OR 96.60 45** P **P** **05 18 12.9 -0.4**
baz=266,SNR=14
**B06A Marblemount 96.71 42** *e*P **P** **05 18 13.9 +0.2**
comp=Z,147nm,1.3s
**PAGB Antelope Grade 96.72 55** *e*P **P** **05 18 15.1 +1.0**
comp=Z,384nm,1.5s
**CMB Columbia Colle 96.78 53** *e*P **P** **05 18 14.2 -0.2**
CMB pmax pmax
comp=Z,300nm,1.8s
**CMB Columbia Colle 96.78 53** *e*P **P** **05 18 14.2 -0.2**
comp=Z,300nm,1.8s
**SMMC Simmler 96.89 55** P **P** **05 18 14.4 -0.5**
baz=266
**BEKR Beckworth 96.93 51** *e*P **P** **05 18 15.1 -0.1**
comp=Z,428nm,1.8s
**PKM Mcpherson Peak 97.01 56** P Pdif 05 18 16.1 +0.4
baz=266
**SBC Santa Barbara 97.06 56** P **P** **05 18 15.6 0.0**
baz=266
**C06D Leavenworth 97.06 43** P **P** **05 18 14.8 -0.6**
baz=267
**G06A Carlson Farm, 97.08 45** *e*P Pdif 05 18 15.6 0.0
comp=Z,182nm,1.7s
**SCZ2 Santa Cruz Isl 97.09 57** P **P** **05 18 15.4 -0.4**
baz=266
**MOD Modoc Plateau 97.11 49** *e*P **P** **05 18 15.8 -0.1**
comp=Z,343nm,1.5s
**SNCC San Nicolas Is 97.13 57** P Pdif 05 18 16.4 +0.4
baz=266
**SNCC San Nicolas Is 97.13 57** *e*P Pdif 05 18 17.5 +1.5
comp=Z,382nm,1.2s
**LTY Liberty 97.18 43** *e*P **P** **05 18 15.5 -0.5**
comp=Z,147nm,1.4s
**PNTR Pine Nut 97.47 52** *e*P Pdif 05 18 18.0 +0.3
comp=Z,492nm,1.7s
**WAKR Walker 97.56 52** *e*P Pdif 05 18 18.4 +0.3
comp=Z,181nm,1.5s
**BLG Laguna Peak, P 97.57 57** P Pdif 05 18 18.2 +0.2
baz=266
**RCTC Rector, Farmer 97.57 54** P **P** **05 18 17.7 -0.1**
baz=266
**F07A Phinny Hill Vi 97.61 45** *e*P **P** **05 18 17.6 -0.3**
comp=Z,201nm,1.5s
**VES Vestal, Richgr 97.67 55** P **P** **05 18 18.0 -0.4**
baz=266,SNR=20
**PAHR Pah Rah Range 97.67 51** *e*P **P** **05 18 18.2 -0.3**
comp=Z,95nm,1.3s
**YERR Yerington 97.74 52** *e*P Pdif 05 18 19.1 +0.2
comp=Z,196nm,1.5s
**MDPB Devils Postpil 97.79 53** *e*P Pdif 05 18 19.5 +0.3
comp=Z,101nm,1.1s
**I07A Izee 97.82 47** *e*P **P** **05 18 18.9 0.0**
comp=Z,194nm,1.6s
**ARVC Arvin 97.83 56** P Pdif 05 18 19.5 +0.4
baz=266,SNR=16
**OSI Osito Audit: C 97.89 56** P Pdif 05 18 20.1 +0.7
baz=266
**OSI Osito Audit: C 97.89 56** *e*P Pdif 05 18 19.9 +0.4
comp=Z,324nm,1.7s
**HAWA Hanford 97.91 44** *e*P Pdif 05 18 19.3 0.0
comp=Z,67nm,0.9s
**SCI2 San Clemente I 97.93 58** P **P** **05 18 19.5 -0.1**
baz=266
**PNT Penticton 97.98 41** P **P** **05 18 18.0 -1.4**
PNT pmax pmax
comp=Z,492nm,1.7s
**MLAC Mammoth, Mammo 97.98 53** P Pdif 05 18 20.2 +0.2
baz=267
**CIS Catalina Islan 98.06 57** P Pdif 05 18 21.1 +0.9
baz=266
**B08A Colville Reser 98.13 42** *e*P **P** **05 18 19.8 -0.3**
comp=Z,89nm,1.0s
**ISA Isabella, Lake 98.16 55** P Pdif 05 18 21.8 +1.2
baz=267
**ISA Isabella, Lake 98.16 55** *e*P Pdif 05 18 21.4 +0.7
ISA pmax pmax
comp=Z,77nm,1.1s
**ISA Isabella, Lake 98.16 55** *e*P Pdif 05 18 21.4 +0.7
comp=Z,77nm,1.1s
**DECC Green Verdugo 98.19 56** P **P** **05 18 20.6 -0.1**
baz=266
**FMP Fort Macarthur 98.19 57** P **P** **05 18 20.3 -0.4**
baz=266
**E08A Dider Farm, El 98.24 44** *e*P Pdif 05 18 20.8 +0.1
comp=Z,232nm,1.5s
**G08A Pilot Rock 98.27 45** *e*P **P** **05 18 20.6 -0.4**
comp=Z,164nm,1.5s
**PASC Pasadena Art C 98.30 57** *e*P Pdif 05 18 22.2 +1.0
comp=Z,130nm,1.1s
**WVOR Wild Horse Val 98.38 48** *e*P **P** **05 18 21.0 -0.5**
WVOR pmax pmax
comp=Z,409nm,2.0s
**WVOR Wild Horse Val 98.38 48** *e*P **P** **05 18 21.0 -0.5**
comp=Z,409nm,2.0s
**MWC Mount Wilson 98.41 57** *e*P Pdif 05 18 22.6 +0.6
MWC pmax pmax
comp=Z,195nm,1.0s
**MWC Mount Wilson 98.41 57** *e*P Pdif 05 18 22.6 +0.7
comp=Z,195nm,1.0s
**TIN Tinemaha, Big 98.43 54** P Pdif 05 18 21.9 0.0
baz=267
**NV01 Mina Array Sit 98.44 52** *e*P Pdif 05 18 22.1 +0.1
**SNAA Sanae 98.47 189** P **P** **05 18 20.8 -0.5**
**SNAA Sanae 98.47 189** *c i*P Pdif 05 18 21.5 +0.2
**SNAA Sanae 98.47 189** *e*P **P** **05 18 20.1 -1.1**
comp=Z,482nm,1.9s
**EDW2 Edwards Air Fo 98.50 56** P Pdif 05 18 22.7 +0.5
baz=267,SNR=29
**CWC Cottonwood Cre 98.52 54** P Pdif 05 18 22.4 +0.1
baz=267
**J08A Circle Bar Ran 98.54 47** *e*P **P** **05 18 22.0 -0.2**
comp=Z,58nm,0.9s
**NV11 Mina Array Sit 98.56 52** *e*P Pdif 05 18 22.8 +0.3
comp=Z,30nm,1.8s
**KVN Kaiserville 98.63 52** *e*P **P** **05 18 22.8 0.0**
KVN pmax pmax
comp=Z,82nm,1.2s
**KVN Kaiserville 98.63 52** *e*P **P** **05 18 22.8 0.0**
comp=Z,82nm,1.2s
**BFSC Mount Baldy Ra 98.74 57** P Pdif 05 18 23.4 +0.1
baz=267,SNR=9.4
**BFSC Mount Baldy Ra 98.74 57** *e*P Pdif 05 18 25.2 +1.8
**RPN Rapa Nui 98.77 119** P Pdif 05 18 25.0 +1.5
comp=Z,92nm,0.8s,baz=269,slow=1.7,SNR=4.8
**RPN Rapa Nui 98.77 119** P Pdif 05 18 25.0 +1.5
RPN pmax pmax
comp=Z,92nm,0.8s
**LRMC Laurel Mtn Rad 98.79 55** P Pdif 05 18 24.1 +0.6
baz=267,SNR=46
**C09A Chrisman Ranch 98.82 43** *e*P **P** **05 18 23.1 -0.2**
comp=Z,100nm,1.2s
**E09A Wood Farm, Sta 98.88 44** *e*P **P** **05 18 23.4 -0.1**
comp=Z,178nm,1.1s
**MPMC Manual Prospec 98.98 55** P Pdif 05 18 24.8 +0.4
baz=267,SNR=47
**MURC Murrieta 99.09 57** P **Pdif** **05 18 25.2 +0.4**
baz=267,SNR=7.4
**GRAC Grapevine Rang 99.12 54** P **Pdif** **05 18 25.4 +0.5**
baz=267,SNR=17
**109C Camp Elliot, M 99.13 58** P **Pdif** **05 18 25.7 +0.8**
baz=267,SNR=16
**RRX Edison Barstow 99.32 56** P **Pdif** **05 18 25.7 -0.1**
baz=267
**BBRC Big Bear Solar 99.36 57** P **Pdif** **05 18 26.4 +0.2**
baz=267,SNR=12
**GSC Goldstone, Bar 99.50 56** P **Pdif** **05 18 27.1 +0.4**
baz=268,SNR=24
**FURC Furnace Creek, 99.50 54** P **Pdif** **05 18 26.8 +0.3**
baz=268,SNR=40
**NEW Newport 99.60 42** LR LR 05 58 11.0
comp=Z,13µm,20.6s,baz=272,slow=32
**NEW Newport 99.60 42** P **Pdif** **05 18 26.2 -0.5**
baz=270
**NEW Newport 99.60 42** *e*P **Pdif** **05 18 26.6 -0.1**
NEW pmax pmax
comp=Z,140nm,1.3s
**NEW Newport 99.60 42** *e*Pdif **Pdif** **05 18 26.6 -0.1**
comp=Z,140nm,1.3s
**MONP2 Monument Peak 99.71 58** P **Pdif** **05 18 28.7 +0.9**
baz=267,SNR=42
**PFO Pinyon Flats O 99.71 57** P **Pdif** **05 18 28.1 +0.4**
baz=267,SNR=20
**PFO Pinyon Flats O 99.71 57** *e*P **Pdif** **05 18 28.4 +0.7**
PFO pmax pmax
comp=Z,90nm,1.1s
**PFO Pinyon Flats O 99.71 57** *e*Pdif **Pdif** **05 18 28.4 +0.7**
comp=Z,90nm,1.1s
**XPFO Piæon Flat 99.71 57** *e*Pdif **Pdif** **05 18 28.4 +0.7**
comp=Z,96nm,1.1s
**VNA2 Neumayer--Watz 99.82 188** P **Pdif** **05 18 27.0 -0.3**
baz=142,slow=4.2
**VNA3 Nemayer Olymp 99.84 188** P **Pdif** **05 18 27.0 -0.3**
**HEC Hector,Ludlow 99.86 56** P **Pdif** **05 18 28.9 +0.6**
baz=268
**SHOC Shoshone, Teco 99.95 55** P **Pdif** **05 18 29.0 +0.4**
baz=268,SNR=19
**IKP In-Ko-Pah, Jac 99.96 58** P **Pdif** **05 18 29.8 +1.1**
baz=267,SNR=14
**TPNV Topopah Spring 100.01 54** P **Pdif** **05 18 28.8 -0.2**
baz=268,SNR=53
**TPNV Topopah Spring 100.01 54** *e*P **Pdif** **05 18 29.3 +0.3**
**TPNV Topopah Spring 100.01 54** *e*Pdif **Pdif** **05 18 29.3 +0.3**
**BELC Belle Mtn. Jos 100.11 57** P **Pdif** **05 18 30.1 +0.7**
baz=268,SNR=21
**VNA1 Neumayer--Stat 100.19 188** P **Pdif** **05 18 28.9 +0.1**
**TUQ Turquoise Moun 100.22 55** P **Pdif** **05 18 30.4 +0.4**
baz=268,SNR=16
**SWSC Sam W. Stewart 100.23 58** P **Pdif** **05 18 30.9 +1.0**
baz=268,SNR=14
**GMRC Granite Mounta 100.42 56** P **Pdif** **05 18 31.4 +0.6**
baz=268,SNR=18
**MFID Camas Ranch 100.47 47** *e*Pdif **Pdif** **05 18 30.9 +0.1**
**BC3 Big Chuckawall 100.55 57** P **Pdif** **05 18 32.3 +0.9**
baz=268,SNR=21
**R11A Troy Canyon, C 100.58 52** P **Pdif** **05 18 31.6 +0.2**
baz=269,SNR=14
**R11A Troy Canyon, C 100.58 52** *e*Pdif **Pdif** **05 18 31.7 +0.2**
**YKA Yellowknife Ar 100.60 28** P **Pdif** **05 18 30.1 -0.7**
comp=Z,37nm,0.8s,baz=272,slow=4.9,SNR=120
YKA pP pP 05 19 06.3 +2.3
comp=Z,28nm,1.0s,baz=272,slow=4.7,SNR=2.0
YKA PP **PP** **05 22 37.0 -2.2**
comp=Z,14nm,1.0s,baz=277,slow=7.0,SNR=4.1
YKA PKKPbc **PKKPbc** **05 34 43.8 -3.9**
comp=Z,11nm,0.7s,baz=88,slow=2.9,SNR=20
**IRM Iron Mountain 100.82 57** P **Pdif** **05 18 33.2 +0.7**
baz=268,SNR=21
**SHPR Sheep Range 100.87 54** *e*Pdif **Pdif** **05 18 33.6 +0.8**
**GLA Glamis 101.05 58** P **Pdif** **05 18 34.9 +1.3**
baz=268,SNR=21
**NEE2 Needles Airpor 101.27 56** P **Pdif** **05 18 34.8 +0.4**
baz=269
**Y12C Blythe 101.33 57** P **Pdif** **05 18 35.8 +1.1**
baz=268,SNR=13
**HLID Hailey 101.50 47** P **Pdif** **05 18 35.6 +0.2**
baz=270
**HLID Hailey 101.50 47** *e*Pdif **Pdif** **05 18 35.7 +0.2**
**PDMCI Parker Dam,Lak 101.66 57** P **Pdif** **05 18 37.2 +1.0**
baz=269,SNR=17
**MSO Missoula 101.77 44** P **Pdif** **05 18 36.0 -0.5**
baz=272
**MSO Missoula 101.77 44** *e*Pdif **Pdif** **05 18 36.2 -0.3**
**MAK Makhachkala 101.89 312** *e*P **Pdif** **05 18 36.0 -1.0**
MAK *e* 05 22 49.0
MAK *e*S **SKSac** **05 29 04.4 -0.1**
MAK *e**SS SKKSac 05 29 58.4 +16
MAK *e*SS **SS** **05 37 09.6 -5.0**
MAK pmax pmax
comp=Z,225nm,1.3s
MAK pmax pmax
comp=E,132nm,0.5s
MAK pmax pmax
comp=N,214nm,1.2s
**BGU Big Grassy Mou 102.56 50** *e*Pdif **Pdif** **05 18 40.2 0.0**
**MCMT McKenzie Canyo 102.59 46** *e*Pdif **Pdif** **05 18 40.6 +0.2**
**214A Organ Pipe Nat 102.73 59** P **Pdif** **05 18 42.6 +1.6**
baz=269
**DUG Dugway, Tooele 102.73 51** P **Pdif** **05 18 41.1 +0.1**
baz=271
**DUG Dugway, Tooele 102.73 51** *e*P **Pdif** **05 18 41.1 +0.1**
**DUG Dugway, Tooele 102.73 51** *e*Pdif **Pdif** **05 18 41.1 +0.1**
**DLMT Dillon 102.75 45** *e*Pdif **Pdif** **05 18 41.5 +0.5**
**DDFL Dedoflistskaro 102.95 311** P **Pdif** **05 18 43.4 +1.5**
**SPUT South Promonto 102.99 49** *e*Pdif **Pdif** **05 18 42.1 0.0**
**GROC Groznyy 103.14 313** *i*P **Pdif** **05 18 41.9 -0.6**
GROC *i* 05 23 01.2
GROC *e* 05 29 10.3
GROC *e* 05 29 54.0
GROC pmax pmax
comp=Z,796nm,1.5s
**NLU North Lily Min 103.30 51** *e*Pdif **Pdif** **05 18 44.0 +0.3**
**BOZ Bozeman (W) 103.42 45** P **Pdif** **05 18 44.5 +0.5**
baz=273
**QLMT Earthquake Lak 103.60 46** *e*Pdif **Pdif** **05 18 45.6 +0.7**
**MPU Maple Canyon 103.64 51** *e*Pdif **Pdif** **05 18 45.6 +0.5**
**TCUT Toone Canyon 103.78 50** *e*Pdif **Pdif** **05 18 46.1 +0.4**
**WUAZ Wupatki 103.94 55** P **Pdif** **05 18 47.4 +1.0**
baz=271
**FXWY Foxx Creek 103.95 47** *e*Pdif **Pdif** **05 18 47.2 +0.7**
**TBLG Delisi 103.98 311** P **Pdif** **05 18 47.4 +1.1**
**TBLG Delisi 103.98 311** *e*P **Pdif** **05 18 47.4 +1.1**
**DUS Dusheti 103.99 311** P **Pdif** **05 18 52.6 +6.1**
**DUS Dusheti 103.99 311** *e*P **Pdif** **05 18 52.5 +6.1**
**TPAW Teton Pass 104.02 47** *e*Pdif **Pdif** **05 18 47.1 +0.3**
**GNI Garni 104.04 309** Pdiff **Pdif** **05 18 46.7 -0.1**
comp=Z,8.5nm,0.5s,baz=187,slow=0.6,SNR=30
**GNI Garni 104.04 309** *i*P **Pdif** **05 18 46.3 -0.5**
SNR=16
**GNI Garni 104.04 309** P **Pdif** **05 18 46.8 -0.1**
SNR=16
**REDW Red Top Meadow 104.09 47** *e*Pdif **Pdif** **05 18 47.0 -0.1**
**GUDG Gudauri 104.14 312** P **Pdif** **05 18 48.9 +1.6**
**MOOW Moose Ponds 104.15 47** *e*Pdif **Pdif** **05 18 47.5 +0.2**
**H17A Grant Village 104.24 46** P **Pdif** **05 18 49.6 +1.9**
baz=273
**TUC Tucson 104.45 59** P **Pdif** **05 18 50.2 +1.5**
baz=270
**EGMT Eagleton 104.54 42** P **Pdif** **05 18 48.9 +0.1**
baz=275
**ZEI Tsey 104.55 312** *e*P **Pdif** **05 18 43.7 -5.4**
**CLDR Caldiran 104.71 308** *i*P **Pdif** **05 18 49.4 -0.6**
**BGD Bogdanovka 104.86 311** P **Pdif** **05 18 52.3 +1.8**
**DYDN Diyadin 104.87 309** *i*P **Pdif** **05 18 50.4 -0.3**
**EAK Akyaka 104.88 310** *i*P **Pdif** **05 18 49.7 -0.9**
**TMCR Tamitsa 104.88 335** *e*P **Pdif** **05 18 48.9 -0.8**
TMCR *e* 05 23 07.4
TMCR pmax pmax
comp=Z,200nm,0.8s
**ONI Oni 104.89 312** P **Pdif** **05 18 57.1 +6.6**
**ONI Oni 104.89 312** *e*P **Pdif** **05 18 57.0 +6.6**
**AKH Akhalkalaki 104.93 311** P **Pdif** **05 18 52.3 +1.6**
**AKH Akhalkalaki 104.93 311** *i*P PKiKP 05 22 55.2 -10
**AKH Akhalkalaki 104.93 311** *i*P **PKKPbc** **05 34 29.5 -4.8**
**AKH Akhalkalaki 104.93 311** *e*P **Pdif** **05 18 52.3 +1.6**
**KLMR Klimovskoe 104.94 331** *e*P **Pdif** **05 18 45.6 -4.5**
KLMR *e*PPP PPP 05 25 23.9
KLMR *e*PS **PS** **05 32 19.4 -9.2**
KLMR *e*SS SS 05 37 48.9 -6.4
KLMR pmax pmax
comp=Z,390nm,1.5s
**GOF Gofitskoye 105.02 315** *e*P **Pdif** **05 18 49.6 -1.2**
GOF *e*S **PP** **05 23 15.7 +2.9**
GOF pmax pmax
comp=Z,85nm,1.4s
**CUKT Cukurca 105.02 306** *i*P **Pdif** **05 18 49.0 -2.2**
**SPA0 Spitsbergen Ar 105.07 351** *e*PP PP 05 23 05.4 -6.9
SPA0 *e*SKSac **SKSac** **05 29 16.7 -1.3**
SPA0 *e*SS **SS** **05 37 56.4 +0.1**
**SPITS Spitsbergen Ar 105.07 351** Pdiff **Pdif** **05 18 52.2 +1.8**
comp=Z,30nm,0.9s,baz=74,slow=6.4,SNR=12
SPITS PKKPbc **PKKPbc** **05 34 34.2 -0.6**
comp=Z,19nm,1.0s,baz=197,slow=2.5,SNR=5.4
**DIGO Kars 105.07 310** *i*P **Pdif** **05 18 49.4 -2.1**
**BW06 Boulder Array 105.08 48** P **Pdif** **05 18 51.4 0.0**
baz=274
**PD31 Pinedale Array 105.08 48** *e*Pdif **Pdif** **05 18 51.1 -0.4**
**PDAR Pinedale Array 105.08 48** Pdiff **Pdif** **05 18 51.0 -0.4**
comp=Z,12nm,0.7s,baz=229,slow=2.3,SNR=47
PDAR PP **PKiKP** **05 23 06.7 +1.1**
comp=Z,11nm,0.8s,baz=193,slow=1.9,SNR=5.2
PDAR PKKPbc **PKKPbc** **05 34 31.8 -2.3**
comp=Z,7.3nm,0.7s,baz=99,slow=4.5,SNR=9.0
PDAR PKPPKP **P'P'df** **05 42 56.6 +1.8**
comp=Z,1.9nm,1.1s,baz=70,slow=1.7,SNR=4.4
**ATD Arta Tunnel 105.09 280** Pdiff **Pdif** **05 18 53.0 +1.1**
comp=Z,32nm,1.0s,baz=89,slow=2.8,SNR=7.8
ATD PP **PP** **05 23 10.5 -3.9**
comp=Z,112nm,1.1s,baz=1.2,slow=6.3,SNR=7.0
**RLMT Red Lodge 105.12 45** P **Pdif** **05 18 50.7 -0.9**
baz=274
**KBZ Khabaz 105.22 313** Pdiff **Pdif** **05 18 50.6 -1.1**
comp=Z,7.5nm,1.0s,baz=65,slow=1.9,SNR=25
KBZ PKKPbc **PKKPbc** **05 34 33.0 -0.3**
comp=Z,10nm,0.9s,baz=231,slow=6.5,SNR=5.4
**KBS Kingsbay 105.24 352** *e*SS SS 05 37 59.0 +0.3
**VRH Novokhopyorsk 105.28 321** *e*P **Pdif** **05 18 50.9 -0.9**
VRH *e* 05 23 13.1
VRH *e*SS SS 05 37 57.9 -2.7
VRH pmax pmax
comp=Z,140nm,1.2s
**W18A Petrified Fore 105.28 56** P **Pdif** **05 18 53.9 +1.4**
baz=272
**KVAR Kislovodsk Arr 105.35 313** Pdiff **Pdif** **05 18 52.1 -0.4**
comp=Z,9.7nm,0.7s,baz=105,slow=12,SNR=20
KVAR PKKPbc **PKKPbc** **05 34 34.0 +0.9**
comp=Z,12nm,0.8s,baz=269,slow=3.0,SNR=5.2
**KIV Kislovodsk 105.36 313** *e*P **Pdif** **05 18 51.5 -1.0**
KIV *e* 05 23 19.4
KIV *e*PS **PS** **05 32 33.4 -0.5**
KIV *e*SS SS 05 38 01.7 -0.6
KIV *e*SSS SSS 05 42 01.7
KIV MLR MLR
comp=Z,8µm,21.0s
**KIV Kislovodsk 105.36 313** *e*Pdif **Pdif** **05 18 52.3 -0.2**
**KIV Kislovodsk 105.36 313** PKiKP **PKiKP** **05 23 12.6 +6.8**
SNR=11
**KIV Kislovodsk 105.36 313** P **PKiKP** **05 23 12.6 +6.8**
SNR=11
**EPOS Posof 105.50 311** *i*P **Pdif** **05 18 51.8 -1.5**
**ADCV BITLIS_Adilcev 105.65 308** *i*P **Pdif** **05 18 54.1 +0.1**
**APA Apatity 105.75 339** *i*P **Pdif** **05 18 51.9 -1.6**
APA *i* 05 23 19.0
APA *i* 05 29 19.0
APA *i* 05 30 06.0
APA *i* SSS SSS 05 42 01.0
APA pmax pmax
comp=Z,44nm,0.8s
**EATA Eleskirt 105.78 309** *i*P **Pdif** **05 18 53.5 -1.3**
**ARTV Artvin 106.12 311** *i*P **Pdif** **05 18 54.7 -1.4**
**DAGI Agillar 106.14 310** *i*P **Pdif** **05 18 54.5 -1.6**
**EKAR Karacoban 106.14 309** *i*P **Pdif** **05 18 56.7 +0.4**
**MVCO Mesa Verde 106.20 54** P **Pdif** **05 18 56.8 +0.2**
baz=273
**MVCO Mesa Verde 106.20 54** *e*Pdif **Pdif** **05 18 58.0 +1.4**
**O20A White River Ci 106.24 50** P **Pdif** **05 18 55.6 -1.0**
baz=274
**O20A White River Ci 106.24 50** *e*Pdif **Pdif** **05 18 57.1 +0.4**
**DDEM Demirkent 106.27 310** *i*P **Pdif** **05 18 55.6 -1.1**
**BJO Bjornoya 106.74 347** *e*Pdif **Pdif** **05 18 59.3 +1.4**
BJO *e*SKSac **SKSac** **05 29 26.4 +1.0**
BJO *e*SS **SS** **05 38 25.3 +6.2**
**VORR Voronezh 106.77 322** *e*P **Pdif** **05 18 54.0 -4.5**
VORR pmax pmax
comp=Z,500nm,2.0s
**LPSR Galich'ya Gora 106.79 323** *e*P **Pdif** **05 18 57.9 -0.6**
LPSR *e* 05 23 21.5
LPSR *e* 05 30 07.0
LPSR *e*SP SP 05 32 27.8 -3.9
LPSR *e*SS **SS** **05 38 16.0 -4.9**
LPSR pmax pmax
comp=Z,50nm,1.0s
**BTMN Batman 106.85 307** *i*P **Pdif** **05 18 57.2 -2.1**
**BNGL BINGOL 106.87 308** *i*P **Pdif** **05 18 59.6 +0.1**
**VSR Storozhevoye 106.87 321** *e*P **Pdif** **05 18 58.4 -0.5**
VSR *e* 05 23 22.3
VSR *e*SP SP 05 32 32.5 -0.2
VSR *e*SS **SS** **05 38 15.0 -7.2**
VSR pmax pmax
comp=Z,70nm,1.1s
**MOS Moscow 106.96 326** *e*P **Pdif** **05 18 58.3 -0.9**
MOS pmax pmax
comp=Z,188nm,1.6s
**ECAT Cat-ERZURUM 106.96 309** *i*P **Pdif** **05 18 58.8 -1.1**
**121A Cookes Peak, D 106.98 58** P **Pdif** **05 19 01.5 +1.4**
baz=272
**LAO LASA Array 107.07 44** P **Pdif** **05 18 58.0 -2.0**
baz=277
**SMCO Snowmass 107.28 51** *e*Pdif **Pdif** **05 19 02.5 +0.9**
**K22A Casper 107.31 48** P **Pdif** **05 18 59.2 -2.1**
baz=276
**K22A Casper 107.31 48** *e*Pdif **Pdif** **05 19 01.8 +0.4**
**S22A 4UR Ranch, Cre 107.50 53** P **Pdif** **05 19 02.9 +0.4**
baz=274
**ARA0 ARCESS Array S 107.64 342** *e*Pdif **Pdif** **05 19 01.4 -0.6**
ARA0 *e*PKiKP **PKiKP** **05 23 08.5 -0.7**
**ARCES ARCESS Array B 107.64 342** Pdiff **Pdif** **05 19 01.4 -0.6**
comp=Z,68nm,0.8s,baz=64,slow=5.6,SNR=73
ARCES PKiKP **PKiKP** **05 23 08.5 -0.7**
comp=Z,2.5nm,0.8s,baz=104,slow=1.4,SNR=30
ARCES PKKPbc **PKKPbc** **05 34 22.4 -4.3**
comp=Z,2.7nm,0.4s,baz=237,slow=2.1,SNR=11
**ARE0 ARCESS Array S 107.64 342** *e*PP PP 05 23 30.4 -0.8
ARE0 *e*SKSac **SKSac** **05 29 23.1 -6.4**
ARE0 *e*SS **SS** **05 38 33.9 +2.4**
**Y22D IRIS PASSCAL I 107.64 57** P **Pdif** **05 19 04.0 +1.0**
baz=273
**Y22E IRIS PASSCAL I 107.64 57** P **Pdif** **05 19 02.3 -0.7**
baz=273
Y22E P **Pdif** **05 19 04.4 +1.4**
baz=273
**OBN Obninsk 107.68 326** Pdiff **Pdif** **05 19 02.5 +0.1**
comp=Z,20nm,0.4s,baz=108,slow=2.6,SNR=12
OBN PKiKP **PKiKP** **05 23 13.3 +3.8**
comp=Z,14nm,0.4s,baz=358,slow=3.3,SNR=3.3
**N23A Red Feather La 107.92 50** P **Pdif** **05 19 03.6 -0.6**
baz=276
**N23A Red Feather La 107.92 50** *e*Pdif **Pdif** **05 19 05.2 +1.0**
**ANMO Albuquerque 107.98 56** PKKPbc PKKPbc 05 34 27.5 +2.8
comp=Z,13nm,1.2s,baz=253,slow=3.7,SNR=3.2
**ANMO Albuquerque 107.98 56** P **Pdif** **05 19 03.8 -0.7**
baz=273
**DGMT Dagmar 108.17 41** P **Pdif** **05 19 04.1 -0.7**
baz=279
**ISCO Idaho Springs 108.28 51** P **Pdif** **05 19 05.9 +0.1**
baz=276
**POGA Pongola 108.34 238** *i*P **Pdif** **05 19 06.9 +0.8**
**SDCO Great Sand Dun 108.55 53** P **Pdif** **05 19 07.3 +0.2**
baz=275
**SDCO Great Sand Dun 108.55 53** *e*Pdif **Pdif** **05 19 07.8 +0.6**
**ELZG Elazig 108.60 308** *i*P **Pdif** **05 19 07.7 +0.6**
**KTK1 Kautokeino 108.60 342** *e* 05 23 36.4
**Q24A Divide 108.71 52** P **Pdif** **05 19 07.2 -0.7**
baz=276
**RSSD Black Hills 108.94 46** P **Pdif** **05 19 07.6 -1.0**
baz=278
**RSSD Black Hills 108.94 46** *e*P **Pdif** **05 19 09.0 +0.4**
**RSSD Black Hills 108.94 46** *e*Pdif **Pdif** **05 19 09.0 +0.4**
**FURI Furi 108.96 277** *i*P **Pdif** **05 19 11.1 +1.7**
**ANN Anapa 109.00 315** *e*P **Pdif** **05 19 07.0 -1.5**
ANN *i* SS SS 05 38 44.9 -6.4
ANN pmax pmax
comp=Z,98nm,2.1s
**MNTX Cornudas Mount 109.05 59** P **Pdif** **05 19 09.5 +0.3**
baz=273
**KMBO Kilima Mbogo 109.23 266** Pdiff **Pdif** **05 19 11.6 +1.0**

comp=Z,16nm,1.0s,baz=88,slow=4.8,SNR=23
KMBO PKiKP **PKiKP** **05 23 15.8 +1.7**
comp=Z,7.4nm,0.8s,baz=50,slow=5.6,SNR=5.0
KMBO PKKPbc **PKKPbc** **05 34 21.9 +1.8**
comp=Z,6.3nm,0.9s,baz=290,slow=2.6,SNR=7.7
**KMBO Kilima Mbogo 109.23 266** *i* P **Pdif** **05 19 09.8 -0.7**
KMBO IAmb IAmb 05 19 10.8
comp=Z,284nm,0.1s
**KMBO Kilima Mbogo 109.23 266** *e*P **Pdif** **05 19 12.0 +1.4**
**KMBO Kilima Mbogo 109.23 266** *e*Pdif **Pdif** **05 19 12.0 +1.4**
KMBO PKiKP **PKiKP** **05 23 15.8 +1.7**
**CUZAR Zara_SIVAS 109.39 310**⇑ *i*P **Pdif** **05 19 09.6 -1.0**
**AKCD Akcadag 109.45 308**⇑ *i*P **Pdif** **05 19 10.5 -0.4**
**T25A Trinidad 109.47 53** P **Pdif** **05 19 09.4 -1.7**
baz=275
**TRO Tromso 109.58 343** *e*P **Pdif** **05 19 16.8 +6.3**
TRO *e*PP **PP** **05 23 47.7 +2.4**
TRO *e*SS SS 05 38 59.3 +1.9
**CUKAN kangal_SIVAS 109.69 309**⇑ *i*P **Pdif** **05 19 11.3 -0.7**
**ELBS KAHRAMANMARAS 110.06 308**⇑ *i*P **Pdif** **05 19 12.5 -1.1**
**CUALT Altinyayla-SIV 110.24 309**⇑ *i*P **Pdif** **05 19 13.2 -1.2**
**DAG Danmarks Havn 110.35 356** *i* PKiKP **PKiKP** **05 23 14.2 +0.1**
DAG pmax pmax
comp=Z,19nm,0.9s
**DAG Danmarks Havn 110.35 356** *i* P **Pdif** **05 19 12.2 -1.6**
comp=Z,21nm,1.0s
**DAG Danmarks Havn 110.35 356** *i* P **PKiKP** **05 23 14.2 +0.1**
comp=Z,19nm,0.9s
**DAG Danmarks Havn 110.35 356** *i* P **PKKPbc** **05 34 15.5 -2.6**
comp=Z,11nm,0.9s
**GRM Grahamstown 110.35 230** *i* P **Pdif** **05 19 18.7 +3.8**
GRM IAmb IAmb 05 19 18.8
comp=Z,87nm,0.2s
**CUSAR Sarkisla-SIVAS 110.62 309**⇑ *i*P **Pdif** **05 19 15.1 -1.0**
**LTX Lajitas 110.65 62** *e*P **Pdif** **05 19 19.0 +2.6**
LTX *i* 05 23 16.6
**LTX Lajitas 110.65 62** *e*Pdif **Pdif** **05 19 19.0 +2.6**
LTX *e*PKiKP **PKiKP** **05 23 16.6 +0.4**
**TXAR Lajitas Array 110.65 62** Pdiff **Pdif** **05 19 19.0 +2.6**
comp=Z,1.5nm,0.6s,baz=283,slow=3.5,SNR=17
TXAR PKiKP **PKiKP** **05 23 16.6 +0.4**
comp=Z,16nm,0.9s,baz=259,slow=1.7,SNR=10
TXAR PKKPbc **PKKPbc** **05 34 16.7 +0.9**
comp=Z,8.6nm,0.8s,baz=97,slow=4.7,SNR=12
**KSCO Kaye Shedlock' 110.66 51** P **Pdif** **05 19 14.1 -2.2**
baz=277
**ANDN Andirin 110.76 307**⇑ *i*P **Pdif** **05 19 15.3 -1.4**
**ASF Jabal al Asfar 110.82 301** Pdiff **Pdif** **05 19 17.1 +0.1**
comp=Z,6.3nm,1.0s,baz=80,slow=4.3,SNR=11
ASF PKKPbc **PKKPbc** **05 34 16.4 +1.1**
comp=Z,8.7nm,0.9s,baz=178,slow=5.6,SNR=6.5
**FIA1 FINESS Array S 110.95 334** *e*Pdif **Pdif** **05 19 16.4 -0.4**
FIA1 *e*Pdif **Pdif** **05 19 17.3 +0.5**
**FIA0 FINESS Array S 110.95 334** *e*P **Pdif** **05 19 16.3 -0.5**
FIA0 *i* 05 23 15.9
**FIA0 FINESS Array S 110.95 334** *e*Pdif **Pdif** **05 19 16.3 -0.5**
FIA0 *e*PKiKP **PKiKP** **05 23 15.9 +0.3**
**FINES FINESS Array B 110.95 334** Pdiff **Pdif** **05 19 16.3 -0.5**
comp=Z,25nm,0.7s,baz=70,slow=6.3,SNR=35
FINES PKiKP **PKiKP** **05 23 15.9 +0.3**
comp=Z,30nm,0.7s,baz=109,slow=2.3,SNR=16
FINES PKKPbc **PKKPbc** **05 34 15.2 -0.6**
comp=Z,7.9nm,0.9s,baz=234,slow=2.4,SNR=7.1
**MSTX Muleshoe 111.09 57** P **Pdif** **05 19 17.8 -0.5**
baz=275
**USHA Ushuaia 111.24 159** Pdiff **Pdif** **05 19 18.1 -0.2**
comp=Z,46nm,1.0s,baz=313,slow=1.4,SNR=3.2
USHA PKiKP **PKiKP** **05 23 16.2 -0.1**
comp=Z,173nm,1.0s,baz=265,slow=7.8,SNR=6.9
**SIM Simferopol' 111.30 315** *e*P **Pdif** **05 19 22.1 +3.3**
SIM *i* 05 23 59.0
SIM *e*PPP PPP 05 26 26.0
SIM *i*PS **PS** **05 33 22.0 -10**
SIM *i*SS SS 05 39 26.0 +3.9
**MDND Maddock 111.31 41** P **Pdif** **05 19 18.1 -0.6**
baz=283
**COAL Corum-Alaca 111.46 310**⇑ *i*P **Pdif** **05 19 18.3 -1.5**
**AKO Adana 111.49 307**⇑ *i*P **Pdif** **05 19 19.2 -0.6**
**CTAK Corum_Osmancik 111.55 311**⇑ *i*P **Pdif** **05 19 18.0 -2.3**
**STEI Steigen 111.66 342** *e*SS SS 05 39 26.6 +1.4
**AMTX Amarillo 111.89 56** P **Pdif** **05 19 20.5 -1.3**
baz=276
**MMAI Mount Meron Ar 112.00 302** Pdiff **Pdif** **05 19 23.1 +0.8**
comp=Z,7.2nm,0.9s,baz=35,slow=3.1,SNR=9.0
MMAI PKiKP **PKiKP** **05 23 20.7 +2.1**
comp=Z,9.3nm,0.7s,baz=54,slow=2.2,SNR=5.4
MMAI PKKPbc **PKKPbc** **05 34 11.0 -0.5**
comp=Z,3.5nm,0.6s,baz=34,slow=2.1,SNR=4.1
**CDAG Cicekdag 112.03 310**⇑ *i*P **Pdif** **05 19 20.6 -1.7**
**LOF Lofoten 112.04 343** *e*SKSac **SKSac** **05 29 46.1 -1.7**
LOF *e*SS **SS** **05 39 31.4 +1.2**
**DED Mersin 112.06 307**⇑ *i*P **Pdif** **05 19 19.6 -2.8**
**B31A Greenbush Farm 112.44 41** P **Pdif** **05 19 22.6 -1.2**
baz=285,SNR=9.5
**SUSD Miller 112.47 45** P **Pdif** **05 19 20.8 -3.2**
baz=282,SNR=11
**C31A Landman Farms, 112.55 41** P **Pdif** **05 19 23.7 -0.6**
baz=284,SNR=13
**BR101 Keskin Array S 112.57 310** *e*Pdif **Pdif** **05 19 23.9 -0.8**
BR101 *e*PKiKP **PKiKP** **05 23 19.4 -0.1**
**BRTR Keskin Array B 112.57 310** Pdiff **Pdif** **05 19 23.9 -0.8**
comp=Z,5.9nm,0.8s,baz=104,slow=4.0,SNR=34
BRTR PKiKP **PKiKP** **05 23 19.4 -0.1**
comp=Z,8.4nm,0.7s,baz=136,slow=3.0,SNR=8.9
BRTR PKKPbc **PKKPbc** **05 34 09.2 -0.8**
comp=Z,9.7nm,0.8s,baz=209,slow=2.9,SNR=9.6
**A31A Linda, St. Vin 112.61 40** P **Pdif** **05 19 21.8 -2.7**
baz=285
**AKSV AKSARAY - Alti 112.64 309**⇑ *i*P **Pdif** **05 19 23.7 -1.3**
**F31A Hecla 112.66 43** P **Pdif** **05 19 22.3 -2.5**
baz=283
**EIL Elat 112.67 299** Pdiff **Pdif** **05 19 27.0 +1.8**
comp=Z,4.3nm,0.8s,baz=5.6,slow=4.1,SNR=5.8
EIL PKiKP **PKiKP** **05 23 19.4 -0.4**
comp=Z,30nm,0.8s,baz=337,slow=4.2,SNR=11
**MICGM Minsk 112.67 326**⇑ *e*P **Pdif** **05 19 25.0 +0.4**
MICGM PM 05 19 26.0
comp=Z,0.2nm,1.0s
MICGM *e*pP **pPdif** **05 19 48.0 -10**
MICGM *e*PP PP 05 23 50.0 -18
MICGM *e*PPP PPP 05 25 55.0
MICGM *e*SKS **SKSac** **05 29 44.0 -6.9**
MICGM *e*SKKS **SKSdf** **05 30 28.0 +8.8**
MICGM *e*PS PS 05 33 28.0 -16
MICGM *e*SS **SS** **05 39 34.0 -5.5**
MICGM *e*SSS SSS 05 42 50.0
MICGM *e*LQ LQ 05 57 10.0
MICGM LQM 06 01 26.0
comp=E,26nm,24.0s
MICGM LQM 06 01 50.0
comp=N,29nm,23.0s
MICGM *e*LR LR 06 03 40.0
MICGM LRM MLR 06 06 50.0
comp=Z,24nm,16.0s
**MNK Minsk 112.67 326**⇑ *e*P **Pdif** **05 19 25.0 +0.4**
MNK *e* 05 29 44.0
MNK *e*SS SS 05 39 34.0 -5.5
MNK pmax pmax
comp=Z,170nm,1.0s
**D31A Mcclaflin, Tow 112.73 42** P **Pdif** **05 19 23.3 -1.8**
baz=284
**E31A Nome 112.74 43** P **Pdif** **05 19 23.7 -1.5**
baz=284
**H31A Wolsey 112.80 45** P **Pdif** **05 19 23.2 -2.3**
baz=282,SNR=7.0
**G31A Conde 112.83 44** P **Pdif** **05 19 23.9 -1.7**
baz=283
**I31A Royce, Wessing 112.86 45** P **Pdif** **05 19 25.1 -0.7**
baz=282,SNR=15
**J31A Geddes 112.86 46** P **Pdif** **05 19 24.4 -1.4**
baz=282
**CBKS Cedar Bluff 112.92 51** P **Pdif** **05 19 26.1 -0.1**
baz=279
**MOR8 Moi Rana 112.98 341** *e*PP PP 05 24 06.9 -2.8
MOR8 *e*SS SS 05 39 42.2 -0.6
**K31A O'Neill 112.98 47** P **Pdif** **05 19 22.6 -3.8**
baz=281
**BBAL Bala 112.99 310**⇑ *i*P **Pdif** **05 19 24.9 -1.7**
**A32A Rocking H Ranc 113.06 40** P **Pdif** **05 19 24.6 -1.9**
baz=286,SNR=5.9
**ULM Lac du Bonnet 113.07 38** Pdiff **Pdif** **05 19 30.9 +4.3**
comp=Z,1.8nm,0.5s,baz=269,slow=4.3,SNR=6.2
ULM PKiKP **PKiKP** **05 23 18.4 -1.5**
comp=Z,26nm,0.5s,baz=235,slow=2.3,SNR=33
ULM PKKPbc **PKKPbc** **05 34 06.9 -1.6**
comp=Z,18nm,1.0s,baz=110,slow=2.8,SNR=5.2
**IZAR Zarasai 113.11 328** *e*P **Pdif** **05 19 27.9 +1.4**
IZAR IAmb IAmb 05 19 28.6
comp=Z,17nm,0.9s
**IZAR Zarasai 113.11 328** *e*P **PKiKP** **05 23 20.4 +0.6**
IZAR IAmb IAmb 05 24 15.3
comp=Z,206nm,1.5s
**AKASG Malin Array Be 113.11 322** Pdiff **Pdif** **05 19 25.9 -0.7**
comp=Z,4.9nm,0.9s,baz=61,slow=4.6,SNR=20
AKASG PKiKP **PKiKP** **05 23 19.5 -0.5**
comp=Z,16nm,0.6s,baz=65,slow=2.4,SNR=24
AKASG PKKPbc **PKKPbc** **05 34 05.7 -2.6**
comp=Z,16nm,0.8s,baz=264,slow=3.8,SNR=17
AKASG SKKPbc SKKPbc 05 37 40.1 -2.0
comp=Z,10nm,1.0s,baz=261,slow=3.0,SNR=5.3
**AKBB Malin Array Si 113.11 322** *e*P **Pdif** **05 19 27.5 +0.8**
**AKBB Malin Array Si 113.11 322** *e*Pdif **Pdif** **05 19 27.5 +0.8**
**NACGM Naroch 113.13 327** *e*P **Pdif** **05 19 27.0 +0.3**
NACGM *e*PKP **PKiKP** **05 23 19.0 -0.9**
NACGM *e*pPKP PP 05 23 50.0 -21
NACGM *e*PP PP 05 24 14.0 +2.9
NACGM *e*PPP PPP 05 26 18.0
NACGM *e*SKS **SKSac** **05 29 48.0 -4.7**
NACGM *e*SKKS **SKKSac** **05 30 52.0 -8.6**
NACGM *e*S **Sdif** **05 31 46.0 +4.7**
NACGM *e*PS PS 05 33 28.0 -20
NACGM *e*SS SS 05 39 22.0 -23
NACGM *e*SSS SSS 05 43 22.0
NACGM *e*LQ LQ 05 50 24.0
NACGM *e*LR LR 06 03 06.0
NACGM LRM MLR 06 10 58.0
comp=Z,29nm,20.0s
**AK11 Malin Array Si 113.15 322** *e*Pdif **Pdif** **05 19 27.2 +0.4**
**B32A Ashes, Strandq 113.17 40** P **Pdif** **05 19 25.8 -1.2**
baz=286,SNR=12
**D32A Dogwood Acres, 113.18 42** P **Pdif** **05 19 26.3 -0.8**
baz=285,SNR=6.2
**BOSA Boshof 113.22 235** Pdiff **Pdif** **05 19 30.1 +2.3**
comp=Z,2.2nm,0.5s,baz=24,slow=4.3,SNR=3.7
BOSA PKiKP **PKiKP** **05 23 21.2 +0.1**
comp=Z,26nm,0.8s,baz=108,slow=1.9,SNR=8.2
BOSA PKKPbc **PKKPbc** **05 34 07.2 -0.2**
comp=Z,15nm,0.8s,baz=270,slow=1.8,SNR=10
**ISAL Salakas 113.24 328** *e*P **Pdif** **05 19 28.4 +1.3**
ISAL IAmb IAmb 05 19 29.1
comp=Z,16nm,0.9s
**ISAL Salakas 113.24 328** *e*P **PKiKP** **05 23 20.7 +0.6**
ISAL IAmb IAmb 05 24 16.0
comp=Z,404nm,2.0s
**BTIN Bart¯–n 113.27 312**⇑ *i*P **Pdif** **05 19 25.6 -2.1**
**E32A Braaten, Kindr 113.28 42** P **Pdif** **05 19 26.4 -1.2**
baz=284
**G32A Webster 113.31 44** P **Pdif** **05 19 26.7 -1.1**
baz=283,SNR=8.2
**CMDR Camlidere-ANKA 113.32 311**⇑ *i*P **Pdif** **05 19 27.2 -0.9**
**C32A Crookston 113.32 41** P **Pdif** **05 19 27.7 0.0**
baz=285
**STOK Stokkvaagen 113.33 341** *e* pPKiKP 05 23 49.9 -4.5
**F32A Veblen 113.42 43** P **Pdif** **05 19 27.1 -1.1**
baz=284,SNR=10
**J32A Parkston 113.48 46** P **Pdif** **05 19 27.4 -1.1**
baz=282,SNR=7.5
**H32A Carlson Farm, 113.52 45** P **Pdif** **05 19 27.5 -1.2**
baz=283,SNR=19
**K32A Verdigre 113.54 47** P **Pdif** **05 19 26.9 -2.0**
baz=282
**BCAM Yenicaga 113.56 311**⇑ *i*P **Pdif** **05 19 27.7 -1.4**
**I32A Karley and Nic 113.61 45** P **Pdif** **05 19 27.7 -1.5**
baz=283,SNR=6.4
**AGMN Agassiz Nation 113.63 40** P **Pdif** **05 19 26.9 -2.2**
baz=286,SNR=5.6
**L32A Elgin 113.65 47** P **Pdif** **05 19 27.5 -1.9**
baz=282
**BGNE Belgrade 113.66 48** P **Pdif** **05 19 25.8 -3.6**
baz=281,SNR=6.7
**A33A Warroad 113.75 40** P **Pdif** **05 19 27.4 -2.2**
baz=287,SNR=14
**B33A Robert and Kas 113.81 40** P **Pdif** **05 19 29.0 -0.9**
baz=286,SNR=7.4
**ABTX Abilene, Hawle 113.83 58** P **Pdif** **05 19 29.9 -0.5**
baz=276
**C33A Trail 113.83 41** P **Pdif** **05 19 29.0 -1.0**
baz=286,SNR=9.6
**U32A Winter Ranch, 113.87 54** P **Pdif** **05 19 29.6 -0.9**
baz=278
**JCT Junction City 113.92 60** P **Pdif** **05 19 28.9 -1.9**
baz=275
**D33A AnnSam, Waubun 113.95 42** P **Pdif** **05 19 27.5 -3.0**
baz=286,SNR=7.5
**H33A Prehn Over Nor 113.97 44** P **Pdif** **05 19 28.1 -2.6**
baz=284
**F33A 5 Mile Ranch, 113.99 43** P **Pdif** **05 19 29.0 -1.8**
baz=285,SNR=9.7
**E33A Westby DABS, E 114.01 42** P **Pdif** **05 19 29.4 -1.4**
baz=285
**G33A Ortonville 114.05 44** P **Pdif** **05 19 28.5 -2.5**
baz=284,SNR=11
**I33A Coleman 114.07 45** P **Pdif** **05 19 29.7 -1.5**
baz=283,SNR=20
**J33A Davis 114.12 46** P **Pdif** **05 19 28.7 -2.7**
baz=283,SNR=11
**L33A Hoskins 114.15 47** P **Pdif** **05 19 30.5 -1.1**
baz=282
**K33A Hardington 114.25 47** P **Pdif** **05 19 29.9 -2.1**
baz=283
**ECSD EROS Data Cent 114.28 45** P **Pdif** **05 19 31.8 -0.3**
baz=283,SNR=13
**WMOK Wichita Mounta 114.28 55** P **Pdif** **05 19 32.8 +0.5**
baz=278
**N33A J Bar K, Exete 114.31 49** P **Pdif** **05 19 29.6 -2.7**
baz=282,SNR=9.1
**M33A Taylor Creek F 114.33 48** P **Pdif** **05 19 31.9 -0.5**
baz=282,SNR=8.7
**O33A Hebron 114.34 49** P **Pdif** **05 19 31.6 -0.9**
baz=281,SNR=32
**B34A Aery, Baudette 114.35 40** P **Pdif** **05 19 30.8 -1.5**
baz=287,SNR=22
**DOGA KONYA_Doganhis 114.35 308**⇑ *i*P **Pdif** **05 19 30.0 -2.7**
**D34A Park Rapids 114.39 41** P **Pdif** **05 19 31.5 -1.0**
baz=286,SNR=10
**SORM Soroca 114.40 320**⇓ *i*P PKPdf 05 23 22.8 +0.3
**SORM Soroca 114.40 320**⇑ *i*P **PKKPbc** **05 34 02.0 -1.8**
**SORM Soroca 114.40 320**⇓ PKIKP PKPdf 05 23 22.8 +0.3
**BTAS Taskesti 114.41 311**⇑ *i*P **Pdif** **05 19 31.4 -1.3**
**KIS Kishinev 114.42 318** *e*P **Pdif** **05 19 33.0 +0.4**
**KIS Kishinev 114.42 318** *e*P **Pdif** **05 19 33.0 +0.4**
KIS *i* 05 24 19.0
KIS *i* 05 33 48.0
**C34A RKJ Ranch, Bem 114.42 41** P **Pdif** **05 19 30.2 -2.5**
baz=286,SNR=14
**833A Chaparral WMA, 114.46 62** P **Pdif** **05 19 33.2 0.0**
baz=275
**E34A Wadena 114.57 42** P **Pdif** **05 19 30.4 -2.9**
baz=286,SNR=9.9
**G34A Benson 114.59 44** P **Pdif** **05 19 30.3 -3.1**
baz=285,SNR=11
**H34A Spellman Lake, 114.64 44** P **Pdif** **05 19 31.6 -2.1**
baz=284,SNR=25
**F34A Alexandria 114.70 43** P **Pdif** **05 19 33.0 -0.9**
baz=285,SNR=7.9
**I34A Hadley 114.73 45** P **Pdif** **05 19 31.4 -2.8**
baz=284,SNR=14
**BOLV Bolvadin 114.80 309**⇑ *i*P **Pdif** **05 19 33.3 -1.3**
**M34A Aspy Farms, Fr 114.80 48** P **Pdif** **05 19 33.6 -0.8**
baz=282,SNR=9.5
**J34A George 114.85 46** P **Pdif** **05 19 32.7 -1.9**
baz=284,SNR=19
**L34A Svendsen Farm, 114.85 47** P **Pdif** **05 19 33.9 -0.8**
baz=283
**K34A Le Mars 114.89 46** P **Pdif** **05 19 33.8 -1.0**
baz=283,SNR=20
**TLCR 114.91 316**⇑ *i*P PKPdf 05 23 22.9 -0.7
**TLCR 114.91 316**⇑ PKIKP PKPdf 05 23 22.9 -0.7
**SUMG Summit 114.93 2** *i* PKIKP PKPdf 05 23 24.2 +0.8
SUMG *i* 05 24 16.8
SUMG pmax pmax
comp=Z,46nm,1.0s
**SUMG Summit 114.93 2** *i* P PKPdf 05 23 24.2 +0.8
comp=Z,46nm,1.0s
SUMG *i* 05 24 16.8
**SUMG Summit 114.93 2** *i* P **PKKPbc** **05 34 00.0 -3.3**
comp=Z,17nm,0.7s
**R34A Isabella, Hill 114.93 51** P **Pdif** **05 19 33.3 -1.8**
baz=280,SNR=10
**LEOM Leova 114.94 318**⇑ *i*P **PKKPbc** **05 34 00.0 -1.9**
**B35A Bob, Littlefor 114.97 40** P **Pdif** **05 19 33.5 -1.5**
baz=288,SNR=7.5
**O34A Beatrice 114.99 49** P **Pdif** **05 19 34.4 -0.9**
baz=282,SNR=13
**N34A Lincoln 115.00 48** P **Pdif** **05 19 33.4 -1.9**
baz=282,SNR=7.9
**C35A Jirik Farms, M 115.01 41** P **Pdif** **05 19 34.2 -1.1**
baz=287
**P34A Walnut Farm, R 115.02 50** P **Pdif** **05 19 33.7 -1.8**
baz=281,SNR=16
**Q34A Chapman 115.05 51** P **Pdif** **05 19 33.1 -2.5**
baz=281,SNR=10.0
**BAGO Egridir - ISPA 115.06 308**⇑ *i*P **Pdif** **05 19 34.9 -0.8**
**E35A Pequot Lakes 115.06 42** P **Pdif** **05 19 32.9 -2.6**
baz=286,SNR=14
**SUR Sutherland 115.07 229** *i* P **Pdif** **05 19 42.3 +6.1**
**LSZ Lusaka 115.11 249** *i* P **Pdif** **05 19 34.5 -2.0**
**LSZ Lusaka 115.11 249** PKPdf **PKPdf** **05 23 28.4 +3.4**
SNR=6.4
**LSZ Lusaka 115.11 249** P **PKPdf** **05 23 28.4 +3.4**
SNR=6.4
**D35A Remer 115.14 41** P **Pdif** **05 19 34.5 -1.4**
baz=287,SNR=17
**F35A Swanville 115.14 43** P **Pdif** **05 19 34.1 -1.8**
baz=286
**S34A Willow Spring 115.15 52** P **Pdif** **05 19 35.7 -0.4**
baz=280
**T34A McClaskey Farm 115.20 53** P **Pdif** **05 19 34.8 -1.5**
baz=280
**CHRN Cochrane 115.25 151** *e*PKPdf **PKPdf** **05 23 26.2 +1.9**
**KSU1 Kansas State U 115.27 50** P **Pdif** **05 19 36.9 +0.3**
baz=281
**KSU1 Kansas State U 115.27 50** *e*PKPdf **PKPdf** **05 23 24.4 -0.1**
**H35A Sunnyside Ranc 115.28 44** P **Pdif** **05 19 36.1 -0.4**
baz=285
**J35A Milford 115.36 45** P **Pdif** **05 19 35.9 -1.0**
baz=284
**CFR Carcaliu 115.37 317**⇓ *i*P **Pdif** **05 19 37.8 +0.9**
**CFR Carcaliu 115.37 317**⇑ *i*P **PKKPbc** **05 33 57.6 -2.8**
**CFR Carcaliu 115.37 317** ⇓P **Pdif** **05 19 37.8 +0.9**
**TIRR Tirgusor 115.38 316**⇓ *i*P **PKPdf** **05 23 25.4 +0.9**
**TIRR Tirgusor 115.38 316** ⇓PKIKP **PKPdf** **05 23 25.4 +0.9**
**TIRR Tirgusor 115.38 316** *e*PKPdf **PKPdf** **05 23 25.2 +0.7**
**G35A Watkins 115.38 43** P **Pdif** **05 19 35.1 -1.8**
baz=286
**I35A Creekview Farm 115.39 45** P **Pdif** **05 19 36.1 -0.9**
baz=285
**SUW Suwalki 115.42 327** *e*Pdiff **Pdif** **05 19 37.1 +0.3**
SUW *e*PKPdf **PKPdf** **05 23 25.3 +1.0**
SUW *e*PP **PP** **05 24 29.4 +2.2**
SUW *e*SKSac **SKSac** **05 30 02.3 +0.7**
SUW *e*SKKSac SKKSac 05 31 02.4 -14
SUW *e* 05 31 59.8
SUW *e*SS **SS** **05 40 15.4 0.0**
**SUW Suwalki 115.42 327** *e*PKIKP **PKPdf** **05 23 25.3 +1.0**
SUW *e* 05 24 29.4
SUW *e* 05 30 02.3
SUW *e*SS SS 05 40 15.4 -0.1
**L35A Bielow Farm, R 115.42 47** P **Pdif** **05 19 35.2 -2.0**
baz=284
**M35A Neola 115.46 48** P **Pdif** **05 19 36.2 -1.1**
baz=283
**K35A Storm Lake 115.50 46** P **Pdif** **05 19 35.1 -2.4**
baz=284
**O35A Humboldt 115.56 49** P **Pdif** **05 19 35.2 -2.6**
baz=282
**N35A Tabor 115.63 48** P **Pdif** **05 19 37.4 -0.7**
baz=283
**P35A Duane Minner, 115.63 50** P **Pdif** **05 19 37.0 -1.2**
baz=282
**U35A Pawnee 115.68 53** P **Pdif** **05 19 38.4 0.0**
baz=280
**U35A Pawnee 115.68 53** *e*PKPdf **PKPdf** **05 23 25.3 -0.1**
**D36A Goodland 115.69 41** P **Pdif** **05 19 37.3 -1.0**
baz=288
**V35A Meyer Ranch, C 115.70 54** P **Pdif** **05 19 38.9 +0.3**
baz=280
**V35A Meyer Ranch, C 115.70 54** *e*PKPdf **PKPdf** **05 23 25.2 -0.3**
**OK020 N3440 Road, Me 115.70 54** *e*PKPdf **PKPdf** **05 23 25.2 -0.3**
**C36A Pine Crest Far 115.73 40** P **Pdif** **05 19 37.9 -0.5**
baz=288
**PSN Preselentsi 115.74 315** *e*P **PP** **05 24 30.9 +1.0**
**R35A Emporia Munici 115.74 51** P **Pdif** **05 19 37.8 -0.9**
baz=281
**WHTX Lake Whitney, 115.75 58** P **Pdif** **05 19 36.0 -2.8**
baz=277
**Q35A Mercer Eighty, 115.76 50** P **Pdif** **05 19 37.0 -1.7**
baz=282
**T35A Sooner Cattle 115.76 53** P **Pdif** **05 19 38.6 -0.2**
baz=280
**S35A Otter Creek Ra 115.77 52** P **Pdif** **05 19 37.0 -1.8**
baz=281
**W35A Tecumseh 115.77 55** P **Pdif** **05 19 38.8 -0.1**
baz=279
**W35A Tecumseh 115.77 55** *e*PKPdf **PKPdf** **05 23 25.2 -0.4**
**435B Jarrell 115.78 60** P **Pdif** **05 19 38.5 -0.5**
baz=277
**X35A Drake 115.81 55** P **Pdif** **05 19 39.5 +0.4**
baz=279
**X35A Drake 115.81 55** *e*PKPdf **PKPdf** **05 23 25.6 -0.2**
**OK021 N3530 Road, Sp 115.82 54** *e*PKPdf **PKPdf** **05 23 25.4 -0.3**
**Y35A Marietta 115.83 56** P **Pdif** **05 19 38.1 -1.0**
baz=279
**E36A McGregor 115.83 42** P **Pdif** **05 19 37.7 -1.2**
baz=287
**F36A Milaca 115.85 42** P **Pdif** **05 19 38.5 -0.5**
baz=287
**G36A St. Michael 115.87 43** P **Pdif** **05 19 37.0 -2.1**
baz=286
**H36A Jessenland, He 115.94 44** P **Pdif** **05 19 37.9 -1.5**
baz=286
**ODBI Odobesti 115.94 317**⇑ *i*P **PKPdf** **05 23 27.0 +1.4**
**J36A Seneca 1, Swea 115.98 45** P **Pdif** **05 19 38.8 -0.9**
baz=285
**TESR Tescani 115.99 318**⇓ *i*P **Pdif** **05 19 40.0 +0.4**
**TESR Tescani 115.99 318**⇓ *i*P **PKPdf** **05 23 25.8 +0.1**
**I36A Fitzsimmons Fa 116.03 45** P **Pdif** **05 19 37.9 -1.9**
baz=286
**L36A Harm Buss Farm 116.05 47** P **Pdif** **05 19 38.9 -1.1**
baz=284
**K36A Gilmore City 116.08 46** P **Pdif** **05 19 39.2 -0.9**
baz=285
**M36A Felix, Anita 116.11 47** P **Pdif** **05 19 38.3 -2.0**
baz=284
**VRI Vrincioaia 116.13 318**⇓ *i*P **Pdif** **05 19 43.1 +2.8**
**VRI Vrincioaia 116.13 318**⇑ *i*P **PKPdf** **05 23 26.2 +0.2**
**VRI Vrincioaia 116.13 318**⇑ *i*P **PKKPbc** **05 33 53.6 -4.3**
**VRI Vrincioaia 116.13 318** ⇑PKIKP **PKPdf** **05 23 26.2 +0.2**
**N36A Muff Farm, Cla 116.14 48** P **Pdif** **05 19 39.7 -0.7**
baz=283
**C37A Embarrass 116.15 40** P **Pdif** **05 19 38.3 -2.0**
baz=289
**Q36A Arnold C. Orve 116.18 50** P **Pdif** **05 19 38.4 -2.2**
baz=282
**D37A Cotton 116.18 41** P **Pdif** **05 19 39.5 -0.9**
baz=288
**PLOR Plostina 116.19 318**⇑ *i*P **Pdif** **05 19 43.5 +3.0**
**PLOR Plostina 116.19 318**⇓ *i*P **PKPdf** **05 23 26.5 +0.4**
**PLOR Plostina 116.19 318**⇑ *i*P **PKKPbc** **05 33 55.8 -1.9**
**PLOR Plostina 116.19 318** ⇓PKIKP **PKPdf** **05 23 26.5 +0.4**
**P36A Good Intent, A 116.23 49** P **Pdif** **05 19 40.3 -0.6**
baz=283
**T36A Boggs Farm, Ca 116.23 52** P **Pdif** **05 19 40.5 -0.4**
baz=281
**R36A Gordon, Harris 116.27 51** P **Pdif** **05 19 40.5 -0.5**
baz=282
**X36A Centrahoma 116.29 55** P **Pdif** **05 19 41.4 +0.2**
baz=279
**W36A Wetumka 116.29 55** P **Pdif** **05 19 40.4 -0.8**
baz=280
**W36A Wetumka 116.29 55** *e*PKPdf **PKPdf** **05 23 26.5 -0.2**
**O36A Bolckow 116.30 49** P **Pdif** **05 19 38.3 -2.9**
baz=283
**AKAS Kas 116.30 307**⇑ *i*P **Pdif** **05 19 38.8 -2.6**
**AKAS Kas 116.30 307** *e*PKPdf **PKPdf** **05 23 26.9 +0.1**
**S36A Lake Cedric, C 116.33 52** P **Pdif** **05 19 40.8 -0.5**
baz=281
**KSL Kastellorizon 116.34 307** P **PKPdf** **05 23 27.3 +0.7**
**336A Riesel 116.34 59** P **Pdif** **05 19 41.3 -0.2**
baz=278
**E37A Wrenshall 116.38 41** P **Pdif** **05 19 41.1 -0.2**
baz=288
**V36A Jenks 116.41 54** P **Pdif** **05 19 42.4 +0.6**
baz=280
**V36A Jenks 116.41 54** *e*PKPdf **PKPdf** **05 23 26.7 -0.1**
**PRD Provadia 116.41 315** *e*P **PP** **05 24 34.3 -0.4**
**Z36A Blue Ridge 116.42 57** P **Pdif** **05 19 43.2 +1.4**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | baz=279 | | | | | | | |
| Y36A | Durant | 116.45 | 56 | P | | Pdif | 05 19 41.5 | -0.4 |
| | baz=279 | | | | | | | |
| I37A | Lemond, Waseca | 116.45 | 44 | P | | Pdif | 05 19 39.3 | -2.4 |
| | baz=286 | | | | | | | |
| 136A | Ennis | 116.46 | 58 | P | | Pdif | 05 19 42.5 | +0.5 |
| | baz=278 | | | | | | | |
| DNZL | Cakiroluk | 116.47 | 308 | ⇑ | iP | Pdif | 05 19 42.8 | +0.6 |
| U36A | Oologah | 116.47 | 53 | P | | Pdif | 05 19 41.9 | -0.1 |
| | baz=281 | | | | | | | |
| F37A | Hinrichs Farm, | 116.49 | 42 | P | | Pdif | 05 19 41.3 | -0.5 |
| | baz=288 | | | | | | | |
| TUL1 | Leonard | 116.51 | 54 | P | | Pdif | 05 19 42.2 | 0.0 |
| | baz=280 | | | | | | | |
| TUL1 | Leonard | 116.51 | 54 | e | PKPdf | PKPdf | 05 23 26.7 | -0.3 |
| SPMN | Marine on St. | 116.52 | 43 | P | | Pdif | 05 19 41.6 | -0.4 |
| | baz=287 | | | | | | | |
| SPMN | Marine on St. | 116.52 | 43 | e | PKPdf | PKPdf | 05 23 25.8 | -1.0 |
| EYMN | Ely | 116.52 | 40 | P | | Pdif | 05 19 40.6 | -1.4 |
| | baz=290 | | | | | | | |
| EYMN | Ely | 116.52 | 40 | e | PKPdf | PKPdf | 05 23 25.8 | -0.9 |
| 236A | Katherine and | 116.52 | 58 | P | | Pdif | 05 19 42.8 | +0.5 |
| | baz=278 | | | | | | | |
| J37A | Redenius Farm, | 116.54 | 45 | P | | Pdif | 05 19 41.4 | -0.7 |
| | baz=286 | | | | | | | |
| LVV | L'vov | 116.54 | 323 | e | PKIKP | PKPdf | 05 23 27.9 | +1.3 |
| LVV | | | | e | | | 05 24 00.2 | |
| LVV | | | | e | | | 05 40 33.6 | |
| BURAR | Bucovina Array | 116.57 | 320 | ⇓ | iP | Pdif | 05 19 43.4 | +1.1 |
| BURAR | Bucovina Array | 116.57 | 320 | ⇓ | iP | PKPdf | 05 23 28.8 | +1.9 |
| BURAR | Bucovina Array | 116.57 | 320 | ⇓ | iP | PKKPbc | 05 33 53.5 | -3.0 |
| BURAR | Bucovina Array | 116.57 | 320 | ⇓ | PKIKP | PKPdf | 05 23 28.8 | +1.9 |
| BUR08 | Bucovina Ar. S | 116.57 | 320 | e | Pdif | Pdif | 05 19 43.5 | +1.2 |
| BUR08 | | | | e | PKPdf | PKPdf | 05 23 26.8 | -0.1 |
| BUR04 | Bucovina Ar. S | 116.57 | 320 | e | Pdif | Pdif | 05 19 43.2 | +0.9 |
| BUR04 | | | | e | PKPdf | PKiKP | 05 23 28.6 | +1.7 |
| K37A | Belmond | 116.62 | 46 | P | | Pdif | 05 19 41.6 | -0.9 |
| | baz=285 | | | | | | | |
| H37A | Dierke Farm, C | 116.63 | 44 | P | | Pdif | 05 19 42.0 | -0.5 |
| | baz=287 | | | | | | | |
| M37A | Trindle Farm, | 116.67 | 47 | P | | Pdif | 05 19 41.9 | -0.9 |
| | baz=284 | | | | | | | |
| MANT | Manisa | 116.68 | 309 | e | PKPdf | PKPdf | 05 23 28.5 | +0.9 |
| L37A | Phoenix Point, | 116.71 | 46 | P | | Pdif | 05 19 42.7 | -0.2 |
| | baz=285 | | | | | | | |
| SCO | Scoresbysund | 116.71 | 356 | i | PKIKP | PKPdf | 05 23 26.8 | +0.5 |
| SCO | | | | | pmax | pmax | | |
| | comp=Z,31nm,1.1s | | | | | | | |
| SCO | Scoresbysund | 116.71 | 356 | i | P | PKPdf | 05 23 26.8 | +0.5 |
| | comp=Z,31nm,1.1s | | | | | | | |
| N37A | Lee Faris, Mou | 116.71 | 48 | P | | Pdif | 05 19 42.7 | -0.2 |
| | baz=284 | | | | | | | |
| C38A | Sawbill Land. | 116.74 | 40 | P | | Pdif | 05 19 41.6 | -1.4 |
| | baz=290 | | | | | | | |
| MLR | Muntele Rosu | 116.77 | 317 | | Pdiff | Pdif | 05 19 44.0 | +0.8 |
| | comp=Z,0.7nm,0.7s,baz=23,slow=5.3,SNR=8.0 | | | | | | | |
| MLR | | | | | PKP | PKPdf | 05 23 27.6 | +0.2 |
| | comp=Z,9.0nm,0.6s,baz=288,slow=3.3,SNR=24 | | | | | | | |
| MLR | Muntele Rosu | 116.77 | 317 | ⇓ | iP | Pdif | 05 19 45.0 | +1.7 |
| MLR | Muntele Rosu | 116.77 | 317 | ⇑ | iP | PKPdf | 05 23 27.6 | +0.2 |
| MLR | Muntele Rosu | 116.77 | 317 | e | Pdif | Pdif | 05 19 43.2 | -0.1 |
| MLR | | | | e | PKPdf | PKPdf | 05 23 27.6 | +0.2 |
| SULR | | 116.80 | 317 | ⇑ | iP | PKPdf | 05 23 27.1 | -0.2 |
| SECR | | 116.82 | 317 | ⇓ | iP | PKPdf | 05 23 28.2 | +0.9 |
| P37A | Lathrop | 116.88 | 49 | P | | Pdif | 05 19 43.8 | +0.1 |
| | baz=283 | | | | | | | |
| O37A | Wolven Farm, M | 116.90 | 49 | P | | Pdif | 05 19 43.7 | -0.1 |
| | baz=284 | | | | | | | |
| S37A | Fort Scott | 116.91 | 51 | P | | Pdif | 05 19 44.1 | +0.2 |
| | baz=282 | | | | | | | |
| F38A | Pierce - Schro | 116.92 | 42 | P | | Pdif | 05 19 41.7 | -2.0 |
| | baz=288 | | | | | | | |
| E38A | The Farm, Brul | 116.92 | 41 | P | | Pdif | 05 19 42.5 | -1.2 |
| | baz=289 | | | | | | | |
| W37B | Quinton | 116.94 | 54 | P | | Pdif | 05 19 45.1 | +1.0 |
| | baz=280 | | | | | | | |
| W37B | Quinton | 116.94 | 54 | e | PKPdf | PKPdf | 05 23 27.4 | -0.4 |
| U37A | Salina | 116.95 | 53 | P | | Pdif | 05 19 44.4 | +0.3 |
| | baz=281 | | | | | | | |
| Q37A | Longview Farm, | 116.96 | 50 | P | | Pdif | 05 19 44.2 | +0.1 |
| | baz=283 | | | | | | | |
| T37A | Cheneyville 18 | 116.97 | 52 | P | | PKPdf | 05 23 26.6 | -1.2 |
| | baz=282,SNR=15 | | | | | | | |
| Y37A | Hugo | 116.98 | 56 | P | | PKPdf | 05 23 27.1 | -0.9 |
| | baz=280,SNR=16 | | | | | | | |
| DOPR | Dopca | 116.99 | 318 | ⇓ | iP | PKPdf | 05 23 28.6 | +0.9 |
| DOPR | Dopca | 116.99 | 318 | ⇑ | iP | PKKPbc | 05 33 52.3 | -2.5 |
| H38A | Maiden Rock | 117.03 | 43 | P | | PKPdf | 05 23 26.0 | -1.8 |
| | baz=287,SNR=12 | | | | | | | |
| V37A | Hulbert | 117.03 | 54 | P | | PKPdf | 05 23 26.7 | -1.4 |
| | baz=281,SNR=24 | | | | | | | |
| X37A | Clayton | 117.08 | 55 | P | | PKPdf | 05 23 26.9 | -1.3 |
| | baz=280,SNR=13 | | | | | | | |
| X37A | Clayton | 117.08 | 55 | e | PKPdf | PKPdf | 05 23 27.6 | -0.5 |
| 137A | Heron Place, G | 117.09 | 57 | P | | PKPdf | 05 23 27.4 | -0.8 |
| | baz=279,SNR=9.9 | | | | | | | |
| Z37A | Pogue Cattle C | 117.10 | 57 | P | | PKPdf | 05 23 27.4 | -0.8 |
| | baz=279,SNR=6.3 | | | | | | | |
| NC303 | NORSAR Array S | 117.11 | 338 | e | PKPdf | PKPdf | 05 23 27.4 | 0.0 |
| BALY | Balya | 117.11 | 311 | ⇑ | iP | Pdif | 05 19 43.2 | -1.6 |
| SGRR | Singureni | 117.12 | 316 | ⇑ | iP | PKKPbc | 05 33 52.4 | -1.8 |
| 237A | Washetta, Mont | 117.13 | 58 | P | | PKPdf | 05 23 26.6 | -1.7 |
| | baz=278,SNR=8.4 | | | | | | | |
| SCIA | State Center | 117.15 | 47 | P | | PKPdf | 05 23 26.6 | -1.4 |
| | baz=285,SNR=14 | | | | | | | |
| SCIA | State Center | 117.15 | 47 | e | PKPdf | PKPdf | 05 23 27.6 | -0.5 |
| AKHS | Akhisar | 117.17 | 310 | ⇑ | iP | Pdif | 05 19 45.8 | +0.8 |
| G38A | Ridgeland | 117.17 | 43 | P | | PKPdf | 05 23 26.2 | -1.8 |
| | baz=288,SNR=22 | | | | | | | |
| I38A | Scanlan Farm, | 117.19 | 44 | P | | PKPdf | 05 23 26.3 | -1.8 |
| | baz=287,SNR=14 | | | | | | | |
| K38A | Parkersburg | 117.27 | 46 | P | | PKPdf | 05 23 26.3 | -1.9 |
| | baz=286,SNR=8.8 | | | | | | | |
| L38A | Oak Wood Farm, | 117.27 | 46 | P | | PKPdf | 05 23 26.1 | -2.2 |
| | baz=286,SNR=17 | | | | | | | |
| ILULI | Ilulissat | 117.28 | 7 | i | PKIKP | PKPdf | 05 23 27.2 | -0.3 |
| ILULI | | | | | pmax | pmax | | |
| | comp=Z,63nm,0.6s | | | | | | | |
| ILULI | Ilulissat | 117.28 | 7 | i | P | PKPdf | 05 23 27.2 | -0.3 |
| | comp=Z,63nm,0.6s | | | | | | | |
| NB2 | NORSAR Subarra | 117.29 | 337 | | PKPdf | PKPdf | 05 23 25.9 | -1.9 |
| | comp=Z,13nm,0.6s,baz=44,slow=1.9 | | | | | | | |
| NB200 | NORSAR Array S | 117.29 | 337 | e | Pdif | Pdif | 05 19 50.3 | +5.2 |
| NB200 | | | | e | PKPdf | PKPdf | 05 23 27.3 | -0.5 |
| NOA | NORSAR Array B | 117.29 | 337 | | Pdiff | Pdif | 05 19 50.3 | +5.2 |
| | comp=Z,2.6nm,0.7s,baz=255,slow=16,SNR=4.4 | | | | | | | |
| NOA | | | | | PKP | PKPdf | 05 23 27.3 | -0.5 |
| | comp=Z,22nm,0.7s,baz=54,slow=1.7,SNR=25 | | | | | | | |
| NOA | | | | | PKKPbc | PKKPab | 05 33 57.7 | +1.9 |
| | comp=Z,6.4nm,1.0s,baz=90,slow=3.1,SNR=8.3 | | | | | | | |
| NOA | | | | | PKKP | PKKPdf | 05 34 30.6 | +9.5 |
| | comp=Z,3.6nm,0.7s,baz=239,slow=5.1,SNR=4.4 | | | | | | | |
| NOA | NORSAR Array B | 117.29 | 337 | | PKIKP | PKPdf | 05 23 27.3 | -0.5 |
| NOA | | | | | | | 05 34 30.6 | |
| NOA | | | | | pmax | pmax | | |
| | comp=Z,21nm,0.7s | | | | | | | |
| M38A | Pleasantville | 117.29 | 47 | P | | PKPdf | 05 23 26.3 | -2.1 |
| | baz=285,SNR=26 | | | | | | | |
| J38A | Wedel Dairy, R | 117.29 | 45 | P | | PKPdf | 05 23 26.4 | -1.9 |
| | baz=286,SNR=12 | | | | | | | |
| ARCR | ARCALIA | 117.30 | 320 | ⇑ | iP | PKKPbc | 05 33 53.7 | -0.1 |
| NC204 | NORSAR Array S | 117.31 | 338 | e | PKPdf | PKPdf | 05 23 28.2 | +0.3 |
| NC602 | NORSAR Array S | 117.35 | 337 | e | SS | SS | 05 40 38.3 | -1.8 |
| NC602 | NORSAR Array S | 117.35 | 337 | e | PKPdf | PKPdf | 05 23 27.1 | -0.8 |
| AYDN | Tasoluk | 117.38 | 309 | ⇑ | iP | Pdif | 05 19 47.4 | +1.3 |
| VOIR | | 117.38 | 318 | ⇓ | iP | Pdif | 05 19 48.0 | +2.1 |
| VOIR | | 117.38 | 318 | ⇑ | iP | PKPdf | 05 23 29.2 | +0.7 |
| VOIR | | 117.38 | 318 | ⇑ | iP | PKKPbc | 05 33 53.3 | -0.2 |
| VOIR | | 117.38 | 318 | ⇑ | PKIKP | PKPdf | 05 23 29.2 | +0.7 |
| HKT | Hockley | 117.39 | 60 | e | PKIKP | PKPdf | 05 23 29.8 | +1.0 |
| HKT | Hockley | 117.39 | 60 | e | PKPdf | PKPdf | 05 23 29.8 | +1.0 |
| O38A | Galt | 117.41 | 49 | P | | PKPdf | 05 23 27.0 | -1.6 |
| | baz=284,SNR=10 | | | | | | | |
| KWP | Kalwaria Pacla | 117.41 | 323 | e | Pdiff | Pdif | 05 19 46.1 | +0.2 |
| KWP | | | | e | PKPdf | PKPdf | 05 23 27.8 | -0.6 |
| KWP | | | | e | PP | PP | 05 24 43.2 | +1.8 |
| KWP | | | | e | | | 05 32 18.3 | |
| KWP | | | | e | SP | SP | 05 34 13.3 | +1.5 |
| KWP | | | | e | SS | SS | 05 40 42.3 | +0.5 |
| KWP | Kalwaria Pacla | 117.41 | 323 | e | PKIKP | PKPdf | 05 23 27.8 | -0.6 |
| KWP | | | | e | | | 05 24 43.2 | |
| KWP | | | | e | SP | SP | 05 34 13.3 | +1.4 |
| KWP | | | | e | SS | SS | 05 40 42.3 | +0.5 |
| NBO02 | NORSAR Array S | 117.42 | 338 | e | PKPdf | PKPdf | 05 23 27.7 | -0.3 |
| N38A | Joes South For | 117.42 | 48 | P | | PKPdf | 05 23 26.8 | -1.8 |
| | baz=285,SNR=12 | | | | | | | |
| SZH | Strazhica | 117.43 | 315 | e | P | PP | 05 24 38.9 | -2.8 |
| C39A | Grand Marais | 117.43 | 40 | P | | PKPdf | 05 23 26.6 | -1.8 |
| | baz=291,SNR=5.5 | | | | | | | |
| DOMB | Dombas | 117.43 | 339 | e | PKPdf | PKPdf | 05 23 28.0 | -0.1 |
| DOMB | | | | e | SS | SS | 05 40 34.0 | -7.2 |
| DOMB | | | | | IVMs_BB | IVMs_BB | 06 12 35.1 | |
| | comp=Z,6μm,16.8s | | | | | | | |
| MTUR | Matau | 117.44 | 317 | ⇑ | iP | PKPdf | 05 23 28.4 | -0.2 |
| MTUR | Matau | 117.44 | 317 | ⇑ | PKIKP | PKPdf | 05 23 28.4 | -0.2 |
| NBO00 | NORSAR Array S | 117.46 | 338 | e | PKPdf | PKPdf | 05 23 28.1 | 0.0 |
| T38A | Diamond | 117.48 | 52 | P | | PKPdf | 05 23 26.7 | -2.2 |
| | baz=282 | | | | | | | |
| ARG | Arkhangelos | 117.48 | 307 | P | | PKPdf | 05 23 30.2 | +1.3 |
| P38A | Dawn | 117.49 | 49 | P | | PKPdf | 05 23 27.6 | -1.2 |
| | baz=284,SNR=44 | | | | | | | |
| X38A | Whitesboro | 117.51 | 55 | P | | PKPdf | 05 23 28.7 | -0.2 |
| | baz=280,SNR=16 | | | | | | | |
| U38A | Gravette | 117.53 | 53 | P | | PKPdf | 05 23 27.8 | -1.2 |
| | baz=282,SNR=29 | | | | | | | |
| R38A | Fenwick Farm, | 117.53 | 51 | P | | PKPdf | 05 23 27.3 | -1.6 |
| | baz=283,SNR=11 | | | | | | | |
| NAO01 | NORSAR Array S | 117.54 | 337 | e | PKPdf | PKPdf | 05 23 29.4 | +1.1 |
| F39A | Loretta | 117.56 | 42 | P | | PKPdf | 05 23 27.5 | -1.2 |
| | baz=289,SNR=36 | | | | | | | |
| Q38A | Cooks Store, C | 117.58 | 50 | P | | PKPdf | 05 23 27.5 | -1.5 |
| | baz=283,SNR=17 | | | | | | | |
| G39A | Holcombe | 117.60 | 42 | P | | PKPdf | 05 23 27.5 | -1.4 |
| | baz=288,SNR=14 | | | | | | | |
| MOL | Molde | 117.60 | 340 | e | PP | PP | 05 24 39.8 | -2.2 |
| MOL | | | | e | | | 05 34 22.4 | |
| Z38A | Mt. Pleasant | 117.62 | 56 | P | | PKPdf | 05 23 28.5 | -0.7 |
| | baz=280,SNR=6.4 | | | | | | | |
| V38A | Canehill | 117.62 | 53 | P | | PKPdf | 05 23 28.0 | -1.2 |
| | baz=281,SNR=14 | | | | | | | |
| 138A | Matatall Enter | 117.63 | 57 | P | | PKPdf | 05 23 28.8 | -0.5 |
| | baz=279,SNR=10 | | | | | | | |
| BEL | Belsk | 117.64 | 325 | e | Pdiff | Pdif | 05 19 48.7 | +1.9 |
| BEL | | | | e | PKPdf | PKPdf | 05 23 29.6 | +1.0 |
| BEL | | | | e | PP | PP | 05 24 44.3 | +1.5 |
| BEL | | | | e | SKSac | SKSac | 05 30 09.2 | -0.7 |
| BEL | | | | e | SKKSac | SKKSac | 05 31 30.1 | -0.9 |
| BEL | | | | e | | | 05 32 19.2 | |
| BEL | | | | e | SP | SP | 05 34 14.6 | +0.9 |
| BEL | Belsk | 117.64 | 325 | e | PKIKP | PKPdf | 05 23 29.6 | +1.0 |
| BEL | | | | e | | | 05 24 44.3 | |
| BEL | | | | e | | | 05 30 09.2 | |
| BEL | | | | e | SP | SP | 05 34 14.6 | +0.9 |
| E39A | Mellen | 117.65 | 41 | P | | PKPdf | 05 23 27.6 | -1.3 |
| | baz=290,SNR=30 | | | | | | | |
| S38A | Stockton | 117.65 | 51 | P | | PKPdf | 05 23 27.5 | -1.7 |
| | baz=282,SNR=9.8 | | | | | | | |
| ARR | Arges | 117.68 | 318 | ⇑ | iP | Pdif | 05 19 50.7 | +3.5 |
| ARR | Arges | 117.68 | 318 | ⇑ | iP | PKPdf | 05 23 29.1 | 0.0 |
| ARR | Arges | 117.68 | 318 | ⇑ | iP | PKKPbc | 05 33 51.5 | -0.9 |
| W38A | Pocau | 117.68 | 54 | P | | PKPdf | 05 23 28.5 | -0.8 |
| | baz=281,SNR=18 | | | | | | | |
| H39A | Augusta | 117.71 | 43 | P | | PKPdf | 05 23 27.7 | -1.4 |
| | baz=288,SNR=42 | | | | | | | |
| HUMR | Humele | 117.71 | 317 | ⇓ | iP | PKPdf | 05 23 28.8 | -0.3 |
| HUMR | Humele | 117.71 | 317 | ⇑ | iP | PKKPbc | 05 33 51.9 | -0.3 |
| I39A | Houston | 117.80 | 44 | P | | PKPdf | 05 23 27.1 | -2.1 |
| | baz=288,SNR=24 | | | | | | | |
| J39A | Decorah | 117.83 | 45 | P | | PKPdf | 05 23 27.4 | -1.9 |
| | baz=287,SNR=27 | | | | | | | |
| PVL | Pavlikeni | 117.86 | 315 | e | P | PP | 05 24 43.9 | -0.8 |
| K39A | Delwein | 117.88 | 45 | P | | PKPdf | 05 23 26.9 | -2.6 |
| | baz=287,SNR=12 | | | | | | | |
| CJR | Cluj-Napoca | 117.92 | 319 | ⇓ | iP | PKPdf | 05 23 30.5 | +1.0 |
| CJR | Cluj-Napoca | 117.92 | 319 | ⇓ | iP | PKKPbc | 05 33 50.4 | -1.2 |
| CJR | Cluj-Napoca | 117.92 | 319 | ⇓ | PKIKP | PKPdf | 05 23 30.5 | +1.0 |
| BAYC | CANAKKALE_Bayr | 117.92 | 311 | ⇑ | iP | Pdif | 05 19 46.9 | -1.4 |
| N39A | Derby Farms, D | 117.94 | 48 | P | | PKPdf | 05 23 28.5 | -1.1 |
| | baz=285,SNR=12 | | | | | | | |
| L39A | Vinton | 117.96 | 46 | P | | PKPdf | 05 23 28.1 | -1.5 |
| | baz=286,SNR=21 | | | | | | | |
| ALN | Alexandroupoli | 117.99 | 312 | P | | PKPdf | 05 23 29.3 | -0.4 |
| M39A | Webster | 118.02 | 47 | P | | PKPdf | 05 23 28.4 | -1.3 |
| | baz=286,SNR=32 | | | | | | | |
| UZH | Uzhgorod | 118.04 | 322 | c | iP | Pdif | 05 19 50.0 | +1.3 |
| UZH | | | | e | | | 05 24 43.8 | |
| UZH | | | | e | | | 05 27 17.4 | |
| UZH | | | | e | SS | SS | 05 40 51.4 | +1.4 |
| Q39A | Willow Grove F | 118.04 | 50 | P | | PKPdf | 05 23 28.5 | -1.4 |
| | baz=284 | | | | | | | |
| E40A | Wakefield | 118.05 | 41 | P | | PKPdf | 05 23 27.7 | -2.0 |
| | baz=290,SNR=20 | | | | | | | |
| AKN | Aaknes | 118.06 | 340 | e | PP | PP | 05 24 46.3 | +1.0 |
| AKN | | | | e | SP | SP | 05 34 18.5 | +1.8 |
| AKN | | | | e | SS | SS | 05 40 48.1 | -1.1 |
| AKN | | | | | IVMs_BB | IVMs_BB | 06 02 09.7 | |
| | comp=E,7μm,22.7s | | | | | | | |
| AKN | | | | | IVMs_BB | IVMs_BB | 06 14 09.1 | |
| | comp=Z,10μm,19.4s | | | | | | | |
| DGB | ˙zmir | 118.06 | 309 | ⇑ | iP | Pdif | 05 19 47.8 | -1.2 |
| O39A | Kirksville | 118.07 | 48 | P | | PKPdf | 05 23 28.3 | -1.6 |
| | baz=285,SNR=24 | | | | | | | |
| TRPA | Tarpa | 118.08 | 321 | ⇓ | ePKPdf | PKPdf | 05 23 30.1 | +0.5 |
| F40A | Park Falls | 118.09 | 42 | P | | PKPdf | 05 23 27.7 | -2.1 |
| | baz=290,SNR=47 | | | | | | | |
| S39A | Bolivar | 118.09 | 51 | P | | PKPdf | 05 23 28.6 | -1.5 |
| | baz=283,SNR=31 | | | | | | | |
| P39B | Salisbury | 118.10 | 49 | P | | PKPdf | 05 23 28.9 | -1.1 |
| | baz=284,SNR=30 | | | | | | | |
| X39A | Fountain Ranch | 118.11 | 55 | P | | PKPdf | 05 23 29.5 | -0.7 |
| | baz=281,SNR=13 | | | | | | | |
| NATX | Nacogdoches | 118.13 | 58 | P | | PKPdf | 05 23 28.4 | -1.8 |
| | baz=279,SNR=7.0 | | | | | | | |
| NATX | Nacogdoches | 118.13 | 58 | e | PKPdf | PKPdf | 05 23 30.4 | +0.2 |
| R39A | Chumby, Stover | 118.17 | 51 | P | | PKPdf | 05 23 28.8 | -1.3 |
| | baz=284,SNR=41 | | | | | | | |
| OSL | Oslo | 118.17 | 337 | e | SS | SS | 05 40 52.0 | +1.4 |
| NISR | Nisiros | 118.19 | 308 | P | | PKPdf | 05 23 30.6 | +0.4 |
| T39A | Clever | 118.20 | 52 | P | | PKPdf | 05 23 28.8 | -1.5 |
| | baz=283,SNR=27 | | | | | | | |
| 139A | Bunkhouse Ranc | 118.21 | 57 | P | | PKPdf | 05 23 29.1 | -1.3 |
| | baz=280 | | | | | | | |
| LOT | Lotru | 118.23 | 318 | ⇑ | iP | PKPdf | 05 23 30.1 | -0.1 |
| V39A | Pettigrew | 118.23 | 53 | P | | PKPdf | 05 23 28.9 | -1.5 |
| | baz=282,SNR=25 | | | | | | | |
| Y39A | Lockesburg | 118.24 | 56 | P | | PKPdf | 05 23 29.4 | -1.0 |
| | baz=280,SNR=7.1 | | | | | | | |
| PRK | Paraskevi | 118.25 | 311 | P | | PKPdf | 05 23 30.3 | +0.1 |
| G40A | Rib Lake | 118.25 | 42 | P | | PKPdf | 05 23 28.7 | -1.4 |
| | baz=289,SNR=18 | | | | | | | |
| W39A | Magazine | 118.25 | 54 | P | | PKPdf | 05 23 29.3 | -1.1 |
| | baz=281,SNR=24 | | | | | | | |
| U39A | Green Forest | 118.25 | 53 | P | | PKPdf | 05 23 29.0 | -1.4 |
| | baz=282,SNR=33 | | | | | | | |
| Z39A | Irene McRaven, | 118.29 | 56 | P | | PKPdf | 05 23 30.0 | -0.5 |
| | baz=280 | | | | | | | |
| RDO | Rodhopi | 118.30 | 313 | P | | PKPdf | 05 23 29.9 | -0.4 |
| H40A | Chili | 118.33 | 43 | P | | PKPdf | 05 23 28.9 | -1.4 |
| | baz=289,SNR=28 | | | | | | | |
| STHS | Stebnicka Huta | 118.37 | 323 | e | PKIKP | PKPdf | 05 23 31.3 | +1.0 |
| STHS | Stebnicka Huta | 118.37 | 323 | e | | Pdif | 05 19 56.6 | +6.4 |
| STHS | Stebnicka Huta | 118.37 | 323 | e | PKP | PKPdf | 05 23 31.2 | +1.0 |
| KARP | Karpathos | 118.38 | 306 | e | PKPdf | PKPdf | 05 23 30.9 | +0.3 |
| KARP | Karpathos | 118.38 | 306 | P | | PKPdf | 05 23 30.8 | +0.1 |
| K40A | Colesburg | 118.41 | 45 | P | | PKPdf | 05 23 28.1 | -2.4 |
| | baz=287,SNR=24 | | | | | | | |
| I40A | Norwalk | 118.41 | 44 | P | | PKPdf | 05 23 28.6 | -1.8 |
| | baz=286,SNR=21 | | | | | | | |
| CRVS | Cervenica-Dubn | 118.45 | 322 | e | PKIKP | PKPdf | 05 23 30.7 | +0.3 |
| CRVS | | | | e | | | 05 24 45.3 | |
| CRVS | | | | e | SS | SS | 05 40 56.4 | +1.1 |
| CRVS | Cervenica-Dubn | 118.45 | 322 | e | PKP | PKPdf | 05 23 30.7 | +0.3 |
| CRVS | | | | e | PP | PP | 05 24 45.3 | -3.2 |
| CRVS | | | | e | | | 05 32 20.1 | |
| CRVS | | | | e | SS | SS | 05 40 56.4 | +1.1 |
| DRGR | | 118.46 | 320 | ⇑ | iP | Pdif | 05 19 51.7 | +1.0 |
| DRGR | | 118.46 | 320 | ⇓ | iP | PKKPbc | 05 33 48.3 | -1.4 |
| DRGR | | 118.46 | 320 | ⇑ | P | Pdif | 05 19 51.7 | +1.0 |
| J40A | Soldiers Grove | 118.48 | 44 | P | | PKPdf | 05 23 28.3 | -2.3 |
| | baz=288,SNR=19 | | | | | | | |
| SMTH | Samothraki Isl | 118.48 | 312 | P | | PKPdf | 05 23 29.6 | -1.1 |
| M40A | Post Highland | 118.52 | 47 | P | | PKPdf | 05 23 29.6 | -1.1 |
| | baz=286,SNR=33 | | | | | | | |
| L40A | Anamosa | 118.54 | 46 | P | | PKPdf | 05 23 29.1 | -1.6 |
| | baz=287,SNR=24 | | | | | | | |
| MIAR | Mount Ida | 118.54 | 55 | P | | PKPdf | 05 23 30.0 | -0.9 |
| | baz=281,SNR=11 | | | | | | | |
| MIAR | Mount Ida | 118.54 | 55 | e | PKIKP | PKPdf | 05 23 30.7 | -0.3 |
| MIAR | Mount Ida | 118.54 | 55 | e | PKPdf | PKPdf | 05 23 30.7 | -0.3 |
| O40A | La Belle | 118.60 | 48 | P | | PKPdf | 05 23 29.7 | -1.2 |
| | baz=285,SNR=19 | | | | | | | |
| N40A | Mertquake, Sal | 118.61 | 47 | P | | PKPdf | 05 23 29.7 | -1.2 |
| | baz=286,SNR=16 | | | | | | | |
| CHOS | Chios island | 118.62 | 310 | P | | PKPdf | 05 23 31.7 | +0.6 |
| P40A | Paris | 118.62 | 49 | P | | PKPdf | 05 23 29.7 | -1.3 |
| | baz=285,SNR=17 | | | | | | | |
| E41A | Kenton | 118.65 | 41 | P | | PKPdf | 05 23 29.3 | -1.5 |
| | baz=291,SNR=17 | | | | | | | |
| DEV | Deva | 118.65 | 319 | ⇑ | iP | PKPdf | 05 23 31.4 | +0.6 |
| DEV | Deva | 118.65 | 319 | ⇑ | iP | PKKPbc | 05 33 48.8 | -0.1 |
| DEV | Deva | 118.65 | 319 | ⇑ | PKIKP | PKPdf | 05 23 31.4 | +0.6 |
| D41A | Chassel | 118.69 | 40 | P | | PKPdf | 05 23 29.4 | -1.4 |
| | baz=292,SNR=13 | | | | | | | |
| Q40A | Laux Farm, Aux | 118.74 | 50 | P | | PKPdf | 05 23 30.2 | -1.0 |
| | baz=284,SNR=42 | | | | | | | |
| S40A | Lebanon | 118.75 | 51 | P | | PKPdf | 05 23 29.7 | -1.5 |
| | baz=284,SNR=15 | | | | | | | |
| U40A | Yellville | 118.75 | 53 | P | | PKPdf | 05 23 29.9 | -1.4 |
| | baz=283,SNR=39 | | | | | | | |
| R40A | Maddies Statio | 118.76 | 50 | P | | PKPdf | 05 23 29.7 | -1.5 |
| | baz=284,SNR=17 | | | | | | | |
| KONO | Kongsberg | 118.79 | 337 | e | PP | PP | 05 24 49.5 | -0.9 |
| KONO | | | | e | SS | SS | 05 41 01.1 | +2.4 |
| F41A | Three Lakes | 118.82 | 41 | P | | PKPdf | 05 23 30.1 | -1.1 |
| | baz=290,SNR=43 | | | | | | | |
| W40A | Ferguson Farm, | 118.83 | 54 | P | | PKPdf | 05 23 29.6 | -1.8 |
| | baz=282,SNR=14 | | | | | | | |
| W40A | Ferguson Farm, | 118.83 | 54 | e | PKPdf | PKPdf | 05 23 30.4 | -1.1 |
| H41A | Junction City | 118.83 | 43 | P | | PKPdf | 05 23 29.5 | -1.7 |
| | baz=289,SNR=9.9 | | | | | | | |
| T40A | Mansfield | 118.84 | 52 | P | | PKPdf | 05 23 29.9 | -1.6 |
| | baz=283,SNR=24 | | | | | | | |
| 240A | Hunter Patters | 118.84 | 58 | P | | PKPdf | 05 23 31.3 | -0.3 |
| | baz=280,SNR=7.2 | | | | | | | |
| I41A | Arkdale | 118.87 | 43 | P | | PKPdf | 05 23 29.4 | -1.9 |
| | baz=289,SNR=8.6 | | | | | | | |
| SRE | Strehaia | 118.87 | 317 | ⇑ | iP | PKPdf | 05 23 31.6 | +0.3 |
| SRE | Strehaia | 118.87 | 317 | ⇑ | PKIKP | PKPdf | 05 23 31.6 | +0.3 |
| Y40A | Okolona | 118.89 | 55 | P | | PKPdf | 05 23 31.0 | -0.6 |
| | baz=281,SNR=14 | | | | | | | |
| OJC | Ojcow | 118.89 | 324 | e | Pdiff | Pdif | 05 19 54.2 | +1.7 |
| OJC | | | | e | PKPdf | PKPdf | 05 23 32.1 | +0.9 |
| OJC | | | | e | PP | PP | 05 24 54.8 | +3.2 |
| OJC | | | | e | SKKSdf | sSKSac | 05 31 15.0 | 0.0 |
| OJC | | | | e | SKKSac | SKKSac | 05 31 38.7 | -0.6 |
| OJC | | | | e | | | 05 32 31.4 | |
| OJC | | | | e | SP | SP | 05 34 22.6 | -2.5 |
| OJC | | | | e | SS | SS | 05 41 01.7 | +0.8 |
| OJC | Ojcow | 118.89 | 324 | e | PKIKP | PKPdf | 05 23 32.1 | +0.9 |
| OJC | | | | e | | | 05 24 54.8 | |
| OJC | | | | e | SP | SP | 05 34 22.6 | -2.5 |
| OJC | | | | e | SS | SS | 05 41 01.7 | +0.8 |
| OJC | Ojcow | 118.89 | 324 | e | PKPdf | PKPdf | 05 23 31.3 | +0.1 |
| V40A | Witts Springs | 118.89 | 53 | P | | PKPdf | 05 23 30.3 | -1.4 |
| | baz=282,SNR=59 | | | | | | | |
| 140A | Cam and Jess, | 118.89 | 57 | P | | PKPdf | 05 23 30.4 | -1.2 |
| | baz=280 | | | | | | | |
| GKP | Gorka Klasztor | 118.91 | 328 | e | Pdiff | Pdif | 05 19 56.2 | +3.8 |
| GKP | | | | e | PKPdf | PKPdf | 05 23 31.9 | +0.8 |
| GKP | | | | e | PP | PP | 05 24 55.3 | +3.8 |
| GKP | | | | e | SKKSac | SKKSac | 05 31 38.4 | -0.9 |
| GKP | | | | e | | | 05 32 30.3 | |
| GKP | | | | e | SS | SS | 05 41 00.3 | -0.5 |
| GKP | Gorka Klasztor | 118.91 | 328 | e | PKIKP | PKPdf | 05 23 31.9 | +0.8 |
| GKP | | | | e | | | 05 24 55.3 | |
| GKP | | | | e | SS | SS | 05 41 00.3 | -0.5 |
| Z40A | Long Farm, Mag | 118.93 | 56 | P | | PKPdf | 05 23 30.7 | -1.1 |
| | baz=280 | | | | | | | |
| NIE | Niedzica | 118.94 | 323 | e | Pdiff | Pdif | 05 19 55.0 | +2.3 |
| NIE | | | | e | PKPdf | PKPdf | 05 23 32.2 | +0.9 |
| NIE | | | | e | SKKSdf | sSKSac | 05 31 17.4 | +2.1 |
| NIE | | | | e | SKKSac | SKKSac | 05 31 41.1 | +1.4 |
| NIE | | | | e | | | 05 32 32.8 | |
| NIE | | | | e | SS | SKKSdf | 05 41 12.1 | -6.8 |
| NIE | Niedzica | 118.94 | 323 | e | PKIKP | PKPdf | 05 23 32.2 | +0.9 |
| NIE | | | | e | SS | SS | 05 41 12.1 | +11 |
| G41A | Antigo | 118.95 | 42 | P | | PKPdf | 05 23 29.8 | -1.6 |
| | baz=290,SNR=17 | | | | | | | |
| JFWS | Jewell Farm | 118.97 | 45 | P | | PKPdf | 05 23 29.7 | -1.8 |
| | baz=288,SNR=28 | | | | | | | |
| JFWS | Jewell Farm | 118.97 | 45 | e | PKIKP | PKPdf | 05 23 30.3 | -1.2 |
| JFWS | Jewell Farm | 118

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| VTS | Vitosha | 119.54 | 315 | | P | PKPdf | 05 23 33.4 | +0.6 | |
| LANS | Liptovska Anna | 119.54 | 323 | | ePKIKP | PKPdf | 05 23 33.1 | +0.6 | |
| LANS | | | | | e | | 05 24 56.6 | | |
| LANS | Liptovska Anna | 119.54 | 323 | | ePKP | PKPdf | 05 23 33.1 | +0.6 | |
| LANS | | | | | ePP | PP | 05 24 56.6 | +0.5 | |
| 241A | Mo Tay, Goldon baz=280 | 119.55 | 57 | | P | PKPdf | 05 23 32.6 | -0.4 | |
| SANT | Santorini | 119.55 | 308 | | ePKPdf | PKPdf | 05 23 31.6 | -1.3 | |
| SANT | Santorini | 119.55 | 308 | | P | PKPdf | 05 23 32.8 | -0.1 | |
| THT2 | Imerovigli | 119.57 | 308 | | P | PKPdf | 05 23 32.3 | -0.6 | |
| THT1 | Athinios (Pele | 119.57 | 308 | | P | PKPdf | 05 23 31.6 | -1.3 | |
| I42A | Draeger Farm, baz=290,SNR=24 | 119.58 | 43 | | P | PKPdf | 05 23 31.0 | -1.7 | |
| THR3 | Thira Island, | 119.59 | 308 | | P | PKPdf | 05 23 31.6 | -1.3 | |
| BZS | Buzias | 119.59 | 319 | ⇓ | iP | PKPdf | 05 23 32.8 | +0.2 | |
| BZS | Buzias | 119.59 | 319 | ⇑ | iP | PKKPbc | 05 33 44.6 | -0.8 | |
| BZS | Buzias | 119.59 | 319 | ⇓ | PKIKP | PKPdf | 05 23 32.8 | +0.2 | |
| CCM | Cathedral Cave baz=285 | 119.60 | 50 | | P | PKPdf | 05 23 31.3 | -1.6 | |
| CCM | Cathedral Cave | 119.60 | 50 | | ePKIKP | PKPdf | 05 23 31.7 | -1.2 | |
| CCM | Cathedral Cave | 119.60 | 50 | | ePKPdf | PKPdf | 05 23 31.7 | -1.2 | |
| J42A | Columbus baz=289,SNR=22 | 119.62 | 44 | | P | PKPdf | 05 23 31.1 | -1.7 | |
| H42A | Shiocton baz=290,SNR=16 | 119.62 | 43 | | P | PKPdf | 05 23 30.9 | -1.9 | |
| K42A | Prairie Point, baz=289,SNR=35 | 119.64 | 45 | | P | PKPdf | 05 23 31.2 | -1.6 | |
| 541A | Lake Charles baz=279 | 119.65 | 60 | | P | PKPdf | 05 23 31.6 | -1.6 | |
| OUR | Ouranopolis | 119.66 | 312 | | P | PKPdf | 05 23 32.5 | -0.4 | |
| L42A | Oliver, Polo baz=288,SNR=40 | 119.66 | 46 | | P | PKPdf | 05 23 31.5 | -1.4 | |
| NPS | Neapolis | 119.68 | 306 | | P | PKPdf | 05 23 33.7 | +0.5 | |
| ODD1 | Odda | 119.75 | 338 | | ePKPdf | PKPdf | 05 23 32.6 | +0.1 | |
| N42A | Yates City baz=287,SNR=36 | 119.75 | 47 | | P | PKPdf | 05 23 31.8 | -1.2 | |
| M42A | Sheffield baz=288 | 119.76 | 46 | | P | PKPdf | 05 23 31.3 | -1.8 | |
| PSZ | Piszkesteto | 119.80 | 322 | ⇑ | iP | PKPdf | 05 23 33.6 | +0.5 | |
| PSZ | Piszkesteto | 119.80 | 322 | | ePKIKP | PKPdf | 05 23 33.1 | 0.0 | |
| PSZ | Piszkesteto | 119.80 | 322 | ⇑ | ePKPdf | PKPdf | 05 23 34.2 | +1.1 | |
| PSZ | Piszkesteto | 119.80 | 322 | | ePKPdf | PKPdf | 05 23 33.1 | 0.0 | |
| LAST | Lasithi | 119.81 | 306 | | P | PKPdf | 05 23 33.8 | +0.3 | |
| MDVR | Moldovita | 119.83 | 318 | ⇓ | iP | PKPdf | 05 23 33.2 | 0.0 | |
| MDVR | Moldovita | 119.83 | 318 | ⇓ | iP | PKKPbc | 05 33 43.0 | -1.6 | |
| KKB | Krupnik | 119.85 | 314 | | eP | PP | 05 25 01.7 | +3.2 | |
| P42A | Winchester baz=286,SNR=72 | 119.88 | 48 | | P | PKPdf | 05 23 32.3 | -1.1 | |
| RAC | Raciborz | 119.88 | 325 | | eP | Pdif | 05 19 56.4 | -0.4 | |
| RAC | | | | | e | | 05 24 57.3 | | |
| RAC | comp=Z,20µm,21.1s | | | | MLR | MLR | | | |
| BER | Bergen | 119.89 | 339 | | eSS | SS | 05 41 12.4 | -0.3 | |
| R42A | Luebbering baz=285,SNR=36 | 119.89 | 50 | | P | PKPdf | 05 23 32.2 | -1.2 | |
| O42A | Bath baz=287,SNR=15 | 119.90 | 48 | | P | PKPdf | 05 23 32.0 | -1.4 | |
| Q42A | Golden Eagle baz=286,SNR=19 | 119.92 | 49 | | P | PKPdf | 05 23 32.3 | -1.2 | |
| G43A | Wallace baz=291,SNR=31 | 119.92 | 42 | | P | PKPdf | 05 23 31.8 | -1.5 | |
| KARY | Karystos | 119.94 | 310 | | P | PKPdf | 05 23 33.2 | -0.3 | |
| E43A | Lone Tree Farm baz=293 | 119.95 | 40 | | P | PKPdf | 05 23 31.8 | -1.5 | |
| T42A | Van Buren baz=284,SNR=24 | 119.97 | 52 | | P | PKPdf | 05 23 32.2 | -1.5 | |
| PAIG | Paliouri | 120.00 | 312 | | P | PKPdf | 05 23 33.5 | -0.1 | |
| COP | Copenhagen | 120.00 | 332 | | iPKIKP | PKPdf | 05 23 34.4 | +1.3 | |
| COP | comp=Z,77nm,0.8s | | | | pmax | pmax | | | |
| COP | Copenhagen comp=Z,77nm,0.8s | 120.00 | 332 | | iP | PKPdf | 05 23 34.4 | +1.3 | |
| OKC | Ostrava-Krasne | 120.02 | 324 | | ePDIFF | Pdif | 05 19 59.4 | +2.0 | |
| OKC | | | | | ePKPdf | PKiKP | 05 23 33.9 | +0.5 | |
| OKC | | | | | ex | x | 05 23 40.7 | | |
| OKC | | | | | epPKP | pPKPdf | 05 24 09.5 | +1.7 | |
| OKC | | | | | ePP | PP | 05 24 56.9 | -2.3 | |
| OKC | | | | | eSDIF | | 05 32 42.9 | | |
| OKC | | | | | ePKKP | PKKPab | 05 33 41.9 | -2.1 | |
| OKC | | | | | eSP | SP | 05 34 34.2 | -1.0 | |
| OKC | | | | | eSS | SKKSdf | 05 41 18.1 | +1.4 | |
| OKC | comp=Z,15µm,20.0s | | | | AMS | AMS | 06 15 30.0 | | |
| OKC | Ostrava-Krasne | 120.02 | 324 | | eP | Pdif | 05 19 59.4 | +2.0 | |
| OKC | | | | | e | | 05 23 33.9 | | |
| OKC | | | | | e | | 05 24 09.5 | | |
| OKC | | | | | e | | 05 24 56.9 | | |
| OKC | | | | | eSP | SP | 05 34 34.2 | -1.0 | |
| OKC | | | | | eSS | SKKSdf | 05 41 18.1 | +1.4 | |
| OKC | comp=Z,15µm,20.0s | | | | MLR | MLR | | | |
| S42A | Caledonia baz=285,SNR=17 | 120.02 | 51 | | P | PKPdf | 05 23 32.4 | -1.3 | |
| U42A | Revenden baz=284,SNR=25 | 120.02 | 52 | | P | PKPdf | 05 23 32.2 | -1.5 | |
| V42A | Cord baz=283,SNR=69 | 120.03 | 53 | | P | PKPdf | 05 23 32.4 | -1.4 | |
| F43A | Flat Rock, Esc baz=292 | 120.05 | 41 | | P | PKPdf | 05 23 31.9 | -1.6 | |
| W42A | Bald Knob baz=283,SNR=9.6 | 120.05 | 54 | | P | PKPdf | 05 23 32.5 | -1.3 | |
| J43A | Natural Harves baz=290,SNR=18 | 120.09 | 44 | | P | PKPdf | 05 23 31.7 | -2.0 | |
| I43A | Langenfeld Bro baz=290,SNR=25 | 120.10 | 43 | | P | PKPdf | 05 23 31.9 | -1.8 | |
| HOMB | Homborsund | 120.12 | 336 | | ePP | PP | 05 24 58.8 | -0.7 | |
| HOMB | | | | | eSS | SS | 05 41 21.0 | +5.3 | |
| X42A | Stuttgart baz=282,SNR=15 | 120.12 | 54 | | P | PKPdf | 05 23 32.7 | -1.3 | |
| Z42A | Norrel Spur, H baz=282,SNR=15 | 120.12 | 56 | | P | PKPdf | 05 23 33.2 | -0.8 | |
| CCAR | Cane Creek | 120.14 | 55 | | ePKPdf | PKPdf | 05 23 34.2 | +0.2 | |
| Y42A | Garnett, Star baz=282,SNR=12 | 120.14 | 55 | | P | PKPdf | 05 23 33.6 | -0.4 | |
| BLS5 | Blasjo | 120.14 | 338 | | e | PKPdf | 05 23 33.9 | +0.5 | |
| H43A | Windswept, Lux baz=291,SNR=20 | 120.15 | 42 | | P | PKPdf | 05 23 32.0 | -1.7 | |
| 342A | Flagon Creek P baz=280,SNR=8.7 | 120.16 | 58 | | P | PKPdf | 05 23 34.4 | +0.2 | |
| 242A | Grayson baz=281,SNR=7.5 | 120.18 | 57 | | P | PKPdf | 05 23 33.8 | -0.4 | |
| VYHS | Vyhne | 120.20 | 323 | | ePKIKP | PKPdf | 05 23 33.7 | -0.1 | |
| VYHS | | | | | e | | 05 24 58.2 | | |
| VYHS | | | | | eSS | SS | 05 41 18.9 | +1.1 | |
| VYHS | comp=Z,10µm,24.8s | | | | MLR | MLR | | | |
| VYHS | Vyhne | 120.20 | 323 | | e | Pdif | 05 20 05.3 | +7.0 | |
| VYHS | Vyhne | 120.20 | 323 | | ePKP | PKPdf | 05 23 33.7 | -0.1 | |
| VYHS | | | | | ePP | PP | 05 24 58.2 | -2.4 | |
| VYHS | | | | | e | | 05 32 39.4 | | |
| VYHS | | | | | eSS | SS | 05 41 18.9 | +1.1 | |
| VYHS | | | | | eL | L | 06 12 13.9 | | |
| KNT | Kendrikon | 120.20 | 314 | | P | PKPdf | 05 23 32.9 | -1.1 | |
| SLM | Saint Louis | 120.22 | 50 | | ePKIKP | PKPdf | 05 23 33.8 | -0.3 | |
| SLM | Saint Louis | 120.22 | 50 | | ePKPdf | PKPdf | 05 23 33.8 | -0.3 | |
| EREA | Eretria | 120.22 | 310 | | P | PKPdf | 05 23 34.5 | +0.4 | |
| HORT | Hortiatis | 120.23 | 313 | | P | PKPdf | 05 23 33.9 | -0.2 | |
| IDI | Anoyia | 120.25 | 307 | | Pdiff | Pdif | 05 20 01.4 | +2.5 | |
| IDI | comp=Z,7.8nm,0.9s,baz=85,slow=7.4,SNR=4.1 | | | | PKP | PKPdf | 05 23 35.0 | +0.6 | |
| IDI | comp=Z,56nm,0.6s,baz=95,slow=3.8,SNR=26 | | | | PKKPbc | PKKPbc | 05 33 42.4 | -0.4 | |
| IDI | comp=Z,52nm,0.8s,baz=297,slow=3.6,SNR=14 | 120.25 | 307 | | P | PKPdf | 05 23 34.9 | +0.6 | |
| L43A | Anoyia<br>Garden Prairie baz=289,SNR=22 | 120.26 | 45 | | P | PKPdf | 05 23 32.7 | -1.4 | |
| 142A | Monroe baz=281,SNR=11 | 120.26 | 57 | | P | PKPdf | 05 23 32.6 | -1.7 | |
| LLD | Lille Linde | 120.30 | 332 | | ePKIKP | PKPdf | 05 23 35.2 | +1.5 | |
| LLD | | | | | i | | 05 25 05.7 | | |
| LLD | comp=Z,210nm,0.8s | | | | pmax | pmax | | | |
| LLD | Lille Linde comp=Z,206nm,0.8s | 120.30 | 332 | | iP | PKPdf | 05 23 35.2 | +1.5 | |
| LLD | | | | | i | | 05 25 05.7 | | |
| MHLO | Agia Marina, M | 120.31 | 308 | | P | PKPdf | 05 23 34.6 | +0.3 | |
| N43A | Stutzman Famil baz=288,SNR=22 | 120.34 | 47 | | P | PKPdf | 05 23 33.0 | -1.2 | |
| M43A | Waltham Townsh baz=288,SNR=38 | 120.34 | 46 | | P | PKPdf | 05 23 32.9 | -1.3 | |
| HDIL | Hopedale baz=288,SNR=28 | 120.37 | 47 | | P | PKPdf | 05 23 33.0 | -1.2 | |
| HDIL | Hopedale | 120.37 | 47 | | ePKPdf | PKPdf | 05 23 33.1 | -1.2 | |
| SKIA | Skiathos | 120.37 | 311 | | P | PKPdf | 05 23 33.3 | -1.1 | |
| K43A | Burlington baz=290,SNR=20 | 120.37 | 45 | | P | PKPdf | 05 23 32.7 | -1.5 | |
| PTL | Penteli | 120.37 | 310 | | P | PKPdf | 05 23 33.5 | -0.9 | |
| SIVA | Sivas | 120.37 | 306 | | P | PKPdf | 05 23 34.9 | +0.4 | |
| VAY | Valandovo | 120.39 | 314 | | P | PKPdf | 05 23 34.2 | -0.1 | |
| VAY | Valandovo | 120.39 | 314 | | ePKP | PKPdf | 05 23 29.8 | -4.5 | |
| MORC | Moravsky Berou | 120.40 | 324 | ⇓ | iP | PKPdf | 05 23 34.7 | +0.6 | |
| MORC | Moravsky Berou | 120.40 | 324 | ⇑ | iP | PKKPab | 05 33 40.7 | -1.7 | |
| MORC | Moravsky Berou | 120.40 | 324 | ⇓ | PKIKP | PKPdf | 05 23 34.7 | +0.6 | |
| MORC | Moravsky Berou | 120.40 | 324 | | ePKPdf | PKPdf | 05 23 34.7 | +0.6 | |
| O43A | Sugar Creek Fa baz=287,SNR=10 | 120.44 | 47 | | P | PKPdf | 05 23 33.3 | -1.1 | |
| ATHU | Athens Univers | 120.46 | 310 | | P | PKPdf | 05 23 33.3 | -1.3 | |
| P43A | Skaggs, Pawnee baz=287,SNR=45 | 120.47 | 48 | | P | PKPdf | 05 23 33.5 | -1.0 | |
| F44A | Big Bay de Noc baz=293 | 120.47 | 40 | | P | PKPdf | 05 23 32.7 | -1.6 | |
| VLY | Voula,Athens | 120.48 | 310 | | P | PKPdf | 05 23 33.3 | -1.3 | |
| ATH | Athens Observa | 120.51 | 310 | | P | PKPdf | 05 23 33.9 | -0.7 | |
| NEO | Neokhori | 120.51 | 311 | | P | PKPdf | 05 23 33.7 | -1.0 | |
| BUD | Budapest | 120.51 | 322 | ⇓ | ePKPdf | PKPdf | 05 23 35.1 | +0.8 | |
| XOR | Xorichti | 120.52 | 311 | | P | PKPdf | 05 23 33.3 | -1.4 | |
| E44A | Grand Marais A baz=294 | 120.54 | 40 | | P | PKPdf | 05 23 33.3 | -1.1 | |
| Q43A | New Douglas baz=286,SNR=12 | 120.54 | 49 | | P | PKPdf | 05 23 33.3 | -1.3 | |
| R43A | Red Bud baz=286,SNR=18 | 120.55 | 50 | | P | PKPdf | 05 23 33.2 | -1.5 | |
| PBMO | Poplar Bluff | 120.55 | 52 | | ePKPdf | PKPdf | 05 23 33.7 | -1.0 | |
| T43A | Greenville baz=285,SNR=16 | 120.58 | 51 | | P | PKPdf | 05 23 33.1 | -1.7 | |
| SNART | Snartemo | 120.59 | 337 | | eSS | SS | 05 41 24.2 | +2.5 | |
| KSP | Ksiaz | 120.60 | 326 | | ePdiff | Pdif | 05 20 02.2 | +2.2 | |
| KSP | | | | | ePKPdf | PKPdf | 05 23 35.3 | +0.9 | |
| KSP | | | | | ePP | PP | 05 25 07.4 | +4.2 | |
| KSP | | | | | eSKKSdf | SKKSac | 05 31 50.3 | -0.2 | |
| KSP | | | | | e | | 05 32 45.1 | | |
| KSP | | | | | eSKKSac | SKKSac | 05 32 49.6 | +59 | |
| KSP | | | | | eSP | SP | 05 34 37.4 | -2.9 | |
| KSP | | | | | eSS | SS | 05 41 30.1 | +7.5 | |
| KSP | Ksiaz | 120.60 | 326 | | ePKIKP | PKPdf | 05 23 35.3 | +0.9 | |
| KSP | | | | | e | | 05 25 07.4 | | |
| KSP | | | | | eSP | SP | 05 34 37.4 | -2.9 | |
| GRG | Griva | 120.62 | 313 | | P | PKPdf | 05 23 34.9 | +0.1 | |
| S43A | Fulton Ridge, baz=285,SNR=18 | 120.62 | 51 | | P | PKPdf | 05 23 33.3 | -1.6 | |
| BEO | Beograd | 120.64 | 318 | | ePKIKP | PKPdf | 05 23 35.2 | +0.6 | |
| BEO | Beograd | 120.64 | 318 | | ePKPdf | PKPdf | 05 23 35.2 | +0.6 | |
| HBAR | Harrisburg | 120.67 | 53 | | ePKPdf | PKPdf | 05 23 35.1 | +0.1 | |
| U43A | Rector baz=284,SNR=14 | 120.67 | 52 | | P | PKPdf | 05 23 33.6 | -1.4 | |
| 143A | Socs Landing, baz=282 | 120.68 | 56 | | P | PKPdf | 05 23 34.1 | -1.0 | |
| FYTO | Fytoko, Volos | 120.69 | 312 | | P | PKPdf | 05 23 34.5 | -0.4 | |
| KRLC | Kraliky | 120.69 | 325 | | ePKPdf | PKPdf | 05 23 35.0 | +0.3 | |
| KRLC | | | | | ePP | PP | 05 25 02.8 | -1.1 | |
| KRLC | | | | | eSDIF | | 05 32 48.1 | | |
| KRLC | comp=Z,4µm,21.9s | | | | AMS | AMS | 06 19 00.0 | | |
| KRLC | Kraliky | 120.69 | 325 | | ePKIKP | PKPdf | 05 23 35.0 | +0.3 | |
| KRLC | | | | | e | | 05 25 02.8 | | |
| KRLC | comp=Z,4µm,21.9s | | | | MLR | MLR | | | |
| V43A | Jonesboro baz=284,SNR=6.0 | 120.70 | 53 | | P | PKPdf | 05 23 34.0 | -1.0 | |
| Z43A | Armstrong Fami baz=282 | 120.71 | 56 | | P | PKPdf | 05 23 33.8 | -1.3 | |
| X43A | Marvell baz=283,SNR=9.8 | 120.73 | 54 | | P | PKPdf | 05 23 34.3 | -0.8 | |
| 443A | Delano Plantat baz=280 | 120.73 | 59 | | P | PKPdf | 05 23 32.0 | -3.3 | |
| W43A | Forest City baz=283 | 120.74 | 54 | | P | PKPdf | 05 23 32.1 | -3.1 | |
| STAV | Stavanger | 120.76 | 338 | | eSS | SS | 05 41 26.6 | +2.6 | |
| VILL | Villia | 120.76 | 310 | | P | PKPdf | 05 23 34.2 | -1.0 | |
| VAM | Vamos | 120.77 | 307 | | P | PKPdf | 05 23 35.9 | +0.7 | |
| 343A | Vidalia baz=280 | 120.77 | 58 | | P | PKPdf | 05 23 32.9 | -2.4 | |
| 243A | Waterproof baz=281 | 120.78 | 57 | | P | PKPdf | 05 23 32.1 | -3.3 | |
| 543A | St. Martinvill baz=280 | 120.78 | 60 | | P | PKPdf | 05 23 33.0 | -2.3 | |
| SRO | Srobarova | 120.81 | 322 | | ePKIKP | PKPdf | 05 23 35.3 | +0.4 | |
| SRO | | | | | e | | 05 25 07.1 | | |
| SRO | Srobarova | 120.81 | 322 | | ePKP | PKPdf | 05 23 35.3 | +0.4 | |
| SRO | | | | | ePP | PP | 05 25 07.1 | +2.4 | |
| LIT | Litokhoron | 120.82 | 312 | | P | PKPdf | 05 23 34.7 | -0.5 | |
| Y43A | Makayla and Ka baz=282,SNR=6.4 | 120.82 | 55 | | P | PKPdf | 05 23 34.4 | -1.0 | |
| DPC | Dobruska-Polom | 120.82 | 325 | | ePDIFF | Pdif | 05 20 03.2 | +2.1 | |
| DPC | | | | | ePKPdf | PKiKP | 05 23 35.2 | +0.1 | |
| DPC | | | | | epPKP | pPKPdf | 05 24 10.3 | +0.9 | |
| DPC | | | | | ePP | PP | 05 25 02.8 | -2.0 | |
| DPC | | | | | eXSKS | | 05 31 20.5 | | |
| DPC | | | | | eSDIF | | 05 32 50.0 | | |
| DPC | | | | | ePKKP | PKKPab | 05 33 40.3 | -0.3 | |
| DPC | | | | | ex | x | 05 33 47.9 | | |
| DPC | | | | | eSP | SP | 05 34 42.4 | 0.0 | |
| DPC | | | | | eSKKP | | 05 37 17.3 | | |
| DPC | | | | | eSS | SS | 05 41 22.4 | -3.2 | |
| DPC | comp=Z,18µm,20.1s | | | | AMS | AMS | 06 18 20.0 | | |
| DPC | Dobruska-Polom | 120.82 | 325 | | eP | Pdif | 05 20 03.2 | +2.1 | |
| DPC | | | | | e | | 05 23 35.2 | | |
| DPC | | | | | e | | 05 24 10.3 | | |
| DPC | | | | | e | | 05 25 02.8 | | |
| DPC | | | | | eSP | SP | 05 34 42.4 | 0.0 | |
| DPC | | | | | eSS | SS | 05 41 22.4 | -3.2 | |
| DPC | comp=Z,18µm,20.1s | | | | MLR | MLR | | | |
| L44A | Lake County Fo baz=290,SNR=20 | 120.84 | 45 | | P | PKPdf | 05 23 34.0 | -1.1 | |
| LKR | Lokris | 120.86 | 311 | | P | PKPdf | 05 23 34.2 | -1.1 | |
| UPC | Upice | 120.92 | 326 | | ePKPdf | PKPdf | 05 23 35.7 | +0.6 | |
| UPC | | | | | epPKP | pPKPdf | 05 24 12.1 | +2.5 | |
| UPC | | | | | ePP | PP | 05 25 03.3 | -2.1 | |
| UPC | | | | | ex | x | 05 25 44.9 | | |
| UPC | | | | | eXSKS | | 05 31 21.9 | | |
| UPC | | | | | eSDIF | Sdif | 05 32 48.6 | +2.0 | |
| UPC | | | | | ePKKP | PKKPab | 05 33 37.2 | -2.9 | |
| UPC | | | | | eSP | SP | 05 34 37.2 | -6.0 | |
| UPC | | | | | eSS | SS | 05 41 25.4 | -1.4 | |
| UPC | comp=Z,16µm,20.1s | | | | AMS | AMS | 06 18 20.0 | | |
| UPC | Upice | 120.92 | 326 | | ePKIKP | PKPdf | 05 23 35.7 | +0.6 | |
| UPC | | | | | e | | 05 24 12.1 | | |
| UPC | | | | | e | | 05 25 03.3 | | |
| UPC | | | | | eSP | SP | 05 34 37.2 | -6.0 | |
| UPC | | | | | eSS | SS | 05 41 25.4 | -1.4 | |
| UPC | comp=Z,16µm,20.1s | | | | MLR | MLR | | | |
| IMMV | Iera Moni Meta | 120.93 | 307 | | P | PKPdf | 05 23 37.1 | +1.6 | |
| PLCA | Paso Flores | 120.95 | 147 | | PKP | PKPdf | 05 23 35.8 | +0.2 | |
| PLCA | comp=Z,94nm,0.8s,baz=270,slow=2.0,SNR=63 | | | | PKKPbc | PKKPab | 05 33 41.3 | -0.4 | |
| PLCA | comp=Z,24nm,0.9s,baz=30,slow=3.9,SNR=17 | | | | SKKPbc | SKKPbc | 05 37 13.7 | -2.6 | |
| SKO | comp=Z,10nm,0.9s,baz=50,slow=2.4,SNR=3.2<br>Skopje | 120.98 | 315 | | P | PKPdf | 05 23 35.3 | -0.1 | |
| SKO | Skopje | 120.98 | 315 | | iPKP | PKPdf | 05 23 34.0 | -1.5 | |
| GVD | Gavdhos | 120.99 | 306 | | P | PKPdf | 05 23 35.4 | -0.3 | |
| DID | Didima | 121.00 | 309 | | P | PKPdf | 05 23 34.2 | -1.4 | |
| KTI | Kastanea | 121.00 | 313 | | P | PKPdf | 05 23 35.5 | -0.2 | |
| M44A | Midewin, Midew baz=289,SNR=31 | 121.01 | 46 | | P | PKPdf | 05 23 34.5 | -1.0 | |
| CSKK | Cs˙ˇtkako | 121.03 | 322 | ⇓ | ePKPdf | PKPdf | 05 23 35.4 | 0.0 | |
| SMOL | Smolenice | 121.03 | 323 | | ePKIKP | PKPdf | 05 23 36.5 | +1.2 | |
| SMOL | Smolenice | 121.03 | 323 | | ePKP | PKPdf | 05 23 36.5 | +1.2 | |
| Q44A | Meyer Farm, Va baz=287,SNR=21 | 121.06 | 49 | | P | PKPdf | 05 23 34.7 | -1.0 | |
| LTK | Loutraki | 121.06 | 310 | | P | PKPdf | 05 23 34.4 | -1.3 | |
| LOUT | Loutraki | 121.07 | 310 | | P | PKPdf | 05 23 34.3 | -1.4 | |
| GNAR | Gosnell | 121.08 | 52 | | ePKPdf | PKPdf | 05 23 36.1 | +0.4 | |
| O44A | Mansfield baz=288,SNR=35 | 121.09 | 47 | | P | PKPdf | 05 23 34.9 | -0.8 | |
| KRND | KRANIDI | 121.10 | 309 | | P | PKPdf | 05 23 35.9 | +0.1 | |
| PARMO | Parma | 121.11 | 52 | | ePKPdf | PKPdf | 05 23 35.2 | -0.6 | |
| E45A | Wooded Hills, baz=294 | 121.11 | 40 | | P | PKPdf | 05 23 34.2 | -1.4 | |
| T44A | Benton baz=285,SNR=25 | 121.12 | 51 | | P | PKPdf | 05 23 34.8 | -1.1 | |
| N44A | Piper City baz=289,SNR=31 | 121.13 | 47 | | P | PKPdf | 05 23 34.9 | -0.8 | |
| VRAC | Vranov | 121.16 | 324 | ⇓ | iP | PKPdf | 05 23 36.1 | +0.5 | |
| VRAC | Vranov | 121.16 | 324 | ⇑ | iP | PKKPab | 05 33 38.6 | -0.5 | |
| VRAC | Vranov | 121.16 | 324 | ⇓ | PKIKP | PKPdf | 05 23 36.1 | +0.5 | |
| F45A | CMU Biological baz=294 | 121.17 | 40 | | P | PKPdf | 05 23 34.6 | -1.0 | |
| P44A | Sand Creek, Wi baz=287,SNR=30 | 121.19 | 48 | | P | PKPdf | 05 23 35.1 | -0.8 | |
| R44A | Waltonville baz=286,SNR=10 | 121.20 | 50 | | P | PKPdf | 05 23 34.5 | -1.4 | |
| U44A | Portageville baz=285,SNR=6.6 | 121.20 | 52 | | P | PKPdf | 05 23 34.7 | -1.3 | |
| V44A | Blytheville baz=284 | 121.20 | 53 | | P | PKPdf | 05 23 34.9 | -1.1 | |
| PVMO | Portageville | 121.21 | 52 | | ePKPdf | PKPdf | 05 23 36.5 | +0.5 | |
| S44A | Carbondale baz=286,SNR=14 | 121.22 | 50 | | P | PKPdf | 05 23 34.9 | -1.1 | |
| SIUC | Southern Illin | 121.24 | 50 | | ePKPdf | PKPdf | 05 23 35.1 | -0.9 | |
| AGG | Agios Georgios | 121.26 | 311 | | ePKIKP | PKPdf | 05 23 36.0 | -0.1 | |
| AGG | Agios Georgios | 121.26 | 311 | | ePKPdf | PKPdf | 05 23 36.0 | -0.1 | |
| AGG | Agios Georgios | 121.26 | 311 | | P | PKPdf | 05 23 35.5 | -0.6 | |
| KZN | Kozani | 121.28 | 313 | | P | PKPdf | 05 23 35.9 | -0.3 | |
| DSF | Desfina | 121.29 | 311 | | P | PKPdf | 05 23 36.5 | +0.3 | |
| THAL | Thalero | 121.29 | 310 | | P | PKPdf | 05 23 35.2 | -0.9 | |
| KRUS | Krusevo | 121.31 | 314 | | ePKP | PKPdf | 05 23 35.3 | -0.9 | |
| X44A | Crenshaw baz=283 | 121.32 | 54 | | P | PKPdf | 05 23 35.0 | -1.3 | |
| THL | Klokotos Trika | 121.33 | 312 | | P | PKPdf | 05 23 36.2 | 0.0 | |
| Z44A | Pea Ridge, Bel baz=282,SNR=17 | 121.36 | 56 | | P | PKPdf | 05 23 35.6 | -0.8 | |
| 544A | White Castle baz=280 | 121.37 | 59 | | P | PKPdf | 05 23 35.6 | -0.9 | |
| ANKY | Antikythira Is | 121.37 | 308 | | P | PKPdf | 05 23 37.4 | +1.0 | |
| ZST | Bratislava | 121.37 | 323 | | ePKIKP | PKPdf | 05 23 35.4 | -0.6 | |
| ZST | | | | | e | | 05 25 07.1 | | |
| ZST | | | | | eSS | SS | 05 41 32.0 | -0.7 | |
| ZST | Bratislava | 121.37 | 323 | | ePKP | PKPdf | 05 23 35.4 | -0.6 | |
| ZST | | | | | ePP | PP | 05 25 07.1 | -1.4 | |
| ZST | | | | | eSS | SS | 05 41 32.0 | -0.7 | |
| BIA | Bitola | 121.38 | 314 | | ePKP | PKPdf | 05 23 35.9 | -0.4 | |
| Y44A | Strider, Charl baz=283,SNR=16 | 121.39 | 55 | | P | PKPdf | 05 23 35.4 | -1.0 | |
| 244A | Avery, Jackson baz=282,SNR=16 | 121.41 | 57 | | P | PKPdf | 05 23 36.0 | -0.5 | |
| FNA | Florina | 121.41 | 314 | | P | PKPdf | 05 23 35.6 | -0.8 | |
| W44A | Shelby Farms P baz=284 | 121.44 | 53 | | P | PKPdf | 05 23 35.4 | -1.1 | |
| VLI | Veliai | 121.44 | 309 | | P | PKPdf | 05 23 36.4 | -0.1 | |
| KYTH | Kithira | 121.47 | 308 | | P | PKPdf | 05 23 36.6 | 0.0 | |
| 344A | Westbrook Farm baz=281,SNR=26 | 121.49 | 58 | | P | PKPdf | 05 23 36.1 | -0.6 | |
| U44B | Burton Farm, H baz=285,SNR=14 | 121.50 | 52 | | P | PKPdf | 05 23 35.6 | -1.0 | |
| 144A | Alexander Plac baz=282,SNR=12 | 121.51 | 56 | | P | PKPdf | 05 23 36.0 | -0.7 | |
| VBMS | Vicksburg baz=282,SNR=9.2 | 121.51 | 57 | | P | PKPdf | 05 23 36.1 | -0.6 | |
| VBMS | Vicksburg | 121.51 | 57 | | ePKPdf | PKPdf | 05 23 36.6 | -0.1 | |
| GUR | Goura | 121.56 | 310 | | P | PKPdf | 05 23 35.7 | -1.1 | |
| N45A | Kentland baz=289,SNR=39 | 121.56 | 46 | | P | PKPdf | 05 23 35.8 | -0.8 | |
| GLAT | Glass | 121.57 | 52 | | ePKPdf | PKPdf | 05 23 36.6 | -0.1 | |
| M45A | Boilermakers S baz=290,SNR=7.5 | 121.57 | 46 | | P | PKPdf | 05 23 35.5 | -1.1 | |
| KALE | Kalithea | 121.58 | 311 | | P | PKPdf | 05 23 36.4 | -0.4 | |
| O45A | Potomac baz=289,SNR=30 | 121.60 | 47 | | P | PKPdf | 05 23 35.9 | -0.8 | |
| 444A | Pine Grove baz=281 | 121.61 | 59 | | P | PKPdf | 05 23 35.8 | -1.2 | |
| F46A | Macinaw City C baz=294 | 121.62 | 40 | | P | PKPdf | 05 23 35.0 | -1.5 | |
| HALT | Halls | 121.62 | 52 | | ePKPdf | PKPdf | 05 23 36.3 | -0.5 | |
| SERG | Sergoula | 121.64 | 311 | | P | PKPdf | 05 23 36.4 | -0.4 | |
| KLV | Kalavryta, Ach | 121.68 | 310 | | P | PKPdf | 05 23 36.6 | -0.4 | |
| EVR | Evrytania | 121.68 | 311 | | P | PKPdf | 05 23 37.5 | +0.5 | |
| KPRO | Kipourio | 121.69 | 313 | | P | PKPdf | 05 23 37.0 | 0.0 | |
| ANX | Ano Chora | 121.69 | 311 | | P | PKPdf | 05 23 37.4 | +0.4 | |
| VLX | Vlachokerasia | 121.69 | 309 | | P | PKPdf | 05 23 37.0 | -0.1 | |
| Q45A | Warren Harvey, baz=287,SNR=50 | 121.70 | 49 | | P | PKPdf | 05 23 36.1 | -0.8 | |
| PVCC | Panska Ves | 121.71 | 326 | | ePDIFF | Pdif | 05 20 07.2 | +2.3 | |
| PVCC | | | | | ePKPdf | PKiKP | 05 23 37.2 | +0.5 | |
| PVCC | | | | | epPKP | pPKPdf | 05 24 13.3 | +2.2 | |
| PVCC | | | | | ePP | PP | 05 25 06.2 | -4.5 | |
| PVCC | | | | | ex | x | 05 25 50.3 | | |
| PVCC | | | | | eSDIF | Sdif | 05 32 56.4 | +3.3 | |
| PVCC | | | | | eSP | SP | 05 34 49.9 | -0.2 | |
| PVCC | | | | | eSS | SS | 05 41 44.1 | +7.3 | |
| PVCC | comp=Z,16µm,24.5s | | | | AMS | AMS | 06 18 10.0 | | |
| PVCC | Panska Ves | 121.71 | 326 | | eP | Pdif | 05 20 07.2 | +2.3 | |
| PVCC | | | | | e | | 05 23 37.2 | | |
| PVCC | | | | | e | | 05 24 13.3 | | |
| PVCC | | | | | eSP | SP | 05 34 49.9 | -0.2 | |
| PVCC | | | | | eSS | SS | 05 41 44.1 | +7.3 | |
| PVCC | comp=Z,16µm,24.5s | | | | MLR | MLR | | | |
| OHR | Ohrid | 121.72 | 314 | | ePKP | PKPdf | 05 23 33.5 | -3.5 | |
| S45A | Carrier Mills baz=286,SNR=12 | 121.73 | 50 | | P | PKPdf | 05 23 35.8 | -1.2 | |
| IVA | Berane | 121.74 | 316 | ⇓ | iPKP | PKPdf | 05 23 36.5 | -0.5 | |
| EFP | Efpalio | 121.75 | 311 | | P | PKPdf | 05 23 37.6 | +0.6 | |
| NEST | Nestorio | 121.77 | 313 | | P | PKPdf | 05 23 37.5 | +0.4 | |
| PENT | Pentalofos | 121.78 | 313 | | P | PKPdf | 05 23 37.8 | +0.6 | |
| R45A | Skylar, Fairfi baz=287,SNR=34 | 121.79 | 49 | | P | PKPdf | 05 23 36.0 | -1.1 | |
| OLIL | Olney | 121.79 | 49 | | ePKPdf | PKPdf | 05 23 36.7 | -0.4 | |
| PVY | Plav | 121.80 | 316 | ⇓ | iPKP | PKPdf | 05 23 36.8 | -0.4 | |
| P45A | Graceland, Par baz=288,SNR=34 | 121.81 | 48 | | P | PKPdf

baz=283,SNR=18
**445A Amite** 121.96 58 P **PKPdf** 05 23 37.3 -0.3
baz=281
**U45A Rockin P Farm,** 121.96 52 P **PKPdf** 05 23 36.1 -1.4
baz=286,SNR=12
**V45A Humboldt** 121.96 52 P **PKPdf** 05 23 36.2 -1.3
baz=285,SNR=30
**645A Chauvin** 121.97 60 P **PKPdf** 05 23 36.2 -1.4
baz=280
**PVO Paravola** 121.98 311 P **PKPdf** 05 23 38.5 +1.1
**PRU Pruhonice** 122.00 326 *e*PDIFF **Pdif** 05 20 08.2 +2.0
PRU *e*PKPdf **PKPdf** 05 23 37.2 +0.1
PRU *ep*PKP **pPKPdf** 05 24 13.8 +2.2
PRU *e*PP **PP** 05 25 07.9 -4.8
PRU *ex* x 05 25 54.7
PRU *e*SDIF **Sdif** 05 32 59.7 +4.2
PRU *e*PKKP **PKKPab** 05 33 35.3 -0.1
PRU *ex* x 05 33 55.0
PRU *ex* x 05 34 14.5
PRU *e*SP **SP** 05 34 53.4 +0.7
PRU *e*SS **SS** 05 41 44.3 +3.8
PRU AMS AMS 06 19 00.0
comp=Z,19µm,21.5s
**PRU Pruhonice** 122.00 326 *e*P **Pdif** 05 20 08.2 +2.0
PRU *e* 05 23 37.2
PRU *e* 05 24 13.8
PRU *e*SP SP 05 34 53.4 +0.7
PRU *e*SS **SS** 05 41 44.3 +3.8
PRU MLR MLR
comp=Z,19µm,21.5s
**KOME Kolasin** 122.01 316 || *i*PKP **PKPdf** 05 23 37.3 -0.2
**SFIN Lafayette** 122.02 47 P **PKPdf** 05 23 36.7 -0.8
baz=289,SNR=20
**SFIN Lafayette** 122.02 47 *e*PKPdf **PKPdf** 05 23 36.9 -0.6
**PRA Prague** 122.02 326 *e*PKPdf **PKPdf** 05 23 37.9 +0.7
PRA *e*PP **PP** 05 25 07.2 -5.6
PRA *e*SDIF **Sdif** 05 32 59.7 +4.0
PRA *e*SP **SP** 05 34 53.2 +0.3
PRA AMS AMS 06 19 00.0
comp=Z,21µm,20.9s
**PRA Prague** 122.02 326 *e*PKIKP **PKPdf** 05 23 37.9 +0.7
PRA *e*SP SP 05 34 53.2 +0.3
PRA MLR MLR
comp=Z,21µm,20.9s
**DRO Drossia** 122.03 310 P **PKPdf** 05 23 38.5 +0.9
**245A Little AP, Sta** 122.07 57 P **PKPdf** 05 23 37.1 -0.7
baz=282,SNR=14
**ITM Ithomi** 122.09 309 P **PKPdf** 05 23 38.7 +1.0
**GLMI Grayling** 122.09 41 P **PKPdf** 05 23 36.4 -1.1
baz=294
**GLMI Grayling** 122.09 41 *e*PKPdf **PKPdf** 05 23 37.0 -0.5
**345A Thompson Farm,** 122.10 58 P **PKPdf** 05 23 37.7 -0.2
baz=282,SNR=14
**N46A Monticello** 122.10 46 P **PKPdf** 05 23 36.9 -0.8
baz=290,SNR=60
**DSL Palaion Diasel** 122.14 312 P **PKPdf** 05 23 38.1 +0.3
**CLL Collm** 122.15 328 *e*Pdif **Pdif** 05 20 08.0 +1.1
CLL *e* 05 20 39.0
CLL *es*Pdif **sPdif** 05 20 56.0 +2.5
CLL *i* PKiKP **PKiKP** 05 23 37.9 +0.4
comp=Z,103nm,1.1s
CLL *ep*PKiKP **pPKiKP** 05 24 15.0 +3.0
CLL *e* 05 24 21.0
CLL *e*PP **PP** 05 25 12.0 -1.6
comp=Z,724nm,2.0s
CLL *e*PPIp 05 25 18.0
comp=Z,4µm,20.3s
CLL *e* 05 25 27.0
CLL *es*PP 05 26 06.0
CLL *e*PPP PPP 05 27 54.0
CLL *e*PPPP 05 29 45.0
CLL *e*SKSac **SKSac** 05 30 18.0 -7.6
CLL *e*SKKSac **SKKSac** 05 31 58.0 -2.5
CLL *e*Sdif **Sdif** 05 32 57.0 +0.3
CLL *e*PKKPbc **PKKPab** 05 33 35.0 +0.3
CLL *e*PKKPdf **PKKPdf** 05 34 09.0 -2.6
CLL *es*PKKPbc 05 34 18.0
CLL *e*SP **SP** 05 34 55.0 +1.1
CLL *e*(sPS) 05 35 54.0
CLL *e*PPS PPS 05 36 36.0
CLL *es*PPS 05 37 24.0
CLL *ep*SKKPbc 05 38 06.0
CLL *e*SS **SS** 05 41 43.0 +0.7
CLL *e* 05 41 52.0
CLL *e*(sSS) 05 43 00.0
CLL *e* 05 43 42.0
CLL *e* 05 44 51.0
CLL *e*SSS SSS 05 46 12.0
CLL *es*SSS 05 49 48.0
**CLL Collm** 122.15 328 *e*PKPdf **PKPdf** 05 23 37.0 -0.3
**JAN Janina** 122.16 312 P **PKPdf** 05 23 38.6 +0.8
**AMT Artemida-Makis** 122.16 310 P **PKPdf** 05 23 37.1 -0.8
**P46A Rosedale** 122.18 48 P **PKPdf** 05 23 37.1 -0.7
baz=289,SNR=37
**RLS Riolos of Patr** 122.19 310 P **PKPdf** 05 23 38.1 +0.3
**M46A Old House Fiel** 122.20 45 P **PKPdf** 05 23 37.1 -0.7
baz=290,SNR=20
**CONA Conrad Observa** 122.23 323 *e*PKiKP **PKiKP** 05 23 37.9 0.0
comp=Z,52nm,0.7s
CONA *i* PP **PP** 05 25 13.2 -1.3
comp=Z,228nm,1.5s
**LRW Lerwick** 122.24 342 *e*P **PKPdf** 05 23 37.1 -0.2
**PDO Prodromos** 122.24 311 P **PKPdf** 05 23 37.7 -0.3
**Q46A CEJHS Indians,** 122.26 48 P **PKPdf** 05 23 36.4 -1.6
baz=288
**UPM Unac-Piva** 122.29 317 || *i*PKP **PKPdf** 05 23 37.6 -0.6
**TIR Tirane** 122.30 315 || *i*P **PKPdf** 05 23 38.4 +0.4
**TIR Tirane** 122.30 315 || *i*P **PKKPbc** 05 33 35.4 +0.3
**TIR Tirane** 122.30 315 *e*PKIKP **PKPdf** 05 23 38.1 +0.1
**TIR Tirane** 122.30 315 *e*PKPdf **PKPdf** 05 23 38.1 +0.1
**PYL PYLOS** 122.31 309 P **PKPdf** 05 23 37.4 -0.7
**BEHE Becsehely** 122.34 321 || *e*PKPdf **PKPdf** 05 23 38.5 +0.6
**PDG Podgorica** 122.34 316 || *i*P **PKPdf** 05 23 37.4 -0.6
**PDG Podgorica** 122.34 316 || *i*P **PKKPab** 05 33 33.7 -0.4
**PDG Podgorica** 122.34 316 **PKPdf** 05 23 37.0 -1.0
**TTG Podgorica** 122.34 316 || *i*PKP **PKPdf** 05 23 38.4 +0.4
**USIN University of** 122.35 50 *e*PKPdf **PKPdf** 05 23 37.6 -0.6
**NKY Niksic** 122.38 317 || *i*PKP **PKPdf** 05 23 38.1 -0.1
**R46A Gibon Southern** 122.39 49 P **PKPdf** 05 23 37.0 -1.2
baz=288
**S46A Don Dixon Farm** 122.39 50 P **PKPdf** 05 23 37.1 -1.2
baz=287,SNR=7.7
**NKME Niksic** 122.42 316 || *i*PKP **PKPdf** 05 23 37.9 -0.3
**T46A Princeton** 122.44 51 P **PKPdf** 05 23 37.7 -0.7
baz=286,SNR=37
**DRME Dracevica, Mon** 122.48 316 || *i*PKP **PKPdf** 05 23 38.7 +0.4
**PAYG Puerto Ayora** 122.48 96 *e*PKPdf **PKPdf** 05 23 40.6 +1.5
**Y46A Houston** 122.50 55 P **PKPdf** 05 23 37.2 -1.4
baz=284,SNR=12
**ULC Ulcinj** 122.52 315 || *i*PKP **PKPdf** 05 23 38.5 +0.1
**CEME Cevo** 122.53 316 || *i*PKP **PKPdf** 05 23 38.4 -0.1
**346A Big Creek Wild** 122.56 58 P **PKPdf** 05 23 38.4 -0.4
baz=282,SNR=8.1
**X46A Booneville** 122.56 54 P **PKPdf** 05 23 37.2 -1.5
baz=284,SNR=16
**LKD2 Lefkada island** 122.57 312 P **PKPdf** 05 23 38.5 -0.1
**Z46A Louisville** 122.60 55 P **PKPdf** 05 23 38.2 -0.6
baz=283,SNR=15
**SGD Sagiada** 122.62 313 P **PKPdf** 05 23 39.0 +0.4
**146A Union** 122.63 56 P **PKPdf** 05 23 38.2 -0.6
baz=283,SNR=32
**BUM Brajici-Budva** 122.64 316 || *i*PKP **PKPdf** 05 23 38.4 -0.3
**BRY Bratogost** 122.65 317 *e*PKP **PKPdf** 05 23 38.1 -0.7
**KFL Anninata** 122.68 311 P **PKPdf** 05 23 38.8 0.0
**246A Jackson Lee, B** 122.71 57 P **PKPdf** 05 23 38.2 -0.8
baz=283
**O47A Sheridan** 122.73 47 P **PKPdf** 05 23 37.9 -0.9
baz=290,SNR=54
**WVT Waverly** 122.74 52 P **PKPdf** 05 23 37.1 -1.9
baz=286
**WVT Waverly** 122.74 52 *e*PKIKP **PKPdf** 05 23 37.8 -1.2
**WVT Waverly** 122.74 52 *e*PKPdf **PKPdf** 05 23 37.8 -1.2
**ARSA Arzberg** 122.75 323 *i* PKPdf **PKPdf** 05 23 38.1 -0.6
comp=Z,31nm,0.8s
ARSA *i* PP **PP** 05 25 13.5 -4.4
comp=Z,104nm,1.7s
**446A Poplarville** 122.77 58 P **PKPdf** 05 23 38.9 -0.2
baz=282,SNR=6.0
**VLS Valsamata** 122.81 311 P **PKPdf** 05 23 39.1 0.0
**BLY Banja Luka** 122.82 319 *e*PKPdf **PKPdf** 05 23 39.2 +0.3
**BLO Bloomington** 122.83 48 *e*PKIKP **PKPdf** 05 23 38.2 -0.9
**BLO Bloomington** 122.83 48 *e*PKPdf **PKPdf** 05 23 38.2 -0.9
**HCY Herceg Novi** 122.86 316 || *i*PKP **PKPdf** 05 23 38.2 -0.8

**PLAL Pickwick Lake** 122.86 53 *e*PKPdf **PKPdf** 05 23 37.9 -1.4
**KEK Kerkira** 122.91 313 P **PKPdf** 05 23 39.7 +0.5
**P47A Martinsville** 122.91 47 P **PKPdf** 05 23 38.3 -0.9
baz=289,SNR=37
**Q47A Bedord North L** 122.97 48 P **PKPdf** 05 23 38.5 -0.8
baz=289,SNR=16
**KHC Kasperske Hory** 122.97 325 *e*PDIFF **Pdif** 05 20 12.7 +2.0
KHC *ep*P **pPdif** 05 20 49.7 +5.9
KHC *e*PKPdf **PKPdf** 05 23 39.2 +0.1
KHC *ep*PKP **pPKPdf** 05 24 15.8 +2.2
KHC *e*PP **PP** 05 25 14.1 -5.2
KHC *e*XSKS 05 31 27.7
KHC *e*SDIF 05 33 07.9
KHC *e*PKKP **PKKPab** 05 33 31.8 +0.5
KHC *e*XS 05 34 00.2
KHC *e*SP **SP** 05 35 04.1 +2.7
KHC *e*SKKP 05 37 09.1
KHC AMS AMS 06 19 30.0
comp=Z,19µm,19.8s
**KHC Kasperske Hory** 122.97 325 *e*PKIKP **PKPdf** 05 23 39.3 +0.1
**KHC Kasperske Hory** 122.97 325 *e*PKPdf **PKPdf** 05 23 39.2 +0.1
**NKC Novy Kostel** 123.02 327 *e*PDIFF **Pdif** 05 20 14.1 +3.3
NKC *e*PKPdf **PKiKP** 05 23 39.5 +0.1
NKC *ep*PKP **pPKPdf** 05 24 15.8 +2.2
NKC *e*PP **PP** 05 25 13.8 -5.8
NKC *ex* x 05 25 56.6
NKC *e*XSKS 05 31 30.2
NKC *e*SDIF 05 33 07.0
NKC *e*PKKP **PKKPab** 05 33 30.7 -0.3
NKC *ex* x 05 34 06.7
NKC *e*SKKP 05 37 09.7
NKC *e*SS **SS** 05 41 55.0 +1.5
NKC AMS AMS 06 13 10.0
comp=Z,22µm,20.9s
**NKC Novy Kostel** 123.02 327 *e*P **Pdif** 05 20 14.1 +3.3
NKC *e* 05 23 39.5
NKC *e* 05 24 15.8
NKC *e*SS SS 05 41 55.0 +1.5
NKC MLR MLR
comp=Z,22µm,20.9s
**GEC2 GERESS Array S** 123.05 325 *e*PKIKP **PKPdf** 05 23 39.3 0.0
**GEC2 GERESS Array S** 123.05 325 *e*PKPdf **PKPdf** 05 23 39.3 0.0
**GERES GERESS Array B** 123.05 325 Pdiff **Pdif** 05 20 11.8 +0.7
comp=Z,0.6nm,0.7s,baz=46,slow=3.9,SNR=6.9
GERES PKP **PKPdf** 05 23 38.9 -0.4
comp=Z,53nm,0.7s,baz=70,slow=1.5,SNR=67
GERES *e*PKP **pPKPdf** 05 24 15.6 +1.8
comp=Z,28nm,0.8s,baz=90,slow=1.3,SNR=2.9
GERES PP **PP** 05 25 23.8 +3.9
comp=Z,23nm,0.9s,baz=64,slow=6.1,SNR=6.4
GERES PKKPbc **PKKPbc** 05 33 34.1 +1.5
comp=Z,7.4nm,0.7s,baz=212,slow=3.1,SNR=10
GERES PKKP **PKKPdf** 05 34 08.8 -1.2
comp=Z,7.0nm,0.7s,baz=199,slow=1.9,SNR=5.8
GERES SKKPbc SKKPbc 05 37 11.2 +0.2
comp=Z,2.9nm,0.8s,baz=260,slow=0.8,SNR=4.0
**GEA0 GERESS Array S** 123.05 325 *e*Pdif **Pdif** 05 20 11.4 +0.3
GEA0 *e*PKPdf **PKPdf** 05 23 38.9 -0.5
**T47A Sharon Grove** 123.06 51 P **PKPdf** 05 23 38.6 -1.0
baz=287,SNR=53
**U47A Clarksville** 123.08 51 P **PKPdf** 05 23 38.4 -1.2
baz=287,SNR=28
**R47A Wooly Knot Far** 123.10 49 P **PKPdf** 05 23 38.2 -1.4
baz=288,SNR=56
**247A Quitman** 123.13 57 P **PKPdf** 05 23 38.4 -1.5
baz=283,SNR=18
**X47A Russelville** 123.15 54 P **PKPdf** 05 23 37.8 -2.0
baz=285,SNR=16
**MOA Molln** 123.22 324 *i* PKiKP **PKPdf** 05 23 39.4 -0.2
comp=Z,42nm,0.9s
MOA *i* PP **PP** 05 25 19.9 -1.0
comp=Z,287nm,2.0s
**STON Ston** 123.23 317 P **PKPdf** 05 23 39.1 -0.6
**147A Livingston** 123.27 56 P **PKPdf** 05 23 38.5 -1.5
baz=284,SNR=7.7
**PERS Pernice** 123.28 322 *i* PKPdf **PKPdf** 05 23 39.2 -0.6
PERS *i* pPKPdf **pPKPdf** 05 24 16.1 +1.8
PERS *e*SKSac **SKSac** 05 30 32.8 +3.1
PERS *e*Sdif **Sdif** 05 33 06.2 -0.3
PERS *es*Sdiff **sSdif** 05 34 08.2 +4.0
**WCI Wyandotte Cave** 123.30 49 P **PKPdf** 05 23 38.7 -1.3
baz=288
**WCI Wyandotte Cave** 123.30 49 *e*PKIKP **PKPdf** 05 23 39.1 -0.9
**WCI Wyandotte Cave** 123.30 49 *e*PKPdf **PKPdf** 05 23 39.1 -0.9
**Z47A Carrollton** 123.31 55 P **PKPdf** 05 23 38.4 -1.7
baz=284
**Y47A UCPARC, Winfie** 123.31 54 P **PKPdf** 05 23 38.6 -1.5
baz=285,SNR=12
**SOKA Soboth** 123.31 322 *i* PKiKP **PKPdf** 05 23 39.8 -0.1
comp=Z,61nm,0.8s
SOKA *i* PP **PP** 05 25 19.7 -2.1
comp=Z,163nm,1.3s
**347A Saraland** 123.33 57 P **PKPdf** 05 23 38.9 -1.4
baz=282,SNR=23
**447A Lucedale** 123.36 58 P **PKPdf** 05 23 39.6 -0.7
baz=282
**TSUM Tsumeb** 123.37 241 *i* P **Pdif** 05 20 13.2 0.0
**TSUM Tsumeb** 123.37 241 *e*PKPdf **PKPdf** 05 23 41.5 +0.6
**R48A Northridge Ran** 123.56 49 P **PKPdf** 05 23 39.2 -1.2
baz=289,SNR=20
**T48A Bowling Green** 123.57 50 P **PKPdf** 05 23 39.1 -1.5
baz=288,SNR=41
**U48A Cassie Pea, Po** 123.63 51 P **PKPdf** 05 23 39.1 -1.6
baz=287,SNR=32
**V48A Smith Brothers** 123.64 52 P **PKPdf** 05 23 38.3 -2.4
baz=286,SNR=29
**S48A Wiedeman Farm,** 123.65 49 P **PKPdf** 05 23 39.5 -1.2
baz=288,SNR=38
**Z48A Northport** 123.68 55 P **PKPdf** 05 23 39.2 -1.6
baz=284,SNR=12
**OBKA Obir** 123.69 322 *i* PKiKP **PKPdf** 05 23 40.5 -0.2
comp=Z,24nm,0.7s
OBKA *i* PP **PP** 05 25 20.4 -3.9
comp=Z,85nm,1.2s
**BOJS Bojanci** 123.72 321 *i* PKPdf **PKPdf** 05 23 40.8 +0.2
BOJS *ep*PKPdf **pPKPdf** 05 24 16.0 +0.9
BOJS *e*PP **PP** 05 25 20.4 -4.1
BOJS *e*SKSac **SKSac** 05 30 28.5 -2.5
BOJS *e*Sdiff **Sdif** 05 33 08.8 -1.3
BOJS *es*Sdiff **sSdif** 05 34 13.9 +6.1
**AAM Ann Arbor** 123.74 43 P **PKPdf** 05 23 39.5 -1.2
baz=293
**AAM Ann Arbor** 123.74 43 *e*PKIKP **PKPdf** 05 23 40.1 -0.6
**AAM Ann Arbor** 123.74 43 *e*PKPdf **PKPdf** 05 23 40.1 -0.6
**UDBI Uldbina** 123.83 320 P **PKPdf** 05 23 40.6 -0.3
**248A Dixon Mills** 123.84 56 P **PKPdf** 05 23 40.4 -0.8
baz=284,SNR=22
**VISS Visnje** 123.84 321 *i* PKPdf **PKPdf** 05 23 40.8 0.0
VISS *i* pPKPdf **pPKPdf** 05 24 16.5 +1.1
VISS *e*Sdiff 05 33 09.5
VISS *es*Sdiff **sSdif** 05 34 13.9 +5.1
**348A Jackson** 123.86 57 P **PKPdf** 05 23 40.7 -0.5
baz=283,SNR=8.7
**LJU Ljubljana** 123.92 322 *e*PKPdf **PKPdf** 05 23 41.5 +0.5
**GRFO Grafenberg** 123.98 327 *e*PKIKP **PKPdf** 05 23 41.3 +0.3
**GRFO Grafenberg** 123.98 327 *e*PKPdf **PKPdf** 05 23 41.2 +0.3
**448A Bay Minette** 124.00 58 P **PKPdf** 05 23 40.0 -1.5
baz=283
**GO05 HualaaeØ** 124.09 142 *e*PKPdf **PKPdf** 05 23 41.6 -0.1
**KBA Koelnbreinsper** 124.14 323 *i* PKiKP **PKPdf** 05 23 41.4 -0.2
comp=Z,48nm,0.7s
KBA *i* PP **PP** 05 25 26.0 -1.4
comp=Z,208nm,1.2s
**MYKA Terra Mystica** 124.18 323 *i* PKPdf **PKPdf** 05 23 40.5 -1.1
comp=Z,35nm,0.7s
MYKA *i* PP **PP** 05 25 30.4 +2.8
comp=Z,126nm,1.6s
**LRAL Lakeview Retre** 124.22 55 P **PKPdf** 05 23 40.7 -1.2
baz=285,SNR=24
**LRAL Lakeview Retre** 124.22 55 *e*PKPdf **PKPdf** 05 23 40.7 -1.2
**JAVS Javornik** 124.28 322 *i* PKPdf **PKPdf** 05 23 41.9 +0.1
JAVS *i* pPKPdf **pPKPdf** 05 24 17.9 +1.7
JAVS *e*Sdiff 05 33 12.1
JAVS *es*Sdiff **sSdif** 05 34 17.8 +5.1
**X49A Woodville** 124.37 53 P **PKPdf** 05 23 40.0 -2.2
baz=286,SNR=18
**NVLJ Novalja** 124.38 320 P **PKPdf** 05 23 41.5 -0.4
**SWET Sewanee** 124.48 52 *e*PKPdf **PKPdf** 05 23 41.0 -1.4
**TRI Trieste** 124.55 322 *e*PKIKP **PKPdf** 05 23 40.9 -1.3
**TRI Trieste** 124.55 322 *e*PKPdf **PKPdf** 05 23 40.9 -1.3
**BRAL Brewton** 124.62 57 P **PKPdf** 05 23 42.3 -0.5
baz=283,SNR=15
**BRAL Brewton** 124.62 57 *e*PKPdf **PKPdf** 05 23 43.0 +0.2
**ABTA Abfaltersbach** 124.80 323 *i* PKiKP **PKPdf** 05 23 42.4 -0.4

comp=Z,131nm,1.2s
ABTA *i* Sdiff 05 33 18.2
comp=Z,36nm,1.2s
**RSC Scourie** 124.90 342 *e*P **PKPdf** 05 23 42.8 +0.4
**WTSB Winterswijk** 124.91 331 *e*PKPdf **PKPdf** 05 23 43.5 +0.9
WTSB *e*PP **PP** 05 25 29.8 -2.2
**ACSO Alum Creek Sta** 125.01 46 P **PKPdf** 05 23 42.1 -1.1
baz=292
**ACSO Alum Creek Sta** 125.01 46 *e*PKPdf **PKPdf** 05 23 42.2 -1.0
**WATA Walderalm** 125.05 324 *i* PKiKP **PKiKP** 05 23 43.6 0.0
comp=Z,99nm,0.7s
WATA *i* PP **PP** 05 25 32.6 -0.8
comp=Z,240nm,1.5s
WATA *i* Sdiff 05 33 23.2
comp=Z,35nm,1.3s
**WTTA Wattenberg** 125.05 324 *i* PKiKP **PKPdf** 05 23 43.2 -0.1
comp=Z,126nm,0.7s
WTTA *i* PP **PP** 05 25 31.1 -2.4
comp=Z,322nm,1.6s
WTTA *i* Sdiff 05 33 19.4
comp=Z,27nm,1.4s
**MOTA Moosalm** 125.31 324 *i* PKiKP **PKPdf** 05 23 43.6 -0.2
comp=Z,102nm,0.6s
MOTA *i* PP **PP** 05 25 38.8 +3.6
comp=Z,243nm,1.2s
MOTA *i* Sdiff 05 33 22.7
comp=Z,17nm,0.8s
**RETA Reutte** 125.44 325 *i* PKiKP **PKiKP** 05 23 44.2 -0.1
comp=Z,108nm,1.6s
RETA *i* PP **PP** 05 25 38.5 +2.7
comp=Z,337nm,1.9s
RETA *i* Sdiff 05 33 22.6
comp=Z,39nm,1.3s
**RRR Rubha Reidh** 125.50 342 *e*P **PKPdf** 05 23 44.3 +0.8
**CPCT Cooper Cave** 125.51 52 *e*PKPdf **PKPdf** 05 23 43.7 -0.6
**STU Stuttgart** 125.60 327 *e*PKIKP **PKPdf** 05 23 44.2 +0.1
**STU Stuttgart** 125.60 327 *e*PKPdf **PKPdf** 05 23 44.2 +0.1
**SADO Sadowa** 125.61 39 *e*PKPdf **PKPdf** 05 23 43.0 -1.3
**CUC Castrocucco** 125.66 314 *e*PKPdf **PKPdf** 05 23 44.2 -0.4
**EDU Dundee** 125.67 340 *e*P **PKPdf** 05 23 44.1 +0.2
**FETA Feichten** 125.70 324 *i* PKiKP **PKiKP** 05 23 45.3 +0.3
comp=Z,122nm,1.1s
FETA *i* PP **PP** 05 25 37.3 -0.5
comp=Z,201nm,1.3s
FETA *i* Sdiff 05 33 21.4
comp=Z,29nm,1.1s
**SCHQ Schefferville** 125.71 23 PKP **PKPdf** 05 23 43.5 -0.6
comp=Z,42nm,0.7s,baz=301,slow=4.5,SNR=8.9
SCHQ pPKP **pPKPdf** 05 24 22.2 +3.6
comp=Z,34nm,0.7s,baz=312,slow=3.0,SNR=3.2
SCHQ PKKPbc **PKKPbc** 05 33 21.2 -1.1
comp=Z,12nm,0.8s,baz=149,slow=3.3,SNR=6.4
**KPL Plockton** 125.88 342 *e*P **PKPdf** 05 23 44.0 -0.3
**ROC1 El Roble** 126.00 140 *e*PKPdf **PKPdf** 05 23 45.3 -0.4
**ESY Stoneypath** 126.03 339 *e*P **PKPdf** 05 23 44.5 -0.2
**TKL Tuckaleechee C** 126.03 51 *e*PKIKP **PKPdf** 05 23 44.6 -0.7
**TKL Tuckaleechee C** 126.03 51 *e*PKPdf **PKPdf** 05 23 44.6 -0.7
**DAVA Damuels** 126.05 325 *i* PKiKP **PKiKP** 05 23 46.1 +0.4
comp=Z,130nm,0.7s
DAVA *i* PP **PP** 05 25 40.8 +0.8
comp=Z,264nm,1.9s
DAVA *i* Sdiff 05 33 25.1
comp=Z,25nm,0.9s
**HGN Heimansgroeve** 126.09 330 *e*PKPdf **PKPdf** 05 23 45.2 +0.3
comp=Z,141nm,1.1s
HGN *e*PP **PP** 05 25 43.4 +3.6
**PEL Peldehue** 126.09 141 *e*PKIKP **PKPdf** 05 23 45.6 0.0
**PEL Peldehue** 126.09 141 *e*PKPdf **PKPdf** 05 23 45.6 0.0
**MEM Membach** 126.15 330 PKP **PKPdf** 05 23 46.1 +1.0
MEM APKP **pPKPdf** 05 24 22.0 +2.5
**FUORN Ofenpass-Fuorn** 126.19 324 *e*PKPdf **PKPdf** 05 23 46.7 +1.0
**BEBN Eben Emael** 126.19 330 PKP **PKPdf** 05 23 46.3 +1.2
BEBN PP **PP** 05 25 41.6 +1.0
**EDI Edinburgh** 126.22 340 *e*P **PKPdf** 05 23 45.4 +0.4
**LANF Langenberg** 126.22 328 PKP **PKPdf** 05 23 46.9 +1.6
**CEL Celeste** 126.26 312 *e*PKPdf **PKPdf** 05 23 45.6 -0.2
**ERPA Erie** 126.29 42 *e*PKPdf **PKPdf** 05 23 45.0 -0.7
**BFO Black Forest** 126.32 327 *i* PKIKP **PKPdf** 05 23 46.7 +1.2
**BFO Black Forest** 126.32 327 *e*PKPdf **PKPdf** 05 23 46.0 +0.5
**AQU L'Aquila** 126.33 318 *e*PKIKP **PKPdf** 05 23 47.1 +1.3
**AQU L'Aquila** 126.33 318 *e*PKPdf **PKPdf** 05 23 47.1 +1.3
**ALLY Alegheny Colle** 126.39 43 *e*PKPdf **PKPdf** 05 23 45.0 -0.8
**EAB Aberfoyle** 126.40 340 *e*P **PKPdf** 05 23 44.9 -0.4
**LCP Cassop** 126.53 338 *e*P **PKPdf** 05 23 46.4 +0.7
**BCLA Clavier** 126.62 330 PKP **PKPdf** 05 23 46.9 +0.9
BCLA APKP **pPKPdf** 05 24 20.0 +3.5
BCLA PP **PP** 05 25 46.1 +2.7
**EDMD Edmundbyers** 126.64 338 *e*P **PKPdf** 05 23 45.9 0.0
**WLF Walferdange** 126.67 329 PKP **PKPdf** 05 23 48.0 +1.8
WLF APKP **pPKPdf** 05 24 22.2 +1.6
WLF PP **PP** 05 25 41.3 -2.5
**WLF Walferdange** 126.67 329 *e*PKIKP **PKPdf** 05 23 47.9 +1.8
**WLF Walferdange** 126.67 329 *e*PKPdf **PKPdf** 05 23 47.9 +1.8
**ESK Eskdalemuir** 126.71 339 *e*P **PKPdf** 05 23 46.0 0.0
**ESK Eskdalemuir** 126.71 339 *e*PKIKP **PKPdf** 05 23 46.6 +0.6
**ESK Eskdalemuir** 126.71 339 *e*PKPdf **PKPdf** 05 23 46.6 +0.6
**PLVO Plevna** 126.75 38 *e*PKPdf **PKPdf** 05 23 45.4 -1.0
**M54A Oil Creek Stat** 126.78 43 P **PKPdf** 05 23 44.9 -1.7
baz=296
**N54A Moraine State** 126.80 44 P **PKPdf** 05 23 45.6 -1.1
baz=296
**TUE Stuetta** 126.80 324 *e*PKPdf **PKPdf** 05 23 45.3 -1.4
**BG3 Lake Jocassee** 126.89 52 *e*PKPdf **PKPdf** 05 23 46.9 -0.2
**ECH Echery** 127.03 327 PKP **PKPdf** 05 23 47.7 +0.8
**ECH Echery** 127.03 327 *e*PKIKP **PKPdf** 05 23 47.3 +0.4
**ECH Echery** 127.03 327 *e*PKPdf **PKPdf** 05 23 47.3 +0.4
**SNF Seneffe** 127.06 331 PKP **PKPdf** 05 23 48.5 +1.7
SNF APKP **pPKPdf** 05 24 23.7 +2.4
**DOU Dourbes** 127.17 330 PKP **PKPdf** 05 23 48.2 +1.1
DOU APKP **pPKPdf** 05 24 24.1 +2.5
DOU PP **PP** 05 25 47.7 +0.7
**KESW Keswick, Cumbr** 127.24 339 *e*P **PKPdf** 05 23 47.7 +0.6
**MOF Molkenrain** 127.25 327 PKP **PKPdf** 05 23 48.2 +0.8
**TRQA Tornquist** 127.30 151 *e*PKPdf **PKPdf** 05 23 47.4 -0.3
**MMNY Mt. Morris Dam** 127.38 41 *e*PKPdf **PKPdf** 05 23 46.8 -0.9
**TIGA Tifton** 127.42 56 P **PKPdf** 05 23 47.9 -0.2
baz=286
**TIGA Tifton** 127.42 56 *e*PKPdf **PKPdf** 05 23 48.2 +0.1
**GMK Mull of Kintyr** 127.50 341 *e*P **PKPdf** 05 23 48.4 +0.9
**GAL1 Galloway** 127.59 340 *e*P **PKPdf** 05 23 48.1 +0.5
**LBWR Ladybower, Pea** 127.64 337 *e*P **PKPdf** 05 23 48.5 +0.6
**THEF They Montfort** 127.64 328 PKP **PKPdf** 05 23 49.3 +1.3
**VAE Valguarnera** 127.64 312 PKP **PKPdf** 05 23 50.2 +1.8
comp=Z,27nm,0.8s,baz=347,slow=5.5,SNR=8.8
**LOMF Lomont** 127.72 326 PKP **PKPdf** 05 23 48.7 +0.4
**CWF Charnwood Fore** 127.97 336 *e*PKPdf **PKPdf** 05 23 49.6 +1.2
**SENIN Lac Senin/Sane** 128.03 325 *e*PKPdf **PKPdf** 05 23 50.6 +1.5
**O56A Blue Knob Stat** 128.07 44 P **PKPdf** 05 23 48.3 -0.8
baz=296
**KMSC Kings Mountain** 128.08 51 P **PKPdf** 05 23 48.5 -0.7
baz=290
**CLTB Caltabellotta** 128.48 313 *e*PKPdf **PKPdf** 05 23 50.9 +0.9
**LONY Lake Ozonia** 128.48 37 *e*PKPdf **PKPdf** 05 23 49.2 -0.5
**WPM1 Penmaenmawr** 128.58 338 *e*P **PKPdf** 05 23 49.6 -0.1
**WME Myndd Eilian** 128.62 338 *e*P **PKPdf** 05 23 50.9 +1.2
**LCO Las Campanas** 128.76 137 *e*PKPdf **PKPdf** 05 23 51.4 +0.3
**HLM1 Long Mynd** 128.76 337 *e*P **PKPdf** 05 23 50.1 +0.1
**SSW Stow on the Wo** 128.77 336 *e*P **PKPdf** 05 23 50.6 +0.6
**FRNY Flat Rock** 128.95 36 *e*PKPdf **PKPdf** 05 23 49.1 -1.5
**WOL Wolverton** 129.00 335 *e*P **PKPdf** 05 23 50.6 +0.1
**STRD Stroud** 129.04 336 *e*P **PKPdf** 05 23 50.6 +0.1
**NCB Newcomb** 129.05 38 *e*PKPdf **PKPdf** 05 23 50.6 -0.2
**SWN1 Swindon** 129.09 335 *e*P **PKPdf** 05 23 51.0 +0.4
**BNI Bardonecchia** 129.14 324 *e*PKIKP **PKPdf** 05 23 52.7 +1.5
**BNI Bardonecchia** 129.14 324 *e*PKPdf **PKPdf** 05 23 52.7 +1.5
**MCH1 Michaelchurch** 129.21 336 *e*P **PKPdf** 05 23 50.8 -0.1
**MONM Monmouth** 129.25 336 *e*P **PKPdf** 05 23 51.7 +0.8
**GDM Grand'Maison** 129.38 325 PKP **PKPdf** 05 23 52.8 +1.2
**HGH Gray Hill** 129.41 336 *e*P **PKPdf** 05 23 51.2 0.0
**IP07 Quail** 129.47 46 *e*PKPdf **PKPdf** 05 23 51.4 -0.4
**IP06 Yanceyville** 129.50 46 *e*PKPdf **PKPdf** 05 23 50.7 -1.2
**IP01 Cuckoo** 129.54 46 *e*PKPdf **PKPdf** 05 23 51.0 -0.9
**LPW Lampeter** 129.54 337 *e*P **PKPdf** 05 23 51.6 +0.1
**GRN Grenoble** 129.57 325 PKP **PKPdf** 05 23 53.6 +1.7
**HDC Heredia** 129.64 83 *e*PKPdf **PKPdf** 05 23 53.5 +0.6
**N59A State Game Lan** 129.65 42 P **PKPdf** 05 23 51.0 -1.2
baz=299
**NHSC New Hope** 129.67 53 *e*PKPdf **PKPdf** 05 23 52.4 +0.1
**PTRD Partlow Road** 129.67 46 *e*PKPdf **PKPdf** 05 23 51.8 -0.4
**ACCN Adirondack Com** 129.71 38 *e*PKPdf **PKPdf** 05 23 51.8 -0.3
**RGRS Roger Stewart** 129.72 53 *e*PKPdf **PKPdf** 05 23 52.8 +0.4
**CSU Charleston Sou** 129.80 53 *e*PKPdf **PKPdf** 05 23 53.2 +0.7
**CBN Corbin Frederi** 129.81 46 *e*PKPdf **PKPdf** 05 23 52.2 -0.3

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| URVA | University of | 129.97 | 46 | *e*PKPdf | **PKPdf** | **05 23 52.3** | **-0.5** |
| TRY | Troy | 130.06 | 39 | *e*PKPdf | **PKPdf** | **05 23 52.4** | **-0.3** |
| LUPA | Lehigh Univers | 130.07 | 42 | *e*PKPdf | **PKPdf** | **05 23 52.8** | **0.0** |
| DWPF | Disney Wildern | 130.11 | 60 | *e*PKPdf | **PKPdf** | **05 23 53.9** | **+0.6** |
| SSB | Saint Sauveur | 130.23 | 326 | PKP | **PKPdf** | **05 23 54.1** | **+1.0** |
| SSB | Saint Sauveur | 130.23 | 326 | *e*PKIKP | **PKPdf** | **05 23 53.5** | **+0.4** |
| SSB | Saint Sauveur | 130.23 | 326 | *e*PKPdf | **PKPdf** | **05 23 53.5** | **+0.4** |
| LBNH | Lisbon | 130.27 | 36 | *e*PKIKP | **PKPdf** | **05 23 53.2** | **0.0** |
| LBNH | Lisbon | 130.27 | 36 | *e*PKPdf | **PKPdf** | **05 23 53.2** | **0.0** |
| PLDF | La Plantade | 130.31 | 327 | PKP | **PKPdf** | **05 23 54.6** | **+1.3** |
| ODNJ | Ogdensburg | 130.33 | 41 | *e*PKPdf | **PKPdf** | **05 23 53.4** | **0.0** |
| HNH | Hanover | 130.36 | 37 | *e*PKPdf | **PKPdf** | **05 23 52.8** | **-0.5** |
| ASQ | Saint Agoulin | 130.52 | 327 | PKP | **PKPdf** | **05 23 54.6** | **+1.0** |
| COLF | Collangettes | 130.55 | 326 | PKP | **PKPdf** | **05 23 54.9** | **+1.2** |
| BRNJ | Basking Ridge | 130.56 | 41 | *e*PKPdf | **PKPdf** | **05 23 53.9** | **+0.1** |
| CNNC | Cliffs of the | 130.66 | 49 | *e*PKPdf | **PKPdf** | **05 23 54.1** | **0.0** |
| PYM | Petit Puy Mans | 130.78 | 327 | PKP | **PKPdf** | **05 23 54.1** | **-0.1** |
| PAL | Palisades | 130.83 | 41 | *e*PKIKP | **PKPdf** | **05 23 54.6** | **+0.3** |
| PAL | Palisades | 130.83 | 41 | *e*PKPdf | **PKPdf** | **05 23 54.6** | **+0.3** |
| FFD | Franklin Falls | 130.87 | 37 | *e*PKPdf | **PKPdf** | **05 23 55.2** | **+0.9** |
| CPNY | Central Park | 130.90 | 41 | *e*PKPdf | **PKPdf** | **05 23 54.2** | **-0.2** |
| LBL | Lubilhac | 130.98 | 326 | PKP | **PKPdf** | **05 23 56.0** | **+1.4** |
| QUA2 | Belchertown | 131.13 | 38 | *e*PKPdf | **PKPdf** | **05 23 55.6** | **+0.8** |
| PKME | Peaks-Kenny Pk | 131.14 | 34 | *e*PKPdf | **PKPdf** | **05 23 53.5** | **-1.2** |
| FRNF | Fournols | 131.25 | 327 | PKP | **PKPdf** | **05 23 56.8** | **+1.8** |
| YLE | Yale | 131.29 | 40 | *e*PKPdf | **PKPdf** | **05 23 54.6** | **-0.5** |
| WVL | Waterville | 131.37 | 34 | *e*PKPdf | **PKPdf** | **05 23 55.3** | **+0.2** |
| HRV | Adam Dziewonsk | 131.38 | 38 | *e*PKIKP | **PKPdf** | **05 23 56.2** | **+0.7** |
| HRV | Adam Dziewonsk | 131.38 | 38 | *e*PKPdf | **PKPdf** | **05 23 56.2** | **+0.7** |
| WES | Weston | 131.70 | 38 | *e*PKIKP | **PKPdf** | **05 23 55.1** | **-0.7** |
| WES | Weston | 131.70 | 38 | *e*PKPdf | **PKPdf** | **05 23 55.1** | **-0.7** |
| BCX | Boston College | 131.82 | 38 | *e*PKPdf | **PKPdf** | **05 23 56.0** | **0.0** |
| BRYW | Bryant College | 131.83 | 38 | *e*PKPdf | **PKPdf** | **05 23 55.8** | **-0.4** |
| VAL | Valentia | 131.87 | 341 | *e*PP | PP | 05 26 26.4 | +9.2 |
| VAL | | | | *e*SS | SS | 05 43 31.7 | -11 |
| **KEST** | **Kesra** | **132.08** | **312** | PKhKP | PKPpre | 05 23 43.8 | |
| | comp=Z,6.7nm,0.8s,baz=306,slow=9.0,SNR=4.7 | | | | | | |
| KEST | | | | PKP | **PKiKP** | **05 23 57.8** | **-0.2** |
| | comp=Z,60nm,0.8s,baz=301,slow=1.8,SNR=24 | | | | | | |
| KEST | | | | PP | **PP** | **05 26 19.8** | **0.0** |
| | comp=Z,124nm,1.2s,baz=295,slow=1.9,SNR=6.8 | | | | | | |
| **PB10** | **IPOC Station P** | **132.20** | **131** | *e*PKPdf | **PKPdf** | **05 23 58.4** | **+1.0** |
| **NNA** | **Nana** | **132.46** | **114** | PKhKP | PKPpre | 05 23 50.7 | |
| | comp=Z,17nm,1.0s,baz=259,slow=5.1,SNR=5.5 | | | | | | |
| NNA | | | | PKP | **PKPdf** | **05 23 58.7** | **+0.5** |
| | comp=Z,174nm,1.1s,baz=283,slow=3.4,SNR=30 | | | | | | |
| NNA | | | | SKKPbc | SKKPbc | 05 36 33.7 | -2.7 |
| | comp=Z,30nm,1.0s,baz=42,slow=4.7,SNR=3.5 | | | | | | |
| **NNA** | **Nana** | **132.46** | **114** | *i* PKIKP | **PKPdf** | **05 23 59.2** | **+1.0** |
| **NNA** | **Nana** | **132.46** | **114** | *e*PKPpre | PKPpre | 05 23 50.7 | |
| NNA | | | | *e*PKPdf | **PKPdf** | **05 23 58.5** | **+0.3** |
| NNA | | | | *e*PKPdf | **PKPdf** | **05 23 58.7** | **+0.5** |
| **EMMW** | **East Machias** | **132.49** | **33** | *e*PKPdf | **PKPdf** | **05 23 57.0** | **-0.3** |
| **ATAH** | **Atahualpa** | **132.62** | **107** | PKhKP | PKPpre | 05 23 49.4 | |
| | comp=Z,9.0nm,0.6s,baz=139,slow=5.4,SNR=3.9 | | | | | | |
| ATAH | | | | PKP | **PKPdf** | **05 23 59.4** | **+0.5** |
| | comp=Z,190nm,0.8s,baz=288,slow=4.9,SNR=12 | | | | | | |
| **SJAF** | **Saint Jean de** | **132.88** | **324** | PKP | **PKPdf** | **05 23 58.6** | **+0.5** |
| **FILF** | **Fillols** | **133.02** | **324** | PKP | **PKPdf** | **05 23 59.6** | **+1.1** |
| **LMN** | **Caledonia Moun** | **133.09** | **30** | *e*PKPdf | **PKPdf** | **05 23 56.2** | **-2.2** |
| **PB04** | **IPOC Station P** | **133.18** | **130** | *e*PKPdf | **PKPdf** | **05 24 00.0** | **+0.5** |
| **CARF** | **Carcanieres** | **133.19** | **324** | PKP | **PKPdf** | **05 23 59.6** | **+0.7** |
| **CAEH** | **`Ain El Ouahch** | **133.40** | **315** | P | PKPpre | 05 23 51.2 | |
| **VALF** | **Valcebollere** | **133.43** | **324** | PKP | **PKPdf** | **05 24 00.1** | **+0.7** |
| **CKFL** | **Kef-Lekhel** | **133.67** | **314** | P | PKPpre | 05 23 47.9 | |
| **BCIP** | **Isla Barro Col** | **133.84** | **85** | *e*P | **PKPdf** | **05 23 59.6** | **-1.1** |
| **BCIP** | **Isla Barro Col** | **133.84** | **85** | *e*PKPdf | **PKPdf** | **05 24 00.3** | **-0.4** |
| **CTEI** | **Djebel Teioual** | **134.05** | **314** | P | PKPpre | 05 23 48.6 | |
| **RESF** | **Ens** | **134.14** | **326** | PKP | **PKPdf** | **05 24 00.6** | **-0.1** |
| **DFFA** | **Djebel Bou Aff** | **134.20** | **315** | P | PKPpre | 05 23 52.6 | |
| **REYF** | **Montagne du Re** | **134.37** | **326** | PKP | **PKPdf** | **05 24 00.6** | **+1.6** |
| **PB01** | **IPOC Station P** | **134.42** | **129** | *e*PKPdf | **PKPdf** | **05 24 01.9** | **+0.2** |
| **ATE** | **Arette** | **134.53** | **326** | PKP | **PKPdf** | **05 24 01.3** | **+0.1** |
| **SET** | **Setif** | **134.70** | **315** | P | **PKPdf** | **05 24 00.0** | **-1.9** |
| **CKHR** | **Kef el Ahmar** | **134.71** | **314** | P | **PKPdf** | **05 23 59.5** | **-2.4** |
| **CMBC** | **Cumbal** | **135.03** | **96** | *e*P | **PKPdf** | **05 24 05.4** | **+1.8** |
| **CRUC** | **La Cruz** | **136.00** | **96** | *e*P | **PKPdf** | **05 24 02.9** | **-2.4** |
| **ABA** | **Alger-Bouzarea** | **136.03** | **317** | P | PKPpre | 05 24 00.0 | |
| **ADJB** | **Djebel Djoub** | **136.09** | **316** | P | PKPpre | 05 23 55.1 | |
| **CAPC** | **Capurgana** | **136.28** | **85** | *e*P | **PKPdf** | **05 24 05.9** | **+0.6** |
| **EMHD** | **Djebel Mahouad** | **136.40** | **316** | P | PKPpre | 05 23 56.1 | |
| **PLMC** | **San Jos¨ del** | **137.09** | **91** | *e*P | **PKPdf** | **05 24 07.6** | **+0.7** |
| **EBNR** | **Beni Rached** | **137.32** | **317** | P | PKPpre | 05 23 58.4 | |
| **ECHA** | **Ech Chlef** | **137.51** | **317** | P | PKPpre | 05 23 59.2 | |
| **BETC** | **Betania** | **137.66** | **94** | *e*P | **PKPdf** | **05 24 09.6** | **+1.7** |
| **EANR** | **`Ain N'Sour** | **137.80** | **317** | P | PKPpre | 05 24 01.4 | |
| **MOTC** | **Monteria, Cord** | **137.95** | **85** | *e*P | PKPpre | 05 24 02.9 | |
| **HELC** | **Santa Helena** | **137.95** | **89** | *e*PP | **PKPdf** | **05 24 09.1** | **+0.3** |
| **ETRT** | **Tiaret** | **137.97** | **316** | P | PKPpre | 05 24 04.0 | |
| **GUYC** | **Guyana, Colomb** | **138.01** | **91** | *e*P | **PKPdf** | **05 24 08.9** | **-0.2** |
| **LPAZ** | **La Paz** | **138.09** | **125** | PKhKP | PKPpre | 05 23 58.0 | |
| | comp=Z,20nm,0.5s,baz=341,slow=4.6,SNR=44 | | | | | | |
| **LPAZ** | **La Paz** | **138.09** | **125** | PKHKP | PKPpre | 05 23 58.0 | |
| LPAZ | | | | pmax | pmax | | |
| | comp=Z,20nm,0.5s | | | | | | |
| **OJGS** | **Djebel Guires** | **138.28** | **317** | P | **PKPdf** | **05 24 06.0** | **-2.5** |
| **PRAC** | **Prado** | **138.34** | **93** | *e*P | **PKPdf** | **05 24 07.4** | **-1.8** |
| **PRAC** | **Prado** | **138.34** | **93** | *e*PKPpre | PKPpre | 05 24 00.1 | |
| **NORC** | **Norcasia** | **138.55** | **90** | *e*P | PKPpre | 05 23 59.8 | |
| **PBRG** | **Braganca** | **138.60** | **330** | *e*PKPdf | PKPpre | 05 24 00.0 | |
| **PBRG** | **Braganca** | **138.60** | **330** | *e*PP | PP | 05 27 03.0 | +2.9 |
| **ESDC** | **Sonseca Array** | **138.64** | **325** | PKhKP | PKPpre | 05 24 00.2 | |
| | comp=Z,9.9nm,0.8s,baz=26,slow=2.9,SNR=20 | | | | | | |
| ESDC | | | | PP | **PP** | **05 27 05.9** | **+5.4** |
| | comp=Z,29nm,0.9s,baz=33,slow=6.5,SNR=8.4 | | | | | | |
| ESDC | | | | PKKP | **PKKPdf** | **05 33 39.6** | **-0.2** |
| | comp=Z,4.3nm,0.8s,baz=250,slow=1.1,SNR=5.9 | | | | | | |
| ESDC | | | | SKKPbc | SKKPbc | 05 36 12.3 | -2.4 |
| | comp=Z,3.1nm,1.0s,baz=218,slow=4.9,SNR=4.3 | | | | | | |
| **ESLA** | **Sonseca Array** | **138.64** | **325** | *e*PKPpre | PKPpre | 05 24 04.2 | |
| **PAB** | **San Pablo** | **138.95** | **325** | *e*PKIKP | PKPpre | 05 24 04.4 | |
| **PAB** | **San Pablo** | **138.95** | **325** | *e*PKPpre | PKPpre | 05 24 04.4 | |
| **CPUP** | **Villa Florida** | **138.99** | **146** | PKhKP | PKPpre | 05 23 59.6 | |
| | comp=Z,13nm,1.0s,baz=244,slow=4.6,SNR=9.6 | | | | | | |
| CPUP | | | | SKPbc | **SKiKP** | **05 27 37.1** | **+0.5** |
| | comp=Z,103nm,1.0s,baz=228,slow=4.5,SNR=8.5 | | | | | | |
| **ODJA** | **Bouhanifia** | **138.99** | **317** | P | PKPpre | 05 24 04.0 | |
| **ROSC** | **El Rosal** | **139.03** | **91** | PKhKP | PKPpre | 05 24 02.2 | |
| | comp=Z,54nm,0.5s,baz=343,slow=4.1,SNR=22 | | | | | | |
| **ROSC** | **El Rosal** | **139.03** | **91** | *e*P | PKPpre | 05 24 02.5 | |
| **PTBC** | **PUERTO BERRIO** | **139.04** | **89** | *e*P | PKPpre | 05 23 59.5 | |
| **SJAC** | **San Juan de Ar** | **139.21** | **94** | *e*P | PKPpre | 05 23 58.9 | |
| **MVO** | **Moncorvo** | **139.22** | **329** | *e*PKPdf | PKPpre | 05 24 02.0 | |
| **MVO** | **Moncorvo** | **139.22** | **329** | *e*PP | PP | 05 27 04.4 | +0.5 |
| MVO | | | | *e*S | | 05 31 06.8 | |
| **MVO** | **Moncorvo** | **139.22** | **329** | *e*SS | SS | 05 45 14.6 | +3.6 |
| **PGAV** | **Gavieira, Arco** | **139.23** | **331** | *e*PKPdf | PKPpre | 05 24 01.1 | |
| **PGAV** | **Gavieira, Arco** | **139.23** | **331** | *e*PP | PP | 05 27 01.1 | -2.8 |
| PGAV | | | | *e*S | | 05 31 06.6 | |
| **PGAV** | **Gavieira, Arco** | **139.23** | **331** | *e*SS | SS | 05 45 11.9 | +0.9 |
| **PCAB** | **Cabril** | **139.31** | **331** | *e*PKPdf | PKPpre | 05 24 01.7 | |
| **PCAB** | **Cabril** | **139.31** | **331** | *e*PP | PKPpre | 05 26 57.0 | |
| **POLO** | **Lamas de Olo** | **139.45** | **330** | *e*PKPdf | PKPpre | 05 24 02.9 | |
| POLO | | | | *i* P | pPKPdf | 05 24 40.5 | -4.5 |
| **POLO** | **Lamas de Olo** | **139.45** | **330** | *e*PP | PP | 05 27 06.3 | +1.0 |
| **PVRL** | **Vila Real** | **139.48** | **330** | *e*PKPdf | PKPpre | 05 24 03.5 | |
| **PVRL** | **Vila Real** | **139.48** | **330** | *e*PP | PP | 05 27 07.5 | +2.0 |
| **VILC** | **Villavicencio,** | **139.57** | **92** | *e*P | PKPpre | 05 24 04.2 | |
| **CHIC** | **Chingaza** | **139.59** | **92** | *e*P | PKPpre | 05 24 03.6 | |
| **BRRC** | **Barranca, Sant** | **139.81** | **88** | *e*P | PKPpre | 05 24 06.4 | |
| **TAM** | **Tamanrasset** | **139.83** | **297** | *e*PKHKP | PKPpre | 05 24 05.2 | |
| **TAM** | **Tamanrasset** | **139.83** | **297** | *e*PKPpre | PKPpre | 05 24 05.2 | |
| **PVIS** | **Viseu** | **139.99** | **330** | *e*PKPdf | PKPpre | 05 24 03.5 | |
| **PVIS** | **Viseu** | **139.99** | **330** | *e*PP | PP | 05 27 08.1 | -0.5 |
| **PTO** | **Porto** | **140.02** | **331** | *e*PKPdf | PKPpre | 05 24 04.0 | |
| **PTO** | **Porto** | **140.02** | **331** | *e*PP | PP | 05 27 10.3 | +1.6 |
| **MTE** | **Manteigas** | **140.05** | **329** | *e*PKPpre | PKPpre | 05 24 04.6 | |
| **MTE** | **Manteigas** | **140.05** | **329** | *e*PKPdf | PKPpre | 05 24 04.2 | |
| **MTE** | **Manteigas** | **140.05** | **329** | *e*PP | PP | 05 27 12.8 | +3.8 |
| MTE | | | | *e*S | | 05 31 06.8 | |
| **MTE** | **Manteigas** | **140.05** | **329** | *e*SS | SS | 05 45 22.5 | +1.8 |
| **CODC** | **Agust`›n Codaz** | **140.15** | **84** | *e*P | PKPpre | 05 24 06.4 | |
| **OCAC** | **Ocana** | **140.25** | **86** | *e*P | PKPpre | 05 24 07.6 | |
| **BARC** | **Barichara** | **140.31** | **89** | *e*P | PKPpre | 05 24 04.4 | |
| **GIRC** | **Giron, Santand** | **140.32** | **88** | *e*P | PKPpre | 05 24 04.4 | |
| **RUSC** | **La Rusia** | **140.35** | **90** | *e*P | PKPpre | 05 24 04.5 | |
| **GUVC** | **San Jose del G** | **140.42** | **95** | *e*P | PKPpre | 05 24 04.9 | |
| **PCBR** | **Castelo Branco** | **140.43** | **328** | *e*PKPdf | PKPpre | 05 24 06.6 | |
| **PCBR** | **Castelo Branco** | **140.43** | **328** | *e*PP | PP | 05 27 10.9 | -0.4 |
| **COI** | **Coimbra** | **140.64** | **330** | *e*PKPdf | PKPpre | 05 24 06.2 | |
| **COI** | **Coimbra** | **140.64** | **330** | *e*PP | PP | 05 27 14.2 | +1.7 |
| **PMRV** | **Marv??o** | **140.69** | **328** | *e*PKPdf | PKPpre | 05 24 07.1 | |
| PMRV | | | | *i* P | pPKPdf | 05 24 48.9 | +1.7 |
| **PMRV** | **Marv??o** | **140.69** | **328** | *e*PP | PP | 05 27 14.6 | +1.7 |
| PMRV | | | | *e*S | | 05 31 14.2 | |
| **PMRV** | **Marv??o** | **140.69** | **328** | *e*SS | SS | 05 45 31.6 | +3.4 |
| **PCAS** | **Casmilo, Conde** | **140.80** | **330** | *e*PKPdf | PKPpre | 05 24 06.9 | |
| **PCAS** | **Casmilo, Conde** | **140.80** | **330** | *e*PP | PP | 05 27 16.6 | +3.1 |
| **PAMC** | **Pamplona, Colo** | **140.83** | **88** | *e*P | PKPpre | 05 24 07.4 | |
| **YOPC** | **Yopal, Colombi** | **140.96** | **91** | *e*P | PKPpre | 05 24 06.6 | |
| **PTOM** | **Tomar** | **141.08** | **329** | *e*PKPdf | PKPpre | 05 24 07.1 | |
| PTOM | | | | *i* P | pPKPdf | 05 24 50.6 | +2.7 |
| **PTOM** | **Tomar** | **141.08** | **329** | *e*PP | PP | 05 27 13.8 | -1.4 |
| **PESTR** | **Estremoz** | **141.21** | **327** | *e*PKPdf | PKPpre | 05 24 07.1 | |
| **PESTR** | **Estremoz** | **141.21** | **327** | *e*PP | PP | 05 27 14.2 | +4.1 |
| **SDDR** | **Presa de Saban** | **141.30** | **69** | *e*PKPpre | PKPpre | 05 24 08.5 | |
| **PMTG** | **Montargil** | **141.39** | **328** | *e*PKPdf | PKPpre | 05 24 08.2 | |
| PMTG | | | | *i* P | pPKPdf | 05 24 51.2 | +2.7 |
| **PBAR** | **Barrancos** | **141.41** | **326** | *e*PKPdf | PKPpre | 05 24 08.7 | |
| **PBAR** | **Barrancos** | **141.41** | **326** | *e*PP | PP | 05 27 21.1 | +3.8 |
| **URIC** | **Uribia, Colomb** | **141.54** | **81** | *e*P | PKPpre | 05 24 08.9 | |
| **PBEJ** | **Beja** | **141.97** | **327** | *e*PKPdf | **PKPdf** | **05 24 11.4** | **-3.6** |
| **PBEJ** | **Beja** | **141.97** | **327** | *e*PP | PP | 05 27 13.2 | -7.5 |
| **PMAFR** | **Mafra** | **142.02** | **329** | *e*PKPdf | PKPpre | 05 24 10.8 | |
| **PMAFR** | **Mafra** | **142.02** | **329** | *e*PP | PP | 05 27 20.6 | -0.3 |
| **LIS** | **Lisbon** | **142.13** | **329** | *e*P | **PKPdf** | **05 24 12.3** | **-2.9** |
| LIS | | | | *e*PP | **PP** | **05 27 20.6** | **-1.0** |
| LIS | | | | *e*SS | SS | 05 45 44.4 | -0.4 |
| LIS | | | | AMS | AMS | 06 20 03.2 | |
| | comp=E,22µm,35.8s | | | | | | |
| **LIS** | **Lisbon** | **142.13** | **329** | *e*PKIKP | **PKPdf** | **05 24 12.3** | **-2.9** |
| LIS | | | | *e* | | 05 27 20.6 | |
| LIS | | | | *e*SS | SS | 05 45 44.4 | -0.4 |
| **PMST** | **Lisbon--Monsan** | **142.14** | **329** | *e*PKPdf | PKPpre | 05 24 11.3 | |
| PMST | | | | *i* P | pPKPdf | 05 24 46.6 | -3.2 |
| **PMST** | **Lisbon--Monsan** | **142.14** | **329** | *e*PP | PP | 05 27 22.0 | +0.4 |
| **PNCL** | **Nicolau / Gran** | **142.26** | **327** | *e*PKPdf | PKPpre | 05 24 11.3 | |
| PNCL | | | | *i* P | pPKPdf | 05 24 47.0 | -3.0 |
| **PNCL** | **Nicolau / Gran** | **142.26** | **327** | *e*PP | PP | 05 27 24.4 | +2.0 |
| **MESJ** | **Messejana** | **142.29** | **327** | *e*P | **PKPdf** | **05 24 12.7** | **-2.9** |
| MESJ | | | | *e*PP | **PP** | **05 27 21.6** | **-1.1** |
| MESJ | | | | *e*SS | SS | 05 45 46.2 | -0.5 |
| MESJ | | | | AMS | AMS | 06 19 16.4 | |
| | comp=N,15µm,24.5s | | | | | | |
| **MESJ** | **Messejana** | **142.29** | **327** | *e*PKIKP | **PKPdf** | **05 24 12.7** | **-2.9** |
| MESJ | | | | *e* | | 05 27 21.5 | |
| MESJ | | | | *e*SS | SS | 05 45 46.2 | -0.6 |
| **PCVE** | **Castro Verde** | **142.34** | **326** | *e*PKPdf | **PKPdf** | **05 24 12.4** | **-3.3** |
| **PCVE** | **Castro Verde** | **142.34** | **326** | *e*PP | PP | 05 27 27.1 | +4.1 |
| **PBDV** | **Barranco-do-Ve** | **142.56** | **326** | *e*PKPdf | **PKPdf** | **05 24 13.5** | **-2.6** |
| PBDV | | | | *i* P | **pPKPdf** | **05 24 47.0** | **-3.7** |
| **PBDV** | **Barranco-do-Ve** | **142.56** | **326** | *e*PP | PP | 05 27 28.5 | +4.1 |
| **SDD** | **Santo Domingo** | **142.68** | **69** | *e*PKPpre | PKPpre | 05 24 11.8 | |
| **PTEO** | **Sao Teotonio** | **142.78** | **327** | *e*PKPdf | **PKPdf** | **05 24 13.9** | **-2.5** |
| **PTEO** | **Sao Teotonio** | **142.78** | **327** | *e*PP | PP | 05 27 30.9 | +5.3 |
| **MORF** | **Marmelete** | **142.91** | **327** | *e*P | **PKPdf** | **05 24 13.9** | **-2.9** |
| MORF | | | | *e*PP | **PP** | **05 27 25.4** | **-1.1** |
| MORF | | | | *e*SS | SS | 05 45 53.6 | -0.5 |
| MORF | | | | AMS | AMS | 06 19 44.3 | |
| | comp=N,17µm,16.7s | | | | | | |
| **MORF** | **Marmelete** | **142.91** | **327** | *e*PKIKP | **PKPdf** | **05 24 13.8** | **-2.9** |
| MORF | | | | *e* | | 05 27 25.3 | |
| MORF | | | | *e*SS | SS | 05 45 53.5 | -0.6 |
| **MORF** | **Marmelete** | **142.91** | **327** | *e*PKPdf | **PKPdf** | **05 24 14.3** | **-2.5** |
| **MORF** | **Marmelete** | **142.91** | **327** | *e*PP | PP | 05 27 31.3 | +4.8 |
| **SDV** | **Santo Domingo** | **142.92** | **85** | PKhKP | PKPpre | 05 24 12.8 | |
| | comp=N,184nm,0.8s,baz=256,slow=3.0,SNR=77 | | | | | | |
| **SDV** | **Santo Domingo** | **142.92** | **85** | *e*PKPpre | PKPpre | 05 24 12.9 | |
| **PFVI** | **Vila Bisbo** | **143.14** | **327** | *e*PKPdf | PKPbc | 05 24 15.7 | +1.4 |
| **PFVI** | **Vila Bisbo** | **143.14** | **327** | *e*PP | PP | 05 27 32.3 | +4.6 |
| **SIV** | **San Ignacio** | **143.83** | **130** | PKP | PKPab | 05 24 16.1 | -0.1 |
| | comp=N,235nm,0.8s,baz=250,slow=5.3,SNR=80 | | | | | | |
| SIV | | | | pPKP | pPKPdf | 05 24 54.9 | +1.4 |
| | comp=N,177nm,0.7s,baz=261,slow=2.9,SNR=4.8 | | | | | | |
| **SHEL** | **Horse Pasture** | **144.18** | **229** | *e*PKIKP | **PKPdf** | **05 24 19.1** | **-0.5** |
| **SHEL** | **Horse Pasture** | **144.18** | **229** | *e*PKPdf | **PKPdf** | **05 24 19.1** | **-0.5** |
| **AGP** | **Aguadilla** | **145.26** | **69** | *e*PKPdf | **PKPbc** | **05 24 19.9** | **-1.3** |
| **TOA0** | **Torodi Ar. Sit** | **145.26** | **282** | *e*PKPdf | **PKPbc** | **05 24 20.7** | **-0.7** |
| TOA0 | | | | *e*PKPdf | **PKPab** | **05 24 21.6** | **0.0** |
| **TORD** | **Torodi Ar. Bea** | **145.26** | **282** | PKPbc | **PKPdf** | **05 24 21.5** | **+0.1** |
| | comp=N,2µm,0.8s,baz=82,slow=3.4,SNR=1891 | | | | | | |
| TORD | | | | pPKPbc | **pPKPdf** | **05 24 57.9** | **+2.0** |
| | comp=N,512nm,0.8s,baz=79,slow=3.2,SNR=2.0 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **145.26** | **282** | *e*PKPdf | **PKPdf** | **05 24 21.5** | **+0.1** |
| **CELP** | **Cerrillos** | **145.85** | **69** | *e*PKPdf | **PKPdf** | **05 24 21.6** | **-0.8** |
| **SAML** | **Samuel** | **145.92** | **118** | *e*PKPdf | **PKPdf** | **05 24 22.2** | **-0.4** |
| **SJG** | **San Juan** | **146.24** | **69** | PKPbc | **PKPdf** | **05 24 22.5** | **-0.4** |
| | comp=N,790nm,0.6s,baz=295,slow=3.5,SNR=190 | | | | | | |
| **SJG** | **San Juan** | **146.24** | **69** | *e*P | **PKPdf** | **05 24 22.5** | **-0.4** |
| **SJG** | **San Juan** | **146.24** | **69** | *e*PKPdf | **PKPdf** | **05 24 22.3** | **-0.7** |
| SJG | | | | *e*PKPdf | **PKPdf** | **05 24 22.5** | **-0.4** |
| **CBYP** | **Canovanas** | **146.47** | **68** | *e*PKPdf | **PKPdf** | **05 24 22.8** | **-0.6** |
| **STVI** | **Saint Thomas** | **147.28** | **68** | *e*PKPdf | **PKPdf** | **05 24 23.9** | **-0.8** |
| **TBVI** | **Tortola** | **147.57** | **67** | *e*PKPdf | **PKPdf** | **05 24 24.5** | **-0.7** |
| **ABVI** | **Anegada Island** | **147.75** | **67** | *e*PKPdf | **PKPdf** | **05 24 25.6** | **+0.1** |
| **H07N1** | **FLORES T-PHASB** | **147.92** | **357** | PKPbc | **PKPbc** | **05 24 29.4** | **+1.0** |
| | SNR=16 | | | | | | |
| **PCRV** | **Puerto La Cruz** | **148.82** | **83** | PKPbc | **PKPbc** | **05 24 29.9** | **-1.6** |
| | comp=N,187nm,0.9s,baz=275,slow=1.2,SNR=38 | | | | | | |
| **SABA** | **Saba** | **149.04** | **68** | *e*PKPdf | **PKPdf** | **05 24 27.4** | **-0.3** |
| **SABA** | **Saba** | **149.04** | **68** | *e*P | **PKPdf** | **05 24 29.6** | **+2.0** |
| **SMRT** | **St. Maarten** | **149.08** | **67** | *e*PKPdf | **PKPdf** | **05 24 26.9** | **-0.8** |
| **SMRT** | **St. Maarten** | **149.08** | **67** | *e*P | **PKPdf** | **05 24 26.9** | **-0.8** |
| **CMLA** | **Cha da Macela** | **149.11** | **348** | *i* PKP2 | **PKPab** | **05 24 33.9** | **-2.1** |
| **SEUS** | **St. Eustatius** | **149.32** | **68** | *e*PKPbc | **PKPbc** | **05 24 32.1** | **-0.4** |
| **SEUS** | **St. Eustatius** | **149.32** | **68** | *e*P | **PKPbc** | **05 24 31.4** | **-1.1** |
| **NVRH** | **Round Hill, Ne** | **149.75** | **69** | *e*P | **PKPbc** | **05 24 33.9** | **+0.3** |
| **NEV** | **Hard Times** | **149.79** | **69** | *e*P | **PKPbc** | **05 24 33.9** | **+0.2** |
| **PMPS** | **Porto Santo** | **150.18** | **331** | *e*PKPdf | **PKPdf** | **05 24 31.4** | **+2.4** |
| PMPS | | | | *i* P | **pPKPab** | **05 25 11.3** | **-2.6** |
| **MLYT** | **Lee's Yard** | **150.24** | **69** | *e*P | **PKPdf** | **05 24 29.7** | **+0.1** |
| **BPA** | **Boggy Peak** | **150.47** | **69** | *e*P | **PKPbc** | **05 24 33.8** | **-1.6** |
| **KOWA** | **Kowa** | **150.56** | **286** | *e*PKPdf | **PKPdf** | **05 24 30.7** | **+0.6** |
| **PMAR** | **Madeira** | **150.73** | **331** | *e*PKPdf | **PKPdf** | **05 24 32.5** | **+2.4** |
| PMAR | | | | *i* P | **pPKPbc** | **05 25 12.9** | **+2.8** |
| **GDHS** | **Morne Mazeau,** | **150.75** | **70** | *e*PKPdf | **PKPdf** | **05 24 30.1** | **-0.3** |
| **FUL** | **Funchal** | **150.78** | **331** | *e*PKPdf | **PKPdf** | **05 24 31.2** | **+1.2** |
| FUL | | | | *i* P | **sPKPdf** | **05 25 20.0** | **+2.3** |
| **PMOZ** | **Porto Moniz, M** | **150.78** | **332** | *e*PKPdf | **PKPbc** | **05 24 37.3** | **+1.5** |
| PMOZ | | | | *i* P | **pPKPbc** | **05 25 12.8** | **+2.7** |
| PMOZ | | | | *e*S | **SKSdf** | **05 31 28.4** | **+2.1** |
| **PMOZ** | **Porto Moniz, M** | **150.78** | **332** | *e*SS | SS | 05 47 27.5 | +4.8 |
| **TBG** | **Guadaloupe-3** | **150.96** | **71** | *e*P | **PKPdf** | **05 24 30.4** | **-0.2** |
| **BBL** | **Barber's Block** | **151.20** | **71** | *e*P | **PKPdf** | **05 24 30.6** | **-0.5** |
| **MDMP** | **Dominica, Moor** | **151.24** | **71** | *e*P | **PKPbc** | **05 24 36.4** | **-0.8** |
| **MDVC** | **Dominica, Viel** | **151.24** | **71** | *e*P | **PKPbc** | **05 24 36.6** | **-0.6** |
| **DSHT** | **Scott's Head** | **151.35** | **72** | *e*P | **PKPdf** | **05 24 32.4** | **+1.1** |
| **DBCT** | **Belle View Cho** | **151.37** | **72** | *e*P | **PKPbc** | **05 24 36.2** | **-1.3** |
| **DEG** | **La Desirade** | **151.40** | **70** | *e*P | **PKPdf** | **05 24 30.6** | **-0.8** |
| **H05N1** | **Guadeloupe/Mar** | **151.40** | **70** | PKPbc | **PKPbc** | **05 24 37.0** | **-0.6** |
| **DLPL** | **La Plaine** | **151.45** | **72** | *e*P | **PKPdf** | **05 24 28.5** | **-3.0** |
| **DLPL** | **La Plaine** | **151.45** | **72** | *e*P | **PKPbc** | **05 24 37.4** | **-0.3** |
| **GRGR** | **Grenville** | **151.59** | **78** | *e*PKPdf | **PKPdf** | **05 24 30.5** | **-1.2** |
| **GRGR** | **Grenville** | **151.59** | **78** | *e*P | **PKPdf** | **05 24 29.8** | **-1.9** |
| **PML** | **Morne Lenard** | **151.62** | **73** | *e*P | **PKPdf** | **05 24 33.0** | **+1.3** |
| **CXM** | **Morne La Croix** | **151.63** | **73** | *e*P | **PKPdf** | **05 24 32.3** | **+0.4** |
| **BAMF** | **Bamboo Mt** | **151.65** | **73** | *e*P | **PKPdf** | **05 24 33.1** | **+1.3** |
| **FDF** | **Fort de France** | **151.66** | **73** | *e*PKIKP | **PKPdf** | **05 24 31.3** | **-0.5** |
| **FDF** | **Fort de France** | **151.66** | **73** | *e*PKPdf | **PKPdf** | **05 24 31.3** | **-0.5** |
| **FDF** | **Fort de France** | **151.66** | **73** | *e*P | **PKPdf** | **05 24 31.3** | **-0.5** |
| **FDF** | **Fort de France** | **151.66** | **73** | *e*P | **PKPdf** | **05 24 32.3** | **+0.5** |
| **KIC** | **Kosan Boka** | **151.74** | **269** | *e*PKIKP | **PKPdf** | **05 24 32.5** | **+0.5** |
| | comp=N,3µm,1.4s | | | | | | |
| **BIM** | **Bigot** | **151.78** | **73** | *e*P | **PKPdf** | **05 24 32.7** | **+0.7** |
| **TRMF** | **Trois Ilets** | **151.80** | **73** | *e*P | **PKPbc** | **05 24 36.0** | **-2.5** |
| **ZAM** | **Aeronautique** | **151.81** | **73** | *e*P | **PKPdf** | **05 24 32.3** | **+0.4** |
| **SVB** | **Belmont** | **151.83** | **76** | *e*PKPdf | **PKPdf** | **05 24 31.1** | **-0.9** |
| **SVB** | **Belmont** | **151.83** | **76** | *e*P | **PKPdf** | **05 24 31.1** | **-0.9** |
| **FCV** | **Fort Charlotte** | **151.85** | **76** | *e*P | **PKPdf** | **05 24 30.7** | **-1.3** |
| **DBIC** | **Dimbokro** | **151.88** | **270** | PKP | **PKPdf** | **05 24 32.2** | **+0.1** |
| | comp=N,35nm,0.9s,baz=94,slow=1.6,SNR=24 | | | | | | |
| DBIC | | | | PKPbc | **PKiKP** | **05 24 39.0** | **-0.1** |
| | comp=N,604nm,0.7s,baz=89,slow=3.1,SNR=147 

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| BRVK | | | | pmax | pmax | | |
| | comp=Z,20nm,0.8s | | | | | | |
| **BRVK** | **Borovoye** | **21.26** | **317** | *eP* | **P** | **05 44 13.1** | **+1.3** |
| | comp=Z,20nm,0.8s | | | | | | |
| **BOD** | **Bodaibo** | **22.32** | **28** | *eP* | **P** | **05 44 28.4** | **+5.3** |
| BOD | | | | pmax | pmax | | |
| | comp=Z,126nm,1.8s | | | | | | |
| **KS15** | **Wonju Array Si** | **26.32** | **84** | *eP* | **P** | **05 45 00.4** | **-1.0** |
| **KSAR** | **Wonju Array Be** | **26.32** | **84** | P | **P** | **05 45 00.4** | **-1.0** |
| **KSAR** | **Wonju Array Be** | **26.32** | **84** | P | **P** | **05 45 00.4** | **-1.0** |
| **KSRS** | **Korea Array** | **26.34** | **84** | P | **P** | **05 45 00.4** | **-1.3** |
| | comp=Z,8.8nm,0.8s,baz=279,slow=10,SNR=9.5 | | | | | | |
| **AKTO** | **Aktyubinsk** | **27.60** | **305** | P | **P** | **05 45 14.7** | **+1.8** |
| | comp=Z,1.4nm,0.6s,baz=95,slow=14,SNR=4.0 | | | | | | |
| **GEYT** | **Alibeck** | **28.13** | **278** | P | **P** | **05 45 20.0** | **+2.2** |
| | comp=Z,2.2nm,0.6s,baz=72,slow=9.3,SNR=3.4 | | | | | | |
| **AKASG** | **Malin Array Be** | **45.83** | **307** | P | **P** | **05 47 47.9** | **+0.3** |
| | comp=Z,0.8nm,0.5s,baz=68,slow=7.7,SNR=4.7 | | | | | | |
| **AKBB** | **Malin Array Si** | **45.83** | **307** | *eP* | **P** | **05 47 47.9** | **+0.3** |
| AKBB | | | | pmax | pmax | | |
| | comp=Z,28nm,1.8s | | | | | | |
| **AKBB** | **Malin Array Si** | **45.83** | **307** | *eP* | **P** | **05 47 47.9** | **+0.3** |
| | comp=Z,28nm,1.8s | | | | | | |
| **BR101** | **Keskin Array S** | **45.89** | **291** | *eP* | **P** | **05 47 48.7** | **+0.4** |
| **BRTR** | **Keskin Array B** | **45.89** | **291** | P | **P** | **05 47 48.7** | **+0.4** |
| | comp=Z,0.8nm,0.7s,baz=103,slow=6.5,SNR=5.1 | | | | | | |
| **FIA0** | **FINESS Array S** | **46.05** | **322** | *eP* | **P** | **05 47 49.5** | **+0.4** |
| **FIA0** | **FINESS Array S** | **46.05** | **322** | *eP* | **P** | **05 47 49.5** | **+0.4** |
| **FINES** | **FINESS Array B** | **46.05** | **322** | P | **P** | **05 47 49.5** | **+0.4** |
| | comp=Z,2.8nm,0.6s,baz=94,slow=10,SNR=7.0 | | | | | | |
| **ARA0** | **ARCESS Array S** | **46.22** | **333** | *eP* | **P** | **05 47 50.9** | **+0.6** |
| ARA0 | | | | *eP*cP | **PcP** | **05 49 25.6** | **-0.3** |
| **ARCES** | **ARCESS Array B** | **46.22** | **333** | P | **P** | **05 47 50.9** | **+0.6** |
| | comp=Z,0.9nm,0.4s,baz=95,slow=7.7,SNR=10 | | | | | | |
| ARCES | | | | PcP | **PcP** | **05 49 25.6** | **-0.3** |
| | comp=Z,1.9nm,0.8s,baz=95,slow=3.9,SNR=3.0 | | | | | | |
| **ASF** | **Jabal al Asfar** | **46.40** | **280** | P | **P** | **05 47 54.1** | **+1.7** |
| | comp=Z,2.6nm,0.6s,baz=338,slow=5.0,SNR=5.0 | | | | | | |
| **HFS** | **Hagfors** | **52.25** | **321** | P | **P** | **05 48 37.5** | **+0.9** |
| | comp=Z,3.2nm,0.7s,baz=76,slow=7.9,SNR=5.1 | | | | | | |
| **NB2** | **NORSAR Subarra** | **53.18** | **323** | P | **P** | **05 48 43.6** | **+0.1** |
| | comp=Z,2.1nm,0.7s,baz=72,slow=7.9 | | | | | | |
| **NB200** | **NORSAR Array S** | **53.18** | **323** | *eP* | **P** | **05 48 44.0** | **+0.5** |
| **NOA** | **NORSAR Array B** | **53.18** | **323** | P | **P** | **05 48 44.0** | **+0.5** |
| | comp=Z,2.4nm,0.6s,baz=72,slow=7.3,SNR=3.9 | | | | | | |
| **GERES** | **GERESS Array B** | **55.97** | **308** | P | **P** | **05 49 04.3** | **+0.2** |
| | comp=Z,1.0nm,0.8s,baz=33,slow=8.0,SNR=4.9 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **64.39** | **147** | P | **P** | **05 49 59.8** | **-2.1** |
| | comp=Z,2.9nm,1.1s,baz=344,slow=15,SNR=3.9 | | | | | | |
| **ILAR** | **Eielson Array** | **65.62** | **24** | P | **P** | **05 50 08.7** | **-0.7** |
| | comp=Z,0.6nm,0.9s,baz=293,slow=4.2,SNR=4.9 | | | | | | |
| **ILB** | **Eielson Array** | **65.62** | **24** | *eP* | **P** | **05 50 08.7** | **-0.7** |
| **PMG** | **Port Moresby** | **69.05** | **123** | P | **P** | **05 50 30.8** | **-0.9** |
| | comp=Z,12nm,0.6s,baz=58,slow=4.6,SNR=5.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **70.01** | **140** | P | **P** | **05 50 35.2** | **-2.3** |
| | comp=Z,0.8nm,0.7s,baz=336,slow=6.1,SNR=8.3 | | | | | | |
| **WR1** | **Warramunga Arr** | **70.01** | **140** | *eP* | **P** | **05 50 35.2** | **-2.3** |
| | comp=Z,40nm,1.9s | | | | | | |
| **ES19** | **SONSECA Array** | **71.42** | **306** | *eP* | **P** | **05 50 47.2** | **+1.1** |
| **ESDC** | **Sonseca Array** | **71.42** | **306** | P | **P** | **05 50 47.2** | **+0.8** |
| | comp=Z,3.0nm,0.5s,baz=45,slow=6.2,SNR=23 | | | | | | |
| **AS31** | **Alice Springs** | **72.96** | **142** | *eP* | **P** | **05 50 53.6** | **-1.7** |
| | comp=Z,1.0nm,0.8s | | | | | | |
| **ASAR** | **Alice Springs** | **72.96** | **142** | P | **P** | **05 50 53.6** | **-1.7** |
| | comp=Z,1.3nm,0.5s,baz=331,slow=6.4,SNR=19 | | | | | | |
| **FORT** | **Forrest** | **76.68** | **151** | *eP* | **P** | **05 51 18.0** | **+1.4** |
| | comp=Z,1µm,0.6s | | | | | | |
| **STKA** | **Stephens Creek** | **83.52** | **141** | P | **P** | **05 51 51.3** | **-2.2** |
| | comp=Z,1.8nm,0.6s,baz=300,slow=5.0,SNR=4.7 | | | | | | |
| **STKA** | **Stephens Creek** | **83.52** | **141** | *eP* | **P** | **05 51 51.3** | **-2.2** |
| | comp=Z,10.0nm,1.8s | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **83.71** | **282** | *eP* | **P** | **05 51 54.5** | **-0.5** |
| **TORD** | **Torodi Ar. Bea** | **83.71** | **282** | P | **P** | **05 51 54.5** | **-0.5** |
| | comp=Z,0.7nm,0.7s,baz=34,slow=4.4,SNR=4.7 | | | | | | |

**KRSC 14 05:51:15.1±1.7, 48.08N×156.40E, h16km±36km, ML3.9, East of Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **SKR** | **Severo-Kuril's** | **2.62** | **356** | P | | | Pn | 05 51 57.2 | +0.6 |
| SKR | | | | *eS* | | | Sn | 05 52 30.1 | +2.1 |
| **KDTR** | **Khodutka, Kamc** | **3.89** | **16** | *eP* | | | Pn | 05 52 17.8 | +3.7 |
| KDTR | | | | *eS* | | | Sb | 05 53 05.6 | -4.4 |
| **RUS** | **Russkaya** | **4.57** | **16** | *eP* | | | Pn | 05 52 26.7 | +3.3 |
| RUS | | | | *eS* | | | Sn | 05 53 20.7 | +4.6 |
| **UGLR** | **Uglovaya** | **5.36** | **16** | *eP* | | | Pn | 05 52 39.1 | +4.6 |
| **AVH** | **Avacha** | **5.40** | **15** | *eP* | | | Pn | 05 52 40.2 | +5.2 |
| **SDLR** | **Sedlovina** | **5.44** | **16** | *eP* | | | Pn | 05 52 40.2 | +4.6 |
| **SPN** | **Mys Shipunski** | **5.53** | **23** | *eS* | | | Sn | 05 53 46.0 | +6.2 |
| **GNL** | **Ganaly** | **5.71** | **9** | P | | | Pn | 05 52 44.5 | +5.3 |

*ISN 14 06:16:16.7±1.0, 35.28N×44.35E, h14km±3km, ML2.5*
*CSEM 14 06:16:17.8±0.2, 35.24N×44.24E, h15km, ML2.5, Error ellipse: s-maj=6.2km s-min=4.6km az=41.0*
**TEH 14 06:16:19.3, 35.09N×44.35E, h5km, ML2.5, Iraq**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **IDHR** | **Dehrash** | **1.72** | **103** | *e*AMB | | | AMB | 06 17 19.3 | |
| | comp=Z,553nm,0.1s | | | | | | | | |
| **BHD** | **Baghdad** | **1.82** | **179** | *e*Pn | | | Pn | 06 16 50.0 | -1.2 |
| | SNR=5.0 | | | | | | | | |
| BHD | | | | *i* Sn | | | Sn | 06 17 14.0 | -0.6 |
| | SNR=5.0 | | | | | | | | |
| **IGHG** | **Ghaleghazi** | **1.98** | **112** | *e*Pn | | | Pn | 06 16 54.0 | +0.3 |
| IGHG | | | | *e*AMB | | | AMB | 06 17 29.6 | |
| | comp=Z,493nm,0.3s | | | | | | | | |
| **IGHG** | **Ghaleghazi** | **1.98** | **112** | *e*Pn | | | Pn | 06 16 54.0 | +0.3 |
| **IVIS** | **Veis** | **2.13** | **105** | *e*Pn | | | Pn | 06 16 55.0 | -0.7 |
| IVIS | | | | *e*Sg | | | Sb | 06 17 25.9 | +0.5 |
| IVIS | | | | *e*AMB | | | AMB | 06 17 31.1 | |
| | comp=Z,162nm,0.3s | | | | | | | | |
| **IVIS** | **Veis** | **2.13** | **105** | *e*Pn | | | Pn | 06 16 55.0 | -0.7 |
| IVIS | | | | *e*Sg | | | Sb | 06 17 25.9 | +0.5 |
| **ISHB** | **Shabestar** | **3.35** | **17** | *e*Pn | | | Pn | 06 17 12.1 | -0.4 |
| **RTB** | **Rutbah** | **3.93** | **240** | *e*Pn | | | Pn | 06 17 19.0 | -1.4 |
| | SNR=5.0 | | | | | | | | |
| RTB | | | | *i* Sn | | | Sn | 06 18 03.0 | -3.9 |
| | SNR=5.0 | | | | | | | | |

**MEX 14 06:54:14.4±0.9, 19.52N×105.16W, h20km±11km, MD3.6, Near coast of Jalisco**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **CJM** | **Chamela** | **0.11** | **101** | *eP* | | | Pb | 06 54 17.6 | -0.9 |
| CJM | | | | *eS* | | | Sb | 06 54 20.1 | -1.2 |
| **R15V** | | **1.17** | **107** | *eP* | | | Pn | 06 54 31.9 | -3.7 |
| R15V | | | | *eS* | | | Sb | 06 54 46.3 | -4.4 |
| **EZ5V** | | **1.47** | **91** | *eP* | | | Pn | 06 54 37.8 | -2.3 |
| EZ5V | | | | *i* S | | | Sn | 06 54 54.8 | -4.1 |
| **MMIG** | **Aquila** | **2.11** | **125** | *eP* | | | Pn | 06 54 47.3 | -1.3 |
| MMIG | | | | *eS* | | | Sn | 06 55 14.8 | +0.5 |

*ISCJB 14 06:56:42.0±2.3, 36.9N±0.3×96.4E±0.2, h10km, mb4.0/4, Error ellipse: s-maj=42.5km s-min=15.7km az=12.4*
*IDC 14 06:56:41.1±3.3, 36.71N×96.44E, h0km, mb4.0/4, mb1 3.9/7, mb1mx3.5/47, mbtmp3.8/7, ML3.3/3, Error ellipse: s-maj=82.3km s-min=24.4km az=21.0*
*BJI 14 06:56:44.5, 36.91N×96.52E, h7km, ML3.5/7*
**ISC 14 06:56:44.8±2.3, 37.1N±0.3×96.3E±0.1, h10km, n8, σ2.8s14/9, mb4.2/4, Qinghai**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **WMQ** | **Urumqi** | **9.43** | **318** | *eP* | | | **Pn** | **06 59 04.0** | **+3.2** |
| **SONM** | **Songino Array** | **13.07** | **31** | Pn | | | **Pn** | **06 59 51.5** | **+0.8** |
| | 0.2nm,0.3s,baz=217,slow=14,SNR=4.2 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **14.26** | **317** | Pn | | | **Pn** | **07 00 05.8** | **-1.0** |
| | 0.4nm,0.3s,baz=126,slow=14,SNR=11 | | | | | | | | |
| MKAR | | | | Sn | | | **Sn** | **07 02 42.0** | **-3.0** |
| | 0.1nm,0.3s,baz=128,slow=26,SNR=4.4 | | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **18.61** | **322** | P | | | **P** | **07 01 02.5** | **+0.3** |
| | 0.0nm,0.3s,baz=136,slow=11,SNR=6.0 | | | | | | | | |
| **BVAR** | **Borovoye Array** | **24.12** | **320** | P | | | **P** | **07 02 01.2** | **+0.6** |
| | 0.8nm,0.6s,baz=120,slow=11,SNR=4.4 | | | | | | | | |
| **KSRS** | **Korea Array** | **25.09** | **79** | P | | | **P** | **07 02 07.2** | **-2.3** |
| | 4.5nm,0.7s,baz=274,slow=9.4,SNR=11 | | | | | | | | |
| **FINES** | **FINESS Array B** | **49.00** | **323** | P | | | **P** | **07 05 31.8** | **+0.5** |
| | 4.2nm,0.9s,baz=112,slow=17,SNR=2.1 | | | | | | | | |
| **ARCES** | **ARCESS Array B** | **49.15** | **334** | P | | | **P** | **07 05 32.5** | **+0.2** |
| | 1.6nm,0.8s,baz=78,slow=8.6,SNR=4.3 | | | | | | | | |

*ISCJB 14 07:30:34.4±0.4, 23.67N±0.02×121.96E±0.02, h19km±4km, Error ellipse: s-maj=3.8km s-min=2.0km az=139.1*
*JMA 14 07:30:34.4±0.2, 23.70N×121.92E, h19km±5km, M3.3*
*TAP 14 07:30:35.5, 23.72N×121.89E, h23km, ML3.4, D*
**ISC 14 07:30:32.7±1.2, 23.66N±0.02×121.96E±0.02, h5km±10km, n57, σ0.73/111, Taiwan**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **TEGC** | **Jichi Village** | **0.39** | **277** | P | | | **Pb** | **07 30 43.7** | **+1.5** |
| | baz=269 | | | | | | | | |
| TEGC | | | | *e*S | | | **Sb** | **07 30 48.5** | **0.0** |
| | baz=269 | | | | | | | | |
| **HWA** | **Hwalien** | **0.45** | **314** | P | | | **Pb** | **07 30 43.6** | **+0.4** |
| | baz=315 | | | | | | | | |
| HWA | | | | S | | | **Sb** | **07 30 49.0** | **-1.3** |
| | baz=315 | | | | | | | | |
| **ESF** | **Shoufeng Towns** | **0.47** | **297** | *e*P | | | **Pb** | **07 30 44.1** | **+0.6** |
| | baz=301 | | | | | | | | |
| ESF | | | | S | | | **Sb** | **07 30 49.2** | **-1.4** |
| | baz=301 | | | | | | | | |
| **ESL** | **Shilin** | **0.51** | **287** | P | | | **Pb** | **07 30 43.8** | **-0.4** |
| | baz=275 | | | | | | | | |
| ESL | | | | S | | | **Sb** | **07 30 50.7** | **-1.2** |
| | baz=275 | | | | | | | | |
| **TWD** | **Chiawan** | **0.53** | **321** | P | | | **Pb** | **07 30 44.6** | **0.0** |
| | baz=324 | | | | | | | | |
| TWD | | | | S | | | **Sb** | **07 30 51.1** | **-1.6** |
| | baz=324 | | | | | | | | |
| **EHY** | **Hungye** | **0.61** | **255** | *i* P | | | **Pb** | **07 30 46.4** | **+0.5** |
| | baz=256 | | | | | | | | |
| EHY | | | | S | | | **Sb** | **07 30 54.8** | **+0.1** |
| | baz=256 | | | | | | | | |
| **TWF1** | **Yuli** | **0.68** | **243** | P | | | **Pb** | **07 30 48.0** | **+0.8** |
| | baz=226 | | | | | | | | |
| TWF1 | | | | *i* S | | | **Sb** | **07 30 57.6** | **+0.6** |
| | baz=226 | | | | | | | | |
| **WDT** | **Danda** | **0.77** | **277** | *e*P | | | **Pb** | **07 30 48.7** | **0.0** |
| | baz=274 | | | | | | | | |
| WDT | | | | *e*S | | | **Sg** | **07 30 58.1** | **+0.7** |
| | baz=274 | | | | | | | | |
| **ENA** | **Nanau** | **0.79** | **345** | *e*P | | | **Pb** | **07 30 49.0** | **+0.1** |
| | baz=349 | | | | | | | | |
| ENA | | | | *e*S | | | **Sb** | **07 30 59.5** | **-0.5** |
| | baz=349 | | | | | | | | |
| **WHF** | **Hehuan Shan** | **0.80** | **307** | P | | | **Pb** | **07 30 49.0** | **-0.4** |
| | baz=307 | | | | | | | | |
| WHF | | | | *e*S | | | **Sg** | **07 30 59.0** | **+0.5** |
| | baz=307 | | | | | | | | |
| **TWT** | **Tachien** | **0.93** | **309** | *e*P | | | **Pb** | **07 30 51.5** | **0.0** |
| | baz=309 | | | | | | | | |
| TWT | | | | *e*S | | | **Sb** | **07 31 03.4** | **-0.9** |
| | baz=309 | | | | | | | | |
| **NNS** | **Nan Shan** | **0.94** | **325** | P | | | **Pb** | **07 30 51.7** | **0.0** |
| | baz=327 | | | | | | | | |
| NNS | | | | S | | | **Sb** | **07 31 03.9** | **-0.6** |
| | baz=327 | | | | | | | | |
| **YUS** | **Yu-Shan** | **0.94** | **260** | *i* P | | | **Pb** | **07 30 52.3** | **+0.4** |
| | baz=255 | | | | | | | | |
| YUS | | | | S | | | **Sg** | **07 31 03.9** | **+0.8** |
| | baz=255 | | | | | | | | |
| **TWC** | **Suao** | **0.95** | **354** | P | | | **Pb** | **07 30 52.0** | **+0.4** |
| | baz=358 | | | | | | | | |
| TWC | | | | *e*S | | | **Sb** | **07 31 04.4** | **-0.2** |
| | baz=358 | | | | | | | | |
| **ELDTW** | **Lidau** | **0.99** | **242** | *i* P | | | **Pg** | **07 30 52.1** | **+0.4** |
| | baz=222 | | | | | | | | |
| ELDTW | | | | S | | | **Sg** | **07 31 04.5** | **-0.1** |
| | baz=222 | | | | | | | | |
| **SMLT** | **Sun Moon Lake** | **1.00** | **283** | *e*P | | | **Pb** | **07 30 52.5** | **0.0** |
| | baz=281 | | | | | | | | |
| SMLT | | | | S | | | **Sb** | **07 31 06.1** | **0.0** |
| | baz=281 | | | | | | | | |
| **ENTT** | **Nioudou** | **1.04** | **340** | *e*P | | | **Pb** | **07 30 53.2** | **0.0** |
| | baz=342 | | | | | | | | |
| ENTT | | | | S | | | **Sb** | **07 31 06.5** | **-0.7** |
| | baz=342 | | | | | | | | |
| **TYC** | **Yuchr** | **1.04** | **284** | *e*P | | | **Pb** | **07 30 53.3** | **0.0** |
| | baz=291 | | | | | | | | |
| TYC | | | | *e*S | | | **Sg** | **07 31 05.9** | **-0.3** |
| | baz=291 | | | | | | | | |
| **ALS** | **Alishan** | **1.07** | **262** | *e*P | | | **Pb** | **07 30 54.4** | **+0.4** |
| | baz=259 | | | | | | | | |
| ALS | | | | S | | | **Sb** | **07 31 07.9** | **-0.5** |
| | baz=259 | | | | | | | | |
| **TWE** | **Neicheng** | **1.09** | **346** | *e*P | | | **Pn** | **07 30 55.1** | **+0.4** |
| | baz=349 | | | | | | | | |
| TWE | | | | *e*S | | | **Sb** | **07 31 07.9** | **-0.7** |
| | baz=349 | | | | | | | | |
| **NSK** | **Sanguang** | **1.15** | **331** | *e*P | | | **Pg** | **07 30 54.8** | **0.0** |
| | baz=334 | | | | | | | | |
| NSK | | | | S | | | **Sg** | **07 31 09.0** | **-0.8** |
| | baz=334 | | | | | | | | |
| **TWG** | **Pinlang** | **1.17** | **225** | P | | | **Pg** | **07 30 54.5** | **-0.7** |
| | baz=232 | | | | | | | | |
| TWG | | | | S | | | **Sg** | **07 31 09.0** | **-1.4** |
| | baz=232 | | | | | | | | |
| **CHN5** | **Tsauling** | **1.18** | **267** | *e*P | | | **Pn** | **07 30 56.3** | **+0.3** |
| | baz=255 | | | | | | | | |
| CHN5 | | | | S | | | **Sb** | **07 31 11.1** | **-0.2** |
| | baz=255 | | | | | | | | |
| **WNT** | **Mingjian** | **1.19** | **281** | *e*P | | | **Pn** | **07 30 56.4** | **+0.3** |
| | baz=279 | | | | | | | | |
| WNT | | | | *e*S | | | **Sb** | **07 31 11.3** | **-0.3** |
| | baz=279 | | | | | | | | |
| **JYNG** | **Yonagunijimaku** | **1.19** | **49** | P | | | **Pn** | **07 30 56.7** | **+0.6** |
| JYNG | | | | S | | | **Sb** | **07 31 11.9** | **+0.3** |
| **STYT** | **Tauyuan** | **1.21** | **246** | P | | | **Pg** | **07 30 56.4** | **+0.3** |
| | baz=232 | | | | | | | | |
| STYT | | | | S | | | **Sg** | **07 31 11.7** | **-0.1** |
| | baz=232 | | | | | | | | |
| **YOJ** | **Yonaguni jima** | **1.25** | **50** | P | | | **Pn** | **07 30 57.5** | **+0.7** |
| YOJ | | | | S | | | **Sb** | **07 31 13.3** | **+0.2** |
| **TCU** | **Taichung** | **1.27** | **293** | *e*P | | | **Pn** | **07 30 57.6** | **+0.4** |
| | baz=292 | | | | | | | | |
| TCU | | | | *e*S | | | **Sg** | **07 31 13.4** | **-0.3** |
| | baz=292 | | | | | | | | |
| **TWQ1** | **Liyutan** | **1.28** | **302** | *e*P | | | **Pn** | **07 30 58.4** | **+1.0** |
| | baz=303 | | | | | | | | |
| TWQ1 | | | | *e*S | | | **Sn** | **07 31 15.2** | **+0.1** |
| | baz=303 | | | | | | | | |
| **WGK** | **Gukeng** | **1.28** | **271** | *e*P | | | **Pb** | **07 30 57.5** | **+0.1** |
| | baz=269 | | | | | | | | |
| WGK | | | | *e*S | | | **Sb** | **07 31 14.5** | **+0.2** |
| | baz=269 | | | | | | | | |
| **CHN4** | **Tsaushan** | **1.29** | **256** | P | | | **Pb** | **07 30 58.2** | **+0.6** |
| | baz=253 | | | | | | | | |
| CHN4 | | | | S | | | **Sb** | **07 31 15.5** | **+0.3** |
| | baz=253 | | | | | | | | |
| **NSTT** | **Nanjuang** | **1.30** | **318** | *e*P | | | **Pb** | **07 30 58.7** | **+0.9** |
| | baz=319 | | | | | | | | |
| NSTT | | | | *e*S | | | **Sb** | **07 31 14.7** | **-0.1** |
| | baz=319 | | | | | | | | |
| **WTP** | **Ta-pu** | **1.31** | **252** | P | | | **Pb** | **07 30 58.1** | **+0.3** |
| | baz=248 | | | | | | | | |
| WTP | | | | S | | | **Sb** | **07 31 15.4** | **+0.5** |
| | baz=248 | | | | | | | | |
| **NSY** | **Sanyi** | **1.33** | **305** | *e*P | | | **Pn** | **07 30 58.1** | **+0.1** |
| | baz=305 | | | | | | | | |
| NSY | | | | *e*S | | | **Sg** | **07 31 14.2** | **-1.4** |
| | baz=305 | | | | | | | | |
| **TWB1** | **Santiao Chiao** | **1.34** | **1** | P | | | **Pn** | **07 30 58.2** | **+0.1** |
| | baz=4.0 | | | | | | | | |
| TWB1 | | | | S | | | **Sg** | **07 31 14.8** | **-1.0** |
| | baz=4.0 | | | | | | | | |
| **TWA** | **Mucha** | **1.36** | **345** | *e*P | | | **Pb** | **07 30 58.9** | **+0.2** |
| | baz=335 | | | | | | | | |
| TWA | | | | S | | | **Sb** | **07 31 16.3** | **-0.1** |
| | baz=335 | | | | | | | | |
| **CHN2** | **Minshiung** | **1.37** | **265** | *e*P | | | **Pn** | **07 30 58.9** | **+0.3** |
| | baz=262 | | | | | | | | |
| CHN2 | | | | *e*S | | | **Sn** | **07 31 18.2** | **+1.1** |
| | baz=262 | | | | | | | | |
| **SGST** | **Jiashian** | **1.39** | **246** | *e*P | | | **Pg** | **07 30 59.6** | **+0.2** |
| | baz=229 | | | | | | | | |
| SGST | | | | *e*S | | | **Sb** | **07 31 17.3** | **-0.1** |
| | baz=229 | | | | | | | | |
| **CHN1** | **Nanshi** | **1.40** | **250** | *e*P | | | **Pg** | **07 30 59.9** | **+0.3** |
| | baz=247 | | | | | | | | |
| CHN1 | | | | S | | | **Sn** | **07 31 18.4** | **+0.5** |
| | baz=247 | | | | | | | | |
| **TWK** | **Hsinying** | **1.41** | **254** | P | | | **Pg** | **07 31 00.0** | **+0.3** |
| | baz=250 | | | | | | | | |
| TWK | | | | *e*S | | | **Sn** | **07 31 18.7** | **+0.6** |
| | baz=250 | | | | | | | | |
| **NWF** | **Wu-fen Shan** | **1.41** | **353** | P | | | **Pn** | **07 30 59.3** | **+0.1** |
| | baz=356 | | | | | | | | |
| NWF | | | | *e*S | | | **Sn** | **07 31 18.5** | **+0.2** |
| | baz=356 | | | | | | | | |
| **CHY** | **Chiayi** | **1.42** | **264** | *e*P | | | **Pb** | **07 30 59.9** | **+0.1** |
| | baz=261 | | | | | | | | |
| CHY | | | | *e*S | | | **Sb** | **07 31 17.1** | **-1.1** |
| | baz=261 | | | | | | | | |
| **SSD** | **Sandimen** | **1.53** | **234** | *e*P | | | **Pn** | **07 31 00.7** | **0.0** |
| | baz=221 | | | | | | | | |
| **EAST** | **Anshuo** | **1.64** | **219** | *e*P | | | **Pn** | **07 31 01.4** | **-0.8** |
| | baz=216 | | | | | | | | |
| **CHN8** | **Yiju** | **1.64** | **259** | *e*P | | | **Pn** | **07 31 03.0** | **+0.8** |
| | baz=256 | | | | | | | | |
| CHN8 | | | | *e*S | | | **Sn** | **07 31 23.1** | **-0.6** |
| | baz=256 | | | | | | | | |
| **TWM1** | **Shoushan** | **1.64** | **240** | *e*P | | | **Pb** | **07 31 03.8** | **+0.2** |
| | baz=236 | | | | | | | | |
| TWM1 | | | | *e*S | | | **Sn** | **07 31 24.1** | **+0.2** |
| | baz=236 | | | | | | | | |
| **LAY** | **Lan-yu** | **1.66** | **193** | *e*P | | | **Pn** | **07 31 01.1** | **-1.4** |
| | baz=190 | | | | | | | | |
| LAY | | | | *e*S | | | **Sn** | **07 31 21.2** | **-3.1** |
| | baz=190 | | | | | | | | |
| **HATJ** | **Hateruma jima** | **1.73** | **77** | P | | | **Pn** | **07 31 04.1** | **+0.6** |
| HATJ | | | | S | | | **Sn** | **07 31 26.4** | **+0.4** |
| **IRIF** | **Iriomote-Funau** | **1.75** | **67** | P | | | **Pn** | **07 31 04.6** | **+0.8** |
| IRIF | | | | S | | | **Sn** | **07 31 27.2** | **+0.7** |
| **SCZT** | **Fangliau** | **1.78** | **224** | *e*P | | | **Pn** | **07 31 04.7** | **+0.5** |
| | baz=215 | | | | | | | | |
| SCZT | | | | *e*S | | | **Sn** | **07 31 28.4** | **+1.1** |
| | baz=215 | | | | | | | | |
| **JKRS** | **Kuro-shima** | **1.96** | **73** | P | | | **Pn** | **07 31 07.5** | **+0.9** |
| JKRS | | | | S | | | **Sn** | **07 31 32.1** | **+0.5** |
| **HEN** | **Hengchun** | **2.00** | **215** | *e*P | | | **Pn** | **07 31 08.0** | **+0.8** |
| | baz=204 | | | | | | | | |
| **TWK1** | **Hengchun** | **2.02** | **212** | *e*P | | | **Pn** | **07 31 07.5** | **0.0** |
| | baz=209 | | | | | | | | |
| TWK1 | | | | *e*S | | | **Sn** | **07 31 32.4** | **-0.7** |
| | baz=209 | | | | | | | | |
| **JIJ** | **Ishigaki jima** | **2.11** | **70** | P | | | **Pn** | **07 31 09.0** | **+0.2** |
| JIJ | | | | S | | | **Sn** | **07 31 34.4** | **-1.0** |
| **PNG** | **Penghu** | **2.21** | **268** | *e*P | | | **Pn** | **07 31 11.0** | **+0.9** |
| | baz=251 | | | | | | | | |
| PNG | | | | *e*S | | | **Sn** | **07 31 36.6** | **-1.2** |
| | baz=251 | | | | | | | | |
| **JISG** | **Ishigakijimahi** | **2.33** | **66** | P | | | **Pn** | **07 31 12.1** | **+0.3** |
| JISG | | | | S | | | **Sn** | **07 31 39.7** | **-1.2** |
| **JTJ** | **Tarama** | **2.69** | **68** | P | | | **Pn** | **07 31 17.5** | **+0.9** |
| JTJ | | | | S | | | **Sn** | **07 31 50.5** | **+0.9** |

*IDC 14 07:31:47.6±0.8, 28.52N×129.17E, h0km, mb3.8/9, mb1 4.0/12, mb1mx3.8/41, mbtmp3.8/12, ML3.6/3, Error ellipse: s-maj=29.1km s-min=15.6km az=86.0*
*ISCJB 14 07:31:49.5±0.4, 28.65N±0.02×129.62E±0.04, h28km±3km, mb3.8/9, Error ellipse: s-maj=7.0km s-min=3.3km az=25.3*
*JMA 14 07:31:49.9±0.1, 28.65N×129.59E, h14km±4km, M4.1*
*JMA Felt II J1.*
**ISC 14 07:31:49.5±1.0, 28.66N±0.03×129.59E±0.04, h15km±7km, n30, σ1.39/41, mb3.8/9, Ryukyu Islands**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **JAM** | **Amami Oshima** | **0.24** | **178** | P | | | **Pg** | **07 31 54.7** | **-0.1** |
| JAM | | | | S | | | **Sg** | **07 31 58.7** | **+0.3** |
| **JZK** | **Kikaishima** | **0.48** | **135** | P | | | **Pg** | **07 31 59.2** | **+0.2** |
| JZK | | | | S | | | **Sb** | **07 32 03.6** | **+0.3** |
| **JAMN** | **Amaminishikomi** | **0.55** | **222** | P | | | **Pg** | **07 32 00.7** | **+0.3** |
| JAMN | | | | S | | | **Sb** | **07 32 08.9** | **+0.3** |
| **JTAJ** | **Takarajima** | **0.60** | **325** | P | | | **Pg** | **07 32 01.8** | **+0.4** |
| JTAJ | | | | S | | | **Sb** | **07 32 11.3** | **+1.2** |
| **JTK** | **Tokunoshima** | **1.04** | **213** | P | | | **Pb** | **07 32 08.0** | **-1.2** |
| JTK | | | | S | | | **Sb** | **07 32 21.7** | **-0.9** |
| **JNN** | **Nakanoshima** | **1.21** | **12** | P | | | **Pn** | **07 32 10.1** | **-1.8** |
| JNN | | | | *e*S | | | **Sb** | **07 32 25.4** | **-2.2** |
| **JOKE** | **Okinoerabujima** | **1.57** | **215** | P | | | **Pn** | **07 32 16.9** | **-0.1** |
| JOKE | | | | *e*S | | | **Sn** | **07 32 37.0** | **-0.1** |
| **JYAK** | **Yakushimahirau** | **1.77** | **27** | P | | | **Pn** | **07 32 17.6** | **-2.0** |
| JYAK | | | | *e*S | | | **Sn** | **07 32 39.2** | **-2.7** |
| **JKC** | **Kuchinoerabu** | **1.88** | **16** | P | | | **Pn** | **07 32 19.7** | **-1.4** |
| JKC | | | | *e*S | | | **Sn** | **07 32 41.7** | **-2.8** |
| **JOW** | **Kunigami** | **2.16** | **213** | P | | | **Pn** | **07 32 25.4** | **+0.4** |
| JOW | | | | *e*S | | | **Sn** | **07 32 51.5** | **-0.1** |
| **JIH** | **Iheya** | **2.16** | **222** | P | | | **Pn** | **07 32 24.8** | **-0.2** |
| JIH | | | | *e*S | | | **Sn** | **07 32 50.4** | **-1.2** |
| **JTN** | **Tanegashima 3** | **2.33** | **31** | P | | | **Pn** | **07 32 28.0** | **+0.7** |
| JTN | | | | *e*S | | | **Sn** | **07 32 56.4** | **+0.7** |
| **JNTH** | **Nagotoyohara** | **2.54** | **214** | P | | | **Pn** | **07 32 31.5** | **+1.2** |
| **JAGN** | **Aguni-jima** | **2.93** | **226** | P | | | **Pn** | **07 32 35.8** | **+0.2** |
| JAGN | | | | *e*S | | | **Sn** | **07 33 09.7** | **-0.9** |
| **JKE** | **Kume jima 2** | **3.41** | **228** | P | | | **Pn** | **07 32 42.5** | **+0.4** |
| JKE | | | | *e*S | | | **Sn** | **07 33 22.2** | **-0.1** |
| **JNU** | **Nakatsue** | **4.59** | **14** | Pn | | | **Pn** | **07 33 00.8** | **+2.4** |
| | 2.1nm,0.3s,baz=189,slow=5.7,SNR=32 | | | | | | | | |
| JNU | | | | | | | Sn | | |
| | 0.7nm,0.3s,baz=294,slow=12,SNR=2.3 | | | | | | | | |
| **KSRS** | **Korea Array** | **8.89** | **351** | Pn | | | **Pn** | **07 33 58.1** | **+0.7** |
| | 1.2nm,0.3s,baz=117,slow=18,SNR=4.8 | | | | | | | | |
| **MJA

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LMEL | | | | *e*S | **Sn** | **07 42 48.2** | **-0.1** |
| LMEL | | | | IAML | | 07 42 50.5 | |
| | comp=N,2μm,0.4s | | | | | | |
| **ARCO** | **CERRO ARCO** | **2.54** | **108** | *i* P | **Pn** | **07 42 27.5** | **+1.1** |
| ARCO | | | | IAML | | 07 42 29.2 | |
| | comp=Z,202nm,0.4s | | | | | | |
| **ASAL** | **Salagasta** | **2.56** | **102** | *i* P | **Pn** | **07 42 27.7** | **+1.0** |
| **AAGR** | **Agrelo** | **2.70** | **112** | *i* P | **Pn** | **07 42 30.3** | **+1.7** |
| **RTCV** | **Cerro Valdivia** | **2.78** | **86** | *i* P | **Pn** | **07 42 30.2** | **+0.4** |
| **GO05** | **HualaæØ** | **2.91** | **182** | *e*P | **Pn** | **07 42 32.4** | **+1.0** |
| GO05 | | | | *e*S | **Sn** | **07 43 04.9** | **-0.6** |

*MOS* **14** *07:48:43.8±0.9, 42°.55N×138°.12E, h247km, mb5.0/77, Error ellipse: s-maj=5.9km s-min=4.1km az=110.6*
*BJI* **14** *07:48:43.6, 42°.50N×138°.00E, h239km, mb4.9/59, mB5.0/29*
*IDC* **14** *07:48:44.6±0.8, 42°.51N×138°.11E, h243km±7km, mb4.3/29, mb1 4.4/36, mb1mx4.3/46, mbtmp4.9/36, Error ellipse: s-maj=8.1km s-min=7.2km az=152.0*
*ISCJB* **14** *07:48:44.1±0.2, 42°.49N±0°.02×138°.14E±0°.02, h249km±1km, mb4.7/194, Error ellipse: s-maj=3.3km s-min=2.6km az=147.4*
*NEIC* **14** *07:48:45.4±0.3, 42°.50N×138°.06E, h248km±3km, mb4.6/95, Error ellipse: s-maj=3.6km s-min=2.9km az=153.0*
*JMA* **14** *07:48:45.3±0.2, 42°.48N×138°.22E, h254km±2km, M4.6*
**ISC 14 07:48:44.5**±0.4, **42°.51N**±0°.03×**138°.16E**±0°.04, **h246**km±3km, **n496,** σ1**$40**/568, **mb4.7**/194, **18C-42D, Eastern Sea of Japan**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **JOSM** | **Okushiri--Mats** | **1.07** | **113** | P | | **Pn** | **07 49 20.7** | **+1.3** |
| JOSM | | | | *e*S | | **S** | **07 49 48.7** | **+1.9** |
| **JSH** | **Shimam** | **1.40** | **84** | P | | **Pn** | **07 49 23.1** | **+1.5** |
| JSH | | | | *e*S | | **S** | **07 49 53.4** | **+2.6** |
| **JYM2** | **Yakumo 2** | **1.69** | **103** | P | | **Pn** | **07 49 25.5** | **+1.6** |
| **JSK** | **Shakotan** | **1.90** | **63** | P | | **Pn** | **07 49 27.1** | **+1.5** |
| JSK | | | | *e*S | | **S** | **07 49 59.2** | **+1.2** |
| **JKB** | **Kayabe** | **2.23** | **105** | P | | **Pn** | **07 49 29.7** | **+1.0** |
| **JOT** | **Ohata** | **2.43** | **117** | P | | **Pn** | **07 49 31.4** | **+0.7** |
| **JEW** | **Eniwo** | **2.45** | **81** | P | | **Pn** | **07 49 32.5** | **+1.6** |
| JEW | | | | *e*S | | **S** | **07 50 09.2** | **+1.7** |
| **JHR** | **Hokuryu** | **2.89** | **63** | P | | **Pn** | **07 49 37.4** | **+2.0** |
| **JYG** | **Yagishiri** | **3.06** | **50** | P | | **Pn** | **07 49 38.6** | **+1.4** |
| JYG | | | | *e*S | | **S** | **07 50 18.9** | **-0.1** |
| **JANG** | **Nango** | **3.30** | **129** | P | | **Pn** | **07 49 39.6** | **-0.5** |
| JANG | | | | *e*S | | **S** | **07 50 22.8** | **-1.2** |
| **JFR** | **Furan** | **3.33** | **77** | P | | **Pn** | **07 49 41.0** | **+0.7** |
| JFR | | | | *e*S | | **S** | **07 50 23.4** | **-1.1** |
| **JNBK** | **Urakawa-nobuka** | **3.41** | **92** | P | | **Pn** | **07 49 41.3** | **+0.1** |
| JNBK | | | | *e*S | | **S** | **07 50 26.1** | **0.0** |
| **ASAJ** | **Asahikawa** | **3.62** | **62** | P | | **Pn** | **07 49 44.9** | **+1.4** |
| | 34nm,0.3s,baz=240,slow=10.0,SNR=82 | | | | | | | |
| ASAJ | | | | S | | **S** | **07 50 29.8** | **-0.6** |
| | 3.9nm,0.3s,baz=296,slow=5.5,SNR=3.8 | | | | | | | |
| **ASAJ** | **Asahikawa** | **3.62** | **62** | *e*Pn | | **Pn** | **07 49 44.9** | **+1.4** |
| ASAJ | | | | *e*S | | **S** | **07 50 31.0** | **+0.6** |
| **JKK2** | **Kamakawa 2** | **3.63** | **66** | P | | **Pn** | **07 49 45.1** | **+1.4** |
| JKK2 | | | | *e*S | | **S** | **07 50 30.1** | **-0.5** |
| **ERM** | **Erimo** | **3.75** | **96** | *c* iP | | **Pn** | **07 49 45.6** | **+0.6** |
| **ERM** | **Erimo** | **3.75** | **96** | *e*Pn | | **Pn** | **07 49 45.8** | **+0.7** |
| ERM | | | | *e*S | | **S** | **07 50 31.3** | **-1.7** |
| **JCH** | **Churui** | **3.85** | **87** | P | | **Pn** | **07 49 45.9** | **-0.3** |
| **JOM** | **Ohasama** | **3.85** | **141** | P | | **Pn** | **07 49 45.7** | **-0.6** |
| JOM | | | | *e*S | | **S** | **07 50 33.0** | **-2.4** |
| **JWK2** | **Keihoku** | **3.90** | **43** | P | | **Pn** | **07 49 49.1** | **+2.3** |
| JWK2 | | | | *e*S | | **S** | **07 50 37.9** | **+1.7** |
| **JYK** | **Kaneyama** | **3.96** | **154** | P | | **Pn** | **07 49 47.9** | **+0.3** |
| JYK | | | | *e*S | | **S** | **07 50 37.2** | **-0.5** |
| **JSE** | **Soyaes** | **4.04** | **51** | P | | **Pn** | **07 49 49.7** | **+1.3** |
| JSE | | | | *e*S | | **S** | **07 50 39.4** | **+0.2** |
| **JAR** | **Ashorobuto** | **4.20** | **77** | P | | **Pn** | **07 49 50.2** | **-0.2** |
| JAR | | | | *e*S | | **S** | **07 50 40.1** | **-2.6** |
| **JMK** | **Ichinoseki** | **4.25** | **146** | P | | **Pn** | **07 49 50.3** | **-0.7** |
| JMK | | | | *e*S | | **S** | **07 50 41.7** | **-2.1** |
| **JTKR** | **Abashiri--Toko** | **4.45** | **69** | P | | **Pn** | **07 49 53.8** | **+0.5** |
| JTKR | | | | *e*S | | **S** | **07 50 46.4** | **-1.7** |
| **JSD** | **Sado** | **4.46** | **179** | P | | **Pn** | **07 49 55.1** | **+1.4** |
| JSD | | | | *e*S | | **S** | **07 50 49.8** | **+1.2** |
| **VLA** | **Vladivostok** | **4.65** | **280** | *i* P | | **Pn** | **07 49 57.3** | **+1.5** |
| **USRK** | **Ussuriysk Ar.** | **4.80** | **293** | P | | **Pn** | **07 49 59.0** | **+1.3** |
| | 11nm,0.3s,baz=101,slow=12,SNR=118 | | | | | | | |
| USRK | | | | S | | **S** | **07 50 53.6** | **-2.2** |
| | 0.8nm,0.3s,baz=113,slow=12,SNR=4.1 | | | | | | | |
| **MSHR** | **Mys Shultsa** | **5.17** | **273** | *i* iP | | **Pn** | **07 50 03.7** | **+1.5** |
| **YSS** | **Yuzh-Sakhalins** | **5.52** | **35** | *e*P | | **Pn** | **07 50 07.8** | **+1.4** |
| YSS | | | | *e*S | | **S** | **07 51 11.8** | **-0.1** |
| YSS | | | | pmax | pmax | | | |
| | comp=N,710nm,0.7s | | | | | | | |
| YSS | | | | pmax | pmax | | | |
| | comp=Z,1μm,0.7s | | | | | | | |
| YSS | | | | pmax | pmax | | | |
| | comp=E,630nm,0.6s | | | | | | | |
| YSS | | | | MLR | MLR | | | |
| | comp=Z,1μm,20.0s | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **5.52** | **35** | *e*Pn | | **Pn** | **07 50 07.9** | **+1.5** |
| YSS | | | | *e*S | | **S** | **07 51 11.3** | **-0.6** |
| **GLVR** | **Golovnino** | **5.53** | **75** | *e*P | | **Pn** | **07 50 06.7** | **+0.2** |
| GLVR | | | | *e*S | | **S** | **07 51 09.5** | **-2.5** |
| **GRPR** | **Tuman** | **5.76** | **72** | *e*P | | **Pn** | **07 50 09.6** | **+0.2** |
| GRPR | | | | *e*S | | **S** | **07 51 15.2** | **-2.0** |
| **LAGR** | **Lagunnoye** | **5.78** | **72** | *e*P | | **Pn** | **07 50 10.2** | **+0.5** |
| LAGR | | | | *e*S | | **S** | **07 51 17.0** | **-0.7** |
| **YUK** | **Yuzh-Kuril'sk** | **5.83** | **72** | *d* iP | | **Pn** | **07 50 10.2** | **-0.1** |
| YUK | | | | *i* S | | **S** | **07 51 16.7** | **-2.1** |
| YUK | | | | pmax | pmax | | | |
| | comp=N,601nm,0.3s | | | | | | | |
| YUK | | | | pmax | pmax | | | |
| | comp=E,116nm,0.2s | | | | | | | |
| YUK | | | | smax | smax | | | |
| | comp=N,807nm,0.6s | | | | | | | |
| YUK | | | | smax | smax | | | |
| | comp=E,1μm,0.6s | | | | | | | |
| **MJB9** | **Matsu-Tunnel** | **5.95** | **180** | *e*Pn | | **Pn** | **07 50 12.7** | **+0.7** |
| **MAJO** | **Matsushiro** | **5.96** | **180** | *d* iP | | **Pn** | **07 50 11.3** | **-0.7** |
| **MAJO** | **Matsushiro** | **5.96** | **180** | *e*Pn | | **Pn** | **07 50 12.7** | **+0.6** |
| **MAT** | **Matsushiro** | **5.96** | **180** | P | | **Pn** | **07 50 12.6** | **+0.6** |
| MAT | | | | *e*S | | **S** | **07 51 24.0** | **+2.0** |
| **MJAR** | **Matsushiro Arr** | **5.96** | **180** | P | | **Pn** | **07 50 13.1** | **+1.0** |
| | comp=E,36nm,0.3s,baz=357,slow=11,SNR=195 | | | | | | | |
| **HABR** | **Khabarovsk** | **6.35** | **341** | *e*P | | **Pn** | **07 50 15.9** | **-0.9** |
| HABR | | | | *e*S | | **S** | **07 51 30.4** | **-0.3** |
| HABR | | | | pmax | pmax | | | |
| | comp=N,83nm,0.8s | | | | | | | |
| HABR | | | | pmax | pmax | | | |
| | comp=E,43nm,0.8s | | | | | | | |
| HABR | | | | pmax | pmax | | | |
| | comp=Z,207nm,0.8s | | | | | | | |
| HABR | | | | MLR | MLR | | | |
| | comp=Z,661nm,12.0s | | | | | | | |
| **SHO** | **Shikotan** | **6.49** | **75** | *e*P | | **Pn** | **07 50 16.3** | **-2.2** |
| SHO | | | | *e*S | | **S** | **07 51 26.0** | **-7.8** |
| SHO | | | | pmax | pmax | | | |
| | comp=N,151nm,0.3s | | | | | | | |
| SHO | | | | pmax | pmax | | | |
| | comp=E,313nm,0.3s | | | | | | | |
| SHO | | | | pmax | pmax | | | |
| | comp=Z,510nm,0.3s | | | | | | | |
| SHO | | | | smax | smax | | | |
| | comp=N,2μm,0.5s | | | | | | | |
| SHO | | | | smax | smax | | | |
| | comp=E,968nm,0.5s | | | | | | | |
| **MDJ** | **Mudanjiang** | **6.57** | **292** | P | | **Pn** | **07 50 20.8** | **+1.3** |
| MDJ | | | | pmax | pmax | | | |
| | comp=E,110nm,0.9s | | | | | | | |
| MDJ | | | | pmax | pmax | | | |
| | comp=E,680nm,10.1s | | | | | | | |
| **MDJ** | **Mudanjiang** | **6.57** | **292** | *e*Pn | | **Pn** | **07 50 20.9** | **+1.3** |
| **INU** | **Inuyama** | **7.20** | **187** | *e*Pn | | **Pn** | **07 50 28.1** | **+0.4** |
| **KUR** | **Kuril'sk** | **7.53** | **65** | *e*P | | **Pn** | **07 50 31.8** | **+0.2** |
| KUR | | | | *e*S | | **S** | **07 51 55.2** | **-2.6** |
| KUR | | | | pmax | pmax | | | |
| | comp=Z,58nm,0.3s | | | | | | | |
| KUR | | | | pmax | pmax | | | |
| | comp=E,34nm,0.5s | | | | | | | |
| KUR | | | | pmax | pmax | | | |
| | comp=N,20nm,0.4s | | | | | | | |
| **KLR** | **Kul'dur** | **8.07** | **329** | P | | **Pn** | **07 50 39.4** | **+0.9** |
| | comp=N,0.1nm,0.3s,baz=136,slow=12,SNR=36 | | | | | | | |
| **TYV** | **Tymovskoe** | **8.91** | **19** | *e*P | | **Pn** | **07 50 50.2** | **+1.1** |
| TYV | | | | *e*S | | **S** | **07 52 30.0** | **+0.2** |
| TYV | | | | pmax | pmax | | | |
| | comp=Z,99nm,1.5s | | | | | | | |
| TYV | | | | smax | smax | | | |
| | comp=E,23nm,1.5s | | | | | | | |
| TYV | | | | MLR | MLR | | | |
| | comp=Z,2μm,17.0s | | | | | | | |
| TYV | | | | MLR | MLR | | | |
| | comp=N,1μm,19.0s | | | | | | | |
| **KSRS** | **Korea Array** | **9.33** | **241** | P | | **Pn** | **07 50 56.7** | **+2.1** |
| | comp=N,0.6nm,0.3s,baz=57,slow=12,SNR=26 | | | | | | | |
| **KS01** | **Wonju Array Si** | **9.34** | **241** | *e*Pn | | **Pn** | **07 50 55.8** | **+1.1** |
| **KS15** | **Wonju Array Si** | **9.36** | **241** | *e*Pn | | **Pn** | **07 50 56.7** | **+1.7** |
| **KSAR** | **Wonju Array Be** | **9.36** | **241** | P | | **Pn** | **07 50 56.7** | **+1.7** |
| **KSAR** | **Wonju Array Be** | **9.36** | **241** | P | | **Pn** | **07 50 56.7** | **+1.7** |
| **CN2** | **Changchun** | **9.38** | **282** | *e*P | | **Pn** | **07 50 55.8** | **+0.7** |
| CN2 | | | | pmax | pmax | | | |
| | comp=N,40nm,0.8s | | | | | | | |
| **JHJ** | **Hachijo jima 2** | **9.46** | **172** | P | | **Pn** | **07 50 53.3** | **-3.0** |
| | comp=N,137nm,0.3s,baz=226,slow=4.0,SNR=20 | | | | | | | |
| JHJ | | | | S | | **S** | **07 52 34.7** | **-8.2** |
| | comp=N,74nm,0.3s,baz=245,slow=21,SNR=7.3 | | | | | | | |
| **JHJ2** | **Mitsune** | **9.47** | **171** | *e*Pn | | **Pn** | **07 50 53.5** | **-2.9** |
| JHJ2 | | | | *e*S | | **S** | **07 52 36.9** | **-6.3** |
| **NKL** | **Nikolayevsk** | **10.78** | **8** | *e*P | | **Pn** | **07 51 12.5** | **-0.2** |
| NKL | | | | pmax | pmax | | | |
| | comp=N,30nm,0.9s | | | | | | | |
| NKL | | | | pmax | pmax | | | |
| | comp=Z,60nm,0.9s | | | | | | | |
| **JNU** | **Nakatsue** | **10.99** | **214** | P | | **Pn** | **07 51 16.9** | **+1.2** |
| | comp=Z,3.3nm,0.3s,baz=305,slow=5.2,SNR=21 | | | | | | | |
| **JNU** | **Nakatsue** | **10.99** | **214** | *e*Pn | | **Pn** | **07 51 17.4** | **+1.8** |
| **DL2** | **Dalian** | **13.04** | **260** | P | | **P** | **07 51 42.3** | **-0.5** |
| DL2 | | | | pmax | pmax | | | |
| | comp=Z,57nm,0.8s | | | | | | | |
| **HIA** | **Hailar** | **14.48** | **304** | *e*P | | **Pn** | **07 51 58.2** | **-0.2** |
| **HIA** | **Hailar** | **14.48** | **304** | *e*Pn | | **Pn** | **07 51 58.2** | **-0.2** |
| **SKR** | **Severo-Kuril's** | **14.78** | **50** | *e*P | | **Pn** | **07 52 02.1** | **+0.1** |
| **CBIJ** | **Chichi jima** | **15.72** | **167** | *e*P | | **P** | **07 52 12.6** | **+0.1** |
| | comp=Z,283nm,0.5s | | | | | | | |
| **JCJ** | **Chichijima** | **15.72** | **167** | P | | **P** | **07 52 10.7** | **-1.8** |
| | comp=Z,57nm,0.3s,baz=330,slow=7.3,SNR=33 | | | | | | | |
| **CLNS** | **Chul'man** | **16.67** | **334** | *e*P | | **P** | **07 52 20.6** | **-2.0** |
| CLNS | | | | *e*S | | **S** | **07 55 23.7** | **-0.2** |
| CLNS | | | | pmax | pmax | | | |
| | comp=Z,48nm,0.8s | | | | | | | |
| CLNS | | | | pmax | pmax | | | |
| | comp=N,17nm,0.8s | | | | | | | |
| CLNS | | | | pmax | pmax | | | |
| | comp=E,11nm,0.9s | | | | | | | |
| CLNS | | | | smax | smax | | | |
| | comp=E,17nm,1.1s | | | | | | | |
| CLNS | | | | smax | smax | | | |
| | comp=N,51nm,1.3s | | | | | | | |
| **BJI** | **Beijing** | **16.70** | **269** | P | | **P** | **07 52 23.0** | **-0.1** |
| BJI | | | | pmax | pmax | | | |
| | comp=N,52nm,1.0s | | | | | | | |
| BJI | | | | pmax | pmax | | | |
| | comp=N,390nm,4.9s | | | | | | | |
| **BJT** | **Baijiatuan** | **16.71** | **269** | *e*P | | **P** | **07 52 23.7** | **+0.4** |
| BJT | | | | pmax | pmax | | | |
| | comp=Z,79nm,1.1s | | | | | | | |
| **BJT** | **Baijiatuan** | **16.71** | **269** | *e*P | | **P** | **07 52 23.7** | **+0.4** |
| | comp=Z,79nm,1.1s | | | | | | | |
| **PETK** | **Petropavlovsk-** | **16.82** | **44** | P | | **P** | **07 52 23.4** | **-0.9** |
| | comp=Z,0.4nm,0.3s,baz=250,slow=8.7,SNR=9.0 | | | | | | | |
| **PEA1** | **Petropavlovsk-** | **16.82** | **44** | *e*P | | **P** | **07 52 23.4** | **-0.9** |
| **PET** | **Petropavlovsk** | **17.27** | **45** | *e*P | | **P** | **07 52 28.9** | **-0.3** |
| **TIA** | **Tai'an** | **17.42** | **256** | P | | **P** | **07 52 31.4** | **+0.4** |
| TIA | | | | pmax | pmax | | | |
| | comp=Z,80nm,0.7s | | | | | | | |
| **NJ2** | **Nanjing** | **18.53** | **242** | *e*P | | **P** | **07 52 42.8** | **-0.2** |
| NJ2 | | | | pmax | pmax | | | |
| | comp=Z,23nm,0.6s | | | | | | | |
| **MA2** | **Magadan** | **18.78** | **20** | P | | **P** | **07 52 45.5** | **0.0** |
| | comp=Z,1.7nm,0.3s,baz=202,slow=11,SNR=13 | | | | | | | |
| **MA2** | **Magadan** | **18.78** | **20** | *c*eP | | **P** | **07 52 44.6** | **-0.8** |
| **HHC** | **Hu-ho-hao-te** | **19.91** | **274** | *e*P | | **P** | **07 52 56.8** | **-1.0** |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,17nm,0.9s | | | | | | | |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,150nm,3.9s | | | | | | | |
| **YAK** | **Yakutsk** | **20.20** | **348** | P | | **P** | **07 52 59.4** | **-1.0** |
| | comp=Z,19nm,0.3s,baz=180,slow=4.4,SNR=7.2 | | | | | | | |
| **YAK** | **Yakutsk** | **20.20** | **348** | *e*P | | **P** | **07 52 57.4** | **-3.1** |
| YAK | | | | *e*S | | **S** | **07 56 28.8** | **-4.0** |
| YAK | | | | *e* | | | 08 03 53.6 | |
| YAK | | | | pmax | pmax | | | |
| | comp=Z,37nm,1.2s | | | | | | | |
| YAK | | | | pmax | pmax | | | |
| | comp=N,17nm,1.2s | | | | | | | |
| YAK | | | | pmax | pmax | | | |
| | comp=E,5.0nm,1.4s | | | | | | | |
| YAK | | | | smax | smax | | | |
| | comp=N,775nm,2.4s | | | | | | | |
| YAK | | | | smax | smax | | | |
| | comp=E,387nm,1.8s | | | | | | | |
| **YAK** | **Yakutsk** | **20.20** | **348** | *e*P | | **P** | **07 52 59.5** | **-1.0** |
| | comp=E,36nm,0.8s | | | | | | | |
| YAK | | | | *e*S | | **S** | **07 56 31.3** | **-1.5** |
| **BOD** | **Bodaibo** | **21.60** | **324** | *e*P | | **P** | **07 53 11.7** | **-3.1** |
| BOD | | | | pmax | pmax | | | |
| | comp=Z,26nm,1.4s | | | | | | | |
| **SEY** | **Seymchan** | **22.10** | **17** | P | | **P** | **07 53 19.6** | **+0.3** |
| | comp=Z,19nm,0.9s,baz=200,slow=7.8,SNR=32 | | | | | | | |
| **SEY** | **Seymchan** | **22.10** | **17** | *e*P | | **P** | **07 53 19.2** | **-0.1** |
| **ULN** | **Ulaanbaatar** | **22.47** | **295** | *c*eP | | **P** | **07 53 21.6** | **-1.5** |
| ULN | | | | pmax | pmax | | | |
| | comp=Z,68nm,0.8s | | | | | | | |
| **ULN** | **Ulaanbaatar** | **22.47** | **295** | *e*P | | **P** | **07 53 22.0** | **-1.1** |
| | comp=Z,60nm,0.7s | | | | | | | |
| **ULN** | **Ulaanbaatar** | **22.47** | **295** | P | | **P** | **07 53 21.8** | **-1.4** |
| | SNR=20 | | | | | | | |
| **ULN** | **Ulaanbaatar** | **22.47** | **295** | P | | **P** | **07 53 21.8** | **-1.4** |
| | SNR=20 | | | | | | | |
| **SONA1** | **Songino Array** | **22.91** | **294** | *e*P | | **P** | **07 53 25.6** | **-1.5** |
| **SONA0** | **Songino Array** | **22.92** | **294** | *e*P | | **P** | **07 53 26.1** | **-1.0** |
| **SONM** | **Songino Array** | **22.92** | **294** | P | | **P** | **07 53 26.1** | **-1.0** |
| | comp=Z,22nm,0.6s,baz=91,slow=8.9,SNR=114 | | | | | | | |
| SONM | | | | ScP | | **ScP** | **08 00 22.3** | **-1.0** |
| | comp=Z,1.2nm,0.9s,baz=91,slow=1.9,SNR=4.9 | | | | | | | |
| **XAN** | **Xi'an** | **24.37** | **259** | P | | **P** | **07 53 40.3** | **0.0** |
| XAN | | | | pmax | pmax | | | |
| | comp=Z,29nm,0.7s | | | | | | | |
| **TLY** | **Talaya** | **25.02** | **303** | P | | **P** | **07 53 46.8** | **+0.8** |
| | comp=Z,19nm,0.6s,baz=92,slow=4.1,SNR=20 | | | | | | | |
| **TLY** | **Talaya** | **25.02** | **303** | *e*P | | **P** | **07 53 45.5** | **-0.5** |
| TLY | | | | pmax | pmax | | | |
| | comp=Z,43nm,1.1s | | | | | | | |
| **ZAK** | **Zakamensk** | **25.10** | **300** | *e*P | | **P** | **07 53 45.1** | **-1.8** |
| ZAK | | | | pmax | pmax | | | |
| | comp=Z,15nm,1.1s | | | | | | | |
| **MOY** | **Mondy** | **26.66** | **303** | *e*P | | **P** | **07 54 01.2** | **+0.5** |
| MOY | | | | pmax | pmax | | | |
| | comp=Z,18nm,1.8s | | | | | | | |
| **LZH** | **Lanzhou** | **27.19** | **268** | *e*P | | **P** | **07 54 07.4** | **+1.7** |
| LZH | | | | pP | pP | | 07 54 52.8 | -1.0 |
| LZH | | | | PP | **PnPn** | | **07 55 04.0** | **-0.6** |
| LZH | | | | sP | sP | | 07 55 17.9 | -4.6 |
| LZH | | | | *e*S | **S** | | **07 58 26.3** | **+0.3** |
| LZH | | | | sS | sS | | 07 59 45.4 | -7.8 |
| LZH | | | | SS | SS | | 08 00 06.1 | -26 |
| LZH | | | | pmax | pmax | | | |
| | comp=Z,40nm,1.1s | | | | | | | |
| LZH | | | | pmax | pmax | | | |
| | comp=Z,370nm,5.7s | | | | | | | |
| LZH | | | | LR | LR | | | |
| | comp=Z,1μm,13.5s | | | | | | | |
| LZH | | | | LR | LR | | | |
| | comp=Z,800nm,13.4s | | | | | | | |
| LZH | | | | LR | LR | | | |
| | comp=Z,910nm,18.5s | | | | | | | |
| **GTA** | **Gaotai** | **28.95** | **277** | *e*P | | **P** | **07 54 20.8** | **-0.5** |
| GTA | | | | pP | pP | | 07 55 04.8 | -5.0 |
| GTA | | | | S | **S** | | **07 58 53.3** | **-0.3** |
| GTA | | | | sS | sS | | 08 00 13.9 | -7.2 |
| GTA | | | | SS | **ScP** | | **08 00 45.3** | **+4.2** |
| GTA | | | | pmax | pmax | | | |
| | comp=Z,38nm,0.9s | | | | | | | |
| GTA | | | | pmax | pmax | | | |
| | comp=Z,420nm,5.2s | | | | | | | |
| GTA | | | | LR | LR | | | |
| | comp=Z,520nm,19.7s | | | | | | | |
| GTA | | | | LR | LR | | | |
| | comp=Z,510nm,20.7s | | | | | | | |
| GTA | | | | LR | LR | | | |
| | comp=Z,880nm,19.7s | | | | | | | |
| **TIXI** | **Tiksi** | **29.58** | **354** | P | | **P** | **07 54 25.6** | **-0.6** |
| | comp=Z,8.1nm,0.4s,baz=143,slow=6.2,SNR=19 | | | | | | | |
| **TIXI** | **Tiksi** | **29.58** | **354** | *e*P | | **P** | **07 54 25.6** | **-0.6** |
| TIXI | | | | *e*S | | **S** | **07 59 00.8** | **-1.6** |
| **CD2** | **Chengdu** | **29.71** | **258** | P | | **P** | **07 54 25.3** | **-2.6** |
| CD2 | | | | S | | **S** | **07 59 00.4** | **-5.0** |
| CD2 | | | | pmax | pmax | | | |
| | comp=Z,40nm,0.8s | | | | | | | |
| **KMI** | **Kunming** | **33.85** | **251** | P | | **P** | **07 55 05.1** | **+0.9** |
| KMI | | | | pP | pP | | 07 55 52.0 | -1.4 |
| KMI | | | | pmax | pmax | | | |
| | comp=Z,14nm,1.3s | | | | | | | |
| **DGZ** | **Jazzator, Alta** | **35.32** | **300** | *i* P | | **P** | **07 55 17.0** | **+0.6** |
| DGZ | | | | pmax | pmax | | | |
| | comp=Z,31nm,0.7s | | | | | | | |
| **WMQ** | **Urumqi** | **36.37** | **290** | P | | **P** | **07 55 24.5** | **-0.8** |
| WMQ | | | | pP | pP | | 07 56 15.8 | +0.7 |
| WMQ | | | | sP | sP | | 07 56 42.8 | -0.4 |
| WMQ | | | | pmax | pmax | | | |
| | comp=Z,24nm,0.5s | | | | | | | |
| WMQ | | | | pmax | pmax | | | |
| | comp=Z,360nm,7.3s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=Z,2μm,21.5s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=Z,1μm,24.1s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=Z,1μm,23.5s | | | | | | | |
| **ZAA0** | **Zalesovo Array** | **36.49** | **307** | *e*P | | **P** | **07 55 26.1** | **0.0** |
| | comp=Z,6.1nm,0.6s | | | | | | | |
| **ZAA1** | **Zalesovo Array** | **36.49** | **307** | *e*P | | **P** | **07 55 26.2** | **+0.2** |
| **ZALV** | **Zalesovo Beam** | **36.49** | **307** | P | | **P** | **07 55 26.2** | **+0.2** |
| | comp=Z,64nm,0.6s,baz=87,slow=8.1,SNR=256 | | | | | | | |
| ZALV | | | | ScP | | **ScP** | **08 01 06.6** | **-0.1** |
| | comp=Z,5.6nm,0.8s,baz=79,slow=3.0,SNR=11 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **36.49** | **307** | *e*P | | **P** | **07 55 26.4** | **+0.4** |
| **ZALV** | **Zalesovo Beam** | **36.49** | **307** | *e*P | | **P** | **07 55 26.4** | **+0.4** |
| **NVS** | **Novosibirsk** | **37.35** | **309** | *e*P | | **P** | **07 55 33.7** | **+0.5** |
| NVS | | | | pmax | pmax | | | |
| | comp=N,7.0nm,0.7s | | | | | | | |
| NVS | | | | pmax | pmax | | | |
| | comp=E,29nm,0.7s | | | | | | | |
| NVS | | | | pmax | pmax | | | |
| | comp=Z,38nm,0.7s | | | | | | | |
| **NONG** | **Nongkai** | **38.40** | **241** | P | | **P** | **07 55 45.5** | **+3.0** |
| | comp=Z,59nm,1.7s,comp=Z,2μm | | | | | | | |
| **SKNT** | **Sakolnakorn** | **38.67** | **239** | P | | **P** | **07 55 47.6** | **+2.9** |
| | comp=Z,43nm,0.7s | | | | | | | |
| **MK01** | **Makanchi Array** | **39.26** | **296** | *e*P | | **P** | **07 55 49.0** | **-0.3** |
| **MK31** | **Makanchi Array** | **39.26** | **296** | *c*eP | | **P** | **07 55 49.0** | **-0.3** |
| MK31 | | | | pmax | pmax | | | |
| | comp=Z,29nm,0.5s | | | | | | | |
| **MK31** | **Makanchi Array** | **39.26** | **296** | *e*P | | **P** | **07 55 49.1** | **-0.2** |
| **MK32** | **Makanchi Array** | **39.26** | **296** | *e*P | | **P** | **07 55 49.1** | **-0.2** |
| **MKAR** | **Makanchi Array** | **39.26** | **296** | P | | **P** | **07 55 49.1** | **-0.3** |
| | comp=Z,34nm,0.6s,baz=84,slow=9.5,SNR=185 | | | | | | | |
| **MKAR** | **Makanchi Array** | **39.26** | **296** | *c*eP | | **P** | **07 55 49.0** | **-0.3** |
| MKAR | | | | pmax | pmax | | | |
| | comp=Z,35nm,0.6s | | | | | | | |
| **MAKZ** | **Makanchi** | **39.47** | **296** | *e*P | | **P** | **07 55 50.8** | **-0.2** |
| MAKZ | | | | pmax | pmax | | | |
| | comp=Z,46nm,0.6s | | | | | | | |
| **MAKZ** | **Makanchi** | **39.47** | **296** | *e*P | | **P** | **07 55 50.8** | **-0.2** |
| | comp=Z,46nm,0.6s | | | | | | | |
| **LSA** | **Lhasa** | **39.59** | **267** | *e*P | | **P** | **07 55 53.5** | **+0.7** |
| LSA | | | | pmax | pmax | | | |
| | comp=Z,31nm,1.4s | | | | | | | |
| **LSA** | **Lhasa** | **39.59** | **267** | *e*P | | **P** | **07 55 53.5** | **+0.7** |
| | comp=Z,31nm,1.4s | | | | | | | |
| **KHON** | **Khomkaen** | **39.88** | **240** | P | | **P** | **07 55 57.8** | **+3.2** |
| | comp=Z,27nm,0.7s,comp=Z,11μm | | | | | | | |
| **PHRA** | **Phrae** | **40.02** | **245** | P | | **P** | **07 55 57.4** | **+1.6** |
| | comp=Z,14nm,1.0s,comp=Z,21μm | | | | | | | |
| **CMMT** | **Chiang Mai** | **40.66** | **247** | P | | **P** | **07 56 02.4** | **+1.3** |
| | comp=Z,18nm,0.7s | | | | | | | |
| **CHTO** | **Chiang Mai** | **40.67** | **247** | P | | **P** | **07 56 02.5** | **+1.4** |
| | comp=Z,81nm,0.7s | | | | | | | |
| **CHTO** | **Chiang Mai** | **40.67** | **247** | *e*P | | **P** | **07 56 01.5** | **+0.4** |
| CHTO | | | | pmax | pmax | | | |
| | comp=Z,13nm,0.7s | | | | | | | |
| **CHTO** | **Chiang Mai** | **40.67** | **247** | *e*P | | **P** | **07 56 01.5** | **+0.4** |
| | comp=Z,13nm,0.7s | | | | | | | |
| **KURK** | **Kurchatov** | **40.71** | **303** | *d* iP | | **P** | **07 56 00.8** | **-0.3** |
| KURK | | | | pmax | pmax | | | |
| | comp=Z,598nm,1.0s | | | | | | | |
| **KURK** | **Kurchatov** | **40.71** | **303** | *e*P | | **P** | **07 56 00.9** | **-0.1** |
| | comp=Z,126nm,0.8s | | | | | | | |
| KURK | | | | *e*P | | **P** | **07 56 01.6** | **+0.6** |
| KURK | | | | *e*PcP | | **PcP** | **07 57 58.0** | **+0.6** |
| **KURK** | **Kurchatov** | **40.71** | **303** | P | | **P** | **07 56 01.2** | **+0.1** |
| | SNR=35 | | | | | | | |
| **KURK** | **Kurchatov** | **40.71** | **303** | P | | **P** | **07 56 01.2** | **+0.1** |
| | SNR=35 | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **40.79** | **303** | P | | **P** | **07 56 01.6** | **-0.1** |
| | comp=Z,121nm,0.7s,baz=80,slow=8.8,SNR=618 | | | | | | | |
| KURBB | | | | PcP | | **PcP** | **07 57 58.0** | **+0.4** |
| | comp=Z,4.4nm,0.6s,baz=90,slow=3.3,SNR=5.4 | | | | | | | |
| KURBB | | | | ScP | | **ScP** | **08 01 22.6** | **-0.7** |
| | comp=Z,1.1nm,0.8s,baz=80,slow=3.5,SNR=4.0 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **40.91** | **246** | P | | **P** | **07 56 03.8** | **+0.6** |
| | comp=Z,3.5nm,0.4s,baz=44,slow=6.2,SNR=9.5 | | | | | | | |
| **PDGK** | **Podgornoye** | **42.19** | **292** | *i* P | | **P** | **07 56 12.5** | **-0.8** |
| PDGK | | | | pmax | pmax | | | |
| | comp=Z,22nm,0.6s | | | | | | | |
| **UTHA** | **Uthaitani** | **42.64** | **243** | P | | **P** | **07 56 20.4** | **+3.3** |
| | comp=Z,3.1nm,0.7s,comp=Z,71nm | | | | | | | |
| **IMAR** | **Indian Mountai** | **43.35** | **34** | *e*P | | **P** | **07 56 21.8** | **-0.3** |
| **TAPN** | **Taplejung** | **43.41** | **266** | *e*P | | **P** | **07 56 23.7** | **+0.3

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **FRU** | **Bishkek** | **45.70** | **293** | ⇓ | *eP* | | **P** | **07 56 41.0** | **0.0** |
| FRU | | | | | | pmax | pmax | | |
| | comp=Z,60nm,1.8s | | | | | | | | |
| **MDM** | **Murphy Dome** | **45.74** | **35** | | *eP* | | **P** | **07 56 42.8** | **+1.8** |
| | comp=Z,9.7nm,0.8s | | | | | | | | |
| **DANN** | **Dangsing** | **45.78** | **270** | | *eP* | | **P** | **07 56 42.5** | **+0.4** |
| | comp=Z,11nm,0.9s | | | | | | | | |
| **AAK** | **Ala-Archa** | **45.86** | **293** | | *i* P | | **P** | **07 56 42.6** | **+0.2** |
| AAK | | | | | | pmax | pmax | | |
| | comp=Z,35nm,1.0s | | | | | | | | |
| **AAK** | **Ala-Archa** | **45.86** | **293** | | P | | **P** | **07 56 42.8** | **+0.4** |
| | SNR=20 | | | | | | | | |
| **AAK** | **Ala-Archa** | **45.86** | **293** | | *eP* | | **P** | **07 56 42.7** | **+0.2** |
| | comp=Z,32nm,0.9s | | | | | | | | |
| **AAK** | **Ala-Archa** | **45.86** | **293** | | P | | **P** | **07 56 42.8** | **+0.4** |
| | SNR=14 | | | | | | | | |
| **AAK** | **Ala-Archa** | **45.86** | **293** | | P | | **P** | **07 56 42.8** | **+0.4** |
| | SNR=14 | | | | | | | | |
| **COLA** | **College** | **45.91** | **35** | | *eP* | | **P** | **07 56 44.2** | **+2.0** |
| COLA | | | | | | pmax | pmax | | |
| | comp=Z,21nm,0.8s | | | | | | | | |
| **COLA** | **College** | **45.91** | **35** | | *eP* | | **P** | **07 56 44.2** | **+2.0** |
| | comp=Z,21nm,0.8s | | | | | | | | |
| **CCB** | **Clear Creek Bu** | **45.96** | **35** | | *eP* | | **P** | **07 56 43.2** | **+0.6** |
| | comp=Z,37nm,1.9s | | | | | | | | |
| **UCH** | **Uchtor** | **46.00** | **292** | | P | | **P** | **07 56 44.3** | **+0.4** |
| | SNR=20 | | | | | | | | |
| **KSH** | **Kashi** | **46.09** | **288** | | P | | **P** | **07 56 47.8** | **+3.6** |
| KSH | | | | | pP | | pP | 07 57 35.3 | -0.9 |
| KSH | | | | | PcP | | **PcP** | **07 58 19.8** | **+3.8** |
| KSH | | | | | PP | | **PP** | **07 58 38.3** | **+2.5** |
| KSH | | | | | S | | **S** | **08 03 13.5** | **+2.8** |
| KSH | | | | | ScS | | **ScS** | **08 06 13.1** | **+0.2** |
| KSH | | | | | SS | | **SS** | **08 06 35.9** | **-2.9** |
| KSH | | | | | pmax | pmax | | | |
| | comp=Z,14nm,0.8s | | | | | | | | |
| KSH | | | | | pmax | pmax | | | |
| | comp=Z,110nm,2.9s | | | | | | | | |
| KSH | | | | | LR | LR | | | |
| | comp=Z,220nm,7.1s | | | | | | | | |
| KSH | | | | | LR | LR | | | |
| | comp=Z,230nm,5.6s | | | | | | | | |
| KSH | | | | | LR | LR | | | |
| | comp=Z,280nm,9.8s | | | | | | | | |
| **KOLN** | **Koldanda** | **46.21** | **270** | | *eP* | | **P** | **07 56 45.2** | **-0.2** |
| | comp=Z,62nm,0.8s | | | | | | | | |
| **IL1** | **Eielson Array** | **46.33** | **35** | | *eP* | | **P** | **07 56 46.2** | **+0.7** |
| **ILAR** | **Eielson Array** | **46.33** | **35** | | P | | **P** | **07 56 46.5** | **+0.9** |
| | comp=Z,5.9nm,0.6s,baz=268,slow=5.7,SNR=138 | | | | | | | | |
| **ILB** | **Eielson Array** | **46.33** | **35** | | *eP* | | **P** | **07 56 46.7** | **+1.1** |
| **EKS2** | **Erkin-Say** | **46.34** | **293** | | P | | **P** | **07 56 46.3** | **+0.2** |
| | SNR=31 | | | | | | | | |
| **DHY** | **Denali Highway** | **46.41** | **37** | | *eP* | | **P** | **07 56 47.7** | **+1.4** |
| | comp=Z,14nm,0.6s | | | | | | | | |
| **PYUN** | **Piuthan** | **46.48** | **271** | | *eP* | | **P** | **07 56 47.5** | **0.0** |
| | comp=Z,65nm,0.6s | | | | | | | | |
| **AML** | **Almayashu** | **46.60** | **293** | | P | | **P** | **07 56 49.1** | **+0.6** |
| | SNR=60 | | | | | | | | |
| **KLU** | **Klutina** | **47.40** | **39** | | *eP* | | **P** | **07 56 55.7** | **+1.8** |
| | comp=Z,13nm,1.1s | | | | | | | | |
| **HARP** | **HAARP** | **47.54** | **38** | | *eP* | | **P** | **07 56 57.5** | **+2.5** |
| | comp=Z,27nm,0.7s | | | | | | | | |
| **SFK** | **Sufi-Kurgan** | **47.60** | **290** | | *i* P | | **P** | **07 56 56.1** | **+0.1** |
| SFK | | | | | | pmax | pmax | | |
| | comp=Z,68nm,1.0s | | | | | | | | |
| **MENT** | **Mentasta** | **48.07** | **37** | | *eP* | | **P** | **07 57 01.0** | **+2.0** |
| | comp=Z,24nm,1.5s | | | | | | | | |
| **KK31** | **Karatay Array** | **48.37** | **295** | | *ceP* | | **P** | **07 57 01.5** | **0.0** |
| KK31 | | | | | | pmax | pmax | | |
| | comp=Z,38nm,0.6s | | | | | | | | |
| **EGAK** | **Eagle** | **48.73** | **34** | | *eP* | | **P** | **07 57 05.2** | **+1.3** |
| | comp=Z,8.8nm,0.8s | | | | | | | | |
| **SVE** | **Sverdlovsk** | **49.44** | **315** | | *c i*P | | **P** | **07 57 10.6** | **+1.2** |
| SVE | | | | | | pmax | pmax | | |
| | comp=Z,103nm,0.8s | | | | | | | | |
| **THN** | **Thein Dam** | **49.56** | **280** | | *eP* | | **P** | **07 57 09.6** | **-1.0** |
| **KAPI** | **Kappang** | **50.17** | **204** | | *eP* | | **P** | **07 57 15.7** | **+0.4** |
| | comp=Z,24nm,1.1s | | | | | | | | |
| **ARU** | **Arti** | **50.66** | **315** | | *d i*P | | **P** | **07 57 19.1** | **+0.6** |
| ARU | | | | | *PP | | **pP** | **07 58 09.8** | **-1.7** |
| ARU | | | | | | | | 07 58 31.1 | |
| ARU | | | | | | | | 07 59 14.9 | |
| ARU | | | | | S | | **S** | **08 04 15.3** | **+1.5** |
| ARU | | | | | SS | | **SS** | **08 07 48.5** | **-2.3** |
| ARU | | | | | pmax | pmax | | | |
| | comp=Z,82nm,1.0s | | | | | | | | |
| **ARU** | **Arti** | **50.66** | **315** | | *eP* | | **P** | **07 57 19.1** | **+0.6** |
| | comp=Z,62nm,0.8s | | | | | | | | |
| **INK** | **Inuvik** | **50.73** | **29** | | P | | **P** | **07 57 20.4** | **+1.5** |
| | comp=Z,8.5nm,0.5s,baz=306,slow=6.6,SNR=32 | | | | | | | | |
| **INK** | **Inuvik** | **50.73** | **29** | | *eP* | | **P** | **07 57 20.2** | **+1.4** |
| INK | | | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.6s | | | | | | | | |
| **INK** | **Inuvik** | **50.73** | **29** | | *eP* | | **P** | **07 57 20.2** | **+1.4** |
| | comp=Z,8.3nm,0.6s | | | | | | | | |
| **DZET** | **Dzherino** | **51.38** | **291** | | P | | **P** | **07 57 24.3** | **0.0** |
| DZET | | | | | | pmax | pmax | | |
| | comp=Z,54nm,0.6s | | | | | | | | |
| **HYT** | **Haines Junctio** | **51.49** | **39** | | *eP* | | **P** | **07 57 27.1** | **+2.3** |
| | comp=Z,11nm,0.9s | | | | | | | | |
| **AB31** | **Akbulak array** | **52.59** | **306** | | *ceP* | | **P** | **07 57 33.2** | **+0.3** |
| AB31 | | | | | | pmax | pmax | | |
| | comp=Z,26nm,0.5s | | | | | | | | |
| **PSI** | **Prapat** | **52.79** | **232** | | *eP* | | **P** | **07 57 35.7** | **+0.8** |
| PSI | | | | | | pmax | pmax | | |
| | comp=Z,13nm,1.2s | | | | | | | | |
| **PSI** | **Prapat** | **52.79** | **232** | | *eP* | | **P** | **07 57 35.7** | **+0.8** |
| | comp=Z,12nm,1.2s | | | | | | | | |
| **KBL** | **Kabul** | **53.30** | **286** | | *eP* | | **P** | **07 57 38.1** | **-0.5** |
| KBL | | | | | | pmax | pmax | | |
| | comp=Z,71nm,0.9s | | | | | | | | |
| **KBL** | **Kabul** | **53.30** | **286** | | *eP* | | **P** | **07 57 38.1** | **-0.5** |
| | comp=Z,71nm,0.9s | | | | | | | | |
| **SOEI** | **Soe** | **53.54** | **197** | | *eP* | | **P** | **07 57 40.0** | **-0.3** |
| | comp=Z,37nm,1.0s | | | | | | | | |
| **HYB** | **Hyderabad** | **56.12** | **263** | | *i* P | | **P** | **07 57 58.5** | **-0.2** |
| **COEN** | **Coen** | **56.37** | **174** | | *eP* | | **P** | **07 58 00.8** | **+0.5** |
| | comp=Z,16nm,0.6s | | | | | | | | |
| **TMCR** | **Tamitsa** | **56.76** | **329** | | *eP* | | **P** | **07 58 03.0** | **+0.6** |
| TMCR | | | | | | pmax | pmax | | |
| | comp=Z,42nm,0.9s | | | | | | | | |
| **KLMR** | **Klimovskoe** | **57.81** | **325** | | *eP* | | **P** | **07 58 08.2** | **-1.7** |
| KLMR | | | | | | pmax | pmax | | |
| | comp=Z,39nm,1.3s | | | | | | | | |
| **ARA0** | **ARCESS Array S** | **57.99** | **337** | | *eP* | | **P** | **07 58 11.5** | **+0.5** |
| **ARCES** | **ARCESS Array B** | **57.99** | **337** | | P | | **P** | **07 58 11.5** | **+0.5** |
| | comp=Z,6.5nm,0.6s,baz=62,slow=8.3,SNR=32 | | | | | | | | |
| **SGF** | **Sodankyl** | **58.94** | **335** | | P | | **P** | **07 58 18.0** | **+0.5** |
| SGF | | | | | | pmax | pmax | | |
| | comp=Z,44nm,0.8s | | | | | | | | |
| **MSF** | **Maaselka** | **59.04** | **333** | | P | | **P** | **07 58 18.8** | **+0.6** |
| MSF | | | | | | pmax | pmax | | |
| | comp=Z,34nm,0.8s | | | | | | | | |
| **GEYT** | **Alibeck** | **59.12** | **295** | | P | | **P** | **07 58 19.3** | **0.0** |
| | comp=Z,26nm,0.8s,baz=29,slow=3.4,SNR=31 | | | | | | | | |
| **JOF** | **Joensuu** | **59.97** | **330** | | P | | **P** | **07 58 24.9** | **+0.3** |
| JOF | | | | | | pmax | pmax | | |
| | comp=Z,44nm,0.8s | | | | | | | | |
| **TULEG** | **Thule** | **60.00** | **7** | | *eP* | | **P** | **07 58 24.9** | **+0.3** |
| | comp=Z,28nm,0.8s | | | | | | | | |
| **DAG** | **Danmarks Havn** | **60.09** | **354** | | *i* P | | **P** | **07 58 25.2** | **-0.1** |
| DAG | | | | | | pmax | pmax | | |
| | comp=Z,12nm,0.8s | | | | | | | | |
| **DAG** | **Danmarks Havn** | **60.09** | **354** | | *i* P | | **P** | **07 58 25.2** | **-0.1** |
| | comp=Z,12nm,0.8s | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **60.36** | **31** | | P | | **P** | **07 58 27.9** | **+0.6** |
| | comp=Z,1.1nm,0.6s,baz=306,slow=6.5,SNR=11 | | | | | | | | |
| YKA | | | | | PcP | | **PcP** | **07 59 10.8** | **+1.2** |
| | comp=Z,0.8nm,0.5s,baz=311,slow=3.6,SNR=8.9 | | | | | | | | |
| **MOS** | **Moscow** | **61.40** | **321** | | *eP* | | **P** | **07 58 33.9** | **-0.4** |
| MOS | | | | | | pmax | pmax | | |
| | comp=Z,62nm,1.4s | | | | | | | | |
| **VRH** | **Novokhopyorsk** | **61.89** | **315** | | *eP* | | **P** | **07 58 37.1** | **-0.6** |
| VRH | | | | | | pmax | pmax | | |
| | comp=Z,40nm,0.6s | | | | | | | | |
| **WRAB** | **Tennant Creek** | **62.22** | **184** | | *eP* | | **P** | **07 58 39.7** | **-0.5** |
| WRAB | | | | | | pmax | pmax | | |
| | comp=Z,12nm,0.7s | | | | | | | | |
| **WRAB** | **Tennant Creek** | **62.22** | **184** | | *eP* | | **P** | **07 58 39.7** | **-0.5** |
| | comp=Z,12nm,0.7s | | | | | | | | |
| **WB2** | **Warramunga Arr** | **62.23** | **184** | | *eP* | | **P** | **07 58 39.1** | **-1.1** |
| WB2 | | | | | *eP* | | **P** | **07 58 39.7** | **-0.6** |
| **WR1** | **Warramunga Arr** | **62.23** | **184** | | *eP* | | **P** | **07 58 39.7** | **-0.5** |
| | comp=Z,15nm,0.8s | | | | | | | | |
| **WRA** | **Warramunga Arr** | **62.23** | **184** | | P | | **P** | **07 58 39.7** | **-0.5** |
| | comp=Z,12nm,0.7s,baz=1.2,slow=7.0,SNR=169 | | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **OBN** | **Obninsk** | **62.25** | **321** | ⇓ | *i*P | | **P** | **07 58 40.1** | **+0.2** |
| OBN | | | | | *e*PP | | **pP** | **07 59 35.6** | **+0.3** |
| OBN | | | | | *e* | | | 08 00 59.0 | |
| OBN | | | | | | pmax | pmax | | |
| | comp=Z,73nm,1.7s | | | | | | | | |
| **LPSR** | **Galich'ya Gora** | **62.54** | **317** | | *eP* | | **P** | **07 58 41.6** | **-0.3** |
| LPSR | | | | | | pmax | pmax | | |
| | comp=Z,30nm,0.7s | | | | | | | | |
| **FIA1** | **FINESS Array S** | **62.81** | **330** | | *eP* | | **P** | **07 58 43.5** | **-0.1** |
| FIA1 | | | | | *eP* | | **P** | **07 58 43.8** | **+0.2** |
| **FIA0** | **FINESS Array S** | **62.82** | **330** | | *eP* | | **P** | **07 58 43.7** | **+0.1** |
| **FIA0** | **FINESS Array S** | **62.82** | **330** | | *eP* | | **P** | **07 58 43.7** | **+0.1** |
| **FINES** | **FINESS Array B** | **62.82** | **330** | | P | | **P** | **07 58 43.7** | **+0.1** |
| | comp=Z,37nm,0.6s,baz=46,slow=8.8,SNR=101 | | | | | | | | |
| **MAK** | **Makhachkala** | **63.19** | **305** | | *eP* | | **P** | **07 58 45.4** | **-1.0** |
| MAK | | | | | *e*PP | | **pP** | **07 59 40.4** | **-1.5** |
| MAK | | | | | *e*SP | | **sP** | **08 00 09.7** | **+1.1** |
| MAK | | | | | *e* | | | 08 01 06.8 | |
| MAK | | | | | *e*S | | **S** | **08 06 54.9** | **-2.8** |
| MAK | | | | | | pmax | pmax | | |
| | comp=Z,220nm,1.7s | | | | | | | | |
| **VSR** | **Storozhevoye** | **63.21** | **316** | | *eP* | | **P** | **07 58 46.4** | **0.0** |
| VSR | | | | | | pmax | pmax | | |
| | comp=Z,40nm,0.6s | | | | | | | | |
| **VSU** | **Vasula** | **64.48** | **327** | ⇑ | *i*P | | **P** | **07 58 54.5** | **0.0** |
| VSU | | | | | | pmax | pmax | | |
| | comp=Z,90nm,1.2s | | | | | | | | |
| **GOF** | **Gofitskoye** | **64.65** | **309** | ⇑ | *eP* | | **P** | **07 58 56.4** | **+0.6** |
| GOF | | | | | | pmax | pmax | | |
| | comp=Z,102nm,0.8s | | | | | | | | |
| **SUMG** | **Summit** | **65.19** | **359** | | *i* P | | **P** | **07 59 00.3** | **+0.9** |
| SUMG | | | | | | pmax | pmax | | |
| | comp=Z,39nm,0.9s | | | | | | | | |
| **SUMG** | **Summit** | **65.19** | **359** | | *i* P | | **P** | **07 59 00.3** | **+0.9** |
| | comp=Z,39nm,0.9s | | | | | | | | |
| **SUMG** | **Summit** | **65.19** | **359** | | *eP* | | **P** | **07 59 00.5** | **+1.1** |
| | comp=Z,35nm,0.8s | | | | | | | | |
| **NCK** | **Nalchik** | **65.23** | **307** | ⇑ | *i*P | | **P** | **07 58 59.6** | **-0.1** |
| NCK | | | | | | pmax | pmax | | |
| | comp=Z,28nm,1.0s | | | | | | | | |
| **ZEI** | **Tsey** | **65.46** | **306** | | *eP* | | **P** | **07 58 57.1** | **-4.3** |
| ZEI | | | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.7s | | | | | | | | |
| **KIV** | **Kislovodsk** | **65.50** | **308** | | *i* P | | **P** | **07 59 02.5** | **+1.0** |
| | SNR=15 | | | | | | | | |
| **KIV** | **Kislovodsk** | **65.50** | **308** | | *eP* | | **P** | **07 59 02.3** | **+0.9** |
| KIV | | | | | | pmax | pmax | | |
| | comp=Z,136nm,1.1s | | | | | | | | |
| **KIV** | **Kislovodsk** | **65.50** | **308** | | *eP* | | **P** | **07 59 02.2** | **+0.7** |
| | comp=Z,103nm,0.9s | | | | | | | | |
| **KIV** | **Kislovodsk** | **65.50** | **308** | | P | | **P** | **07 59 02.8** | **+1.3** |
| | SNR=23 | | | | | | | | |
| **KIV** | **Kislovodsk** | **65.50** | **308** | | P | | **P** | **07 59 02.8** | **+1.3** |
| | SNR=23 | | | | | | | | |
| **KBZ** | **Khabaz** | **65.51** | **308** | | P | | **P** | **07 59 02.6** | **+1.3** |
| | comp=Z,20nm,0.8s,baz=47,slow=5.3,SNR=53 | | | | | | | | |
| **NEY** | **Neytrino** | **65.89** | **307** | ⇓ | *i*P | | **P** | **07 59 04.0** | **-0.1** |
| NEY | | | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.8s | | | | | | | | |
| **AS01** | **Alice Springs** | **65.95** | **184** | | *eP* | | **P** | **07 59 04.3** | **-0.1** |
| **ASAR** | **Alice Springs** | **65.96** | **184** | | P | | **P** | **07 59 04.5** | **+0.1** |
| | comp=Z,2.8nm,0.8s,baz=351,slow=4.0,SNR=26 | | | | | | | | |
| **GNI** | **Garni** | **66.51** | **303** | | P | | **P** | **07 59 09.2** | **+1.2** |
| **GNI** | **Garni** | **66.51** | **303** | | *d i*P | | **P** | **07 59 08.9** | **+0.9** |
| GNI | | | | | | pmax | pmax | | |
| | comp=Z,75nm,1.2s | | | | | | | | |
| **GNI** | **Garni** | **66.51** | **303** | | P | | **P** | **07 59 10.0** | **+1.9** |
| | SNR=5.5 | | | | | | | | |
| **GNI** | **Garni** | **66.51** | **303** | | P | | **P** | **07 59 10.0** | **+1.9** |
| | SNR=5.5 | | | | | | | | |
| **AKH** | **Akhalkalaki** | **66.52** | **305** | ⇓ | *i*P | | **P** | **07 59 09.3** | **+1.1** |
| **AKH** | **Akhalkalaki** | **66.52** | **305** | | P | | **P** | **07 59 09.2** | **+1.1** |
| **BANOM** | **Banah** | **67.23** | **285** | | *i* P | | **P** | **07 59 13.0** | **+0.4** |
| | SNR=11 | | | | | | | | |
| **ARTV** | **Artvin** | **67.60** | **306** | | *i* P | | **P** | **07 59 15.4** | **+0.5** |
| **ARTV** | **Artvin** | **67.60** | **306** | | *eP* | | **P** | **07 59 15.9** | **+1.0** |
| | comp=Z,16nm,0.7s | | | | | | | | |
| **C09A** | **Chrisman Ranch** | **67.65** | **45** | | *eP* | | **P** | **07 59 16.3** | **+1.4** |
| | comp=Z,6.5nm,0.8s | | | | | | | | |
| **DAGI** | **Agillar** | **67.67** | **306** | | *i* P | | **P** | **07 59 16.2** | **+0.9** |
| **UOSS** | **Minazif** | **67.89** | **284** | | *eP* | | **P** | **07 59 17.1** | **+0.3** |
| | comp=Z,24nm,0.8s | | | | | | | | |
| **NC405** | **NORSAR Array S** | **67.96** | **335** | | *eP* | | **P** | **07 59 17.2** | **+0.6** |
| **ANN** | **Anapa** | **67.99** | **311** | | *eP* | | **P** | **07 59 14.7** | **-2.2** |
| ANN | | | | | *e*PP | | **pP** | **08 00 11.0** | **-2.3** |
| ANN | | | | | *e*S | | **S** | **08 07 52.1** | **-3.5** |
| ANN | | | | | | pmax | pmax | | |
| | comp=Z,58nm,1.2s | | | | | | | | |
| **HATD** | **Hatta, Dubai** | **68.02** | **284** | | *i* P | | **P** | **07 59 18.2** | **+0.7** |
| | SNR=12 | | | | | | | | |
| **EATA** | **Eleskirt** | **68.06** | **304** | | *i* P | | **P** | **07 59 19.5** | **+1.6** |
| **NC204** | **NORSAR Array S** | **68.13** | **336** | | *eP* | | **P** | **07 59 17.1** | **-0.5** |
| **ASHO** | **Ashiyiah** | **68.16** | **284** | | *i* P | | **P** | **07 59 18.9** | **+0.5** |
| | SNR=8.9 | | | | | | | | |
| **NB2** | **NORSAR Subarra** | **68.17** | **335** | | P | | **P** | **07 59 18.1** | **+0.1** |
| | comp=Z,9.8nm,0.5s,baz=37,slow=6.5 | | | | | | | | |
| **NB2** | **NORSAR Subarra** | **68.17** | **335** | | P | | **P** | **07 59 18.0** | **+0.1** |
| NB2 | | | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.5s | | | | | | | | |
| **NB2** | **NORSAR Subarra** | **68.17** | **335** | | P | | **P** | **07 59 18.1** | **+0.1** |
| | baz=37,slow=6.5 | | | | | | | | |
| **NB200** | **NORSAR Array S** | **68.17** | **335** | | *eP* | | **P** | **07 59 18.0** | **+0.1** |
| **NOA** | **NORSAR Array B** | **68.17** | **335** | | P | | **P** | **07 59 18.0** | **+0.1** |
| | comp=Z,13nm,0.7s,baz=40,slow=6.2,SNR=28 | | | | | | | | |
| **NBO00** | **NORSAR Array S** | **68.32** | **335** | | *eP* | | **P** | **07 59 19.3** | **+0.5** |
| **AKASG** | **Malin Array Be** | **68.47** | **320** | | P | | **P** | **07 59 19.9** | **0.0** |
| | comp=Z,24nm,0.6s,baz=45,slow=6.2,SNR=151 | | | | | | | | |
| **AKBB** | **Malin Array Si** | **68.47** | **320** | | *eP* | | **P** | **07 59 19.8** | **-0.1** |
| AKBB | | | | | | pmax | pmax | | |
| | comp=Z,35nm,0.8s | | | | | | | | |
| **AKBB** | **Malin Array Si** | **68.47** | **320** | | *eP* | | **P** | **07 59 19.8** | **-0.1** |
| | comp=Z,35nm,0.8s | | | | | | | | |
| **AK11** | **Malin Array Si** | **68.51** | **320** | | *eP* | | **P** | **07 59 19.7** | **-0.4** |
| **EKAR** | **Karacoban** | **68.69** | **304** | | *i* P | | **P** | **07 59 23.4** | **+1.6** |
| **KOPT** | **Kop Dagi** | **69.18** | **305** | | *eP* | | **P** | **07 59 26.2** | **+1.4** |
| | comp=Z,30nm,1.2s | | | | | | | | |
| **SIM** | **Simferopol'** | **69.72** | **313** | | *eP* | | **P** | **07 59 27.9** | **+0.3** |
| SIM | | | | | | pmax | pmax | | |
| | comp=Z,19nm,0.6s | | | | | | | | |
| **JTMT** | **Jette** | **69.75** | **43** | | *eP* | | **P** | **07 59 29.5** | **+1.6** |
| | comp=Z,3.2nm,0.7s | | | | | | | | |
| **KELT** | **Kelkit** | **69.84** | **306** | | *i* P | | **P** | **07 59 29.7** | **+1.0** |
| **FFC** | **Flin Flon** | **70.44** | **32** | | *eP* | | **P** | **07 59 31.9** | **0.0** |
| FFC | | | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.8s | | | | | | | | |
| **FFC** | **Flin Flon** | **70.44** | **32** | | *eP* | | **P** | **07 59 31.9** | **0.0** |
| | comp=Z,7.6nm,0.8s | | | | | | | | |
| **SORM** | **Soroca** | **70.61** | **318** | ⇑ | *i*P | | **P** | **07 59 32.6** | **-0.3** |
| **MARD** | **Mardin** | **70.69** | **303** | | *eP* | | **P** | **07 59 34.8** | **+1.0** |
| | comp=Z,68nm,0.7s | | | | | | | | |
| **LVV** | **L'vov** | **71.51** | **321** | | *eP* | | **P** | **07 59 39.1** | **+0.8** |
| **BEL** | **Belsk** | **71.52** | **324** | | *eP* | | **P** | **07 59 39.8** | **+1.5** |
| **BEL** | **Belsk** | **71.52** | **324** | | *eP* | | **P** | **07 59 39.8** | **+1.5** |
| **BEKR** | **Beckworth** | **71.55** | **53** | | *eP* | | **P** | **07 59 40.1** | **+1.1** |
| | comp=Z,3.7nm,0.8s | | | | | | | | |
| **HRY** | **Holter Researc** | **71.68** | **43** | | *eP* | | **P** | **07 59 40.5** | **+0.9** |
| **MFID** | **Camas Ranch** | **71.80** | **48** | | *eP* | | **P** | **07 59 41.9** | **+1.6** |
| | comp=Z,6.5nm,1.3s | | | | | | | | |
| **EGMT** | **Eagleton** | **71.80** | **41** | | *eP* | | **P** | **07 59 41.5** | **+1.3** |
| | comp=Z,12nm,0.8s | | | | | | | | |
| **CUSAR** | **Sarkisla-SIVAS** | **72.09** | **307** | | *i* P | | **P** | **07 59 43.0** | **+0.9** |
| **DLMT** | **Dillon** | **72.21** | **44** | | *eP* | | **P** | **07 59 44.0** | **+1.3** |
| | comp=Z,7.1nm,0.7s | | | | | | | | |
| **ILGA** | **Ilgaz** | **72.48** | **310** | | *eP* | | **P** | **07 59 46.0** | **+1.5** |
| | comp=Z,30nm,0.8s | | | | | | | | |
| **BUR08** | **Bucovina Ar. S** | **72.49** | **319** | | *eP* | | **P** | **07 59 45.0** | **+0.8** |
| **BUR04** | **Bucovina Ar. S** | **72.50** | **319** | | *eP* | | **P** | **07 59 44.8** | **+0.4** |
| **BURAR** | **Bucovina Array** | **72.50** | **319** | ⇓ | *i*P | | **P** | **07 59 45.1** | **+0.7** |
| **BURAR** | **Bucovina Array** | **72.50** | **319** | | P | | **P** | **07 59 45.1** | **+0.7** |
| **BOZ** | **Bozeman (W)** | **72.54** | **44** | | *eP* | | **P** | **07 59 45.7** | **+1.0** |
| BOZ | | | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.9s | | | | | | | | |
| **BOZ** | **Bozeman (W)** | **72.54** | **44** | | *eP* | | **P** | **07 59 45.7** | **+1.0** |
| | comp=Z,3.9nm,0.9s | | | | | | | | |
| **TESR** | **Tescani** | **72.56** | **318** | ⇓ | *i*P | | **P** | **07 59 44.9** | **+0.3** |
| **KSRV** | **Kasrt alli** | **72.72** | **303** | | *eP* | | **P** | **07 59 47.1** | **+1.4** |
| **CFR** | **Carcaliu** | **72.73** | **316** | ⇓ | *i*P | | **P** | **07 59 45.4** | **-0.2** |
| **CFR** | **Carcaliu** | **72.73** | **316** | | P | | **P** | **07 59 45.4** | **-0.2** |
| **VRI** | **Vrincioaia** | **72.97** | **317** | ⇓ | *i*P | | **P** | **07 59 47.9** | **+0.8** |
| **STHS** | **Stebnicka Huta** | **73.07** | **323** | | *eP* | | **P** | **07 59 49.3** | **+1.7** |
| STHS | | | | | | pmax | pmax | | |
| | comp=Z,13nm,0.7s | | | | | | | | |
| **STHS** | **Stebnicka Huta** | **73.07** | **323** | | *eP* | | **P** | **07 59 49.3** | **+1.7** |
| **OJC** | **Ojcow** | **73.12** | **324** | | *eP* | | **P** | **07 59 48.8** | **+0.9** |
| **OJC** | **Ojcow** | **73.12** | **324** | | *eP* | | **P** | **07 59 48.8** | **+0.9** |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| OJC | | | | | | pmax | pmax | | |
| | comp=Z,51nm,0.8s | | | | | | | | |
| **OJC** | **Ojcow** | **73.12** | **324** | | *eP* | | **P** | **07 59 48.8** | **+0.9** |
| | comp=Z,51nm,0.8s | | | | | | | | |
| **UZH** | **Uzhgorod** | **73.16** | **321** | | *eP* | | **P** | **07 59 48.0** | **0.0** |
| **ARCR** | **ARCALIA** | **73.29** | **319** | ⇓ | *i*P | | **P** | **07 59 45.5** | **-3.4** |
| **CRVS** | **Cervenica-Dubn** | **73.34** | **322** | | *eP* | | **P** | **07 59 50.3** | **+1.1** |
| **CRVS** | **Cervenica-Dubn** | **73.34** | **322** | | *eP* | | **P** | **07 59 50.2** | **+1.1** |
| **KVN** | **Kaiserville** | **73.41** | **52** | | *eP* | | **P** | **07 59 50.8** | **+0.8** |
| KVN | | | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.8s | | | | | | | | |
| **KVN** | **Kaiserville** | **73.41** | **52** | | *eP* | | **P** | **07 59 50.8** | **+0.8** |
| | comp=Z,5.5nm,0.8s | | | | | | | | |
| **BR101** | **Keskin Array S** | **73.41** | **309** | | *eP* | | **P** | **07 59 50.3** | **+0.4** |
| BR101 | | | | | *e*PP | | **PP** | **08 02 35.5** | **-0.9** |
| **BR131** | **Keskin Array S** | **73.41** | **309** | | *eP* | | **P** | **07 59 50.4** | **+0.5** |
| **BRTR** | **Keskin Array B** | **73.41** | **309** | | P | | **P** | **07 59 50.3** | **+0.5** |
| | comp=Z,11nm,0.7s,baz=85,slow=3.7,SNR=64 | | | | | | | | |
| BRTR | | | | | PP | | **PP** | **08 02 35.5** | **-0.9** |
| | comp=Z,5.5nm,1.1s,baz=69,slow=7.2,SNR=7.8 | | | | | | | | |
| **NIE** | **Niedzica** | **73.49** | **323** | | *eP* | | **P** | **07 59 51.5** | **+1.5** |
| **NIE** | **Niedzica** | **73.49** | **323** | | *eP* | | **P** | **07 59 51.5** | **+1.5** |
| **YHH** | **Holmes Hill** | **73.50** | **44** | | *eP* | | **P** | **07 59 52.3** | **+1.7** |
| | comp=Z,16nm,1.9s | | | | | | | | |
| **DOPR** | **Dopca** | **73.57** | **318** | ⇓ | *i*P | | **P** | **07 59 52.1** | **+1.6** |
| **ISR** | **Istrita** | **73.59** | **317** | ⇓ | *i*P | | **P** | **07 59 52.0** | **+1.3** |
| **MLR** | **Muntele Rosu** | **73.63** | **317** | ⇓ | *i*P | | **P** | **07 59 51.5** | **+0.5** |
| **MLR** | **Muntele Rosu** | **73.63** | **317** | | *eP* | | **P** | **07 59 51.2** | **+0.2** |
| MLR | | | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.0s | | | | | | | | |
| **MLR** | **Muntele Rosu** | **73.63** | **317** | | *eP* | | **P** | **07 59 51.2** | **+0.2** |
| | comp=Z,8.8nm,1.0s | | | | | | | | |
| **NV01** | **Mina Array Sit** | **73.70** | **53** | | *eP* | | **P** | **07 59 53.0** | **+1.3** |
| **ANTO** | **Ankara** | **73.80** | **309** | | *eP* | | **P** | **07 59 53.0** | **+1.0** |
| ANTO | | | | | | pmax | pmax | | |
| | comp=Z,29nm,0.7s | | | | | | | | |
| **ANTO** | **Ankara** | **73.80** | **309** | | *eP* | | **P** | **07 59 53.0** | **+1.0** |
| | comp=Z,29nm,0.7s | | | | | | | | |
| **BR231** | **Keskin MP Arra** | **73.82** | **309** | | *eP* | | **P** | **07 59 50.9** | **-1.3** |
| **H17A** | **Grant Village** | **73.92** | **44** | | *eP* | | **P** | **07 59 55.5** | **+2.6** |
| | comp=Z,7.1nm,1.0s | | | | | | | | |
| **CJR** | **Cluj-Napoca** | **73.92** | **319** | ⇓ | *i*P | | **P** | **07 59 53.6** | **+1.0** |
| **LANS** | **Liptovska Anna** | **74.06** | **323** | | *eP* | | **P** | **07 59 55.2** | **+1.9** |
| **LANS** | **Liptovska Anna** | **74.06** | **323** | | *eP* | | **P** | **07 59 55.2** | **+1.9** |
| **IMW** | **Indian Meadow** | **74.07** | **45** | | *eP* | | **P** | **07 59 55.9** | **+2.0** |
| | comp=Z,2.7nm,0.8s | | | | | | | | |
| **STKA** | **Stephens Creek** | **74.09** | **177** | | P | | **P** | **07 59 53.6** | **+0.1** |
| | comp=Z,7.2nm,0.7s,baz=336,slow=7.4,SNR=12 | | | | | | | | |
| **STKA** | **Stephens Creek** | **74.09** | **177** | | *eP* | | **P** | **07 59 54.0** | **+0.6** |
| **STKA** | **Stephens Creek** | **74.09** | **177** | | *eP* | | **P** | **07 59 54.0** | **+0.6** |
| | comp=Z,1.4nm,0.8s | | | | | | | | |
| **KECS** | **Kecovo** | **74.09** | **322** | | *eP* | | **P** | **07 59 54.5** | **+1.0** |
| KECS | | | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.9s | | | | | | | | |
| **KECS** | **Kecovo** | **74.09** | **322** | | *eP* | | **P** | **07 59 54.5** | **+1.0** |
| **VOIR** | | **74.11** | **318** | ⇓ | *i*P | | **P** | **07 59 54.5** | **+0.7** |
| **VOIR** | | **74.11** | **318** | | P | | **P** | **07 59 54.5** | **+0.7** |
| **OKC** | **Ostrava-Krasne** | **74.12** | **324** | ⇓ | *e*P | | **P** | **07 59 54.8** | **+1.2** |
| **OKC** | **Ostrava-Krasne** | **74.12** | **324** | | *eP* | | **P** | **07 59 54.8** | **+1.2** |
| **KSP** | **Ksiaz** | **74.15** | **326** | | *eP* |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **VTS** | **Vitosha** | **77.08** | **317** | *eP* | **P** | **08 00 11.1** | **+0.4** |
| | comp=Z,33nm,0.7s | | | | | | | |
| **MSU** | **Marysvale** | **77.16** | **49** | *eP* | **P** | **08 00 13.6** | **+2.3** |
| **MSU** | **Marysvale** | **77.16** | **49** | *eP* | **P** | **08 00 13.6** | **+2.3** |
| **ARSA** | **Arzberg** | **77.22** | **324** | *i* P | **P** | **08 00 11.5** | **+0.2** |
| | comp=Z,5.8nm,0.7s | | | | | | | |
| **P17A** | **Butcher Ranch,** | **77.28** | **48** | *eP* | **P** | **08 00 13.7** | **+1.8** |
| | comp=Z,4.1nm,0.6s | | | | | | | |
| **MOA** | **Molln** | **77.30** | **325** | *i* P | **P** | **08 00 12.7** | **+1.1** |
| | comp=Z,3.9nm,0.8s | | | | | | | |
| **P18A** | **Preston Nutter** | **77.44** | **47** | *eP* | **P** | **08 00 15.2** | **+2.2** |
| | comp=Z,6.0nm,0.9s | | | | | | | |
| **SRU** | **San Rafael Swe** | **77.66** | **48** | *eP* | **P** | **08 00 15.5** | **+1.5** |
| SRU | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,1.1s | | | | | | | |
| **SRU** | **San Rafael Swe** | **77.66** | **48** | *eP* | **P** | **08 00 15.5** | **+1.5** |
| | comp=Z,7.4nm,1.1s | | | | | | | |
| **SOKA** | **Soboth** | **77.88** | **324** | *i* P | **P** | **08 00 15.9** | **+1.0** |
| | comp=Z,19nm,0.8s | | | | | | | |
| **AKAS** | **Kas** | **78.11** | **308** | *eP* | **P** | **08 00 15.9** | **-0.6** |
| | comp=Z,16nm,1.0s | | | | | | | |
| **OBKA** | **Obir** | **78.22** | **324** | *i* P | **P** | **08 00 17.5** | **+0.7** |
| | comp=Z,4.5nm,0.6s | | | | | | | |
| **KBA** | **Koelnbreinsper** | **78.29** | **325** | *i* P | **P** | **08 00 18.9** | **+1.6** |
| | comp=Z,20nm,1.0s | | | | | | | |
| **VAY** | **Valandovo** | **78.33** | **316** | *i* P | **P** | **08 00 18.3** | **+0.9** |
| **SKO** | **Skopje** | **78.42** | **317** | *i* P | **P** | **08 00 19.3** | **+1.4** |
| **MYKA** | **Terra Mystica** | **78.52** | **325** | *i* P | **P** | **08 00 18.8** | **+0.3** |
| | comp=Z,6.0nm,0.6s | | | | | | | |
| **U15A** | **North Rim** | **78.56** | **51** | *eP* | **P** | **08 00 21.2** | **+2.1** |
| | comp=Z,5.5nm,0.9s | | | | | | | |
| **WATA** | **Walderalm** | **78.83** | **326** | *i* P | **P** | **08 00 21.4** | **+1.2** |
| | comp=Z,9.8nm,0.7s | | | | | | | |
| **PV09** | **Paradox Valley** | **78.85** | **48** | *eP* | **P** | **08 00 22.6** | **+1.8** |
| **WTTA** | **Wattenberg** | **78.86** | **326** | *i* P | **P** | **08 00 18.9** | **-1.5** |
| | comp=Z,8.6nm,0.7s | | | | | | | |
| **ABTA** | **Abfaltersbach** | **78.90** | **325** | *i* P | **P** | **08 00 20.2** | **-0.4** |
| | comp=Z,5.6nm,1.0s | | | | | | | |
| **KRUS** | **Krusevo** | **78.97** | **317** | *i* P | **P** | **08 00 21.7** | **+0.7** |
| **PV10** | **Paradox Valley** | **78.99** | **48** | *eP* | **P** | **08 00 23.4** | **+1.9** |
| **MOTA** | **Moosalm** | **79.01** | **326** | *i* P | **P** | **08 00 21.9** | **+0.6** |
| | comp=Z,21nm,0.9s | | | | | | | |
| **RETA** | **Reutte** | **79.04** | **327** | *i* P | **P** | **08 00 22.5** | **+1.2** |
| | comp=Z,28nm,0.9s | | | | | | | |
| **PDG** | **Podgorica** | **79.17** | **319**⇓ | *i* P | **P** | **08 00 22.5** | **+0.6** |
| **BFO** | **Black Forest** | **79.32** | **329** | *i* P | **P** | **08 00 23.8** | **+1.1** |
| **BFO** | **Black Forest** | **79.32** | **329** | *eP* | **P** | **08 00 22.8** | **+0.1** |
| | comp=Z,42nm,1.4s | | | | | | | |
| **OHR** | **Ohrid** | **79.39** | **317** | P | **P** | **08 00 23.8** | **+0.6** |
| **OHR** | **Ohrid** | **79.39** | **317** | *i* P | **P** | **08 00 23.6** | **+0.4** |
| **PV01** | **Paradox Valley** | **79.42** | **47** | *eP* | **P** | **08 00 25.2** | **+1.5** |
| **FETA** | **Feichten** | **79.43** | **326** | *i* P | **P** | **08 00 23.4** | **-0.1** |
| | comp=Z,12nm,0.9s | | | | | | | |
| **SMCO** | **Snowmass** | **79.52** | **46** | *eP* | **P** | **08 00 25.7** | **+1.2** |
| | comp=Z,6.0nm,1.3s | | | | | | | |
| **DAVA** | **Damuels** | **79.56** | **327** | *i* P | **P** | **08 00 24.5** | **+0.4** |
| | comp=Z,14nm,0.6s | | | | | | | |
| **CDF** | **Champ du Feu** | **79.66** | **329** | *eP* | **P** | **08 00 24.3** | **-0.3** |
| CDF | | | | pmax | pmax | | | |
| | comp=Z,24nm,1.4s | | | | | | | |
| **FUORN** | **Ofenpass-Fuorn** | **79.94** | **326** | *eP* | **P** | **08 00 27.4** | **+1.0** |
| | comp=Z,42nm,0.6s | | | | | | | |
| **KARP** | **Karpathos** | **80.00** | **309** | *eP* | **P** | **08 00 26.4** | **-0.2** |
| | comp=Z,10nm,0.6s | | | | | | | |
| **MVCO** | **Mesa Verde** | **80.13** | **48** | *eP* | **P** | **08 00 29.1** | **+1.6** |
| | comp=Z,24nm,1.9s | | | | | | | |
| **AGG** | **Agios Georgios** | **80.14** | **315** | *eP* | **P** | **08 00 26.7** | **-0.6** |
| AGG | | | | pmax | pmax | | | |
| | comp=Z,24nm,0.9s | | | | | | | |
| **AGG** | **Agios Georgios** | **80.14** | **315** | *eP* | **P** | **08 00 26.6** | **-0.6** |
| | comp=Z,24nm,0.9s | | | | | | | |
| **HAU** | **Haudompre** | **80.34** | **329** | *eP* | **P** | **08 00 28.2** | **0.0** |
| HAU | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,0.6s | | | | | | | |
| **TUE** | **Stuetta** | **80.43** | **327** | *eP* | **P** | **08 00 29.4** | **+0.5** |
| | comp=Z,14nm,0.8s | | | | | | | |
| **S22A** | **4UR Ranch, Cre** | **80.65** | **47** | *eP* | **P** | **08 00 30.8** | **+0.5** |
| | comp=Z,15nm,1.9s | | | | | | | |
| **SCHQ** | **Schefferville** | **80.72** | **14** | P | **P** | **08 00 30.1** | **+0.1** |
| | comp=Z,8.1nm,0.8s,baz=309,slow=6.3,SNR=4.3 | | | | | | | |
| **SCHQ** | **Schefferville** | **80.72** | **14** | *eP* | **P** | **08 00 28.7** | **-1.3** |
| | comp=Z,62nm,1.8s | | | | | | | |
| **ECSD** | **EROS Data Cent** | **81.11** | **37** | *eP* | **P** | **08 00 33.0** | **+0.7** |
| | comp=Z,3.4nm,0.8s | | | | | | | |
| **SENIN** | **Lac Senin/Sane** | **81.33** | **328** | *eP* | **P** | **08 00 34.3** | **+0.6** |
| | comp=Z,46nm,1.8s | | | | | | | |
| **SDCO** | **Great Sand Dun** | **81.36** | **46** | *eP* | **P** | **08 00 35.4** | **+1.4** |
| | comp=Z,2.4nm,0.9s | | | | | | | |
| **CABF** | **La Chapelle** | **81.60** | **329** | *eP* | **P** | **08 00 36.3** | **+1.4** |
| CABF | | | | pmax | pmax | | | |
| | comp=Z,49nm,1.5s | | | | | | | |
| **LPL** | **La Plagne** | **82.26** | **328** | *eP* | **P** | **08 00 37.4** | **-1.1** |
| LPL | | | | pmax | pmax | | | |
| | comp=Z,14nm,0.7s | | | | | | | |
| **LPG** | **La Plagne** | **82.27** | **328** | *eP* | **P** | **08 00 39.2** | **+0.6** |
| LPG | | | | pmax | pmax | | | |
| | comp=Z,18nm,0.7s | | | | | | | |
| **AVF** | **Avril sur Loir** | **82.47** | **331** | *eP* | **P** | **08 00 39.6** | **+0.3** |
| AVF | | | | pmax | pmax | | | |
| | comp=Z,19nm,0.7s | | | | | | | |
| **GRR** | **Gorron** | **82.55** | **334** | *eP* | **P** | **08 00 39.6** | **0.0** |
| GRR | | | | pmax | pmax | | | |
| | comp=Z,75nm,1.5s | | | | | | | |
| **ANMO** | **Albuquerque** | **82.91** | **48**⇑ | *i* P | **P** | **08 00 42.1** | **+0.1** |
| ANMO | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,1.2s | | | | | | | |
| **ANMO** | **Albuquerque** | **82.91** | **48** | *eP* | **P** | **08 00 43.9** | **+1.9** |
| | comp=Z,2.3nm,1.0s | | | | | | | |
| **VIVF** | **Saint-Julien-l** | **83.61** | **329** | *eP* | **P** | **08 00 45.8** | **+0.6** |
| VIVF | | | | pmax | pmax | | | |
| | comp=Z,22nm,1.0s | | | | | | | |
| **QUIF** | **Quistinic** | **83.70** | **335** | *eP* | **P** | **08 00 45.7** | **+0.2** |
| QUIF | | | | pmax | pmax | | | |
| | comp=Z,93nm,1.0s | | | | | | | |
| **MFF** | **Saint Martin d** | **83.86** | **333** | *eP* | **P** | **08 00 46.6** | **+0.2** |
| MFF | | | | pmax | pmax | | | |
| | comp=Z,18nm,1.0s | | | | | | | |
| **CEL** | **Celeste** | **84.01** | **318** | *eP* | **P** | **08 00 47.3** | **-0.1** |
| | comp=Z,71nm,1.0s | | | | | | | |
| **VLDQ** | **Val d'Or** | **84.45** | **23** | *eP* | **P** | **08 00 49.0** | **-0.3** |
| | comp=Z,13nm,0.6s | | | | | | | |
| **CAF** | **Calviac** | **84.53** | **330** | *eP* | **P** | **08 00 50.9** | **+1.1** |
| CAF | | | | pmax | pmax | | | |
| | comp=Z,18nm,1.0s | | | | | | | |
| **EPF** | **Esparros** | **86.79** | **330** | *eP* | **P** | **08 01 02.2** | **+1.2** |
| EPF | | | | pmax | pmax | | | |
| | comp=Z,26nm,1.3s | | | | | | | |
| **TRQ** | **Mont Tremblant** | **86.99** | **22** | *eP* | **P** | **08 01 02.4** | **+0.5** |
| **TX31** | **Lajitas Ar. Si** | **88.67** | **50** | *eP* | **P** | **08 01 11.0** | **+0.8** |
| TX31 | | | | *eP* | **P** | **08 01 11.5** | **+1.3** |
| **LTX** | **Lajitas** | **88.67** | **50** | *eP* | **P** | **08 01 11.3** | **+1.1** |
| **LTX** | **Lajitas** | **88.67** | **50** | *eP* | **P** | **08 01 11.3** | **+1.1** |
| **TXAR** | **Lajitas Array** | **88.67** | **50** | P | **P** | **08 01 11.3** | **+1.2** |
| | comp=Z,1.3nm,0.6s,baz=283,slow=2.4,SNR=30 | | | | | | | |
| **KEST** | **Kesra** | **89.18** | **321** | P | **P** | **08 01 13.9** | **+1.5** |
| | comp=Z,2.8nm,0.8s,baz=334,slow=5.1,SNR=4.1 | | | | | | | |
| **KEST** | **Kesra** | **89.18** | **321** | *eP* | **P** | **08 01 12.7** | **+0.3** |
| | comp=Z,24nm,1.5s | | | | | | | |
| **SIUC** | **Southern Illin** | **89.26** | **36** | *eP* | **P** | **08 01 13.9** | **+1.3** |
| | comp=Z,23nm,0.6s | | | | | | | |
| **ES19** | **SONSECA Array** | **91.24** | **332** | *eP* | **P** | **08 01 22.2** | **+0.3** |
| **ESDC** | **Sonseca Array** | **91.28** | **332** | P | **P** | **08 01 21.3** | **-0.8** |
| | comp=Z,1.9nm,0.6s,baz=32,slow=4.3,SNR=9.3 | | | | | | | |
| **KMBO** | **Kilima Mbogo** | **98.80** | **277** | *i* P | **P** | **08 01 59.4** | **+2.5** |
| KMBO | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.3s | | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **111.71** | **314** | *e*PKiKP | **PKiKP** | **08 06 49.7** | **-0.5** |
| TOA1 | | | | *e*PP | **PP** | **08 07 28.8** | **-6.7** |
| **TORD** | **Torodi Ar. Bea** | **111.72** | **314** | PKiKP | **PKiKP** | **08 06 49.7** | **-0.5** |
| | comp=Z,0.4nm,0.4s,baz=18,slow=2.6,SNR=6.5 | | | | | | | |
| TORD | | | | PP | **PP** | **08 07 28.8** | **-6.8** |
| | comp=Z,1.3nm,0.9s,baz=27,slow=7.8,SNR=6.5 | | | | | | | |
| **DBIC** | **Dimbokro** | **120.60** | **316** | PKP | **PKPdf** | **08 07 07.0** | **-0.3** |
| | comp=Z,2.8nm,0.6s,baz=43,slow=2.2,SNR=6.4 | | | | | | | |
| **VNDA** | **Vanda** | **120.65** | **174** | PKP | **PKPdf** | **08 07 05.5** | **0.0** |
| | comp=Z,0.5nm,0.5s,baz=304,slow=5.2,SNR=4.7 | | | | | | | |
| **SDV** | **Santo Domingo** | **122.48** | **34** | *e*PKPdf | **PKPdf** | **08 07 11.5** | **+0.3** |
| **LPAZ** | **La Paz** | **145.52** | **49** | PKPbc | **PKPbc** | **08 07 55.1** | **+0.2** |
| | comp=Z,4.8nm,0.6s,baz=329,slow=4.1,SNR=20 | | | | | | | |
| **LPAZ** | **La Paz** | **145.52** | **49** | *e*PKPdf | **PKPab** | **08 07 55.2** | **-0.3** |
| **VNA2** | **Neumayer--Watz** | **146.75** | **200** | PKP | **PKPbc** | **08 07 56.5** | **+0.4** |
| | baz=95,slow=2.6 | | | | | | | |
| **PB01** | **IPOC Station P** | **148.45** | **56** | *e*PKPbc | **PKPbc** | **08 08 03.4** | **+1.1** |

**IDC 14 08:05:26.3±2.9, 54°.44N×86°.12E, h0km, mb1 3.0/2,**
**mb1mx2.8/45, mbtmp3.0/2, ML2.7/2, Error ellipse: s-maj=22.3km s-min=15.3km az=37.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **I46RU** | **ZALESOVO INFRA** | **0.91** | **238** | *i* | | 08 10 30.0 | |
| | baz=54,slow=334,SNR=3.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **0.91** | **238** | Pg | Pg | 08 05 43.9 | +0.1 |
| | 2.3nm,0.3s,baz=58,slow=17,SNR=18 | | | | | | |
| ZALV | | | | Lg | Lg | 08 05 56.4 | |
| | 5.6nm,0.3s,baz=66,slow=29,SNR=20 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **6.01** | **234** | Pn | Pn | 08 06 57.9 | +1.5 |
| | 0.1nm,0.3s,baz=50,slow=14,SNR=5.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **8.04** | **199** | Pn | Pn | 08 07 24.3 | 0.0 |
| | 0.3nm,0.3s,baz=26,slow=14,SNR=8.6 | | | | | | |

*DDA* **14** *08:21:06.6, 40°.46N×26°.23E, h7km, Ml3.1*
*ISK* **14** *08:21:06.7, 40°.43N×26°.27E, h3km, ML2.2*
*ATH* **14** *08:21:06.9, 40°.47N×26°.20E, h30km±3km, ML2.2/6, Error ellipse: s-maj=4.4km s-min=0.9km az=336.0*
*CSEM* **14** *08:21:07.3±0.1, 40°.44N×26°.25E, h5km, ML2.2, Error ellipse: s-maj=2.9km s-min=2.4km az=137.0*
*ISCJB* **14** *08:21:07.2±0.4, 40°.45N±0°.02×26°.24E±0°.03, h8km±4km, Error ellipse: s-maj=3.6km s-min=3.1km az=136.0*
*THE* **14** *08:21:08.4, 40°.46N×26°.16E, h16km±1km, ML2.1/7, Error ellipse: s-maj=1.5km s-min=0.7km az=8.0*
**ISC 14 08:21:07.1±1.0, 40°.46N±0°.02×26°.23E±0°.02, h16km±9km, n83, σ0°.74/108, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ERIK** | **Erikli-Kesan** | **0.30** | **47** | *e*PG | **Pg** | **08 21 13.6** | **+0.1** |
| ERIK | | | | *e*SG | **Sb** | **08 21 18.5** | **-0.4** |
| **ERIK** | **Erikli-Kesan** | **0.30** | **47** | *e*Pg | **Pg** | **08 21 13.6** | **+0.1** |
| ERIK | | | | *e*Sg | **Sb** | **08 21 18.5** | **-0.4** |
| **GADA** | **Gvkgeada** | **0.37** | **223** | *e*PG | **Pb** | **08 21 15.2** | **-0.1** |
| GADA | | | | *e*SG | **Sb** | **08 21 20.6** | **-0.3** |
| **GADA** | **Gvkgeada** | **0.37** | **223** | *e*Pg | **Pb** | **08 21 15.2** | **-0.1** |
| GADA | | | | *e*Sg | **Sb** | **08 21 20.6** | **-0.3** |
| **LPK** | **Lapseki** | **0.42** | **102** | *e*PG | **Pg** | **08 21 15.7** | **+0.1** |
| **LPK** | **Lapseki** | **0.42** | **102** | *e*Pg | **Pg** | **08 21 15.7** | **+0.1** |
| **ALN** | **Alexandroupoli** | **0.45** | **343** | *e*PG | **Pb** | **08 21 17.0** | **+0.1** |
| **ALN** | **Alexandroupoli** | **0.45** | **343** | P | **Pb** | **08 21 17.1** | **+0.3** |
| ALN | | | | S | **Sb** | **08 21 23.3** | **-0.1** |
| ALN | | | | AML | AML | 08 21 24.3 | |
| | comp=E,261μm,0.2s | | | | | | |
| ALN | | | | AML | AML | 08 21 24.5 | |
| | comp=N,175μm,0.2s | | | | | | |
| **ALN** | **Alexandroupoli** | **0.45** | **343** | P | **Pb** | **08 21 16.9** | **+0.1** |
| ALN | | | | S | **Sb** | **08 21 23.3** | **-0.1** |
| **ALN** | **Alexandroupoli** | **0.45** | **343** | P | **Pb** | **08 21 16.9** | **+0.1** |
| ALN | | | | S | **Sb** | **08 21 23.3** | **-0.1** |
| **KESN** | **Edirne-Kesan** | **0.50** | **44** | *i* P | **Pg** | **08 21 16.3** | **-0.9** |
| **KESN** | **Edirne-Kesan** | **0.50** | **44** | P | **Pg** | **08 21 16.3** | **-0.9** |
| **SMTH** | **Samothraki Isl** | **0.53** | **271** | P | **Pg** | **08 21 17.7** | **0.0** |
| SMTH | | | | S | **Sb** | **08 21 25.7** | **+0.1** |
| SMTH | | | | AML | AML | 08 21 28.3 | |
| | comp=N,744μm,0.1s | | | | | | |
| SMTH | | | | AML | AML | 08 21 29.0 | |
| | comp=E,696μm,0.1s | | | | | | |
| **SMTH** | **Samothraki Isl** | **0.53** | **271** | P | **Pg** | **08 21 17.8** | **+0.2** |
| SMTH | | | | S | **Sb** | **08 21 25.7** | **+0.1** |
| **SMTH** | **Samothraki Isl** | **0.53** | **271** | P | **Pg** | **08 21 17.8** | **+0.2** |
| SMTH | | | | S | **Sb** | **08 21 25.7** | **+0.1** |
| **BOZC** | **Bozcaada** | **0.64** | **192** | *e*PG | **Pg** | **08 21 19.1** | **-0.5** |
| **BOZC** | **Bozcaada** | **0.64** | **192** | *i* P | **Pg** | **08 21 19.0** | **-0.5** |
| BOZC | | | | *i* S | **Sg** | **08 21 27.9** | **-0.1** |
| **BOZC** | **Bozcaada** | **0.64** | **192** | *e*Pg | **Pg** | **08 21 19.1** | **-0.5** |
| **EZN** | **Ezine** | **0.64** | **173** | *e*PG | **Pg** | **08 21 19.1** | **-0.6** |
| **EZN** | **Ezine** | **0.64** | **173** | *e*Pg | **Pg** | **08 21 19.1** | **-0.6** |
| **RKY** | **Sarkoy-Tekirda** | **0.76** | **73** | *e*PG | **Pg** | **08 21 21.4** | **-0.6** |
| **RKY** | **Sarkoy-Tekirda** | **0.76** | **73** | *e*Pg | **Pg** | **08 21 21.4** | **-0.6** |
| **SART** | **Tekirdag** | **0.76** | **73** | *i* P | **Pg** | **08 21 21.5** | **-0.5** |
| **SART** | **Tekirdag** | **0.76** | **73** | P | **Pg** | **08 21 21.5** | **-0.5** |
| **BAYC** | **CANAKKALE_Bayr** | **0.76** | **161** | *i* P | **Pg** | **08 21 21.8** | **-0.2** |
| **BAYC** | **CANAKKALE_Bayr** | **0.76** | **161** | P | **Pg** | **08 21 21.8** | **-0.2** |
| **KRBG** | **Karabiga-Canak** | **0.82** | **95** | *e*PG | **Pg** | **08 21 22.5** | **-0.6** |
| **KRBG** | **Karabiga-Canak** | **0.82** | **95** | *e*Pg | **Pg** | **08 21 22.5** | **-0.6** |
| **RDO** | **Rodhopi** | **0.86** | **323** | P | **Pg** | **08 21 22.5** | **-1.3** |
| RDO | | | | S | **Sb** | **08 21 37.0** | **+2.0** |
| RDO | | | | AML | AML | 08 21 39.1 | |
| | comp=E,146μm,0.2s | | | | | | |
| RDO | | | | AML | AML | 08 21 39.4 | |
| | comp=N,210μm,0.3s | | | | | | |
| **RDO** | **Rodhopi** | **0.86** | **323** | P | **Pg** | **08 21 22.5** | **-1.3** |
| RDO | | | | S | **Sb** | **08 21 36.6** | **+1.6** |
| **RDO** | **Rodhopi** | **0.86** | **323** | P | **Pb** | **08 21 24.0** | **+0.3** |
| RDO | | | | S | **Sb** | **08 21 36.6** | **+1.6** |
| **LIA** | **Limnos Island** | **0.98** | **235** | P | **Pb** | **08 21 26.0** | **+0.3** |
| LIA | | | | S | **Sb** | **08 21 39.1** | **+0.7** |
| LIA | | | | AML | AML | 08 21 39.4 | |
| | comp=N,162μm,0.6s | | | | | | |
| LIA | | | | AML | AML | 08 21 42.5 | |
| | comp=E,114μm,0.3s | | | | | | |
| **LIA** | **Limnos Island** | **0.98** | **235** | P | **Pb** | **08 21 26.0** | **+0.3** |
| LIA | | | | S | **Sb** | **08 21 39.1** | **+0.7** |
| **LIA** | **Limnos Island** | **0.98** | **235** | P | **Pg** | **08 21 25.7** | **-0.4** |
| LIA | | | | S | **Sb** | **08 21 39.2** | **+0.8** |
| **KNL** | **Baƚ¯–kesir** | **1.01** | **101** | *i* P | **Pg** | **08 21 25.7** | **-1.0** |
| **GONE** | **Gonen-Balikesi** | **1.19** | **110** | *e*PN | **Pg** | **08 21 29.4** | **-0.7** |
| **GONE** | **Gonen-Balikesi** | **1.19** | **110** | *e*Pn | **Pg** | **08 21 29.5** | **-0.7** |
| **PRK** | **Paraskevi** | **1.22** | **178** | P | **Pn** | **08 21 30.4** | **+0.9** |
| PRK | | | | S | **Sb** | **08 21 46.2** | **+0.9** |
| PRK | | | | AML | AML | 08 21 46.6 | |
| | comp=E,345μm,0.6s | | | | | | |
| PRK | | | | AML | AML | 08 21 47.0 | |
| | comp=N,418μm,0.7s | | | | | | |
| **PRK** | **Paraskevi** | **1.22** | **178** | P | **Pn** | **08 21 30.4** | **+0.9** |
| PRK | | | | S | **Sb** | **08 21 46.2** | **+0.9** |
| **PRK** | **Paraskevi** | **1.22** | **178** | P | **Pn** | **08 21 30.4** | **+0.9** |
| PRK | | | | S | **Sb** | **08 21 46.2** | **+0.9** |
| **EDC** | **Edincik** | **1.26** | **95** | *e*PN | **Pn** | **08 21 29.8** | **-0.3** |
| **EDC** | **Edincik** | **1.26** | **95** | *e*Pn | **Pn** | **08 21 29.8** | **-0.3** |
| **SIGR** | **SIGRI** | **1.28** | **193** | *e*PN | **Pn** | **08 21 30.5** | **0.0** |
| **SIGR** | **SIGRI** | **1.28** | **193** | P | **Pn** | **08 21 30.2** | **-0.2** |
| SIGR | | | | S | **Sg** | **08 21 47.9** | **-0.7** |
| SIGR | | | | AML | AML | 08 21 48.9 | |
| | comp=E,492μm,0.5s | | | | | | |
| SIGR | | | | AML | AML | 08 21 48.9 | |
| | comp=N,837μm,0.6s | | | | | | |
| **SIGR** | **SIGRI** | **1.28** | **193** | P | **Pn** | **08 21 30.4** | **0.0** |
| SIGR | | | | S | **Sg** | **08 21 47.9** | **-0.7** |
| **SIGR** | **SIGRI** | **1.28** | **193** | P | **Pn** | **08 21 30.4** | **0.0** |
| SIGR | | | | S | **Sb** | **08 21 47.5** | **+0.3** |
| **BALY** | **Balya** | **1.29** | **124** | *i* P | **Pn** | **08 21 30.9** | **+0.3** |
| **BALY** | **Balya** | **1.29** | **124** | P | **Pn** | **08 21 30.9** | **+0.3** |
| **SBT3** | **Marmara-Eregli** | **1.40** | **72** | *e*PN | **Pg** | **08 21 33.6** | **-0.4** |
| **SBT3** | **Marmara-Eregli** | **1.40** | **72** | *e*Pn | **Pg** | **08 21 33.6** | **-0.4** |
| **KAVA** | **Kavala** | **1.41** | **293** | S | **Sb** | **08 21 50.3** | **-0.4** |
| **KAVA** | **Kavala** | **1.41** | **293** | P | **Pn** | **08 21 32.5** | **+0.4** |
| KAVA | | | | S | **Sb** | **08 21 50.3** | **-0.4** |
| **EDRB** | **Edirne** | **1.44** | **16** | *e*PN | **Pg** | **08 21 34.7** | **-0.1** |
| **EDRB** | **Edirne** | **1.44** | **16** | *e*Pn | **Pg** | **08 21 34.7** | **-0.1** |
| **DKL** | **Dikili** | **1.49** | **159** | *e*PN | **Pb** | **08 21 34.4** | **0.0** |
| **DKL** | **Dikili** | **1.49** | **159** | *e*Pn | **Pb** | **08 21 34.4** | **0.0** |
| **BALB** | **Balikesir** | **1.51** | **122** | *e*PN | **Pn** | **08 21 34.6** | **+1.0** |
| **BALB** | **Balikesir** | **1.51** | **122** | *e*Pn | **Pn** | **08 21 34.6** | **+1.0** |
| **STEP** | **BALIKESIR_Sava** | **1.58** | **133** | *i* P | **Pn** | **08 21 35.1** | **+0.5** |
| **STEP** | **BALIKESIR_Sava** | **1.58** | **133** | P | **Pn** | **08 21 35.1** | **+0.5** |
| **KCTX** | **Karacabey (Bur** | **1.64** | **96** | *e*PN | **Pb** | **08 21 37.0** | **0.0** |
| **KCTX** | **Karacabey (Bur** | **1.64** | **96** | *e*Pn | **Pb** | **08 21 37.0** | **0.0** |
| **SLVT** | **Silivri** | **1.69** | **62** | *e*PN | **Pb** | **08 21 37.9** | **0.0** |
| **SLVT** | **Silivri** | **1.69** | **62** | *e*Pn | **Pb** | **08 21 37.9** | **0.0** |
| **OUR** | **Ouranopolis** | **1.72** | **266** | *e*PN | **Pb** | **08 21 39.0** | **+0.7** |
| **OUR** | **Ouranopolis** | **1.72** | **266** | *e*Pn | **Pb** | **08 21 39.0** | **+0.7** |
| **OUR** | **Ouranopolis** | **1.72** | **266** | P | **Pn** | **08 21 36.3** | **-0.1** |
| OUR | | | | S | **Sn** | **08 21 56.5** | **-1.5** |
| **SBT2** | **Guzelce-Avcila** | **1.79** | **76** | *e*PN | **Pb** | **08 21 39.4** | **-0.1** |
| **SBT2** | **Guzelce-Avcila** | **1.79** | **76** | *e*Pn | **Pb** | **08 21 39.4** | **-0.1** |
| **CTYL** | **Yalikoy Yolu** | **1.86** | **56** | *e*PN | **Pb** | **08 21 40.7** | **-0.1** |
| **CTYL** | **Yalikoy Yolu** | **1.86** | **56** | *e*Pn | **Pb** | **08 21 40.7** | **-0.1** |
| **CTKS** | **Kestanelik-??a** | **1.90** | **65** | *e*PN | **Pb** | **08 21 40.8** | **-0.5** |
| **CTKS** | **Kestanelik-??a** | **1.90** | **65** | *e*Pn | **Pb** | **08 21 40.8** | **-0.5** |
| **ARMT** | **Armutlu** | **2.01** | **86** | *e*PN | **Pn** | **08 21 42.2** | **+1.7** |
| **ARMT** | **Armutlu** | **2.01** | **86** | *e*Pn | **Pn** | **08 21 42.2** | **+1.7** |
| **SBT5** | **Esenkoy-Cinarc** | **2.03** | **84** | *e*PN | **Pn** | **08 21 42.5** | **+1.8** |
| **SBT5** | **Esenkoy-Cinarc** | **2.03** | **84** | *e*Pn | **Pn** | **08 21 42.5** | **+1.8** |
| **CHOS** | **Chios island** | **2.08** | **184** | P | **Pn** | **08 21 41.8** | **+0.3** |
| **CHOS** | **Chios island** | **2.08** | **184** | P | **Pn** | **08 21 41.8** | **+0.3** |
| **URLA** | **Izmir** | **2.12** | **172** | *e*PN | **Pn** | **08 21 43.6** | **+1.6** |
| **URLA** | **Izmir** | **2.12** | **172** | *e*Pn | **Pn** | **08 21 43.6** | **+1.6** |
| **TVSB** | **Tavsanli** | **2.69** | **111** | *e*PN | **Pn** | **08 21 51.1** | **+1.2** |
| **TVSB** | **Tavsanli** | **2.69** | **111** | *e*Pn | **Pn** | **08 21 51.1** | **+1.2** |

*KRSC* **14** *08:34:02.7±2.1, 52°.46N×160°.83E, h17km±27km, ML4.4*
*MOS* **14** *08:34:03.5±0.9, 52°.41N×160°.73E, h15km, mb4.5/4, Error ellipse: s-maj=8.5km s-min=4.1km az=103.0*
*ISCJB* **14** *08:34:04.5±0.9, 52°.46N±0°.03×160°.70E±0°.04, h15km±6km, mb3.8/9, MS4.3/1, Error ellipse: s-maj=6.2km s-min=3.3km az=142.0*
*IDC* **14** *08:34:12.4±2.9, 52°.71N×160°.37E, h69km±22km, mb3.6/9, mb1 3.8/9, mb1mx3.4/43, mbtmp3.9/9, MS4.3/1, Ms1 4.2/1, ms1mx3.1/46, Error ellipse: s-maj=26.1km s-min=21.1km az=161.0*
**ISC 14 08:34:03.5±1.5, 52°.45N±0°.04×160°.65E±0°.04, h7km±9km, n98, σ1°.47/138, mb3.7/9, 1D, Off east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SPN** | **Mys Shipunski** | **0.76** | **330** | PN | **Pg** | **08 34 18.5** | **+0.5** |
| SPN | | | | S | **Sg** | **08 34 25.9** | **-1.9** |
| **SPN** | **Mys Shipunski** | **0.76** | **330** | *i* P | **Pg** | **08 34 18.5** | **+0.5** |
| SPN | | | | *e*S | **Sg** | **08 34 25.9** | **-1.9** |
| **NLC** | **Nalytchevo** | **1.07** | **313** | PN | **Pg** | **08 34 23.7** | **-0.4** |
| NLC | | | | S | **Sg** | **08 34 36.9** | **-1.1** |
| **NLC** | **Nalytchevo** | **1.07** | **313** | *e*P | **Pg** | **08 34 23.7** | **-0.4** |
| NLC | | | | *e*S | **Sg** | **08 34 36.9** | **-1.1** |
| **DALK** | **Dalny** | **1.29** | **298** | PN | **Pn** | **08 34 27.8** | **-0.1** |
| DALK | | | | S | **Sb** | **08 34 43.8** | **-1.1** |
| **DALK** | **Dalny** | **1.29** | **298** | *e*P | **Pn** | **08 34 27.8** | **-0.1** |
| DALK | | | | *e*S | **Sb** | **08 34 43.8** | **-1.1** |
| **RUS** | **Russkaya** | **1.31** | **270** | PN | **Pb** | **08 34 28.9** | **+0.5** |
| RUS | | | | S | **Sg** | **08 34 46.5** | **+0.9** |
| **RUS** | **Russkaya** | **1.31** | **270** | *e*P | **Pb** | **08 34 28.9** | **+0.5** |
| RUS | | | | *e*S | **Sg** | **08 34 46.5** | **+0.9** |
| **PET** | **Petropavlovsk** | **1.35** | **296** | *i* PN | **Pn** | **08 34 28.7** | **+0.1** |
| PET | | | | *e*S | **Sb** | **08 34 45.4** | **-1.0** |
| PET | | | | pmax | pmax | | |
| | comp=Z,529nm,0.3s | | | | | | |
| PET | | | | pmax | pmax | | |
| | comp=Z,500nm,0.3s | | | | | | |
| PET | | | | smax | smax | | |
| | comp=N,2μm,0.3s | | | | | | |
| PET | | | | smax | smax | | |
| | comp=N,2μm,0.4s | | | | | | |
| PET | | | | smax | smax | | |
| | comp=E,2μm,0.5s | | | | | | |
| PET | | | | smax | smax | | |
| | comp=E,3μm,0.4s | | | | | | |
| **PET** | **Petropavlovsk** | **1.35** | **296** | *e*P | **Pn** | **08 34 28.8** | **+0.1** |
| PET | | | | *e*S | **Sg** | **08 34 46.5** | **-0.2** |
| **UGLR** | **Uglovaya** | **1.35** | **305** | PN | **Pn** | **08 34 28.8** | **0.0** |
| UGLR | | | | S | **Sg** | **08 34 46.9** | **+0.1** |
| **UGLR** | **Uglovaya** | **1.35** | **305** | *e*P | **Pn** | **08 34 28.8** | **0.0** |
| UGLR | | | | *e*S | **Sg** | **08 34 46.9** | **+0.1** |
| **SDLR** | **Sedlovina** | **1.36** | **308** | PN | **Pn** | **08 34 28.4** | **-0.6** |
| **SDLR** | **Sedlovina** | **1.36** | **308** | *e*P | **Pn** | **08 34 28.4** | **-0.6** |
| **AVH** | **Avacha

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| OSSR | Ossora | 6.95 | 10 | PN | Pn | 08 35 49.4 | +3.8 |
| OSSR | Ossora | 6.95 | 10 | *e*P | Pn | 08 35 49.4 | +3.8 |
| KLR | Kul'dur | 18.48 | 272 | P | P | 08 38 18.9 | -0.9 |
| | comp=E,0.0nm,0.3s,baz=9.8,slow=3.8,SNR=3.6 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 33.02 | 169 | T | T | 09 17 01.5 | |
| | baz=351,slow=76,SNR=134 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 33.03 | 169 | T | T | 09 17 03.3 | |
| | baz=351,slow=76,SNR=95 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 33.03 | 169 | T | T | 09 17 02.8 | |
| | baz=351,slow=76,SNR=132 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 34.20 | 170 | T | T | 09 18 30.9 | |
| | baz=352,slow=76,SNR=11 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 34.21 | 170 | T | T | 09 18 31.7 | |
| | baz=352,slow=76,SNR=65 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 34.22 | 170 | T | T | 09 18 32.5 | |
| | baz=352,slow=76,SNR=34 | | | | | | |
| SONM | Songino Array | 34.38 | 284 | P | P | 08 40 50.2 | -0.9 |
| | comp=E,0.5nm,0.4s,baz=72,slow=9.3,SNR=4.1 | | | | | | |
| YKA | Yellowknife Ar | 43.41 | 42 | P | P | 08 42 07.0 | +0.7 |
| | comp=E,0.4nm,0.8s,baz=301,slow=7.5,SNR=2.8 | | | | | | |
| YKA | Yellowknife Ar | 43.41 | 42 | P | P | 08 42 07.0 | +0.7 |
| MKAR | Makanchi Array | 48.74 | 296 | P | P | 08 42 46.1 | -2.4 |
| | comp=E,0.4nm,0.5s,baz=56,slow=7.3,SNR=8.8 | | | | | | |
| ARCES | ARCESS Array B | 54.01 | 342 | P | P | 08 43 26.6 | -1.1 |
| | comp=E,4.1nm,0.9s,baz=43,slow=7.8,SNR=9.2 | | | | | | |
| ULM | Lac du Bonnet | 59.02 | 47 | LR | LR | 09 11 50.3 | |
| | comp=E,232nm,20.4s,baz=311,slow=38 | | | | | | |
| FINES | FINESS Array B | 60.85 | 337 | P | P | 08 44 15.0 | -0.9 |
| | comp=E,2.4nm,0.5s,baz=35,slow=7.9,SNR=22 | | | | | | |
| FINES | FINESS Array B | 60.85 | 337 | P | P | 08 44 15.0 | -0.9 |
| FINES | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.5s | | | | | | |
| AKASG | Malin Array Be | 69.34 | 329 | P | P | 08 45 10.0 | -1.3 |
| | comp=Z,0.7nm,0.4s,baz=30,slow=6.7,SNR=3.6 | | | | | | |
| AKASG | Malin Array Be | 69.34 | 329 | P | P | 08 45 10.0 | -1.3 |
| AKASG | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.4s | | | | | | |
| KBZ | Khabaz | 70.24 | 317 | P | P | 08 45 16.7 | -0.2 |
| | comp=Z,3.0nm,0.9s,baz=140,slow=1.0,SNR=5.5 | | | | | | |
| TXAR | Lajitas Array | 70.58 | 67 | P | P | 08 45 20.4 | +1.1 |
| | comp=Z,0.2nm,0.6s,baz=287,slow=5.0,SNR=3.6 | | | | | | |
| ASAR | Alice Springs | 79.31 | 205 | P | P | 08 46 11.8 | +2.3 |
| | comp=Z,0.4nm,0.6s,baz=19,slow=5.8,SNR=9.9 | | | | | | |

*IDC* ***14*** *08:37:19.8±1.5, 38.°73N×142.°06E, h0km, mb3.5/3, mb1 3.8/3, mb1mx3.4/36, mbtmp3.5/3, Error ellipse: s-maj=47.2km s-min=33.6km az=98.0*

*ISCJB* ***14*** *08:37:24.6±1.2, 38.°85N±0.°05×142.°1E±0.°1, h47km±10km, mb3.5/3, Error ellipse: s-maj=19.3km s-min=7.1km az=15.2*

*JMA* ***14*** *08:37:25.2±0.1, 38.°89N×142.°11E, h42km±1km, M3.6*

*JMA Felt II J1.*

**ISC 14 08:37:23.9±2.1, 38.°84N±0.°05×142.°15E±0.°10, h27km±14km, n19, σ0°49/19, mb3.4/3, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| OFUJ | Ofunato | 0.44 | 303 | P | | Pn | | 08 37 34.8 | +0.3 |
| OFUJ | | | | *e*S | | Sn | | 08 37 41.3 | -0.3 |
| JMK | Ichinoseki | 0.73 | 279 | P | | Pn | | 08 37 38.7 | +0.2 |
| JMK | | | | S | | Sb | | 08 37 48.2 | +0.5 |
| JIO | Ouri | 0.74 | 239 | P | | Pn | | 08 37 39.0 | +0.5 |
| JIO | | | | *e*S | | Sb | | 08 37 48.1 | +0.3 |
| JOM | Ohasama | 0.92 | 314 | P | | Pb | | 08 37 41.2 | 0.0 |
| JOM | | | | *e*S | | Sb | | 08 37 52.5 | -0.5 |
| JTH | Tanohata | 1.12 | 349 | P | | Pn | | 08 37 43.6 | -0.2 |
| JOU | Okura | 1.26 | 248 | P | | Pb | | 08 37 46.4 | -0.5 |
| JRG | Rokugo | 1.30 | 296 | P | | Pn | | 08 37 46.7 | +0.4 |
| JYK | Kaneyama | 1.40 | 274 | P | | Pn | | 08 37 48.1 | +0.5 |
| JMM | Marumori | 1.44 | 228 | P | | Pn | | 08 37 48.6 | +0.4 |
| JMM | | | | *e*S | | Sn | | 08 38 06.1 | -0.2 |
| JANG | Nango | 1.61 | 342 | P | | Pn | | 08 37 50.9 | +0.4 |
| JANG | | | | *e*S | | Sn | | 08 38 10.3 | 0.0 |
| H11N2 | WAKE ISLAND Hy | 28.63 | 125 | T | | T | | 09 13 41.1 | |
| | baz=317,slow=76,SNR=69 | | | | | | | | |
| H11N1 | WAKE ISLAND Hy | 28.64 | 125 | T | | T | | 09 13 41.8 | |
| | baz=317,slow=76,SNR=87 | | | | | | | | |
| H11N3 | WAKE ISLAND Hy | 28.65 | 125 | T | | T | | 09 13 42.5 | |
| | baz=317,slow=76,SNR=99 | | | | | | | | |
| H11S1 | WAKE ISLAND Hy | 29.41 | 127 | T | | T | | 09 14 42.2 | |
| | baz=318,slow=76,SNR=42 | | | | | | | | |
| H11S3 | WAKE ISLAND Hy | 29.41 | 127 | T | | T | | 09 14 40.7 | |
| | baz=318,slow=76,SNR=71 | | | | | | | | |
| H11S2 | WAKE ISLAND Hy | 29.43 | 127 | T | | T | | 09 14 43.5 | |
| | baz=318,slow=76,SNR=51 | | | | | | | | |
| MKAR | Makanchi Array | 43.67 | 301 | P | | P | | 08 45 26.1 | -0.2 |
| | 0.4nm,0.7s,baz=88,slow=11,SNR=4.8 | | | | | | | | |
| ILAR | Eielson Array | 47.66 | 33 | P | | P | | 08 45 58.4 | +0.9 |
| | 0.3nm,0.7s,baz=266,slow=6.0,SNR=4.1 | | | | | | | | |
| WRA | Warramunga Arr | 58.93 | 189 | P | | P | | 08 47 19.9 | -0.8 |
| | 0.4nm,0.5s,baz=6.9,slow=7.0,SNR=6.3 | | | | | | | | |

**JMA 14 08:37:45.4, 35.°36N×137.°26E, h51km, M2.7, 1C-2D Broadband fault plane solution: P waves. NP1:** $\phi_s$208.00000°, δ64.00000°, λ-30.00000°. **NP2:** $\phi_s$312.00000°, δ64.00000°, λ-150.00000°. **Principal axes:** T Plg0.0000°, Azm260.0000°; N Plg51.0000°, Azm350.0000°; P Plg39.0000°, Azm170.0000°; **Eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| JAO | Obara | 0.09 | 181 | ⇓P | | Pn | | 08 37 53.3 | -0.1 |
| JAO | | | | S | | Sn | | 08 37 59.1 | 0.0 |
| JGF | Kuroka | 0.25 | 18 | ⇓P | | Pn | | 08 37 54.1 | -0.2 |
| JGF | | | | S | | Sn | | 08 38 00.4 | -0.3 |
| SHZ3 | Shizuoka 3 | 0.83 | 110 | P | | Pn | | 08 38 00.4 | -0.6 |
| TSUJ | Tsu 2 | 0.95 | 227 | P | | Pn | | 08 38 02.4 | 0.0 |
| JYN | Shimob | 1.06 | 82 | P | | Pn | | 08 38 04.6 | +0.6 |
| JIE | Ise | 1.07 | 205 | P | | Pn | | 08 38 03.9 | -0.2 |
| TK04 | Tokai 4 | 1.10 | 152 | ⇑P | | Pn | | 08 38 04.7 | +0.4 |
| TK04 | | | | S | | Sn | | 08 38 19.6 | +1.2 |
| MAT | Matsushiro | 1.41 | 33 | P | | Pn | | 08 38 09.9 | +1.2 |
| MAT | | | | S | | Sn | | 08 38 28.3 | +2.1 |

**MAN 14 08:38:41.8, 71N×125.°71E, h31km, mb4.2, ML3.1, MS2.8, 1D, Mindanao**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| BUTP | Butuan | 0.27 | 341 | *e*P | | Pn | | 08 38 50.3 | +1.4 |
| BIPH | Bislig | 0.83 | 129 | ⇓*e*P | | Pn | | 08 38 56.1 | -0.4 |
| BIPH | | | | *i* S | | Sn | | 08 39 06.1 | -1.7 |
| BUKP | Musuan | 1.05 | 218 | *e*P | | Pn | | 08 39 00.1 | +0.4 |

**IDC 14 08:47:47.9±2.4, 7.°64S×147.°21E, h139km±30km, mb3.3/5, mb1 3.5/6, mb1mx3.2/32, mbtmp3.7/6, Error ellipse: s-maj=52.5km s-min=26.8km az=130.0, Eastern New Guinea region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| PMG | Port Moresby | 1.75 | 182 | P | | Pn | | 08 48 21.2 | +1.7 |
| | 13nm,0.3s,baz=1.3,slow=7.2,SNR=50 | | | | | | | | |
| PMG | | | | S | | Sn | | 08 48 43.8 | +0.1 |
| | 32nm,0.3s,baz=3.7,slow=9.5,SNR=21 | | | | | | | | |
| WRA | Warramunga Arr | 17.47 | 224 | P | | P | | 08 51 41.6 | -0.7 |
| | 0.2nm,0.3s,baz=43,slow=11,SNR=2.6 | | | | | | | | |
| ASAR | Alice Springs | 20.42 | 217 | P | | P | | 08 52 14.8 | +0.4 |
| | 0.8nm,0.6s,baz=36,slow=12,SNR=13 | | | | | | | | |
| FITZ | Fitzroy Crossi | 23.43 | 242 | P | | P | | 08 52 44.1 | -0.7 |
| | 0.9nm,0.3s,baz=42,slow=8.7,SNR=5.9 | | | | | | | | |
| CMAR | Chiang Mai Arr | 54.22 | 299 | P | | P | | 08 56 59.5 | -0.2 |
| | 1.0nm,0.3s,baz=122,slow=6.2,SNR=5.2 | | | | | | | | |
| MKAR | Makanchi Array | 78.89 | 321 | P | | P | | 08 59 35.5 | -0.4 |
| | 0.2nm,0.4s,baz=107,slow=5.5,SNR=4.4 | | | | | | | | |
| ILAR | Eielson Array | 86.90 | 23 | P | | P | | 09 00 15.7 | -1.1 |
| | 0.4nm,0.8s,baz=238,slow=5.6,SNR=5.6 | | | | | | | | |
| TORD | Torodi Ar. Bea | 145.67 | 282 | PKPbc | | PKPab | | 09 07 12.2 | +0.3 |
| | 0.6nm,0.4s,baz=85,slow=4.2,SNR=7.3 | | | | | | | | |

*IDC* ***14*** *08:53:08.7±0.7, 36.°96N×144.°62E, h0km, mb4.1/10, mb1 4.3/14, mb1mx4.1/38, mbtmp4.1/14, ML3.9/3, Error ellipse: s-maj=21.0km s-min=15.4km az=126.0*

*NEIC* ***14*** *08:53:10.5±0.3, 37.°01N×144.°57E, h10km, mb4.5/12, Error ellipse: s-maj=6.7km s-min=5.3km az=160.0*

*ISCJB* ***14*** *08:53:11.2±0.3, 37.°11N±0.°04×144.°38E±0.°03, h26km, mb4.3/21, Error ellipse: s-maj=5.2km s-min=3.7km az=165.5*

*JMA* ***14*** *08:53:13.2±0.3, 37.°23N×144.°33E, h52km, M4.1*

**ISC 14 08:53:13.2±0.7, 37.°21N±0.°05×144.°42E±0.°07, h26km, n63, σ2°30/77, mb4.4/21, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| JIO | Ouri | 2.73 | 298 | P | | Pn | | 08 53 55.1 | -0.2 |
| JIO | | | | *e*S | | Sn | | 08 54 26.0 | -1.4 |
| JFK | Kawauchi | 2.83 | 274 | P | | Pn | | 08 53 56.1 | -0.6 |
| JFK | | | | *e*S | | Sn | | 08 54 27.9 | -2.1 |
| OFUJ | Ofunato | 2.86 | 312 | P | | Pn | | 08 53 56.6 | -0.5 |
| OFUJ | | | | *e*S | | Sn | | 08 54 29.7 | -1.0 |
| ONAJ | Iwakimizuishiy | 2.90 | 269 | P | | Pn | | 08 53 57.1 | -0.5 |
| ONAJ | | | | *e*S | | Sn | | 08 54 29.7 | -1.9 |
| JMK | Ichinoseki | 3.07 | 306 | P | | Pn | | 08 53 59.9 | 0.0 |
| JMK | | | | *e*S | | Sn | | 08 54 35.0 | -0.7 |
| JFT | Otama | 3.27 | 277 | P | | Pn | | 08 54 03.6 | +0.9 |
| JFT | | | | *e*S | | Sn | | 08 54 39.8 | -0.9 |
| BSO1 | Boso 1 | 3.78 | 229 | P | | Pn | | 08 54 07.9 | -1.4 |
| BSO1 | | | | *e*S | | Sn | | 08 54 50.5 | -2.2 |
| JRY | Ryogami san | 4.60 | 257 | P | | Pn | | 08 54 20.0 | -1.0 |
| JRY | | | | *e*S | | Sn | | 08 55 09.7 | -3.8 |
| JOD2 | Odawara 2 | 4.73 | 247 | P | | Pn | | 08 54 21.5 | -1.3 |
| JOD2 | | | | *e*S | | Sn | | 08 55 13.3 | -3.5 |
| ERM | Erimo | 4.90 | 349 | *e*Pn | | Pn | | 08 54 27.3 | +2.3 |
| ERM | | | | *e*Sn | | Sn | | 08 55 17.8 | -3.1 |
| JOT | Ohata | 4.92 | 329 | P | | Pn | | 08 54 25.3 | -0.1 |
| JOT | | | | *e*S | | Sn | | 08 55 18.3 | -3.1 |
| MJAR | Matsushiro Arr | 5.02 | 264 | Pn | | Pn | | 08 54 27.4 | +0.5 |
| | 7.3nm,0.3s,baz=92,slow=16,SNR=41 | | | | | | | | |
| MJAR | | | | Sn | | Sn | | 08 55 25.8 | +1.8 |
| | 2.7nm,0.3s,baz=76,slow=21,SNR=6.3 | | | | | | | | |
| MAJO | Matsushiro | 5.03 | 264 | *e*Pn | | Pn | | 08 54 27.9 | +1.0 |
| MAT | Matsushiro | 5.03 | 264 | P | | Pn | | 08 54 27.8 | +0.9 |
| MAT | | | | *e*S | | Sn | | 08 55 23.6 | -0.5 |
| JKB | Kayabe | 5.35 | 332 | P | | Pn | | 08 54 30.8 | -0.5 |
| JKB | | | | *e*S | | Sn | | 08 55 28.2 | -3.9 |
| JCH | Churui | 5.46 | 352 | P | | Pn | | 08 54 31.1 | -1.7 |
| JCH | | | | *e*S | | Sn | | 08 55 29.1 | -5.6 |
| JHJ2 | Mitsune | 5.56 | 224 | P | | Pn | | 08 54 31.0 | -3.2 |
| JHJ2 | | | | *e*S | | Sn | | 08 55 30.8 | -6.5 |
| JHJ | Hachijo jima 2 | 5.57 | 224 | Pn | | Pn | | 08 54 32.6 | -1.8 |
| | 14nm,0.3s,baz=171,slow=23,SNR=6.9 | | | | | | | | |
| JHJ | | | | Sn | | Sn | | 08 55 30.8 | -6.8 |
| | 45nm,0.3s,baz=275,slow=8.0,SNR=3.6 | | | | | | | | |
| NEM2 | Nemuro 2 | 6.23 | 9 | P | | Pn | | 08 54 39.4 | -4.0 |
| JTKR | Abashiri--Toko | 6.76 | 357 | P | | Pn | | 08 54 48.9 | -1.8 |
| JTKR | | | | *e*S | | Sn | | 08 56 00.8 | -6.0 |
| JHR | Hokuryu | 6.84 | 343 | P | | Pn | | 08 54 52.0 | +0.2 |
| JHR | | | | *e*S | | Sn | | 08 56 07.1 | -1.6 |
| ASAJ | Asahikawa | 7.04 | 349 | Pn | | Pn | | 08 54 53.8 | -0.7 |
| | 1.1nm,0.3s,baz=210,slow=18,SNR=6.3 | | | | | | | | |
| ASAJ | | | | Sn | | Sn | | 08 56 08.0 | -5.6 |
| | 0.6nm,0.3s,baz=133,slow=15,SNR=2.6 | | | | | | | | |
| USRK | Ussuriysk Ar. | 11.73 | 310 | Pn | | Pn | | 08 56 00.8 | +2.1 |
| | 0.2nm,0.3s,baz=110,slow=16,SNR=4.1 | | | | | | | | |
| KSRS | Korea Array | 13.13 | 276 | Pn | | Pn | | 08 56 20.2 | +2.3 |
| | 0.2nm,0.3s,baz=85,slow=15,SNR=3.2 | | | | | | | | |
| KS15 | Wonju Array Si | 13.17 | 276 | *e*Pn | | Pn | | 08 56 20.2 | +1.9 |
| KSAR | Wonju Array Be | 13.17 | 276 | Pn | | Pn | | 08 56 20.2 | +1.9 |
| KLR | Kul'dur | 15.13 | 327 | Pn | | Pn | | 08 56 47.2 | +2.2 |
| | 0.0nm,0.3s,baz=156,slow=20,SNR=2.4 | | | | | | | | |
| SEY | Seymchan | 26.21 | 8 | P | | P | | 08 58 47.1 | +1.6 |
| | 3.6nm,0.9s,baz=182,slow=7.7,SNR=5.6 | | | | | | | | |
| H11N2 | WAKE ISLAND Hy | 26.23 | 125 | T | | T | | 09 25 34.4 | |
| | baz=317,slow=75,SNR=540 | | | | | | | | |
| H11N1 | WAKE ISLAND Hy | 26.24 | 125 | T | | T | | 09 25 37.0 | |
| | baz=317,slow=75,SNR=239 | | | | | | | | |
| H11N3 | WAKE ISLAND Hy | 26.25 | 125 | T | | T | | 09 25 37.8 | |
| | baz=317,slow=75,SNR=291 | | | | | | | | |
| H11S1 | WAKE ISLAND Hy | 27.00 | 128 | T | | T | | 09 26 31.7 | |
| | baz=319,slow=76,SNR=88 | | | | | | | | |
| H11S3 | WAKE ISLAND Hy | 27.00 | 128 | T | | T | | 09 26 32.8 | |
| | baz=319,slow=76,SNR=84 | | | | | | | | |
| H11S2 | WAKE ISLAND Hy | 27.01 | 128 | T | | T | | 09 26 30.3 | |
| | baz=319,slow=76,SNR=82 | | | | | | | | |
| MK01 | Makanchi Array | 46.05 | 302 | *e*P | | P | | 09 01 36.6 | +2.0 |
| MK31 | Makanchi Array | 46.06 | 302 | *e*P | | P | | 09 01 36.2 | +1.6 |
| MK32 | Makanchi Array | 46.06 | 302 | *e*P | | P | | 09 01 36.3 | +1.7 |
| MKAR | Makanchi Array | 46.06 | 302 | P | | P | | 09 01 36.3 | +1.7 |
| | 1.1nm,0.8s,baz=85,slow=9.8,SNR=9.7 | | | | | | | | |
| KURK | Kurchatov | 47.71 | 308 | *e*P | | P | | 09 01 48.8 | +1.3 |
| | 19nm,1.8s | | | | | | | | |
| IL1 | Eielson Array | 48.06 | 32 | *e*P | | P | | 09 01 50.0 | 0.0 |
| ILAR | Eielson Array | 48.06 | 32 | P | | P | | 09 01 50.3 | +0.4 |
| | 2.6nm,0.9s,baz=257,slow=6.2,SNR=23 | | | | | | | | |
| ILB | Eielson Array | 48.06 | 32 | *e*P | | P | | 09 01 50.3 | +0.4 |
| INK | Inuvik | 53.13 | 27 | P | | P | | 09 02 29.1 | +0.9 |
| | 4.2nm,0.7s,baz=283,slow=7.0,SNR=8.3 | | | | | | | | |
| WR1 | Warramunga Arr | 57.63 | 191 | *e*P | | P | | 09 02 58.8 | -2.3 |
| | 32nm,2.0s | | | | | | | | |
| WRA | Warramunga Arr | 57.63 | 191 | P | | P | | 09 02 58.8 | -2.3 |
| | 3.8nm,0.5s,baz=11,slow=7.2,SNR=43 | | | | | | | | |
| AS01 | Alice Springs | 61.35 | 191 | *e*P | | P | | 09 03 24.7 | -2.0 |
| AS31 | Alice Springs | 61.35 | 191 | *e*P | | P | | 09 03 24.9 | -1.8 |
| | 0.9nm,0.6s | | | | | | | | |
| ASAR | Alice Springs | 61.36 | 191 | P | | P | | 09 03 24.9 | -1.8 |
| | 2.4nm,0.8s,baz=7.5,slow=7.3,SNR=25 | | | | | | | | |
| YKA | Yellowknife Ar | 62.44 | 31 | P | | P | | 09 03 33.7 | +0.2 |
| | 0.9nm,0.7s,baz=301,slow=6.7,SNR=4.4 | | | | | | | | |
| YKB5 | Yellowknife Ar | 62.44 | 31 | *e*P | | P | | 09 03 33.7 | +0.2 |
| C09A | Chrisman Ranch | 67.90 | 46 | *e*P | | P | | 09 04 10.1 | +0.8 |
| | 4.9nm,0.8s | | | | | | | | |
| NEW | Newport | 68.31 | 45 | *e*P | | P | | 09 04 12.7 | +0.7 |
| | 3.0nm,0.8s | | | | | | | | |
| BMO | Blue Mountains | 70.03 | 48 | *e*P | | P | | 09 04 23.4 | +0.6 |
| | 2.6nm,1.0s | | | | | | | | |
| BEKR | Beckworth | 70.82 | 54 | *e*P | | P | | 09 04 28.6 | +0.9 |
| | 3.8nm,1.0s | | | | | | | | |
| YERR | Yerington | 72.03 | 55 | *e*P | | P | | 09 04 36.0 | +1.0 |
| | 4.1nm,1.0s | | | | | | | | |
| KVN | Kaiserville | 72.73 | 54 | *e*P | | P | | 09 04 40.3 | +1.1 |
| | 4.4nm,1.1s | | | | | | | | |
| YHH | Holmes Hill | 73.84 | 46 | *e*P | | P | | 09 04 47.0 | +1.1 |
| | 5.8nm,1.3s | | | | | | | | |
| AKASG | Malin Array Be | 75.61 | 324 | P | | P | | 09 04 56.6 | +1.1 |
| | 0.4nm,0.3s,baz=44,slow=6.9,SNR=4.8 | | | | | | | | |
| AKBB | Malin Array Si | 75.61 | 324 | *e*P | | P | | 09 04 56.6 | +1.1 |
| | 10nm,1.4s | | | | | | | | |
| PD31 | Pinedale Array | 75.81 | 47 | *e*P | | P | | 09 04 57.6 | +0.4 |
| PDAR | Pinedale Array | 75.81 | 47 | P | | P | | 09 04 57.6 | +0.4 |
| | 0.7nm,0.7s,baz=248,slow=1.6,SNR=7.3 | | | | | | | | |
| LTX | Lajitas | 88.09 | 54 | *e*P | | P | | 09 06 01.2 | -0.5 |
| TXAR | Lajitas Array | 88.09 | 54 | P | | P | | 09 06 01.2 | -0.5 |
| | 0.5nm,0.7s,baz=309,slow=3.4,SNR=6.5 | | | | | | | | |

*ISCJB* ***14*** *09:00:21.4±0.5, 64.°71N±0.°02×30.°40E±0.°07, h0km, Error ellipse: s-maj=4.6km s-min=2.7km az=13.3*

*CSEM* ***14*** *09:00:23.4±0.6, 64.°66N×30.°14E, h2km, ML2.3, Error ellipse: s-maj=14.5km s-min=6.7km az=104.0, Mining explosion.*

*HEL* ***14*** *09:00:24.9±0.2, 64.°73N×30.°50E, h0km, ML2.3, Explosion*

*IDC* ***14*** *09:00:25.6±2.6, 64.°76N×31.°06E, h0km, mb1 3.5/3, mb1mx3.1/32, mbtmp3.3/3, ML2.8/3, Error ellipse: s-maj=39.3km s-min=9.2km az=98.0*

*KOLA* ***14*** *09:00:25.9, 64.°84N×30.°38E, h0km*

*NAO* ***14*** *09:00:26.6±1.3, 64.°84N×30.°50E, ML2.5*

*BER* ***14*** *09:00:27.6±3.7, 64.°85N×30.°37E, h0km, ML2.5(NAO), Suspected explosion*

**ISC 14 09:00:25.3±0.9, 64.°87N±0.°02×30.°53E±0.°04, h0km, n45, σ1°31/78, Finland-Karelia border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| KU6 | Riekki | 1.19 | 347 | Pg | | Pg | | 09 00 48.2 | +0.2 |
| KU6 | | | | Sg | | Sn | | 09 01 05.5 | -0.5 |
| KU6 | Riekki | 1.19 | 347 | PG | | Pg | | 09 00 48.2 | +0.2 |
| | baz=169 | | | | | | | | |
| KU6 | | | | SG | | Sn | | 09 01 05.5 | -0.5 |
| MSF | Maaselka | 1.22 | 330 | Pg | | Pg | | 09 00 48.8 | +0.3 |
| MSF | | | | Sb | | Sn | | 09 01 07.0 | +0.3 |
| MSF | Maaselka | 1.22 | 330 | PG | | Pg | | 09 00 48.8 | +0.3 |
| | baz=152 | | | | | | | | |
| MSF | | | | SB | | Sn | | 09 01 07.0 | +0.3 |
| OUL | Oulu | 1.98 | 278 | Pg | | Pn | | 09 01 00.3 | +0.3 |
| OUL | | | | Sg | | Sb | | 09 01 27.0 | -0.4 |
| OUL | Oulu | 1.98 | 278 | PG | | Pn | | 09 01 00.4 | +0.3 |
| OUL | | | | SG | | Sb | | 09 01 27.0 | -0.4 |
| JOF | Joensuu | 1.99 | 170 | PG | | Pn | | 09 00 58.0 | -2.2 |
| | baz=347 | | | | | | | | |
| JOF | | | | SG | | Sn | | 09 01 24.2 | -1.6 |
| OUF | Merijarvi | 2.55 | 261 | Pg | | Pn | | 09 01 09.2 | +1.4 |
| OUF | Merijarvi | 2.55 | 261 | PG | | Pn | | 09 01 09.2 | +1.4 |
| | baz=80 | | | | | | | | |
| OUF | | | | SG | | Sb | | 09 01 43.8 | +0.1 |
| RNF | Rovaniemi | 2.55 | 315 | SG | | Sg | | 09 01 49.3 | +2.1 |
| TOF | Tornio | 2.86 | 298 | Pg | | Pb | | 09 01 16.1 | -1.0 |
| TOF | Tornio | 2.86 | 298 | PG | | Pb | | 09 01 16.1 | -1.0 |
| TOF | | | | SG | | Sb | | 09 01 52.5 | -0.1 |
| SUF | Sumiainen | 2.91 | 224 | Pg | | Pn | | 09 01 13.7 | +1.0 |
| SUF | Sumiainen | 2.91 | 224 | PG | | Pn | | 09 01 13.8 | +1.0 |
| SUF | | | | MSG | | | | 09 01 47.3 | |
| | comp=Z,12nm,0.2s | | | | | | | | |
| SUF | | | | SG | | Sb | | 09 01 52.5 | -1.5 |
| VRF | Varrio | 2.91 | 353 | Pn | | Pn | | 09 01 14.1 | +1.3 |
| VRF | Varrio | 2.91 | 353 | PN | | Pn | | 09 01 14.1 | +1.3 |
| | baz=168 | | | | | | | | |
| VRF | | | | MSG | | | | 09 01 54.8 | |
| | comp=Z,6.0nm,0.2s | | | | | | | | |
| APA0 | Apatity Array | 2.92 | 19 | Pn | | Pn | | 09 01 14.1 | +1.2 |
| | baz=196,slow=14 | | | | | | | | |
| APA0 | | | | Pg | | Pg | | 09 01 21.6 | +0.4 |
| | baz=188,slow=16 | | | | | | | | |
| APA0 | | | | Sn | | Sn | | 09 01 49.0 | +0.4 |
| | baz=207,slow=28 | | | | | | | | |
| APA0 | | | | Lg | | Lg | | 09 01 58.1 | |
| | baz=189,slow=37 | | | | | | | | |
| APA0 | Apatity Array | 2.92 | 19 | P | | Pn | | 09 01 13.7 | +0.8 |
| APA0 | | | | S | | Sn | | 09 01 49.4 | +0.8 |
| APA0 | Apatity Array | 2.92 | 19 | Pn | | Pn | | 09 01 14.1 | +1.2 |
| | baz=196,slow=14 | | | | | | | | |
| APA0 | | | | Pg | | Pg | | 09 01 21.6 | +0.4 |
| | baz=188,slow=16 | | | | | | | | |
| APA0 | | | | Sn | | Sn | | 09 01 49.0 | +0.4 |
| | baz=207,slow=28 | | | | | | | | |
| APA0 | | | | Lg | | Lg | | 09 01 58.1 | |
| | baz=189,slow=37 | | | | | | | | |
| APA0 | Apatity Array | 2.92 | 19 | Pn | | Pn | | 09 01 14.1 | +1.2 |
| | SNR=50 | | | | | | | | |
| APA0 | | | | Sn | | Sn | | 09 01 49.0 | +0.4 |
| | SNR=50 | | | | | | | | |
| APA0 | | | | Lg | | Lg | | 09 01 58.2 | |
| APA | Apatity | 2.95 | 22 | P | | Pn | | 09 01 14.1 | +0.8 |
| APA | | | | S | | Sn | | 09 01 50.2 | +0.9 |
| SGF | Sodankyl | 3.05 | 330 | Pn | | Pn | | 09 01 15.5 | +0.8 |
| SGF | Sodankyl | 3.05 | 330 | PN | | Pn | | 09 01 15.6 | +0.8 |
| SGF | | | | SB | | Sb | | 09 01 59.3 | +1.2 |
| KEF | Keuruu | 3.71 | 226 | Pb | | Pn | | 09 01 25.3 | +1.5 |
| KEF | | | | Sb | | Sn | | 09 02 11.0 | +2.8 |
| KEF | Keuruu | 3.71 | 226 | PB | | Pn | | 09 01 25.4 | +1.5 |
| KEF | | | | SB | | Sn | | 09 02 11.1 | +2.8 |
| ERTU | Ertsjaerv | 3.84 | 300 | Pb | | Pn | | 09 01 28.1 | +2.6 |
| ERTU | Ertsjaerv | 3.84 | 300 | PB | | Pn | | 09 01 28.2 | +2.6 |
| | baz=112 | | | | | | | | |
| VAF | Ylistaro | 3.92 | 246 | Pb | | Pn | | 09 01 28.8 | +2.2 |
| VAF | Ylistaro | 3.92 | 246 | PB | | Pn | | 09 01 28.9 | +2.2 |
| FIA0 | FINESS Array S | 3.99 | 212 | Pn | | Pn | | 09 01 27.7 | +0.1 |
| | baz=27,slow=14 | | | | | | | | |
| FIA0 | | | | Pg | | Pb | | 09 01 36.2 | -0.2 |
| | baz=24,slow=18 | | | | | | | | |
| FIA0 | | | | Sn | | Sn | | 09 02 14.9 | -0.1 |
| | baz=25,slow=28 | | | | | | | | |
| FIA0 | | | | Lg | | Lg | | 09 02 26.7 | |
| | baz=37,slow=28 | | | | | | | | |
| FIA0 | FINESS Array S | 3.99 | 212 | Pn | | Pn | | 09 01 27.7 | +0.1 |
| | baz=27,slow=14 | | | | | | | | |
| FIA0 | | | | Pg | | Pb | | 09 01 36.2 | -0.2 |
| | baz=24,slow=18 | | | | | | | | |
| FIA0 | | | | Sn | | Sn | | 09 02 14.9 | -0.1 |
| | baz=25,slow=28 | | | | | | | | |
| FIA0 | | | | Lg | | Lg | | 09 02 26.7 | |
| | baz=37,slow=28 | | | | | | | | |
| FIA0 | FINESS Array S | 3.99 | 212 | Pb | | Pn | | 09 01 27.9 | +0.3 |
| FIA0 | | | | Sn | | Sn | | 09 02 14.9 | -0.1 |
| | SNR=50 | | | | | | | | |
| FIA0 | | | | Sb | | Sb | | 09 02 16.1 | -9.0 |
| FIA0 | | | | Lg | | Lg | | 09 02 26.7 | |
| | SNR=33 | | | | | | | | |
| FIA0 | FINESS Array S | 3.99 | 212 | PB | | Pn | | 09 01 27.9 | +0.3 |
| FIA0 | | | | SB | | Sn | | 09 02 16.1 | +1.1 |
| FINES | FINESS Array B | 3.99 | 212 | Pn | | Pn | | 09 01 27.6 | 0.0 |
| | comp=Z,0.2nm,0.3s,baz=34,slow=13,SNR=14 | | | | | | | | |
| FINES | | | | Pg | | Pb | | 09 01 35.9 | -0.5 |
| | comp=Z,0.7nm,0.3s,baz=28,slow=15,SNR=13 | | | | | | | | |
| FINES | | | | Sn | | Sn | | 09 02 14.3 | -0.7 |
| | comp=Z,0.7nm,0.3s,baz=33,slow=23,SNR=6.7 | | | | | | | | |
| FINES | | | | Lg | | Lg | | 09 02 25.9 | |
| | comp=Z,1.9nm,0.3s,baz=32,slow=29,SNR=12 | | | | | | | | |
| HEF | Hetta | 4.48 | 325 | Pn | | Pn | | 09 01 36.4 | +2.1 |
| HEF | Hetta | 4.48 | 325 | PN | | Pn | | 09 01 36.4 | +2.1 |
| | baz=139 | | | | | | | | |
| HEF | | | | SG | | Sg | | 09 02 45.3 | -3.7 |
| VJF | Virojoki | 4.56 | 199 | SG | | Sb | | 09 02 43.4 | +1.9 |
| LANU | Lannavaara | 4.68 | 317 | SG | | Sg | | 09 02 51.2 | -4.2 |
| ARA0 | ARCESS Array S | 5.07 | 340 | Pn | | Pn | | 09 01 42.8 | +0.3 |
| | baz=154,slow=14 | | | | | | | | |
| ARA0 | | | | Sn | | Sn | | 09 02 41.2 | -0.4 |
| | baz=157,slow=28 | | | | | | | | |
| ARA0 | | | | Lg | | Lg | | 09 03 01.3 | |
| | baz=158,slow=37 | | | | | | | | |
| ARA0 | ARCESS

**IDC 14 09:41:15.7±2.3,5°97S×130°34E,h0km,mb4.1/1, mb1 4.1/3,mb1mx3.6/24,mbtmp3.9/3,ML3.9/2,Error ellipse: s-maj=145.8km s-min=30.1km az=70.0,Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **14.42** | **165** | Pn | Pn | 09 44 41.0 | -0.3 |
| | 0.6nm,0.3s,baz=348,slow=14,SNR=8.1 | | | | | | |
| WRA | | | | Sn | Sn | 09 47 06.1 | -16 |
| | 1.6nm,0.3s,baz=344,slow=22,SNR=12 | | | | | | |
| **ASAR** | **Alice Springs** | **17.93** | **169** | P | Pn | 09 45 26.6 | -0.1 |
| | 0.5nm,0.3s,baz=347,slow=10,SNR=26 | | | | | | |
| ASAR | | | | S | Sn | 09 48 31.5 | -16 |
| | 0.5nm,0.3s,baz=354,slow=28,SNR=6.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.56** | **326** | P | P | 09 52 14.1 | +0.1 |
| | 1.1nm,0.5s,baz=116,slow=8.1,SNR=13 | | | | | | |

**IDC 14 09:46:40.6±3.9,71°40N×1°81W,h0km,mb3.5/2, mb1 3.7/5,mb1mx3.3/37,mbtmp3.6/5,ML3.3/3,MS3.3/1, Ms1 3.3/1,ms1mx2.7/43,Error ellipse: s-maj=62.5km s-min=31.5km az=91.0,Jan Mayen Island region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SPITS** | **Spitsbergen Ar** | **8.26** | **27** | Pn | Pn | 09 48 39.6 | -1.8 |
| | baz=224,slow=12,SNR=26 | | | | | | |
| **ARCES** | **ARCESS Array B** | **9.29** | **88** | Pn | Pn | 09 48 56.3 | +0.7 |
| | 0.6nm,0.3s,baz=292,slow=13,SNR=21 | | | | | | |
| **FINES** | **FINESS Array B** | **14.78** | **118** | Pn | Pn | 09 50 10.7 | +0.1 |
| | 0.2nm,0.3s,baz=324,slow=9.4,SNR=3.4 | | | | | | |
| FINES | | | | LR | LR | 09 55 28.9 | |
| | comp=Z,126nm,20.6s,baz=345,slow=36 | | | | | | |
| **AKASG** | **Malin Array Be** | **25.07** | **129** | P | P | 09 52 04.9 | -1.4 |
| | 0.6nm,0.4s,baz=336,slow=9.9,SNR=3.1 | | | | | | |
| **BRTR** | **Keskin Array B** | **36.44** | **131** | P | P | 09 53 47.8 | +1.0 |
| | 0.3nm,0.4s,baz=330,slow=8.3,SNR=3.5 | | | | | | |

*IDC **14** 09:59:07.7±0.9,4°83S×152°34E,h0km,mb4.0/8, mb1 4.1/9,mb1mx3.8/49,mbtmp3.9/9,ML1.5/1,Error ellipse: s-maj=31.8km s-min=17.6km az=120.0*
*ISCJB **14** 09:59:13.4±0.8,5°0S±0°1×152°3E±0°1,h55km,mb3.9/9, Error ellipse: s-maj=20.9km s-min=10.3km az=39.6*
**ISC 14 09:59:15.1±0.9,5°0S±0°1×152°4E±0°2,h55km,n11, σ1§36/12,mb4.0/9,New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **6.78** | **230** | Pn | **Pn** | **10 00 50.0** | **-2.0** |
| | 0.6nm,0.3s,baz=29,slow=10,SNR=1.9 | | | | | | |
| PMG | | | | Sn | **Sn** | **10 02 09.1** | **+1.1** |
| | 3.2nm,0.3s,baz=156,slow=20,SNR=5.6 | | | | | | |
| **DZM** | **Mont Dzumac** | **21.74** | **143** | P | **P** | **10 04 03.0** | **+0.9** |
| | 6.6nm,1.0s,baz=235,slow=11,SNR=7.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **23.00** | **228** | P | **P** | **10 04 15.1** | **-0.4** |
| | 1.2nm,0.7s,baz=51,slow=9.7,SNR=17 | | | | | | |
| **ASAR** | **Alice Springs** | **25.72** | **222** | P | **P** | **10 04 41.2** | **+0.7** |
| | 0.3nm,0.4s,baz=57,slow=9.1,SNR=17 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **29.20** | **241** | P | **P** | **10 05 11.9** | **+0.2** |
| | 1.4nm,0.5s,baz=54,slow=7.0,SNR=6.5 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **57.60** | **295** | P | **P** | **10 09 02.0** | **+2.2** |
| | 0.9nm,0.4s,baz=101,slow=4.9,SNR=5.1 | | | | | | |
| **PETK** | **Petropavlovsk-** | **58.08** | **4** | P | **P** | **10 09 02.8** | **+0.2** |
| | 5.6nm,1.0s,baz=157,slow=8.3,SNR=6.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **80.22** | **319** | P | **P** | **10 11 17.9** | **-2.0** |
| | 0.2nm,0.4s,baz=114,slow=6.8,SNR=4.6 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **81.10** | **326** | P | **P** | **10 11 24.6** | **+0.3** |
| | 1.1nm,0.6s,baz=123,slow=5.5,SNR=4.4 | | | | | | |
| **ILAR** | **Eielson Array** | **82.51** | **22** | P | **P** | **10 11 30.6** | **-1.0** |
| | 2.6nm,0.7s,baz=244,slow=5.6,SNR=33 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **149.98** | **288** | PKPbc | **PKPbc** | **10 19 00.5** | **0.0** |
| | 1.3nm,0.7s,baz=59,slow=2.7,SNR=8.4 | | | | | | |

*IDC **14** 09:59:58.6±0.8,35°.95N×73°.39E,h0km,mb4.0/13, mb1 4.2/20,mb1mx3.9/71,mbtmp4.1/20,ML4.2/5,MS3.5/1, Ms1 3.5/1,ms1mx2.6/60,Error ellipse: s-maj=19.8km s-min=14.7km az=40.0*
*ISCJB **14** 10:00:03.7±0.3,36°.19N±0°.02×73°.72E±0°.05,h35km, mb4.0/16,MS3.5/2,Error ellipse: s-maj=6.2km s-min=2.7km az=161.2*
*MOS **14** 10:00:07.9±1.4,36°.19N×73°.48E,h84km,mb4.2/11,Error ellipse: s-maj=13.6km s-min=5.7km az=92.4*
*NNC **14** 10:00:15.6±4.7,36°.61N×73°.07E,h165km±44km,mb3.4, mpv4.2,Error ellipse: s-maj=44.5km s-min=21.6km az=153.0*
*BJI **14** 10:00:20.5,37°.04N×73°.98E,h160km,mb4.7/10,mB4.7/8*
**ISC 14 10:00:06.5±0.3,36°13N±0°03×73°64E±0°05,h35km,n97, σ2§79/93,mb4.0/16,13C-12D,Northwestern Kashmir**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CHCP** | **Chirah Chowk** | **2.48** | **187** | P | Pn | 10 00 50.0 | +5.5 |
| **CEP** | **Cherat** | **2.70** | **212** | ⇓P | Pn | 10 00 51.8 | +4.2 |
| CEP | | | | S | **Sn** | **10 01 22.0** | **+2.9** |
| **KSH** | **Kashi** | **3.86** | **28** | P | **Pn** | **10 01 03.8** | **+0.3** |
| KSH | | | | S | **Sn** | **10 01 41.1** | **-6.6** |
| KSH | | | | *s*max | smax | | |
| | comp=N,2μm,0.4s | | | | | | |
| KSH | | | | *s*max | smax | | |
| | comp=E,2μm,0.2s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **3.88** | **358** | ⇓P | Pn | 10 01 08.9 | +5.0 |
| | 16nm,0.2s | | | | | | |
| SFK | | | | ⇓S | **Sn** | **10 01 52.7** | **+4.3** |
| | 190nm,0.4s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **3.88** | **358** | PN | Pn | 10 01 08.9 | +5.0 |
| SFK | | | | S | **Sn** | **10 01 52.7** | **+4.3** |
| SFK | | | | *p*max | pmax | | |
| | comp=Z,16nm,0.2s | | | | | | |
| SFK | | | | *s*max | smax | | |
| | comp=N,190nm,0.4s | | | | | | |
| **THN** | **Thein Dam** | **4.07** | **154** | *e*P | **Pn** | **10 01 09.6** | **+3.4** |
| THN | | | | *e*S | **Sn** | **10 01 54.2** | **+1.6** |
| **SARP** | **Sargodha** | **4.27** | **191** | P | **Pn** | **10 01 12.1** | **+3.1** |
| **PONG** | **Pong** | **4.58** | **155** | *e*P | **Pn** | **10 01 17.0** | **+3.7** |
| PONG | | | | *e*S | **Sn** | **10 02 06.0** | **+0.7** |
| **DZET** | **Dzherino** | **4.67** | **306** | ⇑P | **Pn** | **10 01 14.8** | **+0.2** |
| | comp=N,30nm,0.5s | | | | | | |
| DZET | | | | ⇓S | **Sn** | **10 02 05.7** | **-1.9** |
| | comp=N,465nm,0.4s | | | | | | |
| **DZET** | **Dzherino** | **4.67** | **306** | PN | **Pn** | **10 01 14.8** | **+0.2** |
| DZET | | | | *p*max | pmax | | |
| | comp=Z,30nm,0.5s | | | | | | |
| **JWA** | **Jwalamukhi** | **4.80** | **151** | *e*P | **Pn** | **10 01 19.0** | **+2.7** |
| JWA | | | | *e*S | **Sn** | **10 02 12.0** | **+1.3** |
| **BHK** | **Bhakra** | **5.24** | **153** | *e*P | **Pn** | **10 01 24.0** | **+1.7** |
| BHK | | | | *e*S | **Sn** | **10 02 21.6** | **+0.1** |
| **SDNR** | **Sundarnagar** | **5.38** | **148** | *e*P | **Pn** | **10 01 27.0** | **+2.6** |
| SDNR | | | | *e*S | **Sn** | **10 02 25.0** | **-0.1** |
| **AML** | **Almayashu** | **6.00** | **0** | P | **Pn** | **10 01 36.0** | **+2.8** |
| | SNR=89 | | | | | | |
| **KZA** | **Kyzart** | **6.08** | **11** | P | Pn | 10 01 38.1 | +3.9 |
| | SNR=14 | | | | | | |
| **UCH** | **Uchtor** | **6.13** | **6** | P | **Pn** | **10 01 38.3** | **+3.3** |
| | SNR=102 | | | | | | |
| **MNAS** | **Manas** | **6.41** | **352** | ⇓P | **Pn** | **10 01 40.8** | **+2.2** |
| | comp=Z,16nm,0.6s | | | | | | |
| MNAS | | | | ⇓S | **Sn** | **10 02 47.8** | **-2.8** |
| | comp=Z,52nm,0.4s | | | | | | |
| **MNAS** | **Manas** | **6.41** | **352** | PN | **Pn** | **10 01 40.8** | **+2.2** |
| MNAS | | | | *p*max | pmax | | |
| | comp=Z,16nm,0.6s | | | | | | |
| **ULHL** | **Ulahol** | **6.44** | **18** | P | Pn | 10 01 44.2 | +5.2 |
| | SNR=7.5 | | | | | | |
| **EKS2** | **Erkin-Say** | **6.53** | **1** | P | **Pn** | **10 01 43.4** | **+3.2** |
| | SNR=45 | | | | | | |
| **AAK** | **Ala-Archa** | **6.54** | **6** | Pn | **Pn** | **10 01 43.7** | **+3.4** |
| | comp=Z,5.1nm,0.3s,baz=171,slow=7.7,SNR=27 | | | | | | |
| AAK | | | | Sn | **Sn** | **10 02 52.5** | **-1.2** |
| | comp=Z,6.2nm,0.3s,baz=125,slow=17,SNR=10 | | | | | | |
| **AAK** | **Ala-Archa** | **6.54** | **6** | ⇑P | **Pn** | **10 01 44.0** | **+3.7** |
| | comp=Z,9.6nm,0.5s | | | | | | |
| AAK | | | | ⇑S | **Sn** | **10 02 53.1** | **-0.6** |
| | comp=Z,38nm,0.7s | | | | | | |
| **AAK** | **Ala-Archa** | **6.54** | **6** | ⇓*i*PN | **Pn** | **10 01 43.6** | **+3.3** |
| **AAK** | **Ala-Archa** | **6.54** | **6** | P | **Pn** | **10 01 44.1** | **+3.7** |
| | SNR=20 | | | | | | |
| **KBK** | **Karagaybulak** | **6.60** | **8** | P | Pn | 10 01 46.1 | +4.9 |
| | SNR=12 | | | | | | |
| **FRU** | **Bishkek** | **6.74** | **6** | *e*PN | Pn | 10 01 47.0 | +4.0 |
| FRU | | | | *e*S | **Sn** | **10 03 04.0** | **+5.4** |
| FRU | | | | *p*max | pmax | | |
| | comp=E,164nm,1.9s | | | | | | |
| **DDI** | **Dehra Dun** | **6.87** | **146** | *ex* | Pn | 10 01 41.6 | -3.2 |
| DDI | | | | *e*S | **Sn** | **10 02 58.0** | **-3.8** |
| **CHMS** | **Chumysh** | **6.92** | **7** | P | **Pn** | **10 01 48.7** | **+3.2** |
| | SNR=7.7 | | | | | | |
| **TKM2** | **Tokmak 2** | **6.95** | **12** | ⇑P | **Pn** | **10 01 49.8** | **+3.7** |
| | comp=E,3.7nm,0.4s | | | | | | |
| TKM2 | | | | ⇑S | **Sn** | **10 03 02.9** | **-1.2** |
| | comp=E,83nm,0.7s | | | | | | |
| **TKM2** | **Tokmak 2** | **6.95** | **12** | PN | **Pn** | **10 01 49.8** | **+3.7** |
| TKM2 | | | | *p*max | pmax | | |
| | comp=Z,4.0nm,0.4s | | | | | | |
| **TKM2** | **Tokmak 2** | **6.95** | **12** | P | Pn | 10 01 50.0 | +3.9 |
| | SNR=16 | | | | | | |
| **KK31** | **Karatay Array** | **7.37** | **342** | ⇓P | **Pn** | **10 01 52.7** | **+1.0** |
| | comp=Z,25nm,0.4s,baz=170,slow=15,SNR=471 | | | | | | |
| KK31 | | | | ⇑S | **Sn** | **10 03 10.2** | **-3.8** |
| | comp=Z,28nm,0.4s,baz=171,slow=26,SNR=10 | | | | | | |
| **KK31** | **Karatay Array** | **7.37** | **342** | PN | **Pn** | **10 01 52.7** | **+1.0** |
| KK31 | | | | *p*max | pmax | | |
| | comp=Z,25nm,0.4s | | | | | | |
| **JOSI** | **Joshimath** | **7.44** | **137** | *e*P | **Pn** | **10 01 55.2** | **+2.4** |
| JOSI | | | | *e*S | **Sn** | **10 03 12.5** | **-3.6** |
| JOSI | | | | AML | AML | 10 03 22.0 | |
| | comp=N,536nm,1.4s | | | | | | |
| JOSI | | | | AML | AML | 10 03 24.1 | |
| | comp=E,383nm,0.2s | | | | | | |
| **NDI** | **New Delhi** | **8.01** | **157** | *e*P | **Pn** | **10 02 03.0** | **+2.5** |
| NDI | | | | *e*S | **Sn** | **10 03 26.0** | **-3.9** |
| **KHET** | **Khetri** | **8.23** | **166** | *e*P | **Pn** | **10 02 03.4** | **-0.1** |
| KHET | | | | *e*S | **Sn** | **10 03 30.1** | **-5.2** |
| KHET | | | | AML | AML | 10 03 37.3 | |
| | comp=N,56nm,0.3s | | | | | | |
| KHET | | | | AML | AML | 10 03 37.4 | |
| | comp=E,58nm,0.7s | | | | | | |
| **SONA** | **Sohna** | **8.38** | **159** | *e*P | **Pn** | **10 02 06.3** | **+0.8** |
| SONA | | | | *e*S | Sn | 10 03 33.1 | -5.6 |
| SONA | | | | AML | AML | 10 03 40.7 | |
| | comp=E,153nm,0.6s | | | | | | |
| SONA | | | | AML | AML | 10 03 41.3 | |
| | comp=N,64nm,0.6s | | | | | | |
| **LGTI** | **Lohaghat** | **8.67** | **138** | *e*P | **Pn** | **10 02 10.2** | **+0.7** |
| LGTI | | | | *e*S | Sn | 10 03 39.2 | -6.8 |
| **PYUN** | **Piuthan** | **11.26** | **133** | *e*P | **Pn** | **10 02 44.0** | **-1.1** |
| | comp=N,34nm,0.3s | | | | | | |
| **KOLN** | **Koldanda** | **11.87** | **132** | *e*P | Pn | 10 02 51.7 | -1.7 |
| | comp=N,21nm,0.3s | | | | | | |
| **GKN** | **Gorkha** | **12.35** | **128** | *e*P | Pn | 10 02 57.5 | -2.5 |
| | comp=N,2.9nm,0.2s | | | | | | |
| **MK31** | **Makanchi Array** | **12.47** | **29** | ⇑P | **Pn** | **10 03 03.4** | **+2.0** |
| | comp=N,2.0nm,0.7s,baz=204,slow=11,SNR=12 | | | | | | |
| **MKAR** | **Makanchi Array** | **12.47** | **29** | Pn | **Pn** | **10 03 02.8** | **+1.4** |
| | comp=N,0.3nm,0.3s,baz=210,slow=12,SNR=15 | | | | | | |
| **MKAR** | **Makanchi Array** | **12.47** | **29** | *ce*P | **Pn** | **10 03 03.0** | **+1.6** |
| MKAR | | | | *p*max | pmax | | |
| | comp=Z,1.0nm,0.5s | | | | | | |
| **GEYT** | **Alibeck** | **12.53** | **283** | Pn | **Pn** | **10 02 58.2** | **-4.2** |
| | baz=64,slow=9.9,SNR=1.9 | | | | | | |
| GEYT | | | | Sn | Sn | 10 05 09.4 | -11 |
| | comp=Z,2.6nm,0.3s,baz=105,slow=24,SNR=7.0 | | | | | | |
| **KKN** | **Kakani** | **12.91** | **127** | *e*P | Pn | 10 03 05.8 | -1.9 |
| | comp=Z,30nm,0.5s | | | | | | |
| **DMN** | **Daman** | **12.92** | **128** | *e*P | Pn | 10 03 05.9 | -2.0 |
| | comp=Z,22nm,0.4s | | | | | | |
| **PKIN** | **Phulchoki** | **13.13** | **127** | *e*P | Pn | 10 03 07.2 | -3.5 |
| | comp=Z,19nm,0.3s | | | | | | |
| **PKI** | **Pulchoki** | **13.14** | **127** | *e*P | Pn | 10 03 08.4 | -2.5 |
| | comp=Z,15nm,0.3s | | | | | | |
| **GUN** | **Gumba** | **13.22** | **125** | *e*P | Pn | 10 03 09.8 | -2.2 |
| | comp=Z,18nm,0.4s | | | | | | |
| **JIRN** | **Jiri** | **13.59** | **125** | *e*P | Pn | 10 03 14.3 | -2.8 |
| | comp=Z,299nm,0.3s | | | | | | |
| **JBP** | **Jabalpur** | **14.04** | **155** | ⇓*ex* | **Pn** | **10 03 21.8** | **-1.1** |
| JBP | | | | *e*S | Sn | 10 05 46.6 | -11 |
| **TAPN** | **Taplejung** | **14.82** | **122** | *e*P | Pn | 10 03 27.0 | -6.8 |
| | comp=Z,12nm,0.3s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **14.92** | **12** | Pn | **Pn** | **10 03 31.9** | **-2.7** |
| | comp=Z,0.2nm,0.3s,baz=201,slow=12,SNR=4.0 | | | | | | |
| **ODAN** | **Odare** | **14.92** | **124** | *e*P | Pn | 10 03 29.0 | -6.1 |
| | comp=Z,10nm,0.6s | | | | | | |
| **KURK** | **Kurchatov** | **15.02** | **12** | ⇑*e*P | **Pn** | **10 03 33.4** | **-2.6** |
| KURK | | | | *p*max | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | |
| **AB31** | **Akbulak array** | **16.50** | **327** | P | **Pn** | **10 03 51.0** | **-4.2** |
| | comp=Z,3.5nm,0.4s,baz=138,slow=12,SNR=146 | | | | | | |
| AB31 | | | | ⇓S | Sn | 10 06 39.5 | -18 |
| | comp=Z,2.6nm,0.6s,baz=149,slow=22,SNR=10 | | | | | | |
| **AB31** | **Akbulak array** | **16.50** | **327** | P | **Pn** | **10 03 51.0** | **-4.2** |
| AB31 | | | | *p*max | pmax | | |
| | comp=Z,4.0nm,0.4s | | | | | | |
| **DGZ** | **Jazzator, Alta** | **16.88** | **32** | *e*P | **Pn** | **10 03 59.3** | **-0.8** |
| DGZ | | | | *p*max | pmax | | |
| | comp=Z,3.0nm,0.6s | | | | | | |
| **BVA0** | **Borovoye Array** | **17.05** | **353** | P | **Pn** | **10 03 60.0** | **-2.1** |
| | comp=Z,6.8nm,0.5s,baz=158,slow=13,SNR=37 | | | | | | |
| **BVA0** | **Borovoye Array** | **17.05** | **353** | P | **Pn** | **10 04 00.0** | **-2.1** |
| BVA0 | | | | *p*max | pmax | | |
| | comp=Z,7.0nm,0.5s | | | | | | |
| **BVAR** | **Borovoye Array** | **17.05** | **353** | P | **Pn** | **10 03 59.0** | **-3.1** |
| | comp=Z,1.7nm,0.3s,baz=160,slow=9.2,SNR=35 | | | | | | |
| **BVAR** | **Borovoye Array** | **17.05** | **353** | P | **Pn** | **10 03 59.0** | **-3.1** |
| BVAR | | | | *p*max | pmax | | |
| | comp=Z,2.0nm,0.3s | | | | | | |
| **BRVK** | **Borovoye** | **17.09** | **353** | ⇑*e*P | **Pn** | **10 04 00.7** | **-1.9** |
| BRVK | | | | *p*max | pmax | | |
| | comp=Z,12nm,1.1s | | | | | | |
| **POO** | **Poona** | **17.53** | **179** | *e*P | **Pn** | **10 04 10.0** | **+1.8** |
| **AKTO** | **Aktyubinsk** | **18.22** | **327** | P | **Pn** | **10 04 14.2** | **-2.3** |
| | comp=Z,1.5nm,0.3s,baz=130,slow=9.0,SNR=22 | | | | | | |
| AKTO | | | | S | Sn | 10 07 24.3 | -14 |
| | comp=Z,0.3nm,0.3s,baz=104,slow=17,SNR=3.9 | | | | | | |
| **AKTO** | **Aktyubinsk** | **18.22** | **327** | ⇓P | **Pn** | **10 04 14.0** | **-2.4** |
| | comp=Z,7.7nm,0.8s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **19.45** | **20** | P | **P** | **10 04 28.9** | **-1.0** |
| | comp=Z,3.7nm,0.3s,baz=210,slow=12,SNR=51 | | | | | | |
| ZALV | | | | S | **S** | **10 07 59.9** | **-7.8** |
| | comp=Z,0.4nm,0.3s,baz=208,slow=20,SNR=7.8 | | | | | | |
| **NVS** | **Novosibirsk** | **19.86** | **16** | ⇑*i*P | **P** | **10 04 34.2** | **-0.1** |
| NVS | | | | *e* | | 10 08 08.6 | |
| NVS | | | | *p*max | pmax | | |
| | comp=Z,3.0nm,0.4s | | | | | | |
| NVS | | | | *p*max | pmax | | |
| | comp=N,4.0nm,0.5s | | | | | | |
| NVS | | | | *p*max | pmax | | |
| | comp=E,2.0nm,0.5s | | | | | | |
| **HVS** | **Khovu-Aksy** | **20.78** | **38** | ⇑*e*P | **P** | **10 04 43.7** | **-0.8** |
| HVS | | | | *p*max | pmax | | |
| | comp=Z,34nm,1.2s | | | | | | |
| **GTA** | **Gaotai** | **20.93** | **73** | *e*P | **P** | **10 04 47.1** | **+0.8** |
| GTA | | | | *p*max | pmax | | |
| | comp=Z,20nm,0.9s | | | | | | |
| **MAK** | **Makhachkala** | **21.23** | **297** | *e*P | P | 10 04 57.1 | +7.9 |
| MAK | | | | *e**PP | sP | 10 05 25.3 | +22 |
| MAK | | | | *e**SS | sS | 10 09 30.0 | +32 |
| MAK | | | | MLR | MLR | | |
| | comp=Z,128nm,16.0s | | | | | | |
| **ARU** | **Arti** | **22.73** | **338** | P | **P** | **10 05 03.8** | **-1.4** |
| | comp=Z,6.1nm,0.4s,baz=124,slow=4.9,SNR=12 | | | | | | |
| **ARU** | **Arti** | **22.73** | **338** | *d*P | **P** | **10 05 03.6** | **-1.6** |
| ARU | | | | | | 10 05 31.0 | |
| ARU | | | | S | S | 10 08 51.3 | -20 |
| ARU | | | | *p*max | pmax | | |
| | comp=Z,14nm,1.0s | | | | | | |
| **GNI** | **Garni** | **23.03** | **289** | *i* P | P | 10 05 17.3 | +8.6 |
| GNI | | | | *p*max | pmax | | |
| | comp=Z,9.0nm,0.8s | | | | | | |
| **KBZ** | **Khabaz** | **24.66** | **297** | P | **P** | **10 05 23.5** | **-0.4** |
| | comp=Z,1.0nm,0.6s,baz=68,slow=16,SNR=3.7 | | | | | | |
| **KIV** | **Kislovodsk** | **24.84** | **298** | *e*P | **P** | **10 05 30.5** | **+4.8** |
| KIV | | | | *p*max | pmax | | |
| | comp=Z,7.0nm,1.1s | | | | | | |
| **MOY** | **Mondy** | **24.90** | **43** | *e*P | **P** | **10 05 28.4** | **+2.3** |
| **SONM** | **Songino Array** | **26.82** | **54** | P | **P** | **10 05 43.4** | **-0.1** |
| | comp=Z,2.6nm,0.5s,baz=249,slow=10,SNR=16 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **28.43** | **122** | P | **P** | **10 05 56.1** | **-1.9** |
| | comp=Z,1.3nm,0.4s,baz=333,slow=12,SNR=3.1 | | | | | | |
| **ANN** | **Anapa** | **28.68** | **299** | *e*P | P | 10 06 04.1 | +4.1 |
| ANN | | | | *e*S | S | 10 10 36.2 | -10 |
| ANN | | | | *p*max | pmax | | |
| | comp=Z,19nm,0.9s | | | | | | |
| **AKASG** | **Malin Array Be** | **34.84** | **309** | P | **P** | **10 06 51.3** | **-2.7** |
| | comp=Z,0.6nm,0.5s,baz=102,slow=8.2,SNR=4.2 | | | | | | |
| **FINES** | **FINESS Array B** | **38.99** | **326** | P | **P** | **10 07 26.8** | **-2.3** |
| | comp=Z,6.2nm,1.0s,baz=117,slow=9.6,SNR=17 | | | | | | |
| **ARCES** | **ARCESS Array B** | **42.31** | **337** | P | **P** | **10 07 54.4** | **-2.1** |
| | comp=Z,2.4nm,0.6s,baz=115,slow=8.7,SNR=14 | | | | | | |
| **CLL** | **Collm** | **45.08** | **309** | *e*P | **P** | **10 08 20.0** | **+1.1** |
| **CLL** | **Collm** | **45.08** | **309** | *e*P | **P** | **10 08 20.0** | **+1.1** |
| **TIXI** | **Tiksi** | **45.33** | **21** | P | **P** | **10 08 18.8** | **-1.8** |
| | comp=Z,1.4nm,0.3s,baz=269,slow=5.5,SNR=8.1 | | | | | | |
| **TIXI** | **Tiksi** | **45.33** | **21** | *ce*P | **P** | **10 08 19.1** | **-1.5** |
| TIXI | | | | *p*max | pmax | | |
| | comp=Z,2.0nm,0.6s | | | | | | |
| **NB2** | **NORSAR Subarra** | **45.96** | **323** | P | **P** | **10 08 23.1** | **-2.7** |
| | comp=Z,1.5nm,0.5s,baz=91,slow=7.9 | | | | | | |
| **NOA** | **NORSAR Array B** | **45.96** | **323** | P | **P** | **10 08 22.9** | **-2.9** |
| | comp=Z,2.5nm,0.6s,baz=91,slow=7.7,SNR=5.5 | | | | | | |
| **NOA** | **NORSAR Array B** | **45.96** | **323** | P | **P** | **10 08 22.9** | **-2.9** |
| NOA | | | | *p*max | pmax | | |
| | comp=Z,2.0nm,0.5s | | | | | | |
| **SPITS** | **Spitsbergen Ar** | **48.35** | **347** | LR | LR | 10 32 07.8 | |
| | comp=Z,48nm,18.3s,baz=210,slow=40 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **51.10** | **69** | P | **P** | **10 09 05.1** | **-0.6** |
| | comp=Z,0.8nm,0.5s,baz=299,slow=9.2,SNR=3.9 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **67.84** | **270** | P | P | 10 10 56.5 | -5.0 |
| | comp=Z,0.3nm,0.5s,baz=45,slow=5.4,SNR=4.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **80.00** | **124** | P | **P** | **10 12 10.8** | **-1.6** |
| | comp=Z,0.6nm,0.8s,baz=327,slow=4.8,SNR=5.6 | | | | | | |
| **YKA** | **Yellowknife Ar** | **81.50** | **4** | P | **P** | **10 12 17.7** | **-2.1** |
| | comp=Z,0.3nm,0.4s,baz=346,slow=5.4,SNR=8.7 | | | | | | |
| **ASAR** | **Alice Springs** | **82.31** | **127** | P | **P** | **10 12 23.1** | **-1.5** |
| | comp=Z,0.3nm,0.5s,baz=309,slow=4.9,SNR=4.6 | | | | | | |

**DJA 14 10:03:07.9±1.5,0°N±7°×133°2E±°,h37km±38km,M4.2/5, MLv4.2/5,Irian Jaya region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SWI** | **Sorong** | **1.12** | **209** | P | Pn | 10 03 28.2 | +1.2 |
| SWI | | | | S | Sn | 10 03 41.7 | +0.6 |
| **RKPI** | **Ransiki, Papua** | **2.88** | **124** | P | Pn | 10 03 51.9 | +0.7 |
| RKPI | | | | S | Sn | 10 04 26.3 | +1.7 |
| **FAKI** | **Fak Fak** | **3.05** | **172** | P | Pn | 10 03 53.0 | -0.6 |

*SOME **14** 10:13:11.6,41°.13N×71°.05E,h0km*
*KRNET **14** 10:13:14.4±0.1,40°.99N×71°.28E,mb2.7*
*NNC **14** 10:13:17.6±8.4,41°.29N×71°.01E,h0km,mb3.1,mpv2.8, Error ellipse: s-maj=71.2km s-min=33.6km az=8.0*
**ISC 14 10:13:09.6±3.1,41°0N±0°1×71°05E±0°06,h11km±18km,n8, σ1§09/16,6C-6D,Kyrgyzstan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **IUG** | **Iuzhnay** | **1.35** | **326** | *e*P | **Pg** | **10 13 36.0** | **+0.4** |
| | 8.8nm,0.3s | | | | | | |
| IUG | | | | *e*S | **Sb** | **10 13 52.5** | **+0.1** |
| | 13nm,0.6s | | | | | | |
| **MNAS** | **Manas** | **1.82** | **36** | ⇓Pn | **Pg** | **10 13 45.0** | **+0.5** |
| | 2.0nm,0.4s | | | | | | |
| MNAS | | | | ⇓Sn | **Sg** | **10 14 10.3** | **+2.2** |
| | 3.9nm,0.5s | | | | | | |
| **KK31** | **Karatay Array** | **2.11** | **349** | ⇑Pn | **Pb** | **10 13 48.7** | **+0.8** |
| | 3.6nm,0.3s,baz=164,slow=17 | | | | | | |
| KK31 | | | | ⇑Sn | **Sg** | **10 14 16.9** | **-0.5** |
| | 5.3nm,0.5s,baz=164,slow=26 | | | | | | |
| **BRLS** | **Boroldoy** | **2.19** | **336** | *e*P | **Pb** | **10 13 48.9** | **-0.5** |
| | 1.0nm,0.3s | | | | | | |
| BRLS | | | | *e*S | **Sb** | **10 14 15.5** | **-1.0** |
| | 11nm,0.4s | | | | | | |
| **AML** | **Almayashu** | **2.27** | **60** | ⇓*i*P | **Pg** | **10 13 53.4** | **+0.2** |
| | baz=57 | | | | | | |
| AML | | | | ⇓*i*S | **Sg** | **10 14 21.9** | **-0.7** |
| | baz=57 | | | | | | |
| **EKS2** | **Erkin-Say** | **2.61** | **50** | ⇑*i*P | **Pg** | **10 13 59.1** | **-0.6** |
| | baz=47 | | | | | | |
| EKS2 | | | | ⇑*i*S | **Sg** | **10 14 31.6** | **-1.9** |
| | baz=47 | | | | | | |
| **UCH** | **Uchtor** | **2.86** | **64** | ⇓*i*P | **Pb** | **10 14 01.9** | **+0.9** |
| | baz=62 | | | | | | |
| UCH | | | | ⇓*i*S | **Sb** | **10 14 36.5** | **+0.4** |
| | baz=62 | | | | | | |
| **AAK** | **Ala-Archa** | **3.04** | **57** | ⇑Pn | **Pg** | **10 14 06.8** | **-0.9** |
| | 2.1nm,0.4s | | | | | | |
| AAK | | | | ⇑Sn | **Sg** | **10 14 46.5** | **-0.6** |
| | 3.0nm,0.7s | | | | | | |

*NNC **14** 10:14:04.9±2.2,52°.08N×75°.93E,h0km,mb3.2,mpv2.8, Error ellipse: s-maj=76.3km s-min=10.4km az=31.0, Suspected Mining explosion.*
*IDC **14** 10:14:05.1±1.1,51°.56N×75°.66E,h0km,mb1 2.7/4, mb1mx2.6/52,mbtmp2.7/4,ML2.1/4,Error ellipse: s-maj=22.4km s-min=10.0km az=31.0*
**ISC 14 10:13:55.9±1.0,52°38N±0°.07×75°88E±0°.04,h0km,n10, σ1§55/13,4C-3D,Eastern Kazakhstan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KURK** | **Kurchatov** | **2.39** | **133** | ⇓Pn | **Pg** | **10 14 41.5** | **-0.2** |
| | 4.1nm,0.7s | | | | | | |
| KURK | | | | ⇑Sn | **Sb** | **10 15 11.2** | **+1.4** |
| | 13nm,0.8s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **2.42** | **136** | Pn | **Pb** | **10 14 40.1** | **-0.1** |
| | 0.4nm,0.3s,baz=303,slow=19,SNR=12 | | | | | | |
| KURBB | | | | Lg | Lg | 10 15 10.3 | |
| | 0.3nm,0.3s,baz=296,slow=35,SNR=7.3 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **2.42** | **136** | ⇓Pn | **Pg** | **10 14 42.0** | **-0.3** |
| | 3.4nm,0.4s | | | | | | |
| KURBB | | | | ⇑Sn | **Sb** | **10 15 11.9** | **+1.3** |
| | 35nm,0.6s | | | | | | |
| **BVA0** | **Borovoye Array** | **3.40** | **283** | ⇑Pn | **Pg** | **10 15 00.7** | **-0.4** |
| | 1.7nm,0.6s,baz=111,slow=16,SNR=4.5 | | | | | | |
| BVA0 | | | | ⇑Sn | **Sg** | **10 15 45.5** | **

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **FINES** | **FINESS Array B** | **145.50** | **338** | PKP | | **PKPdf** | **10 38 39.5** | **-2.8** |
| | 7.7nm,1.0s,baz=63,slow=3.1,SNR=3.6 | | | | | | | |

*IDC **14** 10:31:17.6±1.1,3.87N×128.79E, h0km, mb3.8/8, mb1 4.0/8, mb1mx3.7/42, mbtmp3.8/8, Error ellipse: s-maj=63.3km s-min=15.1km az=69.0*

*ISCJB **14** 10:31:22.2±0.7,3.70N±0.07×128.47E±0.07, h45km, mb3.9/9, Error ellipse: s-maj=12.0km s-min=6.7km az=42.1*

*DJA **14** 10:31:23.5±1.5,4.1N±8.1×12.8E±0.1, h35km±30km, M4.5/5, mB5.2/1, mb4.5/3, MLv4.5/5, Mw(mB)4.5/1*

**ISC 14 10:31:24.6±0.8,3.72N±0.09×128.42E±0.09, h45km, n19, σ1°26/16, mb3.8/9, North of Halmahera**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SGSI** | **Sangihe** | **2.88** | **269** | P | **Pn** | **10 32 06.4** | **-1.6** |
| SGSI | | | | S | **Sn** | **10 32 41.7** | **+0.2** |
| **SWI** | **Sorong** | **5.37** | **148** | P | **Pn** | **10 32 42.2** | **0.0** |
| SWI | | | | S | **Sn** | **10 33 40.8** | **-2.0** |
| **SANI** | **Sanana** | **6.23** | **203** | P | **Pn** | **10 32 52.4** | **-1.6** |
| **MRSI** | **Marisa** | **7.23** | **244** | P | **Pn** | **10 33 09.5** | **+1.7** |
| **FITZ** | **Fitzroy Crossi** | **21.86** | **187** | P | **P** | **10 36 14.6** | **+1.0** |
| | 2.0nm,0.8s,baz=27,slow=9.0,SNR=3.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **24.23** | **166** | P | **P** | **10 36 36.5** | **-0.8** |
| | 1.2nm,0.6s,baz=344,slow=10,SNR=18 | | | | | | |
| **ASAR** | **Alice Springs** | **27.75** | **169** | P | **P** | **10 37 08.4** | **-0.7** |
| | 0.4nm,0.4s,baz=353,slow=7.4,SNR=16 | | | | | | |
| ASAR | | | | PcP | **PcP** | **10 40 25.6** | **+0.5** |
| | 0.4nm,0.6s,baz=350,slow=2.6,SNR=7.1 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **32.33** | **299** | P | **P** | **10 37 51.0** | **+1.1** |
| | 0.5nm,0.3s,baz=115,slow=6.5,SNR=3.0 | | | | | | |
| **XAN** | **Xi'an** | **35.20** | **331** | P | **P** | **10 38 14.4** | **-0.3** |
| XAN | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.7s | | | | | | |
| XAN | | | | pmax | pmax | | |
| | comp=Z,89nm,10.3s | | | | | | |
| **STKA** | **Stephens Creek** | **37.56** | **161** | P | **P** | **10 38 34.0** | **-0.7** |
| | comp=Z,1.1nm,0.4s,baz=353,slow=7.3,SNR=6.9 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **40.20** | **66** | T | T | 11 22 03.8 | |
| | baz=253,slow=75,SNR=196 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **40.21** | **66** | T | T | 11 22 02.1 | |
| | baz=253,slow=75,SNR=181 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **40.21** | **66** | T | T | 11 22 03.0 | |
| | baz=253,slow=75,SNR=214 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **40.74** | **64** | T | T | 11 22 48.9 | |
| | baz=251 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **40.75** | **64** | T | T | 11 22 49.9 | |
| | baz=251 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **40.76** | **64** | T | T | 11 22 51.6 | |
| | baz=251 | | | | | | |
| **SONM** | **Songino Array** | **47.86** | **340** | P | **P** | **10 39 58.1** | **0.0** |
| | comp=Z,0.2nm,0.4s,baz=139,slow=7.5,SNR=3.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **58.53** | **324** | P | **P** | **10 41 17.3** | **+0.7** |
| | comp=Z,2.7nm,0.4s,baz=113,slow=8.1,SNR=42 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **61.37** | **332** | P | **P** | **10 41 33.9** | **-1.9** |
| | comp=Z,0.3nm,0.4s,baz=134,slow=8.3,SNR=3.0 | | | | | | |

*IDC **14** 10:34:50.5±1.3,9.25S×161.49E, h0km, mb4.1/7, mb1 4.3/7, mb1mx4.0/37, mbtmp4.1/7, Error ellipse: s-maj=39.4km s-min=20.5km az=140.0*

*ISCJB **14** 10:34:53.5±1.0,9.4S±0.2×161.57E±0.09, h35km, mb4.0/7, Error ellipse: s-maj=24.3km s-min=12.7km az=169.1*

**ISC 14 10:34:55.7±1.2,9.3S±0.2×161.5E±0.1, h35km, n14, σ0°59/10, mb4.0/7, Bougainville-Solomon Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **HNR** | **Honiara** | **1.53** | **265** | Pn | **Pn** | **10 35 20.7** | **+0.1** |
| | 138nm,0.3s,baz=89,slow=1.0,SNR=30 | | | | | | |
| HNR | | | | Sn | **Sn** | **10 35 39.4** | **+0.2** |
| | 1µm,0.3s,baz=58,slow=20,SNR=41 | | | | | | |
| HNR | | | | LR | LR | 10 35 50.3 | |
| | comp=Z,286nm,18.6s,baz=178,slow=39 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.09** | **11** | T | T | 11 09 44.3 | |
| | baz=193,slow=76,SNR=134 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.09** | **11** | T | T | 11 09 41.9 | |
| | baz=193,slow=76,SNR=119 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.11** | **11** | T | T | 11 09 44.3 | |
| | baz=193,slow=76,SNR=70 | | | | | | |
| **WRA** | **Warramunga Arr** | **28.27** | **245** | P | **P** | **10 40 46.0** | **0.0** |
| | 3.6nm,0.6s,baz=69,slow=9.5,SNR=40 | | | | | | |
| **STKA** | **Stephens Creek** | **29.07** | **217** | P | **P** | **10 40 52.7** | **-0.3** |
| | 1.3nm,0.6s,baz=69,slow=14,SNR=2.3 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **29.32** | **10** | T | T | 11 11 13.8 | |
| | baz=192,slow=76,SNR=362 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **29.32** | **10** | T | T | 11 11 11.4 | |
| | baz=192,slow=76,SNR=227 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **29.34** | **10** | T | T | 11 11 12.2 | |
| | baz=192,slow=76,SNR=490 | | | | | | |
| **ASAR** | **Alice Springs** | **29.98** | **238** | P | **P** | **10 41 01.4** | **+0.2** |
| | 1.3nm,0.4s,baz=61,slow=10,SNR=43 | | | | | | |
| ASAR | | | | PcP | **PcP** | **10 44 04.5** | **+1.3** |
| | 0.4nm,1.0s,baz=60,slow=3.2,SNR=2.9 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **35.85** | **252** | P | **P** | **10 41 51.8** | **-0.7** |
| | 3.9nm,0.5s,baz=84,slow=7.2,SNR=12 | | | | | | |
| **SONM** | **Songino Array** | **74.82** | **325** | P | **P** | **10 46 32.5** | **-0.1** |
| | 1.1nm,0.7s,baz=128,slow=6.3,SNR=6.7 | | | | | | |
| **ILAR** | **Eielson Array** | **83.25** | **20** | P | **P** | **10 47 18.4** | **0.0** |
| | 0.4nm,0.8s,baz=245,slow=5.7,SNR=6.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **89.40** | **318** | P | **P** | **10 47 48.7** | **-0.2** |
| | 0.7nm,0.6s,baz=87,slow=6.4,SNR=7.0 | | | | | | |

*IDC **14** 10:37:28.6±5.6, 12.05N×86.45W, h0km, mb3.7/3, mb1 4.0/3, mb1mx3.6/32, mbtmp3.7/3, Error ellipse: s-maj=106.7km s-min=93.6km az=40.0*

*CASC **14** 10:37:34.9±1.5, 11.78N×87.09W, h64km±25km, MD3.6*

**ISC 14 10:37:37.2±1.3, 11.93N±0.10×87.00W±0.07, h63km±10km, n17, σ1°96/26, mb3.6/3, 1C, Near coast of Nicaragua**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **COPN** | **Copaltepe** | **0.47** | **57** | *i*P | **Pn** | **10 37 48.2** | **-1.0** |
| COPN | | | | *e*S | **Sn** | **10 37 59.3** | **+1.4** |
| **XAVN** | **Gruta Xavier** | **0.69** | **71** | *e*P | **Pn** | **10 37 50.7** | **-0.8** |
| XAVN | | | | *e*S | **Sn** | **10 38 03.1** | **+1.0** |
| **APYN** | **Apoyeque** | **0.70** | **64** | *e*P | **Pn** | **10 37 51.2** | **-0.5** |
| APYN | | | | *e*S | **Sn** | **10 38 04.6** | **+2.2** |
| **MGAN** | **Managua** | **0.77** | **73** | *e*P | **Pn** | **10 37 51.8** | **-0.7** |
| MGAN | | | | *e*S | **Sn** | **10 38 03.4** | **-0.3** |
| **CRIN** | **San Cristobal** | **0.77** | **356** | *e*P | **Pn** | **10 37 52.1** | **-0.5** |
| CRIN | | | | *e*S | **Sn** | **10 38 06.2** | **+2.3** |
| **BRAN** | **Las Pilas** | **1.01** | **39** | *e*P | **Pn** | **10 37 51.7** | **-3.8** |
| BRAN | | | | *e*S | **Sn** | **10 38 03.7** | **-5.4** |
| **ESTN** | **Estel** | **1.32** | **28** | *e*P | **Pn** | **10 38 00.2** | **+0.5** |
| **CONN** | **Concepcion** | **1.39** | **105** | *e*P | **Pn** | **10 37 59.3** | **-1.2** |
| CONN | | | | *e*S | **Sn** | **10 38 18.3** | **+0.2** |
| **MATN** | **Matagalpa** | **1.45** | **46** | *e*P | **Pn** | **10 38 01.8** | **+0.5** |
| MATN | | | | *e*S | **Sn** | **10 38 23.1** | **+3.6** |
| **CNCH** | **Conchagua** | **1.57** | **329** | *e*P | **Pn** | **10 38 02.2** | **-0.9** |
| CNCH | | | | *e*S | **Sn** | **10 38 22.6** | **0.0** |
| **LCND** | **La Ca˜–ada** | **1.63** | **328** | *e*P | **Pn** | **10 38 02.5** | **-1.3** |
| **ACON** | **Acoyapa** | **1.79** | **88** | *e*P | **Pn** | **10 38 04.8** | **-1.1** |
| **VSM** | **San Miguel** | **1.94** | **320** | *e*P | **Pn** | **10 38 07.1** | **-1.2** |
| **TXAR** | **Lajitas Array** | **23.26** | **321** | P | **P** | **10 42 40.3** | **+0.8** |
| | 1.4nm,0.6s,baz=140,slow=10,SNR=19 | | | | | | |
| **PDAR** | **Pinedale Array** | **36.44** | **332** | P | **P** | **10 44 37.0** | **+0.7** |
| | 0.5nm,0.6s,baz=132,slow=9.1,SNR=5.1 | | | | | | |
| **ULM** | **Lac du Bonnet** | **38.90** | **351** | P | **P** | **10 44 55.4** | **-1.2** |
| | 0.8nm,0.4s,baz=174,slow=6.7,SNR=5.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **139.55** | **253** | PKP | **PKPdf** | **10 56 59.8** | **+1.2** |
| | 0.2nm,0.6s,baz=86,slow=2.4,SNR=2.5 | | | | | | |

*ISCJB **14** 10:41:42.6±0.6,8.40S±0.08×109.14E±0.04, h119km±4km, mb4.2/12, Error ellipse: s-maj=13.1km s-min=6.1km az=9.0*

*NEIC **14** 10:41:44.2±0.7,8.34S×109.02E, h113km±6km, mb4.3/1, Error ellipse: s-maj=12.3km s-min=11.3km az=205.0*

*DJA **14** 10:41:44.3±0.4,9.5S×10.9E±0.1, h77km±10km, M4.2/12, MLv4.2/12*

*IDC **14** 10:41:58.4±3.4,8.04S×109.52E, h245km±30km, mb3.8/10, mb1 3.8/10, mb1mx3.5/39, mbtmp4.3/10, Error ellipse: s-maj=55.2km s-min=13.2km az=53.0*

**ISC 14 10:41:42.7±0.9,8.53S±0.07×109.11E±0.04, h109km±8km, n31, σ1°52/37, mb4.2/12, Jawa**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KPJI** | **Karang Pucung** | **1.20** | **352** | P | **Pn** | **10 42 06.8** | **+0.8** |
| KPJI | | | | S | **Sn** | **10 42 23.0** | **-0.6** |
| **UGM** | **Wanagama** | **1.53** | **66** | P | **Pn** | **10 42 09.7** | **-0.1** |
| UGM | | | | S | **Sn** | **10 42 28.5** | **-1.9** |
| **CISI** | **Cisompet, Garu** | **1.60** | **307** | P | **Pn** | **10 42 11.6** | **+0.8** |
| CISI | | | | S | **Sn** | **10 42 32.2** | **+0.1** |
| **CISI** | **Cisompet, Garu** | **1.60** | **307** | *e*Pn | **Pn** | **10 42 11.5** | **+0.8** |
| CISI | | | | *e*Sn | **Sn** | **10 42 31.8** | **-0.4** |
| **SMRI** | **Semarang** | **1.98** | **42** | P | **Pn** | **10 42 16.0** | **+0.6** |
| SMRI | | | | S | **Sn** | **10 42 40.3** | **0.0** |
| **SMRI** | **Semarang** | **1.98** | **42** | *e*Pn | **Pn** | **10 42 15.8** | **+0.4** |
| SMRI | | | | *e*S | **Sn** | **10 42 38.5** | **-1.8** |
| **PCJI** | **Pacitan** | **2.07** | **81** | P | **Pn** | **10 42 17.2** | **+0.6** |
| PCJI | | | | S | **Sn** | **10 42 41.1** | **-1.4** |
| **CNJI** | **Cibinong** | **2.31** | **302** | P | **Pn** | **10 42 20.5** | **+1.0** |
| **PWJI** | **Pagerwojo** | **2.71** | **79** | P | **Pn** | **10 42 25.4** | **+0.5** |
| PWJI | | | | S | **Sn** | **10 42 56.5** | **-0.9** |
| **UWJI** | **Ujung Watu** | **2.78** | **41** | P | **Pn** | **10 42 26.0** | **+0.2** |
| **TBJI** | **Tambak Boyo** | **3.20** | **58** | P | **Pn** | **10 42 32.1** | **+0.7** |
| **GRJI** | **Gresik** | **3.71** | **65** | P | **Pn** | **10 42 39.0** | **+0.9** |
| **XMIS** | **Christmas Isla** | **3.92** | **240** | *e*Pn | **Pn** | **10 42 41.9** | **+0.8** |
| XMIS | | | | *e*S | **Sn** | **10 43 22.2** | **-4.0** |
| **ASAR** | **Alice Springs** | **28.11** | **125** | P | **P** | **10 47 27.4** | **+2.9** |
| | 1.2nm,0.6s,baz=308,slow=9.6,SNR=2.3 | | | | | | |
| ASAR | | | | ScP | ScP | 10 53 51.8 | -16 |
| | 0.6nm,0.9s,baz=316,slow=2.1,SNR=4.2 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **28.63** | **340** | P | **P** | **10 47 28.9** | **-0.2** |
| | 0.6nm,0.4s,baz=163,slow=9.4,SNR=3.1 | | | | | | |
| **H08S2** | **Diego Garcia H** | **36.25** | **269** | T | T | 11 27 11.7 | |
| | baz=91,slow=74 | | | | | | |
| **H08S3** | **Diego Garcia H** | **36.26** | **269** | T | T | 11 27 07.7 | |
| | baz=91,slow=74 | | | | | | |
| **H08S1** | **Diego Carcia H** | **36.27** | **269** | T | T | 11 27 08.7 | |
| | baz=91 | | | | | | |
| **STKA** | **Stephens Creek** | **38.07** | **132** | P | **P** | **10 48 54.0** | **+3.0** |
| | 1.7nm,0.6s,baz=302,slow=8.8,SNR=2.4 | | | | | | |
| **SONM** | **Songino Array** | **56.17** | **358** | P | **P** | **10 51 10.3** | **-0.9** |
| | 1.2nm,0.5s,baz=176,slow=8.3,SNR=11 | | | | | | |
| **ULN** | **Ulaanbaatar** | **56.18** | **358** | *e*P | **P** | **10 51 10.6** | **-0.7** |
| | 1.7nm,0.5s | | | | | | |
| **MKAR** | **Makanchi Array** | **60.04** | **339** | P | **P** | **10 51 37.2** | **-0.8** |
| | 2.2nm,0.4s,baz=148,slow=7.9,SNR=35 | | | | | | |
| **KURK** | **Kurchatov** | **64.65** | **339** | *e*P | **P** | **10 52 08.0** | **-0.7** |
| | 25nm,0.6s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **65.54** | **345** | P | **P** | **10 52 13.2** | **-1.2** |
| | 3.3nm,0.4s,baz=155,slow=6.7,SNR=23 | | | | | | |
| **GEYT** | **Ailuk** | **66.29** | **318** | P | **P** | **10 52 20.0** | **+0.4** |
| | 2.0nm,0.4s,baz=146,slow=8.0,SNR=3.9 | | | | | | |
| **AFI** | **Afiamalu** | **77.49** | **102** | *e*P | **P** | **10 53 23.8** | **-3.3** |
| **KBZ** | **Khabaz** | **79.18** | **318** | P | **P** | **10 53 37.1** | **+1.5** |
| | 0.8nm,0.4s,baz=121,slow=5.9,SNR=3.7 | | | | | | |
| **BRTR** | **Keskin Array B** | **84.40** | **311** | P | **P** | **10 54 03.9** | **+0.5** |
| | 0.9nm,0.7s,baz=116,slow=6.6,SNR=3.9 | | | | | | |
| **ARCES** | **ARCESS Array B** | **95.69** | **339** | P | **P** | **10 54 55.2** | **-0.6** |
| | 3.9nm,1.1s,baz=111,slow=5.0,SNR=4.0 | | | | | | |
| **TXAR** | **Lajitas Array** | **142.94** | **52** | PKP | **PKPdf** | **11 01 01.8** | **-2.7** |
| | 0.2nm,0.8s,baz=329,slow=0.9,SNR=3.6 | | | | | | |
| **JCT** | **Junction City** | **145.27** | **47** | *e*PKPbc | **PKPdf** | **11 01 09.9** | **+1.5** |

*IDC **14** 10:42:09.1±16.0, 7.86S×121.66E, h164km±121km, mb4.6/1, mb1 4.0/4, mb1mx3.3/39, mbtmp4.4/4, Error ellipse: s-maj=203.9km s-min=81.1km az=31.0*

*ISCJB **14** 10:42:13.4±0.5, 8.54S±0.06×121.37E±0.04, h200km, mb4.8/1, Error ellipse: s-maj=8.1km s-min=6.0km az=18.9*

*DJA **14** 10:42:15.3±0.5, 8.5S±4×12.1E±, h181km±5km, M4.2/10, mB4.9/1, mb4.5/1, MLv4.0/10, Mw(mB)4.2/1*

**ISC 14 10:42:13.7±1.0, 8.55S±0.07×121.39E±0.06, h200km, n13, σ1°67/22, Flores region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **EDFI** | **Ende, Flores** | **0.35** | **123** | P | **Pn** | **10 42 40.7** | **+0.2** |
| EDFI | | | | S | **Sn** | **10 43 00.1** | **-1.1** |
| **MMRI** | **Maumere** | **0.84** | **96** | P | **Pn** | **10 42 42.6** | **+0.2** |
| MMRI | | | | S | **Sn** | **10 43 04.3** | **-0.3** |
| **WSI** | **Waingapu** | **1.55** | **224** | P | **Pn** | **10 42 47.9** | **+0.1** |
| **BASI** | **Baing, Sumba** | **1.84** | **206** | P | **Pn** | **10 42 50.7** | **+0.1** |
| BASI | | | | S | **Sn** | **10 43 19.7** | **+0.3** |
| **WBSI** | **Waikabubak, Su** | **2.25** | **241** | P | **Pn** | **10 42 55.4** | **+0.5** |
| WBSI | | | | S | **Sn** | **10 43 26.5** | **-0.5** |
| **BSSI** | **Bau Bau, Buton** | **2.56** | **339** | P | **Pn** | **10 42 57.5** | **-0.8** |
| **SOEI** | **Soe** | **3.08** | **113** | P | **Pn** | **10 43 05.6** | **+1.2** |
| **BBSI** | **Bau Bau** | **3.26** | **21** | P | **Pn** | **10 43 07.2** | **+0.7** |
| **PLAI** | **Plampang** | **3.59** | **265** | P | **Pn** | **10 43 11.3** | **+0.9** |
| PLAI | | | | S | **Sn** | **10 43 53.2** | **-1.6** |
| **FITZ** | **Fitzroy Crossi** | **10.35** | **157** | P | **Pn** | **10 44 40.6** | **+3.1** |
| | 0.8nm,0.3s,baz=343,slow=11,SNR=12 | | | | | | |
| FITZ | | | | S | **Sn** | **10 46 31.0** | **-2.1** |
| | 1.9nm,0.3s,baz=174,slow=13,SNR=6.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **16.89** | **133** | P | **Pn** | **10 45 58.9** | **+0.1** |
| | 1.1nm,0.3s,baz=310,slow=12,SNR=99 | | | | | | |
| WRA | | | | S | **S** | **10 48 58.6** | **-4.8** |
| | 0.5nm,0.3s,baz=304,slow=24,SNR=8.4 | | | | | | |
| **ASAR** | **Alice Springs** | **19.22** | **143** | P | **Pn** | **10 46 25.1** | **-1.1** |
| | 1.6nm,0.3s,baz=330,slow=11,SNR=99 | | | | | | |
| ASAR | | | | S | **S** | **10 49 48.8** | **-1.1** |
| | baz=329,slow=23,SNR=5.3 | | | | | | |
| ASAR | | | | PcP | **PcP** | **10 50 37.5** | **+0.1** |
| | 0.2nm,0.3s,baz=326,slow=2.1,SNR=3.1 | | | | | | |
| **STKA** | **Stephens Creek** | **29.85** | **144** | P | **P** | **10 48 04.7** | **+2.2** |
| | 9.8nm,0.4s,baz=322,slow=10,SNR=42 | | | | | | |

**MEX 14 10:49:10.2±0.4, 14.68N×92.57W, h82km±24km, MD3.6, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PCIG** | | **1.19** | **329** | *e*P | Pn | 10 49 30.6 | -1.1 |
| PCIG | | | | *i* S | Sn | 10 49 46.2 | -1.8 |
| **TGIG** | | **2.15** | **346** | *e*P | Pn | 10 49 40.5 | -3.7 |

**IDC 14 10:50:01.7±3.2, 6.68S×149.57E, h0km, mb3.4/2, mb1 3.7/4, mb1mx3.4/32, mbtmp3.6/4, ML3.8/1, Error ellipse: s-maj=105.3km s-min=36.2km az=120.0, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PMG** | **Port Moresby** | **3.61** | **221** | Pn | Pn | 10 51 00.5 | +1.6 |
| | 2.7nm,0.3s,baz=45,slow=6.3,SNR=8.9 | | | | | | |
| PMG | | | | Sn | Sn | 10 51 43.5 | +1.2 |
| | 2.4nm,0.3s,baz=341,slow=9.4,SNR=3.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **19.81** | **227** | P | P | 10 54 33.8 | -0.3 |
| | 0.3nm,0.3s,baz=52,slow=11,SNR=16 | | | | | | |
| **ASAR** | **Alice Springs** | **22.62** | **220** | P | P | 10 55 03.2 | -1.2 |
| | 0.3nm,0.6s,baz=51,slow=9.8,SNR=4.7 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **25.94** | **242** | P | P | 10 55 36.6 | +0.6 |
| | 1.3nm,0.6s,baz=45,slow=10.0,SNR=4.9 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **147.73** | **284** | PKPbc | PKPbc | 11 09 48.8 | -0.8 |
| | 0.8nm,1.0s,baz=71,slow=3.0,SNR=3.5 | | | | | | |

*ISCJB **14** 10:58:25.4±0.6, 53.87S±0.05×159.2E±0.2, h10km, mb4.1/4, MS3.8/2, Error ellipse: s-maj=14.1km s-min=5.9km az=17.8*

*IDC **14** 10:58:25.6±1.3, 53.79S×159.54E, h0km, mb4.0/3, mb1 4.2/3, mb1mx3.9/29, mbtmp4.0/3, MS3.8/2, Ms1 3.8/2, ms1mx3.2/23, Error ellipse: s-maj=80.4km s-min=29.9km az=69.0*

*NEIC **14** 10:58:27.8±0.5, 53.96S×158.76E, h10km, mb4.6/1, Error ellipse: s-maj=18.7km s-min=9.7km az=73.0*

**ISC 14 10:58:26.7±0.6, 53.91S±0.07×159.2E±0.1, h10km, n27, σ2°04/21, mb4.2/4, 2C, Macquarie Island region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MCQ** | **Macquarie Isla** | **0.61** | **195** | *e*Pg | **Pg** | **10 58 38.8** | **+0.3** |
| MCQ | | | | *e*Sg | **Sg** | **10 58 45.9** | **-0.6** |
| **APZ** | **The Paps** | **9.03** | **42** | *e*PN | **Pn** | **11 00 36.9** | **-0.1** |
| APZ | | | | *e*SN | **Sn** | **11 02 13.5** | **-5.2** |
| **WHZ** | **Wether Hill Ro** | **9.79** | **38** | *e*PN | **Pn** | **11 00 48.0** | **+0.4** |
| **MLZ** | **Mavora Lakes** | **10.31** | **38** | *e*PN | **Pn** | **11 00 56.2** | **+1.6** |
| **TUZ** | **Tuapeka** | **10.40** | **44** | *e*PN | **Pn** | **11 00 57.3** | **+1.4** |
| **EAZ** | **Earnscleugh** | **10.87** | **41** | *e*PN | **Pn** | **11 01 06.7** | **+4.5** |
| **TAU** | **Tasmania Unive** | **13.53** | **320** | *e*Pn | **Pn** | **11 01 37.7** | **-0.9** |
| **SNZO** | **South Karori** | **16.32** | **46** | *e*P | **P** | **11 02 20.7** | **+2.0** |
| | 48nm,0.2s | | | | | | |
| **VNDA** | **Vanda** | **23.73** | **179** | P | **P** | **11 03 40.5** | **+2.0** |
| | 1.9nm,0.8s,baz=344,slow=12,SNR=6.1 | | | | | | |
| **ASAR** | **Alice Springs** | **35.70** | **318** | P | **P** | **11 05 26.1** | **+0.8** |
| | 2.1nm,0.8s,baz=150,slow=7.8,SNR=8.9 | | | | | | |
| ASAR | | | | LR | LR | 11 18 41.5 | |
| | comp=Z,144nm,20.4s,baz=162,slow=34 | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **36.63** | **283** | T | T | 11 44 09.2 | |
| | baz=135,slow=76,SNR=1871 | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **36.63** | **283** | T | T | 11 44 09.7 | |
| | baz=135,slow=76,SNR=2733 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **36.64** | **283** | T | T | 11 44 10.5 | |
| | baz=135,slow=76,SNR=2127 | | | | | | |
| **WRAB** | **Tennant Creek** | **38.91** | **321** | *e*P | **P** | **11 05 52.5** | **+0.1** |
| | 10.0nm,0.8s | | | | | | |
| **SYO** | **Syowa Base** | **49.71** | **204** | *i*P | **P** | **11 07 15.0** | **-3.3** |
| **SYO** | **Syowa Base** | **49.71** | **204** | *e*sP | sP | 11 07 22.8 | +0.1 |
| **GUMO** | **Guam** | **68.34** | **345** | LR | LR | 11 32 47.5 | |
| | comp=Z,89nm,21.9s,baz=115,slow=30 | | | | | | |
| **H08S2** | **Diego Garcia H** | **81.95** | **268** | T | T | 12 40 44.7 | |
| | baz=143,slow=76,SNR=76 | | | | | | |
| **H08S1** | **Diego Carcia H** | **81.97** | **268** | T | T | 12 40 43.7 | |
| | baz=143,slow=76,SNR=32 | | | | | | |
| **H08S3** | **Diego Garcia H** | **81.97** | **268** | T | T | 12 40 47.5 | |
| | baz=143,slow=76,SNR=115 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **88.59** | **304** | P | **P** | **11 11 20.9** | **+1.2** |
| | 0.6nm,0.4s,baz=149,slow=4.2,SNR=4.2 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **124.10** | **311** | PKP | **PKPdf** | **11 17 24.5** | **+0.2** |
| | 0.4nm,0.8s,baz=126,slow=1.6,SNR=3.4 | | | | | | |
| **KURK** | **Kurchatov** | **124.12** | **311** | PKP | **PKPdf** | **11 17 24.5** | **+0.2** |
| **ILAR** | **Eielson Array** | **125.38** | **25** | PKP | **PKPdf** | **11 17 26.2** | **-0.1** |
| | 0.8nm,1.1s,baz=242,slow=4.9,SNR=4.9 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **135.62** | **212** | PKP | **PKPdf** | **11 17 46.3** | **-1.0** |
| | 0.8nm,1.0s,baz=181,slow=2.5,SNR=3.5 | | | | | | |
| **RES** | **Resolute Bay** | **145.11** | **27** | PKP | **PKPdf** | **11 18 03.0** | **+0.5** |
| | 6.3nm,1.0s,baz=263,slow=2.0,SNR=5.1 | | | | | | |
| **AKASG** | **Malin Array Be** | **149.78** | **285** | PKPbc | **PKPbc** | **11 18 15.9** | **+0.2** |
| | 0.4nm,0.4s,baz=82,slow=2.6,SNR=6.3 | | | | | | |

*ISCJB **14** 10:58:41.0±0.6, 23.72S±0.07×179.7W±0.1, h518km, mb4.2/10, Error ellipse: s-maj=12.3km s-min=9.5km az=171.5*

*IDC **14** 10:58:42.6±1.6, 23.77S×179.71W, h523km±16km, mb3.7/10, mb1 3.9/13, mb1mx3.6/31, mbtmp4.6/13, Error ellipse: s-maj=20.8km s-min=15.7km az=9.0*

**ISC 14 10:58:41.5±0.6, 23.80S±0.08×179.70W±0.09, h518km, n18, σ2°01/24, mb4.1/10, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **5.66** | **164** | P | **P** | **11 00 17.0** | **+1.7** |
| | 94nm,0.3s,baz=87,slow=22,SNR=4.0 | | | | | | |
| RAO | | | | S | **S** | **11 01 33.0** | **+0.9** |
| | 71nm,0.3s,baz=75,slow=19,SNR=3.8 | | | | | | |
| **AFI** | **Afiamalu** | **12.36** | **39** | P | **P** | **11 01 21.2** | **-2.9** |
| | 7.6nm,0.3s,baz=105,slow=2.8,SNR=20 | | | | | | |
| AFI | | | | S | | 11 03 29.8 | -8.2 |
| | 0.9nm,0.3s,baz=217,slow=20,SNR=2.8 | | | | | | |
| **DZM** | **Mont Dzumac** | **12.88** | **275** | P | **P** | **11 01 31.6** | **+2.1** |
| | 0.9nm,0.3s,baz=232,slow=23,SNR=14 | | | | | | |
| **URZ** | **Urewera** | **14.67** | **190** | P | **P** | **11 01 48.4** | **+0.6** |
| | 2.7nm,0.3s,baz=288,slow=2.6,SNR=16 | | | | | | |
| URZ | | | | S | **S** | **11 04 16.7** | **-4.8** |
| | 1.5nm,0.3s,baz=70,slow=22,SNR=7.9 | | | | | | |
| **RPZ** | **Rata Peaks** | **21.27** | **199** | P | **P** | **11 02 51.6** | **+1.0** |
| | 15nm,0.4s,baz=40,slow=5.0,SNR=8.7 | | | | | | |
| **CTA** | **Charters Tower** | **31.75** | **270** | P | **P** | **11 04 24.1** | **+1.0** |
| | 20nm,0.4s,baz=93,slow=11,SNR=53 | | | | | | |
| **PMG** | **Port Moresby** | **34.72** | **289** | P | **P** | **11 04 48.4** | **+0.2** |
| | 17nm,0.6s,baz=134,slow=6.2,SNR=14 | | | | | | |
| **ASAR** | **Alice Springs** | **42.32** | **260** | P | **P** | **11 05 50.2** | **+0.3** |
| | 5.3nm,0.7s,baz=94,slow=7.1,SNR=75 | | | | | | |
| ASAR | | | | ScP | **ScP** | **11 10 34.5** | **+1.5** |
| | 0.9nm,1.0s,baz=79,slow=4.8,SNR=4.3 | | | | | | |
| ASAR | | | | S | **S** | **11 11 31.1** | **-2.3** |
| | 1.3nm,1.1s,baz=97,slow=15,SNR=4.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **42.69** | **266** | P | **P** | **11 05 52.6** | **-0.2** |
| | 9.0nm,0.3s,baz=96,slow=8.4,SNR=635 | | | | | | |
| WRA | | | | S | **S** | **11 11 33.6** | **-5.1** |
| | 0.9nm,1.1s,baz=97,slow=14,SNR=5.0 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **51.11** | **265** | P | **P** | **11 06 57.1** | **+0.6** |
| | 4.3nm,0.6s,baz=91,slow=2.5,SNR=16 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **89.75** | **290** | P | **P** | **11 10 46.8** | **+1.8** |
| | 0.8nm,0.3s,baz=144,slow=3.6,SNR=5.1 | | | | | | |
| **TXAR** | **Lajitas Array** | **90.14** | **58** | P | **P** | **11 10 48.2** | **+1.5** |
| | 0.3nm,0.7s,baz=208,slow=6.3,SNR=13 | | | | | | |
| **ILAR** | **Eielson Array** | **91.87** | **13** | P | **P** | **11 10 52.5** | **-1.2

3μm,28.5s,baz=187
**PLCA Paso Flores 48.65 104** P **P** 11 15 42.9 -0.4
1.2nm,0.8s,baz=266,slow=6.5,SNR=2.3
**VNA3 Neumayer Olymp 48.96 162** P **P**
**VNA2 Neumayer--Watz 49.62 163** P **P** 11 15 49.5 -0.6
baz=209,slow=7.4
**SNAA Sanae 49.67 165** P **P** 11 15 49.9 -0.8
**SNAA Sanae 49.67 165** *e*P **P** 11 15 49.5 -1.2
732nm,1.0s
**DZM Mont Dzumac 49.78 292** *e*LQ LQ 11 28 02.7
2μm,30.4s
DZM *e*LR LR 11 30 11.5
943nm,26.9s
**MAW Mawson 55.09 192** LR LR 11 38 08.4
comp=Z,792nm,18.1s,baz=158,slow=34
**SYO Syowa Base 55.24 182**⇓ *e*P P 11 16 27.0 -4.8
**STKA Stephens Creek 55.81 263** LR LR 11 35 57.3
comp=Z,183nm,21.7s,baz=139,slow=31
**ASAR Alice Springs 66.45 262** P **P** **11 17 50.4 +1.5**
1.9nm,0.9s,baz=140,slow=6.6,SNR=9.1
**CPUP Villa Florida 66.68 103** LR LR 11 42 31.9
comp=Z,296nm,18.9s,baz=222,slow=32
**H01W1 Cape Leeuwin H 67.96 240** T T 12 32 59.6
baz=142,slow=76,SNR=620
**H01W2 Cape Leeuwin H 67.97 240** T T 12 33 00.1
baz=142,slow=76,SNR=699
**H01W3 Cape Leeuwin H 67.98 240** T T 12 33 00.9
baz=142,slow=76,SNR=593
**LPAZ La Paz 68.67 88** P **P** **11 18 06.1 +2.5**
2.5nm,1.1s,baz=220,slow=8.1,SNR=4.6
LPAZ LR LR 11 39 41.4
comp=Z,56nm,21.4s,baz=218,slow=29
**WRA Warramunga Arr 69.17 265** P **P** **11 18 07.5 +1.5**
0.7nm,0.6s,baz=146,slow=5.6,SNR=10
**FITZ Fitzroy Crossi 75.48 259** LR LR 11 48 08.9
comp=Z,210nm,22.0s,slow=33
**H06S1 SOCORRO T 79.48 32** T T 12 46 26.6
SNR=12
**H06E1 SOCORRO T-PHAS 79.54 32** T T 12 46 24.1
SNR=15
**BDFB Brasilia 80.39 104** LR LR 11 51 06.4
comp=Z,618nm,18.4s,baz=7.0,slow=33
**ROSC El Rosal 82.74 70** LR LR 11 49 57.7
comp=Z,265nm,19.7s,baz=210,slow=31
**TXAR Lajitas Array 91.65 34** LR LR 11 53 10.0
comp=Z,89nm,21.9s,baz=0.0,slow=30
**BOSA Boshof 95.18 170** LR LR 12 00 58.5
comp=Z,329nm,18.7s,baz=192,slow=34
**H10S3 ASCENSION HYDR 102.84 128** T T 13 16 03.1
baz=207,slow=74,SNR=50
**H10S2 ASCENSION HYDR 102.84 128** T T 13 15 57.8
baz=207,slow=74,SNR=37
**H10S1 ASCENSION HYDR 102.86 128** T T 13 16 03.3
baz=207,slow=74,SNR=53
**H10N3 ASCENSION HYDR 103.90 128** T T 13 17 17.0
baz=206,slow=75,SNR=46
**H10N1 ASCENSION HYDR 103.91 128** T T 13 17 17.5
baz=206,slow=75,SNR=58
**H10N2 ASCENSION HYDR 103.92 128** T T 13 17 18.5
baz=206,slow=75,SNR=51
**ILAR Eielson Array 120.50 358** PKP **PKPdf** **11 25 51.2 +1.7**
0.3nm,0.8s,baz=230,slow=2.1,SNR=3.7
**TORD Torodi Ar. Bea 129.63 134** PKP **PKPdf** **11 26 11.2 +2.6**
0.1nm,0.5s,baz=209,slow=0.3,SNR=2.1
**ESDC Sonseca Array 149.03 105** PKPbc **PKPbc** **11 26 47.5 +0.5**
0.1nm,0.3s,baz=253,slow=2.3,SNR=3.2
**MKAR Makanchi Array 150.30 272** PKPbc **PKPbc** **11 26 53.5 +3.7**
1.5nm,0.8s,baz=90,slow=2.4,SNR=9.0
**ZALV Zalesovo Beam 152.47 286** PKPbc **PKPab** **11 27 00.8 -4.2**
0.4nm,0.4s,baz=135,slow=3.4,SNR=2.9

---

*NIED* ***14*** *11:12:00,23.80N×121.80E,h41km,Mw4.1 Best double couple: M₀1.64000×10¹⁵ NP1:φ=203.00000°,δ=43.00000°, λ=64.00000°. NP2:φ=57.00000°,δ=52.00000°,λ=112.00000°.*
*IDC* ***14*** *11:12:44.1±0.7,23.82N×121.91E,h0km,mb3.9/9, mb1 4.1/9,mb1mx3.8/38,mbtmp3.9/9,Error ellipse: s-maj=28.4km s-min=15.8km az=75.0*
*BJI* ***14*** *11:12:48.2,23.94N×121.70E,h5km,mb4.1/5,ML3.7/4, Ms7 3.6/2*
*TAP* ***14*** *11:12:50.9,23.85N×121.80E,h42km,ML4.7,B*
*JMA* ***14*** *11:12:50.3,23.83N×121.78E,h44km±2km,M4.3*
*NEIC* ***14*** *11:12:50.8±0.6,23.80N×121.79E,h48km±6km,mb4.4/1, Error ellipse: s-maj=10.7km s-min=6.9km az=110.0*
*NEIC Recorded [3 TAP] in Hualien; [2 TAP] in Nantou and Yilan; [1 TAP] in Changhua, Taoyuan and Yunlin. Also recorded [1 TAP] at Chiayi, Taichung and Taipei.*
*ISCJB* ***14*** *11:12:50.6±0.2,23.83N±0.01×121.86E±0.01,h49km±3km, mb3.8/11,MS3.4/1,Error ellipse: s-maj=2.8km s-min=1.8km az=143.5*
**ISC 14 11:12:50.8±0.8,23.83N±0.02×121.83E±0.02,h41km±6km, n119,σ1.932/183,mb3.8/11,26C-14D,Taiwan**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **HWA** | **Hwalien** | **0.25** | **305** | ⇓*iP* | **Pn** | **11 12 58.6** | **+0.1** |
| | baz=300 | | | | | | |
| **TEGC** | **Jichi Village** | **0.29** | **245** | *e*P | **Pn** | **11 12 59.8** | **+0.9** |
| TEGC | baz=244 | | | *e*S | **Sn** | **11 13 06.7** | **+2.0** |
| | baz=244 | | | | | | |
| **ESF** | **Shoufeng Towns** | **0.30** | **278** | *e*P | **Pn** | **11 12 59.5** | **+0.5** |
| | baz=279 | | | | | | |
| **TWD** | **Chiawan** | **0.33** | **319** | ⇓*iP* | **Pn** | **11 12 59.2** | **-0.2** |
| TWD | baz=322 | | | *i* S | **Sn** | **11 13 05.1** | **-0.3** |
| | baz=322 | | | | | | |
| **ESL** | **Shilin** | **0.36** | **267** | ⇓*iP* | **Pn** | **11 12 59.6** | **-0.2** |
| ESL | baz=264 | | | *e*S | **Sn** | **11 13 05.7** | **-0.4** |
| | baz=264 | | | | | | |
| **NACB** | **Ninganchiao** | **0.40** | **328** | *e*Pg | **Pn** | **11 12 59.6** | **-0.7** |
| NACB | | | | *e*Sg | **Sn** | **11 13 06.4** | **-0.6** |
| **EHP** | **Heping Village** | **0.48** | **351** | *e*P | **Pn** | **11 13 01.6** | **+0.3** |
| | baz=348 | | | | | | |
| EHP | | | | *e*S | **Sn** | **11 13 09.8** | **+1.1** |
| | baz=348 | | | | | | |
| **EHY** | **Hungye** | **0.56** | **235** | ⇓*iP* | **Pn** | **11 13 02.0** | **-0.5** |
| | baz=232 | | | | | | |
| EHY | | | | *e*S | **Sn** | **11 13 10.1** | **-0.6** |
| | baz=232 | | | | | | |
| **ENA** | **Nanau** | **0.60** | **352** | ⇑*iP* | **Pn** | **11 13 02.8** | **-0.1** |
| | baz=355 | | | | | | |
| **WHF** | **Hehuan Shan** | **0.60** | **301** | ⇑*iP* | **Pn** | **11 13 02.9** | **-0.5** |
| | baz=301 | | | | | | |
| **YULB** | **Yu-li** | **0.65** | **228** | *e*Pg | **Pn** | **11 13 03.0** | **-0.6** |
| YULB | | | | *e*Sg | **Sn** | **11 13 11.9** | **-0.9** |
| **TWF1** | **Yuli** | **0.68** | **226** | ⇓*iP* | **Pn** | **11 13 03.8** | **-0.2** |
| | baz=233 | | | | | | |
| TWF1 | | | | *i* S | **Sn** | **11 13 13.0** | **-0.5** |
| | baz=233 | | | | | | |
| **TWT** | **Tachien** | **0.73** | **305** | ⇑*iP* | **Pn** | **11 13 05.4** | **+0.6** |
| | baz=304 | | | | | | |
| TWT | | | | *e*S | **Sn** | **11 13 15.0** | **+0.1** |
| | baz=304 | | | | | | |
| **NNS** | **Nan Shan** | **0.73** | **326** | ⇑*iP* | **Pn** | **11 13 04.8** | **-0.1** |
| | baz=320 | | | | | | |
| NNS | | | | *e*S | **Sn** | **11 13 14.3** | **-0.6** |
| | baz=320 | | | | | | |
| **TWC** | **Suao** | **0.78** | **1** | ⇑*iP* | **Pn** | **11 13 05.7** | **+0.4** |
| | baz=13 | | | | | | |
| TWC | | | | *i* S | **Sn** | **11 13 16.2** | **+0.5** |
| | baz=13 | | | | | | |
| **SSLB** | **Suanglung** | **0.80** | **267** | *e*Pg | **Pn** | **11 13 05.2** | **-0.5** |
| SSLB | | | | *e*Sg | **Sn** | **11 13 15.8** | **-0.7** |
| **ENTT** | **Nioudou** | **0.84** | **344** | ⇑*iP* | **Pn** | **11 13 06.2** | **0.0** |
| | baz=345 | | | | | | |
| ENTT | | | | *e*S | **Sn** | **11 13 17.0** | **-0.4** |
| | baz=345 | | | | | | |
| **SMLT** | **Sun Moon Lake** | **0.85** | **274** | ⇑*iP* | **Pn** | **11 13 06.7** | **+0.2** |
| | baz=272 | | | | | | |
| SMLT | | | | *e*S | **Sn** | **11 13 16.8** | **-1.0** |
| | baz=272 | | | | | | |
| **YUS** | **Yu-Shan** | **0.87** | **247** | ⇓*iP* | **Pn** | **11 13 07.5** | **+0.5** |
| | baz=237 | | | | | | |
| YUS | | | | *i* S | **Sn** | **11 13 18.5** | **-0.3** |
| | baz=237 | | | | | | |
| **TYC** | **Yuchr** | **0.89** | **275** | ⇑*iP* | **Pn** | **11 13 07.0** | **+0.2** |
| | baz=274 | | | | | | |
| TYC | | | | *e*S | **Sn** | **11 13 18.1** | **-0.5** |
| | baz=274 | | | | | | |
| **TWE** | **Neicheng** | **0.90** | **351** | ⇑*iP* | **Pn** | **11 13 07.2** | **+0.3** |
| | baz=346 | | | | | | |
| TWE | | | | *e*S | **Sn** | **11 13 18.3** | **-0.4** |
| | baz=346 | | | | | | |
| **YHNB** | **Yeheng** | **0.93** | **334** | *e*Pg | **Pn** | **11 13 07.5** | **0.0** |
| YHNB | | | | *e*Sg | **Sn** | **11 13 19.1** | **-0.6** |
| **ILA** | **Ilan** | **0.93** | **356** | *e*P | **Pn** | **11 13 07.5** | **+0.1** |
| | baz=357 | | | | | | |
| ILA | | | | *e*S | **Sn** | **11 13 20.6** | **+1.0** |
| | baz=357 | | | | | | |
| **NSK** | **Sanguang** | **0.94** | **333** | ⇑*iP* | **Pn** | **11 13 07.9** | **+0.2** |
| | baz=334 | | | | | | |
| NSK | | | | *i* S | **Sn** | **11 13 19.5** | **-0.5** |
| | baz=334 | | | | | | |
| **ELDTW** | **Lidau** | **0.98** | **229** | ⇓*iP* | **Pn** | **11 13 07.8** | **-0.4** |
| | baz=227 | | | | | | |
| ELDTW | | | | *e*S | **Sn** | **11 13 20.5** | **-0.5** |
| | baz=227 | | | | | | |
| **ALS** | **Alishan** | **0.99** | **251** | ⇓*iP* | **Pn** | **11 13 09.1** | **+0.6** |
| | baz=250 | | | | | | |
| ALS | | | | *e*S | **Sn** | **11 13 22.3** | **+0.9** |
| | baz=250 | | | | | | |
| **WNT** | **Mingjian** | **1.05** | **273** | ⇑*iP* | **Pn** | **11 13 10.3** | **+1.3** |
| | baz=272 | | | | | | |
| WNT | | | | S | **Sn** | **11 13 23.9** | **+1.5** |
| | baz=272 | | | | | | |
| **CHN5** | **Tsauling** | **1.08** | **258** | ⇑P | **Pn** | **11 13 10.5** | **+1.0** |
| | baz=256 | | | | | | |
| CHN5 | | | | *e*S | **Sn** | **11 13 24.8** | **+1.5** |
| | baz=256 | | | | | | |
| **TWQ1** | **Liyutan** | **1.09** | **298** | ⇑*iP* | **Pn** | **11 13 10.8** | **+1.2** |
| | baz=298 | | | | | | |
| TWQ1 | | | | S | **Sn** | **11 13 24.6** | **+1.1** |
| | baz=298 | | | | | | |
| **NSTT** | **Nanjuang** | **1.10** | **317** | ⇑*iP* | **Pn** | **11 13 10.9** | **+1.3** |
| | baz=317 | | | | | | |
| NSTT | | | | *e*S | **Sn** | **11 13 23.5** | **-0.1** |
| | baz=317 | | | | | | |
| **TCU** | **Taichung** | **1.10** | **287** | P | **Pn** | **11 13 11.1** | **+1.4** |
| | baz=286 | | | | | | |
| TCU | | | | S | **Sn** | **11 13 25.5** | **+1.8** |
| | baz=286 | | | | | | |
| **NSY** | **Sanyi** | **1.14** | **301** | ⇑*iP* | **Pn** | **11 13 11.5** | **+1.2** |
| | baz=301 | | | | | | |
| NSY | | | | S | **Sn** | **11 13 26.5** | **+1.9** |
| | baz=301 | | | | | | |
| **TWA** | **Mucha** | **1.17** | **349** | ⇑*iP* | **Pn** | **11 13 11.5** | **+0.9** |
| | baz=339 | | | | | | |
| TWA | | | | *e*S | **Sn** | **11 13 25.9** | **+0.6** |
| | baz=339 | | | | | | |
| **WGK** | **Gukeng** | **1.17** | **263** | *e*P | **Pn** | **11 13 11.7** | **+1.1** |
| | baz=262 | | | | | | |
| WGK | | | | *e*S | **Sn** | **11 13 27.1** | **+1.7** |
| | baz=262 | | | | | | |
| **TATO** | **Taipei** | **1.18** | **345** | *e*Pn | **Pn** | **11 13 11.2** | **+0.3** |
| TATO | | | | *e*Sn | **Sn** | **11 13 26.3** | **+0.6** |
| **TWB1** | **Santiao Chiao** | **1.18** | **7** | P | **Pn** | **11 13 11.8** | **+1.0** |
| | baz=7.0 | | | | | | |
| **STYT** | **Tauyuan** | **1.19** | **236** | ⇓*iP* | **Pn** | **11 13 11.9** | **+1.0** |
| | baz=229 | | | | | | |
| STYT | | | | S | **Sn** | **11 13 26.7** | **+0.8** |
| | baz=229 | | | | | | |
| **JYNG** | **Yonagunijimaku** | **1.19** | **59** | P | **Pn** | **11 13 11.7** | **+0.7** |
| JYNG | | | | S | **Sn** | **11 13 27.5** | **+1.5** |
| **TPUB** | **Ta-pu** | **1.22** | **245** | *e*Pn | **Pn** | **11 13 12.3** | **+1.0** |
| TPUB | | | | *e*Sn | **Sn** | **11 13 28.7** | **+2.0** |
| **TWG** | **Pinlang** | **1.22** | **215** | *e*P | **Pn** | **11 13 10.6** | **-0.9** |
| | baz=213 | | | | | | |
| **TWG** | **Pinlang** | **1.22** | **215** | *e*Pn | **Pn** | **11 13 10.2** | **-1.2** |
| **CHN4** | **Tsaushan** | **1.23** | **247** | *e*P | **Pn** | **11 13 12.8** | **+1.3** |
| | baz=246 | | | | | | |
| CHN4 | | | | S | **Sn** | **11 13 29.6** | **+2.7** |
| | baz=246 | | | | | | |
| **TAP1** | **Taipei** | **1.23** | **347** | *e*P | **Pn** | **11 13 11.8** | **+0.2** |
| | baz=347 | | | | | | |
| TAP1 | | | | *e*S | **Sn** | **11 13 28.0** | **+1.0** |
| | baz=347 | | | | | | |
| **NWF** | **Wu-fen Shan** | **1.23** | **358** | ⇑*iP* | **Pn** | **11 13 12.8** | **+1.2** |
| | baz=346 | | | | | | |
| NWF | | | | *i* S | **Sn** | **11 13 28.7** | **+1.5** |
| | baz=346 | | | | | | |
| **TAP** | **Taipei** | **1.24** | **346** | *e*P | **Pn** | **11 13 12.0** | **+0.4** |
| | baz=347 | | | | | | |
| TAP | | | | *e*S | **Sn** | **11 13 27.9** | **+0.8** |
| | baz=347 | | | | | | |
| **TTN** | **Taitung** | **1.24** | **210** | *e*P | **Pn** | **11 13 11.2** | **-0.4** |
| | baz=219 | | | | | | |
| **HSN** | **Hsinchu** | **1.24** | **321** | ⇑*e*P | **Pn** | **11 13 13.1** | **+1.4** |
| | baz=323 | | | | | | |
| HSN | | | | *e*S | **Sn** | **11 13 29.3** | **+2.1** |
| | baz=323 | | | | | | |
| **YOJ** | **Yonaguni jima** | **1.25** | **60** | ⇓P | **Pn** | **11 13 12.8** | **+1.0** |
| | baz=61 | | | | | | |
| YOJ | | | | *e*S | **Sn** | **11 13 28.0** | **+0.6** |
| | baz=61 | | | | | | |
| **YOJ** | **Yonaguni jima** | **1.25** | **60** | P | **Pn** | **11 13 12.5** | **+0.7** |
| YOJ | | | | S | **Sn** | **11 13 28.3** | **+0.9** |
| **YOJ** | **Yonaguni jima** | **1.25** | **60** | *e*Pn | **Pn** | **11 13 12.8** | **+1.0** |
| **WTP** | **Ta-pu** | **1.26** | **243** | ⇓*iP* | **Pn** | **11 13 13.3** | **+1.4** |
| | baz=241 | | | | | | |
| WTP | | | | *e*S | **Sn** | **11 13 29.6** | **+1.9** |
| | baz=241 | | | | | | |
| **CHN2** | **Minshiung** | **1.27** | **257** | ⇑P | **Pn** | **11 13 13.8** | **+1.6** |
| | baz=255 | | | | | | |
| CHN2 | | | | *i* S | **Sn** | **11 13 31.0** | **+3.0** |
| | baz=255 | | | | | | |
| **NCU** | **National Centr** | **1.27** | **333** | ⇑P | **Pn** | **11 13 13.1** | **+0.9** |
| | baz=333 | | | | | | |
| NCU | | | | S | **Sn** | **11 13 29.8** | **+1.8** |
| | baz=333 | | | | | | |
| **TWS1** | **Kuangyinshan** | **1.32** | **344** | ⇑*iP* | **Pn** | **11 13 13.3** | **+0.6** |
| | baz=344 | | | | | | |
| TWS1 | | | | *e*S | **Sn** | **11 13 30.1** | **+1.0** |
| | baz=344 | | | | | | |
| **CHY** | **Chiayi** | **1.33** | **256** | ⇑*iP* | **Pn** | **11 13 14.3** | **+1.5** |
| | baz=254 | | | | | | |
| CHY | | | | S | **Sn** | **11 13 31.1** | **+1.8** |
| | baz=254 | | | | | | |
| **TWK** | **Hsinying** | **1.35** | **246** | *e*P | **Pn** | **11 13 14.4** | **+1.2** |
| | baz=244 | | | | | | |
| TWK | | | | S | **Sn** | **11 13 32.3** | **+2.3** |
| | baz=244 | | | | | | |
| **CHN1** | **Nanshi** | **1.35** | **242** | ⇓P | **Pn** | **11 13 14.6** | **+1.3** |
| | baz=241 | | | | | | |
| CHN1 | | | | S | **Sn** | **11 13 32.3** | **+2.3** |
| | baz=241 | | | | | | |
| **SGST** | **Jiashian** | **1.36** | **237** | ⇓*iP* | **Pn** | **11 13 15.1** | **+1.7** |
| | baz=236 | | | | | | |
| SGST | | | | S | **Sn** | **11 13 32.7** | **+2.5** |
| | baz=236 | | | | | | |
| **WTCT** | **Ta-ch'eng** | **1.42** | **272** | ⇑P | **Pn** | **11 13 15.3** | **+1.3** |
| | baz=270 | | | | | | |
| WTCT | | | | S | **Sn** | **11 13 34.0** | **+2.5** |
| | baz=270 | | | | | | |
| **TWY** | **Chenhua** | **1.45** | **352** | *e*P | **Pn** | **11 13 15.2** | **+0.7** |
| | baz=338 | | | | | | |
| **ECL** | **Taimali** | **1.47** | **213** | *e*P | **Pn** | **11 13 13.7** | **-1.1** |
| | baz=213 | | | | | | |
| **WSF** | **Szhu** | **1.48** | **263** | *e*P | **Pn** | **11 13 16.3** | **+1.3** |
| | baz=262 | | | | | | |
| WSF | | | | *e*S | **Sn** | **11 13 35.2** | **+2.1** |
| | baz=262 | | | | | | |
| **CHN3** | **Shinhua** | **1.54** | **241** | *e*P | **Pn** | **11 13 17.4** | **+1.7** |
| | baz=241 | | | | | | |
| **SSD** | **Sandimen** | **1.54** | **226** | *e*P | **Pn** | **11 13 17.1** | **+1.3** |
| | baz=226 | | | | | | |
| **CHN8** | **Yiju** | **1.56** | **252** | ⇑P | **Pn** | **11 13 17.0** | **+1.0** |
| | baz=251 | | | | | | |
| CHN8 | | | | S | **Sn** | **11 13 36.9** | **+1.9** |
| | baz=251 | | | | | | |
| **TWM1** | **Shoushan** | **1.64** | **232** | *e*P | **Pn** | **11 13 20.2** | **+3.1** |
| | baz=232 | | | | | | |
| **SCLT** | **Jiali** | **1.64** | **247** | *e*P | **Pn** | **11 13 18.0** | **+1.0** |
| | baz=245 | | | | | | |
| SCLT | | | | *e*S | **Sn** | **11 13 39.9** | **+3.0** |
| | baz=245 | | | | | | |
| **SGLT** | **Jiouru** | **1.65** | **228** | *e*P | **Pn** | **11 13 19.2** | **+2.0** |
| | baz=218 | | | | | | |
| **TAI1** | **Yung-k'ang** | **1.67** | **242** | *e*P | **Pn** | **11 13 19.5** | **+2.1** |
| | baz=253 | | | | | | |
| TAI1 | | | | *e*S | **Sn** | **11 13 40.5** | **+2.8** |
| | baz=253 | | | | | | |
| **TAW** | **Tawu** | **1.70** | **210** | *e*P | **Pn** | **11 13 19.3** | **+1.4** |
| | baz=211 | | | | | | |
| **EAST** | **Anshuo** | **1.70** | **212** | *e*P | **Pn** | **11 13 17.0** | **-1.0** |
| | baz=212 | | | | | | |
| **LAY** | **Lan-yu** | **1.80** | **188** | *e*P | **Pn** | **11 13 18.3** | **-1.1** |
| | baz=187 | | | | | | |
| **PCYT** | **Pengchaiyu** | **1.80** | **7** | *e*P | **Pn** | **11 13 20.1** | **+0.7** |
| | baz=6.0 | | | | | | |
| **IRIF** | **Iriomote-Funau** | **1.81** | **74** | P | **Pn** | **11 13 20.3** | **+0.9** |
| IRIF | | | | *e*S | **Sn** | **11 13 42.9** | **+1.7** |
| **HATJ** | **Hateruma jima** | **1.82** | **83** | P | **Pn** | **11 13 20.6** | **+1.0** |
| HATJ | | | | *e*S | **Sn** | **11 13 42.6** | **+1.1** |
| **SCZT** | **Fangliau** | **1.83** | **218** | *e*P | **Pn** | **11 13 20.9** | **+1.2** |
| | baz=209 | | | | | | |
| **JKRS** | **Kuro-shima** | **2.04** | **78** | P | **Pn** | **11 13 23.8** | **+1.3** |
| JKRS | | | | *e*S | **Sn** | **11 13 48.1** | **+1.4** |
| **WDGT** | **Dungji** | **2.07** | **254** | *e*P | **Pn** | **11 13 23.2** | **+0.2** |
| | baz=243 | | | | | | |
| WDGT | | | | *e*S | **Sn** | **11 13 47.5** | **0.0** |
| | baz=243 | | | | | | |
| **HEN** | **Hengchun** | **2.08** | **209** | *e*P | **Pn** | **11 13 24.8** | **+1.6** |
| | baz=200 | | | | | | |
| **PNG** | **Penghu** | **2.10** | **263** | ⇑P | **Pn** | **11 13 23.7** | **+0.3** |
| | baz=262 | | | | | | |
| PNG | | | | *e*S | **Sn** | **11 13 48.5** | **+0.2** |
| | baz=262 | | | | | | |
| **TWK1** | **Hengchun** | **2.10** | **207** | *e*P | **Pn** | **11 13 23.6** | **+0.1** |
| | baz=196 | | | | | | |
| TWK1 | | | | *e*S | **Sn** | **11 13 49.2** | **+0.8** |
| | baz=196 | | | | | | |
| **TSEB** | **Hengchuen, Pin** | **2.10** | **204** | *e*P | **Pn** | **11 13 26.0** | **+2.5** |
| | baz=199 | | | | | | |
| **JIJ** | **Ishigaki jima** | **2.18** | **75** | P | **Pn** | **11 13 25.1** | **+0.5** |
| JIJ | | | | S | **Sn** | **11 13 50.5** | **+0.1** |
| **JISG** | **Ishigakijimahi** | **2.39** | **71** | P | **Pn** | **11 13 27.9** | **+0.5** |
| JISG | | | | *e*S | **Sn** | **11 13 55.0** | **-0.5** |
| **JTJ** | **Tarama** | **2.75** | **72** | P | **Pn** | **11 13 33.3** | **+1.0** |
| JTJ | | | | *e*S | **Sn** | **11 14 05.2** | **+0.9** |
| **QZH** | **Quanzhou** | **3.15** | **291** | ⇓*i*Pn | **Pn** | **11 13 36.3** | **-1.6** |
| QZH | | | | Sn | **Sn** | **11 14 09.9** | **-4.4** |
| QZH | | | | smax | smax | | |
| | comp=N,240nm,0.2s | | | | | | |
| QZH | | | | smax | smax | | |
| | comp=E,530nm,0.3s | | | | | | |
| **KNM** | **Kinmen** | **3.15** | **281** | ⇑*e*P | **Pn** | **11 13 39.2** | **+1.2** |
| | baz=280 | | | | | | |
| **JIRB** | **Irabujima** | **3.21** | **71** | P | **Pn** | **11 13 40.1** | **+1.4** |
| JIRB | | | | S | **Sn** | **11 14 15.2** | **-0.5** |
| **JIKM** | **Ikemajima** | **3.30** | **70** | P | **Pn** | **11 13 41.6** | **+1.6** |
| JIKM | | | | S | **Sn** | **11 14 17.9** | **-0.1** |
| **JMJ** | **Miyako jima 2** | **3.31** | **72** | P | **Pn** | **11 13 41.7** | **+1.6** |
| JMJ | | | | *e*S | **Sn** | **11 14 19.0** | **+0.8** |
| **JOGS** | **Gusukube** | **3.39** | **73** | P | **Pn** | **11 13 43.1** | **+1.9** |
| JOGS | | | | *e*S | **Sn** | **11 14 21.3** | **+1.0** |
| **JKE** | **Kume jima 2** | **5.14** | **60** | P | **Pn** | **11 14 05.5** | **+0.3** |
| JKE | | | | *e*S | **Sn** | **11 15 03.3** | **+0.1** |
| **JAGN** | **Aguni-jima** | **5.62** | **60** | P | **Pn** | **11 14 13.4** | **+1.6** |
| **JIH** | **Iheya** | **6.40** | **59** | P | **Pn** | **11 14 22.4** | **-0.1** |
| **JOW** | **Kunigami** | **6.55** | **62** | *e*P | **Pn** | **11 14 23.8** | **-0.9** |
| | baz=64 | | | | | | |
| **JOW** | **Kunigami** | **6.55** | **62** | P | **Pn** | **11 14 23.8** | **-0.9** |
| **JOKE** | **Okinoerabujima** | **7.03** | **59** | P | **Pn** | **11 14 30.0** | **-1.2** |
| **JTK** | **Tokunoshima** | **7.53** | **57** | P | **Pn** | **11 14 36.6** | **-1.4** |
| **JAMN** | **Amaminishikomi** | **7.93** | **55** | P | **Pn** | **11 14 41.7** | **-1.9** |
| **KSAR** | **Wonju Array Be** | **14.53** | **20** | Pn | **Pn** | **11 16 16.1** | **+2.4** |
| **KSRS** | **Korea Array** | **14.55** | **20** | Pn | **Pn** | **11 16 16.1** | **+2.1** |
| | 0.6nm,0.3s,baz=194,slow=12,SNR=11 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **21.99** | **260** | P | **P** | **11 17 42.2** | **+0.6** |
| | 0.6nm,0.5s,baz=58,slow=8.6,SNR=6.4 | | | | | | |
| **KLR** | **Kul'dur** | **26.53** | **15** | P | **P** | **11 18 23.0** | **-1.5** |
| | 0.1nm,0.3s,baz=183,slow=12,SNR=4.2 | | | | | | |
| **SONM** | **Songino Array** | **26.92** | **337** | P | **P** | **11 18 27.3** | **-1.0** |
| | 1.0nm,0.7s,baz=153,slow=11,SNR=5.9 | | | | | | |
| **WMQ** | **Urumqi** | **34.32** | **314** | *e*P | **P** | **11 19 38.0** | **+4.5** |
| WMQ | | | | LR | LR | | |
| | comp=Z,63nm,18.9s | | | | | | |
| **MKAR** | **Makanchi Array** | **39.00** | **316** | P | **P** | **11 20 12.3** | **-1.0** |
| | 0.6nm,0.5s,baz=99,slow=11,SNR=6.9 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **40.86** | **327** | P | **P** | **11 20 26.8** | **-1.8** |
| | 0.8nm,0.4s,baz=114,slow=8.6,SNR=4.5 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **41.92** | **87** | T | T | 12 05 46.2 | |
| | baz=283,slow=75,SNR=42 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **41.92** | **87** | T | T | 12 05 52.6 | |
| | baz=283,slow=75,SNR=42 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **41.94** | **87** | T | T | 12 05 47.9 | |
| | baz=283,slow=75,SNR=42 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **42.04** | **88** | T | T | 12 05 57.6 | |
| | baz=284,slow=75,SNR=59 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **42.05** | **88** | T | T | 12 06 00.6 | |
| | baz=284,slow=75,SNR=53 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **42.06** | **88** | T | T | 12 06 04.5 | |
| | baz=284,slow=75,SNR=42 | | | | | | |
| **WRAB** | **Tennant Creek** | **45.18** | **163** | *e*P | **P** | **11 21 02.7** | **-1.1** |
| | 10nm,1.5s | | | | | | |
| **WRA** | **Warramunga Arr** | **45.19** | **163** | P | **P** | **11 21 02.1** | **-1.8** |
| | 0.7nm,0.4s,baz=345,slow=8.7,SNR=33 | | | | | | |
| **ASAR** | **Alice Springs** | **48.65** | **165** | P | **P** | **11 21 29.8** | **-1.1** |
| | 0.8nm,0.4s,baz=339,slow=7.0,SNR=28 | | | | | | |
| ASAR | | | | PcP | **PcP** | **11 22 54.5** | **-1.4** |
| | 0.3nm,0.6s,baz=347,slow=3.8,SNR=2.6 | | | | | | |
| **STKA** | **Stephens Creek** | **58.53** | **160** | P | **P** | **11 22 42.4** | **-0.8** |
| | 2.2nm,0.6s,baz=338,slow=8.1,SNR=5.1 | | | | | | |
| **ILAR** | **Eielson Array** | **69.25** | **27** | P | **P** | **11 23 54.0** | **+0.6** |
| | 0.5nm,0.7s,baz=286,slow=7.4,SNR=9.1 | | | | | | |
| **YKA** | **Yellowknife Ar** | **83.06** | **23** | P | **P** | **11 25 10.7** | **-1.1** |
| | 2.0nm,0.6s,baz=310,slow=5.1,SNR=23 | | | | | | |

---

**MEX 14 11:13:27.3±0.5,19.45N×105.16W,h20km±19km,MD3.7, Near coast of Jalisco**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CJM** | **Chamela** | **0.12** | **66** | *e*P | Pb | 11 13 30.5 | -1.0 |
| CJM | | | | *e*S | Sb | 11 13 33.1 | -1.3 |
| **R15V** | | **1.15** | **104** | *e*P | Pn | 11 13 44.8 | -3.4 |
| R15V | | | | *i* S | Sb | 11 13 59.2 | -3.8 |
| **EZ5V** | | **1.47** | **89** | *i* P | Pn | 11 13 50.0 | -3.0 |
| EZ5V | | | | *e*S | Sn | 11 14 07.1 | -4.6 |
| **MMIG** | **Aquila** | **2.07** | **124** | *e*P | Pn | 11 13 59.0 | -1.9 |
| MMIG | | | | *e*S | Sn | 11 14 22.8 | -3.4 |

---

**IDC 14 11:15:38.3±6.1,55.08S×144.19W,h0km,mb3.5/2, mb1 3.7/2,mb1mx3.6/13,mbtmp3.5/2,Error ellipse: s-maj=686.4km s-min=77.2km az=163.0, Pacific-Antarctic Ridge**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ASAR** | **Alice Springs** | **66.37** | **262** | P | P | 11 26 28.7 | -0.2 |
| | 0.4nm,0.7s,baz=138,slow=7.0,SNR=5.4 | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **68.26** | **240** | T | T | 12 41 38.4 | |
| | baz=142 | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **68.27** | **240** | T | T | 12 41 30.6 | |
| | baz=142 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **68.28** | **240** | T | T | 12 41 31.1 | |
| | baz=142 | | | | | | |
| **WRA** | **Warramunga Arr** | **69.05** | **265** | P | P | 11 26 46.1 | +0.3 |
| | 0.3nm,0.8s,baz=136,slow=5.8,SNR=3.9 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **103.60** | **128** | T | T | 13 24 59.9 | |
| | baz=207 | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **103.60** | **128** | T | T | 13 25 01.0 | |
| | baz=207 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **103.62** | **128** | T | T | 13 25 03.1 | |
| | baz=207 | | | | | | |
| **H10N3** | **ASCENSION HYDR** | **104.66** | **128** | T | T | 13 26 21.1 | |
| | baz=205 | | | | | | |
| **H10N1** | **ASCENSION HYDR** | **104.66** | **128** | T | T | 13 26 21.5 | |
| | baz=205 | | | | | | |
| **H10N2** | **ASCENSION HYDR** | **104.67** | **128** | T | T | 13 26 21.8 | |
| | baz=205 | | | | | | |
| **MKAR** | **Makanchi Array** | **150.05** | **274** | PKPbc | PKPbc | 11 35 29.2 | -0.7 |
| | 0.8nm,0.9

1.0nm,0.3s,baz=0.6,slow=26,SNR=4.3
**H11N2 WAKE ISLAND Hy 27.25 121** T T 11 49 38.0
baz=313
**H11N1 WAKE ISLAND Hy 27.26 121** T T 11 50 02.3
baz=313
**H11N3 WAKE ISLAND Hy 27.27 121** T T 11 49 49.2
baz=313
**SONM Songino Array 28.70 305** P **P** **11 21 47.3 +0.8**
0.2nm,0.4s,baz=92,slow=7.6,SNR=2.4
**MKAR Makanchi Array 45.02 303** P **P** **11 24 07.2 +2.3**
0.6nm,0.7s,baz=96,slow=8.9,SNR=5.0
**KURBB Kurchatov Arra 46.93 309** P **P** **11 24 21.1 +1.3**
0.9nm,0.6s,baz=84,slow=9.4,SNR=6.5
**WRA Warramunga Arr 56.44 189** P **P** **11 25 29.6 -1.6**
0.5nm,1.0s,baz=2.2,slow=7.5,SNR=2.3

**MEX 14 11:16:58.9±0.4, 19°54N×105°11W, h23km±4km, MD3.8, Near coast of Jalisco**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **CJM** | **Chamela** | **0.08** | **125** | *e*P | | Pb | 11 17 02.1 | -1.1 |
| CJM | | | | *e*S | | Sb | 11 17 04.6 | -1.4 |
| **R15V** | | **1.13** | **109** | *e*P | | Pn | 11 17 16.4 | -3.0 |
| R15V | | | | *e*S | | Sb | 11 17 29.9 | -4.1 |
| **EZ5V** | | **1.42** | **92** | *e*P | | Pn | 11 17 21.4 | -2.2 |
| EZ5V | | | | *e*S | | Sn | 11 17 38.0 | -3.8 |
| **MMIG** | **Aquila** | **2.08** | **126** | *e*P | | Pn | 11 17 30.8 | -1.6 |
| MMIG | | | | *e*S | | Sn | 11 17 54.6 | -3.1 |

**DJA 14 11:22:36.6±0.4, 2°S±3°×117°9E±°, h10km, M3.7/6, MLv3.7/6, Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **TTSI** | **Tana Toraja** | **1.15** | **138** | P | | Pb | 11 22 57.7 | -0.9 |
| **PCI** | **Palu** | **1.50** | **32** | P | | Pn | 11 23 03.2 | -0.5 |
| **SPSI** | **Sidrap Palu** | **1.91** | **158** | P | | Pn | 11 23 09.2 | 0.0 |
| SPSI | | | | S | | Sn | 11 23 33.9 | +0.6 |
| **MPSI** | **Mapaga** | **2.65** | **19** | P | | Pn | 11 23 19.4 | -0.1 |
| **APSI** | **Ampana** | **2.90** | **64** | P | | Pn | 11 23 23.4 | +0.5 |
| **KBKI** | **Kotabaru** | **3.07** | **249** | P | | Pn | 11 23 25.0 | -0.3 |

*DDA **14** 11:26:50.8, 38°.71N×43°.10E, h7km, Md2.7*
*CSEM **14** 11:26:51.5±0.2, 38°.72N×43°.12E, h2km, ML2.5, Error ellipse: s-maj=5.0km s-min=3.8km az=59.0*
*ISK **14** 11:26:51.2, 38°.68N×43°.15E, h5km, ML2.5*
**ISC 14 11:26:51.6±0.9, 38°.72N±0°.02×43°.13E±0°.02, h20km±3km, n38, σ1°03/63, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.24** | **121** | *e*PG | | **Pg** | **11 26 57.6** | **+0.2** |
| VANB | | | | *e*SG | | **Sg** | **11 27 02.7** | **+1.3** |
| **VANB** | **Van** | **0.24** | **121** | *e*Pg | | **Pg** | **11 26 57.6** | **+0.2** |
| **TVAN** | **Van** | **0.29** | **131** | *i* P | | **Pg** | **11 26 57.7** | **-0.6** |
| TVAN | | | | *i* S | | **Sg** | **11 27 03.1** | **+0.3** |
| **TVAN** | **Van** | **0.29** | **131** | P | | **Pg** | **11 26 57.7** | **-0.6** |
| TVAN | | | | S | | **Sg** | **11 27 03.1** | **+0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.33** | **285** | *i* P | | **Pg** | **11 26 57.9** | **-0.9** |
| ADCV | | | | *i* S | | **Sg** | **11 27 03.5** | **-0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.33** | **285** | P | | **Pg** | **11 26 57.9** | **-0.9** |
| ADCV | | | | S | | **Sg** | **11 27 03.5** | **-0.2** |
| **GEVA** | **Gevas** | **0.41** | **187** | *i* P | | **Pg** | **11 26 58.9** | **-1.4** |
| GEVA | | | | *i* S | | **Sb** | **11 27 05.9** | **-0.4** |
| **GEVA** | **Gevas** | **0.41** | **187** | P | | **Pg** | **11 26 58.8** | **-1.4** |
| GEVA | | | | S | | **Sb** | **11 27 05.9** | **-0.4** |
| **VMUR** | **Van-Muradiye** | **0.44** | **52** | *i* P | | **Pg** | **11 27 00.1** | **-0.6** |
| VMUR | | | | *i* S | | **Sb** | **11 27 07.4** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.44** | **52** | P | | **Pg** | **11 27 00.1** | **-0.6** |
| VMUR | | | | S | | **Sb** | **11 27 07.4** | **+0.3** |
| **TUTA** | **Tutak** | **0.72** | **340** | *i* P | | **Pb** | **11 27 04.8** | **-0.8** |
| TUTA | | | | *i* S | | **Sb** | **11 27 13.9** | **-1.3** |
| **TUTA** | **Tutak** | **0.72** | **340** | P | | **Pb** | **11 27 04.8** | **-0.8** |
| TUTA | | | | S | | **Sb** | **11 27 13.9** | **-1.3** |
| **BASK** | **Baskale_VAN** | **0.96** | **134** | *i* P | | **Pb** | **11 27 08.7** | **-1.0** |
| BASK | | | | *i* S | | **Sn** | **11 27 22.9** | **-0.5** |
| **BASK** | **Baskale_VAN** | **0.96** | **134** | P | | **Pb** | **11 27 08.7** | **-1.0** |
| BASK | | | | S | | **Sn** | **11 27 22.9** | **-0.5** |
| **EKAR** | **Karacoban** | **0.98** | **303** | *i* P | | **Pb** | **11 27 10.2** | **+0.1** |
| EKAR | | | | *i* S | | **Sb** | **11 27 23.6** | **+0.8** |
| **EKAR** | **Karacoban** | **0.98** | **303** | P | | **Pb** | **11 27 10.2** | **+0.1** |
| EKAR | | | | S | | **Sb** | **11 27 23.6** | **+0.8** |
| **SRTM** | **Siirt_Merkez** | **1.20** | **233** | *i* P | | **Pn** | **11 27 13.1** | **-0.2** |
| SRTM | | | | *i* S | | **Sg** | **11 27 31.8** | **+1.4** |
| **SRTM** | **Siirt_Merkez** | **1.20** | **233** | P | | **Pn** | **11 27 13.1** | **-0.2** |
| SRTM | | | | S | | **Sg** | **11 27 31.8** | **+1.4** |
| **EATA** | **Eleskirt** | **1.24** | **337** | *i* P | | **Pn** | **11 27 13.7** | **-0.5** |
| EATA | | | | *i* S | | **Sg** | **11 27 31.9** | **-0.1** |
| **EATA** | **Eleskirt** | **1.24** | **337** | P | | **Pn** | **11 27 13.7** | **-0.5** |
| EATA | | | | S | | **Sg** | **11 27 31.9** | **-0.1** |
| **HAKT** | **HAKKARI** | **1.25** | **158** | *i* P | | **Pg** | **11 27 15.1** | **-0.7** |
| HAKT | | | | *i* S | | **Sg** | **11 27 35.3** | **+3.1** |
| **HAKT** | **HAKKARI** | **1.25** | **158** | P | | **Pg** | **11 27 15.1** | **-0.7** |
| HAKT | | | | S | | **Sg** | **11 27 35.3** | **+3.1** |
| **SIRT** | **Sirnak** | **1.33** | **204** | *e*PN | | **Pg** | **11 27 17.3** | **-0.1** |
| SIRT | | | | *e*SN | | **Sg** | **11 27 36.5** | **+1.7** |
| **SIRT** | **Sirnak** | **1.33** | **204** | *e*Pn | | **Pg** | **11 27 17.3** | **-0.1** |
| SIRT | | | | *e*Sn | | **Sg** | **11 27 36.5** | **+1.7** |
| **VRTB** | **Varto-Mus** | **1.37** | **289** | *e*PN | | **Pg** | **11 27 18.9** | **+0.8** |
| **VRTB** | **Varto-Mus** | **1.37** | **289** | *e*Pn | | **Pg** | **11 27 18.9** | **+0.8** |
| **CUKT** | **Cukurca** | **1.52** | **165** | *e*PN | | **Pg** | **11 27 20.2** | **-0.7** |
| **CUKT** | **Cukurca** | **1.52** | **165** | *e*Pn | | **Pg** | **11 27 20.2** | **-0.7** |
| **BTMN** | **Batman** | **1.68** | **241** | *i* P | | **Pb** | **11 27 22.4** | **+0.5** |
| BTMN | | | | *i* S | | **Sg** | **11 27 44.7** | **-1.1** |
| **BTMN** | **Batman** | **1.68** | **241** | P | | **Pb** | **11 27 22.4** | **+0.5** |
| BTMN | | | | S | | **Sg** | **11 27 44.7** | **-1.1** |
| **KARS** | **Kars** | **1.90** | **359** | *e*PN | | **Pb** | **11 27 26.6** | **+0.9** |
| **KARS** | **Kars** | **1.90** | **359** | *e*Pn | | **Pb** | **11 27 26.6** | **+0.9** |
| **BNGB** | **Bing¶ll** | **1.93** | **279** | *e*PN | | **Pb** | **11 27 26.8** | **+0.7** |
| **SENK** | **Senkaya-Erzuru** | **1.93** | **342** | *e*PN | | **Pb** | **11 27 27.2** | **+0.9** |
| **SENK** | **Senkaya-Erzuru** | **1.93** | **342** | *e*Pn | | **Pb** | **11 27 27.2** | **+0.9** |
| **BINT** | **Bingol** | **2.07** | **275** | *e*Pn | | **Pn** | **11 27 26.8** | **+1.5** |
| **MAZI** | **Mazidag** | **2.46** | **240** | *e*PN | | **Pb** | **11 27 34.0** | **-1.2** |
| **MAZI** | **Mazidag** | **2.46** | **240** | *e*Pn | | **Pb** | **11 27 34.0** | **-1.2** |

**DJA 14 11:30:34.4±1.5, 9°S±8°×127°4E±°, h21km±21km, M3.9/6, mb4.1/2, MLv3.9/6, Timor region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **SOEI** | **Soe** | **0.80** | **110** | P | | Pb | 11 30 48.9 | -0.9 |
| SOEI | | | | S | | Sn | 11 31 02.5 | +0.5 |
| **MMRI** | **Maumere** | **1.50** | **304** | P | | Pn | 11 30 58.9 | -1.2 |
| MMRI | | | | S | | Sb | 11 31 21.1 | +0.9 |
| **EDFI** | **Ende, Flores** | **1.93** | **292** | P | | Pn | 11 31 06.0 | -0.1 |
| **BASI** | **Baing, Sumba** | **2.97** | **255** | P | | Pn | 11 31 21.8 | +1.4 |
| **WBSI** | **Waikabubak, Su** | **4.06** | **267** | P | | Pn | 11 31 35.9 | +0.6 |
| WBSI | | | | S | | Sn | 11 32 23.2 | +1.0 |
| **PLAI** | **Plampang** | **5.69** | **276** | P | | Pn | 11 31 56.9 | -0.8 |
| PLAI | | | | S | | Sn | 11 33 01.6 | -0.9 |

**IDC 14 11:34:14.2±3.3, 5°37S×151°27E, h0km, mb3.7/3, mb1 3.9/4, mb1mx3.5/34, mbtmp3.8/4, ML1.8/1, MS4.1/2, Ms1 4.1/2, ms1mx3.1/32, Error ellipse: s-maj=117.8km s-min=43.1km az=122.0, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **5.72** | **225** | Pn | | Pn | 11 35 42.0 | +1.6 |
| | 1.6nm,0.3s,baz=45,slow=13,SNR=5.2 | | | | | | | |
| PMG | | | | Sn | | Sn | 11 36 39.1 | -7.8 |
| | 6.7nm,0.3s,baz=67,slow=20,SNR=7.3 | | | | | | | |
| **WRA** | **Warramunga Arr** | **21.94** | **227** | P | | P | 11 39 08.8 | -0.8 |
| | 0.9nm,0.4s,baz=52,slow=10.0,SNR=7.6 | | | | | | | |
| **ASAR** | **Alice Springs** | **24.72** | **221** | P | | P | 11 39 36.8 | -0.6 |
| | 0.3nm,0.3s,baz=51,slow=8.8,SNR=4.9 | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **28.05** | **241** | P | | P | 11 40 08.0 | +0.5 |
| | 0.9nm,0.3s,baz=62,slow=11,SNR=5.8 | | | | | | | |
| **PETK** | **Petropavlovsk-** | **58.51** | **5** | LR | | LR | 12 05 33.3 | |
| | comp=Z,166nm,21.9s,baz=140,slow=32 | | | | | | | |
| **GEYT** | **Alibeck** | **95.75** | **307** | LR | | LR | 12 29 57.4 | |
| | comp=Z,88nm,20.8s,baz=310,slow=35 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **149.02** | **287** | PKPbc | | PKPbc | 11 54 04.9 | -0.5 |
| | 0.2nm,0.6s,baz=78,slow=2.9,SNR=2.3 | | | | | | | |

*ISCJB **14** 11:37:47.7±0.8, 50°.41N±0°.05×18°.85E±0°.04, h0km, Error ellipse: s-maj=7.4km s-min=3.2km az=10.6*
*CSEM **14** 11:37:48.4±0.3, 50°.41N×18°.87E, h2km, ML2.5, Error ellipse: s-maj=8.3km s-min=3.3km az=9.0*
*PRU **14** 11:37:49.4, 50°.37N×18°.88E, h0km*
*WAR **14** 11:37:49.4, 50°.36N×18°.93E, h1km, Mw2.5*
**ISC 14 11:37:48.9±0.9, 50°34N±0°.06×18°87E±0°.02, h0km, n22, σ0°58/36, Poland**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **OJC** | **Ojcow** | **0.61** | **101** | *e*Pg | | **Pg** | **11 38 00.3** | **-0.3** |
| OJC | | | | *e*Sg | | **Sg** | **11 38 08.8** | **+0.4** |
| **OJC** | **Ojcow** | **0.61** | **101** | *e*Pg | | **Pg** | **11 38 00.3** | **-0.3** |
| OJC | | | | *e*Sg | | **Sg** | **11 38 08.8** | **+0.4** |
| **OJC** | **Ojcow** | **0.61** | **101** | *e*Pg | | **Pg** | **11 38 00.3** | **-0.3** |
| OJC | | | | *e*Sg | | **Sg** | **11 38 08.8** | **+0.4** |
| **OKC** | **Ostrava-Krasne** | **0.69** | **223** | *e*PG | | **Pb** | **11 38 03.7** | **-0.1** |
| OKC | | | | *e*SG | | **Sb** | **11 38 12.9** | **-0.9** |
| | comp=Z,11nm,0.5s | | | | | | | |
| **MORC** | **Moravsky Berou** | **1.03** | **237** | *e*Pg | | **Pg** | **11 38 08.9** | **+0.3** |
| MORC | | | | *e*Sg | | **Sb** | **11 38 23.1** | **-0.5** |
| **NIE** | **Niedzica** | **1.31** | **134** | *e*Pg | | **Pn** | **11 38 14.8** | **+0.3** |
| NIE | | | | *e*Sg | | **Sn** | **11 38 32.7** | **0.0** |
| **NIE** | **Niedzica** | **1.31** | **134** | *e*Pg | | **Pn** | **11 38 14.8** | **+0.3** |
| NIE | | | | *e*Sg | | **Sn** | **11 38 32.7** | **0.0** |
| **NIE** | **Niedzica** | **1.31** | **134** | *e*Pg | | **Pn** | **11 38 14.8** | **+0.3** |
| NIE | | | | *e*Sg | | **Sn** | **11 38 32.7** | **0.0** |
| **KRLC** | **Kraliky** | **1.37** | **260** | *e*SG | | **Sb** | **11 38 33.4** | **-0.1** |
| | comp=Z,4.7nm,0.5s | | | | | | | |
| **KRLC** | **Kraliky** | **1.37** | **260** | Sg | | **Sb** | **11 38 33.4** | **-0.1** |
| | 4.7nm,0.5s | | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.63** | **271** | *e*PG | | **Pn** | **11 38 18.4** | **-0.5** |
| DPC | | | | *e*SG | | **Sg** | **11 38 41.3** | **0.0** |
| | comp=Z,5.6nm,0.4s | | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.63** | **271** | Pg | | **Pn** | **11 38 18.4** | **-0.5** |
| DPC | | | | Sg | | **Sg** | **11 38 41.3** | **0.0** |
| | 5.6nm,0.4s | | | | | | | |
| **KSP** | **Ksiaz** | **1.72** | **288** | *e*Pg | | **Pb** | **11 38 21.1** | **-0.2** |
| KSP | | | | *e*Sg | | **Sg** | **11 38 44.6** | **+0.5** |
| **KSP** | **Ksiaz** | **1.72** | **288** | *e*Pg | | **Pb** | **11 38 21.1** | **-0.2** |
| KSP | | | | *e*Sg | | **Sg** | **11 38 44.6** | **+0.5** |
| **KSP** | **Ksiaz** | **1.72** | **288** | *e*Pg | | **Pb** | **11 38 21.1** | **-0.2** |
| KSP | | | | *e*Sg | | **Sg** | **11 38 44.6** | **+0.5** |
| **VRAC** | **Vranov** | **1.80** | **236** | *e*Pn | | **Pn** | **11 38 21.8** | **+0.6** |
| VRAC | | | | *e*Sg | | **Sb** | **11 38 46.4** | **+0.5** |
| **UPC** | **Upice** | **1.83** | **276** | *e*SG | | **Sg** | **11 38 49.6** | **+1.8** |
| **UPC** | **Upice** | **1.83** | **276** | Sg | | **Sg** | **11 38 49.6** | **+1.8** |
| **PRU** | **Pruhonice** | **2.81** | **264** | *e*SG | | **Sg** | **11 39 18.7** | **-0.3** |
| **PRU** | **Pruhonice** | **2.81** | **264** | Sg | | **Sg** | **11 39 18.7** | **-0.3** |
| **KHC** | **Kasperske Hory** | **3.64** | **253** | *e*SG | | **Sg** | **11 39 45.3** | **-0.5** |
| **KHC** | **Kasperske Hory** | **3.64** | **253** | Sg | | **Sg** | **11 39 45.3** | **-0.5** |

*ISCJB **14** 11:47:44.4±0.5, 63°.22N±0°.02×27°.81E±0°.09, h0km, Error ellipse: s-maj=5.8km s-min=3.3km az=3.7*
*CSEM **14** 11:47:46.1±0.3, 63°.16N×27°.63E, h2km, ML1.7, Error ellipse: s-maj=7.6km s-min=4.9km az=85.0, Mining explosion.*
*HEL **14** 11:47:46.4±0.1, 63°.17N×27°.77E, h0km, ML1.7, Explosion*
*NAO **14** 11:47:49.9±1.3, 63°.09N×27°.84E, ML2.1*
*IDC **14** 11:47:50.2±1.6, 63°.03N×28°.00E, h0km, mb1 3.2/3, mb1mx2.9/40, mbtmp3.1/3, ML2.8/3, Error ellipse: s-maj=23.9km s-min=7.7km az=105.0*
*BER **14** 11:47:50.5±3.8, 63°.14N×27°.84E, h0km, ML2.1(NAO), Suspected explosion*
**ISC 14 11:47:47.0±0.8, 63°16N±0°.02×27°62E±0°.04, h0km, n54, σ1°87/83, Finland**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **SUF** | **Sumiainen** | **0.81** | **237** | P | | **Pg** | **11 48 00.9** | **-1.5** |
| SUF | | | | S | | **Sb** | **11 48 16.4** | **+1.1** |
| **SUF** | **Sumiainen** | **0.81** | **237** | *e*P | | **Pg** | **11 48 00.9** | **-1.5** |
| SUF | | | | *e*S | | **Sb** | **11 48 16.4** | **+1.1** |
| **KEF** | **Keuruu** | **1.62** | **233** | P | | **Pn** | **11 48 15.7** | **-1.0** |
| **KEF** | **Keuruu** | **1.62** | **233** | *e*P | | **Pn** | **11 48 15.8** | **-1.0** |
| **JOF** | **Joensuu** | **1.70** | **97** | P | | **Pn** | **11 48 15.0** | **-2.8** |
| **JOF** | **Joensuu** | **1.70** | **97** | *e*P | | **Pn** | **11 48 15.0** | **-2.8** |
| **OUF** | **Merijarvi** | **1.76** | **315** | Pn | | **Pn** | **11 48 18.7** | **0.0** |
| **OUF** | **Merijarvi** | **1.76** | **315** | *e*PN | | **Pn** | **11 48 18.7** | **0.0** |
| **FIA0** | **FINESS Array S** | **1.87** | **203** | Pg | | **Pg** | **11 48 23.4** | **+0.6** |
| | baz=22,slow=18 | | | | | | | |
| FIA0 | | | | Lg | | Lg | 11 48 47.5 | |
| | baz=26,slow=37 | | | | | | | |
| **FIA0** | **FINESS Array S** | **1.87** | **203** | Pg | | **Pg** | **11 48 23.4** | **+0.6** |
| | baz=22,slow=18 | | | | | | | |
| FIA0 | | | | Lg | | Lg | 11 48 47.5 | |
| | baz=26,slow=37 | | | | | | | |
| **FIA0** | **FINESS Array S** | **1.87** | **203** | P | | **Pn** | **11 48 19.7** | **-0.5** |
| **FIA0** | **FINESS Array S** | **1.87** | **203** | Pg | | **Pg** | **11 48 23.4** | **+0.6** |
| | baz=22,slow=16,SNR=90 | | | | | | | |
| FIA0 | | | | S | | **Sn** | **11 48 43.3** | **-1.2** |
| FIA0 | | | | Lg | | Lg | 11 48 47.5 | |
| | baz=26,slow=31,SNR=90 | | | | | | | |
| **FIA0** | **FINESS Array S** | **1.87** | **203** | *e*P | | **Pn** | **11 48 19.8** | **-0.5** |
| FIA0 | | | | *e*S | | **Sn** | **11 48 43.3** | **-1.2** |
| **FINES** | **FINESS Array B** | **1.87** | **203** | Pg | | **Pg** | **11 48 23.4** | **+0.6** |
| | 2.5nm,0.3s,baz=25,slow=17,SNR=64 | | | | | | | |
| FINES | | | | Lg | | Lg | 11 48 47.4 | |
| | 2.4nm,0.3s,baz=30,slow=29,SNR=8.3 | | | | | | | |
| **OUL** | **Oulu** | **2.07** | **339** | P | | **Pn** | **11 48 22.4** | **-0.6** |
| OUL | | | | Sg | | **Sn** | **11 48 50.5** | **+1.0** |
| **OUL** | **Oulu** | **2.07** | **339** | *e*P | | **Pn** | **11 48 22.5** | **-0.6** |
| OUL | | | | *e*SG | | **Sn** | **11 48 50.5** | **+1.0** |
| **VAF** | **Ylistaro** | **2.25** | **269** | Pb | | **Pn** | **11 48 26.7** | **+1.3** |
| VAF | | | | Sg | | **Sb** | **11 48 57.8** | **+0.9** |
| **VAF** | **Ylistaro** | **2.25** | **269** | *e*PB | | **Pn** | **11 48 26.8** | **+1.3** |
| VAF | | | | *e*SG | | **Sb** | **11 48 57.9** | **+0.9** |
| **VJF** | **Virojoki** | **2.63** | **181** | P | | **Pn** | **11 48 30.1** | **-0.6** |
| VJF | | | | Sb | | **Sb** | **11 49 06.2** | **-1.6** |
| **VJF** | **Virojoki** | **2.63** | **181** | *e*P | | **Pn** | **11 48 30.2** | **-0.6** |
| VJF | | | | *e*SB | | **Sb** | **11 49 06.2** | **-1.6** |
| **PVF** | **Pernaja** | **2.76** | **198** | Pg | | **Pb** | **11 48 37.2** | **+0.1** |
| PVF | | | | Sg | | **Sb** | **11 49 12.6** | **+1.3** |
| **PVF** | **Pernaja** | **2.76** | **198** | *e*PG | | **Pb** | **11 48 37.2** | **+0.1** |
| PVF | | | | MSG | | | 11 49 11.4 | |
| | comp=Z,2.3nm,0.1s | | | | | | | |
| PVF | | | | *e*SG | | **Sb** | **11 49 12.6** | **+1.3** |
| **MSF** | **Maaselka** | **2.83** | **12** | P | | **Pn** | **11 48 29.2** | **-4.2** |
| MSF | | | | Sg | | **Sb** | **11 49 13.0** | **-0.4** |
| **MSF** | **Maaselka** | **2.83** | **12** | *e*P | | **Pn** | **11 48 29.2** | **-4.2** |
| MSF | | | | *e*SG | | **Sb** | **11 49 13.1** | **-0.4** |
| **KU6** | **Riekki** | **3.04** | **18** | Pb | | **Pn** | **11 48 36.9** | **+0.7** |
| KU6 | | | | Sg | | **Sb** | **11 49 19.3** | **-0.1** |
| **KU6** | **Riekki** | **3.04** | **18** | *e*PB | | **Pn** | **11 48 36.9** | **+0.7** |
| KU6 | | | | *e*SG | | **Sb** | **11 49 19.3** | **-0.1** |
| **BURU** | **Burvik** | **3.11** | **300** | Pb | | **Pb** | **11 48 41.0** | **-2.1** |
| **BURU** | **Burvik** | **3.11** | **300** | *e*PB | | **Pb** | **11 48 41.1** | **-2.1** |
| **UMAU** | **Umeaa** | **3.19** | **286** | Pb | | **Pb** | **11 48 42.3** | **-2.2** |
| UMAU | | | | Sb | | **Sb** | **11 49 24.1** | **+0.2** |
| **UMAU** | **Umeaa** | **3.19** | **286** | *e*PB | | **Pb** | **11 48 42.4** | **-2.2** |
| UMAU | | | | *e*SB | | **Sb** | **11 49 24.1** | **+0.2** |
| **TOF** | **Tornio** | **3.25** | **336** | Pg | | **Pb** | **11 48 44.7** | **-0.8** |
| TOF | | | | Sb | | **Sb** | **11 49 24.3** | **-1.3** |
| **TOF** | **Tornio** | **3.25** | **336** | *e*PG | | **Pb** | **11 48 44.8** | **-0.8** |
| TOF | | | | *e*SB | | **Sb** | **11 49 24.4** | **-1.3** |
| **KALU** | **Kalix** | **3.28** | **328** | Pg | | **Pb** | **11 48 44.7** | **-1.2** |
| **KALU** | **Kalix** | **3.28** | **328** | *e*PG | | **Pb** | **11 48 44.7** | **-1.2** |
| **RNF** | **Rovaniemi** | **3.53** | **349** | Sg | | **Sb** | **11 49 35.5** | **+2.0** |
| **RNF** | **Rovaniemi** | **3.53** | **349** | *e*SG | | **Sb** | **11 49 35.5** | **+2.0** |
| **ERTU** | **Ertsjaerv** | **4.12** | **328** | P | | **Pn** | **11 48 52.5** | **+1.4** |
| ERTU | | | | Sb | | **Sb** | **11 49 47.4** | **-3.1** |
| **ERTU** | **Ertsjaerv** | **4.12** | **328** | *e*P | | **Pn** | **11 48 52.5** | **+1.4** |
| ERTU | | | | *e*SB | | **Sb** | **11 49 47.4** | **-3.1** |
| **SGF** | **Sodankyl** | **4.32** | **354** | P | | **Pn** | **11 48 54.0** | **+0.2** |
| **SGF** | **Sodankyl** | **4.32** | **354** | *e*P | | **Pn** | **11 48 54.1** | **+0.2** |
| **APA0** | **Apatity Array** | **4.99** | **24** | Pn | | **Pn** | **11 49 06.4** | **+3.3** |
| | baz=191,slow=16 | | | | | | | |
| **APA0** | **Apatity Array** | **4.99** | **24** | Pn | | **Pn** | **11 49 06.4** | **+3.3** |
| | baz=191,slow=16 | | | | | | | |
| **APA0** | **Apatity Array** | **4.99** | **24** | Pn | | **Pn** | **11 49 06.4** | **+3.3** |
| | SNR=9.2 | | | | | | | |
| **ARA0** | **ARCESS Array S** | **6.46** | **353** | Pn | | **Pn** | **11 49 26.9** | **+3.7** |
| | baz=165,slow=16 | | | | | | | |
| ARA0 | | | | Sn | | **Sn** | **11 50 37.5** | **+0.1** |
| | baz=174,slow=28 | | | | | | | |
| ARA0 | | | | Lg | | Lg | 11 51 06.8 | |
| | baz=161,slow=37 | | | | | | | |
| **ARA0** | **ARCESS Array S** | **6.46** | **353** | Pn | | **Pn** | **11 49 26.9** | **+3.7** |
| | baz=165,slow=16 | | | | | | | |
| ARA0 | | | | Sn | | **Sn** | **11 50 37.5** | **+0.1** |
| | baz=174,slow=28 | | | | | | | |
| ARA0 | | | | Lg | | Lg | 11 51 06.8 | |
| | baz=161,slow=37 | | | | | | | |
| **ARA0** | **ARCESS Array S** | **6.46** | **353** | Sn | | **Sn** | **11 50 37.5** | **+0.1** |
| | baz=174,slow=23,SNR=9.7 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **6.46** | **353** | Pn | | **Pn** | **11 49 26.9** | **+3.7** |
| | comp=Z,0.1nm,0.3s,baz=167,slow=14,SNR=20 | | | | | | | |
| ARCES | | | | Sn | | **Sn** | **11 50 35.5** | **-1.9** |
| | comp=Z,0.3nm,0.3s,baz=172,slow=22,SNR=6.6 | | | | | | | |
| ARCES | | | | Lg | | Lg | 11 51 08.3 | |
| | comp=Z,0.4nm,0.3s,baz=170,slow=28,SNR=4.1 | | | | | | | |
| **HFS** | **Hagfors** | **7.29** | **252** | Pn | | **Pn** | **11 49 37.4** | **+2.8** |
| | baz=64,slow=14 | | | | | | | |
| HFS | | | | Sn | | **Sn** | **11 50 58.6** | **+0.6** |
| | baz=63,slow=28 | | | | | | | |
| **HFS** | **Hagfors** | **7.29** | **252** | Pn | | **Pn** | **11 49 37.8** | **+3.1** |
| | comp=Z,0.4nm,0.3s,baz=68,slow=13,SNR=7.4 | | | | | | | |
| HFS | | | | Sn | | **Sn** | **11 50 56.7** | **-1.3** |
| | comp=Z,0.2nm,0.3s,baz=72,slow=24,SNR=2.9 | | | | | | | |
| **HFS** | **Hagfors** | **7.29** | **252** | Pn | | **Pn** | **11 49 37.4** | **+2.8** |
| | baz=64,slow=14 | | | | | | | |
| HFS | | | | Sn | | **Sn** | **11 50 58.6** | **+0.6** |
| | baz=63,slow=28 | | | | | | | |
| **HFS** | **Hagfors** | **7.29** | **252** | Sn | | **Sn** | **11 50 58.6** | **+0.6** |
| | baz=63,slow=26 | | | | | | | |
| **NB2** | **NORSAR Subarra** | **7.98** | **262** | Pn | | **Pn** | **11 49 47.4** | **+3.2** |
| | baz=69,slow=12 | | | | | | | |
| **NB2** | **NORSAR Subarra** | **7.98** | **262** | Pn | | **Pn** | **11 49 47.4** | **+3.2** |
| | baz=69,slow=12 | | | | | | | |
| **NOA** | **NORSAR Array B** | **7.98** | **262** | Pn | | **Pn** | **11 49 46.5** | **+2.4** |
| | comp=Z,0.2nm,0.3s,baz=69,slow=17,SNR=2.6 | | | | | | | |
| NOA | | | | Sn | | **Sn** | **11 51 12.1** | **-2.9** |
| | comp=Z,0.1nm,0.3s,baz=52,slow=22,SNR=2.4 | | | | | | | |

*SJA **14** 11:47:52.4±0.7, 32°.58S×71°.83W, h14km±11km, ML2.6, MW3.5*
*GUC **14** 11:47:53.8±0.6, 32°.49S×71°.62W, h35km±999km, ML2.6*
**ISC 14 11:47:50.9±3.5, 32°50S±0°.06×71°8W±0°.2, h14km±11km, n13, σ0°53/20, 2C-1D, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **ROC1** | **El Roble** | **0.79** | **127** | *i* P | | **Pn** | **11 48 08.0** | **+0.1** |
| ROC1 | | | | *i* S | | **Sn** | **11 48 19.5** | **-0.1** |
| **ROCH** | **El Roble** | **0.80** | **127** | *i* P | | **Pn** | **11 48 08.1** | **+0.2** |
| ROCH | | | | *i* S | | **Sn** | **11 48 18.5** | **-1.1** |
| **PEL** | **Peldehue** | **1.12** | **126** | *i* P | | **Pg** | **11 48 13.1** | **+0.6** |
| PEL | | | | *i* S | | **Sn** | **11 48 27.7** | **+0.4** |
| PEL | | | | IAML | | | 11 48 31.4 | |
| | comp=E,350nm,0.2s | | | | | | | |
| **RCDM** | **Rinconada Maip** | **1.28** | **141** | *e*P | | **Pg** | **11 48 15.2** | **-0.3** |
| RCDM | | | | *e*S | | **Sg** | **11 48 32.4** | **+0.2** |
| **CLCH** | **Cerro Calan** | **1.37** | **131** | *i* P | | **Pg** | **11 48 17.3** | **0.0** |
| CLCH | | | | *i* S | | **Sg** | **11 48 34.8** | **-0.3** |
| CLCH | | | | IAML | | | 11 48 38.0 | |
| | comp=E,203nm,0.5s | | | | | | | |
| **ANTU** | **Antumapu** | **1.43** | **139** | *i* S | | **Sg** | **11 48 36.6** | **-0.6** |
| ANTU | | | | IAML | | | 11 48 41.7 | |
| | comp=N,212nm,0.5s | | | | | | | |
| **FCH** | **Farellones** | **1.49** | **124** | *e*P | | **Pg** | **11 48 19.5** | **-0.1** |
| FCH | | | | *i* S | | **Sg** | **11 48 38.9** | **-0.2** |
| FCH | | | | IAML | | | 11 48 41.3 | |
| | comp=E,175nm,0.3s | | | | | | | |
| **AUSP** | **Uspallata** | **2.03** | **83** | *i* P | | **Pg** | **11 48 29.6** | **-0.3** |
| **RTLS** | **Leoncito** | **2.21** | **72** | *i* P | | **Pg** | **11 48 32.6** | **-0.7** |
| RTLS | | | | *i* S | | **Sg** | **11 49 02.6** | **+0.7** |
| RTLS | | | | IAML | | | 11 49 09.7 | |
| | comp=Z,26nm,0.6s | | | | | | | |
| **ARCO** | **CERRO ARCO** | **2.42** | **99** | *i* P | | **Pb** | **11 48 34.8** | **+0.6** |
| ARCO | | | | IAML | | | 11 49 15.7 | |
| | comp=Z,45nm,0.5s | | | | | | | |
| **ASAL** | **Salagasta** | **2.48** | **93** | *i* P | | **Pb** | **11 48 36.0** | **+0.7** |
| **AAGR** | **Agrelo** | **2.54** | **104** | *i* P | | **Pb** | **11 48 36.1** | **-0.3** |
| **RTCV** | **Cerro Valdivia** | **2.81** | **78** | *i* P | | **Pb** | **11 48 40.8** | **0.0** |

*IDC **14** 11:48:00.5±1.8, 30°.53S×177°.53W, h0km, mb4.1/4, mb1 4.2/5, mb1mx3.9/26, mbtmp4.1/5, ML3.1/1, Error ellipse: s-maj=43.5km s-min=25.9km az=114.0*
*

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AFI** | **Afiamalu** | **7.61** | **65** | P | P | 12 00 57.4 | -0.1 |
| | 1.7nm,0.3s,baz=254,slow=7.4,SNR=4.2 | | | | | | |
| **STKA** | **Stephens Creek** | **38.55** | **240** | P | P | 12 05 43.3 | 0.0 |
| | 1.5nm,0.6s,baz=90,slow=9.2,SNR=6.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.32** | **259** | P | P | 12 06 28.8 | -0.5 |
| | 0.6nm,0.6s,baz=95,slow=7.9,SNR=11 | | | | | | |
| **ASAR** | **Alice Springs** | **44.54** | **254** | P | P | 12 06 31.1 | +0.2 |
| | 3.8nm,0.6s,baz=88,slow=8.2,SNR=54 | | | | | | |
| ASAR | | | | PcP | PcP | 12 08 03.0 | -0.3 |
| | 0.6nm,0.9s,baz=108,slow=4.1,SNR=2.9 | | | | | | |

*NEIC* ***14*** *12:02:10.5±0.0,34.92S×172.51E,h445km,MG4.2(WEL), After WEL.*

**WEL 14 12:03:17.5±0.4,39.12S×174.77E,h114km±10km, ML3.0/16,1C,Error ellipse: s-maj=8.0km s-min=3.7km az=90.0,North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BHHZ** | **Black Hill Sta** | **1.07** | **111** | Pn | Pn | 12 03 39.4 | -0.5 |
| **BHHZ** | **Black Hill Sta** | **1.07** | **111** | PN | Pn | 12 03 39.4 | -0.5 |
| **OHWZ** | **Ohakea** | **1.16** | **159** | *e*PN | Pn | 12 03 42.1 | +1.4 |
| **TSZ** | **Takapari Road** | **1.32** | **136** | Pn | Pn | 12 03 42.6 | +0.2 |
| **TSZ** | **Takapari Road** | **1.32** | **136** | ⇑PN | Pn | 12 03 42.6 | +0.2 |
| TSZ | | | | SN | Sn | 12 04 01.3 | -0.1 |
| **KWHZ** | **Kaweka Forest** | **1.32** | **104** | *e*PN | Pn | 12 03 42.2 | -0.4 |
| KWHZ | | | | *e*SN | Sn | 12 04 01.6 | +0.1 |
| **BKZ** | **Black Stump Fm** | **1.34** | **92** | Pn | Pn | 12 03 39.7 | -3.1 |
| **KRHZ** | **Kereru** | **1.35** | **113** | PN | Pn | 12 03 42.7 | -0.1 |
| KRHZ | | | | SN | Sn | 12 04 01.6 | -0.4 |
| **PNHZ** | **Pukenui** | **1.36** | **126** | Pn | Pn | 12 03 43.1 | +0.1 |
| **PNHZ** | **Pukenui** | **1.36** | **126** | PN | Pn | 12 03 43.1 | +0.1 |
| PNHZ | | | | SN | Sn | 12 04 02.0 | -0.4 |
| **WPHZ** | **Waipukurau** | **1.60** | **127** | SN | Sn | 12 04 06.2 | -1.1 |
| WPHZ | | | | AML | AML | 12 04 25.0 | |
| **MRZ** | **Mangatainoka R** | **1.66** | **158** | Pn | Pn | 12 03 46.2 | -0.2 |
| **MRZ** | **Mangatainoka R** | **1.66** | **158** | PN | Pn | 12 03 46.2 | -0.2 |
| MRZ | | | | SN | Sn | 12 04 07.0 | -1.5 |
| **PRWZ** | **Pori Road** | **1.71** | **147** | AML | AML | 12 04 10.1 | |
| **OGWZ** | **Otaki Gorge** | **1.72** | **170** | Pn | Pn | 12 03 47.4 | +0.2 |
| **OGWZ** | **Otaki Gorge** | **1.72** | **170** | PN | Pn | 12 03 47.4 | +0.2 |
| OGWZ | | | | AML | AML | 12 04 11.4 | |
| OGWZ | | | | AML | AML | 12 04 11.5 | |
| **KIW** | **Kapiti Island** | **1.74** | **176** | Pn | Pn | 12 03 47.6 | +0.1 |
| **KIW** | **Kapiti Island** | **1.74** | **176** | PN | Pn | 12 03 47.6 | +0.1 |
| **TIWZ** | **Tintock** | **1.86** | **153** | Pn | Pn | 12 03 48.3 | -0.7 |
| **TIWZ** | **Tintock** | **1.86** | **153** | *e*PN | Pn | 12 03 47.9 | -1.1 |
| **HOWZ** | **Holdsworth Sta** | **1.87** | **162** | Pn | Pn | 12 03 48.5 | -0.5 |
| **HOWZ** | **Holdsworth Sta** | **1.87** | **162** | PN | Pn | 12 03 48.5 | -0.5 |
| **ANWZ** | **Angora Road** | **1.88** | **136** | PN | Pn | 12 03 48.5 | -0.6 |
| ANWZ | | | | SN | Sn | 12 04 11.7 | -1.6 |
| **BFZ** | **Birch Farm** | **1.93** | **144** | Pn | Pn | 12 03 48.9 | -0.9 |
| **CAW** | **Cannon Point** | **2.00** | **173** | Pn | Pn | 12 03 50.2 | -0.4 |
| **CAW** | **Cannon Point** | **2.00** | **173** | PN | Pn | 12 03 50.2 | -0.4 |
| **URZ** | **Urewera** | **2.03** | **66** | Pn | Pn | 12 03 34.5 | -16 |
| **TCW** | **Tory Channel** | **2.12** | **190** | AML | AML | 12 04 18.5 | |
| **MSWZ** | **Moikau Station** | **2.32** | **171** | PN | Pn | 12 03 53.5 | -1.2 |
| **PLWZ** | **Palliser** | **2.48** | **171** | PN | Pn | 12 03 55.1 | -1.7 |

**IDC 14 12:08:58.1±3.5,6.19S×148.79E,h71km±23km,mb3.5/2, mb1 3.9/4,mb1mx3.4/37,mbtmp4.0/4,Error ellipse: s-maj=86.2km s-min=22.5km az=113.0,New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **3.58** | **207** | P | Pn | 12 09 51.6 | +0.3 |
| | 16nm,0.3s,baz=20,slow=5.0,SNR=53 | | | | | | |
| PMG | | | | S | Sn | 12 10 33.3 | +0.9 |
| | 26nm,0.3s,baz=185,slow=22,SNR=17 | | | | | | |
| **WRA** | **Warramunga Arr** | **19.60** | **224** | P | P | 12 13 20.7 | -0.1 |
| | 0.8nm,0.3s,baz=52,slow=11,SNR=52 | | | | | | |
| **ASAR** | **Alice Springs** | **22.52** | **218** | P | P | 12 13 51.7 | -0.5 |
| | 1.0nm,0.5s,baz=52,slow=9.3,SNR=28 | | | | | | |
| ASAR | | | | S | S | 12 17 55.6 | +1.1 |
| | 0.7nm,0.9s,baz=32,slow=22,SNR=4.6 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **25.50** | **240** | P | P | 12 14 19.5 | -0.6 |
| | 1.4nm,0.4s,baz=55,slow=9.9,SNR=13 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **146.86** | **285** | PKPbc | PKPbc | 12 28 33.3 | -0.2 |
| | 0.1nm,0.3s,baz=90,slow=2.9,SNR=4.6 | | | | | | |

**IDC 14 12:20:40.2±1.7,6.36S×129.49E,h0km,mb3.9/2, mb1 4.1/5,mb1mx3.7/37,mbtmp3.9/5,ML3.8/3,Error ellipse: s-maj=89.2km s-min=24.8km az=77.0,Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **12.26** | **198** | Pn | Pn | 12 23 37.5 | +1.3 |
| | 0.4nm,0.3s,baz=32,slow=12,SNR=25 | | | | | | |
| FITZ | | | | Sn | Sn | 12 25 43.4 | -10 |
| | 1.4nm,0.3s,baz=279,slow=23,SNR=3.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **14.30** | **161** | Pn | Pn | 12 24 03.1 | -1.0 |
| | 0.3nm,0.3s,baz=341,slow=12,SNR=17 | | | | | | |
| WRA | | | | Sn | Sn | 12 26 28.5 | -15 |
| | 1.7nm,0.3s,baz=327,slow=24,SNR=13 | | | | | | |
| **ASAR** | **Alice Springs** | **17.72** | **167** | P | Pn | 12 24 48.1 | -0.4 |
| | 0.7nm,0.3s,baz=343,slow=9.0,SNR=109 | | | | | | |
| ASAR | | | | S | Sn | 12 27 51.8 | -15 |
| | 0.3nm,0.3s,baz=353,slow=28,SNR=6.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.42** | **327** | P | P | 12 31 38.3 | +0.7 |
| | 0.5nm,0.3s,baz=118,slow=8.1,SNR=13 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **70.79** | **334** | P | P | 12 31 57.6 | -0.8 |
| | 0.6nm,0.5s,baz=122,slow=6.7,SNR=3.0 | | | | | | |

**IDC 14 12:23:50.2±28.0,21.36S×173.54W,h0km,mb4.1/4, mb1 4.2/4,mb1mx3.8/29,mbtmp4.1/4,MS4.5/3,Ms1 4.5/3, ms1mx3.5/26,Error ellipse: s-maj=514.9km s-min=163.4km az=76.0,Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CTA** | **Charters Tower** | **37.55** | **265** | P | P | 12 31 07.2 | +0.7 |
| | 2.6nm,0.3s,baz=94,slow=11,SNR=6.3 | | | | | | |
| CTA | | | | LR | LR | 12 44 49.6 | |
| | comp=Z,1μm,18.4s,baz=36,slow=34 | | | | | | |
| **STKA** | **Stephens Creek** | **41.20** | **246** | P | P | 12 31 36.0 | -0.8 |
| | 1.3nm,0.6s,baz=104,slow=12,SNR=3.1 | | | | | | |
| **ASAR** | **Alice Springs** | **48.38** | **257** | P | P | 12 32 34.0 | -0.3 |
| | 0.8nm,0.5s,baz=98,slow=7.4,SNR=10 | | | | | | |
| ASAR | | | | LR | LR | 12 52 04.8 | |
| | comp=Z,566nm,19.1s,baz=44,slow=35 | | | | | | |
| **WRA** | **Warramunga Arr** | **48.61** | **262** | P | P | 12 32 35.9 | -0.2 |
| | 0.8nm,0.5s,baz=96,slow=8.4,SNR=28 | | | | | | |
| **PETK** | **Petropavlovsk-** | **78.25** | **343** | LR | LR | 13 13 27.2 | |
| | comp=Z,106nm,18.4s,baz=193,slow=38 | | | | | | |

**WEL 14 12:35:01.6±0.1,43.58S×172.32E,h5km,ML3.5/15,4C-2D, Error ellipse: s-maj=0.7km s-min=0.6km az=90.0,South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.22** | **89** | ⇓PG | Pg | 12 35 06.2 | +0.3 |
| CRLZ | | | | SG | Sg | 12 35 09.6 | +0.7 |
| CRLZ | | | | AML | AML | 12 35 10.1 | |
| **MQZ** | **McQueen's Vall** | **0.28** | **117** | ⇓PG | Pg | 12 35 07.0 | +0.1 |
| MQZ | | | | SG | Sg | 12 35 11.0 | +0.4 |
| MQZ | | | | AML | AML | 12 35 12.1 | |
| **OXZ** | **Oxford** | **0.32** | **321** | PG | Pg | 12 35 07.7 | -0.2 |
| OXZ | | | | SG | Sg | 12 35 12.5 | +0.2 |
| OXZ | | | | AML | AML | 12 35 12.5 | |
| OXZ | | | | AML | AML | 12 35 12.5 | |
| OXZ | | | | AML | AML | 12 35 12.6 | |
| **LTZ** | **Lake Taylor** | **0.80** | **358** | ⇑P* | Pg | 12 35 17.1 | +0.2 |
| LTZ | | | | S* | Sg | 12 35 27.9 | +0.7 |
| LTZ | | | | AML | AML | 12 35 29.1 | |
| **RPZ** | **Rata Peaks** | **0.93** | **261** | ⇑P* | Pg | 12 35 19.3 | 0.0 |
| RPZ | | | | AML | AML | 12 35 33.7 | |
| RPZ | | | | AML | AML | 12 35 34.0 | |
| **INZ** | **Inchbonnie** | **1.07** | **323** | P* | Pg | 12 35 21.5 | -0.5 |
| **WVZ** | **Waitaha Valley** | **1.26** | **293** | P* | Pg | 12 35 25.3 | -0.4 |
| WVZ | | | | AML | AML | 12 35 44.3 | |
| WVZ | | | | AML | AML | 12 35 45.8 | |
| **KHZ** | **Kahutara** | **1.47** | **38** | ⇑PN | Pn | 12 35 26.8 | -1.9 |
| **LBZ** | **Lake Benmore** | **1.74** | **242** | PN | Pn | 12 35 31.1 | -1.3 |
| LBZ | | | | AML | AML | 12 36 04.3 | |
| LBZ | | | | AML | AML | 12 38 02.1 | |
| **FOZ** | **Fox Glacier** | **1.82** | **271** | PN | Pn | 12 35 33.4 | 0.0 |
| FOZ | | | | AML | AML | 12 35 57.1 | |
| FOZ | | | | AML | AML | 12 36 08.8 | |
| **THZ** | **Tophouse** | **1.87** | **14** | ⇑PN | Pn | 12 35 32.4 | -1.8 |
| THZ | | | | AML | AML | 12 36 09.9 | |
| THZ | | | | AML | AML | 12 36 16.8 | |
| **DSZ** | **Denniston Nort** | **1.87** | **348** | PN | Pn | 12 35 33.6 | -0.7 |
| DSZ | | | | AML | AML | 12 36 04.7 | |
| DSZ | | | | AML | AML | 12 36 04.7 | |
| DSZ | | | | AML | AML | 12 36 04.7 | |
| DSZ | | | | AML | AML | 12 36 37.1 | |
| **ODZ** | **Otahua Downs** | **1.89** | **219** | PN | Pn | 12 35 32.9 | -1.7 |
| ODZ | | | | AML | AML | 12 36 09.1 | |
| ODZ | | | | AML | AML | 12 36 09.8 | |
| ODZ | | | | AML | AML | 12 36 09.8 | |
| ODZ | | | | AML | AML | 12 36 12.6 | |
| **BSWZ** | **Blackbirch Sta** | **2.19** | **32** | PN | Pn | 12 35 37.2 | -1.4 |
| **NNZ** | **Nelson** | **2.49** | **19** | PN | Pn | 12 35 41.7 | -0.9 |
| **WKZ** | **Wanaka** | **2.68** | **241** | PN | Pn | 12 35 43.9 | -1.5 |
| WKZ | | | | AML | AML | 12 36 32.4 | |
| **EAZ** | **Earnscleugh** | **2.71** | **231** | PN | Pn | 12 35 44.1 | -1.7 |
| EAZ | | | | AML | AML | 12 36 32.1 | |
| EAZ | | | | AML | AML | 12 36 37.4 | |
| **DUWZ** | **D'Urville Isla** | **3.02** | **24** | AML | AML | 12 36 48.9 | |
| **TUZ** | **Tuapeka** | **3.05** | **218** | PN | Pn | 12 35 48.7 | -1.7 |
| TUZ | | | | AML | AML | 12 36 44.9 | |
| TUZ | | | | AML | AML | 12 36 53.1 | |
| **CAW** | **Cannon Point** | **3.20** | **40** | PN | Pn | 12 35 49.9 | -2.7 |
| **MLZ** | **Mavora Lakes** | **3.50** | **238** | PN | Pn | 12 35 54.9 | -1.7 |
| **MRZ** | **Mangatainoka R** | **3.79** | **41** | PN | Pn | 12 35 57.9 | -2.7 |
| **WHZ** | **Wether Hill Ro** | **3.88** | **232** | PN | Pn | 12 35 59.3 | -2.5 |
| **APZ** | **The Paps** | **4.46** | **222** | PN | Pn | 12 36 07.9 | -2.0 |

*IDC* ***14*** *12:35:24.3±0.7,5.68S×151.58E,h0km,mb4.5/13, mb1 4.6/16,mb1mx4.4/36,mbtmp4.5/16,ML3.2/2,MS4.0/13, Ms1 4.0/13,ms1mx3.8/27,Error ellipse: s-maj=20.5km s-min=13.2km az=115.0*

*ISCJB* ***14*** *12:35:28.7±0.3,5.84S±0.04×151.62E±0.05,h35km, mb4.7/39,MS4.0/15,Error ellipse: s-maj=7.9km s-min=4.7km az=30.7*

*BJI* ***14*** *12:35:30.4,5.40S×151.67E,h25km,mb4.6/19,mB5.1/16, Ms4.9/8,Ms7 4.7/8*

*NEIC* ***14*** *12:35:31.1±0.7,5.77S×151.55E,h44km±6km,mb4.7/19, Error ellipse: s-maj=7.5km s-min=4.6km az=126.0*

**ISC 14 12:35:30.9±0.4,5.86S±0.05×151.68E±0.06,h35km,n83, σ1s64/85,mb4.8/39,MS4.2/15,New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RABL** | **Rabaul** | **1.73** | **16** | *e*Pn | **Pn** | **12 35 58.9** | **+0.3** |
| **PMG** | **Port Moresby** | **5.70** | **232** | Pn | **Pn** | **12 36 52.4** | **-0.8** |
| | 14nm,0.3s,baz=44,slow=8.7,SNR=85 | | | | | | |
| PMG | | | | Sn | **Sn** | **12 37 57.9** | **+0.5** |
| | 31nm,0.3s,baz=123,slow=19,SNR=7.9 | | | | | | |
| **PMG** | **Port Moresby** | **5.70** | **232** | *e*Pn | **Pn** | **12 36 53.5** | **+0.3** |
| PMG | | | | *e*Sn | **Sn** | **12 37 56.7** | **-0.8** |
| **HNR** | **Honiara** | **8.92** | **114** | P | **Pn** | **12 37 35.0** | **-2.5** |
| **HNR** | **Honiara** | **8.92** | **114** | Pn | **Pn** | **12 37 38.1** | **+0.6** |
| | 8.5nm,0.3s,baz=187,slow=5.6,SNR=9.6 | | | | | | |
| HNR | | | | LR | LR | 12 40 46.6 | |
| | comp=Z,1μm,20.8s,baz=286,slow=35 | | | | | | |
| **HNR** | **Honiara** | **8.92** | **114** | *e*Pn | **Pn** | **12 37 39.9** | **+2.4** |
| **COEN** | **Coen** | **11.61** | **226** | *e*Pn | **Pn** | **12 38 14.6** | **+0.2** |
| **MTSU** | **Mount Surprise** | **14.16** | **210** | P | **Pn** | **12 38 48.3** | **-0.9** |
| | baz=14,SNR=8.1 | | | | | | |
| **PATS** | **Pohnpei** | **14.24** | **28** | *e*Pn | **Pn** | **12 38 48.7** | **-1.5** |
| **CTA** | **Charters Tower** | **15.10** | **200** | Pn | **Pn** | **12 39 02.3** | **+0.5** |
| | 0.2nm,0.3s,baz=23,slow=13,SNR=2.5 | | | | | | |
| **QIS** | **Mount Isa** | **18.73** | **218** | P | **P** | **12 39 47.1** | **+0.2** |
| | baz=19,SNR=6.3 | | | | | | |
| **EIDS** | **Eidsvold** | **19.41** | **182** | P | **P** | **12 39 54.0** | **-0.1** |
| | baz=20,SNR=5.4 | | | | | | |
| **EIDS** | **Eidsvold** | **19.41** | **182** | *e*P | **P** | **12 39 53.3** | **-0.8** |
| | 55nm,1.6s | | | | | | |
| **KDU** | **Kakadu** | **20.13** | **249** | P | **P** | **12 40 02.6** | **+0.5** |
| | baz=20,SNR=4.5 | | | | | | |
| **GUMO** | **Guam** | **20.48** | **341** | LR | LR | 12 46 14.4 | |
| | comp=Z,329nm,21.9s,baz=108,slow=32 | | | | | | |
| **RMQ** | **Roma** | **20.70** | **187** | P | **P** | **12 40 08.2** | **-0.1** |
| | baz=21,SNR=24 | | | | | | |
| **MTN** | **Manton Dam** | **21.42** | **250** | P | **P** | **12 40 15.2** | **-0.9** |
| | baz=22,SNR=8.6 | | | | | | |
| **MTN** | **Manton Dam** | **21.42** | **250** | *e*P | **P** | **12 40 15.0** | **-1.1** |
| | 33nm,1.0s | | | | | | |
| **DZM** | **Mont Dzumac** | **21.52** | **140** | P | **P** | **12 40 17.2** | **0.0** |
| | 6.3nm,0.6s,baz=304,slow=11,SNR=9.8 | | | | | | |
| DZM | | | | LR | LR | 12 45 51.5 | |
| | comp=Z,114nm,20.5s,baz=301,slow=29 | | | | | | |
| **DZM** | **Mont Dzumac** | **21.52** | **140** | *e*P | **P** | **12 40 17.7** | **+0.5** |
| | 35nm,1.4s | | | | | | |
| **QLP** | **Quilpie** | **21.80** | **198** | P | **P** | **12 40 20.0** | **-0.1** |
| | baz=22,SNR=29 | | | | | | |
| **WRAB** | **Tennant Creek** | **21.90** | **229** | *e*P | **P** | **12 40 20.4** | **-0.8** |
| | 20nm,0.7s | | | | | | |
| **WB2** | **Warramunga Arr** | **21.91** | **229** | *e*P | **P** | **12 40 20.5** | **-0.8** |
| **WRA** | **Warramunga Arr** | **21.91** | **229** | P | **P** | **12 40 19.2** | **-2.1** |
| | 7.7nm,0.5s,baz=55,slow=10,SNR=80 | | | | | | |
| WRA | | | | S | **S** | **12 44 18.8** | **-2.9** |
| | 3.2nm,1.1s,baz=58,slow=17,SNR=4.7 | | | | | | |
| WRA | | | | ScP | **ScP** | **12 47 58.4** | **+3.6** |
| | 1.6nm,0.9s,baz=40,slow=2.8,SNR=4.8 | | | | | | |
| WRA | | | | LR | LR | 12 49 35.6 | |
| | comp=Z,333nm,19.1s,baz=55,slow=39 | | | | | | |
| **ARMA** | **Armidale** | **24.43** | **180** | *e*P | **P** | **12 40 47.5** | **+0.9** |
| | 28nm,1.3s | | | | | | |
| **KNRA** | **Kununurra** | **24.51** | **245** | P | **P** | **12 40 47.8** | **+0.5** |
| | baz=25,SNR=14 | | | | | | |
| **AS01** | **Alice Springs** | **24.59** | **222** | *e*P | **P** | **12 40 47.5** | **-0.5** |
| **AS31** | **Alice Springs** | **24.62** | **222** | *e*P | **P** | **12 40 47.6** | **-0.6** |
| | 8.9nm,0.9s | | | | | | |
| **ASAR** | **Alice Springs** | **24.62** | **222** | P | **P** | **12 40 47.6** | **-0.7** |
| | 34nm,0.9s,baz=56,slow=9.0,SNR=152 | | | | | | |
| ASAR | | | | S | **S** | **12 45 11.3** | **+3.9** |
| | 0.9nm,1.0s,baz=40,slow=20,SNR=3.3 | | | | | | |
| **CMSA** | **Cobar Meteorol** | **26.15** | **192** | P | **P** | **12 41 01.9** | **-0.1** |
| | baz=26,SNR=14 | | | | | | |
| **SOEI** | **Soe** | **27.43** | **260** | *e*P | **P** | **12 41 13.6** | **-0.3** |
| | 57nm,1.1s | | | | | | |
| **STKA** | **Stephens Creek** | **27.55** | **199** | P | **P** | **12 41 14.4** | **-0.2** |
| | 18nm,1.0s,baz=31,slow=12,SNR=3.0 | | | | | | |
| STKA | | | | LR | LR | 12 51 36.7 | |
| | comp=Z,415nm,21.1s,baz=20,slow=35 | | | | | | |
| **STKA** | **Stephens Creek** | **27.55** | **199** | P | **P** | **12 41 14.0** | **-0.6** |
| | 28nm,SNR=9.0 | | | | | | |
| **STKA** | **Stephens Creek** | **27.55** | **199** | *e*P | **P** | **12 41 14.5** | **-0.2** |
| | 5.2nm,1.0s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **28.18** | **242** | P | **P** | **12 41 19.0** | **-1.4** |
| | 6.2nm,0.3s,baz=59,slow=7.3,SNR=41 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **28.18** | **242** | P | **P** | **12 41 19.0** | **-1.4** |
| | baz=28,SNR=61 | | | | | | |
| **MSVF** | **Nonsavu** | **28.33** | **117** | *e*P | **P** | **12 41 21.8** | **0.0** |
| | 48nm,1.6s | | | | | | |
| **DAV** | **Davao City (W)** | **29.04** | **296** | LR | LR | 12 52 34.5 | |
| | comp=Z,319nm,18.9s,baz=122,slow=36 | | | | | | |
| **MMRI** | **Maumere** | **29.34** | **263** | *e*P | **P** | **12 41 28.8** | **-1.9** |
| | 99nm,1.3s | | | | | | |
| **WRKA** | **Warakurna** | **29.43** | **227** | P | **P** | **12 41 30.6** | **-0.9** |
| | baz=30,SNR=12 | | | | | | |
| **ARPS** | **Mount Arapiles** | **32.06** | **195** | P | **P** | **12 41 55.1** | **+0.6** |
| | baz=32,SNR=5.2 | | | | | | |
| **FORT** | **Forrest** | **33.27** | **219** | *e*P | **P** | **12 42 03.3** | **-1.8** |
| | 386nm,1.0s | | | | | | |
| **MBWA** | **Marble Bar** | **34.48** | **241** | *e*P | **P** | **12 42 13.8** | **-2.1** |
| | 18nm,0.7s | | | | | | |
| **JAGI** | **Jagaj, Banyuwa** | **37.32** | **264** | *e*P | P | 12 42 37.2 | -3.1 |
| | 31nm,0.9s | | | | | | |
| **URZ** | **Urewera** | **39.66** | **148** | LR | LR | 12 58 13.3 | |
| | comp=Z,341nm,18.2s,baz=7.0,slow=34 | | | | | | |
| **GIRL** | **Giralia** | **39.78** | **241** | P | **P** | **12 43 01.9** | **+1.0** |
| | baz=40,SNR=3.9 | | | | | | |
| **NJ2** | **Nanjing** | **48.98** | **322** | *e*P | **P** | **12 44 14.6** | **+0.4** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,12nm,0.5s | | | | | | |
| **RAR** | **Rarotonga** | **49.38** | **113** | LR | LR | 13 01 24.9 | |
| | comp=Z,57nm,21.9s,baz=278,slow=32 | | | | | | |
| **KMI** | **Kunming** | **56.67** | **305** | P | **P** | **12 45 13.3** | **+1.8** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,15nm,0.7s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=N,210nm,17.1s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=E,180nm,19.9s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,220nm,21.0s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **57.33** | **296** | LR | LR | 13 10 04.1 | |
| | comp=Z,55nm,18.5s,baz=130,slow=36 | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **59.27** | **325** | *e*P | **P** | **12 45 32.1** | **+2.9** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,12nm,1.2s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,120nm,6.3s | | | | | | |
| **LZH** | **Lanzhou** | **61.23** | **317** | *e*P | **P** | **12 45 43.1** | **+0.3** |
| LZH | | | | pP | pP | 12 45 53.1 | -0.4 |
| LZH | | | | sP | sP | 12 45 57.0 | -0.6 |
| LZH | | | | S | **S** | **12 53 58.0** | **-2.6** |
| LZH | | | | sS | pS | 12 54 15.0 | +1.5 |
| LZH | | | | SS | **SS** | **12 57 58.1** | **-3.3** |
| LZH | | | | pmax | pmax | | |
| | comp=Z,20nm,1.0s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,170nm,7.6s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=N,250nm,15.7s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=E,200nm,15.7s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,280nm,16.6s | | | | | | |
| **GTA** | **Gaotai** | **65.69** | **318** | *e*P | **P** | **12 46 13.1** | **+0.9** |
| GTA | | | | pP | pP | 12 46 23.1 | +0.1 |
| GTA | | | | sP | sP | 12 46 27.4 | +0.3 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | |
| **SONM** | **Songino Array** | **66.64** | **329** | P | **P** | **12 46 16.4** | **-1.8** |
| | 1.9nm,0.9s,baz=123,slow=3.9,SNR=8.6 | | | | | | |
| SONM | | | | LR | LR | 13 15 27.7 | |
| | comp=Z,182nm,19.5s,baz=154,slow=36 | | | | | | |
| **SONA1** | **Songino Array** | **66.64** | **329** | *e*P | **P** | **12 46 17.1** | **-1.0** |
| **VNDA** | **Vanda** | **71.82** | **178** | P | **P** | **12 46 49.4** | **-0.2** |
| | 5.9nm,0.8s,baz=322,slow=6.0,SNR=17 | | | | | | |
| **VNDA** | **Vanda** | **71.82** | **178** | *e*P | **P** | **12 46 51.0** | **+1.4** |
| | 9.4nm,1.0s | | | | | | |
| **WMQ** | **Urumqi** | **75.77** | **318** | P | **P** | **12 47 13.0** | **-0.4** |
| WMQ | | | | pP | pP | 12 47 23.8 | -0.6 |
| WMQ | | | | sP | PcP | 12 47 28.0 | +2.0 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,24nm,0.7s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,360nm,6.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,130nm,18.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,69nm,18.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,240nm,22.7s | | | | | | |
| **MK01** | **Makanchi Array** | **80.38** | **319** | *e*P | **P** | **12 47 37.6** | **-1.3** |
| **MKAR** | **Makanchi Array** | **80.39** | **319** | P | **P** | **12 47 37.4** | **-1.6** |
| | 1.2nm,0.9s,baz=96,slow=7.4,SNR=5.8 | | | | | | |
| MKAR | | | | LR | LR | 13 21 39.6 | |
| | comp=Z,111nm,21.1s,baz=96,slow=35 | | | | | | |
| **CAST** | **Castle Rocks** | **80.90** | **22** | *e*P | **P** | **12 47 40.8** | **-0.5** |
| | 32nm,1.8s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **81.42** | **327** | P | P | 12 47 40.8 | -3.4 |
| | 1.2nm,0.4s,baz=121,slow=5.3,SNR=9.8 | | | | | | |
| ZALV | | | | LR | LR | 13 23 12.6 | |
| | comp=Z,154nm,20.5s,baz=70,slow=35 | | | | | | |
| **IMAR** | **Indian Mountai** | **81.75** | **20** | *e*P | **P** | **12 47 45.3** | **-0.4** |
| **RND** | **Reindeer** | **82.13** | **23** | *e*P | **P** | **12 47 47.5** | **-0.4** |
| | 9.8nm,0.9s | | | | | | |
| **MCK** | **McKinley** | **82.26** | **23** | *e*P | **P** | **12 47 48.1** | **-0.4** |
| | 17nm,1.0s | | | | | | |
| **MLY** | **Manley** | **82.27** | **21** | *e*P | **P** | **12 47 48.5** | **-0.1** |
| | 5.8nm,1.0s | | | | | | |
| **KSH** | **Kashi** | **82.78** | **311** | P | **P** | **12 47 54.6** | **+2.7** |
| KSH | | | | pP | pP | 12 48 05.1 | +2.2 |
| KSH | | | | PP | **PP** | **12 51 07.8** | **+5.4** |
| KSH | | | | SKS | **S** | **12 58 08.1** | **+0.2** |
| KSH | | | | S | **SKSac** | **12 58 09.4** | **-1.7** |
| KSH | | | | SS | **SS** | **13 03 36.1** | **+5.0** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.3s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,120nm,5.8s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,80nm,5.1s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,68nm,4.4s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,250nm,6.5s | | | | | | |
| **CCB** | **Clear Creek Bu** | **83.15** | **22** | *e*P | **P** | **12 47 52.2** | **-0.8** |
| | 21nm,1.7s | | | | | | |
| **COLA** | **College** | **83.24** | **22** | *e*P | **P** | **12 47 52.6** | **-0.9** |
| | 7.2nm,0.8s | | | | | | |
| **IL1** | **Eielson Array** | **83.56** | **22** | *e*P | **P** | **12 47 52.8** | **-2.3** |
| **ILAR** | **Eielson Array** | **83.56** | **22** | P | **P** | **12 47 53.2** | **-1.9** |
| | 3.9nm,0.8s,baz=250,slow=5.2,SNR=33 | | | | | | |
| **ILB** | **Eielson Array** | **83.56** | **22** | *e*P | **P** | **12 47 53.7** | **-1.4** |
| **KURK** | **Kurchatov** | **83.92** | **322** | *e*P | **P** | **12 47 56.3** | **-1.0** |
| | 5.0nm,1.0s | | | | | | |
| **QSPA** | **South Pole Qui** | **84.11** | **180** | *e*P | **P** | **12 47 58.9** | **+0.8** |
| | 62nm,0.9s | | | | | | |
| **MAW** | **Mawson** | **84.17** | **203** | P | **P** | **12 47 57.1** | **-1.1** |
| | 3.7nm,1.1s,baz=93,slow=10,SNR=3.7 | | | | | | |
| MAW | | | | LR | LR | 13 23 44.6 | |
| | comp=Z,88nm,19.6s,baz=62,slow=34 | | | | | | |
| **EGAK** | **Eagle** | **85.77** | **23** | *e*P | **P** | **12 48 06.5** | **+0.2** |
| | 5.2nm,0.8s | | | | | | |
| **WHY** | **Whitehorse** | **87.05** | **28** | *e*P | P | 12 48 09.1 | -3.7 |
| **BVAR** | **Borovoye Array** | **89.42** | **323** | P | P | 12 48 20.6 | -3.5 |
| | 0.8nm,0.8s,baz=108,slow=4.8,SNR=4.3 | | | | | | |
| **NV01** | **Mina Array Sit** | **93.61** | **52** | *e*P | **P** | **12 48 44.6** | **+0.4** |
| **YKA** | **Yellowknife Ar** | **96.88** | **28** | P | **P** | **12 48 56.7** | **-1.5** |
| | 0.7nm,0.8s,baz=277,slow=4.6,SNR=5.9 | | | | | | |
| **GERES** | **GERESS Array B** | **124.36** | **328** | PKP | **PKPdf** | **12 54 25.8** | **-0.8** |
| | 0.5nm,0.4s,baz=333,slow=1.5,SNR=5.9 | | | | | | |
| **SDV** | **Santo Domingo** | **137.94** | **83** | *e*PKPdf | **PKPdf** | **12 54 53.3** | **0.0** |
| **TORD** | **Torodi Ar. Bea** | **149.55** | **286** | PKPbc | **PKPdf** | **12 

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **ABTA** | **Abfaltersbach** | **0.90** | **225** | Pg | **Pb** | **12 37 39.6** | **-0.7** |
| | 152nm,0.4s,SNR=58 | | | | | | | |
| ABTA | | | | Sg | **Sb** | **12 37 51.5** | **-0.4** |
| | 264nm,0.3s | | | | | | | |
| **LSR** | **Lussari** | **0.91** | **176** | *e*Pg | **Pb** | **12 37 40.3** | **-0.2** |
| **LSR** | **Lussari** | **0.91** | **176** | *e*Pg | **Pb** | **12 37 40.3** | **-0.2** |
| **PRED** | **Cave del Predi** | **0.94** | **175** | *e*Pg | **Pb** | **12 37 40.9** | **-0.2** |
| **PRED** | **Cave del Predi** | **0.94** | **175** | *e*Pg | **Pb** | **12 37 40.9** | **-0.2** |
| **CLUD** | **Cludinico** | **1.00** | **203** | *e*Pg | **Pb** | **12 37 41.7** | **-0.3** |
| **CLUD** | **Cludinico** | **1.00** | **203** | *e*Pg | **Pb** | **12 37 41.7** | **-0.3** |
| **FUSE** | **Fusea** | **1.01** | **198** | *e*Pg | **Pb** | **12 37 42.0** | **-0.2** |
| **FUSE** | **Fusea** | **1.01** | **198** | *e*Pg | **Pb** | **12 37 42.0** | **-0.2** |
| **CSMI** | **Casera Mimoias** | **1.02** | **212** | *e*Pg | **Pb** | **12 37 42.1** | **-0.4** |
| **CSMI** | **Casera Mimoias** | **1.02** | **212** | *e*Pg | **Pb** | **12 37 42.1** | **-0.4** |
| **RISI** | **Rein** | **1.03** | **246** | *e*Pg | **Pb** | **12 37 41.8** | **-0.7** |
| **RISI** | **Rein** | **1.03** | **246** | *e*Pg | **Pb** | **12 37 41.8** | **-0.7** |
| **BOO** | **Bordano** | **1.09** | **193** | *e*Pg | **Pb** | **12 37 43.5** | **0.0** |
| **BOO** | **Bordano** | **1.09** | **193** | *e*Pg | **Pb** | **12 37 43.5** | **0.0** |
| **VINO** | **Villanova** | **1.13** | **186** | *e*Pg | **Pb** | **12 37 44.4** | **+0.2** |
| **VINO** | **Villanova** | **1.13** | **186** | *e*Pg | **Pb** | **12 37 44.4** | **+0.2** |
| **BAD** | **Bernadia** | **1.15** | **187** | *e*Pg | **Pb** | **12 37 45.2** | **+0.6** |
| **BAD** | **Bernadia** | **1.15** | **187** | *e*Pg | **Pb** | **12 37 45.2** | **+0.6** |
| **OBKA** | **Obir** | **1.16** | **139** | *e*Pg | **Pb** | **12 37 44.6** | **-0.1** |
| **OBKA** | **Obir** | **1.16** | **139** | Pg | **Pb** | **12 37 44.6** | **-0.1** |
| OBKA | | | | Sg | **Sn** | **12 37 59.9** | **+0.2** |
| | 296nm,0.5s | | | | | | | |
| **MPRI** | **Monte Prat** | **1.18** | **195** | *e*Pg | **Pb** | **12 37 45.1** | **0.0** |
| **MPRI** | **Monte Prat** | **1.18** | **195** | *e*Pg | **Pb** | **12 37 45.1** | **0.0** |
| **BUA** | **Buia** | **1.18** | **191** | *e*Pg | **Pb** | **12 37 45.8** | **+0.7** |
| **BUA** | **Buia** | **1.18** | **191** | *e*Pg | **Pb** | **12 37 45.8** | **+0.7** |
| **DRE** | **Drenchia** | **1.22** | **173** | *e*Pg | **Pb** | **12 37 45.8** | **+0.1** |
| **DRE** | **Drenchia** | **1.22** | **173** | *e*Pg | **Pb** | **12 37 45.8** | **+0.1** |
| **WTTA** | **Wattenberg** | **1.23** | **265** | *e*Pg | **Pn** | **12 37 45.0** | **-0.6** |
| **WTTA** | **Wattenberg** | **1.23** | **265** | Pg | **Pn** | **12 37 45.0** | **-0.6** |
| WTTA | | | | Sg | **Sn** | **12 38 02.1** | **+0.4** |
| | 102nm,0.2s | | | | | | | |
| **COLI** | **Coloredo** | **1.25** | **182** | *e*Pg | **Pb** | **12 37 46.7** | **+0.5** |
| **COLI** | **Coloredo** | **1.25** | **182** | *e*Pg | **Pb** | **12 37 46.7** | **+0.5** |
| **WATA** | **Walderalm** | **1.27** | **269** | Pg | **Pb** | **12 37 46.1** | **-0.6** |
| | 23nm,0.2s,SNR=25 | | | | | | | |
| WATA | | | | Sg | **Sn** | **12 38 04.5** | **+1.9** |
| | 109nm,0.1s | | | | | | | |
| **CIMO** | **Cimolais** | **1.27** | **213** | *e*Pg | **Pb** | **12 37 46.3** | **-0.4** |
| **CIMO** | **Cimolais** | **1.27** | **213** | *e*Pg | **Pb** | **12 37 46.3** | **-0.4** |
| **MOZS** | **Mozjanca** | **1.29** | **147** | *i* Pg | **Pb** | **12 37 47.2** | **+0.3** |
| MOZS | | | | *i* Sg | **Sn** | **12 38 02.3** | **-0.5** |
| | comp=Z,227nm,0.3s | | | | | | | |
| **MOZS** | **Mozjanca** | **1.29** | **147** | *i* Pg | **Pb** | **12 37 47.2** | **+0.3** |
| MOZS | | | | *i* Sg | **Sn** | **12 38 02.3** | **-0.5** |
| | comp=Z,227nm,0.3s | | | | | | | |
| **SOKA** | **Soboth** | **1.30** | **122** | Pg | **Pn** | **12 37 46.6** | **+0.2** |
| | comp=Z,21nm,0.3s,SNR=21 | | | | | | | |
| SOKA | | | | Sg | **Sb** | **12 38 05.2** | **+1.9** |
| | comp=Z,69nm,0.3s | | | | | | | |
| **CSO** | **Casso** | **1.35** | **215** | *e*Pg | **Pb** | **12 37 47.8** | **-0.2** |
| **CSO** | **Casso** | **1.35** | **215** | *e*Pg | **Pb** | **12 37 47.8** | **-0.2** |
| **MLNI** | **Malnisio** | **1.36** | **205** | *e*Pg | **Pb** | **12 37 48.9** | **+0.7** |
| **MLNI** | **Malnisio** | **1.36** | **205** | *e*Pg | **Pb** | **12 37 48.9** | **+0.7** |
| **SABO** | **M.te Sabotino** | **1.41** | **175** | *e*Pg | **Pb** | **12 37 49.3** | **+0.4** |
| **SABO** | **M.te Sabotino** | **1.41** | **175** | *e*Pg | **Pb** | **12 37 49.3** | **+0.4** |
| **ARSA** | **Arzberg** | **1.42** | **94** | *e*Pg | **Pb** | **12 37 49.4** | **+0.2** |
| **ARSA** | **Arzberg** | **1.42** | **94** | Pg | **Pb** | **12 37 48.8** | **-0.4** |
| | comp=Z,18nm,0.3s,SNR=20 | | | | | | | |
| ARSA | | | | Sg | **Sb** | **12 38 09.0** | **+2.1** |
| | comp=Z,33nm,0.2s | | | | | | | |
| **GEC2** | **GERESS Array S** | **1.48** | **7** | *e*Pn | **Pn** | **12 37 48.3** | **-0.6** |
| GEC2 | | | | *e*Pg | **Pn** | **12 37 49.0** | **+0.1** |
| **GEC2** | **GERESS Array S** | **1.48** | **7** | Pn | **Pn** | **12 37 48.3** | **-0.6** |
| **GEC2** | **GERESS Array S** | **1.48** | **7** | Pg | **Pn** | **12 37 49.0** | **+0.1** |
| **TLI** | **Talmassons** | **1.48** | **189** | *e*Pg | **Pb** | **12 37 50.8** | **+0.7** |
| **TLI** | **Talmassons** | **1.48** | **189** | *e*Pg | **Pb** | **12 37 50.8** | **+0.7** |
| **POLC** | **Polcenigo** | **1.50** | **206** | *e*Pg | **Pb** | **12 37 51.2** | **+0.7** |
| **POLC** | **Polcenigo** | **1.50** | **206** | *e*Pg | **Pb** | **12 37 51.2** | **+0.7** |
| **FAU** | **Forcella Aurin** | **1.53** | **222** | *e*Pg | **Pb** | **12 37 51.3** | **+0.2** |
| **FAU** | **Forcella Aurin** | **1.53** | **222** | *e*Pg | **Pb** | **12 37 51.3** | **+0.2** |
| **CAE** | **Caneva** | **1.54** | **207** | *e*Pg | **Pb** | **12 37 51.5** | **+0.3** |
| **CAE** | **Caneva** | **1.54** | **207** | *e*Pg | **Pb** | **12 37 51.5** | **+0.3** |
| **MOTA** | **Moosalm** | **1.59** | **270** | Pg | **Pb** | **12 37 51.5** | **-0.7** |
| | comp=Z,8.3nm,0.1s,SNR=50 | | | | | | | |
| MOTA | | | | Sg | **Sb** | **12 38 14.4** | **+2.6** |
| | comp=Z,97nm,0.2s | | | | | | | |
| **FUR** | **Furstenfeldbru** | **1.66** | **299** | *e*Pg | **Pb** | **12 37 53.3** | **+0.1** |
| FUR | | | | *e*Sg | **Sb** | **12 38 14.3** | **+0.6** |
| **FUR** | **Furstenfeldbru** | **1.66** | **299** | Pg | **Pb** | **12 37 53.3** | **+0.1** |
| FUR | | | | Sg | **Sb** | **12 38 14.3** | **+0.6** |
| **VARN** | **Col Varnada, M** | **1.67** | **214** | *e*Pg | **Pb** | **12 37 53.1** | **-0.3** |
| **VARN** | **Col Varnada, M** | **1.67** | **214** | *e*Pg | **Pb** | **12 37 53.1** | **-0.3** |
| **TRI** | **Trieste** | **1.69** | **172** | *e*Pg | **Pb** | **12 37 53.5** | **-0.2** |
| **TRI** | **Trieste** | **1.69** | **172** | *e*Pg | **Pb** | **12 37 53.5** | **-0.2** |
| **CONA** | **Conrad Observa** | **1.73** | **71** | Pn | **Pn** | **12 37 52.6** | **+0.3** |
| | comp=Z,5.9nm,0.1s,SNR=15 | | | | | | | |
| CONA | | | | Sg | **Sb** | **12 38 17.4** | **+1.7** |
| | comp=Z,111nm,0.3s | | | | | | | |
| **KHC** | **Kasperske Hory** | **1.75** | **3** | *e*PN | **Pn** | **12 37 52.1** | **-0.6** |
| KHC | | | | *e*PG | **Pb** | **12 37 54.2** | **-0.7** |
| KHC | | | | *e*SG | **Sb** | **12 38 16.7** | **+0.2** |
| | comp=Z,236nm,0.3s | | | | | | | |
| **KHC** | **Kasperske Hory** | **1.75** | **3** | Pn | **Pn** | **12 37 52.1** | **-0.6** |
| **WET** | **Wettzell** | **1.80** | **348** | *e*Pn | **Pn** | **12 37 52.5** | **-0.8** |
| WET | | | | *e*Sg | **Sb** | **12 38 17.8** | **-0.1** |
| **WET** | **Wettzell** | **1.80** | **348** | Pn | **Pn** | **12 37 52.5** | **-0.8** |
| WET | | | | Sg | **Sb** | **12 38 17.8** | **-0.1** |
| **MTLO** | **Montello** | **1.82** | **211** | *e*Pn | **Pb** | **12 37 56.4** | **+0.4** |
| **MTLO** | **Montello** | **1.82** | **211** | *e*Pn | **Pb** | **12 37 56.4** | **+0.4** |
| **RETA** | **Reutte** | **1.82** | **274** | Pg | **Pb** | **12 37 55.5** | **-0.6** |
| | comp=Z,1.6nm,0.1s,SNR=32 | | | | | | | |
| RETA | | | | Sg | **Sb** | **12 38 20.7** | **+2.3** |
| | comp=Z,269nm,0.4s | | | | | | | |
| **CGRP** | **Cima Grappa** | **1.88** | **218** | *e*Pn | **Pb** | **12 37 56.0** | **-1.1** |
| **CGRP** | **Cima Grappa** | **1.88** | **218** | *e*Pn | **Pb** | **12 37 56.0** | **-1.1** |
| **FETA** | **Feichten** | **1.88** | **260** | Pg | **Pb** | **12 37 56.9** | **-0.3** |
| | comp=Z,39nm,0.4s,SNR=39 | | | | | | | |
| FETA | | | | Sg | **Sb** | **12 38 22.7** | **+2.4** |
| | comp=Z,43nm,0.3s | | | | | | | |
| **OZOL** | **Ozolo** | **1.91** | **240** | *e*Pn | **Pb** | **12 37 57.4** | **-0.2** |
| **OZOL** | **Ozolo** | **1.91** | **240** | *e*Pn | **Pb** | **12 37 57.3** | **-0.2** |
| **PANI** | **Panarotta** | **1.97** | **228** | *e*Pn | **Pb** | **12 37 58.5** | **-0.1** |
| **CARE** | **Lago del Cares** | **2.11** | **244** | *e*Pn | **Pb** | **12 38 00.6** | **-0.5** |
| **CARE** | **Lago del Cares** | **2.11** | **244** | *e*Pn | **Pb** | **12 38 00.6** | **-0.5** |
| **SOP** | **Sopron** | **2.13** | **81**⇑ | *e*x | **Pb** | **12 38 00.9** | **-0.4** |
| **SOP** | **Sopron** | **2.13** | **81**⇑ | *e*P | **Pb** | **12 38 00.9** | **-0.4** |
| **OBER** | **Oberstdorf** | **2.14** | **272** | *e*Pg | **Pb** | **12 38 02.5** | **+1.1** |
| OBER | | | | *e*Sg | **Sb** | **12 38 31.1** | **+3.5** |
| **OBER** | **Oberstdorf** | **2.14** | **272** | Pg | **Pb** | **12 38 02.5** | **+1.1** |
| OBER | | | | Sg | **Sb** | **12 38 31.1** | **+3.5** |
| **OZLJ** | **Ozalj** | **2.25** | **141** | *e*Pn | **Pn** | **12 38 01.2** | **+1.8** |
| **OZLJ** | **Ozalj** | **2.25** | **141** | *e*Pn | **Pn** | **12 38 01.2** | **+1.8** |
| **MARN** | **Marana (Italy)** | **2.33** | **222** | *e*Pn | **Pb** | **12 38 03.1** | **-1.6** |
| **MARN** | **Marana (Italy)** | **2.33** | **222** | *e*Pn | **Pb** | **12 38 03.1** | **-1.6** |
| **TEOL** | **Teolo** | **2.36** | **212** | *e*Pn | **Pb** | **12 38 03.1** | **-2.2** |
| **TEOL** | **Teolo** | **2.36** | **212** | *e*Pn | **Pb** | **12 38 03.1** | **-2.2** |
| **RNI** | **Roncone** | **2.39** | **235** | *e*Pn | **Pb** | **12 38 04.4** | **-1.5** |
| **DAVA** | **Damuels** | **2.42** | **269** | *e*Pg | **Pb** | **12 38 06.9** | **+0.5** |
| DAVA | | | | *e*Sg | **Sb** | **12 38 39.7** | **+3.8** |
| **DAVA** | **Damuels** | **2.42** | **269** | Pn | **Pn** | **12 38 03.4** | **+1.4** |
| | comp=Z,2.8nm,0.2s | | | | | | | |
| **DAVA** | **Damuels** | **2.42** | **269** | Pg | **Pb** | **12 38 06.9** | **+0.5** |
| DAVA | | | | Sg | **Sb** | **12 38 39.7** | **+3.8** |
| **ROTZ** | **Rotzenmuhle** | **2.52** | **342** | *e*Pn | **Pn** | **12 38 01.8** | **-1.4** |
| ROTZ | | | | *e*Pg | **Pb** | **12 38 08.6** | **+0.6** |
| ROTZ | | | | *e*Sg | **Sb** | **12 38 40.1** | **+1.5** |
| **ROTZ** | **Rotzenmuhle** | **2.52** | **342** | Pn | **Pn** | **12 38 01.8** | **-1.4** |
| **ZST** | **Bratislava** | **2.60** | **70** | *e*Sg | **Sb** | **12 38 44.4** | **+3.7** |
| **ZST** | **Bratislava** | **2.60** | **70** | *e*SG | **Sb** | **12 38 44.4** | **+3.7** |
| **GOPC** | **GO Pecny, Ondr** | **2.69** | **19** | *e*PN | **Pn** | **12 38 05.4** | **-0.1** |
| **GOPC** | **GO Pecny, Ondr** | **2.69** | **19** | Pn | **Pn** | **12 38 05.4** | **-0.1** |
| **PRU** | **Pruhonice** | **2.71** | **15** | *e*PN | **Pn** | **12 38 05.0** | **-0.7** |
| PRU | | | | *e*PG | **Pb** | **12 38 11.0** | **-0.1** |
| PRU | | | | *e*SG | **Sb** | **12 38 46.4** | **+2.5** |
| | comp=Z,404nm,0.9s | | | | | | | |
| **PRU** | **Pruhonice** | **2.71** | **15** | Pn | **Pn** | **12 38 05.0** | **-0.7** |
| **GRA1** | **Grafenberg Arr** | **2.74** | **328** | Pg | **Pb** | **12 38 13.2** | **+1.5** |
| GRA1 | | | | Sg | **Sb** | **12 38 47.1** | **+2.2** |
| **GRF** | **Grafenberg Arr** | **2.74** | **328** | *e*Pg | **Pb** | **12 38 13.2** | **+1.5** |
| GRF | | | | *e*Sg | **Sb** | **12 38 47.1** | **+2.2** |
| **MANZ** | **Manzenberg** | **2.75** | **342** | *e*Pn | **Pn** | **12 38 05.0** | **-1.4** |
| MANZ | | | | *e*Pg | **Pb** | **12 38 13.4** | **+1.5** |
| MANZ | | | | *e*Sg | **Sb** | **12 38 47.9** | **+2.7** |
| **MANZ** | **Manzenberg** | **2.75** | **342** | Pn | **Pn** | **12 38 05.0** | **-1.4** |
| **VRAC** | **Vranov** | **2.85** | **46**⇑ | *i*P | **Sb** | **12 38 46.1** | **-2.0** |
| **VRAC** | **Vranov** | **2.85** | **46** | *e*Pn | **Pn** | **12 38 07.1** | **-0.6** |
| VRAC | | | | *e*Sg | **Sb** | **12 38 47.6** | **-0.5** |
| **SMOL** | **Smolenice** | **2.91** | **66** | *e*SG | **Sb** | **12 38 53.3** | **+3.6** |
| **NKC** | **Novy Kostel** | **2.93** | **347** | *e*PN | **Pn** | **12 38 07.6** | **-1.2** |
| NKC | | | | *e*SG | **Sb** | **12 38 53.8** | **+3.5** |
| | comp=Z,194nm,0.5s | | | | | | | |
| **NKC** | **Novy Kostel** | **2.93** | **347** | *e*Pn | **Pn** | **12 38 08.3** | **-0.5** |
| NKC | | | | *e*Pg | **Pb** | **12 38 17.7** | **+2.8** |
| NKC | | | | *e*Sg | **Sb** | **12 38 54.1** | **+3.9** |
| **NKC** | **Novy Kostel** | **2.93** | **347** | Pn | **Pn** | **12 38 08.3** | **-0.5** |
| **NKC** | **Novy Kostel** | **2.93** | **347** | Pg | **Pb** | **12 38 17.7** | **+2.8** |
| NKC | | | | Sg | **Sb** | **12 38 53.8** | **+3.5** |
| | comp=Z,194nm,0.5s | | | | | | | |
| **ROHR** | **Rohrbach** | **2.95** | **346** | *e*Pn | **Pn** | **12 38 08.2** | **-0.9** |
| ROHR | | | | *e*Pg | **Pb** | **12 38 16.1** | **+0.8** |
| ROHR | | | | *e*Sg | **Sb** | **12 38 53.1** | **+2.2** |
| **ROHR** | **Rohrbach** | **2.95** | **346** | Pn | **Pn** | **12 38 08.2** | **-0.9** |
| **NVLJ** | **Novalja** | **2.99** | **160** | *e*Pn | **Pn** | **12 38 11.3** | **+1.7** |
| **NVLJ** | **Novalja** | **2.99** | **160** | *e*Pn | **Pn** | **12 38 11.2** | **+1.7** |
| **WERN** | **Wernitzgruen** | **2.99** | **347** | *e*Pn | **Pn** | **12 38 08.6** | **-1.1** |
| WERN | | | | *e*Pg | **Pb** | **12 38 17.7** | **+1.7** |
| WERN | | | | *e*Sg | **Sb** | **12 38 56.1** | **+4.0** |
| **WERN** | **Wernitzgruen** | **2.99** | **347** | Pn | **Pn** | **12 38 08.6** | **-1.1** |
| **GUNZ** | **Gunzen** | **3.07** | **347** | *e*Pn | **Pn** | **12 38 10.3** | **-0.5** |
| GUNZ | | | | *e*Pg | **Pb** | **12 38 19.2** | **+1.9** |
| GUNZ | | | | *e*Sg | **Sb** | **12 38 58.1** | **+3.7** |
| **GUNZ** | **Gunzen** | **3.07** | **347** | Pn | **Pn** | **12 38 10.3** | **-0.5** |
| **WERD** | **Werda** | **3.16** | **347** | *e*Pn | **Pn** | **12 38 11.0** | **-0.9** |
| WERD | | | | *e*Pg | **Pb** | **12 38 20.7** | **+1.9** |
| WERD | | | | *e*Sg | **Sb** | **12 38 59.8** | **+2.9** |
| **WERD** | **Werda** | **3.16** | **347** | Pn | **Pn** | **12 38 11.0** | **-0.9** |
| **MOX** | **Moxa** | **3.48** | **340** | *e*Pn | **Pn** | **12 38 15.6** | **-0.8** |
| MOX | | | | *e*Sg | **Sb** | **12 39 09.5** | **+3.4** |
| **MOX** | **Moxa** | **3.48** | **340** | Pn | **Pn** | **12 38 15.6** | **-0.8** |
| **BRG** | **Berggiesshubel** | **3.51** | **5** | *e*Pn | **Pn** | **12 38 15.3** | **-1.4** |
| BRG | | | | *e*Pg | **Pb** | **12 38 26.6** | **+1.8** |
| BRG | | | | *e*Sg | **Sb** | **12 39 10.2** | **+3.2** |
| **BRG** | **Berggiesshubel** | **3.51** | **5** | Pn | **Pn** | **12 38 15.3** | **-1.4** |
| **DPC** | **Dobruska-Polom** | **3.53** | **32** | *e*SG | **Sb** | **12 39 11.2** | **+3.7** |
| | comp=Z,69nm,0.4s | | | | | | | |
| **DPC** | **Dobruska-Polom** | **3.53** | **32** | Sg | **Sb** | **12 39 11.2** | **+3.7** |
| | comp=Z,69nm,0.4s | | | | | | | |
| **BFO** | **Black Forest** | **3.57** | **287** | *e*Pn | **Pn** | **12 38 17.5** | **-0.1** |
| **BFO** | **Black Forest** | **3.57** | **287** | Pn | **Pn** | **12 38 17.5** | **-0.1** |
| **MORC** | **Moravsky Berou** | **3.63** | **47** | *e*Pn | **Pn** | **12 38 17.8** | **-0.6** |
| **FELD** | **Feldberg im Sc** | **3.71** | **280** | P | **Pn** | **12 38 19.5** | **-0.1** |
| **VYHS** | **Vyhne** | **3.79** | **71** | *e*Pn | **Pn** | **12 38 17.4** | **-3.3** |
| **VYHS** | **Vyhne** | **3.79** | **71** | *e*PN | **Pn** | **12 38 17.4** | **-3.3** |
| VYHS | | | | *e*PG | **Pb** | 12 38 35.8 | +6.2 |
| VYHS | | | | *e*SG | **Sb** | **12 39 18.5** | **+3.4** |
| **TOD** | **Tromm** | **3.80** | **308** | P | **Pn** | **12 38 20.3** | **-0.5** |
| TOD | | | | S | **Sn** | **12 39 03.3** | **-1.6** |
| **CLL** | **Collm** | **3.94** | **356** | *e*Pn | **Pn** | **12 38 22.0** | **-0.6** |
| CLL | | | | *e*Sn(2) | | 12 39 06.0 | |
| CLL | | | | *e*Sg(2) | | 12 39 41.0 | |
| **CLL** | **Collm** | **3.94** | **356** | *e*Pn | **Pn** | **12 38 21.8** | **-0.8** |
| **CLL** | **Collm** | **3.94** | **356** | Pn | **Pn** | **12 38 21.8** | **-0.8** |
| **KTD** | **Kalmit** | **4.07** | **300** | P | **Pn** | **12 38 24.3** | **-0.1** |
| **LANF** | **Langenberg** | **4.10** | **295** | P | **Pn** | **12 38 23.9** | **-0.9** |
| LANF | | | | S | **Sn** | **12 39 11.7** | **-0.4** |
| **LANF** | **Langenberg** | **4.10** | **295** | P | **Pn** | **12 38 23.9** | **-0.9** |
| LANF | | | | S | **Sn** | **12 39 11.7** | **-0.4** |
| **CDF** | **Champ du Feu** | **4.27** | **286** | *e*Pn | **Pn** | **12 38 26.6** | **-0.7** |
| | SNR=1.0 | | | | | | | |
| **CDF** | **Champ du Feu** | **4.27** | **286** | *e*Pg | **Pb** | **12 38 41.7** | **+3.8** |
| CDF | | | | *e*Sg | **Sb** | **12 39 36.3** | **+7.3** |
| | comp=Z,53nm,0.5s | | | | | | | |
| **CDF** | **Champ du Feu** | **4.27** | **286** | *e*Pn | **Pn** | **12 38 26.6** | **-0.7** |
| | SNR=1.0 | | | | | | | |
| **CDF** | **Champ du Feu** | **4.27** | **286** | *e*Pg | **Pb** | **12 38 41.7** | **+3.8** |
| CDF | | | | *e*Sg | **Sb** | **12 39 36.3** | **+7.3** |
| | comp=Z,27nm,0.5s | | | | | | | |
| **MOF** | **Molkenrain** | **4.29** | **279** | P | **Pn** | **12 38 27.7** | **+0.1** |
| **MOF** | **Molkenrain** | **4.29** | **279** | P | **Pn** | **12 38 27.7** | **+0.1** |
| **ECH** | **Echery** | **4.32** | **283** | P | **Pn** | **12 38 27.4** | **-0.4** |
| ECH | | | | S | **Sn** | **12 39 16.3** | **-1.2** |
| **ECH** | **Echery** | **4.32** | **283** | P | **Pn** | **12 38 27.4** | **-0.4** |
| ECH | | | | S | **Sn** | **12 39 16.3** | **-1.2** |
| **TNS** | **Taunus Mts** | **4.36** | **313** | *e*Pn | **Pn** | **12 38 28.8** | **+0.4** |
| TNS | | | | *e*Pg | **Pb** | 12 38 44.4 | +5.1 |
| **TNS** | **Taunus Mts** | **4.36** | **313** | Pn | **Pn** | **12 38 28.8** | **+0.4** |
| **PSZ** | **Piszkesteto** | **4.39** | **81** | *i*P | **Pb** | **12 38 36.1** | **-3.8** |
| **HINF** | **Hinteralfeld** | **4.48** | **278** | *e*Pn | **Pn** | **12 38 29.4** | **-0.7** |
| **HINF** | **Hinteralfeld** | **4.48** | **278** | *e*Pg | **Pb** | **12 38 45.6** | **+4.3** |
| HINF | | | | *e*Sn | **Sn** | **12 39 17.3** | **-4.3** |
| HINF | | | | *e*Sg | **Sb** | **12 39 42.8** | **+8.0** |
| | comp=Z,46nm,0.5s | | | | | | | |
| **HINF** | **Hinteralfeld** | **4.48** | **278** | *e*Pn | **Pn** | **12 38 29.4** | **-0.7** |
| **HINF** | **Hinteralfeld** | **4.48** | **278** | *e*Pg | **Pb** | **12 38 45.6** | **+4.3** |
| HINF | | | | *e*Sg | **Sb** | **12 39 42.8** | **+8.0** |
| | comp=Z,23nm,0.5s | | | | | | | |
| **ABH** | **Alteburg** | **4.64** | **305** | P | **Pn** | **12 38 32.1** | **-0.2** |
| **HAU** | **Haudompre** | **4.83** | **280** | *e*Pn | **Pn** | **12 38 33.7** | **-1.2** |
| | SNR=1.0 | | | | | | | |
| **HAU** | **Haudompre** | **4.83** | **280** | *e*Pg | Pb | 12 38 52.2 | +4.9 |
| HAU | | | | *e*Sn | **Sn** | **12 39 25.6** | **-4.6** |
| HAU | | | | *e*Sg | Sb | 12 39 53.9 | +8.9 |
| | comp=Z,65nm,0.4s | | | | | | | |
| **HAU** | **Haudompre** | **4.83** | **280** | *e*Pn | **Pn** | **12 38 33.7** | **-1.2** |
| | SNR=1.0 | | | | | | | |
| **HAU** | **Haudompre** | **4.83** | **280** | *e*Pg | Pb | 12 38 52.2 | +4.9 |
| HAU | | | | *e*Sg | Sb | 12 39 53.9 | +8.9 |
| | comp=Z,33nm,0.4s | | | | | | | |
| **RUP** | **Ruppelstein** | **4.83** | **301** | P | **Pn** | **12 38 34.6** | **-0.4** |
| **KECS** | **Kecovo** | **4.86** | **74** | *e*Pn | **Pn** | **12 38 35.0** | **-0.3** |
| **KECS** | **Kecovo** | **4.86** | **74** | *e*PN | **Pn** | **12 38 35.0** | **-0.3** |
| KECS | | | | *e*PG | **Pb** | **12 38 50.6** | **+2.8** |
| KECS | | | | *e*SG | **Sb** | **12 39 44.5** | **-1.3** |
| **LPG** | **La Plagne** | **4.99** | **250** | *e*P | **Pn** | **12 38 39.7** | **+2.3** |
| **LPG** | **La Plagne** | **4.99** | **250** | *e*Pg | Pb | 12 38 56.2 | +6.0 |
| LPG | | | | *e*Sn | **Sn** | **12 39 31.2** | **-3.4** |
| | comp=Z,18nm,0.6s,SNR=1.0 | | | | | | | |
| **LPG** | **La Plagne** | **4.99** | **250** | *e*Sn | **Sn** | **12 39 31.2** | **-3.4** |
| | comp=Z,9.1nm,0.6s,SNR=1.0 | | | | | | | |
| **LPG** | **La Plagne** | **4.99** | **250** | *e*P | **Pn** | **12 38 39.7** | **+2.3** |
| **LPG** | **La Plagne** | **4.99** | **250** | *e*Pg | Pb | 12 38 56.2 | +6.0 |
| **LPL** | **La Plagne** | **5.00** | **251** | *e*P | **Pn** | **12 38 40.4** | **+3.0** |
| **LPL** | **La Plagne** | **5.00** | **251** | *e*Pg | Pb | 12 38 55.5 | +5.2 |
| LPL | | | | *e*Sg | Sb | 12 39 59.9 | +10 |
| | comp=Z,5.7nm,0.4s | | | | | | | |
| **CABF** | **La Chapelle** | **5.09** | **264** | *e*Pn | **Pn** | **12 38 37.4** | **-1.1** |
| | SNR=1.0 | | | | | | | |
| **CABF** | **La Chapelle** | **5.09** | **264** | *e*Pg | Pb | 12 38 57.1 | +5.3 |
| CABF | | | | *e*Sn | **Sn** | **12 39 31.5** | **-5.2** |
| | SNR=1.0 | | | | | | | |
| CABF | | | | *e*Sg | Sb | 12 40 02.2 | +10 |
| | comp=Z,28nm,0.5s,SNR=1.0 | | | | | | | |
| **CABF** | **La Chapelle** | **5.09** | **264** | *e*Pn | **Pn** | **12 38 37.4** | **-1.1** |
| | SNR=1.0 | | | | | | | |
| **CABF** | **La Chapelle** | **5.09** | **264** | *e*Pg | Pb | 12 38 57.1 | +5.3 |
| CABF | | | | *e*Sg | Sb | 12 40 02.2 | +10 |
| | comp=Z,14nm,0.5s,SNR=1.0 | | | | | | | |
| **TEKS** | **Tekeris** | **5.10** | **121** | *e*Pn | **Pn** | **12 38 40.3** | **+1.7** |
| **PAGF** | **Fort de Pagny** | **5.31** | **286** | *e*Pn | **Pn** | **12 38 39.2** | **-2.3** |
| | baz=102 | | | | | | | |
| **PAGF** | **Fort de Pagny** | **5.31** | **286** | *e*Pg | Pb | 12 39 00.3 | +4.8 |
| | baz=110 | | | | | | | |
| PAGF | | | | *e*Sn | **Sn** | **12 39 36.5** | **-5.6** |
| PAGF | | | | *e*Sg | Sb | 12 40 09.2 | +10 |
| | comp=Z,9.7nm,0.5s | | | | | | | |
| **PAGF** | **Fort de Pagny** | **5.31** | **286** | *e*Pn | **Pn** | **12 38 39.2** | **-2.3** |
| **PAGF** | **Fort de Pagny** | **5.31** | **286** | *e*Pg | Pb | 12 39 00.3 | +4.8 |
| PAGF | | | | *e*Sg | Sb | 12 40 09.2 | +10 |
| | comp=Z,4.8nm,0.5s | | | | | | | |
| **MBDF** | **Montbardon** | **5.35** | **243** | *e*Pn | **Pn** | **12 38 41.8** | **-0.3** |
| | SNR=1.0 | | | | | | | |
| **MBDF** | **Montbardon** | **5.35** | **243** | *e*Pg | Pb | 12 39 02.0 | +5.8 |
| MBDF | | | | *e*Sn | **Sn** | **12 39 39.3** | **-3.8** |
| | comp=Z,16nm,0.5s,SNR=1.0 | | | | | | | |
| **MBDF** | **Montbardon** | **5.35** | **243** | *e*Sn | **Sn** | **12 39 39.3** | **-3.8** |
| | comp=Z,7.9nm,0.5s,SNR=1.0 | | | | | | | |
| **MBDF** | **Montbardon** | **5.35** | **243** | *e*Pn | **Pn** | **12 38 41.8** | **-0.3** |
| | SNR=1.0 | | | | | | | |
| **MBDF** | **Montbardon** | **5.35** | **243** | *e*Pg | Pb | 12 39 02.0 | +5.8 |
| **STON** | **Ston** | **5.42** | **145** | *e*Pn | **Pn** | **12 38 45.6** | **+2.6** |
| **STON** | **Ston** | **5.42** | **145** | *e*Pn | **Pn** | **12 38 45.6** | **+2.6** |
| **BBLS** | **Lazići** | **5.46** | **128** | *e*Pn | **Pn** | **12 38 45.9** | **+2.3** |
| **SBF** | **Sospel** | **5.49** | **232** | *e*Sn | **Sn** | **12 39 42.1** | **-4.4** |
| | comp=Z,33nm,0.7s | | | | | | | |
| **SBF** | **Sospel** | **5.49** | **232** | *e*Sn | **Sn** | **12 39 42.1** | **-4.4** |
| | comp=Z,17nm,0.7s | | | | | | | |
| **STHS** | **Stebnicka Huta** | **5.58** | **66** | *e*Pn | **Pn** | **12 38 46.5** | **+1.3** |
| **STHS** | **Stebnicka Huta** | **5.58** | **66** | *e*PN | **Pn** | **12 38 46.5** | **+1.3** |
| STHS | | | | *e*PG | **Pb** | **12 39 01.8** | **+1.7** |
| STHS | | | | *e*SG | **Sb** | **12 40 04.8** | **-1.7** |
| **DIVS** | **Divibare** | **5.64** | **123** | *e*Pn | **Pn** | **12 38 47.5** | **+1.4** |
| **SFTF** | **Sexfontaines** | **5.72** | **281** | *e*Pn | **Pn** | **12 38 45.2** | **-1.9** |
| **SFTF** | **Sexfontaines** | **5.72** | **281** | *e*Pg | Pb | 12 39 07.8 | +5.3 |
| SFTF | | | | *e*Sn | **Sn** | **12 39 47.0** | **-5.2** |
| SFTF | | | | *e*Sg | Sb | 12 40 21.3 | +11 |
| | comp=Z,22nm,0.4s | | | | | | | |
| **SFTF** | **Sexfontaines** | **5.72** | **281** | *e*Pn | **Pn** | **12 38 45.2** | **-1.9** |
| **MEZF** | **Maizieres J'vi** | **5.75** | **284** | *e*Pn | **Pn** | **12 38 45.3** | **-2.2** |
| **MEZF** | **Maizieres J'vi** | **5.75** | **284** | *e*Pg | Pb | 12 39 07.7 | +4.8 |
| MEZF | | | | *e*Sn | **Sn** | **12 39 46.0** | **-6.8** |
| | comp=Z,13nm,0.3s,baz=110,SNR=1.0 | | | | | | | |
| **MEZF** | **Maizieres J'vi** | **5.75** | **284** | *e*Pn | **Pn** | **12 38 45.3** | **-2.2** |
| **PGF** | **Pioggiola** | **5.77** | **215** | *e*Pn | **Pn** | **12 38 47.6** | **-0.3** |
| **PGF** | **Pioggiola** | **5.77** | **215** | *e*Pn | **Pn** | **12 38 47.6** | **-0.3** |
| **ORIF** | **Oris-en-Rattie** | **5.80** | **248** | *e*P | **Pn** | **12 38 50.2** | **+1.9** |
| | SNR=1.0 | | | | | | | |
| **ORIF** | **Oris-en-Rattie** | **5.80** | **248** | *e*Pg | Pb | 12

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| WERN | | | | Sg | | **Sg** | **12 39 09.9** | **-1.3** |
| **GUNZ** | **Gunzen** | **3.01** | **346** | *e*Pg | | **Pg** | **12 38 34.7** | **0.0** |
| GUNZ | | | | *e*Sg | | **Sg** | **12 39 13.5** | **-0.3** |
| **GUNZ** | **Gunzen** | **3.01** | **346** | Pg | | **Pg** | **12 38 34.7** | **0.0** |
| GUNZ | | | | Sg | | **Sg** | **12 39 13.5** | **-0.3** |
| **MULD** | **Muldenberg** | **3.05** | **347** | *e*Pg | | **Pg** | **12 38 35.4** | **0.0** |
| MULD | | | | *e*Sg | | **Sg** | **12 39 14.9** | **0.0** |
| **MULD** | **Muldenberg** | **3.05** | **347** | Pg | | **Pg** | **12 38 35.4** | **0.0** |
| MULD | | | | Sg | | **Sg** | **12 39 14.9** | **0.0** |
| **WERD** | **Werda** | **3.10** | **346** | *e*Pg | | **Pg** | **12 38 36.0** | **-0.4** |
| WERD | | | | *e*Sg | | **Sg** | **12 39 15.3** | **-1.2** |
| **WERD** | **Werda** | **3.10** | **346** | Pg | | **Pg** | **12 38 36.0** | **-0.4** |
| WERD | | | | Sg | | **Sg** | **12 39 15.3** | **-1.2** |
| **PVCC** | **Panska Ves** | **3.16** | **13** | *e*SG | | **Sg** | **12 39 18.7** | **+0.1** |
| **KRLC** | **Kraliky** | **3.42** | **38** | *e*SG | | **Sg** | **12 39 25.7** | **-1.0** |
| | comp=Z,69nm,0.6s | | | | | | | |
| **KRLC** | **Kraliky** | **3.42** | **38** | Sg | | **Sg** | **12 39 25.7** | **-1.0** |
| | 69nm,0.6s | | | | | | | |
| **MOX** | **Moxa** | **3.42** | **340** | *e*Pn | | **Pn** | **12 38 30.5** | **-0.6** |
| MOX | | | | *e*Sg | | **Sg** | **12 39 26.0** | **-1.0** |
| **MOX** | **Moxa** | **3.42** | **340** | Pn | | **Pn** | **12 38 30.5** | **-0.6** |
| MOX | | | | Sg | | **Sg** | **12 39 26.0** | **-1.0** |
| **BRG** | **Berggiesshubel** | **3.44** | **5** | *e*Pg | | **Pg** | **12 38 42.1** | **-0.8** |
| BRG | | | | *e*Sg | | **Sg** | **12 39 26.6** | **-0.9** |
| **BRG** | **Berggiesshubel** | **3.44** | **5** | Pg | | **Pg** | **12 38 42.1** | **-0.8** |
| BRG | | | | Sg | | **Sg** | **12 39 26.6** | **-0.9** |
| **DPC** | **Dobruska-Polom** | **3.46** | **32** | *e*SG | | **Sg** | **12 39 25.3** | **-2.7** |
| | comp=Z,152nm,0.5s | | | | | | | |
| **MORC** | **Moravsky Berou** | **3.56** | **48** | ↑ | *i*P | **Pg** | **12 38 47.6** | **+2.4** |
| **MORC** | **Moravsky Berou** | **3.56** | **48** | S | | **Sn** | **12 39 15.2** | **-0.3** |
| **MORC** | **Moravsky Berou** | **3.56** | **48** | *e*Sg | | **Sg** | **12 39 30.4** | **-1.0** |
| **MORC** | **Moravsky Berou** | **3.56** | **48** | *e*Sg | | **Sn** | **12 39 14.9** | **-0.6** |
| **BFO** | **Black Forest** | **3.58** | **286** | *e*Pg | | **Pn** | **12 38 30.6** | **-2.6** |
| BFO | | | | *e*Sg | | **Sn** | **12 39 13.8** | **-2.1** |
| **CLL** | **Collm** | **3.88** | **356** | *e*Pg | | **Pn** | **12 38 35.0** | **-2.3** |
| CLL | | | | *e*Sn | | **Pg** | **12 38 50.0** | **-1.2** |
| CLL | | | | *e*Sg | | **Sn** | **12 39 24.0** | **+0.9** |
| | comp=Z,186nm,0.9s | | | | | | | |
| **CLL** | **Collm** | **3.88** | **356** | *e*Pg | | **Pn** | **12 38 34.6** | **-2.6** |
| CLL | | | | *e*Sg | | **Sn** | **12 39 22.6** | **-0.6** |
| **FGSL** | **Fruska Gora** | **4.95** | **115** | *e*Pn | | **Pn** | **12 38 53.0** | **+0.9** |
| **BZS** | **Buzias** | **5.91** | **105** | ↑ | *i*P | **Pn** | **12 39 02.9** | **-2.3** |
| **BZS** | **Buzias** | **5.91** | **105** | ↑ | *i*P | **Pn** | **12 39 02.9** | **-2.3** |

*CSEM **14** 12:41:35.6, 47°.39N×13°.43E, h7km, ML1.7/9*
**VIE 14 12:41:35.6±0.2, 47°.39N×13°.43E, h7km±3km, mb1.3/1, ML1.7/9, Error ellipse: s-maj=1.7km s-min=1.6km az=34.0, Austria**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KBA** | **Koelnbreinsper** | **0.31** | **191** | Pg | Pg | 12 41 42.3 | +0.5 |
| | 5.8nm,0.1s | | | | | | |
| KBA | | | | Sg | Sg | 12 41 47.4 | +1.4 |
| | 9.9nm,0.1s | | | | | | |
| **MOA** | **Molln** | **0.73** | **50** | Pg | Pg | 12 41 49.3 | -0.4 |
| | 0.9nm,0.1s | | | | | | |
| MOA | | | | Sg | Sg | 12 41 59.9 | +0.7 |
| | 2.5nm,0.1s | | | | | | |
| **MYKA** | **Terra Mystica** | **0.77** | **169** | Pg | Pg | 12 41 50.6 | +0.2 |
| | 0.8nm,0.1s | | | | | | |
| MYKA | | | | Sg | Sg | 12 42 00.7 | +0.3 |
| | 1.5nm,0.2s | | | | | | |
| **ABTA** | **Abfaltersbach** | **0.90** | **225** | Sg | Sg | 12 42 04.6 | +0.2 |
| | 1.5nm,0.2s | | | | | | |
| **OBKA** | **Obir** | **1.17** | **138** | Pg | Pn | 12 41 58.4 | 0.0 |
| | 2.2nm,0.3s | | | | | | |
| OBKA | | | | Sg | Sb | 12 42 13.4 | 0.0 |
| | 1.2nm,0.2s | | | | | | |
| **WTTA** | **Wattenberg** | **1.23** | **265** | Pg | Pn | 12 41 59.7 | +0.4 |
| | 4.1nm,0.1s | | | | | | |
| WTTA | | | | Sg | Sn | 12 42 17.2 | +1.0 |
| | 5.7nm,0.2s | | | | | | |
| **WATA** | **Walderalm** | **1.26** | **268** | Pg | Pg | 12 42 00.2 | +0.4 |
| | 0.7nm,0.1s | | | | | | |
| WATA | | | | Sg | Sn | 12 42 17.8 | +0.8 |
| | 3.5nm,0.1s | | | | | | |
| **SOKA** | **Soboth** | **1.31** | **122** | Pg | Pg | 12 42 00.8 | +0.2 |
| | 0.6nm,0.2s | | | | | | |
| SOKA | | | | Sg | Sn | 12 42 18.4 | +0.4 |
| | 1.5nm,0.2s | | | | | | |
| **MOTA** | **Moosalm** | **1.58** | **269** | Pg | Pg | 12 42 06.0 | +0.1 |
| | 0.7nm,0.2s | | | | | | |
| MOTA | | | | Sg | Sg | 12 42 27.4 | +1.0 |
| | 3.1nm,0.2s | | | | | | |
| **CONA** | **Conrad Observa** | **1.73** | **71** | Sn | Sb | 12 42 29.7 | 0.0 |
| | 2.1nm,0.2s | | | | | | |

*IDC **14** 12:41:32.2±1.5, 5°.55S×151°.39E, h0km, mb4.1/6, mb1 4.4/7, mb1mx3.8/42, mbtmp4.2/7, ML2.2/1, Error ellipse: s-maj=60.0km s-min=21.1km az=120.0*
*ISCJB **14** 12:41:38.5±1.2, 5°.7S±0°.2×151°.3E±0°.2, h57km, mb4.0/6, Error ellipse: s-maj=44.2km s-min=12.3km az=39.0*
**ISC 14 12:41:39.9±1.4, 5°.6S±0°.2×151°.3E±0°.3, h57km, n8, σ0s53/9, mb4.0/6, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **5.55** | **227** | Pn | **Pn** | **12 42 59.2** | **-0.9** |
| | 4.2nm,0.3s,baz=43,slow=10,SNR=8.2 | | | | | | |
| PMG | | | | Sn | **Sn** | **12 44 03.1** | **+0.5** |
| | 3.2nm,0.3s,baz=9.5,slow=20,SNR=7.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **21.77** | **228** | P | **P** | **12 46 27.1** | **-0.1** |
| | 4.3nm,0.9s,baz=53,slow=10,SNR=8.8 | | | | | | |
| **ASAR** | **Alice Springs** | **24.53** | **221** | P | **P** | **12 46 55.0** | **+0.6** |
| | 5.2nm,0.8s,baz=55,slow=9.2,SNR=22 | | | | | | |
| **STKA** | **Stephens Creek** | **27.64** | **198** | P | **P** | **12 47 22.6** | **+0.3** |
| | 4.0nm,1.1s,baz=18,slow=16,SNR=2.7 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **27.95** | **242** | P | **P** | **12 47 25.4** | **+0.2** |
| | 3.8nm,0.7s,baz=77,slow=8.3,SNR=7.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **81.03** | **327** | P | **P** | **12 53 48.9** | **+0.3** |
| | 0.4nm,0.5s,baz=92,slow=4.3,SNR=4.1 | | | | | | |
| **ILAR** | **Eielson Array** | **83.50** | **22** | P | **P** | **12 54 00.9** | **-0.4** |
| | 1.6nm,0.7s,baz=245,slow=5.5,SNR=4.5 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **149.13** | **286** | PKPbc | **PKPbc** | **13 01 23.1** | **+0.1** |
| | 3.0nm,0.9s,baz=66,slow=2.7,SNR=16 | | | | | | |

*IDC **14** 12:44:54.5±12.0, 25°.56N×125°.89E, h0km, mb3.8/4, mb1 3.8/6, mb1mx3.5/47, mbtmp3.8/6, ML3.8/1, Error ellipse: s-maj=214.1km s-min=42.9km az=147.0*
*ISCJB **14** 12:45:16.4±0.4, 26°.89N±0°.07×126°.56E±0°.06, h167km±7km, mb3.5/4, Error ellipse: s-maj=13.4km s-min=3.6km az=142.4*
*JMA **14** 12:45:17.9±0.3, 27°.04N×126°.43E, h150km±4km, M3.8*
**ISC 14 12:45:17.5±0.9, 26°.93N±0°.08×126°.53E±0°.06, h165km±9km, n30, σ1s28/47, mb3.6/4, Ryukyu Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JKE** | **Kume jima 2** | **0.64** | **159** | P | **Pn** | **12 45 41.1** | **-0.2** |
| JKE | | | | S | **Sn** | **12 45 59.0** | **-0.5** |
| **JAGN** | **Aguni-jima** | **0.72** | **118** | P | **Pn** | **12 45 41.8** | **+0.1** |
| JAGN | | | | S | **Sn** | **12 45 59.1** | **-1.2** |
| **JIH** | **Iheya** | **1.29** | **85** | P | **Pn** | **12 46 46.5** | **+0.3** |
| JIH | | | | *e*S | **Sn** | **12 46 06.8** | **-1.4** |
| **JJT2** | **Tamagusuku 2** | **1.34** | **125** | P | **Pn** | **12 45 48.2** | **+1.5** |
| JJT2 | | | | S | **Sn** | **12 46 09.9** | **+0.7** |
| **JNTH** | **Nagotoyohara** | **1.40** | **107** | P | **Pn** | **12 45 48.1** | **+0.9** |
| JNTH | | | | S | **Sn** | **12 46 09.4** | **-0.6** |
| **JOW** | **Kunigami** | **1.56** | **93** | P | **Pn** | **12 45 49.4** | **+0.5** |
| **JOKE** | **Okinoerabujima** | **1.87** | **76** | P | **Pn** | **12 45 51.9** | **-0.2** |
| JOKE | | | | S | **Sn** | **12 46 18.2** | **-0.7** |
| **JIKM** | **Ikemajima** | **2.30** | **210** | P | **Pn** | **12 45 57.4** | **+0.4** |
| **JTK** | **Tokunoshima** | **2.32** | **68** | P | **Pn** | **12 45 56.7** | **-0.5** |
| JTK | | | | *e*S | **Sn** | **12 46 25.9** | **-2.1** |
| **JMJ** | **Miyako jima 2** | **2.38** | **208** | P | **Pn** | **12 45 58.2** | **+0.3** |
| JMJ | | | | *e*S | **Sn** | **12 46 28.9** | **-0.3** |
| **JOGS** | **Gusukube** | **2.38** | **205** | P | **Pn** | **12 45 58.4** | **+0.4** |
| **JIRB** | **Irabujima** | **2.42** | **211** | P | **Pn** | **12 45 58.4** | **0.0** |
| JIRB | | | | S | **Sn** | **12 46 28.9** | **-1.2** |
| **JAMN** | **Amaminishikomi** | **2.69** | **60** | P | **Pn** | **12 46 00.9** | **-0.7** |
| JAMN | | | | S | **Sn** | **12 46 33.5** | **-2.4** |
| **JTJ** | **Tarama** | **2.81** | **216** | P | **Pn** | **12 46 02.8** | **-0.3** |
| JTJ | | | | S | **Sn** | **12 46 36.8** | **-1.7** |
| **JISG** | **Ishigakijimahi** | **3.07** | **221** | P | **Pn** | **12 46 05.8** | **-0.5** |
| JISG | | | | S | **Sn** | **12 46 41.7** | **-2.5** |
| **JAM** | **Amami Oshima** | **3.11** | **61** | P | **Pn** | **12 46 06.0** | **-0.7** |
| JAM | | | | S | **Sn** | **12 46 42.9** | **-2.1** |
| **JTAJ** | **Takarajima** | **3.24** | **46** | P | **Pn** | **12 46 08.7** | **+0.2** |
| **JIJ** | **Ishigaki jima** | **3.34** | **221** | P | **Pn** | **12 46 08.8** | **-0.9** |
| JIJ | | | | S | **Sn** | **12 46 47.1** | **-3.2** |
| **JZK** | **Kikaishima** | **3.36** | **65** | P | **Pn** | **12 46 10.0** | **+0.1** |
| JZK | | | | S | **Sn** | **12 46 49.8** | **-0.9** |
| **JKRS** | **Kuro-shima** | **3.51** | **221** | P | **Pn** | **12 46 11.0** | **-0.9** |
| **IRIF** | **Iriomote-Funau** | **3.61** | **225** | P | **Pn** | **12 46 12.2** | **-1.0** |
| **YOJ** | **Yonaguni jima** | **4.01** | **233** | P | **Pn** | **12 46 18.3** | **0.0** |
| **JYNG** | **Yonagunijimaku** | **4.06** | **233** | P | **Pn** | **12 46 18.9** | **-0.1** |
| JYNG | | | | S | **Sn** | **12 47 06.9** | **0.0** |
| **JMZ** | **Minamidaito 2** | **4.35** | **104** | P | **Pn** | **12 46 22.5** | **-0.2** |
| JMZ | | | | S | **Sn** | **12 47 11.1** | **-2.5** |
| **JNU** | **Nakatsue** | **7.24** | **30** | Pn | **Pn** | **12 47 02.1** | **+1.5** |
| | 0.9nm,0.3s,baz=189,slow=18,SNR=7.5 | | | | | | |
| **KSRS** | **Korea Array** | **10.56** | **6** | Pn | **Pn** | **12 47 45.7** | **+1.2** |
| | 0.0nm,0.3s,baz=146,slow=11,SNR=3.5 | | | | | | |
| **SONM** | **Songino Array** | **26.15** | **328** | P | **P** | **12 50 39.5** | **+3.0** |
| | 0.4nm,0.5s,baz=146,slow=11,SNR=3.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **39.94** | **312** | P | **P** | **12 52 34.9** | **-0.6** |
| | 0.7nm,0.4s,baz=99,slow=9.3,SNR=19 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **40.77** | **323** | P | **P** | **12 52 41.4** | **-0.8** |
| | 0.8nm,0.4s,baz=116,slow=9.2,SNR=4.5 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **43.30** | **316** | P | **P** | **12 53 02.8** | **+0.1** |
| | 0.5nm,0.3s,baz=102,slow=9.0,SNR=4.8 | | | | | | |

**DJA 14 13:01:07.6±0.5, 3°.S±4°.×12°.9E±°, h13km±4km, M3.7/8, MLv3.7/8, Seram**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MSAI** | **Masohi** | **0.35** | **223** | P | Pg | 13 01 15.0 | +0.3 |
| MSAI | | | | S | Sb | 13 01 20.5 | -0.7 |
| **AAI** | **Ambon** | **1.14** | **239** | P | Pg | 13 01 29.9 | +0.3 |
| AAI | | | | S | Sb | 13 01 43.6 | -0.3 |
| **BNDI** | **Bandanaira** | **1.60** | **153** | P | Pn | 13 01 35.4 | -0.2 |
| **NLAI** | **Namlea** | **2.07** | **266** | P | Pb | 13 01 44.2 | -0.9 |
| **LBMI** | **Labuha** | **2.95** | **326** | P | Pn | 13 01 55.5 | +1.3 |
| LBMI | | | | S | Sn | 13 02 28.8 | -0.8 |
| **SWI** | **Sorong** | **3.04** | **43** | P | Pn | 13 01 57.1 | +1.6 |
| SWI | | | | S | Sn | 13 02 32.3 | +0.5 |
| **FAKI** | **Fak Fak** | **3.08** | **87** | P | Pn | 13 01 57.4 | +1.4 |
| FAKI | | | | S | Sn | 13 02 31.4 | -1.3 |
| **SANI** | **Sanana** | **3.34** | **288** | P | Pn | 13 01 58.3 | -1.3 |
| **KMPI** | **Kaimana, Papua** | **4.56** | **97** | P | Pn | 13 02 17.8 | +1.4 |

**MEX 14 13:28:59.6±0.3, 19°.39N×105°.15W, h15km±12km, MD3.5, Near coast of Jalisco**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CJM** | **Chamela** | **0.15** | **42** | *e*P | Pg | 13 29 03.0 | -0.6 |
| CJM | | | | *e*S | Sg | 13 29 05.5 | -0.6 |
| **R15V** | | **1.12** | **101** | *e*P | Pb | 13 29 17.2 | -3.6 |
| R15V | | | | *e*S | Sb | 13 29 30.9 | -4.4 |
| **EZ5V** | | **1.47** | **86** | *e*P | Pn | 13 29 22.2 | -3.6 |
| EZ5V | | | | *i* S | Sn | 13 29 40.0 | -4.9 |

*IDC **14** 13:32:37.3±1.6, 16°.57S×172°.78W, h0km, mb4.0/5, mb1 4.3/6, mb1mx3.9/33, mbtmp4.0/6, ML3.9/1, MS3.8/15, Ms1 3.8/15, ms1mx3.6/32, Error ellipse: s-maj=74.2km s-min=23.2km az=143.0*
*NEIC **14** 13:32:39.2±1.4, 16°.44S×172°.80W, h10km, mb4.7/1, Error ellipse: s-maj=50.8km s-min=14.7km az=144.0*
*ISCJB **14** 13:32:41.0±1.3, 16°.0S±0°.2×173°.1W±0°.2, h26km, mb4.0/6, MS3.9/14, Error ellipse: s-maj=42.9km s-min=9.0km az=136.3*
**ISC 14 13:32:42.3±1.5, 16°.1S±0°.3×173°.0W±0°.2, h26km, n22, σ1s68/11, mb4.1/6, MS4.0/14, Samoa Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AFI** | **Afiamalu** | **2.46** | **28** | Pn | **Pn** | **13 33 21.5** | **+0.7** |
| | 20nm,0.3s,baz=191,slow=2.4,SNR=61 | | | | | | |
| AFI | | | | Sn | **Sn** | **13 33 48.0** | **-2.0** |
| | 35nm,0.3s,baz=29,slow=22,SNR=16 | | | | | | |
| AFI | | | | LR | LR | 13 34 31.9 | |
| | comp=Z,854nm,19.1s,baz=204,slow=41 | | | | | | |
| **MSVF** | **Nonsavu** | **8.77** | **258** | *e*Pn | **Pn** | **13 34 47.8** | **+0.3** |
| **DZM** | **Mont Dzumac** | **20.35** | **250** | LR | LR | 13 43 31.5 | |
| | comp=Z,356nm,19.5s,baz=97,slow=32 | | | | | | |
| **DZM** | **Mont Dzumac** | **20.35** | **250** | *e*LR | LR | 13 41 39.6 | |
| | 454nm,23.6s | | | | | | |
| **PPT** | **Papeete** | **22.41** | **97** | LR | LR | 13 44 42.3 | |
| | comp=Z,140nm,19.8s,baz=270,slow=33 | | | | | | |
| **RKT** | **Rikitea** | **36.37** | **107** | *e*T | T | 14 20 00.0 | |
| | 8.8nm,0.4s | | | | | | |
| **WRA** | **Warramunga Arr** | **50.11** | **257** | P | **P** | **13 41 33.1** | **-2.6** |
| | 2.0nm,1.1s,baz=90,slow=7.4,SNR=6.5 | | | | | | |
| WRA | | | | LR | LR | 13 59 48.7 | |
| | comp=Z,193nm,21.5s,baz=85,slow=32 | | | | | | |
| **ASAR** | **Alice Springs** | **50.31** | **252** | P | **P** | **13 41 36.2** | **-1.0** |
| | 4.5nm,0.9s,baz=87,slow=8.5,SNR=24 | | | | | | |
| ASAR | | | | LR | LR | 14 00 31.7 | |
| | comp=Z,257nm,20.6s,baz=96,slow=33 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **58.49** | **258** | LR | LR | 14 04 55.5 | |
| | comp=Z,149nm,22.0s,slow=33 | | | | | | |
| **JCJ** | **Chichijima** | **61.16** | **314** | LR | LR | 14 04 21.8 | |
| | comp=Z,53nm,21.2s,baz=154,slow=31 | | | | | | |
| **TXAR** | **Lajitas Array** | **80.64** | **56** | P | **P** | **13 44 52.1** | **-1.2** |
| | 0.2nm,0.7s,baz=243,slow=4.0,SNR=2.9 | | | | | | |
| **PDAR** | **Pinedale Array** | **82.50** | **42** | LR | LR | 14 17 52.7 | |
| | comp=Z,49nm,19.6s,baz=292,slow=33 | | | | | | |
| **COLA** | **College** | **82.97** | **11** | *e*P | **P** | **13 45 06.6** | **+2.0** |
| | 3.7nm,0.8s | | | | | | |
| **ILAR** | **Eielson Array** | **83.05** | **11** | P | **P** | **13 45 07.0** | **+2.0** |
| | 0.9nm,0.8s,baz=216,slow=6.3,SNR=5.6 | | | | | | |
| ILAR | | | | LR | LR | 14 13 16.1 | |
| | comp=Z,64nm,20.7s,baz=212,slow=29 | | | | | | |
| **MAW** | **Mawson** | **87.27** | **199** | LR | LR | 14 23 40.7 | |
| | comp=Z,72nm,18.1s,baz=60,slow=35 | | | | | | |
| **PLCA** | **Paso Flores** | **88.72** | **132** | LR | LR | 14 17 39.2 | |
| | comp=Z,58nm,18.5s,baz=315,slow=31 | | | | | | |
| **PSI** | **Prapat** | **88.97** | **273** | LR | LR | 14 23 51.3 | |
| | comp=Z,98nm,18.5s,baz=79,slow=34 | | | | | | |
| **YKA** | **Yellowknife Ar** | **90.57** | **23** | LR | LR | 14 25 10.5 | |
| | comp=Z,5.9nm,18.1s,baz=180,slow=35 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **93.25** | **288** | P | **P** | **13 45 55.9** | **+0.7** |
| | 1.0nm,1.0s,baz=108,slow=2.9,SNR=5.0 | | | | | | |
| CMAR | | | | LR | LR | 14 25 10.8 | |
| | comp=Z,39nm,18.7s,baz=164,slow=34 | | | | | | |
| **ULM** | **Lac du Bonnet** | **94.20** | **39** | LR | LR | 14 22 17.8 | |
| | comp=Z,103nm,19.6s,baz=94,slow=32 | | | | | | |
| **GERES** | **GERESS Array B** | **146.90** | **352** | PKPbc | **PKPab** | **13 52 24.3** | **+0.5** |
| | 1.1nm,0.9s,baz=48,slow=2.0,SNR=5.0 | | | | | | |
| **BRTR** | **Keskin Array B** | **146.98** | **321** | PKPbc | **PKPab** | **13 52 24.6** | **+0.1** |
| | 2.8nm,0.9s,baz=106,slow=2.7,SNR=12 | | | | | | |

**KRSC 14 13:33:42.5±0.7, 55°.10N×160°.16E, h-2km±4km, ML3.6, Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KZV** | **Kizimen** | **0.08** | **80** | *i* P | Pg | 13 33 45.6 | +1.6 |
| **TUMD** | **Tumrok D** | **0.17** | **53** | *i* P | Pg | 13 33 46.9 | +1.1 |
| TUMD | | | | *e*S | Sg | 13 33 49.7 | +1.7 |
| **TUMR** | **Tumrok** | **0.18** | **357** | *i* P | Pg | 13 33 47.9 | +1.8 |
| TUMR | | | | *e*S | Sg | 13 33 51.5 | +3.0 |
| **KMNR** | **Kamenistaya** | **0.66** | **4** | *e*P | Pb | 13 33 56.3 | -0.7 |
| KMNR | | | | *e*S | Sb | 13 34 07.5 | +0.8 |
| **BZMR** | **Bezymyannaya** | **0.86** | **12** | *e*P | Pb | 13 34 00.4 | 0.0 |
| BZMR | | | | *e*S | Sb | 13 34 13.3 | +0.8 |
| **KIRR** | **Kirishev** | **0.86** | **7** | *e*P | Pb | 13 34 00.7 | +0.2 |
| KIRR | | | | *e*S | Sb | 13 34 13.9 | +1.3 |
| **KPT** | **Kopyto** | **0.87** | **2** | *e*P | Pb | 13 34 01.0 | +0.4 |
| KPT | | | | *e*S | Sn | 13 34 14.3 | -1.2 |
| **BZWR** | **Bezymyannyi-We** | **0.89** | **12** | *e*P | Pb | 13 34 01.1 | +0.2 |
| **KOZ** | **Kozyrevsk** | **0.97** | **350** | *e*P | Pg | 13 34 01.7 | +0.5 |
| KOZ | | | | *e*S | Sb | 13 34 16.7 | +1.0 |
| **ZLN** | **Zelenaya** | **0.99** | **21** | *e*P | Pb | 13 34 02.3 | -0.3 |
| **CIRR** | **Tsirk** | **1.07** | **18** | *e*P | Pn | 13 34 05.1 | +0.2 |
| CIRR | | | | *e*S | Sn | 13 34 21.2 | +0.6 |
| **KRSR** | **Krestovskiy** | **1.14** | **11** | *e*P | Pb | 13 34 05.4 | +0.2 |
| KRSR | | | | *e*S | Sn | 13 34 23.5 | +1.2 |
| **KII** | **Karymskiy** | **1.14** | **202** | *e*P | Pb | 13 34 05.3 | +0.1 |
| KII | | | | *e*S | Sn | 13 34 22.2 | -0.1 |
| **ESO** | **Esso** | **1.17** | **315** | *e*P | Pg | 13 34 04.8 | -0.2 |
| **KLY** | **Klyuchi** | **1.25** | **13** | *e*P | Pn | 13 34 07.5 | +0.3 |
| KLY | | | | *e*S | Sn | 13 34 26.2 | +1.5 |
| **BDR** | **Baidarnaya** | **1.58** | **21** | *e*P | Pb | 13 34 12.7 | -0.1 |
| BDR | | | | *e*S | Sg | 13 34 35.2 | +1.7 |
| **SMKR** | **Semkarok** | **1.66** | **26** | *e*P | Pg | 13 34 14.5 | +0.2 |
| SMKR | | | | *e*S | Sg | 13 34 38.1 | +2.3 |
| **SRKR** | **Sorokina** | **1.66** | **20** | *e*P | Pb | 13 34 13.8 | -0.2 |
| SRKR | | | | S | Sg | 13 34 37.0 | +1.2 |
| **KBTR** | **Krutoberegovo** | **1.87** | **52** | *e*P | Pn | 13 34 15.9 | +0.1 |
| KBTR | | | | S | Sn | 13 34 40.4 | +0.3 |
| **GNL** | **Ganaly** | **1.92** | **224** | *e*P | Pn | 13 34 17.3 | +0.8 |
| GNL | | | | S | Sb | 13 34 42.9 | 0.0 |
| **KRX** | **Arik** | **1.96** | **208** | *e*P | Pb | 13 34 18.6 | -0.5 |
| **SDLR** | **Sedlovina** | **1.97** | **203** | *e*P | Pb | 13 34 18.7 | -0.7 |
| SDLR | | | | *e*S | Sg | 13 34 45.8 | -0.1 |
| **KRER** | **Koryakskii** | **1.98** | **205** | *e*P | Pg | 13 34 20.4 | -0.1 |
| **NLC** | **Nalytchevo** | **1.99** | **194** | *e*P | Pn | 13 34 18.3 | +0.9 |
| NLC | | | | *e*S | Sb | 13 34 45.0 | +0.1 |
| **AVH** | **Avacha** | **2.02** | **205** | *e*P | Pb | 13 34 19.9 | -0.3 |
| **KOK** | **Koryaka** | **2.02** | **207** | *e*P | Pg | 13 34 21.6 | +0.3 |
| **UGLR** | **Uglovaya** | **2.05** | **203** | *e*P | Pb | 13 34 20.0 | -0.7 |
| **PET** | **Petropavlovsk** | **2.26** | **204** | *e*P | Pb | 13 34 22.9 | -1.3 |
| PET | | | | S | Sg | 13 34 54.4 | -0.8 |
| **APC** | **Apacha** | **2.81** | **220** | *e*P | Pn | 13 34 30.1 | +1.4 |
| **RUS** | **Russkaya** | **2.85** | **201** | *e*P | Pn | 13 34 30.9 | +1.7 |

*AZER **14** 13:34:07.5±1.7, 38°.38N×42°.49E, h8km, Error ellipse: s-maj=23.0km s-min=9.4km az=1.0*
*ISK **14** 13:34:13.9, 38°.70N×43°.30E, h5km, ML3.2*
*DDA **14** 13:34:14.6, 38°.73N×43°.33E, h7km, Ml3.5*
*CSEM **14** 13:34:15.3±0.1, 38°.72N×43°.26E, h2km, ML3.2, Error ellipse: s-maj=3.5km s-min=3.1km az=134.0*
**ISC 14 13:34:15.3±0.8, 38.72N±0.02×43.32E±0.02, h16km±6km, n69, σ1s68/98, 6C-3D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.13** | **157** | PG | **Pg** | **13 34 19.1** | **0.0** |
| VANB | | | | *e*SG | **Sb** | **13 34 22.6** | **+0.2** |
| **VANB** | **Van** | **0.13** | **157** | *i* Pg | **Pg** | **13 34 19.1** | **0.0** |
| VANB | | | | *e*Sg | **Sb** | **13 34 22.6** | **+0.2** |
| **TVAN** | **Van** | **0.20** | **161** | *i* P | **Pg** | **13 34 18.6** | **-1.6** |
| TVAN | | | | *i* S | **Sg** | **13 34 23.5** | **+0.1** |
| **TVAN** | **Van** | **0.20** | **161** | P | **Pg** | **13 34 18.6** | **-1.6** |
| TVAN | | | | S | **Sg** | **13 34 23.5** | **+0.1** |
| **ERCV** | **ERCIS-VAN** | **0.30** | **2** | *e*PG | **Pg** | **13 34 21.4** | **-0.4** |
| ERCV | | | | *e*SG | **Sb** | **13 34 27.0** | **-0.4** |
| **ERCV** | **ERCIS-VAN** | **0.30** | **2** | *e*Pg | **Pg** | **13 34 21.5** | **-0.4** |
| ERCV | | | | *e*Sg | **Sb** | **13 34 27.0** | **-0.4** |
| **VMUR** | **Van-Muradiye** | **0.34** | **35** | *i* P | **Pg** | **13 34 22.0** | **-0.4** |
| VMUR | | | | *i* S | **Sn** | **13 34 29.9** | **-2.5** |
| **VMUR** | **Van-Muradiye** | **0.34** | **35** | P | **Pg** | **13 34 22.0** | **-0.4** |
| VMUR | | | | S | **Sn** | **13 34 29.9** | **-2.5** |
| **GEVA** | **Gevas** | **0.45** | **207** | *i* P | **Pg** | **13 34 23.1** | **-1.3** |
| GEVA | | | | *i* S | **Sg** | **13 34 31.0** | **+0.3** |
| **GEVA** | **Gevas** | **0.45** | **207** | P | **Pg** | **13 34 23.1** | **-1.3** |
| GEVA | | | | S | **Sg** | **13 34 31.0** | **+0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.48** | **281** | *i* P | **Pg** | **13 34 24.2** | **-0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.48** | **281** | P | **Pg** | **13 34 24.2** | **-0.7** |
| **CLDR** | **Caldiran** | **0.63** | **47** | *e*PG | **Pb** | **13 34 27.7** | **-0.5** |
| CLDR | | | | *e*SG | **Sn** | **13 34 37.9** | **-1.9** |
| **CLDR** | **Caldiran** | **0.63** | **47** | *i* P | **Pg** | **13 34 26.5** | **-1.3** |
| CLDR | | | | *i* S | **Sn** | **13 34 38.9** | **-0.9** |
| **CLDR** | **Caldiran** | **0.63** | **47** | P | **Pg** | **13 34 26.5** | **-1.3** |
| **CLDR** | **Caldiran** | **0.63** | **47** | *e*Pg | **Pb** | **13 34 27.7** | **-0.5** |
| CLDR | | | | *e*Sg | **Sn** | **13 34 37.9** | **-1.9** |
| CLDR | | | | S | **Sn** | **13 34 38.9** | **-0.9** |
| **TUTA** | **Tutak** | **0.79** | **330** | *i* P | **Pg** | **13 34 29.9** | **-0.9** |
| TUTA | | | | *i* S | **Sb** | **13 34 41.2** | **-0.3** |
| **TUTA** | **Tutak** | **0.79** | **330** | P | **Pg** | **13 34 29.9** | **-0.9** |
| TUTA | | | | S | **Sb** | **13 34 41.2** | **-0.3** |
| **BASK** | **Baskale_VAN** | **0.85** | **141** | *i* P | **Pb** | **13 34 28.8** | **-3.1** |
| BASK | | | | *i* S | **Sn** | **13 34 44.6** | **-0.6** |
| **BASK** | **Baskale_VAN** | **0.85** | **141** | P | **Pb** | **13 34 28.8** | **-3.1** |
| BASK | | | | S | **Sn** | **13 34 44.6** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **0.90** | **343** | *e*PG | **Pb** | **13 34 31.7** | **-0.9** |
| **AGRB** | **Hanur-Agry** | **0.90** | **343** | *e*Pg | **Pb** | **13 34 31.7** | **-0.9** |
| **EKAR** | **Karacoban** | **1.12** | **299** | *i* P | **Pb** | **13 34 35.5** | **-1.0** |
| EKAR | | | | *i* S | **Sn** | **13 34 52.5** | **+0.6** |
| **EKAR** | **Karacoban** | **1.12** | **299** | P | **Pb** | **13 34 35.5** | **-1.0** |
| EKAR | | | | S | **Sn** | **13 34 52.5** | **+0.6** |
|

SNAL Sg Sg 13 41 55.4 +0.2
1µm,0.6s
**MRLC Muro Lucano 0.18 114** Pg Pg 13 41 54.8 +0.6
MRLC Sg Sg 13 41 58.3 +1.3
548nm,0.2s
**MRLC Muro Lucano 0.18 114** Pg Pg 13 41 54.8 +0.6
MRLC Sg Sg 13 41 58.3 +1.3
548nm,0.2s
**CAFE Carife 0.20 352** Pg Pg 13 41 55.3 +0.7
CAFE Sg Sg 13 41 59.4 +1.8
282nm,0.3s
**CAFE Carife 0.20 352** Pg Pg 13 41 55.3 +0.7
CAFE Sg Sg 13 41 59.4 +1.8
282nm,0.3s
**VULT Monte Vulture 0.29 64** Pg Pg 13 41 56.8 +0.6
VULT Sg Sb 13 42 01.7 -0.8
345nm,0.2s
**VULT Monte Vulture 0.29 64** Pg Pg 13 41 56.8 +0.6
VULT Sg Sb 13 42 01.7 -0.8
345nm,0.2s
**CDRU Civita di Ruta 0.34 176** Pg Pg 13 41 57.3 +0.1
CDRU Sg Sb 13 42 03.2 -0.8
90nm,0.2s
**CDRU Civita di Ruta 0.34 176** Pg Pg 13 41 57.3 +0.1
CDRU Sg Sb 13 42 03.2 -0.8
90nm,0.2s
**MRB1 Monte Rocchett 0.37 323** Pg Pg 13 41 58.2 +0.5
138nm,0.7s
**MRB1 Monte Rocchett 0.37 323** Pg Pg 13 41 58.2 +0.5
138nm,0.7s
**ACER Acerenza 0.51 95** Pg Pg 13 42 00.3 0.0
ACER Sg Sb 13 42 08.6 -0.2
64nm,0.6s
**ACER Acerenza 0.51 95** Pg Pg 13 42 00.3 0.0
ACER Sg Sb 13 42 08.6 -0.2
64nm,0.6s
**CMPR Campora 0.51 177** Pg Pg 13 42 00.0 -0.3
CMPR Sg Sb 13 42 08.6 -0.2
50nm,0.3s
**CMPR Campora 0.51 177** Pg Pg 13 42 00.0 -0.3
CMPR Sg Sb 13 42 08.6 -0.2
50nm,0.3s
**SLCN Sala Consilina 0.52 148** Pg Pb 13 42 01.4 -0.1
133nm,0.3s
**SLCN Sala Consilina 0.52 148** Pg Pb 13 42 01.4 -0.1
133nm,0.3s
**MGR Morigerati 0.72 163** Pg Pg 13 42 03.9 -0.4
**MGR Morigerati 0.72 163** Pg Pg 13 42 03.9 -0.4
**MRVN Minervino Murg 0.74 71** Pg Pg 13 42 04.2 -0.4
32nm,0.2s
**MRVN Minervino Murg 0.74 71** Pg Pg 13 42 04.2 -0.4
32nm,0.2s

*CSEM **14** 13:42:13.5, 40°.83N×15°.27E, h11km, ML2.2/10*
**ROM 14 13:42:13.5±0.1, 40°.83N×15°.27E, h11km, MI2.2/10, Error ellipse: s-maj=1.2km s-min=1.1km az=101.0, Southern Italy**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MCRV** | **Calabrutti - M** | **0.09** | **239** | Pg | Pg | 13 42 16.7 | +0.5 |
| MCRV | | | | Sg | Sg | 13 42 18.7 | +0.5 |
| | 5µm,0.2s | | | | | | |
| **MCRV** | **Calabrutti - M** | **0.09** | **239** | Pg | Pg | 13 42 16.7 | +0.5 |
| MCRV | | | | Sg | Sg | 13 42 18.7 | +0.5 |
| | 5µm,0.2s | | | | | | |
| **SNAL** | **S. Angelo Dei** | **0.11** | **333** | Pg | Pb | 13 42 17.1 | -0.6 |
| SNAL | | | | Sg | Sg | 13 42 18.7 | +0.2 |
| | 1µm,0.6s | | | | | | |
| **SNAL** | **S. Angelo Dei** | **0.11** | **333** | Pg | Pb | 13 42 17.1 | -0.6 |
| SNAL | | | | Sg | Sg | 13 42 18.7 | +0.2 |
| | 1µm,0.6s | | | | | | |
| **MRLC** | **Muro Lucano** | **0.18** | **114** | Pg | Pg | 13 42 18.0 | +0.5 |
| MRLC | | | | Sg | Sg | 13 42 21.6 | +1.4 |
| | 548nm,0.2s | | | | | | |
| **MRLC** | **Muro Lucano** | **0.18** | **114** | Pg | Pg | 13 42 18.0 | +0.5 |
| MRLC | | | | Sg | Sg | 13 42 21.6 | +1.4 |
| | 548nm,0.2s | | | | | | |
| **CAFE** | **Carife** | **0.20** | **352** | Pg | Pg | 13 42 18.5 | +0.7 |
| CAFE | | | | Sg | Sg | 13 42 22.6 | +1.8 |
| | 282nm,0.3s | | | | | | |
| **CAFE** | **Carife** | **0.20** | **352** | Pg | Pg | 13 42 18.5 | +0.7 |
| CAFE | | | | Sg | Sg | 13 42 22.6 | +1.8 |
| | 282nm,0.3s | | | | | | |
| **VULT** | **Monte Vulture** | **0.29** | **64** | Pg | Pg | 13 42 20.0 | +0.6 |
| VULT | | | | Sg | Sb | 13 42 24.7 | -1.0 |
| | 345nm,0.2s | | | | | | |
| **VULT** | **Monte Vulture** | **0.29** | **64** | Pg | Pg | 13 42 20.0 | +0.6 |
| VULT | | | | Sg | Sb | 13 42 24.7 | -1.0 |
| | 345nm,0.2s | | | | | | |
| **CDRU** | **Civita di Ruta** | **0.34** | **176** | Pg | Pg | 13 42 20.6 | +0.2 |
| CDRU | | | | Sg | Sb | 13 42 26.1 | -1.0 |
| | 90nm,0.2s | | | | | | |
| **CDRU** | **Civita di Ruta** | **0.34** | **176** | Pg | Pg | 13 42 20.6 | +0.2 |
| CDRU | | | | Sg | Sb | 13 42 26.1 | -1.0 |
| | 90nm,0.2s | | | | | | |
| **MRB1** | **Monte Rocchett** | **0.37** | **323** | Pg | Pg | 13 42 21.3 | +0.4 |
| | 138nm,0.7s | | | | | | |
| **MRB1** | **Monte Rocchett** | **0.37** | **323** | Pg | Pg | 13 42 21.3 | +0.4 |
| | 138nm,0.7s | | | | | | |
| **ACER** | **Acerenza** | **0.51** | **95** | Pg | Pg | 13 42 23.5 | 0.0 |
| ACER | | | | Sg | Sg | 13 42 30.9 | +0.6 |
| | 64nm,0.6s | | | | | | |
| **ACER** | **Acerenza** | **0.51** | **95** | Pg | Pg | 13 42 23.5 | 0.0 |
| ACER | | | | Sg | Sg | 13 42 30.9 | +0.6 |
| | 64nm,0.6s | | | | | | |
| **CMPR** | **Campora** | **0.51** | **177** | Pg | Pg | 13 42 23.6 | +0.1 |
| CMPR | | | | Sg | Sb | 13 42 31.8 | -0.2 |
| | 50nm,0.3s | | | | | | |
| **CMPR** | **Campora** | **0.51** | **177** | Pg | Pg | 13 42 23.6 | +0.1 |
| CMPR | | | | Sg | Sb | 13 42 31.8 | -0.2 |
| | 50nm,0.3s | | | | | | |
| **SLCN** | **Sala Consilina** | **0.52** | **148** | Pg | Pg | 13 42 23.3 | -0.3 |
| SLCN | | | | Sg | Sb | 13 42 32.4 | +0.2 |
| | 133nm,0.3s | | | | | | |
| **SLCN** | **Sala Consilina** | **0.52** | **148** | Pg | Pg | 13 42 23.3 | -0.3 |
| SLCN | | | | Sg | Sb | 13 42 32.4 | +0.2 |
| | 133nm,0.3s | | | | | | |

**IDC 14 13:57:47.4±3.9, 4°.45S×139°.07E, h0km, mb3.7/2, mb1 3.9/4, mb1mx3.6/33, mbtmp3.8/4, ML3.7/2, Error ellipse: s-maj=103.3km s-min=30.5km az=88.0, Irian Jaya**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **16.07** | **196** | Pn | Pn | 14 01 30.2 | -4.7 |
| | 0.2nm,0.3s,baz=15,slow=13,SNR=14 | | | | | | |
| WRA | | | | Sn | Sn | 14 04 21.9 | -12 |
| | 0.1nm,0.3s,baz=7.7,slow=22,SNR=3.5 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **18.88** | **223** | P | P | 14 02 09.2 | -0.3 |
| | 0.1nm,0.3s,baz=30,slow=12,SNR=3.1 | | | | | | |
| **ASAR** | **Alice Springs** | **19.74** | **194** | P | P | 14 02 19.0 | +0.1 |
| | 0.5nm,0.3s,baz=3.7,slow=10,SNR=52 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **45.62** | **301** | P | P | 14 06 10.2 | +0.2 |
| | 0.9nm,0.6s,baz=116,slow=6.4,SNR=9.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **71.38** | **323** | P | P | 14 09 09.2 | -0.2 |
| | 0.3nm,0.4s,baz=114,slow=7.8,SNR=4.2 | | | | | | |

*SGS **14** 14:00:49.5, 24°.40N×49°.07E, h10km*
*ISCJB **14** 14:00:50.5±0.6, 24°.25N±0°.07×49°.30E±0°.04, h10km, mb3.7/6, MS3.4/7, Error ellipse: s-maj=9.7km s-min=5.3km az=4.3*
*IDC **14** 14:00:51.4±1.7, 24°.45N×49°.37E, h0km, mb3.6/7, mb1 3.8/8, mb1mx3.6/40, mbtmp3.7/8, ML3.7/1, MS3.4/9, Ms1 3.4/9, ms1mx3.2/39, Error ellipse: s-maj=39.0km s-min=20.7km az=178.0*
*OMAN **14** 14:00:57.0±1.5, 24°.10N×49°.60E, h2km, Error ellipse: s-maj=13.8km s-min=7.4km az=112.0*
*DSN **14** 14:00:57.4±0.8, 24°.75N×49°.49E, h15km, Error ellipse: s-maj=16.6km s-min=6.3km az=170.0*
**ISC 14 14:00:53.3±1.0, 24°.35N±0°.08×49°.23E±0°.06, h10km, n29, σ1§86/29, mb3.7/6, MS3.5/7, Eastern Arabian Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SLWS** | | **1.36** | **70** | S | **Sg** | **14 01 40.8** | **+3.7** |
| SLWS | | | | P | **Pn** | **14 01 19.5** | **+1.2** |
| **BTHS** | | **1.50** | **101** | S | **Sg** | **14 01 45.1** | **+3.4** |
| BTHS | | | | P | **Pn** | **14 01 22.3** | **+2.0** |
| **BOQSS** | | **1.52** | **5** | S | **Sn** | **14 01 41.7** | **+1.2** |
| BOQSS | | | | P | **Pn** | **14 01 19.8** | **-0.7** |
| **LYLS** | | **2.94** | **219** | P | Pn | 14 01 37.8 | -2.3 |
| **NAZ** | **Nazwa, Dubai** | **5.88** | **82** | P | **Pn** | **14 02 20.5** | **-0.1** |
| **ASHO** | **Ashiyiah** | **6.23** | **85** | *i* P | **Pn** | **14 02 24.9** | **-0.3** |
| | SNR=21 | | | | | | |
| ASHO | | | | S | **Sn** | **14 03 34.1** | **-2.5** |
| **ASHO** | **Ashiyiah** | **6.23** | **85** | P | **Pn** | **14 02 25.0** | **-0.3** |
| | SNR=13 | | | | | | |
| ASHO | | | | S | **Sn** | **14 03 35.3** | **-1.3** |
| | SNR=14 | | | | | | |
| **HATD** | **Hatta, Dubai** | **6.30** | **84** | P | **Pn** | **14 02 26.2** | **-0.1** |
| **HATD** | **Hatta, Dubai** | **6.30** | **84** | P | **Pn** | **14 02 26.2** | **-0.1** |
| HATD | | | | S | **Sn** | **14 03 38.1** | **-0.2** |
| **UOSS** | **Minazif** | **6.37** | **83** | P | **Pn** | **14 02 26.7** | **-0.6** |
| | SNR=9.4 | | | | | | |
| UOSS | | | | S | **Sn** | **14 03 39.3** | **-0.8** |
| **BANOM** | **Banah** | **6.59** | **75** | *i* P | **Pn** | **14 02 28.4** | **-2.0** |
| | SNR=6.3 | | | | | | |
| BANOM | | | | S | **Sn** | **14 03 42.0** | **-3.7** |
| **BANOM** | **Banah** | **6.59** | **75** | P | **Pn** | **14 02 29.0** | **-1.4** |
| | SNR=9.9 | | | | | | |
| BANOM | | | | S | **Sn** | **14 03 43.6** | **-2.0** |
| **WSAR** | **Wadi Sarin** | **8.68** | **95** | Pn | **Pn** | **14 02 57.3** | **-1.6** |
| | 0.9nm,0.3s,baz=292,slow=14,SNR=18 | | | | | | |
| WSAR | | | | Sn | **Sn** | **14 04 35.2** | **-1.7** |
| | 3.6nm,0.3s,baz=76,slow=20,SNR=9.9 | | | | | | |
| WSAR | | | | LR | LR | 14 07 16.6 | |
| | comp=Z,139nm,21.7s,baz=294,slow=45 | | | | | | |
| **WSAR** | **Wadi Sarin** | **8.68** | **95** | P | **Pn** | **14 02 58.9** | **0.0** |
| | SNR=16 | | | | | | |
| WSAR | | | | S | **Sn** | **14 04 33.0** | **-3.9** |
| **ASF** | **Jabal al Asfar** | **13.37** | **308** | Lg | Lg | 14 07 55.6 | |
| | 0.4nm,0.3s,baz=80,slow=6.7,SNR=3.4 | | | | | | |
| **EIL** | **Elat** | **13.79** | **296** | Lg | Lg | 14 08 10.7 | |
| | 0.5nm,0.3s,baz=185,slow=23,SNR=3.9 | | | | | | |
| **GNI** | **Garni** | **16.20** | **348** | LR | LR | 14 12 02.6 | |
| | comp=Z,104nm,21.1s,baz=160,slow=42 | | | | | | |
| **KBZ** | **Khabaz** | **20.02** | **346** | LR | LR | 14 15 06.4 | |
| | comp=Z,187nm,18.2s,baz=139,slow=43 | | | | | | |
| **BRTR** | **Keskin Array B** | **20.20** | **323** | P | **P** | **14 05 27.9** | **-0.5** |
| | 0.5nm,0.6s,baz=138,slow=14,SNR=4.1 | | | | | | |
| BRTR | | | | LR | LR | 14 14 17.6 | |
| | comp=Z,90nm,19.1s,baz=134,slow=40 | | | | | | |
| **KMBO** | **Kilima Mbogo** | **27.86** | **206** | LR | LR | 14 19 02.6 | |
| | comp=Z,32nm,19.0s,baz=94,slow=39 | | | | | | |
| **AKASG** | **Malin Array Be** | **30.53** | **335** | P | **P** | **14 07 07.7** | **+1.1** |
| | 0.3nm,0.3s,baz=142,slow=10,SNR=3.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **34.60** | **41** | P | **P** | **14 07 41.0** | **-1.5** |
| | 0.3nm,0.3s,baz=225,slow=11,SNR=4.5 | | | | | | |
| MKAR | | | | LR | LR | 14 24 39.5 | |
| | comp=Z,46nm,20.5s,baz=225,slow=42 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **39.73** | **33** | P | P | 14 08 23.6 | -2.2 |
| | 2.2nm,0.4s,baz=241,slow=9.6,SNR=18 | | | | | | |
| **FINES** | **FINESS Array B** | **40.32** | **343** | P | P | 14 08 27.9 | -2.7 |
| | 2.9nm,0.9s,baz=147,slow=11,SNR=4.2 | | | | | | |
| **LSZ** | **Lusaka** | **44.42** | **210** | LR | LR | 14 27 35.3 | |
| | comp=Z,62nm,18.9s,baz=38,slow=36 | | | | | | |
| **NOA** | **NORSAR Array B** | **44.94** | **335** | LR | LR | 14 31 46.7 | |
| | comp=Z,59nm,18.3s,baz=240,slow=41 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **46.17** | **265** | P | **P** | **14 09 19.0** | **+0.5** |
| | 0.3nm,0.8s,baz=60,slow=6.8,SNR=2.3 | | | | | | |
| **ESDC** | **Sonseca Array** | **46.97** | **302** | P | **P** | **14 09 24.6** | **0.0** |
| | 0.3nm,0.4s,baz=73,slow=7.5,SNR=4.1 | | | | | | |
| **ILAR** | **Eielson Array** | **90.30** | **7** | LR | LR | 15 05 11.7 | |
| | comp=Z,39nm,18.1s,baz=284,slow=43 | | | | | | |

*ISCJB **14** 14:09:33.3±0.8, 20°.88S±0°.03×69°.2W±0°.1, h120km±7km, mb3.2/1, Error ellipse: s-maj=17.8km s-min=5.4km az=2.3*
*GUC **14** 14:09:33.6±0.7, 20°.88S×69°.20W, h110km±3km, ML3.9*
*IDC **14** 14:09:50.1±7.4, 19°.66S×67°.93W, h197km±50km, mb3.0/1, mb1 3.0/3, mb1mx2.9/22, mbtmp3.5/3, Error ellipse: s-maj=94.3km s-min=44.6km az=30.0*
**ISC 14 14:09:32.9±0.9, 20°.86S±0°.04×69°.1W±0°.1, h115km±8km, n15, σ1§91/26, 2C-7D, Northern Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PB01** | **IPOC Station P** | **0.44** | **246** | ⇓*i* P | **Pn** | **14 09 49.9** | **-0.2** |
| PB01 | | | | *i* S | **Sn** | **14 10 02.2** | **-0.9** |
| PB01 | | | | IAML | | 14 10 03.5 | |
| | comp=E,4µm,0.3s | | | | | | |
| **PB08** | **IPOC Station P** | **0.72** | **353** | ⇓*i* P | **Pn** | **14 09 53.2** | **+0.7** |
| PB08 | | | | *i* S | **Sn** | **14 10 07.8** | **+0.7** |
| PB08 | | | | IAML | | 14 10 08.8 | |
| | comp=E,6µm,0.1s | | | | | | |
| **PB02** | **IPOC Station P** | **0.91** | **240** | ⇓*i* P | **Pn** | **14 09 53.9** | **+0.1** |
| PB02 | | | | *i* S | **Sn** | **14 10 09.0** | **-0.6** |
| PB02 | | | | IAML | | 14 10 09.4 | |
| | comp=N,8µm,0.1s | | | | | | |
| **PB09** | **IPOC Station P** | **0.95** | **191** | ⇑*i* P | **Pn** | **14 09 54.7** | **+0.4** |
| PB09 | | | | *i* S | **Sn** | **14 10 10.8** | **+0.4** |
| PB09 | | | | IAML | | 14 10 12.5 | |
| | comp=N,4µm,0.2s | | | | | | |
| **PB07** | **IPOC Station P** | **1.16** | **222** | ⇑*i* P | **Pn** | **14 09 56.6** | **+0.2** |
| PB07 | | | | *i* S | **Sn** | **14 10 13.2** | **-1.0** |
| PB07 | | | | IAML | | 14 10 14.2 | |
| | comp=E,3µm,0.3s | | | | | | |
| **PB11** | **IPOC Station P** | **1.23** | **333** | ⇓*i* P | **Pn** | **14 09 57.8** | **+0.6** |
| PB11 | | | | *i* S | **Sn** | **14 10 16.0** | **+0.5** |
| **PSGC** | **Pisagua** | **1.61** | **321** | ⇓*i* P | **Pn** | **14 10 01.6** | **+0.1** |
| PSGC | | | | *i* S | **Sn** | **14 10 22.5** | **-0.6** |
| **PB04** | **IPOC Station P** | **1.79** | **215** | ⇓*i* P | **Pn** | **14 10 03.9** | **+0.2** |
| PB04 | | | | *i* S | **Sn** | **14 10 26.4** | **-0.7** |
| PB04 | | | | IAML | | 14 10 32.5 | |
| | comp=N,561nm,0.6s | | | | | | |
| **MNMC** | **Minye Minye** | **1.79** | **343** | ⇓*i* P | **Pn** | **14 10 05.1** | **+1.2** |
| MNMC | | | | *e*S | **Sn** | **14 10 28.4** | **+1.0** |
| MNMC | | | | IAML | | 14 10 30.5 | |
| | comp=N,1µm,0.2s | | | | | | |
| **PB06** | **IPOC Station P** | **1.90** | **195** | *e*P | **Pn** | **14 10 05.5** | **+0.5** |
| PB06 | | | | *i* S | **Sn** | **14 10 29.9** | **+0.3** |
| PB06 | | | | IAML | | 14 10 30.8 | |
| | comp=E,495nm,0.2s | | | | | | |
| **PB12** | **IPOC Station P** | **2.54** | **332** | *e*P | **Pn** | **14 10 13.0** | **-0.1** |
| PB12 | | | | IAML | | 14 10 49.4 | |
| | comp=N,876nm,0.3s | | | | | | |
| **LPAZ** | **La Paz** | **4.63** | **11** | P | **Pn** | **14 10 45.0** | **+3.5** |
| | comp=N,0.8nm,0.3s,baz=184,slow=5.5,SNR=15 | | | | | | |
| LPAZ | | | | S | **Sn** | **14 11 27.5** | **-7.0** |
| | comp=N,0.5nm,0.3s,baz=154,slow=2.7,SNR=5.9 | | | | | | |
| **BDFB** | **Brasilia** | **20.64** | **79** | P | **P** | **14 14 01.0** | **-2.6** |
| | comp=N,0.5nm,0.3s,baz=256,slow=12,SNR=2.5 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **77.27** | **71** | P | **P** | **14 21 15.7** | **+0.6** |
| | comp=N,0.2nm,0.4s,baz=248,slow=5.3,SNR=3.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **145.19** | **35** | PKP | **PKPdf** | **14 28 58.9** | **+1.9** |
| | comp=N,0.8nm,0.8s,baz=323,slow=3.1,SNR=5.8 | | | | | | |

*INMG **14** 14:36:51.2±1.9, 34°.99N×5°.92W, h53km±13km, ML3.1, Error ellipse: s-maj=6.5km s-min=4.9km az=71.0*
*SFS **14** 14:36:52.0, 35°.07N×5°.84W, h66km, ML3.6*
*MDD **14** 14:36:52.4±1.3, 35°.10N×5°.85W, h74km±14km, mb3.5/18, Error ellipse: s-maj=13.0km s-min=6.9km az=4.0, PRXIMO*
*IGIL **14** 14:36:52.0, 35°.08N×5°.84W, h29km, ML3.1*
*ISCJB **14** 14:36:54.0±0.6, 35°.42N±0°.03×5°.84W±0°.03, h93km±6km, Error ellipse: s-maj=5.1km s-min=3.6km az=7.3*
*CSEM **14** 14:36:54.6±0.3, 35°.36N×5°.84W, h80km, mb3.5, Error ellipse: s-maj=7.2km s-min=4.6km az=2.0*
**ISC 14 14:36:53.7±1.4, 35°.32N±0°.05×5°.83W±0°.03, h89km±9km, n79, σ1§21/147, 1C-1D, Strait of Gibraltar**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ECEU** | **Ceuta** | **0.68** | **33** | P | **Pn** | **14 37 09.1** | **-0.8** |
| | 12nm,0.1s,SNR=7.9 | | | | | | |
| ECEU | | | | S | **Sn** | **14 37 21.3** | **-0.7** |
| | 20nm,0.2s,SNR=7.9 | | | | | | |
| **ECEU** | **Ceuta** | **0.68** | **33** | P | **Pn** | **14 37 09.1** | **-0.8** |
| | 12nm,0.1s,SNR=7.9 | | | | | | |
| ECEU | | | | S | **Sn** | **14 37 21.3** | **-0.7** |
| | 20nm,0.2s,SNR=7.9 | | | | | | |
| **CEU** | **Ceuta** | **0.69** | **33** | P | **Pn** | **14 37 09.3** | **-0.6** |
| CEU | | | | S | **Sn** | **14 37 21.5** | **-0.5** |
| **CEU** | **Ceuta** | **0.69** | **33** | P | **Pn** | **14 37 09.3** | **-0.6** |
| CEU | | | | S | **Sn** | **14 37 21.5** | **-0.5** |
| **EJIF** | **Jimena Fronter** | **1.17** | **14** | P | **Pn** | **14 37 16.4** | **+1.2** |
| | 4.3nm,0.2s,SNR=7.9 | | | | | | |
| EJIF | | | | S | **Sn** | **14 37 34.2** | **+2.8** |
| | 11nm,0.3s,SNR=7.9 | | | | | | |
| **EJIF** | **Jimena Fronter** | **1.17** | **14** | P | **Pn** | **14 37 16.4** | **+1.2** |
| | 4.3nm,0.2s,SNR=7.9 | | | | | | |
| **PVLZ** | **Peæn de** | **1.26** | **96** | *e*P | Pn | 14 37 13.6 | -2.7 |
| PVLZ | | | | *e*S | **Sn** | **14 37 33.8** | **+0.4** |
| **EMIJ** | **Mijas** | **1.51** | **34** | P | **Pn** | **14 37 19.0** | **-0.5** |
| | 1.9nm,0.1s,SNR=10.0 | | | | | | |
| EMIJ | | | | S | **Sn** | **14 37 39.9** | **+0.9** |
| | 11nm,0.3s,SNR=9.1 | | | | | | |
| **EMIJ** | **Mijas** | **1.51** | **34** | P | **Pn** | **14 37 19.0** | **-0.5** |
| | 1.9nm,0.1s,SNR=10.0 | | | | | | |
| EMIJ | | | | S | **Sn** | **14 37 39.9** | **+0.9** |
| | 11nm,0.3s,SNR=9.1 | | | | | | |
| **EGOR** | **Sierra Gorda,** | **2.26** | **37** | P | **Pn** | **14 37 32.0** | **+2.6** |
| | 0.3nm,0.1s,SNR=7.9 | | | | | | |
| EGOR | | | | S | **Sn** | **14 37 57.8** | **+1.0** |
| | 6.6nm,0.2s,SNR=7.9 | | | | | | |
| **EGOR** | **Sierra Gorda,** | **2.26** | **37** | P | **Pn** | **14 37 32.0** | **+2.6** |
| | 0.3nm,0.1s,SNR=7.9 | | | | | | |
| EGOR | | | | S | **Sn** | **14 37 57.8** | **+1.0** |
| | 6.6nm,0.2s,SNR=7.9 | | | | | | |
| **EALB** | **Alboran** | **2.36** | **74** | S | **Sn** | **14 37 55.9** | **-2.9** |
| | 29nm,0.2s,SNR=7.9 | | | | | | |
| **ELGU** | **Los Guajares,** | **2.36** | **49** | P | **Pn** | **14 37 29.9** | **-0.7** |
| | 3.1nm,0.1s,SNR=7.9 | | | | | | |
| ELGU | | | | S | **Sn** | **14 37 57.7** | **-1.2** |
| | 14nm,0.2s,SNR=7.9 | | | | | | |
| **ELGU** | **Los Guajares,** | **2.36** | **49** | P | **Pn** | **14 37 29.9** | **-0.7** |
| | 3.1nm,0.1s,SNR=7.9 | | | | | | |
| ELGU | | | | S | **Sn** | **14 37 57.7** | **-1.2** |
| | 14nm,0.2s,SNR=7.9 | | | | | | |
| **AVE** | **Averroes** | **2.41** | **213** | *e*P | Pn | 14 37 37.5 | +6.3 |
| AVE | | | | *e*S | **Sn** | **14 38 03.0** | **+3.0** |
| **EMIN** | **Mina Concepcio** | **2.53** | **345** | ⇑P | **Pn** | **14 37 33.3** | **+0.4** |
| | 1.8nm,0.2s,SNR=18 | | | | | | |
| EMIN | | | | S | **Sn** | **14 38 03.7** | **+0.7** |
| | 16nm,0.3s,SNR=13 | | | | | | |
| **EMIN** | **Mina Concepcio** | **2.53** | **345** | P | **Pn** | **14 37 33.3** | **+0.4** |
| | 1.8nm,0.2s,SNR=18 | | | | | | |
| EMIN | | | | S | **Sn** | **14 38 03.7** | **+0.7** |
| | 16nm,0.3s,SNR=13 | | | | | | |
| **PBDV** | **Barranco-do-Ve** | **2.56** | **319** | *e*P | **Pn** | **14 37 32.9** | **-0.4** |
| PBDV | | | | *e*S | **Sn** | **14 38 03.0** | **-0.7** |
| PBDV | | | | A | A | 14 38 06.1 | |
| | 51nm,0.2s | | | | | | |
| **EGRO** | **El Granado** | **2.58** | **329** | P | **Pn** | **14 37 33.7** | **+0.2** |
| | 8.4nm,0.4s,SNR=113 | | | | | | |
| EGRO | | | | S | **Sn** | **14 38 04.3** | **+0.3** |
| | 66nm,0.1s,SNR=7.9 | | | | | | |
| **EGRO** | **El Granado** | **2.58** | **329** | P | **Pn** | **14 37 33.7** | **+0.2** |
| | 8.4nm,0.4s,SNR=113 | | | | | | |
| EGRO | | | | S | **Sn** | **14 38 04.3** | **+0.3** |
| | 66nm,0.1s,SNR=7.9 | | | | | | |
| **ECAB** | **El Cabril** | **2.77** | **7** | P | **Pn** | **14 37 36.6** | **+0.5** |
| | 2.4nm,0.3s,SNR=47 | | | | | | |
| ECAB | | | | S | **Sn** | **14 38 08.5** | **-0.1** |
| | 12nm,0.4s,SNR=15 | | | | | | |
| **ECAB** | **El Cabril** | **2.77** | **7** | P | **Pn** | **14 37 36.6** | **+0.5** |
| | 2.4nm,0.3s,SNR=47 | | | | | | |
| ECAB | | | | S | **Sn** | **14 38 08.5** | **-0.1** |
| | 12nm,0.4s,SNR=15 | | | | | | |
| **EBER** | **Berja** | **2.85** | **56** | P | **Pn** | **14 37 36.9** | **-0.5** |
| | 3.8nm,0.3s,SNR=8.6 | | | | | | |
| EBER | | | | S | **Sn** | **14 38 10.3** | **-0.6** |
| | 9.4nm,0.3s,SNR=8.6 | | | | | | |
| **EBER** | **Berja** | **2.85** | **56** | P | **Pn** | **14 37 36.9** | **-0.5** |
| | 3.8nm,0.3s,SNR=8.6 | | | | | | |
| EBER | | | | S | **Sn** | **14 38 10.3** | **-0.6** |
| | 9.4nm,0.3s,SNR=5.6 | | | | | | |
| **PCVE** | **Castro Verde** | **2.91** | **323** | *e*P | **Pn** | **14 37 38.1** | **+0.1** |
| PCVE | | | | *e*S | **Sn** | **14 38 12.2** | **+0.1** |
| PCVE | | | | A | A | 14 38 13.7 | |
| | 76nm,0.6s | | | | | | |
| **PBAR** | **Barrancos** | **3.01** | **342** | *e*P | **Pn** | **14 37 39.8** | **+0.5** |
| PBAR | | | | *e*S | **Sn** | **14 38 14.4** | **0.0** |
| PBAR | | | | A | A | 14 38 19.1 | |
| | 62nm,0.2s | | | | | | |
| **EADA** | **Adamuz** | **3.01** | **19** | P | **Pn** | **14 37 40.3** | **+0.9** |
| | 2.2nm,0.3s,SNR=24 | | | | | | |
| EADA | | | | S | **Sn** | **14 38 14.4** | **-0.2** |
| | 8.1nm,0.3s,SNR=11 | | | | | | |
| **EADA** | **Adamuz** | **3.01** | **19** | P | **Pn** | **14 37 40.3** | **+0.9** |
| | 2.2nm,0.3s,SNR=24 | | | | | | |
| EADA | | | | S | **Sn** | **14 38 14.4** | **-0.2** |
| | 8.1nm,0.3s,SNR=11 | | | | | | |
| **MORF** | **Marmelete** | **3.02** | **312** | *e*P | **Pn** | **14 37 38.6** | **-0.8** |
| MORF | | | | *e*S | **Sn** | **14 38 13.1** | **-1.6** |
| MORF | | | | AML | AML | 14 38 14.4 | |
| | comp=N,60nm,0.1s | | | | | | |
| **MORF** | **Marmelete** | **3.02** | **312** | P | **Pn** | **14 37 38.6** | **-0.8** |
| MORF | | | | S | **Sn** | **14 38 13.1** | **-1.6** |
| | comp=N,60nm,0.1s | | | | | | |
| **MORF** | **Marmelete** | **3.02** | **312** | P | **Pn** | **14 37 38.6** | **-0.8** |
| MORF | | | | S | **Sn** | **14 38 13.1** | **-1.6** |
| | comp=N,60nm,0.1s | | | | | | |
| **MORF** | **Marmelete** | **3.02** | **312** | *e*P | **Pn** | **14 37 38.5** | **-0.9** |
| MORF | | | | *e*S | **Sn** | **14 38 13.5** | **-1.2** |
| MORF | | | | A | A | 14 38 16.7 | |
| | comp=N,66nm,0.2s | | | | | | |
| **PFVI** | **Vila Bisbo** | **3.02** | **308** | P | **Pn** | **14 37 38.6** | **-0.8** |
| | comp=N,20nm,0.7s,SNR=7.4 | | | | | | |
| PFVI | | | | S | **Sn** | **14 38 13.6** | **-1.1** |
| | comp=N,24nm,0.4s,SNR=9.7 | | | | | | |
| **PFVI** | **Vila Bisbo** | **3.02** | **308** | P | **Pn** | **14 37 38.6** | **-0.8** |
| | comp=N,20nm,0.7s,SNR=7.4 | | | | | | |
| PFVI | | | | S | **Sn** | **14 38 13.6** | **-1.1** |
| | comp=N,24nm,0.4s,SNR=9.7 | | | | | | |
| **PFVI** | **Vila Bisbo** | **3.02** | **308** | *e*P | **Pn** | **14 37 38.6** | **-0.8** |
| PFVI | | | | *e*S | **Sn** | **14 38 13.5** | **-1.2** |
| PFVI | | | | A | A | 14 38 16.4 | |
| | comp=N,28nm,0.2s | | | | | | |
| **PBEJ** | **Beja** | **3.16** | **329** | *e*P | **Pn** | **14 37 41.7** | **+0.4** |
| PBEJ | | | | *e*S | **Sn** | **14 38 18.0** | **0.0** |
| PBEJ | | | | A | A | 14 38 18.8 | |
| | comp=N,43nm,0.3s | | | | | | |
| **MESJ** | **Messejana** | **3.17** | **323** | *e*P | **Pn** | **14 37 41.5** | **+0.2** |
| MESJ | | | | *e*S | **Sn** | **14 38 17.1** | **-1.0** |
| MESJ | | | | AML | AML | 14 38 18.9 | |
| | comp=E,62nm,0.1s | | | | | | |
| **MESJ** | **Messejana** | **3.17** | **323** | P | **Pn** | **14 37 41.5** | **+0.2** |
| MESJ | | | | S | **Sn** | **14 38 17.1** | **-1.0** |
| | comp=E,62nm,0.1s | | | | | | |
| **MESJ** | **Messejana** | **3.17** | **323** | P | **Pn** | **14 37 41.5** | **+0.2** |
| MESJ | | | | S | **Sn** | **14 38 17.1** | **-1.0** |
| | comp=E,62nm,0.1s | | | | | | |
| **PTEO** | **Sao Teotonio** | **3.22** | **314** | ⇓*e*P | **Pn** | **14 37 41.9** | **-0.2** |
| PTEO | | | | *e*S | **Sn** | **14 38 18.7** | **-0.8** |
| PTEO | | | | A | A | 14 38 22.1 | |
| | comp=E,49nm,0.4s | | | | | | |
| **EQES** | **Quesada** | **3.33** | **41** | P | **Pn** | **14 37 44.7** | **+1.1** |
| | comp=E,1.8nm,0.1s,SNR=7.9 | | | | | | |
| EQES | | | | S | **Sn** | **14 38 22.3** | **+0.1** |
| | comp=E,5.6nm,0.1s,SNR=7.9 | | | | | | |
| **EQES** | **Quesada** | **3.33** | **41** | P | **Pn** | **14 37 44.7** | **+1.1** |
| | comp=E,1.8nm,0.1s,SNR=7.9 | | | | | | |
| EQES | | | | S | **Sn** | **14 38 22.3** | **+0.1** |
| | comp=E,5.6nm,

comp=E,41nm,0.2s,SNR=7.9
**PMAFR Mafra 4.56 324** P **Pn** **14 38 01.1 +0.9**
comp=E,5.0nm,0.1s,SNR=7.9
PMAFR S **Sn** **14 38 51.5 -0.4**
comp=E,41nm,0.2s,SNR=7.9
**PMAFR Mafra 4.56 324** *eP* **Pn** **14 38 01.1 +0.9**
PMAFR *eS* **Sn** **14 38 51.0 -0.9**
**ESDC Sonseca Array 4.59 18** P **Pn** **14 38 01.7 +0.9**
comp=E,0.1nm,0.1s,SNR=7.9
ESDC S **Sn** **14 38 50.9 -1.9**
SNR=7.9
**ESDC Sonseca Array 4.59 18** P **Pn** **14 38 01.7 +0.9**
comp=E,0.1nm,0.1s,SNR=7.9
ESDC S **Sn** **14 38 50.9 -1.9**
SNR=7.9
**PCBR Castelo Branco 4.70 344** *eP* **Pn** **14 38 03.7 +1.6**
PCBR *eS* **Sn** **14 38 55.2 -0.1**
PCBR A A 14 38 56.5
comp=E,27nm,0.3s
**EPLA Plasencia 4.74 358** P **Pn** **14 38 04.8 +2.1**
comp=E,3.9nm,0.2s,SNR=9.6
EPLA S **Sn** **14 38 56.4 0.0**
comp=E,5.6nm,0.3s,SNR=8.4
**EPLA Plasencia 4.74 358** P **Pn** **14 38 04.8 +2.1**
comp=E,3.9nm,0.2s,SNR=9.6
EPLA S **Sn** **14 38 56.4 0.0**
comp=E,5.6nm,0.3s,SNR=8.4
**PTOM Tomar 4.75 335** *eP* **Pn** **14 38 04.2 +1.3**
PTOM *eS* **Sn** **14 38 56.3 -0.4**
PTOM A A 14 39 00.6
comp=E,24nm,0.2s
**ETOB Tobarra 4.77 45** P **Pn** **14 38 04.1 +0.9**
comp=E,4.4nm,0.7s,SNR=5.7
ETOB S **Sn** **14 38 56.4 -0.8**
comp=E,3.2nm,0.2s,SNR=7.9
**ETOB Tobarra 4.77 45** P **Pn** **14 38 04.1 +0.9**
comp=E,4.4nm,0.7s,SNR=5.7
ETOB S **Sn** **14 38 56.4 -0.8**
comp=E,3.2nm,0.2s,SNR=7.9
**PCAS Casmilo, Conde 5.17 337** *eS* **Sn** **14 39 07.0 0.0**
PCAS A A 14 39 12.0
comp=E,10.0nm,0.3s
**MTE Manteigas 5.25 346** *eP* **Pn** **14 38 11.3 +1.6**
MTE *eS* **Sn** **14 39 09.2 +0.3**
MTE A A 14 39 11.3
comp=E,9.4nm,0.2s
**GUD Guadarrama 5.47 13** P **Pn** **14 38 13.6 +0.8**
comp=E,0.6nm,0.1s,SNR=7.9
GUD S **Sn** **14 39 12.7 -1.8**
comp=E,2.5nm,0.1s,SNR=7.9
**GUD Guadarrama 5.47 13** P **Pn** **14 38 13.6 +0.8**
comp=E,0.6nm,0.1s,SNR=7.9
GUD S **Sn** **14 39 12.7 -1.8**
comp=E,2.5nm,0.1s,SNR=7.9
**PVIS Viseu 5.63 344** *eS* **Sn** **14 39 16.5 -1.6**
**MVO Moncorvo 5.91 351** P **Pn** **14 38 20.4 +1.7**
comp=E,3.0nm,0.3s,SNR=10
MVO S **Sn** **14 39 24.5 -0.5**
comp=E,8.0nm,0.2s,SNR=10
**MVO Moncorvo 5.91 351** P **Pn** **14 38 20.4 +1.7**
comp=E,3.0nm,0.3s,SNR=10
MVO S **Sn** **14 39 24.5 -0.5**
comp=E,8.0nm,0.2s,SNR=10
**MVO Moncorvo 5.91 351** *eP* **Pn** **14 38 20.4 +1.7**
MVO *eS* **Sn** **14 39 24.5 -0.5**
MVO A A 14 39 26.5
comp=E,16nm,0.1s
**PVRL Vila Real 6.13 347** *eS* **Sn** **14 39 28.2 -2.1**
PVRL A A 14 39 31.6
comp=E,28nm,0.3s
**POLO Lamas de Olo 6.24 346** *eP* **Pn** **14 38 24.8 +1.6**
POLO *eS* **Sn** **14 39 31.9 -1.1**
POLO A A 14 39 34.1
comp=E,4.8nm,0.4s
**ETOR Torete 6.24 27** P **Pn** **14 38 24.4 +1.1**
comp=E,3.7nm,0.5s,SNR=13
ETOR S **Sn** **14 39 29.3 -3.9**
comp=E,2.3nm,0.2s,SNR=7.8
**ETOR Torete 6.24 27** P **Pn** **14 38 24.4 +1.1**
comp=E,3.7nm,0.5s,SNR=13
**PBRG Braganca 6.51 354** *eP* **Pn** **14 38 28.7 +1.8**
PBRG *eS* **Sn** **14 39 38.6 -1.1**
PBRG A A 14 39 42.0
comp=E,4.9nm,0.4s
**EMOS Mosqueruela 6.58 39** S **Sn** **14 39 38.5 -3.0**
comp=E,2.6nm,0.3s,SNR=7.9
**PCAB Cabril 6.61 346** *eS* **Sn** **14 39 39.7 -2.3**
PCAB A A 14 39 44.7
comp=E,12nm,0.4s
**ECAL Calabor 6.65 354** P **Pn** **14 38 30.5 +1.8**
comp=E,2.8nm,0.2s,SNR=7.9
ECAL S **Sn** **14 39 40.8 -2.2**
comp=E,7.3nm,0.3s,SNR=7.9
**ECAL Calabor 6.65 354** P **Pn** **14 38 30.5 +1.8**
comp=E,2.8nm,0.2s,SNR=7.9
ECAL S **Sn** **14 39 40.8 -2.2**
comp=E,7.3nm,0.3s,SNR=7.9
**PGAV Gavieira, Arco 6.90 345** *eS* **Sn** **14 39 48.2 -1.1**
PGAV A A 14 39 51.3
comp=E,5.5nm,0.3s

*ISCJB **14** 14:47:09.1±0.5,45°29'S×0°06'-167°31'E±0°08,h101km±5km, mb3.3/3, Error ellipse: s-maj=11.4km s-min=7.1km az=139.1*
*IDC **14** 14:47:10.0±6.6,45°30'S×167°24'E,h90km±61km,mb3.1/3, mb1 3.5/5,mb1mx3.3/24,mbtmp3.7/5,ML3.8/2, Error ellipse: s-maj=87.9km s-min=26.9km az=22.0*
*NEIC **14** 14:47:10.6±0.0,45°34'S×167°15'E,h88km,ML4.5(WEL), After WEL.*
*WEL **14** 14:47:10.5±0.2,45°34'S×167°13'E,h87km±1km,ML4.5/22, Mw4.1, Error ellipse: s-maj=1.9km s-min=1.1km az=90.0*
*WEL Felt between Otago, Southland and Fiordland, maximum reported intensity MM 4.*

**ISC 14 14:47:09.8**±0.8,**45°31S**±0°05×**167°26E**±0°05,**h97**km±5km, **n59,σ1°26/64,mb3.4**/3,**2C-6D,South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DCZ** | **Deep Cove** | **0.17** | **206** | *e*Pn | **Pn** | **14 47 22.8** | **-0.8** |
| DCZ | | | | Sn | **Sn** | **14 47 31.6** | **-2.1** |
| **DCZ** | **Deep Cove** | **0.17** | **206** | PN | **Pn** | **14 47 22.7** | **-0.8** |
| DCZ | | | | SN | **Sn** | **14 47 31.6** | **-2.1** |
| DCZ | | | | AML | AML | 14 47 31.8 | |
| **MLZ** | **Mavora Lakes** | **0.61** | **95** | *e*Pn | **Pn** | **14 47 26.7** | **+0.5** |
| MLZ | | | | *e* | | 14 47 37.2 | |
| MLZ | | | | Sn | **Sn** | **14 47 38.7** | **+0.2** |
| **MLZ** | **Mavora Lakes** | **0.61** | **95** | ⇓PN | **Pn** | **14 47 26.7** | **+0.5** |
| MLZ | | | | SN | **Sn** | **14 47 38.7** | **+0.2** |
| MLZ | | | | AML | AML | 14 47 39.1 | |
| **WHZ** | **Wether Hill Ro** | **0.75** | **140** | Pn | **Pn** | **14 47 27.7** | **+0.2** |
| WHZ | | | | Sn | **Sn** | **14 47 40.3** | **-0.4** |
| **WHZ** | **Wether Hill Ro** | **0.75** | **140** | PN | **Pn** | **14 47 27.7** | **+0.2** |
| WHZ | | | | SN | **Sn** | **14 47 40.3** | **-0.4** |
| WHZ | | | | AML | AML | 14 47 41.1 | |
| **MSZ** | **Milford Sound** | **0.80** | **37** | Pn | **Pn** | **14 47 28.6** | **+0.7** |
| MSZ | | | | Sn | **Sn** | **14 47 41.9** | **+0.6** |
| **MSZ** | **Milford Sound** | **0.80** | **37** | ⇓PN | **Pn** | **14 47 28.6** | **+0.7** |
| MSZ | | | | SN | **Sn** | **14 47 41.9** | **+0.6** |
| MSZ | | | | AML | AML | 14 47 44.7 | |
| **PYZ** | **Puysegur Point** | **0.94** | **205** | Pn | **Pn** | **14 47 28.9** | **-0.5** |
| **PYZ** | **Puysegur Point** | **0.94** | **205** | ⇑PN | **Pn** | **14 47 28.9** | **-0.5** |
| PYZ | | | | AML | AML | 14 47 43.8 | |
| PYZ | | | | AML | AML | 14 47 46.5 | |
| **WKZ** | **Wanaka** | **1.34** | **69** | *e*Pn | **Pn** | **14 47 35.3** | **+1.3** |
| WKZ | | | | *e* | | 14 47 52.3 | |
| **WKZ** | **Wanaka** | **1.34** | **69** | PN | **Pn** | **14 47 35.2** | **+1.3** |
| WKZ | | | | AML | AML | 14 47 53.5 | |
| WKZ | | | | AML | AML | 14 47 55.3 | |
| **EAZ** | **Earnscleugh** | **1.45** | **87** | Pn | **Pn** | **14 47 36.5** | **+1.2** |
| **EAZ** | **Earnscleugh** | **1.45** | **87** | PN | **Pn** | **14 47 36.5** | **+1.2** |
| EAZ | | | | AML | AML | 14 47 55.5 | |
| EAZ | | | | AML | AML | 14 47 56.2 | |
| **APZ** | **The Paps** | **1.60** | **162** | Pn | **Pn** | **14 47 37.2** | **0.0** |
| **APZ** | **The Paps** | **1.60** | **162** | ⇓PN | **Pn** | **14 47 37.2** | **0.0** |
| APZ | | | | AML | AML | 14 47 58.7 | |
| APZ | | | | AML | AML | 14 47 58.7 | |
| **JCZ** | **Jackson Bay** | **1.65** | **42** | Pn | **Pn** | **14 47 38.4** | **+0.5** |
| **JCZ** | **Jackson Bay** | **1.65** | **42** | ⇑PN | **Pn** | **14 47 38.4** | **+0.5** |
| JCZ | | | | AML | AML | 14 48 03.7 | |
| JCZ | | | | AML | AML | 14 48 06.3 | |
| **TUZ** | **Tuapeka** | **1.78** | **112** | Pn | **Pn** | **14 47 40.0** | **+0.6** |
| **TUZ** | **Tuapeka** | **1.78** | **112** | PN | **Pn** | **14 47 40.0** | **+0.6** |
| TUZ | | | | AML | AML | 14 48 04.4 | |
| TUZ | | | | AML | AML | 14 48 04.7 | |
| **LBZ** | **Lake Benmore** | **2.28** | **67** | *e*Pn | **Pn** | **14 47 45.7** | **-0.2** |
| **LBZ** | **Lake Benmore** | **2.28** | **67** | ⇓PN | **Pn** | **14 47 45.8** | **-0.1** |
| LBZ | | | | AML | AML | 14 48 12.7 | |
| LBZ | | | | AML | AML | 14 48 12.9 | |
| **ODZ** | **Otahua Downs** | **2.41** | **85** | *e*Pn | **Pn** | **14 47 47.8** | **+0.2** |
| **ODZ** | **Otahua Downs** | **2.41** | **85** | ⇓PN | **Pn** | **14 47 47.8** | **+0.2** |
| ODZ | | | | AML | AML | 14 48 16.5 | |
| ODZ | | | | AML | AML | 14 48 16.8 | |
| **HHSZ** | **Highcliff Hill** | **2.41** | **105** | Pn | **Pn** | **14 47 48.5** | **+0.9** |
| **HHSZ** | **Highcliff Hill** | **2.41** | **105** | ⇓PN | **Pn** | **14 47 48.5** | **+0.9** |
| HHSZ | | | | AML | AML | 14 48 18.3 | |
| HHSZ | | | | AML | AML | 14 48 32.0 | |
| **FOZ** | **Fox Glacier** | **2.55** | **47** | *e*Pn | **Pn** | **14 47 48.9** | **-0.6** |
| **FOZ** | **Fox Glacier** | **2.55** | **47** | PN | **Pn** | **14 47 49.4** | **-0.1** |
| FOZ | | | | AML | AML | 14 48 21.1 | |
| FOZ | | | | AML | AML | 14 48 21.8 | |
| **RPZ** | **Rata Peaks** | **3.15** | **61** | P | **Pn** | **14 47 56.6** | **-0.8** |
| | 23nm,0.3s,baz=282,slow=6.1,SNR=37 | | | | | | |
| RPZ | | | | S | **Sn** | **14 48 32.4** | **-1.9** |
| | 79nm,0.3s,baz=66,slow=20,SNR=50 | | | | | | |
| **RPZ** | **Rata Peaks** | **3.15** | **61** | *e*Pn | **Pn** | **14 47 56.3** | **-1.1** |
| RPZ | | | | S | **Sn** | **14 48 32.4** | **-1.9** |
| **RPZ** | **Rata Peaks** | **3.15** | **61** | PN | **Pn** | **14 47 56.6** | **-0.8** |
| RPZ | | | | AML | AML | 14 48 33.1 | |
| RPZ | | | | AML | AML | 14 48 33.5 | |
| **WVZ** | **Waitaha Valley** | **3.36** | **49** | Pn | **Pn** | **14 47 60.0** | **-0.2** |
| **WVZ** | **Waitaha Valley** | **3.36** | **49** | *e*PN | **Pn** | **14 47 59.3** | **-0.9** |
| WVZ | | | | AML | AML | 14 48 44.6 | |
| WVZ | | | | AML | AML | 14 48 46.9 | |
| **OXZ** | **Oxford** | **3.96** | **62** | *e*Pn | **Pn** | **14 48 06.5** | **-1.9** |
| OXZ | | | | Sn | **Sn** | **14 48 49.4** | **-4.4** |
| **OXZ** | **Oxford** | **3.96** | **62** | PN | **Pn** | **14 48 06.8** | **-1.6** |
| OXZ | | | | SN | **Sn** | **14 48 49.4** | **-4.4** |
| OXZ | | | | AML | AML | 14 48 51.6 | |
| **INZ** | **Inchbonnie** | **3.98** | **51** | *e*PN | **Pn** | **14 48 08.1** | **-0.4** |
| **MQZ** | **McQueen's Vall** | **4.18** | **69** | *e*PN | **Pn** | **14 48 10.1** | **-1.2** |
| MQZ | | | | AML | AML | 14 48 56.5 | |
| MQZ | | | | AML | AML | 14 48 57.2 | |
| **CRLZ** | **Canterbury Las** | **4.22** | **68** | Pn | **Pn** | **14 48 11.2** | **-0.5** |
| **CRLZ** | **Canterbury Las** | **4.22** | **68** | PN | **Pn** | **14 48 11.2** | **-0.5** |
| CRLZ | | | | AML | AML | 14 49 11.5 | |
| **LTZ** | **Lake Taylor** | **4.41** | **57** | *e*Pn | **Pn** | **14 48 12.7** | **-1.8** |
| **LTZ** | **Lake Taylor** | **4.41** | **57** | AML | AML | 14 49 02.4 | |
| **DSZ** | **Denniston Nort** | **4.86** | **44** | Pn | **Pn** | **14 48 20.9** | **+0.3** |
| **DSZ** | **Denniston Nort** | **4.86** | **44** | PN | **Pn** | **14 48 20.9** | **+0.3** |
| DSZ | | | | AML | AML | 14 49 14.3 | |
| DSZ | | | | AML | AML | 14 49 15.6 | |
| **KHZ** | **Kahutara** | **5.38** | **60** | *e*PN | **Pn** | **14 48 27.9** | **+0.2** |
| **THZ** | **Tophouse** | **5.42** | **51** | *e*PN | **Pn** | **14 48 27.1** | **-1.1** |
| THZ | | | | AML | AML | 14 49 08.1 | |
| THZ | | | | AML | AML | 14 49 30.6 | |
| **URZ** | **Urewera** | **10.18** | **50** | P | **Pn** | **14 49 34.8** | **+1.9** |
| | 0.4nm,0.3s,baz=243,slow=6.7,SNR=3.6 | | | | | | |
| **STKA** | **Stephens Creek** | **24.01** | **295** | P | **P** | **14 52 17.4** | **+1.9** |
| | 1.1nm,0.8s,baz=115,slow=8.0,SNR=3.8 | | | | | | |
| **ASAR** | **Alice Springs** | **34.59** | **297** | P | **P** | **14 53 49.8** | **+0.4** |
| | 0.4nm,0.9s,baz=142,slow=9.4,SNR=7.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **37.11** | **302** | P | **P** | **14 54 10.9** | **+0.1** |
| | 0.6nm,0.9s,baz=138,slow=7.9,SNR=8.4 | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **41.26** | **265** | T | T | 15 38 46.2 | |
| | baz=120,slow=75,SNR=19 | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **41.27** | **265** | T | T | 15 38 47.1 | |
| | baz=120,slow=75,SNR=20 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **41.28** | **265** | T | T | 15 38 46.6 | |
| | baz=120,slow=75,SNR=19 | | | | | | |
| **H08S2** | **Diego Garcia H** | **87.96** | **261** | T | T | 16 36 42.1 | |
| | baz=138,slow=74,SNR=6.6 | | | | | | |
| **H08S1** | **Diego Carcia H** | **87.98** | **261** | T | T | 16 36 44.1 | |
| | baz=138 | | | | | | |
| **H08S3** | **Diego Garcia H** | **87.98** | **261** | T | T | 16 36 46.0 | |
| | baz=138,slow=74,SNR=12 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **145.67** | **206** | PKPbc | **PKPab** | **15 06 37.6** | **-0.3** |
| | 3.1nm,0.7s,baz=150,slow=2.0,SNR=17 | | | | | | |
| **BRTR** | **Keskin Array B** | **145.74** | **277** | PKPbc | **PKPab** | **15 06 37.9** | **+0.1** |
| | 1.2nm,0.7s,baz=143,slow=4.9,SNR=8.6 | | | | | | |
| **IDI** | **Anoyia** | **149.85** | **264** | PKPbc | **PKPbc** | **15 06 49.3** | **+1.0** |
| | 2.6nm,0.3s,baz=119,slow=5.1,SNR=7.3 | | | | | | |
| **FINES** | **FINESS Array B** | **152.33** | **320** | PKPbc | **PKPbc** | **15 06 53.3** | **+0.2** |
| | 3.9nm,1.0s,baz=64,slow=4.4,SNR=3.6 | | | | | | |

*ISCJB **14** 15:10:05.7±1.4,38°47'N±0°07'×43°36'E±0°07,h9km±7km, Error ellipse: s-maj=12.7km s-min=7.8km az=145.8*
*ISK **14** 15:10:05.2,38°42'N×43°35'E,h7km,MD2.4*
*CSEM **14** 15:10:06.0±0.5,38°49'N×43°31'E,h5km,MD2.6,Error ellipse: s-maj=11.1km s-min=7.0km az=141.0*
*DDA **14** 15:10:07.2,38°52'N×43°00'E,h7km,Md2.6*

**ISC 14 15:10:06.0**±1.3,**38°51N**±0°05×**43°32E**±0°04,**h4**km±12km, **n12,σ0°32/19,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.10** | **31** | *e*PG | **Pg** | **15 10 08.2** | **0.0** |
| VANB | | | | *e*SG | **Sg** | **15 10 09.6** | **-0.1** |
| **VANB** | **Van** | **0.10** | **31** | *e*Pg | **Pg** | **15 10 08.2** | **0.0** |
| VANB | | | | *e*Sg | **Sg** | **15 10 09.6** | **-0.1** |
| **GEVA** | **Gevas** | **0.28** | **227** | *i* P | **Pg** | **15 10 11.6** | **+0.1** |
| **GEVA** | **Gevas** | **0.28** | **227** | P | **Pg** | **15 10 11.6** | **+0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.56** | **303** | *i* P | **Pb** | **15 10 17.9** | **-0.6** |
| ADCV | | | | *i* S | **Sb** | **15 10 27.1** | **+0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.56** | **303** | P | **Pb** | **15 10 17.9** | **-0.6** |
| **CLDR** | **Caldiran** | **0.79** | **36** | *e*PG | **Pb** | **15 10 22.2** | **-0.3** |
| CLDR | | | | *e*SG | **Sb** | **15 10 33.8** | **+0.2** |
| **CLDR** | **Caldiran** | **0.79** | **36** | *e*Pg | **Pb** | **15 10 22.2** | **-0.3** |
| CLDR | | | | *e*Sg | **Sb** | **15 10 33.8** | **+0.2** |
| **TUTA** | **Tutak** | **0.98** | **336** | *i* P | **Pg** | **15 10 24.6** | **-0.2** |
| TUTA | | | | *i* S | **Sg** | **15 10 38.0** | **+0.5** |
| **TUTA** | **Tutak** | **0.98** | **336** | P | **Pg** | **15 10 24.6** | **-0.2** |
| TUTA | | | | S | **Sg** | **15 10 38.0** | **+0.5** |
| **AGRB** | **Hanur-Agry** | **1.10** | **347** | *e*PN | **Pb** | **15 10 27.8** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **1.10** | **347** | *e*Pn | **Pb** | **15 10 27.8** | **+0.1** |

*CSEM **14** 15:13:50.1,34°55'N×36°40'E,h1km,ML2.9*
*GRAL **14** 15:13:50.1±0.3,34°55'N×36°40'E,h1km,2km,MD2.9*
*ISCJB **14** 15:13:51.3±1.3,34°46'N±0°07'×36°31'E±0°04,h6km±6km, Error ellipse: s-maj=12.3km s-min=6.0km az=174.3*
*NSSC **14** 15:13:51.9±1.8,34°39'N×36°29'E,h0km±8km,ML2.0*

**ISC 14 15:13:51.0**±1.7,**34°46N**±0°08×**36°34E**±0°04,**h13**km±8km, **n14,σ0°56/24,Jordan-Syria region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **FKH** | **Fakeheh** | **0.22** | **165** | *e*P | **Pg** | **15 13 55.5** | **-0.5** |
| **FKH** | **Fakeheh** | **0.22** | **165** | *e*P | **Pg** | **15 13 55.5** | **-0.5** |
| **HWQ** | **Hawqa** | **0.37** | **241** | *e*P | **Pg** | **15 13 58.3** | **-0.3** |
| HWQ | | | | *e*S | **Sg** | **15 14 04.5** | **+0.8** |
| **HWQ** | **Hawqa** | **0.37** | **241** | *e*P | **Pg** | **15 13 58.3** | **-0.3** |
| HWQ | | | | *e*S | **Sg** | **15 14 04.5** | **+0.8** |
| **MARH** | **Ras Al Marh** | **0.45** | **165** | *e*P | **Pg** | **15 13 59.6** | **-0.4** |
| MARH | | | | *e*S | **Sb** | **15 14 07.1** | **-0.6** |
| MARH | | | | AML | AML | 15 14 09.9 | |
| | comp=E,280nm,0.2s | | | | | | |
| MARH | | | | AML | AML | 15 14 16.0 | |
| | comp=N,154nm,0.4s | | | | | | |
| **BHL** | **Bhannes** | **0.79** | **226** | *e*P | **Pg** | **15 14 06.0** | **-0.5** |
| **BHL** | **Bhannes** | **0.79** | **226** | *e*P | **Pg** | **15 14 06.0** | **-0.5** |
| **ROOS** | **tl_alroos** | **0.84** | **110** | *e*P | **Pn** | **15 14 08.9** | **+0.3** |
| ROOS | | | | *e*S | **Sn** | **15 14 20.8** | **0.0** |
| ROOS | | | | AML | AML | 15 14 25.8 | |
| | comp=E,85nm,0.6s | | | | | | |
| ROOS | | | | AML | AML | 15 14 34.5 | |
| | comp=N,69nm,0.4s | | | | | | |
| **RCY** | **Rachaya** | **1.05** | **204** | *e*P | **Pb** | **15 14 10.7** | **-0.4** |
| RCY | | | | *e*S | **Sn** | **15 14 26.1** | **0.0** |
| **BRBR** | **Barbar** | **1.10** | **197** | *e*P | **Pg** | **15 14 12.7** | **+0.5** |
| BRBR | | | | *e*S | **Sb** | **15 14 25.0** | **-1.2** |
| BRBR | | | | AML | AML | 15 14 33.9 | |
| | comp=N,22nm,0.4s | | | | | | |
| BRBR | | | | AML | AML | 15 14 37.4 | |
| | comp=E,26nm,0.4s | | | | | | |
| **SHBL** | **Chebaa** | **1.22** | **204** | *e*P | **Pn** | **15 14 13.7** | **-0.2** |
| SHBL | | | | *e*S | **Sg** | **15 14 30.7** | **+0.4** |
| **SHBL** | **Chebaa** | **1.22** | **204** | *e*P | **Pn** | **15 14 13.6** | **-0.2** |
| SHBL | | | | *e*S | **Sg** | **15 14 30.7** | **+0.4** |
| **SALA** | **Sala** | **1.78** | **169** | *e*P | **Pb** | **15 14 23.9** | **+0.4** |
| SALA | | | | *e*S | **Sb** | **15 14 45.8** | **0.0** |
| SALA | | | | AML | AML | 15 14 56.0 | |
| | comp=E,3.2nm,0.5s | | | | | | |
| SALA | | | | AML | AML | 15 14 59.3 | |
| | comp=N,39nm,0.4s | | | | | | |
| **TCHB** | **Talchebab** | **1.81** | **190** | *e*P | **Pn** | **15 14 22.8** | **+0.8** |
| TCHB | | | | *e*S | **Sb** | **15 14 47.1** | **+0.4** |
| TCHB | | | | AML | AML | 15 14 52.1 | |
| | comp=E,42nm,0.3s | | | | | | |
| TCHB | | | | AML | AML | 15 14 59.6 | |
| | comp=N,44nm,0.4s | | | | | | |

*ISK **14** 15:30:53.4,38°57N×43°38E,h5km,MD2.7*
*DDA **14** 15:30:53.2,38°45N×43°35E,h7km,Ml2.8*
*CSEM **14** 15:30:53.2±0.4,38°48N×43°40E,h2km,ML2.8, Error ellipse: s-maj=10.3km s-min=6.8km az=80.0*

**ISC 14 15:30:53.1**±1.1,**38°52N**±0°03×**43°40E**±0°04,**h4**km±9km, **n22,σ1°47/34,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.08** | **352** | PG | **Pg** | **15 30 54.9** | **+0.1** |
| **VANB** | **Van** | **0.08** | **352** | *i* Pg | **Pg** | **15 30 54.9** | **+0.1** |
| **GEVA** | **Gevas** | **0.34** | **233** | *i* P | **Pg** | **15 30 58.8** | **-0.9** |
| **GEVA** | **Gevas** | **0.34** | **233** | P | **Pg** | **15 30 58.8** | **-0.9** |
| **ADCV** | **BITLIS_Adilcev** | **0.60** | **299** | *i* P | **Pb** | **15 31 05.2** | **-1.2** |
| ADCV | | | | *i* S | **Sb** | **15 31 14.9** | **-0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.60** | **299** | P | **Pb** | **15 31 05.2** | **-1.2** |
| ADCV | | | | S | **Sb** | **15 31 14.9** | **-0.5** |
| **CLDR** | **Caldiran** | **0.74** | **33** | *e*PG | **Pb** | **15 31 08.3** | **-0.5** |
| CLDR | | | | *e*SG | **Sb** | **15 31 19.2** | **-0.1** |
| **CLDR** | **Caldiran** | **0.74** | **33** | *i* P | **Pb** | **15 31 09.3** | **+0.5** |
| CLDR | | | | *i* S | **Sn** | **15 31 22.0** | **-0.6** |
| **CLDR** | **Caldiran** | **0.74** | **33** | *e*Pg | **Pb** | **15 31 08.3** | **-0.5** |
| **CLDR** | **Caldiran** | **0.74** | **33** | P | **Pb** | **15 31 09.3** | **+0.5** |
| CLDR | | | | *e*Sg | **Sb** | **15 31 19.3** | **-0.1** |
| **HAKT** | **HAKKARI** | **0.99** | **166** | *i* P | **Pg** | **15 31 09.6** | **-2.5** |
| HAKT | | | | *i* S | **Sg** | **15 31 25.4** | **+0.4** |
| **HAKT** | **HAKKARI** | **0.99** | **166** | P | **Pg** | **15 31 09.6** | **-2.5** |
| HAKT | | | | S | **Sg** | **15 31 25.4** | **+0.4** |
| **TUTA** | **Tutak** | **0.99** | **333** | *i* P | **Pb** | **15 31 12.0** | **-1.1** |
| TUTA | | | | *i* S | **Sn** | **15 31 27.1** | **-1.6** |
| **TUTA** | **Tutak** | **0.99** | **333** | P | **Pb** | **15 31 12.0** | **-1.1** |
| TUTA | | | | S | **Sn** | **15 31 27.1** | **-1.6** |
| **AGRB** | **Hanur-Agry** | **1.10** | **343** | *e*PG | **Pn** | **15 31 14.6** | **-1.0** |
| **AGRB** | **Hanur-Agry** | **1.10** | **343** | *e*Pg | **Pn** | **15 31 14.6** | **-1.0** |
| **EKAR** | **Karacoban** | **1.28** | **306** | *i* P | **Pn** | **15 31 19.2** | **+1.2** |
| EKAR | | | | *i* S | **Sn** | **15 31 38.5** | **+2.8** |
| **EKAR** | **Karacoban** | **1.28** | **306** | P | **Pn** | **15 31 19.2** | **+1.2** |
| **CUKT** | **Cukurca** | **1.28** | **173** | *e*PN | **Pb** | **15 31 20.1** | **+2.2** |
| **CUKT** | **Cukurca** | **1.28** | **173** | *e*Pn | **Pb** | **15 31 20.1** | **+2.2** |
| **EATA** | **Eleskirt** | **1.52** | **332** | *i* P | **Pg** | **15 31 22.4** | **+0.2** |
| EATA | | | | *i* S | **Sn** | **15 31 44.5** | **+2.7** |
| **EATA** | **Eleskirt** | **1.52** | **332** | P | **Pg** | **15 31 22.4** | **+0.2** |
| EATA | | | | S | **Sn** | **15 31 44.5** | **+2.7** |

*THR **14** 15:56:46.7±0.5,27°82N×56°23E,h14km±6km,ML3.5*
*IDC **14** 15:56:47.0±1.3,28°05N×55°92E,h0km,mb3.9/7, mb1 4.0/8,mb1mx3.7/49,mbtmp3.9/8,ML3.9/1,MS3.2/1, Ms1 3.2/1,ms1mx2.4/45, Error ellipse: s-maj=27.1km s-min=22.6km az=77.0*
*ISCJB **14** 15:56:49.5±0.4,28°08N±0°03'×55°92E±0°05,h10km, mb3.9/7,MS3.1/1,Error ellipse: s-maj=6.2km s-min=3.9km az=166.9*
*TEH **14** 15:56:51.4,28°04N×55°94E,h10km,ML3.5*
*OMAN **14** 15:56:51.4,28°04N×55°94E,h10km,Error ellipse: s-maj=1.0km s-min=1.0km az=1.0*
*CSEM **14** 15:56:51.0±0.2,28°08N×55°94E,h10km,ML3.5,Error ellipse: s-maj=5.9km s-min=3.6km az=76.0*

**ISC 14 15:56:49.4**±0.7,**28°07N**±0°03×**55°94E**±0°04,**h10**km,**n60, σ1°57/64,mb3.9/7,Southern Iran**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **BNDS** | **Bandar-Abbas** | **0.70** | **163** | *e*Pg | Pg | 15 56 55.2 | -7.7 |
| **IBND** | **Bandar-abas** | **0.81** | **139** | eAMB | AMB | 15 57 26.9 | |
| | comp=Z,29µm,0.4s | | | | | | |
| IBND | | | | *e*Pg | **Pg** | **15 57 05.7** | **+0.6** |
| **NGRK** | **Negar Kerman** | **1.71** | **24** | *e*Pn | **Pn** | **15 57 20.2** | **+0.5** |
| **NGRK** | **Negar Kerman** | **1.71** | **24** | *e*Pn | **Pn** | **15 57 20.2** | **+0.5** |
| **SHME** | **Shamm** | **2.02** | **175** | P | **Pn** | **15 57 25.1** | **+1.5** |
| **KRBR** | **Kerman** | **2.04** | **20** | *e*Pn | **Pn** | **15 57 25.3** | **+1.3** |
| KRBR | | | | *e*Sg | **Sg** | **15 57 56.2** | **+1.3** |
| KRBR | | | | AML | AML | 15 57 58.9 | |
| | comp=N,448nm,0.4s | | | | | | |
| KRBR | | | | AML | AML | 15 57 59.9 | |
| | comp=E,419nm,0.4s | | | | | | |
| **KRBR** | **Kerman** | **2.04** | **20** | *e*Pn | **Pn** | **15 57 25.3** | **+1.3** |
| KRBR | | | | *e*Sg | **Sg** | **15 57 56.2** | **+1.3** |
| **TVBK** | **TV Kerman** | **2.04** | **20** | *e*Pn | **Pn** | **15 57 25.8** | **+1.7** |
| **TVBK** | **TV Kerman** | **2.04** | **20** | *e*Pn | **Pn** | **15 57 25.8** | **+1.7** |
| **BANOM** | **Banah** | **2.16** | **171** | P | **Pb** | **15 57 28.3** | **-0.3** |
| | SNR=13 | | | | | | |
| **BANOM** | **Banah** | **2.16** | **171** | Pn | **Pb** | **15 57 28.3** | **-0.3** |
| | SNR=13 | | | | | | |
| **BANOM** | **Banah** | **2.16** | **171** | P | **Pb** | **15 57 28.3** | **-0.3** |
| | SNR=13 | | | | | | |
| **CHMN** | **Cheshme madani** | **2.27** | **38** | *e*Pn | **Pb** | **15 57 30.3** | **-0.3** |
| **CHMN** | **Cheshme madani** | **2.27** | **38** | *e*Pn | **Pb** | **15 57 30.3** | **-0.3** |
| **KHGB** | **Koh Gabri** | **2.34** | **11** | *e*Pn | **Pn** | **15 57 30.4** | **+2.2** |
| **KHGB** | **Koh Gabri** | **2.34** | **11** | *e*Pn | **Pn** | **15 57 30.4** | **+2.2** |
| **GHIR** | **Ghir-Karzin** | **2.62** | **275** | *e*Pn | **Pn** | **15 57 34.5** | **+2.7** |
| GHIR | | | | AML | AML | 15 58 31.9 | |
| | comp=E,126nm,0.6s | | | | | | |
| GHIR | | | | AML | AML | 15 58 37.4 | |
| | comp=N,128nm,0.6s | | | | | | |
| **GHIR** | **Ghir-Karzin** | **2.62** | **275** | *e*Pn | **Pn** | **15 57 34.5** | **+2.7** |
| **MSFE** | **Esma-Masafi** | **2.71** | **176** | Pn | **Pn** | **15 57 34.5** | **+1.5** |
| **ISRV** | **Sarvestan** | **2.81** | **298** | *e*Pn | **Pn** | **15 57 36.7** | **+2.1** |
| ISRV | | | | *e*Sg | **Sg** | **15 58 19.4** | **-0.2** |
| ISRV | | | | eAMB | AMB | 15 58 24.7 | |
| | comp=Z,2µm,0.3s | | | | | | |
| **ISRV** | **Sarvestan** | **2.81** | **298** | *e*Pn | **Pn** | **15 57 36.7**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | comp=Z,3.6nm,0.3s,baz=348,slow=11,SNR=48 | | | | | | |
| WSAR | | | | Sn | Sn | 15 59 12.3 | +0.3 |
| | comp=Z,2.7nm,0.3s,baz=254,slow=17,SNR=11 | | | | | | |
| **IGAR** | **Gharneh** | **5.48** | **323** | *e*Pn | **Pn** | 15 58 12.8 | +1.5 |
| IGAR | | | | *e*AMB | AMB | 15 58 14.3 | |
| | comp=Z,653nm,0.2s | | | | | | |
| **IZEF** | **Zefreh** | **5.73** | **328** | *e*Pn | **Pn** | 15 58 15.5 | +0.7 |
| IZEF | | | | *e*AMB | AMB | 16 00 01.1 | |
| | comp=Z,63nm,0.3s | | | | | | |
| **IZEF** | **Zefreh** | **5.73** | **328** | *e*Pn | **Pn** | 15 58 15.5 | +0.7 |
| **IPIR** | **Pirpir** | **6.34** | **318** | *e*Pn | **Pn** | 15 58 24.6 | +1.4 |
| IPIR | | | | *e*AMB | AMB | 15 59 41.7 | |
| | comp=Z,172nm,0.2s | | | | | | |
| **IPIR** | **Pirpir** | **6.34** | **318** | *e*Pn | **Pn** | 15 58 24.6 | +1.4 |
| **IKLH** | **Kolahrood** | **6.44** | **325** | *e*Pn | **Pn** | 15 58 25.1 | +0.6 |
| IKLH | | | | *e*AMB | AMB | 15 58 34.3 | |
| | comp=Z,192nm,0.2s | | | | | | |
| **IKLH** | **Kolahrood** | **6.44** | **325** | *e*Pn | **Pn** | 15 58 25.1 | +0.6 |
| **BRTR** | **Keskin Array B** | **21.80** | **308** | P | **P** | 16 01 42.2 | +0.5 |
| | comp=Z,2.8nm,0.5s,baz=132,slow=14,SNR=22 | | | | | | |
| **AKTO** | **Aktyubinsk** | **22.39** | **3** | P | **P** | 16 01 47.1 | -0.6 |
| | comp=Z,3.8nm,0.7s,baz=182,slow=12,SNR=13 | | | | | | |
| **BVAR** | **Borovoye Array** | **27.13** | **19** | P | **P** | 16 02 31.6 | -0.9 |
| | comp=Z,1.4nm,0.7s,baz=206,slow=13,SNR=4.7 | | | | | | |
| AKASG | **Malin Array Be** | **30.32** | **326** | P | **P** | 16 02 59.6 | -1.3 |
| | comp=Z,0.6nm,0.5s,baz=134,slow=8.7,SNR=7.7 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **33.39** | **31** | P | **P** | 16 03 27.1 | -0.8 |
| | comp=Z,0.9nm,0.4s,baz=236,slow=11,SNR=5.9 | | | | | | |
| ZALV | | | | LR | LR | 16 18 06.1 | |
| | comp=Z,34nm,18.8s,baz=65,slow=38 | | | | | | |
| **FINES** | **FINESS Array B** | **38.85** | **338** | P | **P** | 16 04 14.2 | -0.3 |
| | comp=Z,2.5nm,0.9s,baz=131,slow=7.8,SNR=5.1 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **52.50** | **265** | P | **P** | 16 06 01.2 | -1.8 |
| | comp=Z,0.9nm,0.6s,baz=61,slow=7.1,SNR=8.0 | | | | | | |

*NIED* ***14*** *16:03:00,36.90N×141.20E,h47km,Mw3.6 Best double couple: M₀3.30000×10¹⁴ NP1:φ₀69.00000°,δ12.00000°, λ116.00000°. NP2:φ₀223.00000°,δ79.00000°,λ85.00000°.*
*IDC* ***14*** *16:03:24.6±3.0,37.02N×141.66E,h0km,mb3.5/2, mb1 3.7/5,mb1mx3.4/35,mbtmp3.9/5,ML3.6/3,MS3.5/1, Ms1 3.5/1,ms1mx2.4/32,Error ellipse: s-maj=61.6km s-min=27.4km az=63.0*
*ISCJB* ***14*** *16:03:30.7±0.9,36.85N±0.04×141.35E±0.08,h48km±9km, mb3.4/2,MS3.4/1,Error ellipse: s-maj=10.1km s-min=7.0km az=6.2*
*JMA* ***14*** *16:03:33.0±0.1,36.89N×141.16E,h49km±1km,M3.6*
*JMA Felt I J1.*

**ISC 14 16:03:30.1**±1.6**, 36.86N**±0.05×**141.38E**±0.07**, h33**km±7km**, n21,**σ1º71/26**, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ONAJ** | **Iwakimizuishiy** | **0.52** | **298** | P | **Pn** | **16 03 42.4** | **+1.0** |
| ONAJ | | | | *e*S | **Sn** | **16 03 48.9** | **-0.3** |
| **JFK** | **Kawauchi** | **0.65** | **322** | P | **Pn** | **16 03 44.3** | **+1.2** |
| JFK | | | | *e*S | **Sn** | **16 03 52.0** | **-0.2** |
| **JHO** | **Hitachi** | **0.69** | **250** | P | **Pn** | **16 03 44.7** | **+1.0** |
| JHO | | | | *e*S | **Sb** | **16 03 52.8** | **-0.4** |
| **JFT** | **Otama** | **1.06** | **309** | P | **Pb** | **16 03 50.5** | **+0.5** |
| JFT | | | | *e*S | **Sn** | **16 04 02.5** | **+0.1** |
| **JMM** | **Marumori** | **1.11** | **335** | P | **Pb** | **16 03 50.7** | **-0.1** |
| JMM | | | | *e*S | **Sn** | **16 04 04.1** | **+0.5** |
| **JSB** | **Shiboa** | **1.17** | **276** | P | **Pb** | **16 03 51.5** | **-0.4** |
| JSB | | | | *e*S | **Sn** | **16 04 04.8** | **-0.4** |
| **JFY** | **Yanaizu** | **1.45** | **293** | P | **Pb** | **16 03 54.9** | **-1.6** |
| JFY | | | | *e*S | **Sn** | **16 04 11.9** | **0.0** |
| **JAG** | **Ashikaga** | **1.61** | **255** | P | **Pn** | **16 03 57.2** | **+1.0** |
| JAG | | | | *e*S | **Sn** | **16 04 15.4** | **-0.4** |
| **MJAR** | **Matsushiro Arr** | **2.57** | **264** | Pn | **Pn** | **16 04 09.7** | **+0.2** |
| | 3.7nm,0.3s,baz=89,slow=16,SNR=29 | | | | | | |
| MJAR | | | | Sn | **Sn** | **16 04 40.9** | **+1.4** |
| | 6.2nm,0.3s,baz=90,slow=27,SNR=7.4 | | | | | | |
| **MAT** | **Matsushiro** | **2.57** | **264** | P | **Pn** | **16 04 11.6** | **+2.1** |
| MAT | | | | S | **Sn** | **16 04 41.7** | **+2.1** |
| **JHJ** | **Hachijo jima 2** | **3.95** | **200** | Pn | **Pn** | **16 04 31.1** | **+2.6** |
| | 8.0nm,0.3s,baz=335,slow=22,SNR=9.4 | | | | | | |
| JHJ | | | | Sn | **Sn** | **16 05 16.2** | **+2.5** |
| | 14nm,0.3s,baz=246,slow=20,SNR=4.8 | | | | | | |
| **JCJ** | **Chichijima** | **9.76** | **176** | Pn | **Pn** | **16 05 48.8** | **+0.6** |
| | 1.5nm,0.3s,baz=41,slow=19,SNR=2.8 | | | | | | |
| JCJ | | | | Sn | **Sn** | **16 07 31.1** | **-5.6** |
| | 1.8nm,0.3s,baz=234,slow=19,SNR=3.4 | | | | | | |
| **SONM** | **Songino Array** | **27.86** | **304** | P | **P** | **16 09 17.3** | **+0.5** |
| | 0.5nm,0.6s,baz=95,slow=8.2,SNR=3.0 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.08** | **120** | T | T | 16 39 14.9 | |
| | baz=313,slow=75,SNR=21 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.09** | **120** | T | T | 16 39 18.1 | |
| | baz=313,slow=75,SNR=16 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.10** | **120** | T | T | 16 39 18.5 | |
| | baz=313,slow=75,SNR=16 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.79** | **123** | T | T | 16 40 17.8 | |
| | baz=314,slow=75,SNR=24 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.79** | **123** | T | T | 16 40 17.1 | |
| | baz=314,slow=75,SNR=19 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.80** | **123** | T | T | 16 40 18.7 | |
| | baz=314,slow=75,SNR=11 | | | | | | |
| **DAV** | **Davao City (W)** | **32.97** | **210** | LR | LR | 16 25 37.4 | |
| | comp=Z,76nm,18.1s,baz=330,slow=40 | | | | | | |
| **WRA** | **Warramunga Arr** | **56.88** | **188** | P | **P** | **16 13 11.8** | **0.0** |
| | 0.3nm,0.6s,baz=4.5,slow=7.4,SNR=5.0 | | | | | | |

**DJA 14 16:23:28.5**±0.5**, 1°S**±4°×**127°E**±°**, h41**km±11km**, M4.2/5, mb5.2/1,MLv3.6/5, Southern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LBMI** | **Labuha** | **0.55** | **65** | P | Pn | 16 23 41.4 | +1.4 |
| LBMI | | | | S | Sn | 16 23 50.6 | +2.5 |
| **SANI** | **Sanana** | **1.55** | **221** | P | Pn | 16 23 53.4 | -0.2 |
| SANI | | | | S | Sn | 16 24 13.4 | +0.9 |
| **NLAI** | **Namlea** | **2.35** | **178** | P | Pn | 16 24 04.8 | +0.1 |
| NLAI | | | | S | Sn | 16 24 32.9 | +0.5 |
| **SGSI** | **Sangihe** | **4.76** | **342** | P | Pn | 16 24 37.6 | -0.2 |
| **RKPI** | **Ransiki, Papua** | **7.20** | **95** | P | Pn | 16 25 11.6 | +0.2 |

**IDC 14 16:25:56.0**±2.9**, 33.53S**×**179.15W, h0**km**, mb3.3**/2**, mb1 3.6**/3**, mb1mx3.5**/32**, mbtmp3.4**/3**, ML3.2/1, Error ellipse: s-maj=68.4km s-min=44.7km az=122.0, South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **URZ** | **Urewera** | **5.61** | **212** | Pn | Pn | 16 27 20.1 | -0.6 |
| | 0.7nm,0.3s,baz=275,slow=4.1,SNR=12 | | | | | | |
| URZ | | | | Sn | Sn | 16 28 16.6 | -9.2 |
| | 1.7nm,0.3s,baz=290,slow=23,SNR=11 | | | | | | |
| **ASAR** | **Alice Springs** | **42.07** | **271** | P | P | 16 33 50.1 | +0.3 |
| | 0.3nm,0.8s,baz=111,slow=6.9,SNR=5.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.35** | **276** | P | P | 16 33 59.5 | -0.6 |
| | 0.2nm,0.3s,baz=116,slow=8.0,SNR=8.7 | | | | | | |
| **FINES** | **FINESS Array B** | **147.70** | **337** | PKPbc | PKPbc | 16 45 41.2 | -0.5 |
| | 2.1nm,0.8s,baz=328,slow=2.1,SNR=2.8 | | | | | | |

*ISCJB* ***14*** *16:26:32.0±0.8,52.12N±0.07×169.92E±0.09,h35km, mb3.6/6,Error ellipse: s-maj=10.2km s-min=7.8km az=13.8*
*KRSC* ***14*** *16:26:34.7±1.7,52.19N×169.70E,h118km±53km,ML4.1*
*MOS* ***14*** *16:26:34.5±0.6,52.27N×169.88E,h76km,mb4.5/2,Error ellipse: s-maj=16.6km s-min=7.7km az=31.6*
*IDC* ***14*** *16:26:36.6±4.9,52.39N×169.85E,h76km±46km,mb3.2/5, mb1 3.5/6,mb1mx3.1/46,mbtmp3.5/6,ML3.1/1,Error ellipse: s-maj=41.0km s-min=18.9km az=155.0*

**ISC 14 16:26:31.7**±0.9**, 52.03N**±0.08×**170.02E**±0.07**, h35**km**, n48,**σ2º28/66**, mb3.5/6, Near Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BKI** | **Bering** | **3.99** | **324** | P | **Pn** | **16 27 31.3** | **+1.0** |
| BKI | | | | S | **Sn** | **16 28 16.3** | **+0.6** |
| **BKI** | **Bering** | **3.99** | **324** | *e*P | **Pn** | **16 27 31.3** | **+1.0** |
| BKI | | | | *e*S | **Sn** | **16 28 16.3** | **+0.6** |
| **KBTR** | **Krutoberegovo** | **5.95** | **317** | P | **Pn** | **16 27 58.2** | **+1.0** |
| KBTR | | | | S | **Sn** | **16 29 04.3** | **+0.2** |
| **KBTR** | **Krutoberegovo** | **5.95** | **317** | *e*P | **Pn** | **16 27 58.2** | **+1.0** |
| KBTR | | | | *e*S | **Sn** | **16 29 04.3** | **+0.2** |
| **SPN** | **Mys Shipunski** | **6.19** | **284** | P | **Pn** | **16 28 03.5** | **+3.0** |
| SPN | | | | S | **Sn** | **16 29 07.5** | **-2.5** |
| **SPN** | **Mys Shipunski** | **6.19** | **284** | *e*P | **Pn** | **16 28 03.5** | **+3.0** |
| SPN | | | | *e*S | **Sn** | **16 29 07.5** | **-2.5** |
| **NLC** | **Nalytchevo** | **6.61** | **284** | P | **Pn** | **16 28 08.3** | **+2.1** |
| NLC | | | | S | **Sn** | **16 29 18.0** | **-2.2** |
| **NLC** | **Nalytchevo** | **6.61** | **284** | *e*P | **Pn** | **16 28 08.3** | **+2.1** |
| NLC | | | | *e*S | **Sn** | **16 29 18.0** | **-2.2** |
| **TUMR** | **Tumrok** | **6.71** | **303** | P | **Pn** | **16 28 09.8** | **+2.0** |
| **TUMR** | **Tumrok** | **6.71** | **303** | *e*P | **Pn** | **16 28 09.8** | **+2.0** |
| **SMKR** | **Semkarok** | **6.77** | **316** | P | **Pn** | **16 28 11.5** | **+3.0** |
| **SMKR** | **Semkarok** | **6.77** | **316** | *e*P | **Pn** | **16 28 11.5** | **+3.0** |
| **SDLR** | **Sedlovina** | **6.89** | **285** | P | **Pn** | **16 28 13.2** | **+2.9** |
| **SDLR** | **Sedlovina** | **6.89** | **285** | *e*P | **Pn** | **16 28 13.2** | **+2.9** |
| **UGLR** | **Uglovaya** | **6.92** | **284** | P | **Pn** | **16 28 13.3** | **+2.6** |
| **UGLR** | **Uglovaya** | **6.92** | **284** | *e*P | **Pn** | **16 28 13.3** | **+2.6** |
| **SRKR** | **Sorokina** | **6.94** | **315** | P | **Pn** | **16 28 11.8** | **+0.9** |
| **SRKR** | **Sorokina** | **6.94** | **315** | *e*P | **Pn** | **16 28 11.8** | **+0.9** |
| **DALK** | **Dalny** | **6.95** | **283** | P | **Pn** | **16 28 12.9** | **+2.0** |
| DALK | | | | S | **Sn** | **16 29 27.7** | **-1.0** |
| **DALK** | **Dalny** | **6.95** | **283** | *e*P | **Pn** | **16 28 12.9** | **+2.0** |
| DALK | | | | *e*S | **Sn** | **16 29 27.7** | **-1.0** |
| **KRER** | **Koryakskii** | **6.98** | **285** | P | **Pn** | **16 28 14.7** | **+3.2** |
| **KRER** | **Koryakskii** | **6.98** | **285** | *e*P | **Pn** | **16 28 14.7** | **+3.2** |
| **AVH** | **Avacha** | **6.98** | **285** | P | **Pn** | **16 28 14.4** | **+3.0** |
| **AVH** | **Avacha** | **6.98** | **285** | *e*P | **Pn** | **16 28 14.4** | **+3.0** |
| **PET** | **Petropavlovsk** | **7.01** | **283** | P | **Pn** | **16 28 14.0** | **+2.2** |
| PET | | | | S | **Sn** | **16 29 29.0** | **-1.1** |
| **PET** | **Petropavlovsk** | **7.01** | **283** | *e*P | **Pn** | **16 28 14.0** | **+2.2** |
| PET | | | | *e*S | **Sn** | **16 29 29.0** | **-1.1** |
| **KOK** | **Koryaka** | **7.04** | **285** | P | **Pn** | **16 28 15.5** | **+3.2** |
| **KOK** | **Koryaka** | **7.04** | **285** | *e*P | **Pn** | **16 28 15.5** | **+3.2** |
| **RUS** | **Russkaya** | **7.08** | **278** | P | **Pn** | **16 28 14.3** | **+1.5** |
| RUS | | | | S | **Sn** | **16 29 30.1** | **-1.8** |
| **RUS** | **Russkaya** | **7.08** | **278** | *e*P | **Pn** | **16 28 14.3** | **+1.5** |
| RUS | | | | *e*S | **Sn** | **16 29 30.1** | **-1.8** |
| **KRMR** | **Karymshinskiy** | **7.32** | **281** | P | **Pn** | **16 28 18.0** | **+2.0** |
| KRMR | | | | S | **Sn** | **16 29 36.6** | **-1.1** |
| **KRMR** | **Karymshinskiy** | **7.32** | **281** | *e*P | **Pn** | **16 28 18.0** | **+2.0** |
| KRMR | | | | *e*S | **Sn** | **16 29 36.6** | **-1.1** |
| **KDTR** | **Khodutka, Kamc** | **7.39** | **273** | *e*P | **Pn** | **16 28 19.1** | **+2.1** |
| KDTR | | | | *e*S | **Sn** | **16 29 36.6** | **-3.0** |
| **ASAK** | **Asacha** | **7.46** | **277** | P | **Pn** | **16 28 20.9** | **+2.9** |
| **ASAK** | **Asacha** | **7.46** | **277** | *e*P | **Pn** | **16 28 20.9** | **+2.9** |
| **GNL** | **Ganaly** | **7.50** | **288** | P | **Pn** | **16 28 21.7** | **+3.1** |
| **GNL** | **Ganaly** | **7.50** | **288** | *e*P | **Pn** | **16 28 21.7** | **+3.1** |
| **PETK** | **Petropavlovsk-** | **7.59** | **283** | P | **Pn** | **16 28 23.0** | **+3.3** |
| | 1.5nm,0.3s,baz=88,slow=17,SNR=19 | | | | | | |
| PETK | | | | S | **Sn** | **16 29 44.6** | **+0.2** |
| | 0.6nm,0.3s,baz=101,slow=22,SNR=3.1 | | | | | | |
| **ESO** | **Esso** | **7.73** | **305** | *e*S | **Sn** | **16 29 45.3** | **-2.6** |
| **APC** | **Apacha** | **7.91** | **282** | P | **Pn** | **16 28 27.5** | **+3.4** |
| **APC** | **Apacha** | **7.91** | **282** | *e*P | **Pn** | **16 28 27.5** | **+3.4** |
| **SKR** | **Severo-Kuril's** | **8.81** | **267** | *e*S | **Sn** | **16 30 11.8** | **-2.6** |
| **KDAK** | **Kodiak Island** | **22.04** | **60** | P | **P** | **16 31 20.6** | **-2.2** |
| | 12nm,0.9s,baz=281,slow=10,SNR=7.1 | | | | | | |
| **ILAR** | **Eielson Array** | **25.33** | **43** | P | **P** | **16 31 52.5** | **-2.3** |
| | 0.8nm,0.6s,baz=249,slow=7.1,SNR=13 | | | | | | |
| **YKA** | **Yellowknife Ar** | **39.74** | **45** | P | **P** | **16 34 00.4** | **-0.1** |
| | 0.2nm,0.5s,baz=290,slow=8.4,SNR=2.3 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **48.33** | **308** | P | **P** | **16 35 07.7** | **-1.6** |
| | 0.4nm,0.4s,baz=60,slow=11,SNR=2.5 | | | | | | |
| **TXAR** | **Lajitas Array** | **65.29** | **74** | P | **P** | **16 37 11.2** | **+1.2** |
| | 0.2nm,0.4s,baz=308,slow=4.9,SNR=7.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **78.14** | **214** | P | **P** | **16 38 28.2** | **+1.1** |
| | 0.4nm,0.8s,baz=30,slow=5.9,SNR=2.8 | | | | | | |

*DDA* ***14*** *16:35:29.4,41.77N×34.45E,h11km,Ml2.8*
*CSEM* ***14*** *16:35:30.9±0.2,41.73N×34.47E,h10km,MD2.8, Error ellipse: s-maj=5.9km s-min=4.2km az=162.0*
*ISK* ***14*** *16:35:30.4,41.74N×34.50E,h7km,MD2.8*

**ISC 14 16:35:30.3**±1.1**, 41.73N**±0.03×**34.45E**±0.02**, h8**km±10km**, n28,**σ0º80/46**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BZK** | **Bozkurt** | **0.40** | **304** | *e*PG | **Pb** | **16 35 39.3** | **-0.4** |
| BZK | | | | *e*SG | **Sb** | **16 35 46.0** | **0.0** |
| **BZK** | **Bozkurt** | **0.40** | **304** | *e*Pg | **Pb** | **16 35 39.3** | **-0.4** |
| BZK | | | | *e*Sg | **Sb** | **16 35 46.0** | **0.0** |
| **KAST** | **KASTAMONU** | **0.46** | **238** | *i* P | **Pg** | **16 35 39.3** | **0.0** |
| KAST | | | | *i* S | **Sb** | **16 35 47.0** | **-0.7** |
| **KAST** | **KASTAMONU** | **0.46** | **238** | P | **Pg** | **16 35 39.3** | **0.0** |
| KAST | | | | S | **Sb** | **16 35 47.0** | **-0.7** |
| **DIKM** | **Dikmen** | **0.61** | **98** | *e*PG | **Pg** | **16 35 41.9** | **-0.2** |
| DIKM | | | | *e*SG | **Sg** | **16 35 50.4** | **+0.3** |
| **DIKM** | **Dikmen** | **0.61** | **98** | *e*Pg | **Pg** | **16 35 41.9** | **-0.2** |
| DIKM | | | | *e*Sg | **Sg** | **16 35 50.4** | **+0.3** |
| **SINO** | **SINOP_Merkez** | **0.63** | **63** | *i* P | **Pg** | **16 35 43.2** | **-0.4** |
| SINO | | | | *i* S | **Sg** | **16 35 50.5** | **-0.2** |
| **SINO** | **SINOP_Merkez** | **0.63** | **63** | P | **Pb** | **16 35 43.2** | **-0.4** |
| SINO | | | | S | **Sg** | **16 35 50.5** | **-0.2** |
| **SNOP** | **Sinop** | **0.63** | **63** | *e*PG | **Pg** | **16 35 42.4** | **-0.2** |
| **SNOP** | **Sinop** | **0.63** | **63** | *e*Pg | **Pg** | **16 35 42.4** | **-0.2** |
| **ILGA** | **Ilgaz** | **0.88** | **219** | *i* P | **Pg** | **16 35 46.4** | **-0.8** |
| ILGA | | | | *i* S | **Sg** | **16 35 59.5** | **+0.9** |
| **ILGA** | **Ilgaz** | **0.88** | **219** | P | **Pg** | **16 35 46.4** | **-0.8** |
| ILGA | | | | S | **Sg** | **16 35 59.5** | **+0.9** |
| **CTAK** | **Corum_Osmancik** | **1.11** | **166** | *i* P | **Pg** | **16 35 50.9** | **-0.8** |
| CTAK | | | | *i* S | **Sb** | **16 36 06.8** | **+0.2** |
| **CTAK** | **Corum_Osmancik** | **1.11** | **166** | P | **Pg** | **16 35 50.9** | **-0.8** |
| CTAK | | | | S | **Sb** | **16 36 06.8** | **+0.2** |
| **HAVZ** | **Havza** | **1.16** | **124** | *i* P | **Pb** | **16 35 52.2** | **-0.4** |
| HAVZ | | | | *i* S | **Sn** | **16 36 08.5** | **-0.4** |
| **HAVZ** | **Havza** | **1.16** | **124** | P | **Pb** | **16 35 52.2** | **-0.4** |
| HAVZ | | | | S | **Sn** | **16 36 08.5** | **-0.4** |
| **KVT** | **Kavak** | **1.37** | **118** | *e*PN | **Pg** | **16 35 56.2** | **-0.4** |
| **KVT** | **Kavak** | **1.37** | **118** | *e*Pn | **Pg** | **16 35 56.2** | **-0.4** |
| **COAL** | **Corum-Alaca** | **1.53** | **164** | *i* P | **Pb** | **16 35 59.0** | **0.0** |
| COAL | | | | *i* S | **Sg** | **16 36 21.7** | **+2.1** |
| **COAL** | **Corum-Alaca** | **1.53** | **164** | P | **Pb** | **16 35 59.0** | **0.0** |
| COAL | | | | S | **Sg** | **16 36 21.7** | **+2.1** |
| **ERBA** | **Erbaa** | **2.03** | **120** | *i* P | **Pn** | **16 36 05.7** | **+0.8** |
| **ERBA** | **Erbaa** | **2.03** | **120** | P | **Pn** | **16 36 05.7** | **+0.8** |
| **CDAG** | **Cicekdag** | **2.11** | **182** | *i* P | **Pb** | **16 36 07.7** | **-1.1** |
| CDAG | | | | *i* S | **Sg** | **16 36 37.1** | **-1.0** |
| **CDAG** | **Cicekdag** | **2.11** | **182** | P | **Pb** | **16 36 07.7** | **-1.1** |
| CDAG | | | | S | **Sg** | **16 36 37.1** | **-1.0** |
| **YOZ** | **Yozgat** | **2.19** | **162** | *e*PN | **Pn** | **16 36 07.6** | **+0.4** |
| **YOZ** | **Yozgat** | **2.19** | **162** | *e*Pn | **Pn** | **16 36 07.6** | **+0.4** |
| **KAMT** | **Kaman** | **2.43** | **194** | *e*PN | **Pn** | **16 36 11.8** | **+1.4** |
| **KAMT** | **Kaman** | **2.43** | **194** | *e*Pn | **Pn** | **16 36 11.8** | **+1.4** |

*ISCJB* ***14*** *16:56:21.4±0.3,46.66N±0.03×113.60W±0.04,h7km, mb2.8/1,MS3.0/1,Error ellipse: s-maj=4.9km s-min=2.8km az=33.5*
*NEIC* ***14*** *16:56:22.0±0.0,46.61N×113.56W,h12km,ML3.5(BUT), After BUT.*
*NEIC Felt at Belgrade, Clinton, Helena, Missoula and Philipsburg.*
*IDC* ***14*** *16:56:22.4±0.9,46.64N×113.65W,h0km,mb3.0/1, mb1 3.6/4,mb1mx3.3/45,mbtmp3.2/4,ML3.7/3,MS3.1/2, Ms1 3.1/2,ms1mx2.5/15,Error ellipse: s-maj=23.5km s-min=8.1km az=44.0*

**ISC 14 16:56:21.6**±0.8**, 46.69N**±0.03×**113.53W**±0.03**, h7**km**, n74,**σ1º32/75**, Montana**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CHMT** | **Chamberlain Mo** | **0.30** | **40** | *e*Pg | **Pb** | **16 56 29.1** | **-0.3** |
| **MSO** | **Missoula** | **0.32** | **297** | *e*Pg | **Pg** | **16 56 28.7** | **+0.9** |
| **LRM** | **Limekiln Ridge** | **1.14** | **139** | *e*Pg | **Pg** | **16 56 42.7** | **-0.8** |
| **HRY** | **Holter Researc** | **1.17** | **88** | *e*Pg | **Pg** | **16 56 43.9** | **-0.2** |
| **JTMT** | **Jette** | **1.18** | **335** | *e*Pg | **Pb** | **16 56 44.7** | **+0.3** |
| **LCCM** | **Lewis and Clar** | **1.43** | **126** | *e*Pn | **Pn** | **16 56 48.1** | **0.0** |
| **BSMT** | **Bassoo Peak** | **1.45** | **324** | *e*Pn | **Pg** | **16 56 49.7** | **+0.4** |
| **DLMT** | **Dillon** | **1.48** | **153** | *e*Pn | **Pn** | **16 56 48.2** | **-0.5** |
| DLMT | | | | *e*Sn | **Sn** | **16 57 07.2** | **-1.1** |
| **BOZ** | **Bozeman (W)** | **1.71** | **129** | *e*Pn | **Pb** | **16 56 53.2** | **-0.3** |
| BOZ | | | | *e*Sn | **Sn** | **16 57 13.6** | **-0.6** |
| **BGMT** | **Barton Gulch** | **1.79** | **144** | *e*Pn | **Pn** | **16 56 52.8** | **-0.3** |
| **MCMT** | **McKenzie Canyo** | **1.92** | **165** | *e*Pn | **Pn** | **16 56 54.2** | **-0.7** |
| MCMT | | | | *e*Sn | **Sb** | **16 57 21.1** | **-0.2** |
| **BZMT** | **Bozeman Pass** | **2.17** | **118** | *e*Pn | **Pb** | **16 57 01.7** | **+0.5** |
| **MOMT** | **Monida** | **2.24** | **159** | *e*Pn | **Pn** | **16 56 59.3** | **0.0** |
| **TPMT** | **Tepee Creek** | **2.35** | **146** | *e*Pn | **Pb** | **16 57 04.9** | **+0.4** |
| **QLMT** | **Earthquake Lak** | **2.37** | **141** | *e*Pn | **Pn** | **16 57 01.1** | **+0.1** |
| **WALA** | **Waterton Lakes** | **2.39** | **354** | *e*Pn | **Pn** | **16 57 01.8** | **+0.6** |
| **YHB** | **Horse Butte** | **2.53** | **139** | *e*Pn | **Pn** | **16 57 03.5** | **+0.2** |
| **F10A** | **Beach Ranch, E** | **2.66** | **256** | *e*Pn | **Pn** | **16 57 05.3** | **+0.4** |
| **CRMT** | **Chrome Mountai** | **2.66** | **116** | *e*Pn | **Pb** | **16 57 09.9** | **+0.2** |
| **YHH** | **Holmes Hill** | **2.67** | **134** | *e*Pn | **Pn** | **16 57 05.8** | **+0.6** |
| **YMR** | **Madison River** | **2.70** | **137** | *e*Pn | **Pn** | **16 57 06.0** | **+0.4** |
| **YPM** | **Purple Mountai** | **2.76** | **136** | *e*Pn | **Pn** | **16 57 07.5** | **+1.0** |
| **YNR** | **Norris Junctio** | **2.81** | **134** | *e*Pn | **Pn** | **16 57 07.5** | **+0.4** |
| **GCMT** | **Greycliff** | **2.83** | **107** | *e*Pn | **Pn** | **16 57 07.8** | **+0.6** |
| **EGMT** | **Eagleton** | **2.90** | **61** | *e*Pn | **Pn** | **16 57 08.9** | **+0.7** |
| **NEW** | **Newport** | **2.90** | **304** | Pn | **Pn** | **16 57 09.3** | **+1.1** |
| | 3.8nm,0.3s,baz=127,slow=12,SNR=21 | | | | | | |
| NEW | | | | Lg | Lg | 16 57 52.6 | |
| | 7.2nm,0.3s,baz=148,slow=13,SNR=3.6 | | | | | | |
| **NEW** | **Newport** | **2.90** | **304** | *e*Pn | **Pn** | **16 57 08.8** | **+0.6** |
| NEW | | | | Lg | Lg | 16 57 52.6 | |
| **YFT** | **Old Faithful** | **2.93** | **139** | *e*Pn | **Pn** | **16 57 09.5** | **+0.7** |
| **MCID** | **Moose Creek** | **2.99** | **146** | *e*Pn | **Pn** | **16 57 10.5** | **+0.9** |
| **LKWY** | **Lake** | **3.05** | **133** | *e*Pn | **Pn** | **16 57 11.9** | **+1.4** |
| **YPP** | **Pitchstone Pla** | **3.08** | **141** | *e*Pn | **Pn** | **16 57 12.0** | **+1.0** |
| **H17A** | **Grant Village** | **3.09** | **137** | *e*Pn | **Pn** | **16 57 12.1** | **+1.1** |
| **HLID** | **Hailey** | **3.18** | **192** | *e*Pn | **Pn** | **16 57 11.6** | **-0.6** |
| **E09A** | **Wood Farm, Sta** | **3.19** | **269** | *e*Pn | **Pn** | **16 57 12.7** | **+0.7** |
| **BMO** | **Blue Mountains** | **3.21** | **237** | *e*Pn | **Pn** | **16 57 12.8** | **+0.2** |
| **COMI** | **Craters of Moo** | **3.22** | **181** | *e*Pn | **Pn** | **16 57 12.9** | **+0.1** |
| **IMW** | **Indian Meadow** | **3.33** | **146** | *e*Pn | **Pn** | **16 57 14.9** | **+0.5** |
| **RLMT** | **Red Lodge** | **3.36** | **116** | *e*Pn | **Pn** | **16 57 16.3** | **+1.6** |
| **DPW** | **Davenport** | **3.39** | **292** | *e*Pn | **Pn** | **16 57 15.6** | **+0.6** |
| **C09A** | **Chrisman Ranch** | **3.42** | **291** | *e*Pn | **Pn** | **16 57 15.0** | **-0.2** |
| **FXWY** | **Fox Creek** | **3.52** | **149** | *e*Pn | **Pn** | **16 57 17.5** | **+0.5** |
| **MOOW** | **Moose Ponds** | **3.54** | **145** | *e*Pn | **Pn** | **16 57 17.8** | **+0.7** |
| **MFID** | **Camas Ranch** | **3.65** | **207** | *e*Pn | **Pn** | **16 57 18.1** | **-0.5** |
| **TPAW** | **Teton Pass** | **3.68** | **149** | *e*Pn | **Pn** | **16 57 20.9** | **+1.8** |
| **LOHW** | **Long Hollow** | **3.71** | **145** | *e*Pg | **Pb** | **16 57 28.7** | **+1.2** |
| **SNOW** | **Snow King Moun** | **3.78** | **148** | *e*Pn | **Pn** | **16 57 22.6** | **+2.2** |
| **E08A** | **Dider Farm, El** | **3.82** | **269** | *e*Pn | **Pn** | **16 57 20.7** | **0.0** |
| **REDW** | **Red Top Meadow** | **3.83** | **149** | *e*Pn | **Pn** | **16 57 23.9** | **+2.7** |
| **G08A** | **Pilot Rock** | **4.03** | **252** | *e*Pn | **Pn** | **16 57 24.2** | **+0.4** |
| **HAWA** | **Hanford** | **4.15** | **268** | *e*Pn | **Pn** | **16 57 24.9** | **-0.5** |
| **B08A** | **Colville Reser** | **4.27** | **295** | *e*Pn | **Pn** | **16 57 26.8** | **-0.3** |
| **AHID** | **Auburn Hatcher** | **4.29** | **155** | *e*Pn | **Pn** | **16 57 26.4** | **-1.0** |
| AHID | | | | *e*Pg | **Pb** | **16 57 38.4** | **+1.1** |
| **F07A** | **Phinny Hill Vi** | **4.50** | **262** | *e*Pn | **Pn** | **16 57 30.7** | **+0.5** |
| **ETW** | **Entiat** | **4.73** | **284** | *e*Pn | **Pn** | **16 57 33.1** | **-0.3** |
| **J08A** | **Circle Bar Ran** | **4.83** | **228** | *e*Pn | **Pn** | **16 57 34.9** | **+0.1** |
| **BW06** | **Boulder Array** | **4.83** | **143** | Pn | **Pn** | **16 57 36.0** | **+1.0** |
| **PDAR** | **Pinedale Array** | **4.83** | **143** | Pn | Pb | 16 57 41.1 | -5.6 |
| | 0.4nm,0.3s,baz=329,slow=12,SNR=10 | | | | | | |
| PDAR | | | | Lg | Lg | 16 58 50.9 | |
| | 1.7nm,0.3s,baz=309,slow=22,SNR=6.9 | | | | | | |
| **PDAR** | **Pinedale Array** | **4.83** | **143** | *e*Pn | **Pn** | **16 57 37.9** | **+2.9** |
| PDAR | | | | Lg | Lg

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **BALY** | **Balya** | **1.29** | **298** | *i* P | | **Pg** | **17 01 04.1** | **-1.2** |
| BALY | | | | *i* S | | **Sn** | **17 01 22.8** | **+0.7** |
| **BALY** | **Balya** | **1.29** | **298** | P | | **Pg** | **17 01 04.1** | **-1.2** |
| **GEMT** | **Gemlik** | **1.30** | **3** | *e*PN | | **Pb** | **17 01 05.1** | **+0.1** |
| **GEMT** | **Gemlik** | **1.30** | **3** | *e*Pn | | **Pb** | **17 01 05.1** | **+0.1** |
| **ADVT** | **Abdulvahap** | **1.39** | **21** | *e*PN | | **Pg** | **17 01 06.6** | **-0.5** |
| **ADVT** | **Abdulvahap** | **1.39** | **21** | *e*Pn | | **Pg** | **17 01 06.6** | **-0.5** |
| **GONE** | **Gonen-Balikesi** | **1.42** | **310** | *e*PN | | **Pg** | **17 01 07.3** | **-0.3** |
| **GONE** | **Gonen-Balikesi** | **1.42** | **310** | *e*Pn | | **Pg** | **17 01 07.3** | **-0.3** |
| **ARMT** | **Armutlu** | **1.44** | **353** | *e*PN | | **Pn** | **17 01 06.7** | **0.0** |
| **ARMT** | **Armutlu** | **1.44** | **353** | *e*Pn | | **Pn** | **17 01 06.7** | **0.0** |
| **SBT5** | **Esenkoy-Cinarc** | **1.50** | **354** | *e*PN | | **Pb** | **17 01 08.0** | **-0.4** |
| **SBT5** | **Esenkoy-Cinarc** | **1.50** | **354** | *e*Pn | | **Pb** | **17 01 08.0** | **-0.4** |
| **EDC** | **Edincik** | **1.54** | **322** | *e*PN | | **Pb** | **17 01 08.8** | **-0.3** |
| **EDC** | **Edincik** | **1.54** | **322** | *e*Pn | | **Pb** | **17 01 08.8** | **-0.3** |
| **KNL** | **Bal¯¯kesir** | **1.66** | **314** | *i* P | | **Pb** | **17 01 10.7** | **-0.4** |
| KNL | | | | *i* S | | **Sg** | **17 01 33.7** | **-0.1** |
| **GULT** | **Gulveren** | **1.70** | **40** | *e*PN | | **Pn** | **17 01 10.7** | **+0.4** |
| **GULT** | **Gulveren** | **1.70** | **40** | *e*Pn | | **Pn** | **17 01 10.7** | **+0.4** |
| **BUY** | **Buyukada** | **1.71** | **1** | *e*PN | | **Pn** | **17 01 10.7** | **+0.3** |
| **BUY** | **Buyukada** | **1.71** | **1** | *e*Pn | | **Pn** | **17 01 10.7** | **+0.3** |
| **HRT** | **Hereke** | **1.74** | **14** | *e*PN | | **Pn** | **17 01 11.3** | **+0.4** |
| **HRT** | **Hereke** | **1.74** | **14** | *e*Pn | | **Pn** | **17 01 11.3** | **+0.4** |
| **SBT2** | **Guzelce-Avcila** | **1.80** | **346** | *e*PN | | **Pb** | **17 01 12.3** | **-1.1** |
| **SBT2** | **Guzelce-Avcila** | **1.80** | **346** | *e*Pn | | **Pb** | **17 01 12.3** | **-1.1** |
| **KRBG** | **Karabiga-Canak** | **1.87** | **313** | *e*PN | | **Pn** | **17 01 13.2** | **+0.6** |
| **KRBG** | **Karabiga-Canak** | **1.87** | **313** | *e*Pn | | **Pn** | **17 01 13.2** | **+0.6** |
| **SVRH** | **Sivrihisar-ESK** | **1.91** | **80** | *e*PN | | **Pn** | **17 01 14.1** | **+0.9** |
| **SVRH** | **Sivrihisar-ESK** | **1.91** | **80** | *e*Pn | | **Pn** | **17 01 14.1** | **+0.9** |
| **KAVV** | **Kandilli-Istan** | **1.93** | **359** | *e*PN | | **Pn** | **17 01 14.1** | **+0.8** |
| **KAVV** | **Kandilli-Istan** | **1.93** | **359** | *e*Pn | | **Pn** | **17 01 14.1** | **+0.8** |
| **ISK** | **Istanbul-Kandi** | **1.93** | **359** | *e*PN | | **Pn** | **17 01 14.1** | **+0.7** |
| **ISK** | **Istanbul-Kandi** | **1.93** | **359** | *e*Pn | | **Pn** | **17 01 14.1** | **+0.7** |
| **SBT3** | **Marmara-Eregli** | **1.95** | **334** | *e*PN | | **Pn** | **17 01 14.1** | **+0.6** |
| **SBT3** | **Marmara-Eregli** | **1.95** | **334** | *e*Pn | | **Pn** | **17 01 14.1** | **+0.6** |
| **SILT** | **Sile** | **2.06** | **12** | *e*PN | | **Pn** | **17 01 15.9** | **+0.7** |
| **SILT** | **Sile** | **2.06** | **12** | *e*Pn | | **Pn** | **17 01 15.9** | **+0.7** |
| **BAYC** | **CANAKKALE_Bayr** | **2.06** | **288** | *i* P | | **Pn** | **17 01 16.0** | **+0.8** |
| BAYC | | | | *i* S | | **Sg** | **17 01 46.1** | **-0.6** |
| **BAYC** | **CANAKKALE_Bayr** | **2.06** | **288** | P | | **Pn** | **17 01 16.0** | **+0.8** |
| BAYC | | | | S | | **Sg** | **17 01 46.1** | **-0.6** |
| **MDUB** | **Mudurnu** | **2.10** | **50** | *e*PN | | **Pn** | **17 01 16.4** | **+0.6** |
| **MDUB** | **Mudurnu** | **2.10** | **50** | *e*Pn | | **Pn** | **17 01 16.4** | **+0.6** |
| **KLYT** | **Kilyos** | **2.12** | **359** | *e*PN | | **Pn** | **17 01 17.0** | **+1.1** |
| **KLYT** | **Kilyos** | **2.12** | **359** | *e*Pn | | **Pn** | **17 01 17.0** | **+1.1** |
| **SART** | **Tekirdag** | **2.14** | **317** | *i* P | | **Pb** | **17 01 19.8** | **+0.5** |
| SART | | | | *i* S | | **Sg** | **17 01 48.5** | **-0.6** |
| **SART** | **Tekirdag** | **2.14** | **317** | P | | **Pb** | **17 01 19.8** | **+0.5** |
| SART | | | | S | | **Sg** | **17 01 48.5** | **-0.6** |
| **RKY** | **Sarkoy-Tekirda** | **2.14** | **317** | *e*PN | | **Pn** | **17 01 17.3** | **+0.9** |
| **RKY** | **Sarkoy-Tekirda** | **2.14** | **317** | *e*Pn | | **Pn** | **17 01 17.3** | **+0.9** |
| **CTKS** | **Kestanelik-??a** | **2.15** | **348** | *e*PN | | **Pn** | **17 01 17.5** | **+1.1** |
| **CTKS** | **Kestanelik-??a** | **2.15** | **348** | *e*Pn | | **Pn** | **17 01 17.5** | **+1.1** |
| **KIZT** | **Kizilcal** | **2.19** | **96** | *e*PN | | **Pn** | **17 01 17.9** | **+0.9** |
| **KIZT** | **Kizilcal** | **2.19** | **96** | *e*Pn | | **Pn** | **17 01 17.9** | **+0.9** |
| **SLVT** | **Silivri** | **2.20** | **342** | *e*PN | | **Pn** | **17 01 18.2** | **+1.1** |
| **SLVT** | **Silivri** | **2.20** | **342** | *e*Pn | | **Pn** | **17 01 18.2** | **+1.1** |

**IDC 14 17:13:08.7±4.7, 21°06S×179°43W, h0km, mb4.2/4, mb1 4.4/4, mb1mx3.9/24, mbtmp4.2/4, Error ellipse: s-maj=166.1km s-min=56.5km az=141.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **STKA** | **Stephens Creek** | **36.34** | **245** | P | P | 17 20 12.6 | -2.0 |
| | 2.7nm,0.7s,baz=84,slow=13,SNR=6.7 | | | | | | |
| **ASAR** | **Alice Springs** | **43.09** | **257** | P | P | 17 21 11.2 | +0.2 |
| | 3.2nm,0.8s,baz=93,slow=6.9,SNR=81 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.20** | **263** | P | P | 17 21 12.8 | +0.9 |
| | 3.2nm,0.6s,baz=91,slow=8.5,SNR=118 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **51.63** | **263** | P | P | 17 22 17.4 | -0.1 |
| | 2.1nm,0.8s,baz=85,slow=8.3,SNR=9.2 | | | | | | |
| **BRTR** | **Keskin Array B** | **146.21** | **311** | PKPbc | PKPdf | 17 32 50.7 | +0.2 |
| | 0.3nm,0.7s,baz=57,slow=5.3,SNR=2.4 | | | | | | |

*IDC **14** 17:18:06.8±1.1, 7°31S×103°07E, h0km, mb4.1/10, mb1 4.2/10, mb1mx4.0/35, mbtmp4.1/10, MS3.6/5, Ms1 3.6/5, ms1mx3.1/42, Error ellipse: s-maj=45.2km s-min=12.5km az=49.0*
*DJA **14** 17:18:07.6±1.0, 7°S±4°×10°3E±°, h37km±30km, M4.9/15, mb5.1/7, MLv4.8/15*
*ISCJB **14** 17:18:09.7±0.3, 7°34S±0°03×103°16E±0°03, h33km, mb4.5/26, MS3.6/5, Error ellipse: s-maj=5.4km s-min=3.9km az=33.9*
*NEIC **14** 17:18:11.1±3.6, 7°30S×103°15E, h28km±24km, mb4.7/13, Error ellipse: s-maj=16.3km s-min=4.9km az=57.0*
**ISC 14 17:18:11.8±0.5, 7°29S±0°06×103°04E±0°05, h35km, n105, σ1§66/100, mb4.7/26, MS3.6/5, Southwest of Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KASI** | **Kota Agung** | **2.28** | **40** | P | **Pn** | **17 18 44.5** | **-2.4** |
| KASI | | | | S | **Sn** | **17 19 09.2** | **-4.5** |
| **LWLI** | **Liwa** | **2.48** | **24** | P | **Pn** | **17 18 47.8** | **-2.0** |
| LWLI | | | | S | **Sn** | **17 19 19.1** | **+0.3** |
| **BLSI** | **Bandar Lampung** | **2.91** | **49** | P | **Pn** | **17 18 54.6** | **-1.0** |
| **MNAI** | **Manna** | **2.91** | **358** | P | **Pn** | **17 18 54.7** | **-1.6** |
| MNAI | | | | S | **Sn** | **17 19 30.3** | **+0.8** |
| **MNAI** | **Manna** | **2.91** | **358** | *e*Pn | **Pn** | **17 18 53.6** | **-2.1** |
| **KLI** | **Kotabumi** | **3.01** | **37** | P | **Pn** | **17 18 56.3** | **-0.8** |
| KLI | | | | S | **Sn** | **17 19 33.1** | **+1.1** |
| **SBJI** | **Serang** | **3.28** | **69** | P | **Pn** | **17 18 58.7** | **-2.0** |
| SBJI | | | | S | **Sn** | **17 19 39.6** | **+1.0** |
| **SKJI** | **Sukabumi** | **3.50** | **86** | P | **Pn** | **17 19 02.0** | **-1.7** |
| **DBJI** | **Dramaga** | **3.75** | **79** | P | **Pn** | **17 19 05.4** | **-1.9** |
| DBJI | | | | S | **Sn** | **17 19 50.5** | **+0.2** |
| **CNJI** | **Cibinong** | **4.06** | **90** | P | **Pn** | **17 19 08.4** | **-3.0** |
| **XMIS** | **Christmas Isla** | **4.09** | **141** | *e*Pn | Pn | 17 19 05.5 | -6.3 |
| **MASI** | **Maura Aman, Be** | **4.20** | **349** | P | **Pn** | **17 19 11.3** | **-2.1** |
| MASI | | | | S | **Sn** | **17 20 01.9** | **+0.6** |
| **PMBI** | **Palembang** | **4.67** | **22** | P | **Pn** | **17 19 17.6** | **-2.2** |
| **CISI** | **Cisompet, Garu** | **4.74** | **93** | P | **Pn** | **17 19 18.1** | **-2.8** |
| **CISI** | **Cisompet, Garu** | **4.74** | **93** | *e*Pn | **Pn** | **17 19 18.5** | **-2.4** |
| **JMBI** | **JAMBI** | **5.65** | **6** | P | Pn | 17 19 41.7 | +8.3 |
| **KPJI** | **Karang Pucung** | **5.84** | **91** | P | **Pn** | **17 19 33.3** | **-2.7** |
| **PDSI** | **Padang** | **6.84** | **338** | P | **Pn** | **17 19 48.1** | **-1.6** |
| | 47nm,0.8s,0.2nm | | | | | | |
| **SISI** | **Saibi** | **7.12** | **326** | P | **Pn** | **17 19 50.9** | **-2.6** |
| | 45nm,0.7s,0.2nm | | | | | | |
| **SMRI** | **Semarang** | **7.35** | **89** | P | **Pn** | **17 19 54.3** | **-2.4** |
| **SMRI** | **Semarang** | **7.35** | **89** | *e*Pn | **Pn** | **17 19 56.8** | **+0.2** |
| **UGM** | **Wanagama** | **7.44** | **95** | P | **Pn** | **17 19 55.4** | **-2.6** |
| | 213nm,0.9s,0.9nm | | | | | | |
| **UGM** | **Wanagama** | **7.44** | **95** | *e*Pn | **Pn** | **17 19 56.6** | **-1.4** |
| **COCO** | **West Island** | **7.81** | **231** | *e*Pn | **Pn** | **17 20 01.7** | **-1.3** |
| **BKNI** | **Bangkinang** | **7.83** | **345** | *e*Pn | **Pn** | **17 20 00.8** | **-2.4** |
| **PCJI** | **Pacitan** | **8.11** | **97** | P | **Pn** | **17 20 03.8** | **-3.3** |
| | 112nm,0.9s | | | | | | |
| **PWJI** | **Pagerwojo** | **8.72** | **95** | P | **Pn** | **17 20 12.5** | **-2.9** |
| **MYKOM** | **Kota Tinggi** | **9.06** | **5** | *e*Pn | **Pn** | **17 20 19.7** | **-0.5** |
| **JAGI** | **Jajag, Banyuwa** | **11.07** | **97** | P | Pn | 17 20 55.8 | +8.1 |
| **JAGI** | **Jajag, Banyuwa** | **11.07** | **97** | *e*Pn | **Pn** | **17 20 45.6** | **-2.1** |
| **STKI** | **Sintang** | **11.15** | **49** | P | Pn | 17 20 53.1 | +4.3 |
| **SBUM** | **Sibu** | **13.33** | **44** | *e*Pn | **Pn** | **17 21 16.6** | **-2.0** |
| **MTKI** | **Muara Teweh, K** | **13.40** | **62** | P | **Pn** | **17 21 19.3** | **-0.3** |
| **BNSI** | **Bone** | **17.22** | **81** | P | P | 17 22 22.2 | +11 |
| **PCI** | **Palu** | **17.91** | **70** | P | **P** | **17 22 19.1** | **+0.5** |
| **MPSI** | **Mapaga** | **18.44** | **66** | P | **Pn** | **17 22 25.0** | **+0.2** |
| **APSI** | **Ampana** | **19.61** | **72** | P | **Pn** | **17 22 42.0** | **+3.2** |
| **MYLDM** | **Lahad Datu** | **19.79** | **52** | *e*P | **Pn** | **17 22 39.5** | **-1.5** |
| **PHET** | **Kaeng Krachan** | **20.35** | **350** | P | **P** | **17 22 46.7** | **+1.3** |
| | 6.6nm,0.9s | | | | | | |
| **MRSI** | **Marisa** | **20.37** | **69** | P | Pn | 17 22 47.4 | -0.4 |
| **SOEI** | **Soe** | **21.13** | **98** | P | **P** | **17 22 55.8** | **+1.8** |
| **SOEI** | **Soe** | **21.13** | **98** | *e*P | **P** | **17 22 53.8** | **-0.2** |
| | 78nm,0.8s | | | | | | |
| **SRAK** | **Srakaew** | **21.19** | **357** | P | **P** | **17 22 57.8** | **+3.4** |
| | 59nm,1.2s,601nm | | | | | | |
| **SRDT** | **SRDT** | **21.85** | **350** | P | P | 17 23 15.1 | +14 |
| **KHON** | **Khomkaen** | **23.48** | **359** | P | **P** | **17 23 19.5** | **+1.1** |
| | 19nm,1.0s | | | | | | |
| **PBKT** | **Sadao Pong** | **23.80** | **355** | P | **P** | **17 23 22.5** | **+1.0** |
| | 26nm,1.0s,976nm | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **24.49** | **118** | P | **P** | **17 23 27.2** | **-0.8** |
| | 1.6nm,0.9s,baz=309,slow=14,SNR=2.9 | | | | | | |
| FITZ | | | | S | **S** | **17 27 51.1** | **+4.9** |
| | 2.4nm,0.9s,baz=280,slow=18,SNR=2.0 | | | | | | |
| **CM01** | **Chiang Mai Arr** | **25.86** | **351** | *e*P | **P** | **17 23 41.0** | **+0.6** |
| **CM31** | **Chiang Mai Arr** | **25.90** | **351** | *e*P | **P** | **17 23 41.4** | **+0.7** |
| **CMAR** | **Chiang Mai Arr** | **25.90** | **351** | P | **P** | **17 23 41.4** | **+0.6** |
| | 20nm,1.0s,baz=183,slow=8.6,SNR=84 | | | | | | |
| CMAR | | | | LR | LR | 17 33 10.2 | |
| | comp=Z,80nm,19.4s,baz=182,slow=35 | | | | | | |
| **CMMT** | **Chiang Mai** | **26.25** | **351** | P | **P** | **17 23 44.3** | **+0.4** |
| | 28nm,1.1s | | | | | | |
| **CHTO** | **Chiang Mai** | **26.25** | **351** | P | **P** | **17 23 44.4** | **+0.6** |
| | 94nm,1.1s | | | | | | |
| **CHTO** | **Chiang Mai** | **26.25** | **351** | *e*P | **P** | **17 23 44.5** | **+0.6** |
| | 26nm,1.0s | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **29.30** | **161** | T | T | 17 54 55.4 | |
| | baz=338 | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **29.31** | **161** | T | T | 17 55 00.4 | |
| | baz=338 | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **29.31** | **161** | T | T | 17 55 01.5 | |
| | baz=338 | | | | | | |
| **H08S2** | **Diego Garcia H** | **30.29** | **267** | T | T | 17 56 37.9 | |
| | baz=90,slow=74 | | | | | | |
| **H08S3** | **Diego Garcia H** | **30.30** | **267** | T | T | 17 56 50.9 | |
| | baz=90,slow=74 | | | | | | |
| **H08S1** | **Diego Garcia H** | **30.31** | **267** | T | T | 17 56 55.1 | |
| | baz=90 | | | | | | |
| **WRA** | **Warramunga Arr** | **32.84** | **116** | P | **P** | **17 24 41.5** | **-0.9** |
| | 1.2nm,0.7s,baz=286,slow=11,SNR=16 | | | | | | |
| WRA | | | | PcP | **PcP** | **17 27 26.9** | **0.0** |
| | 0.5nm,0.7s,baz=295,slow=2.0,SNR=3.2 | | | | | | |
| **WR1** | **Warramunga Arr** | **32.84** | **116** | *e*P | **P** | **17 24 41.5** | **-0.9** |
| | 23nm,1.7s | | | | | | |
| WR1 | | | | *e*PcP | **PcP** | **17 27 26.9** | **0.0** |
| **AS31** | **Alice Springs** | **33.79** | **122** | *e*P | **P** | **17 24 50.3** | **-0.4** |
| | 2.0nm,1.3s | | | | | | |
| **ASAR** | **Alice Springs** | **33.79** | **122** | P | **P** | **17 24 49.8** | **-1.0** |
| | 0.9nm,0.8s,baz=296,slow=8.0,SNR=8.5 | | | | | | |
| ASAR | | | | PcP | **PcP** | **17 27 30.1** | **+0.6** |
| | 0.3nm,0.6s,baz=294,slow=2.1,SNR=3.3 | | | | | | |
| **ODAN** | **Odare** | **37.19** | **337** | *e*P | **P** | **17 25 21.6** | **+1.6** |
| | 22nm,0.7s | | | | | | |
| **TAPN** | **Taplejung** | **37.50** | **337** | *e*P | **P** | **17 25 24.5** | **+1.8** |
| | 53nm,0.8s | | | | | | |
| **RAMN** | **Ramite** | **37.58** | **336** | *e*P | **P** | **17 25 25.2** | **+1.8** |
| | 22nm,0.7s | | | | | | |
| **ENH** | **Enshi** | **37.86** | **9** | *e*P | **P** | **17 25 25.6** | **+0.2** |
| | 8.8nm,0.7s | | | | | | |
| **JIRN** | **Jiri** | **38.38** | **336** | *e*P | **P** | **17 25 32.0** | **+1.7** |
| | 379nm,0.9s | | | | | | |
| **LSA** | **Lhasa** | **38.52** | **343** | *e*P | **P** | **17 25 33.3** | **+1.8** |
| | 10nm,0.8s | | | | | | |
| **PKI** | **Pulchoki** | **38.63** | **334** | *e*P | **P** | **17 25 33.6** | **+1.3** |
| | 20nm,1.2s | | | | | | |
| **GUN** | **Gumba** | **38.73** | **335** | *e*P | **P** | **17 25 34.9** | **+1.7** |
| | 28nm,0.8s | | | | | | |
| **DMN** | **Daman** | **38.79** | **334** | *e*P | **P** | **17 25 35.3** | **+1.7** |
| **KKN** | **Kakani** | **38.88** | **334** | *e*P | **P** | **17 25 35.5** | **+1.3** |
| | 29nm,1.0s | | | | | | |
| **KOLN** | **Koldanda** | **39.60** | **332** | *e*P | **P** | **17 25 42.0** | **+1.7** |
| | 26nm,1.0s | | | | | | |
| **DANN** | **Dangsing** | **40.03** | **333** | *e*P | **P** | **17 25 45.9** | **+2.0** |
| | 3.1nm,0.9s | | | | | | |
| **PYUN** | **Piuthan** | **40.16** | **332** | *e*P | **P** | **17 25 46.4** | **+1.4** |
| | 32nm,1.0s | | | | | | |
| **STKA** | **Stephens Creek** | **43.43** | **130** | P | **P** | **17 26 11.1** | **-0.3** |
| | 2.3nm,0.6s,baz=297,slow=8.4,SNR=10 | | | | | | |
| **STKA** | **Stephens Creek** | **43.43** | **130** | *e*P | **P** | **17 26 11.1** | **-0.3** |
| | 6.6nm,1.7s | | | | | | |
| **KSAR** | **Wonju Array Be** | **50.20** | **26** | P | **P** | **17 27 02.9** | **-1.3** |
| **KSRS** | **Korea Array** | **50.22** | **26** | P | **P** | **17 27 02.9** | **-1.5** |
| | 2.8nm,0.9s,baz=222,slow=7.1,SNR=5.6 | | | | | | |
| KSRS | | | | LR | LR | 17 48 54.0 | |
| | comp=Z,30nm,18.5s,baz=290,slow=37 | | | | | | |
| **SONA0** | **Songino Array** | **54.97** | **3** | *e*P | **P** | **17 27 40.3** | **+0.8** |
| **SONM** | **Songino Array** | **54.97** | **3** | P | **P** | **17 27 40.3** | **+0.8** |
| | 4.5nm,0.8s,baz=182,slow=9.0,SNR=23 | | | | | | |
| **SONA1** | **Songino Array** | **54.98** | **3** | *e*P | **P** | **17 27 40.8** | **+1.1** |
| **ULN** | **Ulaanbaatar** | **55.03** | **3** | *e*P | **P** | **17 27 41.2** | **+1.2** |
| | 7.1nm,1.1s | | | | | | |
| **MK01** | **Makanchi Array** | **56.90** | **343** | *e*P | **P** | **17 27 53.6** | **+0.3** |
| **MK32** | **Makanchi Array** | **56.92** | **343** | *e*P | **P** | **17 27 54.0** | **+0.6** |
| **MKAR** | **Makanchi Array** | **56.92** | **343** | P | **P** | **17 27 54.0** | **+0.6** |
| | 1.7nm,0.7s,baz=143,slow=7.2,SNR=12 | | | | | | |
| **KURK** | **Kurchatov** | **61.52** | **343** | *e*P | **P** | **17 28 25.5** | **+0.4** |
| | 6.5nm,0.9s | | | | | | |
| **DZM** | **Mont Dzumac** | **62.67** | **111** | LR | LR | 17 56 36.2 | |
| | comp=Z,66nm,20.1s,baz=282,slow=37 | | | | | | |
| **ZAA0** | **Zalesovo Array** | **62.92** | **348** | *e*P | **P** | **17 28 34.8** | **+0.4** |
| | 7.7nm,0.9s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **62.92** | **348** | P | **P** | **17 28 34.4** | **0.0** |
| | 3.9nm,0.7s,baz=175,slow=3.6,SNR=26 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **62.92** | **348** | *e*P | **P** | **17 28 34.6** | **+0.3** |
| **ZAA1** | **Zalesovo Array** | **62.92** | **348** | *e*P | **P** | **17 28 34.4** | **0.0** |
| **MAW** | **Mawson** | **65.99** | **196** | LR | LR | 17 52 56.7 | |
| | comp=Z,39nm,19.2s,baz=56,slow=32 | | | | | | |
| **YAK** | **Yakutsk** | **72.13** | **13** | *e*P | **P** | **17 29 31.9** | **-0.5** |
| | 30nm,1.0s | | | | | | |
| **BR101** | **Keskin Array S** | **79.11** | **313** | *e*P | **P** | **17 30 13.6** | **+0.5** |
| **BRTR** | **Keskin Array B** | **79.11** | **313** | P | **P** | **17 30 13.6** | **+0.5** |
| | 0.8nm,0.7s,baz=129,slow=5.2,SNR=5.3 | | | | | | |
| **BR231** | **Keskin MP Arra** | **79.78** | **313** | *e*P | **P** | **17 30 14.2** | **-2.5** |
| **TIXI** | **Tiksi** | **80.61** | **8** | LR | LR | 18 11 13.8 | |
| | comp=Z,59nm,18.7s,baz=267,slow=40 | | | | | | |
| **TIXI** | **Tiksi** | **80.61** | **8** | *e*P | **P** | **17 30 19.7** | **-0.6** |
| | 6.3nm,1.2s | | | | | | |
| **BUR04** | **Bucovina Ar. S** | **87.21** | **319** | *e*P | **P** | **17 30 55.8** | **+1.1** |
| **SNAA** | **Sanae** | **88.07** | **198** | *e*P | **P** | **17 30 59.0** | **+0.6** |
| | 6.7nm,1.2s | | | | | | |
| **STHS** | **Stebnicka Huta** | **90.17** | **320** | *e*P | **P** | **17 31 09.6** | **+1.0** |
| **LTX** | **Lajitas** | **146.64** | **46** | *e*PKPdf | **PKPab** | **17 37 52.2** | **+0.5** |
| **TXAR** | **Lajitas Array** | **146.64** | **46** | PKPbc | **PKPab** | **17 37 52.2** | **+0.5** |
| | 1.3nm,0.8s,baz=294,slow=1.2,SNR=12 | | | | | | |

*IDC **14** 17:31:11.7±2.4, 43°11N×105°36W, h0km, mb3.0/1, mb1 3.6/3, mb1mx3.4/33, mbtmp3.4/3, ML3.3/2, Error ellipse: s-maj=45.5km s-min=9.3km az=156.0*
*ISCJB **14** 17:31:13.7±0.4, 43°52N±0°03×105°31W±0°05, h0km, Error ellipse: s-maj=5.3km s-min=4.7km az=160.1*
*NEIC **14** 17:31:15.6±0.4, 43°51N×105°35W, h0km, MN2.8, Error ellipse: s-maj=5.3km s-min=5.1km az=80.0, Suspected Mining explosion.*
*NEIC 76 km [47 miles] E of Midwest.*
**ISC 14 17:31:14.9±0.9, 43°50N±0°05×105°37W±0°05, h0km, n54, σ1§27/53, Wyoming**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RSSD** | **Black Hills** | **1.15** | **57** | *e*Pg | **Pg** | **17 31 36.4** | **-0.5** |
| **K22A** | **Casper** | **1.20** | **225** | *e*Pg | **Pg** | **17 31 36.1** | **-1.8** |
| **PHWY** | **Pilot Hill** | **2.20** | **182** | *e*Pn | **Pn** | **17 31 53.1** | **+0.1** |
| **RWWY** | **Rawlins** | **2.26** | **217** | *e*Pn | **Pn** | **17 31 55.0** | **+1.1** |
| **N23A** | **Red Feather La** | **2.64** | **189** | *e*Pn | **Pn** | **17 31 59.8** | **+0.7** |
| **BW06** | **Boulder Array** | **3.15** | **258** | *e*Pn | **Pn** | **17 32 05.7** | **-0.3** |
| **PD31** | **Pinedale Array** | **3.15** | **258** | *e*Pn | **Pn** | **17 32 05.7** | **-0.3** |
| **PDAR** | **Pinedale Array** | **3.15** | **258** | Pn | **Pn** | **17 32 05.7** | **-0.3** |
| | 4.4nm,0.3s,baz=78,slow=15,SNR=44 | | | | | | |
| PDAR | | | | Lg | Lg | 17 32 48.2 | |
| | 9.6nm,0.3s,baz=87,slow=32,SNR=13 | | | | | | |
| **RLMT** | **Red Lodge** | **3.23** | **301** | *e*Pn | **Pn** | **17 32 07.5** | **+0.3** |
| **YTP** | **The Promontory** | **3.66** | **286** | *e*Pn | **Pn** | **17 32 14.0** | **+1.0** |
| **ISCO** | **Idaho Springs** | **3.71** | **183** | *e*Pn | **Pn** | **17 32 14.1** | **+0.4** |
| **LKWY** | **Lake** | **3.78** | **288** | *e*Pn | **Pn** | **17 32 15.9** | **+1.2** |
| **GCMT** | **Greycliff** | **3.82** | **308** | *e*Pn | **Pn** | **17 32 15.5** | **+0.3** |
| **H17A** | **Grant Village** | **3.86** | **285** | *e*Pn | **Pn** | **17 32 17.6** | **+1.8** |
| **MOOW** | **Moose Ponds** | **3.91** | **275** | *e*Pn | **Pn** | **17 32 17.4** | **+0.9** |
| **SNOW** | **Snow King Moun** | **3.92** | **277** | *e*Pn | **Pn** | **17 32 18.0** | **+1.4** |
| **O20A** | **White River Ci** | **3.99** | **213** | *e*Pn | **Pn** | **17 32 17.9** | **+0.3** |
| **REDW** | **Red Top Meadow** | **3.99** | **270** | *e*Pn | **Pn** | **17 32 20.0** | **+2.4** |
| **YPP** | **Pitchstone Pla** | **4.00** | **283** | *e*Pn | **Pn** | **17 32 18.5** | **+0.7** |
| **IMW** | **Indian Meadow** | **4.05** | **277** | *e*Pn | **Pn** | **17 32 19.2** | **+0.7** |
| **YFT** | **Old Faithful** | **4.05** | **285** | *e*Pn | **Pn** | **17 32 19.4** | **+1.0** |
| **TPAW** | **Teton Pass** | **4.06** | **272** | *e*Pn | **Pn** | **17 32 19.2** | **+0.7** |
| **FXWY** | **Fox Creek** | **4.11** | **274** | *e*Pn | **Pn** | **17 32 20.4** | **+1.2** |
| **YHH** | **Holmes Hill** | **4.15** | **290** | *e*Pn | **Pn** | **17 32 20.0** | **+0.3** |
| **YMR** | **Madison River** | **4.19** | **288** | *e*Pn | **Pn** | **17 32 21.7** | **+1.4** |
| **YHB** | **Horse Butte** | **4.37** | **289** | *e*Pn | **Pn** | **17 32 23.7** | **+0.8** |
| **SMCO** | **Snowmass** | **4.49** | **196** | *e*Pn | **Pn** | **17 32 23.9** | **-0.6** |
| **Q24A** | **Divide** | **4.54** | **178** | *e*Pn | **Pn** | **17 32 26.8** | **+1.6** |
| **QLMT** | **Earthquake Lak** | **4.55** | **289** | *e*Pn | **Pn** | **17 32 28.2** | **+2.9** |
| **BOZ** | **Bozeman (W)** | **4.94** | **297** | *e*Pn | **Pn** | **17 32 28.4** | **-2.1** |
| **HWUT** | **Hardware Ranch** | **4.95** | **250** | *e*Pn | **Pn** | **17 32 31.2** | **+0.4** |
| **TCUT** | **Toone Canyon** | **5.07** | **244** | *e*Pn | **Pn** | **17 32 32.0** | **-0.5** |
| **P18A** | **Preston Nutter** | **5.32** | **225** | *e*Pn | **Pn** | **17 32 36.2** | **+0.3** |
| **ARGU** | **Argyle Ridge** | **5.34** | **228** | *e*Pb | **Pb** | **17 32 51.3** | **+2.0** |
| **DLMT** | **Dillon** | **5.50** | **292** | *e*Pn | **Pn** | **17 32 38.8** | **+0.6** |
| **MCMT** | **McKenzie Canyo** | **5.54** | **286** | *e*Pn | **Pn** | **17 32 37.9** | **-0.9** |
| **LRM** | **Limekiln Ridge** | **5.55** | **297** | *e*Pn | **Pn** | **17 32 39.0** | **-0.1** |
| **HRY** | **Holter Researc** | **5.58** | **307** | *e*Pn | **Pn** | **17 32 40.4** | **+1.0** |
| **P17A** | **Butcher Ranch,** | **5.70** | **227** | *e*Pn | **Pn** | **17 32 42.1** | **+1.1** |
| **BGNE** | **Belgrade** | **5.74** | **109** | *e*Pn | **Pn** | **17 32 44.5** | **+3.1** |
| **PV09** | **Paradox Valley** | **5.75** | **211** | *e*Pn | **Pn** | **17 32 43.3** | **+1.5** |
| **PV10** | **Paradox Valley** | **5.83** | **210** | *e*Pn | **Pn** | **17 32 44.6** | **+1.8** |
| **MPU** | **Maple Canyon** | **5.83** | **235** | *e*Pn | **Pn** | **17 32 43.7** | **+0.8** |
| **SRU** | **San Rafael Swe** | **5.86** | **223** | *e*Pn | **Pn** | **17 32 42.5** | **-0.6** |
| **S22A** | **4UR Ranch, Cre** | **5.86** | **191** | *e*Pn | **Pn** | **17 32 44.0** | **+0.8** |
| **PV01** | **Paradox Valley** | **5.88** | **205** | *e*Pn | **Pn** | **17 32 45.0** | **+1.4** |
| **MDND** | **Maddock** | **5.93** | **41** | *e*Pn | **Pn** | **17 32 44.2** | **+0.1** |
| **PV05** | **Paradox Valley** | **6.11** | **209** | *e*Pn | **Pn** | **17 32 46.7** | **0.0** |
| **ECSD** | **EROS Data Cent** | **6.36** | **85** | *e*Pn | **Pn** | **17 32 49.3** | **-0.6** |
| **DUG** | **Dugway, Tooele** | **6.46** | **242** | *e*Pn | **Pn** | **17 32 48.8** | **-2.7** |
| | 2.6nm,0.6s | | | | | | |
| **MMU** | **Miners Mountai** | **6.94** | **222** | *e*Pn | **Pn** | **17 32 57.1** | **-1.1** |
| **I10CA** | **LAC DU BONNET** | **9.26** | **40** | *i* | | 18 27 40.0 | |
| | baz=220,slow=307,SNR=1.2 | | | | | | |
| **ULM** | **Lac du Bonnet** | **9.37** | **41** | Pn | **Pn** | **17 33 29.6** | **-1.5** |
| | 0.5nm,0.3s,baz=227,slow=15,SNR=3.5 | | | | | | |
| ULM | | | | Lg | Lg | 17 36 09.1 | |
| | 0.3nm,0.3s,baz=176,slow=15,SNR=2.5 | | | | | | |
| **YKA** | **Yellowknife Ar** | **19.78** | **347** | P | **P** | **17 35 46.6** | **+0.2** |
| | 0.6nm,0.7s,baz=161,slow=13,SNR=3.1 | | | | | | |

*CSEM **14** 17:59:49.9±0.2, 39°34N×16°09E, h5km, ML3.8/10, Error ellipse: s-maj=4.8km s-min=2.7km az=97.0*
**ROM 14 17:59:49.6±0.1, 39°37N×16°18E, h6km±1km, Md2.9/12, Ml3.1/38, Error ellipse: s-maj=1.2km s-min=0.9km az=65.0, Southern Italy**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CET2** | **Cetraro** | **0.23** | **

137nm,0.5s
**TAR1 Taranto 1.44 36** *e*P Pg 18 00 17.8 +0.7
**MCSR Castroreale 1.49 209** Pg Pn 18 00 16.3 -0.8
445nm,0.4s
**MCSR Castroreale 1.49 209** Pg Pn 18 00 16.3 -0.8
445nm,0.4s
**SG1 Sgolgore (BA) 1.52 15** *e*P Pg 18 00 18.8 +0.1
**NOV Novara 1.57 212** Pg Pn 18 00 17.7 -0.4
211nm,0.7s
**NOV Novara 1.57 212** Pg Pn 18 00 17.7 -0.4
211nm,0.7s
**AMUR Altamura 1.57 12** Pg Pb 18 00 19.3 +0.2
87nm,0.5s
**AMUR Altamura 1.57 12** Pg Pb 18 00 19.3 +0.2
87nm,0.5s
**NOCI Noci 1.57 25** Pg Pb 18 00 19.4 +0.3
97nm,0.4s
**NOCI Noci 1.57 25** Pg Pb 18 00 19.4 +0.3
97nm,0.4s
**MMME Mongiuffi-Meli 1.60 207** Pg Pn 18 00 18.4 -0.2
173nm,0.6s
**MMME Mongiuffi-Meli 1.60 207** Pg Pn 18 00 18.4 -0.2
173nm,0.6s
**MCRV Calabrutti - M 1.61 332** Pg Pn 18 00 18.7 0.0
131nm,0.4s
**MCRV Calabrutti - M 1.61 332** Pg Pn 18 00 18.7 0.0
131nm,0.4s
**CGL1 Ceglie Messapi 1.63 37** *e*P Pb 18 00 20.3 +0.3
**MUCR Ucria 1.67 218** Pg Pn 18 00 19.5 0.0
181nm,0.4s
**MUCR Ucria 1.67 218** Pg Pn 18 00 19.5 0.0
181nm,0.4s
**MRVN Minervino Murg 1.69 1** Pg Pb 18 00 20.5 -0.6
72nm,0.5s
**MRVN Minervino Murg 1.69 1** Pg Pb 18 00 20.5 -0.6
72nm,0.5s
**FASA Fasano 1.70 32** *e*P Pb 18 00 21.7 +0.3
**CDT Castel del Mon 1.71 3** *e*P Pb 18 00 21.8 +0.3
**BAI Bari 1.82 17** *e*P Pb 18 00 23.4 +0.1
**HLNI Lentini 2.26 207** Pg Pn 18 00 28.6 +1.0
62nm,0.9s
**HLNI Lentini 2.26 207** Pg Pn 18 00 28.6 +1.0
62nm,0.9s
**HCRL Carlentini 2.27 204** Pg Pn 18 00 28.7 +1.0
272nm,0.8s
**HCRL Carlentini 2.27 204** Pg Pn 18 00 28.7 +1.0
272nm,0.8s
**SJES Sjenica 4.83 35** *e*P Pn 18 01 05.7 +2.8
**BBLS Lazići 5.10 27** *e*P Pn 18 01 08.9 +2.2
**IVAS Ivanjica 5.16 34** *e*P Pn 18 01 11.0 +3.6
**SELS Selova 5.35 42** *e*P Pn 18 01 11.7 +1.6

---

*ISK **14** 18:16:09.4,38°.68N×43°.23E, h15km, MD2.6*
*CSEM **14** 18:16:09.7±0.2,38°.64N×43°.18E, h12km, ML2.5, Error ellipse: s-maj=6.3km s-min=5.4km az=71.0*
*ISCJB **14** 18:16:10.2±0.6,38°.62N±0°.04×43°.15E±0°.04, h11km±6km, Error ellipse: s-maj=6.7km s-min=5.8km az=9.0*
*DDA **14** 18:16:10.3,38°.59N×43°.15E, h7km, Ml2.5*
**ISC 14 18:16:09.7**±0.9,**38°.65N**±0°.03×**43°.19E**±0°.03,**h15**km±8km, **n18**, σ0**954**/**29**, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.17** | **109** | *e*Pg | **Pb** | **18 16 14.5** | **0.0** |
| VANB | | | | *e*Sg | **Sb** | **18 16 18.5** | **+0.8** |
| **VANB** | **Van** | **0.17** | **109** | *e*Pg | **Pb** | **18 16 14.5** | **0.0** |
| VANB | | | | *e*Sg | **Sb** | **18 16 18.5** | **+0.8** |
| **TVAN** | **Van** | **0.21** | **125** | *i* P | **Pg** | **18 16 14.5** | **-0.1** |
| TVAN | | | | *i* S | **Sg** | **18 16 18.2** | **+0.3** |
| **TVAN** | **Van** | **0.21** | **125** | P | **Pg** | **18 16 14.5** | **-0.1** |
| TVAN | | | | S | **Sg** | **18 16 18.2** | **+0.3** |
| **GEVA** | **Gevas** | **0.35** | **197** | *i* P | **Pg** | **18 16 16.7** | **-0.3** |
| GEVA | | | | *i* S | **Sg** | **18 16 21.1** | **-0.8** |
| **GEVA** | **Gevas** | **0.35** | **197** | P | **Pg** | **18 16 16.7** | **-0.3** |
| GEVA | | | | S | **Sg** | **18 16 21.1** | **-0.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.40** | **294** | *i* P | **Pg** | **18 16 17.9** | **+0.2** |
| ADCV | | | | *i* S | **Sb** | **18 16 24.9** | **+0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.40** | **294** | P | **Pg** | **18 16 18.0** | **+0.2** |
| ADCV | | | | S | **Sb** | **18 16 24.9** | **+0.4** |
| **VMUR** | **Van-Muradiye** | **0.45** | **41** | *i* P | **Pb** | **18 16 20.3** | **+0.8** |
| VMUR | | | | *i* S | **Sn** | **18 16 29.1** | **-0.6** |
| **VMUR** | **Van-Muradiye** | **0.45** | **41** | P | **Pb** | **18 16 20.3** | **+0.8** |
| **CLDR** | **Caldiran** | **0.75** | **49** | *e*PG | **Pg** | **18 16 23.6** | **-0.8** |
| **CLDR** | **Caldiran** | **0.75** | **49** | *e*Pg | **Pg** | **18 16 23.6** | **-0.8** |
| **TUTA** | **Tutak** | **0.81** | **339** | *i* P | **Pb** | **18 16 25.6** | **+0.1** |
| TUTA | | | | *i* S | **Sb** | **18 16 36.9** | **+0.5** |
| **TUTA** | **Tutak** | **0.81** | **339** | P | **Pb** | **18 16 25.6** | **+0.1** |
| TUTA | | | | S | **Sb** | **18 16 36.9** | **+0.5** |
| **AGRB** | **Hanur-Agry** | **0.94** | **351** | *e*PG | **Pb** | **18 16 27.6** | **-0.2** |
| **AGRB** | **Hanur-Agry** | **0.94** | **351** | *e*Pg | **Pb** | **18 16 27.6** | **-0.2** |
| **SIRT** | **Sirnak** | **1.29** | **208** | *e*PN | **Pb** | **18 16 34.0** | **+0.3** |
| **SIRT** | **Sirnak** | **1.29** | **208** | *e*Pn | **Pb** | **18 16 34.0** | **+0.3** |

---

*DJA **14** 18:29:33.2±1.1,7°.5S×107°.3E±°, h35km±27km, M4.2/8, mb4.4/1, MLv4.2/8*
*IDC **14** 18:29:33.8±5.1,6°.87S×103°.48E, h0km, mb3.4/5, mb1 3.6/5, mb1mx3.4/46, mbtmp3.4/5, Error ellipse: s-maj=228.7km s-min=20.8km az=52.0*
**ISC 14 18:29:35.6**±1.2,**7°.17S**±0°.07×**103°.39E**±0°.07,**h20**km,**n19**, σ1**933**/**23**, **mb3.4/5**, **Southwest of Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KASI** | **Kota Agung** | **1.97** | **34** | P | **Pn** | **18 30 08.5** | **+0.7** |
| KASI | | | | S | **Sb** | **18 30 34.5** | **-0.4** |
| **LWLI** | **Liwa** | **2.24** | **17** | P | **Pn** | **18 30 11.7** | **+0.1** |
| LWLI | | | | S | **Sb** | **18 30 41.0** | **-1.8** |
| **BLSI** | **Bandar Lampung** | **2.57** | **46** | P | **Pn** | **18 30 15.6** | **-0.5** |
| BLSI | | | | S | **Sn** | **18 30 48.7** | **+1.9** |
| **KLI** | **Kotabumi** | **2.72** | **33** | S | **Sb** | **18 30 54.7** | **-1.7** |
| **MNAI** | **Manna** | **2.82** | **351** | P | **Pn** | **18 30 18.8** | **-0.8** |
| MNAI | | | | S | **Sn** | **18 30 54.9** | **+1.8** |
| **SKJI** | **Sukabumi** | **3.15** | **87** | P | **Pn** | **18 30 23.2** | **-0.8** |
| SKJI | | | | S | **Sn** | **18 31 02.8** | **+1.8** |
| **DBJI** | **Dramaga** | **3.39** | **80** | P | **Pn** | **18 30 26.5** | **-0.9** |
| **CNJI** | **Cibinong** | **3.71** | **92** | P | **Pn** | **18 30 30.4** | **-1.4** |
| CNJI | | | | S | **Sn** | **18 31 15.8** | **+0.8** |
| **CISI** | **Cisompet, Garu** | **4.41** | **95** | P | **Pn** | **18 30 40.2** | **-1.2** |
| CISI | | | | S | **Sn** | **18 31 32.7** | **+0.5** |
| **KPJI** | **Karang Pucung** | **5.50** | **92** | P | **Pn** | **18 30 55.6** | **-0.8** |
| **CMAR** | **Chiang Mai Arr** | **25.84** | **350** | P | **P** | **18 35 05.0** | **-0.9** |
| | 1.4nm,0.9s,baz=186,slow=8.6,SNR=12 | | | | | | |
| **H08S2** | **Diego Garcia H** | **30.64** | **267** | T | T | 19 08 18.9 | |
| | baz=90 | | | | | | |
| **H08S3** | **Diego Garcia H** | **30.65** | **267** | T | T | 19 08 20.3 | |
| | baz=90 | | | | | | |
| **H08S1** | **Diego Garcia H** | **30.66** | **267** | T | T | 19 08 31.4 | |
| | baz=90 | | | | | | |
| **WRA** | **Warramunga Arr** | **32.58** | **116** | P | **P** | **18 36 06.3** | **+0.4** |
| | 0.2nm,0.7s,baz=284,slow=12,SNR=3.5 | | | | | | |
| **ASAR** | **Alice Springs** | **33.56** | **123** | P | **P** | **18 36 17.2** | **+2.7** |
| | 0.5nm,1.0s,baz=296,slow=7.9,SNR=2.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **56.91** | **343** | P | **P** | **18 39 17.8** | **-1.4** |
| | 0.3nm,0.8s,baz=133,slow=9.4,SNR=2.7 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **62.87** | **348** | P | **P** | **18 39 59.4** | **-0.6** |
| | 0.5nm,0.4s,baz=147,slow=6.6,SNR=2.8 | | | | | | |
| **TXAR** | **Lajitas Array** | **146.31** | **46** | PKPbc | **PKPab** | **18 49 17.4** | **+0.9** |
| | 0.1nm,0.6s,baz=352,slow=1.4,SNR=2.4 | | | | | | |

---

*NIED **14** 18:29:00,37°.60N×141°.80E, h38km, Mw3.5 Best double couple: M0 2.12000×10**14** NP1:φ=212.00000°, δ=28.00000°, λ=121.00000°. NP2:φ=357.00000°, δ=66.00000°, λ=74.00000°.*
*IDC **14** 18:29:35.2±1.4,37°.64N×142°.20E, h0km, mb3.7/7, mb1 3.8/9, mb1mx3.6/53, mbtmp3.7/9, ML3.4/2, Error ellipse: s-maj=36.2km s-min=20.6km az=77.0*
*JMA **14** 18:29:41.5±0.1,37°.57N×141°.79E, h36km±2km, M3.8*
**ISC 14 18:29:38.0**±1.9,**37°.54N**±0°.04×**141°.89E**±0°.07,**h12**km±10km, **n28**, σ1**917**/**31**, **mb3.6/7**, **Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JFK** | **Kawauchi** | **0.83** | **258** | P | **Pn** | **18 29 55.8** | **+0.2** |
| **JMM** | **Marumori** | **0.93** | **291** | P | **Pn** | **18 29 57.2** | **+0.2** |
| JMM | | | | *e*S | **Sg** | **18 30 07.9** | **-0.3** |
| **ONAJ** | **Iwakimizuishiy** | **0.97** | **244** | P | **Pn** | **18 29 58.0** | **+0.4** |
| ONAJ | | | | *e*S | **Sg** | **18 30 09.3** | **-0.2** |
| **JIO** | **Ouri** | **1.01** | **335** | P | **Pn** | **18 29 58.6** | **+0.5** |
| JIO | | | | *e*S | **Sg** | **18 30 10.0** | **-0.7** |
| **JFT** | **Otama** | **1.24** | **270** | P | **Pg** | **18 30 02.3** | **+0.5** |
| JFT | | | | *e*S | **Sb** | **18 30 17.0** | **-0.3** |
| **JOU** | **Okura** | **1.28** | **311** | P | **Pg** | **18 30 02.5** | **-0.1** |
| JOU | | | | *e*S | **Sb** | **18 30 17.7** | **-0.7** |
| **JMK** | **Ichinoseki** | **1.51** | **340** | P | **Pb** | **18 30 06.1** | **+0.1** |
| **JYS** | **Shirataka** | **1.60** | **296** | P | **Pb** | **18 30 07.4** | **-0.1** |
| JYS | | | | *e*S | **Sn** | **18 30 26.8** | **0.0** |
| **JFY** | **Yanaizu** | **1.75** | **266** | P | **Pb** | **18 30 09.6** | **-0.4** |
| JFY | | | | *e*S | **Sn** | **18 30 30.2** | **-0.2** |
| **JYK** | **Kaneyama** | **1.83** | **319** | P | **Pb** | **18 30 10.5** | **-1.0** |
| **MJAR** | **Matsushiro Arr** | **3.11** | **252** | Pn | **Pn** | **18 30 28.7** | **+1.7** |
| | 1.8nm,0.3s,baz=61,slow=13,SNR=16 | | | | | | |
| MJAR | | | | Sn | **Sb** | **18 31 10.2** | **-1.0** |
| | 3.3nm,0.3s,baz=56,slow=21,SNR=4.1 | | | | | | |
| **MAT** | **Matsushiro** | **3.11** | **253** | P | **Pn** | **18 30 29.5** | **+2.5** |
| MAT | | | | S | **Sn** | **18 31 05.9** | **+1.8** |
| **JHJ** | **Hachijo jima 2** | **4.73** | **202** | Pn | **Pn** | **18 30 50.2** | **+1.0** |
| | 11nm,0.3s,baz=329,slow=14,SNR=12 | | | | | | |
| JHJ | | | | Sn | **Sn** | **18 31 43.4** | **-0.7** |
| | 11nm,0.3s,baz=135,slow=23,SNR=7.7 | | | | | | |
| **ASAJ** | **Asahikawa** | **6.59** | **4** | Pn | **Pn** | **18 31 18.6** | **+3.8** |
| | 0.4nm,0.3s,baz=222,slow=12,SNR=3.6 | | | | | | |
| **KSRS** | **Korea Array** | **11.10** | **274** | Pn | Pn | 18 32 24.6 | +8.1 |
| | 0.3nm,0.3s,baz=81,slow=13,SNR=8.6 | | | | | | |
| **SONM** | **Songino Array** | **27.83** | **303** | P | **P** | **18 35 27.4** | **+0.1** |
| | 0.2nm,0.3s,baz=108,slow=9.3,SNR=1.6 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy 28.08** | **122** | | T | T | 19 05 08.4 | |
| | baz=315,slow=75,SNR=70 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy 28.09** | **122** | | T | T | 19 05 09.1 | |
| | baz=315,slow=75,SNR=66 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy 28.10** | **122** | | T | T | 19 05 09.8 | |
| | baz=315,slow=75,SNR=53 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy 28.82** | **124** | | T | T | 19 06 01.1 | |
| | baz=316,slow=76,SNR=69 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy 28.82** | **124** | | T | T | 19 06 01.5 | |
| | baz=316,slow=76,SNR=75 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy 28.84** | **124** | | T | T | 19 06 03.0 | |
| | baz=316,slow=76,SNR=46 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.86** | **312** | P | **P** | **18 37 28.9** | **+1.1** |
| | 0.2nm,0.3s,baz=77,slow=6.4,SNR=1.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.18** | **302** | P | **P** | **18 37 46.8** | **+0.1** |
| | 0.4nm,0.6s,baz=81,slow=10,SNR=4.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **57.61** | **188** | P | **P** | **18 39 27.8** | **-0.2** |
| | 0.3nm,0.5s,baz=6.3,slow=7.2,SNR=8.6 | | | | | | |
| **ASAR** | **Alice Springs** | **61.34** | **188** | P | **P** | **18 39 54.0** | **+0.3** |
| | 0.5nm,0.7s,baz=357,slow=5.2,SNR=5.9 | | | | | | |
| **FINES** | **FINESS Array B** | **68.55** | **332** | P | **P** | **18 40 38.6** | **-1.6** |
| | 3.0nm,0.8s,baz=41,slow=7.4,SNR=3.0 | | | | | | |
| **AKASG** | **Malin Array Be** | **74.13** | **322** | P | **P** | **18 41 13.6** | **-0.5** |
| | 0.5nm,0.5s,baz=44,slow=5.7,SNR=3.6 | | | | | | |

---

**MAN 14 18:31:46,9°.88N×122°.23E, h26km, mb3.8, ML2.5, MS2.1, 1D, Negros**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GUIM** | **Jordan** | **0.82** | **25** | *e*P | **Pn** | 18 32 01.9 | 0.0 |
| GUIM | | | | *e*S | Sn | 18 32 13.7 | +0.5 |
| **SNPH** | **Sibulan** | **1.12** | **118** | ⇓*i*P | Pn | 18 32 04.6 | -1.5 |
| SNPH | | | | *i* S | Sn | 18 32 18.3 | -2.4 |
| **PAGZ** | **Pagadian** | **2.31** | **151** | *e*P | Pn | 18 32 24.4 | +2.0 |
| **MSLP** | **Maasin** | **2.60** | **84** | *e*P | Pn | 18 32 28.0 | +1.6 |
| **BUSP** | **Coron** | **2.91** | **317** | *e*P | Pn | 18 32 31.6 | +1.0 |

---

*ISK **14** 18:40:34.4,38°.91N×43°.54E, h5km, MD2.7*
*CSEM **14** 18:40:35.7±0.2,38°.95N×43°.54E, h8km, ML2.6, Error ellipse: s-maj=6.3km s-min=4.6km az=110.0*
*DDA **14** 18:40:35.3,38°.94N×43°.52E, h14km, Ml2.6*
*ISCJB **14** 18:40:36.1±0.5,38°.94N±0°.03×43°.56E±0°.06, h11km±4km, Error ellipse: s-maj=8.2km s-min=4.9km az=21.5*
**ISC 14 18:40:35.5**±0.8,**38°.93N**±0°.03×**43°.55E**±0°.03,**h12**km±5km, **n23**, σ0**958**/**35**, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.06** | **16** | *i* P | **Pg** | **18 40 37.6** | **-0.5** |
| VMUR | | | | *i* S | **Sg** | **18 40 40.6** | **+0.6** |
| **VMUR** | **Van-Muradiye** | **0.06** | **16** | P | **Pg** | **18 40 37.6** | **-0.5** |
| VMUR | | | | S | **Sg** | **18 40 40.6** | **+0.6** |
| **CLDR** | **Caldiran** | **0.36** | **53** | *e*PG | **Pg** | **18 40 42.5** | **-0.2** |
| CLDR | | | | *e*SG | **Sb** | **18 40 49.7** | **0.0** |
| **CLDR** | **Caldiran** | **0.36** | **53** | *i* P | **Pg** | **18 40 42.5** | **-0.2** |
| CLDR | | | | *i* S | **Sb** | **18 40 49.5** | **-0.1** |
| **CLDR** | **Caldiran** | **0.36** | **53** | P | **Pg** | **18 40 42.5** | **-0.2** |
| CLDR | | | | S | **Sb** | **18 40 49.5** | **-0.1** |
| **VANB** | **Van** | **0.36** | **201** | *e*PG | **Pb** | **18 40 43.3** | **-0.6** |
| VANB | | | | *e*SG | **Sb** | **18 40 50.6** | **+1.0** |
| **VANB** | **Van** | **0.36** | **201** | *e*Pg | **Pb** | **18 40 43.3** | **-0.6** |
| VANB | | | | *e*Sg | **Sb** | **18 40 50.6** | **+1.0** |
| **TVAN** | **Van** | **0.42** | **196** | *i* P | **Pg** | **18 40 43.3** | **-0.5** |
| TVAN | | | | *i* S | **Sb** | **18 40 50.9** | **-0.4** |
| **TVAN** | **Van** | **0.42** | **196** | P | **Pg** | **18 40 43.3** | **-0.5** |
| TVAN | | | | S | **Sb** | **18 40 50.9** | **-0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.66** | **260** | *i* P | **Pg** | **18 40 47.8** | **-0.5** |
| ADCV | | | | *i* S | **Sb** | **18 40 58.7** | **+0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.66** | **260** | P | **Pg** | **18 40 47.8** | **-0.5** |
| ADCV | | | | S | **Sb** | **18 40 58.7** | **+0.5** |
| **TUTA** | **Tutak** | **0.74** | **310** | *i* P | **Pg** | **18 40 49.4** | **-0.5** |
| TUTA | | | | *i* S | **Sn** | **18 41 02.6** | **-0.9** |
| **TUTA** | **Tutak** | **0.74** | **310** | P | **Pg** | **18 40 49.4** | **-0.5** |
| **AGRB** | **Hanur-Agry** | **0.78** | **326** | *e*PG | **Pb** | **18 40 50.6** | **-0.5** |
| **AGRB** | **Hanur-Agry** | **0.78** | **326** | *e*Pg | **Pb** | **18 40 50.6** | **-0.5** |
| **TASB** | **TASBURUN-IGDIR** | **1.18** | **27** | *e*PN | **Pn** | **18 40 58.7** | **+0.7** |
| **TASB** | **TASBURUN-IGDIR** | **1.18** | **27** | *e*Pn | **Pn** | **18 40 58.7** | **+0.7** |
| **VRTB** | **Varto-Mus** | **1.65** | **279** | *e*PN | **Pb** | **18 41 05.8** | **-0.1** |
| **VRTB** | **Varto-Mus** | **1.65** | **279** | *e*Pn | **Pb** | **18 41 05.8** | **-0.1** |
| **SIRT** | **Sirnak** | **1.67** | **212** | *e*PN | **Pn** | **18 41 05.5** | **+0.8** |
| **SIRT** | **Sirnak** | **1.67** | **212** | *e*Pn | **Pn** | **18 41 05.5** | **+0.8** |
| **CUKT** | **Cukurca** | **1.68** | **178** | *e*PN | **Pb** | **18 41 06.1** | **-0.4** |
| **CUKT** | **Cukurca** | **1.68** | **178** | *e*Pn | **Pb** | **18 41 06.1** | **-0.4** |

---

*ISCJB **14** 18:44:10.4±0.6,8°.54S±0°.10×159°.01E±0°.10, h111km, mb3.7/9, Error ellipse: s-maj=16.4km s-min=10.5km az=40.9*
*IDC **14** 18:44:11.6±2.2,8°.53S×159°.06E, h108km±29km, mb3.6/9, mb1 3.8/9, mb1mx3.6/35, mbtmp4.0/9, Error ellipse: s-maj=42.7km s-min=17.8km az=128.0*
**ISC 14 18:44:11.8**±0.8,**8°.55S**±0°.1×**159°.2E**±0°.1,**h111**km,**n18**, σ1**939**/**15**, **mb3.8/9**, **Bougainville-Solomon Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HNR** | **Honiara** | **1.22** | **140** | *i* P | **Pn** | **18 44 35.0** | **-0.5** |
| HNR | | | | *i* S | **Sn** | **18 44 54.0** | **+0.6** |
| **HNR** | **Honiara** | **1.22** | **140** | P | **Pn** | **18 44 34.9** | **-0.5** |
| | 130nm,0.3s,baz=229,slow=6.6,SNR=97 | | | | | | |
| HNR | | | | S | **Sn** | **18 44 53.5** | **+0.1** |
| | 124nm,0.3s,baz=28,slow=23,SNR=10 | | | | | | |
| **CTA** | **Charters Tower** | **16.99** | **226** | P | **P** | **18 48 06.3** | **+3.4** |
| | 0.4nm,0.3s,baz=64,slow=14,SNR=6.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **26.56** | **242** | P | **P** | **18 49 39.1** | **-0.6** |
| | 1.0nm,0.4s,baz=65,slow=9.0,SNR=8.2 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy 27.83** | **16** | | T | T | 19 18 44.7 | |
| | baz=195,slow=76,SNR=56 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy 27.83** | **15** | | T | T | 19 18 29.6 | |
| | baz=195,slow=76,SNR=44 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy 27.84** | **15** | | T | T | 19 18 45.1 | |
| | baz=195,slow=76,SNR=40 | | | | | | |
| **STKA** | **Stephens Creek** | **28.42** | **213** | P | **P** | **18 49 56.3** | **+0.2** |
| | 1.5nm,0.5s,baz=41,slow=15,SNR=6.1 | | | | | | |
| **ASAR** | **Alice Springs** | **28.49** | **235** | P | **P** | **18 49 55.5** | **-1.3** |
| | 0.8nm,0.6s,baz=91,slow=8.7,SNR=4.4 | | | | | | |
| ASAR | | | | PcP | **PcP** | **18 53 05.1** | **-1.1** |
| | 0.2nm,0.6s,baz=46,slow=2.9,SNR=3.7 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy 29.05** | **15** | | T | T | 19 20 11.4 | |
| | baz=196,slow=76,SNR=9.5 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy 29.06** | **15** | | T | T | 19 20 15.3 | |
| | baz=196,slow=76,SNR=9.4 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy 29.07** | **15** | | T | T | 19 20 12.8 | |
| | baz=196,slow=76,SNR=11 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **33.93** | **250** | P | **P** | **18 50 43.0** | **-1.6** |
| | 2.3nm,0.9s,baz=53,slow=10,SNR=3.6 | | | | | | |
| **PETK** | **Petropavlovsk-** | **61.37** | **359** | P | **P** | **18 54 15.5** | **-0.3** |
| | 1.2nm,0.7s,baz=192,slow=3.7,SNR=2.4 | | | | | | |
| **SONM** | **Songino Array** | **72.85** | **326** | P | **P** | **18 55 30.4** | **+1.7** |
| | 1.1nm,0.6s,baz=134,slow=6.8,SNR=5.6 | | | | | | |
| **ILAR** | **Eielson Array** | **83.29** | **20** | P | **P** | **18 56 26.5** | **+0.7** |
| | 0.2nm,0.4s,baz=259,slow=4.9,SNR=4.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **87.25** | **318** | P | **P** | **18 56 46.0** | **0.0** |
| | 0.6nm,0.6s,baz=92,slow=6.5,SNR=5.6 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **87.73** | **325** | P | **P** | **18 56 47.1** | **-0.9** |
| | 0.3nm,0.4s,baz=86,slow=4.5,SNR=2.4 | | | | | | |

---

**GUC 14 18:59:31.2**±1.3,**16°.99S×69°.31W, h130**km±31km,**ML3.9, 2C-1D, Peru-Bolivia border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LPAZ** | **La Paz** | **1.32** | **58** | ⇓*i*P | Pn | 19 00 04.5 | +6.5 |
| LPAZ | | | | *e*S | Sn | 19 00 27.5 | +9.1 |
| **PB16** | **IPOC Station P** | **1.35** | **188** | ⇑*i*P | Pn | 19 00 03.0 | +4.8 |
| PB16 | | | | *i* S | Sn | 19 00 27.3 | +8.5 |
| **PB12** | **IPOC Station P** | **1.89** | **211** | ⇑*i*P | Pn | 19 00 04.8 | +0.9 |
| PB12 | | | | *e*S | Sn | 19 00 30.2 | +1.3 |
| PB12 | | | | IAML | | 19 00 31.2 | |
| | comp=N,2μm,0.6s | | | | | | |
| **MNMC** | **Minye Minye** | **2.15** | **187** | *e*P | Pn | 19 00 10.1 | +2.9 |
| MNMC | | | | *e*S | Sn | 19 00 39.1 | +4.2 |
| MNMC | | | | IAML | | 19 00 44.7 | |
| | comp=N,280nm,0.2s | | | | | | |
| **PSGC** | **Pisagua** | **2.71** | **197** | *e*P | Pn | 19 00 14.6 | +0.4 |
| PSGC | | | | *e*S | Sn | 19 00 46.7 | -0.5 |
| **PB11** | **IPOC Station P** | **2.78** | **187** | *e*P | Pn | 19 00 16.5 | +1.4 |
| PB11 | | | | *e*S | Sn | 19 00 50.6 | +1.7 |
| PB11 | | | | IAML | | 19 00 54.6 | |
| | comp=N,500nm,0.2s | | | | | | |

---

*IDC **14** 19:11:39.4±2.2,0°.82S×127°.86E, h0km, mb3.0/3, mb1 3.3/3, mb1mx3.2/34, mbtmp3.1/3, Error ellipse: s-maj=181.8km s-min=25.5km az=67.0*
*DJA **14** 19:11:40.4±0.6,1°.5S±4°×127°.7E±°, h55km±10km, M3.3/5, MLv3.3/5*
*ISCJB **14** 19:11:42.5±0.8,1°.04S±0°.07×127°.02E±0°.09, h31km, mb3.3/2, Error ellipse: s-maj=14.6km s-min=6.3km az=37.1*
**ISC 14 19:11:41.7**±1.7,**0°.9S**±0°.1×**127°.0E**±0°.1,**h31**km,**n6**, σ0**91**/**7**, **Southern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LBMI** | **Labuha** | **0.62** | **62** | P | **Pn** | **19 11 54.0** | **-0.5** |
| LBMI | | | | S | **Sn** | **19 12 04.5** | **+1.1** |
| **SANI** | **Sanana** | **1.47** | **221** | P | **Pn** | **19 12 05.7** | **-0.4** |
| SANI | | | | S | **Sn** | **19 12 25.3** | **+1.0** |
| **NLAI** | **Namlea** | **2.29** | **176** | P | **Pn** | **19 12 17.1** | **-0.3** |
| NLAI | | | | S | **Sn** | **19 12 45.2** | **+0.6** |
| **WRA** | **Warramunga Arr** | **20.23** | **160** | P | Pn | 19 16 16.0 | -0.5 |
| | 0.2nm,0.4s,baz=342,slow=12,SNR=3.7 | | | | | | |
| **ASAR** | **Alice Springs** | **23.58** | **164** | P | **P** | **19 16 49.5** | **-0.5** |
| | 0.6nm,0.9s,baz=344,slow=12,SNR=3.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **61.52** | **327** | P | P | 19 22 00.9 | +5.1 |
| | 0.2nm,0.4s,baz=122,slow=8.0,SNR=3.3 | | | | | | |

---

*IDC **14** 19:13:13.2±3.4,29°.68S×179°.85W, h422km±28km, mb3.2/5, mb1 3.3/6, mb1mx3.2/26, mbtmp4.1/6, Error ellipse: s-maj=41.9km s-min=32.0km az=26.0*
**ISC 14 19:13:16.8**±1.9,**30°.04S**±0°.10×**179°.4E**±0°.2,**h400**km,**n31**, σ1**959**/**41**, **mb3.4/5**, **Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MXZ** | **Matakaoa Point** | **7.55** | **186** | *e*PN | **Pn** | **19 15 07.2** | **+0.7** |
| MXZ | | | | *e*SN | **S** | **19 16 38.7** | **+2.3** |
| **WMGZ** | **Waiomatatini S** | **7.80** | **186** | *e*PN | **Pn** | **19 15 09.2** | **-0.1** |
| **HAZ** | **Te Kaha** | **7.81** | **189** | *e*PN | **P** | **19 15 10.4** | **+0.6** |
| HAZ | | | | SN | **S** | **19 16 46.1** | **+4.4** |
| **PUZ** | **Puketiti** | **8.06** | **186** | *e*PN | **P** | **19 15 13.2** | **+0.5** |
| **TWGZ** | **Tauwhareparae** | **8.20** | **188** | *e*PN | **Pn** | **19 15 14.4** | **+0.5** |
| TWGZ | | | | *e*SN | **S** | **19 16 51.0** | **+1.1** |
| **URZ** | **Urewera** | **8.41** | **192** | P | **P** | **19 15 18.8** | **+2.3** |
| | 54nm,0.3s,baz=1.7,slow=5.8,SNR=115 | | | | | | |
| **URZ** | **Urewera** | **8.41** | **192** | *e*PN | **Pn** | **19 15 15.0** | **-1.2** |
| URZ | | | | *e*SN | **S** | **19 16 54.3** | **0.0** |
| **MWZ** | **Matawai** | **8.41** | **190** | *e*PN | **Pn** | **19 15 16.1** | **-0.3** |
| MWZ | | | | *e*SN | **S** | **19 16 55.7** | **+1.3** |
| **MUGZ** | **Murupara** | **8.68** | **194** | *e*PN | **Pn** | **19 15 19.0** | **-0.5** |
| **KNZ** | **Kokohu** | **9.07** | **188** | PN | **Pn** | **19 15 23.5** | **-0.3** |
| KNZ | | | | SN | **S** | **19 17 07.9** | **+0.3** |
| **MRHZ** | **Matea Rd** | **9.10** | **195** | *e*PN | **Pn** | **19 15 24.7** | **+0.3** |
| **WHHZ** | **Waihua** | **9.18** | **190** | *e*PN | **Pn** | **19 15 26.8** | **+1.6** |
| WHHZ | | | | *e*SN | **S** | **19 17 09.4** | **-1.3** |
| **MCHZ** | **McNeill Hill** | **9.63** | **192** | *e*PN | **P** | **19 15 30.6** | **+0.4** |
| **KWHZ** | **Kaweka Forest** | **9.67** | **194** | *e*PN | **P** | **19 15 29.6** | **-1.0** |
| **KAHZ** | **Kahuranaki** | **9.94** | **191** | *e*PN | **P** | **19 15 33.1** | **-0.5** |
| **PXZ** | **Pawanui** | **10.18** | **191** | *e*PN | **P** | **19 15 35.3** | **-0.8** |
| PXZ | | | | *e*SN | **S** | **19 17 28.5** | **-2.5** |
| **BFZ** | **Birch Farm** | **10.92** | **193** | *e*PN | **P** | **19 15 43.6** | **-0.8** |
| BFZ | | | | *e*SN | **S** | **19 17 45.6** | **-0.6** |
| **MRZ** | **Mangatainoka R** | **11.04** | **195** | *e*PN | **P** | **19 15 44.9** | **-0.8** |
| MRZ | | | | *e*SN | **S** | **19 17 45.9** | **-2.7** |
| **OGWZ** | **Otaki Gorge** | **11.28** | **197

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **KAHZ** | **Kahuranaki** | **2.65** | **168** | PN | Pn | 19 22 39.6 | -1.1 |
| **PNHZ** | **Pukenui** | **2.71** | **180** | PN | Pn | 19 22 40.0 | -1.4 |
| **TSZ** | **Takapari Road** | **2.86** | **183** | PN | Pn | 19 22 41.2 | -1.7 |
| TSZ | | | | SN | S | 19 23 20.0 | -3.5 |
| **PRHZ** | **Porangahau** | **3.08** | **173** | PN | Pn | 19 22 43.2 | -2.0 |
| **BFZ** | **Birch Farm** | **3.48** | **179** | PN | Pn | 19 22 47.1 | -2.5 |
| **MRZ** | **Mangatainoka R** | **3.49** | **188** | ⇑PN | Pn | 19 22 47.0 | -2.8 |
| MRZ | | | | *e*SN | S | 19 23 30.9 | -4.9 |
| **TIWZ** | **Tintock** | **3.58** | **184** | PN | Pn | 19 22 48.4 | -2.3 |
| **OGWZ** | **Otaki Gorge** | **3.70** | **192** | ⇓PN | Pn | 19 22 49.5 | -2.5 |
| OGWZ | | | | AML | AML | 19 23 39.6 | |
| **HOWZ** | **Holdsworth Sta** | **3.73** | **188** | PN | Pn | 19 22 49.7 | -2.8 |
| **KIW** | **Kapiti Island** | **3.79** | **195** | PN | Pn | 19 22 50.5 | -2.7 |
| **CAW** | **Cannon Point** | **4.00** | **192** | PN | Pn | 19 22 52.4 | -3.2 |
| **DUWZ** | **D'Urville Isla** | **4.00** | **205** | PN | Pn | 19 22 53.1 | -2.5 |
| **TRWZ** | **Traveller** | **4.21** | **185** | PN | Pn | 19 22 54.7 | -3.3 |
| **TCW** | **Tory Channel** | **4.27** | **200** | PN | Pn | 19 22 55.9 | -2.8 |
| **MSWZ** | **Moikau Station** | **4.27** | **189** | PN | Pn | 19 22 55.0 | -3.8 |
| **PLWZ** | **Palliser** | **4.42** | **189** | PN | Pn | 19 22 56.8 | -3.9 |
| **TUWZ** | **Tuamarina** | **4.57** | **202** | PN | Pn | 19 22 59.4 | -2.9 |
| **BSWZ** | **Blackbirch Sta** | **4.85** | **201** | PN | Pn | 19 23 02.8 | -2.9 |
| **THZ** | **Tophouse** | **5.21** | **208** | PN | Pn | 19 23 06.8 | -3.4 |
| **KHZ** | **Kahutara** | **5.59** | **200** | ⇓PN | Pn | 19 23 11.1 | -3.6 |

**IDC 14 19:26:44.9±5.3, 5°24S×107°59E, h0km, mb3.5/3, mb1 3.7/3, mb1mx3.4/28, mbtmp3.5/3, Error ellipse: s-maj=319.0km s-min=25.8km az=51.0, Jawa**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **29.84** | **122** | P | P | 19 32 54.3 | +0.1 |
| | 0.5nm,1.1s,baz=300,slow=11,SNR=4.1 | | | | | | |
| **ASAR** | **Alice Springs** | **31.27** | **128** | P | P | 19 33 06.8 | -0.1 |
| | 0.3nm,0.4s,baz=302,slow=7.8,SNR=14 | | | | | | |
| **MKAR** | **Makanchi Array** | **56.45** | **339** | P | P | 19 36 28.4 | -0.1 |
| | 0.3nm,0.4s,baz=148,slow=8.6,SNR=9.6 | | | | | | |

*ISCJB **14** 19:33:34.3±0.7, 5°.76N±0°.05×78°.18W±0°.05, h33km, mb3.6/6, Error ellipse: s-maj=7.9km s-min=6.6km az=29.2*
*RSNC **14** 19:33:36.7±0.8, 5°.67N×77°.96W, h4km±16km, ML3.1*
*IDC **14** 19:33:43.3±4.4, 6°.34N×78°.05W, h75km±34km, mb3.3/6, mb1 3.6/8, mb1mx3.5/31, mbtmp3.7/8, Error ellipse: s-maj=77.3km s-min=25.0km az=31.0*
**ISC 14 19:33:36.0±0.8, 5°.77N±0°.06×78°.17W±0°.07, h35km, n15, σ1§59/17, mb3.6/6, 1C-1D, South of Panama**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SOLC** | **Bahia Solano** | **0.88** | **59** | ⇑*i*P | **Pn** | **19 33 50.4** | **-1.5** |
| SOLC | | | | *e*S | **Sn** | **19 34 00.7** | **-2.7** |
| SOLC | | | | *i* | | 19 34 02.9 | |
| | comp=Z,854nm,0.3s | | | | | | |
| **PLMC** | **San Jos¯ del** | **2.07** | **115** | *e*S | **Sn** | **19 34 30.9** | **-2.0** |
| PLMC | | | | *i* | | 19 34 34.7 | |
| | comp=Z,310nm,0.4s | | | | | | |
| **DBBC** | **Dabeiba** | **2.31** | **57** | *e*P | **Pn** | **19 34 12.3** | **+0.7** |
| **HELC** | **Santa Helena** | **2.66** | **81** | ⇓*i*P | **Pn** | **19 34 17.3** | **+0.6** |
| HELC | | | | *e*S | **Sn** | **19 34 48.5** | **+0.6** |
| HELC | | | | *i* | | 19 34 52.9 | |
| | comp=Z,107nm,0.5s | | | | | | |
| **NORC** | **Norcasia** | **3.29** | **93** | *e*S | **Sn** | **19 35 01.9** | **-1.2** |
| **POPC** | **Popayan, Colom** | **3.54** | **155** | *e*P | **Pn** | **19 34 28.8** | **+0.1** |
| POPC | | | | *e*S | **Sn** | **19 35 09.1** | **-0.4** |
| POPC | | | | *i* | | 19 35 12.0 | |
| | comp=Z,32nm,0.3s | | | | | | |
| **MOTC** | **Monteria, Cord** | **3.88** | **40** | *e*P | **Pn** | **19 34 34.3** | **+1.1** |
| MOTC | | | | *i* | | 19 35 23.5 | |
| | comp=Z,18nm,0.8s | | | | | | |
| **ROSC** | **El Rosal** | **3.94** | **103** | P | Pn | 19 34 42.3 | +7.9 |
| | comp=Z,2.4nm,0.3s,baz=45,slow=20,SNR=3.8 | | | | | | |
| **SDV** | **Santo Domingo** | **8.09** | **67** | P | **Pn** | **19 35 34.6** | **+3.4** |
| | comp=Z,1.3nm,0.3s,baz=236,slow=13,SNR=9.5 | | | | | | |
| **TXAR** | **Lajitas Array** | **33.60** | **317** | P | **P** | **19 40 12.9** | **-0.4** |
| | comp=Z,0.5nm,0.9s,baz=135,slow=12,SNR=3.4 | | | | | | |
| **PDAR** | **Pinedale Array** | **46.13** | **328** | P | **P** | **19 41 57.9** | **+0.7** |
| | comp=Z,0.2nm,0.4s,baz=96,slow=3.6,SNR=3.0 | | | | | | |
| **ULM** | **Lac du Bonnet** | **46.76** | **344** | P | **P** | **19 41 59.9** | **-1.9** |
| | comp=Z,1.3nm,0.6s,baz=153,slow=9.0,SNR=3.0 | | | | | | |
| **YKA** | **Yellowknife Ar** | **62.60** | **342** | P | **P** | **19 43 56.1** | **-0.3** |
| | comp=Z,0.8nm,0.7s,baz=128,slow=7.3,SNR=14 | | | | | | |
| **ILAR** | **Eielson Array** | **75.81** | **336** | P | **P** | **19 45 18.9** | **+0.7** |
| | comp=Z,0.7nm,0.7s,baz=128,slow=4.0,SNR=8.1 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **78.86** | **78** | P | **P** | **19 45 37.5** | **+1.2** |
| | comp=Z,0.2nm,0.5s,baz=257,slow=4.3,SNR=3.1 | | | | | | |

*NNC **14** 19:41:43.3±2.9, 41°.14N×71°.94E, h0km, mb3.5, mpv3.1, Error ellipse: s-maj=30.9km s-min=16.1km az=69.0*
*KRNET **14** 19:41:43.5±0.1, 41°.16N×71°.93E, h28km, mb2.9*
*ISCJB **14** 19:41:45.9±0.5, 41°.17N±0°.03×72°.05E±0°.03, h10km, Error ellipse: s-maj=4.6km s-min=3.5km az=17.5*
*SOME **14** 19:41:47.3, 41°.43N×71°.90E, h0km*
**ISC 14 19:41:43.9±0.9, 41°.17N±0°.03×72°.02E±0°.02, h10km, n37, σ1§54/65, 23C-16D, Kyrgyzstan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ARK** | **Arkit** | **0.63** | **356** | ⇑*e*P | **Pg** | **19 41 55.4** | **-0.8** |
| | baz=4.0 | | | | | | |
| **TOKL** | **Toktogul** | **1.00** | **40** | ⇓*e*P | **Pb** | **19 42 03.4** | **0.0** |
| | baz=42 | | | | | | |
| TOKL | | | | ⇓*e*S | **Sn** | **19 42 18.1** | **-0.3** |
| | baz=42 | | | | | | |
| **MNAS** | **Manas** | **1.37** | **15** | ⇑*i*P | **Pb** | **19 42 09.8** | **+0.1** |
| | baz=18 | | | | | | |
| MNAS | | | | ⇑*i*S | **Sb** | **19 42 27.9** | **+0.6** |
| | baz=18 | | | | | | |
| **MNAS** | **Manas** | **1.37** | **15** | ⇓Pn | **Pg** | **19 42 10.2** | **0.0** |
| | 28nm,0.3s | | | | | | |
| MNAS | | | | ⇑Sn | **Sb** | **19 42 27.8** | **+0.6** |
| | 10nm,0.2s | | | | | | |
| **AML** | **Almayashu** | **1.58** | **52** | ⇓*i*P | **Pb** | **19 42 13.5** | **0.0** |
| | baz=53 | | | | | | |
| AML | | | | ⇓*i*S | **Sb** | **19 42 34.2** | **+0.4** |
| | baz=53 | | | | | | |
| **AML** | **Almayashu** | **1.58** | **52** | P | **Pg** | **19 42 14.1** | **-0.2** |
| | SNR=28 | | | | | | |
| **SFK** | **Sufi-Kurgan** | **1.62** | **135** | ⇑*e*P | **Pb** | **19 42 13.0** | **-1.0** |
| | baz=133 | | | | | | |
| SFK | | | | ⇑*e*S | **Sg** | **19 42 35.3** | **-0.7** |
| | baz=133 | | | | | | |
| **SFK** | **Sufi-Kurgan** | **1.62** | **135** | ⇓Pn | **Pb** | **19 42 13.0** | **-1.0** |
| | 1.7nm,0.1s | | | | | | |
| SFK | | | | ⇑Sn | **Sg** | **19 42 35.6** | **-0.3** |
| | 22nm,0.2s | | | | | | |
| **IUG** | **luzhnay** | **1.78** | **304** | *e*P | **Pg** | **19 42 16.8** | **-1.2** |
| | 74nm,0.3s | | | | | | |
| IUG | | | | *e*S | **Sg** | **19 42 39.5** | **-1.6** |
| | 154nm,0.3s | | | | | | |
| **MRKS** | **Merke** | **1.82** | **29** | *e*P | **Pg** | **19 42 18.7** | **0.0** |
| | 75nm,0.3s | | | | | | |
| MRKS | | | | *e*S | **Sg** | **19 42 41.9** | **-0.4** |
| | 99nm,0.2s | | | | | | |
| **EKS2** | **Erkin-Say** | **1.99** | **41** | ⇑*e*P | **Pb** | **19 42 19.7** | **-0.6** |
| | baz=42 | | | | | | |
| EKS2 | | | | ⇑*i*S | **Sb** | **19 42 45.2** | **0.0** |
| | baz=42 | | | | | | |
| **EKS2** | **Erkin-Say** | **1.99** | **41** | P | **Pb** | **19 42 20.6** | **+0.3** |
| | SNR=13 | | | | | | |
| **CHM** | **Chimkent** | **2.14** | **303** | *e*P | **Pg** | **19 42 24.5** | **-0.5** |
| | 22nm,0.2s | | | | | | |
| CHM | | | | *e*S | **Sg** | **19 42 52.5** | **-0.2** |
| | 231nm,0.4s | | | | | | |
| **UCH** | **Uchtor** | **2.15** | **60** | ⇓*e*P | **Pb** | **19 42 22.1** | **-1.1** |
| | baz=60 | | | | | | |
| UCH | | | | ⇓*i*S | **Sb** | **19 42 49.8** | **-0.3** |
| | baz=60 | | | | | | |
| **UCH** | **Uchtor** | **2.15** | **60** | P | **Pb** | **19 42 23.0** | **-0.2** |
| | SNR=15 | | | | | | |
| **KK31** | **Karatay Array** | **2.23** | **330** | Pn | **Pb** | **19 42 22.9** | **-1.4** |
| | 2.9nm,0.2s,baz=135,slow=14,SNR=104 | | | | | | |
| KK31 | | | | Sn | **Sb** | **19 42 52.5** | **+0.4** |
| | 9.0nm,0.3s,baz=148,slow=25,SNR=9.8 | | | | | | |
| **AAK** | **Ala-Archa** | **2.36** | **51** | ⇑*i*P | **Pb** | **19 42 25.3** | **-1.4** |
| | baz=52 | | | | | | |
| AAK | | | | ⇑*i*S | **Sb** | **19 42 54.8** | **-1.1** |
| | baz=52 | | | | | | |
| **AAK** | **Ala-Archa** | **2.36** | **51** | ⇑Pn | **Pb** | **19 42 26.1** | **-0.6** |
| | 5.5nm,0.3s | | | | | | |
| AAK | | | | ⇓Sn | **Sg** | **19 42 59.2** | **-0.6** |
| | 8.6nm,0.3s | | | | | | |
| **BRLS** | **Boroldaу** | **2.47** | **320** | *e*P | **Pb** | **19 42 27.7** | **-0.7** |
| | 0.7nm,0.3s | | | | | | |
| BRLS | | | | *e*S | **Sb** | **19 42 57.5** | **-1.4** |
| | 7.9nm,0.2s | | | | | | |
| **FRU1** | **Bishkek** | **2.55** | **49** | ⇓*e*P | **Pb** | **19 42 27.5** | **-2.3** |
| | baz=50 | | | | | | |
| FRU1 | | | | ⇓*i*S | **Sb** | **19 42 59.6** | **-1.6** |
| | baz=50 | | | | | | |
| **KZA** | **Kyzart** | **2.59** | **68** | ⇑*i*P | **Pb** | **19 42 28.6** | **-2.1** |
| | baz=69 | | | | | | |
| KZA | | | | ⇑*i*S | **Sb** | **19 43 00.7** | **-2.0** |
| | baz=69 | | | | | | |
| **KBK** | **Karagaybulak** | **2.65** | **55** | ⇑*i*P | **Pb** | **19 42 29.2** | **-2.3** |
| | baz=55 | | | | | | |
| KBK | | | | ⇑*i*S | **Sn** | **19 43 01.4** | **+2.3** |
| | baz=55 | | | | | | |
| **KBK** | **Karagaybulak** | **2.65** | **55** | P | **Pb** | **19 42 30.3** | **-1.2** |
| | SNR=7.1 | | | | | | |
| **CHMS** | **Chumysh** | **2.74** | **47** | ⇑*i*P | **Pb** | **19 42 30.3** | **-2.7** |
| | baz=48 | | | | | | |
| CHMS | | | | ⇑*i*S | **Sn** | **19 43 03.1** | **+2.0** |
| | baz=48 | | | | | | |
| **CHMS** | **Chumysh** | **2.74** | **47** | P | **Pg** | **19 42 36.0** | **-0.4** |
| | SNR=5.3 | | | | | | |
| **USP** | **Ospenovka** | **2.79** | **41** | ⇑*i*P | **Pn** | **19 42 30.6** | **+1.9** |
| | baz=41 | | | | | | |
| USP | | | | ⇑*i*S | **Sn** | **19 43 04.9** | **+2.4** |
| | baz=41 | | | | | | |
| **USP** | **Ospenovka** | **2.79** | **41** | P | **Pb** | **19 42 31.3** | **-2.7** |
| | SNR=7.1 | | | | | | |
| **TKM2** | **Tokmak 2** | **3.19** | **56** | ⇑*e*P | **Pn** | **19 42 36.2** | **+1.9** |
| | baz=56 | | | | | | |
| TKM2 | | | | ⇑*i*S | **Sn** | **19 43 14.6** | **+2.1** |
| | baz=56 | | | | | | |
| **TKM2** | **Tokmak 2** | **3.19** | **56** | ⇑Pn | **Pn** | **19 42 36.9** | **+2.6** |
| | 1.0nm,0.3s | | | | | | |
| TKM2 | | | | ⇓Lg | Lg | 19 43 23.6 | |
| | 9.7nm,0.6s | | | | | | |
| **TKM2** | **Tokmak 2** | **3.19** | **56** | P | **Pn** | **19 42 37.0** | **+2.7** |
| | SNR=5.8 | | | | | | |
| **BOOM** | **Boomskoye usch** | **3.22** | **64** | ⇓*i*P | **Pn** | **19 42 36.7** | **+2.0** |
| | baz=65 | | | | | | |
| BOOM | | | | ⇓*e*S | **Sn** | **19 43 15.9** | **+2.8** |
| | baz=65 | | | | | | |
| **ULHL** | **Ulahol** | **3.34** | **70** | ⇓*i*P | **Pn** | **19 42 38.1** | **+1.7** |
| | baz=70 | | | | | | |
| ULHL | | | | ⇓*i*S | **Sn** | **19 43 18.0** | **+1.7** |
| | baz=70 | | | | | | |
| **DGS** | **Degeres** | **3.48** | **52** | *e*P | **Pg** | **19 42 49.3** | **-1.2** |
| | 4.2nm,0.5s | | | | | | |
| DGS | | | | *e*S | **Sg** | **19 43 32.9** | **-2.6** |
| | 24nm,0.7s | | | | | | |
| **KST** | **Kastek** | **3.48** | **56** | *e*P | **Pg** | **19 42 50.1** | **-0.5** |
| | 1.4nm,0.2s | | | | | | |
| KST | | | | *e*S | **Sg** | **19 43 34.3** | **-1.5** |
| | 20nm,0.6s | | | | | | |
| **IZV** | **Izvestkoviy** | **3.90** | **60** | *e*P | **Pg** | **19 42 58.8** | **+0.2** |
| | 5.5nm,0.7s | | | | | | |
| IZV | | | | *e*S | **Sg** | **19 43 47.9** | **-1.1** |
| | 12nm,0.5s | | | | | | |
| **KOTS** | **Kotyrbulak** | **4.31** | **60** | *e*P | **Pg** | **19 43 06.3** | **-0.2** |
| KOTS | | | | *e*S | **Sg** | **19 44 02.5** | **+0.2** |
| **ARXS** | **Arharly** | **5.25** | **53** | *e*P | **Pg** | **19 43 22.3** | **-2.2** |
| | 3.0nm,0.4s | | | | | | |
| ARXS | | | | *e*S | **Sg** | **19 44 28.4** | **-4.1** |
| | 8.4nm,0.7s | | | | | | |

*IDC **14** 19:47:11.8±0.9, 42°.90N×18°.03E, h0km, mb3.7/8, mb1 3.8/17, mb1mx3.7/49, mbtmp3.7/17, ML3.6/9, MS3.4/4, Ms1 3.4/4, ms1mx2.8/60, Error ellipse: s-maj=19.5km s-min=12.1km az=57.0*
*ISCJB **14** 19:47:12.9±0.3, 42°.96N±0°.01×17°.86E±0°.02, h6km±2km, mb3.8/10, MS3.8/2, Error ellipse: s-maj=2.2km s-min=1.7km az=41.2*
*MOS **14** 19:47:12.6±1.2, 42°.91N×17°.79E, h12km, mb4.1/5, Error ellipse: s-maj=4.9km s-min=3.4km az=109.5*
*BEO **14** 19:47:13.2±0.4, 42°.93N×17°.77E, h0km, M3.6/1*
*LDG **14** 19:47:13.4±0.1, 42°.92N×17°.91E, h2km, Ml4.1/12, Error ellipse: s-maj=2.3km s-min=1.9km az=11.0*
*PDG **14** 19:47:14.1±0.7, 42°.90N×17°.93E, h9km±1km, ML3.9/11, Error ellipse: s-maj=0.7km s-min=0.9km az=0.0*
*CSEM **14** 19:47:14.4±0.1, 42°.93N×17°.92E, h5km, mb4.2/5, ML4.0/7, Error ellipse: s-maj=2.7km s-min=1.9km az=37.0*
*NEIC **14** 19:47:15.2±0.3, 42°.89N×17°.87E, h10km, mb4.3/2, Error ellipse: s-maj=5.7km s-min=3.6km az=217.0*
*PRU **14** 19:47:16.7, 43°.03N×18°.00E, h0km, M4.3*
**ISC 14 19:47:14.2±0.8, 42°.92N±0°.02×17°.87E±0°.02, h17km±5km, n465, σ2§27/607, mb3.8/10, 43C-36D, Adriatic Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **STON** | **Ston** | **0.13** | **249** | *i* Pg | **Pg** | **19 47 18.4** | **+0.3** |
| STON | | | | Sg | **Sb** | **19 47 21.8** | **+0.9** |
| **STON** | **Ston** | **0.13** | **249** | *i* Pg | **Pg** | **19 47 18.3** | **+0.3** |
| STON | | | | Sg | **Sb** | **19 47 21.7** | **+0.9** |
| **TREB** | **Trebinje** | **0.41** | **120** | *e*Pg | **Pg** | **19 47 22.1** | **-0.4** |
| **TREB** | **Trebinje** | **0.41** | **120** | *e*Pg | **Pg** | **19 47 22.1** | **-0.4** |
| TREB | | | | *e*Sg | **Sg** | **19 47 28.3** | **+0.1** |
| **BRY** | **Bratogost** | **0.49** | **92** | ⇓*i*Pg | **Pg** | **19 47 22.9** | **-1.2** |
| BRY | | | | *e*Sg | **Sg** | **19 47 30.0** | **-0.9** |
| **BRY** | **Bratogost** | **0.49** | **92** | P | **Pg** | **19 47 23.0** | **-1.2** |
| BRY | | | | S | **Sg** | **19 47 30.0** | **-0.9** |
| **BRY** | **Bratogost** | **0.49** | **92** | P | **Pg** | **19 47 23.0** | **-1.2** |
| BRY | | | | *e*Sg | **Sg** | **19 47 30.0** | **-0.9** |
| **HCY** | **Herceg Novi** | **0.66** | **135** | ⇑*i*Pg | **Pg** | **19 47 26.4** | **-0.7** |
| HCY | | | | *e*Sg | **Sg** | **19 47 35.9** | **0.0** |
| **HCY** | **Herceg Novi** | **0.66** | **135** | P | **Pg** | **19 47 26.5** | **-0.7** |
| HCY | | | | S | **Sg** | **19 47 36.0** | **0.0** |
| **HCY** | **Herceg Novi** | **0.66** | **135** | ⇑*i*Pg | **Pg** | **19 47 26.5** | **-0.7** |
| HCY | | | | *e*Sg | **Sg** | **19 47 35.9** | **0.0** |
| **UPM** | **Unac-Piva** | **0.81** | **69** | ⇓*i*Pg | **Pb** | **19 47 27.9** | **-2.0** |
| UPM | | | | *e*Sg | **Sb** | **19 47 40.8** | **+0.1** |
| **UPM** | **Unac-Piva** | **0.81** | **69** | P | **Pb** | **19 47 28.0** | **-2.0** |
| UPM | | | | *e*Sg | **Sb** | **19 47 39.5** | **-1.2** |
| **NKME** | **Niksic** | **0.81** | **100** | ⇑*i*Pg | **Pb** | **19 47 29.1** | **-0.8** |
| NKME | | | | *e*Sg | **Sg** | **19 47 41.1** | **+0.3** |
| **NKME** | **Niksic** | **0.81** | **100** | ⇑*i*Pg | **Pb** | **19 47 29.1** | **-0.8** |
| **NKY** | **Niksic** | **0.83** | **97** | ⇑*i*Pg | **Pb** | **19 47 29.4** | **-0.9** |
| NKY | | | | *e*Sg | **Sb** | **19 47 41.4** | **+0.2** |
| **NKY** | **Niksic** | **0.83** | **97** | P | **Pb** | **19 47 29.2** | **-1.1** |
| NKY | | | | S | **Sg** | **19 47 42.0** | **+0.5** |
| **NKY** | **Niksic** | **0.83** | **97** | ⇑*i*Pg | **Pb** | **19 47 29.4** | **-0.9** |
| **CEME** | **Cevo** | **0.86** | **115** | ⇓*i*Pg | **Pb** | **19 47 29.5** | **-1.2** |
| CEME | | | | *e*Sg | **Sg** | **19 47 42.4** | **+0.1** |
| **CEME** | **Cevo** | **0.86** | **115** | ⇓*i*Pg | **Pb** | **19 47 29.5** | **-1.2** |
| **BUM** | **Brajici-Budva** | **0.98** | **129** | ⇑*i*Pg | **Pb** | **19 47 32.0** | **-0.7** |
| BUM | | | | *e*Sg | **Sg** | **19 47 46.4** | **+0.4** |
| **BUM** | **Brajici-Budva** | **0.98** | **129** | ⇑*i*Pg | **Pb** | **19 47 32.0** | **-0.7** |
| **PDG** | **Podgorica** | **1.14** | **115** | *e*Pg | **Pn** | **19 47 34.9** | **-0.3** |
| PDG | | | | *e*Sg | **Sg** | **19 47 51.9** | **+0.9** |
| **PDG** | **Podgorica** | **1.14** | **115** | ⇑*i*P | **Pn** | **19 47 34.8** | **-0.4** |
| **PDG** | **Podgorica** | **1.14** | **115** | *e*Pg | **Pn** | **19 47 34.9** | **-0.3** |
| PDG | | | | *e*Sg | **Sg** | **19 47 50.9** | **-0.1** |
| PDG | | | | S | **Sn** | **19 47 52.5** | **+2.1** |
| **PDG** | **Podgorica** | **1.14** | **115** | P | **Pg** | **19 47 36.5** | **+0.4** |
| **TTG** | **Podgorica** | **1.14** | **115** | ⇓*i*Pg | **Pn** | **19 47 34.2** | **-1.0** |
| TTG | | | | *e*Sg | **Sg** | **19 47 51.2** | **+0.2** |
| **TTG** | **Podgorica** | **1.14** | **115** | *e*P | **Pn** | **19 47 34.5** | **-0.7** |
| **TTG** | **Podgorica** | **1.14** | **115** | *e*P | **Pn** | **19 47 34.5** | **-0.7** |
| **TTG** | **Podgorica** | **1.14** | **115** | *e*Pn | **Pn** | **19 47 34.5** | **-0.7** |
| **PLE** | **Pljevlja** | **1.19** | **69** | ⇓*i*Pg | **Pn** | **19 47 36.0** | **-0.1** |
| PLE | | | | *e*Sg | **Sg** | **19 47 53.5** | **+0.8** |
| **PLE** | **Pljevlja** | **1.19** | **69** | P | **Pn** | **19 47 35.7** | **-0.4** |
| PLE | | | | S | **Sg** | **19 47 53.0** | **+0.3** |
| **PLE** | **Pljevlja** | **1.19** | **69** | P | **Pn** | **19 47 35.7** | **-0.4** |
| **PLE** | **Pljevlja** | **1.19** | **69** | ⇓*i*Pg | **Pn** | **19 47 36.0** | **-0.1** |
| PLE | | | | S | **Sg** | **19 47 53.0** | **+0.3** |
| **KOME** | **Kolasin** | **1.21** | **93** | ⇓*i*Pg | **Pn** | **19 47 36.4** | **0.0** |
| KOME | | | | *e*Sg | **Sg** | **19 47 54.0** | **+0.5** |
| **KOME** | **Kolasin** | **1.21** | **93** | ⇓*i*Pg | **Pn** | **19 47 36.4** | **0.0** |
| KOME | | | | *e*Sg | **Sg** | **19 47 54.0** | **+0.5** |
| **DRME** | **Dracevica, Mon** | **1.22** | **127** | ⇓*i*Pg | **Pn** | **19 47 36.5** | **+0.1** |
| DRME | | | | *e*Sg | **Sg** | **19 47 54.1** | **+0.5** |
| **DRME** | **Dracevica, Mon** | **1.22** | **127** | ⇓*i*Pg | **Pn** | **19 47 36.5** | **+0.1** |
| DRME | | | | *e*Sg | **Sg** | **19 47 53.9** | **+0.3** |
| **ULC** | **Ulcinj** | **1.40** | **133** | ⇓*i*Pg | **Pn** | **19 47 39.2** | **+0.3** |
| ULC | | | | *e*Sg | **Sg** | **19 47 59.6** | **+0.3** |
| **ULC** | **Ulcinj** | **1.40** | **133** | P | **Pb** | **19 47 39.6** | **-0.2** |
| ULC | | | | S | **Sg** | **19 48 00.0** | **+0.7** |
| **ULC** | **Ulcinj** | **1.40** | **133** | ⇓*i*Pg | **Pn** | **19 47 39.2** | **+0.3** |
| **ULC** | **Ulcinj** | **1.40** | **133** | P | **Pb** | **19 47 39.7** | **-0.1** |
| ULC | | | | *e*Sg | **Sg** | **19 47 59.6** | **+0.3** |
| ULC | | | | S | **Sg** | **19 48 00.0** | **+0.7** |
| **HAPS** | **Han Pijesak,Bl** | **1.41** | **34** | *e*Pg | **Pn** | **19 47 38.5** | **-0.6** |
| HAPS | | | | *e*Sg | **Sg** | **19 47 59.7** | **0.0** |
| **HAPS** | **Han Pijesak,Bl** | **1.41** | **34** | *e*Pg | **Pn** | **19 47 38.5** | **-0.6** |
| HAPS | | | | *e*Sg | **Sn** | **19 47 57.4** | **+0.1** |
| **BBLS** | **Lazići** | **1.47** | **49** | *e*Pg | **Pn** | **19 47 40.7** | **+0.8** |
| BBLS | | | | *e*Sg | **Sb** | **19 48 00.4** | **+1.0** |
| **BBLS** | **Lazići** | **1.47** | **49** | *e*Pg | **Pn** | **19 47 40.7** | **+0.8** |
| BBLS | | | | *e*Sg | **Sb** | **19 48 00.2** | **+0.8** |
| **BEY** | **Berane** | **1.49** | **91** | *e*Pg | **Pb** | **19 47 41.3** | **-0.1** |
| **BEY** | **Berane** | **1.49** | **91** | P | **Pb** | **19 47 41.9** | **+0.5** |
| BEY | | | | *e*Sg | **Sg** | **19 48 03.2** | **+0.9** |
| **IVA** | **Berane** | **1.49** | **91** | *e*Pg | **Pb** | **19 47 41.3** | **-0.1** |
| IVA | | | | *e*Sg | **Sg** | **19 48 03.2** | **+0.9** |
| **PVY** | **Plav** | **1.57** | **101** | ⇓*i*Pg | **Pb** | **19 47 43.4** | **+0.5** |
| PVY | | | | *e*Sg | **Sg** | **19 48 06.1** | **+1.1** |
| **PVY** | **Plav** | **1.57** | **101** | ⇓*i*Pg | **Pb** | **19 47 43.4** | **+0.5** |
| PVY | | | | *e*Sg | **Sg** | **19 48 06.1** | **+1.1** |
| **SJES** | **Sjenica** | **1.58** | **77** | *e*Pg | **Pb** | **19 47 43.0** | **0.0** |
| SJES | | | | *e*Sg | **Sg** | **19 48 06.2** | **+1.0** |
| **IVAS** | **Ivanjica** | **1.79** | **68** | *e*Pn | **Pn** | **19 47 45.8** | **+1.4** |
| IVAS | | | | *e*Sn | **Sb** | **19 48 09.4** | **+0.6** |
| **IVAS** | **Ivanjica** | **1.79** | **68** | *e*Pn | **Pn** | **19 47 45.8** | **+1.4** |
| IVAS | | | | *e*Sn | **Sb** | **19 48 09.4** | **+0.6** |
| **PEJK** | **Peje** | **1.80** | **98** | P | **Pb** | **19 47 47.4** | **+0.8** |
| PEJK | | | | S | **Sg** | **19 48 13.2** | **+1.1** |
| **DOB** | **Doboj** | **1.82** | **5** | *e*Pn | **Pn** | **19 47 45.1** | **+0.4** |
| DOB | | | | *e*Sn | **Sn** | **19 48 08.4** | **+1.1** |
| **MS1** | **Monte Sant'Ang** | **1.87** | **230** | *e*Pn | **Pn** | **19 47 46.4** | **+0.9** |
| **BLY** | **Banja Luka** | **1.89** | **345** | *e*Pn | **Pb** | **19 47 47.9** | **-0.4** |
| **BLY** | **Banja Luka** | **1.89** | **345** | *e*Pn | **Pn** | **19 47 47.0** | **+1.3** |
| BLY | | | | *e*Sn | **Sn** | **19 48 10.2** | **+1.1** |
| **BLY** | **Banja Luka** | **1.89** | **345** | *e*Pn | **Pb** | **19 47 47.6** | **+0.6** |
| **DIVS** | **Divibare** | **1.94** | **52** | *e*Pg | **Pn** | **19 47 47.4** | **+0.9** |
| DIVS | | | | *e*Sg | **Sg** | **19 48 15.6** | **-1.1** |
| **DIVS** | **Divibare** | **1.94** | **52** | *e*Pn | **Pn** | **19 47 47.3** | **+0.9** |
| DIVS | | | | *e*Sn | **Sn** | **19 48 12.4** | **+1.9** |
| DIVS | | | | *e*Sg | **Sg** | **19 48 15.6** | **-1.1** |
| **DIVS** | **Divibare** | **1.94** | **52** | *e*Pn | **Pn** | **19 47 47.3** | **+0.9** |
| **BAI** | **Bari** | **1.96** | **202** | *e*Pn | **Pn** | **19 47 47.3** | **+0.8** |
| **TEKS** | **Tekeris** | **2.02** | **36** | *e*Pn | **Pn** | **19 47 48.2** | **+0.7** |
| TEKS | | | | *e*Sg | **Sg** | **19 48 19.5** | **+0.1** |
| **TEKS** | **Tekeris** | **2.02** | **36** | *e*Pn | **Pn** | **19 47 48.2** | **+0.7** |
| TEKS | | | | *e*Sn | **Sn** | **19 48 13.7** | **+1.3** |
| TEKS | | | | *e*Sg | **Sg** | **19 48 19.5** | **+0.1** |
| **ZATK** | **Zatriq** | **2.09** | **102** | P | **Pg** | **19 47 53.4** | **-0.8** |
| **FASA** | **Fasano** | **2.14** | **191** | *e*Pn | **Pn** | **19 47 49.7** | **+0.7** |
| **TIR** | **Tirane** | **2.16** | **136** | *e*Pn | **Pb** | **19 47 51.3** | **-1.6** |
| TIR | | | | *e*Sn | **Sb** | **19 48 19.7** | **+0.4** |
| **TIR** | **Tirane** | **2.16** | **136** | ⇓*i*P | **Pb** | **19 47 51.3** | **-1.6** |
| **TIR** | **Tirane** | **2.16** | **136** | *e*P | **Pb** | **19 47 51.2** | **-1.6** |
| **TIR** | **Tirane** | **2.16** | **136** | *e*P | **Pb** | **19 47 51.2** | **-1.6** |
| TIR | | | | S | **Sn** | **19 48 17.0** | **+1.2** |
| TIR | | | | *e*Sn | **Sb** | **19 48 19.7** | **+0.4** |
| **TIR** | **Tirane** | **2.16** | **136** | *e*Pn | **Pb** | **19 47 51.2** | **-1.6** |
| **CDT** | **Castel del Mon** | **2.19** | **213** | *e*Pn | **Pn** | **19 47 50.2** | **+0.5** |
| **UDBI** | **Udbina** | **2.21** | **317** | *e*Pn | **Pb** | **19 47 53.8** | **0.0** |
| UDBI | | | | Sn | **Sb** | **19 48 22.8** | **+1.8** |
| **UDBI** | **Udbina** | **2.21** | **317** | *e*Pn | **Pb** | **19 47 53.8** | **0.0** |
| UDBI | | | | Sn | **Sb** | **19 48 22.7** | **+1.8** |
| **SMRK** | **Smrekonice** | **2.26** | **90** | P | **Pb** | **19 47 53.5** | **-1.0** |
| **TRUS** | **Trudelj** | **2.26** | **54** | *e*Pn | **Pn** | **19 47 51.9** | **+1.2** |
| TRUS | | | | *e*Sn | **Sb** | **19 48 22.2** | **+0.1** |
| **TRUS** | **Trudelj** | **2.26** | **54** | *e*Pn | **Pn** | **19 47 51.9** | **+1.2** |
| TRUS | | | | *e*Sn | **Sb** | **19 48 22.2** | **+0.1** |
| **SG1** | **Sgolgore (BA)** | **2.26** | **204** | *e*Pn | **Pn** | **19 47 51.4** | **+0.6** |
| **CGL1** | **Ceglie Messapi** | **2.28** | **187** | *e*Pn | **Pn** | **19 47 51.8** | **+0.8** |
| **GRUS** | **Gruza

LJU eSn Sn 19 48 59.8 +0.4
**VTS Vitosha** 3.95 93 ePn Pn 19 48 16.5 +2.5
**VTS Vitosha** 3.95 93 ⇓iP Pn 19 48 16.1 +2.0
**VTS Vitosha** 3.95 93 eP Pn 19 48 16.6 +2.5
**VTS Vitosha** 3.95 93 ePn Pn 19 48 16.5 +2.5
VTS S Sn 19 49 01.8 +1.8
**VTS Vitosha** 3.95 93 ePn Pn 19 48 16.6 +2.5
**VTS Vitosha** 3.95 93 P Pn 19 48 16.6 +2.5
**KPRO Kipourio** 3.96 137 P Pn 19 48 17.7 +3.5
**KPRO Kipourio** 3.96 137 P Pn 19 48 17.7 +3.5
**TRI Trieste** 4.05 315 eP Pn 19 48 16.7 +1.3
**TRI Trieste** 4.05 315 eP Pn 19 48 16.7 +1.3
**TRI Trieste** 4.05 315 ePn Pn 19 48 16.7 +1.3
**KNT Kendrikon** 4.14 113 P Pn 19 48 18.9 +2.3
**KNT Kendrikon** 4.14 113 P Pn 19 48 18.9 +2.3
**KNT Kendrikon** 4.14 113 P Pn 19 48 18.9 +2.3
**KNT Kendrikon** 4.14 113 P Pn 19 48 18.9 +2.3
**SOKA Soboth** 4.26 333 *i* Pn Pn 19 48 20.5 +2.1
comp=Z,24nm,0.4s,SNR=54
SOKA eSn Sn 19 49 09.2 +1.5
comp=Z,25nm,0.5s
**SOKA Soboth** 4.26 333 Pn Pn 19 48 20.5 +2.1
comp=Z,24nm,0.4s,SNR=54
SOKA Sn Sn 19 49 09.2 +1.5
comp=Z,25nm,0.5s
**OBKA Obir** 4.30 328 *i* Pn Pn 19 48 21.3 +2.5
**OBKA Obir** 4.30 328 Pn Pn 19 48 21.3 +2.5
**SIRR Siria** 4.30 38⇑iP Pn 19 48 19.4 +0.6
**SIRR Siria** 4.30 38⇑iP Pn 19 48 19.4 +0.6
**CSKK Cs^ŧkako** 4.45 3⇓ePn Pn 19 48 22.3 +1.5
CSKK ex Sn 19 49 19.0 +6.8
**CSKK Cs^ŧkako** 4.45 3⇓ePn Pn 19 48 22.3 +1.5
**LIT Litokhoron** 4.47 128 eP Pn 19 48 23.1 +2.0
**LIT Litokhoron** 4.47 128 eP Pn 19 48 23.1 +2.0
**LIT Litokhoron** 4.47 128 ePn Pn 19 48 23.1 +2.0
**LIT Litokhoron** 4.47 128 P Pn 19 48 23.1 +2.0
**DSL Palaion Diasel** 4.50 146 P Pn 19 48 22.9 +1.3
**DSL Palaion Diasel** 4.50 146 ePn Pn 19 48 22.9 +1.3
**DSL Palaion Diasel** 4.50 146 P Pn 19 48 22.9 +1.3
**SRS Serrai** 4.63 111 eP Pn 19 48 25.9 +2.6
**SRS Serrai** 4.63 111 eP Pn 19 48 25.9 +2.6
**SRS Serrai** 4.63 111 ePn Pn 19 48 25.9 +2.6
**SRS Serrai** 4.63 111 P Pn 19 48 25.9 +2.6
**BUD Budapest** 4.64 10 P Pn 19 48 24.4 +1.0
**BUD Budapest** 4.64 10 P Pn 19 48 24.4 +1.0
**ARSA Arzberg** 4.64 340 *i* Pn Pn 19 48 25.4 +2.0
comp=Z,154nm,0.4s
ARSA *i* Sn Sn 19 49 18.6 +1.8
comp=Z,40nm,0.7s
**ARSA Arzberg** 4.64 340 Pn Pn 19 48 25.4 +2.0
comp=Z,154nm,0.4s
ARSA Sn Sn 19 49 18.6 +1.8
comp=Z,40nm,0.7s
**LKD2 Lefkada island** 4.64 152 P Pn 19 48 24.0 +0.6
**LKD2 Lefkada island** 4.64 152 P Pn 19 48 24.0 +0.6
**LKD2 Lefkada island** 4.64 152 P Pn 19 48 24.0 +0.6
**DEV Deva** 4.67 49⇑iP Pg 19 48 44.7 +1.2
**MYKA Terra Mystica** 4.78 322 ePn Pn 19 48 27.6 +2.2
comp=Z,5.2nm,0.3s,SNR=7.7
MYKA *i* Sn Sg 19 49 43.7 -3.7
comp=Z,18nm,0.5s
**MYKA Terra Mystica** 4.78 322 Pn Pn 19 48 27.6 +2.2
comp=Z,5.2nm,0.3s,SNR=7.7
**SOP Sopron** 4.85 349 P Pn 19 48 28.7 +2.4
**SOP Sopron** 4.85 349⇓ePn Pn 19 48 28.0 +1.7
SOP eSn Sn 19 49 26.2 +4.1
**SOP Sopron** 4.85 349⇓ePn Pn 19 48 28.0 +1.7
**SOP Sopron** 4.85 349 P Pn 19 48 28.7 +2.4
SOP eSn Sn 19 49 26.2 +4.1
**CEL Celeste** 4.89 199 ePn Pn 19 48 27.4 +0.4
**CEL Celeste** 4.89 199 ePn Pn 19 48 27.4 +0.4
**LOT Lotru** 4.94 57⇓iP Pn 19 48 29.9 +2.2
**LOT Lotru** 4.94 57⇓iP Pn 19 48 29.9 +2.2
LOT S Sn 19 49 26.1 +1.7
**PDO Prodromos** 5.00 149 P Pn 19 48 28.9 +0.6
**PDO Prodromos** 5.00 149 P Pn 19 48 28.9 +0.6
**AGG Agios Georgios** 5.16 138 eP Pn 19 48 32.0 +1.5
**AGG Agios Georgios** 5.16 138 eP Pn 19 48 32.0 +1.5
**AGG Agios Georgios** 5.16 138 ePn Pn 19 48 32.0 +1.5
**AGG Agios Georgios** 5.16 138 P Pn 19 48 32.0 +1.5
**DRGR** 5.18 40 ePn Pn 19 48 31.8 +0.9
**DRGR** 5.18 40⇓iP Pn 19 48 32.1 +1.2
**DRGR** 5.18 40 ePn Pn 19 48 31.8 +0.9
**DRGR** 5.18 40⇓iP Pn 19 48 32.1 +1.2
**PSZ Piszkesteto** 5.20 15⇑iP Pn 19 48 31.6 +0.4
**PSZ Piszkesteto** 5.20 15 eP Pn 19 48 31.4 +0.3
**PSZ Piszkesteto** 5.20 15⇓ePn Pn 19 48 31.7 +0.5
PSZ eSn Sn 19 49 28.9 -1.8
**PSZ Piszkesteto** 5.20 15 eP Pn 19 48 31.4 +0.3
PSZ eSn Sn 19 49 28.9 -1.8
**PSZ Piszkesteto** 5.20 15 ePn Pn 19 48 31.4 +0.3
**CONA Conrad Observa** 5.20 345 ePn Pn 19 48 32.9 +1.7
comp=Z,9.1nm,0.3s
CONA eSn Sn 19 49 31.8 +1.0
comp=Z,25nm,0.4s
**CONA Conrad Observa** 5.20 345 Pn Pn 19 48 32.9 +1.7
comp=Z,9.1nm,0.3s
CONA Sn Sn 19 49 31.8 +1.0
comp=Z,25nm,0.4s
**KBA Koelnbreinsper** 5.25 324 *i* Pn Pn 19 48 34.5 +2.5
comp=Z,7.3nm,0.4s,SNR=11
KBA eSn Sn 19 49 37.3 +5.2
comp=Z,34nm,0.8s
**KBA Koelnbreinsper** 5.25 324 Pn Pn 19 48 34.5 +2.5
comp=Z,7.3nm,0.4s,SNR=11
KBA Sn Sn 19 49 37.3 +5.2
comp=Z,34nm,0.8s
**PAIG Paliouri** 5.29 122 eP Pn 19 48 34.1 +1.7
**PAIG Paliouri** 5.29 122 eP Pn 19 48 34.1 +1.7
**PAIG Paliouri** 5.29 122 ePn Pn 19 48 34.1 +1.7
**PAIG Paliouri** 5.29 122 P Pn 19 48 34.1 +1.7
**ZST Bratislava** 5.30 354 eP Pn 19 48 33.6 +1.1
ZST *e* 19 49 32.6
**ZST Bratislava** 5.30 354 eP Pn 19 48 33.6 +1.1
ZST eS Sn 19 49 32.6 -0.6
**ZST Bratislava** 5.30 354 ePN Pn 19 48 33.6 +1.1
ZST eSN Sn 19 49 32.6 -0.6
**ANX Ano Chora** 5.31 143 P Pn 19 48 34.6 +1.9
**ANX Ano Chora** 5.31 143 P Pn 19 48 34.6 +1.9
**XOR Xorichti** 5.36 130 P Pn 19 48 34.1 +0.7
**XOR Xorichti** 5.36 130 P Pn 19 48 34.1 +0.7
**XOR Xorichti** 5.36 130 P Pn 19 48 34.1 +0.7
**ABTA Abfaltersbach** 5.40 317 ePn Pn 19 48 35.6 +1.7
comp=Z,3.3nm,0.2s,SNR=8.3
ABTA *i* Sn Sg 19 50 00.7 -6.6
comp=Z,63nm,0.9s
**ABTA Abfaltersbach** 5.40 317 Pn Pn 19 48 35.6 +1.7
comp=Z,3.3nm,0.2s,SNR=8.3
**HUMR Humele** 5.40 70⇑iP Pn 19 48 34.2 +0.3
**HUMR Humele** 5.40 70⇑iP Pn 19 48 34.2 +0.3
**EFP Efpalio** 5.44 144 P Pn 19 48 36.4 +2.0
**EFP Efpalio** 5.44 144 P Pn 19 48 36.4 +2.0
**ARR Arges** 5.45 61⇑iP Pn 19 48 36.2 +1.6
**ARR Arges** 5.45 61⇑iP Pn 19 48 36.2 +1.6
**ZIMR** 5.52 80⇓iP Pb 19 48 43.8 -6.3
**MOA Molln** 5.54 334 ePn Pn 19 48 39.1 +3.2
comp=Z,12nm,0.3s,SNR=30
MOA *i* Sn Sn 19 49 41.9 +2.7
comp=Z,43nm,0.6s
**MOA Molln** 5.54 334 Pn Pn 19 48 39.1 +3.2
comp=Z,12nm,0.3s,SNR=30
MOA Sn Sn 19 49 41.9 +2.7
comp=Z,43nm,0.6s
**SMOL Smolenice** 5.60 357 eP Pn 19 48 38.4 +1.7
SMOL *e* 19 49 40.6
**SMOL Smolenice** 5.60 357 eP Pn 19 48 38.4 +1.7
SMOL eS Sn 19 49 40.6 0.0
**SMOL Smolenice** 5.60 357 ePN Pn 19 48 38.4 +1.7
SMOL eSN Sn 19 49 40.6 0.0
**VYHS Vyhne** 5.62 7 eP Pn 19 48 38.0 +1.2
VYHS *e* 19 49 40.1
**VYHS Vyhne** 5.62 7 eP Pn 19 48 38.0 +1.2
**VYHS Vyhne** 5.62 7 ePN Pn 19 48 38.0 +1.2
VYHS eSN Sn 19 49 40.1 -0.8
**MTUR Matau** 5.67 64⇑iP Pn 19 48 44.1 +6.4
**DSF Desfina** 5.73 140 P Pn 19 48 39.8 +1.3
**DSF Desfina** 5.73 140 ePn Pn 19 48 39.8 +1.3
**DSF Desfina** 5.73 140 P Pn 19 48 39.8 +1.3
**VOIR** 5.75 62⇑iP Pn 19 48 40.3 +1.6
**VOIR** 5.75 62⇑iP Pn 19 48 40.3 +1.6
VOIR S Sn 19 49 44.5 +0.3
**KECS Kecovo** 5.86 17 eP Pn 19 48 41.6 +1.5
KECS *e* 19 49 45.5
**KECS Kecovo** 5.86 17 eP Pn 19 48 41.6 +1.5
**KECS Kecovo** 5.86 17 ePN Pn 19 48 41.6 +1.5
KECS eSN Sn 19 49 45.5 -1.3
**TRPA Tarpa** 6.16 31⇑ePn Pn 19 48 45.7 +1.5
TRPA eSn Sn 19 49 50.9 -3.3
**TRPA Tarpa** 6.16 31⇑ePn Pn 19 48 45.7 +1.5
**DOPR Dopca** 6.19 58⇓iP Pn 19 48 46.0 +1.3
**DOPR Dopca** 6.19 58⇓iP Pn 19 48 46.0 +1.3
**WTTA Wattenberg** 6.19 317 ePn Pn 19 48 49.7 +4.8
comp=Z,6.1nm,0.4s
**ARCR ARCALIA** 6.20 46⇑iP Pn 19 48 46.4 +1.5
**ARCR ARCALIA** 6.20 46⇑iP Pn 19 48 46.4 +1.5
**WATA Walderalm** 6.27 317 ePn Pn 19 48 49.0 +3.1
comp=Z,13nm,0.4s
WATA eSn Sn 19 50 05.4 +8.2
comp=Z,16nm,0.5s
**WATA Walderalm** 6.27 317 Pn Pn 19 48 49.0 +3.1
comp=Z,13nm,0.4s
**VILL Villia** 6.30 137 P Pn 19 48 48.0 +1.6
**VILL Villia** 6.30 137 P Pn 19 48 48.0 +1.6
**MLR Muntele Rosu** 6.35 63 Pn Pn 19 48 50.1 +3.1
comp=Z,0.2nm,0.3s,baz=305,slow=13,SNR=11
MLR Sn Sn 19 50 01.8 +2.7
comp=Z,0.2nm,0.3s,baz=153,slow=16,SNR=3.5
MLR LR LR 19 51 54.9
comp=Z,51nm,21.9s,baz=274,slow=45
**MLR Muntele Rosu** 6.35 63⇑iP Pn 19 48 48.4 +1.4
**ALN Alexandroupoli** 6.43 106 P Pn 19 48 53.2 +5.2
ALN pmax pmax
comp=Z,7.0nm,0.6s
**VRAC Vranov** 6.45 353 Pn Pn 19 48 50.3 +2.0
comp=Z,0.7nm,0.3s,baz=189,slow=17,SNR=3.6
VRAC Sn Sn 19 50 01.9 +0.4
comp=Z,0.8nm,0.3s,baz=97,slow=16,SNR=4.2
**VRAC Vranov** 6.45 353⇑iP Pn 19 48 50.1 +1.8
**CRVS Cervenica-Dubn** 6.49 21 eP Pn 19 48 50.1 +1.3
CRVS *e* 19 49 56.5
**CRVS Cervenica-Dubn** 6.49 21 eP Pn 19 48 50.1 +1.3
**CRVS Cervenica-Dubn** 6.49 21 ePN Pn 19 48 50.1 +1.3
CRVS *e* 19 49 56.5
**UZH Uzhgorod** 6.50 27 *c* iP Pn 19 48 51.8 +2.9
UZH eS Sn 19 50 06.8 +4.3
UZH smax smax
comp=N,26nm,1.1s
UZH smax smax
comp=E,34nm,1.1s
UZH smax smax
comp=Z,15nm,1.1s
**UZH Uzhgorod** 6.50 27 *i* P Pn 19 48 51.8 +2.9
**FETA Feichten** 6.51 311 ePn Pn 19 48 52.0 +2.7
comp=Z,4.0nm,0.3s
**FETA Feichten** 6.51 311 Pn Pn 19 48 52.0 +2.7
comp=Z,4.0nm,0.3s
**MOTA Moosalm** 6.51 315 *i* Pn Pn 19 48 51.8 +2.5
comp=Z,5.8nm,0.5s,SNR=11
**MOTA Moosalm** 6.51 315 Pn Pn 19 48 51.8 +2.5
comp=Z,5.8nm,0.5s,SNR=11
**VLX Vlachokerasia** 6.53 147 P Pn 19 48 51.5 +2.0
**VLX Vlachokerasia** 6.53 147 ePn Pn 19 48 51.5 +2.0
**VLX Vlachokerasia** 6.53 147 P Pn 19 48 51.5 +2.0
**PGF Pioggiola** 6.54 270 eP Pn 19 48 52.4 +2.8
**PGF Pioggiola** 6.54 270 eP Pn 19 48 52.4 +2.8
**PGF Pioggiola** 6.54 270 eP Pn 19 48 52.4 +2.8
**PGF Pioggiola** 6.54 270 ePn Pn 19 48 52.4 +2.8
**FUORN Ofenpass-Fuorn** 6.55 307 ePn Pn 19 48 52.2 +2.3
**FUORN Ofenpass-Fuorn** 6.55 307 ePn Pn 19 48 52.2 +2.3
**GEA0 GERESS Array S** 6.59 335 ePn Pn 19 48 52.5 +2.2
**GEA0 GERESS Array S** 6.59 335 ePn Pn 19 48 52.5 +2.2
**GEC2 GERESS Array S** 6.60 335 eP Pn 19 48 53.6 +3.2
**GEC2 GERESS Array S** 6.60 335 eP Pn 19 48 53.6 +3.2
**GEC2 GERESS Array S** 6.60 335 ePn Pn 19 48 53.6 +3.2
**GERES GERESS Array B** 6.60 335 Pn Pn 19 48 52.4 +1.9
comp=Z,2.3nm,0.3s,baz=157,slow=13,SNR=52
GERES Sn Sn 19 50 06.0 +0.7
comp=Z,1.9nm,0.3s,baz=154,slow=22,SNR=5.2
**NIE Niedzica** 6.71 14 ePn Pn 19 48 54.5 +2.5
NIE eSn Sn 19 50 08.1 +0.1
**NIE Niedzica** 6.71 14 eP Pn 19 48 54.5 +2.5
NIE *e* 19 50 08.1
**NIE Niedzica** 6.71 14 eP Pn 19 48 54.5 +2.5
NIE eS Sn 19 50 08.1 +0.1
**RETA Reutte** 6.78 315 *i* Pn Pn 19 48 56.0 +3.0
comp=Z,3.1nm,0.3s
**RETA Reutte** 6.78 315 Pn Pn 19 48 56.0 +3.0
comp=Z,3.1nm,0.3s
**MORC Moravsky Berou** 6.86 358⇓iP Pn 19 48 54.3 +0.3
**MORC Moravsky Berou** 6.86 358 eP Pn 19 48 56.5 +2.5
**MORC Moravsky Berou** 6.86 358 ePn Pn 19 48 56.3 +2.3
MORC eSn Sn 19 50 12.9 +1.3
MORC S Sn 19 50 13.6 +2.0
**MORC Moravsky Berou** 6.86 358 ePn Pn 19 48 56.5 +2.5
**DAVOX Davos/Dischmat** 6.86 307 Pn Pn 19 48 57.0 +2.9
comp=Z,0.7nm,0.3s,baz=358,slow=16,SNR=7.6
DAVOX Sn Sn 19 50 16.7 +4.8
comp=Z,1.0nm,0.3s,baz=150,slow=20,SNR=3.1
**KHC Kasperske Hory** 6.89 336 ePN Pn 19 48 56.6 +2.2
KHC *ex* x 19 49 05.7
KHC eSN Sn 19 50 13.0 +0.7
KHC *ex* x 19 50 28.3
**KHC Kasperske Hory** 6.89 336 eP Pn 19 48 56.6 +2.2
KHC *e* 19 50 13.0
**KHC Kasperske Hory** 6.89 336 ePn Pn 19 48 56.0 +1.6
KHC Sn Sn 19 50 13.0 +0.7
**KHC Kasperske Hory** 6.89 336 ePn Pn 19 48 56.0 +1.6
**STHS Stebnicka Huta** 6.91 19 eP Pn 19 48 58.4 +3.8
STHS *e* 19 50 12.0
**STHS Stebnicka Huta** 6.91 19 eP Pn 19 48 58.4 +3.8
STHS eS Sn 19 50 12.0 -0.7
**STHS Stebnicka Huta** 6.91 19 ePN Pn 19 48 58.4 +3.8
STHS eSN Sn 19 50 12.0 -0.7
**OKC Ostrava-Krasne** 6.92 2 ePN Pn 19 48 57.6 +2.9
OKC eSN Sn 19 48 57.6 +1.6
**OKC Ostrava-Krasne** 6.92 2 eP Pn 19 48 57.6 +2.9
OKC *e* 19 50 14.6
**OKC Ostrava-Krasne** 6.92 2 Pn Pn 19 48 57.6 +2.9
OKC eS Sn 19 50 14.6 +1.6
**PLOR Plostina** 6.94 62⇑iP Pn 19 48 56.4 +1.3
**PLOR Plostina** 6.94 62 P Pn 19 48 56.3 +1.2
**PLOR Plostina** 6.94 62 P Pn 19 48 56.3 +1.2
**BUR04 Bucovina Ar. S** 6.99 45 ePn Pn 19 48 59.3 +3.5
**BUR04 Bucovina Ar. S** 6.99 45 ePn Pn 19 48 59.4 +3.5
**BURAR Bucovina Array** 6.99 45⇑iP Pn 19 48 57.2 +1.4
**BURAR Bucovina Array** 6.99 45 P Pn 19 48 57.2 +1.4
**BURAR Bucovina Array** 6.99 45⇑iP Pn 19 48 57.2 +1.4
**VRI Vrincioaia** 7.00 62⇑iP Pn 19 48 59.0 +3.2
**VRI Vrincioaia** 7.00 62⇑iP Pn 19 48 59.0 +3.2
**BUR08 Bucovina Ar. S** 7.00 45 ePn Pn 19 48 58.8 +2.8
**BUR08 Bucovina Ar. S** 7.00 45 ePn Pn 19 48 58.8 +2.8
**TUE Stuetta** 7.03 303 ePn Pn 19 48 58.5 +2.0
**TUE Stuetta** 7.03 303 ePn Pn 19 48 58.5 +2.0
**DAVA Dauteels** 7.14 310 *i* Pn Pn 19 49 02.1 +4.2
comp=Z,9.1nm,0.4s
DAVA *i* Sn Sn 19 50 21.5 +2.9
comp=Z,29nm,0.6s
**DAVA Damuels** 7.14 310 Pn Pn 19 49 02.1 +4.2
comp=Z,9.1nm,0.4s
DAVA Sn Sn 19 50 21.5 +2.9
comp=Z,29nm,0.6s
**GOPC GO Pecny, Ondr** 7.31 344 ePN Pn 19 49 03.4 +3.3
GOPC eSN Sn 19 50 21.0 -1.7
GOPC *ex* x 19 50 31.8
**GOPC GO Pecny, Ondr** 7.31 344 eP Pn 19 49 03.4 +3.3
GOPC *e* 19 50 21.0
**GOPC GO Pecny, Ondr** 7.31 344 Pn Pn 19 49 03.4 +3.3
**ICOR Ion Corvin** 7.32 77⇑iP Pn 19 49 02.4 +2.2
**ICOR Ion Corvin** 7.32 77⇑iP Pn 19 49 02.4 +2.2
**PRU Pruhonice** 7.43 343 ePN Pn 19 49 05.6 +3.9
PRU *ex* x 19 49 13.5
PRU eSN Sn 19 50 25.5 -0.1
PRU *ex* x 19 50 37.2
**PRU Pruhonice** 7.43 343 eP Pn 19 49 05.6 +3.9
PRU *e* 19 50 25.5
**PRU Pruhonice** 7.43 343 Pn Pn 19 49 05.6 +3.9
PRU Sn Sn 19 50 25.5 -0.1
**DPC Dobruska-Polom** 7.51 352 ePN Pn 19 49 06.4 +3.6
DPC eSN Sn 19 50 28.7 +1.2
**DPC Dobruska-Polom** 7.51 352 eP Pn 19 49 06.4 +3.6
DPC *e* 19 50 28.7
**DPC Dobruska-Polom** 7.51 352 Pn Pn 19 49 06.4 +3.6
DPC eS Sn 19 50 28.7 +1.2
**SBF Sospel** 7.66 281 ePn Pn 19 49 03.7 -1.2
**SBF Sospel** 7.66 281 eP Pn 19 49 09.2 +4.3
SBF eSn Sn 19 50 26.6 -4.7
comp=Z,10.0nm,0.3s
**SBF Sospel** 7.66 281 eP Pn 19 49 09.2 +4.3
**UPC Upice** 7.70 351 ePN Pn 19 49 08.9 +3.5
UPC eSN Sn 19 50 31.0 -1.1
**UPC Upice** 7.70 351 eP Pn 19 49 08.9 +3.5
UPC *e* 19 50 31.0
**UPC Upice** 7.70 351 Pn Pn 19 49 08.9 +3.5
**CFR Carcaliu** 7.74 70⇑iP Pn 19 49 07.0 +1.1
**CFR Carcaliu** 7.74 70 P Pn 19 49 07.0 +1.1
**CFR Carcaliu** 7.74 70 P Pn 19 49 07.0 +1.1
**TIRR Tirgusor** 7.80 75⇑iP Pn 19 49 06.8 +0.1
**TIRR Tirgusor** 7.80 75 eP Pn 19 49 09.8 +3.0
**TIRR Tirgusor** 7.80 75 eP Pn 19 49 09.8 +3.0
**TIRR Tirgusor** 7.80 75 ePn Pn 19 49 09.8 +3.0
**PVCC Panska Ves** 7.94 345 *ex* x 19 50 51.5
**FRF La Foret Royal** 8.22 278 eP Pn 19 49 15.7 +3.1
FRF eSn Sn 19 50 40.0 -5.0
comp=Z,12nm,0.6s
**FRF La Foret Royal** 8.22 278 eP Pn 19 49 15.7 +3.1
FRF *e* 19 50 40.0
**FRF La Foret Royal** 8.22 278 eP Pn 19 49 15.7 +3.1
**FRF La Foret Royal** 8.22 278 ePn Pn 19 49 15.7 +3.1
FRF eSn Sn 19 50 40.0 -5.0
**MBDF Montbardon** 8.22 286 eP Pn 19 49 13.8 +1.0
MBDF eSn Sn 19 50 39.7 -5.6
comp=Z,27nm,0.6s
**MBDF Montbardon** 8.22 286 eP Pn 19 49 13.8 +1.0
MBDF *e* 19 50 39.7
**MBDF Montbardon** 8.22 286 eP Pn 19 49 13.8 +1.0
**MBDF Montbardon** 8.22 286 ePn Pn 19 49 13.8 +1.0
MBDF eSn Sn 19 50 39.7 -5.6
**SENIN Lac Senin/Sane** 8.28 298 ePn Pn 19 49 16.0 +2.4
**SENIN Lac Senin/Sane** 8.28 298 ePn Pn 19 49 16.1 +2.4
**APE Apeiranthos** 8.29 132⇑iP Pn 19 49 14.1 +0.5
**APE Apeiranthos** 8.29 132 *i* P Pn 19 49 13.4 -0.2
APE pmax pmax
comp=Z,2.0nm,0.5s
**APE Apeiranthos** 8.29 132 *i* P Pn 19 49 13.4 -0.2
comp=Z,2.0nm,0.5s
**LMR La Mourre** 8.32 277 ePn Pn 19 49 13.2 -0.7
**LMR La Mourre** 8.32 277 eP Pn 19 49 13.2 -0.7
**LMR La Mourre** 8.32 277 ePn Pn 19 49 13.2 -0.7
**LPG La Plagne** 8.39 292 ePn Pn 19 49 13.8 -1.4
**LPG La Plagne** 8.39 292 eP Pn 19 49 18.8 +3.6
LPG eSn Sn 19 50 43.8 -5.8
comp=Z,39nm,0.7s
**LPG La Plagne** 8.39 292 eP Pn 19 49 13.8 -1.4
LPG *e* 19 50 43.8
**LPG La Plagne** 8.39 292 eP Pn 19 49 18.8 +3.6
**LPG La Plagne** 8.39 292 ePn Pn 19 49 13.8 -1.4
LPG *e* 19 49 18.8
LPG eSn Sn 19 50 43.8 -5.8
**LPL La Plagne** 8.41 292 ePn Pn 19 49 14.3 -1.1
**LPL La Plagne** 8.41 292 eP Pn 19 49 19.8 +4.4
LPL eSn Sn 19 50 45.3 -4.6
comp=Z,38nm,0.7s
**LPL La Plagne** 8.41 292 eP Pn 19 49 14.3 -1.1
LPL *e* 19 50 45.3
**LPL La Plagne** 8.41 292 eP Pn 19 49 19.8 +4.4
**LPL La Plagne** 8.41 292 ePn Pn 19 49 14.3 -1.1
LPL *e* 19 49 19.8
LPL eSn Sn 19 50 45.3 -4.6
**BFO Black Forest** 8.60 312 eP Pn 19 49 19.0 +1.2
**BFO Black Forest** 8.60 312 eP Pn 19 49 19.0 +1.2
**BFO Black Forest** 8.60 312 ePn Pn 19 49 18.9 +1.2
**SANT Santorini** 8.78 136 ePn Pn 19 49 20.8 +0.6
**SANT Santorini** 8.78 136 ePn Pn 19 49 20.8 +0.6
**MOX Moxa** 8.83 333 P Pn 19 49 27.1 +6.1
MOX pmax pmax
comp=Z,25nm,1.5s
**ORIF Oris-en-Rattie** 8.88 287 eP Pn 19 49 25.9 +4.2
ORIF eSn Sn 19 50 55.4 -6.0
comp=Z,30nm,0.8s
**ORIF Oris-en-Rattie** 8.88 287 eP Pn 19 49 25.9 +4.2
ORIF *e* 19 50 55.4
**ORIF Oris-en-Rattie** 8.88 287 eP Pn 19 49 25.9 +4.2
**ORIF Oris-en-Rattie** 8.88 287 ePn Pn 19 49 25.9 +4.2
ORIF eSn Sn 19 50 55.4 -6.0
**CLL Collm** 9.02 340 eSn Sn 19 50 44.0 -21
CLL eSb 19 51 19.0
CLL eSg 19 52 07.0
**CABF La Chapelle** 9.15 298 ePn Pn 19 49 24.6 -0.9
CABF eSn Sn 19 51 02.9 -5.2
comp=Z,19nm,0.8s
**CABF La Chapelle** 9.15 298 eP Pn 19 49 24.6 -0.9
CABF *e* 19 51 02.9
**CABF La Chapelle** 9.15 298 ePn Pn 19 49 24.6 -0.9
CABF eSn Sn 19 51 02.9 -5.2
**HINF Hinteralfeld** 9.17 306 eP Pn 19 49 30.1 +4.5
HINF eSn Sn 19 51 02.4 -5.9
comp=Z,36nm,1.0s
**HINF Hinteralfeld** 9.17 306 eP Pn 19 49 30.1 +4.5
HINF *e* 19 51 02.4
**HINF Hinteralfeld** 9.17 306 eP Pn 19 49 30.1 +4.5
**HINF Hinteralfeld** 9.17 306 ePn Pn 19 49 30.1 +4.5
HINF eSn Sn 19 51 02.4 -5.9
comp=Z,26nm,0.7s
**HAU Haudompre** 9.55 306 eP Pn 19 49 36.2 +5.3
HAU eSn Sn 19 51 12.2 -5.6
comp=Z,18nm,0.8s
**HAU Haudompre** 9.55 306 eP Pn 19 49 36.2 +5.3
HAU *e* 19 51 12.2
**HAU Haudompre** 9.55 306 ePn Pn 19 49 36.2 +5.3
HAU eSn Sn 19 51 12.2 -5.6
**VIVF Saint-Julien-l** 9.72 286 ePn Pn 19 49 33.5 +0.3
**VIVF Saint-Julien-l** 9.72 286 eP Pn 19 49 33.5 +0.3
**VIVF Saint-Julien-l** 9.72 286 ePn Pn 19 49 33.5 +0.3
**VIVF Saint-Julien-l** 9.72 286 ePn Pn 19 49 33.5 +0.3
**KEST Kesra** 9.75 225 Pn Pn 19 49 32.6 -1.0
comp=Z,0.1nm,0.3s,baz=25,slow=14,SNR=1.9
**SMF Signal de Mont** 10.64 295 ePn Pn 19 49 45.3 -0.5
SMF eSn Sn 19 51 38.0 -6.5
comp=Z,19nm,0.6s
**SMF Signal de Mont** 10.64 295 eP Pn 19 49 45.3 -0.5
**SMF Signal de Mont** 10.64 295 ePn Pn 19 49 45.3 -0.5
**LOR Lormes** 10.81 299 ePn Pn 19 49 48.3 +0.2
LOR eSn Sn 19 51 42.3 -6.4
comp=Z,29nm,0.8s
**LOR Lormes** 10.81 299 eP Pn 19 49 48.3 +0.2
LOR *e* 19 51 42.3
**LOR Lormes** 10.81 299 ePn Pn 19 49 48.3 +0.2
**LOR Lormes** 10.81 299 ePn Pn 19 49 48.3 +0.2
LOR eSn Sn 19 51 42.3 -6.4
**AKASG Malin Array Be** 11.00 41 Pn Pn 19 49 52.3 +1.8
comp=Z,0.2nm,0.3s,baz=237,slow=12,SNR=3.4
**AVF Avril sur Loir** 11.01 296 ePn Pn 19 49 49.9 -0.8
**AVF Avril sur Loir** 11.01 296 eP Pn 19 49 55.0 +4.3
**AVF Avril sur Loir** 11.01 296 eP Pn 19 49 49.9 -0.8
**AVF Avril sur Loir** 11.01 296 eP Pn 19 49 55.0 +4.3
**AVF Avril sur Loir** 11.01 296 ePn Pn 19 49 49.9 -0.8
AVF *e* 19 49 55.0
**VSU Vasula** 16.52 17 *i* P Pn 19 51 04.3 -0.5
VSU pmax pmax
comp=Z,40nm,1.1s
**VSR Storozhevoye** 16.67 53 *i* P Pn 19 51 07.3 +0.5
VSR pmax pmax
comp=Z,16nm,2.3s
**MMAI Mount Meron Ar** 16.97 120 Pn P 19 51 12.5 -0.1
comp=Z,0.4nm,0.3s,baz=308,slow=10,SNR=4.3
**OBN Obninsk** 17.23 38 P P 19 51 17.8 +2.6
comp=Z,1.9nm,0.3s,baz=160,slow=18,SNR=4.4
**OBN Obninsk** 17.23 38⇑eP Pn 19 51 13.3 -0.5
OBN eS S 19 54 30.2 -3.6
OBN pmax pmax
comp=Z,6.0nm,1.1s
OBN MLR MLR
comp=Z,136nm,17.0s
**OBN Obninsk** 17.23 38 eP P 19 51 16.6 +1.4
comp=Z,15nm,0.7s
**OBN Obninsk** 17.23 38 eP P 19 51 16.6 +1.4

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | comp=Z,15nm,0.7s | | | | | | | |
| **HFS** | **Hagfors** | **17.43** | **353** | P | | **Pn** | **19 51 17.0** | **+0.8** |
| | comp=Z,0.1nm,0.3s,baz=144,slow=11,SNR=3.5 | | | | | | | |
| **EKA** | **Eskdalemuir Ar** | **18.44** | **320** | P | | **Pn** | **19 51 29.3** | **+0.6** |
| | baz=118,slow=8.9,SNR=4.3 | | | | | | | |
| **NB2** | **NORSAR Subarra** | **18.59** | **350** | P | | **Pn** | **19 51 36.5** | **+6.0** |
| | comp=Z,4.5nm,0.9s,baz=156,slow=9.3 | | | | | | | |
| **NOA** | **NORSAR Array B** | **18.59** | **350** | P | | **P** | **19 51 29.6** | **-0.6** |
| | comp=Z,0.1nm,0.3s,baz=165,slow=10,SNR=3.1 | | | | | | | |
| NOA | | | | LR | | LR | 19 59 34.0 | |
| | comp=Z,98nm,18.4s,baz=325,slow=40 | | | | | | | |
| **FINES** | **FINESS Array B** | **19.19** | **12** | P | | **P** | **19 51 37.2** | **+0.4** |
| | comp=Z,0.2nm,0.3s,baz=193,slow=7.8,SNR=5.7 | | | | | | | |
| **FINES** | **FINESS Array B** | **19.19** | **12** | *eP* | | **P** | **19 51 37.4** | **+0.6** |
| **FINES** | **FINESS Array B** | **19.19** | **12** | *eP* | | **P** | **19 51 37.4** | **+0.6** |
| **KLMR** | **Klimovskoe** | **22.20** | **29** | *eP* | | **P** | **19 52 09.0** | **-0.3** |
| KLMR | | | | pmax | | pmax | | |
| | comp=Z,21nm,1.5s | | | | | | | |
| **KLMR** | **Klimovskoe** | **22.20** | **29** | *eP* | | **P** | **19 52 09.0** | **-0.3** |
| | comp=Z,21nm,1.5s | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **32.80** | **210** | P | | **P** | **19 53 48.1** | **+1.6** |
| | comp=Z,0.4nm,0.6s,baz=17,slow=9.8,SNR=5.2 | | | | | | | |
| **BRVK** | **Borovoye** | **35.77** | **55** | *eP* | | **P** | **19 54 12.1** | **+0.2** |
| BRVK | | | | pmax | | pmax | | |
| | comp=Z,2.0nm,0.8s | | | | | | | |
| **BRVK** | **Borovoye** | **35.77** | **55** | *eP* | | **P** | **19 54 12.2** | **+0.2** |
| | comp=Z,3.3nm,0.6s | | | | | | | |
| **BRVK** | **Borovoye** | **35.77** | **55** | *eP* | | **P** | **19 54 12.2** | **+0.2** |
| | comp=Z,3.3nm,0.6s | | | | | | | |
| **SFJD** | **Kangerlussuaq** | **43.13** | **328** | LR | | LR | 20 13 43.4 | |
| | comp=Z,134nm,19.6s,baz=308,slow=37 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **44.17** | **51** | P | | **P** | **19 55 21.2** | **-0.4** |
| | comp=Z,0.8nm,0.4s,baz=284,slow=7.6,SNR=5.4 | | | | | | | |
| **MKAR** | **Makanchi Array** | **44.69** | **62** | P | | **P** | **19 55 25.1** | **-0.9** |
| | comp=Z,0.5nm,0.6s,baz=297,slow=7.1,SNR=6.5 | | | | | | | |
| **MKAR** | **Makanchi Array** | **44.69** | **62** | *i P* | | **P** | **19 55 25.2** | **-0.8** |
| MKAR | | | | pmax | | pmax | | |
| | comp=Z,1.0nm,0.6s | | | | | | | |
| **SONM** | **Songino Array** | **59.06** | **52** | P | | **P** | **19 57 12.9** | **-0.3** |
| | comp=Z,1.1nm,0.7s,baz=282,slow=8.2,SNR=5.3 | | | | | | | |
| **SONM** | **Songino Array** | **59.06** | **52** | *eP* | | **P** | **19 57 13.1** | **-0.2** |
| SONM | | | | pmax | | pmax | | |
| | comp=Z,1.0nm,0.7s | | | | | | | |
| **SONM** | **Songino Array** | **59.06** | **52** | *eP* | | **P** | **19 57 13.1** | **-0.2** |
| | comp=Z,1.0nm,0.7s | | | | | | | |
| **BRDH** | **Bariadhala** | **63.28** | **83** | LR | | LR | 20 32 18.8 | |
| | comp=Z,50nm,19.8s,baz=186,slow=43 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **68.24** | **338** | P | | **P** | **19 58 12.9** | **-0.5** |
| | comp=Z,0.4nm,0.6s,baz=33,slow=5.3,SNR=5.1 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **68.24** | **338** | *eP* | | **P** | **19 58 14.8** | **+1.4** |
| **YKA** | **Yellowknife Ar** | **68.24** | **338** | *eP* | | **P** | **19 58 14.8** | **+1.4** |
| **CMAR** | **Chiang Mai Arr** | **71.23** | **82** | P | | **P** | **19 58 32.9** | **+0.3** |
| | comp=Z,0.7nm,0.5s,baz=305,slow=7.8,SNR=9.7 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **71.23** | **82** | *eP* | | **P** | **19 58 32.4** | **-0.1** |
| CMAR | | | | pmax | | pmax | | |
| | comp=Z,1.0nm,0.5s | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **71.23** | **82** | *eP* | | **P** | **19 58 32.4** | **-0.1** |
| | comp=Z,1.0nm,0.5s | | | | | | | |
| **ILAR** | **Eielson Array** | **71.98** | **353** | P | | **P** | **19 58 37.2** | **+0.9** |
| | comp=Z,0.2nm,0.6s,baz=3.2,slow=5.5,SNR=5.6 | | | | | | | |
| **ILAR** | **Eielson Array** | **71.98** | **353** | *eP* | | **P** | **19 58 36.4** | **+0.1** |
| **PDAR** | **Pinedale Array** | **82.51** | **324** | P | | **P** | **19 59 37.0** | **+1.0** |
| | comp=Z,0.3nm,0.6s,baz=19,slow=5.8,SNR=2.8 | | | | | | | |

*IDC* ***14*** *20:00:31.7±3.0, 41.°53S×74.°85W, h0km, mb4.1/6, mb1 4.2/7, mb1mx3.9/24, mbtmp4.1/7, ML4.4/1, MS3.4/3, Ms1 3.3/3, ms1mx3.0/23, Error ellipse: s-maj=80.5km s-min=30.6km az=111.0*

*NEIC* ***14*** *20:00:35.8±4.0, 41.°85S×74.°40W, h10km±24km, mb4.9/5, Error ellipse: s-maj=14.3km s-min=9.6km az=168.0*

*ISCJB* ***14*** *20:00:37.4±1.7, 41.°71S±0.°05×74.°15W±0.°09, h24km±11km, mb4.6/8, MS3.5/2, Error ellipse: s-maj=11.8km s-min=7.9km az=170.9*

*GUC* ***14*** *20:00:37.5±0.6, 41.°69S×74.°04W, h28km±6km, ML4.1*

**ISC 14 20:00:37.7±1.9, 41.°70S±0.°05×74.°12W±0.°08, h18km±12km, n25, σ1§27/30, mb4.5/8, Off coast of southern Chile**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PMCH** | **Puerto Montt** | **0.94** | **77** | *eP* | **Pb** | **20 00 53.7** | **-1.8** |
| PMCH | | | | *i* S | **Sb** | **20 01 07.1** | **-0.5** |
| **PUEL** | **Puelo Alto** | **1.37** | **89** | *eP* | **Pb** | **20 01 02.8** | **+0.1** |
| PUEL | | | | *i* S | **Sn** | **20 01 19.0** | **-0.5** |
| **GO07** | **Milladeo Hill,** | **1.45** | **167** | *eP* | **Pn** | **20 01 03.4** | **+0.3** |
| GO07 | | | | *i* S | **Sb** | **20 01 23.1** | **+0.8** |
| GO07 | | | | IAML | | 20 01 35.2 | |
| | comp=E,5μm,1.6s | | | | | | |
| **VLCH** | **Valdivia** | **2.01** | **20** | *eP* | **Pn** | **20 01 11.3** | **+0.6** |
| VLCH | | | | *i* S | **Sb** | **20 01 37.4** | **-0.9** |
| **PLCA** | **Paso Flores** | **2.86** | **71** | Pn | **Pn** | **20 01 25.2** | **+2.7** |
| | comp=E,8.1nm,0.3s,baz=248,slow=13,SNR=23 | | | | | | |
| PLCA | | | | Sn | **Sb** | **20 02 02.8** | **-0.2** |
| | comp=E,5.6nm,0.3s,baz=354,slow=18,SNR=4.2 | | | | | | |
| PLCA | | | | LR | LR | 20 02 28.9 | |
| | comp=E,217nm,20.5s,baz=332,slow=35 | | | | | | |
| **TMU** | **Temuco** | **3.19** | **22** | *eP* | **Pn** | **20 01 28.7** | **+1.8** |
| TMU | | | | *eS* | **Sb** | **20 02 13.3** | **+1.1** |
| TMU | | | | IAML | | 20 02 24.6 | |
| | comp=E,360nm,0.5s | | | | | | |
| **GO05** | **HualaæØ** | **6.90** | **15** | *e*Pn | **Pn** | **20 02 20.3** | **+2.3** |
| **PEL** | **Peldehue** | **8.97** | **19** | *e*Pn | **Pn** | **20 02 48.1** | **+1.7** |
| **ROC1** | **El Roble** | **9.05** | **17** | *e*Pn | **Pn** | **20 02 49.4** | **+1.6** |
| **TRQA** | **Tornquist** | **10.02** | **73** | *e*Pn | **Pn** | **20 03 03.2** | **+2.5** |
| **CPUP** | **Villa Florida** | **20.65** | **47** | P | **P** | **20 05 16.7** | **+0.4** |
| | comp=E,2.7nm,0.6s,baz=230,slow=11,SNR=6.5 | | | | | | |
| CPUP | | | | LR | LR | 20 14 00.4 | |
| | comp=E,79nm,21.2s,baz=28,slow=39 | | | | | | |
| **CPUP** | **Villa Florida** | **20.65** | **47** | *eP* | **P** | **20 05 17.3** | **+0.9** |
| | comp=E,23nm,1.9s | | | | | | |
| **BDFB** | **Brasilia** | **34.37** | **49** | P | **P** | **20 07 22.6** | **-1.3** |
| | comp=E,5.0nm,0.6s,baz=359,slow=7.7,SNR=6.7 | | | | | | |
| **SNAA** | **Sanae** | **45.19** | **155** | P | **P** | **20 08 52.9** | **-0.2** |
| | comp=E,1.8nm,0.9s,baz=235,slow=19,SNR=4.0 | | | | | | |
| **SNAA** | **Sanae** | **45.19** | **155** | *eP* | **P** | **20 08 52.9** | **-0.2** |
| | comp=E,16nm,1.9s | | | | | | |
| **LPIG** | **La Paz** | **73.55** | **326** | LR | LR | 20 36 11.8 | |
| | comp=E,87nm,21.2s,baz=358,slow=29 | | | | | | |
| **BOSA** | **Boshof** | **77.96** | **118** | P | **P** | **20 12 35.2** | **+0.2** |
| | comp=E,2.5nm,0.6s,baz=226,slow=5.7,SNR=8.0 | | | | | | |
| **DBIC** | **Dimbokro** | **79.23** | **71** | P | **P** | **20 12 41.6** | **-0.4** |
| | comp=E,2.5nm,0.9s,baz=213,slow=4.9,SNR=3.0 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **88.34** | **71** | P | **P** | **20 13 27.9** | **-0.7** |
| | comp=E,0.4nm,0.8s,baz=221,slow=4.8,SNR=2.7 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **88.34** | **71** | *eP* | **P** | **20 13 27.9** | **-0.7** |
| **RSSD** | **Black Hills** | **89.56** | **339** | *eP* | **P** | **20 13 34.8** | **+0.9** |
| | comp=E,13nm,0.4s | | | | | | |
| **FXWY** | **Fox Creek** | **91.21** | **334** | *eP* | **P** | **20 13 39.9** | **-1.6** |
| | comp=E,2.5nm,1.0s | | | | | | |
| **GCMT** | **Greycliff** | **92.71** | **336** | *eP* | **P** | **20 13 48.4** | **0.0** |
| **LRM** | **Limekiln Ridge** | **93.61** | **334** | *eP* | **P** | **20 13 52.1** | **-0.5** |
| **HAWA** | **Hanford** | **96.58** | **330** | *eP* | **P** | **20 14 06.4** | **+0.5** |
| | comp=E,10nm,0.5s | | | | | | |

**MEX 14 20:16:22.3±0.6, 26.°35N×111.°72W, h10km, MD3.6, Gulf of California**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SRIG** | **Santa Rosalia** | **1.08** | **335** | *eP* | Pg | 20 16 39.1 | -3.9 |
| SRIG | | | | *eS* | Sg | 20 16 53.7 | -3.3 |
| **GUYB** | **Guaymas** | **1.72** | **26** | *eP* | Pn | 20 16 48.7 | -3.6 |
| **SLBS** | **Sierra La Lagu** | **3.10** | **148** | *eP* | Pn | 20 17 09.0 | -2.4 |

*BJI* ***14*** *20:20:49.4, 27.°60N×88.°11E, h8km, mb4.2/10, mB4.4/3*

*NDI* ***14*** *20:20:53.5±3.3, 27.°65N×88.°08E, h11km±12km, ML4.1, mb4.0(NEIC)*

*NEIC* ***14*** *20:20:53.8±1.1, 27.°50N×87.°96E, h48km±15km, mb4.0/7, Error ellipse: s-maj=24.5km s-min=9.9km az=136.0*

*ISCJB* ***14*** *20:20:56.2±0.3, 27.°60N±0.°04×88.°06E±0.°02, h93km±4km, mb3.9/20, Error ellipse: s-maj=6.7km s-min=3.0km az=20.3*

*DMN* ***14*** *20:20:57.7±0.0, 27.°74N×88.°11E, h60km, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

*IDC* ***14*** *20:20:58.3±0.7, 27.°69N×88.°06E, h81km±6km, mb3.7/17, mb1 3.8/19, mb1mx3.6/52, mbtmp4.0/19, MS2.5/1, Ms1 2.7/1, ms1mx2.3/41, Error ellipse: s-maj=19.1km s-min=9.7km az=54.0*

**ISC 14 20:20:57.2±0.5, 27.°69N±0.°05×88.°10E±0.°04, h82km±5km, n73, σ2§34/99, mb4.0/20, Sikkim**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TAPN** | **Taplejung** | **0.48** | **225** | *e*Pg | **Pn** | **20 21 11.3** | **0.0** |
| TAPN | | | | *e*Sg | **Sn** | **20 21 21.3** | **-0.5** |
| **ODAN** | **Odare** | **1.04** | **217** | *e*Pg | **Pn** | **20 21 18.0** | **+0.9** |
| ODAN | | | | *e*Sg | **Sn** | **20 21 33.3** | **+1.4** |
| | 11μm,0.2s | | | | | | |
| **RAMN** | **Ramite** | **1.52** | **241** | *e*Pg | **Pn** | **20 21 23.8** | **+0.7** |
| RAMN | | | | *e*Sg | **Sn** | **20 21 43.5** | **+0.9** |
| | 2μm,0.3s | | | | | | |
| **JIRN** | **Jiri** | **1.69** | **269** | *e*Pg | **Pn** | **20 21 26.6** | **+1.2** |
| **GUN** | **Gumba** | **1.98** | **277** | *e*Pg | **Pn** | **20 21 30.1** | **+1.0** |
| **DHUB** | **DHUBRI** | **2.38** | **134** | *e*P | **Pn** | **20 21 34.9** | **+0.7** |
| DHUB | | | | *e*S | **Sn** | **20 22 04.0** | **+1.5** |
| DHUB | | | | AML | AML | 20 22 07.3 | |
| | comp=N,2μm,0.2s | | | | | | |
| **PKI** | **Pulchoki** | **2.39** | **268** | *e*Pg | **Pn** | **20 21 35.5** | **+0.9** |
| PKI | | | | *e*Sg | **Sn** | **20 22 02.4** | **-0.8** |
| | comp=N,544nm,0.3s | | | | | | |
| **PKIN** | **Phulchoki** | **2.40** | **268** | *e*Pg | **Pn** | **20 21 35.5** | **+0.8** |
| PKIN | | | | *e*Sg | **Sn** | **20 22 02.8** | **-0.6** |
| | comp=N,3μm,0.3s | | | | | | |
| **KKN** | **Kakani** | **2.50** | **273** | *e*Pg | **Pn** | **20 21 37.0** | **+1.0** |
| **DMN** | **Daman** | **2.65** | **269** | *e*Pg | **Pn** | **20 21 38.9** | **+0.8** |
| DMN | | | | *e*Sg | **Sn** | **20 22 08.3** | **-1.2** |
| | comp=N,341nm,0.3s | | | | | | |
| **TURI** | **Tura** | **2.92** | **136** | *e*P | **Pn** | **20 21 41.5** | **-0.1** |
| TURI | | | | *e*S | **Sn** | **20 22 14.3** | **-1.4** |
| TURI | | | | AML | AML | 20 22 17.9 | |
| | comp=E,2μm,0.0s | | | | | | |
| TURI | | | | AML | AML | 20 22 18.3 | |
| | comp=N,3μm,0.3s | | | | | | |
| **GKN** | **Gorkha** | **3.08** | **277** | *e*Pn | **Pn** | **20 21 43.9** | **+0.2** |
| GKN | | | | *e*Sn | **Sn** | **20 22 18.6** | **-1.0** |
| **LSA** | **Lhasa** | **3.35** | **53** | *e*Pn | **Pn** | **20 21 47.7** | **+0.1** |
| **GUWA** | **GUWAHATI** | **3.54** | **114** | *e*P | **Pn** | **20 21 49.7** | **-0.2** |
| GUWA | | | | *e*S | **Sn** | **20 22 27.9** | **-2.7** |
| GUWA | | | | AML | AML | 20 22 31.6 | |
| | comp=E,895nm,0.4s | | | | | | |
| **DANN** | **Dangsing** | **3.89** | **281** | *e*Pn | **Pn** | **20 21 54.3** | **-0.6** |
| DANN | | | | *e*Sn | **Sn** | **20 22 37.3** | **-2.2** |
| **KOLN** | **Koldanda** | **3.98** | **272** | *e*Pn | **Pn** | **20 21 56.3** | **+0.2** |
| KOLN | | | | *e*Sn | **Sn** | **20 22 40.4** | **-1.4** |
| | comp=E,430nm,0.3s | | | | | | |
| **SHL** | **Shillong** | **4.00** | **121** | *e*P | **Pn** | **20 21 55.6** | **-0.6** |
| SHL | | | | *e*S | **Sn** | **20 22 39.4** | **-2.6** |
| SHL | | | | AML | AML | 20 22 41.9 | |
| | comp=N,496nm,0.4s | | | | | | |
| SHL | | | | AML | AML | 20 22 43.1 | |
| | comp=E,530nm,0.3s | | | | | | |
| **TEZP** | **TEZPUR** | **4.33** | **103** | *e*P | **Pn** | **20 21 58.7** | **-1.8** |
| TEZP | | | | *ex* | x | 20 22 44.1 | |
| TEZP | | | | AML | AML | 20 22 46.1 | |
| | comp=E,751nm,0.1s | | | | | | |
| TEZP | | | | AML | AML | 20 22 46.5 | |
| | comp=N,598nm,0.3s | | | | | | |
| **BOK** | **Bokaro** | **4.36** | **208** | *e*P | **Pn** | **20 22 00.1** | **-1.0** |
| BOK | | | | *e*S | **Sn** | **20 22 48.1** | **-2.6** |
| BOK | | | | AML | AML | 20 22 52.7 | |
| | comp=E,755nm,0.2s | | | | | | |
| **PYUN** | **Piuthan** | **4.54** | **276** | *e*Pn | **Pn** | **20 22 03.0** | **-0.6** |
| PYUN | | | | *e*Sn | **Sn** | **20 22 53.0** | **-2.2** |
| | comp=E,406nm,0.2s | | | | | | |
| **ITAN** | **ITANAGAR** | **5.03** | **95** | *e*P | **Pn** | **20 22 09.1** | **-1.0** |
| ITAN | | | | AML | AML | 20 23 02.2 | |
| | comp=E,209nm,0.1s | | | | | | |
| **MOKO** | **MOKOCHONG** | **5.89** | **102** | *e*P | **Pn** | **20 22 20.3** | **-1.7** |
| MOKO | | | | *e*S | **Sn** | **20 23 21.3** | **-6.8** |
| MOKO | | | | AML | AML | 20 23 24.1 | |
| | comp=N,364nm,0.2s | | | | | | |
| MOKO | | | | AML | AML | 20 23 24.1 | |
| | comp=E,399nm,0.2s | | | | | | |
| **BRDH** | **Bariadhala** | **5.94** | **146** | P | **Pn** | **20 22 23.6** | **+1.0** |
| | comp=E,67nm,0.3s,baz=94,slow=3.2,SNR=8.1 | | | | | | |
| BRDH | | | | S | **Sn** | **20 23 30.3** | **+1.2** |
| | comp=E,68nm,0.3s,baz=53,slow=20,SNR=3.2 | | | | | | |
| **IMP** | **Imphal** | **5.97** | **117** | *e*P | **Pn** | **20 22 23.4** | **+0.3** |
| IMP | | | | *ex* | x | 20 23 29.2 | |
| IMP | | | | AML | AML | 20 23 32.5 | |
| | comp=N,112nm,0.5s | | | | | | |
| IMP | | | | AML | AML | 20 23 32.5 | |
| | comp=E,117nm,0.6s | | | | | | |
| **LKP** | **Lekhapani** | **6.89** | **91** | *e*P | **Pn** | **20 22 33.4** | **-2.2** |
| LKP | | | | *ex* | x | 20 23 43.5 | |
| LKP | | | | AML | AML | 20 23 47.4 | |
| | comp=N,166nm,0.2s | | | | | | |
| LKP | | | | AML | AML | 20 23 47.6 | |
| | comp=E,366nm,0.5s | | | | | | |
| **LGTI** | **Lohaghat** | **7.12** | **286** | *e*P | **Pn** | **20 22 40.1** | **+1.5** |
| LGTI | | | | *e*S | **Sn** | **20 23 57.2** | **-0.8** |
| LGTI | | | | *e*S | **Sn** | **20 23 57.2** | **-0.8** |
| **PTH** | **Pithoragarh** | **7.17** | **287** | *ex* | **Pn** | **20 22 41.2** | **+1.7** |
| PTH | | | | *e*S | **Sn** | **20 23 55.9** | **-3.6** |
| **JBP** | **Jabalpur** | **8.60** | **240** | *e*P | **Pn** | **20 22 57.5** | **-1.4** |
| JBP | | | | *ex* | x | 20 24 22.1 | |
| JBP | | | | AML | AML | 20 24 39.7 | |
| | comp=Z,53nm,0.4s | | | | | | |
| **DDI** | **Dehra Dun** | **9.17** | **289** | *e*P | **Pn** | **20 23 03.9** | **-2.9** |
| DDI | | | | *e*S | **Sn** | **20 24 41.5** | **-6.7** |
| **NDI** | **New Delhi** | **9.65** | **278** | *ex* | x | 20 23 34.5 | |
| NDI | | | | *e*S | **Sn** | **20 24 52.0** | **-7.9** |
| **SMLA** | **Simla** | **10.13** | **292** | *e*P | **Pn** | **20 23 17.7** | **-1.9** |
| SMLA | | | | *e*S | **Sn** | **20 25 03.8** | **-7.6** |
| SMLA | | | | AML | AML | 20 25 11.1 | |
| | comp=N,119nm,0.5s | | | | | | |
| SMLA | | | | AML | AML | 20 25 11.1 | |
| | comp=E,134nm,0.6s | | | | | | |
| **SDNR** | **Sundarnagar** | **10.40** | **294** | *e*S | **Sn** | **20 25 10.0** | **-8.2** |
| **NGP** | **Nagpur** | **10.50** | **234** | *e*P | **Pn** | **20 23 22.5** | **-2.3** |
| NGP | | | | *ex* | x | 20 23 45.4 | |
| | comp=Z,24nm,0.0s | | | | | | |
| NGP | | | | *e*S | Sn | 20 25 11.1 | -10 |
| **BHPL** | **Bhopal** | **10.61** | **248** | *e*P | **Pn** | **20 23 22.8** | **-3.5** |
| BHPL | | | | *e*S | Sn | 20 25 12.7 | -11 |
| BHPL | | | | AML | AML | 20 25 32.5 | |
| | comp=E,35nm,0.3s | | | | | | |
| BHPL | | | | AML | AML | 20 25 33.5 | |
| | comp=N,64nm,0.3s | | | | | | |
| **DHRM** | **DHARAMSHALA** | **11.19** | **297** | *e*P | **Pn** | **20 23 32.6** | **-1.8** |
| DHRM | | | | *e*S | Sn | 20 25 27.7 | -10 |
| DHRM | | | | AML | AML | 20 26 20.2 | |
| | comp=N,21nm,0.2s | | | | | | |
| DHRM | | | | AML | AML | 20 26 21.6 | |
| | comp=E,37nm,0.5s | | | | | | |
| **HYB** | **Hyderabad** | **13.49** | **223** | *i* P | **Pn** | **20 24 02.5** | **-2.7** |
| HYB | | | | *e*S | Sn | 20 26 24.0 | -10 |
| **HYB** | **Hyderabad** | **13.49** | **223** | *e*P | **Pn** | **20 24 02.0** | **-3.2** |
| HYB | | | | *e*S | Sn | 20 26 21.3 | -12 |
| **CM31** | **Chiang Mai Arr** | **13.56** | **130** | *e*Pn | **Pn** | **20 24 03.5** | **-2.5** |
| **CMAR** | **Chiang Mai Arr** | **13.56** | **130** | P | **Pn** | **20 24 03.6** | **-2.5** |
| | comp=E,0.2nm,0.3s,baz=308,slow=13,SNR=14 | | | | | | |
| CMAR | | | | LR | LR | 20 30 36.6 | |
| | comp=E,20nm,18.2s,baz=190,slow=43 | | | | | | |
| **CHCP** | **Chirah Chowk** | **14.08** | **299** | P | **Pn** | **20 24 10.7** | **-2.1** |
| **THW** | **Thamme Wali** | **15.02** | **294** | P | **Pn** | **20 24 21.4** | **-3.5** |
| **DGPR** | **DIGLIPUR** | **15.13** | **162** | *e*P | **Pn** | **20 24 24.7** | **-1.7** |
| **CEP** | **Cherat** | **15.19** | **298** | P | **Pn** | **20 24 23.5** | **-3.7** |
| CEP | | | | S | Sn | 20 27 01.0 | -14 |
| **KSH** | **Kashi** | **15.51** | **323** | P | **P** | **20 24 34.4** | **+0.5** |
| KSH | | | | pmax | pmax | | |
| | comp=E,52nm,3.5s | | | | | | |
| **KBL** | **Kabul** | **17.67** | **297** | *e*Pn | **P** | **20 24 57.2** | **-0.7** |
| | comp=E,7.3nm,1.0s | | | | | | |
| **AAK** | **Ala-Archa** | **18.57** | **327** | P | **Pn** | **20 25 09.7** | **+1.0** |
| | comp=E,0.3nm,0.3s,baz=137,slow=11,SNR=14 | | | | | | |
| **AAK** | **Ala-Archa** | **18.57** | **327** | *eP* | **Pn** | **20 25 10.2** | **+1.5** |
| | comp=E,3.2nm,0.7s | | | | | | |
| **ENH** | **Enshi** | **18.89** | **77** | *eP* | **Pn** | **20 25 12.2** | **-0.4** |
| | comp=E,12nm,0.6s | | | | | | |
| **XAN** | **Xi'an** | **18.95** | **65** | P | **Pn** | **20 25 12.9** | **-0.4** |
| XAN | | | | pmax | pmax | | |
| | comp=E,11nm,0.9s | | | | | | |
| XAN | | | | pmax | pmax | | |
| | comp=E,85nm,4.3s | | | | | | |
| **MK01** | **Makanchi Array** | **19.59** | **348** | *eP* | **P** | **20 25 18.7** | **+0.1** |
| **MK31** | **Makanchi Array** | **19.61** | **348** | *eP* | **P** | **20 25 19.8** | **+0.9** |
| **MKAR** | **Makanchi Array** | **19.61** | **348** | P | **P** | **20 25 18.9** | **+0.1** |
| | comp=E,0.9nm,0.3s,baz=161,slow=10.0,SNR=39 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **24.03** | **345** | P | **P** | **20 26 05.5** | **+1.2** |
| KURBB | | | | pP | **pP** | **20 26 25.1** | **+2.4** |
| | comp=E,2.3nm,0.9s,baz=165,slow=8.8,SNR=4.5 | | | | | | |
| **KURK** | **Kurchatov** | **24.10** | **345** | *eP* | **P** | **20 26 06.2** | **+1.3** |
| | comp=E,9.5nm,0.9s | | | | | | |
| **SONM** | **Songino Array** | **24.66** | **30** | P | **P** | **20 26 11.9** | **+1.7** |
| | comp=E,4.7nm,0.7s,baz=216,slow=9.4,SNR=23 | | | | | | |
| **SONA1** | **Songino Array** | **24.67** | **30** | *eP* | **P** | **20 26 12.2** | **+1.9** |
| **ULN** | **Ulaanbaatar** | **24.98** | **31** | *eP* | **P** | **20 26 14.7** | **+1.5** |
| | comp=E,6.1nm,0.7s | | | | | | |
| **ZAA0** | **Zalesovo Array** | **26.34** | **356** | *eP* | **P** | **20 26 26.5** | **+1.3** |
| | comp=E,2.7nm,0.8s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **26.34** | **356** | P | **P** | **20 26 26.0** | **+0.8** |
| | comp=E,1.3nm,0.4s,baz=180,slow=9.8,SNR=16 | | | | | | |
| ZALV | | | | sP | **sP** | **20 26 56.0** | **+2.3** |
| | comp=E,0.9nm,0.5s,baz=188,slow=9.2,SNR=2.3 | | | | | | |
| **GEYT** | **Alibeck** | **27.08** | **300** | P | **P** | **20 26 34.0** | **+1.9** |
| | comp=E,1.3nm,0.8s,baz=106,slow=11,SNR=4.4 | | | | | | |
| **BVAR** | **Borovoye Array** | **28.52** | **337** | P | **P** | **20 26 45.4** | **+0.7** |
| | comp=E,0.5nm,0.3s,baz=140,slow=11,SNR=8.6 | | | | | | |
| **KSRS** | **Korea Array** | **34.73** | **63** | P | **P** | **20 27 39.5** | **+0.1** |
| | comp=E,1.0nm,0.6s,baz=261,slow=8.5,SNR=4.7 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **38.67** | **53** | P | **P** | **20 28 14.3** | **+1.6** |
| | comp=E,0.8nm,0.4s,baz=249,slow=7.3,SNR=3.0 | | | | | | |
| **BRTR** | **Keskin Array B** | **46.23** | **300** | P | **P** | **20 29 14.2** | **0.0** |
| | comp=E,0.3nm,0.7s,baz=97,slow=7.4,SNR=2.4 | | | | | | |
| **TIXI** | **Tiksi** | **49.37** | **16** | P | **P** | **20 29 39.1** | **+1.3** |
| | comp=E,1.3nm,0.5s,baz=217,slow=4.0,SNR=7.0 | | | | | | |
| **AKASG** | **Malin Array Be** | **49.59** | **314** | P | **P** | **20 29 39.9** | **+0.1** |
| | comp=E,0.5nm,0.3s,baz=78,slow=7.8,SNR=5.3 | | | | | | |
| **FINES** | **FINESS Array B** | **52.75** | **328** | P | **P** | **20 30 04.3** | **+1.0** |
| | comp=E,0.8nm,0.4s,baz=108,slow=9.7,SNR=9.8 | | | | | | |
| **ARCES** | **ARCESS Array B** | **54.81** | **338** | P | **P** | **20 30 19.4** | **+1.2** |
| | comp=E,3.0nm,0.9s,baz=104,slow=7.7,SNR=18 | | | | | | |
| **GERES** | **GERESS Array B** | **59.69** | **313** | P | **P** | **20 30 54.6** | **+1.5** |
| | comp=E,1.2nm,0.6s,baz=88,slow=6.8,SNR=7.2 | | | | | | |
| **NOA** | **NORSAR Array B** | **59.88** | **327** | P | **P** | **20 30 54.0** | **-0.1** |
| | comp=E,1.3nm,0.8s,baz=90,slow=4.4,SNR=2.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **65.15** | **132** | P | **P** | **20 31 31.8** | **+2.1** |
| | comp=E,0.8nm,0.4s,baz=326,slow=6.7,SNR=32 | | | | | | |
| WRA | | | | pP | **pP** | **20 31 51.1** | **+0.3** |
| | comp=E,0.5nm,0.6s,baz=324,slow=6.7,SNR=3.3 | | | | | | |
| **ASAR** | **Alice Springs** | **67.53** | **135** | P | **P** | **20 31 47.0** | **+2.2** |
| | comp=E,1.0nm,0.7s,baz=320,slow=6.5,SNR=15 | | | | | | |
| ASAR | | | | pP | **pP** | **20 32 06.7** | **+0.5** |
| | comp=E,0.7nm,0.5s,baz=317,slow=6.8,SNR=3.8 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **80.87** | **280** | P | **P** | **20 33 04.2** | **+1.5** |
| | comp=E,0.2nm,0.6s,baz=61,slow=4.4,SNR=2.4 | | | | | | |

*ISCJB* ***14*** *20:26:32.9±0.6, 32.°96N±0.°05×105.°63E±0.°06, h14km, mb3.8/6, MS3.4/2, Error ellipse: s-maj=7.6km s-min=6.4km az=26.8*

*IDC* ***14*** *20:26:33.1±1.1, 33.°06N×106.°03E, h0km, mb3.6/6, mb1 3.8/7, mb1mx3.4/53, mbtmp3.6/7, ML3.1/1, MS3.5/2, Ms1 3.5/2, ms1mx2.6/44, Error ellipse: s-maj=73.9km s-min=17.7km az=56.0*

*BJI* ***14*** *20:26:36.6, 32.°84N×105.°44E, h17km, ML3.5/10, Ms3.3/1*

**ISC 14 20:26:35.6±0.7, 32.°87N±0.°05×105.°49E±0.°05, h14km, n13, σ1§55/18, mb4.0/6, Sichuan**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CD2** | **Chengdu** | **2.45** | **217** | Pn | **Pn** | **20 27 14.8** | **-0.4** |
| CD2 | | | | Pg | **Pb** | **20 27 19.0** | **-0.4** |
| CD2 | | | | Sn | **Sn** | **20 27 45.6** | **+0.7** |
| CD2 | | | | Sg | **Sb** | **20 27 50.3** | **+0.8** |
| CD2 | | | | smax | smax | | |
| | comp=N,1μm,0.8s | | | | | | |
| CD2 | | | | smax | smax | | |
| | comp=E,460nm,0.8s | | | | | | |
| **XAN** | **Xi'an** | **3.10** | **67** | Pn | **Pn** | **20 27 25.3** | **+1.2** |
| XAN | | | | Pg | **Pb** | **20 27 30.8** | **+0.3** |
| XAN | | | | Sn | **Sn** | **20 28 02.9** | **+1.9** |
| XAN | | | | Sg | **Sg** | **20 28 11.1** | **-4.0** |
| XAN | | | | smax | smax | | |
| | comp=N,150nm,0.6s | | | | | | |
| XAN | | | | smax | smax | | |
| | comp=E,140nm,0.7s | | | | | | |
| **LZH** | **Lanzhou** | **3.48** | **338** | Pg | **Pg** | **20 27 41.4** | **-0.9** |
| LZH | | | | Sg | **Sg** | **20 28 25.5** | **-1.9** |
| LZH | | | | smax | smax | | |
| | comp=N,140nm,0.4s | | | | | | |
| LZH | | | | smax | smax | | |
| | comp=E,120nm,0.7s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **15.51** | **204** | Pn | **P** | **20 30 18.3** | **-0.1** |
| | 0.0nm,0.3s,baz=10,slow=10,SNR=6.0 | | | | | | |
| **WMQ** | **Urumqi** | **17.69** | **313** | *eP* | **Pn** | **20 30 40.8** | **-0.7** |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,490nm,4

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **HHSZ** | **Highcliff Hill** | **3.29** | **87** | Pn | **Pn** | **20 35 19.5** | **+1.7** |
| **HHSZ** | **Highcliff Hill** | **3.29** | **87** | PN | **Pn** | **20 35 19.5** | **+1.7** |
| HHSZ | | | | AML | AML | 20 36 09.9 | |
| HHSZ | | | | AML | AML | 20 36 15.8 | |
| **LBZ** | **Lake Benmore** | **3.51** | **61** | Pn | **Pn** | **20 35 21.3** | **+0.5** |
| **LBZ** | **Lake Benmore** | **3.51** | **61** | PN | **Pn** | **20 35 21.3** | **+0.5** |
| LBZ | | | | AML | AML | 20 36 10.7 | |
| LBZ | | | | AML | AML | 20 36 21.4 | |
| **ODZ** | **Otahua Downs** | **3.52** | **73** | Pn | **Pn** | **20 35 20.9** | **0.0** |
| **ODZ** | **Otahua Downs** | **3.52** | **73** | ⇑PN | **Pn** | **20 35 20.9** | **0.0** |
| ODZ | | | | AML | AML | 20 36 24.8 | |
| ODZ | | | | AML | AML | 20 36 28.0 | |
| **FOZ** | **Fox Glacier** | **3.83** | **48** | Pn | **Pn** | **20 35 25.8** | **+0.7** |
| **FOZ** | **Fox Glacier** | **3.83** | **48** | PN | **Pn** | **20 35 25.8** | **+0.7** |
| FOZ | | | | AML | AML | 20 36 43.1 | |
| FOZ | | | | AML | AML | 20 37 57.2 | |
| **RPZ** | **Rata Peaks** | **4.41** | **58** | Pn | **Pn** | **20 35 33.0** | **-0.1** |
| RPZ | | | | Sn | **Sn** | **20 36 23.3** | **-1.0** |
| **RPZ** | **Rata Peaks** | **4.41** | **58** | PN | **Pn** | **20 35 33.0** | **-0.1** |
| RPZ | | | | SN | **Sn** | **20 36 23.3** | **-1.0** |
| RPZ | | | | AML | AML | 20 37 02.6 | |
| **WVZ** | **Waitaha Valley** | **4.63** | **50** | Pn | **Pn** | **20 35 37.6** | **+1.5** |
| **WVZ** | **Waitaha Valley** | **4.63** | **50** | PN | **Pn** | **20 35 37.6** | **+1.5** |
| WVZ | | | | AML | AML | 20 36 59.5 | |
| WVZ | | | | AML | AML | 20 37 02.4 | |
| **OXZ** | **Oxford** | **5.21** | **59** | Pn | **Pn** | **20 35 43.3** | **-0.9** |
| **OXZ** | **Oxford** | **5.21** | **59** | PN | **Pn** | **20 35 43.3** | **-0.9** |
| OXZ | | | | AML | AML | 20 38 13.8 | |
| **INZ** | **Inchbonnie** | **5.25** | **51** | PN | **Pn** | **20 35 45.0** | **+0.3** |
| **MQZ** | **McQueen's Vall** | **5.39** | **65** | Pn | **Pn** | **20 35 46.3** | **-0.3** |
| **MQZ** | **McQueen's Vall** | **5.39** | **65** | PN | **Pn** | **20 35 46.3** | **-0.3** |
| **LTZ** | **Lake Taylor** | **5.68** | **56** | Pn | **Pn** | **20 35 48.5** | **-2.0** |
| **LTZ** | **Lake Taylor** | **5.68** | **56** | PN | **Pn** | **20 35 48.5** | **-2.0** |
| LTZ | | | | AML | AML | 20 37 01.8 | |
| **DSZ** | **Denniston Nort** | **6.14** | **46** | Pn | **Pn** | **20 35 57.0** | **+0.1** |
| **DSZ** | **Denniston Nort** | **6.14** | **46** | PN | **Pn** | **20 35 56.9** | **+0.1** |
| DSZ | | | | AML | AML | 20 36 01.3 | |
| **THZ** | **Tophouse** | **6.70** | **52** | Pn | **Pn** | **20 36 03.7** | **-0.9** |
| **THZ** | **Tophouse** | **6.70** | **52** | PN | **Pn** | **20 36 03.7** | **-0.9** |
| **QRZ** | **Quartz Range** | **7.19** | **45** | Pn | **Pn** | **20 36 12.4** | **+1.1** |
| **QRZ** | **Quartz Range** | **7.19** | **45** | PN | **Pn** | **20 36 12.4** | **+1.1** |
| **ASAR** | **Alice Springs** | **34.15** | **300** | P | **P** | **20 41 10.6** | **-0.7** |
| | 0.6nm,0.9s,baz=129,slow=7.3,SNR=4.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **36.77** | **305** | P | **P** | **20 41 32.9** | **-1.0** |
| | 0.4nm,0.6s,baz=139,slow=8.1,SNR=4.6 | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **40.25** | **267** | T | T | 21 24 50.2 | |
| | baz=122 | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **40.26** | **267** | T | T | 21 24 51.4 | |
| | baz=122 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **40.27** | **267** | T | T | 21 24 53.2 | |
| | baz=122 | | | | | | |
| **H08S2** | **Diego Garcia H** | **86.89** | **262** | T | T | 22 22 59.8 | |
| | baz=137 | | | | | | |
| **H08S1** | **Diego Carcia H** | **86.91** | **262** | T | T | 22 22 59.2 | |
| | baz=137 | | | | | | |
| **H08S3** | **Diego Garcia H** | **86.91** | **262** | T | T | 22 23 00.4 | |
| | baz=137 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **144.49** | **207** | PKPbc | PKPbc | 20 54 03.5 | +2.0 |
| | 0.2nm,0.5s,baz=152,slow=2.5,SNR=3.8 | | | | | | |
| **BRTR** | **Keskin Array B** | **144.89** | **277** | PKPbc | **PKPab** | **20 54 03.8** | **+1.5** |
| | 0.4nm,0.7s,baz=106,slow=3.1,SNR=2.9 | | | | | | |

*NIED* **14** *20:40:00, 35.˙80N× 135.˙30E, h380km, Mw4.5 Best double couple: M0 5.81000×10^15 NP1:φs 32.00000°, δ68.00000°, λ176.00000°. NP2:φs 123.00000°, δ86.00000°, λ22.00000°.*

*BJI* **14** *20:40:03.3, 35.˙74N× 135.˙38E, h374km, mb4.6/38, mB4.6/24*

*ISCJB* **14** *20:40:04.6± 0.2, 35.˙74N± 0.˙03× 135.˙32E± 0.˙03, h371km± 2km, mb4.1/59, Error ellipse: s-maj=5.3km s-min=4.0km az=144.5*

*NEIC* **14** *20:40:05.5± 0.3, 35.˙75N× 135.˙32E, h368km± 3km, mb4.4/21, Error ellipse: s-maj=5.7km s-min=4.6km az=152.0*

*JMA* **14** *20:40:05.6± 0.1, 35.˙81N× 135.˙32E, h362km± 2km, M3.9 Broadband fault plane solution: P waves. NP1: φs 118.00000°, δ86.00000°, λ29.00000°. NP2:φs 26.00000°, δ61.00000°, λ175.00000°. Principal axes: T Plg23.0000°, Azm346.0000°; N Plg61.0000°, Azm126.0000°; P Plg17.0000°, Azm249.0000°;*

*IDC* **14** *20:40:05.8± 0.5, 35.˙74N× 135.˙27E, h368km± 5km, mb3.8/31, mb1 3.9/36, mb1mx3.8/59, mbtmp4.5/36 Error ellipse: s-maj=8.4km s-min=7.3km az=133.0*

*MOS* **14** *20:40:05.2± 0.9, 35.˙93N× 135.˙32E, h368km, mb4.2/35, Error ellipse: s-maj=9.5km s-min=6.0km az=106.9*

**ISC 14 20:40:05.3± 0.5, 35.˙74N± 0.˙05× 135.˙32E± 0.˙04, h366km± 4km, n188, σ 1§19/226, mb4.2/62, 11C-14D, Western Honshu**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **JWT** | **Wachi** | **0.46** | **172** | ⇑P | | **Pn** | **20 40 51.5** | **+0.2** |
| JWT | | | | | S | **S** | **20 41 27.2** | **-1.1** |
| **JKG** | **Kaga** | **0.98** | **56** | ⇓P | | **Pn** | **20 40 52.7** | **+0.1** |
| JKG | | | | | *e*S | **S** | **20 41 28.1** | **-2.6** |
| **INU** | **Inuyama** | **1.43** | **105** | *e*Pn | | **Pn** | **20 40 55.2** | **+0.5** |
| **JWY** | **Kouya** | **1.53** | **172** | ⇑P | | **Pn** | **20 40 55.8** | **+0.4** |
| JWY | | | | | *e*S | **S** | **20 41 34.6** | **-1.0** |
| **JIE** | **Ise** | **1.76** | **139** | ⇑P | | **Pn** | **20 40 57.2** | **+0.6** |
| JIE | | | | | *e*S | **S** | **20 41 36.6** | **-1.2** |
| **JOI** | **OKI** | **1.77** | **289** | ⇓P | | **Pn** | **20 40 56.9** | **+0.4** |
| **JHS** | **Saijyo** | **1.95** | **248** | ⇑P | | **Pn** | **20 40 57.9** | **+0.1** |
| JHS | | | | | S | **S** | **20 41 39.1** | **-0.9** |
| **JAI** | **Aioi** | **2.07** | **201** | ⇑P | | **Pn** | **20 40 59.0** | **+0.4** |
| JAI | | | | | *e*S | **S** | **20 41 40.9** | **-0.6** |
| **JWZ** | **Kozaga** | **2.22** | **172** | ⇑P | | **Pn** | **20 40 59.9** | **+0.2** |
| JWZ | | | | | S | **S** | **20 41 43.3** | **-0.2** |
| **JSZ** | **Suzu** | **2.37** | **43** | ⇓P | | **Pn** | **20 41 00.9** | **+0.3** |
| JSZ | | | | | S | **S** | **20 41 44.6** | **-0.6** |
| **TTO1** | **TONANKAI O.B.S** | **2.43** | **150** | ⇑P | | **Pn** | **20 41 02.2** | **+1.3** |
| **MJB9** | **Matsu-Tunnel** | **2.47** | **70** | *e*Pn | | **Pn** | **20 41 01.6** | **+0.1** |
| **MAJO** | **Matsushiro** | **2.47** | **70** | *d*iP | | **Pn** | **20 41 01.4** | **0.0** |
| **MAJO** | **Matsushiro** | **2.47** | **70** | *e*Pn | | **Pn** | **20 41 01.5** | **+0.1** |
| **MAT** | **Matsushiro** | **2.47** | **70** | P | | **Pn** | **20 41 01.4** | **0.0** |
| MAT | | | | | S | **S** | **20 41 48.9** | **+2.2** |
| **MAT** | **Matsushiro** | **2.47** | **70** | P | | **Pn** | **20 41 01.5** | **0.0** |
| **MJAR** | **Matsushiro Arr** | **2.47** | **70** | P | | **Pn** | **20 41 01.9** | **+0.4** |
| | 25nm,0.3s,baz=254,slow=3.6,SNR=176 | | | | | | | |
| MJAR | | | | | S | **S** | **20 41 49.2** | **+2.5** |
| | baz=226,slow=15,SNR=3.7 | | | | | | | |
| **JYN** | **Shimob** | **2.63** | **94** | ⇓P | | **Pn** | **20 41 02.8** | **-0.1** |
| **TK02** | **Tokai 2** | **2.68** | **131** | ⇑P | | **Pn** | **20 41 04.0** | **+1.0** |
| TK02 | | | | | *e*S | **S** | **20 41 50.7** | **+1.3** |
| **JRY** | **Ryogami san** | **2.92** | **83** | ⇓P | | **Pn** | **20 41 04.9** | **-0.3** |
| **JOD2** | **Odawara 2** | **3.11** | **98** | P | | **Pn** | **20 41 07.2** | **+0.4** |
| JOD2 | | | | | *e*S | **S** | **20 41 56.9** | **+0.5** |
| **JSD** | **Sado** | **3.29** | **45** | P | | **Pn** | **20 41 07.9** | **-0.4** |
| **JAG** | **Ashikaga** | **3.42** | **77** | P | | **Pn** | **20 41 08.4** | **-1.2** |
| **JTO** | **Tosashimizu** | **3.55** | **217** | P | | **Pn** | **20 41 11.8** | **+0.9** |
| JTO | | | | | S | **S** | **20 42 00.8** | **-3.0** |
| **JNS** | **Sasagawa** | **3.82** | **56** | ⇓P | | **Pn** | **20 41 13.2** | **-0.2** |
| **JNU** | **Nakatsue** | **4.50** | **236** | P | | **Pn** | **20 41 21.3** | **+0.8** |
| | 19nm,0.3s,baz=56,slow=5.4,SNR=150 | | | | | | | |
| JNU | | | | | S | **S** | **20 42 20.5** | **-0.8** |
| | baz=180,slow=20,SNR=3.1 | | | | | | | |
| **JHJ** | **Hachijo jima 2** | **4.52** | **124** | P | | **Pn** | **20 41 23.8** | **+3.2** |
| | 13nm,0.3s,baz=105,slow=22,SNR=15 | | | | | | | |
| JHJ | | | | | S | **S** | **20 42 23.0** | **+1.5** |
| | 34nm,0.3s,baz=90,slow=20,SNR=5.0 | | | | | | | |
| **KSRS** | **Korea Array** | **6.20** | **288** | P | | **Pn** | **20 41 39.8** | **+1.0** |
| | 5.1nm,0.3s,baz=108,slow=12,SNR=112 | | | | | | | |
| **KS01** | **Wonju Array Si** | **6.22** | **288** | *e*Pn | | **Pn** | **20 41 39.1** | **0.0** |
| **KS15** | **Wonju Array Si** | **6.22** | **288** | *e*Pn | | **Pn** | **20 41 40.0** | **+0.9** |
| **KSAR** | **Wonju Array Be** | **6.22** | **288** | P | | **Pn** | **20 41 39.8** | **+0.7** |
| **KSAR** | **Wonju Array Be** | **6.22** | **288** | P | | **Pn** | **20 41 39.8** | **+0.7** |
| **TJN** | **Taejon** | **6.48** | **278** | *ce*P | | **Pn** | **20 41 42.3** | **+0.3** |
| **INCN** | **Inchon** | **7.20** | **287** | *e*Pn | | **P** | **20 41 51.7** | **+0.2** |
| **MSHR** | **Mys Shultsa** | **7.56** | **336** | ⇓*i*P | | **Pn** | **20 41 54.1** | **-0.3** |
| **VLA** | **Vladivostok** | **7.84** | **341** | ⇓*e*P | | **Pn** | **20 41 58.0** | **+0.4** |
| **ERM** | **Erimo** | **8.75** | **42** | *i* P | | **Pn** | **20 42 06.9** | **-1.4** |
| **ERM** | **Erimo** | **8.75** | **42** | *e*Pn | | **Pn** | **20 42 07.2** | **-1.1** |
| **USRK** | **Ussuriysk Ar.** | **8.83** | **344** | P | | **Pn** | **20 42 09.9** | **+0.7** |
| | 7.9nm,0.3s,baz=166,slow=11,SNR=174 | | | | | | | |
| **MDJ** | **Mudanjiang** | **9.89** | **335** | P | | **P** | **20 42 22.5** | **-0.1** |
| MDJ | | | | | pmax | pmax | | |
| | comp=Z,120nm,0.9s | | | | | | | |
| MDJ | | | | | pmax | pmax | | |
| | comp=Z,110nm,5.3s | | | | | | | |
| **MDJ** | **Mudanjiang** | **9.89** | **335** | *e*Pn | | **P** | **20 42 22.3** | **-0.4** |
| **ASAJ** | **Asahikawa** | **10.06** | **31** | P | | **Pn** | **20 42 21.0** | **-2.7** |
| | 36nm,0.3s,baz=233,slow=12,SNR=190 | | | | | | | |
| ASAJ | | | | | S | **S** | 20 44 07.8 | -10 |
| | 5.4nm,0.3s,baz=346,slow=18,SNR=12 | | | | | | | |
| **ASAJ** | **Asahikawa** | **10.06** | **31** | *e*Pn | | **Pn** | **20 42 21.5** | **-2.2** |
| ASAJ | | | | | S | **S** | 20 44 07.8 | -10 |
| **CBIJ** | **Chichi jima** | **10.41** | **144** | *e*Pn | | **Pn** | **20 42 23.8** | **-4.4** |
| CBIJ | | | | | S | **S** | 20 44 13.7 | -12 |
| **JCJ** | **Chichijima** | **10.41** | **144** | P | | Pn | 20 42 22.1 | -6.1 |
| | 22nm,0.3s,baz=286,slow=15,SNR=20 | | | | | | | |
| JCJ | | | | | S | **S** | 20 44 13.7 | -12 |
| | 68nm,0.3s,baz=98,slow=21,SNR=14 | | | | | | | |
| **CN2** | **Changchun** | **11.07** | **320** | *e*P | | **P** | **20 42 35.9** | **+0.2** |
| CN2 | | | | | pmax | pmax | | |
| | comp=Z,40nm,1.2s | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **12.51** | **24** | *e*P | | **Pn** | **20 42 52.3** | **-0.3** |
| YSS | | | | | *e*S | **S** | **20 45 05.4** | **-4.2** |
| YSS | | | | | pmax | pmax | | |
| | comp=Z,70nm,0.6s | | | | | | | |
| YSS | | | | | smax | smax | | |
| | comp=E,60nm,1.3s | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **12.51** | **24** | *e*P | | **P** | **20 42 52.1** | **+0.5** |
| **HABR** | **Khabarovsk** | **12.73** | **359** | *e*P | | **P** | **20 42 52.8** | **-1.2** |
| HABR | | | | | *e*S | **S** | **20 45 12.9** | **-1.0** |
| HABR | | | | | pmax | pmax | | |
| | comp=E,34nm,1.0s | | | | | | | |
| HABR | | | | | pmax | pmax | | |
| | comp=N,49nm,1.0s | | | | | | | |
| HABR | | | | | pmax | pmax | | |
| | comp=Z,65nm,1.0s | | | | | | | |
| **KLR** | **Kul'dur** | **13.74** | **350** | P | | **P** | **20 43 03.3** | **-1.8** |
| | comp=Z,0.2nm,0.3s,baz=153,slow=9.0,SNR=38 | | | | | | | |
| **NJ2** | **Nanjing** | **14.16** | **260** | *e*P | | **P** | **20 43 10.3** | **+0.3** |
| NJ2 | | | | | pmax | pmax | | |
| | comp=Z,24nm,0.7s | | | | | | | |
| **TIA** | **Tai'an** | **14.75** | **277** | ⇓P | | **P** | **20 43 16.5** | **+0.1** |
| TIA | | | | | pmax | pmax | | |
| | comp=Z,80nm,0.7s | | | | | | | |
| **TYV** | **Tymovskoe** | **16.02** | **17** | *e*P | | **Pn** | **20 43 32.9** | **-0.3** |
| TYV | | | | | pmax | pmax | | |
| | comp=Z,19nm,1.6s | | | | | | | |
| **YHNB** | **Yeheng** | **16.32** | **231** | *e*P | | **P** | **20 43 31.9** | **-1.7** |
| | comp=Z,156nm,1.6s | | | | | | | |
| **NACB** | **Ninganchiao** | **16.54** | **230** | *e*P | | **P** | **20 43 32.7** | **-3.2** |
| | comp=Z,37nm,1.1s | | | | | | | |
| **HIA** | **Hailar** | **17.69** | **325** | *e*P | | **P** | **20 43 46.1** | **-1.9** |
| HIA | | | | | pmax | pmax | | |
| | comp=Z,45nm,0.7s | | | | | | | |
| **HIA** | **Hailar** | **17.69** | **325** | *e*P | | **P** | **20 43 46.1** | **-1.9** |
| | comp=Z,45nm,0.7s | | | | | | | |
| **NKL** | **Nikolayevsk** | **17.82** | **11** | *e*P | | **P** | **20 43 44.0** | **-5.1** |
| **XAN** | **Xi'an** | **21.70** | **273** | P | | **P** | **20 44 27.0** | **-0.7** |
| XAN | | | | | pmax | pmax | | |
| | comp=Z,11nm,0.9s | | | | | | | |
| XAN | | | | | pmax | pmax | | |
| | comp=Z,100nm,3.7s | | | | | | | |
| **CLNS** | **Chul'man** | **22.25** | **345** | *e*P | | **P** | **20 44 32.0** | **-0.3** |
| CLNS | | | | | pmax | pmax | | |
| | comp=Z,43nm,0.8s | | | | | | | |
| CLNS | | | | | pmax | pmax | | |
| | comp=N,26nm,0.8s | | | | | | | |
| CLNS | | | | | pmax | pmax | | |
| | comp=E,9.0nm,0.9s | | | | | | | |
| **ULN** | **Ulaanbaatar** | **24.17** | **309** | *d iP* | | **P** | **20 44 51.2** | **+1.3** |
| ULN | | | | | pmax | pmax | | |
| | comp=Z,15nm,1.0s | | | | | | | |
| **ULN** | **Ulaanbaatar** | **24.17** | **309** | *e*P | | **P** | **20 44 49.7** | **-0.2** |
| | comp=Z,12nm,0.7s | | | | | | | |
| **SONA1** | **Songino Array** | **24.57** | **308** | *e*P | | **P** | **20 44 53.6** | **+0.1** |
| **SONA0** | **Songino Array** | **24.57** | **308** | *e*P | | **P** | **20 44 53.5** | **0.0** |
| SONA0 | | | | | *e*ScP | **ScP** | **20 51 23.1** | **-0.2** |
| **SONM** | **Songino Array** | **24.57** | **308** | P | | **P** | **20 44 53.5** | **0.0** |
| | comp=Z,6.0nm,0.6s,baz=113,slow=8.5,SNR=29 | | | | | | | |
| SONM | | | | | ScP | **ScP** | **20 51 23.1** | **-0.2** |
| | comp=Z,0.3nm,0.8s,baz=101,slow=2.7,SNR=4.2 | | | | | | | |
| **LZH** | **Lanzhou** | **25.45** | **280** | *e*P | | **P** | **20 45 02.0** | **+0.5** |
| LZH | | | | | pmax | pmax | | |
| | comp=Z,30nm,1.0s | | | | | | | |
| LZH | | | | | pmax | pmax | | |
| | comp=Z,140nm,5.2s | | | | | | | |
| **MA2** | **Magadan** | **25.89** | **18** | P | | **P** | **20 45 05.5** | **+0.6** |
| | comp=Z,2.7nm,0.3s,baz=199,slow=16,SNR=4.6 | | | | | | | |
| **MA2** | **Magadan** | **25.89** | **18** | P | | **P** | **20 45 05.5** | **+0.6** |
| MA2 | | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.7s | | | | | | | |
| **YAK** | **Yakutsk** | **26.56** | **354** | P | | **P** | **20 45 10.8** | **0.0** |
| | comp=Z,21nm,0.5s,baz=49,slow=1.0,SNR=8.5 | | | | | | | |
| **YAK** | **Yakutsk** | **26.56** | **354** | *e*P | | **P** | **20 45 09.2** | **-1.6** |
| YAK | | | | | pmax | pmax | | |
| | comp=Z,30nm,1.2s | | | | | | | |
| YAK | | | | | pmax | pmax | | |
| | comp=N,21nm,1.5s | | | | | | | |
| YAK | | | | | pmax | pmax | | |
| | comp=E,5.0nm,1.6s | | | | | | | |
| **YAK** | **Yakutsk** | **26.56** | **354** | *e*P | | **P** | **20 45 08.6** | **-2.2** |
| | comp=E,32nm,0.7s | | | | | | | |
| **TLY** | **Talaya** | **27.62** | **315** | P | | **P** | **20 45 20.1** | **-0.2** |
| | comp=E,5.9nm,0.8s,baz=247,slow=6.8,SNR=5.1 | | | | | | | |
| **GTA** | **Gaotai** | **28.27** | **288** | *e*P | | **P** | **20 45 26.0** | **-0.4** |
| **SEY** | **Seymchan** | **29.21** | **16** | P | | **P** | **20 45 34.7** | **+0.5** |
| | comp=E,4.1nm,0.6s,baz=206,slow=8.4,SNR=10 | | | | | | | |
| **SEY** | **Seymchan** | **29.21** | **16** | *e*P | | **P** | **20 45 34.9** | **+0.7** |
| **KMI** | **Kunming** | **29.90** | **258** | P | | **P** | **20 45 40.8** | **-0.2** |
| KMI | | | | | pmax | pmax | | |
| | comp=E,20nm,1.0s | | | | | | | |
| **TIXI** | **Tiksi** | **36.14** | **357** | P | | **P** | **20 46 33.2** | **-0.3** |
| | comp=E,19nm,0.7s,baz=150,slow=6.6,SNR=78 | | | | | | | |
| **TIXI** | **Tiksi** | **36.14** | **357** | ⇑*i*P | | **P** | **20 46 33.1** | **-0.5** |
| TIXI | | | | | pmax | pmax | | |
| | comp=Z,21nm,0.8s | | | | | | | |
| **TIXI** | **Tiksi** | **36.14** | **357** | *e*P | | **P** | **20 46 32.9** | **-0.7** |
| | comp=Z,18nm,0.7s | | | | | | | |
| **CHTO** | **Chiang Mai** | **36.21** | **252** | *e*P | | **P** | **20 46 35.0** | **+0.1** |
| CHTO | | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.7s | | | | | | | |
| **CHTO** | **Chiang Mai** | **36.21** | **252** | *e*P | | **P** | **20 46 35.0** | **+0.1** |
| | comp=Z,9.2nm,0.7s | | | | | | | |
| **CM31** | **Chiang Mai Arr** | **36.42** | **252** | *e*P | | **P** | **20 46 37.2** | **+0.5** |
| **CMAR** | **Chiang Mai Arr** | **36.42** | **252** | P | | **P** | **20 46 36.9** | **+0.2** |
| | comp=Z,3.5nm,0.7s,baz=45,slow=7.7,SNR=35 | | | | | | | |
| CMAR | | | | | ScP | **ScP** | **20 52 03.4** | **+0.6** |
| | comp=Z,0.8nm,0.8s,baz=27,slow=2.9,SNR=7.1 | | | | | | | |
| **CM01** | **Chiang Mai Arr** | **36.43** | **251** | *e*P | | **P** | **20 46 36.6** | **-0.1** |
| **DGZ** | **Jazzator, Alta** | **37.21** | **307** | *i* P | | **P** | **20 46 44.6** | **+1.6** |
| DGZ | | | | | pmax | pmax | | |
| | comp=Z,11nm,0.8s | | | | | | | |
| **ZAA0** | **Zalesovo Array** | **39.21** | **314** | *e*P | | **P** | **20 46 58.9** | **-0.4** |
| | comp=Z,8.2nm,1.0s | | | | | | | |
| **ZAA1** | **Zalesovo Array** | **39.21** | **314** | *e*P | | **P** | **20 46 59.4** | **+0.2** |
| ZAA1 | | | | | *e*PcP | **PcP** | **20 48 59.7** | **-0.2** |
| ZAA1 | | | | | *e*ScP | **ScP** | **20 52 12.4** | **-0.3** |
| **ZALV** | **Zalesovo Beam** | **39.21** | **314** | P | | **P** | **20 46 59.4** | **+0.2** |
| | comp=Z,3.0nm,0.4s,baz=101,slow=7.7,SNR=25 | | | | | | | |
| ZALV | | | | | PcP | **PcP** | **20 48 59.7** | **-0.2** |
| | comp=Z,1.3nm,0.5s,baz=100,slow=3.0,SNR=4.9 | | | | | | | |
| ZALV | | | | | ScP | **ScP** | **20 52 12.4** | **-0.3** |
| | comp=Z,2.1nm,0.6s,baz=110,slow=3.4,SNR=12 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **39.21** | **314** | *e*P | | **P** | **20 46 58.8** | **-0.4** |
| ZALV | | | | | | | 20 48 59.7 | |
| **ZALV** | **Zalesovo Beam** | **39.21** | **314** | *e*P | | **P** | **20 46 58.8** | **-0.4** |
| ZALV | | | | | PcP | **PcP** | **20 48 59.7** | **-0.2** |
| ZALV | | | | | ScP | **ScP** | **20 52 12.4** | **-0.3** |
| **NVS** | **Novosibirsk** | **40.23** | **315** | *i* P | | **P** | **20 47 08.1** | **+0.6** |
| **MK01** | **Makanchi Array** | **40.65** | **303** | *e*P | | **P** | **20 47 11.4** | **+0.2** |
| **MK31** | **Makanchi Array** | **40.66** | **303** | *e*P | | **P** | **20 47 12.0** | **+0.8** |
| **MK31** | **Makanchi Array** | **40.66** | **303** | *e*P | | **P** | **20 47 11.9** | **+0.8** |
| **MK32** | **Makanchi Array** | **40.66** | **303** | *e*P | | **P** | **20 47 11.7** | **+0.5** |
| MK32 | | | | | *e*ScP | **ScP** | **20 52 18.2** | **-0.4** |
| **MKAR** | **Makanchi Array** | **40.66** | **303** | P | | **P** | **20 47 11.7** | **+0.5** |
| | comp=Z,5.9nm,0.6s,baz=85,slow=11,SNR=46 | | | | | | | |
| MKAR | | | | | ScP | **ScP** | **20 52 18.2** | **-0.4** |
| | comp=Z,1.1nm,0.8s,baz=72,slow=4.0,SNR=4.7 | | | | | | | |
| **TAPN** | **Taplejung** | **41.10** | **272** | *e*P | | **P** | **20 47 15.4** | **+0.1** |
| | comp=Z,13nm,0.4s | | | | | | | |
| **ODAN** | **Odare** | **41.56** | **272** | *e*P | | **P** | **20 47 18.8** | **-0.2** |
| | comp=Z,16nm,0.6s | | | | | | | |
| **RAMN** | **Ramite** | **42.17** | **272** | *e*P | | **P** | **20 47 23.6** | **-0.2** |
| | comp=Z,34nm,0.7s | | | | | | | |
| **JIRN** | **Jiri** | **42.21** | **273** | *e*P | | **P** | **20 47 24.8** | **+0.5** |
| | comp=Z,40nm,0.8s | | | | | | | |
| **GUN** | **Gumba** | **42.36** | **274** | *e*P | | **P** | **20 47 25.7** | **+0.2** |
| | comp=Z,12nm,0.5s | | | | | | | |
| **KURK** | **Kurchatov** | **42.88** | **309** | P | | **P** | **20 47 29.2** | **+0.4** |
| KURK | | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.6s | | | | | | | |
| **KURK** | **Kurchatov** | **42.88** | **309** | *e*P | | **P** | **20 47 28.7** | **-0.2** |
| | comp=Z,14nm,0.6s | | | | | | | |
| KURK | | | | | *e*ScP | **ScP** | **20 52 26.8** | **-0.7** |
| **PKI** | **Pulchoki** | **42.88** | **274** | *e*P | | **P** | **20 47 29.3** | **-0.3** |
| | comp=Z,8.3nm,0.7s | | | | | | | |
| **PKIN** | **Phulchoki** | **42.89** | **274** | *e*P | | **P** | **20 47 30.2** | **+0.6** |
| | comp=Z,5.9nm,0.5s | | | | | | | |
| **KKN** | **Kakani** | **42.90** | **274** | *e*P | | **P** | **20 47 29.6** | **0.0** |
| | comp=Z,15nm,1.0s | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **42.94** | **309** | P | | **P** | **20 47 29.2** | **-0.1** |
| | comp=Z,5.6nm,0.6s,baz=98,slow=8.6,SNR=62 | | | | | | | |
| KURBB | | | | | ScP | **ScP** | **20 52 26.8** | **-0.9** |
| | comp=Z,1.1nm,0.7s,baz=98,slow=4.0,SNR=7.2 | | | | | | | |
| **PDGK** | **Podgornoye** | **43.03** | **298** | P | | **P** | **20 47 32.8** | **+2.4** |
| PDGK | | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.1s | | | | | | | |
| **DMN** | **Daman** | **43.11** | **274** | *e*P | | **P** | **20 47 31.4** | **0.0** |
| | comp=Z,13nm,1.0s | | | | | | | |
| **DANN** | **Dangsing** | **43.91** | **275** | *e*P | | **P** | **20 47 38.5** | **+0.8** |
| | comp=Z,4.1nm,0.9s | | | | | | | |
| **KOLN** | **Koldanda** | **44.27** | **275** | *e*P | | **P** | **20 47 40.6** | **+0.2** |
| | comp=Z,26nm,1.0s | | | | | | | |
| **PYUN** | **Piuthan** | **44.63** | **275** | *e*P | | **P** | **20 47 43.6** | **+0.4** |
| | comp=Z,81nm,0.9s | | | | | | | |
| **KSH** | **Kashi** | **46.42** | **293** | *e*P | | **P** | **20 48 00.3** | **+3.4** |
| KSH | | | | | pP | pP | 20 49 14.9 | +4.6 |
| KSH | | | | | PcP | **PcP** | **20 49 26.5** | **+1.7** |
| KSH | | | | | PP | **sP** | **20 49 55.8** | **+4.4** |
| KSH | | | | | S | **S** | **20 54 20.8** | **+4.4** |
| KSH | | | | | ScS | **ScS** | **20 57 10.8** | **-0.8** |
| KSH | | | | | SS | **SS** | **20 57 49.9** | **+2.6** |
| KSH | | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.4s | | | | | | | |
| KSH | | | | | pmax | pmax | | |
| | comp=Z,130nm,6.8s | | | | | | | |
| KSH | | | | | LR | LR | | |
| | comp=Z,190nm,4.9s | | | | | | | |
| KSH | | | | | LR | LR | | |
| | comp=Z,180nm,6.7s | | | | | | | |
| KSH | | | | | LR | LR | | |
| | comp=Z,240nm,6.0s | | | | | | | |
| **AAK** | **Ala-Archa** | **46.76** | **298** | P | | **P** | **20 48 00.3** | **+0.8** |
| | comp=Z,7.7nm,0.4s,baz=148,slow=8.0,SNR=4.1 | | | | | | | |
| **AAK** | **Ala-Archa** | **46.76** | **298** | *e*P | | **P** | **20 47 59.9** | **+0.4** |
| AAK | | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.6s | | | | | | | |
| **BVAR** | **Borovoye Array** | **47.81** | **312** | P | | **P** | **20 48 07.2** | **+0.2** |
| | comp=Z,2.9nm,0.5s | | | | | | | |
| BVAR | | | | | ScP | **ScP** | **20 52 47.4** | **-0.5** |
| | comp=Z,1.7nm,0.8s,baz=94,slow=4.3,SNR=6.8 | | | | | | | |
| **BRVK** | **Borovoye** | **47.87** | **312** | ⇓*e*P | | **P** | **20 48 07.8** | **+0.3** |
| BRVK | | | | | pmax | pmax | | |
| | comp=Z,13nm,1.0s | | | | | | | |
| **BRVK** | **Borovoye** | **47.87** | **312** | *e*P | | **P** | **20 48 06.4** | **-1.1** |
| | comp=Z,5.5nm,0.9s | | | | | | | |
| **IMAR** | **Indian Mountai** | **50.26** | **30** | *e*P | | **P** | **20 48 25.9** | **+0.7** |
| **KDAK** | **Kodiak Island** | **51.32** | **41** | P | | **P** | **20 48 33.7** | **+0.6** |
| | comp=Z,14nm,0.8s,baz=225,slow=2.1,SNR=27 | | | | | | | |
| **KDAK** | **Kodiak Island** | **51.32** | **41** | *i* P | | **P** | **20 48 33.9** | **+0.8** |
| **RND** | **Reindeer** | **52.49** | **33** | *e*P | | **P** | **20 48 42.6** | **+0.9** |
| RND | | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.7s | | | | | | | |
| **RND** | **Reindeer** | **52.49** | **33** | *e*P | | **P** | **20 48 42.6** | **+0.9** |
| | comp=Z,9.9nm,0.7s | | | | | | | |
| **MDM** | **Murphy Dome** | **52.60** | **31** | *e*P | | **P** | **20 48 44.1** | **+1.6** |
| | comp=Z,19nm,0.7s | | | | | | | |
| **COLA** | **College** | **52.77** | **31** | *i* P | | **P** | **20 48 44.8** | **+1.2** |
| COLA | | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.7s | | | | | | | |
| **IL1** | **Eielson Array** | **53.20** | **32** | *e*P | | **P** | **20 48 46.8** | **+0.1** |
| **ILAR** | **Eielson Array** | **53.20** | **32** | P | | **P** | **20 48 47.0** | **+0.3** |
| | comp=Z,2.9nm,0.8s,baz=263,slow=6.4,SNR=48 | | | | | | | |
| **ILB** | **Eielson Array** | **53.20** | **32** | *e*P | | **P** | **20 48 47.2** | **+0.5** |
| **ARU** | **Arti** | **54.06** | **318** | *d iP* | | **P** | **20 48 52.8** | **-0.2** |
| ARU | | | | | *PP | **pP** | **20 50 08.4** | **-0.7** |
| ARU | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CRVS | Cervenica-Dubn | 77.31 | 322 | *e*P | | P | 20 51 19.2 | -0.9 |
| CRVS | Cervenica-Dubn | 77.31 | 322 | *e*P | | P | 20 51 19.2 | -0.9 |
| SFJD | Kangerlussuaq | 77.49 | 2 | P | | P | 20 51 21.2 | +0.4 |
| | comp=Z,9.4nm,0.9s,baz=0.3,slow=3.9,SNR=2.8 | | | | | | | |
| VYHS | Vyhne | 78.88 | 323 | *e*P | | P | 20 51 29.0 | +0.3 |
| VYHS | Vyhne | 78.88 | 323 | *e*P | | P | 20 51 29.0 | +0.3 |
| FRB | Frobisher Bay | 79.05 | 11 | P | | P | 20 51 29.7 | +0.5 |
| | comp=Z,46nm,1.1s,baz=183,slow=4.9,SNR=3.5 | | | | | | | |
| GERES | GERESS Array B | 81.10 | 325 | P | | P | 20 51 40.5 | -0.1 |
| | comp=Z,0.8nm,0.6s,baz=50,slow=5.4,SNR=5.0 | | | | | | | |
| SOKA | Soboth | 82.00 | 323 | *i* PcP | | P | 20 51 45.8 | +0.5 |
| | comp=Z,2.3nm,0.4s | | | | | | | |
| PD31 | Pinedale Array | 82.01 | 42 | *e*P | | P | 20 51 42.9 | -2.7 |
| PDAR | Pinedale Array | 82.01 | 42 | P | | P | 20 51 46.1 | +0.5 |
| | comp=Z,0.6nm,0.6s,baz=343,slow=4.6,SNR=5.0 | | | | | | | |
| KBA | Koelnbreinsper | 82.53 | 324 | *i* PcP | | P | 20 51 49.0 | +0.9 |
| | comp=Z,3.2nm,0.6s | | | | | | | |
| ULM | Lac du Bonnet | 83.19 | 30 | P | | P | 20 51 52.1 | +0.9 |
| | comp=Z,2.3nm,0.7s,baz=297,slow=4.5,SNR=4.4 | | | | | | | |
| TMUT | Trail Mountain | 83.38 | 46 | *e*pP | | pP | 20 53 18.0 | +1.4 |
| DAVA | Damuels | 83.99 | 326 | *i* PcP | | P | 20 51 55.9 | +0.5 |
| | comp=Z,5.3nm,0.7s | | | | | | | |
| FUORN | Ofenpass-Fuorn | 84.31 | 325 | *e*P | | P | 20 51 57.8 | +0.6 |
| | comp=Z,9.5nm,0.6s | | | | | | | |
| LAZ | Ladron | 89.08 | 47 | *e*P | | P | 20 52 16.7 | -3.5 |

*TAP* **14** *20:59:12.9,24.64N×122.68E,h93km±1km,ML3.6,D*
*JMA* **14** *20:59:12.1±0.1,24.64N×122.52E,h113km±2km,M3.0*
*ISCJB* **14** *20:59:13.2±0.6,24.68N±0.03×122.58E±0.02,*
*h103km±5km, Error ellipse: s-maj=5.8km s-min=2.5km*
*az=169.6*

**ISC 14 20:59:14.0**±1.4**,24.66N**±0.05×**122.57E**±0.02**,h100**km±9km**,**
**n46,**σ**0.9 79/86, Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| JYNG | Yonagunijimaku | 0.40 | 121 | P | | Pn | | 20 59 29.1 | +0.1 |
| JYNG | | | | S | | Sn | | 20 59 41.3 | +1.1 |
| YOJ | Yonaguni jima | 0.44 | 116 | P | | Pn | | 20 59 29.4 | +0.1 |
| YOJ | | | | *e*S | | Sn | | 20 59 42.1 | +1.3 |
| TWB1 | Santiao Chiao | 0.64 | 303 | P | | Pn | | 20 59 30.5 | -0.3 |
| | baz=300 | | | | | | | | |
| TWB1 | | | | *e*S | | Sn | | 20 59 44.1 | +0.7 |
| | baz=300 | | | | | | | | |
| TWC | Suao | 0.66 | 266 | P | | Pn | | 20 59 30.5 | -0.5 |
| | baz=267 | | | | | | | | |
| TWC | | | | S | | Sn | | 20 59 43.4 | -0.3 |
| | baz=267 | | | | | | | | |
| ENA | Nanau | 0.79 | 253 | P | | Pn | | 20 59 32.0 | -0.2 |
| | baz=256 | | | | | | | | |
| ENA | | | | *e*S | | Sn | | 20 59 46.4 | +0.5 |
| | baz=256 | | | | | | | | |
| TWE | Neicheng | 0.83 | 275 | P | | Pn | | 20 59 32.3 | -0.2 |
| | baz=275 | | | | | | | | |
| TWE | | | | S | | Sn | | 20 59 46.6 | +0.1 |
| | baz=275 | | | | | | | | |
| NWF | Wu-fen Shan | 0.83 | 300 | P | | Pn | | 20 59 32.5 | -0.2 |
| | baz=297 | | | | | | | | |
| NWF | | | | *e*S | | Sn | | 20 59 47.0 | +0.2 |
| | baz=297 | | | | | | | | |
| ENTT | Nioudou | 0.92 | 269 | P | | Pn | | 20 59 33.6 | +0.1 |
| | baz=270 | | | | | | | | |
| ENTT | | | | *e*S | | Sn | | 20 59 48.2 | +0.1 |
| | baz=270 | | | | | | | | |
| TWA | Mucha | 0.96 | 290 | *e*P | | Pn | | 20 59 33.6 | -0.3 |
| | baz=289 | | | | | | | | |
| TWA | | | | *e*S | | Sn | | 20 59 48.6 | -0.3 |
| | baz=289 | | | | | | | | |
| TWD | Chiawan | 1.06 | 237 | *e*P | | Pn | | 20 59 34.3 | -0.7 |
| | baz=240 | | | | | | | | |
| TWD | | | | *e*S | | Sn | | 20 59 50.8 | -0.1 |
| | baz=240 | | | | | | | | |
| IRIF | Iriomote-Funau | 1.10 | 107 | P | | Pn | | 20 59 35.2 | -0.3 |
| IRIF | | | | S | | Sn | | 20 59 52.1 | +0.4 |
| NSK | Sanguang | 1.11 | 271 | P | | Pn | | 20 59 35.4 | -0.2 |
| | baz=271 | | | | | | | | |
| NSK | | | | *e*S | | Sn | | 20 59 51.6 | -0.3 |
| | baz=271 | | | | | | | | |
| NNS | Nan Shan | 1.11 | 259 | P | | Pn | | 20 59 35.5 | -0.3 |
| | baz=260 | | | | | | | | |
| NNS | | | | S | | Sn | | 20 59 52.4 | +0.2 |
| | baz=260 | | | | | | | | |
| TWS1 | Kuangyinshan | 1.14 | 293 | *e*P | | Pn | | 20 59 35.4 | -0.5 |
| | baz=292 | | | | | | | | |
| TWS1 | | | | *e*S | | Sn | | 20 59 51.9 | -0.6 |
| | baz=292 | | | | | | | | |
| HATJ | Hateruma jima | 1.27 | 118 | *e*S | | Sn | | 20 59 56.0 | +0.8 |
| WHF | Hehuan Shan | 1.30 | 247 | *e*P | | Pn | | 20 59 37.8 | -0.4 |
| | baz=249 | | | | | | | | |
| WHF | | | | *e*S | | Sn | | 20 59 56.0 | -0.4 |
| | baz=249 | | | | | | | | |
| NCU | National Centr | 1.30 | 284 | *e*S | | Sn | | 20 59 56.3 | +0.5 |
| | baz=283 | | | | | | | | |
| ESL | Shilin | 1.34 | 231 | *e*P | | Pn | | 20 59 37.0 | -1.3 |
| | baz=234 | | | | | | | | |
| ESL | | | | *e*S | | Sn | | 20 59 55.4 | -1.3 |
| | baz=234 | | | | | | | | |
| JKRS | Kuro-shima | 1.37 | 107 | P | | Pn | | 20 59 38.7 | 0.0 |
| JKRS | | | | S | | Sn | | 20 59 58.0 | +0.7 |
| NSTT | Nanjuang | 1.43 | 269 | *e*P | | Pn | | 20 59 38.3 | -1.1 |
| | baz=269 | | | | | | | | |
| NSTT | | | | *e*S | | Sn | | 20 59 58.2 | -0.5 |
| | baz=269 | | | | | | | | |
| JIJ | Ishigaki jima | 1.46 | 101 | P | | Pn | | 20 59 39.2 | -0.5 |
| JIJ | | | | S | | Sn | | 20 59 58.5 | -0.7 |
| JISG | Ishigakijimahi | 1.58 | 92 | P | | Pn | | 20 59 40.8 | -0.4 |
| JISG | | | | S | | Sn | | 21 00 01.4 | -0.5 |
| EHY | Hungye | 1.62 | 225 | *e*P | | Pn | | 20 59 40.5 | -1.2 |
| | baz=227 | | | | | | | | |
| EHY | | | | *e*S | | Sn | | 21 00 00.9 | -1.9 |
| | baz=227 | | | | | | | | |
| TWQ1 | Liyutan | 1.67 | 260 | *e*S | | Sn | | 21 00 03.4 | -0.5 |
| | baz=260 | | | | | | | | |
| SMLT | Sun Moon Lake | 1.71 | 244 | *e*P | | Pn | | 20 59 43.7 | +0.8 |
| | baz=245 | | | | | | | | |
| SMLT | | | | *e*S | | Sn | | 21 00 06.3 | +1.3 |
| | baz=245 | | | | | | | | |
| TYC | Yuchr | 1.74 | 245 | *e*P | | Pn | | 20 59 43.8 | +0.6 |
| | baz=246 | | | | | | | | |
| TYC | | | | *e*S | | Sn | | 21 00 06.3 | +1.0 |
| | baz=246 | | | | | | | | |
| TWF1 | Yuli | 1.75 | 222 | *e*P | | Pn | | 20 59 42.2 | -1.1 |
| | baz=224 | | | | | | | | |
| TWF1 | | | | *e*S | | Sn | | 21 00 04.0 | -1.6 |
| | baz=224 | | | | | | | | |
| YUS | Yu-Shan | 1.88 | 232 | *e*P | | Pn | | 20 59 45.5 | 0.0 |
| | baz=234 | | | | | | | | |
| YUS | | | | *e*S | | Sn | | 21 00 09.4 | -0.1 |
| | baz=234 | | | | | | | | |
| WNT | Mingjian | 1.89 | 246 | *e*P | | Pn | | 20 59 46.3 | +1.1 |
| | baz=247 | | | | | | | | |
| WNT | | | | *e*S | | Sn | | 21 00 09.5 | +0.6 |
| | baz=247 | | | | | | | | |
| JTJ | Tarama | 1.94 | 90 | P | | Pn | | 20 59 45.3 | -0.4 |
| JTJ | | | | S | | Sn | | 21 00 09.6 | -0.3 |
| ALS | Alishan | 1.98 | 235 | *e*P | | Pn | | 20 59 46.7 | +0.1 |
| | baz=236 | | | | | | | | |
| ALS | | | | *e*S | | Sn | | 21 00 13.0 | +1.7 |
| | baz=236 | | | | | | | | |
| CHN5 | Tsauling | 2.03 | 239 | *e*P | | Pn | | 20 59 47.1 | +0.1 |
| | baz=240 | | | | | | | | |
| CHN5 | | | | *e*S | | Sn | | 21 00 13.3 | +1.1 |
| | baz=240 | | | | | | | | |
| ELDTW | Lidau | 2.04 | 225 | *e*P | | Pn | | 20 59 46.6 | -0.6 |
| | baz=226 | | | | | | | | |
| ELDTW | | | | *e*S | | Sn | | 21 00 10.7 | -1.9 |
| | baz=226 | | | | | | | | |
| WGK | Gukeng | 2.08 | 243 | *e*P | | Pn | | 20 59 47.9 | +0.4 |
| | baz=243 | | | | | | | | |
| WGK | | | | *e*S | | Sn | | 21 00 13.2 | +0.1 |
| | baz=243 | | | | | | | | |
| CHN4 | Tsaushan | 2.23 | 235 | *e*P | | Pn | | 20 59 49.6 | 0.0 |
| | baz=236 | | | | | | | | |
| CHN4 | | | | *e*S | | Sn | | 21 00 17.3 | +0.5 |
| | baz=236 | | | | | | | | |
| STYT | Tauyuan | 2.23 | 229 | *e*P | | Pn | | 20 59 50.9 | +1.3 |
| | baz=230 | | | | | | | | |
| STYT | | | | *e*S | | Sn | | 21 00 17.7 | +0.8 |
| | baz=230 | | | | | | | | |
| WTP | Ta-pu | 2.28 | 232 | *e*P | | Pn | | 20 59 50.3 | +0.1 |
| | baz=233 | | | | | | | | |
| WTP | | | | *e*S | | Sn | | 21 00 18.6 | +0.6 |
| | baz=233 | | | | | | | | |
| TWG | Pinlang | 2.29 | 217 | *e*S | | Sn | | 21 00 16.7 | -1.5 |
| | baz=219 | | | | | | | | |
| TWK | Hsinying | 2.36 | 234 | *e*P | | Pn | | 20 59 52.5 | +1.3 |
| | baz=235 | | | | | | | | |
| TWK | | | | *e*S | | Sn | | 21 00 22.0 | +2.1 |
| | baz=235 | | | | | | | | |
| JIRB | Irabujima | 2.37 | 85 | P | | Pn | | 20 59 50.8 | -0.5 |
| WSF | Szhu | 2.38 | 245 | *e*S | | Sn | | 21 00 19.7 | -0.4 |
| | baz=246 | | | | | | | | |
| CHN1 | Nanshi | 2.38 | 232 | *e*P | | Pn | | 20 59 51.2 | -0.3 |
| | baz=233 | | | | | | | | |
| CHN1 | | | | *e*S | | Sn | | 21 00 20.8 | +0.5 |
| | baz=233 | | | | | | | | |
| SGST | Jiashian | 2.40 | 230 | *e*P | | Pn | | 20 59 52.4 | +0.6 |
| | baz=231 | | | | | | | | |
| SGST | | | | *e*S | | Sn | | 21 00 21.7 | +0.9 |
| | baz=231 | | | | | | | | |
| JIKM | Ikemajima | 2.44 | 83 | P | | Pn | | 20 59 52.8 | +0.5 |
| JIKM | | | | *e*S | | Sn | | 21 00 20.8 | -1.0 |
| JOGS | Gusukube | 2.58 | 87 | P | | Pn | | 20 59 54.1 | 0.0 |
| JOGS | | | | S | | Sn | | 21 00 25.7 | +0.8 |
| SSD | Sandimen | 2.60 | 223 | *e*P | | Pn | | 20 59 54.8 | +0.3 |
| | baz=224 | | | | | | | | |
| SSD | | | | *e*S | | Sn | | 21 00 26.3 | +0.7 |
| | baz=224 | | | | | | | | |

**WEL 14 21:16:22.8**±0.3**,37.75S**×**176.13E,h174**km±3km**,ML3.7**/30**,**
**6C-7D, Error ellipse: s-maj=3.6km s-min=2.7km az=90.0,**
**North Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| URZ | Urewera | 0.93 | 123 | ⇓P | | Pn | | 21 16 49.6 | +0.3 |
| URZ | | | | S | | Sn | | 21 17 10.1 | +0.3 |
| URZ | | | | AML | | AML | | 21 17 11.4 | |
| RTZ | Ruatahuna | 1.09 | 142 | PN | | Pn | | 21 16 50.9 | +0.3 |
| MRHZ | Matea Rd | 1.10 | 168 | PN | | Pn | | 21 16 51.2 | +0.5 |
| MRHZ | | | | AML | | AML | | 21 17 13.4 | |
| MRHZ | | | | AML | | AML | | 21 17 14.4 | |
| MTHZ | Maungataniwha | 1.23 | 153 | PN | | Pn | | 21 16 51.9 | +0.1 |
| MTHZ | | | | SN | | Sn | | 21 17 14.2 | -0.1 |
| RUGZ | Raukumara Rang | 1.24 | 100 | PN | | Pn | | 21 16 51.4 | -0.6 |
| MWZ | Matawai | 1.25 | 118 | ⇓PN | | Pn | | 21 16 51.9 | 0.0 |
| MWZ | | | | eSN | | Sn | | 21 17 14.3 | -0.1 |
| MWZ | | | | AML | | AML | | 21 17 19.8 | |
| HAZ | Te Kaha | 1.31 | 91 | ⇓PN | | Pn | | 21 16 52.1 | -0.3 |
| HAZ | | | | SN | | Sn | | 21 17 15.2 | -0.1 |
| HAZ | | | | AML | | AML | | 21 17 15.8 | |
| SNGZ | Shannon Statio | 1.40 | 137 | PN | | Pn | | 21 16 53.5 | +0.2 |
| SNGZ | | | | SN | | Sn | | 21 17 16.6 | -0.4 |
| SNGZ | | | | AML | | AML | | 21 17 21.4 | |
| BKZ | Black Stump Fm | 1.44 | 169 | PN | | Pn | | 21 16 53.5 | -0.1 |
| BKZ | | | | SN | | Sn | | 21 17 16.5 | -1.2 |
| BKZ | | | | AML | | AML | | 21 17 17.0 | |
| NMHZ | Naumai | 1.44 | 159 | PN | | Pn | | 21 16 54.4 | +0.6 |
| NMHZ | | | | AML | | AML | | 21 17 19.4 | |
| NMHZ | | | | AML | | AML | | 21 17 23.5 | |
| OTVZ | Oturere | 1.45 | 194 | ⇑PN | | Pn | | 21 16 54.5 | +0.6 |
| TWGZ | Tauwhareparae | 1.52 | 107 | ⇑PN | | Pn | | 21 16 54.9 | +0.4 |
| TWGZ | | | | AML | | AML | | 21 17 21.6 | |
| TWGZ | | | | AML | | AML | | 21 17 23.0 | |
| PKGZ | Pakihiroa | 1.55 | 96 | *e*PN | | Pn | | 21 16 55.0 | +0.2 |
| PKGZ | | | | AML | | AML | | 21 16 56.8 | |
| WHHZ | Waihua | 1.58 | 147 | PN | | Pn | | 21 16 55.1 | +0.1 |
| WHHZ | | | | AML | | AML | | 21 17 22.7 | |
| WHHZ | | | | AML | | AML | | 21 17 25.9 | |
| RIGZ | Rimuhau | 1.60 | 127 | PN | | Pn | | 21 16 55.3 | +0.1 |
| RIGZ | | | | SN | | Sn | | 21 17 20.0 | -0.4 |
| RIGZ | | | | AML | | AML | | 21 17 20.7 | |
| WNVZ | Wahianoa | 1.62 | 195 | ⇑PN | | Pn | | 21 16 55.6 | 0.0 |
| ARHZ | Aropaoanui | 1.65 | 156 | *e*PN | | Pn | | 21 16 55.9 | +0.1 |
| ARHZ | | | | AML | | AML | | 21 17 22.6 | |
| ARHZ | | | | AML | | AML | | 21 17 22.8 | |
| KWHZ | Kaweka Forest | 1.68 | 172 | PN | | Pn | | 21 16 55.9 | -0.2 |
| KWHZ | | | | SN | | Sn | | 21 17 21.1 | -0.9 |
| KWHZ | | | | AML | | AML | | 21 17 21.4 | |
| PUZ | Puketiti | 1.71 | 101 | PN | | Pn | | 21 16 56.0 | -0.3 |
| BHHZ | Black Hill Sta | 1.73 | 182 | PN | | Pn | | 21 16 56.0 | -0.6 |
| MCHZ | McNeill Hill | 1.75 | 165 | PN | | Pn | | 21 16 56.9 | +0.2 |
| MCHZ | | | | AML | | AML | | 21 17 22.7 | |
| MCHZ | | | | AML | | AML | | 21 17 24.0 | |
| KNZ | Kokohu | 1.75 | 137 | ⇓PN | | Pn | | 21 16 56.4 | -0.4 |
| CNGZ | Carnagh Statio | 1.79 | 115 | PN | | Pn | | 21 16 57.7 | +0.5 |
| PRGZ | Paritu Road | 1.81 | 131 | PN | | Pn | | 21 16 57.0 | -0.4 |
| PRGZ | | | | AML | | AML | | 21 17 25.4 | |
| PRGZ | | | | AML | | AML | | 21 17 29.8 | |
| WMGZ | Waiomatatini S | 1.81 | 93 | ⇑PN | | Pn | | 21 16 57.3 | -0.1 |
| WMGZ | | | | AML | | AML | | 21 17 25.3 | |
| WMGZ | | | | AML | | AML | | 21 17 27.3 | |
| KRHZ | Kereru | 1.90 | 174 | PN | | Pn | | 21 16 57.6 | -0.7 |
| KRHZ | | | | AML | | AML | | 21 17 25.1 | |
| KRHZ | | | | AML | | AML | | 21 17 27.0 | |
| MHGZ | Mahia Peninsul | 1.97 | 136 | PN | | Pn | | 21 16 58.8 | -0.3 |
| CKHZ | Cape Kidnapper | 2.04 | 159 | PN | | Pn | | 21 16 59.3 | -0.5 |
| CKHZ | | | | AML | | AML | | 21 17 30.2 | |
| CKHZ | | | | AML | | AML | | 21 17 31.4 | |
| KAHZ | Kahuranaki | 2.12 | 164 | PN | | Pn | | 21 17 00.0 | -0.7 |
| KAHZ | | | | AML | | AML | | 21 17 31.1 | |
| KAHZ | | | | AML | | AML | | 21 17 33.7 | |
| PNHZ | Pukenui | 2.16 | 179 | PN | | Pn | | 21 16 59.9 | -1.3 |
| PNHZ | | | | AML | | AML | | 21 17 31.3 | |
| PNHZ | | | | AML | | AML | | 21 17 31.9 | |
| TSZ | Takapari Road | 2.31 | 183 | ⇑PN | | Pn | | 21 17 01.3 | -1.5 |
| TSZ | | | | SN | | Sn | | 21 17 30.7 | -3.4 |
| TSZ | | | | AML | | AML | | 21 17 33.8 | |
| PXZ | Pawanui | 2.34 | 166 | PN | | Pn | | 21 17 01.8 | -1.4 |
| PXZ | | | | AML | | AML | | 21 17 32.4 | |
| PXZ | | | | AML | | AML | | 21 17 32.6 | |
| OHWZ | Ohakea | 2.53 | 194 | PN | | Pn | | 21 17 04.4 | -1.0 |
| PRHZ | Porangahau | 2.54 | 171 | PN | | Pn | | 21 17 03.7 | -1.9 |
| PRHZ | | | | AML | | AML | | 21 17 35.7 | |
| PRHZ | | | | AML | | AML | | 21 17 36.2 | |
| DVHZ | Dannevirke | 2.54 | 179 | ⇑PN | | Pn | | 21 17 03.5 | -2.1 |
| DVHZ | | | | AML | | AML | | 21 17 35.3 | |
| DVHZ | | | | AML | | AML | | 21 17 35.6 | |
| POWZ | Post Office Ro | 2.65 | 186 | PN | | Pn | | 21 17 04.7 | -2.2 |
| PRWZ | Pori Road | 2.80 | 182 | PN | | Pn | | 21 17 06.4 | -2.2 |
| PRWZ | | | | AML | | AML | | 21 17 41.2 | |
| PRWZ | | | | AML | | AML | | 21 17 45.1 | |
| BFZ | Birch Farm | 2.92 | 178 | PN | | Pn | | 21 17 07.4 | -2.8 |
| BFZ | | | | SN | | Sn | | 21 17 42.4 | -4.8 |
| MRZ | Mangatainoka R | 2.93 | 188 | PN | | Pn | | 21 17 07.5 | -2.8 |
| MRZ | | | | *e*SN | | Sn | | 21 17 42.7 | -4.7 |
| MRZ | | | | AML | | AML | | 21 17 44.5 | |
| TIWZ | Tintock | 3.02 | 184 | PN | | Pn | | 21 17 08.6 | -2.8 |
| TIWZ | | | | AML | | AML | | 21 17 45.3 | |
| TIWZ | | | | AML | | AML | | 21 17 46.9 | |
| OGWZ | Otaki Gorge | 3.15 | 193 | ⇓PN | | Pn | | 21 17 10.2 | -2.7 |
| OGWZ | | | | AML | | AML | | 21 17 10.6 | |
| OGWZ | | | | AML | | AML | | 21 17 50.0 | |
| HOWZ | Holdsworth Sta | 3.17 | 188 | ⇓PN | | Pn | | 21 17 10.1 | -3.2 |
| KIWZ | Kapiti Island | 3.24 | 197 | PN | | Pn | | 21 17 10.9 | -3.2 |
| TMWZ | Te Maipa | 3.35 | 183 | AML | | AML | | 21 17 54.0 | |
| MTW | Mount Morrison | 3.43 | 188 | PN | | Pn | | 21 17 12.4 | -4.1 |
| MTW | | | | AML | | AML | | 21 17 54.9 | |
| CAW | Cannon Point | 3.45 | 193 | PN | | Pn | | 21 17 12.9 | -3.7 |
| DUWZ | D'Urville Isla | 3.49 | 209 | PN | | Pn | | 21 17 14.0 | -3.2 |
| MSWZ | Moikau Station | 3.72 | 190 | PN | | Pn | | 21 17 15.7 | -4.4 |
| TCW | Tory Channel | 3.74 | 202 | PN | | Pn | | 21 17 16.8 | -3.5 |
| BHW | Baring Head | 3.78 | 195 | PN | | Pn | | 21 17 16.6 | -4.2 |
| PLWZ | Palliser | 3.87 | 190 | PN | | Pn | | 21 17 17.8 | -4.2 |
| TUWZ | Tuamarina | 4.04 | 204 | PN | | Pn | | 21 17 20.5 | -3.7 |
| BSWZ | Blackbirch Sta | 4.32 | 203 | PN | | Pn | | 21 17 24.2 | -3.6 |
| THZ | Tophouse | 4.71 | 211 | *e*PN | | Pn | | 21 17 28.9 | -4.0 |
| KHZ | Kahutara | 5.06 | 202 | ⇓PN | | Pn | | 21 17 32.9 | -4.4 |
| INZ | Inchbonnie | 6.12 | 214 | PN | | Pn | | 21 17 46.5 | -4.7 |

**MAN 14 21:17:08,11.14N**×**124.84E,h32km,mb4.4,ML3.2,MS3.1,**
**1C-1D, Leyte**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| PLP | Palo | 0.14 | 80 | ⇓*e*P | | Pn | | 21 17 16.7 | +2.8 |
| PLP | | | | *e*S | | Sb | | 21 17 20.6 | +2.7 |
| OCLP | Ormoc | 0.25 | 248 | *e*P | | Pn | | 21 17 15.6 | +0.1 |
| OCLP | | | | *e*S | | Sb | | 21 17 17.6 | -2.1 |
| MSLP | Maasin | 1.00 | 179 | *e*P | | Pb | | 21 17 27.2 | +0.3 |
| MSLP | | | | *e*S | | Sb | | 21 17 40.5 | +0.8 |
| LLP | Lapu-Lapu | 1.19 | 226 | ⇑*e*P | | Pb | | 21 17 30.0 | 0.0 |
| LLP | | | | *i* S | | Sb | | 21 17 44.7 | -0.4 |
| CNP | Catarman | 1.37 | 353 | *e*P | | Pb | | 21 17 39.3 | +6.2 |

*ISCJB* **14** *21:21:47.6±0.4,43.01N±0.02×17.90E±0.02,h0km±3km,*
*Error ellipse: s-maj=2.8km s-min=2.3km az=34.4*
*PRU* **14** *21:21:47.9,42.89N×18.37E,h0km*
*CSEM* **14** *21:21:48.5±0.1,42.97N×17.93E,h2km,ML3.2/7, Error*
*ellipse: s-maj=3.0km s-min=2.2km az=37.0*
*BEO* **14** *21:21:48.2±0.5,42.94N×17.83E,h4km±2km,M3.1/1*
*PDG* **14** *21:21:48.5±0.3,42.96N×17.93E,h9km,ML3.5/11, Error*
*ellipse: s-maj=0.5km s-min=0.6km az=0.0*

**ISC 14 21:21:48.7**±1.1**,42.99N**±0.02×**17.93E**±0.02**,h2**km±9km**,**
**n137,**σ**1.5 15/226,25C-17D, Adriatic Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| STON | Ston | 0.21 | 236 | *i* Pg | | Pg | | 21 21 52.4 | -0.2 |
| STON | | | | Sg | | Sg | | 21 21 55.6 | +0.3 |
| STON | Ston | 0.21 | 236 | *i* Pg | | Pg | | 21 21 52.4 | -0.2 |
| STON | | | | Sg | | Sg | | 21 21 55.6 | +0.3 |
| TREB | Trebinje | 0.41 | 131 | *e*Pg | | Pg | | 21 21 56.1 | -0.4 |
| TREB | Trebinje | 0.41 | 131 | ⇑*i* Pg | | Pg | | 21 21 55.8 | -0.7 |
| TREB | | | | *e*Sg | | Sg | | 21 22 02.5 | +0.7 |
| BRY | Bratogost | 0.45 | 101 | ⇑*i* Pg | | Pg | | 21 21 56.9 | -0.5 |
| BRY | | | | *e*Sg | | Sg | | 21 22 04.5 | +1.3 |
| BRY | Bratogost | 0.45 | 101 | ⇑*i* Pg | | Pg | | 21 21 56.9 | -0.5 |
| BRY | | | | *e*Sg | | Sg | | 21 22 04.2 | +1.0 |
| HCY | Herceg Novi | 0.68 | 142 | ⇑*i* Pg | | Pg | | 21 22 00.6 | -1.1 |
| HCY | | | | *e*Sg | | Sb | | 21 22 11.5 | -1.6 |
| HCY | Herceg Novi | 0.68 | 142 | ⇑*i* Pg | | Pg | | 21 22 00.6 | -1.1 |
| HCY | | | | *e*Sg | | Sg | | 21 22 11.3 | +0.8 |
| UPM | Unac-Piva | 0.74 | 73 | ⇑*i* Pg | | Pg | | 21 22 02.0 | -0.9 |
| UPM | | | | *e*Sg | | Sb | | 21 22 14.0 | -1.2 |
| UPM | Unac-Piva | 0.74 | 73 | P | | Pg | | 21 22 02.1 | -0.9 |
| UPM | | | | *e*Sg | | Sg | | 21 22 13.1 | +0.5 |
| NKME | Niksic | 0.78 | 106 | ⇓*i* Pg | | Pg | | 21 22 03.0 | -0.6 |
| NKME | | | | *e*Sg | | Sb | | 21 22 15.0 | -1.1 |
| NKME | Niksic | 0.78 | 106 | ⇓*i* Pg | | Pg | | 21 22 03.0 | -0.6 |
| NKME | | | | *e*Sg | | Sb | | 21 22 15.0 | -1.1 |
| NKY | Niksic | 0.80 | 102 | ⇑*i* Pg | | Pg | | 21 22 03.6 | -0.4 |
| NKY | | | | *e*Sg | | Sb | | 21 22 15.9 | -0.7 |
| NKY | Niksic | 0.80 | 102 | ⇑*i* Pg | | Pg | | 21 22 03.6 | -0.4 |
| NKY | | | | *e*Sg | | Sb | | 21 22 15.9 | -0.7 |
| CEME | Cevo | 0.85 | 121 | ⇑*i* Pg | | Pg | | 21 22 03.5 | -1.4 |
| CEME | | | | *e*Sg | | Sb | | 21 22 17.4 | -0.6 |
| CEME | Cevo | 0.85 | 121 | ⇑*i* Pg | | Pg | | 21 22 03.5 | -1.4 |
| CEME | | | | *e*Sg | | Sb | | 21 22 17.4 | -0.6 |
| BUM | Brajici-Budva | 0.99 | 134 | ⇑*i* Pg | | Pg | | 21 22 06.5 | -1.1 |
| BUM | | | | *e*Sg | | Sb | | 21 22 21.8 | -0.2 |
| BUM | Brajici-Budva | 0.99 | 134 | ⇑*i* Pg | | Pg | | 21 22 06.5 | -1.1 |
| BUM | | | | *e*Sg | | Sb | | 21 22 21.8 | -0.2 |
| PLE | Pljevlja | 1.12 | 72 | ⇑*i* Pg | | Pg | | 21 22 09.9 | -0.2 |
| PLE | | | | *e*Sg | | Sn | | 21 22 27.5 | -0.1 |
| PLE | Pljevlja | 1.12 | 72 | ⇑*i* Pg | | Pg | | 21 22 09.9 | -0.2 |
| PLE | | | | *e*Sg | | Sn | | 21 22 27.5 | -0.1 |
| PDG | Podgorica | 1.12 | 119 | *e*Pg | | Pg | | 21 22 08.9 | -1.3 |
| PDG | | | | *e*Sg | | Sb | | 21 22 25.7 | -0.1 |
| PDG | Podgorica | 1.12 | 119 | ⇑*i*P | | Pg | | 21 22 09.5 | -0.7 |
| PDG | | | | S | | Sb | | 21 22 26.1 | +0.3 |
| PDG | Podgorica | 1.12 | 119 | *e*Pg | | Pg | | 21 22 08.9 | -1.3 |
| PDG | Podgorica | 1.12 | 119 | ⇑*i*P | | Pg | | 21 22 09.5 | -0.7 |
| PDG | | | | *e*Sg | | Sb | | 21 22 25.5 | -0.3 |
| PDG | | | | S | | Sb | | 21 22 26.1 | +0.3 |
| TTG | Podgorica | 1.12 | 119 | ⇑*i* Pg | | Pg | | 21 22 08.9 | -1.3 |
| TTG | | | | *e*Sg | | Sn | | 21 22 26.5 | -0.9 |
| KOME | Kolasin | 1.17 | 96 | ⇑*i* Pg | | Pg | | 21 22 10.2 | -0.9 |
| KOME | | | | *e*Sg | | Sn | | 21 22 28.6 | -0.2 |
| KOME | Kolasin | 1.17 | 96 | ⇑*i* Pg | | Pg | | 21 22 10.2 | -0.9 |
| KOME | | | | *e*Sg | | Sn | | 21 22 28.6 | -0.2 |
| DRME | Dracevica, Mon | 1.22 | 131 | ⇓*i* Pg | | Pg | | 21 22 11.0 | -1.1 |
| DRME | | | | *e*Sg | | Sn | | 21 22 30.2 | +0.3 |
| DRME | Dracevica, Mon | 1.22 | 131 | ⇓*i* Pg | | Pg | | 21 22 11.0 | -1.1 |
| DRME | | | | *e*Sg | | Sb | | 21 22 28.0 | -0.1 |
| HAPS | Han Pijesak,Bl | 1.32 | 34 | *e*Pg | | Pg | | 21 22 12.5 | -1.6 |
| HAPS | | | | *e*Sg | | Sn | | 21 22 33.9 | +1.3 |
| HAPS | Han Pijesak,Bl | 1.32 | 34 | *e*Pg | | Pg | | 21 22 12.5 | -1.6 |
| HAPS | | | | *e*Sg | | Sg | | 21 22 30.6 | -0.6 |
| BBLS | Lazići | 1.39 | 50 | *e*Pg | | Pn | | 21 22 14.4 | -0.7 |
| BBLS | | | | *e*Sg | | Sn | | 21 22 35.1 | +1.0 |
| BBLS | Lazići | 1.39 | 50 | *e*Pg | | Pn | | 21 22 14.4 | -0.7 |
| BBLS | | | | *e*Sg | | Sg | | 21 22 33.0 | -0.2 |
| ULC | Ulcinj | 1.41 | 136 | ⇓*i* Pg | | Pn | | 21 22 13.7 | -1.7 |
| ULC | | | | *e*Sg | | Sn | | 21 22 36.0 | +1.4 |
| ULC | Ulcinj | 1.41 | 136 | P | | Pn | | 21 22 13.6 | -1.8 |
| ULC | | | | *e*Sg | | Sn | | 21 22 36.0 | +1.4 |
| BEY | Berane | 1.44 | 94 | ⇑*i* Pg | | Pn | | 21 22 15.5 | -0.4 |
| BEY | Berane | 1.44 | 94 | P | | Pb | | 21 22 16.0 | -0.4 |
| BEY | | | | *e*Sg | | Sn | | 21 22 37.9 | +2.4 |
| IVA | Berane | 1.44 | 94 | ⇑*i* Pg | | Pn | | 21 22 15.5 | -0.4 |
| IVA | | | | *e*Sg | | Sn | | 21 22 37.9 | +2.4 |
| SJES | Sjenica | 1.52 | 79 | *e*Pg | | Pn | | 21 22 17.0 | 0.0 |
| SJES | | | | *e*Sg | | Sg | | 21 22 38.6 | +1.2 |
| PVY | Plav | 1.54 | 104 | ⇓*i* Pg | | Pn | | 21 22 17.1 | -0.2 |
| PVY | | | | *e*Sg | | Sg | | 21 22 40.2 | +2.0 |
| IVAS | Ivanjica | 1.72 | 69 | *e*Pn | | Pn | | 21 22 20.1 | +0.3 |
| IVAS | | | | *e*Sn | | Sb | | 21 22 43.5 | +0.2 |
| IVAS | Ivanjica | 1.72 | 69 | *e*Pn | | Pn | | 21 22 20.1 | +0.3 |
| IVAS | | | | *e*Sn | | Sb | | 21 22 43.5 | +0.2 |
| DOB | Doboj | 1.75 | 4 | *e*Pn | | Pn | | 21 22 19.4 | -0.7 |
| DOB | | | | *e*Sn | | Sn | | 21 22 41.

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BOJS | | | | | *i* Sn | | **Sn** | **21 23 21.0** | **+3.0** |
| | comp=Z,28nm,0.5s | | | | | | | | | | |
| **BOJS** | **Bojanci** | **3.17** | **323** | | *i* Pn | | **Pn** | **21 22 40.4** | **+0.8** |
| BOJS | | | | | *i* Sn | | **Sn** | **21 23 21.0** | **+3.0** |
| | comp=Z,28nm,0.5s | | | | | | | | | | |
| **BIA** | **Bitola** | **3.20** | **127** | | *i* Pn | | **Pn** | **21 22 41.9** | **+1.8** |
| **ZAGS** | **Zajecar** | **3.24** | **74** | | *e*Pn | | **Pn** | **21 22 40.5** | **0.0** |
| ZAGS | | | | | *e*Sn | | **Sn** | **21 23 19.3** | **-0.4** |
| **ZAGS** | **Zajecar** | **3.24** | **74** | | *e*Pn | | **Pn** | **21 22 40.5** | **0.0** |
| ZAGS | | | | | *e*Sn | | **Sn** | **21 23 19.3** | **-0.4** |
| **MDVR** | **Moldovita** | **3.27** | **55** | ⇑ | *i*P | | **Pn** | **21 22 41.2** | **+0.2** |
| **MDVR** | **Moldovita** | **3.27** | **55** | ⇑ | *i*P | | **Pn** | **21 22 41.2** | **+0.2** |
| MDVR | | | | | S | | **Sn** | **21 23 18.4** | **-2.1** |
| **CRES** | **Cresnjev** | **3.35** | **329** | | *i* Pn | | **Pn** | **21 22 42.7** | **+0.7** |
| CRES | | | | | *i* Sn | | **Sn** | **21 23 24.1** | **+1.8** |
| | comp=Z,15nm,0.6s | | | | | | | | | | |
| **CRES** | **Cresnjev** | **3.35** | **329** | | *e*Pn | | **Pn** | **21 22 41.0** | **-1.0** |
| CRES | | | | | *e*Sn | | **Sn** | **21 23 20.2** | **-2.2** |
| **ZAPS** | **Zavoj** | **3.45** | **84** | | *e*Pn | | **Pn** | **21 22 45.0** | **+1.5** |
| ZAPS | | | | | *e*Sn | | **Sn** | **21 23 26.8** | **+1.8** |
| **BEHE** | **Becsehely** | **3.58** | **347** | | *e*Pn | | **Pn** | **21 22 44.5** | **-0.7** |
| BEHE | | | | | *e*Sn | | **Sn** | **21 23 26.5** | **-1.6** |
| **KOGS** | **Kog** | **3.66** | **341** | | *i* Pn | | **Pn** | **21 22 46.7** | **+0.3** |
| KOGS | | | | | *i* Sn | | **Sn** | **21 23 29.4** | **-0.7** |
| | comp=Z,8.0nm,0.3s | | | | | | | | | | |
| **KOGS** | **Kog** | **3.66** | **341** | | *i* Pn | | **Pn** | **21 22 46.7** | **+0.3** |
| KOGS | | | | | *i* Sn | | **Sn** | **21 23 29.4** | **-0.7** |
| | comp=Z,8.0nm,0.3s | | | | | | | | | | |
| **CEY** | **Cerknica** | **3.73** | **319** | | *e*Pn | | **Pn** | **21 22 46.0** | **-1.3** |
| CEY | | | | | *e*Sn | | **Sn** | **21 23 28.9** | **-2.9** |
| **BZS** | **Buzias** | **3.73** | **44** | | *e*Pn | | **Pn** | **21 22 47.5** | **+0.2** |
| **BZS** | **Buzias** | **3.73** | **44** | ⇓ | *i*P | | **Pn** | **21 22 47.1** | **-0.2** |
| **BZS** | **Buzias** | **3.73** | **44** | ⇓ | *i*P | | **Pn** | **21 22 47.1** | **-0.2** |
| **BZS** | **Buzias** | **3.73** | **44** | | *e*Pn | | **Pn** | **21 22 47.5** | **+0.2** |
| BZS | | | | | S | | **Sn** | **21 23 29.6** | **-2.1** |
| **VAY** | **Valandovo** | **3.83** | **114** | | *i* Pn | | **Pb** | **21 22 58.9** | **+1.9** |
| **VTS** | **Vitosha** | **3.90** | **94** | | *e*Pn | | **Pn** | **21 22 50.8** | **+1.0** |
| **VTS** | **Vitosha** | **3.90** | **94** | ⇓ | *i*P | | **Pn** | **21 22 50.9** | **+1.1** |
| **VTS** | **Vitosha** | **3.90** | **94** | | *e*Pn | | **Pn** | **21 22 50.8** | **+1.0** |
| VTS | | | | | S | | **Sn** | **21 23 37.2** | **+0.9** |
| **SOKA** | **Soboth** | **4.23** | **332** | | *i* Pn | | **Pn** | **21 22 54.7** | **+0.5** |
| | comp=Z,5.6nm,0.5s | | | | | | | | | | |
| SOKA | | | | | *i* Sn | | **Sn** | **21 23 44.5** | **+0.3** |
| | comp=Z,5.0nm,0.5s | | | | | | | | | | |
| **SOKA** | **Soboth** | **4.23** | **332** | | Pn | | **Pn** | **21 22 54.7** | **+0.5** |
| | comp=Z,5.6nm,0.5s | | | | | | | | | | |
| SOKA | | | | | Sn | | **Sn** | **21 23 44.5** | **+0.3** |
| | comp=Z,5.0nm,0.5s | | | | | | | | | | |
| **CSKK** | **Cs˘‡kako** | **4.38** | **3** | ⇓ | *e*x | | **Pn** | **21 22 56.3** | **+0.1** |
| **CSKK** | **Cs˘‡kako** | **4.38** | **3** | ⇓ | *e*Pn | | **Pn** | **21 22 56.3** | **+0.1** |
| **ARSA** | **Arzberg** | **4.59** | **339** | | *e*Pn | | **Pn** | **21 22 59.8** | **+0.6** |
| | comp=Z,25nm,0.4s | | | | | | | | | | |
| ARSA | | | | | *i* Sn | | **Sn** | **21 23 52.8** | **-0.3** |
| | comp=Z,6.4nm,0.7s | | | | | | | | | | |
| **ARSA** | **Arzberg** | **4.59** | **339** | | Pn | | **Pn** | **21 22 59.8** | **+0.6** |
| | comp=Z,25nm,0.4s | | | | | | | | | | |
| ARSA | | | | | Sn | | **Sn** | **21 23 52.8** | **-0.3** |
| | comp=Z,6.4nm,0.7s | | | | | | | | | | |
| **DRGR** | | **5.10** | **40** | | *e*Pn | | **Pn** | **21 23 05.1** | **-1.0** |
| **DRGR** | | **5.10** | **40** | | *e*Pn | | **Pn** | **21 23 05.1** | **-1.0** |
| **PSZ** | **Piszkesteto** | **5.12** | **15** | ⇓ | *i*P | | **Pn** | **21 23 06.4** | **-0.1** |
| **PSZ** | **Piszkesteto** | **5.12** | **15** | ⇓ | *i*P | | **Pn** | **21 23 06.4** | **-0.1** |
| **CONA** | **Conrad Observa** | **5.15** | **344** | | *i* Pn | | **Pn** | **21 23 07.7** | **+0.8** |
| | comp=Z,1.5nm,0.3s | | | | | | | | | | |
| CONA | | | | | *i* Sn | | **Sn** | **21 24 05.8** | **-1.2** |
| | comp=Z,6.0nm,0.5s | | | | | | | | | | |
| **CONA** | **Conrad Observa** | **5.15** | **344** | | Pn | | **Pn** | **21 23 07.7** | **+0.8** |
| | comp=Z,1.5nm,0.3s | | | | | | | | | | |
| CONA | | | | | Sn | | **Sn** | **21 24 05.8** | **-1.2** |
| | comp=Z,6.0nm,0.5s | | | | | | | | | | |
| **KBA** | **Koelnbreinsper** | **5.22** | **323** | | *i* Pn | | **Pn** | **21 23 08.8** | **+0.8** |
| | comp=Z,1.9nm,0.5s | | | | | | | | | | |
| KBA | | | | | *i* Sn | | **Sn** | **21 24 11.4** | **+2.5** |
| | comp=Z,5.1nm,0.7s | | | | | | | | | | |
| **KBA** | **Koelnbreinsper** | **5.22** | **323** | | Pn | | **Pn** | **21 23 08.8** | **+0.8** |
| | comp=Z,1.9nm,0.5s | | | | | | | | | | |
| KBA | | | | | Sn | | **Sn** | **21 24 11.4** | **+2.5** |
| | comp=Z,5.1nm,0.7s | | | | | | | | | | |
| **ABTA** | **Abfaltersbach** | **5.38** | **316** | | *e*Pn | | **Pn** | **21 23 11.4** | **+1.3** |
| | comp=Z,1.7nm,0.4s | | | | | | | | | | |
| **ABTA** | **Abfaltersbach** | **5.38** | **316** | | Pn | | **Pn** | **21 23 11.4** | **+1.3** |
| | comp=Z,1.7nm,0.4s | | | | | | | | | | |
| **MOA** | **Molln** | **5.50** | **333** | | *i* Pn | | **Pn** | **21 23 13.3** | **+1.6** |
| | comp=Z,1.9nm,0.3s | | | | | | | | | | |
| MOA | | | | | *i* Sn | | **Sn** | **21 24 17.9** | **+2.3** |
| | comp=Z,4.6nm,0.5s | | | | | | | | | | |
| **MOA** | **Molln** | **5.50** | **333** | | Pn | | **Pn** | **21 23 13.3** | **+1.6** |
| | comp=Z,1.9nm,0.3s | | | | | | | | | | |
| MOA | | | | | Sn | | **Sn** | **21 24 17.9** | **+2.3** |
| | comp=Z,4.6nm,0.5s | | | | | | | | | | |
| **SMOL** | **Smolenice** | **5.54** | **357** | | *e*Pn | | **Pn** | **21 23 12.8** | **+0.7** |
| **SMOL** | **Smolenice** | **5.54** | **357** | | *e*PN | | **Pn** | **21 23 12.8** | **+0.7** |
| **VYHS** | **Vyhne** | **5.54** | **6** | | *e*Pn | | **Pn** | **21 23 12.8** | **+0.6** |
| VYHS | | | | | *e*Sn | | **Sn** | **21 24 15.3** | **-1.3** |
| **VYHS** | **Vyhne** | **5.54** | **6** | | *e*PN | | **Pn** | **21 23 12.8** | **+0.6** |
| VYHS | | | | | *e*SN | | **Sn** | **21 24 15.2** | **-1.3** |
| VYHS | | | | | *e*LG | | Lg | 21 24 17.4 | |
| **VOIR** | | **5.67** | **62** | ⇓ | *i*P | | **Pn** | **21 23 15.7** | **+1.7** |
| **VOIR** | | **5.67** | **62** | ⇓ | *i*P | | **Pn** | **21 23 15.7** | **+1.7** |
| **KECS** | **Kecovo** | **5.78** | **17** | | *e*PN | | **Pn** | **21 23 18.1** | **+2.7** |
| KECS | | | | | *e*SN | | **Sn** | **21 24 19.2** | **-3.1** |
| KECS | | | | | *e*LG | | Lg | 21 24 24.0 | |
| **MLR** | **Muntele Rosu** | **6.28** | **64** | ⇓ | *i*P | | **Pn** | **21 23 23.0** | **+0.6** |
| **MLR** | **Muntele Rosu** | **6.28** | **64** | ⇓ | *i*P | | **Pn** | **21 23 23.0** | **+0.6** |
| **MOTA** | **Moosalm** | **6.50** | **314** | | *i* Pn | | **Pn** | **21 23 26.0** | **+0.5** |
| | comp=Z,1.6nm,0.5s | | | | | | | | | | |
| **MOTA** | **Moosalm** | **6.50** | **314** | | Pn | | **Pn** | **21 23 26.0** | **+0.5** |
| | comp=Z,1.6nm,0.5s | | | | | | | | | | |
| **STHS** | **Stebnicka Huta** | **6.83** | **18** | | *e*PN | | **Pn** | **21 23 26.7** | **-3.1** |
| **KHC** | **Kasperske Hory** | **6.85** | **335** | | *e*SN | | **Sn** | **21 24 48.3** | **-0.4** |
| BURAR | **Bucovina Array** | **6.91** | **45** | ⇑ | *i*P | | **Pn** | **21 23 32.4** | **+1.3** |
| BURAR | **Bucovina Array** | **6.91** | **45** | ⇑ | *i*P | | **Pn** | **21 23 32.4** | **+1.3** |

**WEL 14 21:22:07.4±0.2, 45°42S×167°06E, h68km±1km, ML3.6/13, 1C-3D, Error ellipse: s-maj=1.7km s-min=0.8km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DCZ** | **Deep Cove** | **0.08** | **123** | ⇓P | Pn | 21 22 17.1 | -0.3 |
| DCZ | | | | SN | Sn | 21 22 24.2 | -0.4 |
| DCZ | | | | AML | AML | 21 22 24.4 | |
| DCZ | | | | AML | AML | 21 22 24.5 | |
| DCZ | | | | AML | AML | 21 22 25.1 | |
| **MLZ** | **Mavora Lakes** | **0.75** | **86** | PN | Pn | 21 22 22.4 | -0.4 |
| MLZ | | | | SN | Sn | 21 22 34.0 | -0.1 |
| MLZ | | | | AML | AML | 21 22 34.4 | |
| **WHZ** | **Wether Hill Ro** | **0.78** | **127** | PN | Pn | 21 22 22.9 | -0.2 |
| WHZ | | | | AML | AML | 21 22 35.1 | |
| WHZ | | | | AML | AML | 21 22 35.5 | |
| **PYZ** | **Puysegur Point** | **0.79** | **199** | *e*PN | Pn | 21 22 22.9 | -0.3 |
| PYZ | | | | SN | Sn | 21 22 35.2 | +0.3 |
| PYZ | | | | AML | AML | 21 22 37.2 | |
| **MSZ** | **Milford Sound** | **0.97** | **40** | PN | Pn | 21 22 25.3 | 0.0 |
| MSZ | | | | SN | Sn | 21 22 38.5 | -0.1 |
| MSZ | | | | AML | AML | 21 22 42.5 | |
| MSZ | | | | AML | AML | 21 22 42.5 | |
| MSZ | | | | AML | AML | 21 22 42.8 | |
| **WKZ** | **Wanaka** | **1.51** | **68** | PN | Pn | 21 22 32.5 | 0.0 |
| WKZ | | | | AML | AML | 21 22 51.5 | |
| WKZ | | | | AML | AML | 21 22 51.5 | |
| **APZ** | **The Paps** | **1.55** | **156** | PN | Pn | 21 22 32.7 | -0.4 |
| APZ | | | | SN | Sn | 21 22 52.0 | -0.4 |
| APZ | | | | AML | AML | 21 22 53.0 | |
| **EAZ** | **Earnscleugh** | **1.60** | **84** | ⇓P | Pn | 21 22 33.3 | -0.2 |
| EAZ | | | | AML | AML | 21 22 52.5 | |
| EAZ | | | | AML | AML | 21 22 52.6 | |
| **JCZ** | **Jackson Bay** | **1.82** | **43** | PN | Pn | 21 22 35.7 | -1.0 |
| JCZ | | | | AML | AML | 21 23 03.2 | |
| JCZ | | | | AML | AML | 21 23 03.4 | |
| **TUZ** | **Tuapeka** | **1.88** | **107** | PN | Pn | 21 22 36.8 | -0.5 |
| TUZ | | | | AML | AML | 21 22 58.8 | |
| TUZ | | | | AML | AML | 21 23 03.1 | |
| **LBZ** | **Lake Benmore** | **2.45** | **66** | PN | Pn | 21 22 43.2 | -1.9 |
| LBZ | | | | AML | AML | 21 23 11.7 | |
| LBZ | | | | AML | AML | 21 23 11.8 | |
| **HHSZ** | **Highcliff Hill** | **2.53** | **102** | PN | Pn | 21 22 45.4 | -0.7 |
| HHSZ | | | | AML | AML | 21 23 13.2 | |
| HHSZ | | | | AML | AML | 21 23 15.4 | |
| **ODZ** | **Otahua Downs** | **2.56** | **83** | ⇓PN | Pn | 21 22 45.1 | -1.5 |
| ODZ | | | | *e*SN | Sn | 21 23 11.7 | -4.9 |
| ODZ | | | | AML | AML | 21 23 57.1 | |
| **FOZ** | **Fox Glacier** | **2.73** | **47** | *e*PN | Pn | 21 22 47.0 | -1.8 |
| **MQZ** | **McQueen's Vall** | **4.35** | **69** | ⇑PN | Pn | 21 23 07.9 | -3.1 |

**IDC 14 21:34:58.3±2.0, 1°33S×127°00E, h0km, mb3.6/2, mb1 3.8/3, mb1mx3.4/38, mbtmp3.6/3, ML3.6/1, MS2.6/1, Ms1 2.6/1, ms1mx2.4/23, Error ellipse: s-maj=156.6km s-min=26.3km az=66.0, Southern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **19.84** | **159** | P | P | 21 39 31.3 | +0.3 |
| | 0.2nm,0.3s,baz=338,slow=12,SNR=17 | | | | | | |
| **ASAR** | **Alice Springs** | **23.19** | **164** | P | P | 21 40 06.8 | -0.2 |
| | 2.0nm,0.6s,baz=338,slow=10,SNR=26 | | | | | | |
| **KSRS** | **Korea Array** | **38.60** | **1** | LR | LR | 22 02 21.1 | |
| | comp=Z,8.0nm,18.7s,baz=330,slow=43 | | | | | | |
| **MKAR** | **Makanchi Array** | **61.87** | **327** | P | P | 21 45 19.6 | 0.0 |
| | 0.3nm,0.7s,baz=120,slow=7.6,SNR=4.8 | | | | | | |

*ISN 14 21:42:06.7±1.2, 38°.84N×43°.14E, h0km±54km, ML3.8*
*ISK 14 21:42:10.3, 38°.69N×43°.21E, h5km, ML3.4*
*DDA 14 21:42:11.1, 38°.68N×43°.14E, h7km, Ml3.8*
*ISCJB 14 21:42:11.6±0.4, 38°.69N±0°.02×43°.19E±0°.02, h4km±3km, Error ellipse: s-maj=3.0km s-min=2.4km az=147.8*
*CSEM 14 21:42:11.3±0.1, 38°.66N×43°.17E, h2km, ML3.4, Error ellipse: s-maj=3.0km s-min=2.4km az=129.0*
*AZER 14 21:42:12.6±0.8, 38°.77N×43°.13E, h7km, Error ellipse: s-maj=8.2km s-min=4.9km az=168.0*
*TEH 14 21:42:15.1, 38°.68N×43°.29E, h19km, ML3.0*
**ISC 14 21:42:12.2±0.8, 38°.65N±0°.02×43°.17E±0°.02, h11km±5km, n99, σ1s20/148, 12C-8D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.18** | **109** | PG | **Pg** | **21 42 16.1** | **-0.2** |
| VANB | | | | *e*SG | **Sb** | **21 42 20.8** | **+1.6** |
| **VANB** | **Van** | **0.18** | **109** | *i* Pg | **Pg** | **21 42 16.1** | **-0.2** |
| **TVAN** | **Van** | **0.23** | **124** | *i* P | **Pg** | **21 42 16.1** | **-1.0** |
| TVAN | | | | *i* S | **Sg** | **21 42 20.6** | **+0.2** |
| **TVAN** | **Van** | **0.23** | **124** | P | **Pg** | **21 42 16.1** | **-1.0** |
| TVAN | | | | S | **Sg** | **21 42 20.6** | **+0.2** |
| **GEVA** | **Gevas** | **0.35** | **194** | *i* P | **Pg** | **21 42 18.1** | **-1.2** |
| GEVA | | | | *i* S | **Sb** | **21 42 25.4** | **-0.8** |
| **GEVA** | **Gevas** | **0.35** | **194** | P | **Pg** | **21 42 18.1** | **-1.2** |
| GEVA | | | | S | **Sb** | **21 42 25.4** | **-0.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.38** | **294** | *i* P | **Pg** | **21 42 18.7** | **-1.2** |
| ADCV | | | | *i* S | **Sg** | **21 42 25.3** | **+0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.38** | **294** | P | **Pg** | **21 42 18.7** | **-1.2** |
| ADCV | | | | S | **Sg** | **21 42 25.3** | **+0.3** |
| **ERCV** | **ERCIS-VAN** | **0.39** | **20** | PG | **Pg** | **21 42 18.3** | **-1.7** |
| ERCV | | | | *e*SG | **Sg** | **21 42 24.3** | **-0.9** |
| **ERCV** | **ERCIS-VAN** | **0.39** | **20** | *i* Pg | **Pg** | **21 42 18.3** | **-1.7** |
| ERCV | | | | *e*Sg | **Sg** | **21 42 24.3** | **-0.9** |
| **VMUR** | **Van-Muradiye** | **0.46** | **43** | *i* P | **Pg** | **21 42 20.3** | **-1.0** |
| VMUR | | | | *i* S | **Sg** | **21 42 27.8** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.46** | **43** | P | **Pg** | **21 42 20.3** | **-1.0** |
| VMUR | | | | S | **Sg** | **21 42 27.8** | **+0.3** |
| **CLDR** | **Caldiran** | **0.76** | **50** | PG | **Pg** | **21 42 25.3** | **-1.7** |
| **CLDR** | **Caldiran** | **0.76** | **50** | *i* P | **Pg** | **21 42 25.4** | **-1.6** |
| CLDR | | | | *i* S | **Sg** | **21 42 36.9** | **-0.1** |
| **CLDR** | **Caldiran** | **0.76** | **50** | P | **Pg** | **21 42 25.4** | **-1.6** |
| CLDR | | | | S | **Sg** | **21 42 36.9** | **-0.1** |
| **TUTA** | **Tutak** | **0.80** | **340** | *i* P | **Pg** | **21 42 25.7** | **-2.0** |
| TUTA | | | | *i* S | **Sg** | **21 42 37.4** | **-0.7** |
| **TUTA** | **Tutak** | **0.80** | **340** | P | **Pg** | **21 42 25.7** | **-2.0** |
| TUTA | | | | S | **Sg** | **21 42 37.4** | **-0.7** |
| **AGRB** | **Hanur-Agry** | **0.93** | **352** | *e*PG | **Pg** | **21 42 28.1** | **-2.1** |
| **AGRB** | **Hanur-Agry** | **0.93** | **352** | *e*Pg | **Pg** | **21 42 28.1** | **-2.1** |
| **DYDN** | **Diyadin** | **0.98** | **24** | *i* P | **Pg** | **21 42 29.3** | **-1.8** |
| DYDN | | | | *i* S | **Sn** | **21 42 47.6** | **+1.7** |
| **DYDN** | **Diyadin** | **0.98** | **24** | P | **Pg** | **21 42 29.3** | **-1.8** |
| DYDN | | | | S | **Sn** | **21 42 47.6** | **+1.7** |
| **HAKT** | **HAKKARI** | **1.17** | **159** | *i* P | **Pb** | **21 42 32.3** | **-2.3** |
| HAKT | | | | *i* S | **Sn** | **21 42 52.1** | **+1.2** |
| **HAKT** | **HAKKARI** | **1.17** | **159** | P | **Pb** | **21 42 32.3** | **-2.3** |
| HAKT | | | | S | **Sn** | **21 42 52.1** | **+1.2** |
| **SRTM** | **Siirt_Merkez** | **1.18** | **236** | *i* P | **Pn** | **21 42 33.2** | **-1.5** |
| SRTM | | | | *i* S | **Sn** | **21 42 52.5** | **+1.6** |
| **SRTM** | **Siirt_Merkez** | **1.18** | **236** | P | **Pn** | **21 42 33.2** | **-1.5** |
| SRTM | | | | S | **Sn** | **21 42 52.5** | **+1.6** |
| **SIRT** | **Sirnak** | **1.29** | **207** | *e*PN | **Pb** | **21 42 36.4** | **-0.1** |
| **SIRT** | **Sirnak** | **1.29** | **207** | *e*Pn | **Pb** | **21 42 36.4** | **-0.1** |
| **SIRN** | **S˘˘rnak** | **1.30** | **208** | *i* P | **Pn** | **21 42 36.0** | **-0.4** |
| SIRN | | | | *i* S | **Sg** | **21 42 55.1** | **+1.0** |
| **SIRN** | **S˘˘rnak** | **1.30** | **208** | P | **Pn** | **21 42 36.0** | **-0.4** |
| SIRN | | | | S | **Sg** | **21 42 55.1** | **+1.0** |
| **EATA** | **Eleskirt** | **1.32** | **337** | *i* P | **Pn** | **21 42 35.1** | **-1.7** |
| EATA | | | | *i* S | **Sn** | **21 42 54.1** | **-0.4** |
| **EATA** | **Eleskirt** | **1.32** | **337** | P | **Pn** | **21 42 35.1** | **-1.7** |
| EATA | | | | S | **Sn** | **21 42 54.1** | **-0.4** |
| **VRTB** | **Varto-Mus** | **1.43** | **291** | *e*PN | **Pn** | **21 42 38.0** | **-0.2** |
| **VRTB** | **Varto-Mus** | **1.43** | **291** | *e*Pn | **Pn** | **21 42 38.0** | **-0.2** |
| **CUKT** | **Cukurca** | **1.45** | **166** | *e*PN | **Pn** | **21 42 38.3** | **-0.1** |
| **CUKT** | **Cukurca** | **1.45** | **166** | *e*Pn | **Pn** | **21 42 38.3** | **-0.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.57** | **32** | *e*PN | **Pn** | **21 42 40.0** | **0.0** |
| **TASB** | **TASBURUN-IGDIR** | **1.57** | **32** | *e*Pn | **Pn** | **21 42 40.0** | **0.0** |
| **BNGL** | **BINGOL** | **1.60** | **281** | *i* P | **Pn** | **21 42 40.9** | **+0.2** |
| BNGL | | | | *i* S | **Sg** | **21 43 04.3** | **+0.5** |
| **BTMN** | **Batman** | **1.68** | **244** | *i* P | **Pn** | **21 42 42.0** | **+0.5** |
| BTMN | | | | *i* S | **Sg** | **21 43 05.6** | **-0.6** |
| **BTMN** | **Batman** | **1.68** | **244** | P | **Pn** | **21 42 42.0** | **+0.5** |
| BTMN | | | | S | **Sg** | **21 43 05.6** | **-0.6** |
| **HYR** | **Heyderabad** | **1.69** | **50** | ⇑P | **Pn** | **21 42 41.8** | **+0.2** |
| HYR | | | | ⇓S | **Sb** | **21 43 04.0** | **-0.5** |
| **HYR** | **Heyderabad** | **1.69** | **50** | P | **Pn** | **21 42 41.8** | **+0.2** |
| HYR | | | | S | **Sb** | **21 43 04.0** | **-0.5** |
| **DIGO** | **Kars** | **1.77** | **5** | *i* P | **Pb** | **21 42 43.7** | **-1.0** |
| DIGO | | | | *i* S | **Sg** | **21 43 11.5** | **+2.5** |
| **DIGO** | **Kars** | **1.77** | **5** | P | **Pb** | **21 42 43.7** | **-1.0** |
| **NAX** | **Nakhchivan** | **1.89** | **73** | ⇑P | **Pn** | **21 42 45.2** | **+0.8** |
| NAX | | | | ⇑S | **Sb** | **21 43 10.0** | **-0.3** |
| **NAX** | **Nakhchivan** | **1.89** | **73** | P | **Pn** | **21 42 45.2** | **+0.8** |
| NAX | | | | S | **Sb** | **21 43 10.0** | **-0.3** |
| **ISHB** | **Shabestar** | **1.96** | **100** | *e*Pn | **Pn** | **21 42 45.9** | **+0.4** |
| ISHB | | | | *e*AMB | AMB | 21 42 48.8 | |
| | comp=Z,2μm,0.2s | | | | | | |
| ISHB | | | | *e*Sg | **Sb** | **21 43 12.9** | **+0.4** |
| **KARS** | **Kars** | **1.97** | **358** | *e*PN | **Pn** | **21 42 45.7** | **0.0** |
| **KARS** | **Kars** | **1.97** | **358** | *e*Pn | **Pn** | **21 42 45.7** | **0.0** |
| **BNGB** | **Bing¨ll** | **1.97** | **281** | *e*PN | **Pb** | **21 42 46.9** | **-1.3** |
| **IMRD** | **Marand** | **1.98** | **88** | *e*Pn | **Pn** | **21 42 46.4** | **+0.6** |
| IMRD | | | | *e*AMB | AMB | 21 43 04.8 | |
| | comp=Z,3μm,0.2s | | | | | | |
| **IMRD** | **Marand** | **1.98** | **88** | *e*Pn | **Pn** | **21 42 46.4** | **+0.6** |
| **SBZ** | **Shahbuz** | **2.00** | **67** | ⇓P | **Pn** | **21 42 46.1** | **+0.1** |
| SBZ | | | | ⇓S | **Sb** | **21 43 12.3** | **-1.2** |
| **SBZ** | **Shahbuz** | **2.00** | **67** | P | **Pn** | **21 42 46.1** | **+0.1** |
| SBZ | | | | S | **Sb** | **21 43 12.3** | **-1.2** |
| **SENK** | **Senkaya-Erzuru** | **2.01** | **342** | *e*PN | **Pn** | **21 42 46.4** | **+0.2** |
| **SENK** | **Senkaya-Erzuru** | **2.01** | **342** | *e*Pn | **Pn** | **21 42 46.4** | **+0.2** |
| **BINT** | **Bingol** | **2.11** | **277** | *e*Pn | **Pn** | **21 42 46.9** | **-0.6** |
| **YEDI** | **Yedisu-Bingol** | **2.19** | **292** | *e*PN | **Pn** | **21 42 49.7** | **+1.1** |
| **YEDI** | **Yedisu-Bingol** | **2.19** | **292** | *e*Pn | **Pn** | **21 42 49.7** | **+1.1** |
| **ORD** | **Ordubad** | **2.23** | **82** | P | **Pn** | **21 42 49.5** | **+0.4** |
| ORD | | | | S | **Sb** | **21 43 18.4** | **-1.6** |
| **ITBZ** | **Tabriz** | **2.38** | **99** | *e*Pn | **Pn** | **21 42 51.8** | **+0.6** |
| ITBZ | | | | *e*AMB | AMB | 21 43 06.4 | |
| | comp=Z,351nm,0.2s | | | | | | |
| ITBZ | | | | *e*Sg | **Sg** | **21 43 27.4** | **-1.2** |
| **ITBZ** | **Tabriz** | **2.38** | **99** | *e*Pn | **Pn** | **21 42 51.8** | **+0.6** |
| ITBZ | | | | *e*Sg | **Sg** | **21 43 27.4** | **-1.2** |
| **DIY** | **Diyarbakir** | **2.44** | **253** | *e*Pn | **Pb** | **21 42 54.5** | **-1.6** |
| **MAZI** | **Mazidag** | **2.46** | **242** | *e*PN | **Pn** | **21 42 53.8** | **+1.5** |
| **MAZI** | **Mazidag** | **2.46** | **242** | *e*Pn | **Pn** | **21 42 53.8** | **+1.5** |
| **DYBB** | **Diyarbakir** | **2.48** | **255** | *e*PN | **Pn** | **21 42 54.5** | **+1.9** |
| **BGD** | **Bogdanovka** | **2.63** | **7** | P | **Pb** | **21 43 00.0** | **+0.6** |
| **AKH** | **Akhalkalaki** | **2.76** | **5** | *e*PN | **Pn** | **21 42 57.5** | **+0.9** |
| **AKH** | **Akhalkalaki** | **2.76** | **5** | P | **Pb** | **21 43 02.1** | **+0.4** |
| **AKH** | **Akhalkalaki** | **2.76** | **5** | *e*Pn | **Pn** | **21 42 57.5** | **+0.9** |
| **ERZN** | **Erzincan** | **2.84** | **290** | *e*PN | **Pn** | **21 42 59.0** | **+1.5** |
| **GDB** | **GEDABAY** | **2.87** | **43** | ⇓P | **Pn** | **21 42 57.8** | **-0.2** |
| GDB | | | | ⇑S | **Sn** | **21 43 33.6** | **+1.0** |
| **GDB** | **GEDABAY** | **2.87** | **43** | P | **Pn** | **21 42 57.8** | **-0.2** |
| GDB | | | | S | **Sn** | **21 43 33.6** | **+1.0** |
| **QZX** | **Qazax, Azerbai** | **2.94** | **35** | ⇑P | **Pn** | **21 42 58.6** | **-0.2** |
| QZX | | | | ⇓S | **Sn** | **21 43 34.4** | **+0.3** |
| **QZX** | **Qazax, Azerbai** | **2.94** | **35** | P | **Pn** | **21 42 58.6** | **-0.2** |
| QZX | | | | S | **Sn** | **21 43 34.4** | **+0.3** |
| **PTK** | **Pertek** | **2.96** | **276** | *e*PN | **Pn** | **21 43 00.7** | **+1.4** |
| **PTK** | **Pertek** | **2.96** | **276** | *e*Pn | **Pn** | **21 43 00.7** | **+1.4** |
| **SVRC** | **Sivrice-ELAZID** | **3.04** | **266** | *e*PN | **Pn** | **21 43 01.9** | **+1.5** |
| **SVRC** | **Sivrice-ELAZID** | **3.04** | **266** | *e*Pn | **Pn** | **21 43 01.9** | **+1.5** |
| **IHRS** | **Heris** | **3.06** | **95** | *e*Pn | **Pn** | **21 43 01.6** | **+0.9** |
| IHRS | | | | *e*AMB | AMB | 21 43 25.1 | |
| | comp=Z,752nm,0.2s | | | | | | |
| **IHRS** | **Heris** | **3.06** | **95** | *e*Pn | **Pn** | **21 43 01.6** | **+0.9** |
| **IBST** | **Bostanabad** | **3.08** | **107** | *e*AMB | AMB | 21 43 23.6 | |
| | comp=Z,196nm,0.2s | | | | | | |
| **GANJ** | **Ganja** | **3.14** | **50** | ⇑P | **Pn** | **21 43 02.0** | **+0.3** |
| GANJ | | | | ⇓S | **Sn** | **21 43 40.3** | **+1.2** |
| **GANJ** | **Ganja** | **3.14** | **50** | P | **Pn** | **21 43 02.0** | **+0.3** |
| GANJ | | | | S | **Sn** | **21 43 40.3** | **+1.2** |
| **TBLG** | **Delisi** | **3.30** | **21** | P | **Pb** | **21 43 10.6** | **-0.1** |
| **BRDA** | **Brd** | **3.50** | **61** | ⇑P | **Pn** | **21 43 07.1** | **+0.7** |
| BRDA | | | | ⇓S | **Sn** | **21 43 49.2** | **+1.5** |
| **BRDA** | **Brd** | **3.50** | **61** | P | **Pn** | **21 43 07.1** | **+0.7** |
| BRDA | | | | S | **Sn** | **21 43 49.2** | **+1.5** |
| **ZRD** | **Zardab** | **3.85** | **64** | ⇑S | **Sn** | **21 43 58.1** | **+1.6** |
| **ZRD** | **Zardab** | **3.85** | **64** | S | **Sn** | **21 43 58.1** | **+1.6** |
| **GUDG** | **Gudauri** | **3.93** | **14** | P | **Pb** | **21 43 19.0** | **-2.7** |
| **ONI** | **Oni** | **3.94** | **3** | P | **Pg** | **21 43 29.6** | **+1.9** |
| **ZKTA** | **Zakatala** | **3.98** | **41** | ⇑P | **Pn** | **21 43 13.3** | **+0.1** |
| ZKTA | | | | ⇓S | **Sn** | **21 44 00.9** | **+1.1** |
| **SEKA** | **Sheki** | **4.01** | **49** | ⇑P | **Pn** | **21 43 14.7** | **+1.1** |
| SEKA | | | | ⇑S | **Sn** | **21 44 03.0** | **+2.4** |
| **SEKA** | **Sheki** | **4.01** | **49** | P | **Pn** | **21 43 14.7** | **+1.1** |
| SEKA | | | | S | **Sn** | **21 44 03.0** | **+2.4** |
| **LRK** | **Lerik** | **4.05** | **89** | ⇑P | **Pn** | **21 43 15.5** | **+1.3** |
| **LRK** | **Lerik** | **4.05** | **89** | P | **Pn** | **21 43 15.5** | **+1.3** |
| **CHVG** | **Ch'k'valeri** | **4.14** | **349** | P | **Pg** | **21 43 35.8** | **+4.3** |
| **BHD** | **Baghdad** | **5.46** | **169** | *e*Pn | **Pn** | **21 43 33.0** | **-0.5** |
| | SNR=3.0 | | | | | | |
| **RTB** | **Rutbah** | **6.07** | **203** | *e*Pn | **Pn** | **21 43 42.0** | **+0.1** |
| | SNR=3.0 | | | | | | |

*ISCJB 14 22:29:19.7±0.7, 67°.78N±0°.06×18°.8W±0°.3, h10km, mb3.5/5, MS3.5/11, Error ellipse: s-maj=14.7km s-min=8.6km az=17.6*
*IDC 14 22:29:20.1±1.0, 67°.77N×18°.93W, h0km, mb3.5/5, mb1 3.8/8, mb1mx3.5/43, mbtmp3.7/8, ML3.2/3, MS3.5/16, Ms1 3.5/16, ms1mx3.3/43, Error ellipse: s-maj

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **STYT** | **Tauyuan** baz=249 | **1.09 258** | ⇑*i*P | **Pn** | **22 45 42.1** | **+0.2** |
| STYT | | | S | **Sb** | **22 45 55.9** | **-0.9** |
| **TWT** | **Tachien** baz=328 | **1.09 322** | ⇑*e*P | **Pb** | **22 45 43.8** | **+0.7** |
| **TYC** | **Yuchr** baz=298 | **1.09 298** | *e*P | **Pb** | **22 45 42.2** | **-0.8** |
| **CHN5** | **Tsauling** baz=279 | **1.15 280** | ⇑*i*P | **Pb** | **22 45 44.3** | **+0.3** |
| CHN5 | | | S | **Sb** | **22 45 58.6** | **0.0** |
| **NNS** | **Nan Shan** baz=335 | **1.15 335** | ⇓*e*P | **Pb** | **22 45 43.3** | **-0.8** |
| NNS | | | *e*S | **Sn** | **22 45 56.7** | **-0.8** |
| **ECL** | **Taimali** baz=238 | **1.19 228** | *e*P | **Pn** | **22 45 42.4** | **-0.7** |
| **WTP** | **Ta-pu** baz=262 | **1.20 263** | ⇑*i*P | **Pb** | **22 45 44.8** | **-0.1** |
| WTP | | | *e*S | **Sb** | **22 46 00.3** | **+0.3** |
| **TWC** | **Suao** baz=358 | **1.21 357** | P | **Pb** | **22 45 44.5** | **-0.5** |
| TWC | | | *e*S | **Sn** | **22 45 59.0** | **+0.1** |
| **CHN4** | **Tsaushan** baz=267 | **1.21 268** | ⇑P | **Pb** | **22 45 45.2** | **+0.2** |
| CHN4 | | | S | **Sb** | **22 46 01.3** | **+1.0** |
| **WNT** | **Mingjian** baz=293 | **1.22 293** | *e*P | **Pb** | **22 45 45.0** | **-0.2** |
| **SGST** | **Jiashian** baz=247 | **1.26 256** | ⇓P | **Pb** | **22 45 45.9** | **+0.1** |
| SGST | | | S | **Sb** | **22 46 02.2** | **+0.5** |
| **WGK** | **Gukeng** baz=283 | **1.27 283** | *e*P | **Pb** | **22 45 46.1** | **+0.1** |
| **ENTT** | **Nioudou** baz=346 | **1.28 346** | *e*P | **Pb** | **22 45 45.1** | **+0.7** |
| **CHN1** | **Nanshi** baz=260 | **1.29 261** | ⇑*i*P | **Pb** | **22 45 46.4** | **+0.1** |
| CHN1 | | | S | **Sb** | **22 46 03.5** | **+1.0** |
| **TWK** | **Hsinying** baz=263 | **1.31 265** | ⇑P | **Pb** | **22 45 46.7** | **-0.1** |
| TWK | | | *i* S | **Sb** | **22 46 04.1** | **+0.8** |
| **CHN2** | **Minshiung** baz=275 | **1.32 276** | *e*P | **Pb** | **22 45 47.3** | **+0.4** |
| CHN2 | | | S | **Sb** | **22 46 05.3** | **+1.7** |
| **TWE** | **Neicheng** baz=351 | **1.34 350** | ⇑*e*P | **Pn** | **22 45 45.7** | **+0.5** |
| **SSD** | **Sandimen** baz=233 | **1.34 242** | *e*P | **Pb** | **22 45 47.8** | **+0.6** |
| **TCU** | **Taichung** baz=303 | **1.36 304** | ⇑*e*P | **Pb** | **22 45 47.9** | **+0.5** |
| TCU | | | *e*S | **Sb** | **22 46 06.4** | **+2.0** |
| **CHY** | **Chiayi** baz=274 | **1.37 275** | ⇓*e*P | **Pb** | **22 45 48.1** | **+0.5** |
| **NSK** | **Sanguang** baz=339 | **1.37 338** | *e*P | **Pn** | **22 45 46.5** | **+0.7** |
| NSK | | | *e*S | **Sn** | **22 46 02.6** | **-0.3** |
| **LAY** | **Lan-yu** baz=193 | **1.39 194** | *e*P | **Pn** | **22 45 44.5** | **-1.4** |
| **EAST** | **Anshuo** baz=223 | **1.41 224** | *e*P | **Pn** | **22 45 46.0** | **-0.2** |
| **TWQ1** | **Liyutan** baz=312 | **1.41 313** | ⇑*i*P | **Pb** | **22 45 48.7** | **+0.3** |
| TWQ1 | | | S | **Sb** | **22 46 06.8** | **+0.9** |
| **JYNG** | **Yonagunijimaku** | **1.42 42** | P | **Pn** | **22 45 46.0** | **-0.3** |
| JYNG | | | *e*S | **Sn** | **22 46 03.6** | **-0.3** |
| **NSY** | **Sanyi** baz=314 | **1.46 314** | *e*P | **Pb** | **22 45 49.3** | **0.0** |
| NSY | | | *e*S | **Sb** | **22 46 08.4** | **+0.9** |
| **YOJ** | **Yonaguni jima** baz=43 | **1.46 43** | *e*P | **Pn** | **22 45 48.0** | **+1.1** |
| **YOJ** | **Yonaguni jima** | **1.46 43** | P | **Pn** | **22 45 47.9** | **+0.9** |
| YOJ | | | S | **Sn** | **22 46 05.6** | **+0.5** |
| **SGLT** | **Jiouru** baz=239 | **1.47 243** | *e*P | **Pb** | **22 45 48.3** | **-1.0** |
| **TWM1** | **Shoushan** baz=247 | **1.48 248** | *e*P | **Pb** | **22 45 51.4** | **+1.8** |
| **NSTT** | **Nanjuang** baz=337 | **1.49 326** | *e*P | **Pb** | **22 45 49.2** | **-0.5** |
| NSTT | | | *e*S | **Sb** | **22 46 07.0** | **-1.1** |
| **CHN8** | **Yiju** baz=268 | **1.56 269** | *e*P | **Pb** | **22 45 50.0** | **-1.0** |
| CHN8 | | | *e*S | **Sb** | **22 46 10.7** | **+0.4** |
| **SCZT** | **Fangliau** baz=221 | **1.57 230** | *e*P | **Pb** | **22 45 50.0** | **-1.0** |
| **WTCT** | **Ta-ch'eng** baz=287 | **1.57 288** | *e*P | **Pb** | **22 45 50.5** | **-0.5** |
| WTCT | | | *e*S | **Sb** | **22 46 11.2** | **+0.8** |
| **TWA** | **Mucha** baz=350 | **1.61 349** | *e*P | **Pb** | **22 45 52.4** | **+0.6** |
| **NWF** | **Wu-fen Shan** baz=356 | **1.67 356** | *e*P | **Pb** | **22 45 51.9** | **-1.0** |
| NWF | | | *e*S | **Sb** | **22 46 12.1** | **-1.5** |
| **NCU** | **National Centr** baz=338 | **1.70 337** | *e*P | **Pb** | **22 45 52.9** | **-0.5** |
| NCU | | | *e*S | **Sb** | **22 46 13.8** | **-0.5** |
| **HEN** | **Hengchun** baz=217 | **1.76 218** | *e*P | **Pb** | **22 45 53.0** | **-1.2** |
| **TWS1** | **Kuangyinshan** baz=345 | **1.76 345** | *e*P | **Pb** | **22 45 53.3** | **-1.0** |
| **TWK1** | **Hengchun** baz=214 | **1.77 215** | *e*P | **Pn** | **22 45 52.3** | **+1.2** |
| **TWP** | **Hsiaoliuchiu** baz=233 | **1.77 234** | *e*P | **Pb** | **22 45 55.5** | **+1.1** |
| **HATJ** | **Hateruma jima** | **1.86 69** | P | **Pn** | **22 45 52.8** | **+0.4** |
| HATJ | | | *e*S | **Sn** | **22 46 14.8** | **0.0** |
| **IRIF** | **Iriomote-Funau** | **1.91 60** | P | **Pn** | **22 45 53.9** | **+0.8** |
| IRIF | | | S | **Sn** | **22 46 16.6** | **+0.5** |
| **JKRS** | **Kuro-shima** | **2.10 66** | P | **Pn** | **22 45 56.6** | **+0.9** |
| JKRS | | | S | **Sn** | **22 46 21.0** | **+0.3** |
| **PNG** | **Penghu** baz=275 | **2.17 275** | *e*P | **Pn** | **22 45 58.0** | **+1.3** |
| PNG | | | *e*S | **Sn** | **22 46 23.4** | **+0.8** |
| **JIJ** | **Ishigaki jima** | **2.26 64** | P | **Pn** | **22 45 58.5** | **+0.6** |
| JIJ | | | S | **Sn** | **22 46 23.7** | **-1.0** |
| **JISG** | **Ishigakijimahi** | **2.50 61** | P | **Pn** | **22 46 01.4** | **-0.3** |
| JISG | | | S | **Sn** | **22 46 30.0** | **-0.5** |
| **JTJ** | **Tarama** | **2.84 64** | P | **Pn** | **22 46 06.7** | **+0.8** |
| JTJ | | | S | **Sn** | **22 46 38.7** | **-0.3** |
| **JIRB** | **Irabujima** | **3.31 64** | P | **Pn** | **22 46 12.7** | **+0.4** |
| JIRB | | | S | **Sn** | **22 46 50.3** | **-0.2** |
| **KNM** | **Kinmen** baz=287 | **3.34 288** | *e*P | **Pn** | **22 46 14.9** | **+2.1** |
| **JIKM** | **Ikemajima** | **3.41 63** | P | **Pn** | **22 46 14.6** | **+0.9** |
| JIKM | | | *e*S | **Sn** | **22 46 51.5** | **-1.5** |
| **JOGS** | **Gusukube** | **3.47 66** | P | **Pn** | **22 46 15.8** | **+1.2** |
| JOGS | | | *e*S | **Sn** | **22 46 53.8** | **-0.9** |

*NIED* ***14*** *22:45:00, 35.°90N×140.°90E, h11km, Mw3.8 Best double couple: M₀5.79000×10¹⁴ NP1:φ=139.00000°, δ70.00000°, λ167.00000°. NP2:φ=234.00000°, δ78.00000°, λ21.00000°.*

*IDC* ***14*** *22:45:42.5±0.9, 35.°96N×140.°90E, h0km, mb3.6/7, mb1 3.8/11, mb1mx3.6/47, mbtmp3.7/11, ML3.9/4, MS3.0/3, Ms1 3.0/3, ms1mx2.7/38, Error ellipse: s-maj=22.2km s-min=16.4km az=81.0*

*ISCJB* ***14*** *22:45:43.5±0.8, 35.°95N±0.°03×140.°97E±0.°07, h24km±5km, mb3.5/7, MS4.0/1, Error ellipse: s-maj=9.8km s-min=5.7km az=170.9*

*JMA* ***14*** *22:45:44.2±0.1, 35.°94N×140.°92E, h26km±2km, M4.2*

*JMA Felt III J1.*

**ISC 14 22:45:43.1±1.6, 35.°92N±0.°05×141.°01E±0.°07, h13km±10km, n25, σ2§13/23, mb3.5/7, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CHOJ** | **Chosi** | **0.25** | **209** | P | **Pb** | **22 45 50.2** | **+0.7** |
| CHOJ | | | | S | **Sb** | **22 45 54.3** | **+0.5** |
| **JYT** | **Yasato** | **0.72** | **295** | P | **Pg** | **22 45 56.5** | **-0.6** |
| **JHO** | **Hitachi** | **0.77** | **333** | P | **Pg** | **22 45 57.6** | **-0.4** |
| JHO | | | | S | **Sg** | **22 46 08.0** | **-0.2** |
| **ONAJ** | **Iwakimizuishiy** | **1.19** | **352** | P | **Pn** | **22 46 03.5** | **-2.0** |
| **BSO3** | **Boso 3** | **1.19** | **200** | P | **Pn** | **22 46 05.3** | **+0.1** |
| **MJAR** | **Matsushiro Arr** 15nm,0.3s,baz=96,slow=9.0,SNR=70 | **2.34** | **286** | Pn | **Pn** | **22 46 20.7** | **-0.7** |
| MJAR | | | | Sn | **Sn** | **22 46 48.7** | **-1.4** |
| **MAT** | **Matsushiro** | **2.35** | **286** | P | **Pn** | **22 46 20.9** | **-0.5** |
| MAT | | | | S | **Sn** | **22 46 48.6** | **-1.5** |
| **JHJ** | **Hachijo jima 2** 34nm,0.3s,baz=53,slow=20,SNR=5.1 | **2.97** | **200** | Pn | **Pn** | **22 46 31.1** | **+1.1** |
| JHJ | | | | Sn | **Sn** | **22 47 05.8** | **+0.2** |
| **ASAJ** | **Asahikawa** 1.4nm,0.3s,baz=224,slow=12,SNR=4.3 | **8.27** | **8** | Pn | **Pn** | **22 47 42.5** | **-0.3** |
| **JCJ** | **Chichijima** 5.5nm,0.3s,baz=290,slow=19,SNR=9.8 | **8.86** | **173** | Pn | **Pn** | **22 47 50.3** | **-0.6** |
| JCJ | | | | Sn | **Sn** | **22 49 22.9** | **-7.7** |
| JCJ | 2.0nm,0.3s,baz=223,slow=19,SNR=1.9 | | | LR | LR | 22 51 38.7 | |
| **KSRS** | **Korea Array** comp=Z,23nm,18.2s,baz=314,slow=40 | **10.62** | **282** | LR | LR | 22 52 12.1 | |
| **H11N2** | **WAKE ISLAND Hy 27.89** baz=311,slow=75,SNR=131 | **118** | | T | T | 23 20 35.2 | |
| **H11N1** | **WAKE ISLAND Hy 27.89** baz=311,slow=75,SNR=165 | **118** | | T | T | 23 20 35.6 | |
| **H11N3** | **WAKE ISLAND Hy 27.90** baz=311,slow=75,SNR=119 | **118** | | T | T | 23 20 33.3 | |
| **SONM** | **Songino Array** 0.2nm,0.4s,baz=116,slow=12,SNR=2.5 | **28.15** | **306** | P | **P** | **22 51 34.7** | **-0.4** |
| **H11S1** | **WAKE ISLAND Hy 28.56** baz=313,slow=75,SNR=232 | **121** | | T | T | 23 21 28.7 | |
| **H11S3** | **WAKE ISLAND Hy 28.56** baz=313,slow=75,SNR=169 | **121** | | T | T | 23 21 28.5 | |
| **H11S2** | **WAKE ISLAND Hy 28.57** baz=313,slow=75,SNR=105 | **121** | | T | T | 23 21 25.3 | |
| **ZALV** | **Zalesovo Beam** 0.7nm,0.7s,baz=81,slow=8.9,SNR=3.2 | **42.43** | **313** | P | **P** | **22 53 38.0** | **+0.7** |
| **MKAR** | **Makanchi Array** 0.5nm,0.7s,baz=85,slow=6.4,SNR=3.6 | **44.44** | **303** | P | **P** | **22 53 55.0** | **+1.3** |
| **ILAR** | **Eielson Array** 0.5nm,0.9s,baz=273,slow=6.2,SNR=4.8 | **50.61** | **32** | P | **P** | **22 54 42.6** | **+1.2** |
| **INK** | **Inuvik** 1.1nm,0.9s,baz=304,slow=3.6,SNR=2.4 | **55.52** | **27** | P | **P** | **22 55 19.1** | **+1.7** |
| **WRA** | **Warramunga Arr** 0.6nm,0.5s,baz=4.3,slow=7.2,SNR=13 | **55.92** | **188** | P | **P** | **22 55 22.0** | **+1.1** |
| **ASAR** | **Alice Springs** 0.3nm,0.5s,baz=16,slow=12,SNR=5.3 | **59.65** | **188** | P | **P** | **22 55 49.7** | **+2.6** |
| **KBZ** | **Khabaz** comp=Z,78nm,18.6s,baz=326,slow=37 | **71.38** | **311** | LR | LR | 23 29 44.5 | |

*IDC* ***14*** *23:03:19.9±0.9, 34.°51N×69.°64E, h0km, mb3.8/15, mb1 4.0/21, mb1mx3.8/43, mbtmp3.8/21, ML3.7/6, Error ellipse: s-maj=20.0km s-min=15.9km az=30.0*

*ISCJB* ***14*** *23:03:21.0±0.4, 34.°36N±0.°04×69.°69E±0.°06, h24km, mb3.7/15, Error ellipse: s-maj=7.8km s-min=4.9km az=136.6*

*NEIC* ***14*** *23:03:29.1±1.8, 34.°67N×69.°68E, h68km±16km, mb4.0/1, Error ellipse: s-maj=13.1km s-min=8.1km az=194.0*

*NEIC Felt [II] at Kabul.*

**ISC 14 23:03:23.4±0.6, 34.°39N±0.°07×69.°50E±0.°06, h24km, n47, σ2§18/47, mb3.7/15, Southeastern Afghanistan**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CEP** | **Cherat** | **2.07** | **105** | P | **Pb** | **23 04 00.3** | **-0.2** |
| CEP | | | | S | **Sb** | **23 04 31.0** | **+5.2** |
| **THW** | **Thamme Wali** | **2.45** | **130** | P | **Pb** | **23 04 05.9** | **-1.0** |
| **CHCP** | **Chirah Chowk** | **3.21** | **102** | P | **Pn** | **23 04 15.1** | **+2.7** |
| **BHK** | **Bhakra** | **6.52** | **115** | *e*P | Pb | 23 05 26.4 | +10 |
| **AML** | **Almayashu** SNR=36 | **8.40** | **22** | P | **Pn** | **23 05 25.6** | **+1.6** |
| **UCH** | **Uchtor** SNR=12 | **8.76** | **25** | P | **Pn** | **23 05 31.2** | **+2.2** |
| **AAK** | **Ala-Archa** 1.1nm,0.3s,baz=172,slow=6.4,SNR=18 | **9.12** | **24** | Pn | **Pn** | **23 05 33.0** | **-0.7** |
| AAK | | | | Sn | **Sn** | **23 07 15.5** | **0.0** |
| **AAK** | **Ala-Archa** 1.2nm,0.3s,baz=20,slow=20,SNR=8.5 | **9.12** | **24** | P | **Pn** | **23 05 36.9** | **+3.2** |
| **AAK** | **Ala-Archa** SNR=8.2 | **9.12** | **24** | *e*Pn | **Pn** | **23 05 33.6** | **0.0** |
| AAK | 10nm,0.5s | | | *e*S | **Sn** | **23 07 16.4** | **+0.8** |
| **CHMS** | **Chumysh** SNR=7.3 | **9.52** | **24** | P | **Pn** | **23 05 40.4** | **+1.3** |
| **USP** | **Ospenovka** SNR=9.4 | **9.68** | **22** | P | **Pn** | **23 05 42.4** | **+1.1** |
| **GEYT** | **Alibeck** 0.6nm,0.3s,baz=129,slow=13,SNR=7.6 | **9.86** | **294** | Pn | **Pn** | **23 05 45.9** | **+2.2** |
| **PYUN** | **Piuthan** 20nm,0.4s | **13.12** | **115** | *e*P | **Pn** | **23 06 26.7** | **-1.9** |
| **KOLN** | **Koldanda** 9.1nm,0.5s | **13.76** | **115** | *e*P | **Pn** | **23 06 35.6** | **-1.6** |
| **GKN** | **Gorkha** 0.7nm,0.2s | **14.42** | **112** | *e*P | **Pn** | **23 06 43.4** | **-2.9** |
| **DMN** | **Daman** 19nm,0.7s | **14.98** | **113** | *e*P | **Pn** | **23 06 51.2** | **-2.7** |
| **KKN** | **Kakani** 13nm,0.4s | **15.02** | **112** | *e*P | **Pn** | **23 06 50.9** | **-3.5** |
| **PKIN** | **Phulchoki** 14nm,0.3s | **15.22** | **112** | *e*P | **Pn** | **23 06 53.7** | **-3.4** |
| **PKI** | **Pulchoki** 15nm,0.4s | **15.23** | **112** | *e*P | **Pn** | **23 06 54.2** | **-3.1** |
| **GUN** | **Gumba** 15nm,0.5s | **15.43** | **110** | *e*P | **Pn** | **23 06 57.0** | **-2.9** |
| **MKAR** | **Makanchi Array** 0.2nm,0.3s,baz=218,slow=9.5,SNR=13 | **15.72** | **34** | Pn | **Pn** | **23 07 01.9** | **-1.3** |
| **JIRN** | **Jiri** 28nm,0.5s | **15.79** | **111** | *e*P | **Pn** | **23 07 01.5** | **-3.1** |
| **RAMN** | **Ramite** 9.1nm,0.3s | **16.46** | **112** | *e*P | **Pn** | **23 07 09.4** | **-3.6** |
| **ODAN** | **Odare** 10nm,0.6s | **17.11** | **111** | *e*P | **Pn** | **23 07 17.4** | **-3.9** |
| **TAPN** | **Taplejung** 7.7nm,0.4s | **17.12** | **109** | *e*P | **Pn** | **23 07 17.6** | **-3.8** |
| **KURBB** | **Kurchatov Arra** 0.1nm,0.3s,baz=209,slow=11,SNR=8.9 | **17.51** | **19** | P | **Pn** | **23 07 24.4** | **-1.4** |
| **KURK** | **Kurchatov** | **17.62** | **19** | *e*Pn | **Pn** | **23 07 26.1** | **-1.1** |
| **AKTO** | **Aktyubinsk** 0.4nm,0.3s,baz=137,slow=9.7,SNR=6.6 | **18.11** | **336** | P | **P** | **23 07 33.9** | **+0.5** |
| **BVAR** | **Borovoye Array** 0.5nm,0.3s,baz=173,slow=8.7,SNR=15 | **18.64** | **2** | P | **P** | **23 07 38.0** | **-1.3** |
| **BRVK** | **Borovoye** 4.6nm,0.4s | **18.67** | **1** | *e*Pn | **P** | **23 07 38.3** | **-1.3** |
| **GNI** | **Garni** 8.3nm,0.8s,baz=325,slow=5.4,SNR=12 | **20.50** | **294** | P | Pn | 23 08 04.5 | +2.4 |
| **GNI** | **Garni** 46nm,0.8s | **20.50** | **294** | *e*P | Pn | 23 08 02.3 | +0.2 |
| **ZALV** | **Zalesovo Beam** 2.0nm,0.5s,baz=220,slow=11,SNR=9.8 | **22.34** | **24** | P | **P** | **23 08 17.3** | **-2.0** |
| **KBZ** | **Khabaz** 1.7nm,0.8s,baz=130,slow=15,SNR=2.6 | **22.59** | **302** | P | **P** | **23 08 23.4** | **+1.4** |
| **ARU** | **Arti** 0.6nm,0.3s,baz=106,slow=20,SNR=3.2 | **23.29** | **345** | P | **P** | **23 08 28.3** | **-0.9** |
| **BRTR** | **Keskin Array B** 0.7nm,0.9s,baz=113,slow=6.7,SNR=3.1 | **28.98** | **291** | P | **P** | **23 09 23.6** | **+2.2** |
| **CMAR** | **Chiang Mai Arr** 0.4nm,0.3s,baz=296,slow=8.9,SNR=4.6 | **30.62** | **114** | P | **P** | **23 09 37.0** | **+1.2** |
| **AKASG** | **Malin Array Be** 0.4nm,0.4s,baz=88,slow=7.0,SNR=2.5 | **33.38** | **312** | P | **P** | **23 09 59.6** | **-0.1** |
| **FINES** | **FINESS Array B** 2.3nm,0.8s,baz=108,slow=6.2,SNR=6.1 | **38.59** | **328** | P | **P** | **23 10 43.8** | **-0.4** |
| **ARCES** | **ARCESS Array B** 3.7nm,0.7s,baz=117,slow=8.8,SNR=8.5 | **42.65** | **339** | P | **P** | **23 11 17.2** | **-0.4** |
| **NOA** | **NORSAR Array B** 0.7nm,0.7s,baz=103,slow=7.9,SNR=2.3 | **45.36** | **324** | P | **P** | **23 11 37.7** | **-1.8** |
| **TORD** | **Torodi Ar. Bea** 0.6nm,0.7s,baz=38,slow=6.1,SNR=4.6 | **64.45** | **269** | P | **P** | **23 13 58.1** | **-0.1** |
| **INK** | **Inuvik** 1.3nm,0.9s,baz=200,slow=1.4,SNR=3.0 | **76.18** | **9** | P | **P** | **23 15 08.4** | **-0.6** |
| **ILAR** | **Eielson Array** 0.2nm,0.5s,baz=315,slow=5.4,SNR=4.4 | **77.14** | **15** | P | **P** | **23 15 12.4** | **-2.2** |
| **WRA** | **Warramunga Arr** 0.3nm,0.5s,baz=325,slow=5.0,SNR=5.2 | **81.94** | **121** | P | **P** | **23 15 41.5** | **+0.2** |
| **YKA** | **Yellowknife Ar** 1.0nm,0.8s,baz=353,slow=5.5,SNR=9.1 | **83.40** | **2** | P | **P** | **23 15 47.7** | **-0.6** |
| **ASAR** | **Alice Springs** 0.5nm,0.6s,baz=300,slow=5.5,SNR=5.7 | **84.07** | **124** | P | **P** | **23 15 52.8** | **+0.4** |

*GUC* ***14*** *23:19:54.6±0.7, 36.°12S×73.°79W, h38km±3km, ML4.1*

*BJI* ***14*** *23:19:54.9, 35.°98S×73.°12W, h14km, mB5.1/5, Ms5.5/5, Ms7 5.3/5*

*IDC* ***14*** *23:19:54.9±1.0, 35.°86S×73.°44W, h0km, mb4.3/8, mb1 4.4/10, mb1mx4.2/25, mbtmp4.3/10, ML3.7/1, MS3.6/4, Ms1 3.5/4, ms1mx3.3/23, Error ellipse: s-maj=34.3km s-min=21.1km az=73.0*

*NEIC* ***14*** *23:19:57.7±2.9, 35.°98S×73.°35W, h16km±18km, mb4.8/27, ML4.1(GUC), Error ellipse: s-maj=11.3km s-min=5.1km az=88.0*

*ISCJB* ***14*** *23:19:58.5±0.3, 36.°05S±0.°04×73.°36W±0.°06, h33km, mb4.6/32, MS3.6/3, Error ellipse: s-maj=7.5km s-min=5.2km az=155.1*

**ISC 14 23:19:59.5±0.5, 36.°05S±0.°05×73.°47W±0.°08, h35km, n82, σ1§53/88, mb4.8/32, MS3.4/3, 2C, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **COCH** | **Cobquecura** | **0.55** | **98** | ⇑*i*P | **Pn** | **23 20 09.4** | **-1.5** |
| COCH | | | | *i* S | **Sn** | **23 20 19.9** | **+0.9** |
| COCH | comp=E,11μm,0.9s | | | IAML | | 23 20 20.7 | |
| **CCSP** | **San Pedro de C** | **0.84** | **160** | *e*P | Pn | 23 20 10.3 | -4.6 |
| CCSP | | | | *i* S | **Sn** | **23 20 22.8** | **-3.3** |
| CCSP | comp=N,16μm,0.4s | | | IAML | | 23 20 29.6 | |
| **CCHI** | **Chillan** | **1.25** | **117** | *e*P | **Pn** | **23 20 19.2** | **-1.3** |
| CCHI | | | | *i* S | **Sn** | **23 20 37.5** | **+1.4** |
| CCHI | comp=E,11μm,0.8s | | | IAML | | 23 20 47.1 | |
| **GO05** | **HualaæØ** | **1.63** | **51** | *e*Pn | **Pn** | **23 20 24.3** | **-1.4** |
| **GO05** | **HualaæØ** | **1.63** | **51** | ⇑*i*P | **Pn** | **23 20 24.4** | **-1.3** |
| GO05 | | | | *i* S | **Sn** | **23 20 48.0** | **+2.6** |
| GO05 | comp=N,1μm,0.6s | | | IAML | | 23 21 11.3 | |
| **ROC1** | **El Roble** | **3.67** | **34** | *e*Pn | **Pn** | **23 20 52.4** | **-1.7** |
| **PEL** | **Peldehue** | **3.70** | **39** | *e*Pn | **Pn** | **23 20 53.5** | **-0.7** |
| **PLCA** | **Paso Flores** comp=N,0.6nm,0.3s,baz=354,slow=13,SNR=18 | **5.20** | **155** | Pn | **Pn** | **23 21 15.9** | **+0.9** |
| **LCO** | **Las Campanas** | **7.40** | **19** | *e*Pn | **Pn** | **23 21 42.2** | **-3.1** |
| **TRQA** | **Tornquist** | **9.40** | **106** | *e*Pn | **Pn** | **23 22 11.5** | **-0.9** |
| **CHRN** | **Cochrane** | **11.21** | **177** | *e*Pn | **Pn** | **23 22 35.5** | **-1.7** |
| **PB01** | **IPOC Station P** comp=N,23nm,1.0s | **15.35** | **14** | *e*Pn | **Pn** | **23 23 33.2** | **-0.5** |
| **PB11** | **IPOC Station P** comp=N,53nm,0.9s | **16.57** | **13** | *e*Pn | **P** | **23 23 51.8** | **+0.2** |
| **CPUP** | **Villa Florida** comp=N,82nm,18.5s,baz=238,slow=36 | **16.85** | **59** | LR | LR | 23 29 59.8 | |
| **MNMC** | **Minye Minye** comp=N,24nm,0.8s | **17.20** | **12** | *e*Pn | **Pn** | **23 23 56.4** | **-0.9** |
| **USHA** | **Ushuaia** comp=N,11nm,0.3s,baz=298,slow=10,SNR=3.3 | **19.10** | **171** | P | **Pn** | **23 24 21.0** | **+0.9** |
| **LPAZ** | **La Paz** comp=N,6.5nm,0.8s,baz=175,slow=6.8,SNR=15 | **20.25** | **15** | P | Pn | 23 24 34.1 | -0.5 |
| **SIV** | **San Ignacio** comp=N,9.1nm,0.9s,baz=236,slow=14,SNR=21 | **22.83** | **32** | P | **P** | **23 24 57.7** | **-1.9** |
| **NNA** | **Nana** comp=N,90nm,18.1s,baz=198,slow=31 | **24.15** | **352** | LR | LR | 23 32 27.4 | |
| **SAML** | **Samuel** | **28.56** | **22** | *e*Pn | **P** | **23 25 54.2** | **+2.0** |
| **ATAH** | **Atahualpa** comp=N,96nm,18.6s,baz=354,slow=32 | **29.13** | **350** | LR | LR | 23 35 20.6 | |
| **PTGA** | **Pitinga** comp=N,5.0nm,0.9s,baz=180,slow=15,SNR=4.9 | **37.31** | **23** | P | **P** | **23 27 06.5** | **-2.0** |
| **PRAC** | **Prado** comp=N,49nm,1.8s | **39.58** | **358** | *e*P | **P** | **23 27 27.4** | **-0.1** |
| **RUSC** | **La Rusia** comp=N,16nm,1.8s | **41.72** | **1** | *e*P | **P** | **23 27 45.9** | **+0.1** |
| **HELC** | **Santa Helena** comp=N,26nm,1.0s | **42.06** | **357** | *e*P | **P** | **23 27 47.8** | **-0.6** |
| **SNAA** | **Sanae** | **50.14** | **157** | *e*P | **P** | **23 28 51.5** | **+0.5** |
| **QSPA** | **South Pole Qui** comp=N,35nm,1.0s | **54.19** | **180** | *e*P | **P** | **23 29 22.0** | **+0.7** |
| **JCT** | **Junction City** comp=N,8.3nm,0.9s | **70.66** | **336** | *e*P | **P** | **23 31 12.2** | **+0.7** |
| **TXAR** | **Lajitas Array** comp=N,2.8nm,0.8s,baz=154,slow=8.8,SNR=25 | **70.98** | **332** | P | **P** | **23 31 13.9** | **+0.3** |
| **TX31** | **Lajitas Ar. Si** | **70.98** | **332** | *e*P | **P** | **23 31 13.9** | **+0.3** |
| **WHTX** | **Lake Whitney,** comp=N,11nm,0.8s | **71.33** | **339** | *e*P | **P** | **23 31 16.4** | **+0.9** |
| **MAW** | **Mawson** comp=N,96nm,18.8s,baz=67,slow=36 | **71.55** | **164** | LR | LR | 00 03 14.4 | |
| **SWET** | **Sewanee** comp=N,20nm,1.1s | **71.85** | **349** | *e*P | **P** | **23 31 18.9** | **+0.3** |
| **ABTX** | **Abilene, Hawle** comp=N,9.9nm,0.9s | **72.58** | **337** | *e*P | **P** | **23 31 23.1** | **0.0** |
| **X301** | **Greenbrier Sit** comp=N,13nm,1.0s | **73.09** | **344** | *e*P | **P** | **23 31 26.3** | **+0.3** |
| **WHAR** | **Wooly Hollow** comp=N,19nm,1.2s | **73.11** | **344** | *e*P | **P** | **23 31 26.7** | **+0.6** |
| **MNTX** | **Cornudas Mount** comp=N,4.0nm,1.0s | **73.74** | **332** | *e*P | **P** | **23 31 29.3** | **-0.6** |
| **V36A** | **Jenks** comp=N,15nm,0.9s | **74.47** | **341** | *e*P | **P** | **23 31 34.6** | **+0.5** |
| **TUL1** | **Leonard** comp=N,12nm,1.0s | **74.55** | **341** | *e*P | **P** | **23 31 34.6** | **+0.1** |
| **V35A** | **Meyer Ranch, C** comp=N,16nm,1.0s | **74.69** | **340** | *e*P | **P** | **23 31 35.2** | **-0.1** |
| **U35A** | **Pawnee** comp=N,18nm,0.8s | **75.23** | **341** | *e*P | **P** | **23 31 38.9** | **+0.5** |
| **DBIC** | **Dimbokro** comp=N,2.5nm,0.7s,baz=198,slow=5.9,SNR=5.5 | **76.94** | **72** | P | **P** | **23 31 49.7** | **+1.0** |
| **T25A** | **Trinidad** | **78.28** | **335** | *e*P | **P** | **23 31 57.0** | **+1.1** |
| **MHTCO** | **State Highway** comp=N,16nm,0.4s | **78.36** | **335** | *e*P | **P** | **23 31 58.1** | **+1.7** |
| **X16A** | **Lo Mia Camp, P** | **78.56** | **329** | *e*P | **P** | **23 31 59.1** | **+1.6** |
| **SDCO** | **Great Sand Dun** comp=N,2.4nm,0.9s | **79.20** | **335** | *e*P | **P** | **23 32 02.0** | **+0.9** |
| **S22A** | **4UR Ranch, Cre** | **79.67** | **334** | *e*P | **P** | **23 32 05.0** | **+1.3** |
| **BOSA** | **Boshof** comp=N,1.2nm,0.5s,baz=255,slow=12,SNR=3.0 | **80.15** | **118** | P | **P** | **23 32 08.0** | **+1.5** |
| **SMCO** | **Snowmass** | **80.99** | **334** | *e*P | **P** | **23 32 12.3** | **+1.5** |
| **KNB** | **Kanab** comp=N,9.3nm,1.1s | **81.36** | **329** | *e*P | **P** | **23 32 14.4** | **+1.9** |
| **SHPR** | **Sheep Range** comp=N,4.7nm,1.1s | **81.92** | **327** | *e*P | **P** | **23 32 17.7** | **+2.2** |
| **MTPU** | **Mount Pierson** comp=N,4.6nm,1.1s | **81.97** | **330** | *e*P | **P** | **23 32 17.3** | **+1.3** |
| **CCUT** | **Cedar City** comp=N,9.2nm,1.2s | **82.04** | **329** | *e*P | **P** | **23 32 18.4** | **+2.2** |
| **ECSD** | **EROS Data Cent** comp=N,9.3nm,1.0s | **82.16** | **343** | *e*P | **P** | **23 32 16.6** | **+0.2** |
| **P18A** | **Preston Nutter** comp=N,9.6nm,1.1s | **82.59** | **332** | *e*P | **P** | **23 32 20.4** | **+1.3** |
| **P17A** | **Butcher Ranch,** comp=N,5.2nm,0.9s | **82.64** | **332** | *e*P | **P** | **23 32 20.2** | **+1.0** |
| **NLU** | **North Lily Min** | **83.57** | **331** | *e*P | **P** | **23 32 25.6** | **+1.5** |
| **R11A** | **Troy Canyon, C** | **83.65** | **328** | *e*P | **P** | **23 32 26.1** | **+1.7** |
| **DUG** | **Dugway, Tooele** | **84.07** | **331** | *e*P | **P** | **23 32 27.9** | **+1.4** |
| **TCUT** | **Toone Canyon** | **84.32** | **332** | *e*P | **P** | **23 32 29.5** | **+1.6** |
| **BGU** | **Big Grassy Mou** | **84.78** | **331** | *e*P | **P** | **23 32 31.4** | **+1.2** |
| **HWUT** | **Hardware Ranch** | **84.80** | **332** | *e*P | **P** | **23 32 31.0** | **+0.8** |
| **SPUT** | **South Promonto** | **84.88** | **332** | *e*P | **P** | **23 32 31.5** | **+0.9** |
| **NV01** | **Mina Array Sit** | **84.92** | **326** | *e*P | **P** | **23 32 31.8** | **+0.9** |
| **PDAR** | **Pinedale Array** comp=N,1.3nm,1.0s,baz=134,slow=4.3,SNR=7.7 | **85.08** | **334** | P | **P** | **23 32 31.9** | **+0.2** |
| **HVU** | **Hansel Valley** | **85.41** | **332** | *e*P | **P** | **23 32 34.0** | **+0.7** |
| **TORD** | **Torodi Ar. Bea** comp=N,0.7nm,0.9s,baz=224,slow=4.

comp=N,0.7nm,0.8s,baz=306,slow=3.4,SNR=2.1
**KMI Kunming 168.63 162** PKP **PKPdf 23 40 02.1 -1.1**
**NJ2 Nanjing 169.03 252** *e*PKP **PKPdf 23 40 04.3 +1.3**
**GYA Guiyang 170.44 181** *e*PKP **PKPdf 23 40 03.0 -1.1**
GYA PKPab **PKPab 23 41 23.3 +2.5**
GYA PKS **PKSdf 23 43 35.5 -1.3**
GYA PP **PP 23 45 13.6 +3.6**
GYA AMB AMB
comp=N,110nm,8.5s
**HHC Hu-ho-hao-te 173.79 322** *e*PKP **PKPdf 23 40 05.8 +0.6**
**LZH Lanzhou 177.82 88** *e*PKP **PKPdf 23 40 06.5 +0.1**
LZH LR LR
comp=N,130nm,18.9s
LZH LR LR
comp=N,160nm,18.0s
LZH LR LR
comp=N,190nm,19.6s

**MEX 14 23:21:22.1±0.9, 17°68N×101°66W, h54km±10km, MD3.7, Near coast of Guerrero**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **ZIIG** | **Zihuatanejo** | **0.20** | **110** | *e*P | | Pn | 23 21 28.9 | -1.9 |
| ZIIG | | | | *e*S | | Sn | 23 21 36.2 | -0.8 |
| **CAIG** | **El Cayaco** | **1.47** | **115** | *e*P | | Pn | 23 21 44.9 | -1.3 |
| CAIG | | | | *e*S | | Sn | 23 22 02.8 | -1.6 |
| **MMIG** | **Aquila** | **1.72** | **291** | *e*P | | Pn | 23 21 48.9 | -0.8 |
| MMIG | | | | *e*S | | Sn | 23 22 08.1 | -2.3 |
| **MEIG** | **Mezcala** | **1.96** | **82** | *e*P | | Pn | 23 21 51.5 | -1.5 |
| MEIG | | | | *e*S | | Sn | 23 22 14.6 | -1.9 |

*ISCJB **14** 23:25:53.2±1.0, 4°.3S±0°.1×143°.6E±0°.1, h103km, mb3.7/6, Error ellipse: s-maj=22.4km s-min=9.8km az=142.6*
*IDC **14** 23:25:55.5±4.1, 4°.35S×143°.63E, h112km±43km, mb3.6/6, mb1 3.8/8, mb1mx3.5/31, mbtmp4.0/8, MS3.4/2, Ms1 3.4/2, ms1mx2.7/27, Error ellipse: s-maj=31.7km s-min=24.6km az=93.0*
**ISC 14 23:25:54.5±1.1, 4°.3S±0°.1×143°.6E±0°.2, h103km, n15, σ1§13/14, mb3.7/6, New Guinea**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **PMG** | **Port Moresby** | **6.19** | **145** | P | | **Pn** | **23 27 25.1** | **+1.7** |
| PMG | 4.7nm,0.3s,baz=45,slow=4.5,SNR=6.5 | | | S | | **Sn** | **23 28 31.4** | **-1.5** |
| **WRA** | 3.1nm,0.3s,baz=117,slow=23,SNR=5.6 **Warramunga Arr** | **17.97** | **209** | P | | **P** | **23 29 56.5** | **-0.4** |
| **ASAR** | 1.2nm,0.3s,baz=32,slow=11,SNR=11 **Alice Springs** | **21.40** | **205** | P | | **P** | **23 30 33.8** | **-0.4** |
| **FITZ** | 2.4nm,0.8s,baz=32,slow=8.9,SNR=15 **Fitzroy Crossi** | **22.28** | **231** | P | | **P** | **23 30 43.5** | **0.0** |
| **STKA** | 6.7nm,0.7s,baz=42,slow=10,SNR=9.1 **Stephens Creek** | **27.50** | **184** | P | | **P** | **23 31 31.9** | **+0.6** |
| **KSRS** | 0.6nm,0.3s,baz=333,slow=11,SNR=2.5 **Korea Array** | **44.02** | **342** | LR | | LR | 23 50 06.6 | |
| **CMAR** | comp=Z,22nm,21.1s,baz=155,slow=33 **Chiang Mai Arr** | **49.45** | **299** | P | | **P** | **23 34 35.5** | **+0.9** |
| **MKAR** | 1.6nm,0.8s,baz=123,slow=6.3,SNR=11 **Makanchi Array** | **74.04** | **321** | P | | **P** | **23 37 19.8** | **+0.5** |
| **ZALV** | 0.8nm,0.7s,baz=102,slow=6.7,SNR=8.1 **Zalesovo Beam** | **75.78** | **329** | P | | **P** | **23 37 28.8** | **-0.2** |
| **ILAR** | 0.8nm,0.6s,baz=117,slow=2.5,SNR=5.4 **Eielson Array** | **85.29** | **24** | LR | | LR | 00 15 37.2 | |
| **TORD** | comp=Z,33nm,19.0s,baz=330,slow=35 **Torodi Ar. Bea** | **141.37** | **286** | PKP | | **PKPdf** | **23 45 11.8** | **-2.6** |
| **KIC** | 0.5nm,0.8s,baz=60,slow=3.2,SNR=3.0 **Kosan Boka** | **148.40** | **275** | *e*PKP1 | | **PKPbc** | **23 45 30.0** | **-0.2** |
| **DBIC** | 39nm,1.7s **Dimbokro** | **148.50** | **276** | PKPbc | | **PKPbc** | **23 45 30.2** | **-0.2** |
| **TIC** | 2.4nm,0.5s,baz=72,slow=3.5,SNR=7.3 **Toumodi** | **148.66** | **276** | *e*PKP1 | | **PKPbc** | **23 45 30.6** | **-0.3** |
| **LIC** | **Lamto** | **148.69** | **275** | *e*PKP1 | | **PKPbc** | **23 45 30.6** | **-0.3** |
| | 22nm,0.8s | | | | | | | |

*IDC **14** 23:26:16.2±1.6, 36°.11S×73°.76W, h0km, mb3.7/3, mb1 4.0/4, mb1mx3.7/23, mbtmp3.6/4, ML3.3/1, Error ellipse: s-maj=61.9km s-min=21.1km az=66.0*
*ISCJB **14** 23:26:18.5±1.0, 36°.10S±0°.06×73°.58W±0°.10, h33km, mb3.7/2, Error ellipse: s-maj=11.6km s-min=8.0km az=158.6*
*GUC **14** 23:26:18.0±0.5, 36°.10S×73°.65W, h29km±10km, ML3.6*
**ISC 14 23:26:21.0±1.2, 36°.13S±0°.06×73°.47W±0°.10, h35km, n10, σ1§64/12, 1C-1D, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **COCH** | **Cobquecura** | **0.55** | **91** | *i* P | | **Pn** | **23 26 30.1** | **-2.2** |
| COCH | | | | *i* S | | **Sn** | **23 26 40.1** | **-0.3** |
| **CCSP** | **San Pedro de C** | **0.78** | **158** | *e*P | | **Pn** | **23 26 33.2** | **-2.2** |
| CCSP | | | | *i* S | | **Sn** | **23 26 44.3** | **-1.5** |
| CCSP | | | | IAML | | | 23 26 50.3 | |
| | comp=N,4μm,0.3s | | | | | | | |
| **CCHI** | **Chillan** | **1.22** | **113** | *e*P | | **Pn** | **23 26 40.9** | **-0.7** |
| CCHI | | | | *i* S | | **Sn** | **23 26 58.0** | **+1.1** |
| CCHI | | | | IAML | | | 23 27 07.6 | |
| | comp=N,3μm,0.5s | | | | | | | |
| **GO05** | **HualaæØ** | **1.68** | **49** | IAML | | | 23 27 24.1 | |
| | comp=E,536nm,0.6s | | | | | | | |
| **LMEL** | **Las Melosas** | **3.52** | **51** | *e*P | | **Pn** | **23 27 13.4** | **0.0** |
| **PEL** | **Peldehue** | **3.76** | **38** | *i* P | | **Pn** | **23 27 14.9** | **-1.7** |
| **PLCA** | **Paso Flores** | **5.14** | **154** | Pn | | **Pn** | **23 27 36.5** | **+0.9** |
| | comp=E,0.2nm,0.3s,baz=342,slow=13,SNR=9.0 | | | | | | | |
| PLCA | | | | Lg | | Lg | 23 29 01.6 | |
| | comp=E,1.1nm,0.3s,baz=87,slow=22,SNR=3.3 | | | | | | | |
| **LPAZ** | **La Paz** | **20.32** | **15** | P | | **P** | **23 30 54.1** | **-0.7** |
| | comp=E,2.4nm,0.7s,baz=180,slow=10,SNR=3.7 | | | | | | | |
| **TXAR** | **Lajitas Array** | **71.04** | **332** | P | | **P** | **23 37 35.2** | **-0.2** |
| | comp=E,0.8nm,0.5s,baz=158,slow=9.5,SNR=14 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **86.03** | **71** | P | | **P** | **23 39 00.6** | **+2.4** |
| | comp=E,0.2nm,0.5s,baz=226,slow=3.8,SNR=4.1 | | | | | | | |

**IDC 14 23:49:40.7±3.6, 6°.47S×148°.37E, h0km, mb3.3/1, mb1 3.5/3, mb1mx3.3/30, mbtmp3.3/3, ML3.3/1, Error ellipse: s-maj=119.4km s-min=39.9km az=108.0, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **PMG** | **Port Moresby** | **3.15** | **202** | Pn | | Pn | 23 50 33.7 | +2.1 |
| | 1.2nm,0.3s,baz=340,slow=12,SNR=2.6 | | | | | | | |
| PMG | | | | Sn | | Sn | 23 51 08.7 | -1.4 |
| | 4.3nm,0.3s,baz=24,slow=12,SNR=6.2 | | | | | | | |
| **WRA** | **Warramunga Arr** | **19.11** | **224** | P | | P | 23 54 04.8 | -0.5 |
| | 0.1nm,0.3s,baz=51,slow=11,SNR=3.0 | | | | | | | |
| **ASAR** | **Alice Springs** | **22.04** | **218** | P | | P | 23 54 36.5 | -0.7 |
| | 0.7nm,0.6s,baz=56,slow=9.1,SNR=5.9 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **146.53** | **284** | PKPbc | | PKPdf | 00 09 24.3 | +0.6 |
| | 0.3nm,0.8s,baz=68,slow=4.2,SNR=3.4 | | | | | | | |

*IDC **14** 23:51:30.1±0.7, 6°.67S×130°.80E, h0km, mb4.3/7, mb1 4.5/10, mb1mx4.2/30, mbtmp4.4/10, ML4.7/3, Error ellipse: s-maj=39.4km s-min=16.6km az=78.0*
*NEIC **14** 23:51:36.3±1.2, 6°.81S×130°.59E, h41km±12km, mb4.6/2, Error ellipse: s-maj=15.7km s-min=9.9km az=91.0*
*DJA **14** 23:51:38.2±0.6, 7°.5S±3°×13°.1E±°, h130km±9km, M5.0/8, mb5.1/3, mB5.4/3, MLv4.9/8, Mw(mB)4.9/3*
**ISC 14 23:51:36.1±0.5, 6°.95S±0°.05×130°.93E±0°.06, h47km, n42, σ2§42/47, mb4.2/9, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **SAUI** | **Saumlaki** | **1.09** | **160** | P | | Pn | 23 52 03.7 | +8.6 |
| SAUI | | | | S | | Sn | 23 52 22.9 | +14 |
| **BNDI** | **Bandanaira** | **2.62** | **337** | P | | **Pn** | **23 52 18.3** | **+2.3** |
| BNDI | | | | S | | **Sn** | **23 52 50.1** | **+3.6** |
| **MSAI** | **Masohi** | **4.09** | **331** | P | | **Pn** | **23 52 38.1** | **+1.8** |
| **FAKI** | **Fak Fak** | **4.21** | **18** | P | | **Pn** | **23 52 39.0** | **+1.1** |
| **FAKI** | **Fak Fak** | **4.21** | **18** | *e*Pn | | **Pn** | **23 52 39.3** | **+1.4** |
| FAKI | | | | *e*S | | **Sn** | **23 53 21.2** | **-4.6** |
| **AAI** | **Ambon** | **4.23** | **320** | P | | **Pn** | **23 52 39.9** | **+1.7** |
| **KMPI** | **Kaimana, Papua** | **4.28** | **40** | P | | **Pn** | **23 52 39.7** | **+0.9** |
| KMPI | | | | S | | **Sn** | **23 53 27.6** | **+0.2** |
| **SWI** | **Sorong** | **6.05** | **3** | P | | **Pn** | **23 53 02.7** | **-0.5** |
| **RKPI** | **Ransiki, Papua** | **6.30** | **31** | P | | **Pn** | **23 53 06.6** | **+0.1** |
| | 462nm,0.7s,6μm | | | | | | | |
| **SOEI** | **Soe** | **7.16** | **247** | P | | Pn | 23 53 22.0 | +3.6 |
| **FITZ** | **Fitzroy Crossi** | **12.23** | **204** | Pn | | **Pn** | **23 54 27.7** | **0.0** |
| | 4.1nm,0.3s,baz=36,slow=11,SNR=71 | | | | | | | |
| FITZ | | | | Sn | | **Sn** | **23 56 36.2** | **-6.5** |
| | 2.1nm,0.3s,baz=225,slow=16,SNR=5.4 | | | | | | | |
| **WRAB** | **Tennant Creek** | **13.33** | **166** | *e*Pn | | **Pn** | **23 54 44.4** | **+1.6** |
| | 252nm,0.8s | | | | | | | |
| **WRA** | **Warramunga Arr** | **13.34** | **166** | Pn | | **Pn** | **23 54 44.7** | **+1.8** |
| | 3.2nm,0.3s,baz=347,slow=13,SNR=47 | | | | | | | |
| WRA | | | | Sn | | **Sn** | **23 57 06.7** | **-3.1** |
| | 3.0nm,0.3s,baz=341,slow=21,SNR=9.3 | | | | | | | |
| **COEN** | **Coen** | **13.91** | **121** | *e*Pn | | **Pn** | **23 54 55.3** | **+4.6** |
| | 6.7nm,0.5s | | | | | | | |
| COEN | | | | *e*S | | **Sn** | **23 57 19.3** | **-4.5** |
| **ASAR** | **Alice Springs** | **16.87** | **171** | P | | **P** | **23 55 32.0** | **+1.5** |
| | 2.9nm,0.3s,baz=15,slow=12,SNR=114 | | | | | | | |
| ASAR | | | | S | | **Sn** | **23 58 31.9** | **-3.8** |
| | 0.6nm,0.3s,baz=350,slow=26,SNR=8.5 | | | | | | | |
| **MBWA** | **Marble Bar** | **17.80** | **216** | *e*Pn | | **P** | **23 55 41.4** | **+0.5** |
| | 67nm,1.1s | | | | | | | |
| MBWA | | | | *e*S | | Sn | 23 58 44.1 | -14 |
| **CTA** | **Charters Tower** | **19.79** | **133** | P | | **Pn** | **23 56 09.7** | **+5.2** |
| | 4.4nm,0.7s,baz=324,slow=12,SNR=3.2 | | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **28.81** | **204** | P | | **P** | **23 57 31.6** | **+1.6** |
| | 5.6nm,0.7s,baz=261,slow=16,SNR=3.2 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **40.41** | **309** | P | | **P** | **23 59 07.8** | **-2.3** |
| | 0.8nm,0.4s,baz=134,slow=7.6,SNR=4.8 | | | | | | | |
| **ODAN** | **Odare** | **53.92** | **310** | *e*P | | **P** | **00 00 53.6** | **-2.0** |
| | 7.8nm,0.6s | | | | | | | |
| **TAPN** | **Taplejung** | **53.94** | **311** | *e*P | | **P** | **00 00 54.0** | **-1.8** |
| | 5.4nm,0.4s | | | | | | | |
| **RAMN** | **Ramite** | **54.57** | **310** | *e*P | | **P** | **00 00 58.8** | **-1.5** |
| | 21nm,0.6s | | | | | | | |
| **JIRN** | **Jiri** | **55.25** | **311** | *e*P | | **P** | **00 01 03.5** | **-1.9** |
| | 10nm,0.6s | | | | | | | |
| **GUN** | **Gumba** | **55.62** | **311** | *e*P | | **P** | **00 01 05.9** | **-2.1** |
| | 16nm,0.7s | | | | | | | |
| **PKI** | **Pukchoki** | **55.80** | **310** | *e*P | | **P** | **00 01 07.6** | **-1.6** |
| **PKIN** | **Phulchoki** | **55.81** | **310** | *e*P | | **P** | **00 01 08.0** | **-1.2** |
| | 3.0nm,0.4s | | | | | | | |
| **KKN** | **Kakani** | **56.01** | **310** | *e*P | | **P** | **00 01 09.2** | **-1.4** |
| **DMN** | **Daman** | **56.05** | **310** | *e*P | | **P** | **00 01 09.1** | **-1.8** |
| **GKN** | **Gorkha** | **56.60** | **310** | *e*P | | **P** | **00 01 14.1** | **-0.7** |
| | 0.4nm,0.2s | | | | | | | |
| **KOLN** | **Koldanda** | **57.28** | **309** | *e*P | | **P** | **00 01 18.0** | **-1.6** |
| **PYUN** | **Piuthan** | **57.91** | **309** | *e*P | | **P** | **00 01 22.7** | **-1.4** |
| | 30nm,0.9s | | | | | | | |
| **SONM** | **Songino Array** | **58.69** | **341** | P | | **P** | **00 01 28.6** | **-0.4** |
| | 0.9nm,0.6s,baz=164,slow=7.0,SNR=13 | | | | | | | |
| **MKAR** | **Makanchi Array** | **68.69** | **326** | P | | **P** | **00 02 34.1** | **-0.7** |
| | 4.2nm,0.5s,baz=115,slow=8.2,SNR=62 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **71.95** | **333** | P | | **P** | **00 02 52.8** | **-1.7** |
| | 1.5nm,0.5s,baz=120,slow=3.5,SNR=10.0 | | | | | | | |
| **VNDA** | **Vanda** | **72.39** | **173** | P | | **P** | **00 02 59.2** | **+2.3** |
| | 0.7nm,0.4s,baz=334,slow=7.7,SNR=7.1 | | | | | | | |
| **KURK** | **Kurchatov** | **72.96** | **328** | *e*P | | **P** | **00 02 59.5** | **-1.1** |
| | 8.3nm,0.3s | | | | | | | |
| **BRVK** | **Borovoye** | **78.58** | **328** | *e*P | | **P** | **00 03 31.5** | **-1.2** |
| | 3.0nm,0.4s | | | | | | | |
| **ILAR** | **Eielson Array** | **92.91** | **25** | P | | **P** | **00 04 42.1** | **-1.7** |
| | 0.4nm,0.7s,baz=253,slow=4.9,SNR=4.4 | | | | | | | |
| **TXAR** | **Lajitas Array** | **124.11** | **59** | PKP | | **PKPdf** | **00 10 30.3** | **0.0** |
| | 0.2nm,0.5s,baz=193,slow=2.8,SNR=3.4 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **129.70** | **281** | PKP | | **PKPdf** | **00 10 41.0** | **-0.2** |
| | 0.6nm,0.5s,baz=30,slow=2.4,SNR=9.7 | | | | | | | |
| **CPUP** | **Villa Florida** | **145.96** | **167** | PKPbc | | **PKPab** | **00 11 13.5** | **+1.6** |
| | 1.2nm,0.4s,baz=146,slow=2.4,SNR=5.9 | | | | | | | |
| **LPAZ** | **La Paz** | **150.19** | **141** | PKPbc | | **PKPbc** | **00 11 26.6** | **+2.9** |
| | 2.5nm,0.4s,baz=346,slow=2.3,SNR=17 | | | | | | | |

*IDC **15** 00:03:41.4±0.6, 1°.57N×126°.53E, h0km, mb4.4/13, mb1 4.4/14, mb1mx4.2/38, mbtmp4.3/14, ML3.8/1, MS3.4/2, Ms1 3.5/2, ms1mx2.7/39, Error ellipse: s-maj=36.2km s-min=12.0km az=81.0*
*ISCJB **15** 00:03:45.7±0.5, 1°.56N±0°.07×126°.6E±0°.2, h47km, mb4.4/17, MS3.3/2, Error ellipse: s-maj=28.1km s-min=8.4km az=171.2*
*NEIC **15** 00:03:46.5±0.3, 1°.56N×126°.58E, h35km, mb4.6/1, Error ellipse: s-maj=21.8km s-min=6.3km az=80.0*
**ISC 15 00:03:47.8±0.6, 1°.57N±0°.09×126°.7E±0°.3, h47km, n24, σ0§71/22, mb4.3/17, Northern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **FITZ** | **Fitzroy Crossi** | **19.57** | **183** | P | | **P** | **00 08 12.1** | **+0.1** |
| | 0.2nm,0.3s,baz=14,slow=9.2,SNR=11 | | | | | | | |
| **WRAB** | **Tennant Creek** | **22.67** | **161** | *e*P | | **P** | **00 08 44.0** | **-1.3** |
| | 11nm,0.5s | | | | | | | |
| **WRA** | **Warramunga Arr** | **22.67** | **161** | P | | **P** | **00 08 44.6** | **-0.8** |
| | 14nm,0.5s,baz=339,slow=10,SNR=69 | | | | | | | |
| **ASAR** | **Alice Springs** | **26.06** | **165** | P | | **P** | **00 09 16.7** | **-0.3** |
| | 4.0nm,0.4s,baz=350,slow=14,SNR=42 | | | | | | | |
| **PSI** | **Prapat** | **27.73** | **273** | LR | | LR | 00 20 44.2 | |
| | comp=Z,117nm,20.6s,baz=61,slow=37 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **31.94** | **303** | LR | | LR | 00 24 54.7 | |
| | comp=Z,55nm,19.8s,baz=173,slow=40 | | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **35.45** | **190** | P | | **P** | **00 10 40.1** | **+0.5** |
| | 11nm,0.9s,baz=15,slow=12,SNR=2.9 | | | | | | | |
| **KSAR** | **Wonju Array Be** | **35.71** | **2** | P | | **P** | **00 10 42.6** | **+0.8** |
| **KSRS** | **Korea Array** | **35.73** | **2** | P | | **P** | **00 10 42.6** | **+0.7** |
| | 1.4nm,0.5s,baz=177,slow=9.6,SNR=4.9 | | | | | | | |
| **STKA** | **Stephens Creek** | **36.16** | **158** | P | | **P** | **00 10 45.3** | **-0.5** |
| | 1.6nm,0.4s,baz=328,slow=9.6,SNR=6.2 | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **36.40** | **16** | P | | **P** | **00 10 48.6** | **+0.8** |
| | 0.7nm,0.3s,baz=92,slow=29,SNR=4.0 | | | | | | | |
| **USRK** | **Uusuriysk Ar.** | **42.71** | **6** | P | | **P** | **00 11 40.2** | **0.0** |
| | 5.0nm,0.8s,baz=168,slow=7.4,SNR=5.1 | | | | | | | |
| **KLR** | **Kul'dur** | **47.68** | **5** | P | | **P** | **00 12 18.9** | **-0.7** |
| | 0.2nm,0.6s,baz=317,slow=11,SNR=5.1 | | | | | | | |
| **SONM** | **Songino Array** | **49.31** | **342** | P | | **P** | **00 12 32.3** | **0.0** |
| | 1.0nm,0.6s,baz=160,slow=6.6,SNR=7.1 | | | | | | | |
| **MKAR** | **Makanchi Array** | **59.28** | **326** | P | | **P** | **00 13 44.3** | **-0.4** |
| | 2.9nm,0.6s,baz=119,slow=7.7,SNR=49 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **62.47** | **334** | P | | **P** | **00 14 05.1** | **-1.1** |
| | 0.7nm,0.4s,baz=124,slow=7.4,SNR=5.4 | | | | | | | |
| **KURK** | **Kurchatov** | **63.51** | **328** | *e*P | | **P** | **00 14 12.4** | **-0.7** |
| | 29nm,0.6s | | | | | | | |
| **BRVK** | **Borovoye** | **69.15** | **327** | *e*P | | **P** | **00 14 48.5** | **-0.7** |
| | 15nm,1.1s | | | | | | | |
| **GEYT** | **Alibeck** | **72.19** | **309** | P | | **P** | **00 15 07.8** | **-0.2** |
| | 20nm,0.8s,baz=152,slow=7.5,SNR=3.6 | | | | | | | |
| **VNDA** | **Vanda** | **81.31** | **173** | P | | **P** | **00 15 59.0** | **+0.3** |
| | 1.1nm,0.7s,baz=317,slow=6.4,SNR=12 | | | | | | | |
| **MAW** | **Mawson** | **81.72** | **200** | P | | **P** | **00 16 01.3** | **+0.4** |
| | 1.9nm,0.7s,baz=290,slow=15,SNR=5.5 | | | | | | | |
| **SCHQ** | **Schefferville** | **122.70** | **9** | PKP | | **PKPdf** | **00 22 39.4** | **+1.0** |
| | 3.9nm,0.8s,baz=198,slow=3.2,SNR=2.7 | | | | | | | |
| **TXAR** | **Lajitas Array** | **122.96** | **53** | PKP | | **PKPdf** | **00 22 40.7** | **+0.9** |
| | 0.4nm,0.8s,baz=204,slow=2.7,SNR=4.1 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **123.49** | **287** | PKP | | **PKPdf** | **00 22 40.7** | **-0.3** |
| | 0.7nm,0.7s,baz=75,slow=1.9,SNR=5.2 | | | | | | | |

*ISCJB **15** 00:05:33.3±0.5, 33°.77N±0°.03×35°.74E±0°.06, h13km±5km, Error ellipse: s-maj=7.8km s-min=4.2km az=176.6*
*CSEM **15** 00:05:33.3, 33°.80N×35°.80E, h10km, ML2.7*
*GRAL **15** 00:05:33.3±0.3, 33°.80N×35°.80E, h10km±6km, MD2.7*
*NSSC **15** 00:05:34.6±1.4, 33°.74N×35°.85E, h11km±6km, ML1.1*
**ISC 15 00:05:33.2±0.8, 33°.79N±0°.02×35°.78E±0°.04, h12km±7km, n21, σ0§49/36, Jordan-Syria region**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **BHL** | **Bhannes** | **0.15** | **319** | *e*P | | **Pg** | **00 05 36.8** | **-0.1** |
| BHL | | | | *e*S | | **Sg** | **00 05 39.3** | **-0.2** |
| **BHL** | **Bhannes** | **0.15** | **319** | *e*P | | **Pg** | **00 05 36.8** | **-0.1** |
| BHL | | | | *e*S | | **Sg** | **00 05 39.3** | **-0.2** |
| **DQRL** | **Deir Qamar** | **0.19** | **245** | *e*P | | **Pg** | **00 05 37.5** | **+0.1** |
| DQRL | | | | *e*S | | **Sg** | **00 05 40.6** | **+0.2** |
| **DQRL** | **Deir Qamar** | **0.19** | **245** | *e*P | | **Pg** | **00 05 37.5** | **+0.1** |
| DQRL | | | | *e*S | | **Sg** | **00 05 40.6** | **+0.2** |
| **RCY** | **Rachaya** | **0.29** | **170** | *e*P | | **Pg** | **00 05 39.0** | **-0.3** |
| **RCY** | **Rachaya** | **0.29** | **170** | *e*P | | **Pg** | **00 05 39.0** | **-0.3** |
| **BRBR** | **Barbar** | **0.40** | **159** | *e*P | | **Pg** | **00 05 41.0** | **-0.3** |
| BRBR | | | | *e*S | | **Sg** | **00 05 47.0** | **+0.3** |
| BRBR | | | | AML | | AML | 00 05 50.9 | |
| | comp=N,27nm,0.5s | | | | | | | |
| BRBR | | | | AML | | AML | 00 05 51.3 | |
| | comp=E,31nm,0.3s | | | | | | | |
| **BRBR** | **Barbar** | **0.40** | **159** | *e*P | | **Pg** | **00 05 41.1** | **-0.1** |
| BRBR | | | | *e*S | | **Sg** | **00 05 46.5** | **-0.1** |
| BRBR | | | | AML | | AML | 00 05 50.9 | |
| | comp=N,27nm,0.5s | | | | | | | |
| BRBR | | | | AML | | AML | 00 05 51.2 | |
| | comp=E,31nm,0.3s | | | | | | | |
| **SHBL** | **Chebaa** | **0.44** | **183** | *e*P | | **Pg** | **00 05 41.7** | **-0.2** |
| SHBL | | | | *e*S | | **Sg** | **00 05 47.8** | **0.0** |
| **SHBL** | **Chebaa** | **0.44** | **183** | *e*P | | **Pg** | **00 05 41.7** | **-0.2** |
| SHBL | | | | *e*S | | **Sg** | **00 05 47.8** | **0.0** |
| **HWQ** | **Hawqa** | **0.51** | **16** | *e*P | | **Pg** | **00 05 42.4** | **-0.8** |
| **HWQ** | **Hawqa** | **0.51** | **16** | *e*P | | **Pg** | **00 05 42.4** | **-0.8** |
| **MARH** | **Ras Al Marh** | **0.63** | **68** | *e*P | | **Pg** | **00 05 45.6** | **0.0** |
| **MARH** | **Ras Al Marh** | **0.63** | **68** | *e*P | | **Pg** | **00 05 45.6** | **0.0** |
| MARH | | | | *e*S | | **Sb** | **00 05 55.6** | **+0.3** |
| MARH | | | | AML | | AML | 00 05 59.4 | |
| | comp=E,39nm,0.4s | | | | | | | |
| MARH | | | | AML | | AML | 00 06 00.2 | |
| | comp=N,24nm,0.3s | | | | | | | |
| **HAWK** | **Haweek** | **0.90** | **35** | *e*P | | **Pn** | **00 05 51.8** | **+0.1** |
| HAWK | | | | *e*S | | **Sn** | **00 06 04.2** | **-0.5** |
| HAWK | | | | AML | | AML | 00 06 12.4 | |
| | comp=N,5.5nm,0.7s | | | | | | | |
| HAWK | | | | AML | | AML | 00 06 13.3 | |
| | comp=E,5.0nm,0.4s | | | | | | | |
| **TCHB** | **Talchebab** | **1.13** | **172** | *e*P | | **Pg** | **00 05 55.1** | **+0.2** |
| TCHB | | | | *e*S | | **Sb** | **00 06 07.9** | **-1.3** |
| TCHB | | | | AML | | AML | 00 06 12.5 | |
| | comp=E,9.2nm,0.4s | | | | | | | |
| TCHB | | | | AML | | AML | 00 06 17.9 | |
| | comp=N,12nm,0.4s | | | | | | | |
| **ROOS** | **tl_alroos** | **1.31** | **73** | *e*P | | **Pg** | **00 05 58.7** | **+0.2** |
| ROOS | | | | *e*S | | **Sb** | **00 06 14.4** | **-0.3** |
| ROOS | | | | AML | | AML | 00 06 22.5 | |
| | comp=N,7.1nm,0.6s | | | | | | | |
| ROOS | | | | AML | | AML | 00 06 23.2 | |
| | comp=E,9.4nm,0.7s | | | | | | | |
| **ROOS** | **tl_alroos** | **1.31** | **73** | *e*P | | **Pg** | **00 05 58.8** | **+0.3** |
| ROOS | | | | *e*S | | **Sb** | **00 06 14.6** | **0.0** |
| ROOS | | | | AML | | AML | 00 06 22.5 | |
| | comp=N,7.1nm,0.6s | | | | | | | |
| ROOS | | | | AML | | AML | 00 06 23.2 | |
| | comp=E,9.4nm,0.7s | | | | | | | |
| **SALA** | **Sala** | **1.34** | **143** | *e*P | | **Pb** | **00 05 58.5** | **+0.2** |
| SALA | | | | *e*S | | **Sb** | **00 06 14.2** | **-1.2** |
| SALA | | | | AML | | AML | 00 06 20.0 | |
| | comp=N,5.2nm,0.3s | | | | | | | |
| SALA | | | | AML | | AML | 00 06 22.4 | |
| | comp=E,0.4nm,0.5s | | | | | | | |
| **SALA** | **Sala** | **1.34** | **143** | *e*P | | **Pg** | **00 05 59.1** | **+0.1** |
| SALA | | | | *e*S | | **Sb** | **00 06 14.4** | **-1.1** |
| SALA | | | | AML | | AML | 00 06 20.0 | |
| | comp=N,5.2nm,0.3s | | | | | | | |
| SALA | | | | AML | | AML | 00 06 22.4 | |
| | comp=E,0.4nm,0.5s | | | | | | | |
| **BIA** | **Bitola** | **13.56** | **306** | *i* Pn | | **Pn** | **00 08 46.1** | **+0.8** |

*ISCJB **15** 00:07:41.7±1.0, 37°.47N±0°.05×19°.70E±0°.07, h10km±11km, Error ellipse: s-maj=10.7km s-min=5.8km az=146.0*
*CSEM **15** 00:07:42.3±0.2, 37°.47N×19°.79E, h2km, ML3.1, Error ellipse: s-maj=5.2km s-min=3.2km az=37.0*
*ATH **15** 00:07:42.8, 37°.51N×19°.86E, h14km±1km, ML3.1/9, Error ellipse: s-maj=2.7km s-min=1.4km az=75.0*
*THE **15** 00:07:43.4, 37°.47N×19°.73E, h2km±3km, ML3.1/13, Error ellipse: s-maj=5.5km s-min=1.1km az=245.0*
**ISC 15 00:07:42.0±1.7, 37°.48N±0°.04×19°.83E±0°.06, h14km±10km, n94, σ1§31/139, Ionian Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **VLS** | **Valsamata** | **0.92** | **41** | P | | **Pg** | **00 07 58.5** | **-1.4** |
| VLS | | | | S | | **Sb** | **00 08 12.5** | **+0.6** |
| VLS | | | | AML | | AML | 00 08 17.3 | |
| | comp=E,3250μm,0.2s | | | | | | | |
| VLS | | | | AML | | AML | 00 08 20.6 | |
| | comp=N,3863μm,0.5s | | | | | | | |
| **VLS** | **Valsamata** | **0.92** | **41** | P | | **Pg** | **00 07 58.5** | **-1.4** |
| VLS | | | | S | | **Sb** | **00 08 12.5** | **+0.6** |
| **VTN** | **Vitineika** | **1.16** | **68** | P | | **Pn** | **00 08 05.3** | **+1.5** |
| **VTN** | **Vitineika** | **1.16** | **68** | P | | **Pn** | **00 08 05.3** | **+1.5** |
| **AXS** | **Araxos** | **1.42** | **59** | P | | **Pg** | **00 08 09.9** | **+0.6** |
| **AXS** | **Araxos** | **1.42** | **59** | P | | **Pg** | **00 08 09.3** | **0.0** |
| **AXS** | **Araxos** | **1.42** | **59** | P | | **Pg** | **00 08 09.3** | **0.0** |
| **RLS** | **Riolos of Patr** | **1.42** | **66** | P | | **Pg** | **00 08 09.5** | **+0.1** |
| RLS | | | | S | | **Sg** | **00 08 29.1** | **+1.3** |
| **RLS** | **Riolos of Patr** | **1.42** | **66** | P | | **Pg** | **00 08 09.5** | **+0.1** |
| RLS | | | | S | | **Sg** | **00 08 29.1** | **+1.3** |
| **LKD2** | **Lefkada island** | **1.46** | **26** | P | | **Pg** | **00 08 09.9** | **-0.2** |
| LKD2 | | | | S | | **Sg** | **00 08 28.9** | **-0.3** |
| **LKD2** | **Lefkada island** | **1.46** | **26** | P | | **Pg** | **00 08 09.9** | **-0.2** |
| LKD2 | | | | S | | **Sg** | **00 08 29.4** | **+0.3** |
| **LKD2** | **Lefkada island** | **1.46** | **26** | P | | **Pb** | **00 08 09.3** | **+0.3** |
| LKD2 | | | | S | | **Sg** | **00 08 29.4** | **+0.3** |
| **AMT** | **Artemida-Makis** | **1.50** | **87** | P | | **Pb** | **00 08 09.6** | **0.0** |
| AMT | | | | S | | **

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DSL | | | | S | Sb | 00 08 41.8 | +0.9 | |
| DSL | | | | AML | AML | 00 08 50.9 | | |
| | comp=E,940μm,0.5s | | | | | | | |
| DSL | | | | AML | AML | 00 08 51.3 | | |
| | comp=N,1099μm,0.4s | | | | | | | |
| **DSL** | **Palaion Diesel** | **1.93** | **31** | P | **Pb** | **00 08 16.2** | **-0.8** | |
| DSL | | | | S | **Sb** | **00 08 41.8** | **+0.9** | |
| **DSL** | **Palaion Diesel** | **1.93** | **31** | P | **Pb** | **00 08 16.2** | **-0.8** | |
| **ANX** | **Ano Chora** | **1.99** | **55** | P | **Pb** | **00 08 18.3** | **+0.2** | |
| **ANX** | **Ano Chora** | **1.99** | **55** | P | **Pb** | **00 08 17.8** | **-0.3** | |
| **ANX** | **Ano Chora** | **1.99** | **55** | P | **Pb** | **00 08 17.8** | **-0.3** | |
| **SERG** | **Sergoula** | **1.99** | **61** | P | **Pb** | **00 08 17.9** | **-0.1** | |
| SERG | | | | S | **Sg** | **00 08 44.4** | **-1.7** | |
| **SERG** | **Sergoula** | **1.99** | **61** | P | **Pb** | **00 08 17.9** | **-0.1** | |
| SERG | | | | S | **Sg** | **00 08 44.4** | **-1.7** | |
| **VLX** | **Vlachokerasia** | **2.04** | **92** | P | **Pn** | **00 08 17.6** | **+1.7** | |
| VLX | | | | S | **Sb** | **00 08 44.6** | **+0.6** | |
| **VLX** | **Vlachokerasia** | **2.04** | **92** | P | **Pn** | **00 08 17.6** | **+1.7** | |
| VLX | | | | S | **Sb** | **00 08 44.6** | **+0.6** | |
| **KALE** | **Kalithea** | **2.04** | **63** | P | **Pb** | **00 08 18.6** | **-0.3** | |
| KALE | | | | S | **Sb** | **00 08 44.5** | **+0.3** | |
| **KALE** | **Kalithea** | **2.04** | **63** | P | **Pb** | **00 08 18.6** | **-0.3** | |
| KALE | | | | S | **Sb** | **00 08 44.5** | **+0.3** | |
| **GUR** | **Goura** | **2.05** | **76** | P | **Pb** | **00 08 18.4** | **-0.6** | |
| GUR | | | | S | **Sb** | **00 08 45.0** | **+0.7** | |
| **GUR** | **Goura** | **2.05** | **76** | P | **Pb** | **00 08 18.4** | **-0.6** | |
| GUR | | | | S | **Sb** | **00 08 45.0** | **+0.7** | |
| **EVR** | **Evrytania** | **2.12** | **47** | P | **Pb** | **00 08 20.8** | **+0.5** | |
| EVR | | | | S | **Sb** | **00 08 46.8** | **+0.4** | |
| EVR | | | | AML | AML | 00 09 00.6 | | |
| | comp=E,254μm,1.0s | | | | | | | |
| EVR | | | | AML | AML | 00 09 03.5 | | |
| | comp=N,369μm,0.5s | | | | | | | |
| **EVR** | **Evrytania** | **2.12** | **47** | P | **Pb** | **00 08 20.8** | **+0.5** | |
| EVR | | | | S | **Sb** | **00 08 46.8** | **+0.4** | |
| **SGD** | **Sagiada** | **2.15** | **8** | P | **Pn** | **00 08 19.0** | **+1.6** | |
| **SGD** | **Sagiada** | **2.15** | **8** | P | **Pn** | **00 08 19.0** | **+1.6** | |
| **THAL** | **Thalero** | **2.31** | **75** | P | **Pb** | **00 08 21.8** | **-1.7** | |
| THAL | | | | S | **Sb** | **00 08 52.1** | **+0.1** | |
| **THAL** | **Thalero** | **2.31** | **75** | P | **Pb** | **00 08 21.8** | **-1.7** | |
| THAL | | | | S | **Sb** | **00 08 52.1** | **+0.1** | |
| **DSF** | **Desfina** | **2.33** | **66** | P | **Pb** | **00 08 22.1** | **-1.7** | |
| **DSF** | **Desfina** | **2.33** | **66** | P | **Pb** | **00 08 22.1** | **-1.7** | |
| **AGG** | **Agios Georgios** | **2.50** | **51** | P | **Pn** | **00 08 24.7** | **+2.4** | |
| **AGG** | **Agios Georgios** | **2.50** | **51** | P | **Pn** | **00 08 24.7** | **+2.4** | |
| **LOUT** | **Loutraki** | **2.55** | **78** | P | **Pn** | **00 08 24.7** | **+1.8** | |
| **LOUT** | **Loutraki** | **2.55** | **78** | P | **Pn** | **00 08 24.7** | **+1.8** | |
| **LTK** | **Loutraki** | **2.55** | **77** | P | **Pn** | **00 08 24.5** | **+1.6** | |
| **LTK** | **Loutraki** | **2.55** | **77** | P | **Pn** | **00 08 24.5** | **+1.6** | |
| **DID** | **Didima** | **2.71** | **88** | P | **Pn** | **00 08 26.5** | **+1.3** | |
| **DID** | **Didima** | **2.71** | **88** | P | **Pn** | **00 08 26.5** | **+1.3** | |
| **KPRO** | **Kipourio** | **2.75** | **25** | P | **Pn** | **00 08 28.6** | **+2.9** | |
| **KPRO** | **Kipourio** | **2.75** | **25** | P | **Pn** | **00 08 28.6** | **+2.9** | |
| **VILL** | **Villia** | **2.84** | **75** | P | **Pn** | **00 08 29.1** | **+2.1** | |
| **VILL** | **Villia** | **2.84** | **75** | P | **Pn** | **00 08 29.1** | **+2.1** | |
| **NEST** | **Nestorio** | **3.08** | **18** | P | **Pn** | **00 08 32.9** | **+2.6** | |
| **NEST** | **Nestorio** | **3.08** | **18** | P | **Pn** | **00 08 32.9** | **+2.6** | |
| **XOR** | **Xorichti** | **3.24** | **54** | P | **Pn** | **00 08 33.4** | **+0.9** | |
| **XOR** | **Xorichti** | **3.24** | **54** | P | **Pn** | **00 08 33.4** | **+0.9** | |
| **LIT** | **Litokhoron** | **3.34** | **38** | P | **Pn** | **00 08 34.5** | **+0.7** | |
| **LIT** | **Litokhoron** | **3.34** | **38** | P | **Pn** | **00 08 34.5** | **+0.7** | |
| **EREA** | **Eretria** | **3.38** | **73** | P | **Pn** | **00 08 37.1** | **+2.8** | |
| **EREA** | **Eretria** | **3.38** | **73** | P | **Pn** | **00 08 37.1** | **+2.8** | |
| **FNA** | **Florina** | **3.51** | **20** | P | **Pn** | **00 08 38.8** | **+2.6** | |
| **FNA** | **Florina** | **3.51** | **20** | P | **Pn** | **00 08 38.8** | **+2.6** | |
| **KRUS** | **Krusevo** | **4.04** | **15** | *i* Pn | **Pn** | **00 08 47.1** | **+3.6** | |
| **OUR** | **Ouranopolis** | **4.32** | **47** | P | **Pn** | **00 08 48.5** | **+1.4** | |
| **OUR** | **Ouranopolis** | **4.32** | **47** | P | **Pn** | **00 08 48.5** | **+1.4** | |
| **SOH** | **Sokhos** | **4.32** | **38** | P | **Pn** | **00 08 49.3** | **+2.0** | |
| **SOH** | **Sokhos** | **4.32** | **38** | P | **Pn** | **00 08 49.3** | **+2.0** | |
| **STON** | **Ston** | **5.62** | **344** | *i* Pn | **Pn** | **00 09 05.8** | **+0.7** | |
| STON | | | | Sn | **Sn** | **00 10 06.8** | **-2.7** | |
| **UDBI** | **Udbina** | **7.68** | **338** | *e*Pn | **Pn** | **00 09 35.4** | **+1.9** | |
| **UDBI** | **Udbina** | **7.68** | **338** | *e*Pn | **Pn** | **00 09 35.3** | **+1.9** | |
| **NVLJ** | **Novalja** | **8.00** | **334** | *e*Pn | **Pn** | **00 09 39.9** | **+2.1** | |
| NVLJ | | | | Sn | **Sn** | **00 11 04.7** | **-3.3** | |
| **NVLJ** | **Novalja** | **8.00** | **334** | *e*Pn | **Pn** | **00 09 39.9** | **+2.1** | |

**WEL 15 00:08:53.4±1.1, 46°11S×166°05E, h33km, ML4.1/15, Mw3.9,1C, Error ellipse: s-maj=12.0km s-min=5.2km az=90.0, Off west coast of South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PYZ** | **Puysegur Point** | **0.44** | **98** | ⇑PN | Pb | 00 09 01.8 | -1.3 |
| PYZ | | | | SN | Sb | 00 09 08.8 | -0.9 |
| PYZ | | | | AML | AML | 00 09 12.2 | |
| PYZ | | | | AML | AML | 00 09 12.2 | |
| PYZ | | | | AML | AML | 00 09 12.2 | |
| **DCZ** | **Deep Cove** | **1.01** | **51** | PN | Pn | 00 09 09.9 | -1.2 |
| DCZ | | | | SN | Sn | 00 09 23.8 | -0.3 |
| DCZ | | | | AML | AML | 00 09 29.4 | |
| **WHZ** | **Wether Hill Ro** | **1.34** | **81** | PN | Pn | 00 09 15.8 | 0.0 |
| WHZ | | | | SN | Sn | 00 09 32.1 | -0.3 |
| WHZ | | | | AML | AML | 00 09 37.5 | |
| **APZ** | **The Paps** | **1.52** | **119** | PN | Pn | 00 09 17.6 | -0.7 |
| APZ | | | | SN | Sn | 00 09 36.6 | -0.4 |
| APZ | | | | AML | AML | 00 09 39.2 | |
| **MLZ** | **Mavora Lakes** | **1.63** | **64** | PN | Pn | 00 09 20.6 | +0.8 |
| MLZ | | | | AML | AML | 00 09 47.5 | |
| MLZ | | | | AML | AML | 00 09 50.2 | |
| **EAZ** | **Earnscleugh** | **2.45** | **70** | PN | Pn | 00 09 33.0 | +2.0 |
| EAZ | | | | AML | AML | 00 10 07.5 | |
| EAZ | | | | AML | AML | 00 10 12.0 | |
| **WKZ** | **Wanaka** | **2.45** | **60** | PN | Pn | 00 09 33.1 | +2.0 |
| WKZ | | | | AML | AML | 00 10 09.4 | |
| WKZ | | | | AML | AML | 00 10 12.0 | |
| **TUZ** | **Tuapeka** | **2.50** | **88** | PN | Pn | 00 09 32.6 | +0.9 |
| TUZ | | | | SN | Sn | 00 10 01.7 | +0.7 |
| TUZ | | | | AML | AML | 00 10 10.7 | |
| **JCZ** | **Jackson Bay** | **2.81** | **45** | *e*PN | Pn | 00 09 37.2 | +1.1 |
| JCZ | | | | AML | AML | 00 10 26.4 | |
| JCZ | | | | AML | AML | 00 10 29.1 | |
| **HHSZ** | **Highcliff Hill** | **3.18** | **88** | *e*PN | Pn | 00 09 41.9 | +0.9 |
| HHSZ | | | | AML | AML | 00 10 27.6 | |
| HHSZ | | | | AML | AML | 00 10 43.5 | |
| **LBZ** | **Lake Benmore** | **3.39** | **61** | PN | Pn | 00 09 44.2 | +0.2 |
| LBZ | | | | SN | Sn | 00 10 25.3 | +2.2 |
| LBZ | | | | AML | AML | 00 12 16.1 | |
| **ODZ** | **Otahua Downs** | **3.40** | **73** | PN | Pn | 00 09 43.9 | -0.2 |
| ODZ | | | | AML | AML | 00 10 34.5 | |
| ODZ | | | | AML | AML | 00 10 47.3 | |
| **FOZ** | **Fox Glacier** | **3.72** | **47** | PN | Pn | 00 09 48.7 | +0.3 |
| FOZ | | | | AML | AML | 00 10 56.6 | |
| **RPZ** | **Rata Peaks** | **4.29** | **58** | PN | Pn | 00 09 56.0 | -0.3 |
| RPZ | | | | AML | AML | 00 11 00.7 | |
| RPZ | | | | AML | AML | 00 11 25.6 | |
| **OXZ** | **Oxford** | **5.09** | **59** | PN | Pn | 00 10 06.4 | -1.0 |
| OXZ | | | | SN | Sn | 00 11 04.4 | -0.6 |
| OXZ | | | | AML | AML | 00 12 37.8 | |
| **INZ** | **Inchbonnie** | **5.14** | **51** | *e*PN | Pn | 00 10 07.3 | -0.6 |
| **LTZ** | **Lake Taylor** | **5.56** | **55** | PN | Pn | 00 10 15.2 | +1.4 |

**IDC 15 00:17:35.0±2.0, 5.79S×129.22E, h0km, mb3.9/1, mb1 4.2/4, mb1mx3.7/32, mbtmp4.0/4, ML4.1/2, Error ellipse: s-maj=87.7km s-min=27.3km az=75.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **12.73** | **196** | Pn | Pn | 00 20 38.7 | +1.4 |
| | baz=23,slow=12 | | | | | | |
| FITZ | | | | Sn | Sn | 00 22 41.2 | -19 |
| | 0.2nm,0.3s,baz=108,slow=20,SNR=4.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **14.92** | **161** | Pn | Pn | 00 21 08.3 | +0.9 |
| | 0.7nm,0.3s,baz=339,slow=12,SNR=27 | | | | | | |
| WRA | | | | Sn | Sn | 00 23 41.7 | -12 |
| | 0.1nm,0.3s,baz=334,slow=22,SNR=2.4 | | | | | | |
| **ASAR** | **Alice Springs** | **18.34** | **166** | P | Pn | 00 21 49.4 | -1.6 |
| | 0.9nm,0.3s,baz=337,slow=9.9,SNR=37 | | | | | | |
| **MKAR** | **Makanchi Array** | **66.79** | **327** | P | P | 00 28 28.5 | +0.1 |
| | 1.6nm,1.1s,baz=128,slow=7.5,SNR=2.6 | | | | | | |

**IDC 15 00:21:07.2±1.6, 3.38S×145.56E, h0km, mb3.8/3, mb1 4.1/4, mb1mx3.7/28, mbtmp3.9/4, ML4.1/1, Error ellipse: s-maj=86.3km s-min=26.2km az=122.0, Near north coast of New Guinea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **19.77** | **213** | P | P | 00 25 39.4 | +0.4 |
| | 0.6nm,0.3s,baz=35,slow=12,SNR=23 | | | | | | |
| **ASAR** | **Alice Springs** | **23.10** | **208** | P | P | 00 26 15.3 | +0.5 |
| | 2.1nm,0.6s,baz=38,slow=8.2,SNR=23 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **24.38** | **232** | P | P | 00 26 26.5 | -0.9 |
| | 2.2nm,0.9s,baz=53,slow=9.1,SNR=6.5 | | | | | | |
| **ILAR** | **Eielson Array** | **83.66** | **23** | P | P | 00 33 37.7 | +0.2 |
| | 0.7nm,1.0s,baz=243,slow=5.9,SNR=3.4 | | | | | | |

*CSEM* ***15*** *00:23:13.8±0.2, 38.72N×43.49E, h10km, MD2.4, Error ellipse: s-maj=6.0km s-min=3.9km az=98.0*
*ISK* ***15*** *00:23:13.2, 38.71N×43.48E, h5km, MD2.4*
*ISCJB* ***15*** *00:23:14.2±0.7, 38.73N±0.03×43.51E±0.07, h10km±6km, Error ellipse: s-maj=9.0km s-min=4.7km az=7.5*
*DDA* ***15*** *00:23:14.2, 38.72N×43.51E, h7km, Ml2.5*
**ISC 15 00:23:14.4±1.0, 38.73N±0.03×43.50E±0.04, h11km±9km, n18, σ0.967/31, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.16** | **212** | *e*PG | **Pg** | **00 23 17.9** | **-0.2** |
| **VANB** | **Van** | **0.16** | **212** | *e*Pg | **Pg** | **00 23 17.9** | **-0.2** |
| **TVAN** | **Van** | **0.22** | **200** | *i* P | **Pg** | **00 23 18.2** | **-0.9** |
| TVAN | | | | *i* S | **Sg** | **00 23 23.1** | **+0.8** |
| **TVAN** | **Van** | **0.22** | **200** | P | **Pg** | **00 23 18.2** | **-0.9** |
| TVAN | | | | S | **Sg** | **00 23 23.1** | **+0.8** |
| **VMUR** | **Van-Muradiye** | **0.26** | **12** | *i* P | **Pg** | **00 23 19.1** | **-0.8** |
| VMUR | | | | *i* S | **Sb** | **00 23 25.1** | **-0.7** |
| **VMUR** | **Van-Muradiye** | **0.26** | **12** | P | **Pg** | **00 23 19.1** | **-0.8** |
| VMUR | | | | S | **Sb** | **00 23 25.1** | **-0.7** |
| **ERCV** | **ERCIS-VAN** | **0.31** | **336** | *e*PG | **Pg** | **00 23 20.2** | **-0.6** |
| ERCV | | | | *e*SG | **Sg** | **00 23 25.4** | **+0.3** |
| **ERCV** | **ERCIS-VAN** | **0.31** | **336** | *e*Pg | **Pg** | **00 23 20.2** | **-0.6** |
| ERCV | | | | *e*Sg | **Sg** | **00 23 25.4** | **+0.3** |
| **CLDR** | **Caldiran** | **0.52** | **38** | *e*PG | **Pg** | **00 23 24.4** | **-0.2** |
| CLDR | | | | *e*SG | **Sg** | **00 23 32.5** | **+0.9** |
| **CLDR** | **Caldiran** | **0.52** | **38** | *i* P | **Pg** | **00 23 24.7** | **+0.1** |
| CLDR | | | | *i* S | **Sb** | **00 23 32.7** | **-0.6** |
| **CLDR** | **Caldiran** | **0.52** | **38** | *e*Pg | **Pg** | **00 23 24.4** | **-0.2** |
| **CLDR** | **Caldiran** | **0.52** | **38** | P | **Pg** | **00 23 24.7** | **+0.1** |
| CLDR | | | | *e*Sg | **Sg** | **00 23 32.5** | **+0.9** |
| **TUTA** | **Tutak** | **0.85** | **321** | *i* P | **Pg** | **00 23 30.1** | **-0.8** |
| TUTA | | | | *i* S | **Sb** | **00 23 44.0** | **+1.1** |
| **TUTA** | **Tutak** | **0.85** | **321** | P | **Pg** | **00 23 30.1** | **-0.8** |
| TUTA | | | | S | **Sb** | **00 23 44.0** | **+1.1** |
| **AGRB** | **Hanur-Agry** | **0.93** | **335** | *e*PG | **Pg** | **00 23 31.9** | **-0.4** |
| AGRB | | | | *e*SG | **Sb** | **00 23 45.4** | **+0.4** |
| **AGRB** | **Hanur-Agry** | **0.93** | **335** | *e*Pg | **Pg** | **00 23 31.9** | **-0.4** |
| AGRB | | | | *e*Sg | **Sb** | **00 23 45.4** | **+0.4** |
| **CUKT** | **Cukurca** | **1.49** | **177** | *e*PN | **Pn** | **00 23 41.0** | **-0.1** |
| **CUKT** | **Cukurca** | **1.49** | **177** | *e*Pn | **Pn** | **00 23 41.0** | **-0.1** |

*ISK* ***15*** *00:25:02.0, 38.54N×42.98E, h5km, MD2.7*
*ISCJB* ***15*** *00:25:03.5±0.5, 38.53N±0.03×42.97E±0.04, h8km±6km, Error ellipse: s-maj=5.5km s-min=4.2km az=177.7*
*CSEM* ***15*** *00:25:03.3±0.2, 38.52N×42.98E, h8km, ML3.0, Error ellipse: s-maj=4.3km s-min=4.0km az=144.0*
*DDA* ***15*** *00:25:03.2, 38.53N×42.95E, h7km, Ml3.0*
**ISC 15 00:25:03.6±1.1, 38.53N±0.02×42.99E±0.03, h6km±10km, n38, σ0.994/57, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GEVA** | **Gevas** | **0.23** | **167** | *i* P | **Pg** | **00 25 07.7** | **-0.4** |
| GEVA | | | | *i* S | **Sg** | **00 25 12.6** | **+1.4** |
| **GEVA** | **Gevas** | **0.23** | **167** | P | **Pg** | **00 25 07.7** | **-0.4** |
| GEVA | | | | S | **Sg** | **00 25 12.6** | **+1.4** |
| **VANB** | **Van** | **0.32** | **79** | *e*PG | **Pg** | **00 25 09.7** | **-0.1** |
| VANB | | | | *e*SG | **Sb** | **00 25 15.6** | **-1.5** |
| **VANB** | **Van** | **0.32** | **79** | *e*Pg | **Pg** | **00 25 09.7** | **-0.1** |
| VANB | | | | *e*Sg | **Sb** | **00 25 15.6** | **-1.5** |
| **TVAN** | **Van** | **0.32** | **91** | *i* P | **Pg** | **00 25 10.1** | **+0.1** |
| TVAN | | | | *i* S | **Sb** | **00 25 16.1** | **-1.3** |
| **TVAN** | **Van** | **0.32** | **91** | P | **Pg** | **00 25 10.1** | **+0.1** |
| TVAN | | | | S | **Sb** | **00 25 16.1** | **-1.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.35** | **323** | *i* P | **Pg** | **00 25 10.2** | **-0.2** |
| ADCV | | | | *i* S | **Sb** | **00 25 16.9** | **-1.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.35** | **323** | P | **Pg** | **00 25 10.2** | **-0.2** |
| ADCV | | | | S | **Sb** | **00 25 16.9** | **-1.1** |
| **ERCV** | **ERCIS-VAN** | **0.56** | **29** | *e*PG | **Pg** | **00 25 13.9** | **-0.4** |
| ERCV | | | | *e*SG | **Sb** | **00 25 22.8** | **-1.3** |
| **ERCV** | **ERCIS-VAN** | **0.56** | **29** | *e*Pg | **Pg** | **00 25 13.9** | **-0.4** |
| ERCV | | | | *e*Sg | **Sb** | **00 25 22.8** | **-1.3** |
| **VMUR** | **Van-Muradiye** | **0.64** | **45** | *i* P | **Pg** | **00 25 16.0** | **0.0** |
| VMUR | | | | *i* S | **Sb** | **00 25 26.4** | **-0.2** |
| **VMUR** | **Van-Muradiye** | **0.64** | **45** | P | **Pg** | **00 25 16.0** | **0.0** |
| VMUR | | | | S | **Sb** | **00 25 26.4** | **-0.2** |
| **TUTA** | **Tutak** | **0.88** | **351** | *i* P | **Pg** | **00 25 19.9** | **-0.6** |
| TUTA | | | | *i* S | **Sb** | **00 25 32.9** | **-0.6** |
| **TUTA** | **Tutak** | **0.88** | **351** | P | **Pg** | **00 25 19.9** | **-0.6** |
| TUTA | | | | S | **Sb** | **00 25 32.9** | **-0.6** |
| **CLDR** | **Caldiran** | **0.94** | **50** | *e*PG | **Pg** | **00 25 20.7** | **-1.0** |
| CLDR | | | | *e*SG | **Sb** | **00 25 35.6** | **+0.3** |
| **CLDR** | **Caldiran** | **0.94** | **50** | *e*Pg | **Pg** | **00 25 20.7** | **-1.0** |
| CLDR | | | | *e*Sg | **Sb** | **00 25 35.6** | **+0.3** |
| **EKAR** | **Karacoban** | **1.02** | **315** | *i* P | **Pn** | **00 25 24.4** | **-0.2** |
| EKAR | | | | *i* S | **Sn** | **00 25 43.3** | **+3.9** |
| **EKAR** | **Karacoban** | **1.02** | **315** | P | **Pn** | **00 25 24.5** | **-0.2** |
| **AGRB** | **Hanur-Agry** | **1.04** | **360** | *e*PG | **Pg** | **00 25 23.1** | **-0.5** |
| AGRB | | | | *e*SG | **Sb** | **00 25 37.7** | **-0.4** |
| **AGRB** | **Hanur-Agry** | **1.04** | **360** | *e*Pg | **Pg** | **00 25 23.1** | **-0.5** |
| AGRB | | | | *e*Sg | **Sb** | **00 25 37.7** | **-0.4** |
| **SIRT** | **Sirnak** | **1.12** | **203** | *e*PN | **Pg** | **00 25 24.2** | **-0.8** |
| **SIRT** | **Sirnak** | **1.12** | **203** | *e*Pn | **Pg** | **00 25 24.2** | **-0.8** |
| **VRTB** | **Varto-Mus** | **1.35** | **298** | *e*PN | **Pn** | **00 25 28.6** | **-0.5** |
| **VRTB** | **Varto-Mus** | **1.35** | **298** | *e*Pn | **Pn** | **00 25 28.6** | **-0.5** |
| **CUKT** | **Cukurca** | **1.37** | **159** | *e*PN | **Pg** | **00 25 29.7** | **-0.2** |
| **CUKT** | **Cukurca** | **1.37** | **159** | *e*Pn | **Pg** | **00 25 29.7** | **-0.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.74** | **33** | *e*PN | **Pb** | **00 25 35.0** | **-1.0** |
| **TASB** | **TASBURUN-IGDIR** | **1.74** | **33** | *e*Pn | **Pb** | **00 25 35.0** | **-1.0** |
| **BNGB** | **Bing ¶‖** | **1.87** | **285** | *e*Pn | **Pn** | **00 25 36.1** | **0.0** |
| **BINT** | **Bingol** | **1.99** | **281** | *e*Pn | **Pn** | **00 25 36.1** | **-1.7** |
| **SENK** | **Senkaya-Erzuru** | **2.09** | **346** | *e*PN | **Pn** | **00 25 39.4** | **+0.2** |
| **SENK** | **Senkaya-Erzuru** | **2.09** | **346** | *e*Pn | **Pn** | **00 25 39.4** | **+0.2** |
| **KARS** | **Kars** | **2.09** | **2** | *e*PN | **Pn** | **00 25 39.6** | **+0.3** |
| **KARS** | **Kars** | **2.09** | **2** | *e*Pn | **Pn** | **00 25 39.6** | **+0.3** |
| **YEDI** | **Yedisu-Bingol** | **2.11** | **296** | *e*PN | **Pn** | **00 25 39.8** | **+0.2** |
| **YEDI** | **Yedisu-Bingol** | **2.11** | **296** | *e*Pn | **Pn** | **00 25 39.8** | **+0.2** |
| **MAZI** | **Mazidag** | **2.28** | **243** | *e*PN | **Pn** | **00 25 42.0** | **+0.2** |
| **MAZI** | **Mazidag** | **2.28** | **243** | *e*Pn | **Pn** | **00 25 42.0** | **+0.2** |

*ISK* ***15*** *00:28:26.6, 38.57N×43.00E, h2km, MD2.6*
*ISCJB* ***15*** *00:28:27.8±0.5, 38.56N±0.02×43.01E±0.05, h9km±6km, Error ellipse: s-maj=6.0km s-min=4.1km az=171.3*
*DDA* ***15*** *00:28:27.4, 38.54N×42.99E, h7km, Md2.7*
*CSEM* ***15*** *00:28:27.5±0.2, 38.54N×43.01E, h5km, MD2.7, Error ellipse: s-maj=5.6km s-min=4.2km az=89.0*
**ISC 15 00:28:27.7±1.0, 38.54N±0.02×43.01E±0.03, h9km±8km, n20, σ0.967/38, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GEVA** | **Gevas** | **0.23** | **171** | *i* P | **Pg** | **00 28 31.4** | **-1.1** |
| GEVA | | | | *i* S | **Sg** | **00 28 36.7** | **+0.9** |
| **GEVA** | **Gevas** | **0.23** | **171** | P | **Pg** | **00 28 31.4** | **-1.1** |
| GEVA | | | | S | **Sg** | **00 28 36.7** | **+0.9** |
| **VANB** | **Van** | **0.30** | **80** | *e*PG | **Pg** | **00 28 33.7** | **0.0** |
| VANB | | | | *e*SG | **Sb** | **00 28 39.3** | **-1.1** |
| **VANB** | **Van** | **0.30** | **80** | *e*Pg | **Pg** | **00 28 33.7** | **0.0** |
| VANB | | | | *e*Sg | **Sb** | **00 28 39.3** | **-1.1** |
| **TVAN** | **Van** | **0.31** | **93** | *i* P | **Pg** | **00 28 33.7** | **-0.2** |
| TVAN | | | | *i* S | **Sb** | **00 28 39.8** | **-1.0** |
| **TVAN** | **Van** | **0.31** | **93** | P | **Pg** | **00 28 33.7** | **-0.2** |
| TVAN | | | | S | **Sb** | **00 28 39.8** | **-1.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.35** | **320** | *i* P | **Pb** | **00 28 36.1** | **-0.1** |
| ADCV | | | | *i* S | **Sg** | **00 28 40.3** | **+1.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.35** | **320** | P | **Pb** | **00 28 36.1** | **-0.1** |
| ADCV | | | | S | **Sg** | **00 28 40.3** | **+1.0** |
| **ERCV** | **ERCIS-VAN** | **0.54** | **28** | *e*PG | **Pg** | **00 28 37.8** | **-0.4** |
| ERCV | | | | *e*SG | **Sg** | **00 28 45.7** | **+0.4** |
| **ERCV** | **ERCIS-VAN** | **0.54** | **28** | *e*Pg | **Pg** | **00 28 37.8** | **-0.4** |
| ERCV | | | | *e*Sg | **Sg** | **00 28 45.7** | **+0.4** |
| **TUTA** | **Tutak** | **0.87** | **350** | *i* P | **Pg** | **00 28 43.8** | **-0.7** |
| TUTA | | | | *i* S | **Sb** | **00 28 56.5** | **-0.5** |
| **TUTA** | **Tutak** | **0.87** | **350** | P | **Pg** | **00 28 43.8** | **-0.7** |
| TUTA | | | | S | **Sb** | **00 28 56.5** | **-0.5** |
| **CLDR** | **Caldiran** | **0.93** | **49** | *e*PG | **Pg** | **00 28 45.4** | **-0.1** |
| CLDR | | | | *e*SG | **Sb** | **00 28 58.7** | **+0.1** |
| **CLDR** | **Caldiran** | **0.93** | **49** | *e*Pg | **Pg** | **00 28 45.4** | **-0.1** |
| CLDR | | | | *e*Sg | **Sb** | **00 28 58.7** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **1.03** | **359** | *e*PG | **Pg** | **00 28 46.7** | **-0.8** |
| AGRB | | | | *e*SG | **Sb** | **00 29 01.6** | **0.0** |
| **AGRB** | **Hanur-Agry** | **1.03** | **359** | *e*Pg | **Pg** | **00 28 46.7** | **-0.8** |
| AGRB | | | | *e*Sg | **Sb** | **00 29 01.6** | **0.0** |
| **SIRT** | **Sirnak** | **1.14** | **204** | *e*PN | **Pn** | **00 28 49.8** | **-0.1** |
| SIRT | | | | *e*SN | **Sn** | **00 29 06.3** | **+0.7** |
| **SIRT** | **Sirnak** | **1.14** | **204** | *e*Pn | **Pn** | **00 28 49.8** | **-0.1** |
| SIRT | | | | *e*Sn | **Sn** | **00 29 06.3** | **+0.7** |
| **CUKT** | **Cukurca** | **1.38** | **160** | *e*PN | **Pg** | **00 28 54.1** | **0.0** |
| **CUKT** | **Cukurca** | **1.38** | **160** | *e*Pn | **Pg** | **00 28 54.1** | **0.0** |

**MAN 15 00:30:48, 11.43N×125.60E, h73km, mb4.5, ML3.4, MS3.3, 1D, Samar**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BESP** | **Borongan** | **0.23** | **317** | *e*P | Pn | 00 31 01.5 | +2.4 |
| BESP | | | | *e*S | Sn | 00 31 15.3 | +8.0 |
| **PLP** | **Palo** | **0.66** | **247** | ‖*e*P | Pn | 00 31 06.4 | +3.6 |
| PLP | | | | *e*S | Sn | 00 31 17.6 | +4.0 |
| **MSLP** | **Maasin** | **1.48** | **210** | *e*P | Pn | 00 31 15.0 | +2.2 |
| MSLP | | | | *e*S | Sn | 00 31 38.6 | +7.1 |

*NIED* ***15*** *00:35:00, 23.70N×121.80E, h23km, Mw4.3 Best double couple: M0 3.70000×10^15 NP1:φ=190.00000°, δ=29.00000°, λ=53.00000°. NP2:φ=51.00000°, δ=67.00000°, λ=109.00000°.*
*IDC* ***15*** *00:35:35.8±0.6, 23.77N×121.89E, h0km, mb4.2/19, mb1 4.4/19, mb1mx4.3/38, mbtmp4.2/19, MS3.7/12, Ms1 3.7/12, ms1mx3.5/37, Error ellipse: s-maj=19.3km s-min=14.5km az=68.0*
*BJI* ***15*** *00:35:40.2, 23.82N×121.73E, h17km, mb4.4/22, mB4.4/12, ML4.2/7, Ms4.1/18, Ms7 3.9/18*
*JMA* ***15*** *00:35:40.5±0.1, 23.71N×121.77E, h32km±3km, M4.5*
*NEIC* ***15*** *00:35:41.9±0.0, 23.74N×121.78E, h25km, mb4.3/6, ML4.6(TAP), After TAP.*
*NEIC Recorded [3 TAP] in Hualien and Yilan; [2 TAP] in Nantou; [1 TAP] in Changhua, Taitung and Yunlin.*
*ISCJB* ***15*** *00:35:41.5±0.2, 23.71N±0.02×121.84E±0.01, h45km±2km, mb4.2/28, MS3.8/10, Error ellipse: s-maj=2.8km s-min=1.8km az=150.8*
*TAP* ***15*** *00:35:41.6, 23.72N×121.77E, h33km, ML4.6, B*
**ISC 15 00:35:41.8±0.5, 23.72N±0.03×121.82E±0.02, h36km±1km, n157, σ1.973/221, mb4.2/28, MS3.8/11, 25C-7D, Taiwan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TEGC** | **Jichi Village** | **0.26** | **267** | *e*P | **Pn** | **00 35 49.2** | **-0.8** |
| | baz=261 | | | | | | |
| TEGC | | | | *e*S | **Sn** | **00 35 54.3** | **-2.8** |
| | baz=261 | | | | | | |
| **HWA** | **Hwalien** | **0.32** | **322** | ⇓*i* P | **Pn** | **00 35 49.2** | **-0.8** |
| | baz=335 | | | | | | |
| **ESF** | **Shoufeng Towns** | **0.32** | **297** | *e*P | **Pn** | **00 35 49.5** | **-0.5** |
| | baz=302 | | | | | | |
| **ESL** | **Shilin** | **0.37** | **284** | ⇓P | **Pn** | **00 35 49.3** | **-1.1** |
| | baz=283 | | | | | | |
| **TWD** | **Chiawan** | **0.41** | **330** | ⇓*i* P | **Pn** | **00 35 50.4** | **-0.6** |
| | baz=338 | | | | | | |
| TWD | | | | *i* S | **Sn** | **00 35 56.6** | **-1.1** |
| | baz=338 | | | | | | |
| **NACB** | **Ninganchiao** | **0.49** | **335** | *e*Pg | **Pn** | **00 35 51.1** | **-1.3** |
| **EHY** | **Hungye** | **0.51** | **245** | ⇑*i* P | **Pn** | **00 35 51.4** | **-1.2** |
| | baz=254 | | | | | | |
| EHY | | | | *e*S | **Sn** | **00 35 58.3** | **-1.7** |
| | baz=254 | | | | | | |
| **YULB** | **Yu-li** | **0.58** | **236** | *e*Pg | **Pn** | **00 35 52.3** | **-1.5** |
| **EHP** | **Heping Village** | **0.59** | **353** | *e*P | **Pn** | **00 35 53.9** | **+0.1** |
| | baz=359 | | | | | | |
| EHP | | | | *e*S | **Sn** | **

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | baz=251 | | | | | | | |
| CHN4 | | | | *e*S | | **Sn** | **00 36 19.6** | **+2.8** |
| | baz=251 | | | | | | | |
| **NSY** | **Sanyi** | **1.19** | **306** | ⇑*i*P | | **Pn** | **00 36 03.2** | **+1.3** |
| | baz=307 | | | | | | | |
| NSY | | | | *e*S | | **Sn** | **00 36 18.5** | **+1.6** |
| | baz=307 | | | | | | | |
| **WTP** | **Ta-pu** | **1.21** | **247** | ⇑*i*P | | **Pn** | **00 36 02.9** | **+0.7** |
| | baz=245 | | | | | | | |
| WTP | | | | *i* S | | **Sn** | **00 36 19.6** | **+2.3** |
| | baz=245 | | | | | | | |
| **CHN2** | **Minshiung** | **1.25** | **261** | P | | **Pn** | **00 36 04.0** | **+1.3** |
| | baz=261 | | | | | | | |
| CHN2 | | | | *e*S | | **Sn** | **00 36 20.9** | **+2.6** |
| | baz=261 | | | | | | | |
| **JYNG** | **Yonagunijimaku** | **1.26** | **55** | P | | **Pn** | **00 36 03.7** | **+0.9** |
| JYNG | | | | *e*S | | **Sn** | **00 36 19.7** | **+1.2** |
| **TWA** | **Mucha** | **1.27** | **350** | ⇑*i*P | | **Pn** | **00 36 04.1** | **+1.0** |
| | baz=343 | | | | | | | |
| TWA | | | | *e*S | | **Sn** | **00 36 20.2** | **+1.4** |
| | baz=343 | | | | | | | |
| **TATO** | **Taipei** | **1.28** | **346** | *e*Pn | | **Pn** | **00 36 03.7** | **+0.5** |
| TATO | | | | *e*S | | **Sn** | **00 36 18.1** | **-1.0** |
| **TWB1** | **Santiao Chiao** | **1.29** | **7** | *e*P | | **Pn** | **00 36 04.4** | **+1.2** |
| | baz=28 | | | | | | | |
| TWB1 | | | | *e*S | | **Sn** | **00 36 20.2** | **+1.0** |
| | baz=28 | | | | | | | |
| **CHY** | **Chiayi** | **1.30** | **260** | ⇑*i*P | | **Pn** | **00 36 04.5** | **+1.1** |
| | baz=260 | | | | | | | |
| CHY | | | | *e*S | | **Sn** | **00 36 21.0** | **+1.4** |
| | baz=260 | | | | | | | |
| **CHN1** | **Nanshi** | **1.30** | **246** | ⇑*i*P | | **Pn** | **00 36 04.5** | **+1.0** |
| | baz=244 | | | | | | | |
| CHN1 | | | | *e*S | | **Sn** | **00 36 22.5** | **+2.8** |
| | baz=244 | | | | | | | |
| **SGST** | **Jiashian** | **1.30** | **241** | P | | **Pn** | **00 36 04.4** | **+0.9** |
| | baz=238 | | | | | | | |
| SGST | | | | S | | **Sn** | **00 36 21.4** | **+1.7** |
| | baz=238 | | | | | | | |
| **TWK** | **Hsinying** | **1.31** | **250** | ⇑*i*P | | **Pn** | **00 36 04.2** | **+0.7** |
| | baz=248 | | | | | | | |
| TWK | | | | *e*S | | **Sn** | **00 36 20.9** | **+1.2** |
| | baz=248 | | | | | | | |
| **YOJ** | **Yonaguni jima** | **1.31** | **56** | ⇓*i*P | | **Pn** | **00 36 04.6** | **+1.0** |
| | baz=59 | | | | | | | |
| YOJ | | | | *e*S | | **Sn** | **00 36 20.6** | **+0.8** |
| | baz=59 | | | | | | | |
| **YOJ** | **Yonaguni jima** | **1.31** | **56** | P | | **Pn** | **00 36 04.5** | **+1.0** |
| YOJ | | | | *e*S | | **Sn** | **00 36 21.1** | **+1.3** |
| **YOJ** | **Yonaguni jima** | **1.31** | **56** | *e*Pn | | **Pn** | **00 36 04.6** | **+1.0** |
| **HSN** | **Hsinchu** | **1.33** | **324** | *e*P | | **Pn** | **00 36 05.3** | **+1.5** |
| | baz=327 | | | | | | | |
| HSN | | | | *e*S | | **Sn** | **00 36 23.1** | **+2.9** |
| | baz=327 | | | | | | | |
| **TAP1** | **Taipei** | **1.34** | **348** | *e*P | | **Pn** | **00 36 04.3** | **+0.4** |
| | baz=350 | | | | | | | |
| TAP1 | | | | *e*S | | **Sn** | **00 36 21.1** | **+0.7** |
| | baz=350 | | | | | | | |
| **TAP** | **Taipei** | **1.34** | **348** | *e*P | | **Pn** | **00 36 04.6** | **+0.6** |
| | baz=350 | | | | | | | |
| TAP | | | | *e*S | | **Sn** | **00 36 21.4** | **+0.8** |
| | baz=350 | | | | | | | |
| **NWF** | **Wu-fen Shan** | **1.34** | **358** | ⇑P | | **Pn** | **00 36 05.5** | **+1.5** |
| | baz=346 | | | | | | | |
| NWF | | | | S | | **Sn** | **00 36 23.0** | **+2.3** |
| | baz=346 | | | | | | | |
| **NCU** | **National Centr** | **1.37** | **335** | *e*P | | **Pn** | **00 36 05.6** | **+1.2** |
| | baz=336 | | | | | | | |
| NCU | | | | S | | **Sn** | **00 36 24.0** | **+2.8** |
| | baz=336 | | | | | | | |
| **WTCT** | **Ta-ch'eng** | **1.42** | **276** | *e*P | | **Pn** | **00 36 06.1** | **+1.1** |
| | baz=276 | | | | | | | |
| WTCT | | | | *e*S | | **Sn** | **00 36 25.7** | **+3.3** |
| | baz=276 | | | | | | | |
| **TWS1** | **Kuangyinshan** | **1.42** | **345** | *e*P | | **Pn** | **00 36 06.1** | **+1.0** |
| | baz=347 | | | | | | | |
| TWS1 | | | | S | | **Sn** | **00 36 24.5** | **+2.0** |
| | baz=347 | | | | | | | |
| **SSD** | **Sandimen** | **1.46** | **229** | *e*P | | **Pn** | **00 36 06.5** | **+0.8** |
| | baz=226 | | | | | | | |
| **WSF** | **Szhu** | **1.47** | **267** | *e*P | | **Pn** | **00 36 06.0** | **+0.3** |
| | baz=267 | | | | | | | |
| WSF | | | | *e*S | | **Sn** | **00 36 25.6** | **+1.9** |
| | baz=267 | | | | | | | |
| **CHN3** | **Shinhua** | **1.48** | **245** | *e*P | | **Pn** | **00 36 07.7** | **+1.8** |
| | baz=243 | | | | | | | |
| CHN3 | | | | *e*S | | **Sn** | **00 36 27.7** | **+3.6** |
| | baz=243 | | | | | | | |
| **CHN8** | **Yiju** | **1.52** | **256** | P | | **Pn** | **00 36 07.3** | **+0.8** |
| | baz=256 | | | | | | | |
| CHN8 | | | | S | | **Sn** | **00 36 26.5** | **+1.5** |
| | baz=256 | | | | | | | |
| **TWY** | **Chenhua** | **1.56** | **353** | *e*P | | **Pn** | **00 36 07.5** | **+0.6** |
| | baz=339 | | | | | | | |
| **TWM1** | **Shoushan** | **1.57** | **235** | *e*P | | **Pn** | **00 36 09.9** | **+2.8** |
| | baz=233 | | | | | | | |
| **SGLT** | **Jiouru** | **1.58** | **231** | *e*P | | **Pn** | **00 36 09.5** | **+2.3** |
| | baz=228 | | | | | | | |
| **SCLT** | **Jiali** | **1.59** | **250** | P | | **Pn** | **00 36 08.8** | **+1.4** |
| | baz=250 | | | | | | | |
| SCLT | | | | S | | **Sn** | **00 36 29.1** | **+2.4** |
| | baz=250 | | | | | | | |
| **TAW** | **Tawu** | **1.60** | **212** | *e*P | | **Pn** | **00 36 09.4** | **+1.8** |
| | baz=209 | | | | | | | |
| **EAST** | **Anshuo** | **1.61** | **214** | *e*P | | **Pn** | **00 36 07.9** | **+0.2** |
| | baz=211 | | | | | | | |
| **TAI1** | **Yung-k'ang** | **1.61** | **245** | *e*P | | **Pn** | **00 36 09.4** | **+1.7** |
| | baz=260 | | | | | | | |
| TAI1 | | | | *e*S | | **Sn** | **00 36 28.1** | **+0.8** |
| | baz=260 | | | | | | | |
| **LAY** | **Lan-yu** | **1.70** | **189** | *e*P | | **Pn** | **00 36 08.0** | **-0.9** |
| | baz=185 | | | | | | | |
| **SCZT** | **Fangliau** | **1.74** | **220** | *e*P | | **Pn** | **00 36 11.5** | **+2.0** |
| | baz=212 | | | | | | | |
| **HATJ** | **Hateruma jima** | **1.84** | **79** | P | | **Pn** | **00 36 11.7** | **+0.8** |
| HATJ | | | | S | | **Sn** | **00 36 34.0** | **+1.0** |
| **IRIF** | **Iriomote-Funau** | **1.85** | **70** | P | | **Pn** | **00 36 12.0** | **+1.1** |
| IRIF | | | | S | | **Sn** | **00 36 34.7** | **+1.6** |
| **PCYT** | **Pengchaiyu** | **1.91** | **7** | *e*P | | **Pn** | **00 36 12.9** | **+1.1** |
| | baz=11 | | | | | | | |
| **TWP** | **Hsiaoliuchiu** | **1.92** | **225** | *e*P | | **Pn** | **00 36 13.9** | **+1.9** |
| | baz=221 | | | | | | | |
| **HEN** | **Hengchun** | **1.98** | **211** | *e*P | | **Pn** | **00 36 15.2** | **+2.4** |
| | baz=196 | | | | | | | |
| **TSEB** | **Hengchuen, Pin** | **2.00** | **205** | *e*P | | **Pn** | **00 36 13.7** | **+0.6** |
| | baz=195 | | | | | | | |
| **TWK1** | **Hengchun** | **2.00** | **208** | *e*P | | **Pn** | **00 36 12.0** | **-1.1** |
| | baz=196 | | | | | | | |
| **WDGT** | **Dungji** | **2.04** | **257** | *i* P | | **Pn** | **00 36 13.7** | **+0.1** |
| | baz=257 | | | | | | | |
| WDGT | | | | *e*S | | **Sn** | **00 36 36.4** | **-1.3** |
| | baz=257 | | | | | | | |
| **JKRS** | **Kuro-shima** | **2.06** | **75** | P | | **Pn** | **00 36 15.0** | **+1.1** |
| JKRS | | | | *e*S | | **Sn** | **00 36 39.8** | **+1.4** |
| **PNG** | **Penghu** | **2.08** | **266** | *e*P | | **Pn** | **00 36 14.5** | **+0.3** |
| | baz=253 | | | | | | | |
| PNG | | | | *e*S | | **Sn** | **00 36 38.5** | **-0.4** |
| | baz=253 | | | | | | | |
| **JIJ** | **Ishigaki jima** | **2.22** | **73** | P | | **Pn** | **00 36 16.6** | **+0.6** |
| JIJ | | | | S | | **Sn** | **00 36 42.7** | **+0.6** |
| **JISG** | **Ishigakijimahi** | **2.43** | **69** | P | | **Pn** | **00 36 19.5** | **+0.5** |
| JISG | | | | S | | **Sn** | **00 36 47.2** | **-0.2** |
| **JTJ** | **Tarama** | **2.78** | **70** | P | | **Pn** | **00 36 24.6** | **+0.8** |
| JTJ | | | | *e*S | | **Sn** | **00 36 57.1** | **+0.9** |
| **KNM** | **Kinmen** | **3.17** | **283** | *e*P | | **Pn** | **00 36 30.2** | **+1.0** |
| | baz=283 | | | | | | | |
| **QZH** | **Quanzhou** | **3.19** | **293** | ⇓*i*Pn | | **Pn** | **00 36 28.1** | **-1.2** |
| QZH | | | | Sn | | **Sn** | **00 37 02.9** | **-3.2** |
| QZH | | | | smax | smax | | | |
| | comp=N,1μm,0.3s | | | | | | | |
| QZH | | | | smax | smax | | | |
| | comp=E,830nm,0.4s | | | | | | | |
| QZH | | | | LR | LR | | | |
| | comp=N,2μm,5.5s | | | | | | | |
| QZH | | | | LR | LR | | | |
| | comp=E,2μm,5.6s | | | | | | | |
| QZH | | | | LR | LR | | | |
| | comp=Z,4μm,16.7s | | | | | | | |
| **JIRB** | **Irabujima** | **3.25** | **70** | P | | **Pn** | **00 36 30.7** | **+0.5** |
| JIRB | | | | *e*S | | **Sn** | **00 37 07.8** | **+0.1** |
| **JIKM** | **Ikemajima** | **3.35** | **68** | P | | **Pn** | **00 36 32.5** | **+1.0** |
| JIKM | | | | S | | **Sn** | **00 37 10.9** | **+0.9** |
| **JMJ** | **Miyako jima 2** | **3.35** | **70** | *e*P | | **Pn** | **00 36 33.2** | **+1.6** |
| | baz=83 | | | | | | | |
| **JMJ** | **Miyako jima 2** | **3.35** | **70** | P | | **Pn** | **00 36 33.1** | **+1.5** |
| JMJ | | | | S | | **Sn** | **00 37 10.7** | **+0.6** |
| **JOGS** | **Gusukube** | **3.43** | **72** | P | | **Pn** | **00 36 34.0** | **+1.3** |
| JOGS | | | | S | | **Sn** | **00 37 13.3** | **+1.2** |
| **JOW** | **Kunigami** | **6.61** | **61** | *e*P | | **Pn** | **00 37 15.7** | **-0.7** |
| | baz=66 | | | | | | | |
| **JOW** | **Kunigami** | **6.61** | **61** | *e*Pn | | **Pn** | **00 37 15.4** | **-1.0** |
| | 14nm,0.3s | | | | | | | |
| JOW | | | | *e*S | | **Sn** | **00 38 27.2** | **-3.3** |
| **WHN** | **Wuhan** | **9.51** | **317** | ⇑P | | **Pn** | **00 37 55.4** | **-0.7** |
| WHN | | | | S | | **Sn** | **00 39 35.8** | **-5.9** |
| WHN | | | | LR | LR | | | |
| | comp=N,1μm,5.1s | | | | | | | |
| WHN | | | | LR | LR | | | |
| | comp=E,1μm,7.7s | | | | | | | |
| WHN | | | | LR | LR | | | |
| | comp=Z,2μm,18.2s | | | | | | | |
| **ENH** | **Enshi** | **12.78** | **303** | *e*Pn | | **Pn** | **00 38 40.9** | **-0.1** |
| **GYA** | **Guiyang** | **14.00** | **284** | *e*P | | **Pn** | **00 38 59.3** | **+1.5** |
| GYA | | | | pP | | P | 00 39 05.4 | +0.2 |
| GYA | | | | S | | **Sn** | **00 41 34.0** | **+2.0** |
| GYA | | | | SS | | **S** | **00 41 51.5** | **-1.2** |
| GYA | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.7s | | | | | | | |
| GYA | | | | LR | LR | | | |
| | comp=N,320nm,12.8s | | | | | | | |
| GYA | | | | LR | LR | | | |
| | comp=E,410nm,13.6s | | | | | | | |
| GYA | | | | LR | LR | | | |
| | comp=Z,380nm,12.9s | | | | | | | |
| **KSAR** | **Wonju Array Be** | **14.63** | **19** | Pn | | **P** | **00 39 09.2** | **-2.8** |
| **KSRS** | **Korea Array** | **14.65** | **20** | Pn | | **Pn** | **00 39 09.2** | **+2.7** |
| | 0.4nm,0.3s,baz=199,slow=14,SNR=3.7 | | | | | | | |
| KSRS | | | | LR | | LR | 00 45 30.8 | |
| | comp=Z,136nm,19.1s,baz=179,slow=41 | | | | | | | |
| **XAN** | **Xi'an** | **15.26** | **315** | P | | **Pn** | **00 39 15.0** | **+0.4** |
| XAN | | | | pmax | pmax | | | |
| | comp=Z,11nm,0.9s | | | | | | | |
| XAN | | | | pmax | pmax | | | |
| | comp=Z,110nm,6.4s | | | | | | | |
| XAN | | | | LR | LR | | | |
| | comp=Z,520nm,15.4s | | | | | | | |
| **KMI** | **Kunming** | **17.43** | **278** | P | | **P** | **00 39 44.8** | **+1.3** |
| KMI | | | | pP | | pP | 00 39 49.5 | -3.3 |
| KMI | | | | S | | **Sn** | **00 42 58.8** | **+3.1** |
| KMI | | | | sS | | S | 00 43 08.8 | +5.7 |
| KMI | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,0.7s | | | | | | | |
| KMI | | | | pmax | pmax | | | |
| | comp=Z,100nm,4.1s | | | | | | | |
| KMI | | | | LR | LR | | | |
| | comp=N,110nm,10.2s | | | | | | | |
| KMI | | | | LR | LR | | | |
| | comp=E,470nm,15.9s | | | | | | | |
| KMI | | | | LR | LR | | | |
| | comp=Z,380nm,15.9s | | | | | | | |
| **CD2** | **Chengdu** | **17.56** | **298** | P | | **Pn** | **00 39 44.0** | **+0.1** |
| CD2 | | | | sP | | pP | 00 39 55.4 | +1.4 |
| CD2 | | | | PP | | **sP** | **00 39 59.3** | **+0.7** |
| CD2 | | | | S | | **Sn** | **00 42 50.9** | **-7.6** |
| CD2 | | | | pmax | pmax | | | |
| | comp=Z,20nm,0.8s | | | | | | | |
| CD2 | | | | LR | LR | | | |
| | comp=N,500nm,14.3s | | | | | | | |
| CD2 | | | | LR | LR | | | |
| | comp=E,550nm,17.8s | | | | | | | |
| CD2 | | | | LR | LR | | | |
| | comp=Z,560nm,15.5s | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **19.05** | **44** | LR | | LR | 00 48 03.6 | |
| | comp=Z,74nm,18.3s,baz=235,slow=39 | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **19.13** | **336** | *e*P | | **Pn** | **00 40 04.8** | **+1.9** |
| HHC | | | | S | | **Sn** | **00 43 33.9** | **-2.2** |
| HHC | | | | sS | | sS | 00 43 47.6 | -4.2 |
| HHC | | | | SS | | **SnSn** | **00 44 00.1** | **+10** |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,9.0nm,1.0s | | | | | | | |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,69nm,5.1s | | | | | | | |
| HHC | | | | LR | LR | | | |
| | comp=N,260nm,11.6s | | | | | | | |
| HHC | | | | LR | LR | | | |
| | comp=E,230nm,10.8s | | | | | | | |
| HHC | | | | LR | LR | | | |
| | comp=Z,250nm,16.3s | | | | | | | |
| **LZH** | **Lanzhou** | **19.83** | **313** | *e*P | | **Pn** | **00 40 13.3** | **+2.0** |
| LZH | | | | pP | | pP | 00 40 21.1 | +2.1 |
| LZH | | | | sP | | sP | 00 40 26.3 | +2.7 |
| LZH | | | | PP | | **PnPn** | **00 40 32.3** | **+6.6** |
| LZH | | | | pmax | pmax | | | |
| | comp=Z,26nm,1.0s | | | | | | | |
| LZH | | | | LR | LR | | | |
| | comp=N,280nm,13.3s | | | | | | | |
| LZH | | | | LR | LR | | | |
| | comp=E,280nm,13.0s | | | | | | | |
| LZH | | | | LR | LR | | | |
| | comp=Z,520nm,14.6s | | | | | | | |
| **CN2** | **Changchun** | **20.25** | **8** | *e*P | | Pn | 00 40 16.5 | +0.5 |
| CN2 | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.5s | | | | | | | |
| **CHTO** | **Chiang Mai** | **21.86** | **261** | *e*P | | **P** | **00 40 34.8** | **+3.2** |
| | 2.4nm,0.6s | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **21.97** | **261** | P | | **P** | **00 40 34.0** | **+1.3** |
| | 1.4nm,0.3s,baz=64,slow=8.5,SNR=15 | | | | | | | |
| CMAR | | | | LR | | LR | 00 49 31.4 | |
| | comp=Z,130nm,18.3s,baz=106,slow=38 | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **22.06** | **20** | LR | | LR | 00 49 35.9 | |
| | comp=Z,67nm,18.6s,baz=224,slow=38 | | | | | | | |
| **KLR** | **Kul'dur** | **26.63** | **15** | P | | **P** | **00 41 14.4** | **-2.5** |
| | 0.1nm,0.5s,baz=200,slow=12,SNR=3.9 | | | | | | | |
| **SONM** | **Songino Array** | **27.02** | **337** | P | | **P** | **00 41 19.1** | **-1.4** |
| | 2.9nm,0.9s,baz=151,slow=9.1,SNR=8.1 | | | | | | | |
| SONM | | | | LR | | LR | 00 53 17.8 | |
| | comp=Z,271nm,18.1s,baz=192,slow=39 | | | | | | | |
| **LSA** | **Lhasa** | **27.99** | **289** | P | | **P** | **00 41 26.2** | **-3.6** |
| | 2.0nm,0.4s | | | | | | | |
| **TAPN** | **Taplejung** | **30.93** | **284** | *e*P | | **P** | **00 41 57.0** | **+1.2** |
| | 17nm,0.9s | | | | | | | |
| **ODAN** | **Odare** | **31.23** | **283** | *e*P | | **P** | **00 41 59.4** | **+1.1** |
| | 15nm,0.9s | | | | | | | |
| **RAMN** | **Ramite** | **31.93** | **283** | *e*P | | **P** | **00 42 05.2** | **+0.7** |
| **JIRN** | **Jiri** | **32.28** | **285** | *e*P | | **P** | **00 42 08.9** | **+1.2** |
| | 21nm,0.9s | | | | | | | |
| **GUN** | **Gumba** | **32.55** | **285** | *e*P | | **P** | **00 42 10.8** | **+0.8** |
| | 13nm,0.7s | | | | | | | |
| **PKI** | **Pulchoki** | **32.97** | **284** | *e*P | | **P** | **00 42 14.1** | **+0.4** |
| **KKN** | **Kakani** | **33.08** | **285** | *e*P | | **P** | **00 42 14.7** | **+0.2** |
| **WMQ** | **Urumqi** | **34.39** | **314** | P | | **P** | **00 42 26.5** | **+0.9** |
| WMQ | | | | pP | | pP | 00 42 35.6 | -0.4 |
| WMQ | | | | sP | | sP | 00 42 39.3 | -1.0 |
| WMQ | | | | S | | **S** | **00 47 52.5** | **+1.4** |
| WMQ | | | | SS | | **SnSn** | **00 50 01.6** | **-1.3** |
| WMQ | | | | pmax | pmax | | | |
| | comp=Z,14nm,0.7s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=E,150nm,12.3s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=Z,140nm,17.7s | | | | | | | |
| **DANN** | **Dangsing** | **34.41** | **286** | *e*P | | **P** | **00 42 27.6** | **+1.4** |
| **KOLN** | **Koldanda** | **34.57** | **285** | *e*P | | **P** | **00 42 28.5** | **+1.0** |
| | 9.2nm,0.6s | | | | | | | |
| **PYUN** | **Piuthan** | **35.10** | **286** | *e*P | | **P** | **00 42 32.8** | **+0.8** |
| **MKAR** | **Makanchi Array** | **39.07** | **316** | P | | **P** | **00 43 05.2** | **-0.1** |
| | 3.2nm,0.9s,baz=105,slow=7.4,SNR=10 | | | | | | | |
| MKAR | | | | LR | | LR | 01 00 30.8 | |
| | comp=Z,164nm,20.3s,baz=14,slow=38 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **40.95** | **327** | P | | **P** | **00 43 19.2** | **-1.5** |
| | 3.8nm,0.7s,baz=113,slow=7.5,SNR=19 | | | | | | | |
| ZALV | | | | LR | | LR | 01 01 41.5 | |
| | comp=Z,139nm,18.9s,baz=70,slow=38 | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **42.05** | **88** | T | | T | 01 28 45.8 | |
| | baz=285,slow=75 | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **42.06** | **88** | T | | T | 01 28 44.5 | |
| | baz=285,slow=75 | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **42.07** | **88** | T | | T | 01 28 49.2 | |
| | baz=285,slow=75 | | | | | | | |
| **TKM2** | **Tokmak 2** | **42.51** | **308** | P | | **P** | **00 43 35.4** | **+1.4** |
| | SNR=8.9 | | | | | | | |
| **KURK** | **Kurchatov** | **42.82** | **320** | *e*P | | **P** | **00 43 35.6** | **-0.4** |
| | 32nm,1.0s | | | | | | | |
| **KBK** | **Karagaybulak** | **42.92** | **308** | P | | **P** | **00 43 38.8** | **+1.5** |
| | SNR=5.2 | | | | | | | |
| **CHMS** | **Chumysh** | **43.13** | **308** | P | | **P** | **00 43 39.8** | **+1.0** |
| | SNR=5.7 | | | | | | | |
| **UCH** | **Uchtor** | **43.16** | **307** | P | | **P** | **00 43 42.0** | **+2.5** |
| | SNR=7.9 | | | | | | | |
| **AAK** | **Ala-Archa** | **43.25** | **308** | LR | | LR | 01 01 31.1 | |
| | comp=Z,94nm,19.1s,baz=76,slow=36 | | | | | | | |
| **AML** | **Almayashu** | **43.74** | **307** | P | | **P** | **00 43 45.1** | **+0.9** |
| | SNR=5.5 | | | | | | | |
| **WRAB** | **Tennant Creek** | **45.08** | **163** | *e*P | | **P** | **00 43 53.4** | **-1.1** |
| | 3.5nm,0.9s | | | | | | | |
| **WRA** | **Warramunga Arr** | **45.09** | **163** | P | | **P** | **00 43 53.0** | **-1.5** |
| | 3.4nm,0.9s,baz=344,slow=8.7,SNR=11 | | | | | | | |
| WRA | | | | LR | | LR | 01 05 45.6 | |
| | comp=Z,29nm,18.2s,baz=10.0,slow=40 | | | | | | | |
| **TIXI** | **Tiksi** | **48.12** | **3** | *e*P | | **P** | **00 44 16.2** | **-1.4** |
| | 7.1nm,1.0s | | | | | | | |
| **ASAR** | **Alice Springs** | **48.55** | **165** | P | | **P** | **00 44 20.9** | **-0.8** |
| | 3.7nm,1.0s,baz=341,slow=5.9,SNR=17 | | | | | | | |
| **GEYT** | **Alibeck** | **55.53** | **301** | P | | **P** | **00 45 13.7** | **+0.1** |
| | 32nm,0.8s,baz=107,slow=3.6,SNR=6.2 | | | | | | | |
| **ARU** | **Arti** | **55.82** | **323** | LR | | LR | 01 08 34.3 | |
| | comp=Z,130nm,18.2s,baz=340,slow=35 | | | | | | | |
| **STKA** | **Stephens Creek** | **58.43** | **160** | P | | **P** | **00 45 33.4** | **-0.5** |
| | 2.0nm,0.6s,baz=346,slow=7.2,SNR=7.5 | | | | | | | |
| **KBZ** | **Khabaz** | **66.22** | **309** | P | | **P** | **00 46 26.8** | **+0.7** |
| | 1.7nm,0.9s,baz=163,slow=11,SNR=2.9 | | | | | | | |
| **KDAK** | **Kodiak Island** | **67.94** | **35** | P | | **P** | **00 46 36.8** | **+0.1** |
| | 26nm,1.3s,baz=266,slow=3.5,SNR=6.1 | | | | | | | |
| **ILAR** | **Eielson Array** | **69.35** | **27** | P | | **P** | **00 46 45.4** | **0.0** |
| | 0.8nm,0.6s,baz=289,slow=6.3,SNR=17 | | | | | | | |
| **FINES** | **FINESS Array B** | **72.14** | **330** | P | | **P** | **00 47 00.9** | **-1.4** |
| | 2.5nm,0.9s,baz=100,slow=2.3,SNR=5.7 | | | | | | | |
| FINES | | | | LR | | LR | 01 19 33.4 | |
| | comp=Z,153nm,18.3s,baz=240,slow=37 | | | | | | | |
| **DAWY** | **Dawson** | **72.68** | **27** | *e*P | | **P** | **00 47 05.8** | **+0.2** |
| | 2.2nm,0.8s | | | | | | | |
| **INK** | **Inuvik** | **73.43** | **22** | P | | **P** | **00 47 09.9** | **0.0** |
| | 7.1nm,0.8s,baz=301,slow=7.3,SNR=24 | | | | | | | |
| **INK** | **Inuvik** | **73.43** | **22** | *e*P | | **P** | **00 47 09.9** | **0.0** |
| | 22nm,1.3s | | | | | | | |
| **AKASG** | **Malin Array Be** | **73.60** | **319** | P | | **P** | **00 47 09.5** | **-1.8** |
| | 0.2nm,0.3s,baz=65,slow=5.9,SNR=2.8 | | | | | | | |
| **BRTR** | **Keskin Array B** | **73.91** | **307** | P | | **P** | **00 47 13.3** | **-0.3** |
| | 1.0nm,0.5s,baz=99,slow=6.4,SNR=9.3 | | | | | | | |
| **NOA** | **NORSAR Array B** | **78.90** | **332** | P | | **P** | **00 47 40.5** | **-0.8** |
| | 0.8nm,0.7s,baz=62,slow=5.1,SNR=2.3 | | | | | | | |
| **RES** | **Resolute Bay** | **79.02** | **9** | P | | **P** | **00 47 40.1** | **-1.5** |
| | 1.5nm,0.7s,baz=0.0,slow=6.1 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **83.17** | **23** | P | | **P** | **00 48 03.5** | **-0.3** |
| | 1.5nm,0.7s,baz=314,slow=5.1,SNR=24 | | | | | | | |
| **GERES** | **GERESS Array B** | **83.57** | **321** | P | | **P** | **00 48 05.4** | **-1.0** |
| | 2.1nm,0.8s,baz=74,slow=4.7,SNR=14 | | | | | | | |
| **RAR** | **Rarotonga** | **88.40** | **114** | LR | | LR | 01 19 26.4 | |
| | comp=Z,102nm,20.2s,baz=62,slow=30 | | | | | | | |
| **NEW** | **Newport** | **91.05** | **35** | P | | **P** | **00 48 42.6** | **+0.1** |
| | 3.8nm,0.8s,baz=18,slow=3.2,SNR=5.6 | | | | | | | |

*ISCJB* ***15*** *00:41:49.5±0.9, 41°.45N±0°.04×39°.02E±0°.04, h3km±6km, Error ellipse: s-maj=6.1km s-min=4.7km az=172.7*
*ISK* ***15*** *00:41:50.2, 41°.39N×38°.97E, h5km, ML3.0*
*DDA* ***15*** *00:41:50.7, 41°.29N×39°.04E, h8km, Ml3.4*
*CSEM* ***15*** *00:41:50.2±0.3, 41°.42N×39°.03E, h2km, ML3.0, Error ellipse: s-maj=6.3km s-min=4.7km az=176.0*

**ISC 15 00:41:50.2**±1.2, **41°.40N**±0°.03×**39°.03E**±0°.02, **h11**km±10km, **n60**, σ**1.25**/**83**, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ESPY** | **Espiye-Giresun** | **0.53** | **206** | *e*PG | **Pg** | **00 42 00.6** | **-0.1** |
| ESPY | | | | *e*SG | **Sg** | **00 42 07.8** | **+0.2** |
| **ESPY** | **Espiye-Giresun** | **0.53** | **206** | *e*Pg | **Pg** | **00 42 00.6** | **-0.1** |
| ESPY | | | | *e*Sg | **Sg** | **00 42 07.9** | **+0.2** |
| **KTUT** | **Trabzon** | **0.69** | **126** | *e*PG | **Pb** | **00 42 04.4** | **+0.1** |
| **KTUT** | **Trabzon** | **0.69** | **126** | *e*Pg | **Pb** | **00 42 04.4** | **+0.1** |
| **ORDU** | **Ordu-Boztepe** | **0.98** | **246** | *i* P | **Pg** | **00 42 09.1** | **+0.1** |
| ORDU | | | | *i* S | **Sg** | **00 42 21.4** | **-0.4** |
| **ORDU** | **Ordu-Boztepe** | **0.98** | **246** | P | **Pg** | **00 42 09.1** | **+0.1** |
| ORDU | | | | S | **Sg** | **00 42 21.4** | **-0.4** |
| **KELT** | **Kelkit** | **1.26** | **172** | *i* P | **Pn** | **00 42 13.0** | **-1.0** |
| KELT | | | | *i* S | **Sb** | **00 42 28.8** | **-1.6** |
| **KELT** | **Kelkit** | **1.26** | **172** | P | **Pn** | **00 42 13.0** | **-1.0** |
| KELT | | | | S | **Sb** | **00 42 28.8** | **-1.6** |
| **SUSE** | **Susehri** | **1.35** | **208** | *i* P | **Pn** | **00 42 14.9** | **-0.2** |
| SUSE | | | | *i* S | **Sb** | **00 42 32.6** | **-0.3** |
| **SUSE** | **Susehri** | **1.35** | **208** | P | **Pn** | **00 42 14.9** | **-0.2** |
| SUSE | | | | S | **Sb** | **00 42 32.6** | **-0.3** |
| **RSDY** | **Resadiye-TOKAT** | **1.64** | **233** | *e*PN | **Pn** | **00 42 19.1** | **+0.1** |
| **RSDY** | **Resadiye-TOKAT** | **1.64** | **233** | *e*Pn | **Pn** | **00 42 19.1** | **+0.1** |
| **EUZM** | **Uzumlu** | **1.76** | **163** | *i* P | **Pb** | **00 42 21.8** | **-0.9** |
| EUZM | | | | *i* S | **Sb** | **00 42 45.2** | **+0.4** |
| **EUZM** | **Uzumlu** | **1.76** | **163** | P | **Pb** | **00 42 21.8** | **-0.9** |
| EUZM | | | | S | **Sb** | **00 42 45.2** | **+0.4** |
| **KOPT** | **Kop Dagi** | **1.77** | **141** | *i* P | **Pb** | **00 42 22.2** | **-0.7** |
| KOPT | | | | *i* S | **Sb** | **00 42 45.7** | **+0.5** |
| **KOPT** | **Kop Dagi** | **1.77** | **141** | P | **Pb** | **00 42 22.2** | **-0.7** |
| KOPT | | | | S | **Sb** | **00 42 45.7** | **+0.5** |
| **CUZAR** | **Zara_SIVAS** | **1.79** | **213** | *i* P | **Pb** | **00 42 22.1** | **-1.0** |
| CUZAR | | | | *i* S | **Sb** | **00 42 46.5** | **+0.9** |
| **CUZAR** | **Zara_SIVAS** | **1.79** | **213** | P | **Pb** | **00 42 22.1** | **-1.0** |
| CUZAR | | | | S | **Sb** | **00 42 46.5** | **+0.9** |
| **ERBA** | **Erbaa** | **1.87** | **248** | *i* P | **Pb** | **00 42 22.9** | **-1.5** |
| ERBA | | | | *i* S | **Sn** | **00 42 46.1** | **+0.3** |
| **ERBA** | **Erbaa** | **1.87** | **248** | P | **Pb** | **00 42 22.9** | **-1.5** |
| ERBA | | | | S | **Sn** | **00 42 46.1** | **+0.3** |
| **ERZN** | **Erzincan** | **1.89** | **164** | *e*PN | **Pb** | **00 42 23.6** | **-1.1** |
| **ILIC** | **ilic-Erzincan** | **1.98** | **191** | *e*PN | **Pb** | **00 42 25.1** | **-1.2** |
| **ILIC** | **ilic-Erzincan** | **1.98** | **191** | *e*Pn | **Pb** | **00 42 25.1** | **-1.2** |
| **REFA** | **Refahiye_ERZ** | **2.01** | **186** | *i* P | Pn | 00 42 17.0 | -7.2 |
| REFA | | | | *i* S | Sn | 00 42 36.5 | -13 |
| **SVSK** | **Karacayir** | **2.14** | **227** | *e*PN | **Pn** | **00 42 27.0** | **+1.1** |
| **SVSK** | **Karacayir** | **2.14** | **227** | *e*Pn | **Pn** | **00 42 27.0** | **+1.1** |
| **KEMA** | **Kemaliye** | **2.17** | **191** | *i* P | **Pb** | **00 42 28.7** | **-0.8** |
| KEMA | | | | *i* S | **Sg** | **00 42 59.2** | **-0.7** |
| **KEMA** | **Kemaliye** | **2.17** | **191** | P | **Pb** | **00 42 28.7** | **-0.8

*mb4.8/169,ML4.5(AEIC),Error ellipse: s-maj=5.8km s-min=2.8km az=192.0*

**ISC 15 00:44:56.1±0.9, 50°30N±0'07×176°23W±0'04, h35km±4km, n776, σ1©31/806, mb4.8/227, MS3.9/15, 28C-10D,**
**Andreanof Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ATKA** | **Atka Island** | **2.30** | **33** | P | **Pn** | **00 45 30.6** | **-0.9** |
| ATKA | | | | S | **Sn** | **00 45 57.9** | **-0.7** |
| **KOFP** | **Korovin Flat P** | **2.39** | **33** | P | **Pn** | **00 45 32.6** | **-0.2** |
| **KOWE** | **Korovin West** | **2.42** | **30** | P | **Pn** | **00 45 33.2** | **0.0** |
| **KOSE** | **Korovin Southe** | **2.47** | **33** | P | **Pn** | **00 45 34.1** | **+0.3** |
| **NIKH** | **Nikolski High** | **5.32** | **57** | P | **Pn** | **00 46 13.0** | **0.0** |
| NIKH | | | | S | **Sn** | **00 47 12.3** | **-0.7** |
| **OKAK** | **Okmok** | **5.88** | **53** | P | **Pn** | **00 46 20.1** | **-0.5** |
| **OKTU** | **Okmok Mt. Tuli** | **5.94** | **55** | P | **Pn** | **00 46 21.4** | **-0.2** |
| **OKFG** | **Magazine Ridge** | **6.03** | **56** | P | **Pn** | **00 46 22.8** | **+0.2** |
| OKFG | | | | S | **Sn** | **00 47 31.2** | **+0.9** |
| **SMY** | **Shemya** | **6.51** | **296** | *e*P | **Pn** | **00 46 29.8** | **+0.5** |
| **SMY** | **Shemya** | **6.51** | **296** | *e*Pn | **Pn** | **00 46 29.8** | **+0.5** |
| **MSOM** | **Makushin Julie** | **6.72** | **55** | P | **Pn** | **00 46 33.1** | **+0.9** |
| **MSOM** | **Makushin Julie** | **6.72** | **55** | P | **Pn** | **00 46 33.1** | **+0.9** |
| **MREP** | **Makushin Rep't** | **6.83** | **55** | P | **Pn** | **00 46 34.7** | **+1.0** |
| **MSW** | **Makushin Switc** | **6.86** | **54** | P | **Pn** | **00 46 34.9** | **+0.8** |
| MSW | | | | S | **Sn** | **00 47 51.6** | **+0.8** |
| **SDPT** | **Sand Point** | **10.79** | **56** | *e*Pn | **Pn** | **00 47 27.3** | **-0.5** |
| **CHGN** | **Chignik** | **12.22** | **54** | *e*Pn | **Pn** | **00 47 48.3** | **+0.9** |
| **GAMB** | **Gambell** | **13.73** | **8** | *e*Pn | **Pn** | **00 48 09.8** | **+1.7** |
| **OHAK** | **Old Harbor** 79nm,1.0s | **15.19** | **54** | *e*Pn | **Pn** | **00 48 24.1** | **-3.6** |
| **KDAK** | **Kodiak Island** 2.6nm,0.3s,baz=309,slow=13,SNR=26 | **15.72** | **52** | Pn | **Pn** | **00 48 32.2** | **-2.5** |
| KDAK | 1.8nm,0.3s,baz=360,slow=18,SNR=6.7 | | | Sn | **S** | **00 51 37.3** | **-4.3** |
| KDAK | comp=Z,132nm,18.4s,baz=254,slow=44 | | | LR | LR | 00 56 29.3 | |
| **KDAK** | **Kodiak Island** | **15.72** | **52** | *i* P | **Pn** | **00 48 31.4** | **-3.3** |
| **KDAK** | **Kodiak Island** 83nm,0.7s | **15.72** | **52** | *e*Pn | **Pn** | **00 48 32.5** | **-2.1** |
| KDAK | | | | Sn | **S** | **00 51 37.2** | **-4.3** |
| **SVW2** | **Sparrevohn** 20nm,0.9s | **15.81** | **39** | *e*Pn | **Pn** | **00 48 37.0** | **+1.2** |
| **PEA0B** | **Petropavlovsk-** 102nm,1.5s | **16.37** | **290** | *e*Pn | **Pn** | **00 48 43.1** | **+0.1** |
| **PETK** | **Petropavlovsk-** 1.8nm,0.3s,baz=87,slow=14,SNR=18 | **16.37** | **290** | Pn | **Pn** | **00 48 41.9** | **-1.1** |
| **PETK** | **Petropavlovsk-** | **16.37** | **290** | *e*Pn | **P** | **00 48 44.6** | **-0.9** |
| **RSO** | **Redoubt South** | **16.68** | **43** | *e*Pn | **P** | **00 48 49.5** | **+0.3** |
| **CNPM** | **China Poot** 266nm,1.8s | **16.99** | **47** | *e*Pn | **Pn** | **00 48 49.6** | **-1.1** |
| **BRLK** | **Bradley Lake** 103nm,1.6s | **17.24** | **47** | *e*Pn | **Pn** | **00 48 52.5** | **-1.4** |
| **SPU** | **Mount Spurr** | **17.32** | **42** | *e*Pn | **Pn** | **00 48 55.4** | **+0.5** |
| **SKR** | **Severo-Kuril's** | **17.57** | **282** | *e*P | Pn | 00 48 46.0 | -12 |
| SKR | | | | *e*S | **Sn** | **00 52 14.3** | **+2.0** |
| SKR | comp=Z,183nm,1.4s | | | pmax | pmax | | |
| SKR | comp=Z,1μm,3.0s | | | pmax | pmax | | |
| **SUA** | **Susitna One** comp=Z,14nm,0.6s | **18.01** | **42** | *e*Pn | **P** | **00 49 06.4** | **+2.7** |
| **PPLA** | **Purkeypile** comp=Z,56nm,1.0s | **18.14** | **37** | *e*Pn | **P** | **00 49 07.2** | **+2.0** |
| **RC01** | **Rabbit Creek A** comp=Z,46nm,1.5s | **18.29** | **44** | *e*P | **P** | **00 49 07.4** | **+0.7** |
| RC01 | | | | *e*S | **Sn** | **00 52 22.2** | **-7.5** |
| **PMR** | **Palmer** | **18.76** | **43** | *e*P | **Pn** | **00 49 13.4** | **+0.9** |
| PMR | comp=Z,97nm,2.0s | | | pmax | pmax | | |
| **PMR** | **Palmer** comp=Z,97nm,2.0s | **18.76** | **43** | *e*P | **Pn** | **00 49 13.4** | **+0.9** |
| **KTH** | **Kantishna Hill** comp=Z,127nm,1.0s | **18.98** | **36** | *e*P | **Pn** | **00 49 16.5** | **+1.4** |
| **TRF** | **Thorofare Moun** comp=Z,33nm,0.8s | **19.17** | **37** | *e*P | **Pn** | **00 49 18.4** | **+0.8** |
| **SML** | **Sawmill** | **19.20** | **43** | *e*P | **P** | **00 49 18.2** | **+1.5** |
| SML | | | | *e*S | **Sn** | **00 52 45.1** | **-6.6** |
| SML | comp=Z,29nm,0.8s | | | pmax | pmax | | |
| **SML** | **Sawmill** comp=Z,29nm,0.8s | **19.20** | **43** | *e*P | **P** | **00 49 18.2** | **+1.5** |
| SML | | | | *e*S | **Sn** | **00 52 45.0** | **-6.6** |
| **BPAW** | **Bear Paw Mtn.** comp=Z,96nm,1.6s | **19.26** | **35** | *e*P | **P** | **00 49 18.6** | **+1.3** |
| **IMAR** | **Indian Mountai** | **19.51** | **28** | *e*P | **P** | **00 49 20.6** | **+0.6** |
| **FID** | **Port Fidalgo** comp=Z,158nm,1.6s | **19.64** | **46** | *e*P | **P** | **00 49 20.9** | **-0.6** |
| **SCM** | **Sheep Creek Mo** | **19.65** | **43** | *e*P | **P** | **00 49 23.2** | **+1.6** |
| SCM | comp=Z,50nm,0.8s | | | pmax | pmax | | |
| **SCM** | **Sheep Creek Mo** comp=Z,50nm,0.8s | **19.65** | **43** | *e*P | **P** | **00 49 23.2** | **+1.6** |
| **RND** | **Reindeer** | **19.70** | **38** | *e*P | **P** | **00 49 22.8** | **+0.6** |
| RND | comp=Z,27nm,0.6s | | | pmax | pmax | | |
| **RND** | **Reindeer** comp=Z,27nm,0.6s | **19.70** | **38** | *e*P | **P** | **00 49 22.8** | **+0.6** |
| **MCK** | **McKinley** | **19.83** | **37** | *e*P | **P** | **00 49 25.2** | **+1.6** |
| MCK | comp=Z,56nm,0.9s | | | pmax | pmax | | |
| **MCK** | **McKinley** comp=Z,56nm,0.9s | **19.83** | **37** | *e*P | **P** | **00 49 25.2** | **+1.6** |
| **MLY** | **Manley** comp=Z,104nm,1.6s | **19.88** | **32** | *e*P | **P** | **00 49 25.6** | **+1.5** |
| **EYAK** | **Cordova Ski Ar** comp=Z,127nm,1.6s | **19.93** | **47** | *e*P | **P** | **00 49 25.5** | **+1.0** |
| **DIV** | **Divide** comp=Z,20nm,0.8s | **20.09** | **46** | *e*P | **P** | **00 49 27.2** | **+0.7** |
| **DHY** | **Denali Highway** comp=Z,49nm,0.6s | **20.14** | **40** | *e*P | **P** | **00 49 28.2** | **+1.1** |
| **KLU** | **Klutina** comp=Z,22nm,1.0s | **20.15** | **45** | *e*P | **P** | **00 49 28.5** | **+1.4** |
| **BMRM** | **Bremner River** comp=Z,28nm,0.8s | **20.59** | **47** | *e*P | **P** | **00 49 33.3** | **+1.5** |
| **CCB** | **Clear Creek Bu** comp=Z,15nm,0.6s | **20.72** | **35** | *e*P | **P** | **00 49 33.4** | **+0.3** |
| **MDM** | **Murphy Dome** comp=Z,43nm,0.9s | **20.73** | **34** | *e*P | **P** | **00 49 34.4** | **+1.1** |
| **HARP** | **HAARP** comp=Z,101nm,1.1s | **20.81** | **43** | *e*P | Pn | 00 49 37.5 | +0.8 |
| **COLA** | **College** | **20.82** | **35** | *e*P | **P** | **00 49 34.8** | **+0.6** |
| COLA | comp=Z,19nm,0.8s | | | pmax | pmax | | |
| **COLA** | **College** comp=Z,20nm,0.8s | **20.82** | **35** | *e*P | **P** | **00 49 34.8** | **+0.6** |
| **PAX** | **Paxson** | **20.89** | **41** | *e*P | **P** | **00 49 36.5** | **+1.4** |
| PAX | comp=Z,25nm,0.9s | | | pmax | pmax | | |
| **PAX** | **Paxson** comp=Z,25nm,0.9s | **20.89** | **41** | *e*P | **P** | **00 49 36.5** | **+1.4** |
| **HDA** | **Harding Lake** comp=Z,43nm,0.6s | **20.93** | **36** | *e*P | **P** | **00 49 36.3** | **+0.9** |
| **IL1** | **Eielson Array** | **21.12** | **36** | *e*P | **P** | **00 49 39.4** | **+1.9** |
| **ILAR** | **Eielson Array** comp=Z,5.1nm,0.6s,baz=228,slow=9.1,SNR=39 | **21.12** | **36** | P | **P** | **00 49 36.8** | **-0.7** |
| ILAR | comp=Z,0.9nm,0.6s,baz=231,slow=16,SNR=5.1 | | | S | **S** | **00 53 28.1** | **-2.3** |
| ILAR | comp=Z,1.2nm,0.7s,baz=274,slow=2.6,SNR=4.3 | | | PcP | **PcP** | **00 53 40.4** | **-1.8** |
| ILAR | comp=Z,158nm,18.3s,baz=244,slow=38 | | | LR | LR | 00 58 11.5 | |
| **ILB** | **Eielson Array** | **21.12** | **36** | *e*P | **P** | **00 49 36.4** | **-1.1** |
| **SEY** | **Seymchan** comp=Z,37nm,0.9s,baz=114,slow=8.3,SNR=33 | **21.14** | **319** | P | **P** | **00 49 37.2** | **-0.4** |
| **SEY** | **Seymchan** | **21.14** | **319** | *i* P | **P** | **00 49 37.9** | **+0.3** |
| **COLD** | **Coldfoot** comp=Z,40nm,0.9s | **21.40** | **28** | *e*P | **P** | **00 49 41.4** | **+0.9** |
| **MENT** | **Mentasta** comp=Z,22nm,0.8s | **21.62** | **42** | *e*P | **P** | **00 49 44.7** | **+1.9** |
| **FYU** | **Fort Yukon** comp=Z,33nm,1.3s | **22.62** | **32** | *e*P | **P** | **00 49 55.6** | **+2.1** |
| **EGAK** | **Eagle** comp=Z,36nm,0.6s | **23.34** | **38** | *e*P | **P** | **00 50 02.5** | **+1.6** |
| **DAWY** | **Dawson** comp=Z,30nm,0.8s | **23.82** | **41** | *e*P | **P** | **00 50 07.0** | **+1.4** |
| **SIT** | **Sitka** | **24.85** | **58** | *e*P | **P** | **00 50 16.5** | **+1.6** |
| SIT | comp=Z,43nm,1.1s | | | pmax | pmax | | |
| **SIT** | **Sitka** comp=Z,43nm,1.1s | **24.85** | **58** | *e*P | **P** | **00 50 16.5** | **+1.6** |
| **SKAG** | **Skagway** comp=Z,44nm,1.2s | **24.88** | **53** | *e*P | **P** | **00 50 17.8** | **+2.6** |
| **BESE** | **Bessie Mountai** comp=Z,36nm,1.0s | **25.09** | **55** | *e*P | **P** | **00 50 20.5** | **+3.3** |
| **WHY** | **Whitehorse** | **25.20** | **50** | *e*P | **P** | **00 50 21.0** | **+2.8** |
| | comp=Z,21nm,0.9s | | | | | | |
| **CRAG** | **Craig** | **26.19** | **62** | *e*P | **P** | **00 50 30.2** | **+3.1** |
| **NKL** | **Nikolayevsk** | **26.55** | **293** | *e*P | **P** | **00 50 35.5** | **+5.2** |
| NKL | comp=Z,43nm,1.0s | | | pmax | pmax | | |
| **INK** | **Inuvik** comp=Z,5.8nm,0.5s,baz=253,slow=6.4,SNR=51 | **27.45** | **33** | P | **P** | **00 50 38.8** | **+0.6** |
| INK | | | | PcP | **PcP** | **00 53 55.6** | **-0.3** |
| INK | comp=Z,1.1nm,0.6s,baz=310,slow=4.0,SNR=5.3 | | | | | | |
| **INK** | **Inuvik** | **27.45** | **33** | *e*P | **P** | **00 50 39.0** | **+0.8** |
| INK | | | | | | 00 53 55.6 | |
| INK | comp=Z,20nm,1.3s | | | pmax | pmax | | |
| **INK** | **Inuvik** comp=Z,20nm,1.3s | **27.45** | **33** | *e*P | **P** | **00 50 39.0** | **+0.8** |
| INK | | | | PcP | **PcP** | **00 53 55.6** | **-0.3** |
| **DLBC** | **Dease Lake** comp=Z,45nm,1.0s | **27.62** | **55** | *e*P | **P** | **00 50 43.8** | **+3.7** |
| **TIXI** | **Tiksi** comp=Z,1.0nm,0.3s,baz=129,slow=13,SNR=6.6 | **32.38** | **331** | P | **P** | **00 51 21.5** | **-0.3** |
| **H11N2** | **WAKE ISLAND Hy** baz=20,slow=76,SNR=5.0 | **33.32** | **210** | T | T | 01 26 30.1 | |
| **H11N3** | **WAKE ISLAND Hy** baz=20,slow=76,SNR=5.9 | **33.32** | **210** | T | T | 01 26 32.4 | |
| **H11N1** | **WAKE ISLAND Hy** baz=20,slow=76,SNR=5.2 | **33.33** | **210** | T | T | 01 26 29.1 | |
| **H11S1** | **WAKE ISLAND Hy** baz=19 | **34.52** | **209** | T | T | 01 27 59.6 | |
| **H11S2** | **WAKE ISLAND Hy** baz=19 | **34.54** | **209** | T | T | 01 28 00.5 | |
| **H11S3** | **WAKE ISLAND Hy** baz=19 | **34.54** | **209** | T | T | 01 27 58.6 | |
| **B05A** | **Bryant** baz=294 | **34.73** | **72** | P | **P** | **00 51 44.0** | **+1.5** |
| **YKW3** | **Yellowknife Ar** comp=Z,50nm,1.2s | **34.80** | **46** | *e*P | **P** | **00 51 44.3** | **+1.4** |
| **YKA** | **Yellowknife Ar** comp=Z,10nm,0.7s,baz=277,slow=8.4,SNR=114 | **34.81** | **46** | P | **P** | **00 51 44.9** | **+1.8** |
| YKA | | | | PcP | **PcP** | **00 54 15.4** | **-0.2** |
| YKA | comp=Z,1.2nm,0.8s,baz=286,slow=2.8,SNR=5.4 | | | LR | LR | 01 06 52.6 | |
| **USRK** | **Ussuriysk Ar.** comp=Z,5.4nm,0.8s,baz=56,slow=9.8,SNR=5.3 | **35.07** | **280** | P | **P** | **00 51 44.6** | **-1.0** |
| **I03D** | **Drain, OR** baz=300 | **36.01** | **80** | P | **P** | **00 51 55.8** | **+2.2** |
| **H04A** | **Detroit Lake** comp=Z,14nm,0.8s | **36.26** | **77** | *e*P | **P** | **00 51 54.6** | **-1.2** |
| **B08A** | **Colville Reser** comp=Z,8.0nm,0.8s | **36.36** | **70** | *e*P | **P** | **00 51 58.3** | **+1.6** |
| **G05D** | **Wamic, OR** baz=298 | **36.54** | **76** | P | **P** | **00 51 59.9** | **+1.7** |
| **I04A** | **Tendick Farm,** baz=300,SNR=5.8 | **36.55** | **79** | P | **P** | **00 52 00.2** | **+1.8** |
| **L02D** | **Cave Junction,** baz=301 | **36.63** | **82** | P | **P** | **00 52 01.4** | **+2.4** |
| **I05D** | **Terrebonne, OR** baz=299 | **36.96** | **78** | P | **P** | **00 52 03.8** | **+2.0** |
| **J04D** | **Umpqua Nationa** baz=300 | **37.02** | **80** | P | **P** | **00 52 04.1** | **+1.6** |
| **HAWA** | **Hanford** comp=Z,7.6nm,0.6s | **37.11** | **74** | *e*P | **P** | **00 52 04.3** | **+1.3** |
| **C09A** | **Chrisman Ranch** comp=Z,8.0nm,0.6s | **37.24** | **71** | *e*P | **P** | **00 52 05.3** | **+1.2** |
| **YBH** | **Yreka Blue Hor** comp=Z,6.2nm,0.8s,baz=308,slow=7.4,SNR=12 | **37.42** | **82** | P | **P** | **00 52 07.4** | **+1.6** |
| **M02C** | **Callahan** baz=302 | **37.51** | **83** | P | **P** | **00 52 09.1** | **+2.6** |
| **J05D** | **Fort Rock, OR** baz=300,SNR=7.3 | **37.55** | **79** | P | **P** | **00 52 09.0** | **+2.1** |
| **K04D** | **Chiloquin, OR** baz=301 | **37.56** | **80** | P | **P** | **00 52 09.0** | **+2.0** |
| **KMRM** | **Mail Ridge** comp=Z,19nm,0.9s | **37.60** | **85** | *e*P | **P** | **00 52 09.5** | **+2.2** |
| **NEW** | **Newport** comp=Z,5.7nm,0.7s,baz=300,slow=7.2,SNR=15 | **37.74** | **70** | P | **P** | **00 52 09.2** | **+0.9** |
| **NEW** | **Newport** baz=296,SNR=6.1 | **37.74** | **70** | P | **P** | **00 52 09.2** | **+0.9** |
| **NEW** | **Newport** comp=Z,8.2nm,0.9s | **37.74** | **70** | *e*P | **P** | **00 52 08.9** | **+0.6** |
| **N02D** | **Trinity Center** baz=303 | **37.83** | **83** | P | **P** | **00 52 10.8** | **+1.6** |
| **M04C** | **Macdoel** baz=302,SNR=6.4 | **37.95** | **81** | P | **P** | **00 52 12.3** | **+2.0** |
| **WDC** | **Whiskeytown Da** comp=Z,10.0nm,1.1s | **38.15** | **84** | *e*P | **P** | **00 52 14.3** | **+2.5** |
| WDC | | | | pmax | pmax | | |
| **WDC** | **Whiskeytown Da** comp=Z,9.7nm,1.1s | **38.15** | **84** | *e*P | **P** | **00 52 14.3** | **+2.5** |
| **I07A** | **Izee** comp=Z,7.1nm,0.7s | **38.23** | **77** | *e*P | **P** | **00 52 14.2** | **+1.6** |
| **O03D** | **Paynes Creek** baz=304,SNR=8.5 | **38.77** | **83** | P | **P** | **00 52 18.6** | **+1.4** |
| **MOD** | **Modoc Plateau** comp=Z,11nm,0.8s | **38.85** | **80** | *e*P | **P** | **00 52 19.9** | **+1.9** |
| **GDXM** | **Geysers** comp=Z,11nm,1.1s | **38.98** | **86** | *e*P | **P** | **00 52 21.6** | **+2.7** |
| **J08A** | **Circle Bar Ran** comp=Z,12nm,0.7s | **39.24** | **77** | *e*P | **P** | **00 52 22.9** | **+1.8** |
| **CN2** | **Changchun** | **39.37** | **284** | *e*P | **P** | **00 52 22.1** | **+0.1** |
| CN2 | comp=Z,10.0nm,0.7s | | | pmax | pmax | | |
| **ORV** | **Oroville** comp=Z,10.0nm,1.3s | **39.38** | **84** | *e*P | **P** | **00 52 23.6** | **+1.5** |
| ORV | | | | pmax | pmax | | |
| **ORV** | **Oroville** comp=Z,9.8nm,1.3s | **39.38** | **84** | *e*P | **P** | **00 52 23.6** | **+1.5** |
| **WVOR** | **Wild Horse Val** comp=Z,16nm,0.9s | **39.62** | **79** | *e*P | **P** | **00 52 25.9** | **+1.6** |
| WVOR | | | | pmax | pmax | | |
| **WVOR** | **Wild Horse Val** comp=Z,16nm,0.9s | **39.62** | **79** | *e*P | **P** | **00 52 25.9** | **+1.6** |
| **JTMT** | **Jett** comp=Z,22nm,1.9s | **39.67** | **69** | *e*P | **P** | **00 52 25.7** | **+1.1** |
| **BOD** | **Bodaibo** comp=Z,24nm,1.2s | **39.93** | **309** | *e*P | **P** | **00 52 25.3** | **-1.2** |
| BOD | | | | pmax | pmax | | |
| **BEKR** | **Beckworth** comp=Z,9.9nm,1.1s | **39.93** | **83** | *e*P | **P** | **00 52 28.7** | **+1.7** |
| **AFDM** | **Forest Hills D** comp=Z,7.4nm,1.5s | **40.06** | **85** | *e*P | **P** | **00 52 28.9** | **+1.1** |
| **RES** | **Resolute Bay** comp=Z,2.1nm,0.9s,baz=254,slow=18,SNR=3.8 | **40.06** | **24** | P | **P** | **00 52 28.2** | **+0.8** |
| **MSO** | **Missoula** baz=299 | **40.31** | **70** | P | **P** | **00 52 31.0** | **+1.0** |
| **MSO** | **Missoula** comp=Z,14nm,1.5s | **40.31** | **70** | *e*P | **P** | **00 52 30.8** | **+0.9** |
| **PAHR** | **Pah Rah Range** comp=Z,20nm,1.1s | **40.64** | **83** | *e*P | **P** | **00 52 34.5** | **+1.7** |
| **PNTR** | **Pine Nut** comp=Z,13nm,0.8s | **40.86** | **83** | *e*P | **P** | **00 52 37.0** | **+2.3** |
| **CMB** | **Columbia Colle** comp=Z,15nm,1.3s | **40.97** | **85** | *e*P | **P** | **00 52 37.0** | **+1.6** |
| CMB | | | | pmax | pmax | | |
| **CMB** | **Columbia Colle** comp=Z,15nm,1.3s | **40.97** | **85** | *e*P | **P** | **00 52 37.0** | **+1.6** |
| **SAO** | **San Andreas Ge** comp=Z,16nm,1.5s | **41.04** | **88** | *e*P | **P** | **00 52 36.1** | **+0.2** |
| SAO | | | | pmax | pmax | | |
| **SAO** | **San Andreas Ge** comp=Z,16nm,1.5s | **41.04** | **88** | *e*P | **P** | **00 52 36.1** | **+0.2** |
| **YERR** | **Yerington** comp=Z,14nm,1.2s | **41.15** | **83** | *e*P | **P** | **00 52 39.1** | **+2.0** |
| **WAKR** | **Walker** comp=Z,7.9nm,1.0s | **41.30** | **84** | *e*P | **P** | **00 52 40.5** | **+2.2** |
| **KSRS** | **Korea Array** comp=Z,3.2nm,0.8s,baz=55,slow=9.0,SNR=5.9 | **41.31** | **274** | P | **P** | **00 52 37.9** | **-0.2** |
| **KSAR** | **Wonju Array Be** | **41.34** | **274** | P | **P** | **00 52 37.9** | **-0.5** |
| **KSAR** | **Wonju Array Be** | **41.34** | **274** | P | **P** | **00 52 37.9** | **-0.5** |
| **HRY** | **Holter Researc** | **41.63** | **69** | *e*P | **P** | **00 52 41.7** | **+0.8** |
| **HLID** | **Hailey** baz=302,SNR=7.3 | **41.66** | **75** | P | **P** | **00 52 42.3** | **+1.1** |
| **MCMT** | **McKenzie Canyo** | **41.97** | **72** | *e*P | **P** | **00 52 44.1** | **+0.4** |
| **NV01** | **Mina Array Sit** | **42.06** | **83** | *e*P | **P** | **00 52 45.8** | **+1.2** |
| NV01 | | | | *e*PcP | **PcP** | **00 54 39.3** | **+0.4** |
| **JNU** | **Nakatsue** comp=Z,15nm,1.1s | **42.10** | **267** | *e*P | **P** | **00 52 44.0** | **-0.7** |
| **NV11** | **Mina Array Sit** comp=Z,0.6nm,1.2s | **42.16** | **83** | *e*P | **P** | **00 52 46.7** | **+1.5** |
| **EGMT** | **Eagleton** baz=299 | **42.23** | **66** | P | **P** | **00 52 46.3** | **+0.6** |
| **BOZ** | **Bozeman (W)** baz=301,SNR=9.5 | **42.31** | **70** | P | **P** | **00 52 46.8** | **+0.3** |
| **BOZ** | **Bozeman (W)** comp=Z,4.0nm,0.7s | **42.31** | **70** | *e*P | **P** | **00 52 46.9** | **+0.5** |
| BOZ | | | | pmax | pmax | | |
| **BOZ** | **Bozeman (W)** | **42.31** | **70** | *e*P | **P** | **00 52 46.9** | **+0.5** |
| | comp=Z,4.4nm,0.7s | | | | | | |
| **PAGB** | **Antelope Grade** comp=Z,91nm,2.0s | **42.44** | **88** | *e*P | **P** | **00 52 49.5** | **+2.1** |
| **TIN** | **Tinemaha, Big** baz=307 | **42.93** | **85** | P | **P** | **00 52 53.2** | **+1.8** |
| **VES** | **Vestal, Richgr** baz=308 | **43.12** | **87** | P | **P** | **00 52 53.7** | **+0.9** |
| **YMR** | **Madison River** comp=Z,5.8nm,0.8s | **43.20** | **71** | *e*P | **P** | **00 52 55.7** | **+2.0** |
| **YHH** | **Holmes Hill** comp=Z,4.7nm,0.9s | **43.20** | **71** | *e*P | **P** | **00 52 54.7** | **+0.9** |
| **PKM** | **Mcpherson Peak** baz=309 | **43.24** | **89** | P | **P** | **00 52 55.6** | **+1.5** |
| **CWC** | **Cottonwood Cre** baz=308 | **43.39** | **86** | P | **P** | **00 52 56.6** | **+1.3** |
| **FFC** | **Flin Flon** | **43.45** | **54** | *e*P | **P** | **00 52 56.2** | **+0.9** |
| FFC | comp=Z,12nm,0.6s | | | pmax | pmax | | |
| **FFC** | **Flin Flon** comp=Z,12nm,0.6s | **43.45** | **54** | *e*P | **P** | **00 52 56.2** | **+0.9** |
| **GRAC** | **Grapevine Rang** baz=307,SNR=7.8 | **43.51** | **84** | P | **P** | **00 52 57.5** | **+1.4** |
| **H17A** | **Grant Village** baz=302 | **43.58** | **71** | P | **P** | **00 52 58.2** | **+1.4** |
| **H17A** | **Grant Village** comp=Z,5.8nm,1.0s | **43.58** | **71** | *e*P | **P** | **00 52 59.2** | **+2.4** |
| **LKWY** | **Lake** | **43.59** | **71** | *e*P | **P** | **00 52 59.2** | **+2.3** |
| LKWY | comp=Z,7.0nm,0.8s | | | pmax | pmax | | |
| **LKWY** | **Lake** comp=Z,6.8nm,0.8s | **43.59** | **71** | *e*P | **P** | **00 52 59.2** | **+2.3** |
| **ISA** | **Isabella, Lake** baz=308 | **43.62** | **87** | P | **P** | **00 52 57.7** | **+0.7** |
| **ISA** | **Isabella, Lake** | **43.62** | **87** | *e*P | **P** | **00 52 58.1** | **+1.1** |
| ISA | comp=Z,12nm,0.8s | | | pmax | pmax | | |
| **ISA** | **Isabella, Lake** comp=Z,12nm,0.8s | **43.62** | **87** | *e*P | **P** | **00 52 58.1** | **+1.1** |
| **HVU** | **Hansel Valley** | **43.64** | **76** | *e*P | **P** | **00 52 58.8** | **+1.5** |
| HVU | comp=Z,4.0nm,0.8s | | | pmax | pmax | | |
| **HVU** | **Hansel Valley** comp=Z,3.9nm,0.8s | **43.64** | **76** | *e*P | **P** | **00 52 58.8** | **+1.5** |
| **ARVC** | **Arvin** baz=309 | **43.72** | **88** | P | **P** | **00 52 58.9** | **+1.1** |
| **R11A** | **Troy Canyon, C** baz=306,SNR=18 | **43.84** | **82** | P | **P** | **00 52 59.9** | **+1.0** |
| **R11A** | **Troy Canyon, C** comp=Z,11nm,1.1s | **43.84** | **82** | *e*P | **P** | **00 52 59.9** | **+1.0** |
| **SCZ2** | **Santa Cruz Isl** baz=310 | **43.92** | **90** | P | **P** | **00 53 00.1** | **+0.7** |
| **BGU** | **Big Grassy Mou** comp=Z,18nm,1.9s | **43.96** | **77** | *e*P | **P** | **00 53 01.4** | **+1.5** |
| **RLMT** | **Red Lodge** baz=302,SNR=7.4 | **43.98** | **70** | P | **P** | **00 53 01.0** | **+1.0** |
| **RLMT** | **Red Lodge** comp=Z,7.7nm,0.9s | **43.98** | **70** | *e*P | **P** | **00 53 01.0** | **+1.0** |
| **MPMC** | **Manual Prospec** baz=308,SNR=6.3 | **44.01** | **86** | P | **P** | **00 53 01.0** | **+0.7** |
| **SPUT** | **South Promonto** comp=Z,19nm,1.7s | **44.11** | **76** | *e*P | **P** | **00 53 02.6** | **+1.6** |
| **FURC** | **Furnace Creek,** baz=308,SNR=6.5 | **44.16** | **85** | P | **P** | **00 53 02.6** | **+1.4** |
| **BLG** | **Laguna Peak, P** baz=309 | **44.21** | **89** | P | **P** | **00 53 02.6** | **+0.9** |
| **LRMC** | **Laurel Mtn Rad** baz=308 | **44.24** | **86** | P | **P** | **00 53 02.6** | **+0.6** |
| **TPNV** | **Topopah Spring** baz=307,SNR=13 | **44.25** | **84** | P | **P** | **00 53 03.4** | **+1.2** |
| **TPNV** | **Topopah Spring** | **44.25** | **84** | *e*P | **P** | **00 53 03.5** | **+1.3** |
| TPNV | comp=Z,18nm,1.1s | | | pmax | pmax | | |
| **TPNV** | **Topopah Spring** comp=Z,18nm,1.1s | **44.25** | **84** | *e*P | **P** | **00 53 03.5** | **+1.3** |
| **EDW2** | **Edwards Air Fo** baz=309,SNR=5.3 | **44.41** | **87** | P | **P** | **00 53 04.2** | **+0.8** |
| **DUG** | **Dugway, Tooele** baz=305,SNR=14 | **44.52** | **78** | P | **P** | **00 53 05.4** | **+1.1** |
| **DUG** | **Dugway, Tooele** | **44.52** | **78** | *e*P | **P** | **00 53 05.0** | **+0.8** |
| DUG | comp=Z,21nm,1.3s | | | pmax | pmax | | |
| **DUG** | **Dugway, Tooele** comp=Z,20nm,1.3s | **44.52** | **78** | *e*P | **P** | **00 53 05.0** | **+0.8** |
| **SHOC** | **Shoeshone, Teco** baz=308,SNR=7.7 | **44.88** | **85** | P | **P** | **00 53 08.1** | **+1.1** |
| **CTU** | **Camp Tracy** comp=Z,9.3nm,1.1s | **44.90** | **76** | *e*P | **P** | **00 53 08.6** | **+1.3** |
| **GSC** | **Goldstone, Bar** baz=309,SNR=9.9 | **44.91** | **86** | P | **P** | **00 53 08.5** | **+1.1** |
| **GSC** | **Goldstone, Bar** | **44.91** | **86** | *e*P | **P** | **00 53 08.7** | **+1.3** |
| GSC | comp=Z,23nm,1.2s | | | pmax | pmax | | |
| **GSC** | **Goldstone, Bar** comp=Z,23nm,1.2s | **44.91** | **86** | *e*P | **P** | **00 53 08.7** | **+1.3** |
| **LAO** | **LASA Array** baz=302 | **44.97** | **66** | P | **P** | **00 53 08.5** | **+0.8** |
| **BFSC** | **Mount Baldy Ra** baz=309,SNR=7.0 | **45.03** | **88** | P | **P** | **00 53 09.4** | **+1.0** |
| **CIS** | **Catalina Islan** baz=310 | **45.08** | **89** | P | **P** | **00 53 09.4** | **+0.7** |
| **BW06** | **Boulder Array** baz=304,SNR=8.1 | **45.08** | **73** | P | **P** | **00 53 09.4** | **+0.6** |
| **BW06** | **Boulder Array** comp=Z,4.6nm,0.8s | **45.08** | **73** | *e*P | **P** | **00 53 09.2** | **+0.3** |
| **PD31** | **Pinedale Array** | **45.08** | **73** | *e*P | **P** | **00 53 09.7** | **+0.8** |
| **PDAR** | **Pinedale Array** comp=Z,3.7nm,0.6s,baz=298,slow=3.4,SNR=46 | **45.08** | **73** | P | **P** | **00 53 09.3** | **+0.5** |
| **NLU** | **North Lily Min** comp=Z,7.7nm,0.9s | **45.12** | **78** | *e*P | **P** | **00 53 10.4** | **+1.3** |
| **JLU** | **Jordanelle** comp=Z,15nm,1.3s | **45.13** | **76** | *e*P | **P** | **00 53 10.8** | **+1.5** |
| **DGMT** | **Dagmar** baz=301 | **45.23** | **63** | P | **P** | **00 53 09.9** | **+0.3** |
| **MPU** | **Maple Canyon** comp=Z,5.4nm,0.8s | **45.36** | **77** | *e*P | **P** | **00 53 12.4** | **+1.4** |
| **TUQ** | **Turquoise Moun** baz=308,SNR=5.2 | **45.39** | **85** | P | **P** | **00 53 12.1** | **+0.9** |
| **HEC** | **Hector,Ludlow** baz=309 | **45.51** | **86** | P | **P** | **00 53 13.0** | **+0.9** |
| **TCRU** | **Three Creeks R** comp=Z,6.6nm,0.8s | **45.67** | **79** | *e*P | **P** | **00 53 14.1** | **+0.5** |
| **CCUT** | **Cedar City** comp=Z,19nm,1.5s | **45.73** | **81** | *e*P | **P** | **00 53 15.4** | **+1.4** |
| **MURC** | **Murrieta** baz=310 | **45.73** | **88** | P | **P** | **00 53 14.3** | **+0.5** |
| **SZCU** | **Shurtz Canyon** comp=Z,11nm,1.3s | **45.87** | **81** | *e*P | **P** | **00 53 16.4** | **+1.3** |
| **MSU** | **Marysvale** | **45.90** | **79** | *e*P | **P** | **00 53 16.7** | **+1.4** |
| **MSU** | **Marysvale** | **45.90** | **79** | *e*P | **P** | **00 53 16.7** | **+1.4** |
| **GMRC** | **Granite Mounta** baz=309 | **45.97** | **86** | P | **P** | **00 53 16.4** | **+0.6** |
| **TMUT** | **Trail Mountain** comp=Z,13nm,1.1s | **46.04** | **78** | *e*P | **P** | **00 53 18.2** | **+1.6** |
| **LCMT** | **Little Creek M** comp=Z,14nm,1.0s | **46.13** | **82** | *e*P | **P** | **00 53 18.4** | **+1.4** |
| **LDFC** | **Landfair** comp=Z,35nm,1.5s | **46.13** | **85** | *e*P | **P** | **00 53 18.0** | **+0

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| BC3 | **Big Chuckawall** | 46.81 | 87 | P | | P | 00 53 22.5 | +0.1 |
| | baz=310 | | | | | | | |
| W13A | **Hualapai Mount** | 46.90 | 84 | *e*P | | P | 00 53 23.9 | +0.7 |
| | comp=Z,4.8nm,0.9s | | | | | | | |
| K22A | **Casper** | 47.00 | 71 | P | | P | 00 53 23.8 | -0.1 |
| | baz=305 | | | | | | | |
| IKP | **In-Ko-Pah, Jac** | 47.04 | 88 | P | | P | 00 53 24.3 | +0.2 |
| | baz=311 | | | | | | | |
| SWSC | **Sam W. Stewart** | 47.05 | 88 | P | | P | 00 53 24.8 | +0.7 |
| | baz=310 | | | | | | | |
| U15A | **North Rim** | 47.09 | 82 | *e*P | | P | 00 53 25.9 | +1.2 |
| | comp=Z,19nm,0.9s | | | | | | | |
| BJI | **Beijing** | 47.21 | 285 | P | | P | 00 53 24.6 | -0.7 |
| BJI | | | | pmax | | pmax | | |
| | comp=Z,8.0nm,1.0s | | | | | | | |
| BJI | | | | pmax | | pmax | | |
| | comp=Z,130nm,4.0s | | | | | | | |
| PDMCI | **Parker Dam,Lak** | 47.24 | 85 | P | | P | 00 53 26.3 | +0.7 |
| | baz=310 | | | | | | | |
| Y12C | **Blythe** | 47.35 | 86 | P | | P | 00 53 27.0 | +0.6 |
| | baz=310,SNR=5.2 | | | | | | | |
| Y12C | **Blythe** | 47.35 | 86 | *e*P | | P | 00 53 27.6 | +1.1 |
| | comp=Z,14nm,1.2s | | | | | | | |
| O20A | **White River Ci** | 47.40 | 75 | P | | P | 00 53 27.1 | +0.1 |
| | baz=306 | | | | | | | |
| O20A | **White River Ci** | 47.40 | 75 | *e*P | | P | 00 53 27.5 | +0.5 |
| | comp=Z,11nm,0.9s | | | | | | | |
| GLA | **Glamis** | 47.60 | 87 | P | | P | 00 53 29.4 | +0.9 |
| | baz=310 | | | | | | | |
| GLA | **Glamis** | 47.60 | 87 | *e*P | | P | 00 53 29.4 | +0.9 |
| GLA | | | | pmax | | pmax | | |
| | comp=Z,11nm,1.1s | | | | | | | |
| GLA | **Glamis** | 47.60 | 87 | *e*P | | P | 00 53 29.4 | +0.9 |
| | comp=Z,11nm,1.1s | | | | | | | |
| RSSD | **Black Hills** | 47.66 | 68 | P | | P | 00 53 29.1 | 0.0 |
| | baz=304 | | | | | | | |
| PV09 | **Paradox Valley** | 47.82 | 77 | *e*P | | P | 00 53 31.4 | +0.9 |
| PV10 | **Paradox Valley** | 47.95 | 77 | *e*P | | P | 00 53 32.5 | +1.1 |
| TLY | **Talaya** | 48.02 | 304 | *e*P | | P | 00 53 28.1 | -3.4 |
| TLY | | | | pmax | | pmax | | |
| | comp=Z,22nm,1.1s | | | | | | | |
| PV04 | **Paradox Valley** | 48.02 | 77 | *e*P | | P | 00 53 32.0 | +0.1 |
| PV05 | **Paradox Valley** | 48.09 | 78 | *e*P | | P | 00 53 33.4 | +0.9 |
| MDND | **Maddock** | 48.16 | 62 | P | | P | 00 53 33.1 | +0.5 |
| | baz=303 | | | | | | | |
| Y14A | **Wickenburg** | 48.20 | 85 | *e*P | | P | 00 53 33.8 | +0.7 |
| | comp=Z,45nm,1.2s | | | | | | | |
| ULN | **Ulaanbaatar** | 48.21 | 298 | *e*P | | P | 00 53 33.2 | +0.1 |
| ULN | | | | pmax | | pmax | | |
| | comp=Z,11nm,1.0s | | | | | | | |
| ULN | **Ulaanbaatar** | 48.21 | 298 | *e*P | | P | 00 53 32.5 | -0.6 |
| | comp=Z,8.0nm,0.8s | | | | | | | |
| WUAZ | **Wupatki** | 48.24 | 82 | P | | P | 00 53 34.4 | +0.9 |
| | baz=309,SNR=11 | | | | | | | |
| WUAZ | **Wupatki** | 48.24 | 82 | *e*P | | P | 00 53 34.5 | +0.9 |
| | comp=Z,13nm,0.8s | | | | | | | |
| N23A | **Red Feather La** | 48.37 | 73 | P | | P | 00 53 35.0 | +0.4 |
| | baz=306 | | | | | | | |
| N23A | **Red Feather La** | 48.37 | 73 | *e*P | | P | 00 53 35.6 | +1.0 |
| | comp=Z,14nm,1.4s | | | | | | | |
| PV01 | **Paradox Valley** | 48.39 | 77 | *e*P | | P | 00 53 35.2 | +0.5 |
| 113A | **Mohawk Valley,** | 48.46 | 86 | *e*P | | P | 00 53 35.9 | +0.8 |
| | comp=Z,6.6nm,1.1s | | | | | | | |
| SONA1 | **Songino Array** | 48.58 | 299 | *e*P | | P | 00 53 35.9 | -0.1 |
| SONM | **Songino Array** | 48.59 | 299 | P | | P | 00 53 36.1 | 0.0 |
| | comp=Z,12nm,1.0s,baz=65,slow=6.1,SNR=34 | | | | | | | |
| SONM | | | | PcP | | PcP | 00 55 00.8 | -0.4 |
| | comp=Z,2.8nm,0.8s,baz=55,slow=3.0,SNR=4.6 | | | | | | | |
| SMCO | **Snowmass** | 48.76 | 75 | *e*P | | P | 00 53 38.3 | +0.5 |
| | comp=Z,3.7nm,0.9s | | | | | | | |
| X16A | **Lo Mia Camp, P** | 48.89 | 83 | *e*P | | P | 00 53 39.7 | +1.1 |
| | comp=Z,6.5nm,0.9s | | | | | | | |
| ZAK | **Zakamensk** | 48.91 | 303 | *e*P | | P | 00 53 38.7 | +0.3 |
| ZAK | | | | pmax | | pmax | | |
| | comp=Z,14nm,1.2s | | | | | | | |
| ULM | **Lac du Bonnet** | 48.91 | 57 | P | | P | 00 53 38.4 | +0.1 |
| | comp=Z,6.5nm,0.8s,baz=307,slow=8.5,SNR=12 | | | | | | | |
| ULM | **Lac du Bonnet** | 48.91 | 57 | *e*P | | P | 00 53 38.9 | +0.6 |
| B31A | **Greenbush Farm** | 48.94 | 60 | P | | P | 00 53 39.1 | +0.5 |
| | baz=304 | | | | | | | |
| MVCO | **Mesa Verde** | 49.00 | 78 | P | | P | 00 53 39.6 | +0.1 |
| | baz=308,SNR=6.8 | | | | | | | |
| MVCO | **Mesa Verde** | 49.00 | 78 | *e*P | | P | 00 53 40.3 | +0.8 |
| | comp=Z,47nm,1.7s | | | | | | | |
| ISCO | **Idaho Springs** | 49.22 | 74 | P | | P | 00 53 42.0 | +0.8 |
| | baz=307 | | | | | | | |
| C31A | **Landman Farms,** | 49.25 | 61 | P | | P | 00 53 40.9 | 0.0 |
| | baz=304 | | | | | | | |
| A32A | **Rocking H Ranc** | 49.31 | 59 | P | | P | 00 53 41.5 | +0.1 |
| | baz=304,SNR=10.0 | | | | | | | |
| MOY | **Mondy** | 49.42 | 306 | *e*P | | P | 00 53 42.7 | +0.4 |
| MOY | | | | pmax | | pmax | | |
| | comp=Z,29nm,1.5s | | | | | | | |
| W18A | **Petrified Fore** | 49.53 | 81 | P | | P | 00 53 44.4 | +0.9 |
| | baz=309,SNR=5.7 | | | | | | | |
| W18A | **Petrified Fore** | 49.53 | 81 | *e*P | | P | 00 53 44.8 | +1.3 |
| | comp=Z,11nm,0.9s | | | | | | | |
| HHC | **Hu-ho-hao-te** | 49.56 | 288 | *e*P | | P | 00 53 43.8 | +0.2 |
| HHC | | | | S | | S | 01 00 46.6 | -2.5 |
| HHC | | | | ScS | | ScS | 01 03 30.1 | -2.3 |
| HHC | | | | SS | | SS | 01 04 12.3 | -8.7 |
| HHC | | | | pmax | | pmax | | |
| | comp=Z,18nm,1.1s | | | | | | | |
| HHC | | | | pmax | | pmax | | |
| | comp=Z,73nm,5.2s | | | | | | | |
| HHC | | | | LR | | LR | | |
| | comp=Z,90nm,15.3s | | | | | | | |
| HHC | | | | LR | | LR | | |
| | comp=Z,150nm,15.3s | | | | | | | |
| HHC | | | | LR | | LR | | |
| | comp=Z,66nm,13.9s | | | | | | | |
| B32A | **Ashes, Strandq** | 49.58 | 59 | P | | P | 00 53 43.3 | -0.1 |
| | baz=304,SNR=15 | | | | | | | |
| 214A | **Organ Pipe Nat** | 49.60 | 87 | P | | P | 00 53 44.6 | +0.7 |
| | baz=311,SNR=6.4 | | | | | | | |
| 214A | **Organ Pipe Nat** | 49.60 | 87 | *e*P | | P | 00 53 44.2 | +0.4 |
| | comp=Z,70nm,1.3s | | | | | | | |
| S22A | **4UR Ranch, Cre** | 49.72 | 77 | P | | P | 00 53 46.1 | +1.1 |
| | baz=308,SNR=11 | | | | | | | |
| S22A | **4UR Ranch, Cre** | 49.72 | 77 | *e*P | | P | 00 53 46.1 | +1.1 |
| | comp=Z,10nm,1.1s | | | | | | | |
| X18A | **Snowflake** | 49.77 | 82 | *e*P | | P | 00 53 46.7 | +1.4 |
| | comp=Z,9.1nm,0.9s | | | | | | | |
| E31A | **Nome** | 49.86 | 62 | P | | P | 00 53 45.2 | -0.4 |
| | baz=305 | | | | | | | |
| A33A | **Warroad** | 49.90 | 58 | P | | P | 00 53 46.0 | +0.1 |
| | baz=304,SNR=9.2 | | | | | | | |
| C32A | **Crookston** | 49.90 | 60 | P | | P | 00 53 45.6 | -0.2 |
| | baz=304 | | | | | | | |
| AGMN | **Agassiz Nation** | 50.00 | 59 | P | | P | 00 53 46.5 | -0.2 |
| | baz=304,SNR=10 | | | | | | | |
| AGMN | **Agassiz Nation** | 50.00 | 59 | *e*P | | P | 00 53 46.6 | 0.0 |
| | comp=Z,16nm,1.0s | | | | | | | |
| D32A | **Dogwood Acres,** | 50.02 | 61 | P | | P | 00 53 46.0 | -0.8 |
| | baz=305 | | | | | | | |
| B33A | **Robert and Kas** | 50.17 | 59 | P | | P | 00 53 47.5 | -0.4 |
| | baz=305,SNR=5.4 | | | | | | | |
| E32A | **Braaten, Kindr** | 50.30 | 62 | P | | P | 00 53 48.3 | -0.6 |
| | baz=305 | | | | | | | |
| C33A | **Trail** | 50.36 | 60 | P | | P | 00 53 49.0 | -0.3 |
| | baz=305 | | | | | | | |
| G31A | **Conde** | 50.44 | 64 | P | | P | 00 53 49.5 | -0.5 |
| | baz=306 | | | | | | | |
| NJ2 | **Nanjing** | 50.50 | 275 | *e*P | | P | 00 53 48.5 | -2.1 |
| NJ2 | | | | pmax | | pmax | | |
| | comp=Z,17nm,0.7s | | | | | | | |
| SDCO | **Great Sand Dun** | 50.54 | 76 | P | | P | 00 53 52.1 | +0.8 |
| | baz=308,SNR=9.0 | | | | | | | |
| SDCO | **Great Sand Dun** | 50.54 | 76 | *e*P | | P | 00 53 51.7 | +0.5 |
| | comp=Z,7.0nm,1.0s | | | | | | | |
| B34A | **Aery, Baudette** | 50.56 | 58 | P | | P | 00 53 50.7 | -0.2 |
| | baz=305,SNR=13 | | | | | | | |
| TUC | **Tucson** | 50.67 | 85 | P | | P | 00 53 52.8 | +0.7 |
| | baz=311 | | | | | | | |
| TUC | **Tucson** | 50.67 | 85 | *e*P | | P | 00 53 52.7 | +0.7 |
| TUC | | | | pmax | | pmax | | |
| | comp=Z,16nm,1.4s | | | | | | | |
| TUC | **Tucson** | 50.67 | 85 | *e*P | | P | 00 53 52.7 | +0.7 |
| | comp=Z,16nm,1.4s | | | | | | | |
| D33A | **AnnSam, Waubun** | 50.67 | 60 | P | | P | 00 53 51.2 | -0.5 |
| | baz=305 | | | | | | | |
| F32A | **Veblen** | 50.68 | 62 | P | | P | 00 53 51.1 | -0.8 |
| | baz=306 | | | | | | | |
| OGNE | **Ogallala** | 50.72 | 70 | P | | P | 00 53 52.5 | +0.2 |
| | baz=307 | | | | | | | |
| H31A | **Wolsey** | 50.72 | 65 | P | | P | 00 53 51.9 | -0.2 |
| | baz=306 | | | | | | | |
| G32A | **Webster** | 50.83 | 63 | P | | P | 00 53 52.4 | -0.6 |
| | baz=306 | | | | | | | |
| C34A | **RKJ Ranch, Bem** | 50.90 | 59 | P | | P | 00 53 53.2 | -0.3 |
| | baz=305 | | | | | | | |
| E33A | **Westby DABS, E** | 50.95 | 61 | P | | P | 00 53 53.5 | -0.3 |
| | baz=306 | | | | | | | |
| D34A | **Park Rapids** | 51.06 | 60 | P | | P | 00 53 54.2 | -0.5 |
| | baz=306,SNR=11 | | | | | | | |
| B35A | **Bob, Littlefor** | 51.14 | 58 | P | | P | 00 53 54.9 | -0.3 |
| | baz=305,SNR=5.7 | | | | | | | |
| F33A | **5 Mile Ranch,** | 51.17 | 62 | P | | P | 00 53 55.0 | -0.5 |
| | baz=306 | | | | | | | |
| J31A | **Geddes** | 51.27 | 66 | P | | P | 00 53 56.0 | -0.3 |
| | baz=307 | | | | | | | |
| H32A | **Carlson Farm,** | 51.31 | 64 | P | | P | 00 53 56.0 | -0.6 |
| | baz=306 | | | | | | | |
| C35A | **Jirik Farms, M** | 51.38 | 59 | P | | P | 00 53 56.7 | -0.4 |
| | baz=306,SNR=5.7 | | | | | | | |
| E34A | **Wadena** | 51.41 | 61 | P | | P | 00 53 56.9 | -0.4 |
| | baz=306 | | | | | | | |
| MHTCO | **State Highway** | 51.43 | 76 | *e*P | | P | 00 53 59.2 | +1.3 |
| | comp=Z,18nm,1.0s | | | | | | | |
| G33A | **Ortonville** | 51.47 | 63 | P | | P | 00 53 57.4 | -0.3 |
| | baz=306 | | | | | | | |
| KSCO | **Kaye Shedlock'** | 51.53 | 73 | *e*P | | P | 00 53 59.1 | +0.7 |
| | comp=Z,43nm,1.6s | | | | | | | |
| SPA0 | **Spitsbergen Ar** | 51.56 | 357 | *e*P | | P | 00 53 59.4 | +1.4 |
| SPITS | **Spitsbergen Ar** | 51.56 | 357 | P | | P | 00 53 58.2 | +0.1 |
| | comp=Z,38nm,1.0s,baz=6.2,slow=8.6,SNR=16 | | | | | | | |
| I32A | **Karley and Nic** | 51.58 | 65 | P | | P | 00 53 57.9 | -0.7 |
| | baz=307 | | | | | | | |
| T25A | **Trinidad** | 51.60 | 76 | P | | P | 00 54 00.1 | +1.0 |
| | baz=309,SNR=12 | | | | | | | |
| T25A | **Trinidad** | 51.60 | 76 | *e*P | | P | 00 54 00.5 | +1.4 |
| | comp=Z,15nm,0.9s | | | | | | | |
| H33A | **Prehn Over Nor** | 51.60 | 64 | P | | P | 00 53 58.2 | -0.5 |
| | baz=306 | | | | | | | |
| LAZ | **Ladron** | 51.63 | 80 | *e*P | | P | 00 54 00.6 | +1.2 |
| D35A | **Remer** | 51.70 | 60 | P | | P | 00 53 59.3 | -0.1 |
| | baz=306,SNR=6.1 | | | | | | | |
| ANMO | **Albuquerque** | 51.71 | 79 | P | | P | 00 54 00.4 | +0.5 |
| | baz=310 | | | | | | | |
| ANMO | **Albuquerque** | 51.71 | 79 | *ce*P | | P | 00 54 00.9 | +1.0 |
| ANMO | | | | pmax | | pmax | | |
| | comp=Z,8.0nm,1.2s | | | | | | | |
| ANMO | **Albuquerque** | 51.71 | 79 | *e*P | | P | 00 54 00.2 | +0.3 |
| | comp=Z,17nm,1.6s | | | | | | | |
| F34A | **Alexandria** | 51.79 | 62 | P | | P | 00 53 59.6 | -0.5 |
| | baz=306 | | | | | | | |
| E35A | **Pequot Lakes** | 51.81 | 60 | P | | P | 00 54 00.3 | 0.0 |
| | baz=306,SNR=8.3 | | | | | | | |
| G34A | **Benson** | 51.90 | 62 | P | | P | 00 54 00.7 | -0.2 |
| | baz=306 | | | | | | | |
| I33A | **Coleman** | 51.95 | 64 | P | | P | 00 54 00.6 | -0.8 |
| | baz=307 | | | | | | | |
| C36A | **Pine Crest Far** | 51.97 | 58 | P | | P | 00 54 01.5 | 0.0 |
| | baz=306,SNR=7.8 | | | | | | | |
| LPM | **Los Pinos Moun** | 52.01 | 80 | *e*P | | P | 00 54 03.6 | +1.4 |
| K32A | **Verdigre** | 52.10 | 66 | P | | P | 00 54 02.6 | +0.1 |
| | baz=307 | | | | | | | |
| BNM | **Barren Site** | 52.11 | 80 | *e*P | | P | 00 54 04.3 | +1.4 |
| F35A | **Swanville** | 52.13 | 61 | P | | P | 00 54 02.4 | -0.4 |
| | baz=307 | | | | | | | |
| D36A | **Goodland** | 52.14 | 59 | P | | P | 00 54 02.4 | -0.3 |
| | baz=306 | | | | | | | |
| H34A | **Spimm Lake,** | 52.16 | 63 | P | | P | 00 54 02.9 | -0.1 |
| | baz=307 | | | | | | | |
| ECSD | **EROS Data Cent** | 52.24 | 64 | P | | P | 00 54 02.8 | -0.7 |
| | baz=307 | | | | | | | |
| ECSD | **EROS Data Cent** | 52.24 | 64 | *e*P | | P | 00 54 03.2 | -0.3 |
| | comp=Z,26nm,2.0s | | | | | | | |
| 319A | **Douglas** | 52.24 | 85 | *e*P | | P | 00 54 05.0 | +1.1 |
| | comp=Z,9.4nm,1.0s | | | | | | | |
| C37A | **Embarrass** | 52.34 | 58 | P | | P | 00 54 03.7 | -0.5 |
| | baz=306,SNR=7.5 | | | | | | | |
| DAG | **Danmarks Havn** | 52.41 | 6 | *i* P | | P | 00 54 04.2 | -0.1 |
| DAG | | | | pmax | | pmax | | |
| | comp=Z,5.0nm,0.9s | | | | | | | |
| DAG | **Danmarks Havn** | 52.41 | 6 | *i* P | | P | 00 54 04.2 | -0.1 |
| | comp=Z,5.0nm,0.9s | | | | | | | |
| 121A | **Cookes Peak, D** | 52.43 | 82 | P | | P | 00 54 06.0 | +0.7 |
| | baz=311 | | | | | | | |
| 121A | **Cookes Peak, D** | 52.43 | 82 | *e*P | | P | 00 54 06.2 | +0.9 |
| | comp=Z,5.0nm,0.7s | | | | | | | |
| E36A | **Mcgor** | 52.48 | 60 | P | | P | 00 54 05.2 | 0.0 |
| | baz=307,SNR=6.7 | | | | | | | |
| D37A | **Cotton** | 52.55 | 59 | P | | P | 00 54 05.4 | -0.4 |
| | baz=307 | | | | | | | |
| G35A | **Watkins** | 52.56 | 62 | P | | P | 00 54 05.6 | -0.3 |
| | baz=307 | | | | | | | |
| EYMN | **Ely** | 52.59 | 57 | P | | P | 00 54 05.9 | -0.1 |
| | baz=306 | | | | | | | |
| EYMN | **Ely** | 52.59 | 57 | *e*P | | P | 00 54 06.4 | +0.4 |
| | comp=Z,13nm,1.0s | | | | | | | |
| H35A | **Sunnyside Ranc** | 52.68 | 62 | P | | P | 00 54 06.5 | -0.2 |
| | baz=307 | | | | | | | |
| F36A | **Milaca** | 52.72 | 61 | P | | P | 00 54 06.8 | -0.3 |
| | baz=307 | | | | | | | |
| C38A | **Sawbill Land.** | 52.85 | 58 | P | | P | 00 54 07.7 | -0.3 |
| | baz=307 | | | | | | | |
| G36A | **St. Michael** | 52.97 | 61 | P | | P | 00 54 08.8 | -0.1 |
| | baz=307 | | | | | | | |
| I35A | **Creekview Farm** | 53.11 | 63 | P | | P | 00 54 09.7 | -0.3 |
| | baz=308 | | | | | | | |
| K34A | **Le Mars** | 53.18 | 65 | P | | P | 00 54 10.3 | -0.2 |
| | baz=308 | | | | | | | |
| H36A | **Jessenland, He** | 53.27 | 62 | P | | P | 00 54 11.2 | +0.1 |
| | baz=308,SNR=5.7 | | | | | | | |
| F37A | **Hinrichs Farm,** | 53.30 | 60 | P | | P | 00 54 11.2 | -0.2 |
| | baz=307 | | | | | | | |
| C39A | **Grand Marais** | 53.40 | 57 | P | | P | 00 54 11.9 | -0.1 |
| | baz=307 | | | | | | | |
| CBKS | **Cedar Bluff** | 53.42 | 71 | P | | P | 00 54 12.4 | +0.1 |
| | baz=309 | | | | | | | |
| CBKS | **Cedar Bluff** | 53.42 | 71 | *e*P | | P | 00 54 13.6 | +1.3 |
| CBKS | | | | pmax | | pmax | | |
| | comp=Z,12nm,0.8s | | | | | | | |
| CBKS | **Cedar Bluff** | 53.42 | 71 | *e*P | | P | 00 54 13.6 | +1.3 |
| | comp=Z,12nm,0.8s | | | | | | | |
| SPMN | **Marine on St.** | 53.51 | 61 | P | | P | 00 54 12.3 | -0.5 |
| | baz=308 | | | | | | | |
| F38A | **Piece - Schro** | 53.58 | 60 | P | | P | 00 54 13.6 | +0.3 |
| | baz=308,SNR=9.9 | | | | | | | |
| EPT | **El Paso** | 53.75 | 82 | *e*P | | P | 00 54 15.6 | +0.7 |
| | comp=Z,19nm,0.8s | | | | | | | |
| J36A | **Seneca 1, Swea** | 53.80 | 64 | P | | P | 00 54 14.6 | -0.4 |
| | baz=308 | | | | | | | |
| I37A | **Lemond, Waseca** | 53.91 | 62 | P | | P | 00 54 15.9 | 0.0 |
| | baz=308 | | | | | | | |
| O33A | **Hebron** | 53.92 | 69 | P | | P | 00 54 16.1 | +0.2 |
| | baz=309 | | | | | | | |
| SUMG | **Summit** | 53.95 | 15 | *i* P | | P | 00 54 17.4 | +1.2 |
| SUMG | | | | pmax | | pmax | | |
| | comp=Z,23nm,0.8s | | | | | | | |
| SUMG | **Summit** | 53.95 | 15 | *i* P | | P | 00 54 17.4 | +1.2 |
| | comp=Z,23nm,0.8s | | | | | | | |
| SUMG | **Summit** | 53.95 | 15 | *e*P | | P | 00 54 17.0 | +0.9 |
| | comp=Z,32nm,1.5s | | | | | | | |
| G38A | **Ridgeland** | 54.07 | 60 | P | | P | 00 54 16.5 | -0.5 |
| | baz=308 | | | | | | | |
| F39A | **Loretta** | 54.13 | 59 | P | | P | 00 54 17.2 | -0.2 |
| | baz=308 | | | | | | | |
| H38A | **Maiden Rock** | 54.14 | 61 | P | | P | 00 54 17.3 | -0.2 |
| | baz=308 | | | | | | | |
| K36A | **Gilmore City** | 54.16 | 64 | P | | P | 00 54 17.3 | -0.4 |
| | baz=308 | | | | | | | |
| ILULI | **Ilulissat** | 54.20 | 21 | *i* P | | P | 00 54 18.7 | +1.2 |
| ILULI | | | | pmax | | pmax | | |
| | comp=Z,21nm,0.8s | | | | | | | |
| ILULI | **Ilulissat** | 54.20 | 21 | *i* P | | P | 00 54 18.7 | +1.2 |
| | comp=Z,21nm,0.8s | | | | | | | |
| J37A | **Redenius Farm,** | 54.26 | 63 | P | | P | 00 54 18.5 | +0.1 |
| | baz=308 | | | | | | | |
| E40A | **Wakefield** | 54.37 | 58 | P | | P | 00 54 19.3 | +0.2 |
| | baz=308,SNR=6.6 | | | | | | | |
| G39A | **Holcombe** | 54.38 | 60 | P | | P | 00 54 18.8 | -0.4 |
| | baz=308 | | | | | | | |
| O34A | **Beatrice** | 54.39 | 68 | P | | P | 00 54 18.9 | -0.4 |
| | baz=309 | | | | | | | |
| I38A | **Scanlan Farm,** | 54.50 | 62 | P | | P | 00 54 20.0 | -0.1 |
| | baz=308 | | | | | | | |
| MNTX | **Cornudas Mount** | 54.51 | 81 | P | | P | 00 54 20.9 | +0.5 |
| | baz=312,SNR=16 | | | | | | | |
| MNTX | **Cornudas Mount** | 54.51 | 81 | *e*P | | P | 00 54 21.1 | +0.7 |
| | comp=Z,10nm,0.9s | | | | | | | |
| K37A | **Belmond** | 54.55 | 64 | P | | P | 00 54 20.1 | -0.4 |
| | baz=309 | | | | | | | |
| F40A | **Park Falls** | 54.57 | 59 | P | | P | 00 54 20.5 | -0.1 |
| | baz=308,SNR=6.4 | | | | | | | |
| MSTX | **Muleshoe** | 54.66 | 78 | P | | P | 00 54 21.3 | -0.2 |
| | baz=311,SNR=7.5 | | | | | | | |
| MSTX | **Muleshoe** | 54.66 | 78 | *e*P | | P | 00 54 21.1 | -0.4 |
| | comp=Z,67nm,1.7s | | | | | | | |
| M36A | **Felix, Anita** | 54.70 | 66 | P | | P | 00 54 21.5 | -0.1 |
| | baz=309 | | | | | | | |
| D41A | **Chassel** | 54.71 | 57 | P | | P | 00 54 21.7 | +0.2 |
| | baz=308 | | | | | | | |
| P34A | **Walnut Farm, R** | 54.71 | 69 | P | | P | 00 54 20.9 | -0.8 |
| | baz=310 | | | | | | | |
| O35A | **Humboldt** | 54.80 | 67 | P | | P | 00 54 22.4 | +0.1 |
| | baz=309 | | | | | | | |
| E41A | **Kenton** | 54.86 | 58 | P | | P | 00 54 22.6 | -0.1 |
| | baz=308 | | | | | | | |
| J38A | **Wedel Dairy, R** | 54.87 | 63 | P | | P | 00 54 22.6 | -0.2 |
| | baz=309 | | | | | | | |
| L37A | **Phoenix Point,** | 54.89 | 64 | P | | P | 00 54 22.6 | -0.3 |
| | baz=309 | | | | | | | |
| G40A | **Rib Lake** | 54.93 | 59 | P | | P | 00 54 22.9 | -0.3 |
| | baz=309 | | | | | | | |
| Q34A | **Chapman** | 55.04 | 69 | P | | P | 00 54 24.0 | -0.1 |
| | baz=310 | | | | | | | |
| I39A | **Houston** | 55.08 | 61 | P | | P | 00 54 23.7 | -0.6 |
| | baz=309 | | | | | | | |
| KSU1 | **Kansas State U** | 55.12 | 69 | P | | P | 00 54 24.3 | -0.3 |
| | baz=310 | | | | | | | |
| M37A | **Trindle Farm,** | 55.17 | 65 | P | | P | 00 54 24.8 | -0.2 |
| | baz=309 | | | | | | | |
| P35A | **Duane Minner,** | 55.20 | 68 | P | | P | 00 54 24.8 | -0.5 |
| | baz=310 | | | | | | | |
| H40A | **Chili** | 55.23 | 60 | P | | P | 00 54 25.3 | -0.1 |
| | baz=309 | | | | | | | |
| F41A | **Three Lakes** | 55.24 | 58 | P | | P | 00 54 25.4 | 0.0 |
| | baz=309,SNR=5.7 | | | | | | | |
| R34A | **Isabella, Hill** | 55.25 | 70 | P | | P | 00 54 25.6 | 0.0 |
| | baz=310 | | | | | | | |
| J39A | **Decorah** | 55.30 | 62 | P | | P | 00 54 25.1 | -0.8 |
| | baz=309 | | | | | | | |
| L38A | **Oak Wood Farm,** | 55.34 | 64 | P | | P | 00 54 25.9 | -0.2 |
| | baz=309 | | | | | | | |
| SCIA | **State Center** | 55.34 | 64 | P | | P | 00 54 25.9 | -0.2 |
| | baz=309 | | | | | | | |
| E42A | **Champion** | 55.45 | 57 | P | | P | 00 54 27.2 | +0.2 |
| | baz=309 | | | | | | | |
| XAN | **Xi'an** | 55.48 | 283 | P | | P | 00 54 26.0 | -1.4 |
| XAN | | | | pmax | | pmax | | |
| | comp=Z,10.0nm,1.5s | | | | | | | |
| XAN | | | | pmax | | pmax | | |
| | comp=Z,75nm,4.8s | | | | | | | |
| I40A | **Norwalk** | 55.56 | 61 | P | | P | 00 54 27.2 | -0.6 |
| | baz=309 | | | | | | | |
| K39A | **Oelwein** | 55.59 | 63 | P | | P | 00 54 27.1 | -0.9 |
| | baz=309 | | | | | | | |
| P36A | **Good Intent, A** | 55.63 | 68 | P | | P | 00 54 28.3 | 0.0 |
| | baz=310 | | | | | | | |
| H41A | **Junction City** | 55.64 | 60 | P | | P | 00 54 28.2 | -0.1 |
| | baz=309 | | | | | | | |
| S34A | **Willow Spring** | 55.72 | 71 | P | | P | 00 54 28.7 | -0.3 |
| | baz=310 | | | | | | | |
| J40A | **Soldiers Grove** | 55.80 | 61 | P | | P | 00 54 29.1 | -0.5 |
| | baz=309 | | | | | | | |
| R35A | **Emporia Munici** | 55.87 | 69 | P | | P | 00 54 29.0 | -1.1 |
| | baz=310 | | | | | | | |
| I41A | **Arkdale** | 55.87 | 60 | P | | P | 00 54 29.7 | -0.3 |
| | baz=309 | | | | | | | |
| L39A | **Vinton** | 55.90 | 63 | P | | P | 00 54 29.6 | -0.6 |
| | baz=310,SNR=5.1 | | | | | | | |
| G42A | **Mountain** | 55.92 | 58 | P | | P | 00 54 30.2 | -0.1 |
| | baz=309 | | | | | | | |
| ZAA0 | **Zalesovo Array** | 55.95 | 315 | *e*P | | P | 00 54 29.4 | -1.0 |
| | comp=Z,3.0nm,0.8s | | | | | | | |
| ZALV | **Zalesovo Beam** | 55.95 | 315 | P | | P | 00 54 29.3 | -1.1 |
| | comp=Z,2.2nm,0.7s,baz=37,slow=7.2,SNR=12 | | | | | | | |
| ZALV | | | | PcP | | PcP | 00 55 28.3 | -0.2 |
| | comp=Z,0.6nm,0.5s,baz=38,slow=7.5,SNR=3.8 | | | | | | | |
| ZALV | | | | LR | | LR | 01 19 11.6 | |
| | comp=Z,57nm,18.8s,baz=68,slow=37 | | | | | | | |
| E43A | **Lone Tree Farm** | 55.98 | 57 | P | | P | 00 54 30.8 | +0.1 |
| | baz=309 | | | | | | | |
| SFJD | **Kangerlussuaq** | 56.03 | 23 | *i* P | | P | 00 54 31.8 | +1.0 |
| SFJD | **Kangerlussuaq** | 56.03 | 23 | *i* P | | P | 00 54 31.8 | +1.0 |
| N38A | **Joes South For** | 56.03 | 65 | P | | P | 00 54 30.3 | -0.9 |
| | baz=310 | | | | | | | |
| NVS | **Novosibirsk** | 56.08 | 317 | *i* P | | P | 00 54 30.6 | -0.7 |
| T34A | **McClaskey Farm** | 56.11 | 71 | P | | P | 00 54 31.3 | -0.5 |
| | baz=311 | | | | | | | |
| P37A | **Lathrop** | 56.15 | 67 | P | | P | 00 54 31.0 | -1.1 |
| | baz=310 | | | | | | | |
| M39A | **Webster** | 56.21 | 64 | P | | P | 00 54 32.3 | -0.1 |
| | baz=310 | | | | | | | |
| F43A | **Flat Rock, Esc** | 56.23 | 57 | P | | P | 00 54 32.3 | -0.2 |
| | baz=310 | | | | | | | |
| J41A | **Loganville** | 56.23 | 61 | P | | P | 00 54 32.3 | -0.3 |
| | baz=310 | | | | | | | |
| R36A | **Gordon, Harris** | 56.28 | 69 | P | | P | 00 54 32.4 | -0.7 |
| | baz=310 | | | | | | | |
| G43A | **Wallace** | 56.31 | 58 | P | | P | 00 54 33.2 | +0.1 |
| | baz=310 | | | | | | | |
| L40A | **Anamosa** | 56.38 | 63 | P | | P | 00 54 32.9 | -0.7 |
| | baz=310 | | | | | | | |
| JFWS | **Jewell Farm** | 56.39 | 62 | P | | P | 00 54 33.2 | -0.6 |
| | baz=310 | | | | | | | |
| JFWS | **Jewell Farm** | 56.39 | 62 | *e*P | | P | 00 54 32.8 | -0.9 |
| JFWS | | | | pmax | | pmax | | |
| | comp=Z,29nm,1.5s | | | | | | | |
| JFWS | **Jewell Farm** | 56.39 | 62 | *e*P | | P | 00 54 32.8 | -0.9 |
| | comp=Z,29nm,1.5s | | | | | | | |
| E44A | **Grand Marais A** | 56.39 | 56 | P | | P | 00 54 34.1 | +0.4 |
| | baz=310 | | | | | | | |
| N39A | **Derby Farms, D** | 56.41 | 65 | P | | P | 00 54 33.3 | -0.5 |
| | baz=310 | | | | | | | |
| I42A | **Draeger Farm,** | 56.51 | 60 | P | | P | 00 54 34.5 | -0.1 |
| | baz=310 | | | | | | | |
| F44A | **Big Bay de Noc** | 56.54 | 57 | P | | P | 00 54 34.7 | 0.0 |
| | baz=310 | | | | | | | |
| K41A | **Shullsburg** | 56.55 | 62 | P | | P | 00 54 34.3 | -0.5 |
| | baz=310 | | | | | | | |
| S36A | **Lake Cedric, C** | 56.62 | 70 | P | | P | 00 54 34.3 | -1.1 |
| | baz=311 | | | | | | | |
| WMOK | **Wichita Mounta** | 56.63 | 74 | P | | P | 00 54 35.6 | +0.1 |
| | baz=312,SNR=10 | | | | | | | |
| WMOK | **Wichita Mounta** | 56.63 | 74 | *e*P | | P | 00 54 35.4 | -0.2 |
| WMOK | | | | pmax | | pmax | | |
| | comp=Z,10.0nm,0.9s | | | | | | | |
| WMOK | **Wichita Mounta** | 56.63 | 74 | *e*P | | P | 00 54 35.4 | -0.2 |
| | comp=Z,9.8nm,0.9s | | | | | | | |
| J42A | **Columbus** | 56.76 | 61 | P | | P | 00 54 35.8 | -0.6 |
| | baz=310 | | | | | | | |
| H43A | **Windswept, Lux** | 56.77 | 59 | P | | P | 00 54 36.2 | -0.2 |
| | baz=310 | | | | | | | |
| O39A | **Kirksville** | 56.78 | 65 | P | | P | 00 54 35.8 | -0.8 |
| | baz=310 | | | | | | | |
| I43A | **Langenfeld Bro** | 56.94 | 60 | P | | P | 00 54 37.0 | -0.6 |
| | baz=310 | | | | | | | |
| E45A | **Wooded Hills,** | 56.96 | 56 | P | | P | 00 54 36.3 | -1.3 |
| | baz=310 | | | | | | | |
| K42A | **Prairie Point,** | 56.98 | 61 | P | | P | 00 54 37.3 | -0.6 |
| | baz

comp=Z,230nm,16.0s
**Q39A Willow Grove F** 57.32 67 P P 00 54 38.9 -1.4
baz=311
**R38A Fenwick Farm,** 57.33 68 P P 00 54 39.5 -0.9
baz=311
**T37A Cheneyville 18** 57.42 70 P P 00 54 40.2 -0.9
baz=311
**DGZ Jazzator, Alta** 57.48 310 *i* P P 00 54 41.5 -0.1
DGZ pmax pmax
comp=Z,5.0nm,0.7s
**GTA Gaotai** 57.49 294 *e*P P 00 54 41.5 -0.2
GTA pP sP 00 54 52.1 -4.2
GTA sP pP 00 54 56.3 +4.1
GTA S **S** **01 02 34.5 -2.1**
GTA sS sS 01 02 49.8 -4.1
GTA SS **SS** **01 06 24.9 -1.2**
GTA pmax pmax
comp=Z,14nm,0.8s
GTA pmax pmax
comp=Z,150nm,5.5s
GTA LR LR
comp=Z,130nm,10.2s
GTA LR LR
comp=Z,210nm,8.3s
GTA LR LR
comp=Z,170nm,9.3s
**ABTX Abilene, Hawle** 57.51 77 P P 00 54 41.8 0.0
baz=312,SNR=5.2
**ABTX Abilene, Hawle** 57.51 77 *e*P P 00 54 41.6 -0.2
comp=Z,16nm,1.2s
**W35A Tecumseh** 57.53 73 P P 00 54 41.5 -0.4
baz=312
**W35A Tecumseh** 57.53 73 *e*P P 00 54 42.4 +0.5
comp=Z,9.7nm,0.9s
**P40A Paris** 57.54 66 P P 00 54 40.9 -1.0
baz=311,SNR=6.3
**HPIG** 57.57 86 *e*P P 00 54 42.6 +0.1
comp=Z,9.4nm,0.7s
**K43A Burlington** 57.60 61 P P 00 54 41.6 -0.6
baz=311
**V36A Jenks** 57.68 71 P P 00 54 42.7 -0.2
baz=312
**S38A Stockton** 57.69 69 P P 00 54 42.2 -0.8
baz=311
**TUL1 Leonard** 57.69 71 P P 00 54 42.8 -0.2
baz=312
**U37A Salina** 57.77 70 P P 00 54 43.0 -0.5
baz=312
**O41A Passleys Farm,** 57.84 65 P P 00 54 42.8 -1.1
baz=311
**T38A Diamond** 57.85 69 P P 00 54 43.0 -1.1
baz=312
**Q40A Laux Farm, Aux** 57.88 66 P P 00 54 43.2 -1.1
baz=311
**W36A Wetumka** 57.94 72 P P 00 54 44.5 -0.2
baz=312
**X35A Drake** 57.97 73 P P 00 54 44.9 -0.1
baz=312,SNR=7.9
**X35A Drake** 57.97 73 *e*P P 00 54 45.0 -0.1
comp=Z,12nm,0.8s
**S39A Bolivar** 58.00 68 P P 00 54 44.6 -0.6
baz=311
**SCO Scoresbysund** 58.10 10 *i* P P 00 54 45.7 +0.4
**SCO Scoresbysund** 58.10 10 *i* P P 00 54 45.7 +0.4
**V37A Hulbert** 58.10 71 P P 00 54 45.4 -0.5
baz=312
**X36A Centrahoma** 58.24 73 P P 00 54 46.9 +0.1
baz=312
**Y35A Marietta** 58.26 74 P P 00 54 47.2 +0.2
baz=312
**Q41A Truxton** 58.40 66 P P 00 54 47.5 -0.4
baz=312
**T39A Clever** 58.41 69 P P 00 54 46.6 -1.5
baz=312
**W37B Quinton** 58.42 72 P P 00 54 47.1 -1.1
baz=312
**W37B Quinton** 58.42 72 *e*P P 00 54 48.2 +0.1
comp=Z,40nm,1.9s
**V38A Canehill** 58.56 70 P P 00 54 48.3 -0.8
baz=312
**M44A Midewin, Midew** 58.63 62 P P 00 54 49.0 -0.4
baz=311
**Y36A Durant** 58.73 73 P P 00 54 48.2 -2.1
baz=312
**R41A Rosebud** 58.75 66 P P 00 54 49.0 -1.4
baz=312
**U39A Green Forest** 58.77 69 P P 00 54 49.8 -0.8
baz=312
**T40A Mansfield** 58.84 68 P P 00 54 50.2 -0.8
baz=312
**JCT Junction City** 58.86 79 P P 00 54 50.5 -0.8
baz=313
**P43A Skaggs, Pawnee** 58.94 64 P P 00 54 51.0 -0.7
baz=312
**S41A Jillco Farms,** 59.00 67 P P 00 54 50.9 -1.2
baz=312
**W38A Poteau** 59.02 71 P P 00 54 51.7 -0.6
baz=312
**V39A Pettigrew** 59.04 70 P P 00 54 51.3 -1.2
baz=312
**R42A Luebbering** 59.10 66 P P 00 54 52.1 -0.7
baz=312
**X38A Whitesboro** 59.10 72 P P 00 54 52.7 -0.2
baz=312
**U40A Yellville** 59.17 69 P P 00 54 52.8 -0.6
baz=312
**WHTX Lake Whitney,** 59.30 76 P P 00 54 54.2 0.0
baz=313,SNR=5.5
**WHTX Lake Whitney,** 59.30 76 *e*P P 00 54 54.4 +0.2
comp=Z,16nm,0.6s
**Q43A New Douglas** 59.30 65 P P 00 54 53.7 -0.5
baz=312
**W39A Magazine** 59.38 71 P P 00 54 54.0 -0.8
baz=312
**ARCES ARCESS Array B** 59.42 351 P P 00 54 55.0 +0.4
comp=Z,5.5nm,0.8s,baz=33,slow=8.1,SNR=23
**ARCES ARCESS Array B** 59.42 351 P P 00 54 55.0 +0.4
ARCES pmax pmax
comp=Z,6.0nm,0.8s
**S42A Caledonia** 59.44 67 P P 00 54 54.9 -0.3
baz=312
**136A Ennis** 59.54 75 P P 00 54 55.6 -0.3
baz=313
**V40A Witts Springs** 59.55 69 P P 00 54 54.9 -1.1
baz=312
**O45A Potomac** 59.56 63 P P 00 54 55.3 -0.7
baz=312
**P44A Sand Creek, Wi** 59.57 64 P P 00 54 55.5 -0.5
baz=312
**X39A Fountain Ranch** 59.65 71 P P 00 54 56.2 -0.4
baz=313
**U41A Viola** 59.73 68 P P 00 54 56.4 -0.8
baz=312
**VLDQ Val d'Or** 59.74 50 *e*P P 00 54 56.4 -0.7
comp=Z,28nm,0.9s
**T42A Van Buren** 59.76 67 P P 00 54 56.3 -1.1
baz=312
**W40A Ferguson Farm,** 59.82 70 P P 00 54 57.2 -0.6
baz=313
**SCHQ Schefferville** 59.83 39 P P 00 54 58.4 +0.8
comp=Z,8.8nm,0.7s,baz=327,slow=7.0,SNR=10
**SFIN Lafayette** 59.83 62 P P 00 54 56.9 -0.9
baz=312
**236A Katherine and** 59.87 75 P P 00 54 58.4 +0.2
baz=313
**MIAR Mount Ida** 59.95 71 P P 00 54 58.4 -0.3
baz=313
**S43A Fulton Ridge,** 60.00 66 P P 00 54 58.3 -0.8
baz=312
**P45A Graceland, Par** 60.04 63 P P 00 54 58.6 -0.6
baz=312
**336A Riesel** 60.09 76 P P 00 54 58.4 -1.3
baz=313
**T43A Greenville** 60.20 67 P P 00 54 59.5 -0.9
baz=313
**Q45A Warren Harvey,** 60.23 64 P P 00 54 59.7 -0.8
baz=312
**P46A Rosedale** 60.28 63 P P 00 55 00.6 -0.3
baz=312
**237A Washetta, Mont** 60.31 75 P P 00 55 00.4 -0.8
baz=313
**W41B Gary Mavity, V** 60.33 70 P P 00 55 00.6 -0.7
baz=313
**O47A Sheridan** 60.45 62 P P 00 55 01.3 -0.8
baz=313
**833A Chaparral WMA,** 60.60 80 P P 00 55 03.0 -0.2
baz=314
**CD2 Chengdu** 60.80 284 *e*P P 00 55 03.6 -1.1
CD2 sP pP 00 55 14.3 -0.9
CD2 pmax pmax
comp=Z,10.0nm,0.9s
**P47A Martinsville** 60.91 62 P P 00 55 04.2 -1.0
baz=313
**KURK Kurchatov** 60.94 315*d* *i*P P 00 55 04.9 -0.3
KURK pmax pmax
comp=Z,136nm,1.2s
**KURK Kurchatov** 60.94 315 *e*P P 00 55 05.1 -0.2
comp=Z,25nm,0.8s
**WMQ Urumqi** 61.30 305 P P 00 55 10.3 +2.4
WMQ S **S** **01 03 27.5 +1.9**
WMQ pmax pmax
comp=Z,13nm,0.9s
WMQ pmax pmax
comp=Z,550nm,5.9s
WMQ LR LR
comp=Z,220nm,18.5s
WMQ LR LR
comp=Z,110nm,21.3s
WMQ LR LR
comp=Z,190nm,13.9s
**MKAR Makanchi Array** 61.98 310 P P 00 55 11.6 -0.8
comp=Z,4.0nm,0.6s,baz=48,slow=5.7,SNR=36
MKAR LR LR 01 22 33.9
comp=Z,49nm,19.5s,baz=324,slow=36
**GYA Guiyang** 62.08 279 *e*P P 00 55 11.5 -1.9
GYA pmax pmax
comp=Z,10.0nm,1.0s
**T47A Sharon Grove** 62.13 65 P P 00 55 12.2 -1.2
baz=314
**MSF Maaselka** 62.51 349 P P 00 55 17.0 +1.4
MSF pmax pmax
comp=Z,33nm,1.5s
**BVA0 Borovoye Array** 62.76 321 *i* P P 00 55 17.4 0.0
BVA0 pmax pmax
comp=Z,22nm,0.7s
**BVAR Borovoye Array** 62.76 321 P P 00 55 17.8 +0.4
comp=Z,26nm,0.7s,baz=50,slow=7.2,SNR=133
**BRVK Borovoye** 62.78 321 *e*P P 00 55 17.9 +0.4
BRVK pmax pmax
comp=Z,37nm,1.1s
**BRVK Borovoye** 62.78 321 *e*P P 00 55 17.9 +0.4
comp=Z,37nm,1.1s
**TMCR Tamitsa** 62.78 344 *e*P P 00 55 17.2 -0.1
TMCR pmax pmax
comp=Z,15nm,0.8s
**HNR Honiara** 63.00 207 LR LR 01 16 05.5
comp=Z,48nm,20.3s,baz=340,slow=30
**V48A Smith Brothers** 63.16 66 P P 00 55 19.7 -0.7
baz=314
**Y46A Houston** 63.24 69 P P 00 55 20.3 -0.6
baz=314
**N54A Moraine State** 63.37 57 P P 00 55 21.5 -0.1
baz=315
**SVE Sverdlovsk** 63.37 329 ⇓ *i*P P 00 55 22.9 +1.5
SVE pmax pmax
comp=Z,27nm,0.9s
**OUL Oulu** 63.68 350 P P 00 55 23.9 +0.6
OUL pmax pmax
comp=Z,28nm,0.9s
**Z47A Carrollton** 64.19 69 P P 00 55 26.5 -0.7
baz=315
**ARU Arti** 64.37 330*d* *i*P P 00 55 28.1 +0.1
ARU *PP **sP** 00 55 38.9 -3.8
ARU 00 56 01.5
ARU 00 57 47.2
ARU S **S** **01 04 05.4 +1.9**
ARU SS **SS** **01 08 09.3 -3.4**
ARU pmax pmax
comp=Z,46nm,1.2s
**ARU Arti** 64.37 330 *e*P P 00 55 28.3 +0.3
comp=Z,28nm,0.8s
**SSPA Standing Stone** 64.73 56 *e*P P 00 55 31.0 +0.5
comp=Z,16nm,0.7s
**ACCN Adirondack Com** 64.95 52 *e*P P 00 55 32.8 +0.8
comp=Z,72nm,1.9s
**JOF Joensuu** 65.05 347 P P 00 55 33.1 +0.8
JOF pmax pmax
comp=Z,41nm,1.0s
**347A Saraland** 65.17 70 P P 00 55 33.2 -0.3
baz=315
**KMI Kunming** 65.50 280 P P 00 55 35.6 -0.5
KMI pmax pmax
comp=Z,12nm,0.8s
**KLMR Klimovskoe** 65.53 342 *e*P P 00 55 32.3 -3.1
KLMR pmax pmax
comp=Z,43nm,1.2s
**PDGK Podgornoye** 65.85 309 P P 00 55 38.3 +0.3
PDGK pmax pmax
comp=Z,10.0nm,0.8s
**448A Bay Minette** 65.92 70 P P 00 55 38.1 -0.2
baz=316
**SUF Sumiainen** 65.94 349 P P 00 55 39.3 +1.2
SUF pmax pmax
comp=Z,45nm,1.2s
**VAF Ylistaro** 66.02 351 P P 00 55 39.8 +1.3
VAF pmax pmax
comp=Z,51nm,1.3s
**IP03 Louisa** 66.53 58 *e*P P 00 55 43.8 +1.5
comp=Z,12nm,1.0s
**PAL Palisades** 66.55 54 *e*P P 00 55 43.1 +0.8
PAL pmax pmax
comp=Z,39nm,1.4s
**PAL Palisades** 66.55 54 *e*P P 00 55 43.1 +0.8
comp=Z,39nm,1.4s
**IP07 Quail** 66.60 59 *e*P P 00 55 43.8 +1.1
comp=Z,35nm,1.3s
**IP06 Yanceyville** 66.61 58 *e*P P 00 55 43.9 +1.1
comp=Z,13nm,0.9s
**KMSC Kings Mountain** 66.75 63 P P 00 55 43.4 -0.3
baz=316
**FIA1 FINESS Array S** 67.19 349 *e*P P 00 55 46.5 +0.6
**FINES FINESS Array B** 67.19 349 P P 00 55 46.1 +0.1
comp=Z,20nm,0.9s,baz=26,slow=6.5,SNR=24
**FINES FINESS Array B** 67.19 349 *i* P P 00 55 46.0 0.0
FINES pmax pmax
comp=Z,21nm,0.9s
**PMG Port Moresby** 67.45 220 LR LR 01 21 40.5
comp=Z,33nm,18.7s,baz=60,slow=33
**TKM2 Tokmak 2** 68.06 311 P P 00 55 52.3 +0.2
SNR=10
**USP Ospenovka** 68.32 312 P P 00 55 54.2 +0.6
SNR=17
**CHMS Chumysh** 68.41 312 P P 00 55 54.2 +0.1
SNR=5.6
**KBK Karagaybulak** 68.57 311 P P 00 55 55.8 +0.4
SNR=6.2
**FRU Bishkek** 68.60 312 *e*P P 00 55 54.0 -1.3
FRU pmax pmax
comp=Z,20nm,1.7s
**NC204 NORSAR Array S** 68.64 356 *e*P P 00 55 55.8 +0.5
**NC303 NORSAR Array S** 68.66 356 *e*P P 00 55 56.6 +1.3
**NC405 NORSAR Array S** 68.76 356 *e*P P 00 55 57.0 +1.0
**AAK Ala-Archa** 68.80 312 *d* *i*P P 00 55 57.1 +0.4
AAK pmax pmax
comp=Z,12nm,0.8s
**AAK Ala-Archa** 68.80 312 P P 00 55 57.2 +0.4
SNR=8.1
**AAK Ala-Archa** 68.80 312 *e*P P 00 55 57.0 +0.4
comp=Z,10nm,0.8s
**NB2 NORSAR Subarra** 68.86 356 P P 00 55 57.4 +0.8
comp=Z,25nm,0.9s,baz=6.0,slow=6.5
**NB2 NORSAR Subarra** 68.86 356 P P 00 55 57.3 +0.7
NB2 pmax pmax
comp=Z,21nm,0.9s
**NB2 NORSAR Subarra** 68.86 356 P P 00 55 57.4 +0.8
baz=6.0,slow=6.5
**NOA NORSAR Array B** 68.86 356 P P 00 55 57.6 +1.0
comp=Z,18nm,0.9s,baz=5.3,slow=6.4,SNR=25
**EKS2 Erkin-Say** 69.13 312 P P 00 55 59.4 +0.7
SNR=12
**LSA Lhasa** 69.35 292 *e*P P 00 56 01.6 +0.9
LSA pmax pmax
comp=Z,9.0nm,0.9s
**LSA Lhasa** 69.35 292 *e*P P 00 56 01.6 +0.9
comp=Z,9.3nm,0.9s
**AKTO Aktyubinsk** 69.50 326 P P 00 56 01.4 +0.7
comp=Z,23nm,0.7s,baz=45,slow=7.6
**AKTO Aktyubinsk** 69.50 326 *i* P P 00 56 01.1 +0.4
AKTO pmax pmax
comp=Z,34nm,0.8s
**AML Almayashu** 69.57 312 P P 00 56 02.1 +0.3
SNR=9.8
**AB31 Akbulak array** 69.78 325 *i* P P 00 56 02.4 0.0
AB31 pmax pmax
comp=Z,14nm,0.9s
**VSU Vasula** 69.98 347 *ce*P P 00 56 02.5 -1.0
VSU pmax pmax
comp=Z,158nm,1.2s
**KK31 Karatay Array** 70.31 314 *i* P P 00 56 05.6 -0.2
KK31 pmax pmax
comp=Z,9.0nm,0.5s
**KSH Kashi** 70.45 309 P P 00 56 10.3 +3.4
KSH pP sP 00 56 20.3 -1.3
KSH PcP **PcP** **00 56 31.3 +3.2**
KSH PP **PP** **00 58 48.3 +5.7**
KSH S **S** **01 05 20.3 +3.0**
KSH SKS **SKSac** **01 06 05.0 -1.0**
KSH ScS **SKKSac** **01 06 07.3 +1.3**
KSH SS **SS** **01 09 54.4 +6.7**
KSH pmax pmax
comp=Z,11nm,1.1s
KSH pmax pmax
comp=Z,200nm,4.2s
KSH LR LR
comp=Z,120nm,5.4s
KSH LR LR
comp=Z,160nm,5.6s
KSH LR LR
comp=Z,280nm,5.5s
**MOS Moscow** 70.64 340 *e*P P 00 56 08.0 +0.5
MOS *e* 00 56 20.0
**OBN Obninsk** 71.44 341 P P 00 56 12.9 +0.5
comp=Z,36nm,0.8s,baz=24,slow=16
**OBN Obninsk** 71.44 341 *de*P P 00 56 12.5 +0.1
OBN *i* 00 56 23.9
OBN *i* 00 56 31.9
OBN *e*PPP PPP 01 00 30.4
OBN *e*S **S** **01 05 27.6 -0.4**
OBN pmax pmax
comp=Z,76nm,1.2s
OBN MLR MLR
comp=Z,75nm,13.0s
**OBN Obninsk** 71.44 341 *e*P P 00 56 12.5 +0.1
comp=Z,44nm,0.8s
**PPT Papeete** 71.54 153 LR LR 01 20 58.8
comp=Z,34nm,21.6s,baz=5.0,slow=30
**CMAR Chiang Mai Arr** 72.76 278 P P 00 56 20.1 -0.8
comp=Z,3.7nm,0.6s,baz=25,slow=6.8,SNR=15
**CMAR Chiang Mai Arr** 72.76 278 *i* P P 00 56 19.2 -1.7
CMAR pmax pmax
comp=Z,4.0nm,0.6s
**CM01 Chiang Mai Arr** 72.78 278 *e*P P 00 56 20.1 -0.9
**TAPN Taplejung** 73.12 292 *e*P P 00 56 23.4 +0.1
comp=Z,140nm,1.2s
**LPSR Galich'ya Gora** 73.25 338 *e*P P 00 56 20.8 -2.5
LPSR pmax pmax
comp=Z,9.0nm,0.9s
**ODAN Odare** 73.67 292 *e*P P 00 56 26.4 -0.1
comp=Z,23nm,0.8s
**GUN Gumba** 73.78 294 *e*P P 00 56 27.4 +0.2
comp=Z,68nm,0.6s
**JIRN Jiri** 73.78 294 *e*P P 00 56 27.6 +0.3
comp=Z,120nm,1.1s
**VRH Novokhopyorsk** 73.85 336 *e*P P 00 56 26.3 -0.5
VRH pmax pmax
comp=Z,10.0nm,0.6s
**RAMN Ramite** 74.07 293 *e*P P 00 56 28.8 0.0
comp=Z,110nm,0.9s
**KKN Kakani** 74.22 294 *e*P P 00 56 29.8 +0.1
comp=Z,28nm,0.6s
**PKI Pulchoki** 74.31 294 *e*P P 00 56 30.2 -0.1
comp=Z,23nm,0.7s
**PKIN Phulchoki** 74.31 294 *e*P P 00 56 30.0 -0.3
comp=Z,19nm,0.8s
**GKN Gorkha** 74.44 295 *e*P P 00 56 30.6 -0.2
**DMN Daman** 74.46 294 *e*P P 00 56 31.2 +0.1
comp=Z,29nm,0.9s
**VSR Storozhevoye** 74.47 338 *e*P P 00 56 30.3 -0.1
VSR pmax pmax
comp=Z,10.0nm,0.7s
**DANN Dangsing** 74.68 296 *e*P P 00 56 32.8 +0.4
comp=Z,3.5nm,0.9s
**KOLN Koldanda** 75.21 296 *e*P P 00 56 35.2 -0.2
comp=Z,29nm,0.7s
**PYUN Piuthan** 75.31 296 *e*P P 00 56 35.9 -0.1
comp=Z,59nm,0.9s
**AKASG Malin Array Be** 77.06 344 P P 00 56 45.4 +0.1
comp=Z,7.3nm,0.6s,baz=18,slow=6.0,SNR=23
AKASG LR LR 01 34 56.3
comp=Z,53nm,18.3s,baz=300,slow=39
**AKBB Malin Array Si** 77.06 344 *e*P P 00 56 45.7 +0.5
AKBB pmax pmax
comp=Z,14nm,0.8s
**AKBB Malin Array Si** 77.06 344 *e*P P 00 56 45.7 +0.5
comp=Z,14nm,0.8s
**AK11 Malin Array Si** 77.10 344 *e*P P 00 56 45.5 0.0
**KBL Kabul** 77.78 310 *e*P P 00 56 49.2 -0.7
KBL pmax pmax
comp=Z,7.0nm,0.8s
**KBL Kabul** 77.78 310 *e*P P 00 56 49.2 -0.7
comp=Z,6.9nm,0.8s
**CLL Collm** 78.47 354 *e*P P 00 56 53.0 -0.1
CLL *e* 00 57 04.0
CLL pmax pmax
comp=Z,9.0nm,0.9s
**CLL Collm** 78.47 354 *e*P P 00 56 53.0 -0.1
comp=Z,9.0nm,0.9s
CLL *es*P **PcP** **00 57 04.0 +1.8**
**BRG Berggiesshubel** 78.84 353 *e*P P 00 56 55.4 +0.3
BRG pmax pmax
comp=Z,11nm,1.0s
**UPC Upice** 79.03 352 *e*P P 00 56 57.1 +0.9
**UPC Upice** 79.03 352 *e*P P 00 56 57.1 +0.9
**GOF Gofitskoye** 79.09 333 ⇑ *e*P P 00 56 57.1 +0.5
GOF pmax pmax
comp=Z,49nm,0.9s
**PVCC Panska Ves** 79.13 353 *e*P P 00 56 57.4 +0.7
**PVCC Panska Ves** 79.13 353 *e*P P 00 56 57.4 +0.7
**KWP Kalwaria Pacla** 79.14 348 *e*P P 00 56 58.5 +1.7
**KWP Kalwaria Pacla** 79.14 348 *e*P P 00 56 58.5 +1.7
**DPC Dobruska-Polom** 79.16 352 *e*P P 00 56 57.9 +0.9
DPC *ex* x 00 57 09.2
**DPC Dobruska-Polom** 79.16 352 *e*P P 00 56 57.9 +0.9
DPC *e* 00 57 09.2
**KRLC Kraliky** 79.39 352 *e*P P 00 56 59.0 +0.8
**KRLC Kraliky** 79.39 352 *e*P P 00 56 59.0 +0.8
**MEM Membach** 79.46 359 P P 00 57 00.2 +1.7
**OKC Ostrava-Krasne** 79.49 351 *e*P P 00 56 59.6 +0.9
**OKC Ostrava-Krasne** 79.49 351 *e*P P 00 56 59.6 +0.9
**STHS Stebnicka Huta** 79.54 348 *e*P P 00 57 00.7 +1.7
STHS *e* 00 57 11.7
STHS pmax pmax
comp=Z,7.0nm,0.8s
**STHS Stebnicka Huta** 79.54 348 *e*P P 00 57 00.7 +1.7
STHS *e* 00 57 11.7
**NKC Novy Kostel** 79.58 354 *e*P P 00 57 00.4 +1.2
**NKC Novy Kostel** 79.58 354 *e*P P 00 57 00.4 +1.2
**MAK Makhachkala** 79.58 329 *e*P P 00 56 58.2 -1.1
MAK *e* 01 00 00.3
MAK *e*S **S** **01 06 56.8 -1.6**
MAK pmax pmax
comp=Z,114nm,1.0s
**PRU Pruhonice** 79.67 353 *e*P P 00 57 00.4 +0.7
**PRU Pruhonice** 79.67 353 *e*P P 00 57 00.4 +0.7
**SORM Soroca** 79.69 344 ⇑ *i*P P 00 57 00.4 +0.6
**GOPC GO Pecny, Ondr** 79.72 353 *e*P P 00 57 00.9 +0.9
**GOPC GO Pecny, Ondr** 79.72 353 *e*P P 00 57 00.9 +0.9
**GEYT Alibeck** 79.98 319 P P 00 57 01.7 +0.1
comp=Z,7.6nm,1.1s,baz=0.0,slow=3.4,SNR=17
GEYT LR LR 01 35 06.0
comp=Z,68nm,19.1s,baz=350,slow=38
**CRVS Cervenica-Dubn** 80.02 348 *e*P P 00 57 02.8 +1.2
CRVS *e* 00 57 13.9
**CRVS Cervenica-Dubn** 80.02 348 *e*P P 00 57 02.8 +1.2
CRVS *e* 00 57 13.9
**LANS Liptovska Anna** 80.02 350 *e*P P 00 57 03.5 +1.8
**LANS Liptovska Anna** 80.02 350 *e*P P 00 57 03.5 +1.8
**VRAC Vranov** 80.17 352 ⇑ *i*P P 00 57 03.7 +1.3
**KVAR Kislovodsk Arr** 80.19 333 P P 00 57 03.3 +0.6
comp=Z,9.0nm,0.9s,baz=164,slow=6.8,SNR=8.2
**KIV Kislovodsk** 80.20 333 *e*P P 00 57 03.7 +0.9
KIV pmax pmax
comp=Z,16nm,1.0s
**KIV Kislovodsk** 80.20 333 *e*P P 00 57 03.5 +0.7
comp=Z,14nm,0.9s
**KBZ Khabaz** 80.34 332 P P 00 57 04.1 +0.8
comp=Z,9.7nm,0.9s,baz=48,slow=1.7,SNR=22
KBZ LR LR 01 38 51.4
comp=Z,79nm,18.1s,baz=3.0,slow=40

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **NCK** | **Nalchik** | **80.34** | **332**⇑ | *i*P | | **P** | **00 57 03.9** | **+0.4** |
| NCK | | | | pmax | | pmax | | |
| | comp=Z,40nm,1.0s | | | | | | | |
| **KECS** | **Kecovo** | **80.56** | **349** | *e*P | | **P** | **00 57 06.1** | **+1.6** |
| KECS | | | | pmax | | pmax | | |
| | comp=Z,6.0nm,0.8s | | | | | | | |
| **KECS** | **Kecovo** | **80.56** | **349** | *e*P | | **P** | **00 57 06.1** | **+1.6** |
| KECS | | | | *e* | | | 00 57 17.1 | |
| **KHC** | **Kasperske Hory** | **80.60** | **353** | *e*P | | **P** | **00 57 05.4** | **+0.7** |
| KHC | | | | *ex* | | x | 00 57 16.7 | |
| **KHC** | **Kasperske Hory** | **80.60** | **353** | *e*P | | **P** | **00 57 06.0** | **+1.3** |
| KHC | | | | pmax | | pmax | | |
| | comp=Z,3.0nm,0.8s | | | | | | | |
| **KHC** | **Kasperske Hory** | **80.60** | **353** | *e*P | | **P** | **00 57 06.0** | **+1.3** |
| | comp=Z,2.5nm,0.8s | | | | | | | |
| **TRPA** | **Tarpa** | **80.63** | **347**⇑ | *e*P | | **P** | **00 57 06.3** | **+1.4** |
| **BUR08** | **Bucovina Ar. S** | **80.70** | **346** | *e*P | | **P** | **00 57 06.8** | **+1.3** |
| **BUR04** | **Bucovina Ar. S** | **80.73** | **345** | *e*P | | **P** | **00 57 06.4** | **+0.8** |
| **BURAR** | **Bucovina Array** | **80.73** | **345**⇑ | *i*P | | **P** | **00 57 06.8** | **+1.2** |
| **BURAR** | **Bucovina Array** | **80.73** | **345** | P | | **P** | **00 57 06.7** | **+1.2** |
| **VYHS** | **Vyhne** | **80.74** | **350** | *e*P | | **P** | **00 57 06.6** | **+1.1** |
| VYHS | | | | pmax | | pmax | | |
| | comp=Z,5.0nm,1.0s | | | | | | | |
| **VYHS** | **Vyhne** | **80.74** | **350** | *e*P | | **P** | **00 57 06.6** | **+1.1** |
| **NEY** | **Neytrino** | **80.83** | **332**⇑ | *e*P | | **P** | **00 57 08.2** | **+1.9** |
| NEY | | | | pmax | | pmax | | |
| | comp=Z,1.0nm,1.2s | | | | | | | |
| **GERES** | **GERESS Array B** | **80.87** | **353** | P | | **P** | **00 57 07.1** | **+0.8** |
| | comp=Z,3.5nm,0.8s,baz=28,slow=6.0,SNR=25 | | | | | | | |
| **SMOL** | **Smolenice** | **80.87** | **351** | *e*P | | **P** | **00 57 07.8** | **+1.6** |
| **SMOL** | **Smolenice** | **80.87** | **351** | *e*P | | **P** | **00 57 07.8** | **+1.6** |
| **GEA0** | **GERESS Array S** | **80.88** | **353** | *e*P | | **P** | **00 57 06.7** | **+0.4** |
| **ZEI** | **Tsey** | **80.89** | **331** | *e*P | | **P** | **00 57 06.1** | **-0.6** |
| ZEI | | | | pmax | | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | | |
| **ZKTA** | **Zakatala** | **81.06** | **329** | P | | **P** | **00 57 05.6** | **-1.7** |
| **PSZ** | **Piszkesteto** | **81.19** | **349**⇓ | *i*P | | **P** | **00 57 09.5** | **+1.6** |
| **SEKA** | **Sheki** | **81.25** | **328** | P | | **P** | **00 57 06.3** | **-2.1** |
| **LEOM** | **Leova** | **81.31** | **343**⇓ | *i*P | | **P** | **00 57 09.4** | **+0.9** |
| **ARCR** | **ARCALIA** | **81.38** | **346**⇑ | *i*P | | **P** | **00 57 10.9** | **+2.0** |
| **TESR** | **Tescani** | **81.56** | **344**⇓ | *i*P | | **P** | **00 57 10.8** | **+0.9** |
| **CONA** | **Conrad Observa** | **81.60** | **352** | *i* P | | **P** | **00 57 11.5** | **+1.4** |
| | comp=Z,7.7nm,0.9s | | | | | | | |
| **BFO** | **Black Forest** | **81.68** | **357** | *i* P | | **P** | **00 57 11.9** | **+1.4** |
| **MNGR** | **Mingechevir, A** | **81.68** | **328** | P | | **P** | **00 57 08.8** | **-1.8** |
| **DRGR** | | **81.92** | **347**⇑ | *i*P | | **P** | **00 57 12.8** | **+1.0** |
| **DRGR** | | **81.92** | **347** | P | | **P** | **00 57 12.8** | **+1.0** |
| **GANJ** | **Ganja** | **82.05** | **329** | P | | **P** | **00 57 10.7** | **-1.9** |
| **VRI** | **Vrincioaia** | **82.17** | **344**⇑ | *i*P | | **P** | **00 57 14.3** | **+1.2** |
| **VRI** | **Vrincioaia** | **82.17** | **344** | P | | **P** | **00 57 14.3** | **+1.2** |
| **PLOR** | **Plostina** | **82.20** | **344**⇑ | *i*P | | **P** | **00 57 14.6** | **+1.3** |
| **PLOR** | **Plostina** | **82.20** | **344** | P | | **P** | **00 57 14.6** | **+1.3** |
| **PETR** | **Petresti** | **82.22** | **344**⇑ | *i*P | | **P** | **00 57 15.3** | **+2.0** |
| **AKH** | **Akhalkalaki** | **82.27** | **331**⇑ | *i*P | | **P** | **00 57 15.2** | **+1.3** |
| **DOPR** | **Dopca** | **82.30** | **345**⇑ | *i*P | | **P** | **00 57 15.8** | **+2.0** |
| **WB2** | **Warramunga Arr** | **82.39** | **226** | *e*P | | **P** | **00 57 12.7** | **-1.8** |
| **WRA** | **Warramunga Arr** | **82.40** | **226** | P | | **P** | **00 57 12.4** | **-2.1** |
| | comp=Z,3.9nm,0.7s,baz=36,slow=6.2,SNR=15 | | | | | | | |
| **TLCR** | | **82.44** | **342**⇑ | *i*P | | **P** | **00 57 15.5** | **+1.0** |
| **MOTA** | **Moosalm** | **82.53** | **355** | *i* PcP | | **P** | **00 57 16.8** | **+1.6** |
| | comp=Z,7.5nm,0.9s,SNR=4.4 | | | | | | | |
| **CFR** | **Carcaliu** | **82.58** | **343**⇑ | *i*P | | **P** | **00 57 16.1** | **+0.9** |
| **KBA** | **Koelnbreinsper** | **82.66** | **353** | *i* PcP | | **P** | **00 57 17.3** | **+1.5** |
| | comp=Z,20nm,0.7s,SNR=6.0 | | | | | | | |
| **MLR** | **Muntele Rosu** | **82.67** | **344** | P | | **P** | **00 57 17.0** | **+1.1** |
| | comp=Z,3.0nm,0.8s,baz=218,slow=3.2 | | | | | | | |
| **MLR** | **Muntele Rosu** | **82.67** | **344**⇓ | *i*P | | **P** | **00 57 18.3** | **+2.4** |
| **MLR** | **Muntele Rosu** | **82.67** | **344** | P | | **P** | **00 57 17.0** | **+1.1** |
| MLR | | | | pmax | | pmax | | |
| | comp=Z,3.0nm,0.8s | | | | | | | |
| **MLR** | **Muntele Rosu** | **82.67** | **344** | P | | **P** | **00 57 17.0** | **+1.1** |
| | comp=Z,12nm,0.7s | | | | | | | |
| **DEV** | **Deva** | **82.78** | **347**⇑ | *i*P | | **P** | **00 57 17.8** | **+1.6** |
| **VOIR** | | **82.88** | **345**⇑ | *i*P | | **P** | **00 57 18.5** | **+1.6** |
| **VOIR** | | **82.88** | **345** | P | | **P** | **00 57 18.5** | **+1.6** |
| **FETA** | **Feichten** | **82.88** | **355** | *i* PcP | | **P** | **00 57 18.5** | **+1.5** |
| | comp=Z,5.7nm,0.8s,SNR=8.8 | | | | | | | |
| **SOKA** | **Soboth** | **82.92** | **352** | *i* P | | **P** | **00 57 18.2** | **+1.2** |
| | comp=Z,12nm,0.9s | | | | | | | |
| **LKRN** | **Lenkeran, Azer** | **82.93** | **326** | P | | **P** | **00 57 15.3** | **-1.8** |
| **ARTV** | **Artvin** | **82.95** | **332** | *e*P | | **P** | **00 57 18.4** | **+0.9** |
| | comp=Z,9.5nm,1.0s | | | | | | | |
| **ARR** | **Arges** | **83.01** | **345**⇑ | *i*P | | **P** | **00 57 19.1** | **+1.5** |
| **GNI** | **Garni** | **83.02** | **330** | P | | **P** | **00 57 18.2** | **+0.4** |
| | comp=Z,5.7nm,0.9s,baz=170,slow=3.1,SNR=4.5 | | | | | | | |
| **GNI** | **Garni** | **83.02** | **330** | *e*P | | **P** | **00 57 19.0** | **+1.2** |
| | comp=Z,11nm,0.9s | | | | | | | |
| **ABTA** | **Abfaltersbach** | **83.04** | **354** | *i* PcP | | **P** | **00 57 19.0** | **+1.2** |
| | comp=Z,8.8nm,0.8s | | | | | | | |
| **LOT** | **Lotru** | **83.07** | **346**⇑ | *i*P | | **P** | **00 57 18.3** | **+0.4** |
| **MTUR** | **Matau** | **83.08** | **345**⇑ | *i*P | | **P** | **00 57 19.6** | **+1.7** |
| **OBKA** | **Obir** | **83.13** | **353** | *i* PcP | | **P** | **00 57 19.8** | **+1.7** |
| | comp=Z,9.3nm,0.7s | | | | | | | |
| **TIRR** | **Tirgusor** | **83.22** | **342**⇑ | *i*P | | **P** | **00 57 19.4** | **+0.9** |
| **TIRR** | **Tirgusor** | **83.22** | **342** | *e*P | | **P** | **00 57 19.0** | **+0.5** |
| TIRR | | | | pmax | | pmax | | |
| | comp=Z,9.0nm,0.9s | | | | | | | |
| **TIRR** | **Tirgusor** | **83.22** | **342** | *e*P | | **P** | **00 57 19.0** | **+0.5** |
| | comp=Z,8.9nm,0.9s | | | | | | | |
| **BZS** | **Buzias** | **83.22** | **347**⇑ | *i*P | | **P** | **00 57 19.4** | **+0.9** |
| **BZS** | **Buzias** | **83.22** | **347** | P | | **P** | **00 57 19.3** | **+0.8** |
| **NAX** | **Nakhchivan** | **83.65** | **329** | P | | **P** | **00 57 19.0** | **-2.0** |
| **HERR** | **Herculane** | **83.83** | **347**⇓ | *i*P | | **P** | **00 57 22.2** | **+0.5** |
| **MDVR** | **Moldovita** | **84.03** | **347**⇑ | *i*P | | **P** | **00 57 23.6** | **+0.8** |
| **KOPT** | **Kop Dagi** | **84.45** | **333** | *e*P | | **P** | **00 57 27.4** | **+2.1** |
| | comp=Z,12nm,0.9s | | | | | | | |
| **BNI** | **Bardonecchia** | **85.00** | **358** | P | | **P** | **00 57 29.5** | **+1.7** |
| BNI | | | | pmax | | pmax | | |
| | comp=Z,29nm,1.1s | | | | | | | |
| **BNI** | **Bardonecchia** | **85.00** | **358** | *e*P | | **P** | **00 57 30.1** | **+2.3** |
| | comp=Z,28nm,1.1s | | | | | | | |
| **TOKA** | **Tokat** | **85.30** | **336** | *e*P | | **P** | **00 57 30.5** | **+1.2** |
| | comp=Z,7.7nm,0.8s | | | | | | | |
| **ILGA** | **Ilgaz** | **85.32** | **338** | *e*P | | **P** | **00 57 31.2** | **+1.7** |
| | comp=Z,18nm,1.0s | | | | | | | |
| **PLE** | **Pljevlja** | **85.76** | **349** | P | | **P** | **00 57 33.5** | **+1.9** |
| **AS01** | **Alice Springs** | **85.80** | **225** | *e*P | | **P** | **00 57 30.2** | **-1.5** |
| **AS31** | **Alice Springs** | **85.82** | **225** | *e*P | | **P** | **00 57 31.2** | **-0.7** |
| | comp=Z,2.2nm,1.1s | | | | | | | |
| **ASAR** | **Alice Springs** | **85.82** | **225** | P | | **P** | **00 57 30.8** | **-1.1** |
| | comp=Z,3.6nm,0.9s,baz=32,slow=5.0,SNR=22 | | | | | | | |
| **VTS** | **Vitosha** | **85.94** | **346** | *e*P | | **P** | **00 57 32.8** | **+0.2** |
| VTS | | | | pmax | | pmax | | |
| | comp=Z,4.0nm,0.9s | | | | | | | |
| **VTS** | **Vitosha** | **85.94** | **346** | *e*P | | **P** | **00 57 32.8** | **+0.2** |
| | comp=Z,3.6nm,0.9s | | | | | | | |
| **HYB** | **Hyderabad** | **86.13** | **293** | *i* P | | **P** | **00 57 33.0** | **-0.7** |
| **BR131** | **Keskin Array S** | **86.59** | **337** | *e*P | | **P** | **00 57 36.0** | **+0.2** |
| **BRTR** | **Keskin Array B** | **86.59** | **337** | P | | **P** | **00 57 35.9** | **+0.2** |
| | comp=Z,3.5nm,0.6s,baz=49,slow=2.5,SNR=38 | | | | | | | |
| **BR231** | **Keskin MP Arra** | **86.69** | **338** | *e*P | | **P** | **00 57 36.3** | **+0.1** |
| **SRS** | **Serrai** | **87.32** | **345** | P | | **P** | **00 57 39.4** | **+0.3** |
| **FNA** | **Florina** | **87.99** | **347** | P | | **P** | **00 57 42.2** | **-0.2** |
| **STKA** | **Stephens Creek** | **89.93** | **215** | P | | **P** | **00 57 50.3** | **-0.9** |
| | comp=Z,5.1nm,0.7s,baz=34,slow=2.0,SNR=7.9 | | | | | | | |
| **ES19** | **SONSECA Array** | **90.13** | **6** | *e*P | | **P** | **00 57 52.4** | **-0.1** |
| **ESDC** | **Sonseca Array** | **90.15** | **6** | P | | **P** | **00 57 52.6** | **0.0** |
| | comp=Z,3.9nm,0.8s,baz=352,slow=4.4,SNR=15 | | | | | | | |
| **MMAI** | **Mount Meron Ar** | **92.45** | **334** | P | | **P** | **00 58 03.7** | **+0.3** |
| | comp=Z,0.2nm,0.3s,baz=277,slow=25,SNR=3.3 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **116.81** | **2** | PKP | | **PKPdf** | **01 03 35.9** | **-1.1** |
| | comp=Z,0.7nm,0.5s,baz=358,slow=2.7,SNR=6.7 | | | | | | | |
| TORD | | | | PKKPbc | | **PKKPbc** | **01 14 00.4** | **-1.0** |
| | comp=Z,0.6nm,0.6s,baz=176,slow=3.0,SNR=3.0 | | | | | | | |
| **CPUP** | **Villa Florida** | **128.07** | **86** | PKP | | **PKPdf** | **01 03 57.4** | **-0.8** |
| | comp=Z,1.4nm,0.7s,baz=344,slow=3.9,SNR=3.8 | | | | | | | |
| **PLCA** | **Paso Flores** | **129.08** | **110** | PKP | | **PKPdf** | **01 03 59.6** | **-0.1** |
| | comp=Z,2.9nm,1.0s,baz=199,slow=4.4,SNR=2.9 | | | | | | | |
| **MAW** | **Mawson** | **146.60** | **217** | PKPbc | | **PKPdf** | **01 04 31.2** | **+0.4** |
| | comp=Z,6.3nm,0.8s,baz=30,slow=3.7,SNR=5.4 | | | | | | | |
| **BOSA** | **Boshof** | **152.90** | **315** | PKPbc | | **PKPbc** | **01 04 48.3** | **-1.2** |
| | comp=Z,7.8nm,0.9s,baz=13,slow=2.1,SNR=12 | | | | | | | |
| **VNA3** | **Neumayer Olymp** | **158.09** | **168** | PKP | | **PKPdf** | **01 04 46.0** | **-1.7** |
| **SNAA** | **Sanae** | **158.34** | **174** | PKP | | **PKPdf** | **01 04 45.8** | **-2.2** |
| **VNA2** | **Neumayer--Watz** | **158.66** | **170** | PKP | | **PKPdf** | **01 04 43.6** | **-4.8** |
| | baz=220,slow=1.6 | | | | | | | |

*ISK **15** 00:55:01.9,38°.55N×42°.98E,h5km,MD2.6*
*ISCJB **15** 00:55:02.7±0.5,38°.55N±0°.02×42°.99E±0°.04,h7km±6km,*
*Error ellipse: s-maj=5.4km s-min=4.1km az=174.4*
*CSEM **15** 00:55:02.4±0.2,38°.55N×43°.01E,h10km,ML2.7,Error*
*ellipse: s-maj=5.2km s-min=4.2km az=143.0*

*DDA **15** 00:55:02.3,38°.55N×43°.04E,h7km,Ml2.7*
**ISC 15 00:55:02.5**±1.0,**38°.54N**±0°.02×**43°.00E**±0°.02,**h10**km±8km,
**n29**,σ0**s68**/49,**Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **GEVA** | **Gevas** | **0.23** | **169** | *i* P | | **Pg** | **00 55 06.4** | **-1.0** |
| GEVA | | | | *i* S | | **Sg** | **00 55 11.1** | **+0.4** |
| **GEVA** | **Gevas** | **0.23** | **169** | P | | **Pg** | **00 55 06.4** | **-1.0** |
| GEVA | | | | S | | **Sg** | **00 55 11.1** | **+0.4** |
| **VANB** | **Van** | **0.31** | **80** | *e*PG | | **Pg** | **00 55 09.0** | **+0.2** |
| VANB | | | | *e*SG | | **Sb** | **00 55 14.1** | **-1.3** |
| **VANB** | **Van** | **0.31** | **80** | *e*Pg | | **Pg** | **00 55 09.0** | **+0.2** |
| VANB | | | | *e*Sg | | **Sb** | **00 55 14.1** | **-1.3** |
| **TVAN** | **Van** | **0.32** | **92** | *i* P | | **Pg** | **00 55 08.8** | **-0.2** |
| TVAN | | | | *i* S | | **Sb** | **00 55 16.0** | **+0.2** |
| **TVAN** | **Van** | **0.32** | **92** | P | | **Pg** | **00 55 08.8** | **-0.2** |
| TVAN | | | | S | | **Sb** | **00 55 16.0** | **+0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.34** | **321** | *i* P | | **Pg** | **00 55 09.0** | **-0.4** |
| ADCV | | | | *i* S | | **Sb** | **00 55 15.2** | **-1.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.34** | **321** | P | | **Pg** | **00 55 09.0** | **-0.4** |
| ADCV | | | | S | | **Sb** | **00 55 15.2** | **-1.3** |
| **VMUR** | **Van-Muradiye** | **0.63** | **45** | *i* P | | **Pg** | **00 55 14.8** | **0.0** |
| VMUR | | | | *i* S | | **Sn** | **00 55 26.6** | **-1.4** |
| **VMUR** | **Van-Muradiye** | **0.63** | **45** | P | | **Pg** | **00 55 14.8** | **0.0** |
| **TUTA** | **Tutak** | **0.87** | **350** | *i* P | | **Pg** | **00 55 18.7** | **-0.7** |
| TUTA | | | | *i* S | | **Sb** | **00 55 31.7** | **-0.1** |
| **TUTA** | **Tutak** | **0.87** | **350** | P | | **Pg** | **00 55 18.7** | **-0.7** |
| TUTA | | | | S | | **Sb** | **00 55 31.7** | **-0.1** |
| **CLDR** | **Caldiran** | **0.94** | **50** | *e*PG | | **Pg** | **00 55 20.2** | **-0.3** |
| CLDR | | | | *e*SG | | **Sb** | **00 55 33.7** | **+0.2** |
| **CLDR** | **Caldiran** | **0.94** | **50** | *e*Pg | | **Pg** | **00 55 20.3** | **-0.3** |
| CLDR | | | | *e*Sg | | **Sb** | **00 55 33.7** | **+0.2** |
| **SRTM** | **Siirt_Merkez** | **1.01** | **237** | *i* P | | **Pn** | **00 55 22.9** | **0.0** |
| SRTM | | | | *i* S | | **Sn** | **00 55 37.6** | **+0.4** |
| **SRTM** | **Siirt_Merkez** | **1.01** | **237** | P | | **Pn** | **00 55 22.9** | **0.0** |
| SRTM | | | | S | | **Sn** | **00 55 37.6** | **+0.4** |
| **AGRB** | **Hanur-Agry** | **1.03** | **360** | *e*PG | | **Pg** | **00 55 22.0** | **-0.5** |
| AGRB | | | | *e*SG | | **Sb** | **00 55 36.4** | **0.0** |
| **AGRB** | **Hanur-Agry** | **1.03** | **360** | *e*Pg | | **Pg** | **00 55 22.0** | **-0.5** |
| AGRB | | | | *e*Sg | | **Sb** | **00 55 36.4** | **0.0** |
| **SIRT** | **Sirnak** | **1.13** | **203** | *e*PN | | **Pg** | **00 55 23.9** | **-0.4** |
| SIRT | | | | *e*SN | | **Sn** | **00 55 40.3** | **+0.2** |
| **SIRT** | **Sirnak** | **1.13** | **203** | *e*Pn | | **Pg** | **00 55 23.9** | **-0.4** |
| SIRT | | | | *e*Sn | | **Sn** | **00 55 40.3** | **+0.2** |
| **VRTB** | **Varto-Mus** | **1.35** | **298** | *e*PN | | **Pn** | **00 55 27.7** | **0.0** |
| **VRTB** | **Varto-Mus** | **1.35** | **298** | *e*Pn | | **Pn** | **00 55 27.7** | **0.0** |
| **CUKT** | **Cukurca** | **1.38** | **159** | *e*PN | | **Pb** | **00 55 28.5** | **0.0** |
| **BTMN** | **Batman** | **1.51** | **245** | *i* P | | **Pb** | **00 55 31.0** | **+0.3** |
| BTMN | | | | *i* S | | **Sg** | **00 55 53.2** | **+2.1** |
| **BTMN** | **Batman** | **1.51** | **245** | P | | **Pb** | **00 55 31.0** | **+0.3** |
| **BNGB** | **Bing¶ll** | **1.87** | **285** | *e*PN | | **Pn** | **00 55 35.2** | **+0.5** |
| **BINT** | **Bingol** | **1.99** | **280** | *e*Pn | | **Pn** | **00 55 35.2** | **-1.2** |
| **YEDI** | **Yedisu-Bingol** | **2.11** | **296** | *e*PN | | **Pn** | **00 55 38.7** | **+0.6** |
| **YEDI** | **Yedisu-Bingol** | **2.11** | **296** | *e*Pn | | **Pn** | **00 55 38.7** | **+0.6** |

*IDC **15** 01:00:24.0±1.0,1°.24N×124°.01E,h0km,mb4.1/6,*
*mb1 4.1/7,mb1mx3.7/48,mbtmp4.0/7,ML3.8/1,Error*
*ellipse: s-maj=112.5km s-min=16.2km az=67.0*
*DJA **15** 01:01:24.1±1.4,1°S±6°×12°6E±°,h104km±35km,M3.9/6,*
*MLv3.9/6*
**ISC 15 01:00:51.1**±0.9,**0°.8N**±0°.1×**123°.7E**±0°.1,**h250**km,**n12**,
σ2**s72**/12,**mb3.6**/6,**Minahassa Peninsula, Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **KMSI** | **Cibinong** | **0.41** | **125** | P | | **S** | **01 01 56.1** | **+6.7** |
| **LUWI** | **Luwuk** | **2.04** | **205** | P | | **S** | **01 02 08.2** | **+0.4** |
| **APSI** | **Ampana** | **2.63** | **229** | P | | **S** | **01 02 22.0** | **+3.9** |
| **SANI** | **Sanana** | **3.68** | **140** | P | | **Pn** | **01 01 51.4** | **+0.1** |
| **LBMI** | **Labuha** | **4.11** | **110** | P | | **Pn** | **01 01 56.5** | **+0.2** |
| **FITZ** | **Fitzroy Crossi** | **18.89** | **174** | P | | **P** | **01 04 52.0** | **-1.5** |
| | 0.2nm,0.3s,baz=2.7,slow=10,SNR=6.5 | | | | | | | |
| **WRA** | **Warramunga Arr** | **23.14** | **154** | P | | **P** | **01 05 34.4** | **-1.3** |
| | 6.2nm,0.6s,baz=333,slow=9.9,SNR=9.8 | | | | | | | |
| **ASAR** | **Alice Springs** | **26.29** | **158** | P | | **P** | **01 06 03.5** | **-0.6** |
| | 0.5nm,0.4s,baz=343,slow=7.3,SNR=8.1 | | | | | | | |
| **STKA** | **Stephens Creek** | **36.69** | **154** | P | | **P** | **01 07 33.7** | **-0.7** |
| | 1.3nm,0.4s,baz=325,slow=13,SNR=6.4 | | | | | | | |
| **SONM** | **Songino Array** | **49.18** | **345** | P | | **P** | **01 09 13.4** | **-0.8** |
| | 0.3nm,0.5s,baz=148,slow=8.7,SNR=4.4 | | | | | | | |
| **MKAR** | **Makanchi Arra** | **58.27** | **328** | P | | **P** | **01 10 19.3** | **-0.5** |
| | 0.5nm,0.4s,baz=124,slow=8.5,SNR=11 | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **62.60** | **329** | P | | **P** | **01 10 48.0** | **-0.8** |
| | 3.6nm,0.2s,baz=136,slow=6.7,SNR=4.8 | | | | | | | |

*ISK **15** 01:10:59.6,38°.56N×42°.99E,h5km,MD3.1*
*CSEM **15** 01:11:00.8±0.2,38°.55N×43°.00E,h5km,ML3.0,Error*
*ellipse: s-maj=4.2km s-min=3.5km az=136.0*
*DDA **15** 01:11:00.9,38°.53N×42°.98E,h7km,Ml3.0*
*ISCJB **15** 01:11:01.1±0.5,38°.55N±0°.02×42°.98E±0°.04,h5km±6km,*
*Error ellipse: s-maj=5.2km s-min=3.9km az=6.2*
**ISC 15 01:11:01.1**±1.0,**38°.55N**±0°.02×**43°.00E**±0°.02,**h6**km±10km,
**n42**,σ0**s76**/62,**Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **GEVA** | **Gevas** | **0.24** | **168** | *i* P | | **Pg** | **01 11 04.9** | **-0.9** |
| GEVA | | | | *i* S | | **Sg** | **01 11 10.0** | **+1.0** |
| **GEVA** | **Gevas** | **0.24** | **168** | P | | **Pg** | **01 11 04.9** | **-0.9** |
| GEVA | | | | S | | **Sg** | **01 11 10.0** | **+1.0** |
| **VANB** | **Van** | **0.31** | **81** | *e*PG | | **Pg** | **01 11 07.1** | **-0.1** |
| VANB | | | | *e*SG | | **Sb** | **01 11 13.5** | **-1.2** |
| **VANB** | **Van** | **0.31** | **81** | *e*Pg | | **Pg** | **01 11 07.1** | **-0.1** |
| VANB | | | | *e*Sg | | **Sb** | **01 11 13.5** | **-1.2** |
| **TVAN** | **Van** | **0.32** | **93** | *i* P | | **Pg** | **01 11 07.3** | **-0.2** |
| TVAN | | | | *i* S | | **Sb** | **01 11 13.5** | **-1.5** |
| **TVAN** | **Van** | **0.32** | **93** | P | | **Pg** | **01 11 07.3** | **-0.2** |
| TVAN | | | | S | | **Sb** | **01 11 13.5** | **-1.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.34** | **321** | *i* P | | **Pg** | **01 11 07.5** | **-0.3** |
| ADCV | | | | *i* S | | **Sb** | **01 11 14.1** | **-1.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.34** | **321** | P | | **Pg** | **01 11 07.5** | **-0.3** |
| ADCV | | | | S | | **Sb** | **01 11 14.1** | **-1.4** |
| **ERCV** | **ERCIS-VAN** | **0.54** | **29** | *e*PG | | **Pg** | **01 11 10.6** | **-1.1** |
| ERCV | | | | *e*SG | | **Sg** | **01 11 19.8** | **+1.0** |
| **ERCV** | **ERCIS-VAN** | **0.54** | **29** | *e*Pg | | **Pg** | **01 11 10.6** | **-1.1** |
| ERCV | | | | *e*Sg | | **Sg** | **01 11 19.8** | **+1.0** |
| **VMUR** | **Van-Muradiye** | **0.63** | **45** | *i* P | | **Pg** | **01 11 13.1** | **-0.2** |
| VMUR | | | | *i* S | | **Sb** | **01 11 24.2** | **+0.2** |
| **VMUR** | **Van-Muradiye** | **0.63** | **45** | P | | **Pg** | **01 11 13.1** | **-0.2** |
| **TUTA** | **Tutak** | **0.87** | **351** | *i* P | | **Pg** | **01 11 17.3** | **-0.5** |
| TUTA | | | | *i* S | | **Sb** | **01 11 30.2** | **-0.6** |
| **TUTA** | **Tutak** | **0.87** | **351** | P | | **Pg** | **01 11 17.3** | **-0.5** |
| TUTA | | | | S | | **Sb** | **01 11 30.2** | **-0.6** |
| **CLDR** | **Caldiran** | **0.94** | **50** | *e*PG | | **Pg** | **01 11 18.9** | **-0.2** |
| CLDR | | | | *e*SG | | **Sb** | **01 11 32.8** | **+0.1** |
| **CLDR** | **Caldiran** | **0.94** | **50** | *e*Pg | | **Pg** | **01 11 18.9** | **-0.2** |
| CLDR | | | | *e*Sg | | **Sb** | **01 11 32.8** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **1.03** | **360** | *e*PG | | **Pg** | **01 11 20.2** | **-0.7** |
| AGRB | | | | *e*SG | | **Sb** | **01 11 35.4** | **0.0** |
| **AGRB** | **Hanur-Agry** | **1.03** | **360** | *e*Pg | | **Pg** | **01 11 20.2** | **-0.7** |
| AGRB | | | | *e*Sg | | **Sb** | **01 11 35.4** | **0.0** |
| **SIRT** | **Sirnak** | **1.13** | **203** | *e*PN | | **Pg** | **01 11 22.6** | **-0.2** |
| **SIRT** | **Sirnak** | **1.13** | **203** | *e*Pn | | **Pg** | **01 11 22.6** | **-0.2** |
| **VRTB** | **Varto-Mus** | **1.35** | **298** | *e*PN | | **Pn** | **01 11 26.4** | **-0.3** |
| **VRTB** | **Varto-Mus** | **1.35** | **298** | *e*Pn | | **Pn** | **01 11 26.4** | **-0.3** |
| **EATA** | **Eleskirt** | **1.37** | **344** | *i* P | | **Pn** | **01 11 26.5** | **-0.7** |
| EATA | | | | *i* S | | **Sn** | **01 11 47.7** | **+1.8** |
| **EATA** | **Eleskirt** | **1.37** | **344** | P | | **Pn** | **01 11 26.5** | **-0.7** |
| **CUKT** | **Cukurca** | **1.38** | **159** | *e*PN | | **Pb** | **01 11 27.2** | **-0.3** |
| **CUKT** | **Cukurca** | **1.38** | **159** | *e*Pn | | **Pb** | **01 11 27.2** | **-0.3** |
| **BTMN** | **Batman** | **1.51** | **245** | *i* P | | **Pb** | **01 11 29.1** | **-0.5** |
| BTMN | | | | *i* S | | **Sg** | **01 11 50.5** | **+1.0** |
| **BTMN** | **Batman** | **1.51** | **245** | P | | **Pb** | **01 11 29.1** | **-0.5** |
| BTMN | | | | S | | **Sg** | **01 11 50.5** | **+1.0** |
| **TASB** | **TASBURUN-IGDIR** | **1.73** | **33** | *e*PN | | **Pn** | **01 11 31.7** | **-0.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.73** | **33** | *e*Pn | | **Pn** | **01 11 31.7** | **-0.2** |
| **BNGB** | **Bing¶ll** | **1.86** | **285** | *e*PN | | **Pn** | **01 11 33.8** | **+0.1** |
| **BINT** | **Bingol** | **1.99** | **280** | *e*Pn | | **Pn** | **01 11 33.8** | **-1.7** |
| **SENK** | **Senkaya-Erzuru** | **2.08** | **346** | *e*PN | | **Pn** | **01 11 36.7** | **0.0** |
| **SENK** | **Senkaya-Erzuru** | **2.08** | **346** | *e*Pn | | **Pn** | **01 11 36.7** | **0.0** |
| **KARS** | **Kars** | **2.08** | **2** | *e*PN | | **Pn** | **01 11 37.0** | **+0.2** |
| **KARS** | **Kars** | **2.08** | **2** | *e*Pn | | **Pn** | **01 11 37.0** | **+0.2** |
| **YEDI** | **Yedisu-Bingol** | **2.11** | **296** | *e*PN | | **Pn** | **01 11 37.3** | **+0.1** |
| **YEDI** | **Yedisu-Bingol** | **2.11** | **296** | *e*Pn | | **Pn** | **01 11 37.3** | **+0.1** |
| **DIY** | **Diyarbakir** | **2.27** | **254** | *e*Pn | | **Pn** | **01 11 40.5** | **+1.1** |
| **MAZI** | **Mazidag** | **2.29** | **242** | *e*PN | | **Pn** | **01 11 40.2** | **+0.6** |
| **MAZI** | **Mazidag** | **2.29** | **242** | *e*Pn | | **Pn** | **01 11 40.2** | **+0.6** |
| **DYBB** | **Diyarbakir** | **2.33** | **256** | *e*PN | | **Pn** | **01 11 40.5** | **+0.4** |

*JMA **15** 01:12:35.9±0.2,24°.53N×121°.81E,h72km±3km,M3.5*
*ISCJB **15** 01:12:36.3±0.4,24°.57N±0°.03×121°.87E±0°.02,h72km±4km,*
*Error ellipse: s-maj=4.9km s-min=2.7km az=161.6*
*TAP **15** 01:12:36.7,24°.54N×121°.83E,h67km,ML4.1,B*
**ISC 15 01:12:36.9**±1.3,**24°.56N**±0°.04×**121°.86E**±0°.02,**h69**km±6km,
**n59**,σ0**s86**/100,**1C-14D**,**Taiwan**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **TWC** | **Suao** | **0.05** | **346**⇓ | *i*P | | **Pn** | **01 12 47.2** | **+0.2** |
| | baz=37 | | | | | | | |
| TWC | | | | *i* S | | **Sn** | **01 12 54.5** | **+0.2** |
| | baz=37 | | | | | | | |
| **ENA** | **Nanau** | **0.17** | **219**⇓ | *i*P | | **Pn** | **01 12 47.3** | **-0.1** |
| | baz=211 | | | | | | | |
| ENA | | | | S | | **Sn** | **01 12 55.1** | **+0.1** |
| | baz=211 | | | | | | | |
| **ILA** | **Ilan** | **0.23** | **333**⇓ | *i*P | | **Pn** | **01 12 48.2** | **+0.6** |
| | baz=335 | | | | | | | |
| ILA | | | | *i* S | | **Sn** | **01 12 56.6** | **+1.2** |
| | baz=335 | | | | | | | |
| **TWE** | **Neicheng** | **0.24** | **312**⇓ | *i*P | | **Pn** | **01 12 47.9** | **+0.2** |
| | baz=318 | | | | | | | |
| TWE | | | | S | | **Sn** | **01 12 56.1** | **+0.6** |
| | baz=318 | | | | | | | |
| **EHP** | **Heping Village** | **0.28** | **204** | *e*P | | **Pn** | **01 12 48.1** | **+0.2** |
| | baz=205 | | | | | | | |
| **ENTT** | **Nioudou** | **0.28** | **286**⇓ | *i*P | | **Pn** | **01 12 48.0** | **+0.1** |
| | baz=293 | | | | | | | |
| ENTT | | | | S | | **Sn** | **01 12 56.5** | **+0.5** |
| | baz=293 | | | | | | | |
| **TWB1** | **Santiao

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CHN1 | | | | *e*S | | **Sn** | **01 13 31.2** | **+2.5** |
| | baz=234 | | | | | | | |
| **HATJ** | **Hateruma jima** | **1.84** | **105** | P | | **Pn** | **01 13 07.0** | **+0.6** |
| HATJ | | | | *e*S | | **Sn** | **01 13 29.4** | **+0.6** |
| **TWG** | **Pinlang** | **1.88** | **203** | *e*P | | **Pn** | **01 13 06.2** | **-0.8** |
| | baz=192 | | | | | | | |
| **SGST** | **Jiashian** | **1.88** | **219** | *e*P | | **Pn** | **01 13 08.2** | **+1.2** |
| | baz=229 | | | | | | | |
| **JKRS** | **Kuro-shima** | **1.98** | **99** | P | | **Pn** | **01 13 08.5** | **+0.2** |
| JKRS | | | | S | | **Sn** | **01 13 32.0** | **-0.2** |
| **JIJ** | **Ishigaki jima** | **2.09** | **95** | P | | **Pn** | **01 13 09.3** | **-0.4** |
| JIJ | | | | S | | **Sn** | **01 13 33.5** | **-1.3** |
| **SSD** | **Sandimen** | **2.13** | **212** | *e*P | | **Pn** | **01 13 11.5** | **+1.1** |
| | baz=211 | | | | | | | |
| **JISG** | **Ishigakijimahi** | **2.23** | **89** | P | | **Pn** | **01 13 11.5** | **-0.1** |
| JISG | | | | S | | **Sn** | **01 13 38.4** | **+0.2** |
| **PNG** | **Penghu** | **2.33** | **245** | *e*P | | **Pn** | **01 13 11.3** | **-1.7** |
| | baz=245 | | | | | | | |
| PNG | | | | *e*S | | **Sn** | **01 13 38.9** | **-1.7** |
| | baz=245 | | | | | | | |
| **EAST** | **Anshuo** | **2.36** | **203** | *e*P | | **Pn** | **01 13 13.1** | **-0.4** |
| | baz=195 | | | | | | | |
| **SCZT** | **Fangliau** | **2.46** | **208** | *e*P | | **Pn** | **01 13 15.1** | **+0.3** |
| | baz=206 | | | | | | | |
| **JTJ** | **Tarama** | **2.59** | **88** | P | | **Pn** | **01 13 17.3** | **+0.8** |
| JTJ | | | | *e*S | | **Sn** | **01 13 47.1** | **+0.3** |
| **KNM** | **Kinmen** | **3.13** | **268** | *e*P | | **Pn** | **01 13 23.8** | **-0.1** |
| | baz=268 | | | | | | | |

**IDC 15 01:14:38.1±2.2, 6.67S×129.26E, h0km, mb3.7/1, mb1 3.9/4, mb1mx3.5/29, mbtmp3.7/4, ML3.5/3, Error ellipse: s-maj=90.5km s-min=28.6km az=76.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **11.90** | **197** | Pn | Pn | 01 17 29.8 | +0.5 |
| | 0.6nm,0.3s,baz=17,slow=11,SNR=19 | | | | | | |
| FITZ | | | | Sn | Sn | 01 19 28.1 | -15 |
| | 0.7nm,0.3s,baz=153,slow=18,SNR=6.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **14.09** | **160** | Pn | Pn | 01 18 00.4 | +1.2 |
| | 0.1nm,0.3s,baz=338,slow=12,SNR=3.5 | | | | | | |
| WRA | | | | Sn | Sn | 01 20 24.1 | -12 |
| | 0.6nm,0.3s,baz=332,slow=23,SNR=6.2 | | | | | | |
| **ASAR** | **Alice Springs** | **17.48** | **166** | P | Pn | 01 18 42.2 | -1.3 |
| | 0.4nm,0.3s,baz=338,slow=9.9,SNR=22 | | | | | | |
| ASAR | | | | S | Sn | 01 21 47.0 | -12 |
| | 0.2nm,0.3s,baz=323,slow=16,SNR=4.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.55** | **327** | P | P | 01 25 36.4 | 0.0 |
| | 2.0nm,1.2s,baz=111,slow=6.7,SNR=4.8 | | | | | | |

**IDC 15 01:18:36.7±2.0, 5.57N×126.98E, h0km, mb3.7/4, mb1 3.9/4, mb1mx3.6/31, mbtmp3.7/4, Error ellipse: s-maj=136.2km s-min=22.0km az=73.0, Mindanao**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **23.56** | **183** | P | P | 01 23 49.1 | 0.0 |
| | 1.8nm,0.7s,baz=14,slow=12,SNR=2.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **26.37** | **164** | P | P | 01 24 14.9 | 0.0 |
| | 1.6nm,0.4s,baz=345,slow=10,SNR=6.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **56.20** | **324** | P | P | 01 28 18.2 | -0.4 |
| | 0.6nm,0.7s,baz=118,slow=7.1,SNR=6.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **59.07** | **332** | P | P | 01 28 38.9 | +0.2 |
| | 0.4nm,0.5s,baz=134,slow=8.2,SNR=2.8 | | | | | | |

**IDC 15 01:39:49.7±12.0, 18.90N×145.87E, h0km, mb3.5/4, mb1 3.7/4, mb1mx3.4/25, mbtmp3.5/4, Error ellipse: s-maj=338.5km s-min=40.4km az=178.0, Mariana Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **H11S3** | **WAKE ISLAND Hy** | **19.73** | **88** | T | T | 02 05 06.7 | |
| | baz=270 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **19.74** | **88** | T | T | 02 05 06.9 | |
| | baz=270 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **19.74** | **88** | T | T | 02 04 58.3 | |
| | baz=270 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **19.86** | **84** | T | T | 02 05 26.9 | |
| | baz=261,slow=74 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **19.86** | **84** | T | T | 02 05 23.5 | |
| | baz=261,slow=74 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **19.88** | **84** | T | T | 02 05 26.7 | |
| | baz=261 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **57.95** | **322** | P | P | 01 49 43.9 | +0.1 |
| | 0.3nm,0.4s,baz=122,slow=5.2,SNR=2.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **58.44** | **314** | P | P | 01 49 47.2 | -0.2 |
| | 1.1nm,0.9s,baz=92,slow=8.4,SNR=11 | | | | | | |
| **ILAR** | **Eielson Array** | **63.39** | **26** | P | P | 01 50 20.4 | -0.3 |
| | 0.1nm,0.4s,baz=243,slow=6.4,SNR=6.6 | | | | | | |
| **YKA** | **Yellowknife Ar** | **77.73** | **28** | P | P | 01 51 48.6 | +0.3 |
| | 0.1nm,0.3s,baz=288,slow=5.1,SNR=3.1 | | | | | | |

*ISK **15** 01:40:56.8, 38.91N×43.55E, h6km, MD2.6*
*ISCJB **15** 01:40:57.9±0.5, 38.93N±0.03×43.54E±0.04, h12km±3km, Error ellipse: s-maj=5.7km s-min=4.3km az=19.8*
*CSEM **15** 01:40:57.5±0.2, 38.94N×43.54E, h10km, ML2.6, Error ellipse: s-maj=4.0km s-min=3.3km az=121.0*
*DDA **15** 01:40:57.2, 38.93N×43.55E, h18km, Ml2.6*
**ISC 15 01:40:57.6±0.8, 38.92N±0.03×43.54E±0.03, h12km±5km, n22, σ0 55/42, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.08** | **20** | *i* P | **Pg** | **01 41 00.1** | **-0.3** |
| VMUR | | | | *i* S | **Sg** | **01 41 03.2** | **+0.7** |
| **VMUR** | **Van-Muradiye** | **0.08** | **20** | P | **Pg** | **01 41 00.1** | **-0.3** |
| VMUR | | | | S | **Sg** | **01 41 03.2** | **+0.7** |
| **ERCV** | **ERCIS-VAN** | **0.19** | **303** | *e*PG | **Pg** | **01 41 01.4** | **-0.5** |
| ERCV | | | | *e*SG | **Sg** | **01 41 04.6** | **-0.2** |
| **ERCV** | **ERCIS-VAN** | **0.19** | **303** | *e*Pg | **Pg** | **01 41 01.4** | **-0.5** |
| ERCV | | | | *e*Sg | **Sg** | **01 41 04.6** | **-0.2** |
| **VANB** | **Van** | **0.34** | **200** | *e*PG | **Pb** | **01 41 05.1** | **-0.6** |
| VANB | | | | *e*SG | **Sb** | **01 41 11.7** | **+0.6** |
| **VANB** | **Van** | **0.34** | **200** | *e*Pg | **Pb** | **01 41 05.1** | **-0.6** |
| VANB | | | | *e*Sg | **Sb** | **01 41 11.7** | **+0.6** |
| **CLDR** | **Caldiran** | **0.37** | **53** | *e*PG | **Pg** | **01 41 04.5** | **-0.6** |
| CLDR | | | | *e*SG | **Sg** | **01 41 10.3** | **+0.1** |
| **CLDR** | **Caldiran** | **0.37** | **53** | *i* P | **Pg** | **01 41 04.9** | **-0.3** |
| CLDR | | | | *i* S | **Sb** | **01 41 11.3** | **-0.8** |
| **CLDR** | **Caldiran** | **0.37** | **53** | *e*Pg | **Pg** | **01 41 04.5** | **-0.6** |
| **CLDR** | **Caldiran** | **0.37** | **53** | P | **Pg** | **01 41 04.9** | **-0.3** |
| CLDR | | | | *e*Sg | **Sg** | **01 41 10.3** | **+0.1** |
| CLDR | | | | S | **Sb** | **01 41 11.3** | **-0.8** |
| **TVAN** | **Van** | **0.40** | **195** | *i* P | **Pg** | **01 41 05.1** | **-0.6** |
| TVAN | | | | *i* S | **Sb** | **01 41 13.1** | **+0.1** |
| **TVAN** | **Van** | **0.40** | **195** | P | **Pg** | **01 41 05.1** | **-0.6** |
| TVAN | | | | S | **Sb** | **01 41 13.1** | **+0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.64** | **260** | *i* P | **Pg** | **01 41 09.7** | **-0.5** |
| ADCV | | | | *i* S | **Sb** | **01 41 20.1** | **+0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.64** | **260** | P | **Pg** | **01 41 09.7** | **-0.5** |
| ADCV | | | | S | **Sb** | **01 41 20.1** | **+0.2** |
| **TUTA** | **Tutak** | **0.74** | **311** | *i* P | **Pg** | **01 41 11.1** | **-0.9** |
| TUTA | | | | *i* S | **Sb** | **01 41 23.1** | **+0.3** |
| **TUTA** | **Tutak** | **0.74** | **311** | P | **Pg** | **01 41 11.1** | **-0.9** |
| TUTA | | | | S | **Sb** | **01 41 23.1** | **+0.3** |
| **AGRB** | **Hanur-Agry** | **0.78** | **327** | *e*PG | **Pg** | **01 41 12.5** | **-0.3** |
| AGRB | | | | *e*SG | **Sb** | **01 41 24.1** | **+0.2** |
| **AGRB** | **Hanur-Agry** | **0.78** | **327** | *e*Pg | **Pg** | **01 41 12.5** | **-0.3** |
| AGRB | | | | *e*Sg | **Sb** | **01 41 24.1** | **+0.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.20** | **27** | *e*PN | **Pg** | **01 41 20.2** | **-0.4** |
| TASB | | | | *e*SN | **Sn** | **01 41 37.3** | **+0.9** |
| **TASB** | **TASBURUN-IGDIR** | **1.20** | **27** | *e*Pn | **Pg** | **01 41 20.2** | **-0.4** |
| TASB | | | | *e*Sn | **Sn** | **01 41 37.3** | **+0.9** |
| **CUKT** | **Cukurca** | **1.67** | **178** | *e*PN | **Pn** | **01 41 27.2** | **+0.4** |
| **CUKT** | **Cukurca** | **1.67** | **178** | *e*Pn | **Pn** | **01 41 27.2** | **+0.4** |

**SJA 15 01:43:34.3±0.5, 31.78S×69.47W, h106km±4km, ML2.8, MW3.7, San Juan Province**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RTLS** | **Leoncito** | **0.14** | **98** | *i* P | Pn | 01 43 50.4 | +0.9 |
| RTLS | | | | IAML | | 01 43 50.8 | |
| | comp=Z,250nm,0.1s | | | | | | |
| RTLS | | | | *i* S | Sn | 01 44 02.6 | +1.7 |
| **AUSP** | **Uspallata** | **0.45** | **172** | *i* P | Pn | 01 43 52.0 | +1.2 |
| AUSP | | | | *i* S | Sn | 01 44 04.6 | +1.4 |
| **RTCV** | **Cerro Valdivia** | **0.79** | **96** | *i* P | Pn | 01 43 54.0 | +0.8 |
| RTCV | | | | *i* S | Sn | 01 44 08.5 | +1.1 |
| **RTLL** | **Cerro Villicun** | **0.96** | **62** | *i* P | Pn | 01 43 55.4 | +0.5 |
| **AMOG** | **MOGNA** | **1.18** | **45** | *i* P | Pn | 01 43 58.2 | +0.9 |

*ISCJB **15** 01:53:01.9±0.2, 6.77N±0.02×73.02W±0.02, h165km±1km, mb4.4/70, Error ellipse: s-maj=4.1km s-min=3.4km az=24.5*
*IDC **15** 01:53:02.7±0.5, 6.75N×72.99W, h161km±4km, mb3.9/16, mb1 4.1/21, mb1mx4.0/30, mbtmp4.4/21, MS2.2/1, Ms1 2.2/1, ms1mx2.2/24, Error ellipse: s-maj=10.0km s-min=6.4km az=125.0*
*NEIC **15** 01:53:03.2±0.3, 6.70N×72.97W, h165km±3km, mb4.4/55, Error ellipse: s-maj=4.4km s-min=3.8km az=75.0*
*RSNC **15** 01:53:04.3±1.2, 6.80N×73.12W, h150km±6km, ML4.5, Mw4.6*
**ISC 15 01:53:03.0±0.5, 6.78N±0.04×73.04W±0.04, h162km±3km, n405, σ1 9/02/444, mb4.4/70, 5C-3D, Northern Colombia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BARC** | **Barichara** | **0.23** | **217** | ⇓*i* P | **Pn** | **01 53 24.6** | **-0.6** |
| BARC | | | | *e*S | **Sn** | **01 53 40.3** | **-1.8** |
| BARC | | | | *i* | | 01 53 41.0 | |
| | comp=Z,8μm,0.4s | | | | | | |
| **GIRC** | **Giron, Santand** | **0.33** | **333** | *i* P | **Pn** | **01 53 24.7** | **-0.6** |
| GIRC | | | | *e*S | **Sn** | **01 53 40.0** | **-2.4** |
| **PAMC** | **Pamplona, Colo** | **0.65** | **32** | ⇓*i* P | **Pn** | **01 53 27.4** | **+0.2** |
| PAMC | | | | *e*S | **Sn** | **01 53 44.6** | **-1.1** |
| **BRRC** | **Barranca, Sant** | **0.74** | **296** | ⇑*i* P | **Pn** | **01 53 26.5** | **-0.6** |
| BRRC | | | | *e*S | **Sn** | **01 53 43.6** | **-1.9** |
| BRRC | | | | *i* | | 01 53 46.2 | |
| | comp=Z,4μm,0.1s | | | | | | |
| **RUSC** | **La Rusia** | **0.88** | **183** | ⇑*i* P | **Pn** | **01 53 28.3** | **-0.3** |
| RUSC | | | | *e*S | **Sn** | **01 53 46.7** | **-1.7** |
| RUSC | | | | *i* | | 01 53 48.6 | |
| | comp=Z,4μm,0.4s | | | | | | |
| **RUSC** | **La Rusia** | **0.88** | **183** | *e*Pn | **Pn** | **01 53 28.4** | **-0.3** |
| RUSC | | | | *e*Sn | **Sn** | **01 53 45.6** | **-2.8** |
| **CBRI** | **Barrientos, No** | **0.96** | **15** | ⇑*i* P | **Pn** | **01 53 29.1** | **+0.3** |
| CBRI | | | | *e*S | **Sn** | **01 53 47.1** | **-1.7** |
| **GUEC** | **Guerrero, Nort** | **1.05** | **6** | *e*P | **Pn** | **01 53 28.7** | **-1.0** |
| **OCAC** | **Ocana** | **1.47** | **349** | *e*P | **Pn** | **01 53 33.0** | **-0.4** |
| OCAC | | | | *e*S | **Sn** | **01 53 55.0** | **-2.0** |
| OCAC | | | | *i* | | 01 54 02.0 | |
| | comp=Z,4μm,0.4s | | | | | | |
| **YOPC** | **Yopal, Colombi** | **1.55** | **156** | ⇑*i* P | **Pn** | **01 53 35.0** | **+0.9** |
| YOPC | | | | *e*S | **Sn** | **01 53 58.7** | **+0.6** |
| YOPC | | | | *i* | | 01 54 00.5 | |
| | comp=Z,1μm,0.3s | | | | | | |
| **CTAU** | **Tausa, Cundina** | **1.86** | **212** | ⇓*i* P | **Pn** | **01 53 38.0** | **+0.2** |
| CTAU | | | | *e*S | **Sn** | **01 54 03.8** | **-0.9** |
| CTAU | | | | *i* | | 01 54 07.8 | |
| | comp=Z,4μm,0.3s | | | | | | |
| **CTAB** | **Cerro Tablazo,** | **2.10** | **213** | *e*P | **Pn** | **01 53 41.8** | **+1.2** |
| CTAB | | | | *e*S | **Sn** | **01 54 08.1** | **-1.5** |
| CTAB | | | | *i* | | 01 54 15.0 | |
| | comp=Z,3μm,0.6s | | | | | | |
| **NORC** | **Norcasia** | **2.18** | **236** | *e*P | **Pn** | **01 53 40.1** | **-0.9** |
| NORC | | | | *e*S | **Sn** | **01 54 08.8** | **-1.7** |
| **CHIC** | **Chingaza** | **2.25** | **198** | *e*P | **Pn** | **01 53 42.1** | **-0.1** |
| CHIC | | | | *e*S | **Sn** | **01 54 11.4** | **-1.0** |
| CHIC | | | | *i* | | 01 54 17.3 | |
| | comp=Z,1μm,0.6s | | | | | | |
| **ROSC** | **El Rosal** | **2.31** | **213** | P | **Pn** | **01 53 44.2** | **+1.3** |
| | comp=Z,108nm,0.3s,baz=177,slow=21,SNR=240 | | | | | | |
| ROSC | | | | LR | LR | 01 54 07.2 | |
| | comp=Z,52nm,18.6s,baz=217,slow=28 | | | | | | |
| ROSC | | | | S | **Sn** | **01 54 13.2** | **-0.5** |
| | comp=Z,258nm,0.3s,baz=200,slow=20,SNR=23 | | | | | | |
| **ROSC** | **El Rosal** | **2.31** | **213** | *e*P | **Pn** | **01 53 44.0** | **+1.1** |
| ROSC | | | | *i* | | 01 54 21.8 | |
| | comp=Z,2μm,0.5s | | | | | | |
| **ROSC** | **El Rosal** | **2.31** | **213** | *e*Pn | **Pn** | **01 53 44.0** | **+1.1** |
| ROSC | | | | *e*Sn | **Sn** | **01 54 12.4** | **-1.3** |
| **CVER** | **Cruz Verde, Cu** | **2.47** | **205** | *e*P | **Pn** | **01 53 45.6** | **+0.8** |
| CVER | | | | *i* | | 01 54 21.9 | |
| | comp=Z,1μm,0.3s | | | | | | |
| **HELC** | **Santa Helena** | **2.54** | **257** | *e*P | **Pn** | **01 53 44.3** | **-1.3** |
| HELC | | | | *e*S | **Sn** | **01 54 16.9** | **-1.5** |
| HELC | | | | *i* | | 01 54 23.8 | |
| | comp=Z,1μm,0.4s | | | | | | |
| **HELC** | **Santa Helena** | **2.54** | **257** | *e*Pn | **Pn** | **01 53 44.6** | **-0.9** |
| HELC | | | | *e*Sn | **Sn** | **01 54 16.9** | **-1.5** |
| **VILC** | **Villavicencio,** | **2.73** | **194** | *e*P | **Pn** | **01 53 47.5** | **-0.2** |
| VILC | | | | *i* | | 01 54 29.0 | |
| | comp=Z,724nm,0.7s | | | | | | |
| **GUYC** | **Guyana, Colomb** | **2.80** | **237** | *e*P | **Pn** | **01 53 48.8** | **-0.1** |
| GUYC | | | | *e*S | **Sn** | **01 54 24.2** | **-0.2** |
| GUYC | | | | *i* | | 01 54 31.3 | |
| | comp=Z,3μm,0.3s | | | | | | |
| **DBBC** | **Dabeiba** | **3.15** | **274** | *e*P | **Pn** | **01 53 52.6** | **-0.2** |
| DBBC | | | | *i* | | 01 54 33.3 | |
| | comp=Z,416nm,0.6s | | | | | | |
| **CODC** | **Agust´›n Codaz** | **3.16** | **353** | *e*P | **Pn** | **01 53 51.7** | **-1.1** |
| CODC | | | | *i* | | 01 54 37.3 | |
| | comp=Z,2μm,0.3s | | | | | | |
| **SDV** | **Santo Domingo** | **3.17** | **49** | P | **Pn** | **01 53 53.8** | **+0.6** |
| | comp=Z,178nm,0.3s,baz=213,slow=4.2,SNR=431 | | | | | | |
| SDV | | | | S | **Sn** | **01 54 31.8** | **-0.4** |
| | comp=Z,218nm,0.3s,baz=51,slow=23,SNR=38 | | | | | | |
| **SDV** | **Santo Domingo** | **3.17** | **49** | *e*Pn | **Pn** | **01 53 53.8** | **+0.6** |
| SDV | | | | *e*Sn | **Sn** | **01 54 29.6** | **-2.6** |
| **PRAC** | **Prado** | **3.56** | **211** | *e*P | **Pn** | **01 53 57.6** | **-0.4** |
| **PRAC** | **Prado** | **3.56** | **211** | *e*Pn | **Pn** | **01 53 57.2** | **-0.8** |
| PRAC | | | | *e*Sn | **Sn** | **01 54 40.5** | **-0.3** |
| **SJAC** | **San Juan de Ar** | **3.60** | **195** | *e*P | **Pn** | **01 53 58.0** | **-0.6** |
| SJAC | | | | *i* | | 01 54 43.9 | |
| | comp=Z,1μm,0.4s | | | | | | |
| **PLMC** | **San Jos´ del** | **3.72** | **240** | *e*P | **Pn** | **01 54 00.3** | **+0.1** |
| **GUVC** | **San Jose del G** | **4.23** | **174** | *e*P | **Pn** | **01 54 06.8** | **+0.2** |
| **BCIP** | **Isla Barro Col** | **7.13** | **290** | *e*Pn | **Pn** | **01 54 42.8** | **-2.2** |
| BCIP | | | | *e*Sn | **Sn** | **01 56 06.0** | **+0.9** |
| **OTAV** | **Otavalo** | **8.45** | **220** | *e*Pn | **Pn** | **01 55 04.5** | **+1.7** |
| OTAV | | | | *e*Sn | Sn | 01 56 27.4 | -10 |
| **PCRV** | **Puerto La Cruz** | **8.97** | **67** | P | **Pn** | **01 55 08.6** | **-0.7** |
| | comp=Z,3.0nm,0.3s,baz=325,slow=3.7,SNR=16 | | | | | | |
| PCRV | | | | S | **Sn** | **01 56 49.4** | **+0.1** |
| | comp=Z,1.2nm,0.3s,baz=294,slow=20,SNR=3.9 | | | | | | |
| **MTDJ** | **Mount Denham** | **12.19** | **339** | *e*Pn | **Pn** | **01 55 54.0** | **+2.5** |
| **SDDR** | **Presa de Saban** | **12.25** | **8** | *e*Pn | **Pn** | **01 55 53.7** | **+1.5** |
| **GRGR** | **Grenville** | **12.43** | **64** | *e*Pn | **Pn** | **01 55 56.0** | **+1.4** |
| **CELP** | **Cerrillos** | **12.87** | **29** | *e*Pn | **Pn** | **01 55 58.1** | **-2.1** |
| **SJG** | **San Juan** | **13.11** | **30** | P | **Pn** | **01 56 02.1** | **-1.2** |
| | comp=Z,1.0nm,0.3s,baz=211,slow=19,SNR=3.9 | | | | | | |
| **SJG** | **San Juan** | **13.11** | **30** | *e*Pn | **Pn** | **01 56 02.3** | **-1.0** |
| SJG | | | | *e*Sn | Sn | 01 58 17.6 | -11 |
| **GTBY** | **Guantanamo Bay** | **13.22** | **351** | *e*Pn | **Pn** | **01 56 05.5** | **+0.9** |
| **SVB** | **Belmont** | **13.28** | **60** | *e*Pn | **Pn** | **01 56 07.3** | **+1.9** |
| **CBYP** | **Canovanas** | **13.40** | **31** | *e*Pn | **Pn** | **01 56 06.8** | **-0.2** |
| **STVI** | **Saint Thomas** | **13.94** | **34** | *e*Pn | **Pn** | **01 56 13.2** | **-0.5** |
| **PCM** | **Pelee Case Pet** | **14.09** | **55** | *e*P | **P** | **01 56 17.6** | **-0.8** |
| **PCM** | **Pelee Case Pet** | **14.09** | **55** | *e*P | **P** | **01 56 20.9** | **+2.4** |
| **FDF** | **Fort de France** | **14.10** | **55** | *e*Pn | **Pn** | **01 56 14.8** | **-1.0** |
| **FDF** | **Fort de France** | **14.10** | **55** | *e*P | **P** | **01 56 18.1** | **-0.4** |
| **PTGA** | **Pitinga** | **15.03** | **119** | P | **Pn** | **01 56 26.7** | **-0.7** |
| | comp=Z,0.8nm,0.3s,baz=304,slow=12,SNR=7.6 | | | | | | |
| **PTGA** | **Pitinga** | **15.03** | **119** | *e*Pn | **Pn** | **01 56 27.4** | **+0.1** |
| **SAML** | **Samuel** | **18.46** | **148** | *e*P | **P** | **01 57 06.6** | **+0.1** |
| | comp=Z,18nm,1.3s | | | | | | |
| **LPAZ** | **La Paz** | **23.43** | **168** | P | **P** | **01 57 58.9** | **+0.5** |
| | comp=Z,1.4nm,0.3s,baz=336,slow=7.3,SNR=12 | | | | | | |
| **LPAZ** | **La Paz** | **23.43** | **168** | *e*P | **P** | **01 57 58.1** | **-0.3** |
| | comp=Z,7.4nm,0.8s | | | | | | |
| **SIV** | **San Ignacio** | **25.54** | **152** | P | **P** | **01 58 16.2** | **-0.7** |
| | comp=Z,2.3nm,0.9s,baz=323,slow=10,SNR=5.2 | | | | | | |
| **MNMC** | **Minye Minye** | **25.97** | **173** | *e*P | **P** | **01 58 18.4** | **-2.7** |
| | comp=Z,21nm,1.7s | | | | | | |
| **PB11** | **IPOC Station P** | **26.59** | **173** | *e*P | **P** | **01 58 24.9** | **-1.5** |
| | comp=Z,6.0nm,0.8s | | | | | | |
| **PB01** | **IPOC Station P** | **27.87** | **173** | *e*P | **P** | **01 58 36.9** | **-0.9** |
| | comp=Z,46nm,2.0s | | | | | | |
| **GOGA** | **Godfrey** | **28.21** | **341** | *e*P | **P** | **01 58 41.2** | **+0.7** |
| | comp=Z,19nm,1.4s | | | | | | |
| **347A** | **Saraland** | **28.46** | **331** | P | **P** | **01 58 44.6** | **+1.8** |
| | baz=146 | | | | | | |
| **HODGE** | **Hodges** | **28.61** | **344** | *e*P | **P** | **01 58 45.7** | **+1.6** |
| | comp=Z,23nm,1.7s | | | | | | |
| **LRAL** | **Lakeview Retre** | **29.16** | **335** | *e*P | **P** | **01 58 51.1** | **+2.1** |
| | comp=Z,14nm,1.4s | | | | | | |
| **245A** | **Little AP, Sta** | **29.64** | **330** | P | **P** | **01 58 53.7** | **+0.5** |
| | baz=144 | | | | | | |
| **Z47A** | **Carrollton** | **29.76** | **334** | P | **P** | **01 58 55.8** | **+1.5** |
| | baz=149 | | | | | | |
| **145A** | **Houston Renfro** | **30.12** | **331** | P | **P** | **01 58 58.4** | **+0.9** |
| | baz=145 | | | | | | |
| **Z46A** | **Louisville** | **30.14** | **333** | P | **P** | **01 58 59.6** | **+2.0** |
| | baz=147 | | | | | | |
| **X49A** | **Woodville** | **30.20** | **338** | P | **P** | **01 58 59.8** | **+1.7** |
| | baz=153 | | | | | | |
| **Y47A** | **UCPARC, Winfie** | **30.27** | **335** | P | **P** | **01 59 00.5** | **+1.7** |
| | baz=150 | | | | | | |
| **CPCT** | **Cooper Cave** | **30.42** | **341** | *e*P | **P** | **01 59 01.1** | **+1.0** |
| | comp=Z,17nm,1.5s | | | | | | |
| **Y46A** | **Houston** | **30.68** | **334** | P | **P** | **01 59 03.8** | **+1.3** |
| | baz=148 | | | | | | |
| **X47A** | **Russelville** | **30.80** | **336** | P | **P** | **01 59 04.9** | **+1.4** |
| | baz=150 | | | | | | |
| **242A** | **Grayson** | **30.83** | **327** | P | **P** | **01 59 04.6** | **+0.9** |
| | baz=141 | | | | | | |
| **Y45A** | **Yeager Farm, C** | **30.98** | **333** | P | **P** | **01 59 06.7** | **+1.7** |
| | baz=147 | | | | | | |
| **V48A** | **Smith Brothers** | **31.47** | **338** | P | **P** | **01 59 11.1** | **+1.7** |
| | baz=153,SNR=5.9 | | | | | | |
| **U48A** | **Cassie Pea, Po** | **32.06** | **339** | P | **P** | **01 59 15.9** | **+1.4** |
| | baz=154 | | | | | | |
| **Z41A** | **Richland Creek** | **32.10** | **328** | P | **P** | **01 59 16.0** | **+1.2** |
| | baz=141 | | | | | | |
| **W44A** | **Shelby Farms P** | **32.17** | **334** | P | **P** | **01 59 16.6** | **+1.2** |
| | baz=148 | | | | | | |
| **WVT** | **Waverly** | **32.20** | **337** | P | **P** | **01 59 17.0** | **+1.3** |
| | baz=152 | | | | | | |
| **WVT** | **Waverly** | **32.20** | **337** | *e*P | **P** | **01 59 16.7** | **+1.0** |
| | comp=Z,9.1nm,1.1s | | | | | | |
| **U47A** | **Clarksville** | **32.27** | **338** | P | **P** | **01 59 17.4** | **+1.1** |
| | baz=153 | | | | | | |
| **T48A** | **Bowling Green** | **32.55** | **340** | P | **P** | **01 59 20.0** | **+1.2** |
| | baz=155 | | | | | | |
| **T47A** | **Sharon Grove** | **32.69** | **339** | P | **P** | **01 59 21.3** | **+1.4** |
| | baz=154 | | | | | | |
| **S48A** | **Wiedeman Farm,** | **32.93** | **341** | P | **P** | **01 59 23.3** | **+1.2** |
| | baz=156 | | | | | | |
| **U44B** | **Burton Farm, H** | **32.99** | **335** | P | **P** | **01 59 23.4** | **+0.8** |
| | baz=149 | | | | | | |
| **T46A** | **Princeton** | **33.03** | **338** | P | **P** | **01 59 24.6** | **+1.8** |
| | baz=152 | | | | | | |
| **X40A** | **Basin Creek Fa** | **33.07** | **329** | P | **P** | **01 59 24.1** | **+0.8** |
| | baz=142 | | | | | | |
| **Y39A** | **Lockesburg** | **33.31** | **327** | P | **P** | **01 59 26.1** | **+0.8** |
| | baz=140 | | | | | | |
| **W41B** | **Gary Mavity, V** | **33.33** | **331** | P | **P** | **01 59 26.3** | **+0.8** |
| | baz=144 | | | | | | |
| **BDFB** | **Brasilia** | **33.33** | **132** | P | **P** | **01 59 26.5** | **+0.6** |
| | comp=Z,5.9nm,0.6s,baz=77,slow=8.2,SNR=10 | | | | | | |
| **V42A** | **Cord** | **33.43** | **332** | P | **P** | **01 59 27.3** | **+0.9** |
| | baz=146 | | | | | | |
| **WHAR** | **Wooly Hollow** | **33.44** | **331** | *e*P | **P** | **01 59 27.1** | **+0.6** |
| | comp=Z,3.9nm,0.6s | | | | | | |
| **X301** | **Greenbrier Sit** | **33.45** | **331** | *e*P | **P** | **01 59 27.7** | **+1.1** |
| | comp=Z,12nm,1.5s | | | | | | |
| **U43A** | **Rector** | **33.46** | **334** | P | **P** | **01 59 28.1** | **+1.4** |
| | baz=148 | | | | | | |
| **MIAR** | **Mount Ida** | **33.50** | **328** | P | **P** | **01 59 27.6** | **+0.6** |
| | baz=141 | | | | | | |
| **S46A** | **Don Dixon Farm** | **33.53** | **339** | P | **P** | **01 59 28.2** | **+1.0** |
| | baz=153 | | | | | | |
| **WCI** | **Wyandotte Cave** | **33.53** | **341** | P | **P** | **01 59 28.4** | **+1.2** |
| | baz=156 | | | | | | |
| **WCI** | **Wyandotte Cave** | **33.53** | **341** | *e*P | **P** | **01 59 28.4** | **+1.2** |
| | comp=Z,6.5nm,0.6s | | | | | | |
| **R48A** | **Northridge Ran** | **33.55** | **342** | P | **P** | **01 59 28.8** | **+1.4** |
| | baz=156 | | | | | | |
| **R47A** | **Wooly Knot Far** | **33.67** | **341** | P | **P** | **01 59 29.4** | **+1.0** |
| | baz=155 | | | | | | |
| **O56A** | **Blue Knob Stat** | **33.71** | **352** | P | **P** | **01 59 30.8** | **+2.0** |
| | baz=170 | | | | | | |
| **W40A** | **Ferguson Farm,** | **33.75** | **330** | P | **P** | **01 59 30.2** | **+1.0** |
| | baz=142 | | | | | | |
| **W40A** | **Ferguson Farm,** | **33.75** | **330** | *e*P | **P** | **01 59 30.1** | **+1.0** |
| | comp=Z,34nm,1.5s | | | | | | |
| **X39A** | **Fountain Ranch** | **33.76** | **328** | P | **P** | **01 59 30.3** | **+1.0** |
| | baz=140 | | | | | | |
| **V41A** | **Mountainview** | **33.77** | **331** | P | **P** | **01 59 29.9** | **+0.4** |
| | baz=144,SNR=6.6 | | | | | | |
| **U42A** | **Revenden** | **33.81** | **333** | P | **P** | **01 59 30.8** | **+1.1** |
| | baz=146 | | | | | | |
| **PBMO** | **Poplar Bluff** | **33.82** | **334** | *e*P | **P** | **01 59 31.2** | **+1.5** |
| | comp=Z,8.1nm,0.8s | | | | | | |
| **WHTX** | **Lake Whitney,** | **33.88** | **321** | P | **P** | **01 59 31.2** | **+0.9** |
| | baz=133 | | | | | | |
| **T43A** | **Greenville** | **34.01** | **335** | P | **P** | **01 59 32.3** | **+0.9** |
| | baz=148 | | | | | | |
| **N59A** | **State Game Lan** | **34.08** | **356** | *e*P | **P** | **01 59 34.3** | **+2.3** |
| | comp=Z,25nm,1.6s | | | | | | |
| **V40A** | **Witts Springs** | **34.11** | **331** | P | **P** | **01 59 33.3** | **+1.0** |
| | baz=143,SNR=5.9 | | | | | | |
| **W39A** | **Magazine** | **34.11** | **329** | P | **P** | **01 59 33.2** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Q43A | New Douglas<br>baz=151 | 35.37 337 | P | | P | | 01 59 43.5 | +0.5 |
| W36A | Wetumka<br>baz=138 | 35.37 326 | P | | P | | 01 59 43.1 | 0.0 |
| U38A | Gravette<br>baz=142 | 35.39 330 | P | | P | | 01 59 43.3 | 0.0 |
| S40A | Lebanon<br>baz=145,SNR=11 | 35.41 333 | P | | P | | 01 59 44.0 | +0.6 |
| R41A | Rosebud<br>baz=148,SNR=5.9 | 35.50 335 | P | | P | | 01 59 44.6 | +0.5 |
| Q42A | Golden Eagle<br>baz=149 | 35.67 336 | P | | P | | 01 59 46.3 | +0.7 |
| TUL1 | Leonard<br>baz=139 | 35.71 327 | P | | P | | 01 59 46.0 | 0.0 |
| U37A | Salina<br>baz=140 | 35.73 329 | P | | P | | 01 59 46.3 | +0.1 |
| SFIN | Lafayette<br>baz=156 | 35.74 341 | P | | P | | 01 59 47.1 | +0.9 |
| SFIN | Lafayette<br>comp=Z,18nm,0.4s | 35.74 341 | *e*P | | P | | 01 59 47.4 | +1.2 |
| T38A | Diamond<br>baz=142 | 35.81 330 | P | | P | | 01 59 47.0 | +0.1 |
| O45A | Potomac<br>baz=154 | 35.83 341 | P | | P | | 01 59 47.5 | +0.5 |
| S39A | Bolivar<br>baz=144 | 35.87 332 | P | | P | | 01 59 47.6 | +0.3 |
| R40A | Maddies Statio<br>baz=146 | 35.88 334 | P | | P | | 01 59 47.7 | +0.3 |
| P43A | Skaggs, Pawnee<br>baz=151 | 35.92 338 | P | | P | | 01 59 48.2 | +0.5 |
| Q41A | Truxton<br>baz=148 | 35.99 336 | P | | P | | 01 59 48.8 | +0.4 |
| U36A | Oologah<br>baz=140 | 36.04 328 | P | | P | | 01 59 49.1 | +0.3 |
| S38A | Stockton<br>baz=143,SNR=5.4 | 36.09 331 | P | | P | | 01 59 49.1 | -0.1 |
| N46A | Monticello<br>baz=156 | 36.10 342 | P | | P | | 01 59 50.2 | +1.0 |
| P42A | Winchester<br>baz=150 | 36.18 337 | P | | P | | 01 59 50.3 | +0.4 |
| T37A | Cheneyville 18<br>baz=141,SNR=6.2 | 36.19 330 | P | | P | | 01 59 49.9 | -0.1 |
| R39A | Chumby, Stover<br>baz=145,SNR=5.1 | 36.24 333 | P | | P | | 01 59 50.7 | +0.2 |
| Q40A | Laux Farm, Aux<br>baz=147,SNR=6.6 | 36.38 335 | P | | P | | 01 59 51.8 | +0.2 |
| M46A | Old House Fiel<br>baz=157 | 36.46 343 | P | | P | | 01 59 53.0 | +0.7 |
| R38A | Fenwick Farm,<br>baz=144 | 36.54 332 | P | | P | | 01 59 53.0 | 0.0 |
| P41A | Barry, Barry<br>baz=149 | 36.54 336 | P | | P | | 01 59 53.2 | +0.3 |
| LTX | Lajitas | 36.55 312 | *e*P | | P | | 01 59 54.0 | +0.7 |
| LTX | | | *e*PcP | | PcP | | 02 02 14.5 | +1.1 |
| TXAR | Lajitas Array<br>comp=Z,1.9nm,0.7s,baz=126,slow=9.3,SNR=13 | 36.55 312 | P | | P | | 01 59 54.0 | +0.7 |
| TXAR | | | PcP | | PcP | | 02 02 14.5 | +1.1 |
| | comp=Z,1.7nm,0.7s,baz=137,slow=6.1,SNR=7.9 | | | | | | | |
| TXAR | Lajitas Array | 36.55 312 | P | | P | | 01 59 54.0 | +0.7 |
| TX31 | Lajitas Ar. Si | 36.55 312 | *e*P | | P | | 01 59 53.9 | +0.6 |
| TX31 | | | *e*PcP | | PcP | | 02 02 15.2 | +1.8 |
| WMOK | Wichita Mounta<br>baz=134 | 36.56 323 | P | | P | | 01 59 53.0 | -0.3 |
| U35A | Pawnee<br>baz=138 | 36.56 327 | P | | P | | 01 59 53.3 | 0.0 |
| U35A | Pawnee<br>comp=Z,13nm,1.1s | 36.56 327 | *e*P | | P | | 01 59 53.5 | +0.2 |
| S37A | Fort Scott<br>baz=142 | 36.64 330 | P | | P | | 01 59 53.9 | 0.0 |
| Q39A | Willow Grove F<br>baz=146 | 36.81 334 | P | | P | | 01 59 55.5 | +0.2 |
| P40A | Paris<br>baz=147 | 36.82 335 | P | | P | | 01 59 55.6 | +0.2 |
| O41A | Passleys Farm,<br>baz=150 | 36.85 337 | P | | P | | 01 59 55.9 | +0.3 |
| T35A | Sooner Cattle<br>baz=139 | 36.85 328 | P | | P | | 01 59 55.7 | +0.1 |
| Q38A | Cooks Store, C<br>baz=145,SNR=8.0 | 37.03 333 | P | | P | | 01 59 57.4 | +0.3 |
| P39B | Salisbury<br>baz=146 | 37.08 334 | P | | P | | 01 59 57.7 | +0.2 |
| N42A | Yates City<br>baz=151 | 37.15 338 | P | | P | | 01 59 58.1 | 0.0 |
| O40A | La Belle<br>baz=148 | 37.25 336 | P | | P | | 01 59 58.9 | 0.0 |
| T34A | McClaskey Farm<br>baz=138 | 37.29 327 | P | | P | | 01 59 59.5 | +0.1 |
| M43A | Waltham Townsh<br>baz=153 | 37.31 340 | P | | P | | 01 59 59.7 | +0.3 |
| Q37A | Longview Farm,<br>baz=143 | 37.34 332 | P | | P | | 01 59 59.9 | +0.1 |
| N41A | Harden Midland<br>baz=150 | 37.35 337 | P | | P | | 01 59 59.8 | 0.0 |
| P38A | Dawn<br>baz=145 | 37.53 334 | P | | P | | 02 00 01.7 | +0.3 |
| N40A | Mertquake, Sal<br>baz=149 | 37.78 337 | P | | P | | 02 00 03.8 | +0.4 |
| O38A | Galt<br>baz=146 | 37.92 334 | P | | P | | 02 00 04.9 | +0.4 |
| L42A | Oliver, Polo<br>baz=153 | 38.05 340 | P | | P | | 02 00 05.4 | -0.3 |
| N39A | Derby Farms, D<br>baz=148 | 38.14 336 | P | | P | | 02 00 06.3 | -0.2 |
| M40A | Post Highland<br>baz=149 | 38.20 337 | P | | P | | 02 00 06.8 | -0.2 |
| P36A | Good Intent, A<br>baz=143 | 38.29 332 | P | | P | | 02 00 07.4 | -0.3 |
| N38A | Joes South For<br>baz=146 | 38.37 335 | P | | P | | 02 00 08.4 | 0.0 |
| L41A | Preston<br>baz=151 | 38.41 339 | P | | P | | 02 00 08.6 | 0.0 |
| M39A | Webster<br>baz=148 | 38.52 337 | P | | P | | 02 00 09.5 | -0.1 |
| KSU1 | Kansas State U<br>baz=140 | 38.56 330 | P | | P | | 02 00 09.7 | -0.3 |
| Q34A | Chapman<br>baz=140 | 38.59 330 | P | | P | | 02 00 09.9 | -0.3 |
| O36A | Bolckow<br>baz=144 | 38.59 333 | P | | P | | 02 00 10.0 | -0.2 |
| P35A | Duane Minner,<br>baz=142 | 38.60 331 | P | | P | | 02 00 10.0 | -0.4 |
| L40A | Anamosa<br>baz=150 | 38.66 338 | P | | P | | 02 00 10.5 | -0.3 |
| N37A | Lee Faris, Mou<br>baz=145 | 38.76 334 | P | | P | | 02 00 11.7 | +0.1 |
| M38A | Pleasantville<br>baz=147 | 38.88 336 | P | | P | | 02 00 12.6 | +0.1 |
| L39A | Vinton<br>baz=149 | 39.00 337 | P | | P | | 02 00 13.7 | 0.0 |
| P34A | Walnut Farm, R<br>baz=141 | 39.01 330 | P | | P | | 02 00 13.7 | -0.1 |
| MNTX | Cornudas Mount<br>baz=123,SNR=7.1 | 39.05 314 | P | | P | | 02 00 14.7 | +0.4 |
| MNTX | Cornudas Mount<br>comp=Z,3.4nm,0.7s | 39.05 314 | *e*P | | P | | 02 00 15.1 | +0.9 |
| JFWS | Jewell Farm<br>baz=152,SNR=5.1 | 39.06 340 | P | | P | | 02 00 14.1 | 0.0 |
| JFWS | Jewell Farm<br>comp=Z,13nm,0.6s | 39.06 340 | *e*P | | P | | 02 00 14.4 | +0.4 |
| K40A | Colesburg<br>baz=151 | 39.18 339 | P | | P | | 02 00 15.3 | +0.3 |
| I43A | Langenfeld Bro<br>baz=156 | 39.26 343 | P | | P | | 02 00 15.9 | +0.2 |
| SCIA | State Center<br>baz=147 | 39.30 336 | P | | P | | 02 00 16.3 | +0.2 |
| J41A | Loganville<br>baz=153 | 39.38 340 | P | | P | | 02 00 17.0 | +0.3 |
| K39A | Oelwein<br>baz=150 | 39.46 338 | P | | P | | 02 00 17.4 | 0.0 |
| N35A | Tabor<br>baz=143 | 39.48 333 | P | | P | | 02 00 17.4 | -0.2 |
| I42A | Draeger Farm,<br>baz=155 | 39.50 342 | P | | P | | 02 00 17.9 | +0.2 |
| J40A | Soldiers Grove<br>baz=152 | 39.65 340 | P | | P | | 02 00 19.1 | +0.1 |
| L37A | Phoenix Point,<br>baz=147 | 39.70 336 | P | | P | | 02 00 19.4 | 0.0 |
| O33A | Hebron<br>baz=140 | 39.79 330 | P | | P | | 02 00 19.9 | -0.3 |
| J39A | Decorah<br>baz=150 | 39.94 339 | P | | P | | 02 00 21.0 | -0.3 |
| I41A | Arkdale<br>baz=153 | 39.95 341 | P | | P | | 02 00 21.7 | +0.2 |
| M35A | Neola<br>baz=144 | 39.99 333 | P | | P | | 02 00 21.8 | 0.0 |
| I40A | Norwalk<br>baz=152 | 40.05 340 | P | | P | | 02 00 22.3 | +0.1 |
| K37A | Belmond<br>baz=147 | 40.19 336 | P | | P | | 02 00 23.4 | -0.1 |
| J38A | Wedel Dairy, R<br>baz=149 | 40.21 338 | P | | P | | 02 00 23.1 | -0.5 |
| I39A | Houston<br>baz=151 | 40.33 339 | P | | P | | 02 00 24.5 | 0.0 |
| H41A | Junction City<br>baz=154 | 40.38 342 | P | | P | | 02 00 25.2 | +0.2 |
| G43A | Wallace<br>baz=157 | 40.39 344 | P | | P | | 02 00 25.6 | +0.6 |
| G42A | Mountain<br>baz=156 | 40.58 343 | P | | P | | 02 00 27.1 | +0.5 |
| H40A | Chili<br>baz=153 | 40.62 341 | P | | P | | 02 00 27.4 | +0.4 |
| I38A | Scanlan Farm,<br>baz=150 | 40.78 339 | P | | P | | 02 00 28.2 | 0.0 |
| F43A | Flat Rock, Esc<br>baz=158 | 40.78 345 | P | | P | | 02 00 28.6 | +0.4 |
| J36A | Seneca 1, Swea<br>baz=147 | 40.94 336 | P | | P | | 02 00 29.3 | -0.2 |
| H39A | Augusta<br>baz=152 | 40.97 340 | P | | P | | 02 00 29.9 | +0.1 |
| G40A | Rib Lake<br>baz=154 | 41.14 342 | P | | P | | 02 00 31.7 | +0.5 |
| K34A | Le Mars<br>baz=144 | 41.15 334 | P | | P | | 02 00 31.5 | +0.2 |
| F41A | Three Lakes<br>baz=155 | 41.23 343 | P | | P | | 02 00 32.8 | +0.8 |
| E43A | Lone Tree Farm<br>baz=159 | 41.24 345 | P | | P | | 02 00 33.1 | +1.1 |
| H37A | Dierke Farm, C<br>baz=149 | 41.46 338 | P | | P | | 02 00 34.2 | +0.4 |
| G39A | Holcombe<br>baz=152 | 41.47 341 | P | | P | | 02 00 34.4 | +0.6 |
| J34A | George<br>baz=144 | 41.57 335 | P | | P | | 02 00 34.9 | +0.1 |
| G38A | Ridgeland<br>baz=151 | 41.59 340 | P | | P | | 02 00 35.2 | +0.3 |
| F40A | Park Falls<br>baz=154 | 41.70 342 | P | | P | | 02 00 36.5 | +0.8 |
| MHTCO | State Highway<br>comp=Z,3.3nm,0.6s | 41.74 321 | *e*P | | P | | 02 00 38.5 | +2.0 |
| H36A | Jessenland, He<br>baz=148 | 41.83 338 | P | | P | | 02 00 37.4 | +0.6 |
| F39A | Loretta<br>baz=153 | 41.94 341 | P | | P | | 02 00 38.1 | +0.4 |
| K32A | Verdigre<br>baz=141 | 41.97 332 | P | | P | | 02 00 37.7 | -0.3 |
| J33A | Davis<br>baz=143 | 42.04 334 | P | | P | | 02 00 38.5 | 0.0 |
| E40A | Wakefield<br>baz=155,SNR=5.7 | 42.10 343 | P | | P | | 02 00 39.7 | +0.7 |
| I34A | Hadley<br>baz=145 | 42.15 335 | P | | P | | 02 00 39.1 | -0.3 |
| ECSD | ERO Data Cent<br>baz=144 | 42.22 334 | P | | P | | 02 00 39.8 | -0.1 |
| H35A | Sunnyside Ranc<br>baz=147 | 42.28 337 | P | | P | | 02 00 40.2 | -0.3 |
| D41A | Chassel<br>baz=157 | 42.29 344 | P | | P | | 02 00 40.9 | +0.5 |
| F38A | Pierce - Schro<br>baz=152 | 42.29 340 | P | | P | | 02 00 40.9 | +0.4 |
| K31A | O'Neill<br>baz=140 | 42.31 332 | P | | P | | 02 00 41.3 | +0.5 |
| G36A | St. Michael<br>baz=149 | 42.32 338 | P | | P | | 02 00 41.0 | +0.3 |
| J32A | Parkston<br>baz=142 | 42.47 333 | P | | P | | 02 00 42.2 | +0.2 |
| G35A | Watkins<br>baz=148 | 42.58 338 | P | | P | | 02 00 42.8 | -0.1 |
| SDCO | Great Sand Dun<br>baz=128,SNR=5.2 | 42.63 321 | P | | P | | 02 00 44.9 | +1.1 |
| SDCO | Great Sand Dun<br>comp=Z,4.8nm,1.2s | 42.63 321 | *e*P | | P | | 02 00 45.4 | +1.6 |
| H34A | Spellman Lake,<br>baz=146 | 42.63 336 | P | | P | | 02 00 42.9 | -0.4 |
| E38A | The Farm, Brul<br>baz=152 | 42.76 341 | P | | P | | 02 00 44.7 | +0.4 |
| H33A | Prehn Over Nor<br>baz=144 | 43.04 335 | P | | P | | 02 00 47.1 | +0.5 |
| F35A | Swanville<br>baz=148 | 43.16 338 | P | | P | | 02 00 46.8 | -0.7 |
| H32A | Carlson Farm,<br>baz=143 | 43.19 334 | P | | P | | 02 00 47.8 | 0.0 |
| E36A | McGregor<br>baz=150,SNR=5.1 | 43.25 340 | P | | P | | 02 00 48.2 | 0.0 |
| TUC | Tucson<br>baz=118 | 43.33 311 | P | | P | | 02 00 49.9 | +0.6 |
| F34A | Alexandria<br>baz=147 | 43.36 337 | P | | P | | 02 00 49.4 | +0.2 |
| C39A | Grand Marais<br>baz=155 | 43.41 343 | P | | P | | 02 00 49.9 | +0.4 |
| S22A | 4UR Ranch, Cre<br>baz=127 | 43.47 320 | P | | P | | 02 00 51.7 | +1.2 |
| D37A | Cotton<br>baz=151 | 43.53 341 | P | | P | | 02 00 51.0 | +0.5 |
| H31A | Wolsey<br>baz=142,SNR=8.2 | 43.62 334 | P | | P | | 02 00 50.9 | -0.4 |
| C38A | Sawbill Land.<br>baz=153 | 43.66 342 | P | | P | | 02 00 51.4 | -0.1 |
| E35A | Pequot Lakes<br>baz=148 | 43.69 339 | P | | P | | 02 00 51.8 | 0.0 |
| D36A | Goodland<br>baz=150 | 43.79 340 | P | | P | | 02 00 52.7 | +0.2 |
| F33A | 5 Mile Ranch,<br>baz=146 | 43.80 337 | P | | P | | 02 00 52.7 | +0.1 |
| SUSD | Miller<br>baz=141 | 43.81 333 | P | | P | | 02 00 52.8 | +0.1 |
| G32A | Webster<br>baz=144 | 43.82 335 | P | | P | | 02 00 52.5 | -0.3 |
| E34A | Wadena<br>baz=147 | 43.93 338 | P | | P | | 02 00 53.8 | +0.1 |
| EYMN | Ely<br>baz=153,SNR=7.9 | 43.93 342 | P | | P | | 02 00 53.7 | +0.1 |
| EYMN | Ely<br>comp=Z,11nm,0.7s | 43.93 342 | *e*P | | P | | 02 00 53.8 | +0.1 |
| C37A | Embarrass<br>baz=152 | 43.95 341 | P | | P | | 02 00 54.0 | +0.1 |
| ISCO | Idaho Springs<br>baz=130 | 43.98 323 | P | | P | | 02 00 55.2 | +0.6 |
| ISCO | Idaho Springs<br>comp=Z,9.5nm,1.6s | 43.98 323 | *e*P | | P | | 02 00 56.0 | +1.5 |
| D35A | Remer<br>baz=149 | 44.01 339 | P | | P | | 02 00 54.2 | -0.1 |
| G31A | Conde<br>baz=143 | 44.09 334 | P | | P | | 02 00 54.6 | -0.4 |
| C36A | Pine Crest Far<br>baz=151 | 44.19 341 | P | | P | | 02 00 56.0 | +0.3 |
| MVCO | Mesa Verde<br>baz=124 | 44.24 318 | P | | P | | 02 00 57.1 | +0.5 |
| C35A | Jirik Farms, M<br>baz=150 | 44.52 340 | P | | P | | 02 00 58.5 | +0.1 |
| D33A | AnnSam, Waubun<br>baz=147,SNR=17 | 44.71 338 | P | | P | | 02 00 60.0 | +0.1 |
| C34A | RKJ Ranch, Bem<br>baz=148 | 44.80 339 | P | | P | | 02 01 00.6 | 0.0 |
| N23A | Red Feather La<br>baz=144 | 44.88 324 | P | | P | | 02 01 02.8 | +1.2 |
| B35A | Bob, Littlefor<br>baz=150 | 45.01 341 | P | | P | | 02 01 02.1 | -0.1 |
| C33A | Trail<br>baz=147,SNR=5.8 | 45.20 338 | P | | P | | 02 01 03.5 | -0.3 |
| WUAZ | Wupatki<br>baz=120,SNR=5.2 | 45.30 315 | P | | P | | 02 01 07.0 | +2.0 |
| WUAZ | Wupatki<br>comp=Z,7.8nm,1.0s | 45.30 315 | *e*P | | P | | 02 01 06.9 | +2.0 |
| B34A | Aery, Baudette<br>baz=149,SNR=10.0 | 45.42 340 | P | | P | | 02 01 05.6 | +0.1 |
| AGMN | Agassiz Nation<br>baz=147,SNR=5.5 | 45.69 339 | P | | P | | 02 01 07.5 | 0.0 |
| AGMN | Agassiz Nation<br>comp=Z,6.0nm,0.7s | 45.69 339 | *e*P | | P | | 02 01 07.9 | +0.4 |
| C31A | Landman Farms,<br>baz=145,SNR=6.1 | 45.97 337 | P | | P | | 02 01 09.6 | -0.1 |
| RSSD | Black Hills<br>baz=135 | 46.01 329 | P | | P | | 02 01 10.4 | 0.0 |
| B32A | Ashes, Strandq<br>baz=147,SNR=5.8 | 46.02 338 | P | | P | | 02 01 10.3 | +0.2 |
| A33A | Warroad<br>baz=148,SNR=5.6 | 46.06 340 | P | | P | | 02 01 10.6 | +0.1 |
| U15A | North Rim<br>comp=Z,5.1nm,1.1s | 46.40 315 | *e*P | | P | | 02 01 15.4 | +1.8 |
| A32A | Rocking H Ranc<br>baz=147,SNR=6.5 | 46.44 339 | P | | P | | 02 01 13.3 | -0.1 |
| B31A | Greenbush Farm<br>baz=145 | 46.45 338 | P | | P | | 02 01 13.5 | 0.0 |
| GLA | Glamis<br>baz=115 | 46.72 310 | P | | P | | 02 01 16.8 | +0.9 |
| KNB | Kanab<br>comp=Z,5.7nm,1.1s | 47.06 316 | *e*P | | P | | 02 01 19.1 | +0.4 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| PLCA | Paso Flores<br>comp=Z,0.7nm,0.6s,baz=20,slow=8.9,SNR=5.1 | 47.34 177 | P | | P | | 02 01 18.8 | -1.7 |
| PLCA | Paso Flores<br>comp=Z,15nm,1.4s | 47.34 177 | *e*P | | P | | 02 01 18.8 | -1.7 |
| ULM | Lac du Bonnet<br>comp=Z,5.8nm,0.4s,baz=142,slow=7.1,SNR=33 | 47.35 340 | P | | P | | 02 01 20.1 | -0.3 |
| ULM | Lac du Bonnet<br>comp=Z,7.7nm,0.8s | 47.35 340 | *e*P | | P | | 02 01 20.1 | -0.3 |
| LCMT | Little Creek M<br>comp=Z,3.4nm,0.9s | 47.35 315 | *e*P | | P | | 02 01 22.4 | +1.5 |
| MSU | Marysvale | 47.39 318 | *e*P | | P | | 02 01 22.8 | +1.6 |
| MPU | Maple Canyon<br>comp=Z,3.8nm,1.0s | 47.84 320 | *e*P | | P | | 02 01 26.1 | +1.4 |
| NLU | North Lily Min<br>comp=Z,1.8nm,0.7s | 48.09 319 | *e*P | | P | | 02 01 27.8 | +1.2 |
| BW06 | Boulder Array<br>baz=128 | 48.16 324 | P | | P | | 02 01 27.5 | +0.4 |
| BW06 | Boulder Array<br>comp=Z,4.1nm,1.3s | 48.16 324 | *e*P | | P | | 02 01 27.6 | +0.4 |
| PD31 | Pinedale Array | 48.16 324 | *e*P | | P | | 02 01 27.6 | +0.4 |
| PD31 | | | *e*PcP | | PcP | | 02 02 51.9 | -0.1 |
| PDAR | Pinedale Array<br>comp=Z,0.9nm,0.5s,baz=121,slow=8.8,SNR=15 | 48.16 324 | P | | P | | 02 01 27.4 | +0.4 |
| PDAR | | | PcP | | PcP | | 02 02 51.9 | -0.1 |
| | comp=Z,0.6nm,0.4s,baz=114,slow=7.3,SNR=5.9 | | | | | | | |
| PDAR | Pinedale Array | 48.16 324 | *e*P | | P | | 02 01 26.9 | -0.2 |
| SCHQ | Schefferville<br>comp=Z,13nm,0.5s,baz=191,slow=7.1,SNR=34 | 48.17 5 | P | | P | | 02 01 27.1 | +0.4 |
| SCHQ | Schefferville<br>comp=Z,45nm,1.5s | 48.17 5 | *e*P | | P | | 02 01 28.0 | +1.3 |
| TCUT | Toone Canyon<br>comp=Z,10nm,0.6s | 48.31 321 | *e*P | | P | | 02 01 29.5 | +1.2 |
| TUQ | Turquoise Moun<br>baz=116 | 48.55 312 | P | | P | | 02 01 30.5 | +0.4 |
| DUG | Dugway, Tooele<br>baz=122 | 48.69 319 | P | | P | | 02 01 32.2 | +1.1 |
| GSC | Goldstone, Bar<br>baz=115 | 49.15 312 | P | | P | | 02 01 35.2 | +0.6 |
| DGMT | Dagmar<br>baz=137,SNR=5.5 | 49.22 333 | P | | P | | 02 01 35.9 | +1.1 |
| BGU | Big Grassy Mou<br>comp=Z,4.7nm,0.6s | 49.22 320 | *e*P | | P | | 02 01 36.1 | +1.0 |
| REDW | Red Top Meadow<br>comp=Z,8.6nm,1.1s | 49.27 324 | *e*P | | P | | 02 01 36.1 | +0.6 |
| TPAW | Teton Pass<br>comp=Z,3.2nm,0.6s | 49.41 324 | *e*P | | P | | 02 01 37.5 | +0.8 |
| MOOW | Moose Ponds<br>comp=Z,1.9nm,0.8s | 49.44 324 | *e*P | | P | | 02 01 37.3 | +0.5 |
| TPNV | Topopah Spring<br>baz=117 | 49.45 314 | P | | P | | 02 01 37.7 | +0.7 |
| RLMT | Red Lodge<br>baz=130 | 49.46 327 | P | | P | | 02 01 37.3 | +0.3 |
| HVU | Hansel Valley<br>comp=Z,10nm,1.7s | 49.53 321 | *e*P | | P | | 02 01 38.7 | +1.2 |
| R11A | Troy Canyon, C<br>baz=118 | 49.63 316 | P | | P | | 02 01 39.1 | +0.8 |
| R11A | Troy Canyon, C<br>comp=Z,10.0nm,2.0s | 49.63 316 | *e*P | | P | | 02 01 39.6 | +1.3 |
| CCCA | Chr Cany lake | 49.65 312 | *e*P | | P | | 02 01 35.9 | -2.5 |
| CHFC | Chilao Flat St | 49.67 310 | *e*P | | P | | 02 01 43.5 | +4.8 |
| FURC | Furnace Creek,<br>baz=116 | 49.68 313 | P | | P | | 02 01 39.7 | +1.2 |
| PASC | Pasadena Art C | 49.73 310 | *e*P | | P | | 02 01 37.8 | -1.2 |
| EDW2 | Edwards Air Fo<br>baz=114 | 49.87 311 | P | | P | | 02 01 40.7 | +0.7 |
| DJJ | Donna J Jenkin | 49.91 309 | *e*P | | P | | 02 01 38.6 | -1.7 |
| SBI | Santa Barbara | 50.12 308 | *e*P | | P | | 02 01 43.3 | +1.4 |
| BOZ | Bozeman (W)<br>baz=127 | 51.06 326 | P | | P | | 02 01 49.6 | +0.8 |
| MCMT | McKenzie Canyo | 51.30 324 | *e*P | | P | | 02 01 52.3 | +1.6 |
| HLID | Hailey<br>baz=123 | 51.52 322 | P | | P | | 02 01 53.2 | +0.8 |
| HLID | Hailey<br>comp=Z,2.7nm,0.8s | 51.52 322 | *e*P | | P | | 02 01 53.3 | +0.9 |
| EGMT | Eagleton<br>baz=131 | 51.58 329 | P | | P | | 02 01 53.3 | +0.6 |
| MFID | Camas Ranch<br>comp=Z,4.5nm,0.8s | 52.31 321 | *e*P | | P | | 02 01 58.8 | +0.7 |
| WVOR | Wild Horse Val<br>comp=Z,3.7nm,0.9s | 53.61 319 | *e*P | | P | | 02 02 08.6 | +0.8 |
| F10A | Beach Ranch, E<br>comp=Z,3.7nm,0.6s | 54.50 323 | *e*P | | P | | 02 02 14.3 | +0.3 |
| G08A | Pilot Rock<br>comp=Z,4.4nm,0.6s | 55.20 322 | *e*P | | P | | 02 02 19.6 | +0.5 |
| M04C | Macdoel<br>baz=115 | 55.45 317 | P | | P | | 02 02 21.4 | +0.4 |
| J05D | Fort Rock, OR<br>baz=116 | 55.70 319 | P | | P | | 02 02 23.4 | +0.7 |
| C09A | Chrisman Ranch<br>comp=Z,4.9nm,0.8s | 56.07 325 | *e*P | | P | | 02 02 26.0 | +0.8 |
| J04D | Umpqua Nationa<br>baz=116 | 56.25 318 | P | | P | | 02 02 27.4 | +0.6 |
| I03D | Drain, OR<br>baz=115 | 57.26 318 | P | | P | | 02 02 34.8 | +1.2 |
| YKA | Yellowknife Ar<br>comp=Z,5.5nm,0.6s,baz=133,slow=6.7,SNR=132 | 63.33 340 | P | | P | | 02 03 14.4 | 0.0 |
| YKA | | | pP | | pP | | 02 03 52.7 | 0.0 |
| | comp=Z,2.6nm,0.9s,baz=128,slow=6.9,SNR=3.0 | | | | | | | |
| YKB5 | Yellowknife Ar | 63.33 340 | *e*P | | P | | 02 03 14.4 | 0.0 |
| YKW3 | Yellowknife Ar<br>comp=Z,7.2nm,0.7s | 63.38 340 | *e*P | | P | | 02 03 14.8 | +0.1 |
| TIC | Toumodi | 67.50 86 | *e*P | | P | | 02 03 40.6 | -1.6 |
| LIC | Lamto<br>comp=Z,36nm,0.6s | 67.53 86 | *e*P | | P | | 02 03 41.2 | -1.1 |
| DBIC | Dimbokro<br>comp=Z,10nm,0.6s,baz=270,slow=6.4,SNR=24 | 67.66 86 | P | | P | | 02 03 42.3 | -0.8 |
| DBIC | Dimbokro<br>comp=Z,11nm,0.7s | 67.66 86 | *e*P | | P | | 02 03 42.1 | -1.1 |
| KIC | Kosan Boka<br>comp=Z,30nm,0.6s | 67.80 86 | *e*P | | P | | 02 03 42.6 | -1.5 |
| SUMG | Summit<br>comp=Z,21nm,0.8s | 69.01 11⇑ | *i*P | | P | | 02 03 51.3 | +0.3 |
| TOA1 | Torodi Ar. Sit | 73.67 78 | *e*P | | P | | 02 04 18.1 | -1.4 |
| TORD | Torodi Ar. Bea<br>comp=Z,0.9nm,0.4s,baz=283,slow=6.2,SNR=35 | 73.67 78 | P | | P | | 02 04 18.1 | -1.4 |
| TORD | | | pP | | pP | | 02 05 00.1 | +1.1 |
| | comp=Z,0.3nm,0.6s,baz=288,slow=6.8,SNR=1.6 | | | | | | | |
| DAG | Danmarks Havn<br>comp=Z,5.8nm,0.9s | 75.68 11 | *i* P | | P | | 02 04 29.4 | -0.5 |
| ILAR | Eielson Array<br>comp=Z,1.2nm,0.7s,baz=111,slow=4.2,SNR=16 | 77.03 335 | P | | P | | 02 04 37.9 | +0.1 |
| ILAR | | | pP | | pP | | 02 05 16.6 | -1.0 |
| | comp=Z,0.4nm,0.6s,baz=100,slow=4.4,SNR=2.0 | | | | | | | |
| ILB | Eielson Array | 77.03 335 | *e*P | | P | | 02 04 37.9 | +0.1 |
| NB200 | NORSAR Array S | 81.32 29 | *e*P | | P | | 02 05 01.7 | +0.6 |
| NOA | NORSAR Array B<br>comp=Z,2.7nm,0.8s,baz=269,slow=5.3,SNR=4.1 | 81.32 29 | P | | P | | 02 05 01.7 | +0.6 |
| GERES | GERESS Array B<br>comp=Z,0.8nm,0.6s,baz=270,slow=2.7,SNR=9.3 | 82.80 42 | P | | P | | 02 05 08.5 | -0.7 |
| BSD | Bornholm Skovb<br>comp=Z,62nm,1.0s | 83.32 35 | *i* P | | P | | 02 05 05.2 | -6.3 |
| ARA0 | ARCESS Array S | 86.68 20 | *e*P | | P | | 02 05 27.5 | -0.6 |
| ARCES | ARCESS Array B<br>comp=Z,1.5nm,0.6s,baz=298,slow=2.6,SNR=7.8 | 86.68 20 | P | | P | | 02 05 27.5 | -0.6 |
| FIA0 | FINESS Array S | 88.44 28 | *e*P | | P | | 02 05 36.0 | -0.5 |
| FINES | FINESS Array B<br>comp=Z,12nm,1.3s,baz=305,slow=4.9,SNR=2.8 | 88.44 28 | P | | P | | 02 05 36.1 | -0.5 |
| ZAA1 | Zalesovo Array | 116.68 14 | *e*PKPdf | | PKPdf | | 02 11 27.7 | -0.2 |
| ZALV | Zalesovo Beam<br>comp=Z,1.4nm,0.4s,baz=274,slow=1.8,SNR=9.0 | 116.69 14 | PKP | | PKPdf | | 02 11 27.7 | -0.2 |
| MK32 | Makanchi Array | 122.33 20 | *e*PKPdf | | PKPdf | | 02 11 38.5 | -0.5 |
| MKAR | Makanchi Array<br>comp=Z,1.2nm,0.4s,baz=295,slow=2.5,SNR=31 | 122.33 20 | PKP | | PKPdf | | 02 11 38.5 | -0.5 |
| SONA0 | Songino Array | 125.62 0 | *e*PKPdf | | PKPdf | | 02 11 45.7 | +0.3 |
| SONM | Songino Array<br>comp=Z,1.3nm,0.6s,baz=336,slow=3,SNR=6.5 | 125.62 0 | PKP | | PKPdf | | 02 11 45.7 | +0.3 |
| KSH | Kashi | 125.75 29 | *e*PKP | | PKPdf | | 02 11 46.4 | +0.5 |
| KSH | | | sPKP | | | | 02 12 45.6 | |
| KSH | | | PP | | PP | | 02 13 43.6 | +4.4 |
| KSH | | | PKS | | PKSdf | | 02 15 21.6 | -1.1 |
| KSH | | | SKS | | SKSdf | | 02 18 40.6 | -2.3 |
| KSH | | | SKKS | | SKKSac | | 02 20 17.5 | -4.8 |
| KSH | Kashi | 125.75 29 | SS | | SS | | 02 30 25.4 | -0.8 |
| KSH | comp=Z,140nm,5.6s | | AMB | | AMB | | | |
| KSH | comp=N,45nm,3.9s | | LR | | LR | | | |
| KSH | comp=E,35nm,5.1s | | LR | | LR | | | |
| KSH | comp=Z,180nm,6.5s | | LR | | LR | | | |
| WMQ | Urumqi | 126.70 17 | P | | PKPdf | | 02 11 47.8 | +0.2 |
| WMQ | comp=Z,220nm,4.5s | | pmax | | pmax | | | |
| WMQ | comp=N,720nm,19.5s | | LR | | LR | | | |
| WMQ | | | LR | | LR | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | comp=E,600nm,21.9s | | | | | | | |
| WMQ | | | | | LR | LR | | |
| | comp=Z,310nm,23.3s | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **132.41** | **355** | *e*PKP | **PKPdf** | **02 11 58.3** | **-0.3** | |
| HHC | | | | PP | **PP** | **02 14 26.8** | **+4.8** | |
| HHC | | | | SKS | **SKSdf** | **02 18 51.8** | **-3.2** | |
| HHC | | | | SKKS | **SKKSac** | **02 21 00.3** | **-3.3** | |
| **HHC** | **Hu-ho-hao-te** | **132.41** | **355** | SS | SS | 02 31 49.4 | +2.2 | |
| HHC | | | | AMB | AMB | | | |
| | comp=Z,37nm,5.4s | | | | | | | |
| **LZH** | **Lanzhou** | **137.26** | **4** | *e*PKP | **PKPdf** | **02 12 07.0** | **-0.8** | |
| LZH | | | | sPKP | | 02 13 06.3 | | |
| LZH | | | | LR | LR | | | |
| | comp=N,130nm,18.9s | | | | | | | |
| LZH | | | | LR | LR | | | |
| | comp=E,160nm,18.0s | | | | | | | |
| LZH | | | | LR | LR | | | |
| | comp=Z,190nm,19.6s | | | | | | | |
| **SHL** | **Shillong** | **144.66** | **24** | *e*P | **PKPab** | **02 12 20.0** | **-0.4** | |
| **AS31** | **Alice Springs** | **149.15** | **234** | *e*PKPbc | **PKPbc** | **02 12 32.6** | **-0.5** | |
| **ASAR** | **Alice Springs** | **149.15** | **234** | PKP | **PKPdf** | **02 12 28.5** | **-0.3** | |
| | comp=Z,8.9nm,0.7s,baz=118,slow=3.2,SNR=17 | | | | | | | |
| ASAR | | | | PKPbc | **PKPbc** | **02 12 32.4** | **-0.7** | |
| | comp=Z,9.0nm,0.7s,baz=118,slow=3.6,SNR=21 | | | | | | | |
| **WR1** | **Warramunga Arr** | **150.39** | **241** | *e*PKPdf | **PKPdf** | **02 12 30.8** | **0.0** | |
| WR1 | | | | *e*PKPbc | **PKPbc** | **02 12 35.5** | **-0.7** | |
| **WRA** | **Warramunga Arr** | **150.39** | **241** | PKP | **PKPdf** | **02 12 30.8** | **0.0** | |
| | comp=Z,6.7nm,0.5s,baz=109,slow=2.5,SNR=70 | | | | | | | |
| WRA | | | | PKPbc | **PKPbc** | **02 12 35.5** | **-0.7** | |
| | comp=Z,6.5nm,0.5s,baz=108,slow=2.5,SNR=95 | | | | | | | |
| WRA | | | | pPKPbc | **pPKPbc** | **02 13 17.3** | **-1.4** | |
| | comp=Z,2.7nm,0.5s,baz=108,slow=2.5,SNR=3.7 | | | | | | | |
| **CM31** | **Chiang Mai Arr** | **153.70** | **17** | *e*PKPdf | **PKPdf** | **02 12 36.4** | **+0.6** | |
| CM31 | | | | *e*PKPbc | **PKiKP** | **02 12 44.1** | **+0.4** | |
| **CMAR** | **Chiang Mai Arr** | **153.70** | **17** | PKP | **PKPdf** | **02 12 36.4** | **+0.6** | |
| | comp=Z,1.2nm,0.3s,baz=311,slow=0.5,SNR=7.4 | | | | | | | |
| CMAR | | | | PKPbc | **PKiKP** | **02 12 44.1** | **+0.4** | |
| | comp=Z,3.4nm,0.5s,baz=320,slow=2.8,SNR=11 | | | | | | | |

*NEIC **15** 01:55:07.2±0.0, 37.62S×175.90E, h248km, MG4.3(WEL), After WEL.*
**WEL 15 01:55:07.4±0.4, 37.64S×175.90E, h247km±4km, ML4.3/46, 9C-5D, Error ellipse: s-maj=7.0km s-min=5.5km az=90.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MUGZ** | **Murupara** | **1.08** | **141** | PN | Pn | 01 55 43.3 | +0.8 |
| **URZ** | **Urewera** | **1.14** | **123** | Pn | Pn | 01 55 43.5 | +0.6 |
| URZ | | | | Sn | S | 01 56 10.9 | +0.1 |
| **URZ** | **Urewera** | **1.14** | **123** | PN | Pn | 01 55 43.5 | +0.6 |
| URZ | | | | SN | S | 01 56 10.6 | -0.2 |
| URZ | | | | SN | | 01 56 10.9 | |
| **MTHZ** | **Maungataniwha** | **1.42** | **149** | PN | Pn | 01 55 45.5 | +0.7 |
| **RUGZ** | **Raukumara Rang** | **1.44** | **103** | PN | Pn | 01 55 44.5 | -0.7 |
| **MWZ** | **Matawai** | **1.46** | **119** | Pn | Pn | 01 55 45.4 | +0.2 |
| MWZ | | | | Sn | S | 01 56 14.6 | -0.3 |
| **MWZ** | **Matawai** | **1.46** | **119** | ⇑PN | Pn | 01 55 45.4 | +0.2 |
| MWZ | | | | SN | S | 01 56 14.6 | -0.3 |
| MWZ | | | | AML | AML | 01 56 17.1 | |
| **HAZ** | **Te Kaha** | **1.50** | **95** | PN | Pn | 01 55 44.8 | -0.5 |
| HAZ | | | | SN | S | 01 56 14.5 | -0.7 |
| HAZ | | | | AML | AML | 01 56 15.4 | |
| **OTVZ** | **Oturere** | **1.53** | **187** | Pn | Pn | 01 55 46.3 | +0.5 |
| **OTVZ** | **Oturere** | **1.53** | **187** | PN | Pn | 01 55 45.9 | +0.1 |
| **BKZ** | **Black Stump Fm** | **1.59** | **163** | Pn | Pn | 01 55 46.0 | -0.1 |
| BKZ | | | | Sn | S | 01 56 15.3 | -1.5 |
| **BKZ** | **Black Stump Fm** | **1.59** | **163** | ⇑PN | Pn | 01 55 46.0 | -0.1 |
| BKZ | | | | SN | S | 01 56 15.3 | -1.5 |
| BKZ | | | | AML | AML | 01 56 18.1 | |
| **SNGZ** | **Shannon Statio** | **1.60** | **136** | PN | Pn | 01 55 46.1 | -0.1 |
| SNGZ | | | | AML | AML | 01 56 18.6 | |
| SNGZ | | | | AML | AML | 01 56 19.6 | |
| **NMHZ** | **Naumai** | **1.62** | **154** | Pn | Pn | 01 55 47.3 | +0.9 |
| **NMHZ** | **Naumai** | **1.62** | **154** | PN | Pn | 01 55 47.3 | +0.9 |
| NMHZ | | | | AML | AML | 01 56 20.3 | |
| NMHZ | | | | AML | AML | 01 56 20.4 | |
| **WNVZ** | **Wahianoa** | **1.70** | **188** | ⇓PN | Pn | 01 55 47.3 | +0.1 |
| **TWGZ** | **Tauwhareparae** | **1.73** | **109** | Pn | Pn | 01 55 47.7 | +0.4 |
| TWGZ | | | | Sn | S | 01 56 18.9 | +0.2 |
| **TWGZ** | **Tauwhareparae** | **1.73** | **109** | PN | Pn | 01 55 47.7 | +0.4 |
| TWGZ | | | | SN | S | 01 56 18.9 | +0.2 |
| TWGZ | | | | AML | AML | 01 56 22.4 | |
| **PKGZ** | **Pakihiroa** | **1.74** | **99** | PN | Pn | 01 55 47.7 | +0.2 |
| PKGZ | | | | AML | AML | 01 56 20.0 | |
| PKGZ | | | | AML | AML | 01 56 20.5 | |
| **MOVZ** | **Moawhango** | **1.77** | **184** | PN | Pn | 01 55 47.1 | -0.5 |
| **WHHZ** | **Waihua** | **1.77** | **144** | PN | Pn | 01 55 47.6 | 0.0 |
| WHHZ | | | | AML | AML | 01 56 24.1 | |
| WHHZ | | | | AML | AML | 01 56 28.8 | |
| **RIGZ** | **Rimuhau** | **1.81** | **127** | ⇓PN | Pn | 01 55 48.0 | 0.0 |
| RIGZ | | | | SN | S | 01 56 19.1 | -0.8 |
| RIGZ | | | | AML | AML | 01 56 21.6 | |
| **KWHZ** | **Kaweka Forest** | **1.83** | **167** | PN | Pn | 01 55 48.1 | 0.0 |
| KWHZ | | | | SN | S | 01 56 19.0 | -1.3 |
| KWHZ | | | | AML | AML | 01 56 22.0 | |
| **ARHZ** | **Aropaoanui** | **1.83** | **152** | Pn | Pn | 01 55 48.2 | +0.1 |
| ARHZ | | | | Sn | S | 01 56 19.3 | -0.9 |
| **ARHZ** | **Aropaoanui** | **1.83** | **152** | PN | Pn | 01 55 48.2 | +0.1 |
| ARHZ | | | | SN | S | 01 56 19.3 | -0.9 |
| ARHZ | | | | AML | AML | 01 56 25.0 | |
| **BHHZ** | **Black Hill Sta** | **1.85** | **176** | Pn | Pn | 01 55 48.0 | -0.3 |
| **BHHZ** | **Black Hill Sta** | **1.85** | **176** | PN | Pn | 01 55 48.0 | -0.3 |
| BHHZ | | | | SN | S | 01 56 18.2 | -2.5 |
| BHHZ | | | | AML | AML | 01 56 24.5 | |
| **MCHZ** | **McNeill Hill** | **1.90** | **161** | Pn | Pn | 01 55 48.9 | +0.1 |
| MCHZ | | | | Sn | S | 01 56 20.6 | -0.7 |
| **MCHZ** | **McNeill Hill** | **1.90** | **161** | PN | Pn | 01 55 48.8 | +0.1 |
| MCHZ | | | | SN | S | 01 56 20.6 | -0.7 |
| MCHZ | | | | AML | AML | 01 56 37.4 | |
| **MXZ** | **Matakaoa Point** | **1.91** | **88** | Pn | Pn | 01 55 49.2 | +0.4 |
| **MXZ** | **Matakaoa Point** | **1.91** | **88** | PN | Pn | 01 55 49.2 | +0.4 |
| MXZ | | | | AML | AML | 01 56 15.2 | |
| MXZ | | | | AML | AML | 01 56 23.7 | |
| **PUZ** | **Puketiti** | **1.91** | **104** | SN | S | 01 56 19.1 | -2.3 |
| PUZ | | | | AML | AML | 01 56 22.2 | |
| **KNZ** | **Kokohu** | **1.96** | **135** | Pn | Pn | 01 55 48.6 | -0.6 |
| KNZ | | | | Sn | S | 01 56 20.6 | -1.6 |
| **KNZ** | **Kokohu** | **1.96** | **135** | ⇓PN | Pn | 01 55 48.6 | -0.6 |
| KNZ | | | | SN | S | 01 56 20.6 | -1.6 |
| **WMGZ** | **Waiomatatini S** | **2.00** | **96** | Pn | Pn | 01 55 49.5 | -0.1 |
| WMGZ | | | | Sn | S | 01 56 21.7 | -1.2 |
| **WMGZ** | **Waiomatatini S** | **2.00** | **96** | ⇓PN | Pn | 01 55 49.5 | -0.1 |
| WMGZ | | | | SN | S | 01 56 21.7 | -1.2 |
| WMGZ | | | | AML | AML | 01 56 24.1 | |
| **CNGZ** | **Carnagh Statio** | **2.00** | **116** | PN | Pn | 01 55 49.7 | +0.1 |
| CNGZ | | | | AML | AML | 01 56 25.6 | |
| **KRHZ** | **Kereru** | **2.03** | **170** | ⇑PN | Pn | 01 55 49.3 | -0.6 |
| KRHZ | | | | AML | AML | 01 56 25.3 | |
| KRHZ | | | | AML | AML | 01 56 27.1 | |
| **WAZ** | **Wanganui** | **2.23** | **199** | Pn | Pn | 01 55 51.4 | -0.3 |
| **WAZ** | **Wanganui** | **2.23** | **199** | ⇑PN | Pn | 01 55 51.4 | -0.3 |
| **KAHZ** | **Kahuranaki** | **2.28** | **161** | Pn | Pn | 01 55 51.6 | -0.6 |
| **KAHZ** | **Kahuranaki** | **2.28** | **161** | PN | Pn | 01 55 51.6 | -0.6 |
| KAHZ | | | | AML | AML | 01 56 28.5 | |
| KAHZ | | | | AML | AML | 01 56 31.3 | |
| **PNHZ** | **Pukenui** | **2.28** | **174** | Pn | Pn | 01 55 51.2 | -1.1 |
| **PNHZ** | **Pukenui** | **2.28** | **174** | PN | Pn | 01 55 51.2 | -1.1 |
| PNHZ | | | | AML | AML | 01 56 30.4 | |
| PNHZ | | | | AML | AML | 01 56 31.2 | |
| **TSZ** | **Takapari Road** | **2.41** | **179** | Pn | Pn | 01 55 52.2 | -1.3 |
| **TSZ** | **Takapari Road** | **2.41** | **179** | ⇑PN | Pn | 01 55 52.2 | -1.3 |
| TSZ | | | | AML | AML | 01 56 30.8 | |
| TSZ | | | | AML | AML | 01 56 31.1 | |
| **WPHZ** | **Waipukurau** | **2.46** | **170** | AML | AML | 01 56 32.7 | |
| WPHZ | | | | AML | AML | 01 56 34.0 | |
| **OHWZ** | **Ohakea** | **2.60** | **190** | SN | S | 01 56 31.5 | -1.8 |
| **DVHZ** | **Dannevirke** | **2.66** | **176** | Pn | Pn | 01 55 54.2 | -1.8 |
| **DVHZ** | **Dannevirke** | **2.66** | **176** | PN | Pn | 01 55 54.1 | -2.0 |
| DVHZ | | | | AML | AML | 01 56 33.4 | |
| DVHZ | | | | AML | AML | 01 56 39.9 | |
| **PRHZ** | **Porangahau** | **2.68** | **168** | Pn | Pn | 01 55 54.7 | -1.5 |
| **PRHZ** | **Porangahau** | **2.68** | **168** | PN | Pn | 01 55 54.5 | -1.7 |
| PRHZ | | | | AML | AML | 01 56 35.9 | |
| PRHZ | | | | AML | AML | 01 56 36.0 | |
| **POWZ** | **Post Office Ro** | **2.75** | **182** | Pn | Pn | 01 55 55.4 | -1.5 |
| **POWZ** | **Post Office Ro** | **2.75** | **182** | PN | Pn | 01 55 55.0 | -1.9 |
| POWZ | | | | AML | AML | 01 56 35.2 | |
| POWZ | | | | AML | AML | 01 56 38.3 | |
| **ANWZ** | **Angora Road** | **2.85** | **171** | PN | Pn | 01 55 56.3 | -1.7 |
| ANWZ | | | | AML | AML | 01 56 38.3 | |
| ANWZ | | | | AML | AML | 01 56 38.4 | |
| **PRWZ** | **Pori Road** | **2.91** | **179** | Pn | Pn | 01 55 57.2 | -1.5 |
| **PRWZ** | **Pori Road** | **2.91** | **179** | PN | Pn | 01 55 57.2 | -1.5 |
| PRWZ | | | | AML | AML | 01 56 38.0 | |
| PRWZ | | | | AML | AML | 01 56 38.3 | |
| **MRZ** | **Mangatainoka R** | **3.02** | **185** | Pn | Pn | 01 55 57.6 | -2.3 |
| **MRZ** | **Mangatainoka R** | **3.02** | **185** | ⇑PN | Pn | 01 55 57.6 | -2.3 |
| MRZ | | | | SN | S | 01 56 36.9 | -4.6 |
| MRZ | | | | AML | AML | 01 56 39.4 | |
| **BFZ** | **Birch Farm** | **3.05** | **175** | Pn | Pn | 01 55 57.9 | -2.2 |
| **BFZ** | **Birch Farm** | **3.05** | **175** | PN | Pn | 01 55 57.9 | -2.2 |
| BFZ | | | | SN | S | 01 56 37.5 | -4.4 |
| BFZ | | | | AML | AML | 01 56 40.6 | |
| BFZ | | | | AML | AML | 01 56 40.9 | |
| BFZ | | | | AML | AML | 01 56 43.6 | |
| **TIWZ** | **Tintock** | **3.13** | **180** | Pn | Pn | 01 55 58.8 | -2.3 |
| **TIWZ** | **Tintock** | **3.13** | **180** | PN | Pn | 01 55 58.6 | -2.5 |
| TIWZ | | | | AML | AML | 01 56 41.9 | |
| TIWZ | | | | AML | AML | 01 56 42.6 | |
| **OGWZ** | **Otaki Gorge** | **3.22** | **190** | Pn | Pn | 01 55 59.9 | -2.2 |
| **OGWZ** | **Otaki Gorge** | **3.22** | **190** | ⇑PN | Pn | 01 55 59.9 | -2.2 |
| OGWZ | | | | SN | S | 01 56 41.1 | -4.3 |
| OGWZ | | | | AML | AML | 01 56 43.7 | |
| **HOWZ** | **Holdsworth Sta** | **3.27** | **185** | Pn | Pn | 01 55 59.9 | -2.6 |
| **HOWZ** | **Holdsworth Sta** | **3.27** | **185** | PN | Pn | 01 55 59.9 | -2.7 |
| HOWZ | | | | SN | S | 01 56 41.2 | -5.1 |
| HOWZ | | | | AML | AML | 01 56 44.4 | |
| **CPWZ** | **Castlepoint** | **3.27** | **176** | SN | S | 01 56 43.2 | -3.2 |
| **KIW** | **Kapiti Island** | **3.31** | **193** | Pn | Pn | 01 56 00.6 | -2.4 |
| **KIW** | **Kapiti Island** | **3.31** | **193** | ⇑PN | Pn | 01 56 00.6 | -2.4 |
| KIW | | | | SN | S | 01 56 42.1 | -5.0 |
| KIW | | | | AML | AML | 01 56 46.6 | |
| **TMWZ** | **Te Maipa** | **3.46** | **180** | Pn | Pn | 01 56 02.0 | -2.8 |
| **TMWZ** | **Te Maipa** | **3.46** | **180** | PN | Pn | 01 56 02.0 | -2.8 |
| TMWZ | | | | AML | AML | 01 56 47.0 | |
| TMWZ | | | | AML | AML | 01 56 50.2 | |
| **DUWZ** | **D'Urville Isla** | **3.51** | **205** | Pn | Pn | 01 56 03.0 | -2.4 |
| **DUWZ** | **D'Urville Isla** | **3.51** | **205** | PN | Pn | 01 56 02.9 | -2.4 |
| DUWZ | | | | SN | S | 01 56 47.1 | -4.2 |
| **CAW** | **Cannon Point** | **3.52** | **190** | Pn | Pn | 01 56 02.8 | -2.7 |
| **CAW** | **Cannon Point** | **3.52** | **190** | PN | Pn | 01 56 02.8 | -2.7 |
| CAW | | | | AML | AML | 01 56 49.2 | |
| CAW | | | | AML | AML | 01 56 50.7 | |
| **MTW** | **Mount Morrison** | **3.52** | **185** | Pn | Pn | 01 56 02.6 | -2.8 |
| **MTW** | **Mount Morrison** | **3.52** | **185** | PN | Pn | 01 56 02.6 | -2.8 |
| MTW | | | | AML | AML | 01 56 48.8 | |
| MTW | | | | AML | AML | 01 56 48.9 | |
| **PAWZ** | **Paruwai Farm** | **3.75** | **185** | Pn | Pn | 01 56 04.9 | -3.3 |
| **PAWZ** | **Paruwai Farm** | **3.75** | **185** | PN | Pn | 01 56 04.9 | -3.3 |
| PAWZ | | | | AML | AML | 01 56 53.3 | |
| PAWZ | | | | AML | AML | 01 56 53.7 | |
| **TRWZ** | **Traveller** | **3.75** | **182** | Pn | Pn | 01 56 05.1 | -3.0 |
| **TRWZ** | **Traveller** | **3.75** | **182** | PN | Pn | 01 56 05.1 | -3.1 |
| TRWZ | | | | AML | AML | 01 56 52.8 | |
| TRWZ | | | | AML | AML | 01 56 53.6 | |
| **TCW** | **Tory Channel** | **3.78** | **199** | Pn | Pn | 01 56 05.8 | -2.5 |
| **TCW** | **Tory Channel** | **3.78** | **199** | PN | Pn | 01 56 05.8 | -2.5 |
| TCW | | | | SN | S | 01 56 51.9 | -5.0 |
| TCW | | | | AML | AML | 01 56 53.5 | |
| **MSWZ** | **Moikau Station** | **3.80** | **187** | Pn | Pn | 01 56 05.4 | -3.3 |
| **MSWZ** | **Moikau Station** | **3.80** | **187** | PN | Pn | 01 56 05.4 | -3.3 |
| MSWZ | | | | AML | AML | 01 56 53.9 | |
| MSWZ | | | | AML | AML | 01 56 56.5 | |
| **BHW** | **Baring Head** | **3.84** | **192** | Pn | Pn | 01 56 05.9 | -3.2 |
| **BHW** | **Baring Head** | **3.84** | **192** | PN | Pn | 01 56 05.9 | -3.3 |
| BHW | | | | AML | AML | 01 56 53.8 | |
| BHW | | | | AML | AML | 01 56 55.0 | |
| **PLWZ** | **Palliser** | **3.95** | **187** | Pn | Pn | 01 56 07.0 | -3.4 |
| **PLWZ** | **Palliser** | **3.95** | **187** | PN | Pn | 01 56 07.0 | -3.4 |
| PLWZ | | | | AML | AML | 01 56 57.1 | |
| PLWZ | | | | AML | AML | 01 56 57.8 | |
| **NNZ** | **Nelson** | **4.07** | **208** | Pn | Pn | 01 56 08.7 | -3.1 |
| **NNZ** | **Nelson** | **4.07** | **208** | PN | Pn | 01 56 08.6 | -3.1 |
| NNZ | | | | SN | S | 01 56 57.6 | -5.3 |
| **TUWZ** | **Tuamarina** | **4.08** | **201** | Pn | Pn | 01 56 08.9 | -3.0 |
| **TUWZ** | **Tuamarina** | **4.08** | **201** | PN | Pn | 01 56 08.9 | -3.0 |
| TUWZ | | | | AML | AML | 01 56 09.7 | |
| TUWZ | | | | AML | AML | 01 56 59.9 | |
| **QRZ** | **Quartz Range** | **4.12** | **218** | Pn | Pn | 01 56 09.5 | -2.9 |
| **QRZ** | **Quartz Range** | **4.12** | **218** | PN | Pn | 01 56 09.5 | -2.9 |
| **BSWZ** | **Blackbirch Sta** | **4.36** | **200** | Pn | Pn | 01 56 12.3 | -2.9 |
| **BSWZ** | **Blackbirch Sta** | **4.36** | **200** | PN | Pn | 01 56 12.3 | -2.9 |
| BSWZ | | | | AML | AML | 01 57 07.2 | |
| **THZ** | **Tophouse** | **4.72** | **208** | Pn | Pn | 01 56 16.3 | -3.4 |
| **THZ** | **Tophouse** | **4.72** | **208** | ⇓PN | Pn | 01 56 16.3 | -3.4 |
| **KHZ** | **Kahutara** | **5.10** | **200** | Pn | Pn | 01 56 20.5 | -3.7 |
| **KHZ** | **Kahutara** | **5.10** | **200** | PN | Pn | 01 56 20.5 | -3.7 |
| KHZ | | | | SN | S | 01 57 18.4 | -7.1 |
| KHZ | | | | AML | AML | 01 57 20.4 | |
| **DSZ** | **Denniston Nort** | **5.17** | **216** | Pn | Pn | 01 56 20.9 | -4.2 |
| **DSZ** | **Denniston Nort** | **5.17** | **216** | PN | Pn | 01 56 20.9 | -4.3 |
| **LTZ** | **Lake Taylor** | **5.84** | **207** | Pn | Pn | 01 56 28.7 | -4.7 |
| **LTZ** | **Lake Taylor** | **5.84** | **207** | PN | Pn | 01 56 28.7 | -4.7 |
| **INZ** | **Inchbonnie** | **6.12** | **213** | ⇑PN | Pn | 01 56 32.4 | -4.4 |
| **OXZ** | **Oxford** | **6.40** | **206** | Pn | Pn | 01 56 35.0 | -5.3 |
| **OXZ** | **Oxford** | **6.40** | **206** | PN | Pn | 01 56 35.0 | -5.3 |
| **MQZ** | **McQueen's Vall** | **6.54** | **201** | Pn | Pn | 01 56 36.4 | -5.7 |
| **MQZ** | **McQueen's Vall** | **6.54** | **201** | PN | Pn | 01 56 36.4 | -5.7 |
| **WVZ** | **Waitaha Valley** | **6.71** | **214** | Pn | Pn | 01 56 39.9 | -4.3 |
| **WVZ** | **Waitaha Valley** | **6.71** | **214** | PN | Pn | 01 56 39.1 | -5.1 |
| **RPZ** | **Rata Peaks** | **7.10** | **210** | Pn | Pn | 01 56 43.7 | -5.4 |
| **RPZ** | **Rata Peaks** | **7.10** | **210** | PN | Pn | 01 56 43.7 | -5.4 |
| **FOZ** | **Fox Glacier** | **7.49** | **216** | *e*PN | Pn | 01 56 48.1 | -5.9 |
| **WKZ** | **Wanaka** | **8.85** | **214** | *e*PN | Pn | 01 57 04.3 | -7.1 |

*DDA **15** 01:58:51.8, 38.93N×43.60E, h12km, Ml2.9*
*ISK **15** 01:58:51.5, 38.92N×43.58E, h5km, ML2.6*
*ISCJB **15** 01:58:53.0±0.5, 38.95N±0.03×43.57E±0.04, h11km±3km, Error ellipse: s-maj=5.8km s-min=4.2km az=9.7*
*CSEM **15** 01:58:52.4±0.2, 38.93N×43.58E, h5km, ML2.9, Error ellipse: s-maj=4.6km s-min=3.7km az=116.0*
**ISC 15 01:58:52.3±0.9, 38.94N±0.02×43.58E±0.03, h9km±5km, n36, σ0.967/54, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.05** | **354** | *i* P | **Pg** | **01 58 54.0** | **-0.4** |
| VMUR | | | | *i* S | **Sg** | **01 58 56.3** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.05** | **354** | P | **Pg** | **01 58 54.0** | **-0.4** |
| VMUR | | | | S | **Sg** | **01 58 56.3** | **+0.3** |
| **ERCV** | **ERCIS-VAN** | **0.20** | **294** | *e*PG | **Pg** | **01 58 56.6** | **0.0** |
| ERCV | | | | *e*SG | **Sg** | **01 59 00.4** | **+0.9** |
| **ERCV** | **ERCIS-VAN** | **0.20** | **294** | *e*Pg | **Pg** | **01 58 56.6** | **0.0** |
| ERCV | | | | *e*Sg | **Sg** | **01 59 00.4** | **+0.9** |
| **CLDR** | **Caldiran** | **0.34** | **52** | *e*PG | **Pg** | **01 58 59.3** | **+0.3** |
| CLDR | | | | *e*SG | **Sb** | **01 59 05.2** | **-0.9** |
| **CLDR** | **Caldiran** | **0.34** | **52** | *i* P | **Pg** | **01 58 59.0** | **0.0** |
| CLDR | | | | *i* S | **Sb** | **01 59 05.7** | **-0.4** |
| **CLDR** | **Caldiran** | **0.34** | **52** | P | **Pg** | **01 58 59.0** | **0.0** |
| **CLDR** | **Caldiran** | **0.34** | **52** | *e*Pg | **Pg** | **01 58 59.3** | **+0.3** |
| CLDR | | | | *e*Sg | **Sb** | **01 59 05.3** | **-0.9** |
| **VANB** | **Van** | **0.37** | **203** | *e*PG | **Pb** | **01 59 01.0** | **-0.1** |
| VANB | | | | *e*SG | **Sb** | **01 59 08.2** | **+1.1** |
| **VANB** | **Van** | **0.37** | **203** | *e*Pg | **Pb** | **01 59 01.0** | **-0.1** |
| VANB | | | | *e*Sg | **Sb** | **01 59 08.2** | **+1.1** |
| **TVAN** | **Van** | **0.43** | **198** | *i* P | **Pg** | **01 59 00.7** | **0.0** |
| TVAN | | | | *i* S | **Sb** | **01 59 09.4** | **+0.6** |
| **TVAN** | **Van** | **0.43** | **198** | P | **Pg** | **01 59 00.7** | **0.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.68** | **259** | *i* P | **Pg** | **01 59 05.1** | **-0.3** |
| ADCV | | | | *i* S | **Sb** | **01 59 15.9** | **-0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.68** | **259** | P | **Pg** | **01 59 05.1** | **-0.3** |
| ADCV | | | | S | **Sb** | **01 59 15.9** | **-0.1** |
| **GEVA** | **Gevas** | **0.74** | **213** | *i* P | **Pg** | **01 59 05.6** | **-1.0** |
| GEVA | | | | *i* S | **Sb** | **01 59 17.6** | **-0.3** |
| **GEVA** | **Gevas** | **0.74** | **213** | P | **Pg** | **01 59 05.6** | **-1.0** |
| GEVA | | | | S | **Sb** | **01 59 17.6** | **-0.3** |
| **TUTA** | **Tutak** | **0.75** | **308** | *i* P | **Pg** | **01 59 06.3** | **-0.6** |
| TUTA | | | | *i* S | **Sb** | **01 59 18.0** | **-0.2** |
| **TUTA** | **Tutak** | **0.75** | **308** | P | **Pg** | **01 59 06.3** | **-0.6** |
| TUTA | | | | S | **Sb** | **01 59 18.0** | **-0.2** |
| **AGRB** | **Hanur-Agry** | **0.78** | **325** | *e*PG | **Pb** | **01 59 07.8** | **-0.4** |
| AGRB | | | | *e*SG | **Sb** | **01 59 19.8** | **+0.8** |
| **AGRB** | **Hanur-Agry** | **0.78** | **325** | *e*Pg | **Pb** | **01 59 07.8** | **-0.4** |
| AGRB | | | | *e*Sg | **Sb** | **01 59 19.8** | **+0.8** |
| **TASB** | **TASBURUN-IGDIR** | **1.16** | **26** | *e*PN | **Pn** | **01 59 15.3** | **+0.5** |
| **TASB** | **TASBURUN-IGDIR** | **1.16** | **26** | *e*Pn | **Pn** | **01 59 15.3** | **+0.5** |
| **VRTB** | **Varto-Mus** | **1.67** | **278** | *e*PN | **Pb** | **01 59 23.2** | **-0.1** |
| **VRTB** | **Varto-Mus** | **1.67** | **278** | *e*Pn | **Pb** | **01 59 23.2** | **-0.1** |
| **CUKT** | **Cukurca** | **1.69** | **179** | *e*PN | **Pb** | **01 59 22.9** | **-0.7** |
| **CUKT** | **Cukurca** | **1.69** | **179** | *e*Pn | **Pb** | **01 59 22.9** | **-0.7** |
| **SIRT** | **Sirnak** | **1.69** | **212** | *e*PN | **Pb** | **01 59 23.1** | **-0.5** |
| **SIRT** | **Sirnak** | **1.69** | **212** | *e*Pn | **Pb** | **01 59 23.1** | **-0.5** |
| **KARS** | **Kars** | **1.73** | **347** | *e*PN | **Pb** | **01 59 24.1** | **-0.3** |
| **KARS** | **Kars** | **1.73** | **347** | *e*Pn | **Pb** | **01 59 24.1** | **-0.3** |
| **SENK** | **Senkaya-Erzuru** | **1.88** | **330** | *e*PN | **Pb** | **01 59 26.1** | **-0.8** |
| **SENK** | **Senkaya-Erzuru** | **1.88** | **330** | *e*Pn | **Pb** | **01 59 26.1** | **-0.8** |
| **BNGB** | **Bing¶ll** | **2.26** | **272** | *e*PN | **Pb** | **01 59 31.4** | **-2.0** |
| **YEDI** | **Yedisu-Bingol** | **2.41** | **283** | *e*PN | **Pn** | **01 59 33.3** | **+1.3** |
| **YEDI** | **Yedisu-Bingol** | **2.41** | **283** | *e*Pn | **Pn** | **01 59 33.3** | **+1.3** |
| **BINT** | **Bingol** | **2.41** | **270** | *e*Pn | **Pn** | **01 59 31.4** | **-0.6** |

*SJA **15** 02:08:57.2±1.1, 34.65S×72.87W, h12km±6km, ML3.5, MW4.1*
*GUC **15** 02:08:59.5±0.6, 34.67S×72.76W, h10km±8km, ML4.0*
**ISC 15 02:09:00.4±2.3, 34.77S±0.06×72.61W±0.09, h10km±13km, n15, σ0.972/26, 1C-2D, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GO05** | **HualaæØ** | **0.61** | **113** | *e*P | **Pb** | **02 09 13.8** | **+0.6** |
| **GO05** | **HualaæØ** | **0.61** | **113** | ⇓*i* P | **Pb** | **02 09 13.7** | **+0.5** |
| GO05 | | | | *i* S | **Sg** | **02 09 19.5** | **-0.7** |
| GO05 | | | | IAML | | 02 09 22.3 | |
| | comp=N,15µm,0.3s | | | | | | |
| **NICH** | **Los Niches** | **1.16** | **102** | ⇑*i* P | **Pg** | **02 09 22.8** | **+0.1** |
| NICH | | | | *i* S | **Sn** | **02 09 38.4** | **-0.2** |
| **COCH** | **Cobquecura** | **1.37** | **186** | *i* P | **Pn** | **02 09 25.4** | **-0.3** |
| COCH | | | | *e*S | **Sg** | **02 09 45.1** | **+0.7** |
| **COCH** | **Cobquecura** | **1.37** | **186** | ⇓*i* P | **Pn** | **02 09 25.3** | **-0.3** |
| COCH | | | | *i* S | **Sb** | **02 09 42.7** | **-0.9** |
| COCH | | | | IAML | | 02 09 48.4 | |
| | comp=E,2µm,0.5s | | | | | | |
| **CCHI** | **Chillan** | **1.88** | **167** | *i* P | **Pn** | **02 09 33.6** | **+1.0** |
| CCHI | | | | *e*P | **Pb** | **02 09 34.3** | **-0.6** |
| CCHI | | | | *e*S | **Sg** | **02 10 00.8** | **-0.1** |
| **CCHI** | **Chillan** | **1.88** | **167** | *i* P | **Pn** | **02 09 33.0** | **+0.4** |
| CCHI | | | | *i* S | **Sb** | **02 09 58.5** | **+0.1** |
| CCHI | | | | IAML | | 02 10 03.7 | |
| | comp=E,3µm,0.3s | | | | | | |
| **SJCH** | **San Jose de Ma** | **2.18** | **60** | *i* P | **Pn** | **02 09 36.7** | **-0.2** |
| SJCH | | | | IAML | | 02 10 13.0 | |
| | comp=N,901nm,0.4s | | | | | | |
| **LMEL** | **Las Melosas** | **2.19** | **66** | *i* P | **Pn** | **02 09 37.4** | **+0.3** |
| LMEL | | | | *i* S | **Sb** | **02 10 06.4** | **-1.2** |
| LMEL | | | | IAML | | 02 10 11.2 | |
| | comp=N,2µm,0.4s | | | | | | |
| **CLCH** | **Cerro Calan** | **2.20** | **52** | *i* P | **Pn** | **02 09 36.6** | **-0.5** |
| CLCH | | | | *i* S | **Sn** | **02 10 05.5** | **+1.0** |
| CLCH | | | | IAML | | 02 10 20.8 | |
| | comp=E,1µm,0.5s | | | | | | |
| **PEL** | **Peldehue** | **2.28** | **45** | *i* P | **Pn** | **02 09 37.8** | **-0.4** |
| PEL | | | | *i* S | **Sn** | **02 10 05.8** | **-0.5** |
| **FCH** | **Farellones** | **2.40** | **54** | *i* P | **Pn** | **02 09 39.6** | **-0.5** |
| **AUSP** | **Uspallata** | **3.70** | **48** | *i* P | **Pn** | **02 09 59.6** | **+1.6** |
| **RTLS** | **Leoncito** | **4.06** | **44** | *i* P | **Pn** | **02 10 03.8** | **+0.9** |
| RTLS | | | | *e*P | Pb | 02 10 04.5 | -7.7 |
| RTLS | | | | IAML | | 02 11 20.4 | |
| | comp=Z,60nm,0.5s | | | | | | |
| **AMOG** | **MOGNA** | **5.16** | **43** | *i* P | **Pn** | **02 10 17.6** | **-0.1** |
| AMOG | | | | *e*P | **Pn** | **02 10 18.1** | **+0.3** |

*ISCJB **15** 02:09:44.8±0.4, 22.63N±0.02×121.46E±0.03, h19km±5km, Error ellipse: s-maj=4.2km s-min=3.7km az=158.5*
*JMA **15** 02:09:45.8±0.1, 22.73N×121.38E, h27km±5km, M3.8*
*TAP **15** 02:09:47.0, 22.69N×121.27E, h28km, ML3.9, B*
**ISC 15 02:09:45.8±1.0, 22

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CHN2 | | | | S | | **Sb** | **02 10 24.6** | **+1.4** |
| | baz=317 | | | | | | | | |
| **CHY** | **Chiayi** | **1.22** | **314** | *e*P | | **Pb** | **02 10 08.2** | **+0.1** |
| | baz=315 | | | | | | | | |
| CHY | | | | *e*S | | **Sb** | **02 10 24.3** | **+0.9** |
| | baz=315 | | | | | | | | |
| **WGK** | **Gukeng** | **1.27** | **324** | *e*P | | **Pb** | **02 10 09.3** | **+0.2** |
| | baz=326 | | | | | | | | |
| WGK | | | | *e*S | | **Sb** | **02 10 26.3** | **+1.3** |
| | baz=326 | | | | | | | | |
| **HWA** | **Hwalien** | **1.33** | **9** | *e*P | | **Pn** | **02 10 08.7** | **-0.1** |
| | baz=13 | | | | | | | | |
| **TYC** | **Yuchr** | **1.33** | **339** | ⇑P | | **Pb** | **02 10 09.9** | **-0.2** |
| | baz=350 | | | | | | | | |
| TYC | | | | S | | **Sb** | **02 10 27.6** | **+0.8** |
| | baz=350 | | | | | | | | |
| **WNT** | **Mingjian** | **1.38** | **332** | P | | **Pb** | **02 10 11.3** | **+0.5** |
| | baz=334 | | | | | | | | |
| WNT | | | | *e*S | | **Sb** | **02 10 29.3** | **+1.2** |
| | baz=334 | | | | | | | | |
| **TWD** | **Chiawan** | **1.43** | **8** | *e*P | | **Pn** | **02 10 09.5** | **-0.7** |
| | baz=12 | | | | | | | | |
| **WHF** | **Hehuan Shan** | **1.49** | **356** | *e*P | | **Pn** | **02 10 10.7** | **-0.6** |
| | baz=10.0 | | | | | | | | |
| **TCU** | **Taichung** | **1.62** | **337** | *e*P | | **Pb** | **02 10 14.4** | **-0.6** |
| | baz=340 | | | | | | | | |
| **WDGT** | **Dungji** | **1.69** | **291** | *e*P | | **Pn** | **02 10 13.9** | **+0.2** |
| | baz=290 | | | | | | | | |
| WDGT | | | | *e*S | | **Sn** | **02 10 33.4** | **-1.3** |
| | baz=290 | | | | | | | | |
| **TWQ1** | **Liyutan** | **1.77** | **342** | *e*P | | **Pb** | **02 10 16.7** | **-1.0** |
| | baz=342 | | | | | | | | |
| TWQ1 | | | | *e*S | | **Sb** | **02 10 39.2** | **-0.4** |
| | baz=342 | | | | | | | | |
| **ENA** | **Nanau** | **1.80** | **11** | *e*P | | **Pn** | **02 10 14.7** | **-0.4** |
| | baz=13 | | | | | | | | |
| **NSY** | **Sanyi** | **1.84** | **342** | *e*P | | **Pb** | **02 10 18.2** | **-0.6** |
| | baz=343 | | | | | | | | |
| NSY | | | | *e*S | | **Sb** | **02 10 42.1** | **+0.6** |
| | baz=343 | | | | | | | | |
| **PNG** | **Penghu** | **1.91** | **299** | *e*P | | **Pn** | **02 10 16.4** | **-0.3** |
| | baz=298 | | | | | | | | |
| PNG | | | | S | | **Sn** | **02 10 38.8** | **-1.1** |
| | baz=298 | | | | | | | | |
| **ENTT** | **Nioudou** | **1.98** | **5** | *e*P | | **Pn** | **02 10 17.8** | **0.0** |
| | baz=17 | | | | | | | | |
| **TWC** | **Suao** | **1.99** | **12** | *e*P | | **Pn** | **02 10 18.6** | **+0.7** |
| | baz=3.0 | | | | | | | | |
| TWC | | | | *e*S | | **Sn** | **02 10 42.2** | **+0.3** |
| | baz=3.0 | | | | | | | | |
| **NSTT** | **Nanjuang** | **2.00** | **350** | *e*P | | **Pn** | **02 10 18.9** | **+1.0** |
| | baz=350 | | | | | | | | |
| NSTT | | | | *e*S | | **Sb** | **02 10 44.1** | **-1.9** |
| | baz=350 | | | | | | | | |
| **NSK** | **Sanguang** | **2.01** | **359** | *e*P | | **Pn** | **02 10 18.7** | **+0.5** |
| | baz=14 | | | | | | | | |
| **TWE** | **Neicheng** | **2.07** | **7** | *e*P | | **Pn** | **02 10 19.2** | **+0.2** |
| | baz=10.0 | | | | | | | | |
| **TWA** | **Mucha** | **2.32** | **5** | *e*P | | **Pn** | **02 10 23.3** | **+0.9** |
| | baz=15 | | | | | | | | |
| **YOJ** | **Yonaguni jima** | **2.34** | **39** | *e*P | | **Pn** | **02 10 24.4** | **+1.7** |
| | baz=41 | | | | | | | | |
| **YOJ** | **Yonaguni jima** | **2.34** | **39** | P | | **Pn** | **02 10 24.1** | **+1.5** |
| YOJ | | | | *e*S | | **Sn** | **02 10 51.1** | **+0.5** |
| **TWB1** | **Santiao Chiao** | **2.41** | **13** | *e*P | | **Pn** | **02 10 25.0** | **+1.4** |
| | baz=7.0 | | | | | | | | |
| **NWF** | **Wu-fen Shan** | **2.43** | **9** | *e*P | | **Pn** | **02 10 24.7** | **+0.7** |
| | baz=10.0 | | | | | | | | |
| **HATJ** | **Hateruma jima** | **2.63** | **57** | P | | **Pn** | **02 10 27.2** | **+0.6** |
| HATJ | | | | *e*S | | **Sn** | **02 10 57.3** | **-0.4** |
| **IRIF** | **Iriomote-Funau** | **2.73** | **52** | P | | **Pn** | **02 10 28.9** | **+0.9** |
| IRIF | | | | *e*S | | **Sn** | **02 11 00.6** | **+0.4** |
| **JKRS** | **Kuro-shima** | **2.88** | **56** | P | | **Pn** | **02 10 30.9** | **+0.8** |
| JKRS | | | | *e*S | | **Sn** | **02 11 03.8** | **-0.2** |
| **JIJ** | **Ishigaki jima** | **3.06** | **56** | P | | **Pn** | **02 10 33.0** | **+0.5** |
| JIJ | | | | S | | **Sn** | **02 11 07.2** | **-1.0** |
| **KNM** | **Kinmen** | **3.22** | **304** | *e*P | | **Pn** | **02 10 36.1** | **+1.3** |
| | baz=304 | | | | | | | | |
| **JISG** | **Ishigakijimahi** | **3.31** | **54** | P | | **Pn** | **02 10 36.1** | **+0.2** |
| JISG | | | | *e*S | | **Sn** | **02 11 12.7** | **-1.7** |
| **JTJ** | **Tarama** | **3.63** | **56** | *e*S | | **Sn** | **02 11 21.8** | **-0.7** |
| **JIRB** | **Irabujima** | **4.09** | **57** | *e*S | | **Sn** | **02 11 33.4** | **-0.5** |

*ISK **15** 02:18:42.3, 38˚.64N×43˚.32E, h5km, ML2.4*
*DDA **15** 02:18:42.6, 38˚.68N×43˚.27E, h7km, Ml2.8*
*CSEM **15** 02:18:42.8±0.2, 38˚.64N×43˚.25E, h2km, ML2.4, Error ellipse: s-maj=5.3km s-min=4.7km az=134.0*

**ISC 15 02:18:42.8**±1.0, **38˚.67N**±0˚.02×**43˚.23E**±0˚.02, **h7**km±11km, **n34, σ0§63**/48, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.14** | **121** | *e*PG | **Pg** | **02 18 45.9** | **0.0** |
| **VANB** | **Van** | **0.14** | **121** | *e*Pg | **Pg** | **02 18 45.9** | **0.0** |
| **TVAN** | **Van** | **0.20** | **136** | *i* P | **Pg** | **02 18 45.9** | **-0.9** |
| TVAN | | | | *i* S | **Sg** | **02 18 50.4** | **+0.9** |
| **TVAN** | **Van** | **0.20** | **136** | P | **Pg** | **02 18 45.9** | **-0.9** |
| TVAN | | | | S | **Sg** | **02 18 50.4** | **+0.9** |
| **GEVA** | **Gevas** | **0.38** | **201** | *i* P | **Pg** | **02 18 49.3** | **-1.0** |
| GEVA | | | | *i* S | **Sb** | **02 18 58.2** | **0.0** |
| **GEVA** | **Gevas** | **0.38** | **201** | P | **Pg** | **02 18 49.3** | **-1.0** |
| GEVA | | | | S | **Sb** | **02 18 58.2** | **0.0** |
| **VMUR** | **Van-Muradiye** | **0.42** | **40** | *i* P | **Pg** | **02 18 50.7** | **-0.2** |
| VMUR | | | | *i* S | **Sb** | **02 18 59.0** | **-0.2** |
| **VMUR** | **Van-Muradiye** | **0.42** | **40** | P | **Pg** | **02 18 50.7** | **-0.2** |
| VMUR | | | | S | **Sb** | **02 18 59.0** | **-0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.42** | **289** | *i* P | **Pg** | **02 18 50.7** | **-0.3** |
| ADCV | | | | *i* S | **Sb** | **02 18 59.1** | **-0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.42** | **289** | P | **Pg** | **02 18 50.7** | **-0.3** |
| ADCV | | | | S | **Sb** | **02 18 59.1** | **-0.3** |
| **CLDR** | **Caldiran** | **0.71** | **48** | *e*PG | **Pg** | **02 18 56.4** | **-0.2** |
| CLDR | | | | *e*SG | **Sb** | **02 19 07.0** | **-0.9** |
| **CLDR** | **Caldiran** | **0.71** | **48** | *i* P | **Pg** | **02 18 56.2** | **-0.4** |
| CLDR | | | | *i* S | **Sb** | **02 19 08.6** | **+0.7** |
| **CLDR** | **Caldiran** | **0.71** | **48** | P | **Pg** | **02 18 56.2** | **-0.4** |
| **CLDR** | **Caldiran** | **0.71** | **48** | *e*Pg | **Pg** | **02 18 56.4** | **-0.2** |
| CLDR | | | | *e*Sg | **Sb** | **02 19 07.0** | **-0.9** |
| CLDR | | | | S | **Sb** | **02 19 08.6** | **+0.7** |
| **TUTA** | **Tutak** | **0.80** | **336** | *i* P | **Pg** | **02 18 57.3** | **-0.9** |
| TUTA | | | | *i* S | **Sb** | **02 19 10.1** | **-0.3** |
| **TUTA** | **Tutak** | **0.80** | **336** | P | **Pg** | **02 18 57.3** | **-0.9** |
| TUTA | | | | S | **Sb** | **02 19 10.1** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **0.92** | **348** | *e*PG | **Pg** | **02 19 00.9** | **+0.4** |
| **AGRB** | **Hanur-Agry** | **0.92** | **348** | *e*Pg | **Pg** | **02 19 01.0** | **+0.4** |
| **SIRT** | **Sirnak** | **1.32** | **208** | *e*PN | **Pg** | **02 19 08.7** | **+0.5** |
| **SIRT** | **Sirnak** | **1.32** | **208** | *e*Pn | **Pg** | **02 19 08.7** | **+0.5** |
| **CUKT** | **Cukurca** | **1.45** | **168** | *e*PN | **Pb** | **02 19 09.8** | **-0.4** |
| **CUKT** | **Cukurca** | **1.45** | **168** | *e*Pn | **Pb** | **02 19 09.8** | **-0.4** |
| **VRTB** | **Varto-Mus** | **1.47** | **290** | *e*PN | **Pg** | **02 19 11.9** | **+0.9** |
| **VRTB** | **Varto-Mus** | **1.47** | **290** | *e*Pn | **Pg** | **02 19 11.9** | **+0.9** |
| **TASB** | **TASBURUN-IGDIR** | **1.53** | **30** | *e*PN | **Pb** | **02 19 11.7** | **+0.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.53** | **30** | *e*Pn | **Pb** | **02 19 11.7** | **+0.2** |
| **KARS** | **Kars** | **1.96** | **357** | *e*PN | **Pb** | **02 19 18.2** | **-0.7** |
| **KARS** | **Kars** | **1.96** | **357** | *e*Pn | **Pb** | **02 19 18.2** | **-0.7** |
| **SENK** | **Senkaya-Erzuru** | **2.01** | **340** | *e*PN | **Pb** | **02 19 19.3** | **-0.5** |
| **SENK** | **Senkaya-Erzuru** | **2.01** | **340** | *e*Pn | **Pb** | **02 19 19.3** | **-0.5** |
| **BNGB** | **Bing ¶‖** | **2.02** | **280** | *e*PN | **Pb** | **02 19 19.7** | **-0.3** |
| **BINT** | **Bingol** | **2.15** | **276** | *e*Pn | **Pn** | **02 19 19.7** | **+0.4** |
| **YEDI** | **Yedisu-Bingol** | **2.23** | **291** | *e*PN | **Pb** | **02 19 22.6** | **-0.9** |
| **YEDI** | **Yedisu-Bingol** | **2.23** | **291** | *e*Pn | **Pb** | **02 19 22.6** | **-0.9** |

*CSEM **15** 02:24:58.5±0.3, 50˚.28N×18˚.83E, h2km, Error ellipse: s-maj=8.2km s-min=3.7km az=1.0*

**PRU 15 02:24:59.5, 50˚.28N×18˚.81E, h0**km**, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OKC** | **Ostrava-Krasne** | **0.61** | **224** | *e*PG | Pg | 02 25 10.6 | -0.7 |
| OKC | | | | *e*SG | Sg | 02 25 19.2 | 0.0 |
| **OKC** | **Ostrava-Krasne** | **0.61** | **224** | Pg | Pg | 02 25 10.6 | -0.7 |
| OKC | | | | Sg | Sg | 02 25 19.2 | 0.0 |
| **OJC** | **Ojcow** | **0.64** | **95** | *e*Pg | Pg | 02 25 09.8 | -1.9 |
| OJC | | | | *e*Sg | Sg | 02 25 18.0 | -1.9 |
| **OJC** | **Ojcow** | **0.64** | **95** | *e*Pg | Pg | 02 25 09.8 | -1.9 |
| OJC | | | | *e*Sg | Sg | 02 25 18.0 | -1.9 |
| **MORC** | **Moravsky Berou** | **0.96** | **239** | *e*Pg | Pg | 02 25 17.5 | -0.4 |
| MORC | | | | *e*Sg | Sg | 02 25 30.2 | -0.1 |
| **LANS** | **Liptovska Anna** | **1.21** | **159** | *e*Pg | Pg | 02 25 21.2 | -1.4 |
| LANS | | | | *e*Sg | Sg | 02 25 36.7 | -1.6 |
| **LANS** | **Liptovska Anna** | **1.21** | **159** | *e*PG | Pg | 02 25 21.2 | -1.4 |
| LANS | | | | *e*SG | Sg | 02 25 36.7 | -1.6 |
| **KRLC** | **Kraliky** | **1.32** | **262** | *e*SG | Sg | 02 25 40.9 | -1.0 |
| **KRLC** | **Kraliky** | **1.32** | **262** | Sg | Sg | 02 25 40.9 | -1.0 |
| **DPC** | **Dobruska-Polom** | **1.60** | **273** | *e*PG | Pn | 02 25 29.1 | +0.1 |
| DPC | | | | *e*SG | Sn | 02 25 49.9 | -0.5 |
| **DPC** | **Dobruska-Polom** | **1.60** | **273** | Pg | Pn | 02 25 29.1 | +0.1 |
| DPC | | | | Sg | Sn | 02 25 49.9 | -0.5 |
| **VYHS** | **Vyhne** | **1.79** | **179** | *e*Pn | Pn | 02 25 31.6 | 0.0 |
| VYHS | | | | *e*Sn | Sn | 02 25 52.3 | -2.7 |
| **VYHS** | **Vyhne** | **1.79** | **179** | *e*PN | Pn | 02 25 31.6 | 0.0 |
| VYHS | | | | *e*SN | Sn | 02 25 52.3 | -2.7 |
| **STHS** | **Stebnicka Huta** | **1.80** | **118** | *e*Pn | Pn | 02 25 31.7 | -0.1 |
| STHS | | | | *e*Sn | Sn | 02 25 55.1 | -0.2 |
| **STHS** | **Stebnicka Huta** | **1.80** | **118** | *e*PN | Pn | 02 25 31.7 | -0.1 |
| STHS | | | | *e*SN | Sn | 02 25 55.1 | -0.2 |
| STHS | | | | eLG | Lg | 02 26 00.5 | |
| **CRVS** | **Cervenica-Dubn** | **2.21** | **128** | *e*Sn | Sb | 02 26 07.7 | -0.5 |
| **CRVS** | **Cervenica-Dubn** | **2.21** | **128** | *e*SN | Sb | 02 26 07.7 | -0.5 |
| **KHC** | **Kasperske Hory** | **3.58** | **253** | *e*SG | Sg | 02 26 54.0 | -0.6 |
| **KHC** | **Kasperske Hory** | **3.58** | **253** | Sg | Sg | 02 26 54.0 | -0.6 |

*IDC **15** 02:25:04.4±0.5, 4˚.81S×103˚.02E, h0km, mb4.7/25, mb1 4.8/25, mb1mx4.5/45, mbtmp4.7/25, MS3.2/1, Ms1 3.4/1, ms1mx2.6/44, Error ellipse: s-maj=19.6km s-min=11.2km az=55.0*
*BJI **15** 02:25:10.9, 5˚.00S×102˚.90E, h71km, mb4.9/28, mB5.1/15, Ms4.9/10, Ms7 4.6/10*
*MOS **15** 02:25:10.8±1.2, 4˚.72S×103˚.06E, h56km, mb5.1/26, Error ellipse: s-maj=12.4km s-min=6.0km az=121.6*
*DJA **15** 02:25:10.3±0.4, 5˚S±4˚×10˚3E±˚, h10km, M4.9/10, mb4.9/6, mB5.4/4, MLv4.8/10, Mw(mB)4.8/4*
*ISCJB **15** 02:25:11.6±0.5, 4˚.96S±0˚.04×103˚.01E±0˚.04, h73km±3km, mb4.7/76, Error ellipse: s-maj=8.2km s-min=3.6km az=43.6*
*NEIC **15** 02:25:12.5±0.6, 4˚.94S×102˚.98E, h65km±5km, mb4.8/27, Error ellipse: s-maj=7.8km s-min=4.6km az=49.0*

**ISC 15 02:25:12.2**±0.7, **5˚.04S**±0˚.04×**102˚.94E**±0˚.04, **h66**km±6km, **n332, σ1§43**/342, **mb4.8**/76, **17C-12D, Southern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MNAI** | **Manna** | **0.68** | **2** | P | **Pn** | **02 25 25.5** | **-1.1** |
| MNAI | | | | S | **Sn** | **02 25 34.5** | **-2.7** |
| **MNAI** | **Manna** | **0.68** | **2** | *e*Pn | **Pn** | **02 25 25.1** | **-1.6** |
| MNAI | | | | *e*Sn | **Sn** | **02 25 35.6** | **-1.6** |
| **LWLI** | **Liwa** | **1.12** | **89** | P | **Pn** | **02 25 31.4** | **-0.8** |
| LWLI | | | | S | **Sn** | **02 25 45.0** | **-2.1** |
| **KASI** | **Kota Agung** | **1.63** | **107** | P | **Pn** | **02 25 38.6** | **-0.2** |
| KASI | | | | S | **Sn** | **02 25 57.1** | **-1.8** |
| **KLI** | **Kotabumi** | **1.92** | **85** | P | **Pn** | **02 25 42.8** | **0.0** |
| KLI | | | | S | **Sn** | **02 26 04.0** | **-2.0** |
| **KLI** | **Kotabumi** | **1.92** | **85** | P | **Pn** | **02 25 42.8** | **0.0** |
| **MASI** | **Maura Aman, Be** | **2.01** | **340** | P | **Pn** | **02 25 44.4** | **+0.4** |
| MASI | | | | S | **Sn** | **02 26 09.0** | **+0.8** |
| **BLSI** | **Bandar Lampung** | **2.32** | **98** | P | **Pn** | **02 25 51.2** | **+3.0** |
| **JMBI** | **JAMBI** | **3.46** | **12** | P | **Pn** | **02 26 05.2** | **+1.5** |
| **PPSI** | **Pulau Pagai** | **3.69** | **308** | P | **Pn** | **02 26 08.1** | **+1.2** |
| **DBJI** | **Dramaga** | **4.08** | **112** | P | **Pn** | **02 26 12.3** | **+0.1** |
| **PPBI** | **Pangkal Pinang** | **4.29** | **48** | P | **Pn** | **02 26 14.8** | **-0.2** |
| **SDSI** | **Sungai Dareh** | **4.35** | **340** | P | **Pn** | **02 26 19.5** | **+3.6** |
| **CNJI** | **Cibinong** | **4.74** | **119** | P | **Pn** | **02 26 21.4** | **+0.2** |
| **SISI** | **Saibi** | **5.32** | **314** | P | **Pn** | **02 26 29.3** | **+0.1** |
| SISI | | | | S | **Sn** | **02 27 27.1** | **-2.2** |
| **CISI** | **Cisompet, Garu** | **5.46** | **118** | P | **Pn** | **02 26 31.5** | **+0.4** |
| **CISI** | **Cisompet, Garu** | **5.46** | **118** | *e*Pn | **Pn** | **02 26 31.9** | **+0.8** |
| CISI | | | | *e*Sn | **Sn** | **02 27 32.3** | **-0.3** |
| **XMIS** | **Christmas Isla** | **6.04** | **154** | *e*Pn | Pn | 02 26 34.1 | -5.0 |
| XMIS | | | | *e*Sn | **Sn** | **02 27 42.9** | **-3.9** |
| **KPJI** | **Karang Pucung** | **6.38** | **111** | P | **Pn** | **02 26 45.6** | **+1.9** |
| **MYKOM** | **Kota Tinggi** | **6.85** | **8** | *e*Pn | **Pn** | **02 26 51.3** | **+1.2** |
| **UGM** | **Wanagama** | **8.06** | **111** | P | **Pn** | **02 27 07.4** | **+0.7** |
| **UGM** | **Wanagama** | **8.06** | **111** | *e*Pn | **Pn** | **02 27 06.5** | **-0.3** |
| UGM | | | | *e*Sn | **Sn** | **02 28 31.7** | **-4.7** |
| **GSI** | **Gunungsitoli** | **8.27** | **320** | *e*Pn | **Pn** | **02 27 08.7** | **-0.9** |
| GSI | | | | *e*Sn | Sn | 02 28 24.4 | -17 |
| **PCJI** | **Pacitan** | **8.77** | **111** | P | **Pn** | **02 27 17.3** | **+1.0** |
| **PWJI** | **Pagerwojo** | **9.29** | **109** | P | **Pn** | **02 27 24.7** | **+1.1** |
| **COCO** | **West Island** | **9.32** | **220** | *i* P | **Pn** | **02 27 25.1** | **+1.2** |
| **COCO** | **West Island** | **9.32** | **220** | *e*Pn | **Pn** | **02 27 24.5** | **+0.6** |
| **KULM** | **Kulim** | **10.51** | **347** | *e*Pn | **Pn** | **02 27 43.3** | **+3.1** |
| **JAGI** | **Jajag, Banyuwa** | **11.65** | **108** | *e*Pn | **Pn** | **02 27 54.3** | **-1.4** |
| **SBUM** | **Sibu** | **11.89** | **51** | *e*Pn | **Pn** | **02 28 03.0** | **+4.0** |
| **PLAI** | **Plampang** | **15.20** | **105** | P | **Pn** | **02 28 40.9** | **-2.3** |
| **LUWI** | **Luwuk** | **20.20** | **79** | *e*P | Pn | 02 29 43.6 | -0.6 |
| | 30nm,0.7s | | | | | | |
| **CHAI** | **Chaiyaphum** | **20.83** | **357** | P | Pn | 02 29 51.4 | -0.3 |
| | 7.2nm,0.8s | | | | | | |
| **PBKT** | **Sadao Pong** | **21.56** | **355** | P | **P** | **02 29 58.2** | **+1.8** |
| | 12nm,0.8s,1μm | | | | | | |
| **SOEI** | **Soe** | **21.66** | **104** | *e*P | **P** | **02 29 54.5** | **-3.2** |
| | 35nm,0.8s | | | | | | |
| SOEI | | | | *e*S | Sn | 02 34 00.6 | -6.1 |
| **MBWA** | **Marble Bar** | **22.86** | **136** | *e*P | **P** | **02 30 10.2** | **-0.1** |
| | 33nm,1.4s | | | | | | |
| **PHRA** | **Phrae** | **23.54** | **354** | P | **P** | **02 30 16.4** | **-0.4** |
| | 16nm,0.5s | | | | | | |
| **CM01** | **Chiang Mai Arr** | **23.64** | **351** | *e*P | **P** | **02 30 16.8** | **-0.9** |
| CM01 | | | | *e*PcP | **PcP** | **02 33 59.7** | **-1.2** |
| **CM31** | **Chiang Mai Arr** | **23.68** | **351** | *e*P | **P** | **02 30 17.1** | **-1.0** |
| CM31 | | | | *e*PcP | **PcP** | **02 33 59.8** | **-1.2** |
| **CMAR** | **Chiang Mai Arr** | **23.68** | **351** | P | **P** | **02 30 17.1** | **-1.0** |
| | 5.2nm,0.5s,baz=185,slow=8.3,SNR=21 | | | | | | |
| CMAR | | | | PcP | **PcP** | **02 33 59.8** | **-1.2** |
| | 3.0nm,0.4s,baz=193,slow=3.7,SNR=4.4 | | | | | | |
| CMAR | | | | LR | LR | 02 39 42.8 | |
| | comp=Z,56nm,19.2s,baz=195,slow=37 | | | | | | |
| **CMMT** | **Chiang Mai** | **24.03** | **351** | P | **P** | **02 30 20.3** | **-0.9** |
| **CHTO** | **Chiang Mai** | **24.03** | **351** | P | **P** | **02 30 20.4** | **-0.8** |
| | 48nm,0.8s | | | | | | |
| **CHTO** | **Chiang Mai** | **24.03** | **351** | *e*P | **P** | **02 30 20.1** | **-1.1** |
| CHTO | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.8s | | | | | | |
| **CHTO** | **Chiang Mai** | **24.03** | **351** | *e*P | **P** | **02 30 20.1** | **-1.1** |
| | comp=Z,8.0nm,0.8s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **25.71** | **122** | P | **P** | **02 30 37.6** | **+1.0** |
| | comp=Z,9.1nm,0.4s,baz=322,slow=7.4,SNR=79 | | | | | | |
| FITZ | | | | PcP | **PcP** | **02 34 06.7** | **+1.2** |
| | comp=Z,1.4nm,0.5s,baz=341,slow=2.4,SNR=4.5 | | | | | | |
| **KMI** | **Kunming** | **29.98** | **360** | P | **P** | **02 31 15.6** | **+0.7** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,29nm,0.6s | | | | | | |
| **H08S2** | **Diego Garcia H** | **30.36** | **264** | T | T | 03 03 17.4 | |
| | baz=87,slow=76 | | | | | | |
| **H08S3** | **Diego Garcia H** | **30.37** | **264** | T | T | 03 03 26.6 | |
| | baz=87 | | | | | | |
| **H08S1** | **Diego Garcia H** | **30.38** | **264** | T | T | 03 03 24.7 | |
| | baz=87,slow=76 | | | | | | |
| **DGAR** | **Diego Garcia** | **30.39** | **264** | *e*P | **P** | **02 31 16.6** | **-1.8** |
| DGAR | | | | pmax | pmax | | |
| | comp=Z,154nm,1.6s | | | | | | |
| **DGAR** | **Diego Garcia** | **30.39** | **264** | *e*P | **P** | **02 31 16.6** | **-1.8** |
| | comp=Z,154nm,1.6s | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **31.45** | **162** | T | T | 03 04 49.2 | |
| | baz=340,slow=76,SNR=14 | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **31.47** | **162** | T | T | 03 04 54.5 | |
| | baz=340,slow=76,SNR=16 | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **31.47** | **162** | T | T | 03 05 00.4 | |
| | baz=340,slow=76,SNR=15 | | | | | | |
| **WR1** | **Warramunga Arr** | **33.95** | **119** | *e*P | **P** | **02 31 50.0** | **+0.4** |
| | comp=Z,8.8nm,0.7s | | | | | | |
| WR1 | | | | *e*PcP | **PcP** | **02 34 27.9** | **+1.1** |
| **WRA** | **Warramunga Arr** | **33.95** | **119** | P | **P** | **02 31 50.0** | **+0.4** |
| | comp=Z,5.1nm,0.5s,baz=298,slow=9.1,SNR=102 | | | | | | |
| WRA | | | | PcP | **PcP** | **02 34 27.9** | **+1.1** |
| | comp=Z,2.0nm,0.6s,baz=304,slow=6.1,SNR=6.7 | | | | | | |
| **WRAB** | **Tennant Creek** | **33.96** | **119⇑** | *e*P | **P** | **02 31 50.2** | **+0.5** |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,17nm,0.6s | | | | | | |
| **WB2** | **Warramunga Arr** | **33.97** | **119** | *e*P | **P** | **02 31 50.1** | **+0.4** |
| | comp=Z,9.2nm,0.6s | | | | | | |
| **ODAN** | **Odare** | **35.10** | **335** | *e*P | **P** | **02 31 59.6** | **0.0** |
| | comp=Z,11nm,0.5s | | | | | | |
| **ASAR** | **Alice Springs** | **35.11** | **125** | P | **P** | **02 32 00.9** | **+1.3** |
| | comp=Z,5.9nm,0.4s,baz=302,slow=8.0,SNR=104 | | | | | | |
| ASAR | | | | PcP | **PcP** | **02 34 31.6** | **+1.5** |
| | comp=Z,2.4nm,0.6s,baz=304,slow=2.0,SNR=11 | | | | | | |
| **ASAR** | **Alice Springs** | **35.11** | **125** | P | **P** | **02 32 01.0** | **+1.3** |
| **AS31** | **Alice Springs** | **35.11** | **125** | *e*P | **P** | **02 32 00.3** | **+0.7** |
| | comp=Z,4.4nm,0.4s | | | | | | |
| AS31 | | | | *e*PcP | **PcP** | **02 34 31.6** | **+1.5** |
| **AS01** | **Alice Springs** | **35.15** | **125** | *e*P | **P** | **02 32 00.8** | **+0.9** |
| AS01 | | | | *e*PcP | **PcP** | **02 34 31.6** | **+1.4** |
| **TAPN** | **Taplejung** | **35.40** | **336** | *e*P | **P** | **02 32 02.4** | **+0.1** |
| | comp=Z,25nm,0.9s | | | | | | |
| **RAMN** | **Ramite** | **35.51** | **334** | *e*P | **P** | **02 32 03.2** | **0.0** |
| | comp=Z,7.6nm,0.3s | | | | | | |
| **CD2** | **Chengdu** | **35.76** | **1** | *e*P | **P** | **02 32 03.9** | **-1.1** |
| CD2 | | | | sP | sP | 02 32 29.8 | +0.9 |
| CD2 | | | | PP | **PP** | **02 33 30.1** | **+2.7** |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,20nm,0.9s | | | | | | |
| **JIRN** | **Jiri** | **36.31** | **334** | *e*P | **P** | **02 32 10.3** | **+0.2** |
| | comp=Z,43nm,0.7s | | | | | | |
| **PKI** | **Pulchoki** | **36.57** | **333** | *e*P | **P** | **02 32 12.1** | **-0.3** |
| | comp=Z,12nm,0.6s | | | | | | |
| **GUN** | **Gumba** | **36.66** | **334** | *e*P | **P** | **02 32 13.0** | **-0.1** |
| | comp=Z,41nm,0.6s | | | | | | |
| **DMN** | **Daman** | **36.74** | **333** | *e*P | **P** | **02 32 13.6** | **-0.1** |
| **KKN** | **Kakani** | **36.82** | **333** | *e*P | **P** | **02 32 14.4** | **+0.1** |
| | comp=Z,26nm,0.6s | | | | | | |
| **KOLN** | **Koldanda** | **37.58** | **331** | *e*P | **P** | **02 32 20.8** | **0.0** |
| | comp=Z,50nm,0.7s | | | | | | |
| **DANN** | **Dangsing** | **37.99** | **332** | *e*P | **P** | **02 32 24.7** | **+0.4** |
| | comp=Z,4.7nm,0.9s | | | | | | |
| **PYUN** | **Piuthan** | **38.15** | **331** | *e*P | **P** | **02 32 25.8** | **+0.2** |
| | comp=Z,45nm,0.8s | | | | | | |
| **NJ2** | **Nanjing** | **39.88** | **21** | *e*P | **P** | **02 32 37.4** | **-2.3** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,14nm,0.5s | | | | | | |
| **COEN** | **Coen** | **40.61** | **106** | *e*P | **P** | **02 32 45.0** | **-1.0** |
| | comp=Z,24nm,1.9s | | | | | | |
| **LZH** | **Lanzhou** | **40.92** | **1** | *e*P | **P** | **02 32 51.4** | **+3.0** |
| LZH | | | | pP | pP | 02 33 05.8 | +0.9 |
| LZH | | | | sP | sP | 02 33 13.1 | +0.6 |
| LZH | | | | *e*S | **S** | **02 39 00.3** | **+4.7** |
| LZH | | | | pmax | pmax | | |
| | comp=Z,11nm,1.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,310nm,14.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,270nm,14.4s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,270nm,16.4s | | | | | | |
| **BBOO** | **Buckleboo** | **41.44** | **136** | *e*P | **P** | **02 32 53.8** | **+1.1** |
| | comp=Z,39nm,1.4s | | | | | | |
| **GTA** | **Gaotai** | **44.32** | **357** | *e*P | **P** | **02 33 15.4** | **-0.5** |
| GTA | | | | pP | pP | 02 33 31.1 | -1.5 |
| GTA | | | | sP | sP | 02 33 38.3 | -1.9 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.0s | | | | | | |
| **CTA** | **Charters Tower** | **44.68** | **114** | P | **P** | **02 33 19.5** | **+0.5** |
| | comp=Z,13nm,0.6s,baz=287,slow=9.2,SNR=13 | | | | | | |
| **CTAO** | **Charters Tower** | **44.68** | **114** | *e*P | **P** | **02 33 19.9** | **+0.9** |
| CTAO | | | | pmax | pmax | | |
| | comp=Z,17nm,0.8s | | | | | | |
| **CTAO** | **Charters Tower** | **44.68** | **114** | *e*P | **P** | **02 33 19.9** | **+0.9** |
| | comp=Z,17nm,0.8s | | | | | | |
| **STKA** | **Stephens Creek** | **44.95** | **131** | P | **P** | **02 33 22.6** | **+1.6** |
| | comp=Z,6.6nm,0.5s,baz=312,slow=8.0,SNR=28 | | | | | | |
| **JNU** | **Nakatsue** | **46.29** | **33** | P | **P** | **02 33 30.8** | **-0.7** |
| | comp=Z,7.3nm,0.6s,baz=58,slow=2.7,SNR=4.4 | | | | | | |
| **JNU** | **Nakatsue** | **46.29** | **33** | *e*P | **P** | **02 33 30.8** | **-0.7** |
| | comp=Z,30nm,1.5s | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **46.35** | **9** | *e*P | **P** | **02 33 35.1** | **+3.2** |
| HHC | | | | S | **S** | **02 40 18.1** | **+3.6** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.0s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,55nm,5.1s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,97nm,14.1s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,170nm,15.3s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,110nm,15.7s | | | | | | |
| **BJI** | **Beijing** | **46.48** | **14** | P | **P** | **02 33 32.1** | **-0.7** |
| BJI | | | | pmax | pmax | | |
| | comp=Z,14nm,0.8s | | | | | | |
| **KS15** | **Wonju Array Si** | **48.23** | **27** | *e*P | **P** | **02 33 45.6** | **-0.9** |
| **KSAR** | **Wonju Array Be** | **48.23** | **27** | P | **P** | **02 33 45.6** | **

comp=Z,10.0nm,0.7s
**TLY Talaya 56.50 1** P **P** 02 34 48.2 +0.7
comp=Z,4.0nm,0.7s,baz=230,slow=12,SNR=4.0
**KURK Kurchatov 59.35 342** *ce*P **P** 02 35 06.3 -1.1
KURK pmax pmax
comp=Z,9.0nm,0.9s
**KURK Kurchatov 59.35 342** *e*P **P** 02 35 07.0 -0.4
comp=Z,8.0nm,0.8s
**GEYT Alibeck 59.64 320** P **P** 02 35 10.2 +0.4
comp=Z,5.6nm,0.5s,baz=138,slow=6.9,SNR=13
**ZAA0 Zalesovo Array 60.71 348** *e*P **P** 02 35 15.9 -0.7
comp=Z,18nm,1.1s
**ZALV Zalesovo Beam 60.71 348** P **P** 02 35 15.9 -0.8
comp=Z,9.7nm,0.4s,baz=164,slow=5.5,SNR=48
**ZAA1 Zalesovo Array 60.71 348** *e*P **P** 02 35 15.9 -0.8
**RAYN Ar Rayn 62.77 300** *e*P **P** 02 35 33.2 +1.9
comp=Z,2.3nm,0.8s
**BVA0 Borovoye Array 64.04 339** P **P** 02 35 37.7 -1.3
BVA0 pmax pmax
comp=Z,5.0nm,0.6s
**BRVK Borovoye 64.11 339**↑ *e*P **P** 02 35 38.4 -0.9
BRVK pmax pmax
comp=Z,9.0nm,0.6s
**BRVK Borovoye 64.11 339** *e*P **P** 02 35 38.5 -0.9
comp=Z,6.5nm,0.6s
**AB31 Akbulak array 65.70 331** *ce*P **P** 02 35 49.0 -0.8
AB31 pmax pmax
comp=Z,6.0nm,0.7s
**LKRN Lenkeran, Azer 66.30 316** P **P** 02 35 53.1 -0.7
**MNGR Mingechevir, A 68.41 317** P **P** 02 36 06.5 -0.7
**SEKA Sheki 68.54 318** P **P** 02 36 06.9 -1.2
**NAX Nakhchivan 68.79 315** P **P** 02 36 08.9 -0.8
**GANJ Ganja 68.87 317** P **P** 02 36 09.3 -0.8
**ZKTA Zakatala 69.12 318** P **P** 02 36 10.9 -0.7
**MAK Makhachkala 69.17 320** *e*P **P** 02 36 10.2 -1.6
MAK *e*S **S** 02 45 11.9 -0.7
MAK *e*SS **SS** 02 49 43.6 +3.3
MAK pmax pmax
comp=Z,82nm,1.2s
**GNI Garni 69.73 316**↑ *e*P **P** 02 36 15.8 +0.2
GNI pmax pmax
comp=Z,7.0nm,0.6s
**YAK Yakutsk 69.97 13** P **P** 02 36 15.0 -1.4
comp=Z,14nm,0.4s,baz=120,slow=1.2,SNR=2.9
**YAK Yakutsk 69.97 13** *e*P **P** 02 36 15.0 -1.4
YAK pmax pmax
comp=Z,17nm,0.5s
**YAK Yakutsk 69.97 13** *e*P **P** 02 36 15.0 -1.4
comp=Z,17nm,0.5s
**ARU Arti 71.15 336** *c i*P **P** 02 36 23.7 0.0
ARU 02 38 58.1
ARU S **S** 02 45 39.4 +4.1
ARU pmax pmax
comp=Z,18nm,2.5s
**ARU Arti 71.15 336** *e*P **P** 02 36 22.1 -1.6
comp=Z,15nm,1.4s
**MARD Mardin 71.44 312** *e*P **P** 02 36 28.2 +2.1
comp=Z,10.0nm,0.8s
**ZEI Tsey 71.44 318** *e*P **P** 02 36 25.8 -0.2
ZEI pmax pmax
comp=Z,2.0nm,0.6s
**KBZ Khabaz 72.51 319** P **P** 02 36 32.9 +0.8
comp=Z,6.0nm,0.8s,baz=125,slow=5.0,SNR=15
**KIV Kislovodsk 72.74 319** *e*P **P** 02 36 31.4 -2.2
KIV pmax pmax
comp=Z,6.0nm,1.1s
**LBTB Lobatse 76.42 246** P **P** 02 36 58.1 +2.8
comp=Z,2.1nm,0.7s,baz=97,slow=5.2,SNR=4.8
**LBTB Lobatse 76.42 246** *e*P **P** 02 36 58.2 +2.8
LBTB pmax pmax
comp=Z,18nm,1.4s
**LBTB Lobatse 76.42 246** *e*P **P** 02 36 58.1 +2.8
comp=Z,18nm,1.4s
**VRH Novokhopyorsk 76.47 325** *e*P **P** 02 36 54.5 -0.4
VRH pmax pmax
comp=Z,10.0nm,0.6s
**SEY Seymchan 77.37 21** P **P** 02 36 59.2 -0.5
comp=Z,2.1nm,0.6s,baz=227,slow=8.6,SNR=5.6
**BR101 Keskin Array S 77.52 312** *e*P **P** 02 37 01.8 +0.5
**BR131 Keskin Array S 77.52 312** *e*P **P** 02 37 01.4 +0.1
**BRTR Keskin Array B 77.52 312** P **P** 02 37 01.8 +0.5
comp=Z,4.5nm,0.8s,baz=135,slow=7.3,SNR=37
**VSR Storozhevoye 77.93 325** *e*P **P** 02 37 02.4 -0.7
VSR pmax pmax
comp=Z,10.0nm,0.6s
**BR231 Keskin MP Arra 78.19 312** *e*P **P** 02 37 02.3 -2.6
**LPSR Galich'ya Gora 78.63 326** *e*P **P** 02 37 06.3 -0.6
LPSR pmax pmax
comp=Z,10.0nm,0.6s
**VNDA Vanda 78.64 169** P **P** 02 37 09.1 +2.5
comp=Z,0.4nm,0.6s,baz=322,slow=12,SNR=3.1
**OBN Obninsk 80.91 328** *e*P **P** 02 37 19.0 -0.2
OBN *e* 02 40 24.0
OBN *e*PPP PPP 02 42 13.3
OBN pmax pmax
comp=Z,18nm,0.9s
OBN MLR MLR
comp=Z,71nm,9.0s
**KARP Karpathos 81.42 307** *e*P **P** 02 37 23.7 +1.3
comp=Z,11nm,0.7s
**KLMR Klimovskoe 81.83 334** *e*P **P** 02 37 23.2 -0.7
KLMR pmax pmax
comp=Z,12nm,1.1s
**TIRR Tirgusor 82.56 316**↓ *i*P **P** 02 37 29.7 +1.6
**TIRR Tirgusor 82.56 316** ↓P **P** 02 37 29.7 +1.6
**CFR Carcaliu 82.93 317**↑ *i*P **P** 02 37 31.1 +1.1
**CFR Carcaliu 82.93 317**↑P **P** 02 37 31.1 +1.1
**SORM Soroca 83.53 319**↑ *i*P **P** 02 37 33.8 +0.7
**SORM Soroca 83.53 319**↑P **P** 02 37 33.8 +0.7
**AKASG Malin Array Be 83.67 322** P **P** 02 37 33.9 +0.2
comp=Z,1.6nm,0.5s,baz=88,slow=4.9,SNR=13
**AKBB Malin Array Si 83.67 322** *e*P **P** 02 37 33.9 +0.2
AKBB pmax pmax
comp=Z,5.0nm,0.8s
**AKBB Malin Array Si 83.67 322** *e*P **P** 02 37 33.9 +0.2
comp=Z,4.9nm,0.8s
**VRI Vrincioaia 84.06 317**↑ *i*P **P** 02 37 37.8 +1.9
**VRI Vrincioaia 84.06 317**↑P **P** 02 37 37.8 +1.9
**TESR Tescani 84.26 316**↑P **P** 02 37 38.4 +0.9
**MLR Muntele Rosu 84.51 316**↓ *i*P **P** 02 37 40.2 +1.9
**MLR Muntele Rosu 84.51 316** ↓P **P** 02 37 40.2 +1.9
**MLR Muntele Rosu 84.51 316** *e*P **P** 02 37 40.0 +1.7
comp=Z,13nm,1.2s
**BURAR Bucovina Array 85.46 318**↓ *i*P **P** 02 37 45.1 +2.1
**BURAR Bucovina Array 85.46 318** ↓P **P** 02 37 45.1 +2.1
**BUR04 Bucovina Ar. S 85.47 318** *e*P **P** 02 37 44.9 +1.8
**BUR08 Bucovina Ar. S 85.48 318** *e*P **P** 02 37 45.4 +2.3
**VTS Vitosha 85.85 313**↑ *i*P **P** 02 37 46.3 +1.2
**VTS Vitosha 85.85 313**↑P **P** 02 37 46.3 +1.2
**VTS Vitosha 85.85 313** *e*P **P** 02 37 46.0 +0.9
comp=Z,2.5nm,0.7s
**LOT Lotru 86.00 316**↑ *i*P P 02 37 55.0 +9.3
**BZS Buzias 87.51 316**↓ *i*P **P** 02 37 54.6 +1.6
**BZS Buzias 87.51 316** ↓P **P** 02 37 54.6 +1.6
**FIA0 FINESS Array S 88.15 332** *e*P **P** 02 37 56.4 +0.8
**FIA0 FINESS Array S 88.15 332** *e*P **P** 02 37 56.4 +0.8
**FINES FINESS Array B 88.15 332** P **P** 02 37 56.4 +0.8
comp=Z,5.6nm,0.6s,baz=111,slow=5.7,SNR=40
**STHS Stebnicka Huta 88.40 320** *e*P **P** 02 37 59.3 +2.2
**STHS Stebnicka Huta 88.40 320** *e*P **P** 02 37 59.3 +2.2
**KECS Kecovo 88.74 319** *e*P **P** 02 38 00.2 +1.5
**KECS Kecovo 88.74 319** *e*P **P** 02 38 00.2 +1.5
**SNAA Sanae 90.17 198** P **P** 02 38 04.5 -0.5
**ARA0 ARCESS Array S 90.31 340** *e*P **P** 02 38 05.7 +0.1
**ARCES ARCESS Array B 90.31 340** P **P** 02 38 05.7 +0.1
comp=Z,3.6nm,0.6s,baz=99,slow=5.1,SNR=13
**MORC Moravsky Berou 90.83 320**↓ *i*P **P** 02 38 10.8 +2.3
**MORC Moravsky Berou 90.83 320** ↓P **P** 02 38 10.8 +2.3
**DPC Dobruska-Polom 91.68 320** *e*P **P** 02 38 14.4 +2.0
**DPC Dobruska-Polom 91.68 320** *e*P **P** 02 38 14.4 +2.0
**VNA2 Neumayer--Watz 91.80 198** P **P** 02 38 11.3 -1.2
**GERES GERESS Array B 93.25 319** P **P** 02 38 20.5 +0.7
comp=Z,0.6nm,0.7s,baz=90,slow=5.3,SNR=5.1
**NB200 NORSAR Array S 95.21 331** *e*P **P** 02 38 28.8 +0.4
**NOA NORSAR Array B 95.21 331** P **P** 02 38 28.8 +0.4
comp=Z,1.3nm,0.8s,baz=177,slow=18,SNR=2.6
**YKA Yellowknife Ar 116.36 18** PKP **PKPdf** 02 43 46.9 -1.2
comp=Z,0.3nm,0.8s,baz=310,slow=2.0,SNR=4.0
**YKB5 Yellowknife Ar 116.36 18** *e*PKPdf **PKPdf** 02 43 46.9 -1.1
**CARC Carrizo Plain 130.41 47** *e*PKPpre PKPpre 02 44 03.2
**SBI Santa Barbara 131.84 49** *e*PKPpre PKPpre 02 44 06.4
**WSHM Spangler Hills 131.96 45** *e*PKPpre PKPpre 02 44 09.8
**PD31 Pinedale Array 132.67 33** *e*PKPdf **PKPdf** 02 44 19.6 -0.6
**PDAR Pinedale Array 132.67 33** PKP **PKPdf** 02 44 19.6 -0.6
comp=Z,0.3nm,0.5s,baz=137,slow=0.9,SNR=3.9
**CPUP Villa Florida 143.42 211** PKP **PKPdf** 02 44 42.2 +2.1
comp=Z,0.8nm,0.6s,baz=338,slow=4.7,SNR=3.0
**T36A Boggs Farm, Ca 143.77 26** P PKPab 02 44 37.4 +0.1
baz=327
**R39A Chumby, Stover 143.83 22** P PKPab 02 44 37.5 0.0
baz=332
**R40A Maddies Statio 144.13 21** P **PKPab** 02 44 38.0 -0.6
baz=334,SNR=5.5
**N59A State Game Lan 144.26 358** P **PKPab** 02 44 39.1 0.0
baz=2.1
**WMOK Wichita Mounta 144.26 31** P **PKPab** 02 44 39.0 -0.3
baz=321,SNR=9.3
**S39A Bolivar 144.27 22** P **PKPab** 02 44 38.9 -0.3
baz=332
**U36A Oologah 144.40 26** P **PKPab** 02 44 39.4 -0.3
baz=327
**V35A Meyer Ranch, C 144.41 28** P PKPbc 02 44 40.1 0.0
baz=325
**R41A Rosebud 144.42 20** P **PKPab** 02 44 39.4 -0.3
baz=335
**T38A Diamond 144.46 24** P **PKPab** 02 44 39.2 -0.7
baz=330
**ACSO Alum Creek Sta 144.56 8** P **PKPab** 02 44 39.7 -0.5
baz=350
**Q44A Meyer Farm, Va 144.59 16** P **PKPab** 02 44 40.0 -0.4
baz=339
**OK021 N3530 Road, Sp 144.60 28** *e*PKPdf **PKPab** 02 44 40.5 +0.1
**R42A Luebbering 144.63 19** P **PKPab** 02 44 40.0 -0.5
baz=336,SNR=7.4
**BDFB Brasilia 144.65 234** PKP **PKPdf** 02 44 44.0 +1.4
comp=Z,3.8nm,0.6s,baz=312,slow=4.6,SNR=7.5
**BDFB Brasilia 144.65 234** *e*PKIKP **PKPdf** 02 44 44.0 +1.4
**U37A Salina 144.65 26** P **PKPab** 02 44 40.3 -0.3
baz=328,SNR=8.3
**S40A Lebanon 144.66 21** P **PKPab** 02 44 39.9 -0.7
baz=333,SNR=6.4
**CCM Cathedral Cave 144.69 20** P **PKPab** 02 44 40.1 -0.6
baz=335
**P47A Martinsville 144.71 12** P **PKPab** 02 44 40.2 -0.6
baz=344
**TUL1 Leonard 144.77 27** P **PKPab** 02 44 40.9 -0.2
baz=326,SNR=5.8
**TUL1 Leonard 144.77 27** *e*PKPdf PKPbc 02 44 41.3 0.0
**V36A Jenks 144.81 27** P **PKPab** 02 44 41.0 -0.2
baz=326,SNR=9.6
**V36A Jenks 144.81 27** *e*PKPdf PKPbc 02 44 41.4 +0.1
**Q45A Warren Harvey, 144.83 15** P **PKPab** 02 44 40.9 -0.3
baz=341
**T39A Clever 144.84 23** P **PKPab** 02 44 40.8 -0.6
baz=331,SNR=8.9
**W35A Tecumseh 144.89 29** P **PKPab** 02 44 41.3 -0.3
baz=324,SNR=11
**W35A Tecumseh 144.89 29** *e*PKPdf **PKPab** 02 44 41.4 -0.2
**O56A Blue Knob Stat 144.90 2** P **PKPab** 02 44 41.0 -0.5
baz=357
**R43A Red Bud 144.91 18** P **PKPab** 02 44 40.9 -0.6
baz=337,SNR=5.9
**Q46A CEJHS Indians, 144.91 14** P **PKPab** 02 44 41.0 -0.5
baz=342
**U38A Gravette 144.93 25** P **PKPab** 02 44 41.0 -0.7
baz=329,SNR=17
**S41A Jillco Farms, 144.94 21** P **PKPab** 02 44 41.1 -0.6
baz=334,SNR=14
**BLO Bloomington 144.96 13** *e*PKIKP **PKPab** 02 44 41.7 0.0
**BLO Bloomington 144.96 13** *e*PKPdf **PKPab** 02 44 41.7 0.0
**OLIL Olney 145.00 15** *e*PKPbc PKPbc 02 44 42.0 +0.2
**FVM French Village 145.02 19** *e*PKIKP PKPbc 02 44 41.5 -0.4
**FVM French Village 145.02 19** *e*PKPbc PKPbc 02 44 41.5 -0.4
**T40A Mansfield 145.05 22** P **PKPbc** 02 44 41.2 -0.9
baz=332,SNR=7.7
**V37A Hulbert 145.08 26** P **PKPbc** 02 44 41.8 -0.4
baz=327,SNR=13
**S42A Caledonia 145.10 19** P **PKPbc** 02 44 41.5 -0.7
baz=336,SNR=14
**LTX Lajitas 145.11 43** *e*PKIKP **PKPdf** 02 44 43.6 +0.5
**LTX Lajitas 145.11 43** *e*PKPbc **PKPdf** 02 44 43.5 +0.5
**TX31 Lajitas Ar. Si 145.11 43** *e*PKPbc **PKPdf** 02 44 43.2 +0.1
**TXAR Lajitas Array 145.11 43** PKP **PKPdf** 02 44 43.5 +0.5
comp=Z,3.7nm,0.5s,baz=282,slow=1.0,SNR=34
**TXAR Lajitas Array 145.11 43** PKP **PKPdf** 02 44 43.5 +0.5
**R44A Waltonville 145.18 17** P **PKPbc** 02 44 42.0 -0.4
baz=339,SNR=6.2
**Q47A Bedord North L 145.21 13** P **PKPbc** 02 44 42.2 -0.3
baz=344,SNR=6.5
**W36A Wetumka 145.21 28** P **PKPbc** 02 44 42.2 -0.4
baz=325,SNR=5.5
**W36A Wetumka 145.21 28** *e*PKPbc **PKPbc** 02 44 42.6 0.0
**HHAR Hobbs 145.25 24** *e*PKPbc **PKPbc** 02 44 41.8 -1.0
**U39A Green Forest 145.35 24** P **PKPbc** 02 44 42.4 -0.7
baz=330,SNR=16
**R45A Skylar, Fairfi 145.36 16** P **PKPbc** 02 44 42.7 -0.3
baz=340,SNR=6.3
**ABTX Abilene, Hawle 145.39 35** P **PKPab** 02 44 43.5 0.0
baz=318
**ABTX Abilene, Hawle 145.39 35** *e*PKPbc **PKPbc** 02 44 43.1 -0.2
**V38A Canehill 145.42 25** P **PKPbc** 02 44 42.6 -0.7
baz=329,SNR=10
**T41A Mountain View 145.42 21** P **PKPbc** 02 44 42.8 -0.5
baz=334,SNR=28
**X35A Drake 145.44 30** P **PKPbc** 02 44 42.9 -0.6
baz=323,SNR=21
**X35A Drake 145.44 30** *e*PKPbc **PKPbc** 02 44 42.8 -0.6
**S43A Fulton Ridge, 145.51 18** P **PKPdf** 02 44 42.8 -0.6
baz=337
**W37B Quinton 145.57 27** P **PKPdf** 02 44 43.6 0.0
baz=326
**W37B Quinton 145.57 27** *e*PKPdf **PKPab** 02 44 44.4 +0.3
**X36A Centrahoma 145.61 29** P **PKPdf** 02 44 43.7 +0.1
baz=324,SNR=11
**U40A Yellville 145.62 23** P **PKPdf** 02 44 43.4 -0.3
baz=331,SNR=22
**R46A Gibon Southern 145.64 15** P **PKPdf** 02 44 43.5 -0.1
baz=341
**SIUC Southern Illin 145.64 17** *e*PKPdf **PKPab** 02 44 44.1 -0.1
**S44A Carbondale 145.65 17** P **PKPdf** 02 44 43.5 -0.1
baz=338
**T42A Van Buren 145.67 20** P **PKPdf** 02 44 43.7 +0.1
baz=335,SNR=26
**V39A Pettigrew 145.75 24** P **PKPdf** 02 44 43.6 -0.3
baz=330,SNR=11
**R47A Wooly Knot Far 145.79 13** P **PKPdf** 02 44 44.0 +0.1
baz=343
**Y35A Marietta 145.81 30** P **PKPdf** 02 44 44.2 +0.2
baz=323
**R48A Northridge Ran 145.84 12** P **PKPbc** 02 44 44.3 -0.2
baz=344
**S45A Carrier Mills 145.85 16** P **PKPdf** 02 44 44.2 +0.2
baz=339
**T43A Greenville 145.89 19** P **PKPdf** 02 44 44.4 +0.4
baz=336
**WCI Wyandotte Cave 145.91 13** P **PKPdf** 02 44 44.3 +0.2
baz=344
**WCI Wyandotte Cave 145.91 13** *e*PKP2 **PKPbc** 02 44 44.8 +0.1
**WCI Wyandotte Cave 145.91 13** *e*PKPdf **PKPbc** 02 44 44.8 +0.1
**U41A Viola 145.99 22** P **PKPdf** 02 44 44.5 +0.3
baz=333,SNR=9.3
**W38A Poteau 146.04 26** P **PKPdf** 02 44 44.6 +0.3
baz=328
**X37A Clayton 146.06 28** P **PKPdf** 02 44 44.7 +0.3
baz=326
**X37A Clayton 146.06 28** *e*PKPdf **PKPdf** 02 44 44.8 +0.3
**S46A Don Dixon Farm 146.08 15** P **PKPdf** 02 44 44.4 +0.1
baz=341
**T44A Benton 146.10 18** P **PKPbc** 02 44 45.1 -0.3
baz=337
**V40A Witts Springs 146.12 23** P **PKPdf** 02 44 44.8 +0.2
baz=331,SNR=7.6
**PBMO Poplar Bluff 146.12 19** *e*PKPdf **PKPbc** 02 44 45.0 -0.4
**Y36A Durant 146.18 29** P **PKPdf** 02 44 45.1 +0.5
baz=324,SNR=10.0
**U42A Revenden 146.22 21** P **PKPbc** 02 44 45.3 -0.4
baz=334,SNR=9.4
**X38A Whitesboro 146.24 27** P **PKPbc** 02 44 45.6 -0.2
baz=327,SNR=5.4
**V41A Mountainview 146.39 22** P **PKPbc** 02 44 45.9 -0.4
baz=332,SNR=8.1
**S48A Wiedeman Farm, 146.51 13** P **PKPbc** 02 44 46.1 -0.4
baz=344
**W40A Ferguson Farm, 146.55 24** P **PKPbc** 02 44 46.4 -0.3
baz=330
**Z36A Blue Ridge 146.62 30** P **PKPbc** 02 44 46.9 -0.1
baz=323
**T46A Princeton 146.64 16** P **PKPbc** 02 44 46.7 -0.2
baz=340
**V42A Cord 146.66 21** P **PKPbc** 02 44 47.5 +0.4
baz=334,SNR=6.4
**X39A Fountain Ranch 146.69 26** P **PKPab** 02 44 48.0 -0.4
baz=328,SNR=7.2
**JCT Junction City 146.85 38** P **PKPbc** 02 44 47.9 +0.1
baz=315
**MIAR Mount Ida 146.89 25** P **PKPbc** 02 44 48.1 +0.3
baz=329,SNR=16
**W41B Gary Mavity, V 146.89 23** P **PKPbc** 02 44 47.6 -0.1
baz=332
**T47A Sharon Grove 146.90 15** P **PKPbc** 02 44 47.9 +0.3
baz=342
**WHTX Lake Whitney, 147.08 33** P **PKPbc** 02 44 48.4 +0.1
baz=320
**Y39A Lockesburg 147.18 27** P **PKPbc** 02 44 48.5 0.0
baz=328,SNR=5.5
**X40A Basin Creek Fa 147.25 25** P **PKPbc** 02 44 48.4 -0.4
baz=330
**U47A Clarksville 147.37 15** P **PKPbc** 02 44 48.6 -0.4
baz=341
**Y40A Okolona 147.47 26** P **PKPbc** 02 44 49.2 -0.1
baz=329
**U48A Cassie Pea, Po 147.49 14** P **PKPbc** 02 44 48.9 -0.4
baz=342
**WVT Waverly 147.51 16** P **PKPbc** 02 44 49.3 -0.1
baz=340
**Y41A Eaglette Beard 147.87 25** P **PKPbc** 02 44 50.2 -0.3
baz=330
**336A Riesel 147.88 33** P **PKPbc** 02 44 50.8 +0.2
baz=321
**V48A Smith Brothers 148.15 15** P **PKPbc** 02 44 50.6 -0.5
baz=341
**833A Chaparral WMA, 148.60 40** P **PKPbc** 02 44 52.5 -0.1
baz=314
**X46A Booneville 148.75 19** P **PKPbc** 02 44 52.4 -0.3
baz=338
**CPCT Cooper Cave 148.97 12** *e*PKPbc **PKPbc** 02 44 53.4 +0.1
**Y45A Yeager Farm, C 149.06 20** P **PKPbc** 02 44 53.2 -0.4
baz=335
**Y46A Houston 149.28 19** P **PKPbc** 02 44 53.5 -0.6
baz=337
**X49A Woodville 149.44 15** P **PKPbc** 02 44 53.8 -0.6
baz=342
**Y47A UCPARC, Winfie 149.58 18** P **PKPbc** 02 44 54.2 -0.6
baz=338
**BG3 Lake Jocassee 149.70 10** *e*PKPbc **PKPbc** 02 44 55.5 +0.4
**KMSC Kings Mountain 149.79 7** P **PKPbc** 02 44 54.7 -0.6
baz=352

*CSEM* ***15*** *02:26:49.1±0.7,50°.28N×18°.72E,h1km, Error ellipse: s-maj=14.2km s-min=6.6km az=16.0*

**PRU 15 02:26:50.0,50°.25N×18°.74E,h0km,Poland**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time h m s | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | | ISC |
| **OKC** | **Ostrava-Krasne** | **0.56** | **223** | *e*Pg | Pg | 02 27 01.1 | +0.3 |
| OKC | | | | *e*Sg | Sg | 02 27 09.1 | +1.1 |
| **OKC** | **Ostrava-Krasne** | **0.56** | **223** | Pg | Pg | 02 27 01.1 | +0.3 |
| OKC | | | | Sg | Sg | 02 27 09.1 | +1.1 |
| **MORC** | **Moravsky Berou** | **0.91** | **239** | *e*Pg | Pg | 02 27 07.2 | -0.1 |
| MORC | | | | *e*Sg | Sg | 02 27 19.9 | +0.8 |
| **LANS** | **Liptovska Anna** | **1.20** | **156** | *e*Pg | Pg | 02 27 12.5 | -0.4 |
| LANS | | | | *e*Sg | Sg | 02 27 27.8 | -0.6 |
| **LANS** | **Liptovska Anna** | **1.20** | **156** | *e*PG | Pg | 02 27 12.5 | -0.4 |
| LANS | | | | *e*SG | Sg | 02 27 27.8 | -0.6 |
| **KRLC** | **Kraliky** | **1.27** | **263** | *e*PG | Pg | 02 27 12.8 | -1.6 |
| KRLC | | | | *e*SG | Sg | 02 27 30.4 | -0.4 |
| **KRLC** | **Kraliky** | **1.27** | **263** | Pg | Pg | 02 27 12.8 | -1.6 |
| KRLC | | | | Sg | Sg | 02 27 30.4 | -0.4 |
| **DPC** | **Dobruska-Polom** | **1.55** | **275** | *e*PG | Pn | 02 27 17.7 | -1.2 |
| DPC | | | | *e*SG | Sn | 02 27 38.7 | -1.1 |
| **DPC** | **Dobruska-Polom** | **1.55** | **275** | Pg | Pn | 02 27 17.7 | -1.2 |
| DPC | | | | Sg | Sn | 02 27 38.7 | -1.1 |
| **VYHS** | **Vyhne** | **1.76** | **178** | *e*Pn | Pn | 02 27 20.4 | -1.3 |
| VYHS | | | | *e*Sn | Sn | 02 27 41.5 | -3.3 |
| **VYHS** | **Vyhne** | **1.76** | **178** | *e*PN | Pn | 02 27 20.4 | -1.3 |
| VYHS | | | | *e*SN | Sn | 02 27 41.4 | -3.4 |
| **STHS** | **Stebnicka Huta** | **1.82** | **116** | *e*Pn | Pb | 02 27 23.7 | -0.5 |
| STHS | | | | *e*Sn | Sn | 02 27 45.1 | -1.3 |
| **STHS** | **Stebnicka Huta** | **1.82** | **116** | *e*PN | Pb | 02 27 23.7 | -0.5 |
| STHS | | | | *e*SN | Sn | 02 27 45.1 | -1.3 |
| STHS | | | | *e*LG | Lg | 02 27 45.2 | |

*IDC* ***15*** *02:30:18.1±0.7,55°.73S×26°.99W,h0km,mb4.2/9, mb1 4.3/10,mb1mx4.1/22,mbtmp4.2/10,ML3.9/1,MS3.5/3, Ms1 3.5/3,ms1mx3.1/22,Error ellipse: s-maj=26.0km s-min=17.1km az=47.0*

*ISCJB* ***15*** *02:30:20.2±0.4,55°.75S±0°.09×27°.0W±0°.1,h25km, mb4.6/19,MS3.3/3,Error ellipse: s-maj=14.4km s-min=8.8km az=33.0*

*NEIC* ***15*** *02:30:24.4±1.8,55°.75S×26°.98W,h45km±16km,mb4.7/17, Error ellipse: s-maj=14.2km s-min=8.3km az=221.0*

**ISC 15 02:30:22.2±0.5,55.7S±0.1×27.0W±0.08,h25km,n44, σ1s29/37,mb4.7/17,MS3.2/3,1C,South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time h m s | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | | ISC |
| **HOPE** | **Hope Point** | **5.59** | **281** | *e*Pn | **Pn** | **02 31 45.4** | **+1.7** |
| HOPE | | | | *e*Sn | **Sn** | **02 32 43.2** | **-3.8** |
| **SNAA** | **Sanae** | **19.04** | **157** | P | **P** | **02 34 41.5** | **-0.6** |
| | 0.4nm,0.3s,baz=327,slow=13,SNR=9.0 | | | | | | |
| **SNAA** | **Sanae** | **19.04** | **157** | *e*P | **P** | **02 34 41.0** | **-1.1** |
| | 23nm,1.8s | | | | | | |
| **PMSA** | **Palmer Station** | **20.18** | **228** | LR | LR | 02 41 09.0 | |
| | comp=Z,65nm,18.6s,baz=320,slow=32 | | | | | | |
| **USHA** | **Ushuaia** | **23.33** | **255** | LR | LR | 02 42 31.7 | |
| | comp=Z,293nm,20.9s,baz=52,slow=31 | | | | | | |
| **TRQA** | **Tornquist** | **29.24** | **292** | *e*P | **P** | **02 36 22.9** | **+1.1** |
| | 19nm,1.6s | | | | | | |
| **SYO** | **Syowa Base** | **31.82** | **141**↑ | *e*X | **P** | **02 36 44.6** | **+0.3** |
| **PLCA** | **Paso Flores** | **32.00** | **279** | P | **P** | **02 36 45.4** | **-0.8** |
| | 1.3nm,0.8s,baz=220,slow=21,SNR=2.9 | | | | | | |
| PLCA | | | | LR | LR | 02 49 33.9 | |
| | comp=Z,51nm,18.3s,baz=134,slow=36 | | | | | | |
| **PLCA** | **Paso Flores** | **32.00** | **279** | *e*P | **P** | **02 36 45.4** | **-0.8** |
| | 21nm,1.7s | | | | | | |
| **QSPA** | **South Pole Qui** | **34.55** | **180** | *e*P | **P** | **02 37 10.6** | **+2.2** |
| | 29nm,1.6s | | | | | | |
| **CPUP** | **Villa Florida** | **36.62** | **311** | P | **P** | **02 37 26.2** | **0.0** |
| | 4.9nm,0.9s,baz=128,slow=5.6,SNR=6.6 | | | | | | |
| **MAW** | **Mawson** | **40.40** | **144** | P | **P** | **02 37 55.9** | **-1.6** |
| | 1.9nm,0.6s,baz=204,slow=4.8,SNR=3.1 | | | | | | |
| **MAW** | **Mawson** | **40.40** | **144** | *e*P | **P** | **02 37 55.9** | **-1.6** |
| | 5.8nm,1.8s | | | | | | |
| **BOSA** | **Boshof** | **45.83** | **76** | *e*P | **P** | **02 38 41.5** | **-0.6** |
| | 28nm,1.6s | | | | | | |
| **PB01** | **IPOC Station P** | **46.78** | **300** | *e*P | **P** | **02 38 51.0** | **+1.4** |
| | 7.0nm,0.7s | | | | | | |
| **VNDA** | **Vanda** | **46.93** | **183** | P | **P** | **02 38 50.4** | **+0.5** |
| | 3.7nm,0.8s,baz=186,slow=6.8,SNR=14 | | | | | | |
| **VNDA** | **Vanda** | **46.93** | **183** | *e*P | **P** | **02 38 50.7** | **+0.8** |
| | 3.1nm,0.6s | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **47.65** | **17** | T | T | 03 30 22.4 | |
| | baz=189,slow=75,SNR=40 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **47.65** | **17** | T | T | 03 30 22.6 | |
| | baz=189,slow=75,SNR=39 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **47.66** | **17** | T | T | 03 30 23.7 | |
| | baz=189,slow=75,SNR=34 | | | | | | |
| **CRZF** | **Crozet Islands** | **47.90** | **114** | *e*P | **P** | **02 38 58.0** | **+0.1** |
| | 56nm,1.5s | | | | | | |
| **PB11** | **IPOC Station P** | **47.95** | **301** | *e*P | **P** | **02 38 59.2** | **+0.5** |
| | 16nm,1.2s | | | | | | |
| **MNMC** | **Minye Minye** | **48.46** | **301** | *e*P | **P** | **02 39 04.0** | **+1.2** |
| | 42nm,1.8s | | | | | | |
| **H10N1** | **ASCENSION HYDR** | **48.76** | **17** | T | T | 03 31 48.9 | |
| | baz=196 | | | | | | |
| **H10N3** | **ASCENSION HYDR** | **48.76** | **17** | T | T | 03 31 49.4 | |
| | baz=196 | | | | | | |
| **H10N2** | **ASCENSION HYDR** | **48.78** | **17** | T | T | 03 31 49.4 | |
| | baz=196 | | | | | | |
| **LBTB** | **Lobatse** | **48.85** | **73** | P | **P** | **02 39 05.0** | **-0.6** |
| | 2.2nm,1.0s,baz=204,slow=12,SNR=2.1 | | | | | | |
| **LBTB** | **Lobatse** | **48.85** | **73** | *e*P | **P** | **02 39 05.0** | **-0.6** |
| | 53nm,1.9s | | | | | | |
| **LPAZ** | **La Paz** | **50.22** | **305** | P | **P** | **02 39 17.6** | **+0.9** |
| | 3.0nm,0.7s,baz=153,slow=6.3,SNR=10 | | | | | | |
| **LPAZ** | **La Paz** | **50.22** | **305** | *e*P | **P** | **02 39 18.4** | **+1.7** |
| | 4.1nm,0.8s | | | | | | |
| **SAML** | **Samuel** | **54.59** | **314** | *e*P | **P** | **02 39 49.1** | **+0.7** |
| | 12nm,1.4s | | | | | | |
| **ROSC** | **El Rosal** | **71.70** | **310** | P | **P** | **02 41 42.5** | **+0.1** |
| | 4.1nm,0.4s,baz=180,slow=20,SNR=3.8 | | | | | | |
| **ROSC** | **El Rosal** | **71.70** | **310** | *e*P | **P** | **02 41 42.5** | **+0.1** |
| | 45nm,0.5s | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **TOA0** | **Torodi Ar. Sit** | **72.72** | **29** | *e*P | | **P** | **02 41 48.1** | **+0.2** |
| | 4.9nm,1.3s | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **72.72** | **29** | P | | **P** | **02 41 48.1** | **+0.2** |
| | 0.5nm,0.4s,baz=200,slow=6.4,SNR=12 | | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **72.72** | **29** | *e*P | | **P** | **02 41 48.1** | **+0.2** |
| **ASAR** | **Alice Springs** | **99.31** | **162** | P | | **Pdif** | **02 43 59.8** | **-2.2** |
| | 0.3nm,0.6s,baz=176,slow=3.3,SNR=3.0 | | | | | | | |
| **AS31** | **Alice Springs** | **99.31** | **162** | *e*P | | **Pdif** | **02 43 59.8** | **-2.2** |
| | 3.1nm,1.5s | | | | | | | |
| **YKA** | **Yellowknife Ar** | **135.94** | **318** | PKP | | **PKPdf** | **02 49 37.8** | **-1.4** |
| | 0.3nm,0.7s,baz=115,slow=2.0,SNR=3.5 | | | | | | | |
| **YKB5** | **Yellowknife Ar** | **135.94** | **318** | *e*PKPdf | | **PKPdf** | **02 49 37.8** | **-1.4** |
| **ILAR** | **Eielson Array** | **149.92** | **312** | PKPbc | | **PKPbc** | **02 50 08.7** | **0.0** |
| | 2.0nm,0.9s,baz=118,slow=1.9,SNR=16 | | | | | | | |
| **ILB** | **Eielson Array** | **149.92** | **312** | *e*PKPbc | | **PKPbc** | **02 50 08.7** | **0.0** |
| **SONA0** | **Songino Array** | **150.65** | **86** | *e*PKPbc | | **PKPbc** | **02 50 10.6** | **-0.5** |
| **SONM** | **Songino Array** | **150.65** | **86** | PKPbc | | **PKPbc** | **02 50 10.6** | **-0.5** |
| | 1.2nm,0.5s,baz=211,slow=4.4,SNR=7.4 | | | | | | | |

*IPEC* ***15*** *02:35:15.6±0.2, 49.˚81N×18.˚59E, h0km±3km, ML1.5/3, Error ellipse: s-maj=2.1km s-min=1.1km az=161.0*

*CSEM* ***15*** *02:35:16.1±0.3, 49.˚82N×18.˚47E, h2km, ML2.2/5, Error ellipse: s-maj=7.6km s-min=3.8km az=2.0*

**PRU 15 02:35:16.8, 49.˚83N×18.˚46E, h0km, Czech and Slovak Republics**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OKC** | **Ostrava-Krasne** | **0.20** | **272** | *e*PG | Pg | 02 35 21.7 | +1.0 |
| OKC | | | | *e*SG | Sg | 02 35 23.9 | +0.6 |
| | comp=Z,12nm,0.2s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **0.20** | **272** | Pg | Pg | 02 35 21.7 | +1.0 |
| OKC | | | | Sg | Sg | 02 35 23.9 | +0.6 |
| | 12nm,0.2s | | | | | | |
| **MORC** | **Moravsky Berou** | **0.60** | **265** | *e*Pg | Pg | 02 35 28.7 | +0.5 |
| MORC | | | | *e*Sg | Sg | 02 35 36.8 | +0.9 |
| | 9.7nm,0.2s,baz=87 | | | | | | |
| **LANS** | **Liptovska Anna** | **0.95** | **136** | *e*PG | Pg | 02 35 34.2 | -0.7 |
| LANS | | | | *e*SG | Sg | 02 35 47.1 | 0.0 |
| **OJC** | **Ojcow** | **0.95** | **65** | *e*Pg | Pg | 02 35 32.8 | -2.1 |
| OJC | | | | *e*Sg | Sg | 02 35 45.9 | -1.3 |
| **OJC** | **Ojcow** | **0.95** | **65** | *e*Pg | Pg | 02 35 32.8 | -2.1 |
| OJC | | | | *e*Sg | Sg | 02 35 45.9 | -1.3 |
| **VRAC** | **Vranov** | **1.32** | **247** | *e*Pg | Pg | 02 35 41.4 | -0.7 |
| | baz=68 | | | | | | |
| VRAC | | | | *e*Sg | Sg | 02 35 59.3 | 0.0 |
| | 5.9nm,0.3s,baz=68 | | | | | | |
| **VYHS** | **Vyhne** | **1.36** | **169** | *e*Pn | Pg | 02 35 41.1 | -1.7 |
| VYHS | | | | *e*Sn | Sg | 02 35 59.2 | -1.2 |
| **VYHS** | **Vyhne** | **1.36** | **169** | *e*PN | Pg | 02 35 41.1 | -1.7 |
| VYHS | | | | *e*SN | Sg | 02 35 59.2 | -1.2 |
| **DPC** | **Dobruska-Polom** | **1.47** | **292** | *e*PG | Pn | 02 35 43.7 | -0.9 |
| DPC | | | | *e*SG | Sg | 02 36 04.1 | 0.0 |
| | comp=Z,5.0nm,0.3s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.47** | **292** | Pg | Pn | 02 35 43.7 | -0.9 |
| DPC | | | | Sg | Sg | 02 36 04.1 | 0.0 |
| | 5.0nm,0.3s | | | | | | |
| **KRUC** | **Moravsky** | **1.55** | **241** | *e*Pg | Pn | 02 35 44.9 | -0.8 |
| | baz=62 | | | | | | |
| KRUC | | | | *e*Sg | Sn | 02 36 06.2 | -0.3 |
| | 5.2nm,0.2s,baz=62 | | | | | | |
| **UPC** | **Upice** | **1.71** | **294** | *e*SG | Sb | 02 36 11.5 | +0.2 |
| **UPC** | **Upice** | **1.71** | **294** | Sg | Sb | 02 36 11.5 | +0.2 |
| **STHS** | **Stebnicka Huta** | **1.86** | **102** | *e*Pn | Pn | 02 35 50.5 | +0.6 |
| STHS | | | | *e*Sn | Sb | 02 36 15.2 | -0.2 |
| **STHS** | **Stebnicka Huta** | **1.86** | **102** | *e*PN | Pn | 02 35 50.5 | +0.6 |
| STHS | | | | *e*SN | Sb | 02 36 15.2 | -0.2 |
| **PRU** | **Pruhonice** | **2.54** | **275** | *e*SG | Sb | 02 36 36.1 | +1.2 |
| **PRU** | **Pruhonice** | **2.54** | **275** | Sg | Sb | 02 36 36.1 | +1.2 |
| **PVCC** | **Panska Ves** | **2.60** | **287** | *e*SG | Sg | 02 36 40.3 | +0.1 |
| **PVCC** | **Panska Ves** | **2.60** | **287** | Sg | Sg | 02 36 40.3 | +0.1 |
| **KHC** | **Kasperske Hory** | **3.26** | **259** | *e*SG | Sg | 02 36 59.6 | -1.9 |
| **KHC** | **Kasperske Hory** | **3.26** | **259** | Sg | Sg | 02 36 59.6 | -1.9 |

*NIED* ***15*** *02:49:00.38˚00N×143.˚40E, h26km, Mw4.8 Best double couple: M0 2.05000×10^16 NP1:φs64.00000°, δ58.00000°, λ-4.00000°. NP2:φs156.00000°, δ87.00000°, λ-148.00000°.*

*IDC* ***15*** *02:49:18.3±0.5, 37.˚96N×143.˚52E, h0km, mb4.7/35, mb1 4.8/43, mb1mx4.7/63, mbtmp4.7/43, ML3.7/6, MS4.1/13, Ms1 4.1/13, ms1mx3.8/41, Error ellipse: s-maj=12.8km s-min=10.5km az=134.0*

*ISCJB* ***15*** *02:49:20.3±0.8, 38.˚09N±0.˚02×143.˚37E±0.˚02, h17km±5km, mb4.8/225, MS4.2/24, Error ellipse: s-maj=3.8km s-min=2.5km az=162.0*

*JMA* ***15*** *02:49:22.1±0.2, 38.˚04N×143.˚38E, h45km, M4.8*

*JMA Felt I J1.*

*MOS* ***15*** *02:49:23.4±0.9, 38.˚26N×143.˚34E, h33km, mb5.1/84, Error ellipse: s-maj=6.5km s-min=4.5km az=94.7*

*NEIC* ***15*** *02:49:24.6±0.6, 38.˚07N×143.˚34E, h35km±4km, mb4.9/158, Error ellipse: s-maj=4.6km s-min=2.9km az=159.0*

*NEIC Recorded [1 JMA] in Fukushima and Miyagi.*

*GCMT* ***15*** *02:49:24.6±0.4, 38.˚08N×143.˚40E, h25km±2km, MW5.0/74, Moment Tensor Solution. s12,c13; s74,c109; Duration: 0 Moment tensor: Scale 10^16Nm; Mrr-0.58±.21; Mθθ-1.87±.15; Mφφ2.45±.14; Mrθ-0.95±.37; Mrφ1.35±.10; Mθφ2.01±.36; Best double couple: M0 3.40500×10^16 NP1:φs155.00000°, δ84.00000°, λ-137.00000°. NP2: φs60.00000°, δ48.00000°, λ-8.00000°. Principal axes: T 3.5750, Plg24.0000°, Azm280.0000°; N -0.3370, Plg47.0000°, Azm161.0000°; P -3.2350, Plg33.0000°, Azm26.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*BJI* ***15*** *02:49:25.3, 38.˚08N×142.˚76E, h31km, mb5.1/76, mB5.1/54, Ms4.6/67, Ms7 4.4/64*

**ISC 15 02:49:23.5±0.5, 38.˚04N±0.˚04×143.˚39E±0.˚04, h31km±2km, h31km:pP-P,n723,σ1s39/763, mb4.9/226, MS4.3/26, 23C-18D, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JIO** | **Ouri** | **1.66** | **285** | P | **Pn** | **02 49 49.4** | **-1.1** |
| **OFUJ** | **Ofunato** | **1.71** | **308** | P | **Pn** | **02 49 50.0** | **-1.1** |
| OFUJ | | | | S | **Sn** | **02 50 10.6** | **-1.2** |
| **JMK** | **Ichinoseki** | **1.93** | **299** | P | **Pn** | **02 49 53.5** | **-0.7** |
| JMK | | | | S | **Sn** | **02 50 16.3** | **-1.1** |
| **JOM** | **Ohasama** | **2.18** | **312** | P | **Pn** | **02 49 57.1** | **-0.5** |
| JOM | | | | *e*S | **Sn** | **02 50 23.1** | **-0.4** |
| **JFT** | **Otama** | **2.48** | **259** | P | **Pn** | **02 50 01.3** | **-0.4** |
| JFT | | | | S | **Sn** | **02 50 30.0** | **-0.9** |
| **JYK** | **Kaneyama** | **2.54** | **291** | P | **Pn** | **02 50 02.4** | **-0.1** |
| **JANG** | **Nango** | **2.75** | **329** | P | **Pn** | **02 50 04.3** | **-1.2** |
| JANG | | | | S | **Sn** | **02 50 36.2** | **-1.4** |
| **JNS** | **Sasagawa** | **3.23** | **267** | P | **Pn** | **02 50 12.1** | **+0.1** |
| **JAW** | **Awa shima** | **3.29** | **279** | P | **Pn** | **02 50 13.0** | **+0.2** |
| **JAG** | **Ashikaga** | **3.53** | **244** | P | **Pn** | **02 50 14.9** | **-1.3** |
| JAG | | | | S | **Sn** | **02 50 55.0** | **-1.9** |
| **JOT** | **Ohata** | **3.80** | **332** | P | **Pn** | **02 50 20.4** | **+0.6** |
| JOT | | | | *e*S | **Sn** | **02 51 00.7** | **-2.7** |
| **BSO1** | **Boso 1** | **3.90** | **211** | P | **Pn** | **02 50 18.3** | **-2.5** |
| BSO1 | | | | S | **Sn** | **02 51 02.6** | **-2.6** |
| **ERM** | **Erimo** | **3.98** | **357** | *d* iP | **Pn** | **02 50 21.3** | **-1.0** |
| ERM | | | | pmax | pmax | | |
| | comp=Z,341nm,1.2s | | | | | | |
| **ERM** | **Erimo** | **3.98** | **357** | *e*Pn | **Pn** | **02 50 21.2** | **-1.0** |
| ERM | | | | *e*Sn | **Sn** | **02 51 05.5** | **-2.4** |
| **JSD** | **Sado** | **4.05** | **272** | P | **Pn** | **02 50 23.0** | **-0.3** |
| **JRY** | **Ryogami san** | **4.12** | **242** | P | **Pn** | **02 50 23.0** | **-1.3** |
| JRY | | | | *e*S | **Sn** | **02 51 07.8** | **-3.7** |
| **JKB** | **Kayabe** | **4.25** | **336** | P | **Pn** | **02 50 26.5** | **+0.4** |
| JKB | | | | S | **Sn** | **02 51 11.8** | **-2.8** |
| **JNBK** | **Urakawa-nobuka** | **4.27** | **354** | P | **Pn** | **02 50 25.5** | **-0.8** |
| JNBK | | | | *e*S | **Sn** | **02 51 13.0** | **-2.0** |
| **MJAR** | **Matsushiro Arr** | **4.39** | **252** | Pn | **Pn** | **02 50 28.4** | **+0.3** |
| | comp=Z,18nm,0.3s,baz=66,slow=11,SNR=216 | | | | | | |
| MJAR | | | | Sn | **Sn** | **02 51 20.4** | **+2.2** |
| | comp=Z,30nm,0.3s,baz=329,slow=18,SNR=6.4 | | | | | | |
| MJAR | | | | LR | LR | 02 52 31.1 | |
| | comp=Z,3μm,19.9s,baz=60,slow=43 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **4.39** | **252** | Pn | **Pn** | **02 50 28.4** | **+0.3** |
| **MAJO** | **Matsushiro** | **4.39** | **252** | *c* iP | **Pn** | **02 50 28.3** | **+0.2** |
| **MAJO** | **Matsushiro** | **4.39** | **252** | *e*Pn | **Pn** | **02 50 28.7** | **+0.6** |
| MAJO | | | | *e*Sn | **Sn** | **02 51 18.8** | **+0.6** |
| **MAT** | **Matsushiro** | **4.39** | **252** | P | **Pn** | **02 50 28.2** | **+0.1** |
| MAT | | | | S | **Sn** | **02 51 15.1** | **-3.1** |
| **MJB9** | **Matsu-Tunnel** | **4.40** | **252** | *e*Pn | **Pn** | **02 50 28.7** | **+0.6** |
| MJB9 | | | | *e*Sn | **Sn** | **02 51 19.1** | **+0.8** |
| **JHJ2** | **Mitsune** | **5.71** | **212** | *e*Pn | **Pn** | **02 50 43.3** | **-2.9** |
| JHJ2 | | | | *e*Sn | **Sn** | **02 51 43.0** | **-7.6** |
| **JHJ** | **Hachijo jima 2** | **5.72** | **212** | Pn | **Pn** | **02 50 43.0** | **-3.3** |
| | comp=Z,195nm,0.3s,baz=292,slow=21,SNR=38 | | | | | | |
| JHJ | | | | Sn | **Sn** | **02 51 43.7** | **-7.2** |
| | comp=Z,502nm,0.3s,baz=67,slow=22,SNR=16 | | | | | | |
| JHJ | | | | LR | LR | 02 52 47.4 | |
| | comp=Z,16nm,19.8s,baz=16,slow=37 | | | | | | |
| **INU** | **Inuyama** | **5.78** | **244** | *e*Pn | **Pn** | **02 50 46.4** | **-0.7** |
| INU | | | | *e*Sn | **Sn** | **02 51 48.2** | **-4.2** |
| **ASAJ** | **Asahikawa** | **6.10** | **355** | Pn | **Pn** | **02 50 51.1** | **-0.4** |
| | comp=Z,45nm,0.3s,baz=197,slow=7.4,SNR=77 | | | | | | |
| ASAJ | | | | Sn | **Sn** | **02 51 58.0** | **-2.2** |
| | comp=Z,20nm,0.3s,baz=45,slow=32,SNR=7.9 | | | | | | |
| ASAJ | | | | LR | LR | 02 53 38.6 | |
| | comp=Z,5.5nm,18.7s,baz=152,slow=42 | | | | | | |
| **ASAJ** | **Asahikawa** | **6.10** | **355** | *e*Pn | **Pn** | **02 50 50.6** | **-0.9** |
| ASAJ | | | | *e*Sn | **Sn** | **02 51 57.9** | **-2.4** |
| **YUK** | **Yuzh-Kuril'sk** | **6.28** | **17** | *e*P | **Pn** | **02 50 51.2** | **-2.7** |
| YUK | | | | *e*S | **Sn** | **02 51 58.2** | **-6.2** |
| YUK | | | | pmax | pmax | | |
| | comp=N,170nm,0.3s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=Z,2μm,0.3s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=E,161nm,0.4s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=E,3μm,0.4s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,2μm,0.3s | | | | | | |
| YUK | | | | MLR | MLR | | |
| | comp=Z,1μm,8.0s | | | | | | |
| **KUR** | **Kuril'sk** | **7.93** | **24** | *c e*P | **Pn** | **02 51 14.3** | **-2.3** |
| KUR | | | | *i* S | **Sn** | **02 52 39.5** | **-5.7** |
| KUR | | | | pmax | pmax | | |
| | comp=Z,237nm,0.4s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=E,147nm,0.3s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=N,62nm,0.4s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=Z,1μm,3.2s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=E,1μm,3.0s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=N,1μm,2.4s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=N,401nm,0.4s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,406nm,0.4s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=N,1μm,2.9s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,726nm,3.3s | | | | | | |
| KUR | | | | MLR | MLR | | |
| | comp=Z,2μm,6.0s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **8.92** | **357** | ⇓*e*P | **Pn** | **02 51 30.7** | **+0.5** |
| YSS | | | | *e*S | **Sn** | **02 53 08.0** | **-1.6** |
| YSS | | | | smax | smax | | |
| | comp=E,110nm,1.1s | | | | | | |
| YSS | | | | MLR | MLR | | |
| | comp=Z,1μm,17.0s | | | | | | |
| YSS | | | | MLR | MLR | | |
| | comp=N,1μm,18.0s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **8.92** | **357** | *e*Pn | **Pn** | **02 51 30.1** | **-0.1** |
| YSS | | | | *e*Sn | **Sn** | **02 53 10.7** | **+1.2** |
| **VLA** | **Vladivostok** | **10.12** | **304** | *i* P | **Pn** | **02 51 46.2** | **-0.3** |
| VLA | | | | pmax | pmax | | |
| | comp=Z,92nm,1.0s | | | | | | |
| **MSHR** | **Mys Shultsa** | **10.38** | **300** | ⇑*i* P | **Pn** | **02 51 50.7** | **+0.5** |
| **USRK** | **Ussuriysk Ar.** | **10.57** | **309** | Pn | **Pn** | **02 51 53.8** | **+1.0** |
| | comp=Z,2.1nm,0.3s,baz=112,slow=15,SNR=22 | | | | | | |
| USRK | | | | LR | LR | 02 55 55.0 | |
| | comp=Z,877nm,18.1s,baz=116,slow=37 | | | | | | |
| **CBIJ** | **Chichi jima** | **10.96** | **186** | *e*Pn | Pn | 02 51 52.2 | -6.0 |
| CBIJ | | | | *e*Sn | Sn | 02 53 45.8 | -14 |
| **JCJ** | **Chichijima** | **10.96** | **186** | Pn | Pn | 02 51 51.3 | -6.8 |
| | comp=Z,14nm,0.3s,baz=3.9,slow=19,SNR=45 | | | | | | |
| JCJ | | | | Sn | Sn | 02 53 45.7 | -14 |
| | comp=Z,49nm,0.3s,baz=281,slow=23,SNR=7.4 | | | | | | |
| **JNU** | **Nakatsue** | **11.30** | **248** | Pn | **Pn** | **02 52 02.5** | **-0.4** |
| | comp=Z,0.5nm,0.3s,baz=54,slow=9.0,SNR=13 | | | | | | |
| JNU | | | | LR | LR | 02 57 01.7 | |
| | comp=Z,6.8nm,20.7s,baz=307,slow=41 | | | | | | |
| **JNU** | **Nakatsue** | **11.30** | **248** | *e*Pn | **Pn** | **02 52 02.8** | **-0.1** |
| **HABR** | **Khabarovsk** | **12.06** | **332** | *e*P | **Pn** | **02 52 11.0** | **-2.1** |
| HABR | | | | *e*S | **Sn** | **02 54 26.3** | **-0.2** |
| HABR | | | | pmax | pmax | | |
| | comp=E,68nm,1.9s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=Z,52nm,1.9s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=N,58nm,1.9s | | | | | | |
| HABR | | | | MLR | MLR | | |
| | comp=Z,162nm,14.0s | | | | | | |
| **KSRS** | **Korea Array** | **12.26** | **272** | Pn | **Pn** | **02 52 17.8** | **+1.8** |
| | comp=Z,0.9nm,0.3s,baz=87,slow=13,SNR=49 | | | | | | |
| KSRS | | | | LR | LR | 02 57 03.4 | |
| | comp=Z,1μm,18.4s,baz=74,slow=38 | | | | | | |
| **MDJ** | **Mudanjiang** | **12.27** | **307** | P | **Pn** | **02 52 16.3** | **+0.3** |
| MDJ | | | | S | **Sn** | **02 54 25.9** | **-5.8** |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,35nm,1.2s | | | | | | |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,130nm,3.9s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=Z,770nm,16.1s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=Z,620nm,16.1s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=Z,1μm,16.8s | | | | | | |
| **MDJ** | **Mudanjiang** | **12.27** | **307** | *e*Pn | **Pn** | **02 52 17.7** | **+1.7** |
| **KS01** | **Wonju Array Si** | **12.28** | **272** | *e*Pn | **Pn** | **02 52 17.1** | **+0.9** |
| **KS15** | **Wonju Array Si** | **12.29** | **272** | *e*Pn | **Pn** | **02 52 18.5** | **+2.1** |
| **TYV** | **Tymovskoe** | **12.84** | **358** | *e*P | Pn | 02 52 12.2 | -11 |
| TYV | | | | pmax | pmax | | |
| | comp=Z,21nm,0.8s | | | | | | |
| **TJN** | **Taejon** | **12.89** | **268** | *c e*P | **Pn** | **02 52 25.3** | **+0.8** |
| **INCN** | **Inchon** | **13.28** | **273** | *e*Pn | **Pn** | **02 52 31.3** | **+1.5** |
| **KLR** | **Kul'dur** | **13.99** | **327** | Pn | **Pn** | **02 52 38.1** | **-1.3** |
| | comp=Z,0.1nm,0.3s,baz=129,slow=13,SNR=43 | | | | | | |
| KLR | | | | LR | LR | 02 58 08.7 | |
| | comp=Z,54nm,19.8s,baz=143,slow=38 | | | | | | |
| **CN2** | **Changchun** | **14.73** | **299** | ⇑P | **Pn** | **02 52 48.0** | **-1.5** |
| CN2 | | | | *e*sP | P | 02 52 59.0 | +3.7 |
| CN2 | | | | *e*S | **Sn** | **02 55 30.5** | **-1.1** |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.1s | | | | | | |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,200nm,5.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,600nm,15.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,700nm,15.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,800nm,16.0s | | | | | | |
| **NKL** | **Nikolayevsk** | **15.23** | **354** | *e*P | **Pn** | **02 52 54.5** | **-1.6** |
| NKL | | | | pmax | pmax | | |
| | comp=Z,90nm,1.4s | | | | | | |
| **SKR** | **Severo-Kuril's** | **15.55** | **32** | *e*P | **Pn** | **02 52 57.9** | **-2.4** |
| SKR | | | | *e*S | **Sn** | **02 55 44.4** | **-7.0** |
| SKR | | | | pmax | pmax | | |
| | comp=Z,1μm,1.9s | | | | | | |
| SKR | | | | pmax | pmax | | |
| | comp=Z,367nm,1.2s | | | | | | |
| SKR | | | | pmax | pmax | | |
| | comp=Z,400nm,4.1s | | | | | | |
| SKR | | | | MLR | MLR | | |
| | comp=Z,700nm,19.0s | | | | | | |
| SKR | | | | MLR | MLR | | |
| | comp=Z,1μm,20.0s | | | | | | |
| **SNY** | **Shenyang** | **15.66** | **290** | ⇑P | **Pn** | **02 53 01.3** | **-0.5** |
| SNY | | | | pmax | pmax | | |
| | comp=Z,17nm,0.9s | | | | | | |
| SNY | | | | LR | LR | | |
| | comp=Z,490nm,13.6s | | | | | | |
| SNY | | | | LR | LR | | |
| | comp=Z,2μm,15.9s | | | | | | |
| SNY | | | | LR | LR | | |
| | comp=Z,2μm,16.1s | | | | | | |
| **JOW** | **Kunigami** | **16.94** | **233** | *e*Pn | **Pn** | **02 53 18.9** | **+0.8** |
| | comp=Z,115nm,1.3s | | | | | | |
| **DL2** | **Dalian** | **17.07** | **280** | P | **Pn** | **02 53 16.9** | **-2.8** |
| DL2 | | | | PP | **sP** | **02 53 32.3** | **-1.1** |
| DL2 | | | | S | **Sn** | **02 56 20.0** | **-8.4** |
| DL2 | | | | pmax | pmax | | |
| | comp=Z,220nm,1.6s | | | | | | |
| DL2 | | | | pmax | pmax | | |
| | comp=Z,250nm,7.6s | | | | | | |
| DL2 | | | | LR | LR | | |
| | comp=Z,690nm,13.4s | | | | | | |
| DL2 | | | | LR | LR | | |
| | comp=Z,730nm,14.8s | | | | | | |
| DL2 | | | | LR | LR | | |
| | comp=Z,1μm,16.7s | | | | | | |
| **PEA0B** | **Petropavlovsk-** | **18.04** | **29** | *e*P | **P** | **02 53 33.0** | **+1.1** |
| | comp=Z,83nm,1.0s | | | | | | |
| **PETK** | **Petropavlovsk-** | **18.04** | **29** | P | **Pn** | **02 53 29.6** | **-2.1** |
| | comp=Z,0.9nm,0.3s,baz=196,slow=8.5,SNR=14 | | | | | | |
| PETK | | | | LR | LR | 03 00 16.9 | |
| | comp=Z,291nm,21.7s,baz=215,slow=36 | | | | | | |
| **PETK** | **Petropavlovsk-** | **18.04** | **29** | *e*P | **Pn** | **02 53 30.3** | **-1.3** |
| **PEA1** | **Petropavlovsk-** | **18.05** | **29** | *e*P | **Pn** | **02 53 29.6** | **-2.1** |
| **PET** | **Petropavlovsk** | **18.35** | **30** | *i* P | P | 02 53 25.7 | -10 |
| PET | | | | pmax | pmax | | |
| | comp=Z,116nm,1.2s | | | | | | |
| **SSE** | **Sheshan** | **19.53** | **256** | P | **P** | **02 53 48.8** | **+0.4** |
| SSE | | | | pmax | pmax | | |
| | comp=Z,60nm,1.3s | | | | | | |
| SSE | | | | pmax | pmax | | |
| | comp=Z,150nm,3.7s | | | | | | |
| SSE | | | | LR | LR | | |
| | comp=Z,920nm,21.1s | | | | | | |
| SSE | | | | LR | LR | | |
| | comp=Z,650nm,21.1s | | | | | | |
| SSE | | | | LR | LR | | |
| | comp=Z,430nm,26.0s | | | | | | |
| **HIA** | **Hailar** | **20.38** | **311** | *e*P | **P** | **02 53 55.3** | **-2.2** |
| HIA | | | | pmax | pmax | | |
| | comp=Z,33nm,0.8s | | | | | | |
| **HIA** | **Hailar** | **20.38** | **311** | *e*P | **P** | **02 53 55.3** | **-2.2** |
| | comp=Z,33nm,0.8s | | | | | | |
| **NJ2** | **Nanjing** | **20.93** | **261** | *e*P | **P** | **02 54 04.5** | **+0.9** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,43nm,0.9s | | | | | | |
| **TIA** | **Tai'an** | **21.00** | **273** | ⇓P | **P** | **02 54 02.9** | **-1.5** |
| TIA | | | | S | **S** | **02 57 54.5** | **-2.2** |
| TIA | | | | pmax | pmax | | |
| | comp=Z,60nm,1.3s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,790nm,12.6s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,1μm,14.3s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,1μm,15.8s | | | | | | |
| **BJI** | **Beijing** | **21.21** | **284** | P | **P** | **02 54 04.0** | **-2.5** |
| BJI | | | | pP | **pP** | **02 54 14.9** | **0.0** |
| BJI | | | | pmax | pmax | | |
| | comp=Z,64nm,1.2s | | | | | | |
| BJI | | | | pmax | pmax | | |
| | comp=Z,440nm,3.5s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,790nm,14.7s | | | | | | |
| **BJT** | **Baijiatuau** | **21.21** | **284** | *e*P | **P** | **02 54 04.1** | **-2.5** |
| BJT | | | | pmax | pmax | | |
| | comp=Z,124nm,0.9s | | | | | | |
| **BJT** | **Baijiatuau** | **21.21** | **284** | *e*P | **P** | **02 54 04.1** | **-2.5** |
| | comp=Z,124nm,0.9s | | | | | | |
| **MA2** | **Magadan** | **22.07** | **10** | P | **P** | **02 54 15.7** | **+0.1** |
| | comp=Z,21nm,0.8s,baz=185,slow=7.8,SNR=12 | | | | | | |
| MA2 | | | | LR | LR | 03 04 08.9 | |
| | comp=Z,302nm,18.3s,baz=189,slow=40 | | | | | | |
| **CLNS** | **Chul'man** | **22.46** | **333** | *e*P | **P** | **02 54 24.1** | **+4.3** |
| CLNS | | | | *e**PP | **sP** | **02 54 36.3** | **+4.1** |
| CLNS | | | | *e* | | 02 54 43.6 | |
| CLNS | | | | *e* | | 02 58 18.9 | |
| CLNS | | | | *e*S | **S** | **02 58 23.9** | **-0.4** |
| CLNS | | | | *e*SS | **SnSn** | **02 58 51.6** | **-2.2** |
| CLNS | | | | pmax | pmax | | |
| | comp=Z,41nm,0.9s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=N,11nm,0.7s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=E,11nm,0.8s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=E,16nm,0.9s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=Z,13nm,1.0s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=N,31nm,1.2s | | | | | | |
| CLNS | | | | smax | smax | | |
| | comp=E,39nm,1.3s | | | | | | |
| CLNS | | | | smax | smax | | |
| | comp=N,56nm,1.4s | | | | | | |
| CLNS | | | | MLR | MLR | | |
| | comp=Z,317nm,16.0s | | | | | | |
| CLNS | | | | MLR | MLR | | |
| | comp=N,446nm,16.0s | | | | | | |
| CLNS | | | | MLR | MLR | | |
| | comp=E,192nm,10.0s | | | | | | |
| **GUMO** | **Guam** | **24.39** | **177** | LR | LR | 03 02 25.7 | |
| | comp=E,204nm,20.8s,baz=26,slow=32 | | | | | | |
| **TPUB** | **Ta-pu** | **24.39** | **239** | *e*P | **P** | **02 54 38.0** | **-1.0** |
| | comp=E,50nm,0.9s | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **24.67** | **287** | *e*P | **P** | **02 54 40.1** | **-1.5** |
| HHC | | | | PP | **PnPn** | **02 55 15.4** | **+1.6** |
| HHC | | | | S | **S** | **02 58 56.4** | **-4.8** |
| HHC | | | | sS | pS | 02 59 09.1 | -1.7 |
| HHC | | | | pmax | pmax | | |
| | comp=E,55nm,1.0s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=E,140nm,5.0s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=E,140nm,12.8s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=E,1μm,14.9s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=E,1μm,14.3s | | | | | | |
| **QZH** | **Quanzhou** | **24.76** | **245** | ⇑*i* P | **P** | **02 54 40.6** | **-1.8** |
| **WHN** | **Wuhan** | **25.06** | **261** | ⇑P | **P** | **02 54 44.8** | **-0.3** |
| WHN | | | | pmax | pmax | | |
| | comp=E,200nm,0.8s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=E,2μm,19.3s | | | | | | |
| **CIT** | **Chita** | **25.09** | **314** | *e*P | **P** | **02 54 45.0** | **-0.2** |
| CIT | | | | *e* | | 02 54 58.6 | |
| CIT | | | | *e* | | 02 55 34.1 | |
| CIT | | | | pmax | pmax | | |
| | comp=Z,222nm,1.0s | | | | | | |
| **YAK** | **Yakutsk** | **25.47** | **345** | P | **P** | **02 54 48.4** | **0.0** |
| | comp=Z,25nm,0.6s,baz=57,slow=1.0,SNR=9.9 | | | | | | |
| YAK | | | | LR | LR | 03 05 25.1 | |
| | comp=Z,548nm,20.0s,baz=112,slow=38 | | | | | | |
| **YAK** | **Yakutsk** | **25.47** | **345** | *e*P | **P** | **02 54 47.6** | **-0.9** |
| YAK | | | | *e**PP | **pP** | **02 54 57.5** | **0.0** |
| YAK | | | | *e* | | 02 55 22.8 | |
| YAK | | | | *e* | | 02 58 22.1 | |
| YAK | | | | *e*S | **S** | **02 59 15.9** | **+2.5** |
| YAK | | | | *e*SS | **SnSn** | **03 00 10.8** | **+3.4** |
| YAK | | | | *e* | | 03 05 42.9 | |
| YAK | | | | pmax | pmax | | |
| | comp=E,6.0nm,0.9s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=Z,38nm,0.9s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,10.0nm,1.0s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=Z,68nm,1.6s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,23nm,1.5s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=E,358nm,2.1s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=N,299nm,2.0s | | | | | | |
| YAK | | | | MLR | MLR | | |
| | comp=Z,520nm,20.0s | | | | | | |
| **YAK** | **Yakutsk** | **25.47** | **345** | *e*P | **P** | **02 54 48.6** | **+0.1** |
| | comp

XAN pP pP 02 55 21.3 +0.1
XAN sP sP 02 55 25.3 +0.3
XAN pmax pmax
comp=Z,75nm,1.2s
XAN pmax pmax
comp=Z,75nm,4.8s
XAN LR LR
comp=Z,470nm,17.2s
XAN LR LR
comp=Z,380nm,16.0s
XAN LR LR
comp=Z,650nm,15.6s
**H11S1 WAKE ISLAND Hy 28.15 127** T T 03 24 48.6
baz=318,slow=76,SNR=10
**H11S3 WAKE ISLAND Hy 28.15 127** T T 03 24 49.4
baz=318,slow=76,SNR=12
**H11S2 WAKE ISLAND Hy 28.16 127** T T 03 25 00.7
baz=318,slow=76,SNR=11
**SONA1 Songino Array 28.55 302** *e*P **P** **02 55 17.4 +0.8**
**SONA0 Songino Array 28.56 302** *e*P **P** **02 55 17.6 +1.1**
**SONM Songino Array 28.56 302** P **P** **02 55 17.6 +1.1**
comp=Z,28nm,1.0s,baz=96,slow=7.9,SNR=55
SONM LR LR 03 07 14.1
comp=Z,461nm,18.4s,baz=68,slow=38
**ENH Enshi 28.99 265** *e*P **P** **02 55 20.2 -0.2**
comp=Z,80nm,0.9s
**IRK Irkutsk 30.62 310** *e*P **P** **02 55 34.6 0.0**
IRK pmax pmax
comp=Z,65nm,2.2s
**TLY Talaya 30.89 309** P **P** **02 55 38.9 +1.9**
comp=Z,7.7nm,0.6s,baz=118,slow=12,SNR=7.1
**TLY Talaya 30.89 309** *e*P **P** **02 55 40.5 +3.5**
TLY *e*S **S** **03 00 45.7 +6.8**
TLY pmax pmax
comp=Z,31nm,1.1s
TLY MLR MLR
comp=Z,233nm,11.0s
**ZAK Zakamensk 30.91 307** *e*P **P** **02 55 38.8 +1.5**
ZAK pmax pmax
comp=Z,30nm,1.3s
**LZH Lanzhou 31.46 279** ⇑P **P** **02 55 43.0 +0.6**
LZH pP sP 02 55 53.8 -1.5
LZH sP pP 02 55 56.9 +5.4
LZH PP **PnPn** **02 56 47.3 +1.6**
LZH *e*S **S** **03 00 48.3 -0.1**
LZH sS sS 03 01 05.0 +1.6
LZH pmax pmax
comp=Z,57nm,1.1s
LZH pmax pmax
comp=Z,280nm,6.2s
LZH LR LR
comp=Z,620nm,14.1s
LZH LR LR
comp=Z,770nm,15.0s
LZH LR LR
comp=Z,930nm,15.8s
**MOY Mondy 32.52 309** *e*P **P** **02 55 53.1 +1.7**
MOY pmax pmax
comp=Z,28nm,2.0s
**GYA Guiyang 32.94 260** P **P** **02 55 54.8 -0.6**
GYA pP sP 02 56 05.4 -2.9
GYA PP **PnPn** **02 57 07.0 +2.2**
GYA S **S** **03 01 11.3 -0.3**
GYA sS sS 03 01 27.8 +1.2
GYA pmax pmax
comp=Z,40nm,0.9s
GYA pmax pmax
comp=Z,130nm,5.0s
GYA LR LR
comp=Z,590nm,16.9s
GYA LR LR
comp=Z,540nm,17.0s
GYA LR LR
comp=Z,560nm,17.2s
**CD2 Chengdu 33.25 270** ⇓*i*P **P** **02 55 57.8 -0.2**
CD2 pP pP 02 56 07.3 +0.2
CD2 sP sP 02 56 11.1 +0.2
CD2 PP **PnPn** **02 57 07.5 -1.1**
CD2 S **S** **03 01 18.5 +2.4**
CD2 SS **SnSn** **03 03 10.8 -6.6**
CD2 pmax pmax
comp=Z,60nm,1.1s
CD2 pmax pmax
comp=Z,150nm,9.5s
CD2 LR LR
comp=Z,1μm,16.7s
CD2 LR LR
comp=Z,800nm,16.6s
CD2 LR LR
comp=Z,860nm,17.8s
**TIXI Tiksi 34.50 352** P **P** **02 56 07.0 -1.3**
comp=Z,2.4nm,0.4s,baz=145,slow=6.3,SNR=9.8
**TIXI Tiksi 34.50 352***ce*P **P** **02 56 07.7 -0.6**
TIXI pmax pmax
comp=Z,9.0nm,1.7s
**TIXI Tiksi 34.50 352** *e*P **P** **02 56 07.2 -1.1**
**QIZ Qiongzhong 34.77 246** P **P** **02 56 13.5 +2.3**
QIZ sP **sP** **02 56 24.0 -0.1**
QIZ S **S** **03 01 41.3 +1.5**
QIZ pmax pmax
comp=Z,54nm,1.7s
QIZ pmax pmax
comp=Z,260nm,4.2s
QIZ LR LR
comp=Z,580nm,21.1s
QIZ LR LR
comp=Z,530nm,20.1s
QIZ LR LR
comp=Z,560nm,14.8s
**KMI Kunming 36.67 261** P **P** **02 56 27.8 +0.1**
KMI sP sP 02 56 42.5 +1.9
KMI PP **PnPn** **02 57 51.4 0.0**
KMI S **S** **03 02 05.6 -3.6**
KMI SS **SnSn** **03 04 32.8 -7.8**
KMI pmax pmax
comp=Z,36nm,1.0s
KMI LR LR
comp=Z,520nm,17.5s
KMI LR LR
comp=Z,430nm,14.6s
KMI LR LR
comp=Z,370nm,15.1s
**HVS Khovu-Aksy 37.03 307** ⇓*e*P **P** **02 56 30.5 +0.2**
**DGZ Jazzator, Alta 41.09 305***d i*P **P** **02 57 06.0 +1.6**
DGZ pmax pmax
comp=Z,15nm,0.9s
**WMQ Urumqi 41.80 296** P **P** **02 57 11.3 +1.1**
WMQ pP sP 02 57 20.4 -2.8
WMQ sP pP 02 57 24.3 +4.8
WMQ pmax pmax
comp=Z,49nm,0.9s
WMQ pmax pmax
comp=Z,540nm,5.1s
WMQ LR LR
comp=Z,870nm,8.7s
WMQ LR LR
comp=Z,700nm,10.3s
WMQ LR LR
comp=Z,310nm,23.3s
**ZAA0 Zalesovo Array 42.41 312** *e*P **P** **02 57 15.4 +0.4**
comp=Z,34nm,0.8s
**ZAA1 Zalesovo Array 42.41 312** *e*P **P** **02 57 15.1 +0.2**
ZAA1 *e*PcP **PcP** **02 59 07.7 +0.1**
**ZALV Zalesovo Beam 42.41 312** P **P** **02 57 15.1 +0.2**
comp=Z,16nm,0.4s,baz=96,slow=7.6,SNR=51
ZALV PcP **PcP** **02 59 07.7 +0.1**
comp=Z,1.5nm,0.5s,baz=90,slow=3.3,SNR=2.3
ZALV LR LR 03 15 54.9
comp=Z,333nm,18.2s,baz=69,slow=38
**ZALV Zalesovo Beam 42.41 312** *e*P **P** **02 57 14.2 -0.7**
**CM31 Chiang Mai Arr 43.27 256** *e*P **P** **02 57 22.4 0.0**
**CMAR Chiang Mai Arr 43.27 256** P **P** **02 57 22.4 0.0**
comp=Z,3.3nm,0.4s,baz=35,slow=4.9,SNR=7.3
CMAR LR LR 03 16 47.3
comp=Z,172nm,18.5s,baz=53,slow=38
**CMAR Chiang Mai Arr 43.27 256***ce*P **P** **02 57 26.0 +3.7**
CMAR pmax pmax
comp=Z,5.0nm,0.8s
**NVS Novosibirsk 43.30 313** ⇑*i*P P 02 57 27.6 +5.5
NVS *i* 02 59 11.2
NVS pmax pmax
comp=E,5.0nm,0.3s
NVS pmax pmax
comp=Z,11nm,0.3s
NVS pmax pmax
comp=N,2.0nm,0.4s

**LSA Lhasa 43.69 275** *e*P **P** **02 57 28.1 +2.0**
LSA pmax pmax
comp=Z,18nm,0.8s
**LSA Lhasa 43.69 275** *e*P **P** **02 57 28.1 +2.0**
comp=Z,18nm,0.8s
**SVW2 Sparrevohn 43.77 38** *e*P **P** **02 57 27.6 +1.7**
comp=Z,48nm,1.0s
**MK01 Makanchi Array 44.92 302** *e*P **P** **02 57 35.3 0.0**
**MK31 Makanchi Array 44.93 302** *i*P **P** **02 57 35.2 -0.1**
MK31 pmax pmax
comp=Z,41nm,0.9s
**MK31 Makanchi Array 44.93 302** *e*P **P** **02 57 35.9 +0.6**
**MK32 Makanchi Array 44.93 302** *e*P **P** **02 57 35.9 +0.5**
**MKAR Makanchi Array 44.93 302** P **P** **02 57 35.9 +0.5**
comp=Z,22nm,0.7s,baz=86,slow=8.8,SNR=29
MKAR LR LR 03 17 11.3
comp=Z,240nm,18.0s,baz=66,slow=37
**OHAK Old Harbor 44.95 43** *e*P **P** **02 57 33.7 -1.6**
comp=Z,48nm,1.0s
**IMAR Indian Mountai 44.99 31** *e*P **P** **02 57 36.0 +0.5**
**MAKZ Makanchi 45.13 302** *e*P **P** **02 57 37.2 +0.2**
MAKZ pmax pmax
comp=Z,32nm,0.9s
**MAKZ Makanchi 45.13 302** *e*P **P** **02 57 37.2 +0.2**
comp=Z,32nm,0.9s
**RSO Redoubt South 45.14 39** *e*P **P** **02 57 34.8 -2.2**
**KDAK Kodiak Island 45.30 43** P **P** **02 57 37.8 -0.3**
comp=Z,65nm,0.8s,baz=291,slow=4.1,SNR=30
**KDAK Kodiak Island 45.30 43** *i*P **P** **02 57 37.9 -0.1**
**KDAK Kodiak Island 45.30 43** *e*P **P** **02 57 38.4 +0.4**
comp=Z,69nm,0.8s
**PPLA Pureypile 45.44 35** *e*P **P** **02 57 41.3 +2.0**
comp=Z,79nm,1.4s
**SPU Mount Spurr 45.48 38** *e*P **P** **02 57 40.5 +1.0**
**BPAW Bear Paw Mtn. 46.02 34** *e*P **P** **02 57 45.1 +1.4**
comp=Z,18nm,1.0s
**SUA Susitna One 46.11 37** *e*P **P** **02 57 45.0 +0.4**
comp=Z,34nm,0.8s
**MLY Manley 46.16 32** *e*P **P** **02 57 46.1 +1.2**
comp=Z,39nm,0.9s
**TRF Thorofare Moun 46.32 35** *e*P **P** **02 57 47.1 +0.8**
comp=Z,28nm,1.0s
**COLD Coldfoot 46.51 29** *e*P **P** **02 57 48.6 +1.1**
comp=Z,8.0nm,1.0s
**KURK Kurchatov 46.56 308***c i*P **P** **02 57 48.0 -0.1**
KURK pmax pmax
comp=Z,128nm,0.7s
**KURK Kurchatov 46.56 308** *e*P **P** **02 57 48.1 -0.1**
comp=Z,88nm,0.8s
**RC01 Rabbit Creek A 46.61 38** *e*P **P** **02 57 48.9 +0.6**
comp=Z,51nm,0.9s
**PMR Palmer 46.88 37** *e*P **P** **02 57 50.8 +0.4**
PMR pmax pmax
comp=Z,52nm,1.1s
**PMR Palmer 46.88 37** *e*P **P** **02 57 50.8 +0.4**
comp=Z,52nm,1.1s
**MCK McKinley 46.92 34** *e*P **P** **02 57 51.6 +0.8**
MCK pmax pmax
comp=Z,28nm,0.9s
**MCK McKinley 46.92 34** *e*P **P** **02 57 51.6 +0.8**
comp=Z,28nm,0.9s
**RND Reindeer 46.96 35** *e*P **P** **02 57 51.7 +0.5**
RND pmax pmax
comp=Z,43nm,1.0s
**RND Reindeer 46.96 35** *e*P **P** **02 57 51.7 +0.5**
comp=Z,43nm,1.0s
**MDM Murphy Dome 47.23 33** *e*P **P** **02 57 54.2 +1.0**
comp=Z,59nm,0.9s
**SML Sawmill 47.25 37** *e*P **P** **02 57 54.4 +1.0**
SML pmax pmax
comp=Z,39nm,0.8s
**SML Sawmill 47.25 37** *e*P **P** **02 57 54.4 +1.0**
comp=Z,39nm,0.8s
**PMG Port Moresby 47.33 175***ce*P **P** **02 57 56.7 +2.3**
PMG pmax pmax
comp=Z,41nm,1.0s
**COLA College 47.39 33** *e*P **P** **02 57 55.7 +1.3**
COLA pmax pmax
comp=Z,18nm,0.8s
**COLA College 47.39 33** *e*P **P** **02 57 55.7 +1.3**
comp=Z,18nm,0.8s
**CCB Clear Creek Bu 47.41 33** *e*P **P** **02 57 55.2 +0.6**
comp=Z,16nm,1.2s
**TAPN Taplejung 47.44 274** *e*P **P** **02 57 56.1 +0.4**
comp=Z,27nm,0.5s
**DHY Denali Highway 47.64 35** *e*P **P** **02 57 57.0 +0.5**
comp=Z,23nm,1.1s
**HDA Harding Lake 47.78 33** *e*P **P** **02 57 57.7 +0.2**
comp=Z,34nm,0.9s
**IL1 Eielson Array 47.80 33** *e*P **P** **02 57 56.8 -0.8**
**ILAR Eielson Array 47.80 33** P **P** **02 57 57.5 0.0**
comp=Z,21nm,0.8s,baz=265,slow=6.4,SNR=157
**ILB Eielson Array 47.80 33** *e*P **P** **02 57 57.6 0.0**
**ODAN Odare 47.92 274** *e*P **P** **02 57 59.5 +0.2**
comp=Z,54nm,1.0s
**KLU Klutina 48.42 37** *e*P **P** **02 58 03.4 +0.8**
comp=Z,62nm,1.2s
**FYU Fort Yukon 48.45 30** *e*P **P** **02 58 04.9 +2.3**
comp=Z,78nm,1.4s
**JIRN Jiri 48.49 275** *e*P **P** **02 58 04.3 +0.4**
**RAMN Ramite 48.50 274** *e*P **P** **02 58 04.1 +0.3**
comp=Z,70nm,0.7s
**DIV Divide 48.52 38** *e*P **P** **02 58 04.7 +1.4**
comp=Z,83nm,1.0s
**GUN Gumba 48.62 276** *e*P **P** **02 58 05.1 +0.2**
**BMRM Bremner River 49.11 38** *e*P **P** **02 58 09.2 +1.4**
comp=Z,126nm,1.6s
**KKN Kakani 49.15 276** *e*P **P** **02 58 09.0 +0.3**
comp=Z,98nm,0.7s
**PKI Puhoki 49.15 276** *e*P **P** **02 58 08.7 -0.2**
**PKIN Phulchoki 49.15 276** *e*P **P** **02 58 08.8 -0.1**
**MENT Mentasta 49.31 35** *e*P **P** **02 58 10.5 +1.2**
comp=Z,24nm,1.0s
**DMN Daman 49.37 276** *e*P **P** **02 58 10.7 +0.2**
comp=Z,33nm,0.7s
**GKN Gorkha 49.55 277** *e*P **P** **02 58 11.7 -0.1**
**DANN Dangsing 50.08 277** *e*P **P** **02 58 17.0 +1.1**
**KOLN Koldanda 50.47 277** *e*P **P** **02 58 19.1 +0.3**
comp=Z,21nm,0.3s
**TKM2 Tokmak 2 50.54 298** P **P** **02 58 19.8 +0.7**
SNR=51
**PYUN Piuthan 50.80 278** *e*P **P** **02 58 21.7 +0.4**
comp=Z,205nm,0.9s
**BVA0 Borovoye Array 51.06 312** P **P** **02 58 19.9 -2.8**
BVA0 pmax pmax
comp=Z,7.0nm,0.9s
**KBK Karagaybulak 51.08 298** P **P** **02 58 23.9 +0.7**
SNR=28
**CHMS Chumysh 51.10 299** P **P** **02 58 24.0 +0.9**
SNR=5.3
**DAWY Dawson 51.10 33** *e*P **P** **02 58 23.8 +0.9**
comp=Z,25nm,1.7s
**BRVK Borovoye 51.12 312** *i*P **P** **02 58 23.6 +0.5**
BRVK pmax pmax
comp=Z,9.0nm,1.0s
**BRVK Borovoye 51.12 312** *e*P **P** **02 58 23.7 +0.7**
comp=Z,9.6nm,0.7s
**USP Ospenovka 51.19 299** P **P** **02 58 24.3 +0.5**
SNR=9.4
**FRU Bishkek 51.25 298** *e*P **P** **02 58 24.5 +0.2**
FRU *i* 02 58 36.0
FRU *e* 03 00 24.0
**AAK Ala-Archa 51.40 298** ⇑*i*P **P** **02 58 25.9 +0.4**
AAK pmax pmax
comp=Z,10.0nm,1.0s
**AAK Ala-Archa 51.40 298** *e*P **P** **02 58 26.2 +0.7**
comp=Z,12nm,0.9s
**KSH Kashi 51.43 294** P **P** **02 58 30.0 +4.2**
KSH pP sP 02 58 39.8 +0.8
KSH PcP **PcP** **02 59 44.0 +4.0**
KSH PP **PP** **03 00 28.0 +5.1**
KSH S **S** **03 05 47.3 +3.6**
KSH ScS **ScS** **03 08 15.1 +1.1**
KSH SS **SS** **03 09 22.3 +2.9**
KSH pmax pmax
comp=Z,12nm,0.9s
KSH pmax pmax
comp=Z,75nm,4.4s
KSH LR LR
comp=Z,140nm,5.1s
KSH LR LR
comp=Z,150nm,5.6s
KSH LR LR
comp=Z,370nm,7.4s
**UCH Uchtor 51.52 298** P **P** **02 58 28.1 +1.3**
SNR=5.5

**COEN Coen 51.72 180** *e*P **P** **02 58 28.1 +0.2**
comp=Z,14nm,1.1s
**EKS2 Erkin-Say 51.89 299** P **P** **02 58 29.6 +0.4**
SNR=6.6
**AML Almayashu 52.13 298** P **P** **02 58 32.4 +1.2**
SNR=20
**HYT Haines Junctio 52.55 37** *e*P **P** **02 58 35.6 +1.8**
comp=Z,45nm,1.0s
**INK Inuvik 52.77 28** P **P** **02 58 34.9 -0.2**
comp=Z,4.1nm,0.7s,baz=294,slow=6.9,SNR=27
**INK Inuvik 52.77 28** *e*P **P** **02 58 35.7 +0.6**
INK pmax pmax
comp=Z,24nm,1.6s
**INK Inuvik 52.77 28** *e*P **P** **02 58 35.7 +0.6**
comp=Z,24nm,1.6s
**MNAS Manas 52.83 299** P **P** **02 58 36.4 +0.2**
MNAS pmax pmax
comp=Z,31nm,0.9s
**PSI Prapat 53.66 240** P **P** **02 58 42.0 -0.5**
comp=Z,2.7nm,0.4s,baz=124,slow=17,SNR=3.6
**PSI Prapat 53.66 240** *e*P **P** **02 58 42.0 -0.5**
comp=Z,15nm,1.2s
**KK31 Karatay Array 53.98 300** *i*P **P** **02 58 44.1 -0.4**
KK31 pmax pmax
comp=Z,11nm,1.0s
**THN Thein Dam 54.47 286** *e*P **P** **02 58 45.0 -3.1**
**SVE Sverdlovsk 55.44 319** *e*P P 02 59 06.6 +12
SVE pmax pmax
comp=Z,38nm,1.1s
**ARU Arti 56.65 319** P **P** **02 59 03.5 0.0**
comp=Z,2.4nm,0.3s,baz=38,slow=3.2,SNR=6.8
**ARU Arti 56.65 319***d i*P **P** **02 59 03.3 -0.1**
ARU 03 01 09.4
ARU S **S** **03 06 56.6 +3.2**
ARU SS **SS** **03 10 40.2 -0.4**
ARU pmax pmax
comp=Z,9.0nm,1.0s
**ARU Arti 56.65 319** *e*P **P** **02 59 03.5 0.0**
comp=Z,54nm,1.7s
**WRAB Tennant Creek 58.28 190** *i*P **P** **02 59 14.0 -1.3**
WRAB pmax pmax
comp=Z,10.0nm,1.0s
**WRAB Tennant Creek 58.28 190** *e*pP pP 02 59 27.2 +2.3
**WB2 Warramunga Arr 58.29 190** *e*P **P** **02 59 14.3 -1.0**
comp=Z,19nm,0.8s
**WR1 Warramunga Arr 58.30 190** *e*P **P** **02 59 13.9 -1.4**
comp=Z,19nm,0.8s
**WRA Warramunga Arr 58.30 190** P **P** **02 59 13.9 -1.4**
comp=Z,10nm,0.8s,baz=9.7,slow=7.3,SNR=52
**WRA Warramunga Arr 58.30 190** *i*P **P** **02 59 13.8 -1.5**
WRA pmax pmax
comp=Z,11nm,0.8s
**AB31 Akbulak array 58.49 310** *i*P **P** **02 59 16.2 -0.3**
AB31 pmax pmax
comp=Z,5.0nm,0.5s
**KBL Kabul 58.52 291** *e*P **P** **02 59 17.2 0.0**
KBL pmax pmax
comp=Z,25nm,0.9s
**KBL Kabul 58.52 291** *e*P **P** **02 59 17.2 0.0**
comp=Z,25nm,0.9s
**AKTO Aktyubinsk 59.17 312** P **P** **02 59 21.9 +0.6**
comp=Z,5.6nm,0.8s,baz=65,slow=11,SNR=17
**HYB Hyderabad 59.80 269** *i*P **P** **02 59 26.0 0.0**
**SPITS Spitsbergen Ar 59.84 349** P **P** **02 59 25.3 -0.1**
comp=Z,15nm,1.0s,baz=153,slow=16,SNR=2.4
**RES Resolute Bay 61.23 15** P **P** **02 59 34.4 -0.5**
comp=Z,18nm,0.9s,baz=314,slow=6.1,SNR=30
**AS01 Alice Springs 62.01 190** *e*P **P** **02 59 39.6 -1.1**
**AS31 Alice Springs 62.02 190** *e*P **P** **02 59 43.8 +3.0**
comp=Z,1.9nm,0.8s
**ASAR Alice Springs 62.02 190** P **P** **02 59 39.2 -1.6**
comp=Z,2.2nm,0.7s,baz=15,slow=5.7,SNR=12
**YKW3 Yellowknife Ar 62.11 31** *e*P **P** **02 59 40.9 -0.1**
comp=Z,4.9nm,0.8s
**YKA Yellowknife Ar 62.15 31** P **P** **02 59 41.0 -0.2**
comp=Z,3.3nm,0.7s,baz=304,slow=6.6,SNR=49
YKA LR LR 03 27 49.5
comp=Z,7.9nm,21.0s,baz=0.0,slow=37
**YKA Yellowknife Ar 62.15 31** P **P** **02 59 41.0 -0.2**
YKA pmax pmax
comp=Z,3.0nm,0.7s
YKA MLR MLR
comp=Z,8.0nm,21.0s
**YKB5 Yellowknife Ar 62.15 31** *e*P **P** **02 59 41.0 -0.2**
**ARA0 ARCESS Array S 63.61 340** *e*P **P** **02 59 50.9 0.0**
**ARCES ARCESS Array B 63.61 340** P **P** **02 59 50.9 0.0**
comp=Z,5.5nm,0.9s,baz=34,slow=7.3,SNR=6.2
**KLMR Klimovskoe 63.74 328** *e*P P 02 59 58.7 +6.8
KLMR pmax pmax
comp=Z,20nm,1.4s
**TULEG Thule 63.90 8** *e*P **P** **02 59 51.9 -0.7**
comp=Z,11nm,0.8s
**LLLB Lillooet 64.44 45** *e*P **P** **02 59 57.6 +0.9**
comp=Z,17nm,1.2s
**GEYT Alibeck 64.72 299** P **P** **02 59 58.7 0.0**
comp=Z,69nm,1.2s,baz=349,slow=1.5,SNR=8.9
**DAG Danmarks Havn 64.91 356** *i*P **P** **02 59 58.9 -0.3**
DAG pmax pmax
comp=Z,8.0nm,0.9s
**DAG Danmarks Havn 64.91 356** *i*P **P** **02 59 58.9 -0.3**
comp=Z,7.5nm,0.9s
**B05A Bryant 65.48 47** P **P** **03 00 04.4 +1.0**
baz=300
**G03D McMinnville, O 66.33 50** P **P** **03 00 09.9 +1.0**
baz=301
**C06D Leavenworth 66.35 47** P **P** **03 00 09.8 +0.7**
baz=301
**LTY Liberty 66.82 47** *e*P **P** **03 00 12.9 +0.7**
comp=Z,17nm,1.4s
**B08A Colville Reser 67.01 46** *e*P **P** **03 00 13.5 +0.2**
comp=Z,14nm,1.3s
**I03D Drain, OR 67.06 52** P **P** **03 00 14.3 +0.7**
baz=301
**H04A Detroit Lake 67.26 50** *e*P **P** **03 00 16.0 +1.1**
comp=Z,22nm,0.9s
**G05D Wamic, OR 67.49 50** P **P** **03 00 17.0 +0.6**
baz=302
**I04A Tendick Farm, 67.58 51** P **P** **03 00 17.8 +0.7**
baz=302
**VRH Novokhopyorsk 67.89 318** *e*P P 03 00 26.4 +7.7
VRH pmax pmax
comp=Z,10.0nm,0.7s
**C09A Chrisman Ranch 67.91 46** *e*P **P** **03 00 19.5 +0.5**
comp=Z,20nm,1.3s
**I05D Terrebonne, OR 67.95 50** P **P** **03 00 19.9 +0.6**
baz=302
**J04D Umpqua Nationa 68.06 52** P **P** **03 00 20.9 +0.7**
baz=302
**E08A Dider Farm, El 68.17 48** *e*P **P** **03 00 21.4 +0.9**
comp=Z,26nm,1.6s
**OBN Obninsk 68.23 324** *e*P **P** **03 00 22.4 +1.6**
OBN *e* 03 00 46.2
OBN *e*PPP PPP 03 04 35.4
OBN pmax pmax
comp=Z,4.0nm,0.9s
OBN MLR MLR
comp=Z,178nm,13.0s
**NEW Newport 68.31 45** P **P** **03 00 22.1 +0.6**
baz=303
**NEW Newport 68.31 45** *e*P **P** **03 00 22.1 +0.6**
NEW pmax pmax
comp=Z,17nm,1.3s
**NEW Newport 68.31 45** *e*P **P** **03 00 22.1 +0.6**
comp=Z,17nm,1.3s
**LPSR Galich'ya Gora 68.53 321** *e*P P 03 00 32.0 +9.3
LPSR pmax pmax
comp=Z,10.0nm,1.1s
**J05D Fort Rock, OR 68.58 51** P **P** **03 00 24.4 +1.0**
baz=302
**FIA0 FINESS Array S 68.65 333** *e*P **P** **03 00 23.6 +0.3**
**FIA0 FINESS Array S 68.65 333** *e*P **P** **03 00 23.6 +0.3**
**FINES FINESS Array B 68.65 333** P **P** **03 00 23.6 +0.3**
comp=Z,4.4nm,0.6s,baz=53,slow=9.8,SNR=18
FINES LR LR 03 33 58.9
comp=Z,176nm,18.7s,baz=60,slow=39
**E09A Wood Farm, Sta 68.68 47** *e*P **P** **03 00 24.7 +0.9**
comp=Z,13nm,1.3s
**N02D Trinity Center 68.89 54** P **P** **03 00 26.2 +0.8**
baz=302
**M04C Macdoel 69.01 53** P **P** **03 00 26.9 +0.8**
baz=303
**MAK Makhachkala 69.07 309** *e*P **P** **03 00 22.8 -3.4**
MAK *e* 03 02 55.8
MAK *e*S **S** **03 09 26.0 -3.3**
MAK *e*SS **SS** **03 13 52.4 -2.4**
MAK pmax pmax
comp=Z,61nm,0.9s

MAK MLR MLR
comp=Z,201nm,16.0s
**I07A Izee 69.20 50** *e*P **P 03 00 28.4 +1.1**
comp=Z,6.6nm,1.1s
**VSR Storozhevoye 69.21 319** *e*P P 03 00 36.7 +10
VSR pmax pmax
comp=Z,20nm,1.3s
**WDC Whiskeytown Da 69.21 54** *e*P **P 03 00 28.2 +1.0**
WDC pmax pmax
comp=Z,33nm,1.9s
**WDC Whiskeytown Da 69.21 54** *e*P **P 03 00 28.2 +1.0**
comp=Z,33nm,1.9s
**WALA Waterton Lakes 69.63 43** *e*P **P 03 00 30.2 +0.3**
comp=Z,9.7nm,0.9s
**SUMG Summit 69.68 1** *i*P **P 03 00 30.6 +0.6**
SUMG pmax pmax
comp=Z,16nm,0.8s
**SUMG Summit 69.68 1** *i*P **P 03 00 30.6 +0.6**
comp=Z,16nm,0.8s
**SUMG Summit 69.68 1** *e*P **P 03 00 30.4 +0.4**
comp=Z,19nm,0.9s
**O03D Paynes Creek 69.84 54** P **P 03 00 31.4 +0.2**
baz=303
**MOD Modoc Plateau 69.91 52** *e*P **P 03 00 32.6 +0.9**
comp=Z,6.8nm,0.8s
**BMO Blue Mountains 70.09 48** *e*P **P 03 00 33.2 +0.5**
BMO pmax pmax
comp=Z,10.0nm,1.2s
**BMO Blue Mountains 70.09 48** *e*P **P 03 00 33.2 +0.5**
comp=Z,10.0nm,1.2s
**JTMT Jette 70.18 44** *e*P **P 03 00 34.1 +0.9**
comp=Z,8.4nm,0.8s
**J08A Circle Bar Ran 70.23 50** *e*P **P 03 00 34.5 +0.9**
comp=Z,15nm,1.0s
**ORV Oroville 70.44 55** *e*P **P 03 00 35.2 +0.4**
ORV pmax pmax
comp=Z,7.0nm,0.8s
**ORV Oroville 70.44 55** *e*P **P 03 00 35.2 +0.4**
comp=Z,6.9nm,0.8s
**GOF Gofitskoye 70.59 312**⇑ *e*P P 03 00 47.0 +11
GOF pmax pmax
comp=Z,33nm,0.9s
**WVOR Wild Horse Val 70.64 51** *e*P **P 03 00 36.8 +0.7**
WVOR pmax pmax
comp=Z,8.0nm,1.0s
**WVOR Wild Horse Val 70.64 51** *e*P **P 03 00 36.8 +0.7**
comp=Z,7.6nm,1.0s
**NLHM Lake Herman 70.81 56** *e*P **P 03 00 36.2 -0.8**
**MSO Missoula 70.90 45** P **P 03 00 37.8 +0.2**
baz=306
**BEKR Beckworth 71.00 54** *e*P **P 03 00 38.7 +0.3**
comp=Z,11nm,0.8s
**AFDM Forest Hills D 71.11 55** *e*P **P 03 00 39.6 +0.7**
comp=Z,6.2nm,1.2s
**ZEI Tsey 71.37 310** *e*P **P 03 00 39.8 -0.8**
ZEI pmax pmax
comp=Z,3.0nm,0.8s
**KVAR Kislovodsk Arr 71.42 312** P **P 03 00 42.8 +1.9**
comp=Z,8.8nm,0.9s,baz=161,slow=0.8,SNR=7.5
**KIV Kislovodsk 71.43 312** *e*P **P 03 00 42.1 +1.3**
KIV pmax pmax
comp=Z,22nm,1.1s
KIV MLR MLR
comp=Z,142nm,18.0s
**KIV Kislovodsk 71.43 312** *e*P **P 03 00 42.6 +1.8**
comp=Z,54nm,1.1s
**KBZ Khabaz 71.43 311** P **P 03 00 41.9 +1.2**
comp=Z,4.9nm,0.8s,baz=46,slow=2.0,SNR=11
**PAHR Pah Rah Range 71.71 54** *e*P **P 03 00 43.2 +0.5**
comp=Z,9.4nm,0.9s
**MFID Camas Ranch 71.78 49** *e*P **P 03 00 43.5 +0.5**
comp=Z,9.3nm,1.0s
**NEY Neytrino 71.81 311** *i*P **P 03 00 44.6 +1.3**
NEY pmax pmax
comp=Z,1.0nm,0.8s
**PNTR Pine Nut 71.92 54** *e*P **P 03 00 45.2 +1.1**
comp=Z,6.7nm,0.8s
**SLD San Luis Dam 72.00 57** *e*P **P 03 00 46.3 +2.0**
**CMB Columbia Colle 72.01 56** *e*P **P 03 00 44.7 +0.4**
CMB pmax pmax
comp=Z,9.0nm,0.8s
**CMB Columbia Colle 72.01 56** *e*P **P 03 00 44.7 +0.4**
comp=Z,8.8nm,0.8s
**FFC Flin Flon 72.01 34** *e*P **P 03 00 44.1 +0.1**
FFC pmax pmax
comp=Z,19nm,0.8s
**FFC Flin Flon 72.01 34** *e*P **P 03 00 44.1 +0.1**
comp=Z,19nm,0.8s
**HRY Holter Researc 72.14 44** *e*P **P 03 00 45.9 +0.8**
**YERR Yerington 72.21 54** *e*P **P 03 00 46.5 +0.7**
comp=Z,12nm,0.9s
**LRM Limekiln Ridge 72.33 45** *e*P **P 03 00 46.6 +0.2**
**WAKR Walker 72.36 55** *e*P **P 03 00 47.5 +0.9**
comp=Z,6.5nm,1.0s
**GNI Garni 72.36 307** P **P 03 00 47.6 +1.1**
comp=Z,1.5nm,0.4s,baz=169,slow=6.0,SNR=3.1
**GNI Garni 72.36 307** *ce*P **P 03 00 48.0 +1.4**
GNI pmax pmax
comp=Z,18nm,1.5s
**AKH Akhalkalaki 72.41 309**⇓ *i*P **P 03 00 48.6 +1.7**
**EGMT Eagleton 72.47 42** P **P 03 00 47.2 +0.2**
baz=308
**EGMT Eagleton 72.47 42** *e*P **P 03 00 47.5 +0.4**
comp=Z,25nm,1.5s
**DLMT Dillon 72.52 46** *e*P **P 03 00 47.9 +0.5**
comp=Z,7.3nm,0.9s
**HLID Hailey 72.53 48** P **P 03 00 48.2 +0.5**
baz=306
**HLID Hailey 72.53 48** *e*P **P 03 00 48.1 +0.5**
comp=Z,5.0nm,0.9s
**KVN Kaiserville 72.90 54** *e*P **P 03 00 50.5 +0.7**
KVN pmax pmax
comp=Z,14nm,1.0s
**KVN Kaiserville 72.90 54** *e*P **P 03 00 50.5 +0.7**
comp=Z,14nm,1.0s
**BOZ Bozeman (W) 72.92 45** P **P 03 00 50.0 +0.2**
baz=307
**BOZ Bozeman (W) 72.92 45** *e*P **P 03 00 50.0 +0.2**
BOZ pmax pmax
comp=Z,8.0nm,1.1s
**BOZ Bozeman (W) 72.92 45** *e*P **P 03 00 50.0 +0.2**
comp=Z,7.5nm,1.1s
**UOSS Minazif 72.99 289** *e*P **P 03 00 50.2 -0.2**
comp=Z,8.9nm,0.8s
**MDPB Devils Postpil 73.09 55** *e*P **P 03 00 52.0 +0.9**
comp=Z,5.9nm,0.8s
**NV01 Mina Array Sit 73.13 54** *e*P **P 03 00 51.6 +0.4**
**NV11 Mina Array Sit 73.22 54** *e*P **P 03 00 52.6 +0.9**
comp=Z,0.5nm,1.0s
**PAGB Antelope Grade 73.41 58** *e*P **P 03 00 53.7 +1.0**
comp=Z,14nm,0.9s
**ARTV Artvin 73.50 310** *e*P **P 03 00 54.8 +1.4**
comp=Z,5.5nm,1.1s
**YHB Horse Butte 73.68 46** *e*P **P 03 00 55.5 +1.1**
comp=Z,5.8nm,0.9s
**YHH Holmes Hill 73.85 46** *e*P **P 03 00 56.4 +0.9**
comp=Z,3.2nm,0.9s
**NB2 NORSAR Subarra 73.86 338** P **P 03 00 55.1 +0.2**
comp=Z,4.1nm,0.9s,baz=38,slow=5.9
**NB200 NORSAR Array S 73.86 338** *e*P **P 03 00 54.0 -0.8**
**NOA NORSAR Array B 73.86 338** P **P 03 00 54.0 -0.8**
comp=Z,2.5nm,0.9s,baz=30,slow=2.7,SNR=3.5
NOA LR LR 03 37 46.8
comp=Z,136nm,18.9s,baz=195,slow=39
**NOA NORSAR Array B 73.86 338** P **P 03 00 54.1 -0.8**
NOA pmax pmax
comp=Z,2.0nm,0.8s
NOA MLR MLR
comp=Z,136nm,18.9s
**YMR Madison River 73.86 46** *e*P **P 03 00 56.5 +1.1**
comp=Z,5.7nm,0.5s
**ANN Anapa 73.96 315** *e*P **P 03 00 59.9 +4.2**
ANN pmax pmax
comp=Z,26nm,1.6s
**YNR Norris Junctio 73.99 46** *e*P **P 03 00 58.0 +1.7**
comp=Z,5.6nm,1.0s
**YFT Old Faithful 74.07 46** *e*P **P 03 00 59.2 +2.5**
comp=Z,9.8nm,1.1s
**VES Vestal, Richgr 74.11 57** P **P 03 00 56.5 -0.3**
baz=306
**PKM Mcpherson Peak 74.18 58** P **P 03 00 58.0 +0.6**
baz=306
**YPP Pitchstone Pla 74.19 46** *e*P **P 03 00 59.5 +2.0**
comp=Z,4.0nm,0.6s
**LKWY Lake 74.24 45** *e*P **P 03 01 00.1 +2.3**
LKWY pmax pmax
comp=Z,10.0nm,0.8s
**LKWY Lake 74.24 45** *e*P **P 03 01 00.1 +2.3**
comp=Z,9.5nm,0.8s
**H17A Grant Village 74.25 46** P **P 03 00 59.8 +2.0**
baz=308
**H17A Grant Village 74.25 46** *e*P **P 03 01 00.3 +2.6**
comp=Z,14nm,0.9s
**CWC Cottonwood Cre 74.43 56** P **P 03 00 58.6 -0.3**
baz=306
**AKASG Malin Array Be 74.46 323** P **P 03 00 58.8 +0.3**
comp=Z,0.5nm,0.5s,baz=49,slow=5.7,SNR=6.6
**AKBB Malin Array Si 74.46 323** *e*P **P 03 00 58.8 +0.3**
AKBB *e**PP **sP 03 01 11.3 -0.7**
**AKBB Malin Array Si 74.46 323** *e*P **P 03 00 58.8 +0.3**
AKBB *epP **sP 03 01 11.2 -0.7**
**FXWY Fox Creek 74.46 47** *e*P **P 03 01 00.0 +1.1**
comp=Z,7.7nm,0.9s
**RLMT Red Lodge 74.53 45** P **P 03 00 59.4 +0.1**
baz=309
**RLMT Red Lodge 74.53 45** *e*P **P 03 01 00.3 +1.0**
comp=Z,12nm,1.4s
**MOOW Moose Ponds 74.55 46** *e*P **P 03 01 00.3 +0.8**
comp=Z,6.5nm,1.0s
**GRAC Grapevine Rang 74.57 55** P **P 03 01 00.1 +0.6**
baz=306,SNR=12
**HVU Hansel Valley 74.57 49** *e*P **P 03 01 00.7 +1.1**
HVU pmax pmax
comp=Z,9.0nm,0.9s
**HVU Hansel Valley 74.57 49** *e*P **P 03 01 00.7 +1.1**
comp=Z,9.2nm,0.9s
**TPAW Teton Pass 74.59 47** *e*P **P 03 01 01.2 +1.4**
comp=Z,6.7nm,0.9s
**ISA Isabella, Lake 74.62 57** P **P 03 00 59.3 -0.5**
baz=306
**ARVC Arvin 74.70 57** P **P 03 01 00.2 0.0**
baz=306
**SNOW Snow King Moun 74.72 47** *e*P **P 03 01 02.0 +1.5**
comp=Z,10.0nm,1.0s
**REDW Red Top Meadow 74.73 47** *e*P **P 03 01 00.8 +0.3**
comp=Z,3.3nm,1.0s
**SFJD Kangerlussuaq 74.74 6** *i*P **P 03 00 59.7 -0.1**
SFJD pmax pmax
comp=Z,17nm,0.9s
**SFJD Kangerlussuaq 74.74 6** *i*P **P 03 00 59.7 -0.1**
comp=Z,17nm,0.9s
**R11A Troy Canyon, C 74.90 53** P **P 03 01 01.9 +0.3**
baz=307
**R11A Troy Canyon, C 74.90 53** *e*P **P 03 01 01.9 +0.3**
comp=Z,1.1nm,1.0s
**BGU Big Grassy Mou 74.93 50** *e*P **P 03 01 02.6 +0.9**
comp=Z,3.7nm,0.9s
**MPMC Manual Prospec 75.04 56** P **P 03 01 02.6 +0.2**
baz=306,SNR=14
**SPUT South Promonto 75.05 49** *e*P **P 03 01 03.4 +1.1**
comp=Z,5.6nm,1.1s
**DGMT Dagmar 75.07 40** P **P 03 01 02.1 0.0**
baz=311
**BLG Laguna Peak, P 75.14 58** P **P 03 01 03.0 +0.2**
baz=306
**LAO LASA Array 75.18 42** P **P 03 01 03.1 +0.3**
baz=310
**LAO LASA Array 75.18 42** *e*P **P 03 01 03.7 +0.8**
comp=Z,16nm,1.3s
**FURC Furnace Creek, 75.20 55** P **P 03 01 03.5 +0.5**
baz=307,SNR=13
**LRMC Laurel Mtn Rad 75.25 56** P **P 03 01 03.7 +0.1**
baz=306,SNR=6.8
**WSHM Spangler Hills 75.31 56** *e*P **P 03 01 05.5 +1.7**
**TPNV Topopah Spring 75.31 55** P **P 03 01 04.2 +0.3**
baz=307,SNR=16
**TPNV Topopah Spring 75.31 55** *e*P **P 03 01 04.4 +0.5**
TPNV pmax pmax
comp=Z,15nm,0.9s
**TPNV Topopah Spring 75.31 55** *e*P **P 03 01 04.4 +0.5**
comp=Z,15nm,0.9s
**EDW2 Edwards Air Fo 75.40 57** P **P 03 01 04.8 +0.4**
baz=306,SNR=9.9
**DUG Dugway, Tooele 75.51 50** P **P 03 01 05.5 +0.6**
baz=308
**DUG Dugway, Tooele 75.51 50** *e*P **P 03 01 05.6 +0.6**
DUG pmax pmax
comp=Z,11nm,0.8s
**DUG Dugway, Tooele 75.51 50** *e*P **P 03 01 05.6 +0.6**
comp=Z,10nm,0.8s
**SIM Simferopol' 75.70 316** *e*P P 03 01 17.0 +11
SIM pmax pmax
comp=Z,13nm,0.8s
**TCUT Toone Canyon 75.78 49** *e*P **P 03 01 07.7 +1.1**
comp=Z,14nm,0.9s
**BW06 Boulder Array 75.84 47** P **P 03 01 06.7 -0.3**
baz=309
**BW06 Boulder Array 75.84 47** *e*P **P 03 01 06.8 -0.1**
comp=Z,5.0nm,0.8s
**PD31 Pinedale Array 75.84 47** *e*P **P 03 01 07.2 +0.2**
**PDAR Pinedale Array 75.84 47** P **P 03 01 06.8 -0.2**
comp=Z,3.8nm,0.7s,baz=262,slow=2.2,SNR=37
**CTU Camp Tracy 75.84 49** *e*P **P 03 01 07.8 +0.8**
comp=Z,6.9nm,0.9s
**SHOC Shoshone, Teco 75.92 55** P **P 03 01 07.6 +0.4**
baz=307
**GSC Goldstone, Bar 75.93 56** P **P 03 01 07.5 +0.1**
baz=307,SNR=6.4
**GSC Goldstone, Bar 75.93 56** *e*P **P 03 01 07.9 +0.5**
GSC pmax pmax
comp=Z,6.0nm,0.8s
**GSC Goldstone, Bar 75.93 56** *e*P **P 03 01 07.9 +0.5**
comp=Z,6.4nm,0.8s
**BFSC Mount Baldy Ra 76.00 58** P **P 03 01 07.9 0.0**
baz=307,SNR=5.7
**JLU Jordanelle 76.08 49** *e*P **P 03 01 09.4 +1.0**
comp=Z,6.9nm,0.9s
**RAO Raoul Island 76.10 146** P **P 03 01 08.7 +0.7**
comp=Z,1µm,0.3s,baz=88,slow=24,SNR=10
**NLU North Lily Min 76.10 50** *e*P **P 03 01 09.4 +0.9**
comp=Z,6.6nm,0.9s
**SHPR Sheep Range 76.28 54** *e*P **P 03 01 10.2 +0.8**
comp=Z,8.3nm,0.9s
**MPU Maple Canyon 76.33 50** *e*P **P 03 01 10.7 +1.0**
comp=Z,9.7nm,0.8s
**TUQ Turquoise Moun 76.43 56** P **P 03 01 10.6 +0.3**
baz=307,SNR=14
**BBRC Big Bear Solar 76.48 57** P **P 03 01 10.7 0.0**
baz=307
**HEC Hector,Ludlow 76.53 56** P **P 03 01 11.0 +0.2**
baz=307,SNR=8.0
**MARD Mardin 76.53 307** *e*P **P 03 01 12.4 +1.6**
MARD *epP **PcP 03 01 23.9 +1.6**
**SORM Soroca 76.60 321**⇑ *i*P P 03 01 22.5 +12
**MURC Murrieta 76.69 58** P **P 03 01 11.3 -0.4**
baz=307
**CCUT Cedar City 76.79 53** *e*P **P 03 01 13.3 +0.9**
comp=Z,11nm,1.0s
**MSU Marysvale 76.93 51** *e*P **P 03 01 14.1 +0.9**
**MSU Marysvale 76.93 51** *e*P **P 03 01 14.1 +0.9**
**SZCU Shurtz Canyon 76.93 52** *e*P **P 03 01 14.1 +0.9**
comp=Z,6.3nm,1.0s
**GMRC Granite Mounta 77.00 56** P **P 03 01 13.5 0.0**
baz=308,SNR=7.9
**PLM Palomar 77.06 58** *e*P **P 03 01 14.0 +0.1**
**PLM Palomar 77.06 58** *e*P **P 03 01 14.0 +0.1**
**PFO Pinyon Flats O 77.17 57** P **P 03 01 14.4 -0.2**
baz=307
**LDFC Landfair 77.18 56** *e*P **P 03 01 15.0 +0.5**
comp=Z,16nm,1.1s
**109C Camp Elliot, M 77.18 58** P **P 03 01 14.5 +0.1**
baz=307
**LCMT Little Creek M 77.19 53** *e*P **P 03 01 15.4 +0.9**
comp=Z,12nm,0.9s
**P17A Butcher Ranch, 77.21 50** *e*P **P 03 01 15.7 +1.0**
comp=Z,15nm,0.8s
**MTPU Mount Pierson 77.22 52** *e*P **P 03 01 16.1 +1.1**
comp=Z,8.8nm,0.8s
**BELC Belle Mtn. Jos 77.25 57** P **P 03 01 14.6 -0.4**
baz=307
**P18A Preston Nutter 77.41 49** *e*P **P 03 01 16.8 +0.9**
comp=Z,25nm,1.5s
**KNB Kanab 77.45 53** *e*P **P 03 01 17.4 +1.3**
KNB pmax pmax
comp=Z,20nm,1.2s
**KNB Kanab 77.45 53** *e*P **P 03 01 17.4 +1.3**
comp=Z,20nm,1.2s
**SRU San Rafael Swe 77.57 50** *e*P **P 03 01 17.1 +0.4**
SRU pmax pmax
comp=Z,17nm,0.9s
**SRU San Rafael Swe 77.57 50** *e*P **P 03 01 17.1 +0.4**
comp=Z,17nm,0.9s
**K22A Casper 77.63 45** P **P 03 01 16.8 -0.2**
baz=311
**K22A Casper 77.63 45** *e*P **P 03 01 17.3 +0.3**
comp=Z,8.6nm,1.1s
**MONP2 Monument Peak 77.63 58** P **P 03 01 17.1 -0.1**
baz=308
**IRM Iron Mountain 77.71 56** P **P 03 01 17.5 +0.1**
baz=308,SNR=6.1
**MDND Maddock 77.76 38** P **P 03 01 17.3 -0.1**
baz=314
**ULM Lac du Bonnet 77.80 34** P **P 03 01 17.0 -0.5**
comp=Z,6.7nm,0.9s,baz=322,slow=7.0,SNR=14
**ULM Lac du Bonnet 77.80 34** *e*P **P 03 01 17.2 -0.3**
ULM pmax pmax
comp=Z,11nm,1.0s
**ULM Lac du Bonnet 77.80 34** *e*P **P 03 01 17.2 -0.3**
comp=Z,11nm,1.0s
**BC3 Big Chuckawall 77.82 57** P **P 03 01 17.9 -0.1**
baz=308,SNR=5.3
**IKP In-Ko-Pah, Jac 77.99 58** P **P 03 01 19.2 +0.2**
baz=308
**SWSC Sam W. Stewart 78.02 58** P **P 03 01 18.8 -0.3**
baz=308
**RSSD Black Hills 78.03 43** P **P 03 01 18.8 -0.4**
baz=312
**RSSD Black Hills 78.03 43** *e*P **P 03 01 19.2 0.0**
RSSD pmax pmax
comp=Z,6.0nm,0.8s
**RSSD Black Hills 78.03 43** *e*P **P 03 01 19.2 0.0**
comp=Z,6.0nm,0.8s
**U15A North Rim 78.15 53** *e*P **P 03 01 20.8 +0.7**
comp=Z,10nm,0.8s
**O20A White River Ci 78.28 48** P **P 03 01 20.7 +0.1**
baz=310
**O20A White River Ci 78.28 48** *e*P **P 03 01 20.9 +0.3**
comp=Z,11nm,1.0s
**PDMCI Parker Dam,Lak 78.28 56** P **P 03 01 20.7 +0.2**
baz=308,SNR=6.1
**B31A Greenbush Farm 78.29 37** P **P 03 01 19.8 -0.5**
baz=315
**Y12C Blythe 78.37 56** P **P 03 01 21.2 +0.2**
baz=308,SNR=6.2
**Y12C Blythe 78.37 56** *e*P **P 03 01 21.7 +0.7**
comp=Z,10nm,1.0s
**A32A Rocking H Ranc 78.47 36** P **P 03 01 20.7 -0.6**
baz=316
**BURAR Bucovina Array 78.49 323**⇑ *i*P **P 03 01 22.9 +1.4**
**BURAR Bucovina Array 78.49 323**⇑ P **P 03 01 22.9 +1.4**
**GLA Glamis 78.60 57** P **P 03 01 22.6 +0.3**
baz=308
**GLA Glamis 78.60 57** *e*P **P 03 01 22.6 +0.3**
GLA pmax pmax
comp=Z,10.0nm,1.1s
**GLA Glamis 78.60 57** *e*P **P 03 01 22.6 +0.3**
comp=Z,10nm,1.1s
**C31A Landman Farms, 78.70 37** P **P 03 01 22.0 -0.6**
baz=315
**CFR Carcaliu 78.73 319**⇓ *i*P P 03 01 31.4 +8.7
**CFR Carcaliu 78.73 319**⇓ P P 03 01 31.4 +8.7
**PV09 Paradox Valley 78.79 50** *e*P **P 03 01 24.2 +0.5**
**B32A Ashes, Strandq 78.83 36** P **P 03 01 22.5 -0.8**
baz=316,SNR=6.8
**PV10 Paradox Valley 78.93 50** *e*P **P 03 01 25.4 +1.0**
**A33A Warroad 78.96 35** P **P 03 01 23.2 -0.8**
baz=317,SNR=9.2
**VRI Vrincioaia 78.97 320**⇓ *i*P P 03 01 31.4 +7.3
**VRI Vrincioaia 78.97 320**⇓ P P 03 01 31.4 +7.3
**PLOR Plostina 79.02 321**⇑ *i*P P 03 01 39.2 +15
**STHS Stebnicka Huta 79.03 326** *e*P **P 03 01 27.0 +2.6**
**STHS Stebnicka Huta 79.03 326** *e*P **P 03 01 27.0 +2.6**
**PV05 Paradox Valley 79.08 50** *e*P **P 03 01 26.1 +1.0**
**N23A Red Feather La 79.11 46** P **P 03 01 25.5 +0.2**
baz=311
**N23A Red Feather La 79.11 46** *e*P **P 03 01 26.2 +0.9**
comp=Z,13nm,0.9s
**UZH Uzhgorod 79.13 325** *e*P **P 03 01 24.6 -0.3**
UZH *e 03 01 32.2
UZH *e 03 01 37.0
**AGMN Agassiz Nation 79.21 36** P **P 03 01 24.6 -0.8**
baz=316,SNR=5.5
**AGMN Agassiz Nation 79.21 36** *e*P **P 03 01 24.8 -0.6**
comp=Z,11nm,1.1s
**Y14A Wickenburg 79.25 55** *e*P **P 03 01 26.5 +0.6**
comp=Z,35nm,0.8s
**WUAZ Wupatki 79.30 53** P **P 03 01 26.7 +0.4**
baz=309,SNR=8.6
**WUAZ Wupatki 79.30 53** *e*P **P 03 01 27.3 +0.9**
comp=Z,13nm,0.9s
**BR101 Keskin Array S 79.35 312** *e*P **P 03 01 26.9 +0.4**
**BRTR Keskin Array B 79.35 312** P **P 03 01 26.9 +0.4**
comp=Z,0.6nm,0.8s,baz=126,slow=6.3,SNR=4.5
**BRTR Keskin Array B 79.35 312** *ce*P **P 03 01 30.0 +3.5**
BRTR pmax pmax
comp=Z,1.0nm,0.7s
**B33A Robert and Kas 79.36 36** P **P 03 01 25.3 -0.8**
baz=317
**PV01 Paradox Valley 79.37 50** *e*P **P 03 01 27.1 +0.4**
**E31A Nome 79.50 38** P **P 03 01 26.6 -0.4**
baz=315
**MLR Muntele Rosu 79.62 321**⇓ *i*P P 03 01 33.3 +5.5
**MLR Muntele Rosu 79.62 321**⇓ P P 03 01 33.3 +5.5
**B34A Aery, Baudette 79.63 35** P **P 03 01 26.7 -0.9**
baz=317
**SMCO Snowmass 79.64 48** *e*P **P 03 01 29.0 +0.7**
comp=Z,3.8nm,0.8s
**C33A Trail 79.64 36** P **P 03 01 27.3 -0.5**
baz=317
**BR231 Keskin MP Arra 79.78 313** *e*P **P 03 01 27.8 -0.9**
**F31A Hecla 79.81 39** P **P 03 01 28.2 -0.5**
baz=315
**X16A Lo Mia Camp, P 79.95 54** *e*P **P 03 01 31.0 +1.1**
comp=Z,10.0nm,0.9s
**MVCO Mesa Verde 80.01 50** P **P 03 01 30.4 +0.2**
baz=310,SNR=6.5
**MVCO Mesa Verde 80.01 50** *e*P **P 03 01 30.9 +0.7**
comp=Z,33nm,1.8s
**ISCO Idaho Springs 80.02 47** P **P 03 01 30.2 -0.1**
baz=312
**ISCO Idaho Springs 80.02 47** *e*P **P 03 01 31.3 +0.9**
ISCO pmax pmax
comp=Z,3.0nm,0.9s
**ISCO Idaho Springs 80.02 47** *e*P **P 03 01 31.2 +0.9**
comp=Z,3.2nm,0.9s
**D33A AnnSam, Waubun 80.06 37** P **P 03 01 29.2 -0.8**
baz=317
**VOIR 80.11 321**⇓ *i*P **P 03 01 33.8 +3.4**
**VOIR 80.11 321**⇓ P **P 03 01 33.8 +3.4**
**C34A RKJ Ranch, Bem 80.12 36** P **P 03 01 29.5 -0.8**
baz=317
**B35A Bob, Littlefor 80.14 35** P **P 03 01 29.6 -0.7**
baz=318,SNR=6.2
**F32A Veblen 80.36 38** P **P 03 01 30.9 -0.7**
baz=316
**ARR Arges 80.36 321**⇑ *i*P **P 03 01 34.2 +2.5**
**D34A Park Rapids 80.40 36** P **P 03 01 31.4 -0.5**
baz=317
**DPC Dobruska-Polom 80.43 329** *epP pP 03 01 45.8 +3.9
**E33A Westby DABS, E 80.44 37** P **P 03 01 31.7 -0.4**
baz=317,SNR=5.5
**C35A Jirik Farms, M 80.51 35** P **P 03 01 31.4 -1.0**
baz=318
**214A Organ Pipe Nat 80.61 57** P **P 03 01 33.6 +0.3**
baz=309
**G32A Webster 80.62 39** P **P 03 01 32.6 -0.4**
baz=316
**S22A 4UR Ranch, Cre 80.66 49** P **P 03 01 34.3 +0.5**
baz=311,SNR=9.2
**S22A 4UR Ranch, Cre 80.66 49** *e*P **P 03 01 34.5 +0.7**
comp=Z,7.3nm,1.0s
**H31A Wolsey 80.68 40** P **P 03 01 33.5 +0.1**
baz=315
**F33A 5 Mile Ranch, 80.78 38** P **P 03 01 33.6 -0.3**
baz=316,SNR=5.8
**E34A Wadena 80.83 37** P **P 03 01 33.7 -0.5**
baz=317
**X18A Snowflake 80.83 53** *e*P **P 03 01 35.1 +0.5**
comp=Z,18nm,1.4s
**Q24A Divide 80.85 47** P **P 03 01 34.6 -0.2**
baz=312
**Q24A Divide 80.85 47** *e*P **P 03 01 35.2 +0.4**
comp=Z,3.6nm,1.0s
**D35A Remer 80.93 36** P **P 03 01 34.2 -0.5**
baz=318
**C36A Pine Crest Far 80.98 35** P **P 03 01 34.5 -0.5**
baz=318
**CLL Collm 81.00 331** *e*P **P 03 01 35.0 +0.1**
**CLL Collm 81.00 331** *e*P **P 03 01 35.0 +0.1**
**E35A Pequot Lakes 81.16 36** P **P 03 01 35.6 -0.3**
baz=318

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| G33A | Ortonville | 81.18 | 38 | P | | P | 03 01 35.7 | -0.3 |
| | baz=316 | | | | | | | |
| H32A | Carlson Farm, | 81.19 | 39 | P | | P | 03 01 35.8 | -0.4 |
| | baz=316 | | | | | | | |
| C37A | Embarrass | 81.30 | 34 | P | | P | 03 01 36.3 | -0.3 |
| | baz=319 | | | | | | | |
| F34A | Alexandria | 81.31 | 37 | P | | P | 03 01 36.2 | -0.6 |
| | baz=317 | | | | | | | |
| J31A | Geddes | 81.39 | 41 | P | | P | 03 01 36.8 | -0.4 |
| | baz=315 | | | | | | | |
| H33A | Prehn Over Nor | 81.40 | 39 | P | | P | 03 01 36.8 | -0.5 |
| | baz=316,SNR=6.1 | | | | | | | |
| EYMN | Ely | 81.44 | 34 | P | | P | 03 01 36.8 | -0.6 |
| | baz=319 | | | | | | | |
| EYMN | Ely | 81.44 | 34 | *e*P | | P | 03 01 37.1 | -0.3 |
| | comp=Z,13nm,0.9s | | | | | | | |
| SDCO | Great Sand Dun | 81.45 | 48 | P | | P | 03 01 38.1 | +0.2 |
| | baz=312,SNR=8.2 | | | | | | | |
| SDCO | Great Sand Dun | 81.45 | 48 | *e*P | | P | 03 01 38.2 | +0.2 |
| | comp=Z,5.2nm,1.1s | | | | | | | |
| G34A | Benson | 81.54 | 38 | P | | P | 03 01 37.6 | -0.3 |
| | baz=317 | | | | | | | |
| F35A | Swanville | 81.59 | 37 | P | | P | 03 01 37.8 | -0.4 |
| | baz=318 | | | | | | | |
| D37A | Cotton | 81.62 | 35 | P | | P | 03 01 38.0 | -0.3 |
| | baz=319 | | | | | | | |
| C38A | Sawbill Land. | 81.71 | 34 | P | | P | 03 01 38.0 | -0.8 |
| | baz=320,SNR=5.7 | | | | | | | |
| TUC | Tucson | 81.72 | 55 | P | | P | 03 01 39.4 | +0.2 |
| | baz=310 | | | | | | | |
| TUC | Tucson | 81.72 | 55 | *e*P | | P | 03 01 39.8 | +0.6 |
| TUC | | | | pmax | | pmax | | |
| | comp=Z,7.0nm,1.4s | | | | | | | |
| TUC | Tucson | 81.72 | 55 | *e*P | | P | 03 01 39.8 | +0.6 |
| | comp=Z,7.4nm,1.4s | | | | | | | |
| RAYN | Ar Rayn | 81.72 | 293 | *e*P | | P | 03 01 39.7 | +0.4 |
| RAYN | | | | *e*pP | | sP | 03 01 53.9 | +1.1 |
| E36A | McGregor | 81.72 | 36 | P | | P | 03 01 38.2 | -0.6 |
| | baz=318 | | | | | | | |
| I33A | Coleman | 81.83 | 39 | P | | P | 03 01 39.2 | -0.3 |
| | baz=316 | | | | | | | |
| K31A | O'Neill | 81.85 | 41 | P | | P | 03 01 39.2 | -0.5 |
| | baz=315 | | | | | | | |
| G35A | Watkins | 82.11 | 37 | P | | P | 03 01 40.6 | -0.3 |
| | baz=318 | | | | | | | |
| C39A | Grand Marais | 82.13 | 33 | P | | P | 03 01 40.0 | -1.0 |
| | baz=320 | | | | | | | |
| ECSD | EROS Data Cent | 82.15 | 39 | P | | P | 03 01 40.6 | -0.6 |
| | baz=316,SNR=5.4 | | | | | | | |
| ECSD | EROS Data Cent | 82.15 | 39 | *e*P | | P | 03 01 40.8 | -0.5 |
| | comp=Z,5.8nm,0.8s | | | | | | | |
| ASF | Jabal al Asfar | 82.24 | 305 | P | | P | 03 01 42.4 | +0.5 |
| | comp=Z,0.6nm,0.4s,baz=355,slow=5.2,SNR=2.0 | | | | | | | |
| H35A | Sunnyside Ranc | 82.32 | 38 | P | | P | 03 01 41.9 | -0.2 |
| | baz=318,SNR=7.9 | | | | | | | |
| MHTCO | State Highway | 82.34 | 48 | *e*P | | P | 03 01 43.8 | +1.2 |
| | comp=Z,20nm,1.4s | | | | | | | |
| E38A | The Farm, Brul | 82.43 | 35 | P | | P | 03 01 42.3 | -0.3 |
| | baz=319 | | | | | | | |
| T25A | Trinidad | 82.50 | 48 | P | | P | 03 01 43.7 | +0.2 |
| | baz=313,SNR=6.5 | | | | | | | |
| T25A | Trinidad | 82.50 | 48 | *e*P | | P | 03 01 44.1 | +0.7 |
| | comp=Z,9.2nm,0.9s | | | | | | | |
| MMAI | Mount Meron Ar | 82.65 | 306 | P | | P | 03 01 44.9 | +0.8 |
| | comp=Z,2.7nm,0.7s,baz=0,9,slow=5.2,SNR=5.0 | | | | | | | |
| GERES | GERESS Array B | 82.67 | 329 | P | | P | 03 01 43.6 | -0.4 |
| | comp=Z,0.5nm,0.7s,baz=345,slow=3.4,SNR=2.7 | | | | | | | |
| LAZ | Ladron | 82.68 | 52 | *e*P | | P | 03 01 45.3 | +0.9 |
| ANMO | Albuquerque | 82.74 | 51 | P | | P | 03 01 45.1 | +0.5 |
| | baz=312 | | | | | | | |
| ANMO | Albuquerque | 82.74 | 51 | *e*P | | P | 03 01 45.5 | +0.9 |
| ANMO | | | | pmax | | pmax | | |
| | comp=Z,11nm,1.1s | | | | | | | |
| ANMO | Albuquerque | 82.74 | 51 | *e*P | | P | 03 01 45.5 | +0.9 |
| | comp=Z,11nm,1.1s | | | | | | | |
| K33A | Hardington | 82.77 | 40 | P | | P | 03 01 44.3 | -0.2 |
| | baz=316 | | | | | | | |
| F38A | Pierce - Schro | 82.77 | 35 | P | | P | 03 01 44.2 | -0.2 |
| | baz=319 | | | | | | | |
| H36A | Jessenland, He | 82.85 | 37 | P | | P | 03 01 44.8 | 0.0 |
| | baz=318,SNR=5.4 | | | | | | | |
| I35A | Creekview Farm | 82.87 | 38 | P | | P | 03 01 44.5 | -0.5 |
| | baz=318 | | | | | | | |
| SPMN | Marine on St. | 82.90 | 36 | P | | P | 03 01 44.8 | -0.2 |
| | baz=319 | | | | | | | |
| BGNE | Belgrade | 83.03 | 42 | P | | P | 03 01 45.1 | -0.7 |
| | baz=316 | | | | | | | |
| E39A | Mellen | 83.05 | 34 | P | | P | 03 01 44.9 | -0.9 |
| | baz=320 | | | | | | | |
| VTS | Vitosha | 83.07 | 320 | ⇓*i*P | | P | 03 01 47.0 | +0.8 |
| VTS | Vitosha | 83.07 | 320 | ⇓P | | P | 03 01 47.0 | +0.8 |
| K34A | Le Mars | 83.17 | 40 | P | | P | 03 01 46.0 | -0.5 |
| | baz=317 | | | | | | | |
| I36A | Fitzsimmons Fa | 83.22 | 38 | P | | P | 03 01 46.3 | -0.5 |
| | baz=318 | | | | | | | |
| F39A | Loretta | 83.24 | 35 | P | | P | 03 01 46.0 | -0.8 |
| | baz=320 | | | | | | | |
| E40A | Wakefield | 83.29 | 34 | P | | P | 03 01 46.9 | -0.2 |
| | baz=321 | | | | | | | |
| 319A | Douglas | 83.30 | 55 | *e*P | | P | 03 01 48.2 | +0.7 |
| | comp=Z,18nm,0.9s | | | | | | | |
| H37A | Dierke Farm, C | 83.33 | 37 | P | | P | 03 01 47.5 | +0.2 |
| | baz=319 | | | | | | | |
| G38A | Ridgeland | 83.38 | 36 | P | | P | 03 01 46.9 | -0.6 |
| | baz=319 | | | | | | | |
| D41A | Chassel | 83.39 | 33 | P | | P | 03 01 47.3 | -0.2 |
| | baz=321 | | | | | | | |
| 121A | Cookes Peak, D | 83.50 | 54 | P | | P | 03 01 49.2 | +0.5 |
| | baz=311 | | | | | | | |
| I37A | Lemond, Waseca | 83.52 | 37 | P | | P | 03 01 48.4 | +0.1 |
| | baz=318 | | | | | | | |
| J36A | Seneca 1, Swea | 83.57 | 38 | P | | P | 03 01 48.1 | -0.5 |
| | baz=318 | | | | | | | |
| F40A | Park Falls | 83.59 | 34 | P | | P | 03 01 47.8 | -0.8 |
| | baz=320 | | | | | | | |
| G39A | Holcombe | 83.61 | 35 | P | | P | 03 01 48.1 | -0.6 |
| | baz=320 | | | | | | | |
| E41A | Kenton | 83.68 | 33 | P | | P | 03 01 48.4 | -0.6 |
| | baz=321 | | | | | | | |
| SCHQ | Schefferville | 83.93 | 17 | P | | P | 03 01 49.6 | -0.6 |
| | comp=Z,7.9nm,0.8s,baz=19,slow=6.8,SNR=4.9 | | | | | | | |
| SCHQ | Schefferville | 83.93 | 17 | *e*P | | P | 03 01 49.6 | -0.6 |
| | comp=Z,93nm,2.0s | | | | | | | |
| J37A | Redenius Farm, | 83.97 | 38 | P | | P | 03 01 50.1 | -0.5 |
| | baz=318 | | | | | | | |
| I38A | Scanlan Farm, | 84.01 | 37 | P | | P | 03 01 50.2 | -0.6 |
| | baz=319 | | | | | | | |
| H39A | Augusta | 84.02 | 36 | P | | P | 03 01 50.3 | -0.5 |
| | baz=320 | | | | | | | |
| K36A | Gilmore City | 84.03 | 39 | P | | P | 03 01 50.6 | -0.3 |
| | baz=318 | | | | | | | |
| G40A | Rib Lake | 84.06 | 35 | P | | P | 03 01 50.4 | -0.7 |
| | baz=320 | | | | | | | |
| E42A | Champion | 84.16 | 33 | P | | P | 03 01 50.9 | -0.7 |
| | baz=322 | | | | | | | |
| F41A | Three Lakes | 84.18 | 34 | P | | P | 03 01 51.3 | -0.4 |
| | baz=321 | | | | | | | |
| M35A | Neola | 84.27 | 40 | P | | P | 03 01 51.8 | -0.3 |
| | baz=317 | | | | | | | |
| O33A | Hebron | 84.29 | 42 | P | | P | 03 01 52.2 | -0.1 |
| | baz=316 | | | | | | | |
| L36A | Harm Buss Farm | 84.32 | 39 | P | | P | 03 01 52.2 | -0.2 |
| | baz=318 | | | | | | | |
| K37A | Belmond | 84.33 | 38 | P | | P | 03 01 52.1 | -0.4 |
| | baz=318 | | | | | | | |
| H40A | Chili | 84.47 | 35 | P | | P | 03 01 52.6 | -0.5 |
| | baz=320 | | | | | | | |
| J38A | Wedel Dairy, R | 84.48 | 37 | P | | P | 03 01 52.3 | -0.9 |
| | baz=319 | | | | | | | |
| I39A | Houston | 84.53 | 36 | P | | P | 03 01 52.4 | -1.1 |
| | baz=320 | | | | | | | |
| E43A | Lone Tree Farm | 84.59 | 32 | P | | P | 03 01 53.2 | -0.5 |
| | baz=322 | | | | | | | |
| M36A | Felix, Anita | 84.73 | 40 | P | | P | 03 01 54.0 | -0.5 |
| | baz=318 | | | | | | | |
| N35A | Tabor | 84.74 | 41 | P | | P | 03 01 54.3 | -0.2 |
| | baz=317 | | | | | | | |
| J39A | Decorah | 84.84 | 37 | P | | P | 03 01 53.9 | -1.1 |
| | baz=320 | | | | | | | |
| G42A | Mountain | 84.87 | 34 | P | | P | 03 01 54.6 | -0.5 |
| | baz=322 | | | | | | | |
| F43A | Flat Rock, Esc | 84.95 | 33 | P | | P | 03 01 54.9 | -0.6 |
| | baz=322 | | | | | | | |
| P34A | Walnut Farm, R | 85.07 | 42 | P | | P | 03 01 55.2 | -1.1 |
| | baz=317 | | | | | | | |
| M37A | Trindle Farm, | 85.14 | 40 | P | | P | 03 01 56.4 | -0.2 |
| | baz=318 | | | | | | | |
| F44A | Big Bay de Noc | 85.16 | 32 | P | | P | 03 01 56.0 | -0.5 |
| | baz=323 | | | | | | | |
| G43A | Wallace | 85.18 | 33 | P | | P | 03 01 56.2 | -0.5 |
| | baz=322 | | | | | | | |
| SCIA | State Center | 85.19 | 39 | P | | P | 03 01 56.1 | -0.7 |
| | baz=319 | | | | | | | |
| K39A | Oelwein | 85.23 | 37 | P | | P | 03 01 56.3 | -0.6 |
| | baz=320 | | | | | | | |
| J40A | Sawtooth Grove | 85.25 | 36 | P | | P | 03 01 56.4 | -0.7 |
| | baz=320 | | | | | | | |
| H42A | Shiocton | 85.40 | 34 | P | | P | 03 01 57.3 | -0.5 |
| | baz=322 | | | | | | | |
| Q34A | Chapman | 85.47 | 43 | P | | P | 03 01 57.9 | -0.3 |
| | baz=317 | | | | | | | |
| M38A | Pleasantville | 85.56 | 39 | P | | P | 03 01 58.3 | -0.3 |
| | baz=319 | | | | | | | |
| MNTX | Cornudas Mount | 85.57 | 53 | P | | P | 03 01 58.8 | -0.1 |
| | baz=313 | | | | | | | |
| MNTX | Cornudas Mount | 85.57 | 53 | *e*P | | P | 03 01 58.9 | 0.0 |
| | comp=Z,6.2nm,0.9s | | | | | | | |
| K40A | Colesburg | 85.59 | 37 | P | | P | 03 01 58.2 | -0.5 |
| | baz=320 | | | | | | | |
| L39A | Vinton | 85.62 | 38 | P | | P | 03 01 58.4 | -0.5 |
| | baz=320 | | | | | | | |
| O36A | Bolckow | 85.62 | 41 | P | | P | 03 01 58.5 | -0.5 |
| | baz=318 | | | | | | | |
| MSTX | Muleshoe | 85.64 | 50 | P | | P | 03 01 59.0 | -0.3 |
| | baz=314 | | | | | | | |
| AMTX | Amarillo | 85.66 | 48 | P | | P | 03 01 59.0 | -0.4 |
| | baz=314 | | | | | | | |
| JFWS | Jewell Farm | 85.85 | 36 | P | | P | 03 02 00.3 | +0.3 |
| | baz=321 | | | | | | | |
| P36A | Good Intent, A | 85.87 | 41 | P | | P | 03 01 59.5 | -0.8 |
| | baz=318 | | | | | | | |
| Q35A | Mercer Eighty, | 86.00 | 42 | P | | P | 03 02 00.2 | -0.7 |
| | baz=317 | | | | | | | |
| N38A | Joes South For | 86.01 | 39 | P | | P | 03 02 00.3 | -0.6 |
| | baz=319 | | | | | | | |
| F46A | Macinaw City C | 86.01 | 32 | P | | P | 03 02 00.1 | -0.7 |
| | baz=324 | | | | | | | |
| M39A | Webster | 86.02 | 38 | P | | P | 03 02 00.1 | -0.8 |
| | baz=319 | | | | | | | |
| R35A | Emporia Munici | 86.30 | 43 | P | | P | 03 02 02.0 | -0.4 |
| | baz=317 | | | | | | | |
| N39A | Derby Farms, D | 86.31 | 39 | P | | P | 03 02 01.8 | -0.6 |
| | baz=319 | | | | | | | |
| P37A | Lathrop | 86.34 | 41 | P | | P | 03 02 01.8 | -0.8 |
| | baz=318 | | | | | | | |
| K42A | Prairie Point, | 86.37 | 36 | P | | P | 03 02 01.8 | -0.8 |
| | baz=321 | | | | | | | |
| L41A | Preston | 86.38 | 37 | P | | P | 03 02 01.8 | -0.9 |
| | baz=320 | | | | | | | |
| M40A | Post Highland | 86.40 | 38 | P | | P | 03 02 02.1 | -0.6 |
| | baz=320 | | | | | | | |
| S35A | Otter Creek Ra | 86.70 | 43 | P | | P | 03 02 04.1 | -0.2 |
| | baz=317 | | | | | | | |
| P38A | Dawn | 86.74 | 40 | P | | P | 03 02 04.0 | -0.5 |
| | baz=319 | | | | | | | |
| L42A | Oliver, Polo | 86.83 | 37 | P | | P | 03 02 03.8 | -1.0 |
| | baz=321 | | | | | | | |
| VLDQ | Val d'Or | 86.84 | 26 | *e*P | | P | 03 02 02.6 | -2.2 |
| | comp=Z,33nm,1.6s | | | | | | | |
| K43A | Burlington | 86.90 | 35 | P | | P | 03 02 04.4 | -0.8 |
| | baz=320 | | | | | | | |
| S36A | Lake Cedric, C | 87.06 | 43 | P | | P | 03 02 05.3 | -0.8 |
| | baz=318 | | | | | | | |
| L43A | Garden Prairie | 87.12 | 36 | P | | P | 03 02 05.5 | -0.8 |
| | baz=322 | | | | | | | |
| T35A | Sooner Cattle | 87.16 | 44 | P | | P | 03 02 06.2 | -0.4 |
| | baz=317 | | | | | | | |
| Q38A | Cooks Store, C | 87.19 | 41 | P | | P | 03 02 06.1 | -0.6 |
| | baz=319 | | | | | | | |
| O40A | La Belle | 87.20 | 39 | P | | P | 03 02 06.1 | -0.6 |
| | baz=320 | | | | | | | |
| M42A | Sheffield | 87.21 | 37 | P | | P | 03 02 06.1 | -0.7 |
| | baz=321 | | | | | | | |
| P39B | Salisbury | 87.23 | 40 | P | | P | 03 02 06.4 | -0.5 |
| | baz=319 | | | | | | | |
| N41A | Harden Midland | 87.25 | 38 | P | | P | 03 02 06.3 | -0.6 |
| | baz=320 | | | | | | | |
| T36A | Boggs Farm, Ca | 87.39 | 43 | P | | P | 03 02 07.4 | -0.4 |
| | baz=317 | | | | | | | |
| S37A | Fort Scott | 87.45 | 42 | P | | P | 03 02 07.3 | -0.6 |
| | baz=318 | | | | | | | |
| WMOK | Wichita Mounta | 87.45 | 47 | P | | P | 03 02 07.9 | -0.2 |
| | baz=316 | | | | | | | |
| WMOK | Wichita Mounta | 87.45 | 47 | *e*P | | P | 03 02 08.0 | -0.1 |
| WMOK | | | | pmax | | pmax | | |
| | comp=Z,5.0nm,1.0s | | | | | | | |
| WMOK | Wichita Mounta | 87.45 | 47 | *e*P | | P | 03 02 08.0 | -0.1 |
| | comp=Z,5.3nm,1.0s | | | | | | | |
| Q39A | Willow Grove F | 87.45 | 40 | P | | P | 03 02 07.3 | -0.6 |
| | baz=319 | | | | | | | |
| P40A | Paris | 87.56 | 40 | P | | P | 03 02 08.3 | -0.2 |
| | baz=320 | | | | | | | |
| M43A | Waltham Townsh | 87.60 | 37 | P | | P | 03 02 08.2 | -0.4 |
| | baz=321 | | | | | | | |
| O41A | Passleys Farm, | 87.69 | 39 | P | | P | 03 02 08.8 | -0.3 |
| | baz=320 | | | | | | | |
| T37A | Cheneyville 18 | 87.87 | 43 | P | | P | 03 02 09.5 | -0.5 |
| | baz=318 | | | | | | | |
| N43A | Stutzman Famil | 87.89 | 37 | P | | P | 03 02 09.6 | -0.4 |
| | baz=321 | | | | | | | |
| Q40A | Laux Farm, Aux | 87.95 | 40 | P | | P | 03 02 09.7 | -0.6 |
| | baz=320 | | | | | | | |
| R39A | Chumby, Stover | 87.97 | 41 | P | | P | 03 02 09.8 | -0.6 |
| | baz=319 | | | | | | | |
| M44A | Midewin, Midew | 88.06 | 36 | P | | P | 03 02 10.2 | -0.6 |
| | baz=322 | | | | | | | |
| LTX | Lajitas | 88.26 | 54 | *e*P | | P | 03 02 12.1 | 0.0 |
| LTX | Lajitas | 88.26 | 54 | *e*P | | P | 03 02 12.1 | 0.0 |
| TX31 | Lajitas Ar. Si | 88.26 | 54 | *e*P | | P | 03 02 12.2 | +0.1 |
| TXAR | Lajitas Array | 88.26 | 54 | P | | P | 03 02 12.1 | 0.0 |
| | comp=Z,2.4nm,0.7s,baz=293,slow=2.6,SNR=15 | | | | | | | |
| T38A | Diamond | 88.27 | 43 | P | | P | 03 02 11.3 | -0.6 |
| | baz=318 | | | | | | | |
| U37A | Salina | 88.29 | 43 | P | | P | 03 02 11.5 | -0.5 |
| | baz=318 | | | | | | | |
| S39A | Bolivar | 88.29 | 42 | P | | P | 03 02 11.4 | -0.6 |
| | baz=319 | | | | | | | |
| V36A | Jess | 88.29 | 44 | P | | P | 03 02 11.7 | -0.4 |
| | baz=317 | | | | | | | |
| P42A | Winchester | 88.37 | 39 | P | | P | 03 02 11.8 | -0.5 |
| | baz=321 | | | | | | | |
| R40A | Maddies Statio | 88.39 | 41 | P | | P | 03 02 11.8 | -0.6 |
| | baz=320 | | | | | | | |
| Q41A | Truxton | 88.41 | 39 | P | | P | 03 02 12.0 | -0.5 |
| | baz=320 | | | | | | | |
| ABTX | Abilene, Hawle | 88.45 | 49 | P | | P | 03 02 12.7 | -0.2 |
| | baz=315 | | | | | | | |
| U38A | Gravette | 88.66 | 43 | P | | P | 03 02 13.3 | -0.5 |
| | baz=318 | | | | | | | |
| V37A | Hulbert | 88.66 | 44 | P | | P | 03 02 13.3 | -0.5 |
| | baz=318 | | | | | | | |
| X35A | Drake | 88.73 | 46 | P | | P | 03 02 13.6 | -0.5 |
| | baz=317 | | | | | | | |
| N45A | Kentland | 88.74 | 36 | P | | P | 03 02 13.8 | -0.2 |
| | baz=322 | | | | | | | |
| T39A | Clever | 88.76 | 42 | P | | P | 03 02 13.7 | -0.5 |
| | baz=319 | | | | | | | |
| S40A | Lebanon | 88.79 | 41 | P | | P | 03 02 13.8 | -0.5 |
| | baz=319 | | | | | | | |
| Q42A | Golden Eagle | 88.79 | 39 | P | | P | 03 02 13.9 | -0.4 |
| | baz=320 | | | | | | | |
| R41A | Rosebud | 88.84 | 40 | P | | P | 03 02 14.3 | -0.3 |
| | baz=320 | | | | | | | |
| X36A | Centrahoma | 88.95 | 45 | P | | P | 03 02 14.8 | -0.3 |
| | baz=317 | | | | | | | |
| Y35A | Marietta | 89.05 | 46 | P | | P | 03 02 15.2 | -0.4 |
| | baz=317 | | | | | | | |
| W37B | Quinton | 89.05 | 45 | P | | P | 03 02 15.1 | -0.5 |
| | baz=318 | | | | | | | |
| V38A | Canehill | 89.08 | 43 | P | | P | 03 02 15.2 | -0.6 |
| | baz=318 | | | | | | | |
| CCM | Cathedral Cave | 89.09 | 40 | P | | P | 03 02 15.2 | -0.5 |
| | baz=320 | | | | | | | |
| CCM | Cathedral Cave | 89.09 | 40 | *e*P | | P | 03 02 15.6 | -0.1 |
| CCM | | | | pmax | | pmax | | |
| | comp=Z,8.0nm,0.9s | | | | | | | |
| CCM | Cathedral Cave | 89.09 | 40 | *e*P | | P | 03 02 15.6 | -0.1 |
| | comp=Z,8.1nm,0.9s | | | | | | | |
| O45A | Potomac | 89.11 | 37 | P | | P | 03 02 15.1 | -0.7 |
| | baz=322 | | | | | | | |
| T40A | Mansfield | 89.12 | 41 | P | | P | 03 02 15.2 | -0.7 |
| | baz=319 | | | | | | | |
| S41A | Jillco Farms, | 89.19 | 41 | P | | P | 03 02 15.7 | -0.5 |
| | baz=320 | | | | | | | |
| U39A | Green Forest | 89.19 | 43 | P | | P | 03 02 15.7 | -0.5 |
| | baz=319 | | | | | | | |
| P44A | Sand Creek, Wi | 89.30 | 38 | P | | P | 03 02 16.4 | -0.2 |
| | baz=322 | | | | | | | |
| SFIN | Lafayette | 89.30 | 36 | P | | P | 03 02 16.1 | -0.5 |
| | baz=323 | | | | | | | |
| Y36A | Durant | 89.48 | 46 | P | | P | 03 02 17.3 | -0.3 |
| | baz=317 | | | | | | | |
| X37A | Clayton | 89.49 | 45 | P | | P | 03 02 17.1 | -0.6 |
| | baz=318 | | | | | | | |
| V39A | Pettigrew | 89.51 | 43 | P | | P | 03 02 17.4 | -0.4 |
| | baz=319 | | | | | | | |
| S42A | Caledonia | 89.54 | 40 | P | | P | 03 02 17.5 | -0.4 |
| | baz=320 | | | | | | | |
| U40A | Yellville | 89.54 | 42 | P | | P | 03 02 17.3 | -0.6 |
| | baz=319 | | | | | | | |
| Q44A | Meyer Farm, Va | 89.55 | 38 | P | | P | 03 02 17.5 | -0.4 |
| | baz=321 | | | | | | | |
| R43A | Red Bud | 89.58 | 39 | P | | P | 03 02 17.6 | -0.5 |
| | baz=321 | | | | | | | |
| T41A | Mountain View | 89.59 | 41 | P | | P | 03 02 17.7 | -0.4 |
| | baz=320 | | | | | | | |
| W38A | Poteau | 89.61 | 44 | P | | P | 03 02 17.9 | -0.3 |
| | baz=318 | | | | | | | |
| P45A | Graceland, Par | 89.67 | 37 | P | | P | 03 02 18.0 | -0.4 |
| | baz=322 | | | | | | | |
| X38A | Whitesboro | 89.73 | 44 | P | | P | 03 02 18.4 | -0.4 |
| | baz=318 | | | | | | | |
| Z36A | Blue Ridge | 89.85 | 46 | P | | P | 03 02 19.0 | -0.4 |
| | baz=317 | | | | | | | |
| JCT | Junction City | 89.87 | 50 | P | | P | 03 02 19.2 | -0.4 |
| | baz=315 | | | | | | | |
| T42A | Van Buren | 89.95 | 41 | P | | P | 03 02 19.3 | -0.5 |
| | baz=320 | | | | | | | |
| Q45A | Warren Harvey, | 89.97 | 38 | P | | P | 03 02 19.5 | -0.4 |
| | baz=322 | | | | | | | |
| U41A | Viola | 90.04 | 42 | P | | P | 03 02 19.5 | -0.8 |
| | baz=320 | | | | | | | |
| WHTX | Lake Whitney, | 90.19 | 48 | P | | P | 03 02 20.9 | -0.1 |
| | baz=317 | | | | | | | |
| WHTX | Lake Whitney, | 90.19 | 48 | *e*P | | P | 03 02 21.2 | +0.2 |
| | comp=Z,12nm,0.8s | | | | | | | |
| X39A | Fountain Ranch | 90.24 | 44 | P | | P | 03 02 20.8 | -0.4 |
| | baz=318 | | | | | | | |
| W40A | Ferguson Farm, | 90.30 | 43 | P | | P | 03 02 20.9 | -0.5 |
| | baz=319 | | | | | | | |
| V41A | Mountainview | 90.34 | 42 | P | | P | 03 02 20.9 | -0.7 |
| | baz=320 | | | | | | | |
| Z37A | Pogue Cattle C | 90.37 | 46 | P | | P | 03 02 21.5 | -0.3 |
| | baz=318 | | | | | | | |
| MIAR | Mount Ida | 90.51 | 44 | P | | P | 03 02 22.1 | -0.3 |
| | baz=319 | | | | | | | |
| MIAR | Mount Ida | 90.51 | 44 | *e*P | | P | 03 02 22.6 | +0.2 |
| MIAR | | | | pmax | | pmax | | |
| | comp=Z,9.0nm,0.8s | | | | | | | |
| MIAR | Mount Ida | 90.51 | 44 | *e*P | | P | 03 02 22.6 | +0.2 |
| | comp=Z,6.6nm,0.8s | | | | | | | |
| WHAR | Wooly Hollow | 90.65 | 43 | *e*P | | P | 03 02 22.8 | -0.3 |
| | comp=Z,36nm,1.8s | | | | | | | |
| Y39A | Lockesburg | 90.68 | 45 | P | | P | 03 02 22.9 | -0.4 |
| | baz=318 | | | | | | | |
| W41B | Gary Mavity, V | 90.76 | 43 | P | | P | 03 02 22.9 | -0.6 |
| | baz=320 | | | | | | | |
| 336A | Riesel | 90.99 | 48 | P | | P | 03 02 24.4 | -0.3 |
| | baz=317 | | | | | | | |
| MSEY | Mahe Island | 91.20 | 265 | *i* P | | P | 03 02 30.3 | +4.3 |
| ACSO | Alum Creek Sta | 91.28 | 34 | P | | P | 03 02 25.6 | -0.3 |
| | baz=325 | | | | | | | |
| U44B | Burton Farm, H | 91.37 | 40 | P | | P | 03 02 26.3 | -0.1 |
| | baz=321 | | | | | | | |
| WCI | Wyandotte Cave | 91.39 | 37 | P | | P | 03 02 26.0 | -0.4 |
| | baz=323 | | | | | | | |
| T47A | Sharon Grove | 91.98 | 38 | P | | P | 03 02 28.7 | -0.5 |
| | baz=323 | | | | | | | |
| OXF | Oxford | 92.76 | 41 | P | | P | 03 02 32.2 | -0.7 |
| | baz=321 | | | | | | | |
| TOA1 | Torodi Ar. Sit | 117.70 | 317 | *e*PKPdf | | PKPdf | 03 08 06.1 | -0.9 |
| TORD | Torodi Ar. Bea | 117.70 | 317 | PKP | | PKPdf | 03 08 06.1 | -0.9 |
| | comp=Z,0.7nm,1.1s,baz=356,slow=3.2,SNR=2.8 | | | | | | | |
| SIV | San Ignacio | 149.23 | 51 | PKPbc | | PKPbc | 03 09 08.9 | -0.6 |
| | comp=Z,7.7nm,0.9s,baz=170,slow=1.7,SNR=6.3 | | | | | | | |
| LCO | Las Campanas | 150.32 | 83 | *e*PKPbc | | PKPbc | 03 09 12.4 | +0.4 |

*ISCJB* ***15*** *02:59:08.3±0.3, 55.29S±0.05×28.23W±0.08, h10km, mb5.0/36, MS4.7/18, Error ellipse: s-maj=8.1km s-min=6.5km az=30.9*

*IDC* ***15*** *02:59:08.3±0.5, 55.29S×28.18W, h0km, mb4.6/12, mb1 4.7/14, mb1mx4.5/22, mbtmp4.7/14, ML5.3/2, MS4.5/15, Ms1 4.5/15, ms1mx4.4/24, Error ellipse: s-maj=16.9km s-min=14.5km az=25.0*

*NEIC* ***15*** *02:59:11.7±2.8, 55.37S×28.27W, h20km±17km, mb5.3/29, Error ellipse: s-maj=7.5km s-min=5.6km az=207.0*

*GCMT* ***15*** *02:59:11.7±0.1, 55.27S×28.14W, h12km, MW5.3/91, Moment Tensor Solution. s66,c106; s91,c158; Duration: 1s1 Moment tensor: Scale 10^17 Nm; Mrr0.71±.02; Mθθ-0.31±.02; Mφφ-0.40±.01; Mrθ-0.38±.05; Mθφ0.77±.01; Mφr0.68±.04; Best double couple: M±1.21400×10^17 NP1:φs330.00000°, δ66.00000°, λ105.00000°. NP2:φs116.00000°, δ28.00000°, λ59.00000°. Principal axes: T 1.0320, Plg65.0000°, Azm267.0000°; N 0.3660, Plg14.0000°, Azm144.0000°; P -1.3970, Plg20.0000°, Azm49.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*BJI* ***15*** *02:59:15.0, 55.40S×28.40W, h35km, mB5.5/13, Ms5.5/13, Ms7 5.1/16*

**ISC 15 02:59:10.7±0.3, 55.22S±0.07×28.39W±0.06, h10km, n157, σ1§97/149, mb5.1/34, MS4.6/18, 1C-1D, South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| HOPE | Hope Point | 4.78 | 278 | *e*Pn | Pn | 03 00 23.0 | +0.3 |
| HOPE | | | | *e*Sn | Sn | 03 01 14.2 | -3.9 |
| VNA1 | Neumayer--Stat | 17.82 | 158 | P | P | 03 03 23.9 | +4.8 |
| EFI | East Falkland | 17.96 | 269 | *e*Pn | Pn | 03 03 22.3 | +2.1 |
| | 169nm,1.5s | | | | | | |
| VNA3 | Neumayer Olymp | 18.01 | 160 | P | Pn | 03 03 19.8 | -0.8 |
| VNA2 | Neumayer--Watz | 18.22 | 158 | P | Pn | 03 03 23.4 | 0.0 |
| | baz=315,slow=12 | | | | | | |
| SNAA | Sanae | 19.78 | 156 | P | P | 03 03 39.2 | -1.4 |
| SNAA | Sanae | 19.78 | 156 | P | P | 03 03 38.8 | -1.9 |
| | 5.2nm,0.3s,baz=311,slow=9.5,SNR=59 | | | | | | |
| SNAA | | | | LR | LR | 03 10 07.1 | |
| | comp=Z,1μm,18.9s,baz=305,slow=34 | | | | | | |
| SNAA | Sanae | 19.78 | 156 | *e*P | P | 03 03 38.7 | -1.9 |
| | 99nm,1.3s | | | | | | |
| PMSA | Palmer Station | 19.95 | 227 | P | P | 03 03 42.3 | -0.1 |
| | 1.3nm,0.3s,baz=39,slow=8.6,SNR=6.5 | | | | | | |
| PMSA | | | | LR | LR | 03 09 51.6 | |
| | comp=Z,2μm,20.1s,baz=88,slow=32 | | | | | | |
| PMSA | Palmer Station | 19.95 | 227 | *e*P | P | 03 03 42.0 | -0.5 |
| | 112nm,1.1s | | | | | | |
| USHA | Ushuaia | 22.74 | 254 | P | P | 03 04 11.7 | -0.9 |
| | 66nm,1.2s,baz=86,slow=11,SNR=6.5 | | | | | | |
| GO09 | Cerro Castillo | 26.26 | 260 | *e*P | P | 03 04 43.1 | -2.6 |
| | 48nm,1.1s | | | | | | |
| TRQA | Tornquist | 28.37 | 293 | *e*P | P | 03 05 06.0 | +1.2 |
| | 32nm,1.3s | | | | | | |
| CHRN | Cochrane | 28.38 | 268 | *e*P | P | 03 05 02.5 | -2.3 |
| | 26nm,1.7s | | | | | | |
| PLCA | Paso Flores | 31.18 | 280 | LR | LR | 03 19 28.5 | |
| | comp=Z,693nm,18.7s,baz=152,slow=39 | | | | | | |
| SYO | Syowa Base | 32.66 | 142 | *e*P | P | 03 05 37.8 | -4.5 |
| SYO | Syowa Base | 32.66 | 142 | *e*pP | P | 03 05 43.6 | +1.3 |
| QSPA | South Pole Qui | 35.04 | 180 | *e*P | P | 03 06 02.6 | -0.7 |
| | 149nm,1.9s | | | | | | |
| CPUP | Villa Florida | 35.75 | 312 | P | P | 03 06 09.5 | 0.0 |
| | 17nm,0.9s,baz=144,slow=7.4,SNR=20 | | | | | | |
| CPUP | | | | LR | LR | 03 19 49.6 | |
| | comp=Z,1μm,20.0s,baz=155,slow=35 | | | | | | |
| CPUP | Villa Florida | 35.75 | 312 | *e*P | P | 03 06 10.0 | +0.5 |
| GO05 | HualaæØ | 36.00 | 286 | *e*P | P | 03 06 13.1 | +1.5 |
| | 66nm,1.7s | | | | | | |
| PEL | Peldehue | 36.72 | 289 | *e*P | P | 03 06 18.3 | +0.5 |
| | 44nm,1.0s | | | | | | |
| LCO | Las Campanas | 39.95 | 293 | *e*P | P | 03 06 45.9 | +0.6 |
| | 29nm,1.2s | | | | | | |
| SUR | Sutherland | 41.10 | 77 | P | P | 03 06 53.5 | -1.2 |

MAW LR LR 03 21 20.1
comp=Z,639nm,21.6s,baz=254,slow=32
**MAW Mawson 41.23 144** *eP* **P 03 06 53.8 -1.2**
6.3nm,1.5s
**BDFB Brasilia 42.30 331** P **P 03 07 04.6 +0.1**
11nm,1.1s,baz=326,slow=11
**BDFB Brasilia 42.30 331** *eP* **P 03 07 05.3 +0.7**
**PB01 IPOC Station P 45.90 301** *eP* **P 03 07 34.3 +0.9**
89nm,1.5s
**BOSA Boshof 46.44 78** P **P 03 07 35.9 -1.7**
11nm,1.0s,baz=193,slow=8.8,SNR=11
BOSA LR LR 03 23 54.0
comp=Z,2µm,18.7s,baz=214,slow=32
**BOSA Boshof 46.44 78** *eP* **P 03 07 36.3 -1.3**
**SIV San Ignacio 46.51 314** P **P 03 07 38.3 +0.2**
2.8nm,0.8s,baz=184,slow=8.4,SNR=9.9
**PB11 IPOC Station P 47.07 302** *eP* **P 03 07 43.8 +1.2**
85nm,0.9s
**VNDA Vanda 47.37 183** P **P 03 07 43.2 -1.0**
5.4nm,0.7s,baz=189,slow=6.7,SNR=29
**VNDA Vanda 47.37 183** *eP* **P 03 07 43.8 -0.3**
19nm,0.9s
**H10S2 ASCENSION HYDR 47.41 19** T T 03 59 49.6
baz=190,slow=75,SNR=16
**H10S3 ASCENSION HYDR 47.41 19** T T 03 59 51.0
baz=190,slow=75,SNR=18
**H10S1 ASCENSION HYDR 47.43 19** T T 03 59 49.9
baz=190,slow=75,SNR=15
**MNMC Minye Minye 47.58 302** *eP* **P 03 07 47.4 +0.7**
45nm,0.9s
**H10N1 ASCENSION HYDR 48.53 19** T T 04 00 13.9
baz=194,slow=74
**H10N3 ASCENSION HYDR 48.53 19** T T 04 00 20.1
baz=194
**H10N2 ASCENSION HYDR 48.55 19** T T 04 00 16.6
baz=194,slow=74
**LPAZ La Paz 49.34 306** P **P 03 08 01.5 +0.8**
11nm,0.7s,baz=138,slow=6.7,SNR=29
LPAZ LR LR 03 32 07.1
comp=Z,388nm,18.3s,baz=181,slow=40
**LBTB Lobatse 49.43 75** P P 03 07 58.1 -2.7
12nm,1.0s,baz=206,slow=7.7,SNR=10
LBTB LR LR 03 25 34.8
comp=Z,251nm,18.1s,baz=220,slow=32
**LBTB Lobatse 49.43 75** *eP* **P 03 07 59.7 -1.1**
27nm,1.2s
**RCBR Riachuelo 49.62 350** LR LR 03 25 11.9
comp=Z,556nm,18.9s,baz=168,slow=32
**TSUM Tsumeb 49.89 63** *eP* **P 03 08 03.6 -0.7**
32nm,1.3s
**SAML Samuel 53.73 316** *eP* **P 03 08 32.5 -0.3**
86nm,1.8s
**NNA Nana 57.25 299** *eP* **P 03 08 59.2 +1.0**
50nm,1.4s
**LSZ Lusaka 58.72 70** P **P 03 09 07.5 -1.2**
0.9nm,0.3s,baz=204,slow=9.8,SNR=3.5
**LSZ Lusaka 58.72 70** *eP* **P 03 09 08.8 +0.1**
40nm,1.8s
**LIC Lamto 64.23 26** *eP* **P 03 09 45.3 -0.4**
72nm,1.4s
**KIC Kosan Boka 64.43 26** *eP* **P 03 09 46.1 -0.9**
28nm,1.0s
**TIC Toumodi 64.64 26** *eP* **P 03 09 47.9 -0.4**
**DBIC Dimbokro 64.70 26** P **P 03 09 48.3 -0.4**
5.3nm,0.7s,baz=165,slow=7.5,SNR=11
DBIC LR LR 03 31 39.4
comp=Z,250nm,20.9s,baz=183,slow=30
**DBIC Dimbokro 64.70 26** *eP* **P 03 09 48.3 -0.4**
56nm,1.8s
**OTAV Otavalo 68.62 305** *eP* **P 03 10 14.5 +0.1**
51nm,1.6s
**ROSC El Rosal 70.82 311** LR LR 03 41 30.2
comp=Z,210nm,21.5s,baz=176,slow=36
**RUSC La Rusia 71.23 312** *eP* **P 03 10 29.3 -1.2**
24nm,1.5s
**KOWA Kowa 72.44 25** *eP* **P 03 10 37.6 +0.6**
62nm,1.7s
**TORD Torodi Ar. Bea 72.67 31** P **P 03 10 37.8 -0.7**
**TOA1 Torodi Ar. Sit 72.68 31** *eP* **P 03 10 37.8 -0.7**
**SDV Santo Domingo 72.94 316** *eP* **P 03 10 40.6 +0.3**
15nm,0.9s
**KMBO Kilima Mbogo 75.39 70** LR LR 03 42 33.1
comp=Z,796nm,19.3s,baz=221,slow=35
**GDHS Morne Mazeau, 76.62 327** *eP* **P 03 11 00.9 -0.4**
73nm,1.0s
**MQZ McQueen's Vall 79.84 195** *eP* P 03 11 15.3 -3.6
180nm,1.7s
**TAM Tamanrasset 82.92 31** *eP* **P 03 11 37.2 +1.7**
58nm,1.8s
**TBI Tubuai 87.07 232** *eS* **S 03 22 36.9 +1.5**
232nm,24.8s
**TBI Tubuai 87.07 232** *eLR* LR 03 39 33.0
768nm,31.2s
**PPT2 Papeete2 92.11 235** *eS* **S 03 23 25.4 +2.6**
274nm,28.5s
**PPT2 Papeete2 92.11 235** *eLR* LR 03 41 54.2
536nm,24.8s
**TAOE Nuku Hiva Isla 94.85 247** *eLR* LR 03 43 04.0
482nm,26.8s
**KEST Kesra 96.19 30** LR LR 03 52 46.8
comp=Z,513nm,19.1s,baz=163,slow=34
**ASAR Alice Springs 99.99 164** P **Pdif 03 12 53.5 -2.4**
1.2nm,0.7s,baz=180,slow=3.7,SNR=11
ASAR LR LR 03 54 34.5
comp=Z,305nm,21.5s,baz=180,slow=33
**AS31 Alice Springs 99.99 164** *ePdif* **Pdif 03 12 53.5 -2.4**
1.1nm,0.9s
**AS01 Alice Springs 100.00 164** *ePdif* **Pdif 03 12 54.7 -1.3**
**DZM Mont Dzumac 101.99 194** *eLR* LR 03 46 28.3
1µm,27.4s
**WR1 Warramunga Arr 103.71 163** *ePdif* **Pdif 03 13 10.6 -1.9**
**WRA Warramunga Arr 103.71 163** Pdiff **Pdif 03 13 10.6 -1.9**
0.3nm,0.6s,baz=191,slow=4.2,SNR=3.4
**PLM Palomar 115.83 292** *ePKPdf* **PKPdf 03 17 51.1 -2.0**
**PD31 Pinedale Array 119.32 303** *ePKPdf* **PKPdf 03 17 58.6 -1.0**
**PDAR Pinedale Array 119.32 303** PKP **PKPdf 03 17 58.6 -1.0**
0.4nm,0.8s,baz=130,slow=3.6,SNR=3.1
**NV01 Mina Array Sit 120.44 294** *ePKPdf* **PKPdf 03 18 01.9 +0.1**
**MOOW Moose Ponds 120.63 303** *ePKPdf* **PKPdf 03 18 01.9 -0.2**
**FXWY Fox Creek 120.68 303** *ePKPdf* **PKPdf 03 18 02.1 -0.1**
**YHH Holmes Hill 121.46 304** *ePKPdf* **PKPdf 03 18 04.1 +0.4**
**AFDM Forest Hills D 122.22 293** *ePKPdf* **PKPdf 03 18 05.5 +0.5**
**WVOR Wild Horse Val 123.56 297** *ePKPdf* **PKPdf 03 18 08.4 +0.8**
**FIA0 FINESS Array S 123.97 28** *ePKPdf* **PKPdf 03 18 06.5 -1.0**
**FINES FINESS Array B 123.97 28** PKP **PKPdf 03 18 06.5 -1.0**
2.8nm,0.7s,baz=163,slow=2.2,SNR=10
**MSO Missoula 124.42 304** *ePKPdf* **PKPdf 03 18 09.0 -0.1**
**BMO Blue Mountains 124.63 300** *ePKPdf* **PKPdf 03 18 09.4 -0.1**
**JTMT Jette 125.24 304** *ePKPdf* **PKPdf 03 18 10.2 -0.4**
**G08A Pilot Rock 125.77 300** *ePKPdf* **PKPdf 03 18 11.4 -0.3**
**CM31 Chiang Mai Arr 126.00 111** *ePKPdf* **PKPdf 03 18 11.8 -1.1**
**CMAR Chiang Mai Arr 126.00 111** PKP **PKPdf 03 18 11.8 -1.1**
1.3nm,0.3s,baz=243,slow=4.0,SNR=3.2
**E09A Wood Farm, Sta 126.23 301** *ePKPdf* **PKPdf 03 18 12.2 -0.1**
**KSH Kashi 129.00 75** PKP **PKPdf 03 18 17.1 -1.0**
KSH sPKP 03 18 32.8
KSH PP **PP 03 20 29.4 +3.0**
KSH PKS **PKSdf 03 21 52.4 -2.2**
KSH SKS **SKSdf 03 25 23.8 -5.7**
KSH SKKS **SKKSac 03 27 16.3 -6.4**
KSH SS **SS 03 37 41.1 -4.7**
KSH AMB AMB
comp=Z,130nm,4.9s
KSH LR LR
comp=N,41nm,3.9s
KSH LR LR
comp=E,37nm,3.8s
KSH LR LR
comp=Z,280nm,7.2s
**ARA0 ARCESS Array S 130.42 22** *ePKPdf* **PKPdf 03 18 18.6 -1.1**
**ARCES ARCESS Array B 130.42 22** PKP **PKPdf 03 18 18.6 -1.1**
3.9nm,0.8s,baz=90,slow=0.2,SNR=5.2
**ARU Arti 131.64 48** *ePKPdf* **PKPdf 03 18 22.3 0.0**
**KMI Kunming 133.45 110** PKP **PKPdf 03 18 27.1 0.0**
KMI SS SS 03 38 40.6 +0.5
KMI LR LR
comp=Z,150nm,19.5s
**TULEG Thule 133.99 348** *ePKPdf* **PKPdf 03 18 26.1 -0.1**
**YKA Yellowknife Ar 135.09 319** PKP **PKPdf 03 18 27.5 -1.1**
1.6nm,0.7s,baz=130,slow=2.1,SNR=20
**YKB5 Yellowknife Ar 135.09 319** *ePKPdf* **PKPdf 03 18 27.5 -1.1**
**YKW3 Yellowknife Ar 135.14 319** *ePKPdf* **PKPdf 03 18 28.4 -0.3**
**GYA Guiyang 136.62 113** *ePdif* **Pdif 03 15 38.3 -0.4**
GYA PKP **PKPdf 03 18 32.0 -0.8**
GYA PP **PP 03 21 17.9 +3.0**
GYA AMB AMB
comp=Z,120nm,7.8s
**MK32 Makanchi Array 137.26 71** *ePKPpre* PKPpre 03 18 23.1
MK32 *ePKPdf* **PKPdf 03 18 31.1 -2.2**
**MKAR Makanchi Array 137.26 71** PKhKP PKPpre 03 18 23.1
0.9nm,1.0s,baz=352,slow=6.1,SNR=3.0
MKAR PKP **PKPdf 03 18 31.1 -2.2**
0.7nm,0.8s,baz=118,slow=3.0,SNR=3.7
**WMQ Urumqi 138.40 78** PKP **PKPdf 03 18 36.3 +0.8**
WMQ PP **PP 03 21 30.8 +4.6**
WMQ AMB AMB
comp=Z,16nm,3.6s
WMQ LR LR
comp=N,350nm,22.5s
WMQ LR LR
comp=E,290nm,26.5s
WMQ LR LR
comp=Z,450nm,27.5s
**DLBC Dease Lake 139.27 308** *ePKPdf* **PKPdf 03 18 37.5 +0.9**
**LZH Lanzhou 142.43 100** *ePKP* **PKPdf 03 18 42.6 -0.6**
LZH pPKP sPKPdf 03 18 53.6 +5.8
LZH sPKP 03 18 57.6
LZH LR LR
comp=N,270nm,11.3s
LZH LR LR
comp=E,170nm,12.1s
LZH LR LR
comp=Z,220nm,13.0s
**GTA Gaotai 142.44 93** *ePKP* **PKPdf 03 18 43.4 +0.3**
**ZALV Zalesovo Beam 142.61 63** PKhKP PKPpre 03 18 37.0
1.1nm,0.5s,baz=264,slow=3.2,SNR=3.6
**ZALV Zalesovo Beam 142.61 63** PKPpre PKPpre 03 18 37.0
ZALV *ePKPdf* **PKPdf 03 18 42.1 -0.6**
**ZAA1 Zalesovo Array 142.61 63** *ePKPpre* PKPpre 03 18 37.0
**HYT Haines Junctio 143.74 308** *ePKPdf* PKPab 03 18 43.5 +2.0
**XAN Xi'an 143.75 108** PKP **PKPdf 03 18 50.9 +5.5**
**INK Inuvik 144.72 322** *ePKPdf* **PKPab 03 18 44.6 -0.2**
**DAWY Dawson 145.72 313** *ePKPdf* **PKPdf 03 18 48.2 +0.3**
**EGAK Eagle 146.67 314** *ePKPdf* **PKPdf 03 18 50.2 +0.9**
**BMRM Bremner River 147.02 306** *ePKPbc* **PKPdf 03 18 52.7 +2.5**
**MENT Mentasta 147.24 310** *ePKPbc* **PKPdf 03 18 52.9 +2.4**
**NJ2 Nanjing 147.36 122** *ePKPbc* **PKPdf 03 18 53.3 +1.7**
**DIV Divide 147.61 306** *ePKPbc* **PKPdf 03 18 54.5 +3.4**
**KLU Klutina 147.79 307** *ePKPbc* **PKPbc 03 18 55.2 +0.8**
**PAX Paxson 148.01 310** *ePKPbc* **PKPdf 03 18 55.1 +3.3**
**SCM Sheep Creek Mo 148.53 307** *ePKPbc* **PKPbc 03 18 57.0 +0.7**
**FYU Fort Yukon 148.72 317** *ePKPbc* **PKPbc 03 18 57.4 +0.8**
**DHY Denali Highway 148.88 310** *ePKPbc* **PKPdf 03 18 57.4 +4.1**
**SML Sawmill 148.99 307** *ePKPbc* **PKPbc 03 18 57.8 +0.4**
**HDA Harding Lake 149.00 312** *ePKPbc* **PKPdf 03 18 57.3 +4.1**
**ILAR Eielson Array 149.05 313** PKPbc **PKPdf 03 18 56.8 +3.5**
25nm,0.9s,baz=128,slow=2.2,SNR=165
**ILB Eielson Array 149.05 313** *ePKPdf* **PKPdf 03 18 51.4 -1.9**
ILB *ePKPbc* **PKPdf 03 18 56.8 +3.5**
**BTO Baotou 149.05 101** *ePKPbc* **PKPdf 03 18 57.6 +3.4**
**PMR Palmer 149.29 306** *ePKPbc* **PKPdf 03 18 57.2 +3.5**
**RC01 Rabbit Creek A 149.44 305** *ePKPbc* **PKPbc 03 18 59.1 +0.6**
**COLA College 149.47 313** *ePKPbc* **PKPdf 03 18 58.2 +4.3**
**RND Reindeer 149.61 310** *ePKPbc* **PKPbc 03 18 59.6 +0.6**
**MDM Murphy Dome 149.65 313** *ePKPbc* **PKPdf 03 18 58.5 +4.2**
**MCK McKinley 149.71 311** *ePKPbc* **PKPbc 03 18 59.6 +0.4**
**TIA Tai'an 149.77 115** PKPbc **PKPdf 03 18 57.6 +2.2**
**SUA Susitna One 150.01 306** *ePKPbc* **PKPbc 03 19 00.1 0.0**
**HHC Hu-ho-hao-te 150.08 102** *ePKPbc* **PKPbc 03 19 02.4 +1.5**
HHC AMB AMB
comp=Z,47nm,5.0s
HHC LR LR
comp=N,140nm,20.2s
HHC LR LR
comp=E,500nm,19.8s
HHC LR LR
comp=Z,140nm,20.6s
**TRF Thorofare Moun 150.25 310** *ePKPbc* **PKPbc 03 19 00.9 +0.3**
**SPU Mount Spurr 150.55 305** *ePKPbc* **PKPbc 03 19 01.1 -0.2**
**BPAW Bear Paw Mtn. 150.67 311** *ePKPbc* **PKPbc 03 19 01.5 0.0**
**MLY Manley 150.71 313** *ePKPbc* **PKPbc 03 19 01.1 -0.5**
**COLD Coldfoot 150.75 317** *ePKPbc* **PKPbc 03 19 02.0 +0.5**
**PPLA Purkeypile 150.99 308** *ePKPbc* **PKPbc 03 19 02.5 +0.1**
**SONA0 Songino Array 151.35 86** *ePKPdf* **PKPdf 03 18 55.8 -1.8**
SONA0 *ePKPbc* **pPKPdf 03 19 02.5 +1.4**
**SONM Songino Array 151.35 86** PKP **PKPdf 03 18 55.8 -1.8**
0.8nm,0.9s,baz=322,slow=11,SNR=4.3
SONM PKPbc **pPKPdf 03 19 02.5 +1.4**
3.3nm,0.6s,baz=219,slow=3.0,SNR=16
**SONA1 Songino Array 151.36 86** *ePKPdf* **PKPdf 03 18 56.1 -1.5**
**IMAR Indian Mountai 152.06 315** *ePKPbc* **PKPbc 03 19 04.5 -0.1**
**BJI Beijing 152.08 108** PKPbc **PKPdf 03 19 03.6 +4.8**
BJI PP **PP 03 22 52.5 +5.2**
BJI AMB AMB
comp=Z,280nm,7.9s
BJI LR LR
comp=Z,120nm,26.7s
**CN2 Changchun 159.66 113** *ePKP* **PKPdf 03 19 09.0 +0.3**

*ISK* **15** *03:00:28.8, 38.68N×43.21E, h5km, MD2.6*
*ISCJB* **15** *03:00:30.4±0.5, 38.69N±0.02×43.17E±0.04, h9km±7km, Error ellipse: s-maj=5.1km s-min=4.1km az=173.3*
*CSEM* **15** *03:00:30.1±0.2, 38.68N×43.17E, h5km, MD2.6, Error ellipse: s-maj=4.4km s-min=3.7km az=88.0*
*DDA* **15** *03:00:30.1, 38.68N×43.17E, h7km, Ml2.9*
**ISC 15 03:00:30.5**±0.9, **38.68N**±0.02×**43.17E**±0.03, **h12**km±8km, **n26**, σ0.8**78**/42, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.19** | **115** | *ePG* | **Pg** | | **03 00 34.2** | **-0.5** |
| VANB | | | | *eSG* | **Sg** | | **03 00 38.6** | **+0.8** |
| **VANB** | **Van** | **0.19** | **115** | *ePg* | **Pg** | | **03 00 34.3** | **-0.5** |
| VANB | | | | *eSg* | **Sg** | | **03 00 38.6** | **+0.8** |
| **TVAN** | **Van** | **0.24** | **128** | *iP* | **Pg** | | **03 00 34.6** | **-1.0** |
| TVAN | | | | *iS* | **Sg** | | **03 00 39.4** | **+0.3** |
| **TVAN** | **Van** | **0.24** | **128** | P | **Pg** | | **03 00 34.6** | **-1.0** |
| TVAN | | | | S | **Sg** | | **03 00 39.4** | **+0.3** |
| **ERCV** | **ERCIS-VAN** | **0.37** | **21** | *ePG* | **Pg** | | **03 00 36.9** | **-1.0** |
| ERCV | | | | *eSG* | **Sg** | | **03 00 43.0** | **+0.1** |
| **ERCV** | **ERCIS-VAN** | **0.37** | **21** | *ePg* | **Pg** | | **03 00 36.9** | **-1.0** |
| ERCV | | | | *eSg* | **Sg** | | **03 00 43.0** | **+0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.37** | **291** | *iP* | **Pg** | | **03 00 37.6** | **-0.3** |
| ADCV | | | | *iS* | **Sb** | | **03 00 44.5** | **-0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.37** | **291** | P | **Pg** | | **03 00 37.6** | **-0.3** |
| ADCV | | | | S | **Sb** | | **03 00 44.5** | **-0.4** |
| **GEVA** | **Gevas** | **0.37** | **193** | *iP* | **Pg** | | **03 00 36.9** | **-1.1** |
| GEVA | | | | *iS* | **Sb** | | **03 00 44.0** | **-0.9** |
| **GEVA** | **Gevas** | **0.37** | **193** | P | **Pg** | | **03 00 36.9** | **-1.1** |
| GEVA | | | | S | **Sb** | | **03 00 44.0** | **-0.9** |
| **VMUR** | **Van-Muradiye** | **0.45** | **45** | *iP* | **Pg** | | **03 00 38.9** | **-0.4** |
| VMUR | | | | *iS* | **Sb** | | **03 00 46.9** | **-0.2** |
| **VMUR** | **Van-Muradiye** | **0.45** | **45** | P | **Pg** | | **03 00 38.9** | **-0.4** |
| VMUR | | | | S | **Sb** | | **03 00 46.9** | **-0.2** |
| **CLDR** | **Caldiran** | **0.75** | **51** | *ePG* | **Pg** | | **03 00 44.1** | **-0.9** |
| CLDR | | | | *eSG* | **Sg** | | **03 00 55.1** | **+0.2** |
| **CLDR** | **Caldiran** | **0.75** | **51** | *ePg* | **Pg** | | **03 00 44.1** | **-0.9** |
| CLDR | | | | *eSg* | **Sg** | | **03 00 55.1** | **+0.2** |
| **TUTA** | **Tutak** | **0.78** | **339** | *iP* | **Pg** | | **03 00 44.5** | **-1.0** |
| TUTA | | | | *iS* | **Sg** | | **03 00 55.7** | **0.0** |
| **TUTA** | **Tutak** | **0.78** | **339** | P | **Pg** | | **03 00 44.5** | **-1.0** |
| TUTA | | | | S | **Sg** | | **03 00 55.7** | **0.0** |
| **AGRB** | **Hanur-Agry** | **0.91** | **351** | *ePG* | **Pg** | | **03 00 46.6** | **-1.5** |
| **AGRB** | **Hanur-Agry** | **0.91** | **351** | *ePg* | **Pg** | | **03 00 46.6** | **-1.5** |
| **SIRT** | **Sirnak** | **1.31** | **206** | *ePN* | **Pb** | | **03 00 55.3** | **+0.3** |
| **SIRT** | **Sirnak** | **1.31** | **206** | *ePn* | **Pb** | | **03 00 55.3** | **+0.3** |
| **VRTB** | **Varto-Mus** | **1.42** | **290** | *ePN* | **Pg** | | **03 00 57.4** | **-0.3** |
| **VRTB** | **Varto-Mus** | **1.42** | **290** | *ePn* | **Pg** | | **03 00 57.4** | **-0.3** |
| **CUKT** | **Cukurca** | **1.47** | **166** | *ePN* | **Pn** | | **03 00 57.5** | **+0.6** |
| **CUKT** | **Cukurca** | **1.47** | **166** | *ePn* | **Pn** | | **03 00 57.5** | **+0.6** |
| **SENK** | **Senkaya-Erzuru** | **1.98** | **342** | *ePN* | **Pn** | | **03 01 05.1** | **+1.0** |
| **SENK** | **Senkaya-Erzuru** | **1.98** | **342** | *ePn* | **Pn** | | **03 01 05.1** | **+1.0** |

*ISK* **15** *03:02:57.9, 38.89N×43.53E, h24km, MD2.4*
*CSEM* **15** *03:02:58.5±0.2, 38.91N×43.60E, h20km, ML2.7, Error ellipse: s-maj=6.2km s-min=4.4km az=98.0*
*ISCJB* **15** *03:02:59.1±0.8, 38.90N±0.03×43.60E±0.05, h21km±7km, Error ellipse: s-maj=7.0km s-min=4.9km az=8.9*
*DDA* **15** *03:02:59.6, 38.88N×43.54E, h7km, Ml2.7*
**ISC 15 03:02:57.0**±1.6, **38.91N**±0.03×**43.72E**±0.07, **h13**km±11km, **n20**, σ0.8**45**/38, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.14** | **305** | *iP* | **Pb** | | **03 03 02.0** | **+0.3** |
| VMUR | | | | *iS* | **Sb** | | **03 03 05.2** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.14** | **305** | P | **Pb** | | **03 03 02.0** | **+0.3** |
| VMUR | | | | S | **Sb** | | **03 03 05.2** | **+0.3** |
| **CLDR** | **Caldiran** | **0.28** | **33** | *ePG* | **Pn** | | **03 03 06.9** | **-0.2** |
| CLDR | | | | *eSG* | **Sn** | | **03 03 13.4** | **0.0** |
| **CLDR** | **Caldiran** | **0.28** | **33** | *ePg* | **Pn** | | **03 03 06.9** | **-0.2** |
| CLDR | | | | *eSg* | **Sn** | | **03 03 13.4** | **0.0** |
| **ERCV** | **ERCIS-VAN** | **0.32** | **291** | *ePG* | **Pg** | | **03 03 03.7** | **+0.1** |
| ERCV | | | | *eSG* | **Sg** | | **03 03 08.2** | **+0.1** |
| **ERCV** | **ERCIS-VAN** | **0.32** | **291** | *ePg* | **Pg** | | **03 03 03.7** | **+0.1** |
| ERCV | | | | *eSg* | **Sg** | | **03 03 08.2** | **+0.1** |
| **VANB** | **Van** | **0.41** | **220** | *ePG* | **Pb** | | **03 03 07.0** | **+0.8** |
| VANB | | | | *eSG* | **Sb** | | **03 03 13.4** | **+1.1** |
| **VANB** | **Van** | **0.41** | **220** | *ePg* | **Pb** | | **03 03 07.0** | **+0.8** |
| VANB | | | | *eSg* | **Sb** | | **03 03 13.4** | **+1.1** |
| **TVAN** | **Van** | **0.45** | **213** | *iP* | **Pb** | | **03 03 06.8** | **-0.2** |
| TVAN | | | | *iS* | **Sb** | | **03 03 13.6** | **-0.1** |
| **TVAN** | **Van** | **0.45** | **213** | P | **Pb** | | **03 03 06.8** | **-0.2** |
| TVAN | | | | S | **Sb** | | **03 03 13.6** | **-0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.79** | **263** | *iP* | **Pg** | | **03 03 11.7** | **-0.6** |
| ADCV | | | | *iS* | **Sg** | | **03 03 22.2** | **-0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.79** | **263** | P | **Pg** | | **03 03 11.7** | **-0.6** |
| ADCV | | | | S | **Sg** | | **03 03 22.2** | **-0.4** |
| **GEVA** | **Gevas** | **0.79** | **221** | *iP* | **Pb** | | **03 03 13.2** | **+0.4** |
| GEVA | | | | *iS* | **Sb** | | **03 03 22.7** | **-0.7** |
| **GEVA** | **Gevas** | **0.79** | **221** | P | **Pb** | | **03 03 13.1** | **+0.4** |
| GEVA | | | | S | **Sb** | | **03 03 22.7** | **-0.7** |
| **TUTA** | **Tutak** | **0.86** | **305** | *iP* | **Pg** | | **03 03 13.6** | **-0.1** |
| TUTA | | | | *iS* | **Sb** | | **03 03 25.6** | **0.0** |
| **TUTA** | **Tutak** | **0.86** | **305** | P | **Pg** | | **03 03 13.6** | **-0.1** |
| TUTA | | | | S | **Sb** | | **03 03 25.6** | **0.0** |
| **AGRB** | **Hanur-Agry** | **0.88** | **320** | *ePG* | **Pg** | | **03 03 14.1** | **+0.1** |
| AGRB | | | | *eSG* | **Sb** | | **03 03 25.7** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **0.88** | **320** | *ePg* | **Pg** | | **03 03 14.1** | **+0.1** |
| AGRB | | | | *eSg* | **Sb** | | **03 03 25.7** | **-0.3** |
| **CUKT** | **Cukurca** | **1.66** | **183** | *ePN* | **Pn** | | **03 03 25.9** | **0.0** |
| **CUKT** | **Cukurca** | **1.66** | **183** | *ePn* | **Pn** | | **03 03 25.9** | **0.0** |

*ISK* **15** *03:08:52.8, 38.97N×43.75E, h13km, MD2.5*
*DDA* **15** *03:08:52.6, 39.09N×43.66E, h7km, Ml2.3*
*ISCJB* **15** *03:08:53.3±0.7, 38.99N±0.05×43.75E±0.06, h13km±6km, Error ellipse: s-maj=8.8km s-min=6.0km az=141.6*
*CSEM* **15** *03:08:53.0±0.2, 38.98N×43.77E, h10km, ML2.3, Error ellipse: s-maj=6.6km s-min=4.3km az=120.0*
**ISC 15 03:08:53.3**±0.9, **38.97N**±0.03×**43.75E**±0.03, **h10**km±7km, **n20**, σ0.9**49**/32, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.14** | **278** | *iP* | **Pg** | | **03 08 55.8** | **-0.8** |
| VMUR | | | | *iS* | **Sg** | | **03 08 59.6** | **+0.6** |
| **VMUR** | **Van-Muradiye** | **0.14** | **278** | P | **Pg** | | **03 08 55.8** | **-0.8** |
| VMUR | | | | S | **Sg** | | **03 08 59.6** | **+0.6** |
| **CLDR** | **Caldiran** | **0.22** | **38** | *ePG* | **Pg** | | **03 08 57.8** | **-0.2** |
| CLDR | | | | *eSG* | **Sg** | | **03 09 01.7** | **+0.6** |
| **CLDR** | **Caldiran** | **0.22** | **38** | *iP* | **Pg** | | **03 08 57.5** | **-0.4** |
| CLDR | | | | *iS* | **Sg** | | **03 09 02.1** | **+1.0** |
| **CLDR** | **Caldiran** | **0.22** | **38** | P | **Pg** | | **03 08 57.5** | **-0.4** |
| **CLDR** | **Caldiran** | **0.22** | **38** | *ePg* | **Pg** | | **03 08 57.8** | **-0.2** |
| CLDR | | | | *eSg* | **Sg** | | **03 09 01.7** | **+0.6** |
| CLDR | | | | S | **Sg** | | **03 09 02.1** | **+1.0** |
| **ERCV** | **ERCIS-VAN** | **0.32** | **279** | *ePG* | **Pg** | | **03 08 60.0** | **+0.1** |
| ERCV | | | | *eSG* | **Sg** | | **03 09 04.9** | **+0.7** |
| **ERCV** | **ERCIS-VAN** | **0.32** | **279** | *ePg* | **Pg** | | **03 09 00.0** | **+0.1** |
| ERCV | | | | *eSg* | **Sg** | | **03 09 04.9** | **+0.7** |
| **VANB** | **Van** | **0.47** | **217** | *ePG* | **Pb** | | **03 09 03.7** | **-0.1** |
| **VANB** | **Van** | **0.47** | **217** | *ePg* | **Pb** | | **03 09 03.7** | **-0.1** |
| **TVAN** | **Van** | **0.52** | **211** | *iP* | **Pg** | | **03 09 03.2** | **-0.2** |
| TVAN | | | | *iS* | **Sb** | | **03 09 12.3** | **+0.1** |
| **TVAN** | **Van** | **0.52** | **211** | P | **Pg** | | **03 09 03.2** | **-0.2** |
| TVAN | | | | S | **Sb** | | **03 09 12.3** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **0.84** | **316** | *ePG* | **Pg** | | **03 09 09.4** | **-0.2** |
| AGRB | | | | *eSG* | **Sb** | | **03 09 21.6** | **0.0** |
| **AGRB** | **Hanur-Agry** | **0.84** | **316** | *ePg* | **Pg** | | **03 09 09.4** | **-0.2** |
| AGRB | | | | *eSg* | **Sb** | | **03 09 21.6** | **0.0** |
| **TASB** | **TASBURUN-IGDIR** | **1.08** | **20** | *ePN* | **Pn** | | **03 09 14.2** | **-0.4** |
| **TASB** | **TASBURUN-IGDIR** | **1.08** | **20** | *ePn* | **Pn** | | **03 09 14.2** | **-0.4** |
| **CUKT** | **Cukurca** | **1.72** | **184** | *ePN* | **Pn** | | **03 09 23.4** | **-0.1** |
| **CUKT** | **Cukurca** | **1.72** | **184** | *ePn* | **Pn** | | **03 09 23.4** | **-0.1** |
| **SIRT** | **Sirnak** | **1.79** | **215** | *ePN* | **Pn** | | **03 09 24.2** | **-0.3** |
| **SIRT** | **Sirnak** | **1.79** | **215** | *ePn* | **Pn** | | **03 09 24.2** | **-0.3** |

*ISK* **15** *03:10:36.4, 38.72N×43.24E, h5km, MD2.5*
*ISCJB* **15** *03:10:38.0±0.5, 38.70N±0.03×43.16E±0.04, h9km±8km, Error ellipse: s-maj=5.4km s-min=4.5km az=169.9*
*CSEM* **15** *03:10:37.6±0.2, 38.70N×43.17E, h2km, MD2.5, Error ellipse: s-maj=5.3km s-min=4.4km az=97.0*
*DDA* **15** *03:10:37.6, 38.69N×43.19E, h7km, Ml2.7*
**ISC 15 03:10:38.0**±1.0, **38.70N**±0.03×**43.17E**±0.03, **h13**km±9km, **n22**, σ0.9**83**/38, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.20** | **121** | *ePG* | **Pg** | | **03 10 42.1** | **-0.4** |
| VANB | | | | *eSG* | **Sg** | | **03 10 47.0** | **+1.4** |
| **VANB** | **Van** | **0.20** | **121** | *ePg* | **Pg** | | **03 10 42.1** | **-0.4** |
| VANB | | | | *eSg* | **Sg** | | **03 10 47.0** | **+1.4** |
| **TVAN** | **Van** | **0.25** | **132** | *iP* | **Pg** | | **03 10 42.1** | **-1.3** |
| TVAN | | | | *iS* | **Sg** | | **03 10 46.9** | **-0.2** |
| **TVAN** | **Van** | **0.25** | **132** | P | **Pg** | | **03 10 42.1** | **-1.3** |
| TVAN | | | | S | **Sg** | | **03 10 46.9** | **-0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.36** | **288** | *iP* | **Pg** | | **03 10 45.1** | **-0.3** |
| ADCV | | | | *iS* | **Sb** | | **03 10 52.0** | **-0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.36** | **288** | P | **Pg** | | **03 10 45.1** | **-0.3** |
| ADCV | | | | S | **Sb** | | **03 10 52.0** | **-0.2** |
| **GEVA** | **Gevas** | **0.40** | **193** | *iP* | **Pg** | | **03 10 44.4** | **-1.5** |
| GEVA | | | | *iS* | **Sg** | | **03 10 51.7** | **+0.4** |
| **GEVA** | **Gevas** | **0.40** | **193** | P | **Pg** | | **03 10 44.4** | **-1.5** |
| GEVA | | | | S | **Sg** | | **03 10 51.7** | **+0.4** |
| **VMUR** | **Van-Muradiye** | **0.43** | **47** | *iP* | **Pg** | | **03 10 46.5** | **-0.1** |
| VMUR | | | | *iS* | **Sb** | | **03 10 54.8** | **+0.8** |
| **VMUR** | **Van-Muradiye** | **0.43** | **47** | P | **Pg** | | **03 10 46.5** | **-0.1** |
| VMUR | | | | S | **Sb** | | **03 10 54.8** | **+0.8** |
| **CLDR** | **Caldiran** | **0.73** | **52** | *ePG* | **Pg** | | **03 10 50.8** | **-1.5** |
| CLDR | | | | *eSG* | **Sg** | | **03 11 01.4** | **-0.6** |
| **CLDR** | **Caldiran** | **0.73** | **52** | *iP* | **Pg** | | **03 10 51.7** | **-0.6** |
| CLDR | | | | *iS* | **Sb** | | **03 11 03.5** | **+0.7** |
| **CLDR** | **Caldiran** | **0.73** | **52** | *ePg* | **Pg** | | **03 10 50.8** | **-1.5** |
| **CLDR** | **Caldiran** | **0.73** | **52** | P | **Pg** | | **03 10 51.7** | **-0.6** |
| CLDR | | | | *eSg* | **Sg**

0.3nm,0.6s,baz=119,slow=2.4,SNR=5.4
**ILAR Eielson Array 149.22 313** PKPbc **PKPbc 03 31 33.0 -0.3**
4.4nm,0.7s,baz=127,slow=2.2,SNR=70
**SONM Songino Array 151.15 86** PKPbc **PKPbc 03 31 38.6 0.0**
0.5nm,0.5s,baz=210,slow=4.4,SNR=4.3

*NNC **15** 03:17:01.4±1.5, 42°.36N×70°.88E, h17km±19km, mb3.0, mpv2.4, Error ellipse: s-maj=18.9km s-min=5.8km az=46.0, Suspected Mining explosion.*
*SOME **15** 03:17:01.9, 42°.37N×70°.88E, h0km*
*ISCJB **15** 03:17:02.4±0.5, 42°.36N±0°.04×70°.91E±0°.04, h0km, Error ellipse: s-maj=5.3km s-min=3.7km az=10.0*
*KRNET **15** 03:17:04.7±0.1, 42°.32N×71°.16E, h15km, mb2.3*
**ISC 15 03:16:60.0±0.9, 42°.45N±0°.05×70°.87E±0°.03, h0km, n17, σ1§27/32, 19C-11D, Central Kazakhstan**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **IUG** | **Iuzhnay** | **0.69** | **245** | *e*P | **Pb** | **03 17 15.2** | **+0.2** |
| | 14nm,0.2s | | | | | | |
| IUG | | | | *e*S | **Sb** | **03 17 24.9** | **-0.2** |
| | 417nm,0.3s | | | | | | |
| **KK31** | **Karatay Array** | **0.71** | **338** | ⇑P | **Pn** | **03 17 17.2** | **-0.1** |
| | 1.0nm,0.3s,baz=172,slow=17,SNR=86 | | | | | | |
| KK31 | | | | ⇑S | **Sn** | **03 17 28.4** | **-0.5** |
| | 6.1nm,0.3s,baz=162,slow=29,SNR=16 | | | | | | |
| **ARK** | **Arkit** | **1.04** | **128** | ⇓*i*P | **Pb** | **03 17 20.6** | **-0.3** |
| | baz=131 | | | | | | |
| ARK | | | | ⇓*i*S | **Sg** | **03 17 32.7** | **-0.6** |
| | baz=131 | | | | | | |
| **MNAS** | **Manas** | **1.21** | **88** | ⇓*i*P | **Pn** | **03 17 24.3** | **+0.1** |
| | baz=80 | | | | | | |
| MNAS | | | | ⇓*i*S | **Sg** | **03 17 38.9** | **+0.2** |
| | baz=80 | | | | | | |
| **MNAS** | **Manas** | **1.21** | **88** | ⇓P | **Pn** | **03 17 24.2** | **-0.1** |
| | 1.4nm,0.3s | | | | | | |
| MNAS | | | | ⇑S | **Sb** | **03 17 39.4** | **-0.5** |
| | 2.7nm,0.3s | | | | | | |
| **MRKS** | **Merke** | **1.76** | **79** | *e*P | **Pg** | **03 17 34.6** | **+0.9** |
| | 4.7nm,0.3s | | | | | | |
| MRKS | | | | *e*S | **Sg** | **03 17 57.9** | **+1.3** |
| | 8.9nm,0.3s | | | | | | |
| **ARSB** | **Arslanbob** | **1.93** | **125** | ⇑*e*P | **Pb** | **03 17 36.3** | **+0.1** |
| | baz=126 | | | | | | |
| ARSB | | | | ⇑*i*S | **Sn** | **03 17 59.8** | **+0.5** |
| | baz=126 | | | | | | |
| **AML** | **Almayashu** | **2.12** | **98** | ⇑*i*P | **Pg** | **03 17 40.5** | **0.0** |
| | baz=95 | | | | | | |
| AML | | | | ⇑*i*S | **Sb** | **03 18 06.2** | **-0.2** |
| | baz=95 | | | | | | |
| **EKS2** | **Erkin-Say** | **2.16** | **83** | ⇑*e*P | **Pg** | **03 17 41.5** | **+0.2** |
| | baz=79 | | | | | | |
| EKS2 | | | | ⇑*i*S | **Sb** | **03 18 07.6** | **+0.3** |
| | baz=79 | | | | | | |
| **AAK** | **Ala-Archa** | **2.68** | **85** | ⇑*e*P | **Pb** | **03 17 48.9** | **0.0** |
| | baz=82 | | | | | | |
| AAK | | | | ⇑*e*S | **Sb** | **03 18 20.8** | **-1.7** |
| | baz=82 | | | | | | |
| **AAK** | **Ala-Archa** | **2.68** | **85** | ⇓Pg | **Pg** | **03 17 51.3** | **0.0** |
| | 2.4nm,0.5s | | | | | | |
| AAK | | | | ⇑Lg | Lg | 03 18 27.3 | |
| | 1.6nm,0.6s | | | | | | |
| **UCH** | **Uchtor** | **2.71** | **93** | ⇑*e*P | **Pb** | **03 17 49.5** | **0.0** |
| | baz=91 | | | | | | |
| UCH | | | | ⇑*i*S | **Sb** | **03 18 21.7** | **-1.8** |
| | baz=91 | | | | | | |
| **USP** | **Ospenovka** | **2.79** | **72** | ⇑*i*P | **Pb** | **03 17 50.6** | **-0.1** |
| | baz=68 | | | | | | |
| USP | | | | ⇑*i*S | **Sb** | **03 18 23.5** | **-1.9** |
| | baz=68 | | | | | | |
| **KBK** | **Karagaybulak** | **3.02** | **85** | ⇓*e*P | **Pb** | **03 17 53.8** | **-0.9** |
| | baz=82 | | | | | | |
| KBK | | | | ⇓*e*S | **Sn** | **03 18 29.0** | **+2.9** |
| | baz=82 | | | | | | |
| **SFK** | **Sufi-Kurgan** | **3.14** | **140** | ⇓*e*P | **Pb** | **03 17 54.2** | **-2.5** |
| | baz=142 | | | | | | |
| SFK | | | | ⇓*i*S | **Sn** | **03 18 30.4** | **+1.3** |
| | baz=142 | | | | | | |
| **SFK** | **Sufi-Kurgan** | **3.14** | **140** | ⇑Pg | **Pb** | **03 17 56.2** | **-0.6** |
| | 0.3nm,0.3s | | | | | | |
| SFK | | | | ⇓Lg | Lg | 03 18 37.0 | |
| | 4.2nm,0.5s | | | | | | |
| **TKM2** | **Tokmak 2** | **3.51** | **81** | ⇑*e*P | **Pb** | **03 18 00.3** | **-2.8** |
| | baz=78 | | | | | | |
| TKM2 | | | | ⇑*i*S | **Sn** | **03 18 41.1** | **+2.7** |
| | baz=78 | | | | | | |

*SOME **15** 03:25:40.8, 42°.80N×82°.72E, h10km*
*IDC **15** 03:25:42.7±2.5, 42°.98N×82°.77E, h0km, mb1 3.3/5, mb1mx3.1/47, mbtmp3.3/5, ML3.0/5, Error ellipse: s-maj=25.3km s-min=16.4km az=132.0*
*NNC **15** 03:25:46.9±2.5, 43°.08N×82°.65E, h11km±11km, mb3.7, mpv3.4, Error ellipse: s-maj=18.6km s-min=9.7km az=138.0*
**ISC 15 03:25:41.2±1.5, 42°.82N±0°.07×82°.71E±0°.06, h10km, n24, σ2§41/44, 7C-7D, Northern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KTMS** | **Ketmen** | **1.84** | **291** | *e*P | **Pg** | **03 26 17.9** | **+1.5** |
| | 158nm,0.2s | | | | | | |
| KTMS | | | | *e*S | **Sg** | **03 26 43.9** | **+3.6** |
| | 310nm,0.4s | | | | | | |
| **PDGK** | **Podgornoye** | **2.41** | **283** | ⇑Pn | **Pb** | **03 26 25.7** | **+0.9** |
| | 16nm,0.4s | | | | | | |
| PDGK | | | | ⇑Lg | Lg | 03 26 59.7 | |
| | 192nm,0.6s | | | | | | |
| **DJR** | **Jarkent** | **2.61** | **307** | *e*P | **Pb** | **03 26 29.1** | **+1.1** |
| | 35nm,0.3s | | | | | | |
| DJR | | | | *e*S | **Sg** | **03 27 03.3** | **-1.6** |
| | 159nm,0.5s | | | | | | |
| **UZB** | **Uzynbulak** | **2.73** | **278** | *e*P | **Pg** | **03 26 32.1** | **-1.3** |
| | 37nm,0.3s | | | | | | |
| UZB | | | | *e*S | **Sg** | **03 27 09.0** | **+0.3** |
| | 98nm,0.3s | | | | | | |
| **ZHN** | **Zhinishke** | **3.16** | **278** | *e*P | **Pb** | **03 26 37.8** | **+0.4** |
| | 15nm,0.4s | | | | | | |
| ZHN | | | | *e*S | **Sg** | **03 27 19.1** | **-3.4** |
| | 108nm,0.2s | | | | | | |
| **SATY** | **Saty** | **3.17** | **276** | *e*P | **Pb** | **03 26 38.0** | **+0.3** |
| | 36nm,0.4s | | | | | | |
| SATY | | | | *e*S | **Sg** | **03 27 19.7** | **-3.3** |
| | 93nm,0.4s | | | | | | |
| **KURS** | **Kuram** | **3.39** | **283** | *e*P | **Pb** | **03 26 43.3** | **+2.0** |
| KURS | | | | *e*S | **Sg** | **03 27 28.1** | **-1.8** |
| **KAPS** | **Kapalarasan** | **3.45** | **317** | *e*P | **Pb** | **03 26 44.1** | **+1.6** |
| | 7.2nm,0.4s | | | | | | |
| KAPS | | | | *e*S | **Sg** | **03 27 29.3** | **-2.8** |
| | 68nm,0.5s | | | | | | |
| **ARXS** | **Arharly** | **3.82** | **293** | *e*P | **Pg** | **03 26 52.4** | **-1.9** |
| | 18nm,0.3s | | | | | | |
| ARXS | | | | *e*S | **Sg** | **03 27 44.0** | **+0.3** |
| | 46nm,0.6s | | | | | | |
| **MK31** | **Makanchi Array** | **3.99** | **356** | ⇓Pn | **Pn** | **03 26 45.0** | **+2.6** |
| | 1.0nm,0.3s,baz=173,slow=14,SNR=88 | | | | | | |
| MK31 | | | | ⇓Pg | **Pb** | **03 26 53.8** | **+2.3** |
| | 8.3nm,0.6s,baz=180,slow=15,SNR=5.9 | | | | | | |
| MK31 | | | | ⇓Lg | Lg | 03 27 48.5 | |
| | 8.7nm,0.4s,baz=173,slow=25,SNR=4.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **3.99** | **356** | Pn | **Pn** | **03 26 45.1** | **+2.7** |
| | 1.6nm,0.3s,baz=170,slow=14,SNR=66 | | | | | | |
| MKAR | | | | Pg | **Pb** | **03 26 53.6** | **+2.1** |
| | 4.5nm,0.3s,baz=174,slow=16,SNR=32 | | | | | | |
| MKAR | | | | Sn | **Sb** | **03 27 35.9** | **-3.9** |
| | 2.5nm,0.3s,baz=177,slow=30,SNR=5.7 | | | | | | |
| MKAR | | | | Lg | Lg | 03 27 42.8 | |
| | 4.4nm,0.3s,baz=174,slow=27,SNR=7.2 | | | | | | |
| **MAKZ** | **Makanchi** | **4.03** | **353** | ⇓Pn | **Pn** | **03 26 44.8** | **+2.0** |
| | 3.0nm,0.6s | | | | | | |
| MAKZ | | | | ⇑Pg | **Pg** | **03 26 55.3** | **-2.9** |
| | 7.2nm,0.8s | | | | | | |
| MAKZ | | | | ⇓Lg | Lg | 03 27 48.1 | |
| | 14nm,0.6s | | | | | | |
| **KOTS** | **Kotyrbulak** | **4.12** | **278** | *e*P | **Pb** | **03 26 54.3** | **+0.4** |
| **MDOK** | **Medeo** | **4.17** | **277** | *e*P | **Pb** | **03 26 57.0** | **+2.4** |
| | 10nm,0.5s | | | | | | |
| MDOK | | | | *e*S | **Sg** | **03 27 52.1** | **-2.9** |
| | 35nm,0.4s | | | | | | |
| **TNSS** | **Tian-Shan** | **4.24** | **275** | *e*P | **Pb** | **03 26 54.0** | **-2.0** |
| | 4.1nm,0.3s | | | | | | |
| TNSS | | | | *e*S | **Sb** | **03 27 46.9** | **-0.5** |
| | 23nm,0.6s | | | | | | |
| **CHKK** | **Chushkaly** | **4.30** | **286** | *e*P | **Pb** | **03 26 58.1** | **+1.3** |
| | 9.0nm,0.2s | | | | | | |
| CHKK | | | | *e*S | **Sb** | **03 27 53.6** | **+4.8** |
| | 61nm,0.4s | | | | | | |
| **IZV** | **Izvestkoviy** | **4.48** | **275** | *e*P | **Pb** | **03 27 00.8** | **+0.7** |
| | 30nm,0.6s | | | | | | |
| IZV | | | | *e*S | **Sb** | **03 27 58.0** | **+3.8** |
| | 40nm,0.5s | | | | | | |
| **DGS** | **Degeres** | **5.10** | **277** | *e*P | **Pb** | **03 27 12.6** | **+2.0** |
| | 10nm,0.5s | | | | | | |
| DGS | | | | *e*S | **Sg** | **03 28 18.4** | **-6.5** |
| | 26nm,0.6s | | | | | | |
| **AAK** | **Ala-Archa** | **6.05** | **271** | Pn | Pn | 03 27 17.5 | +6.6 |
| | 0.4nm,0.3s,baz=108,slow=6.4,SNR=5.0 | | | | | | |
| AAK | | | | Pg | **Pg** | **03 27 33.6** | **-3.5** |
| | 1.0nm,0.3s,baz=86,slow=12,SNR=6.9 | | | | | | |
| AAK | | | | Lg | Lg | 03 28 55.5 | |
| | 0.5nm,0.3s,baz=22,slow=18,SNR=1.8 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **8.32** | **341** | Pn | **Pn** | **03 27 43.0** | **+1.2** |
| | 0.2nm,0.3s,baz=165,slow=12,SNR=8.8 | | | | | | |
| KURBB | | | | Sn | **Sn** | **03 29 15.3** | **-0.4** |
| | 0.1nm,0.3s,baz=155,slow=22,SNR=6.6 | | | | | | |
| KURBB | | | | Lg | Lg | 03 30 03.4 | |
| | 0.1nm,0.3s,baz=165,slow=31,SNR=3.0 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **8.32** | **341** | ⇑Pn | **Pn** | **03 27 42.4** | **+0.7** |
| | 1.8nm,0.4s | | | | | | |
| KURBB | | | | ⇑Sn | **Sn** | **03 29 15.1** | **-0.6** |
| | 9.1nm,0.8s | | | | | | |
| KURBB | | | | ⇑Lg | Lg | 03 30 01.9 | |
| | 11nm,0.8s | | | | | | |
| **KURK** | **Kurchatov** | **8.38** | **342** | ⇑Pn | **Pn** | **03 27 44.1** | **+1.4** |
| | 2.3nm,0.8s | | | | | | |
| KURK | | | | ⇓Sn | **Sn** | **03 29 16.4** | **-0.8** |
| | 9.1nm,1.0s | | | | | | |
| KURK | | | | ⇓Lg | Lg | 03 30 04.7 | |
| | 4.6nm,0.7s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **11.23** | **6** | Pn | **Pn** | **03 28 21.9** | **+0.4** |
| | 0.3nm,0.3s,baz=194,slow=12,SNR=3.0 | | | | | | |
| **SONM** | **Songino Array** | **17.37** | **65** | P | **P** | **03 29 45.5** | **+0.5** |
| | 0.1nm,0.3s,baz=258,slow=13,SNR=2.9 | | | | | | |

*IDC **15** 03:38:58.5±0.6, 29°.38S×176°.25W, h0km, mb4.4/14, mb1 4.6/14, mb1mx4.5/25, mbtmp4.4/14, MS4.0/9, Ms1 3.9/9, ms1mx3.6/32, Error ellipse: s-maj=22.8km s-min=16.5km az=170.0*
*ISCJB **15** 03:38:59.6±0.3, 29°.80S±0°.05×176°.41W±0°.06, h21km, mb4.8/40, MS4.0/6, Error ellipse: s-maj=9.4km s-min=5.0km az=40.9*
*NEIC **15** 03:39:01.4±3.5, 29°.75S×176°.33W, h23km±24km, mb4.9/30, Error ellipse: s-maj=12.8km s-min=8.7km az=164.0*
**ISC 15 03:39:01.5±0.5, 29°.63S±0°.07×176°.33W±0°.06, h21km, n97, σ1§49/97, mb4.9/40, MS4.0/6, 1C-1D, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **1.44** | **285** | Pn | **Pb** | **03 39 28.2** | **+0.7** |
| | 172nm,0.3s,baz=182,slow=22,SNR=14 | | | | | | |
| RAO | | | | Sn | **Sb** | **03 39 46.8** | **+1.4** |
| | 628nm,0.3s,baz=97,slow=23,SNR=5.7 | | | | | | |
| **RAO** | **Raoul Island** | **1.44** | **285** | *e*Pn | **Pb** | **03 39 28.6** | **+1.1** |
| RAO | | | | *e*Sn | **Sn** | **03 39 44.2** | **-0.4** |
| **URZ** | **Urewera** | **10.18** | **211** | Pn | **Pn** | **03 41 23.2** | **-3.1** |
| | 0.6nm,0.3s,baz=55,slow=12,SNR=3.6 | | | | | | |
| URZ | | | | Sn | **Sn** | **03 43 17.6** | **-2.3** |
| | 4.1nm,0.3s,baz=253,slow=23,SNR=9.5 | | | | | | |
| **BKZ** | **Black Stump Fm** | **11.20** | **210** | *e*Pn | **Pn** | **03 41 37.6** | **-2.8** |
| BKZ | | | | *e*Sn | **Sn** | **03 43 46.7** | **+1.7** |
| **BFZ** | **Birch Farm** | **12.58** | **207** | *e*Pn | **Pn** | **03 41 58.4** | **-0.8** |
| BFZ | | | | *e*Sn | **Sn** | **03 44 13.6** | **-5.1** |
| **THZ** | **Tophouse** | **14.92** | **213** | *e*Pn | **Pn** | **03 42 32.5** | **+1.3** |
| **KHZ** | **Kahutara** | **15.15** | **210** | *e*Pn | **Pn** | **03 42 31.6** | **-2.5** |
| | 64nm,0.7s | | | | | | |
| **OXZ** | **Oxford** | **16.54** | **211** | *e*Pn | **Pn** | **03 42 49.4** | **-2.6** |
| | 67nm,1.3s | | | | | | |
| **RAR** | **Rarotonga** | **17.13** | **64** | LR | LR | 03 47 28.8 | |
| | comp=Z,332nm,21.9s,baz=215,slow=30 | | | | | | |
| **DZM** | **Mont Dzumac** | **17.23** | **292** | LR | LR | 03 48 22.0 | |
| | comp=Z,590nm,18.7s,baz=158,slow=33 | | | | | | |
| **DZM** | **Mont Dzumac** | **17.23** | **292** | *e*LR | LR | 03 47 13.4 | |
| | 1µm,27.4s | | | | | | |
| **RPZ** | **Rata Peaks** | **17.29** | **212** | P | **Pn** | **03 42 59.7** | **-1.9** |
| | 1.0nm,0.3s,baz=244,slow=15,SNR=1.9 | | | | | | |
| RPZ | | | | S | Sn | 03 46 00.6 | -13 |
| | 0.4nm,0.3s,baz=261,slow=13,SNR=2.7 | | | | | | |
| RPZ | | | | LR | LR | 03 51 45.2 | |
| | comp=Z,498nm,18.0s,baz=66,slow=44 | | | | | | |
| **RPZ** | **Rata Peaks** | **17.29** | **212** | *e*Pn | **Pn** | **03 42 59.6** | **-1.9** |
| | 93nm,1.5s | | | | | | |
| RPZ | | | | *e*Sn | Sn | 03 46 00.6 | -13 |
| **TBI** | **Tubuai** | **24.81** | **82** | *e*LR | LR | 03 50 11.6 | |
| | 634nm,27.8s,baz=252 | | | | | | |
| **PPT2** | **Papeete2** | **27.21** | **70** | *e*LR | LR | 03 51 13.0 | |
| | 561nm,26.8s,baz=237 | | | | | | |
| **PPT** | **Papeete** | **27.22** | **70** | LR | LR | 03 54 17.0 | |
| | comp=Z,222nm,18.3s,baz=198,slow=34 | | | | | | |
| **CTA** | **Charters Tower** | **35.13** | **277** | P | **P** | **03 45 54.8** | **+1.1** |
| | 7.8nm,0.6s,baz=105,slow=10,SNR=10 | | | | | | |
| **CTAO** | **Charters Tower** | **35.13** | **277** | *e*P | **P** | **03 45 55.5** | **+1.8** |
| | 25nm,1.4s | | | | | | |
| **STKA** | **Stephens Creek** | **36.07** | **256** | P | **P** | **03 46 02.9** | **+1.2** |
| | 10nm,0.6s,baz=99,slow=10,SNR=26 | | | | | | |
| STKA | | | | LR | LR | 03 59 12.2 | |
| | comp=Z,406nm,18.5s,baz=178,slow=34 | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **39.67** | **66** | *e*LR | LR | 03 56 56.8 | |
| | 317nm,27.0s | | | | | | |
| **COEN** | **Coen** | **40.48** | **284** | *e*P | **P** | **03 46 37.1** | **-1.9** |
| | 7.0nm,0.8s | | | | | | |
| **BBOO** | **Buckleboo** | **40.58** | **253** | *e*P | **P** | **03 46 40.6** | **+1.0** |
| | 25nm,1.0s | | | | | | |
| **AS01** | **Alice Springs** | **44.57** | **265** | *e*P | **P** | **03 47 11.9** | **-0.3** |
| **AS31** | **Alice Springs** | **44.61** | **265** | *e*P | **P** | **03 47 12.8** | **+0.2** |
| | 1.3nm,0.6s | | | | | | |
| AS31 | | | | *e*PcP | **PP** | **03 48 57.5** | **+0.7** |
| **ASAR** | **Alice Springs** | **44.61** | **265** | P | **P** | **03 47 12.0** | **-0.5** |
| | 2.7nm,0.6s,baz=99,slow=7.4,SNR=48 | | | | | | |
| ASAR | | | | PcP | **PP** | **03 48 57.5** | **+0.7** |
| | 0.3nm,0.5s,baz=128,slow=3.5,SNR=4.1 | | | | | | |
| ASAR | | | | LR | LR | 04 04 17.8 | |
| | comp=Z,299nm,20.3s,baz=162,slow=34 | | | | | | |
| **WRAB** | **Tennant Creek** | **45.53** | **271** | *e*P | **P** | **03 47 20.1** | **+0.3** |
| | 15nm,0.6s | | | | | | |
| **WR1** | **Warramunga Arr** | **45.53** | **271** | *e*P | **P** | **03 47 18.9** | **-1.0** |
| | 11nm,0.7s | | | | | | |
| **WRA** | **Warramunga Arr** | **45.53** | **271** | P | **P** | **03 47 18.9** | **-1.0** |
| | 7.7nm,0.6s,baz=108,slow=7.8,SNR=83 | | | | | | |
| **FORT** | **Forrest** | **47.65** | **254** | *e*P | **P** | **03 47 34.3** | **-2.0** |
| | 287nm,0.9s | | | | | | |
| **VNDA** | **Vanda** | **49.01** | **186** | P | **P** | **03 47 48.1** | **+2.0** |
| | 2.3nm,1.0s,baz=18,slow=6.8,SNR=5.4 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **53.82** | **268** | P | **P** | **03 48 22.9** | **-0.1** |
| | 5.8nm,0.8s,baz=181,slow=7.9 | | | | | | |
| **QSPA** | **South Pole Qui** | **60.48** | **180** | *e*P | **P** | **03 49 12.5** | **+2.9** |
| | 16nm,1.0s | | | | | | |
| **MAW** | **Mawson** | **73.53** | **200** | P | **P** | **03 50 35.3** | **+3.0** |
| | 7.0nm,1.1s,baz=86,slow=4.8,SNR=6.5 | | | | | | |
| MAW | | | | LR | LR | 04 24 21.4 | |
| | comp=Z,34nm,19.7s,baz=92,slow=37 | | | | | | |
| **MAW** | **Mawson** | **73.53** | **200** | *e*P | **P** | **03 50 35.7** | **+3.5** |
| | 4.8nm,1.4s | | | | | | |
| **SYO** | **Syowa Base** | **78.18** | **192** | ⇑*e*X | P | 03 50 50.0 | -8.8 |
| **SYO** | **Syowa Base** | **78.18** | **192** | ⇓*ep*P | pP | 03 51 05.0 | -0.7 |
| **MJAR** | **Matsushiro Arr** | **78.46** | **324** | P | **P** | **03 50 59.9** | **-0.8** |
| | 1.7nm,0.8s,baz=101,slow=11,SNR=3.6 | | | | | | |
| **PLCA** | **Paso Flores** | **81.96** | **132** | LR | LR | 04 20 12.3 | |
| | comp=Z,51nm,18.8s,baz=324,slow=30 | | | | | | |
| **CARC** | **Carrizo Plain** | **83.67** | **43** | *e*P | **P** | **03 51 31.6** | **+3.0** |
| **JFP** | **Foothills Park** | **83.73** | **41** | *e*P | **P** | **03 51 26.9** | **-1.9** |
| **PASC** | **Pasadena Art C** | **83.92** | **45** | *e*P | **P** | **03 51 32.6** | **+2.8** |
| **BTPC** | **Burnt Peak** | **84.02** | **44** | *e*P | **P** | **03 51 30.2** | **-0.4** |
| **KSRS** | **Korea Array** | **84.72** | **319** | P | **P** | **03 51 32.4** | **-1.3** |
| | 1.4nm,0.8s,baz=120,slow=5.7,SNR=2.5 | | | | | | |
| **KS15** | **Wonju Array Si** | **84.73** | **319** | *e*P | **P** | **03 51 32.4** | **-1.4** |
| **KSAR** | **Wonju Array Be** | **84.73** | **319** | P | **P** | **03 51 32.4** | **-1.4** |
| **PETK** | **Petropavlovsk-** | **85.45** | **345** | P | **P** | **03 51 36.5** | **-0.6** |
| | 2.6nm,0.6s,baz=106,slow=4.0,SNR=3.1 | | | | | | |
| **PEA1** | **Petropavlovsk-** | **85.45** | **345** | *e*P | **P** | **03 51 36.5** | **-0.6** |
| **AFDM** | **Forest Hills D** | **85.53** | **40** | *e*P | **P** | **03 51 38.3** | **+0.4** |
| | 5.1nm,1.2s | | | | | | |
| **WAKR** | **Walker** | **86.09** | **41** | *e*P | **P** | **03 51 42.3** | **+1.4** |
| | 30nm,1.8s | | | | | | |
| **NV01** | **Mina Array Sit** | **86.70** | **42** | *e*P | **P** | **03 51 44.0** | **0.0** |
| **TPNV** | **Topopah Spring** | **86.93** | **44** | *e*P | **P** | **03 51 44.8** | **-0.2** |
| | 31nm,1.8s | | | | | | |
| **Y14A** | **Wickenburg** | **87.04** | **48** | *e*P | **P** | **03 51 46.5** | **+1.0** |
| | 28nm,1.1s | | | | | | |
| **KVN** | **Kaiserville** | **87.23** | **42** | *e*P | **P** | **03 51 46.5** | **0.0** |
| | 4.1nm,1.0s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **87.34** | **326** | P | **P** | **03 51 46.9** | **+0.3** |
| | 2.1nm,0.7s,baz=156,slow=3.5,SNR=3.2 | | | | | | |
| **X16A** | **Lo Mia Camp, P** | **88.35** | **48** | *e*P | **P** | **03 51 52.9** | **+0.9** |
| | 6.3nm,1.2s | | | | | | |
| **LCMT** | **Little Creek M** | **88.82** | **46** | *e*P | **P** | **03 51 55.1** | **+1.1** |
| | 5.3nm,1.1s | | | | | | |
| **U15A** | **North Rim** | **89.05** | **46** | *e*P | **P** | **03 51 56.1** | **+0.8** |
| | 6.0nm,0.9s | | | | | | |
| **WUAZ** | **Wupatki** | **89.07** | **48** | *e*P | **P** | **03 51 56.6** | **+1.3** |
| | 6.8nm,1.1s | | | | | | |
| **KNB** | **Kanab** | **89.08** | **46** | *e*P | **P** | **03 51 56.2** | **+0.9** |
| | 5.9nm,0.9s | | | | | | |
| **MTPU** | **Mount Pierson** | **90.12** | **45** | *e*P | **P** | **03 52 01.7** | **+1.4** |
| | 9.5nm,1.2s | | | | | | |
| **LTX** | **Lajitas** | **90.75** | **56** | *e*P | **P** | **03 52 03.1** | **-0.1** |
| **TX31** | **Lajitas Ar. Si** | **90.75** | **56** | *e*P | **P** | **03 52 02.8** | **-0.4** |
| **TXAR** | **Lajitas Array** | **90.75** | **56** | P | **P** | **03 52 03.1** | **-0.1** |
| | 1.1nm,0.8s,baz=210,slow=7.2,SNR=7.4 | | | | | | |
| **G08A** | **Pilot Rock** | **90.97** | **36** | *e*P | **P** | **03 52 04.5** | **+0.6** |
| | 9.3nm,1.3s | | | | | | |
| **MFID** | **Camas Ranch** | **91.40** | **39** | *e*P | **P** | **03 52 06.5** | **+0.6** |
| | 8.4nm,1.3s | | | | | | |
| **HVU** | **Hansel Valley** | **92.09** | **42** | *e*P | **P** | **03 52 09.7** | **+0.5** |
| | 9.3nm,1.6s | | | | | | |
| **E09A** | **Wood Farm, Sta** | **92.22** | **36** | *e*P | **P** | **03 52 09.4** | **0.0** |
| | 9.0nm,1.1s | | | | | | |
| **F10A** | **Beach Ranch, E** | **92.33** | **37** | *e*P | **P** | **03 52 08.7** | **-1.5** |
| | 9.7nm,1.1s | | | | | | |
| **BJT** | **Baijiatuan** | **93.40** | **315** | *e*P | **P** | **03 52 12.2** | **-2.9** |
| | 32nm,0.8s | | | | | | |
| **FXWY** | **Fox Creek** | **94.25** | **41** | *e*P | **P** | **03 52 19.9** | **+0.7** |
| | 6.9nm,1.4s | | | | | | |
| **PD31** | **Pinedale Array** | **94.58** | **43** | *e*P | **P** | **03 52 19.8** | **-0.9** |
| **PDAR** | **Pinedale Array** | **94.58** | **43** | P | **P** | **03 52 19.8** | **-0.9** |
| | 0.2nm,0.6s,baz=308,slow=3.3,SNR=3.4 | | | | | | |
| **BOZ** | **Bozeman (W)** | **95.11** | **40** | *e*P | **P** | **03 52 23.1** | **+0.2** |
| | 3.4nm,1.0s | | | | | | |
| **ILAR** | **Eielson Array** | **96.86** | **12** | P | **P** | **03 52 29.4** | **-0.9** |
| | 1.1nm,0.9s,baz=218,slow=4.6,SNR=7.0 | | | | | | |
| **ILB** | **Eielson Array** | **96.86** | **12** | *e*P | **P** | **03 52 29.4** | **-0.9** |
| **CPUP** | **Villa Florida** | **99.31** | **127** | LR | LR | 04 30 33.5 | |
| | comp=Z,50nm,19.1s,baz=326,slow=31 | | | | | | |
| **MK32** | **Makanchi Array** | **118.39** | **310** | *e*PKPdf | **PKPdf** | **03 57 44.9** | **-2.3** |
| **MKAR** | **Makanchi Array** | **118.39** | **310** | PKP | **PKPdf** | **03 57 44.9** | **-2.3** |
| | 0.8nm,0.8s,baz=180,slow=1.8,SNR=2.9 | | | | | | |
| **BVAR** | **Borovoye Array** | **126.87** | **316** | PKP | **PKPdf** | **03 58 03.1** | **-0.1** |
| | 1.7nm,0.8s,baz=97,slow=3.4,SNR=7.4 | | | | | | |
| **FIA0** | **FINESS Array S** | **144.90** | **341** | *e*PKPbc | **PKPab** | **03 58 34.3** | **-1.1** |
| **FINES** | **FINESS Array B** | **144.90** | **341** | PKP | **PKPab** | **03 58 34.3** | **-1.1** |
| | 4.8nm,0.7s,baz=72,slow=3.0,SNR=13 | | | | | | |
| **OBN** | **Obninsk** | **145.35** | **327** | PKPbc | **PKPbc** | **03 58 36.9** | **-0.1** |
| | 13nm,0.4s,baz=18,slow=12,SNR=4.3 | | | | | | |
| **KBZ** | **Khabaz** | **145.87** | **305** | PKPbc | **PKPab** | **03 58 39.9** | **+0.4** |
| | 1.9nm,0.8s,baz=86,slow=3.1,SNR=4.3 | | | | | | |
| **KVAR** | **Kislovodsk Ar** | **145.97** | **306** | PKPbc | **PKPab** | **03 58 41.0** | **+0.9** |
| | 2.4nm,0.4s,baz=98,slow=2.2,SNR=4.5 | | | | | | |
| **KIV** | **Kislovodsk** | **145.98** | **306** | *e*PKPdf | **PKPab** | **03 58 41.0** | **+0.9** |
| **NB2** | **NORSAR Subarra** | **148.19** | **353** | PKP | **PKPbc** | **03 58 44.3** | **-0.9** |
| | comp=Z,0.7nm,0.6s,baz=25,slow=2.7 | | | | | | |
| **NB200** | **NORSAR Array S** | **148.19** | **353** | *e*PKPbc | **PKPbc** | **03 58 44.5** | **-0.7** |
| **NOA** | **NORSAR Array B** | **148.19** | **353** | PKPbc | **PKPbc** | **03 58 44.5** | **-0.7** |
| | comp=Z,1.9nm,0.8s,baz=45,slow=4.8,SNR=5.1 | | | | | | |
| **ASF** | **Jabal al Asfar** | **151.44** | **284** | PKPbc | **PKPbc** | **03 58 55.4** | **+1.3** |
| | comp=Z,2.3nm,0.7s,baz=106,slow=3.1,SNR=4.4 | | | | | | |
| **AKASG** | **Malin Array Be** | **151.54** | **325** | PKPbc | **PKPbc** | **03 58 52.8** | **-0.8** |
| | comp=Z,6.2nm,0.6s,baz=45,slow=3.0,SNR=32 | | | | | | |
| **AKBB** | **Malin Array Si** | **151.54** | **325** | *e*PKPbc | **PKPbc** | **03 58 53.3** | **-0.3** |
| **MMAI** | **Mount Meron Ar** | **152.74** | **285** | PKPbc | **PKPbc** | **03 58 58.4** | **+1.4** |
| | comp=Z,1.1nm,0.6s,baz=90,slow=6.1,SNR=2.9 | | | | | | |
| **EIL** | **Elat** | **152.86** | **278** | PKPbc | **PKPbc** | **03 58 57.9** | **+0.6** |
| | comp=Z,3.7nm,0.8s,baz=49,slow=9.3,SNR=3.3 | | | | | | |
| **BR101** | **Keskin Array S** | **153.49** | **300** | *e*PKPbc | **PKPbc** | **03 58 58.1** | **-0.5** |
| BR101 | | | | *e*PKPab | **PKPab** | **03 59 12.4** | **+1.5** |
| **BRTR** | **Keskin Array B** | **153.49** | **300** | PKPbc | **PKPbc** | **03 58 58.1** | **-0.5** |
| | comp=Z,1.5nm,1.1s,baz=127,slow=2.1,SNR=5.5 | | | | | | |
| BRTR | | | | PKPab | **PKPab** | **03 59 12.4** | **+1.5** |
| | comp=Z,0.6nm,0.6s,baz=119,slow=4.0,SNR=4.0 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **163.49** | **173** | PKP | **PKPdf** | **03 59 03.6** | **+0.2** |
| | comp=Z,0.7nm,0.9s,baz=263,slow=3.3,SNR=2.7 | | | | | | |
| TORD | | | | PKPab | **PKPab** | **03 59 55.0** | **+0.6** |
| | comp=Z,3.2nm,0.8s,baz=185,slow=4.2,SNR=17 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **163.50** | **173** | *e*PKPdf | **PKPdf** | **03 59 03.6** | **+0.2** |
| TOA1 | | | | *e*PKPab | **PKPab** | **03 59 55.0** | **+0.6** |

*ISCJB **15** 03:59:23.3±1.3, 36°.57N±0°.05×141°.01E±0°.07, h11km±6km, mb3.4/2, Error ellipse: s-maj=10.5km s-min=6.4km az=38.5*
*IDC **15** 03:59:23.3±1.5, 36

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| MJAR | | | | S | **S** | **04 25 26.3** | **-0.2** |
| | 1.1nm,0.3s,baz=214,slow=13,SNR=11 | | | | | | |
| **JRY** | **Ryogami san** | **2.96** | **55** | ⇓P | **Pn** | **04 24 37.3** | **+0.7** |
| JRY | | | | S | **S** | **04 25 28.1** | **+0.5** |
| **BSO1** | **Boso 1** | **4.19** | **84** | P | **Pn** | **04 24 46.1** | **-0.8** |
| **JNU** | **Nakatsue** | **4.37** | **255** | P | **Pn** | **04 24 49.7** | **+0.3** |
| | 2.3nm,0.3s,baz=103,slow=4.0,SNR=7.3 | | | | | | |
| JNU | | | | S | **S** | **04 25 49.2** | **-1.7** |
| | 0.5nm,0.3s,baz=348,slow=18,SNR=2.1 | | | | | | |
| **KSRS** | **Korea Array** | **7.20** | **298** | P | **P** | **04 25 20.1** | **+0.1** |
| | 0.8nm,0.3s,baz=114,slow=11,SNR=14 | | | | | | |
| KSRS | | | | S | **S** | **04 26 45.9** | **-0.1** |
| | 0.2nm,0.3s,baz=105,slow=24,SNR=4.2 | | | | | | |
| **JCJ** | **Chichijima** | **9.00** | **142** | P | **Pn** | **04 25 36.6** | **-3.5** |
| | 3.6nm,0.3s,baz=312,slow=23,SNR=10 | | | | | | |
| JCJ | | | | S | S | 04 27 14.8 | -9.2 |
| | 18nm,0.3s,baz=306,slow=23,SNR=22 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **10.32** | **344** | P | **P** | **04 25 54.3** | **-0.1** |
| | 0.4nm,0.3s,baz=168,slow=10,SNR=12 | | | | | | |
| **ASAJ** | **Asahikawa** | **11.05** | **26** | P | **P** | **04 26 02.3** | **-0.3** |
| | 0.8nm,0.3s,baz=226,slow=14,SNR=8.2 | | | | | | |
| ASAJ | | | | S | **S** | **04 28 02.2** | **-3.5** |
| | 0.8nm,0.3s,baz=105,slow=33,SNR=2.1 | | | | | | |
| **KLR** | **Kul'dur** | **15.21** | **350** | P | **P** | **04 26 46.2** | **-1.8** |
| | 0.0nm,0.3s,baz=162,slow=9.7,SNR=5.2 | | | | | | |
| **SONM** | **Songino Array** | **25.84** | **310** | P | **P** | **04 28 31.6** | **+1.0** |
| | 1.8nm,0.8s,baz=125,slow=9.0,SNR=8.0 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **36.47** | **254** | P | **P** | **04 30 03.4** | **+0.8** |
| | 1.1nm,0.3s,baz=90,slow=5.7,SNR=4.2 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **40.54** | **315** | P | **P** | **04 30 35.7** | **+0.2** |
| | 0.4nm,0.3s,baz=71,slow=10,SNR=3.0 | | | | | | |
| ZALV | | | | PcP | **PcP** | **04 32 28.3** | **-0.4** |
| | 0.7nm,0.4s,baz=108,slow=4.7,SNR=3.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **41.84** | **304** | P | **P** | **04 30 46.2** | **+0.1** |
| | 2.3nm,0.6s,baz=92,slow=9.1,SNR=12 | | | | | | |
| **WRA** | **Warramunga Arr** | **53.99** | **182** | P | **P** | **04 32 18.0** | **-0.1** |
| | 0.8nm,0.5s,baz=358,slow=7.7,SNR=18 | | | | | | |
| **ILAR** | **Eielson Array** | **54.14** | **31** | P | **P** | **04 32 20.1** | **+1.5** |
| | 0.7nm,1.0s,baz=272,slow=8.0,SNR=7.7 | | | | | | |
| **ASAR** | **Alice Springs** | **57.71** | **182** | P | **P** | **04 32 44.5** | **+0.4** |
| | 0.5nm,0.7s,baz=16,slow=7.6,SNR=4.9 | | | | | | |
| **INK** | **Inuvik** | **58.79** | **26** | P | **P** | **04 32 52.1** | **+1.2** |
| | 0.6nm,0.4s,baz=264,slow=5.1,SNR=8.1 | | | | | | |
| **FINES** | **FINESS Array B** | **69.06** | **331** | P | **P** | **04 33 56.8** | **-0.3** |
| | 2.5nm,0.9s,baz=48,slow=2.8,SNR=4.5 | | | | | | |
| **KBZ** | **Khabaz** | **59.21** | **309** | P | **P** | **04 33 58.8** | **+0.6** |
| | 3.2nm,0.9s,baz=27,slow=6.8,SNR=6.4 | | | | | | |
| **BRTR** | **Keskin Array B** | **77.20** | **309** | P | **P** | **04 34 44.9** | **+0.2** |
| | 1.3nm,0.8s,baz=90,slow=4.3,SNR=10.0 | | | | | | |

**MEX 15 04:41:26.8±0.8, 26°29N×111°73W, h5km, MD3.6, Gulf of California**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SRIG** | **Santa Rosalia** | **1.12** | **336** | *e*P | Pg | 04 41 44.7 | -3.6 |
| SRIG | | | | *e*S | Sg | 04 42 00.7 | -2.2 |
| **GUYB** | **Guaymas** | **1.77** | **25** | *e*P | Pn | 04 41 54.4 | -3.8 |
| **SLBS** | **Sierra La Lagu** | **3.06** | **148** | *e*P | Pn | 04 42 13.7 | -2.2 |

*IDC* ***15*** *04:50:55.1±0.8, 13°.90N×93°.00E, h0km, mb4.0/9, mb1 4.1/10, mb1mx3.7/38, mbtmp3.9/10, ML3.9/1, MS3.0/1, Ms1 3.0/1, ms1mx2.5/50, Error ellipse: s-maj=32.3km s-min=15.8km az=57.0*

*ISCJB* ***15*** *04:50:57.6±0.5, 13°.99N±0°.05×93°.11E±0°.06, h32km, mb4.2/15, Error ellipse: s-maj=8.6km s-min=6.8km az=136.4*

*NEIC* ***15*** *04:51:02.1±2.5, 14°.05N×93°.15E, h54km±23km, mb4.7/5, Error ellipse: s-maj=18.4km s-min=7.4km az=53.0*

**ISC 15 04:50:59.7±0.7, 14°0N±0°.1×93°02E±0°.10, h32km, n25, σ0s92/30, mb4.1/15, Andaman Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CM31** | **Chiang Mai Arr** | **7.20** | **51** | *e*Pn | **Pn** | **04 52 43.6** | **+0.8** |
| CM31 | | | | *e*Sn | **Sn** | **04 54 03.9** | **+0.4** |
| **CMAR** | **Chiang Mai Arr** | **7.20** | **51** | Pn | **Pn** | **04 52 43.6** | **+0.8** |
| | 0.5nm,0.3s,baz=232,slow=16,SNR=2.6 | | | | | | |
| CMAR | | | | Sn | **Sn** | **04 54 03.9** | **+0.4** |
| | 1.2nm,0.3s,baz=240,slow=27,SNR=9.7 | | | | | | |
| **CHTO** | **Chiang Mai** | **7.42** | **49** | *e*Sn | **Sn** | **04 54 07.0** | **-1.9** |
| **BRDH** | **Bariadhala** | **8.71** | **352** | LR | LR | 04 57 03.9 | |
| | comp=Z,89nm,18.8s,baz=176,slow=42 | | | | | | |
| **MK01** | **Makanchi Array** | **33.87** | **347** | *e*P | **P** | **04 57 39.6** | **+0.3** |
| **MK32** | **Makanchi Array** | **33.89** | **347** | *e*P | **P** | **04 57 40.7** | **+1.1** |
| **MKAR** | **Makanchi Array** | **33.89** | **347** | P | **P** | **04 57 40.7** | **+1.1** |
| | 1.2nm,0.7s,baz=153,slow=8.0,SNR=6.1 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **38.36** | **345** | P | **P** | **04 58 18.7** | **+1.1** |
| | 1.0nm,0.7s,baz=164,slow=8.2,SNR=8.6 | | | | | | |
| **KURK** | **Kurchatov** | **38.42** | **345** | *e*P | **P** | **04 58 18.7** | **+0.5** |
| **ZALV** | **Zalesovo Beam** | **40.36** | **353** | P | **P** | **04 58 35.3** | **+1.0** |
| | 0.6nm,0.3s,baz=186,slow=8.1,SNR=4.6 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **40.37** | **353** | *e*P | **P** | **04 58 35.3** | **+1.0** |
| **FITZ** | **Fitzroy Crossi** | **45.31** | **134** | P | **P** | **04 59 14.0** | **-0.8** |
| | 1.5nm,0.6s,baz=325,slow=8.3,SNR=6.0 | | | | | | |
| **GNI** | **Garni** | **49.48** | **311** | *e*P | **P** | **04 59 46.3** | **-1.1** |
| | 8.8nm,1.3s | | | | | | |
| **WR1** | **Warramunga Arr** | **52.83** | **129** | *e*P | **P** | **05 00 12.0** | **-0.5** |
| | 17nm,1.7s | | | | | | |
| WR1 | | | | *e*PcP | **PcP** | **05 01 21.6** | **0.0** |
| **WRA** | **Warramunga Arr** | **52.83** | **129** | P | **P** | **05 00 12.0** | **-0.5** |
| | 2.4nm,1.0s,baz=301,slow=9.8,SNR=25 | | | | | | |
| WRA | | | | PcP | **PcP** | **05 01 21.6** | **0.0** |
| | 0.6nm,0.5s,baz=316,slow=3.0,SNR=10 | | | | | | |
| **WRAB** | **Tennant Creek** | **52.83** | **129** | *e*P | **P** | **05 00 10.3** | **-2.2** |
| | 11nm,1.1s | | | | | | |
| **WB2** | **Warramunga Arr** | **52.84** | **129** | *e*P | **P** | **05 00 12.0** | **-0.5** |
| | 14nm,1.6s | | | | | | |
| **ASAR** | **Alice Springs** | **54.78** | **133** | P | **P** | **05 00 26.4** | **-0.3** |
| | 1.3nm,0.4s,baz=312,slow=6.9,SNR=18 | | | | | | |
| ASAR | | | | PcP | **PcP** | **05 01 29.2** | **+0.2** |
| | 0.3nm,0.7s,baz=297,slow=5.6,SNR=2.6 | | | | | | |
| **AS31** | **Alice Springs** | **54.78** | **133** | *e*P | **P** | **05 00 26.4** | **-0.3** |
| | 0.9nm,0.8s | | | | | | |
| AS31 | | | | *e*PcP | **PcP** | **05 01 29.2** | **+0.2** |
| **AS01** | **Alice Springs** | **54.81** | **133** | *e*P | **P** | **05 00 27.0** | **0.0** |
| **BR101** | **Keskin Array S** | **57.69** | **308** | *e*P | **P** | **05 00 47.5** | **-0.1** |
| **BRTR** | **Keskin Array B** | **57.69** | **308** | P | **P** | **05 00 47.5** | **-0.1** |
| | 0.2nm,0.5s,baz=120,slow=8.5,SNR=3.2 | | | | | | |
| **STKA** | **Stephens Creek** | **65.17** | **135** | P | **P** | **05 01 38.6** | **+0.6** |
| | 0.8nm,0.6s,baz=321,slow=6.2,SNR=3.4 | | | | | | |
| **LVZ** | **Lovozero** | **65.46** | **339** | *e*P | **P** | **05 01 37.6** | **-1.6** |
| | 182nm,1.9s | | | | | | |
| **BOSA** | **Boshof** | **77.98** | **236** | P | **P** | **05 02 56.2** | **+0.9** |
| | 1.2nm,0.5s,baz=51,slow=5.2,SNR=3.6 | | | | | | |

*ISK* ***15*** *04:54:11.6, 38°.69N×43°.23E, h5km, MD2.4*

*ISCJB* ***15*** *04:54:12.6±0.6, 38°.70N±0°.03×43°.27E±0°.05, h11km±7km, Error ellipse: s-maj=6.6km s-min=4.2km az=9.3*

*CSEM* ***15*** *04:54:12.3±0.2, 38°.70N×43°.26E, h10km, MD2.4, Error ellipse: s-maj=4.7km s-min=3.1km az=93.0*

*DDA* ***15*** *04:54:12.4, 38°.69N×43°.25E, h7km, Ml2.6*

**ISC 15 04:54:12.1±0.9, 38°70N±0°.02×43°32E±0°.03, h17km±7km, n20, σ0s63/36, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.12** | **151** | *e*PG | **Pb** | **04 54 16.6** | **+0.7** |
| **VANB** | **Van** | **0.12** | **151** | *e*Pg | **Pb** | **04 54 16.6** | **+0.7** |
| **TVAN** | **Van** | **0.18** | **158** | *i* P | **Pg** | **04 54 16.4** | **-0.4** |
| TVAN | | | | *i* S | **Sb** | **04 54 20.6** | **+0.1** |
| **TVAN** | **Van** | **0.18** | **158** | P | **Pg** | **04 54 16.4** | **-0.4** |
| TVAN | | | | S | **Sb** | **04 54 20.6** | **+0.1** |
| **ERCV** | **ERCIS-VAN** | **0.32** | **3** | *e*PG | **Pg** | **04 54 18.8** | **-0.3** |
| ERCV | | | | *e*SG | **Sg** | **04 54 24.0** | **+0.2** |
| **ERCV** | **ERCIS-VAN** | **0.32** | **3** | *e*Pg | **Pg** | **04 54 18.8** | **-0.3** |
| ERCV | | | | *e*Sg | **Sg** | **04 54 24.0** | **+0.2** |
| **VMUR** | **Van-Muradiye** | **0.35** | **34** | *i* P | **Pb** | **04 54 19.9** | **-0.2** |
| VMUR | | | | *i* S | **Sb** | **04 54 26.6** | **+1.2** |
| **VMUR** | **Van-Muradiye** | **0.35** | **34** | P | **Pb** | **04 54 19.9** | **-0.2** |
| VMUR | | | | S | **Sb** | **04 54 26.6** | **+1.2** |
| **GEVA** | **Gevas** | **0.43** | **208** | *i* P | **Pg** | **04 54 20.6** | **-0.4** |
| GEVA | | | | *i* S | **Sg** | **04 54 27.0** | **+0.1** |
| **GEVA** | **Gevas** | **0.43** | **208** | P | **Pg** | **04 54 20.5** | **-0.4** |
| GEVA | | | | S | **Sg** | **04 54 27.0** | **+0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.48** | **284** | *i* P | **Pg** | **04 54 21.5** | **-0.3** |
| ADCV | | | | *i* S | **Sb** | **04 54 30.4** | **+1.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.48** | **284** | P | **Pg** | **04 54 21.5** | **-0.3** |
| ADCV | | | | S | **Sb** | **04 54 30.4** | **+1.4** |
| **CLDR** | **Caldiran** | **0.65** | **46** | *e*PG | **Pb** | **04 54 25.5** | **+0.4** |
| CLDR | | | | *e*SG | **Sn** | **04 54 35.7** | **-1.0** |
| **CLDR** | **Caldiran** | **0.65** | **46** | *e*Pg | **Pb** | **04 54 25.5** | **+0.4** |
| CLDR | | | | *e*Sg | **Sn** | **04 54 35.7** | **-1.0** |
| **TUTA** | **Tutak** | **0.81** | **331** | *i* P | **Pb** | **04 54 27.3** | **-0.5** |
| TUTA | | | | *i* S | **Sg** | **04 54 38.9** | **+0.3** |
| **TUTA** | **Tutak** | **0.81** | **331** | P | **Pb** | **04 54 27.3** | **-0.5** |
| TUTA | | | | S | **Sg** | **04 54 38.9** | **+0.3** |
| **AGRB** | **Hanur-Agry** | **0.91** | **344** | *e*PG | **Pb** | **04 54 29.3** | **-0.3** |
| AGRB | | | | *e*SG | **Sg** | **04 54 42.2** | **+0.2** |
| **AGRB** | **Hanur-Agry** | **0.91** | **344** | *e*Pg | **Pb** | **04 54 29.3** | **-0.3** |
| AGRB | | | | *e*Sg | **Sg** | **04 54 42.2** | **+0.2** |
| **CUKT** | **Cukurca** | **1.46** | **171** | *e*PN | **Pg** | **04 54 39.7** | **-0.6** |
| **CUKT** | **Cukurca** | **1.46** | **171** | *e*Pn | **Pg** | **04 54 39.7** | **-0.6** |

*ISCJB* ***15*** *05:08:12.9±0.6, 20°.00S±0°.04×69°.06W±0°.10, h119km±6km, mb3.5/2, Error ellipse: s-maj=15.6km s-min=7.0km az=171.4*

*GUC* ***15*** *05:08:14.4±0.5, 20°.01S×69°.13W, h105km±3km, ML4.0*

*IDC* ***15*** *05:08:16.6±5.3, 19°.94S×68°.67W, h132km±33km, mb3.4/2, mb1 3.5/5, mb1mx3.2/28, mbtmp3.7/5, Error ellipse: s-maj=73.0km s-min=29.8km az=45.0*

**ISC 15 05:08:13.4±0.9, 19°99S±0°.05×69°05W±0°.09, h110km±8km, n13, σ1s16/20, 5C-1D, Northern Chile**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PB08** | **IPOC Station P** | **0.18** | **214** | ⇓*i* P | **Pn** | **05 08 29.8** | **+0.6** |
| PB08 | | | | *i* S | **Sn** | **05 08 41.9** | **+0.7** |
| PB08 | | | | IAML | | 05 08 42.1 | |
| | comp=E,6μm,0.3s | | | | | | |
| **PB11** | **IPOC Station P** | **0.62** | **292** | ⇑*i* P | **Pn** | **05 08 31.5** | **+0.2** |
| PB11 | | | | *i* S | **Sn** | **05 08 44.7** | **0.0** |
| PB11 | | | | IAML | | 05 08 45.4 | |
| | comp=E,23μm,0.3s | | | | | | |
| **MNMC** | **Minye Minye** | **1.00** | **329** | ⇑*i* P | **Pn** | **05 08 35.8** | **+0.8** |
| MNMC | | | | *i* S | **Sn** | **05 08 52.1** | **+1.0** |
| MNMC | | | | IAML | | 05 08 52.8 | |
| | comp=E,10μm,0.2s | | | | | | |
| **PSGC** | **Pisagua** | **1.08** | **291** | ⇑*i* P | **Pn** | **05 08 35.8** | **+0.2** |
| PSGC | | | | *i* S | **Sn** | **05 08 52.3** | **0.0** |
| PSGC | | | | IAML | | 05 08 53.2 | |
| | comp=E,2μm,0.2s | | | | | | |
| **PB01** | **IPOC Station P** | **1.12** | **201** | ⇑*i* P | **Pn** | **05 08 36.7** | **+0.7** |
| PB01 | | | | *i* S | **Sn** | **05 08 53.5** | **+0.3** |
| PB01 | | | | IAML | | 05 08 54.9 | |
| | comp=E,3μm,0.4s | | | | | | |
| **PB09** | **IPOC Station P** | **1.80** | **186** | *i* P | **Pn** | **05 08 45.1** | **+1.0** |
| PB09 | | | | *i* S | **Sn** | **05 09 09.1** | **+1.5** |
| PB09 | | | | IAML | | 05 09 12.8 | |
| | comp=N,2μm,0.4s | | | | | | |
| **PB12** | **IPOC Station P** | **1.83** | **318** | ⇑*i* P | **Pn** | **05 08 44.2** | **-0.1** |
| **PB07** | **IPOC Station P** | **1.90** | **204** | *i* P | **Pn** | **05 08 45.9** | **+0.6** |
| PB07 | | | | *i* S | **Sn** | **05 09 09.0** | **-0.5** |
| **LPAZ** | **La Paz** | **3.79** | **13** | P | **Pn** | **05 09 13.2** | **+2.7** |
| | comp=N,1.2nm,0.3s,baz=202,slow=5.4,SNR=25 | | | | | | |
| **SIV** | **San Ignacio** | **8.57** | **64** | P | **Pn** | **05 10 12.5** | **-2.3** |
| | comp=N,1.1nm,0.3s,baz=270,slow=9.0,SNR=11 | | | | | | |
| **CPUP** | **Villa Florida** | **12.49** | **123** | P | **Pn** | **05 11 06.3** | **-1.0** |
| | comp=N,0.1nm,0.3s,baz=300,slow=14,SNR=5.0 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **76.98** | **71** | P | **P** | **05 19 53.6** | **-1.0** |
| | comp=N,0.5nm,0.5s,baz=253,slow=5.4,SNR=9.0 | | | | | | |
| **YKA** | **Yellowknife Ar** | **89.73** | **341** | P | **P** | **05 20 59.3** | **+0.5** |
| | comp=N,0.4nm,0.8s,baz=133,slow=5.4,SNR=4.6 | | | | | | |

*ISCJB* ***15*** *05:08:32.2±0.7, 35°.60N±0°.04×140°.16E±0°.08, h74km±7km, mb3.9/4, Error ellipse: s-maj=11.6km s-min=6.4km az=162.2*

*JMA* ***15*** *05:08:33.3±0.1, 35°.67N×140°.13E, h63km±1km, M3.1*

*JMA Felt I J1.*

*IDC* ***15*** *05:08:35.3±3.4, 35°.49N×139°.81E, h72km±18km, mb3.5/4, mb1 3.7/5, mb1mx3.3/44, mbtmp3.9/5, MS2.6/1, Ms1 2.6/1, ms1mx2.4/35, Error ellipse: s-maj=70.2km s-min=12.2km az=71.0*

**ISC 15 05:08:32.6±1.2, 35°61N±0°.06×140°22E±0°.07, h64km±12km, n18, σ1s67/24, mb3.9/4, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **BSO3** | **Boso 3** | **0.84** | **163** | P | **Pn** | **05 08 50.1** | **+1.7** |
| **JOD2** | **Odawara 2** | **0.98** | **250** | P | **Pn** | **05 08 50.7** | **+0.1** |
| JOD2 | | | | S | **Sn** | **05 09 03.3** | **-0.6** |
| **JAG** | **Ashikaga** | **1.03** | **323** | P | **Pn** | **05 08 50.8** | **-0.3** |
| **JIM2** | **Oshima 3** | **1.10** | **216** | S | **Sn** | **05 09 06.4** | **-0.1** |
| **BSO1** | **Boso 1** | **1.14** | **147** | P | **Pn** | **05 08 53.6** | **+1.6** |
| **JRY** | **Ryogami san** | **1.15** | **291** | P | **Pn** | **05 08 53.1** | **+0.4** |
| **JYN** | **Shimob** | **1.37** | **266** | P | **Pn** | **05 08 55.7** | **+0.1** |
| JYN | | | | S | **Sn** | **05 09 12.5** | **-0.5** |
| **JKT** | **Katashina** | **1.40** | **326** | P | **Pn** | **05 08 55.7** | **-0.4** |
| JKT | | | | S | **Sn** | **05 09 12.6** | **-1.1** |
| **JIZS** | **Izushimoda** | **1.41** | **231** | P | **Pn** | **05 08 56.4** | **+0.3** |
| JIZS | | | | S | **Sn** | **05 09 13.3** | **-0.5** |
| **MJAR** | **Matsushiro Arr** | **1.88** | **300** | P | **Pn** | **05 09 01.9** | **-0.5** |
| | 33nm,0.3s,baz=128,slow=14,SNR=77 | | | | | | |
| MJAR | | | | LR | LR | 05 09 44.8 | |
| | comp=Z,36nm,20.7s,baz=75,slow=42 | | | | | | |
| **MAT** | **Matsushiro** | **1.88** | **300** | P | **Pn** | **05 09 02.9** | **+0.5** |
| MAT | | | | S | **Sn** | **05 09 27.3** | **+2.2** |
| **JHJ** | **Hachijo jima 2** | **2.51** | **188** | P | **Pn** | **05 09 11.7** | **+0.7** |
| | 37nm,0.3s,baz=289,slow=23,SNR=7.3 | | | | | | |
| JHJ | | | | S | **Sn** | **05 09 40.7** | **+0.3** |
| | 84nm,0.3s,baz=94,slow=23,SNR=7.9 | | | | | | |
| **JCJ** | **Chichijima** | **8.65** | **168** | P | **Pn** | **05 10 33.5** | **-1.5** |
| | 4.7nm,0.3s,baz=317,slow=22,SNR=5.8 | | | | | | |
| JCJ | | | | S | **Sn** | **05 12 04.8** | **-6.2** |
| | 3.2nm,0.3s,baz=261,slow=23,SNR=4.0 | | | | | | |
| **KSRS** | **Korea Array** | **10.07** | **284** | LR | LR | 05 14 48.9 | |
| | comp=Z,34nm,18.4s,baz=325,slow=38 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.07** | **303** | P | **P** | **05 16 34.4** | **+0.2** |
| | 0.7nm,0.8s,baz=85,slow=6.8,SNR=4.1 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **55.17** | **197** | P | **P** | **05 17 59.5** | **+0.9** |
| | 3.7nm,1.1s,baz=22,slow=6.4,SNR=6.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **55.52** | **187** | P | **P** | **05 18 01.2** | **0.0** |
| | 1.2nm,0.5s,baz=1.5,slow=7.5,SNR=33 | | | | | | |
| **ASAR** | **Alice Springs** | **59.25** | **187** | P | **P** | **05 18 28.2** | **+0.8** |
| | 0.3nm,0.6s,baz=12,slow=10,SNR=4.3 | | | | | | |

*IDC* ***15*** *05:14:12.7±2.0, 36°.20S×74°.16W, h0km, mb3.5/3, mb1 3.8/4, mb1mx3.6/23, mbtmp3.5/4, ML3.3/1, Error ellipse: s-maj=69.0km s-min=31.9km az=65.0*

*GUC* ***15*** *05:14:13.9±0.6, 36°.12S×73°.68W, h8km±3km, ML3.6*

*ISCJB* ***15*** *05:14:15.1±1.1, 36°.16S±0°.05×73°.63W±0°.09, h33km, mb3.6/2, Error ellipse: s-maj=10.5km s-min=7.9km az=175.1*

**ISC 15 05:14:18.1±1.2, 36°15S±0°.06×73°47W±0°.10, h35km, n8, σ2s26/12, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **COCH** | **Cobquecura** | **0.56** | **88** | *e*P | **Pn** | **05 14 26.7** | **-2.8** |
| COCH | | | | *i* S | **Sn** | **05 14 37.0** | **-0.5** |
| COCH | | | | IAML | | 05 14 38.7 | |
| | comp=N,5μm,1.3s | | | | | | |
| **CCSP** | **San Pedro de C** | **0.75** | **157** | *e*P | **Pn** | **05 14 29.2** | **-3.0** |
| CCSP | | | | *i* S | **Sn** | **05 14 40.9** | **-1.5** |
| CCSP | | | | IAML | | 05 14 47.9 | |
| | comp=N,4μm,0.5s | | | | | | |
| **CCHI** | **Chillan** | **1.21** | **112** | *e*P | **Pn** | **05 14 37.3** | **-1.3** |
| CCHI | | | | *i* S | **Sn** | **05 14 55.1** | **+1.3** |
| CCHI | | | | IAML | | 05 15 04.2 | |
| | comp=N,4μm,0.6s | | | | | | |
| **GO05** | **Hualaæø** | **1.70** | **48** | *e*P | **Pn** | **05 14 42.5** | **-2.8** |
| GO05 | | | | *i* S | **Sn** | **05 15 07.3** | **+1.5** |
| GO05 | | | | IAML | | 05 15 32.1 | |
| | comp=N,509nm,0.5s | | | | | | |
| **PLCA** | **Paso Flores** | **5.12** | **154** | Pn | **Pn** | **05 15 33.0** | **+0.7** |
| | comp=N,0.3nm,0.3s,baz=348,slow=11,SNR=11 | | | | | | |
| **LPAZ** | **La Paz** | **20.35** | **15** | P | **P** | **05 18 52.9** | **+0.7** |
| | comp=N,1.2nm,0.7s,baz=217,slow=10,SNR=5.5 | | | | | | |
| **TXAR** | **Lajitas Array** | **71.06** | **332** | P | **P** | **05 25 31.4** | **-1.2** |
| | comp=N,0.7nm,0.8s,baz=155,slow=9.6,SNR=4.7 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **86.04** | **71** | P | **P** | **05 26 58.6** | **+3.3** |
| | comp=N,0.3nm,0.7s,baz=262,slow=5.5,SNR=2.7 | | | | | | |

*ISCJB* ***15*** *05:16:25.0±0.7, 55°.33S±0°.09×28°.4W±0°.1, h10km, mb4.4/7, MS3.9/5, Error ellipse: s-maj=15.5km s-min=8.2km az=36.2*

*IDC* ***15*** *05:16:25.3±0.8, 55°.29S×28°.16W, h0km, mb4.4/4, mb1 4.5/5, mb1mx3.9/24, mbtmp4.4/5, ML4.5/1, MS3.8/7, Ms1 3.7/7, ms1mx3.5/20, Error ellipse: s-maj=36.6km s-min=22.6km az=80.0*

*NEIC* ***15*** *05:16:30.5±0.3, 55°.36S×28°.31W, h35km, mb4.4/3, Error ellipse: s-maj=12.7km s-min=8.7km az=48.0*

**ISC 15 05:16:27.8±0.6, 55°3S±0°.1×28°45W±0°.10, h10km, n27, σ2s15/23, mb4.4/7, MS4.0/5, South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **HOPE** | **Hope Point** | **4.77** | **279** | *e*Pn | **Pn** | **05 17 40.1** | **+0.5** |
| HOPE | | | | *e*Sn | **Sn** | **05 18 33.7** | **-1.1** |
| **VNA1** | **Neumayer--Stat** | **17.74** | **158** | P | **P** | **05 20 40.7** | **+5.4** |
| **VNA3** | **Neumayer Olymp** | **17.92** | **160** | P | **Pn** | **05 20 35.3** | **-1.4** |
| **VNA2** | **Neumayer--Watz** | **18.14** | **158** | P | **Pn** | **05 20 38.5** | **-0.9** |
| | baz=316,slow=13 | | | | | | |
| **SNAA** | **Sanae** | **19.70** | **156** | P | **P** | **05 20 54.9** | **-2.0** |
| **SNAA** | **Sanae** | **19.70** | **156** | P | **P** | **05 20 54.9** | **-2.0** |
| | 1.3nm,0.3s,baz=314,slow=9.7,SNR=22 | | | | | | |
| SNAA | | | | LR | LR | 05 27 32.7 | |
| | comp=Z,150nm,18.7s,baz=307,slow=34 | | | | | | |
| **PMSA** | **Palmer Station** | **19.85** | **227** | LR | LR | 05 27 07.4 | |
| | comp=Z,169nm,19.2s,baz=136,slow=32 | | | | | | |
| **TRQA** | **Tornquist** | **28.38** | **293** | *e*P | **P** | **05 22 22.6** | **+0.6** |
| | 2.7nm,0.7s | | | | | | |
| **PLCA** | **Paso Flores** | **31.17** | **280** | LR | LR | 05 36 55.3 | |
| | comp=Z,98nm,18.4s,baz=160,slow=39 | | | | | | |
| **QSPA** | **South Pole Qui** | **34.93** | **180** | *e*P | **P** | **05 23 18.3** | **-1.1** |
| | 21nm,0.9s | | | | | | |
| **CPUP** | **Villa Florida** | **35.79** | **312** | P | **P** | **05 23 26.6** | **-0.4** |
| | 9.2nm,1.0s,baz=156,slow=6.8,SNR=14 | | | | | | |
| **LCO** | **Las Campanas** | **39.96** | **294** | *e*P | **P** | **05 24 02.0** | **-0.5** |
| | 6.0nm,1.0s | | | | | | |
| **MAW** | **Mawson** | **41.16** | **144** | LR | LR | 05 39 58.1 | |
| | comp=Z,70nm,19.2s,baz=240,slow=34 | | | | | | |
| **BOSA** | **Boshof** | **46.50** | **78** | LR | LR | 05 41 10.4 | |
| | comp=Z,152nm,19.1s,baz=216,slow=32 | | | | | | |
| **VNDA** | **Vanda** | **47.27** | **183** | P | **P** | **05 25 00.1** | **-0.4** |
| | 2.7nm,0.8s,baz=192,slow=5.2,SNR=11 | | | | | | |
| **DBIC** | **Dimbokro** | **64.81** | **26** | P | **P** | **05 27 05.5** | **-1.0** |
| | 1.3nm,0.6s,baz=204,slow=9.6,SNR=4.0 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **72.78** | **31** | P | **P** | **05 27 54.6** | **-1.6** |
| | 5.5nm,0.9s,baz=201,slow=6.0,SNR=20 | | | | | | |
| **KMBO** | **Kilima Mbogo** | **75.45** | **70** | LR | LR | 06 00 08.8 | |
| | comp=Z,84nm,19.1s,baz=73,slow=35 | | | | | | |
| **KEST** | **Kesra** | **96.29** | **30** | LR | LR | 06 10 48.1 | |
| | comp=Z,82nm,19.3s,baz=268,slow=34 | | | | | | |
| **YKA** | **Yellowknife Ar** | **135.15** | **319** | PKP | **PKPdf** | **05 35 44.5** | **-1.4** |
| | 0.9nm,0.8s,baz=122,slow=2.2,SNR=11 | | | | | | |
| **INK** | **Inuvik** | **144.79** | **321** | *e*PKPdf | **PKPab** | **05 36 01.4** | **-0.8** |
| **PAX** | **Paxson** | **148.05** | **310** | *e*PKPbc | **PKPdf** | **05 36 11.7** | **+2.7** |
| PAX | | | | *e*PKPab | **pPKPdf** | **05 36 14.5** | **+2.1** |
| **ILAR** | **Eielson Array** | **149.10** | **313** | PKPbc | **PKPdf** | **05 36 13.8** | **+3.3** |
| | 11nm,0.8s,baz=128,slow=2.1,SNR=96 | | | | | | |
| **COLA** | **College** | **149.52** | **313** | *e*PKPab | **PKPbc** | **05 36 20.5** | **-0.3** |
| **MCK** | **McKinley** | **149.75** | **310** | *e*PKPbc | **PKPbc** | **05 36 16.0** | **-0.4** |
| **BPAW** | **Bear Paw Mtn.** | **150.72** | **311** | *e*PKPbc | **PKPbc** | **05 36 18.0** | **-0.6** |
| **SONM** | **Songino Array** | **151.39** | **86** | PKPbc | **PKPdf** | **05 36 19.2** | **+4.4** |
| | 1.7nm,0.7s,baz=223,slow=2.9,SNR=10 | | | | | | |

*ISK* ***15*** *05:17:29.8, 36°.95N×33°.93E, h16km, MD2.4*

*ISCJB* ***15*** *05:17:30.7±0.8, 36°.94N±0°.04×33°.93E±0°.06, h26km±14km, Error ellipse: s-maj=9.0km s-min=4.6km az=40.2*

*DDA* ***15*** *05:17:30.5, 36°.94N×33°.95E, h7km, Ml2.7*

*CSEM* ***15*** *05:17:30.5±0.1, 36°.95N×33°.94E, h20km, MD2.4, Error ellipse: s-maj=4.2km s-min=2.3km az=119.0*

**ISC 15 05:17:30.3±1.2, 36°.95N±0°.03×33°.93E±0°.04, h15km±11km, n18, σ0s26/32, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MERS** | **Mersin** | **0.48** | **100** | *e*PG | **Pg** | **05 17 39.8** | **-0.2** |
| MERS | | | | *e*SG | **Sb** | **05 17 47.4** | **-0.2** |
| **MERS** | **Mersin** | **0.48** | **100** | *e*Pg | **Pg** | **05 17 39.8** | **-0.2** |
| MERS | | | | *e*Sg | **Sb** | **05 17 47.4** | **-0.2** |
| **KERG** | **Konya-Eregli** | **0.49** | **19

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **IRAM** | **Ramesheh** | **2.18** | **53** | *e*Pn | **Pn** | **05 30 23.2** | **+1.6** |
| **IPIR** | **Pirpir** | **2.22** | **12** | *e*Pn | **Pb** | **05 30 24.8** | **-1.6** |
| IPIR | | | | *e*AMB | AMB | 05 30 57.1 | |
| | comp=Z,14µm,0.3s | | | | | | |
| **IPIR** | **Pirpir** | **2.22** | **12** | *e*Pn | **Pb** | **05 30 24.8** | **-1.6** |
| **IGAR** | **Gharneh** | **2.38** | **37** | *e*Pn | **Pn** | **05 30 26.1** | **+1.7** |
| IGAR | | | | *e*AMB | AMB | 05 31 02.6 | |
| | comp=Z,6µm,0.2s | | | | | | |
| **IPAR** | **Pars** | **2.44** | **105** | *e*Pn | **Pn** | **05 30 26.9** | **+1.7** |
| IPAR | | | | *e*Sg | **Sb** | **05 31 02.1** | **+2.3** |
| IPAR | | | | *e*AMB | AMB | 05 31 07.7 | |
| | comp=Z,3µm,0.4s | | | | | | |
| **IPAR** | **Pars** | **2.44** | **105** | *e*Pn | **Pn** | **05 30 26.9** | **+1.7** |
| IPAR | | | | *e*Sg | **Sb** | **05 31 02.1** | **+2.3** |
| **ISRV** | **Sarvestan** | **2.66** | **114** | *e*Pn | **Pn** | **05 30 29.9** | **+1.7** |
| ISRV | | | | *e*AMB | AMB | 05 31 20.4 | |
| | comp=Z,5µm,0.4s | | | | | | |
| **ISRV** | **Sarvestan** | **2.66** | **114** | *e*Pn | **Pn** | **05 30 29.9** | **+1.7** |
| **IZEF** | **Zefreh** | **2.92** | **35** | *e*Pn | **Pn** | **05 30 33.4** | **+1.5** |
| IZEF | | | | *e*AMB | AMB | 05 30 34.4 | |
| | comp=Z,4µm,0.1s | | | | | | |
| **IZEF** | **Zefreh** | **2.92** | **35** | *e*Pn | **Pn** | **05 30 33.4** | **+1.5** |
| **IKLH** | **Kolahrood** | **2.99** | **20** | *e*Pn | **Pn** | **05 30 34.4** | **+1.6** |
| IKLH | | | | *e*AMB | AMB | 05 31 38.1 | |
| | comp=Z,4µm,0.3s | | | | | | |
| **IKLH** | **Kolahrood** | **2.99** | **20** | *e*Pn | **Pn** | **05 30 34.4** | **+1.6** |
| **NASN** | **Na'in** | **3.11** | **42** | *e*Pn | **Pn** | **05 30 35.5** | **+1.1** |
| **NASN** | **Na'in** | **3.11** | **42** | *e*Pn | **Pn** | **05 30 35.5** | **+1.1** |
| **KFJS** | | **3.12** | **223** | P | **Pb** | **05 30 38.6** | **-2.9** |
| **ISAD** | **Sadrabad** | **3.19** | **63** | *e*Pn | **Pn** | **05 30 37.2** | **+1.6** |
| ISAD | | | | *e*AMB | AMB | 05 30 44.4 | |
| | comp=Z,5µm,0.3s | | | | | | |
| **ISAD** | **Sadrabad** | **3.19** | **63** | *e*Pn | **Pn** | **05 30 37.2** | **+1.6** |
| **GHIR** | **Ghir-Karzin** | **3.20** | **133** | *e*Pn | **Pn** | **05 30 37.6** | **+2.1** |
| **GHIR** | **Ghir-Karzin** | **3.20** | **133** | *e*Pn | **Pn** | **05 30 37.6** | **+2.1** |
| **KHMZ** | **Khomeyn** | **3.24** | **354** | *e*Pn | **Pn** | **05 30 38.1** | **+2.0** |
| **KHMZ** | **Khomeyn** | **3.24** | **354** | *e*Pn | **Pn** | **05 30 38.2** | **+2.0** |
| **QAM** | **Ghamsar** | **3.38** | **16** | *e*Pn | **Pn** | **05 30 40.6** | **+2.6** |
| QAM | | | | *e*AMB | AMB | 05 30 42.3 | |
| | comp=Z,8µm,0.2s | | | | | | |
| **IMEH** | **Mehriz** | **3.77** | **75** | *e*Pn | **Pn** | **05 30 45.2** | **+1.6** |
| IMEH | | | | *e*AMB | AMB | 05 30 46.3 | |
| | comp=Z,1µm,0.2s | | | | | | |
| **IMEH** | **Mehriz** | **3.77** | **75** | *e*Pn | **Pn** | **05 30 45.2** | **+1.6** |
| **ICHK** | **Chekchek** | **3.88** | **62** | *e*Pn | **Pn** | **05 30 46.2** | **+1.1** |
| ICHK | | | | *e*AMB | AMB | 05 31 35.6 | |
| | comp=Z,3µm,0.2s | | | | | | |
| **ICHK** | **Chekchek** | **3.88** | **62** | *e*Pn | **Pn** | **05 30 46.2** | **+1.1** |
| **GHVR** | **GHOM** | **4.04** | **11** | *e*Pn | **Pn** | **05 30 48.7** | **+1.6** |
| **GHVR** | **GHOM** | **4.04** | **11** | *e*Pn | **Pn** | **05 30 48.7** | **+1.6** |
| **IVRN** | **Varamin** | **4.62** | **14** | *e*Pn | **Pn** | **05 30 56.8** | **+1.7** |
| IVRN | | | | *e*AMB | AMB | 05 30 58.6 | |
| | comp=Z,2µm,0.1s | | | | | | |
| **IVRN** | **Varamin** | **4.62** | **14** | *e*Pn | **Pn** | **05 30 56.8** | **+1.7** |
| **IGHG** | **Ghaleghazi** | **4.97** | **321** | *e*Pn | **Pn** | **05 31 01.8** | **+1.8** |
| IGHG | | | | *e*AMB | AMB | 05 32 35.1 | |
| | comp=Z,2µm,0.3s | | | | | | |
| **IGHG** | **Ghaleghazi** | **4.97** | **321** | *e*Pn | **Pn** | **05 31 01.8** | **+1.8** |
| **ILIN** | **Lien** | **5.24** | **328** | *e*Pn | **Pn** | **05 31 05.3** | **+1.6** |
| ILIN | | | | *e*AMB | AMB | 05 32 08.5 | |
| | comp=Z,1µm,0.2s | | | | | | |
| **ILIN** | **Lien** | **5.24** | **328** | *e*Pn | **Pn** | **05 31 05.3** | **+1.6** |
| **IDMV** | **Damavand** | **5.25** | **15** | *e*AMB | AMB | 05 31 05.4 | |
| | comp=Z,2µm,0.2s | | | | | | |
| IDMV | | | | *e*Pn | **Pn** | **05 31 04.7** | **+0.8** |
| **IDHR** | **Dehrash** | **5.35** | **322** | *e*Pn | **Pn** | **05 31 06.0** | **+0.8** |
| IDHR | | | | *e*AMB | AMB | 05 32 10.4 | |
| | comp=Z,3µm,0.1s | | | | | | |
| **IDHR** | **Dehrash** | **5.35** | **322** | *e*Pn | **Pn** | **05 31 06.0** | **+0.8** |
| **IFIR** | **Firoozkooh** | **5.51** | **21** | *e*AMB | AMB | 05 31 10.9 | |
| | comp=Z,920nm,0.1s | | | | | | |
| IFIR | | | | *e*Pn | **Pn** | **05 31 08.2** | **+0.8** |
| **BTHS** | | **6.45** | **176** | S | **Sn** | **05 32 34.2** | **+1.3** |
| BTHS | | | | P | **Pn** | **05 31 22.8** | **+2.7** |
| **BANOM** | **Banah** | **6.96** | **130** | Pn | **Pn** | **05 31 27.9** | **+0.7** |
| BANOM | | | | S | **Sn** | **05 32 41.5** | **-4.1** |
| **BANOM** | **Banah** | **6.96** | **130** | Pn | **Pn** | **05 31 27.9** | **+0.7** |
| **UOSS** | **Minazif** | **7.59** | **135** | *e*Pn | **Pn** | **05 31 37.0** | **+1.1** |
| **UOSS** | **Minazif** | **7.59** | **135** | *e*Pn | **Pn** | **05 31 37.0** | **+1.1** |
| UOSS | | | | *e*Sn | **Sn** | **05 32 58.4** | **-2.8** |
| **HATD** | **Hatta, Dubai** | **7.64** | **136** | Pn | **Pn** | **05 31 37.2** | **+0.7** |
| **HATD** | **Hatta, Dubai** | **7.64** | **136** | Pn | **Pn** | **05 31 37.2** | **+0.7** |
| **ASHO** | **Ashiyiah** | **7.70** | **137** | Pn | **Pn** | **05 31 38.3** | **+0.9** |
| **ASHO** | **Ashiyiah** | **7.70** | **137** | Pn | **Pn** | **05 31 38.3** | **+0.9** |
| **RAYN** | **Ar Rayn** | **8.19** | **213** | *e*Pn | **Pn** | **05 31 44.9** | **+0.9** |
| RAYN | | | | *e*Sn | **Sn** | **05 33 18.0** | **+2.3** |
| **RAYN** | **Ar Rayn** | **8.19** | **213** | *e*Pn | **Pn** | **05 31 44.9** | **+0.9** |
| RAYN | | | | *e*Sn | **Sn** | **05 33 18.0** | **+2.3** |
| **GEYT** | **Alibeck** | **9.81** | **39** | Pn | **Pn** | **05 32 07.1** | **+0.9** |
| | comp=Z,1.9nm,0.3s,baz=261,slow=7.4,SNR=10 | | | | | | |
| **WSAR** | **Wadi Sarin** | **10.35** | **132** | Pn | **Pn** | **05 32 12.5** | **-1.2** |
| | comp=Z,1.0nm,0.3s,baz=322,slow=6.7,SNR=8.4 | | | | | | |
| WSAR | | | | Sn | **Sn** | **05 34 02.1** | **-6.8** |
| | comp=Z,1.6nm,0.3s,baz=173,slow=18,SNR=4.2 | | | | | | |
| **GNI** | **Garni** | **10.65** | **336** | LR | LR | 05 36 39.9 | |
| | comp=Z,51nm,19.6s,baz=126,slow=39 | | | | | | |
| **GNI** | **Garni** | **10.65** | **336** | *i* P | **Pn** | **05 32 15.5** | **-2.3** |
| **GNI** | **Garni** | **10.65** | **336** | *i* P | **Pn** | **05 32 15.5** | **-2.3** |
| **ASF** | **Jabal al Asfar** | **11.61** | **282** | Pn | **Pn** | **05 32 32.3** | **+1.3** |
| | comp=Z,0.5nm,0.3s,baz=268,slow=1.9,SNR=4.1 | | | | | | |
| **MMAI** | **Mount Memon Ar** | **12.96** | **285** | LR | LR | 05 39 16.2 | |
| | comp=Z,84nm,18.2s,baz=65,slow=44 | | | | | | |
| **ZEI** | **Tsey** | **13.29** | **339** | *e*P | **Pn** | **05 32 57.3** | **+3.3** |
| ZEI | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.6s | | | | | | |
| **NCK** | **Nalchik** | **14.03** | **339** | *i* P | **Pn** | **05 33 05.9** | **+2.0** |
| **NCK** | **Nalchik** | **14.03** | **339** | *i* P | **Pn** | **05 33 05.9** | **+2.0** |
| **NEY** | **Neytrino** | **14.09** | **337** | *i* P | **P** | **05 33 14.4** | **+2.0** |
| **KIV** | **Kislovodsk** | **14.73** | **338** | *e*P | **Pn** | **05 33 14.6** | **+1.1** |
| **KIV** | **Kislovodsk** | **14.73** | **338** | *e*Pn | **Pn** | **05 33 14.6** | **+1.1** |
| **KIV** | **Kislovodsk** | **14.73** | **338** | *e*Pn | **Pn** | **05 33 14.6** | **+1.1** |
| **BR131** | **Keskin Array S** | **16.45** | **308** | *e*Pn | **P** | **05 33 38.8** | **+0.3** |
| **BR131** | **Keskin Array S** | **16.45** | **308** | *e*Pn | **P** | **05 33 38.8** | **+0.3** |
| **BRTR** | **Keskin Array B** | **16.45** | **308** | Pn | **P** | **05 33 39.6** | **+1.0** |
| | comp=Z,0.1nm,0.3s,baz=130,slow=13,SNR=6.4 | | | | | | |
| **BRTR** | **Keskin Array B** | **16.45** | **308** | *i* P | **P** | **05 33 40.2** | **+1.7** |
| BRTR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.7s | | | | | | |
| **BRTR** | **Keskin Array B** | **16.45** | **308** | *i* P | **P** | **05 33 40.2** | **+1.7** |
| | comp=Z,1.0nm,0.7s | | | | | | |
| **BR231** | **Keskin MP Arra** | **17.09** | **308** | *e*Pn | **Pn** | **05 33 41.1** | **-2.9** |
| **ATD** | **Arta Tunnel** | **20.12** | **202** | *e*P | **P** | **05 34 19.8** | **+0.8** |
| | comp=Z,26nm,1.2s | | | | | | |
| **ATD** | **Arta Tunnel** | **20.12** | **202** | *e*P | **P** | **05 34 19.8** | **+0.8** |
| | comp=Z,26nm,1.2s | | | | | | |
| **AKTK** | **Aktyubinsk** | **20.72** | **14** | P | **P** | **05 34 24.4** | **-0.8** |
| **AKTO** | **Aktyubinsk** | **20.72** | **14** | P | **P** | **05 34 24.4** | **-0.7** |
| | comp=Z,2.0nm,0.5s,baz=198,slow=12,SNR=7.2 | | | | | | |
| **SANT** | **Santorini** | **21.54** | **292** | *e*P | **P** | **05 34 35.9** | **+1.7** |
| | comp=Z,18nm,1.0s | | | | | | |
| **SANT** | **Santorini** | **21.54** | **292** | *e*P | **P** | **05 34 35.9** | **+1.7** |
| | comp=Z,18nm,1.0s | | | | | | |
| **APE** | **Apeiranthos** | **21.60** | **294** | ⇑*i*P | **P** | **05 34 36.2** | **+1.4** |
| **APE** | **Apeiranthos** | **21.60** | **294** | *i* P | **P** | **05 34 35.3** | **+0.5** |
| APE | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.3s | | | | | | |
| **APE** | **Apeiranthos** | **21.60** | **294** | *i* P | **P** | **05 34 35.3** | **+0.5** |
| | comp=Z,1.0nm,0.3s | | | | | | |
| **VRH** | **Novokhopyorsk** | **21.65** | **345** | *e*P | **P** | **05 34 33.7** | **-1.4** |
| VRH | | | | pmax | pmax | | |
| | comp=Z,40nm,0.5s | | | | | | |
| **VRH** | **Novokhopyorsk** | **21.65** | **345** | *e*P | **P** | **05 34 33.7** | **-1.4** |
| | comp=Z,40nm,0.5s | | | | | | |
| **IDI** | **Anoyia** | **21.87** | **289** | P | **P** | **05 34 40.7** | **+3.0** |
| | comp=Z,2.4nm,0.5s,baz=153,slow=9.0,SNR=5.3 | | | | | | |
| **TIRR** | **Tirgusor** | **22.20** | **315** | *e*P | **P** | **05 34 41.8** | **+0.7** |
| TIRR | | | | pmax | pmax | | |
| | comp=Z,16nm,1.5s | | | | | | |
| **TIRR** | **Tirgusor** | **22.20** | **315** | *e*P | **P** | **05 34 41.8** | **+0.7** |
| | comp=Z,16nm,1.5s | | | | | | |
| **TIRR** | **Tirgusor** | **22.20** | **315** | *e*P | **P** | **05 34 41.8** | **+0.7** |
| | comp=Z,16nm,1.5s | | | | | | |
| **VSR** | **Storozhevoye** | **22.30** | **341** | *e*P | **P** | **05 34 37.7** | **-4.4** |
| VSR | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.4s | | | | | | |
| **CFR** | **Carcaliu** | **22.75** | **316** | ⇑*i*P | **P** | **05 34 46.3** | **-0.6** |
| **CFR** | **Carcaliu** | **22.75** | **316** | P | **P** | **05 34 46.3** | **-0.6** |
| **CFR** | **Carcaliu** | **22.75** | **316** | P | **P** | **05 34 46.3** | **-0.6** |
| **AAK** | **Ala-Archa** | **22.78** | **51** | *e*P | **P** | **05 34 50.8** | **+3.3** |
| AAK | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.1s | | | | | | |
| **AAK** | **Ala-Archa** | **22.78** | **51** | *e*P | **P** | **05 34 50.8** | **+3.3** |
| | comp=Z,5.5nm,1.1s | | | | | | |
| **LPSR** | **Galich'ya Gora** | **23.61** | **342** | *e*P | **P** | **05 34 54.2** | **-1.3** |
| LPSR | | | | pmax | pmax | | |
| | comp=Z,20nm,0.8s | | | | | | |
| **LPSR** | **Galich'ya Gora** | **23.61** | **342** | *e*P | **P** | **05 34 54.2** | **-1.3** |
| | comp=Z,20nm,0.8s | | | | | | |
| **PLOR** | **Plostina** | **23.99** | **316** | ⇑*i*P | **P** | **05 34 59.9** | **+0.6** |
| **PLOR** | **Plostina** | **23.99** | **316** | P | **P** | **05 34 59.9** | **+0.6** |
| **PLOR** | **Plostina** | **23.99** | **316** | P | **P** | **05 34 59.9** | **+0.6** |
| **MLR** | **Muntele Rosu** | **24.23** | **315** | P | **P** | **05 35 03.4** | **+1.8** |
| | comp=Z,1.1nm,0.7s,baz=200,slow=0.9,SNR=14 | | | | | | |
| **MLR** | **Muntele Rosu** | **24.23** | **315** | ⇓*i*P | **P** | **05 35 03.2** | **+1.6** |
| **MLR** | **Muntele Rosu** | **24.23** | **315** | *e*P | **P** | **05 35 03.4** | **+1.8** |
| MLR | | | | *e**PP | **pP** | **05 35 03.6** | **-5.4** |
| **MLR** | **Muntele Rosu** | **24.23** | **315** | *e*P | **P** | **05 35 03.4** | **+1.8** |
| MLR | | | | *e*pP | **pP** | **05 35 03.6** | **-5.4** |
| **TESR** | **Tescani** | **24.34** | **318** | ⇑*i*P | **P** | **05 35 03.5** | **+1.0** |
| **VOIR** | | **24.75** | **314** | ⇑*i*P | **P** | **05 35 08.4** | **+2.1** |
| **VOIR** | | **24.75** | **314** | P | **P** | **05 35 08.3** | **+2.0** |
| **VOIR** | | **24.75** | **314** | P | **P** | **05 35 08.3** | **+2.0** |
| **DOPR** | **Dopca** | **24.80** | **315** | ⇓*i*P | **P** | **05 35 07.8** | **+1.1** |
| **ARR** | **Arges** | **24.98** | **314** | ⇓*i*P | **P** | **05 35 10.1** | **+1.7** |
| **AKASG** | **Malin Array Be** | **25.60** | **328** | P | **P** | **05 35 13.2** | **-0.7** |
| | comp=Z,1.6nm,0.7s,baz=132,slow=8.0,SNR=12 | | | | | | |
| **AKASG** | **Malin Array Be** | **25.60** | **328** | *ce*P | **P** | **05 35 13.6** | **-0.2** |
| AKASG | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | |
| **AKASG** | **Malin Array Be** | **25.60** | **328** | *e*P | **P** | **05 35 13.6** | **-0.2** |
| | comp=Z,2.0nm,0.7s | | | | | | |
| **AKBB** | **Malin Array Si** | **25.60** | **328** | *e*P | **P** | **05 35 14.0** | **+0.2** |
| AKBB | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.9s | | | | | | |
| **AKBB** | **Malin Array Si** | **25.60** | **328** | *e*P | **P** | **05 35 14.0** | **+0.2** |
| | comp=Z,5.5nm,0.9s | | | | | | |
| **AKBB** | **Malin Array Si** | **25.60** | **328** | *e*P | **P** | **05 35 14.0** | **+0.2** |
| | comp=Z,5.5nm,0.9s | | | | | | |
| **AK11** | **Malin Array Si** | **25.61** | **328** | *e*P | **P** | **05 35 14.7** | **+0.8** |
| **AK11** | **Malin Array Si** | **25.61** | **328** | *e*P | **P** | **05 35 14.7** | **+0.8** |
| **BURAR** | **Bucovina Array** | **25.76** | **319** | ⇓*i*P | **P** | **05 35 16.8** | **+1.3** |
| **BURAR** | **Bucovina Array** | **25.76** | **319** | P | **P** | **05 35 16.7** | **+1.3** |
| **BUR04** | **Bucovina Ar. S** | **25.76** | **319** | *e*P | **P** | **05 35 16.6** | **+1.1** |
| **BUR04** | **Bucovina Ar. S** | **25.76** | **319** | *e*P | **P** | **05 35 16.6** | **+1.1** |
| BUR04 | | | | *e*pP | **pP** | **05 35 16.7** | **-6.1** |
| **BUR08** | **Bucovina Ar. S** | **25.78** | **319** | *e*P | **P** | **05 35 16.7** | **+1.0** |
| **BUR08** | **Bucovina Ar. S** | **25.78** | **319** | *e*P | **P** | **05 35 16.7** | **+1.0** |
| **OBN** | **Obninsk** | **26.49** | **342** | *e*P | **P** | **05 35 21.2** | **-0.6** |
| OBN | | | | *e* | | 05 36 00.9 | |
| OBN | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.9s | | | | | | |
| OBN | | | | MLR | MLR | | |
| | comp=Z,100nm,12.0s | | | | | | |
| **OBN** | **Obninsk** | **26.49** | **342** | *e*P | **P** | **05 35 21.2** | **-0.6** |
| | comp=Z,7.0nm,0.9s | | | | | | |
| **ARU** | **Arti** | **26.55** | **10** | *c i*P | **P** | **05 35 24.6** | **+2.2** |
| ARU | | | | | | 05 36 01.3 | |
| ARU | | | | S | **S** | **05 40 02.5** | **+7.3** |
| ARU | | | | SS | **SnSn** | **05 40 58.6** | **+0.6** |
| ARU | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.7s | | | | | | |
| **ARU** | **Arti** | **26.55** | **10** | *e*P | **P** | **05 35 23.1** | **+0.7** |
| | comp=Z,4.6nm,0.8s | | | | | | |
| **ARU** | **Arti** | **26.55** | **10** | *e*P | **P** | **05 35 23.1** | **+0.7** |
| | comp=Z,4.6nm,0.8s | | | | | | |
| **BRVK** | **Borovoye** | **26.82** | **27** | *ce*P | **P** | **05 35 23.8** | **-1.1** |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.2s | | | | | | |
| **BRVK** | **Borovoye** | **26.82** | **27** | *e*P | **P** | **05 35 25.3** | **+0.4** |
| | comp=Z,2.6nm,0.6s | | | | | | |
| **BRVK** | **Borovoye** | **26.82** | **27** | *e*P | **P** | **05 35 25.3** | **+0.4** |
| | comp=Z,2.6nm,0.6s | | | | | | |
| **DRGR** | | **26.83** | **315** | ⇓*i*P | **P** | **05 35 26.8** | **+1.7** |
| **DRGR** | | **26.83** | **315** | P | **P** | **05 35 26.8** | **+1.7** |
| **DRGR** | | **26.83** | **315** | P | **P** | **05 35 26.8** | **+1.7** |
| **BVAR** | **Borovoye Array** | **26.84** | **27** | P | **P** | **05 35 25.1** | **+0.1** |
| | comp=Z,3.3nm,0.6s,baz=216,slow=7.3,SNR=12 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **29.08** | **38** | P | **P** | **05 35 45.9** | **+0.8** |
| | comp=Z,4.4nm,0.7s,baz=240,slow=9.6,SNR=30 | | | | | | |
| **KURK** | **Kurchatov** | **29.18** | **38** | *ce*P | **P** | **05 35 47.2** | **+1.3** |
| KURK | | | | pmax | pmax | | |
| | comp=Z,12nm,0.7s | | | | | | |
| **KURK** | **Kurchatov** | **29.18** | **38** | *e*P | **P** | **05 35 46.7** | **+0.8** |
| | comp=Z,7.8nm,0.8s | | | | | | |
| **KURK** | **Kurchatov** | **29.18** | **38** | *e*P | **P** | **05 35 46.7** | **+0.8** |
| | comp=Z,7.8nm,0.8s | | | | | | |
| **MAKZ** | **Makanchi** | **29.33** | **47** | *e*P | **P** | **05 35 48.5** | **+1.1** |
| MAKZ | | | | pmax | pmax | | |
| | comp=Z,28nm,1.5s | | | | | | |
| **MAKZ** | **Makanchi** | **29.33** | **47** | *e*P | **P** | **05 35 48.5** | **+1.1** |
| | comp=Z,28nm,1.5s | | | | | | |
| **MAKZ** | **Makanchi** | **29.33** | **47** | *e*P | **P** | **05 35 48.5** | **+1.1** |
| | comp=Z,28nm,1.5s | | | | | | |
| **MK01** | **Makanchi Array** | **29.52** | **48** | *e*P | **P** | **05 35 49.5** | **+0.4** |
| **MK01** | **Makanchi Array** | **29.52** | **48** | *e*P | **P** | **05 35 49.5** | **+0.4** |
| **MK31** | **Makanchi Array** | **29.52** | **48** | *e*P | **P** | **05 35 49.8** | **+0.7** |
| **MK31** | **Makanchi Array** | **29.52** | **48** | *e*P | **P** | **05 35 49.8** | **+0.7** |
| **MK31** | **Makanchi Array** | **29.52** | **48** | *e*P | **P** | **05 35 49.8** | **+0.7** |
| **MKAR** | **Makanchi Array** | **29.52** | **48** | P | **P** | **05 35 49.8** | **+0.6** |
| | comp=Z,1.4nm,0.5s,baz=239,slow=9.8,SNR=17 | | | | | | |
| **MKAR** | **Makanchi Array** | **29.52** | **48** | *ce*P | **P** | **05 35 49.7** | **+0.6** |
| MKAR | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.5s | | | | | | |
| **MKAR** | **Makanchi Array** | **29.52** | **48** | *e*P | **P** | **05 35 49.7** | **+0.6** |
| | comp=Z,2.0nm,0.5s | | | | | | |
| **VYHS** | **Vyhne** | **29.93** | **316** | *e*P | **P** | **05 35 53.0** | **+0.3** |
| **VYHS** | **Vyhne** | **29.93** | **316** | *e*P | **P** | **05 35 53.0** | **+0.3** |
| **VYHS** | **Vyhne** | **29.93** | **316** | *e*P | **P** | **05 35 53.0** | **+0.3** |
| **WMQ** | **Urumqi** | **32.32** | **55** | P | **P** | **05 36 16.3** | **+2.5** |
| WMQ | | | | pP | pP | 05 36 20.8 | -0.5 |
| WMQ | | | | sP | sP | 05 36 23.5 | -0.8 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,21nm,0.6s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,360nm,5.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,180nm,17.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,98nm,12.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,100nm,15.9s | | | | | | |
| **GERES** | **GERESS Array B** | **33.21** | **314** | P | **P** | **05 36 22.0** | **+0.4** |
| | comp=Z,0.3nm,0.5s,baz=120,slow=5.8,SNR=3.0 | | | | | | |
| **GERES** | **GERESS Array B** | **33.21** | **314** | P | **P** | **05 36 22.0** | **+0.4** |
| **GERES** | **GERESS Array B** | **33.21** | **314** | P | **P** | **05 36 22.0** | **+0.4** |
| **ZAA0** | **Zalesovo Array** | **34.11** | **37** | *e*P | **P** | **05 36 29.8** | **+0.6** |
| | comp=Z,6.3nm,0.6s | | | | | | |
| **ZAA0** | **Zalesovo Array** | **34.11** | **37** | *e*P | **P** | **05 36 29.8** | **+0.6** |
| | comp=Z,6.3nm,0.6s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **34.11** | **37** | P | **P** | **05 36 29.1** | **-0.1** |
| | comp=Z,5.6nm,0.5s,baz=253,slow=9.8,SNR=22 | | | | | | |
| ZALV | | | | LR | LR | 05 50 17.5 | |
| | comp=Z,44nm,18.9s,baz=250,slow=36 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **34.11** | **37** | *e*P | **P** | **05 36 29.7** | **+0.5** |
| **ZALV** | **Zalesovo Beam** | **34.11** | **37** | *e*P | **P** | **05 36 29.7** | **+0.5** |
| **ZALV** | **Zalesovo Beam** | **34.11** | **37** | *e*P | **P** | **05 36 29.7** | **+0.5** |
| **FINES** | **FINESS Array B** | **34.81** | **340** | P | **P** | **05 36 34.5** | **-0.6** |
| | comp=Z,1.4nm,0.5s,baz=145,slow=12,SNR=9.0 | | | | | | |
| **NOA** | **NORSAR Array B** | **39.91** | **331** | LR | LR | 05 53 34.4 | |
| | comp=Z,24nm,20.2s,baz=330,slow=36 | | | | | | |
| **LZH** | **Lanzhou** | **44.60** | **68** | *e*P | **P** | **05 37 58.6** | **+1.4** |
| LZH | | | | pP | pP | 05 38 02.4 | -2.4 |
| LZH | | | | sP | sP | 05 38 05.8 | -2.0 |
| LZH | | | | PP | PcP | 05 39 04.1 | -36 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.0s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,130nm,6.8s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=N,200nm,12.5s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=E,180nm,11.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,270nm,13.4s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **45.52** | **94** | P | **P** | **05 38 04.8** | **+0.4** |
| | comp=Z,0.6nm,0.3s,baz=270,slow=7.1,SNR=4.3 | | | | | | |
| **SONM** | **Songino Array** | **45.74** | **51** | P | **P** | **05 38 06.4** | **+0.4** |
| | comp=Z,1.0nm,0.9s,baz=264,slow=7.3,SNR=4.4 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **47.96** | **260** | P | **P** | **05 38 24.9** | **+1.3** |
| | comp=Z,1.4nm,0.8s,baz=57,slow=8.0,SNR=12 | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **49.89** | **60** | *e*P | **P** | **05 38 39.5** | **+1.3** |
| HHC | | | | S | **S** | **05 45 40.5** | **-6.4** |
| HHC | | | | sS | pS | 05 45 54.3 | -1.7 |
| **HHC** | **Hu-ho-hao-te** | **49.89** | **60** | SS | SS | 05 49 15.3 | -4.3 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,13nm,1.0s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,140nm,5.4s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=N,200nm,15.1s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=E,390nm,16.7s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,140nm,14.9s | | | | | | |
| **BOD** | **Bodaibo** | **50.83** | **38** | *e*P | **P** | **05 38 44.4** | **-0.6** |
| BOD | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.5s | | | | | | |
| **BOD** | **Bodaibo** | **50.83** | **38** | *e*P | **P** | **05 38 44.4** | **-0.6** |
| | comp=Z,6.0nm,1.5s | | | | | | |
| **DBIC** | **Dimbokro** | **56.80** | **257** | *e*P | **P** | **05 39 32.8** | **+3.6** |
| DBIC | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.0s | | | | | | |
| **DBIC** | **Dimbokro** | **56.80** | **257** | *e*P | **P** | **05 39 32.8** | **+3.6** |
| | comp=Z,8.0nm,1.0s | | | | | | |
| **DBIC** | **Dimbokro** | **56.80** | **257** | *e*P | **P** | **05 39 32.8** | **+3.6** |
| | comp=Z,7.6nm,1.0s | | | | | | |
| **KIC** | **Kosan Boka** | **56.87** | **257** | *e*P | **P** | **05 39 31.2** | **+1.5** |
| | comp=Z,112nm,2.3s | | | | | | |
| **TIC** | **Toumodi** | **56.95** | **257** | *e*P | **P** | **05 39 30.7** | **+0.4** |
| **LIC** | **Lamto** | **57.18** | **257** | *e*P | **P** | **05 39 32.7** | **+0.8** |
| | comp=Z,27nm,0.9s | | | | | | |
| **KSAR** | **Wonju Array Be** | **63.00** | **61** | P | **P** | **05 40 11.6** | **0.0** |
| **KSAR** | **Wonju Array Be** | **63.00** | **61** | P | **P** | **05 40 11.6** | **0.0** |
| **KSAR** | **Wonju Array Be** | **63.00** | **61** | P | **P** | **05 40 11.6** | **0.0** |
| **KSRS** | **Korea Array** | **63.03** | **61** | P | **P** | **05 40 11.6** | **-0.2** |
| | comp=Z,2.9nm,0.5s,baz=280,slow=6.6,SNR=8.9 | | | | | | |
| **ILAR** | **Eielson Array** | **84.08** | **7** | P | **P** | **05 42 14.2** | **-0.7** |
| | comp=Z,0.7nm,0.7s,baz=318,slow=4.1,SNR=9.4 | | | | | | |
| **YKA** | **Yellowknife Ar** | **86.54** | **353** | P | **P** | **05 42 27.0** | **-0.2** |
| | comp=Z,0.3nm,0.8s,baz=5.8,slow=4.9,SNR=5.6 | | | | | | |

*THE* ***15*** *05:34:51.7, 37.99N×22.00E, h2km, 1km, ML2.5/25, Error ellipse: s-maj=1.0km s-min=0.4km az=225.0*
*CSEM* ***15*** *05:34:52.1±0.1, 37.98N×22.00E, h5km, ML2.6, Error ellipse: s-maj=1.5km s-min=1.3km az=38.0*
**ATH 15 05:34:52.0, 37.98N×22.00E, h16km, 1km, ML2.5**/24**, Error ellipse: s-maj=1.6km s-min=0.5km az=333.0, Southern Greece**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KLV** | **Kalavryta, Ach** | **0.13** | **63** | P | Pg | 05 34 55.0 | -0.8 |
| KLV | | | | S | Sg | 05 34 56.6 | -1.8 |
| KLV | | | | AML | AML | 05 34 58.1 | |
| | comp=E,8102µm,0.1s | | | | | | |
| KLV | | | | AML | AML | 05 34 58.2 | |
| | comp=N,10019µm,0.1s | | | | | | |
| **KLV** | **Kalavryta, Ach** | **0.13** | **63** | P | Pg | 05 34 55.1 | -0.8 |
| KLV | | | | S | Sg | 05 34 57.2 | -1.2 |
| **KLV** | **Kalavryta, Ach** | **0.13** | **63** | P | Pg | 05 34 55.1 | -0.8 |
| KLV | | | | S | Sg | 05 34 57.4 | -1.0 |
| **DRO** | **Drossia** | **0.23** | **262** | P | Pg | 05 34 56.8 | -0.4 |
| DRO | | | | S | Sg | 05 35 01.1 | +0.3 |
| DRO | | | | AML | AML | 05 35 01.5 | |
| | comp=E,10546µm,0.5s | | | | | | |
| DRO | | | | AML | AML | 05 35 03.6 | |
| | comp=N,12157µm,0.3s | | | | | | |
| **DRO** | **Drossia** | **0.23** | **262** | P | Pg | 05 34 56.9 | -0.3 |
| DRO | | | | S | Sg | 05 35 00.6 | -0.2 |
| **DRO** | **Drossia** | **0.23** | **262** | P | Pg | 05 34 56.9 | -0.3 |
| DRO | | | | S | Sg | 05 35 00.6 | -0.2 |
| **LAKA** | **Lakka** | **0.26** | **356** | P | Pg | 05 34 57.3 | -0.4 |
| LAKA | | | | S | Sg | 05 35 00.7 | -0.9 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DSF | | | | S | Sb | 05 35 12.8 | +0.5 | | |
| **DSF** | **Desfina** | **0.60** | **44** | P | Pg | 05 35 03.2 | -0.6 | | |
| DSF | | | | S | Sb | 05 35 12.8 | +0.5 | | |
| **ANX** | **Ano Chora** | **0.61** | **354** | P | Pg | 05 35 04.1 | 0.0 | | |
| ANX | | | | S | Sb | 05 35 12.7 | -0.1 | | |
| **ANX** | **Ano Chora** | **0.61** | **354** | P | Pg | 05 35 04.1 | 0.0 | | |
| ANX | | | | S | Sb | 05 35 12.7 | -0.2 | | |
| **ANX** | **Ano Chora** | **0.61** | **354** | P | Pg | 05 35 03.8 | -0.3 | | |
| ANX | | | | S | Sb | 05 35 13.1 | +0.2 | | |
| **VTN** | **Vitineika** | **0.65** | **264** | P | Pg | 05 35 03.9 | -0.8 | | |
| **VTN** | **Vitineika** | **0.65** | **264** | P | Pg | 05 35 03.9 | -0.8 | | |
| **VLX** | **Vlachokerasia** | **0.68** | **154** | P | Pg | 05 35 04.8 | -0.6 | | |
| VLX | | | | S | Sb | 05 35 15.4 | +0.6 | | |
| VLX | | | | AML | AML | 05 35 16.5 | | | |
| | comp=E,1086µm,0.6s | | | | | | | | |
| VLX | | | | AML | AML | 05 35 17.9 | | | |
| | comp=N,1342µm,0.5s | | | | | | | | |
| **VLX** | **Vlachokerasia** | **0.68** | **154** | P | Pg | 05 35 05.1 | -0.3 | | |
| VLX | | | | S | Sb | 05 35 15.4 | +0.6 | | |
| **VLX** | **Vlachokerasia** | **0.68** | **154** | P | Pg | 05 35 05.1 | -0.3 | | |
| VLX | | | | S | Sb | 05 35 16.1 | +1.3 | | |
| **PVO** | **Paravola** | **0.73** | **330** | P | Pg | 05 35 06.3 | -0.1 | | |
| PVO | | | | S | Sg | 05 35 16.1 | 0.0 | | |
| PVO | | | | AML | AML | 05 35 20.5 | | | |
| | comp=E,475µm,0.2s | | | | | | | | |
| PVO | | | | AML | AML | 05 35 24.7 | | | |
| | comp=N,267µm,0.2s | | | | | | | | |
| **PVO** | **Paravola** | **0.73** | **330** | P | Pb | 05 35 06.5 | +0.1 | | |
| PVO | | | | S | Sg | 05 35 16.1 | 0.0 | | |
| **PVO** | **Paravola** | **0.73** | **330** | P | Pb | 05 35 06.5 | +0.1 | | |
| PVO | | | | S | Sn | 05 35 18.1 | -0.5 | | |
| **PROD** | **Prodromos** | **0.76** | **69** | P | Pb | 05 35 07.0 | +0.1 | | |
| PROD | | | | S | Sg | 05 35 16.7 | -0.2 | | |
| PROD | | | | AML | AML | 05 35 19.0 | | | |
| | comp=E,1217µm,0.3s | | | | | | | | |
| PROD | | | | AML | AML | 05 35 19.1 | | | |
| | comp=N,1486µm,0.2s | | | | | | | | |
| **PROD** | **Prodromos** | **0.76** | **69** | P | Pb | 05 35 07.0 | +0.1 | | |
| PROD | | | | S | Sg | 05 35 16.7 | -0.2 | | |
| **LTK** | **Loutraki** | **0.76** | **87** | P | Pg | 05 35 06.5 | -0.4 | | |
| LTK | | | | S | Sn | 05 35 18.3 | -1.1 | | |
| **LTK** | **Loutraki** | **0.76** | **87** | P | Pg | 05 35 06.6 | -0.3 | | |
| LTK | | | | S | Sn | 05 35 18.3 | -1.1 | | |
| **LTK** | **Loutraki** | **0.76** | **87** | P | Pg | 05 35 06.6 | -0.3 | | |
| LTK | | | | S | Sn | 05 35 18.3 | -1.1 | | |
| **LOUT** | **Loutraki** | **0.77** | **89** | P | Pg | 05 35 06.8 | -0.2 | | |
| LOUT | | | | S | Sn | 05 35 18.9 | -0.6 | | |
| **LOUT** | **Loutraki** | **0.77** | **89** | P | Pg | 05 35 06.8 | -0.2 | | |
| LOUT | | | | S | Sn | 05 35 18.9 | -0.6 | | |
| **MES3** | **Kyparissia** | **0.78** | **200** | P | Pb | 05 35 06.7 | -0.5 | | |
| **MES3** | **Kyparissia** | **0.78** | **200** | P | Pb | 05 35 06.7 | -0.4 | | |
| **ITM** | **Ithomi** | **0.80** | **184** | P | Pb | 05 35 07.5 | -0.1 | | |
| ITM | | | | S | Sb | 05 35 17.9 | -0.3 | | |
| ITM | | | | AML | AML | 05 35 24.3 | | | |
| | comp=E,206µm,0.4s | | | | | | | | |
| ITM | | | | AML | AML | 05 35 24.5 | | | |
| | comp=N,276µm,0.2s | | | | | | | | |
| **ITM** | **Ithomi** | **0.80** | **184** | P | Pb | 05 35 07.5 | -0.1 | | |
| ITM | | | | S | Sb | 05 35 17.9 | -0.3 | | |
| **ITM** | **Ithomi** | **0.80** | **184** | P | Pg | 05 35 07.8 | +0.1 | | |
| ITM | | | | S | Sn | 05 35 20.0 | -0.3 | | |
| **PDO** | **Prodromos** | **0.89** | **314** | P | Pn | 05 35 09.6 | -0.3 | | |
| PDO | | | | S | Sb | 05 35 20.8 | +0.1 | | |
| PDO | | | | AML | AML | 05 35 25.5 | | | |
| | comp=N,1697µm,0.3s | | | | | | | | |
| PDO | | | | AML | AML | 05 35 27.0 | | | |
| | comp=E,1124µm,0.3s | | | | | | | | |
| **PDO** | **Prodromos** | **0.89** | **314** | P | Pb | 05 35 09.1 | 0.0 | | |
| PDO | | | | S | Sb | 05 35 20.8 | +0.1 | | |
| **PDO** | **Prodromos** | **0.89** | **314** | P | Pb | 05 35 09.1 | 0.0 | | |
| PDO | | | | S | Sn | 05 35 23.1 | +0.6 | | |
| **AXAR** | **Agios Charalam** | **0.94** | **33** | P | Pb | 05 35 09.4 | -0.5 | | |
| **AXAR** | **Agios Charalam** | **0.94** | **33** | P | Pb | 05 35 09.4 | -0.5 | | |
| **EVR** | **Evrytania** | **0.94** | **351** | P | Pg | 05 35 10.3 | -0.1 | | |
| EVR | | | | S | Sn | 05 35 24.2 | +0.3 | | |
| EVR | | | | AML | AML | 05 35 26.8 | | | |
| | comp=E,347µm,0.5s | | | | | | | | |
| EVR | | | | AML | AML | 05 35 26.8 | | | |
| | comp=N,287µm,0.3s | | | | | | | | |
| **EVR** | **Evrytania** | **0.94** | **351** | P | Pg | 05 35 10.3 | 0.0 | | |
| EVR | | | | S | Sn | 05 35 24.1 | +0.1 | | |
| **EVR** | **Evrytania** | **0.94** | **351** | P | Pb | 05 35 10.1 | 0.0 | | |
| **EVR** | **Evrytania** | **0.94** | **351** | P | Pb | 05 35 10.1 | 0.0 | | |
| EVR | | | | S | Sn | 05 35 24.1 | +0.1 | | |
| **KFL** | **Anninata** | **0.97** | **278** | P | Pn | 05 35 10.9 | 0.0 | | |
| KFL | | | | S | Sn | 05 35 24.1 | -0.2 | | |
| **KFL** | **Anninata** | **0.97** | **278** | P | Pn | 05 35 10.9 | 0.0 | | |
| KFL | | | | S | Sn | 05 35 24.1 | -0.2 | | |
| **KFL** | **Anninata** | **0.97** | **278** | P | Pg | 05 35 10.6 | -0.1 | | |
| KFL | | | | S | Sn | 05 35 24.9 | +0.6 | | |
| **VIL2** | **Platees** | **1.03** | **77** | P | Pg | 05 35 12.7 | +0.8 | | |
| VIL2 | | | | S | Sn | 05 35 26.5 | +0.6 | | |
| **LKR** | **Lokris** | **1.03** | **49** | P | Pn | 05 35 11.8 | 0.0 | | |
| LKR | | | | S | Sg | 05 35 25.2 | -0.3 | | |
| LKR | | | | AML | AML | 05 35 29.5 | | | |
| | comp=E,456µm,0.2s | | | | | | | | |
| LKR | | | | AML | AML | 05 35 30.4 | | | |
| | comp=N,294µm,0.4s | | | | | | | | |
| **LKR** | **Lokris** | **1.03** | **49** | P | Pn | 05 35 11.8 | 0.0 | | |
| LKR | | | | S | Sg | 05 35 25.2 | -0.2 | | |
| **LKR** | **Lokris** | **1.03** | **49** | P | Pn | 05 35 11.7 | -0.1 | | |
| LKR | | | | S | Sn | 05 35 26.0 | +0.1 | | |
| **VILL** | **Villia** | **1.05** | **80** | P | Pg | 05 35 12.3 | 0.0 | | |
| VILL | | | | S | Sn | 05 35 26.5 | 0.0 | | |
| **VILL** | **Villia** | **1.05** | **80** | P | Pg | 05 35 12.3 | 0.0 | | |
| VILL | | | | S | Sn | 05 35 27.4 | +0.9 | | |
| **AGG** | **Agios Georgios** | **1.07** | **14** | P | Pb | 05 35 11.8 | -0.4 | | |
| AGG | | | | S | Sg | 05 35 26.5 | -0.2 | | |
| **AGG** | **Agios Georgios** | **1.07** | **14** | P | Pb | 05 35 11.8 | -0.4 | | |
| AGG | | | | S | Sg | 05 35 26.5 | -0.2 | | |
| **DID** | **Didima** | **1.09** | **116** | P | Pb | 05 35 12.3 | -0.2 | | |
| DID | | | | S | Sn | 05 35 27.8 | +0.4 | | |
| DID | | | | AML | AML | 05 35 32.0 | | | |
| | comp=E,406µm,0.3s | | | | | | | | |
| DID | | | | AML | AML | 05 35 32.1 | | | |
| | comp=N,534µm,0.5s | | | | | | | | |
| **DID** | **Didima** | **1.09** | **116** | P | Pb | 05 35 12.4 | -0.1 | | |
| DID | | | | S | Sn | 05 35 27.6 | +0.2 | | |
| **DID** | **Didima** | **1.09** | **116** | P | Pb | 05 35 12.4 | -0.1 | | |
| DID | | | | S | Sn | 05 35 27.6 | +0.2 | | |
| **KRND** | **KRANIDI** | **1.09** | **123** | P | Pn | 05 35 12.8 | +0.2 | | |
| KRND | | | | S | Sn | 05 35 28.5 | +1.1 | | |
| **KRND** | **KRANIDI** | **1.09** | **123** | P | Pn | 05 35 12.8 | +0.2 | | |
| KRND | | | | S | Sn | 05 35 28.5 | +1.1 | | |
| **PYL** | **PYLOS** | **1.10** | **191** | P | Pg | 05 35 13.3 | -0.1 | | |
| PYL | | | | S | Sg | 05 35 28.9 | +1.1 | | |
| PYL | | | | AML | AML | 05 35 36.0 | | | |
| | comp=N,123µm,0.3s | | | | | | | | |
| PYL | | | | AML | AML | 05 35 36.4 | | | |
| | comp=E,167µm,0.3s | | | | | | | | |
| **PYL** | **PYLOS** | **1.10** | **191** | P | Pg | 05 35 13.3 | -0.1 | | |
| PYL | | | | S | Sg | 05 35 28.9 | +1.1 | | |
| **PYL** | **PYLOS** | **1.10** | **191** | P | Pn | 05 35 13.0 | +0.2 | | |
| **VLS** | **Valsamata** | **1.13** | **280** | P | Pb | 05 35 12.2 | -1.0 | | |
| VLS | | | | S | Sg | 05 35 29.2 | +0.5 | | |
| VLS | | | | AML | AML | 05 35 34.6 | | | |
| | comp=N,307µm,0.2s | | | | | | | | |
| VLS | | | | AML | AML | 05 35 36.4 | | | |
| | comp=E,221µm,0.2s | | | | | | | | |
| **VLS** | **Valsamata** | **1.13** | **280** | P | Pb | 05 35 12.8 | -0.4 | | |
| VLS | | | | S | Sg | 05 35 29.2 | +0.6 | | |
| **VLS** | **Valsamata** | **1.13** | **280** | P | Pb | 05 35 12.8 | -0.4 | | |
| VLS | | | | S | Sg | 05 35 29.3 | +0.7 | | |
| **MES2** | **Methoni** | **1.18** | **192** | P | Pg | 05 35 14.8 | 0.0 | | |
| MES2 | | | | S | Sg | 05 35 31.0 | +0.8 | | |
| MES2 | | | | AML | AML | 05 35 40.1 | | | |
| | comp=N,234µm,0.6s | | | | | | | | |
| MES2 | | | | AML | AML | 05 35 41.3 | | | |
| | comp=E,261µm,0.6s | | | | | | | | |
| **MES2** | **Methoni** | **1.18** | **192** | P | Pg | 05 35 14.8 | 0.0 | | |
| MES2 | | | | S | Sg | 05 35 31.0 | +0.8 | | |
| **SMIA** | **Simia** | **1.30** | **46** | P | Pg | 05 35 17.3 | +0.2 | | |
| **SMIA** | **Simia** | **1.30** | **46** | P | Pg | 05 35 17.3 | +0.2 | | |
| **DSL** | **Palaion Diasel** | **1.35** | **329** | P | Pg | 05 35 17.8 | -0.2 | | |
| DSL | | | | S | Sg | 05 35 35.5 | -0.1 | | |
| DSL | | | | AML | AML | 05 35 44.3 | | | |
| | comp=N,350µm,0.7s | | | | | | | | |
| DSL | | | | AML | AML | 05 35 44.9 | | | |
| | comp=E,292µm,0.6s | | | | | | | | |
| **DSL** | **Palaion Diasel** | **1.35** | **329** | P | Pg | 05 35 17.8 | -0.2 | | |
| DSL | | | | S | Sg | 05 35 35.5 | -0.1 | | |
| **ATH** | **Athens Observa** | **1.36** | **90** | P | Pg | 05 35 17.9 | -0.3 | | |
| **ATH** | **Athens Observa** | **1.36** | **90** | P | Pg | 05 35 17.9 | -0.2 | | |
| **ATHU** | **Athens Univers** | **1.41** | **90** | P | Pn | 05 35 17.2 | +0.2 | | |
| **ATHU** | **Athens Univers** | **1.41** | **90** | P | Pn | 05 35 17.2 | +0.2 | | |
| **VLY** | **Voula,Athens** | **1.42** | **95** | P | Pb | 05 35 18.3 | +0.1 | | |
| VLY | | | | S | Sg | 05 35 37.9 | 0.0 | | |
| VLY | | | | AML | AML | 05 35 40.8 | | | |
| | comp=N,198µm,0.4s | | | | | | | | |
| VLY | | | | AML | AML | 05 35 41.3 | | | |
| | comp=E,242µm,0.5s | | | | | | | | |
| **VLY** | **Voula,Athens** | **1.42** | **95** | P | Pb | 05 35 18.3 | +0.1 | | |
| VLY | | | | S | Sg | 05 35 37.9 | -0.1 | | |
| **VLI** | **Veliai** | **1.47** | **149** | P | Pg | 05 35 20.4 | +0.2 | | |
| **VLI** | **Veliai** | **1.47** | **149** | P | Pg | 05 35 20.4 | +0.2 | | |
| **PTL** | **Penteli** | **1.47** | **87** | P | Pb | 05 35 18.7 | -0.3 | | |
| PTL | | | | S | Sg | 05 35 40.2 | +0.6 | | |
| PTL | | | | AML | AML | 05 35 41.4 | | | |
| | comp=N,310µm,0.4s | | | | | | | | |
| PTL | | | | AML | AML | 05 35 41.8 | | | |
| | comp=E,267µm,0.4s | | | | | | | | |
| **PTL** | **Penteli** | **1.47** | **87** | P | Pb | 05 35 18.7 | -0.3 | | |
| PTL | | | | S | Sg | 05 35 40.2 | +0.6 | | |
| **THL** | **Klokotos Trika** | **1.58** | **0** | P | Pb | 05 35 21.5 | +0.7 | | |
| **THL** | **Klokotos Trika** | **1.58** | **0** | P | Pb | 05 35 21.5 | +0.7 | | |
| **FYTO** | **Fytoko, Volos** | **1.60** | **27** | P | Pn | 05 35 20.1 | +0.5 | | |
| **FYTO** | **Fytoko, Volos** | **1.60** | **27** | P | Pn | 05 35 20.1 | +0.4 | | |
| **NEO** | **Neokhori** | **1.63** | **36** | P | Pn | 05 35 20.6 | +0.5 | | |
| **NEO** | **Neokhori** | **1.63** | **36** | P | Pn | 05 35 20.6 | +0.5 | | |
| **SKIA** | **Skiathos** | **1.65** | **44** | P | Pb | 05 35 21.5 | -0.6 | | |
| **SKIA** | **Skiathos** | **1.65** | **44** | P | Pb | 05 35 21.5 | -0.5 | | |

*IDC* ***15*** *05:42:53.5±0.7,29°.58S×176°.14W,h0km,mb4.6/10, mb1 4.8/13,mb1mx4.6/25,mbtmp4.6/13,ML3.9/3,MS3.6/11, Ms1 3.7/11,ms1mx3.5/24,Error ellipse: s-maj=24.0km s-min=16.7km az=165.0*

*ISCJB* ***15*** *05:42:57.2±0.5,29°.96S±0°.03×176°.21W±0°.07,h33km, mb4.5/15,MS3.8/8,Error ellipse: s-maj=8.8km s-min=4.4km az=15.5*

*NEIC* ***15*** *05:42:58.7±0.4,29°.60S×176°.31W,h35km,mb4.6/3,Error ellipse: s-maj=10.9km s-min=9.1km az=113.0*

**ISC 15 05:42:58.3±0.5,29.76S±0°.06×176.18W±0°.07,h35km,n58, σ2s11/57,mb4.5/15,MS3.9/8,1C-1D,Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **1.60** | **288** | | | Pn | **Pn** | **05 43 24.7** | **+0.6** |
| | 258nm,0.3s,baz=96,slow=22,SNR=12 | | | | | | | | |
| RAO | | | | | | Sn | **Sn** | **05 43 44.6** | **+1.0** |
| | 1µm,0.3s,baz=101,slow=23,SNR=18 | | | | | | | | |
| RAO | | | | | | T | T | 05 45 23.8 | |
| | 237nm,0.3s,baz=261,slow=23,SNR=4.2 | | | | | | | | |
| **RAO** | **Raoul Island** | **1.60** | **288** | *e* | P | n | **Pn** | **05 43 22.4** | **-1.8** |
| RAO | | | | | | Sn | **Sn** | **05 43 44.6** | **+1.0** |
| RAO | | | | *e* | S | n | Sn | 05 43 46.5 | +2.9 |
| RAO | | | | | | TT | | 05 45 23.9 | |
| **URZ** | **Urewera** | **10.14** | **212** | | P | n | **Pn** | **05 45 21.1** | **-0.3** |
| | 1.2nm,0.3s,baz=63,slow=2.9,SNR=6.6 | | | | | | | | |
| URZ | | | | | | Sn | **Sn** | **05 47 12.8** | **-1.0** |
| | 6.4nm,0.3s,baz=264,slow=22,SNR=11 | | | | | | | | |
| URZ | | | | | | LR | LR | 05 48 20.1 | |
| | comp=Z,134nm,21.2s,baz=19,slow=32 | | | | | | | | |
| **RIGZ** | **Rimuhau** | **10.23** | **208** | *e* | PN | | **Pn** | **05 45 25.9** | **+3.2** |
| RIGZ | | | | | SN | | **Sn** | **05 47 16.7** | **+0.5** |
| **ARHZ** | **Aropaoanui** | **11.02** | **209** | | SN | | **Sn** | **05 47 35.3** | **-0.2** |
| **BKZ** | **Black Stump Fm** | **11.16** | **211** | | SN | | **Sn** | **05 47 37.4** | **-1.6** |
| **ANWZ** | **Angora Road** | **12.25** | **207** | | SN | | **Sn** | **05 48 05.1** | **-0.4** |
| **BFZ** | **Birch Farm** | **12.53** | **208** | *e* | PN | | **Pn** | **05 45 53.7** | **-0.4** |
| BFZ | | | | | SN | | **Sn** | **05 48 09.5** | **-2.8** |
| **MRZ** | **Mangatainoka R** | **12.79** | **210** | *e* | PN | | **Pn** | **05 45 56.0** | **-1.6** |
| MRZ | | | | | SN | | **Sn** | **05 48 14.2** | **-4.4** |
| **HOWZ** | **Holdsworth Sta** | **13.01** | **209** | *e* | PN | | **Pn** | **05 46 02.5** | **+1.8** |
| HOWZ | | | | | SN | | **Sn** | **05 48 18.4** | **-5.7** |
| **TMWZ** | **Te Maipa** | **13.03** | **208** | | SN | | **Sn** | **05 48 20.7** | **-4.0** |
| **MSVF** | **Nonsavu** | **13.08** | **335** | *e* | PN | | **Pn** | **05 45 58.2** | **-3.6** |
| | 13nm,1.1s | | | | | | | | |
| **DUWZ** | **D'Urville Isla** | **13.66** | **214** | | SN | | **Sn** | **05 48 37.1** | **-2.8** |
| **PLWZ** | **Palliser** | **13.68** | **208** | | SN | | **Sn** | **05 48 35.8** | **-4.7** |
| **CTZ** | **Chatham Island** | **13.96** | **181** | *e* | PN | | **Pn** | **05 46 13.1** | **-0.4** |
| CTZ | | | | | SN | | Sn | 05 48 34.6 | -12 |
| **TUWZ** | **Tuamarina** | **14.14** | **212** | | SN | | **Sn** | **05 48 46.0** | **-5.6** |
| **RAR** | **Rarotonga** | **17.07** | **64** | | Pn | | **Pn** | **05 46 51.4** | **-2.9** |
| | 0.9nm,0.3s,baz=161,slow=5.3,SNR=5.6 | | | | | | | | |
| RAR | | | | | LR | | LR | 05 51 36.1 | |
| | comp=Z,152nm,20.2s,baz=278,slow=31 | | | | | | | | |
| **RPZ** | **Rata Peaks** | **17.25** | **213** | | P | | **P** | **05 46 57.1** | **-0.6** |
| | 1.3nm,0.3s,baz=267,slow=1.6,SNR=6.3 | | | | | | | | |
| **DZM** | **Mont Dzumac** | **17.40** | **292** | | LR | | LR | 05 51 28.3 | |
| | comp=Z,168nm,19.7s,baz=78,slow=30 | | | | | | | | |
| **DZM** | **Mont Dzumac** | **17.40** | **292** | *e* | P | | **P** | **05 47 01.7** | **+2.2** |
| | 66nm,1.4s | | | | | | | | |
| DZM | | | | *e* | LR | | LR | 05 51 08.9 | |
| | 743nm,26.3s | | | | | | | | |
| **TBI** | **Tubuai** | **24.70** | **81** | *e* | LR | | LR | 05 54 07.3 | |
| | 421nm,28.8s,baz=244 | | | | | | | | |
| **PPT2** | **Papeete2** | **27.13** | **69** | *e* | LR | | LR | 05 55 08.0 | |
| | 386nm,27.5s,baz=240 | | | | | | | | |
| **PPT** | **Papeete** | **27.14** | **69** | | LR | | LR | 05 56 06.0 | |
| | comp=Z,102nm,20.4s,baz=228,slow=29 | | | | | | | | |
| **STKA** | **Stephens Creek** | **36.17** | **256** | | P | | **P** | **05 49 59.0** | **+1.4** |
| | 18nm,0.7s,baz=97,slow=10,SNR=21 | | | | | | | | |
| STKA | | | | | LR | | LR | 06 04 11.6 | |
| | comp=Z,225nm,18.1s,baz=39,slow=35 | | | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **39.60** | **66** | *e* | LR | | LR | 06 00 39.3 | |
| | 212nm,28.6s | | | | | | | | |
| **COEN** | **Coen** | **40.64** | **284** | *e* | P | | **P** | **05 50 35.0** | **-0.3** |
| | 8.3nm,0.8s | | | | | | | | |
| **ASAR** | **Alice Springs** | **44.73** | **265** | | P | | **P** | **05 51 07.6** | **-0.8** |
| | 4.2nm,0.7s,baz=102,slow=7.7,SNR=42 | | | | | | | | |
| ASAR | | | | | PcP | | **PcP** | **05 52 51.2** | **+0.8** |
| | 1.0nm,0.6s,baz=125,slow=3.7,SNR=4.2 | | | | | | | | |
| ASAR | | | | | LR | | LR | 06 09 50.6 | |
| | comp=Z,293nm,18.3s,baz=128,slow=36 | | | | | | | | |
| **WRAB** | **Tennant Creek** | **45.66** | **271** | *e* | P | | **P** | **05 51 16.0** | **+0.1** |
| | 11nm,0.6s | | | | | | | | |
| **WRA** | **Warramunga Arr** | **45.66** | **271** | | P | | **P** | **05 51 14.7** | **-1.2** |
| | 16nm,0.7s,baz=109,slow=7.8,SNR=70 | | | | | | | | |
| WRA | | | | | LR | | LR | 06 09 29.8 | |
| | comp=Z,69nm,18.1s,baz=110,slow=35 | | | | | | | | |
| **QSPA** | **South Pole Qui** | **60.35** | **180** | *e* | P | | **P** | **05 53 04.6** | **+1.0** |
| | 38nm,0.9s | | | | | | | | |
| **SYO** | **Syowa Base** | **78.09** | **192** | ⇑*e* | P | | **P** | **05 54 54.0** | **+0.9** |
| **SYO** | **Syowa Base** | **78.09** | **192** | ⇓*e* | pP | | pP | 05 55 07.2 | +3.1 |
| **MJAR** | **Matsushiro Art** | **78.64** | **324** | | P | | **P** | **05 54 55.8** | **-0.8** |
| | 1.7nm,0.6s,baz=153,slow=6.2,SNR=4.9 | | | | | | | | |
| **SNAA** | **Sanae** | **78.74** | **178** | | P | | **P** | **05 54 59.0** | **+2.2** |
| | 2.9nm,0.9s,baz=59,slow=18,SNR=4.8 | | | | | | | | |
| **SNAA** | **Sanae** | **78.74** | **178** | | P | | **P** | **05 54 59.0** | **+2.2** |
| | 7.4nm,0.9s | | | | | | | | |
| **KSRS** | **Korea Array** | **84.90** | **319** | | P | | **P** | **05 55 32.5** | **+3.0** |
| | 2.6nm,0.8s,baz=136,slow=5.9,SNR=6.6 | | | | | | | | |
| **KSAR** | **Wonju Array Be** | **84.91** | **319** | | P | | **P** | **05 55 32.5** | **+2.9** |
| **TUC** | **Tucson** | **87.48** | **50** | *e* | P | | **P** | **05 55 43.5** | **+1.0** |
| | 3.1nm,1.0s | | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **87.52** | **326** | | P | | **P** | **05 55 43.2** | **+0.9** |
| | 2.7nm,0.7s,baz=72,slow=12,SNR=4.6 | | | | | | | | |
| **TXAR** | **Lajitas Array** | **90.72** | **56** | | P | | **P** | **05 55 57.0** | **-0.8** |
| | 1.1nm,0.9s,baz=226,slow=6.3,SNR=4.9 | | | | | | | | |
| **TXAR** | **Lajitas Array** | **90.72** | **56** | | P | | **P** | **05 55 57.0** | **-0.8** |
| **NNA** | **Nana** | **92.07** | **105** | | LR | | LR | 06 25 04.0 | |
| | comp=Z,12nm,21.6s,baz=274,slow=28 | | | | | | | | |
| **ATAH** | **Atahualpa** | **93.20** | **100** | | LR | | LR | 06 28 27.9 | |
| | comp=Z,33nm,19.3s,baz=229,slow=29 | | | | | | | | |
| **PDAR** | **Pinedale Array** | **94.59** | **43** | | P | | **P** | **05 56 15.4** | **-0.1** |
| | 0.6nm,0.9s,baz=179,slow=4.2,SNR=2.9 | | | | | | | | |
| PDAR | | | | | LR | | LR | 06 33 24.0 | |
| | comp=Z,38nm,18.6s,baz=46,slow=32 | | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **94.69** | **288** | | P | | **P** | **05 56 18.3** | **+2.0** |
| | 0.8nm,0.6s,baz=149,slow=3.9,SNR=5.3 | | | | | | | | |
| **ILAR** | **Eielson Array** | **96.96** | **12** | | P | | **P** | **05 56 24.9** | **-0.6** |
| | 1.1nm,0.8s,baz=226,slow=5.5,SNR=8.9 | | | | | | | | |
| **CPUP** | **Villa Florida** | **99.13** | **127** | | LR | | LR | 06 34 08.5 | |
| | comp=Z,46nm,18.9s,baz=226,slow=31 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **104.19** | **25** | | PKKPbc | | PKKPbc | 06 12 47.3 | -0.4 |
| | 0.3nm,0.7s,baz=34,slow=3.0,SNR=3.9 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **118.57** | **310** | | PKP | | **PKPdf** | **06 01 42.1** | **-0.1** |
| | 0.3nm,0.6s,baz=101,slow=1.2,SNR=3.8 | | | | | | | | |
| **ARCES** | **ARCESS Array B** | **138.29** | **349** | | PKP | | **PKPdf** | **06 02 19.3** | **+0.3** |
| | 3.6nm,0.8s,baz=4.3,slow=4.9,SNR=3.7 | | | | | | | | |
| **FINES** | **FINESS Array B** | **145.06** | **341** | | PKP | | **PKPab** | **06 02 30.5** | **-0.3** |
| | 5.0nm,0.6s,baz=82,slow=2.9,SNR=17 | | | | | | | | |
| **KBZ** | **Khabaz** | **146.05** | **305** | | PKPbc | | **PKPab** | **06 02 35.4** | **+0.4** |
| | 2.2nm,0.8s,baz=162,slow=4.3,SNR=4.1 | | | | | | | | |
| **NB2** | **NORSAR Subarra** | **148.33** | **353** | | PKP | | **PKPbc** | **06 02 39.8** | **-0.5** |
| | comp=Z,2.1nm,0.7s,baz=8.6,slow=3.8 | | | | | | | | |
| **NOA** | **NORSAR Array B** | **148.33** | **353** | | PKPbc | | **PKPbc** | **06 02 40.2** | **-0.1** |
| | comp=Z,3.9nm,0.9s,baz=9.1,slow=4.3,SNR=6.6 | | | | | | | | |
| **AKASG** | **Malin Array Be** | **151.72** | **325** | | PKPbc | | **PKPbc** | **06 02 49.0** | **+0.3** |
| | comp=Z,7.6nm,0.6s,baz=45,slow=2.9,SNR=42 | | | | | | | | |
| **BRTR** | **Keskin Array B** | **153.67** | **300** | | PKPbc | | **PKPbc** | **06 02 54.0** | **+0.3** |
| | comp=Z,0.8nm,0.8s,baz=122,slow=3.5,SNR=5.8 | | | | | | | | |
| BRTR | | | | | PKPab | | **sPKPbc** | **06 03 07.6** | **-1.5** |
| | comp=Z,0.6nm,0.6s,baz=185,slow=6.2,SNR=3.6 | | | | | | | | |
| **CLL** | **Collm** | **157.41** | **345** | *e* | PKPab | | **PKPab** | **06 03 21.0** | **-0.8** |
| **TORD** | **Torodi Ar. Bea** | **163.35** | **173** | | PKPab | | **PKPab** | **06 03 50.9** | **+2.4** |
| | comp=Z,2.2nm,0.7s,baz=187,slow=4.3,SNR=8.9 | | | | | | | | |

**WEL 15 05:47:38.8±0.3,38°.66S×175°.55E,h142km±3km,ML3.4/7, 1D,Error ellipse: s-maj=3.3km s-min=2.1km az=90.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **BKZ** | **Black Stump Fm** | **0.90** | **125** | | | PN | Pn | 05 48 02.1 | +0.1 |
| BKZ | | | | | | SN | Sn | 05 48 19.4 | -0.2 |
| **BHHZ** | **Black Hill Sta** | **0.93** | **154** | | | PN | Pn | 05 48 02.6 | +0.4 |
| BHHZ | | | | | | SN | Sn | 05 48 20.1 | 0.0 |
| **ARHZ** | **Aropaoanui** | **1.28** | **119** | | | PN | Pn | 05 48 05.5 | +0.1 |
| ARHZ | | | | | | SN | Sn | 05 48 25.7 | -0.1 |
| **WPHZ** | **Waipukurau** | **1.57** | **154** | | | SN | Sn | 05 48 30.8 | -0.5 |
| **DVHZ** | **Dannevirke** | **1.71** | **164** | | | AML | AML | 05 48 33.6 | |
| DVHZ | | | | | | AML | AML | 05 48 35.5 | |
| **RIGZ** | **Rimuhau** | **1.73** | **92** | | | SN | Sn | 05 48 32.2 | -2.3 |
| **PRWZ** | **Pori Road** | **1.93** | **170** | | | SN | Sn | 05 48 37.7 | -0.7 |
| **ANWZ** | **Angora Road** | **1.94** | **159** | | | PN | Pn | 05 48 12.7 | +0.1 |
| ANWZ | | | | | | AML | AML | 05 48 23.0 | |
| **MRZ** | **Mangatainoka R** | **2.00** | **179** | | | SN | Sn | 05 48 39.5 | -0.6 |
| MRZ | | | | | | AML | AML | 05 48 41.8 | |
| **BFZ** | **Birch Farm** | **2.10** | **165** | | | SN | Sn | 05 48 40.4 | -1.7 |
| **TIWZ** | **Tintock** | **2.13** | **173** | | | SN | Pn | 05 48 14.3 | -0.8 |
| **TIWZ** | **Tintock** | **2.13** | **173** | | | PN | Pn | 05 48 14.6 | -0.4 |
| TIWZ | | | | | | AML | AML | 05 48 18.9 | |
| TIWZ | | | | | | SN | Sn | 05 48 41.7 | -1.3 |
| **OGWZ** | **Otaki Gorge** | **2.18** | **188** | | | PN | Pn | 05 48 15.7 | +0.1 |
| OGWZ | | | | | | AML | AML | 05 48 25.9 | |
| **HOWZ** | **Holdsworth Sta** | **2.24** | **181** | | | PN | Pn | 05 48 15.8 | -0.5 |
| HOWZ | | | | | | AML | AML | 05 48 25.8 | |
| **KIW** | **Kapiti Island** | **2.26** | **192** | | | PN | Pn | 05 48 16.1 | -0.4 |
| **TMWZ** | **Te Maipa** | **2.46** | **174** | | | SN | Sn | 05 48 48.0 | -2.1 |
| **CAW** | **Cannon Point** | **2.48** | **188** | | | PN | Pn | 05 48 18.7 | -0.5 |
| **DUWZ** | **D'Urville Isla** | **2.48** | **210** | ⇓ | | PN | Pn | 05 48 18.9 | -0.4 |
| **TCW** | **Tory Channel** | **2.73** | **201** | | | PN | Pn | 05 48 21.6 | -0.7 |
| **PLWZ** | **Palliser** | **2.92** | **184** | | | PN | Pn | 05 48 23.1 | -1.7 |
| **TUWZ** | **Tuamarina** | **3.03** | **203** | | | PN | Pn | 05 48 24.9 | -1.3 |
| **KHZ** | **Kahutara** | **4.06** | **202** | | | PN | Pn | 05 48 37.7 | -1.8 |

*ISCJB* ***15*** *05:57:46.5±0.7,21°.25S±0°.04×69°.0W±0°.1,h131km±6km, mb3.7/3,Error ellipse: s-maj=17.7km s-min=6.2km az=1.8*

*GUC* ***15*** *05:57:46.2±0.6,21°.27S×68°.92W,h124km±4km,ML4.0*

*IDC* ***15*** *05:57:48.6±8.3,21°.18S×68°.54W,h129km±55km,mb3.7/3, mb1 3.8/5,mb1mx3.5/21,mbtmp4.1/5,Error ellipse: s-maj=95.4km s-min=35.5km az=23.0*

**ISC 15 05:57:46.8±0.9,21°.24S±0°.04×68°.9W±0°.1,h121km±7km, n17,σ1s06/28,mb4.0/3,5C-2D,Chile-Bolivia border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **PB01** | **IPOC Station P** | **0.62** | **289** | ⇑ | *i* | P | **Pn** | **05 58 05.8** | **0.0** |
| PB01 | | | | | *i* | S | **Sn** | **05 58 20.3** | **+0.2** |
| **PB09** | **IPOC Station P** | **0.66** | **213** | ⇓ | *i* | P | **Pn** | **05 58 06.1** | **-0.1** |
| PB09 | | | | | *i* | S

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **EREA** | **Eretria** | **0.52** | **114** | P | Pg | 06 01 53.6 | -0.4 |
| EREA | | | | S | Sg | 06 02 00.2 | -0.7 |
| EREA | | | | AML | AML | 06 02 02.3 | |
| | comp=E,185μm,0.1s | | | | | | |
| EREA | | | | AML | AML | 06 02 04.0 | |
| | comp=N,157μm,0.1s | | | | | | |
| **EREA** | **Eretria** | **0.52** | **114** | P | Pg | 06 01 53.6 | -0.4 |
| EREA | | | | S | Sg | 06 02 00.2 | -0.8 |
| **SKIA** | **Skiathos** | **0.54** | **11** | P | Pg | 06 01 51.9 | -2.6 |
| SKIA | | | | S | Sg | 06 02 01.8 | +0.1 |
| SKIA | | | | AML | AML | 06 02 03.1 | |
| | comp=N,98μm,0.2s | | | | | | |
| SKIA | | | | AML | AML | 06 02 06.0 | |
| | comp=E,223μm,0.2s | | | | | | |
| **SKIA** | **Skiathos** | **0.54** | **11** | P | Pb | 06 01 55.1 | +0.2 |
| SKIA | | | | S | Sg | 06 02 01.1 | -0.6 |
| SKIA | | | | AML | AML | 06 02 02.7 | |
| | comp=E,214μm,0.2s | | | | | | |
| SKIA | | | | AML | AML | 06 02 03.1 | |
| | comp=N,98μm,0.2s | | | | | | |
| **SKIA** | **Skiathos** | **0.54** | **11** | P | Pb | 06 01 55.1 | +0.2 |
| SKIA | | | | S | Sg | 06 02 01.1 | -0.6 |
| **DSF** | **Desfina** | **0.67** | **251** | P | Pg | 06 01 55.9 | -0.9 |
| DSF | | | | S | Sn | 06 02 09.1 | +0.1 |
| DSF | | | | AML | AML | 06 02 09.3 | |
| | comp=E,139μm,0.2s | | | | | | |
| DSF | | | | AML | AML | 06 02 11.7 | |
| | comp=N,162μm,0.3s | | | | | | |
| **DSF** | **Desfina** | **0.67** | **251** | P | Pg | 06 01 55.8 | -1.0 |
| DSF | | | | S | Sb | 06 02 07.5 | +1.3 |
| **DSF** | **Desfina** | **0.67** | **251** | P | Pg | 06 01 55.8 | -1.1 |
| DSF | | | | S | Sb | 06 02 07.5 | +1.3 |
| **LTK** | **Loutraki** | **0.68** | **205** | P | Pb | 06 01 57.2 | 0.0 |
| LTK | | | | S | Sn | 06 02 09.1 | +0.1 |
| LTK | | | | AML | AML | 06 02 12.1 | |
| | comp=E,135μm,0.2s | | | | | | |
| LTK | | | | AML | AML | 06 02 17.0 | |
| | comp=N,133μm,0.6s | | | | | | |
| **NEO** | **Neokhori** | **0.68** | **353** | P | Pg | 06 01 57.0 | 0.0 |
| NEO | | | | S | Sg | 06 02 04.8 | -1.2 |
| **NEO** | **Neokhori** | **0.68** | **353** | P | Pg | 06 01 57.0 | 0.0 |
| NEO | | | | S | Sg | 06 02 04.8 | -1.2 |
| **XOR** | **Xorichti** | **0.74** | **352** | P | Pb | 06 01 58.3 | 0.0 |
| **XOR** | **Xorichti** | **0.74** | **352** | P | Pb | 06 01 58.3 | 0.0 |
| **FYTO** | **Fytoko, Volos** | **0.83** | **339** | P | Pb | 06 01 59.0 | -0.9 |
| **FYTO** | **Fytoko, Volos** | **0.83** | **339** | P | Pb | 06 01 59.0 | -0.9 |
| **KARY** | **Karystos** | **1.06** | **124** | P | Pn | 06 02 03.9 | -0.1 |
| **KARY** | **Karystos** | **1.06** | **124** | P | Pn | 06 02 03.9 | -0.1 |
| **ANX** | **Ano Chora** | **1.11** | **268** | P | Pb | 06 02 02.1 | -2.5 |
| ANX | | | | S | Sb | 06 02 19.0 | +0.2 |
| ANX | | | | AML | AML | 06 02 26.6 | |
| | comp=E,35μm,0.3s | | | | | | |
| ANX | | | | AML | AML | 06 02 29.6 | |
| | comp=N,34μm,0.5s | | | | | | |

*ISCJB **15** 06:31:03.5±0.5,50°31.N±0°04.×87°49.E±0°06,h8km, mb3.5/1,Error ellipse: s-maj=5.6km s-min=4.9km az=136.9*
*MOS **15** 06:31:03.4±2.0,50°26.N×87°48.E,h12km,mb4.1/3,Error ellipse: s-maj=10.6km s-min=8.7km az=79.6*
*IDC **15** 06:31:05.8±2.3,50°34.N×87°32.E,h0km,mb3.6/1, mb1 3.8/7,mb1mx3.4/49,mbtmp3.8/7,ML3.6/6,MS2.8/1, Ms1 2.8/1,ms1mx2.3/38,Error ellipse: s-maj=24.5km s-min=12.1km az=90.0*
*NNC **15** 06:31:07.2±2.2,50°33.N×87°17.E,h0km,mb4.2,mpv3.9, Error ellipse: s-maj=16.9km s-min=9.1km az=75.0*
**ISC 15 06:31:05.5±0.7,50°46.N±0°04.×87°41.E±0°05,h8km,n32,** σ1§87/48,**11C-15D,Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **AKAR** | **Aktash** | **0.20** | **136** | *i* | Pg | Pg | 06 31 05.2 | -4.3 |
| **DGZ** | **Jazzator, Alta** | **0.76** | **179** | *d* | Pg | Pg | 06 31 13.5 | -6.6 |
| **UKR** | **Ust'-Kan** | **1.74** | **287** | *e* | PN | **Pn** | **06 31 37.8** | **+1.7** |
| UKR | | | | *i* | | | 06 32 01.1 | |
| **TASR** | **Tashtagol** | **2.32** | **7** | *e* | PN | **Pb** | **06 31 49.1** | **+1.5** |
| TASR | | | | *i* | | | 06 32 23.4 | |
| **CERR** | **Cheremushki** | **3.46** | **45** | *e* | PN | **Pb** | **06 32 09.5** | **+2.6** |
| CERR | | | | *i* | | | 06 32 54.2 | |
| **ZALV** | **Zalesovo Beam** | **3.84** | **336** | | Pn | **Pn** | **06 32 07.8** | **+3.0** |
| | 7.7nm,0.3s,baz=156,slow=13,SNR=114 | | | | | | | |
| ZALV | | | | | Sn | **Sb** | **06 32 56.6** | **-3.4** |
| | 7.3nm,0.3s,baz=156,slow=24,SNR=7.8 | | | | | | | |
| ZALV | | | | | Lg | Lg | 06 33 10.6 | |
| | 7.8nm,0.3s,baz=157,slow=31,SNR=6.2 | | | | | | | |
| **HVS** | **Khovu-Aksy** | **4.05** | **78** | ⇓ | ePN | **Pn** | **06 32 08.7** | **+0.9** |
| **MK31** | **Makanchi Array** | **5.00** | **225** | ⇑ | Pn | **Pn** | **06 32 21.7** | **+0.9** |
| | 8.3nm,0.4s,baz=47,slow=13,SNR=614 | | | | | | | |
| MK31 | | | | ⇓ | Pg | **Pb** | **06 32 35.1** | **+1.9** |
| | 8.1nm,0.5s,baz=49,slow=16,SNR=2.9 | | | | | | | |
| MK31 | | | | ⇓ | Sn | **Sn** | **06 33 17.3** | **-1.4** |
| | 13nm,0.5s,baz=61,slow=28,SNR=5.6 | | | | | | | |
| MK31 | | | | ⇑ | Lg | Lg | 06 33 37.0 | |
| | 45nm,0.6s,baz=46,slow=28,SNR=7.7 | | | | | | | |
| **MK31** | **Makanchi Array** | **5.00** | **225** | | PN | **Pn** | **06 32 21.7** | **+0.9** |
| MK31 | | | | | P | **Pb** | **06 32 35.9** | **+2.8** |
| MK31 | | | | | S | **Sn** | **06 33 17.3** | **-1.4** |
| MK31 | | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.4s | | | | | | | |
| MK31 | | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.5s | | | | | | | |
| **MKAR** | **Makanchi Array** | **5.00** | **225** | | Pn | **Pn** | **06 32 21.6** | **+0.8** |
| | comp=Z,10nm,0.3s,baz=44,slow=13,SNR=638 | | | | | | | |
| MKAR | | | | | Sn | **Sn** | **06 33 19.5** | **+0.8** |
| | comp=Z,7.1nm,0.3s,baz=59,slow=25,SNR=7.5 | | | | | | | |
| MKAR | | | | | Lg | Lg | 06 33 39.1 | |
| | comp=Z,11nm,0.3s,baz=48,slow=31,SNR=12 | | | | | | | |
| MKAR | | | | | LR | LR | 06 34 30.3 | |
| | comp=Z,105nm,18.6s,baz=276,slow=42 | | | | | | | |
| **NVS** | **Novosibirsk** | **5.07** | **332** | ⇑ | iPN | **Pg** | **06 32 41.9** | **-0.6** |
| NVS | | | | | *e*S | **Sn** | **06 33 25.2** | **+4.9** |
| **MAKZ** | **Makanchi** | **5.13** | **227** | ⇑ | Pn | **Pn** | **06 32 23.1** | **+0.5** |
| | comp=Z,9.3nm,0.6s | | | | | | | |
| MAKZ | | | | ⇑ | Pg | **Pb** | **06 32 36.9** | **+1.5** |
| | comp=Z,7.5nm,0.4s | | | | | | | |
| MAKZ | | | | ⇓ | Sn | **Sn** | **06 33 22.2** | **+0.2** |
| | comp=Z,9.9nm,0.4s | | | | | | | |
| MAKZ | | | | ⇓ | Lg | Lg | 06 33 42.5 | |
| | comp=Z,41nm,0.7s | | | | | | | |
| **MAKZ** | **Makanchi** | **5.13** | **227** | | PN | **Pn** | **06 32 23.7** | **+1.1** |
| MAKZ | | | | | P | **Pb** | **06 32 36.9** | **+1.5** |
| MAKZ | | | | | S | **Sn** | **06 33 22.2** | **+0.2** |
| MAKZ | | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.6s | | | | | | | |
| MAKZ | | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.4s | | | | | | | |
| **KURK** | **Kurchatov** | **5.60** | **276** | ⇓ | Pn | **Pn** | **06 32 29.8** | **+0.7** |
| | comp=Z,3.5nm,0.4s | | | | | | | |
| KURK | | | | ⇑ | Sn | **Sn** | **06 33 37.0** | **+3.4** |
| | comp=Z,7.1nm,0.4s | | | | | | | |
| KURK | | | | ⇑ | Lg | Lg | 06 34 01.0 | |
| | comp=Z,30nm,0.7s | | | | | | | |
| **KURK** | **Kurchatov** | **5.60** | **276** | *c* | iPN | **Pn** | **06 32 29.7** | **+0.7** |
| **KURBB** | **Kurchatov Arra** | **5.66** | **275** | | Pn | **Pn** | **06 32 31.1** | **+1.2** |
| | comp=Z,1.3nm,0.3s,baz=92,slow=14,SNR=27 | | | | | | | |
| KURBB | | | | | Lg | Lg | 06 34 04.1 | |
| | comp=Z,1.1nm,0.3s,baz=89,slow=33,SNR=7.3 | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **5.66** | **275** | ⇑ | Pn | **Pn** | **06 32 31.1** | **+1.2** |
| | comp=Z,12nm,0.5s | | | | | | | |
| KURBB | | | | ⇓ | Sn | **Sn** | **06 33 36.1** | **+1.1** |
| | comp=Z,25nm,0.7s | | | | | | | |
| KURBB | | | | ⇓ | Lg | Lg | 06 34 00.2 | |
| | comp=Z,101nm,0.7s | | | | | | | |
| **BVA0** | **Borovoye Array** | **10.86** | **290** | ⇑ | Pn | **Pn** | **06 33 41.8** | **+0.7** |
| | comp=Z,2.0nm,0.7s,baz=106,slow=14,SNR=7.7 | | | | | | | |
| BVA0 | | | | | Sn | **Sn** | **06 35 42.9** | **+0.2** |
| | comp=Z,2.4nm,0.6s,baz=96,slow=25,SNR=6.2 | | | | | | | |
| **BVA0** | **Borovoye Array** | **10.86** | **290** | | P | **Pn** | **06 33 41.8** | **+0.7** |
| BVA0 | | | | | S | **Sn** | **06 35 42.9** | **+0.2** |
| BVA0 | | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | | |
| BVA0 | | | | | smax | smax | | |
| | comp=Z,2.0nm,0.6s | | | | | | | |
| **BVAR** | **Borovoye Array** | **10.86** | **290** | | Pn | **Pn** | **06 33 41.0** | **-0.1** |
| | comp=Z,0.6nm,0.3s,baz=104,slow=15,SNR=11 | | | | | | | |
| BVAR | | | | | Sn | **Sn** | **06 35 38.2** | **-4.5** |
| | comp=Z,0.7nm,0.3s,baz=98,slow=21,SNR=7.4 | | | | | | | |
| **BRVK** | **Borovoye** | **10.93** | **290** | ⇓ | Pn | **Pn** | **06 33 41.4** | **-0.6** |
| | comp=Z,1.5nm,0.8s | | | | | | | |
| BRVK | | | | ⇑ | Sn | **Sn** | **06 35 44.0** | **-0.3** |
| | comp=Z,4.0nm,0.7s | | | | | | | |
| **BRVK** | **Borovoye** | **10.93** | **290** | ⇓ | *e*P | **Pn** | **06 33 42.1** | **+0.1** |
| **AAK** | **Ala-Archa** | **11.83** | **234** | | Pn | **Pn** | **06 33 54.1** | **-0.5** |
| | comp=Z,0.3nm,0.3s,baz=17,slow=14,SNR=3.5 | | | | | | | |
| **AAK** | **Ala-Archa** | **11.83** | **234** | ⇓ | *e*P | **Pn** | **06 33 52.5** | **-2.0** |
| **ARU** | **Arti** | **18.10** | **300** | *d* | iP | **Pn** | **06 35 16.9** | **-0.1** |
| ARU | | | | | S | **Sn** | **06 38 43.0** | **+4.0** |
| ARU | | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.7s | | | | | | | |
| **AKTO** | **Aktyubinsk** | **18.67** | **281** | | P | **P** | **06 35 24.1** | **+0.5** |
| | comp=Z,0.2nm,0.3s,baz=74,slow=12,SNR=3.7 | | | | | | | |
| **HIA** | **Hailar** | **20.79** | **81** | ⇓ | *e*P | **P** | **06 35 46.4** | **-0.5** |
| HIA | | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.5s | | | | | | | |
| **YAK** | **Yakutsk** | **25.68** | **47** | ⇓ | *e*P | **P** | **06 36 36.4** | **+0.9** |
| **CMAR** | **Chiang Mai Arr** | **33.23** | **160** | *i* | P | **P** | **06 37 40.0** | **-2.9** |
| CMAR | | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.3s | | | | | | | |
| **BRTR** | **Keskin Array B** | **38.66** | **275** | | P | **P** | **06 38 30.0** | **+0.5** |
| | comp=Z,0.6nm,0.7s,baz=74,slow=6.3,SNR=4.0 | | | | | | | |
| **BRTR** | **Keskin Array B** | **38.66** | **275** | | P | **P** | **06 38 30.0** | **+0.5** |
| BRTR | | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.7s | | | | | | | |
| **CLL** | **Collm** | **45.05** | **301** | *e* | P | **P** | **06 39 19.0** | **-2.3** |

*CSEM **15** 06:37:53.0,34°.76N×25°.03E,h28km±2km,**ML2.1/5***
**ATH 15 06:37:53.0,34°.76N×25°.03E,h28km±2km,ML2.1/5,Error ellipse: s-maj=3.2km s-min=1.0km az=356.0,Crete**

| Code | Station Name | Δ° | AZ° | Phase ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **SIVA** | **Sivas** | **0.31** | **325** | | P | Pb | 06 38 00.5 | +0.1 |
| SIVA | | | | | S | Sb | 06 38 05.9 | +0.5 |
| SIVA | | | | | AML | AML | 06 38 08.5 | |
| | comp=N,1978μm,0.3s | | | | | | | |
| SIVA | | | | | AML | AML | 06 38 10.4 | |
| | comp=E,2273μm,0.4s | | | | | | | |
| **SIVA** | **Sivas** | **0.31** | **325** | | P | Pb | 06 38 00.5 | +0.1 |
| SIVA | | | | | S | Sb | 06 38 05.9 | +0.5 |
| **IDI** | **Anoyia** | **0.54** | **348** | | P | Pb | 06 38 04.3 | +0.4 |
| IDI | | | | | S | Sb | 06 38 11.8 | +0.4 |
| IDI | | | | | AML | AML | 06 38 15.5 | |
| | comp=N,286μm,0.4s | | | | | | | |
| IDI | | | | | AML | AML | 06 38 16.1 | |
| | comp=E,307μm,0.4s | | | | | | | |
| **IDI** | **Anoyia** | **0.54** | **348** | | P | Pb | 06 38 04.3 | +0.3 |
| IDI | | | | | S | Sb | 06 38 11.8 | +0.4 |
| **LAST** | **Lasithi** | **0.54** | **43** | | P | Pb | 06 38 04.4 | +0.3 |
| LAST | | | | | S | Sn | 06 38 12.8 | -0.4 |
| LAST | | | | | AML | AML | 06 38 15.4 | |
| | comp=N,217μm,0.4s | | | | | | | |
| LAST | | | | | AML | AML | 06 38 20.5 | |
| | comp=E,238μm,0.9s | | | | | | | |
| **LAST** | **Lasithi** | **0.54** | **43** | | P | Pb | 06 38 04.4 | +0.3 |
| LAST | | | | | S | Sn | 06 38 12.8 | -0.4 |
| **NPS** | **Neapolis** | **0.69** | **44** | | P | Pn | 06 38 07.0 | 0.0 |
| NPS | | | | | S | Sn | 06 38 16.8 | 0.0 |
| NPS | | | | | AML | AML | 06 38 20.1 | |
| | comp=E,320μm,0.3s | | | | | | | |
| NPS | | | | | AML | AML | 06 38 24.3 | |
| | comp=N,322μm,0.8s | | | | | | | |
| **NPS** | **Neapolis** | **0.69** | **44** | | P | Pn | 06 38 07.0 | 0.0 |
| NPS | | | | | S | Sn | 06 38 16.8 | 0.0 |
| **GVD** | **Gavdhos** | **0.78** | **276** | | P | Pn | 06 38 08.3 | +0.2 |
| GVD | | | | | S | Sn | 06 38 19.9 | +1.0 |
| GVD | | | | | AML | AML | 06 38 23.4 | |
| | comp=N,528μm,0.3s | | | | | | | |
| GVD | | | | | AML | AML | 06 38 28.2 | |
| | comp=E,632μm,0.5s | | | | | | | |
| **GVD** | **Gavdhos** | **0.78** | **276** | | P | Pn | 06 38 08.3 | +0.2 |
| GVD | | | | | S | Sn | 06 38 19.9 | +1.0 |
| **VAM** | **Vamos** | **0.94** | **314** | | P | Pb | 06 38 10.5 | 0.0 |
| VAM | | | | | S | Sn | 06 38 24.4 | +1.6 |
| **VAM** | **Vamos** | **0.94** | **314** | | P | Pb | 06 38 10.5 | -0.1 |
| VAM | | | | | S | Sn | 06 38 24.4 | +1.6 |
| **ZKR** | **Zakros** | **1.04** | **70** | | P | Pb | 06 38 12.6 | +0.2 |
| **ZKR** | **Zakros** | **1.04** | **70** | | P | Pb | 06 38 12.6 | +0.3 |
| **IMMV** | **Iera Moni Meta** | **1.10** | **309** | | P | Pb | 06 38 14.3 | +0.8 |
| **IMMV** | **Iera Moni Meta** | **1.10** | **309** | | P | Pb | 06 38 14.3 | +0.9 |

*THE **15** 06:37:57.8,37°.14N×30°.48E,h2km±2km,ML3.5/4,Error ellipse: s-maj=5.3km s-min=1.4km az=58.0*
*ISCJB **15** 06:37:58.9±0.2,36°.89N±0°.01×30°.33E±0°.02,h91km±3km, mb3.6/4,Error ellipse: s-maj=2.9km s-min=1.9km az=138.3*
*ISK **15** 06:37:59.4,36°.98N×30°.32E,h80km,ML4.0*
*DDA **15** 06:38:00.2,37°.01N×30°.29E,h78km,Ml4.3*
*CSEM **15** 06:38:00.4±0.1,36°.91N×30°.32E,h80km,ML4.0,Error ellipse: s-maj=2.5km s-min=1.5km az=48.0*
*NIC **15** 06:38:00.6±0.2,36°.59N×30°.00E,h61km,mb4.4,ML4.1*
*HLW **15** 06:38:00.3,36°.65N×30°.38E,h14km±11km,Ml4.2*
*IDC **15** 06:38:01.5±1.9,36°.90N×30°.57E,h77km±21km,mb3.6/3, mb1 3.8/8,mb1mx3.4/40,mbtmp4.0/8,Error ellipse: s-maj=19.1km s-min=10.2km az=89.0*
*GII **15** 06:38:03.3±0.2,36°.59N×30°.29E,h32km,MD3.2/4*
*NSSC **15** 06:38:12.5±1.0,36°.70N×31°.52E,h37km±714km,ML2.8*
**ISC 15 06:38:00.6±0.7,36°.92N±0°.03×30°.38E±0°.02,h67km±5km, n305,σ1§52/387,mb3.8/4,18C-14D,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **KORT** | **Korkueli** | **0.09** | **344** | *e* | PG | **Pn** | **06 38 11.3** | **+0.6** |
| KORT | | | | | eSG | **Sn** | **06 38 19.4** | **+1.5** |
| **KORT** | **Korkueli** | **0.09** | **344** | ⇑ | iP | **Pn** | **06 38 11.7** | **+1.0** |
| KORT | | | | *i* | S | **Sn** | **06 38 19.7** | **+1.8** |
| **KORT** | **Korkueli** | **0.09** | **344** | *e* | Pg | **Pn** | **06 38 11.3** | **+0.6** |
| **KORT** | **Korkueli** | **0.09** | **344** | | P | **Pn** | **06 38 11.6** | **+1.0** |
| KORT | | | | | eSg | **Sn** | **06 38 19.4** | **+1.5** |
| **ELL** | **Elmali** | **0.41** | **246** | *e* | PG | **Pn** | **06 38 12.9** | **+0.4** |
| ELL | | | | | eSG | **Sn** | **06 38 22.6** | **+1.4** |
| **ELL** | **Elmali** | **0.41** | **246** | *e* | Pg | **Pn** | **06 38 12.9** | **+0.4** |
| ELL | | | | | eSg | **Sn** | **06 38 22.6** | **+1.4** |
| **GOLH** | **Golhisar** | **0.73** | **296** | ⇓ | iP | **Pn** | **06 38 16.7** | **+0.9** |
| GOLH | | | | *i* | S | **Sn** | **06 38 27.9** | **+1.1** |
| **GOLH** | **Golhisar** | **0.73** | **296** | | P | **Pn** | **06 38 16.7** | **+0.9** |
| GOLH | | | | | S | **Sn** | **06 38 28.0** | **+1.1** |
| **GLHS** | **Glhisar (BURDU** | **0.74** | **289** | *e* | PG | **Pn** | **06 38 15.5** | **-0.4** |
| **GLHS** | **Glhisar (BURDU** | **0.74** | **289** | *e* | Pg | **Pn** | **06 38 15.5** | **-0.4** |
| **SUTC** | **Sutluce-Ispart** | **0.75** | **41** | *e* | PG | **Pn** | **06 38 16.1** | **+0.1** |
| **SUTC** | **Sutluce-Ispart** | **0.75** | **41** | *e* | Pg | **Pn** | **06 38 16.1** | **+0.1** |
| **BRDR** | **BURDUR-Merkez** | **0.82** | **342** | ⇓ | iP | **Pn** | **06 38 16.7** | **-0.1** |
| BRDR | | | | *i* | S | **Sn** | **06 38 29.1** | **+0.3** |
| **BRDR** | **BURDUR-Merkez** | **0.82** | **342** | | P | **Pn** | **06 38 16.7** | **-0.1** |
| BRDR | | | | | S | **Sn** | **06 38 29.1** | **+0.3** |
| **AKAS** | **Kas** | **0.92** | **223** | ⇑ | iP | **Pn** | **06 38 19.1** | **+1.0** |
| AKAS | | | | *i* | S | **Sn** | **06 38 34.6** | **+3.5** |
| **AKAS** | **Kas** | **0.92** | **223** | | P | **Pn** | **06 38 19.1** | **+1.0** |
| AKAS | | | | | S | **Sn** | **06 38 34.6** | **+3.5** |
| **KSL** | **Kastellorizon** | **1.00** | **220** | | P | **Pn** | **06 38 19.9** | **+1.0** |
| KSL | | | | | S | **Sn** | **06 38 37.7** | **+5.2** |
| **FETY** | **Fethiye** | **1.08** | **255** | *e* | PG | **Pn** | **06 38 20.0** | **0.0** |
| **FETY** | **Fethiye** | **1.08** | **255** | *e* | Pg | **Pn** | **06 38 20.0** | **0.0** |
| **FETY** | **Fethiye** | **1.08** | **255** | | P | **Pn** | **06 38 20.6** | **+0.6** |
| FETY | | | | | S | **Sn** | **06 38 35.6** | **+1.2** |
| **FETY** | **Fethiye** | **1.08** | **255** | | P | **Pn** | **06 38 20.6** | **+0.6** |
| FETY | | | | | S | **Sn** | **06 38 37.5** | **+3.1** |
| **BAGO** | **Egridir - ISPA** | **1.12** | **17** | ⇓ | iP | **Pn** | **06 38 20.7** | **+0.1** |
| BAGO | | | | *i* | S | **Sn** | **06 38 35.9** | **+0.5** |
| **TAVA** | **DENIZLI_Tavas** | **1.29** | **296** | ⇓ | iP | **Pn** | **06 38 23.7** | **+0.9** |
| TAVA | | | | *i* | S | **Sn** | **06 38 40.8** | **+1.3** |
| **TAVA** | **DENIZLI_Tavas** | **1.29** | **296** | | P | **Pn** | **06 38 23.7** | **+0.9** |
| TAVA | | | | | S | **Sn** | **06 38 40.8** | **+1.3** |
| **DNZL** | **Cakiroluk** | **1.31** | **306** | ⇓ | iP | **Pn** | **06 38 23.3** | **+0.1** |
| DNZL | | | | *i* | S | **Sn** | **06 38 40.6** | **+0.5** |
| **DNZL** | **Cakiroluk** | **1.31** | **306** | | P | **Pn** | **06 38 23.3** | **+0.1** |
| DNZL | | | | | S | **Sn** | **06 38 40.6** | **+0.5** |
| **KZIL** | **AFYON_Kizioren** | **1.35** | **352** | ⇓ | iP | **Pn** | **06 38 23.2** | **-0.4** |
| KZIL | | | | *i* | S | **Sn** | **06 38 41.0** | **+0.1** |
| **KZIL** | **AFYON_Kizioren** | **1.35** | **352** | | P | **Pn** | **06 38 23.2** | **-0.4** |
| KZIL | | | | | S | **Sn** | **06 38 41.0** | **+0.1** |
| **DENT** | **Denizli** | **1.36** | **308** | *e* | PN | **Pn** | **06 38 23.0** | **-0.7** |
| **DENT** | **Denizli** | **1.36** | **308** | *e* | Pn | **Pn** | **06 38 23.0** | **-0.7** |
| **DALY** | **Dalyan (Mu˘la** | **1.39** | **266** | ⇑ | iP | **Pn** | **06 38 24.4** | **+0.5** |
| DALY | | | | *i* | S | **Sn** | **06 38 41.6** | **+0.1** |
| **DALY** | **Dalyan (Mu˘la** | **1.39** | **266** | | P | **Pn** | **06 38 24.4** | **+0.5** |
| DALY | | | | | S | **Sn** | **06 38 41.6** | **+0.1** |
| **TURN** | **Turunc** | **1.43** | **269** | *e* | PN | **Pn** | **06 38 28.5** | **+4.1** |
| **TURN** | **Turunc** | **1.43** | **269** | *i* | P | **Pn** | **06 38 28.6** | **+4.1** |
| TURN | | | | *i* | S | **Sn** | **06 38 49.0** | **+6.6** |
| **TURN** | **Turunc** | **1.43** | **269** | | P | **Pn** | **06 38 28.6** | **+4.1** |
| **KHL** | **Karahalli** | **1.56** | **334** | *e* | PN | **Pn** | **06 38 25.8** | **-0.6** |
| **KHL** | **Karahalli** | **1.56** | **334** | | PN | **Pn** | **06 38 25.8** | **-0.6** |
| **DOGA** | **KONYA_Doganhis** | **1.57** | **40** | ⇑ | iP | **Pn** | **06 38 27.6** | **+1.1** |
| DOGA | | | | *i* | S | **Sn** | **06 38 47.5** | **+1.4** |
| **DOGA** | **KONYA_Doganhis** | **1.57** | **40** | | P | **Pn** | **06 38 27.6** | **+1.1** |
| DOGA | | | | | S | **Sn** | **06 38 47.5** | **+1.4** |
| **KHAL** | **Karahalli** | **1.61** | **334** | ⇓ | iP | **Pn** | **06 38 26.4** | **-0.7** |
| KHAL | | | | *i* | S | **Sn** | **06 38 46.1** | **-1.0** |
| **KHAL** | **Karahalli** | **1.61** | **334** | | P | **Pn** | **06 38 26.4** | **-0.7** |
| KHAL | | | | | S | **Sn** | **06 38 46.1** | **-1.0** |
| **SHUT** | **Suhut-Afyon** | **1.64** | **5** | *e* | PN | **Pn** | **06 38 27.0** | **-0.5** |
| **SHUT** | **Suhut-Afyon** | **1.64** | **5** | *e* | Pn | **Pn** | **06 38 27.0** | **-0.5** |
| **MRSB** | **Marmaris-Mugla** | **1.76** | **264** | *e* | PN | **Pn** | **06 38 29.2** | **+0.2** |
| **MRSB** | **Marmaris-Mugla** | **1.76** | **264** | *e* | Pn | **Pn** | **06 38 29.2** | **+0.2** |
| **KMER** | **Konya-Meram** | **1.80** | **61** | *i* | P | **Pn** | **06 38 31.1** | **+1.5** |
| KMER | | | | *i* | S | **Sn** | **06 38 54.5** | **+3.0** |
| **KMER** | **Konya-Meram** | **1.80** | **61** | | P | **Pn** | **06 38 31.1** | **+1.5** |
| KMER | | | | | S | **Sn** | **06 38 54.5** | **+3.0** |
| **BOLV** | **Bolvadin** | **1.85** | **14** | ⇓ | iP | **Pn** | **06 38 30.8** | **+0.4** |
| BOLV | | | | *i* | S | **Sn** | **06 38 52.7** | **-0.2** |
| **BOLV** | **Bolvadin** | **1.85** | **14** | | P | **Pn** | **06 38 30.8** | **+0.4** |
| BOLV | | | | | S | **Sn** | **06 38 52.7** | **-0.2** |
| **KONT** | **Konya--Tatoy** | **1.88** | **56** | *e* | PN | **Pn** | **06 38 31.1** | **+0.5** |
| **KONT** | **Konya--Tatoy** | **1.88** | **56** | ⇑ | iP | **Pn** | **06 38 32.0** | **+1.4** |
| KONT | | | | *i* | S | **Sn** | **06 38 55.9** | **+2.5** |
| **KONT** | **Konya--Tatoy** | **1.88** | **56** | *e* | Pn | **Pn** | **06 38 31.1** | **+0.5** |
| **ARG** | **Arkhangelos** | **1.94** | **250** | | P | **Pn** | **06 38 31.2** | **-0.2** |
| **ARG** | **Arkhangelos** | **1.94** | **250** | | P | **Pn** | **06 38 31.2** | **-0.2** |
| **LADK** | **Ladik-KONYA** | **2.03** | **50** | *e* | PN | **Pn** | **06 38 32.8** | **+0.1** |
| **LADK** | **Ladik-KONYA** | **2.03** | **50** | *e* | Pn | **Pn** | **06 38 32.8** | **+0.1** |
| **KULA** | **Kula-Manisa** | **2.10** | **320** | *e* | PN | **Pn** | **06 38 33.0** | **-0.6** |
| **KULA** | **Kula-Manisa** | **2.10** | **320** | *e* | Pn | **Pn** | **06 38 33.0** | **-0.6** |
| **KDHN** | **Kadinhani** | **2.11** | **40** | ⇑ | iP | **Pn** | **06 38 34.2** | **+0.4** |
| KDHN | | | | *i* | S | **Sn** | **06 38 59.1** | **0.0** |
| **KDHN** | **Kadinhani** | **2.11** | **40** | | P | **Pn** | **06 38 34.2** | **+0.4** |
| KDHN | | | | | S | **Sn** | **06 38 59.1** | **0.0** |
| **AYDN** | **Tasoluk** | **2.13** | **291** | ⇓ | iP | **Pn** | **06 38 33.9** | **-0.1** |
| AYDN | | | | *i* | S | **Sn** | **06 38 57.9** | **-1.5** |
| **AYDN** | **Tasoluk** | **2.13** | **291** | | P | **Pn** | **06 38 33.9** | **-0.1** |
| AYDN | | | | | S | **Sn** | **06 38 57.9** | **-1.5** |
| **MANT** | **Manisa** | **2.13** | **318** | ⇓ | iP | **Pn** | **06 38 33.5** | **-0.7** |
| MANT | | | | *i* | S | **Sn** | **06 38 57.8** | **-2.0** |
| **MANT** | **Manisa** | **2.13** | **318** | | P | **Pn** | **06 38 33.5** | **-0.7** |
| MANT | | | | | S | **Sn** | **06 38 57.8** | **-2.0** |
| **GDZ** | **Gediz** | **2.28** | **342** | ⇓ | iP | **Pn** | **06 38 35.7** | **-0.5** |
| GDZ | | | | *i* | S | **Sn** | **06 39 01.5** | **-1.8** |
| **GDZ** | **Gediz** | **2.28** | **342** | | P | **Pn** | **06 38 35.7** | **-0.5** |
| GDZ | | | | | S | **Sn** | **06 39 01.5** | **-1.8** |
| **KIZT** | **Kizilcal** | **2.29** | **31** | *e* | PN | **Pn** | **06 38 36.4** | **+0.2** |
| **KIZT** | **Kizilcal** | **2.29** | **31** | *e* | Pn | **Pn** | **06 38 36.4** | **+0.2** |
| **SIMA** | **Simav-Kutahya** | **2.43** | **333** | *e* | PN | **Pn** | **06 38 37.6** | **-0.4** |
| **SIMA** | **Simav-Kutahya** | **2.43** | **333** | *e* | Pn | **Pn** | **06 38 37.7** | **-0.4** |
| **BODT** | **Bodrum** | **2.46** | **274** | | P | **Pn** | **06 38 38.1** | **-0.4** |
| **BODT** | **Bodrum** | **2.46** | **274** | | P | **Pn** | **06 38 38.1** | **-0.4** |
| **DEMI** | **Demirci** | **2.50** | **329** | ⇓ | iP | **Pn** | **06 38 38.5** | **-0.5** |
| DEMI | | | | *i* | S | **Sn** | **06 39 06.2** | **-2.2** |
| **DEMI** | **Demirci** | **2.50** | **329** | | P | **Pn** | **06 38 38.5** | **-0.5** |
| DEMI | | | | | S | **Sn** | **06 39 06.2** | **-2.2** |
| **TEVE** | **Tevekalti-Mers** | **2.51** | **100** | *e* | PN | **Pn** | **06 38 41.2** | **+2.0** |
| **TEVE** | **Tevekalti-Mers** | **2.51** | **100** | *e* | Pn | **Pn** | **06 38 41.2** | **+2.0** |
| **ALFC** | **Alefka** | **2.51** | **134** | | P | **Pn** | **06 38 39.7** | **+0.5** |
| ALFC | | | | | S | **Sn** | **06 39 10.7** | **+1.9** |
| **ALFC** | **Alefka** | **2.51** | **134** | | P | **Pn** | **06 38 39.7** | **+0.5** |
| | baz=304 | | | | | | | |
| ALFC | | | | | S | **Sn** | **06 39 10.7** | **+1.9** |
| **OREN** | **Orenkoy-Mersin** | **2.58** | **105** | *e* | PN | **Pn** | **06 38 41.5** | **+1.5** |
| **OREN** | **Orenkoy-Mersin** | **2.58** | **105** | *e* | Pn | **Pn** | **06 38 41.5** | **+1.5** |
| **PPCY** | **Paphos** | **2.58** | **141** | | P | **Pn** | **06 38 40.4** | **+0.4** |
| **PPCY** | **Paphos** | **2

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **APE** | **Apeiranthos** | **3.88** | **274** | ⇑*iP* | **Sn** | **06 39 39.8** | **-2.5** |
| **APE** | **Apeiranthos** | **3.88** | **274** | *e*Pn | **Pn** | **06 38 58.0** | **+0.1** |
| **SBT5** | **Esenkoy-Cinarc** | **3.89** | **343** | *e*Pn | **Pn** | **06 38 57.6** | **-0.2** |
| **SBT5** | **Esenkoy-Cinarc** | **3.89** | **343** | *e*Pn | **Pn** | **06 38 57.6** | **-0.2** |
| **HRT** | **Hereke** | **3.94** | **352** | *e*PN | **Pn** | **06 38 57.9** | **-0.7** |
| **HRT** | **Hereke** | **3.94** | **352** | *e*Pn | **Pn** | **06 38 57.9** | **-0.7** |
| **KRTS** | **Karatas** | **4.03** | **93** | *e*PN | **Pn** | **06 39 01.1** | **+1.3** |
| **KRTS** | **Karatas** | **4.03** | **93** | *e*Pn | **Pn** | **06 39 01.1** | **+1.3** |
| **SBT2** | **Guzelce-Avcila** | **4.22** | **340** | *e*PN | **Pn** | **06 39 02.2** | **0.0** |
| **SBT2** | **Guzelce-Avcila** | **4.22** | **340** | *e*Pn | **Pn** | **06 39 02.3** | **0.0** |
| **KRBG** | **Karabiga-Canak** | **4.23** | **326** | *e*PN | **Pn** | **06 39 01.9** | **-0.6** |
| **KRBG** | **Karabiga-Canak** | **4.23** | **326** | *e*Pn | **Pn** | **06 39 01.9** | **-0.6** |
| **SIGR** | **SIGRI** | **4.24** | **304** | *e*PN | **Pn** | **06 39 02.4** | **-0.3** |
| **SIGR** | **SIGRI** | **4.24** | **304** | P | **Pn** | **06 39 02.4** | **-0.3** |
| **SIGR** | **SIGRI** | **4.24** | **304** | P | **Pn** | **06 39 02.4** | **-0.3** |
| **KAVV** | **Kandilli-Istan** | **4.27** | **346** | *e*PN | **Pn** | **06 39 02.1** | **-0.9** |
| **KAVV** | **Kandilli-Istan** | **4.27** | **346** | *e*Pn | **Pn** | **06 39 02.2** | **-0.9** |
| **ISK** | **Istanbul-Kandi** | **4.27** | **346** | *e*PN | **Pn** | **06 39 02.2** | **-0.9** |
| **ISK** | **Istanbul-Kandi** | **4.27** | **346** | *e*Pn | **Pn** | **06 39 02.2** | **-0.9** |
| **SILT** | **Sile** | **4.27** | **353** | *e*PN | **Pn** | **06 39 02.8** | **-0.3** |
| **SILT** | **Sile** | **4.27** | **353** | *e*Pn | **Pn** | **06 39 02.8** | **-0.3** |
| **EZN** | **Ezine** | **4.31** | **314** | *e*PN | **Pn** | **06 39 03.1** | **-0.6** |
| **EZN** | **Ezine** | **4.31** | **314** | *e*Pn | **Pn** | **06 39 03.1** | **-0.6** |
| **SBT3** | **Marmara-Eregli** | **4.38** | **335** | *e*PN | **Pn** | **06 39 04.3** | **-0.2** |
| **SBT3** | **Marmara-Eregli** | **4.38** | **335** | *e*Pn | **Pn** | **06 39 04.3** | **-0.2** |
| **KOZT** | **Kozan** | **4.38** | **81** | *e*PN | **Pn** | **06 39 05.4** | **+0.7** |
| **KOZT** | **Kozan** | **4.38** | **81** | *e*Pn | **Pn** | **06 39 05.4** | **+0.7** |
| **KLYT** | **Kilyos** | **4.45** | **347** | *e*PN | **Pn** | **06 39 05.1** | **-0.5** |
| **KLYT** | **Kilyos** | **4.45** | **347** | *e*Pn | **Pn** | **06 39 05.1** | **-0.5** |
| **LPK** | **Lapseki** | **4.46** | **322** | *e*PN | **Pn** | **06 39 05.1** | **-0.7** |
| **LPK** | **Lapseki** | **4.46** | **322** | *e*Pn | **Pn** | **06 39 05.1** | **-0.7** |
| **RKY** | **Sarkoy-Tekirda** | **4.52** | **327** | *e*PN | **Pn** | **06 39 06.0** | **-0.6** |
| **RKY** | **Sarkoy-Tekirda** | **4.52** | **327** | *e*Pn | **Pn** | **06 39 06.0** | **-0.6** |
| **GELI** | **Tayfur-Gelibol** | **4.63** | **320** | *e*PN | **Pn** | **06 39 07.5** | **-0.5** |
| **GELI** | **Tayfur-Gelibol** | **4.63** | **320** | *e*Pn | **Pn** | **06 39 07.5** | **-0.5** |
| **YAYL** | **Yayladag** | **4.70** | **99** | *e*PN | **Pn** | **06 39 10.2** | **+1.1** |
| **YAYL** | **Yayladag** | **4.70** | **99** | *e*Pn | **Pn** | **06 39 10.2** | **+1.1** |
| **TAHT** | **Tahtakopru-Hat** | **4.70** | **95** | *e*PN | **Pn** | **06 39 10.1** | **+1.1** |
| **TAHT** | **Tahtakopru-Hat** | **4.70** | **95** | *e*Pn | **Pn** | **06 39 10.1** | **+1.1** |
| **YOZ** | **Yozgat** | **4.74** | **54** | *e*PN | **Pn** | **06 39 09.9** | **+0.2** |
| **YOZ** | **Yozgat** | **4.74** | **54** | *e*Pn | **Pn** | **06 39 09.9** | **+0.2** |
| **GADA** | **Gvkgeada** | **4.80** | **314** | *e*PN | **Pn** | **06 39 09.5** | **-0.8** |
| **GADA** | **Gvkgeada** | **4.80** | **314** | *e*Pn | **Pn** | **06 39 09.5** | **-0.8** |
| **ERIK** | **Erikli-Kesan** | **4.81** | **322** | *e*PN | **Pn** | **06 39 09.9** | **-0.6** |
| **ERIK** | **Erikli-Kesan** | **4.81** | **322** | *e*Pn | **Pn** | **06 39 09.9** | **-0.6** |
| **SARI** | **SarD1z-Kayseri** | **5.02** | **71** | *e*PN | **Pn** | **06 39 14.0** | **+0.5** |
| **ENEZ** | **Enez** | **5.04** | **320** | *e*PN | **Pn** | **06 39 13.0** | **-0.7** |
| **ENEZ** | **Enez** | **5.04** | **320** | *e*Pn | **Pn** | **06 39 13.0** | **-0.7** |
| **ALN** | **Alexandroupoli** | **5.22** | **321** | *e*PN | **Pn** | **06 39 15.3** | **-0.8** |
| **ALN** | **Alexandroupoli** | **5.22** | **321** | *e*Pn | **Pn** | **06 39 15.3** | **-0.8** |
| **HWQ** | **Hawqa** | **5.24** | **118** | *e*P | **Pn** | **06 39 17.8** | **+1.2** |
| **HWQ** | **Hawqa** | **5.24** | **118** | *e*P | **Pn** | **06 39 17.8** | **+1.2** |
| **BHL** | **Bhannes** | **5.25** | **123** | *e*P | **Pn** | **06 39 16.7** | **+0.1** |
| **BHL** | **Bhannes** | **5.25** | **123** | *e*P | **Pn** | **06 39 16.7** | **+0.1** |
| **DQRL** | **Deir Qamar** | **5.32** | **126** | *e*P | **Pn** | **06 39 17.2** | **-0.3** |
| **DQRL** | **Deir Qamar** | **5.32** | **126** | *e*P | **Pn** | **06 39 17.2** | **-0.3** |
| **HNTI** | **Hanita** | **5.49** | **133** | Pn | **Pn** | **06 39 20.1** | **+0.3** |
| HNTI | | | | Sn | **Sn** | **06 40 19.9** | **-1.6** |
| **HNTI** | **Hanita** | **5.49** | **133** | Pn | **Pn** | **06 39 20.1** | **+0.3** |
| HNTI | | | | Sn | **Sn** | **06 40 19.9** | **-1.6** |
| **RCY** | **Rachaya** | **5.62** | **126** | *e*P | **Pn** | **06 39 22.0** | **+0.2** |
| **RCY** | **Rachaya** | **5.62** | **126** | *e*P | **Pn** | **06 39 22.0** | **+0.2** |
| **MMC7** | **Mount Meron ar** | **5.66** | **132** | Pn | **Pn** | **06 39 22.1** | **-0.1** |
| **MMC7** | **Mount Meron ar** | **5.66** | **132** | Pn | **Pn** | **06 39 22.1** | **-0.1** |
| **MMA0B** | **Mount Meron ar** | **5.67** | **132** | Pn | **Pn** | **06 39 22.0** | **-0.4** |
| MMA0B | | | | Sn | **Sn** | **06 40 24.0** | **-2.1** |
| **MMA0B** | **Mount Meron ar** | **5.67** | **132** | Pn | **Pn** | **06 39 22.0** | **-0.4** |
| **MMAI** | **Mount Meron Ar** | **5.67** | **132** | P | **Pn** | **06 39 22.4** | **+0.1** |
| | 49nm,0.3s,baz=310,slow=12,SNR=84 | | | | | | |
| MMAI | | | | S | **Sn** | **06 40 22.9** | **-3.2** |
| | 27nm,0.3s,baz=320,slow=26,SNR=7.4 | | | | | | |
| **EDRB** | **Edirne** | **5.67** | **331** | *e*PN | **Pn** | **06 39 21.4** | **-0.9** |
| **EDRB** | **Edirne** | **5.67** | **331** | *e*Pn | **Pn** | **06 39 21.4** | **-0.9** |
| **KSDI** | **Kefar Szold** | **5.70** | **129** | Pn | **Pn** | **06 39 23.1** | **+0.4** |
| KSDI | | | | Sn | **Sn** | **06 40 24.0** | **-2.9** |
| **KSDI** | **Kefar Szold** | **5.70** | **129** | Pn | **Pn** | **06 39 23.1** | **+0.4** |
| **OFRI** | **'Ofer** | **5.72** | **137** | Pn | **Pn** | **06 39 21.8** | **-1.2** |
| **OFRI** | **'Ofer** | **5.72** | **137** | Pn | **Pn** | **06 39 21.8** | **-1.2** |
| **BRBR** | **Barbar** | **5.75** | **126** | *e*P | **Pn** | **06 39 24.2** | **+0.6** |
| BRBR | | | | *e*S | Sn | 06 40 16.0 | -12 |
| BRBR | | | | AML | AML | 06 40 32.6 | |
| | comp=N,46nm,0.8s | | | | | | |
| BRBR | | | | AML | AML | 06 40 34.9 | |
| | comp=E,42nm,0.6s | | | | | | |
| **MARH** | **Ras Al Marh** | **5.75** | **118** | *e*P | **Pn** | **06 39 24.4** | **+0.7** |
| MARH | | | | *e*S | Sn | 06 40 15.9 | -13 |
| MARH | | | | AML | AML | 06 40 34.9 | |
| | comp=N,56nm,0.8s | | | | | | |
| MARH | | | | AML | AML | 06 40 36.0 | |
| | comp=E,48nm,0.5s | | | | | | |
| **KSHT** | **Keshet** | **5.94** | **130** | Pn | **Pn** | **06 39 27.1** | **+1.1** |
| **KSHT** | **Keshet** | **5.94** | **130** | Pn | **Pn** | **06 39 27.1** | **+1.1** |
| **SLTI** | **Sal'it** | **6.04** | **139** | Pn | **Pn** | **06 39 26.7** | **-0.7** |
| SLTI | | | | Sn | **Sn** | **06 40 31.8** | **-3.4** |
| **SLTI** | **Sal'it** | **6.04** | **139** | Pn | **Pn** | **06 39 26.7** | **-0.7** |
| **RABH** | **Abou Rabah** | **6.08** | **112** | *e*P | **Pn** | **06 39 28.3** | **+0.3** |
| RABH | | | | *e*S | Sn | 06 40 23.0 | -13 |
| RABH | | | | AML | AML | 06 40 56.1 | |
| | comp=N,15nm,0.4s | | | | | | |
| RABH | | | | AML | AML | 06 41 11.7 | |
| | comp=E,17nm,0.5s | | | | | | |
| **MMLI** | **Mount Malkishu** | **6.10** | **136** | Pn | **Pn** | **06 39 28.4** | **+0.2** |
| MMLI | | | | Sn | **Sn** | **06 40 34.9** | **-1.7** |
| **MMLI** | **Mount Malkishu** | **6.10** | **136** | Pn | **Pn** | **06 39 28.4** | **+0.2** |
| MMLI | | | | Sn | **Sn** | **06 40 34.9** | **-1.7** |
| **ROOS** | **tl_alroos** | **6.26** | **114** | *e*P | **Pn** | **06 39 31.1** | **+0.6** |
| ROOS | | | | *e*S | Sn | 06 40 26.5 | -14 |
| ROOS | | | | AML | AML | 06 40 46.0 | |
| | comp=E,57nm,0.7s | | | | | | |
| ROOS | | | | AML | AML | 06 40 53.5 | |
| | comp=N,30nm,0.4s | | | | | | |
| **HMDT** | **Nahal Hemdat** | **6.30** | **136** | Pn | **Pn** | **06 39 30.4** | **-0.4** |
| HMDT | | | | Sn | **Sn** | **06 40 40.2** | **-1.2** |
| **HMDT** | **Nahal Hemdat** | **6.30** | **136** | Pn | **Pn** | **06 39 30.4** | **-0.4** |
| HMDT | | | | Sn | **Sn** | **06 40 40.2** | **-1.2** |
| **AMAZ** | **Amatzia** | **6.55** | **144** | Pn | **Pn** | **06 39 34.6** | **+0.2** |
| AMAZ | | | | Sn | **Sn** | **06 40 45.4** | **-2.3** |
| **AMAZ** | **Amatzia** | **6.55** | **144** | Pn | **Pn** | **06 39 34.6** | **+0.2** |
| **RSH** | | **6.56** | **154** | P | **Pn** | **06 39 33.3** | **-1.1** |
| | baz=152 | | | | | | |
| **RSH** | | **6.56** | **154** | P | **Pn** | **06 39 33.3** | **-1.1** |
| **AGG** | **Agios Georgios** | **6.70** | **291** | *e*PN | **Pn** | **06 39 35.4** | **-0.9** |
| **AGG** | **Agios Georgios** | **6.70** | **291** | *e*Pn | **Pn** | **06 39 35.4** | **-0.9** |
| **SALA** | **Sala** | **6.70** | **127** | *e*P | **Pn** | **06 39 38.2** | **+1.6** |
| SALA | | | | *e*S | Sn | 06 40 39.9 | -12 |
| SALA | | | | AML | AML | 06 40 56.3 | |
| | comp=N,31nm,0.3s | | | | | | |
| SALA | | | | AML | AML | 06 40 57.6 | |
| | comp=E,1.6nm,0.3s | | | | | | |
| **DSI** | **Dead Sea** | **6.75** | **141** | Pn | **Pn** | **06 39 37.3** | **+0.2** |
| DSI | | | | Sn | **Sn** | **06 40 52.1** | **-0.4** |
| **DSI** | **Dead Sea** | **6.75** | **141** | Pn | **Pn** | **06 39 37.3** | **+0.2** |
| DSI | | | | Sn | **Sn** | **06 40 52.1** | **-0.4** |
| **YTIR** | **Yattir** | **6.79** | **143** | Pn | **Pn** | **06 39 38.2** | **+0.5** |
| **YTIR** | **Yattir** | **6.79** | **143** | Pn | **Pn** | **06 39 38.2** | **+0.5** |
| **KZIT** | **Kziot** | **6.86** | **150** | Pn | **Pn** | **06 39 36.5** | **-2.1** |
| **KZIT** | **Kziot** | **6.86** | **150** | Pn | **Pn** | **06 39 36.5** | **-2.1** |
| **MZDA** | **Masada** | **6.95** | **142** | Pn | **Pn** | **06 39 40.1** | **+0.3** |
| MZDA | | | | Sn | **Sn** | **06 40 54.9** | **-2.5** |
| **MZDA** | **Masada** | **6.95** | **142** | Pn | **Pn** | **06 39 40.1** | **+0.3** |
| **SQR** | **Saqqara** | **7.05** | **174** | P | **Pn** | **06 39 39.5** | **-1.6** |
| | baz=173 | | | | | | |
| **SQR** | **Saqqara** | **7.05** | **174** | P | **Pn** | **06 39 39.5** | **-1.6** |
| **KOT** | **Kottamia** | **7.07** | **170** | P | **Pn** | **06 39 40.2** | **-1.3** |
| | baz=169 | | | | | | |
| KOT | | | | S | **Sn** | **06 40 53.0** | **-7.5** |
| | baz=169 | | | | | | |
| **KOT** | **Kottamia** | **7.07** | **170** | P | **Pn** | **06 39 40.2** | **-1.3** |
| **HHAG** | **Hagoal** | **7.09** | **168** | P | **Pn** | **06 39 40.2** | **-1.6** |
| | baz=167 | | | | | | |
| HHAG | | | | S | **Sn** | **06 40 52.8** | **-8.1** |
| | baz=167 | | | | | | |
| **HHAG** | **Hagoal** | **7.09** | **168** | P | **Pn** | **06 39 40.2** | **-1.6** |
| **HMYD** | **Mayadein** | **7.11** | **177** | P | **Pn** | **06 39 40.9** | **-1.1** |
| | baz=176 | | | | | | |
| **HMYD** | **Mayadein** | **7.11** | **177** | P | **Pn** | **06 39 40.9** | **-1.1** |
| **ASF** | **Jabal al Asfar** | **7.16** | **129** | P | **Pn** | **06 39 43.7** | **+0.9** |
| | comp=E,1.5nm,0.3s,baz=274,slow=13,SNR=18 | | | | | | |
| ASF | | | | S | **Sn** | **06 41 03.6** | **+0.9** |
| | comp=E,1.7nm,0.3s,baz=254,slow=4.2,SNR=3.0 | | | | | | |
| **KNT** | **Kendrikon** | **7.20** | **308** | *e*PN | **Pn** | **06 39 42.1** | **-1.0** |
| **KNT** | **Kendrikon** | **7.20** | **308** | *e*Pn | **Pn** | **06 39 42.2** | **-1.0** |
| **RMNI** | **Mount Ramon** | **7.28** | **149** | Pn | **Pn** | **06 39 45.4** | **+1.0** |
| **RMNI** | **Mount Ramon** | **7.28** | **149** | Pn | **Pn** | **06 39 45.4** | **+1.0** |
| **HSAF** | **As Saff** | **7.34** | **172** | P | **Pn** | **06 39 43.8** | **-1.4** |
| | baz=171 | | | | | | |
| **HSAF** | **As Saff** | **7.34** | **172** | P | **Pn** | **06 39 43.8** | **-1.4** |
| **GLL** | **Jalalah** | **7.40** | **171** | P | **Pn** | **06 39 45.0** | **-1.1** |
| | baz=170 | | | | | | |
| **GLL** | **Jalalah** | **7.40** | **171** | P | **Pn** | **06 39 44.9** | **-1.1** |
| **HNKL** | **Nakhl** | **7.59** | **156** | P | **Pn** | **06 39 47.4** | **-1.3** |
| | baz=154 | | | | | | |
| **HNKL** | **Nakhl** | **7.59** | **156** | P | **Pn** | **06 39 47.3** | **-1.3** |
| **PRNI** | **Paran** | **7.60** | **148** | Pn | **Pn** | **06 39 47.9** | **-0.8** |
| PRNI | | | | Sn | **Sn** | **06 41 10.7** | **-2.6** |
| **PRNI** | **Paran** | **7.60** | **148** | Pn | **Pn** | **06 39 47.9** | **-0.8** |
| **HRFI** | **Mount Harif** | **7.89** | **149** | Pn | **Pn** | **06 39 51.2** | **-1.4** |
| HRFI | | | | Sn | **Sn** | **06 41 17.1** | **-3.3** |
| **HRFI** | **Mount Harif** | **7.89** | **149** | Pn | **Pn** | **06 39 51.2** | **-1.4** |
| **MBRI** | **Mt Berech** | **8.05** | **151** | Pn | **Pn** | **06 39 55.1** | **+0.2** |
| MBRI | | | | Sn | **Sn** | **06 41 24.1** | **-0.4** |
| **MBRI** | **Mt Berech** | **8.05** | **151** | Pn | **Pn** | **06 39 55.1** | **+0.2** |
| MBRI | | | | Sn | **Sn** | **06 41 24.1** | **-0.4** |
| **EIL** | **Elat** | **8.18** | **151** | P | **Pn** | **06 39 55.9** | **-0.7** |
| | comp=E,3.5nm,0.3s,baz=344,slow=14,SNR=13 | | | | | | |
| EIL | | | | S | **Sn** | **06 41 24.8** | **-2.6** |
| | comp=E,2.4nm,0.3s,baz=163,slow=3.4,SNR=4.4 | | | | | | |
| **EIL** | **Elat** | **8.18** | **151** | Pn | **Pn** | **06 39 55.1** | **-1.5** |
| EIL | | | | Sn | **Sn** | **06 41 24.6** | **-2.9** |
| **EIL** | **Elat** | **8.18** | **151** | Pn | **Pn** | **06 39 55.1** | **-1.5** |
| **NBNS** | **Bani Suef** | **8.31** | **174** | P | **Pn** | **06 39 56.7** | **-1.7** |
| | baz=174 | | | | | | |
| NBNS | | | | AMP | | 06 41 00.0 | |
| | comp=E,150µm,0.3s,logA/T=5.7,baz=174 | | | | | | |
| **NBNS** | **Bani Suef** | **8.31** | **174** | P | **Pn** | **06 39 56.7** | **-1.7** |
| **CFR** | **Carcaliu** | **8.43** | **349** | ⇑*iP* | **Pn** | **06 40 01.5** | **+1.6** |
| **CFR** | **Carcaliu** | **8.43** | **349** | ⇑*iP* | **Pn** | **06 40 01.5** | **+1.6** |
| **SWA2** | | **8.69** | **210** | S | **Sn** | **06 41 32.6** | **-7.5** |
| | baz=211 | | | | | | |
| SWA2 | | | | AMP | | 06 41 00.0 | |
| | comp=Z,120µm,0.3s,logA/T=5.6,baz=211 | | | | | | |
| **TR2** | **Tor 2** | **8.96** | **161** | P | **Pn** | **06 40 06.0** | **-1.3** |
| | baz=160 | | | | | | |
| **TR2** | **Tor 2** | **8.96** | **161** | P | **Pn** | **06 40 06.0** | **-1.3** |
| **MLR** | **Muntele Rosu** | **9.19** | **340** | P | **Pn** | **06 40 11.9** | **+1.4** |
| | comp=Z,0.0nm,0.3s,baz=148,slow=11,SNR=6.6 | | | | | | |
| **MLR** | **Muntele Rosu** | **9.19** | **340** | ⇑*iP* | **Pn** | **06 40 12.6** | **+2.1** |
| **VRI** | **Vrincioaia** | **9.35** | **344** | ⇑*iP* | **Pn** | **06 40 13.5** | **+0.9** |
| **VRI** | **Vrincioaia** | **9.35** | **344** | ⇑*iP* | **Pn** | **06 40 13.5** | **+0.9** |
| **PLOR** | **Plostina** | **9.36** | **344** | ⇑*iP* | **Pn** | **06 40 14.5** | **+1.9** |
| **PLOR** | **Plostina** | **9.36** | **344** | ⇑*iP* | **Pn** | **06 40 14.5** | **+1.9** |
| **VOIR** | | **9.41** | **336** | ⇑*iP* | **Pn** | **06 40 14.2** | **+0.8** |
| **VOIR** | | **9.41** | **336** | ⇑*iP* | **Pn** | **06 40 14.2** | **+0.8** |
| **DOPR** | **Dopca** | **9.79** | **339** | ⇑*iP* | **Pn** | **06 40 19.7** | **+1.2** |
| **DOPR** | **Dopca** | **9.79** | **339** | ⇑*iP* | **Pn** | **06 40 19.7** | **+1.2** |
| **HFRF** | **Wahat Farafira** | **9.89** | **191** | P | **Pn** | **06 40 18.9** | **-1.2** |
| | baz=192 | | | | | | |
| **HFRF** | **Wahat Farafira** | **9.89** | **191** | P | **Pn** | **06 40 18.9** | **-1.2** |
| **HERR** | **Herculane** | **9.98** | **325** | ⇓*iP* | **Pn** | **06 40 21.1** | **0.0** |
| **AKTO** | **Aktyubinsk** | **23.96** | **47** | P | **P** | **06 43 07.8** | **-0.8** |
| | comp=Z,1.9nm,0.5s,baz=229,slow=9.3,SNR=5.4 | | | | | | |
| **ARCES** | **ARCESS Array B** | **32.78** | **357** | P | **P** | **06 44 26.0** | **-1.1** |
| | comp=Z,3.1nm,0.9s,baz=179,slow=8.7,SNR=3.5 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **34.91** | **235** | P | **P** | **06 44 47.0** | **+1.0** |
| | comp=Z,0.2nm,0.7s,baz=67,slow=7.7,SNR=2.8 | | | | | | |
| TORD | | | | pP | **pP** | **06 45 04.2** | **+1.9** |
| | comp=Z,0.8nm,0.7s,baz=30,slow=9.5,SNR=5.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **39.26** | **59** | P | **P** | **06 45 21.9** | **-0.7** |
| | comp=Z,0.7nm,0.7s,baz=277,slow=7.0,SNR=9.9 | | | | | | |

*IASPEI* ***15*** *06:47:53.8±0.9, 43°.21N±0°.02×20°.02E±0°.02, h8km±7km, Error ellipse: s-maj=2.9km s-min=2.5km az=125.2, GT5 selection from ISC bulletin GT5 identified by Bond˜jr and McLaughlin (2009) selection criteria Bond˜jr and McLaughlin, A new ground truth data set for seismic studies, Seism. Res. Let., 80, 465-472, 2009*

*CSEM* ***15*** *06:47:53.7±0.1, 43°.23N×20°.03E, h2km, ML3.1, Error ellipse: s-maj=2.4km s-min=1.8km az=133.0*

*PDG* ***15*** *06:47:54.1±0.2, 43°.21N×20°.02E, h10km, ML3.1/11, Error ellipse: s-maj=0.2km s-min=0.3km az=0.0*

*BEO* ***15*** *06:47:54.7±0.4, 43°.21N×20°.03E, h0km, M3.1/9*

**ISC 15 06:47:53.9±0.9, 43°.21N±0°.01×20°.02E±0°.01, h6km±7km, n115, σ1ᵗ08/176, 42C-19D, Northwestern Balkan Peninsula**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | | | |
| **SJES** | **Sjenica** | **0.06** | **323** | ⇑*iP* | *e* | **Pg** | **06 47 55.5** | **-0.1** |
| **BEY** | **Berane** | **0.35** | **196** | P | | **Pg** | **06 48 01.0** | **+0.2** |
| BEY | | | | *e*Sg | | **Sg** | **06 48 06.3** | **+0.8** |
| **IVA** | **Berane** | **0.35** | **196** | ⇓*iPg* | | **Pg** | **06 48 01.0** | **+0.2** |
| IVA | | | | *e*Sg | | **Sg** | **06 48 06.3** | **+0.8** |
| **IVAS** | **Ivanjica** | **0.38** | **14** | *e*Pg | | **Pg** | **06 48 01.0** | **-0.2** |
| IVAS | | | | *e*Sg | | **Sg** | **06 48 05.9** | **-0.3** |
| **IVAS** | **Ivanjica** | **0.38** | **14** | *e*Pg | | **Pg** | **06 48 01.0** | **-0.2** |
| IVAS | | | | *e*Sg | | **Sg** | **06 48 05.9** | **-0.3** |
| **PLE** | **Pljevlja** | **0.48** | **284** | ⇑*iPg* | | **Pg** | **06 48 03.3** | **+0.1** |
| PLE | | | | *e*Sg | | **Sg** | **06 48 10.4** | **+1.0** |
| **PLE** | **Pljevlja** | **0.48** | **284** | ⇑*iPg* | | **Pg** | **06 48 03.3** | **+0.1** |
| PLE | | | | *e*Sg | | **Sg** | **06 48 10.4** | **+1.0** |
| **KOME** | **Kolasin** | **0.52** | **226** | ⇓*iPg* | | **Pg** | **06 48 03.9** | **0.0** |
| KOME | | | | *e*Sg | | **Sb** | **06 48 12.0** | **-1.2** |
| **KOME** | **Kolasin** | **0.52** | **226** | ⇓*iPg* | | **Pg** | **06 48 03.9** | **0.0** |
| KOME | | | | *e*Sg | | **Sb** | **06 48 12.0** | **-1.2** |
| **PEJK** | **Peje** | **0.60** | **162** | P | | **Pg** | **06 48 05.4** | **0.0** |
| **PVY** | **Plav** | **0.62** | **184** | ⇓*iPg* | | **Pg** | **06 48 05.8** | **0.0** |
| PVY | | | | *e*Sg | | **Sb** | **06 48 15.2** | **-1.0** |
| **PVY** | **Plav** | **0.62** | **184** | ⇓*iPg* | | **Pg** | **06 48 05.8** | **0.0** |
| PVY | | | | *e*Sg | | **Sb** | **06 48 15.2** | **-1.0** |
| **SMRK** | **Smrekonice** | **0.75** | **117** | P | | **Pg** | **06 48 08.3** | **0.0** |
| SMRK | | | | S | | **Sb** | **06 48 19.1** | **-0.8** |
| **BBLS** | **Lazi?i** | **0.79** | **326** | ⇑*iPg* | | **Pg** | **06 48 08.7** | **-0.4** |
| BBLS | | | | *e*Sg | | **Sb** | **06 48 20.5** | **-0.6** |
| **BBLS** | **Lazi?i** | **0.79** | **326** | ⇑*iPg* | | **Pg** | **06 48 08.7** | **-0.4** |
| BBLS | | | | *e*Sg | | **Sg** | **06 48 19.9** | **+0.4** |
| **SELS** | **Selova** | **0.80** | **89** | *e*Pg | | **Pg** | **06 48 08.7** | **-0.6** |
| SELS | | | | *e*Sg | | **Sg** | **06 48 19.8** | **+0.1** |
| **SELS** | **Selova** | **0.80** | **89** | *e*Pg | | **Pg** | **06 48 08.7** | **-0.6** |
| SELS | | | | *e*Sg | | **Sg** | **06 48 19.8** | **+0.1** |
| **UPM** | **Unac-Piva** | **0.82** | **270** | ⇓*iPg* | | **Pg** | **06 48 09.0** | **-0.1** |
| UPM | | | | *e*Sg | | **Sb** | **06 48 21.5** | **-0.4** |
| **UPM** | **Unac-Piva** | **0.82** | **270** | ⇑*iPg* | | **Pg** | **06 48 09.6** | **-0.1** |
| **UPM** | **Unac-Piva** | **0.82** | **270** | P | | **Pb** | **06 48 10.2** | **-0.4** |
| UPM | | | | *e*Sg | | **Sg** | **06 48 19.8** | **-0.4** |
| **GRUS** | **Gruza** | **0.84** | **36** | ⇓*iPg* | | **Pg** | **06 48 10.3** | **+0.2** |
| **GRUS** | **Gruza** | **0.84** | **36** | ⇓*iPg* | | **Pg** | **06 48 10.3** | **+0.2** |
| **NKY** | **Niksic** | **0.85** | **242** | ⇓*iPg* | | **Pg** | **06 48 10.1** | **-0.2** |
| NKY | | | | *e*Sg | | **Sb** | **06 48 23.1** | **+0.2** |
| **NKY** | **Niksic** | **0.85** | **242** | ⇓*iPg* | | **Pg** | **06 48 10.1** | **-0.2** |
| NKY | | | | *e*Sg | | **Sb** | **06 48 23.1** | **+0.2** |
| **ZATK** | **Zatriq** | **0.88** | **150** | P | | **Pg** | **06 48 10.5** | **-0.3** |
| **DIVS** | **Divibare** | **0.89** | **359** | *e*Pg | | **Pg** | **06 48 10.8** | **-0.1** |
| DIVS | | | | *e*Sg | | **Sg** | **06 48 23.0** | **+0.5** |
| **DIVS** | **Divibare** | **0.89** | **359** | *e*Pg | | **Pg** | **06 48 10.8** | **-0.1** |
| DIVS | | | | *e*Sg | | **Sg** | **06 48 22.9** | **+0.5** |
| **NKME** | **Niksic** | **0.90** | **241** | ⇑*iPg* | | **Pg** | **06 48 10.8** | **-0.4** |
| NKME | | | | *e*Sg | | **Sn** | **06 48 24.8** | **-1.7** |
| **NKME** | **Niksic** | **0.90** | **241** | ⇑*iPg* | | **Pg** | **06 48 10.8** | **-0.4** |
| NKME | | | | *e*Sg | | **Sn** | **06 48 24.8** | **-1.7** |
| **PDG** | **Podgorica** | **0.96** | **216** | ⇑*iP* | | **Pg** | **06 48 12.6** | **+0.2** |
| PDG | | | | S | | **Sb** | **06 48 26.1** | **+0.2** |
| **PDG** | **Podgorica** | **0.96** | **216** | ⇑*iPg* | | **Pg** | **06 48 12.1** | **-0.3** |
| **PDG** | **Podgorica** | **0.96** | **216** | ⇑*iP* | | **Pg** | **06 48 12.6** | **+0.2** |
| PDG | | | | *e*Sg | | **Sg** | **06 48 25.0** | **+0.1** |
| PDG | | | | S | | **Sb** | **06 48 26.1** | **+0.2** |
| **TTG** | **Podgorica** | **0.96** | **216** | ⇑*iPg* | | **Pg** | **06 48 11.9** | **-0.5** |
| TTG | | | | *e*Sg | | **Sn** | **06 48 27.0** | **-0.9** |
| **TRUS** | **Trudelj** | **1.05** | **15** | *e*Pg | | **Pg** | **06 48 14.1** | **+0.1** |
| TRUS | | | | *e*Sg | | **Sg** | **06 48 28.0** | **+0.4** |
| **TRUS** | **Trudelj** | **1.05** | **15** | *e*Pg | | **Pg** | **06 48 14.1** | **+0.1** |
| TRUS | | | | *e*Sg | | **Sg** | **06 48 28.0** | **+0.4** |
| **CEME** | **Cevo** | **1.05** | **231** | ⇑*iPg* | | **Pg** | **06 48 13.1** | **-0.9** |
| CEME | | | | *e*Sg | | **Sn** | **06 48 29.6** | **-0.6** |
| **CEME** | **Cevo** | **1.05** | **231** | ⇑*iPg* | | **Pg** | **06 48 13.1** | **-0.9** |
| CEME | | | | *e*Sg | | **Sn** | **06 48 29.6** | **-0.6** |
| **BRY** | **Bratogost** | **1.13** | **255** | ⇑*iPg* | | **Pb** | **06 48 14.8** | **-1.1** |
| BRY | | | | *e*Sg | | **Sn** | **06 48 32.6** | **+0.3** |
| **BRY** | **Bratogost** | **1.13** | **255** | *e*Pg | | **Pb** | **06 48 14.9** | **-1.0** |
| BRY | | | | *e*Sg | | **Sg** | **06 48 29.8** | **-0.5** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **HAPS** | **Han Pijesak,Bl** | **1.17** | **319** | ⇑*iPg* | | **Pb** | **06 48 14.5** | **-2.1** |
| HAPS | | | | *e*Sg | | **Sb** | **06 48 30.8** | **-1.2** |
| **DRME** | **Dracevica, Mon** | **1.20** | **211** | ⇓*iPg* | | **Pb** | **06 48 16.1** | **-0.9** |
| DRME | | | | *e*Sg | | **Sn** | **06 48 34.8** | **+1.1** |
| **DRME** | **Dracevica, Mon** | **1.20** | **211** | ⇓*iPg* | | **Pb** | **06 48 16.1** | **-0.9** |
| DRME | | | | *e*Sg | | **Sn** | **06 48 33.1** | **-0.6** |
| **BUM** | **Brajici-Budva** | **1.23** | **223** | ⇓*iPg* | | **Pn** | **06 48 16.7** | **-1.0** |
| BUM | | | | *e*Sg | | **Sn** | **06 48 36.0** | **+1.3** |
| **BUM** | **Brajici-Budva** | **1.23** | **223** | ⇓*iPg* | | **Pn** | **06 48 16.7** | **-1.0** |
| BUM | | | | *e*Sg | | **Sn** | **06 48 36.0** | **+1.3** |
| **BOVS** | **Bovan** | **1.30** | **70** | *e*Pg | | **Pb** | **06 48 18.5** | **-0.1** |
| BOVS | | | | *e*Sg | | **Sg** | **06 48 37.7** | **+2.1** |
| **BOVS** | **Bovan** | **1.30** | **70** | *e*Pg | | **Pb** | **06 48 18.5** | **-0.1** |
| BOVS | | | | *e*Sg | | **Sg** | **06 48 37.7** | **+2.1** |
| **TREB** | **Trebinje** | **1.32** | **249** | ⇑*iPg* | | **Pn** | **06 48 18.4** | **-0.5** |
| TREB | | | | *e*Sg | | **Sg** | **06 48 36.9** | **+0.4** |
| **HCY** | **Herceg Novi** | **1.36** | **236** | ⇑*iPg* | | **Pn** | **06 48 19.2** | **-0.2** |
| HCY | | | | *e*Sg | | **Sg** | **06 48 40.5** | **+2.9** |
| **HCY** | **Herceg Novi** | **1.36** | **236** | ⇑*iPg* | | **Pn** | **06 48 19.2** | **-0.2** |
| HCY | | | | *e*Sg | | **Sn** | **06 48 37.2**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **SIRT** | **Sirnak** | **1.42** | **210** | *e*Pn | | **Pb** | **07 00 47.5** | **-1.9** |

*ISCJB* ***15*** *07:11:56.7±0.9,55˚.2S×0˚.1×28˚.1W±0˚.4,h10km,mb4.2/4, MS3.1/1,Error ellipse: s-maj=38.8km s-min=14.3km az=154.1*

*IDC* ***15*** *07:11:57.1±0.8,55˚.22S×28˚.18W,h0km,mb4.1/4, mb1 4.3/5,mb1mx3.8/30,mbtmp4.1/5,ML4.4/1,MS3.1/2, Ms1 3.1/2,ms1mx2.9/27,Error ellipse: s-maj=38.7km s-min=22.6km az=64.0*

**ISC 15 07:11:58.6±0.8,55˚.2S±0˚.2×28˚.2W±0˚.3,h10km,n12, σ0s56/11,mb4.2/4,South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **VNA3** | **Neumayer Olymp** | **17.98** | **161** | | P | | **P** | **07 16 09.3** | **+0.5** |
| **SNAA** | **Sanae** | **19.75** | **156** | | P | | **P** | **07 16 28.3** | **+0.1** |
| **SNAA** | **Sanae** | **19.75** | **156** | | P | | **P** | **07 16 27.3** | **-0.9** |
| | 1.1nm,0.3s,baz=298,slow=13,SNR=27 | | | | | | | | |
| SNAA | | | | | LR | | LR | 07 22 44.6 | |
| | comp=Z,33nm,18.2s,baz=306,slow=33 | | | | | | | | |
| **PMSA** | **Palmer Station** | **20.03** | **227** | | LR | | LR | 07 23 00.8 | |
| | comp=Z,72nm,18.3s,baz=298,slow=33 | | | | | | | | |
| **CPUP** | **Villa Florida** | **35.82** | **312** | | P | | **P** | **07 18 57.2** | **-0.8** |
| | 2.5nm,0.7s,baz=157,slow=6.2,SNR=6.5 | | | | | | | | |
| **VNDA** | **Vanda** | **47.38** | **183** | | P | | **P** | **07 20 32.1** | **0.0** |
| | 1.3nm,0.7s,baz=184,slow=6.9,SNR=8.3 | | | | | | | | |
| **LPAZ** | **La Paz** | **49.41** | **306** | | P | | **P** | **07 20 50.0** | **+0.8** |
| | 2.7nm,0.7s,baz=174,slow=4.6,SNR=9.1 | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **72.62** | **31** | | P | | **P** | **07 23 26.1** | **0.0** |
| | 1.5nm,0.6s,baz=196,slow=6.6,SNR=7.8 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **135.16** | **319** | | PKP | | **PKPdf** | **07 31 16.9** | **+0.2** |
| | 0.4nm,0.7s,baz=123,slow=2.2,SNR=6.4 | | | | | | | | |
| **INK** | **Inuvik** | **144.78** | **322** | | PKP | | **PKPdf** | **07 31 33.5** | **-0.4** |
| | 2.4nm,0.8s,baz=107,slow=2.2,SNR=7.8 | | | | | | | | |
| **ILAR** | **Eielson Array** | **149.12** | **313** | | PKPbc | | **PKPbc** | **07 31 45.6** | **0.0** |
| | 4.5nm,0.7s,baz=135,slow=2.2,SNR=28 | | | | | | | | |
| **SONM** | **Songino Array** | **151.25** | **86** | | PKPbc | | **PKPbc** | **07 31 51.7** | **+0.3** |
| | 0.6nm,0.5s,baz=224,slow=3.6,SNR=3.0 | | | | | | | | |

*IDC* ***15*** *07:12:03.3±0.4,29˚.43S×176˚.23W,h0km,mb4.9/19, mb1 5.1/21,mb1mx5.0/31,mbtmp4.9/21,ML4.0/2,MS4.4/21, Ms1 4.4/21,ms1mx4.3/24,Error ellipse: s-maj=15.2km s-min=13.6km az=4.0*

*ISCJB* ***15*** *07:12:06.5±0.1,29˚.82S±0˚.03×176˚.29W±0˚.03,h33km, mb5.5/190,MS5.0/124,Error ellipse: s-maj=4.8km s-min=2.5km az=43.6*

*MOS* ***15*** *07:12:06.7±1.1,29˚.38S×176˚.22W,h25km,mb5.7/38, MS4.8/7,Error ellipse: s-maj=10.2km s-min=8.3km az=66.8*

*GCMT* ***15*** *07:12:08.1±0.2,29˚.34S×175˚.94W,h12km,MW5.2/113, Moment Tensor Solution. s53,c76; s113,c175; Duration: 0 Moment tensor: Scale $10^{17}$Nm; $M_{rr}$-0.71±.01; $M_{\theta\theta}$0.01±.01; $M_{\phi\phi}$0.70±.01; $M_{r\theta}$0.12±.05; $M_{\theta\phi}$0.13±.01; $M_{\phi r}$-0.03±.04; Best double couple: $M_0$0.73000×$10^{17}$ NP1:$\phi_s$1.00000°,δ46.00000°,λ-104.00000°. NP2: $\phi_s$200.00000°,δ46.00000°,λ-76.00000°. Principal axes: T 0.7290, Plg0.0000°, Azm100.0000°; N 0.0020, Plg10.0000°, Azm10.0000°; P -0.7310, Plg80.0000°, Azm192.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC* ***15*** *07:12:08.1±1.6,29˚.49S×176˚.32W,h30km±11km, mb5.5/156,MS5.1/98 Error ellipse: s-maj=6.9km s-min=4.2km az=149.0*

*BJI* ***15*** *07:12:08.0,29˚.42S×175˚.99W,h41km,mb5.4/39, mB5.8/36,Ms5.4/29,Ms7 5.0/25*

**ISC 15 07:12:07.4±0.4,29˚.60S±0˚.04×176˚.27W±0˚.04,h29km±2km, h29km:pP-P,n672,σ1s65/658,mb5.5/189,MS5.0/125, 35C-8D,Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **1.48** | **283** | | Pn | | **Pb** | **07 12 33.3** | **-0.9** |
| | 614nm,0.3s,baz=154,slow=2.5,SNR=58 | | | | | | | | |
| RAO | | | | | Sn | | **Sb** | **07 12 52.3** | **-0.4** |
| | 2μm,0.3s,baz=102,slow=23,SNR=22 | | | | | | | | |
| RAO | | | | | LR | | LR | 07 13 18.7 | |
| | comp=Z,14μm,21.0s,baz=160,slow=51 | | | | | | | | |
| RAO | | | | | T | | T | 07 14 29.2 | |
| | 525nm,0.3s,baz=220,slow=14,SNR=5.2 | | | | | | | | |
| **RAO** | **Raoul Island** | **1.48** | **283** | *e*P | | | **Pb** | **07 12 33.4** | **-0.9** |
| RAO | | | | *e* | | | | 07 12 46.5 | |
| **RAO** | **Raoul Island** | **1.48** | **283** | *e*Pn | | | **Pb** | **07 12 33.4** | **-0.9** |
| RAO | | | | *e*Sn | | | **Sn** | **07 12 46.5** | **-4.0** |
| **MXZ** | **Matakaoa Point** | **9.13** | **208** | *e*Pn | | | **Pn** | **07 14 19.2** | **+2.0** |
| MXZ | | | | *e*Sn | | | Sn | 07 15 44.2 | -15 |
| **WMGZ** | **Waiomatatini S** | **9.31** | **207** | PN | | | **Pn** | **07 14 16.6** | **-3.1** |
| WMGZ | | | | SN | | | **Sn** | **07 16 04.1** | **+0.7** |
| **PKGZ** | **Pakihiroa** | **9.51** | **208** | PN | | | **Pn** | **07 14 18.8** | **-3.7** |
| **HAZ** | **Te Kaha** | **9.52** | **210** | PN | | | **Pn** | **07 14 18.7** | **-3.9** |
| HAZ | | | | SN | | | **Sn** | **07 16 06.9** | **-1.6** |
| **RUGZ** | **Raukumara Rang** | **9.74** | **210** | *e*PN | | | **Pn** | **07 14 24.2** | **-1.5** |
| **TWGZ** | **Tauwhareparae** | **9.79** | **208** | PN | | | **Pn** | **07 14 22.1** | **-4.2** |
| TWGZ | | | | SN | | | **Sn** | **07 16 14.5** | **-0.8** |
| **CNGZ** | **Carnagh Statio** | **9.97** | **206** | PN | | | **Pn** | **07 14 24.9** | **-3.8** |
| **OUZ** | **Omahuta** | **10.23** | **234** | *e*Pn | | | **Pn** | **07 14 36.1** | **+3.8** |
| **URZ** | **Urewera** | **10.23** | **211** | Pn | | | **Pn** | **07 14 29.3** | **-3.0** |
| | 2.5nm,0.3s,baz=9.9,slow=2.3,SNR=15 | | | | | | | | |
| URZ | | | | | Sn | | **Sn** | **07 16 22.4** | **-3.6** |
| | 9.6nm,0.3s,baz=83,slow=20,SNR=16 | | | | | | | | |
| URZ | | | | | LR | | LR | 07 18 27.8 | |
| | comp=Z,2μm,22.0s,baz=28,slow=37 | | | | | | | | |
| **URZ** | **Urewera** | **10.23** | **211** | *e*Pn | | | **Pn** | **07 14 31.1** | **-1.2** |
| URZ | | | | *e*Sn | | | **Sn** | **07 16 22.8** | **-3.2** |
| **URZ** | **Urewera** | **10.23** | **211** | PN | | | Pn | 07 14 26.9 | -5.4 |
| URZ | | | | SN | | | **Sn** | **07 16 23.5** | **-2.5** |
| **RIGZ** | **Rimuhau** | **10.33** | **207** | PN | | | **Pn** | **07 14 29.8** | **-3.9** |
| RIGZ | | | | SN | | | **Sn** | **07 16 25.5** | **-3.1** |
| **MUGZ** | **Murupara** | **10.56** | **211** | SN | | | **Sn** | **07 16 30.6** | **-3.6** |
| **KNZ** | **Kokohu** | **10.64** | **206** | *e*PN | | | **Pn** | **07 14 33.6** | **-4.3** |
| KNZ | | | | SN | | | **Sn** | **07 16 32.6** | **-3.4** |
| **BKZ** | **Black Stump Fm** | **11.25** | **210** | *e*Pn | | | **Pn** | **07 14 42.4** | **-4.0** |
| BKZ | | | | *e*Sn | | | Sn | 07 16 40.6 | -10 |
| **DRZ** | **Dome Shelter** | **11.76** | **213** | SN | | | Sn | 07 16 54.2 | -10 |
| **NIUE** | **Niue** | **11.97** | **30** | P | | | Pn | 07 14 44.6 | -12 |
| | baz=11,SNR=6.0 | | | | | | | | |
| **BFZ** | **Birch Farm** | **12.63** | **207** | PN | | | Pn | 07 14 59.4 | -5.7 |
| BFZ | | | | SN | | | Sn | 07 17 15.1 | -10 |
| **TIWZ** | **Tintock** | **12.85** | **208** | SN | | | **Sn** | **07 17 23.6** | **-6.7** |
| **MRZ** | **Mangatainoka R** | **12.88** | **209** | SN | | | **Sn** | **07 17 22.5** | **-8.4** |
| **MSVF** | **Nonsavu** | **12.91** | **335** | *e*P | | | **Pn** | **07 15 07.6** | **-1.5** |
| **MSVF** | **Nonsavu** | **12.91** | **335** | *e*Pn | | | **Pn** | **07 15 07.5** | **-1.5** |
| **HOWZ** | **Holdsworth Sta** | **13.11** | **209** | SN | | | Sn | 07 17 27.2 | -9.2 |
| **PAWZ** | **Paruwai Farm** | **13.55** | **208** | SN | | | **Sn** | **07 17 39.3** | **-7.9** |
| **SNZO** | **South Karori** | **13.79** | **210** | *e*Pn | | | **Pn** | **07 15 17.8** | **-3.2** |
| SNZO | | | | *e*Sn | | | Sn | 07 17 43.1 | -10 |
| **CTZ** | **Chatham Island** | **14.11** | **181** | PN | | | **Pn** | **07 15 22.5** | **-2.7** |
| CTZ | | | | SN | | | Sn | 07 17 46.8 | -14 |
| **THZ** | **Tophouse** | **14.97** | **213** | *e*Pn | | | **Pn** | **07 15 33.9** | **-3.1** |
| | 146nm,0.7s | | | | | | | | |
| THZ | | | | *e*Sn | | | **Sn** | **07 18 13.4** | **-8.4** |
| **KHZ** | **Kahutara** | **15.20** | **210** | *e*Pn | | | **Pn** | **07 15 37.0** | **-3.0** |
| | 443nm,0.8s | | | | | | | | |
| KHZ | | | | *e*Sn | | | **Sn** | **07 18 16.9** | **-10** |
| **KHZ** | **Kahutara** | **15.20** | **210** | *e*PN | | | **Pn** | **07 15 36.0** | **-4.0** |
| **LTZ** | **Lake Taylor** | **16.05** | **212** | *e*Pn | | | **Pn** | **07 15 48.5** | **-2.6** |
| | 116nm,1.3s | | | | | | | | |
| **AFI** | **Afiamalu** | **16.16** | **16** | LR | | | LR | 07 23 32.2 | |
| | comp=Z,108nm,20.1s,baz=179,slow=43 | | | | | | | | |
| **AFI** | **Afiamalu** | **16.16** | **16** | *e*P | | | **Pn** | **07 15 51.6** | **-1.1** |
| AFI | | | | | pmax | | pmax | | |
| | comp=Z,107nm,1.3s | | | | | | | | |
| **AFI** | **Afiamalu** | **16.16** | **16** | *e*Pn | | | **Pn** | **07 15 51.6** | **-1.1** |
| | comp=Z,107nm,1.3s | | | | | | | | |
| **INZ** | **Inchbonnie** | **16.40** | **214** | PN | | | **Pn** | **07 15 50.0** | **-5.5** |
| **OXZ** | **Oxford** | **16.59** | **211** | *e*Pn | | | **Pn** | **07 15 54.8** | **-3.1** |
| | comp=Z,182nm,0.8s | | | | | | | | |
| **OXZ** | **Oxford** | **16.59** | **211** | PN | | | **Pn** | **07 15 54.6** | **-3.2** |
| OXZ | | | | SN | | | Sn | 07 18 45.1 | -16 |
| **MOZ** | **McQueen's Vall** | **16.62** | **209** | SN | | | Sn | 07 18 47.0 | -15 |
| **RAR** | **Rarotonga** | **17.07** | **64** | Pn | | | **Pn** | **07 16 00.7** | **-3.3** |
| | comp=Z,1.1nm,0.3s,baz=215,slow=5.1,SNR=10 | | | | | | | | |
| RAR | | | | | LR | | LR | 07 22 08.0 | |
| | comp=Z,900nm,18.8s,baz=251,slow=36 | | | | | | | | |
| **RAR** | **Rarotonga** | **17.07** | **64** | *e*P | | | **Pn** | **07 16 02.0** | **-2.1** |
| RAR | | | | | pmax | | pmax | | |
| | comp=Z,440nm,1.6s | | | | | | | | |
| **RAR** | **Rarotonga** | **17.07** | **64** | *e*Pn | | | **Pn** | **07 16 02.0** | **-2.1** |
| | comp=Z,440nm,1.6s | | | | | | | | |
| **DZM** | **Mont Dzumac** | **17.26** | **292** | | LR | | LR | 07 21 36.2 | |
| | comp=Z,3μm,18.2s,baz=106,slow=33 | | | | | | | | |
| **DZM** | **Mont Dzumac** | **17.26** | **292** | *e*P | | | **P** | **07 16 11.8** | **+4.0** |
| | comp=Z,172nm,1.4s | | | | | | | | |
| DZM | | | | *e*LQ | | | LQ | 07 19 30.5 | |
| | comp=Z,3μm,30.7s | | | | | | | | |
| DZM | | | | *e*LR | | | LR | 07 20 20.0 | |
| | comp=Z,8μm,26.8s | | | | | | | | |
| **DZM** | **Mont Dzumac** | **17.26** | **292** | *e*Pn | | | **P** | **07 16 10.5** | **+2.7** |
| | comp=Z,161nm,1.6s | | | | | | | | |
| **RPZ** | **Rata Peaks** | **17.34** | **212** | Pn | | | **Pn** | **07 16 07.2** | **-0.1** |
| | comp=Z,2.0nm,0.3s,baz=336,slow=8.2,SNR=5.8 | | | | | | | | |
| RPZ | | | | | LR | | LR | 07 24 25.0 | |
| | comp=Z,1μm,18.3s,baz=32,slow=42 | | | | | | | | |
| **RPZ** | **Rata Peaks** | **17.34** | **212** | *e*Pn | | | **P** | **07 16 09.2** | **+0.8** |
| **LBZ** | **Lake Benmore** | **18.26** | **212** | *e*P | | | **P** | **07 16 23.1** | **+4.5** |
| | comp=Z,212nm,1.7s | | | | | | | | |
| **ODZ** | **Otahua Downs** | **18.56** | **210** | *e*P | | | **Pn** | **07 16 24.0** | **+1.8** |
| | comp=Z,419nm,1.7s | | | | | | | | |
| **TUZ** | **Tuapeka** | **19.71** | **210** | PN | | | **Pn** | **07 16 35.4** | **-0.7** |
| **LHI** | **Lord Howe Isla** | **21.32** | **259** | P | | | **P** | **07 16 55.8** | **+3.8** |
| | baz=22,SNR=5.0 | | | | | | | | |
| **LHI** | **Lord Howe Isla** | **21.32** | **259** | *e*P | | | **P** | **07 16 53.2** | **+1.2** |
| | comp=Z,231nm,0.9s | | | | | | | | |
| **TBI** | **Tubuai** | **24.76** | **82** | *e*P | | | **P** | **07 17 21.2** | **-5.5** |
| | comp=Z,127nm,1.3s | | | | | | | | |
| TBI | | | | *e*LQ | | | LQ | 07 22 02.4 | |
| | comp=Z,2μm,29.5s | | | | | | | | |
| TBI | | | | *e*LR | | | LR | 07 23 16.4 | |
| | comp=Z,4μm,28.2s,baz=248 | | | | | | | | |
| **PAE** | **Paea** | **27.12** | **70** | *e*P | | | **P** | **07 17 43.8** | **-4.2** |
| | comp=Z,17nm,1.2s | | | | | | | | |
| **PAE** | **Paea** | **27.12** | **70** | *e*T | | | T | 07 45 19.9 | |
| | comp=Z,1.9nm,0.3s | | | | | | | | |
| **PPT2** | **Papeete2** | **27.16** | **70** | *e*P | | | **P** | **07 17 44.4** | **-4.1** |
| | comp=Z,91nm,1.6s | | | | | | | | |
| PPT2 | | | | | eLQ | | LQ | 07 22 57.7 | |
| | comp=Z,2μm,25.2s | | | | | | | | |
| PPT2 | | | | | eLR | | LR | 07 24 16.6 | |
| | comp=Z,4μm,27.2s,baz=236 | | | | | | | | |
| **PPT** | **Papeete** | **27.17** | **70** | LR | | | LR | 07 27 45.9 | |
| | comp=Z,717nm,18.5s,baz=242,slow=35 | | | | | | | | |
| **TIAR** | **Tiarei** | **27.36** | **70** | *e*P | | | **P** | **07 17 46.1** | **-4.2** |
| | comp=Z,14nm,0.9s | | | | | | | | |
| **ARMA** | **Armidale** | **27.76** | **260** | P | | | **P** | **07 17 57.0** | **+3.1** |
| | baz=28,SNR=6.4 | | | | | | | | |
| **ARMA** | **Armidale** | **27.76** | **260** | PFAKE | | | | 07 18 10.0 | +16 |
| ARMA | | | | | LR | | LR | | |
| | comp=Z,2μm,18.0s | | | | | | | | |
| **MGCD** | **Mangrove Creek** | **28.01** | **254** | P | | | **P** | **07 17 59.8** | **+3.9** |
| | baz=28,SNR=3.9 | | | | | | | | |
| **EIDS** | **Eidsvold** | **29.21** | **270** | P | | | **P** | **07 18 07.7** | **+1.0** |
| | baz=29,SNR=9.6 | | | | | | | | |
| **EIDS** | **Eidsvold** | **29.21** | **270** | *e*P | | | **P** | **07 18 06.9** | **+0.2** |
| EIDS | | | | | LR | | LR | | |
| | comp=Z,2μm,22.0s | | | | | | | | |
| **CAN** | **Canberra** | **29.75** | **250** | PFAKE | | | | 07 18 20.0 | +8.5 |
| CAN | | | | | LR | | LR | | |
| | comp=Z,900nm,18.0s | | | | | | | | |
| **HNR** | **Honiara** | **29.97** | **307** | LR | | | LR | 07 28 07.0 | |
| | comp=Z,462nm,21.9s,baz=146,slow=32 | | | | | | | | |
| **HNR** | **Honiara** | **29.97** | **307** | PFAKE | | | | 07 18 30.0 | +17 |
| HNR | | | | | LR | | LR | | |
| | comp=Z,500nm,18.0s | | | | | | | | |
| **VAH** | **Vaihoa** | **29.99** | **68** | *e*T | | | T | 07 48 54.9 | |
| | comp=Z,5.6nm,0.3s | | | | | | | | |
| **RMQ** | **Roma** | **30.95** | **267** | P | | | **P** | **07 18 24.5** | **+2.3** |
| | baz=31,SNR=20 | | | | | | | | |
| **TOO** | **Toolangi** | **32.66** | **246** | P | | | **P** | **07 18 39.2** | **+2.2** |
| | baz=33,SNR=3.5 | | | | | | | | |
| **CMSA** | **Cobar Meteorol** | **32.70** | **257** | P | | | **P** | **07 18 38.9** | **+1.4** |
| | baz=33,SNR=11 | | | | | | | | |
| **QLP** | **Quilpie** | **34.86** | **265** | P | | | **P** | **07 18 56.6** | **+0.3** |
| | baz=35,SNR=11 | | | | | | | | |
| **CTA** | **Charters Tower** | **35.17** | **277** | P | | | **P** | **07 18 59.6** | **+0.5** |
| | comp=Z,25nm,0.7s,baz=103,slow=12,SNR=24 | | | | | | | | |
| **CTAO** | **Charters Tower** | **35.17** | **277** | *e*P | | | **P** | **07 19 00.0** | **+1.0** |
| CTAO | | | | | pmax | | pmax | | |
| | comp=Z,36nm,0.9s | | | | | | | | |
| CTAO | | | | | MLR | | MLR | | |
| | comp=Z,3μm,18.0s | | | | | | | | |
| **CTAO** | **Charters Tower** | **35.17** | **277** | *e*P | | | **P** | **07 19 00.0** | **+1.0** |
| | comp=Z,36nm,0.9s | | | | | | | | |
| CTAO | | | | | LR | | LR | | |
| | comp=Z,3μm,18.0s | | | | | | | | |
| **ARPS** | **Mount Arapiles** | **35.56** | **247** | P | | | **P** | **07 19 03.5** | **+1.4** |
| | baz=36,SNR=4.9 | | | | | | | | |
| **STKA** | **Stephens Creek** | **36.12** | **256** | P | | | **P** | **07 19 06.9** | **-0.2** |
| | comp=Z,58nm,0.9s,baz=96,slow=10,SNR=75 | | | | | | | | |
| STKA | | | | | LR | | LR | 07 33 20.9 | |
| | comp=Z,2μm,18.1s,baz=88,slow=35 | | | | | | | | |
| **STKA** | **Stephens Creek** | **36.12** | **256** | P | | | **P** | **07 19 08.0** | **+0.9** |
| | baz=36,SNR=62 | | | | | | | | |
| **STKA** | **Stephens Creek** | **36.12** | **256** | *e*P | | | **P** | **07 19 06.3** | **-0.8** |
| STKA | | | | | pmax | | pmax | | |
| | comp=Z,13nm,0.9s | | | | | | | | |
| **STKA** | **Stephens Creek** | **36.12** | **256** | *e*P | | | **P** | **07 19 06.3** | **-0.8** |
| | comp=Z,13nm,0.9s | | | | | | | | |
| STKA | | | | | LR | | LR | | |
| | comp=Z,400nm,19.0s | | | | | | | | |
| **RKT** | **Rikitea** | **37.41** | **90** | *e*LR | | | LR | 07 29 01.4 | |
| | comp=Z,3μm,29.0s | | | | | | | | |
| **MTSU** | **Mount Surprise** | **37.64** | **279** | P | | | **P** | **07 19 20.7** | **+0.6** |
| | baz=38,SNR=20 | | | | | | | | |
| **RABL** | **Rabaul** | **39.13** | **304** | PFAKE | | | | 07 19 40.0 | +7.4 |
| RABL | | | | | LR | | LR | | |
| | comp=Z,600nm,18.0s | | | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **39.61** | **66** | *e*LR | | | LR | 07 30 02.2 | |
| | comp=Z,2μm,27.2s,baz=245 | | | | | | | | |
| **PMG** | **Port Moresby** | **39.65** | **293⇑** | *e*P | | | **P** | **07 19 36.3** | **-0.7** |
| PMG | | | | | pmax | | pmax | | |
| | comp=Z,13nm,0.4s | | | | | | | | |
| **PMG** | **Port Moresby** | **39.65** | **293** | PFAKE | | | | 07 19 50.0 | +13 |
| PMG | | | | | LR | | LR | | |
| | comp=Z,900nm,18.0s | | | | | | | | |
| **COEN** | **Coen** | **40.52** | **284** | P | | | **P** | **07 19 44.0** | **-0.2** |
| | baz=40,SNR=14 | | | | | | | | |
| **COEN** | **Coen** | **40.52** | **284** | *e*P | | | **P** | **07 19 43.8** | **-0.4** |
| | comp=Z,23nm,0.9s | | | | | | | | |
| COEN | | | | | LR | | LR | | |
| | comp=Z,3μm,18.0s | | | | | | | | |
| **BBOO** | **Buckleboo** | **40.63** | **253** | P | | | **P** | **07 19 45.3** | **+0.3** |
| | baz=41,SNR=19 | | | | | | | | |
| **BBOO** | **Buckleboo** | **40.63** | **253** | *e*P | | | **P** | **07 19 44.8** | **-0.2** |
| | comp=Z,60nm,0.8s | | | | | | | | |
| BBOO | | | | | LR | | LR | | |
| | comp=Z,1μm,18.0s | | | | | | | | |
| **QIS** | **Mount Isa** | **40.77** | **272** | P | | | **P** | **07 19 46.0** | **-0.2** |
| | baz=41,SNR=4.3 | | | | | | | | |
| **AS01** | **Alice Springs** | **44.62** | **265** | *e*P | | | **P** | **07 20 15.6** | **-1.9** |
| **AS31** | **Alice Springs** | **44.66** | **265** | *e*P | | | **P** | **07 20 17.2** | **-0.7** |
| | comp=Z,14nm,1.5s | | | | | | | | |
| **ASAR** | **Alice Springs** | **44.66** | **265** | P | | | **P** | **07 20 17.0** | **-0.8** |
| | comp=Z,9.1nm,0.7s,baz=98,slow=7.4,SNR=102 | | | | | | | | |
| ASAR | | | | | PcP | | **PP** | **07 22 02.3** | **-0.1** |
| | comp=Z,1.4nm,0.6s,baz=134,slow=3.8,SNR=4.2 | | | | | | | | |
| ASAR | | | | | S | | **S** | **07 26 48.6** | **-4.0** |
| | comp=Z,1.0nm,1.0s,baz=104,slow=14,SNR=3.0 | | | | | | | | |
| ASAR | | | | | LR | | LR | 07 38 33.0 | |
| | comp=Z,2μm,18.1s,baz=114,slow=36 | | | | | | | | |
| **WRAB** | **Tennant Creek** | **45.57** | **270** | *e*P | | | **P** | **07 20 24.6** | **-0.5** |
| WRAB | | | | | pmax | | pmax | | |
| | comp=Z,97nm,0.8s | | | | | | | | |
| **WRAB** | **Tennant Creek** | **45.57** | **270** | *e*P | | | **P** | **07 20 25.1** | **0.0** |
| | comp=Z,62nm,1.2s | | | | | | | | |
| WRAB | | | | | LR | | LR | | |
| | comp=Z,1μm,18.0s | | | | | | | | |
| **WR1** | **Warramunga Arr** | **45.58** | **270** | *e*P | | | **P** | **07 20 23.6** | **-1.5** |
| | comp=Z,83nm,1.3s | | | | | | | | |
| **WRA** | **Warramunga Arr** | **45.58** | **270** | P | | | **P** | **07 20 23.6** | **-1.5** |
| | comp=Z,37nm,0.8s,baz=109,slow=7.8,SNR=188 | | | | | | | | |
| WRA | | | | | LR | | LR | 07 38 02.4 | |
| | comp=Z,531nm,18.1s,baz=115,slow=34 | | | | | | | | |
| **FORT** | **Forrest** | **47.70** | **254** | *e*P | | | **P** | **07 20 41.3** | **-0.3** |
| | comp=Z,512nm,1.0s | | | | | | | | |
| FORT | | | | | LR | | LR | | |
| | comp=Z,15μm,19.0s | | | | | | | | |
| **SBA** | **Scott Base** | **48.95** | **185** | *e*P | | | P | 07 20 55.1 | +4.6 |
| SBA | | | | | pmax | | pmax | | |
| | comp=Z,100nm,1.3s | | | | | | | | |
| **SBA** | **Scott Base** | **48.95** | **185** | *e*P | | | P | 07 20 55.1 | +4.6 |
| | comp=Z,104nm,1.3s | | | | | | | | |
| **VNDA** | **Vanda** | **49.04** | **186** | P | | | **P** | **07 20 54.5** | **+3.2** |
| | comp=Z,5.0nm,0.8s,baz=2.1,slow=7.8,SNR=13 | | | | | | | | |
| VNDA | | | | | LR | | LR | 07 37 49.0 | |
| | comp=Z,127nm,21.6s,baz=2.5,slow=31 | | | | | | | | |
| **VNDA** | **Vanda** | **49.04** | **186** | *e*P | | | **P** | **07 20 55.1** | **+3.8** |
| **VNDA** | **Vanda** | **49.04** | **186** | *e*P | | | **P** | **07 20 55.1** | **+3.8** |
| **WRKA** | **Warakurna** | **49.08** | **261** | P | | | **P** | **07 20 51.4** | **-1.0** |
| | baz=49,SNR=7.1 | | | | | | | | |
| **MTN** | **Manton Dam** | **51.36** | **277** | P | | | **P** | **07 21 07.9** | **-1.7** |
| | baz=51,SNR=5.8 | | | | | | | | |
| **MTN** | **Manton Dam** | **51.36** | **277** | *e*P | | | **P** | **07 21 08.0** | **-1.7** |
| | comp=Z,82nm,1.6s | | | | | | | | |
| MTN | | | | | LR | | LR | | |
| | comp=Z,3μm,18.0s | | | | | | | | |
| **KMBL** | **Kambalda** | **52.70** | **251** | P | | | **P** | **07 21 19.0** | **-0.5** |
| | baz=53,SNR=7.5 | | | | | | | | |
| **KIP** | **Kipapa** | **53.69** | **21⇑** | *e*P | | | **P** | **07 21 26.1** | **-0.6** |
| KIP | | | | | pmax | | pmax | | |
| | comp=Z,401nm,1.1s | | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **53.87** | **268** | P | | | **P** | **07 21 27.8** | **-0.4** |
| | baz=54,SNR=19 | | | | | | | | |
| **FAKI** | **Fak Fak** | **55.49** | **289** | PFAKE | | | | 07 21 50.0 | +10 |
| FAKI | | | | | LR | | LR | | |
| | comp=Z,500nm,22.0s | | | | | | | | |
| **KLBR** | **Kellerberrin** | **56.03** | **250** | P | | | **P** | **07 21 43.0** | **-0.8** |
| | baz=56,SNR=7.9 | | | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **56.08** | **248** | PFAKE | | | | 07 22 00.0 | +16 |
| NWAO | | | | | LR | | LR | | |
| | comp=Z,900nm,18.0s | | | | | | | | |
| **BLDU** | **Ballidu** | **57.17** | **251** | P | | | **P** | **07 21 51.0** | **-0.9** |
| | baz=57,SNR=6.0 | | | | | | | | |
| **MUN** | **Mundaring** | **57.18** | **249** | P | | | **P** | **07 21 51.5** | **-0.4** |
| | baz=57 | | | | | | | | |
| **SWI** | **Sorong** | **57.47** | **290** | P | | | **P** | **07 21 53.2** | **-0.9** |
| **MBWA** | **Marble Bar** | **57.81** | **262** | PFAKE | | | | 07 22 10.0 | +14 |
| MBWA | | | | | LR | | LR | | |
| | comp=Z,2μm,18.0s | | | | | | | | |
| **MORW** | **Morawa** | **58.20** | **252** | P | | | **P** | **07 21 58.8** | **-0.3** |
| | baz=58,SNR=3.4 | | | | | | | | |
| **RPN** | **Rapa Nui** | **58.20** | **105** | LR | | | LR | 07 40 14.8 | |
| | comp=Z,323nm,19.2s,baz=266,slow=29 | | | | | | | | |
| **RPN** | **Rapa Nui** | **58.20** | **105** | *e*P | | | **P** | **07 21 59.2** | **+0.1** |
| RPN | | | | | pmax | | pmax | | |
| | comp=Z,736nm,1.8s | | | | | | | | |
| **RPN** | **Rapa Nui** | **58.20** | **105** | *e*P | | | **P** | **07 21 59.2** | **+0.1** |
| | comp=Z,736nm,1.8s | | | | | | | | |
| **SOEI** | **Soe** | **58.74** | **277** | P | | | **P** | **07 22 04.2** | **+1.0** |
| | comp=Z,36nm,1.4s,comp=Z,849nm | | | | | | | | |
| **SOEI** | **Soe** | **58.74** | **277** | *e*P | | | **P** | **07 22 04.0** | **+0.8** |
| | comp=Z,38nm,0.4s | | | | | | | | |
| SOEI | | | | | LR | | LR | | |
| | comp=Z,1μm,21.0s | | | | | | | | |
| **QSPA** | **South Pole Qui** | **60.50** | **180** | *e*P | | | **P** | **07 22 17.5** | **+2.9** |
| | comp=Z,115nm,1.1s | | | | | | | | |
| QSPA | | | | | LR | | LR | | |
| | comp=Z,500nm,18.0s | | | | | | | | |
| **MMRI** | **Maumere** | **61.03** | **277** | PFAKE | | | | 07 22 30.0 | +11 |
| MMRI | | | | | LR | | LR | | |
| | comp=Z,800nm,18.0s | | | | | | | | |
| **SANI** | **Sanana** | **61.19** | **285** | P | | | **P** | **07 22 18.5** | **-1.3** |
| **TNTI** | **Ternate** | **61.59** | **289** | PFAKE | | | | 07 22 30.0 | +7.4 |
| TNTI | | | | | LR | | LR | | |
| | comp=Z,100nm,19.0s | | | | | | | | |
| **MIR** | **Mirnyy** | **63.51** | **207** | *i*P | | | **P** | **07 22 36.5** | **+2.0** |
| MIR | | | | | pmax | | pmax | | |
| | comp=Z,6.0nm,1.5s | | | | | | | | |
| **PWJI** | **Pagerwojo** | **70.38** | **272** | P | | | **P** | **07 23 22.7** | **+3.6** |
| **PCJI** | **Pacitan** | **70.85** | **271** | P | | | **P** | **07 23 22.1** | **+0.1** |
| **KPJI** | **Karang Pucung** | **73.21** | **271** | P | | | **P** | **07 23 36.4** | **+0.2** |
| **MAW** | **Mawson** | **73.57** | **200** | P | | | **P** | **07 23 39.0** | **+1.6** |
| | comp=Z,24nm,1.1s,baz=120,slow=6.6,SNR=18 | | | | | | | | |
| MAW | | | | | LR | | LR | 07 57 33.7 | |
| | comp=Z,144nm,19.1s,baz=68,slow=37 | | | | | | | | |
| **MAW** | **Mawson** | **73.57** | **200** | P | | | **P** | **07 23 40.2** | **+2.8** |
| | baz=74,SNR=7.5 | | | | | | | | |
| **MAW** | **Mawson** | **73.57** | **200** | *e*P | | | **P** | **07 23 40.1** | **+2.8** |
| MAW | | | | | pmax | | pmax | | |
| | comp=Z,16nm,1.3s | | | | | | | | |
| **MAW** | **Mawson** | **73.57** | **200** | *e*P | | | **P** | **07 23 40.1** | **+2.8** |
| | comp=Z,16nm,1.3s | | | | | | | | |
| **DBJI** | **Dramaga** | **75.48** | **271** | P | | | **P** | **07 23 50.8** | **+1.4** |
| **KSM** | **Kuching** | **76.36** | **280** | PFAKE | | | | 07 24 10.0 | +16 |
| KSM | | | | | LR | | LR | | |
| | comp=Z,400nm,18.0s | | | | | | | | |
| **SYO** | **Syowa Base** | **78.22** | **192** | *i*P | | | **P** | **07 24 04.0** | **+0.2** |
| **SYO** | **Syowa Base** | **78.22** | **192** | *i*X | | | P | 07 24 10.0 | +6.2 |
| **SYO** | **Syowa Base** | **78.22** | **192** | *i*pP | | | pP | 07 24 15.6 | +2.5 |
| **MJAR** | **Matsushiro Arr** | **78.46** | **324** | P | | |

baz=229,SNR=6.9
**ARVC** **Arvin** **84.11** **44** P **P** **07 24 35.6 0.0**
baz=228
**MONP2** **Monument Peak** **84.12** **47** P **P** **07 24 35.8 -0.2**
baz=229
**IKP** **In-Ko-Pah, Jac** **84.17** **47** P **P** **07 24 35.9 -0.1**
baz=229
**BFSC** **Mount Baldy Ra** **84.23** **45** P **P** **07 24 36.1 -0.3**
baz=228,SNR=7.8
**VES** **Vestal, Richgr** **84.44** **43** P **P** **07 24 37.0 -0.2**
baz=227,SNR=9.9
**EDW2** **Edwards Air Fo** **84.45** **45** P **P** **07 24 37.5 +0.1**
baz=228,SNR=10
**SWSC** **Sam W. Stewart** **84.56** **47** P **P** **07 24 38.1 +0.2**
baz=230
**PFO** **Pinyon Flats O** **84.57** **46** P **P** **07 24 38.1 0.0**
baz=229,SNR=8.6
**PFO** **Pinyon Flats O** **84.57** **46** *e*P **P** **07 24 38.6 +0.5**
PFO pmax pmax
comp=Z,42nm,1.3s
**PFO** **Pinyon Flats O** **84.57** **46** *e*P **P** **07 24 38.6 +0.5**
comp=Z,42nm,1.4s
**XPFO** **Piæon Flat** **84.57** **46** *e*P **P** **07 24 38.6 +0.5**
comp=Z,49nm,1.4s
**ISA** **Isabella, Lake** **84.68** **44** P **P** **07 24 38.9 +0.3**
baz=228,SNR=7.9
**ISA** **Isabella, Lake** **84.68** **44** *e*P **P** **07 24 39.9 +1.3**
ISA pmax pmax
comp=Z,83nm,1.7s
**ISA** **Isabella, Lake** **84.68** **44** *e*P **P** **07 24 39.3 +0.7**
comp=Z,83nm,1.7s
ISA LR LR
comp=Z,600nm,19.0s
**YSS** **Yuzh-Sakhalins** **84.70** **333** *e*P **P** **07 24 39.3 +1.0**
YSS MLR MLR
comp=Z,200nm,12.0s
**BBRC** **Big Bear Solar** **84.71** **46** P **P** **07 24 38.9 -0.1**
baz=229
**KSRS** **Korea Array** **84.73** **319** P **P** **07 24 39.5 +0.9**
comp=Z,7.8nm,0.9s,baz=146,slow=6.4,SNR=13
KSRS LR LR 08 00 34.2
comp=Z,126nm,18.1s,baz=132,slow=34
**KS01** **Wonju Array Si** **84.76** **319** *e*P **P** **07 24 39.6 +0.7**
**LRMC** **Laurel Mtn Rad** **85.04** **44** P **P** **07 24 40.5 0.0**
baz=228
**RRX** **Edison Barstow** **85.06** **45** P **P** **07 24 40.6 +0.2**
baz=229
**BELC** **Belle Mtn. Jos** **85.11** **46** P **P** **07 24 40.9 0.0**
baz=229,SNR=14
**CMB** **Columbia Colle** **85.17** **41** *e*P **P** **07 24 41.3 +0.3**
CMB pmax pmax
comp=Z,31nm,1.1s
**CMB** **Columbia Colle** **85.17** **41** *e*P **P** **07 24 41.3 +0.3**
comp=Z,31nm,1.1s
**BC3** **Big Chuckawall** **85.23** **47** P **P** **07 24 41.8 +0.3**
baz=230,SNR=11
**GLA** **Glamis** **85.25** **48** P **P** **07 24 42.0 +0.5**
baz=230
**GLA** **Glamis** **85.25** **48** *e*P **P** **07 24 42.4 +0.9**
GLA pmax pmax
comp=Z,53nm,1.3s
**GLA** **Glamis** **85.25** **48** *e*P **P** **07 24 42.4 +0.9**
comp=Z,53nm,1.3s
**HSIG** **85.34** **53** *e*P **P** **07 24 42.5 +0.5**
comp=Z,46nm,1.3s
**PETK** **Petropavlovsk-** **85.43** **345** P **P** **07 24 40.8 -1.0**
comp=Z,6.1nm,0.8s,baz=120,slow=8.5,SNR=3.9
PETK LR LR 07 59 09.1
comp=Z,160nm,18.9s,baz=158,slow=33
**PEA1** **Petropavlovsk-** **85.44** **345** *e*P **P** **07 24 40.8 -1.1**
**CWC** **Cottonwood Cre** **85.44** **43** P **P** **07 24 42.8 +0.3**
baz=228
**HEC** **Hector,Ludlow** **85.44** **46** P **P** **07 24 42.5 0.0**
baz=229,SNR=8.7
**GSC** **Goldstone, Bar** **85.46** **45** P **P** **07 24 42.8 +0.2**
baz=229,SNR=15
**GSC** **Goldstone, Bar** **85.46** **45** *e*P **P** **07 24 43.1 +0.6**
GSC pmax pmax
comp=Z,76nm,1.5s
**GSC** **Goldstone, Bar** **85.46** **45** *e*P **P** **07 24 43.1 +0.6**
comp=Z,76nm,1.5s
**AFDM** **Forest Hills D** **85.47** **40** *e*P **P** **07 24 42.6 +0.2**
comp=Z,37nm,1.3s
AFDM LR LR
comp=Z,700nm,18.0s
**MPMC** **Manual Prospec** **85.54** **44** P **P** **07 24 43.2 +0.1**
baz=228,SNR=23
**ORV** **Oroville** **85.60** **39** *e*P **P** **07 24 43.3 +0.3**
ORV pmax pmax
comp=Z,99nm,1.9s
**ORV** **Oroville** **85.60** **39** *e*P **P** **07 24 43.3 +0.3**
comp=Z,99nm,1.9s
**IRM** **Iron Mountain** **85.75** **47** P **P** **07 24 44.4 +0.5**
baz=230,SNR=27
**113A** **Mohawk Valley,** **85.76** **49** *e*P **P** **07 24 44.5 +0.6**
comp=Z,48nm,1.4s
**WDC** **Whiskeytown Da** **85.76** **38** *e*P **P** **07 24 44.4 +0.6**
WDC pmax pmax
comp=Z,79nm,1.2s
**WDC** **Whiskeytown Da** **85.76** **38** *e*P **P** **07 24 44.4 +0.6**
comp=Z,79nm,1.3s
**TIN** **Tinemaha, Big** **85.76** **43** P **P** **07 24 44.3 +0.2**
baz=228
**MLAC** **Mammoth, Mammo** **85.79** **42** P **P** **07 24 44.6 +0.3**
baz=227
**GMRC** **Granite Mounta** **85.83** **46** P **P** **07 24 44.8 +0.3**
baz=230,SNR=11
**IPM** **Ipoh** **85.86** **277** *e*P **P** **07 24 45.5 +0.5**
comp=Z,32nm,0.9s
IPM LR LR
comp=Z,400nm,21.0s
**214A** **Organ Pipe Nat** **85.88** **50** P **P** **07 24 44.7 +0.1**
baz=231
**Y12C** **Blythe** **85.89** **47** P **P** **07 24 45.2 +0.6**
baz=230,SNR=5.9
**Y12C** **Blythe** **85.89** **47** *e*P **P** **07 24 45.4 +0.8**
comp=Z,67nm,1.7s
**PEL** **Peldehue** **85.92** **126** *e*P **P** **07 24 45.4 +0.3**
PEL pmax pmax
comp=Z,35nm,1.1s
**PEL** **Peldehue** **85.92** **126** *e*P **P** **07 24 45.4 +0.3**
comp=Z,35nm,1.1s
**N02D** **Trinity Center** **85.95** **38** P **P** **07 24 45.4 +0.6**
baz=225,SNR=10
**O03D** **Paynes Creek** **85.96** **39** P **P** **07 24 44.7 -0.1**
baz=225,SNR=10
**WAKR** **Walker** **86.04** **41** *e*P **P** **07 24 46.2 +0.7**
comp=Z,125nm,1.6s
**TUQ** **Turquoise Moun** **86.09** **45** P **P** **07 24 45.8 +0.1**
baz=229,SNR=14
**M02C** **Callahan** **86.17** **37** P **P** **07 24 46.4 +0.5**
baz=224
**SHOC** **Shoshone, Teco** **86.18** **45** P **P** **07 24 46.3 +0.3**
baz=229
**FURC** **Furnace Creek,** **86.19** **44** P **P** **07 24 46.3 +0.3**
baz=229,SNR=10
**GRAC** **Grapevine Rang** **86.24** **43** P **P** **07 24 46.9 +0.6**
baz=228,SNR=6.9
**PNTR** **Pine Nut** **86.34** **41** *e*P **P** **07 24 47.5 +0.5**
comp=Z,59nm,1.2s
PNTR LR LR
comp=Z,900nm,18.0s
**LDFC** **Landfair** **86.37** **46** *e*P **P** **07 24 48.4 +1.3**
comp=Z,136nm,1.4s
**BEKR** **Beckworth** **86.45** **40** *e*P **P** **07 24 47.1 -0.3**
comp=Z,112nm,2.0s
**YERR** **Yerington** **86.48** **41** *e*P **P** **07 24 47.9 +0.3**
comp=Z,49nm,1.4s
YERR LR LR
comp=Z,900nm,18.0s
**PDMCI** **Parker Dam,Lak** **86.48** **47** P **P** **07 24 47.9 +0.4**
baz=230,SNR=7.6
**KULM** **Kulim** **86.59** **278** *e*P **P** **07 24 48.8 +0.3**
comp=Z,44nm,1.2s
KULM LR LR
comp=Z,100nm,21.0s
**NV01** **Mina Array Sit** **86.64** **42** *e*P **P** **07 24 48.1 -0.4**
**NV11** **Mina Array Sit** **86.73** **42** *e*P **P** **07 24 48.2 -0.6**
comp=Z,5.3nm,1.6s
**PSI** **Prapat** **86.85** **275** *e*P **P** **07 24 49.3 -0.7**
PSI pmax pmax
comp=Z,65nm,1.2s
**PSI** **Prapat** **86.85** **275** *e*P **P** **07 24 49.3 -0.7**
comp=Z,65nm,1.2s
PSI LR LR
comp=Z,600nm,18.0s
**TPNV** **Topopah Spring** **86.88** **44** P **P** **07 24 50.1 +0.5**
baz=229,SNR=16
**TPNV** **Topopah Spring** **86.88** **44** *e*P **P** **07 24 50.3 +0.7**
TPNV pmax pmax
comp=Z,160nm,1.9s
**TPNV** **Topopah Spring** **86.88** **44** *e*P **P** **07 24 50.3 +0.7**
comp=Z,160nm,1.9s
**NJ2** **Nanjing** **86.88** **310** *e*P **P** **07 24 51.4 +1.9**
NJ2 sP **sP** **07 25 06.6 +4.5**
NJ2 S **S** **07 35 22.6 -3.2**
NJ2 pmax pmax
comp=Z,43nm,1.1s
NJ2 LR LR
comp=Z,630nm,12.5s
NJ2 LR LR
comp=Z,630nm,10.8s
NJ2 LR LR
comp=Z,590nm,13.0s
**PAHR** **Pah Rah Range** **86.89** **40** *e*P **P** **07 24 49.3 -0.3**
comp=Z,51nm,1.4s
PAHR LR LR
comp=Z,1μm,19.0s
**M04C** **Macdoel** **86.98** **38** P **P** **07 24 50.3 +0.4**
baz=225
**Y14A** **Wickenburg** **86.99** **48** *e*P **P** **07 24 50.9 +0.8**
comp=Z,196nm,1.3s
Y14A LR LR
comp=Z,3μm,18.0s
**W13A** **Hualapai Mount** **87.15** **47** *e*P **P** **07 24 51.9 +0.8**
comp=Z,74nm,1.8s
**KVN** **Kaiserville** **87.18** **41** *e*P **P** **07 24 51.1 +0.1**
KVN pmax pmax
comp=Z,44nm,1.4s
**KVN** **Kaiserville** **87.18** **41** *e*P **P** **07 24 51.0 +0.1**
comp=Z,44nm,1.4s
**SHPR** **Sheep Range** **87.26** **45** *e*P **P** **07 24 52.4 +1.0**
comp=Z,92nm,1.7s
**GSI** **Gunungsitoli** **87.29** **273** P **P** **07 24 52.7 +0.7**
comp=Z,112nm,1.4s,comp=Z,2μm
**GSI** **Gunungsitoli** **87.29** **273** *e*P **P** **07 24 53.3 +1.3**
comp=Z,120nm,1.1s
**USRK** **Ussuriysk Ar.** **87.34** **326** P **P** **07 24 52.2 +0.8**
comp=Z,9.8nm,0.9s,baz=123,slow=4.6,SNR=9.1
USRK LR LR 08 00 06.0
comp=Z,111nm,19.5s,baz=139,slow=33
**TUC** **Tucson** **87.45** **50** P **P** **07 24 52.8 +0.4**
baz=232
**TUC** **Tucson** **87.45** **50** *e*P **P** **07 24 53.5 +1.1**
TUC pmax pmax
comp=Z,58nm,1.3s
**TUC** **Tucson** **87.45** **50** *e*P **P** **07 24 53.5 +1.1**
comp=Z,58nm,1.4s
**I03D** **Drain, OR** **87.57** **35** P **P** **07 24 52.9 +0.4**
baz=224
**K04D** **Chiloquin, OR** **87.62** **37** P **P** **07 24 53.4 +0.4**
baz=225
**J04D** **Umpqua Nationa** **87.87** **36** P **P** **07 24 55.1 +0.8**
baz=225
**MOD** **Moc Plateau** **87.89** **38** *e*P **P** **07 24 54.6 +0.2**
comp=Z,49nm,1.5s
**HPIG** **87.89** **57** *e*P **P** **07 24 54.8 0.0**
HPIG LR LR
comp=Z,800nm,19.0s
**319A** **Douglas** **87.91** **52** *e*P **P** **07 24 55.7 +1.1**
comp=Z,39nm,1.2s
**ZAIG** **Zacatecas** **87.91** **62** *e*P **P** **07 24 55.9 +0.9**
comp=Z,52nm,1.8s
**I04A** **Tendick Farm,** **88.11** **36** P **P** **07 24 56.1 +1.0**
baz=225
**R11A** **Troy Canyon, C** **88.19** **43** P **P** **07 24 57.2 +1.3**
baz=229,SNR=5.5
**R11A** **Troy Canyon, C** **88.19** **43** *e*P **P** **07 24 56.5 +0.6**
comp=Z,37nm,1.8s
**KCSI** **Kotacane, Aceh** **88.21** **275** P **P** **07 24 56.9 +0.5**
comp=Z,22nm,1.6s
**X16A** **Lo Mia Camp, P** **88.30** **48** *e*P **P** **07 24 57.7 +1.2**
comp=Z,36nm,1.3s
**TLIG** **Tiapa** **88.31** **69** *e*P **P** **07 24 57.0 +0.2**
comp=Z,40nm,1.3s
**J05D** **Fort Rock, OR** **88.36** **37** P **P** **07 24 57.8 +1.3**
baz=226
**JRQG** **Juriquilla Cam** **88.46** **65** PFAKE 07 25 10.0 +12
JRQG LR LR
comp=Z,900nm,20.0s
**TRTT** **Trang** **88.68** **280** P **P** **07 25 00.9 +2.4**
comp=Z,49nm,0.9s
**LCMT** **Little Creek M** **88.76** **46** *e*P **P** **07 24 59.5 +0.9**
comp=Z,22nm,1.1s
**MDJ** **Mudanjiang** **88.83** **325** P **P** **07 24 59.5 +1.0**
MDJ PP **PP** **07 28 27.5 -0.9**
MDJ S **S** **07 35 46.5 +2.6**
MDJ SS **SS** **07 41 40.3 +3.0**
MDJ pmax pmax
comp=Z,11nm,1.1s
MDJ pmax pmax
comp=Z,130nm,5.2s
**H04A** **Detroit Lake** **88.86** **35** *e*P **P** **07 24 59.1 +0.4**
comp=Z,50nm,1.3s
**TRQA** **Toquist** **88.92** **134** *e*P **P** **07 24 59.9 +0.6**
comp=Z,51nm,1.6s
**U15A** **North Rim** **89.00** **46** *e*P **P** **07 25 00.9 +1.1**
comp=Z,48nm,1.1s
**WUAZ** **Wupatki** **89.02** **48** P **P** **07 25 00.1 +0.3**
baz=232
**WUAZ** **Wupatki** **89.02** **48** *e*P **P** **07 25 00.9 +1.0**
comp=Z,56nm,1.3s
WUAZ LR LR
comp=Z,500nm,18.0s
**CCUT** **Cedar City** **89.03** **45** *e*P **P** **07 25 01.1 +1.1**
comp=Z,28nm,1.3s
**KNB** **Kanab** **89.03** **46** *e*P **P** **07 25 01.0 +1.1**
KNB pmax pmax
comp=Z,63nm,1.4s
**KNB** **Kanab** **89.03** **46** *e*P **P** **07 25 01.0 +1.1**
comp=Z,63nm,1.4s
**I05D** **Terrebonne, OR** **89.04** **36** P **P** **07 25 01.0 +1.5**
baz=226
**WHN** **Wuhan** **89.08** **306** ⇓P **P** **07 25 02.1 +2.1**
WHN pmax pmax
comp=Z,180nm,1.6s
**WVOR** **Wild Horse Val** **89.16** **39** *e*P **P** **07 25 00.2 -0.1**
WVOR pmax pmax
comp=Z,61nm,1.7s
**WVOR** **Wild Horse Val** **89.16** **39** *e*P **P** **07 25 00.2 -0.1**
comp=Z,61nm,1.8s
WVOR LR LR
comp=Z,800nm,19.0s
**SZCU** **Shurtz Canyon** **89.23** **45** *e*P **P** **07 25 01.9 +1.1**
comp=Z,100nm,1.8s
**X18A** **Snowflake** **89.34** **49** *e*P **P** **07 25 02.4 +1.0**
comp=Z,91nm,1.8s
X18A LR LR
comp=Z,600nm,19.0s
**F04D** **Rainier, OR** **89.44** **34** P **P** **07 25 02.5 +1.2**
baz=224
**121A** **Cookes Peak, D** **89.61** **52** P **P** **07 25 03.3 +0.6**
baz=234
**PKCU** **Pink Cliffs** **89.61** **46** *e*P **P** **07 25 05.6 +2.8**
comp=Z,84nm,1.8s
**SKNT** **Sakolnakorn** **89.67** **290** P **P** **07 25 05.2 +2.1**
comp=Z,110nm,1.1s
**G05D** **Wamic, OR** **89.69** **35** P **P** **07 25 04.2 +1.7**
baz=226
**I07A** **Izee** **89.81** **37** *e*P **P** **07 25 03.5 +0.2**
comp=Z,65nm,1.6s
**W18A** **Petrified Fore** **89.84** **49** P **P** **07 25 04.0 +0.3**
baz=233
**J08A** **Circle Bar Ran** **89.87** **38** *e*P **P** **07 25 03.6 +0.1**
comp=Z,58nm,1.5s
**G06A** **Carlson Farm,** **90.03** **36** *e*P **P** **07 25 04.3 +0.1**
comp=Z,125nm,1.4s
**EPT** **El Paso** **90.06** **53** *e*P **P** **07 25 06.8 +2.1**
comp=Z,29nm,1.0s
EPT LR LR
comp=Z,400nm,18.0s
**MTPU** **Mount Pierson** **90.06** **45** *e*P **P** **07 25 06.4 +1.5**
comp=Z,129nm,1.8s
**KHON** **Khomkaen** **90.30** **289** P **P** **07 25 08.8 +2.8**
**MSU** **Marysvale** **90.36** **45** *e*P **P** **07 25 07.3 +1.2**
**MSU** **Marysvale** **90.36** **45** *e*P **P** **07 25 07.3 +1.2**
**CN2** **Changchun** **90.43** **322** ⇓P **P** **07 25 06.8 +0.8**
CN2 *e*pP sP 07 25 18.8 +0.1
CN2 *e*S **S** **07 35 56.5 -2.3**
CN2 pmax pmax
comp=Z,60nm,1.0s
CN2 pmax pmax
comp=Z,200nm,6.0s
CN2 LR LR
comp=Z,400nm,19.0s
CN2 LR LR
comp=Z,600nm,19.0s
CN2 LR LR
comp=Z,800nm,21.0s
**LON** **Longmire** **90.50** **34** *e*P **P** **07 25 06.2 -0.2**
LON pmax pmax
comp=Z,40nm,1.5s
**LON** **Longmire** **90.50** **34** *e*P **P** **07 25 06.2 -0.2**
comp=Z,40nm,1.5s
**NKL** **Nikolayevsk** **90.52** **336** *e*P **P** **07 25 06.0 -0.1**
NKL pmax pmax
comp=Z,26nm,1.0s
**TIA** **Tai'an** **90.54** **312** ⇓P **P** **07 25 07.6 +0.9**
TIA pmax pmax
comp=Z,20nm,1.3s
**TX31** **Lajitas Ar. Si** **90.70** **56** *e*P **P** **07 25 07.5 -0.2**
**LTX** **Lajitas** **90.70** **56** *e*P **P** **07 25 08.0 +0.3**
**LTX** **Lajitas** **90.70** **56** *e*P **P** **07 25 08.0 +0.3**
**TXAR** **Lajitas Array** **90.70** **56** P **P** **07 25 08.0 +0.3**
comp=Z,2.5nm,0.9s,baz=205,slow=5.5,SNR=17
TXAR LR LR 08 00 48.7
comp=Z,240nm,18.0s,baz=0.0,slow=32
**D05A** **Enumclaw** **90.73** **34** *e*P **P** **07 25 08.3 +1.1**
comp=Z,262nm,1.5s
**MNTX** **Cornudas Mount** **90.80** **54** P **P** **07 25 08.4 +0.4**
baz=235
**MNTX** **Cornudas Mount** **90.80** **54** *e*P **P** **07 25 08.0 -0.1**
comp=Z,31nm,1.4s
**F07A** **Phinny Hill Vi** **90.84** **36** *e*P **P** **07 25 08.9 +1.0**
comp=Z,85nm,1.4s
**G08A** **Pilot Rock** **90.92** **36** *e*P **P** **07 25 08.6 +0.1**
comp=Z,66nm,1.3s
**DUG** **Dugway, Tooele** **91.02** **43** P **P** **07 25 10.1 +1.0**
baz=231
**DUG** **Dugway, Tooele** **91.02** **43** *e*P **P** **07 25 06.4 -2.7**
DUG pmax pmax
comp=Z,38nm,2.0s
**DUG** **Dugway, Tooele** **91.02** **43** *e*P **P** **07 25 06.4 -2.7**
comp=Z,38nm,2.0s
**Y22D** **IRIS PASSCAL I** **91.10** **51** P **P** **07 25 10.6 +1.0**
baz=235
**Y22E** **IRIS PASSCAL I** **91.10** **51** P **P** **07 25 09.9 +0.3**
baz=235
**KLR** **Kul'dur** **91.12** **329** P **P** **07 25 09.1 0.0**
comp=Z,0.3nm,0.9s,baz=87,slow=2.6,SNR=5.9
**LAZ** **Ladron** **91.14** **51** *e*P **P** **07 25 10.6 +0.8**
**NLU** **North Lily Min** **91.32** **44** *e*P **P** **07 25 10.7 +0.1**
comp=Z,35nm,2.0s
NLU LR LR
comp=Z,900nm,21.0s
**BNM** **Barren Site** **91.34** **51** *e*P **P** **07 25 11.4 +0.6**
**MFID** **Camas Ranch** **91.35** **39** *e*P **P** **07 25 11.4 +1.0**
comp=Z,43nm,1.4s
**BGU** **Big Grassy Mou** **91.35** **43** *e*P **P** **07 25 10.3 -0.2**
comp=Z,12nm,1.3s
**HAWA** **Hanford** **91.38** **35** *e*P **P** **07 25 10.5 +0.1**
comp=Z,76nm,1.3s
**LTY** **Liberty** **91.42** **34** *e*P **P** **07 25 10.8 +0.2**
comp=Z,72nm,1.4s
**LPM** **Los Pinos Moun** **91.43** **51** *e*P **P** **07 25 12.0 +0.8**
**B05A** **Bryant** **91.44** **33** P **P** **07 25 11.2 +0.7**
baz=225
**TMUT** **Trail Mountain** **91.44** **45** *e*P **P** **07 25 12.2 +1.0**
comp=Z,27nm,1.2s
**LNIG** **Linares** **91.45** **62** *e*P **P** **07 25 10.7 -0.6**
comp=Z,48nm,1.3s
LNIG LR LR
comp=Z,400nm,19.0s
**BRLK** **Bradley Lake** **91.47** **13** *e*P **P** **07 25 10.7 +0.2**
comp=Z,114nm,1.3s
**A04D** **Lummi Island** **91.47** **32** P **P** **07 25 11.6 +1.0**
baz=224
**BMO** **Blue Mountains** **91.50** **38** *e*P **P** **07 25 11.0 -0.1**
BMO pmax pmax
comp=Z,74nm,1.8s
**BMO** **Blue Mountains** **91.50** **38** *e*P **P** **07 25 11.0 -0.1**
comp=Z,74nm,1.8s
**MPU** **Maple Canyon** **91.62** **44** *e*P **P** **07 25 12.2 +0.3**
comp=Z,15nm,1.4s
**E08A** **Dider Farm, El** **91.69** **36** *e*P **P** **07 25 11.8 0.0**
comp=Z,39nm,1.3s
**SRU** **San Rafael Swe** **91.75** **45** *e*P **P** **07 25 12.9 +0.4**
SRU pmax pmax
comp=Z,29nm,1.1s
**SRU** **San Rafael Swe** **91.75** **45** *e*P **P** **07 25 12.9 +0.4**
comp=Z,29nm,1.1s
SRU LR LR
comp=Z,500nm,19.0s
**C06D** **Leavenworth** **91.77** **34** P **P** **07 25 12.6 +0.5**
baz=226
**P17A** **Butcher Ranch,** **91.83** **45** *e*P **P** **07 25 13.4 +0.5**
comp=Z,25nm,1.2s
**MVCO** **Mesa Verde** **91.89** **48** P **P** **07 25 13.3 0.0**
baz=234
**MVCO** **Mesa Verde** **91.89** **48** *e*P **P** **07 25 13.1 -0.2**
comp=Z,22nm,1.4s
MVCO LR LR
comp=Z,500nm,19.0s
**ANMO** **Albuquerque** **91.91** **50** P **P** **07 25 13.6 +0.2**
baz=235
**ANMO** **Albuquerque** **91.91** **50***c i*P **P** **07 25 13.7 +0.3**
ANMO pmax pmax
comp=Z,20nm,1.7s
**ANMO** **Albuquerque** **91.91** **50** *e*P **P** **07 25 13.2 -0.2**
comp=Z,28nm,1.4s
**SPUT** **South Promonto** **91.94** **43** *e*P **P** **07 25 13.5 +0.2**
comp=Z,39nm,1.4s
**PBKT** **Sadao Pong** **91.95** **288** P **P** **07 25 16.2 +2.5**
**PV05** **Paradox Valley** **92.02** **47** *e*P **P** **07 25 14.8 +1.0**
**HVU** **Hansel Valley** **92.04** **42** *e*P **P** **07 25 13.8 +0.1**
HVU pmax pmax
comp=Z,64nm,1.5s
HVU MLR MLR
comp=Z,600nm,18.0s
**HVU** **Hansel Valley** **92.04** **42** *e*P **P** **07 25 13.8 +0.1**
comp=Z,64nm,1.5s
HVU LR LR
comp=Z,600nm,18.0s
**JLU** **Jordanelle** **92.09** **44** *e*P **P** **07 25 14.9 +0.8**
comp=Z,30nm,1.6s
JLU LR LR
comp=Z,800nm,18.0s
**E09A** **Wood Farm, Sta** **92.17** **36** *e*P **P** **07 25 13.8 -0.2**
comp=Z,77nm,1.4s
**HLID** **Hailey** **92.23** **40** P **P** **07 25 15.1 +0.5**
baz=230
**HLID** **Hailey** **92.23** **40** *e*P **P** **07 25 15.1 +0.5**
comp=Z,28nm,1.3s
**P18A** **Preston Nutter** **92.23** **45** *e*P **P** **07 25 15.1 +0.2**
comp=Z,24nm,1.5s
**PV09** **Paradox Valley** **92.25** **46** *e*P **P** **07 25 15.3 +0.3**
**F10A** **Beach Ranch, E** **92.28** **37** *e*P **P** **07 25 14.2 -0.5**
comp=Z,49nm,1.2s
**PV01** **Paradox Valley** **92.39** **47** *e*P **P** **07 25 15.0 -0.5**
**SRDT** **SRDT** **92.39** **285** P **P** **07 25 18.9 +3.1**
**ENH** **Enshi** **92.40** **304** *e*P **P** **07 25 17.2 +1.7**
comp=Z,101nm,1.2s
**TCUT** **Toone Canyon** **92.43** **43** *e*P **P** **07 25 16.6 +0.9**
comp=Z,130nm,1.8s
**GYA** **Guiyang** **92.47** **299** P **P** **07 25 17.6 +1.6**
GYA pP sP 07 25 30.4 +1.7
GYA PP **PP** **07 29 01.0 +3.3**
GYA SKS **SKSac** **07 35 45.8 -2.0**
GYA S **S** **07 36 15.5 -2.8**
GYA sS sS 07 36 37.8 +3.9
GYA SS **SS** **07 42 31.9 +1.2**
GYA pmax pmax
comp=Z,30nm,1.0s
GYA pmax pmax
comp=Z,140nm,6.2s
GYA LR LR
comp=Z,890nm,20.9s
GYA LR LR
comp=Z,740nm,21.0s
GYA LR LR
comp=Z,860nm,20.2s
**SPU** **Mount Spurr** **92.59** **11** *e*P **P** **07 25 14.8 -0.8**
**B08A** **Colville Reser** **92.83** **34** *e*P **P** **07 25 16.4 -0.6**
comp=Z,26nm,1.5s
**RC01** **Rabbit Creek A** **92.92** **13** *e*P **P** **07 25 16.7 -0.4**
comp=Z,74nm,1.4s
**C09A** **Chrisman Ranch** **92.97** **35** *e*P **P** **07 25 17.8 +0.1**
comp=Z,46nm,1.4s
C09A LR LR
comp=Z,700nm,20.0s
**S22A** **4UR Ranch, Cre** **93.28** **48** P **P** **07 25 19.7 0.0**
baz=235

**S22A 4UR Ranch, Cre** 93.28 48 *e*P P 07 25 20.6 +0.8
comp=Z,16nm,1.3s
**NANT Nan** 93.29 290 P P 07 25 22.5 +2.7
comp=Z,5.6nm,1.0s
**833A Chaparral WMA,** 93.31 59 P P 07 25 19.9 +0.2
baz=238
**BJI Beijing** 93.42 315 P P 07 25 21.3 +1.4
BJI pP **sP** 07 25 33.6 +1.0
BJI sP pP 07 25 38.1 +8.8
BJI S S **07 36 18.4 -7.5**
BJI sS **sS** 07 36 39.6 -1.8
BJI pmax pmax
comp=Z,8.0nm,1.1s
BJI LR LR
comp=Z,190nm,26.5s
**PMR Palmer** 93.50 13 *e*P P 07 25 19.6 -0.1
PMR pmax pmax
comp=Z,25nm,1.2s
**PMR Palmer** 93.50 13 *e*P P 07 25 19.6 -0.1
comp=Z,24nm,1.2s
**AHID Auburn Hatcher** 93.62 42 *e*P P 07 25 22.0 +0.9
comp=Z,46nm,1.4s
**O20A White River Ci** 93.77 45 P P 07 25 21.7 -0.1
baz=234
**O20A White River Ci** 93.77 45 *e*P P 07 25 21.7 -0.1
comp=Z,48nm,2.0s
**NEW Newport** 93.86 35 P P 07 25 22.2 +0.4
baz=229
**NEW Newport** 93.86 35 *e*P P 07 25 21.7 -0.1
NEW pmax pmax
comp=Z,16nm,1.5s
NEW MLR MLR
comp=Z,900nm,18.0s
**NEW Newport** 93.86 35 *e*P P 07 25 21.7 -0.1
comp=Z,16nm,1.5s
NEW LR LR
comp=Z,900nm,18.0s
**MSTX Muleshoe** 93.89 53 P P 07 25 22.6 +0.2
baz=237
**MSTX Muleshoe** 93.89 53 *e*P P 07 25 22.1 -0.3
comp=Z,24nm,1.2s
**MCMT McKenzie Canyo** 93.90 40 *e*P P 07 25 22.5 +0.1
**PB11 IPOC Station P** 93.97 115 *e*P P 07 25 23.9 +0.6
comp=Z,25nm,1.0s
**SMCO Snowmass** 94.01 47 *e*P P 07 25 23.2 -0.1
comp=Z,15nm,1.1s
**SNET Serv Nac Est T** 94.12 77 PFAKE 07 25 40.0 +16
SNET LR LR
comp=Z,500nm,19.0s
**REDW Red Top Meadow** 94.13 42 *e*P P 07 25 23.6 +0.2
comp=Z,33nm,1.3s
**JCT Junction City** 94.14 57 P P 07 25 23.8 +0.2
baz=238
**JCT Junction City** 94.14 57 *e*P P 07 25 22.8 -0.7
JCT pmax pmax
comp=Z,24nm,1.3s
JCT MLR MLR
comp=Z,700nm,18.0s
**JCT Junction City** 94.14 57 *e*P P 07 25 22.8 -0.7
comp=Z,24nm,1.3s
JCT LR LR
comp=Z,700nm,18.0s
**SDCO Great Sand Dun** 94.14 49 P P 07 25 23.5 -0.2
baz=236
**SDCO Great Sand Dun** 94.14 49 *e*P P 07 25 21.1 -2.6
comp=Z,9.7nm,1.4s
**TPAW Teton Pass** 94.15 42 *e*P P 07 25 23.6 0.0
comp=Z,24nm,1.4s
**FXWY Fox Creek** 94.20 41 *e*P P 07 25 23.5 -0.3
comp=Z,26nm,1.3s
**SNOW Snow King Moun** 94.25 42 *e*P P 07 25 24.4 +0.4
comp=Z,21nm,1.0s
**HGTCO Madrid Canyon** 94.33 50 PFAKE 07 25 40.0 +15
HGTCO LR LR
comp=Z,500nm,21.0s
**MNMC Minye Minye** 94.37 115 *e*P P 07 25 25.6 +0.4
comp=Z,15nm,1.0s
**DLMT Dillon** 94.38 39 *e*P P 07 25 24.7 +0.3
comp=Z,44nm,1.4s
**MOOW Moose Ponds** 94.43 41 *e*P P 07 25 24.7 -0.1
comp=Z,34nm,1.8s
**T25A Trinidad** 94.52 50 P P 07 25 25.3 -0.1
baz=236
**T25A Trinidad** 94.52 50 *e*P P 07 25 25.3 -0.1
comp=Z,24nm,1.5s
**BW06 Boulder Array** 94.53 43 P P 07 25 25.3 0.0
baz=233
**BW06 Boulder Array** 94.53 43 *e*P P 07 25 24.8 -0.5
comp=Z,5.5nm,1.1s
BW06 LR LR
comp=Z,500nm,18.0s
**PD31 Pinedale Array** 94.53 43 *e*P P 07 25 24.9 -0.4
**PDAR Pinedale Array** 94.53 43 P P 07 25 24.7 -0.6
comp=Z,1.1nm,0.8s,baz=235,slow=4.9,SNR=7.5
PDAR PKKPbc **PKKPbc** 07 42 25.0 +0.1
comp=Z,0.9nm,0.8s,baz=83,slow=3.6,SNR=7.4
**CM01 Chiang Mai Arr** 94.53 288 *e*P P 07 25 27.5 +2.0
**CMAR Chiang Mai Arr** 94.56 289 P P 07 25 27.7 +2.0
comp=Z,1.1nm,0.3s,baz=132,slow=3.5,SNR=15
**CMAR Chiang Mai Arr** 94.56 289 *ce*P P 07 25 29.0 +3.3
CMAR pmax pmax
comp=Z,1.0nm,0.3s
**MSO Missoula** 94.57 38 P P 07 25 25.6 +0.4
baz=231
**MSO Missoula** 94.57 38 *e*P P 07 25 24.9 -0.3
comp=Z,26nm,1.8s
MSO LR LR
comp=Z,600nm,20.0s
**QLMT Earthquake Lak** 94.70 40 *e*P P 07 25 27.0 +1.1
**YPP Pitchstone Pla** 94.71 41 *e*P P 07 25 27.5 +1.3
comp=Z,30nm,1.7s
YPP LR LR
comp=Z,900nm,18.0s
**CMMT Chiang Mai** 94.73 289 P P 07 25 28.7 +2.2
comp=Z,17nm,1.6s
**CHTO Chiang Mai** 94.74 289 P P 07 25 28.7 +2.2
comp=Z,72nm,1.6s
**CHTO Chiang Mai** 94.74 289 *e*P P 07 25 28.7 +2.2
CHTO pmax pmax
comp=Z,16nm,1.1s
**CHTO Chiang Mai** 94.74 289 *e*P P 07 25 28.7 +2.2
comp=Z,16nm,1.1s
**LRM Limekiln Ridge** 94.74 39 *e*P P 07 25 26.0 -0.2
**YHB Horse Butte** 94.78 40 *e*P P 07 25 27.0 +0.6
comp=Z,18nm,1.2s
**YFT Old Faithful** 94.80 41 *e*P P 07 25 28.3 +1.8
comp=Z,22nm,1.3s
YFT LR LR
comp=Z,700nm,18.0s
**KMI Kunming** 94.81 296 P P 07 25 28.8 +1.8
**XAN Xi'an** 94.84 306 P P 07 25 30.1 +3.4
XAN pmax pmax
comp=Z,21nm,0.9s
XAN pmax pmax
comp=Z,100nm,4.0s
**YMR Madison River** 94.86 41 *e*P P 07 25 27.8 +1.0
comp=Z,45nm,1.4s
**H17A Grant Village** 94.92 41 P P 07 25 27.9 +0.8
baz=233
**H17A Grant Village** 94.92 41 *e*P P 07 25 28.7 +1.6
comp=Z,18nm,1.3s
H17A LR LR
comp=Z,600nm,18.0s
**KTH Kantishna Hill** 95.00 11 *e*P P 07 25 26.6 -0.1
comp=Z,17nm,1.1s
**YHH Holmes Hill** 95.00 41 *e*P P 07 25 28.8 +1.4
comp=Z,33nm,1.4s
**TRF Thorofare Moun** 95.01 11 *e*P P 07 25 26.0 -0.9
comp=Z,52nm,1.6s
**YNR Norris Junctio** 95.05 41 *e*P P 07 25 29.8 +2.1
comp=Z,23nm,1.3s
**BOZ Bozeman (W)** 95.06 40 P P 07 25 28.4 +0.9
baz=232
**BOZ Bozeman (W)** 95.06 40 *e*P P 07 25 27.8 +0.3
BOZ pmax pmax
comp=Z,34nm,1.2s
**BOZ Bozeman (W)** 95.06 40 *e*P P 07 25 27.8 +0.3
comp=Z,34nm,1.3s
**Q24A Divide** 95.06 48 P P 07 25 28.1 +0.2
baz=236
**Q24A Divide** 95.06 48 PFAKE 07 25 40.0 +12
Q24A LR LR
comp=Z,500nm,19.0s
**LKWY Lake** 95.12 41 PFAKE 07 25 40.0 +12
LKWY LR LR
comp=Z,900nm,18.0s
**RND Reindeer** 95.22 12 *e*P P 07 25 27.7 -0.1
RND *e**PP **sP** 07 25 39.6 -0.8
**RND Reindeer** 95.22 12 *e*P P 07 25 27.6 -0.1
comp=Z,27nm,1.1s
**ISCO Idaho Springs** 95.23 47 P P 07 25 28.8 +0.1
baz=236
**ABTX Abilene, Hawle** 95.38 56 P P 07 25 29.5 +0.4
baz=238
**ABTX Abilene, Hawle** 95.38 56 *e*P P 07 25 28.2 -1.0
comp=Z,20nm,1.5s
ABTX LR LR
comp=Z,500nm,19.0s
**PAX Paxson** 95.48 14 PFAKE 07 25 40.0 +11
PAX LR LR
comp=Z,600nm,21.0s
**MCK McKinley** 95.50 12 *e*P P 07 25 28.5 -0.5
MCK *e**PP **sP** 07 25 40.2 -1.5
MCK pmax pmax
comp=Z,23nm,1.1s
**MCK McKinley** 95.50 12 *e*P P 07 25 28.0 -0.9
comp=Z,23nm,1.2s
**SEY Seymchan** 95.56 346 P P 07 25 28.6 -0.5
comp=Z,4.2nm,0.8s,baz=159,slow=8.0,SNR=6.9
**SEY Seymchan** 95.56 346⇑ *e*P P 07 25 28.8 -0.3
**HRY Holter Researc** 95.63 39 *e*P P 07 25 30.5 +0.4
**N23A Red Feather La** 95.64 46 P P 07 25 30.9 +0.5
baz=236
**RLMT Red Lodge** 96.10 41 P P 07 25 33.0 +0.6
baz=234
**RLMT Red Lodge** 96.10 41 *e*P P 07 25 32.1 -0.3
comp=Z,15nm,1.4s
**K22A Casper** 96.28 44 P P 07 25 33.6 +0.3
baz=235
**K22A Casper** 96.28 44 *e*P P 07 25 33.5 +0.3
comp=Z,14nm,1.1s
K22A LR LR
comp=Z,600nm,18.0s
**HDA Harding Lake** 96.49 12 *e*P P 07 25 33.1 -0.3
comp=Z,21nm,1.2s
**CCB Clear Creek Bu** 96.55 12 *e*P P 07 25 33.0 -0.7
comp=Z,16nm,1.2s
**WHTX Lake Whitney,** 96.64 57 PFAKE 07 25 50.0 +15
WHTX LR LR
comp=Z,600nm,18.0s
**COLA College** 96.74 12⇑ *e*P P 07 25 33.9 -0.6
COLA pmax pmax
comp=Z,12nm,1.0s
**MDM Murphy Dome** 96.75 12 *e*P P 07 25 34.0 -0.6
comp=Z,16nm,1.1s
**HHC Hu-ho-hao-te** 96.77 313 *e*P P 07 25 37.1 +1.7
HHC SKS **SKSac** 07 36 08.9 -1.4
HHC S **S** 07 36 52.0 -3.3
HHC sS sS 07 37 15.0 +4.1
HHC SS **SS** 07 43 31.9 +0.4
HHC pmax pmax
comp=Z,16nm,1.0s
HHC pmax pmax
comp=Z,180nm,5.6s
HHC LR LR
comp=Z,240nm,15.7s
HHC LR LR
comp=Z,560nm,16.5s
HHC LR LR
comp=Z,220nm,16.1s
**IL1 Eielson Array** 96.83 12 *e*P P 07 25 34.1 -0.8
**ILAR Eielson Array** 96.83 12 P P 07 25 34.3 -0.6
comp=Z,4.8nm,1.0s,baz=220,slow=5.4,SNR=26
ILAR LR LR 08 02 15.8
comp=Z,75nm,20.1s,baz=186,slow=31
**ILB Eielson Array** 96.83 12 *e*P P 07 25 34.5 -0.4
**IMAR Indian Mountai** 96.85 9 *e*P P 07 25 34.9 -0.1
**CD2 Chengdu** 96.94 302 *e*P P 07 25 37.8 +1.4
CD2 pP sP 07 25 46.3 -2.8
CD2 sP pP 07 25 52.3 +6.6
CD2 PP **PP** 07 29 29.8 -2.7
CD2 SKS **SKSac** 07 36 09.4 -2.1
CD2 S **S** 07 36 52.8 -4.3
CD2 SS **SS** 07 43 33.5 -0.7
CD2 pmax pmax
comp=Z,20nm,1.4s
CD2 pmax pmax
comp=Z,160nm,11.9s
CD2 LR LR
comp=Z,330nm,17.8s
CD2 LR LR
comp=Z,270nm,17.8s
**LPAZ La Paz** 97.09 113 P Pdif 07 25 39.6 +1.4
comp=Z,1.9nm,0.8s,baz=197,slow=4.3,SNR=8.1
LPAZ LR LR 08 01 05.2
comp=Z,160nm,21.1s,baz=258,slow=30
**LPAZ La Paz** 97.09 113 *e*P Pdif 07 25 39.6 +1.4
LPAZ *e**PP sP 07 25 50.5 -0.3
**LPAZ La Paz** 97.09 113 *e*P Pdif 07 25 38.6 +0.4
**WMOK Wichita Mounta** 97.09 54 P Pdif 07 25 37.9 +0.9
baz=239
**U32A Winter Ranch,** 97.78 53 P Pdif 07 25 40.6 +0.6
baz=239
**Y35A Marietta** 97.91 56 P Pdif 07 25 41.4 +0.8
baz=240
**OGNE Ogallala** 98.14 47 PFAKE 07 25 50.0 +8.4
OGNE LR LR
comp=Z,600nm,18.0s
**X35A Drake** 98.20 55 PFAKE 07 25 50.0 +8.1
X35A LR LR
comp=Z,600nm,18.0s
**RSSD Black Hills** 98.60 44 P P 07 25 43.9 +0.2
baz=237
**RSSD Black Hills** 98.60 44 *e*P P 07 25 43.9 +0.2
RSSD *e**PP **sP** 07 25 55.0 -1.4
**RSSD Black Hills** 98.60 44 *e*P P 07 25 43.9 +0.2
comp=Z,22nm,1.1s
RSSD LR LR
comp=Z,800nm,18.0s
**W35A Tecumseh** 98.65 55 PFAKE 07 26 00.0 +16
W35A LR LR
comp=Z,500nm,18.0s
**W36A Wetumka** 99.10 55 PFAKE 07 26 00.0 +14
W36A LR LR
comp=Z,400nm,18.0s
**CPUP Villa Florida** 99.29 127 LR LR 08 03 06.6
comp=Z,206nm,21.8s,baz=256,slow=31
**U35A Pawnee** 99.36 54 PFAKE 07 26 00.0 +13
U35A LR LR
comp=Z,400nm,20.0s
**X37A Clayton** 99.44 56 PFAKE 07 26 00.0 +13
X37A LR LR
comp=Z,1μm,19.0s
**LZH Lanzhou** 99.46 306 *e*P **Pdif** 07 25 49.1 +1.4
LZH pP sP 07 26 02.9 +2.5
LZH sP pP 07 26 08.0 +11
LZH PP **PP** 07 29 54.8 +3.0
LZH SKS **SKSac** 07 36 22.4 -1.9
LZH S **ScS** 07 37 14.3 -4.2
LZH sS sS 07 37 37.1 +3.0
LZH SS **SS** 07 44 10.0 +0.4
LZH pmax pmax
comp=Z,30nm,1.0s
LZH pmax pmax
comp=Z,200nm,4.7s
LZH LR LR
comp=Z,270nm,17.6s
LZH LR LR
comp=Z,290nm,18.9s
LZH LR LR
comp=Z,390nm,19.1s
**V36A Jenks** 99.62 54 PFAKE 07 26 00.0 +12
V36A LR LR
comp=Z,500nm,18.0s
**DGMT Dagmar** 100.86 40 PFAKE 07 26 10.0 +17
DGMT LR LR
comp=Z,8μm,22.0s
**YAK Yakutsk** 101.09 337 PFAKE 07 26 10.0 +16
YAK LR LR
comp=Z,300nm,19.0s
**W40A Ferguson Farm,** 101.39 56 PFAKE 07 26 10.0 +14
W40A LR LR
comp=Z,900nm,18.0s
**UALR University of** 101.72 57 PFAKE 07 26 10.0 +12
UALR LR LR
comp=Z,500nm,18.0s
**X301 Greenbrier Sit** 101.90 56 PFAKE 07 26 10.0 +12
X301 LR LR
comp=Z,600nm,19.0s
**WHAR Wooly Hollow** 102.00 56 PFAKE 07 26 10.0 +11
WHAR LR LR
comp=Z,500nm,19.0s
**ECSD EROS Data Cent** 103.02 47 PFAKE 07 26 10.0 +6.9
ECSD LR LR
comp=Z,500nm,18.0s
**MET Memphis--Engin** 103.64 57 PFAKE 07 26 20.0 +14
MET LR LR
comp=Z,800nm,19.0s
**YKA Yellowknife Ar** 104.09 25 Pdiff **Pdif** 07 26 07.1 -0.3
comp=Z,0.3nm,0.8s,baz=237,slow=3.9,SNR=3.6
YKA PKIKP **PKiKP** 07 30 23.8 -0.5
comp=Z,0.5nm,1.0s,baz=249,slow=1.8,SNR=5.0
YKA PKKPbc **PKKPbc** 07 41 57.0 -1.1
comp=Z,0.8nm,0.7s,baz=40,slow=2.8,SNR=12
**PVMO Portageville** 104.39 56 PFAKE 07 26 20.0 +11
PVMO LR LR
comp=Z,700nm,19.0s
**PARMO Parma** 104.46 56 PFAKE 07 26 20.0 +10
PARMO LR LR
comp=Z,600nm,18.0s
**PALK Pallekele** 104.87 270 PFAKE 07 26 20.0 +7.9
PALK LR LR
comp=Z,600nm,18.0s
**SAML Samuel** 105.16 110 PFAKE 07 30 40.0
SAML LR LR
comp=Z,200nm,18.0s
**OLIL Olney** 106.53 55 PFAKE 07 30 40.0
OLIL LR LR
comp=Z,500nm,18.0s
**IP06 Yanceyville** 113.59 59 PFAKE 07 31 00.0
IP06 LR LR
comp=Z,400nm,19.0s
**SPRD Spring Road, M** 113.69 59 PFAKE 07 31 00.0
SPRD LR LR
comp=Z,300nm,21.0s
**PTRD Partlow Road** 113.92 59 PFAKE 07 31 00.0
PTRD LR LR
comp=Z,500nm,18.0s
**WMQ Urumqi** 113.92 308 PKP **PKiKP** 07 30 43.0 -0.5
WMQ PP **PP** 07 31 41.8 +4.0
WMQ AMB AMB
comp=Z,33nm,3.8s
WMQ LR LR
comp=Z,280nm,15.1s
WMQ LR LR
comp=Z,190nm,18.9s
WMQ LR LR
comp=Z,240nm,17.7s
**SSPA Standing Stone** 114.55 56 PFAKE 07 31 00.0 +15
SSPA LR LR
comp=Z,500nm,20.0s
**MPR Mayaguez** 115.08 83 PFAKE 07 31 00.0 +14
MPR LR LR
comp=Z,1μm,21.0s
**DGZ Jazzator, Alta** 115.84 314⇑ *i*PKIKP **PKPdf** 07 30 46.5 -0.6
**KSPA Keystone Colle** 116.36 55 PFAKE 07 31 00.0 +12
KSPA LR LR
comp=Z,100nm,21.0s
**VLDQ Val d'Or** 117.02 48 PFAKE 07 31 00.0 +11
VLDQ LR LR
comp=Z,700nm,19.0s
**PAL Palisades** 117.54 56 PFAKE 07 31 00.0 +10
PAL LR LR
comp=Z,600nm,19.0s
**SABA Saba** 118.21 85 PFAKE 07 31 00.0 +7.6
SABA LR LR
comp=Z,500nm,21.0s
**SEUS St. Eustatius** 118.39 85 PFAKE 07 31 00.0 +7.3
SEUS LR LR
comp=Z,300nm,18.0s
**MK01 Makanchi Array** 118.40 310 *e*PKPdf **PKPdf** 07 30 51.4 -0.6
**MK31 Makanchi Array** 118.41 310 *e*PKIKP **PKPdf** 07 30 51.7 -0.3
**MK31 Makanchi Array** 118.41 310 *e*PKPdf **PKPdf** 07 30 51.7 -0.3
**MK32 Makanchi Array** 118.41 310 *e*PKPdf **PKPdf** 07 30 51.2 -0.7
**MKAR Makanchi Array** 118.41 310 PKP **PKPdf** 07 30 51.2 -0.7
comp=Z,3.2nm,0.8s,baz=67,slow=4.1,SNR=14
**MKAR Makanchi Array** 118.41 310*c* *i*PKIKP **PKPdf** 07 30 51.7 -0.3
MKAR pmax pmax
comp=Z,3.0nm,0.9s
**ZAA1 Zalesovo Array** 118.44 318 *e*PKPdf **PKPdf** 07 30 50.8 -0.9
**ZALV Zalesovo Beam** 118.44 318 PKP **PKPdf** 07 30 50.8 -0.9
comp=Z,2.3nm,0.8s,baz=229,slow=1.2,SNR=11
**ZALV Zalesovo Beam** 118.44 318 *e*PKIKP **PKPdf** 07 30 50.9 -0.8
**SMRT St. Maarten** 118.54 85 PFAKE 07 31 10.0 +17
SMRT LR LR
comp=Z,400nm,19.0s
**NVS Novosibirsk** 119.52 319 *i* PKIKP **PKPdf** 07 30 53.2 -0.5
**KSH Kashi** 121.13 301 *e*PKP **PKPdf** 07 31 00.5 +2.9
KSH sPKP 07 31 15.6
KSH PP PP 07 32 36.6 +8.4
KSH PKS **PKSdf** 07 34 36.8 +2.5
KSH SKS **SKSdf** 07 38 08.0 +0.4
KSH SKKS **SKKSac** 07 39 24.8 -0.6
KSH SS **SS** 07 49 06.1 +6.3
KSH AMB AMB
comp=Z,79nm,3.5s
KSH LR LR
comp=Z,71nm,4.0s
KSH LR LR
comp=Z,72nm,4.3s
KSH LR LR
comp=Z,210nm,10.3s
**KURK Kurchatov** 121.58 314⇑ *i*PKIKP **PKPdf** 07 30 57.3 -0.6
KURK pmax pmax
comp=Z,45nm,1.2s
**KURK Kurchatov** 121.58 314 *e*PKPdf **PKPdf** 07 30 57.5 -0.4
KURK *e*PKPdf **PKiKP** 07 30 57.9 -0.1
**KURBB Kurchatov Arra** 121.62 314 PKP **PKPdf** 07 30 57.5 -0.5
comp=Z,5.1nm,0.8s,baz=102,slow=2.0,SNR=42
**TULEG Thule** 122.61 15 *e*PKPdf **PKPdf** 07 30 58.3 -0.9
**AAK Ala-Archa** 122.92 304 PKP **PKPdf** 07 31 00.8 -0.2
comp=Z,1.8nm,0.7s,baz=62,slow=24,SNR=4.1
**GGN Saint George** 123.52 53 PFAKE 07 31 10.0 +8.3
GGN LR LR
comp=Z,200nm,18.0s
**LMN Caledonia Moun** 125.05 53 PFAKE 07 31 20.0 +15
LMN LR LR
comp=Z,500nm,18.0s
**BVAR Borovoye Array** 126.88 316 PKP **PKPdf** 07 31 07.8 -0.2
comp=Z,6.8nm,0.8s,baz=96,slow=3.0,SNR=26
**BRVK Borovoye** 126.94 316*c* *i*PKIKP **PKPdf** 07 31 08.0 -0.1
BRVK pmax pmax
comp=Z,79nm,2.5s
**BRVK Borovoye** 126.94 316 *e*PKPdf **PKPdf** 07 31 08.2 +0.1
**LSZ Lusaka** 129.52 211 *e*PKIKP **PKPdf** 07 31 16.9 +2.5
**LSZ Lusaka** 129.52 211 *e*PKPdf **PKPdf** 07 31 16.9 +2.5
**ARU Arti** 133.42 321 *i* PKIKP **PKPdf** 07 31 21.2 +0.9
ARU 07 33 47.8
**ARU Arti** 133.42 321 *e*PKPdf **PKPdf** 07 31 20.9 +0.7
**GEYT Alibeck** 134.58 296 PKP **PKPdf** 07 31 24.2 +1.1
comp=Z,8.3nm,0.4s,baz=253,slow=4.5,SNR=5.0
**AKTO Aktyubinsk** 134.66 313 PKP **PKPdf** 07 31 22.4 -0.4
comp=Z,3.6nm,0.8s,baz=97,slow=1.5,SNR=14
**AKTO Aktyubinsk** 134.66 313 PKIKP **PKPdf** 07 31 22.2 -0.6
AKTO pmax pmax
comp=Z,7.0nm,1.1s
**KMBO Kilima Mbogo** 135.75 232 PKP **PKPdf** 07 31 27.9 +1.5
comp=Z,2.4nm,0.8s,baz=70,slow=3.0,SNR=4.2
**KMBO Kilima Mbogo** 135.75 232 *e*PKIKP **PKPdf** 07 31 28.1 +1.8
**KMBO Kilima Mbogo** 135.75 232 *e*PKPdf **PKPdf** 07 31 28.1 +1.8
**APA Apatity** 138.09 343⇑ *i*PKHKP PKPpre 07 31 16.4
APA 07 31 30.3
**ASCN Ascension** 138.82 152 PFAKE 07 31 40.0 +8.3
ASCN LR LR
comp=Z,600nm,19.0s
**KLMR Klimovskoe** 140.75 333 *e*PKHKP PKPpre 07 31 24.0
KLMR pmax pmax
comp=Z,17nm,1.4s
**FURI Furi** 141.34 245 PFAKE 07 31 50.0 +13
FURI LR LR
comp=Z,500nm,18.0s
**RAYN Ar Rayn** 142.30 271 *e*PKPdf **PKPdf** 07 31 35.6 -2.1
RAYN LR LR
comp=Z,300nm,19.0s
**DDFL Dedoflistskaro** 143.87 301 P **PKPdf** 07 31 39.6 -0.3
**VRH Novokhopyorsk** 144.47 318 *e*PKIKP **PKPab** 07 31 38.3 -0.6
VRH pmax pmax
comp=Z,7.0nm,0.5s
**TBLG Delisi** 144.87 301 P **PKPdf** 07 31 42.3 +0.6
**TBLG Delisi** 144.87 301 *e*PKIKP **PKPdf** 07 31 42.2 +0.6
**FIA1 FINESS Array S** 144.89 341 *e*PKPdf **PKPab** 07 31 39.5 -0.6
FIA1 *e*PKPdf PKPbc 07 31 39.6 -0.6
**FIA0 FINESS Array S** 144.89 341 *e*PKIKP **PKPab** 07 31 39.5 -0.6
**FIA0 FINESS Array S** 144.89 341 *e*PKPdf **PKPab** 07 31 39.5 -0.6
**FINES FINESS Array B** 144.89 341 PKP **PKPab** 07 31 39.5 -0.6
comp=Z,18nm,0.8s,baz=46,slow=5.5,SNR=25
**GNI Garni** 145.02 299 *e*PKIKP **PKPdf** 07 31 42.8 +0.6
**GNI Garni** 145.02 299 *e*PKPbc **PKPdf** 07 31 42.8 +0.6

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **ZEI** | **Tsey** | **145.34** | **303** | *i* PKHKP | PKPpre | 07 31 39.5 | | | |
| ZEI | | | | pmax | pmax | | | | |
| | comp=Z,21nm,0.9s | | | | | | | | |
| **OBN** | **Obninsk** | **145.35** | **327** | PKPbc | **PKPbc** | **07 31 41.8** | **0.0** | | |
| | comp=Z,29nm,0.4s,baz=51,slow=3.3,SNR=18 | | | | | | | | |
| **OBN** | **Obninsk** | **145.35** | **327** | *d* iPKP2 | **PKPbc** | **07 31 41.1** | **-0.7** | | |
| OBN | | | | *e* | | 07 35 01.1 | | | |
| OBN | | | | *e*PPP | PPP | 07 38 14.1 | | | |
| OBN | | | | pmax | pmax | | | | |
| | comp=Z,86nm,1.0s | | | | | | | | |
| **OBN** | **Obninsk** | **145.35** | **327** | *e*PKPbc | **PKPbc** | **07 31 41.9** | **+0.1** | | |
| **LPSR** | **Galich'ya Gora** | **145.44** | **322** | *e*PKIKP | **PKPdf** | **07 31 41.7** | **-0.5** | | |
| LPSR | | | | pmax | pmax | | | | |
| | comp=Z,90nm,0.9s | | | | | | | | |
| **NCK** | **Nalchik** | **145.44** | **305**⇑ | *e*PKIKP | **PKPab** | **07 31 43.5** | **+0.7** | | |
| **GOF** | **Gofitskoye** | **145.52** | **308**⇑ | *e*PKIKP | **PKPab** | **07 31 43.5** | **+0.5** | | |
| GOF | | | | pmax | pmax | | | | |
| | comp=Z,74nm,0.9s | | | | | | | | |
| **ONI** | **Oni** | **145.70** | **303** | P | **PKPab** | **07 31 44.4** | **+0.6** | | |
| **ONI** | **Oni** | **145.70** | **303** | *e*PKP2 | **PKPab** | **07 31 44.4** | **+0.6** | | |
| **BGD** | **Bogdanovka** | **145.77** | **301** | P | **PKPab** | **07 31 45.2** | **+0.9** | | |
| **AKH** | **Akhalkalaki** | **145.84** | **301** | P | **PKPab** | **07 31 45.6** | **+1.0** | | |
| **AKH** | **Akhalkalaki** | **145.84** | **301**⇑ | *i*P | **PKPab** | **07 31 45.7** | **+1.1** | | |
| **AKH** | **Akhalkalaki** | **145.84** | **301** | *e*PKP2 | **PKPab** | **07 31 45.5** | **+1.0** | | |
| **KBZ** | **Khabaz** | **145.90** | **305** | PKPbc | **PKPab** | **07 31 44.3** | **-0.1** | | |
| | comp=Z,6.2nm,0.7s,baz=41,slow=1.6,SNR=14 | | | | | | | | |
| **VSR** | **Storozhevoye** | **145.93** | **319** | *e*PKP2 | **PKPdf** | **07 31 43.2** | **+0.1** | | |
| VSR | | | | pmax | pmax | | | | |
| | comp=Z,110nm,0.9s | | | | | | | | |
| **KVAR** | **Kislovodsk Arr** | **146.00** | **306** | PKPbc | **PKPbc** | **07 31 44.4** | **0.0** | | |
| | comp=Z,18nm,1.0s,baz=314,slow=2.4,SNR=20 | | | | | | | | |
| **KIV** | **Kislovodsk** | **146.00** | **306** | *i* PKP2 | **PKPbc** | **07 31 44.3** | **-0.1** | | |
| KIV | | | | pmax | pmax | | | | |
| | comp=Z,28nm,1.1s | | | | | | | | |
| **KIV** | **Kislovodsk** | **146.00** | **306** | *e*PKPdf | **PKPab** | **07 31 44.9** | **-0.1** | | |
| **NEY** | **Neytrino** | **146.11** | **304**⇓ | *e*PKP2 | **PKPdf** | **07 31 44.3** | **+0.4** | | |
| **ARTV** | **Artvin** | **147.03** | **301** | *e*PKPdf | **PKPab** | **07 31 48.8** | **-0.5** | | |
| **VSU** | **Vasula** | **147.09** | **338**⇑ | *e*PKP2 | **PKPbc** | **07 31 46.5** | **-0.4** | | |
| **NC303** | **NORSAR Array S** | **147.97** | **353** | *e*PKPbc | **PKPbc** | **07 31 49.1** | **-0.2** | | |
| **NC405** | **NORSAR Array S** | **148.04** | **353** | *e*PKPdf | **PKPbc** | **07 31 49.0** | **-0.5** | | |
| NC405 | | | | *e*PKPbc | **PKPab** | **07 31 52.0** | **-0.3** | | |
| **NB2** | **NORSAR Subarra** | **148.17** | **353** | PKP | **PKPbc** | **07 31 49.3** | **-0.6** | | |
| | comp=Z,32nm,1.0s,baz=8.7,slow=2.9 | | | | | | | | |
| **NB2** | **NORSAR Subarra** | **148.17** | **353** | PKP | **PKPbc** | **07 31 49.3** | **-0.6** | | |
| | baz=8.7,slow=2.9 | | | | | | | | |
| **NB200** | **NORSAR Array S** | **148.17** | **353** | *e*PKPbc | **PKPbc** | **07 31 49.5** | **-0.4** | | |
| **NOA** | **NORSAR Array B** | **148.17** | **353** | PKPbc | **PKPbc** | **07 31 49.5** | **-0.4** | | |
| | comp=Z,13nm,0.8s,baz=13,slow=4.3,SNR=15 | | | | | | | | |
| **NBO02** | **NORSAR Array S** | **148.20** | **353** | *e*PKPbc | **PKPbc** | **07 31 49.7** | **-0.3** | | |
| **NBO00** | **NORSAR Array S** | **148.22** | **353** | *e*PKPbc | **PKPbc** | **07 31 50.1** | **+0.1** | | |
| **KOPT** | **Kop Dagi** | **148.27** | **299** | *e*PKPbc | **PKPbc** | **07 31 52.8** | **+1.7** | | |
| KOPT | | | | *e*PKPab | **sPKPdf** | **07 31 57.2** | **-3.5** | | |
| **MARD** | **Mardin** | **148.30** | **294** | *e*PKPbc | **PKPbc** | **07 31 52.3** | **+1.2** | | |
| MARD | | | | *e*PKPab | **pPKPdf** | **07 31 56.1** | **-1.2** | | |
| **NC602** | **NORSAR Array S** | **148.43** | **353** | *e*PKPbc | **PKPbc** | **07 31 49.7** | **-0.8** | | |
| **HFS** | **Hagfors** | **148.74** | **350** | PKPbc | **PKPbc** | **07 31 50.6** | **-0.8** | | |
| | comp=Z,23nm,0.8s,baz=48,slow=2.1,SNR=19 | | | | | | | | |
| **ANN** | **Anapa** | **149.42** | **309** | *i* PKP2 | **PKPbc** | **07 31 53.7** | **+0.2** | | |
| ANN | | | | pmax | pmax | | | | |
| | comp=Z,46nm,1.0s | | | | | | | | |
| **MICGM** | **Minsk** | **149.62** | **332**⇑ | *e*P | **PKPbc** | **07 31 54.0** | **+0.3** | | |
| MICGM | | | | PM | | 07 31 55.0 | | | |
| | comp=Z,0.1nm,1.5s | | | | | | | | |
| **MNK** | **Minsk** | **149.62** | **332**⇑ | *e*PKP2 | **PKPbc** | **07 31 54.0** | **+0.3** | | |
| MNK | | | | pmax | pmax | | | | |
| | comp=Z,130nm,1.5s | | | | | | | | |
| **KONO** | **Kongsberg** | **149.69** | **354**⇓ | *e*PKHKP | PKPpre | 07 31 49.9 | | | |
| **ASF** | **Jabal al Asfar** | **151.48** | **284** | PKP | **PKPdf** | **07 31 51.2** | **-1.7** | | |
| | comp=Z,2.7nm,0.5s,baz=98,slow=11,SNR=6.5 | | | | | | | | |
| ASF | | | | PKPbc | **pPKPdf** | **07 32 00.6** | **-1.8** | | |
| | comp=Z,9.4nm,0.8s,baz=104,slow=2.0,SNR=10 | | | | | | | | |
| **AKASG** | **Malin Array Be** | **151.55** | **325** | PKP | **PKPdf** | **07 31 50.8** | **-1.4** | | |
| | comp=Z,0.2nm,0.3s,baz=40,slow=2.1,SNR=6.1 | | | | | | | | |
| AKASG | | | | PKPbc | **PKPbc** | **07 31 58.0** | **-0.4** | | |
| | comp=Z,24nm,0.7s,baz=45,slow=2.8,SNR=89 | | | | | | | | |
| **AKBB** | **Malin Array Si** | **151.55** | **325** | *e*PKIKP | **PKPbc** | **07 31 58.2** | **-0.2** | | |
| **AKBB** | **Malin Array Si** | **151.55** | **325** | *e*PKPbc | **PKPbc** | **07 31 58.2** | **-0.2** | | |
| **SIM** | **Simferopol'** | **151.59** | **311** | *i* PKIKP | **PKPbc** | **07 31 59.1** | **+0.4** | | |
| SIM | | | | *e* | | 07 32 08.0 | | | |
| SIM | | | | pmax | pmax | | | | |
| | comp=Z,22nm,0.7s | | | | | | | | |
| **SUW** | **Suwalki** | **151.81** | **335** | *e*PKPbc | **PKPbc** | **07 31 59.2** | **+0.3** | | |
| **SUW** | **Suwalki** | **151.81** | **335** | *e*PKIKP | **PKPbc** | **07 31 59.2** | **+0.3** | | |
| **MMAI** | **Mount Meron Ar** | **152.78** | **285** | PKPbc | **PKPbc** | **07 32 03.4** | **+1.5** | | |
| | comp=Z,11nm,0.7s,baz=33,slow=2.0,SNR=10.0 | | | | | | | | |
| **EIL** | **Elat** | **152.90** | **278** | PKPbc | **PKPbc** | **07 32 03.5** | **+1.4** | | |
| | comp=Z,10nm,0.9s,baz=329,slow=6.1,SNR=5.8 | | | | | | | | |
| **ILGA** | **Ilgaz** | **153.13** | **303** | *e*PKPbc | **PKPbc** | **07 32 03.4** | **+0.8** | | |
| **BR101** | **Keskin Array S** | **153.52** | **300** | *e*PKPbc | **PKPbc** | **07 32 03.4** | **0.0** | | |
| BR101 | | | | *e*PKPab | **PKPab** | **07 32 15.6** | **-0.3** | | |
| **BR131** | **Keskin Array S** | **153.52** | **300** | *e*PKPbc | **PKPbc** | **07 32 03.4** | **0.0** | | |
| BR131 | | | | *e*PKPab | **PKPab** | **07 32 16.4** | **+0.5** | | |
| **BRTR** | **Keskin Array B** | **153.52** | **300** | PKPbc | **PKPbc** | **07 32 03.4** | **0.0** | | |
| | comp=Z,4.7nm,1.0s,baz=116,slow=2.9,SNR=19 | | | | | | | | |
| BRTR | | | | PKPab | **PKPab** | **07 32 15.6** | **-0.3** | | |
| | comp=Z,2.2nm,0.8s,baz=95,slow=4.3,SNR=6.7 | | | | | | | | |
| **EKA** | **Eskdalemuir Ar** | **153.82** | **9** | PKPbc | **PKPbc** | **07 32 03.0** | **-0.3** | | |
| | comp=Z,2.6nm,0.7s,baz=350,slow=2.5,SNR=4.9 | | | | | | | | |
| EKA | | | | PKPab | **PKPbc** | **07 32 16.1** | **-0.2** | | |
| | comp=Z,5.4nm,0.8s,baz=350,slow=1.9,SNR=6.7 | | | | | | | | |
| **RGN** | **Rugen** | **154.13** | **347** | PFAKE | | 07 32 10.0 | +6.1 | | |
| RGN | | | | LR | LR | | | | |
| | comp=Z,2µm,18.0s | | | | | | | | |
| **BR231** | **Keskin MP Arra** | **154.13** | **301** | *e*PKPbc | **PKPbc** | **07 32 04.1** | **-0.6** | | |
| **CSS** | **Mathiatis** | **154.46** | **290** | *e*PKPdf | **PKPdf** | **07 31 54.8** | **-2.2** | | |
| CSS | | | | *e*PKPab | **PKPab** | **07 32 19.9** | **0.0** | | |
| **KWP** | **Kalwaria Pacla** | **155.35** | **330** | *e*PKP | **PKPab** | **07 32 23.6** | **+0.5** | | |
| **KWP** | **Kalwaria Pacla** | **155.35** | **330** | *e*PKP2 | **PKPab** | **07 32 23.6** | **+0.5** | | |
| **TESR** | **Tescani** | **155.43** | **320**⇑ | *i*P | **PKPab** | **07 32 23.3** | **-0.2** | | |
| **TIRR** | **Tirgusor** | **155.47** | **314**⇑ | *i*P | **PKPab** | **07 32 21.3** | **-2.4** | | |
| **TIRR** | **Tirgusor** | **155.47** | **314** | ⇑PKP2 | **PKPab** | **07 32 21.3** | **-2.4** | | |
| **BURAR** | **Bucovina Array** | **155.53** | **323**⇑ | *i*P | **PKPab** | **07 32 24.3** | **+0.2** | | |
| **BURAR** | **Bucovina Array** | **155.53** | **323** | ⇑PKP2 | **PKPab** | **07 32 24.3** | **+0.2** | | |
| **BUR04** | **Bucovina Ar. S** | **155.53** | **323** | *e*PKPdf | **PKPdf** | **07 31 58.4** | **+0.3** | | |
| BUR04 | | | | *e*PKPab | **PKPab** | **07 32 24.1** | **+0.1** | | |
| **VRI** | **Vrincioaia** | **155.75** | **318**⇑ | *i*P | **PKPab** | **07 32 25.4** | **+0.4** | | |
| **VRI** | **Vrincioaia** | **155.75** | **318** | ⇑PKP2 | **PKPab** | **07 32 25.4** | **+0.4** | | |
| **DBIC** | **Dimbokro** | **155.79** | **159** | PKPab | **PKPab** | **07 32 26.2** | **+0.4** | | |
| | comp=Z,1.8nm,0.6s,baz=157,slow=4.8,SNR=4.1 | | | | | | | | |
| **DBIC** | **Dimbokro** | **155.79** | **159** | *e*PKIKP | **PKPdf** | **07 31 58.1** | **-1.3** | | |
| DBIC | | | | *e* | | 07 32 26.2 | | | |
| **DBIC** | **Dimbokro** | **155.79** | **159** | *e*PKPdf | **PKPdf** | **07 31 58.1** | **-1.3** | | |
| DBIC | | | | *e*PKPab | **PKPab** | **07 32 26.2** | **+0.4** | | |
| **PLOR** | **Plostina** | **155.80** | **318**⇑ | *i*P | **PKPab** | **07 32 25.7** | **+0.5** | | |
| **PLOR** | **Plostina** | **155.80** | **318** | ⇑PKP2 | **PKPab** | **07 32 25.7** | **+0.5** | | |
| **STHS** | **Stebnicka Huta** | **156.15** | **331** | *e*PKP2 | **PKPab** | **07 32 26.4** | **-0.1** | | |
| **STHS** | **Stebnicka Huta** | **156.15** | **331** | *e*PKP | **PKPab** | **07 32 26.4** | **-0.1** | | |
| **UZH** | **Uzhgorod** | **156.27** | **328** | *e*PKP2 | **PKPab** | **07 32 26.3** | **-0.7** | | |
| **CRVS** | **Cervenica-Dubn** | **156.44** | **330** | *e*PKP2 | **PKPab** | **07 32 27.7** | **-0.1** | | |
| **CRVS** | **Cervenica-Dubn** | **156.44** | **330** | *e*PKP | **PKPab** | **07 32 27.7** | **-0.1** | | |
| **DOPR** | **Dopca** | **156.46** | **320**⇑ | *i*P | **PKPab** | **07 32 28.9** | **+0.9** | | |
| **KSP** | **Ksiaz** | **156.78** | **340** | *e*PKP | **PKPdf** | **07 31 59.9** | **+0.3** | | |
| **KSP** | **Ksiaz** | **156.78** | **340** | *e*PKIKP | **PKPdf** | **07 31 59.9** | **+0.3** | | |
| **KECS** | **Kecovo** | **157.18** | **330** | *e*PKP2 | **PKPab** | **07 32 30.8** | **-0.2** | | |
| **KECS** | **Kecovo** | **157.18** | **330** | *e*PKP | **PKPab** | **07 32 30.8** | **-0.2** | | |
| **DPC** | **Dobruska-Polom** | **157.20** | **339** | *e*pPKP | **pPKPdf** | **07 32 12.7** | **+2.9** | | |
| DPC | | | | *e*PKPab | **PKPab** | **07 32 31.7** | **+0.7** | | |
| **CLL** | **Collm** | **157.24** | **345** | *e*PKP2 | **PKPab** | **07 32 30.0** | **-1.1** | | |
| CLL | | | | pmax | pmax | | | | |
| | comp=Z,16nm,1.1s | | | | | | | | |
| **CLL** | **Collm** | **157.24** | **345** | *e*PKPab | **PKPab** | **07 32 30.0** | **-1.1** | | |
| | comp=Z,16nm,1.1s | | | | | | | | |
| **ARR** | **Arges** | **157.24** | **319**⇑ | *i*P | **PKPab** | **07 32 32.3** | **+0.9** | | |
| **BRG** | **Berggiesshubel** | **157.41** | **343** | *e*PKP2 | **PKPab** | **07 32 31.4** | **-0.4** | | |
| BRG | | | | pmax | pmax | | | | |
| | comp=Z,8.0nm,1.0s | | | | | | | | |
| **PVCC** | **Panska Ves** | **157.56** | **342** | *e*PKPAB | **PKPab** | **07 32 32.3** | **-0.2** | | |
| **PVCC** | **Panska Ves** | **157.56** | **342** | *e*PKP2 | **PKPab** | **07 32 32.3** | **-0.2** | | |
| **VYHS** | **Vyhne** | **157.86** | **333** | *e*PKP2 | **PKPab** | **07 32 33.6** | **-0.3** | | |
| **VYHS** | **Vyhne** | **157.86** | **333** | *e*PKP | **PKPab** | **07 32 33.6** | **-0.3** | | |
| **VRAC** | **Vranov** | **158.02** | **337** | PKPab | **PKPab** | **07 32 35.2** | **+0.6** | | |
| | comp=Z,3.4nm,0.6s,baz=57,slow=5.0,SNR=4.1 | | | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **158.05** | **341** | *e*PKPAB | **PKPab** | **07 32 34.3** | **-0.4** | | |
| **GOPC** | **GO Pecny, Ondr** | **158.05** | **341** | *e*PKP2 | **PKPab** | **07 32 34.3** | **-0.4** | | |
| **PRU** | **Pruhonice** | **158.06** | **341** | *e*PKPAB | **PKPab** | **07 32 33.1** | **-1.6** | | |
| **PRU** | **Pruhonice** | **158.06** | **341** | *e*PKP2 | **PKPab** | **07 32 33.1** | **-1.6** | | |
| **NKC** | **Novy Kostel** | **158.37** | **345** | *e*PKPAB | **PKPab** | **07 32 36.1** | **+0.1** | | |
| **NKC** | **Novy Kostel** | **158.37** | **345** | *e*PKP2 | **PKPab** | **07 32 36.1** | **+0.1** | | |
| **KHC** | **Kasperske Hory** | **159.10** | **342** | *e*pPKP | **pPKPdf** | **07 32 14.4** | **+2.2** | | |
| KHC | | | | *e*PKPAB | **PKPab** | **07 32 39.6** | **+0.3** | | |
| KHC | | | | *ex* | x | 07 32 51.2 | | | |
| **KHC** | **Kasperske Hory** | **159.10** | **342** | *e*PKIKP | **PKPdf** | **07 32 02.5** | **0.0** | | |
| KHC | | | | *e* | | 07 32 39.8 | | | |
| **KHC** | **Kasperske Hory** | **159.10** | **342** | *e*PKPdf | **PKPdf** | **07 32 02.5** | **0.0** | | |
| KHC | | | | *e*PKPab | **PKPab** | **07 32 39.8** | **+0.5** | | |
| **MDVR** | **Moldovita** | **159.22** | **322**⇑ | *i*P | PKPab | 07 32 29.3 | -11 | | |
| **GERES** | **GERESS Array B** | **159.32** | **341** | PKPab | **PKPab** | **07 32 40.4** | **+0.1** | | |
| | comp=Z,2.3nm,1.0s,baz=26,slow=3.4,SNR=5.6 | | | | | | | | |
| **KARP** | **Karpathos** | **159.41** | **293** | *e*PKPdf | **PKPdf** | **07 32 00.8** | **-2.5** | | |
| KARP | | | | *e*PKPab | **PKPab** | **07 32 42.4** | **+1.2** | | |
| **VTS** | **Vitosha** | **159.67** | **315**⇑ | *i*P | **PKPab** | **07 32 41.4** | **-0.8** | | |
| **VTS** | **Vitosha** | **159.67** | **315** | *e*PKIKP | **PKPdf** | **07 32 04.6** | **+1.0** | | |
| VTS | | | | *e* | | 07 32 42.8 | | | |
| **VTS** | **Vitosha** | **159.67** | **315** | *e*PKPdf | **PKPdf** | **07 32 04.5** | **+1.0** | | |
| VTS | | | | *e*PKPab | **PKPab** | **07 32 42.8** | **+0.6** | | |
| **IDI** | **Anoyia** | **161.28** | **293** | PKP | **PKPdf** | **07 32 06.7** | **+1.3** | | |
| | comp=Z,4.3nm,0.5s,baz=224,slow=6.3,SNR=4.9 | | | | | | | | |
| IDI | | | | PKPab | **PKPab** | **07 32 50.6** | **+1.2** | | |
| | comp=Z,8.5nm,1.0s,baz=158,slow=13,SNR=4.4 | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **163.51** | **173** | PKP | **PKPdf** | **07 32 08.3** | **+0.2** | | |
| | comp=Z,1.4nm,0.9s,baz=329,slow=1.4,SNR=8.3 | | | | | | | | |
| TORD | | | | PKPab | **PKPab** | **07 33 00.1** | **+0.8** | | |
| | comp=Z,8.4nm,0.8s,baz=188,slow=3.9,SNR=29 | | | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **163.52** | **173** | *e*PKPdf | **PKPdf** | **07 32 08.3** | **+0.2** | | |
| TOA1 | | | | *e*PKPab | **PKPab** | **07 33 00.1** | **+0.8** | | |
| **ESDC** | **Sonseca Array** | **168.13** | **30** | PKP | **PKPdf** | **07 32 12.0** | **+0.8** | | |
| | comp=Z,0.4nm,0.4s,baz=2.6,slow=28,SNR=4.2 | | | | | | | | |
| ESDC | | | | PKPab | **PKPab** | **07 33 18.9** | **-0.3** | | |
| | comp=Z,0.6nm,0.5s,baz=318,slow=6.0,SNR=6.8 | | | | | | | | |
| **ES19** | **SONSECA Array** | **168.14** | **30** | *e*PKPdf | **PKPdf** | **07 32 12.6** | **+1.4** | | |
| ES19 | | | | *e*PKPab | **PKPab** | **07 33 18.5** | **-0.8** | | |
| **MDT** | **Midelt** | **172.17** | **64** | PKP | **PKPdf** | **07 32 14.7** | **+0.8** | | |
| | comp=Z,2.3nm,0.9s,baz=13,slow=4.6,SNR=3.6 | | | | | | | | |

*CSEM* ***15*** *07:20:15.4±0.6, 34°.20N×25°.14E, h2km, ML2.8, Error ellipse: s-maj=10.6km s-min=5.3km az=173.0*
*ATH* ***15*** *07:20:15.2, 34°.20N×25°.13E, h14km±4km, ML3.1/4, Error ellipse: s-maj=6.1km s-min=2.7km az=345.0*
*THE* ***15*** *07:20:16.9, 34°.29N×25°.12E, h2km±1km, ML2.8/6, Error ellipse: s-maj=2.3km s-min=0.8km az=169.0*
*IDC* ***15*** *07:20:17.2±1.7, 34°.29N×24°.82E, h0km, mb3.6/2, mb1 3.7/3, mb1mx3.3/44, mbtmp3.5/3, ML3.5/1, MS3.7/3, Ms1 3.6/3, ms1mx2.7/49, Error ellipse: s-maj=39.6km s-min=13.6km az=101.0*

**ISC 15 07:20:17.7±1.7, 34°.34N±0°.07×25°.10E±0°.03, h11km±9km, n28, σ0s92/40, MS3.5/3, Crete**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **SIVA** | **Sivas** | **0.72** | **341** | P | | **Pb** | | **07 20 32.0** | **-0.3** |
| SIVA | | | | S | | **Sn** | | **07 20 44.2** | **-0.7** |
| SIVA | | | | AML | AML | | | 07 20 45.0 | |
| | comp=N,8172µm,0.5s | | | | | | | | |
| SIVA | | | | AML | AML | | | 07 20 45.3 | |
| | comp=E,10504µm,0.4s | | | | | | | | |
| **SIVA** | **Sivas** | **0.72** | **341** | P | | **Pg** | | **07 20 31.8** | **+0.1** |
| SIVA | | | | S | | **Sn** | | **07 20 43.9** | **-1.0** |
| **SIVA** | **Sivas** | **0.72** | **341** | P | | **Pg** | | **07 20 31.8** | **+0.1** |
| SIVA | | | | S | | **Sn** | | **07 20 43.9** | **-1.0** |
| **LAST** | **Lasithi** | **0.88** | **21** | P | | **Pg** | | **07 20 34.4** | **-0.4** |
| LAST | | | | S | | **Sn** | | **07 20 49.9** | **+0.8** |
| LAST | | | | AML | AML | | | 07 20 57.5 | |
| | comp=N,690µm,0.6s | | | | | | | | |
| LAST | | | | AML | AML | | | 07 21 02.4 | |
| | comp=E,936µm,0.7s | | | | | | | | |
| **LAST** | **Lasithi** | **0.88** | **21** | P | | **Pg** | | **07 20 34.4** | **-0.4** |
| LAST | | | | S | | **Sn** | | **07 20 48.0** | **-1.1** |
| **LAST** | **Lasithi** | **0.88** | **21** | P | | **Pg** | | **07 20 34.4** | **-0.4** |
| LAST | | | | S | | **Sn** | | **07 20 48.0** | **-1.1** |
| **IDI** | **Anoyia** | **0.97** | **350** | Pg | | **Pb** | | **07 20 35.6** | **-0.9** |
| | comp=E,7.5nm,0.3s,baz=192,slow=13,SNR=31 | | | | | | | | |
| IDI | | | | Lg | | Lg | | 07 20 50.6 | |
| | comp=E,83nm,0.3s,baz=98,slow=20,SNR=31 | | | | | | | | |
| **IDI** | **Anoyia** | **0.97** | **350** | P | | **Pb** | | **07 20 35.3** | **-1.3** |
| IDI | | | | S | | **Sb** | | **07 20 49.2** | **-0.1** |
| IDI | | | | AML | AML | | | 07 20 53.9 | |
| | comp=N,802µm,0.5s | | | | | | | | |
| IDI | | | | AML | AML | | | 07 20 54.7 | |
| | comp=E,992µm,0.4s | | | | | | | | |
| **IDI** | **Anoyia** | **0.97** | **350** | P | | **Pb** | | **07 20 35.9** | **-0.6** |
| IDI | | | | S | | **Sn** | | **07 20 50.5** | **-0.6** |
| **GVD** | **Gavdhos** | **0.97** | **301** | P | | **Pb** | | **07 20 35.6** | **-1.0** |
| GVD | | | | S | | **Sn** | | **07 20 51.0** | **-0.1** |
| GVD | | | | AML | AML | | | 07 20 52.5 | |
| | comp=N,2373µm,0.5s | | | | | | | | |
| GVD | | | | AML | AML | | | 07 20 52.8 | |
| | comp=E,2258µm,0.4s | | | | | | | | |
| **GVD** | **Gavdhos** | **0.97** | **301** | P | | **Pb** | | **07 20 35.6** | **-1.0** |
| GVD | | | | S | | **Sn** | | **07 20 50.8** | **-0.4** |
| **GVD** | **Gavdhos** | **0.97** | **301** | P | | **Pb** | | **07 20 35.6** | **-1.0** |
| GVD | | | | S | | **Sn** | | **07 20 50.8** | **-0.4** |
| **NPS** | **Neapolis** | **1.02** | **24** | P | | **Pb** | | **07 20 37.0** | **-0.4** |
| **NPS** | **Neapolis** | **1.02** | **24** | P | | **Pb** | | **07 20 37.0** | **-0.4** |
| **ZKR** | **Zakros** | **1.21** | **50** | P | | **Pb** | | **07 20 39.9** | **-0.7** |
| **ZKR** | **Zakros** | **1.21** | **50** | P | | **Pn** | | **07 20 39.5** | **-1.1** |
| ZKR | | | | S | | **Sg** | | **07 20 57.0** | **+0.4** |
| **ZKR** | **Zakros** | **1.21** | **50** | P | | **Pn** | | **07 20 39.5** | **-1.1** |
| ZKR | | | | S | | **Sg** | | **07 20 57.0** | **+0.4** |
| **VAM** | **Vamos** | **1.30** | **326** | P | | **Pn** | | **07 20 40.9** | **-1.0** |
| **VAM** | **Vamos** | **1.30** | **326** | P | | **Pn** | | **07 20 41.5** | **-0.3** |
| VAM | | | | S | | **Sg** | | **07 21 00.6** | **+1.0** |
| **VAM** | **Vamos** | **1.30** | **326** | P | | **Pn** | | **07 20 41.5** | **-0.3** |
| VAM | | | | S | | **Sg** | | **07 21 00.6** | **+1.0** |
| **IMMV** | **Iera Moni Meta** | **1.45** | **321** | P | | **Pg** | | **07 20 45.6** | **0.0** |
| **IMMV** | **Iera Moni Meta** | **1.45** | **321** | P | | **Pg** | | **07 20 45.6** | **0.0** |
| **GERES** | **GERESS Array B** | **16.79** | **333** | Pn | | **P** | | **07 24 15.7** | **+0.7** |
| | comp=E,0.1nm,0.3s,baz=142,slow=11,SNR=4.9 | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **29.93** | **231** | P | | **P** | | **07 26 24.9** | **-1.0** |
| | comp=E,0.6nm,0.4s,baz=33,slow=8.7,SNR=8.5 | | | | | | | | |
| **WSAR** | **Wadi Sarin** | **31.27** | **102** | LR | LR | | | 07 42 15.5 | |
| | comp=E,32nm,18.7s,baz=125,slow=42 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **44.27** | **56** | P | | **P** | | **07 28 30.4** | **+3.1** |
| | comp=E,0.2nm,0.5s,baz=272,slow=7.2,SNR=4.5 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **78.22** | **342** | LR | LR | | | 08 10 53.1 | |
| | comp=E,21nm,18.3s,baz=180,slow=39 | | | | | | | | |
| **ULM** | **Lac du Bonnet** | **80.96** | **326** | LR | LR | | | 08 12 37.4 | |
| | comp=E,208nm,18.1s,baz=230,slow=39 | | | | | | | | |

*JMA* ***15*** *07:23:28.3±0.9, 44°.76N×149°.46E, h30km, M5.0*
*ISCJB* ***15*** *07:23:30.6±0.5, 44°.47N±0°.03×149°.26E±0°.04, h41km±4km, mb4.6/95, MS3.9/14, Error ellipse: s-maj=6.6km s-min=3.9km az=145.0*
*BJI* ***15*** *07:23:31.2, 44°.67N×149°.41E, h60km, mb4.8/42, mB5.1/32, Ms4.5/18, Ms7 4.2/17*
*MOS* ***15*** *07:23:31.9±1.0, 44°.53N×149°.19E, h49km, mb4.7/45, Error ellipse: s-maj=7.5km s-min=5.7km az=112.6*
*SKHL* ***15*** *07:23:31.6±0.5, 44°.48N×149°.34E, h47km±1km, mb5.1/12*
*IDC* ***15*** *07:23:34.0±2.4, 44°.59N×149°.24E, h55km±20km, mb4.3/35, mb1 4.4/41, mb1mx4.3/51, mbtmp4.5/41, ML4.3/4, MS3.7/10, Ms1 3.7/10, ms1mx3.3/39, Error ellipse: s-maj=13.9km s-min=11.3km az=146.0*
*NEIC* ***15*** *07:23:33.9±1.0, 44°.58N×149°.17E, h54km±7km, mb4.7/28, Error ellipse: s-maj=9.4km s-min=5.3km az=162.0*

**ISC 15 07:23:32.2±0.9, 44°.51N±0°.05×149°.27E±0°.05, h42km±7km, n335, σ1s45/368, mb4.7/95, MS3.9/14, 41C-10D, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **KUR** | **Kuril'sk** | **1.23** | **306** | *d* iPN | | **Pn** | | **07 23 51.9** | **-1.0** |
| KUR | | | | *e*S | | **Sn** | | **07 24 06.5** | **-1.8** |
| KUR | | | | pmax | pmax | | | | |
| | comp=N,1µm,0.4s | | | | | | | | |
| KUR | | | | pmax | pmax | | | | |
| | comp=E,723nm,0.4s | | | | | | | | |
| KUR | | | | pmax | pmax | | | | |
| | comp=Z,4µm,0.4s | | | | | | | | |
| KUR | | | | smax | smax | | | | |
| | comp=N,6µm,0.5s | | | | | | | | |
| KUR | | | | smax | smax | | | | |
| | comp=E,3µm,0.6s | | | | | | | | |
| **KUR** | **Kuril'sk** | **1.23** | **306** | *e*P | | **Pn** | | **07 23 51.9** | **-1.0** |
| KUR | | | | AMB | AMB | | | 07 23 52.4 | |
| | comp=E,1µm,0.4s | | | | | | | | |
| KUR | | | | AMB | AMB | | | 07 23 52.4 | |
| | comp=E,570nm,0.4s | | | | | | | | |
| KUR | | | | AMB | AMB | | | 07 23 52.4 | |
| | comp=E,3µm,0.4s | | | | | | | | |
| KUR | | | | *e*S | | **Sn** | | **07 24 06.5** | **-1.8** |
| KUR | | | | A | A | | | 07 24 14.0 | |
| | comp=E,6µm,0.5s | | | | | | | | |
| KUR | | | | A | A | | | 07 24 14.0 | |
| | comp=E,3µm,0.5s | | | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **2.49** | **260** | *e*PN | | **Pn** | | **07 24 10.6** | **+0.4** |
| YUK | | | | *e*S | | **Sn** | | **07 24 40.1** | **+0.7** |
| YUK | | | | pmax | pmax | | | | |
| | comp=Z,1µm,0.2s | | | | | | | | |
| YUK | | | | pmax | pmax | | | | |
| | comp=N,300nm,0.1s | | | | | | | | |
| YUK | | | | pmax | pmax | | | | |
| | comp=E,216nm,0.1s | | | | | | | | |
| YUK | | | | smax | smax | | | | |
| | comp=E,2µm,0.4s | | | | | | | | |
| YUK | | | | smax | smax | | | | |
| | comp=N,860nm,0.2s | | | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **2.49** | **260** | *e*P | | **Pn** | | **07 24 10.6** | **+0.4** |
| YUK | | | | AMB | AMB | | | 07 24 12.8 | |
| | comp=N,300nm,0.2s | | | | | | | | |
| YUK | | | | AMB | AMB | | | 07 24 12.8 | |
| | comp=N,216nm,0.2s | | | | | | | | |
| YUK | | | | AMB | AMB | | | 07 24 12.8 | |
| | comp=N,1µm,0.2s | | | | | | | | |
| YUK | | | | *e*S | | **Sn** | | **07 24 40.1** | **+0.7** |
| YUK | | | | A | A | | | 07 24 45.3 | |
| | comp=N,860nm,0.3s | | | | | | | | |
| YUK | | | | A | A | | | 07 24 45.3 | |
| | comp=N,2µm,0.3s | | | | | | | | |
| **LAGR** | **Lagunnoye** | **2.54** | **261** | *e*PN | | **Pn** | | **07 24 11.2** | **+0.3** |
| LAGR | | | | *e*S | | **Sn** | | **07 24 41.1** | **+0.5** |
| **LAGR** | **Lagunnoye** | **2.54** | **261** | *e*P | | **Pn** | | **07 24 11.2** | **+0.3** |
| LAGR | | | | *e*S | | **Sn** | | **07 24 41.1** | **+0.5** |
| **GRPR** | **Tuman** | **2.56** | **260** | *e*PN | | **Pn** | | **07 24 10.1** | **-1.1** |
| GRPR | | | | *e*S | | **Sn** | | **07 24 41.5** | **+0.3** |
| **GRPR** | **Tuman** | **2.56** | **260** | *e*P | | **Pn** | | **07 24 10.1** | **-1.1** |
| GRPR | | | | *e*S | | **Sn** | | **07 24 41.5** | **+0.3** |
| **NEM2** | **Nemuro 2** | **2.79** | **247** | P | | **Pn** | | **07 24 13.5** | **-0.8** |
| NEM2 | | | | *e*S | | **Sn** | | **07 24 46.8** | **+0.1** |
| **GLVR** | **Golovnino** | **2.81** | **255** | *e

BMKR AMB AMB 07 27 27.9
comp=Z,10.0nm,0.6s
**ZEA Zeya 17.05 311** *e*P **Pn 07 27 24.0 -3.3**
ZEA AMB AMB 07 27 30.6
comp=Z,29nm,1.0s
**CN2 Changchun 17.10 276** *e*P **P 07 27 30.8 +1.6**
CN2 pmax pmax
comp=Z,10.0nm,0.6s
**KROS Kirovskiy 17.49 312** *e*P **Pn 07 27 31.0 -1.8**
KROS AMB AMB 07 27 36.0
comp=Z,4.0nm,0.5s
**KSRS Korea Array 17.56 254** P **P 07 27 35.1 +0.7**
comp=Z,0.4nm,0.3s,baz=64,slow=11,SNR=9.8
KSRS LR LR 07 34 34.9
comp=Z,208nm,18.4s,baz=68,slow=38
**SEY Seymchan 18.55 4** P **P 07 27 43.7 -1.3**
comp=Z,0.7nm,0.3s,baz=192,slow=10,SNR=11
**SEY Seymchan 18.55 4***c e*P **Pn 07 27 45.7 +0.2**
**SEY Seymchan 18.55 4** *e*P **Pn 07 27 45.7 +0.2**
**YAK Yakutsk 20.95 334** P **P 07 28 09.9 -1.2**
comp=Z,19nm,0.3s,baz=48,slow=4.0,SNR=8.3
**YAK Yakutsk 20.95 334** *e*P **P 07 28 08.2 -2.9**
YAK *e* 07 28 25.2
YAK *e*S S 07 31 50.9 -11
YAK *e* 07 32 29.1
YAK *e* 07 39 32.1
YAK pmax pmax
comp=Z,19nm,0.9s
YAK pmax pmax
comp=N,5.0nm,1.3s
YAK pmax pmax
comp=E,5.0nm,1.4s
YAK smax smax
comp=E,222nm,4.4s
YAK smax smax
comp=N,130nm,3.7s
YAK MLR MLR
comp=Z,197nm,22.0s
YAK MLR MLR
comp=E,73nm,23.0s
**YAK Yakutsk 20.95 334** *e*P **P 07 28 11.8 +0.7**
**YAK Yakutsk 20.95 334** *e*P **P 07 28 09.6 -1.5**
comp=E,96nm,1.0s
**BJI Beijing 24.79 271** P **P 07 28 48.1 -1.9**
BJI pmax pmax
comp=E,19nm,1.5s
BJI pmax pmax
comp=E,170nm,4.3s
BJI LR LR
comp=E,230nm,17.0s
BJI LR LR
comp=E,320nm,19.3s
**BOD Bodaibo 25.47 314** *e*P **P 07 28 51.8 -4.2**
BOD pmax pmax
comp=Z,7.0nm,1.7s
**TIA Tai'an 25.73 262** ⇑P **P 07 28 59.3 +0.7**
TIA pmax pmax
comp=Z,20nm,1.1s
**HHC Hu-ho-hao-te 27.80 276** *e*P **P 07 29 18.8 +1.6**
HHC S **S 07 33 54.3 -2.9**
HHC sS sS 07 34 19.4 +3.1
HHC SS **SnSn 07 35 16.5 +4.1**
HHC pmax pmax
comp=Z,16nm,1.1s
HHC pmax pmax
comp=Z,200nm,5.4s
HHC LR LR
comp=Z,190nm,15.5s
HHC LR LR
comp=Z,290nm,16.3s
HHC LR LR
comp=Z,130nm,15.5s
**H11N2 WAKE ISLAND Hy 28.74 144** T T 08 00 16.3
baz=334,slow=76,SNR=211
**H11N1 WAKE ISLAND Hy 28.75 144** T T 08 00 18.8
baz=334,slow=76,SNR=317
**H11N3 WAKE ISLAND Hy 28.76 144** T T 08 00 14.0
baz=334,slow=76,SNR=369
**TIXI Tiksi 28.95 347** P **P 07 29 24.0 -2.9**
comp=Z,3.4nm,0.5s,baz=153,slow=8.7,SNR=12
TIXI LR LR 07 40 51.7
comp=Z,66nm,19.4s,baz=168,slow=36
**TIXI Tiksi 28.95 347**⇑*e*P **P 07 29 24.1 -2.9**
TIXI pmax pmax
comp=Z,5.0nm,0.7s
**SONA1 Songino Array 29.59 292** *e*P P 07 29 28.1 -5.0
**SONA0 Songino Array 29.59 292** *e*P **P 07 29 33.0 -0.1**
**SONM Songino Array 29.59 292** P **P 07 29 33.0 -0.2**
comp=Z,3.5nm,0.6s,baz=81,slow=8.3,SNR=16
SONM LR LR 07 41 51.4
comp=Z,106nm,21.4s,baz=16,slow=37
**H11S1 WAKE ISLAND Hy 29.75 145** T T 08 01 27.2
baz=335,slow=76,SNR=525
**H11S3 WAKE ISLAND Hy 29.76 145** T T 08 01 44.3
baz=335,slow=76,SNR=472
**H11S2 WAKE ISLAND Hy 29.77 145** T T 08 01 45.2
baz=335,slow=76,SNR=215
**TLY Talaya 30.88 300** LR LR 07 43 05.9
comp=Z,171nm,18.3s,baz=40,slow=38
**LZH Lanzhou 35.27 272** *e*P **P 07 30 23.9 +0.9**
LZH pP sP 07 30 38.4 -1.2
LZH sP pP 07 30 45.6 +11
LZH PP **PP 07 31 44.5 +1.1**
LZH pmax pmax
comp=Z,54nm,1.3s
LZH pmax pmax
comp=Z,210nm,6.1s
LZH LR LR
comp=Z,200nm,14.2s
LZH LR LR
comp=Z,160nm,14.0s
LZH LR LR
comp=Z,200nm,16.4s
**GTA Gaotai 36.67 280** *e*P **P 07 30 34.1 -0.8**
GTA pP sP 07 30 49.3 -2.2
GTA sP pP 07 30 56.4 +10
GTA pmax pmax
comp=Z,14nm,1.0s
**IMAR Indian Mountai 37.16 35** *e*P **P 07 30 38.9 +0.4**
**CD2 Chengdu 38.00 265** *e*P **P 07 30 45.8 -0.3**
CD2 pP pP 07 30 59.9 +2.2
CD2 sP sP 07 31 07.0 +4.3
CD2 pmax pmax
comp=Z,40nm,0.8s
**MLY Manley 38.33 36** *e*P **P 07 30 49.4 +0.9**
comp=Z,15nm,1.6s
**COLD Coldfoot 38.69 33** *e*P **P 07 30 52.1 +0.7**
comp=Z,38nm,2.0s
**MDM Murphy Dome 39.39 37** *e*P **P 07 30 58.2 +0.8**
comp=Z,7.7nm,0.8s
**COLA College 39.56 37** *e*P **P 07 30 59.8 +1.2**
COLA pmax pmax
comp=Z,9.0nm,0.9s
**COLA College 39.56 37** *e*P **P 07 30 59.8 +1.2**
**IL1 Eielson Array 39.97 37** *e*P **P 07 31 02.2 0.0**
**ILAR Eielson Array 39.97 37** P **P 07 31 02.3 +0.2**
comp=Z,3.0nm,0.8s,baz=259,slow=8.1,SNR=20
**ILB Eielson Array 39.97 37** *e*P **P 07 31 02.5 +0.3**
**FYU Fort Yukon 40.62 34** *e*P **P 07 31 09.2 +1.7**
comp=Z,57nm,1.8s
**DGZ Jazzator, Alta 41.36 300**⇑*e*P **P 07 31 14.9 +0.9**
DGZ pmax pmax
comp=Z,1.0nm,0.6s
**ZAA1 Zalesovo Array 41.76 307** *e*P **P 07 31 17.6 +0.6**
ZAA1 *e*PcP **PcP 07 33 12.5 0.0**
**ZALV Zalesovo Beam 41.76 307** P **P 07 31 17.6 +0.6**
comp=Z,0.9nm,0.4s,baz=89,slow=6.3,SNR=3.6
ZALV PcP **PcP 07 33 12.5 0.0**
comp=Z,2.4nm,0.6s,baz=70,slow=1.8,SNR=7.7
**ZALV Zalesovo Beam 41.76 307** *e*P **P 07 31 18.1 +1.1**
ZALV *e* 07 33 12.4
**ZALV Zalesovo Beam 41.76 307** *e*P **P 07 31 18.1 +1.1**
ZALV *e*PcP **PcP 07 33 12.4 -0.2**
**KMI Kunming 42.17 259** P **P 07 31 22.1 +1.2**
KMI pP sP 07 31 36.4 -1.3
**DAV Davao City (W) 42.63 216** LR LR 07 47 25.6
comp=Z,175nm,21.8s,baz=144,slow=34
**WMQ Urumqi 43.23 292** P **P 07 31 29.5 +0.3**
WMQ pP sP 07 31 45.5 -0.5
WMQ sP pP 07 31 52.5 +12
WMQ pmax pmax
comp=Z,17nm,0.7s
WMQ pmax pmax
comp=Z,820nm,8.5s
WMQ LR LR
comp=Z,200nm,24.1s
WMQ LR LR
comp=Z,320nm,24.1s
WMQ LR LR
comp=Z,220nm,24.1s
**INK Inuvik 44.97 31** P **P 07 31 43.5 +0.8**
comp=Z,4.5nm,0.5s,baz=314,slow=4.4,SNR=28
**INK Inuvik 44.97 31** *e*P **P 07 31 43.5 +0.8**
comp=Z,5.5nm,0.7s
**MK31 Makanchi Array 45.58 298** *e*P **P 07 31 47.5 -0.4**
**MK31 Makanchi Array 45.58 298** *e*P **P 07 31 47.5 -0.4**
**MK32 Makanchi Array 45.58 298** *e*P **P 07 31 47.6 -0.3**
MK32 *e*PcP **PcP 07 33 25.7 0.0**
**MKAR Makanchi Array 45.58 298** P **P 07 31 47.6 -0.3**
comp=Z,6.1nm,0.8s,baz=72,slow=8.4,SNR=18
MKAR PcP **PcP 07 33 25.7 0.0**
comp=Z,1.6nm,0.8s,baz=57,slow=5.1,SNR=3.6
MKAR LR LR 07 52 36.4
comp=Z,103nm,19.7s,baz=25,slow=38
**MKAR Makanchi Array 45.58 298***c e*P **P 07 31 47.5 -0.4**
MKAR pmax pmax
comp=Z,6.0nm,0.8s
**MKAR Makanchi Array 45.58 298** *e*P **P 07 31 47.5 -0.4**
**MK01 Makanchi Array 45.59 298** *e*P **P 07 31 47.7 -0.2**
**KURK Kurchatov 46.37 304**⇑*e*P **P 07 31 53.2 -0.7**
KURK pmax pmax
comp=Z,3.0nm,0.5s
**KURK Kurchatov 46.37 304** *e*P **P 07 31 53.2 -0.7**
**KURK Kurchatov 46.37 304** *e*P **P 07 31 53.4 -0.5**
KURK *e*PcP **PcP 07 33 28.4 +0.1**
**KURBB Kurchatov Arra 46.46 304** P **P 07 31 53.4 -1.2**
comp=Z,3.3nm,0.4s,baz=74,slow=7.9,SNR=28
KURBB PcP **PcP 07 33 28.4 -0.2**
comp=Z,1.9nm,0.7s,baz=73,slow=3.9,SNR=5.4
**CHTO Chiang Mai 48.96 255** *e*P **P 07 32 14.0 -0.4**
CHTO pmax pmax
comp=Z,7.0nm,0.9s
**CHTO Chiang Mai 48.96 255** *e*P **P 07 32 14.0 -0.4**
comp=Z,7.0nm,0.9s
**CMAR Chiang Mai Arr 49.20 255** P **P 07 32 17.0 +0.7**
comp=Z,1.8nm,0.4s,baz=41,slow=7.8,SNR=7.2
**BVAR Borovoye Array 50.20 310** P **P 07 32 23.1 -0.4**
comp=Z,1.0nm,0.3s,baz=78,slow=8.2,SNR=8.8
**BRVK Borovoye 50.24 310***d e*P **P 07 32 24.1 +0.3**
BRVK pmax pmax
comp=Z,4.0nm,0.8s
**BRVK Borovoye 50.24 310** *e*P **P 07 32 24.1 +0.3**
**ULHL Ulahol 51.46 295** P **P 07 32 33.9 +0.5**
SNR=8.1
**TAPN Taplejung 51.51 272** *e*P **P 07 32 34.3 +0.3**
comp=Z,11nm,0.4s
**TKM2 Tokmak 2 51.55 296** P **P 07 32 34.8 +0.8**
SNR=6.5
**ODAN Odare 52.03 272** *e*P **P 07 32 38.0 +0.2**
comp=Z,8.5nm,0.5s
**USP Ospenovka 52.09 297** P **P 07 32 38.5 +0.7**
SNR=7.7
**KBK Karagaybulak 52.10 296** P **P 07 32 38.8 +0.7**
SNR=7.3
**KZA Kyzart 52.19 295** P **P 07 32 40.5 +1.4**
SNR=7.6
**AAK Ala-Archa 52.40 296** P **P 07 32 40.7 +0.4**
comp=Z,4.6nm,0.6s,baz=111,slow=5.8,SNR=9.7
**AAK Ala-Archa 52.40 296***c e*P **P 07 32 40.2 -0.1**
AAK pmax pmax
comp=Z,4.0nm,0.9s
**AAK Ala-Archa 52.40 296** *e*P **P 07 32 40.2 -0.1**
**AAK Ala-Archa 52.40 296** *e*P **P 07 32 40.5 +0.3**
comp=Z,4.9nm,0.7s
**JIRN Jiri 52.41 274** *e*P **P 07 32 41.1 +0.3**
comp=Z,198nm,0.6s
**GUN Gumba 52.49 274** *e*P **P 07 32 41.5 +0.2**
comp=Z,41nm,0.5s
**RAMN Ramite 52.54 273** *e*P **P 07 32 41.6 0.0**
comp=Z,51nm,0.4s
**EKS2 Erkin-Say 52.85 296** P **P 07 32 44.1 +0.6**
SNR=8.1
**KKN Kakani 52.99 274** *e*P **P 07 32 45.0 +0.1**
comp=Z,36nm,0.8s
**KSH Kashi 53.00 292** P **P 07 32 48.6 +3.9**
KSH pP sP 07 33 04.5 +2.8
KSH PcP **PcP 07 33 55.6 +2.6**
KSH PP **PP 07 34 50.8 +6.4**
KSH S **S 07 40 13.6 +2.2**
KSH ScS **ScS 07 42 29.8 -1.0**
KSH SS **SS 07 43 52.6 +2.2**
KSH pmax pmax
comp=Z,8.0nm,0.5s
KSH pmax pmax
comp=Z,140nm,4.5s
KSH LR LR
comp=Z,170nm,7.8s
KSH LR LR
comp=Z,180nm,6.1s
KSH LR LR
comp=Z,240nm,5.9s
**PKI Pulchoki 53.02 274** *e*P **P 07 32 45.1 -0.2**
**PKIN Phulchoki 53.03 274** *e*P **P 07 32 45.1 -0.2**
**AML Almayashu 53.16 296** P **P 07 32 47.1 +0.9**
SNR=9.2
**DMN Daman 53.22 274** *e*P **P 07 32 46.8 +0.2**
comp=Z,27nm,0.6s
**DANN Dangsing 53.74 276** *e*P **P 07 32 51.5 +1.0**
comp=Z,3.3nm,0.9s
**KOLN Koldanda 54.20 275** *e*P **P 07 32 54.1 +0.4**
**YKA Yellowknife Ar 54.32 35** P **P 07 32 54.0 +0.2**
comp=Z,2.8nm,0.7s,baz=298,slow=6.8,SNR=26
**YKB5 Yellowknife Ar 54.32 35** *e*P **P 07 32 53.5 -0.3**
**PYUN Piuthan 54.44 276** *e*P **P 07 32 55.7 +0.2**
**KK31 Karatay Array 54.70 298***c e*P **P 07 32 56.6 -0.4**
KK31 pmax pmax
comp=Z,4.0nm,0.6s
**ARU Arti 54.83 317***c i*P **P 07 32 57.4 -0.2**
ARU 07 34 57.2
ARU S **S 07 40 35.5 +0.1**
ARU SS **SS 07 44 14.4 -3.9**
ARU pmax pmax
comp=Z,4.0nm,0.6s
**ARU Arti 54.83 317** *e*P **P 07 32 57.5 -0.2**
**SMLA Simla 56.77 283** *e*P **P 07 33 11.8 -0.1**
**AB31 Akbulak array 57.77 309***c e*P **P 07 33 17.8 -0.9**
AB31 pmax pmax
comp=Z,5.0nm,0.6s
**DZET Dzherino 58.07 295** P **P 07 33 20.2 -0.9**
DZET pmax pmax
comp=Z,15nm,0.6s
**AKTO Aktyubinsk 58.19 311** P **P 07 33 21.2 -0.4**
comp=Z,1.3nm,0.4s,baz=54,slow=6.4,SNR=4.1
**ARA0 ARCESS Array S 59.06 340** *e*P **P 07 33 25.7 -1.7**
**ARCES ARCESS Array B 59.06 340** P **P 07 33 25.7 -1.7**
comp=Z,4.0nm,1.0s,baz=32,slow=7.1,SNR=5.1
**KBL Kabul 60.36 291** *e*P **P 07 33 36.2 -0.9**
KBL pmax pmax
comp=Z,20nm,1.1s
**KBL Kabul 60.36 291** *e*P **P 07 33 36.2 -0.9**
comp=Z,20nm,1.1s
**KLMR Klimovskoe 60.60 328** *e*P **P 07 33 34.3 -3.8**
KLMR pmax pmax
comp=Z,10.0nm,1.0s
**FFC Flin Flon 64.17 38** *e*P **P 07 34 02.4 +0.3**
FFC pmax pmax
comp=Z,9.0nm,1.3s
**FFC Flin Flon 64.17 38** *e*P **P 07 34 02.3 +0.2**
**FFC Flin Flon 64.17 38** *e*P **P 07 34 02.4 +0.3**
comp=Z,8.9nm,1.3s
**FIA0 FINESS Array S 64.88 334** *e*P **P 07 34 04.8 -1.8**
**FIA0 FINESS Array S 64.88 334** *e*P **P 07 34 04.8 -1.8**
**FINES FINESS Array B 64.88 334** P **P 07 34 04.8 -1.8**
comp=Z,5.0nm,0.7s,baz=34,slow=8.6,SNR=7.3
**FINES FINESS Array B 64.88 334***c e*P **P 07 34 06.1 -0.4**
FINES pmax pmax
comp=Z,5.0nm,0.7s
**FINES FINESS Array B 64.88 334** *e*P **P 07 34 06.1 -0.4**
**BOZ Bozeman (W) 65.29 50** *e*P **P 07 34 10.5 +0.8**
BOZ pmax pmax
comp=Z,2.0nm,0.8s
**BOZ Bozeman (W) 65.29 50** *e*P **P 07 34 10.5 +0.8**
**BOZ Bozeman (W) 65.29 50** *e*P **P 07 34 10.5 +0.8**
comp=Z,2.2nm,0.8s
**GEYT Alibeck 65.40 300** P **P 07 34 10.3 -0.1**
comp=Z,14nm,0.6s,baz=13,slow=3.3,SNR=9.9
GEYT LR LR 08 05 33.6
comp=Z,146nm,18.0s,baz=40,slow=39
**WR1 Warramunga Arr 65.58 195** *e*P **P 07 34 11.2 -0.2**
comp=Z,20nm,1.8s
**WRA Warramunga Arr 65.58 195** P **P 07 34 11.2 -0.2**
comp=Z,1.2nm,0.5s,baz=14,slow=6.6,SNR=15
**OBN Obninsk 65.59 324** *e*P **P 07 34 11.4 +0.2**
OBN *e* 07 34 41.5
OBN *e* 07 36 34.7
OBN pmax pmax
comp=Z,12nm,1.1s
OBN MLR MLR
comp=Z,161nm,21.0s
**OBN Obninsk 65.59 324** *e*P **P 07 34 11.4 +0.2**
**TPNV Topopah Spring 68.08 59** *e*P **P 07 34 28.9 +1.3**
TPNV pmax pmax
comp=Z,3.0nm,0.9s
**TPNV Topopah Spring 68.08 59** *e*P **P 07 34 28.9 +1.3**
comp=Z,3.3nm,0.9s
**PD31 Pinedale Array 68.25 51** *e*P **P 07 34 28.7 0.0**
**PDAR Pinedale Array 68.25 51** P **P 07 34 28.7 0.0**
comp=Z,0.9nm,0.6s,baz=272,slow=2.6,SNR=7.5
**NC405 NORSAR Array S 69.25 339** *e*P **P 07 34 33.0 -1.3**
**AS01 Alice Springs 69.28 195** *e*P **P 07 34 34.9 +0.1**
**ASAR Alice Springs 69.29 195** P **P 07 34 35.2 +0.3**
comp=Z,2.0nm,0.8s,baz=11,slow=6.2,SNR=15
**NB2 NORSAR Subarra 69.43 340** P **P 07 34 34.2 -1.3**
comp=Z,2.9nm,0.5s,baz=30,slow=6.5
**NB2 NORSAR Subarra 69.43 340** P **P 07 34 34.1 -1.4**
NB2 pmax pmax
comp=Z,2.0nm,0.5s
**NB200 NORSAR Array S 69.43 340** *e*P **P 07 34 34.4 -1.1**
**NOA NORSAR Array B 69.43 340** P **P 07 34 34.4 -1.1**
comp=Z,3.5nm,0.6s,baz=30,slow=5.9,SNR=9.9
**HFS Hagfors 69.57 338** P **P 07 34 34.8 -1.4**
comp=Z,7.2nm,0.4s,baz=56,slow=5.6,SNR=34
**LCMT Little Creek M 69.87 58** *e*P **P 07 34 39.7 +1.0**
comp=Z,3.5nm,1.1s
**ULM Lac du Bonnet 69.97 38** P **P 07 34 38.8 -0.1**
comp=Z,1.6nm,0.4s,baz=311,slow=7.9,SNR=7.5
**SRU San Rafael Swe 70.11 55** *e*P **P 07 34 40.6 +0.4**
SRU pmax pmax
comp=Z,5.0nm,0.8s
**SRU San Rafael Swe 70.11 55** *e*P **P 07 34 40.6 +0.4**
comp=Z,4.8nm,0.8s
**KVAR Kislovodsk Arr 70.38 313** P **P 07 34 43.0 +1.3**
comp=Z,21nm,0.7s,baz=212,slow=6.5,SNR=11
**KIV Kislovodsk 70.38 313** *e*P **P 07 34 42.5 +0.8**
KIV pmax pmax
comp=Z,41nm,1.1s
KIV MLR MLR
comp=Z,142nm,18.0s
**KIV Kislovodsk 70.38 313** *e*P **P 07 34 42.5 +0.8**
**KIV Kislovodsk 70.38 313** *e*P **P 07 34 42.1 +0.4**
comp=Z,30nm,0.8s
**KBZ Khabaz 70.43 312** P **P 07 34 42.9 +1.1**
comp=Z,16nm,0.8s,baz=63,slow=5.2,SNR=17
KBZ LR LR 08 09 50.2
comp=Z,127nm,18.3s,baz=44,slow=40
**ZEI Tsey 70.53 311** *e*P **P 07 34 41.8 -1.0**
ZEI pmax pmax
comp=Z,4.0nm,0.7s
**ZEI Tsey 70.53 311** *e*P **P 07 34 41.8 -1.0**
**U15A North Rim 70.83 58** *e*P **P 07 34 46.3 +1.5**
comp=Z,14nm,1.8s
**NEY Neytrino 70.85 312**⇑*e*P **P 07 34 46.0 +1.4**
NEY pmax pmax
comp=Z,2.0nm,1.0s
**AKASG Malin Array Be 71.86 325** P **P 07 34 49.9 -0.4**
comp=Z,6.6nm,0.5s,baz=37,slow=6.2,SNR=15
**EYMN Ely 73.61 38** *e*P **P 07 35 00.8 0.0**
comp=Z,6.0nm,0.9s
**SIM Simferopol' 73.98 318** *e*P **P 07 35 04.0 +1.0**
SIM pmax pmax
comp=Z,18nm,0.9s
**SORM Soroca 74.19 323**⇑*i*P **P 07 35 03.8 -0.4**
**SORM Soroca 74.19 323** ⇑P **P 07 35 03.8 -0.4**
**KWP Kalwaria Pacla 75.31 327** *e*P **P 07 35 11.5 +0.9**
**KWP Kalwaria Pacla 75.31 327** *e*P **P 07 35 11.5 +0.9**
comp=Z,302nm,1.0s
**KWP Kalwaria Pacla 75.31 327** *e*PP **P 07 35 11.5 +0.9**
**ANMO Albuquerque 75.32 55**⇓*e*P **P 07 35 11.5 +0.3**
ANMO pmax pmax
comp=Z,1.0nm,1.0s
**BUR08 Bucovina Ar. S 75.90 325** *e*P **P 07 35 14.4 +0.2**
**BUR04 Bucovina Ar. S 75.91 325** *e*P **P 07 35 14.3 0.0**
**BURAR Bucovina Array 75.91 325**⇑*i*P **P 07 35 14.6 +0.3**
**BURAR Bucovina Array 75.91 325** ⇑P **P 07 35 14.6 +0.3**
**OJC Ojcow 75.92 329** *e*P **P 07 35 11.6 -2.6**
OJC pmax pmax
comp=Z,20nm,1.1s
**OJC Ojcow 75.92 329** *e*P **P 07 35 11.6 -2.6**
comp=Z,20nm,1.1s
**STHS Stebnicka Huta 76.04 328** *e*P **P 07 35 15.3 +0.4**
STHS pmax pmax
comp=Z,10.0nm,1.2s
**STHS Stebnicka Huta 76.04 328** *e*P **P 07 35 15.3 +0.4**
**TESR Tescani 76.18 323**⇑*i*P **P 07 35 15.7 0.0**
**STKA Stephens Creek 76.34 187** P **P 07 35 18.0 +1.5**
comp=Z,1.8nm,0.8s,baz=319,slow=22,SNR=3.5
**STKA Stephens Creek 76.34 187** P **P 07 35 18.0 +1.5**
STKA pmax pmax
comp=Z,2.0nm,0.8s
**STKA Stephens Creek 76.34 187** *e*P **P 07 35 17.7 +1.1**
comp=Z,7.0nm,1.9s
**CRVS Cervenica-Dubn 76.38 328** *e*P **P 07 35 17.1 +0.3**
**CRVS Cervenica-Dubn 76.38 328** *e*P **P 07 35 17.1 +0.3**
**CFR Carcaliu 76.57 322**⇓*i*P **P 07 35 18.0 +0.1**
**CFR Carcaliu 76.57 322** ⇓P **P 07 35 18.0 +0.1**
**KSP Ksiaz 76.64 332** P **P 07 35 19.3 +1.1**
KSP pmax pmax
comp=Z,20nm,0.9s
**KSP Ksiaz 76.64 332** *e*PP **P 07 35 18.7 +0.5**
**VRI Vrincioaia 76.65 323**⇓*i*P P 07 35 11.9 -6.5
**VRI Vrincioaia 76.65 323** ⇓P P 07 35 11.9 -6.5
**LANS Liptovska Anna 76.92 329** *e*P **P 07 35 21.4 +1.5**
**LANS Liptovska Anna 76.92 329** *e*P **P 07 35 21.4 +1.5**
**TIRR Tirgusor 77.01 321**⇑*i*P **P 07 35 20.5 +0.2**
**TIRR Tirgusor 77.01 321** ⇑P **P 07 35 20.5 +0.2**
**UPC Upice 77.02 331** *e*P **P 07 35 20.9 +0.5**
**UPC Upice 77.02 331** *e*P **P 07 35 20.9 +0.5**
**DPC Dobruska-Polom 77.05 331** *e*P **P 07 35 21.3 +0.7**
**DPC Dobruska-Polom 77.05 331** *e*P **P 07 35 21.3 +0.7**
**ILGA Ilgaz 77.08 316** *e*P **P 07 35 22.8 +1.7**
comp=Z,17nm,1.0s
**KECS Kecovo 77.09 328** *e*P **P 07 35 21.0 +0.2**
KECS pmax pmax
comp=Z,4.0nm,1.0s
**KECS Kecovo 77.09 328** *e*P **P 07 35 21.0 +0.2**
**MORC Moravsky Berou 77.10 330**⇑*i*P **P 07 35 21.4 +0.6**
**MORC Moravsky Berou 77.10 330** ⇑P **P 07 35 21.5 +0.6**
MORC pmax pmax
comp=Z,68nm,1.0s
**MORC Moravsky Berou 77.10 330** *e*P **P 07 35 21.5 +0.6**
comp=Z,68nm,1.0s
**KRLC Kraliky 77.12 331** *e*P **P 07 35 21.6 +0.6**
**KRLC Kraliky 77.12 331** *e*P **P 07 35 21.6 +0.6**
**DOPR Dopca 77.15 324**⇑*i*P **P 07 35 23.7 +2.5**
**MLR Muntele Rosu 77.29 323** P **P 07 35 22.7 +0.6**
comp=Z,1.1nm,0.5s,baz=148,slow=6.9,SNR=8.5
**MLR Muntele Rosu 77.29 323**⇑*i*P **P 07 35 23.3 +1.2**
**MLR Muntele Rosu 77.29 323** ⇑P **P 07 35 23.3 +1.2**
**MLR Muntele Rosu 77.29 323** *e*P **P 07 35 22.8 +0.6**
comp=Z,7.4nm,0.8s
**ISR Istrita 77.32 322**⇑*i*P **P 07 35 23.9 +1.7**
**ISR Istrita 77.32 322** ⇑P **P 07 35 23.9 +1.7**
**CLL Collm 77.33 334**⇑*i*P **P 07 35 21.8 -0.2**
CLL pmax pmax
comp=Z,18nm,1.0s
**CLL Collm 77.33 334**⇑*i*P **P 07 35 21.8 -0.2**
comp=Z,18nm,1.0s
**CLL Collm 77.33 334** *e*P **P 07 35 21.9 -0.1**
**CLL Collm 77.33 334** *e*P **P 07 35 22.1 +0.1**
comp=Z,17nm,0.9s
**ICOR Ion Corvin 77.55 321**⇑*i*P **P 07 35 24.8 +1.4**
**DRGR 77.60 326**⇑*i*P **P 07 35 24.0 +0.3**
**DRGR 77.60 326** ⇑P **P 07 35 24.0 +0.3**
**VYHS Vyhne 77.70 329** *e*P **P 07 35 24.6 +0.4**
**VOIR 77.71 323**⇑*i*P **P 07 35 25.0 +0.6**
**VOIR 77.71 323** ⇑P **P 07 35 25.0 +0.6**
**PSZ Piszkesteto 77.78 328**⇑*i*P **P 07 35 25.5 +0.7**
**PSZ Piszkesteto 77.78 328** ⇑P **P 07 35 25.5 +0.7**
**EKA Eskdalemuir Ar 77.82 344** P **P 07 35 24.9 +0.1**
comp=Z,3.5nm,0.6s,baz=12,slow=4.9,SNR=13
**VRAC Vranov 77.83 331** P **P 07 35 26.0 +1.0**
comp=Z,17nm,1.0s,baz=27,slow=5.9,SNR=7.4
**VRAC Vranov 77.83 331**⇑*i*P **P 07 35 26.4 +1.5**
**VRAC Vranov 77.83 331** ⇑P **P 07 35 26.4 +1.5**
**GOPC GO Pecny, Ondr 77.94 332** *e*P **P 07 35 26.3 +0.8**
**GOPC GO Pecny, Ondr 77.94 332** *e*P **P 07 35 26.3 +0.8**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **PRU** | **Pruhonice** | **77.96** | **332** | *e*P | | **P** | **07 35 26.1** | **+0.5** |
| **PRU** | **Pruhonice** | **77.96** | **332** | *e*P | | **P** | **07 35 26.1** | **+0.5** |
| **PRU** | **Pruhonice** | **77.96** | **332** | *e*P | | **P** | **07 35 26.1** | **+0.5** |
| **BR101** | **Keskin Array S** | **78.11** | **315** | *e*P | | **P** | **07 35 27.2** | **+0.4** |
| **BR131** | **Keskin Array S** | **78.11** | **315** | *e*P | | **P** | **07 35 27.1** | **+0.3** |
| **BRTR** | **Keskin Array B** | **78.11** | **315** | P | | **P** | **07 35 27.2** | **+0.3** |
| | comp=Z,3.2nm,0.5s,baz=91,slow=3.0,SNR=11 | | | | | | | |
| **ANTO** | **Ankara** | **78.43** | **315** | *e*P | | **P** | **07 35 29.1** | **+0.6** |
| ANTO | | | | pmax | pmax | | | |
| | comp=Z,17nm,0.6s | | | | | | | |
| **ANTO** | **Ankara** | **78.43** | **315** | *e*P | | **P** | **07 35 29.1** | **+0.6** |
| | comp=Z,17nm,0.6s | | | | | | | |
| **BR231** | **Keskin MP Arra** | **78.46** | **315** | *e*P | | **P** | **07 35 27.8** | **-0.9** |
| **BZS** | **Buzias** | **79.00** | **326** | *i*P | | **P** | **07 35 29.7** | **-1.7** |
| **BZS** | **Buzias** | **79.00** | **326** | P | | **P** | **07 35 32.2** | **+0.8** |
| BZS | | | | pmax | pmax | | | |
| | comp=Z,13nm,1.8s | | | | | | | |
| **KHC** | **Kasperske Hory** | **79.02** | **332** | *e*P | | **P** | **07 35 31.8** | **+0.3** |
| KHC | | | | *e*PCP | | **PcP** | **07 35 40.6** | **+0.7** |
| **KHC** | **Kasperske Hory** | **79.02** | **332** | *e*P | | **P** | **07 35 31.8** | **+0.3** |
| KHC | | | | *e* | | | 07 35 40.6 | |
| **KHC** | **Kasperske Hory** | **79.02** | **332** | *e*P | | **P** | **07 35 31.3** | **-0.2** |
| **KHC** | **Kasperske Hory** | **79.02** | **332** | *e*P | | **P** | **07 35 31.3** | **-0.2** |
| | comp=Z,4.6nm,0.8s | | | | | | | |
| **GERES** | **GERESS Array B** | **79.22** | **332** | P | | **P** | **07 35 32.6** | **-0.1** |
| | comp=Z,2.1nm,0.5s,baz=37,slow=5.9,SNR=16 | | | | | | | |
| **GEA0** | **GERESS Array S** | **79.23** | **332** | *e*P | | **P** | **07 35 32.6** | **-0.2** |
| **WET** | **Wettzell** | **79.24** | **333** | P | | **P** | **07 35 34.1** | **+1.4** |
| WET | | | | pmax | pmax | | | |
| | comp=Z,39nm,1.5s | | | | | | | |
| **CONA** | **Conrad Observa** | **79.26** | **330** | *i* P | | **P** | **07 35 34.0** | **+1.1** |
| | comp=Z,9.2nm,0.7s | | | | | | | |
| **HERR** | **Herculane** | **79.27** | **325** | ⇑ *i*P | | **P** | **07 35 33.7** | **+0.8** |
| **MDVR** | **Moldovita** | **79.64** | **325** | ⇑ *i*P | | **P** | **07 35 34.7** | **-0.3** |
| **MOA** | **Molln** | **79.89** | **331** | *i* P | | **P** | **07 35 37.1** | **+0.9** |
| | comp=Z,6.9nm,1.2s | | | | | | | |
| **BCLA** | **Clavier** | **80.39** | **338** | P | | **P** | **07 35 38.0** | **-0.9** |
| **SOKA** | **Soboth** | **80.62** | **330** | *i* P | | **P** | **07 35 40.3** | **0.0** |
| | comp=Z,6.2nm,0.7s | | | | | | | |
| **VTS** | **Vitosha** | **80.79** | **323** | ⇑ *i*P | | **P** | **07 35 41.8** | **+0.5** |
| **VTS** | **Vitosha** | **80.79** | **323** | *e*P | | **P** | **07 35 41.9** | **+0.5** |
| VTS | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.9s | | | | | | | |
| **VTS** | **Vitosha** | **80.79** | **323** | *e*P | | **P** | **07 35 41.9** | **+0.5** |
| | comp=Z,9.8nm,0.9s | | | | | | | |
| **KBA** | **Koelnbreinsper** | **80.87** | **331** | *i* P | | **P** | **07 35 42.4** | **+0.7** |
| | comp=Z,13nm,0.8s | | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **80.96** | **58** | *e*P | | **P** | **07 35 42.7** | **+0.3** |
| **LTX** | **Lajitas** | **80.96** | **58** | *e*P | | **P** | **07 35 42.8** | **+0.4** |
| **LTX** | **Lajitas** | **80.96** | **58** | *e*P | | **P** | **07 35 42.8** | **+0.4** |
| **TXAR** | **Lajitas Array** | **80.96** | **58** | P | | **P** | **07 35 42.8** | **+0.4** |
| | comp=Z,1.6nm,0.5s,baz=301,slow=4.0,SNR=43 | | | | | | | |
| **WATA** | **Walderalm** | **81.24** | **332** | *i* P | | **P** | **07 35 44.3** | **+0.6** |
| | comp=Z,6.4nm,0.5s | | | | | | | |
| **WTTA** | **Wattenberg** | **81.29** | **332** | *i* P | | **P** | **07 35 44.7** | **+0.8** |
| | comp=Z,17nm,1.1s | | | | | | | |
| **RETA** | **Reutte** | **81.38** | **333** | *i* P | | **P** | **07 35 44.7** | **+0.4** |
| | comp=Z,9.4nm,0.9s | | | | | | | |
| **MOTA** | **Moosalm** | **81.39** | **333** | *i* P | | **P** | **07 35 44.8** | **+0.3** |
| | comp=Z,19nm,1.1s | | | | | | | |
| **BFO** | **Black Forest** | **81.40** | **335** | *ce*P | | **P** | **07 35 46.1** | **+1.8** |
| **DAVA** | **Damuels** | **81.84** | **333** | *i* P | | **P** | **07 35 47.3** | **+0.5** |
| | comp=Z,12nm,0.8s | | | | | | | |
| **ASF** | **Jabal al Asfar** | **82.00** | **308** | P | | **P** | **07 35 49.1** | **+1.3** |
| | comp=Z,1.9nm,0.5s,baz=310,slow=8.0,SNR=3.6 | | | | | | | |
| **MMAI** | **Mount Meron Ar** | **82.20** | **309** | P | | **P** | **07 35 49.7** | **+0.8** |
| | comp=Z,6.6nm,0.7s,baz=57,slow=6.1,SNR=5.5 | | | | | | | |
| **PDG** | **Podgorica** | **82.59** | **325** | ⇓ *i*P | | **P** | **07 35 48.5** | **-2.1** |
| **MIAR** | **Mount Ida** | **82.83** | **48** | *e*P | | **P** | **07 35 52.8** | **+0.7** |
| MIAR | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,0.8s | | | | | | | |
| **MIAR** | **Mount Ida** | **82.83** | **48** | *e*P | | **P** | **07 35 52.8** | **+0.7** |
| | comp=Z,5.6nm,0.8s | | | | | | | |
| **EIL** | **Elat** | **84.97** | **307** | P | | **P** | **07 36 03.9** | **+0.8** |
| | comp=Z,10nm,1.0s,baz=305,slow=1.8,SNR=3.9 | | | | | | | |
| **IDI** | **Anoyia** | **85.91** | **317** | P | | **P** | **07 36 06.5** | **-1.2** |
| | comp=Z,4.0nm,0.5s,baz=28,slow=12,SNR=5.1 | | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **115.49** | **325** | *e*PKPdf | | **PKPdf** | **07 42 08.9** | **-0.9** |
| **TORD** | **Torodi Ar. Bea** | **115.49** | **325** | PKP | | **PKPdf** | **07 42 08.9** | **-0.9** |
| | comp=Z,0.6nm,0.8s,baz=94,slow=0.3,SNR=4.1 | | | | | | | |
| **BDFB** | **Brasilia** | **147.71** | **32** | PKPbc | | **PKPbc** | **07 43 12.7** | **+0.2** |
| | comp=Z,3.1nm,0.7s,baz=311,slow=4.7,SNR=4.8 | | | | | | | |
| **PLCA** | **Paso Flores** | **150.66** | **97** | PKPbc | | **PKPbc** | **07 43 19.6** | **+0.4** |
| | comp=Z,3.7nm,0.8s,baz=283,slow=5.1,SNR=5.3 | | | | | | | |
| **PLCA** | **Paso Flores** | **150.66** | **97** | *e*PKIKP | | **PKPbc** | **07 43 18.7** | **-0.6** |
| **PLCA** | **Paso Flores** | **150.66** | **97** | *e*PKPbc | | **PKPbc** | **07 43 18.7** | **-0.6** |
| **VNA2** | **Neumayer--Watz** | **151.14** | **196** | P | | **PKPbc** | **07 43 20.1** | **+0.8** |
| | baz=358,slow=1.7 | | | | | | | |
| **VNA3** | **Neumayer Olymp** | **151.29** | **194** | P | | **PKPbc** | **07 43 20.1** | **+0.4** |

*ISCJB **15** 07:33:56.3±0.3,21.05°±0.04°×67.31°W±0.04°,h204km±2km, mb4.2/31,Error ellipse: s-maj=6.0km s-min=5.5km az=142.6*

*NEIC **15** 07:33:56.7±0.6,21.04°×67.21°W,h183km±5km,mb4.4/25, Error ellipse: s-maj=9.3km s-min=8.8km az=66.0*

*GUC **15** 07:33:57.9±0.4,21.04°×67.76°W,h226km±4km,ML4.4*

*SCB **15** 07:33:57.0±0.3,20.63°×66.74°W,h200km,Ml4.1/2,Error ellipse: s-maj=9.2km s-min=4.4km az=44.0*

*IDC **15** 07:33:59.5±1.4,20.86°×67.17°W,h206km±13km,mb3.9/10, mb1 3.9/14,mb1mx3.7/30,mbtmp4.4/14,Error ellipse: s-maj=15.8km s-min=11.6km az=61.0*

**ISC 15 07:33:56.7±0.6,21.12°±0.04°×67.26°W±0.04°,h191km±6km, n296,σ1§08/317,mb4.3/31,9C,Chile-Bolivia border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MOCB** | **Mochara** | **1.52** | **95** | *e*Pn | **Pn** | **07 34 32.6** | **+2.3** |
| MOCB | | | | *e*Sn | **Sn** | **07 34 57.9** | **+1.7** |
| | 3µm,0.5s | | | | | | |
| **PB09** | **IPOC Station P** | **1.96** | **250** | ⇑ *i*P | **Pn** | **07 34 36.1** | **+1.7** |
| PB09 | | | | *i* S | **Sn** | **07 35 05.0** | **+1.4** |
| PB09 | | | | IAML | | 07 35 05.4 | |
| | comp=N,2µm,0.6s | | | | | | |
| **PB08** | **IPOC Station P** | **2.02** | **298** | ⇑ *i*P | **Pn** | **07 34 36.5** | **+1.3** |
| PB08 | | | | *i* S | **Sn** | **07 35 06.0** | **+0.9** |
| PB08 | | | | IAML | | 07 35 12.8 | |
| | comp=E,740nm,0.2s | | | | | | |
| **PB01** | **IPOC Station P** | **2.08** | **272** | *e*Pn | **Pn** | **07 34 36.0** | **+0.5** |
| PB01 | | | | *e*Sn | **Sn** | **07 35 05.4** | **-0.3** |
| **PB01** | **IPOC Station P** | **2.08** | **272** | *i* P | **Pn** | **07 34 36.1** | **+0.5** |
| PB01 | | | | *i* S | **Sn** | **07 35 05.2** | **-0.5** |
| PB01 | | | | IAML | | 07 35 09.2 | |
| | comp=N,1µm,0.3s | | | | | | |
| **PB02** | **IPOC Station P** | **2.47** | **265** | ⇑ *i*P | **Pn** | **07 34 40.2** | **+0.5** |
| PB02 | | | | *i* S | **Sn** | **07 35 12.3** | **-1.0** |
| PB02 | | | | IAML | | 07 35 13.5 | |
| | comp=N,3µm,0.4s | | | | | | |
| **PB07** | **IPOC Station P** | **2.52** | **256** | ⇑ *i*P | **Pn** | **07 34 41.1** | **+0.6** |
| PB07 | | | | *i* S | **Sn** | **07 35 13.4** | **-1.1** |
| PB07 | | | | IAML | | 07 35 13.8 | |
| | comp=N,2µm,0.5s | | | | | | |
| **PB11** | **IPOC Station P** | **2.62** | **301** | *e*Pn | **Pn** | **07 34 41.8** | **+0.1** |
| PB11 | | | | *e*Sn | **Sn** | **07 35 16.6** | **0.0** |
| **PB11** | **IPOC Station P** | **2.62** | **301** | ⇑ *i*P | **Pn** | **07 34 41.9** | **+0.3** |
| PB11 | | | | *i* S | **Sn** | **07 35 15.7** | **-0.9** |
| **PB06** | **IPOC Station P** | **2.67** | **233** | ⇑ *i*P | **Pn** | **07 34 43.1** | **+1.0** |
| PB06 | | | | *i* S | **Sn** | **07 35 17.6** | **0.0** |
| PB06 | | | | IAML | | 07 35 19.0 | |
| | comp=E,1µm,0.4s | | | | | | |
| **PB04** | **IPOC Station P** | **2.95** | **245** | *e*Pn | **Pn** | **07 34 45.9** | **+0.5** |
| PB04 | | | | *e*Sn | **Sn** | **07 35 22.0** | **-1.4** |
| **PB04** | **IPOC Station P** | **2.95** | **245** | ⇑ *i*P | **Pn** | **07 34 46.0** | **+0.5** |
| PB04 | | | | *i* S | **Sn** | **07 35 23.0** | **-0.4** |
| PB04 | | | | IAML | | 07 35 25.2 | |
| | comp=E,645nm,0.2s | | | | | | |
| **MNMC** | **Minye Minye** | **2.95** | **312** | *e*Pn | **Pn** | **07 34 46.5** | **+0.8** |
| MNMC | | | | *e*Sn | **Sn** | **07 35 24.0** | **+0.2** |
| **MNMC** | **Minye Minye** | **2.95** | **312** | ⇑ *i*P | **Pn** | **07 34 46.4** | **+0.7** |
| MNMC | | | | *i* S | **Sn** | **07 35 23.6** | **-0.2** |
| **PSGC** | **Pisagua** | **3.08** | **299** | ⇑ *i*P | **Pn** | **07 34 46.3** | **-0.7** |
| PSGC | | | | *i* S | **Sn** | **07 35 23.9** | **-2.4** |
| **PB10** | **IPOC Station P** | **3.87** | **231** | *e*Pn | **Pn** | **07 34 56.4** | **-0.2** |
| PB10 | | | | *e*Sn | **Sn** | **07 35 40.7** | **-2.8** |
| **PB10** | **IPOC Station P** | **3.87** | **231** | *i* P | **Pn** | **07 34 57.0** | **+0.4** |
| PB10 | | | | *i* S | **Sn** | **07 35 40.3** | **-3.2** |
| **BBOJ** | **La Paz, Jacaqu** | **4.21** | **348** | *e*Pn | **Pn** | **07 35 03.5** | **+2.0** |
| **BBOE** | **La Paz, Chanca** | **4.34** | **351** | *e*Pn | **Pn** | **07 35 04.7** | **+1.7** |
| **BBOD** | **La Paz, Gloria** | **4.63** | **344** | *e*Pn | **Pn** | **07 35 08.9** | **+2.1** |
| **LPAZ** | **La Paz** | **4.87** | **350** | P | **Pn** | **07 35 11.1** | **+1.1** |
| | comp=E,3.6nm,0.3s,baz=146,slow=4.4,SNR=83 | | | | | | |
| LPAZ | | | | S | **Sn** | **07 36 06.1** | **-1.4** |
| | comp=E,1.3nm,0.3s,baz=59,slow=21,SNR=6.9 | | | | | | |
| **LPAZ** | **La Paz** | **4.87** | **350** | *e*Pn | **Pn** | **07 35 11.0** | **+1.1** |
| LPAZ | | | | *e*Sn | **Sn** | **07 36 05.7** | **-1.7** |
| **LPAZ** | **La Paz** | **4.87** | **350** | *e*Pn | **Pn** | **07 35 11.0** | **+1.1** |
| LPAZ | | | | *e*Sn | **Sn** | **07 36 05.7** | **-1.7** |
| **BBOB** | **La Paz, Bander** | **5.02** | **350** | *e*Pn | **Pn** | **07 35 12.6** | **+0.9** |
| BBOB | | | | *e*Sn | **Sn** | **07 36 09.0** | **-1.6** |
| | comp=E,24nm,0.5s | | | | | | |
| **ARE** | **Arequipa** | **6.12** | **318** | *e*P | **Pn** | **07 35 24.0** | **-1.8** |
| **SIV** | **San Ignacio** | **7.77** | **50** | P | **Pn** | **07 35 45.3** | **-1.8** |
| | comp=E,18nm,0.3s,baz=249,slow=12,SNR=230 | | | | | | |
| SIV | | | | S | Sn | 07 37 02.8 | -12 |
| | comp=E,0.9nm,0.3s,baz=245,slow=17,SNR=3.3 | | | | | | |
| **SIV** | **San Ignacio** | **7.77** | **50** | *e*Pn | **Pn** | **07 35 45.2** | **-2.0** |
| SIV | | | | *e*Sn | Sn | 07 37 02.8 | -12 |
| **LCO** | **Las Campanas** | **8.46** | **201** | *e*Pn | **Pn** | **07 35 54.0** | **-2.2** |
| **CPUP** | **Villa Florida** | **10.47** | **122** | P | **P** | **07 36 25.9** | **-4.0** |
| | comp=E,0.2nm,0.3s,baz=255,slow=8.3,SNR=4.6 | | | | | | |
| **CPUP** | **Villa Florida** | **10.47** | **122** | *e*Pn | **Pn** | **07 36 23.6** | **+1.4** |
| **SAML** | **Samuel** | **12.72** | **19** | *e*Pn | **Pn** | **07 36 48.9** | **-2.2** |
| **NNA** | **Nana** | **12.91** | **313** | P | **P** | **07 36 58.7** | **+1.5** |
| | comp=E,0.8nm,0.3s,baz=151,slow=10.0,SNR=6.6 | | | | | | |
| **BDFB** | **Brasilia** | **19.05** | **77** | P | **Pn** | **07 38 05.3** | **-2.6** |
| | comp=E,2.4nm,0.3s,baz=42,slow=10,SNR=20 | | | | | | |
| **PLCA** | **Paso Flores** | **19.75** | **187** | P | **Pn** | **07 38 16.5** | **+0.6** |
| | comp=E,0.9nm,0.5s,baz=24,slow=9.3,SNR=11 | | | | | | |
| **PLCA** | **Paso Flores** | **19.75** | **187** | *e*P | **Pn** | **07 38 15.8** | **-0.2** |
| | comp=E,21nm,1.8s | | | | | | |
| **PTGA** | **Pitinga** | **21.48** | **20** | P | **P** | **07 38 28.5** | **-2.1** |
| | comp=E,1.6nm,0.3s,baz=215,slow=8.1,SNR=4.0 | | | | | | |
| **PTGA** | **Pitinga** | **21.48** | **20** | *e*P | **P** | **07 38 30.8** | **+0.2** |
| **RUSC** | **La Rusia** | **27.44** | **347** | *e*P | **P** | **07 39 24.1** | **-1.5** |
| | comp=E,3.3nm,1.2s | | | | | | |
| **HELC** | **Santa Helena** | **28.33** | **342** | *e*P | **P** | **07 39 31.5** | **-1.8** |
| | comp=E,13nm,0.5s | | | | | | |
| **PCRV** | **Puerto La Cruz** | **31.20** | **5** | P | **P** | **07 39 58.4** | **+0.1** |
| | comp=E,12nm,0.9s,baz=20,slow=4.3,SNR=5.1 | | | | | | |
| **RCBR** | **Riachuelo** | **33.97** | **68** | P | **P** | **07 40 22.9** | **+0.5** |
| | comp=E,8.2nm,0.7s,baz=223,slow=8.2,SNR=4.5 | | | | | | |
| **CELP** | **Cerrillos** | **38.96** | **1** | *e*P | **P** | **07 41 02.1** | **-2.3** |
| **ZAIG** | **Zacatecas** | **55.57** | **320** | *e*P | **P** | **07 43 14.2** | **+1.2** |
| | comp=E,6.3nm,0.9s | | | | | | |
| **833A** | **Chaparral WMA,** | **58.13** | **326** | P | **P** | **07 43 30.8** | **+0.3** |
| | baz=144 | | | | | | |
| **Y46A** | **Houston** | **58.44** | **339** | P | **P** | **07 43 31.7** | **-0.8** |
| | baz=156 | | | | | | |
| **X47A** | **Russelville** | **58.69** | **340** | P | **P** | **07 43 33.3** | **-1.0** |
| | baz=157 | | | | | | |
| **OXF** | **Oxford** | **59.20** | **339** | P | **P** | **07 43 36.9** | **-0.8** |
| | baz=156 | | | | | | |
| **V48A** | **Smith Brothers** | **59.51** | **342** | P | **P** | **07 43 38.6** | **-1.2** |
| | baz=159 | | | | | | |
| **W44A** | **Shelby Farms P** | **59.91** | **339** | P | **P** | **07 43 41.7** | **-0.9** |
| | baz=156 | | | | | | |
| **U48A** | **Cassie Pea, Po** | **60.14** | **342** | P | **P** | **07 43 43.0** | **-1.2** |
| | baz=159 | | | | | | |
| **WVT** | **Waverly** | **60.17** | **341** | P | **P** | **07 43 43.1** | **-1.3** |
| | baz=158 | | | | | | |
| **WVT** | **Waverly** | **60.17** | **341** | *e*P | **P** | **07 43 43.0** | **-1.3** |
| | comp=E,5.7nm,0.6s | | | | | | |
| **WHTX** | **Lake Whitney,** | **60.21** | **330** | P | **P** | **07 43 44.2** | **-0.5** |
| | baz=147 | | | | | | |
| **U47A** | **Clarksville** | **60.30** | **341** | P | **P** | **07 43 43.9** | **-1.3** |
| | baz=158 | | | | | | |
| **T48A** | **Bowling Green** | **60.66** | **343** | P | **P** | **07 43 46.3** | **-1.4** |
| | baz=159 | | | | | | |
| **U45A** | **Rockin P Farm,** | **60.66** | **340** | P | **P** | **07 43 46.9** | **-0.8** |
| | baz=157 | | | | | | |
| **MIAR** | **Mount Ida** | **60.75** | **335** | P | **P** | **07 43 47.8** | **-0.5** |
| | baz=152 | | | | | | |
| **T47A** | **Sharon Grove** | **60.75** | **342** | P | **P** | **07 43 47.3** | **-0.9** |
| | baz=159 | | | | | | |
| **Z36A** | **Blue Ridge** | **60.83** | **332** | P | **P** | **07 43 48.8** | **-0.1** |
| | baz=149 | | | | | | |
| **X39A** | **Fountain Ranch** | **60.93** | **335** | P | **P** | **07 43 49.5** | **-0.1** |
| | baz=151 | | | | | | |
| **T46A** | **Princeton** | **61.03** | **341** | P | **P** | **07 43 49.3** | **-0.9** |
| | baz=158 | | | | | | |
| **S48A** | **Wiedeman Farm,** | **61.08** | **343** | P | **P** | **07 43 49.2** | **-1.2** |
| | baz=160 | | | | | | |
| **Y37A** | **Hugo** | **61.09** | **333** | P | **P** | **07 43 50.5** | **-0.1** |
| | baz=150 | | | | | | |
| **LTX** | **Lajitas** | **61.21** | **324** | *e*P | **P** | **07 43 51.6** | **0.0** |
| **TXAR** | **Lajitas Array** | **61.21** | **324** | P | **P** | **07 43 51.6** | **0.0** |
| | comp=E,1.0nm,0.6s,baz=151,slow=7.4,SNR=12 | | | | | | |
| **V41A** | **Mountainview** | **61.31** | **337** | P | **P** | **07 43 51.4** | **-0.7** |
| | baz=153 | | | | | | |
| **X38A** | **Whitesboro** | **61.36** | **334** | P | **P** | **07 43 52.3** | **-0.1** |
| | baz=150 | | | | | | |
| **W39A** | **Magazine** | **61.40** | **335** | P | **P** | **07 43 52.1** | **-0.5** |
| | baz=152 | | | | | | |
| **U42A** | **Revenden** | **61.49** | **338** | P | **P** | **07 43 52.6** | **-0.7** |
| | baz=154 | | | | | | |
| **X37A** | **Clayton** | **61.51** | **334** | P | **P** | **07 43 53.2** | **-0.2** |
| | baz=150 | | | | | | |
| **V40A** | **Witts Springs** | **61.57** | **336** | P | **P** | **07 43 53.5** | **-0.4** |
| | baz=153 | | | | | | |
| **S46A** | **Don Dixon Farm** | **61.58** | **342** | P | **P** | **07 43 52.5** | **-1.2** |
| | baz=158 | | | | | | |
| **W38A** | **Poteau** | **61.58** | **335** | P | **P** | **07 43 54.0** | **+0.2** |
| | baz=151 | | | | | | |
| **T44A** | **Benton** | **61.60** | **340** | P | **P** | **07 43 53.1** | **-0.9** |
| | baz=156 | | | | | | |
| **U41A** | **Viola** | **61.72** | **338** | P | **P** | **07 43 54.2** | **-0.6** |
| | baz=154 | | | | | | |
| **R48A** | **Northridge Ran** | **61.73** | **343** | P | **P** | **07 43 54.2** | **-0.6** |
| | baz=160 | | | | | | |
| **S45A** | **Carrier Mills** | **61.83** | **341** | P | **P** | **07 43 54.4** | **-1.1** |
| | baz=157 | | | | | | |
| **T43A** | **Greenville** | **61.83** | **339** | P | **P** | **07 43 54.5** | **-1.0** |
| | baz=156 | | | | | | |
| **V39A** | **Pettigrew** | **61.91** | **336** | P | **P** | **07 43 55.3** | **-0.8** |
| | baz=152 | | | | | | |
| **X35A** | **Drake** | **62.02** | **332** | P | **P** | **07 43 56.2** | **-0.7** |
| | baz=148 | | | | | | |
| **T42A** | **Van Buren** | **62.05** | **339** | P | **P** | **07 43 56.2** | **-0.8** |
| | baz=155 | | | | | | |
| **S44A** | **Carbondale** | **62.05** | **340** | P | **P** | **07 43 55.8** | **-1.1** |
| | baz=157 | | | | | | |
| **U40A** | **Yellville** | **62.07** | **337** | P | **P** | **07 43 56.7** | **-0.4** |
| | baz=153 | | | | | | |
| **S43A** | **Fulton Ridge,** | **62.20** | **340** | P | **P** | **07 43 56.9** | **-1.1** |
| | baz=156 | | | | | | |
| **V38A** | **Canehill** | **62.23** | **335** | P | **P** | **07 43 57.5** | **-0.7** |
| | baz=151 | | | | | | |
| **T41A** | **Mountain View** | **62.30** | **338** | P | **P** | **07 43 57.5** | **-1.1** |
| | baz=154 | | | | | | |
| **R45A** | **Skylar, Fairfi** | **62.31** | **341** | P | **P** | **07 43 57.5** | **-1.1** |
| | baz=158 | | | | | | |
| **U39A** | **Green Forest** | **62.33** | **336** | P | **P** | **07 43 58.3** | **-0.6** |
| | baz=152 | | | | | | |
| **W36A** | **Wetumka** | **62.34** | **333** | P | **P** | **07 43 58.2** | **-0.8** |
| | baz=149 | | | | | | |
| **Q47A** | **Bedord North L** | **62.38** | **343** | P | **P** | **07 43 58.3** | **-0.8** |
| | baz=160 | | | | | | |
| **R44A** | **Waltonville** | **62.51** | **341** | P | **P** | **07 43 59.0** | **-1.0** |
| | baz=157 | | | | | | |
| **V37A** | **Hulbert** | **62.54** | **335** | P | **P** | **07 43 59.5** | **-0.7** |
| | baz=151 | | | | | | |
| **S42A** | **Caledonia** | **62.62** | **339** | P | **P** | **07 43 59.5** | **-1.2** |
| | baz=155 | | | | | | |
| **FVM** | **French Village** | **62.69** | **340** | *e*P | **P** | **07 44 00.3** | **-0.9** |
| | comp=E,8.1nm,0.6s | | | | | | |
| **V36A** | **Jenks** | **62.78** | **334** | P | **P** | **07 44 01.7** | **-0.1** |
| | baz=150 | | | | | | |
| **S41A** | **Jillco Farms,** | **62.78** | **338** | P | **P** | **07 44 00.9** | **-0.9** |
| | baz=154 | | | | | | |
| **R43A** | **Red Bud** | **62.80** | **340** | P | **P** | **07 44 01.1** | **-0.8** |
| | baz=156 | | | | | | |
| **Q45A** | **Warren Harvey,** | **62.83** | **342** | P | **P** | **07 44 01.0** | **-1.1** |
| | baz=158 | | | | | | |
| **T39A** | **Clever** | **62.86** | **337** | P | **P** | **07 44 01.5** | **-0.9** |
| | baz=152 | | | | | | |
| **CCM** | **Cathedral Cave** | **63.03** | **339** | P | **P** | **07 44 02.6** | **-0.9** |
| | baz=155 | | | | | | |
| **CCM** | **Cathedral Cave** | **63.03** | **339** | *e*P | **P** | **07 44 02.6** | **-0.9** |
| | comp=E,9.1nm,0.7s | | | | | | |
| **S40A** | **Lebanon** | **63.05** | **338** | P | **P** | **07 44 02.7** | **-0.9** |
| | baz=154 | | | | | | |
| **R42A** | **Luebbering** | **63.08** | **339** | P | **P** | **07 44 03.1** | **-0.6** |
| | baz=155 | | | | | | |
| **T38A** | **Diamond** | **63.21** | **336** | P | **P** | **07 44 04.1** | **-0.6** |
| | baz=152 | | | | | | |
| **R41A** | **Rosebud** | **63.29** | **339** | P | **P** | **07 44 04.3** | **-0.9** |
| | baz=155 | | | | | | |
| **S39A** | **Bolivar** | **63.43** | **337** | P | **P** | **07 44 05.4** | **-0.7** |
| | baz=153 | | | | | | |
| **T37A** | **Cheneyville 18** | **63.53** | **336** | P | **P** | **07 44 06.3** | **-0.4** |
| | baz=151 | | | | | | |
| **Q42A** | **Golden Eagle** | **63.57** | **340** | P | **P** | **07 44 05.9** | **-1.1** |
| | baz=156 | | | | | | |
| **R40A** | **Maddies Statio** | **63.59** | **338** | P | **P** | **07 44 06.3** | **-0.8** |
| | baz=154 | | | | | | |
| **S38A** | **Stockton** | **63.59** | **337** | P | **P** | **07 44 06.3** | **-0.9** |
| | baz=152 | | | | | | |
| **U35A** | **Pawnee** | **63.60** | **334** | P | **P** | **07 44 06.7** | **-0.6** |
| | baz=149 | | | | | | |
| **Q41A** | **Truxton** | **63.84** | **339** | P | **P** | **07 44 07.7** | **-1.0** |
| | baz=155 | | | | | | |
| **T36A** | **Boggs Farm, Ca** | **63.85** | **335** | P | **P** | **07 44 08.1** | **-0.7** |
| | baz=150 | | | | | | |
| **R39A** | **Chumby, Stover** | **63.88** | **338** | P | **P** | **07 44 08.5** | **-0.5** |
| | baz=153 | | | | | | |
| **SFIN** | **Lafayette** | **63.91** | **343** | P | **P** | **07 44 07.6** | **-1.6** |
| | baz=159 | | | | | | |
| **O45A** | **Potomac** | **63.96** | **343** | P | **P** | **07 44 07.9** | **-1.6** |
| | baz=159 | | | | | | |
| **MNTX** | **Cornudas Mount** | **63.97** | **324** | P | **P** | **07 44 09.4** | **-0.4** |
| | baz=140 | | | | | | |
| **T35A** | **Sooner Cattle** | **63.98** | **334** | P | **P** | **07 44 09.5** | **-0.2** |
| | baz=150 | | | | | | |
| **S37A** | **Fort Scott** | **64.05** | **336** | P | **P** | **07 44 09.8** | **-0.3** |
| | baz=151 | | | | | | |
| **R38A** | **Fenwick Farm,** | **64.08** | **337** | P | **P** | **07 44 09.3** | **-1.0** |
| | baz=152 | | | | | | |
| **Q40A** | **Laux Farm, Aux** | **64.16** | **339** | P | **P** | **07 44 10.1** | **-0.7** |
| | baz=154 | | | | | | |
| **S36A** | **Lake Cedric, C** | **64.31** | **335** | P | **P** | **07 44 11.4** | **-0.4** |
| | baz=151 | | | | | | |
| **MSTX** | **Muleshoe** | **64.38** | **328** | P | **P** | **07 44 12.2** | **-0.3** |
| | baz=143 | | | | | | |
| **MSTX** | **Muleshoe** | **64.38** | **328** | *e*P | **P** | **07 44 12.7** | **+0.2** |
| | comp=E,9.0nm,1.0s | | | | | | |
| **P41A** | **Barry, Barry** | **64.44** | **340** | P | **P** | **07 44 11.6** | **-1.0** |
| | baz=155 | | | | | | |
| **Q39A** | **Willow Grove F** | **64.51** | **338** | P | **P** | **07 44 12.2** | **-0.9** |
| | baz=153 | | | | | | |
| **S35A** | **Otter Creek Ra** | **64.56** | **335** | P | **P** | **07 44 12.9** | **-0.6** |
| | baz=150 | | | | | | |
| **P40A** | **Paris** | **64.63** | **339** | P | **P** | **07 44 13.1** | **-0.8** |
| | baz=154 | | | | | | |
| **Q38A** | **Cooks Store, C** | **64.66** | **337** | P | **P** | **07 44 13.3** | **-0.8** |
| | baz=153 | | | | | | |
| **O41A** | **Passleys Farm,** | **64.78** | **340** | P | **P** | **07 44 13.0** | **-1.8** |
| | baz=156 | | | | | | |
| **R36A** | **Gordon, Harris** | **64.80** | **336** | P | **P** | **07 44 14.3** | **-0.7** |
| | baz=151 | | | | | | |
| **P39B** | **Salisbury** | **64.83** | **338** | P | **P** | **07 44 14.3** | **-0.9** |
| | baz=154 | | | | | | |
| **Q37A** | **Longview Farm,** | **64.89** | **337** | P | **P** | **07 44 15.2** | **-0.3** |
| | baz=152 | | | | | | |
| **N43A** | **Stutzman Famil** | **65.01** | **342** | P | **P** | **07 44 15.0** | **-1.2** |
| | baz=157 | | | | | | |
| **R35A** | **Emporia Munici** | **65.07** | **335** | P | **P** | **07 44 15.7** | **-1.0** |
| | baz=150 | | | | | | |
| **O40A** | **La Belle** | **65.10** | **339** | P | **P** | **07 44 15.5** | **-1.4** |
| | baz=155 | | | | | | |
| **N42A** | **Yates City** | **65.17** | **341** | P | **P** | **07 44 16.5** | **-0.8** |
| | baz=156 | | | | | | |
| **P38A** | **Dawn** | **65.22** | **338** | P | **P** | **07 44 17.1** | **-0.6** |
| | baz=153 | | | | | | |
| **R34A** | **Isabella, Hill** | **65.47** | **334** | P | **P** | **07 44 18.3** | **-1.1** |
| | baz=149 | | | | | | |
| **P37A** | **Lathrop** | **65.48** | **337** | P | **P** | **07 44 18.3** | **-1.0** |
| | baz=152 | | | | | | |
| **P36A** | **Good Intent, A** | **65.82** | **337** | P | **P** | **07 44 20.1** | **-1.4** |
| | baz=151 | | | | | | |
| **Q34A** | **Chapman** | **65.88** | **335** | P | **P** | **07 44 20.8** | **-1.1** |
| | baz=150 | | | | | | |
| **KSU1** | **Kansas State U** | **65.91** | **335** | P | **P** | **07 44 21.0** | **-1.0** |
| | baz=150 | | | | | | |
| **121A** | **Cookes Peak, D** | **65.93** | **323** | P | **P** | **07 44 23.3** | **+0.7** |
| | baz=138 | | | | | | |
| **319A** | **Douglas** | **65.94** | **321** | *e*P | **P** | **07 44 22.9** | **+0.3** |
| | comp=E,5.7nm,0.8s | | | | | | |
| **L43A** | **Garden Prairie** | **66.04** | **343** | P | **P** | **07 44 22.1** | **-0.8** |
| | baz=158 | | | | | | |
| **O36A** | **Bolckow** | **66.18** | **337** | P | **P** | **07 44 23.3** | **-0.6** |
| | baz=152 | | | | | | |
| **P34A** | **Walnut Farm, R** | **66.38** | **335** | P | **P** | **07 44 24.8** | **-0.3** |
| | baz=150 | | | | | | |
| **L40A** | **Anamosa** | **66.66** | **341** | P | **P** | **07 44 26.3** | **-0.5** |
| | baz=156 | | | | | | |
| **M38A** | **Pleasantville** | **66.71** | **339** | P | **P** | **07 44 26.1** | **-1.0** |
| | baz=154

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **J33A** | **Davis** baz=150 | **69.69** | **337** | P | | **P** | **07 44 45.1** | **-0.5** |
| **H36A** | **Jessenland, He** baz=154 | **69.77** | **340** | P | | **P** | **07 44 46.2** | **+0.1** |
| **MVCO** | **Mesa Verde** baz=139 | **69.83** | **326** | P | | **P** | **07 44 47.7** | **+0.8** |
| **F40A** | **Park Falls** baz=157,SNR=5.1 | **69.87** | **343** | P | | **P** | **07 44 46.4** | **-0.3** |
| **ECSD** | **EROS Data Cent** baz=151 | **69.93** | **338** | P | | **P** | **07 44 46.8** | **-0.3** |
| **SPMN** | **Marine on St.** baz=155 | **70.01** | **341** | P | | **P** | **07 44 47.3** | **-0.2** |
| **J32A** | **Parkston** baz=150 | **70.06** | **337** | P | | **P** | **07 44 48.1** | **+0.2** |
| **F39A** | **Loretta** baz=156 | **70.09** | **343** | P | | **P** | **07 44 47.3** | **-0.7** |
| **WUAZ** | **Wupatki** baz=136 | **70.14** | **323** | P | | **P** | **07 44 50.4** | **+1.6** |
| **H35A** | **Sunnyside Ranc** baz=153 | **70.17** | **339** | P | | **P** | **07 44 47.9** | **-0.6** |
| **E40A** | **Wakefield** baz=158 | **70.30** | **344** | P | | **P** | **07 44 49.1** | **-0.2** |
| **J31A** | **Geddes** baz=149 | **70.33** | **336** | P | | **P** | **07 44 49.7** | **+0.1** |
| **ISCO** | **Idaho Springs** baz=142 | **70.39** | **330** | P | | **P** | **07 44 51.1** | **+0.8** |
| **F38A** | **Pierce - Schro** baz=156 | **70.40** | **342** | P | | **P** | **07 44 49.4** | **-0.5** |
| **F37A** | **Hinrichs Farm,** baz=155 | **70.41** | **341** | P | | **P** | **07 44 50.2** | **+0.3** |
| **GLA** | **Glamis** baz=133 | **70.45** | **319** | P | | **P** | **07 44 52.0** | **+1.5** |
| **I32A** | **Karley and Nic** baz=150 | **70.49** | **337** | P | | **P** | **07 44 52.0** | **+1.5** |
| **G35A** | **Watkins** baz=153 | **70.53** | **340** | P | | **P** | **07 44 50.8** | **+0.2** |
| **F36A** | **Milaca** baz=154,SNR=5.3 | **70.80** | **341** | P | | **P** | **07 44 51.5** | **-0.8** |
| **H33A** | **Prehn Over Nor** baz=151 | **70.80** | **338** | P | | **P** | **07 44 52.5** | **+0.1** |
| **H32A** | **Carlson Farm,** baz=150 | **70.89** | **338** | P | | **P** | **07 44 53.2** | **+0.2** |
| **E37A** | **Wrenshall** baz=155 | **71.10** | **342** | P | | **P** | **07 44 53.8** | **-0.3** |
| **F35A** | **Swanville** baz=153 | **71.12** | **340** | P | | **P** | **07 44 53.9** | **-0.3** |
| **G33A** | **Ortonville** baz=151 | **71.15** | **339** | P | | **P** | **07 44 53.8** | **-0.6** |
| **BC3** | **Big Chuckawall** baz=133 | **71.24** | **319** | P | | **P** | **07 44 57.1** | **+1.7** |
| **E36A** | **McGregor** baz=154,SNR=6.0 | **71.31** | **341** | P | | **P** | **07 44 54.9** | **-0.5** |
| **MONP2** | **Monument Peak** baz=132 | **71.33** | **318** | P | | **P** | **07 44 56.9** | **+0.8** |
| **IRM** | **Iron Mountain** baz=133 | **71.39** | **320** | P | | **P** | **07 44 57.4** | **+1.2** |
| **C39A** | **Grand Marais** baz=158 | **71.63** | **344** | P | | **P** | **07 44 56.6** | **-0.6** |
| **D37A** | **Cotton** baz=155 | **71.65** | **342** | P | | **P** | **07 44 56.6** | **-0.8** |
| **F33A** | **5 Mile Ranch,** baz=152 | **71.67** | **339** | P | | **P** | **07 44 56.8** | **-0.7** |
| **E35A** | **Pequot Lakes** baz=153 | **71.69** | **341** | P | | **P** | **07 44 57.1** | **-0.6** |
| **G31A** | **Conde** baz=150 | **71.79** | **338** | P | | **P** | **07 44 58.3** | **0.0** |
| **BELC** | **Belle Mtn. Jos** baz=132 | **71.81** | **319** | P | | **P** | **07 45 00.5** | **+1.7** |
| **PFO** | **Pinyon Flats O** baz=132 | **71.83** | **318** | P | | **P** | **07 45 00.4** | **+1.5** |
| **C38A** | **Sawbill Land.** baz=156 | **71.84** | **343** | P | | **P** | **07 44 57.5** | **-1.0** |
| **E34A** | **Wadena** baz=153 | **71.89** | **340** | P | | **P** | **07 44 58.8** | **-0.1** |
| **O20A** | **White River Ci** baz=140 | **71.92** | **328** | P | | **P** | **07 45 00.6** | **+1.2** |
| **D35A** | **Remer** baz=154 | **72.06** | **341** | P | | **P** | **07 44 59.6** | **-0.2** |
| **C37A** | **Embarrass** baz=156,SNR=5.2 | **72.10** | **343** | P | | **P** | **07 44 59.5** | **-0.6** |
| **EYMN** | **Ely** baz=156 | **72.11** | **343** | P | | **P** | **07 44 59.5** | **-0.6** |
| **GMRC** | **Granite Mounta** baz=133 | **72.13** | **320** | P | | **P** | **07 45 02.0** | **+1.3** |
| **E33A** | **Westby DABS, E** baz=152 | **72.16** | **340** | P | | **P** | **07 44 59.8** | **-0.6** |
| **SRU** | **San Rafael Swe** comp=E,4.6nm,0.7s | **72.31** | **326** | *eP* | | **P** | **07 45 02.5** | **+0.7** |
| **C36A** | **Pine Crest Far** baz=155,SNR=7.1 | **72.31** | **342** | P | | **P** | **07 45 00.8** | **-0.5** |
| **F31A** | **Hecla** baz=150 | **72.36** | **338** | P | | **P** | **07 45 01.2** | **-0.4** |
| **P18A** | **Preston Nutter** comp=E,5.3nm,0.8s | **72.55** | **326** | *eP* | | **P** | **07 45 04.8** | **+1.6** |
| **C35A** | **Jirik Farms, M** baz=154 | **72.59** | **341** | P | | **P** | **07 45 02.7** | **-0.2** |
| **D33A** | **AnnSam, Waubun** baz=152 | **72.67** | **340** | P | | **P** | **07 45 02.7** | **-0.7** |
| **CCUT** | **Cedar City** comp=E,4.7nm,0.9s | **72.71** | **323** | *eP* | | **P** | **07 45 06.3** | **+2.1** |
| **C34A** | **RKJ Ranch, Bem** baz=153 | **72.83** | **341** | P | | **P** | **07 45 04.1** | **-0.2** |
| **E31A** | **Nome** baz=150 | **72.83** | **338** | P | | **P** | **07 45 04.4** | **0.0** |
| **B35A** | **Bob, Littlefor** baz=154,SNR=8.3 | **73.11** | **342** | P | | **P** | **07 45 05.5** | **-0.5** |
| **RSSD** | **Black Hills** baz=144 | **73.14** | **333** | P | | **P** | **07 45 07.0** | **+0.5** |
| **RSSD** | **Black Hills** comp=E,3.6nm,0.6s | **73.14** | **333** | *eP* | | **P** | **07 45 07.4** | **+0.9** |
| **C33A** | **Trail** baz=152,SNR=5.3 | **73.19** | **340** | P | | **P** | **07 45 05.9** | **-0.5** |
| **B34A** | **Aery, Baudette** baz=153,SNR=5.1 | **73.49** | **341** | P | | **P** | **07 45 07.7** | **-0.5** |
| **B33A** | **Robert and Kas** baz=152 | **73.59** | **341** | P | | **P** | **07 45 08.2** | **-0.6** |
| **EDW2** | **Edwards Air Fo** baz=131 | **73.62** | **318** | P | | **P** | **07 45 10.5** | **+1.2** |
| **AGMN** | **Agassiz Nation** baz=152,SNR=5.1 | **73.69** | **341** | P | | **P** | **07 45 08.9** | **-0.5** |
| **AGMN** | **Agassiz Nation** comp=E,6.3nm,0.8s | **73.69** | **341** | *eP* | | **P** | **07 45 09.3** | **-0.1** |
| **C31A** | **Landman Farms,** baz=150 | **73.85** | **339** | P | | **P** | **07 45 10.3** | **0.0** |
| **JLU** | **Jordanelle** comp=E,3.3nm,0.7s | **73.89** | **326** | *eP* | | **P** | **07 45 12.4** | **+1.4** |
| **TPNV** | **Topopah Spring** baz=133 | **73.95** | **321** | P | | **P** | **07 45 12.8** | **+1.4** |
| **FURC** | **Furnace Creek,** baz=132 | **73.99** | **320** | P | | **P** | **07 45 13.1** | **+1.7** |
| **B32A** | **Ashes, Strandq** baz=152,SNR=9.8 | **73.99** | **340** | P | | **P** | **07 45 10.8** | **-0.3** |
| **A33A** | **Warroad** baz=153 | **74.12** | **341** | P | | **P** | **07 45 11.6** | **-0.2** |
| **DUG** | **Dugway, Tooele** baz=136 | **74.30** | **325** | P | | **P** | **07 45 14.6** | **+1.3** |
| **R11A** | **Troy Canyon, C** baz=134 | **74.53** | **322** | P | | **P** | **07 45 16.4** | **+1.7** |
| **MDND** | **Maddock** baz=149 | **74.54** | **338** | P | | **P** | **07 45 15.4** | **+1.1** |
| **PD31** | **Pinedale Array** | **74.56** | **329** | *eP* | | **P** | **07 45 15.7** | **+0.8** |
| **PDAR** | **Pinedale Array** comp=E,0.8nm,0.4s,baz=119,slow=7.9,SNR=14 | **74.56** | **329** | P | | **P** | **07 45 15.0** | **+0.2** |
| **BW06** | **Boulder Array** baz=139 | **74.56** | **329** | P | | **P** | **07 45 15.2** | **+0.4** |
| **CWC** | **Cottonwood Cre** baz=131 | **74.70** | **320** | P | | **P** | **07 45 17.2** | **+1.5** |
| **SMMC** | **Simmler** baz=130 | **75.15** | **318** | P | | **P** | **07 45 20.1** | **+1.9** |
| **ULM** | **Lac du Bonnet** comp=E,8.8nm,0.6s,baz=153,slow=6.5,SNR=34 | **75.43** | **341** | P | | **P** | **07 45 18.8** | **-0.5** |
| **ULM** | **Lac du Bonnet** comp=E,9.2nm,0.6s | **75.43** | **341** | *eP* | | **P** | **07 45 18.9** | **-0.4** |
| **SNOW** | **Snow King Moun** comp=E,3.7nm,0.8s | **75.66** | **329** | *eP* | | **P** | **07 45 22.1** | **+1.0** |
| **TOA1** | **Torodi Ar. Sit** | **75.78** | **70** | *eP* | | **P** | **07 45 21.4** | **-0.7** |
| **TORD** | **Torodi Ar. Bea** comp=E,4.0nm,0.4s,baz=258,slow=5.5,SNR=23 | **75.78** | **70** | P | | **P** | **07 45 21.4** | **-0.7** |
| **MLAC** | **Mammoth, Mammo** baz=131 | **75.94** | **320** | P | | **P** | **07 45 24.5** | **+1.6** |
| **LAO** | **LASA Array** baz=143 | **76.12** | **334** | P | | **P** | **07 45 23.5** | **+0.1** |
| **NV01** | **Mina Array Sit** | **76.15** | **321** | *eP* | | **P** | **07 45 25.0** | **+1.0** |
| **RLMT** | **Red Lodge** baz=140,SNR=7.4 | **76.22** | **331** | P | | **P** | **07 45 25.3** | **+1.0** |
| **RLMT** | **Red Lodge** comp=E,12nm,1.7s | **76.22** | **331** | *eP* | | **P** | **07 45 25.2** | **+1.0** |
| **H17A** | **Grant Village** | **76.28** | **330** | P | | **P** | **07 45 26.5** | **+1.9** |
| | baz=139 | | | | | | | |
| **KVN** | **Kaiserville** comp=E,3.8nm,1.0s | **76.45** | **322** | *eP* | | **P** | **07 45 26.7** | **+1.1** |
| **YMR** | **Madison River** comp=E,5.5nm,1.0s | **76.66** | **330** | *eP* | | **P** | **07 45 29.0** | **+2.3** |
| **YHH** | **Holmes Hill** comp=E,5.4nm,0.9s | **76.70** | **330** | *eP* | | **P** | **07 45 28.7** | **+1.7** |
| **DGMT** | **Dagmar** baz=145 | **76.74** | **336** | P | | **P** | **07 45 28.0** | **+1.1** |
| **YHB** | **Horse Butte** comp=E,5.8nm,0.8s | **76.83** | **329** | *eP* | | **P** | **07 45 29.3** | **+1.6** |
| **HLID** | **Hailey** baz=136,SNR=7.0 | **77.55** | **327** | P | | **P** | **07 45 33.3** | **+1.7** |
| **PAHR** | **Pah Rah Range** comp=E,6.4nm,0.8s | **77.63** | **321** | *eP* | | **P** | **07 45 33.7** | **+1.5** |
| **MCMT** | **McKenzie Canyo** | **77.69** | **329** | *eP* | | **P** | **07 45 34.0** | **+1.6** |
| **EGMT** | **Eagleton** baz=140 | **78.66** | **332** | P | | **P** | **07 45 37.6** | **+0.1** |
| **I05D** | **Terrebonne, OR** baz=130 | **81.75** | **324** | P | | **P** | **07 45 55.6** | **+1.6** |
| **YKA** | **Yellowknife Ar** comp=E,1.5nm,0.4s,baz=130,slow=4.3,SNR=47 | **91.35** | **340** | P | | **P** | **07 46 40.6** | **+0.4** |
| **WR1** | **Warramunga Arr** | **134.04** | **209** | *e*PKPdf | | **PKPdf** | **07 52 52.7** | **+0.5** |
| **WRA** | **Warramunga Arr** comp=E,0.7nm,0.8s,baz=163,slow=1.8,SNR=8.8 | **134.04** | **209** | PKP | | **PKPdf** | **07 52 52.7** | **+0.5** |
| **MK32** | **Makanchi Array** | **144.42** | **37** | *e*PKPdf | | PKPbc | 07 53 09.7 | +0.5 |
| **MKAR** | **Makanchi Array** comp=E,2.2nm,0.6s,baz=336,slow=2.8,SNR=29 | **144.42** | **37** | PKP | | PKPbc | 07 53 09.7 | +0.5 |
| **SONA0** | **Songino Array** | **152.86** | **9** | *e*PKPbc | | **PKPbc** | **07 53 31.9** | **+0.6** |
| **SONM** | **Songino Array** comp=E,0.7nm,0.6s,baz=292,slow=1.0,SNR=4.6 | **152.86** | **9** | PKPbc | | **PKPbc** | **07 53 31.9** | **+0.6** |
| **HHC** | **Hu-ho-hao-te** | **160.30** | **3** | *e*PKP | | **PKPdf** | **07 53 33.9** | **+0.2** |
| HHC | | | | PP | | **PP** | **07 58 01.4** | **+4.5** |
| HHC | | | | SKS | | **SKSdf** | **08 00 21.3** | **+0.3** |
| **LZH** | **Lanzhou** | **163.18** | **26** | *e*PKP | | **PKPdf** | **07 53 36.1** | **-0.7** |
| LZH | | | | pPKP | | pPKPdf | 07 54 18.3 | -8.5 |
| LZH | | | | sPKP | | | 07 54 35.4 | |
| LZH | comp=N,130nm,18.9s | | | LR | | LR | | |
| LZH | comp=E,160nm,18.0s | | | LR | | LR | | |
| LZH | comp=Z,190nm,19.6s | | | LR | | LR | | |

*ISCJB **15** 07:35:50.4±0.5,34.°70S±0.°08×15.°97W±0.°09,h10km, mb4.4/13,MS4.0/5,Error ellipse: s-maj=13.8km s-min=8.7km az=39.0*
*IDC **15** 07:35:51.0±0.9,34.°67S×15.°96W,h0km,mb4.1/7, mb1 4.1/7,mb1mx3.9/34,mbtmpa4.1/7,MS4.0/5,Ms1 4.0/5, ms1mx3.5/33,Error ellipse: s-maj=30.1km s-min=20.9km az=9.0*
*NEIC **15** 07:35:52.4±0.5,34.°78S×15.°97W,h10km,mb4.8/3,Error ellipse: s-maj=17.0km s-min=12.1km az=216.0*

**ISC 15 07:35:52.0±0.6,34.8S±0.1×15.9W±0.1,h10km,n36, σ1s23/24,mb4.5/13,MS4.0/5,1D,Tristan da Cunha region**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **H09N1** | **TRISTAN DA CUN** | **3.70** | **129** | | Pn | **Pn** | **07 36 50.3** | **+1.2** |
| H09N1 | SNR=155 | | | | T | T | 07 40 50.5 | |
| **TRIS** | **Tristan da Cun** | **3.70** | **129** | *e*Pn | | **Pn** | **07 36 50.2** | **+1.0** |
| TRIS | | | | *e*Sn | | **Sn** | **07 37 30.7** | **-2.2** |
| TRIS | | | | *e*TT | | | 07 40 20.6 | |
| **H09W1** | **TRISTAN DA CUN** | **3.70** | **129** | | Pn | **Pn** | **07 36 50.4** | **+1.1** |
| H09W1 | SNR=623 | | | | T | T | 07 40 50.1 | |
| **H10S2** | **ASCENSION HYDR** baz=182,slow=74,SNR=324 | **25.74** | **3** | | T | T | 08 07 58.8 | |
| **H10S3** | **ASCENSION HYDR** baz=182,slow=74,SNR=234 | **25.75** | **3** | | T | T | 08 07 56.8 | |
| **H10S1** | **ASCENSION HYDR** baz=182,slow=74,SNR=208 | **25.76** | **3** | | T | T | 08 08 00.1 | |
| **H10N1** | **ASCENSION HYDR** baz=190,slow=78,SNR=24 | **26.85** | **3** | | T | T | 08 09 16.6 | |
| **H10N3** | **ASCENSION HYDR** baz=190,slow=78,SNR=196 | **26.86** | **3** | | T | T | 08 09 29.0 | |
| **H10N2** | **ASCENSION HYDR** baz=190,slow=78,SNR=48 | **26.87** | **3** | | T | T | 08 09 30.5 | |
| **RCBR** | **Riachuelo** comp=Z,68nm,19.3s,baz=104,slow=31 | **34.23** | **323** | | LR | LR | 07 53 20.9 | |
| **SNAA** | **Sanae** | **37.58** | **173** | | P | P | 07 43 15.1 | +8.8 |
| **SNAA** | **Sanae** | **37.58** | **173** | *e*P | | **P** | **07 43 04.3** | **-2.0** |
| **LIC** | **Lamto** 26nm,1.2s | **42.07** | **16** | *e*PKP2 | | **P** | **07 43 44.7** | **+0.6** |
| **KIC** | **Kosan Boka** 71nm,1.6s | **42.27** | **17** | *e*PKP2 | | **P** | **07 43 45.9** | **+0.2** |
| **TIC** | **Toumodi** | **42.48** | **16** | *e*PKP2 | | **P** | **07 43 45.1** | **-2.4** |
| **DBIC** | **Dimbokro** 3.5nm,1.0s,baz=169,slow=6.6,SNR=3.5 | **42.54** | **16** | P | | **P** | **07 43 46.6** | **-1.3** |
| DBIC | comp=Z,176nm,18.5s,baz=152,slow=30 | | | | LR | LR | 07 57 09.7 | |
| **SIV** | **San Ignacio** 1.3nm,0.6s,baz=122,slow=11,SNR=6.0 | **44.46** | **283** | | P | **P** | **07 44 04.0** | **+0.4** |
| **SYO** | **Syowa Base** | **45.75** | **156** | *e*pP | | **P** | **07 44 14.0** | **+0.9** |
| **LPAZ** | **La Paz** 0.9nm,0.8s,baz=53,slow=7.7,SNR=4.0 | **50.02** | **278** | P | | **P** | **07 44 46.1** | **-1.4** |
| **SAML** | **Samuel** 19nm,1.6s | **50.24** | **289** | *e*P | | **P** | **07 44 47.9** | **-0.7** |
| **TORD** | **Torodi Ar. Bea** 1.8nm,0.5s,baz=202,slow=7.1,SNR=18 | **50.52** | **22** | P | | **P** | **07 44 50.4** | **-0.2** |
| TORD | comp=Z,208nm,20.9s,baz=190,slow=31 | | | | LR | LR | 08 01 39.0 | |
| **PTGA** | **Pitinga** 2.0nm,0.6s,baz=110,slow=6.6,SNR=4.6 | **53.23** | **300** | P | | **P** | **07 45 09.8** | **-1.0** |
| **QSPA** | **South Pole Qui** 38nm,1.2s | **55.46** | **180** | *e*P | | **P** | **07 45 27.9** | **+1.3** |
| **NNA** | **Nana** | **59.44** | **277** | *e*P | | **P** | **07 45 54.5** | **-0.8** |
| **ATAH** | **Atahualpa** 3.5nm,0.7s,baz=132,slow=9.6,SNR=5.7 | **63.42** | **280** | P | | **P** | **07 46 24.0** | **+1.3** |
| **SDV** | **Santo Domingo** 1.0nm,0.3s | **67.51** | **299** | *e*P | | **P** | **07 46 48.6** | **-0.2** |
| **OTAV** | **Otavalo** 13nm,1.6s | **67.84** | **287** | *e*P | | **P** | **07 46 51.6** | **+0.3** |
| **VNDA** | **Vanda** comp=Z,50nm,18.1s,baz=200,slow=35 | **67.94** | **179** | LR | | LR | 08 15 20.8 | |
| **BRTR** | **Keskin Array B** 0.1nm,0.3s,baz=212,slow=4.9,SNR=2.5 | **87.12** | **36** | P | | **P** | **07 48 38.8** | **+0.7** |
| **H01W2** | **Cape Leeuwin H** baz=225 | **96.42** | **141** | T | | T | 09 37 44.3 | |
| **H01W3** | **Cape Leeuwin H** baz=225 | **96.43** | **141** | T | | T | 09 37 45.1 | |
| **H01W1** | **Cape Leeuwin H** baz=225 | **96.43** | **141** | T | | T | 09 37 45.9 | |
| **GEYT** | **Alibeck** comp=Z,210nm,21.9s,baz=75,slow=34 | **99.71** | **50** | LR | | LR | 08 32 20.3 | |
| **YKA** | **Yellowknife Ar** 0.2nm,0.5s,baz=104,slow=2.0,SNR=5.4 | **124.11** | **326** | PKP | | **PKPdf** | **07 54 49.3** | **-0.6** |
| **ILAR** | **Eielson Array** 0.4nm,0.7s,baz=348,slow=1.2,SNR=6.1 | **138.12** | **331** | PKP | | **PKPdf** | **07 55 17.1** | **+0.8** |
| **SEY** | **Seymchan** 2.2nm,0.6s,baz=330,slow=1.9,SNR=7.6 | **150.90** | **11** | PKPbc | | **PKPbc** | **07 55 45.2** | **+1.2** |

*ISCJB **15** 07:39:07.8±1.1,38.°59N±0.°05×43.°27E±0.°08,h32km±8km, Error ellipse: s-maj=11.2km s-min=7.0km az=28.0*
*CSEM **15** 07:39:07.8±0.4,38.°64N×43.°16E,h10km,ML2.0,Error ellipse: s-maj=9.0km s-min=6.4km az=73.0*
*ISK **15** 07:39:07.2,38.°65N×43.°22E,h20km,ML2.0*
*DDA **15** 07:39:08.3,38.°65N×43.°17E,h7km,Ml2.5*

**ISC 15 07:39:07.8±1.0,38.62N±0.04×43.24E±0.06,h25km±7km, n14,σ0s55/28,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.12** | **101** | *e*PG | | **Pb** | **07 39 12.6** | **-0.2** |
| VANB | | | | *e*SG | | **Sb** | **07 39 16.6** | **+0.5** |
| **VANB** | **Van** | **0.12** | **101** | *e*Pg | | **Pb** | **07 39 12.6** | **-0.2** |
| VANB | | | | *e*Sg | | **Sb** | **07 39 16.6** | **+0.5** |
| **TVAN** | **Van** | **0.16** | **125** | *i* P | | **Pb** | **07 39 12.1** | **-1.2** |
| TVAN | | | | *i* S | | **Sb** | **07 39 17.8** | **+0.9** |
| **TVAN** | **Van** | **0.16** | **125** | P | | **Pb** | **07 39 12.1** | **-1.2** |
| TVAN | | | | S | | **Sb** | **07 39 17.8** | **+0.9** |
| **GEVA** | **Gevas** | **0.34** | **205** | *i* P | | **Pb** | **07 39 15.5** | **0.0** |
| GEVA | | | | *i* S | | **Sn** | **07 39 23.5** | **0.0** |
| **GEVA** | **Gevas** | **0.34** | **205** | P | | **Pb** | **07 39 15.5** | **0.0** |
| GEVA | | | | S | | **Sn** | **07 39 23.5** | **0.0** |
| **VMUR** | **Van-Muradiye** | **0.45** | **35** | *i* P | | **Pb** | **07 39 17.2** | **-0.2** |
| VMUR | | | | *i* S | | **Sn** | **07 39 26.3** | **-0.1** |
| **VMUR** | **Van-Muradiye** | **0.45** | **35** | P | | **Pb** | **07 39 17.2** | **-0.2** |
| VMUR | | | | S | | **Sn** | **07 39 26.3** | **-0.1** |
| **CLDR** | **Caldiran** | **0.74** | **45** | *e*PG | | **Pb** | **07 39 22.0** | **-0.3** |
| CLDR | | | | *e*SG | | **Sb** | **07 39 33.0** | **+0.8** |
| **CLDR** | **Caldiran** | **0.74** | **45** | *e*Pg | | **Pb** | **07 39 22.0** | **-0.3** |
| CLDR | | | | *e*Sg | | **Sb** | **07 39 33.0** | **+0.8** |
| **TUTA** | **Tutak** | **0.85** | **337** | *i* P | | **Pb** | **07 39 23.7** | **-0.4** |
| TUTA | | | | *i* S | | **Sn** | **07 39 35.9** | **-0.4** |
| **TUTA** | **Tutak** | **0.85** | **337** | P | | **Pb** | **07 39 23.7** | **-0.4** |
| TUTA | | | | S | | **Sn** | **07 39 35.9** | **-0.4** |
| **AGRB** | **Hanur-Agry** | **0.98** | **349** | *e*PG | | **Pn** | **07 39 26.0** | **-0.2** |
| AGRB | | | | *e*SG | | **Sn** | **07 39 39.5** | **+0.2** |
| **AGRB** | **Hanur-Agry** | **0.98** | **349** | *e*Pg | | **Pn** | **07 39 26.0** | **-0.2** |
| AGRB | | | | *e*Sg | | **Sn** | **07 39 39.5** | **+0.2** |

**MAN 15 07:45:09,11.53N×126.09E,h129km,mb4.3,ML3.2, MS3.0,1D,Philippine Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **BESP** | **Borongan** | **0.64** | **276** | *e*P | | Pn | 07 45 31.0 | +2.2 |
| BESP | | | | *e*S | | Sn | 07 45 47.1 | +3.4 |
| **PLP** | **Palo** | **1.14** | **252** | *e*P | | Pn | 07 45 34.6 | +1.4 |
| PLP | | | | *e*S | | Sn | 07 45 49.5 | -2.2 |
| **OCLP** | **Ormoc** | **1.52** | **252** | *e*P | | Pn | 07 45 44.1 | +6.8 |
| **MSLP** | **Maasin** | **1.84** | **221** | *e*P | | Pn | 07 45 42.9 | +1.9 |
| MSLP | | | | *e*S | | Sn | 07 46 07.8 | +2.3 |

*ISCJB **15** 08:11:57.5±1.0,41.°0S±0.°2×44.°4E±0.°3,h12km,mb3.8/5, MS3.6/4,Error ellipse: s-maj=33.9km s-min=27.6km az=22.0*
*IDC **15** 08:11:57.3±0.9,40.°98S×44.°41E,h0km,mb3.9/5, mb1 4.1/5,mb1mx3.6/48,mbtmp3.9/5,MS3.7/4,Ms1 3.7/4, ms1mx3.3/33,Error ellipse: s-maj=42.6km s-min=26.0km az=26.0*

**ISC 15 08:11:59.3±1.0,41.0S±0.3×44.4E±0.2,h12km,n14, σ0s40/7,mb3.8/5,MS3.6/4,Southwest Indian Ridge**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **LBTB** | **Lobatse** comp=Z,166nm,18.4s,baz=148,slow=32 | **22.33** | **310** | LR | | LR | 08 23 58.1 | |
| **MAW** | **Mawson** comp=Z,105nm,19.2s,baz=50,slow=32 | **28.52** | **165** | LR | | LR | 08 26 59.5 | |
| **LSZ** | **Lusaka** comp=Z,212nm,19.3s,baz=162,slow=34 | **29.23** | **327** | LR | | LR | 08 28 31.9 | |
| **SNAA** | **Sanae** 1.7nm,0.9s,baz=39,slow=9.8,SNR=3.6 | **38.51** | **202** | P | | **P** | **08 19 21.1** | **+0.1** |
| **H01W2** | **Cape Leeuwin H** baz=243,slow=75,SNR=24 | **54.02** | **108** | T | | T | 09 19 45.7 | |
| **H01W3** | **Cape Leeuwin H** baz=243,slow=75,SNR=24 | **54.03** | **108** | T | | T | 09 19 46.3 | |
| **H01W1** | **Cape Leeuwin H** baz=243,slow=75,SNR=24 | **54.04** | **108** | T | | T | 09 19 47.0 | |
| **TORD** | **Torodi Ar. Bea** 0.3nm,0.9s,baz=157,slow=7.8,SNR=2.8 | **66.77** | **314** | P | | **P** | **08 22 51.0** | **+0.3** |
| **ASAR** | **Alice Springs** 0.8nm,0.9s,baz=227,slow=6.9,SNR=5.8 | **74.54** | **108** | P | | **P** | **08 23 37.9** | **-0.3** |
| **STKA** | **Stephens Creek** 4.9nm,0.9s,baz=215,slow=7.6,SNR=5.9 | **74.78** | **119** | P | | **P** | **08 23 39.7** | **+0.3** |
| **WRA** | **Warramunga Arr** 1.1nm,0.8s,baz=228,slow=4.4,SNR=10 | **77.17** | **105** | P | | **P** | **08 23 53.2** | **0.0** |
| **PLCA** | **Paso Flores** comp=Z,51nm,21.6s,baz=142,slow=31 | **79.50** | **224** | LR | | LR | 08 53 18.8 | |
| **ULM** | **Lac du Bonnet** 0.7nm,0.4s,baz=158,slow=5.4,SNR=3.7 | **151.00** | **302** | PKPbc | | **PKPbc** | **08 31 50.8** | **-0.6** |
| **TXAR** | **Lajitas Array** 1.2nm,0.8s,baz=120,slow=4.9,SNR=9.7 | **151.56** | **256** | PKPbc | | **PKPbc** | **08 31 53.4** | **-0.1** |

*ISCJB **15** 08:21:30.1±0.4,6.°83N±0.°03×73.°10W±0.°05,h160km±4km, mb3.5/4,Error ellipse: s-maj=8.1km s-min=4.7km az=27.2*
*IDC **15** 08:21:30.9±0.7,6.°80N×73.°00W,h162km±10km,mb3.2/4, mb1 3.6/7,mb1mx3.3/39,mbtmp3.9/7,Error ellipse: s-maj=29.6km s-min=8.1km az=132.0*
*RSNC **15** 08:21:32.3±1.1,6.°79N×73.°12W,h148km±5km,ML3.8*

**ISC 15 08:21:30.7±0.8,6.82N±0.04×73.09W±0.05,h158km±5km, n30,σ0s78/45,mb3.5/5,2C-3D,Northern Colombia**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **BARC** | **Barichara** | **0.24** | **202** | *i* P | | **Pn** | **08 21 52.3** | **-0.1** |
| BARC | | | | *e*S | | **Sn** | **08 22 07.4** | **-1.5** |
| BARC | comp=Z,3μm,0.2s | | | *i* | | | 08 22 09.1 | |
| **GIRC** | **Giron, Santand** | **0.28** | **338** | *i* P | | **Pn** | **08 21 52.4** | **0.0** |
| GIRC | | | | *e*S | | **Sn** | **08 22 08.3** | **-0.5** |
| **PAMC** | **Pamplona, Colo** | **0.65** | **37** | *i* P | | **Pn** | **08 21 55.1** | **+0.8** |
| PAMC | | | | *e*S | | **Sn** | **08 22 11.9** | **-0.4** |
| **BRRC** | **Barranca, Sant** | **0.68** | **295** | *i* P | | **Pn** | **08 21 54.2** | **+0.2** |
| BRRC | | | | *e*S | | **Sn** | **08 22 11.3** | **-0.4** |
| BRRC | comp=Z,685nm,0.2s | | | *i* | | | 08 22 14.7 | |
| **RUSC** | **La Rusia** | **0.92** | **180** | *i* P | | **Pn** | **08 21 56.1** | **-0.1** |
| RUSC | | | | *e*S | | **Sn** | **08 22 14.3** | **-1.5** |
| RUSC | comp=Z,870nm,0.2s | | | *i* | | | 08 22 16.3 | |
| **OCAC** | **Ocana** | **1.43** | **351** | *e*P | | **Pn** | **08 22 00.8** | **+0.4** |
| OCAC | | | | *e*S | | **Sn** | **08 22 23.0** | **-0.1** |
| OCAC | comp=Z,531nm,0.2s | | | *i* | | | 08 22 27.0 | |
| **YOPC** | **Yopal, Colombi** | **1.60** | **155** | *i* P | | **Pn** | **08 22 02.8** | **+0.7** |
| YOPC | | | | *e*S | | **Sn** | **08 22 25.6** | **-0.6** |
| YOPC | comp=Z,264nm,0.7s | | | *i* | | | 08 22 31.4 | |
| **CTAU** | **Tausa, Cundina** | **1.87** | **211** | *i* P | | **Pn** | **08 22 06.0** | **+0.6** |
| CTAU | comp=Z,532nm,0.3s | | | *i* | | | 08 22 36.5 | |
| **NORC** | **Norcasia** | **2.17** | **235** | *e*P | | **Pn** | **08 22 08.1** | **-0.3** |
| NORC | | | | *e*S | | **Sn** | **08 22 35.8** | **-1.5** |
| **CHIC** | **Chingaza** | **2.27** | **196** | *i* P | | **Pn** | **08 22 09.9** | **0.0** |
| CHIC | | | | *e*S | | **Sn** | **08 22 39.2** | **-0.9** |
| CHIC | comp=Z,335nm,0.5s | | | *i* | | | 08 22 45.1 | |
| **ROSC** | **El Rosal** comp=Z,80nm,0.3s,baz=1.9,slow=3.7,SNR=351 | **2.32** | **212** | P | | **Pn** | **08 22 11.9** | **+1.4** |
| ROSC | comp=Z,59nm,0.3s,baz=86,slow=22,SNR=6.4 | | | S | | **Sn** | **08 22 42.5** | **+1.4** |
| **ROSC** | **El Rosal** | **2.32** | **212** | *i* P | | **Pn** | **08 22 11.8** | **+1.4** |
| ROSC | | | | *e*S | | **Sn** | **08 22 41.1** | **0.0** |
| ROSC | comp=Z,718nm,0.3s | | | *i* | | | 08 22 47.8 | |
| **CVER** | **Cruz Verde, Cu** | **2.48** | **203** | *e*P | | **Pn** | **08 22 13.3** | **+0.8** |
| CVER | comp=Z,399nm,0.4s | | | *i* | | | 08 22 49.6 | |
| **HELC** | **Santa Helena** | **2.50** | **256** | *e*P | | **Pn** | **08 22 12.1** | **-0.6** |
| HELC | comp=Z,274nm,0.2s | | | *i* | | | 08 22 51.9 | |
| **VILC** | **Villavicencio,** | **2.76** | **193** | *e*P | | **Pn** | **08 22 15.2** | **-0.3** |
| VILC | | | | *e*S | | **Sn** | **08 22 49.3** | **-1.0** |
| VILC | comp=Z,224nm,0.2s | | | *i* | | | 08 22 52.8 | |
| **GUYC** | **Guyana, Colomb** | **2.78** | **235** | *e*P | | **Pn** | **08 22 16.4** | **+0.2** |
| GUYC | | | | *e*S | | **Sn** | **08 22 51.5** | **+0.2** |
| GUYC | comp=Z,547nm,0.5s | | | *i* | | | 08 22 58.0 | |
| **DBBC** | **Dabeiba** | **3.10** | **274** | *e*P | | **Pn** | **08 22 19.6** | **-0.2** |
| **

*ISCJB **15** 08:23:41.6±1.0,29°.4S×0°.1×178°.5W±0°.2, h204km, mb2.8/2, Error ellipse: s-maj=24.8km s-min=12.4km az=26.0*
*IDC **15** 08:23:42.7±0.7,29°.26S×178°.57W, h194km±9km, mb2.8/2, mb1 3.2/3, mb1mx3.0/25, mbtmp3.6/3, Error ellipse: s-maj=34.0km s-min=31.7km az=158.0*
**ISC 15 08:23:42.8±1.0, 29°.5S±0°.1×178°.5W±0°.2, h204km, n7, σ1°21/9, Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **0.51** | **65** | P | **Pn** | **08 24 10.0** | **-0.4** |
| | 280nm,0.3s,baz=253,slow=2.3,SNR=12 | | | | | | |
| RAO | | | | S | **S** | **08 24 30.8** | **-1.0** |
| | 264nm,0.3s,baz=265,slow=23,SNR=8.8 | | | | | | |
| **URZ** | **Urewera** | **9.51** | **202** | P | **Pn** | **08 25 56.1** | **+0.6** |
| | 0.5nm,0.3s,baz=268,slow=4.5,SNR=7.2 | | | | | | |
| URZ | | | | S | **S** | **08 27 40.7** | **-1.4** |
| | 1.1nm,0.3s,baz=266,slow=6.0,SNR=5.7 | | | | | | |
| **ASAR** | **Alice Springs** | **42.78** | **266** | P | **P** | **08 31 20.5** | **0.0** |
| | 0.2nm,0.4s,baz=101,slow=6.5,SNR=6.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.68** | **271** | P | **P** | **08 31 27.7** | **-0.1** |
| | 0.1nm,0.3s,baz=109,slow=7.4,SNR=7.0 | | | | | | |
| **FINES** | **FINESS Array B** | **144.14** | **340** | PKP | **PKPab** | **08 42 51.4** | **-0.3** |
| | 2.2nm,0.7s,baz=64,slow=3.2,SNR=8.8 | | | | | | |
| **AKASG** | **Malin Array Be** | **150.33** | **323** | PKPbc | **PKPbc** | **08 43 09.3** | **-0.1** |
| | 0.3nm,0.3s,baz=49,slow=3.8,SNR=4.3 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **163.76** | **180** | PKPab | **PKPab** | **08 44 17.3** | **+2.3** |
| | 0.2nm,0.5s,baz=170,slow=4.7,SNR=3.3 | | | | | | |

**IDC 15 08:25:20.9±2.6, 54°.19N×86°.39E, h0km, mb1 2.8/2, mb1mx2.7/54, mbtmp2.8/2, ML2.5/2, Error ellipse: s-maj=20.3km s-min=12.5km az=60.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **I46RU** | **ZALESOVO INFRA** | **0.96** | **256** | *i* | | 08 30 51.2 | |
| | baz=73,slow=335,SNR=34 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **0.96** | **256** | Pg | Pg | 08 25 37.6 | -1.6 |
| | 1.0nm,0.3s,baz=76,slow=17,SNR=8.3 | | | | | | |
| ZALV | | | | Lg | Lg | 08 25 53.1 | |
| | 4.1nm,0.3s,baz=78,slow=32,SNR=23 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **5.99** | **237** | Pn | Pn | 08 26 51.9 | +1.1 |
| | 0.1nm,0.3s,baz=53,slow=13,SNR=6.4 | | | | | | |
| KURBB | | | | Lg | Lg | 08 28 33.0 | |
| | 0.0nm,0.3s,baz=51,slow=30,SNR=3.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **7.85** | **201** | Pn | Pn | 08 27 17.3 | +1.0 |
| | 0.1nm,0.3s,baz=16,slow=18,SNR=5.3 | | | | | | |
| MKAR | | | | Lg | Lg | 08 29 30.1 | |
| | 0.0nm,0.3s,baz=30,slow=35,SNR=4.4 | | | | | | |

*ISCJB **15** 08:27:35.4±0.7,0°.00S±0°.09×122°.29E±0°.07, h250km, mb4.2/4, Error ellipse: s-maj=13.2km s-min=9.7km az=21.3*
*DJA **15** 08:27:36.7±0.9,0°N±6°×12°.2E±°, h249km±5km, M3.8/6, MLv3.8/6*
*IDC **15** 08:27:38.3±2.5,0°.11S×122°.30E, h279km±22km, mb3.9/3, mb1 4.1/3, mb1mx3.1/41, mbtmp4.5/3, Error ellipse: s-maj=183.1km s-min=16.8km az=61.0*
**ISC 15 08:27:35.2±0.9, 0°.03S±0°.09×122°.26E±0°.07, h250km, n14, σ2°.90/21, mb4.3/4, Minahassa Peninsula, Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MRSI** | **Marisa** | **0.60** | **328** | P | **Pn** | **08 28 10.1** | **+1.6** |
| MRSI | | | | S | **S** | **08 28 35.8** | **+1.2** |
| **APSI** | **Ampana** | **1.06** | **215** | P | **Pn** | **08 28 13.1** | **+2.5** |
| APSI | | | | S | **S** | **08 28 41.0** | **+2.5** |
| **LUWI** | **Luwuk** | **1.12** | **153** | P | **Pn** | **08 28 13.7** | **+2.7** |
| LUWI | | | | S | **S** | **08 28 41.6** | **+2.4** |
| **MPSI** | **Mapaga** | **2.39** | **279** | P | **Pn** | **08 28 21.9** | **+0.5** |
| **PCI** | **Palu** | **2.57** | **250** | P | **Pn** | **08 28 24.7** | **+1.4** |
| PCI | | | | S | **S** | **08 29 00.7** | **-0.5** |
| **TTSI** | **Tana Toraja** | **3.86** | **219** | P | **Pn** | **08 28 38.2** | **+0.8** |
| **KDI** | **Kendari** | **3.91** | **175** | P | **Pn** | **08 28 39.7** | **+1.6** |
| **SANI** | **Sanana** | **4.23** | **118** | P | **Pn** | **08 28 41.4** | **-0.4** |
| **SPSI** | **Sidrap Palu** | **4.63** | **212** | P | **Pn** | **08 28 46.8** | **+0.2** |
| **WSI** | **Waingapu** | **9.77** | **191** | P | **P** | **08 29 56.3** | **-0.8** |
| **WRA** | **Warramunga Arr** | **23.05** | **150** | P | **P** | **08 32 18.3** | **-0.7** |
| | 19nm,0.7s,baz=326,slow=11,SNR=135 | | | | | | |
| WRA | | | | ScP | **ScP** | **08 39 10.4** | **-4.1** |
| | 0.5nm,0.8s,baz=322,slow=2.7,SNR=5.9 | | | | | | |
| **ASAR** | **Alice Springs** | **26.07** | **155** | P | **P** | **08 32 45.9** | **-0.3** |
| | 4.4nm,0.5s,baz=343,slow=12,SNR=108 | | | | | | |
| ASAR | | | | PcP | **PcP** | **08 36 06.2** | **-1.0** |
| | 0.5nm,0.3s,baz=340,slow=1.9,SNR=8.6 | | | | | | |
| ASAR | | | | ScP | **ScP** | **08 39 18.9** | **-4.1** |
| | 0.5nm,0.7s,baz=340,slow=2.7,SNR=5.0 | | | | | | |
| **STKA** | **Stephens Creek** | **36.57** | **152** | P | **P** | **08 34 18.0** | **+0.4** |
| | 7.3nm,0.7s,baz=322,slow=9.0,SNR=15 | | | | | | |
| **MKAR** | **Makanchi Array** | **58.26** | **329** | P | **P** | **08 37 04.5** | **+0.7** |
| | 0.3nm,0.5s,baz=116,slow=10,SNR=3.9 | | | | | | |

*CSEM **15** 08:28:09.6±0.6,38°.66N×43°.55E, h25km±5km, ML2.2, Error ellipse: s-maj=14.4km s-min=5.8km az=128.0*
*ISK **15** 08:28:09.5,38°.68N×43°.45E, h21km, ML2.2*
*DDA **15** 08:28:11.3,38°.73N×43°.48E, h7km, Ml2.8*
**ISC 15 08:28:09.6±1.1, 38°.68N±0°.04×43°.57E±0°.07, h27km±7km, n16, σ0°.53/29, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.17** | **239** | *e*PG | **Pb** | **08 28 14.8** | **-0.4** |
| **VANB** | **Van** | **0.17** | **239** | *e*Pg | **Pb** | **08 28 14.8** | **-0.4** |
| **TVAN** | **Van** | **0.20** | **220** | *i* P | **Pb** | **08 28 15.6** | **-0.1** |
| TVAN | | | | *i* S | **Sb** | **08 28 20.0** | **+0.2** |
| **TVAN** | **Van** | **0.20** | **220** | P | **Pb** | **08 28 15.6** | **-0.1** |
| TVAN | | | | S | **Sb** | **08 28 20.0** | **+0.2** |
| **VMUR** | **Van-Muradiye** | **0.31** | **360** | *i* P | **Pb** | **08 28 16.6** | **-0.4** |
| VMUR | | | | *i* S | **Sb** | **08 28 22.5** | **+0.4** |
| **VMUR** | **Van-Muradiye** | **0.31** | **360** | P | **Pb** | **08 28 16.6** | **-0.4** |
| VMUR | | | | S | **Sb** | **08 28 22.5** | **+0.4** |
| **CLDR** | **Caldiran** | **0.53** | **30** | *e*PG | **Pn** | **08 28 21.5** | **-0.2** |
| CLDR | | | | *e*SG | **Sn** | **08 28 30.8** | **+0.9** |
| **CLDR** | **Caldiran** | **0.53** | **30** | *i* P | **Pn** | **08 28 21.1** | **-0.6** |
| CLDR | | | | *i* S | **Sn** | **08 28 30.4** | **+0.5** |
| **CLDR** | **Caldiran** | **0.53** | **30** | P | **Pn** | **08 28 21.0** | **-0.6** |
| **CLDR** | **Caldiran** | **0.53** | **30** | *e*Pg | **Pn** | **08 28 21.5** | **-0.2** |
| CLDR | | | | S | **Sn** | **08 28 30.4** | **+0.5** |
| **GEVA** | **Gevas** | **0.55** | **228** | *i* P | **Pb** | **08 28 20.2** | **-0.6** |
| GEVA | | | | *i* S | **Sn** | **08 28 30.9** | **+0.7** |
| **GEVA** | **Gevas** | **0.55** | **228** | P | **Pb** | **08 28 20.2** | **-0.6** |
| GEVA | | | | S | **Sn** | **08 28 30.9** | **+0.7** |
| **TUTA** | **Tutak** | **0.93** | **321** | *i* P | **Pb** | **08 28 26.8** | **-0.4** |
| TUTA | | | | *i* S | **Sn** | **08 28 40.2** | **+0.5** |
| **TUTA** | **Tutak** | **0.93** | **321** | P | **Pb** | **08 28 26.8** | **-0.4** |
| TUTA | | | | S | **Sn** | **08 28 40.2** | **+0.5** |
| **AGRB** | **Hanur-Agry** | **1.00** | **333** | *e*PG | **Pb** | **08 28 27.9** | **-0.4** |
| AGRB | | | | *e*SG | **Sn** | **08 28 42.0** | **+0.6** |
| **AGRB** | **Hanur-Agry** | **1.00** | **333** | *e*Pg | **Pb** | **08 28 28.0** | **-0.4** |
| AGRB | | | | *e*Sg | **Sn** | **08 28 42.0** | **+0.6** |

*IDC **15** 08:36:18.7±1.2,28°.79N×142°.69E, h0km, mb3.8/8, mb1 3.9/9, mb1mx3.7/40, mbtmp3.8/9, ML3.8/1, MS2.6/1, Ms1 2.6/1, ms1mx2.3/48, Error ellipse: s-maj=41.4km s-min=14.8km az=84.0*
*ISCJB **15** 08:36:20.7±0.9,28°.87N±0°.04×142°.6E±0°.2, h27km, mb3.9/11, Error ellipse: s-maj=28.5km s-min=5.9km az=178.9*
*NEIC **15** 08:36:20.3±0.7,28°.80N×142°.67E, h10km, mb4.6/2, Error ellipse: s-maj=25.4km s-min=7.6km az=82.0*
**ISC 15 08:36:22.7±1.2, 28°.81N±0°.07×142°.6E±0°.3, h27km, n16, σ0°.62/17, mb4.0/11, Bonin Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CBIJ** | **Chichi jima** | **1.75** | **193** | Pn | **Pn** | **08 36 51.1** | **-0.2** |
| CBIJ | | | | Sn | **Sn** | **08 37 12.9** | **+0.1** |
| **JCJ** | **Chichijima** | **1.75** | **193** | Pn | **Pn** | **08 36 51.1** | **-0.2** |
| | 6.4nm,0.3s,baz=343,slow=23,SNR=11 | | | | | | |
| JCJ | | | | Sn | **Sn** | **08 37 12.9** | **+0.1** |
| | 34nm,0.3s,baz=118,slow=22,SNR=7.0 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **8.56** | **335** | Pn | **Pn** | **08 38 23.8** | **-1.1** |
| | 1.1nm,0.3s,baz=162,slow=12,SNR=12 | | | | | | |
| **MAT** | **Matsushiro** | **8.56** | **335** | P | **Pn** | **08 38 23.9** | **-1.0** |
| **KSRS** | **Korea Array** | **15.03** | **309** | LR | LR | 08 45 19.1 | |
| | comp=Z,24nm,19.8s,baz=230,slow=36 | | | | | | |
| **KLR** | **Kul'dur** | **22.03** | **341** | P | **P** | **08 41 16.5** | **+1.5** |
| | 0.1nm,0.5s,baz=210,slow=4.3,SNR=6.9 | | | | | | |
| **SONM** | **Songino Array** | **33.78** | **314** | P | **P** | **08 43 02.8** | **+0.4** |
| | 1.0nm,1.0s,baz=120,slow=9.4,SNR=3.6 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **48.47** | **318** | P | **P** | **08 45 03.0** | **+0.2** |
| | 0.9nm,0.3s,baz=92,slow=10,SNR=4.3 | | | | | | |
| **WRAB** | **Tennant Creek** | **49.11** | **190** | *e*P | **P** | **08 45 08.1** | **+0.1** |
| | 1.6nm,0.3s | | | | | | |
| **WRA** | **Warramunga Arr** | **49.12** | **190** | P | **P** | **08 45 08.3** | **+0.2** |
| | 2.2nm,0.7s,baz=13,slow=8.8,SNR=20 | | | | | | |
| **MKAR** | **Makanchi Array** | **49.71** | **308** | P | **P** | **08 45 12.3** | **-0.1** |
| | 0.5nm,0.6s,baz=89,slow=8.8,SNR=4.9 | | | | | | |
| **KURK** | **Kurchatov** | **52.08** | **314** | *e*P | **P** | **08 45 30.4** | **+0.3** |
| | 3.6nm,0.3s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **52.14** | **313** | P | **P** | **08 45 30.8** | **+0.2** |
| | 1.0nm,0.5s,baz=91,slow=8.0,SNR=13 | | | | | | |
| **ASAR** | **Alice Springs** | **52.84** | **190** | P | **P** | **08 45 35.7** | **-0.3** |
| | 0.3nm,0.6s,baz=359,slow=7.2,SNR=4.9 | | | | | | |
| **BVAR** | **Borovoye Array** | **57.06** | **317** | P | **P** | **08 46 06.7** | **+0.4** |
| | 0.8nm,0.5s,baz=102,slow=6.3,SNR=5.4 | | | | | | |
| **YKA** | **Yellowknife Ar** | **70.45** | **29** | P | **P** | **08 47 34.2** | **-0.1** |
| | 0.2nm,0.5s,baz=296,slow=6.3,SNR=4.0 | | | | | | |

**NEIC 15 08:44:12.7±0.0, 19°.69N×64°.45W, h10km, MD3.2(RSPR), 6C-2D, After RSPR., Virgin Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ABV** | **Anegada** | **0.97** | **173** | *e*P | Pg | 08 44 28.7 | -2.6 |
| ABV | | | | *e*S | Sg | 08 44 41.8 | -2.0 |
| **ABVI** | **Anegada Island** | **0.97** | **173** | *e*P | Pg | 08 44 28.7 | -2.6 |
| ABVI | | | | *e*S | Sg | 08 44 41.8 | -2.0 |
| **TBVI** | **Tortola** | **1.28** | **187** | *e*P | Pn | 08 44 33.4 | -3.2 |
| **TBVI** | **Tortola** | **1.28** | **187** | *e*P | Pn | 08 44 33.4 | -3.2 |
| **STVI** | **Saint Thomas** | **1.42** | **200** | *e*P | Pn | 08 44 35.4 | -3.0 |
| STVI | | | | *e*S | Sn | 08 44 53.1 | -4.1 |
| **STVI** | **Saint Thomas** | **1.42** | **200** | *e*P | Pn | 08 44 35.4 | -3.0 |
| STVI | | | | *e*S | Sn | 08 44 53.1 | -4.1 |
| **SJG** | **San Juan** | **2.25** | **226** | *e*Pn | Pn | 08 44 49.6 | -0.3 |
| SJG | | | | *e*Sn | Sn | 08 45 15.8 | -1.9 |
| **AOPR** | **Arecibo Observ** | **2.56** | **239** | *e*P | Pn | 08 44 51.5 | -2.7 |
| AOPR | | | | *e*S | Sn | 08 45 21.7 | -3.7 |
| **AOPR** | **Arecibo Observ** | **2.56** | **239** | *e*P | Pn | 08 44 51.5 | -2.7 |
| AOPR | | | | *e*S | Sn | 08 45 21.7 | -3.7 |
| **SDDR** | **Presa de Saban** | **6.50** | **265** | *e*Pn | Pn | 08 45 46.4 | -1.9 |
| | 19nm,0.7s | | | | | | |
| SDDR | | | | *e*Sn | Sn | 08 47 02.1 | -0.5 |

*IDC **15** 08:55:27.7±1.5,29°.59S×176°.13W, h0km, mb4.2/3, mb1 4.3/4, mb1mx4.0/30, mbtmp4.2/4, ML3.5/1, MS3.4/5, Ms1 3.4/5, ms1mx3.1/21, Error ellipse: s-maj=43.4km s-min=26.2km az=11.0*
*ISCJB **15** 08:55:29.0±2.0,29°.87S±0°.09×176°.0W±0°.2, h28km, mb4.2/3, MS3.4/3, Error ellipse: s-maj=22.3km s-min=11.1km az=161.8*
**ISC 15 08:55:32.3±1.4, 29°.7S±0°.1×176°.2W±0°.1, h28km, n10, σ1°.19/10, mb4.4/3, MS3.5/3, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **1.56** | **287** | Pn | **Pn** | **08 55 58.9** | **+0.6** |
| | 205nm,0.3s,baz=278,slow=2.3,SNR=8.0 | | | | | | |
| RAO | | | | Sn | **Sb** | **08 56 19.7** | **-0.2** |
| | 658nm,0.3s,baz=92,slow=22,SNR=10 | | | | | | |
| **URZ** | **Urewera** | **10.15** | **211** | Pn | **Pn** | **08 57 55.2** | **-0.9** |
| | 0.4nm,0.3s,baz=274,slow=6.2,SNR=2.7 | | | | | | |
| URZ | | | | Sn | **Sn** | **08 59 49.3** | **+0.2** |
| | 1.7nm,0.3s,baz=216,slow=20,SNR=7.0 | | | | | | |
| URZ | | | | LR | LR | 09 02 17.2 | |
| | comp=Z,73nm,20.6s,baz=12,slow=40 | | | | | | |
| **DZM** | **Mont Dzumac** | **17.36** | **292** | LR | LR | 09 04 22.7 | |
| | comp=Z,200nm,19.5s,baz=2.0,slow=31 | | | | | | |
| **PPT** | **Papeete** | **27.16** | **70** | LR | LR | 09 09 21.0 | |
| | comp=Z,25nm,18.8s,baz=191,slow=31 | | | | | | |
| **STKA** | **Stephens Creek** | **36.14** | **256** | P | **P** | **09 02 33.8** | **+1.6** |
| | 3.6nm,0.7s,baz=96,slow=9.2,SNR=9.6 | | | | | | |
| **ASAR** | **Alice Springs** | **44.70** | **265** | P | **P** | **09 03 42.4** | **-0.8** |
| | 1.2nm,0.7s,baz=100,slow=7.7,SNR=29 | | | | | | |
| ASAR | | | | LR | LR | 09 23 16.4 | |
| | comp=Z,98nm,18.2s,baz=98,slow=37 | | | | | | |
| **WRA** | **Warramunga Arr** | **45.63** | **271** | P | **P** | **09 03 49.2** | **-1.4** |
| | 2.3nm,0.5s,baz=109,slow=7.8,SNR=27 | | | | | | |
| WRA | | | | LR | LR | 09 23 21.9 | |
| | comp=Z,50nm,18.2s,baz=105,slow=37 | | | | | | |
| **FINES** | **FINESS Array B** | **145.03** | **341** | PKP | **PKPbc** | **09 15 04.7** | **-0.9** |
| | 3.3nm,0.3s,baz=72,slow=8.9,SNR=41 | | | | | | |
| **AKASG** | **Malin Array Be** | **151.68** | **325** | PKPbc | **PKPbc** | **09 15 23.4** | **-0.3** |
| | 1.6nm,0.6s,baz=45,slow=3.0,SNR=9.8 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **163.39** | **173** | PKPab | **PKPab** | **09 16 25.3** | **+1.6** |
| | 0.6nm,0.9s,baz=162,slow=2.5,SNR=3.5 | | | | | | |

**MEX 15 09:01:53.5±0.5, 15°.81N×94°.30W, h48km±38km, MD3.9, Near coast of Oaxaca**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PCIG** | | **1.05** | **96** | *e*P | Pn | 09 02 10.2 | -1.6 |
| PCIG | | | | *e*S | Sn | 09 02 23.6 | -1.8 |
| **TGIG** | | **1.48** | **50** | *e*P | Pn | 09 02 16.3 | -1.6 |
| TGIG | | | | *e*S | Sn | 09 02 33.9 | -2.2 |

**IDC 15 09:08:03.1±1.9, 55°.32S×27°.99W, h0km, mb4.0/2, mb1 4.1/2, mb1mx3.8/21, mbtmp4.0/2, Error ellipse: s-maj=79.7km s-min=45.7km az=1.0, South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **LPAZ** | **La Paz** | **49.59** | **306** | P | P | 09 16 56.6 | -0.1 |
| | 1.0nm,0.6s,baz=153,slow=8.2,SNR=4.3 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **72.65** | **30** | P | P | 09 19 32.4 | 0.0 |
| | 1.6nm,0.6s,baz=198,slow=5.9,SNR=10.0 | | | | | | |
| **YKA** | **Yellowknife Ar** | **135.33** | **319** | PKP | PKPdf | 09 27 22.1 | -1.1 |
| | 0.3nm,0.9s,baz=144,slow=2.5,SNR=4.2 | | | | | | |
| **ILAR** | **Eielson Array** | **149.29** | **313** | PKPbc | PKPbc | 09 27 51.9 | -0.4 |
| | 2.5nm,0.7s,baz=129,slow=2.5,SNR=32 | | | | | | |
| **SONM** | **Songino Array** | **151.13** | **86** | PKPbc | PKPbc | 09 27 57.2 | -0.2 |
| | 0.5nm,0.7s,baz=220,slow=2.5,SNR=4.1 | | | | | | |

*IDC **15** 09:10:52.9±1.2,43°.71N×28°.75W, h0km, mb3.7/10, mb1 3.9/10, mb1mx3.7/51, mbtmp3.8/10, MS3.7/5, Ms1 3.6/5, ms1mx3.1/48, Error ellipse: s-maj=32.9km s-min=23.1km az=9.0*
*ISCJB **15** 09:10:53.2±1.0,43°.7N±0°.2×28°.8W±0°.2, h14km, mb3.8/9, MS3.6/5, Error ellipse: s-maj=27.0km s-min=19.4km az=5.5*
**ISC 15 09:10:55.0±1.2, 43°.7N±0°.2×28°.8W±0°.2, h14km, n13, σ0°.37/10, mb3.9/9, MS3.6/5, Northern Mid-Atlantic Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **EKA** | **Eskdalemuir Ar** | **20.17** | **46** | P | **P** | **09 15 29.4** | **+0.6** |
| | 2.0nm,0.8s,baz=247,slow=8.8,SNR=3.7 | | | | | | |
| **SCHQ** | **Schefferville** | **26.91** | **308** | LR | LR | 09 25 29.0 | |
| | comp=Z,130nm,19.0s,baz=354,slow=33 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **40.11** | **130** | P | **P** | **09 18 30.4** | **+0.2** |
| | 0.7nm,0.9s,baz=334,slow=7.8,SNR=3.5 | | | | | | |
| TORD | | | | LR | LR | 09 33 58.6 | |
| | comp=Z,84nm,18.5s,baz=0.0,slow=34 | | | | | | |
| **ULM** | **Lac du Bonnet** | **44.87** | **303** | LR | LR | 09 35 54.0 | |
| | comp=Z,100nm,20.4s,baz=356,slow=34 | | | | | | |
| **BRTR** | **Keskin Array B** | **45.78** | **72** | P | **P** | **09 19 15.8** | **-0.4** |
| | 0.6nm,0.5s,baz=289,slow=7.6,SNR=4.9 | | | | | | |
| **YKA** | **Yellowknife Ar** | **50.66** | **323** | P | **P** | **09 19 53.1** | **-0.2** |
| | 0.3nm,0.9s,baz=72,slow=7.9,SNR=3.7 | | | | | | |
| **AKTO** | **Aktyubinsk** | **56.27** | **50** | P | **P** | **09 20 34.6** | **-0.1** |
| | 2.5nm,0.9s,baz=302,slow=4.7,SNR=5.6 | | | | | | |
| **PDAR** | **Pinedale Array** | **56.56** | **299** | LR | LR | 09 42 14.2 | |
| | comp=Z,52nm,20.6s,baz=80,slow=33 | | | | | | |
| **TXAR** | **Lajitas Array** | **59.98** | **283** | P | **P** | **09 21 01.2** | **+0.1** |
| | 0.7nm,0.7s,baz=69,slow=6.8,SNR=5.9 | | | | | | |
| TXAR | | | | LR | LR | 09 45 28.2 | |
| | comp=Z,60nm,18.7s,baz=0.0,slow=35 | | | | | | |
| **BVAR** | **Borovoye Array** | **61.39** | **43** | P | **P** | **09 21 10.3** | **0.0** |
| | 0.7nm,0.6s,baz=328,slow=5.3,SNR=4.9 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **66.85** | **41** | P | **P** | **09 21 45.6** | **-0.4** |
| | 1.6nm,0.8s,baz=313,slow=6.5,SNR=9.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **67.44** | **36** | P | **P** | **09 21 49.8** | **0.0** |
| | 0.5nm,0.5s,baz=306,slow=12,SNR=3.3 | | | | | | |
| **SONM** | **Songino Array** | **80.68** | **29** | P | **P** | **09 23 07.8** | **+0.4** |
| | 1.1nm,1.1s,baz=350,slow=7.3,SNR=3.4 | | | | | | |

*IDC **15** 09:11:24.3±9.4,24°.79S×179°.88W, h447km±87km, mb2.8/2, mb1 3.3/3, mb1mx3.0/23, mbtmp4.0/3, Error ellipse: s-maj=77.0km s-min=30.7km az=44.0*
**ISC 15 09:11:28.9±1.8, 25°.0S±0°.1×180°.0E±0°.3, h496km, n6, σ0°.89/7, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **URZ** | **Urewera** | **13.43** | **190** | P | **P** | **09 14 21.3** | **-1.1** |
| | 4.2nm,0.3s,baz=12,slow=19,SNR=20 | | | | | | |
| URZ | | | | S | **S** | **09 16 46.8** | **+1.1** |
| | 0.6nm,0.3s,baz=83,slow=22,SNR=7.0 | | | | | | |
| **ASAR** | **Alice Springs** | **41.84** | **262** | P | **P** | **09 18 35.1** | **+0.2** |
| | 0.9nm,1.0s,baz=93,slow=7.2,SNR=9.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **42.31** | **267** | P | **P** | **09 18 38.5** | **-0.2** |
| | 0.3nm,0.3s,baz=101,slow=8.2,SNR=14 | | | | | | |
| **ARCES** | **ARCESS Array B** | **132.96** | **348** | PKP | **PKPdf** | **09 29 47.3** | **+0.7** |
| | 5.9nm,1.0s,baz=19,slow=3.1,SNR=3.6 | | | | | | |
| **BRTR** | **Keskin Array B** | **148.21** | **306** | PKPbc | **PKPbc** | **09 30 18.9** | **-0.1** |
| | 0.3nm,0.3s,baz=120,slow=2.3,SNR=3.3 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **168.09** | **188** | PKPab | **PKPab** | **09 31 50.1** | **+0.3** |
| | 0.4nm,0.6s,baz=167,slow=5.3,SNR=2.6 | | | | | | |

*ISCJB **15** 09:14:32.2±1.2,61°.50N±0°.06×30°.1E±0°.1, h0km, Error ellipse: s-maj=9.6km s-min=7.1km az=41.6*
*HEL **15** 09:14:33.1±0.3,61°.51N×30°.20E, h0km, ML1.9, Explosion*
*CSEM **15** 09:14:33.1,61°.51N×30°.20E, h0km, ML1.9, Mining explosion.*
*IDC **15** 09:14:35.5±2.1,61°.59N×29°.90E, h0km, mb1 3.4/3, mb1mx3.0/37, mbtmp3.3/3, ML2.9/3, Error ellipse: s-maj=20.9km s-min=9.3km az=142.0*
**ISC 15 09:14:31.0±1.4, 61°.54N±0°.06×30°.22E±0°.08, h0km, n16, σ0°.95/27, Finland-Karelia border region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JOF** | **Joensuu** | **1.47** | **20** | P | **Pg** | **09 14 59.8** | **+0.6** |
| **JOF** | **Joensuu** | **1.47** | **20** | *e*P | **Pg** | **09 14 59.8** | **+0.6** |
| **VJF** | **Virojoki** | **1.64** | **233** | P | **Pn** | **09 15 01.2** | **+0.2** |
| VJF | | | | Sg | **Sg** | **09 15 23.2** | **-0.4** |
| **VJF** | **Virojoki** | **1.64** | **233** | *e*P | **Pn** | **09 15 01.3** | **+0.2** |
| VJF | | | | *e*SG | **Sg** | **09 15 23.3** | **-0.4** |
| VJF | | | | MSG | | 09 15 25.1 | |
| | comp=Z,8.2nm,0.1s | | | | | | |
| **FIA0** | **FINESS Array S** | **1.99** | **269** | P | **Pb** | **09 15 07.5** | **-0.5** |
| FIA0 | | | | Sg | **Sb** | **09 15 34.0** | **+0.7** |
| **FIA0** | **FINESS Array S** | **1.99** | **269** | *e*P | **Pb** | **09 15 07.6** | **-0.5** |
| FIA0 | | | | *e*SG | **Sb** | **09 15 34.0** | **+0.7** |
| FIA0 | | | | MSG | | 09 15 34.9 | |
| | comp=Z,4.6nm,0.1s | | | | | | |
| **FINES** | **FINESS Array B** | **1.99** | **269** | Pg | **Pb** | **09 15 07.7** | **-0.3** |
| | comp=Z,1.7nm,0.3s,baz=88,slow=15,SNR=42 | | | | | | |
| FINES | | | | Lg | Lg | 09 15 33.1 | |
| | comp=Z,2.6nm,0.3s,baz=87,slow=24,SNR=18 | | | | | | |
| **SUF** | **Sumiainen** | **2.25** | **303** | P | **Pb** | **09 15 12.2** | **-0.2** |
| SUF | | | | Sb | **Sb** | **09 15 41.1** | **+0.4** |
| **SUF** | **Sumiainen** | **2.25** | **303** | *e*P | **Pb** | **09 15 12.3** | **-0.2** |
| SUF | | | | *e*SB | **Sb** | **09 15 41.2** | **+0.4** |
| SUF | | | | MSG | | 09 15 44.6 | |
| | comp=Z,7.6nm,0.1s | | | | | | |
| **PVF** | **Pernaja** | **2.34** | **247** | P | **Pb** | **09 15 12.7** | **-1.3** |
| PVF | | | | S | **Sn** | **09 15 41.3** | **+1.2** |
| **PVF** | **Pernaja** | **2.34** | **247** | *e*P | **Pb** | **09 15 12.8** | **-1.3** |
| PVF | | | | *e*S | **Sn** | **09 15 41.3** | **+1.2** |
| **KEF** | **Keuruu** | **2.61** | **286** | P | **Pb** | **09 15 17.7** | **-0.9** |
| KEF | | | | Sb | **Sb** | **09 15 50.9** | **-0.3** |
| **KEF** | **Keuruu** | **2.61** | **286** | *e*P | **Pb** | **09 15 17.7** | **-0.9** |
| KEF | | | | *e*SB | **Sb** | **09 15 50.9** | **-0.3** |
| **HFS** | **Hagfors** | **8.19** | **267** | Pn | **Pn** | **09 16 32.4** | **+1.5** |
| | comp=Z,0.1nm,0.3s,baz=74,slow=17,SNR=4.2 | | | | | | |
| **ARCES** | **ARCESS Array B** | **8.26** | **348** | Pn | **Pn** | **09 16 32.2** | **+0.3** |
| | comp=Z,0.2nm,0.3s,baz=161,slow=14,SNR=6.4 | | | | | | |
| ARCES | | | | Sn | **Sn** | **09 18 02.9** | **-2.8** |
| | comp=Z,0.3nm,0.3s,baz=164,slow=26,SNR=5.5 | | | | | | |
| ARCES | | | | Lg | Lg | 09 18 51.6 | |
| | comp=Z,0.6nm,0.3s,baz=165,slow=29,SNR=5.3 | | | | | | |
| **NOA** | **NORSAR Array B** | **9.16** | **275** | Pn | **Pn** | **09 16 43.7** | **-0.5** |
| | comp=Z,0.1nm,0.3s,baz=133,slow=14,SNR=2.7 | | | | | | |

*ISCJB **15** 09:19:40.3±0.3,23°.64N±0°.02×121°.65E±0°.02, h27km±2km, Error ellipse: s-maj=3.9km s-min=2.4km az=149.3*
*JMA **15** 09:19:40.1±0.1,23°.66N×121°.58E, h34km±3km, M3.4*
*TAP **15** 09:19:40.5,23°.65N×121°.59E, h33km, ML3.7, C*
**ISC 15 09:19:40.9±1.0, 23°.65N±0°.02×121°.59E±0°.02, h35km±2km, n59, σ0°.72/93, 11C-3D, Taiwan**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TEGC** | **Jichi Village** | **0.08** | **323** | *e*P | **Pb** | **09 19 46.8** | **+0.1** |
| | baz=314 | | | | | | |
| **ESL** | **Shilin** | **0.22** | **319** | *i* P

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **TCU** | **Taichung** | **0.97** | **301** | *e*P | | **Pb** | **09 19 59.3** | **0.0** | |
| | baz=302 | | | | | | | | |
| TCU | | | | *e*S | | **Sb** | **09 20 13.6** | **+1.6** | |
| | baz=302 | | | | | | | | |
| **WTP** | **Ta-pu** | **0.98** | **246** | *e*P | | **Pb** | **09 19 59.2** | **-0.3** | |
| | baz=247 | | | | | | | | |
| WTP | | | | S | | **Sb** | **09 20 13.2** | **+1.0** | |
| | baz=247 | | | | | | | | |
| **TWC** | **Suao** | **0.99** | **14** | *e*P | | **Pn** | **09 19 57.8** | **-0.5** | |
| | baz=21 | | | | | | | | |
| **ENTT** | **Nioudou** | **0.99** | **359** | ⇑P | | **Pn** | **09 19 57.9** | **-0.4** | |
| | baz=359 | | | | | | | | |
| **TWQ1** | **Liyutan** | **1.02** | **313** | *e*P | | **Pb** | **09 20 00.1** | **-0.1** | |
| | baz=313 | | | | | | | | |
| TWQ1 | | | | *e*S | | **Sb** | **09 20 14.3** | **+0.9** | |
| | baz=313 | | | | | | | | |
| **CHN2** | **Minshiung** | **1.03** | **264** | *e*P | | **Pb** | **09 20 00.3** | **+0.1** | |
| | baz=274 | | | | | | | | |
| **NSK** | **Sanguang** | **1.05** | **348** | ⇑*i*P | | **Pn** | **09 19 59.1** | **0.0** | |
| | baz=357 | | | | | | | | |
| NSK | | | | S | | **Sn** | **09 20 11.9** | **-0.7** | |
| | baz=357 | | | | | | | | |
| **TWE** | **Neicheng** | **1.07** | **4** | *e*P | | **Pn** | **09 19 58.7** | **-0.7** | |
| | baz=4.0 | | | | | | | | |
| **NSY** | **Sanyi** | **1.08** | **315** | P | | **Pb** | **09 20 01.0** | **-0.1** | |
| | baz=316 | | | | | | | | |
| NSY | | | | *e*S | | **Sb** | **09 20 15.9** | **+1.0** | |
| | baz=316 | | | | | | | | |
| **CHN1** | **Nanshi** | **1.08** | **245** | *e*P | | **Pb** | **09 20 01.0** | **-0.1** | |
| | baz=247 | | | | | | | | |
| CHN1 | | | | *e*S | | **Sb** | **09 20 15.8** | **+0.8** | |
| | baz=247 | | | | | | | | |
| **CHY** | **Chiayi** | **1.08** | **262** | *e*P | | **Pb** | **09 20 00.8** | **-0.3** | |
| | baz=264 | | | | | | | | |
| CHY | | | | *e*S | | **Sb** | **09 20 15.5** | **+0.5** | |
| | baz=264 | | | | | | | | |
| **TWK** | **Hsinying** | **1.08** | **250** | *e*P | | **Pb** | **09 20 00.5** | **-0.7** | |
| | baz=251 | | | | | | | | |
| TWK | | | | *e*S | | **Sb** | **09 20 15.9** | **+0.8** | |
| | baz=251 | | | | | | | | |
| **SGST** | **Jiashian** | **1.08** | **239** | *e*P | | **Pb** | **09 20 00.9** | **-0.3** | |
| | baz=240 | | | | | | | | |
| SGST | | | | *e*S | | **Sb** | **09 20 16.1** | **+1.0** | |
| | baz=240 | | | | | | | | |
| **NSTT** | **Nanjuang** | **1.12** | **331** | *e*P | | **Pn** | **09 20 00.7** | **+0.6** | |
| | baz=341 | | | | | | | | |
| NSTT | | | | *e*S | | **Sn** | **09 20 14.7** | **+0.4** | |
| | baz=341 | | | | | | | | |
| **WTCT** | **Ta-ch'eng** | **1.22** | **280** | *e*P | | **Pb** | **09 20 02.4** | **-1.1** | |
| | baz=272 | | | | | | | | |
| WTCT | | | | *e*S | | **Sb** | **09 20 19.8** | **+0.9** | |
| | baz=272 | | | | | | | | |
| **WSF** | **Szhu** | **1.26** | **270** | *e*P | | **Pb** | **09 20 04.8** | **+0.7** | |
| | baz=271 | | | | | | | | |
| WSF | | | | *e*S | | **Sb** | **09 20 19.8** | **-0.1** | |
| | baz=271 | | | | | | | | |
| **SSD** | **Sandimen** | **1.26** | **225** | *e*P | | **Pn** | **09 20 02.1** | **+0.1** | |
| | baz=224 | | | | | | | | |
| **CHN8** | **Yiju** | **1.30** | **257** | *e*P | | **Pn** | **09 20 02.0** | **-0.5** | |
| | baz=259 | | | | | | | | |
| CHN8 | | | | *e*S | | **Sb** | **09 20 21.0** | **-0.2** | |
| | baz=259 | | | | | | | | |
| **TWA** | **Mucha** | **1.33** | **360** | *e*P | | **Pb** | **09 20 04.0** | **-1.3** | |
| | baz=359 | | | | | | | | |
| **TWM1** | **Shoushan** | **1.35** | **233** | *e*P | | **Pb** | **09 20 05.9** | **+0.2** | |
| | baz=233 | | | | | | | | |
| **NCU** | **National Centr** | **1.37** | **344** | *e*P | | **Pn** | **09 20 04.3** | **+0.8** | |
| | baz=342 | | | | | | | | |
| NCU | | | | *e*S | | **Sb** | **09 20 23.0** | **-0.1** | |
| | baz=342 | | | | | | | | |
| **TWB1** | **Santiao Chiao** | **1.40** | **15** | *e*P | | **Pn** | **09 20 04.8** | **+0.8** | |
| | baz=358 | | | | | | | | |
| **NWF** | **Wu-fen Shan** | **1.43** | **7** | *e*P | | **Pn** | **09 20 04.5** | **+0.1** | |
| | baz=6.0 | | | | | | | | |
| **TWS1** | **Kuangyinshan** | **1.46** | **354** | *e*P | | **Pb** | **09 20 06.5** | **-0.9** | |
| | baz=9.0 | | | | | | | | |
| **YOJ** | **Yonaguni jima** | **1.53** | **58** | P | | **Pn** | **09 20 06.1** | **+0.4** | |
| YOJ | | | | S | | **Sn** | **09 20 24.5** | **+0.1** | |
| **SCZT** | **Fangliau** | **1.55** | **215** | *e*P | | **Pb** | **09 20 07.9** | **-1.2** | |
| | baz=202 | | | | | | | | |
| **HEN** | **Hengchun** | **1.81** | **206** | *e*P | | **Pn** | **09 20 10.8** | **+1.2** | |
| | baz=197 | | | | | | | | |
| **WDGT** | **Dungji** | **1.81** | **258** | *e*P | | **Pn** | **09 20 10.0** | **+0.4** | |
| | baz=259 | | | | | | | | |
| **TWK1** | **Hengchun** | **1.84** | **203** | *e*P | | **Pb** | **09 20 12.9** | **-1.0** | |
| | baz=191 | | | | | | | | |
| **PNG** | **Penghu** | **1.87** | **268** | *e*P | | **Pn** | **09 20 10.9** | **+0.6** | |
| | baz=269 | | | | | | | | |
| **HATJ** | **Hateruma jima** | **2.07** | **78** | S | | **Sn** | **09 20 37.8** | **+0.1** | |
| **IRIF** | **Iriomote-Funau** | **2.07** | **70** | P | | **Pn** | **09 20 14.4** | **+1.2** | |
| IRIF | | | | S | | **Sn** | **09 20 38.4** | **+0.6** | |
| **JKRS** | **Kuro-shima** | **2.29** | **75** | P | | **Pn** | **09 20 17.2** | **+1.0** | |
| JKRS | | | | S | | **Sn** | **09 20 44.2** | **+1.0** | |
| **JIJ** | **Ishigaki jima** | **2.44** | **72** | P | | **Pn** | **09 20 18.6** | **+0.3** | |
| JIJ | | | | S | | **Sn** | **09 20 46.1** | **-0.8** | |
| **JISG** | **Ishigakijimahi** | **2.66** | **69** | P | | **Pn** | **09 20 21.3** | **+0.1** | |
| JISG | | | | *e*S | | **Sn** | **09 20 51.1** | **-1.1** | |
| **KNM** | **Kinmen** | **2.99** | **286** | *e*P | | **Pn** | **09 20 27.2** | **+1.4** | |
| | baz=286 | | | | | | | | |
| **JTJ** | **Tarama** | **3.01** | **70** | P | | **Pn** | **09 20 26.6** | **+0.5** | |
| JTJ | | | | S | | **Sn** | **09 21 00.6** | **-0.3** | |

*ISCJB **15** 09:29:44.4±0.4,41°.81N±0°.02×22°.76E±0°.03,h5km±4km, Error ellipse: s-maj=3.9km s-min=2.7km az=176.0*
*CSEM **15** 09:29:44.8±0.1,41°.79N×22°.78E,h2km,ML2.2, Error ellipse: s-maj=3.0km s-min=1.7km az=73.0*
*SKO **15** 09:29:44.9,41°.76N×22°.80E,h21km,M2.3,ML2.5*
*SOF **15** 09:29:45.4,41°.80N×22°.79E,h13km,MD2.5*
*BEO **15** 09:29:45.8±0.4,41°.78N×22°.79E,h8km±3km,M2.4/8*
*ATH **15** 09:29:45.5,41°.75N×22°.79E,h23km±1km,ML2.2/12, Error ellipse: s-maj=2.4km s-min=1.0km az=166.0*
*THE **15** 09:29:45.1,41°.78N×22°.79E,h2km±1km,ML2.2/10, Error ellipse: s-maj=1.3km s-min=0.6km az=127.0*

**ISC 15 09:29:45.1±1.0,41°.79N±0°.01×22°.78E±0°.02,h11km±8km, n69,σ9°56/121,Northwestern Balkan Peninsula**

| Code | Station Name | Δ° | AZ° | Phase | ID | | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Op | | | h m s | ISC |
| **KKB** | **Krupnik** | **0.24** | **72** | *i* P | | | **Pb** | **09 29 51.0** | **-0.5** |
| **VAY** | **Valandovo** | **0.50** | **199** | *e*Pg | | | **Pg** | **09 29 54.9** | **+0.1** |
| VAY | | | | *e*Sg | | | **Sg** | **09 30 01.9** | **+0.5** |
| **VAY** | **Valandovo** | **0.50** | **199** | P | | | **Pg** | **09 29 54.9** | **+0.1** |
| VAY | | | | S | | | **Sg** | **09 30 01.9** | **+0.5** |
| **VAY** | **Valandovo** | **0.50** | **199** | P | | | **Pg** | **09 29 54.9** | **+0.1** |
| VAY | | | | S | | | **Sg** | **09 30 01.9** | **+0.5** |
| **VAY** | **Valandovo** | **0.50** | **199** | *i* Pg | | | **Pg** | **09 29 55.1** | **+0.3** |
| VAY | | | | *i* Sg | | | **Sg** | **09 30 01.9** | **+0.5** |
| VAY | | | | *e*Lg | | | Lg | 09 30 02.3 | |
| | comp=E,217nm,0.2s | | | | | | | | |
| VAY | | | | *e*Lg | | | Lg | 09 30 02.4 | |
| | comp=N,297nm,0.3s | | | | | | | | |
| **KNT** | **Kendrikon** | **0.64** | **172** | P | | | **Pg** | **09 29 57.7** | **+0.3** |
| KNT | | | | S | | | **Sg** | **09 30 05.6** | **-0.2** |
| KNT | | | | AML | | | AML | 09 30 06.5 | |
| | comp=N,1487μm,0.1s | | | | | | | | |
| KNT | | | | AML | | | AML | 09 30 06.8 | |
| | comp=E,742μm,0.1s | | | | | | | | |
| **KNT** | **Kendrikon** | **0.64** | **172** | P | | | **Pg** | **09 29 57.3** | **-0.1** |
| KNT | | | | S | | | **Sg** | **09 30 05.8** | **0.0** |
| **KNT** | **Kendrikon** | **0.64** | **172** | P | | | **Pg** | **09 29 57.3** | **-0.1** |
| KNT | | | | S | | | **Sg** | **09 30 05.8** | **0.0** |
| **MMB** | **Musomiste** | **0.74** | **106** | *i* P | | | **Pb** | **09 29 59.9** | **-0.1** |
| **VTS** | **Vitosha** | **0.86** | **22** | *e*Pg | | | **Pg** | **09 30 01.0** | **-0.7** |
| VTS | | | | *e*Sg | | | **Sb** | **09 30 13.8** | **+0.1** |
| **VTS** | **Vitosha** | **0.86** | **22** | *i* P | | | **Pg** | **09 30 01.8** | **+0.1** |
| **VTS** | **Vitosha** | **0.86** | **22** | *e*Pg | | | **Pg** | **09 30 01.0** | **-0.7** |
| **VTS** | **Vitosha** | **0.86** | **22** | P | | | **Pg** | **09 30 01.8** | **-0.4** |
| VTS | | | | S | | | **Sg** | **09 30 13.2** | **+0.3** |
| **VTS** | **Vitosha** | **0.86** | **22** | P | | | **Pg** | **09 30 01.3** | **-0.4** |
| VTS | | | | S | | | **Sg** | **09 30 13.2** | **+0.3** |
| **GRG** | **Griva** | **0.88** | **199** | P | | | **Pg** | **09 30 01.1** | **-1.1** |
| GRG | | | | S | | | **Sg** | **09 30 13.7** | **+0.1** |
| GRG | | | | AML | | | AML | 09 30 17.1 | |
| | comp=N,140μm,0.1s | | | | | | | | |
| GRG | | | | AML | | | AML | 09 30 18.5 | |
| | comp=E,226μm,0.4s | | | | | | | | |
| **GRG** | **Griva** | **0.88** | **199** | P | | | **Pg** | **09 30 01.4** | **-0.7** |
| GRG | | | | S | | | **Sg** | **09 30 13.7** | **+0.1** |
| **GRG** | **Griva** | **0.88** | **199** | P | | | **Pg** | **09 30 01.4** | **-0.7** |
| GRG | | | | S | | | **Sg** | **09 30 13.8** | **+0.1** |
| **SRS** | **Serrai** | **0.91** | **138** | P | | | **Pg** | **09 30 02.3** | **-0.4** |
| SRS | | | | S | | | **Sg** | **09 30 14.3** | **-0.2** |
| SRS | | | | AML | | | AML | 09 30 17.7 | |
| | comp=E,327μm,0.3s | | | | | | | | |
| SRS | | | | AML | | | AML | 09 30 18.3 | |
| | comp=N,493μm,0.2s | | | | | | | | |
| **SRS** | **Serrai** | **0.91** | **138** | P | | | **Pg** | **09 30 02.3** | **-0.4** |
| SRS | | | | S | | | **Sg** | **09 30 14.3** | **-0.2** |
| **SRS** | **Serrai** | **0.91** | **138** | P | | | **Pg** | **09 30 02.2** | **-0.4** |
| SRS | | | | S | | | **Sn** | **09 30 15.8** | **-1.2** |
| **NVR** | **Nevrokopi** | **0.92** | **118** | P | | | **Pg** | **09 30 02.7** | **-0.2** |
| NVR | | | | S | | | **Sg** | **09 30 14.9** | **0.0** |
| NVR | | | | AML | | | AML | 09 30 16.9 | |
| | comp=N,426μm,0.2s | | | | | | | | |
| NVR | | | | AML | | | AML | 09 30 18.6 | |
| | comp=E,386μm,0.2s | | | | | | | | |
| **NVR** | **Nevrokopi** | **0.92** | **118** | P | | | **Pg** | **09 30 02.7** | **-0.2** |
| NVR | | | | S | | | **Sg** | **09 30 14.9** | **0.0** |
| **NVR** | **Nevrokopi** | **0.92** | **118** | P | | | **Pg** | **09 30 02.7** | **-0.2** |
| NVR | | | | S | | | **Sb** | **09 30 15.5** | **0.0** |
| **SOH** | **Sokhos** | **1.06** | **156** | P | | | **Pn** | **09 30 05.9** | **-0.1** |
| SOH | | | | S | | | **Sg** | **09 30 19.6** | **+0.3** |
| SOH | | | | AML | | | AML | 09 30 23.3 | |
| | comp=N,404μm,0.5s | | | | | | | | |
| SOH | | | | AML | | | AML | 09 30 24.1 | |
| | comp=E,299μm,0.3s | | | | | | | | |
| **SOH** | **Sokhos** | **1.06** | **156** | P | | | **Pb** | **09 30 05.4** | **-0.1** |
| SOH | | | | S | | | **Sg** | **09 30 19.4** | **+0.1** |
| **SOH** | **Sokhos** | **1.06** | **156** | P | | | **Pb** | **09 30 05.4** | **-0.1** |
| SOH | | | | S | | | **Sg** | **09 30 19.4** | **+0.1** |
| **THE** | **Thessaloniki** | **1.17** | **173** | P | | | **Pb** | **09 30 06.8** | **-0.4** |
| THE | | | | S | | | **Sn** | **09 30 23.2** | **-0.1** |
| THE | | | | AML | | | AML | 09 30 25.9 | |
| | comp=E,86μm,0.2s | | | | | | | | |
| THE | | | | AML | | | AML | 09 30 26.4 | |
| | comp=N,109μm,0.4s | | | | | | | | |
| **THE** | **Thessaloniki** | **1.17** | **173** | P | | | **Pb** | **09 30 07.0** | **-0.3** |
| THE | | | | S | | | **Sn** | **09 30 22.9** | **-0.4** |
| **THE** | **Thessaloniki** | **1.17** | **173** | P | | | **Pb** | **09 30 07.0** | **-0.3** |
| THE | | | | S | | | **Sn** | **09 30 22.9** | **-0.4** |
| **HORT** | **Hortiatis** | **1.22** | **169** | P | | | **Pn** | **09 30 08.0** | **-0.1** |
| HORT | | | | S | | | **Sb** | **09 30 23.5** | **-0.4** |
| HORT | | | | AML | | | AML | 09 30 28.6 | |
| | comp=N,83μm,0.3s | | | | | | | | |
| HORT | | | | AML | | | AML | 09 30 30.0 | |
| | comp=E,89μm,0.3s | | | | | | | | |
| **HORT** | **Hortiatis** | **1.22** | **169** | P | | | **Pn** | **09 30 08.0** | **-0.1** |
| HORT | | | | S | | | **Sg** | **09 30 25.1** | **+0.8** |
| **HORT** | **Hortiatis** | **1.22** | **169** | P | | | **Pn** | **09 30 07.9** | **-0.3** |
| HORT | | | | S | | | **Sg** | **09 30 25.1** | **+0.8** |
| **KRUS** | **Krusevo** | **1.23** | **250** | *i* Pg | | | **Pn** | **09 30 08.3** | **+0.1** |
| KRUS | | | | *e*Lg | | | Lg | 09 30 25.6 | |
| | comp=E,8.0nm,0.4s | | | | | | | | |
| KRUS | | | | *e*Lg | | | Lg | 09 30 26.0 | |
| | comp=N,10nm,0.4s | | | | | | | | |
| **BARS** | **Barje** | **1.25** | **325** | *e*Pg | | | **Pn** | **09 30 08.5** | **0.0** |
| BARS | | | | *e*Sg | | | **Sb** | **09 30 25.3** | **+0.5** |
| **BARS** | **Barje** | **1.25** | **325** | *e*Pg | | | **Pn** | **09 30 08.5** | **0.0** |
| BARS | | | | *e*Sg | | | **Sb** | **09 30 25.3** | **+0.5** |
| **BIA** | **Bitola** | **1.34** | **235** | *i* Pg | | | **Pn** | **09 30 10.1** | **+0.3** |
| BIA | | | | *i* Sg | | | **Sg** | **09 30 29.2** | **+1.0** |
| BIA | | | | *e*Lg | | | Lg | 09 30 29.9 | |
| | comp=E,26nm,0.3s | | | | | | | | |
| BIA | | | | *e*Lg | | | Lg | 09 30 30.0 | |
| | comp=N,28nm,0.3s | | | | | | | | |
| **RZN** | **Rozhen** | **1.45** | **93** | *i* P | | | **Pb** | **09 30 12.5** | **+0.2** |
| **FNA** | **Florina** | **1.46** | **227** | P | | | **Pb** | **09 30 12.9** | **+0.5** |
| FNA | | | | S | | | **Sb** | **09 30 30.8** | **-0.2** |
| FNA | | | | AML | | | AML | 09 30 33.5 | |
| | comp=E,69μm,0.4s | | | | | | | | |
| FNA | | | | AML | | | AML | 09 30 34.5 | |
| | comp=N,88μm,0.3s | | | | | | | | |
| **FNA** | **Florina** | **1.46** | **227** | P | | | **Pn** | **09 30 11.6** | **+0.1** |
| FNA | | | | S | | | **Sb** | **09 30 30.8** | **-0.2** |
| **FNA** | **Florina** | **1.46** | **227** | P | | | **Pn** | **09 30 11.6** | **+0.1** |
| FNA | | | | S | | | **Sg** | **09 30 32.0** | **-0.1** |
| **ZAPS** | **Zavoj** | **1.48** | **356** | *e*Pg | | | **Pg** | **09 30 13.7** | **+0.1** |
| ZAPS | | | | *e*Sg | | | **Sg** | **09 30 34.6** | **+1.7** |
| **KAVA** | **Kavala** | **1.53** | **121** | P | | | **Pb** | **09 30 13.1** | **-0.3** |
| KAVA | | | | S | | | **Sb** | **09 30 33.2** | **+0.5** |
| KAVA | | | | AML | | | AML | 09 30 34.0 | |
| | comp=N,318μm,0.4s | | | | | | | | |
| KAVA | | | | AML | | | AML | 09 30 35.1 | |
| | comp=E,321μm,0.4s | | | | | | | | |
| **KAVA** | **Kavala** | **1.53** | **121** | P | | | **Pb** | **09 30 13.1** | **-0.3** |
| KAVA | | | | S | | | **Sb** | **09 30 33.2** | **+0.5** |
| **KAVA** | **Kavala** | **1.53** | **121** | P | | | **Pb** | **09 30 13.1** | **-0.3** |
| KAVA | | | | S | | | **Sg** | **09 30 33.4** | **-0.8** |
| **OUR** | **Ouranopolis** | **1.72** | **148** | P | | | **Pn** | **09 30 15.3** | **+0.4** |
| OUR | | | | S | | | **Sn** | **09 30 37.1** | **+0.3** |
| OUR | | | | AML | | | AML | 09 30 43.5 | |
| | comp=N,176μm,0.3s | | | | | | | | |
| OUR | | | | AML | | | AML | 09 30 44.9 | |
| | comp=E,147μm,0.5s | | | | | | | | |
| **OUR** | **Ouranopolis** | **1.72** | **148** | P | | | **Pn** | **09 30 15.4** | **+0.5** |
| OUR | | | | S | | | **Sb** | **09 30 38.3** | **+0.1** |
| **OUR** | **Ouranopolis** | **1.72** | **148** | P | | | **Pn** | **09 30 15.4** | **+0.5** |
| OUR | | | | S | | | **Sb** | **09 30 38.3** | **+0.1** |
| **SELS** | **Selova** | **1.88** | **320** | *e*Pn | | | **Pb** | **09 30 19.7** | **+0.2** |
| SELS | | | | *e*Sg | | | **Sg** | **09 30 46.4** | **+0.8** |
| **PAIG** | **Paliouri** | **1.98** | **160** | P | | | **Pn** | **09 30 18.8** | **+0.2** |
| **PAIG** | **Paliouri** | **1.98** | **160** | P | | | **Pn** | **09 30 18.8** | **+0.2** |
| **BOVS** | **Bovan** | **2.00** | **337** | *e*Pn | | | **Pb** | **09 30 21.1** | **-0.5** |
| BOVS | | | | *e*Sg | | | **Sg** | **09 30 32.3** | **-0.2** |
| **BOVS** | **Bovan** | **2.00** | **337** | *e*Pn | | | **Pb** | **09 30 21.1** | **-0.5** |
| BOVS | | | | *e*Sg | | | **Sg** | **09 30 49.3** | **-0.2** |
| **ZAGS** | **Zajecar** | **2.06** | **349** | *e*Pn | | | **Pn** | **09 30 20.4** | **+0.8** |
| ZAGS | | | | *e*Sg | | | **Sg** | **09 30 50.8** | **-0.5** |
| **ZAGS** | **Zajecar** | **2.06** | **349** | *e*Pn | | | **Pn** | **09 30 20.4** | **+0.8** |
| ZAGS | | | | *e*Sg | | | **Sg** | **09 30 50.8** | **-0.5** |
| **RDO** | **Rodhopi** | **2.17** | **106** | P | | | **Pn** | **09 30 22.0** | **+0.8** |
| RDO | | | | S | | | **Sb** | **09 30 50.1** | **-1.2** |
| RDO | | | | AML | | | AML | 09 30 57.5 | |
| | comp=N,156μm,0.2s | | | | | | | | |
| RDO | | | | AML | | | AML | 09 31 01.5 | |
| | comp=E,102μm,0.2s | | | | | | | | |
| **RDO** | **Rodhopi** | **2.17** | **106** | P | | | **Pn** | **09 30 22.0** | **+0.8** |
| RDO | | | | S | | | **Sb** | **09 30 50.1** | **-1.2** |
| **XOR** | **Xorichti** | **2.44** | **173** | P | | | **Pn** | **09 30 25.0** | **0.0** |
| **XOR** | **Xorichti** | **2.44** | **173** | P | | | **Pn** | **09 30 25.0** | **0.0** |
| **SMTH** | **Samothraki Isl** | **2.46** | **122** | P | | | **Pn** | **09 30 26.3** | **+1.1** |
| SMTH | | | | S | | | **Sn** | **09 30 54.8** | **-0.5** |
| **SMTH** | **Samothraki Isl** | **2.46** | **122** | P | | | **Pn** | **09 30 26.3** | **+1.1** |
| SMTH | | | | S | | | **Sn** | **09 30 54.8** | **-0.5** |
| **GRUS** | **Gruza** | **2.59** | **325** | *e*Pg | | | **Pg** | **09 30 33.7** | **-1.0** |
| **GRUS** | **Gruza** | **2.59** | **325** | *e*Pg | | | **Pg** | **09 30 33.7** | **-1.0** |
| **ALN** | **Alexandroupoli** | **2.62** | **109** | P | | | **Pn** | **09 30 27.6** | **+0.3** |
| ALN | | | | S | | | **Sn** | **09 31 00.8** | **+1.8** |
| ALN | | | | AML | | | AML | 09 31 18.5 | |
| | comp=E,29μm,0.8s | | | | | | | | |
| ALN | | | | AML | | | AML | 09 31 18.9 | |
| | comp=N,34μm,1.0s | | | | | | | | |
| **ALN** | **Alexandroupoli** | **2.62** | **109** | P | | | **Pn** | **09 30 28.2** | **+0.9** |
| ALN | | | | S | | | **Sn** | **09 31 00.8** | **+1.8** |
| **ALN** | **Alexandroupoli** | **2.62** | **109** | P | | | **Pn** | **09 30 28.2** | **+0.9** |
| **KUBS** | **Kucevo** | **2.74** | **343** | *e*Pn | | | **Pn** | **09 30 28.7** | **-0.3** |
| **KUBS** | **Kucevo** | **2.74** | **343** | *e*Pn | | | **Pn** | **09 30 28.7** | **-0.3** |
| **DIVS** | **Divibare** | **3.08** | **319** | *e*Pn | | | **Pn** | **09 30 34.3** | **+0.5** |
| **DIVS** | **Divibare** | **3.08** | **319** | *e*Pn | | | **Pn** | **09 30 34.3** | **+0.5** |

*ISK **15** 09:59:23.8,38°.69N×43°.28E,h4km,ML2.6*
*ISCJB **15** 09:59:24.7±0.4,38°.65N±0°.03×43°.18E±0°.04,h5km±6km, Error ellipse: s-maj=5.1km s-min=4.3km az=153.8*
*DDA **15** 09:59:24.2,38°.61N×43°.16E,h7km,Ml3.4*
*CSEM **15** 09:59:24.2±0.2,38°.66N×43°.22E,h2km,ML2.6, Error ellipse: s-maj=4.8km s-min=4.4km az=111.0*

**ISC 15 09:59:24.6±0.9,38°.67N±0°.02×43°.21E±0°.02,h10km±8km, n38,σ9°99/50,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Op | | | h m s | ISC |
| **VANB** | **Van** | **0.16** | **117** | *e*PG | | | **Pg** | **09 59 28.3** | **+0.1** |
| VANB | | | | *e*SG | | | **Sg** | **09 59 32.1** | **+1.3** |
| **VANB** | **Van** | **0.16** | **117** | *e*Pg | | | **Pg** | **09 59 28.3** | **+0.1** |
| **TVAN** | **Van** | **0.21** | **131** | *i* P | | | **Pg** | **09 59 28.3** | **-0.8** |
| TVAN | | | | *i* S | | | **Sg** | **09 59 32.3** | **+0.2** |
| **TVAN** | **Van** | **0.21** | **131** | P | | | **Pg** | **09 59 28.3** | **-0.8** |
| TVAN | | | | S | | | **Sg** | **09 59 32.3** | **+0.2** |
| **ERCV** | **ERCIS-VAN** | **0.37** | **16** | *e*PG | | | **Pg** | **09 59 31.0** | **-1.0** |
| **ERCV** | **ERCIS-VAN** | **0.37** | **16** | *e*Pg | | | **Pg** | **09 59 31.0** | **-1.0** |
| **GEVA** | **Gevas** | **0.37** | **198** | *i* P | | | **Pg** | **09 59 30.2** | **-1.9** |
| GEVA | | | | *i* S | | | **Sg** | **09 59 36.2** | **-0.8** |
| **GEVA** | **Gevas** | **0.37** | **198** | P | | | **Pg** | **09 59 30.2** | **-1.9** |
| GEVA | | | | S | | | **Sg** | **09 59 36.2** | **-0.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.40** | **291** | *i* P | | | **Pg** | **09 59 32.3** | **-0.3** |
| ADCV | | | | *i* S | | | **Sb** | **09 59 39.8** | **-0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.40** | **291** | P | | | **Pg** | **09 59 32.3** | **-0.3** |
| ADCV | | | | S | | | **Sb** | **09 59 39.8** | **-0.5** |
| **VMUR** | **Van-Muradiye** | **0.43** | **41** | *i* P | | | **Pb** | **09 59 34.0** | **-0.4** |
| VMUR | | | | *i* S | | | **Sb** | **09 59 43.4** | **+2.3** |
| **VMUR** | **Van-Muradiye** | **0.43** | **41** | P | | | **Pb** | **09 59 34.0** | **-0.4** |
| **CLDR** | **Caldiran** | **0.73** | **49** | *e*PG | | | **Pg** | **09 59 37.4** | **-1.4** |
| **CLDR** | **Caldiran** | **0.73** | **49** | *i* P | | | **Pb** | **09 59 39.3** | **-0.3** |
| CLDR | | | | *i* S | | | **Sn** | **09 59 52.0** | **-0.6** |
| **CLDR** | **Caldiran** | **0.73** | **49** | *e*Pg | | | **Pg** | **09 59 37.4** | **-1.4** |
| **CLDR** | **Caldiran** | **0.73** | **49** | P | | | **Pb** | **09 59 39.3** | **-0.3** |
| CLDR | | | | S | | | **Sn** | **09 59 52.0** | **-0.6** |
| **TUTA** | **Tutak** | **0.80** | **338** | *i* P | | | **Pg** | **09 59 40.0** | **0.0** |
| TUTA | | | | *i* S | | | **Sb** | **09 59 52.3** | **+0.7** |
| **TUTA** | **Tutak** | **0.80** | **338** | P | | | **Pg** | **09 59 40.0** | **0.0** |
| TUTA | | | | S | | | **Sb** | **09 59 52.3** | **+0.7** |
| **AGRB** | **Hanur-Agry** | **0.92** | **350** | *e*PG | | | **Pg** | **09 59 41.9** | **-0.5** |
| **AGRB** | **Hanur-Agry** | **0.92** | **350** | *e*Pg | | | **Pg** | **09 59 41.9** | **-0.5** |
| **EKAR** | **Karacoban** | **1.07** | **304** | *i* P | | | **Pb** | **09 59 44.8** | **-0.5** |
| **EKAR** | **Karacoban** | **1.07** | **304** | P | | | **Pb** | **09 59 44.8** | **-0.5** |
| **SIRT** | **Sirnak** | **1.31** | **208** | *e*PN | | | **Pg** | **09 59 50.0** | **+0.2** |
| **SIRT** | **Sirnak** | **1.31** | **208** | *e*Pn | | | **Pg** | **09 59 50.0** | **+0.2** |
| **CUKT** | **Cukurca** | **1.45** | **167** | *e*PN | | | **Pb** | **09 59 51.6** | **-0.2** |
| **CUKT** | **Cukurca** | **1.45** | **167** | *e*Pn | | | **Pb** | **09 59 51.6** | **-0.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.54** | **31** | *e*PN | | | **Pn** | **09 59 52.0** | **-0.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.54** | **31** | *e*Pn | | | **Pn** | **09 59 52.1** | **-0.1** |
| **BNGB** | **Bing ¶‖** | **2.00** | **280** | *e*PN | | | **Pb** | **10 00 00.1** | **-1.1** |
| **SENK** | **Senkaya-Erzuru** | **2.00** | **341** | *e*PN | | | **Pn** | **09 59 59.3** | **+0.6** |
| **SENK** | **Senkaya-Erzuru** | **2.00** | **341** | *e*Pn | | | **Pn** | **09 59 59.3** | **+0.6** |
| **BINT** | **Bingol** | **2.13** | **276** | *e*Pn | | | **Pn** | **10 00 00.1** | **-0.3** |
| **YEDI** | **Yedisu-Bingol** | **2.21** | **291** | *e*PN | | | **Pn** | **10 00 02.9** | **+1.4** |
| **YEDI** | **Yedisu-Bingol** | **2.21** | **291** | *e*Pn | | | **Pn** | **10 00 02.9** | **+1.4** |
| **MAZI** | **Mazidag** | **2.49** | **242** | *e*PN | | | **Pn** | **10 00 07.0** | **+1.7** |
| **MAZI** | **Mazidag** | **2.49** | **242** | *e*Pn | | | **Pn** | **10 00 07.0** | **+1.7** |
| **PTK** | **Pertek** | **2.99** | **275** | *e*PN | | | **Pn** | **10 00 14.1** | **+1.9** |
| **PTK** | **Pertek** | **2.99** | **275** | *e*Pn | | | **Pn** | **10 00 14.1** | **+1.9** |

*ISCJB **15** 10:00:29.6±0.4,29°.77S±0°.07×176°.29W±0°.06,h39km, mb4.6/22,MS4.2/1, Error ellipse: s-maj=10.4km s-min=7.4km az=164.5*
*NEIC **15** 10:00:30.6±0.3,29°.45S×176°.30W,h35km,mb4.8/16, Error ellipse: s-maj=14.1km s-min=8.7km az=149.0*
*IDC **15** 10:00:30.7±0.9,29°.50S×176°.20W,h39km±5km,mb4.2/8, mb1 4.4/9,mb1mx4.2/22,mbtmp4.4/9,ML4.7/1,MS4.2/1, Ms1 4.2/1,ms1mx3.3/29, Error ellipse: s-maj=31.8km s-min=17.2km az=166.0*

**ISC 15 10:00:31.1±0.5,29°.64S±0°.08×176°.25W±0°.07,h39km, h40km:pP-P,n58,σ1°50/70,mb4.6/22,1C-1D,Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Op | | | h m s | ISC |
| **RAO** | **Raoul Island** | **1.50** | **285** | Pn | | | **Pn** | **10 00 56.2** | **+0.7** |
| | 198nm,0.3s,baz=107,slow=2.6,SNR=8.1 | | | | | | | | |
| RAO | | | | Sn | | | **Sn** | **10 01 14.0** | **+0.2** |
| | 913nm,0.3s,baz=287,slow=19,SNR=17 | | | | | | | | |
| RAO | | | | LR | | | LR | 10 01 40.5 | |
| | comp=Z,847nm,21.3s,baz=106,slow=46 | | | | | | | | |
| **RAO** | **Raoul Island** | **1.50** | **285** | *e*Pn | | | **Pn** | **10 00 55.7** | **+0.1** |
| RAO | | | | *e*Pn | | | Pn | 10 00 56.2 | +0.7 |
| RAO | | | | *e*Sn | | | **Sn** | **10 01 14.1** | **+0.2** |
| RAO | | | | *e* | | | | 10 01 40.5 | |
| **URZ** | **Urewera** | **10.21** | **211** | Pn | | | Pn | 10 02 51.4 | -3.5 |
| | 1.0nm,0.3s,baz=262,slow=4.5,SNR=6.7 | | | | | | | | |
| URZ | | | | Sn | | | **Sn** | **10 04 45.5** | **-2.5** |
| | 4.6nm,0.3s,baz=215,slow=22,SNR=12 | | | | | | | | |
| **THZ** | **Tophouse** | **14.94** | **213** | *e*Pn | | | **Pn** | **10 04 03.5** | **+3.9** |
| | 201nm,1.9s | | | | | | | | |
| THZ | | | | *e*Sn | | | **Sn** | **10 06 36.5** | **-7.4** |
| **KHZ** | **Kahutara** | **15.17** | **210** | *e*Pn | | | **P** | **10 04 08.9** | **+1.9** |
| | 72nm,0.8s | | | | | | | | |
| **RPZ** | **Rata Peaks** | **

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **NOA** | **NORSAR Array B** | **148.21 353** | PKPbc | **PKPdf** | **10 20 09.6** | **+0.8** | | |
| | comp=Z,1.9nm,0.7s,baz=13,slow=4.4,SNR=5.2 | | | | | | | |
| **AKASG** | **Malin Array Be** | **151.58 325** | PKPbc | **PKPbc** | **10 20 18.8** | **-1.8** | | |
| | comp=Z,4.6nm,0.6s,baz=45,slow=2.9,SNR=19 | | | | | | | |
| AKASG | | | pPKPbc | **sPKPdf** | **10 20 31.1** | **-0.2** | | |
| | comp=Z,1.9nm,0.6s,baz=46,slow=3.3,SNR=3.6 | | | | | | | |
| **AKBB** | **Malin Array Si** | **151.58 325** | *e*PKPbc | **PKPbc** | **10 20 20.4** | **-0.3** | | |
| **MMAI** | **Mount Meron Ar** | **152.80 285** | PKPbc | **PKPbc** | **10 20 25.1** | **+1.0** | | |
| | comp=Z,0.9nm,0.4s,baz=90,slow=5.8,SNR=3.0 | | | | | | | |
| **BR101** | **Keskin Array S** | **153.55 300** | *e*PKPbc | **PKPbc** | **10 20 25.4** | **-0.3** | | |
| **BRTR** | **Keskin Array B** | **153.55 300** | PKPbc | **PKPbc** | **10 20 25.4** | **-0.3** | | |
| | comp=Z,0.8nm,0.9s,baz=49,slow=3.8,SNR=4.7 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **163.48 173** | PKPab | **PKPab** | **10 21 21.9** | **+0.6** | | |
| | comp=Z,2.9nm,0.8s,baz=189,slow=4.4,SNR=16 | | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **163.48 173** | *e*PKPab | **PKPab** | **10 21 21.9** | **+0.6** | | |

*ISCJB* ***15*** *10:10:06.5±0.1,32.67S±0.02×179.09W±0.03,h33km, mb5.8/264,MS5.7/480,Error ellipse: s-maj=3.4km s-min=1.8km az=33.1*

*BJI* ***15*** *10:10:06.8,32.35S×179.00W,h35km,mb5.5/42, mB6.1/60,Ms5.9/34,Ms7 5.6/58*

*MOS* ***15*** *10:10:06.7±0.9,32.54S×179.08W,h33km,mb5.8/38, MS5.6/30,Error ellipse: s-maj=9.1km s-min=7.3km az=75.2*

*GCMT* ***15*** *10:10:07.2±0.1,32.54S×178.72W,h50km,MW5.9/138, Moment Tensor Solution. s138,c293; s137,c400; Duration: 2s2 Moment tensor: Scale 1018Nm; Mrr0.91±.01; Mθθ-0.11±.01; Mϕϕ-0.80±.01; Mrθ0.06±.01; Mθϕ-0.29±.01; Mrϕ0.37±.01; Best double couple: M0 0.98400×1018 NP1:ϕs16.00000°,δ56.00000°, λ85.00000°. NP2:ϕs204.00000°,δ34.00000°,λ97.00000°. Principal axes: T 0.9880, Plg78.0000°, Azm269.0000°; N -0.0080, Plg4.0000°, Azm18.0000°; P -0.9800, Plg11.0000°, Azm109.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

*IDC* ***15*** *10:10:07.6±1.3,32.49S×178.92W,h32km±8km,mb5.2/19, mb1 5.2/22,mb1mx5.2/26,mbtmp5.3/22,ML5.5/3,MS5.4/26, Ms1 5.4/26,ms1mx5.4/27 Error ellipse: s-maj=12.5km s-min=12.1km az=156.0*

*NEIC* ***15*** *10:10:07.2±0.1,32.72S×179.10W,h32km,mb5.8/183, ME5.6,MS5.7/297,MW6.0,Error ellipse: s-maj=5.1km s-min=3.0km az=137.0,Depth from synthetics of broadband displacement seismograms. Energy computed from CMT mechanism.*

*NEIC* ***15*** *10:10:08.0±0.0,32.40S×178.98W,h30km,Moment Tensor Solution. s22 Moment tensor: Scale 1018Nm; Mrr1.04; Mθθ-0.01; Mϕϕ-1.03; Mrθ0.11; Mθϕ-0.36; Mrϕ0.55; Best double couple: M0 1.20000×1018 NP1:ϕs15.00000°, δ59.00000°,λ87.00000°. NP2:ϕs201.00000°,δ31.00000°, λ95.00000°. Principal axes: T 1.1800, Plg76.0000°, Azm274.0000°; N 0.1000, Plg2.0000°, Azm16.0000°; P -1.2800, Plg13.0000°, Azm107.0000°;*

**ISC 15 10:10:07.8±0.4,32.56S±0.03×178.90W±0.04,h35km±1km, h35km:pP-P,n1630,σ1974/1477,mb5.8/237,MS5.7/481, 50C-35D,South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **3.40** | **15** | Pn | **Pn** | **10 10 57.1** | **-1.2** |
| | 707nm,0.3s,baz=87,slow=18,SNR=29 | | | | | | |
| RAO | | | | Sn | **Sn** | **10 11 39.0** | **+1.5** |
| | 4μm,0.3s,baz=118,slow=23,SNR=7.4 | | | | | | |
| RAO | | | | LR | LR | 10 12 20.3 | |
| | comp=Z,64μm,20.7s,baz=170,slow=40 | | | | | | |
| **RAO** | **Raoul Island** | **3.40** | **15** | *e*Pn | **Pn** | **10 10 57.1** | **-1.2** |
| RAO | | | | *e*Pn | **Pn** | **10 10 57.4** | **-1.0** |
| RAO | | | | *e*Sn | **Sn** | **10 11 38.6** | **+1.2** |
| RAO | | | | *e*Sn | **Sn** | **10 11 39.0** | **+1.5** |
| **MXZ** | **Matakaoa Point** | **5.50** | **204** | *e*Pn | **Pn** | **10 11 28.2** | **+1.0** |
| **MXZ** | **Matakaoa Point** | **5.50** | **204** | *e*PN | **Pn** | **10 11 27.6** | **+0.5** |
| MXZ | | | | SN | **Sn** | **10 12 31.1** | **+1.9** |
| MXZ | | | | T | T | 10 15 54.0 | |
| **WMGZ** | **Waiomatatini S** | **5.70** | **202** | PN | **Pn** | **10 11 29.8** | **-0.1** |
| WMGZ | | | | SN | **Sn** | **10 12 37.1** | **+3.1** |
| **HAZ** | **Te Kaha** | **5.86** | **207** | PN | **Pn** | **10 11 32.6** | **+0.5** |
| HAZ | | | | SN | **Sn** | **10 12 43.5** | **+5.4** |
| **PKGZ** | **Pakihiroa** | **5.87** | **204** | PN | **Pn** | **10 11 31.8** | **-0.5** |
| PKGZ | | | | SN | **Sn** | **10 12 39.3** | **+0.9** |
| **GRZ** | **Great Barrier** | **5.95** | **230** | PN | Pn | 10 11 38.6 | +5.2 |
| **PUZ** | **Puketiti** | **5.98** | **202** | PN | **Pn** | **10 11 32.9** | **-0.8** |
| **RUGZ** | **Raukumara Rang** | **6.08** | **206** | PN | **Pn** | **10 11 35.9** | **+0.6** |
| **KUZ** | **Kuaotunu** | **6.09** | **225** | PN | **Pn** | **10 11 39.7** | **+4.3** |
| **TWGZ** | **Tauwhareparae** | **6.16** | **204** | PN | **Pn** | **10 11 35.8** | **-0.6** |
| TWGZ | | | | SN | **Sn** | **10 12 46.5** | **+0.9** |
| **CNGZ** | **Carnagh Statio** | **6.37** | **201** | PN | **Pn** | **10 11 38.5** | **-0.7** |
| **TKGZ** | **Te Karaka** | **6.44** | **203** | *e*PN | **Pn** | **10 11 38.6** | **-1.6** |
| TKGZ | | | | SN | **Sn** | **10 12 53.8** | **+1.4** |
| **OPRZ** | **Ohinepanea** | **6.46** | **214** | PN | **Pn** | **10 11 42.3** | **+1.9** |
| **MWZ** | **Matawai** | **6.46** | **206** | *e*PN | **Pn** | **10 11 38.4** | **-2.1** |
| **WIAZ** | **Waiheke Island** | **6.49** | **228** | *e*PN | Pn | 10 11 45.5 | +4.8 |
| **TGRZ** | **Tauranga** | **6.51** | **216** | *e*PN | **Pn** | **10 11 43.4** | **+2.3** |
| **WCZ** | **Waipu Caves** | **6.54** | **227** | PN | Pn | 10 11 47.2 | +5.8 |
| **URZ** | **Urewera** | **6.56** | **209** | Pn | **Pn** | **10 11 41.5** | **-0.2** |
| | 98nm,0.3s,baz=298,slow=2.1,SNR=89 | | | | | | |
| URZ | | | | Sn | **Sn** | **10 12 55.8** | **+0.5** |
| | 128nm,0.3s,baz=58,slow=10,SNR=3.5 | | | | | | |
| **URZ** | **Urewera** | **6.56** | **209** | *e*Pn | **Pn** | **10 11 41.5** | **-0.2** |
| URZ | | | | *e*Pn | **Pn** | **10 11 41.9** | **+0.2** |
| URZ | | | | *e*Sn | **Sn** | **10 12 54.5** | **-0.8** |
| URZ | | | | *e*Sn | **Sn** | **10 12 55.8** | **+0.5** |
| **URZ** | **Urewera** | **6.56** | **209** | PN | **Pn** | **10 11 41.0** | **-0.7** |
| **MTAZ** | **Motutapu** | **6.62** | **229** | *e*PN | Pn | 10 11 48.1 | +5.5 |
| **RAGZ** | **Rawiri** | **6.65** | **206** | PN | **Pn** | **10 11 42.8** | **-0.2** |
| **RIGZ** | **Rimuhau** | **6.71** | **203** | *e*PN | **Pn** | **10 11 42.6** | **-1.3** |
| RIGZ | | | | SN | **Sn** | **10 13 00.4** | **+1.2** |
| **ETAZ** | **East Tamaki Re** | **6.71** | **227** | PN | **Pn** | **10 11 49.8** | **+6.0** |
| **OMRZ** | **Omania** | **6.75** | **214** | PN | **Pn** | **10 11 48.7** | **+4.2** |
| **OUZ** | **Omahuta** | **6.79** | **245** | PN | Pn | 10 11 50.8 | +6.0 |
| **RVAZ** | **Riverhead Bore** | **6.82** | **230** | *e*PN | Pn | 10 11 50.9 | +5.5 |
| **KBAZ** | **Karaka Road Bo** | **6.83** | **227** | *e*PN | Pn | 10 11 51.1 | +5.6 |
| **PRGZ** | **Paritu Road** | **6.87** | **201** | *e*PN | **Pn** | **10 11 44.2** | **-1.9** |
| **RRRZ** | **Republican Roa** | **6.88** | **212** | *e*PN | **Pn** | **10 11 46.9** | **+0.7** |
| **MUGZ** | **Murupara** | **6.88** | **210** | PN | **Pn** | **10 11 45.5** | **-0.7** |
| **TOZ** | **Tahuroa Road** | **6.91** | **220** | PN | **Pn** | **10 11 50.2** | **+3.6** |
| **RTZ** | **Ruatahuna** | **6.92** | **208** | PN | **Pn** | **10 11 47.2** | **+0.5** |
| **WTAZ** | **Waiatarua** | **6.92** | **229** | *e*PN | Pn | 10 11 52.9 | +6.1 |
| **SNGZ** | **Shannon Statio** | **6.93** | **205** | PN | **Pn** | **10 11 45.6** | **-1.2** |
| **AWAZ** | **Awhitu Peninsu** | **6.96** | **228** | PN | Pn | 10 11 52.5 | +5.2 |
| **HSRZ** | **Hossack Road** | **6.98** | **213** | PN | **Pn** | **10 11 51.0** | **+3.4** |
| **HRRZ** | **Handcock Road** | **7.03** | **213** | PN | **Pn** | **10 11 51.4** | **+3.2** |
| **KNZ** | **Kokohu** | **7.03** | **202** | PN | **Pn** | **10 11 45.6** | **-2.6** |
| KNZ | | | | SN | **Sn** | **10 13 05.4** | **-1.4** |
| **PRRZ** | **Plateau Road** | **7.07** | **212** | PN | **Pn** | **10 11 50.6** | **+1.9** |
| **MHGZ** | **Mahia Peninsul** | **7.08** | **201** | *e*PN | **Pn** | **10 11 47.1** | **-1.7** |
| **ALRZ** | **Allen Road** | **7.14** | **212** | PN | **Pn** | **10 11 50.5** | **+0.7** |
| **MTHZ** | **Maungataniwha** | **7.18** | **208** | PN | **Pn** | **10 11 49.7** | **-0.6** |
| **WPRZ** | **Whakapapataran** | **7.18** | **213** | PN | **Pn** | **10 11 50.7** | **+0.3** |
| **WHHZ** | **Waihua** | **7.23** | **205** | *e*PN | **Pn** | **10 11 49.7** | **-1.2** |
| **KUTZ** | **Kaahu Road** | **7.32** | **215** | PN | **Pn** | **10 11 55.1** | **+2.9** |
| **MRHZ** | **Matea Rd** | **7.33** | **210** | PN | **Pn** | **10 11 51.8** | **-0.6** |
| **NMHZ** | **Naumai** | **7.40** | **207** | *e*PN | **Pn** | **10 11 51.9** | **-1.5** |
| **ARHZ** | **Aropaoanui** | **7.48** | **205** | *e*PN | **Pn** | **10 11 52.5** | **-1.9** |
| **WATZ** | **Wairara** | **7.54** | **214** | PN | **Pn** | **10 11 57.8** | **+2.5** |
| **BKZ** | **Black Stump Fm** | **7.58** | **208** | *e*Pn | **Pn** | **10 11 54.9** | **-0.9** |
| **BKZ** | **Black Stump Fm** | **7.58** | **208** | *e*PN | **Pn** | **10 11 53.2** | **-2.7** |
| **RATZ** | **Rangitukua** | **7.64** | **213** | *e*PN | **Pn** | **10 11 58.2** | **+1.5** |
| **RITZ** | **Rihia Road** | **7.70** | **212** | PN | **Pn** | **10 11 57.4** | **0.0** |
| **MCHZ** | **McNeill Hill** | **7.75** | **206** | PN | **Pn** | **10 11 56.4** | **-1.7** |
| MCHZ | | | | SN | **Sn** | **10 13 25.4** | **+0.8** |
| **CKHZ** | **Cape Kidnapper** | **7.80** | **204** | PN | **Pn** | **10 11 56.2** | **-2.6** |
| **HIZ** | **Hauiti** | **7.83** | **219** | *e*Pn | **Pn** | **10 12 02.7** | **+3.1** |
| **HIZ** | **Hauiti** | **7.83** | **219** | PN | **Pn** | **10 12 01.9** | **+2.7** |
| **KWHZ** | **Kaweka Forest** | **7.83** | **208** | *e*PN | **Pn** | **10 11 56.8** | **-2.6** |
| **KRVZ** | **Karewarewa** | **7.89** | **213** | PN | **Pn** | **10 12 01.0** | **+0.8** |
| **OTVZ** | **Oturere** | **7.93** | **212** | PN | **Pn** | **10 12 00.4** | **-0.4** |
| **NGZ** | **Ngauruhoe** | **7.97** | **213** | PN | **Pn** | **10 12 03.0** | **+1.7** |
| **KAHZ** | **Kahuranaki** | **7.99** | **204** | PN | **Pn** | **10 11 58.4** | **-3.1** |
| **BHHZ** | **Black Hill Sta** | **8.03** | **209** | PN | **Pn** | **10 12 00.1** | **-2.0** |
| **KRHZ** | **Kereru** | **8.04** | **207** | PN | **Pn** | **10 11 59.9** | **-2.2** |
| **MOVZ** | **Moawhango** | **8.10** | **211** | PN | **Pn** | **10 12 01.7** | **-1.2** |
| **WNVZ** | **Wahianoa** | **8.10** | **212** | PN | **Pn** | **10 12 02.4** | **-0.6** |
| **PKVZ** | **Pokaka** | **8.18** | **213** | PN | **Pn** | **10 12 06.3** | **+2.2** |
| **MTVZ** | **Mangateitei** | **8.20** | **212** | PN | **Pn** | **10 12 04.4** | **0.0** |
| **PXZ** | **Pawanui** | **8.21** | **203** | PN | **Pn** | **10 12 01.1** | **-3.3** |
| **VRZ** | **Vera Road** | **8.34** | **216** | PN | **Pn** | **10 12 08.3** | **+2.2** |
| **PNHZ** | **Pukenui** | **8.34** | **207** | PN | **Pn** | **10 12 03.7** | **-2.6** |
| **WPHZ** | **Waipukurau** | **8.38** | **205** | PN | **Pn** | **10 12 03.7** | **-3.1** |
| **PRHZ** | **Porangahau** | **8.49** | **204** | PN | **Pn** | **10 12 05.4** | **-2.9** |
| **TSZ** | **Takapari Road** | **8.56** | **208** | PN | **Pn** | **10 12 06.4** | **-2.8** |
| **DVHZ** | **Dannevirke** | **8.69** | **206** | PN | **Pn** | **10 12 08.8** | **-2.2** |
| **WAZ** | **Wanganui** | **8.72** | **213** | PN | **Pn** | **10 12 11.1** | **-0.4** |
| **ANWZ** | **Angora Road** | **8.72** | **204** | PN | **Pn** | **10 12 09.5** | **-2.0** |
| ANWZ | | | | SN | **Sn** | **10 13 45.3** | **-3.2** |
| **NEZ** | **North Egmont** | **8.78** | **218** | *e*PN | **Pn** | **10 12 16.5** | **+4.1** |
| **PREZ** | **Palmer Road** | **8.80** | **218** | PN | **Pn** | **10 12 16.7** | **+4.1** |
| **POWZ** | **Post Office Ro** | **8.92** | **207** | *e*PN | **Pn** | **10 12 11.3** | **-2.9** |
| **PRWZ** | **Pori Road** | **8.99** | **206** | *e*PN | **Pn** | **10 12 12.6** | **-2.5** |
| **BFZ** | **Birch Farm** | **9.00** | **204** | *e*Pn | **Pn** | **10 12 13.0** | **-2.2** |
| **BFZ** | **Birch Farm** | **9.00** | **204** | *e*PN | **Pn** | **10 12 10.8** | **-4.4** |
| **TIWZ** | **Tintock** | **9.21** | **206** | *e*PN | **Pn** | **10 12 14.2** | **-4.0** |
| **MRZ** | **Mangatainoka R** | **9.23** | **207** | *e*PN | Pn | 10 12 13.4 | -5.0 |
| **HOWZ** | **Holdsworth Sta** | **9.46** | **207** | PN | **Pn** | **10 12 18.1** | **-3.4** |
| **TMWZ** | **Te Maipa** | **9.50** | **205** | PN | **Pn** | **10 12 17.9** | **-4.2** |
| **KIW** | **Kapiti Island** | **9.66** | **209** | PN | **Pn** | **10 12 19.9** | **-4.4** |
| **MTW** | **Mount Morrison** | **9.69** | **206** | PN | **Pn** | **10 12 20.0** | **-4.7** |
| **CAW** | **Cannon Point** | **9.81** | **208** | PN | **Pn** | **10 12 21.8** | **-4.5** |
| **TRWZ** | **Traveller** | **9.83** | **205** | PN | **Pn** | **10 12 22.7** | **-3.9** |
| **PAWZ** | **Paruwai Farm** | **9.91** | **206** | PN | **Pn** | **10 12 23.6** | **-4.1** |
| PAWZ | | | | SN | **Sn** | **10 14 12.3** | **-5.4** |
| **MSWZ** | **Moikau Station** | **10.00** | **206** | PN | **Pn** | **10 12 24.7** | **-4.4** |
| MSWZ | | | | SN | **Sn** | **10 14 11.9** | **-8.1** |
| **SNZO** | **South Karori** | **10.12** | **209** | *e*Pn | **Pn** | **10 12 25.9** | **-4.7** |
| **PLWZ** | **Palliser** | **10.13** | **206** | PN | Pn | 10 12 25.4 | -5.4 |
| PLWZ | | | | SN | **Sn** | **10 14 15.4** | **-7.9** |
| **BHW** | **Baring Head** | **10.14** | **208** | PN | **Pn** | **10 12 27.3** | **-3.6** |
| BHW | | | | SN | **Sn** | **10 14 15.2** | **-8.1** |
| **TCW** | **Tory Channel** | **10.22** | **210** | PN | **Pn** | **10 12 27.7** | **-4.3** |
| **TUWZ** | **Tuamarina** | **10.54** | **211** | *e*PN | Pn | 10 12 31.1 | -5.2 |
| TUWZ | | | | SN | **Sn** | **10 14 25.8** | **-7.4** |
| **NNZ** | **Nelson** | **10.62** | **213** | PN | **Pn** | **10 12 33.8** | **-3.7** |
| NNZ | | | | SN | **Sn** | **10 14 28.8** | **-6.4** |
| **CMWZ** | **Cape Campbell** | **10.69** | **209** | SN | **Sn** | **10 14 32.7** | **-4.1** |
| **QRZ** | **Quartz Range** | **10.74** | **217** | *e*PN | **Pn** | **10 12 36.2** | **-2.9** |
| **BSWZ** | **Blackbirch Sta** | **10.81** | **210** | PN | **Pn** | **10 12 36.9** | **-3.1** |
| **THZ** | **Tophouse** | **11.27** | **213** | *e*Pn | **Pn** | **10 12 43.1** | **-3.3** |
| **THZ** | **Tophouse** | **11.27** | **213** | PN | **Pn** | **10 12 41.9** | **-4.6** |
| **CTZ** | **Chatham Island** | **11.30** | **172** | PN | **Pn** | **10 12 45.2** | **-1.6** |
| CTZ | | | | SN | Sn | 10 14 40.8 | -11 |
| **KHZ** | **Kahutara** | **11.53** | **209** | *e*Pn | **Pn** | **10 12 46.0** | **-3.8** |
| **KHZ** | **Kahutara** | **11.53** | **209** | *e*PN | Pn | 10 12 44.8 | -5.0 |
| KHZ | | | | SN | Sn | 10 14 45.9 | -11 |
| **DSZ** | **Denniston Nort** | **11.79** | **216** | PN | **Pn** | **10 12 49.4** | **-4.1** |
| DSZ | | | | SN | **Sn** | **10 14 55.6** | **-8.2** |
| **LTZ** | **Lake Taylor** | **12.37** | **212** | *e*Pn | **Pn** | **10 12 57.8** | **-3.6** |
| **LTZ** | **Lake Taylor** | **12.37** | **212** | *e*PN | Pn | 10 12 56.1 | -5.2 |
| LTZ | | | | SN | Sn | 10 15 06.8 | -11 |
| **INZ** | **Inchbonnie** | **12.70** | **214** | *e*PN | **Pn** | **10 13 01.4** | **-4.5** |
| INZ | | | | SN | Sn | 10 15 16.7 | -9.4 |
| **CRLZ** | **Canterbury Las** | **12.86** | **209** | *e*Pn | **Pn** | **10 13 03.7** | **-4.3** |
| CRLZ | | | | *e*Sn | Sn | 10 15 20.6 | -9.3 |
| **CRLZ** | **Canterbury Las** | **12.86** | **209** | PN | **Pn** | **10 13 03.5** | **-4.6** |
| **OXZ** | **Oxford** | **12.90** | **211** | *e*Pn | **Pn** | **10 13 04.0** | **-4.6** |
| **OXZ** | **Oxford** | **12.90** | **211** | *e*PN | Pn | 10 13 02.6 | -6.1 |
| OXZ | | | | SN | Sn | 10 15 18.8 | -12 |
| **MQZ** | **McQueen's Vall** | **12.96** | **208** | *e*Pn | Pn | 10 13 04.1 | -5.3 |
| MQZ | | | | *e*Sn | Sn | 10 15 19.8 | -12 |
| **MQZ** | **McQueen's Vall** | **12.96** | **208** | *e*PN | Pn | 10 13 01.2 | -8.2 |
| MQZ | | | | SN | Sn | 10 15 18.4 | -14 |
| **WVZ** | **Waitaha Valley** | **13.31** | **215** | PN | **Pn** | **10 13 12.0** | **-2.2** |
| WVZ | | | | SN | Sn | 10 15 29.8 | -11 |
| **RPZ** | **Rata Peaks** | **13.65** | **212** | Pn | Pn | 10 13 13.7 | -5.2 |
| | 6.8nm,0.3s,baz=45,slow=3.6,SNR=13 | | | | | | |
| RPZ | | | | Sn | Sn | 10 15 37.5 | -12 |
| | 26nm,0.3s,baz=108,slow=20,SNR=16 | | | | | | |
| **RPZ** | **Rata Peaks** | **13.65** | **212** | *e*Pn | Pn | 10 13 13.7 | -5.2 |
| RPZ | | | | *e*Pn | Pn | 10 13 14.0 | -4.8 |
| RPZ | | | | *e*Sn | Sn | 10 15 37.5 | -12 |
| **RPZ** | **Rata Peaks** | **13.65** | **212** | PN | Pn | 10 13 13.2 | -5.6 |
| **FOZ** | **Fox Glacier** | **14.10** | **216** | *e*Pn | **Pn** | **10 13 21.6** | **-3.3** |
| **FOZ** | **Fox Glacier** | **14.10** | **216** | *e*PN | Pn | 10 13 19.7 | -5.2 |
| FOZ | | | | SN | Sn | 10 15 46.1 | -14 |
| **LBZ** | **Lake Benmore** | **14.57** | **213** | *e*Pn | **Pn** | **10 13 26.6** | **-4.8** |
| LBZ | | | | *e*Sn | Sn | 10 16 01.0 | -10 |
| **LBZ** | **Lake Benmore** | **14.57** | **213** | *e*PN | Pn | 10 13 24.5 | -6.8 |
| **ODZ** | **Otahua Downs** | **14.88** | **210** | *e*Pn | Pn | 10 13 30.1 | -5.4 |
| ODZ | | | | *e*Sn | Sn | 10 16 19.8 | -12 |
| **ODZ** | **Otahua Downs** | **14.88** | **210** | *e*PN | Pn | 10 13 29.0 | -6.5 |
| **JCZ** | **Jackson Bay** | **15.00** | **216** | *e*PN | Pn | 10 13 29.7 | -7.6 |
| JCZ | | | | SN | Sn | 10 16 09.6 | -13 |
| **MSVF** | **Nonsavu** | **15.01** | **349** | *e*P | **Pn** | **10 13 38.6** | **+1.1** |
| MSVF | | | | pmax | pmax | | |
| | comp=Z,340nm,0.8s | | | | | | |
| **MSVF** | **Nonsavu** | **15.01** | **349** | *e*Pn | **Pn** | **10 13 38.6** | **+1.1** |
| **WKZ** | **Wanaka** | **15.44** | **214** | *e*Pn | **Pn** | **10 13 39.1** | **-3.9** |
| | comp=Z,604nm,1.9s | | | | | | |
| **WKZ** | **Wanaka** | **15.44** | **214** | *e*PN | **Pn** | **10 13 36.2** | **-6.8** |
| **EAZ** | **Earnscleugh** | **15.62** | **212** | *e*PN | **Pn** | **10 13 38.5** | **-6.7** |
| **NIUE** | **Niue** | **15.65** | **33** | P | **Pn** | **10 13 41.2** | **-4.6** |
| | baz=15,SNR=16 | | | | | | |
| **TUZ** | **Tuapeka** | **16.04** | **210** | *e*PN | **Pn** | **10 13 46.7** | **-3.8** |
| **MLZ** | **Mavora Lakes** | **16.27** | **214** | *e*Pn | **Pn** | **10 13 51.7** | **-1.9** |
| | comp=Z,459nm,2.0s | | | | | | |
| MLZ | | | | *e*Sn | **Sn** | **10 16 46.8** | **-6.2** |
| **MLZ** | **Mavora Lakes** | **16.27** | **214** | *e*PN | **Pn** | **10 13 47.9** | **-5.7** |
| **DZM** | **Mont Dzumac** | **16.68** | **305** | Pn | **P** | **10 14 03.4** | **+2.4** |
| | comp=Z,3.9nm,0.3s,baz=121,slow=14,SNR=35 | | | | | | |
| DZM | | | | LR | LR | 10 19 22.3 | |
| | comp=Z,54μm,18.5s,baz=140,slow=33 | | | | | | |
| DZM | | | | ScP | **ScP** | **10 22 20.1** | **+0.7** |
| | comp=Z,0.8nm,0.3s,baz=218,slow=4.6,SNR=6.0 | | | | | | |
| **DZM** | **Mont Dzumac** | **16.68** | **305** | *e*P | **P** | **10 14 04.8** | **+3.8** |
| | comp=Z,896nm,1.2s | | | | | | |
| DZM | | | | *e*LQ | LQ | 10 17 14.2 | |
| | comp=Z,17μm,29.6s | | | | | | |
| DZM | | | | *e*LR | LR | 10 18 00.0 | |
| | comp=Z,107μm,25.2s | | | | | | |
| **DZM** | **Mont Dzumac** | **16.68** | **305** | *e*Pn | **P** | **10 14 04.1** | **+3.1** |
| | comp=Z,1μm,1.6s | | | | | | |
| **WHZ** | **Wether Hill Ro** | **16.74** | **213** | *e*Pn | **Pn** | **10 13 55.7** | **-3.8** |
| | comp=Z,492nm,1.9s | | | | | | |
| **DCZ** | **Deep Cove** | **16.81** | **216** | *e*Pn | **Pn** | **10 14 00.2** | **-0.1** |
| | comp=Z,51nm,0.9s | | | | | | |
| **LHI** | **Lord Howe Isla** | **18.71** | **267** | *e*P | **P** | **10 14 23.0** | **-0.3** |
| | comp=Z,773nm,1.5s | | | | | | |
| **AFI** | **Afiamalu** | **19.67** | **21** | P | **P** | **10 14 31.8** | **-2.1** |
| | comp=Z,8.2nm,0.3s,baz=158,slow=5.9,SNR=15 | | | | | | |
| AFI | | | | S | S | 10 18 01.4 | -13 |
| | comp=Z,9.9nm,0.3s,baz=134,slow=19,SNR=6.7 | | | | | | |
| AFI | | | | LR | LR | 10 22 48.0 | |
| | comp=Z,2μm,18.1s,baz=182,slow=39 | | | | | | |
| **AFI** | **Afiamalu** | **19.67** | **21** | *e*P | **P** | **10 14 31.0** | **-2.9** |
| AFI | | | | pmax | pmax | | |
| | comp=Z,410nm,1.2s | | | | | | |
| **AFI** | **Afiamalu** | **19.67** | **21** | *e*P | **P** | **10 14 31.0** | **-2.9** |
| AFI | | | | S | S | 10 18 01.4 | -13 |
| AFI | | | | *e*S | **Sn** | **10 18 10.6** | **-4.9** |
| AFI | | | | *e*Sn | Sn | 10 18 11.4 | -4.1 |
| **RAR** | **Rarotonga** | **20.42** | **61** | P | Pn | 10 14 43.8 | -0.5 |
| | comp=Z,36nm,0.8s,baz=249,slow=4.2,SNR=11 | | | | | | |
| RAR | | | | S | S | 10 18 16.5 | -12 |
| | comp=Z,104nm,0.9s,baz=78,slow=16,SNR=5.2 | | | | | | |
| RAR | | | | LR | LR | 10 23 11.0 | |
| | comp=Z,5μm,18.0s,baz=258,slow=38 | | | | | | |
| **RAR** | **Rarotonga** | **20.42** | **61** | P | Pn | 10 14 43.8 | -0.5 |
| RAR | | | | pmax | pmax | | |
| | comp=Z,81nm,0.8s | | | | | | |
| RAR | | | | MLR | MLR | | |
| | comp=Z,5μm,18.0s | | | | | | |
| **RAR** | **Rarotonga** | **20.42** | **61** | *e*P | Pn | 10 14 44.1 | -0.2 |
| | comp=Z,1μm,1.7s | | | | | | |
| RAR | | | | *e*S | S | 10 18 15.8 | -13 |
| **MGCD** | **Mangrove Creek** | **25.16** | **260** | P | **P** | **10 15 34.2** | **+4.4** |
| | baz=25,SNR=28 | | | | | | |
| **ARMA** | **Armidale** | **25.19** | **267** | P | **P** | **10 15 34.9** | **+4.6** |
| | baz=25,SNR=18 | | | | | | |
| **ARMA** | **Armidale** | **25.19** | **267** | *e*P | **P** | **10 15 27.1** | **-3.1** |
| | comp=Z,85nm,1.0s | | | | | | |
| ARMA | | | | LR | LR | | |
| | comp=Z,16μm,20.0s | | | | | | |
| **CNB** | **Canberra Magne** | **26.42** | **255** | P | **P** | **10 15 44.9** | **+3.5** |
| | baz=27,SNR=26 | | | | | | |
| **MILA** | **Mila** | **26.54** | **251** | P | **P** | **10 15 46.6** | **+4.2** |
| | baz=27,SNR=16 | | | | | | |
| **CAN** | **Canberra** | **26.72** | **255** | P | **P** | **10 15 47.3** | **+3.3** |
| | baz=27 | | | | | | |
| **CAN** | **Canberra** | **26.72** | **255** | *e*P | **P** | **10 15 40.4** | **-3.6** |
| CAN | | | | pmax | pmax | | |
| | comp=Z,46nm,0.8s | | | | | | |
| **CAN** | **Canberra** | **26.72** | **255** | *e*P | **P** | **10 15 40.4** | **-3.6** |
| | comp=Z,46nm,0.8s | | | | | | |
| CAN | | | | LR | LR | | |
| | comp=Z,22μm,20.0s | | | | | | |
| **MCQ** | **Macquarie Isla** | **26.97** | **209** | PFAKE | | 10 16 00.0 | +14 |
| MCQ | | | | LR | LR | | |
| | comp=Z,10μm,21.0s | | | | | | |
| **EIDS** | **Eidsvold** | **27.16** | **278** | P | **P** | **10 15 50.3** | **+2.3** |
| | baz=27,SNR=61 | | | | | | |
| **EIDS** | **Eidsvold** | **27.16** | **278** | *e*P | **P** | **10 15 50.2** | **+2.3** |
| | comp=Z,184nm,0.8s | | | | | | |
| EIDS | | | | LR | LR | | |
| | comp=Z,17μm,22.0s | | | | | | |
| **YNG** | **Young** | **27.29** | **257** | P | **P** | **10 15 52.5** | **+3.4** |
| | baz=27,SNR=40 | | | | | | |
| **TBI** | **Tubuai** | **27.50** | **78** | *e*P | **P** | **10 15 49.4** | **-1.6** |
| | comp=Z,204nm,1.1s | | | | | | |
| TBI | | | | *e*S | **S** | **10 20 26.5** | **-3.2** |
| | comp=Z,5μm,30.9s | | | | | | |
| TBI | | | | *e*LQ | LQ | 10 21 18.0 | |
| | comp=Z,16μm,27.2s | | | | | | |
| TBI | | | | *e*LR | LR | 10 22 41.7 | |
| | comp=Z,29μm,27.0s,baz=239 | | | | | | |
| **TAU** | **Tasmania Unive** | **28.48** | **239** | *e*P | **P** | **10 15 58.9** | **-0.7** |
| TAU | | | | *e* | | 10 19 12.0 | |
| TAU | | | | pmax | pmax | | |
| | comp=Z,130nm,0.8s | | | | | | |
| **TAU** | **Tasmania Unive** | **28.48** | **239** | *e*P | **P** | **10 15 58.9** | **-0.7** |
| | comp=Z,134nm,0.8s | | | | | | |
| TAU | | | | *e*PcP | **PcP** | **10 19 11.5** | **+0.6** |
| TAU | | | | LR | LR | | |
| | comp=Z,16μm,19.0s | | | | | | |
| **MOO** | **Moorlands** | **28.50** | **240** | P | **P** | **10 16 01.7** | **+1.9** |
| | baz=29,SNR=32 | | | | | | |
| **RMQ** | **Roma** | **28.72** | **274** | P | **P** | **10 16 05.9** | **+4.0** |
| | baz=29,SNR=118 | | | | | | |
| **TOO** | **Toolangi** | **29.46** | **250** | P | **P** | **10 16 12.2** | **+3.7** |
| | baz=30,SNR=7.1 | | | | | | |
| **TOO** | **Toolangi** | **29.46** | **250** | P | **P** | **10 16 10.2** | **+1.8** |
| TOO | | | | pmax | pmax | | |
| | comp=Z,55nm,0.9s | | | | | | |
| **CMSA** | **Cobar Meteorol** | **29.95** | **262** | P | **P** | **10 16 15.5** | **+2.8** |
| | baz=30,SNR=280 | | | | | | |
| **HNR** | **Honiara** | **30.20** | **315** | *e*P | **P** | **10 16 15.0** | **-0.1** |
| **HNR** | **Honiara** | **30.20** | **315** | P | **P** | **10 16 14.7** | **-0.3** |
| | comp=Z,506nm,0.8s,baz=225,slow=2.9,SNR=28 | | | | | | |
| HNR | | | | LR | LR | 10 27 26.5 | |
| | comp=Z,5μm,18.1s,baz=155,slow=34 | | | | | | |
| **HNR** | **Honiara** | **30.20** | **315** | *e*P | **P** | **10 16 14.7** | **-0.3** |
| HNR | | | | *e*P | **P** | **10 16 15.7** | **+0.6** |
| **PAE** | **Paea** | **30.28** | **68** | *e*P | **P** | **10 16 15.0** | **-0.8** |
| | comp=Z,26nm,1.1s | | | | | | |
| **PAE** | **Paea** | **30.28** | **68** | *e*T | T | 10 47 34.3 | |
| | comp

ASAR S **S** **10 24 16.2 -0.6**
comp=Z,20nm,1.0s,baz=112,slow=15,SNR=9.3
ASAR PKiKP **PKiKP** **10 26 55.9 -1.2**
comp=Z,3.8nm,0.7s,baz=106,slow=1.5,SNR=9.9
ASAR LR LR 10 35 22.6
comp=Z,6µm,18.2s,baz=121,slow=36
**TAOE Nuku Hiva Isla 42.88 65** *e*S **S** **10 24 26.6 +0.8**
comp=Z,3µm,25.0s
TAOE *e*LQ LQ 10 28 01.6
comp=Z,14µm,29.3s
TAOE *e*LR LR 10 29 43.4
comp=Z,14µm,29.0s,baz=237
**KWAJ Kwajalein Atol 43.09 340** PFAKE 10 18 20.0 +15
KWAJ LR LR
comp=Z,7µm,22.0s
**PTCN Pitcairn Islan 43.10 93** PFAKE 10 18 20.0 +15
PTCN LR LR
comp=Z,8µm,22.0s
**WB2 Warramunga Arr 43.45 275** *e*P **P** **10 18 07.2 -0.5**
WB2 *e*P **P** **10 18 07.7 0.0**
**WRAB Tennant Creek 43.46 275***c i*P **P** **10 18 07.9 +0.2**
**WRAB Tennant Creek 43.46 275** *e*P **P** **10 18 07.7 0.0**
comp=Z,670nm,0.6s
WRAB LR LR
comp=Z,10µm,20.0s
**WR1 Warramunga Arr 43.46 275** *e*P **P** **10 18 07.7 -0.1**
comp=Z,793nm,0.6s
WR1 *e*S **S** **10 24 35.2 +1.0**
WR1 *e* 10 26 56.3
**WRA Warramunga Arr 43.47 275** P **P** **10 18 07.7 -0.1**
comp=Z,758nm,0.8s,baz=115,slow=7.7,SNR=761
WRA ScP **ScP** **10 23 44.1 -0.2**
comp=Z,26nm,1.0s,baz=118,slow=4.3,SNR=6.7
WRA S **S** **10 24 35.2 +1.0**
comp=Z,18nm,1.0s,baz=114,slow=15,SNR=8.5
WRA PKiKP **PKiKP** **10 26 56.3 -1.9**
comp=Z,4.1nm,0.6s,baz=109,slow=0.2,SNR=12
WRA LR LR 10 34 45.5
comp=Z,9µm,21.2s,baz=110,slow=34
**WRA Warramunga Arr 43.47 275** P **P** **10 18 07.7 -0.1**
WRA S **S** **10 24 35.2 +1.0**
WRA pmax pmax
comp=Z,786nm,0.8s
WRA smax smax
comp=N,18nm,1.0s
**MMPI Merauke 44.64 293** P **P** **10 18 18.3 +1.1**
**PATS Pohnpei 44.78 327** PFAKE 10 18 30.0 +12
PATS LR LR
comp=Z,9µm,20.0s
**FORT Forrest 44.79 257** P **P** **10 18 18.3 0.0**
baz=45,SNR=48
**FORT Forrest 44.79 257** *e*P **P** **10 18 18.0 -0.3**
comp=Z,3µm,0.8s
FORT LR LR
comp=Z,131µm,19.0s
**SBA Scott Base 45.84 184** P **P** **10 18 25.9 0.0**
SBA pmax pmax
comp=Z,117nm,1.2s
**VNDA Vanda 45.88 186** P **P** **10 18 28.2 +1.9**
comp=Z,14nm,0.7s,baz=4.8,slow=7.7,SNR=50
VNDA PP **PP** **10 20 18.4 +4.5**
comp=Z,18nm,1.0s,baz=8.6,slow=4.9,SNR=3.7
VNDA ScP **ScP** **10 23 54.0 +0.7**
comp=Z,10nm,0.8s,baz=340,slow=4.6,SNR=6.8
VNDA LR LR 10 34 08.0
comp=Z,2µm,21.2s,baz=34,slow=31
**VNDA Vanda 45.88 186** *e*P **P** **10 18 27.2 +0.9**
VNDA PP **PP** **10 20 18.4 +4.5**
**WRKA Warakurna 46.49 265** P **P** **10 18 31.4 -0.4**
baz=47,SNR=55
**JAY Jayapura 48.25 300** P **P** **10 18 46.6 +1.0**
**JAY Jayapura 48.25 300** P **P** **10 18 45.3 -0.3**
**KDU Kakadu 48.58 282** P **P** **10 18 48.3 +0.2**
baz=49,SNR=52
**GENI Genyem 48.59 299** P **P** **10 18 49.0 +0.8**
**MTN Manton Dam 49.61 281** P **P** **10 18 56.2 +0.3**
baz=50,SNR=58
**MTN Manton Dam 49.61 281** *e*P **P** **10 18 55.0 -0.9**
comp=Z,237nm,0.7s
MTN LR LR
comp=Z,9µm,20.0s
**KMBL Kambalda 49.68 255** P **P** **10 18 55.8 -0.6**
baz=50,SNR=29
**KNRA Kununurra 50.15 277** P **P** **10 19 00.7 +0.7**
baz=50,SNR=78
**FITZ Fitzroy Crossi 51.63 272** P **P** **10 19 11.2 0.0**
comp=Z,128nm,0.7s,baz=132,slow=6.5,SNR=184
**FITZ Fitzroy Crossi 51.63 272** P **P** **10 19 11.5 +0.3**
baz=52,SNR=121
**SAUI Saumlaki 52.14 287** P **P** **10 19 15.6 +0.5**
comp=Z,1µm,1.0s,comp=Z,11µmcomp=Z,9µm
**SAUI Saumlaki 52.14 287** *e*P **P** **10 19 15.2 +0.2**
comp=Z,1µm,1.0s
SAUI LR LR
comp=Z,12µm,20.0s
**KMPI Kaimana, Papua 52.81 293** P **P** **10 19 20.8 +0.8**
**CASY Casey 52.88 209** PFAKE 10 19 30.0 +10
CASY LR LR
comp=Z,3µm,18.0s
**NWAO Narrogin (SRO) 52.95 251** LR LR 10 38 45.9
comp=Z,4µm,21.4s,baz=334,slow=32
**NWAO Narrogin (SRO) 52.95 251** *e*P **P** **10 19 18.9 -2.0**
NWAO pmax pmax
comp=Z,110nm,1.3s
**NWAO Narrogin (SRO) 52.95 251** *e*P **P** **10 19 18.9 -2.0**
comp=Z,108nm,1.4s
**KLBR Kellerberrin 52.95 253** P **P** **10 19 19.7 -1.2**
baz=53,SNR=58
**MUN Mundaring 54.07 252** P **P** **10 19 27.9 -1.2**
baz=54,SNR=18
**BLDU Ballidu 54.12 254** P **P** **10 19 28.5 -1.0**
baz=54,SNR=20
**FAKI Fak Fak 54.41 292** *e*P **P** **10 19 30.8 -0.9**
comp=Z,329nm,0.8s
FAKI LR LR
comp=Z,5µm,20.0s
**MORW Morawa 55.21 255** P **P** **10 19 36.5 -0.9**
baz=55,SNR=36
**MBWA Marble Bar 55.26 266** *e*P **P** **10 19 36.2 -1.7**
comp=Z,213nm,0.9s
MBWA LR LR
comp=Z,8µm,21.0s
**BNDI Bandanaira 55.28 289** P **P** **10 19 38.6 +0.5**
**PUH Pauahi 56.39 27** *e*P **P** **10 19 47.1 +1.2**
comp=Z,395nm,0.8s
**NPH North Pit 56.40 27** PFAKE 10 20 00.0 +14
NPH LR LR
comp=Z,3µm,18.0s
**UWB Uwekahuna B 56.41 27** PFAKE 10 20 00.0 +14
UWB LR LR
comp=Z,6µm,21.0s
**MLH Mauna Loa 56.43 27** *e*P **P** **10 19 47.6 +1.2**
MLH pmax pmax
comp=Z,360nm,0.8s
**MLH Mauna Loa 56.43 27** *e*P **P** **10 19 47.5 +1.2**
comp=Z,365nm,0.8s
**STCH Steam Cracks 56.43 27** *e*P **P** **10 19 47.9 +1.7**
comp=Z,229nm,0.8s
**JCUZ Jacuzzi 56.44 27** PFAKE 10 20 00.0 +14
JCUZ LR LR
comp=Z,6µm,20.0s
**SWI Sorong 56.46 294** P **P** **10 19 46.5 0.0**
**SWI Sorong 56.46 294** P **P** **10 19 47.3 +0.8**
SWI pmax pmax
comp=Z,145nm,0.8s
**HULD Heiheiahulu Di 56.52 27** *e*P **P** **10 19 47.0 +0.3**
HULD *ep*P **pP** **10 19 56.8 -0.5**
**POHA Pohakuloa 56.62 27** *e*P **P** **10 19 48.8 +1.1**
comp=Z,229nm,0.8s
**MSAI Masohi 56.77 289** P **P** **10 19 48.6 -0.1**
**HPAH Hawaii Prepara 56.80 26** *e*P **P** **10 19 49.5 +0.7**
HPAH *ep*P **pP** **10 19 59.2 -0.1**
**SOEI Soe 56.94 280** P **P** **10 19 51.6 +1.5**
comp=Z,816nm,1.0s,comp=Z,9µm
**SOEI Soe 56.94 280** *e*P **P** **10 19 51.1 +1.1**
comp=Z,696nm,0.9s
SOEI LR LR
comp=Z,9µm,20.0s
**AAI Ambon 57.15 289** P P 10 20 06.4 +15
**AAI Ambon 57.15 289** P **P** **10 19 49.7 -1.7**
AAI pmax pmax
comp=Z,162nm,1.1s
**HON Honolulu 57.18 23** *e*P **P** **10 19 53.2 +1.9**
**HON Honolulu 57.18 23** *e*P **P** **10 19 52.1 +0.8**
**KEKH Kekaha 57.25 21** *e*P **P** **10 19 52.7 +0.9**
comp=Z,312nm,1.2s

**KIP Kipapa 57.27 23** *e*P **P** **10 19 53.2 +1.2**
KIP pmax pmax
comp=Z,540nm,1.6s
**KIP Kipapa 57.27 23** *e*P **P** **10 19 53.2 +1.2**
comp=Z,539nm,1.6s
**GUMO Guam 57.50 317** PFAKE 10 20 10.0 +16
GUMO LR LR
comp=Z,4µm,21.0s
**QSPA South Pole Qui 57.56 180** *e*P **P** **10 19 56.0 +2.3**
comp=Z,215nm,0.6s
QSPA LR LR
comp=Z,3µm,20.0s
**NLAI Namlea 58.29 288** P **P** **10 20 00.0 +0.6**
comp=Z,218nm,1.6s,comp=Z,4µm
**MMRI Maumere 59.23 280** P **P** **10 20 05.3 -0.6**
comp=Z,896nm,1.0s,comp=Z,9µm
**MMRI Maumere 59.23 280** *e*P **P** **10 20 05.4 -0.6**
comp=Z,1µm,1.1s
MMRI LR LR
comp=Z,4µm,20.0s
**GIRL Giralia 59.24 261** P **P** **10 20 06.9 +1.0**
baz=59,SNR=14
**LBMI Labuha 59.53 291** P **P** **10 20 10.0 +1.9**
comp=Z,127nm,1.4s,comp=Z,3µm
**EDFI Ende, Flores 59.62 279** P **P** **10 20 06.9 -1.9**
comp=Z,207nm,1.0s,comp=Z,3µm
**BASI Baing, Sumba 59.77 277** P **P** **10 20 09.9 +0.2**
comp=Z,1µm,1.0s,comp=Z,9µm
**MIR Mirnyy 59.86 208***i*P **P** **10 20 09.0 -0.5**
MIR *i*S **S** **10 28 13.0 -5.5**
MIR pmax pmax
comp=Z,22nm,1.2s
MIR pmax pmax
comp=Z,2µm,5.0s
MIR smax smax
comp=E,2µm,8.0s
**SANI Sanana 59.89 289** P **P** **10 20 09.9 -0.6**
comp=E,316nm,1.4s,comp=E,4µmcomp=E,6µm
**WSI Waingapu 60.30 278** P **P** **10 20 14.7 +1.4**
comp=E,2µm,0.9s
**TNTI Ternate 60.51 292** PFAKE 10 20 30.0 +15
TNTI LR LR
comp=Z,2µm,20.0s
**WBSI Waikabubak, Su 61.07 277** P **P** **10 20 19.1 +0.5**
comp=Z,275nm,0.9s,comp=Z,5µm
**KDI Kendari 61.50 285** P **P** **10 20 20.6 -0.9**
comp=Z,182nm,1.0s,comp=Z,3µm
**PLAI Plampang 62.85 277** P **P** **10 20 29.8 -0.7**
comp=Z,529nm,0.8s,comp=Z,6µm
**KMSI Cibinong 63.06 290** P P 10 20 37.9 +6.0
**LUWI Luwuk 63.07 287** P **P** **10 20 32.9 +1.0**
comp=Z,387nm,1.1s,comp=Z,4µm
**LUWI Luwuk 63.07 287** *e*P **P** **10 20 31.6 -0.3**
comp=Z,260nm,0.9s
LUWI LR LR
comp=Z,3µm,21.0s
**KAPI Kappang 63.27 282** PFAKE 10 20 40.0 +6.7
KAPI LR LR
comp=Z,5µm,21.0s
**KAPI Kappang 63.27 282** P **P** **10 20 34.0 +0.7**
SNR=6.5
KAPI P **P** **10 20 34.0 +0.7**
SNR=6.5
**BNSI Bone 63.31 283** P **P** **10 20 34.4 +0.8**
comp=Z,183nm,1.3s,comp=Z,3µm
**SPSI Sidrap Palu 63.84 283** P **P** **10 20 34.4 -2.6**
comp=Z,168nm,0.9s,comp=Z,2µm
**APSI Ampana 64.05 287** P **P** **10 20 39.0 +0.6**
comp=Z,188nm,1.4s,comp=Z,3µm
**TTSI Tana Toraja 64.31 284** P **P** **10 20 42.1 +1.9**
comp=Z,135nm,1.0s,comp=Z,2µm
**MRSI Marisa 64.63 288** P **P** **10 20 39.8 -2.4**
comp=Z,61nm,0.8s,comp=Z,1µm
**DNP Denpasar 65.08 276** P **P** **10 20 46.5 +1.3**
**SRBI Singaraja 65.39 276** P **P** **10 20 47.3 +0.1**
**PCI Palu 65.52 286** P **P** **10 20 49.1 +1.0**
**PCI Palu 65.52 286** P **P** **10 20 48.7 +0.6**
PCI pmax pmax
comp=Z,591nm,1.0s
**DAV Davao City (W) 65.86 296**↑*i*P **P** **10 20 48.7 -1.5**
**DAV Davao City (W) 65.86 296** PFAKE 10 21 00.0 +10
DAV LR LR
comp=Z,3µm,22.0s
**JAGI Jajag, Banyuwa 66.08 275** P **P** **10 20 48.2 -3.5**
comp=Z,304nm,0.9s,comp=Z,4µm
**JAGI Jajag, Banyuwa 66.08 275** *e*P **P** **10 20 50.5 -1.1**
comp=Z,264nm,0.9s
JAGI LR LR
comp=Z,4µm,20.0s
**MPSI Mapaga 66.19 287** P **P** **10 20 51.2 -1.2**
comp=Z,164nm,1.0s,comp=Z,2µm
**GMJI Gumukmas 66.78 275** P **P** **10 20 55.8 -0.3**
**BLJI Banyuglugur 66.93 276** P **P** **10 20 55.8 -1.3**
comp=Z,277nm,0.8s,comp=Z,3µm
**KMMI Kalianget 66.99 276** P **P** **10 20 57.9 +0.5**
**KBKI Kotabaru 67.18 281** P **P** **10 20 58.9 +0.2**
**PWJI Pagerwojo 68.29 274** P **P** **10 21 05.1 -0.6**
**GRJI Gresik 68.31 276** P **P** **10 21 07.1 +1.3**
comp=Z,349nm,0.9s,comp=Z,3µm
**PCJI Pacitan 68.73 274** P **P** **10 21 08.5 +0.1**
**UGM Wanagama 69.43 274** P **P** **10 21 12.4 -0.4**
**UGM Wanagama 69.43 274** *e*P **P** **10 21 12.0 -0.8**
comp=Z,167nm,0.8s
UGM LR LR
comp=Z,7µm,20.0s
**MTKI Muara Teweh, K 69.55 282** P **P** **10 21 13.2 -0.3**
**CBIJ Chichi jima 69.93 323** PFAKE 10 21 30.0 +15
CBIJ LR LR
comp=Z,2µm,20.0s
**SMRI Semarang 69.95 274** *e*P **P** **10 21 14.6 -1.4**
comp=Z,141nm,0.9s
SMRI LR LR
comp=Z,7µm,20.0s
**MAW Mawson 70.03 201** P **P** **10 21 16.1 +0.5**
comp=Z,83nm,1.0s,baz=115,slow=7.6,SNR=41
MAW LR LR 10 50 48.4
comp=Z,5µm,20.7s,baz=112,slow=35
**MAW Mawson 70.03 201** P **P** **10 21 16.4 +0.8**
baz=70,SNR=48
**MAW Mawson 70.03 201** *e*P **P** **10 21 15.7 +0.1**
MAW pmax pmax
comp=Z,25nm,1.0s
**MAW Mawson 70.03 201** *e*P **P** **10 21 15.7 +0.1**
comp=Z,25nm,1.0s
**TSM Tawau 70.16 289**↑↑P **P** **10 21 17.0 -0.2**
**MYLDM Lahad Datu 70.18 290**↑↑P **P** **10 21 19.6 +2.3**
**MYLDM Lahad Datu 70.18 290** *e*P **P** **10 21 18.0 +0.6**
comp=Z,244nm,1.6s
**KPJI Karang Pucung 71.07 273** P **P** **10 21 20.3 -2.5**
comp=Z,171nm,0.9s,comp=Z,2µm
**PBKI Pangkalan Bun 71.25 279** P **P** **10 21 24.5 +0.6**
comp=Z,599nm,0.9s,comp=Z,5µm
**CISI Cisompet, Garu 71.90 273** P **P** **10 21 28.0 +0.1**
comp=Z,244nm,0.8s,comp=Z,3µm
**CISI Cisompet, Garu 71.90 273** *e*P **P** **10 21 26.9 -1.0**
comp=Z,198nm,0.9s
CISI LR LR
comp=Z,4µm,20.0s
**JCJI Jatiwangi 72.07 274** P **P** **10 21 28.7 -0.2**
comp=Z,337nm,0.9s
**XMIS Christmas Isla 72.22 269** *e*P **P** **10 21 29.0 -0.7**
comp=Z,89nm,0.9s
XMIS LR LR
comp=Z,9µm,20.0s
**KKM Kota Kinabalu 72.52 289**⇓P **P** **10 21 30.9 -0.7**
**KKM Kota Kinabalu 72.52 289** *e*P **P** **10 21 30.8 -0.8**
comp=Z,79nm,0.9s
KKM LR LR
comp=Z,2µm,20.0s
**CNJI Cibinong 72.61 272** P **P** **10 21 30.3 -1.7**
comp=Z,232nm,0.9s,comp=Z,2µm
**STKI Sintang 72.94 281** P **P** **10 21 33.3 -0.7**
comp=Z,237nm,1.0s
**DBJI Dramaga 73.32 273** P **P** **10 21 33.3 -3.0**
comp=Z,198nm,0.8s,comp=Z,4µm
**BTM Bintulu 73.39 285**⇓P **P** **10 21 36.4 -0.2**
**SBUM Sibu 73.67 284**⇓P **P** **10 21 37.5 -0.8**
**SBUM Sibu 73.67 284** *e*P **P** **10 21 37.7 -0.6**
comp=Z,129nm,1.1s
SBUM LR LR
comp=Z,3µm,20.0s
**USHA Ushuaia 74.57 146** P **P** **10 21 43.7 +0.7**
comp=Z,54nm,1.0s,baz=253,slow=5.4,SNR=4.9
**GO09 Cerro Castillo 74.60 141** *e*P **P** **10 21 44.3 +1.1**
comp=Z,92nm,1.2s
GO09 LR LR
comp=Z,2µm,19.0s

**KSM Kuching 74.69 282**⇑P **P** **10 21 44.0 -0.2**
**KSM Kuching 74.69 282** *e*P **P** **10 21 43.0 -1.3**
comp=Z,123nm,0.8s
KSM LR LR
comp=Z,4µm,22.0s
**SYO Syowa Base 74.85 193**⇓*i*P **P** **10 21 43.0 -1.3**
**SYO Syowa Base 74.85 193**⇓*i*pP pP 10 21 50.6 -4.5
**KASI Kota Agung 75.76 273** P **P** **10 21 49.4 -1.1**
comp=Z,140nm,0.9s,comp=Z,2µm
**KLI Kotabumi 75.81 273** P **P** **10 21 50.3 -0.4**
comp=Z,116nm,0.7s,comp=Z,3µm
**KLI Kotabumi 75.81 273** P **P** **10 21 50.0 -0.7**
KLI pmax pmax
comp=Z,112nm,0.5s
**SNAA Sanae 76.03 179** P **P** **10 21 52.0 +0.9**
**SNAA Sanae 76.03 179***c i*P **P** **10 21 51.7 +0.6**
**SNAA Sanae 76.03 179** *e*P **P** **10 21 51.8 +0.7**
comp=Z,195nm,1.0s
SNAA LR LR
comp=Z,3µm,22.0s
**VNA3 Neumayer Olymp 76.21 176** P **P** **10 21 53.0 +0.9**
**LWLI Liwa 76.40 273** P **P** **10 21 57.8 +3.6**
comp=Z,176nm,0.9s
**VNA2 Neumayer--Watz 76.63 177** P **P** **10 21 55.7 +1.2**
baz=169,slow=5.4
**CHRN Cochrane 76.67 138** *e*P **P** **10 21 55.4 +0.3**
CHRN *ep*P **PcP** **10 22 06.5 0.0**
**NVL N'lazarevskaya 76.69 184** *e*P **P** **10 21 55.5 +0.8**
NVL *e* 10 24 45.7
NVL *e*S **S** **10 31 38.9 +0.3**
NVL *e**SS **SKSac** **10 32 00.5 -3.1**
NVL *e*SS **SS** **10 36 35.0 +1.6**
NVL MLR MLR
comp=Z,2µm,18.0s
**VNA1 Neumayer--Stat 76.87 177** P **P** **10 21 56.9 +1.1**
**JOW Kunigami 77.56 313** PFAKE 10 22 10.0 +10
JOW LR LR
comp=Z,3µm,22.0s
**MNAI Manna 77.68 273** PFAKE 10 22 10.0 +8.7
MNAI LR LR
comp=Z,5µm,21.0s
**PAF Port-aux-Franc 77.98 219** PFAKE 10 22 10.0 +7.6
PAF LR LR
comp=Z,5µm,21.0s
**COCO West Island 78.77 263** PFAKE 10 22 20.0 +13
COCO LR LR
comp=Z,6µm,20.0s
**MASI Maura Aman, Be 78.93 273** P **P** **10 22 07.0 -1.3**
comp=Z,387nm,0.8s,comp=Z,4µm
**INU Inuyama 79.20 325** *e*P **P** **10 22 08.8 -0.3**
comp=Z,39nm,1.0s
INU LR LR
comp=Z,3µm,22.0s
**TWG Pinlang 79.47 306** PFAKE 10 22 20.0 +9.1
TWG LR LR
comp=Z,6µm,21.0s
**MJAR Matsushiro Arr 79.58 326** P **P** **10 22 10.0 -1.2**
comp=Z,16nm,0.9s,baz=161,slow=5.6,SNR=25
MJAR LR LR 10 53 40.8
comp=Z,1µm,20.7s,baz=120,slow=33
**MJAR Matsushiro Arr 79.58 326** P **P** **10 22 10.0 -1.2**
MJAR pmax pmax
comp=Z,17nm,0.9s
**MAJO Matsushiro 79.59 326***c e*P **P** **10 22 10.8 -0.4**
MAJO pmax pmax
comp=Z,30nm,1.0s
**MAJO Matsushiro 79.59 326** *e*P **P** **10 22 11.0 -0.2**
comp=Z,41nm,1.0s
MAJO LR LR
comp=Z,3µm,21.0s
**MAT Matsushiro 79.59 326** P **P** **10 22 09.7 -1.5**
MAT S **S** **10 32 07.0 -3.6**
**MJB9 Matsu-Tunnel 79.59 326** *e*P **P** **10 22 11.0 -0.3**
comp=Z,43nm,1.1s
**YULB Yu-li 79.70 306** PFAKE 10 22 20.0 +7.9
YULB LR LR
comp=Z,1µm,21.0s
**NACB Ninganchiao 80.02 307** PFAKE 10 22 20.0 +6.2
NACB LR LR
comp=Z,2µm,18.0s
**SSLB Suanglung 80.20 306** *e*P **P** **10 22 15.8 +1.0**
comp=Z,32nm,0.8s
SSLB LR LR
comp=Z,2µm,20.0s
**MYKOM Kota Tinggi 80.23 278**⇓P **P** **10 22 15.2 0.0**
**MYKOM Kota Tinggi 80.23 278** *e*P **P** **10 22 14.6 -0.7**
comp=Z,53nm,1.0s
MYKOM LR LR
comp=Z,4µm,20.0s
**YHNB Yeheng 80.50 307** PFAKE 10 22 30.0 +13
YHNB LR LR
comp=Z,2µm,20.0s
**JNU Nakatsue 80.67 319** *e*P **P** **10 22 16.7 -0.5**
comp=Z,32nm,1.0s
**KGM Kluang 80.80 278**⇓P **P** **10 22 17.9 -0.5**
**EFI East Falkland 81.40 147**⇓*e*P **P** **10 22 21.1 +0.2**
EFI pmax pmax
comp=Z,110nm,1.5s
**EFI East Falkland 81.40 147** *e*P **P** **10 22 19.9 -0.9**
comp=Z,123nm,1.1s
**PLCA Paso Flores 81.60 133** P **P** **10 22 23.8 +1.5**
comp=Z,28nm,0.9s,baz=257,slow=5.2,SNR=40
PLCA PKPPKP **P'P'df** **10 49 02.2 -1.5**
comp=Z,2.9nm,0.9s,baz=133,slow=3.6,SNR=3.3
PLCA LR LR 10 49 56.9
comp=Z,2µm,21.7s,baz=268,slow=29
**PLCA Paso Flores 81.60 133** *e*P **P** **10 22 23.9 +1.6**
**PLCA Paso Flores 81.60 133** *e*P **P** **10 22 23.9 +1.5**
comp=Z,63nm,1.0s
**PDSI Padang 81.62 274** P **P** **10 22 21.4 -1.3**
comp=Z,52nm,0.9s
**BKNI Bangkinang 81.80 276** PFAKE 10 22 30.0 +6.4
BKNI LR LR
comp=Z,4µm,21.0s
**QZH Quanzhou 82.57 306**↑*i*P **P** **10 22 25.4 -1.9**
QZH PP **PP** **10 25 37.3 -0.1**
QZH *e*S **S** **10 32 38.3 -3.8**
QZH pmax pmax
comp=Z,3µm,4.2s
QZH LR LR
comp=Z,4µm,20.2s
**H06E1 SOCORRO T-PHAS 82.60 62** T T 11 53 43.8
SNR=15
**YUK Yuzh-Kuril'sk 82.73 335** *e*P P 10 22 19.4 -8.3
YUK *e* 10 25 38.1
YUK *e*PPP PPP 10 27 33.0
YUK *e*S S 10 32 33.1 -10
YUK *e*SS **SS** **10 38 00.2 -6.3**
YUK *e*SSS SSS 10 41 38.3
YUK pmax pmax
comp=Z,63nm,0.8s
YUK pmax pmax
comp=E,36nm,0.4s
YUK pmax pmax
comp=N,47nm,0.7s
YUK pmax pmax
comp=Z,916nm,2.1s
**KUR Kuril'sk 83.10 337** *e*P **P** **10 22 28.8 -0.8**
KUR S **S** **10 32 41.7 -4.8**
KUR smax smax
comp=Z,4µm,19.0s
KUR smax smax
comp=N,3µm,16.0s
KUR smax smax
comp=E,2µm,18.0s
**ASAJ Asahikawa 84.00 333** LR LR 10 51 46.9
comp=E,24nm,20.6s,baz=348,slow=30
**ASAJ Asahikawa 84.00 333** *e*P **P** **10 22 36.1 +1.8**
comp=E,43nm,0.9s
**GO05 HualaæØ 84.06 128** *e*P **P** **10 22 36.6 +1.5**
comp=E,260nm,1.6s
GO05 LR LR
comp=Z,4µm,20.0s
**IPM Ipoh 84.06 279** *e*P **P** **10 22 34.2 -1.1**
comp=Z,70nm,1.1s
IPM LR LR
comp=Z,4µm,20.0s
**KULM Kulim 84.81 280**⇓P **P** **10 22 39.0 -0.2**
**KULM Kulim 84.81 280** *e*P **P** **10 22 38.0 -1.1**
comp=Z,90nm,1.2s
KULM LR LR
comp=Z,4µm,21.0s
**PSI Prapat 84.91 277** LR LR 11 00 23.6
comp=Z,5µm,21.9s,slow=36
**PSI Prapat 84.91 277** *e*P **P** **10 22 37.5 -2.3**
**PSI Prapat 84.91 277** *e*P **P** **10 22 37.5 -2.3**

comp=Z,57nm,1.0s
**SSE Sheshan 84.96 312 P P 10 22 39.0 -0.4**
SSE PP **PP** 10 25 56.0 -0.8
SSE S **S** 10 33 07.3 +1.5
SSE sS **sS** 10 33 24.3 +0.3
SSE pmax pmax
comp=Z,24nm,0.7s
SSE pmax pmax
comp=Z,710nm,5.4s
**TJN Taejon 85.02 319 ||eP P 10 22 39.6 0.0**
**QIZ Qiongzhong 85.23 296 eP P 10 22 41.3 +0.2**
QIZ pP **pP** 10 22 51.4 -0.7
QIZ sP **sP** 10 22 55.1 -1.0
QIZ PP **PP** 10 25 58.8 -0.5
QIZ S **S** 10 33 08.8 -0.3
QIZ SS **SS** 10 38 43.5 -0.8
**GSI Gunungsitoli 85.24 275 P P 10 22 41.3 0.0**
comp=Z,365nm,0.9s,comp=Z,4µm
**GSI Gunungsitoli 85.24 275 eP P 10 22 40.6 -0.7**
comp=Z,256nm,0.8s
GSI LR LR
comp=Z,6µm,21.0s
**KSRS Korea Array 85.50 320 P P 10 22 42.1 +0.2**
comp=Z,25nm,0.8s,baz=142,slow=5.6,SNR=60
KSRS LR LR 10 58 56.7
comp=Z,854nm,18.9s,baz=140,slow=34
**KS15 Wonju Array Si 85.51 320 eP P 10 22 43.5 +1.4**
**KSAR Wonju Array Be 85.51 320 P P 10 22 42.1 +0.1**
**KSAR Wonju Array Be 85.51 320 P P 10 22 42.1 +0.1**
**KS01 Wonju Array Si 85.53 320 eP P 10 22 42.1 0.0**
**ROC1 El Roble 85.86 127 eP P 10 22 45.1 +0.6**
comp=Z,38nm,0.9s
**PEL Peldehue 85.99 127 eP P 10 22 45.8 +1.0**
**PEL Peldehue 85.99 127 eP P 10 22 45.8 +1.0**
comp=Z,151nm,1.4s
PEL LR LR
comp=Z,4µm,21.0s
**SNCC San Nicolas Is 86.08 46 P P 10 22 46.2 +1.2**
baz=227
**INCN Inchon 86.22 320 PFAKE 10 23 00.0 +14**
INCN LR LR
comp=Z,1µm,19.0s
**KCSI Kotacane, Aceh 86.26 277 P P 10 22 44.9 -1.5**
comp=Z,44nm,0.9s,comp=Z,1µm
**SLBS Sierra La Lagu 86.32 59 eP P 10 22 48.3 +1.8**
comp=Z,134nm,1.4s
SLBS LR LR
comp=Z,2µm,19.0s
**YSS Yuzh-Sakhalins 86.36 335 αeP P 10 22 47.0 +1.1**
YSS eS S 10 33 07.5 -11
YSS pmax pmax
comp=Z,2µm,4.4s
YSS MLR MLR
comp=E,1µm,19.0s
YSS MLR MLR
comp=Z,2µm,19.0s
YSS MLR MLR
comp=N,2µm,18.0s
**YSS Yuzh-Sakhalins 86.36 335 PFAKE 10 23 00.0 +14**
YSS LR LR
comp=Z,2µm,21.0s
**SCI2 San Clemente I 86.50 47 P P 10 22 48.4 +1.4**
baz=227
**SCZ2 Santa Cruz Isl 86.53 46 P P 10 22 48.6 +1.4**
baz=226
**TPTI 86.62 276 P P 10 22 47.9 -0.2**
comp=Z,96nm,0.9s,comp=Z,2µm
**SBC Santa Barbara 86.79 45 P P 10 22 49.8 +1.4**
baz=226
**CIS Catalina Islan 86.87 47 P P 10 22 49.6 +0.7**
baz=227,SNR=10
**SRIG Santa Rosalia 86.95 55 PFAKE 10 23 00.0 +11**
SRIG LR LR
comp=Z,2µm,19.0s
**BLG Laguna Peak, P 86.95 46 P P 10 22 49.9 +0.7**
baz=227,SNR=7.6
**TRTT Trang 87.00 281 P P 10 22 50.2 +0.3**
comp=Z,123nm,1.1s,comp=Z,2µm
**PKM Mcpherson Peak 87.03 45 P P 10 22 50.8 +0.9**
baz=226
**NJ2 Nanjing 87.07 311 eP P 10 22 50.1 +0.3**
NJ2 pP **pP** 10 23 00.0 -0.9
NJ2 sP **sP** 10 23 05.3 +0.5
NJ2 S **S** 10 33 29.6 +3.1
NJ2 sS **pS** 10 33 41.0 +0.6
NJ2 SS **SS** 10 39 08.9 -2.0
NJ2 pmax pmax
comp=Z,25nm,0.8s
NJ2 pmax pmax
comp=Z,260nm,4.5s
NJ2 LR LR
comp=Z,2µm,22.8s
**FMP Fort Macarthur 87.15 47 P P 10 22 51.0 +0.9**
baz=227
**SMMC Simmler 87.22 45 P P 10 22 52.0 +1.5**
baz=226
**109C Camp Elliot, M 87.34 48 P P 10 22 52.3 +1.1**
baz=228
**PAGB Antelope Grade 87.35 44 eP P 10 22 52.7 +1.5**
comp=Z,221nm,1.4s
**PMPB Monarch Peak 87.37 43 eP P 10 22 52.6 +1.3**
comp=Z,314nm,1.8s
**SAO San Andreas Ge 87.38 43 eP P 10 22 52.3 +1.1**
**SAO San Andreas Ge 87.38 43 eP P 10 22 52.3 +1.1**
comp=Z,227nm,2.0s
SAO LR LR
comp=Z,4µm,22.0s
**PET Petropavlovsk 87.44 347 eP P 10 22 50.3 -0.8**
PET eS **S** 10 33 29.4 +0.4
PET ePS **PS** 10 34 35.1 -0.3
PET ePPS PPS 10 34 55.8
PET eSS **SS** 10 39 20.5 +5.0
PET pmax pmax
comp=Z,1µm,12.8s
PET pmax pmax
comp=Z,90nm,1.5s
**PET Petropavlovsk 87.44 347 PFAKE 10 23 00.0 +8.9**
PET LR LR
comp=Z,3µm,22.0s
**BAR Barrett 87.47 48 eP P 10 22 52.8 +1.0**
comp=Z,180nm,1.8s
BAR LR LR
comp=Z,2µm,19.0s
**DECC Green Verdugo 87.49 46 P P 10 22 52.7 +0.8**
baz=227
**OSI Osito Audit: C 87.50 46 P P 10 22 52.9 +1.0**
baz=227
**OSI Osito Audit: C 87.50 46 eP P 10 22 53.0 +1.0**
comp=Z,104nm,1.3s
OSI LR LR
comp=Z,2µm,18.0s
**PASC Pasadena Art C 87.53 46 eP P 10 22 52.9 +0.8**
comp=Z,58nm,1.0s
PASC LR LR
comp=Z,3µm,18.0s
**MCCM Marconi Confer 87.55 41 PFAKE 10 23 00.0 +8.0**
MCCM LR LR
comp=Z,4µm,19.0s
**MWC Mount Wilson 87.64 46 eP P 10 22 53.8 +1.0**
**MWC Mount Wilson 87.64 46 eP P 10 22 53.8 +1.0**
comp=Z,180nm,1.6s
MWC LR LR
comp=Z,3µm,18.0s
**MSHR Mys Shultsa 87.69 326 ||eP P 10 22 53.9 +1.4**
**PEA0B Petropavlovsk- 87.71 346 eP P 10 22 52.8 +0.4**
comp=Z,181nm,1.4s
PEA0B LR LR
comp=Z,4µm,22.0s
**PETK Petropavlovsk- 87.71 346 P P 10 22 52.3 -0.1**
comp=Z,39nm,0.9s,baz=116,slow=6.0,SNR=22
PETK LR LR 10 55 44.0
comp=Z,3µm,21.7s,baz=169,slow=31
**PEA1 Petropavlovsk- 87.71 346 eP P 10 22 52.3 -0.1**
**MURC Murrieta 87.75 47 P P 10 22 54.3 +1.1**
baz=228,SNR=37
**MONP2 Monument Peak 87.77 48 P P 10 22 54.5 +1.0**
baz=228,SNR=39
**ARVC Arvin 87.78 45 P P 10 22 54.2 +1.0**
baz=227,SNR=23
**IKP In-Ko-Pah, Jac 87.81 49 P P 10 22 55.0 +1.5**
baz=229,SNR=27
**MLSI Meulaboh, Aceh 87.81 276 P P 10 22 54.1 +0.2**
comp=Z,88nm,1.2s
**LRRC Littlerock Res 87.86 46 eP P 10 22 56.2 +2.7**
**LHMI Lhok Sumawe 87.87 278 PFAKE 10 23 00.0 +5.8**
LHMI LR LR
comp=Z,3µm,19.0s
**FOXC Fox Airport 87.89 46 eP P 10 22 56.1 +2.3**
**BFSC Mount Baldy Ra 87.90 47 P P 10 22 54.9 +1.0**
baz=228,SNR=62
**HOPS Hopland Field 88.05 40 PFAKE 10 23 10.0 +16**
HOPS LR LR
comp=Z,5µm,19.0s
**GDXM Geysers 88.07 40 PFAKE 10 23 10.0 +15**
GDXM LR LR
comp=Z,6µm,18.0s
**VES Vestal, Richgr 88.12 45 P P 10 22 55.6 +0.8**
baz=227,SNR=34
**EDW2 Edwards Air Fo 88.12 46 P P 10 22 55.9 +1.0**
baz=228,SNR=86
**SWSC Sam W. Stewart 88.20 49 P P 10 22 56.5 +1.3**
baz=229,SNR=20
**PFO Pinyon Flats O 88.22 48 P P 10 22 56.8 +1.3**
comp=Z,27nm,0.8s,baz=252,slow=2.6,SNR=40
**PFO Pinyon Flats O 88.22 48 P P 10 22 56.7 +1.3**
baz=228,SNR=37
**PFO Pinyon Flats O 88.22 48 eP P 10 22 56.5 +1.0**
comp=Z,58nm,1.0s
PFO LR LR
comp=Z,4µm,20.0s
**XPFO Piæon Flat 88.22 48 eP P 10 22 56.8 +1.3**
comp=Z,57nm,0.9s
XPFO LR LR
comp=Z,3µm,19.0s
**KCPM Cahto Peak 88.27 39 PFAKE 10 23 10.0 +14**
KCPM LR LR
comp=Z,5µm,19.0s
**VTV Victorville 88.31 47 eP P 10 22 57.7 +1.8**
**VTV Victorville 88.31 47 eP P 10 22 57.7 +1.8**
**RCTC Rector, Farmer 88.34 44 P P 10 22 56.4 +0.6**
baz=227,SNR=5.9
**SURT Suratani 88.35 282 P P 10 22 57.4 +1.0**
comp=Z,14nm,1.2s,comp=Z,428nm
**ISA Isabella, Lake 88.36 45 P P 10 22 57.3 +1.3**
baz=227,SNR=22
**ISA Isabella, Lake 88.36 45 eP P 10 22 57.1 +1.0**
**ISA Isabella, Lake 88.36 45 eP P 10 22 57.0 +1.0**
comp=Z,99nm,1.1s
**BBRC Big Bear Solar 88.37 47 P P 10 22 57.1 +0.8**
baz=228,SNR=18
**LCO Las Campanas 88.43 124 eP P 10 22 58.1 +1.1**
comp=Z,62nm,1.1s
LCO LR LR
comp=Z,4µm,19.0s
**TRQA Tornquist 88.45 135 eP P 10 22 57.5 +0.9**
comp=Z,40nm,1.4s
TRQA LR LR
comp=Z,2µm,22.0s
**PAYG Puerto Ayora 88.47 90 eP P 10 22 58.8 +1.7**
comp=Z,140nm,1.2s
PAYG LR LR
comp=Z,3µm,22.0s
**USRK Ussurisk Ar. 88.54 327 P P 10 22 57.3 +0.7**
comp=Z,24nm,0.9s,baz=144,slow=3.3,SNR=23
USRK LR LR 10 58 19.9
comp=Z,2µm,20.2s,baz=129,slow=33
**SKNT Sakolnakorn 88.58 291 P P 10 22 58.6 +1.2**
comp=Z,129nm,0.9s
**KMRM Mail Ridge 88.59 39 eP P 10 22 58.6 +1.6**
comp=Z,271nm,1.8s
KMRM LR LR
comp=Z,5µm,18.0s
**LRMC Laurel Mtn Rad 88.71 46 P P 10 22 58.8 +1.0**
baz=228
**RRX Edison Barstow 88.73 47 P P 10 22 58.8 +1.1**
baz=228
**BELC Belle Mtn. Jos 88.77 48 P P 10 22 59.5 +1.5**
baz=229,SNR=79
**JCC Jacoby Creek, 88.84 38 PFAKE 10 23 10.0 +12**
JCC LR LR
comp=Z,4µm,21.0s
**CMB Columbia Colle 88.87 42 eP P 10 22 59.0 +0.6**
**CMB Columbia Colle 88.87 42 eP P 10 22 59.0 +0.6**
comp=Z,45nm,0.9s
CMB LR LR
comp=Z,3µm,22.0s
**BC3 Big Chuckawall 88.88 48 P P 10 23 00.2 +1.6**
baz=229,SNR=67
**GLA Glamis 88.89 49 P P 10 23 00.3 +1.8**
baz=229,SNR=51
**GLA Glamis 88.89 49 eP P 10 23 00.4 +1.8**
**GLA Glamis 88.89 49 eP P 10 23 00.4 +1.8**
comp=Z,84nm,0.9s
GLA LR LR
comp=Z,2µm,20.0s
**HSIG 88.90 54 eP P 10 23 00.6 +1.9**
comp=Z,69nm,1.4s
HSIG LR LR
comp=Z,2µm,19.0s
**SDPT Sand Point 88.97 10 eP P 10 22 59.2 +0.9**
comp=Z,410nm,1.2s
**CRZF Crozet Islands 89.01 212 eP P 10 22 58.4 -0.7**
comp=Z,20nm,0.9s
**WHN Wuhan 89.04 308 ⇑P P 10 22 52.1 -7.1**
WHN PP **PP** 10 26 26.8 -3.0
**KHMM Horse Mountain 89.04 38 eP P 10 23 01.2 +1.9**
comp=Z,32nm,0.8s
KHMM LR LR
comp=Z,3µm,19.0s
**HEC Hector,Ludlow 89.10 47 P P 10 23 00.9 +1.3**
baz=228,SNR=86
**GSC Goldstone, Bar 89.13 46 P P 10 23 01.0 +1.3**
baz=228,SNR=63
**GSC Goldstone, Bar 89.13 46 eP P 10 23 01.0 +1.3**
**GSC Goldstone, Bar 89.13 46 eP P 10 23 01.0 +1.3**
comp=Z,414nm,2.0s
GSC LR LR
comp=Z,3µm,18.0s
**KHON Khomkaen 89.14 290 P P 10 23 01.7 +1.7**
comp=Z,36nm,0.9s,comp=Z,1µm
**AFDM Forest Hills D 89.17 41 eP P 10 23 00.1 +0.3**
comp=Z,99nm,1.5s
AFDM LR LR
comp=Z,4µm,19.0s
**MPMC Manual Prospec 89.22 45 P P 10 23 01.4 +1.2**
baz=228,SNR=55
**ORV Oroville 89.31 41 eP P 10 23 00.8 +0.5**
**ORV Oroville 89.31 41 eP P 10 23 00.8 +0.5**
comp=Z,34nm,1.1s
ORV LR LR
comp=Z,3µm,19.0s
**IRM Iron Mountain 89.40 48 P P 10 23 02.8 +1.9**
baz=229,SNR=83
**TIN Tinemaha, Big 89.45 44 P P 10 23 02.5 +1.3**
baz=227
**WDC Whiskeytown Da 89.46 39 eP P 10 23 00.9 -0.1**
**WDC Whiskeytown Da 89.46 39 eP P 10 23 00.9 -0.1**
comp=Z,68nm,1.2s
WDC LR LR
comp=Z,3µm,19.0s
**MLAC Mammoth, Mammo 89.48 43 P P 10 23 02.5 +1.0**
baz=227,SNR=7.1
**214A Organ Pipe Nat 89.49 51 P P 10 23 03.0 +1.6**
baz=230,SNR=17
**GMRC Granite Mounta 89.49 47 P P 10 23 03.1 +1.6**
baz=229,SNR=36
**Y12C Blythe 89.53 49 P P 10 23 03.0 +1.5**
baz=229,SNR=36
**Y12C Blythe 89.53 49 eP P 10 23 03.3 +1.8**
comp=Z,54nm,0.9s
Y12C LR LR
comp=Z,2µm,20.0s
**CHAI Chaiyaphum 89.56 289 P P 10 23 03.1 +1.1**
comp=Z,16nm,0.9s,comp=Z,142nm
**N02D Trinity Center 89.66 39 P P 10 23 03.3 +1.3**
baz=224,SNR=17
**O03D Paynes Creek 89.66 40 P P 10 23 02.6 +0.6**
baz=225,SNR=14
**TYV Tymovskoe 89.72 337 eP P 10 23 02.1 +0.2**
TYV pmax pmax
comp=Z,45nm,1.0s
TYV pmax pmax
comp=Z,1µm,4.1s
**WAKR Walker 89.73 43 eP P 10 23 03.4 +0.8**
comp=Z,256nm,1.8s
WAKR LR LR
comp=Z,3µm,22.0s
**TUQ Turquoise Moun 89.76 47 P P 10 23 04.1 +1.4**
baz=229,SNR=38
**SHOC Shoshone, Teco 89.85 46 P P 10 23 04.0 +1.1**
baz=228,SNR=30
**NONG Nongkai 89.85 292 P P 10 23 04.1 +0.8**
comp=Z,155nm,0.8s,comp=Z,5µm
**FURC Furnace Creek, 89.87 45 P P 10 23 04.2 +1.3**
baz=228,SNR=18
**M02C Callahan 89.88 39 P P 10 23 04.5 +1.4**
baz=224,SNR=14
**GRAC Grapevine Rang 89.92 45 P P 10 23 04.6 +1.3**
baz=228,SNR=32
**MDJ Mudanjiang 89.97 326 P P 10 23 02.6 -0.7**
MDJ pP pP 10 23 12.3 -2.0
MDJ sP sP 10 23 16.1 -2.2
MDJ PP **PP** 10 26 33.6 -3.4
MDJ S **S** 10 33 51.3 -2.0
MDJ SS **SS** 10 39 47.3 -5.5
MDJ pmax pmax
comp=Z,37nm,1.1s
MDJ pmax pmax
comp=Z,670nm,4.6s
MDJ LR LR
comp=Z,2µm,24.9s
MDJ LR LR
comp=Z,950nm,23.7s
MDJ LR LR
comp=Z,3µm,24.9s
**MDJ Mudanjiang 89.97 326 eP P 10 23 03.8 +0.5**
comp=Z,38nm,1.0s
MDJ LR LR
comp=Z,4µm,22.0s
**DL2 Dalian 90.02 318 P P 10 23 02.8 -0.8**
DL2 sP **pP** 10 23 16.4 +1.7
DL2 PP **PP** 10 26 35.5 -2.0
DL2 S **S** 10 33 52.1 -1.9
DL2 SS **SS** 10 39 53.1 -0.5
DL2 pmax pmax
comp=Z,62nm,1.1s
DL2 pmax pmax
comp=Z,1µm,5.2s
DL2 LR LR
comp=Z,2µm,27.3s
**LDFC Landfair 90.03 47 eP P 10 23 06.0 +2.0**
comp=Z,162nm,0.9s
LDFC LR LR
comp=Z,3µm,19.0s
**PNTR Pine Nut 90.04 42 eP P 10 23 04.8 +0.8**
comp=Z,61nm,1.0s
PNTR LR LR
comp=Z,3µm,22.0s
**PDMCI Parker Dam,Lak 90.13 48 P P 10 23 05.9 +1.6**
baz=230,SNR=32
**BEKR Beckworth 90.15 41 eP P 10 23 04.8 +0.4**
comp=Z,144nm,2.0s
BEKR LR LR
comp=Z,4µm,22.0s
**YERR Yerington 90.17 42 eP P 10 23 04.2 -0.4**
comp=Z,39nm,0.9s
YERR LR LR
comp=Z,3µm,22.0s
**YBH Yreka Blue Hor 90.19 38 P P 10 23 06.0 +1.5**
comp=Z,21nm,1.1s,baz=178,slow=5.5,SNR=16
**YBH Yreka Blue Hor 90.19 38 eP P 10 23 05.4 +0.9**
comp=Z,108nm,1.5s
YBH LR LR
comp=Z,3µm,20.0s
**CHGN Chignik 90.21 11 eP P 10 23 05.2 +1.1**
comp=Z,157nm,1.0s
**NV01 Mina Array Sit 90.33 43 eP P 10 23 05.3 -0.1**
**NV11 Mina Array Sit 90.42 43 eP P 10 23 06.5 +0.8**
comp=Z,13nm,1.8s
NV11 LR LR
comp=Z,200nm,22.0s
**TPNV Topopah Spring 90.55 45 P P 10 23 07.5 +1.1**
baz=228,SNR=35
**TPNV Topopah Spring 90.55 45 eP P 10 23 07.6 +1.2**
**TPNV Topopah Spring 90.55 45 eP P 10 23 07.6 +1.2**
comp=Z,33nm,0.8s
TPNV LR LR
comp=Z,2µm,18.0s
**HABR Khabarovsk 90.56 331 ceP P 10 23 05.3 -0.6**
HABR e*PP **pP** 10 23 15.8 -1.1
HABR e*SP **sP** 10 23 19.9 -1.0
HABR e 10 26 40.1
HABR PPP PPP 10 28 37.9
HABR eS **SKSac** 10 33 33.7 -0.6
HABR e*SS **SKKSac** 10 33 52.2 +3.6
HABR eSS **SS** 10 40 01.5 +0.5
HABR eSSS SSS 10 43 39.1
HABR pmax pmax
comp=Z,26nm,1.3s
HABR pmax pmax
comp=Z,670nm,3.5s
HABR MLR MLR
comp=Z,912nm,19.0s
**MOIG Morelia 90.56 67 PFAKE 10 23 20.0 +13**
MOIG LR LR
comp=Z,2µm,19.0s
**PAHR Pah Rah Range 90.59 42 eP P 10 23 07.1 +0.6**
comp=Z,109nm,1.6s
PAHR LR LR
comp=Z,3µm,19.0s
**HUMO Hull Mountain 90.69 38 eP P 10 23 08.4 +1.7**
comp=Z,171nm,1.5s
HUMO LR LR
comp=Z,2µm,20.0s
**M04C Macdoel 90.69 39 P P 10 23 07.6 +0.8**
baz=225,SNR=8.0
**PBKT Sadao Pong 90.75 289 P P 10 23 09.0 +1.5**
comp=Z,29nm,2.1s,comp=Z,1µm
**KVN Kaiserville 90.87 43 eP P 10 23 08.5 +0.6**
KVN pmax pmax
comp=Z,29nm,0.9s
KVN MLR MLR
comp=Z,2µm,22.0s
**KVN Kaiserville 90.87 43 eP P 10 23 08.4 +0.6**
comp=Z,29nm,0.9s
KVN LR LR
comp=Z,2µm,22.0s
**TIA Tai'an 90.88 313 ⇑P P 10 23 09.1 +1.4**
TIA pmax pmax
comp=Z,60nm,0.8s
TIA pmax pmax
comp=Z,1µm,5.3s
TIA LR LR
comp=Z,1µm,22.2s
**SHPR Sheep Range 90.92 46 eP P 10 23 09.7 +1.6**
comp=Z,54nm,1.3s
SHPR LR LR
comp=Z,2µm,19.0s
**SNY Shenyang 90.97 321 ⇑P P 10 23 08.4 +0.4**
SNY PP **PP** 10 26 39.8 -5.2
SNY pmax pmax
comp=Z,42nm,1.1s
SNY pmax pmax
comp=Z,820nm,4.2s
SNY LR LR
comp=Z,3µm,25.9s
**SRDT SRDT 91.02 286 P P 10 23 10.2 +1.4**
comp=Z,148nm,0.8s
**TUC Tucson 91.05 52 P P 10 23 10.1 +1.4**
baz=231
**TUC Tucson 91.05 52 eP P 10 23 10.6 +1.9**
**TUC Tucson 91.05 52 eP P 10 23 10.6 +1.9**
comp=Z,297nm,2.0s
TUC LR LR
comp=Z,2µm,19.0s
**ZAIG Zacatecas 91.25 64 PFAKE 10 23 20.0 +10**
ZAIG LR LR
comp=Z,2µm,18.0s
**I03D Drain, OR 91.27 37 P P 10 23 10.3 +1.0**
baz=224,SNR=5.1
**K04D Chiloquin, OR 91.33 38 P P 10 23 10.5 +0.7**
baz=225
**HPIG 91.36 59 eP P 10 23 11.5 +1.1**
comp=Z,18nm,0.9s
HPIG LR LR
comp=Z,4µm,20.0s
**CN2 Changchun 91.40 323 ||P P 10 23 10.1 +0.2**
CN2 eSP sP 10 23 25.3 +0.4
CN2 eS **S** 10 34 05.1 -1.4
CN2 pmax pmax
comp=Z,10.0nm,0.9s
CN2 pmax pmax
comp=Z,200nm,6.0s
CN2 LR LR
comp=Z,2µm,22.0s
**TLIG Tlapa 91.45 70 eP P 10 23 13.6 +2.6**
comp=Z,104nm,1.3s
TLIG LR LR
comp=Z,2µm,21.0s
**J04D Umpqua Nationa 91.58 38 P P 10 23 11.5 +0.5**
baz=225,SNR=8.5

**MOD Modoc Plateau 91.59 40 eP P 10 23 11.6 +0.5**
comp=Z,199nm,1.9s
MOD LR LR
comp=Z,4µm,19.0s
**JRQG Juriquilla Cam 91.71 67** PFAKE 10 23 20.0 +7.7
JRQG LR LR
comp=Z,4µm,20.0s
**PB10 IPOC Station P 91.81 119** PFAKE 10 23 20.0 +7.5
PB10 LR LR
comp=Z,2µm,20.0s
**I04A Tendick Farm, 91.81 37** P **P 10 23 12.6 +0.6**
baz=225
**R11A Troy Canyon, C 91.87 45** P **P 10 23 13.3 +0.8**
baz=229
**R11A Troy Canyon, C 91.87 45** eP **P 10 23 13.0 +0.5**
comp=Z,29nm,1.8s
R11A LR LR
comp=Z,2µm,22.0s
**COR Corvallis 91.93 36** PFAKE 10 23 20.0 +7.7
COR LR LR
comp=Z,4µm,20.0s
**UNM Universidad Na 91.94 68** PFAKE 10 23 30.0 +17
UNM LR LR
comp=Z,2µm,21.0s
**GYA Guiyang 91.96 300** P **P 10 23 12.4 -0.7**
GYA pP pP 10 23 25.0 +0.8
GYA PP **PP 10 26 56.6 +3.3**
GYA SKS **SKSac 10 33 43.3 -0.4**
GYA S **S 10 34 11.9 -0.7**
GYA sS pS 10 34 28.3 +1.5
GYA SS **SS 10 40 24.4 +2.0**
GYA pmax pmax
comp=Z,60nm,1.0s
GYA pmax pmax
comp=Z,390nm,5.8s
GYA LR LR
comp=Z,1µm,21.5s
**J05D Fort Rock, OR 92.06 38** P **P 10 23 14.1 +0.9**
baz=226
**ENH Enshi 92.19 305** eP **P 10 23 13.8 -0.2**
comp=Z,43nm,1.2s
ENH LR LR
comp=Z,1µm,22.0s
**NKL Nikolayevsk 92.31 337** eP **P 10 23 13.0 -0.9**
NKL *e* 10 23 28.0
NKL pmax pmax
comp=Z,1µm,6.0s
NKL pmax pmax
comp=Z,40nm,1.0s
NKL MLR MLR
comp=N,1µm,18.0s
NKL MLR MLR
comp=E,600nm,18.0s
NKL MLR MLR
comp=Z,2µm,18.0s
**PHRA Phrae 92.39 290** P **P 10 23 18.0 +2.8**
comp=Z,18nm,0.8s,comp=Z,24µm
**LCMT Little Creek M 92.42 47** eP **P 10 23 16.8 +1.7**
LCMT LR LR
comp=Z,2µm,19.0s
**KLR Kul'dur 92.51 330** LR LR 11 00 41.5
comp=Z,367nm,20.7s,slow=33
**H04A Detroit Lake 92.56 37** eP **P 10 23 16.0 +0.7**
comp=Z,36nm,0.8s
H04A LR LR
comp=Z,3µm,20.0s
**WUAZ Wupatki 92.66 49** P **P 10 23 17.3 +1.1**
baz=231
**WUAZ Wupatki 92.66 49** eP **P 10 23 18.0 +1.8**
comp=Z,97nm,1.7s
WUAZ LR LR
comp=Z,2µm,19.0s
**KDAK Kodiak Island 92.68 14** P **P 10 23 16.9 +1.4**
comp=Z,11nm,0.7s,baz=256,slow=10,SNR=4.1
**KDAK Kodiak Island 92.68 14** eP **P 10 23 16.9 +1.4**
comp=Z,257nm,1.9s
**CCUT Cedar City 92.69 46** eP **P 10 23 18.2 +1.8**
comp=Z,40nm,1.4s
CCUT LR LR
comp=Z,2µm,19.0s
**I05D Terrebonne, OR 92.75 37** P **P 10 23 17.2 +0.9**
baz=226
**PB04 IPOC Station P 92.81 119** PFAKE 10 23 30.0 +13
PB04 LR LR
comp=Z,2µm,21.0s
**WVOR Wild Horse Val 92.86 40** eP **P 10 23 17.9 +1.0**
**WVOR Wild Horse Val 92.86 40** eP **P 10 23 17.9 +1.0**
comp=Z,26nm,1.0s
WVOR LR LR
comp=Z,4µm,19.0s
**SZCU Shurtz Canyon 92.89 47** eP **P 10 23 19.1 +1.8**
comp=Z,49nm,1.4s
**PSUT Pine Spring 93.03 45** PFAKE 10 23 30.0 +12
PSUT LR LR
comp=Z,4µm,22.0s
**121A Cookes Peak, D 93.19 53** P **P 10 23 19.2 +0.5**
baz=233
**E03A Lebam 93.21 35** PFAKE 10 23 30.0 +12
E03A LR LR
comp=Z,3µm,20.0s
**PKCU Pink Cliffs 93.27 47** eP **P 10 23 21.9 +2.7**
comp=Z,58nm,1.5s
PKCU LR LR
comp=Z,2µm,20.0s
**CM01 Chiang Mai Arr 93.36 290** eP **P 10 23 19.6 0.0**
**G05D Wamic, OR 93.39 37** P **P 10 23 19.9 +0.7**
baz=226
**CM31 Chiang Mai Arr 93.39 290** eP **P 10 23 19.9 +0.1**
**CMAR Chiang Mai Arr 93.39 290** P **P 10 23 19.9 +0.1**
comp=Z,3.3nm,0.6s,baz=143,slow=3.6,SNR=13
CMAR PP **PP 10 27 03.8 -0.7**
comp=Z,8.9nm,0.7s,baz=130,slow=6.3,SNR=13
CMAR PKKPbc **PKKPbc 10 40 27.6 +1.7**
comp=Z,1.5nm,0.5s,baz=287,slow=3.7,SNR=6.7
**W18A Petrified Fore 93.46 50** eP **P 10 23 21.7 +1.8**
comp=Z,92nm,1.7s
W18A LR LR
comp=Z,2µm,19.0s
**I07A Izee 93.52 38** eP **P 10 23 20.7 +0.8**
comp=Z,33nm,1.1s
I07A LR LR
comp=Z,2µm,21.0s
**NNA Nana 93.56 107** PFAKE 10 23 30.0 +9.2
NNA LR LR
comp=Z,4µm,21.0s
**J08A Circle Bar Ran 93.57 39** eP **P 10 23 21.1 +0.9**
comp=Z,39nm,1.1s
J08A LR LR
comp=Z,4µm,19.0s
**CMMT Chiang Mai 93.58 290** P **P 10 23 24.8 +4.1**
**CHTO Chiang Mai 93.59 290** P **P 10 23 24.9 +4.2**
comp=Z,40nm,2.9s,comp=Z,2µm
**CHTO Chiang Mai 93.59 290** eP **P 10 23 20.5 -0.2**
CHTO pmax pmax
comp=Z,6.0nm,0.8s
CHTO MLR MLR
comp=Z,2µm,22.0s
**CHTO Chiang Mai 93.59 290** eP **P 10 23 20.5 -0.2**
comp=Z,6.5nm,0.8s
CHTO LR LR
comp=Z,2µm,22.0s
**EPT El Paso 93.61 54** PFAKE 10 23 30.0 +9.4
EPT LR LR
comp=Z,2µm,19.0s
**MTPU Mount Pierson 93.73 47** eP **P 10 23 23.5 +2.2**
comp=Z,39nm,1.2s
MTPU LR LR
comp=Z,3µm,20.0s
**G06A Carlson Farm, 93.73 37** eP **P 10 23 21.6 +0.8**
comp=Z,112nm,1.6s
G06A LR LR
comp=Z,2µm,18.0s
**BJT Baijiatuau 93.91 316** eP **P 10 23 22.0 +0.3**
BJT pmax pmax
comp=Z,19nm,0.5s
BJT MLR MLR
comp=Z,2µm,21.0s
**BJT Baijiatuau 93.91 316** eP **P 10 23 21.9 +0.3**
comp=Z,19nm,0.5s
BJT LR LR
comp=Z,2µm,21.0s
**BJI Beijing 93.92 316** P **P 10 23 22.3 +0.6**
BJI PP **PP 10 27 05.1 -3.2**
BJI S **S 10 34 28.5 -0.6**
BJI SS **SS 10 40 52.3 +2.5**
BJI pmax pmax
comp=Z,19nm,1.2s
BJI pmax pmax
comp=Z,840nm,4.6s
BJI LR LR
comp=Z,5µm,28.9s
**TCRU Three Creeks R 93.92 46** PFAKE 10 23 30.0 +7.9
TCRU LR LR
comp=Z,2µm,19.0s
**MSU Marysvale 94.03 46** eP **P 10 23 24.4 +1.9**
**MSU Marysvale 94.03 46** eP **P 10 23 24.4 +1.9**
**PB01 IPOC Station P 94.07 118** eP **P 10 23 24.2 +1.1**
comp=Z,25nm,1.1s
PB01 LR LR
comp=Z,2µm,21.0s
**KMI Kunming 94.11 297** P **P 10 23 21.8 -1.4**
KMI pP pP 10 23 35.3 +1.0
KMI sP sP 10 23 39.3 +1.0
KMI PP **PP 10 27 11.3 +1.0**
KMI SKS **SKSac 10 33 55.0 -0.9**
KMI S **S 10 34 29.4 -2.5**
KMI sS pS 10 34 47.1 +0.9
KMI SS **SS 10 40 54.5 +1.1**
**LTX Lajitas 94.19 58** eP **P 10 23 23.8 +0.5**
**LTX Lajitas 94.19 58** eP **P 10 23 23.8 +0.5**
**TX31 Lajitas Ar. Si 94.19 58** eP **P 10 23 24.0 +0.7**
TX31 eP **P 10 23 24.4 +1.0**
**TXAR Lajitas Array 94.19 58** P **P 10 23 23.8 +0.5**
comp=Z,3.6nm,0.9s,baz=205,slow=5.5,SNR=24
TXAR PKKPbc **PKKPbc 10 40 25.9 +1.6**
comp=Z,1.6nm,0.8s,baz=75,slow=3.8,SNR=7.6
TXAR LR LR 11 00 27.7
comp=Z,2µm,18.7s,baz=0.0,slow=32
**LON Longmire 94.20 35** eP **P 10 23 23.6 +0.7**
**LON Longmire 94.20 35** eP **P 10 23 23.6 +0.7**
comp=Z,66nm,1.8s
LON LR LR
comp=Z,2µm,22.0s
**LVIG Laguna Verde 94.33 69** PFAKE 10 23 40.0 +16
LVIG LR LR
comp=Z,1µm,19.0s
**MNTX Cornudas Mount 94.34 55** P **P 10 23 24.3 +0.4**
baz=234
**MNTX Cornudas Mount 94.34 55** eP **P 10 23 24.3 +0.4**
comp=Z,14nm,1.3s
MNTX LR LR
comp=Z,1µm,20.0s
**D05A Enumclaw 94.42 35** eP **P 10 23 25.6 +1.8**
comp=Z,91nm,1.3s
**F07A Phinny Hill Vi 94.55 37** eP **P 10 23 25.5 +1.1**
comp=Z,34nm,1.2s
F07A LR LR
comp=Z,3µm,20.0s
**G08A Pilot Rock 94.63 38** eP **P 10 23 25.8 +0.8**
comp=Z,49nm,1.4s
G08A LR LR
comp=Z,2µm,19.0s
**Y22D IRIS PASSCAL I 94.69 52** PFAKE 10 23 40.0 +14
Y22D LR LR
comp=Z,2µm,18.0s
**DUG Dugway, Tooele 94.70 45** P **P 10 23 25.9 +0.4**
baz=231
**DUG Dugway, Tooele 94.70 45** eP **P 10 23 27.4 +1.9**
**DUG Dugway, Tooele 94.70 45** eP **P 10 23 26.9 +1.4**
comp=Z,12nm,1.1s
DUG LR LR
comp=Z,2µm,22.0s
**PB11 IPOC Station P 94.71 117** eP **P 10 23 27.0 +0.9**
comp=Z,50nm,1.1s
PB11 LR LR
comp=Z,2µm,22.0s
**LAZ Ladron 94.74 52** eP **P 10 23 27.2 +1.4**
**TIY Taiyuan 94.74 312** eP **P 10 23 25.3 -0.3**
TIY sP **sP 10 23 39.4 -1.2**
TIY PP **PP 10 27 11.9 -2.9**
TIY pmax pmax
comp=Z,410nm,3.7s
TIY LR LR
comp=Z,2µm,22.2s
TIY LR LR
comp=Z,380nm,10.8s
TIY LR LR
comp=Z,3µm,23.6s
**PGC Sidney 94.77 33** PFAKE 10 23 40.0 +15
PGC LR LR
comp=Z,3µm,22.0s
**LNIG Linares 94.79 64** eP **P 10 23 26.5 +0.4**
comp=Z,142nm,1.9s
LNIG LR LR
comp=Z,2µm,19.0s
**XAN Xi'an 94.81 308** P **P 10 23 27.3 +1.3**
XAN pP pP 10 23 37.8 +0.8
XAN sP sP 10 23 41.8 +0.8
XAN pmax pmax
comp=Z,22nm,2.0s
XAN pmax pmax
comp=Z,720nm,6.8s
XAN LR LR
comp=Z,2µm,19.7s
**PBA Port Blair 94.81 281** eP P 10 23 27.6 +1.2
**BNM Barren Site 94.93 52** eP **P 10 23 28.7 +1.9**
**NLU North Lily Min 94.99 45** eP **P 10 23 28.0 +1.0**
comp=Z,41nm,1.9s
**LPM Los Pinos Moun 95.02 52** eP **P 10 23 29.1 +1.9**
**BGU Big Grassy Mou 95.04 44** eP **P 10 23 28.5 +1.5**
comp=Z,27nm,1.7s
BGU LR LR
comp=Z,2µm,22.0s
**MFID Camas Ranch 95.05 41** eP **P 10 23 27.4 +0.4**
comp=Z,22nm,0.8s
MFID LR LR
comp=Z,2µm,22.0s
**HAWA Hanford 95.09 37** eP **P 10 23 28.3 +1.5**
comp=Z,38nm,1.4s
HAWA LR LR
comp=Z,3µm,20.0s
**TMUT Trail Mountain 95.11 46** eP **P 10 23 28.1 +0.5**
comp=Z,101nm,2.0s
TMUT LR LR
comp=Z,2µm,19.0s
**LTY Liberty 95.12 36** eP **P 10 23 27.9 +0.8**
comp=Z,10.0nm,0.8s
LTY LR LR
comp=Z,2µm,21.0s
**B05A Bryant 95.13 34** P **P 10 23 28.1 +1.1**
baz=225
**MNMC Minye Minye 95.13 116** eP **P 10 23 29.0 +0.8**
comp=Z,44nm,1.1s
MNMC LR LR
comp=Z,3µm,21.0s
**BMO Blue Mountains 95.20 39** eP **P 10 23 27.9 +0.3**
**BMO Blue Mountains 95.20 39** eP **P 10 23 27.9 +0.3**
comp=Z,38nm,1.8s
BMO LR LR
comp=Z,3µm,19.0s
**SVW2 Sparrevohn 95.24 11** PFAKE 10 23 40.0 +13
SVW2 LR LR
comp=Z,2µm,20.0s
**MPU Maple Canyon 95.30 45** eP **P 10 23 30.0 +1.7**
comp=Z,13nm,1.3s
MPU LR LR
comp=Z,2µm,19.0s
**E08A Dider Farm, El 95.39 37** eP **P 10 23 30.1 +1.9**
comp=Z,40nm,1.5s
E08A LR LR
comp=Z,3µm,20.0s
**SRU San Rafael Swe 95.41 47** eP **P 10 23 29.7 +0.9**
**SRU San Rafael Swe 95.41 47** eP **P 10 23 29.7 +0.9**
comp=Z,25nm,1.3s
SRU LR LR
comp=Z,2µm,20.0s
**DGPR DIGLIPUR 95.46 282** eP **P 10 23 26.9 -2.4**
**P17A Butcher Ranch, 95.50 46** eP **P 10 23 30.9 +1.7**
comp=Z,25nm,1.4s
P17A LR LR
comp=Z,2µm,19.0s
**ANMO Albuquerque 95.51 52** P **P 10 23 29.5 +0.2**
baz=234
**ANMO Albuquerque 95.51 52** eP **P 10 23 30.4 +1.0**
ANMO pmax pmax
comp=Z,20nm,2.5s
**ANMO Albuquerque 95.51 52** eP **P 10 23 30.3 +1.0**
comp=Z,25nm,1.6s
ANMO LR LR
comp=Z,2µm,20.0s
**MVCO Mesa Verde 95.53 49** P **P 10 23 29.8 +0.3**
baz=233
**MVCO Mesa Verde 95.53 49** eP **P 10 23 30.3 +0.9**
comp=Z,12nm,1.1s
MVCO LR LR
comp=Z,2µm,19.0s
**B06A Marblemount 95.60 34** PFAKE 10 23 40.0 +11
B06A LR LR
comp=Z,2µm,20.0s
**SPUT South Promonto 95.62 44** eP **P 10 23 30.6 +0.9**
comp=Z,31nm,1.3s
SPUT LR LR
comp=Z,2µm,22.0s
**CTU Camp Tracy 95.65 45** eP **P 10 23 31.8 +1.9**
comp=Z,6.4nm,1.0s
CTU LR LR
comp=Z,1µm,21.0s
**PV05 Paradox Valley 95.67 48** eP **P 10 23 32.1 +2.0**
**HVU Hansel Valley 95.73 43** eP **P 10 23 31.1 +0.9**
**HVU Hansel Valley 95.73 43** eP **P 10 23 31.1 +0.9**
comp=Z,27nm,1.1s
HVU LR LR
comp=Z,1µm,20.0s
**DCM Dugout Coal Mi 95.73 46** eP **P 10 23 31.5 +1.1**
**JLU Jordanelle 95.77 45** PFAKE 10 23 40.0 +10
JLU LR LR
comp=Z,2µm,19.0s
**E09A Wood Farm, Sta 95.87 37** eP **P 10 23 30.8 +0.3**
comp=Z,22nm,1.1s
E09A LR LR
comp=Z,2µm,20.0s
**PV10 Paradox Valley 95.89 48** eP **P 10 23 32.2 +1.2**
PV10 *ep* **pP 10 23 40.8 -1.3**
**P18A Preston Nutter 95.90 46** eP **P 10 23 32.4 +1.2**
comp=Z,39nm,1.8s
P18A LR LR
comp=Z,2µm,19.0s
**PV09 Paradox Valley 95.90 48** eP **P 10 23 32.0 +0.8**
**HLID Hailey 95.93 41** P **P 10 23 31.6 +0.6**
baz=230
**HLID Hailey 95.93 41** eP **P 10 23 31.8 +0.7**
comp=Z,12nm,0.8s
HLID LR LR
comp=Z,2µm,22.0s
**F10A Beach Ranch, E 95.99 38** eP **P 10 23 31.0 -0.1**
comp=Z,18nm,0.9s
F10A LR LR
comp=Z,2µm,20.0s
**PV01 Paradox Valley 96.03 48** eP **P 10 23 32.4 +0.6**
**TCUT Toone Canyon 96.11 45** eP **P 10 23 33.3 +1.3**
comp=Z,22nm,0.9s
TCUT LR LR
comp=Z,3µm,22.0s
**RC01 Rabbit Creek A 96.30 14** eP **P 10 23 33.0 +1.0**
comp=Z,36nm,1.3s
**SUA Susitna One 96.44 13** eP **P 10 23 32.9 +0.1**
comp=Z,18nm,0.7s
SUA LR LR
comp=Z,3µm,20.0s
**B08A Colville Reser 96.53 35** eP **P 10 23 33.2 -0.2**
comp=Z,15nm,1.1s
B08A LR LR
comp=Z,2µm,22.0s
**SIT Sitka 96.56 22** PFAKE 10 23 50.0 +17
SIT LR LR
comp=Z,1µm,22.0s
**GLI Glacier Island 96.66 15** PFAKE 10 23 50.0 +16
GLI LR LR
comp=Z,2µm,22.0s
**EYAK Cordova Ski Ar 96.67 16** PFAKE 10 23 50.0 +16
EYAK LR LR
comp=Z,3µm,21.0s
**C09A Chrisman Ranch 96.67 36** eP **P 10 23 35.3 +1.2**
comp=Z,35nm,1.6s
C09A LR LR
comp=Z,4µm,20.0s
**FID Port Fidalgo 96.68 15** PFAKE 10 23 50.0 +16
FID LR LR
comp=Z,3µm,20.0s
**833A Chaparral WMA, 96.73 61** P **P 10 23 34.9 +0.1**
baz=236
**LLLB Lillooet 96.88 33** PFAKE 10 23 50.0 +15
LLLB LR LR
comp=Z,2µm,22.0s
**S22A 4UR Ranch, Cre 96.91 49** P **P 10 23 36.1 +0.3**
baz=234
**S22A 4UR Ranch, Cre 96.91 49** eP **P 10 23 37.5 +1.7**
comp=Z,38nm,1.9s
S22A LR LR
comp=Z,2µm,20.0s
**SNET Serv Nac Est T 96.96 78** PFAKE 10 23 50.0 +14
SNET LR LR
comp=Z,3µm,21.0s
**WRAK Wrangell Islan 97.04 24** PFAKE 10 23 50.0 +14
WRAK LR LR
comp=Z,2µm,21.0s
**DIV Divide 97.18 16** eP Pdif 10 23 36.8 +0.6
comp=Z,31nm,1.2s
DIV LR LR
comp=Z,2µm,21.0s
**HHC Hu-ho-hao-te 97.18 314** eP Pdif 10 23 38.9 +2.1
HHC SKS **SKSac 10 34 12.4 +1.3**
HHC S **S 10 34 57.0 -0.6**
HHC sS sS 10 35 14.8 -1.2
HHC pmax pmax
comp=Z,14nm,1.1s
HHC pmax pmax
comp=Z,160nm,5.7s
HHC LR LR
comp=Z,870nm,25.1s
HHC LR LR
comp=Z,1µm,23.5s
HHC LR LR
comp=Z,2µm,25.3s
**SML Sawmill 97.24 14** PFAKE 10 23 50.0 +14
SML LR LR
comp=Z,2µm,21.0s
**BMRM Bremner River 97.31 16** PFAKE 10 23 50.0 +13
BMRM LR LR
comp=Z,3µm,22.0s
**AHID Auburn Hatcher 97.31 43** eP Pdif 10 23 38.4 +0.9
comp=Z,89nm,2.0s
**KVTX Kingsville 97.42 62** PFAKE 10 23 50.0 +12
KVTX LR LR
comp=Z,2µm,22.0s
**O20A White River Ci 97.43 47** PFAKE 10 23 50.0 +12
O20A LR LR
comp=Z,1µm,19.0s
**MSTX Muleshoe 97.44 54** P Pdif 10 23 38.6 +0.5
baz=236
**MSTX Muleshoe 97.44 54** eP Pdif 10 23 39.7 +1.6
comp=Z,13nm,0.9s
MSTX LR LR
comp=Z,2µm,20.0s
**SCM Sheep Creek Mo 97.47 15** eP Pdif 10 23 38.5 +1.0
**SCM Sheep Creek Mo 97.47 15** eP Pdif 10 23 38.5 +1.1
comp=Z,21nm,0.8s
**KLU Klutina 97.47 15** PFAKE 10 23 50.0 +13
KLU LR LR
comp=Z,3µm,21.0s
**PPLA Purkeypile 97.50 12** PFAKE 10 23 50.0 +12
PPLA LR LR
comp=Z,5µm,20.0s
**NEW Newport 97.56 36** P Pdif 10 23 39.2 +1.0
baz=229
**NEW Newport 97.56 36** PFAKE 10 23 50.0 +12
NEW LR LR
comp=Z,3µm,20.0s
**MCMT McKenzie Canyo 97.60 41** eP Pdif 10 23 39.8 +1.1
**JCT Junction City 97.61 59** P Pdif 10 23 38.9 +0.1
baz=237
**JCT Junction City 97.61 59** PFAKE 10 23 50.0 +11
JCT LR LR
comp=Z,3µm,19.0s
**PCA Pinnacle 97.64 18** PFAKE 10 23 50.0 +12
PCA LR LR
comp=Z,3µm,21.0s
**SMCO Snowmass 97.66 48** eP Pdif 10 23 40.6 +1.2
comp=Z,10nm,1.0s
SMCO LR LR
comp=Z,2µm,20.0s
**SDCO Great Sand Dun 97.77 50** P Pdif 10 23 40.5 +0.7
baz=235
**SDCO Great Sand Dun 97.77 50** eP Pdif 10 23 41.8 +2.1
comp=Z,21nm,1.9s
SDCO LR LR
comp=Z,1µm,20.0s
**REDW Red Top Meadow 97.82 43** eP Pdif 10 23 40.2 +0.4
comp=Z,70nm,1.9s
REDW LR LR

comp=Z,2µm,22.0s
**TPAW Teton Pass 97.84 43** *e*P Pdif 10 23 40.8 +0.9
comp=Z,41nm,1.7s
TPAW LR LR
comp=Z,2µm,22.0s
**FXWY Fox Creek 97.89 43** *e*P Pdif 10 23 41.3 +1.2
comp=Z,29nm,1.7s
FXWY LR LR
comp=Z,2µm,22.0s
**SEY Seymchan 97.90 347** PKKPbc PKKPbc 10 40 18.4 +3.0
comp=Z,7.7nm,0.8s,baz=227,slow=0.7,SNR=9.3
SEY LR LR 11 03 11.3
comp=Z,4µm,21.7s,baz=150,slow=32
**SEY Seymchan 97.90 347**‖ *e*P Pdif 10 23 39.2 0.0
**HGTCO Madrid Canyon 97.94 51** PFAKE 10 23 50.0 +10
HGTCO LR LR
comp=Z,2µm,21.0s
**SNOW Snow King Moun 97.94 43** *e*P Pdif 10 23 41.0 +0.7
comp=Z,14nm,0.8s
SNOW LR LR
comp=Z,2µm,18.0s
**MHTCO State Highway 97.94 51** PFAKE 10 23 50.0 +10
MHTCO LR LR
comp=Z,2µm,21.0s
**LPAZ La Paz 97.95 115** P Pdif 10 23 42.3 +0.8
comp=Z,2.8nm,0.8s,baz=217,slow=4.2,SNR=14
LPAZ LR LR 10 58 24.5
comp=Z,1µm,21.9s,baz=241,slow=30
**LPAZ La Paz 97.95 115** *e*P Pdif 10 23 42.7 +1.2
**HIA Hailar 98.02 325** PFAKE 10 23 50.0 +10
HIA LR LR
comp=Z,1µm,20.0s
**DLMT Dillon 98.08 41** *e*P Pdif 10 23 42.3 +1.6
comp=Z,33nm,1.7s
DLMT LR LR
comp=Z,2µm,22.0s
**MOOW Moose Ponds 98.12 43** *e*P Pdif 10 23 41.6 +0.6
comp=Z,13nm,1.4s
MOOW LR LR
comp=Z,2µm,22.0s
**T25A Trinidad 98.13 51** P Pdif 10 23 42.5 +1.2
baz=235
**T25A Trinidad 98.13 51** PFAKE 10 23 50.0 +8.7
T25A LR LR
comp=Z,2µm,22.0s
**BW06 Boulder Array 98.22 44** P Pdif 10 23 42.5 +1.0
baz=233
**BW06 Boulder Array 98.22 44** *e*P Pdif 10 23 42.0 +0.5
comp=Z,3.9nm,0.9s
BW06 LR LR
comp=Z,3µm,22.0s
**PD31 Pinedale Array 98.22 44** *e*P Pdif 10 23 41.9 +0.3
**PDAR Pinedale Array 98.22 44** P Pdif 10 23 41.8 +0.3
comp=Z,3.0nm,0.7s,baz=198,slow=3.2,SNR=27
PDAR PP **PP 10 27 47.1 +5.4**
comp=Z,2.4nm,1.1s,baz=230,slow=6.9,SNR=5.0
PDAR PKKPbc **PKKPbc 10 40 13.8 -0.3**
comp=Z,2.6nm,0.8s,baz=79,slow=4.9,SNR=12
PDAR PKPPKP **P'P'df 10 48 29.6 +3.8**
comp=Z,0.8nm,0.8s,baz=96,slow=3.0,SNR=4.0
PDAR LR LR 10 59 48.7
comp=Z,2µm,22.0s,baz=228,slow=30
**PDAR Pinedale Array 98.22 44** *e*P **P 10 23 41.0 -0.5**
PDAR PP **PP 10 27 47.1 +5.4**
**MSO Missoula 98.27 39** P Pdif 10 23 42.4 +0.9
baz=231
**MSO Missoula 98.27 39** PFAKE 10 23 50.0 +8.5
MSO LR LR
comp=Z,4µm,19.0s
**KTH Kantishna Hill 98.33 12** *e*P Pdif 10 23 42.1 +0.8
comp=Z,14nm,1.0s
KTH LR LR
comp=Z,4µm,20.0s
**TRF Thorofare Moun 98.35 13** *e*P Pdif 10 23 41.6 +0.1
comp=Z,60nm,1.6s
TRF LR LR
comp=Z,5µm,20.0s
**QLMT Earthquake Lak 98.39 42** *e*P Pdif 10 23 43.1 +0.9
**YPP Pitchstone Pla 98.41 42** *e*P Pdif 10 23 45.1 +2.7
comp=Z,24nm,1.7s
YPP LR LR
comp=Z,3µm,19.0s
**LRM Limekiln Ridge 98.44 40** *e*P Pdif 10 23 44.6 +2.1
**YHB Horse Butte 98.48 42** *e*P Pdif 10 23 44.9 +2.3
comp=Z,15nm,1.2s
YHB LR LR
comp=Z,2µm,20.0s
**YFT Old Faithful 98.50 42** *e*P Pdif 10 23 45.2 +2.5
comp=Z,20nm,1.5s
YFT LR LR
comp=Z,3µm,19.0s
**YMR Madison River 98.56 42** *e*P Pdif 10 23 45.0 +2.1
comp=Z,39nm,1.6s
YMR LR LR
comp=Z,2µm,21.0s
**RND Reindeer 98.58 13** *e*P Pdif 10 23 43.2 +0.8
**RND Reindeer 98.58 13** *e*P Pdif 10 23 43.2 +0.8
comp=Z,20nm,1.0s
**H17A Grant Village 98.61 42** P Pdif 10 23 44.7 +1.5
baz=232
**H17A Grant Village 98.61 42** *e*P Pdif 10 23 45.3 +2.0
comp=Z,5.1nm,0.8s
H17A LR LR
comp=Z,3µm,22.0s
**Q24A Divide 98.69 49** PFAKE 10 24 00.0 +16
Q24A LR LR
comp=Z,3µm,20.0s
**YHH Holmes Hill 98.69 42** *e*P Pdif 10 23 45.8 +2.1
comp=Z,30nm,1.5s
YHH LR LR
comp=Z,2µm,22.0s
**AMTX Amarillo 98.70 54** PFAKE 10 24 00.0 +16
AMTX LR LR
comp=Z,2µm,20.0s
**YNR Norris Junctio 98.75 42** PFAKE 10 24 00.0 +16
YNR LR LR
comp=Z,2µm,22.0s
**BOZ Bozeman (W) 98.75 41** P Pdif 10 23 45.5 +1.7
baz=232
**BOZ Bozeman (W) 98.75 41** PFAKE 10 24 00.0 +16
BOZ LR LR
comp=Z,2µm,22.0s
**JTS JuntasAbangare 98.75 83**⇑ *e*P Pdif 10 23 44.5 +0.2
**TGUH Tegucigalpa,Un 98.77 79** PFAKE 10 24 00.0 +16
TGUH LR LR
comp=Z,2µm,22.0s
**LKWY Lake 98.81 42** *e*P Pdif 10 23 46.4 +2.2
LKWY pmax pmax
comp=Z,49nm,1.9s
LKWY MLR MLR
comp=Z,3µm,18.0s
**LKWY Lake 98.81 42** *e*P Pdif 10 23 46.4 +2.3
comp=Z,49nm,1.9s
LKWY LR LR
comp=Z,3µm,18.0s
**BPAW Bear Paw Mtn. 98.82 12** PFAKE 10 24 00.0 +17
BPAW LR LR
comp=Z,3µm,20.0s
**MCK McKinley 98.86 13** *e*P Pdif 10 23 44.9 +1.3
**MCK McKinley 98.86 13** *e*P Pdif 10 23 44.9 +1.4
comp=Z,28nm,1.2s
MCK LR LR
comp=Z,3µm,20.0s
**ISCO Idaho Springs 98.88 48** P Pdif 10 23 45.8 +1.2
baz=235
**ISCO Idaho Springs 98.88 48** *e*P Pdif 10 23 50.3 +5.7
**ISCO Idaho Springs 98.88 48** *e*P Pdif 10 23 50.3 +5.7
ISCO LR LR
comp=Z,3µm,22.0s
**PAX Paxson 98.88 15** PFAKE 10 24 00.0 +16
PAX LR LR
comp=Z,2µm,20.0s
**ABTX Abilene, Hawle 98.89 57** P Pdif 10 23 45.4 +0.9
baz=237
**ABTX Abilene, Hawle 98.89 57** PFAKE 10 24 00.0 +16
ABTX LR LR
comp=Z,3µm,20.0s
**OTAV Otavalo 98.94 95** PFAKE 10 24 00.0 +14
OTAV LR LR
comp=Z,2µm,22.0s
**RWWY Rawlins 98.98 46** PFAKE 10 24 00.0 +15
RWWY LR LR
comp=Z,2µm,19.0s
**CPUP Villa Florida 99.24 129** PKKPbc PKKPbc 10 40 08.7 -1.1
comp=Z,2.2nm,0.6s,baz=34,slow=2.1,SNR=5.4
CPUP LR LR 11 00 18.6
comp=Z,2µm,21.9s,baz=232,slow=30

**MENT Mentasta 99.24 15** *e*P **Pdif 10 23 46.9 +1.6**
comp=Z,12nm,1.0s
MENT LR LR
comp=Z,2µm,22.0s
**N23A Red Feather La 99.30 47** PFAKE 10 24 00.0 +14
N23A LR LR
comp=Z,2µm,18.0s
**HRY Holter Researc 99.33 40** *e*P **Pdif 10 23 45.1 -1.1**
**LZH Lanzhou 99.39 307** *e*P **Pdif 10 23 48.3 +1.5**
LZH pP pP 10 23 58.8 +0.9
LZH sP sP 10 24 02.0 +0.1
LZH PP **PP 10 27 53.3 +2.5**
LZH SKS **SKSac 10 34 22.1 -0.6**
LZH *e*S **ScS 10 35 15.3 -1.4**
LZH sS pS 10 35 32.1 +1.1
LZH SS **SS 10 42 08.1 +0.4**
LZH pmax pmax
comp=Z,42nm,0.9s
LZH pmax pmax
comp=Z,390nm,8.6s
LZH LR LR
comp=Z,1µm,18.3s
LZH LR LR
comp=Z,3µm,17.9s
LZH LR LR
comp=Z,3µm,18.8s
**DLBC Dease Lake 99.40 24** PFAKE 10 24 00.0 +14
DLBC LR LR
comp=Z,2µm,19.0s
**WHY Whitehorse 99.61 20** PFAKE 10 24 00.0 +13
WHY LR LR
comp=Z,2µm,19.0s
**WALA Waterton Lakes 99.70 37** *e*Pdif **Pdif 10 23 49.4 +1.6**
comp=Z,25nm,1.4s
WALA LR LR
comp=Z,2µm,20.0s
**RLMT Red Lodge 99.79 42** P **Pdif 10 23 50.0 +1.6**
baz=233
**RLMT Red Lodge 99.79 42** PFAKE 10 24 00.0 +12
RLMT LR LR
comp=Z,2µm,22.0s
**PHWY Pilot Hill 99.83 47** PFAKE 10 24 00.0 +11
PHWY LR LR
comp=Z,1µm,19.0s
**HDA Harding Lake 99.86 13** PFAKE 10 24 00.0 +12
HDA LR LR
comp=Z,2µm,20.0s
**CCB Clear Creek Bu 99.90 13** *e*Pdif **Pdif 10 23 48.1 0.0**
comp=Z,12nm,1.0s
**K22A Casper 99.95 46** P **Pdif 10 23 50.7 +1.5**
baz=235
**K22A Casper 99.95 46** PFAKE 10 24 00.0 +11
K22A LR LR
comp=Z,3µm,22.0s
**COLA College 100.10 13**⇑ *e*P **Pdif 10 23 48.6 -0.4**
COLA pmax pmax
comp=Z,9.0nm,1.0s
**COLA College 100.10 13** PFAKE 10 24 00.0 +11
COLA LR LR
comp=Z,2µm,19.0s
**MDM Murphy Dome 100.11 13** *e*Pdif **Pdif 10 23 49.1 0.0**
**WHTX Lake Whitney, 100.11 59** PFAKE 10 24 00.0 +10
WHTX LR LR
comp=Z,3µm,20.0s
**IMAR Indian Mountai 100.12 10** *e*Pdif **Pdif 10 23 48.7 -0.4**
**ILAR Eielson Array 100.19 13** P **Pdif 10 23 49.0 -0.5**
comp=Z,5.2nm,0.9s,baz=229,slow=5.7,SNR=17
ILAR PKiKP **PKiKP 10 28 17.1 +0.5**
comp=Z,4.4nm,0.8s,baz=312,slow=3.8,SNR=18
ILAR PKKPbc **PKKPbc 10 40 08.9 -0.1**
comp=Z,1.3nm,0.7s,baz=36,slow=2.8,SNR=7.7
ILAR PKPPKP **P'P'df 10 48 27.1 +7.7**
comp=Z,0.9nm,0.9s,baz=339,slow=2.6,SNR=4.0
**ILAR Eielson Array 100.19 13** P **Pdif 10 23 49.0 -0.5**
ILAR pmax pmax
comp=Z,6.0nm,1.0s
**ILB Eielson Array 100.19 13** *e*Pdif **Pdif 10 23 50.4 +0.9**
ILB *e*PKiKP **PKiKP 10 28 17.4 +0.8**
**HKT Hockley 100.22 61**⇑ *e*P **Pdif 10 23 48.6 -1.7**
HKT pmax pmax
comp=Z,9.0nm,1.0s
**HKT Hockley 100.22 61** PFAKE 10 24 00.0 +10
HKT LR LR
comp=Z,1µm,20.0s
**MYIG MØrida 100.30 72** PFAKE 10 24 00.0 +9.0
MYIG LR LR
comp=Z,2µm,22.0s
**KSCO Kaye Shedlock' 100.34 50** PFAKE 10 24 00.0 +9.1
KSCO LR LR
comp=Z,1µm,19.0s
**WMOK Wichita Mounta 100.62 56** PFAKE 10 24 00.0 +7.8
WMOK LR LR
comp=Z,2µm,19.0s
**DAWY Dawson 101.21 17** PFAKE 10 24 10.0 +16
DAWY LR LR
comp=Z,2µm,22.0s
**EGMT Eagleton 101.25 40** PFAKE 10 24 10.0 +15
EGMT LR LR
comp=Z,3µm,19.0s
**EGAK Eagle 101.40 16** *e*Pdif **Pdif 10 23 56.4 +1.5**
EGAK LR LR
comp=Z,2µm,21.0s
**DGAR Diego Garcia 101.49 254** PFAKE 10 24 10.0 +13
DGAR LR LR
comp=Z,3µm,20.0s
**X35A Drake 101.72 57** PFAKE 10 24 10.0 +13
X35A LR LR
comp=Z,3µm,19.0s
**OGNE Ogallala 101.78 49** PFAKE 10 24 10.0 +13
OGNE LR LR
comp=Z,3µm,20.0s
**COLD Coldfoot 101.82 11** *e*Pdif **Pdif 10 23 58.3 +1.7**
COLD LR LR
comp=Z,2µm,21.0s
**NATX Nacogdoches 102.02 60** PFAKE 10 24 10.0 +12
NATX LR LR
comp=Z,2µm,19.0s
**CBKS Cedar Bluff 102.14 52** PFAKE 10 24 10.0 +11
CBKS LR LR
comp=Z,2µm,22.0s
**W35A Tecumseh 102.17 56** PFAKE 10 24 10.0 +11
W35A LR LR
comp=Z,3µm,19.0s
**RSSD Black Hills 102.28 45** P **Pdif 10 24 00.9 +1.3**
baz=236
**RSSD Black Hills 102.28 45** *e*P **Pdif 10 24 01.3 +1.8**
RSSD MLR MLR
comp=Z,2µm,19.0s
**RSSD Black Hills 102.28 45** *e*Pdif **Pdif 10 24 01.3 +1.8**
RSSD LR LR
comp=Z,2µm,19.0s
**OK020 N3440 Road, Me 102.37 56** PFAKE 10 24 10.0 +10
OK020 LR LR
comp=Z,3µm,20.0s
**LAO LASA Array 102.43 42** P **Pdif 10 24 01.6 +1.6**
baz=236
**LAO LASA Array 102.43 42** PFAKE 10 24 10.0 +10
LAO LR LR
comp=Z,2µm,22.0s
**BCIP Isla Barro Col 102.48 87** PFAKE 10 24 10.0 +9.2
BCIP LR LR
comp=Z,4µm,22.0s
**V35A Meyer Ranch, C 102.52 56** PFAKE 10 24 10.0 +9.5
V35A LR LR
comp=Z,2µm,19.0s
**OK021 N3530 Road, Sp 102.52 56** PFAKE 10 24 10.0 +9.5
OK021 LR LR
comp=Z,3µm,20.0s
**W36A Wetumka 102.62 56** PFAKE 10 24 10.0 +9.0
W36A LR LR
comp=Z,3µm,19.0s
**PALK Pallekele 102.63 271** PFAKE 10 24 10.0 +8.4
PALK LR LR
comp=Z,4µm,22.0s
**SHL Shillong 102.68 292** *e*P **Pdif 10 23 59.5 -2.2**
**U35A Pawnee 102.90 55** PFAKE 10 24 10.0 +7.8
U35A LR LR
comp=Z,2µm,19.0s
**YAK Yakutsk 102.94 338** PFAKE 10 24 10.0 +8.3
YAK LR LR
comp=Z,2µm,22.0s
**X37A Clayton 102.95 57** PFAKE 10 24 10.0 +7.6
X37A LR LR
comp=Z,4µm,19.0s
**V36A Jenks 103.15 56** PFAKE 10 24 20.0 +17
V36A LR LR
comp=Z,2µm,19.0s
**W37B Quinton 103.18 57** PFAKE 10 24 20.0 +17
W37B LR LR
comp=Z,3µm,20.0s
**TUL1 Leonard 103.32 56** PFAKE 10 24 20.0 +16
TUL1 LR LR
comp=Z,2µm,19.0s
**PRAC Prado 103.80 94** PFAKE 10 24 20.0 +13
PRAC LR LR
comp=Z,2µm,21.0s
**WLAR White Oak Lake 104.12 59** PFAKE 10 24 20.0 +12
WLAR LR LR
comp=Z,3µm,19.0s
**MIAR Mount Ida 104.21 58** PFAKE 10 24 20.0 +12
MIAR LR LR
comp=Z,2µm,22.0s
**SONA0 Songino Array 104.22 318** *e*Pdif **Pdif 10 24 07.0 -0.9**
**SONM Songino Array 104.22 318** Pdiff **Pdif 10 24 07.0 -0.9**
comp=Z,1.5nm,0.9s,baz=104,slow=3.1,SNR=8.1
SONM PKKPbc **PKKPbc 10 39 57.0 +0.4**
comp=Z,1.0nm,0.7s,baz=269,slow=2.8,SNR=4.9
**KSU1 Kansas State U 104.37 53** PFAKE 10 24 20.0 +11
KSU1 LR LR
comp=Z,2µm,19.0s
**BGNE Belgrade 104.52 50** PFAKE 10 24 20.0 +11
BGNE LR LR
comp=Z,2µm,20.0s
**DGMT Dagmar 104.56 42** PFAKE 10 24 20.0 +11
DGMT LR LR
comp=Z,2µm,22.0s
**HELC Santa Helena 104.57 92** PFAKE 10 24 20.0 +9.4
HELC LR LR
comp=Z,2µm,20.0s
**HHAR Hobbs 104.81 56** PFAKE 10 28 40.0
HHAR LR LR
comp=Z,2µm,20.0s
**W40A Ferguson Farm, 104.89 58** PFAKE 10 28 40.0
W40A LR LR
comp=Z,4µm,18.0s
**CCAR Cane Creek 105.20 59** PFAKE 10 28 40.0
CCAR LR LR
comp=Z,2µm,19.0s
**UALR University of 105.20 58** PFAKE 10 28 40.0
UALR LR LR
comp=Z,2µm,19.0s
**LSA Lhasa 105.27 296** PFAKE 10 28 40.0
LSA LR LR
comp=Z,2µm,21.0s
**VBMS Vicksburg 105.30 61** PFAKE 10 28 40.0
VBMS LR LR
comp=Z,2µm,22.0s
**V40A Witts Springs 105.36 57** P **PKiKP 10 28 27.3 +0.4**
baz=241
**X301 Greenbrier Sit 105.39 58** PFAKE 10 28 40.0
X301 LR LR
comp=Z,3µm,20.0s
**W41B Gary Mavity, V 105.47 58** P **PKiKP 10 28 27.2 +0.1**
baz=241
**WHAR Wooly Hollow 105.49 58** PFAKE 10 28 40.0
WHAR LR LR
comp=Z,2µm,19.0s
**CHLP Challavanipeta 105.50 282** *e*PP PP 10 28 34.0 -2.7
**T39A Clever 105.56 56** P **PKiKP 10 28 27.2 -0.1**
baz=241
**U40A Yellville 105.61 57** P **PKiKP 10 28 27.5 +0.1**
baz=241
**VIS Vishakhapatnam 105.72 281** *e*P **Pdif 10 24 13.1 -2.0**
**S39A Bolivar 105.92 55** P **PKiKP 10 28 27.9 0.0**
baz=241
**MDRS Chennai 105.98 275** *e*P **Pdif 10 24 14.8 -1.6**
**INK Inuvik 106.06 16** Pdiff **Pdif 10 24 18.2 +2.8**
comp=Z,1.3nm,0.8s,baz=222,slow=4.4,SNR=5.2
INK PKiKP **PKiKP 10 28 26.4 -0.7**
comp=Z,7.7nm,0.9s,baz=334,slow=1.3,SNR=20
INK PKKPbc **PKKPbc 10 39 50.5 -0.8**
comp=Z,3.6nm,0.7s,baz=10.0,slow=8.3,SNR=12
**INK Inuvik 106.06 16** *e*Pdif **Pdif 10 24 18.2 +2.8**
INK LR LR
comp=Z,3µm,20.0s
**SAML Samuel 106.22 112** PFAKE 10 28 40.0
SAML LR LR
comp=Z,700nm,22.0s
**R39A Chumby, Stover 106.42 55** P **PKiKP 10 28 28.8 0.0**
baz=241
**TRD Trivandrum 106.43 270** *e*P **Pdif 10 24 16.0 -2.4**
TRD AMS AMS 11 09 07.7
comp=Z,4µm,28.4s
**S40A Lebanon 106.45 56** P **PKiKP 10 28 29.0 +0.1**
baz=241
**RUSC La Rusia 106.47 94** PFAKE 10 28 40.0
RUSC LR LR
comp=Z,600nm,21.0s
**L35A Bielow Farm, R 106.56 50** P **PKiKP 10 28 29.7 +0.7**
baz=241
**BOK Bokaro 106.57 288** *e*P **Pdif 10 24 17.8 -1.1**
BOK AMS AMS 11 09 04.2
comp=Z,1µm,17.7s
**ECSD EROS Data Cent 106.66 49** P **PKiKP 10 28 29.3 +0.2**
baz=241
**ECSD EROS Data Cent 106.66 49** PFAKE 10 28 40.0
ECSD LR LR
comp=Z,2µm,19.0s
**P38A Dawn 106.71 53** P **PKiKP 10 28 29.3 0.0**
baz=241
**U42A Revenden 106.75 57** P **PKiKP 10 28 29.8 +0.4**
baz=242
**SKHT Srikalahasti 106.77 276** *e*PP PP 10 28 43.5 -2.5
**HBAR Harrisburg 106.79 58** PFAKE 10 28 40.0
HBAR LR LR
comp=Z,2µm,19.0s
**N37A Lee Faris, Mou 106.79 52** P **PKiKP 10 28 30.0 +0.5**
baz=241
**MDND Maddock 106.87 44** PFAKE 10 28 40.0
MDND LR LR
comp=Z,2µm,18.0s
**PVM Polavaram 106.90 280** *e*PP PP 10 28 44.8 -2.2
**MET Memphis--Engin 107.11 59** PFAKE 10 28 40.0
MET LR LR
comp=Z,2µm,19.0s
**P39B Salisbury 107.17 54** P **PKiKP 10 28 30.2 0.0**
baz=242
**OXF Oxford 107.20 60** PFAKE 10 28 40.0
OXF LR LR
comp=Z,2µm,22.0s
**Q40A Laux Farm, Aux 107.41 55** P **PKiKP 10 28 31.0 +0.4**
baz=242
**GNAR Gosnell 107.44 58** PFAKE 10 28 40.0
GNAR LR LR
comp=Z,2µm,18.0s
**RAMN Ramite 107.49 291** *e*P **PKiKP 10 28 33.8 +2.3**
**PBMO Poplar Bluff 107.52 57** PFAKE 10 28 40.0
PBMO LR LR
comp=Z,3µm,19.0s
**K36A Gilmore City 107.53 50** P **PKiKP 10 28 31.0 +0.3**
baz=242
**CCM Cathedral Cave 107.54 56** PFAKE 10 28 40.0
CCM LR LR
comp=Z,2µm,20.0s
**Z47A Carrollton 107.58 62** P **PKiKP 10 28 31.4 +0.3**
baz=242
**ADKI Addanki 107.59 278** *e*PP PP 10 28 49.4 -2.7
**H34A Spellman Lake, 107.64 48** P **PKiKP 10 28 31.5 +0.7**
baz=242
**YKA Yellowknife Ar 107.71 26** Pdiff **Pdif 10 24 24.2 +1.3**
comp=Z,0.5nm,0.7s,baz=237,slow=4.6,SNR=7.3
YKA PKiKP **PKiKP 10 28 29.5 -0.9**
comp=Z,3.9nm,0.7s,baz=253,slow=1.2,SNR=27
YKA PKKPbc **PKKPbc 10 39 42.6 -3.4**
comp=Z,4.6nm,0.7s,baz=41,slow=3.2,SNR=26
YKA SKKPbc SKKPbc 10 43 25.4 -4.0
comp=Z,0.3nm,0.7s,baz=22,slow=2.6,SNR=4.0
YKA PKPPKP **P'P'df 10 48 06.7 +0.7**
comp=Z,1.4nm,0.9s,baz=28,slow=1.9,SNR=6.0
**YKW3 Yellowknife Ar 107.75 26** PFAKE 10 28 40.0
YKW3 LR LR
comp=Z,2µm,19.0s
**TLY Talaya 107.75 320** PFAKE 10 28 40.0
TLY LR LR
comp=Z,701nm,20.0s
**T43A Greenville 107.77 57** P **PKiKP 10 28 31.8 +0.5**
baz=242
**F33A 5 Mile Ranch, 107.88 47** P **PKiKP 10 28 31.8 +0.5**
baz=242
**PVMO Portageville 107.88 58** PFAKE 10 28 40.0
PVMO LR LR

comp=Z,3µm,19.0s
**HALT Halls 107.90 59** PFAKE 10 28 40.0
HALT LR LR
comp=Z,2µm,21.0s
**C31A Landman Farms, 107.94 44** P **PKiKP 10 28 31.9 +0.6**
baz=241
**PARMO Parma 107.95 58** PFAKE 10 28 40.0
PARMO LR LR
comp=Z,3µm,19.0s
**Q41A Truxton 107.97 55** P **PKiKP 10 28 32.1 +0.5**
baz=242
**SCIA State Center 107.99 52** PFAKE 10 28 40.0
SCIA LR LR
comp=Z,2µm,19.0s
**Y47A UCPARC, Winfie 108.07 61** P **PKiKP 10 28 31.7 -0.3**
baz=242
**FVM French Village 108.08 56** PFAKE 10 28 40.0
FVM LR LR
comp=Z,2µm,20.0s
**GLAT Glass 108.11 58** PFAKE 10 28 40.0
GLAT LR LR
comp=Z,2µm,19.0s
**K37A Belmond 108.11 51** P **PKiKP 10 28 31.9 +0.1**
baz=242
**S43A Fulton Ridge, 108.14 57** P **PKiKP 10 28 32.1 0.0**
baz=242
**JIRN Jiri 108.15 292** *e*P **PKiKP 10 28 34.6 +1.8**
**T44A Benton 108.26 57** P **PKiKP 10 28 32.5 +0.2**
baz=243
**L38A Oak Wood Farm, 108.27 51** P **PKiKP 10 28 32.4 +0.3**
baz=242
**B31A Greenbush Farm 108.29 44** P **PKiKP 10 28 32.2 +0.3**
baz=242
**LRAL Lakeview Retre 108.31 62** PFAKE 10 28 40.0
LRAL LR LR
comp=Z,1µm,19.0s
**E33A Westby DABS, E 108.36 46** P **PKiKP 10 28 32.4 +0.3**
baz=242
**PLAL Pickwick Lake 108.40 60** PFAKE 10 28 40.0
PLAL LR LR
comp=Z,2µm,20.0s
**Q42A Golden Eagle 108.43 55** P **PKiKP 10 28 32.2 -0.3**
baz=243
**NJS Nagarjunasagar 108.50 278** *e*PP PP 10 28 54.9 -3.8
**GUN Gumba 108.51 292** *e*P **PKiKP 10 28 34.5 +1.0**
**SLM Saint Louis 108.51 56** PFAKE 10 28 40.0
SLM LR LR
comp=Z,2µm,19.0s
**SRLM Srisailam 108.62 278** *e*PP PP 10 28 56.9 -2.7
**PKI Pulchoki 108.72 291** *e*P **PKiKP 10 28 33.8 0.0**
**O41A Passleys Farm, 108.74 54** P **PKiKP 10 28 32.5 -0.6**
baz=243
**SIUC Southern Illin 108.81 57** PFAKE 10 28 50.0
SIUC LR LR
comp=Z,3µm,20.0s
**B32A Ashes, Strandq 108.93 44** P **PKiKP 10 28 33.1 0.0**
baz=242
**MTDJ Mount Denham 108.94 80** PFAKE 10 28 50.0
MTDJ LR LR
comp=Z,2µm,21.0s
**FFC Flin Flon 108.99 37** PFAKE 10 28 40.0
FFC LR LR
comp=Z,2µm,20.0s
**C33A Trail 109.09 45** P **PKiKP 10 28 33.4 -0.1**
baz=242
**WVT Waverly 109.09 59** P **PKiKP 10 28 33.6 -0.3**
baz=243
**WVT Waverly 109.09 59** PFAKE 10 28 50.0
WVT LR LR
comp=Z,1µm,22.0s
**G36A St. Michael 109.17 48** P **PKiKP 10 28 33.9 +0.2**
baz=243
**A32A Rocking H Ranc 109.20 44** P **PKiKP 10 28 33.7 0.0**
baz=242
**AGMN Agassiz Nation 109.28 45** P **PKiKP 10 28 33.8 0.0**
baz=243
**AGMN Agassiz Nation 109.28 45** PFAKE 10 28 50.0
AGMN LR LR
comp=Z,2µm,22.0s
**URV Uravakonda 109.43 276** *e*PP PP 10 29 00.5 -5.0
**M41A Milan 109.53 53** P **PKiKP 10 28 34.5 0.0**
baz=244
**HYB Hyderabad 109.54 279** *i* PKP PKiKP 10 28 57.5 +22
HYB *e*PP **PP 10 29 08.0 +1.6**
HYB *e*PS **PS 10 38 28.0 -6.5**
**HYB Hyderabad 109.54 279** *e*P **Pdif 10 24 31.9 -0.3**
**HYBB Hyderabad (bro 109.55 279** *e*PP PP 10 29 01.5 -4.8
**C34A RKJ Ranch, Bem 109.56 46** P **PKiKP 10 28 34.3 0.0**
baz=243
**F36A Milaca 109.60 48** P **PKiKP 10 28 34.5 0.0**
baz=243
**RPR Rampur 109.62 280** *e*PP PP 10 29 03.6 -3.2
**U47A Clarksville 109.62 59** P **PKiKP 10 28 34.3 -0.5**
baz=244
**K40A Colesburg 109.72 51** P **PKiKP 10 28 34.5 -0.3**
baz=244
**SPMN Marine on St. 109.77 49** P **PKiKP 10 28 34.8 0.0**
baz=244
**SPMN Marine on St. 109.77 49** PFAKE 10 28 50.0
SPMN LR LR
comp=Z,2µm,22.0s
**A33A Warroad 109.86 44** P **PKiKP 10 28 34.8 -0.1**
baz=243
**I39A Houston 109.98 50** P **PKiKP 10 28 34.9 -0.4**
baz=244
**USIN University of 110.02 57** PFAKE 10 28 50.0
USIN LR LR
comp=Z,3µm,20.0s
**OLIL Olney 110.05 56** PFAKE 10 28 50.0
OLIL LR LR
comp=Z,3µm,19.0s
**SWET Sewanee 110.07 61** PFAKE 10 28 50.0
SWET LR LR
comp=Z,1µm,19.0s
**B34A Aery, Baudette 110.09 45** P **PKiKP 10 28 35.1 -0.2**
baz=243
**F37A Hinrichs Farm, 110.10 48** P **PKiKP 10 28 35.7 +0.3**
baz=244
**SDV Santo Domingo 110.10 92** PFAKE 10 28 50.0
SDV LR LR
comp=Z,1µm,20.0s
**TIXI Tiksi 110.13 345** *c i* PKIKP **PKiKP 10 28 34.0 -0.7**
TIXI pmax pmax
comp=Z,7.0nm,0.6s
TIXI MLR MLR
comp=Z,2µm,20.0s
**TIXI Tiksi 110.13 345** PFAKE 10 28 50.0
TIXI LR LR
comp=Z,2µm,22.0s
**TIGA Tifton 110.17 65** PFAKE 10 28 50.0
TIGA LR LR
comp=Z,900nm,21.0s
**ULM Lac du Bonnet 110.17 43** PKiKP **PKiKP 10 28 33.9 -1.5**
comp=Z,5.4nm,0.7s,baz=267,slow=2.3,SNR=13
ULM PKKPbc **PKKPab 10 39 44.5 -1.3**
comp=Z,5.3nm,0.8s,baz=50,slow=4.0,SNR=7.6
**ULM Lac du Bonnet 110.17 43** PKiKP **PKiKP 10 28 33.9 -1.5**
ULM LR LR
comp=Z,1µm,20.0s
**J40A Soldiers Grove 110.29 51** P **PKiKP 10 28 35.8 -0.1**
baz=244
**G38A Ridgeland 110.35 49** P **PKiKP 10 28 36.0 0.0**
baz=244
**D36A Goodland 110.41 47** P **PKiKP 10 28 36.0 0.0**
baz=244
**JFWS Jewell Farm 110.41 52** P **PKiKP 10 28 36.1 0.0**
baz=244
**JFWS Jewell Farm 110.41 52** PFAKE 10 28 50.0
JFWS LR LR
comp=Z,2µm,20.0s
**SRSP Sriramsagar 110.44 280** *e*PP PP 10 29 09.7 -3.1
**P45A Graceland, Par 110.65 56** P **PKiKP 10 28 36.7 0.0**
baz=244
**F38A Pierce - Schro 110.67 48** P **PKiKP 10 28 36.5 0.0**
baz=244
**J41A Loganville 110.76 51** P **PKiKP 10 28 36.5 -0.3**
baz=244
**G39A Holcombe 110.83 49** P **PKiKP 10 28 36.6 -0.2**
baz=244
**D37A Cotton 110.85 47** P **PKiKP 10 28 36.8 0.0**
baz=244
**C36A Pine Crest Far 110.86 46** P **PKiKP 10 28 37.0 +0.1**
baz=244
**K42A Prairie Point, 110.95 52** P **PKiKP 10 28 37.2 +0.1**
baz=245
**O45A Potomac 110.97 55** P **PKiKP 10 28 37.3 +0.1**
baz=245
**R47A Wooly Knot Far 110.98 57** P **PKiKP 10 28 37.0 -0.3**
baz=244
**JBP Jabalpur 111.06 285** *e*P **PKiKP 10 28 36.3 -1.6**
**WCI Wyandotte Cave 111.11 57** P **PKiKP 10 28 37.2 -0.4**
baz=245
**WCI Wyandotte Cave 111.11 57** PFAKE 10 28 50.0
WCI LR LR
comp=Z,3µm,19.0s
**GOGA Godfrey 111.12 63** PFAKE 10 28 50.0
GOGA LR LR
comp=Z,2µm,22.0s
**CPCT Cooper Cave 111.21 61** PFAKE 10 28 50.0
CPCT LR LR
comp=Z,3µm,20.0s
**C37A Embarrass 111.25 46** P **PKiKP 10 28 37.4 -0.2**
baz=245
**F39A Loretta 111.26 48** P **PKiKP 10 28 37.5 -0.1**
baz=245
**Q47A Bedord North L 111.32 57** P **PKiKP 10 28 37.6 -0.3**
baz=245
**BLO Bloomington 111.35 57** PFAKE 10 28 50.0
BLO LR LR
comp=Z,3µm,19.0s
**G40A Rib Lake 111.44 49** P **PKiKP 10 28 38.0 -0.1**
baz=245
**SFIN Lafayette 111.46 55** PFAKE 10 28 50.0
SFIN LR LR
comp=Z,2µm,19.0s
**KLRI Killari 111.49 278** *e*PP PP 10 29 16.3 -4.1
**I42A Draeger Farm, 111.70 51** P **PKiKP 10 28 38.3 -0.2**
baz=245
**EYMN Ely 111.76 46** P **PKiKP 10 28 38.2 -0.3**
baz=245
**EYMN Ely 111.76 46** PFAKE 10 28 50.0
EYMN LR LR
comp=Z,2µm,22.0s
**F40A Park Falls 111.77 49** P **PKiKP 10 28 38.4 -0.2**
baz=245
**TKL Tuckaleechee C 111.85 61** PFAKE 10 28 50.0
TKL LR LR
comp=Z,3µm,20.0s
**O47A Sheridan 112.04 56** P **PKiKP 10 28 39.1 -0.2**
baz=245
**E40A Wakefield 112.13 48** P **PKiKP 10 28 39.2 0.0**
baz=246
**BG3 Lake Jocassee 112.20 62** PFAKE 10 28 50.0
BG3 LR LR
comp=Z,2µm,22.0s
**F41A Three Lakes 112.34 49** P **PKiKP 10 28 39.7 0.0**
baz=246
**ABPO Ambohimpanom 112.35 228** PFAKE 10 28 50.0
ABPO LR LR
comp=Z,2µm,18.0s
**HODGE Hodges 112.38 63** PFAKE 10 28 50.0
HODGE LR LR
comp=Z,1µm,22.0s
**G42A Mountain 112.58 50** P **PKiKP 10 28 40.0 -0.1**
baz=246
**GOA Goa 112.58 274** *e*P **PKiKP 10 28 38.0 -3.0**
**OPO Ambohidratompo 112.71 228** PKiKP **PKiKP 10 28 41.1 -0.4**
comp=Z,6.2nm,0.8s,baz=220,slow=4.5,SNR=20
**SUR Sutherland 112.79 198** PKiKP **PKiKP 10 28 41.5 +0.1**
comp=Z,0.7nm,0.6s,baz=235,slow=1.6,SNR=16
SUR PKKPbc **PKKPbc 10 39 32.6 +3.6**
comp=Z,0.7nm,0.8s,baz=306,slow=6.3,SNR=7.1
**BDFB Brasilia 112.89 128** PKiKP **PKiKP 10 28 42.2 +0.4**
comp=Z,10nm,0.7s,baz=97,slow=5.3,SNR=3.9
BDFB PKKPbc **PKKPbc 10 39 29.6 +1.5**
comp=Z,2.5nm,0.6s,baz=267,slow=5.5,SNR=3.1
**BDFB Brasilia 112.89 128** *e*PKiKP **PKiKP 10 28 42.2 +0.4**
BDFB LR LR
comp=Z,6µm,22.0s
**JSC Jenkinsville 113.15 63** PFAKE 10 28 50.0
JSC LR LR
comp=Z,1µm,20.0s
**BHPL Bhopal 113.19 284** *e*P **PKiKP 10 28 40.9 -1.2**
**D41A Chassel 113.21 48** P **PKiKP 10 28 41.5 +0.2**
baz=247
**E42A Champion 113.38 49** P **PKiKP 10 28 42.0 +0.3**
baz=247
**KMSC Kings Mountain 113.45 62** P **PKiKP 10 28 42.0 -0.1**
baz=246
**KMSC Kings Mountain 113.45 62** PFAKE 10 28 50.0
KMSC LR LR
comp=Z,2µm,19.0s
**NHSC New Hope 113.49 65** PFAKE 10 28 50.0
NHSC LR LR
comp=Z,1µm,20.0s
**F43A Flat Rock, Esc 113.62 50** P **PKiKP 10 28 42.1 0.0**
baz=247
**PTGA Pitinga 113.69 107** PFAKE 10 29 00.0
PTGA LR LR
comp=Z,3µm,21.0s
**E43A Lone Tree Farm 113.94 49** P **PKiKP 10 28 42.8 0.0**
baz=247
**WMQ Urumqi 113.94 308** PKP **PKiKP 10 28 43.3 +0.4**
WMQ PP **PP 10 29 42.3 +4.7**
WMQ PKS **PKSdf 10 32 20.3 +0.8**
WMQ SS SS 10 45 19.8 -5.3
WMQ AMB AMB
comp=Z,45nm,3.6s
WMQ LR LR
comp=Z,1µm,20.9s
WMQ LR LR
comp=Z,2µm,24.5s
WMQ LR LR
comp=Z,3µm,25.7s
**POO Poona 114.01 277** *e*P **PKiKP 10 28 42.3 -1.5**
**F44A Big Bay de Noc 114.16 50** P PKPdf 10 28 43.2 +0.1
baz=248
**ACSO Alum Creek Sta 114.28 57** P PKPdf 10 28 43.3 -0.2
baz=247
**ACSO Alum Creek Sta 114.28 57** PFAKE 10 29 00.0 +16
ACSO LR LR
comp=Z,3µm,19.0s
**AAM Ann Arbor 114.60 54** PFAKE 10 29 00.0 +16
AAM LR LR
comp=Z,2µm,22.0s
**GLMI Grayling 114.90 51** PFAKE 10 29 00.0 +15
GLMI LR LR
comp=Z,2µm,18.0s
**BLA Blacksburg 114.95 61** PFAKE 10 29 00.0 +15
BLA LR LR
comp=Z,2µm,19.0s
**BOSA Boshof 114.98 203** PKP PKPdf 10 28 44.8 -0.8
comp=Z,18nm,0.8s,baz=158,slow=2.5,SNR=18
BOSA PP **PP 10 29 43.9 +0.2**
comp=Z,4.8nm,0.6s,baz=289,slow=3.3,SNR=3.1
BOSA PKKPbc **PKKPbc 10 39 23.6 +2.2**
comp=Z,6.0nm,0.7s,baz=325,slow=3.4,SNR=11
**SDD Santo Domingo 115.42 84** PFAKE 10 29 00.0 +14
SDD LR LR
comp=Z,2µm,18.0s
**DDI Dehra Dun 115.71 291** *e*P **PKPdf 10 28 45.6 -1.1**
DDI AMB AMB 10 28 49.0
comp=Z,19nm,2.7s
**CNNC Cliffs of the 116.08 63** PFAKE 10 29 00.0 +13
CNNC LR LR
comp=Z,1µm,19.0s
**DGZ Jazzator, Alta 116.26 314** *c i* PKIKP **PKPdf 10 28 46.6 -0.7**
**MCWV Mont Chateau 116.29 58** PFAKE 10 29 00.0 +13
MCWV LR LR
comp=Z,2µm,20.0s
**MSEY Mahe Island 116.55 245** PFAKE 10 29 00.0 +11
MSEY LR LR
comp=Z,2µm,19.0s
**N54A Moraine State 116.66 57** P **PKPdf 10 28 48.2 +0.1**
baz=249
**SMLA Simla 116.74 291** *e*P **PKPdf 10 28 48.2 -0.4**
**IP07 Quail 116.98 61** PFAKE 10 29 00.0 +11
IP07 LR LR
comp=Z,2µm,20.0s
**JSRW J. Sargeant Re 117.01 61** *e*PKPdf **PKPdf 10 28 48.2 -0.7**
**IP06 Yanceyville 117.02 61** *e*PKPdf **PKPdf 10 28 48.6 -0.2**
IP06 LR LR
comp=Z,2µm,19.0s
**IP03 Louisa 117.03 61** *e*PKPdf **PKPdf 10 28 48.4 -0.5**
IP03 LR LR
comp=Z,2µm,19.0s
**ERPA Erie 117.07 56** PFAKE 10 29 00.0 +11
ERPA LR LR
comp=Z,2µm,19.0s
**IP01 Cuckoo 117.08 61** *e*PKPdf **PKPdf 10 28 49.0 0.0**
IP01 LR LR
comp=Z,2µm,20.0s
**M54A Oil Creek Stat 117.09 56** P **PKPdf 10 28 49.1 +0.2**
baz=249
**SPRD Spring Road, M 117.13 61** PFAKE 10 29 00.0 +11
SPRD LR LR
comp=Z,2µm,19.0s
**IP05 Hopewell Churc 117.15 61** *e*PKPdf **PKPdf 10 28 48.8 -0.4**
IP05 LR LR
comp=Z,2µm,19.0s
**CVRD Centerville Ro 117.20 61** PFAKE 10 29 00.0 +11
CVRD LR LR
comp=Z,2µm,19.0s
**PTRD Partlow Road 117.35 61** PFAKE 10 29 00.0 +10
PTRD LR LR
comp=Z,2µm,19.0s
**O56A Blue Knob Stat 117.43 58** P **PKPdf 10 28 50.0 +0.3**
baz=249
**SPFD Spotsylvania F 117.43 61** PFAKE 10 29 00.0 +10
SPFD LR LR
comp=Z,2µm,20.0s
**CBN Corbin Frederi 117.56 61** PFAKE 10 29 00.0 +10
CBN LR LR
comp=Z,2µm,18.0s
**MPR Mayaguez 117.64 85** PFAKE 10 29 00.0 +9.4
MPR LR LR
comp=Z,1µm,22.0s
**DHRM DHARAMSHALA 117.86 292** *e*P **PKPdf 10 28 49.8 -1.2**
**SSPA Standing Stone 118.04 58** *e*PKPdf **PKPdf 10 28 51.2 +0.4**
SSPA LR LR
comp=Z,2µm,21.0s
**LBTB Lobatse 118.17 205** PKP **PKPdf 10 28 51.1 -0.7**
comp=Z,10nm,0.7s,baz=126,slow=2.6,SNR=17
LBTB PKKPbc **PKKPbc 10 39 10.5 +0.4**
comp=Z,3.1nm,0.7s,baz=260,slow=5.0,SNR=5.0
**LBTB Lobatse 118.17 205** *e*PKIKP **PKPdf 10 28 51.9 +0.1**
**LBTB Lobatse 118.17 205** *e*PKPdf **PKPdf 10 28 51.9 +0.1**
**SDMD Soldier's Deli 118.38 59** *e*PKPdf **PKPdf 10 28 52.1 +0.6**
SDMD LR LR
comp=Z,900nm,19.0s
**THN Thein Dam 118.38 292** *e*P **PKPdf 10 28 51.0 -0.7**
**MK01 Makanchi Array 118.54 309** *e*PKPdf **PKPdf 10 28 50.1 -1.5**
**SADO Sadowa 118.54 53** PFAKE 10 29 00.0 +8.4
SADO LR LR
comp=Z,1µm,20.0s
**MK31 Makanchi Array 118.56 309** *e*PKIKP **PKPdf 10 28 50.1 -1.5**
**MK31 Makanchi Array 118.56 309** *e*PKPdf **PKPdf 10 28 50.1 -1.5**
**MK32 Makanchi Array 118.56 309** *e*PKPdf **PKPdf 10 28 50.2 -1.4**
MK32 *e*PP **PP 10 30 09.4 -0.3**
**MKAR Makanchi Array 118.56 309** PKP **PKPdf 10 28 50.2 -1.4**
comp=Z,13nm,0.8s,baz=109,slow=1.2,SNR=36
MKAR PP **PP 10 30 09.4 -0.4**
comp=Z,7.6nm,0.8s,baz=115,slow=7.4,SNR=4.6
MKAR PKKPbc **PKKPab 10 39 10.5 +1.2**
comp=Z,1.4nm,0.7s,baz=297,slow=3.4,SNR=6.8
**MMNY Mt. Morris Dam 118.73 56** PFAKE 10 29 00.0 +8.0
MMNY LR LR
comp=Z,2µm,20.0s
**MAKZ Makanchi 118.77 309** *e*PKIKP **PKPdf 10 28 50.5 -1.5**
MAKZ MLR MLR
comp=Z,1µm,20.0s
**MAKZ Makanchi 118.77 309** *e*PKPdf **PKPdf 10 28 50.5 -1.5**
MAKZ LR LR
comp=Z,1µm,20.0s
**MVL Millersville 118.93 59** *e*PKPdf **PKPdf 10 28 53.0 +0.5**
**ZAA0 Zalesovo Array 119.12 318** *e*PKPdf **PKPdf 10 28 50.8 -1.6**
ZAA0 LR LR
comp=Z,1µm,21.0s
**ZALV Zalesovo Beam 119.12 318** PKP **PKPdf 10 28 50.7 -1.7**
comp=Z,13nm,0.8s,baz=166,slow=2.1,SNR=36
**ZALV Zalesovo Beam 119.12 318** *e*PKPdf **PKPdf 10 28 50.6 -1.8**
**ZAA1 Zalesovo Array 119.12 318** *e*PKPdf **PKPdf 10 28 50.7 -1.7**
**GRGR Grenville 119.33 94** PFAKE 10 29 10.0 +16
GRGR LR LR
comp=Z,2µm,22.0s
**PSUB Penn St. - Bra 119.56 59** PFAKE 10 29 10.0 +16
PSUB LR LR
comp=Z,2µm,20.0s
**BHJ Bhuj 119.62 280** *e*P **PKPdf 10 28 52.1 -2.3**
BHJ AMB AMB 10 28 55.4
comp=Z,22nm,1.5s
BHJ AMS AMS 11 29 37.2
comp=Z,3µm,21.3s
**UZB Uzynbulak 119.62 305** *e*PKP **PKPdf 10 28 52.7 -1.3**
comp=Z,258nm,1.1s
UZB *e*PP **PP 10 30 15.6 -1.7**
**N59A State Game Lan 119.65 58** P **PKPdf 10 28 54.4 +0.5**
baz=251
**LUPA Lehigh Univers 119.84 59** *e*PKPdf **PKPdf 10 28 54.9 +0.7**
LUPA LR LR
comp=Z,200nm,20.0s
**BINY Binghamton 119.91 57** *e*PKPdf **PKPdf 10 28 54.0 -0.4**
BINY LR LR
comp=Z,3µm,19.0s
**KPKS Kokpek 119.96 305** *i* PKP **PKPdf 10 28 52.9 -1.7**
comp=Z,354nm,1.1s
KPKS *e*PP **PP 10 30 17.2 -2.3**
**PLVO Plevna 120.02 53** PFAKE 10 29 10.0 +16
PLVO LR LR
comp=Z,2µm,19.0s
**SATY Saty 120.03 304** *i* PKP **PKPdf 10 28 53.4 -1.3**
comp=Z,438nm,1.4s
SATY *e*PP **PP 10 30 18.3 -1.8**
**SVB Belmont 120.24 93** *e*PKPdf **PKPdf 10 28 55.2 -0.6**
**NVS Novosibirsk 120.25 318** *e*PKIKP **PKPdf 10 28 52.5 -2.0**
NVS *e* 10 35 42.0
NVS pmax pmax
comp=E,6.0nm,1.0s
**BRNJ Basking Ridge 120.44 59** PFAKE 10 29 10.0 +15
BRNJ LR LR
comp=Z,2µm,21.0s
**ODNJ Ogdensburg 120.54 58** PFAKE 10 29 10.0 +14
ODNJ LR LR
comp=Z,3µm,22.0s
**VLDQ Val d'Or 120.65 50** *e*PKPdf **PKPdf 10 28 54.2 -1.4**
VLDQ LR LR
comp=Z,2µm,20.0s
**SABA Saba 120.65 88** PFAKE 10 29 10.0 +14
SABA LR LR
comp=Z,2µm,21.0s
**KSH Kashi 120.66 300** PKP **PKPdf 10 28 57.1 +1.1**
KSH sPKP 10 29 07.9
KSH PP **PP 10 30 28.9 +4.4**
KSH PKS **PKSdf 10 32 32.9 +0.1**
KSH SKS **SKSdf 10 36 04.6 -0.9**
KSH SKKS **SKKSac 10 37 18.9 -2.2**
KSH SS **SS 10 46 55.9 +3.1**
KSH AMB AMB
comp=Z,350nm,5.5s
KSH LR LR
comp=Z,430nm,12.1s
KSH LR LR
comp=Z,230nm,6.1s
KSH LR LR
comp=Z,1µm,23.3s
**SEM Semipalatinsk 120.89 313** *e*PKP **PKPdf 10 28 54.0 -2.3**
SEM LRM MLR 11 20 30.0
comp=Z,373nm,21.3s
**SMRT St. Maarten 120.99 87** *e*PKPdf **PKPdf 10 28 57.1 -0.1**
**MDOK Medeo 121.00 304** *i* PKP **PKPdf 10 28 55.5 -1.2**
comp=Z,165nm,1.0s
MDOK *i* PP **PP 10 30 25.0 -1.8**
**PAL Palisades 121.02 59** PFAKE 10 29 10.0 +14
PAL LR LR
comp=Z,3µm,21.0s
**TRMF Trois Ilets 121.03 92** *e*P **PKPdf 10 28 58.8 +1.5**
**PCM Pelee Case Pet 121.04 92** *e*P **PKPdf 10 28 57.4 +0.1**
**PCM Pelee Case Pet 121.04 92** *e*P **PKPdf 10 28 57.7 +0.4**
**FDF Fort de France 121.05 92** *e*PKIKP **PKPdf 10 28 58.1 +0.8**
FDF MLR MLR
comp=Z,900nm,20.0s
**FDF Fort de France 121.05 92** *e*PKPdf **PKPdf 10 28 58.1 +0.8**
FDF LR LR
comp=Z,900nm,20.0s
**FDF Fort de France 121.05 92** *e*P **PKPdf 10 28 57.4 +0.1**
**ZAM Aeronautique 121.07 92** *e*P **PKPdf 10 28 57.3 0.0**
**BAMF Morne Balai 121.09 92** *e*P **PKPdf 10 28 56.6 -0.9**
**AAA Alma-Ata 121.11 304** *e*PKP **PKPdf 10 28 56.4 -0.3**
AAA *e*PP **PP 10 30 26.6 -0.8**
**LONY Lake Ozonia 121.60 54** *e*PKPdf **PKPdf 10 28 56.9 -0.6**
LONY LR LR
comp=Z,1µm,20.0s
**NCB Newcomb 121.67 55** *e*PKPdf **PKPdf 10 28 57.4 -0.3**
NCB LR LR
comp=Z,1µm,20.0s
**TRY Troy 121.70 57** *e*PKPdf **PKPdf 10 28 58.9 +1.2**
TRY LR LR

comp=Z,3µm,19.0s
**YLE Yale 121.81 58** PFAKE 10 29 10.0 +12
YLE LR LR
comp=Z,4µm,22.0s
**ACCN Adirondack Com 121.89 56** *e*PKPdf **PKPdf 10 28 58.5 +0.4**
ACCN LR LR
comp=Z,2µm,20.0s
**TKM2 Tokmak 2 121.95 303** P **PKPdf 10 28 57.8 -0.7**
SNR=29
**KZA Kyzart 121.96 302** P **PKPdf 10 28 58.2 -0.6**
SNR=12
**KURK Kurchatov 121.97 313***c i*PKIKP **PKPdf 10 28 57.1 -0.9**
KURK pmax pmax
comp=Z,191nm,1.0s
**KURK Kurchatov 121.97 313** *e*PKPdf **PKPdf 10 28 56.2 -1.7**
KURK LR LR
comp=Z,1µm,20.0s
**KURK Kurchatov 121.97 313** PKPdf **PKPdf 10 28 57.0 -0.9**
SNR=18
**KURK Kurchatov 121.97 313** P **PKPdf 10 28 57.0 -0.9**
SNR=18
**KURK Kurchatov 121.97 313** P **PKPdf 10 28 57.0 -0.9**
SNR=18
**KURBB Kurchatov Arra 122.00 313** PKKPbc PKKPbc 10 39 02.1 +6.0
comp=Z,1.6nm,0.8s,baz=284,slow=4.8,SNR=8.0
**KBK Karagaybulak 122.34 303** P **PKPdf 10 28 58.2 -1.0**
SNR=32
**FRNY Flat Rock 122.34 54** *e*PKPdf **PKPdf 10 28 58.4 -0.5**
FRNY LR LR
comp=Z,1µm,19.0s
**QUA2 Belchertown 122.51 58** *e*PKPdf **PKPdf 10 28 59.2 -0.1**
QUA2 LR LR
comp=Z,3µm,19.0s
**UCH Uchtor 122.53 302** P **PKPdf 10 28 59.4 -0.6**
SNR=24
**CHMS Chumysh 122.57 303** P **PKPdf 10 28 58.3 -1.2**
SNR=27
**FRU Bishkek 122.62 303** *i* PKIKP **PKPdf 10 28 58.5 -1.1**
**AAK Ala-Archa 122.65 303** PKP **PKPdf 10 28 59.6 -0.2**
comp=Z,18nm,0.8s,baz=163,slow=3.9,SNR=35
AAK PKKPbc **PKKPbc 10 38 55.1 +1.6**
comp=Z,3.6nm,0.8s,baz=263,slow=2.9,SNR=8.9
**AAK Ala-Archa 122.65 303***c i*PKIKP **PKPdf 10 28 59.3 -0.5**
**AAK Ala-Archa 122.65 303** P **PKPdf 10 28 59.6 -0.2**
SNR=13
**AAK Ala-Archa 122.65 303** *e*PKPdf **PKPdf 10 28 58.8 -1.1**
AAK *e*PKPdf **PKPdf 10 28 59.6 -0.2**
AAK LR LR
comp=Z,2µm,21.0s
**AAK Ala-Archa 122.65 303** PKPdf **PKPdf 10 29 00.4 +0.5**
SNR=5.6
**AAK Ala-Archa 122.65 303** P **PKPdf 10 29 00.4 +0.5**
SNR=5.6
**AAK Ala-Archa 122.65 303** P **PKPdf 10 29 00.4 +0.5**
SNR=5.6
**VT1 Waterbury 122.78 55** *e*PKPdf **PKPdf 10 29 00.8 +1.0**
VT1 LR LR
comp=Z,2µm,19.0s
**USP Ospenovka 122.82 304** P **PKPdf 10 28 59.0 -1.0**
SNR=13
**HNH Hanover 122.94 56** *e*PKPdf **PKPdf 10 29 00.5 +0.4**
HNH LR LR
comp=Z,2µm,20.0s
**BRYW Bryant College 122.99 58** *e*PKPdf **PKPdf 10 29 01.2 +0.9**
BRYW LR LR
comp=Z,3µm,21.0s
**AML Almayashu 123.08 302** P **PKPdf 10 29 00.8 -0.1**
SNR=32
**HRV Adam Dziewonsk 123.14 57** PFAKE 10 29 10.0 +9.5
HRV LR LR
comp=Z,3µm,19.0s
**EKS2 Erkin-Say 123.17 303** P **PKPdf 10 29 00.6 -0.1**
SNR=17
**WES Weston 123.27 58** PFAKE 10 29 10.0 +9.2
WES LR LR
comp=Z,3µm,19.0s
**FFD Franklin Falls 123.33 56** *e*PKPdf **PKPdf 10 29 01.4 +0.5**
FFD LR LR
comp=Z,2µm,20.0s
**LBNH Lisbon 123.33 55** *e*PKIKP **PKPdf 10 29 00.6 -0.2**
LBNH MLR MLR
comp=Z,2µm,20.0s
**LBNH Lisbon 123.33 55** *e*PKPdf **PKPdf 10 29 00.6 -0.2**
LBNH LR LR
comp=Z,2µm,20.0s
**BTLS Baital 123.59 306** *e*PKP **PKPdf 10 28 59.7 -1.6**
comp=Z,302nm,0.8s
BTLS *e*PP **PP 10 30 41.9 -2.2**
**KBL Kabul 124.34 292** *e*P **Pdif 10 25 38.5 +0.6**
KBL *e* 10 29 03.3
KBL MLR MLR
comp=Z,1µm,22.0s
**KBL Kabul 124.34 292** *e*Pdif **Pdif 10 25 38.5 +0.6**
KBL *e*PKPdf **PKPdf 10 29 03.3 -0.1**
KBL LR LR
comp=Z,1µm,22.0s
**DZA Taraz 124.97 302** *e*PKP **PKPdf 10 29 03.1 -0.9**
DZA LRM MLR 11 25 12.4
comp=Z,1µm,15.9s
**WVL Waterville 124.99 55** *e*PKPdf **PKPdf 10 29 03.4 -0.6**
WVL LR LR
comp=Z,2µm,18.0s
**PKME Peaks-Kenny Pk 125.40 55** *e*PKPdf **PKPdf 10 29 04.7 -0.1**
PKME LR LR
comp=Z,2µm,20.0s
**KK31 Karatay Array 125.60 303** *i* PKIKP **PKPdf 10 29 03.0 -2.3**
KK31 pmax pmax
comp=Z,26nm,0.8s
**IUG luzhnay 125.72 301** *i* PKP **PKPdf 10 29 04.5 -1.1**
comp=Z,345nm,0.9s
IUG *i* PP **PP 10 30 57.3 -1.3**
**LSZ Lusaka 125.83 213** PKP **PKPdf 10 29 07.2 +0.5**
comp=Z,66nm,0.8s,baz=165,slow=2.2,SNR=108
**LSZ Lusaka 125.83 213** *e*PKPdf **PKPdf 10 29 07.3 +0.5**
LSZ LR LR
comp=Z,2µm,21.0s
**TULEG Thule 126.05 16** *e*PKPdf **PKPdf 10 29 04.8 -0.3**
TULEG LR LR
comp=Z,3µm,22.0s
**BRLS Borolday 126.07 302** *i* PKP **PKPdf 10 29 05.3 -0.9**
BRLS *i* PP **PP 10 30 59.6 -1.2**
BRLS LRM MLR 11 24 03.1
comp=Z,258nm,24.9s
**CHM Chimkent 126.07 301** LRM MLR 11 22 52.1
comp=Z,265nm,22.1s
**TSUM Tsumeb 126.17 199** *e*PKPdf **PKPdf 10 29 07.9 +0.5**
**EMMW East Machias 126.55 56** *e*PKPdf **PKPdf 10 29 07.0 +0.1**
EMMW LR LR
comp=Z,2µm,19.0s
**PQI Presque Isle 126.56 53** *e*PKPdf **PKPdf 10 29 05.8 -1.1**
PQI LR LR
comp=Z,2µm,20.0s
**GGN Saint George 127.06 55** *e*PKPdf **PKPdf 10 29 07.7 -0.2**
GGN LR LR
comp=Z,2µm,19.0s
**BVA0 Borovoye Array 127.39 315** *i* PKIKP PKPpre 10 29 01.7
**BVAR Borovoye Array 127.39 315** PKhKP PKPpre 10 28 55.7
comp=Z,0.9nm,0.6s,baz=106,slow=4.8,SNR=3.5
BVAR PKP **PKPdf 10 29 07.0 -1.3**
comp=Z,23nm,0.7s,baz=98,slow=3.0,SNR=46
**BVAR Borovoye Array 127.39 315** PKIKP **PKPdf 10 29 07.0 -1.3**
**BRVK Borovoye 127.46 315***d i*PKIKP **PKPdf 10 29 07.5 -0.9**
**BRVK Borovoye 127.46 315** *e*PKPdf **PKPdf 10 29 07.6 -0.9**
BRVK LR LR
comp=Z,2µm,21.0s
**BRVK Borovoye 127.46 315** PKPdf **PKPdf 10 29 07.9 -0.5**
SNR=17
**BRVK Borovoye 127.46 315** P **PKPdf 10 29 07.9 -0.5**
SNR=17
**BRVK Borovoye 127.46 315** P **PKPdf 10 29 07.9 -0.5**
SNR=17
**RCBR Riachuelo 128.09 130** *e*PKPdf **PKPdf 10 29 12.3 +1.3**
RCBR LR LR
comp=Z,2µm,21.0s
**SCHQ Schefferville 128.34 43** PKP **PKPdf 10 29 10.0 -0.1**
comp=Z,19nm,0.8s,baz=262,slow=1.9,SNR=17
**SCHQ Schefferville 128.34 43** *e*PKPdf **PKPdf 10 29 10.0 -0.1**
SCHQ LR LR
comp=Z,2µm,20.0s
**LMN Caledonia Moun 128.60 55** *e*PKPdf **PKPdf 10 29 10.4 -0.5**
LMN LR LR
comp=Z,1µm,19.0s
**KULLO Kullorsuaq 129.40 17** *i* PKIKP **PKPdf 10 29 11.1 -0.4**
KULLO pmax pmax
comp=Z,66nm,1.0s
**KULLO Kullorsuaq 129.40 17** *i* P **PKPdf 10 29 11.1 -0.4**
comp=Z,66nm,1.0s
**UOSS Minazif 131.55 276** *e*PKPdf **PKPdf 10 29 15.8 -1.3**
UOSS LR LR
comp=Z,1µm,20.0s
**KMBO Kilima Mbogo 132.17 233** PKP **PKPdf 10 29 20.1 +1.1**
comp=Z,12nm,0.7s,baz=76,slow=2.3,SNR=27
KMBO SKPbc **SKPbc 10 32 43.1 +0.4**
comp=Z,21nm,0.9s,baz=70,slow=4.1,SNR=16
**KMBO Kilima Mbogo 132.17 233** *e*PKPdf **PKPdf 10 29 20.4 +1.4**
KMBO LR LR
comp=Z,1µm,20.0s
**SVE Sverdlovsk 133.06 320** *i* PKIKP **PKPdf 10 29 18.3 -0.7**
SVE pmax pmax
comp=Z,28nm,0.9s
SVE MLR MLR
comp=Z,1µm,21.0s
**ILULI Ilulissat 133.24 23** *e*PKIKP **PKPdf 10 29 19.3 +0.4**
**ILULI Ilulissat 133.24 23** *i* P **PKPdf 10 29 19.5 +0.6**
comp=Z,31nm,0.7s
**ILULI Ilulissat 133.24 23** *e*PKPdf **PKPdf 10 29 19.3 +0.4**
**KBS Kingsbay 133.30 357** *e*PKIKP **PKPdf 10 29 20.8 +1.9**
KBS MLR MLR
comp=Z,2µm,20.0s
**KBS Kingsbay 133.30 357** *e*PKPdf **PKPdf 10 29 20.8 +1.9**
KBS LR LR
comp=Z,2µm,20.0s
**AB31 Akbulak array 133.70 309** *i* PKIKP PKPpre 10 29 13.7
AB31 pmax pmax
comp=Z,13nm,0.9s
**GEYT Alibeck 133.74 293** PKhKP PKPpre 10 29 11.9
comp=Z,4.7nm,0.8s,baz=243,slow=1.7,SNR=4.8
GEYT PKP **PKiKP 10 29 22.6 +0.4**
comp=Z,19nm,0.8s,baz=212,slow=1.4,SNR=14
GEYT SKPbc **SKPbc 10 32 47.1 +0.1**
comp=Z,26nm,1.1s,baz=205,slow=3.1,SNR=11
**SPA0 Spitsbergen Ar 133.79 356** *e*P **PKPdf 10 29 19.2 -0.7**
**SPA0 Spitsbergen Ar 133.79 356** *e*PKPdf **PKPdf 10 29 20.4 +0.5**
**SPITS Spitsbergen Ar 133.79 356** PKP **PKPdf 10 29 20.2 +0.4**
baz=356,slow=4.3
SPITS SKPbc **SKPbc 10 32 45.6 -0.4**
comp=Z,9.0nm,0.7s,baz=50,slow=9.7,SNR=6.2
**ARU Arti 134.24 319** PKP **PKPdf 10 29 21.2 0.0**
comp=Z,30nm,0.6s,baz=92,slow=0.6,SNR=9.8
ARU SKPbc **SKPbc 10 32 46.2 -1.8**
comp=Z,3.8nm,0.3s,baz=268,slow=0.1,SNR=5.8
**ARU Arti 134.24 319** *i* PKIKP **PKPdf 10 29 21.0 -0.2**
ARU 10 31 51.0
ARU SS SS 10 49 34.2 -6.1
ARU MLR MLR
comp=Z,2µm,24.0s
**ARU Arti 134.24 319** *e*PKPdf **PKPdf 10 29 17.9 -3.3**
ARU LR LR
comp=Z,2µm,20.0s
**SFJD Kangerlussuaq 134.27 26** *i* PKIKP **PKPdf 10 29 20.2 -0.7**
SFJD pmax pmax
comp=Z,21nm,0.8s
**SFJD Kangerlussuaq 134.27 26** *i* P **PKPdf 10 29 20.2 -0.7**
comp=Z,21nm,0.8s
**DAG Danmarks Havn 134.76 6** *i* PKIKP **PKPdf 10 29 20.3 -1.3**
DAG pmax pmax
comp=Z,27nm,0.9s
**DAG Danmarks Havn 134.76 6** *i* P **PKPdf 10 29 20.3 -1.3**
comp=Z,26nm,0.9s
**AKTO Aktyubinsk 134.96 311** PKhKP PKPpre 10 29 09.7
comp=Z,1.9nm,0.8s,baz=86,slow=1.4,SNR=6.2
AKTO PKP **PKPdf 10 29 22.4 -0.3**
comp=Z,23nm,0.8s,baz=103,slow=3.4,SNR=27
AKTO SKPbc **SKPbc 10 32 50.8 +0.3**
comp=Z,12nm,1.1s,baz=122,slow=7.6,SNR=5.1
**SUMG Summit 134.98 16** *i* PKIKP **PKPdf 10 29 22.6 -0.1**
SUMG pmax pmax
comp=Z,66nm,1.2s
**SUMG Summit 134.98 16** *i* P **PKPdf 10 29 22.6 -0.1**
comp=Z,66nm,1.2s
**H10S2 ASCENSION HYDR 136.07 157** T T 13 02 06.5
baz=204,slow=74,SNR=82
**H10S3 ASCENSION HYDR 136.07 157** T T 13 01 48.1
baz=204,slow=74,SNR=63
**H10S1 ASCENSION HYDR 136.08 157** T T 13 01 54.3
baz=204,slow=74,SNR=52
**ATD Arta Tunnel 136.38 251** PKP **PKPdf 10 29 27.2 +0.6**
comp=Z,18nm,0.8s,baz=116,slow=1.1,SNR=8.5
ATD SKPbc **SKPbc 10 32 56.2 0.0**
comp=Z,7.7nm,0.7s,baz=177,slow=4.7,SNR=3.6
**ATD Arta Tunnel 136.38 251** *e*PKPdf **PKPdf 10 29 27.9 +1.3**
ATD LR LR
comp=Z,3µm,20.0s
**H10N3 ASCENSION HYDR 137.16 157** T T 13 03 08.6
baz=203,slow=75,SNR=184
**H10N1 ASCENSION HYDR 137.17 157** T T 13 03 27.4
baz=203,slow=75,SNR=151
**H10N2 ASCENSION HYDR 137.18 157** T T 13 03 20.9
baz=203,slow=75,SNR=192
**FURI Furi 138.04 244** PFAKE 10 29 40.0 +10
FURI LR LR
comp=Z,2µm,20.0s
**NRS Narsarsuaq 138.60 32** *e*PKIKP **PKPdf 10 29 27.7 -1.4**
**NRS Narsarsuaq 138.60 32** *e*PKPdf **PKPdf 10 29 27.7 -1.4**
**LVZ Lovozero 139.65 341** *e*PKIKP **PKPdf 10 29 30.8 -0.1**
**RAYN Ar Rayn 140.03 269** *e*PKPpre PKPpre 10 29 27.9
RAYN LR LR
comp=Z,2µm,19.0s
**KEV Kevo 140.04 346** *e*PKIKP **PKPdf 10 29 33.3 +1.8**
**KEV Kevo 140.04 346** *e*PKPdf **PKPdf 10 29 33.3 +1.8**
**APA Apatity 140.22 341** ⇑*i*PKIKP **PKPdf 10 29 31.7 -0.2**
APA *i* PPS PPS 10 44 45.0
**ARA0 ARCESS Array S 140.52 347** *e*PKPpre PKPpre 10 29 26.6
**ARCES ARCESS Array B 140.52 347** PKhKP PKPpre 10 29 26.6
comp=Z,14nm,0.7s,baz=7.3,slow=1.7,SNR=18
ARCES SKPbc **SKPbc 10 33 04.6 -1.4**
comp=Z,7.6nm,0.7s,baz=52,slow=2.0,SNR=4.4
**ARCES ARCESS Array B 140.52 347** *e*PKPpre PKPpre 10 29 27.0
**ARE0 ARCESS Array S 140.52 347** *e*P PKPpre 10 29 26.1
**ARE0 ARCESS Array S 140.52 347** *e*PKPpre PKPpre 10 29 27.9
ARE0 LR LR
comp=Z,2µm,20.0s
**TMCR Tamitsa 141.00 335** *e*PKIKP **PKPdf 10 29 35.1 +1.7**
TMCR pmax pmax
comp=Z,42nm,0.9s
**TRO Tromso 141.55 350** *e*P **PKPdf 10 29 34.0 -0.2**
**HEF Hetta 141.83 347** *e*P PKPpre 10 29 30.4
**KLMR Klimovskoe 142.27 330** *e*PKHKP PKPpre 10 29 30.9
KLMR *e* 10 32 42.7
KLMR pmax pmax
comp=Z,36nm,0.7s
**DDFL Dedoflistskaro 143.32 297** P PKPbc 10 29 36.7 +1.1
**GROC Groznyy 143.54 300** *e*PKHKP PKPpre 10 29 33.9
GROC pmax pmax
comp=Z,31nm,0.6s
**STEI Steigen 143.64 351** *e*P PKPab 10 29 34.9 +0.2
**GNI Garni 144.33 295** PKP PKPbc 10 29 39.3 +0.5
comp=Z,7.9nm,0.4s,baz=105,slow=0.2,SNR=13
**GNI Garni 144.33 295** *e*PKPdf PKPbc 10 29 38.8 0.0
GNI *e*PKPdf **PKPab 10 29 39.3 +0.8**
GNI LR LR
comp=Z,1µm,22.0s
**TBLG Delisi 144.35 298** P PKPbc 10 29 38.7 +0.1
**TBLG Delisi 144.35 298** *e*PKIKP PKPbc 10 29 38.7 +0.1
**GUDG Gudauri 144.53 299** P **PKPdf 10 29 40.3 -0.4**
**BORG Borgarnes 144.95 17** *e*PKIKP **PKPdf 10 29 40.7 +0.3**
**BORG Borgarnes 144.95 17** *e*PKPbc **PKPdf 10 29 40.7 +0.3**
**VRH Novokhopyorsk 145.04 314** *e*PKIKP **PKPbc 10 29 39.3 -1.1**
VRH pmax pmax
comp=Z,90nm,1.1s
**NCK Nalchik 145.13 301** *e*PKIKP **PKPbc 10 29 40.9 -0.1**
**BGD Bogdanovka 145.21 297** P **PKPdf 10 29 41.9 0.0**
**KONS Konsvik 145.27 352** *e*P **PKPbc 10 29 39.5 -1.2**
**ONI Oni 145.29 299** P **PKPbc 10 29 40.5 -1.1**
**ONI Oni 145.29 299** *e*PKIKP **PKPbc 10 29 40.4 -1.1**
**AKH Akhalkalaki 145.29 297** P **PKPdf 10 29 42.7 +0.7**
**AKH Akhalkalaki 145.29 297** ⇑*i*P **PKPdf 10 29 42.5 +0.5**
**AKH Akhalkalaki 145.29 297** *e*PKIKP **PKPdf 10 29 42.6 +0.7**
**GOF Gofitskoye 145.39 303** ⇓*i*PKIKP **PKPdf 10 29 41.8 0.0**
GOF pmax pmax
comp=Z,297nm,0.9s
**MOR8 Moi Rana 145.41 350** *e*P **PKPbc 10 29 39.3 -1.8**
**STOK Stokkvaagen 145.44 352** *e*P **PKPdf 10 29 39.8 -1.3**
**KBZ Khabaz 145.62 301** PKPbc **PKPdf 10 29 41.6 -0.5**
comp=Z,88nm,0.9s,baz=117,slow=2.1,SNR=95
**MOS Moscow 145.64 323** *e*PKIKP **PKPdf 10 29 40.3 -1.5**
MOS pmax pmax
comp=Z,245nm,0.7s
**KVAR Kislovodsk Arr 145.75 302** PKPbc **PKPbc 10 29 42.9 -0.2**
comp=Z,31nm,0.9s,baz=120,slow=3.1,SNR=24
**KIV Kislovodsk 145.75 302** *i* PKP2 **PKPdf 10 29 41.9 -0.7**
KIV *e* 10 32 59.8
KIV *e*SS SS 10 51 51.6 -4.8
KIV *e*SSS SSS 10 57 20.4
KIV pmax pmax
comp=Z,106nm,1.1s
KIV MLR MLR
comp=Z,1µm,24.0s
**KIV Kislovodsk 145.75 302** *e*PKPdf **PKPdf 10 29 42.8 +0.2**
KIV LR LR
comp=Z,1µm,19.0s
**KIV Kislovodsk 145.75 302** PKPdf **PKPbc 10 29 43.1 +0.1**
SNR=25
**KIV Kislovodsk 145.75 302** P **PKPbc 10 29 43.1 +0.1**
SNR=25
**KIV Kislovodsk 145.75 302** P **PKPbc 10 29 43.1 +0.1**
SNR=25
**NEY Neytrino 145.78 300** ⇓*e*PKP2 **PKPbc 10 29 43.2 -0.1**
**LPSR Galich'ya Gora 146.23 318** *e*PKP2 **PKPdf 10 29 43.3 +0.4**
LPSR pmax pmax
comp=Z,390nm,0.8s
**CHVG Ch'k'valeri 146.29 299** P **PKPab 10 29 45.4 -0.1**
**VORR Voronezh 146.39 316** *e*PKIKP **PKPdf 10 29 42.0 -1.2**
VORR pmax pmax
comp=Z,1µm,1.0s
**OBN Obninsk 146.46 323** PKPbc **PKPbc 10 29 43.9 -0.7**
comp=Z,188nm,0.7s,baz=54,slow=2.5,SNR=25
**OBN Obninsk 146.46 323***c i*PKIKP **PKPdf 10 29 43.0 -0.2**
OBN *e* 10 33 14.8
OBN *e* 10 36 49.6
OBN *e*SS SS 10 51 57.8 -5.1
OBN *e*SSS SSS 10 57 34.6
OBN pmax pmax
comp=Z,223nm,1.0s
**OBN Obninsk 146.46 323** *e*PKPdf **PKPdf 10 29 43.2 0.0**
**ARTV Artvin 146.47 297** *e*PKPdf **PKPdf 10 29 43.5 -0.5**
ARTV LR LR
comp=Z,500nm,21.0s
**VSR Storozhevoye 146.57 315** *e*PKP2 **PKPdf 10 29 43.8 +0.3**
VSR pmax pmax
comp=Z,320nm,0.9s
**PUL Pulkovo 146.61 333** ⇓*e*PKP2 **PKPbc 10 29 44.5 -0.4**
PUL pmax pmax
comp=Z,787nm,0.8s
**FIA1 FINESS Array S 146.88 338** *e*PKPdf **PKPdf 10 29 43.5 -0.3**
FIA1 *e*PKPbc **PKPbc 10 29 44.0 -1.7**
**FIA0 FINESS Array S 146.88 338** *e*PKP2 **PKPdf 10 29 44.7 +0.9**
**FIA0 FINESS Array S 146.88 338** *e*PKPdf **PKPdf 10 29 44.7 +0.9**
FIA0 *e*PKPbc **PKPab 10 29 47.0 -0.1**
**FINES FINESS Array B 146.88 338** PKP **PKPdf 10 29 44.7 +0.9**
comp=Z,215nm,0.6s,baz=53,slow=3.4,SNR=116
FINES PKPbc **PKPab 10 29 47.0 -0.1**
comp=Z,215nm,0.6s,baz=64,slow=3.2,SNR=153
**MZRK Al-Mazaregh 147.28 287** *e*P **PKPbc 10 29 46.7 -1.0**
**MARD Mardin 147.30 290** *e*PKPdf **PKPdf 10 29 46.5 +1.1**
MARD LR LR
comp=Z,2µm,22.0s
**KBSD Kabsdagh 147.47 289** *e*P **PKPbc 10 29 48.1 0.0**
**KOPT Kop Dagi 147.59 295** *e*PKPdf **PKPbc 10 29 48.0 -0.7**
KOPT LR LR
comp=Z,2µm,22.0s
**SFNV Sufian 147.77 288** *e*P **PKPbc 10 29 48.9 -0.2**
**SOC Sochi 147.93 301***c i*PKP2 **PKPbc 10 29 48.2 -1.0**
SOC *e* 10 33 14.7
SOC *e*PPP PPP 10 36 32.3
SOC *e*SSS SSS 10 57 56.4
SOC pmax pmax
comp=Z,98nm,0.9s
**KSRV Kasrt alli 148.61 287** *e*P **PKPbc 10 29 51.6 +0.4**
**TBLU Trondheim 148.74 352** *e*P **PKPdf 10 29 47.4 +0.6**
**VSU Vasula 148.85 334***ce*PKIKP **PKPdf 10 29 48.1 +1.0**
VSU pmax pmax
comp=Z,889nm,1.2s
**ANN Anapa 149.37 304** *e*PKIKP **PKPdf 10 29 46.2 -2.1**
ANN *i* 10 29 52.3
ANN pmax pmax
comp=Z,163nm,0.9s
**MOL Molde 149.69 354** *e*P **PKPdf 10 29 49.2 +0.9**
**ROOS tl_alroos 149.83 283** *e*P **PKPbc 10 29 55.3 +0.9**
**ASF Jabal al Asfar 149.85 279** PKP **PKPdf 10 29 50.4 +0.7**
comp=Z,32nm,1.0s,baz=269,slow=2.0,SNR=4.8
ASF PKPbc **PKPbc 10 29 54.4 -0.2**
comp=Z,34nm,0.8s,baz=86,slow=1.9,SNR=21
**DOMB Dombas 150.05 352** *e*P **PKPbc 10 29 53.4 -0.6**
**AKN Aaknes 150.12 354** *e*P **PKPdf 10 29 49.4 +0.3**
**TOTH TOTAH 150.43 281** *e*P **PKPbc 10 29 55.8 0.0**
**NC303 NORSAR Array S 150.55 350** *e*PKPdf **PKPdf 10 29 49.0 -0.7**
**NC204 NORSAR Array S 150.59 351** *e*PKPdf **PKPdf 10 29 50.9 +1.0**
**NC405 NORSAR Array S 150.60 350** *e*PKPbc **PKPbc 10 29 54.6 -0.7**
**TOKA Tokat 150.65 295** PFAKE 10 30 00.0 -3.1
TOKA LR LR
comp=Z,1µm,20.0s
**TCHB Talchebab 150.71 280** *e*P **PKPbc 10 29 56.5 +0.1**
**NB2 NORSAR Subarra 150.75 350** PKP **PKPbc 10 29 54.7 -1.0**
comp=Z,102nm,0.8s,baz=18,slow=2.8
**NB2 NORSAR Subarra 150.75 350** PKP **PKPbc 10 29 54.7 -1.0**
baz=18,slow=2.8
**NB200 NORSAR Array S 150.75 350** *e*PKPdf **PKPdf 10 29 49.5 -0.6**
NB200 *e*PKPbc **PKPbc 10 29 54.7 -1.0**
**NOA NORSAR Array B 150.75 350** PKP **PKPdf 10 29 49.5 -0.6**
comp=Z,12nm,0.8s,baz=15,slow=4.0,SNR=22
NOA PKPbc **PKPbc 10 29 54.7 -1.0**
comp=Z,81nm,0.8s,baz=16,slow=4.2,SNR=58
**NBO02 NORSAR Array S 150.79 350** *e*PKPdf **PKPdf 10 29 49.8 -0.3**
NBO02 *e*PKPbc **PKiKP 10 29 56.1 -0.3**
**NBO00 NORSAR Array S 150.82 350** *e*PKPdf **PKPdf 10 29 50.2 0.0**
NBO00 *e*PKPbc **PKiKP 10 29 56.2 -0.3**
**FOO Floro 150.83 356** *e*P **PKPdf 10 29 51.2 +1.1**
**EIL Elat 150.95 273** PKPbc **PKPbc 10 29 55.9 -1.2**
comp=Z,66nm,0.6s,baz=333,slow=5.2,SNR=5.9
**NAO01 NORSAR Array S 150.98 350** *e*PKPdf **PKPdf 10 29 52.0 +1.6**
**NC602 NORSAR Array S 150.99 349** *e*PKPdf **PKPdf 10 29 50.1 -0.3**
NC602 *e*PKPbc **PKPbc 10 29 55.3 -0.9**
**MICGM Minsk 151.01 327** ⇑*i*PKHKP PKPpre 10 29 54.0
MICGM PKHKPM 10 29 57.0
comp=Z,0.4nm,1.0s
MICGM *e*PKP2 sPKPab 10 30 24.0 +4.9
MICGM *e*PKS PKSdf 10 33 08.0 -17
MICGM *e*PP PP 10 34 12.0 +38
MICGM *e*SKS **SKSdf 10 36 52.0 -3.4**
MICGM *e*PPP PPP 10 38 16.0
MICGM *e*SKSP 10 44 16.0
**MNK Minsk 151.01 327** ⇑*i*PKIKP **PKPbc 10 29 54.0 -2.4**
MNK *e* 10 36 52.0
**HFS Hagfors 151.18 347** PKP **PKPdf 10 29 49.0 -1.8**
comp=Z,16nm,0.8s,baz=144,slow=3.4,SNR=13
HFS PKPbc **PKPbc 10 29 55.2 -1.5**
comp=Z,144nm,0.8s,baz=66,slow=3.6,SNR=63
**HYA Hoyanger 151.19 355** *e*P **PKPbc 10 29 56.2 -0.3**
**MMAI Mount Meron Ar 151.23 280** PKP **PKPdf 10 29 52.6 +0.8**
comp=Z,2.6nm,0.5s,baz=69,slow=4.8,SNR=3.8
MMAI PKPbc **PKPbc 10 29 57.2 -0.6**
comp=Z,65nm,0.7s,baz=81,slow=5.2,SNR=48
**NACGM Naroch 151.25 329** *e*P **PKPbc 10 29 56.0 -1.0**
NACGM PM 10 30 05.0
comp=Z,1.6nm,1.0s
NACGM *e*LR LR 11 28 00.0
**SUE Sulen 151.39 356** *e*P **PKPbc 10 29 56.9 -0.2**
**SACV Santiago Islan 151.51 122** *e*PKPdf **PKPdf 10 29 53.3 +0.6**
SACV *e*PKPbc **PKiKP 10 29 59.5 +0.3**
**SIM Simferopol' 151.64 305** *i* PKIKP **PKPbc 10 29 58.4 +0.2**
SIM *e* 10 30 06.0
SIM pmax pmax
comp=Z,66nm,0.7s
**ASK Askoy 151.93 356** *e*P **PKPbc 10 29 57.8 -0.6**
**BER Bergen 152.02 356** *e*P **PKPbc 10 29 58.4 -0.1**
**KONO Kongsberg 152.31 351** *e*PKIKP **PKPdf 10 29 52.9 +0.5**
KONO *e* 10 29 58.9
**KONO Kongsberg 152.31 351** *e*P **PKPbc 10 29 58.7 -0.6**
**KONO Kongsberg 152.31 351** *e*PKPdf **PKPdf 10 29 52.9 +0.5**
KONO *e*PKPbc **PKPbc 10 29 58.9 -0.4**
**ODD1 Odda 152.39 354** *e*P **PKPbc 10 29 59.3 -0.2**
**AKASG Malin Array Be 152.49 320** PKP **PKPdf 10 29 54.0 +1.0**
comp=Z,7.5nm,0.7s,baz=54,slow=1.9,SNR=18
AKASG PKPbc **PKPbc 10 29 59.1 -0.8**
comp=Z,34nm,0.7s,baz=56,slow=2.3,SNR=43
**AKASG Malin Array Be 152.49 320** PKIKP **PKPdf 10 29 54.0 +1.0**
AKASG 10 29 59.1
AKASG pmax pmax
comp=Z,7.0nm,0.7s
**AKBB Malin Array Si 152.49 320** *e*PKIKP **PKPdf 10 29 53.3 +0.3**
AKBB *e* 10 29 59.1
**AKBB Malin Array Si 152.49 320** *e*PKPdf **PKPdf 10 29 53.3 +0.3**
AKBB *e*PKPbc **PKPbc 10 29 59.1 -0.8**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **AK11** | **Malin Array Si** | **152.53 320** | *e*PKPdf | **PKPdf** | **10 29 53.6** | **+0.6** |
| AK11 | | | *e*PKPbc | **PKPbc** | **10 29 59.6** | **-0.4** |
| **ILGA** | **Ilgaz** | **152.67 297** | *e*PKPdf | **PKPdf** | **10 29 53.0** | **-0.9** |
| ILGA | | | *e*PKPbc | **PKiKP** | **10 30 01.3** | **+0.1** |
| ILGA | | | LR | LR | | |
| | comp=Z,2µm,22.0s | | | | | |
| **BR101** | **Keskin Array S** | **152.87 295** | *e*PKPdf | **PKPdf** | **10 29 53.0** | **-1.2** |
| BR101 | | | *e*PKPbc | **PKPbc** | **10 30 00.5** | **-0.9** |
| BR101 | | | *e* | | 10 38 34.8 | |
| **BR131** | **Keskin Array S** | **152.87 295** | *e*PKPdf | **PKPdf** | **10 29 53.5** | **-0.6** |
| BR131 | | | *e*PKPbc | **PKPbc** | **10 30 01.2** | **-0.1** |
| BR131 | | | *e*PKPab | **PKPab** | **10 30 12.9** | **+0.3** |
| **BRTR** | **Keskin Array B** | **152.87 295** | PKP | **PKPdf** | **10 29 53.0** | **-1.2** |
| | comp=Z,5.1nm,1.1s,baz=158,slow=1.3,SNR=17 | | | | | |
| BRTR | | | PKPbc | **PKPbc** | **10 30 00.5** | **-0.9** |
| | comp=Z,45nm,0.7s,baz=127,slow=3.3,SNR=86 | | | | | |
| BRTR | | | PKKP | | 10 38 34.8 | |
| | comp=Z,1.5nm,0.9s,baz=248,slow=1.3,SNR=4.4 | | | | | |
| **BLS5** | **Blasjo** | **152.89 354** | *e*P | **PKPbc** | **10 30 00.7** | **+0.2** |
| **CSS** | **Mathiatis** | **153.16 284** | *e*PKPdf | **PKPdf** | **10 29 52.3** | **-2.2** |
| CSS | | | *e*PKPbc | **PKPbc** | **10 30 01.3** | **-0.6** |
| CSS | | | LR | LR | | |
| | comp=Z,900nm,22.0s | | | | | |
| **CSS** | **Mathiatis** | **153.16 284** | P | **PKPdf** | **10 29 52.3** | **-2.2** |
| **LIC** | **Lamto** | **153.19 166** | *e*P | **PKPdf** | **10 29 55.2** | **0.0** |
| | comp=Z,466nm,0.7s | | | | | |
| **KMY** | **Karmoy** | **153.19 355** | *e*P | **PKPbc** | **10 30 00.8** | **-0.3** |
| **KIC** | **Kosan Boka** | **153.38 167** | *e*P | **PKPdf** | **10 29 54.0** | **-1.5** |
| | comp=Z,175nm,0.8s | | | | | |
| **SUW** | **Suwalki** | **153.41 330** | *e*PKP | **PKPbc** | **10 30 01.4** | **-0.4** |
| **SUW** | **Suwalki** | **153.41 330** | *e*PKiKP | **PKPbc** | **10 30 01.4** | **-0.4** |
| **STAV** | **Stavanger** | **153.44 355** | *e*P | **PKPbc** | **10 30 01.1** | **-0.6** |
| **ANTO** | **Ankara** | **153.51 295** | *e*PKiKP | **PKPdf** | **10 29 55.0** | **+0.1** |
| ANTO | | | MLR | MLR | | |
| | comp=Z,1µm,20.0s | | | | | |
| **ANTO** | **Ankara** | **153.51 295** | *e*PKPdf | **PKPdf** | **10 29 55.0** | **+0.1** |
| ANTO | | | LR | LR | | |
| | comp=Z,1µm,20.0s | | | | | |
| **ANTO** | **Ankara** | **153.51 295** | PKPdf | **PKPdf** | **10 29 54.3** | **-0.6** |
| | SNR=15 | | | | | |
| **ANTO** | **Ankara** | **153.51 295** | P | **PKPdf** | **10 29 54.3** | **-0.6** |
| | SNR=15 | | | | | |
| **ANTO** | **Ankara** | **153.51 295** | P | **PKPdf** | **10 29 54.3** | **-0.6** |
| | SNR=15 | | | | | |
| **BR231** | **Keskin MP Arra** | **153.52 295** | *e*PKPdf | **PKPdf** | **10 29 52.7** | **-2.3** |
| BR231 | | | *e*PKPdf | **PKPdf** | **10 29 55.0** | **0.0** |
| BR231 | | | *e*PKPbc | **PKPbc** | **10 30 01.8** | **-1.0** |
| BR231 | | | *e*PKPbc | **pPKPdf** | **10 30 04.7** | **-1.8** |
| **TIC** | **Toumodi** | **153.60 166** | *e*P | **PKPdf** | **10 29 56.0** | **+0.2** |
| **DBIC** | **Dimbokro** | **153.65 167** | PKP | **PKPdf** | **10 29 56.0** | **+0.2** |
| | comp=Z,23nm,0.8s,baz=198,slow=1.2,SNR=30 | | | | | |
| DBIC | | | PKPbc | **PKPbc** | **10 30 01.8** | **-1.9** |
| | comp=Z,65nm,0.9s,baz=148,slow=2.3,SNR=28 | | | | | |
| **DBIC** | **Dimbokro** | **153.65 167** | *e*PKPdf | **PKPdf** | **10 29 56.5** | **+0.6** |
| DBIC | | | *e*PKPbc | **PKPbc** | **10 30 01.8** | **-1.9** |
| **HOMB** | **Homborsund** | **153.80 351** | *e*P | **PKPbc** | **10 30 02.3** | **-0.2** |
| **SNART** | **Snartemo** | **153.88 353** | *e*P | **PKPbc** | **10 30 02.6** | **-0.1** |
| **SORM** | **Soroca** | **154.23 315** | ⇑*i*P | **PKPdf** | **10 29 54.9** | **-0.7** |
| **SORM** | **Soroca** | **154.23 315** | ⇑PKiKP | **PKPdf** | **10 29 54.9** | **-0.7** |
| **KIS** | **Kishinev** | **154.44 312** | *e*PKP | **PKPdf** | **10 29 56.0** | **+0.1** |
| **KIS** | **Kishinev** | **154.44 312** | *e*PP | PP | 10 33 48.0 | -6.3 |
| **KIS** | **Kishinev** | **154.44 312** | *e*PKiKP | **PKPdf** | **10 29 56.0** | **+0.1** |
| KIS | | | *i* | | 10 30 03.5 | |
| KIS | | | *i* | | 10 30 18.0 | |
| KIS | | | *e*PPS | PPS | 10 47 00.0 | |
| **KPL** | **Plockton** | **154.78 9** | *e*P | **PKPdf** | **10 29 56.2** | **+0.2** |
| **LEOM** | **Leova** | **155.02 312** | ⇑*i*P | PKPdf | 10 30 05.5 | +8.8 |
| **LEOM** | **Leova** | **155.02 312** | ⇑PKiKP | PKPdf | 10 30 05.5 | +8.8 |
| **BOLV** | **Bolvadin** | **155.04 293** | PFAKE | | 10 30 10.0 | -12 |
| BOLV | | | LR | LR | | |
| | comp=Z,2µm,20.0s | | | | | |
| **BSD** | **Bornholm Skovb** | **155.44 341** | *i* PKiKP | PKPdf | 10 30 06.7 | +10 |
| BSD | | | MLR | MLR | | |
| | comp=Z,2µm,26.0s | | | | | |
| **BSD** | **Bornholm Skovb** | **155.44 341** | *i* P | PKPdf | 10 30 06.7 | +10 |
| | comp=Z,3µm,26.0s | | | | | |
| **ISP** | **Isparta** | **155.44 291** | PFAKE | | 10 30 10.0 | +12 |
| ISP | | | LR | LR | | |
| | comp=Z,2µm,22.0s | | | | | |
| **TIRR** | **Tirgusor** | **155.67 307** | ⇓*i*P | **PKPdf** | **10 29 57.4** | **-0.3** |
| **TIRR** | **Tirgusor** | **155.67 307** | ⇓PKiKP | **PKPdf** | **10 29 57.4** | **-0.3** |
| **TIRR** | **Tirgusor** | **155.67 307** | *e*PKPdf | **PKPdf** | **10 29 57.4** | **-0.3** |
| TIRR | | | LR | LR | | |
| | comp=Z,2µm,20.0s | | | | | |
| **LVV** | **L'vov** | **155.76 322** | *e*PKiKP | **PKPdf** | **10 29 57.4** | **-0.2** |
| LVV | | | *e* | | 10 30 23.0 | |
| LVV | | | *e* | | 10 34 00.0 | |
| LVV | | | *e* | | 10 36 57.1 | |
| **BEL** | **Belsk** | **155.97 329** | *e*PKP | PKPdf | 10 30 08.0 | +10 |
| **BEL** | **Belsk** | **155.97 329** | *e*PKiKP | PKPdf | 10 30 08.0 | +10 |
| **TESR** | **Tescani** | **156.00 313** | ⇑*i*P | **PKPab** | **10 30 26.3** | **+0.9** |
| **AKAS** | **Kas** | **156.23 287** | *e*PKPdf | **PKPdf** | **10 29 58.9** | **0.0** |
| AKAS | | | LR | LR | | |
| | comp=Z,1µm,22.0s | | | | | |
| **KSL** | **Kastellorizon** | **156.25 287** | *e*PKPdf | **PKPdf** | **10 29 56.6** | **-2.1** |
| **KSL** | **Kastellorizon** | **156.25 287** | P | **PKPdf** | **10 29 56.6** | **-2.1** |
| **BUR08** | **Bucovina Ar. S** | **156.32 317** | *e*PKPdf | **PKPdf** | **10 29 59.9** | **+1.3** |
| **BURAR** | **Bucovina Array** | **156.33 316** | ⇑*i*P | PKPdf | 10 30 11.3 | +13 |
| **BURAR** | **Bucovina Array** | **156.33 316** | ⇑PKiKP | PKPdf | 10 30 11.3 | +13 |
| **BUR04** | **Bucovina Ar. S** | **156.33 316** | *e*PKPdf | **PKPdf** | **10 29 58.9** | **+0.3** |
| **RGN** | **Rugen** | **156.37 342** | PFAKE | | 10 30 10.0 | +12 |
| RGN | | | LR | LR | | |
| | comp=Z,3µm,19.0s | | | | | |
| **KWP** | **Kalwaria Pacla** | **156.55 323** | *e*PKPdf | **PKPdf** | **10 29 59.0** | **+0.3** |
| KWP | | | *e*PKPab | **PKPab** | **10 30 28.7** | **+1.0** |
| **KWP** | **Kalwaria Pacla** | **156.55 323** | *e*PKiKP | **PKPdf** | **10 29 59.0** | **+0.3** |
| **FETY** | **Fethiye** | **156.65 288** | *e*PKPdf | **PKPdf** | **10 29 58.4** | **-0.9** |
| **FETY** | **Fethiye** | **156.65 288** | P | **PKPdf** | **10 29 58.4** | **-0.9** |
| **MLR** | **Muntele Rosu** | **156.89 311** | PKP | **PKPdf** | **10 29 57.9** | **-1.5** |
| | comp=Z,1.3nm,0.9s,baz=327,slow=5.7,SNR=6.3 | | | | | |
| MLR | | | PKPab | **PKPab** | **10 30 27.3** | **-2.2** |
| | comp=Z,2.0nm,0.6s,baz=311,slow=19,SNR=5.1 | | | | | |
| **MLR** | **Muntele Rosu** | **156.89 311** | ⇑*i*P | **PKPdf** | **10 29 58.5** | **-0.9** |
| **MLR** | **Muntele Rosu** | **156.89 311** | ⇑PKiKP | **PKPdf** | **10 29 58.5** | **-0.9** |
| **MLR** | **Muntele Rosu** | **156.89 311** | *e*PKPdf | **PKPdf** | **10 29 57.9** | **-1.5** |
| MLR | | | PKPab | **PKPab** | **10 30 27.3** | **-2.2** |
| MLR | | | LR | LR | | |
| | comp=Z,2µm,22.0s | | | | | |
| **MANT** | **Manisa** | **156.93 293** | *e*PKPdf | **PKPdf** | **10 29 58.2** | **-1.6** |
| MANT | | | LR | LR | | |
| | comp=Z,4µm,20.0s | | | | | |
| **DOPR** | **Dopca** | **157.03 313** | ⇑*i*P | **PKPdf** | **10 30 01.0** | **+1.5** |
| **EKA** | **Eskdalemuir Ar** | **157.03 6** | PKP | **PKPdf** | **10 29 58.0** | **-1.1** |
| | comp=Z,5.8nm,0.7s,baz=328,slow=1.4,SNR=14 | | | | | |
| EKA | | | PKPab | **PKPab** | **10 30 27.7** | **-1.8** |
| | comp=Z,14nm,0.7s,baz=341,slow=4.4,SNR=4.3 | | | | | |
| **UZH** | **Uzhgorod** | **157.38 321** | *e*PKiKP | PKPdf | 10 30 10.7 | +11 |
| UZH | | | *e* | | 10 30 17.3 | |
| UZH | | | *e* | | 10 30 24.3 | |
| **STHS** | **Stebnicka Huta** | **157.42 324** | *e*PKiKP | **PKPdf** | **10 29 58.6** | **-1.2** |
| **STHS** | **Stebnicka Huta** | **157.42 324** | *e*PKP | **PKPdf** | **10 29 58.6** | **-1.2** |
| **VOIR** | | **157.48 312** | ⇑*i*P | **PKPdf** | **10 30 03.0** | **+2.9** |
| **VOIR** | | **157.48 312** | ⇑PKiKP | **PKPdf** | **10 30 03.0** | **+2.9** |
| **TRPA** | **Tarpa** | **157.55 320** | ⇓*e*PKPdf | **PKPab** | **10 30 32.8** | **+0.8** |
| **OJC** | **Ojcow** | **157.56 327** | *e*PKP | **PKPdf** | **10 30 01.6** | **+1.7** |
| **OJC** | **Ojcow** | **157.56 327** | *e*PKiKP | **PKPdf** | **10 30 01.7** | **+1.7** |
| **CRVS** | **Cervenica-Dubn** | **157.65 323** | *e*PKiKP | **PKPdf** | **10 29 58.7** | **-1.4** |
| **CRVS** | **Cervenica-Dubn** | **157.65 323** | *e*PKP | **PKPdf** | **10 29 58.7** | **-1.4** |
| CRVS | | | *e* | | 10 30 32.4 | |
| **CJR** | **Cluj-Napoca** | **157.74 316** | ⇓*i*P | **PKPab** | **10 30 34.4** | **+1.4** |
| **CJR** | **Cluj-Napoca** | **157.74 316** | ⇓PKP2 | **PKPab** | **10 30 34.4** | **+1.4** |
| **ARR** | **Arges** | **157.77 312** | ⇓*i*P | **PKPdf** | **10 30 00.9** | **+0.4** |
| **NIE** | **Niedzica** | **157.88 325** | *e*PKP | **PKPdf** | **10 30 01.7** | **+1.2** |
| **NIE** | **Niedzica** | **157.88 325** | *e*PKiKP | **PKPdf** | **10 30 01.7** | **+1.2** |
| **BODT** | **Bodrum** | **158.04 289** | P | **PKPdf** | **10 29 58.0** | **-3.0** |
| **BODT** | **Bodrum** | **158.04 289** | P | **PKPdf** | **10 29 58.0** | **-3.0** |
| **DRGR** | | **158.22 317** | ⇑*i*P | **PKPab** | **10 30 35.7** | **+0.6** |
| **DRGR** | | **158.22 317** | ⇑PKP2 | **PKPab** | **10 30 35.7** | **+0.6** |
| **KARP** | **Karpathos** | **158.22 285** | *e*PKPdf | **PKPdf** | **10 29 59.6** | **-1.7** |
| KARP | | | LR | LR | | |
| | comp=Z,500nm,21.0s | | | | | |
| **KARP** | **Karpathos** | **158.22 285** | P | **PKPdf** | **10 29 59.6** | **-1.7** |
| **SMG** | **Samos** | **158.37 291** | P | **PKPdf** | **10 29 59.2** | **-2.2** |
| **SMG** | **Samos** | **158.37 291** | P | **PKPdf** | **10 29 59.2** | **-2.2** |
| **ALN** | **Alexandroupoli** | **158.40 300** | PKiKP | **PKPdf** | **10 30 00.7** | **-0.6** |
| **ALN** | **Alexandroupoli** | **158.40 300** | P | **PKPdf** | **10 30 00.7** | **-0.6** |
| **ALN** | **Alexandroupoli** | **158.40 300** | P | **PKPdf** | **10 30 00.7** | **-0.6** |
| **KECS** | **Kecovo** | **158.41 323** | *e*PKiKP | **PKPdf** | **10 30 00.5** | **-0.6** |
| KECS | | | *e* | | 10 30 35.3 | |
| **KECS** | **Kecovo** | **158.41 323** | *e*PKP | **PKPdf** | **10 30 00.5** | **-0.6** |
| KECS | | | *e* | | 10 30 35.3 | |
| **EZN** | **Ezine** | **158.43 297** | *e*PKiKP | **PKPdf** | **10 29 59.1** | **-2.2** |
| **EZN** | **Ezine** | **158.43 297** | *e*PKPdf | **PKPdf** | **10 29 59.1** | **-2.2** |
| **EZN** | **Ezine** | **158.43 297** | P | **PKPdf** | **10 29 59.1** | **-2.2** |
| **LANS** | **Liptovska Anna** | **158.46 326** | *e*PKiKP | **PKPdf** | **10 30 02.3** | **+1.1** |
| LANS | | | *e* | | 10 30 37.4 | |
| **LANS** | **Liptovska Anna** | **158.46 326** | *e*PKP | **PKPdf** | **10 30 02.2** | **+1.1** |
| LANS | | | *e* | | 10 30 37.4 | |
| **KSP** | **Ksiaz** | **158.57 333** | *e*PKP | **PKPdf** | **10 30 00.6** | **-0.6** |
| **KSP** | **Ksiaz** | **158.57 333** | *e*PKiKP | **PKPdf** | **10 30 00.6** | **-0.6** |
| **OKC** | **Ostrava-Krasne** | **158.58 329** | *e*PKPDF | **PKPdf** | **10 30 01.1** | **-0.1** |
| OKC | | | *e*PKPAB | **PKPab** | **10 30 35.9** | **-0.5** |
| OKC | | | *ex* | x | 10 30 51.7 | |
| OKC | | | AMS | AMS | 11 41 40.0 | |
| **OKC** | **Ostrava-Krasne** | **158.58 329** | *e*PKiKP | **PKPdf** | **10 30 01.1** | **-0.1** |
| OKC | | | *e* | | 10 30 35.9 | |
| **PRK** | **Paraskevi** | **158.59 295** | PKiKP | **PKPdf** | **10 30 00.5** | **-1.0** |
| **PRK** | **Paraskevi** | **158.59 295** | P | **PKPdf** | **10 30 00.5** | **-1.0** |
| **PRK** | **Paraskevi** | **158.59 295** | P | **PKPdf** | **10 30 00.5** | **-1.0** |
| **GADA** | **Gvkgeada** | **158.68 298** | *e*PKPdf | **PKPdf** | **10 29 59.3** | **-2.3** |
| **GADA** | **Gvkgeada** | **158.68 298** | P | **PKPdf** | **10 29 59.3** | **-2.3** |
| **RDO** | **Rodhopi** | **158.70 301** | *e*PKPdf | **PKPdf** | **10 29 59.2** | **-2.4** |
| **RDO** | **Rodhopi** | **158.70 301** | P | **PKPdf** | **10 29 59.2** | **-2.4** |
| **SMTH** | **Samothraki Isl** | **158.88 299** | *e*PKPdf | **PKPdf** | **10 29 59.3** | **-2.6** |
| **SMTH** | **Samothraki Isl** | **158.88 299** | P | **PKPdf** | **10 29 59.3** | **-2.6** |
| **MORC** | **Moravsky Berou** | **158.89 329** | ⇑*i*P | **PKPdf** | **10 30 00.9** | **-0.7** |
| **MORC** | **Moravsky Berou** | **158.89 329** | ⇑PKiKP | **PKPdf** | **10 30 00.9** | **-0.7** |
| **MORC** | **Moravsky Berou** | **158.89 329** | *e*PKPdf | **PKPdf** | **10 30 00.6** | **-1.0** |
| MORC | | | LR | LR | | |
| | comp=Z,11µm,21.0s | | | | | |
| **CHOS** | **Chios island** | **158.89 293** | P | **PKPdf** | **10 29 59.8** | **-2.3** |
| **CHOS** | **Chios island** | **158.89 293** | P | **PKPdf** | **10 29 59.8** | **-2.3** |
| **SIGR** | **SIGRI** | **158.91 295** | *e*PKPdf | **PKPdf** | **10 29 59.2** | **-2.7** |
| **SIGR** | **SIGRI** | **158.91 295** | P | **PKPdf** | **10 29 59.2** | **-2.7** |
| **UPC** | **Upice** | **158.94 333** | *e*PKPDF | **PKPdf** | **10 30 01.8** | **+0.2** |
| UPC | | | *e*PKPAB | **PKPab** | **10 30 37.1** | **-0.9** |
| UPC | | | *ex* | x | 10 30 54.4 | |
| UPC | | | AMS | AMS | 11 46 10.0 | |
| | comp=Z,3µm,23.6s | | | | | |
| **UPC** | **Upice** | **158.94 333** | *e*PKiKP | **PKPdf** | **10 30 01.8** | **+0.2** |
| UPC | | | *e* | | 10 30 37.1 | |
| UPC | | | MLR | MLR | | |
| | comp=Z,3µm,23.6s | | | | | |
| **KRLC** | **Kraliky** | **158.98 331** | *e*PKPDF | **PKPdf** | **10 30 01.5** | **-0.2** |
| KRLC | | | *e*PKPAB | **PKPab** | **10 30 39.1** | **+0.9** |
| **KRLC** | **Kraliky** | **158.98 331** | *e*PKiKP | **PKPdf** | **10 30 01.5** | **-0.2** |
| KRLC | | | *e* | | 10 30 39.1 | |
| **SRE** | **Strehaia** | **158.99 311** | ⇓*i*P | **PKPab** | **10 30 36.9** | **-1.5** |
| **SRE** | **Strehaia** | **158.99 311** | ⇓PKP2 | **PKPab** | **10 30 36.9** | **-1.5** |
| **ZKR** | **Zakros** | **159.00 284** | P | **PKPdf** | **10 29 55.8** | **-6.4** |
| **PSZ** | **Piszkesteto** | **159.08 323** | *e*PKiKP | **PKPdf** | **10 30 01.8** | **-0.2** |
| PSZ | | | MLR | MLR | | |
| | comp=Z,2µm,19.0s | | | | | |
| **PSZ** | **Piszkesteto** | **159.08 323** | ⇓*e*PKPdf | **PKPdf** | **10 30 02.1** | **+0.1** |
| **PSZ** | **Piszkesteto** | **159.08 323** | *e*PKPdf | **PKPdf** | **10 30 01.8** | **-0.2** |
| PSZ | | | LR | LR | | |
| | comp=Z,2µm,19.0s | | | | | |
| **VYHS** | **Vyhne** | **159.22 325** | *e*PKiKP | **PKPdf** | **10 30 01.1** | **-0.9** |
| VYHS | | | *e* | | 10 30 38.8 | |
| **VYHS** | **Vyhne** | **159.22 325** | *e*PKP | **PKPdf** | **10 30 01.1** | **-0.9** |
| VYHS | | | *e* | | 10 30 38.8 | |
| **LIA** | **Limnos Island** | **159.28 298** | P | **PKPdf** | **10 29 58.5** | **-3.8** |
| **LIA** | **Limnos Island** | **159.28 298** | P | **PKPdf** | **10 29 58.5** | **-3.8** |
| **CLL** | **Collm** | **159.32 338** | ⇓*e*PKiKP | **PKPdf** | **10 30 03.0** | **+1.0** |
| CLL | | | *i* | | 10 30 39.4 | |
| CLL | | | *e* | | 10 34 18.0 | |
| CLL | | | pmax | pmax | | |
| | comp=Z,36nm,0.8s | | | | | |
| **CLL** | **Collm** | **159.32 338** | *e*PKPdf | **PKPdf** | **10 30 03.0** | **+1.0** |
| CLL | | | ⇓*i*PKPab | **PKPab** | **10 30 39.4** | **-0.2** |
| | comp=Z,36nm,0.8s | | | | | |
| CLL | | | *e*pPKPab | **pPKPab** | **10 30 51.0** | **+0.3** |
| CLL | | | *e*PP | **PP** | **10 34 18.0** | **-2.5** |
| CLL | | | *e*(PPP) | | 10 37 48.0 | |
| CLL | | | *e*PPPP | | 10 40 18.0 | |
| CLL | | | *e*PSKS | | 10 44 42.0 | |
| CLL | | | *e*PPS | PPS | 10 47 42.0 | |
| CLL | | | *e* | | 10 49 30.0 | |
| CLL | | | *e* | | 10 50 42.0 | |
| CLL | | | *e*SS | SS | 10 54 24.0 | +0.8 |
| CLL | | | *e*SSS | SSS | 11 00 48.0 | |
| CLL | | | *e*PSSrev | | 11 02 39.0 | |
| CLL | | | *e*SSSS | | 11 04 48.0 | |
| **BRG** | **Berggiesshubel** | **159.39 336** | *e*PKiKP | **PKPdf** | **10 30 01.8** | **-0.3** |
| BRG | | | *i* | | 10 30 38.6 | |
| BRG | | | pmax | pmax | | |
| | comp=Z,18nm,1.2s | | | | | |
| BRG | | | pmax | pmax | | |
| | comp=Z,20nm,0.8s | | | | | |
| BRG | | | MLR | MLR | | |
| | comp=N,2µm,26.0s | | | | | |
| BRG | | | MLR | MLR | | |
| | comp=E,2µm,27.5s | | | | | |
| BRG | | | MLR | MLR | | |
| | comp=Z,4µm,26.3s | | | | | |
| **APE** | **Apeiranthos** | **159.46 289** | ⇓*i*P | **PKPdf** | **10 30 03.3** | **+0.6** |
| **APE** | **Apeiranthos** | **159.46 289** | ⇓PKiKP | **PKPdf** | **10 30 03.3** | **+0.6** |
| **APE** | **Apeiranthos** | **159.46 289** | *e*PKPdf | **PKPdf** | **10 30 00.9** | **-1.8** |
| **APE** | **Apeiranthos** | **159.46 289** | P | **PKPdf** | **10 30 00.9** | **-1.8** |
| **PVCC** | **Panska Ves** | **159.47 335** | *e*PKPDF | **PKPdf** | **10 30 02.1** | **-0.1** |
| PVCC | | | *e*PKPAB | **PKPab** | **10 30 40.6** | **+0.4** |
| PVCC | | | AMS | AMS | 11 37 50.0 | |
| | comp=Z,2µm,24.1s | | | | | |
| **PVCC** | **Panska Ves** | **159.47 335** | *e*PKiKP | **PKPdf** | **10 30 02.1** | **-0.1** |
| PVCC | | | *e* | | 10 30 40.6 | |
| PVCC | | | MLR | MLR | | |
| | comp=Z,2µm,24.1s | | | | | |
| **KAVA** | **Kavala** | **159.49 301** | P | **PKPdf** | **10 29 57.7** | **-4.8** |
| **KAVA** | **Kavala** | **159.49 301** | P | **PKPdf** | **10 29 57.7** | **-4.8** |
| **BZS** | **Buzias** | **159.49 315** | ⇑*i*P | **PKPdf** | **10 30 02.1** | **-0.3** |
| **BZS** | **Buzias** | **159.49 315** | ⇑PKiKP | **PKPdf** | **10 30 02.1** | **-0.3** |
| **NPS** | **Neapolis** | **159.49 284** | PKiKP | **PKPdf** | **10 30 01.3** | **-1.5** |
| **NPS** | **Neapolis** | **159.49 284** | P | **PKPdf** | **10 30 01.3** | **-1.5** |
| **NPS** | **Neapolis** | **159.49 284** | P | **PKPdf** | **10 30 01.3** | **-1.5** |
| **SANT** | **Santorini** | **159.58 287** | PFAKE | | 10 30 10.0 | +7.1 |
| SANT | | | LR | LR | | |
| | comp=Z,1µm,21.0s | | | | | |
| **VRAC** | **Vranov** | **159.65 330** | PKP | **PKPdf** | **10 30 00.6** | **-1.9** |
| | comp=Z,24nm,0.8s,baz=128,slow=23,SNR=15 | | | | | |
| **VRAC** | **Vranov** | **159.65 330** | ⇓*i*P | **PKPdf** | **10 30 00.8** | **-1.7** |
| **VRAC** | **Vranov** | **159.65 330** | ⇓PKiKP | **PKPdf** | **10 30 00.8** | **-1.7** |
| **MDVR** | **Moldovita** | **159.87 313** | ⇑*i*P | **PKPab** | **10 30 42.3** | **0.0** |
| **SMOL** | **Smolenice** | **159.87 327** | *e*PKP2 | **PKPab** | **10 30 43.2** | **+1.1** |
| **SMOL** | **Smolenice** | **159.87 327** | *e*PKP | **PKPab** | **10 30 43.2** | **+1.1** |
| **VTS** | **Vitosha** | **159.87 306** | *e*PKiKP | **PKPdf** | **10 30 03.4** | **+0.2** |
| VTS | | | MLR | MLR | | |
| | comp=Z,2µm,22.0s | | | | | |
| **VTS** | **Vitosha** | **159.87 306** | *e*PKPdf | **PKPdf** | **10 30 03.4** | **+0.2** |
| VTS | | | LR | LR | | |
| | comp=Z,2µm,22.0s | | | | | |
| **VTS** | **Vitosha** | **159.87 306** | P | **PKPdf** | **10 29 58.5** | **-4.7** |
| **GOPC** | **GO Pecny, Ondr** | **159.89 334** | *e*PKPDF | **PKPdf** | **10 30 02.6** | **-0.2** |
| GOPC | | | *ex* | x | 10 30 09.8 | |
| GOPC | | | AMS | AMS | 11 39 50.0 | |
| | comp=Z,2µm,20.2s | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **159.89 334** | *e*PKiKP | **PKPdf** | **10 30 02.6** | **-0.2** |
| GOPC | | | *e* | | 10 30 09.8 | |
| GOPC | | | MLR | MLR | | |
| | comp=Z,2µm,20.2s | | | | | |
| **PRA** | **Prague** | **159.89 334** | AMS | AMS | 11 43 20.0 | |
| | comp=Z,3µm,24.7s | | | | | |
| **PRU** | **Pruhonice** | **159.92 334** | *e*PKPDF | **PKPdf** | **10 30 03.7** | **+0.9** |
| PRU | | | AMS | AMS | 11 35 50.0 | |
| | comp=Z,2µm,26.3s | | | | | |
| **PRU** | **Pruhonice** | **159.92 334** | *e*PKiKP | **PKPdf** | **10 30 03.7** | **+0.9** |
| PRU | | | MLR | MLR | | |
| | comp=Z,2µm,26.3s | | | | | |
| **OUR** | **Ouranopolis** | **160.06 299** | *e*PKiKP | **PKPdf** | **10 30 01.8** | **-1.4** |
| **OUR** | **Ouranopolis** | **160.06 299** | *e*PKPdf | **PKPdf** | **10 30 01.8** | **-1.4** |
| **OUR** | **Ouranopolis** | **160.06 299** | P | **PKPdf** | **10 30 01.8** | **-1.4** |
| **IDI** | **Anoyia** | **160.08 284** | PKP | **PKPdf** | **10 30 02.4** | **-1.1** |
| | comp=Z,22nm,0.8s,baz=114,slow=2.1,SNR=16 | | | | | |
| IDI | | | PKPab | **PKPab** | **10 30 43.7** | **+0.1** |
| | comp=Z,22nm,0.8s,baz=48,slow=6.4,SNR=7.6 | | | | | |
| **IDI** | **Anoyia** | **160.08 284** | *e*PKPdf | **PKPdf** | **10 30 01.9** | **-1.6** |
| IDI | | | *e*PKPab | **PKPab** | **10 30 43.7** | **+0.1** |
| **IDI** | **Anoyia** | **160.08 284** | P | **PKPdf** | **10 30 01.9** | **-1.6** |
| **SRS** | **Serrai** | **160.12 302** | *e*PKiKP | **PKPdf** | **10 30 00.8** | **-2.5** |
| **SRS** | **Serrai** | **160.12 302** | *e*PKPdf | **PKPdf** | **10 30 00.8** | **-2.5** |
| **SRS** | **Serrai** | **160.12 302** | P | **PKPdf** | **10 30 00.8** | **-2.5** |
| **SIVA** | **Sivas** | **160.15 284** | P | **PKPdf** | **10 30 02.7** | **-0.8** |
| **SIVA** | **Sivas** | **160.15 284** | P | **PKPdf** | **10 30 02.7** | **-0.8** |
| **PAIG** | **Paliouri** | **160.39 298** | *e*PKiKP | **PKPdf** | **10 30 01.4** | **-2.2** |
| **PAIG** | **Paliouri** | **160.39 298** | *e*PKPdf | **PKPdf** | **10 30 01.4** | **-2.2** |
| **PAIG** | **Paliouri** | **160.39 298** | P | **PKPdf** | **10 30 01.4** | **-2.2** |
| **NKC** | **Novy Kostel** | **160.44 338** | *e*PKPDF | **PKPdf** | **10 30 01.6** | **-1.8** |
| NKC | | | *e*PKPAB | **PKPab** | **10 30 44.8** | **+0.3** |
| NKC | | | AMS | AMS | 11 42 20.0 | |
| | comp=Z,3µm,23.4s | | | | | |
| **NKC** | **Novy Kostel** | **160.44 338** | *e*PKiKP | **PKPdf** | **10 30 01.6** | **-1.8** |
| NKC | | | *e* | | 10 30 44.8 | |
| NKC | | | MLR | MLR | | |
| | comp=Z,3µm,23.4s | | | | | |
| **KNT** | **Kendrikon** | **160.60 302** | PKiKP | **PKPdf** | **10 30 03.2** | **-0.6** |
| **KNT** | **Kendrikon** | **160.60 302** | P | **PKPdf** | **10 30 03.2** | **-0.6** |
| **KNT** | **Kendrikon** | **160.60 302** | P | **PKPdf** | **10 30 03.2** | **-0.6** |
| **TOA0** | **Torodi Ar. Sit** | **160.68 182** | *e*PKPdf | **PKPdf** | **10 30 03.9** | **-0.8** |
| TOA0 | | | *e*PKPdf | **PKPdf** | **10 30 04.2** | **-0.4** |
| **TORD** | **Torodi Ar. Bea** | **160.68 182** | PKP | **PKPdf** | **10 30 04.1** | **-0.5** |
| | comp=Z,10nm,0.8s,baz=232,slow=0.0,SNR=38 | | | | | |
| TORD | | | PKPab | **PKPab** | **10 30 46.5** | **+0.2** |
| | comp=Z,104nm,0.8s,baz=172,slow=3.2,SNR=41 | | | | | |
| TORD | | | PP | **PP** | **10 34 33.5** | **+6.0** |
| | comp=Z,9.5nm,1.1s,baz=175,slow=4.2,SNR=3.7 | | | | | |
| TORD | | | SKKPbc | | 10 40 10.2 | |
| | comp=Z,3.3nm,1.0s,baz=7.5,slow=3.0,SNR=3.6 | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **160.68 182** | *e*PKPdf | **PKPdf** | **10 30 04.1** | **-0.5** |
| TOA1 | | | *e*PKPab | **PKPab** | **10 30 46.5** | **+0.2** |
| TOA1 | | | *e*PP | **PP** | **10 34 33.5** | **+5.9** |
| TOA1 | | | *e* | | 10 40 10.2 | |
| **ATHU** | **Athens Univers** | **160.72 293** | P | PKPpre | 10 30 00.0 | |
| **ATHU** | **Athens Univers** | **160.72 293** | P | PKPpre | 10 30 00.0 | |
| **VLY** | **Voula,Athens** | **160.74 292** | P | PKPpre | 10 30 00.0 | |
| **VLY** | **Voula,Athens** | **160.74 292** | P | PKPpre | 10 30 00.0 | |
| **IMMV** | **Iera Moni Meta** | **160.82 285** | P | **PKPdf** | **10 30 03.0** | **-1.2** |
| **NEO** | **Neokhori** | **160.89 297** | P | **PKPdf** | **10 30 01.6** | **-2.6** |
| **NEO** | **Neokhori** | **160.89 297** | P | **PKPdf** | **10 30 01.6** | **-2.6** |
| **XOR** | **Xorichti** | **160.90 297** | P | **PKPdf** | **10 30 01.0** | **-3.2** |
| **XOR** | **Xorichti** | **160.90 297** | P | **PKPdf** | **10 30 01.0** | **-3.2** |
| **KHC** | **Kasperske Hory** | **160.98 334** | *e*PKPDF | **PKPdf** | **10 30 03.4** | **-0.6** |
| KHC | | | *ex* | x | 10 30 12.4 | |
| KHC | | | *e*PKPAB | **PKPab** | **10 30 47.4** | **+0.5** |
| KHC | | | AMS | AMS | 11 37 40.0 | |
| | comp=Z,3µm,29.1s | | | | | |
| **KHC** | **Kasperske Hory** | **160.98 334** | *e*PKiKP | **PKPdf** | **10 30 03.3** | **-0.7** |
| **KHC** | **Kasperske Hory** | **160.98 334** | *e*PKPdf | **PKPdf** | **10 30 03.2** | **-0.7** |
| **CONA** | **Conrad Observa** | **161.01 328** | *i* PKPdf | **PKPdf** | **10 30 02.9** | **-1.3** |
| | comp=Z,0.1nm,0.1s | | | | | |
| CONA | | | *i* PKPab | **PKPab** | **10 30 47.7** | **+0.5** |
| | comp=Z,17nm,0.8s | | | | | |
| **GRG** | **Griva** | **161.02 302** | *e*PKiKP | **PKPdf** | **10 30 02.3** | **

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **TUE** | **Stuetta** | **164.73** | **338** | *e*PKPdf | **PKPdf** | **10 30 07.6** | **-0.4** |
| **CEL** | **Celeste** | **166.67** | **299** | *e*PKPdf | **PKPdf** | **10 30 09.7** | **0.0** |
| **BNI** | **Bardonecchia** | **166.79** | **342** | *e*PKIKP | **PKPdf** | **10 30 10.5** | **+0.9** |
| **BNI** | **Bardonecchia** | **166.79** | **342** | *e*PKPdf | **PKPdf** | **10 30 10.5** | **+0.9** |
| **PCAB** | **Cabril** | **168.32** | **36** | *e*PKPdf | **PKPdf** | **10 30 12.8** | **+2.1** |
| **POLO** | **Lamas de Olo** | **168.69** | **36** | *e*PKPdf | **PKPdf** | **10 30 13.0** | **+2.0** |
| **PBRG** | **Braganca** | **168.85** | **32** | *e*PKPdf | **PKPdf** | **10 30 13.3** | **+2.3** |
| **PVIS** | **Viseu** | **169.12** | **39** | *e*PKPdf | **PKPdf** | **10 30 13.3** | **+2.1** |
| **MVO** | **Moncorvo** | **169.22** | **35** | *e*PKPdf | **PKPdf** | **10 30 12.2** | **+0.9** |
| **TAM** | **Tamanrasset** | **169.52** | **203** | *e*PKIKP | **PKPdf** | **10 30 12.6** | **+0.4** |
| **TAM** | **Tamanrasset** | **169.52** | **203** | *e*PKPdf | **PKPdf** | **10 30 12.6** | **+0.4** |
| **MTE** | **Manteigas** | **169.53** | **39** | *e*PKPdf | **PKPdf** | **10 30 13.4** | **+1.9** |
| **PTOM** | **Tomar** | **169.57** | **45** | *e*PKPdf | **PKPdf** | **10 30 13.6** | **+2.1** |
| **PCBR** | **Castelo Branco** | **169.96** | **41** | *e*PKPdf | **PKPdf** | **10 30 12.6** | **+0.9** |
| **PMTG** | **Montargil** | **170.02** | **47** | *e*PKPdf | **PKPdf** | **10 30 11.2** | **-0.6** |
| **PMRV** | **Marv??o** | **170.29** | **43** | *e*PKPdf | **PKPdf** | **10 30 13.6** | **+1.7** |
| **VSL** | **Villasalto** | **170.37** | **318** | *e*PKPdf | **PKPdf** | **10 30 11.1** | **-0.9** |
| **PESTR** | **Estremoz** | **170.54** | **46** | *e*PKPdf | **PKPdf** | **10 30 13.5** | **+1.4** |
| **MORF** | **Marmelete** | **170.70** | **57** | *e*P | **PKPdf** | **10 30 12.6** | **+0.3** |
| **MORF** | **Marmelete** | **170.70** | **57** | *e*PKPdf | **PKPdf** | **10 30 14.6** | **+2.3** |
| **MESJ** | **Messejana** | **170.73** | **53** | *e*P | **PKPdf** | **10 30 12.7** | **+0.5** |
| **PBEJ** | **Beja** | **170.86** | **51** | *e*PKPdf | **PKPdf** | **10 30 13.6** | **+1.3** |
| **PCVE** | **Castro Verde** | **170.96** | **53** | *e*PKPdf | **PKPdf** | **10 30 12.6** | **+0.3** |
| **PBDV** | **Barranco-do-Ve** | **171.23** | **55** | *e*PKPdf | **PKPdf** | **10 30 15.1** | **+2.6** |
| **PVAQ** | **Vaqueiros** | **171.30** | **54** | *e*PKPdf | **PKPdf** | **10 30 13.5** | **+1.0** |
| **PBAR** | **Barrancos** | **171.30** | **48** | *e*PKPdf | **PKPdf** | **10 30 13.9** | **+1.4** |
| **PAB** | **San Pablo** | **171.75** | **31** | *e*PKIKP | **PKPdf** | **10 30 13.8** | **+1.0** |
| **PAB** | **San Pablo** | **171.75** | **31** | *e*PKPdf | **PKPdf** | **10 30 13.8** | **+1.0** |
| **ESDC** | **Sonseca Array** | **171.80** | **29** | PKP | **PKPdf** | **10 30 13.5** | **+0.7** |
| | comp=Z,14nm,1.1s,baz=356,slow=2.4,SNR=29 | | | | | | |
| ESDC | | | | PKPab | **PKPab** | **10 31 35.0** | **+0.1** |
| | comp=Z,3.7nm,0.7s,baz=318,slow=3.9,SNR=6.0 | | | | | | |
| ESDC | | | | SKKPbc | | 10 39 28.8 | |
| | comp=Z,6.0nm,0.8s,baz=169,slow=2.4,SNR=12 | | | | | | |
| **ESLA** | **Sonseca Array** | **171.80** | **29** | *e*PKPdf | **PKPdf** | **10 30 14.2** | **+1.4** |
| **ES19** | **SONSECA Array** | **171.80** | **28** | *e*PKPdf | **PKPdf** | **10 30 13.3** | **+0.5** |
| **KEST** | **Kesra** | **172.47** | **297** | PKP | **PKPdf** | **10 30 14.2** | **+1.0** |
| | comp=Z,23nm,1.0s,baz=299,slow=4.1,SNR=11 | | | | | | |
| **KEST** | **Kesra** | **172.47** | **297** | *e*PKPdf | **PKPdf** | **10 30 13.7** | **+0.5** |
| **EMHD** | **Djebel Mahouad** | **176.06** | **338** | P | **PKPdf** | **10 30 16.5** | **+2.1** |

**MEX 15 10:59:15.1±0.3, 14°.40N×92°.49W, h44km±44km, MD3.7, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PCIG** | | **1.47** | **332** | *e*P | Pn | 10 59 37.8 | -1.4 |
| PCIG | | | | *e*S | Sn | 10 59 55.1 | -2.1 |
| **TGIG** | | **2.44** | **346** | *e*P | Pn | 10 59 53.1 | +0.6 |

**IDC 15 11:06:19.3±2.0, 55°.39S×27°.94W, h0km, mb3.7/1, mb1 3.7/1, mb1mx3.5/24, mbtmp3.7/1, Error ellipse: s-maj=106.6km s-min=81.9km az=141.0, South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TORD** | **Torodi Ar. Bea** | **72.69** | **30** | P | P | 11 17 48.8 | 0.0 |
| | 1.3nm,1.1s,baz=193,slow=6.5,SNR=3.7 | | | | | | |
| **ILAR** | **Eielson Array** | **149.35** | **313** | PKPbc | PKPbc | 11 26 08.1 | -0.5 |
| | 0.5nm,0.7s,baz=125,slow=2.9,SNR=6.2 | | | | | | |
| **SONM** | **Songino Array** | **151.11** | **86** | PKPbc | PKPbc | 11 26 13.2 | -0.3 |
| | 0.2nm,0.3s,baz=242,slow=3.1,SNR=2.1 | | | | | | |

*IDC **15** 11:15:15.9±4.7, 43°.93N×127°.58W, h0km, mb3.2/3, mb1 3.5/4, mb1mx3.3/36, mbtmp3.2/4, ML3.9/1, Error ellipse: s-maj=69.5km s-min=36.1km az=64.0*

**ISC 15 11:15:16.3±2.1, 43°.8N±0°.1×127°.7W±0°.1, h10km, n23, σ1s89/20, Off coast of Oregon**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **I03D** | **Drain, OR** | **3.13** | **91** | P | **Pn** | **11 16 03.9** | **-1.8** |
| | baz=270,SNR=290 | | | | | | |
| I03D | | | | S | **Sn** | **11 16 45.2** | **+2.1** |
| | baz=270 | | | | | | |
| **L02D** | **Cave Junction,** | **3.41** | **118** | S | **Sn** | **11 16 49.4** | **-0.6** |
| | baz=296 | | | | | | |
| **G03D** | **McMinnville, O** | **3.45** | **65** | P | **Pn** | **11 16 09.4** | **-0.6** |
| | baz=246,SNR=177 | | | | | | |
| G03D | | | | S | **Sb** | **11 16 55.4** | **-3.9** |
| | baz=246 | | | | | | |
| **I04A** | **Tendick Farm,** | **3.81** | **88** | P | **Pn** | **11 16 14.4** | **-0.6** |
| | baz=269,SNR=53 | | | | | | |
| I04A | | | | S | **Sn** | **11 17 02.7** | **+2.8** |
| | baz=269 | | | | | | |
| **F04D** | **Rainier, OR** | **4.01** | **54** | P | **Pn** | **11 16 17.3** | **-0.4** |
| | baz=237,SNR=30 | | | | | | |
| **J04D** | **Umpqua Nationa** | **4.08** | **96** | P | **Pn** | **11 16 18.2** | **-0.8** |
| | baz=277 | | | | | | |
| J04D | | | | S | **Sn** | **11 17 10.7** | **+3.8** |
| | baz=277 | | | | | | |
| **I05D** | **Terrebonne, OR** | **4.59** | **81** | P | **Pn** | **11 16 25.2** | **-0.6** |
| | baz=264 | | | | | | |
| **J05D** | **Fort Rock, OR** | **4.71** | **94** | S | **Sn** | **11 17 25.6** | **+3.3** |
| | baz=276 | | | | | | |
| **G05D** | **Wamic, OR** | **4.76** | **70** | P | **Pn** | **11 16 28.6** | **+0.4** |
| | baz=253,SNR=90 | | | | | | |
| **B05A** | **Bryant** | **5.90** | **39** | P | **Pn** | **11 16 43.6** | **-0.1** |
| | baz=224,SNR=14 | | | | | | |
| **A04D** | **Lummi Island** | **5.99** | **33** | P | **Pn** | **11 16 45.0** | **+0.1** |
| | baz=218,SNR=12 | | | | | | |
| **C06D** | **Leavenworth** | **6.26** | **47** | P | **Pn** | **11 16 49.0** | **+0.2** |
| | baz=232 | | | | | | |
| **NEW** | **Newport** | **8.58** | **55** | P | **Pn** | **11 17 20.2** | **-0.4** |
| | baz=242 | | | | | | |
| **PDAR** | **Pinedale Array** | **13.24** | **88** | Pn | Pn | 11 18 29.1 | +4.7 |
| | 0.1nm,0.3s,baz=294,slow=6.8,SNR=2.8 | | | | | | |
| **YKA** | **Yellowknife Ar** | **20.21** | **18** | P | **P** | **11 19 50.9** | **-0.1** |
| | 0.4nm,0.7s,baz=209,slow=11,SNR=4.0 | | | | | | |
| **ULM** | **Lac du Bonnet** | **22.49** | **62** | P | **P** | **11 20 14.8** | **-0.8** |
| | 2.9nm,0.9s,baz=284,slow=12,SNR=3.9 | | | | | | |
| **TXAR** | **Lajitas Array** | **23.98** | **119** | P | **P** | **11 20 32.0** | **+1.0** |
| | 0.3nm,0.6s,baz=312,slow=5.5,SNR=2.9 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **59.00** | **268** | T | T | 12 28 37.5 | |
| | baz=50,slow=75,SNR=17 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **59.00** | **268** | T | T | 12 28 43.3 | |
| | baz=50,slow=75,SNR=13 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **59.02** | **268** | T | T | 12 28 36.0 | |
| | baz=50,slow=75,SNR=12 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **59.93** | **267** | T | T | 12 29 46.4 | |
| | baz=50,slow=75,SNR=12 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **59.93** | **267** | T | T | 12 29 43.7 | |
| | baz=50,slow=75,SNR=16 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **59.94** | **267** | T | T | 12 30 11.9 | |
| | baz=50,slow=75,SNR=15 | | | | | | |

**TRN 15 11:18:34.4, 10°.41N×61°.81W, h39km, MD3.5, 1D, Trinidad**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TCE** | **Chacachacare** | **0.30** | **11** | *e*P | Pn | 11 18 42.4 | -0.3 |
| TCE | | | | *e*S | Sn | 11 18 48.6 | -0.4 |
| **TPP** | **Pointe-a-Pierr** | **0.36** | **104** | *e*P | Pn | 11 18 43.6 | +0.3 |
| TPP | | | | *e*S | Sn | 11 18 50.3 | +0.6 |
| **TRN** | **Trinidad (W)** | **0.47** | **59** | ↓*i*P | Pn | 11 18 44.5 | -0.2 |
| TRN | | | | *e*S | Sn | 11 18 52.7 | +0.8 |
| **TBH** | **Brigand Hill** | **0.74** | **84** | *e*P | Pn | 11 18 48.2 | -0.1 |
| TBH | | | | *e*S | Sn | 11 18 59.4 | +0.9 |
| **TOSP** | **Speyside** | **1.54** | **55** | *e*P | Pn | 11 18 59.1 | -0.2 |
| TOSP | | | | *e*S | Sn | 11 19 17.9 | -0.2 |
| **GRGR** | **Grenville** | **1.72** | **5** | *e*P | Pn | 11 19 02.5 | +0.6 |
| GRGR | | | | *e*S | Sn | 11 19 23.6 | +0.9 |
| **FCV** | **Fort Charlotte** | **2.79** | **11** | *e*P | Pn | 11 19 17.8 | +1.2 |
| FCV | | | | *e*S | Sn | 11 19 47.8 | -1.3 |
| **SVB** | **Belmont** | **2.90** | **11** | *e*P | Pn | 11 19 18.9 | +0.8 |
| **SVCV** | **St. Vincent, C** | **2.92** | **13** | *e*P | Pn | 11 19 18.3 | -0.1 |
| **SVV** | **Soufriere Volc** | **2.95** | **11** | *e*P | Pn | 11 19 19.5 | +0.7 |
| **SSV** | **Crater Summit** | **2.97** | **12** | *e*P | Pn | 11 19 20.0 | +0.9 |

*IDC **15** 11:19:20.9±1.2, 10°.29S×124°.98E, h0km, mb4.0/2, mb1 4.0/5, mb1mx3.7/34, mbtmp3.8/5, ML3.5/3, Error ellipse: s-maj=92.2km s-min=24.6km az=66.0*
*ISCJB **15** 11:19:22.7±1.1, 10°.56S±0°.09×125°.0E±0°.1, h33km, mb4.0/2, Error ellipse: s-maj=22.4km s-min=9.4km az=154.2*

**ISC 15 11:19:25.8±1.2, 10°.5S±0°.1×125°.0E±0°.2, h35km, n6, σ2s26/9, Timor Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **FITZ** | **Fitzroy Crossi** | **7.56** | **176** | Pn | **Pn** | **11 21 14.7** | **+1.1** |
| | 0.5nm,0.3s,baz=11,slow=11,SNR=16 | | | | | | |
| FITZ | | | | Sn | **Sn** | **11 22 37.2** | **-0.8** |
| | 1.0nm,0.3s,baz=105,slow=20,SNR=4.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **12.97** | **137** | Pn | **Pn** | **11 22 29.1** | **+1.4** |
| | 0.2nm,0.3s,baz=310,slow=13,SNR=9.8 | | | | | | |
| WRA | | | | Sn | **Sn** | **11 24 50.9** | **-0.1** |
| | 0.3nm,0.3s,baz=308,slow=24,SNR=7.4 | | | | | | |
| **ASAR** | **Alice Springs** | **15.57** | **148** | Pn | **Pn** | **11 23 04.6** | **+1.8** |
| | 0.5nm,0.3s,baz=320,slow=12,SNR=57 | | | | | | |
| ASAR | | | | Sn | **Sn** | **11 25 50.5** | **-3.9** |
| | 0.2nm,0.3s,baz=323,slow=24,SNR=8.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **68.63** | **330** | P | **P** | **11 30 24.6** | **-0.8** |
| | 1.6nm,0.7s,baz=134,slow=7.3,SNR=11 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **72.69** | **336** | P | **P** | **11 30 47.8** | **-2.0** |
| | 0.6nm,0.4s,baz=134,slow=4.3,SNR=4.6 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **124.57** | **279** | PKP | **PKPdf** | **11 38 24.4** | **+1.9** |
| | 0.2nm,0.7s,baz=81,slow=0.8,SNR=2.5 | | | | | | |

**NNC 15 11:22:15.2±4.4, 38°.43N×71°.91E, h0km, mb3.6, mpv3.2, 3C-5D, Error ellipse: s-maj=43.6km s-min=19.4km az=150.0, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SFK** | **Sufi-Kurgan** | **2.01** | **38** | ↑Pg | Pn | 11 22 50.0 | -0.7 |
| | 10nm,0.5s | | | | | | |
| SFK | | | | ↓Lg | Lg | 11 23 19.4 | |
| | 13nm,0.3s | | | | | | |
| **DZET** | **Dzherino** | **2.44** | **280** | ↑Pn | Pn | 11 22 57.3 | +0.9 |
| | 14nm,0.4s | | | | | | |
| DZET | | | | ↓Lg | Lg | 11 23 30.0 | |
| | 56nm,0.4s | | | | | | |
| **MNAS** | **Manas** | **4.08** | **6** | ↓Pn | Pn | 11 23 20.8 | +1.8 |
| | 1.7nm,0.5s | | | | | | |
| MNAS | | | | ↓Sn | Sn | 11 24 11.1 | +3.6 |
| | 2.3nm,0.5s | | | | | | |
| **KK31** | **Karatay Array** | **4.79** | **348** | ↓Pn | Pn | 11 23 29.8 | +1.2 |
| | 1.1nm,0.4s,baz=171,slow=13,SNR=19 | | | | | | |
| KK31 | | | | ↑Sn | Sn | 11 24 23.7 | -1.1 |
| | 1.3nm,0.5s,baz=172,slow=23 | | | | | | |

*VIE **15** 11:31:40.2±0.2, 47°.17N×14°.51E, h8km, mb2.0/10, ML2.7/11, Error ellipse: s-maj=1.5km s-min=1.0km az=5.0*
*CSEM **15** 11:31:40.2±0.1, 47°.19N×14°.50E, h2km, ML3.2/20, Error ellipse: s-maj=2.8km s-min=2.0km az=105.0*
*BGR **15** 11:31:41.4±0.3, 47°.18N×14°.56E, h10km, ML2.7/11, Error ellipse: s-maj=5.6km s-min=4.4km az=49.0*
*BGR Felt IV EMS.*
*PRU **15** 11:31:41.5, 47°.20N×14°.56E, h0km*
*ROM **15** 11:31:42.1±0.5, 47°.22N×14°.32E, h10km, Md2.5/4, Ml2.4/4, Error ellipse: s-maj=8.0km s-min=4.7km az=101.0*

**ISC 15 11:31:40.7±1.0, 47°.15N±0°.01×14°.52E±0°.02, h7km±9km, n107, σ1s10/166, 5D, Austria**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SOKA** | **Soboth** | **0.59** | **143** | Pg | **Pg** | **11 31 52.2** | **+0.2** |
| | 19nm,0.1s | | | | | | |
| SOKA | | | | Sg | **Sg** | **11 32 00.4** | **+0.8** |
| | 34nm,0.1s | | | | | | |
| **OBKA** | **Obir** | **0.64** | **178** | *e*Pg | **Pg** | **11 31 53.6** | **+0.6** |
| OBKA | | | | *e*Sg | **Sb** | **11 32 02.5** | **-1.0** |
| **OBKA** | **Obir** | **0.64** | **178** | Pg | **Pg** | **11 31 53.6** | **+0.6** |
| OBKA | | | | Sg | **Sb** | **11 32 02.4** | **-1.0** |
| **BISS** | **Bistriski jare** | **0.65** | **140** | *i* Pg | **Pg** | **11 31 53.4** | **+0.1** |
| | comp=Z,268nm,0.1s | | | | | | |
| **BISS** | **Bistriski jare** | **0.65** | **140** | *i* Pg | **Pg** | **11 31 53.3** | **+0.1** |
| | comp=Z,268nm,0.1s | | | | | | |
| **PERS** | **Pernice** | **0.66** | **141** | *i* Pg | **Pg** | **11 31 53.4** | **+0.1** |
| PERS | | | | *i* Sg | **Sg** | **11 32 02.3** | **+0.5** |
| | comp=Z,383nm,0.2s | | | | | | |
| **PERS** | **Pernice** | **0.66** | **141** | *i* Pg | **Pg** | **11 31 53.4** | **+0.1** |
| PERS | | | | *i* Sg | **Sg** | **11 32 02.3** | **+0.5** |
| | comp=Z,383nm,0.2s | | | | | | |
| **ARSA** | **Arzberg** | **0.69** | **81** | *e*Pg | **Pg** | **11 31 53.4** | **-0.5** |
| ARSA | | | | *e*Sg | **Sg** | **11 32 02.0** | **-0.9** |
| **ARSA** | **Arzberg** | **0.69** | **81** | Pg | **Pg** | **11 31 53.4** | **-0.5** |
| | comp=Z,4.2nm,0.1s | | | | | | |
| ARSA | | | | Sg | **Sg** | **11 32 02.7** | **-0.2** |
| | comp=Z,13nm,0.1s | | | | | | |
| **MOA** | **Molln** | **0.72** | **346** | *e*Pg | **Pg** | **11 31 53.7** | **-0.9** |
| MOA | | | | *e*Sg | **Sg** | **11 32 04.6** | **+0.6** |
| **MOA** | **Molln** | **0.72** | **346** | Pg | **Pg** | **11 31 53.7** | **-0.9** |
| | comp=Z,25nm,0.3s | | | | | | |
| MOA | | | | Sg | **Sg** | **11 32 04.6** | **+0.6** |
| | comp=Z,12nm,0.1s | | | | | | |
| **MYKA** | **Tena Mystica** | **0.80** | **230** | Pg | **Pg** | **11 31 55.8** | **-0.2** |
| | comp=Z,6.7nm,0.1s | | | | | | |
| MYKA | | | | Sg | **Sg** | **11 32 06.4** | **+0.1** |
| | comp=Z,22nm,0.1s | | | | | | |
| **KBA** | **Koelnbreinsper** | **0.81** | **265** | *e*Pg | **Pg** | **11 31 55.4** | **-0.8** |
| KBA | | | | *e*Sg | **Sg** | **11 32 07.0** | **+0.3** |
| **KBA** | **Koelnbreinsper** | **0.81** | **265** | Pg | **Pg** | **11 31 55.4** | **-0.8** |
| | comp=Z,1.9nm,0.1s | | | | | | |
| KBA | | | | Sg | **Sg** | **11 32 07.0** | **+0.3** |
| | comp=Z,20nm,0.2s | | | | | | |
| **GORS** | **Gorjuse** | **0.91** | **204** | *i* Pg | **Pg** | **11 31 58.3** | **+0.2** |
| GORS | | | | *i* Sg | **Sb** | **11 32 10.3** | **-0.9** |
| | comp=Z,63nm,0.3s | | | | | | |
| **GORS** | **Gorjuse** | **0.91** | **204** | *i* Pg | **Pg** | **11 31 58.3** | **+0.2** |
| GORS | | | | *i* Sg | **Sb** | **11 32 10.3** | **-0.9** |
| | comp=Z,63nm,0.3s | | | | | | |
| **ACOM** | **Acomizza, Ital** | **0.92** | **229** | Pg | **Pg** | **11 31 58.2** | **-0.1** |
| ACOM | | | | Sg | **Sg** | **11 32 10.4** | **+0.2** |
| | comp=Z,178nm,0.3s | | | | | | |
| **ACOM** | **Acomizza, Ital** | **0.92** | **229** | ↓*e*Pg | **Pg** | **11 31 58.2** | **-0.1** |
| ACOM | | | | *e*Sg | **Sg** | **11 32 10.2** | **0.0** |
| **ACOM** | **Acomizza, Ital** | **0.92** | **229** | Pg | **Pg** | **11 31 58.2** | **-0.1** |
| ACOM | | | | Sg | **Sg** | **11 32 10.4** | **+0.2** |
| | comp=Z,178nm,0.3s | | | | | | |
| **PRED** | **Cave del Predi** | **0.97** | **223** | ↓*e*Pg | **Pg** | **11 31 58.9** | **-0.3** |
| PRED | | | | *e*Sg | **Sg** | **11 32 11.7** | **0.0** |
| **PRED** | **Cave del Predi** | **0.97** | **223** | *e*Pg | **Pg** | **11 31 58.9** | **-0.3** |
| PRED | | | | *e*Sg | **Sg** | **11 32 11.7** | **0.0** |
| **PTCC** | **Patocco-Chiusa** | **1.10** | **228** | Pg | **Pg** | **11 32 01.4** | **-0.3** |
| PTCC | | | | Sg | **Sg** | **11 32 15.2** | **-0.7** |
| | comp=Z,63nm,0.4s | | | | | | |
| **PTCC** | **Patocco-Chiusa** | **1.10** | **228** | Pg | **Pg** | **11 32 01.4** | **-0.3** |
| PTCC | | | | Sg | **Sg** | **11 32 15.2** | **-0.7** |
| | comp=Z,63nm,0.4s | | | | | | |
| **PLRO** | **Paularo** | **1.12** | **238** | *e*Pg | **Pg** | **11 32 02.0** | **-0.1** |
| **PLRO** | **Paularo** | **1.12** | **238** | *e*Pg | **Pg** | **11 32 02.0** | **-0.1** |
| **PDKS** | **Podkum** | **1.14** | **163** | *i* Pg | **Pn** | **11 32 03.0** | **-0.1** |
| **PDKS** | **Podkum** | **1.14** | **163** | *i* Pg | **Pn** | **11 32 03.0** | **-0.1** |
| **DRE** | **Drenchia** | **1.15** | **212** | *e*Pg | **Pb** | **11 32 02.5** | **-0.4** |
| **DRE** | **Drenchia** | **1.15** | **212** | *e*Pg | **Pb** | **11 32 02.5** | **-0.4** |
| **CONA** | **Conrad Observa** | **1.20** | **49** | Pg | **Pb** | **11 32 03.2** | **-0.5** |
| | comp=Z,2.1nm,0.1s | | | | | | |
| CONA | | | | Sg | **Sn** | **11 32 20.8** | **+0.3** |
| | comp=Z,52nm,0.4s | | | | | | |
| **ZOU** | **Zoufplan** | **1.22** | **241** | *e*Pg | **Pg** | **11 32 04.0** | **0.0** |
| **VINO** | **Villanova** | **1.24** | **224** | Pg | **Pn** | **11 32 04.0** | **-0.4** |
| VINO | | | | Sg | **Sn** | **11 32 20.6** | **-0.8** |
| | comp=Z,53nm,0.4s | | | | | | |
| **VINO** | **Villanova** | **1.24** | **224** | *e*Pg | **Pn** | **11 32 03.9** | **-0.6** |
| **VINO** | **Villanova** | **1.24** | **224** | Pg | **Pn** | **11 32 04.0** | **-0.4** |
| VINO | | | | Sg | **Sn** | **11 32 20.6** | **-0.8** |
| | comp=Z,53nm,0.4s | | | | | | |
| **BAD** | **Bernadia** | **1.27** | **224** | *e*Pg | **Pg** | **11 32 04.9** | **-0.1** |
| **BAD** | **Bernadia** | **1.27** | **224** | *e*Pg | **Pg** | **11 32 04.9** | **-0.1** |
| **FUSE** | **Fusea** | **1.28** | **235** | *e*Pg | **Pg** | **11 32 05.4** | **+0.2** |
| **FUSE** | **Fusea** | **1.28** | **235** | *e*Pg | **Pg** | **11 32 05.4** | **+0.2** |
| **BOO** | **Bordano** | **1.28** | **230** | *e*Pg | **Pb** | **11 32 04.8** | **-0.4** |
| **BOO** | **Bordano** | **1.28** | **230** | *e*Pg | **Pb** | **11 32 04.8** | **-0.4** |
| **COLI** | **Coloredo** | **1.29** | **218** | *e*Pg | **Pg** | **11 32 05.4** | **+0.1** |
| **COLI** | **Coloredo** | **1.29** | **218** | *e*Pg | **Pg** | **11 32 05.4** | **+0.1** |
| **RJOB** | **Jochberg** | **1.31** | **297** | *e*Pg | **Pg** | **11 32 06.3** | **+0.5** |
| RJOB | | | | *e*Sg | **Sg** | **11 32 24.8** | **+1.9** |
| **RJOB** | **Jochberg** | **1.31** | **297** | Pg | **Pg** | **11 32 06.3** | **+0.5** |
| **FVI** | **Forni Avoltri** | **1.32** | **246** | Pg | **Pn** | **11 32 05.1** | **-0.5** |
| **FVI** | **Forni Avoltri** | **1.32** | **246** | Pg | **Pn** | **11 32 05.1** | **-0.5** |
| **CLUD** | **Cludinico** | **1.32** | **239** | *e*Pg | **Pb** | **11 32 05.5** | **-0.4** |
| **CLUD** | **Cludinico** | **1.32** | **239** | *e*Pg | **Pb** | **11 32 05.5** | **-0.4** |
| **SABO** | **M.te Sabotino** | **1.33** | **209** | Pg | **Pg** | **11 32 06.1** | **-0.1** |
| SABO | | | | Sg | **Sg** | **11 32 24.4** | **+0.9** |
| | comp=Z,81nm,0.7s | | | | | | |
| **SABO** | **M.te Sabotino** | **1.33** | **209** | *e*Pg | **Pg** | **11 32 06.1** | **-0.1** |
| **SABO** | **M.te Sabotino** | **1.33** | **209** | Pg | **Pg** | **11 32 06.1** | **-0.1** |
| SABO | | | | Sg | **Sg** | **11 32 24.4** | **+0.9** |
| | comp=Z,81nm,0.7s | | | | | | |
| **BUA** | **Buia** | **1.34** | **226** | *e*Pg | **Pg** | **11 32 06.2** | **-0.1** |
| **BUA** | **Buia** | **1.34** | **226** | *e*Pg | **Pg** | **11 32 06.2** | **-0.1** |
| **KOGS** | **Kog** | **1.38** | **120** | *i* Pg | **Pb** | **11 32 06.7** | **-0.1** |
| **KOGS** | **Kog** | **1.38** | **120** | *i* Pg | **Pb** | **11 32 06.7** | **-0.1** |
| **ABTA** | **Abfaltersbach** | **1.44** | **254** | Pg | **Pb** | **11 32 07.5** | **-0.3** |
| | comp=Z,1.9nm,0.1s,SNR=9.4 | | | | | | |
| ABTA | | | | Sg | **Sg** | **11 32 27.0** | **+0.2** |
| | comp=Z,4.7nm,0.2s | | | | | | |
| **STAL** | **STALIGIAL** | **1.53** | **235** | Pg | **Pb** | **11 32 08.9** | **-0.5** |
| **STAL** | **STALIGIAL** | **1.53** | **235** | Pg | **Pb** | **11 32 08.9** | **-0.5** |
| **SKDS** | **Skadanscina** | **1.64** | **193** | *i* Pg | **Pg** | **11 32 11.8** | **-0.3** |
| SKDS | | | | *i* Sg | **Sg** | **11 32 34.4** | **+1.0** |
| **SKDS** | **Skadanscina** | **1.64** | **193** | *i* Pg | **Pg** | **11 32 11.8** | **-0.3** |
| SKDS | | | | *i* Sg | **Sg** | **11 32 34.4** | **+1.0** |
| **CIMO** | **Cimolais** | **1.66** | **240** | *e*Pg | **Pb** | **11 32 11.6** | **0.0** |
| **CIMO** | **Cimolais** | **1.66** | **240** | *e*Pg | **Pb** | **11 32 11.6** | **0.0** |
| **OZLJ** | **Ozalj** | **1.67** | **157** | *e*Pn | **Pg** | **11 32 13.2** | **+0.5** |
| OZLJ | | | | Sn | **Sg** | **11 32 34.5** | **+0.3** |
| **OZLJ** | **Ozalj** | **1.67** | **157** | *e*Pn | **Pg** | **11 32 13.1** | **+0.5** |
| **BOJS** | **Bojanci** | **1.72** | **163** | *i* Pg | **Pg** | **11 32 14.0** | **+0.3** |
| **BOJS** | **Bojanci** | **1.72** | **163** | *i* Pg | **Pg** | **11 32 14.0** | **+0.3** |
| **GEC2** | **GERESS Array S** | **1.78** | **342** | *e*Pn | **Pn** | **11 32 12.6** | **+0.6** |
| GEC2 | | | | *e*Sg | **Sb** | **11 32 36.4** | **0.0** |
| **GEC2** | **GERESS Array S** | **1.78** | **342** | Pn | **Pn** | **11 32 12.6** | **+0.6** |
| GEC2 | | | | Sg | **Sb** | **11 32 36.4** | **0.0** |
| **WTTA** | **Wattenberg** | **1.97** | **274** | *e*Sg | **Sg** | **11 32 45.7** | **+1.7** |
| **WTTA** | **Wattenberg** | **1.97** | **274** | Pg | **Pg** | **11 32 18.1** | **-0.4** |
| | comp=Z,7.6nm,0.2s | | | | | | |
| **WATA** | **Walderalm** | **2.02** | **276** | Pg | **Pg** | **11 32 19.2** | **-0.1** |
| | comp=Z,5.6nm,0.2s | | | | | | |
| **KHC** | **Kasperske Hory** | **2.08** | **343** | *e*PN | **Pn** | **11 32 16.8** | **+0.7** |
| KHC | | | | *e*PG | **Pb** | **11 32 19.0** | **+0.2** |
| KHC | | | | *ex* | x | 11 32 39.7 | |
| KHC | | | | *e*SG | **Sn** | **11 32 42.9** | **+0.6** |
| | comp=Z,21nm,0.2s | | | | | | |
| **KHC** | **Kasperske Hory** | **2.08** | **343** | Pn | **Pn** | **11 32 16.8** | **+0.7** |
| **WET** | **Wettzell** | **2.28** | **332** | *e*Pn | **Pn** | **11 32 20.0** | **+1.2** |
| WET | | | | *e*Sg | **Sb** | **11 32 52.0** | **+1.4** |
| **WET** | **Wettzell** | **2.28** | **332** | Pn | **Pn** | **11 32 20.0** | **+1.2** |
| WET | | | | Sg | **Sb** | **11 32 52.0** | **+1.4** |
| **FUR** | **Furstenfeldbru** | **2.42** | **296** | *e*Sg | **Sg** | **11 32 58.5** | **+0.2** |
| **FUR** | **Furstenfeldbru** | **2.42** | **296** | Sg | **Sg** | **11 32 58.5** | **+0.2** |
| **VRAC** | **Vranov** | **2.56** | **32** | *e*Pn | **Pn** | **11 32 23.0** | **+0.3** |
| VRAC | | | | *e*Sg | **Sb** | **11 32 57.4** | **-1.4** |
| **FETA** | **Feichten** | **2.60** | **269** | Pg | **Pg** | **11 32 29.9** | **-0.5** |
| | comp=Z,2.5nm,0.3s | | | | | | |
| **NVLJ** | **Novalja** | **2.60** | **175** | *e*Pn | **Pb** | **11 32 26.3** | **-1.2** |
| NVLJ | | | | Sn | **Sb** | **11 32 59.0** | **-0.7** |
| **NVLJ** | **Novalja** | **2.60** | **175** | *e*Pn | **Pb** | **11 32 26.3** | **-1.2** |
| **UDBI** | **Udbina** | **2.76** | **161** | *e*Pn | **Pn** | **11 32 25.8** | **+0.3** |
| **UDBI** | **Udbina** | **2.76** | **161** | *e*Pn | **Pn** | **11 32 25.7** | **+0.3** |
| **GOPC** | **GO Pecny, Ondr** | **2.77** | **4** | *e*PN | **Pn** | **11 32 39.9** | **+0.3** |
| GOPC | | | | *e*PG | **Pg** | **11 32 32.6** | **-1.2** |
| GOPC | | | | *e*SN | **Sn** | **11 32 58.9** | **-0.4** |
| GOPC | | | | *e*SG | **Sg** | **11 33 09.4** | **-0.3** |
| | comp=Z,19nm,0.4s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **2.77** | **4** | Pn | **Pn** | **11 32 25.9** | **+0.3** |
| **GOPC** | **GO Pecny, Ondr** | **2.77** | **4** | Pg | **Pb** | **11 32 30.7** | **+0.1** |
| GOPC | | | | Sg | **Sg** | **11 33 09.4** | **-0.3** |
| | comp=Z,19nm,0.4s | | | | | | |
| **PRU** | **Pruhonice** | **2.84** | **0** | ↓

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **AML** | **Almayashu** | **3.43** | **339** | P | | **Pb** | **11 45 41.3** | **-2.9** |
| | SNR=10 | | | | | | | |
| **KBK** | **Karagaybulak** | **3.72** | **355** | P | | **Pb** | **11 45 46.1** | **-3.0** |
| | SNR=27 | | | | | | | |
| **AAK** | **Ala-Archa** | **3.75** | **350** | Pn | | **Pb** | **11 45 46.3** | **-3.3** |
| | comp=Z,5.8nm,0.3s,baz=144,slow=6.9,SNR=33 | | | | | | | |
| AAK | | | | Sn | | **Sb** | **11 46 36.4** | **+1.3** |
| | comp=Z,7.6nm,0.3s,baz=342,slow=22,SNR=5.8 | | | | | | | |
| **AAK** | **Ala-Archa** | **3.75** | **350** | ⇑Pn | | **Pb** | **11 45 46.2** | **-3.4** |
| | comp=Z,31nm,0.5s | | | | | | | |
| AAK | | | | ⇑Sn | | **Sb** | **11 46 33.9** | **-1.1** |
| | comp=Z,107nm,0.9s | | | | | | | |
| **AAK** | **Ala-Archa** | **3.75** | **350** | *d i* PN | | **Pb** | **11 45 46.2** | **-3.3** |
| AAK | | | | pmax | pmax | | | |
| | comp=Z,31nm,0.5s | | | | | | | |
| **AAK** | **Ala-Archa** | **3.75** | **350** | P | | **Pb** | **11 45 46.3** | **-3.3** |
| | SNR=19 | | | | | | | |
| **AAK** | **Ala-Archa** | **3.75** | **350** | *e*Pn | | **Pn** | **11 45 44.5** | **+3.3** |
| AAK | | | | *e*Pn | | **Pb** | **11 45 46.3** | **-3.3** |
| AAK | | | | *e*Sn | | **Sb** | **11 46 36.4** | **+1.3** |
| **FRU** | **Bishkek** | **3.93** | **352** | *e*PN | | **Pb** | **11 45 49.5** | **-3.0** |
| FRU | | | | *i* | | | 11 45 58.0 | |
| FRU | | | | pmax | pmax | | | |
| | comp=Z,120nm,1.8s | | | | | | | |
| **TKM2** | **Tokmak 2** | **3.98** | **2** | ⇑Pn | | Pb | 11 45 49.0 | -4.5 |
| | comp=Z,29nm,0.5s | | | | | | | |
| TKM2 | | | | ⇑Sn | | **Sb** | **11 46 40.8** | **-0.9** |
| | comp=Z,131nm,0.8s | | | | | | | |
| **TKM2** | **Tokmak 2** | **3.98** | **2** | PN | | Pb | 11 45 49.3 | -4.2 |
| TKM2 | | | | S | | **Sb** | **11 46 40.8** | **-0.9** |
| TKM2 | | | | pmax | pmax | | | |
| | comp=Z,29nm,0.5s | | | | | | | |
| TKM2 | | | | smax | smax | | | |
| | comp=N,131nm,0.8s | | | | | | | |
| **TKM2** | **Tokmak 2** | **3.98** | **2** | P | | Pb | 11 45 49.0 | -4.5 |
| | SNR=56 | | | | | | | |
| **CHMS** | **Chumysh** | **4.08** | **354** | P | | Pb | 11 45 50.2 | -4.8 |
| | SNR=25 | | | | | | | |
| **MNAS** | **Manas** | **4.15** | **329** | ⇑Pn | | **Pb** | **11 45 53.5** | **-3.0** |
| | comp=N,32nm,0.8s | | | | | | | |
| MNAS | | | | ⇑Lg | | Lg | 11 47 02.7 | |
| | comp=N,164nm,1.2s | | | | | | | |
| **MNAS** | **Manas** | **4.15** | **329** | *i* PN | | **Pb** | **11 45 53.4** | **-3.0** |
| MNAS | | | | pmax | pmax | | | |
| | comp=Z,32nm,0.8s | | | | | | | |
| **USP** | **Ospenovka** | **4.37** | **352** | P | | Pb | 11 45 54.5 | -5.5 |
| | SNR=20 | | | | | | | |
| **MDOK** | **Medeo** | **4.41** | **16** | ⇓Pn | | Pb | 11 45 55.7 | -5.0 |
| MDOK | | | | ⇑Lg | | Lg | 11 47 12.8 | |
| **AAA** | **Alma-Ata** | **4.42** | **15** | *e*PN | | **Pg** | **11 46 08.2** | **+0.4** |
| AAA | | | | *e*S | | **Sg** | **11 47 04.0** | **-1.1** |
| AAA | | | | pmax | pmax | | | |
| | comp=Z,70nm,0.2s | | | | | | | |
| AAA | | | | smax | smax | | | |
| | comp=N,276nm,1.3s | | | | | | | |
| **DZET** | **Dzherino** | **5.10** | **271** | ⇓Pn | | Pn | 11 46 02.1 | +2.4 |
| | comp=N,46nm,0.7s | | | | | | | |
| DZET | | | | ⇑Lg | | Lg | 11 47 23.7 | |
| | comp=N,116nm,0.7s | | | | | | | |
| **DZET** | **Dzherino** | **5.10** | **271** | PN | | Pn | 11 46 02.8 | +3.1 |
| DZET | | | | pmax | pmax | | | |
| | comp=Z,46nm,0.7s | | | | | | | |
| **PDGK** | **Podgornoye** | **5.38** | **34** | ⇓Pn | | **Pn** | **11 46 05.3** | **+1.8** |
| | comp=Z,6.6nm,0.7s | | | | | | | |
| PDGK | | | | ⇑Lg | | Lg | 11 47 43.5 | |
| | comp=Z,154nm,0.9s | | | | | | | |
| **PDGK** | **Podgornoye** | **5.38** | **34** | PN | | **Pn** | **11 46 05.3** | **+1.8** |
| PDGK | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,0.7s | | | | | | | |
| **CHCP** | **Chirah Chowk** | **5.54** | **198** | P | | Pb | 11 46 10.5 | -9.5 |
| **KK31** | **Karatay Array** | **5.54** | **320** | ⇓Pn | | **Pn** | **11 46 08.4** | **+2.7** |
| | comp=Z,5.0nm,0.3s,baz=129,slow=13,SNR=143 | | | | | | | |
| KK31 | | | | ⇑Sn | | **Sn** | **11 47 13.3** | **+3.8** |
| | comp=Z,18nm,0.6s,baz=139,slow=24 | | | | | | | |
| **KK31** | **Karatay Array** | **5.54** | **320** | PN | | **Pn** | **11 46 08.4** | **+2.7** |
| KK31 | | | | pmax | pmax | | | |
| | comp=Z,5.0nm,0.4s | | | | | | | |
| **CEP** | **Cherat** | **5.82** | **210** | P | | Pn | 11 46 11.7 | +2.1 |
| CEP | | | | S | | Sb | 11 47 22.0 | -13 |
| **THN** | **Thein Dam** | **6.50** | **177** | *e*P | | Pn | 11 46 20.2 | +1.4 |
| THN | | | | *e*S | | Sb | 11 47 42.0 | -12 |
| **KBL** | **Kabul** | **6.71** | **231** | *e*PN | | **Pn** | **11 46 19.0** | **-2.9** |
| **KBL** | **Kabul** | **6.71** | **231** | *e*Pn | | **Pn** | **11 46 19.0** | **-2.9** |
| **THW** | **Thamme Wali** | **6.80** | **207** | P | | Pn | 11 46 24.9 | +1.9 |
| **SARP** | **Sargodha** | **7.34** | **198** | P | | Pn | 11 46 31.8 | +1.4 |
| **SDNR** | **Sundarnagar** | **7.54** | **169** | *e*P | | Pn | 11 46 37.0 | +3.8 |
| SDNR | | | | *e*S | | **Sn** | **11 47 59.0** | **+0.2** |
| **MAKZ** | **Makanchi** | **9.24** | **30** | *i* P | | **Pn** | **11 47 00.7** | **+4.3** |
| MAKZ | | | | pmax | pmax | | | |
| | comp=Z,9.0nm,1.3s | | | | | | | |
| **MAKZ** | **Makanchi** | **9.24** | **30** | *e*Pn | | **Pn** | **11 46 57.8** | **+1.5** |
| **MK01** | **Makanchi Array** | **9.33** | **31** | *e*Pn | | **Pn** | **11 46 58.9** | **+1.2** |
| **MK31** | **Makanchi Array** | **9.35** | **31** | *i* P | | **Pn** | **11 47 02.2** | **+4.3** |
| MK31 | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,0.6s | | | | | | | |
| **MK31** | **Makanchi Array** | **9.35** | **31** | *e*Pn | | **Pn** | **11 46 58.8** | **+0.9** |
| **MK32** | **Makanchi Array** | **9.35** | **31** | *e*Pn | | **Pn** | **11 47 00.0** | **+2.1** |
| **MKAR** | **Makanchi Array** | **9.35** | **31** | Pn | | **Pn** | **11 47 00.0** | **+2.1** |
| | comp=Z,0.3nm,0.3s,baz=201,slow=14,SNR=14 | | | | | | | |
| **MKAR** | **Makanchi Array** | **9.35** | **31** | *i* P | | Pn | 11 47 03.0 | +5.1 |
| MKAR | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.5s | | | | | | | |
| **WMQ** | **Urumqi** | **10.47** | **58** | P | | **Pn** | **11 47 16.1** | **+2.8** |
| WMQ | | | | pP | | | 11 47 19.1 | |
| WMQ | | | | sP | | | 11 47 21.8 | |
| WMQ | | | | S | | **Sn** | **11 49 06.6** | **-4.1** |
| WMQ | | | | SS | | **SnSn** | **11 49 24.5** | **+2.2** |
| WMQ | | | | pmax | pmax | | | |
| | comp=Z,35nm,0.9s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=Z,310nm,23.9s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=Z,630nm,19.3s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=Z,490nm,19.3s | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **11.89** | **10** | Pn | | **Pn** | **11 47 34.5** | **+1.8** |
| | comp=Z,0.0nm,0.3s,baz=196,slow=12,SNR=14 | | | | | | | |
| KURBB | | | | Lg | | Lg | 11 50 54.4 | |
| | comp=Z,0.1nm,0.3s,baz=190,slow=28,SNR=4.5 | | | | | | | |
| **KURK** | **Kurchatov** | **11.99** | **10** | ⇑*e*P | | **Pn** | **11 47 37.0** | **+2.9** |
| **KURK** | **Kurchatov** | **11.99** | **10** | *e*Pn | | **Pn** | **11 47 34.5** | **+0.4** |
| KURK | | | | *e*Pn | | Pn | 11 47 36.7 | +2.7 |
| **PYUN** | **Piuthan** | **12.54** | **147** | *e*P | | **Pn** | **11 47 39.1** | **-2.7** |
| | comp=Z,32nm,0.4s | | | | | | | |
| **DANN** | **Dangsing** | **12.66** | **144** | *e*P | | **Pn** | **11 47 41.4** | **-2.2** |
| | comp=Z,2.8nm,0.9s | | | | | | | |
| **KOLN** | **Koldanda** | **13.09** | **146** | *e*P | | **Pn** | **11 47 45.9** | **-3.4** |
| | comp=Z,56nm,0.9s | | | | | | | |
| **GKN** | **Gorkha** | **13.37** | **142** | *e*P | | **Pn** | **11 47 49.9** | **-3.2** |
| **GEYT** | **Alibeck** | **13.56** | **271** | Pn | | **Pn** | **11 47 54.3** | **-1.3** |
| | comp=Z,0.8nm,0.3s,baz=93,slow=11,SNR=3.7 | | | | | | | |
| **DGZ** | **Jazzator, Alta** | **13.78** | **35** | ⇓*e*P | | **Pn** | **11 47 59.9** | **+1.4** |
| **KKN** | **Kakani** | **13.86** | **140** | *e*P | | **Pn** | **11 47 57.4** | **-2.5** |
| **DMN** | **Daman** | **13.92** | **141** | *e*P | | **Pn** | **11 47 57.8** | **-3.0** |
| **GUN** | **Gumba** | **14.06** | **138** | *e*P | | **Pn** | **11 47 59.7** | **-3.1** |
| | comp=Z,18nm,0.4s | | | | | | | |
| **PKIN** | **Phulchoki** | **14.09** | **141** | *e*P | | **Pn** | **11 48 00.4** | **-2.7** |
| | comp=Z,21nm,0.6s | | | | | | | |
| **PKI** | **Pulchoki** | **14.10** | **141** | *e*P | | **Pn** | **11 48 00.2** | **-3.1** |
| | comp=Z,19nm,0.5s | | | | | | | |
| **JIRN** | **Jiri** | **14.43** | **138** | *e*P | | **Pn** | **11 48 04.6** | **-3.2** |
| | comp=Z,249nm,0.6s | | | | | | | |
| **BVA0** | **Borovoye Array** | **14.50** | **348** | *i* P | | **P** | **11 48 16.6** | **+1.6** |
| BVA0 | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.7s | | | | | | | |
| **BRVK** | **Borovoye** | **14.55** | **348** | ⇑*e*P | | **P** | **11 48 15.9** | **+0.4** |
| **BRVK** | **Borovoye** | **14.55** | **348** | *e*Pn | | **P** | **11 48 13.7** | **-1.8** |
| **AB31** | **Akbulak array** | **15.10** | **318** | P | | **Pn** | **11 48 15.9** | **-0.5** |
| AB31 | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,0.7s | | | | | | | |
| **RAMN** | **Ramite** | **15.22** | **138** | *e*P | | **Pn** | **11 48 14.6** | **-3.7** |
| | comp=Z,74nm,0.9s | | | | | | | |
| **TAPN** | **Taplejung** | **15.49** | **135** | *e*P | | **Pn** | **11 48 17.3** | **-4.7** |
| **ODAN** | **Odare** | **15.70** | **137** | *e*P | | **Pn** | **11 48 20.5** | **-4.2** |
| | comp=Z,24nm,0.5s | | | | | | | |
| **ZAA0** | **Zalesovo Array** | **16.34** | **20** | *e*Pn | | **P** | **11 48 34.5** | **-0.9** |
| | comp=Z,4.4nm,1.0s | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **16.34** | **20** | Pn | | **P** | **11 48 35.0** | **-0.4** |
| | comp=Z,0.4nm,0.3s,baz=214,slow=10,SNR=13 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **16.34** | **20** | *e*Pn | | **P** | **11 48 34.1** | **-1.3** |
| **ZAA1** | **Zalesovo Array** | **16.34** | **20** | *e*Pn | | **P** | **11 48 35.0** | **-0.4** |
| **NVS** | **Novosibirsk** | **16.77** | **16** | *e*P | | **Pn** | **11 48 35.3** | **-2.6** |
| **AKTO** | **Aktyubinsk** | **16.81** | **319** | P | | **P** | **11 48 40.4** | **-0.3** |
| | comp=Z,0.3nm,0.3s,baz=113,slow=15,SNR=9.9 | | | | | | | |
| **AKTO** | **Aktyubinsk** | **16.81** | **319** | P | | **P** | **11 48 39.0** | **-1.6** |
| AKTO | | | | pmax | pmax | | | |
| | comp=Z,15nm,1.3s | | | | | | | |
| **HVS** | **Khovu-Aksy** | **17.73** | **41** | ⇓*e*P | | **P** | **11 48 52.1** | **+1.1** |
| HVS | | | | pmax | pmax | | | |
| | comp=Z,18nm,1.2s | | | | | | | |
| **GTA** | **Gaotai** | **18.95** | **81** | *e*P | | **Pn** | **11 49 04.6** | **-0.6** |
| GTA | | | | pP | | sP | 11 49 09.3 | +0.6 |
| GTA | | | | sP | | pP | 11 49 12.6 | +5.2 |
| GTA | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,1.1s | | | | | | | |
| **ARU** | **Arti** | **20.73** | **333** | P | | Pn | 11 49 25.6 | -0.4 |
| | comp=Z,5.2nm,0.7s,baz=182,slow=1.1,SNR=8.4 | | | | | | | |
| ARU | | | | LR | | LR | 11 58 49.7 | |
| | comp=Z,271nm,19.4s,baz=259,slow=40 | | | | | | | |
| **ARU** | **Arti** | **20.73** | **333** | *d i* P | | Pn | 11 49 27.2 | +1.2 |
| ARU | | | | S | | Sn | 11 53 21.2 | +1.4 |
| ARU | | | | SS | | **SnSn** | **11 53 38.7** | **+4.2** |
| ARU | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,0.8s | | | | | | | |
| **ARU** | **Arti** | **20.73** | **333** | *e*P | | Pn | 11 49 26.4 | +0.4 |
| | comp=Z,6.6nm,0.6s | | | | | | | |
| **WSAR** | **Wadi Sarin** | **21.16** | **227** | P | | **P** | **11 49 27.5** | **-1.0** |
| | comp=Z,8.4nm,1.0s,baz=71,slow=11,SNR=4.6 | | | | | | | |
| **GROC** | **Groznyy** | **22.63** | **290** | *e*P | | **P** | **11 49 47.1** | **+3.0** |
| GROC | | | | *e* | | | 11 50 11.6 | |
| GROC | | | | *e*S | | Sn | 11 53 57.2 | -8.4 |
| GROC | | | | pmax | pmax | | | |
| | comp=Z,75nm,1.5s | | | | | | | |
| **LZH** | **Lanzhou** | **22.73** | **88** | *e*P | | **P** | **11 49 46.1** | **+0.6** |
| LZH | | | | pP | | sP | 11 49 50.8 | +1.2 |
| LZH | | | | sP | | pP | 11 49 53.4 | +5.1 |
| LZH | | | | PP | | **PnPn** | **11 50 14.3** | **+5.0** |
| LZH | | | | pmax | pmax | | | |
| | comp=Z,15nm,1.2s | | | | | | | |
| LZH | | | | pmax | pmax | | | |
| | comp=Z,310nm,5.2s | | | | | | | |
| LZH | | | | LR | LR | | | |
| | comp=Z,200nm,11.8s | | | | | | | |
| LZH | | | | LR | LR | | | |
| | comp=Z,240nm,13.5s | | | | | | | |
| **ZAK** | **Zakamensk** | **22.78** | **51** | *e*P | | **P** | **11 49 39.3** | **-6.4** |
| ZAK | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,1.2s | | | | | | | |
| **GNI** | **Garni** | **23.59** | **283** | P | | **P** | **11 49 57.0** | **+2.8** |
| | comp=Z,6.0nm,0.5s,baz=338,slow=5.4,SNR=4.9 | | | | | | | |
| **GNI** | **Garni** | **23.59** | **283** | ⇓*e*P | | **P** | **11 49 58.6** | **+4.4** |
| GNI | | | | pmax | pmax | | | |
| | comp=Z,67nm,1.4s | | | | | | | |
| **SONA0** | **Songino Array** | **24.11** | **58** | *e*P | | **P** | **11 49 59.9** | **+0.9** |
| **SONM** | **Songino Array** | **24.11** | **58** | P | | **P** | **11 49 59.9** | **+0.9** |
| | comp=Z,2.4nm,0.8s,baz=257,slow=10,SNR=14 | | | | | | | |
| **SONA1** | **Songino Array** | **24.11** | **58** | *e*P | | **P** | **11 49 59.9** | **+0.8** |
| **KBZ** | **Khabaz** | **24.75** | **292** | P | | **P** | **11 50 08.7** | **+4.5** |
| | comp=Z,1.4nm,0.9s,baz=115,slow=14,SNR=2.4 | | | | | | | |
| **NEY** | **Neytrino** | **24.88** | **290** | ⇓*e*P | | **P** | **11 50 10.6** | **+4.5** |
| NEY | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.8s | | | | | | | |
| **KIV** | **Kislovodsk** | **24.90** | **292** | *e*P | | **P** | **11 50 09.4** | **+3.2** |
| KIV | | | | pmax | pmax | | | |
| | comp=Z,8.0nm,1.1s | | | | | | | |
| **ARTV** | **Artvin** | **25.60** | **286** | *e*P | | **P** | **11 50 16.6** | **+3.8** |
| | comp=Z,9.7nm,1.6s | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **27.72** | **74** | *e*P | | **P** | **11 50 33.9** | **+2.2** |
| HHC | | | | S | | **S** | **11 55 12.8** | **-1.3** |
| HHC | | | | SS | | **SnSn** | **11 56 30.3** | **+4.5** |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,14nm,1.1s | | | | | | | |
| HHC | | | | LR | LR | | | |
| | comp=Z,280nm,14.7s | | | | | | | |
| HHC | | | | LR | LR | | | |
| | comp=Z,170nm,15.7s | | | | | | | |
| **OBN** | **Obninsk** | **30.51** | **315** | LR | | LR | 12 04 25.0 | |
| | comp=Z,958nm,20.8s,baz=240,slow=38 | | | | | | | |
| **OBN** | **Obninsk** | **30.51** | **315** | *e*P | | **P** | **11 50 57.7** | **+1.6** |
| OBN | | | | *e* | | | 11 52 01.2 | |
| OBN | | | | pmax | pmax | | | |
| | comp=Z,5.0nm,1.0s | | | | | | | |
| **ILGA** | **Ilgaz** | **31.76** | **287** | *e*P | | P | 11 51 10.2 | +2.6 |
| | comp=Z,12nm,1.2s | | | | | | | |
| **BR101** | **Keskin Array S** | **32.07** | **285** | *e*P | | **P** | **11 51 12.6** | **+2.3** |
| **BRTR** | **Keskin Array B** | **32.07** | **285** | P | | **P** | **11 51 12.6** | **+2.3** |
| | comp=Z,2.9nm,0.8s,baz=91,slow=7.4,SNR=10 | | | | | | | |
| **BR231** | **Keskin MP Arra** | **32.70** | **285** | *e*P | | **P** | **11 51 14.2** | **-1.6** |
| **AKASG** | **Malin Array Be** | **34.23** | **305** | P | | **P** | **11 51 30.6** | **+1.7** |
| | comp=Z,0.2nm,0.3s,baz=76,slow=7.8,SNR=4.5 | | | | | | | |
| **AKBB** | **Malin Array Si** | **34.23** | **305** | *e*P | | **P** | **11 51 30.6** | **+1.7** |
| AKBB | | | | pmax | pmax | | | |
| | comp=Z,29nm,2.0s | | | | | | | |
| **AKBB** | **Malin Array Si** | **34.23** | **305** | *e*P | | **P** | **11 51 30.6** | **+1.7** |
| | comp=Z,29nm,2.0s | | | | | | | |
| **QIZ** | **Qiongzhong** | **35.81** | **114** | P | | **P** | **11 51 43.9** | **+1.1** |
| QIZ | | | | S | | **S** | **11 57 20.3** | **0.0** |
| QIZ | | | | pmax | pmax | | | |
| | comp=Z,26nm,2.3s | | | | | | | |
| **CN2** | **Changchun** | **37.43** | **66** | *e*P | | **P** | **11 51 58.5** | **+2.1** |
| CN2 | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.5s | | | | | | | |
| **FIA0** | **FINESS Array S** | **37.49** | **323** | *e*P | | **P** | **11 51 57.8** | **+1.1** |
| **FIA0** | **FINESS Array S** | **37.49** | **323** | *e*P | | **P** | **11 51 57.8** | **+1.1** |
| **FINES** | **FINESS Array B** | **37.49** | **323** | *i* P | | **P** | **11 51 57.8** | **+1.1** |
| | comp=Z,4.6nm,0.9s,baz=118,slow=10.0,SNR=16 | | | | | | | |
| **FINES** | **FINESS Array B** | **37.49** | **323** | *i* P | | **P** | **11 51 59.5** | **+2.8** |
| FINES | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.4s | | | | | | | |
| **YAK** | **Yakutsk** | **39.96** | **37** | ⇑*e*P | | **P** | **11 52 17.8** | **+0.5** |
| YAK | | | | pmax | pmax | | | |
| | comp=Z,8.0nm,1.0s | | | | | | | |
| **ARA0** | **ARCESS Array S** | **40.29** | **335** | *e*P | | **P** | **11 52 19.9** | **-0.2** |
| **ARCES** | **ARCESS Array B** | **40.29** | **335** | P | | **P** | **11 52 19.9** | **-0.2** |
| | comp=Z,2.5nm,0.7s,baz=106,slow=8.9,SNR=6.9 | | | | | | | |
| **TIXI** | **Tiksi** | **42.21** | **22** | ⇑*i* P | | **P** | **11 52 36.2** | **+0.4** |
| TIXI | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,1.0s | | | | | | | |
| **TIXI** | **Tiksi** | **42.21** | **22** | *e*P | | **P** | **11 52 36.6** | **+0.8** |
| | comp=Z,3.9nm,0.9s | | | | | | | |
| **GERES** | **GERESS Array B** | **44.40** | **304** | P | | **P** | **11 52 56.2** | **+2.3** |
| | comp=Z,0.3nm,0.3s,baz=60,slow=8.1,SNR=5.9 | | | | | | | |
| **GERES** | **GERESS Array B** | **44.40** | **304** | P | | **P** | **11 52 56.2** | **+2.3** |
| GERES | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.9s | | | | | | | |
| **NB2** | **NORSAR Subarra** | **44.57** | **321** | P | | **P** | **11 52 56.7** | **+1.7** |
| | comp=Z,2.4nm,0.6s,baz=89,slow=7.9 | | | | | | | |
| **NB200** | **NORSAR Array S** | **44.57** | **321** | *e*P | | **P** | **11 52 57.1** | **+2.1** |
| **NOA** | **NORSAR Array B** | **44.57** | **321** | P | | **P** | **11 52 57.1** | **+2.1** |
| | comp=Z,4.4nm,0.8s,baz=90,slow=8.0,SNR=8.4 | | | | | | | |
| **NOA** | **NORSAR Array B** | **44.57** | **321** | P | | **P** | **11 52 57.1** | **+2.1** |
| NOA | | | | pmax | pmax | | | |
| | comp=Z,5.0nm,0.8s | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **48.88** | **72** | P | | **P** | **11 53 29.0** | **0.0** |
| | comp=Z,1.2nm,0.6s,baz=287,slow=8.8,SNR=3.4 | | | | | | | |
| **ESDC** | **Sonseca Array** | **59.37** | **298** | P | | **P** | **11 54 46.5** | **+0.9** |
| | comp=Z,0.8nm,0.6s,baz=46,slow=7.0,SNR=4.6 | | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **69.20** | **270** | *e*P | | **P** | **11 55 49.5** | **-0.9** |
| **TORD** | **Torodi Ar. Bea** | **69.20** | **270** | P | | **P** | **11 55 49.5** | **-0.9** |
| | comp=Z,1.7nm,0.5s,baz=50,slow=5.4,SNR=16 | | | | | | | |
| **INK** | **Inuvik** | **70.90** | **11** | P | | **P** | **11 56 00.5** | **+0.6** |
| | comp=Z,3.0nm,0.8s,baz=347,slow=6.7,SNR=14 | | | | | | | |
| **INK** | **Inuvik** | **70.90** | **11** | *e*P | | **P** | **11 56 00.5** | **+0.6** |
| | comp=Z,4.9nm,1.0s | | | | | | | |
| **ILAR** | **Eielson Array** | **71.45** | **18** | P | | **P** | **11 56 03.5** | **+0.1** |
| | comp=Z,1.3nm,0.8s,baz=315,slow=5.8,SNR=14 | | | | | | | |
| **ILB** | **Eielson Array** | **71.45** | **18** | *e*P | | **P** | **11 56 03.5** | **+0.1** |
| **YKA** | **Yellowknife Ar** | **78.59** | **5** | P | | **P** | **11 56 44.5** | **-0.1** |
| | comp=Z,1.1nm,0.7s,baz=346,slow=5.4,SNR=20 | | | | | | | |
| **WR1** | **Warramunga Arr** | **80.45** | **125** | *e*P | | **P** | **11 56 53.0** | **-2.2** |
| | comp=Z,15nm,1.6s | | | | | | | |
| **WRA** | **Warramunga Arr** | **80.45** | **125** | P | | **P** | **11 56 53.0** | **-2.2** |
| | comp=Z,0.6nm,0.7s,baz=326,slow=5.2,SNR=6.4 | | | | | | | |
| **WRA** | **Warramunga Arr** | **80.45** | **125** | *i* P | | **P** | **11 56 57.2** | **+1.9** |
| WRA | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.7s | | | | | | | |
| **ASAR** | **Alice Springs** | **82.92** | **128** | P | | **P** | **11 57 05.6** | **-2.6** |
| | comp=Z,0.6nm,0.8s,baz=316,slow=5.2,SNR=4.2 | | | | | | | |

**JMA 15 11:47:36.8, 37.72N×139.97E, h9km±1km, M1.2, Eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JFY** | **Yanaizu** | **0.38** | **214** | S | Sg | 11 47 49.6 | +0.4 |

**IDC 15 12:00:03.3±2.9, 54.34N×86.92E, h0km, mb1 3.0/2, mb1mx2.8/43, mbtmp3.0/2, ML2.6/2, Error ellipse: s-maj=26.2km s-min=16.8km az=53.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **I46RU** | **ZALESOVO INFRA** | **1.30** | **254** | *i* | | 12 07 08.8 | |
| | baz=73,slow=349,SNR=1.2 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **1.30** | **253** | Pg | Pg | 12 00 26.3 | -1.8 |
| | 2.8nm,0.3s,baz=74,slow=17,SNR=24 | | | | | | |
| ZALV | | | | Lg | Lg | 12 00 44.5 | |
| | 1.2nm,0.3s,baz=73,slow=26,SNR=11 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **6.33** | **237** | Pn | Pn | 12 01 38.8 | +1.0 |
| | 0.1nm,0.3s,baz=54,slow=14,SNR=8.2 | | | | | | |
| KURBB | | | | Lg | Lg | 12 03 27.8 | |
| | 0.0nm,0.3s,baz=60,slow=32,SNR=3.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **8.10** | **203** | Pn | Pn | 12 02 03.4 | +1.2 |
| | 0.1nm,0.3s,baz=26,slow=14,SNR=8.5 | | | | | | |

**JMA 15 12:04:07.8, 36.32N×137.66E, h5km±1km, M2.0, Eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JGN** | **Niukaw** | **0.29** | **251** | P | Pg | 12 04 13.7 | +0.1 |
| JGN | | | | S | Sg | 12 04 17.7 | +0.2 |
| **JNG** | **Nsakai** | **0.37** | **76** | P | Pg | 12 04 15.2 | +0.3 |
| JNG | | | | S | Sg | 12 04 20.2 | +0.5 |
| **JTT** | **Ttatey** | **0.39** | **317** | P | Pb | 12 04 16.5 | -0.7 |
| **MAT** | **Matsushiro** | **0.49** | **63** | P | Pg | 12 04 17.4 | +0.1 |
| MAT | | | | S | Sg | 12 04 23.9 | +0.1 |
| **MAT** | **Matsushiro** | **0.49** | **63** | P | Pg | 12 04 17.4 | +0.1 |
| MAT | | | | S | Sg | 12 04 23.9 | +0.1 |
| **JNT** | **Takato** | **0.59** | **139** | P | Pg | 12 04 19.2 | +0.1 |
| JNT | | | | S | Sg | 12 04 26.8 | 0.0 |

*IDC* ***15*** *12:27:47.5±10.0, 16.94S×179.20W, h455km±118km, mb3.1/6, mb1 3.4/6, mb1mx3.1/34, mbtmp3.9/6, Error ellipse: s-maj=86.3km s-min=36.9km az=156.0*
*ISCJB* ***15*** *12:27:53.2±1.4, 17.0S±0.6×179.4W±0.4, h533km, mb3.5/6, Error ellipse: s-maj=90.1km s-min=18.8km az=149.3*

**ISC 15 12:27:54.0±1.5, 17.0S±0.6×179.3W±0.4, h533km, n8, σ0s53/8, mb3.4/6, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **STKA** | **Stephens Creek** | **38.28** | **240** | P | **P** | **12 34 28.7** | **-0.2** |
| | 1.0nm,0.4s,baz=81,slow=12,SNR=6.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.92** | **259** | P | **P** | **12 35 13.8** | **-0.1** |
| | 0.5nm,0.6s,baz=97,slow=7.0,SNR=10.0 | | | | | | |
| **ASAR** | **Alice Springs** | **44.18** | **253** | P | **P** | **12 35 16.1** | **+0.2** |
| | 4.7nm,0.5s,baz=90,slow=7.9,SNR=174 | | | | | | |
| **ILAR** | **Eielson Array** | **85.25** | **13** | P | **P** | **12 39 33.6** | **-0.2** |
| | 0.4nm,0.4s,baz=224,slow=5.4,SNR=12 | | | | | | |
| **TXAR** | **Lajitas Array** | **86.29** | **58** | P | **P** | **12 39 40.0** | **+0.3** |
| | 0.4nm,0.7s,baz=220,slow=5.4,SNR=4.7 | | | | | | |
| **PDAR** | **Pinedale Array** | **87.34** | **44** | P | **P** | **12 39 44.1** | **-0.4** |
| | 0.4nm,0.6s,baz=224,slow=4.9,SNR=4.3 | | | | | | |
| **BRTR** | **Keskin Array B** | **143.55** | **315** | PKP | **PKPdf** | **12 46 28.3** | **-0.2** |
| | 0.4nm,0.6s,baz=108,slow=3.2,SNR=2.5 | | | | | | |
| **GERES** | **GERESS Array B** | **146.55** | **344** | PKPbc | **PKPbc** | **12 46 36.7** | **+1.0** |
| | 0.7nm,0.6s,baz=37,slow=6.7,SNR=3.1 | | | | | | |

*IDC* ***15*** *12:39:57.2±0.8, 37.62N×142.58E, h0km, mb3.6/8, mb1 3.8/11, mb1mx3.7/36, mbtmp3.6/11, ML3.6/3, Error ellipse: s-maj=24.4km s-min=16.1km az=123.0*
*JMA* ***15*** *12:40:00.1±0.2, 37.74N×142.30E, h37km±4km, M4.0*

**ISC 15 12:39:58.0±2.0, 37.73N±0.05×142.31E±0.07, h5km±11km, n28, σ1s55/30, mb3.6/8, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JIO** | **Ouri** | **1.04** | **314** | P | **Pg** | **12 40 18.7** | **+0.7** |
| JIO | | | | S | **Sg** | **12 40 31.4** | **-0.2** |
| **JFK** | **Kawauchi** | **1.20** | **253** | P | **Pg** | **12 40 20.7** | **-0.2** |
| JFK | | | | S | **Sg** | **12 40 35.5** | **-0.9** |
| **JMM** | **Marumori** | **1.21** | **277** | P | **Pg** | **12 40 20.9** | **-0.2** |
| JMM | | | | S | **Sg** | **12 40 35.8** | **-1.0** |
| **JOU** | **Okura** | **1.44** | **296** | P | **Pn** | **12 40 24.9** | **+0.1** |
| JOU | | | | *e*S | **Sn** | **12 40 42.4** | **-1.7** |
| **JMK** | **Ichinoseki** | **1.49** | **325** | P | **Pn** | **12 40 25.3** | **-0.1** |
| JMK | | | | *e*S | **Sn** | **12 40 43.1** | **-2.1** |
| **JFT** | **Otama** | **1.58** | **263** | P | **Pn** | **12 40 27.2** | **+0.5** |
| JFT | | | | *e*S | **Sn** | **12 40 46.5** | **-1.0** |
| **JOM** | **Ohasama** | **1.91** | **336** | P | **Pn** | **12 40 31.2** | **0.0** |
| **JYK** | **Kaneyama** | **1.94** | **308** | P | **Pn** | **12 40 32.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 3.3nm,0.8s,baz=157,slow=8.6,SNR=7.1 | | | | | | | |
| **BDFB** | **Brasilia** | **42.46** | **331** | P | **P** | **12 56 11.6** | **+1.4** | |
| | 2.1nm,0.4s,baz=309,slow=6.5,SNR=2.7 | | | | | | | |
| **BOSA** | **Boshof** | **46.29** | **77** | P | **P** | **12 56 40.3** | **-0.4** | |
| | 2.1nm,0.7s,baz=212,slow=9.5,SNR=2.7 | | | | | | | |
| **VNDA** | **Vanda** | **47.29** | **183** | P | **P** | **12 56 47.9** | **0.0** | |
| | 1.9nm,0.8s,baz=184,slow=4.5,SNR=7.1 | | | | | | | |
| **LPAZ** | **La Paz** | **49.53** | **306** | P | **P** | **12 57 06.5** | **0.0** | |
| | 2.4nm,0.7s,baz=183,slow=7.8,SNR=11 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **72.66** | **30** | P | **P** | **12 59 42.2** | **-0.3** | |
| | 2.9nm,0.7s,baz=196,slow=6.1,SNR=16 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **135.28** | **319** | PKP | **PKPdf** | **13 07 32.3** | **-0.7** | |
| | 0.6nm,0.8s,baz=127,slow=2.1,SNR=9.5 | | | | | | | |
| **MKAR** | **Makanchi Array** | **137.13** | **71** | PKP | **PKPdf** | **13 07 38.9** | **+1.8** | |
| | 0.7nm,1.0s,baz=253,slow=2.4,SNR=2.6 | | | | | | | |
| **ILAR** | **Eielson Array** | **149.24** | **313** | PKPbc | **PKPbc** | **13 08 01.8** | **-0.2** | |
| | 6.2nm,0.8s,baz=130,slow=2.2,SNR=65 | | | | | | | |
| **SONM** | **Songino Array** | **151.18** | **86** | PKPbc | **PKPbc** | **13 08 06.8** | **-0.5** | |
| | 1.8nm,1.0s,baz=223,slow=2.5,SNR=8.3 | | | | | | | |

**WEL 15 12:49:44.3±0.1, 39°.24S×177°.18E, h30km±1km, ML3.6/71, 7C-16D, Error ellipse: s-maj=1.1km s-min=0.8km az=90.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ARHZ** | **Aropaoanui** | **0.14** | **261** | P* | Pb | 12 49 49.6 | -0.3 |
| ARHZ | | | | AML | AML | 12 49 54.7 | |
| ARHZ | | | | AML | AML | 12 49 55.7 | |
| **WHHZ** | **Waihua** | **0.17** | **15** | ⇓P* | Pb | 12 49 49.8 | -0.4 |
| WHHZ | | | | S* | Sb | 12 49 55.0 | +0.9 |
| WHHZ | | | | AML | AML | 12 49 56.8 | |
| **NMHZ** | **Naumai** | **0.32** | **296** | ⇑P* | Pb | 12 49 51.3 | -0.8 |
| NMHZ | | | | AML | AML | 12 49 57.8 | |
| NMHZ | | | | AML | AML | 12 49 58.0 | |
| **CKHZ** | **Cape Kidnapper** | **0.42** | **191** | ⇓P* | Pn | 12 49 54.6 | +0.1 |
| CKHZ | | | | S* | Sn | 12 50 02.8 | +1.5 |
| CKHZ | | | | AML | AML | 12 50 03.9 | |
| **MCHZ** | **McNeill Hill** | **0.42** | **241** | ⇓P* | Pb | 12 49 53.8 | +0.3 |
| MCHZ | | | | AML | AML | 12 50 04.3 | |
| MCHZ | | | | AML | AML | 12 50 04.9 | |
| **KNZ** | **Kokohu** | **0.44** | **60** | ⇓P* | Pb | 12 49 54.0 | +0.2 |
| KNZ | | | | AML | AML | 12 50 04.9 | |
| KNZ | | | | AML | AML | 12 50 05.3 | |
| **MTHZ** | **Maungataniwha** | **0.47** | **326** | ⇑P* | Pb | 12 49 53.0 | -1.2 |
| MTHZ | | | | S* | Sb | 12 50 00.4 | -0.7 |
| **SNGZ** | **Shannon Statio** | **0.48** | **15** | ⇑P* | Pb | 12 49 54.1 | -0.3 |
| SNGZ | | | | S* | Sn | 12 50 02.2 | -0.3 |
| SNGZ | | | | AML | AML | 12 50 03.5 | |
| **BKZ** | **Black Stump Fm** | **0.54** | **278** | ⇑P* | Pb | 12 49 54.5 | -0.9 |
| BKZ | | | | AML | AML | 12 50 03.1 | |
| BKZ | | | | AML | AML | 12 50 03.5 | |
| **MHGZ** | **Mahia Peninsul** | **0.57** | **81** | ⇑P* | Pn | 12 49 56.4 | -0.1 |
| MHGZ | | | | AML | AML | 12 50 13.1 | |
| MHGZ | | | | AML | AML | 12 50 16.8 | |
| **KAHZ** | **Kahuranaki** | **0.60** | **203** | ⇓P* | Pn | 12 49 57.2 | +0.3 |
| KAHZ | | | | S* | Sn | 12 50 06.8 | +1.2 |
| KAHZ | | | | AML | AML | 12 50 07.2 | |
| **KWHZ** | **Kaweka Forest** | **0.61** | **253** | P* | Pb | 12 49 56.2 | -0.4 |
| KWHZ | | | | AML | AML | 12 50 08.0 | |
| KWHZ | | | | AML | AML | 12 50 09.4 | |
| **PRGZ** | **Paritu Road** | **0.63** | **60** | P* | Pb | 12 49 56.9 | -0.1 |
| PRGZ | | | | AML | AML | 12 50 08.9 | |
| PRGZ | | | | AML | AML | 12 50 11.7 | |
| **RIGZ** | **Rimuhau** | **0.70** | **41** | PN | Pb | 12 49 57.8 | -0.3 |
| RIGZ | | | | SN | Sn | 12 50 09.3 | +1.1 |
| RIGZ | | | | AML | AML | 12 50 11.5 | |
| **MRHZ** | **Matea Rd** | **0.72** | **304** | ⇑PN | Pb | 12 49 57.2 | -1.1 |
| MRHZ | | | | AML | AML | 12 50 10.4 | |
| MRHZ | | | | AML | AML | 12 50 10.6 | |
| **KRHZ** | **Kereru** | **0.74** | **237** | ⇓PN | Pb | 12 49 58.3 | -0.5 |
| KRHZ | | | | SN | Sn | 12 50 10.2 | +1.0 |
| KRHZ | | | | AML | AML | 12 50 12.1 | |
| **RAGZ** | **Rawiri** | **0.77** | **14** | PN | Pb | 12 49 58.5 | -0.7 |
| RAGZ | | | | AML | AML | 12 50 11.9 | |
| RAGZ | | | | AML | AML | 12 50 12.8 | |
| **PXZ** | **Pawanui** | **0.82** | **197** | ⇓PN | Pn | 12 49 59.3 | -0.7 |
| PXZ | | | | AML | AML | 12 50 16.8 | |
| PXZ | | | | AML | AML | 12 50 16.8 | |
| PXZ | | | | AML | AML | 12 50 20.3 | |
| PXZ | | | | AML | AML | 12 50 20.3 | |
| **MUGZ** | **Murupara** | **0.83** | **337** | ⇑PN | Pn | 12 49 58.8 | -1.2 |
| **BHHZ** | **Black Hill Sta** | **0.90** | **254** | ⇓PN | Pn | 12 50 00.5 | -0.6 |
| BHHZ | | | | SN | Sn | 12 50 12.8 | -0.2 |
| BHHZ | | | | AML | AML | 12 50 14.2 | |
| **HATZ** | **Hinemaiaia** | **0.92** | **292** | PN | Pn | 12 50 00.6 | -0.6 |
| HATZ | | | | SN | Sb | 12 50 13.7 | +0.2 |
| HATZ | | | | AML | AML | 12 50 14.8 | |
| **ALRZ** | **Allen Road** | **0.94** | **316** | PN | Pn | 12 50 00.9 | -0.7 |
| ALRZ | | | | AML | AML | 12 50 16.5 | |
| ALRZ | | | | AML | AML | 12 50 16.6 | |
| **MWZ** | **Matawai** | **0.95** | **17** | ⇓PN | Pn | 12 50 00.9 | -0.7 |
| MWZ | | | | AML | AML | 12 50 16.1 | |
| MWZ | | | | AML | AML | 12 50 18.0 | |
| **TKGZ** | **Te Karaka** | **0.96** | **33** | PN | Pn | 12 50 01.0 | -0.7 |
| TKGZ | | | | AML | AML | 12 50 22.9 | |
| TKGZ | | | | AML | AML | 12 50 23.2 | |
| **PRRZ** | **Plateau Road** | **0.96** | **320** | PN | Pn | 12 50 01.3 | -0.6 |
| PRRZ | | | | AML | AML | 12 50 16.8 | |
| PRRZ | | | | AML | AML | 12 50 16.9 | |
| **URZ** | **Urewera** | **0.98** | **357** | PN | Pn | 12 50 01.3 | -0.8 |
| URZ | | | | AML | AML | 12 50 16.3 | |
| URZ | | | | AML | AML | 12 50 16.5 | |
| **WPHZ** | **Waipukurau** | **1.00** | **215** | ⇓PN | Pn | 12 50 01.8 | -0.6 |
| WPHZ | | | | AML | AML | 12 50 30.3 | |
| WPHZ | | | | AML | AML | 12 50 35.6 | |
| **PNHZ** | **Pukenui** | **1.01** | **228** | ⇓PN | Pn | 12 50 01.9 | -0.7 |
| PNHZ | | | | AML | AML | 12 50 23.6 | |
| PNHZ | | | | AML | AML | 12 50 33.8 | |
| **RRRZ** | **Republican Roa** | **1.04** | **330** | PN | Pn | 12 50 01.9 | -1.0 |
| RRRZ | | | | AML | AML | 12 50 22.0 | |
| RRRZ | | | | AML | AML | 12 50 28.3 | |
| **RITZ** | **Rihia Road** | **1.06** | **284** | ⇓PN | Pn | 12 50 03.2 | 0.0 |
| RITZ | | | | AML | AML | 12 50 23.9 | |
| RITZ | | | | AML | AML | 12 50 28.9 | |
| **WPRZ** | **Whakapapatarin** | **1.07** | **312** | ⇓PN | Pn | 12 50 02.6 | -0.7 |
| WPRZ | | | | AML | AML | 12 50 21.7 | |
| WPRZ | | | | AML | AML | 12 50 26.4 | |
| **HRRZ** | **Handcock Road** | **1.10** | **320** | PN | Pn | 12 50 03.0 | -0.7 |
| HRRZ | | | | AML | AML | 12 50 11.0 | |
| HRRZ | | | | AML | AML | 12 50 23.3 | |
| **CNGZ** | **Carnagh Statio** | **1.10** | **47** | *e*PN | Pn | 12 50 02.8 | -0.9 |
| CNGZ | | | | AML | AML | 12 50 38.9 | |
| CNGZ | | | | AML | AML | 12 50 42.9 | |
| **PRHZ** | **Porangahau** | **1.11** | **202** | PN | Pn | 12 50 02.7 | -1.1 |
| PRHZ | | | | AML | AML | 12 50 27.8 | |
| PRHZ | | | | AML | AML | 12 50 38.0 | |
| **WHTZ** | **Whakaora** | **1.11** | **301** | PN | Pn | 12 50 03.6 | -0.4 |
| **MOVZ** | **Moawhango** | **1.12** | **261** | PN | Pn | 12 50 04.1 | 0.0 |
| MOVZ | | | | AML | AML | 12 50 20.4 | |
| MOVZ | | | | AML | AML | 12 50 20.9 | |
| **TARZ** | **Mount Tarawera** | **1.13** | **332** | PN | Pn | 12 50 03.5 | -0.8 |
| TARZ | | | | AML | AML | 12 50 23.0 | |
| TARZ | | | | AML | AML | 12 50 23.9 | |
| **RATZ** | **Rangitukua** | **1.16** | **288** | PN | Pn | 12 50 04.2 | -0.4 |
| RATZ | | | | AML | AML | 12 50 25.9 | |
| RATZ | | | | AML | AML | 12 50 32.4 | |
| **OTVZ** | **Oturere** | **1.18** | **273** | PN | Pn | 12 50 04.5 | -0.5 |
| OTVZ | | | | AML | AML | 12 50 22.0 | |
| OTVZ | | | | AML | AML | 12 50 24.1 | |
| **HLRZ** | **Highlands Stat** | **1.18** | **327** | PN | Pn | 12 50 04.7 | -0.2 |
| HLRZ | | | | AML | AML | 12 50 24.4 | |
| HLRZ | | | | AML | AML | 12 50 30.3 | |
| **HSRZ** | **Hossack Road** | **1.18** | **322** | PN | Pn | 12 50 04.1 | -0.7 |
| HSRZ | | | | AML | AML | 12 50 08.0 | |
| HSRZ | | | | AML | AML | 12 50 29.3 | |
| **TUVZ** | **Tukino** | **1.18** | **268** | PN | Pn | 12 50 04.9 | -0.1 |
| TUVZ | | | | AML | AML | 12 50 25.3 | |
| TUVZ | | | | AML | AML | 12 50 28.4 | |
| **EDRZ** | **Edgecumbe** | **1.19** | **343** | PN | Pn | 12 50 03.9 | -1.0 |
| EDRZ | | | | AML | AML | 12 50 30.8 | |
| EDRZ | | | | AML | AML | 12 50 33.3 | |
| **KATZ** | **Kakaramea** | **1.19** | **283** | PN | Pn | 12 50 04.8 | -0.3 |
| KATZ | | | | AML | AML | 12 50 23.4 | |
| KATZ | | | | AML | AML | 12 50 26.8 | |
| **KRVZ** | **Karewarewa** | **1.21** | **277** | PN | Pn | 12 50 05.0 | -0.3 |
| KRVZ | | | | AML | AML | 12 50 25.0 | |
| KRVZ | | | | AML | AML | 12 50 26.1 | |
| **NGZ** | **Ngauruhoe** | **1.23** | **273** | PN | Pn | 12 50 05.5 | -0.1 |
| NGZ | | | | SN | Sb | 12 50 22.4 | -0.1 |
| NGZ | | | | AML | AML | 12 50 27.8 | |
| **WNVZ** | **Wahianoa** | **1.23** | **266** | ⇓PN | Pn | 12 50 05.5 | -0.2 |
| **MKRZ** | **Makatiti** | **1.23** | **333** | AML | AML | 12 50 11.0 | |
| MKRZ | | | | AML | AML | 12 50 11.2 | |
| **TWGZ** | **Tauwhareparae** | **1.23** | **31** | PN | Pn | 12 50 05.1 | -0.5 |
| TWGZ | | | | AML | AML | 12 50 32.6 | |
| TWGZ | | | | AML | AML | 12 50 32.9 | |
| **WTVZ** | **West Tongariro** | **1.24** | **275** | PN | Pn | 12 50 05.7 | -0.1 |
| WTVZ | | | | AML | AML | 12 50 30.5 | |
| WTVZ | | | | AML | AML | 12 50 34.0 | |
| **TSZ** | **Takapari Road** | **1.25** | **229** | PN | Pn | 12 50 04.7 | -1.1 |
| TSZ | | | | AML | AML | 12 50 28.0 | |
| TSZ | | | | AML | AML | 12 50 32.3 | |
| **DRZ** | **Dome Shelter** | **1.25** | **268** | PN | Pn | 12 50 05.7 | -0.4 |
| **TRVZ** | **Turoa** | **1.27** | **267** | PN | Pn | 12 50 05.9 | -0.3 |
| TRVZ | | | | AML | AML | 12 50 24.7 | |
| TRVZ | | | | AML | AML | 12 50 25.4 | |
| **KUTZ** | **Kaahu Road** | **1.30** | **305** | PN | Pn | 12 50 05.6 | -0.8 |
| KUTZ | | | | AML | AML | 12 50 24.0 | |
| KUTZ | | | | AML | AML | 12 50 25.4 | |
| **DVHZ** | **Dannevirke** | **1.31** | **216** | PN | Pn | 12 50 05.3 | -1.3 |
| DVHZ | | | | AML | AML | 12 50 25.0 | |
| DVHZ | | | | AML | AML | 12 50 44.6 | |
| **ANWZ** | **Angora Road** | **1.33** | **204** | PN | Pn | 12 50 05.7 | -1.2 |
| ANWZ | | | | AML | AML | 12 50 35.6 | |
| ANWZ | | | | AML | AML | 12 50 45.2 | |
| **MTVZ** | **Mangateitei** | **1.33** | **263** | AML | AML | 12 50 31.0 | |
| MTVZ | | | | AML | AML | 12 50 34.2 | |
| **RUGZ** | **Raukumara Rang** | **1.33** | **17** | PN | Pn | 12 50 06.5 | -0.6 |
| **TWVZ** | **Taurewa** | **1.36** | **277** | PN | Pn | 12 50 06.8 | -0.6 |
| TWVZ | | | | AML | AML | 12 50 26.0 | |
| **PKVZ** | **Pokaka** | **1.42** | **268** | PN | Pn | 12 50 06.8 | -0.2 |
| PKVZ | | | | AML | AML | 12 50 28.8 | |
| PKVZ | | | | AML | AML | 12 50 29.8 | |
| **PUZ** | **Puketiti** | **1.44** | **36** | *e*PN | Pn | 12 50 07.5 | -0.9 |
| PUZ | | | | AML | AML | 12 50 32.6 | |
| PUZ | | | | AML | AML | 12 50 56.4 | |
| **OPRZ** | **Ohinepanea** | **1.48** | **340** | PN | Pn | 12 50 07.4 | -1.5 |
| OPRZ | | | | AML | AML | 12 50 20.0 | |
| OPRZ | | | | AML | AML | 12 50 39.1 | |
| **PKGZ** | **Pakihiroa** | **1.52** | **28** | *e*PN | Pn | 12 50 08.6 | -1.0 |
| PKGZ | | | | AML | AML | 12 50 30.1 | |
| PKGZ | | | | AML | AML | 12 50 32.5 | |
| **HAZ** | **Te Kaha** | **1.56** | **18** | *e*PN | Pn | 12 50 09.2 | -0.8 |
| HAZ | | | | AML | AML | 12 50 31.3 | |
| HAZ | | | | AML | AML | 12 50 41.6 | |
| **POWZ** | **Post Office Ro** | **1.58** | **223** | PN | Pn | 12 50 09.1 | -1.2 |
| POWZ | | | | AML | AML | 12 50 49.8 | |
| POWZ | | | | AML | AML | 12 51 04.7 | |
| **BFZ** | **Birch Farm** | **1.61** | **206** | ⇓PN | Pn | 12 50 09.1 | -1.6 |
| BFZ | | | | AML | AML | 12 50 50.4 | |
| BFZ | | | | AML | AML | 12 50 50.4 | |
| **PRWZ** | **Pori Road** | **1.61** | **215** | PN | Pn | 12 50 09.6 | -1.1 |
| PRWZ | | | | AML | AML | 12 50 46.2 | |
| PRWZ | | | | AML | AML | 12 50 47.9 | |
| **WMGZ** | **Waiomatatini S** | **1.72** | **35** | PN | Pn | 12 50 11.7 | -0.5 |
| WMGZ | | | | SN | Sn | 12 50 33.2 | +0.1 |
| WMGZ | | | | AML | AML | 12 50 34.6 | |
| **WAZ** | **Wanganui** | **1.77** | **253** | *e*PN | Pn | 12 50 12.6 | -0.4 |
| WAZ | | | | AML | AML | 12 50 48.6 | |
| WAZ | | | | AML | AML | 12 50 52.9 | |
| **TIWZ** | **Tintock** | **1.83** | **213** | PN | Pn | 12 50 12.4 | -1.4 |
| TIWZ | | | | AML | AML | 12 50 39.7 | |
| TIWZ | | | | AML | AML | 12 51 07.8 | |
| **MRZ** | **Mangatainoka R** | **1.88** | **220** | ⇓PN | Pn | 12 50 12.6 | -1.8 |
| MRZ | | | | AML | AML | 12 50 37.8 | |
| MRZ | | | | AML | AML | 12 50 55.6 | |
| **VRZ** | **Vera Road** | **1.89** | **273** | *e*PN | Pn | 12 50 13.8 | -0.7 |
| VRZ | | | | AML | AML | 12 51 01.5 | |
| **HIZ** | **Hauiti** | **1.95** | **291** | PN | Pn | 12 50 14.8 | -0.7 |
| **HOWZ** | **Holdsworth Sta** | **2.09** | **217** | PN | Pn | 12 50 15.2 | -2.1 |
| **TMWZ** | **Te Maipa** | **2.11** | **208** | PN | Pn | 12 50 15.4 | -2.2 |
| TMWZ | | | | AML | AML | 12 50 42.2 | |
| **OGWZ** | **Otaki Gorge** | **2.20** | **224** | PN | Pn | 12 50 16.9 | -2.0 |
| OGWZ | | | | AML | AML | 12 50 45.9 | |
| OGWZ | | | | AML | AML | 12 51 00.5 | |
| **MTW** | **Mount Morrison** | **2.31** | **213** | PN | Pn | 12 50 17.8 | -2.5 |
| **PREZ** | **Palmer Road** | **2.35** | **267** | PN | Pn | 12 50 21.5 | +0.6 |
| PREZ | | | | AML | AML | 12 50 52.9 | |
| PREZ | | | | AML | AML | 12 50 53.7 | |
| **KIW** | **Kapiti Island** | **2.38** | **226** | *e*PN | Pn | 12 50 19.3 | -2.0 |
| **NEZ** | **North Egmont** | **2.39** | **268** | *e*PN | Pn | 12 50 22.7 | +1.1 |
| **CAW** | **Cannon Point** | **2.47** | **220** | PN | Pn | 12 50 19.9 | -2.6 |
| **PKE** | **Pukeiti** | **2.48** | **270** | PN | Pn | 12 50 23.6 | +0.9 |
| **PAWZ** | **Paruwai Farm** | **2.52** | **212** | PN | Pn | 12 50 21.0 | -2.3 |
| **PLWZ** | **Palliser** | **2.75** | **212** | PN | Pn | 12 50 23.7 | -2.8 |
| **DUWZ** | **D'Urville Isla** | **2.95** | **237** | PN | Pn | 12 50 27.1 | -2.0 |
| **TCW** | **Tory Channel** | **2.97** | **228** | PN | Pn | 12 50 27.0 | -2.4 |
| **TUWZ** | **Tuamarina** | **3.30** | **228** | PN | Pn | 12 50 30.7 | -3.2 |
| **MQZ** | **McQueen's Vall** | **5.61** | **216** | AML | AML | 12 52 03.5 | |
| **CTZ** | **Chatham Island** | **6.47** | **136** | *e*PN | Pn | 12 51 16.5 | -0.9 |
| **ODZ** | **Otahua Downs** | **7.56** | **218** | *e*PN | Pn | 12 51 27.4 | -5.1 |
| ODZ | | | | AML | AML | 12 52 50.9 | |

*ISK **15** 12:54:38.0, 38°.73N×43°.45E, h18km, ML2.4*
*ISCJB **15** 12:54:39.0±0.5, 38°.71N±0°.03×43°.49E±0°.05, h14km±4km, Error ellipse: s-maj=7.5km s-min=4.1km az=20.6*
*CSEM **15** 12:54:39.3±0.2, 38°.74N×43°.44E, h8km, ML3.5, Error ellipse: s-maj=5.1km s-min=2.7km az=107.0*
*DDA **15** 12:54:39.0, 38°.74N×43°.43E, h7km, Ml3.5*
**ISC 15 12:54:39.1±1.0, 38°.71N±0°.03×43°.49E±0°.03, h18km±4km, n23, σ0°86/38, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.14** | **213** | *e*PG | **Pg** | **12 54 43.6** | **+0.2** |
| **VANB** | **Van** | **0.14** | **213** | *e*Pg | **Pg** | **12 54 43.6** | **+0.2** |
| **TVAN** | **Van** | **0.19** | **199** | *i* P | **Pg** | **12 54 43.6** | **-0.6** |
| TVAN | | | | *i* S | **Sg** | **12 54 47.8** | **+0.2** |
| **TVAN** | **Van** | **0.19** | **199** | P | **Pg** | **12 54 43.6** | **-0.6** |
| TVAN | | | | S | **Sg** | **12 54 47.8** | **+0.2** |
| **VMUR** | **Van-Muradiye** | **0.28** | **14** | *i* P | **Pg** | **12 54 44.6** | **-1.0** |
| VMUR | | | | *i* S | **Sb** | **12 54 50.3** | **+0.1** |
| **VMUR** | **Van-Muradiye** | **0.28** | **14** | P | **Pg** | **12 54 44.6** | **-1.0** |
| VMUR | | | | S | **Sb** | **12 54 50.3** | **+0.1** |
| **GEVA** | **Gevas** | **0.52** | **220** | *i* P | **Pg** | **12 54 48.9** | **-0.7** |
| GEVA | | | | *i* S | **Sg** | **12 54 56.5** | **-0.2** |
| **GEVA** | **Gevas** | **0.52** | **220** | P | **Pg** | **12 54 48.9** | **-0.7** |
| GEVA | | | | S | **Sg** | **12 54 56.5** | **-0.2** |
| **CLDR** | **Caldiran** | **0.55** | **38** | *e*PG | **Pg** | **12 54 49.5** | **-0.7** |
| CLDR | | | | *e*SG | **Sg** | **12 54 57.8** | **+0.2** |
| **CLDR** | **Caldiran** | **0.55** | **38** | *i* P | **Pg** | **12 54 49.4** | **-0.7** |
| CLDR | | | | *i* S | **Sb** | **12 54 58.5** | **+0.6** |
| **CLDR** | **Caldiran** | **0.55** | **38** | *e*Pg | **Pg** | **12 54 49.5** | **-0.7** |
| CLDR | | | | *e*Sg | **Sg** | **12 54 57.8** | **+0.2** |
| CLDR | | | | S | **Sb** | **12 54 58.5** | **+0.6** |
| **BASK** | **Baskale_VAN** | **0.78** | **148** | *i* P | **Pg** | **12 54 52.6** | **-1.8** |
| **DYDN** | **Diyadin** | **0.84** | **11** | *i* P | **Pg** | **12 54 55.1** | **-0.5** |
| **DYDN** | **Diyadin** | **0.84** | **11** | P | **Pg** | **12 54 55.2** | **-0.5** |
| **TUTA** | **Tutak** | **0.86** | **323** | *i* P | **Pg** | **12 54 54.7** | **-1.3** |
| **TUTA** | **Tutak** | **0.86** | **323** | P | **Pg** | **12 54 54.7** | **-1.3** |
| **AGRB** | **Hanur-Agry** | **0.94** | **336** | *e*PG | **Pg** | **12 54 56.3** | **-1.2** |
| AGRB | | | | *e*SG | **Sb** | **12 55 09.6** | **+0.3** |
| **AGRB** | **Hanur-Agry** | **0.94** | **336** | *e*Pg | **Pg** | **12 54 56.3** | **-1.2** |
| AGRB | | | | *e*Sg | **Sb** | **12 55 09.6** | **+0.3** |
| **EKAR** | **Karacoban** | **1.23** | **297** | *i* P | **Pg** | **12 55 01.9** | **-1.1** |
| **EKAR** | **Karacoban** | **1.23** | **297** | P | **Pg** | **12 55 01.9** | **-1.1** |
| **EATA** | **Eleskirt** | **1.38** | **326** | *i* P | **Pn** | **12 55 04.1** | **+0.3** |
| EATA | | | | *i* S | **Sn** | **12 55 23.4** | **+1.6** |
| **EATA** | **Eleskirt** | **1.38** | **326** | P | **Pn** | **12 55 04.1** | **+0.3** |
| EATA | | | | S | **Sn** | **12 55 23.4** | **+1.6** |
| **HOMI** | **Horasan** | **1.81** | **318** | *i* P | **Pb** | **12 55 11.1** | **-0.7** |
| HOMI | | | | *i* S | **Sg** | **12 55 37.9** | **+0.4** |

*NIED **15** 13:05:00, 31°.70N×142°.00E, h5km, Mw5.3 Best double couple: M0 8.99000×10^16 NP1:φ186.00000°, δ44.00000°, λ76.00000°. NP2:φ25.00000°, δ47.00000°, λ103.00000°.*
*BJI **15** 13:05:50.1, 31°.65N×141°.94E, h10km, mb5.1/78, mB5.3/70, Ms5.5/81, Ms7 5.3/77*
*ISCJB **15** 13:05:52.6±0.8, 31°.66N±0°.02×141°.64E±0°.02, h6km±4km, mb5.2/146, MS5.0/60, Error ellipse: s-maj=3.5km s-min=3.0km az=20.7*
*IDC **15** 13:05:52.9±0.4, 31°.67N×141°.78E, h0km, mb4.9/29, mb1 5.0/36, mb1mx5.0/44, mbtmp4.9/36, ML4.0/6, MS4.8/37, Ms1 4.8/37, ms1mx4.7/51, Error ellipse: s-maj=12.9km s-min=9.8km az=85.0*
*MOS **15** 13:05:53.5±1.0, 31°.69N×141°.63E, h12km, mb5.4/61, MS5.0/14, Error ellipse: s-maj=7.3km s-min=4.0km az=111.6*
*JMA **15** 13:05:53.5±0.3, 31°.75N×142°.00E, h34km, M5.4*
*GCMT **15** 13:05:54.8±0.1, 31°.73N×141°.90E, h12km, MW5.3/125, Moment Tensor Solution. s73,c122; s125,c236; Duration: 1s1 Moment tensor: Scale 10^17Nm; Mrr0.98±.02; Mθθ0.08±.01; Mϕϕ-1.05±.01; Mrθ-0.02±.05; Mθϕ-0.23±.01; Mϕr0.30±.04; Best double couple: M0 1.07900×10^17 NP1:φ6.00000°, δ53.00000°, λ84.00000°. NP2:φ196.00000°, δ37.00000°, λ98.00000°. Principal axes: T 1.0240, Plg81.0000°, Azm249.0000°; N 0.1150, Plg5.0000°, Azm10.0000°; P -1.1350, Plg8.0000°, Azm100.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*NEIC **15** 13:05:54.8±0.1, 31°.68N×141°.67E, h10km, mb5.3/58 Error ellipse: s-maj=4.0km s-min=3.1km az=153.0*
**ISC 15 13:05:55.3±0.5, 31°.72N±0°.03×141°.80E±0°.04, h16km±2km, h16km:pP-P, n573, σ1§68/630, mb5.3/149, MS5.1/63, 31C-19D, Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JHCJ** | **Hachijojimakas** | **2.17** | **309** | P | **Pn** | **13 06 30.2** | **-0.5** |
| JHCJ | | | | S | **Sn** | **13 06 57.2** | **-0.1** |
| **JHJ2** | **Mitsune** | **2.18** | **310** | P | **Pn** | **13 06 29.7** | **-1.2** |
| JHJ2 | | | | *e*S | **Sn** | **13 06 58.2** | **+0.6** |
| **JHJ2** | **Mitsune** | **2.18** | **310** | *e*Pn | **Pn** | **13 06 30.1** | **-0.8** |
| JHJ2 | | | | *e*Sn | **Sn** | **13 06 56.2** | **-1.4** |
| **JHJ** | **Hachijo jima 2** | **2.20** | **310** | Pn | **Pn** | **13 06 31.0** | **-0.2** |
| | 619nm,0.3s,baz=166,slow=12,SNR=127 | | | | | | |
| JHJ | | | | Sn | **Sn** | **13 06 58.0** | **-0.2** |
| | 546nm,0.3s,baz=276,slow=18,SNR=6.9 | | | | | | |
| **BSO1** | **Boso 1** | **3.00** | **347** | P | **Pn** | **13 06 41.3** | **-0.5** |
| **BSO3** | **Boso 3** | **3.26** | **341** | P | **Pn** | **13 06 45.2** | **-0.3** |
| **JOD2** | **Odawara 2** | **4.20** | **328** | P | **Pn** | **13 06 58.2** | **-0.5** |
| **CBIJ** | **Chichi jima** | **4.62** | **176** | P | **Pn** | **13 07 03.0** | **-1.5** |
| CBIJ | | | | S | **Sn** | **13 07 56.6** | **-1.3** |
| **CBIJ** | **Chichi jima** | **4.62** | **176** | *e*Pn | **Pn** | **13 07 02.5** | **-2.0** |
| CBIJ | | | | *e*Sn | **Sn** | **13 07 55.0** | **-3.0** |
| **JCJ** | **Chichijima** | **4.62** | **176** | Pn | **Pn** | **13 07 02.8** | **-1.8** |
| | 126nm,0.3s,baz=96,slow=18,SNR=109 | | | | | | |
| JCJ | | | | Sn | **Sn** | **13 07 56.8** | **-1.1** |
| | 145nm,0.3s,baz=308,slow=22,SNR=8.0 | | | | | | |
| JCJ | | | | LR | LR | 13 08 35.3 | |
| | comp=Z,7μm,20.5s,baz=352,slow=36 | | | | | | |
| **JRY** | **Ryogami san** | **4.92** | **331** | P | **Pn** | **13 07 07.6** | **-1.0** |
| **INU** | **Inuyama** | **5.39** | **313** | *e*Pn | **Pn** | **13 07 16.4** | **+1.3** |
| **JWZ** | **Kozaga** | **5.44** | **291** | P | **Pn** | **13 07 17.1** | **+1.3** |
| **MJAR** | **Matsushiro Arr** | **5.66** | **329** | Pn | **Pn** | **13 07 18.9** | **+0.2** |
| | 19nm,0.3s,baz=150,slow=11,SNR=165 | | | | | | |
| MJAR | | | | Sn | **Sn** | **13 08 25.1** | **+1.7** |
| | 12nm,0.3s,baz=166,slow=16,SNR=3.5 | | | | | | |
| MJAR | | | | LR | LR | 13 09 43.1 | |
| | comp=Z,12μm,18.9s,baz=140,slow=41 | | | | | | |
| **MAJO** | **Matsushiro** | **5.66** | **329** | *e*P | **Pn** | **13 07 19.2** | **+0.4** |
| **MAJO** | **Matsushiro** | **5.66** | **329** | *e*Pn | **Pn** | **13 07 18.8** | **0.0** |
| **MAT** | **Matsushiro** | **5.66** | **329** | P | **Pn** | **13 07 19.2** | **+0.4** |
| MAT | | | | S | **Sn** | **13 08 23.2** | **-0.2** |
| **MJB9** | **Matsu-Tunnel** | **5.66** | **329** | *e*Pn | **Pn** | **13 07 19.7** | **+0.8** |
| **JTO** | **Tosashimizu** | **7.70** | **281** | P | **Pn** | **13 07 49.3** | **+2.4** |
| **JNU** | **Nakatsue** | **9.34** | **281** | Pn | **Pn** | **13 08 10.2** | **+0.9** |
| | 0.2nm,0.3s,baz=49,slow=11,SNR=2.1 | | | | | | |
| JNU | | | | LR | LR | 13 11 37.7 | |
| | comp=Z,19nm,20.3s,baz=160,slow=37 | | | | | | |
| **JNU** | **Nakatsue** | **9.34** | **281** | Pn | **Pn** | **13 08 07.4** | **-1.9** |
| **ASAJ** | **Asahikawa** | **12.39** | **3** | Pn | **Pn** | **13 08 47.9** | **-3.1** |
| | 6.1nm,0.3s,baz=190,slow=13,SNR=26 | | | | | | |
| **ASAJ** | **Asahikawa** | **12.39** | **3** | Pn | **Pn** | **13 08 47.9** | **-3.1** |
| | 4.6nm,0.7s | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **12.70** | **13** | *e*P | **Pn** | **13 08 51.4** | **-3.8** |
| YUK | | | | pmax | pmax | | |
| | comp=Z,89nm,0.7s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=N,69nm,0.5s | | | | | | |
| YUK | | | | MLR | MLR | | |
| | comp=Z,5μm,11.0s | | | | | | |
| **SHO** | **Shikotan** | **12.76** | **17** | *e*P | **Pn** | **13 08 51.5** | **-4.5** |
| SHO | | | | pmax | pmax | | |
| | comp=Z,86nm,0.7s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=E,65nm,0.4s | | | | | | |
| **JOW** | **Kunigami** | **12.77** | **251** | *e*Pn | **Pn** | **13 08 56.2** | **-0.1** |
| **KSRS** | **Korea Array** | **12.78** | **300** | Pn | **Pn** | **13 08 57.3** | **+1.0** |
| | comp=E,1.9nm,0.3s,baz=108,slow=13,SNR=62 | | | | | | |
| KSRS | | | | LR | LR | 13 13 53.5 | |
| | comp=E,7μm,18.4s,baz=112,slow=38 | | | | | | |
| **KS15** | **Wonju Array Si** | **12.80** | **300** | *e*Pn | **Pn** | **13 09 01.4** | **+4.7** |
| **KSAR** | **Wonju Array Be** | **12.80** | **300** | P | **Pn** | **13 08 57.3** | **+0.6** |
| **KSAR** | **Wonju Array Be** | **12.80** | **300** | Pn | **Pn** | **13 08 57.3** | **+0.6** |
| **KS01** | **Wonju Array Si** | **12.81** | **300

comp=E,58nm,0.8s
DL2 pmax pmax
comp=E,2μm,10.6s
DL2 LR LR
comp=E,6μm,12.5s
DL2 LR LR
comp=E,9μm,13.7s
DL2 LR LR
comp=E,14μm,12.5s
**YOJ Yonaguni jima 18.08 251** P **P** **13 10 07.4 +1.2**
YOJ pmax pmax
comp=Z,464nm,0.8s
**GUMO Guam 18.27 170** P **Pn** **13 10 06.4 -1.8**
comp=Z,3.6nm,0.3s,baz=29,slow=18,SNR=2.0
**GUMO Guam 18.27 170** *e*P **Pn** **13 10 07.2 -1.0**
GUMO pmax pmax
comp=Z,1μm,1.3s
**GUMO Guam 18.27 170** *e*Pn **Pn** **13 10 07.2 -1.0**
comp=Z,1μm,1.3s
**KLR Kul'dur 19.06 339** P **P** **13 10 15.0 -1.8**
comp=Z,0.1nm,0.3s,baz=139,slow=11,SNR=64
**TYV Tymovskoe 19.14 2** *e*P **Pn** **13 10 20.7 +2.2**
TYV *e*S **S** **13 13 56.2 +2.2**
TYV pmax pmax
comp=Z,700nm,3.0s
TYV pmax pmax
comp=Z,37nm,1.5s
TYV smax smax
comp=N,2μm,7.9s
TYV smax smax
comp=E,14nm,1.4s
**NJ2 Nanjing 19.49 277** *e*P **P** **13 10 21.3 -0.4**
NJ2 pP **pP** **13 10 24.3 -1.8**
NJ2 sP **sP** **13 10 25.6 -2.5**
NJ2 sS **sS** **13 14 07.8 -0.6**
NJ2 pmax pmax
comp=E,39nm,0.5s
NJ2 LR LR
comp=E,4μm,13.0s
NJ2 LR LR
comp=E,4μm,14.6s
NJ2 LR LR
comp=E,4μm,15.2s
**YULB Yu-li 19.96 251** *e*P **P** **13 10 26.0 -0.9**
comp=E,109nm,0.7s
**SSLB Suanglung 20.05 252** *e*P **P** **13 10 27.4 -0.5**
comp=E,302nm,1.4s
**TPUB Ta-pu 20.54 251** *e*P **P** **13 10 33.6 +0.4**
comp=E,242nm,1.2s
**TIA Tai'an 20.93 289** ⇓P **P** **13 10 36.4 -1.0**
TIA pmax pmax
comp=E,20nm,1.2s
TIA pmax pmax
comp=E,840nm,10.0s
TIA LR LR
comp=E,6μm,13.8s
TIA LR LR
comp=E,7μm,15.5s
TIA LR LR
comp=E,9μm,15.7s
**NKL Nikolayevsk 21.43 358** *e*P **P** **13 10 43.0 +0.5**
NKL *e*S **S** **13 14 37.0 -2.7**
NKL pmax pmax
comp=N,50nm,0.9s
NKL pmax pmax
comp=E,30nm,0.9s
NKL pmax pmax
comp=Z,130nm,0.9s
NKL pmax pmax
comp=Z,800nm,6.0s
NKL smax smax
comp=N,2μm,11.0s
NKL smax smax
comp=E,6μm,11.0s
**QZH Quanzhou 21.50 258** ⇓P **P** **13 10 45.0 +1.5**
QZH S **S** **13 14 39.0 -2.4**
QZH pmax pmax
comp=E,280nm,1.4s
QZH pmax pmax
comp=E,3μm,4.8s
QZH LR LR
comp=E,4μm,10.8s
QZH LR LR
comp=E,4μm,11.6s
QZH LR LR
comp=E,10μm,15.8s
**BJI Beijing 22.31 299** P **P** **13 10 49.8 -2.3**
BJI S **S** **13 14 58.3 +1.5**
BJI pmax pmax
comp=E,42nm,1.1s
BJI pmax pmax
comp=E,1μm,8.2s
BJI LR LR
comp=E,6μm,15.1s
BJI LR LR
comp=E,3μm,21.1s
**BJT Baijiatuau 22.31 299** *e*P **P** **13 10 50.2 -1.9**
BJT pmax pmax
comp=E,26nm,0.6s
**BJT Baijiatuau 22.31 299** *e*P **P** **13 10 50.2 -1.9**
comp=E,26nm,0.6s
**WHN Wuhan 23.51 274** ⇑P **P** **13 11 04.3 -0.3**
WHN PP **PnPn** **13 11 34.1 +2.8**
WHN S **S** **13 15 17.8 -0.1**
WHN pmax pmax
comp=E,110nm,0.6s
WHN LR LR
comp=E,9μm,15.3s
WHN LR LR
comp=E,9μm,13.3s
WHN LR LR
comp=E,13μm,16.4s
**HIA Hailar 24.12 323** *e*P **P** **13 11 09.1 -1.2**
HIA pmax pmax
comp=E,162nm,0.8s
**HIA Hailar 24.12 323** *e*P **P** **13 11 09.1 -1.2**
comp=E,162nm,0.8s
**PETK Petropavlovsk- 24.28 24** P **P** **13 11 12.5 +0.8**
comp=Z,3.6nm,0.7s,baz=177,slow=5.8,SNR=3.8
PETK LR LR 13 21 19.9
comp=Z,3μm,20.6s,baz=206,slow=38
**PETK Petropavlovsk- 24.28 24** *e*P **P** **13 11 11.9 +0.3**
**PET Petropavlovsk 24.54 25** *e*P **P** **13 11 15.7 +1.6**
PET *e*S **S** **13 15 31.0 -3.0**
PET pmax pmax
comp=E,400nm,9.8s
PET MLR MLR
comp=E,3μm,15.0s
**TIY Taiyuan 24.81 292** *e*P **P** **13 11 16.3 -0.5**
TIY PP **PnPn** **13 11 54.8 +5.7**
TIY S **S** **13 15 43.3 +4.4**
TIY pmax pmax
comp=E,43nm,0.5s
TIY pmax pmax
comp=E,530nm,6.0s
TIY LR LR
comp=E,5μm,12.7s
TIY LR LR
comp=E,8μm,14.4s
TIY LR LR
comp=E,9μm,14.9s
**H11N2 WAKE ISLAND Hy 25.50 112** T T 13 38 04.4
baz=306,slow=74,SNR=11
**H11N1 WAKE ISLAND Hy 25.50 112** T T 13 38 04.4
SNR=11
**H11N3 WAKE ISLAND Hy 25.52 112** T T 13 38 04.4
baz=328,slow=74,SNR=7.8
**HHC Hu-ho-hao-te 25.92 299** *e*P **P** **13 11 26.0 -0.8**
HHC PP **PnPn** **13 12 04.6 +0.4**
HHC S **S** **13 15 52.1 -4.4**
HHC sS pS 13 16 00.8 -0.8
HHC SS **SnSn** **13 16 57.3 +4.2**
HHC pmax pmax
comp=E,48nm,1.0s
HHC pmax pmax
comp=Z,770nm,5.6s
HHC LR LR
comp=E,3μm,13.3s
HHC LR LR
comp=E,7μm,13.9s
HHC LR LR
comp=E,7μm,14.1s
**TGY Tagaytay City 25.93 232** P **P** **13 11 25.5 -1.6**
comp=Z,100nm,0.3s,baz=47,slow=18,SNR=2.8
TGY LR LR 13 21 59.7
comp=Z,1μm,18.0s,baz=95,slow=37
**H11S3 WAKE ISLAND Hy 26.02 114** T T 13 38 47.2
baz=304
**H11S1 WAKE ISLAND Hy 26.03 114** T T 13 38 55.8
baz=304
**H11S2 WAKE ISLAND Hy 26.04 114** T T 13 38 47.3
baz=304
**BTO Baotou 27.03 298** *e*P **P** **13 11 36.3 -0.6**
**XAN Xi'an 27.65 284** P **P** **13 11 41.1 -1.3**
XAN pP pP 13 11 45.1 -2.1
XAN sP sP 13 11 47.3 -1.8
XAN pmax pmax
comp=Z,77nm,0.6s
XAN pmax pmax
comp=Z,340nm,6.7s
XAN LR LR
comp=Z,2μm,12.1s
XAN LR LR
comp=Z,2μm,12.5s
XAN LR LR
comp=Z,3μm,13.2s
**ENH Enshi 27.69 276** *e*P **P** **13 11 39.4 -3.4**
comp=Z,15nm,0.6s
**CLNS Chul'man 27.72 340** *e*P **P** **13 11 41.8 -1.0**
CLNS *e**PP **sP** **13 11 51.0 +1.5**
CLNS *e* 13 12 26.1
CLNS *e*PPP PPP 13 12 38.6
CLNS *e* 13 14 53.6
CLNS *e*S **S** **13 16 25.9 +1.5**
CLNS *e*SSS SSS 13 18 00.0
CLNS pmax pmax
comp=E,8.0nm,0.9s
CLNS pmax pmax
comp=Z,37nm,0.9s
CLNS pmax pmax
comp=N,26nm,1.0s
CLNS pmax pmax
comp=E,26nm,0.8s
CLNS pmax pmax
comp=N,25nm,0.8s
CLNS pmax pmax
comp=Z,35nm,1.0s
CLNS smax smax
comp=N,592nm,10.7s
CLNS smax smax
comp=E,1μm,13.8s
**MA2 Magadan 28.50 10** P **P** **13 11 49.7 0.0**
comp=E,5.9nm,0.6s,baz=198,slow=8.3,SNR=8.0
MA2 LR LR 13 26 28.5
comp=E,977nm,18.6s,baz=198,slow=43
**DAV Davao City (W) 28.83 215** LR LR 13 22 10.9
comp=E,2μm,21.4s,baz=50,slow=34
**CIT Chita 28.92 323** *e*P **P** **13 11 53.8 +0.2**
CIT *e* 13 12 52.3
CIT pmax pmax
comp=Z,193nm,1.1s
**GYA Guiyang 31.06 269** P **P** **13 12 14.8 +1.9**
GYA PP **PnPn** **13 13 15.0 +0.8**
GYA SS SS 13 19 00.3 -30
GYA pmax pmax
comp=Z,30nm,1.0s
GYA pmax pmax
comp=Z,140nm,5.5s
GYA LR LR
comp=Z,2μm,14.6s
GYA LR LR
comp=Z,2μm,14.3s
GYA LR LR
comp=Z,3μm,16.5s
**SONA1 Songino Array 31.28 311** *e*P **P** **13 12 14.9 +0.3**
**SONM Songino Array 31.28 311** P **P** **13 12 16.0 +1.4**
comp=Z,23nm,0.6s,baz=121,slow=8.9,SNR=99
SONM LR LR 13 25 17.6
comp=Z,4μm,18.9s,baz=103,slow=37
**YAK Yakutsk 31.32 349** *e*P **P** **13 12 13.9 -0.7**
YAK *e*S **S** **13 17 17.4 -3.4**
YAK *e* 13 22 43.4
YAK pmax pmax
comp=Z,29nm,0.9s
YAK pmax pmax
comp=N,11nm,1.1s
YAK pmax pmax
comp=E,5.0nm,1.1s
YAK smax smax
comp=E,428nm,5.4s
YAK smax smax
comp=N,242nm,4.3s
YAK MLR MLR
comp=Z,3μm,17.0s
YAK MLR MLR
comp=E,967nm,16.0s
YAK MLR MLR
comp=N,3μm,16.0s
**YAK Yakutsk 31.32 349** *e*P **P** **13 12 14.0 -0.6**
comp=N,54nm,0.8s
**QIZ Qiongzhong 31.40 254** P **P** **13 12 15.4 -0.4**
QIZ sP **pP** **13 12 19.9 -0.6**
QIZ S **S** **13 17 25.1 +2.3**
QIZ pmax pmax
comp=N,36nm,2.3s
QIZ LR LR
comp=N,1μm,15.9s
QIZ LR LR
comp=N,2μm,17.5s
QIZ LR LR
comp=N,1μm,17.5s
**LZH Lanzhou 31.67 288** ⇓P **P** **13 12 17.3 -0.9**
LZH pP pP 13 12 22.0 -1.0
LZH sP sP 13 12 24.4 -0.5
LZH PP **PnPn** **13 13 21.3 -0.7**
LZH *e*S **S** **13 17 24.3 -2.9**
LZH SS **SnSn** **13 19 11.0 -2.5**
LZH pmax pmax
comp=N,97nm,1.7s
LZH pmax pmax
comp=N,900nm,6.4s
LZH LR LR
comp=N,4μm,13.0s
LZH LR LR
comp=N,3μm,13.1s
LZH LR LR
comp=N,4μm,15.8s
**SEY Seymchan 31.95 9** P **P** **13 12 20.5 +0.3**
comp=N,11nm,0.6s,baz=195,slow=8.2,SNR=64
**SEY Seymchan 31.95 9** ⇓*e*P **P** **13 12 20.6 +0.5**
**BOD Bodaibo 32.28 332** *e*P **P** **13 12 22.7 -0.4**
BOD pmax pmax
comp=Z,43nm,1.1s
**CD2 Chengdu 32.41 279** *e*P **P** **13 12 22.9 -1.7**
CD2 pP pP 13 12 25.6 -3.7
CD2 sP sP 13 12 28.9 -2.4
CD2 PP **PnPn** **13 13 30.8 -0.6**
CD2 S **S** **13 17 41.8 +3.3**
CD2 pmax pmax
comp=Z,30nm,1.3s
CD2 pmax pmax
comp=Z,530nm,8.3s
CD2 LR LR
comp=E,8μm,14.3s
CD2 LR LR
comp=Z,7μm,15.5s
CD2 LR LR
comp=Z,6μm,16.7s
**ZAK Zakamensk 34.02 315** *e*P **P** **13 12 39.4 +0.8**
ZAK pmax pmax
comp=Z,19nm,1.0s
**IRK Irkutsk 34.09 318** *e*P **P** **13 12 36.2 -2.8**
IRK *e* 13 18 06.9
IRK pmax pmax
comp=Z,72nm,3.1s
**TLY Talaya 34.24 317** *c i*P **P** **13 12 41.7 +1.3**
TLY *e* 13 14 06.7
TLY *e*S **S** **13 18 10.1 +3.6**
TLY pmax pmax
comp=Z,58nm,0.8s
TLY MLR MLR
comp=Z,5μm,17.0s
**TLY Talaya 34.24 317** *e*P **P** **13 12 41.4 +1.0**
comp=Z,58nm,0.8s
**TLY Talaya 34.24 317** pP **P** **13 12 42.1 +1.7**
SNR=8.9
**TLY Talaya 34.24 317** P **P** **13 12 42.1 +1.7**
SNR=8.9
**MYLDM Lahad Datu 34.27 224** *e*P **P** **13 12 42.1 +1.3**
comp=Z,46nm,0.9s
**GTA Gaotai 34.76 295** P **P** **13 12 43.6 -1.5**
GTA pP pP 13 12 48.0 -1.9
GTA sP sP 13 12 51.3 -0.5
GTA S **S** **13 18 11.8 -3.2**
GTA sS pS 13 18 20.5 +0.2
GTA ScS **ScS** **13 23 04.8 -1.9**
GTA pmax pmax
comp=Z,10.0nm,1.0s
GTA pmax pmax
comp=Z,450nm,7.6s
GTA LR LR
comp=Z,3μm,16.2s
GTA LR LR
comp=Z,4μm,15.9s
GTA LR LR
comp=Z,3μm,15.4s
**KMI Kunming 34.84 269** P **P** **13 12 44.1 -2.0**
KMI PP **PnPn** **13 14 03.0 +0.5**
KMI S **S** **13 18 15.8 -0.9**
KMI sS sS 13 18 30.3 +5.7
KMI SS **SnSn** **13 20 30.4 -0.4**
**MOY Mondy 35.80 316** *e*P **P** **13 12 54.4 +0.5**
MOY pmax pmax
comp=Z,37nm,1.6s
**LUWI Luwuk 37.25 213** *e*P **P** **13 13 05.8 -0.6**
comp=Z,57nm,1.1s
**NONG Nongkai 37.41 258** P **P** **13 13 07.1 -0.7**
comp=Z,101nm,1.2s,comp=Z,7μm
**KHON Khomkaen 38.53 256** P **P** **13 13 17.5 +0.3**
comp=Z,15nm,0.7s
**CHAI Chaiyaphum 39.44 256** P **P** **13 13 23.5 -1.4**
comp=Z,18nm,0.7s,comp=Z,147nm
**PHRA Phrae 39.65 261** P **P** **13 13 25.6 -1.0**
comp=Z,13nm,0.7s
**HVS Khovu-Aksy 40.10 313** *de*P **P** **13 13 30.9 +0.7**
HVS pmax pmax
comp=Z,73nm,0.9s
**SBUM Sibu 40.30 230** *e*P **P** **13 13 32.9 +0.9**
comp=Z,10nm,0.7s
**CMMT Chiang Mai 40.58 262** P **P** **13 13 32.7 -1.7**
comp=Z,35nm,0.8s
**CHTO Chiang Mai 40.59 262** P **P** **13 13 32.8 -1.7**
comp=Z,155nm,0.8s
**CHTO Chiang Mai 40.59 262** *e*P **P** **13 13 32.7 -1.7**
CHTO pmax pmax
comp=Z,22nm,0.8s
**CHTO Chiang Mai 40.59 262** *e*P **P** **13 13 32.7 -1.8**
comp=Z,22nm,0.8s
**CHTO Chiang Mai 40.59 262** P **P** **13 13 33.0 -1.5**
SNR=7.8
**CHTO Chiang Mai 40.59 262** P **P** **13 13 33.0 -1.5**
SNR=7.8
**TIXI Tiksi 40.59 354** P **P** **13 13 33.8 0.0**
comp=Z,9.1nm,0.5s,baz=144,slow=5.2,SNR=33
TIXI LR LR 13 32 25.9
comp=Z,593nm,18.2s,baz=163,slow=39
**TIXI Tiksi 40.59 354** *c i*P **P** **13 13 33.6 -0.2**
TIXI pmax pmax
comp=Z,8.0nm,0.5s
**TIXI Tiksi 40.59 354** *e*P **P** **13 13 33.1 -0.6**
comp=Z,12nm,0.6s
**CM31 Chiang Mai Arr 40.75 262** *e*P **P** **13 13 34.7 -1.1**
**CMAR Chiang Mai Arr 40.75 262** P **P** **13 13 34.6 -1.2**
comp=Z,14nm,0.8s,baz=50,slow=7.4,SNR=82
CMAR LR LR 13 32 08.1
comp=Z,2μm,18.4s,baz=74,slow=39
**CMAR Chiang Mai Arr 40.75 262** *i*P **P** **13 13 34.5 -1.2**
CMAR pmax pmax
comp=Z,16nm,0.8s
**CM01 Chiang Mai Arr 40.75 261** *e*P **P** **13 13 34.1 -1.7**
**PMG Port Moresby 41.22 172** P **P** **13 13 39.2 -0.3**
comp=Z,9.9nm,0.9s,baz=342,slow=9.6,SNR=2.3
**KSM Kuching 42.29 231** *e*P **P** **13 13 49.1 +0.8**
comp=Z,29nm,0.6s
**SRDT SRDT 42.60 256** P **P** **13 13 50.4 -0.6**
comp=Z,92nm,0.7s,comp=Z,4μm
**LSA Lhasa 43.28 281** *e*P **P** **13 13 54.5 -2.4**
LSA pmax pmax
comp=Z,10.0nm,0.6s
**LSA Lhasa 43.28 281** *e*P **P** **13 13 54.5 -2.4**
comp=Z,9.5nm,0.6s
**WMQ Urumqi 43.73 302** P **P** **13 14 01.1 +1.2**
WMQ pP sP 13 14 06.3 -0.3
WMQ sP pP 13 14 08.8 +4.1
WMQ S **S** **13 20 29.9 +0.4**
WMQ sS sS 13 20 36.3 -1.2
WMQ SS **SS** **13 23 35.4 -10**
WMQ pmax pmax
comp=Z,95nm,1.3s
WMQ pmax pmax
comp=Z,2μm,5.1s
WMQ LR LR
comp=Z,5μm,15.7s
WMQ LR LR
comp=Z,2μm,19.7s
WMQ LR LR
comp=Z,3μm,16.1s
**DGZ Jazzator, Alta 43.92 310** *d i*P **P** **13 14 02.1 +0.6**
DGZ pmax pmax
comp=Z,93nm,0.9s
**SHL Shillong 43.93 275** *e*P **P** **13 14 03.0 +1.1**
**HNR Honiara 44.45 154** LR LR 13 30 02.8
comp=Z,598nm,20.3s,baz=329,slow=33
**SOEI Soe 44.53 205** *e*P **P** **13 14 07.3 +0.8**
comp=Z,71nm,1.0s
**BRDH Bariadhala 45.19 271** LR LR 13 34 47.0
comp=Z,849nm,20.1s,baz=68,slow=38
**COEN Coen 45.44 178** *e*P **P** **13 14 15.1 +1.5**
comp=Z,68nm,1.3s
**MTN Manton Dam 45.48 195** *e*P **P** **13 14 14.0 +0.1**
comp=Z,40nm,1.0s
**ZSN Zaisan 45.59 307** *i*P **P** **13 14 14.6 0.0**
comp=Z,221nm,1.0s
ZSN *e*S **S** **13 20 58.5 +2.1**
ZSN LR LR 13 33 57.1
comp=Z,462nm,12.7s
**ZAA0 Zalesovo Array 45.85 316** *e*P **P** **13 14 16.1 -0.4**
**ZALV Zalesovo Beam 45.85 316** P **P** **13 14 16.4 -0.1**
comp=Z,11nm,0.8s,baz=96,slow=6.9,SNR=54
ZALV PcP **PcP** **13 15 54.3 +0.6**
comp=Z,6.7nm,0.7s,baz=116,slow=3.4,SNR=3.3
ZALV LR LR 13 34 13.6
comp=Z,2μm,19.6s,baz=76,slow=37
**ZALV Zalesovo Beam 45.85 316** P **P** **13 14 16.4 -0.1**
ZALV 13 15 54.3
ZALV pmax pmax
comp=Z,6.0nm,0.5s
ZALV MLR MLR
comp=Z,2μm,19.6s
**ZALV Zalesovo Beam 45.85 316** *e*P **P** **13 14 16.0 -0.6**
ZALV PcP **PcP** **13 15 54.3 +0.6**
**MYKOM Kota Tinggi 46.54 238** *e*P **P** **13 14 20.5 -1.9**
comp=Z,17nm,0.9s
**KULM Kulim 46.62 244** *e*P **P** **13 14 22.5 -0.5**
comp=Z,34nm,1.1s
**IPM Ipoh 46.84 243** *e*P **P** **13 14 23.6 -1.2**
comp=Z,20nm,0.9s
**NVS Novosibirsk 46.85 317** *e*P **P** **13 14 24.6 +0.2**
NVS *e*S **S** **13 21 13.3 -0.9**
NVS *e*SS ScS 13 24 29.6 +11
NVS pmax pmax
comp=E,20nm,0.8s
NVS pmax pmax
comp=Z,28nm,0.8s
NVS smax smax
comp=E,43nm,2.4s
**TAPN Taplejung 46.87 279** *e*P **P** **13 14 24.3 -1.0**
comp=E,88nm,1.0s
**ODAN Odare 47.30 279** *e*P **P** **13 14 27.6 -1.0**
comp=E,57nm,0.5s
**MK01 Makanchi Array 47.37 306** *e*P **P** **13 14 28.6 0.0**
**MK31 Makanchi Array 47.37 306** *i*P **P** **13 14 28.5 -0.2**
MK31 pmax pmax
comp=Z,59nm,1.0s
**MK31 Makanchi Array 47.37 306** *e*P **P** **13 14 28.4 -0.2**
**MKAR Makanchi Array 47.37 306** P **P** **13 14 28.5 -0.1**
comp=Z,53nm,1.0s,baz=90,slow=8.0,SNR=124
MKAR LR LR 13 35 19.5
comp=Z,2μm,18.8s,baz=84,slow=37
**MAKZ Makanchi 47.59 306** *i*P **P** **13 14 29.9 -0.4**
MAKZ pmax pmax
comp=Z,50nm,1.2s
**MAKZ Makanchi 47.59 306** *e*P **P** **13 14 30.3 0.0**
comp=Z,58nm,1.3s
**RAMN Ramite 47.93 279** *e*P **P** **13 14 32.7 -0.8**
comp=Z,146nm,0.8s
**JIRN Jiri 48.05 280** *e*P **P** **13 14 34.2 -0.3**
comp=Z,1μm,0.6s
**GUN Gumba 48.23 281** *e*P **P** **13 14 35.5 -0.4**

comp=Z,175nm,0.6s
**SEM Semipalatinsk 48.56 311** *i* P **P** **13 14 35.6 -2.4**
comp=Z,205nm,1.0s
SEM *e*S **S** **13 21 36.7 -2.3**
SEM LR LR 13 35 09.2
comp=Z,2μm,15.8s
**PKI Pulchoki 48.73 280** *e*P **P** **13 14 38.7 -1.1**
comp=Z,54nm,0.6s
**PKIN Phulchoki 48.74 280** *e*P **P** **13 14 38.6 -1.2**
comp=Z,35nm,0.5s
**KKN Kakani 48.77 281** *e*P **P** **13 14 39.2 -0.7**
comp=Z,70nm,0.7s
**DMN Daman 48.97 281** *e*P **P** **13 14 40.6 -0.9**
comp=Z,35nm,0.6s
**GKN Gorkha 49.23 281** *e*P **P** **13 14 43.4 0.0**
**PSI Prapat 49.52 243** *e*P **P** **13 14 45.1 -0.6**
PSI pmax pmax
comp=Z,16nm,1.0s
**PSI Prapat 49.52 243** *e*P **P** **13 14 45.1 -0.6**
comp=Z,16nm,1.0s
**KURK Kurchatov 49.59 312** *d i*P **P** **13 14 45.3 -0.3**
**KURK Kurchatov 49.59 312** *e*P **P** **13 14 44.9 -0.6**
comp=Z,130nm,0.9s
**KURK Kurchatov 49.59 312** P **P** **13 14 45.3 -0.3**
SNR=42
**KURK Kurchatov 49.59 312** P **P** **13 14 45.3 -0.3**
SNR=42
KURK P **P** **13 14 45.3 -0.3**
SNR=42
**KURBB Kurchatov Arra 49.65 312** P **P** **13 14 46.2 +0.2**
comp=Z,74nm,0.9s,baz=89,slow=7.3,SNR=6.2
**DANN Dangsing 49.85 282** *e*P **P** **13 14 48.6 +0.3**
comp=Z,7.7nm,1.0s
**UZB Uzynbulak 50.07 302** *i* P **P** **13 14 47.1 -2.5**
comp=Z,101nm,0.8s
UZB *e*S **S** **13 21 57.9 -2.5**
UZB LRM MLR 13 38 31.1
comp=Z,2μm,15.7s
**KOLN Koldanda 50.18 281** *e*P **P** **13 14 50.2 -0.5**
comp=Z,68nm,0.8s
**KPKS Kokpek 50.27 302** *i* P **P** **13 14 48.5 -2.5**
comp=Z,206nm,1.2s
KPKS *e*S **S** **13 22 00.3 -2.6**
KPKS LRM MLR 13 38 29.6
comp=Z,2μm,16.1s
**ZHN Zhinishke 50.49 302** *e*P **P** **13 14 51.1 -1.7**
ZHN LRM MLR 13 38 43.6
comp=Z,1μm,15.7s
**SATY Saty 50.53 302** *i* P **P** **13 14 51.0 -2.1**
SATY LRM MLR 13 38 44.0
comp=Z,2μm,15.5s
**PYUN Piuthan 50.58 282** *e*P **P** **13 14 53.4 -0.3**
comp=Z,199nm,0.6s
**KDAK Kodiak Island 50.93 39** P **P** **13 14 56.0 +0.4**
comp=Z,22nm,0.8s,baz=301,slow=8.6,SNR=5.7
KDAK LR LR 13 34 33.5
comp=Z,2μm,21.3s,baz=260,slow=34
**KDAK Kodiak Island 50.93 39** *i* P **P** **13 14 59.1 +3.5**
**RSO Redoubt South 50.95 35** *e*P **P** **13 14 56.1 +0.1**
**IMAR Indian Mountai 51.11 28** *e*P **P** **13 14 57.1 +0.3**
**GSI Gunungsitoli 51.51 243** *e*P **P** **13 14 59.4 -1.2**
comp=Z,88nm,1.0s
**AAA Alma-Ata 51.58 302** *e*P **P** **13 14 58.8 -2.1**
AAA LRM MLR 13 39 47.9
comp=Z,1μm,16.1s
**WRAB Tennant Creek 51.85 189** *c i*P **P** **13 15 02.6 -0.3**
WRAB pmax pmax
comp=Z,43nm,0.9s
**WRAB Tennant Creek 51.85 189** *e*P **P** **13 15 02.3 -0.7**
comp=Z,54nm,0.9s
**WB2 Warramunga Arr 51.86 189** *e*P **P** **13 15 02.4 -0.6**
comp=Z,58nm,0.8s
**WRA Warramunga Arr 51.87 189** P **P** **13 15 02.2 -0.8**
comp=Z,38nm,0.8s,baz=5.9,slow=7.6,SNR=228
WRA LR LR 13 36 22.0
comp=Z,1μm,20.1s,baz=15,slow=35
**WRA Warramunga Arr 51.87 189** *i* P **P** **13 15 02.0 -1.0**
WRA pmax pmax
comp=Z,38nm,0.8s
**KUU Kurty 51.88 303** *i* P **P** **13 15 01.1 -1.9**
comp=Z,187nm,0.5s
KUU *i* S **S** **13 22 23.3 -1.8**
KUU LRM MLR 13 40 06.3
comp=Z,316nm,12.6s
**FITZ Fitzroy Crossi 51.91 200** LR LR 13 36 06.0
comp=Z,435nm,21.2s,baz=38,slow=35
**MLY Manley 52.23 30** *e*P **P** **13 15 06.1 +0.7**
comp=Z,32nm,1.1s
**TKM2 Tokmak 2 52.58 302** P **P** **13 15 09.4 +0.9**
SNR=16
**COLD Coldfoot 52.68 27** *e*P **P** **13 15 07.1 -1.5**
comp=Z,49nm,1.9s
**PMR Palmer 52.76 34** P **P** **13 15 08.9 -0.3**
PMR pmax pmax
comp=Z,17nm,0.3s
**PMR Palmer 52.76 34** P **P** **13 15 08.9 -0.3**
comp=Z,17nm,0.3s
**RND Reindeer 52.95 32** *e*P **P** **13 15 14.2 +3.5**
RND pmax pmax
comp=Z,23nm,1.0s
**RND Reindeer 52.95 32** *e*P **P** **13 15 14.2 +3.5**
comp=Z,23nm,1.0s
**KZA Kyzart 53.00 301** P **P** **13 15 13.3 +1.4**
SNR=7.6
**KSH Kashi 53.02 298** P **P** **13 15 15.5 +3.8**
KSH pP sP 13 15 19.3 +0.8
KSH PcP **PcP** **13 16 23.6 +3.4**
KSH PP **PP** **13 17 16.6 +5.3**
KSH S **S** **13 22 44.8 +3.7**
KSH ScS **ScS** **13 25 01.4 +0.3**
KSH SS **SS** **13 26 23.8 +3.8**
KSH pmax pmax
comp=Z,29nm,0.7s
KSH LR LR
comp=Z,3μm,15.4s
KSH LR LR
comp=Z,2μm,12.1s
KSH LR LR
comp=Z,3μm,13.9s
**KBK Karagaybulak 53.10 302** P **P** **13 15 12.6 +0.3**
SNR=26
**SML Sawmill 53.15 34** *e*P P 13 15 17.0 +4.9
SML pmax pmax
comp=Z,41nm,0.9s
**SML Sawmill 53.15 34** *e*P P 13 15 17.0 +4.9
comp=Z,41nm,0.9s
**CHMS Chumysh 53.18 302** P **P** **13 15 12.7 0.0**
SNR=8.0
**MDM Murphy Dome 53.29 30** *e*P **P** **13 15 14.5 +1.3**
comp=Z,40nm,0.9s
**USP Ospenovka 53.31 303** P **P** **13 15 13.6 -0.1**
SNR=7.9
**FRU Bishkek 53.31 302** *i* P **P** **13 15 13.5 -0.1**
FRU *i* 13 15 23.5
FRU pmax pmax
comp=Z,90nm,2.2s
FRU MLR MLR
comp=E,2μm,15.0s
**AAK Ala-Archa 53.44 302** P **P** **13 15 14.1 -0.6**
AAK pmax pmax
comp=Z,17nm,0.9s
**AAK Ala-Archa 53.44 302** P **P** **13 15 15.2 +0.5**
SNR=9.1
**AAK Ala-Archa 53.44 302** *e*P **P** **13 15 14.7 0.0**
comp=Z,14nm,0.8s
**COLA College 53.45 30** *e*P **P** **13 15 16.6 +2.4**
COLA pmax pmax
comp=Z,25nm,0.6s
**COLA College 53.45 30** *e*P **P** **13 15 16.6 +2.4**
comp=Z,25nm,0.6s
**CCB Clear Creek Bu 53.46 30** *e*P **P** **13 15 14.2 -0.1**
comp=Z,12nm,1.0s
**UCH Uchtor 53.51 302** P **P** **13 15 16.1 +0.5**
SNR=8.0
**SCM Sheep Creek Mo 53.62 34** *e*P **P** **13 15 19.6 +3.9**
SCM pmax pmax
comp=Z,65nm,1.2s
**SCM Sheep Creek Mo 53.62 34** *e*P **P** **13 15 19.6 +3.9**
comp=Z,65nm,1.2s
**IL1 Eielson Array 53.86 30** *e*P **P** **13 15 16.8 -0.5**
**ILAR Eielson Array 53.86 30** P **P** **13 15 17.3 0.0**
comp=Z,15nm,1.0s,baz=262,slow=5.9,SNR=36
ILAR LR LR 13 36 23.3
comp=Z,249nm,21.9s,baz=284,slow=34
**ILB Eielson Array 53.86 30** *e*P **P** **13 15 15.2 -2.1**
**EKS2 Erkin-Say 53.95 302** P **P** **13 15 18.9 +0.5**
SNR=6.6

**AML Almayashu 54.12 302** P **P** **13 15 20.7 +0.7**
SNR=45
**KLU Klutina 54.30 34** *e*P **P** **13 15 23.7 +3.0**
comp=Z,66nm,1.4s
**DIV Divide 54.38 35** *e*P **P** **13 15 25.5 +4.2**
comp=Z,55nm,1.2s
**BVA0 Borovoye Array 54.48 315** *i* P **P** **13 15 21.8 -0.2**
BVA0 pmax pmax
comp=Z,37nm,1.1s
**BVAR Borovoye Array 54.48 315** LR LR 13 39 58.2
comp=Z,2μm,18.4s,baz=76,slow=38
**PAX Paxson 54.48 32** *e*P **P** **13 15 22.1 +0.2**
PAX pmax pmax
comp=Z,15nm,0.9s
**PAX Paxson 54.48 32** *e*P **P** **13 15 22.1 +0.2**
comp=Z,15nm,0.9s
**BRVK Borovoye 54.53 315** *c i*P **P** **13 15 22.6 +0.2**
BRVK pmax pmax
comp=Z,137nm,1.7s
**BRVK Borovoye 54.53 315** *e*P **P** **13 15 22.4 0.0**
comp=Z,35nm,1.1s
**BRVK Borovoye 54.53 315** P **P** **13 15 23.3 +0.9**
SNR=14
**BRVK Borovoye 54.53 315** P **P** **13 15 23.3 +0.9**
SNR=14
**FYU Fort Yukon 54.59 28** *e*P **P** **13 15 24.2 +1.7**
comp=Z,49nm,1.0s
**HARP HAARP 54.63 33** *e*P **P** **13 15 27.5 +4.5**
comp=Z,71nm,1.1s
**BMRM Bremner River 54.96 35** *e*P **P** **13 15 28.8 +3.4**
comp=Z,40nm,0.9s
**NDI New Delhi 55.17 285** *e*P **P** **13 15 27.0 -0.3**
**MENT Mentasta 55.28 32** *e*P **P** **13 15 31.1 +3.4**
comp=Z,14nm,0.7s
**AS01 Alice Springs 55.58 189** *e*P **P** **13 15 29.1 -1.1**
**AS31 Alice Springs 55.59 189** *e*P **P** **13 15 30.0 -0.3**
comp=Z,9.9nm,0.6s
**ASAR Alice Springs 55.59 189** P **P** **13 15 29.6 -0.6**
comp=Z,6.9nm,0.6s,baz=11,slow=7.7,SNR=58
ASAR LR LR 13 38 17.2
comp=Z,1μm,20.0s,baz=6.5,slow=35
**KK31 Karatay Array 56.19 303** *i* P **P** **13 15 34.6 +0.1**
KK31 pmax pmax
comp=Z,46nm,0.7s
**EGAK Eagle 56.31 30** *e*P **P** **13 15 38.0 +3.0**
comp=Z,37nm,1.5s
**MBWA Marble Bar 56.68 205** *e*P P 13 15 32.5 -5.6
comp=Z,68nm,0.9s
**DAWY Dawson 57.13 31** *e*P **P** **13 15 42.8 +1.8**
comp=Z,64nm,1.7s
**HYT Haines Junctio 58.42 35** *e*P **P** **13 15 52.5 +2.3**
comp=Z,23nm,0.9s
**DZM Mont Dzumac 58.47 153** *e*P **P** **13 15 55.3 +4.6**
comp=Z,125nm,1.4s
DZM *e*S **S** **13 23 48.6 -5.0**
DZM comp=Z,1μm,26.1s *e*LQ LQ 13 30 20.9
DZM comp=Z,1μm,33.9s *e*LR LR 13 32 57.5
comp=Z,1μm,20.5s
**HYB Hyderabad 58.54 272** *i* P **P** **13 15 51.5 0.0**
**DZET Dzherino 58.57 299** P **P** **13 15 51.0 -0.5**
DZET pmax pmax
comp=Z,64nm,0.7s
**INK Inuvik 58.99 26** P **P** **13 15 54.5 +0.8**
comp=Z,11nm,0.7s,baz=288,slow=6.1,SNR=31
**INK Inuvik 58.99 26** *e*P **P** **13 15 54.6 +0.8**
INK pmax pmax
comp=Z,13nm,0.8s
**INK Inuvik 58.99 26** *e*P **P** **13 15 54.6 +0.8**
comp=Z,13nm,0.8s
**SVE Sverdlovsk 59.40 321** ‖ *e*P **P** **13 15 57.2 +0.4**
SVE *e*S **S** **13 24 05.2 +0.2**
SVE pmax pmax
comp=Z,49nm,1.3s
SVE MLR MLR
comp=Z,2μm,15.0s
**WHY Whitehorse 59.72 35** *e*P **P** **13 16 00.8 +1.7**
comp=Z,97nm,1.9s
**KBL Kabul 59.75 294** *e*P **P** **13 16 00.3 +0.5**
KBL pmax pmax
comp=Z,20nm,0.8s
**KBL Kabul 59.75 294** *e*P **P** **13 16 00.3 +0.5**
comp=Z,20nm,0.8s
**ARU Arti 60.61 321** *c i*P **P** **13 16 05.0 -0.1**
ARU 13 16 49.9
ARU 13 18 15.1
ARU S **S** **13 24 21.2 +0.7**
ARU SS **SS** **13 28 19.5 +1.2**
ARU pmax pmax
comp=Z,79nm,1.7s
ARU MLR MLR
comp=Z,2μm,17.0s
**ARU Arti 60.61 321** *e*P **P** **13 16 04.8 -0.3**
comp=Z,77nm,1.2s
**PALK Pallekele 61.68 261** *i* P **P** **13 16 14.9 +1.9**
**AB31 Akbulak array 61.68 313** *i* P **P** **13 16 11.4 -1.1**
AB31 pmax pmax
comp=Z,16nm,0.5s
**AKTO Aktyubinsk 62.53 314** LR LR 13 43 07.1
comp=Z,690nm,21.7s,baz=70,slow=36
**AKTO Aktyubinsk 62.53 314** *i* P **P** **13 16 17.6 -0.6**
AKTO pmax pmax
comp=Z,36nm,0.9s
**DLBC Dease Lake 62.66 36** *e*P **P** **13 16 21.9 +2.9**
**STKA Stephens Creek 63.26 180** P **P** **13 16 24.5 +1.5**
comp=Z,1.5nm,0.4s,baz=357,slow=8.6,SNR=3.8
**FORT Forrest 63.51 193** *e*P **P** **13 16 24.9 +0.2**
**GEYT Alibeck 66.77 301** P **P** **13 16 46.9 +0.8**
comp=Z,19nm,0.6s,baz=26,slow=3.8,SNR=28
GEYT LR LR 13 50 17.7
comp=Z,560nm,18.2s,baz=105,slow=40
**TMCR Tamitsa 67.58 333** *e*P **P** **13 16 50.2 -0.5**
TMCR pmax pmax
comp=Z,12nm,0.7s
**APA Apatity 67.67 337** ‖ *i*P **P** **13 16 49.9 -1.3**
APA pmax pmax
comp=Z,13nm,0.9s
APA MLR MLR
comp=Z,1μm,19.0s
**YKA Yellowknife Ar 68.26 29** P **P** **13 16 55.4 +0.4**
comp=Z,7.6nm,0.9s,baz=295,slow=6.0,SNR=40
YKA LR LR 13 48 06.6
comp=Z,20nm,20.8s,baz=0.0,slow=37
**YKA Yellowknife Ar 68.26 29** *i* P **P** **13 16 57.7 +2.7**
YKA pmax pmax
comp=Z,8.0nm,0.9s
**NWAO Narrogin (SRO) 68.36 202** *e*P **P** **13 16 56.8 +0.9**
**NWAO Narrogin (SRO) 68.36 202** *e*P **P** **13 16 56.8 +0.9**
**KLMR Klimovskoe 68.44 329** *e*P **P** **13 16 53.9 -2.3**
KLMR pmax pmax
comp=Z,19nm,0.8s
**ARCES ARCESS Array B 69.08 340** P **P** **13 17 00.2 +0.1**
comp=Z,5.4nm,0.6s,baz=76,slow=6.6,SNR=11
ARCES LR LR 13 52 47.3
comp=Z,1μm,18.5s,baz=66,slow=41
**LLLB Lillooet 69.91 42** *e*P **P** **13 17 09.1 +3.5**
**TULEG Thule 70.31 7** *e*P **P** **13 17 07.6 0.0**
**DAG Danmarks Havn 71.08 355** *i* P **P** **13 17 12.6 +0.4**
DAG pmax pmax
comp=Z,17nm,1.1s
**DAG Danmarks Havn 71.08 355** *i* P **P** **13 17 12.6 +0.4**
comp=Z,17nm,1.1s
**LON Longmire 71.66 46** *e*P **P** **13 17 13.4 -2.9**
**LON Longmire 71.66 46** *e*P **P** **13 17 13.4 -2.9**
**MOS Moscow 71.73 325** *e*P **P** **13 17 16.6 +0.1**
MOS *e* 13 17 33.6
MOS *e* 13 19 55.2
MOS pmax pmax
comp=Z,56nm,0.9s
MOS MLR MLR
comp=Z,2μm,20.0s
**VRH Novokhopyorsk 71.77 319** *e*P **P** **13 17 16.3 -0.5**
VRH pmax pmax
comp=Z,50nm,0.8s
**MAK Makhachkala 72.04 310** *e*P **P** **13 17 15.1 -3.4**
MAK *e* 13 19 53.8
MAK *e*S **S** **13 26 35.0 -4.6**
MAK *e*SS **SS** **13 31 12.7 -3.3**
MAK pmax pmax
comp=Z,196nm,1.2s
MAK MLR MLR
comp=Z,3μm,15.0s
**LTY Liberty 72.12 45** *e*P **P** **13 17 20.4 +1.4**
**H04A Detroit Lake 72.36 48** *e*P **P** **13 17 21.4 +0.8**
**B08A Colville Reser 72.41 44** *e*P **P** **13 17 21.2 +0.5**

**OBN Obninsk 72.57 324** *ce*P **P** **13 17 21.5 +0.1**
OBN *e* 13 17 40.2
OBN *e* 13 20 02.4
OBN *e*PPP PPP 13 21 48.2
OBN pmax pmax
comp=Z,65nm,1.7s
OBN MLR MLR
comp=Z,2μm,18.0s
**LPSR Galich'ya Gora 72.61 321** *e*P **P** **13 17 21.4 -0.4**
LPSR pmax pmax
comp=Z,30nm,0.8s
**BIDO Bidbid 72.91 287** pP **P** **13 17 26.1 +2.0**
SNR=11
**BIDO Bidbid 72.91 287** P **P** **13 17 26.1 +2.0**
SNR=11
**G06A Carlson Farm, 73.08 47** *e*P **P** **13 17 26.4 +1.5**
**VSR Storozhevoye 73.17 320** *e*P **P** **13 17 24.8 -0.3**
VSR pmax pmax
comp=Z,30nm,0.7s
**HAWA Hanford 73.21 46** *e*P **P** **13 17 28.9 +3.3**
**BANOM Banah 73.28 290** *i* P **P** **13 17 27.4 +1.1**
SNR=17
**BANOM Banah 73.28 290** pP **P** **13 17 28.7 +2.4**
SNR=8.2
**BANOM Banah 73.28 290** P **P** **13 17 28.7 +2.4**
SNR=8.2
**C09A Chrisman Ranch 73.30 44** *e*P **P** **13 17 26.6 +0.6**
**YBH Yreka Blue Hor 73.38 51** LR LR 13 46 43.3
comp=Z,752nm,18.3s,baz=288,slow=33
**DDFL Dedoflistskaro 73.65 309** P **P** **13 17 30.5 +2.2**
**FIA1 FINESS Array S 73.67 333** *e*P **P** **13 17 27.9 0.0**
**FINES FINESS Array B 73.67 333** P **P** **13 17 27.9 0.0**
comp=Z,12nm,0.8s,baz=74,slow=6.8,SNR=19
**NEW Newport 73.75 43** LR LR 13 46 12.7
comp=Z,320nm,21.4s,baz=307,slow=33
**NEW Newport 73.75 43** *e*P **P** **13 17 29.5 +0.8**
**NEW Newport 73.75 43** *e*P **P** **13 17 29.5 +0.8**
**UOSS Minazif 73.81 290** *e*P **P** **13 17 29.6 +0.2**
**GOF Gofitskoye 73.91 313** ‖ *e*P **P** **13 17 29.8 +0.2**
GOF pmax pmax
comp=Z,28nm,0.8s
**HATD Hatta, Dubai 73.92 289** *i* P **P** **13 17 31.0 +0.9**
SNR=40
**HATD Hatta, Dubai 73.92 289** pP **P** **13 17 32.0 +1.9**
SNR=11
**HATD Hatta, Dubai 73.92 289** P **P** **13 17 32.0 +1.9**
SNR=11
HATD P **P** **13 17 32.0 +1.9**
SNR=11
**E09A Wood Farm, Sta 74.00 45** *e*P **P** **13 17 30.9 +0.7**
**BSY Bisya 74.03 287** pP **P** **13 17 33.0 +2.2**
SNR=6.7
**BSY Bisya 74.03 287** P **P** **13 17 33.0 +2.2**
SNR=6.7
**ASHO Ashiyiah 74.05 289** *i* P **P** **13 17 31.3 +0.5**
SNR=29
**ASHO Ashiyiah 74.05 289** pP **P** **13 17 32.0 +1.1**
SNR=12
**ASHO Ashiyiah 74.05 289** P **P** **13 17 32.0 +1.1**
SNR=12
**ARQ Araqi 74.30 288** PcP **PcP** **13 17 41.0 -6.2**
SNR=6.9
**ZEI Tsey 74.46 311** *e*P **P** **13 17 31.7 -1.5**
ZEI pmax pmax
comp=Z,7.0nm,0.6s
**KBZ Khabaz 74.65 312** P **P** **13 17 34.9 +1.0**
comp=Z,18nm,0.8s,baz=92,slow=2.5,SNR=41
KBZ LR LR 13 53 24.7
comp=Z,1μm,18.9s,baz=72,slow=38
**KIV Kislovodsk 74.67 312** *i* P **P** **13 17 35.1 +0.9**
SNR=6.9
**KIV Kislovodsk 74.67 312** *e*P **P** **13 17 35.1 +0.9**
**KIV Kislovodsk 74.67 312** *e*P **P** **13 17 35.1 +0.9**
**F10A Beach Ranch, E 74.82 45** *e*P **P** **13 17 37.0 +2.0**
**ONI Oni 74.84 311** P **P** **13 17 36.5 +1.2**
**ONI Oni 74.84 311** *e*P **P** **13 17 36.4 +1.2**
**MOD Modoc Plateau 74.88 50** *e*P **P** **13 17 36.8 +1.3**
**NEY Neytrino 74.99 312** ‖ *e*P **P** **13 17 36.9 +0.7**
NEY pmax pmax
comp=Z,1.0nm,0.8s
**WALA Waterton Lakes 75.18 41** *e*P **P** **13 17 37.8 +0.7**
**GNI Garni 75.18 308** *c i*P **P** **13 17 38.7 +1.4**
GNI pmax pmax
comp=Z,107nm,1.7s
**GNI Garni 75.18 308** *e*P **P** **13 17 38.9 +1.6**
**GNI Garni 75.18 308** pP **P** **13 17 39.2 +1.8**
SNR=5.5
**GNI Garni 75.18 308** P **P** **13 17 39.2 +1.8**
SNR=5.5
GNI P **P** **13 17 39.2 +1.8**
SNR=5.5
**ORV Oroville 75.22 53** *e*P **P** **13 17 37.8 +0.4**
**ORV Oroville 75.22 53** *e*P **P** **13 17 37.8 +0.4**
**BMO Blue Mountains 75.33 46** *e*P **P** **13 17 38.1 +0.1**
**BMO Blue Mountains 75.33 46** *e*P **P** **13 17 38.1 +0.1**
**JTMT Jette 75.65 43** *e*P **P** **13 17 40.6 +0.8**
**WVOR Wild Horse Val 75.70 49** *e*P **P** **13 17 41.6 +1.3**
**WVOR Wild Horse Val 75.70 49** *e*P **P** **13 17 41.6 +1.3**
**BEKR Beckworth 75.84 52** *e*P **P** **13 17 41.6 +0.5**
**AFDM Forest Hills D 75.88 53** *e*P **P** **13 17 42.8 +1.6**
**SUMG Summit 75.98 0** *e*P **P** **13 17 42.9 +1.3**
**SUMG Summit 75.98 0** *i*P **P** **13 17 42.9 +1.3**
comp=Z,24nm,1.0s
**SUMG Summit 75.98 0** *e*P **P** **13 17 42.9 +1.3**
**MSO Missoula 76.33 43** *e*P **P** **13 17 45.2 +1.5**
**ARTV Artvin 76.53 310** *e*P **P** **13 17 46.1 +1.0**
**PAHR Pah Rah Range 76.57 52** *e*P **P** **13 17 46.1 +0.9**
**SOC Sochi 76.72 313** *e*P **P** **13 17 44.5 -1.3**
SOC *e*PPP PPP 13 22 27.8
SOC *e*S **S** **13 27 30.9 -1.2**
SOC *e*SS **SS** **13 32 24.9 -2.2**
SOC *e*SSS SSS 13 35 50.1
SOC pmax pmax
comp=Z,31nm,0.7s
SOC MLR MLR
comp=Z,635nm,15.0s
**CMB Columbia Colle 76.73 53** *e*P **P** **13 17 45.9 -0.1**
**CMB Columbia Colle 76.73 53** *e*P **P** **13 17 45.9 -0.1**
**PNTR Pine Nut 76.74 52** *e*P **P** **13 17 47.2 +0.9**
**RAR Rarotonga 76.81 125** LR LR 13 48 38.8
comp=Z,697nm,18.9s,baz=300,slow=33
**MFID Camas Ranch 76.98 47** *e*P **P** **13 17 48.2 +0.8**
**YERR Yerington 77.03 52** *e*P **P** **13 17 48.8 +0.8**
**MICGM Minsk 77.09 327** *e*P **P** **13 17 48.3 +0.3**
MICGM eLR LR 14 53 40.0
MICGM LRM MLR 14 55 52.0
comp=E,2.5nm,14.0s
MICGM LRM MLR 14 55 56.0
comp=Z,3.3nm,14.0s
MICGM LRM MLR 14 56 08.0
comp=N,2.9nm,14.0s
**MNK Minsk 77.09 327** *e*P **P** **13 17 48.0 +0.3**
MNK MLR MLR
comp=E,2μm,14.0s
MNK MLR MLR
comp=Z,3μm,14.0s
MNK MLR MLR
comp=N,3μm,14.0s
**WAKR Walker 77.14 53** *e*P **P** **13 17 45.1 -3.4**
**ANN Anapa 77.47 315** *e*P **P** **13 17 48.9 -1.1**
ANN *e*S **S** **13 27 37.9 -2.4**
ANN pmax pmax
comp=Z,73nm,1.6s
**HRY Holter Researc 77.62 43** *e*P **P** **13 17 52.1 +1.1**
**LRM Limekiln Ridge 77.74 44** *e*P **P** **13 17 52.5 +0.6**
**HLID Hailey 77.78 46** *e*P **P** **13 17 52.6 +0.6**
**DLMT Dillon 77.91 44** *e*P **P** **13 17 53.6 +0.9**
**NV01 Mina Array Sit 77.94 52** *e*P **P** **13 17 53.1 0.0**
**PAGB Antelope Grade 77.97 55** *e*P **P** **13 17 54.3 +1.2**
**FFC Flin Flon 78.01 32** *e*P **P** **13 17 54.0 +1.2**
**FFC Flin Flon 78.01 32** *e*P **P** **13 17 54.0 +1.2**
**NV11 Mina Array Sit 78.04 52** *e*P **P** **13 17 54.3 +0.7**
**MCMT McKenzie Canyo 78.05 45** *e*P **P** **13 17 55.2 +1.7**
**EGMT Eagleton 78.06 41** *e*P **P** **13 17 54.2 +0.8**
**BOZ Bozeman (W) 78.35 43** *e*P P 13 17 50.0 -5.1
BOZ pmax pmax
comp=Z,11nm,0.7s
**BOZ Bozeman (W) 78.35 43** *e*P P 13 17 50.0 -5.1
comp=Z,11nm,0.7s
**AKASG Malin Array Be 78.71 323** P **P** **13 17 56.7 -0.1**
comp=Z,12nm,0.6s,baz=47,slow=6.1,SNR=41
AKASG PP **PP** **13 20 54.5 +0.1**
comp=Z,3.3nm,0.8s,baz=50,slow=8.9,SNR=4.5
AKASG LR LR 13 55 39.9

comp=Z,3μm,19.1s,baz=70,slow=38
**ELK Elko 78.75 49** LR LR 13 47 29.1
comp=Z,470nm,20.9s,baz=338,slow=32
**QLMT Earthquake Lak 78.89 44** *e*P **P 13 17 59.6 +1.4**
**YHB Horse Butte 79.07 44** *e*P **P 13 18 00.4 +1.2**
**NB2 NORSAR Subarra 79.21 338** P **P 13 17 58.9 -0.5**
comp=Z,17nm,0.9s,baz=42,slow=5.6
**NB2 NORSAR Subarra 79.21 338** P **P 13 17 58.4 -1.0**
NB2 pmax pmax
comp=Z,14nm,1.0s
**NB2 NORSAR Subarra 79.21 338** P **P 13 17 58.9 -0.5**
baz=42,slow=5.6
**NOA NORSAR Array B 79.21 338** P **P 13 17 59.4 +0.1**
comp=Z,9.0nm,0.8s,baz=41,slow=5.4,SNR=22
NOA LR LR 13 58 45.5
comp=Z,903nm,19.6s,baz=35,slow=40
**YMR Madison River 79.25 44** *e*P **P 13 18 01.7 +1.5**
**YHH Holmes Hill 79.25 44** *e*P **P 13 18 01.6 +1.3**
**MARD Mardin 79.29 307** *e*P **P 13 18 01.5 +1.2**
**SIM Simferopol' 79.36 316** *e*P **P 13 18 01.2 +0.7**
SIM *e*S **S 13 28 02.3 +1.7**
SIM pmax pmax
comp=Z,20nm,0.8s
**GCMT Greycliff 79.38 42** *e*P **P 13 18 01.5 +0.7**
**YNR Norris Junctio 79.40 44** *e*P **P 13 18 04.1 +3.1**
**YFT Old Faithful 79.45 44** *e*P **P 13 18 04.2 +2.9**
**SUW Suwalki 79.55 328** *e*P **P 13 18 01.8 +0.5**
**SUW Suwalki 79.55 328** *e*P **P 13 18 01.8 +0.5**
**YPP Pitchstone Pla 79.57 44** *e*P **P 13 18 04.4 +2.4**
**H17A Grant Village 79.64 44** *e*P **P 13 18 04.8 +2.5**
**HVU Hansel Valley 79.76 47** *e*P **P 13 18 03.9 +1.0**
**HVU Hansel Valley 79.76 47** *e*P **P 13 18 03.9 +1.0**
**FXWY Fox Creek 79.80 45** *e*P **P 13 18 04.4 +1.2**
**R11A Troy Canyon, C 79.81 51** *e*P **P 13 18 04.0 +0.7**
**MOOW Moose Ponds 79.90 41** *e*P **P 13 18 02.2 -1.6**
**TPAW Teton Pass 79.92 45** *e*P **P 13 18 04.8 +0.9**
**RLMT Red Lodge 79.99 43** *e*P **P 13 18 05.6 +1.4**
**REDW Red Top Meadow 80.06 45** *e*P **P 13 18 05.8 +1.2**
**SNOW Snow King Moun 80.06 45** *e*P **P 13 18 06.3 +1.6**
**BGU Big Grassy Mou 80.07 48** *e*P **P 13 18 05.7 +1.1**
**TPNV Topopah Spring 80.11 53** *e*P **P 13 18 05.1 +0.2**
**TPNV Topopah Spring 80.11 53** *e*P **P 13 18 05.1 +0.2**
**SPUT South Promonto 80.22 47** *e*P **P 13 18 07.5 +2.1**
**AHID Auburn Hatcher 80.24 46** *e*P **P 13 18 07.5 +1.9**
**GSC Goldstone, Bar 80.60 54** *e*P **P 13 18 09.1 +1.6**
**GSC Goldstone, Bar 80.60 54** *e*P **P 13 18 09.1 +1.6**
**DUG Dugway, Tooele 80.61 48** *e*P **P 13 18 07.8 +0.3**
**DUG Dugway, Tooele 80.61 48** *e*P **P 13 18 07.8 +0.3**
**SORM Soroca 80.72 321** ⇑*i*P **P 13 18 07.5 -0.2**
**SORM Soroca 80.72 321** ⇑⇑P **P 13 18 07.5 -0.2**
**MCU Monte Cristo P 80.72 47** *e*P **P 13 18 09.0 +0.7**
**LAO LASA Array 80.79 40** *e*P **P 13 18 10.5 +2.2**
**TCUT Toone Canyon 80.98 47** *e*P **P 13 18 10.7 +1.1**
**CTU Camp Tracy 81.00 48** *e*P **P 13 18 10.6 +0.9**
**SHPR Sheep Range 81.08 53** *e*P **P 13 18 10.8 +0.7**
**SFJD Kangerlussuaq 81.14 5** *e*P **P 13 18 10.0 +0.4**
SFJD pmax pmax
comp=Z,23nm,1.0s
**SFJD Kangerlussuaq 81.14 5** *i*P **P 13 18 10.0 +0.4**
comp=Z,23nm,1.0s
**KIS Kishinev 81.16 320** *e*P **P 13 18 10.0 -0.1**
KIS *e*L L 13 52 32.0
KIS LRM MLR 14 02 08.0
comp=Z,2μm,16.0s
**KIS Kishinev 81.16 320** *e*P **P 13 18 10.0 -0.1**
**BW06 Boulder Array 81.17 45** *e*P **P 13 18 10.6 0.0**
**PD31 Pinedale Array 81.17 45** *e*P **P 13 18 10.6 -0.1**
**PDAR Pinedale Array 81.17 45** P **P 13 18 11.4 +0.8**
comp=Z,4.3nm,0.8s,baz=272,slow=2.0,SNR=32
PDAR LR LR 13 50 37.3
comp=Z,299nm,19.5s,baz=319,slow=33
**PDAR Pinedale Array 81.17 45** *e*P **P 13 18 10.0 -0.6**
**HEC Hector,Ludlow 81.18 55** P **P 13 18 10.9 +0.4**
baz=303
**NLU North Lily Min 81.21 48** *e*P **P 13 18 11.4 +0.6**
**JLU Jordanelle 81.24 48** *e*P **P 13 18 12.2 +1.2**
**MPU Maple Canyon 81.46 48** *e*P **P 13 18 13.1 +1.0**
**CPE Camp Elliot 81.67 57** *e*P **P 13 18 14.2 +1.1**
**CCUT Cedar City 81.71 51** *e*P **P 13 18 14.2 +0.6**
**PFO Pinyon Flats O 81.74 56** P **P 13 18 13.8 +0.1**
baz=303
**PFO Pinyon Flats O 81.74 56** *e*P **P 13 18 14.0 +0.4**
**PFO Pinyon Flats O 81.74 56** *e*P **P 13 18 14.0 +0.4**
**XPFO Piæon Flat 81.75 56** *e*P **P 13 18 14.0 +0.4**
**TPFO Pinon Flats 81.75 56** P **P 13 18 13.6 -0.1**
baz=303
**ILGA Ilgaz 81.82 313** *e*P **P 13 18 15.3 +1.3**
**LVV L'vov 81.87 325** *e*P **P 13 18 14.1 +0.3**
**SZCU Shurtz Canyon 81.87 51** *e*P **P 13 18 15.9 +1.6**
**LDFC Landfair 81.89 54** *e*P **P 13 18 15.4 +1.0**
**MSU Marysvale 81.95 50** *e*P **P 13 18 16.1 +1.3**
**MSU Marysvale 81.95 50** *e*P **P 13 18 16.1 +1.3**
**PPT Papeete 81.99 116** LR LR 13 54 49.1
comp=Z,801nm,18.7s,baz=320,slow=36
**PPT2 Papeete2 82.00 116** *e*S **S 13 28 21.0 -8.0**
comp=Z,889nm,33.0s
**PPT2 Papeete2 82.00 116** *e*LR LR 13 43 24.7
comp=Z,840nm,21.8s,baz=310
**BEL Belsk 82.07 328** *e*P **P 13 18 15.9 +1.1**
**BEL Belsk 82.07 328** *e*P **P 13 18 15.9 +1.1**
**LCMT Little Creek M 82.09 51** *e*P **P 13 18 16.2 +0.8**
**BAR Barrett 82.09 57** *e*P **P 13 18 16.0 +0.7**
**TMUT Trail Mountain 82.14 49** *e*P **P 13 18 17.1 +1.3**
**MTPU Mount Pierson 82.21 50** *e*P **P 13 18 17.3 +0.9**
**P18A Preston Nutter 82.56 48** *e*P **P 13 18 18.9 +0.9**
**BR131 Keskin Array S 82.63 312** *e*P **P 13 18 18.7 +0.5**
**BRTR Keskin Array B 82.63 312** P **P 13 18 18.7 +0.5**
comp=Z,9.1nm,0.9s,baz=106,slow=4.0,SNR=48
BRTR LR LR 13 59 13.6
comp=Z,467nm,19.5s,baz=62,slow=39
**KWP Kalwaria Pacla 82.64 325** *e*P **P 13 18 18.7 +0.8**
**KWP Kalwaria Pacla 82.64 325** *e*P **P 13 18 18.7 +0.8**
**CFR Carcaliu 82.65 319** ⇓*i*P **P 13 18 20.4 +2.4**
**CFR Carcaliu 82.65 319** ⇓P **P 13 18 20.4 +2.4**
**GKP Gorka Klasztor 82.65 330** *e*P **P 13 18 17.9 0.0**
**GKP Gorka Klasztor 82.65 330** *e*P **P 13 18 17.8 0.0**
**BUR08 Bucovina Ar. S 82.68 322** *e*P **P 13 18 18.7 +0.3**
**SRU San Rafael Swe 82.68 48** *e*P **P 13 18 18.8 +0.3**
**SRU San Rafael Swe 82.68 48** *e*P **P 13 18 18.8 +0.3**
**BUR04 Bucovina Ar. S 82.69 322** *e*P **P 13 18 18.4 +0.1**
**BURAR Bucovina Array 82.69 322** ⇑*i*P **P 13 18 18.8 +0.5**
**BURAR Bucovina Array 82.69 322** ⇑P **P 13 18 18.8 +0.5**
**TIRR Tirgusor 82.94 319** ⇑*i*P **P 13 18 19.0 -0.5**
**TIRR Tirgusor 82.94 319** ⇑P **P 13 18 19.0 -0.5**
**VRI Vrincioaia 83.00 320** ⇑*i*P **P 13 18 20.6 +0.8**
**VRI Vrincioaia 83.00 320** ⇑P **P 13 18 20.6 +0.8**
**RAYN Ar Rayn 83.00 293** *e*P **P 13 18 20.8 +0.5**
**Y12C Blythe 83.02 55** *e*P **P 13 18 20.8 +0.7**
**PLOR Plostina 83.05 320** ⇑*i*P **P 13 18 20.6 +0.5**
**PLOR Plostina 83.05 320** ⇑P **P 13 18 20.6 +0.5**
**K22A Casper 83.05 44** *e*P **P 13 18 22.0 +1.7**
**ANTO Ankara 83.08 313** pP **P 13 18 21.3 +0.8**
SNR=5.7
**ANTO Ankara 83.08 313** P **P 13 18 21.3 +0.8**
SNR=5.7
ANTO P **P 13 18 21.3 +0.8**
SNR=5.7
**BR231 Keskin MP Arra 83.11 313** *e*P **P 13 18 19.0 -1.6**
**GLA Glamis 83.19 55** *e*P **P 13 18 23.0 +1.9**
**GLA Glamis 83.19 55** *e*P **P 13 18 23.0 +1.9**
**RWWY Rawlins 83.22 45** *e*P **P 13 18 22.8 +1.4**
**STHS Stebnicka Huta 83.50 326** *e*P **P 13 18 23.6 +1.3**
STHS pmax pmax
comp=Z,11nm,0.9s
**STHS Stebnicka Huta 83.50 326** *e*P **P 13 18 23.6 +1.3**
**UZH Uzhgorod 83.51 324** *e*P **P 13 18 20.5 -1.8**
UZH *e* 13 18 22.5
UZH *e* 13 18 27.7
UZH *e*PPP PPP 13 23 29.1
UZH *e*S **S 13 28 38.1 -5.3**
UZH MLR MLR
comp=N,1μm,1.6s
UZH MLR MLR
comp=E,550nm,1.6s
UZH MLR MLR
comp=Z,300nm,1.6s
**O20A White River Ci 83.51 46** *e*P **P 13 18 22.7 -0.1**
**RSSD Black Hills 83.58 41** *e*P **P 13 18 25.1 +2.0**
**RSSD Black Hills 83.58 41** *e*P **P 13 18 25.1 +2.0**
**OJC Ojcow 83.63 327** *e*P **P 13 18 23.6 +0.6**
**OJC Ojcow 83.63 327** *e*P **P 13 18 23.6 +0.6**
**OJC Ojcow 83.63 327** *e*P **P 13 18 23.1 +0.1**

**DOPR Dopca 83.65 321** ⇓*i*P **P 13 18 24.1 +0.9**
**MLR Muntele Rosu 83.66 320** ⇑*i*P **P 13 18 23.0 -0.4**
**MLR Muntele Rosu 83.66 320** *e*P **P 13 18 23.2 -0.2**
**MLR Muntele Rosu 83.66 320** *e*P **P 13 18 23.2 -0.2**
**CRVS Cervenica-Dubn 83.74 325** *e*P **P 13 18 24.1 +0.5**
**CRVS Cervenica-Dubn 83.74 325** *e*P **P 13 18 24.1 +0.5**
**ULM Lac du Bonnet 83.76 33** P **P 13 18 22.8 -0.8**
comp=Z,2.7nm,0.5s,baz=268,slow=2.5,SNR=7.1
**PV09 Paradox Valley 83.92 48** *e*P **P 13 18 26.2 +1.1**
**NIE Niedzica 83.95 326** *e*P **P 13 18 25.6 +0.9**
**NIE Niedzica 83.95 326** *e*P **P 13 18 25.6 +0.9**
**PV10 Paradox Valley 84.05 48** *e*P **P 13 18 26.2 +0.6**
**VOIR 84.18 321** ⇑*i*P **P 13 18 26.4 +0.4**
**VOIR 84.18 321** ⇑P **P 13 18 26.4 +0.4**
**WUAZ Wupatki 84.18 52** *e*P **P 13 18 27.2 +0.9**
**PV05 Paradox Valley 84.19 49** *e*P **P 13 18 26.8 +0.4**
**ARR Arges 84.44 321** ⇑*i*P **P 13 18 28.2 +0.9**
**PV01 Paradox Valley 84.49 48** *e*P **P 13 18 28.5 +0.6**
**KECS Kecovo 84.50 325** *e*P **P 13 18 27.5 +0.1**
KECS pmax pmax
comp=Z,8.0nm,1.2s
**KECS Kecovo 84.50 325** *e*P **P 13 18 27.5 +0.1**
**PHWY Pilot Hill 84.50 44** *e*P P 13 18 32.8 +4.8
**DRGR 84.52 323** ⇑*i*P **P 13 18 27.2 -0.5**
**DRGR 84.52 323** ⇑P **P 13 18 27.2 -0.5**
**LANS Liptovska Anna 84.53 326** *e*P **P 13 18 29.1 +1.5**
**LANS Liptovska Anna 84.53 326** *e*P **P 13 18 29.1 +1.5**
**TAOE Nuku Hiva Isla 84.58 104** *e*S **S 13 28 49.8 -5.6**
comp=Z,158nm,31.0s
**TAOE Nuku Hiva Isla 84.58 104** *e*LR LR 13 44 52.0
comp=Z,1μm,26.6s,baz=307
**OKC Ostrava-Krasne 84.67 327** *e*P **P 13 18 28.7 +0.5**
OKC *e*pP **PcP 13 18 31.8 +0.1**
OKC *e*x x 13 18 42.1
OKC *e*x x 13 18 50.6
**OKC Ostrava-Krasne 84.67 327** *e*P **P 13 18 28.7 +0.5**
OKC *e* 13 18 31.8
**KSP Ksiaz 84.79 329** *e*P **P 13 18 29.4 +0.5**
**KSP Ksiaz 84.79 329** *e*P **P 13 18 29.3 +0.5**
**SMCO Snowmass 84.87 47** *e*P **P 13 18 31.1 +1.1**
**BOLV Bolvadin 84.91 313** *e*P **P 13 18 30.8 +0.9**
**MORC Moravsky Berou 84.99 327** ⇓*i*P **P 13 18 27.5 -2.4**
**MORC Moravsky Berou 84.99 327** *e*P **P 13 18 30.3 +0.4**
**MORC Moravsky Berou 84.99 327** *e*P **P 13 18 30.3 +0.4**
**MVCO Mesa Verde 85.08 49** *e*P **P 13 18 32.2 +1.3**
**KRLC Kraliky 85.12 328** *e*P **P 13 18 31.1 +0.5**
KRLC *e*x x 13 18 44.6
KRLC *e*x x 13 18 52.7
**KRLC Kraliky 85.12 328** *e*P **P 13 18 31.1 +0.5**
**DPC Dobruska-Polom 85.13 328** *e*P **P 13 18 30.9 +0.3**
DPC *e*pP **pP 13 18 35.0 -0.8**
DPC *e*x x 13 18 44.5
DPC *e*x x 13 18 53.5
DPC *e*PP **PP 13 21 47.5 +0.3**
DPC AMS AMS 14 05 50.0
comp=Z,2μm,12.0s
**DPC Dobruska-Polom 85.13 328** *e*P **P 13 18 30.9 +0.3**
DPC *e* 13 18 35.0
DPC *e* 13 21 47.5
DPC MLR MLR
comp=Z,2μm,12.0s
**UPC Upice 85.16 329** *e*P **P 13 18 31.3 +0.6**
UPC *e*pP **pP 13 18 34.9 -1.0**
UPC *e*x x 13 18 53.2
UPC AMS AMS 14 02 20.0
**UPC Upice 85.16 329** *e*P **P 13 18 31.3 +0.6**
UPC *e* 13 18 34.9
**PSZ Piszkesteto 85.17 325** ⇑*i*P **P 13 18 30.6 -0.3**
**PSZ Piszkesteto 85.17 325** *e*P **P 13 18 31.5 +0.6**
**PSZ Piszkesteto 85.17 325** *e*P **P 13 18 31.5 +0.6**
**VYHS Vyhne 85.28 326** *e*P **P 13 18 31.9 +0.5**
VYHS pmax pmax
comp=Z,11nm,1.0s
**VYHS Vyhne 85.28 326** *e*P **P 13 18 31.9 +0.5**
**ISCO Idaho Springs 85.33 46** *e*P **P 13 18 32.8 +0.6**
**ISCO Idaho Springs 85.33 46** *e*P **P 13 18 32.8 +0.6**
**TBI Tubuai 85.54 121** *e*LR LR 13 44 53.5
comp=Z,789nm,35.5s,baz=308
**VRAC Vranov 85.75 328** ⇓*i*P **P 13 18 33.8 +0.1**
**VRAC Vranov 85.75 328** ⇓P **P 13 18 33.8 +0.1**
**PVCC Panska Ves 85.77 329** *e*P **P 13 18 34.3 +0.5**
PVCC *e*pP **pP 13 18 37.7 -1.2**
PVCC *e*x x 13 18 46.6
**PVCC Panska Ves 85.77 329** *e*P **P 13 18 34.3 +0.5**
PVCC *e* 13 18 37.7
**CLL Collm 85.86 331** *i*P **P 13 18 34.1 -0.1**
CLL *i* 13 18 38.2
CLL *e*S **S 13 29 12.0 +5.2**
CLL pmax pmax
comp=Z,20nm,1.0s
**CLL Collm 85.86 331** *i*P **P 13 18 34.1 -0.1**
comp=Z,20nm,1.0s
CLL *i*pP **pP 13 18 38.2 -1.2**
CLL *e* 13 18 53.0
CLL *e*PP **PP 13 21 53.0 0.0**
CLL *e*S **S 13 29 12.0 +5.2**
**HERR Herculane 85.95 322** ⇑*i*P **P 13 18 34.5 -0.2**
**GOPC GO Pecny, Ondr 86.13 329** AMS AMS 14 01 30.0
comp=Z,2μm,15.3s
**PRU Pruhonice 86.18 329** AMS AMS 14 01 40.0
**TUC Tucson 86.42 54** *e*P **P 13 18 39.4 +1.9**
**TUC Tucson 86.42 54** *e*P **P 13 18 39.4 +1.9**
**SDCO Great Sand Dun 86.66 47** *e*P **P 13 18 40.8 +2.0**
**CONA Conrad Observa 87.09 327** *i*PcP **P 13 18 41.1 +0.7**
comp=Z,5.0nm,0.8s
**KHC Kasperske Hory 87.24 329** *e*P **P 13 18 41.0 0.0**
KHC *e*PP **PP 13 22 04.6 +0.4**
**KHC Kasperske Hory 87.24 329** *e*P **P 13 18 41.0 0.0**
KHC *e* 13 22 04.6
**GERES GERESS Array B 87.39 329** P **P 13 18 42.3 +0.4**
comp=Z,2.2nm,0.6s,baz=35,slow=4.9,SNR=9.7
GERES PP **PP 13 22 08.2 +2.6**
comp=Z,0.8nm,0.7s,baz=40,slow=7.0,SNR=3.8
GERES LR LR 14 00 16.2
comp=Z,691nm,20.5s,baz=21,slow=37
**ANMO Albuquerque 87.76 50** ⇓*e*P **P 13 18 47.1 +3.0**
ANMO pmax pmax
comp=Z,7.0nm,1.7s
**ANMO Albuquerque 87.76 50** *e*P **P 13 18 48.3 +4.2**
**ECSD EROS Data Cent 87.88 38** *e*P **P 13 18 44.9 +0.7**
**SOKA Soboth 88.38 327** *i*P **P 13 18 45.8 -0.9**
comp=Z,2.0nm,0.5s
**ABTA Abfaltersbach 89.50 328** *i*P **P 13 18 51.2 -0.7**
comp=Z,8.2nm,1.0s
**RETA Reutte 89.71 329** *i*PcP **P 13 18 53.1 +0.3**
comp=Z,9.0nm,0.9s
**FETA Feichten 90.08 329** *i*PcP **P 13 18 54.1 -0.6**
comp=Z,8.1nm,0.9s
**BFO Black Forest 90.09 331** *i*P **P 13 18 55.1 +0.6**
**SCHQ Schefferville 90.34 16** P **P 13 18 56.3 +0.8**
comp=Z,5.1nm,1.0s,baz=189,slow=2.2,SNR=3.0
SCHQ LR LR 14 01 12.3
comp=Z,321nm,22.0s,baz=335,slow=37
**MNTX Cornudas Mount 90.46 52** *e*P **P 13 18 58.3 +1.7**
**TXAR Lajitas Array 93.09 53** P **P 13 19 09.2 +0.4**
comp=Z,12nm,0.9s,baz=294,slow=2.7,SNR=50
**RKT Rikitea 96.42 113** *e*SKSac **SKSac 13 29 59.7 -0.5**
comp=Z,202nm,28.2s
**RKT Rikitea 96.42 113** *e*PS PS 13 32 03.5 -2.2
comp=Z,322nm,28.2s
**RKT Rikitea 96.42 113** *e*LR LR 13 50 18.2
comp=Z,781nm,23.2s
**KEST Kesra 99.43 323** LR LR 14 08 54.7
comp=Z,652nm,19.1s,baz=356,slow=38
**TORD Torodi Ar. Bea 121.24 313** PKP **PKPdf 13 24 48.0 -0.3**
comp=Z,1.3nm,0.7s,baz=24,slow=2.3,SNR=8.8
TORD PP PP 13 26 05.8 -12
comp=Z,1.6nm,0.8s,baz=32,slow=6.7,SNR=5.5
TORD PKKPab **PKKPab 13 34 52.6 +0.1**
comp=Z,0.8nm,0.8s,baz=226,slow=4.1,SNR=4.4
**LBTB Lobatse 124.16 260** PKP **PKPdf 13 24 54.5 +0.9**
comp=Z,5.4nm,0.8s,baz=120,slow=3.0,SNR=6.8
**BOSA Boshof 125.74 256** PKP **PKPdf 13 24 57.4 +0.8**
comp=Z,2.8nm,0.8s,baz=166,slow=4.0,SNR=3.0
**DBIC Dimbokro 130.30 314** PKP **PKPdf 13 25 05.3 -0.3**
comp=Z,1.5nm,0.7s,baz=360,slow=1.8,SNR=2.6
**SNAA Sanae 135.75 195** PKP **PKPdf 13 25 15.4 +1.1**
**VNA2 Neumayer--Watz 137.29 194** PKP **PKPdf 13 25 19.5 +2.5**
baz=86,slow=1.0
**VNA3 Neumayer Olymp 137.50 193** PKP **PKPdf 13 25 18.1 +0.7**
**VNA1 Neumayer--Stat 137.69 194** PKP **PKPdf 13 25 17.1 -0.6**
**LPAZ La Paz 148.77 68** PKPbc **PKPbc 13 25 43.5 +0.1**
comp=Z,5.2nm,0.6s,baz=13,slow=0.7,SNR=15
**PLCA Paso Flores 152.52 118** PKPbc **PKPbc 13 25 51.6 +0.6**
comp=Z,5.5nm,0.8s,baz=253,slow=4.7,SNR=8.7

*ISCJB **15** 13:11:20.7±0.6,31°.15N±0°.07×140°.3E±0°.2,h10km, mb3.9/7,Error ellipse: s-maj=24.9km s-min=6.2km az=162.9*
*IDC **15** 13:11:21.1±1.1,31°.16N×140°.31E,h0km,mb3.8/7, mb1 3.9/9,mb1mx3.7/47,mbtmp3.8/9,ML3.6/2,Error ellipse: s-maj=40.1km s-min=14.3km az=77.0*
**ISC 15 13:11:22.4**±0.8,**31°.21N**±0°.09×**140°.3E**±0°.2,**h10**km,**n11, σ1°47**/14,**mb3.7/7,Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **JHJ** | **Hachijo jima 2** | **1.96** | **347** | Pn | | **Pn** | **13 11 54.5** | **-1.3** |
| | 31nm,0.3s,baz=74,slow=19,SNR=5.4 | | | | | | | |
| JHJ | | | | Sn | | **Sn** | **13 12 21.1** | **+0.7** |
| | 22nm,0.3s,baz=255,slow=23,SNR=4.0 | | | | | | | |
| **JCJ** | **Chichijima** | **4.41** | **158** | Pn | | **Pn** | **13 12 28.2** | **-1.1** |
| | 7.9nm,0.3s,baz=27,slow=18,SNR=7.1 | | | | | | | |
| JCJ | | | | Sn | | **Sn** | **13 13 21.1** | **+0.4** |
| | 6.4nm,0.3s,baz=282,slow=22,SNR=2.9 | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **5.61** | **342** | Pn | | **Pn** | **13 12 44.4** | **-1.4** |
| | 0.8nm,0.3s,baz=151,slow=11,SNR=4.6 | | | | | | | |
| MJAR | | | | Sn | | **Sn** | **13 13 47.3** | **-2.9** |
| | 0.6nm,0.3s,baz=147,slow=32,SNR=2.7 | | | | | | | |
| **SONM** | **Songino Array** | **30.68** | **313** | P | | **P** | **13 17 38.5** | **+1.2** |
| | 0.9nm,0.9s,baz=114,slow=12,SNR=2.3 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **45.36** | **317** | P | | **P** | **13 19 41.2** | **+0.6** |
| | 0.3nm,0.4s,baz=109,slow=8.5,SNR=2.3 | | | | | | | |
| **MKAR** | **Makanchi Array** | **46.66** | **307** | P | | **P** | **13 19 53.0** | **+2.0** |
| | 1.5nm,0.9s,baz=78,slow=11,SNR=3.5 | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **49.05** | **312** | P | | **P** | **13 20 09.3** | **-0.2** |
| | 4.6nm,1.1s,baz=89,slow=7.8,SNR=4.8 | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **51.02** | **198** | P | | **P** | **13 20 23.5** | **-1.2** |
| | baz=298,slow=9.9 | | | | | | | |
| **WRA** | **Warramunga Arr** | **51.18** | **187** | P | | **P** | **13 20 26.0** | **+0.1** |
| | 3.2nm,0.8s,baz=6.4,slow=7.7,SNR=8.6 | | | | | | | |
| **ASAR** | **Alice Springs** | **54.91** | **187** | P | | **P** | **13 20 53.2** | **-0.1** |
| | 0.4nm,0.5s,baz=357,slow=5.6,SNR=4.0 | | | | | | | |
| **ILAR** | **Eielson Array** | **54.94** | **30** | P | | **P** | **13 20 54.7** | **+1.6** |
| | 0.4nm,0.9s,baz=275,slow=5.6,SNR=3.0 | | | | | | | |

*MOS **15** 13:18:29.9±1.0,52°.36N×159°.98E,h40km,mb4.5/13,Error ellipse: s-maj=8.0km s-min=3.9km az=92.2*
*MOS Felt (II-III) at Petropavlovsk-Kamchatskiy.*
*KRSC **15** 13:18:30.4±1.6,52°.52N×159°.90E,h54km±17km,ML5.1*
*ISCJB **15** 13:18:32.8±0.4,52°.57N±0°.03×159°.69E±0°.05,h67km±3km, mb4.3/49,Error ellipse: s-maj=6.9km s-min=3.3km az=43.6*
*NEIC **15** 13:18:34.8±0.9,52°.73N×159°.59E,h66km±7km,mb4.7/6, Error ellipse: s-maj=9.8km s-min=6.3km az=149.0*
*IDC **15** 13:18:35.5±1.3,52°.76N×159°.61E,h69km±9km,mb4.0/39, mb1 4.1/43,mb1mx4.1/75,mbtmp4.3/43,Error ellipse: s-maj=14.5km s-min=9.1km az=159.0*
**ISC 15 13:18:32.2**±0.8,**52°.55N**±0°.04×**159°.78E**±0°.03,**h47**km±6km, **n167,σ1°72/205,mb4.3/49,7C-7D,Off east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **SPN** | **Mys Shipunski** | **0.57** | **15** | PN | | **Pn** | **13 18 44.4** | **+0.3** |
| SPN | | | | S | | **Sn** | **13 18 52.9** | **+0.4** |
| **SPN** | **Mys Shipunski** | **0.57** | **15** | *i* P | | **Pn** | **13 18 44.4** | **+0.3** |
| SPN | | | | *i* S | | **Sn** | **13 18 52.9** | **+0.4** |
| **NLC** | **Nalytchevo** | **0.67** | **337** | PN | | **Pn** | **13 18 46.2** | **+0.8** |
| NLC | | | | S | | **Sn** | **13 18 56.6** | **+1.6** |
| **NLC** | **Nalytchevo** | **0.67** | **337** | *i* P | | **Pn** | **13 18 46.2** | **+0.8** |
| NLC | | | | *i* S | | **Sn** | **13 18 56.6** | **+1.6** |
| **RUS** | **Russkaya** | **0.78** | **262** | PN | | **Pn** | **13 18 48.0** | **+1.1** |
| RUS | | | | S | | **Sn** | **13 18 59.3** | **+1.7** |
| **RUS** | **Russkaya** | **0.78** | **262** | *i* P | | **Pn** | **13 18 48.0** | **+1.1** |
| RUS | | | | *i* S | | **Sn** | **13 18 59.3** | **+1.7** |
| **DALK** | **Dalny** | **0.79** | **308** | PN | | **Pn** | **13 18 47.6** | **+0.7** |
| DALK | | | | S | | **Sn** | **13 18 58.2** | **+0.6** |
| **DALK** | **Dalny** | **0.79** | **308** | *e*P | | **Pn** | **13 18 47.6** | **+0.7** |
| DALK | | | | *e*S | | **Sn** | **13 18 58.2** | **+0.6** |
| **PET** | **Petropavlovsk** | **0.83** | **305** | *κ i*PN | | **Pn** | **13 18 47.9** | **+0.4** |
| PET | | | | *e*S | | **Sn** | **13 18 59.1** | **+0.4** |
| PET | | | | pmax | pmax | | | |
| | comp=Z,1μm,0.4s | | | | | | | |
| PET | | | | pmax | pmax | | | |
| | comp=Z,2μm,0.5s | | | | | | | |
| PET | | | | smax | smax | | | |
| | comp=N,21μm,0.4s | | | | | | | |
| PET | | | | smax | smax | | | |
| | comp=N,27μm,0.5s | | | | | | | |
| PET | | | | smax | smax | | | |
| | comp=E,20μm,0.4s | | | | | | | |
| **PET** | **Petropavlovsk** | **0.83** | **305** | *e*Pn | | **Pn** | **13 18 48.3** | **+0.8** |
| PET | | | | *e*Sn | | **Sn** | **13 18 59.6** | **+0.9** |
| **UGLR** | **Uglovaya** | **0.88** | **319** | PN | | **Pn** | **13 18 49.4** | **+1.1** |
| **UGLR** | **Uglovaya** | **0.88** | **319** | *i* P | | **Pn** | **13 18 49.4** | **+1.1** |
| **INSR** | **Institute** | **0.88** | **306** | PN | | **Pn** | **13 18 48.5** | **+0.3** |
| INSR | | | | S | | **Sn** | **13 19 00.1** | **+0.2** |
| **INSR** | **Institute** | **0.88** | **306** | *e*P | | **Pn** | **13 18 48.5** | **+0.3** |
| INSR | | | | *e*S | | **Sn** | **13 19 00.1** | **+0.2** |
| **AVH** | **Avacha** | **0.95** | **319** | PN | | **Pn** | **13 18 50.5** | **+1.2** |
| AVH | | | | S | | **Sn** | **13 19 03.6** | **+1.8** |
| **AVH** | **Avacha** | **0.95** | **319** | *i* P | | **Pn** | **13 18 50.5** | **+1.2** |
| AVH | | | | *i* S | | **Sn** | **13 19 03.6** | **+1.8** |
| **KRER** | **Koryakskii** | **0.98** | **321** | PN | | **Pn** | **13 18 50.9** | **+1.2** |
| **KRER** | **Koryakskii** | **0.98** | **321** | *e*P | | **Pn** | **13 18 50.9** | **+1.2** |
| **MTVR** | **Mutnovka** | **0.98** | **267** | PN | | **Pn** | **13 18 50.6** | **+0.9** |
| **MTVR** | **Mutnovka** | **0.98** | **267** | *e*P | | **Pn** | **13 18 50.6** | **+0.9** |
| **KOK** | **Koryaka** | **1.01** | **317** | PN | | **Pn** | **13 18 51.4** | **+1.3** |
| **KOK** | **Koryaka** | **1.01** | **317** | *e*P | | **Pn** | **13 18 51.4** | **+1.3** |
| **GRL** | **Gorelyy** | **1.04** | **271** | PN | | **Pn** | **13 18 51.9** | **+1.4** |
| GRL | | | | S | | **Sn** | **13 19 06.2** | **+2.2** |
| **GRL** | **Gorelyy** | **1.04** | **271** | *e*P | | **Pn** | **13 18 51.9** | **+1.4** |
| GRL | | | | *e*S | | **Sn** | **13 19 06.2** | **+2.2** |
| **KRMR** | **Karymshinskiy** | **1.04** | **286** | PN | | **Pn** | **13 18 51.3** | **+0.9** |
| KRMR | | | | S | | **Sn** | **13 19 04.1** | **+0.3** |
| **KRMR** | **Karymshinskiy** | **1.04** | **286** | *i* P | | **Pn** | **13 18 51.3** | **+0.9** |
| KRMR | | | | *e*S | | **Sn** | **13 19 04.1** | **+0.3** |
| **KRX** | **Arik** | **1.06** | **320** | PN | | **Pn** | **13 18 51.8** | **+1.0** |
| KRX | | | | S | | **Sn** | **13 19 05.1** | **+0.7** |
| **KRX** | **Arik** | **1.06** | **320** | *e*P | | **Pn** | **13 18 51.8** | **+1.0** |
| KRX | | | | *e*S | | **Sn** | **13 19 05.1** | **+0.7** |
| **ASAK** | **Asacha** | **1.16** | **262** | PN | | **Pn** | **13 18 53.5** | **+1.4** |
| **ASAK** | **Asacha** | **1.16** | **262** | *e*P | | **Pn** | **13 18 53.5** | **+1.4** |
| **KDTR** | **Khodutka, Kamc** | **1.29** | **235** | *e*P | | **Pn** | **13 18 54.9** | **+1.2** |
| KDTR | | | | *e*S | | **Sn** | **13 19 11.3** | **+1.6** |
| **PETK** | **Petropavlovsk-** | **1.38** | **295** | P | | **Pn** | **13 18 56.3** | **+1.3** |
| | comp=E,617nm,0.3s,baz=106,slow=18,SNR=4407 | | | | | | | |
| PETK | | | | S | | **Sn** | **13 19 12.5** | **+0.4** |
| | comp=E,693nm,0.3s,baz=98,slow=30,SNR=23 | | | | | | | |
| **KII** | **Karymskiy** | **1.50** | **352** | PN | | **Pn** | **13 18 58.0** | **+1.3** |
| KII | | | | S | | **Sn** | **13 19 16.7** | **+1.6** |
| **KII** | **Karymskiy** | **1.50** | **352** | *e*P | | **Pn** | **13 18 58.0** | **+1.3** |
| KII | | | | *e*S | | **Sn** | **13 19 16.7** | **+1.6** |
| **APC** | **Apacha** | **1.64** | **284** | PN | | **Pn** | **13 19 00.7** | **+2.2** |
| APC | | | | S | | **Sn** | **13 19 22.3** | **+4.0** |
| **APC** | **Apacha** | **1.64** | **284** | *i* P | | **Pn** | **13 19 00.7** | **+2.2** |
| APC | | | | *i* S | | **Sn** | **13 19 22.3** | **+4.0** |
| **KZV** | **Kizimen** | **2.58** | **7** | PN | | **Pn** | **13 19 13.4** | **

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **BZMR** | **Bezymyannaya** | **3.42** | **7** | *eP* | | **Pn** | **13 19 25.5** | **+2.5** |
| **KIRR** | **Kirishev** | **3.42** | **5** | PN | | **Pn** | **13 19 25.2** | **+2.1** |
| **KIRR** | **Kirishev** | **3.42** | **5** | *eP* | | **Pn** | **13 19 25.2** | **+2.1** |
| **KPT** | **Kopyto** | **3.43** | **4** | PN | | **Pn** | **13 19 25.6** | **+2.4** |
| **KPT** | **Kopyto** | **3.43** | **4** | *eP* | | **Pn** | **13 19 25.6** | **+2.4** |
| **ESO** | **Esso** | **3.44** | **350** | PN | | **Pn** | **13 19 25.3** | **+2.1** |
| **ESO** | **Esso** | **3.44** | **350** | *eP* | | **Pn** | **13 19 25.3** | **+2.1** |
| **BZWR** | **Bezymyannyi-We** | **3.44** | **7** | PN | | **Pn** | **13 19 25.9** | **+2.5** |
| **BZWR** | **Bezymyannyi-We** | **3.44** | **7** | *eP* | | **Pn** | **13 19 25.9** | **+2.5** |
| **KOZ** | **Kozyrevsk** | **3.51** | **1** | PN | | **Pn** | **13 19 27.0** | **+2.8** |
| **KOZ** | **Kozyrevsk** | **3.51** | **1** | *eP* | | **Pn** | **13 19 27.0** | **+2.8** |
| **ZLN** | **Zelenaya** | **3.52** | **9** | PN | | **Pn** | **13 19 27.9** | **+3.5** |
| ZLN | | | | S | | **Sn** | **13 20 07.8** | **+2.9** |
| **ZLN** | **Zelenaya** | **3.52** | **9** | *eP* | | **Pn** | **13 19 27.9** | **+3.5** |
| ZLN | | | | *eS* | | **Sn** | **13 20 07.8** | **+2.9** |
| **CIRR** | **Tsirk** | **3.62** | **9** | PN | | **Pn** | **13 19 28.7** | **+3.0** |
| **CIRR** | **Tsirk** | **3.62** | **9** | *eP* | | **Pn** | **13 19 28.7** | **+3.0** |
| **KRSR** | **Krestovskiy** | **3.70** | **7** | PN | | **Pn** | **13 19 29.0** | **+2.1** |
| **KRSR** | **Krestovskiy** | **3.70** | **7** | *eP* | | **Pn** | **13 19 29.0** | **+2.1** |
| **KLY** | **Klyuchi** | **3.80** | **7** | PN | | **Pn** | **13 19 30.7** | **+2.6** |
| **KLY** | **Klyuchi** | **3.80** | **7** | *eP* | | **Pn** | **13 19 30.7** | **+2.6** |
| **KBTR** | **Krutoberegovo** | **4.07** | **25** | PN | | **Pn** | **13 19 32.9** | **+1.1** |
| **KBTR** | **Krutoberegovo** | **4.07** | **25** | *eP* | | **Pn** | **13 19 32.9** | **+1.1** |
| KBTR | | | | *eS* | | **Sn** | **13 20 18.6** | **+0.5** |
| **BDR** | **Baidarnaya** | **4.11** | **11** | PN | | **Pn** | **13 19 35.0** | **+2.6** |
| **BDR** | **Baidarnaya** | **4.11** | **11** | *eP* | | **Pn** | **13 19 35.0** | **+2.6** |
| **SMKR** | **Semkarok** | **4.16** | **13** | PN | | **Pn** | **13 19 36.3** | **+3.2** |
| **SMKR** | **Semkarok** | **4.16** | **13** | *eP* | | **Pn** | **13 19 36.3** | **+3.2** |
| **SRKR** | **Sorokina** | **4.19** | **11** | PN | | **Pn** | **13 19 36.9** | **+3.4** |
| **SRKR** | **Sorokina** | **4.19** | **11** | *eP* | | **Pn** | **13 19 36.9** | **+3.4** |
| **BKI** | **Bering** | **4.52** | **52** | PN | | **Pn** | **13 19 38.2** | **+0.2** |
| **BKI** | **Bering** | **4.52** | **52** | *eP* | | **Pn** | **13 19 38.2** | **+0.2** |
| BKI | | | | *eS* | | **Sn** | **13 20 24.3** | **-5.0** |
| **MA2** | **Magadan** | **8.65** | **328** | P | | **Pn** | **13 20 34.6** | **0.0** |
| | comp=Z,0.5nm,0.3s,baz=138,slow=16,SNR=3.2 | | | | | | | |
| **SEY** | **Seymchan** | **11.12** | **342** | P | | **Pn** | **13 21 08.9** | **+0.6** |
| | comp=Z,0.0nm,0.3s,baz=176,slow=16,SNR=2.2 | | | | | | | |
| **SEY** | **Seymchan** | **11.12** | **342** | ⇑*eP* | | **Pn** | **13 21 08.6** | **+0.3** |
| **UGL** | **Uglegorsk** | **11.73** | **260** | *ePN* | | **Pn** | **13 21 14.0** | **-2.7** |
| **YUK** | **Yuzh-Kuril'sk** | **12.57** | **233** | ⇑*ePN* | | **Pn** | **13 21 27.8** | **-0.4** |
| **ASAJ** | **Asahikawa** | **14.18** | **240** | P | | **Pn** | **13 21 51.1** | **+0.9** |
| | comp=Z,1.7nm,0.3s,baz=72,slow=13,SNR=13 | | | | | | | |
| **ASAJ** | **Asahikawa** | **14.18** | **240** | *ePn* | | **Pn** | **13 21 51.7** | **+1.6** |
| **HABR** | **Khabarovsk** | **16.22** | **265** | P | | **Pn** | **13 22 13.5** | **-3.1** |
| HABR | | | | *eS* | | **Sn** | **13 25 11.3** | **-4.0** |
| HABR | | | | MLR | | MLR | | |
| | comp=Z,836nm,13.0s | | | | | | | |
| **KLR** | **Kul'dur** | **17.94** | **271** | P | | **P** | **13 22 39.4** | **+1.2** |
| | comp=Z,0.0nm,0.3s,baz=64,slow=12,SNR=3.8 | | | | | | | |
| **YAK** | **Yakutsk** | **18.66** | **312** | P | | **Pn** | **13 22 46.8** | **+0.2** |
| | comp=Z,0.0nm,0.3s,baz=246,slow=0.2,SNR=26 | | | | | | | |
| **YAK** | **Yakutsk** | **18.66** | **312** | *eP* | | **Pn** | **13 22 46.6** | **+0.1** |
| YAK | | | | *eS* | | **Sn** | **13 26 12.5** | **-1.5** |
| YAK | | | | pmax | | pmax | | |
| | comp=Z,61nm,0.9s | | | | | | | |
| YAK | | | | pmax | | pmax | | |
| | comp=E,21nm,1.3s | | | | | | | |
| YAK | | | | pmax | | pmax | | |
| | comp=N,4.0nm,1.1s | | | | | | | |
| YAK | | | | smax | | smax | | |
| | comp=N,890nm,8.1s | | | | | | | |
| YAK | | | | smax | | smax | | |
| | comp=E,525nm,7.4s | | | | | | | |
| **YAK** | **Yakutsk** | **18.66** | **312** | *eP* | | **P** | **13 22 44.1** | **-1.7** |
| | comp=E,48nm,0.6s | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **20.16** | **257** | P | | Pn | 13 23 04.5 | 0.0 |
| | comp=E,3.0nm,0.7s,baz=49,slow=12,SNR=4.7 | | | | | | | |
| **VLA** | **Vladivostok** | **20.85** | **254** | ⇑*eP* | | **P** | **13 23 06.8** | **-3.0** |
| VLA | | | | pmax | | pmax | | |
| | comp=Z,28nm,1.2s | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **22.06** | **232** | P | | **P** | **13 23 24.3** | **+1.4** |
| | comp=Z,6.4nm,0.6s,baz=21,slow=10,SNR=26 | | | | | | | |
| **MAJO** | **Matsushiro** | **22.06** | **232** | ⇓*eP* | | **P** | **13 23 23.3** | **+0.4** |
| MAJO | | | | pmax | | pmax | | |
| | comp=Z,59nm,2.0s | | | | | | | |
| **MAJO** | **Matsushiro** | **22.06** | **232** | *eP* | | **P** | **13 23 22.7** | **-0.2** |
| | comp=Z,15nm,0.6s | | | | | | | |
| **MAT** | **Matsushiro** | **22.06** | **232** | P | | **P** | **13 23 24.0** | **+1.1** |
| **TIXI** | **Tiksi** | **23.50** | **336** | P | | **P** | **13 23 35.5** | **-1.8** |
| | comp=Z,4.2nm,0.4s,baz=136,slow=11,SNR=11 | | | | | | | |
| **TIXI** | **Tiksi** | **23.50** | **336** | *deP* | | **P** | **13 23 36.6** | **-0.7** |
| TIXI | | | | pmax | | pmax | | |
| | comp=Z,5.0nm,0.6s | | | | | | | |
| **TIXI** | **Tiksi** | **23.50** | **336** | *eP* | | **P** | **13 23 35.4** | **-1.8** |
| | comp=Z,5.2nm,0.5s | | | | | | | |
| **BOD** | **Bodaibo** | **26.25** | **300** | *eP* | | **P** | **13 24 03.2** | **+0.7** |
| BOD | | | | pmax | | pmax | | |
| | comp=Z,9.0nm,1.5s | | | | | | | |
| **KSRS** | **Korea Array** | **26.84** | **248** | P | | **P** | **13 24 08.6** | **+0.6** |
| | comp=Z,1.2nm,0.6s,baz=43,slow=10,SNR=4.1 | | | | | | | |
| **KSAR** | **Wonju Array Be** | **26.87** | **249** | P | | **P** | **13 24 08.6** | **+0.3** |
| **KSAR** | **Wonju Array Be** | **26.87** | **249** | P | | **P** | **13 24 08.6** | **+0.3** |
| **KDAK** | **Kodiak Island** | **27.24** | **60** | P | | **P** | **13 24 11.7** | **+0.3** |
| | comp=Z,14nm,0.9s,baz=60,slow=3.0,SNR=4.7 | | | | | | | |
| **JNU** | **Nakatsue** | **28.45** | **238** | | | **P** | **13 24 24.8** | **+2.4** |
| | comp=Z,3.0nm,0.4s,baz=3.8,slow=5.8,SNR=6.4 | | | | | | | |
| **COLA** | **College** | **28.92** | **44** | ⇑P | | **P** | **13 24 27.6** | **+1.3** |
| COLA | | | | pmax | | pmax | | |
| | comp=Z,4.0nm,1.0s | | | | | | | |
| **ILAR** | **Eielson Array** | **29.33** | **45** | P | | **P** | **13 24 29.9** | **-0.2** |
| | comp=Z,2.3nm,0.7s,baz=261,slow=7.3,SNR=33 | | | | | | | |
| ILAR | | | | PcP | | **PcP** | **13 27 34.2** | **-0.9** |
| | comp=Z,0.8nm,0.6s,baz=279,slow=3.5,SNR=9.0 | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **33.22** | **168** | T | | T | 14 00 52.0 | |
| | baz=352,slow=76,SNR=397 | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **33.24** | **168** | T | | T | 14 00 53.1 | |
| | baz=352,slow=76,SNR=449 | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **33.24** | **168** | T | | T | 14 00 53.3 | |
| | baz=352,slow=76,SNR=633 | | | | | | | |
| **SONM** | **Songino Array** | **33.84** | **284** | P | | **P** | **13 25 09.5** | **-0.5** |
| | comp=Z,0.6nm,0.3s,baz=61,slow=8.5,SNR=5.8 | | | | | | | |
| SONM | | | | PcP | | **PcP** | **13 27 47.7** | **-0.1** |
| | comp=Z,1.0nm,0.6s,baz=74,slow=1.9,SNR=4.9 | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **34.40** | **168** | T | | T | 14 02 20.5 | |
| | baz=352,slow=76,SNR=67 | | | | | | | |
| **INK** | **Inuvik** | **34.41** | **37** | P | | **P** | **13 25 15.1** | **+0.6** |
| | comp=Z,2.8nm,0.6s,baz=293,slow=7.2,SNR=22 | | | | | | | |
| INK | | | | PcP | | **PcP** | **13 27 49.5** | **+0.6** |
| | comp=Z,1.9nm,0.6s,baz=281,slow=4.3,SNR=8.2 | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **34.42** | **168** | T | | T | 14 02 21.4 | |
| | baz=352,slow=76,SNR=184 | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **34.42** | **168** | T | | T | 14 02 21.6 | |
| | baz=352,slow=76,SNR=43 | | | | | | | |
| **ZALV** | **Zelesovo Beam** | **42.91** | **303** | P | | **P** | **13 26 23.5** | **-2.3** |
| | comp=Z,0.6nm,0.3s,baz=59,slow=8.6,SNR=4.0 | | | | | | | |
| ZALV | | | | PcP | | **PcP** | **13 28 15.9** | **+0.2** |
| | comp=Z,0.4nm,0.3s,baz=90,slow=2.9,SNR=3.8 | | | | | | | |
| **NVS** | **Novosibirsk** | **43.27** | **305** | *eP* | | **P** | **13 26 27.0** | **-1.6** |
| **YKA** | **Yellowknife Ar** | **43.69** | **42** | P | | **P** | **13 26 32.5** | **+0.6** |
| | comp=Z,2.8nm,0.9s,baz=299,slow=8.0,SNR=18 | | | | | | | |
| YKA | | | | PcP | | **PcP** | **13 28 18.9** | **+0.7** |
| | comp=Z,0.5nm,0.9s,baz=316,slow=2.6,SNR=3.5 | | | | | | | |
| **DGZ** | **Jazzator, Alta** | **43.74** | **296** | ⇑*eP* | | **P** | **13 26 32.2** | **-0.5** |
| **SPITS** | **Spitsbergen Ar** | **47.64** | **350** | P | | **P** | **13 27 02.4** | **-0.6** |
| | comp=Z,4.7nm,0.3s,baz=16,slow=6.6,SNR=27 | | | | | | | |
| **KURK** | **Kurchatov** | **47.86** | **302** | *ceP* | | **P** | **13 27 02.8** | **-2.2** |
| **KURK** | **Kurchatov** | **47.86** | **302** | *eP* | | **P** | **13 27 01.8** | **-3.2** |
| | comp=Z,30nm,0.3s | | | | | | | |
| **MKAR** | **Makanchi Array** | **48.22** | **296** | P | | **P** | **13 27 05.5** | **-2.4** |
| | comp=Z,1.4nm,0.6s,baz=54,slow=6.3,SNR=16 | | | | | | | |
| **MKAR** | **Makanchi Array** | **48.22** | **296** | *i* P | | **P** | **13 27 05.9** | **-2.0** |
| MKAR | | | | pmax | | pmax | | |
| | comp=Z,1.0nm,0.6s | | | | | | | |
| **BVAR** | **Borovoye Array** | **50.58** | **309** | P | | **P** | **13 27 23.3** | **-2.4** |
| | comp=Z,1.8nm,0.5s,baz=55,slow=7.9,SNR=4.8 | | | | | | | |
| **BRVK** | **Borovoye** | **50.61** | **309** | ⇓*eP* | | **P** | **13 27 26.0** | **+0.1** |
| BRVK | | | | pmax | | pmax | | |
| | comp=Z,14nm,3.7s | | | | | | | |
| **DAG** | **Danmarks Havn** | **50.94** | **360** | *i* P | | **P** | **13 27 27.7** | **-0.4** |
| DAG | | | | pmax | | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | | |
| **DAG** | **Danmarks Havn** | **50.94** | **360** | *i* P | | **P** | **13 27 27.7** | **-0.4** |
| | comp=Z,9.6nm,0.8s | | | | | | | |
| **FFC** | **Flin Flon** | **53.54** | **46** | *i* P | | **P** | **13 27 49.1** | **+1.4** |
| **ARU** | **Arti** | **53.67** | **317** | P | | **P** | **13 27 46.8** | **-1.8** |
| | comp=Z,2.0nm,0.4s,baz=47,slow=4.9,SNR=4.6 | | | | | | | |
| **ARU** | **Arti** | **53.67** | **317** | *d* iP | | **P** | **13 27 46.7** | **-1.9** |
| ARU | | | | *PP | | **pP** | **13 28 00.7** | **-0.9** |
| ARU | | | | S | | **S** | **13 35 16.7** | **-2.0** |
| ARU | | | | pmax | | pmax | | |
| | comp=Z,8.0nm,1.7s | | | | | | | |
| **ARCES** | **ARCESS Array B** | **53.74** | **342** | P | | **P** | **13 27 48.2** | **-0.8** |
| | comp=Z,6.0nm,0.9s,baz=22,slow=9.7,SNR=5.4 | | | | | | | |
| **SUMG** | **Summit** | **54.52** | **7** | *i* P | | **P** | **13 27 55.3** | **+0.2** |
| SUMG | | | | pmax | | pmax | | |
| | comp=Z,17nm,1.0s | | | | | | | |
| **SUMG** | **Summit** | **54.52** | **7** | *i* P | | **P** | **13 27 55.3** | **+0.2** |
| | comp=Z,17nm,1.0s | | | | | | | |
| **AAK** | **Ala-Archa** | **55.15** | **296** | P | | **P** | **13 27 58.5** | **-1.2** |
| | comp=Z,1.0nm,0.4s,baz=66,slow=3.4,SNR=4.7 | | | | | | | |
| **H17A** | **Grant Village** | **56.30** | **60** | *eP* | | **P** | **13 28 07.0** | **-1.1** |
| | comp=Z,7.3nm,1.0s | | | | | | | |
| **RLMT** | **Red Lodge** | **56.49** | **58** | *eP* | | **P** | **13 28 10.1** | **+0.7** |
| | comp=Z,7.2nm,0.9s | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **57.88** | **258** | P | | **P** | **13 28 20.5** | **+1.2** |
| | comp=Z,1.1nm,0.6s,baz=32,slow=6.9,SNR=6.8 | | | | | | | |
| **PDAR** | **Pinedale Array** | **57.95** | **60** | P | | **P** | **13 28 21.1** | **+1.3** |
| | comp=Z,4.8nm,0.6s,baz=316,slow=2.5,SNR=47 | | | | | | | |
| **AKTO** | **Aktyubinsk** | **58.05** | **312** | P | | **P** | **13 28 20.9** | **+0.9** |
| | comp=Z,0.9nm,0.5s,baz=56,slow=7.3,SNR=3.8 | | | | | | | |
| **ULM** | **Lac du Bonnet** | **59.33** | **46** | P | | **P** | **13 28 29.4** | **+0.4** |
| | comp=Z,3.3nm,0.5s,baz=313,slow=6.5,SNR=9.3 | | | | | | | |
| **RSSD** | **Black Hills** | **59.86** | **56** | *eP* | | **P** | **13 28 34.0** | **+1.0** |
| RSSD | | | | pmax | | pmax | | |
| | comp=Z,14nm,0.6s | | | | | | | |
| **RSSD** | **Black Hills** | **59.86** | **56** | *eP* | | **P** | **13 28 34.0** | **+1.0** |
| | comp=Z,14nm,0.6s | | | | | | | |
| **FINES** | **FINESS Array B** | **60.54** | **336** | P | | **P** | **13 28 34.7** | **-2.4** |
| | comp=Z,37nm,0.6s,baz=63,slow=9.5,SNR=84 | | | | | | | |
| **ISCO** | **Idaho Springs** | **62.15** | **60** | *eP* | | **P** | **13 28 49.7** | **+1.0** |
| ISCO | | | | pmax | | pmax | | |
| | comp=Z,8.0nm,1.1s | | | | | | | |
| **ISCO** | **Idaho Springs** | **62.15** | **60** | *eP* | | **P** | **13 28 49.7** | **+1.0** |
| | comp=Z,8.3nm,1.1s | | | | | | | |
| **NB2** | **NORSAR Subarra** | **64.01** | **344** | P | | **P** | **13 28 59.8** | **-0.5** |
| | comp=Z,1.4nm,0.5s,baz=22,slow=6.9 | | | | | | | |
| **NOA** | **NORSAR Array B** | **64.01** | **344** | P | | **P** | **13 28 59.9** | **-0.5** |
| | comp=Z,1.4nm,0.4s,baz=28,slow=6.0,SNR=9.3 | | | | | | | |
| **HFS** | **Hagfors** | **64.41** | **342** | P | | **P** | **13 29 02.2** | **-0.7** |
| | comp=Z,2.9nm,0.4s,baz=38,slow=4.6,SNR=20 | | | | | | | |
| **ANMO** | **Albuquerque** | **65.25** | **65** | P | | **P** | **13 29 09.5** | **+0.4** |
| | comp=Z,1.6nm,0.6s,baz=144,slow=6.9,SNR=8.5 | | | | | | | |
| **ANMO** | **Albuquerque** | **65.25** | **65** | ⇓*eP* | | **P** | **13 29 09.7** | **+0.7** |
| ANMO | | | | pmax | | pmax | | |
| | comp=Z,1.0nm,1.0s | | | | | | | |
| **SCHQ** | **Schefferville** | **66.22** | **27** | P | | **P** | **13 29 14.2** | **-0.5** |
| | comp=Z,5.4nm,0.8s,baz=331,slow=4.6,SNR=5.9 | | | | | | | |
| **AKASG** | **Malin Array Be** | **68.98** | **329** | P | | **P** | **13 29 30.7** | **-1.4** |
| | comp=Z,1.3nm,0.4s,baz=31,slow=6.7,SNR=6.0 | | | | | | | |
| **TXAR** | **Lajitas Array** | **71.03** | **67** | P | | **P** | **13 29 46.3** | **+1.1** |
| | comp=Z,5.6nm,0.5s,baz=298,slow=5.0,SNR=83 | | | | | | | |
| **EKA** | **Eskdalemuir Ar** | **71.56** | **350** | P | | **P** | **13 29 47.4** | **-0.4** |
| | comp=Z,1.3nm,0.4s,baz=19,slow=5.5,SNR=14 | | | | | | | |
| **CLL** | **Collm** | **72.79** | **339** | *eP* | | **P** | **13 29 55.0** | **-0.2** |
| **CLL** | **Collm** | **72.79** | **339** | *eP* | | **P** | **13 29 55.0** | **-0.2** |
| **MLR** | **Muntele Rosu** | **74.61** | **328** | P | | **P** | **13 30 06.9** | **+0.7** |
| | comp=Z,0.7nm,0.5s,baz=27,slow=2.3,SNR=6.4 | | | | | | | |
| **GERES** | **GERESS Array B** | **74.94** | **338** | P | | **P** | **13 30 08.0** | **0.0** |
| | comp=Z,0.8nm,0.5s,baz=83,slow=3.2,SNR=5.5 | | | | | | | |
| **GERES** | **GERESS Array B** | **74.94** | **338** | P | | **P** | **13 30 08.0** | **0.0** |
| **TKL** | **Tuckaleechee C** | **76.22** | **49** | P | | **P** | **13 30 15.3** | **-0.1** |
| | comp=Z,4.9nm,0.9s,baz=357,slow=4.2,SNR=2.8 | | | | | | | |
| **BRTR** | **Keskin Array B** | **76.92** | **320** | P | | **P** | **13 30 19.0** | **-0.5** |
| | comp=Z,0.7nm,0.5s,baz=75,slow=3.1,SNR=4.6 | | | | | | | |
| **BRTR** | **Keskin Array B** | **76.92** | **320** | *ceP* | | **P** | **13 30 20.7** | **+1.2** |
| BRTR | | | | pmax | | pmax | | |
| | comp=Z,1.0nm,0.5s | | | | | | | |
| **DAVOX** | **Davos/Dischmat** | **77.75** | **339** | P | | **P** | **13 30 24.6** | **+0.5** |
| | comp=Z,1.5nm,0.5s,baz=350,slow=2.2,SNR=3.9 | | | | | | | |
| **WSAR** | **Wadi Sarin** | **78.34** | **293** | P | | **P** | **13 30 27.4** | **-0.1** |
| | comp=Z,3.1nm,0.8s,baz=98,slow=1.7,SNR=2.7 | | | | | | | |
| **ASAR** | **Alice Springs** | **79.19** | **204** | P | | **P** | **13 30 32.9** | **+1.0** |
| | comp=Z,1.3nm,0.6s,baz=16,slow=5.7,SNR=9.4 | | | | | | | |
| **MMAI** | **Mount Meron Ar** | **81.97** | **316** | P | | **P** | **13 30 47.1** | **+0.2** |
| | comp=Z,2.3nm,0.5s,baz=27,slow=7.5,SNR=3.6 | | | | | | | |
| **IDI** | **Anoyia** | **84.09** | **324** | P | | **P** | **13 30 58.8** | **+0.9** |
| | comp=Z,7.0nm,0.9s,baz=353,slow=8.1,SNR=3.4 | | | | | | | |
| **VAE** | **Valguarnera** | **85.40** | **333** | P | | **P** | **13 31 05.9** | **+1.5** |
| | comp=Z,48nm,0.4s,baz=355,slow=2.0,SNR=5.7 | | | | | | | |
| **ESDC** | **Sonseca Array** | **87.07** | **348** | P | | **P** | **13 31 12.2** | **-0.4** |
| | comp=Z,0.6nm,0.5s,baz=350,slow=6.3,SNR=4.2 | | | | | | | |

**MAN 15 13:19:36, 13.83N×120.47E, h60km, mb4.1, ML2.9, MS2.6, 1D, Mindoro**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **LUBP** | **Lubang** | **0.23** | **247** | *eP* | | Pn | | 13 19 47.5 | +1.9 |
| LUBP | | | | *eS* | | Sn | | 13 19 55.9 | +3.3 |
| **TGY** | **Tagaytay City** | **0.53** | **59** | *eP* | | Pn | | 13 19 49.9 | +1.5 |
| TGY | | | | *i* S | | Sn | | 13 20 01.0 | +3.6 |
| **PGP** | **Puerto Galera** | **0.57** | **124** | ‖*eP* | | Pn | | 13 19 50.6 | +1.8 |
| PGP | | | | *i* S | | Sn | | 13 20 01.1 | +3.0 |
| **BOAC** | **Boac** | **1.39** | **105** | *eP* | | Pn | | 13 20 07.7 | +8.6 |
| **SJMP** | **San Jose** | **1.50** | **155** | *eP* | | Pn | | 13 20 02.4 | +1.7 |
| SJMP | | | | *eS* | | Sn | | 13 20 21.9 | +2.7 |
| **BUSP** | **Coron** | **1.83** | **188** | *eP* | | Pn | | 13 20 05.6 | +0.4 |
| BUSP | | | | *eS* | | Sn | | 13 20 27.7 | +0.4 |

*IDC* ***15*** *13:23:30.8±7.8, 6.68S×129.64E, h156km±84km, mb3.7/4, mb1 3.6/6, mb1mx3.2/46, mbtmp4.1/6, Error ellipse: s-maj=51.8km s-min=29.0km az=54.0*

**ISC 15 13:23:30.9±1.4, 7.3S±0.1×129.2E±0.2, h150km, n7, σ3.9 04/8, mb4.0/3, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **11.32** | **198** | P | | **P** | | **13 26 16.6** | **+0.3** |
| | 0.3nm,0.3s,baz=26,slow=11,SNR=18 | | | | | | | | |
| FITZ | | | | S | | S | | 13 28 20.5 | -12 |
| | 0.3nm,0.3s,baz=28,slow=9.0,SNR=4.0 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **13.54** | **159** | P | | **Pn** | | **13 26 37.6** | **+0.5** |
| | 0.3nm,0.3s,baz=339,slow=14,SNR=18 | | | | | | | | |
| WRA | | | | S | | **Sn** | | **13 29 04.1** | **-3.1** |
| | 0.9nm,0.3s,baz=328,slow=23,SNR=11 | | | | | | | | |
| **ASAR** | **Alice Springs** | **16.91** | **165** | P | | **Pn** | | **13 27 23.6** | **+4.8** |
| | 0.5nm,0.3s,baz=346,slow=10,SNR=29 | | | | | | | | |
| ASAR | | | | S | | **S** | | **13 30 24.8** | **-2.2** |
| | 0.1nm,0.3s,baz=354,slow=28,SNR=3.1 | | | | | | | | |
| **CTA** | **Charters Tower** | **20.86** | **129** | P | | **P** | | **13 28 01.7** | **+0.5** |
| | 4.9nm,1.1s,baz=328,slow=9.5,SNR=2.5 | | | | | | | | |
| **STKA** | **Stephens Creek** | **27.07** | **156** | P | | **P** | | **13 29 01.5** | **+2.0** |
| | 1.4nm,0.7s,baz=333,slow=11,SNR=3.3 | | | | | | | | |
| **ASAJ** | **Asahikawa** | **52.56** | **12** | P | | P | | 13 32 22.8 | -6.0 |
| | 8.3nm,0.9s,baz=265,slow=9.1,SNR=2.8 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **68.03** | **327** | P | | **P** | | **13 34 12.0** | **-2.0** |
| | 1.2nm,0.5s,baz=116,slow=6.6,SNR=3.2 | | | | | | | | |

**TAP 15 13:26:32.3, 23.76N×121.58E, h10km, ML3.8, 2C-15D, C, Taiwan**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **TEGC** | **Jichi Village** | **0.06** | **219** | *eP* | | Pg | | 13 26 35.2 | +0.8 |
| | baz=215 | | | | | | | | |
| TEGC | | | | *eS* | | Sg | | 13 26 37.3 | +1.3 |
| | baz=215 | | | | | | | | |
| **ESF** | **Shoufeng Towns** | **0.13** | **329** | *eP* | | Pb | | 13 26 36.3 | -0.6 |
| | baz=320 | | | | | | | | |
| **ESL** | **Shilin** | **0.15** | **293** | ⇑*iP* | | Pg | | 13 26 35.9 | +0.2 |
| | baz=284 | | | | | | | | |
| ESL | | | | *i* S | | Sg | | 13 26 38.5 | +0.5 |
| | baz=284 | | | | | | | | |
| **HWA** | **Hwalien** | **0.22** | **5** | ⇓*iP* | | Pb | | 13 26 37.7 | -0.7 |
| | baz=7.0 | | | | | | | | |
| HWA | | | | *i* S | | Sg | | 13 26 42.5 | +2.5 |
| | baz=7.0 | | | | | | | | |
| **TWD** | **Chiawan** | **0.32** | **2** | *i* P | | Pg | | 13 26 39.3 | +0.5 |
| | baz=17 | | | | | | | | |
| TWD | | | | *i* S | | Sb | | 13 26 44.6 | -0.8 |
| | baz=17 | | | | | | | | |
| **EHY** | **Hungye** | **0.34** | **224** | P | | Pg | | 13 26 39.7 | +0.5 |
| | baz=231 | | | | | | | | |
| EHY | | | | *eS* | | Sb | | 13 26 46.1 | +0.1 |
| | baz=231 | | | | | | | | |
| **TWF1** | **Yuli** | **0.48** | **213** | ⇓*iP* | | Pb | | 13 26 42.4 | -0.4 |
| | baz=221 | | | | | | | | |
| TWF1 | | | | *eS* | | Sb | | 13 26 50.8 | +0.9 |
| | baz=221 | | | | | | | | |
| **WHF** | **Hehuan Shan** | **0.48** | **323** | ⇑P | | Pg | | 13 26 42.3 | +0.5 |
| | baz=314 | | | | | | | | |
| WHF | | | | *i* S | | Sb | | 13 26 49.6 | -0.8 |
| | baz=314 | | | | | | | | |
| **YUS** | **Yu-Shan** | **0.64** | **245** | P | | Pb | | 13 26 45.7 | -0.1 |
| | baz=253 | | | | | | | | |
| YUS | | | | *eS* | | Sb | | 13 26 55.6 | +0.7 |
| | baz=253 | | | | | | | | |
| **SMLT** | **Sun Moon Lake** | **0.64** | **281** | P | | Pb | | 13 26 45.4 | -0.1 |
| | baz=280 | | | | | | | | |
| SMLT | | | | S | | Sg | | 13 26 53.6 | +0.5 |
| | baz=280 | | | | | | | | |
| **TYC** | **Yuchr** | **0.68** | **283** | P | | Pb | | 13 26 46.0 | -0.2 |
| | baz=282 | | | | | | | | |
| TYC | | | | S | | Sb | | 13 26 55.5 | -0.2 |
| | baz=282 | | | | | | | | |
| **ENA** | **Nanau** | **0.68** | **12** | P | | Pg | | 13 26 45.7 | +0.1 |
| | baz=23 | | | | | | | | |
| ENA | | | | *eS* | | Sb | | 13 26 55.8 | 0.0 |
| | baz=23 | | | | | | | | |
| **NNS** | **Nan Shan** | **0.71** | **344** | ⇓*iP* | | Pb | | 13 26 46.6 | -0.2 |
| | baz=338 | | | | | | | | |
| NNS | | | | S | | Sb | | 13 26 56.4 | -0.2 |
| | baz=338 | | | | | | | | |
| **ALS** | **Alishan** | **0.75** | **251** | ⇓*iP* | | Pb | | 13 26 48.1 | +0.4 |
| | baz=249 | | | | | | | | |
| ALS | | | | *eS* | | Sb | | 13 26 59.1 | +1.1 |
| | baz=249 | | | | | | | | |
| **ELDTW** | **Lidau** | **0.77** | **223** | ⇓*iP* | | Pg | | 13 26 46.8 | -0.4 |
| | baz=231 | | | | | | | | |
| **WNT** | **Mingjian** | **0.83** | **279** | ⇓P | | Pn | | 13 26 50.2 | +0.2 |
| | baz=275 | | | | | | | | |
| WNT | | | | S | | Sn | | 13 27 03.7 | +1.4 |
| | baz=275 | | | | | | | | |
| **CHN5** | **Tsauling** | **0.84** | **259** | ⇓*iP* | | Pn | | 13 26 50.0 | -0.3 |
| | baz=259 | | | | | | | | |
| **ENTT** | **Nioudou** | **0.88** | **359** | ⇓P | | Pg | | 13 26 49.2 | 0.0 |
| | baz=3.0 | | | | | | | | |
| ENTT | | | | S | | Sn | | 13 27 02.6 | -0.9 |
| | baz=3.0 | | | | | | | | |
| **TWC** | **Suao** | **0.88** | **16** | *eP* | | Pb | | 13 26 49.8 | +0.1 |
| | baz=26 | | | | | | | | |
| TWC | | | | *eS* | | Sn | | 13 27 02.6 | -0.9 |
| | baz=26 | | | | | | | | |
| **TCU** | **Taichung** | **0.92** | **295** | ⇓P | | Pn | | 13 26 51.9 | +0.7 |
| | baz=294 | | | | | | | | |
| TCU | | | | *eS* | | Sn | | 13 27 05.8 | +1.4 |
| | baz=294 | | | | | | | | |
| **NSK** | **Sanguang** | **0.94** | **347** | P | | Pb | | 13 26 51.1 | +0.4 |
| | baz=339 | | | | | | | | |
| NSK | | | | S | | Sb | | 13 27 03.7 | +0.5 |
| | baz=339 | | | | | | | | |
| **WGK** | **Gukeng** | **0.94** | **266** | *eP* | | Pn | | 13 26 51.4 | -0.1 |
| | baz=263 | | | | | | | | |
| **TWQ1** | **Liyutan** | **0.94** | **309** | *eP* | | Pn | | 13 26 52.3 | +0.7 |
| | baz=308 | | | | | | | | |
| TWQ1 | | | | *eS* | | Sn | | 13 27 06.3 | +1.2 |
| | baz=308 | | | | | | | | |
| **STYT** | **Tauyuan** | **0.96** | **232** | ⇓*iP* | | Pb | | 13 26 51.0 | -0.1 |
| | baz=229 | | | | | | | | |
| **TWE** | **Neicheng** | **0.96** | **5** | *eP* | | Pg | | 13 26 50.7 | -0.1 |
| | baz=14 | | | | | | | | |
| TWE | | | | *eS* | | Sb | | 13 27 04.3 | +0.4 |
| | baz=14 | | | | | | | | |
| **CHN4** | **Tsaushan** | **0.99** | **246** | ⇓*iP* | | Pn | | 13 26 52.4 | +0.2 |
| | baz=244 | | | | | | | | |
| CHN4 | | | | *eS* | | Sn | | 13 27 07.5 | +1.2 |
| | baz=244 | | | | | | | | |
| **NSY** | **Sanyi** | **1.00** | **311** | ⇓*iP* | | Pn | | 13 26 53.6 | +1.3 |
| | baz=310 | | | | | | | | |
| NSY | | | | S | | Sn | | 13 27 07.8 | +1.3 |
| | baz=310 | | | | | | | | |
| **NSTT** | **Nanjuang** | **1.02** | **329** | P | | Pn | | 13 26 52.7 | +0.1 |
| | baz=330 | | | | | | | | |
| NSTT | | | | S | | Sn | | 13 27 06.4 | -0.6 |
| | baz=330 | | | | | | | | |
| **WTP** | **Ta-pu** | **1.02** | **240** | ⇓*

*ISCJB* ***15*** *13:28:03.2±0.2, 13°.00N±0°.02×88°.75W±0°.02, h71km±1km, mb4.8/185, Error ellipse: s-maj=4.8km s-min=2.1km az=42.5*

*CASC* ***15*** *13:28:03.3±2.5, 12°.92N×88°.88W, h49km±35km, MD4.6, ML4.7, mb4.9(NEIC)*

*MOS* ***15*** *13:28:06.4±1.3, 13°.09N×88°.60W, h55km, mb5.0/28, Error ellipse: s-maj=13.9km s-min=5.2km az=111.2*

**ISC 15 13:28:02.1**±0.4,**12°.89N**±0°.04×**88°.87W**±0°.04,**h52**km±3km, **h51**km:**pP-P, n792,** σ1$**42**/824,**mb4.9**/187,**MS4.2**/14, **8C-10D, Off coast of central America**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **UESV** | **Ojushtada** | **0.50** | **9** | *eP* | | **Pn** | **13 28 17.5** | **+3.9** |
| UESV | | | | *eS* | | **Sn** | **13 28 28.8** | **+7.0** |
| **AIES** | **Las Flores** | **0.59** | **343** | *eP* | | **Pn** | **13 28 15.0** | **+0.4** |
| AIES | | | | *eS* | | **Sn** | **13 28 24.1** | **+0.5** |
| AIES | | | | AML | | AML | 13 28 24.3 | |
| | comp=Z,30µm,0.5s | | | | | | | |
| **SNVI** | **San Vicente** | **0.72** | **3** | *eP* | | **Pn** | **13 28 17.0** | **+0.6** |
| **LFRS** | **El Faro** | **0.75** | **346** | *iP* | | **Pn** | **13 28 17.0** | **+0.2** |
| **LCY** | **Lacayo** | **0.77** | **47** | *iP* | | **Pn** | **13 28 18.0** | **+1.0** |
| **PACA** | **Pacayal** | **0.79** | **43** | *eP* | | **Pn** | **13 28 18.4** | **+1.2** |
| PACA | | | | *eS* | | **Sn** | **13 28 30.3** | **+2.1** |
| **VSM** | **San Miguel** | **0.79** | **47** | *iP* | | **Pn** | **13 28 18.5** | **+1.1** |
| **UCHI** | **Chinameca** | **0.80** | **39** | *eP* | | **Pn** | **13 28 18.5** | **+1.2** |
| UCHI | | | | *eS* | | **Sn** | **13 28 30.3** | **+1.8** |
| **SOYA** | **Soyapango** | **0.85** | **341** | *i P* | | **Pn** | **13 28 18.9** | **+0.9** |
| SOYA | | | | *eS* | | **Sn** | **13 28 30.6** | **+1.0** |
| SOYA | | | | AML | | AML | 13 28 37.5 | |
| | comp=Z,41µm,0.5s | | | | | | | |
| **LBRS** | **Las Brisas** | **0.86** | **349** | *iP* | | **Pn** | **13 28 19.0** | **+0.8** |
| **SNET** | **Serv Nac Est T** | **0.87** | **336** | *iP* | | **Pn** | **13 28 18.7** | **+0.4** |
| SNET | | | | *eS* | | **Sn** | **13 28 30.4** | **+0.4** |
| SNET | | | | AML | | AML | 13 28 34.2 | |
| | comp=Z,41µm,0.4s | | | | | | | |
| **UTEC** | **San Salvador** | **0.87** | **338** | *eP* | | **Pn** | **13 28 19.1** | **+0.8** |
| UTEC | | | | *eS* | | **Sn** | **13 28 31.2** | **+1.2** |
| UTEC | | | | AML | | AML | 13 28 32.5 | |
| | comp=Z,36µm,0.4s | | | | | | | |
| **UESS** | **San Salvador** | **0.87** | **338** | *eP* | | **Pn** | **13 28 19.9** | **+1.6** |
| UESS | | | | *eS* | | **Sn** | **13 28 31.6** | **+1.5** |
| **COLS** | **Colinas** | **0.88** | **332** | *iP* | | **Pn** | **13 28 18.9** | **+0.5** |
| **UDBS** | **Soyapango** | **0.88** | **342** | *eP* | | **Pn** | **13 28 19.1** | **+0.7** |
| UDBS | | | | *eS* | | **Sn** | **13 28 31.6** | **+1.4** |
| **OPAM** | **San Salvador** | **0.88** | **339** | *eP* | | **Pn** | **13 28 19.3** | **+0.9** |
| OPAM | | | | *eS* | | **Sn** | **13 28 31.4** | **+1.1** |
| OPAM | | | | AML | | AML | 13 28 32.7 | |
| | comp=Z,57µm,0.4s | | | | | | | |
| **CLUB** | **San Salvador** | **0.89** | **335** | *iP* | | **Pn** | **13 28 19.1** | **+0.5** |
| CLUB | | | | *eS* | | **Sn** | **13 28 31.2** | **+0.6** |
| **UEES** | **San Salvador** | **0.91** | **337** | *i P* | | **Pn** | **13 28 19.1** | **+0.3** |
| UEES | | | | *eS* | | **Sn** | **13 28 32.0** | **+1.0** |
| UEES | | | | AML | | AML | 13 28 37.8 | |
| | comp=Z,39µm,0.5s | | | | | | | |
| **LCND** | **La Ca¯–ada** | **1.04** | **66** | *eP* | | **Pn** | **13 28 21.6** | **+1.0** |
| **CAHU** | **Cacacuatique** | **1.09** | **36** | *i P* | | **Pn** | **13 28 22.7** | **+1.4** |
| **SONS** | **Sonsonate** | **1.18** | **316** | *eP* | | **Pn** | **13 28 22.1** | **+0.3** |
| SONS | | | | *eS* | | **Sn** | **13 28 36.9** | **-0.4** |
| SONS | | | | AML | | AML | 13 28 40.6 | |
| | comp=Z,16µm,0.3s | | | | | | | |
| **SBLS** | **San Blas** | **1.19** | **322** | *eP* | | **Pn** | **13 28 23.7** | **+0.9** |
| **SNJE** | **San Jose** | **1.21** | **324** | *iP* | | **Pn** | **13 28 23.6** | **+0.7** |
| **MONT** | **Ecomontaæa** | **1.22** | **322** | *eP* | | **Pn** | **13 28 24.1** | **+0.9** |
| **UNIC** | **Santa Ana** | **1.28** | **329** | *eP* | | **Pn** | **13 28 24.7** | **+0.8** |
| UNIC | | | | *eS* | | **Sn** | **13 28 41.2** | **+1.3** |
| **CUS1** | **Cusmapa** | **1.46** | **314** | *i P* | | **Pn** | **13 28 27.0** | **+0.8** |
| **MOMN** | **Momotombo** | **2.33** | **102** | *eP* | | **Pn** | **13 28 38.5** | **+0.5** |
| **COPN** | **Copaltepe** | **2.34** | **107** | *eP* | | **Pn** | **13 28 38.6** | **+0.4** |
| **APYN** | **Apoyeque** | **2.55** | **105** | *eP* | | **Pn** | **13 28 42.0** | **+0.9** |
| **XAVN** | **Gruta Xavier** | **2.59** | **106** | *eP* | | **Pn** | **13 28 42.2** | **+0.5** |
| **MGAN** | **Managua** | **2.67** | **106** | *eP* | | **Pn** | **13 28 43.0** | **+0.3** |
| MGAN | | | | *eS* | | **Sn** | **13 29 13.6** | **-0.2** |
| **MASN** | **Masaya** | **2.81** | **108** | *eP* | | **Pn** | **13 28 45.6** | **+1.0** |
| **CONN** | **Concepcion** | **3.44** | **112** | *eP* | | **Pn** | **13 28 54.8** | **+1.5** |
| **JTS** | **JuntasAbangare** | **4.63** | **124** | *eP* | | **Pn** | **13 29 12.1** | **+2.5** |
| JTS | | | | *e* | | | 13 30 03.4 | |
| **JTS** | **JuntasAbangare** | **4.63** | **124** | *e*Pn | | **Pn** | **13 29 12.1** | **+2.5** |
| JTS | | | | *e*Sn | | **Sn** | **13 30 03.4** | **+1.3** |
| **SRA1** | **San Ram˙‡n** | **5.13** | **122** | *eP* | | **Pn** | **13 29 20.9** | **+4.3** |
| SRA1 | | | | *eS* | | **Sn** | **13 30 15.7** | **+1.1** |
| **HDC** | **Heredia** | **5.48** | **121** | *e*Pn | | **Pn** | **13 29 24.7** | **+3.3** |
| HDC | | | | *e*Sn | | **Sn** | **13 30 25.5** | **+2.3** |
| **TRT1** | **Tortuguero** | **5.55** | **114** | *eP* | | Pn | 13 29 28.1 | +5.8 |
| **LCR2** | **La Lucha 2** | **5.71** | **123** | *eP* | | **Pn** | **13 29 29.2** | **+4.6** |
| LCR2 | | | | *eS* | | **Sn** | **13 30 29.4** | **+0.4** |
| **QCR1** | **Quepos** | **5.76** | **126** | *eP* | | **Pn** | **13 29 28.7** | **+3.6** |
| **CVTR** | **Volcan Turrial** | **5.77** | **119** | *eP* | | **Pn** | **13 29 29.9** | **+4.3** |
| CVTR | | | | *eS* | | Sn | 13 30 43.1 | +12 |
| **VTR0** | **Volcan Turrial** | **5.77** | **119** | *iP* | | **Pn** | **13 29 29.9** | **+4.3** |
| **URSC** | **Urasca** | **5.84** | **121** | *eP* | | **Pn** | **13 29 30.9** | **+4.5** |
| **DRD** | **Durika** | **6.59** | **123** | *eP* | | **Pn** | **13 29 41.1** | **+4.4** |
| **CMIG** | **Matias Romero** | **7.15** | **306** | P | | **Pn** | **13 29 46.4** | **+2.1** |
| | comp=Z,2.8nm,0.3s,baz=104,slow=9.8,SNR=25 | | | | | | | |
| CMIG | | | | S | | **Sn** | **13 31 04.0** | **-0.2** |
| | baz=82,slow=23,SNR=2.5 | | | | | | | |
| **TBS2** | | **7.34** | **123** | *eP* | | **Pn** | **13 29 50.7** | **+3.8** |
| TBS2 | | | | *eS* | | **Sn** | **13 31 06.5** | **-2.5** |
| **ICCO** | **Coco Island** | **7.52** | **166** | *eP* | | **Pn** | **13 29 53.1** | **+3.9** |
| **MYIG** | **MØrida** | **8.07** | **354** | *e*Pn | | **Pn** | **13 29 59.4** | **+2.7** |
| **BCIP** | **Isla Barro Col** | **9.61** | **112** | *e*Pn | | **Pn** | **13 30 20.5** | **+2.6** |
| **TLIG** | **Tlapa** | **10.44** | **298** | *e*Pn | | **Pn** | **13 30 32.2** | **+2.8** |
| **MTDJ** | **Mount Denham** | **12.14** | **63** | *e*Pn | | **Pn** | **13 30 54.9** | **+2.2** |
| **PAYG** | **Puerto Ayora** | **13.55** | **186** | *e*Pn | | **P** | **13 31 17.7** | **-1.7** |
| **MOTC** | **Monteria, Card** | **13.60** | **106** | *eP* | | **Pn** | **13 31 11.8** | **-0.7** |
| **MOIG** | **Morelia** | **13.61** | **301** | *e*Pn | | **P** | **13 31 16.8** | **-3.4** |
| **HELC** | **Santa Helena** | **14.74** | **116** | *eP* | | **Pn** | **13 31 28.4** | **+0.4** |
| **HELC** | **Santa Helena** | **14.74** | **116** | *e*Pn | | **Pn** | **13 31 30.1** | **+2.1** |
| **PLMC** | **San Jos¨ del** | **14.74** | **121** | *eP* | | **Pn** | **13 31 28.4** | **+0.6** |
| **GUYC** | **Guyana, Colomb** | **15.33** | **119** | *eP* | | **P** | **13 31 39.0** | **-0.6** |
| **LNIG** | **Linares** | **15.58** | **322** | *e*Pn | | **P** | **13 31 40.4** | **-1.4** |
| | comp=Z,62nm,1.1s | | | | | | | |
| **OTAV** | **Otavalo** | **16.27** | **140** | *e*Pn | | **Pn** | **13 31 47.6** | **-0.2** |
| | comp=Z,26nm,1.2s | | | | | | | |
| **ZAIG** | **Zacatecas** | **16.31** | **309** | *e*Pn | | **Pn** | **13 31 49.2** | **+1.1** |
| | comp=Z,20nm,1.0s | | | | | | | |
| **ROSC** | **El Rosal** | **16.44** | **118** | P | | **Pn** | **13 31 48.9** | **-1.0** |
| | comp=Z,0.7nm,0.3s,baz=222,slow=20,SNR=1.9 | | | | | | | |
| ROSC | | | | LR | | LR | 13 38 41.6 | |
| | comp=Z,138nm,18.3s,baz=340,slow=39 | | | | | | | |
| **PRAC** | **Prado** | **16.56** | **122** | *e*Pn | | **Pn** | **13 31 50.9** | **-0.1** |
| | comp=Z,48nm,0.6s | | | | | | | |
| **BETC** | **Betania** | **16.72** | **126** | *eP* | | **P** | **13 31 54.3** | **-0.3** |
| **PAMC** | **Pamplona, Colo** | **16.84** | **108** | *eP* | | **P** | **13 31 56.3** | **-0.2** |
| **RUSC** | **La Rusia** | **17.05** | **113** | *e*Pn | | **Pn** | **13 31 58.0** | **+0.4** |
| | comp=Z,11nm,1.0s | | | | | | | |
| **CHIC** | **Chingaza** | **17.06** | **117** | *eP* | | **P** | **13 31 59.0** | **+0.2** |
| **SDDR** | **Presa de Saban** | **17.95** | **68** | *e*Pn | | **Pn** | **13 32 10.1** | **+1.8** |
| | comp=Z,32nm,1.1s | | | | | | | |
| **HKT** | **Hockley** | **18.16** | **340** | *eP* | | **Pn** | **13 32 14.2** | **+3.7** |
| HKT | | | | pmax | | pmax | | |
| | comp=Z,56nm,1.4s | | | | | | | |
| **HKT** | **Hockley** | **18.16** | **340** | *eP* | | **Pn** | **13 32 14.2** | **+3.7** |
| | comp=Z,56nm,1.4s | | | | | | | |
| **833A** | **Chaparral WMA,** | **18.22** | **329** | P | | **Pn** | **13 32 13.1** | **+1.7** |
| | baz=145,SNR=20 | | | | | | | |
| **SDV** | **Santo Domingo** | **18.34** | **101** | P | | **P** | **13 32 10.1** | **-2.7** |
| | comp=Z,4.2nm,0.3s,baz=279,slow=4.2,SNR=74 | | | | | | | |
| SDV | | | | PcP | | **PcP** | **13 36 43.9** | **+1.2** |
| | comp=Z,0.4nm,0.3s,baz=243,slow=5.0,SNR=4.4 | | | | | | | |
| SDV | | | | pPcP | | | 13 36 59.0 | |
| | comp=Z,0.2nm,0.3s,baz=252,slow=3.1,SNR=4.6 | | | | | | | |
| SDV | | | | LR | | LR | 13 40 05.8 | |
| | comp=Z,216nm,21.6s,baz=259,slow=40 | | | | | | | |
| **SDV** | **Santo Domingo** | **18.34** | **101** | *eP* | | **P** | **13 32 12.7** | **0.0** |
| | comp=Z,60nm,0.8s | | | | | | | |
| SDV | | | | PcP | | **PcP** | **13 36 43.9** | **+1.2** |
| SDV | | | | pPcP | | | 13 36 59.0 | |
| **345A** | **Thompson Farm,** | **18.36** | **357** | P | | **P** | **13 32 12.3** | **-0.3** |
| | baz=176 | | | | | | | |
| **346A** | **Big Creek Wild** | **18.42** | **358** | P | | **Pn** | **13 32 15.1** | **+1.4** |
| | baz=178 | | | | | | | |
| **347A** | **Saraland** | **18.43** | **1** | P | | **P** | **13 32 13.6** | **+0.3** |
| | baz=180 | | | | | | | |
| **348A** | **Jackson** | **18.46** | **3** | P | | **Pn** | **13 32 16.1** | **+1.9** |
| | baz=182 | | | | | | | |
| **344A** | **Westbrook Farm** | **18.55** | **355** | P | | **Pn** | **13 32 17.7** | **+2.4** |
| | baz=174,SNR=8.5 | | | | | | | |
| **342A** | **Flagon Creek P** | **18.67** | **351** | P | | **Pn** | **13 32 18.4** | **+1.7** |
| | baz=169 | | | | | | | |
| **341A** | **Kurthwood** | **18.78** | **349** | P | | **Pn** | **13 32 19.6** | **+1.5** |
| | baz=166 | | | | | | | |
| **246A** | **Jackson Lee, B** | **19.04** | **359** | P | | **Pn** | **13 32 22.0** | **+0.8** |
| | baz=179 | | | | | | | |
| **243A** | **Waterproof** | **19.05** | **353** | P | | **Pn** | **13 32 22.3** | **+1.0** |
| | baz=172 | | | | | | | |
| **247A** | **Quitman** | **19.07** | **1** | P | | **Pn** | **13 32 22.0** | **+0.4** |
| | baz=180,SNR=5.8 | | | | | | | |
| **245A** | **Little AP, Sta** | **19.08** | **357** | P | | **Pn** | **13 32 22.5** | **+0.9** |
| | baz=176 | | | | | | | |
| **TIGA** | **Tifton** | **19.09** | **14** | P | | **Pn** | **13 32 22.2** | **+0.3** |
| | baz=195,SNR=12 | | | | | | | |
| **TIGA** | **Tifton** | **19.09** | **14** | *eP* | | **Pn** | **13 32 22.6** | **+0.7** |
| | comp=Z,137nm,0.8s | | | | | | | |
| **244A** | **Avery, Jackson** | **19.14** | **355** | P | | **Pn** | **13 32 23.4** | **+1.1** |
| | baz=174 | | | | | | | |
| **248A** | **Dixon Mills** | **19.14** | **3** | P | | **Pn** | **13 32 23.2** | **+0.8** |
| | baz=183 | | | | | | | |
| **VBMS** | **Vicksburg** | **19.30** | **356** | P | | **Pn** | **13 32 24.1** | **-0.1** |
| | baz=175,SNR=6.0 | | | | | | | |
| **VBMS** | **Vicksburg** | **19.30** | **356** | *eP* | | **Pn** | **13 32 26.3** | **+2.0** |
| | comp=Z,185nm,1.0s | | | | | | | |
| **242A** | **Grayson** | **19.32** | **352** | P | | **Pn** | **13 32 25.5** | **+1.0** |
| | baz=170 | | | | | | | |
| **241A** | **Mo Tay, Goldon** | **19.40** | **350** | P | | **Pn** | **13 32 26.9** | **+1.4** |
| | baz=168 | | | | | | | |
| **NATX** | **Nacogdoches** | **19.52** | **345** | P | | **Pn** | **13 32 27.4** | **+0.5** |
| | baz=182,SNR=6.9 | | | | | | | |
| **NATX** | **Nacogdoches** | **19.52** | **345** | *eP* | | **Pn** | **13 32 28.4** | **+1.4** |
| | comp=Z,150nm,1.0s | | | | | | | |
| **435B** | **Jarrell** | **19.54** | **337** | P | | **Pn** | **13 32 26.7** | **-0.4** |
| | baz=154,SNR=13 | | | | | | | |
| **145A** | **Houston Renfro** | **19.65** | **357** | P | | **Pn** | **13 32 28.0** | **-0.4** |
| | baz=176 | | | | | | | |
| **146A** | **Union** | **19.66** | **360** | P | | **Pn** | **13 32 28.4** | **-0.1** |
| | baz=179 | | | | | | | |
| **147A** | **Livingston** | **19.70** | **2** | P | | **P** | **13 32 28.0** | **+0.8** |
| | baz=181,SNR=10 | | | | | | | |
| **144A** | **Alexander Plac** | **19.70** | **356** | P | | **Pn** | **13 32 28.5** | **-0.5** |
| | baz=175 | | | | | | | |
| **142A** | **Monroe** | **19.77** | **352** | P | | **Pn** | **13 32 29.6** | **-0.2** |
| | baz=171 | | | | | | | |
| **336A** | **Riesel** | **19.82** | **340** | P | | **Pn** | **13 32 29.8** | **-0.6** |
| | baz=156,SNR=5.5 | | | | | | | |
| **141A** | **Papa Simpson,** | **19.97** | **350** | P | | **Pn** | **13 32 31.9** | **-0.3** |
| | baz=168 | | | | | | | |
| **237A** | **Washetta, Mont** | **20.06** | **343** | P | | Pn | 13 32 33.2 | -0.1 |
| | baz=160 | | | | | | | |
| **140A** | **Cam and Jess,** | **20.13** | **348** | P | | Pn | 13 32 33.9 | -0.1 |
| | baz=166 | | | | | | | |
| **LRAL** | **Lakeview Retre** | **20.13** | **5** | P | | Pn | 13 32 33.4 | -0.6 |
| | baz=185,SNR=16 | | | | | | | |
| **LRAL** | **Lakeview Retre** | **20.13** | **5** | *eP* | | Pn | 13 32 33.5 | -0.6 |
| | comp=Z,31nm,0.8s | | | | | | | |
| **Z46A** | **Louisville** | **20.21** | **360** | P | | **P** | **13 32 33.5** | **+0.8** |
| | baz=179,SNR=8.7 | | | | | | | |
| **JCT** | **Junction City** | **20.21** | **332** | P | | **P** | **13 32 33.8** | **+1.0** |
| | baz=147,SNR=13 | | | | | | | |
| **JCT** | **Junction City** | **20.21** | **332** | *eP* | | **P** | **13 32 34.1** | **+1.2** |
| JCT | | | | pmax | | pmax | | |
| | comp=Z,33nm,0.8s | | | | | | | |
| **JCT** | **Junction City** | **20.21** | **332** | *eP* | | **P** | **13 32 34.1** | **+1.2** |
| | comp=Z,33nm,0.8s | | | | | | | |
| **Z47A** | **Carrollton** | **20.23** | **2** | P | | Pn | 13 32 34.8 | -0.5 |
| | baz=182,SNR=6.7 | | | | | | | |
| **236A** | **Katherine and** | **20.28** | **341** | P | | Pn | 13 32 35.0 | -0.8 |
| | baz=158 | | | | | | | |
| **139A** | **Bunkhouse Ranc** | **20.34** | **346** | P | | Pn | 13 32 36.6 | +0.1 |
| | baz=164 | | | | | | | |
| **Z43A** | **Armstrong Fami** | **20.34** | **354** | P | | Pn | 13 32 36.5 | -0.1 |
| | baz=173 | | | | | | | |
| **Z44A** | **Pea Ridge, Bel** | **20.34** | **356** | P | | **P** | **13 32 35.3** | **+1.1** |
| | baz=175 | | | | | | | |
| **Z45A** | **Winona** | **20.40** | **358** | P | | Pn | 13 32 37.1 | -0.2 |
| | baz=177 | | | | | | | |
| **Z48A** | **Northport** | **20.43** | **3** | P | | Pn | 13 32 36.9 | -0.7 |
| | baz=183,SNR=14 | | | | | | | |
| **Z42A** | **Norrel Spur, H** | **20.48** | **353** | P | | Pn | 13 32 37.8 | -0.4 |
| | baz=171 | | | | | | | |
| **138A** | **Matatall Enter** | **20.49** | **345** | P | | Pn | 13 32 37.2 | -1.1 |
| | baz=162,SNR=6.0 | | | | | | | |
| **WHTX** | **Lake Whitney,** | **20.58** | **339** | P | | **P** | **13 32 37.9** | **+1.1** |
| | baz=155,SNR=14 | | | | | | | |
| **WHTX** | **Lake Whitney,** | **20.58** | **339** | *eP* | | **P** | **13 32 38.1** | **+1.3** |
| | comp=Z,64nm,1.8s | | | | | | | |
| **Z41A** | **Richland Creek** | **20.59** | **351** | P | | Pn | 13 32 39.0 | -0.6 |
| | baz=169 | | | | | | | |
| **Z40A** | **Long Farm, Mag** | **20.69** | **349** | P | | Pn | 13 32 40.2 | -0.5 |
| | baz=167 | | | | | | | |
| **136A** | **Ennis** | **20.72** | **341** | P | | Pn | 13 32 41.1 | +0.1 |
| | baz=158 | | | | | | | |
| **Y45A** | **Yeager Farm, C** | **20.89** | **358** | P | | Pn | 13 32 42.4 | -0.7 |
| | baz=178 | | | | | | | |
| **Y46A** | **Houston** | **20.90** | **0** | P | | Pn | 13 32 42.1 | -1.1 |
| | baz=180,SNR=16 | | | | | | | |
| **Y47A** | **UCPARC, Winfie** | **20.94** | **2** | P | | **P** | **13 32 42.1** | **+1.5** |
| | baz=182,SNR=44 | | | | | | | |
| **Y43A** | **Makayla and Ka** | **21.01** | **355** | P | | **P** | **13 32 43.8** | **+2.4** |
| | baz=174 | | | | | | | |
| **Y44A** | **Strider, Charl** | **21.01** | **357** | P | | **P** | **13 32 43.5** | **+2.1** |
| | baz=176 | | | | | | | |
| **GOGA** | **Godfrey** | **21.02** | **13** | *eP* | | **P** | **13 32 43.0** | **+1.6** |
| GOGA | | | | pmax | | pmax | | |
| | comp=Z,88nm,0.7s | | | | | | | |
| **GOGA** | **Godfrey** | **21.02** | **13** | *eP* | | **P** | **13 32 43.0** | **+1.6** |
| | comp=Z,88nm,0.7s | | | | | | | |
| **Y42A** | **Garnett, Star** | **21.02** | **353** | P | | **P** | **13 32 44.3** | **+2.9** |
| | baz=172 | | | | | | | |
| **Z38A** | **Mt. Pleasant** | **21.03** | **346** | P | | **P** | **13 32 43.3** | **+1.7** |
| | baz=163,SNR=6.4 | | | | | | | |
| **HPIG** | | **21.05** | **314** | *eP* | | **P** | **13 32 43.8** | **+1.7** |
| | comp=Z,20nm,0.8s | | | | | | | |
| **WLAR** | **White Oak Lake** | **21.06** | **350** | *eP* | | **P** | **13 32 45.6** | **+3.7** |
| | comp=Z,126nm,1.1s | | | | | | | |
| **CCAR** | **Cane Creek** | **21.10** | **353** | *eP* | | **P** | **13 32 44.8** | **+2.5** |
| | comp=Z,112nm,0.8s | | | | | | | |
| **Z37A** | **Pogue Cattle C** | **21.14** | **344** | P | | **P** | **13 32 44.7** | **+1.9** |
| | baz=161 | | | | | | | |
| **Y41A** | **Eaglette Beard** | **21.17** | **351** | P | | **P** | **13 32 44.9** | **+1.8** |
| | baz=170 | | | | | | | |
| **TXAR** | **Lajitas Array** | **21.37** | **322** | P | | **P** | **13 32 46.1** | **+0.8** |
| | comp=Z,11nm,0.6s,baz=145,slow=11,SNR=116 | | | | | | | |
| TXAR | | | | PcP | | **PcP** | **13 36 49.5** | **+1.6** |
| | comp=Z,2.8nm,0.7s,baz=160,slow=4.0,SNR=6.8 | | | | | | | |
| TXAR | | | | pPcP | | | 13 37 04.8 | |
| | comp=Z,4.7nm,1.0s,baz=202,slow=1.3,SNR=6.8 | | | | | | | |
| TXAR | | | | LR | | LR | 13 42 39.7 | |
| | comp=Z,159nm,19.8s,baz=0.0,slow=41 | | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **21.37** | **322** | *eP* | | **P** | **13 32 47.0** | **+1.6** |
| **Y40A** | **Okolona** | **21.41** | **350** | P | | **P** | **13 32 47.3** | **+1.7** |
| | baz=168 | | | | | | | |
| **Z36A** | **Blue Ridge** | **21.43** | **342** | P | | **P** | **13 32 47.7** | **+1.8** |
| | baz=159 | | | | | | | |
| **X45A** | **UM Field Stati** | **21.44** | **359** | P | | **P** | **13 32 47.4** | **+1.4** |
| | baz=178 | | | | | | | |
| **Y39A** | **Lockesburg** | **21.49** | **348** | P | | **P** | **13 32 47.9** | **+1.4** |
| | baz=166 | | | | | | | |
| **OXF** | **Oxford** | **21.53** | **359** | P | | **P** | **13 32 48.2** | **+1.3** |
| | baz=178 | | | | | | | |
| **OXF** | **Oxford** | **21.53** | **359** | *eP* | | **P** | **13 32 47.7** | **+0.8** |
| OXF | | | | pmax | | pmax | | |
| | comp=Z,93nm,0.9s | | | | | | | |
| **OXF** | **Oxford** | **21.53** | **359** | *eP* | | **P** | **13 32 47.7** | **+0.8** |
| | comp=Z,93nm,0.9s | | | | | | | |
| **X44A** | **Crenshaw** | **21.55** | **357** | P | | **P** | **13 32 48.5** | **+1.4** |
| | baz=176 | | | | | | | |
| **X47A** | **Russelville** | **21.55** | **2** | P | | **P** | **13 32 47.8** | **+0.6** |
| | baz=182,SNR=5.6 | | | | | | | |
| **X46A** | **Booneville** | **21.57** | **1** | P | | **P** | **13 32 49.0** | **+1.6** |
| | baz=180 | | | | | | | |
| **X43A** | **Marvell** | **21.61** | **355** | P | | **P** | **13 32 50.2** | **+2.4** |
| | baz=174 | | | | | | | |
| **Y38A** | **Idabel** | **21.61** | **347** | P | | **P** | **13 32 50.3** | **+2.5** |
| | baz=164 | | | | | | | |
| **NHSC** | **New Hope** | **21.64** | **20** | *eP* | | **P** | **13 32 51.5** | **+3.4** |
| | comp=Z,185nm,1.0s | | | | | | | |
| **X42A** | **Stuttgart** | **21.71** | **354** | P | | **P** | **13 32 50.8** | **+2.0** |
| | baz=172 | | | | | | | |
| **X41A** | **Kaden, Bauxite** | **21.76** | **352** | P | | **P** | **13 32 51.1** | **+1.7** |
| | baz=170 | | | | | | | |
| **X40A** | **Basin Creek Fa** | **21.80** | **351** | P | | **P** | **13 32 51.1** | **+1.3** |
| | baz=169,SNR=8.5 | | | | | | | |
| **Y37A** | **Hugo** | **21.87** | **345** | P | | **P** | **13 32 52.9** | **+2.2** |
| | baz=162,SNR=11 | | | | | | | |
| **Y36A** | **Durant** | **21.98** | **343** | P | | **P** | **13 32 53.9** | **+2.1** |
| | baz=160 | | | | | | | |
| **MIAR** | **Mount Ida** | **21.98** | **350** | P | | **P** | **13 32 52.9** | **+1.2** |
| | baz=167,SNR=40 | | | | | | | |
| **MIAR** | **Mount Ida** | **21.98** | **350** | *eP* | | **P** | **13 32 52.8** | **+1.0** |
| MIAR | | | | pmax | | pmax | | |
| | comp=Z,74nm,0.8s | | | | | | | |
| **MIAR** | **Mount Ida** | **21.98** | **350** | *eP* | | **P** | **13 32 52.8** | **+1.0** |
| | comp=Z,74nm,0.8s | | | | | | | |
| **ABTX** | **Abilene, Hawle** | **21.98** | **335** | P | | **P** | **13 32 52.1** | **+0.3** |
| | baz=151,SNR=19 | | | | | | | |
| **ABTX** | **Abilene, Hawle** | **21.98** | **335** | *eP* | | **P** | **13 32 51.8** | **-0.1** |
| | comp=Z,48nm,0.8s | | | | | | | |
| **PLAL** | **Pickwick Lake** | **22.01** | **2** | *eP* | | **P** | **13 32 53.3** | **+1.2** |
| **UALR** | **University of** | **22.02** | **352** | *eP* | | **P** | **13 32 53.1** | **+0.9** |
| | comp=Z,73nm,1.0s | | | | | | | |
| **X39A** | **Fountain Ranch** | **22.04** | **348** | P | | **P** | **13 32 53.7** | **+1.2** |
| | baz=166,SNR=11 | | | | | | | |
| **HODGE** | **Hodges** | **22.08** | **15** | *eP* | | **P** | **13 32 53.9** | **+1.0** |
| | comp=Z,33nm,0.8s | | | | | | | |
| **W43A** | **Forest City** | **22.16** | **356** | P | | **P** | **13 32 54.2** | **+0.5** |
| | baz=175 | | | | | | | |
| **W45A** | **Hickory Valley** | **22.17** | **359** | P | | **P** | **13 32 54.3** | **+0.5** |
| | baz=179 | | | | | | | |
| **Y35A** | **Marietta** | **22.20** | **342** | P | | **P** | **13 32 55.1** | **+0.9** |
| | baz=158,SNR=19 | | | | | | | |
| **X38A** | **Whitesboro** | **22.35** | **347** | P | | **P** | **13 32 57.2** | **+1.5** |
| | baz=164,SNR=29 | | | | | | | |
| **SWET** | **Sewanee** | **22.39** | **6** | *eP* | | **P** | **13 32 56.6** | **+0.4** |
| | comp=Z,33nm,0.9s | | | | | | | |
| **JSC** | **Jenkinsville** | **22.39** | **17** | *eP* | | **P** | **13 32 57.5** | **+1.3** |
| JSC | | | | pmax | | pmax | | |
| | comp=Z,74nm,1.1s | | | | | | | |
| **JSC** | **Jenkinsville** | **22.39** | **17** | *eP* | | **P** | **13 32 57.5** | **+1.3** |
| | comp=Z,74nm,1.1s | | | | | | | |
| **X37A** | **Clayton** | **22.39** | **346** | P | | **P** | **13 32 57.1** | **+0.8** |
| | baz=163,SNR=15 | | | | | | | |
| **X37A** | **Clayton** | **22.39** | **346** | *eP* | | **P** | **13 32 58.2** | **+2.0** |
| | comp=Z,78nm,0.9s | | | | | | | |
| **W41B** | **Gary Mavity, V** | **22.39** | **353** | P | | **P** | **13 32 56.7** | **+0.5** |
| | baz=171,SNR=13 | | | | | | | |
| **W42A** | **Bald Knob** | **22.41** | **354** | P | | **P** | **13 32 57.4** | **+1.0** |
| | baz=173 | | | | | | | |
| **ATAH** | **Atahualpa** | **22.45** | **152** | P | | **P** | **13 33 00.7** | **+3.2** |
| | comp=Z,6.3nm,0.9s,baz=135,slow=0.7,SNR=3.5 | | | | | | | |
| ATAH | | | | LR | | LR | 13 40 45.0 | |
| | comp=Z,575nm,21.4s,baz=343,slow=34 | | | | | | | |
| **X301** | **Greenbrier Sit** | **22.48** | **352** | *eP* | | **P** | **13 32 58.5** | **+1.4** |
| | comp=Z,83nm,1.6s | | | | | | | |
| **WHAR** | **Wooly Hollow** | **22.52** | **353** | *eP* | | **P** | **13 32 58.8** | **+1.2** |
| | comp=Z,48nm,1.1s | | | | | | | |
| **W40A** | **Ferguson Farm,** | **22.53** | **351** | P | | **P** | **13 32 59.0** | **+1.4** |
| | baz=169 | | | | | | | |
| **W40A** | **Ferguson Farm,** | **22.53** | **351** | *eP* | | **P** | **13 32 59.1** | **+1.4** |
| | comp=Z,48nm,0.9s | | | | | | | |
| **HBAR** | **Harrisburg** | **22.62** | **356** | *eP* | | **P** | **13 32 59.5** | **+0.9** |
| | comp=Z,183nm,1.0s | | | | | | | |
| **X36A** | **Centrahoma** | **22.63** | **344** | P | | **P** | **13 33 00.2** | **+1.5** |
| | baz=160,SNR=11 | | | | | | | |
| **X35A** | **Drake** | **22.64** | **342** | P | | **P** | **13 33 00.1** | **+1.2** |
| | baz=159,SNR=15 | | | | | | | |
| **X35A** | **Drake** | **22.64** | **342** | *eP* | | **P** | **13 33 00.3** | **+1.4** |
| | comp=Z,57nm,0.9s | | | | | | | |
| **W39A** | **Magazine** | **22.65** | **350** | P | | **P** | **13 32 59.8** | **+0.9** |
| | baz=167,SNR=20 | | | | | | | |
| **BG3** | **Lake Jocassee** | **22.65** | **13** | *eP* | | **P** | **13 32 59.7** | **+0.7** |
| | comp=Z,397nm,2.0s | | | | | | | |
| **W38A** | **Poteau** | **22.67** | **348** | P | | **P** | **13 33 00.4** | **+1.3** |
| | baz=165,SNR=36 | | | | | | | |
| **V45A** | **Humboldt** | **22.75** | **360** | P | | **P** | **13 33 00.8** | **+0.8** |
| | baz=179 | | | | | | | |
| **CPCT** | **Cooper Cave** | **22.80** | **9** | *eP* | | **P** | **13 33 01.6** | **+1.0** |
| | comp=Z,34nm,1.0s | | | | | | | |
| **V48A** | **Smith Brothers** | **22.83** | **4** | P | | **P** | **13 33 00.4** | **-0.4** |
| | baz=185,SNR=7.7 | | | | | | | |
| **V43A** | **Jonesboro** | **22.85** | **356** | P | | **P** | **13 33 01.1** | **+0.1** |
| | baz=175 | | | | | | | |
| **V44A** | **Blytheville** | **22.86** | **358** | P | | **P** | **13 33 01.3** | **+0.2** |
| | baz=177 | | | | | | | |
| **V42A** | **Cord** | **22.93** | **355** | P | | **P** | **13 33 02.3** | **+0.5** |
| | baz=173,SNR=17 | | | | | | | |
| **W37B** | **Quinton** | **22.93** | **346** | P | | **P** | **13 33 03.0** | **+1.1** |
| | baz=163,SNR=30

MNTX **Cornudas Mount** 24.10 324 P P 13 33 13.3 +0.2
baz=137,SNR=24
MNTX **Cornudas Mount** 24.10 324 eP P 13 33 13.6 +0.6
comp=Z,41nm,1.5s
T44A **Benton** 24.10 359 P P 13 33 12.5 -0.4
baz=178
T42A **Van Buren** 24.12 356 P P 13 33 12.9 -0.2
baz=174,SNR=16
T43A **Greenville** 24.12 357 P P 13 33 12.9 -0.2
baz=176,SNR=22
U36A **Oologah** 24.20 346 P P 13 33 13.6 -0.2
baz=163
T48A **Bowling Green** 24.22 5 P P 13 33 13.5 -0.5
baz=186
T39A **Clever** 24.37 351 P P 13 33 15.4 0.0
baz=169,SNR=34
T40A **Mansfield** 24.38 353 P P 13 33 16.0 +0.5
baz=171,SNR=48
U35A **Pawnee** 24.43 345 P P 13 33 15.5 -0.4
baz=161
U35A **Pawnee** 24.43 345 eP P 13 33 16.4 +0.5
comp=Z,51nm,0.9s
MSTX **Muleshoe** 24.50 331 P P 13 33 16.6 -0.1
baz=145,SNR=52
MSTX **Muleshoe** 24.50 331 eP P 13 33 16.9 +0.1
comp=Z,72nm,0.8s
T38A **Diamond** 24.53 350 P P 13 33 17.1 +0.2
baz=167,SNR=10
S43A **Fulton Ridge,** 24.60 358 P P 13 33 16.7 -0.8
baz=177,SNR=11
S45A **Carrier Mills** 24.69 1 P P 13 33 17.7 -0.5
baz=180
S44A **Carbondale** 24.70 359 P P 13 33 18.1 -0.3
baz=179,SNR=6.3
S46A **Don Dixon Farm** 24.71 2 P P 13 33 17.7 -0.8
baz=182
SIUC **Southern Illin** 24.72 359 eP P 13 33 18.1 -0.5
comp=Z,77nm,1.3s
S41A **Jillco Farms,** 24.73 355 P P 13 33 18.4 -0.3
baz=173,SNR=12
T37A **Cheneyville 18** 24.73 348 P P 13 33 18.8 +0.1
baz=166,SNR=14
AMTX **Amarillo** 24.78 334 P P 13 33 19.4 +0.1
baz=149
AMTX **Amarillo** 24.78 334 eP P 13 33 20.1 +0.9
comp=Z,60nm,0.8s
S48A **Wiedeman Farm,** 24.79 5 P P 13 33 18.4 -0.8
baz=186
S40A **Lebanon** 24.82 353 P P 13 33 19.3 -0.1
baz=171,SNR=34
S42A **Caledonia** 24.84 356 P P 13 33 18.8 -0.9
baz=175,SNR=7.7
T36A **Boggs Farm, Ca** 24.88 347 P P 13 33 19.9 -0.1
baz=163,SNR=9.2
T35A **Sooner Cattle** 24.89 345 P P 13 33 19.8 -0.3
baz=162
USIN **University of** 25.00 2 eP P 13 33 21.4 +0.4
comp=Z,30nm,0.8s
S39A **Bolivar** 25.02 352 P P 13 33 21.4 +0.2
baz=169,SNR=39
S38A **Stockton** 25.05 351 P P 13 33 21.7 +0.2
baz=168,SNR=23
CCM **Cathedral Cave** 25.15 356 P P 13 33 22.7 +0.2
baz=174
CCM **Cathedral Cave** 25.15 356 eP P 13 33 22.3 -0.2
CCM pmax pmax
comp=Z,62nm,0.7s
CCM **Cathedral Cave** 25.15 356 eP P 13 33 22.3 -0.2
comp=Z,62nm,0.7s
T34A **McClaskey Farm** 25.16 344 P P 13 33 22.3 -0.3
baz=160,SNR=11
R46A **Gibon Southern** 25.25 3 P P 13 33 22.9 -0.4
baz=183
R44A **Waltonville** 25.25 360 P P 13 33 23.1 -0.3
baz=179
R43A **Red Bud** 25.30 358 P P 13 33 23.7 -0.1
baz=177,SNR=9.0
R45A **Skylar, Fairfi** 25.30 1 P P 13 33 23.0 -0.8
baz=181,SNR=5.8
S37A **Fort Scott** 25.33 349 P P 13 33 24.0 -0.1
baz=186,SNR=13
WCI **Wyandotte Cave** 25.34 5 P P 13 33 23.3 -0.8
baz=186
WCI **Wyandotte Cave** 25.34 5 eP P 13 33 23.4 -0.8
WCI **Wyandotte Cave** 25.34 5 eP P 13 33 23.4 -0.8
R42A **Luebbering** 25.34 356 P P 13 33 23.9 -0.3
baz=175
BLA **Blacksburg** 25.38 16 eP P 13 33 25.5 +0.9
BLA **Blacksburg** 25.38 16 eP P 13 33 25.5 +0.9
R47A **Wooly Knot Far** 25.39 4 P P 13 33 23.9 -0.7
baz=185
R41A **Rosebud** 25.40 355 P P 13 33 24.2 -0.6
baz=174,SNR=39
S36A **Lake Cedric, C** 25.45 348 P P 13 33 24.6 -0.6
baz=164,SNR=13
R40A **Maddies Statio** 25.48 354 P P 13 33 25.2 -0.2
baz=172,SNR=17
R48A **Northridge Ran** 25.55 5 P P 13 33 25.1 -0.9
baz=186
S35A **Otter Creek Ra** 25.57 346 P P 13 33 26.1 -0.2
baz=163,SNR=6.6
R38A **Fenwick Farm,** 25.59 351 P P 13 33 26.3 -0.2
baz=168,SNR=5.3
R39A **Chumby, Stover** 25.59 352 P P 13 33 26.2 -0.2
baz=170,SNR=22
OLIL **Olney** 25.75 1 eP P 13 33 28.5 +0.6
comp=Z,23nm,0.8s
S34A **Willow Spring** 25.78 345 P P 13 33 28.2 0.0
baz=161
Q45A **Warren Harvey,** 25.91 1 P P 13 33 28.8 -0.5
baz=181
Q44A **Meyer Farm, Va** 25.91 360 P P 13 33 28.7 -0.6
baz=179
Q43A **New Douglas** 25.96 359 P P 13 33 29.4 -0.4
baz=178
R36A **Gordon, Harris** 26.01 348 P P 13 33 29.6 -0.6
baz=165,SNR=7.8
Q47A **Bedord North L** 26.03 4 P P 13 33 29.4 -1.1
baz=185,SNR=7.9
Q41A **Truxton** 26.04 356 P P 13 33 30.2 -0.3
baz=174,SNR=8.6
Q46A **CEJHS Indians,** 26.06 3 P P 13 33 30.3 -0.4
baz=183
121A **Cookes Peak, D** 26.12 322 P P 13 33 32.8 +1.2
baz=134,SNR=14
121A **Cookes Peak, D** 26.12 322 eP P 13 33 32.9 +1.4
comp=Z,12nm,0.7s
R35A **Emporia Munici** 26.16 347 P P 13 33 31.8 +0.2
baz=163
Q39A **Willow Grove F** 26.30 353 P P 13 33 32.7 -0.2
baz=171,SNR=10
Q38A **Cooks Store, C** 26.30 352 P P 13 33 32.9 -0.1
baz=169,SNR=8.0
Q37A **Longview Farm,** 26.35 350 P P 13 33 33.4 +0.1
baz=167
R34A **Isabella, Hill** 26.38 345 P P 13 33 33.8 +0.1
baz=161
P44A **Sand Creek, Wi** 26.47 0 P P 13 33 33.8 -0.6
baz=180
P45A **Graceland, Par** 26.55 2 P P 13 33 35.0 -0.1
baz=182
JSRW **J. Sargeant Re** 26.58 20 eP P 13 33 36.0 +0.6
P47A **Martinsville** 26.59 5 P P 13 33 35.1 -0.4
baz=185
Q36A **Arnold C. Orve** 26.62 348 P P 13 33 35.8 +0.1
baz=165
BNM **Barren Site** 26.62 326 eP P 13 33 38.0 +1.9
P42A **Winchester** 26.62 357 P P 13 33 35.0 -0.7
baz=176
Q35A **Mercer Eighty,** 26.63 347 P P 13 33 35.8 -0.1
baz=164
P43A **Skaggs, Pawnee** 26.65 359 P P 13 33 35.6 -0.4
baz=178
P46A **Rosedale** 26.66 3 P P 13 33 35.5 -0.6
baz=183
P40A **Paris** 26.68 355 P P 13 33 35.9 -0.4
baz=173,SNR=18
P39B **Salisbury** 26.71 353 P P 13 33 35.6 -1.0
baz=171,SNR=6.7
Y22D **IRIS PASSCAL I** 26.72 325 P P 13 33 38.3 +1.4
baz=138
Y22D **IRIS PASSCAL I** 26.72 325 eP P 13 33 40.7 +3.7
comp=Z,50nm,0.6s
Y22E **IRIS PASSCAL I** 26.72 325 P P 13 33 38.2 +1.2
baz=138
IP07 **Quail** 26.74 19 eP P 13 33 37.5 +0.7
LPM **Los Pinos Moun** 26.74 326 eP P 13 33 39.1 +1.9
P41A **Barry, Barry** 26.75 356 P P 13 33 36.3 -0.6
baz=175
IP06 **Yanceyville** 26.77 19 eP P 13 33 37.7 +0.6
comp=Z,54nm,1.0s
IP01 **Cuckoo** 26.81 19 eP P 13 33 38.3 +0.8
comp=Z,40nm,1.1s
IP03 **Louisa** 26.83 19 eP P 13 33 38.3 +0.6
IP04 **Greensprings** 26.87 19 eP P 13 33 38.9 +0.8
comp=Z,40nm,1.0s
SPRD **Spring Road, M** 26.88 19 eP P 13 33 38.2 +0.1
comp=Z,21nm,0.6s
Q34A **Chapman** 26.90 346 P P 13 33 38.5 +0.2
baz=162
P38A **Dawn** 26.95 352 P P 13 33 38.8 +0.1
baz=170,SNR=6.2
KSU1 **Kansas State U** 26.99 347 P P 13 33 38.9 -0.2
baz=163
KSU1 **Kansas State U** 26.99 347 eP P 13 33 39.5 +0.4
comp=Z,28nm,0.9s
P37A **Lathrop** 27.03 351 P P 13 33 39.3 -0.2
baz=168
LAZ **Ladron** 27.09 325 eP P 13 33 42.8 +2.5
ANMO **Albuquerque** 27.12 327 P P 13 33 42.6 +2.0
comp=Z,2.2nm,0.6s,baz=316,slow=9.8,SNR=12
ANMO PcP PcP 13 37 01.6 +1.3
comp=Z,5.3nm,0.8s,baz=350,slow=3.9,SNR=7.1
ANMO pPcP 13 37 17.1
comp=Z,7.5nm,1.0s,baz=328,slow=4.1,SNR=5.4
ANMO **Albuquerque** 27.12 327 P P 13 33 40.2 -0.4
baz=140
ANMO **Albuquerque** 27.12 327 eP P 13 33 42.1 +1.5
ANMO pmax pmax
comp=Z,3.0nm,0.8s
ANMO **Albuquerque** 27.12 327 eP P 13 33 42.0 +1.5
comp=Z,17nm,1.6s
ANMO PcP PcP 13 37 01.6 +1.3
ANMO pPcP 13 37 17.1
O44A **Mansfield** 27.16 1 P P 13 33 40.2 -0.4
baz=180
O41A **Passleys Farm,** 27.18 357 P P 13 33 40.5 -0.2
baz=175
CBN **Corbin Frederi** 27.21 20 eP P 13 33 42.3 +1.2
comp=Z,63nm,0.8s
O45A **Potomac** 27.27 2 P P 13 33 40.6 -1.0
baz=182,SNR=7.2
P35A **Duane Minner,** 27.27 348 P P 13 33 40.9 -0.8
baz=164
O47A **Sheridan** 27.34 4 P P 13 33 40.2 -2.1
baz=185,SNR=6.2
O38A **Galt** 27.43 352 P P 13 33 42.3 -0.7
baz=170
SFIN **Lafayette** 27.43 3 P P 13 33 42.2 -0.8
baz=183
NNA **Nana** 27.45 154 LR LR 13 43 17.5
comp=Z,135nm,20.5s,baz=325,slow=33
O39A **Kirksville** 27.45 354 P P 13 33 42.7 -0.5
baz=172
P34A **Walnut Farm, R** 27.47 347 P P 13 33 43.4 +0.1
baz=163,SNR=9.8
CBKS **Cedar Bluff** 27.56 341 P P 13 33 44.7 +0.4
baz=156,SNR=12
CBKS **Cedar Bluff** 27.56 341 eP P 13 33 45.0 +0.7
CBKS pmax pmax
comp=Z,33nm,0.7s
CBKS **Cedar Bluff** 27.56 341 eP P 13 33 45.0 +0.7
comp=Z,33nm,0.7s
O37A **Wen Farm, M** 27.56 351 P P 13 33 44.2 0.0
baz=169
O36A **Bolckow** 27.66 350 P P 13 33 44.3 -0.8
baz=167
ACSO **Alum Creek Sta** 27.73 10 P P 13 33 44.3 -1.4
baz=192
ACSO **Alum Creek Sta** 27.73 10 eP P 13 33 45.8 +0.1
comp=Z,19nm,0.6s
N42A **Yates City** 27.85 358 P P 13 33 46.5 -0.3
baz=177
T25A **Trinidad** 27.87 333 P P 13 33 48.0 +0.8
baz=146,SNR=36
T25A **Trinidad** 27.87 333 eP P 13 33 48.9 +1.7
comp=Z,37nm,0.8s
TUC **Tucson** 27.87 317 eP P 13 33 50.0 +2.8
TUC pmax pmax
comp=Z,6.0nm,0.8s
TUC **Tucson** 27.87 317 eP P 13 33 50.0 +2.8
comp=Z,5.9nm,0.8s
N43A **Stutzman Famil** 27.94 360 P P 13 33 47.1 -0.5
baz=179
MHTCO **State Highway** 27.99 332 eP P 13 33 50.3 +2.0
comp=Z,56nm,1.8s
N40A **Mertquake, Sal** 27.99 356 P P 13 33 47.4 -0.6
baz=174
O34A **Beatrice** 28.05 347 P P 13 33 48.5 -0.1
baz=163,SNR=9.8
N38A **Joes South For** 28.06 353 P P 13 33 47.5 -1.2
baz=171
N39A **Derby Farms, D** 28.06 354 P P 13 33 48.0 -0.6
baz=172,SNR=5.8
O33A **Hebron** 28.15 346 P P 13 33 49.4 0.0
baz=162
N37A **Lee Faris, Mou** 28.15 351 P P 13 33 49.1 -0.4
baz=169
N36A **Muff Farm, Cla** 28.33 350 P P 13 33 51.4 +0.3
baz=167
M41A **Milo** 28.41 357 P P 13 33 51.2 -0.6
baz=176
M45A **Boilermakers S** 28.43 3 P P 13 33 50.8 -1.1
baz=183
SDMD **Soldier's Deli** 28.48 20 eP P 13 33 53.3 +0.9
comp=Z,21nm,0.7s
N35A **Tabor** 28.49 349 P P 13 33 52.9 +0.4
baz=166
M40A **Post Highland** 28.50 356 P P 13 33 52.2 -0.3
baz=174
M39A **Webster** 28.63 355 P P 13 33 53.8 +0.2
baz=173
N34A **Lincoln** 28.63 348 P P 13 33 54.6 +0.8
baz=164
M38A **Pleasantville** 28.67 353 P P 13 33 53.5 -0.5
baz=171
KSCO **Kaye Shedlock'** 28.73 337 P P 13 33 55.1 +0.2
baz=151
KSCO **Kaye Shedlock'** 28.73 337 eP P 13 33 56.1 +1.3
comp=Z,45nm,0.8s
O56A **Blue Knob Stat** 28.74 17 P P 13 33 54.5 -0.3
baz=201
N33A **J Bar K, Exete** 28.75 346 P P 13 33 54.8 0.0
baz=162
M37A **Trindle Farm,** 28.77 352 P P 13 33 55.4 +0.5
baz=169
SDCO **Great Sand Dun** 28.86 332 P P 13 33 57.1 +0.9
baz=144,SNR=16
SDCO **Great Sand Dun** 28.86 332 eP P 13 33 58.0 +1.8
comp=Z,8.7nm,0.9s
M36A **Felix, Anita** 28.92 351 P P 13 33 55.9 -0.5
baz=168
L42A **Oliver, Polo** 29.01 359 P P 13 33 56.4 -0.7
baz=178
N54A **Moraine State** 29.03 14 P P 13 33 56.9 -0.4
baz=198,SNR=7.8
214A **Organ Pipe Nat** 29.03 315 P P 13 33 58.5 +1.0
baz=125
214A **Organ Pipe Nat** 29.03 315 eP P 13 33 58.6 +1.1
comp=Z,71nm,0.9s
M35A **Neola** 29.09 349 P P 13 33 57.3 -0.4
baz=166
L41A **Preston** 29.11 358 P P 13 33 57.8 -0.1
baz=176,SNR=5.9
L40A **Anamosa** 29.14 356 P P 13 33 57.7 -0.5
baz=175,SNR=5.4
L39A **Vinton** 29.25 355 P P 13 33 58.3 -0.9
baz=174
SSPA **Standing Stone** 29.27 17 eP P 13 33 59.7 +0.3
comp=Z,62nm,1.8s
M34A **Aspy Farms, Fr** 29.29 348 P P 13 34 00.2 +0.6
baz=164
M33A **Taylor Creek F** 29.48 347 P P 13 34 01.6 +0.3
baz=163
S22A **4UR Ranch, Cre** 29.49 330 P P 13 34 02.9 +1.2
baz=142,SNR=52
S22A **4UR Ranch, Cre** 29.49 330 eP P 13 34 03.1 +1.4
comp=Z,21nm,0.8s
BGNE **Belgrade** 29.55 346 P P 13 34 02.4 +0.5
baz=161
M54A **Oil Creek Stat** 29.62 14 P P 13 34 02.2 -0.4
baz=198,SNR=5.4
K41A **Shullsburg** 29.64 358 P P 13 34 02.2 -0.4
baz=177
L35A **Bielow Farm, R** 29.69 350 P P 13 34 03.1 0.0
baz=166
Q24A **Divide** 29.71 334 P P 13 34 04.4 +0.7
baz=146,SNR=5.1
Q24A **Divide** 29.71 334 eP P 13 34 04.8 +1.1
comp=Z,8.3nm,1.0s
K43A **Burlington** 29.71 1 P P 13 34 02.9 -0.3
baz=181
K40A **Colesburg** 29.77 357 P P 13 34 03.4 -0.4
baz=175,SNR=5.2
K42A **Prairie Point,** 29.78 359 P P 13 34 03.2 -0.7
baz=179
K39A **Oelwein** 29.82 356 P P 13 34 03.6 -0.7
baz=174
K38A **Parkersburg** 29.84 354 P P 13 34 03.7 -0.7
baz=172
MVCO **Mesa Verde** 29.92 327 P P 13 34 06.4 +0.9
baz=139,SNR=8.9
MVCO **Mesa Verde** 29.92 327 eP P 13 34 07.1 +1.6
comp=Z,11nm,0.8s
JFWS **Jewell Farm** 29.94 358 P P 13 34 04.7 -0.7
baz=177
LUPA **Lehigh Univers** 30.04 21 eP P 13 34 07.4 +1.2
L32A **Elgin** 30.08 346 P P 13 34 06.7 +0.1
baz=162
N59A **State Game Lan** 30.19 20 P P 13 34 07.0 -0.6
baz=206,SNR=6.0
J42A **Columbus** 30.32 360 P P 13 34 07.2 -1.4
baz=179
WUAZ **Wupatki** 30.33 322 P P 13 34 09.1 0.0
baz=132,SNR=8.6
WUAZ **Wupatki** 30.33 322 eP P 13 34 11.2 +2.1
comp=Z,9.9nm,0.9s
K34A **Le Mars** 30.34 349 P P 13 34 07.7 -1.2
baz=166
J41A **Loganville** 30.38 358 P P 13 34 08.6 -0.7
baz=178,SNR=5.2
J43A **Natural Harves** 30.39 1 P P 13 34 08.7 -0.6
baz=181
J39A **Decorah** 30.43 356 P P 13 34 08.9 -0.8
baz=174
K33A **Hardington** 30.43 348 P P 13 34 08.7 -1.1
baz=164
J40A **Soldiers Grove** 30.44 357 P P 13 34 08.7 -1.0
baz=176
J38A **Wedel Dairy, R** 30.48 355 P P 13 34 09.3 -0.8
baz=178
J37A **Redenius Farm,** 30.58 353 P P 13 34 10.8 -0.2
baz=171
ISCO **Idaho Springs** 30.60 334 P P 13 34 12.3 +0.7
baz=146,SNR=22
ISCO **Idaho Springs** 30.60 334 eP P 13 34 13.1 +1.5
ISCO pmax pmax
comp=Z,14nm,0.8s
ISCO **Idaho Springs** 30.60 334 eP P 13 34 13.1 +1.5
comp=Z,14nm,0.8s
PV01 **Paradox Valley** 30.65 329 eP P 13 34 15.3 +3.3
K32A **Verdigre** 30.69 347 P P 13 34 11.6 -0.4
baz=162
J36A **Seneca 1, Swea** 30.70 352 P P 13 34 11.8 -0.2
baz=169
SMCO **Snowmass** 30.70 332 eP P 13 34 14.2 +1.7
comp=Z,18nm,0.8s
K31A **O'Neill** 30.84 346 P P 13 34 13.9 +0.6
baz=161
PV05 **Paradox Valley** 30.88 328 eP P 13 34 12.2 -1.8
I42A **Draeger Farm,** 30.89 360 P P 13 34 13.4 -0.3
baz=180
I43A **Langenfeld Bro** 30.89 1 P P 13 34 13.0 -0.7
baz=181
I40A **Norwalk** 30.93 358 P P 13 34 13.4 -0.6
baz=176
I39A **Houston** 30.94 356 P P 13 34 13.3 -0.9
baz=175
PV04 **Paradox Valley** 31.02 329 eP P 13 34 15.1 -0.1
GLA **Glamis** 31.05 315 P P 13 34 17.3 +1.9
baz=124,SNR=6.0
GLA **Glamis** 31.05 315 eP P 13 34 17.7 +2.4
GLA **Glamis** 31.05 315 eP P 13 34 17.7 +2.4
I41A **Arkdale** 31.07 359 P P 13 34 14.7 -0.6
baz=178
PV10 **Paradox Valley** 31.08 328 eP P 13 34 16.6 +0.9
I38A **Scanlan Farm,** 31.18 355 P P 13 34 15.3 -1.0
baz=173,SNR=5.6
PV09 **Paradox Valley** 31.22 328 eP P 13 34 19.0 +2.0
Y12C **Blythe** 31.24 316 P P 13 34 17.7 +0.7
baz=126
Y12C **Blythe** 31.24 316 eP P 13 34 20.2 +3.2
I37A **Lemond, Waseca** 31.26 354 P P 13 34 16.3 -0.6
baz=171
BINY **Binghamton** 31.28 19 eP P 13 34 17.4 +0.3
PDMCI **Parker Dam,Lak** 31.31 317 P P 13 34 18.5 +1.0
baz=127,SNR=7.2
I36A **Fitzsimmons Fa** 31.33 353 P P 13 34 17.5 -0.1
baz=170
ECSD **EROS Data Cent** 31.45 349 P P 13 34 17.8 -0.9
baz=165,SNR=5.4
ECSD **EROS Data Cent** 31.45 349 eP P 13 34 18.3 -0.4
comp=Z,21nm,1.3s
J31A **Geddes** 31.47 346 P P 13 34 18.5 -0.3
baz=161
H43A **Windswept, Lux** 31.48 2 P P 13 34 17.7 -1.2
baz=182
H42A **Shiocton** 31.51 0 P P 13 34 18.3 -0.9
baz=180
H41A **Junction City** 31.62 359 P P 13 34 19.4 -0.8
baz=178
H40A **Chili** 31.65 358 P P 13 34 19.2 -1.2
baz=177,SNR=6.3
N23A **Red Feather La** 31.66 335 P P 13 34 21.7 +0.9
baz=147,SNR=16
N23A **Red Feather La** 31.66 335 eP P 13 34 22.3 +1.5
comp=Z,16nm,0.7s
SWSC **Sam W. Stewart** 31.68 314 P P 13 34 22.6 +1.9
baz=123
IKP **In-Ko-Pah, Jac** 31.74 313 P P 13 34 23.6 +2.2
baz=122,SNR=5.3
H39A **Augusta** 31.75 357 P P 13 34 20.8 -0.5
baz=175
H37A **Dierke Farm, C** 31.77 355 P P 13 34 21.3 -0.1
baz=172
PHWY **Pilot Hill** 31.80 336 eP P 13 34 23.5 +1.4
comp=Z,15nm,0.8s
H38A **Maiden Rock** 31.81 355 P P 13 34 21.9 +0.2
baz=173
BC3 **Big Chuckawall** 31.83 315 P P 13 34 23.8 +1.6
baz=124,SNR=11
H36A **Jessenland, He** 31.87 353 P P 13 34 22.1 -0.2
baz=170,SNR=12
IRM **Iron Mountain** 31.90 316 P P 13 34 24.7 +1.9
baz=125,SNR=5.5
O20A **White River Ci** 32.05 331 P P 13 34 25.8 +1.6
baz=142,SNR=35
O20A **White River Ci** 32.05 331 eP P 13 34 26.1 +1.9
comp=Z,49nm,0.8s
MONP2 **Monument Peak** 32.09 313 P P 13 34 24.4 -0.3
baz=122,SNR=7.5
H35A **Sunnyside Ranc** 32.11 352 P P 13 34 23.5 -0.9
baz=169,SNR=9.6
PKCU **Pink Cliffs** 32.19 324 eP P 13 34 28.6 +3.0
comp=Z,10nm,0.8s
G42A **Mountain** 32.24 1 P P 13 34 23.6 -1.9
baz=180
G38A **Ridgeland** 32.27 356 P P 13 34 24.3 -1.5
baz=174
G43A **Wallace** 32.27 2 P P 13 34 24.3 -1.6
baz=182
G40A **Rib Lake** 32.29 358 P P 13 34 25.1 -0.8
baz=177
G39A **Holcombe** 32.35 357 P P 13 34 25.7 -0.8
baz=176,SNR=10
H32A **Carlson Farm,** 32.35 349 P P 13 34 25.5 -1.0
baz=164
H33A **Prehn Over Nor** 32.39 349 P P 13 34 26.4 -0.5
baz=165
BELC **Belle Mtn. Jos** 32.40 315 P P 13 34 28.5 +1.3
baz=124,SNR=5.8
SRU **San Rafael Swe** 32.40 328 eP P 13 34 28.8 +1.6
SRU pmax pmax
comp=Z,11nm,0.8s
SRU **San Rafael Swe** 32.40 328 eP P 13 34 28.8 +1.6
comp=Z,10nm,0.8s
SPMN **Marine on St.** 32.40 355 P P 13 34 25.9 -1.0
baz=173,SNR=16
SPMN **Marine on St.** 32.40 355 eP P 13 34 26.6 -0.4
comp=Z,58nm,0.6s
LDFC **Landfair** 32.41 317 eP P 13 34 30.5 +3.1
comp=Z,31nm,0.8s
LCMT **Little Creek M** 32.45 322 eP P 13 34 30.2 +2.5
comp=Z,4.9nm,0.9s

XPFO Piæon Flat 32.50 314 eP P 13 34 31.3 +3.2
comp=Z,14nm,0.9s
PFO Pinyon Flats O 32.50 314 P P 13 34 26.8 -1.3
baz=123
PFO Pinyon Flats O 32.50 314 eP P 13 34 31.3 +3.1
PFO pmax pmax
comp=Z,13nm,0.9s
PFO Pinyon Flats O 32.50 314 eP P 13 34 31.3 +3.1
comp=Z,13nm,0.9s
G36A St. Michael 32.50 354 P P 13 34 26.7 -1.1
baz=171,SNR=7.1
MTPU Mount Pierson 32.53 324 eP P 13 34 29.4 +0.8
comp=Z,7.5nm,0.6s
H31A Wolsey 32.54 347 P P 13 34 27.9 -0.3
baz=162
G35A Watkins 32.57 353 P P 13 34 28.4 -0.1
baz=170
GMRC Granite Mounta 32.61 317 P P 13 34 29.1 0.0
baz=125,SNR=8.4
SUSD Miller 32.61 347 P P 13 34 28.0 -0.8
baz=161
P18A Preston Nutter 32.64 329 eP P 13 34 31.0 +1.5
comp=Z,9.4nm,0.8s
F41A Three Lakes 32.74 360 P P 13 34 28.6 -1.4
baz=179
SZCU Shurtz Canyon 32.75 323 eP P 13 34 32.6 +2.2
comp=Z,5.5nm,0.8s
DEVC Devers 32.76 314 eP P 13 34 32.7 +2.4
P17A Butcher Ranch, 32.77 328 eP P 13 34 32.2 +1.7
comp=Z,19nm,0.8s
F45A CMU Biological 32.81 4 P P 13 34 28.4 -2.0
baz=186
G33A Ortonville 32.84 350 P P 13 34 29.9 -0.9
baz=166
SADO Sadowa 32.84 13 eP P 13 34 30.2 -0.6
comp=Z,37nm,0.6s
RWWY Rawlins 32.85 334 eP P 13 34 33.0 +1.8
comp=Z,31nm,0.8s
MSU Marysvale 32.86 325 eP P 13 34 33.4 +2.1
MSU Marysvale 32.86 325 eP P 13 34 33.4 +2.1
F43A Flat Rock, Esc 32.86 2 P P 13 34 29.5 -1.5
baz=183
CCUT Cedar City 32.88 323 eP P 13 34 34.0 +2.5
comp=Z,4.9nm,1.0s
F37A Hinrichs Farm, 32.88 355 P P 13 34 30.3 -0.8
baz=173
TMUT Trail Mountain 32.89 327 eP P 13 34 33.4 +1.7
comp=Z,18nm,1.6s
F40A Park Falls 32.94 358 P P 13 34 30.8 -0.9
baz=178
F46A Macinaw City C 32.96 5 P P 13 34 30.7 -1.1
baz=187
F39A Loretta 32.96 357 P P 13 34 30.9 -1.0
baz=176
MURC Murrieta 33.02 313 P P 13 34 33.6 +1.0
baz=122
F44A Big Bay de Noc 33.04 3 P P 13 34 30.8 -1.8
baz=184,SNR=5.1
F38A Pierce - Schro 33.06 356 P P 13 34 31.8 -0.9
baz=174
G32A Webster 33.08 349 P P 13 34 32.3 -0.6
baz=164
F36A Milaca 33.10 354 P P 13 34 31.7 -1.4
baz=171,SNR=6.0
G31A Conde 33.19 348 P P 13 34 32.9 -1.0
baz=163
F35A Swanville 33.21 353 P P 13 34 33.0 -1.1
baz=170
F34A Alexandria 33.24 352 P P 13 34 33.4 -0.9
baz=168
SHPR Sheep Range 33.31 319 eP P 13 34 37.5 +2.3
K22A Casper 33.37 336 P P 13 34 36.2 +0.6
baz=147,SNR=15
K22A Casper 33.37 336 eP P 13 34 37.0 +1.3
comp=Z,23nm,0.8s
E43A Lone Tree Farm 33.41 2 P P 13 34 34.7 -1.0
baz=183
F33A 5 Mile Ranch, 33.44 351 P P 13 34 35.4 -0.6
baz=167
E42A Champion 33.44 1 P P 13 34 34.8 -1.3
baz=181
E40A Wakefield 33.46 359 P P 13 34 35.7 -0.5
baz=178,SNR=5.5
E41A Kenton 33.47 360 P P 13 34 35.4 -0.8
baz=180
SAML Samuel 33.49 129 ePcP PcP 13 37 16.5 -0.5
SAML Samuel 33.49 129 eP P 13 34 36.5 -0.3
comp=Z,53nm,0.8s
MPU Maple Canyon 33.64 328 eP P 13 34 39.7 +1.6
comp=Z,14nm,0.8s
BFSC Mount Baldy Ra 33.68 314 P P 13 34 39.5 +1.0
baz=122
E38A The Farm, Brul 33.68 357 P P 13 34 37.2 -1.0
baz=175
E44A Grand Marais A 33.71 4 P P 13 34 38.3 -0.1
baz=185
E36A McGregor 33.72 355 P P 13 34 37.3 -1.2
baz=172,SNR=8.7
RSSD Black Hills 33.73 340 P P 13 34 39.6 +0.7
baz=152
RSSD Black Hills 33.73 340 eP P 13 34 40.0 +1.1
RSSD pmax pmax
comp=Z,20nm,0.6s
RSSD Black Hills 33.73 340 eP P 13 34 40.0 +1.1
comp=Z,20nm,0.6s
CIS Catalina Islan 33.79 312 P P 13 34 40.6 +1.3
baz=120
PSUT Pine Spring 33.83 323 eP P 13 34 43.4 +3.7
comp=Z,10nm,0.8s
NLU North Lily Min 33.83 327 eP P 13 34 41.5 +1.7
comp=Z,20nm,2.0s
E35A Pequot Lakes 33.88 353 P P 13 34 39.6 -0.2
baz=170
LONY Lake Ozonia 33.90 18 eP P 13 34 39.6 -0.4
E34A Wadena 33.93 352 P P 13 34 39.7 -0.6
baz=169,SNR=5.3
JLU Jordanelle 33.98 328 eP P 13 34 42.9 +1.9
comp=Z,5.5nm,0.7s
E33A Westby DABS, E 34.04 351 P P 13 34 40.5 -0.8
baz=167
D41A Chassel 34.06 0 P P 13 34 40.7 -0.7
baz=180
CTU Camp Tracy 34.20 328 eP P 13 34 44.5 +1.6
comp=Z,7.7nm,0.8s
EDW2 Edwards Air Fo 34.26 315 P P 13 34 44.1 +0.8
baz=122
TPNV Topopah Spring 34.27 319 P P 13 34 45.4 +1.8
baz=127,SNR=6.0
TPNV Topopah Spring 34.27 319 eP P 13 34 46.2 +2.6
TPNV pmax pmax
comp=Z,6.0nm,0.8s
TPNV Topopah Spring 34.27 319 eP P 13 34 46.2 +2.6
comp=Z,6.1nm,0.8s
D37A Cotton 34.29 356 P P 13 34 42.5 -0.9
baz=174,SNR=11
TCUT Toone Canyon 34.34 329 eP P 13 34 46.3 +2.1
comp=Z,23nm,0.7s
D36A Goodland 34.37 355 P P 13 34 42.9 -1.2
baz=172,SNR=7.4
DUG Dugway, Tooele 34.40 327 P P 13 34 45.1 +0.5
baz=135
DUG Dugway, Tooele 34.40 327 eP P 13 34 46.3 +1.7
DUG pmax pmax
comp=Z,5.0nm,0.9s
DUG Dugway, Tooele 34.40 327 eP P 13 34 46.3 +1.7
comp=Z,4.8nm,0.9s
E31A Nome 34.41 349 P P 13 34 43.8 -0.6
baz=164
MPMC Manual Prospec 34.56 317 P P 13 34 47.1 +1.0
baz=124,SNR=7.7
R11A Troy Canyon, C 34.73 322 P P 13 34 48.3 +0.7
baz=130
R11A Troy Canyon, C 34.73 322 eP P 13 34 48.8 +1.2
comp=Z,6.9nm,1.4s
BW06 Boulder Array 34.74 333 P P 13 34 47.8 +0.1
baz=143,SNR=12
BW06 Boulder Array 34.74 333 eP P 13 34 48.3 +0.6
comp=Z,7.5nm,0.8s
PD31 Pinedale Array 34.74 333 eP P 13 34 48.3 +0.6
PDAR Pinedale Array 34.74 333 P P 13 34 48.1 +0.5
comp=Z,6.6nm,0.8s,baz=126,slow=8.8,SNR=46
PDAR PcP PcP 13 37 20.6 +0.2
comp=Z,4.9nm,0.6s,baz=149,slow=5.0,SNR=17
PDAR pPcP 13 37 35.8
comp=Z,3.2nm,0.6s,baz=123,slow=4.2,SNR=7.1
PDAR Pinedale Array 34.74 333 eP P 13 34 47.6 0.0
PDAR PcP PcP 13 37 20.6 +0.2
PDAR pPcP 13 37 35.8

C38A Sawbill Land. 34.78 357 P P 13 34 46.8 -0.9
baz=176
C37A Embarrass 34.84 356 P P 13 34 47.5 -0.7
baz=174
C36A Pine Crest Far 34.92 355 P P 13 34 48.1 -0.7
baz=173
C35A Jirik Farms, M 34.96 354 P P 13 34 47.9 -1.3
baz=171,SNR=5.5
ARVC Arvin 34.97 314 P P 13 34 50.5 +1.1
baz=122
SPUT South Promonto 35.01 328 eP P 13 34 51.9 +2.0
comp=Z,9.4nm,0.9s
EYMN Ely 35.02 357 P P 13 34 48.4 -1.2
baz=175
EYMN Ely 35.02 357 eP P 13 34 48.7 -1.0
comp=Z,16nm,0.6s
BGU Big Grassy Mou 35.03 327 eP P 13 34 51.6 +1.5
comp=Z,5.8nm,1.0s
C33A Trail 35.24 352 P P 13 34 50.9 -0.6
baz=168
LPAZ La Paz 35.51 144 P P 13 34 55.9 +1.0
comp=Z,7.9nm,0.7s,baz=346,slow=7.1,SNR=22
LPAZ LR LR 13 49 51.6
comp=Z,330nm,21.1s,baz=308,slow=37
HVU Hansel Valley 35.52 329 eP P 13 34 55.5 +1.2
HVU pmax pmax
comp=Z,9.0nm,0.8s
HVU Hansel Valley 35.52 329 eP P 13 34 55.5 +1.2
comp=Z,9.4nm,0.8s
VES Vestal, Richgr 35.52 315 P P 13 34 56.5 +2.3
baz=122
PKM Mcpherson Peak 35.54 313 P P 13 34 56.8 +2.2
baz=120
C31A Landman Farms, 35.58 350 P P 13 34 53.2 -1.2
baz=165
B35A Bob, Littlefor 35.59 354 P P 13 34 53.3 -1.3
baz=172,SNR=5.3
B33A Robert and Kas 35.72 352 P P 13 34 54.6 -1.0
baz=168
AGMN Agassiz Nation 35.78 352 P P 13 34 55.2 -1.0
baz=168,SNR=7.8
AGMN Agassiz Nation 35.78 352 eP P 13 34 55.9 -0.3
comp=Z,50nm,1.3s
REDW Red Top Meadow 35.79 332 eP P 13 34 57.6 +1.0
comp=Z,62nm,1.0s
B34A Aery, Baudette 35.81 353 P P 13 34 55.5 -1.0
baz=170,SNR=8.6
SNOW Snow King Moun 35.83 332 eP P 13 34 58.2 +1.2
comp=Z,53nm,0.9s
SMMC Simmler 35.88 314 P P 13 34 58.6 +1.3
baz=121
TPAW Teton Pass 35.94 332 eP P 13 34 59.2 +1.3
comp=Z,36nm,1.2s
B32A Ashes, Strandq 35.97 351 P P 13 34 56.8 -1.0
baz=167,SNR=14
MDND Maddock 35.98 348 P P 13 34 57.7 -0.3
baz=162,SNR=15
MDND Maddock 35.98 348 eP P 13 34 58.0 0.0
comp=Z,93nm,0.8s
MOOW Moose Ponds 36.05 333 eP P 13 34 59.9 +1.0
comp=Z,8.8nm,0.8s
FXWY Fox Creek 36.09 332 eP P 13 35 00.2 +1.0
comp=Z,7.0nm,0.9s
ELK Elko 36.11 325 P P 13 35 00.3 +0.9
comp=Z,3.6nm,0.8s,baz=184,slow=6.8,SNR=30
ELK PcP PcP 13 37 24.8 +0.3
comp=Z,3.8nm,0.9s,baz=25,slow=3.7,SNR=9.2
ELK pPcP 13 37 41.1
comp=Z,4.9nm,0.9s,baz=304,slow=3.7,SNR=9.1
B31A Greenbush Farm 36.17 350 P P 13 34 59.2 -0.3
baz=165
A33A Warroad 36.34 353 P P 13 35 00.3 -0.7
baz=169,SNR=7.7
NV11 Mina Array Sit 36.37 320 eP P 13 35 04.0 +2.4
comp=Z,0.6nm,0.9s
VLDQ Val d'Or 36.38 13 eP P 13 35 00.6 -0.7
comp=Z,24nm,1.4s
NV01 Mina Array Sit 36.46 320 eP P 13 35 04.1 +1.6
A32A Rocking H Ranc 36.47 352 P P 13 35 01.7 -0.4
baz=167
H17A Grant Village 36.48 334 P P 13 35 03.5 +0.9
baz=142
H17A Grant Village 36.48 334 eP P 13 35 04.2 +1.6
comp=Z,22nm,1.4s
YPP Pitchstone Pla 36.48 333 eP P 13 35 06.0 +3.3
comp=Z,7.2nm,0.9s
RLMT Red Lodge 36.52 336 P P 13 35 03.3 +0.5
baz=145,SNR=31
RLMT Red Lodge 36.52 336 eP P 13 35 03.5 +0.6
comp=Z,23nm,0.8s
LKWY Lake 36.54 334 eP P 13 35 05.3 +2.2
LKWY pmax pmax
comp=Z,9.0nm,0.8s
LKWY Lake 36.54 334 eP P 13 35 05.3 +2.2
comp=Z,9.4nm,0.8s
YFT Old Faithful 36.64 333 eP P 13 35 06.6 +2.6
comp=Z,28nm,1.1s
LAO LASA Array 36.73 340 P P 13 35 04.7 +0.3
baz=151,SNR=22
LAO LASA Array 36.73 340 eP P 13 35 04.9 +0.5
comp=Z,31nm,0.9s
YNR Norris Junctio 36.78 334 eP P 13 35 07.4 +2.3
comp=Z,11nm,1.0s
YMR Madison River 36.87 333 eP P 13 35 07.7 +1.9
comp=Z,31nm,1.1s
YHH Holmes Hill 36.91 334 eP P 13 35 07.9 +1.6
comp=Z,14nm,1.0s
YHB Horse Butte 37.04 333 eP P 13 35 08.9 +1.7
comp=Z,10.0nm,0.8s
QLMT Earthquake Lak 37.20 333 eP P 13 35 10.7 +2.1
GCMT Greycliff 37.23 336 eP P 13 35 09.8 +1.0
YERR Yerington 37.38 320 eP P 13 35 12.4 +2.2
comp=Z,4.1nm,0.7s
PB11 IPOC Station P 37.56 149 eP P 13 35 14.1 +2.3
comp=Z,20nm,0.8s
HLID Hailey 37.65 329 P P 13 35 13.0 +0.6
baz=136,SNR=16
HLID Hailey 37.65 329 eP P 13 35 13.6 +1.2
comp=Z,7.5nm,0.8s
DGMT Dagmar 37.69 343 P P 13 35 13.0 +0.5
baz=155,SNR=27
DGMT Dagmar 37.69 343 eP P 13 35 12.9 +0.5
comp=Z,87nm,0.7s
ULM Lac du Bonnet 37.69 353 P P 13 35 11.4 -1.0
comp=Z,19nm,0.9s,baz=168,slow=8.9,SNR=24
ULM Lac du Bonnet 37.69 353 eP P 13 35 11.1 -1.3
ULM pmax pmax
comp=Z,28nm,1.0s
ULM Lac du Bonnet 37.69 353 eP P 13 35 11.1 -1.3
comp=Z,28nm,1.0s
MCMT McKenzie Canyo 37.84 332 eP P 13 35 14.1 +0.1
BOZ Bozeman (W) 37.89 334 P P 13 35 15.1 +0.7
baz=142,SNR=23
BOZ Bozeman (W) 37.89 334 eP P 13 35 15.4 +1.0
BOZ pmax pmax
comp=Z,14nm,0.8s
BOZ Bozeman (W) 37.89 334 eP P 13 35 15.4 +1.0
comp=Z,14nm,0.8s
DLMT Dillon 38.13 333 eP P 13 35 17.7 +1.3
comp=Z,16nm,1.2s
LRM Limekiln Ridge 38.43 333 eP P 13 35 20.1 +1.1
BEKR Beckworth 38.60 320 eP P 13 35 22.8 +2.3
comp=Z,12nm,1.3s
LMN Caledonia Moun 38.66 27 eP P 13 35 20.6 -0.1
HRY Holter Researc 38.86 335 eP P 13 35 23.7 +1.2
EGMT Eagleton 39.11 338 P P 13 35 25.2 +0.7
baz=146,SNR=56
EGMT Eagleton 39.11 338 eP P 13 35 25.4 +0.9
comp=Z,76nm,0.6s
WVOR Wild Horse Val 39.13 324 eP P 13 35 25.9 +1.1
WVOR pmax pmax
comp=Z,9.0nm,0.8s
WVOR Wild Horse Val 39.13 324 eP P 13 35 25.9 +1.1
comp=Z,8.7nm,0.8s
J08A Circle Bar Ran 39.64 326 eP P 13 35 30.0 +0.9
comp=Z,7.4nm,0.8s
SIV San Ignacio 39.74 135 P P 13 35 30.4 +0.3
comp=Z,21nm,0.7s,baz=318,slow=9.7,SNR=44
SIV PcP PcP 13 37 36.4 +0.6
comp=Z,6.4nm,0.6s,baz=297,slow=3.2,SNR=7.1
SIV pPcP 13 37 51.9
comp=Z,7.9nm,0.8s,baz=352,slow=3.9,SNR=3.3
O03D Paynes Creek 39.75 319 P P 13 35 30.6 +0.7
baz=124
MOD Modoc Plateau 39.77 323 eP P 13 35 30.8 +0.6
comp=Z,17nm,1.6s
MSO Missoula 39.86 333 P P 13 35 31.1 +0.3
baz=140,SNR=7.1

MSO Missoula 39.86 333 eP P 13 35 31.6 +0.8
comp=Z,22nm,1.3s
BMO Blue Mountains 40.03 328 eP P 13 35 32.1 -0.1
BMO pmax pmax
comp=Z,4.0nm,0.9s
BMO Blue Mountains 40.03 328 eP P 13 35 32.1 -0.1
comp=Z,4.4nm,0.9s
I07A Izee 40.68 326 eP P 13 35 38.7 +1.1
comp=Z,5.9nm,0.8s
JTMT Jette 40.71 334 eP P 13 35 38.5 +0.7
comp=Z,20nm,1.5s
F10A Beach Ranch, E 40.77 330 eP P 13 35 38.6 +0.3
comp=Z,14nm,1.0s
YBH Yreka Blue Hor 41.13 321 P P 13 35 40.9 -0.4
comp=Z,2.1nm,0.6s,baz=121,slow=9.2,SNR=9.6
YBH PcP PcP 13 37 40.6 +0.5
comp=Z,2.4nm,0.7s,baz=97,slow=3.3,SNR=5.1
YBH pPcP 13 37 55.9
comp=Z,4.0nm,0.8s,baz=81,slow=7.3,SNR=5.4
WALA Waterton Lakes 41.57 335 eP P 13 35 46.0 +1.1
comp=Z,12nm,0.8s
E09A Wood Farm, Sta 41.60 329 eP P 13 35 45.8 +0.7
comp=Z,4.4nm,0.8s
J04D Umpqua Nationa 41.64 323 P P 13 35 45.8 +0.1
baz=126
I05D Terrebonne, OR 41.86 325 P P 13 35 47.8 +0.5
baz=128
I04A Tendick Farm, 42.15 323 P P 13 35 49.9 +0.4
baz=126
NEW Newport 42.37 332 P P 13 35 50.9 -0.4
comp=Z,3.0nm,0.7s,baz=142,slow=9.8,SNR=6.8
NEW PcP PcP 13 37 43.5 -0.4
comp=Z,4.5nm,0.6s,baz=141,slow=4.6,SNR=6.3
NEW pPcP 13 37 59.4
comp=Z,4.9nm,0.8s,baz=144,slow=5.3,SNR=3.7
NEW Newport 42.37 332 P P 13 35 51.2 -0.1
baz=137
NEW Newport 42.37 332 eP P 13 35 51.3 0.0
NEW 13 37 43.5
NEW pmax pmax
comp=Z,4.0nm,0.7s
NEW Newport 42.37 332 eP P 13 35 51.3 0.0
comp=Z,4.1nm,0.7s
NEW PcP PcP 13 37 43.5 -0.4
NEW pPcP 13 37 59.4
H04A Detroit Lake 42.55 325 eP P 13 35 53.7 +0.8
comp=Z,9.4nm,0.8s
C09A Chrisman Ranch 42.57 331 eP P 13 35 51.8 -1.1
comp=Z,7.7nm,0.8s
FFC Flin Flon 42.99 349 eP P 13 35 56.0 -0.2
FFC pmax pmax
comp=Z,23nm,0.6s
FFC Flin Flon 42.99 349 eP P 13 35 56.0 -0.2
comp=Z,23nm,0.6s
B08A Colville Reser 43.47 331 eP P 13 36 00.3 +0.2
comp=Z,7.8nm,1.0s
C06D Leavenworth 43.94 329 P P 13 36 04.2 +0.2
baz=132
B06A Marblemount 44.63 329 eP P 13 36 09.6 +0.2
comp=Z,22nm,0.8s
SCHQ Schefferville 45.27 18 P P 13 36 13.2 -1.3
comp=Z,25nm,0.7s,baz=219,slow=6.8,SNR=34
SCHQ PcP PcP 13 37 52.6 -1.0
comp=Z,6.8nm,0.5s,baz=247,slow=3.4,SNR=8.8
SCHQ Schefferville 45.27 18 eP P 13 36 13.2 -1.3
comp=Z,24nm,0.6s
SCHQ PcP PcP 13 37 52.6 -1.0
BDFB Brasilia 49.37 124 P P 13 36 46.2 -0.8
comp=Z,25nm,0.6s,baz=78,slow=8.9,SNR=25
BDFB LR LR 13 57 50.0
comp=Z,163nm,21.4s,baz=59,slow=36
BDFB Brasilia 49.37 124 eP P 13 36 46.1 -0.9
BDFB pmax pmax
comp=Z,46nm,0.7s
BDFB Brasilia 49.37 124 eP P 13 36 46.1 -0.9
comp=Z,46nm,0.7s
CPUP Villa Florida 49.61 142 P P 13 36 48.5 +0.1
comp=Z,6.3nm,0.8s,baz=336,slow=8.6,SNR=11
CPUP pP pP 13 37 02.7 +0.2
comp=Z,8.3nm,0.7s,baz=338,slow=11,SNR=8.2
CPUP LR LR 13 58 34.8
comp=Z,226nm,19.9s,baz=316,slow=37
CPUP Villa Florida 49.61 142 eP P 13 36 48.9 +0.4
CPUP Villa Florida 49.61 142 eP P 13 36 48.9 +0.4
CPUP pP pP 13 37 02.7 +0.2
YKA Yellowknife Ar 52.83 345 P P 13 37 11.8 -0.3
comp=Z,29nm,0.8s,baz=138,slow=8.0,SNR=428
YKA pP pP 13 37 25.9 -0.3
comp=Z,16nm,0.8s,baz=146,slow=6.5,SNR=12
YKA PcP PcP 13 38 20.1 -0.7
comp=Z,2.7nm,0.6s,baz=147,slow=3.8,SNR=5.8
YKA pPcP 13 38 35.9
comp=Z,1.7nm,0.6s,baz=147,slow=4.1,SNR=3.8
YKA LR LR 14 01 45.0
comp=Z,36nm,20.5s,baz=0.0,slow=38
YKW3 Yellowknife Ar 52.89 345 eP P 13 37 11.8 -0.8
comp=Z,52nm,0.9s
DLBC Dease Lake 54.92 335 eP P 13 37 28.9 +1.3
comp=Z,16nm,0.8s
TAOE Nuku Hiva Isla 55.32 250 eT T 14 36 55.8
comp=Z,45nm,0.2s
RCBR Riachuelo 55.81 106 P P 13 37 34.2 -0.4
comp=Z,14nm,1.1s,baz=291,slow=9.1,SNR=3.6
RKT Rikitea 57.59 232 eT T 14 39 44.8
comp=Z,9.1nm,0.3s
SFJD Kangerlussuaq 59.68 16 i P P 13 37 58.4 -2.5
SFJD pmax pmax
comp=Z,34nm,1.1s
SFJD Kangerlussuaq 59.68 16 i P P 13 37 58.4 -2.5
comp=Z,34nm,1.1s
INK Inuvik 62.37 343 eP P 13 38 18.5 -0.6
INK pmax pmax
comp=Z,29nm,0.8s
INK Inuvik 62.37 343 eP P 13 38 18.5 -0.6
comp=Z,29nm,0.8s
EGAK Eagle 62.88 338 eP P 13 38 21.8 -0.8
comp=Z,49nm,1.9s
PAX Paxson 63.74 335 eP P 13 38 27.7 -0.7
PAX pmax pmax
comp=Z,10.0nm,0.9s
PAX Paxson 63.74 335 eP P 13 38 27.7 -0.7
comp=Z,10nm,0.9s
TULEG Thule 64.53 5 eP P 13 38 31.5 -1.7
comp=Z,15nm,1.1s
PMOR Pomariorio Ree 64.66 246 eT T 14 48 34.6
comp=Z,6.5nm,0.3s
IL1 Eielson Array 65.06 336 eP P 13 38 35.8 -1.1
ILAR Eielson Array 65.06 336 P P 13 38 35.9 -1.0
comp=Z,5.2nm,0.7s,baz=168,slow=4.3,SNR=55
ILAR pP pP 13 38 50.6 -0.8
comp=Z,9.7nm,1.0s,baz=166,slow=4.7,SNR=9.8
ILAR LR LR 14 09 53.2
comp=Z,257nm,18.8s,baz=152,slow=39
ILB Eielson Array 65.06 336 eP P 13 38 35.9 -1.0
RND Reindeer 65.32 335 eP P 13 38 38.0 -0.7
RND pmax pmax
comp=Z,23nm,0.9s
RND Reindeer 65.32 335 eP P 13 38 38.0 -0.7
comp=Z,23nm,0.9s
CCB Clear Creek Bu 65.37 336 eP P 13 38 38.3 -0.6
comp=Z,24nm,1.7s
TRF Thorofare Moun 65.94 334 eP P 13 38 42.8 0.0
comp=Z,88nm,2.0s
SUMG Summit 66.51 15 i P P 13 38 45.0 -1.6
SUMG pmax pmax
comp=Z,26nm,1.4s
SUMG Summit 66.51 15 i P P 13 38 45.0 -1.6
comp=Z,26nm,1.4s
SUMG Summit 66.51 15 eP P 13 38 45.4 -1.2
MLY Manley 66.68 336 eP P 13 38 47.0 -0.4
comp=Z,12nm,0.7s
PPT2 Papeete2 67.14 245 eLR LR 13 59 06.7
comp=Z,611nm,23.5s
COLD Coldfoot 67.28 338 eP P 13 38 51.9 +0.8
comp=Z,12nm,0.9s
TBI Tubuai 69.34 239 eLR LR 14 00 08.0
comp=Z,354nm,27.8s
TBI Tubuai 69.34 239 eT T 14 54 25.5
comp=Z,7.6nm,0.3s
USHA Ushuaia 69.64 168 LR LR 14 04 41.9
comp=Z,672nm,18.9s,baz=276,slow=32
DAG Danmarks Havn 73.04 13 i P P 13 39 23.9 -2.2
DAG pmax pmax
comp=Z,9.0nm,0.9s
DAG Danmarks Havn 73.04 13 i P P 13 39 23.9 -2.2
comp=Z,9.1nm,0.9s
EKA Eskdalemuir Ar 77.08 36 P P 13 39 46.3 -3.5

comp=Z,17nm,0.6s,baz=270,slow=5.3,SNR=5.5
EKA pP PcP 13 40 02.1 +1.6
comp=Z,2.5nm,0.7s,baz=266,slow=5.8,SNR=3.8
**ESDC Sonseca Array 78.01 52** P P 13 39 52.9 -2.5
comp=Z,0.9nm,0.4s,baz=291,slow=5.8,SNR=8.6
ESDC pP pP 13 40 08.3 -2.0
comp=Z,2.4nm,0.8s,baz=287,slow=6.1,SNR=3.5
**ES19 SONSECA Array 78.06 52** eP P 13 39 53.0 -2.7
**TIC Toumodi 82.58 85** eP P 13 40 17.9 -2.5
**LIC Lamto 82.66 85** eP P 13 40 17.5 -3.3
comp=Z,15nm,0.7s
**DBIC Dimbokro 82.73 85** P P 13 40 18.8 -2.3
comp=Z,0.9nm,0.4s,baz=264,slow=7.8,SNR=2.8
**KIC Kosan Boka 82.91 85** eP P 13 40 20.0 -2.1
comp=Z,7.4nm,0.7s
**NOA NORSAR Array B 83.66 29** P P 13 40 23.4 -1.7
comp=Z,1.5nm,0.7s,baz=284,slow=4.9,SNR=4.3
NOA LR LR 14 13 27.5
comp=Z,120nm,22.0s,baz=25,slow=33
**ARCES ARCESS Array B 86.22 19** P P 13 40 36.4 -1.4
comp=Z,2.9nm,0.7s,baz=289,slow=3.7,SNR=8.3
**DAVOX Davos/Dischmat 86.61 43** P P 13 40 37.9 -2.4
comp=Z,2.4nm,0.6s,baz=287,slow=20,SNR=2.9
**TORD Torodi Ar. Bea 87.67 77** P P 13 40 43.2 -2.6
comp=Z,0.5nm,0.5s,baz=286,slow=5.2,SNR=5.3
TORD pP pP 13 40 58.4 -2.5
comp=Z,0.4nm,0.5s,baz=277,slow=5.0,SNR=2.8
**SEY Seymchan 91.00 336**⇑ eP P 13 41 00.3 -0.2
**TIXI Tiksi 91.95 349**⇑ eP P 13 41 02.7 -2.0
TIXI pmax pmax
comp=Z,15nm,2.5s
**PETK Petropavlovsk- 93.26 326** P P 13 41 10.6 -0.6
comp=Z,9.2nm,1.0s,baz=36,slow=5.9,SNR=2.8
**OBN Obninsk 98.25 28**⇑ eP Pdif 13 41 34.2 +0.4
OBN e 13 45 34.9
OBN ePPP PPP 13 47 40.4
OBN pmax pmax
comp=Z,6.0nm,0.8s
OBN MLR MLR
comp=Z,126nm,14.0s
**ZALV Zalesovo Beam 113.21 4** PKiKP **PKiKP** 13 46 32.0 -1.9
comp=Z,1.5nm,0.5s,baz=322,slow=1.9,SNR=8.2
**KURK Kurchatov 115.73 9** PKIKP **PKPdf** 13 46 37.8 -1.0
**KURK Kurchatov 115.73 9** PKP **PKPdf** 13 46 37.8 -1.0
KURK pPKP **pPKiKP** 13 46 53.0 -1.5
**KURBB Kurchatov Arra 115.80 9** PKP **PKPdf** 13 46 37.8 -1.1
comp=Z,1.7nm,0.7s,baz=348,slow=2.0,SNR=21
KURBB pPKP **pPKiKP** 13 46 53.0 -1.6
comp=Z,1.0nm,0.6s,baz=358,slow=1.9,SNR=6.1
**BOSA Boshof 117.13 116** PKP **PKPdf** 13 46 42.2 0.0
comp=Z,4.4nm,0.8s,baz=247,slow=6.4,SNR=4.5
BOSA pPKP **pPKPdf** 13 46 58.5 +0.6
comp=Z,5.5nm,0.7s,baz=264,slow=1.7,SNR=4.2
**DGZ Jazzator, Alta 117.60 3**⇓ iPKIKP **PKPdf** 13 46 41.7 -1.0
**SONM Songino Array 118.03 348** PKP **PKPdf** 13 46 43.3 -0.3
comp=Z,2.6nm,0.6s,baz=322,slow=1.4,SNR=17
SONM pPKP **pPKPdf** 13 46 58.4 -0.8
comp=Z,1.7nm,0.6s,baz=296,slow=1.4,SNR=7.9
SONM PKKPbc **PKKPbc** 13 57 03.7 -1.1
comp=Z,0.9nm,0.7s,baz=187,slow=3.3,SNR=5.0
**KSRS Korea Array 119.16 327** PKP **PKPdf** 13 46 42.2 +0.5
comp=Z,4.3nm,0.8s,baz=8.6,slow=1.8,SNR=11
KSRS pPKP **pPKPdf** 13 47 01.4 0.0
comp=Z,5.1nm,0.7s,baz=18,slow=1.5,SNR=9.0
**KSAR Wonju Array Be 119.19 327** PKIKP **PKPdf** 13 46 46.3 +0.4
**KSAR Wonju Array Be 119.19 327** PKP **PKPdf** 13 46 46.2 +0.4
KSAR pPKP **pPKPdf** 13 47 01.4 -0.1
**MKAR Makanchi Array 120.06 7** PKP **PKPdf** 13 46 45.9 -1.4
comp=Z,1.3nm,0.6s,baz=346,slow=2.5,SNR=11
MKAR pPKP **pPKPdf** 13 47 01.9 -1.2
comp=Z,0.9nm,0.8s,baz=3.8,slow=3.6,SNR=3.5
**MKAR Makanchi Array 120.06 7**c iPKIKP **PKPdf** 13 46 45.7 -1.6
MKAR pmax pmax
comp=Z,1.0nm,0.6s
**MAW Mawson 122.27 168** PKP **PKPdf** 13 46 51.5 +0.8
comp=Z,2.7nm,0.6s,baz=134,slow=3.3,SNR=8.3
MAW pPKP **pPKPdf** 13 47 06.7 +0.3
comp=Z,6.0nm,0.7s,baz=123,slow=1.4,SNR=6.4
**BJI Beijing 122.42 337** PKP **PKPdf** 13 46 49.8 -2.2
**AAK Ala-Archa 122.67 15**c iPKIKP **PKPdf** 13 46 52.4 -0.3
**HHC Hu-ho-hao-te 123.28 342** ePKP **PKPdf** 13 46 58.3 +4.5
HHC PP PP 13 48 42.0 +8.6
HHC SKS **SKSdf** 13 54 05.0 +3.3
HHC SS **SS** 14 05 21.0 +6.4
HHC AMB AMB
comp=Z,150nm,5.3s
HHC LR LR
comp=Z,230nm,19.2s
HHC LR LR
comp=Z,220nm,20.0s
HHC LR LR
comp=Z,210nm,21.6s
**WMQ Urumqi 123.48 3** PKP **PKPdf** 13 46 54.3 +0.3
WMQ LR LR
comp=Z,490nm,26.5s
WMQ LR LR
comp=Z,170nm,23.9s
WMQ LR LR
comp=Z,380nm,23.9s
**KSH Kashi 125.98 14** ePKP **PKPdf** 13 47 03.3 +4.2
KSH sPKP 13 47 18.4
KSH PP PP 13 49 01.3 +10
KSH SKKS 13 55 49.1
KSH SS **SS** 14 05 57.3 +8.7
KSH LR LR
comp=Z,210nm,6.3s
KSH LR LR
comp=Z,140nm,5.2s
KSH LR LR
comp=Z,280nm,7.1s
**CTA Charters Tower 126.85 255** PKP **PKPdf** 13 47 02.5 +1.5
comp=Z,5.0nm,1.0s,baz=88,slow=7.3,SNR=3.4
**GTA Gaotai 127.34 352** ePKP **PKPdf** 13 47 01.5 -0.2
GTA sPKP 13 47 16.9
GTA PP **PP** 13 49 03.8 +3.5
GTA SKKS 13 55 49.8
GTA AMB AMB
comp=Z,240nm,9.5s
GTA LR LR
comp=Z,180nm,10.9s
GTA LR LR
comp=Z,240nm,13.3s
GTA LR LR
comp=Z,210nm,12.8s
**LZH Lanzhou 129.83 347** ePKP **PKPdf** 13 47 10.1 +3.6
LZH sPKP 13 47 23.8
**STKA Stephens Creek 130.13 239** PKP **PKPdf** 13 47 08.3 +1.3
comp=Z,2.2nm,0.8s,baz=267,slow=22,SNR=2.8
**XAN Xi'an 130.35 341** PKP **PKPdf** 13 47 08.6 +1.2
**WRAB Tennant Creek 138.04 255**d iPKIKP **PKPdf** 13 47 23.7 +1.6
WRAB pmax pmax
comp=Z,19nm,1.0s
**WRA Warramunga Arr 138.05 254** PKhKP PKPpre 13 47 14.3
comp=Z,0.5nm,0.6s,baz=92,slow=3.0,SNR=6.9
WRA PKP **PKiKP** 13 47 23.4 -0.7
comp=Z,7.1nm,0.8s,baz=90,slow=1.9,SNR=38
WRA pPKP pPKPdf 13 47 39.3 +1.5
comp=Z,8.4nm,1.0s,baz=84,slow=1.6,SNR=7.9
**GYA Guiyang 138.07 339** ePdif **Pdif** 13 44 31.0 -0.8
GYA PKP **PKPdf** 13 47 22.0 -0.2
GYA PP **PP** 13 50 12.8 +3.5
GYA AMB AMB
comp=Z,120nm,8.0s
**ASAR Alice Springs 138.14 249** PKhKP PKPpre 13 47 13.9
comp=Z,1.1nm,0.6s,baz=104,slow=3.3,SNR=10
ASAR PKP **PKiKP** 13 47 23.6 -0.6
comp=Z,2.7nm,0.8s,baz=93,slow=2.2,SNR=12
ASAR pPKP pPKPdf 13 47 38.9 +1.0
comp=Z,4.2nm,1.0s,baz=100,slow=1.8,SNR=5.2
**DANN Dangsing 138.39 10** eP **PKPdf** 13 47 21.2 -1.7
**PYUN Piuthan 138.50 11** eP **PKPdf** 13 47 21.8 -1.2
**KOLN Koldanda 138.93 10** eP **PKPdf** 13 47 22.4 -1.4
comp=Z,20nm,1.1s
**GUN Gumba 139.12 7** eP **PKPdf** 13 47 23.3 -1.1
comp=Z,19nm,0.7s
**KKN Kakani 139.17 8** eP **PKPdf** 13 47 23.3 -1.0
**DMN Daman 139.32 8** eP **PKPdf** 13 47 23.1 -1.5
**PKIN Phulchoki 139.39 8** eP **PKPdf** 13 47 23.2 -1.6
comp=Z,8.8nm,0.5s
**PKI Pulchoki 139.40 8** eP **PKPdf** 13 47 23.4 -1.5
comp=Z,12nm,0.8s
**JIRN Jiri 139.41 7** eP **PKPdf** 13 47 24.3 -0.6
comp=Z,9.8nm,0.4s
**TAPN Taplejung 139.86 5** eP **PKPdf** 13 47 25.9 +0.2
comp=Z,8.7nm,0.4s
**RAMN Ramite 140.16 6** eP **PKPdf** 13 47 25.6 -0.5
comp=Z,18nm,0.6s
**ODAN Odare 140.32 5** eP **PKPdf** 13 47 25.1 -1.3
**KMI Kunming 140.56 343** PKP **PKPdf** 13 47 29.6 +2.7
**FITZ Fitzroy Crossi 146.38 257** PKPbc **PKPbc** 13 47 38.6 +0.4
comp=Z,10.0nm,0.7s,baz=68,slow=4.4,SNR=12
**HYB Hyderabad 147.43 23** i P **PKPdf** 13 47 38.5 -0.3
**PHRA Phrae 147.54 344** P **PKPbc** 13 47 41.3 -0.2
comp=Z,12nm,0.7s,comp=Z,30µm
**CHTO Chiang Mai 147.57 346** P **PKPdf** 13 47 40.2 +1.3
comp=Z,79nm,1.1s
**CMMT Chiang Mai 147.57 346** P **PKPdf** 13 47 40.2 +1.2
comp=Z,20nm,1.7s
**CMAR Chiang Mai Arr 147.91 346** PKPbc **PKPdf** 13 47 40.6 +1.1
comp=Z,8.7nm,0.7s,baz=342,slow=3.4,SNR=36
CMAR pPKPbc **pPKPbc** 13 47 57.8 -0.3
comp=Z,7.6nm,0.8s,baz=331,slow=2.7,SNR=6.2
**KHON Khomkaen 148.74 338** P **PKPbc** 13 47 45.4 +0.7
comp=Z,28nm,0.8s
**NWAO Narrogin (SRO) 148.91 226** PKPbc **PKPbc** 13 47 45.7 +1.0
comp=Z,26nm,0.8s,baz=330,slow=3.6,SNR=12
**PBKT Sadao Pong 149.15 341** P **PKPbc** 13 47 46.1 +0.4
comp=Z,33nm,1.0s
**CHAI Chaiyaphum 149.44 339** P **PKPbc** 13 47 47.1 +0.6
comp=Z,7.9nm,1.0s
**NAYO Nakonayok 151.15 339** P **PKPbc** 13 47 51.6 +1.0
**CHBT CHBT 152.21 336** P **PKPab** 13 48 02.2 -0.5
comp=Z,366nm,1.1s

*ISCJB **15** 13:34:02.9±0.3, 36°.88S±0°.03×70°.73W±0°.06, h149km±4km, mb4.2/14, Error ellipse: s-maj=8.1km s-min=4.3km az=20.2*
*IDC **15** 13:34:02.9±2.0, 36°.85S×70°.57W, h131km±18km, mb3.9/11, mb1 4.0/14, mb1mx3.8/29, mbtmp4.3/14, MS2.6/1, Ms1 2.6/1, ms1mx2.5/19, Error ellipse: s-maj=22.2km s-min=14.0km az=96.0*
*SJA **15** 13:34:03.4±0.9, 36°.93S×70°.70W, h125km, ML4.4, MW3.7*
*NEIC **15** 13:34:04.0±0.4, 36°.82S×70°.63W, h144km±4km, mb4.3/7, Error ellipse: s-maj=9.1km s-min=4.8km az=86.0*
*GUC **15** 13:34:04.1±0.6, 36°.81S×71°.19W, h184km±6km, ML4.4*

**ISC 15 13:34:03.8±0.7, 36°.77S±0°.04×70°.74W±0°.05, h146km±6km, n66, σ1s75/84, mb4.3/14, 3C-8D, Chile-Argentina border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **CCHI** | **Chillan** | **1.09** | **279** | i P | | **Pn** | **13 34 30.4** | **+1.4** |
| CCHI | | | | i S | | **Sn** | **13 34 50.3** | **+2.1** |
| CCHI | | | | IAML | | | 13 34 51.7 | |
| | comp=E,11µm,0.4s | | | | | | | |
| **COCH** | **Cobquecura** | **1.77** | **291** | e P | | **Pn** | **13 34 37.4** | **+1.3** |
| COCH | | | | e S | | **Sn** | **13 35 01.5** | **+0.7** |
| **COCH** | **Cobquecura** | **1.77** | **291**⇑ | i P | | **Pn** | **13 34 37.1** | **+1.0** |
| COCH | | | | i S | | **Sn** | **13 35 00.8** | **0.0** |
| COCH | | | | IAML | | | 13 35 02.6 | |
| | comp=E,2µm,0.4s | | | | | | | |
| **CCSP** | **San Pedro de C** | **1.91** | **267** | e P | | **Pn** | **13 34 36.6** | **-1.0** |
| CCSP | | | | i S | | **Sn** | **13 35 01.4** | **-2.1** |
| CCSP | | | | IAML | | | 13 35 11.0 | |
| | comp=N,3µm,0.5s | | | | | | | |
| **GO05** | **HualaæØ** | **2.01** | **331** | ePn | | **Pn** | **13 34 40.2** | **+1.3** |
| GO05 | | | | eSn | | **Sn** | **13 35 07.2** | **+1.4** |
| **GO05** | **HualaæØ** | **2.01** | **331** | eP | | **Pn** | **13 34 40.2** | **+1.3** |
| GO05 | | | | ⇓eS | | **Sn** | **13 35 07.1** | **+1.4** |
| **GO05** | **HualaæØ** | **2.01** | **331**⇑ | i P | | **Pn** | **13 34 40.2** | **+1.3** |
| GO05 | | | | i S | | **Sn** | **13 35 07.2** | **+1.4** |
| **TMU** | **Temuco** | **2.45** | **216**⇓ | i P | | **Pn** | **13 34 43.2** | **-0.9** |
| TMU | | | | i S | | **Sn** | **13 35 13.2** | **-2.0** |
| **PEL** | **Peldehue** | **3.62** | **1** | ePn | | **Pn** | **13 34 59.7** | **+0.6** |
| PEL | | | | eSn | | **Sn** | **13 35 38.5** | **-3.5** |
| **AVIZ** | **Vizcacheras** | **3.76** | **30** | eP | | **Pn** | **13 35 04.4** | **+3.4** |
| **ROC1** | **El Roble** | **3.80** | **356** | ePn | | **Pn** | **13 35 02.3** | **+0.7** |
| ROC1 | | | | eSn | | **Sn** | **13 35 42.7** | **-3.7** |
| **ROC1** | **El Roble** | **3.80** | **356**⇓ | eP | | **Pn** | **13 35 02.5** | **+0.9** |
| ROC1 | | | | ⇓eS | | **Sn** | **13 35 46.6** | **+0.3** |
| **PLCA** | **Paso Flores** | **3.96** | **178** | P | | **Pn** | **13 35 03.0** | **-0.4** |
| | comp=N,1.5nm,0.3s,baz=20,slow=12,SNR=34 | | | | | | | |
| PLCA | | | | S | | **Sn** | **13 35 45.0** | **-4.8** |
| | comp=N,2.1nm,0.3s,baz=292,slow=19,SNR=3.2 | | | | | | | |
| PLCA | | | | LR | | LR | 13 36 39.2 | |
| | comp=N,82nm,21.4s,baz=277,slow=40 | | | | | | | |
| **AAGR** | **Agrelo** | **4.00** | **24** | eP | | **Pn** | **13 35 05.0** | **+0.9** |
| **ASAL** | **Salagasta** | **4.46** | **21** | eP | | **Pn** | **13 35 12.6** | **+2.5** |
| ASAL | | | | ⇓eS | | **Sn** | **13 36 03.2** | **+1.5** |
| **AUSP** | **Uspallata** | **4.67** | **14** | eP | | **Pn** | **13 35 15.6** | **+2.4** |
| AUSP | | | | eS | | **Sn** | **13 36 08.8** | **+1.7** |
| **RTLS** | **Leoncito** | **5.10** | **14** | eP | | **Pn** | **13 35 21.1** | **+2.3** |
| RTLS | | | | ⇓eS | | **Sn** | **13 36 19.4** | **+2.1** |
| RTLS | | | | IAML | | | 13 36 22.5 | |
| | comp=Z,110nm,0.4s | | | | | | | |
| **RTCV** | **Cerro Valdivia** | **5.22** | **21** | eP | | **Pn** | **13 35 21.2** | **+0.9** |
| **ACAN** | **Cantantal** | **5.36** | **34** | eP | | **Pn** | **13 35 24.1** | **+2.1** |
| **RTLL** | **Cerro Villicun** | **5.75** | **20** | eP | | **Pn** | **13 35 28.4** | **+1.2** |
| **SUCO** | **SUCO** | **5.89** | **56** | eP | | **Pn** | **13 35 30.8** | **+1.7** |
| **AMOG** | **MOGNA** | **6.11** | **18**⇓ | eP | | **Pn** | **13 35 33.1** | **+1.0** |
| AMOG | | | | eS | | **Sn** | **13 36 38.8** | **-2.3** |
| **TRQA** | **Tornquist** | **7.09** | **103** | ePn | | **Pn** | **13 35 44.3** | **-0.7** |
| **TCA** | **Tanti** | **7.44** | **45** | eP | | **Pn** | **13 35 50.5** | **+0.6** |
| TCA | | | | IAML | | | 13 35 51.3 | |
| | comp=Z,30nm,0.7s | | | | | | | |
| **AGUA** | **GUANDACOL** | **7.51** | **15** | eP | | **Pn** | **13 35 51.0** | **+0.2** |
| AGUA | | | | ⇓eS | | **Sn** | **13 37 12.1** | **-2.5** |
| **LCO** | **Las Campanas** | **7.74** | **0** | ePn | | **Pn** | **13 35 54.1** | **0.0** |
| **VCA** | **Vinchina** | **8.29** | **16** | eP | | **Pn** | **13 36 01.5** | **+0.1** |
| VCA | | | | eS | | **Sn** | **13 37 30.6** | **-3.1** |
| VCA | | | | IAML | | | 13 37 38.5 | |
| | comp=Z,51nm,0.4s | | | | | | | |
| **CHRN** | **Cochrane** | **10.56** | **187** | ePn | | **Pn** | **13 36 29.3** | **-1.8** |
| **PB10** | **IPOC Station P** | **13.22** | **1** | ePn | | **Pn** | **13 37 07.5** | **+1.5** |
| **CPUP** | **Villa Florida** | **15.44** | **51** | P | | **Pn** | **13 37 34.3** | **+0.4** |
| | comp=Z,15.5nm,0.3s,baz=229,slow=13,SNR=3.4 | | | | | | | |
| **PB01** | **IPOC Station P** | **15.71** | **4** | ePn | | **Pn** | **13 37 34.3** | **-3.1** |
| | comp=Z,9.8nm,0.8s | | | | | | | |
| **PB11** | **IPOC Station P** | **16.98** | **3** | eP | | **P** | **13 37 45.9** | **-6.4** |
| | comp=Z,34nm,0.9s | | | | | | | |
| **USHA** | **Ushuaia** | **18.13** | **176** | P | | **P** | **13 38 03.3** | **-1.1** |
| | comp=Z,18nm,0.3s,baz=349,slow=10,SNR=3.6 | | | | | | | |
| **LPAZ** | **La Paz** | **20.54** | **7** | P | | Pn | 13 38 33.7 | -1.6 |
| | comp=Z,0.7nm,0.3s,baz=175,slow=10,SNR=2.8 | | | | | | | |
| **LPAZ** | **La Paz** | **20.54** | **7** | eP | | **P** | **13 38 32.3** | **+0.9** |
| | comp=Z,3.0nm,0.8s | | | | | | | |
| **SAML** | **Samuel** | **28.54** | **16** | eP | | **P** | **13 39 45.2** | **-0.5** |
| | comp=Z,12nm,1.8s | | | | | | | |
| **BDFB** | **Brasilia** | **29.16** | **50** | P | | **P** | **13 39 50.3** | **-1.2** |
| | comp=Z,5.6nm,0.5s,baz=2.0,slow=8.6,SNR=6.3 | | | | | | | |
| **BDFB** | **Brasilia** | **29.16** | **50** | eP | | **P** | **13 39 51.0** | **-0.5** |
| | comp=Z,13nm,0.6s | | | | | | | |
| **VNA3** | **Neumayer Olymp** | **46.40** | **157** | P | | **P** | **13 42 14.8** | **-0.2** |
| **VNA2** | **Neumayer--Watz** | **47.05** | **156** | P | | **P** | **13 42 20.7** | **+0.6** |
| | baz=281,slow=8.4 | | | | | | | |
| **SNAA** | **Sanae** | **48.62** | **157** | P | | P | 13 42 25.1 | -7.1 |
| **SNAA** | **Sanae** | **48.62** | **157** | P | | **P** | **13 42 33.2** | **+1.0** |
| | comp=Z,1.6nm,0.3s,baz=169,slow=22,SNR=4.7 | | | | | | | |
| **VNDA** | **Vanda** | **61.60** | **191** | P | | **P** | **13 44 07.3** | **+2.2** |
| | comp=Z,1.1nm,0.8s,baz=136,slow=3.2,SNR=3.6 | | | | | | | |
| **MAW** | **Mawson** | **70.22** | **163** | P | | **P** | **13 45 00.6** | **+0.3** |
| | comp=Z,1.4nm,0.8s,baz=214,slow=7.3,SNR=2.3 | | | | | | | |
| **JCT** | **Junction City** | **72.24** | **334** | eP | | **P** | **13 45 14.5** | **+1.6** |
| | comp=Z,6.6nm,0.9s | | | | | | | |
| **TXAR** | **Lajitas Array** | **72.67** | **330** | P | | **P** | **13 45 17.2** | **+1.6** |
| | comp=Z,2.1nm,0.8s,baz=154,slow=9.0,SNR=14 | | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **72.67** | **330** | eP | | **P** | **13 45 16.8** | **+1.2** |
| **LIC** | **Lamto** | **74.68** | **70** | eP | | **P** | **13 45 27.5** | **-0.1** |
| | comp=Z,8.9nm,0.6s | | | | | | | |
| **TIC** | **Toumodi** | **74.96** | **70** | eP | | **P** | **13 45 29.3** | **+0.1** |
| **KIC** | **Kosan Boka** | **74.99** | **70** | eP | | **P** | **13 45 29.5** | **+0.2** |
| | comp=Z,12nm,0.7s | | | | | | | |
| **DBIC** | **Dimbokro** | **75.10** | **70** | P | | **P** | **13 45 30.2** | **+0.3** |
| | comp=Z,4.3nm,0.6s,baz=216,slow=8.0,SNR=8.1 | | | | | | | |
| **DBIC** | **Dimbokro** | **75.10** | **70** | eP | | **P** | **13 45 30.3** | **+0.3** |
| | comp=Z,5.7nm,1.0s | | | | | | | |
| **BOSA** | **Boshof** | **77.86** | **117** | P | | **P** | **13 45 45.8** | **+0.2** |
| | comp=Z,3.2nm,0.7s,baz=235,slow=4.6,SNR=7.3 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **84.18** | **69** | P | | **P** | **13 46 19.2** | **+0.2** |
| | comp=Z,1.2nm,0.6s,baz=247,slow=5.4,SNR=9.7 | | | | | | | |
| TORD | | | | pP | | **pP** | **13 46 57.3** | **+1.6** |
| | comp=Z,0.9nm,0.8s,baz=260,slow=4.7,SNR=3.2 | | | | | | | |
| **PDAR** | **Pinedale Array** | **86.71** | **332** | P | | **P** | **13 46 32.4** | **+1.3** |
| | comp=Z,0.8nm,0.8s,baz=160,slow=4.7,SNR=5.0 | | | | | | | |
| **ULM** | **Lac du Bonnet** | **89.45** | **344** | P | | **P** | **13 46 44.4** | **+0.8** |
| | comp=Z,4.8nm,0.9s,baz=78,slow=1.8,SNR=5.6 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **105.02** | **341** | Pdiff | | **Pdif** | **13 47 54.2** | **+0.5** |
| | comp=Z,0.1nm,0.5s,baz=147,slow=4.4,SNR=3.1 | | | | | | | |
| **ASAR** | **Alice Springs** | **115.55** | **205** | PKP | | **PKPdf** | **13 52 28.2** | **-0.7** |
| | comp=Z,0.4nm,0.5s,baz=133,slow=1.7,SNR=4.3 | | | | | | | |
| **WRA** | **Warramunga Arr** | **118.82** | **207** | PKP | | **PKPdf** | **13 52 34.9** | **-0.3** |
| | comp=Z,1.2nm,0.4s,baz=150,slow=1.6,SNR=25 | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **123.27** | **199** | PKP | | **PKPdf** | **13 52 43.9** | **+0.2** |
| | comp=Z,0.9nm,0.4s,baz=162,slow=19,SNR=4.3 | | | | | | | |
| **MA2** | **Magadan** | **145.00** | **324** | PKPbc | | **PKPdf** | **13 53 23.3** | **+0.6** |
| | comp=Z,5.0nm,0.6s,baz=66,slow=8.5,SNR=5.1 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **155.90** | **37** | PKPab | | **PKPab** | **13 54 07.2** | **-0.3** |
| | comp=Z,0.3nm,0.4s,baz=289,slow=4.4,SNR=2.6 | | | | | | | |
| **MKAR** | **Makanchi Array** | **157.63** | **55** | PKPab | | **PKPab** | **13 54 15.5** | **+0.2** |
| | comp=Z,0.4nm,0.6s,baz=281,slow=2.7,SNR=5.5 | | | | | | | |
| **WMQ** | **Urumqi** | **162.13** | **60** | P | | **PKPdf** | **13 53 47.8** | **+0.3** |
| WMQ | | | | pmax | pmax | | | |
| | comp=Z,820nm,6.5s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=N,75nm,8.7s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=E,150nm,20.3s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=Z,100nm,23.3s | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **175.55** | **337** | ePKP | | **PKPdf** | **13 53 54.3** | **-1.9** |
| HHC | | | | PP | | **PP** | **13 59 29.0** | **+2.3** |
| **LZH** | **Lanzhou** | **175.58** | **97** | ePKP | | **PKPdf** | **13 53 54.3** | **-2.1** |
| LZH | | | | pPKP | pPKPdf | | 13 54 36.1 | +0.5 |
| LZH | | | | sPKP | | | 13 54 55.1 | |
| LZH | | | | LR | LR | | | |
| | comp=N,130nm,18.9s | | | | | | | |
| LZH | | | | LR | LR | | | |
| | comp=E,160nm,18.0s | | | | | | | |
| LZH | | | | LR | LR | | | |
| | comp=Z,190nm,19.6s | | | | | | | |

*CSEM **15** 13:47:36.7±0.1, 40°.54N×38°.31E, h10km, ML2.7, Error ellipse: s-maj=4.6km s-min=3.0km az=99.0*

**DDA 15 13:47:36.5, 40°.55N×38°.31E, h7km, MI2.7, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **SUSE** | **Susehri** | **0.35** | **194** | i P | | Pg | 13 47 44.1 | +0.6 |
| SUSE | | | | i S | | Sg | 13 47 49.1 | +0.9 |
| **SUSE** | **Susehri** | **0.35** | **194** | P | | Pg | 13 47 44.1 | +0.6 |
| SUSE | | | | S | | Sg | 13 47 49.1 | +0.9 |
| **GRSN** | **GIRESUNGRSN** | **0.37** | **355** | i P | | Pg | 13 47 43.9 | +0.1 |
| **GRSN** | **GIRESUNGRSN** | **0.37** | **355** | P | | Pg | 13 47 43.9 | 0.0 |
| **ESPY** | **Espiye-Giresun** | **0.48** | **41** | ePG | | Pg | 13 47 46.5 | +0.6 |
| ESPY | | | | eSG | | Sb | 13 47 54.4 | -0.3 |
| **ESPY** | **Espiye-Giresun** | **0.48** | **41** | ePg | | Pg | 13 47 46.5 | +0.6 |
| ESPY | | | | eSg | | Sb | 13 47 54.4 | -0.3 |
| **ORDU** | **Ordu-Boztepe** | **0.56** | **322** | i P | | Pg | 13 47 47.8 | +0.5 |
| **ORDU** | **Ordu-Boztepe** | **0.56** | **322** | P | | Pg | 13 47 47.8 | +0.4 |
| **CUZAR** | **Zara_SIVAS** | **0.78** | **212** | i P | | Pg | 13 47 51.6 | +0.1 |
| **CUZAR** | **Zara_SIVAS** | **0.78** | **212** | P | | Pg | 13 47 51.7 | +0.1 |
| **KELT** | **Kelkit** | **0.82** | **119** | i P | | Pg | 13 47 52.5 | +0.1 |
| **KELT** | **Kelkit** | **0.82** | **119** | P | | Pg | 13 47 52.5 | +0.1 |
| **CUKAN** | **kangal_SIVAS** | **1.40** | **208** | i P | | Pn | 13 48 02.8 | +0.2 |
| **CUKAN** | **kangal_SIVAS** | **1.40** | **208** | P | | Pn | 13 48 02.8 | +0.2 |
| **PTK** | **Pertek** | **1.85** | **153** | ePG | | Pg | 13 48 12.5 | +0.4 |
| **PTK** | **Pertek** | **1.85** | **153** | ePg | | Pg | 13 48 12.5 | +0.4 |

*BJI **15** 13:57:02.1, 6°.88S×127°.54E, h293km, mb4.3/29, mB4.7/19*
*ISCJB **15** 13:57:03.3±0.2, 7°.23S±0°.02×127°.27E±0°.03, h321km±3km, mb4.1/27, Error ellipse: s-maj=4.1km s-min=3.9km az=160.0*
*NEIC **15** 13:57:03.5±0.3, 7°.14S×127°.29E, h305km±4km, mb4.7/10, Error ellipse: s-maj=5.8km s-min=4.2km az=60.0*
*DJA **15** 13:57:03.7±0.2, 7°.5±2°×12°.7E±°, h311km±3km, M5.3/5, mb4.9/5, mB5.5/3, MLv5.6/1, Mw(mB)5.0/3*
*IDC **15** 13:57:04.5±1.3, 7°.18S×127°.32E, h313km±13km, mb3.9/15, mb1 4.0/19, mb1mx3.9/36, mbtmp4.7/19, Error ellipse: s-maj=13.0km s-min=6.9km az=69.0*

**ISC 15 13:57:03.8±0.5, 7°.22S±0°.04×127°.32E±0°.04, h312km±5km, n119, σ1s55/154, mb4.2/27, 2C, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **AAI** | **Ambon** | **3.62** | **14** | P | | **Pn** | **13 58 07.5** | **+0.8** |
| AAI | | | | S | | **S** | **13 58 59.0** | **+1.9** |
| **BNDI** | **Bandanaira** | **3.71** | **44** | P | | **Pn** | **13 58 08.1** | **+0.4** |
| BNDI | | | | S | | **S** | **13 59 00.5** | **+1.6** |
| **SOEI** | **Soe** | **3.93** | **230** | P | | **Pn** | **13 58 10.7** | **+0.7** |
| SOEI | | | | S | | **S** | **13 59 01.5** | **-1.7** |
| **SOEI** | **Soe** | **3.93** | **230** | ePn | | **Pn** | **13 58 10.8** | **+0.7** |
| SOEI | | | | eS | | **S** | **13 59 01.1** | **-2.1** |
| **NLAI** | **Namlea** | **3.96** | **357** | P | | **Pn** | **13 58 12.4** | **+2.1** |
| **SAUI** | **Saumlaki** | **4.02** | **101** | P | | **Pn** | **13 58 11.5** | **+0.6** |
| SAUI | | | | S | | **S** | **13 59 04.8** | **+0.1** |
| **SAUI** | **Saumlaki** | **4.02** | **101** | ePn | | **Pn** | **13 58 11.2** | **+0.3** |
| SAUI | | | | eS | | **S** | **13 58 58.4** | **-6.3** |
| **MSAI** | **Masohi** | **4.17** | **23** | P | | **Pn** | **13 58 13.3** | **+0.7** |
| MSAI | | | | S | | **S** | **13 59 08.3** | **+0.5** |
| **MMRI** | **Maumere** | **5.23** | **254** | P | | **Pn** | **13 58 24.6** | **+0.1** |
| MMRI | | | | S | | **S** | **13 59 29.0** | **-0.4** |
| **MMRI** | **Maumere** | **5.23** | **254** | ePn | | **Pn** | **13 58 23.1** | **-1.4** |
| MMRI | | | | eS | | **S** | **13 59 28.8** | **-0.6** |
| **SANI** | **Sanana** | **5.31** | **345** | P | | **Pn** | **13 58 25.8** | **+0.4** |
| **KDI** | **Kendari** | **5.69** | **304** | P | | **Pn** | **13 58 30.2** | **+0.3** |
| **EDFI** | **Ende, Flores** | **5.78** | **254** | P | | **Pn** | **13 58 31.0** | **0.0** |
| EDFI | | | | S | | **S** | **13 59 39.4** | **-1.9** |
| **FAKI** | **Fak Fak** | **6.51** | **49** | P | | **Pn** | **13 58 37.6** | **-2.0** |
| FAKI | | | | S | | **S** | **13 59 48.8** | **-8.2** |
| **FAKI** | **Fak Fak** | **6.51** | **49** | ePn | | **Pn** | **13 58 35.8** | **-3.8** |
| FAKI | | | | eS | | **S** | **13 59 54.8** | **-2.2** |
| **LBMI** | **Labuha** | **6.54** | **2** | P | | **Pn** | **13 58 41.0** | **+1.0** |
| **MTN** | **Manton Dam** | **6.73** | **146** | ePn | | **Pn** | **13 58 42.9** | **+0.7** |
| **KMPI** | **Kaimana, Papua** | **7.27** | **61** | P | | **Pn** | **13 58 47.3** | **-1.5** |
| **BASI** | **Baing, Sumba** | **7.30** | **245** | P | | **Pn** | **13 58 49.2** | **+0.1** |
| **SWI** | **Sorong** | **7.44** | **32** | P | | **Pn** | **13 58 49.0** | **-1.8** |
| **LUWI** | **Luwuk** | **7.63** | **323** | P | | **Pn** | **13 58 53.5** | **+0.4** |
| **LUWI** | **Luwuk** | **7.63** | **323** | ePn | | **Pn** | **13 58 52.5** | **-0.6** |
| **BNSI** | **Bone** | **7.70** | **291** | P | | **Pn** | **13 

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| CTA | Charters Tower | 22.37 | 127 | P | | P | 14 01 38.0 +1.5 |
| | 7.2nm,0.8s,baz=307,slow=14,SNR=6.6 | | | | | | |
| KASI | Kota Agung | 22.74 | 273 | P | | P | 14 01 37.9 -2.0 |
| FORT | Forrest | 23.45 | 178 | *e*P | | P | 14 01 47.1 +1.0 |
| | 1μm,0.6s | | | | | | |
| BBOO | Buckleboo | 26.73 | 163 | *e*P | | P | 14 02 16.1 +0.6 |
| | 18nm,0.9s | | | | | | |
| NWAO | Narrogin (SRO) | 27.24 | 199 | P | | P | 14 02 20.6 +0.6 |
| | 12nm,0.5s,baz=260,slow=8.5,SNR=23 | | | | | | |
| NWAO | Narrogin (SRO) | 27.24 | 199 | *e*P | | P | 14 02 20.7 +0.7 |
| | 15nm,0.6s | | | | | | |
| STKA | Stephens Creek | 27.91 | 153 | P | | P | 14 02 27.4 +1.5 |
| | 4.7nm,0.4s,baz=337,slow=12,SNR=6.9 | | | | | | |
| STKA | | | | S | | S | 14 06 46.7 +0.4 |
| | 2.2nm,0.7s,baz=32,slow=19,SNR=2.6 | | | | | | |
| STKA | | | | ScP | | ScP | 14 08 44.8 +1.1 |
| | 2.0nm,0.7s,baz=270,slow=1.0,SNR=3.3 | | | | | | |
| STKA | Stephens Creek | 27.91 | 153 | *e*P | | P | 14 02 27.2 +1.2 |
| STKA | | | | *e*pP | | pP | 14 03 25.9 +0.8 |
| STKA | | | | S | | S | 14 06 46.7 +0.4 |
| STKA | | | | ScP | | ScP | 14 08 44.8 +1.1 |
| PSI | Prapat | 30.04 | 288 | P | | P | 14 02 45.0 -0.1 |
| | 9.4nm,0.7s,baz=125,slow=8.8,SNR=6.8 | | | | | | |
| PSI | Prapat | 30.04 | 288 | *e*P | | P | 14 02 44.4 -0.7 |
| | 12nm,0.9s | | | | | | |
| CMAR | Chiang Mai Arr | 37.88 | 313 | P | | P | 14 03 52.8 +0.8 |
| | 0.8nm,0.6s,baz=138,slow=6.8,SNR=7.5 | | | | | | |
| CMAR | | | | PcP | | PcP | 14 06 02.3 +1.2 |
| | 0.9nm,0.5s,baz=161,slow=2.1,SNR=4.9 | | | | | | |
| CMAR | | | | ScP | | S | 14 09 19.4 -0.5 |
| | 0.6nm,0.6s,baz=156,slow=3.2,SNR=4.9 | | | | | | |
| NJ2 | Nanjing | 39.88 | 349 | *e*P | | P | 14 04 07.8 -0.4 |
| NJ2 | | | | pmax | | pmax | |
| | comp=Z,13nm,0.7s | | | | | | |
| KMI | Kunming | 40.08 | 324 | P | | P | 14 04 11.1 +0.9 |
| KMI | | | | pmax | | pmax | |
| | comp=Z,1.0nm,0.6s | | | | | | |
| DZM | Mont Dzumac | 40.48 | 116 | P | | P | 14 04 14.3 +0.8 |
| | 2.4nm,0.5s,baz=232,slow=14,SNR=4.8 | | | | | | |
| CD2 | Chengdu | 44.12 | 330 | *e*P | | P | 14 04 42.3 -0.1 |
| CD2 | | | | pmax | | pmax | |
| | comp=Z,20nm,0.8s | | | | | | |
| KSAR | Wonju Array Be | 44.43 | 1 | P | | P | 14 04 45.1 +0.6 |
| KSAR | | | | PcP | | PcP | 14 06 22.4 +0.2 |
| KSRS | Korea Array | 44.45 | 1 | P | | P | 14 04 45.1 +0.5 |
| | 4.2nm,0.7s,baz=179,slow=9.4,SNR=14 | | | | | | |
| KSRS | | | | PcP | | PcP | 14 06 22.4 +0.2 |
| | 2.6nm,0.8s,baz=187,slow=3.3,SNR=5.0 | | | | | | |
| MAT | Matsushiro | 44.72 | 12 | P | | P | 14 04 45.4 -1.5 |
| MJAR | Matsushiro Arr | 44.72 | 12 | P | | P | 14 04 45.6 -1.3 |
| | 5.9nm,0.8s,baz=187,slow=9.3,SNR=14 | | | | | | |
| LZH | Lanzhou | 48.40 | 334 | *e*P | | P | 14 05 16.3 +0.8 |
| LZH | | | | pP | | pP | 14 06 22.4 +2.1 |
| LZH | | | | PP | | PP | 14 07 12.0 +0.4 |
| LZH | | | | *e*S | | S | 14 11 52.0 +0.1 |
| LZH | | | | SS | | SS | 14 15 23.6 -2.8 |
| LZH | | | | pmax | | pmax | |
| | comp=Z,15nm,1.0s | | | | | | |
| LZH | | | | pmax | | pmax | |
| | comp=Z,81nm,5.0s | | | | | | |
| LZH | | | | LR | | LR | |
| | comp=N,340nm,14.8s | | | | | | |
| LZH | | | | LR | | LR | |
| | comp=E,320nm,14.2s | | | | | | |
| LZH | | | | LR | | LR | |
| | comp=Z,330nm,16.3s | | | | | | |
| HHC | Hu-ho-hao-te | 49.98 | 344 | *e*P | | P | 14 05 29.3 +2.1 |
| HHC | | | | S | | S | 14 12 14.0 +0.5 |
| HHC | | | | pmax | | pmax | |
| | comp=Z,13nm,1.0s | | | | | | |
| HHC | | | | pmax | | pmax | |
| | comp=Z,110nm,5.5s | | | | | | |
| USRK | Ussuriysk Ar. | 51.35 | 4 | P | | P | 14 05 36.4 -0.7 |
| | 6.0nm,0.7s,baz=168,slow=6.1,SNR=8.4 | | | | | | |
| ODAN | Odare | 51.42 | 313 | *e*P | | P | 14 05 37.8 -0.5 |
| | 17nm,0.5s | | | | | | |
| TAPN | Taplejung | 51.48 | 314 | *e*P | | P | 14 05 38.7 -0.1 |
| | 11nm,0.4s | | | | | | |
| RAMN | Ramite | 52.05 | 312 | *e*P | | P | 14 05 43.3 +0.4 |
| | 35nm,0.6s | | | | | | |
| RPZ | Rata Peaks | 52.71 | 141 | P | | P | 14 05 48.5 +1.3 |
| | 4.6nm,0.4s,baz=329,slow=3.2,SNR=6.3 | | | | | | |
| JIRN | Jiri | 52.76 | 313 | *e*P | | P | 14 05 48.2 0.0 |
| | 17nm,0.6s | | | | | | |
| GTA | Gaotai | 52.93 | 333 | *e*P | | P | 14 05 49.3 +0.3 |
| GTA | | | | pmax | | pmax | |
| | comp=Z,7.0nm,1.0s | | | | | | |
| GUN | Gumba | 53.12 | 313 | *e*P | | P | 14 05 50.7 -0.2 |
| | 34nm,0.7s | | | | | | |
| PKI | Pulchoki | 53.28 | 312 | *e*P | | P | 14 05 51.4 -0.5 |
| | 13nm,0.5s | | | | | | |
| PKIN | Phulchoki | 53.29 | 312 | *e*P | | P | 14 05 51.5 -0.5 |
| | 10nm,0.5s | | | | | | |
| KKN | Kakani | 53.49 | 312 | *e*P | | P | 14 05 53.3 -0.1 |
| | 15nm,0.6s | | | | | | |
| DMN | Daman | 53.52 | 312 | *e*P | | P | 14 05 53.5 -0.1 |
| GKN | Gorkha | 54.09 | 312 | *e*P | | P | 14 05 57.4 -0.1 |
| | 0.6nm,0.3s | | | | | | |
| KOLN | Koldanda | 54.72 | 311 | *e*P | | P | 14 06 02.2 0.0 |
| | 26nm,0.8s | | | | | | |
| PYUN | Puthan | 55.36 | 311 | *e*P | | P | 14 06 06.9 +0.2 |
| | 24nm,0.7s | | | | | | |
| ULN | Ulaanbaatar | 57.70 | 344 | *e*P | | P | 14 06 23.0 +0.4 |
| | 8.7nm,0.9s | | | | | | |
| SONM | Songino Array | 57.85 | 343 | P | | P | 14 06 24.3 +0.6 |
| | 3.3nm,0.5s,baz=170,slow=7.3,SNR=24 | | | | | | |
| SONM | | | | PcP | | PcP | 14 07 12.5 +0.2 |
| | 1.4nm,0.7s,baz=163,slow=5.1,SNR=4.0 | | | | | | |
| SONA1 | Songino Array | 57.86 | 344 | *e*P | | P | 14 06 24.0 +0.3 |
| WMQ | Urumqi | 62.16 | 329 | P | | P | 14 06 53.6 +0.9 |
| WMQ | | | | pP | | pP | 14 08 02.3 +1.0 |
| WMQ | | | | sP | | sP | 14 08 35.3 +0.2 |
| WMQ | | | | pmax | | pmax | |
| | comp=Z,19nm,0.7s | | | | | | |
| WMQ | | | | pmax | | pmax | |
| | comp=Z,450nm,7.1s | | | | | | |
| WMQ | | | | LR | | LR | |
| | comp=N,560nm,25.7s | | | | | | |
| WMQ | | | | LR | | LR | |
| | comp=E,360nm,22.1s | | | | | | |
| WMQ | | | | LR | | LR | |
| | comp=Z,480nm,18.5s | | | | | | |
| PETK | Petropavlovsk- | 65.39 | 20 | P | | P | 14 07 14.0 +0.6 |
| | 9.9nm,0.8s,baz=186,slow=3.3,SNR=11 | | | | | | |
| KSH | Kashi | 66.41 | 319 | *e*P | | P | 14 07 21.0 +0.7 |
| KSH | | | | PcP | | PcP | 14 07 48.9 +1.5 |
| KSH | | | | pP | | pP | 14 08 33.8 +4.0 |
| KSH | | | | PP | | PP | 14 09 56.1 +4.9 |
| KSH | | | | S | | S | 14 15 38.0 -7.0 |
| KSH | | | | pmax | | pmax | |
| | comp=Z,7.0nm,0.6s | | | | | | |
| KSH | | | | pmax | | pmax | |
| | comp=Z,130nm,5.7s | | | | | | |
| KSH | | | | LR | | LR | |
| | comp=N,160nm,5.4s | | | | | | |
| KSH | | | | LR | | LR | |
| | comp=E,180nm,6.1s | | | | | | |
| KSH | | | | LR | | LR | |
| | comp=Z,300nm,6.3s | | | | | | |
| MK01 | Makanchi Array | 66.96 | 328 | *e*P | | P | 14 07 23.4 -0.1 |
| MK31 | Makanchi Array | 66.98 | 328 | *e*P | | P | 14 07 23.3 -0.3 |
| MKAR | Makanchi Array | 66.98 | 328 | P | | P | 14 07 23.8 +0.2 |
| | 2.3nm,0.6s,baz=118,slow=7.9,SNR=27 | | | | | | |
| YAK | Yakutsk | 69.07 | 1 | *e*P | | P | 14 07 35.3 -0.9 |
| ZALV | Zalesovo Beam | 70.63 | 335 | P | | P | 14 07 45.3 -0.5 |
| | 9.2nm,0.6s,baz=132,slow=4.9,SNR=41 | | | | | | |
| KURK | Kurchatov | 71.34 | 330 | *e*P | | P | 14 07 49.7 -0.4 |
| MAW | Mawson | 73.78 | 201 | P | | P | 14 08 05.6 +1.5 |
| | 1.2nm,0.7s,baz=90,slow=6.1,SNR=1.6 | | | | | | |
| BRVK | Borovoye | 76.92 | 329 | *e*P | | P | 14 08 22.2 +0.1 |
| SYO | Syowa Base | 82.49 | 201‖ | *e*P | | P | 14 08 51.0 -0.6 |
| SYO | Syowa Base | 82.49 | 201‖ | *e*PcP | | PcP | 14 08 54.8 -1.0 |
| ILAR | Eielson Array | 94.68 | 25 | P | | P | 14 09 47.6 -2.0 |
| | 0.5nm,0.6s,baz=263,slow=4.9,SNR=17 | | | | | | |
| VNA2 | Neumayer--Watz | 96.41 | 194 | P | | P | 14 09 55.7 -1.6 |
| | baz=30,slow=13 | | | | | | |
| VNA3 | Neumayer Olymp | 96.69 | 193 | P | | P | 14 09 57.6 -1.0 |
| VNA1 | Neumayer--Stat | 96.80 | 194 | P | | P | 14 09 57.9 -1.2 |
| YKA | Yellowknife Ar | 109.11 | 26 | Pdiff | | Pdif | 14 10 55.6 +1.6 |
| | 0.2nm,0.8s,baz=302,slow=5.8,SNR=2.6 | | | | | | |
| YKA | | | | PKiKP | | PKiKP | 14 14 56.0 -0.3 |
| | 0.4nm,0.6s,baz=291,slow=1.9,SNR=11 | | | | | | |
| GERES | GERESS Array B | 110.88 | 320 | PKiKP | | PKiKP | 14 15 00.4 +0.1 |
| | 0.6nm,0.7s,baz=292,slow=14,SNR=3.1 | | | | | | |
| PDAR | Pinedale Array | 118.93 | 45 | PKP | | PKPdf | 14 15 16.4 +0.3 |
| | 0.4nm,0.4s,baz=242,slow=1.9,SNR=5.6 | | | | | | |
| ULM | Lac du Bonnet | 124.06 | 32 | PKP | | PKPdf | 14 15 24.8 -0.6 |
| | 2.0nm,0.5s,baz=284,slow=2.7,SNR=5.5 | | | | | | |
| TORD | Torodi Ar. Bea | 126.24 | 281 | PKP | | PKPdf | 14 15 31.3 +0.8 |
| | 0.3nm,0.6s,baz=106,slow=2.7,SNR=2.4 | | | | | | |
| TXAR | Lajitas Array | 127.32 | 59 | PKP | | PKPdf | 14 15 32.7 +0.3 |
| | 2.0nm,1.1s,baz=263,slow=1.7,SNR=4.9 | | | | | | |
| SCHQ | Schefferville | 131.18 | 11 | PKP | | PKPdf | 14 15 39.9 +1.1 |
| | 1.0nm,0.4s,baz=315,slow=17,SNR=4.3 | | | | | | |
| DBIC | Dimbokro | 132.54 | 272 | SKPbc | | SKPbc | 14 18 39.9 0.0 |
| | 1.2nm,0.6s,baz=87,slow=1.4,SNR=3.4 | | | | | | |
| CPUP | Villa Florida | 146.34 | 172 | PKPbc | | PKPab | 14 16 09.7 -0.6 |
| | 2.7nm,1.0s,baz=180,slow=4.0,SNR=2.8 | | | | | | |
| LPAZ | La Paz | 152.08 | 147 | PKPbc | | PKPbc | 14 16 25.1 +0.9 |
| | 1.4nm,0.4s,baz=34,slow=4.7,SNR=5.2 | | | | | | |

*ISCJB **15** 14:01:39.3±0.6,55.°30S±0.°09×28.°3W±0.°1, h10km, mb4.3/8, Error ellipse: s-maj=13.6km s-min=8.3km az=25.3*
*IDC **15** 14:01:39.8±0.8,55.°29S×28.°13W, h0km, mb4.3/7, mb1 4.4/8, mb1mx4.1/21, mbtmp4.3/8, ML4.5/1, Error ellipse: s-maj=28.1km s-min=21.3km az=62.0*
*NEIC **15** 14:01:44.7±0.4, 55.°34S×28.°23W, h35km, mb4.6/1, Error ellipse: s-maj=13.4km s-min=10.0km az=26.0*

**ISC 15 14:01:41.4±0.7, 55.°3S±0.°1×28.°26W±0.°09, h10km, n16, σ1§37/17, mb4.4/7, South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| HOPE | Hope Point | 4.87 | 279 | *e*Pn | | Pn | 14 02 54.7 +0.1 |
| HOPE | | | | *e*Sn | | Sn | 14 03 49.3 -1.7 |
| VNA3 | Neumayer Olymp | 17.90 | 160 | P | | Pn | 14 05 50.9 +0.8 |
| VNA2 | Neumayer--Watz | 18.11 | 158 | P | | Pn | 14 05 52.5 -0.3 |
| | baz=316,slow=13 | | | | | | |
| SNAA | Sanae | 19.67 | 156 | P | | P | 14 06 09.3 -0.9 |
| SNAA | Sanae | 19.67 | 156 | P | | P | 14 06 09.6 -0.7 |
| | 1.6nm,0.3s,baz=339,slow=14,SNR=18 | | | | | | |
| CPUP | Villa Florida | 35.86 | 312 | P | | P | 14 08 41.2 -0.1 |
| | 4.0nm,0.8s,baz=137,slow=7.0,SNR=8.1 | | | | | | |
| SUR | Sutherland | 41.05 | 77 | P | | P | 14 09 23.6 -1.4 |
| | 12nm,0.9s | | | | | | |
| BOSA | Boshof | 46.39 | 78 | P | | P | 14 10 07.7 -0.3 |
| | 4.6nm,1.1s,baz=169,slow=5.3,SNR=3.2 | | | | | | |
| VNDA | Vanda | 47.29 | 183 | P | | P | 14 10 14.8 +0.5 |
| | 2.0nm,0.7s,baz=190,slow=4.8,SNR=6.3 | | | | | | |
| LPAZ | La Paz | 49.45 | 306 | P | | P | 14 10 32.9 +0.6 |
| | 2.8nm,0.6s,baz=167,slow=6.9,SNR=10 | | | | | | |
| DBIC | Dimbokro | 64.75 | 26 | P | | P | 14 12 20.1 +0.3 |
| | 0.7nm,0.3s,baz=196,slow=8.7,SNR=3.2 | | | | | | |
| TORD | Torodi Ar. Bea | 72.71 | 31 | P | | P | 14 13 08.8 -0.6 |
| | 2.4nm,0.5s,baz=199,slow=6.7,SNR=26 | | | | | | |
| ASAR | Alice Springs | 99.88 | 163 | P | | Pdif | 14 15 24.8 -1.5 |
| | 0.3nm,0.8s,baz=177,slow=3.3,SNR=3.3 | | | | | | |
| YKA | Yellowknife Ar | 135.21 | 319 | PKP | | PKPdf | 14 20 59.5 -0.1 |
| | 0.9nm,0.9s,baz=119,slow=2.3,SNR=10 | | | | | | |
| ILAR | Eielson Array | 149.16 | 313 | PKPbc | | PKPdf | 14 21 28.2 +4.0 |
| | 7.3nm,0.7s,baz=132,slow=2.5,SNR=88 | | | | | | |
| SONM | Songino Array | 151.28 | 86 | PKPbc | | PKPbc | 14 21 33.7 -0.6 |
| | 2.2nm,0.8s,baz=213,slow=3.4,SNR=10 | | | | | | |

**NNC 15 14:13:33.9±1.1, 36.°79N×70.°94E, h149km±15km, mb2.6, mpv3.5,5C-4D, Error ellipse: s-maj=10.7km s-min=5.4km az=158.0, Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| DZET | Dzherino | 2.61 | 321 | ⇓P | | Pn | 14 14 16.4 0.0 |
| | 11nm,0.3s | | | | | | |
| DZET | | | | ⇓S | | Sn | 14 14 49.9 +0.5 |
| | 30nm,0.4s | | | | | | |
| SFK | Sufi-Kurgan | 3.79 | 31 | ⇑P | | Pn | 14 14 31.5 -0.1 |
| | 5.2nm,0.3s | | | | | | |
| SFK | | | | ⇑S | | Sn | 14 15 17.1 +0.7 |
| | 16nm,0.3s | | | | | | |
| MNAS | Manas | 5.81 | 12 | ⇑P | | Pn | 14 14 57.9 -0.3 |
| | 3.2nm,0.6s | | | | | | |
| MNAS | | | | ⇓S | | Sn | 14 16 04.0 -0.1 |
| | 4.9nm,0.5s | | | | | | |
| KK31 | Karatay Array | 6.31 | 357 | ⇑P | | Pn | 14 15 04.8 +0.2 |
| | 3.3nm,0.5s,baz=180,slow=13,SNR=49 | | | | | | |
| KK31 | | | | ⇓S | | Sn | 14 16 16.8 +1.0 |
| | 2.8nm,0.6s,baz=188,slow=25,SNR=10 | | | | | | |
| AAK | Ala-Archa | 6.45 | 24 | ⇑P | | Pn | 14 15 07.2 +0.6 |
| | 1.7nm,0.7s | | | | | | |
| AAK | | | | S | | Sn | 14 16 19.9 +0.6 |
| | 2.6nm,0.8s | | | | | | |

*ISCJB **15** 14:16:27.4±1.2,6.°10S±0.°08×147.°7E±0.°2, h60km, mb3.7/5, MS3.6/2, Error ellipse: s-maj=34.2km s-min=11.3km az=6.2*
*IDC **15** 14:16:27.4±2.7,6.°06S×147.°76E, h45km±26km, mb3.6/5, mb1 3.8/7, mb1mx3.6/30, mbtmp3.8/7, ML3.8/1, MS3.5/3, Ms1 3.4/3, ms1mx3.0/26, Error ellipse: s-maj=32.6km s-min=14.7km az=121.0*

**ISC 15 14:16:28.6±1.2, 6.°1S±0.°1×147.°8E±0.°2, h60km, n9, σ0§95/11, mb3.9/5, Eastern New Guinea region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| PMG | Port Moresby | 3.35 | 191 | P | | Pn | 14 17 17.9 -0.7 |
| | 5.8nm,0.3s,baz=85,slow=6.8,SNR=20 | | | | | | |
| PMG | | | | S | | Sn | 14 17 56.6 -0.6 |
| | 17nm,0.3s,baz=48,slow=23,SNR=12 | | | | | | |
| PMG | | | | LR | | LR | 14 19 05.7 |
| | comp=Z,220nm,21.2s,baz=60,slow=47 | | | | | | |
| WRA | Warramunga Arr | 19.01 | 222 | P | | P | 14 20 44.6 -1.0 |
| | 0.3nm,0.3s,baz=44,slow=12,SNR=15 | | | | | | |
| WRA | | | | S | | Sn | 14 24 19.6 +0.3 |
| | 0.0nm,0.3s,baz=37,slow=25,SNR=2.7 | | | | | | |
| ASAR | Alice Springs | 22.02 | 216 | P | | P | 14 21 17.9 -0.3 |
| | 2.0nm,0.5s,baz=52,slow=8.6,SNR=39 | | | | | | |
| ASAR | | | | S | | S | 14 25 18.4 +0.6 |
| | 1.6nm,0.9s,baz=33,slow=17,SNR=6.4 | | | | | | |
| DZM | Mont Dzumac | 23.99 | 133 | LR | | LR | 14 30 03.7 |
| | comp=Z,212nm,20.1s,baz=353,slow=34 | | | | | | |
| FITZ | Fitzroy Crossi | 24.73 | 239 | P | | P | 14 21 45.4 +0.9 |
| | 6.9nm,1.0s,baz=52,slow=9.0,SNR=18 | | | | | | |
| STKA | Stephens Creek | 26.30 | 192 | P | | P | 14 22 00.4 +1.7 |
| | 4.3nm,1.0s,baz=12,slow=9.3,SNR=3.2 | | | | | | |
| STKA | | | | LR | | LR | 14 32 38.8 |
| | comp=Z,139nm,19.2s,baz=26,slow=37 | | | | | | |
| MKAR | Makanchi Array | 78.10 | 320 | P | | P | 14 28 20.2 -1.1 |
| | 0.3nm,0.8s,baz=100,slow=8.7,SNR=2.6 | | | | | | |
| ILAR | Eielson Array | 85.25 | 23 | P | | P | 14 28 58.8 +0.4 |
| | 0.2nm,0.7s,baz=252,slow=5.2,SNR=3.4 | | | | | | |
| TORD | Torodi Ar. Bea | 145.92 | 284 | PKPbc | | PKPab | 14 36 03.2 +0.2 |
| | 0.8nm,0.5s,baz=75,slow=4.1,SNR=5.5 | | | | | | |

*IDC **15** 14:36:29.4±3.9, 31.°38N×141.°05E, h0km, mb3.6/5, mb1 3.6/8, mb1mx3.5/32, mbtmp3.6/8, ML3.3/3, Error ellipse: s-maj=161.4km s-min=15.0km az=69.0*

**ISC 15 14:36:33.2±1.9, 31.°5N±0.°2×141.°4E±0.°4, h35km, n8, σ1§12/10, mb3.6/5, Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| JHJ | Hachijo jima 2 | 2.08 | 319 | Pn | | Pn | 14 37 04.1 -1.5 |
| | 14nm,0.3s,baz=262,slow=17,SNR=9.7 | | | | | | |
| JHJ | | | | Sn | | Sn | 14 37 31.3 +0.9 |
| | 13nm,0.3s,baz=135,slow=22,SNR=4.6 | | | | | | |
| JCJ | Chichijima | 4.49 | 171 | Pn | | Pn | 14 37 38.3 -0.3 |
| | 4.2nm,0.3s,baz=86,slow=23,SNR=12 | | | | | | |
| JCJ | | | | Sn | | Sn | 14 38 29.8 +0.2 |
| | 6.1nm,0.3s,baz=283,slow=21,SNR=5.1 | | | | | | |
| MJAR | Matsushiro Arr | 5.64 | 333 | Pn | | Pn | 14 37 53.4 -1.2 |
| | 0.5nm,0.3s,baz=164,slow=12,SNR=4.2 | | | | | | |
| SONM | Songino Array | 31.14 | 312 | P | | P | 14 42 49.6 +1.0 |
| | 0.7nm,0.9s,baz=121,slow=14,SNR=2.6 | | | | | | |
| ZALV | Zalesovo Beam | 45.74 | 316 | P | | P | 14 44 52.4 +1.5 |
| | 0.4nm,0.4s,baz=99,slow=9.1,SNR=2.6 | | | | | | |
| MKAR | Makanchi Array | 47.20 | 307 | P | | P | 14 45 01.9 -0.5 |
| | 0.2nm,0.4s,baz=84,slow=9.0,SNR=5.2 | | | | | | |
| WRA | Warramunga Arr | 51.64 | 188 | P | | P | 14 45 36.0 -0.4 |
| | 1.0nm,0.5s,baz=5.5,slow=7.6,SNR=23 | | | | | | |
| ASAR | Alice Springs | 55.37 | 188 | P | | P | 14 46 03.4 -0.4 |
| | 0.2nm,0.3s,baz=357,slow=5.7,SNR=5.4 | | | | | | |

*NEIC **15** 14:40:24.3±0.0, 14.°41N×94.°91W, h33km, mb4.0/1, MD4.1(MEX), After MEX.*

**MEX 15 14:40:24.3±1.4, 14.°41N×94.°91W, h33km±999km, MD4.1, Off coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| HUIG | Huatulco | 1.78 | 320 | *e*P | | Pn | 14 40 51.9 -0.9 |
| HUIG | | | | *i*S | | Sn | 14 41 11.1 -3.1 |
| HUIG | Huatulco | 1.78 | 320 | *e*P | | Pn | 14 40 51.9 -0.9 |
| HUIG | | | | *i*S | | Sn | 14 41 11.1 -3.1 |
| PCIG | | 2.08 | 52 | *i*P | | Pn | 14 40 55.6 -1.3 |
| PCIG | | | | *e*S | | Sn | 14 41 19.8 -2.0 |
| PCIG | | 2.08 | 52 | *i*P | | Pn | 14 40 55.6 -1.3 |
| PCIG | | | | *e*S | | Sn | 14 41 19.8 -2.0 |
| TGIG | | 2.92 | 36 | *e*P | | Pn | 14 41 08.6 0.0 |
| TGIG | | | | *e*S | | Sn | 14 41 42.1 -0.4 |
| TGIG | | 2.92 | 36 | *e*P | | Pn | 14 41 08.6 0.0 |
| TGIG | | | | *e*S | | Sn | 14 41 42.1 -0.4 |
| VHO | Vista Hermosa | 3.18 | 327 | *e*P | | Pn | 14 41 00.1 -12 |
| VHO | Vista Hermosa | 3.18 | 327 | *e*P | | Pn | 14 41 00.1 -12 |
| JCT | Junction City | 16.62 | 345 | *e*Pn | | Pn | 14 44 09.1 -5.8 |
| | 6.6nm,0.6s | | | | | | |

*IDC **15** 14:58:03.0±2.0, 51.°45N×175.°11W, h0km, mb3.5/4, mb1 4.0/7, mb1mx3.6/40, mbtmp3.8/7, ML3.8/3, Error ellipse: s-maj=48.2km s-min=34.1km az=170.0*
*ISCJB **15** 14:58:04.4±0.9, 51.°39N±0.°09×175.°71W±0.°06, h47km, mb3.4/4, Error ellipse: s-maj=12.9km s-min=5.4km az=178.2*
*NEIC **15** 14:58:04.6±0.0, 51.°41N×175.°69W, h26km, ML3.3(AEIC), After AEIC.*

**ISC 15 14:58:06.9±1.0, 51.°5N±0.°1×175.°73W±0.°04, h47km, n20, σ1§50/24, mb3.4/4, Andreanof Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| ETKA | Kagalaska Isla | 0.56 | 311 | P | | Pn | 14 58 16.8 -1.9 |
| GSMY | Great Sitkin M | 0.58 | 339 | P | | Pn | 14 58 17.9 -1.1 |
| GSTD | Great Sitkin T | 0.61 | 335 | P | | Pn | 14 58 18.7 -0.8 |
| GSTD | | | | S | | Sn | 14 58 28.4 -0.1 |
| GSTR | Great Sitkin T | 0.63 | 341 | P | | Pn | 14 58 19.2 -0.5 |
| ADAG | Mount Adagdak | 0.72 | 312 | P | | Pn | 14 58 19.9 -0.9 |
| KIRH | Kanaga Island | 0.94 | 296 | P | | Pn | 14 58 22.2 -1.5 |
| ATKA | Atka Island | 1.18 | 53 | P | | Pn | 14 58 25.6 -1.4 |
| ATKA | | | | S | | Sn | 14 58 41.2 -0.7 |
| KOKL | Mount Kliuchef | 1.25 | 48 | P | | Pn | 14 58 27.4 -0.7 |
| KOFP | Korovin Flat P | 1.27 | 52 | P | | Pn | 14 58 27.6 -0.8 |
| KOKV | Korovin Volcan | 1.29 | 48 | P | | Pn | 14 58 27.9 -0.7 |
| TAPA | Tanaga Point A | 1.34 | 284 | P | | Pn | 14 58 27.6 -1.6 |
| TAFP | Tanaga Falls P | 1.46 | 287 | P | | Pn | 14 58 29.6 -1.3 |
| TAFP | | | | S | | Sn | 14 58 47.8 -1.0 |
| TASE | Tanaga Southea | 1.48 | 284 | P | | Pn | 14 58 29.8 -1.3 |
| KDAK | Kodiak Island | 14.75 | 56 | Pn | | Pn | 15 01 30.6 -1.7 |
| | 0.4nm,0.3s,baz=243,slow=14,SNR=7.2 | | | | | | |
| PETK | Petropavlovsk- | 16.30 | 286 | Pn | | P | 15 01 58.7 +4.0 |
| | 2.0nm,0.3s,baz=73,slow=15,SNR=8.6 | | | | | | |
| ILAR | Eielson Array | 19.96 | 37 | P | | P | 15 02 34.4 -0.4 |
| | 0.2nm,0.3s,baz=243,slow=9.8,SNR=16 | | | | | | |
| INK | Inuvik | 26.26 | 34 | P | | P | 15 03 37.2 -0.1 |
| | 0.6nm,0.4s,baz=256,slow=8.2,SNR=5.0 | | | | | | |
| YKA | Yellowknife Ar | 33.75 | 47 | P | | P | 15 04 44.5 +1.0 |
| | 0.2nm,0.6s,baz=284,slow=8.5,SNR=3.7 | | | | | | |
| YKA | | | | PcP | | PcP | 15 07 24.1 +2.3 |
| | 0.1nm,0.4s,baz=282,slow=3.6,SNR=3.3 | | | | | | |
| PDAR | Pinedale Array | 44.43 | 74 | P | | P | 15 06 13.7 +0.4 |
| | 0.7nm,0.6s,baz=294,slow=4.5,SNR=7.2 | | | | | | |
| TXAR | Lajitas Array | 56.73 | 83 | P | | P | 15 07 44.7 -1.2 |
| | 0.1nm,0.4s,baz=293,slow=2.5,SNR=2.5 | | | | | | |

**MEX 15 15:11:25.5±0.3, 18.°73N×102.°97W, h82km±9km, MD3.8, Michoacan**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| MMIG | Aquila | 0.57 | 219 | *e*P | | Pn | 15 11 38.6 -1.5 |
| MMIG | | | | *e*S | | Sn | 15 11 49.3 -1.6 |
| EZ5V | | 0.95 | 321 | *i*P | | Pn | 15 11 43.0 -1.4 |
| EZ5V | | | | *e*S | | Sn | 15 11 57.1 -1.4 |
| R15V | | 1.05 | 295 | *e*P | | Pn | 15 11 44.2 -1.2 |
| R15V | | | | *e*S | | Sn | 15 11 58.5 -1.7 |
| ZIIG | Zihuatanejo | 1.82 | 128 | *i*P | | Pn | 15 11 54.0 -1.1 |
| ZIIG | | | | *e*S | | Sn | 15 12 15.2 -2.4 |
| CJM | Chamela | 2.10 | 292 | *e*P | | Pn | 15 11 57.7 -1.1 |

*NIED **15** 15:12:00, 31.°80N×142.°00E, h5km, Mw5.6 Best double couple: M0 2.77000×10^17 NP1:ϕs190.00000°, δ41.00000°, λ92.00000°. NP2:ϕs8.00000°, δ49.00000°, λ89.00000°.*
*BJI **15** 15:12:38.8, 31.°60N×142.°08E, h6km, mb5.2/76, mB5.7/75, Ms5.9/89, Ms7 5.7/85*
*IDC **15** 15:12:42.5±0.4, 31.°74N×141.°87E, h0km, mb4.9/42, mb1 5.0/47, mb1mx5.0/56, mbtmp4.9/47, ML4.3/5, MS5.4/36, Ms1 5.4/36, ms1mx5.2/53, Error ellipse: s-maj=12.3km s-min=9.2km az=81.0*
*JMA **15** 15:12:42.5±0.2, 31.°81N×142.°04E, h20km, M5.8*
*MOS **15** 15:12:46.5±1.3, 31.°77N×141.°66E, h33km, mb5.6/123, MS5.4/52, Error ellipse: s-maj=7.5km s-min=4.4km az=103.8*
*ISCJB **15** 15:12:47.5±0.1, 31.°68N±0.°01×141.°53E±0.°01, h33km, mb5.4/399, MS5.5/222, Error ellipse: s-maj=2.0km s-min=1.8km az=172.6*
*NEIC **15** 15:12:48.3±1.3, 31.°72N×141.°63E, h35km±9km, mb5.4/286, MS5.5/152, MW5.6, Error ellipse: s-maj=3.6km s-min=2.8km az=128.0, Moment Tensor Solution. s39 Moment tensor: Scale 10^17Nm; Mrr1.72; Mθθ1.45; Mϕϕ-3.17; Mrθ0.27; Mrϕ-1.04; Mθϕ0.91; Best double couple: M0 3.10000×10^17 NP1:ϕs172.00000°, δ38.00000°, λ61.00000°. NP2:ϕs27.00000°, δ57.00000°, λ111.00000°. Principal axes: T 1.9200, Plg70.0000°, Azm343.0000°; N 1.6500, Plg17.0000°, Azm195.0000°; P -3.5600, Plg10.0000°, Azm102.0000°;*
*GCMT **15** 15:12:48.3±0.1, 31.°73N×141.°89E, h12km, MW5.6/141, Moment Tensor Solution. s105,c205; s141,c380; Duration: 1§6 Moment tensor: Scale 10^17Nm; Mrr3.20±.03; Mθθ0.20±.03; Mϕϕ-3.40±.03; Mrθ-0.33±.08; Mrϕ-0.25±.02; Mθϕ1.26±.07; Best double couple: M0 3.55800×10^17 NP1:ϕs357.00000°, δ56.00000°, λ82.00000°. NP2:ϕs192.00000°, δ35.00000°, λ102.00000°. Principal axes: T 3.4750, Plg78.0000°, Azm238.0000°; N 0.1670, Plg7.0000°, Azm2.0000°; P -3.6420, Plg10.0000°, Azm93.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

**ISC 15 15:12:48.6±0.5, 31.°76N±0.°03

JWZ eS Sn 15 15 11.2 +3.8
**MJAR Matsushiro Arr 5.60 329** Pn Pn 15 14 09.3 -0.2
16nm,0.3s,baz=148,slow=11,SNR=113
MJAR Sn Sn 15 15 12.9 +0.3
5.0nm,0.3s,baz=164,slow=23,SNR=2.6
MJAR LR LR 15 16 33.5
comp=Z,36µm,18.8s,baz=140,slow=41
**MAJO Matsushiro 5.61 329** *c iP* Pn 15 14 10.0 +0.5
**MAJO Matsushiro 5.61 329** *e*Pn Pn 15 14 09.6 +0.1
**MAT Matsushiro 5.61 329** P Pn 15 14 09.2 -0.3
MAT S Sn 15 15 12.6 -0.1
**MJB9 Matsu-Tunnel 5.61 329** *e*Pn Pn 15 14 09.6 +0.1
**JNU Nakatsue 9.29 281** Pn Pn 15 15 04.5 +4.3
0.7nm,0.3s,baz=103,slow=9.4,SNR=12
JNU LR LR 15 18 37.3
comp=Z,85nm,18.4s,baz=90,slow=38
**JNU Nakatsue 9.29 281** *e*Pn Pn 15 15 00.3 +0.2
**ERM Erimo 10.30 6**⇓ *e*P Pn 15 15 13.5 -0.3
**ERM Erimo 10.30 6** *e*Pn Pn 15 15 10.0 -3.9
ERM eSn Sn 15 16 53.4 -15
**ASAJ Asahikawa 12.36 3** Pn Pn 15 15 37.5 -4.5
4.4nm,0.3s,baz=195,slow=4.7,SNR=27
ASAJ Sn Sn 15 17 46.3 -12
1.3nm,0.3s,baz=186,slow=9.2,SNR=2.2
ASAJ LR LR 15 21 29.3
comp=Z,75nm,19.6s,baz=195,slow=43
**ASAJ Asahikawa 12.36 3** *e*Pn Pn 15 15 36.9 -5.1
ASAJ eSn Sn 15 17 48.5 -10
**YUK Yuzh-Kuril'sk 12.68 14** *e*P Pn 15 15 42.2 -4.1
YUK pmax pmax
comp=N,51nm,0.8s
YUK pmax pmax
comp=E,50nm,0.8s
YUK pmax pmax
comp=Z,184nm,0.8s
YUK MLR MLR
comp=Z,12µm,9.0s
YUK MLR MLR
comp=N,10µm,9.0s
**KSRS Korea Array 12.73 300** Pn Pn 15 15 51.3 +4.2
comp=N,1.3nm,0.3s,baz=108,slow=13,SNR=52
KSRS LR LR 15 20 43.9
comp=N,23µm,18.6s,baz=110,slow=38
**SHO Shikotan 12.74 17** *e*P Pn 15 15 43.4 -3.7
**JOW Kunigami 12.74 251** *e*Pn Pn 15 15 47.3 0.0
**KS15 Wonju Array Si 12.75 300** *e*Pn Pn 15 15 44.9 -2.4
**KSAR Wonju Array Be 12.75 300** P Pn 15 15 51.3 +3.9
**KSAR Wonju Array Be 12.75 300** Pn Pn 15 15 51.3 +3.9
**KS01 Wonju Array Si 12.76 300** *e*Pn Pn 15 15 50.3 +2.8
**INCN Inchon 13.69 299** *e*Pn Pn 15 15 58.7 -1.6
**MSHR Mys Shultsa 13.70 325**⇑ *e*P Pn 15 16 00.2 -0.1
**VLA Vladivostok 13.78 328**⇑ *e*P Pn 15 15 58.3 -3.0
**KUR Kuril'sk 14.28 18** P Pn 15 16 04.7 -3.4
KUR pmax pmax
comp=Z,113nm,0.8s
KUR pmax pmax
comp=E,17nm,0.3s
KUR pmax pmax
comp=N,24nm,0.5s
KUR MLR MLR
comp=Z,14µm,12.0s
KUR MLR MLR
comp=E,20µm,12.0s
KUR MLR MLR
comp=N,13µm,10.0s
**USRK Ussuriysk Ar. 14.60 331** Pn Pn 15 16 11.6 -0.9
comp=N,1.3nm,0.3s,baz=146,slow=14,SNR=25
USRK Sn S 15 19 06.2 -5.3
comp=N,0.2nm,0.3s,baz=141,slow=18,SNR=3.2
USRK LR LR 15 21 53.7
comp=N,12µm,18.6s,baz=136,slow=38
**YSS Yuzh-Sakhalins 15.20 3**⇓ *e*P Pn 15 16 18.2 -2.3
YSS pmax pmax
comp=Z,50nm,0.8s
YSS MLR MLR
comp=N,28µm,15.0s
YSS MLR MLR
comp=E,15µm,15.0s
YSS MLR MLR
comp=Z,27µm,15.0s
**YSS Yuzh-Sakhalins 15.20 3** *e*Pn Pn 15 16 17.8 -2.7
comp=Z,603nm,1.9s
**MDJ Mudanjiang 15.98 327** P Pn 15 16 30.5 -0.2
MDJ S Sn 15 19 27.0 +0.3
MDJ PcP PcP 15 21 28.9 +2.3
MDJ ScP ScP 15 25 02.8 +4.5
MDJ PcS PcS 15 25 04.3 +2.2
MDJ ScS ScS 15 28 40.6 +3.6
MDJ pmax pmax
comp=Z,44nm,0.9s
MDJ pmax pmax
comp=Z,2µm,11.6s
MDJ LR LR
comp=Z,15µm,15.9s
MDJ LR LR
comp=Z,11µm,14.2s
MDJ LR LR
comp=Z,16µm,17.7s
**MDJ Mudanjiang 15.98 327** *e*Pn Pn 15 16 28.9 -1.8
comp=Z,51nm,0.7s
**HABR Khabarovsk 17.45 345** *de*P Pn 15 16 47.3 -1.8
HABR eS Sn 15 20 00.9 -1.4
HABR pmax pmax
comp=Z,264nm,2.1s
HABR pmax pmax
comp=E,161nm,2.1s
HABR pmax pmax
comp=N,158nm,2.1s
HABR MLR MLR
comp=Z,7µm,11.0s
**SSE Sheshan 17.57 273** P Pn 15 16 50.1 -0.6
SSE S Sn 15 19 59.8 -5.5
SSE sS S 15 20 16.9 +4.7
SSE pmax pmax
comp=Z,27nm,0.7s
SSE pmax pmax
comp=Z,6µm,12.0s
SSE LR LR
comp=Z,13µm,15.0s
SSE LR LR
comp=Z,7µm,15.0s
SSE LR LR
comp=Z,16µm,15.0s
**CN2 Changchun 17.59 318**⇓ P Pn 15 16 50.1 -0.8
CN2 *e*sP pP 15 16 57.0 -3.7
CN2 *e*S Sn 15 20 03.1 -2.6
CN2 LR LR
comp=Z,800nm,13.0s
CN2 LR LR
comp=Z,1µm,13.0s
CN2 LR LR
comp=Z,2µm,15.0s
**SNY Shenyang 17.66 310**⇑ P Pn 15 16 51.4 -0.3
SNY S S 15 20 11.0 -2.9
SNY pmax pmax
comp=Z,150nm,1.3s
SNY pmax pmax
comp=Z,5µm,8.0s
SNY LR LR
comp=Z,29µm,14.3s
SNY LR LR
comp=Z,10µm,15.1s
SNY LR LR
comp=Z,29µm,12.7s
**DL2 Dalian 17.88 299** P P 15 16 55.1 +0.2
DL2 S S 15 20 17.8 -0.7
DL2 pmax pmax
comp=Z,100nm,0.8s
DL2 pmax pmax
comp=Z,6µm,10.0s
DL2 LR LR
comp=Z,18µm,12.0s
DL2 LR LR
comp=Z,32µm,13.7s
DL2 LR LR
comp=Z,46µm,13.1s
**YOJ Yonaguni jima 18.05 251** *e*P Pn 15 16 56.2 -0.4
YOJ pmax pmax
comp=Z,918nm,1.1s
**YOJ Yonaguni jima 18.05 251** *e*Pn Pn 15 16 56.2 -0.4
comp=Z,918nm,1.1s
**GUMO Guam 18.31 170** P Pn 15 17 01.8 +2.0
comp=Z,31nm,0.3s,baz=272,slow=3.2,SNR=9.3
GUMO S S 15 20 27.5 +0.2
comp=Z,5.1nm,0.3s,baz=18,slow=20,SNR=2.1
**GUMO Guam 18.31 170** *e*Pn P 15 16 59.6 -0.2
comp=Z,2µm,1.3s
**KLR Kul'dur 19.01 340** P P 15 17 06.1 -1.2
comp=Z,0.1nm,0.3s,baz=137,slow=11,SNR=66
**TATO Taipei 19.05 254** *e*P P 15 17 06.8 -1.2
comp=Z,826nm,1.6s
**TYV Tymovskoe 19.10 2** *e*P Pn 15 17 11.1 +1.9
TYV *e*S Sn 15 20 42.2 +0.1
TYV pmax pmax
comp=Z,55nm,0.8s
TYV pmax pmax
comp=Z,3µm,4.0s
TYV smax smax
comp=N,30nm,2.1s
TYV smax smax
comp=E,12µm,8.7s
**YHNB Yeheng 19.28 254** *e*P P 15 17 08.1 -2.4
comp=E,164nm,1.1s
**NACB Ninganchiao 19.32 252** *e*P P 15 17 09.4 -1.5
comp=E,83nm,0.9s
**NJ2 Nanjing 19.44 277** *e*P P 15 17 11.3 -0.8
NJ2 S Sn 15 20 52.8 +2.2
NJ2 sS S 15 20 56.3 +6.3
NJ2 pmax pmax
comp=E,10.0nm,0.5s
NJ2 LR LR
comp=E,13µm,15.2s
NJ2 LR LR
comp=E,11µm,13.0s
NJ2 LR LR
comp=E,11µm,11.9s
**YULB Yu-li 19.93 250** *e*P P 15 17 16.4 -1.1
comp=E,125nm,0.8s
**SSLB Suanglung 20.02 252** *e*P P 15 17 17.4 -1.1
comp=E,349nm,1.4s
**TWG Pinlang 20.39 249** *e*P P 15 17 21.6 -1.0
comp=E,429nm,0.9s
**TPUB Ta-pu 20.51 251** *e*P P 15 17 22.8 -1.1
comp=E,241nm,1.1s
**TIA Tai'an 20.88 289**⇓ P P 15 17 27.1 -0.7
TIA S Sn 15 21 28.4 +3.2
TIA pmax pmax
comp=E,20nm,1.0s
TIA pmax pmax
comp=E,2µm,11.0s
TIA LR LR
comp=E,18µm,14.8s
TIA LR LR
comp=E,22µm,15.8s
TIA LR LR
comp=E,29µm,16.0s
**NKL Nikolayevsk 21.39 358** *e*P P 15 17 32.0 -1.0
NKL *e* 15 17 45.0
NKL *e*S S 15 21 29.0 +0.5
NKL pmax pmax
comp=N,37nm,0.9s
NKL pmax pmax
comp=E,17nm,0.9s
NKL pmax pmax
comp=Z,150nm,0.9s
NKL pmax pmax
comp=N,700nm,7.0s
NKL pmax pmax
comp=Z,1µm,7.0s
NKL smax smax
comp=N,5µm,12.0s
NKL smax smax
comp=E,17µm,12.0s
**QZH Quanzhou 21.46 257**⇑ *i*P P 15 17 31.6 -2.4
QZH S S 15 21 27.4 -2.9
QZH pmax pmax
comp=E,8µm,8.2s
QZH LR LR
comp=E,12µm,17.2s
QZH LR LR
comp=E,20µm,14.7s
QZH LR LR
comp=E,34µm,17.7s
**SKR Severo-Kuril's 21.71 25** *e*P P 15 17 35.7 -0.7
SKR *e* 15 18 04.2
SKR *e*S S 15 21 32.6 -2.1
SKR pmax pmax
comp=Z,2µm,9.6s
SKR pmax pmax
comp=Z,175nm,1.1s
SKR pmax pmax
comp=Z,2µm,8.3s
SKR MLR MLR
comp=Z,12µm,17.0s
SKR MLR MLR
comp=Z,11µm,15.0s
**BJI Beijing 22.25 299** P P 15 17 41.3 -1.1
BJI S S 15 21 44.4 -0.8
BJI pmax pmax
comp=Z,49nm,1.2s
BJI pmax pmax
comp=Z,3µm,8.8s
BJI LR LR
comp=Z,17µm,17.2s
BJI LR LR
comp=Z,7µm,21.0s
**BJT Baijiatuan 22.25 299** *e*P P 15 17 39.9 -2.6
BJT pmax pmax
comp=Z,53nm,0.8s
BJT MLR MLR
comp=Z,16µm,19.0s
**BJT Baijiatuan 22.25 299** *e*P P 15 17 39.9 -2.6
comp=Z,53nm,0.8s
BJT LR LR
comp=Z,16µm,19.0s
**WHN Wuhan 23.46 274**⇓ P P 15 17 54.3 -0.7
WHN S S 15 21 58.3 -7.9
WHN pmax pmax
comp=Z,300nm,1.6s
WHN LR LR
comp=Z,27µm,15.2s
WHN LR LR
comp=Z,26µm,13.5s
WHN LR LR
comp=Z,38µm,16.5s
**HIA Hailar 24.06 323** *e*P P 15 17 58.2 -2.3
HIA pmax pmax
comp=Z,113nm,0.8s
HIA MLR MLR
comp=Z,10µm,19.0s
**HIA Hailar 24.06 323** *e*P P 15 17 58.2 -2.3
comp=Z,113nm,0.8s
HIA LR LR
comp=Z,10µm,19.0s
**PEA0B Petropavlovsk- 24.26 24** *e*P P 15 18 01.0 -1.3
comp=Z,93nm,1.3s
**PETK Petropavlovsk- 24.26 24** P P 15 18 00.6 -1.7
comp=Z,3.8nm,0.9s,baz=191,slow=6.6,SNR=2.9
PETK LR LR 15 28 10.4
comp=Z,12µm,20.6s,baz=211,slow=38
**PETK Petropavlovsk- 24.26 24** *e*P P 15 18 00.7 -1.6
**PETK Petropavlovsk- 24.26 24** *e*P P 15 18 00.7 -1.6
**PEA1 Petropavlovsk- 24.27 24** *e*P P 15 18 00.6 -1.8
**PET Petropavlovsk 24.53 25** *e*P P 15 18 01.8 -2.9
PET *e*S S 15 22 18.0 -4.8
PET pmax pmax
comp=Z,2µm,6.9s
PET pmax pmax
comp=Z,2µm,7.3s
PET MLR MLR
comp=Z,10µm,19.0s
PET MLR MLR
comp=Z,8µm,15.0s
**PET Petropavlovsk 24.53 25** PFAKE 15 18 20.0 +15
PET LR LR
comp=Z,10µm,20.0s
**TIY Taiyuan 24.76 292** *e*P P 15 18 04.8 -2.2
TIY PP PnPn 15 18 46.1 +6.3
TIY S S 15 22 25.6 -1.5
TIY pmax pmax
comp=Z,120nm,1.5s
TIY pmax pmax
comp=Z,2µm,8.5s
TIY LR LR
comp=Z,14µm,12.4s
TIY LR LR
comp=Z,28µm,15.0s
TIY LR LR
comp=Z,30µm,15.8s
**BESP Borongan 25.08 220** *e*P P 15 18 17.9 +7.9
**H11N2 WAKE ISLAND Hy 25.55 112** T T 15 44 55.9
baz=304,slow=74
**H11N1 WAKE ISLAND Hy 25.56 112** T T 15 44 53.4
baz=304,slow=74
**H11N3 WAKE ISLAND Hy 25.57 112** T T 15 45 00.1
baz=304,slow=74
**WAKE Wake Island 25.61 113** PFAKE 15 18 30.0 +15
WAKE LR LR
comp=Z,13µm,19.0s
**PLP Palo 25.69 221**⇓ *e*P P 15 18 11.0 -4.5
**HHC Hu-ho-hao-te 25.86 299** *e*P P 15 18 17.5 +0.4
HHC PP PnPn 15 18 57.1 +2.2
HHC S S 15 22 43.6 -1.1
HHC sS pS 15 22 50.3 -5.0
HHC pmax pmax
comp=Z,48nm,1.0s
HHC pmax pmax
comp=Z,2µm,5.4s
HHC LR LR
comp=Z,8µm,12.4s
HHC LR LR
comp=Z,23µm,13.9s
HHC LR LR
comp=Z,24µm,14.5s
**OCLP Ormoc 25.99 221** *e*P P 15 18 16.4 -1.9
**H11S3 WAKE ISLAND Hy 26.08 114** T T 15 45 23.4
baz=305
**H11S1 WAKE ISLAND Hy 26.08 114** T T 15 45 29.5
baz=305
**H11S2 WAKE ISLAND Hy 26.09 114** T T 15 46 01.3
baz=305
**MSLP Maasin 26.61 220** *e*P P 15 18 21.0 -2.8
**BTO Baotou 26.98 298** *e*P P 15 18 26.8 -0.3
**XAN Xi'an 27.60 284** P P 15 18 30.3 -2.4
XAN pP pP 15 18 34.6 -8.0
XAN sP sP 15 18 37.3 -10
XAN pmax pmax
comp=Z,70nm,0.9s
XAN pmax pmax
comp=Z,1µm,9.4s
XAN LR LR
comp=Z,5µm,12.5s
XAN LR LR
comp=Z,6µm,12.8s
XAN LR LR
comp=Z,11µm,13.2s
**ENH Enshi 27.64 275** *e*P P 15 18 31.4 -1.7
comp=Z,34nm,1.0s
ENH LR LR
comp=Z,14µm,19.0s
**CLNS Chul'man 27.67 340** *e*P P 15 18 32.1 -1.0
CLNS *e**PP sP 15 18 45.5 -1.7
CLNS *e*PPP PPP 15 19 23.0
CLNS *e* 15 21 48.0
CLNS *e*S S 15 23 11.2 -1.5
CLNS *e*SSS SSS 15 24 49.7
CLNS pmax pmax
comp=N,38nm,1.1s
CLNS pmax pmax
comp=Z,48nm,1.0s
CLNS pmax pmax
comp=E,16nm,0.9s
CLNS smax smax
comp=E,2µm,12.2s
CLNS smax smax
comp=N,2µm,12.2s
**BUKP Musuan 28.39 217** *e*P P 15 18 38.2 -1.6
**MA2 Magadan 28.47 10** P P 15 18 38.9 -1.2
comp=N,8.2nm,0.9s,baz=194,slow=8.5,SNR=2.3
MA2 S S 15 23 27.6 +2.4
comp=N,7.3nm,0.8s,baz=173,slow=16,SNR=2.4
**DAV Davao City (W) 28.83 215** PFAKE 15 18 50.0 +6.3
DAV LR LR
comp=Z,3µm,20.0s
**CIT Chita 28.87 323** *e*P P 15 18 44.7 +0.8
CIT *e* 15 18 55.5
CIT *e* 15 19 00.3
CIT *e* 15 19 32.1
CIT pmax pmax
comp=Z,259nm,2.0s
**ULN Ulaanbaatar 30.82 312** *c iP* P 15 19 02.4 +1.1
ULN pmax pmax
comp=Z,88nm,1.0s
**ULN Ulaanbaatar 30.82 312** *e*P P 15 19 01.3 0.0
ULN LR LR
comp=Z,10µm,20.0s
**ULN Ulaanbaatar 30.82 312** P P 15 19 02.3 +1.1
SNR=30
**GYA Guiyang 31.02 269** P P 15 19 02.0 -1.2
GYA PP PnPn 15 20 04.6 -0.3
GYA PcP PcP 15 22 01.0 +2.3
GYA S S 15 24 07.1 +1.0
GYA ScP ScP 15 25 42.8 +3.9
GYA SS SnSn 15 25 48.3 0.0
GYA ScS ScS 15 29 37.5 +1.4
GYA pmax pmax
comp=Z,30nm,1.0s
GYA pmax pmax
comp=Z,550nm,8.7s
GYA LR LR
comp=Z,6µm,15.2s
GYA LR LR
comp=Z,6µm,17.9s
GYA LR LR
comp=Z,10µm,16.1s
**SONA1 Songino Array 31.23 311** *e*P P 15 19 04.0 -0.9
**SONA0 Songino Array 31.23 311** *e*P P 15 19 06.0 +1.1
**SONM Songino Array 31.23 311** P P 15 19 06.0 +1.1
comp=Z,42nm,0.9s,baz=114,slow=9.4,SNR=75
SONM LR LR 15 32 08.1
comp=Z,12µm,18.8s,baz=102,slow=37
**SONM Songino Array 31.23 311** P P 15 19 06.0 +1.1
**YAK Yakutsk 31.28 349** P P 15 19 03.6 -1.4
comp=Z,41nm,0.7s,baz=210,slow=3.8,SNR=21
**YAK Yakutsk 31.28 349** *e*P P 15 19 04.9 0.0
YAK *e**PP pP 15 19 16.3 +1.4
YAK *e* 15 20 07.1
YAK *e* 15 21 55.7
YAK *e*S S 15 24 06.3 -2.8
YAK *e*SS SnSn 15 25 58.0 +4.4
YAK *e* 15 29 37.5
YAK pmax pmax
comp=Z,38nm,0.9s
YAK pmax pmax
comp=N,12nm,1.0s
YAK pmax pmax
comp=E,6.0nm,1.0s
YAK pmax pmax
comp=Z,148nm,2.1s
YAK pmax pmax
comp=N,137nm,2.3s
YAK pmax pmax
comp=E,54nm,2.0s
YAK smax smax
comp=E,389nm,2.2s
YAK smax smax
comp=N,311nm,3.0s
YAK MLR MLR
comp=Z,9µm,17.0s
YAK MLR MLR
comp=E,4µm,20.0s
YAK MLR MLR
comp=N,9µm,17.0s
**YAK Yakutsk 31.28 349** *e*P P 15 19 03.6 -1.4
comp=N,151nm,1.2s
YAK LR LR
comp=Z,9µm,19.0s
**QIZ Qiongzhong 31.37 254** P P 15 19 06.1 -0.1
QIZ S S 15 24 08.9 -2.4
QIZ pmax pmax
comp=Z,850nm,10.2s
QIZ LR LR
comp=Z,2µm,14.3s
QIZ LR LR
comp=Z,5µm,17.0s
QIZ LR LR
comp=Z,4µm,30.7s
**QIZ Qiongzhong 31.37 254** PFAKE 15 19 20.0 +14
QIZ LR LR
comp=Z,4µm,20.0s
**LZH Lanzhou 31.62 288** *e*P P 15 19 09.1 +0.6
LZH pP pP 15 19 13.8 -4.6
LZH sP sP 15 19 17.9 -4.7
LZH *e*S S 15 24 15.1 -0.2
LZH SS SnSn 15 26 04.0 +1.4
LZH pmax pmax
comp=Z,13nm,1.0s
LZH pmax pmax
comp=Z,800nm,6.3s

LZH LR LR
comp=Z,11µm,14.2s
LZH LR LR
comp=Z,11µm,14.6s
LZH LR LR
comp=Z,11µm,14.5s
**SEY Seymchan 31.92 9** P **P 15 19 09.9 -0.7**
comp=Z,7.8nm,0.6s,baz=190,slow=8.1,SNR=34
**SEY Seymchan 31.92 9***c*e**P P 15 19 10.1 -0.5**
**BOD Bodaibo 32.23 332** *e*P **P 15 19 11.6 -1.8**
BOD pmax pmax
comp=Z,37nm,1.7s
**CD2 Chengdu 32.36 279** P **P 15 19 13.8 -1.1**
CD2 pP pP 15 19 17.1 -7.8
CD2 sP sP 15 19 19.5 -10
CD2 PP **PnPn 15 20 19.8 -2.3**
CD2 SS SS 15 26 28.5 -18
CD2 pmax pmax
comp=Z,30nm,1.4s
CD2 pmax pmax
comp=Z,1µm,10.7s
CD2 LR LR
comp=Z,25µm,16.7s
CD2 LR LR
comp=Z,19µm,9.5s
CD2 LR LR
comp=Z,20µm,15.5s
**TNTI Ternate 33.69 207** *e*P **P 15 19 24.2 -2.3**
comp=Z,47nm,0.9s
**SWI Sorong 33.93 199** P **P 15 19 28.4 -0.2**
**SWI Sorong 33.93 199** P **P 15 19 28.1 -0.5**
SWI pmax pmax
comp=Z,27nm,0.9s
**KDM Kudat 33.94 229** ⇓P **P 15 19 27.9 -0.8**
**ZAK Zakamensk 33.97 315** *e*P **P 15 19 27.8 -1.0**
ZAK pmax pmax
comp=Z,27nm,1.4s
**IRK Irkutsk 34.03 318** *e*P **P 15 19 28.0 -1.2**
IRK pmax pmax
comp=Z,116nm,3.7s
**JAY Jayapura 34.10 182** P **P 15 19 32.1 +2.0**
**TLY Talaya 34.19 317** LR LR 15 34 10.9
comp=Z,10µm,19.3s,baz=110,slow=38
**TLY Talaya 34.19 317***c i*P **P 15 19 32.4 +1.8**
TLY *e*PPP PPP 15 21 08.2
TLY *e*S **S 15 25 02.1 +7.4**
TLY pmax pmax
comp=Z,59nm,0.8s
TLY MLR MLR
comp=Z,13µm,14.0s
**TLY Talaya 34.19 317** *e*P **P 15 19 29.7 -0.9**
comp=Z,56nm,0.8s
**TLY Talaya 34.19 317** P **P 15 19 33.3 +2.8**
SNR=11
**MYLDM Lahad Datu 34.26 224** ⇑P **P 15 19 31.6 +0.1**
**MYLDM Lahad Datu 34.26 224** *e*P **P 15 19 31.5 0.0**
comp=Z,62nm,1.1s
**SDKM Sandakan 34.69 227** ⇓P **P 15 19 36.3 +1.1**
**GTA Gaotai 34.70 295** *e*P **P 15 19 34.4 -0.9**
GTA pP pP 15 19 39.3 -6.0
GTA sP sP 15 19 42.4 -7.1
GTA S **S 15 25 01.8 -1.3**
GTA pmax pmax
comp=Z,17nm,1.3s
GTA pmax pmax
comp=Z,890nm,8.8s
GTA LR LR
comp=Z,10µm,16.6s
GTA LR LR
comp=Z,13µm,16.6s
GTA LR LR
comp=Z,10µm,15.7s
**KMI Kunming 34.80 269** P **P 15 19 35.1 -1.3**
KMI PP **PP 15 20 55.3 -0.3**
KMI S **S 15 25 04.3 -0.7**
KMI sS pS 15 25 16.8 +0.5
**LBMI Labuha 34.93 205** P **P 15 19 36.2 -1.1**
**KKM Kota Kinabalu 34.99 228** ⇑P **P 15 19 37.4 -0.6**
**KKM Kota Kinabalu 34.99 228** *e*P **P 15 19 37.9 0.0**
comp=Z,25nm,1.0s
KKM LR LR
comp=Z,6µm,20.0s
**KMSI Cibinong 35.27 212** P **P 15 19 40.0 -0.2**
**TSM Tawau 35.34 224** ⇓P **P 15 19 42.0 +1.2**
**MIDW Midway 35.44 85** PFAKE 15 19 50.0 +8.5
MIDW LR LR
comp=Z,7µm,19.0s
**FAKI Fak Fak 35.65 196** P **P 15 19 42.7 -0.7**
**FAKI Fak Fak 35.65 196** *e*P **P 15 19 41.7 -1.7**
comp=Z,44nm,1.2s
**MOY Mondy 35.74 316** *e*P **P 15 19 45.2 +1.1**
MOY pmax pmax
comp=Z,104nm,4.7s
**MRSI Marisa 36.32 215** P **P 15 19 46.5 -2.7**
**SANI Sanana 36.80 207** P **P 15 19 52.1 -1.2**
**RABL Rabaul 37.10 163** *e*P **P 15 19 57.0 +1.2**
comp=Z,64nm,0.4s
**LUWI Luwuk 37.25 212** P **P 15 19 54.7 -2.4**
**LUWI Luwuk 37.25 212** *e*P **P 15 19 54.8 -2.3**
comp=Z,64nm,1.1s
**NONG Nongkai 37.37 258** P **P 15 19 58.4 +0.2**
comp=Z,103nm,0.7s
**MPSI Mapaga 37.47 218** P **P 15 19 57.4 -1.5**
**NLAI Namlea 37.49 205** P **P 15 19 59.6 +0.5**
**AAI Ambon 37.53 203** P **P 15 20 01.8 +2.3**
**APSI Ampana 37.66 214** P **P 15 19 59.6 -1.0**
**KHON Khomkaen 38.49 256** P **P 15 20 09.7 +2.1**
comp=Z,13nm,0.9s,comp=Z,2µm
**PCI Palu 38.56 217** P **P 15 20 07.2 -1.0**
comp=Z,41nm,1.1s,comp=Z,704nm
**PCI Palu 38.56 217** P **P 15 20 08.3 +0.1**
PCI pmax pmax
comp=Z,41nm,1.1s
**BTM Bintulu 39.16 229** ⇑P **P 15 20 13.0 -0.3**
**CHAI Chaiyaphum 39.41 256** P **P 15 20 14.9 -0.4**
comp=Z,15nm,0.8s,comp=Z,122nm
**PHRA Phrae 39.61 261** P **P 15 20 15.7 -1.3**
comp=Z,9.3nm,1.4s,comp=Z,36µm
**PBKT Sadao Pong 39.91 258** P **P 15 20 18.1 -1.4**
comp=Z,43nm,0.8s,comp=Z,731nm
**SBUM Sibu 40.29 230** *e*P **P 15 20 21.2 -1.5**
comp=Z,14nm,0.9s
**TTSI Tana Toraja 40.41 215** P **P 15 20 21.9 -1.6**
**CMMT Chiang Mai 40.54 262** P **P 15 20 22.8 -2.0**
comp=Z,30nm,1.0s,comp=Z,695nm
**CHTO Chiang Mai 40.55 262** P **P 15 20 22.9 -1.9**
comp=Z,222nm,1.1s,comp=Z,3µm
**CHTO Chiang Mai 40.55 262** *e*P **P 15 20 22.3 -2.5**
CHTO pmax pmax
comp=Z,18nm,0.8s
CHTO MLR MLR
comp=Z,3µm,20.0s
**CHTO Chiang Mai 40.55 262** *e*P **P 15 20 22.3 -2.5**
comp=Z,18nm,0.8s
CHTO LR LR
comp=Z,3µm,20.0s
**CHTO Chiang Mai 40.55 262** P **P 15 20 25.0 +0.2**
SNR=8.5
**TIXI Tiksi 40.55 354** P **P 15 20 22.8 -1.4**
comp=Z,11nm,0.6s,baz=162,slow=7.6,SNR=38
**TIXI Tiksi 40.55 354***c*e**P P 15 20 23.7 -0.4**
TIXI pmax pmax
comp=Z,10.0nm,0.9s
**TIXI Tiksi 40.55 354** *e*P **P 15 20 23.1 -1.1**
comp=Z,13nm,0.8s
TIXI LR LR
comp=Z,4µm,21.0s
**CM31 Chiang Mai Arr 40.71 261** *e*P **P 15 20 23.5 -2.6**
**CMAR Chiang Mai Arr 40.71 261** P **P 15 20 24.0 -2.1**
comp=Z,7.0nm,0.7s,baz=48,slow=7.7,SNR=30
CMAR PcP **PcP 15 22 28.1 +0.8**
comp=Z,3.1nm,0.9s,baz=40,slow=1.6,SNR=4.5
CMAR LR LR 15 38 58.9
comp=Z,5µm,18.5s,baz=76,slow=39
**CMAR Chiang Mai Arr 40.71 261** *i* P **P 15 20 24.2 -1.9**
CMAR pmax pmax
comp=Z,7.0nm,0.7s
**CM01 Chiang Mai Arr 40.71 261** *e*P **P 15 20 23.7 -2.4**
**SAUI Saumlaki 40.76 196** P **P 15 20 28.9 +2.5**
**NAYO Nakonayok 40.78 254** P **P 15 20 27.4 +0.7**
comp=Z,19nm,1.0s,comp=Z,1µm
**NIKH Nikolski High 41.20 44** *e*P **P 15 20 29.8 +0.1**
comp=Z,1µm,2.0s
**SPSI Sidrap Palu 41.23 215** P **P 15 20 31.6 +1.3**
**PMG Port Moresby 41.26 172** P **P 15 20 30.2 -0.3**
comp=Z,5.5nm,0.6s,baz=341,slow=8.4,SNR=5.1

**PMG Port Moresby 41.26 172***c*e**P P 15 20 29.3 -1.2**
PMG pmax pmax
comp=Z,45nm,1.4s
**PMG Port Moresby 41.26 172** *e*P **P 15 20 29.8 -0.7**
comp=Z,33nm,1.0s
PMG LR LR
comp=Z,2µm,19.0s
**MTKI Muara Teweh, K 41.29 223** P **P 15 20 32.7 +1.8**
**BBSI Bau Bau 41.31 210** P **P 15 20 33.3 +2.3**
**BNSI Bone 41.45 214** P **P 15 20 32.7 +0.6**
**KAPI Kappang 42.15 214** PFAKE 15 20 50.0 +12
KAPI LR LR
comp=Z,2µm,21.0s
**TARA Tarawa 42.19 130** PFAKE 15 20 50.0 +12
TARA LR LR
comp=Z,328nm,20.0s
**KSM Kuching 42.28 231** ⇓P **P 15 20 40.2 +1.3**
**KSM Kuching 42.28 231** *e*P **P 15 20 37.5 -1.5**
comp=Z,32nm,0.9s
KSM LR LR
comp=Z,2µm,19.0s
**KBKI Kotabaru 42.51 220** P **P 15 20 40.9 +0.1**
**SRDT SRDT 42.57 256** P **P 15 20 41.6 +0.2**
comp=Z,144nm,1.0s,comp=Z,4µm
**STKI Sintang 42.58 228** P **P 15 20 42.9 +1.5**
comp=Z,14nm,0.8s,comp=Z,5µm
**LSA Lhasa 43.23 281** P **P 15 20 46.1 -1.1**
LSA LR LR
comp=Z,2µm,14.4s
LSA LR LR
comp=Z,2µm,13.9s
LSA LR LR
comp=Z,6µm,14.4s
**LSA Lhasa 43.23 281** *e*P **P 15 20 45.0 -2.2**
LSA pmax pmax
comp=Z,18nm,1.0s
LSA MLR MLR
comp=Z,4µm,22.0s
**LSA Lhasa 43.23 281** *e*P **P 15 20 45.0 -2.2**
comp=Z,18nm,1.0s
LSA LR LR
comp=Z,4µm,22.0s
**WMQ Urumqi 43.67 302** P **P 15 20 50.9 +0.8**
WMQ pP pP 15 20 56.0 -4.3
WMQ sP sP 15 20 58.6 -5.8
WMQ S **S 15 27 15.1 -2.5**
WMQ SS **SS 15 30 26.5 -6.9**
WMQ pmax pmax
comp=Z,120nm,1.9s
WMQ pmax pmax
comp=Z,5µm,4.9s
WMQ LR LR
comp=Z,18µm,17.1s
WMQ LR LR
comp=Z,9µm,22.1s
WMQ LR LR
comp=Z,9µm,17.1s
**DGZ Jazzator, Alta 43.87 310***c*e**P P 15 20 51.4 -0.3**
DGZ pmax pmax
comp=Z,111nm,0.9s
**MMRI Maumere 44.29 208** P **P 15 20 55.0 -0.1**
**MMRI Maumere 44.29 208** *e*P **P 15 20 53.0 -2.1**
comp=Z,101nm,1.3s
**HNR Honiara 44.50 154** PFAKE 15 21 10.0 +13
HNR LR LR
comp=Z,5µm,19.0s
**SOEI Soe 44.54 205** P **P 15 20 56.1 -1.2**
**SOEI Soe 44.54 205** *e*P **P 15 20 56.5 -0.8**
comp=Z,136nm,1.2s
**EDFI Ende, Flores 44.62 209** P **P 15 20 56.1 -1.8**
**COEN Coen 45.47 178** *e*P **P 15 21 04.8 +0.2**
comp=Z,216nm,1.8s
**MTN Manton Dam 45.50 195** *e*P **P 15 21 03.4 -1.3**
comp=Z,34nm,0.8s
**TRTT Trang 45.77 248** P **P 15 21 08.6 +1.6**
comp=Z,35nm,1.5s,comp=Z,1µm
**ZAA0 Zalesovo Array 45.80 316** *e*P **P 15 21 05.8 -1.0**
comp=Z,27nm,0.9s
**ZALV Zalesovo Beam 45.80 316** P **P 15 21 06.7 -0.1**
comp=Z,19nm,1.0s,baz=102,slow=7.0,SNR=50
ZALV PcP **PcP 15 22 43.9 +0.1**
comp=Z,9.2nm,0.9s,baz=90,slow=2.9,SNR=2.6
ZALV LR LR 15 41 13.1
comp=Z,6µm,18.0s,baz=81,slow=37
**ZALV Zalesovo Beam 45.80 316** *e*P **P 15 21 05.1 -1.6**
ZALV PcP **PcP 15 22 43.9 +0.1**
**ZAA1 Zalesovo Array 45.80 316** *e*P **P 15 21 06.7 -0.1**
ZAA1 *e*PcP **PcP 15 22 43.9 +0.1**
**PLAI Plampang 46.42 214** P **P 15 21 13.0 +1.0**
**MYKOM Kota Tinggi 46.52 238** ⇑P **P 15 21 12.2 -0.7**
**MYKOM Kota Tinggi 46.52 238** *e*P **P 15 21 12.2 -0.7**
comp=Z,25nm,1.0s
**KULM Kulim 46.59 244** ⇓P **P 15 21 13.6 +0.1**
**KULM Kulim 46.59 244** *e*P **P 15 21 12.8 -0.7**
comp=Z,34nm,1.0s
KULM LR LR
comp=Z,2µm,21.0s
**NVS Novosibirsk 46.80 317** ⇓*i*P **P 15 21 14.6 0.0**
NVS *e*S **S 15 28 00.4 -1.9**
NVS pmax pmax
comp=E,45nm,1.6s
NVS pmax pmax
comp=E,78nm,1.6s
NVS smax smax
comp=E,80nm,2.5s
**IPM Ipoh 46.82 243** ⇑P **P 15 21 15.6 +0.3**
**IPM Ipoh 46.82 243** *e*P **P 15 21 13.9 -1.4**
comp=E,42nm,1.3s
**TAPN Taplejung 46.82 279** *e*P **P 15 21 14.3 -1.2**
**SRBI Singaraja 47.04 217** P **P 15 21 17.3 +0.4**
**ODAN Odare 47.25 279** *e*P **P 15 21 17.1 -1.7**
**MK01 Makanchi Array 47.31 306** *e*P **P 15 21 17.5 -1.3**
**MK31 Makanchi Array 47.32 306** *e*P **P 15 21 18.2 -0.6**
**MK31 Makanchi Array 47.32 306** *e*P **P 15 21 17.8 -1.0**
**MK32 Makanchi Array 47.32 306** *e*P **P 15 21 18.6 -0.3**
MK32 *e*S **S 15 28 13.0 +2.9**
**MKAR Makanchi Array 47.32 306** P **P 15 21 18.6 -0.3**
comp=E,65nm,0.8s,baz=88,slow=6.0,SNR=124
MKAR S **S 15 28 13.0 +2.9**
comp=E,1.7nm,1.0s,baz=90,slow=18,SNR=2.3
MKAR LR LR 15 42 18.7
comp=E,5µm,18.1s,baz=84,slow=38
**MAKZ Makanchi 47.53 306** *i* P **P 15 21 19.4 -1.1**
MAKZ pmax pmax
comp=Z,69nm,1.1s
**MAKZ Makanchi 47.53 306** *e*P **P 15 21 20.1 -0.4**
comp=Z,50nm,0.9s
**DSRI Dabo 47.59 235** P **P 15 21 22.7 +1.4**
**RAMN Ramite 47.89 279** *e*P **P 15 21 22.2 -1.6**
comp=Z,105nm,0.8s
**JAGI Jajag, Banyuwa 47.92 218** *e*P **P 15 21 22.1 -1.6**
comp=Z,33nm,1.0s
**JIRN Jiri 48.00 280** *e*P **P 15 21 23.1 -1.7**
**GUN Gumba 48.18 281** *e*P **P 15 21 25.1 -1.0**
comp=Z,262nm,0.9s
**PKI Pulchoki 48.68 280** *e*P **P 15 21 28.4 -1.6**
comp=Z,66nm,0.8s
**PKIN Phulchoki 48.69 280** *e*P **P 15 21 28.4 -1.6**
comp=Z,23nm,0.6s
**KKN Kakani 48.72 281** *e*P **P 15 21 28.6 -1.5**
comp=Z,152nm,1.0s
**PWJI Pagerwojo 48.82 221** P **P 15 21 34.1 +3.4**
**DMN Daman 48.92 280** *e*P **P 15 21 30.4 -1.4**
comp=Z,88nm,1.0s
**GKN Gorkha 49.19 281** *e*P **P 15 21 32.3 -1.4**
**PCJI Pacitan 49.32 222** P **P 15 21 35.2 +0.7**
**PSI Prapat 49.50 243** *e*P **P 15 21 36.1 0.0**
PSI pmax pmax
comp=Z,26nm,1.1s
**PSI Prapat 49.50 243** *e*P **P 15 21 34.9 -1.2**
comp=Z,26nm,1.1s
**LHMI Lhok Sumawe 49.51 247** P **P 15 21 36.3 +0.3**
**KURK Kurchatov 49.53 312***c*e**P P 15 21 34.7 -1.0**
KURK pmax pmax
comp=Z,823nm,1.2s
**KURK Kurchatov 49.53 312** *e*P **P 15 21 34.4 -1.3**
comp=Z,152nm,0.9s
KURK *e*S **S 15 28 46.2 +5.1**
KURK LR LR
comp=Z,23µm,19.0s
**KURK Kurchatov 49.53 312** P **P 15 21 35.2 -0.5**
SNR=49
**BKNI Bangkinang 49.56 239** *e*P **P 15 21 34.1 -2.3**
comp=Z,118nm,0.4s
**KURBB Kurchatov Arra 49.59 312** P **P 15 21 35.6 -0.7**
comp=Z,83nm,0.9s,baz=87,slow=7.3,SNR=167

KURBB S **S 15 28 42.5 +0.6**
comp=Z,1.9nm,0.9s,baz=91,slow=14,SNR=3.7
**SVW2 Sparrevohn 49.62 35** *e*P **P 15 21 36.9 +0.6**
comp=Z,78nm,1.6s
**PDGK Podgornoye 49.65 302** P **P 15 21 37.5 +0.5**
PDGK pmax pmax
comp=Z,55nm,1.2s
**TTA Tatalina 49.66 32** *e*P **P 15 21 39.5 +2.8**
**TTA Tatalina 49.66 32** *e*P **P 15 21 39.5 +2.8**
**DANN Dangsing 49.81 282** *e*P **P 15 21 38.1 -0.4**
comp=Z,8.8nm,0.9s
**KCSI Kotacane, Aceh 49.92 245** P **P 15 21 38.5 -0.7**
**KPJI Karang Pucung 49.93 225** P **P 15 21 40.7 +1.5**
**UZB Uzynbulak 50.02 302** *e*P **P 15 21 40.0 +0.2**
comp=Z,192nm,0.8s
UZB LRM MLR 15 45 15.3
comp=Z,4µm,15.4s
**KOLN Koldanda 50.13 281** *e*P **P 15 21 39.9 -1.0**
comp=Z,246nm,1.3s
**TDK Taldygorghan 50.19 304** *i* P **P 15 21 41.1 +0.2**
comp=Z,249nm,0.6s
TDK *e*S **S 15 28 50.9 +0.3**
TDK LRM MLR 15 45 57.2
comp=Z,6µm,15.8s
**KPKS Kokpek 50.21 302** *e*P **P 15 21 41.3 +0.1**
comp=Z,304nm,0.8s
KPKS LRM MLR 15 45 19.7
comp=Z,4µm,14.4s
**ZHN Zhinishke 50.44 302** *e*P **P 15 21 42.7 -0.2**
comp=Z,207nm,2.2s
ZHN LR LR 15 43 43.7
comp=Z,4µm,14.3s
**SATY Saty 50.48 302** *e*P **P 15 21 43.1 -0.2**
comp=Z,265nm,1.2s
SATY LRM MLR 15 45 29.4
comp=Z,5µm,15.1s
**PYUN Piuthan 50.53 282** *e*P **P 15 21 43.2 -0.7**
comp=Z,426nm,1.0s
**OHAK Old Harbor 50.53 40** *e*P **P 15 21 44.1 +0.9**
comp=Z,400nm,1.9s
**KLI Kotabumi 50.60 231** P **P 15 21 45.1 +0.9**
comp=Z,109nm,0.7s
**KLI Kotabumi 50.60 231** P **P 15 21 42.7 -1.5**
KLI pmax pmax
comp=Z,102nm,0.9s
**CISI Cisompet, Garu 50.78 226** *e*P **P 15 21 44.0 -1.7**
comp=Z,42nm,0.8s
**KDAK Kodiak Island 50.93 39** P **P 15 21 46.6 +0.4**
comp=Z,40nm,0.9s,baz=272,slow=8.6,SNR=6.5
**KDAK Kodiak Island 50.93 39** *i* P **P 15 21 48.3 +2.1**
**KDAK Kodiak Island 50.93 39** *e*P **P 15 21 47.3 +1.1**
KDAK LR LR
comp=Z,3µm,20.0s
**RSO Redoubt South 50.95 35** *e*P **P 15 21 47.6 +1.1**
**IMAR Indian Mountai 51.10 28** *e*P **P 15 21 47.1 -0.3**
**MASI Maura Aman, Be 51.12 235** P **P 15 21 48.5 +0.3**
comp=Z,360nm,0.9s,comp=Z,4µm
**LWLI Liwa 51.24 231** P **P 15 21 49.9 +0.7**
comp=Z,104nm,0.8s,comp=Z,38µm
**KASI Kota Agung 51.33 231** P **P 15 21 49.7 0.0**
comp=Z,85nm,1.2s
**SPU Mount Spurr 51.34 35** *e*P **P 15 21 50.9 +1.6**
**PPLA Purkeypile 51.40 32** *e*P **P 15 21 49.9 0.0**
comp=Z,122nm,1.4s
**MDOK Medeo 51.44 302** *e*P **P 15 21 51.0 +0.5**
comp=Z,414nm,1.2s
MDOK *e*S **S 15 29 08.4 +0.2**
MDOK LRM MLR 15 46 00.9
comp=Z,4µm,15.8s
**GSI Gunungsitoli 51.49 243** P **P 15 21 51.0 0.0**
**GSI Gunungsitoli 51.49 243** *e*P **P 15 21 49.6 -1.4**
comp=Z,180nm,1.2s
GSI *e*S **S 15 29 11.5 +2.4**
**AAA Alma-Ata 51.53 302** *e*P **P 15 21 51.5 +0.4**
comp=Z,578nm,0.7s
AAA LRM MLR 15 46 33.2
comp=Z,4µm,16.5s
**CNPM China Poot 51.67 37** *e*P **P 15 21 52.7 +0.9**
comp=Z,349nm,1.9s
**CTAO Charters Tower 51.73 175** PFAKE 15 22 00.0 +7.4
CTAO LR LR
comp=Z,3µm,19.0s
**KUU Kurty 51.82 303** *e*P **P 15 21 53.3 +0.1**
comp=Z,294nm,0.9s
KUU *i* PP **PP 15 23 51.3 +0.4**
KUU *e*S **S 15 29 13.2 +0.1**
KUU LR LR 15 44 10.1
comp=Z,1µm,13.9s
**BRLK Bradley Lake 51.85 36** *e*P **P 15 21 54.4 +1.2**
comp=Z,194nm,2.0s
**WRAB Tennant Creek 51.88 189***d i*P **P 15 21 52.1 -1.6**
WRAB pmax pmax
comp=Z,63nm,0.9s
**WRAB Tennant Creek 51.88 189** *e*P **P 15 21 52.0 -1.8**
comp=Z,87nm,1.0s
WRAB LR LR
comp=Z,4µm,22.0s
**WB2 Warramunga Arr 51.89 189** *e*P **P 15 21 51.6 -2.2**
**WR1 Warramunga Arr 51.89 189** *e*P **P 15 21 52.1 -1.7**
comp=Z,100nm,1.1s
WR1 *e*S **S 15 29 10.3 -3.9**
**WRA Warramunga Arr 51.89 189** P **P 15 21 52.1 -1.7**
comp=Z,56nm,0.9s,baz=5.1,slow=7.6,SNR=191
WRA S **S 15 29 10.3 -4.0**
comp=Z,5.5nm,1.1s,baz=7.7,slow=13,SNR=8.4
WRA LR LR 15 42 11.9
comp=Z,4µm,22.0s,baz=10.0,slow=34
**WRA Warramunga Arr 51.89 189** *i* P **P 15 21 51.9 -1.9**
WRA pmax pmax
comp=Z,58nm,0.9s
**SUA Susitna One 51.98 34** *e*P **P 15 21 53.0 -1.1**
comp=Z,35nm,1.0s
**KTH Kantishna Hill 52.02 32** *e*P **P 15 21 54.4 0.0**
comp=Z,92nm,1.5s
**BPAW Bear Paw Mtn. 52.04 31** *e*P **P 15 21 55.1 +0.7**
comp=Z,26nm,0.8s
**MLY Manley 52.23 30** *e*P **P 15 21 55.9 0.0**
comp=Z,54nm,1.2s
**TRF Thorofare Moun 52.30 32** *e*P **P 15 21 57.5 +0.9**
comp=Z,38nm,1.2s
**BMNS Besmoynak 52.44 302** *e*P **P 15 21 58.6 +0.6**
comp=Z,554nm,1.0s
**RC01 Rabbit Creek A 52.45 35** *e*P **P 15 21 57.1 -0.5**
comp=Z,79nm,1.4s
**TKM2 Tokmak 2 52.53 302** P **P 15 21 56.7 -2.0**
SNR=10
**COLD Coldfoot 52.67 27** *e*P **P 15 22 01.1 +2.1**
comp=Z,20nm,1.2s
**PMR Palmer 52.76 34** *e*P **P 15 22 01.1 +1.3**
PMR pmax pmax
comp=Z,91nm,1.4s
**PMR Palmer 52.76 34** *e*P **P 15 21 59.4 -0.4**
comp=Z,91nm,1.4s
**MCK McKinley 52.92 31** *e*P **P 15 22 03.3 +2.3**
MCK pmax pmax
comp=Z,76nm,1.2s
**MCK McKinley 52.92 31** *e*P **P 15 22 02.1 +1.1**
comp=Z,76nm,1.3s
**RND Reindeer 52.94 32** *e*P **P 15 22 02.3 +1.1**
RND pmax pmax
comp=Z,150nm,1.8s
**RND Reindeer 52.94 32** *e*P **P 15 22 01.4 +0.2**
comp=Z,153nm,1.9s
**KZA Kyzart 52.95 301** P **P 15 22 03.6 +1.5**
SNR=7.3
**KSH Kashi 52.97 298** P **P 15 22 05.8 +3.9**
KSH pP pP 15 22 10.5 -1.8
KSH PcP **PcP 15 23 14.8 +4.4**
KSH PP **PP 15 24 07.5 +6.0**
KSH S **S 15 29 34.0 +4.9**
KSH ScS **ScS 15 31 50.5 +1.4**
KSH SS **SS 15 33 11.8 +3.6**
KSH pmax pmax
comp=Z,21nm,0.8s
KSH pmax pmax
comp=Z,900nm,4.4s
KSH LR LR
comp=Z,4µm,13.0s
KSH LR LR
comp=Z,2µm,11.8s
KSH LR LR
comp=Z,6µm,14.4s
**KBK Karagaybulak 53.05 302** P **P 15 22 02.6 +0.1**
SNR=35
**CHMS Chumysh 53.12 302** P **P 15 22 04.5 +1.6**
SNR=13
**SML Sawmill 53.14 34** *e*P **P 15 22 04.1 +1.4**

SML pmax pmax
comp=Z,46nm,0.9s
**SML Sawmill 53.14 34** *e*P **P 15 22 03.4 +0.7**
comp=Z,46nm,0.9s
**BTLS Baital 53.24 305** *e*P **P 15 22 04.0 +0.4**
comp=Z,295nm,1.2s
BTLS *e*S **S 15 29 32.6 +0.2**
BTLS LR LR 15 45 09.7
comp=Z,2µm,14.7s
**USP Ospenovka 53.25 303** P **P 15 22 02.4 -1.5**
SNR=9.1
**FRU Bishkek 53.25 302** *i* P **P 15 22 04.5 +0.7**
FRU pmax pmax
comp=Z,500nm,3.2s
FRU MLR MLR
comp=E,6µm,16.0s
**MDM Murphy Dome 53.28 30** *e*P **P 15 22 04.1 +0.4**
comp=E,100nm,1.2s
**CHLP Challavanipeta 53.33 270** *e*P **P 15 22 04.8 +0.2**
CHLP IVMs_BB IVMs_BB 15 51 17.4
comp=Z,691nm,12.3s
**AAK Ala-Archa 53.38 302** LR LR 15 43 58.0
comp=Z,4µm,21.7s,baz=60,slow=35
**AAK Ala-Archa 53.38 302** *ce*P **P 15 22 04.4 -0.5**
AAK pmax pmax
comp=Z,32nm,1.4s
**AAK Ala-Archa 53.38 302** P **P 15 22 06.5 +1.6**
SNR=11
**AAK Ala-Archa 53.38 302** *e*P **P 15 22 04.6 -0.4**
comp=Z,20nm,0.9s
AAK LR LR
comp=Z,5µm,20.0s
**COLA College 53.44 30** *e*P **P 15 22 04.5 -0.2**
COLA pmax pmax
comp=Z,32nm,1.4s
**COLA College 53.44 30** *e*P **P 15 22 06.3 +1.5**
comp=Z,65nm,1.4s
COLA LR LR
comp=Z,2µm,20.0s
**CCB Clear Creek Bu 53.45 30** *e*P **P 15 22 06.5 +1.7**
comp=Z,37nm,1.4s
**UCH Uchtor 53.45 302** P **P 15 22 08.0 +2.2**
SNR=13
**DHY Denali Highway 53.60 32** *e*P **P 15 22 08.1 +1.9**
comp=Z,85nm,2.0s
**SCM Sheep Creek Mo 53.62 34** *e*P **P 15 22 08.7 +2.5**
SCM pmax pmax
comp=Z,68nm,1.0s
**SCM Sheep Creek Mo 53.62 34** *e*P **P 15 22 08.1 +1.8**
comp=Z,68nm,1.0s
**FUNA Funafuti 53.71 132** PFAKE 15 22 20.0 +13
FUNA LR LR
comp=Z,3µm,19.0s
**GLI Glacier Island 53.74 35** *e*P **P 15 22 08.3 +1.3**
comp=Z,71nm,1.2s
**HDA Harding Lake 53.81 31** *e*P **P 15 22 07.1 -0.5**
comp=Z,34nm,1.0s
**ILAR Eielson Array 53.85 30** P **P 15 22 06.5 -1.3**
comp=Z,29nm,1.3s,baz=256,slow=5.8,SNR=37
ILAR LR LR 15 49 51.8
comp=Z,876nm,19.1s,baz=276,slow=41
**ILB Eielson Array 53.85 30** *e*P **P 15 22 06.6 -1.2**
**IL1 Eielson Array 53.85 30** *e*P **P 15 22 06.5 -1.3**
**EKS2 Erkin-Say 53.89 302** P **P 15 22 10.2 +1.5**
SNR=7.2
**FID Port Fidalgo 54.05 35** *e*P **P 15 22 09.2 -0.1**
comp=Z,120nm,1.4s
**AML Almayashu 54.07 302** P **P 15 22 12.6 +2.4**
SNR=49
**MID Middleton Isla 54.17 37** *e*P **P 15 22 08.8 -1.4**
MID pmax pmax
comp=Z,381nm,1.0s
**MID Middleton Isla 54.17 37** *e*P **P 15 22 08.8 -1.4**
comp=Z,381nm,1.0s
**KIP Kipapa 54.25 85** *e*P **P 15 22 10.5 -0.8**
KIP pmax pmax
comp=Z,306nm,1.8s
KIP MLR MLR
comp=Z,12µm,20.0s
**KIP Kipapa 54.25 85** *e*P **P 15 22 10.5 -0.8**
comp=Z,306nm,1.8s
KIP LR LR
comp=Z,12µm,20.0s
**KLU Klutina 54.30 34** *e*P **P 15 22 11.9 +0.7**
comp=Z,77nm,1.2s
**DIV Divide 54.38 35** *e*P **P 15 22 12.0 +0.2**
comp=Z,48nm,1.0s
**XMIS Christmas Isla 54.39 225** *e*P **P 15 22 09.9 -2.4**
comp=Z,93nm,1.3s
**EYAK Cordova Ski Ar 54.41 35** *e*P **P 15 22 13.4 +1.4**
comp=Z,52nm,1.0s
**BVAR Borovoye Array 54.42 315** LR LR 15 46 48.5
comp=Z,4µm,18.4s,baz=77,slow=38
**PAX Paxson 54.47 32** *e*P **P 15 22 14.6 +2.1**
PAX pmax pmax
comp=Z,69nm,1.5s
**PAX Paxson 54.47 32** *e*P **P 15 22 13.2 +0.8**
comp=Z,69nm,1.5s
**BRVK Borovoye 54.48 315** *ce*P **P 15 22 12.3 -0.2**
BRVK pmax pmax
comp=Z,310nm,2.5s
**BRVK Borovoye 54.48 315** *e*P **P 15 22 11.5 -1.0**
comp=Z,42nm,0.9s
BRVK LR LR
comp=Z,3µm,21.0s
**BRVK Borovoye 54.48 315** P **P 15 22 12.9 +0.3**
SNR=20
**FYU Fort Yukon 54.58 28** *e*P **P 15 22 15.7 +2.6**
comp=Z,142nm,1.3s
**HARP HAARP 54.63 33** *e*P **P 15 22 14.5 +1.0**
comp=Z,58nm,1.0s
**SFK Sufi-Kurgan 54.70 299** P **P 15 22 14.4 -0.3**
SFK pmax pmax
comp=Z,39nm,0.9s
**JBP Jabalpur 54.85 277**⇑ *e*P **P 15 22 15.6 0.0**
JBP *e*S **S 15 29 54.8 +0.1**
**MNAS Manas 54.85 302** P **P 15 22 15.8 +0.2**
MNAS pmax pmax
comp=Z,29nm,0.9s
**BMRM Bremner River 54.95 35** *e*P **P 15 22 17.3 +1.3**
comp=Z,163nm,1.4s
**MENT Mentasta 55.27 32** *e*P **P 15 22 19.9 +1.8**
comp=Z,165nm,1.9s
**DZA Taraz 55.60 303** *e*P **P 15 22 21.6 +0.8**
comp=Z,366nm,1.0s
DZA *i* S **S 15 30 04.8 +0.5**
DZA LRM MLR 15 48 37.2
comp=Z,2µm,15.2s
**AS01 Alice Springs 55.61 189** *e*P **P 15 22 19.2 -1.8**
**AS31 Alice Springs 55.62 189** *e*P **P 15 22 19.6 -1.5**
comp=Z,13nm,1.1s
**ASAR Alice Springs 55.62 189** P **P 15 22 19.3 -1.7**
comp=Z,6.1nm,0.5s,baz=0.4,slow=4.8,SNR=61
ASAR S **S 15 30 02.9 -1.8**
comp=Z,0.3nm,0.9s,baz=143,slow=23,SNR=4.6
ASAR LR LR 15 44 48.3
comp=Z,4µm,20.9s,baz=8.0,slow=35
ASAR PKP2bc 15 52 43.9
comp=Z,0.6nm,1.0s,baz=190,slow=3.3,SNR=3.9
**PVM Polavaram 55.96 270** *e*P **P 15 22 21.6 -2.0**
PVM *e*S **S 15 30 08.1 -1.5**
PVM IVMs_BB IVMs_BB 15 51 31.1
comp=Z,557nm,14.3s
**KK31 Karatay Array 56.13 303** *ce*P **P 15 22 24.2 -0.5**
KK31 pmax pmax
comp=Z,60nm,0.8s
**EGAK Eagle 56.30 30** *e*P **P 15 22 26.5 +1.0**
comp=Z,99nm,1.8s
EGAK LR LR
comp=Z,2µm,19.0s
**BRLS Borolday 56.63 303** *e*P **P 15 22 29.7 +1.5**
comp=Z,37nm,1.0s
BRLS *i* S **S 15 30 20.3 +2.2**
**MBWA Marble Bar 56.69 205** *e*P **P 15 22 27.8 -0.9**
comp=Z,50nm,1.2s
MBWA LR LR
comp=Z,1µm,19.0s
**CHM Chimkent 56.98 303** *i* P **P 15 22 31.0 +0.4**
comp=Z,513nm,1.0s
CHM *e*S **S 15 30 22.6 0.0**
CHM LRM MLR 15 49 26.6
comp=Z,2µm,15.3s
**POHA Pohakuloa 57.06 86** PFAKE 15 22 40.0 +8.2
POHA LR LR
comp=Z,10µm,19.0s
**DAWY Dawson 57.13 31** *e*P **P 15 22 31.4 0.0**
comp=Z,95nm,1.5s

**RPR Rampur 57.23 273** *e*P **P 15 22 32.1 -0.6**
RPR *e*S **S 15 30 25.7 -0.7**
RPR IVMs_BB IVMs_BB 15 51 42.7
comp=Z,847nm,14.4s
**SRSP Sriramsagar 58.01 274** *e*P **P 15 22 36.2 -2.0**
SRSP *e*S **S 15 30 34.5 -2.1**
SRSP IVMs_BB IVMs_BB 15 57 25.6
comp=Z,891nm,13.9s
**ADKI Addanki 58.01 270** *e*P **P 15 22 37.9 -0.3**
ADKI *e*S **S 15 30 35.5 -1.1**
ADKI IVMs_BB IVMs_BB 15 52 13.5
comp=Z,643nm,15.2s
**NJS Nagarjunasagar 58.25 271** *e*P **P 15 22 38.3 -1.6**
NJS *e*S **S 15 30 40.4 +0.6**
NJS IVMs_BB IVMs_BB 15 49 50.3
comp=Z,658nm,20.5s
**HYT Haines Junctio 58.42 35** *e*P **P 15 22 40.9 +0.3**
comp=Z,59nm,1.2s
**HYB Hyderabad 58.50 272** *i* P **P 15 22 41.5 -0.2**
HYB *e*S **S 15 30 42.0 -1.1**
**HYBB Hyderabad (bro 58.50 272** *e*P **P 15 22 40.6 -1.1**
HYBB *e*S **S 15 30 42.3 -0.8**
HYBB IVMs_BB IVMs_BB 15 52 43.4
comp=Z,920nm,16.0s
**DZET Dzherino 58.51 299** P **P 15 22 41.3 -0.3**
DZET pmax pmax
comp=Z,65nm,0.8s
**DZM Mont Dzumac 58.52 153** *e*P **P 15 22 44.0 +2.4**
comp=Z,212nm,1.2s
DZM *e*S **S 15 30 40.0 -3.0**
comp=Z,4µm,27.1s
DZM *e*LQ LQ 15 37 11.5
comp=Z,4µm,35.9s
DZM *e*LR LR 15 39 51.3
comp=Z,4µm,20.1s
**DZM Mont Dzumac 58.52 153** *e*P **P 15 22 41.5 -0.1**
comp=Z,105nm,1.2s
**SRLM Srisailam 58.81 270** *e*P **P 15 22 42.8 -1.1**
SRLM *e*S **S 15 30 45.6 -1.6**
SRLM IVMs_BB IVMs_BB 15 53 57.9
comp=Z,745nm,19.6s
**INK Inuvik 58.98 26** P **P 15 22 43.2 -1.0**
comp=Z,3.9nm,0.5s,baz=278,slow=4.7,SNR=33
**INK Inuvik 58.98 26** *e*P **P 15 22 45.7 +1.5**
INK pmax pmax
comp=Z,26nm,1.0s
**INK Inuvik 58.98 26** *e*P **P 15 22 45.5 +1.3**
comp=Z,26nm,1.0s
**SKHT Srikalahasti 59.22 267** *e*P **P 15 22 46.0 -0.7**
SKHT *e*S **S 15 30 50.3 -2.2**
SKHT IVMs_BB IVMs_BB 15 53 28.6
comp=Z,592nm,17.6s
**SVE Sverdlovsk 59.35 321**⇑ *e*P **P 15 22 48.7 +1.7**
SVE *e*S **S 15 30 56.1 +3.1**
SVE pmax pmax
comp=Z,55nm,1.2s
SVE MLR MLR
comp=Z,7µm,15.0s
**KBL Kabul 59.69 294** *e*P **P 15 22 50.2 +0.2**
KBL pmax pmax
comp=Z,36nm,1.0s
**KBL Kabul 59.69 294** *e*P **P 15 22 49.9 -0.1**
comp=Z,36nm,0.9s
**WHY Whitehorse 59.72 35** *e*P **P 15 22 51.4 +1.8**
comp=Z,31nm,0.9s
**SKAG Skagway 59.74 36** *e*P **P 15 22 48.1 -1.5**
comp=Z,42nm,1.0s
**KLRI Killari 59.87 274** *e*P **P 15 22 50.3 -0.9**
KLRI *e*S **S 15 31 00.4 -0.5**
KLRI IVMs_BB IVMs_BB 15 56 52.7
comp=Z,1µm,13.9s
**BESE Bessie Mountai 60.17 37** *e*P **P 15 22 53.3 +0.6**
comp=Z,124nm,1.7s
**MSVF Nonsavu 60.28 139** *e*P **P 15 22 57.1 +3.2**
MSVF pmax pmax
comp=Z,74nm,1.6s
MSVF MLR MLR
comp=Z,4µm,19.0s
**MSVF Nonsavu 60.28 139** *e*P **P 15 22 57.1 +3.2**
comp=Z,74nm,1.6s
MSVF LR LR
comp=Z,4µm,19.0s
**ARU Arti 60.55 321** *c i*P **P 15 22 55.3 +0.1**
ARU 15 23 36.5
ARU 15 25 05.1
ARU PPP PPP 15 26 37.6
ARU S **S 15 31 08.8 +0.3**
ARU 15 32 38.5
ARU SS **SS 15 35 08.8 +2.3**
ARU pmax pmax
comp=Z,90nm,1.7s
ARU MLR MLR
comp=Z,5µm,18.0s
**ARU Arti 60.55 321** *e*P **P 15 22 54.5 -0.8**
comp=Z,162nm,1.5s
ARU LR LR
comp=Z,5µm,19.0s
**URV Uravakonda 60.74 270** *e*P **P 15 22 55.0 -2.2**
URV *e*S **S 15 31 09.0 -3.1**
URV IVMs_BB IVMs_BB 15 54 28.4
comp=Z,705nm,13.0s
**COCO West Island 61.32 232** PFAKE 15 23 10.0 +9.1
COCO LR LR
comp=Z,1µm,20.0s
**AB31 Akbulak array 61.63 313** *ce*P **P 15 23 01.2 -1.5**
AB31 pmax pmax
comp=Z,14nm,0.5s
**PALK Pallekele 61.65 261** LR LR 15 51 50.6
comp=Z,2µm,19.7s,baz=116,slow=38
**PALK Pallekele 61.65 261** *e*P **P 15 23 03.5 +0.2**
PALK pmax pmax
comp=Z,70nm,1.5s
**PALK Pallekele 61.65 261** *e*P **P 15 23 03.5 +0.2**
comp=Z,70nm,1.5s
**WRAK Wrangell Islan 62.01 39** PFAKE 15 23 20.0 +15
WRAK LR LR
comp=Z,4µm,20.0s
**AKTO Aktyubinsk 62.48 314** P **P 15 23 08.5 +0.1**
comp=Z,33nm,0.9s,baz=73,slow=12,SNR=29
**AKTO Aktyubinsk 62.48 314** *i* P **P 15 23 07.2 -1.2**
AKTO pmax pmax
comp=Z,41nm,1.0s
**DLBC Dease Lake 62.65 36** *e*P **P 15 23 12.1 +2.6**
comp=Z,61nm,1.5s
**BOM Bombay 62.71 276** *i* P **P 15 23 13.4 +3.0**
BOM *e*S S 15 31 46.0 +9.1
**DIB Dawson Inlet, 62.86 42** *e*P **P 15 23 11.5 +0.7**
comp=Z,62nm,1.3s
**STKA Stephens Creek 63.29 180** P **P 15 23 13.6 -0.1**
comp=Z,2.9nm,0.6s,baz=33,slow=7.9,SNR=4.4
STKA S **S 15 31 45.7 +2.3**
comp=Z,0.5nm,0.3s,baz=55,slow=18,SNR=1.5
STKA LR LR 15 50 13.7
comp=Z,4µm,19.9s,baz=4.2,slow=36
**STKA Stephens Creek 63.29 180** *e*P **P 15 23 13.8 0.0**
STKA S **S 15 31 45.7 +2.3**
STKA pmax pmax
comp=Z,2.0nm,0.9s
**STKA Stephens Creek 63.29 180** *e*P **P 15 23 13.8 0.0**
comp=Z,2.2nm,0.9s
STKA S **S 15 31 45.7 +2.3**
**FORT Forrest 63.54 193** *e*P **P 15 23 15.2 -0.2**
comp=Z,1µm,1.4s
**AFI Afiamalu 63.60 128** *e*P **P 15 23 18.1 +1.8**
AFI pmax pmax
comp=Z,124nm,1.4s
AFI MLR MLR
comp=Z,4µm,20.0s
**AFI Afiamalu 63.60 128** *e*P **P 15 23 18.1 +1.8**
comp=Z,124nm,1.4s
AFI LR LR
comp=Z,4µm,20.0s
**XMAS Kiritimati 64.29 104** *e*P **P 15 23 19.9 -0.9**
comp=Z,98nm,1.0s
XMAS LR LR
comp=Z,6.0nm,21.0s
**BBOO Buckleboo 64.44 185** *e*P **P 15 23 21.0 -0.4**
comp=Z,65nm,1.5s
**SPA0 Spitsbergen Ar 65.75 349** *e*P **P 15 23 30.8 +1.4**
**KBS Kingsbay 65.89 351** PFAKE 15 23 40.0 +10
KBS LR LR
comp=Z,2µm,19.0s
**GEYT Alibeck 66.72 301** P **P 15 23 36.6 +0.3**
comp=Z,25nm,0.9s,baz=42,slow=2.4,SNR=41
GEYT LR LR 15 57 41.7
comp=Z,2µm,18.6s,baz=100,slow=40

**LVZ Lovozero 67.05 337** *e*P **P 15 23 39.1 +1.2**
LVZ pmax pmax
comp=Z,142nm,1.7s
LVZ MLR MLR
comp=Z,4µm,21.0s
**LVZ Lovozero 67.05 337** *e*P **P 15 23 39.1 +1.2**
comp=Z,142nm,1.7s
LVZ LR LR
comp=Z,4µm,21.0s
**CAN Canberra 67.07 174** *e*P **P 15 23 40.2 +1.9**
CAN pmax pmax
comp=Z,33nm,1.2s
CAN MLR MLR
comp=Z,2µm,19.0s
**CAN Canberra 67.07 174** *e*P **P 15 23 40.1 +1.9**
comp=Z,33nm,1.2s
CAN LR LR
comp=Z,2µm,19.0s
**TMCR Tamitsa 67.53 333** *e*P **P 15 23 42.2 +1.3**
TMCR pmax pmax
comp=Z,33nm,0.9s
**APA Apatity 67.62 337**⇓ *i*P **P 15 23 41.9 +0.5**
APA pmax pmax
comp=Z,19nm,0.8s
APA MLR MLR
comp=Z,3µm,18.0s
**YKW3 Yellowknife Ar 68.21 29** *e*P **P 15 23 45.9 +0.6**
comp=Z,37nm,1.4s
**YKA Yellowknife Ar 68.25 29** P **P 15 23 44.0 -1.4**
comp=Z,1.3nm,0.7s,baz=296,slow=6.2,SNR=19
YKA PKP2bc 15 52 02.9
comp=Z,0.3nm,0.9s,baz=117,slow=5.6,SNR=4.5
YKA LR LR 15 55 48.9
comp=Z,72nm,20.4s,baz=0.0,slow=38
**YKA Yellowknife Ar 68.25 29** *ce*P **P 15 23 49.5 +4.0**
YKA pmax pmax
comp=Z,7.0nm,0.9s
**NWAO Narrogin (SRO) 68.38 202** *e*P **P 15 23 47.0 +0.5**
NWAO pmax pmax
comp=Z,53nm,0.8s
**NWAO Narrogin (SRO) 68.38 202** *e*P **P 15 23 46.6 +0.1**
comp=Z,53nm,0.8s
NWAO LR LR
comp=Z,967nm,19.0s
**KLMR Klimovskoe 68.39 329** *e*P **P 15 23 45.2 -1.1**
KLMR *e* 15 26 17.3
KLMR *e*S **S 15 32 43.5 -1.5**
KLMR *e*SS **SS 15 37 08.0 -0.1**
KLMR pmax pmax
comp=Z,29nm,1.0s
**KEV Kevo 68.48 340** *e*P **P 15 23 47.0 +0.2**
KEV pmax pmax
comp=Z,69nm,1.3s
KEV MLR MLR
comp=Z,3µm,20.0s
**KEV Kevo 68.48 340** *e*P **P 15 23 47.0 +0.2**
comp=Z,69nm,1.3s
KEV LR LR
comp=Z,3µm,20.0s
**ARA0 ARCESS Array S 69.03 340** *e*P **P 15 23 49.7 -0.6**
**ARCES ARCESS Array B 69.03 340** P **P 15 23 49.7 -0.6**
comp=Z,14nm,0.8s,baz=56,slow=7.4,SNR=13
ARCES LR LR 15 59 38.0
comp=Z,4µm,18.5s,baz=68,slow=41
**ARCES ARCESS Array B 69.03 340** *e*P **P 15 23 50.4 +0.1**
**ARCES ARCESS Array B 69.03 340** *e*P **P 15 23 49.9 -0.4**
**ARE0 ARCESS Array S 69.03 340** *e*P **P 15 23 50.4 +0.1**
comp=Z,178nm,1.9s
**PGC Sidney 69.83 45** *e*P **P 15 23 55.8 +0.2**
comp=Z,42nm,1.1s
**LLLB Lillooet 69.91 42** *e*P **P 15 23 57.6 +1.6**
comp=Z,31nm,1.3s
**SGF Sodankyl 69.93 338** P **P 15 23 57.3 +1.5**
SGF pmax pmax
comp=Z,76nm,1.8s
**A04D Lummi Island 70.25 44** P **P 15 23 59.5 +1.4**
baz=296
**TULEG Thule 70.28 7** *e*P **P 15 23 58.2 +0.4**
comp=Z,119nm,1.8s
**JOF Joensuu 70.76 333** P **P 15 24 03.3 +2.3**
JOF pmax pmax
comp=Z,37nm,1.0s
**B05A Bryant 70.81 45** P **P 15 24 04.2 +2.7**
baz=296
**DAG Danmarks Havn 71.04 355** *i* P **P 15 24 01.8 -0.7**
**DAG Danmarks Havn 71.04 355** *i* P **P 15 24 01.8 -0.7**
**B06A Marblemount 71.06 44** *e*P **P 15 24 04.4 +1.3**
comp=Z,73nm,1.6s
**D05A Enumclaw 71.36 46** *e*P **P 15 24 07.1 +2.2**
comp=Z,100nm,1.5s
**G03D McMinnville, O 71.45 48** P **P 15 24 08.2 +2.7**
baz=297
**MOS Moscow 71.68 325** *e*P **P 15 24 06.0 -0.6**
MOS *e* 15 24 24.9
MOS *e* 15 26 44.6
MOS *e*S **S 15 33 22.1 -1.6**
MOS pmax pmax
comp=Z,87nm,1.5s
MOS MLR MLR
comp=Z,4µm,18.0s
MOS MLR MLR
comp=E,3µm,16.0s
**C06D Leavenworth 71.69 45** P **P 15 24 09.0 +2.2**
baz=297
**VRH Novokhopyorsk 71.71 319** *e*P **P 15 24 06.1 -0.8**
VRH *e*S **S 15 33 21.1 -3.2**
VRH pmax pmax
comp=Z,50nm,1.2s
VRH smax smax
comp=E,1µm,9.7s
VRH MLR MLR
comp=Z,4µm,15.0s
**RAO Raoul Island 71.77 143** PFAKE 15 24 20.0 +13
RAO LR LR
comp=Z,2µm,19.0s
**MAK Makhachkala 71.98 310** *e*P **P 15 24 06.5 -2.2**
MAK *e* 15 26 43.4
MAK *e*S **S 15 33 25.3 -2.3**
MAK *e*SS **SS 15 38 11.1 +7.0**
MAK pmax pmax
comp=Z,228nm,1.3s
MAK MLR MLR
comp=Z,9µm,16.0s
**I03D Drain, OR 72.07 49** P **P 15 24 11.7 +2.5**
baz=297
**LTY Liberty 72.12 45** *e*P **P 15 24 11.2 +1.6**
comp=Z,35nm,1.3s
**KBO Bosley Butte 72.17 51** *e*P **P 15 24 10.1 +0.2**
comp=Z,191nm,1.5s
**H04A Detroit Lake 72.37 48** *e*P **P 15 24 10.4 -0.7**
comp=Z,64nm,1.3s
**B08A Colville Reser 72.41 44** *e*P **P 15 24 12.4 +1.2**
comp=Z,20nm,1.0s
**OBN Obninsk 72.51 324** P **P 15 24 12.7 +1.0**
comp=Z,12nm,0.3s,baz=135,slow=4.3,SNR=6.5
**OBN Obninsk 72.51 324** *de*P **P 15 24 12.0 +0.4**
OBN *e* 15 24 26.3
OBN *e* 15 26 51.6
OBN *e*PPP PPP 15 28 38.3
OBN pmax pmax
comp=Z,48nm,1.2s
OBN MLR MLR
comp=Z,3µm,20.0s
**OBN Obninsk 72.51 324** *e*P **P 15 24 12.5 +0.9**
comp=Z,135nm,1.7s
OBN LR LR
comp=Z,6µm,20.0s
**LPSR Galich'ya Gora 72.56 321** *e*P **P 15 24 11.3 -0.7**
LPSR pmax pmax
comp=Z,40nm,1.0s
**WSAR Wadi Sarin 72.58 287** P **P 15 24 13.5 +0.8**
comp=Z,29nm,1.0s,baz=63,slow=4.5,SNR=16
**I04A Tendick Farm, 72.63 49** P **P 15 24 15.3 +2.6**
baz=298
**G05D Wamic, OR 72.66 47** P **P 15 24 15.4 +2.6**
baz=298
**HUMO Hull Mountain 72.83 50** *e*P **P 15 24 15.0 +1.2**
comp=Z,47nm,1.5s
**SUF Sumiainen 72.83 334** P **P 15 24 14.5 +1.1**
SUF pmax pmax
comp=Z,40nm,0.9s
**BIDO Bidbid 72.86 287** P **P 15 24 17.0 +2.7**
SNR=18
**I05D Terrebonne, OR 73.07 48** P **P 15 24 17.4 +2.1**
baz=298
**J04D Umpqua Nationa 73.08 49** P **P 15 24 17.7 +2.2**

baz=298
**G06A Carlson Farm, 73.09 47** *e*P **P 15 24 15.2 -0.2**
comp=Z,103nm,1.9s
**KHMM Horse Mountain 73.11 52** *e*P **P 15 24 16.5 +0.8**
comp=Z,64nm,1.3s
**VSR Storozhevoye 73.11 320** *e*P **P 15 24 14.5 -0.8**
VSR *e*S **S 15 33 36.3 -4.0**
VSR pmax pmax
comp=Z,40nm,0.9s
VSR smax smax
comp=E,690nm,11.1s
VSR MLR MLR
comp=Z,4µm,16.0s
**SMDO Samad 73.14 287** P P 15 24 25.0 +8.9
SNR=6.0
**HAWA Hanford 73.22 46** *e*P **P 15 24 16.5 +0.4**
comp=Z,50nm,1.5s
HAWA LR LR
comp=Z,2µm,20.0s
**BANOM Banah 73.23 290** *i* P **P 15 24 17.4 +0.9**
SNR=17
**BANOM Banah 73.23 290** P **P 15 24 19.2 +2.7**
SNR=9.8
**C09A Chrisman Ranch 73.30 44** *e*P **P 15 24 17.9 +1.4**
comp=Z,100nm,1.8s
**YBH Yreka Blue Hor 73.39 51** *e*P **P 15 24 20.6 +3.3**
YBH pmax pmax
comp=Z,97nm,2.0s
**YBH Yreka Blue Hor 73.39 51** *e*P **P 15 24 19.0 +1.7**
comp=Z,97nm,2.0s
**KMRM Mail Ridge 73.42 53** *e*P **P 15 24 18.9 +1.4**
comp=Z,217nm,1.9s
**M02C Callahan 73.46 51** P **P 15 24 20.4 +2.8**
baz=298
**E08A Dider Farm, El 73.46 45** *e*P **P 15 24 19.2 +1.8**
comp=Z,73nm,1.9s
**DDFL Dedoflistkaro 73.59 309** P **P 15 24 19.5 +1.1**
**K04D Chiloquin, OR 73.60 50** P **P 15 24 20.6 +2.1**
baz=298
**FIA1 FINESS Array S 73.62 333** *e*P **P 15 24 17.5 -0.5**
**FIA0 FINESS Array S 73.62 333** *e*P **P 15 24 17.0 -1.1**
**FIA0 FINESS Array S 73.62 333** *e*P **P 15 24 17.0 -1.1**
**FINES FINESS Array B 73.62 333** P **P 15 24 17.0 -1.1**
comp=Z,17nm,0.8s,baz=79,slow=4.1,SNR=18
FINES LR LR 15 59 58.5
comp=Z,2µm,18.2s,baz=52,slow=38
**FINES FINESS Array B 73.62 333** *i* P **P 15 24 18.0 -0.1**
FINES pmax pmax
comp=Z,17nm,0.8s
**J05D Fort Rock, OR 73.63 49** P **P 15 24 20.9 +2.2**
baz=298
**NEW Newport 73.75 43** P **P 15 24 21.2 +2.1**
baz=300
**NEW Newport 73.75 43** *e*P **P 15 24 21.3 +2.1**
NEW pmax pmax
comp=Z,70nm,1.6s
**NEW Newport 73.75 43** *e*P **P 15 24 20.5 +1.3**
comp=Z,70nm,1.6s
NEW LR LR
comp=Z,2µm,19.0s
**N02D Trinity Center 73.75 52** P **P 15 24 21.7 +2.4**
baz=298
**UOSS Minazif 73.76 289** *e*P **P 15 24 18.4 -1.1**
comp=Z,56nm,1.0s
**GOF Gofitskoye 73.86 313**⇑ *e*P **P 15 24 21.0 +1.2**
GOF pmax pmax
comp=Z,51nm,0.9s
**HATD Hatta, Dubai 73.87 289** *i* P **P 15 24 20.4 +0.2**
SNR=36
**HATD Hatta, Dubai 73.87 289** P **P 15 24 22.1 +1.9**
SNR=14
**VAF Ylistaro 73.89 336** P **P 15 24 21.5 +1.9**
VAF pmax pmax
comp=Z,50nm,1.0s
**M04C Macdoel 73.94 51** P **P 15 24 22.8 +2.3**
baz=298
**BSY Bisya 73.98 287** P **P 15 24 25.0 +4.0**
SNR=12
**ASHO Ashiyiah 74.00 289** *i* P **P 15 24 20.9 -0.1**
SNR=26
**ASHO Ashiyiah 74.00 289** P **P 15 24 22.7 +1.7**
SNR=19
**E09A Wood Farm, Sta 74.00 45** *e*P **P 15 24 22.1 +1.5**
comp=Z,33nm,1.1s
**WDC Whiskeytown Da 74.05 52** *e*P **P 15 24 23.0 +2.0**
WDC pmax pmax
comp=Z,19nm,1.1s
**WDC Whiskeytown Da 74.05 52** *e*P **P 15 24 23.0 +2.0**
comp=Z,18nm,1.1s
**G08A Pilot Rock 74.10 46** *e*P **P 15 24 23.5 +2.1**
comp=Z,48nm,1.7s
**NAZ Nazwa, Dubai 74.17 290** *i* P **P 15 24 23.1 +1.1**
SNR=8.5
**NAZ Nazwa, Dubai 74.17 290** P **P 15 24 25.0 +3.0**
SNR=7.6
**ARQ Aragi 74.25 288** P **P 15 24 26.0 +3.5**
SNR=13
**NCK Nalchik 74.26 312** *i* P **P 15 24 23.7 +1.5**
**FAQ Al Faqa, Dubai 74.34 290** P P 15 24 33.0 +10
SNR=10
**I07A Izee 74.35 48** *e*P **P 15 24 26.2 +3.3**
comp=Z,24nm,1.3s
**TBLG Delisi 74.37 310** P **P 15 24 22.4 -0.6**
**TBLG Delisi 74.37 310** *e*P **P 15 24 22.3 -0.6**
**ZEI Tsey 74.41 311** *e*P **P 15 24 23.1 -0.2**
ZEI pmax pmax
comp=Z,21nm,1.5s
**TAU Tasmania Unive 74.48 176** *e*P **P 15 24 24.5 +1.4**
TAU pmax pmax
comp=Z,70nm,1.4s
TAU MLR MLR
comp=Z,3µm,20.0s
**TAU Tasmania Unive 74.48 176** *e*P **P 15 24 24.5 +1.4**
comp=Z,70nm,1.4s
TAU LR LR
comp=Z,3µm,20.0s
**KBZ Khabaz 74.59 312** P **P 15 24 24.1 0.0**
comp=Z,26nm,0.8s,baz=100,slow=2.7,SNR=52
KBZ LR LR 15 59 44.7
comp=Z,3µm,19.1s,baz=72,slow=38
**KVAR Kislovodsk Arr 74.61 312** P **P 15 24 24.4 0.0**
comp=Z,18nm,0.7s,baz=283,slow=1.6,SNR=18
**KIV Kislovodsk 74.61 312** *i* P **P 15 24 25.8 +1.5**
SNR=12
**KIV Kislovodsk 74.61 312** *e*P **P 15 24 25.6 +1.2**
KIV *e*S **S 15 33 58.8 +1.1**
KIV pmax pmax
comp=Z,488nm,4.6s
KIV pmax pmax
comp=Z,50nm,1.1s
KIV MLR MLR
comp=Z,3µm,18.0s
**KIV Kislovodsk 74.61 312** *e*P **P 15 24 24.4 +0.1**
comp=Z,201nm,1.7s
KIV LR LR
comp=Z,3µm,20.0s
**KIV Kislovodsk 74.61 312** P **P 15 24 25.8 +1.5**
SNR=14
**O03D Paynes Creek 74.68 52** P **P 15 24 27.1 +2.4**
baz=299
**ONI Oni 74.79 311** P **P 15 24 24.7 -0.7**
**ONI Oni 74.79 311** *e*P **P 15 24 24.7 -0.7**
**F10A Beach Ranch, E 74.82 45** *e*P **P 15 24 25.6 +0.1**
comp=Z,11nm,0.9s
**MOD Modoc Plateau 74.89 50** *e*P **P 15 24 26.4 +0.3**
comp=Z,21nm,1.1s
**NEY Neytrino 74.94 312**⇑ *e*P **P 15 24 27.4 +1.1**
NEY pmax pmax
comp=Z,2.0nm,0.8s
**GNI Garni 75.13 308** P **P 15 24 28.6 +1.1**
comp=Z,17nm,0.9s,baz=68,slow=3.8,SNR=10
**GNI Garni 75.13 308** *i* P **P 15 24 27.6 +0.1**
SNR=8.3
**GNI Garni 75.13 308***ce*P **P 15 24 28.3 +0.8**
GNI pmax pmax
comp=Z,52nm,1.0s
**GNI Garni 75.13 308** *e*P **P 15 24 27.6 +0.1**
comp=Z,91nm,1.1s
GNI LR LR
comp=Z,6µm,19.0s
**GNI Garni 75.13 308** P **P 15 24 30.6 +3.1**
SNR=13
**VSU Vasula 75.16 330**⇑ *e*P **P 15 24 25.5 -1.5**
VSU pmax pmax
comp=Z,77nm,1.1s
**WALA Waterton Lakes 75.18 41** *e*P **P 15 24 27.6 0.0**
comp=Z,131nm,1.9s

**ORV Oroville 75.24 53** *e*P **P 15 24 30.6 +2.7**
ORV pmax pmax
comp=Z,49nm,1.5s
**ORV Oroville 75.24 53** *e*P **P 15 24 27.9 -0.1**
comp=Z,49nm,1.5s
**OSTM Stimpson Lane 75.26 53** *e*P **P 15 24 26.5 -1.5**
**BMO Blue Mountains 75.34 46** *e*P **P 15 24 30.0 +1.5**
BMO pmax pmax
comp=Z,33nm,1.3s
BMO MLR MLR
comp=Z,2µm,20.0s
**BMO Blue Mountains 75.34 46** *e*P **P 15 24 30.0 +1.5**
comp=Z,33nm,1.3s
BMO LR LR
comp=Z,2µm,20.0s
**AKH Akhalkalaki 75.34 310** P **P 15 24 26.9 -1.8**
**AKH Akhalkalaki 75.34 310**‖ *i* P **P 15 24 31.3 +2.6**
**AKH Akhalkalaki 75.34 310** *e*P **P 15 24 26.9 -1.8**
**BGD Bogdanovka 75.34 310** P **P 15 24 30.8 +2.1**
**J08A Circle Bar Ran 75.36 48** *e*P **P 15 24 28.7 0.0**
comp=Z,164nm,2.0s
**JMIC Jan Mayen 75.38 350** LR LR 15 57 07.0
comp=Z,490nm,18.9s,baz=73,slow=35
**CHVG Ch'k'valeri 75.61 311** P **P 15 24 31.3 +1.3**
**JTMT Jette 75.66 43** *e*P **P 15 24 30.1 -0.2**
comp=Z,176nm,1.9s
**WVOR Wild Horse Val 75.71 49** *e*P **P 15 24 30.6 -0.1**
WVOR pmax pmax
comp=Z,45nm,1.4s
**WVOR Wild Horse Val 75.71 49** *e*P **P 15 24 30.3 -0.5**
comp=Z,45nm,1.4s
WVOR LR LR
comp=Z,3µm,20.0s
**BEKR Beckworth 75.85 52** *e*P **P 15 24 32.6 +0.9**
comp=Z,18nm,0.9s
**AFDM Forest Hills D 75.89 53** *e*P **P 15 24 31.1 -0.6**
comp=Z,63nm,1.8s
**SUMG Summit 75.95 0** *e*P **P 15 24 33.1 +1.2**
**SUMG Summit 75.95 0** *i* P **P 15 24 33.1 +1.2**
**SUMG Summit 75.95 0** *e*P **P 15 24 31.2 -0.7**
comp=Z,32nm,0.9s
**CLDR Caldiran 76.17 307** *i* P **P 15 24 34.7 +1.1**
**MSO Missoula 76.34 43** P **P 15 24 36.8 +2.6**
baz=302
**MSO Missoula 76.34 43** *e*P **P 15 24 34.8 +0.6**
comp=Z,58nm,1.6s
**ARTV Artvin 76.47 310** *i* P **P 15 24 36.2 +1.0**
**ARTV Artvin 76.47 310** *e*P **P 15 24 35.2 0.0**
comp=Z,26nm,1.3s
**DAGI Agillar 76.54 310** *i* P **P 15 24 37.7 +2.3**
**PAHR Pah Rah Range 76.58 52** *e*P **P 15 24 36.9 +1.1**
comp=Z,16nm,1.1s
**DGAR Diego Garcia 76.61 252** PFAKE
DGAR LR LR 15 24 50.0 +14
comp=Z,2µm,20.0s
**SAO San Andreas Ge 76.64 55** *e*P **P 15 24 38.1 +2.2**
SAO pmax pmax
comp=Z,26nm,1.3s
**SAO San Andreas Ge 76.64 55** *e*P **P 15 24 38.1 +2.2**
comp=Z,26nm,1.3s
**SOC Sochi 76.66 313***c i*P **P 15 24 35.9 0.0**
SOC *e*PPP PPP 15 29 11.6
SOC *i* S **S 15 34 21.3 +1.2**
SOC *e*SSS SSS 15 42 26.6
SOC pmax pmax
comp=Z,43nm,1.0s
SOC MLR MLR
comp=Z,6µm,23.0s
**CMB Columbia Colle 76.74 53** *e*P **P 15 24 39.0 +2.4**
CMB pmax pmax
comp=Z,25nm,1.0s
**CMB Columbia Colle 76.74 53** *e*P **P 15 24 37.2 +0.6**
comp=Z,25nm,1.0s
**PNTR Pine Nut 76.75 52** *e*P **P 15 24 38.9 +2.1**
comp=Z,47nm,1.3s
**EATA Eleskirt 76.77 309** *i* P **P 15 24 38.2 +1.2**
**TUTA Tutak 76.79 308** *i* P **P 15 24 39.5 +2.5**
**TVAN Van 76.83 307** *i* P P 15 24 52.1 +15
**RAR Rarotonga 76.87 125** LR LR 15 58 42.1
comp=Z,442nm,18.5s,baz=312,slow=36
**RAR Rarotonga 76.87 125** *e*P **P 15 24 37.0 -0.3**
RAR pmax pmax
comp=Z,185nm,1.9s
**RAR Rarotonga 76.87 125** *e*P **P 15 24 37.0 -0.3**
comp=Z,185nm,1.9s
**MFID Camas Ranch 76.99 47** *e*P **P 15 24 39.5 +1.6**
comp=Z,155nm,1.9s
**MICGM Minsk 77.03 327** *e*P **P 15 24 37.0 -0.8**
MICGM *e*LQ LQ 15 52 00.0
MICGM *e*LR LR 15 53 50.0
MICGM LRM MLR 16 02 56.0
comp=E,6.2nm,14.0s
MICGM LRM MLR 16 03 00.0
comp=Z,8.3nm,14.0s
MICGM LRM MLR 16 03 10.0
comp=N,5.9nm,14.0s
**MNK Minsk 77.03 327** *e*P **P 15 24 37.0 -0.8**
MNK MLR MLR
comp=E,6µm,14.0s
MNK MLR MLR
comp=Z,8µm,14.0s
MNK MLR MLR
comp=N,6µm,14.0s
**YERR Yerington 77.04 52** *e*P **P 15 24 38.9 +0.5**
comp=N,67nm,1.6s
**URZ Urewera 77.06 152** LR LR 15 54 18.1
comp=N,1µm,21.8s,baz=350,slow=32
**URZ Urewera 77.06 152** *e*P **P 15 24 41.0 +3.0**
comp=N,101nm,1.4s
**HOMI Horasan 77.07 309** *i* P **P 15 24 41.1 +2.5**
**HAKT HAKKARI 77.11 306** *i* P **P 15 24 34.8 -4.0**
**WAKR Walker 77.15 53** *e*P **P 15 24 40.4 +1.3**
comp=N,32nm,1.4s
**NACGM Naroch 77.30 328** *e*P **P 15 24 38.0 -1.3**
NACGM *e*PP PP 15 27 42.0 +8.9
NACGM *e*PPP PPP 15 29 28.0
NACGM *e*S **S 15 34 24.0 -2.6**
NACGM *e*PS **PnS 15 35 08.0 -0.7**
NACGM *e*SS SS 15 39 36.0 +12
NACGM *e*SSS SSS 15 43 10.0
NACGM *e*LQ LQ 15 52 10.0
NACGM *e*LR LR 15 56 38.0
NACGM LRM MLR 16 02 56.0
comp=Z,9.4nm,16.0s
**PMPB Monarch Peak 77.36 55** *e*P **P 15 24 41.2 +1.1**
comp=Z,93nm,1.7s
**EKAR Karacoban 77.36 308** *i* P **P 15 24 41.2 +0.9**
**SCO Scoresbysund 77.38 354** *e*P **P 15 24 41.3 +1.8**
**SCO Scoresbysund 77.38 354** *i* P **P 15 24 41.3 +1.8**
**ANN Anapa 77.42 315** *e*P **P 15 24 38.8 -1.4**
ANN *e**PP **PcP 15 24 49.7 -0.8**
ANN *e*S **S 15 34 27.2 -1.1**
ANN *e*SS **SS 15 39 29.2 +2.6**
ANN pmax pmax
comp=Z,82nm,1.2s
**ERZM Erzurum 77.50 309** *i* P **P 15 24 44.1 +3.0**
**HRY Holter Researc 77.62 43** *e*P **P 15 24 41.5 +0.1**
**LRM Limekiln Ridge 77.75 44** *e*P **P 15 24 41.7 -0.6**
**KVN Kaiserville 77.77 52** *e*P **P 15 24 41.8 -0.7**
KVN pmax pmax
comp=Z,30nm,1.2s
**KVN Kaiserville 77.77 52** *e*P **P 15 24 41.8 -0.7**
comp=Z,30nm,1.2s
**HLID Hailey 77.78 46** P **P 15 24 45.0 +2.5**
baz=302
**HLID Hailey 77.78 46** *e*P **P 15 24 43.6 +1.2**
comp=Z,15nm,0.9s
HLID LR LR
comp=Z,1µm,19.0s
**ECAT Cat-ERZURUM 77.91 309** *i* P **P 15 24 45.3 +2.0**
**DLMT Dillon 77.91 44** *e*P **P 15 24 42.6 -0.5**
comp=Z,37nm,1.1s
**NV01 Mina Array Sit 77.96 52** *e*P **P 15 24 42.2 -1.4**
**PAGB Antelope Grade 77.99 55** *e*P **P 15 24 43.1 -0.5**
comp=Z,28nm,0.9s
**FFC Flin Flon 78.00 32** *e*P **P 15 24 42.6 -0.6**
FFC pmax pmax
comp=Z,58nm,1.5s
**FFC Flin Flon 78.00 32** *e*P **P 15 24 42.3 -1.0**
comp=Z,58nm,1.5s
FFC LR LR
comp=Z,3µm,20.0s
**MLAC Mammoth, Mammo 78.00 53** P **P 15 24 46.0 +2.1**
baz=301
**KOPT Kop Dagi 78.01 310** *i* P **P 15 24 45.6 +1.7**

**KOPT Kop Dagi 78.01 310** *e*P **P 15 24 42.4 -1.5**
comp=Z,40nm,1.2s
**MCMT McKenzie Canyo 78.05 45** *e*P **P 15 24 44.1 0.0**
**NV11 Mina Array Sit 78.06 52** *e*P **P 15 24 43.7 -0.4**
comp=Z,6.3nm,1.9s
**EGMT Eagleton 78.06 41** P **P 15 24 45.6 +1.7**
baz=304
**EGMT Eagleton 78.06 41** *e*P **P 15 24 44.9 +1.1**
comp=Z,62nm,1.3s
EGMT LR LR
comp=Z,2µm,20.0s
**BOZ Bozeman (W) 78.35 43** P **P 15 24 47.5 +1.9**
baz=304
**BOZ Bozeman (W) 78.35 43** *e*P **P 15 24 46.6 +1.0**
BOZ pmax pmax
comp=Z,120nm,2.0s
**BOZ Bozeman (W) 78.35 43** *e*P **P 15 24 46.0 +0.4**
comp=Z,119nm,2.0s
BOZ LR LR
comp=Z,1µm,19.0s
**SMMC Simmler 78.38 56** P **P 15 24 48.2 +2.4**
baz=301
**THZ Tophouse 78.59 157** *e*P **P 15 24 46.9 +0.4**
comp=Z,160nm,1.6s
**BTMN Batman 78.60 307** *i* P **P 15 24 49.2 +2.3**
**AKASG Malin Array Be 78.66 323** P **P 15 24 45.7 -1.2**
comp=Z,13nm,0.7s,baz=48,slow=6.1,SNR=42
AKASG PP **PP 15 27 42.9 -1.7**
comp=Z,4.4nm,0.8s,baz=52,slow=9.4,SNR=4.1
AKASG LR LR 16 02 30.5
comp=Z,9µm,19.2s,baz=70,slow=38
**AKASG Malin Array Be 78.66 323***ce*P **P 15 24 46.4 -0.5**
AKASG pmax pmax
comp=Z,13nm,0.7s
**AKBB Malin Array Si 78.66 323** *e*P **P 15 24 46.3 -0.6**
AKBB pmax pmax
comp=Z,27nm,0.9s
**AKBB Malin Array Si 78.66 323** *e*P **P 15 24 45.7 -1.2**
comp=Z,27nm,0.9s
**AK11 Malin Array Si 78.70 323** *e*P **P 15 24 46.2 -1.0**
**PKM Mcpherson Peak 78.73 56** P **P 15 24 49.9 +2.0**
baz=301
**VES Vestal, Richgr 78.75 55** P **P 15 24 50.2 +2.5**
baz=301
**KELT Kelkit 78.75 310** *i* P **P 15 24 48.7 +0.7**
**SNZO South Karori 78.81 155** PFAKE 15 25 00.0 +12
SNZO LR LR
comp=Z,2µm,20.0s
**QLMT Earthquake Lak 78.89 44** *e*P **P 15 24 48.7 +0.1**
**HANI Diyarbakir_Han 78.91 308** *i* P **P 15 24 49.5 +0.9**
**NC405 NORSAR Array S 78.94 338** *e*P **P 15 24 47.8 -0.6**
**NC303 NORSAR Array S 78.97 338** *e*P **P 15 24 49.2 +0.7**
**YHB Horse Butte 79.08 44** *e*P **P 15 24 49.7 0.0**
comp=Z,24nm,0.9s
**TNCL Tunceli-Merkez 79.11 309** *i* P **P 15 24 51.7 +1.9**
**NC204 NORSAR Array S 79.12 338** *e*P **P 15 24 48.4 -1.0**
**NB201 NORSAR Array S 79.13 338** *e*P **P 15 24 48.0 -1.3**
**CWC Cottonwood Cre 79.14 54** P **P 15 24 52.3 +2.2**
baz=302
**NB2 NORSAR Subarra 79.16 338** P **P 15 24 48.8 -0.8**
comp=Z,14nm,0.7s,baz=40,slow=5.6
**NB2 NORSAR Subarra 79.16 338** P **P 15 24 50.8 +1.2**
NB2 pmax pmax
comp=Z,13nm,0.8s
**NB2 NORSAR Subarra 79.16 338** P **P 15 24 48.8 -0.8**
baz=40,slow=5.6
**NB200 NORSAR Array S 79.16 338** *e*P **P 15 24 48.8 -0.8**
**NOA NORSAR Array B 79.16 338** P **P 15 24 48.8 -0.8**
comp=Z,17nm,0.8s,baz=41,slow=5.2,SNR=20
NOA LR LR 16 05 35.6
comp=Z,3µm,20.0s,baz=40,slow=40
**MARD Mardin 79.23 307** *e*P **P 15 24 49.7 -0.8**
comp=Z,45nm,0.9s
**YMR Madison River 79.26 44** *e*P **P 15 24 51.0 +0.3**
comp=Z,53nm,1.2s
**YHH Holmes Hill 79.26 44** *e*P **P 15 24 51.8 +1.0**
comp=Z,58nm,1.6s
**ISA Isabella, Lake 79.27 55** P **P 15 24 52.4 +1.7**
baz=301
**NBO02 NORSAR Array S 79.27 338** *e*P **P 15 24 49.2 -0.9**
**NC602 NORSAR Array S 79.28 338** *e*P **P 15 24 51.1 +0.9**
**ARVC Arvin 79.30 55** P **P 15 24 53.0 +2.2**
baz=301
**NBO00 NORSAR Array S 79.31 338** *e*P **P 15 24 51.0 +0.6**
**SCZ2 Santa Cruz Isl 79.31 57** P **P 15 24 52.9 +2.0**
baz=301
**SIM Simferopol' 79.31 316** *e*P **P 15 24 51.9 +1.3**
SIM *i* S **S 15 34 52.0 +3.4**
SIM pmax pmax
comp=Z,20nm,1.0s
**GRAC Grapevine Rang 79.33 53** P **P 15 24 53.3 +2.4**
baz=302
**GCMT Greycliff 79.38 42** *e*P **P 15 24 52.5 +1.3**
**KHZ Kahutara 79.38 157** *e*P **P 15 24 50.9 +0.2**
comp=Z,475nm,1.9s
**SUSE Susehri 79.40 311** *i* P **P 15 24 52.5 +1.0**
**YNR Norris Junctio 79.40 44** *e*P **P 15 24 51.8 +0.3**
comp=Z,50nm,1.3s
**NAO01 NORSAR Array S 79.41 338** *e*P **P 15 24 49.9 -1.0**
**YFT Old Faithful 79.46 44** *e*P **P 15 24 54.1 +2.3**
comp=Z,71nm,1.5s
**SUW Suwalki 79.49 328** *e*P **P 15 24 53.3 +1.9**
**SUW Suwalki 79.49 328** *e*P **P 15 24 53.3 +1.9**
**YPP Pitchstone Pla 79.58 44** *e*P **P 15 24 53.6 +1.1**
comp=Z,66nm,1.6s
**OSI Osito Audit: C 79.64 56** P **P 15 24 55.1 +2.4**
baz=302
**OSI Osito Audit: C 79.64 56** *e*P **P 15 24 51.9 -0.8**
comp=Z,16nm,0.8s
**H17A Grant Village 79.64 44** P **P 15 24 55.6 +2.8**
baz=304
**H17A Grant Village 79.64 44** *e*P **P 15 24 53.5 +0.7**
comp=Z,109nm,1.5s
**LKWY Lake 79.65 44** *e*P **P 15 24 50.6 -2.3**
LKWY pmax pmax
comp=Z,135nm,1.8s
LKWY MLR MLR
comp=Z,2µm,20.0s
**LKWY Lake 79.65 44** *e*P **P 15 24 50.6 -2.3**
comp=Z,135nm,1.8s
LKWY LR LR
comp=Z,2µm,20.0s
**BLG Laguna Peak, P 79.66 56** P **P 15 24 55.4 +2.7**
baz=301
**KEMA Kemaliye 79.72 310** *i* P **P 15 24 53.4 +0.3**
**MPMC Manual Prospec 79.74 54** P **P 15 24 55.1 +1.7**
baz=302,SNR=10
**RPZ Rata Peaks 79.75 159** *e*P **P 15 24 52.6 -0.1**
comp=Z,144nm,1.6s
**HVU Hansel Valley 79.77 47** *e*P **P 15 24 53.7 +0.3**
HVU pmax pmax
comp=Z,25nm,0.9s
**HVU Hansel Valley 79.77 47** *e*P **P 15 24 53.4 0.0**
comp=Z,25nm,0.9s
**SNCC San Nicolas Is 79.77 57** P **P 15 24 54.3 +1.0**
baz=301
**FXWY Fox Creek 79.80 45** *e*P **P 15 24 53.6 -0.1**
comp=Z,72nm,1.7s
**R11A Troy Canyon, C 79.82 51** P **P 15 24 55.3 +1.5**
baz=302
**R11A Troy Canyon, C 79.82 51** *e*P **P 15 24 53.4 -0.4**
comp=Z,87nm,1.9s
**MOOW Moose Ponds 79.91 45** *e*P **P 15 24 53.5 -0.8**
comp=Z,59nm,1.8s
**LRMC Laurel Mtn Rad 79.91 55** P **P 15 24 56.3 +2.0**
baz=302
**TPAW Teton Pass 79.93 45** *e*P **P 15 24 54.0 -0.4**
comp=Z,21nm,0.9s
**FURC Furnace Creek, 79.96 53** P **P 15 24 55.6 +1.4**
baz=302
**RLMT Red Lodge 80.00 43** P **P 15 24 55.7 +1.1**
baz=305
**RLMT Red Lodge 80.00 43** *e*P **P 15 24 56.1 +1.4**
comp=Z,59nm,1.5s
RLMT LR LR
comp=Z,2µm,19.0s
**EDW2 Edwards Air Fo 80.01 55** P **P 15 24 56.8 +2.1**
baz=302,SNR=7.0
**REDW Red Top Meadow 80.06 45** *e*P **P 15 24 55.4 +0.3**
comp=Z,58nm,1.5s
**SNOW Snow King Moun 80.06 45** *e*P **P 15 24 56.3 +1.2**
comp=Z,36nm,1.3s
**BGU Big Grassy Mou 80.08 48** *e*P **P 15 24 55.7 +0.6**
comp=Z,30nm,1.3s
**LBZ Lake Benmore 80.09 160** *e*P **P 15 24 56.4 +1.8**
comp=Z,159nm,1.9s
**DECC Green Verdugo 80.10 56** P **P 15 24 56.9 +1.8**

baz=302
**TPNV Topopah Spring** 80.12 53 P P 15 24 56.9 +1.5
baz=302,SNR=30
**TPNV Topopah Spring** 80.12 53 *e*P P 15 24 54.9 -0.5
TPNV pmax pmax
comp=E,29nm,0.9s
**TPNV Topopah Spring** 80.12 53 *e*P P 15 24 54.8 -0.6
comp=Z,29nm,0.9s
**SPUT South Promonto** 80.23 47 *e*P P 15 24 56.3 +0.3
comp=E,110nm,1.9s
**PASC Pasadena Art C** 80.25 56 *e*P P 15 24 54.8 -1.2
comp=E,74nm,1.8s
**AHID Auburn Hatcher** 80.25 46 *e*P P 15 24 57.4 +1.4
comp=Z,17nm,0.8s
AHID LR LR
comp=Z,2µm,19.0s
**MWC Mount Wilson** 80.31 56 *e*P P 15 24 59.2 +2.7
MWC pmax pmax
comp=Z,50nm,1.5s
**MWC Mount Wilson** 80.31 56 *e*P P 15 24 57.8 +1.3
comp=Z,50nm,1.5s
**CUKAN kangal_SIVAS** 80.36 310 *i* P P 15 24 56.9 +0.3
**FMP Fort Macarthur** 80.41 56 P P 15 24 58.6 +1.8
baz=302
**TOKA Tokat** 80.44 312 *e*P P 15 24 57.6 +0.7
comp=Z,71nm,1.7s
**CIS Catalina Islan** 80.49 57 P P 15 24 59.0 +1.8
baz=302
**BFSC Mount Baldy Ra** 80.58 56 P P 15 25 00.5 +2.6
baz=302,SNR=6.7
**SCI2 San Clemente I** 80.61 57 P P 15 25 00.4 +2.5
baz=302
**GSC Goldstone, Bar** 80.61 54 P P 15 24 59.6 +1.6
baz=302,SNR=9.0
**GSC Goldstone, Bar** 80.61 54 *e*P P 15 25 01.0 +3.0
GSC pmax pmax
comp=Z,40nm,1.5s
**GSC Goldstone, Bar** 80.61 54 *e*P P 15 24 59.0 +1.0
comp=Z,40nm,1.5s
**DUG Dugway, Tooele** 80.62 48 P P 15 24 59.5 +1.5
baz=304
**DUG Dugway, Tooele** 80.62 48 *e*P P 15 24 57.7 -0.3
DUG pmax pmax
comp=Z,38nm,1.0s
DUG MLR MLR
comp=Z,2µm,20.0s
**DUG Dugway, Tooele** 80.62 48 *e*P P 15 24 57.7 -0.3
comp=Z,38nm,1.0s
DUG LR LR
comp=Z,2µm,20.0s
**AKCD Akcadag** 80.62 309 *i* P P 15 24 58.7 +0.7
**SHOC Shoshone, Teco** 80.66 54 P P 15 24 59.9 +1.7
baz=302,SNR=6.8
**SORM Soroca** 80.66 321 ⇑*i*P P 15 24 57.5 -0.3
**SORM Soroca** 80.66 321 ⇑P P 15 24 57.5 -0.3
**RRX Edison Barstow** 80.71 55 P P 15 25 00.4 +2.0
baz=302
**PYZ Puysegur Point** 80.78 163 *e*P P 15 24 56.7 -1.5
comp=Z,218nm,1.4s
**LAO LASA Array** 80.79 40 P P 15 24 60.0 +1.2
baz=307
**LAO LASA Array** 80.79 40 *e*P P 15 25 00.3 +1.6
comp=Z,52nm,1.1s
LAO LR LR
comp=Z,2µm,19.0s
**DGMT Dagmar** 80.80 38 P P 15 25 00.4 +1.7
baz=308
**DGMT Dagmar** 80.80 38 *e*P P 15 24 55.2 -3.4
comp=Z,11nm,0.8s
DGMT LR LR
comp=Z,2µm,19.0s
**PSUT Pine Spring** 80.86 50 *e*P P 15 25 00.2 +0.8
comp=Z,41nm,1.1s
**SURC SANLIURFA_SURC** 80.93 308 *i* P P 15 24 59.3 -0.3
**TCUT Toone Canyon** 80.99 47 *e*P P 15 25 00.2 +0.1
comp=Z,87nm,1.3s
**CTU Camp Tracy** 81.01 48 *e*P P 15 25 00.2 0.0
comp=Z,28nm,1.0s
**BBRC Big Bear Solar** 81.09 55 P P 15 25 02.2 +1.5
baz=302
**SHPR Sheep Range** 81.09 53 *e*P P 15 25 01.2 +0.5
comp=Z,22nm,1.1s
**KIS Kishinev** 81.11 320 *e*P P 15 25 00.0 -0.2
comp=Z,600nm,3.0s
**KIS Kishinev** 81.11 320 *e*PP PP 15 28 03.0 -2.0
**KIS Kishinev** 81.11 320 *e*PPP PPP 15 30 08.0
KIS *e*S S **15 35 04.0 -3.4**
comp=Z,1µm,11.0s
**KIS Kishinev** 81.11 320 *e*PS 15 35 52.0
KIS *e*SS SS 15 40 10.0 -12
KIS *e*LQ LQ 15 55 46.0
comp=Z,3µm,16.0s
KIS LRM MLR 16 09 52.0
comp=Z,7µm,15.0s
**KIS Kishinev** 81.11 320 *e*P P 15 25 00.0 -0.2
KIS *e* 15 28 03.0
KIS *e*S S **15 35 04.0 -3.4**
KIS *e*PS PnS **15 35 52.0 -4.9**
KIS pmax pmax
comp=Z,600nm,7.0s
KIS pmax pmax
comp=Z,800nm,11.0s
KIS smax smax
comp=N,1µm,11.0s
KIS smax smax
comp=E,1µm,15.0s
**SFJD Kangerlussuaq** 81.11 5 *e*P P 15 24 59.5 -0.3
SFJD pmax pmax
comp=Z,211nm,1.9s
SFJD MLR MLR
comp=Z,2µm,20.0s
**SFJD Kangerlussuaq** 81.11 5 *e*P P 15 24 59.5 -0.3
comp=Z,211nm,1.9s
SFJD LR LR
comp=Z,2µm,20.0s
**TUQ Turquoise Moun** 81.15 54 P P 15 25 02.6 +1.7
baz=303,SNR=21
**BW06 Boulder Array** 81.18 45 P P 15 25 01.5 +0.4
baz=305
**BW06 Boulder Array** 81.18 45 *e*P P 15 25 00.7 -0.4
comp=Z,11nm,0.8s
BW06 LR LR
comp=Z,2µm,19.0s
**PD31 Pinedale Array** 81.18 45 *e*P P 15 25 00.9 -0.1
**PDAR Pinedale Array** 81.18 45 P P 15 24 59.9 -1.2
comp=Z,7.1nm,1.0s,baz=239,slow=1.3,SNR=15
PDAR LR LR 15 57 28.7
comp=Z,1µm,20.6s,baz=322,slow=33
**HEC Hector,Ludlow** 81.19 55 P P 15 25 02.3 +1.2
baz=303,SNR=15
**NLU North Lily Min** 81.22 48 *e*P P 15 25 01.2 -0.2
comp=Z,18nm,0.9s
**MURC Murrieta** 81.25 56 P P 15 25 03.3 +1.9
baz=302
**JLU Jordanelle** 81.25 48 *e*P P 15 25 03.2 +1.7
comp=Z,104nm,1.7s
**MPU Maple Canyon** 81.47 48 *e*P P 15 25 03.9 +1.3
comp=Z,19nm,0.8s
**GMRC Granite Mounta** 81.58 54 P P 15 25 05.5 +1.7
baz=303,SNR=14
**GMRC Granite Mounta** 81.68 54 *e*P P 15 25 01.9 -1.9
**109C Camp Elliot, M** 81.69 57 P P 15 25 05.4 +1.8
baz=302
**CCUT Cedar City** 81.72 51 *e*P P 15 25 04.2 +0.2
comp=Z,76nm,1.9s
**TCRU Three Creeks R** 81.73 50 *e*P P 15 25 03.7 -0.4
comp=Z,23nm,1.0s
**PFO Pinyon Flats O** 81.76 56 P P 15 25 05.5 +1.3
baz=303,SNR=16
**PFO Pinyon Flats O** 81.76 56 *e*P P 15 25 06.3 +2.1
PFO pmax pmax
comp=Z,29nm,1.0s
**PFO Pinyon Flats O** 81.76 56 *e*P P 15 25 04.4 +0.3
comp=Z,29nm,1.0s
PFO LR LR
comp=Z,5µm,20.0s
**XPFO Piæon Flat** 81.76 56 *e*P P 15 25 04.8 +0.7
comp=Z,34nm,1.1s
**ILGA Ilgaz** 81.77 313 *e*P P 15 25 04.4 +0.2
comp=Z,48nm,0.9s
**LVV L'vov** 81.82 325 *e*P P 15 25 05.1 +1.1
LVV *e*S S **15 35 16.6 +1.9**
LVV MLR MLR
comp=N,2µm,18.0s
LVV MLR MLR
comp=E,4µm,18.0s
LVV MLR MLR
comp=Z,5µm,18.0s
**BELC Belle Mtn. Jos** 81.87 55 P P 15 25 05.7 +0.9
baz=303,SNR=11
**SZCU Shurtz Canyon** 81.88 51 *e*P P 15 25 04.7 -0.2
comp=Z,18nm,1.1s
**LDFC Landfair** 81.90 54 *e*P P 15 25 04.0 -0.9
comp=Z,90nm,1.6s
**MSU Marysvale** 81.96 50 *e*P P 15 25 06.1 +0.8
**MSU Marysvale** 81.96 50 *e*P P 15 25 05.4 +0.1
**BEL Belsk** 82.02 328 *e*P P 15 25 06.9 +1.9
**BEL Belsk** 82.02 328 *e*P P 15 25 06.9 +1.9
**PPT Papeete** 82.04 116 LR LR 16 01 57.9
comp=Z,3µm,18.0s,baz=333,slow=36
**PPT2 Papeete2** 82.06 116 *e*S S 15 35 13.3 -4.8
comp=Z,264nm,22.2s
**PPT2 Papeete2** 82.06 116 *e*LR LR 15 49 58.2
comp=Z,3µm,21.8s,baz=302
**LCMT Little Creek M** 82.10 51 *e*P P 15 25 06.5 +0.6
comp=Z,24nm,0.9s
**BAR Barrett** 82.11 57 *e*P P 15 25 03.8 -2.0
comp=Z,21nm,1.1s
**TMUT Trail Mountain** 82.14 48 *e*P P 15 25 07.4 +1.1
comp=Z,15nm,0.8s
**MONP2 Monument Peak** 82.17 56 P P 15 25 06.6 +0.2
baz=303
**MTPU Mount Pierson** 82.22 50 *e*P P 15 25 08.5 +1.6
comp=Z,20nm,1.0s
**P17A Butcher Ranch,** 82.34 48 *e*P P 15 25 06.5 -0.7
comp=Z,36nm,0.9s
**IRM Iron Mountain** 82.38 55 P P 15 25 08.6 +1.3
baz=303,SNR=17
**BC3 Big Chuckawall** 82.44 55 P P 15 25 09.5 +1.7
baz=303,SNR=20
**PKCU Pink Cliffs** 82.48 51 *e*P P 15 25 09.5 +1.4
comp=Z,68nm,1.5s
**IKP In-Ko-Pah, Jac** 82.52 56 P P 15 25 10.0 +1.9
baz=303
**P18A Preston Nutter** 82.57 48 *e*P P 15 25 07.8 -0.7
comp=Z,25nm,0.9s
**TESR Tescani** 82.58 321 ⇓*i*P P 15 25 08.2 +0.2
**BR101 Keskin Array S** 82.58 312 *e*P P 15 25 07.8 -0.5
**BR131 Keskin Array S** 82.58 312 *e*P P 15 25 07.6 -0.8
**BRTR Keskin Array B** 82.58 312 P P 15 25 07.8 -0.5
comp=Z,14nm,0.9s,baz=90,slow=4.1,SNR=46
BRTR LR LR 16 06 13.4
comp=Z,1µm,18.4s,baz=58,slow=39
**SWSC Sam W. Stewart** 82.58 56 P P 15 25 09.2 +0.9
baz=303
**KWP Kalwaria Pacla** 82.59 325 *e*P P 15 25 09.2 +1.2
**KWP Kalwaria Pacla** 82.59 325 *e*P P 15 25 09.3 +1.2
**KWP Kalwaria Pacla** 82.59 325 *e*P P 15 25 08.0 -0.1
comp=Z,2µm,1.7s
**CFR Carcaliu** 82.59 319 ⇓*i*P P 15 25 06.2 -1.9
**CFR Carcaliu** 82.59 319 ⇓P P 15 25 06.2 -1.9
**BUR08 Bucovina Ar. S** 82.62 322 *e*P P 15 25 08.0 -0.4
**BUR04 Bucovina Ar. S** 82.64 322 *e*P P 15 25 07.7 -0.8
**BURAR Bucovina Array** 82.64 322 ⇓*i*P P 15 25 08.5 +0.1
**BURAR Bucovina Array** 82.64 322 ⇓P P 15 25 08.5 +0.1
**SRU San Rafael Swe** 82.69 48 *e*P P 15 25 08.6 -0.4
SRU pmax pmax
comp=Z,26nm,0.8s
**SRU San Rafael Swe** 82.69 48 *e*P P 15 25 08.5 -0.5
comp=Z,26nm,0.8s
**TIRR Tirgusor** 82.88 318 *e*P P 15 25 09.2 -0.4
TIRR pmax pmax
comp=Z,22nm,1.2s
**TIRR Tirgusor** 82.88 318 *e*P P 15 25 09.2 -0.4
comp=Z,22nm,1.2s
**BORG Borgarnes** 82.91 353 LR LR 16 05 40.4
comp=Z,453nm,18.9s,baz=31,slow=38
**VRI Vrineioaia** 82.94 320 ⇓*i*P P 15 25 08.6 -1.4
**VRI Vrincioaia** 82.94 320 ⇓P P 15 25 08.6 -1.4
**RAYN Ar Rayn** 82.95 293 *e*P P 15 25 09.7 -0.8
comp=Z,33nm,0.8s
RAYN LR LR
comp=Z,2µm,20.0s
**PLOR Plostina** 82.99 320 ⇑*i*P P 15 25 12.0 +1.7
**PLOR Plostina** 82.99 320 ⇑P P 15 25 12.0 +1.7
**PDMCI Parker Dam,Lak** 83.00 54 P P 15 25 11.7 +1.3
baz=304
**ANTO Ankara** 83.03 313 *e*P P 15 25 10.6 0.0
ANTO pmax pmax
comp=Z,91nm,1.5s
ANTO MLR MLR
comp=Z,2µm,19.0s
**ANTO Ankara** 83.03 313 *e*P P 15 25 10.6 0.0
comp=Z,91nm,1.5s
ANTO LR LR
comp=Z,2µm,19.0s
**ANTO Ankara** 83.03 313 P P 15 25 11.4 +0.8
SNR=8.0
**Y12C Blythe** 83.04 55 P P 15 25 12.8 +2.2
baz=304
**Y12C Blythe** 83.04 55 *e*P P 15 25 09.3 -1.3
comp=Z,22nm,1.0s
**BR231 Keskin MP Arra** 83.05 313 *e*P P 15 25 08.2 -2.6
**K22A Casper** 83.05 44 P P 15 25 12.4 +1.5
baz=307
**K22A Casper** 83.05 44 *e*P P 15 25 12.0 +1.2
comp=Z,105nm,1.6s
**GLA Glamis** 83.21 55 P P 15 25 13.4 +1.7
baz=304,SNR=12
**GLA Glamis** 83.21 55 *e*P P 15 25 12.4 +0.8
GLA pmax pmax
comp=Z,24nm,1.0s
**GLA Glamis** 83.21 55 *e*P P 15 25 11.6 0.0
comp=Z,24nm,0.9s
**RWWY Rawlins** 83.22 45 *e*P P 15 25 11.4 -0.5
comp=Z,81nm,1.4s
**ARCR ARCALIA** 83.42 322 ⇓*i*P P 15 25 12.8 +0.4
**STHS Stebnicka Huta** 83.44 326 *e*P P 15 25 14.0 +1.5
STHS pmax pmax
comp=Z,17nm,0.9s
**STHS Stebnicka Huta** 83.44 326 *e*P P 15 25 14.0 +1.5
**UZH Uzhgorod** 83.46 324 *e*P P 15 25 13.7 +1.2
UZH *e* 15 25 29.3
UZH *e* 15 28 20.3
UZH *e*S S 15 35 30.9 -0.5
UZH *e*PS PnS 15 36 20.5 -5.3
UZH MLR MLR
comp=N,5µm,16.0s
UZH MLR MLR
comp=E,3µm,16.0s
UZH MLR MLR
comp=Z,2µm,16.0s
**ISR Istrita** 83.51 320 ⇓*i*P P 15 25 15.2 +2.2
**ISR Istrita** 83.51 320 ⇓P P 15 25 15.2 +2.2
**O20A White River Ci** 83.52 46 P P 15 25 14.8 +1.5
baz=306
**O20A White River Ci** 83.52 46 *e*P P 15 25 14.2 +0.9
comp=Z,79nm,1.4s
**MDND Maddock** 83.57 37 P P 15 25 15.6 +2.5
baz=311
**MDND Maddock** 83.57 37 *e*P P 15 25 13.6 +0.4
comp=Z,58nm,1.0s
**OJC Ojcow** 83.58 327 *e*P P 15 25 14.2 +1.0
OJC *e*S S 15 35 32.8 +0.1
**OJC Ojcow** 83.58 327 *e*P P 15 25 14.2 +1.0
OJC *e*S S 15 35 32.8 +0.1
**OJC Ojcow** 83.58 327 *e*P P 15 25 12.2 -1.0
comp=Z,108nm,1.5s
**RSSD Black Hills** 83.58 41 P P 15 25 15.0 +1.4
baz=309
**DOPR Dopca** 83.60 321 ⇓*i*P P 15 25 14.3 +0.9
**MLR Muntele Rosu** 83.60 320 P P 15 25 14.9 +1.3
comp=Z,1.3nm,0.5s,baz=39,slow=5.7,SNR=7.1
**MLR Muntele Rosu** 83.60 320 ⇑*i*P P 15 25 14.5 +1.9
**MLR Muntele Rosu** 83.60 320 ⇑P P 15 25 15.5 +1.9
**MLR Muntele Rosu** 83.60 320 *e*P P 15 25 14.2 +0.6
comp=Z,52nm,1.6s
**TRPA Tarpa** 83.67 324 ⇑*e*P P 15 25 13.9 +0.3
**CRVS Cervenica-Dubn** 83.68 325 *e*P P 15 25 14.4 +0.7
**CRVS Cervenica-Dubn** 83.68 325 *e*P P 15 25 14.4 +0.7
**ULM Lac du Bonnet** 83.76 33 P P 15 25 11.8 -2.2
comp=Z,1.3nm,0.4s,baz=306,slow=5.6,SNR=3.3
ULM LR LR 16 01 21.7
comp=Z,2µm,20.7s,baz=303,slow=35
**ULM Lac du Bonnet** 83.76 33 *e*P P 15 25 15.9 +1.9
ULM pmax pmax
comp=Z,46nm,1.5s
**ULM Lac du Bonnet** 83.76 33 *e*P P 15 25 14.3 +0.2
comp=Z,46nm,1.5s
**NIE Niedzica** 83.89 326 *e*P P 15 25 15.9 +1.1
**NIE Niedzica** 83.89 326 *e*P P 15 25 15.9 +1.1
**PV09 Paradox Valley** 83.93 48 *e*P P 15 25 14.2 -1.4
**PV10 Paradox Valley** 84.06 48 *e*P P 15 25 15.0 -1.2
**VOIR** 84.12 321 ⇓*i*P P 15 25 16.6 +0.5
**VOIR** 84.12 321 ⇓P P 15 25 16.6 +0.5
**B31A Greenbush Farm** 84.16 35 P P 15 25 17.5 +1.4
baz=313
**WUAZ Wupatki** 84.19 52 P P 15 25 18.9 +2.1
baz=305,SNR=22
**WUAZ Wupatki** 84.19 52 *e*P P 15 25 16.6 -0.2
comp=Z,34nm,1.0s
WUAZ LR LR
comp=Z,4µm,19.0s
**PV05 Paradox Valley** 84.19 49 *e*P P 15 25 16.1 -0.8
**MTUR Matau** 84.25 321 ⇓*i*P P 15 25 19.8 +3.0
**MTUR Matau** 84.25 321 ⇓P P 15 25 19.8 +3.0
**A32A Rocking H Ranc** 84.38 34 P P 15 25 18.6 +1.4
baz=313
**ARR Arges** 84.39 321 ⇑*i*P P 15 25 18.5 +1.0
**PV15 Paradox Valley** 84.43 48 *e*P P 15 25 18.1 0.0
**KECS Kecovo** 84.44 325 *e*P P 15 25 18.6 +1.0
KECS pmax pmax
comp=Z,9.0nm,1.1s
**KECS Kecovo** 84.44 325 *e*P P 15 25 18.6 +1.0
**N23A Red Feather La** 84.46 45 P P 15 25 19.8 +1.6
baz=308
**N23A Red Feather La** 84.46 45 *e*P P 15 25 19.4 +1.3
comp=Z,113nm,1.4s
**DRGR** 84.47 323 P P 15 25 20.4 +2.6
DRGR pmax pmax
comp=Z,29nm,1.0s
**LANS Liptovska Anna** 84.47 326 *e*P P 15 25 19.8 +2.0
**LANS Liptovska Anna** 84.47 326 *e*P P 15 25 19.8 +2.0
**PV01 Paradox Valley** 84.50 48 *e*P P 15 25 17.5 -0.9
**PHWY Pilot Hill** 84.50 44 *e*P P 15 25 16.3 -2.1
comp=Z,63nm,1.5s
**C31A Landman Farms,** 84.54 36 P P 15 25 20.1 +2.0
baz=313
**OKC Ostrava-Krasne** 84.61 327 *e*P P 15 25 18.8 +0.4
OKC *e*sP **sP** **15 25 33.7 +0.4**
OKC *e*x x 15 25 42.7
OKC *e*S S **15 35 46.5 +3.5**
OKC AMS AMS 16 12 20.0
comp=Z,5µm,13.4s
**OKC Ostrava-Krasne** 84.61 327 *e*P P 15 25 18.8 +0.4
OKC *e* 15 25 33.7
OKC *e* 15 35 46.5
OKC MLR MLR
comp=Z,5µm,13.4s
**TAOE Nuku Hiva Isla** 84.64 104 *e*S S 15 35 41.0 -3.4
comp=Z,435nm,24.9s
**TAOE Nuku Hiva Isla** 84.64 104 *e*LR LR 15 51 46.4
comp=Z,3µm,21.8s,baz=308
**TAOE Nuku Hiva Isla** 84.64 104 *e*P P 15 25 17.8 -1.3
comp=Z,161nm,1.3s
**ASF Jabal al Asfar** 84.70 305 P P 15 25 19.9 +0.5
comp=Z,20nm,0.9s,baz=14,slow=1.7,SNR=25
**B32A Ashes, Strandg** 84.72 35 P P 15 25 20.7 +1.8
baz=313,SNR=6.2
**KSP Ksiaz** 84.74 329 *e*P P 15 25 20.3 +1.3
KSP *e*S S 15 35 48.8 +4.6
**KSP Ksiaz** 84.74 329 *e*P P 15 25 20.3 +1.3
KSP *e*S S 15 35 48.8 +4.6
**LOT Lotru** 84.80 321 ⇑*i*P P 15 25 20.7 +1.1
**BOLV Bolvadin** 84.86 313 *e*P P 15 25 18.1 -2.0
comp=Z,46nm,1.0s
**SMCO Snowmass** 84.88 47 *e*P P 15 25 20.1 -0.4
comp=Z,53nm,1.2s
**A33A Warroad** 84.89 34 P P 15 25 22.1 +2.2
baz=314
**MORC Moravsky Berou** 84.94 327 ⇑*i*P P 15 25 19.9 -0.1
**MORC Moravsky Berou** 84.94 327 *e*P P 15 25 20.0 -0.1
MORC pmax pmax
comp=Z,85nm,1.1s
**MORC Moravsky Berou** 84.94 327 *e*P P 15 25 19.4 -0.7
comp=Z,85nm,1.1s
**D31A Mcclaflin, Tow** 85.05 36 P P 15 25 22.3 +1.6
baz=313
**KRLC Kraliky** 85.07 328 *e*P P 15 25 21.1 +0.3
**KRLC Kraliky** 85.07 328 *e*P P 15 25 21.1 +0.3
**DPC Dobruska-Polom** 85.08 328 *e*P P 15 25 21.4 +0.6
DPC *ex* x 15 28 27.8
DPC *e*PP PP 15 28 38.2 +0.8
DPC *e*S S 15 35 47.0 -0.7
DPC AMS AMS 16 12 40.0
comp=Z,6µm,13.9s
**DPC Dobruska-Polom** 85.08 328 *e*P P 15 25 21.4 +0.6
DPC *e* 15 28 38.2
DPC *e* 15 35 47.0
DPC MLR MLR
comp=Z,6µm,13.9s
**MVCO Mesa Verde** 85.09 49 P P 15 25 23.5 +2.1
baz=307,SNR=9.6
**MVCO Mesa Verde** 85.09 49 *e*P P 15 25 20.4 -0.9
comp=Z,35nm,1.2s
MVCO LR LR
comp=Z,2µm,19.0s
**UPC Upice** 85.10 329 *e*P P 15 25 21.4 +0.5
UPC *e*sP **sP** **15 25 35.2 -0.6**
UPC *e*S S **15 35 50.5 +2.6**
UPC AMS AMS 16 12 50.0
comp=Z,4µm,12.2s
**UPC Upice** 85.10 329 *e*P P 15 25 21.4 +0.5
UPC *e* 15 25 35.2
UPC *e* 15 35 50.5
UPC MLR MLR
comp=Z,4µm,12.2s
**AGMN Agassiz Nation** 85.11 34 P P 15 25 22.8 +1.8
baz=314
**AGMN Agassiz Nation** 85.11 34 *e*P P 15 25 21.1 +0.1
comp=Z,30nm,1.4s
AGMN LR LR
comp=Z,2µm,20.0s
**C32A Crookston** 85.11 35 P P 15 25 23.0 +2.0
baz=314
**PSZ Piszkesteto** 85.12 325 ⇑*i*P P 15 25 21.6 +0.5
**PSZ Piszkesteto** 85.12 325 *e*P P 15 25 22.7 +1.6
PSZ pmax pmax
comp=Z,38nm,1.2s
**PSZ Piszkesteto** 85.12 325 ⇑*e*P P 15 25 22.0 +0.9
**PSZ Piszkesteto** 85.12 325 *e*P P 15 25 21.1 0.0
comp=Z,38nm,1.2s
PSZ LR LR
comp=Z,4µm,19.0s
**VYHS Vyhne** 85.23 326 *e*P P 15 25 21.9 +0.3
VYHS pmax pmax
comp=Z,43nm,1.7s
**VYHS Vyhne** 85.23 326 *e*P P 15 25 21.9 +0.3
**214A Organ Pipe Nat** 85.23 55 P P 15 25 23.8 +1.9
baz=305
**B33A Robert and Kas** 85.26 34 P P 15 25 21.3 -0.4
baz=314
**MMAI Mount Meron Ar** 85.27 306 P P 15 25 22.8 +0.7
comp=Z,20nm,1.0s,baz=46,slow=6.2,SNR=12
**E31A Nome** 85.30 37 P P 15 25 23.8 +1.8
baz=313
**ISCO Idaho Springs** 85.33 46 P P 15 25 24.8 +2.2
baz=308
**ISCO Idaho Springs** 85.33 46 *e*P P 15 25 25.3 +2.7
ISCO pmax pmax
comp=Z,63nm,1.7s
**ISCO Idaho Springs** 85.33 46 *e*P P 15 25 22.5 -0.2
comp=Z,63nm,1.7s
ISCO LR LR
comp=Z,2µm,19.0s
**W18A Petrified Fore** 85.51 51 P P 15 25 25.5 +2.0
baz=306
**W18A Petrified Fore** 85.51 51 *e*P P 15 25 22.8 -0.7
comp=Z,66nm,1.9s
**C33A Trail** 85.53 35 P P 15 25 24.8 +1.8
baz=314
**CSS Mathiatis** 85.55 309 PFAKE 15 25 30.0 +6.6
CSS LR LR
comp=Z,915nm,20.0s
**B34A Aery, Baudette** 85.56 34 P P 15 25 24.8 +1.6
baz=315
**F31A Hecla** 85.58 37 P P 15 25 25.6 +2.3
baz=312
**TBI Tubuai** 85.59 121 *e*S S 15 35 47.9 -5.3
comp=Z,546nm,25.2s
**TBI Tubuai** 85.59 121 *e*LR LR 15 51 12.1
comp=Z,3µm,21.5s
**ISP Isparta** 85.67 312 PFAKE 15 25 30.0 +5.9
ISP LR LR
comp=Z,1µm,19.0s
**VRAC Vranov** 85.70 328 P P 15 25 23.9 0.0
comp=Z,14nm,0.8s,baz=44,slow=5.7,SNR=14
**VRAC Vranov** 85.70 328 ⇑*i*P P 15 25 24.4 +0.5

**VRAC Vranov 85.70 328** ⇑P **P** **15 25 24.4 +0.5**
**PVCC Panska Ves 85.72 329** *e*P **P** **15 25 25.1 +1.2**
PVCC AMS AMS 16 14 10.0
comp=Z,4μm,14.4s
**PVCC Panska Ves 85.72 329** *e*P **P** **15 25 25.1 +1.2**
PVCC MLR MLR
comp=Z,4μm,14.4s
**BRG Berggiesshubel 85.74 330** *e*P **P** **15 25 24.9 +0.9**
BRG *e* 15 28 43.9
BRG S **S** **15 35 57.0 +2.9**
BRG pmax pmax
comp=Z,19nm,1.2s
BRG pmax pmax
comp=Z,46nm,2.0s
BRG MLR MLR
comp=N,2μm,12.6s
BRG MLR MLR
comp=E,3μm,19.8s
BRG MLR MLR
comp=Z,4μm,13.2s
**CLL Collm 85.81 331** *i*P **P** **15 25 24.2 -0.1**
CLL *e*S **S** **15 35 53.0 -1.8**
CLL pmax pmax
comp=Z,25nm,1.0s
**CLL Collm 85.81 331** *i*P **P** **15 25 24.2 -0.1**
comp=Z,25nm,1.0s
CLL *i* PcP **PcP** **15 25 28.4 +1.3**
CLL *e* 15 25 44.0
CLL *e*PP **PP** **15 28 45.0 +1.8**
CLL *e*S **S** **15 35 53.0 -1.8**
CLL *e*SS **SS** **15 41 30.0 -0.8**
CLL *e* 15 42 18.0
CLL *e*SSS SSS 15 45 06.0
CLL *e* 15 46 12.0
CLL *e*SSSS 15 47 54.0
CLL Lmax 16 13 00.0
**CLL Collm 85.81 331** *e*P **P** **15 25 23.1 -1.3**
comp=Z,30nm,1.0s
**BZS Buzias 85.82 323** ⇑*i*P **P** **15 25 23.7 -0.8**
**BZS Buzias 85.82 323** ⇑P **P** **15 25 23.7 -0.8**
**S22A 4UR Ranch, Cre 85.83 48** P **P** **15 25 27.5 +2.4**
baz=308,SNR=24
**S22A 4UR Ranch, Cre 85.83 48** *e*P **P** **15 25 25.8 +0.6**
comp=Z,46nm,1.4s
**SMOL Smolenice 85.88 327** *e*P **P** **15 25 25.6 +0.8**
**SMOL Smolenice 85.88 327** *e*P **P** **15 25 25.6 +0.8**
**D33A AnnSam, Waubun 85.92 35** P **P** **15 25 26.8 +1.8**
baz=314
**G31A Conde 86.03 38** P **P** **15 25 27.6 +2.0**
baz=312
**GOPC GO Pecny, Ondr 86.08 329** *e*P **P** **15 25 26.7 +1.0**
GOPC *e*S **S** **15 35 54.5 -3.0**
GOPC AMS AMS 16 13 20.0
comp=Z,4μm,16.9s
**GOPC GO Pecny, Ondr 86.08 329** *e*P **P** **15 25 26.7 +1.0**
GOPC *e* 15 35 54.5
GOPC MLR MLR
comp=Z,4μm,16.9s
**B35A Bob, Littlefor 86.08 33** P **P** **15 25 27.3 +1.6**
baz=315
**PRA Prague 86.12 329** *e*S **S** **15 35 58.0 +0.2**
PRA AMS AMS 16 13 50.0
comp=Z,5μm,13.1s
**PRU Pruhonice 86.13 329** *e*P **P** **15 25 27.7 +1.7**
PRU *e*pP **pP** **15 25 35.3 -1.6**
PRU *e*S **S** **15 35 56.1 -1.9**
PRU AMS AMS 16 08 30.0
comp=Z,4μm,18.7s
**PRU Pruhonice 86.13 329** *e*P **P** **15 25 27.7 +1.7**
PRU *e* 15 25 35.3
PRU *e* 15 35 56.1
PRU MLR MLR
comp=Z,4μm,18.7s
**Q24A Divide 86.13 46** P **P** **15 25 28.6 +2.0**
baz=308
**Q24A Divide 86.13 46** *e*P **P** **15 25 27.1 +0.5**
comp=Z,44nm,1.7s
**SUSD Miller 86.16 39** P **P** **15 25 28.3 +2.0**
baz=312
**D34A Park Rapids 86.28 35** P **P** **15 25 28.8 +2.0**
baz=314
**E33A Westby DABS, E 86.28 36** P **P** **15 25 28.4 +1.6**
baz=314
**MDVR Moldovita 86.33 322** ⇑*i*P **P** **15 25 27.8 +0.7**
**G32A Webster 86.38 37** P **P** **15 25 29.1 +1.8**
baz=313
**H31A Wolsey 86.39 39** P **P** **15 25 29.2 +1.8**
baz=312
**C35A Jirik Farms, M 86.44 34** P **P** **15 25 29.5 +2.0**
baz=315
**TUC Tucson 86.44 54** P **P** **15 25 30.4 +2.4**
baz=306
**TUC Tucson 86.44 54** *e*P **P** **15 25 30.2 +2.3**
TUC pmax pmax
comp=Z,36nm,1.6s
**TUC Tucson 86.44 54** *e*P **P** **15 25 27.4 -0.5**
comp=Z,36nm,1.6s
TUC LR LR
comp=Z,7μm,19.0s
**MANT Manisa 86.48 314** *e*P **P** **15 25 26.8 -1.4**
comp=Z,78nm,1.5s
**F33A 5 Mile Ranch, 86.60 36** P **P** **15 25 30.6 +2.2**
baz=314
**I31A Royce, Wessing 86.66 39** P **P** **15 25 31.0 +2.3**
baz=312
**SDCO Great Sand Dun 86.67 47** P **P** **15 25 31.5 +2.3**
baz=308,SNR=16
**SDCO Great Sand Dun 86.67 47** *e*P **P** **15 25 28.8 -0.5**
comp=Z,28nm,0.5s
SDCO LR LR
comp=Z,2μm,20.0s
**E34A Wadena 86.69 35** P **P** **15 25 30.8 +2.0**
baz=314
**D35A Remer 86.84 34** P **P** **15 25 31.5 +2.0**
baz=315
**NKC Novy Kostel 86.85 330** *e*P **P** **15 25 30.2 +0.7**
NKC *ex* x 15 35 57.8
NKC AMS AMS 16 13 10.0
comp=Z,4μm,18.8s
**NKC Novy Kostel 86.85 330** *e*P **P** **15 25 30.2 +0.7**
NKC *e* 15 35 57.8
NKC MLR MLR
comp=Z,4μm,18.8s
**H32A Carlson Farm, 86.92 38** P **P** **15 25 32.0 +2.0**
baz=313
**C36A Pine Crest Far 86.93 33** P **P** **15 25 31.7 +1.7**
baz=316
**G33A Ortonville 86.97 37** P **P** **15 25 32.4 +2.2**
baz=314
**VTS Vitosha 86.99 319** ⇓*i*P P 15 25 24.3 -6.2
**VTS Vitosha 86.99 319** *e*P **P** **15 25 30.9 +0.4**
VTS pmax pmax
comp=Z,6.0nm,0.8s
**VTS Vitosha 86.99 319** *e*P **P** **15 25 30.9 +0.4**
comp=Z,6.4nm,0.8s
**CONA Conrad Observa 87.03 327** *i* PcP **P** **15 25 31.7 +1.1**
comp=Z,1.5nm,0.5s
**E35A Pequot Lakes 87.04 35** P **P** **15 25 32.7 +2.2**
baz=315
**J31A Geddes 87.05 40** P **P** **15 25 32.5 +1.8**
baz=312
**F34A Alexandria 87.15 36** P **P** **15 25 33.3 +2.2**
baz=314
**H33A Prehn Over Nor 87.17 38** P **P** **15 25 34.1 +2.9**
baz=314,SNR=5.5
**KHC Kasperske Hory 87.19 329** *e*P **P** **15 25 33.1 +1.9**
KHC *es*P **sP** **15 25 46.5 +0.3**
KHC *e*PP **PP** **15 28 54.2 -0.3**
KHC *e*S **S** **15 36 11.8 +3.4**
KHC AMS AMS 16 14 10.0
comp=Z,5μm,15.9s
**KHC Kasperske Hory 87.19 329** *e*P **P** **15 25 33.1 +1.9**
KHC *e* 15 25 46.5
KHC *e* 15 28 54.2
KHC *e*S **S** **15 36 11.8 +3.4**
KHC MLR MLR
comp=Z,5μm,15.9s
**D36A Goodland 87.19 34** P **P** **15 25 33.7 +2.4**
baz=316
**I32A Karley and Nic 87.23 38** P **P** **15 25 33.3 +1.8**
baz=313
**C37A Embarrass 87.26 33** P **P** **15 25 33.7 +2.2**
baz=317
**GERES GERESS Array B 87.34 329** P **P** **15 25 30.3 -1.8**
comp=Z,2.2nm,0.7s,baz=53,slow=3.8,SNR=5.7
GERES PP **PP** **15 28 56.9 +1.1**
comp=Z,1.4nm,0.7s,baz=35,slow=8.1,SNR=4.8
GERES LR LR 16 08 22.4
comp=Z,2μm,18.1s,baz=23,slow=38
**G34A Benson 87.34 37** P **P** **15 25 34.7 +2.7**
baz=314
**GEA0 GERESS Array S 87.35 329** *e*P **P** **15 25 30.5 -1.6**
**EYMN Ely 87.42 33** P **P** **15 25 34.9 +2.6**
baz=317
**EYMN Ely 87.42 33** *e*P **P** **15 25 32.8 +0.5**
comp=Z,30nm,1.2s
EYMN LR LR
comp=Z,2μm,21.0s
**F35A Swanville 87.45 36** P **P** **15 25 34.3 +1.8**
baz=315
**J32A Parkston 87.47 39** P **P** **15 25 34.5 +1.8**
baz=313
**K31A O'Neill 87.49 40** P **P** **15 25 34.8 +2.0**
baz=312
**EIL Elat 87.50 303** P **P** **15 25 32.1 -0.9**
comp=Z,4.6nm,0.7s,baz=45,slow=8.6,SNR=2.8
**MHTCO State Highway 87.55 47** *e*P **P** **15 25 33.9 +0.5**
comp=Z,66nm,1.6s
**D37A Cotton 87.56 34** P **P** **15 25 35.0 +2.0**
baz=316
**E36A McGregor 87.62 34** P **P** **15 25 35.3 +2.0**
baz=316
**KSCO Kaye Shedlock' 87.63 45** P **P** **15 25 35.8 +2.2**
baz=310
**KSCO Kaye Shedlock' 87.63 45** *e*P **P** **15 25 34.3 +0.6**
comp=Z,155nm,1.9s
**H34A Spellman Lake, 87.67 37** P **P** **15 25 36.5 +2.9**
baz=314
**ARSA Arzberg 87.68 327** *i* pP P 15 25 39.4 +5.7
comp=Z,9.7nm,1.2s
**C38A Sawbill Land. 87.69 33** P **P** **15 25 35.3 +1.7**
baz=317
**DIVS Divibare 87.70 322** *e*P **P** **15 25 33.5 -0.4**
comp=Z,29nm,1.6s
**T25A Trinidad 87.72 47** P **P** **15 25 37.0 +2.7**
baz=309,SNR=7.9
**T25A Trinidad 87.72 47** *e*P **P** **15 25 36.2 +1.9**
comp=Z,42nm,1.5s
**ANMO Albuquerque 87.77 50** P **P** **15 25 36.9 +2.4**
baz=308
**ANMO Albuquerque 87.77 50** *ce*P **P** **15 25 35.8 +1.3**
ANMO pmax pmax
comp=Z,15nm,1.2s
**ANMO Albuquerque 87.77 50** *e*P **P** **15 25 35.6 +1.1**
comp=Z,26nm,1.5s
ANMO LR LR
comp=Z,6μm,20.0s
**ECSD EROS Data Cent 87.88 38** P **P** **15 25 37.3 +2.6**
baz=314,SNR=7.9
**ECSD EROS Data Cent 87.88 38** *e*P **P** **15 25 34.8 +0.1**
comp=Z,21nm,1.0s
ECSD LR LR
comp=Z,3μm,20.0s
**K32A Verdigre 87.89 40** P **P** **15 25 36.7 +2.0**
baz=313
**G35A Watkins 87.94 36** P **P** **15 25 36.2 +1.3**
baz=315
**F36A Milaca 87.96 35** P **P** **15 25 35.8 +0.9**
baz=316
**J33A Davis 87.98 39** P **P** **15 25 36.9 +1.8**
baz=313
**LPM Los Pinos Moun 88.04 50** *e*P **P** **15 25 37.2 +1.4**
**I34A Hadley 88.07 38** P **P** **15 25 37.5 +2.0**
baz=314
**H35A Sunnyside Ranc 88.13 37** P **P** **15 25 38.4 +2.6**
baz=315,SNR=7.8
**C39A Grand Marais 88.14 32** P **P** **15 25 36.8 +1.1**
baz=318
**BNM Barren Site 88.14 50** *e*P **P** **15 25 35.4 -1.0**
**EKA Eskdalemuir Ar 88.19 341** LR LR 16 09 08.4
comp=Z,1μm,19.2s,baz=45,slow=38
**ESK Eskdalemuir 88.22 341** PFAKE 15 25 50.0 +14
ESK LR LR
comp=Z,3μm,19.0s
**HSIG 88.23 57** *e*P **P** **15 25 35.9 -0.6**
comp=Z,32nm,1.4s
**G36A St. Michael 88.30 36** P **P** **15 25 38.5 +2.0**
baz=316
**SOKA Soboth 88.33 326** *i* PcP **P** **15 25 36.3 -0.5**
comp=Z,12nm,1.0s
**121A Cookes Peak, D 88.35 52** P **P** **15 25 39.5 +2.2**
baz=307
**E38A The Farm, Brul 88.37 34** P **P** **15 25 39.9 +3.0**
baz=317
**K33A Hardington 88.45 39** P **P** **15 25 39.4 +2.0**
baz=313
**F37A Hinrichs Farm, 88.50 35** P **P** **15 25 39.7 +2.2**
baz=316
**J34A George 88.54 38** P **P** **15 25 40.2 +2.4**
baz=314
**BGNE Belgrade 88.64 41** P **P** **15 25 40.5 +2.2**
baz=313
**BGNE Belgrade 88.64 41** *e*P **P** **15 25 38.6 +0.3**
comp=Z,29nm,0.6s
**I35A Creekview Farm 88.65 37** P **P** **15 25 40.9 +2.6**
baz=315
**H36A Jessenland, He 88.68 36** P **P** **15 25 40.8 +2.4**
baz=315
**F38A Pierce - Schro 88.69 34** P **P** **15 25 41.3 +3.0**
baz=317,SNR=6.7
**SPMN Marine on St. 88.77 35** P **P** **15 25 41.2 +2.4**
baz=316
**SPMN Marine on St. 88.77 35** *e*P **P** **15 25 38.6 -0.2**
comp=Z,30nm,1.0s
**K34A Le Mars 88.88 39** P **P** **15 25 41.6 +2.2**
baz=314
**E39A Mellen 89.01 33** P **P** **15 25 41.8 +1.9**
baz=318
**MYKA Terra Mystica 89.01 327** *i* PcP **P** **15 25 39.8 -0.2**
comp=Z,13nm,1.0s
**I36A Fitzsimmons Fa 89.03 37** P **P** **15 25 42.0 +2.0**
baz=315
**M33A Taylor Creek F 89.05 40** P **P** **15 25 42.0 +1.8**
baz=313
**F39A Loretta 89.18 34** P **P** **15 25 42.4 +1.7**
baz=318
**H37A Dierke Farm, C 89.18 36** P **P** **15 25 42.7 +2.0**
baz=316
**KARP Karpathos 89.19 312** *e*P **P** **15 25 41.7 +0.7**
comp=Z,5.7nm,0.8s
**E40A Wakefield 89.26 33** P **P** **15 25 44.2 +3.2**
baz=318,SNR=6.4
**MSEY Mahe Island 89.27 264** *e*P **P** **15 25 41.6 -0.1**
MSEY pmax pmax
comp=Z,37nm,1.2s
MSEY MLR MLR
comp=Z,1μm,19.0s
**MSEY Mahe Island 89.27 264** *e*P **P** **15 25 41.5 -0.1**
comp=Z,36nm,1.2s
MSEY LR LR
comp=Z,1μm,19.0s
**G38A Ridgeland 89.28 35** P **P** **15 25 42.9 +1.7**
baz=317
**K35A Storm Lake 89.31 38** P **P** **15 25 42.9 +1.5**
baz=316
**I37A Lemond, Waseca 89.34 36** P **P** **15 25 44.5 +3.0**
baz=316,SNR=6.3
**J36A Seneca 1, Swea 89.35 37** P **P** **15 25 44.0 +2.4**
baz=315
**D41A Chassel 89.41 32** P **P** **15 25 44.1 +2.3**
baz=319
**H38A Maiden Rock 89.42 35** P **P** **15 25 44.7 +2.8**
baz=317,SNR=6.1
**M34A Aspy Farms, Fr 89.44 40** P **P** **15 25 44.0 +2.0**
baz=314
**ABTA Abfaltersbach 89.44 328** *i* PcP **P** **15 25 42.4 +0.3**
comp=Z,12nm,0.9s
**CBKS Cedar Bluff 89.47 43** P **P** **15 25 44.0 +1.8**
baz=312
**CBKS Cedar Bluff 89.47 43** *e*P **P** **15 25 42.3 0.0**
CBKS pmax pmax
comp=Z,40nm,1.4s
CBKS MLR MLR
comp=Z,2μm,20.0s
**CBKS Cedar Bluff 89.47 43** *e*P **P** **15 25 42.3 0.0**
comp=Z,40nm,1.4s
CBKS LR LR
comp=Z,2μm,20.0s
**N33A J Bar K, Exete 89.48 41** P **P** **15 25 43.4 +1.1**
baz=313
**G39A Holcombe 89.52 34** P **P** **15 25 44.2 +1.9**
baz=317
**F40A Park Falls 89.55 33** P **P** **15 25 45.0 +2.5**
baz=318
**L35A Bielow Farm, R 89.57 39** P **P** **15 25 44.6 +2.0**
baz=314
**MOTA Moosalm 89.62 329** *i* PcP **P** **15 25 43.2 +0.3**
comp=Z,6.7nm,1.0s
**RETA Reutte 89.66 329** *i* PcP **P** **15 25 44.7 +1.7**
comp=Z,7.7nm,1.0s
**TIR Tirane 89.66 320** *e*P **P** **15 25 42.6 -0.4**
TIR pmax pmax
comp=Z,214nm,1.8s
TIR MLR MLR
comp=Z,5μm,19.0s
**TIR Tirane 89.66 320** *e*P **P** **15 25 42.6 -0.4**
comp=Z,214nm,1.8s
TIR LR LR
comp=Z,5μm,19.0s
**E41A Kenton 89.68 32** P **P** **15 25 45.1 +2.1**
baz=319
**SANT Santorini 89.73 314** PFAKE 15 25 50.0 +6.5
SANT LR LR
comp=Z,1μm,20.0s
**J37A Redenius Farm, 89.77 37** P **P** **15 25 45.9 +2.4**
baz=316
**K36A Gilmore City 89.78 38** P **P** **15 25 46.4 +2.8**
baz=315
**WLF Walferdange 89.85 333** PFAKE 15 25 50.0 +6.3
WLF LR LR
comp=Z,5μm,20.0s
**O33A Hebron 89.86 41** P **P** **15 25 45.6 +1.6**
baz=313
**I38A Scanlan Farm, 89.86 36** P **P** **15 25 46.3 +2.4**
baz=316
**H39A Augusta 89.91 35** P **P** **15 25 45.8 +1.7**
baz=317
**N34A Lincoln 89.94 40** P **P** **15 25 46.8 +2.4**
baz=314
**M35A Neola 89.94 39** P **P** **15 25 46.1 +1.8**
baz=314
**G40A Rib Lake 90.00 34** P **P** **15 25 47.1 +2.5**
baz=318
**FETA Feichten 90.03 329** *i* PcP **P** **15 25 45.3 +0.4**
comp=Z,9.0nm,0.9s
**BFO Black Forest 90.04 331** PFAKE 15 26 00.0 +15
BFO LR LR
comp=Z,2μm,21.0s
**F41A Three Lakes 90.16 33** P **P** **15 25 47.4 +2.1**
baz=319
**E42A Champion 90.18 32** P **P** **15 25 47.9 +2.5**
baz=320
**O34A Beatrice 90.28 41** P **P** **15 25 48.2 +2.2**
baz=314
**SCHQ Schefferville 90.32 16** P **P** **15 25 44.5 -1.4**
comp=Z,4.2nm,0.8s,baz=172,slow=9.5,SNR=2.7
SCHQ LR LR 16 07 52.4
comp=Z,1μm,22.0s,baz=352,slow=37
**SCHQ Schefferville 90.32 16** *e*P **P** **15 25 45.9 0.0**
comp=Z,62nm,1.8s
**H40A Chili 90.38 34** P **P** **15 25 48.5 +2.1**
baz=318
**N35A Tabor 90.39 40** P **P** **15 25 48.7 +2.2**
baz=314
**I39A Houston 90.40 35** P **P** **15 25 48.1 +1.7**
baz=317
**CDF Champ du Feu 90.41 332** *e*P **P** **15 25 46.3 -0.2**
CDF pmax pmax
comp=Z,21nm,1.3s
**M36A Felix, Anita 90.43 39** P **P** **15 25 48.4 +1.7**
baz=315
**MNTX Cornudas Mount 90.47 52** P **P** **15 25 49.4 +2.4**
baz=308
**MNTX Cornudas Mount 90.47 52** *e*P **P** **15 25 46.7 -0.3**
comp=Z,30nm,1.8s
MNTX LR LR
comp=Z,2μm,19.0s
**FUORN Ofenpass-Fuorn 90.55 329** *e*P **P** **15 25 46.5 -0.9**
comp=Z,50nm,1.2s
**DAVOX Davos/Dischmat 90.59 329** P **P** **15 25 47.1 -0.4**
comp=Z,9.6nm,0.8s,baz=46,slow=8.1,SNR=8.6
**ECH Echery 90.61 332** PFAKE 15 26 00.0 +13
ECH LR LR
comp=Z,3μm,20.0s
**E43A Lone Tree Farm 90.63 31** P **P** **15 25 50.6 +3.2**
baz=320
**P34A Walnut Farm, R 90.64 41** P **P** **15 25 50.1 +2.4**
baz=314
**K38A Parkersburg 90.64 37** P **P** **15 25 50.2 +2.6**
baz=316
**O35A Humboldt 90.66 40** P **P** **15 25 49.7 +2.0**
baz=314
**J39A Decorah 90.68 36** P **P** **15 25 49.8 +2.1**
baz=317,SNR=5.1
**H41A Junction City 90.74 34** P **P** **15 25 49.5 +1.5**
baz=318
**MSTX Muleshoe 90.76 49** P **P** **15 25 50.2 +1.8**
baz=310
**IDI Anoyia 90.78 313** P **P** **15 25 47.3 -1.2**
comp=Z,4.6nm,0.8s,baz=315,slow=7.1,SNR=2.9
**N36A Muff Farm, Cla 90.79 39** P **P** **15 25 50.3 +2.0**
baz=315
**I40A Norwalk 90.81 35** P **P** **15 25 50.9 +2.5**
baz=318
**G42A Mountain 90.84 33** P **P** **15 25 51.0 +2.5**
baz=319
**AMTX Amarillo 90.86 47** P **P** **15 25 50.9 +2.0**
baz=310
**AMTX Amarillo 90.86 47** *e*P **P** **15 25 48.4 -0.5**
comp=Z,62nm,1.8s
**M37A Trindle Farm, 90.86 38** P **P** **15 25 51.5 +2.8**
baz=315
**L38A Oak Wood Farm, 90.91 37** P **P** **15 25 50.1 +1.3**
baz=316
**SCIA State Center 90.95 38** P **P** **15 25 51.2 +2.2**
baz=316
**SCIA State Center 90.95 38** PFAKE 15 26 00.0 +11
SCIA LR LR
comp=Z,3μm,20.0s
**F43A Flat Rock, Esc 90.97 32** P **P** **15 25 49.8 +0.8**
baz=320
**Q34A Chapman 91.01 42** P **P** **15 25 51.2 +1.8**
baz=313
**K39A Oelwein 91.05 36** P **P** **15 25 51.4 +1.9**
baz=317
**TUE Stuetta 91.06 329** PFAKE 15 26 00.0 +10
TUE LR LR
comp=Z,5μm,19.0s
**KSU1 Kansas State U 91.07 41** P **P** **15 25 51.4 +1.8**
baz=314
**KSU1 Kansas State U 91.07 41** *e*P P 15 25 54.5 +4.8
KSU1 LR LR
comp=Z,2μm,19.0s
**P35A Duane Minner, 91.11 41** P **P** **15 25 51.4 +1.5**
baz=314
**J40A Soldiers Grove 91.12 35** P **P** **15 25 51.5 +1.7**
baz=318
**G43A Wallace 91.17 32** P **P** **15 25 52.1 +2.1**
baz=320
**F44A Big Bay de Noc 91.19 31** P **P** **15 25 50.6 +0.6**
baz=321
**N37A Lee Faris, Mou 91.24 39** P **P** **15 25 52.6 +2.2**
baz=315
**R34A Isabella, Hill 91.26 42** P **P** **15 25 53.2 +2.6**
baz=313
**O36A Bolckow 91.27 40** P **P** **15 25 52.7 +2.2**
baz=315
**M38A Pleasantville 91.31 38** P **P** **15 25 53.5 +2.8**
baz=316
**L39A Vinton 91.42 37** P **P** **15 25 52.7 +1.5**
baz=317
**K40A Colesburg 91.43 36** P **P** **15 25 52.9 +1.7**
baz=317
**P36A Good Intent, A 91.50 40** P **P** **15 25 52.9 +1.3**
baz=315
**J41A Loganville 91.50 35** P **P** **15 25 53.6 +2.1**
baz=318
**Q35A Mercer Eighty, 91.56 41** P **P** **15 25 53.7 +1.8**
baz=314
**O37A Wolven Farm, M 91.69 39** P **P** **15 25 54.2 +1.7**
baz=315
**JFWS Jewell Farm 91.72 35** P **P** **15 25 54.9 +2.3**
baz=318
**JFWS Jewell Farm 91.72 35** PFAKE 15 26 00.0 +7.4
JFWS LR LR
comp=Z,2μm,19.0s
**S34A Willow Spring 91.75 43** P **P** **15 25 55.0 +2.2**
baz=313
**Q36A Arnold C. Orve 91.81 41** P **P** **15 25 55.3 +2.2**
baz=314
**R35A Emporia Munici 91.84 42** P **P** **15 25 55.4 +2.2**
baz=314

**L40A Anamosa** 91.86 36 P P 15 25 54.9 +1.7
baz=317
**P37A Lathrop** 91.99 40 P P 15 25 55.4 +1.5
baz=315
**N39A Derby Farms, D** 92.06 38 P P 15 25 57.0 +2.8
baz=316
**O38A Galt** 92.08 39 P P 15 25 56.5 +2.2
baz=316
**T34A McClaskey Farm** 92.16 43 P P 15 25 56.8 +2.0
baz=313
**M40A Post Highland** 92.19 37 P P 15 25 57.6 +2.8
baz=317
**L41A Preston** 92.21 36 P P 15 25 57.6 +2.8
baz=318
**S35A Otter Creek Ra** 92.21 42 P P 15 25 57.4 +2.4
baz=314
**R36A Gordon, Harris** 92.23 41 P P 15 25 57.2 +2.2
baz=314
**CABF La Chapelle** 92.33 331 eP P 15 25 57.9 +2.5
CABF pmax pmax
comp=Z,88nm,2.0s
**VLC Villacollemand** 92.38 327 PFAKE 15 26 10.0 +14
VLC LR LR
comp=Z,4μm,19.0s
**P38A Dawn** 92.41 39 P P 15 25 57.3 +1.5
baz=316
**Q37A Longview Farm,** 92.43 40 P P 15 25 57.9 +2.0
baz=315
**O39A Kirksville** 92.48 38 P P 15 25 57.7 +1.5
baz=316
**N40A Mertquake, Sal** 92.53 38 P P 15 25 58.5 +2.1
baz=317
**S36A Lake Cedric, C** 92.60 42 P P 15 25 59.4 +2.6
baz=314
**T35A Sooner Cattle** 92.63 43 P P 15 25 57.8 +0.9
baz=314
**L42A Oliver, Polo** 92.68 36 P P 15 25 57.8 +0.8
baz=318
**M41A Milan** 92.71 37 P P 15 25 59.3 +2.1
baz=318
**WMOK Wichita Mounta** 92.75 46 P P 15 25 58.7 +1.1
baz=312
**WMOK Wichita Mounta** 92.75 46 PFAKE 15 26 10.0 +12
WMOK LR LR
comp=Z,2μm,21.0s
**CUC Castrocucco** 92.80 321 PFAKE 15 26 10.0 +12
CUC LR LR
comp=Z,2μm,20.0s
**Q38A Cooks Store, C** 92.83 40 P P 15 25 59.3 +1.5
baz=316
**U35A Pawnee** 92.88 44 P P 15 26 00.3 +2.2
baz=314
**GLMI Grayling** 92.89 31 PFAKE 15 26 10.0 +12
GLMI LR LR
comp=Z,1μm,19.0s
**T36A Boggs Farm, Ca** 92.90 43 P P 15 25 59.2 +1.1
baz=314
**P39B Salisbury** 92.92 39 P P 15 25 59.9 +1.7
baz=316
**LPG La Plagne** 92.94 330 eP P 15 25 58.7 +0.1
LPG pmax pmax
comp=Z,20nm,1.0s
**L43A Garden Prairie** 93.00 35 P P 15 26 00.4 +1.9
baz=319
**S37A Fort Scott** 93.01 41 P P 15 25 59.7 +1.1
baz=315
**N41A Harden Midland** 93.04 37 P P 15 26 00.2 +1.5
baz=318
**TX31 Lajitas Ar. Si** 93.10 53 eP P 15 25 58.2 -1.1
**LTX Lajitas** 93.10 53 eP P 15 25 58.5 -0.9
**LTX Lajitas** 93.10 53 eP P 15 25 58.5 -0.9
**TXAR Lajitas Array** 93.10 53 P P 15 25 58.5 -0.9
comp=Z,4.6nm,0.7s,baz=306,slow=2.9,SNR=17
TXAR LR LR 16 06 55.5
comp=Z,2μm,18.7s,baz=0.0,slow=35
**Q39A Willow Grove F** 93.12 40 P P 15 26 01.3 +2.2
baz=316
**HPIG** 93.21 56 eP P 15 25 57.9 -2.1
comp=Z,44nm,1.5s
**R38A Fenwick Farm,** 93.22 41 P P 15 26 01.3 +1.7
baz=315
**V35A Meyer Ranch, C** 93.23 44 P P 15 26 01.5 +1.8
baz=313
**P40A Paris** 93.27 39 P P 15 26 01.7 +1.9
baz=317
**AVF Avril sur Loir** 93.28 333 eP P 15 25 58.8 -0.9
AVF pmax pmax
comp=Z,19nm,0.9s
**BNI Bardonecchia** 93.33 330 eP P 15 26 00.2 +0.1
BNI pmax pmax
comp=Z,15nm,0.8s
BNI MLR MLR
comp=Z,3μm,19.0s
**BNI Bardonecchia** 93.33 330 eP P 15 26 00.2 +0.1
comp=Z,15nm,0.8s
BNI LR LR
comp=Z,3μm,19.0s
**N42A Yates City** 93.37 37 P P 15 26 00.4 +0.1
baz=318
**T37A Cheneyville 18** 93.40 42 P P 15 26 02.6 +2.2
baz=315
**OK021 N3530 Road, Sp** 93.41 44 eP P 15 25 59.2 -1.3
comp=Z,19nm,0.9s
**U36A Oologah** 93.44 43 P P 15 26 01.3 +0.7
baz=314
**M43A Waltham Townsh** 93.46 36 P P 15 26 01.4 +0.8
baz=319
**O41A Passleys Farm,** 93.46 38 P P 15 26 02.5 +1.9
baz=318
**MBDF Montbardon** 93.55 330 eP P 15 26 01.3 +0.1
MBDF pmax pmax
comp=Z,15nm,0.8s
**R39A Chumby, Stover** 93.61 40 P P 15 26 02.0 +0.6
baz=316
**S38A Stockton** 93.62 41 P P 15 26 02.3 +0.8
baz=315
**ABTX Abilene, Hawle** 93.62 48 P P 15 26 03.6 +2.0
baz=312
**ABTX Abilene, Hawle** 93.62 48 eP P 15 26 01.2 -0.4
comp=Z,56nm,1.4s
**W35A Tecumseh** 93.62 45 P P 15 26 03.5 +2.0
baz=313
**W35A Tecumseh** 93.62 45 eP P 15 26 00.6 -0.9
comp=Z,29nm,1.2s
**Q40A Laux Farm, Aux** 93.64 39 P P 15 26 02.8 +1.3
baz=317
**P41A Barry, Barry** 93.69 38 P P 15 26 04.0 +2.3
baz=317
**V36A Jenks** 93.74 44 P P 15 26 03.8 +1.8
baz=314
**V36A Jenks** 93.74 44 eP P 15 26 06.1 +4.1
**TUL1 Leonard** 93.74 43 P P 15 26 05.1 +3.1
baz=314
**U37A Salina** 93.79 43 P P 15 26 04.4 +2.2
baz=314
**T38A Diamond** 93.82 42 P P 15 26 03.5 +1.1
baz=315
**S39A Bolivar** 93.90 41 P P 15 26 04.0 +1.3
baz=316
**CEL Celeste** 94.01 320 PFAKE 15 26 10.0 +6.7
CEL LR LR
comp=Z,4μm,19.0s
**W36A Wetumka** 94.02 44 P P 15 26 05.1 +1.8
baz=314
**W36A Wetumka** 94.02 44 eP P 15 26 07.7 +4.3
**SSB Saint Sauveur** 94.04 331 PFAKE 15 26 10.0 +6.7
SSB LR LR
comp=Z,3μm,21.0s
**R40A Maddies Statio** 94.05 40 P P 15 26 05.1 +1.7
baz=316
**X35A Drake** 94.08 45 P P 15 26 05.4 +1.8
baz=313
**Q41A Truxton** 94.12 39 P P 15 26 05.8 +2.1
baz=317
**P42A Winchester** 94.13 38 P P 15 26 05.4 +1.7
baz=318
**TCF Toulx Ste Croi** 94.14 333 eP P 15 26 02.6 -1.1
TCF pmax pmax
comp=Z,36nm,1.4s
**V37A Hulbert** 94.14 43 P P 15 26 05.8 +2.0
baz=314
**U38A Gravette** 94.19 42 P P 15 26 06.0 +1.9
baz=315
**VIVF Saint-Julien-l** 94.33 331 eP P 15 26 05.6 +1.0
VIVF pmax pmax
comp=Z,16nm,1.0s
**X36A Centrahoma** 94.34 45 P P 15 26 06.1 +1.3
baz=314
**T39A Clever** 94.34 41 P P 15 26 06.9 +2.1
baz=316
**N44A Piper City** 94.35 36 P P 15 26 07.2 +2.5
baz=319
**S40A Lebanon** 94.42 40 P P 15 26 06.8 +1.7
baz=316
**W37B Quinton** 94.49 44 P P 15 26 07.9 +2.4
baz=314
**R41A Rosebud** 94.53 39 P P 15 26 07.7 +2.1
baz=317
**HHAR Hobbs** 94.55 42 eP P 15 26 06.2 +0.4
comp=Z,29nm,1.7s
**V38A Canehill** 94.58 43 P P 15 26 06.7 +0.8
baz=315
**T40A Mansfield** 94.73 41 P P 15 26 08.2 +1.7
baz=316
**U39A Green Forest** 94.74 42 P P 15 26 08.3 +1.7
baz=316
**CCM Cathedral Cave** 94.77 39 P P 15 26 07.7 +1.0
baz=317
**CCM Cathedral Cave** 94.77 39 eP P 15 26 09.9 +3.2
**CCM Cathedral Cave** 94.77 39 eP P 15 26 05.9 -0.8
comp=Z,25nm,1.1s
**S41A Jillco Farms,** 94.84 40 P P 15 26 07.9 +0.8
baz=317
**R42A Luebbering** 94.85 39 P P 15 26 08.1 +1.0
baz=317
**JCT Junction City** 94.93 50 P P 15 26 09.4 +1.8
baz=311
**JCT Junction City** 94.93 50 eP P 15 26 07.3 -0.4
JCT pmax pmax
comp=Z,24nm,1.0s
JCT MLR MLR
comp=Z,3μm,20.0s
**JCT Junction City** 94.93 50 eP P 15 26 07.3 -0.4
comp=Z,24nm,1.0s
JCT LR LR
comp=Z,3μm,20.0s
**Q43A New Douglas** 94.94 38 P P 15 26 09.1 +1.6
baz=318
**N46A Monticello** 94.96 35 P P 15 26 08.9 +1.4
baz=320
**O45A Potomac** 94.97 36 P P 15 26 09.2 +1.6
baz=320
**V39A Pettigrew** 95.03 42 P P 15 26 10.1 +2.0
baz=315
**W38A Poteau** 95.07 43 P P 15 26 09.9 +1.7
baz=315
**P44A Sand Creek, Wi** 95.11 37 P P 15 26 10.3 +2.0
baz=319
**U40A Yellville** 95.12 41 P P 15 26 10.0 +1.7
baz=316
**X38A Whitesboro** 95.17 44 P P 15 26 10.8 +2.1
baz=315
**SFIN Lafayette** 95.18 35 P P 15 26 10.3 +1.8
baz=320
**Z36A Blue Ridge** 95.18 46 P P 15 26 11.1 +2.4
baz=314
**RJF Les Rejaudoux** 95.22 333 eP P 15 26 11.6 +2.9
RJF pmax pmax
comp=Z,53nm,1.6s
**S42A Caledonia** 95.23 39 P P 15 26 11.1 +2.3
baz=317
**T41A Mountain View** 95.23 40 P P 15 26 10.7 +1.9
baz=317
**AAM Ann Arbor** 95.31 32 PFAKE 15 26 20.0 +11
AAM LR LR
comp=Z,2μm,19.0s
**Q44A Meyer Farm, Va** 95.33 37 P P 15 26 11.1 +1.8
baz=319
**CAF Calviac** 95.33 333 eP P 15 26 12.5 +3.3
CAF pmax pmax
comp=Z,55nm,1.6s
**W39A Magazine** 95.41 43 P P 15 26 11.0 +1.3
baz=315
**WHTX Lake Whitney,** 95.42 47 P P 15 26 11.4 +1.6
baz=313
**WHTX Lake Whitney,** 95.42 47 eP P 15 26 14.3 +4.5
**P45A Graceland, Par** 95.50 36 P P 15 26 12.3 +2.2
baz=320
**V40A Witts Springs** 95.53 42 P P 15 26 11.9 +1.6
baz=316
**T42A Van Buren** 95.61 40 P P 15 26 12.6 +2.1
baz=317
**U41A Viola** 95.65 41 P P 15 26 12.4 +1.6
baz=317
**136A Ennis** 95.66 46 P P 15 26 12.9 +2.0
baz=313
**X39A Fountain Ranch** 95.70 43 P P 15 26 13.0 +1.9
baz=315
**P46A Rosedale** 95.70 36 P P 15 26 12.9 +2.0
baz=320
**Z37A Pogue Cattle C** 95.72 45 P P 15 26 13.3 +2.2
baz=314
**O47A Sheridan** 95.74 35 P P 15 26 13.1 +2.0
baz=321
**S43A Fulton Ridge,** 95.76 39 P P 15 26 13.3 +2.0
baz=318
**Q45A Warren Harvey,** 95.77 37 P P 15 26 14.2 +2.9
baz=319
**R44A Waltonville** 95.78 38 P P 15 26 13.4 +2.0
baz=319
**V41A Mountainview** 95.92 41 P P 15 26 13.2 +1.2
baz=316
**236A Katherine and** 95.99 47 P P 15 26 14.6 +2.2
baz=313
**MIAR Mount Ida** 95.99 43 P P 15 26 13.4 +1.0
baz=315
**MIAR Mount Ida** 95.99 43 eP P 15 26 13.2 +0.8
**MIAR Mount Ida** 95.99 43 eP P 15 26 11.8 -0.5
comp=Z,16nm,1.1s
MIAR LR LR
comp=Z,2μm,20.0s
**T43A Greenville** 96.00 39 P P 15 26 14.4 +2.1
baz=318
**U42A Revenden** 96.02 40 P P 15 26 14.5 +2.1
baz=317
**S44A Carbondale** 96.10 38 P P 15 26 13.3 +0.5
baz=318
**PBMO Poplar Bluff** 96.15 40 eP P 15 26 11.4 -1.7
comp=Z,21nm,1.3s
**435B Jarrell** 96.15 48 P P 15 26 15.4 +2.2
baz=313
**WHAR Wooly Hollow** 96.20 42 eP P 15 26 17.6 +4.3
**336A Riesel** 96.21 47 P P 15 26 15.2 +1.8
baz=313
**P47A Martinsville** 96.27 35 P P 15 26 14.8 +1.3
baz=321
**W41B Gary Mavity, V** 96.31 42 P P 15 26 16.3 +2.5
baz=316
**V42A Cord** 96.33 41 P P 15 26 15.7 +1.9
baz=317
**T44A Benton** 96.38 39 P P 15 26 16.9 +2.9
baz=318
**VSL Villasalto** 96.46 325 PFAKE 15 26 30.0 +16
VSL LR LR
comp=Z,4μm,19.0s
**X40A Basin Creek Fa** 96.46 43 P P 15 26 15.7 +1.2
baz=316
**RKT Rikitea** 96.47 113 eSKSac SKSac 15 36 48.2 -0.6
comp=Z,440nm,28.5s
**RKT Rikitea** 96.47 113 ePS PS 15 38 54.7 -2.6
comp=Z,920nm,27.2s
**RKT Rikitea** 96.47 113 eLR LR 15 56 32.5
comp=Z,3μm,22.5s
**WDD Wied Dalam** 96.52 319 PFAKE 15 26 30.0 +15
WDD LR LR
comp=Z,2μm,20.0s
**833A Chaparral WMA,** 96.62 51 P P 15 26 18.6 +3.3
baz=312
**R47A Wooly Knot Far** 97.06 36 P Pdif 15 26 19.7 +2.5
baz=320
**LONY Lake Ozonia** 97.09 25 PFAKE 15 26 30.0 +13
LONY LR LR
comp=Z,2μm,20.0s
**WCI Wyandotte Cave** 97.22 36 P Pdif 15 26 20.9 +2.9
baz=320
**ACSO Alum Creek Sta** 97.26 33 PFAKE 15 26 30.0 +12
ACSO LR LR
comp=Z,2μm,20.0s
**NATX Nacogdoches** 97.30 46 PFAKE 15 26 30.0 +12
NATX LR LR
comp=Z,3μm,19.0s
**T47A Sharon Grove** 97.76 37 P Pdif 15 26 22.5 +2.1
baz=320
**S48A Wiedeman Farm,** 97.78 36 P Pdif 15 26 22.5 +2.1
baz=321
**W45A Hickory Valley** 98.03 40 P Pdif 15 26 23.5 +1.9
baz=318
**WVT Waverly** 98.03 38 P Pdif 15 26 23.9 +2.3
baz=319
**KVTX Kingsville** 98.12 51 PFAKE 15 26 30.0 +7.9
KVTX LR LR
comp=Z,2μm,20.0s
**PKME Peaks-Kenny Pk** 98.32 22 PFAKE 15 26 30.0 +7.4
PKME LR LR
comp=Z,3μm,19.0s
**BINY Binghamton** 98.63 27 PFAKE 15 26 40.0 +16
BINY LR LR
comp=Z,2μm,19.0s
**Z44A Pea Ridge, Bel** 98.71 42 P Pdif 15 26 27.1 +2.4
baz=317
**Y45A Yeager Farm, C** 98.78 41 P Pdif 15 26 27.4 +2.4
baz=318
**V48A Smith Brothers** 98.86 38 P Pdif 15 26 26.5 +1.2
baz=320
**KEST Kesra** 99.38 322 LR LR 16 15 35.6
comp=Z,2μm,19.6s,baz=356,slow=38
**BLA Blacksburg** 100.87 33 PFAKE 15 26 50.0 +16
BLA LR LR
comp=Z,2μm,20.0s
**PTCN Pitcairn Islan** 101.29 112 PFAKE 15 26 50.0 +14
PTCN LR LR
comp=Z,3μm,20.0s
**CBN Corbin Frederi** 101.42 30 PFAKE 15 26 50.0 +13
CBN LR LR
comp=Z,2μm,20.0s
**BRAL Brewton** 102.19 41 PFAKE 15 26 50.0 +10
BRAL LR LR
comp=Z,2μm,19.0s
**PAB San Pablo** 102.39 334 PFAKE 15 26 50.0 +9.0
PAB LR LR
comp=Z,3μm,19.0s
**GOGA Godfrey** 102.41 37 PFAKE 15 26 50.0 +8.9
GOGA LR LR
comp=Z,2μm,19.0s
**MTE Manteigas** 102.78 336 PFAKE 15 26 50.0 +7.3
MTE LR LR
comp=Z,3μm,21.0s
**KMBO Kilima Mbogo** 102.91 277 PFAKE 15 26 50.0 +6.0
KMBO LR LR
comp=Z,732nm,19.0s
**ABPO Ambohimpanom** 103.49 256 PFAKE 15 27 00.0 +14
ABPO LR LR
comp=Z,356nm,19.0s
**CNNC Cliffs of the** 103.66 33 PFAKE 15 27 00.0 +13
CNNC LR LR
comp=Z,2μm,20.0s
**NHSC New Hope** 104.31 35 PFAKE 15 27 00.0 +10
NHSC LR LR
comp=Z,2μm,19.0s
**RTC Rabat Centre** 108.23 333 PFAKE 15 31 20.0
RTC LR LR
comp=Z,6μm,21.0s
**TEIG Tepich** 109.51 50 PFAKE 15 31 30.0
TEIG LR LR
comp=Z,9.0nm,22.0s
**SBA Scott Base** 110.39 175 PFAKE 15 31 30.0
SBA LR LR
comp=Z,755nm,19.0s
**TAM Tamanrasset** 111.47 317 PFAKE 15 31 30.0
TAM LR LR
comp=Z,1μm,20.0s
**BBSR BB Station** 111.49 24 PFAKE 15 31 30.0
BBSR LR LR
comp=Z,925nm,19.0s
**GTBY Guantanamo Bay** 117.63 40 PFAKE 15 31 40.0 +8.5
GTBY LR LR
comp=Z,1μm,20.0s
**MTDJ Mount Denham** 117.64 43 PFAKE 15 31 40.0 +8.3
MTDJ LR LR
comp=Z,1μm,19.0s
**LSZ Lusaka** 117.76 269 PFAKE 15 31 40.0 +8.0
LSZ LR LR
comp=Z,1μm,19.0s
**GRTK Grand Turk** 118.37 35 PFAKE 15 31 40.0 +7.1
GRTK LR LR
comp=Z,1μm,21.0s
**JTS JuntasAbangare** 118.81 55 PFAKE 15 31 50.0 +16
JTS LR LR
comp=Z,1μm,19.0s
**SDDR Presa de Saban** 120.42 37 PFAKE 15 31 50.0 +13
SDDR LR LR
comp=Z,2μm,19.0s
**TOA1 Torodi Ar. Sit** 121.19 313 ePKPdf **PKPdf** 15 31 36.3 -2.2
TOA1 ePKKPbc **PKKPab** 15 41 46.7 +3.6
**TOA0 Torodi Ar. Sit** 121.19 313 ePKPdf **PKPdf** 15 31 36.1 -2.4
**TORD Torodi Ar. Bea** 121.19 313 PKP **PKPdf** 15 31 36.3 -2.2
comp=Z,0.9nm,0.6s,baz=34,slow=1.4,SNR=4.8
TORD PKKPab **PKKPab** 15 41 46.7 +3.6
comp=Z,1.8nm,1.1s,baz=224,slow=4.6,SNR=5.1
**QSPA South Pole Qui** 121.51 180 ePKPdf **PKPdf** 15 31 37.1 -0.5
QSPA LR LR
comp=Z,1μm,22.0s
**PAYG Puerto Ayora** 122.01 68 PFAKE 15 31 50.0 +10
PAYG LR LR
comp=Z,2μm,19.0s
**BCIP Isla Barro Col** 123.11 51 PFAKE 15 31 50.0 +7.8
BCIP LR LR
comp=Z,1μm,20.0s
**SJG San Juan** 123.65 32 PFAKE 15 31 50.0 +6.9
SJG LR LR
comp=Z,1μm,19.0s
**LBTB Lobatse** 124.12 260 ePKIKP **PKPdf** 15 31 44.4 +0.5
**LBTB Lobatse** 124.12 260 ePKPdf **PKPdf** 15 31 44.4 +0.5
**BOSA Boshof** 125.71 256 PKP **PKPdf** 15 31 48.0 +1.2
comp=Z,3.8nm,0.8s,baz=150,slow=6.6,SNR=3.7
**ANWB Willy Bob** 125.92 28 PFAKE 15 32 00.0 +13
ANWB LR LR
comp=Z,1μm,21.0s
**TSUM Tsumeb** 128.56 270 PFAKE 15 32 00.0 +7.4
TSUM LR LR
comp=Z,832nm,19.0s
**FDF Fort de France** 128.82 29 PFAKE 15 32 00.0 +6.9
FDF LR LR
comp=Z,1μm,20.0s
**SDV Santo Domingo** 129.09 43 PFAKE 15 32 10.0 +16
SDV LR LR
comp=Z,909nm,19.0s
**OTAV Otavalo** 130.43 58 PFAKE 15 32 10.0 +13
OTAV LR LR
comp=Z,790nm,19.0s
**BBGH Gun Hill** 130.90 28 PFAKE 15 32 10.0 +13
BBGH LR LR
comp=Z,1μm,20.0s
**GRGR Grenville** 130.93 31 PFAKE 15 32 10.0 +13
GRGR LR LR
comp=Z,1μm,20.0s
**SACV Santiago Islan** 131.46 341 PFAKE 15 32 10.0 +12
SACV LR LR
comp=Z,670nm,20.0s
**SNAA Sanae** 135.77 195 PKP **PKPdf** 15 32 06.9 +2.3
**VNA2 Neumayer--Watz** 137.31 194 PKP **PKPdf** 15 32 09.0 +1.6
baz=75,slow=0.6
**VNA3 Neumayer Olymp** 137.53 193 PKP **PKPdf** 15 32 09.3 +1.5
**NNA Nana** 139.43 70 PFAKE 15 32 20.0 +7.0
NNA LR LR
comp=Z,875nm,19.0s
**PTGA Pitinga** 142.94 38 PFAKE 15 32 30.0 +11
PTGA LR LR
comp=Z,39μm,22.0s
**PMSA Palmer Station** 143.31 162 PFAKE 15 32 30.0 +12
PMSA LR LR
comp=Z,944nm,20.0s
**SHEL Horse Pasture** 146.53 290 PFAKE 15 32 40.0 +12
SHEL LR LR
comp=Z,408nm,21.0s
**ASCN Ascension** 147.50 312 PFAKE 15 32 40.0 +8.3
ASCN LR LR
comp=Z,1μm,21.0s
**SAML Samuel** 147.58 51 ePKPbc **PKPbc** 15 32 29.6 -0.3
SAML LR LR
comp=Z,1μm,20.0s
**LPAZ La Paz** 148.80 67 PKPbc **PKPbc** 15 32 33.7 -0.1
comp=Z,5.0nm,0.6s,baz=353,slow=3.2,SNR=13
**LPAZ La Paz** 148.80 67 ePKP2 **PKPbc** 15 32 33.9 +0.1
**LPAZ La Paz** 148.80 67 ePKPbc **PKPbc** 15 32 33.9 +0.1
**MNMC Minye Minye** 149.14 74 ePKPbc **PKPbc** 15 32 35.4 +1.2
**PB11 IPOC Station P** 149.41 75 ePKPbc **PKPbc** 15 32 34.0 -0.6
**LCO Las Campanas** 151.93 93 ePKPbc **PKPbc** 15 32 41.0 +0.5
LCO LR LR
comp=Z,2μm,19.0s

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **PLCA** | **Paso Flores** | **152.57 118** | PKPbc | **PKPbc** | **15 32 41.3** | **-0.1** |
| | comp=Z,4.7nm,0.7s,baz=278,slow=3.1,SNR=7.9 | | | | | |
| **PLCA** | **Paso Flores** | **152.57 118** | *e*PKIKP | **PKPdf** | **15 32 35.5** | **+1.1** |
| PLCA | | | *e* | | 15 32 42.9 | |
| **PLCA** | **Paso Flores** | **152.57 118** | *e*PKPdf | **PKPdf** | **15 32 35.5** | **+1.1** |
| PLCA | | | *e*PKPbc | **PKiKP** | **15 32 42.9** | **+1.3** |
| **RCBR** | **Riachuelo** | **154.11 355** | PFAKE | | 15 32 50.0 | +4.5 |
| RCBR | | | LR | LR | | |
| | comp=Z,1μm,19.0s | | | | | |
| **EFI** | **East Falkland** | **155.35 150** | PFAKE | | 15 32 50.0 | +12 |
| EFI | | | LR | LR | | |
| | comp=Z,1μm,19.0s | | | | | |
| **TRQA** | **Tornquist** | **159.57 114** | PFAKE | | 15 32 50.0 | +6.4 |
| TRQA | | | LR | LR | | |
| | comp=Z,2μm,20.0s | | | | | |

*NSSC **15** 15:18:04.4±1.1,33.77N×35.68E,h9km±6km,ML1.4*
*ISCJB **15** 15:18:05.2±0.6,33.77N±0.03×35.74E±0.06,h9km±7km,*
*Error ellipse: s-maj=8.0km s-min=4.6km az=172.7*
*CSEM **15** 15:18:05.6,33.79N×35.79E,h2km,ML2.7*
*GRAL **15** 15:18:05.6±0.3,33.79N×35.79E,h2km±11km,MD2.7*
**ISC 15 15:18:05.0±0.9,33.79N±0.03×35.78E±0.06,h10km±12km, n12,σ0°45/22,Jordan-Syria region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BHL** | **Bhannes** | **0.16** | **319** | *e*P | **Pg** | **15 18 08.6** | **0.0** |
| BHL | | | | *e*S | **Sg** | **15 18 10.8** | **-0.2** |
| **BHL** | **Bhannes** | **0.16** | **319** | *e*P | **Pg** | **15 18 08.6** | **0.0** |
| BHL | | | | *e*S | **Sg** | **15 18 10.8** | **-0.2** |
| **DQRL** | **Deir Qamar** | **0.19** | **245** | *e*P | **Pg** | **15 18 09.3** | **+0.2** |
| DQRL | | | | *e*S | **Sg** | **15 18 11.9** | **0.0** |
| **DQRL** | **Deir Qamar** | **0.19** | **245** | *e*P | **Pg** | **15 18 09.3** | **+0.2** |
| DQRL | | | | *e*S | **Sg** | **15 18 11.9** | **0.0** |
| **RCY** | **Rachaya** | **0.29** | **170** | *e*P | **Pg** | **15 18 10.9** | **-0.1** |
| RCY | | | | *e*S | **Sg** | **15 18 14.8** | **-0.2** |
| **RCY** | **Rachaya** | **0.29** | **170** | *e*P | **Pg** | **15 18 10.9** | **-0.1** |
| RCY | | | | *e*S | **Sg** | **15 18 14.8** | **-0.2** |
| **BRBR** | **Barbar** | **0.40** | **159** | *e*P | **Pg** | **15 18 13.0** | **0.0** |
| BRBR | | | | *e*S | **Sg** | **15 18 18.8** | **+0.5** |
| BRBR | | | | AML | AML | 15 18 21.8 | |
| | comp=E,49nm,0.3s | | | | | | |
| BRBR | | | | AML | AML | 15 18 23.4 | |
| | comp=N,45nm,0.4s | | | | | | |
| **HWQ** | **Hawqa** | **0.51** | **16** | *e*P | **Pg** | **15 18 14.7** | **-0.3** |
| **HWQ** | **Hawqa** | **0.51** | **16** | *e*P | **Pg** | **15 18 14.7** | **-0.3** |
| **MARH** | **Ras Al Marh** | **0.63** | **68** | *e*P | **Pb** | **15 18 18.5** | **+0.1** |
| MARH | | | | *e*S | **Sb** | **15 18 28.6** | **+1.2** |
| MARH | | | | AML | AML | 15 18 31.5 | |
| | comp=N,31nm,0.3s | | | | | | |
| MARH | | | | AML | AML | 15 18 33.6 | |
| | comp=E,57nm,0.3s | | | | | | |
| **HAWK** | **Haweek** | **0.90** | **35** | *e*P | **Pb** | **15 18 23.3** | **+0.5** |
| HAWK | | | | *e*S | **Sb** | **15 18 35.5** | **+0.6** |
| HAWK | | | | AML | AML | 15 18 43.9 | |
| | comp=N,8.1nm,0.5s | | | | | | |
| HAWK | | | | AML | AML | 15 18 44.6 | |
| | comp=E,12nm,0.4s | | | | | | |
| **SALA** | **Sala** | **1.34** | **143** | *e*P | **Pn** | **15 18 29.0** | **-1.0** |
| SALA | | | | *e*S | **Sg** | **15 18 48.0** | **-0.1** |
| SALA | | | | AML | AML | 15 18 54.2 | |
| | comp=E,1.0nm,0.3s | | | | | | |
| SALA | | | | AML | AML | 15 18 54.9 | |
| | comp=N,12nm,0.4s | | | | | | |

**WEL 15 15:24:00.3±0.5,38.28S×175.69E,h140km±4km,ML3.2/9, 1C,Error ellipse: s-maj=5.3km s-min=3.9km az=90.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MRHZ** | **Matea Rd** | **0.79** | **134** | PN | Pn | 15 24 22.5 | 0.0 |
| MRHZ | | | | SN | Sn | 15 24 39.4 | 0.0 |
| MRHZ | | | | AML | AML | 15 24 39.9 | |
| **WNVZ** | **Wahianoa** | **1.04** | **184** | PN | Pn | 15 24 25.1 | +0.4 |
| **MTHZ** | **Maungataniwha** | **1.06** | **123** | PN | Pn | 15 24 24.8 | +0.1 |
| MTHZ | | | | SN | Sn | 15 24 42.8 | -0.7 |
| **RTZ** | **Ruatahuna** | **1.06** | **108** | PN | Pn | 15 24 24.9 | +0.1 |
| **BKZ** | **Black Stump Fm** | **1.08** | **145** | *e*P | Sn | 15 24 41.9 | -1.9 |
| | 145nm,2.0s | | | | | | |
| **BKZ** | **Black Stump Fm** | **1.08** | **145** | PN | Pn | 15 24 24.8 | -0.2 |
| BKZ | | | | SN | Sn | 15 24 42.3 | -1.5 |
| **URZ** | **Urewera** | **1.12** | **89** | PN | Pn | 15 24 25.1 | -0.1 |
| URZ | | | | SN | Sn | 15 24 43.5 | -0.7 |
| **NMHZ** | **Naumai** | **1.19** | **133** | PN | Pn | 15 24 26.8 | +0.8 |
| **BHHZ** | **Black Hill Sta** | **1.24** | **167** | PN | Pn | 15 24 26.1 | -0.3 |
| **KWHZ** | **Kaweka Forest** | **1.27** | **154** | PN | Pn | 15 24 26.6 | -0.2 |
| KWHZ | | | | AML | AML | 15 24 48.9 | |
| KWHZ | | | | AML | AML | 15 24 53.7 | |
| **SNGZ** | **Shannon Statio** | **1.39** | **112** | PN | Pn | 15 24 28.4 | +0.5 |
| SNGZ | | | | SN | Sn | 15 24 48.3 | -0.7 |
| **MCHZ** | **McNeill Hill** | **1.40** | **146** | PN | Pn | 15 24 28.6 | +0.5 |
| **ARHZ** | **Aropaoanui** | **1.41** | **134** | PN | Pn | 15 24 28.4 | +0.3 |
| ARHZ | | | | AML | AML | 15 24 49.7 | |
| ARHZ | | | | AML | AML | 15 24 51.8 | |
| **MWZ** | **Matawai** | **1.45** | **93** | PN | Pn | 15 24 28.7 | +0.1 |
| MWZ | | | | SN | Sn | 15 24 51.8 | +1.6 |
| MWZ | | | | AML | AML | 15 25 02.0 | |
| **KRHZ** | **Kereru** | **1.46** | **159** | PN | Pn | 15 24 28.6 | -0.1 |
| KRHZ | | | | AML | AML | 15 24 51.3 | |
| **RUGZ** | **Raukumara Rang** | **1.60** | **79** | PN | Pn | 15 24 29.7 | -0.7 |
| **PNHZ** | **Pukenui** | **1.67** | **166** | PN | Pn | 15 24 30.6 | -0.5 |
| **RIGZ** | **Rimuhau** | **1.68** | **105** | PN | Pn | 15 24 31.1 | 0.0 |
| RIGZ | | | | AML | AML | 15 24 55.5 | |
| **KNZ** | **Kokohu** | **1.72** | **116** | PN | Pn | 15 24 31.2 | -0.3 |
| **HAZ** | **Te Kaha** | **1.73** | **73** | *e*PN | Pn | 15 24 31.2 | -0.5 |
| HAZ | | | | AML | AML | 15 24 58.6 | |
| **KAHZ** | **Kahuranaki** | **1.77** | **149** | PN | Pn | 15 24 31.9 | -0.2 |
| **TSZ** | **Takapari Road** | **1.78** | **173** | ⇑PN | Pn | 15 24 31.6 | -0.8 |
| **MHGZ** | **Mahia Peninsul** | **1.94** | **117** | PN | Pn | 15 24 33.9 | -0.2 |
| **PXZ** | **Pawanui** | **1.97** | **153** | PN | Pn | 15 24 33.7 | -0.7 |
| **PUZ** | **Puketiti** | **2.03** | **85** | SN | Sn | 15 25 00.2 | -1.9 |
| **DVHZ** | **Dannevirke** | **2.04** | **170** | PN | Pn | 15 24 34.1 | -1.3 |
| DVHZ | | | | AML | AML | 15 25 01.3 | |
| DVHZ | | | | AML | AML | 15 25 01.3 | |
| **PRHZ** | **Porangahau** | **2.11** | **160** | PN | Pn | 15 24 35.0 | -1.2 |
| PRHZ | | | | AML | AML | 15 25 03.5 | |
| **ANWZ** | **Angora Road** | **2.26** | **165** | PN | Pn | 15 24 36.6 | -1.3 |
| **MRZ** | **Mangatainoka R** | **2.38** | **182** | PN | Pn | 15 24 37.6 | -1.8 |
| **TIWZ** | **Tintock** | **2.49** | **177** | PN | Pn | 15 24 38.8 | -2.0 |
| **OGWZ** | **Otaki Gorge** | **2.56** | **189** | PN | Pn | 15 24 39.9 | -1.8 |
| **HOWZ** | **Holdsworth Sta** | **2.61** | **183** | PN | Pn | 15 24 40.0 | -2.3 |
| **KIW** | **Kapiti Island** | **2.64** | **193** | PN | Pn | 15 24 40.4 | -2.3 |
| **TMWZ** | **Te Maipa** | **2.82** | **177** | *e*PN | Pn | 15 24 42.3 | -2.7 |
| **CAW** | **Cannon Point** | **2.86** | **189** | PN | Pn | 15 24 42.9 | -2.5 |
| **MTW** | **Mount Morrison** | **2.87** | **183** | PN | Pn | 15 24 42.8 | -2.9 |
| **TRWZ** | **Traveller** | **3.11** | **180** | PN | Pn | 15 24 45.7 | -3.0 |
| **TCW** | **Tory Channel** | **3.12** | **200** | PN | Pn | 15 24 46.2 | -2.5 |
| **PLWZ** | **Palliser** | **3.30** | **186** | PN | Pn | 15 24 47.7 | -3.4 |
| **MQZ** | **McQueen's Vall** | **5.88** | **202** | SN | Sn | 15 26 20.1 | -12 |

*IDC **15** 15:34:03.8±3.6,31.59N×141.66E,h0km,mb3.5/4,*
*mb1 3.6/7,mb1mx3.4/48,mbtmp3.6/7,ML3.5/3,Error*
*ellipse: s-maj=125.4km s-min=17.0km az=66.0*
*ISCJB **15** 15:34:05.2±1.5,31.7N±0.2×142.0E±0.3,h35km,mb3.6/4,*
*Error ellipse: s-maj=40.6km s-min=9.2km az=148.6*
**ISC 15 15:34:08.4±1.8,31.7N±0.2×141.8E±0.3,h35km,n7, σ1°18/8,mb3.6/4,Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JHJ** | **Hachijo jima 2** | **2.21** | **311** | Pn | **Pn** | **15 34 40.9** | **-1.6** |
| | 20nm,0.3s,baz=227,slow=18,SNR=5.4 | | | | | | |
| JHJ | | | | Sn | **Sn** | **15 35 09.5** | **+0.9** |
| | 9.1nm,0.3s,baz=107,slow=19,SNR=2.7 | | | | | | |
| **JCJ** | **Chichijima** | **4.58** | **175** | Pn | **Pn** | **15 35 14.8** | **-0.5** |
| | 9.2nm,0.3s,baz=331,slow=19,SNR=20 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **5.68** | **330** | Pn | **Pn** | **15 35 29.3** | **-0.9** |
| | 0.5nm,0.3s,baz=146,slow=12,SNR=7.0 | | | | | | |
| **SONM** | **Songino Array** | **31.29** | **311** | P | **P** | **15 40 26.5** | **+1.4** |
| | 0.3nm,0.5s,baz=120,slow=8.5,SNR=2.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **47.37** | **306** | P | **P** | **15 42 39.2** | **+0.2** |
| | 0.4nm,0.6s,baz=87,slow=8.4,SNR=4.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **51.82** | **189** | P | **P** | **15 43 12.7** | **-0.3** |
| | 0.8nm,0.6s,baz=7.4,slow=7.7,SNR=12 | | | | | | |
| **ASAR** | **Alice Springs** | **55.55** | **189** | P | **P** | **15 43 39.7** | **-0.6** |
| | 0.4nm,0.8s,baz=360,slow=5.5,SNR=6.4 | | | | | | |

*IDC **15** 15:35:05.9±0.7,57.31S×25.48W,h0km,mb4.2/6,*
*mb1 4.4/7,mb1mx4.0/22,mbtmp4.2/7,ML4.1/1,Error*
*ellipse: s-maj=31.2km s-min=21.4km az=51.0*
*ISCJB **15** 15:35:10.1±0.4,57.25S±0.07×25.5W±0.1,h43km,*
*mb4.8/19,Error ellipse: s-maj=13.3km s-min=7.0km*
*az=145.4*
*NEIC **15** 15:35:12.3±1.9,57.21S×25.47W,h45km±17km,mb4.9/17,*
*Error ellipse: s-maj=14.8km s-min=8.6km az=55.0*
**ISC 15 15:35:12.0±0.5,57.29S±0.09×25.5W±0.1,h43km,n49, σ0°88/45,mb4.8/18,South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HOPE** | **Hope Point** | **6.88** | **291** | *e*Pn | **Pn** | **15 36 50.3** | **+0.1** |
| **VNA1** | **Neumayer--Stat** | **15.30** | **158** | P | **Pn** | **15 38 45.0** | **+0.5** |
| **VNA3** | **Neumayer Olymp** | **15.51** | **161** | P | **Pn** | **15 38 45.9** | **-1.5** |
| **VNA2** | **Neumayer--Watz** | **15.69** | **158** | P | **Pn** | **15 38 49.0** | **-0.7** |
| | baz=320,slow=14 | | | | | | |
| **SNAA** | **Sanae** | **17.23** | **156** | P | **P** | **15 39 10.3** | **+0.2** |
| **SNAA** | **Sanae** | **17.23** | **156** | P | **Pn** | **15 39 08.9** | **-0.2** |
| | 0.6nm,0.3s,baz=343,slow=17,SNR=9.1 | | | | | | |
| **SNAA** | **Sanae** | **17.23** | **156** | *e*Pn | **Pn** | **15 39 09.5** | **+0.5** |
| | 28nm,1.8s | | | | | | |
| **EFI** | **East Falkland** | **19.60** | **273** | *e*P | **Pn** | **15 39 38.1** | **+0.2** |
| | 18nm,0.5s | | | | | | |
| **PMSA** | **Palmer Station** | **19.83** | **232** | *e*P | **Pn** | **15 39 41.5** | **+1.1** |
| | 212nm,1.6s | | | | | | |
| **GO09** | **Cerro Castillo** | **27.54** | **262** | *e*P | **P** | **15 40 54.4** | **+0.1** |
| | 10nm,0.4s | | | | | | |
| **TRQA** | **Tornquist** | **30.66** | **293** | *e*P | **P** | **15 41 21.6** | **-0.5** |
| | 29nm,1.8s | | | | | | |
| **QSPA** | **South Pole Qui** | **32.96** | **180** | *e*P | **P** | **15 41 42.3** | **+0.1** |
| | 27nm,1.6s | | | | | | |
| **PLCA** | **Paso Flores** | **33.13** | **280** | P | **P** | **15 41 43.1** | **-0.8** |
| | 1.1nm,0.7s,baz=112,slow=5.4,SNR=3.3 | | | | | | |
| **PLCA** | **Paso Flores** | **33.13** | **280** | *e*P | **P** | **15 41 42.7** | **-1.2** |
| | 24nm,1.9s | | | | | | |
| **CPUP** | **Villa Florida** | **38.33** | **310** | P | **P** | **15 42 27.6** | **-0.7** |
| | 1.2nm,0.6s,baz=149,slow=12,SNR=4.8 | | | | | | |
| **CPUP** | **Villa Florida** | **38.33** | **310** | *e*P | **P** | **15 42 27.0** | **-1.4** |
| | 17nm,1.6s | | | | | | |
| **MAW** | **Mawson** | **38.60** | **142** | *e*P | **P** | **15 42 30.8** | **+0.6** |
| | 4.6nm,1.6s | | | | | | |
| **SBA** | **Scott Base** | **44.90** | **184** | *e*P | **P** | **15 43 23.8** | **+2.2** |
| | 152nm,1.9s | | | | | | |
| **BDFB** | **Brasilia** | **44.91** | **329** | P | **P** | **15 43 24.2** | **+1.8** |
| | 2.0nm,0.4s,baz=180,slow=5.1,SNR=3.1 | | | | | | |
| **VNDA** | **Vanda** | **45.37** | **182** | P | **P** | **15 43 25.6** | **+0.3** |
| | 2.6nm,0.8s,baz=185,slow=5.8,SNR=8.0 | | | | | | |
| **VNDA** | **Vanda** | **45.37** | **182** | *e*P | **P** | **15 43 25.2** | **-0.1** |
| **H10S2** | **ASCENSION HYDR** | **48.95** | **14** | T | T | 16 36 49.0 | |
| | baz=189,slow=75,SNR=12 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **48.95** | **14** | T | T | 16 36 50.1 | |
| | baz=189,slow=75,SNR=16 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **48.97** | **14** | T | T | 16 36 51.1 | |
| | baz=189,slow=75,SNR=11 | | | | | | |
| **PB11** | **IPOC Station P** | **49.52** | **300** | *e*P | **P** | **15 43 57.2** | **-1.1** |
| | 15nm,1.2s | | | | | | |
| **MNMC** | **Minye Minye** | **50.04** | **301** | *e*P | **P** | **15 44 02.2** | **-0.2** |
| | 46nm,1.8s | | | | | | |
| **LPAZ** | **La Paz** | **51.85** | **304** | P | **P** | **15 44 17.0** | **+0.6** |
| | 7.7nm,0.5s,baz=118,slow=5.5,SNR=38 | | | | | | |
| **LPAZ** | **La Paz** | **51.85** | **304** | *e*P | **P** | **15 44 16.8** | **+0.3** |
| | 8.6nm,0.6s | | | | | | |
| **RCBR** | **Riachuelo** | **51.97** | **347** | *e*P | **P** | **15 44 15.7** | **-0.9** |
| | 43nm,1.3s | | | | | | |
| **SAML** | **Samuel** | **56.33** | **313** | *e*P | **P** | **15 44 48.9** | **+0.5** |
| | 28nm,0.6s | | | | | | |
| **TOA0** | **Torodi Ar. Sit** | **73.70** | **28** | *e*P | **P** | **15 46 40.5** | **-0.5** |
| **TORD** | **Torodi Ar. Bea** | **73.70** | **28** | P | **P** | **15 46 41.7** | **+0.7** |
| | 1.5nm,0.7s,baz=196,slow=6.2,SNR=9.6 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **73.71** | **28** | *e*P | **P** | **15 46 41.7** | **+0.7** |
| **RUSC** | **La Rusia** | **73.81** | **310** | *e*P | **P** | **15 46 42.0** | **-0.4** |
| | 8.7nm,1.7s | | | | | | |
| **BKZ** | **Black Stump Fm** | **82.14** | **197** | *e*P | **P** | **15 47 26.8** | **-1.1** |
| | 52nm,1.5s | | | | | | |
| **BBOO** | **Buckleboo** | **88.91** | **165** | *e*P | **P** | **15 47 59.6** | **-1.9** |
| | 100nm,1.9s | | | | | | |
| **ASAR** | **Alice Springs** | **97.52** | **161** | P | Pdif | 15 48 44.2 | +2.8 |
| | 0.3nm,0.5s,baz=183,slow=4.4,SNR=9.0 | | | | | | |
| **CM31** | **Chiang Mai Arr** | **123.77** | **110** | *e*PKPpre | PKPpre | 15 54 00.9 | |
| **CMAR** | **Chiang Mai Arr** | **123.77** | **110** | PKP | **PKPdf** | **15 54 04.1** | **-0.7** |
| | 0.5nm,0.5s,baz=235,slow=3.2,SNR=3.4 | | | | | | |
| **FIA0** | **FINESS Array S** | **125.05** | **27** | *e*PKPdf | **PKPdf** | **15 54 05.8** | **-0.1** |
| **FINES** | **FINESS Array B** | **125.05** | **27** | PKP | **PKPdf** | **15 54 05.8** | **-0.1** |
| | 4.0nm,0.9s,baz=174,slow=3.8,SNR=6.3 | | | | | | |
| **YKA** | **Yellowknife Ar** | **137.71** | **316** | PKP | **PKPdf** | **15 54 30.2** | **+0.5** |
| | 0.5nm,0.6s,baz=128,slow=2.1,SNR=10 | | | | | | |
| **YKB5** | **Yellowknife Ar** | **137.71** | **316** | *e*PKPdf | **PKPdf** | **15 54 29.4** | **-0.3** |
| **INK** | **Inuvik** | **147.35** | **319** | PKPbc | **PKPbc** | **15 54 49.4** | **+0.3** |
| | 1.7nm,0.5s,baz=108,slow=2.2,SNR=9.8 | | | | | | |
| **INK** | **Inuvik** | **147.35** | **319** | *e*PKPbc | **PKPbc** | **15 54 49.6** | **+0.5** |
| **SONA0** | **Songino Array** | **149.87** | **87** | *e*PKPbc | **PKPbc** | **15 54 56.3** | **-0.2** |
| **SONM** | **Songino Array** | **149.87** | **87** | PKPbc | **PKPbc** | **15 54 56.3** | **-0.2** |
| | 1.6nm,0.6s,baz=214,slow=3.7,SNR=9.1 | | | | | | |
| **ILAR** | **Eielson Array** | **151.63** | **310** | PKPbc | **PKPbc** | **15 54 60.0** | **+0.1** |
| | 1.4nm,0.6s,baz=134,slow=1.4,SNR=39 | | | | | | |
| **ILB** | **Eielson Array** | **151.63** | **310** | *e*PKPdf | **PKPdf** | **15 54 55.5** | **+1.9** |
| ILB | | | | *e*PKPbc | **PKiKP** | **15 55 01.3** | **+1.0** |

*IDC **15** 15:41:29.7±2.1,9.19N×121.38E,h0km,mb3.7/3,*
*mb1 3.9/3,mb1mx3.4/45,mbtmp3.7/3,Error ellipse:*
*s-maj=225.0km s-min=26.5km az=62.0*
*ISCJB **15** 15:41:30.2±1.2,9.72N±0.04×122.02E±0.04,h15km±10km,*
*mb3.7/3,Error ellipse: s-maj=8.1km s-min=5.2km*
*az=135.3*
*MAN **15** 15:41:31,9.78N×122.08E,h27km,mb4.6,ML3.5,MS3.5*
*MAN INTENSITY II - SIPALAY CITY NEGROS OCCIDENTAL.*
**ISC 15 15:41:28.1±1.8,9.67N±0.04×122.11E±0.05,h1km±13km, n17,σ1°26/25,mb3.7/3,4C-1D,Negros**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GUIM** | **Jordan** | **1.06** | **27** | *e*P | **Pg** | **15 41 48.7** | **+0.2** |
| GUIM | | | | *e*S | **Sg** | **15 42 02.7** | **+0.4** |
| **JAP** | **San Jose, Anti** | **1.08** | **352** | ‖*e*P | **Pn** | **15 41 50.2** | **-0.2** |
| **SNPH** | **Sibulan** | **1.16** | **106** | ⇑*i*P | **Pn** | **15 41 51.6** | **0.0** |
| **DCPH** | **Dipolog City** | **1.64** | **131** | ⇑*e*P | **Pb** | **15 41 59.0** | **-0.1** |
| **LLP** | **Lapu-Lapu** | **1.94** | **70** | ⇑*e*P | **Pn** | **15 42 02.8** | **+0.5** |
| LLP | | | | *i* S | **Sn** | **15 42 27.4** | **0.0** |
| **RCP** | **Roxas** | **1.98** | **18** | ⇑*e*P | **Pb** | **15 42 04.5** | **-0.5** |
| RCP | | | | *e*S | **Sn** | **15 42 28.6** | **+0.3** |
| **PAGZ** | **Pagadian** | **2.21** | **145** | *e*P | **Pb** | **15 42 08.9** | **0.0** |
| PAGZ | | | | *e*S | **Sb** | **15 42 37.4** | **+0.7** |
| **MSLP** | **Maasin** | **2.75** | **80** | *e*P | **Pn** | **15 42 15.1** | **+1.6** |
| MSLP | | | | *e*S | **Sb** | **15 42 52.7** | **+0.3** |
| **OCLP** | **Ormoc** | **2.82** | **61** | *e*P | **Pn** | **15 42 15.2** | **+0.8** |
| **BUSP** | **Coron** | **2.98** | **321** | *e*P | **Pn** | **15 42 17.5** | **+0.9** |
| BUSP | | | | *e*S | **Sn** | **15 42 50.7** | **-2.3** |
| **ENPP** | **El Nido** | **3.05** | **300** | *e*P | **Pn** | **15 42 18.6** | **+1.1** |
| ENPP | | | | *e*S | **Sn** | **15 42 52.4** | **-2.2** |
| **BUKP** | **Musuan** | **3.42** | **121** | *e*P | **Pb** | **15 42 27.8** | **-1.9** |
| BUKP | | | | *e*S | **Sb** | **15 43 10.1** | **-1.7** |
| **BUTP** | **Butuan** | **3.54** | **101** | *e*P | **Pb** | **15 42 29.1** | **-2.5** |
| **WRA** | **Warramunga Arr** | **31.80** | **158** | P | **P** | **15 47 53.7** | **-0.8** |
| | 0.4nm,0.6s,baz=332,slow=10,SNR=6.0 | | | | | | |
| **AS31** | **Alice Springs** | **35.08** | **161** | *e*P | **P** | **15 48 23.9** | **+0.7** |
| **ASAR** | **Alice Springs** | **35.08** | **161** | P | **P** | **15 48 23.8** | **+0.7** |
| | 1.3nm,0.6s,baz=344,slow=7.5,SNR=32 | | | | | | |
| **MKAR** | **Makanchi Array** | **50.09** | **325** | P | **P** | **15 50 26.2** | **+1.4** |
| | 0.6nm,0.6s,baz=117,slow=8.8,SNR=5.7 | | | | | | |

*ISCJB **15** 15:53:49.4±1.0,43.23N±0.07×146.58E±0.08,*
*h65km±12km, Error ellipse: s-maj=13.7km s-min=6.0km*
*az=145.5*
*SKHL **15** 15:53:50.4±0.6,43.17N×146.64E,h44km±4km,mb4.3/2*
*JMA **15** 15:53:50.4±0.2,43.20N×146.52E,h64km±1km,M3.0*
**ISC 15 15:53:49.9±1.9,43.22N±0.09×146.60E±0.07,h59km±18km, n16,σ0°48/27,Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **NEM2** | **Nemuro 2** | **0.65** | **284** | P | **Pn** | **15 54 03.7** | **+0.3** |
| NEM2 | | | | *e*S | **Sn** | **15 54 13.4** | **+0.1** |
| **SHO** | **Shikotan** | **0.67** | **14** | *i* P | **Pn** | **15 54 03.9** | **+0.1** |
| SHO | | | | AMB | AMB | 15 54 04.1 | |
| | 50nm,0.2s | | | | | | |
| SHO | | | | *e*S | **Sn** | **15 54 13.9** | **0.0** |
| SHO | | | | A | A | 15 54 14.6 | |
| | 443nm,0.2s | | | | | | |
| SHO | | | | A | A | 15 54 14.6 | |
| | 260nm,0.2s | | | | | | |
| **GLVR** | **Golovnino** | **0.95** | **304** | *e*P | **Pn** | **15 54 07.4** | **+0.2** |
| GLVR | | | | *e*S | **Sn** | **15 54 20.6** | **+0.7** |
| **YUK** | **Yuzh-Kuril'sk** | **0.98** | **327** | *i* P | **Pn** | **15 54 07.4** | **-0.2** |
| YUK | | | | AMB | AMB | 15 54 11.1 | |
| | 174nm,0.2s | | | | | | |
| YUK | | | | *i* S | **Sn** | **15 54 20.6** | **-0.1** |
| YUK | | | | A | A | 15 54 21.7 | |
| | 245nm,0.1s | | | | | | |
| YUK | | | | A | A | 15 54 21.7 | |
| | 410nm,0.1s | | | | | | |
| **GRPR** | **Tuman** | **0.98** | **322** | *e*P | **Pn** | **15 54 07.5** | **-0.2** |
| GRPR | | | | *i* S | **Sn** | **15 54 19.8** | **-1.0** |
| **LAGR** | **Lagunnoye** | **1.03** | **325** | *e*P | **Pn** | **15 54 07.9** | **-0.3** |
| LAGR | | | | *e*S | **Sn** | **15 54 21.4** | **-0.4** |
| **JRA** | **Rausu** | **1.29** | **304** | P | **Pn** | **15 54 12.0** | **+0.2** |
| JRA | | | | *e*S | **Sn** | **15 54 28.4** | **+0.2** |
| **JAK** | **Akkeshi** | **1.41** | **262** | P | **Pn** | **15 54 13.4** | **+0.1** |
| JAK | | | | *e*S | **Sn** | **15 54 30.4** | **-0.6** |
| **JNK** | **Nakash** | **1.42** | **286** | P | **Pn** | **15 54 13.2** | **-0.3** |
| **JOB** | **Onbets** | **2.05** | **262** | P | **Pn** | **15 54 22.3** | **+0.3** |
| JOB | | | | *e*S | **Sn** | **15 54 46.2** | **-0.3** |
| **JAR** | **Ashorobuto** | **2.07** | **273** | P | **Pn** | **15 54 22.6** | **+0.3** |
| JAR | | | | *e*S | **Sn** | **15 54 47.0** | **0.0** |
| **JTKR** | **Abashiri--Toko** | **2.10** | **292** | P | **Pn** | **15 54 23.2** | **+0.6** |
| **KUR** | **Kuril'sk** | **2.21** | **24** | *e*P | **Pn** | **15 54 24.6** | **+0.4** |
| KUR | | | | *e*S | **Sn** | **15 54 49.8** | **-0.5** |
| KUR | | | | A | A | 15 54 52.5 | |
| | 110nm,0.4s | | | | | | |
| KUR | | | | A | A | 15 54 52.5 | |
| | 89nm,0.4s | | | | | | |
| **JCH** | **Churui** | **2.46** | **257** | P | **Pn** | **15 54 27.7** | **+0.2** |
| JCH | | | | *e*S | **Sn** | **15 54 55.3** | **-1.0** |
| **JMP** | **Maruseppu** | **2.48** | **290** | P | **Pn** | **15 54 28.7** | **+0.8** |
| **YSS** | **Yuzh-Sakhalins** | **4.62** | **325** | *e*rx | rx | 15 55 07.1 | |

**MEX 15 15:55:25.1±0.6,15.85N×97.71W,h20km±29km,MD3.7, Near coast of Oaxaca**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PNIG** | **Pinotepa** | **0.67** | **324** | *e*P | Pb | 15 55 36.1 | -2.1 |
| PNIG | | | | *e*S | Sb | 15 55 44.2 | -2.9 |
| **VHO** | **Vista Hermosa** | **1.54** | **38** | *e*P | Pn | 15 55 48.3 | -3.3 |
| VHO | | | | *e*S | Sn | 15 56 07.5 | -3.6 |
| **HUIG** | **Huatulco** | **1.55** | **93** | *e*P | Pn | 15 55 48.9 | -2.6 |

**IDC 15 16:04:48.1±1.1,19.23N×121.44E,h0km,mb3.4/5, mb1 3.7/5,mb1mx3.5/43,mbtmp3.5/5,Error ellipse: s-maj=44.2km s-min=22.2km az=60.0,Philippine Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CMAR** | **Chiang Mai Arr** | **21.30** | **272** | P | P | 16 09 36.2 | -0.4 |
| | 0.2nm,0.4s,baz=62,slow=9.2,SNR=4.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **40.94** | **161** | P | P | 16 12 32.0 | -0.6 |
| | 0.4nm,0.5s,baz=344,slow=9.1,SNR=21 | | | | | | |
| **MKAR** | **Makanchi Array** | **42.15** | **320** | P | P | 16 12 42.2 | -0.2 |
| | 0.6nm,0.8s,baz=117,slow=7.1,SNR=3.8 | | | | | | |
| **ASAR** | **Alice Springs** | **44.34** | **164** | P | P | 16 13 00.6 | +0.3 |
| | 0.3nm,0.3s,baz=349,slow=6.7,SNR=28 | | | | | | |
| **YKA** | **Yellowknife Ar** | **87.42** | **23** | P | P | 16 17 37.5 | +0.3 |
| | 0.5nm,0.8s,baz=308,slow=4.4,SNR=6.1 | | | | | | |

**IDC 15 16:07:06.8±49.0,15.71S×175.54W,h0km,mb3.9/3, mb1 4.1/3,mb1mx3.7/38,mbtmp3.9/3,Error ellipse: s-maj=932.6km s-min=174.2km az=77.0,Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **STKA** | **Stephens Creek** | **42.10** | **240** | P | P | 16 15 02.0 | +1.2 |
| | 0.9nm,0.6s,baz=77,slow=11,SNR=4.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **47.76** | **257** | P | P | 16 15 46.0 | -0.2 |
| | 0.2nm,0.3s,baz=96,slow=8.5,SNR=12 | | | | | | |
| **ASAR** | **Alice Springs** | **48.05** | **252** | P | P | 16 15 47.4 | -1.0 |
| | 2.1nm,0.4s,baz=87,slow=8.1,SNR=90 | | | | | | |

*IDC **15** 16:22:43.1±1.1,38.21N×142.72E,h0km,mb3.7/5,*
*mb1 3.9/9,mb1mx3.6/44,mbtmp3.9/9,ML3.7/4,Error*
*ellipse: s-maj=32.4km s-min=18.4km az=95.0*
*ISCJB **15** 16:22:44.1±1.3,38.40N±0.05×142.32E±0.07,h23km±8km,*
*mb3.6/5,Error ellipse: s-maj=9.8km s-min=7.2km az=26.1*
*JMA **15** 16:22:45.4±0.1,38.48N×142.27E,h26km±1km,M3.9*
**ISC 15 16:22:42.5±1.9,38.40N±0.04×142.29E±0.07,h4km±12km, n25,σ1°58/25,mb3.6/5,Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JIO** | **Ouri** | **0.74** | **274** | P | **Pn** | **16 22 59.1** | **-0

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **JOU** | **Okura** | **1.28** | **307** | P | **Pn** | **16 27 49.7** | **+0.3** |
| JOU | | | | S | **Sn** | **16 28 05.4** | **-0.4** |
| **JFT** | **Otama** | **1.29** | **267** | P | **Pb** | **16 27 50.2** | **-0.4** |
| **JMK** | **Ichinoseki** | **1.47** | **337** | P | **Pn** | **16 27 52.2** | **+0.2** |
| **JYS** | **Shirataka** | **1.62** | **293** | P | **Pb** | **16 27 55.1** | **-1.1** |
| JYS | | | | S | **Sn** | **16 28 15.4** | **+1.2** |
| **JFY** | **Yanaizu** | **1.80** | **265** | P | **Pb** | **16 27 58.0** | **-1.3** |
| **JYK** | **Kaneyama** | **1.82** | **317** | P | **Pn** | **16 27 57.2** | **+0.4** |
| **JOM** | **Ohasama** | **1.95** | **345** | P | **Pn** | **16 27 58.9** | **+0.4** |
| **MJAR** | **Matsushiro Arr** | **3.18** | **252** | Pn | **Pn** | **16 28 17.8** | **+2.3** |
| | 2.5nm,0.3s,baz=82,slow=16,SNR=19 | | | | | | |
| MJAR | | | | Sn | **Sb** | **16 28 58.4** | **-2.7** |
| | baz=83,slow=24,SNR=3.3 | | | | | | |
| **MAT** | **Matsushiro** | **3.18** | **252** | P | **Pn** | **16 28 17.6** | **+2.1** |
| MAT | | | | eS | **Sn** | **16 28 55.6** | **+2.9** |
| **JHJ** | **Hachijo jima 2** | **4.81** | **202** | Pn | **Pn** | **16 28 35.6** | **-2.2** |
| | 12nm,0.3s,baz=25,slow=17,SNR=2.9 | | | | | | |
| JHJ | | | | Sn | **Sn** | **16 29 33.0** | **+0.2** |
| | 8.4nm,0.3s,baz=126,slow=23,SNR=1.8 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy 28.07** | **122** | | T | T | 17 02 39.5 | |
| | baz=315,slow=75,SNR=56 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy 28.08** | **122** | | T | T | 17 02 44.3 | |
| | baz=315,slow=75,SNR=48 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy 28.09** | **122** | | T | T | 17 02 46.5 | |
| | baz=315,slow=75,SNR=45 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy 28.81** | **125** | | T | T | 17 03 44.0 | |
| | baz=316,slow=76,SNR=82 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy 28.81** | **125** | | T | T | 17 03 42.2 | |
| | baz=316,slow=76,SNR=57 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy 28.82** | **125** | | T | T | 17 03 45.3 | |
| | baz=316,slow=76,SNR=68 | | | | | | |
| **ILAR** | **Eielson Array** | **48.79** | **33** | P | P | 16 36 19.4 | +10 |
| | 0.4nm,1.0s,baz=265,slow=6.2,SNR=3.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **57.68** | **188** | P | **P** | **16 37 17.3** | **+1.9** |
| | 0.2nm,0.7s,baz=6.1,slow=7.0,SNR=4.4 | | | | | | |

*IDC **15** 16:27:47.8±0.8,55°.31S×28°.07W,h0km,mb4.3/5, mb1 4.5/6,mb1mx4.0/21,mbtmp4.3/6,ML4.5/1,Error ellipse: s-maj=37.1km s-min=22.1km az=64.0*

*ISCJB **15** 16:27:52.3±0.5,55°.42S±0°.09×28°.4W±0°.1,h45km, mb4.5/13,Error ellipse: s-maj=13.0km s-min=10.7km az=35.6*

*NEIC **15** 16:27:53.5±2.0,55°.38S×28°.39W,h39km±18km,mb4.7/13, Error ellipse: s-maj=14.5km s-min=9.7km az=52.0*

**ISC 15 16:27:54.8±0.6,55°.5S±0°.1×28°.73W±0°.08,h45km,n29, σ1§69/31,mb4.5/12,South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HOPE** | **Hope Point** | **4.63** | **282** | *e*Pn | **Pn** | **16 29 03.0** | **+0.9** |
| HOPE | | | | *e*Sn | **Sn** | **16 29 49.5** | **-5.0** |
| **EFI** | **East Falkland** | **17.76** | **270** | *e*Pn | **P** | **16 32 00.3** | **+1.6** |
| | 139nm,1.9s | | | | | | |
| **SNAA** | **Sanae** | **19.64** | **156** | P | **P** | **16 32 17.6** | **-1.7** |
| | 1.5nm,0.3s,baz=310,slow=10.0,SNR=41 | | | | | | |
| **SNAA** | **Sanae** | **19.64** | **156** | *e*P | **P** | **16 32 17.5** | **-1.7** |
| | 7.7nm,0.5s | | | | | | |
| **PMSA** | **Palmer Station** | **19.64** | **227** | *e*P | **P** | **16 32 20.2** | **+0.9** |
| | 80nm,0.4s | | | | | | |
| **TRQA** | **Tornquist** | **28.29** | **294** | *e*P | **P** | **16 33 44.7** | **+1.0** |
| | 10nm,1.3s | | | | | | |
| **PLCA** | **Paso Flores** | **31.04** | **281** | *e*P | **P** | **16 34 09.0** | **+0.8** |
| | 20nm,1.8s | | | | | | |
| **QSPA** | **South Pole Qui** | **34.79** | **180** | *e*P | **P** | **16 34 41.4** | **+0.6** |
| | 4.3nm,0.8s | | | | | | |
| **CPUP** | **Villa Florida** | **35.77** | **313** | P | **P** | **16 34 49.1** | **-0.2** |
| | 2.1nm,0.7s,baz=151,slow=9.7,SNR=6.1 | | | | | | |
| **CPUP** | **Villa Florida** | **35.77** | **313** | *e*P | **P** | **16 34 48.4** | **-0.9** |
| | 25nm,1.8s | | | | | | |
| **VNDA** | **Vanda** | **47.12** | **183** | P | **P** | **16 36 22.3** | **+0.6** |
| | 2.9nm,0.7s,baz=187,slow=5.5,SNR=6.6 | | | | | | |
| **VNDA** | **Vanda** | **47.12** | **183** | *e*P | **P** | **16 36 22.3** | **+0.6** |
| VNDA | | | | *es*P | **P** | **16 36 22.6** | **+0.9** |
| **MNMC** | **Minye Minye** | **47.55** | **303** | *e*P | **P** | **16 36 27.2** | **+1.3** |
| | 5.7nm,0.7s | | | | | | |
| **LPAZ** | **La Paz** | **49.32** | **307** | P | **P** | **16 36 41.1** | **+1.1** |
| | 2.3nm,0.6s,baz=154,slow=6.1,SNR=9.4 | | | | | | |
| **LPAZ** | **La Paz** | **49.32** | **307** | *e*P | **P** | **16 36 41.1** | **+1.1** |
| | 2.9nm,0.6s | | | | | | |
| **LBTB** | **Lobatse** | **49.69** | **75** | *e*P | **P** | **16 36 42.9** | **+0.8** |
| | 13nm,0.7s | | | | | | |
| **RCBR** | **Riachuelo** | **49.82** | **351** | *e*P | **P** | **16 36 46.0** | **+2.8** |
| | 15nm,0.8s | | | | | | |
| **SAML** | **Samuel** | **53.77** | **316** | *e*P | **P** | **16 37 11.9** | **-0.7** |
| | 4.6nm,0.7s | | | | | | |
| **SDV** | **Santo Domingo** | **72.98** | **316** | *e*P | **P** | **16 39 20.1** | **+0.4** |
| | 16nm,1.6s | | | | | | |
| **TOA0** | **Torodi Ar. Sit** | **72.98** | **31** | *e*P | **P** | **16 39 16.5** | **-3.0** |
| **TORD** | **Torodi Ar. Bea** | **72.98** | **31** | P | **P** | **16 39 17.1** | **-2.3** |
| | 1.6nm,0.6s,baz=201,slow=6.4,SNR=11 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **72.99** | **31** | *e*P | **P** | **16 39 17.1** | **-2.4** |
| **ASAR** | **Alice Springs** | **99.81** | **164** | P | **Pdif** | **16 41 32.8** | **-1.4** |
| | 0.5nm,0.9s,baz=167,slow=4.6,SNR=4.8 | | | | | | |
| **YKA** | **Yellowknife Ar** | **135.15** | **319** | PKP | **PKPdf** | **16 47 07.4** | **-0.2** |
| | 0.5nm,0.7s,baz=124,slow=1.8,SNR=7.1 | | | | | | |
| **BVAR** | **Borovoye Array** | **135.20** | **58** | PKP | **PKPdf** | **16 47 07.6** | **-0.5** |
| | 0.4nm,0.5s,baz=204,slow=3.2,SNR=4.2 | | | | | | |
| **ILAR** | **Eielson Array** | **149.07** | **313** | PKPbc | **PKPbc** | **16 47 36.5** | **0.0** |
| | 6.3nm,0.7s,baz=131,slow=2.4,SNR=81 | | | | | | |
| **ILB** | **Eielson Array** | **149.07** | **313** | *e*PKPbc | **PKPbc** | **16 47 35.9** | **-0.5** |
| **SONA0** | **Songino Array** | **151.56** | **87** | *e*PKPbc | **PKPbc** | **16 47 41.6** | **-1.5** |
| **SONM** | **Songino Array** | **151.56** | **87** | PKPbc | **PKPbc** | **16 47 41.6** | **-1.5** |
| | 2.7nm,1.0s,baz=215,slow=2.6,SNR=11 | | | | | | |

**WEL 15 16:33:03.7±0.2,39°.10S×175°.36E,h133km±1km,ML3.5/39, 19C-6D,Error ellipse: s-maj=1.2km s-min=1.1km az=0.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TWVZ** | **Taurewa** | **0.07** | **62** | ⇑PN | Pn | 16 33 21.6 | -0.1 |
| TWVZ | | | | SN | Sn | 16 33 35.3 | -0.1 |
| **WTVZ** | **West Tongariro** | **0.18** | **94** | PN | Pn | 16 33 21.8 | -0.2 |
| WTVZ | | | | SN | Sn | 16 33 35.6 | -0.2 |
| **PKVZ** | **Pokaka** | **0.19** | **183** | ⇑PN | Pn | 16 33 21.8 | -0.1 |
| PKVZ | | | | SN | Sn | 16 33 35.5 | -0.3 |
| **NGZ** | **Ngauruhoe** | **0.20** | **111** | ⇑PN | Pn | 16 33 22.1 | 0.0 |
| **KRVZ** | **Karewarewa** | **0.22** | **88** | ⇑PN | Pn | 16 33 22.1 | +0.1 |
| KRVZ | | | | SN | Sn | 16 33 35.7 | -0.2 |
| **DRZ** | **Dome Shelter** | **0.23** | **138** | PN | Pn | 16 33 22.1 | -0.2 |
| **OTVZ** | **Oturere** | **0.24** | **104** | PN | Pn | 16 33 22.3 | +0.2 |
| **TRVZ** | **Turoa** | **0.24** | **144** | PN | Pn | 16 33 22.2 | 0.0 |
| **TUVZ** | **Tukino** | **0.28** | **126** | ⇑PN | Pn | 16 33 22.4 | +0.1 |
| TUVZ | | | | SN | Sn | 16 33 35.5 | -0.9 |
| **WNVZ** | **Wahianoa** | **0.29** | **141** | PN | Pn | 16 33 22.2 | -0.1 |
| **MTVZ** | **Mangateitei** | **0.29** | **163** | PN | Pn | 16 33 21.5 | -0.7 |
| **MOVZ** | **Moawhango** | **0.43** | **135** | ⇑PN | Pn | 16 33 22.5 | -0.3 |
| MOVZ | | | | SN | Sn | 16 33 35.9 | -1.4 |
| **VRZ** | **Vera Road** | **0.47** | **267** | ⇑PN | Pn | 16 33 22.6 | -0.3 |
| **WATZ** | **Wairara** | **0.49** | **37** | PN | Pn | 16 33 23.3 | +0.2 |
| **BHHZ** | **Black Hill Sta** | **0.67** | **126** | ⇑PN | Pn | 16 33 23.9 | -0.2 |
| BHHZ | | | | SN | Sn | 16 33 38.4 | -1.3 |
| BHHZ | | | | AML | AML | 16 33 38.7 | |
| **HIZ** | **Hauiti** | **0.71** | **326** | ⇑PN | Pn | 16 33 24.2 | -0.2 |
| HIZ | | | | SN | Sn | 16 33 39.8 | -0.2 |
| **WAZ** | **Wanganui** | **0.71** | **204** | ⇑PN | Pn | 16 33 24.4 | 0.0 |
| **TLZ** | **Tolley Road** | **0.78** | **10** | PN | Pn | 16 33 24.9 | -0.2 |
| **MHEZ** | **Mangahewa** | **0.81** | **272** | ⇑PN | Pn | 16 33 25.1 | -0.1 |
| **LREZ** | **Lake Rotokare** | **0.82** | **244** | ⇑PN | Pn | 16 33 25.2 | -0.1 |
| **MRHZ** | **Matea Rd** | **0.87** | **72** | PN | Pn | 16 33 25.2 | -0.5 |
| MRHZ | | | | SN | Sn | 16 33 41.1 | -1.3 |
| MRHZ | | | | AML | AML | 16 33 43.8 | |
| **BKZ** | **Black Stump Fm** | **0.88** | **94** | PN | Pn | 16 33 25.7 | -0.2 |
| BKZ | | | | SN | Sn | 16 33 41.7 | -1.0 |
| BKZ | | | | AML | AML | 16 33 42.2 | |
| **KWHZ** | **Kaweka Forest** | **0.89** | **112** | PN | Pn | 16 33 26.4 | +0.5 |
| KWHZ | | | | AML | AML | 16 33 43.8 | |
| KWHZ | | | | AML | AML | 16 33 44.1 | |
| **KRHZ** | **Kereru** | **0.95** | **125** | PN | Pn | 16 33 26.7 | +0.3 |
| KRHZ | | | | AML | AML | 16 33 43.4 | |
| KRHZ | | | | AML | AML | 16 33 45.6 | |
| **PREZ** | **Palmer Road** | **0.96** | **255** | ⇑PN | Pn | 16 33 26.4 | -0.1 |
| **NEZ** | **North Egmont** | **1.00** | **260** | ⇓PN | Pn | 16 33 26.7 | -0.2 |
| **PNHZ** | **Pukenui** | **1.04** | **142** | ⇑PN | Pn | 16 33 27.3 | +0.1 |
| PNHZ | | | | AML | AML | 16 33 45.1 | |
| PNHZ | | | | AML | AML | 16 33 47.1 | |
| **TSZ** | **Takapari Road** | **1.06** | **154** | PN | Pn | 16 33 27.4 | 0.0 |
| TSZ | | | | AML | AML | 16 33 46.4 | |
| TSZ | | | | AML | AML | 16 33 46.6 | |
| **KHEZ** | **Kahui Hut** | **1.06** | **259** | PN | Pn | 16 33 27.2 | -0.3 |
| **PKE** | **Pukeiti** | **1.07** | **265** | ⇑PN | Pn | 16 33 27.1 | -0.5 |
| **MCHZ** | **McNeill Hill** | **1.09** | **109** | ⇓PN | Pn | 16 33 28.7 | +1.0 |
| MCHZ | | | | AML | AML | 16 33 48.7 | |
| MCHZ | | | | AML | AML | 16 33 50.1 | |
| **OHWZ** | **Ohakea** | **1.10** | **182** | ⇑PN | Pn | 16 33 28.0 | +0.3 |
| **NMHZ** | **Naumai** | **1.12** | **90** | PN | Pn | 16 33 29.1 | +1.0 |
| NMHZ | | | | AML | AML | 16 33 48.5 | |
| NMHZ | | | | AML | AML | 16 33 50.9 | |
| **MTHZ** | **Maungataniwha** | **1.18** | **78** | PN | Pn | 16 33 28.3 | -0.3 |
| **MUGZ** | **Murupara** | **1.27** | **61** | PN | Pn | 16 33 28.9 | -0.5 |
| **WPHZ** | **Waipukurau** | **1.27** | **139** | PN | Pn | 16 33 29.6 | +0.1 |
| WPHZ | | | | AML | AML | 16 33 48.5 | |
| WPHZ | | | | AML | AML | 16 33 54.9 | |
| **ARHZ** | **Aropaoanui** | **1.28** | **98** | PN | Pn | 16 33 30.2 | +0.6 |
| ARHZ | | | | AML | AML | 16 33 50.3 | |
| ARHZ | | | | AML | AML | 16 33 51.4 | |
| **POWZ** | **Post Office Ro** | **1.33** | **166** | PN | Pn | 16 33 29.5 | -0.5 |
| POWZ | | | | AML | AML | 16 33 50.1 | |
| POWZ | | | | AML | AML | 16 33 57.0 | |
| **DVHZ** | **Dannevirke** | **1.35** | **153** | PN | Pn | 16 33 29.9 | -0.4 |
| DVHZ | | | | AML | AML | 16 33 49.2 | |
| DVHZ | | | | AML | AML | 16 33 49.7 | |
| **RTZ** | **Ruatahuna** | **1.35** | **69** | PN | Pn | 16 33 29.9 | -0.6 |
| **KAHZ** | **Kahuranaki** | **1.36** | **121** | PN | Pn | 16 33 30.9 | +0.4 |
| KAHZ | | | | AML | AML | 16 33 51.2 | |
| KAHZ | | | | AML | AML | 16 33 52.9 | |
| **WHHZ** | **Waihua** | **1.46** | **90** | ⇓PN | Pn | 16 33 31.8 | +0.4 |
| WHHZ | | | | AML | AML | 16 33 54.6 | |
| WHHZ | | | | AML | AML | 16 33 56.5 | |
| **PXZ** | **Pawanui** | **1.48** | **129** | *e*PN | Pn | 16 33 31.3 | -0.4 |
| PXZ | | | | AML | AML | 16 33 53.1 | |
| PXZ | | | | AML | AML | 16 33 54.4 | |
| **PRHZ** | **Porangahau** | **1.52** | **140** | PN | Pn | 16 33 31.9 | -0.3 |
| PRHZ | | | | AML | AML | 16 33 53.4 | |
| PRHZ | | | | AML | AML | 16 33 54.3 | |
| **PRWZ** | **Pori Road** | **1.52** | **162** | PN | Pn | 16 33 31.9 | -0.3 |
| PRWZ | | | | AML | AML | 16 33 54.4 | |
| PRWZ | | | | AML | AML | 16 33 55.3 | |
| **MRZ** | **Mangatainoka R** | **1.56** | **174** | PN | Pn | 16 33 31.7 | -0.9 |
| MRZ | | | | AML | AML | 16 33 54.1 | |
| MRZ | | | | AML | AML | 16 33 54.9 | |
| **SNGZ** | **Shannon Statio** | **1.58** | **79** | PN | Pn | 16 33 32.9 | +0.1 |
| SNGZ | | | | AML | AML | 16 33 58.7 | |
| SNGZ | | | | AML | AML | 16 33 59.3 | |
| **URZ** | **Urewera** | **1.61** | **59** | PN | Pn | 16 33 32.3 | -0.9 |
| **OGWZ** | **Otaki Gorge** | **1.72** | **185** | PN | Pn | 16 33 33.6 | -0.8 |
| OGWZ | | | | AML | AML | 16 33 57.2 | |
| OGWZ | | | | AML | AML | 16 33 57.5 | |
| **TIWZ** | **Tintock** | **1.72** | **167** | PN | Pn | 16 33 33.6 | -0.9 |
| TIWZ | | | | AML | AML | 16 33 56.1 | |
| TIWZ | | | | AML | AML | 16 33 57.2 | |
| **KIW** | **Kapiti Island** | **1.79** | **191** | PN | Pn | 16 33 33.9 | -1.3 |
| KIW | | | | AML | AML | 16 33 56.7 | |
| KIW | | | | AML | AML | 16 33 58.5 | |
| **HOWZ** | **Holdsworth Sta** | **1.80** | **176** | ⇑PN | Pn | 16 33 34.2 | -1.1 |
| HOWZ | | | | AML | AML | 16 33 58.6 | |
| HOWZ | | | | AML | AML | 16 33 58.6 | |
| **KNZ** | **Kokohu** | **1.80** | **88** | ⇓PN | Pn | 16 33 35.1 | -0.3 |
| **MWZ** | **Matawai** | **1.86** | **66** | PN | Pn | 16 33 35.5 | -0.6 |
| **RIGZ** | **Rimuhau** | **1.92** | **79** | PN | Pn | 16 33 36.6 | -0.1 |
| RIGZ | | | | AML | AML | 16 33 37.7 | |
| RIGZ | | | | AML | AML | 16 34 03.7 | |
| **CPWZ** | **Castlepoint** | **1.92** | **161** | SN | Sn | 16 33 59.5 | -2.6 |
| **PRGZ** | **Paritu Road** | **1.97** | **86** | PN | Pn | 16 33 37.3 | -0.1 |
| **MHGZ** | **Mahia Peninsul** | **1.98** | **92** | PN | Pn | 16 33 37.5 | 0.0 |
| **CAW** | **Cannon Point** | **2.02** | **186** | PN | Pn | 16 33 36.5 | -1.4 |
| CAW | | | | AML | AML | 16 34 03.3 | |
| CAW | | | | AML | AML | 16 34 03.3 | |
| **DUWZ** | **D'Urville Isla** | **2.03** | **213** | ⇓PN | Pn | 16 33 36.5 | -1.5 |
| DUWZ | | | | SN | Sn | 16 34 02.2 | -2.4 |
| **TMWZ** | **Te Maipa** | **2.04** | **169** | PN | Pn | 16 33 36.7 | -1.6 |
| TMWZ | | | | AML | AML | 16 34 04.4 | |
| **MTW** | **Mount Morrison** | **2.06** | **177** | PN | Pn | 16 33 36.8 | -1.6 |
| MTW | | | | AML | AML | 16 34 03.8 | |
| MTW | | | | AML | AML | 16 34 04.1 | |
| **RUGZ** | **Raukumara Rang** | **2.14** | **59** | PN | Pn | 16 33 38.4 | -1.2 |
| **WEL** | **Wellington** | **2.23** | **192** | PN | Pn | 16 33 38.7 | -1.8 |
| **TWGZ** | **Tauwhareparae** | **2.25** | **67** | PN | Pn | 16 33 40.6 | -0.3 |
| TWGZ | | | | AML | AML | 16 33 46.4 | |
| TWGZ | | | | AML | AML | 16 34 11.9 | |
| **TCW** | **Tory Channel** | **2.26** | **201** | PN | Pn | 16 33 39.3 | -1.7 |
| TCW | | | | AML | AML | 16 34 07.5 | |
| TCW | | | | AML | AML | 16 34 08.3 | |
| **PAWZ** | **Paruwai Farm** | **2.28** | **179** | PN | Pn | 16 33 39.4 | -1.8 |
| **TRWZ** | **Traveller** | **2.31** | **174** | PN | Pn | 16 33 39.9 | -1.6 |
| TRWZ | | | | AML | AML | 16 34 09.4 | |
| TRWZ | | | | AML | AML | 16 34 09.8 | |
| **CNGZ** | **Carnagh Statio** | **2.31** | **75** | PN | Pn | 16 33 41.5 | -0.1 |
| **MSWZ** | **Moikau Station** | **2.31** | **182** | PN | Pn | 16 33 39.8 | -1.8 |
| MSWZ | | | | AML | AML | 16 34 08.8 | |
| MSWZ | | | | AML | AML | 16 34 08.9 | |
| **HAZ** | **Te Kaha** | **2.33** | **56** | PN | Pn | 16 33 40.4 | -1.4 |
| HAZ | | | | AML | AML | 16 33 41.7 | |
| HAZ | | | | AML | AML | 16 34 31.2 | |
| **BHW** | **Baring Head** | **2.33** | **189** | ⇑PN | Pn | 16 33 40.0 | -1.9 |
| BHW | | | | AML | AML | 16 34 09.3 | |
| BHW | | | | AML | AML | 16 34 09.5 | |
| **PLWZ** | **Palliser** | **2.46** | **182** | PN | Pn | 16 33 41.4 | -2.1 |
| PLWZ | | | | AML | AML | 16 34 12.4 | |
| PLWZ | | | | AML | AML | 16 34 12.6 | |
| **PUZ** | **Puketiti** | **2.49** | **67** | ⇓PN | Pn | 16 33 42.8 | -1.1 |
| **TUWZ** | **Tuamarina** | **2.56** | **205** | PN | Pn | 16 33 42.5 | -2.2 |
| TUWZ | | | | AML | AML | 16 34 13.7 | |
| TUWZ | | | | AML | AML | 16 34 14.1 | |
| **NNZ** | **Nelson** | **2.60** | **215** | SN | Sn | 16 34 13.8 | -3.4 |
| **WMGZ** | **Waiomatatini S** | **2.72** | **63** | PN | Pn | 16 33 45.6 | -1.1 |
| WMGZ | | | | AML | AML | 16 33 46.9 | |
| WMGZ | | | | AML | AML | 16 34 19.0 | |
| **QRZ** | **Quartz Range** | **2.77** | **231** | PN | Pn | 16 33 44.8 | -2.6 |
| **BSWZ** | **Blackbirch Sta** | **2.84** | **203** | PN | Pn | 16 33 46.2 | -2.1 |
| **THZ** | **Tophouse** | **3.25** | **214** | PN | Pn | 16 33 51.4 | -2.2 |
| **KHZ** | **Kahutara** | **3.59** | **202** | ⇑PN | Pn | 16 33 55.5 | -2.5 |
| KHZ | | | | AML | AML | 16 34 37.0 | |
| KHZ | | | | AML | AML | 16 34 37.0 | |
| **LTZ** | **Lake Taylor** | **4.36** | **211** | *e*PN | Pn | 16 34 04.6 | -3.6 |

*ISCJB **15** 16:46:19.7±0.3,45°.31N±0°.02×14°.86E±0°.02,h1km±3km, Error ellipse: s-maj=2.9km s-min=2.1km az=14.9*

*LJU **15** 16:46:19.8,45°.32N×14°.86E,h23km,ML2.7*

*ROM **15** 16:46:20.9±0.3,45°.16N×14°.71E,h10km,Md3.0/12, Ml3.1/11,Error ellipse: s-maj=11.3km s-min=2.5km az=36.0*

*CSEM **15** 16:46:20.3±0.2,45°.30N×14°.84E,h2km,ML3.6/23,Error ellipse: s-maj=3.3km s-min=2.4km az=13.0*

*PRU **15** 16:46:26.6,45°.57N×14°.90E,h16km*

**ISC 15 16:46:21.0±0.9,45°.32N±0°.02×14°.85E±0°.01,h11km±7km, n125,σ1§01/202,3C,Northwestern Balkan Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GBRS** | **Gornja Briga** | **0.21** | **352** | *i* Pg | **Pg** | **16 46 25.7** | **+0.1** |
| GBRS | | | | *i* Sg | **Sg** | **16 46 29.7** | **+1.0** |
| | 514nm,0.1s | | | | | | |
| **BOJS** | **Bojanci** | **0.34** | **56** | *i* Pg | **Pg** | **16 46 27.5** | **-0.2** |
| BOJS | | | | *i* Sg | **Sg** | **16 46 32.2** | **0.0** |
| | comp=Z,269nm,0.1s | | | | | | |
| **BOJS** | **Bojanci** | **0.34** | **56** | *i* Pg | **Pg** | **16 46 27.5** | **-0.2** |
| BOJS | | | | *i* Sg | **Sg** | **16 46 32.2** | **0.0** |
| | comp=Z,269nm,0.1s | | | | | | |
| **KNDS** | **Knezji Dol** | **0.39** | **302** | *i* Pg | **Pg** | **16 46 28.4** | **-0.4** |
| KNDS | | | | *i* Sg | **Sg** | **16 46 34.7** | **+0.6** |
| | comp=Z,250nm,0.1s | | | | | | |
| **KNDS** | **Knezji Dol** | **0.39** | **302** | *i* Pg | **Pg** | **16 46 28.4** | **-0.4** |
| KNDS | | | | *i* Sg | **Sg** | **16 46 34.7** | **+0.6** |
| | comp=Z,250nm,0.1s | | | | | | |
| **VISS** | **Visnje** | **0.48** | **359** | *i* Pg | **Pg** | **16 46 30.1** | **-0.4** |
| VISS | | | | *i* Sg | **Sg** | **16 46 37.0** | **+0.1** |
| | comp=Z,246nm,0.1s | | | | | | |
| **VISS** | **Visnje** | **0.48** | **359** | *i* Pg | **Pg** | **16 46 30.1** | **-0.4** |
| VISS | | | | *i* Sg | **Sg** | **16 46 37.0** | **+0.1** |
| | comp=Z,246nm,0.1s | | | | | | |
| **CEY** | **Cerknica** | **0.52** | **325** | *i* Pg | **Pg** | **16 46 30.8** | **-0.3** |
| CEY | | | | *i* Sg | **Sg** | **16 46 38.8** | **+0.9** |
| | comp=Z,362nm,0.2s | | | | | | |
| **CEY** | **Cerknica** | **0.52** | **325** | *e*Pg | **Pg** | **16 46 30.6** | **-0.5** |
| CEY | | | | *i* Sg | **Sg** | **16 46 38.8** | **+0.9** |
| | comp=Z,362nm,0.2s | | | | | | |
| **OZLJ** | **Ozalj** | **0.52** | **55** | *i* Pg | **Pg** | **16 46 31.0** | **-0.3** |
| OZLJ | | | | Sg | **Sg** | **16 46 37.1** | **-1.0** |
| **OZLJ** | **Ozalj** | **0.52** | **55** | *i* Pg | **Pg** | **16 46 30.9** | **-0.3** |
| OZLJ | | | | Sg | **Sg** | **16 46 37.1** | **-1.0** |
| **SKDS** | **Skadanscina** | **0.63** | **291** | *i* Pg | **Pg** | **16 46 32.2** | **-1.1** |
| SKDS | | | | *e*Sg | **Sg** | **16 46 42.3** | **+0.6** |
| | comp=Z,114nm,0.1s | | | | | | |
| **SKDS** | **Skadanscina** | **0.63** | **291** | *i* Pg | **Pg** | **16 46 32.2** | **-1.1** |
| SKDS | | | | *e*Sg | **Sg** | **16 46 42.3** | **+0.6** |
| | comp=Z,114nm,0.1s | | | | | | |
| **CRES** | **Cresnjev** | **0.66** | **40** | *i* Pg | **Pg** | **16 46 33.6** | **-0.2** |
| CRES | | | | *i* Sg | **Sg** | **16 46 42.2** | **-0.3** |
| | comp=Z,243nm,0.2s | | | | | | |
| **CRES** | **Cresnjev** | **0.66** | **40** | *i* Pg | **Pg** | **16 46 33.6** | **-0.2** |
| CRES | | | | *i* Sg | **Sg** | **16 46 42.2** | **-0.3** |
| | comp=Z,243nm,0.2s | | | | | | |
| **GBAS** | **Gorenja Brezov** | **0.68** | **335** | *i* Pg | **Pg** | **16 46 33.5** | **-0.7** |
| | comp=Z,64nm,0.1s | | | | | | |
| **GBAS** | **Gorenja Brezov** | **0.68** | **335** | *i* Pg | **Pg** | **16 46 33.5** | **-0.7** |
| | comp=Z,64nm,0.1s | | | | | | |
| **LEGS** | **Legarje** | **0.71** | **27** | *i* Pg | **Pg** | **16 46 34.5** | **-0.2** |
| LEGS | | | | *e*Sg | **Sg** | **16 46 43.6** | **-0.4** |
| **LEGS** | **Legarje** | **0.71** | **27** | *i* Pg | **Pg** | **16 46 34.5** | **-0.2** |
| LEGS | | | | *e*Sg | **Sg** | **16 46 43.6** | **-0.4** |
| **PDKS** | **Podkum** | **0.75** | **8** | *i* Pg | **Pg** | **16 46 35.2** | **-0.3** |
| PDKS | | | | *i* Sg | **Sg** | **16 46 45.2** | **-0.1** |
| | comp=Z,124nm,0.1s | | | | | | |
| **PDKS** | **Podkum** | **0.75** | **8** | *i* Pg | **Pg** | **16 46 35.2** | **-0.3** |
| PDKS | | | | *i* Sg | **Sg** | **16 46 45.2** | **-0.1** |
| | comp=Z,124nm,0.1s | | | | | | |
| **NVLJ** | **Novalja** | **0.76** | **179** | *i* Pg | **Pg** | **16 46 34.6** | **-1.0** |
| NVLJ | | | | Sg | **Sb** | **16 46 46.1** | **-0.3** |
| **NVLJ** | **Novalja** | **0.76** | **179** | *i* Pg | **Pg** | **16 46 34.5** | **-1.0** |
| NVLJ | | | | Sg | **Sb** | **16 46 46.1** | **-0.3** |
| **LJU** | **Ljubljana** | **0.76** | **343** | *i* Pg | **Pg** | **16 46 35.5** | **-0.2** |
| LJU | | | | *i* Sg | **Sb** | **16 46 47.0** | **+0.4** |
| **LJU** | **Ljubljana** | **0.76** | **343** | ⇑*i* Pg | **Pg** | **16 46 35.4** | **-0.2** |
| LJU | | | | *e*Sg | **Sb** | **16 46 46.5** | **-0.1** |
| **GCIS** | **Gornji Cirnik** | **0.77** | **44** | *i* Pg | **Pg** | **16 46 35.8** | **-0.1** |
| GCIS | | | | *e*Sg | **Sg** | **16 46 45.6** | **-0.4** |
| | comp=Z,94nm,0.2s | | | | | | |
| **GCIS** | **Gornji Cirnik** | **0.77** | **44** | *i* Pg | **Pg** | **16 46 35.8** | **-0.1** |
| GCIS | | | | *e*Sg | **Sg** | **16 46 45.6** | **-0.4** |
| | comp=Z,174nm,0.2s | | | | | | |
| **VNDS** | **Vrh nad Dolski** | **0.79** | **352** | *i* Pg | **Pg** | **16 46 36.0** | **-0.3** |
| | comp=Z,46nm,0.1s | | | | | | |
| **VNDS** | **Vrh nad Dolski** | **0.79** | **352** | *i* Pg | **Pg** | **16 46 36.0** | **-0.3** |
| | comp=Z,46nm,0.1s | | | | | | |
| **JAVS** | **Javornik** | **0.80** | **316** | *i* Pg | **Pg** | **16 46 35.2** | **-1.2** |
| JAVS | | | | *e*Sg | **Sb** | **16 46 47.5** | **-0.3** |
| | comp=Z,150nm,0.2s | | | | | | |
| **JAVS** | **Javornik** | **0.80** | **316** | *i* Pg | **Pg** | **16 46 35.2** | **-1.2** |
| JAVS | | | | *e*Sg | **Sb** | **16 46 47.5** | **-0.3** |
| | comp=Z,150nm,0.2s | | | | | | |
| **TRI** | **Trieste** | **0.86** | **297** | Pg | **Pg** | **16 46 36.8** | **-0.8** |
| TRI | | | | Sg | **Sg** | **16 46 49.1** | **+0.3** |
| | comp=Z,228nm,0.6s | | | | | | |
| **TRI** | **Trieste** | **0.86** | **297** | *e*Pg | **Pg** | **16 46 36.5** | **-1.1** |
| TRI | | | | *e*Sg | **Sb** | **16 46 49.5** | **+0.1** |
| **TRI** | **Trieste** | **0.86** | **297** | Pg | **Pg** | **16 46 36.8** | **-0.8** |
| TRI | | | | Sg | **Sg** | **16 46 49.1** | **+0.3** |
| | comp=Z,228nm,0.6s | | | | | | |
| **CRNS** | **Crni Vrh** | **0.87** | **332** | *i* Pg | **Pg** | **16 46 37.3** | **-0.4** |
| CRNS | | | | *e*Sg | **Sn** | **16 46 50.9** | **-1.0** |
| | comp=Z,63nm,0.1s | | | | | | |
| **CRNS** | **Crni Vrh** | **0.87** | **332** | *i* Pg | **Pg** | **16 46 37.3** | **-0.4** |
| CRNS | | | | *e*Sg | **Sn** | **16 46 50.9** | **-1.0** |
| | comp=Z,63nm,0.1s | | | | | | |
| **GOLS** | **Golise** | **0.88** | **38** | *i* Pg | **Pg** | **16 46 37.8** | **-0.1** |
| | comp=Z,136nm,0.2s | | | | | | |
| **GOLS** | **Golise** | **0.88** | **38** | *i* Pg | **Pg** | **16 46 37.8** | **-0.1** |
| | comp=Z,136nm,0.2s | | | | | | |
| **DOBS** | **Dobrina** | **0.94** | **27** | *i* Pg | **Pg** | **16 46 38.8** | **-0.2** |
| | comp=Z,117nm,0.1s | | | | | | |
| **DOBS** | **Dobrina** | **0.94** | **27** | *i* Pg | **Pg** | **16 46 38.8** | **-0.2** |
| | comp=Z,117nm,0.1s | | | | | | |
| **ZAG** | **Zagreb** | **0.94** | **57** | ⇑*i* Pg | **Pg** | **16 46 37.9** | **-1.3** |
| ZAG | | | | *e*Sg | **Sg** | **16 46 50.9** | **-0.6** |
| **VOJS** | **Vojsko** | **0.98** | **317

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **ACOM** | **Acomizza, Ital** | **1.54** | **323** | *e*Pg | **Pb** | **16 46 49.6** | **-0.1** |
| ACOM | | | | *e*Sg | **Sg** | **16 47 12.7** | **+2.0** |
| **ACOM** | **Acomizza, Ital** | **1.54** | **323** | Pg | **Pb** | **16 46 50.0** | **+0.3** |
| | comp=Z,302nm,0.6s | | | | | | |
| **MYKA** | **Terra Mystica** | **1.56** | **328** | *e*Pg | **Pb** | **16 46 49.9** | **0.0** |
| | comp=Z,8.9nm,0.2s | | | | | | |
| MYKA | | | | Sg | **Sg** | **16 47 11.5** | **+0.3** |
| | comp=Z,50nm,0.3s | | | | | | |
| **MYKA** | **Terra Mystica** | **1.56** | **328** | Pg | **Pb** | **16 46 49.9** | **0.0** |
| | comp=Z,8.9nm,0.2s | | | | | | |
| MYKA | | | | Sg | **Sg** | **16 47 11.5** | **+0.3** |
| | comp=Z,50nm,0.3s | | | | | | |
| **BOO** | **Bordano** | **1.58** | **310** | Pg | **Pn** | **16 46 49.6** | **+0.6** |
| **MPRI** | **Monte Prat** | **1.60** | **306** | *e*Pg | **Pb** | **16 46 50.1** | **-0.5** |
| MPRI | | | | *e*Sg | **Sg** | **16 47 13.8** | **+1.4** |
| **FUSE** | **Fusea** | **1.70** | **311** | *e*Pg | **Pb** | **16 46 51.7** | **-0.5** |
| FUSE | | | | *e*Sg | **Sg** | **16 47 16.4** | **+0.9** |
| **PLRO** | **Paularo** | **1.71** | **317** | *e*Pg | **Pb** | **16 46 52.2** | **-0.3** |
| **BLY** | **Banja Luka** | **1.75** | **108** | Pg | **Pb** | **16 46 52.7** | **-0.4** |
| | comp=Z,58nm,0.6s | | | | | | |
| **BLY** | **Banja Luka** | **1.75** | **108** | *e*Pn | **Pn** | **16 46 51.7** | **+0.5** |
| **BLY** | **Banja Luka** | **1.75** | **108** | Pg | **Pb** | **16 46 52.7** | **-0.4** |
| | comp=Z,58nm,0.6s | | | | | | |
| BLY | | | | *e*Sn | **Sn** | **16 47 13.7** | **+0.2** |
| **BEHE** | **Becsehely** | **1.77** | **49**⇑ | *ep*PKiKP | **Pg** | **16 46 55.1** | **+0.2** |
| BEHE | | | | *ex* | **Sg** | **16 47 19.4** | **+1.6** |
| **BEHE** | **Becsehely** | **1.77** | **49** | *e*Pn | **Pn** | **16 46 51.8** | **+0.3** |
| BEHE | | | | *e*Sn | **Sn** | **16 47 14.6** | **+0.6** |
| **STAL** | **STALIGIAL** | **1.77** | **303** | Pg | **Pn** | **16 46 52.1** | **+0.5** |
| | comp=Z,249nm,0.4s | | | | | | |
| **STAL** | **STALIGIAL** | **1.77** | **303** | Pg | **Pn** | **16 46 52.1** | **+0.5** |
| | comp=Z,249nm,0.4s | | | | | | |
| **CLUD** | **Cludinico** | **1.79** | **310** | *e*Pn | **Pb** | **16 46 52.9** | **-0.8** |
| **POLC** | **Polcenigo** | **1.79** | **294** | Pg | **Pn** | **16 46 52.8** | **+0.9** |
| | comp=Z,315nm,0.4s | | | | | | |
| **POLC** | **Polcenigo** | **1.79** | **294** | *e*Pn | **Pn** | **16 46 52.6** | **+0.8** |
| **POLC** | **Polcenigo** | **1.79** | **294** | Pg | **Pn** | **16 46 52.8** | **+0.9** |
| | comp=Z,315nm,0.4s | | | | | | |
| **ZOU** | **Zoufplan** | **1.80** | **314** | *e*Pn | **Pb** | **16 46 53.3** | **-0.8** |
| **ZOU** | **Zoufplan** | **1.80** | **314** | *e*Pn | **Pb** | **16 46 53.5** | **-0.7** |
| **CAE** | **Caneva** | **1.83** | **293** | *e*Pn | **Pn** | **16 46 52.9** | **+0.5** |
| **FVI** | **Forni Avoltri** | **1.93** | **312** | Pg | **Pn** | **16 46 54.8** | **+1.0** |
| | comp=Z,163nm,0.5s | | | | | | |
| **FVI** | **Forni Avoltri** | **1.93** | **312** | Pg | **Pn** | **16 46 54.8** | **+1.0** |
| | comp=Z,163nm,0.5s | | | | | | |
| **CSMI** | **Casera Mimoias** | **1.95** | **309** | *e*Pn | **Pn** | **16 46 55.0** | **+0.9** |
| **CIMO** | **Cimolais** | **1.96** | **301** | *e*Pn | **Pn** | **16 46 54.2** | **0.0** |
| **ARSA** | **Arzberg** | **1.99** | **13** | *e*Pn | **Pb** | **16 46 57.6** | **+0.5** |
| | comp=Z,21nm,0.3s,SNR=9.3 | | | | | | |
| ARSA | | | | *e*Sn | **Sb** | **16 47 22.2** | **+0.3** |
| | comp=Z,13nm,0.3s | | | | | | |
| **ARSA** | **Arzberg** | **1.99** | **13** | Pn | **Pb** | **16 46 57.6** | **+0.5** |
| | comp=Z,21nm,0.3s,SNR=9.3 | | | | | | |
| ARSA | | | | Sg | **Sb** | **16 47 22.2** | **+0.3** |
| | comp=Z,13nm,0.3s | | | | | | |
| **VARN** | **Col Varnada, M** | **2.04** | **290** | *e*Pn | **Pn** | **16 46 55.2** | **-0.2** |
| **ABTA** | **Abfaltersbach** | **2.17** | **312** | Pn | **Pn** | **16 46 58.3** | **+1.2** |
| | comp=Z,1.6nm,0.1s | | | | | | |
| ABTA | | | | *i* Sg | **Sg** | **16 47 29.9** | **-0.8** |
| | comp=Z,86nm,0.6s | | | | | | |
| **ABTA** | **Abfaltersbach** | **2.17** | **312** | Pn | **Pn** | **16 46 58.3** | **+1.2** |
| | comp=Z,1.6nm,0.1s | | | | | | |
| ABTA | | | | Sg | **Sg** | **16 47 29.9** | **-0.8** |
| | comp=Z,86nm,0.6s | | | | | | |
| **CGRP** | **Cima Grappa** | **2.22** | **286** | *e*Pn | **Pn** | **16 46 58.0** | **+0.1** |
| **RISI** | **Rein** | **2.52** | **311** | Pg | **Pn** | **16 47 03.7** | **+1.6** |
| | comp=Z,180nm,0.5s | | | | | | |
| **RISI** | **Rein** | **2.52** | **311** | Pg | **Pn** | **16 47 03.7** | **+1.6** |
| | comp=Z,180nm,0.5s | | | | | | |
| **MOA** | **Molln** | **2.56** | **351** | *i* Sn | **Sn** | **16 47 34.2** | **+0.5** |
| | comp=Z,1.5nm,0.2s | | | | | | |
| **SOP** | **Sopron** | **2.64** | **26** | *ex* | **Sg** | **16 47 46.0** | **+0.2** |
| **ABSI** | **Aberstueckl** | **2.84** | **301** | Pg | **Pn** | **16 47 07.2** | **+0.8** |
| **STON** | **Ston** | **3.19** | **139** | *e*Pn | **Pn** | **16 47 13.0** | **+2.0** |
| STON | | | | Sn | **Sn** | **16 47 51.8** | **+2.7** |
| **MOTA** | **Moosalm** | **3.29** | **309** | *i* Pn | **Pn** | **16 47 15.1** | **+2.5** |
| | comp=Z,1.4nm,0.2s | | | | | | |
| **MOTA** | **Moosalm** | **3.29** | **309** | Pn | **Pn** | **16 47 15.1** | **+2.5** |
| | comp=Z,1.4nm,0.2s | | | | | | |
| **SMOL** | **Smolenice** | **3.65** | **28** | *e*Sg | **Sg** | **16 48 19.3** | **+1.1** |
| **SMOL** | **Smolenice** | **3.65** | **28** | *e*SG | **Sg** | **16 48 19.3** | **+1.1** |
| **KHC** | **Kasperske Hory** | **3.91** | **348** | *e*Pn | **Pn** | **16 47 22.7** | **+1.7** |
| KHC | | | | *e*PG | **Pg** | **16 47 33.3** | **-2.6** |
| KHC | | | | *e*SN | **Sn** | **16 48 06.8** | **-0.1** |
| KHC | | | | *e*SG | **Sg** | **16 48 22.9** | **-3.6** |
| **KHC** | **Kasperske Hory** | **3.91** | **348** | Pn | **Pn** | **16 47 22.7** | **+1.7** |
| **KHC** | **Kasperske Hory** | **3.91** | **348** | Pg | **Pg** | **16 47 33.3** | **-2.6** |
| KHC | | | | Sn | **Sn** | **16 48 06.8** | **-0.1** |
| KHC | | | | Sg | **Sg** | **16 48 22.9** | **-3.6** |
| **VYHS** | **Vyhne** | **4.19** | **39** | *e*Pn | **Pn** | **16 47 24.3** | **-0.5** |
| **VYHS** | **Vyhne** | **4.19** | **39** | *e*PN | **Pn** | **16 47 24.3** | **-0.5** |
| VYHS | | | | *e*PG | **Pg** | **16 47 40.2** | **-1.0** |
| VYHS | | | | *e*SN | **Sn** | **16 48 10.3** | **-3.4** |
| VYHS | | | | *e*SG | **Sg** | **16 48 41.7** | **+6.3** |
| **CLL** | **Collm** | **6.12** | **349** | *e*Sg | **Sg** | **16 49 37.0** | **-0.3** |

**PRU 15 16:58:29.1, 50°.11N×19°.18E, *h*0km, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LANS** | **Liptovska Anna** | **0.98** | **169** | *e*Pg | Pg | 16 58 47.5 | -0.3 |
| LANS | | | | *e*SG | Sg | 16 59 00.8 | +0.3 |
| **VYHS** | **Vyhne** | **1.63** | **188** | *e*PG | Pn | 16 58 57.6 | -1.5 |
| VYHS | | | | *e*SN | Sn | 16 59 18.9 | -1.9 |
| **DPC** | **Dobruska-Polom** | **1.85** | **279** | *e*SG | Sb | 16 59 27.2 | -0.3 |

*CSEM **15** 16:59:41.0±0.6, 50°.27N×18°.89E, *h*10km, Error ellipse: s-maj=12.4km s-min=6.5km az=2.0*

**PRU 15 16:59:41.8, 50°.26N×18°.88E, *h*0km, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OJC** | **Ojcow** | **0.59** | **94** | *e*Pg | Pg | 16 59 52.9 | -0.2 |
| OJC | | | | *e*Sg | Sg | 17 00 00.8 | 0.0 |
| **OJC** | **Ojcow** | **0.59** | **94** | *e*Pg | Pg | 16 59 52.9 | -0.2 |
| OJC | | | | *e*Sg | Sg | 17 00 00.8 | 0.0 |
| **OKC** | **Ostrava-Krasne** | **0.63** | **228** | *e*PG | Pb | 16 59 54.9 | -0.8 |
| OKC | | | | *e*SG | Sb | 17 00 03.7 | -1.4 |
| **OKC** | **Ostrava-Krasne** | **0.63** | **228** | Pg | Pb | 16 59 54.9 | -0.8 |
| OKC | | | | Sg | Sb | 17 00 03.7 | -1.4 |
| **MORC** | **Moravsky Berou** | **0.99** | **241** | *e*Pg | Pg | 17 00 00.9 | +0.2 |
| MORC | | | | *e*Sg | Sg | 17 00 14.2 | +0.7 |
| **LANS** | **Liptovska Anna** | **1.17** | **161** | *e*Pg | Pg | 17 00 03.7 | -0.6 |
| LANS | | | | *e*SG | Sg | 17 00 19.8 | +0.3 |
| **LANS** | **Liptovska Anna** | **1.17** | **161** | *e*PG | Pg | 17 00 03.7 | -0.6 |
| LANS | | | | *e*SG | Sg | 17 00 19.8 | +0.3 |
| **DPC** | **Dobruska-Polom** | **1.64** | **274** | *e*PG | Pn | 17 00 11.6 | -0.4 |
| DPC | | | | *e*SG | Sb | 17 00 34.2 | 0.0 |
| **DPC** | **Dobruska-Polom** | **1.64** | **274** | Pg | Pn | 17 00 11.6 | -0.4 |
| DPC | | | | Sg | Sb | 17 00 34.2 | 0.0 |
| **VRAC** | **Vranov** | **1.76** | **238** | *e*Sg | Sn | 17 00 36.8 | +0.1 |
| **VYHS** | **Vyhne** | **1.77** | **181** | *e*Pg | Pn | 17 00 12.8 | -0.9 |
| VYHS | | | | *e*Sn | Sn | 17 00 35.2 | -1.6 |
| **VYHS** | **Vyhne** | **1.77** | **181** | *e*PG | Pn | 17 00 12.8 | -0.9 |
| VYHS | | | | *e*SN | Sn | 17 00 35.2 | -1.6 |
| **KHC** | **Kasperske Hory** | **3.62** | **254** | *e*SG | Sg | 17 01 38.0 | -0.1 |
| **KHC** | **Kasperske Hory** | **3.62** | **254** | Sg | Sg | 17 01 38.0 | -0.1 |

*SCB **15** 17:11:34.9±0.7, 19°.39S×71°.41W, *h*60km, Ml3.7/1, Error ellipse: s-maj=18.3km s-min=6.5km az=88.0*
*IDC **15** 17:11:34.8±2.0, 19°.84S×70°.88W, *h*0km, mb3.9/2, mb1 3.9/3, mb1mx3.6/27, mbtmp3.7/3, ML3.0/1, Error ellipse: s-maj=69.5km s-min=43.3km az=140.0*
*GUC **15** 17:11:38.9±0.6, 19°.23S×70°.68W, *h*31km±3km, ML3.5*
**ISC 15 17:11:38.0±1.9, 19°.17S±0°.03×70°.66W±0°.08, *h*9km±11km, n26, σ1°.09/31, 6C-2D, Near coast of northern Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PB12** | **IPOC Station P** | **0.63** | **30**⇑ | *i*P | **Pn** | **17 11 52.0** | **-1.2** |
| PB12 | | | | *i* S | **Sb** | **17 12 01.4** | **+1.1** |
| **PSGC** | **Pisagua** | **0.66** | **130**⇑ | *i*P | **Pg** | **17 11 51.2** | **+0.3** |
| PSGC | | | | *i* S | **Sg** | **17 11 59.8** | **+0.2** |
| PSGC | | | | IAML | | 17 12 01.1 | |
| | comp=N,2μm,0.6s | | | | | | |
| **MNMC** | **Minye Minye** | **1.00** | **88**⇑ | *i*P | **Pn** | **17 11 58.1** | **-0.4** |
| MNMC | | | | *i* S | **Sn** | **17 12 12.3** | **-0.7** |
| MNMC | | | | IAML | | 17 12 18.9 | |
| | comp=N,2μm,0.2s | | | | | | |
| **PB11** | **IPOC Station P** | **1.11** | **122**⇑ | *i*P | **Pb** | **17 11 59.1** | **-0.4** |
| PB11 | | | | *i* S | **Sb** | **17 12 13.2** | **-1.1** |
| **PB01** | **IPOC Station P** | **2.17** | **150**⇑ | *i*P | **Pn** | **17 12 14.6** | **+0.2** |
| PB01 | | | | *i* S | **Sn** | **17 12 41.5** | **+0.1** |
| **PB02** | **IPOC Station P** | **2.26** | **162**⇓ | *i*P | **Pn** | **17 12 15.7** | **0.0** |
| PB02 | | | | *i* S | **Sn** | **17 12 43.2** | **-0.5** |
| PB02 | | | | IAML | | 17 12 51.6 | |
| | comp=E,899nm,0.6s | | | | | | |
| **PB07** | **IPOC Station P** | **2.65** | **164**⇑ | *i*P | **Pn** | **17 12 21.1** | **0.0** |
| PB07 | | | | *i* S | **Sn** | **17 12 52.8** | **-0.6** |
| PB07 | | | | IAML | | 17 13 05.2 | |
| | comp=E,351nm,0.7s | | | | | | |
| **PB09** | **IPOC Station P** | **2.93** | **153** | *e*P | **Pn** | **17 12 26.6** | **+1.6** |
| PB09 | | | | *i* S | **Sn** | **17 13 00.5** | **0.0** |
| **PB04** | **IPOC Station P** | **3.19** | **172** | *e*P | **Pn** | **17 12 28.4** | **-0.2** |
| PB04 | | | | *i* S | **Sn** | **17 13 06.3** | **-0.4** |
| **BBOD** | **La Paz, Gloria** | **3.19** | **38** | *e*Pn | **Pb** | **17 12 36.2** | **+1.0** |
| BBOD | | | | *e*Sn | **Sg** | **17 13 19.7** | **-0.9** |
| | comp=E,72nm,0.5s | | | | | | |
| **BBOJ** | **La Paz, Jacaqu** | **3.20** | **47** | *e*Pn | **Pb** | **17 12 36.7** | **+1.3** |
| **BBOE** | **La Paz, Chanca** | **3.46** | **48** | *e*Pn | **Pb** | **17 12 39.9** | **+0.1** |
| **PB06** | **IPOC Station P** | **3.67** | **164**⇓ | *i*P | **Pn** | **17 12 34.3** | **-0.7** |
| **LPAZ** | **La Paz** | **3.74** | **40** | Pn | **Pb** | **17 12 43.0** | **-1.6** |
| | comp=E,0.5nm,0.3s,baz=232,slow=8.0,SNR=8.6 | | | | | | |
| LPAZ | | | | Sn | **Sg** | **17 13 37.5** | **-0.8** |
| | comp=E,0.4nm,0.3s,baz=160,slow=18,SNR=2.4 | | | | | | |
| **LPAZ** | **La Paz** | **3.74** | **40** | *e*Pn | **Pb** | **17 12 43.9** | **-0.8** |
| LPAZ | | | | *e*Sn | **Sb** | **17 13 33.8** | **+3.5** |
| **BBOB** | **La Paz, Bander** | **3.85** | **39** | *e*Pn | **Pb** | **17 12 44.8** | **-1.7** |
| **MOCB** | **Mochara** | **5.15** | **115** | *e*Pn | Pb | 17 13 02.1 | -6.5 |
| **TORD** | **Torodi Ar. Bea** | **78.15** | **72** | P | **P** | **17 23 38.3** | **+0.1** |
| | comp=E,0.5nm,0.4s,baz=263,slow=5.3,SNR=4.5 | | | | | | |
| **YKA** | **Yellowknife Ar** | **88.46** | **341** | P | **P** | **17 24 30.7** | **+0.5** |
| | comp=E,0.4nm,0.6s,baz=133,slow=5.3,SNR=8.2 | | | | | | |
| **H11S2** | **WAKE ISLAND Hyl** | **25.92** | **279** | T | T | 19 49 40.9 | |
| | baz=100 | | | | | | |
| **H11S1** | **WAKE ISLAND Hyl** | **25.93** | **279** | T | T | 19 49 41.5 | |
| | baz=100 | | | | | | |
| **H11S3** | **WAKE ISLAND Hyl** | **25.94** | **279** | T | T | 19 49 41.8 | |
| | baz=100 | | | | | | |
| **H11N3** | **WAKE ISLAND Hyl** | **25.95** | **281** | T | T | 19 49 41.5 | |
| | baz=101 | | | | | | |
| **H11N2** | **WAKE ISLAND Hyl** | **25.96** | **281** | T | T | 19 49 40.9 | |
| | baz=101 | | | | | | |
| **H11N1** | **WAKE ISLAND Hyl** | **25.96** | **281** | T | T | 19 49 41.6 | |
| | baz=101 | | | | | | |
| **MKAR** | **Makanchi Array** | **144.64** | **33** | PKPbc | **PKPdf** | **17 31 14.5** | **-0.7** |
| | comp=E,0.3nm,0.6s,baz=316,slow=4.0,SNR=2.7 | | | | | | |

**IDC 15 17:12:22.7±3.2, 4°.61S×153°.16E, *h*0km, mb3.5/3, mb1 3.7/3, mb1mx3.3/39, mbtmp3.5/3, MS3.5/1, Ms1 3.5/1, ms1mx2.9/22, Error ellipse: s-maj=114.0km s-min=33.6km az=112.0, New Ireland region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **23.84** | **229** | P | P | 17 17 38.3 | +0.5 |
| | 0.7nm,0.6s,baz=55,slow=10,SNR=13 | | | | | | |
| **ASAR** | **Alice Springs** | **26.53** | **223** | P | P | 17 18 02.6 | +0.2 |
| | 0.4nm,0.8s,baz=56,slow=8.4,SNR=8.0 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **30.06** | **241** | LR | LR | 17 30 59.7 | |
| | comp=Z,74nm,18.3s,slow=37 | | | | | | |
| **MKAR** | **Makanchi Array** | **80.42** | **319** | P | P | 17 24 36.8 | +0.4 |
| | 0.2nm,0.4s,baz=94,slow=6.0,SNR=5.3 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **150.58** | **289** | PKPbc | PKPbc | 17 32 16.6 | -1.2 |
| | 0.8nm,0.4s,baz=69,slow=2.0,SNR=9.9 | | | | | | |

**WEL 15 17:13:35.8±0.2, 38°.38S×178°.75E, *h*33km, ML3.9/63, 19C-6D, Error ellipse: s-maj=2.4km s-min=0.9km az=90.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CNGZ** | **Carnagh Statio** | **0.44** | **256** | ⇑PN | Pb | 17 13 45.5 | 0.0 |
| CNGZ | | | | AML | AML | 17 13 54.9 | |
| CNGZ | | | | AML | AML | 17 13 55.0 | |
| **PUZ** | **Puketiti** | **0.49** | **308** | ⇓PN | Pb | 17 13 45.6 | -0.7 |
| PUZ | | | | AML | AML | 17 13 55.2 | |
| PUZ | | | | AML | AML | 17 13 55.3 | |
| **WMGZ** | **Waiomatatini S** | **0.62** | **335** | ⇑PN | Pn | 17 13 48.2 | 0.0 |
| WMGZ | | | | AML | AML | 17 14 00.3 | |
| WMGZ | | | | AML | AML | 17 14 00.7 | |
| **TWGZ** | **Tauwhareparae** | **0.64** | **288** | ⇑PN | Pn | 17 13 48.2 | -0.4 |
| TWGZ | | | | AML | AML | 17 13 58.7 | |
| TWGZ | | | | AML | AML | 17 14 00.1 | |
| **TKGZ** | **Te Karaka** | **0.71** | **265** | ⇑PN | Pn | 17 13 48.9 | -0.6 |
| TKGZ | | | | SN | Sn | 17 13 58.6 | -0.7 |
| TKGZ | | | | AML | AML | 17 13 59.2 | |
| **PKGZ** | **Pakihiroa** | **0.72** | **312** | ⇑PN | Pn | 17 13 49.8 | -0.2 |
| PKGZ | | | | AML | AML | 17 14 01.0 | |
| PKGZ | | | | AML | AML | 17 14 01.0 | |
| **RIGZ** | **Rimuhau** | **0.84** | **247** | ⇑PN | Pn | 17 13 50.8 | -0.6 |
| RIGZ | | | | SN | Sn | 17 14 02.8 | +0.2 |
| RIGZ | | | | AML | AML | 17 14 03.4 | |
| **PRGZ** | **Paritu Road** | **0.87** | **231** | ⇑PN | Pn | 17 13 51.3 | -0.5 |
| PRGZ | | | | AML | AML | 17 14 04.4 | |
| PRGZ | | | | AML | AML | 17 14 09.5 | |
| **MXZ** | **Matakaoa Point** | **0.89** | **337** | ⇑PN | Pn | 17 13 52.3 | +0.3 |
| MXZ | | | | AML | AML | 17 14 04.8 | |
| MXZ | | | | AML | AML | 17 14 05.1 | |
| **RUGZ** | **Raukumara Rang** | **0.94** | **296** | PN | Pn | 17 13 52.1 | -0.7 |
| **MWZ** | **Matawai** | **0.96** | **272** | ⇑PN | Pn | 17 13 52.4 | -0.7 |
| MWZ | | | | SN | Sn | 17 14 04.5 | -1.1 |
| MWZ | | | | AML | AML | 17 14 04.8 | |
| **HAZ** | **Te Kaha** | **0.98** | **309** | ⇑PN | Pn | 17 13 53.0 | -0.3 |
| HAZ | | | | AML | AML | 17 14 07.7 | |
| HAZ | | | | AML | AML | 17 14 09.8 | |
| **MHGZ** | **Mahia Peninsul** | **1.02** | **220** | PN | Pn | 17 13 53.3 | -0.4 |
| MHGZ | | | | AML | AML | 17 14 15.0 | |
| MHGZ | | | | AML | AML | 17 14 18.2 | |
| **RAGZ** | **Rawiri** | **1.05** | **263** | ⇑PN | Pn | 17 13 53.7 | -0.7 |
| RAGZ | | | | AML | AML | 17 14 08.1 | |
| RAGZ | | | | AML | AML | 17 14 10.7 | |
| **KNZ** | **Kokohu** | **1.06** | **232** | ⇑PN | Pn | 17 13 53.5 | -0.9 |
| KNZ | | | | AML | AML | 17 14 07.3 | |
| KNZ | | | | AML | AML | 17 14 17.2 | |
| **SNGZ** | **Shannon Statio** | **1.18** | **250** | ⇓PN | Pn | 17 13 55.4 | -0.6 |
| SNGZ | | | | AML | AML | 17 14 11.9 | |
| SNGZ | | | | AML | AML | 17 14 12.5 | |
| **URZ** | **Urewera** | **1.30** | **275** | ⇑PN | Pn | 17 13 57.2 | -0.4 |
| URZ | | | | AML | AML | 17 14 17.5 | |
| URZ | | | | AML | AML | 17 14 24.1 | |
| **WHHZ** | **Waihua** | **1.38** | **239** | PN | Pn | 17 13 58.1 | -0.6 |
| WHHZ | | | | AML | AML | 17 14 16.4 | |
| WHHZ | | | | AML | AML | 17 14 20.1 | |
| **RTZ** | **Ruatahuna** | **1.41** | **260** | ⇑PN | Pn | 17 13 58.6 | -0.6 |
| **MUGZ** | **Murupara** | **1.56** | **266** | PN | Pn | 17 14 01.1 | -0.1 |
| **MTHZ** | **Maungataniwha** | **1.57** | **252** | PN | Pn | 17 14 00.5 | -0.9 |
| **ARHZ** | **Aropaoanui** | **1.63** | **237** | PN | Pn | 17 14 01.9 | -0.3 |
| ARHZ | | | | AML | AML | 17 14 23.6 | |
| ARHZ | | | | AML | AML | 17 14 25.0 | |
| **NMHZ** | **Naumai** | **1.68** | **244** | PN | Pn | 17 14 02.8 | -0.2 |
| NMHZ | | | | SN | Sn | 17 14 23.6 | +0.2 |
| NMHZ | | | | AML | AML | 17 14 25.1 | |
| **TARZ** | **Mount Tarawera** | **1.77** | **274** | ⇑PN | Pn | 17 14 04.2 | 0.0 |
| TARZ | | | | AML | AML | 17 14 19.6 | |
| TARZ | | | | AML | AML | 17 14 32.0 | |
| **OPRZ** | **Ohinepanea** | **1.81** | **286** | PN | Pn | 17 14 04.1 | -0.6 |
| OPRZ | | | | AML | AML | 17 14 25.9 | |
| OPRZ | | | | AML | AML | 17 14 43.4 | |
| **CKHZ** | **Cape Kidnapper** | **1.82** | **225** | PN | Pn | 17 14 03.5 | -1.4 |
| CKHZ | | | | AML | AML | 17 14 31.8 | |
| CKHZ | | | | AML | AML | 17 14 34.3 | |
| **PRRZ** | **Plateau Road** | **1.86** | **266** | PN | Pn | 17 14 05.1 | -0.2 |
| PRRZ | | | | AML | AML | 17 14 28.5 | |
| PRRZ | | | | AML | AML | 17 14 29.7 | |
| **MRHZ** | **Matea Rd** | **1.88** | **255** | PN | Pn | 17 14 05.2 | -0.5 |
| MRHZ | | | | AML | AML | 17 14 29.3 | |
| MRHZ | | | | AML | AML | 17 14 29.4 | |
| **ALRZ** | **Allen Road** | **1.90** | **264** | PN | Pn | 17 14 06.0 | +0.1 |
| ALRZ | | | | AML | AML | 17 14 07.3 | |
| ALRZ | | | | AML | AML | 17 14 29.8 | |
| **MCHZ** | **McNeill Hill** | **1.92** | **236** | PN | Pn | 17 14 05.8 | -0.4 |
| MCHZ | | | | SN | Sn | 17 14 29.1 | -0.2 |
| MCHZ | | | | AML | AML | 17 14 32.7 | |
| **BKZ** | **Black Stump Fm** | **1.93** | **245** | PN | Pn | 17 14 06.0 | -0.4 |
| BKZ | | | | SN | Sn | 17 14 28.6 | -0.9 |
| BKZ | | | | AML | AML | 17 14 30.8 | |
| **KAHZ** | **Kahuranaki** | **2.03** | **225** | PN | Pn | 17 14 06.7 | -1.1 |
| KAHZ | | | | AML | AML | 17 14 33.6 | |
| KAHZ | | | | AML | AML | 17 14 40.6 | |
| **WPRZ** | **Whakapapatarin** | **2.04** | **265** | PN | Pn | 17 14 08.0 | +0.2 |
| WPRZ | | | | AML | AML | 17 14 28.6 | |
| WPRZ | | | | AML | AML | 17 14 33.7 | |
| **KWHZ** | **Kaweka Forest** | **2.10** | **239** | PN | Pn | 17 14 07.9 | -0.8 |
| KWHZ | | | | SN | Sn | 17 14 31.8 | -1.8 |
| KWHZ | | | | AML | AML | 17 14 34.7 | |
| **PXZ** | **Pawanui** | **2.21** | **221** | PN | Pn | 17 14 08.0 | -2.1 |
| PXZ | | | | AML | AML | 17 14 35.8 | |
| PXZ | | | | AML | AML | 17 14 38.9 | |
| **KRHZ** | **Kereru** | **2.24** | **235** | PN | Pn | 17 14 09.4 | -1.2 |
| KRHZ | | | | SN | Sn | 17 14 35.9 | -1.4 |
| KRHZ | | | | AML | AML | 17 14 41.4 | |
| **RITZ** | **Rihia Road** | **2.34** | **254** | PN | Pn | 17 14 11.9 | -0.1 |
| **BHHZ** | **Black Hill Sta** | **2.37** | **241** | PN | Pn | 17 14 11.6 | -0.8 |
| BHHZ | | | | AML | AML | 17 14 39.7 | |
| BHHZ | | | | AML | AML | 17 14 40.3 | |
| **WPHZ** | **Waipukurau** | **2.46** | **226** | PN | Pn | 17 14 12.0 | -1.6 |
| WPHZ | | | | AML | AML | 17 14 41.7 | |
| WPHZ | | | | AML | AML | 17 14 41.9 | |
| **PRHZ** | **Porangahau** | **2.50** | **220** | PN | Pn | 17 14 12.0 | -2.2 |
| PRHZ | | | | AML | AML | 17 14 45.1 | |
| PRHZ | | | | AML | AML | 17 14 47.6 | |
| **PNHZ** | **Pukenui** | **2.51** | **232** | PN | Pn | 17 14 12.6 | -1.7 |
| PNHZ | | | | SN | Sn | 17 14 41.5 | -2.2 |
| PNHZ | | | | AML | AML | 17 14 42.1 | |
| **KRVZ** | **Karewarewa** | **2.54** | **253** | PN | Pn | 17 14 14.3 | -0.4 |
| KRVZ | | | | AML | AML | 17 14 44.3 | |
| KRVZ | | | | AML | AML | 17 14 52.2 | |
| **OTVZ** | **Oturere** | **2.54** | **251** | AML | AML | 17 14 48.0 | |
| OTVZ | | | | AML | AML | 17 14 49.5 | |
| **MOVZ** | **Moawhango** | **2.56** | **245** | PN | Pn | 17 14 14.4 | -0.6 |
| MOVZ | | | | AML | AML | 17 14 44.3 | |
| MOVZ | | | | AML | AML | 17 14 45.4 | |
| **TUVZ** | **Tukino** | **2.58** | **249** | PN | Pn | 17 14 15.1 | -0.3 |
| **WTVZ** | **West Tongariro** | **2.58** | **252** | *e*PN | Pn | 17 14 14.5 | -0.8 |
| WTVZ | | | | AML | AML | 17 14 50.8 | |
| **NGZ** | **Ngauruhoe** | **2.59** | **251** | PN | Pn | 17 14 15.1 | -0.4 |
| NGZ | | | | AML | AML | 17 14 49.8 | |
| **WNVZ** | **Wahianoa** | **2.64** | **248** | ⇓PN | Pn | 17 14 15.7 | -0.5 |
| **TRVZ** | **Turoa** | **2.67** | **249** | PN | Pn | 17 14 16.1 | -0.5 |
| TRVZ | | | | AML | AML | 17 14 48.6 | |
| TRVZ | | | | AML | AML | 17 14 51.7 | |
| **TWVZ** | **Taurewa** | **2.68** | **254** | PN | Pn | 17 14 16.2 | -0.6 |
| **TSZ** | **Takapari Road** | **2.74** | **231** | PN | Pn | 17 14 15.5 | -2.0 |
| TSZ | | | | AML | AML | 17 14 47.8 | |
| TSZ | | | | AML | AML | 17 14 51.0 | |
| **MTVZ** | **Mangateitei** | **2.75** | **248** | PN | Pn | 17 14 17.2 | -0.5 |
| MTVZ | | | | AML | AML | 17 14 52.3 | |
| MTVZ | | | | AML | AML | 17 14 56.8 | |
| **DVHZ** | **Dannevirke** | **2.77** | **225** | PN | Pn | 17 14 15.8 | -2.2 |
| DVHZ | | | | SN | Sn | 17 14 47.5 | -2.8 |
| DVHZ | | | | AML | AML | 17 14 48.7 | |
| **PKVZ** | **Pokaka** | **2.81** | **250** | PN | Pn | 17 14 18.3 | -0.2 |
| **KUZ** | **Kuaotunu** | **2.91** | **303** | ⇑PN | Pn | 17 14 18.9 | -0.9 |
| **BFZ** | **Birch Farm** | **3.01** | **219** | ⇑PN | Pn | 17 14 18.2 | -2.9 |
| BFZ | | | | AML | AML | 17 14 53.5 | |
| **PRWZ** | **Pori Road** | **3.06** | **224** | ⇓PN | Pn | 17 14 19.9 | -2.0 |
| PRWZ | | | | AML | AML | 17 14 56.4 | |
| PRWZ | | | | AML | AML | 17 14 56.7 | |
| **HIZ** | **Hauiti** | **3.06** | **266** | PN | Pn | 17 14 22.2 | +0.4 |
| **POWZ** | **Post Office Ro** | **3.06** | **228** | PN | Pn | 17 14 20.0 | -1.9 |
| POWZ | | | | AML | AML | 17 15 01.8 | |
| POWZ | | | | AML | AML | 17 15 02.2 | |
| **CPWZ** | **Castlepoint** | **3.20** | **217** | PN | Pn | 17 14 21.1 | -2.7 |
| **VRZ** | **Vera Road** | **3.21** | **255** | ⇓PN | Pn | 17 14 24.1 | +0.2 |
| **OHWZ** | **Ohakea** | **3.23** | **235** | *e*PN | Pn | 17 14 23.0 | -1.1 |
| **WAZ** | **Wanganui** | **3.24** | **244** | ⇓PN | Pn | 17 14 24.0 | 0.0 |
| WAZ | | | | AML | AML | 17 15 07.9 | |
| **TIWZ** | **Tintock** | **3.26** | **222** | PN | Pn | 17 14 22.1 | -2.6 |
| TIWZ | | | | AML | AML | 17 15 01.9 | |
| TIWZ | | | | AML | AML | 17 15 01.9 | |
| **MRZ** | **Mangatainoka R** | **3.35** | **226** | ⇑PN | Pn | 17 14 23.3 | -2.6 |
| MRZ | | | | SN | Sn | 17 15 00.5 | -3.9 |
| MRZ | | | | AML | AML | 17 15 01.7 | |
| **TMWZ** | **Te Maipa** | **3.50** | **218** | PN | Pn | 17 14 24.5 | -3.5 |
| TMWZ | | | | AML | AML | 17 15 05.6 | |
| TMWZ | | | | AML | AML | 17 15 06.5 | |
| **HOWZ** | **Holdsworth Sta** | **3.54** | **224** | PN | Pn | 17 14 25.5 | -3.0 |
| HOWZ | | | | AML | AML | 17 15 06.6 | |
| HOWZ | | | | AML | AML | 17 15 06.7 | |
| **LREZ** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.81** | **295** | *e*Pg | **Pb** | **17 20 06.9** | **-0.9** |
| VANB | | | | *e*Sg | **Sb** | **17 20 20.0** | **+0.7** |
| **HAKT** | **HAKKARI** | **0.85** | **215** | *i* P | **Pb** | **17 20 07.2** | **-1.4** |
| HAKT | | | | *i* S | **Sn** | **17 20 21.7** | **-1.6** |
| **HAKT** | **HAKKARI** | **0.85** | **215** | P | **Pb** | **17 20 07.2** | **-1.4** |
| HAKT | | | | S | **Sn** | **17 20 21.7** | **-1.6** |
| **CLDR** | **Caldiran** | **0.94** | **341** | *e*PG | **Pg** | **17 20 07.0** | **-2.2** |
| CLDR | | | | *e*SG | **Sg** | **17 20 21.6** | **+0.3** |
| **CLDR** | **Caldiran** | **0.94** | **341** | *i* P | **Pg** | **17 20 06.9** | **-2.2** |
| CLDR | | | | *i* S | **Sg** | **17 20 21.8** | **+0.4** |
| **CLDR** | **Caldiran** | **0.94** | **341** | *e*Pg | **Pg** | **17 20 07.0** | **-2.2** |
| CLDR | | | | *e*Sg | **Sg** | **17 20 21.6** | **+0.3** |
| **CUKT** | **Cukurca** | **1.15** | **210** | *e*PN | **Pn** | **17 20 14.5** | **+0.2** |
| **CUKT** | **Cukurca** | **1.15** | **210** | *i* P | **Pn** | **17 20 13.3** | **-1.0** |
| CUKT | | | | *i* S | **Sn** | **17 20 35.7** | **+5.1** |
| **CUKT** | **Cukurca** | **1.15** | **210** | P | **Pn** | **17 20 13.3** | **-1.0** |
| **CUKT** | **Cukurca** | **1.15** | **210** | *e*Pn | **Pn** | **17 20 14.5** | **+0.2** |
| **TUTA** | **Tutak** | **1.64** | **315** | *i* P | **Pb** | **17 20 22.0** | **-0.1** |
| TUTA | | | | *i* S | **Sg** | **17 20 46.3** | **+2.5** |
| **TUTA** | **Tutak** | **1.64** | **315** | P | **Pb** | **17 20 22.0** | **-0.1** |
| **SIRT** | **Sirnak** | **1.67** | **244** | *e*PN | **Pg** | **17 20 22.5** | **-0.4** |
| **SIRT** | **Sirnak** | **1.67** | **244** | *e*Pn | **Pg** | **17 20 22.5** | **-0.4** |
| **AGRB** | **Hanur-Agry** | **1.68** | **322** | *e*PN | **Pn** | **17 20 20.7** | **-0.9** |
| **AGRB** | **Hanur-Agry** | **1.68** | **322** | *e*Pn | **Pn** | **17 20 20.7** | **-0.9** |
| **TASB** | **TASBURUN-IGDIR** | **1.73** | **358** | *e*PN | **Pn** | **17 20 20.2** | **-2.0** |
| **TASB** | **TASBURUN-IGDIR** | **1.73** | **358** | *e*Pn | **Pn** | **17 20 20.2** | **-2.0** |
| **GNI** | **Garni** | **1.92** | **10** ⇑ | *i* P | **Pg** | **17 20 27.2** | **-0.6** |
| GNI | | | | ⇓ *i* S | **Sg** | **17 20 55.6** | **+2.8** |
| **GNI** | **Garni** | **1.92** | **10** ⇑ | P | **Pg** | **17 20 27.2** | **-0.6** |
| GNI | | | | S | **Sg** | **17 20 55.6** | **+2.8** |
| **GRS** | **Goris** | **2.00** | **51** ⇑ | *i* P | **Pb** | **17 20 27.0** | **-1.3** |
| GRS | | | | ⇓ S | **Sg** | **17 21 00.0** | **+4.6** |
| **GRS** | **Goris** | **2.00** | **51** ⇑ | P | **Pb** | **17 20 27.0** | **-1.3** |
| GRS | | | | S | **Sg** | **17 21 00.0** | **+4.6** |
| **MAZI** | **Mazidag** | **3.17** | **257** | *e*PN | **Pn** | **17 20 44.2** | **+2.2** |
| **MAZI** | **Mazidag** | **3.17** | **257** | *e*Pn | **Pn** | **17 20 44.2** | **+2.2** |

*IDC* ***15*** *17:28:45.6±1.1,55˚.30S×28˚.12W,h0km,mb4.0/3, mb1 4.2/3,mb1mx3.8/17,mbtmp4.0/3,Error ellipse: s-maj=46.4km s-min=34.7km az=89.0*
*ISCJB* ***15*** *17:28:47.6±0.9,55˚.45S±0˚.1×28˚.0W±0˚.4,h26km,mb4.0/3, Error ellipse: s-maj=35.7km s-min=18.3km az=167.2*
*NEIC* ***15*** *17:28:50.6±0.5,55˚.34S×28˚.25W,h35km,mb4.1/1,Error ellipse: s-maj=24.0km s-min=13.5km az=75.0*
**ISC 15 17:28:49.5±0.8, 55˚.3S±0˚.2×28˚.2W±0˚.3, h26km, n11, σ0s35/11, mb4.1/3, South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | h m s | ISC |
| **SNAA** | **Sanae** | **19.64** | **156** | *e*P | | **P** | | **17 33 15.5** | **-0.3** |
| | 21nm,1.9s | | | | | | | | |
| **VNDA** | **Vanda** | **47.28** | **183** | P | | **P** | | **17 37 20.2** | **+0.4** |
| | 1.3nm,0.7s,baz=203,slow=5.8,SNR=4.0 | | | | | | | | |
| **LPAZ** | **La Paz** | **49.49** | **306** | P | | **P** | | **17 37 38.5** | **+0.3** |
| | 1.1nm,0.5s,baz=147,slow=3.0,SNR=4.4 | | | | | | | | |
| **LPAZ** | **La Paz** | **49.49** | **306** | *e*P | | **P** | | **17 37 38.1** | **-0.1** |
| **TORD** | **Torodi Ar. Bea** | **72.70** | **31** | P | | **P** | | **17 40 15.1** | **+0.2** |
| | 1.2nm,0.7s,baz=199,slow=6.6,SNR=8.4 | | | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **72.71** | **31** | *e*P | | **P** | | **17 40 15.1** | **+0.2** |
| **INK** | **Inuvik** | **144.88** | **321** | PKP | | **PKPab** | | **17 48 20.9** | **-0.7** |
| | 1.3nm,0.5s,baz=163,slow=2.5,SNR=6.2 | | | | | | | | |
| **ILAR** | **Eielson Array** | **149.20** | **313** | PKPbc | | **PKPbc** | | **17 48 34.1** | **+0.1** |
| | 2.0nm,0.7s,baz=130,slow=2.3,SNR=26 | | | | | | | | |
| **ILB** | **Eielson Array** | **149.20** | **313** | *e*PKPdf | | **PKPdf** | | **17 48 29.5** | **-0.2** |
| **SONA0** | **Songino Array** | **151.25** | **86** | *e*PKPbc | | **PKPbc** | | **17 48 39.6** | **0.0** |
| **SONM** | **Songino Array** | **151.25** | **86** | PKPbc | | **PKPbc** | | **17 48 39.6** | **0.0** |
| | 0.4nm,0.6s,baz=256,slow=4.3,SNR=2.8 | | | | | | | | |

*IDC* ***15*** *17:40:56.6±1.8,26˚.89N×143˚.66E,h0km,mb3.4/4, mb1 3.7/5,mb1mx3.4/50,mbtmp3.5/5,ML4.2/1,Error ellipse: s-maj=32.6km s-min=25.7km az=63.0*
*ISCJB* ***15*** *17:40:58.5±1.3,27˚.07N±0˚.10×143˚.80E±0˚.09,h33km, mb3.4/4,Error ellipse: s-maj=15.7km s-min=9.1km az=148.6*
*JMA* ***15*** *17:41:00.0±0.1,26˚.96N×143˚.55E,h100km,M3.0*
**ISC 15 17:41:01.3±1.5, 27˚.0N±0˚.1×143˚.7E±0˚.1, h35km, n10, σ1s01/12, mb3.6/4, Bonin Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | h m s | ISC |
| **CBIJ** | **Chichi jima** | **1.35** | **276** | P | | **Pn** | | **17 41 23.2** | **-0.5** |
| CBIJ | | | | S | | **Sn** | | **17 41 40.5** | **+0.1** |
| **JCJ** | **Chichijima** | **1.35** | **276** | Pn | | **Pn** | | **17 41 22.8** | **-0.9** |
| | 16nm,0.3s,baz=307,slow=20,SNR=28 | | | | | | | | |
| JCJ | | | | Sn | | **Sn** | | **17 41 41.3** | **+1.0** |
| | 107nm,0.3s,baz=285,slow=20,SNR=22 | | | | | | | | |
| **JHHJ** | **Haha-jima-NKT** | **1.39** | **256** | *e*S | | **Sn** | | **17 41 41.5** | **0.0** |
| **JRY** | **Ryogami san** | **9.90** | **337** | P | | **Pn** | | **17 43 20.3** | **-0.8** |
| **MJAR** | **Matsushiro Arr** | **10.62** | **335** | Pn | | **Pn** | | **17 43 29.5** | **-1.4** |
| | 1.7nm,0.3s,baz=164,slow=12,SNR=16 | | | | | | | | |
| **MAT** | **Matsushiro** | **10.62** | **335** | P | | **Pn** | | **17 43 29.7** | **-1.3** |
| **KLR** | **Kul'dur** | **24.07** | **341** | P | | **P** | | **17 46 14.5** | **+1.3** |
| | 0.3nm,1.1s,baz=147,slow=10.0,SNR=6.9 | | | | | | | | |
| **SONM** | **Songino Array** | **35.74** | **316** | P | | **P** | | **17 47 57.5** | **+0.7** |
| | 0.3nm,0.4s,baz=116,slow=6.7,SNR=3.6 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **47.51** | **192** | P | | **P** | | **17 49 32.8** | **-0.4** |
| | 0.9nm,0.8s,baz=14,slow=8.6,SNR=5.4 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **51.59** | **310** | P | | **P** | | **17 50 04.9** | **+0.8** |
| | 0.4nm,0.5s,baz=94,slow=8.4,SNR=8.6 | | | | | | | | |

*ISCJB* ***15*** *17:47:40.6±0.3,51˚.30N±0˚.01×18˚.96E±0˚.03,h0km,Error ellipse: s-maj=2.4km s-min=2.0km az=179.0*
*IPEC* ***15*** *17:47:42.2±0.2,51˚.28N×19˚.04E,h0km,ML3.1/4,Error ellipse: s-maj=1.5km s-min=0.9km az=7.0*
*CSEM* ***15*** *17:47:43.5±0.2,51˚.24N×19˚.00E,h1km,ML3.7/9,Error ellipse: s-maj=3.8km s-min=3.7km az=83.0*
*IDC* ***15*** *17:47:45.0±0.7,51˚.17N×19˚.00E,h0km,mb1 3.5/7, mb1mx3.2/51,mbtmp3.4/7,ML3.4/7,Error ellipse: s-maj=9.8km s-min=6.1km az=124.0*
*BGR* ***15*** *17:47:45.9±0.6,51˚.15N×18˚.95E,h1km,ML3.5/7,Error ellipse: s-maj=7.8km s-min=4.4km az=28.0*
*PRU* ***15*** *17:47:45.6,51˚.19N×18˚.84E,h0km,Belchatow*
*UPP* ***15*** *17:47:45.5±3.1,51˚.42N×19˚.16E,h0km,ML2.3*
*VIE* ***15*** *17:47:46.4,51˚.21N×18˚.93E,h16km,ML3.3/4*
**ISC 15 17:47:42.4±0.7, 51˚.31N±0˚.03×19˚.04E±0˚.02, h0km, n81, σ1s65/159, Poland**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | h m s | ISC |
| **OJC** | **Ojcow** | **1.19** | **156** | *e*Pg | | **Pg** | | **17 48 04.4** | **-0.7** |
| OJC | | | | *e*Sg | | **Sg** | | **17 48 20.8** | **+0.3** |
| **OJC** | **Ojcow** | **1.19** | **156** | *e*Pg | | **Pg** | | **17 48 04.5** | **-0.7** |
| OJC | | | | *e*Sg | | **Sg** | | **17 48 21.0** | **+0.5** |
| **OJC** | **Ojcow** | **1.19** | **156** | Pg | | **Pg** | | **17 48 04.5** | **-0.6** |
| OJC | | | | Sg | | **Sg** | | **17 48 21.0** | **+0.5** |
| **RAC** | **Raciborz** | **1.34** | **204** | *e*Pg | | **Pb** | | **17 48 08.2** | **-0.1** |
| RAC | | | | *e*Sg | | **Sb** | | **17 48 25.7** | **-0.2** |
| **OKC** | **Ostrava-Krasne** | **1.58** | **202** | *e*PG | | **Pn** | | **17 48 11.5** | **-0.1** |
| OKC | | | | *e*SG | | **Sn** | | **17 48 31.9** | **-0.7** |
| | comp=Z,172nm,0.6s | | | | | | | | |
| **OKC** | **Ostrava-Krasne** | **1.58** | **202** | *e*Pn | | **Pn** | | **17 48 11.4** | **-0.1** |
| OKC | | | | *e*Sg | | **Sn** | | **17 48 32.0** | **-0.6** |
| **OKC** | **Ostrava-Krasne** | **1.58** | **202** | Pn | | **Pn** | | **17 48 11.4** | **-0.1** |
| OKC | | | | Sg | | **Sn** | | **17 48 31.9** | **-0.7** |
| | 172nm,0.6s | | | | | | | | |
| **KSP** | **Ksiaz** | **1.79** | **256** | *e*Pn | | **Pn** | | **17 48 14.8** | **+0.2** |
| KSP | | | | *e*Pb | | **Pb** | | **17 48 15.6** | **-0.5** |
| KSP | | | | *e*Pg | | **Pg** | | **17 48 18.0** | **+1.3** |
| KSP | | | | *e*Sn | | **Sn** | | **17 48 37.9** | **-0.1** |
| KSP | | | | *e*Sg | | **Sg** | | **17 48 42.5** | **+2.5** |
| **KSP** | **Ksiaz** | **1.79** | **256** | *e*Pn | | **Pn** | | **17 48 15.0** | **+0.4** |
| **KSP** | **Ksiaz** | **1.79** | **256** | Pn | | **Pn** | | **17 48 15.0** | **+0.4** |
| **MORC** | **Moravsky Berou** | **1.80** | **213** | *e*Pn | | **Pn** | | **17 48 14.7** | **-0.1** |
| MORC | | | | *e*Sg | | **Sn** | | **17 48 37.0** | **-1.3** |
| **MORC** | **Moravsky Berou** | **1.80** | **213** | Pn | | **Pn** | | **17 48 14.7** | **-0.1** |
| MORC | | | | *e*Sg | | **Sn** | | **17 48 37.7** | **-0.7** |
| | 110nm,0.5s | | | | | | | | |
| **KRLC** | **Kraliky** | **1.89** | **230** | *e*PG | | **Pn** | | **17 48 16.3** | **+0.3** |
| KRLC | | | | *e*SG | | **Sn** | | **17 48 38.2** | **-2.3** |
| | comp=Z,42nm,0.3s | | | | | | | | |
| KRLC | | | | *ex* | | x | | 17 48 42.2 | |
| **KRLC** | **Kraliky** | **1.89** | **230** | Pg | | **Pn** | | **17 48 16.3** | **+0.3** |
| KRLC | | | | Sg | | **Sn** | | **17 48 38.2** | **-2.3** |
| | 42nm,0.3s | | | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.97** | **242** | *i* PG | | **Pn** | | **17 48 17.8** | **+0.8** |
| DPC | | | | *e*SG | | **Sn** | | **17 48 41.6** | **-0.9** |
| | comp=Z,101nm,0.4s | | | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.97** | **242** | *e*PN | | **Pn** | | **17 48 17.9** | **+0.8** |
| DPC | | | | *e*Sg | | **Sn** | | **17 48 41.9** | **-0.6** |
| **DPC** | **Dobruska-Polom** | **1.97** | **242** | Pn | | **Pn** | | **17 48 17.9** | **+0.8** |
| DPC | | | | Sg | | **Sn** | | **17 48 41.6** | **-0.9** |
| | 101nm,0.4s | | | | | | | | |
| **NIE** | **Niedzica** | **2.05** | **156** | *e*Pg | | **Pb** | | **17 48 21.0** | **+0.5** |
| NIE | | | | *e*Sn | | **Sb** | | **17 48 47.2** | **+0.6** |
| NIE | | | | *e*Sg | | **Sg** | | **17 48 49.7** | **+1.4** |
| **NIE** | **Niedzica** | **2.05** | **156** | *e*Pg | | **Pb** | | **17 48 21.0** | **+0.5** |
| NIE | | | | *e*Sn | | **Sb** | | **17 48 47.2** | **+0.6** |
| NIE | | | | *e*Sg | | **Sg** | | **17 48 49.7** | **+1.4** |
| **UPC** | **Upice** | **2.08** | **249** | *e*PG | | **Pn** | | **17 48 18.9** | **+0.4** |
| UPC | | | | *e*SG | | **Sn** | | **17 48 44.6** | **-0.4** |
| | comp=Z,108nm,0.5s | | | | | | | | |
| UPC | | | | *ex* | | x | | 17 48 50.0 | |
| **UPC** | **Upice** | **2.08** | **249** | Pg | | **Pn** | | **17 48 18.9** | **+0.4** |
| UPC | | | | Sg | | **Sn** | | **17 48 44.6** | **-0.4** |
| | 108nm,0.5s | | | | | | | | |
| **LANS** | **Liptovska Anna** | **2.17** | **173** | *e*Sg | | **Sb** | | **17 48 51.0** | **+0.9** |
| **LANS** | **Liptovska Anna** | **2.17** | **173** | *e* | | **Pn** | | **17 48 19.5** | **-0.3** |
| LANS | | | | *e* | | | | 17 48 22.4 | |
| **LANS** | **Liptovska Anna** | **2.17** | **173** | *e*SG | | **Sb** | | **17 48 51.0** | **+0.9** |
| **STHS** | **Stebnicka Huta** | **2.36** | **142** | *e*Pg | | **Pg** | | **17 48 29.8** | **+2.3** |
| STHS | | | | *e*Sg | | **Sg** | | **17 48 59.5** | **+1.4** |
| **STHS** | **Stebnicka Huta** | **2.36** | **142** | *e* | | **Pn** | | **17 48 22.1** | **-0.2** |
| **STHS** | **Stebnicka Huta** | **2.36** | **142** | *e*PG | | **Pg** | | **17 48 29.8** | **+2.3** |
| STHS | | | | *e*SG | | **Sg** | | **17 48 59.5** | **+1.4** |
| STHS | | | | *e*LG | | Lg | | 17 49 04.2 | |
| **VRAC** | **Vranov** | **2.54** | **219** | Pn | | **Pn** | | **17 48 25.7** | **+0.8** |
| | 10nm,0.3s,baz=37,slow=11,SNR=8.3 | | | | | | | | |
| VRAC | | | | Pg | | **Pb** | | **17 48 29.5** | **+0.7** |
| | 10nm,0.3s,baz=41,slow=16,SNR=26 | | | | | | | | |
| VRAC | | | | Sn | | **Sn** | | **17 48 55.4** | **-1.1** |
| | 6.0nm,0.3s,baz=340,slow=15,SNR=6.1 | | | | | | | | |
| VRAC | | | | Lg | | Lg | | 17 49 01.9 | |
| | 19nm,0.3s,baz=313,slow=22,SNR=14 | | | | | | | | |
| **VRAC** | **Vranov** | **2.54** | **219** | *e*Pn | | **Pn** | | **17 48 24.9** | **+0.1** |
| VRAC | | | | *e*Sg | | **Sb** | | **17 49 01.1** | **+0.5** |
| | 79nm,0.5s | | | | | | | | |
| **KRUC** | **Moravsky** | **2.82** | **218** | *e*Pn | | **Pn** | | **17 48 28.5** | **-0.1** |
| KRUC | | | | *e*Sg | | **Sb** | | **17 49 09.7** | **+1.2** |
| | 54nm,0.6s | | | | | | | | |
| **VYHS** | **Vyhne** | **2.82** | **183** | *e*Pg | | **Pg** | | **17 48 36.3** | **0.0** |
| VYHS | | | | *e*Sg | | **Sg** | | **17 49 14.0** | **+1.2** |
| **VYHS** | **Vyhne** | **2.82** | **183** | *e* | | **Pn** | | **17 48 28.1** | **-0.5** |
| **VYHS** | **Vyhne** | **2.82** | **183** | *e*PG | | **Pg** | | **17 48 36.3** | **0.0** |
| VYHS | | | | *e*SG | | **Sg** | | **17 49 14.0** | **+1.2** |
| VYHS | | | | *e*LG | | Lg | | 17 49 20.3 | |
| **CRVS** | **Cervenica-Dubn** | **2.87** | **146** | *e*Pg | | **Pg** | | **17 48 37.7** | **+0.5** |
| CRVS | | | | *e*Sg | | **Sg** | | **17 49 13.3** | **-1.1** |
| **CRVS** | **Cervenica-Dubn** | **2.87** | **146** | *e* | | **Pn** | | **17 48 29.6** | **+0.3** |
| **CRVS** | **Cervenica-Dubn** | **2.87** | **146** | *e*PG | | **Pg** | | **17 48 37.7** | **+0.5** |
| CRVS | | | | *e*SG | | **Sg** | | **17 49 13.3** | **-1.1** |
| **PVCC** | **Panska Ves** | **2.94** | **256** | *e*PN | | **Pn** | | **17 48 30.7** | **+0.5** |
| PVCC | | | | *e*PG | | **Pg** | | **17 48 38.9** | **+0.3** |
| PVCC | | | | *e*SG | | **Sg** | | **17 49 15.5** | **-1.1** |
| | comp=Z,97nm,0.4s | | | | | | | | |
| **PVCC** | **Panska Ves** | **2.94** | **256** | Pn | | **Pn** | | **17 48 30.7** | **+0.5** |
| PVCC | | | | Sg | | **Sg** | | **17 49 15.5** | **-1.1** |
| | 97nm,0.4s | | | | | | | | |
| **KECS** | **Kecovo** | **2.98** | **161** | *e*Pg | | **Pg** | | **17 48 38.1** | **-1.2** |
| KECS | | | | *e*Sg | | **Sg** | | **17 49 17.6** | **-0.3** |
| **KECS** | **Kecovo** | **2.98** | **161** | *e* | | **Pn** | | **17 48 29.9** | **-0.9** |
| **KECS** | **Kecovo** | **2.98** | **161** | *e*PG | | **Pg** | | **17 48 38.1** | **-1.2** |
| KECS | | | | *e*SG | | **Sg** | | **17 49 17.6** | **-0.3** |
| KECS | | | | *e*LG | | Lg | | 17 49 22.0 | |
| **SMOL** | **Smolenice** | **2.98** | **201** | *e*Pg | | **Pb** | | **17 48 37.9** | **+1.6** |
| SMOL | | | | *e*Sg | | **Sg** | | **17 49 19.0** | **+0.9** |
| **SMOL** | **Smolenice** | **2.98** | **201** | *e*PG | | **Pb** | | **17 48 37.9** | **+1.6** |
| SMOL | | | | *e*SG | | **Sg** | | **17 49 19.0** | **+0.9** |
| **GOPC** | **GO Pecny, Ondr** | **3.05** | **244** | *e*PN | | **Pn** | | **17 48 32.2** | **+0.4** |
| GOPC | | | | *e*PG | | **Pg** | | **17 48 41.7** | **+1.0** |
| GOPC | | | | *e*SN | | **Sn** | | **17 49 08.5** | **-0.5** |
| GOPC | | | | *e*SG | | **Sg** | | **17 49 18.3** | **-1.9** |
| | comp=Z,71nm,0.8s | | | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **3.05** | **244** | Pn | | **Pn** | | **17 48 32.2** | **+0.4** |
| GOPC | | | | Sg | | **Sg** | | **17 49 18.3** | **-1.9** |
| | 71nm,0.8s | | | | | | | | |
| **PRU** | **Pruhonice** | **3.15** | **247** | *e*PN | | **Pn** | | **17 48 33.7** | **+0.5** |
| PRU | | | | *e*PG | | **Pg** | | **17 48 43.5** | **+0.7** |
| PRU | | | | *e*SN | | **Sn** | | **17 49 08.8** | **-2.7** |
| PRU | | | | *e*SG | | **Sg** | | **17 49 22.1** | **-1.5** |
| | comp=Z,34nm,0.5s | | | | | | | | |
| **PRU** | **Pruhonice** | **3.15** | **247** | Pn | | **Pn** | | **17 48 33.7** | **+0.5** |
| PRU | | | | Sn | | **Sn** | | **17 49 08.8** | **-2.7** |
| PRU | | | | Sg | | **Sg** | | **17 49 22.1** | **-1.5** |
| | 34nm,0.5s | | | | | | | | |
| **BRG** | **Berggiesshubel** | **3.24** | **264** | *e*Sg | | **Sg** | | **17 49 27.1** | **+0.6** |
| **BRG** | **Berggiesshubel** | **3.24** | **264** | Sg | | **Sg** | | **17 49 27.1** | **+0.6** |
| **CLL** | **Collm** | **3.79** | **272** | *i* Pn | | **Pn** | | **17 48 44.0** | **+2.0** |
| CLL | | | | *e* | | | | 17 48 54.0 | |
| CLL | | | | *e*Pg | | **Pg** | | **17 48 58.0** | **+3.0** |
| CLL | | | | *e* | | | | 17 49 08.0 | |
| CLL | | | | *e*Sg | | **Sg** | | **17 49 46.0** | **+2.0** |
| | comp=Z,33nm,0.8s | | | | | | | | |
| CLL | | | | *e* | | | | 17 49 51.0 | |
| **CLL** | **Collm** | **3.79** | **272** | *e*Pn | | **Pn** | | **17 48 44.0** | **+2.0** |
| CLL | | | | *e*Sg | | **Sg** | | **17 49 45.2** | **+1.1** |
| **CLL** | **Collm** | **3.79** | **272** | Pn | | **Pn** | | **17 48 44.0** | **+2.0** |
| CLL | | | | Sg | | **Sg** | | **17 49 45.2** | **+1.1** |
| **CONA** | **Conrad Observa** | **3.96** | **213** | Pn | | **Pn** | | **17 48 44.3** | **-0.1** |
| | comp=Z,1.4nm,0.3s | | | | | | | | |
| CONA | | | | Sg | | **Sg** | | **17 49 51.3** | **+1.7** |
| | comp=Z,25nm,0.5s | | | | | | | | |
| **KHC** | **Kasperske Hory** | **4.13** | **240** | *e*PN | | **Pn** | | **17 48 47.3** | **+0.6** |
| KHC | | | | *e*PG | | **Pb** | | **17 48 57.7** | **+1.8** |
| KHC | | | | *ex* | | x | | 17 49 03.5 | |
| KHC | | | | *e*SN | | **Sn** | | **17 49 33.6** | **-2.1** |
| KHC | | | | *e*SG | | **Sg** | | **17 49 50.9** | **-4.0** |
| | comp=Z,45nm,0.5s | | | | | | | | |
| **KHC** | **Kasperske Hory** | **4.13** | **240** | Pn | | **Pn** | | **17 48 47.3** | **+0.6** |
| KHC | | | | Sn | | **Sn** | | **17 49 33.6** | **-2.1** |
| KHC | | | | Sg | | **Sg** | | **17 49 50.9** | **-4.0** |
| | comp=Z,45nm,0.5s | | | | | | | | |
| **GEC2** | **GERESS Array S** | **4.23** | **236** | *e*Pn | | **Pn** | | **17 48 48.6** | **+0.5** |
| GEC2 | | | | *e*Sg | | **Sg** | | **17 49 55.5** | **-2.7** |
| **GEC2** | **GERESS Array S** | **4.23** | **236** | Pn | | **Pn** | | **17 48 48.6** | **+0.5** |
| GEC2 | | | | Sg | | **Sg** | | **17 49 55.5** | **-2.7** |
| **GERES** | **GERESS Array B** | **4.23** | **236** | Pn | | **Pn** | | **17 48 48.5** | **+0.5** |
| | comp=Z,0.7nm,0.3s,baz=58,slow=14,SNR=12 | | | | | | | | |
| GERES | | | | Sn | | **Sn** | | **17 49 37.9** | **-0.3** |
| | comp=Z,1.9nm,0.3s,baz=53,slow=23,SNR=5.6 | | | | | | | | |
| GERES | | | | Lg | | Lg | | 17 49 56.3 | |
| | comp=Z,8.6nm,0.3s,baz=57,slow=27,SNR=19 | | | | | | | | |
| **NKC** | **Novy Kostel** | **4.32** | **258** | *e*PN | | **Pn** | | **17 48 52.2** | **+2.9** |
| NKC | | | | *e*PG | | **Pg** | | **17 49 06.2** | **+1.1** |
| NKC | | | | *e*SN | | **Sn** | | **17 49 37.2** | **-3.2** |
| NKC | | | | *e*SG | | **Sb** | | **17 49 55.0** | **+3.2** |
| | comp=Z,42nm,0.5s | | | | | | | | |
| NKC | | | | *ex* | | x | | 17 50 00.1 | |
| **NKC** | **Novy Kostel** | **4.32** | **258** | Pn | | **Pn** | | **17 48 52.2** | **+2.9** |
| NKC | | | | Sn | | **Sn** | | **17 49 37.2** | **-3.2** |
| **BSD** | **Bornholm Skovb** | **4.55** | **329** | *i* P | | **Pn** | | **17 48 53.1** | **+0.7** |
| BSD | | | | *e*S | | **Sn** | | **17 49 45.0** | **-0.9** |
| **MOA** | **Molln** | **4.65** | **224** | Pn | | **Pn** | | **17 48 54.7** | **+0.9** |
| | comp=Z,1.2nm,0.2s | | | | | | | | |
| MOA | | | | Sg | | **Sg** | | **17 50 14.8** | **+3.2** |
| | comp=Z,13nm,0.6s | | | | | | | | |
| **ARSA** | **Arzberg** | **4.67** | **211** | Pn | | **Pn** | | **17 48 55.1** | **+1.1** |
| | comp=Z,1.9nm,0.3s | | | | | | | | |
| ARSA | | | | Sg | | **Sg** | | **17 50 11.1** | **-1.1** |
| | comp=Z,14nm,0.7s | | | | | | | | |
| **PBUR** | **Paburˇ** | **5.03** | **19** | *e*S | | **Sn** | | **17 49 58.7** | **+1.0** |
| | SNR=49 | | | | | | | | |
| **BLEU** | **Blekinge** | **5.36** | **340** | P | | **Pn** | | **17 49 03.8** | **+0.3** |
| BLEU | | | | S | | **Sn** | | **17 50 04.2** | **-1.7** |
| **NACGM** | **Naroch** | **5.89** | **49** | *e* | | **Sn** | | **17 50 18.0** | **-1.0** |
| **DEL** | **Delary** | **6.01** | **331** | P | | **Pn** | | **17 49 13.2** | **+0.8** |
| **VXJU** | **Vaexsjoe** | **6.12** | **338** | P | | **Pn** | | **17 49 14.5** | **+0.5** |
| VXJU | | | | S | | **Sn** | | **17 50 22.7** | **-1.9** |
| **OSKU** | **Oskarshamn** | **6.15** | **345** | P | | **Pn** | | **17 49 15.2** | **+0.9** |
| OSKU | | | | S | | **Sn** | | **17 50 24.5** | **-0.8** |
| **AKASG** | **Malin Array Be** | **6.46** | **91** | Pn | | **Pn** | | **17 49 18.4** | **-0.2** |
| | comp=Z,2.3nm,0.3s,baz=277,slow=12,SNR=9.8 | | | | | | | | |
| AKASG | | | | Pg | | **Pb** | | **17 49 39.1** | **+3.6** |
| | comp=Z,2.0nm,0.3s,baz=280,slow=15,SNR=7.5 | | | | | | | | |
| AKASG | | | | Sn | | **Sn** | | **17 50 29.8** | **-3.1** |
| | comp=Z,2.7nm,0.3s,baz=272,slow=22,SNR=5.3 | | | | | | | | |
| AKASG | | | | Lg | | Lg | | 17 51 03.9 | |
| | comp=Z,2.6nm,0.3s,baz=278,slow=29,SNR=4.6 | | | | | | | | |
| **SLIT** | **Slitere, Latvi** | **6.61** | **15** | *e*P | | **Pn** | | **17 49 23.7** | **+3.0** |
| | SNR=47 | | | | | | | | |
| **GNOU** | **Gnosjoe** | **6.75** | **335** | P | | **Pn** | | **17 49 23.5** | **+1.0** |
| **DAVOX** | **Davos/Dischmat** | **7.53** | **237** | Pn | | **Pn** | | **17 49 34.4** | **+0.9** |
| | comp=Z,0.4nm,0.3s,baz=48,slow=12,SNR=4.0 | | | | | | | | |
| DAVOX | | | | Lg | | Lg | | 17 51 39.0 | |
| | comp=Z,0.4nm,0.3s,baz=344,slow=20,SNR=3.1 | | | | | | | | |
| **MTSE** | **Matsula** | **7.91** | **18** | *e*P | | **Pn** | | **17 49 40.3** | **+1.8** |
| | SNR=47 | | | | | | | | |
| **VSU** | **Vasula** | **8.43** | **29** | *e*P | | **Pn** | | **17 49 47.5** | **+1.9** |
| | SNR=47 | | | | | | | | |
| **HFS** | **Hagfors** | **9.35** | **343** | Pn | | **Pn** | | **17 49 58.2** | **0.0** |
| | comp=Z,0.5nm,0.3s,baz=140,slow=13,SNR=13 | | | | | | | | |
| HFS | | | | Sn | | **Sn** | | **17 51 40.5** | **-3.3** |
| | comp=Z,0.4nm,0.3s,baz=147,slow=24,SNR=5.0 | | | | | | | | |
| HFS | | | | Lg | | Lg | | 17 52 39.8 | |
| | comp=Z,0.4nm,0.3s,baz=158,slow=31,SNR=2.8 | | | | | | | | |
| **MEF** | **Metsahovi** | **9.43** | **17** | *e*P | | **Pn** | | **17 50 01.6** | **+2.4** |
| | SNR=47 | | | | | | | | |
| **RAF** | **Rauma** | **9.86** | **8** | *e*P | | **Pn** | | **17 50 05.6** | **+0.4** |
| | SNR=47 | | | | | | | | |
| **NOA** | **NORSAR Array B** | **10.68** | **339** | Pn | | **Pn** | | **17 50 14.6** | **-1.9** |
| | comp=Z,0.3nm,0.3s,baz=150,slow=12,SNR=4.8 | | | | | | | | |
| NOA | | | | Sn | | **Sn** | | **17 52 11.2** | **-5.4** |
| | comp=Z,0.2nm,0.3s,baz=158,slow=21,SNR=2.6 | | | | | | | | |
| **FINES** | **FINESS Array B** | **10.88** | **18** | Pn | | **Pn** | | **17 50 18.3** | **-0.8** |
| | comp=Z,0.5nm,0.3s,baz=208,slow=14,SNR=12 | | | | | | | | |
| FINES | | | | Sn | | **Sn** | | **17 52 13.4** | **-7.9** |
| | comp=Z,0.7nm,0.3s,baz=206,slow=22,SNR=8.9 | | | | | | | | |
| FINES | | | | Lg | | Lg | | 17 53 25.9 | |
| | comp=Z,0.2nm,0.3s,baz=202,slow=26,SNR=2.6 | | | | | | | | |
| **EKA** | **Eskdalemuir Ar** | **13.85** | **296** | Pn | | **Pn** | | **17 50 57.8** | **-2.0** |
| | baz=104,slow=13,SNR=6.0 | | | | | | | | |

*IDC* ***15*** *17:53:24.3±0.9,31˚.71N×141˚.66E,h0km,mb3.8/7, mb1 3.8/10,mb1mx3.6/51,mbtmp3.7/10,ML3.3/3,Error ellipse: s-maj=30.0km s-min=16.5km az=67.0*
*ISCJB* ***15*** *17:53:27.5±0.7,31˚.60N±0˚.07×141˚.6E±0˚.2,h40km, mb3.8/7,Error ellipse: s-maj=20.5km s-min=6.8km az=156.3*
**ISC 15 17:53:29.6±0.8, 31˚.63N±0˚.09×141˚.6E±0˚.2, h40km, n10, σ1s09/12, mb3.8/7, Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | h m s | ISC |
| **JHJ** | **Hachijo jima 2** | **2.12** | **315** | Pn | | **Pn** | | **17 54 01.2** | **-1.3** |
| | 14nm,0.3s,baz=68,slow=19,SNR=3.6 | | | | | | | | |
| JHJ | | | | Sn | | **Sn** | | **17 54 28.6** | **+0.9** |
| | 10nm,0.3s,baz=253,slow=19,SNR=3.2 | | | | | | | | |
| **JCJ** | **Chichijima** | **4.55** | **173** | Pn | | **Pn** | | **17 54 36.0** | **+0.1** |
| | 4.7nm,0.3s,baz=354,slow=

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **MKAR** | **Makanchi Array** | **46.24** | **306** | P | | **P** | **18 07 08.8** | **-0.1** |
| | 0.3nm,0.6s,baz=84,slow=9.8,SNR=5.2 | | | | | | | |
| **KURK** | **Kurchatov** | **48.44** | **311** | *e*P | | **P** | **18 07 27.5** | **+1.6** |
| **KURBB** | **Kurchatov Arra** | **48.50** | **311** | P | | **P** | **18 07 27.5** | **+1.1** |
| | 0.5nm,0.4s,baz=92,slow=8.6,SNR=7.4 | | | | | | | |
| **WR1** | **Warramunga Arr** | **52.55** | **188** | *e*P | | **P** | **18 07 57.5** | **+0.3** |
| | 8.8nm,1.4s | | | | | | | |
| **WRA** | **Warramunga Arr** | **52.55** | **188** | P | | **P** | **18 07 57.5** | **+0.3** |
| | 1.6nm,0.7s,baz=5.7,slow=7.6,SNR=27 | | | | | | | |
| **ILAR** | **Eielson Array** | **53.57** | **30** | P | | **P** | **18 08 04.7** | **+0.5** |
| | 0.5nm,0.8s,baz=264,slow=6.5,SNR=5.2 | | | | | | | |
| **ASAR** | **Alice Springs** | **56.28** | **188** | P | | **P** | **18 08 24.6** | **+0.4** |
| | 0.3nm,0.5s,baz=2.0,slow=7.0,SNR=11 | | | | | | | |
| **LTX** | **Lajitas** | **93.24** | **52** | *e*P | | **P** | **18 11 59.4** | **+1.2** |
| **TXAR** | **Lajitas Array** | **93.24** | **52** | P | | **P** | **18 11 59.4** | **+1.2** |
| | 0.2nm,0.6s,baz=325,slow=2.0,SNR=3.5 | | | | | | | |

**IDC 15 18:00:46.1±4.0, 31°.53N×141°.45E, h0km, mb3.4/3, mb1 3.4/5, mb1mx3.2/43, mbtmp3.3/5, ML2.9/2, Error ellipse: s-maj=144.5km s-min=22.2km az=67.0, Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JHJ** | **Hachijo jima 2** | **2.12** | **319** | Pn | Pn | 18 01 22.1 | -0.7 |
| | 12nm,0.3s,baz=234,slow=19,SNR=4.1 | | | | | | |
| JHJ | | | | Sn | Sn | 18 01 49.6 | -0.3 |
| | 8.5nm,0.3s,baz=73,slow=19,SNR=2.9 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **5.67** | **333** | Pn | Pn | 18 02 09.8 | -1.9 |
| | 0.3nm,0.3s,baz=154,slow=11,SNR=2.3 | | | | | | |
| **SONM** | **Songino Array** | **31.18** | **312** | P | P | 18 07 08.4 | +1.5 |
| | 0.3nm,0.5s,baz=116,slow=10,SNR=3.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **47.24** | **307** | P | P | 18 09 20.2 | -0.6 |
| | 0.4nm,0.6s,baz=91,slow=10,SNR=4.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **51.63** | **189** | P | P | 18 09 54.2 | -0.4 |
| | 0.3nm,0.7s,baz=6.4,slow=7.6,SNR=3.4 | | | | | | |

*ISCJB **15** 18:02:50.2±0.4, 67°.09N±0°.02×20°.96E±0°.08, h0km, Error ellipse: s-maj=4.4km s-min=2.6km az=178.3*
*HEL **15** 18:02:51.9±0.2, 67°.09N×20°.92E, h0km, ML2.3, Explosion*
*NAO **15** 18:02:51.9±0.9, 67°.09N×21°.18E, ML2.6*
*CSEM **15** 18:02:51.9±0.3, 67°.09N×21°.08E, h2km, ML2.3, Error ellipse: s-maj=8.3km s-min=5.2km az=106.0, Mining explosion.*
*IDC **15** 18:02:51.8±1.4, 67°.10N×20°.99E, h0km, mb1 3.3/3, mb1mx3.0/41, mbtmp3.1/3, ML2.3/3, Error ellipse: s-maj=23.6km s-min=11.0km az=105.0*
*UPP **15** 18:02:51.1±0.1, 67°.08N×20°.92E, h0km, ML2.1*
*BER **15** 18:02:53.7±4.3, 67°.08N×20°.92E, h0km, ML2.6(NAO), Suspected explosion*

**ISC 15 18:02:51.2±0.8, 67°.09N±0°.02×20°.93E±0°.03, h0km, n63, σ0s76/92, Sweden**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MASU** | **Masugnsbyn** | **0.55** | **48** | P | **Pg** | **18 03 01.9** | **+0.1** |
| MASU | | | | S | **Sg** | **18 03 09.5** | **+0.6** |
| **ERTU** | **Ertsjaerv** | **0.74** | **137** | P | **Pg** | **18 03 04.8** | **-0.5** |
| ERTU | | | | S | **Sg** | **18 03 14.6** | **-0.2** |
| **ERTU** | **Ertsjaerv** | **0.74** | **137** | PG | **Pg** | **18 03 04.7** | **-0.6** |
| | baz=312 | | | | | | |
| ERTU | | | | SG | **Sg** | **18 03 15.4** | **+0.6** |
| **PAJU** | **Pajala** | **0.86** | **94** | P | **Pg** | **18 03 07.1** | **-0.5** |
| **KUA** | **Kurravaara** | **0.89** | **346** | P | **Pg** | **18 03 08.0** | **-0.3** |
| **RATU** | **Laukkuluspa** | **0.90** | **325** | P | **Pg** | **18 03 08.0** | **-0.4** |
| **HAUU** | **Harads** | **0.94** | **179** | P | **Pg** | **18 03 08.4** | **-0.6** |
| **LANU** | **Lannavaara** | **1.04** | **22** | P | **Pg** | **18 03 10.5** | **-0.6** |
| **LANU** | **Lannavaara** | **1.04** | **22** | PG | **Pg** | **18 03 10.4** | **-0.7** |
| | baz=204 | | | | | | |
| LANU | | | | SN | **Sn** | **18 03 29.4** | **+1.1** |
| **NIKU** | **Nikkaluokta** | **1.07** | **318** | P | **Pg** | **18 03 11.2** | **-0.4** |
| **KALU** | **Kalix** | **1.58** | **141** | Pg | **Pn** | **18 03 19.6** | **-0.7** |
| KALU | | | | Sn | **Sg** | **18 03 41.9** | **+0.1** |
| **KALU** | **Kalix** | **1.58** | **141** | P | **Pn** | **18 03 19.8** | **-0.6** |
| **KALU** | **Kalix** | **1.58** | **141** | PG | **Pn** | **18 03 19.7** | **-0.7** |
| | baz=319 | | | | | | |
| KALU | | | | SN | **Sg** | **18 03 41.9** | **+0.1** |
| **SJUU** | **Sjulsmark** | **1.62** | **170** | P | **Pn** | **18 03 20.7** | **-0.2** |
| **HEF** | **Hetta** | **1.68** | **37** | Pg | **Pn** | **18 03 21.5** | **-0.3** |
| HEF | | | | Sg | **Sn** | **18 03 43.8** | **-0.2** |
| **HEF** | **Hetta** | **1.68** | **37** | PG | **Pn** | **18 03 21.5** | **-0.3** |
| | baz=218 | | | | | | |
| HEF | | | | MSG | | 18 03 42.2 | |
| | comp=Z,111nm,0.2s | | | | | | |
| HEF | | | | SG | **Sn** | **18 03 43.9** | **-0.2** |
| **TOF** | **Tornio** | **1.70** | **125** | Pg | **Pn** | **18 03 21.8** | **-0.2** |
| TOF | | | | Sg | **Sn** | **18 03 44.6** | **+0.2** |
| **TOF** | **Tornio** | **1.70** | **125** | PG | **Pn** | **18 03 21.9** | **-0.2** |
| TOF | | | | SG | **Sn** | **18 03 44.6** | **+0.2** |
| **KIF** | **Kilpisjarvi** | **1.92** | **359** | Pn | **Pb** | **18 03 26.6** | **-0.4** |
| KIF | | | | Lg | Lg | 18 03 53.1 | |
| **KIF** | **Kilpisjarvi** | **1.92** | **359** | Pn | **Pb** | **18 03 26.6** | **-0.4** |
| KIF | | | | Lg | Lg | 18 03 53.1 | |
| **KIF** | **Kilpisjarvi** | **1.92** | **359** | Pn | **Pb** | **18 03 26.6** | **-0.4** |
| | SNR=50 | | | | | | |
| KIF | | | | Lg | Lg | 18 03 53.1 | |
| **KIF** | **Kilpisjarvi** | **1.92** | **359** | PG | **Pb** | **18 03 26.5** | **-0.5** |
| KIF | | | | MSG | | 18 03 50.2 | |
| | comp=Z,42nm,0.2s | | | | | | |
| KIF | | | | SG | **Sg** | **18 03 53.1** | **+0.3** |
| **RNF** | **Rovaniemi** | **2.07** | **101** | PG | **Pg** | **18 03 31.8** | **+1.0** |
| **SGF** | **Sodankyl** | **2.20** | **78** | Pb | **Pn** | **18 03 29.8** | **+0.9** |
| SGF | | | | Sg | **Sb** | **18 03 59.0** | **-0.6** |
| **SGF** | **Sodankyl** | **2.20** | **78** | PB | **Pn** | **18 03 29.9** | **+0.9** |
| | baz=261 | | | | | | |
| SGF | | | | SG | **Sb** | **18 03 59.0** | **-0.6** |
| **BURU** | **Burvik** | **2.53** | **176** | Pn | **Pn** | **18 03 34.2** | **+0.8** |
| **BURU** | **Burvik** | **2.53** | **176** | PN | **Pn** | **18 03 34.3** | **+0.8** |
| | baz=360 | | | | | | |
| **OUL** | **Oulu** | **2.86** | **133** | Pn | **Pn** | **18 03 38.6** | **+0.7** |
| **OUL** | **Oulu** | **2.86** | **133** | PN | **Pn** | **18 03 38.6** | **+0.7** |
| OUL | | | | SG | **Sb** | **18 04 18.1** | **-0.4** |
| **ARA0** | **ARCESS Array S** | **2.98** | **33** | Pn | **Pn** | **18 03 40.1** | **+0.4** |
| | baz=210,slow=14 | | | | | | |
| ARA0 | | | | Sn | **Sn** | **18 04 16.9** | **+0.8** |
| | baz=214,slow=22 | | | | | | |
| **ARA0** | **ARCESS Array S** | **2.98** | **33** | Pn | **Pn** | **18 03 40.1** | **+0.4** |
| | baz=210,slow=14 | | | | | | |
| ARA0 | | | | Sn | **Sn** | **18 04 16.9** | **+0.8** |
| | baz=214,slow=22 | | | | | | |
| **ARA0** | **ARCESS Array S** | **2.98** | **33** | Pn | **Pn** | **18 03 40.1** | **+0.4** |
| | SNR=50 | | | | | | |
| ARA0 | | | | Sn | **Sn** | **18 04 16.9** | **+0.8** |
| | SNR=50 | | | | | | |
| **ARCES** | **ARCESS Array B** | **2.98** | **33** | Pn | **Pn** | **18 03 40.2** | **+0.5** |
| | comp=Z,0.5nm,0.3s,baz=214,slow=13,SNR=2.1 | | | | | | |
| ARCES | | | | Sn | **Sn** | **18 04 17.1** | **+1.0** |
| | comp=Z,1.4nm,0.3s,baz=219,slow=21,SNR=12 | | | | | | |
| **ARE0** | **ARCESS Array S** | **2.98** | **33** | Pn | **Pn** | **18 03 39.8** | **+0.1** |
| ARE0 | | | | Sn | **Sn** | **18 04 16.9** | **+0.8** |
| **ARE0** | **ARCESS Array S** | **2.98** | **33** | PN | **Pn** | **18 03 39.8** | **+0.1** |
| | baz=217 | | | | | | |
| ARE0 | | | | SN | **Sn** | **18 04 16.9** | **+0.8** |
| **OUF** | **Merijarvi** | **3.16** | **148** | Pn | **Pn** | **18 03 43.2** | **+1.2** |
| **OUF** | **Merijarvi** | **3.16** | **148** | PN | **Pn** | **18 03 43.3** | **+1.2** |
| **UMAU** | **Umeaa** | **3.23** | **182** | Pn | **Pn** | **18 03 43.5** | **+0.5** |
| **UMAU** | **Umeaa** | **3.23** | **182** | PN | **Pn** | **18 03 43.6** | **+0.5** |
| **VRF** | **Varrio** | **3.41** | **75** | Pn | **Pn** | **18 03 46.4** | **+0.8** |
| **VRF** | **Varrio** | **3.41** | **75** | PN | **Pn** | **18 03 46.5** | **+0.8** |
| **MSF** | **Maaselka** | **3.46** | **106** | Pn | **Pn** | **18 03 47.6** | **+1.4** |
| **MSF** | **Maaselka** | **3.46** | **106** | PN | **Pn** | **18 03 47.6** | **+1.4** |
| **KU6** | **Riekki** | **3.74** | **103** | Pn | **Pn** | **18 03 50.7** | **+0.7** |
| **KU6** | **Riekki** | **3.74** | **103** | PN | **Pn** | **18 03 50.7** | **+0.7** |
| | baz=292 | | | | | | |
| **VAF** | **Ylistaro** | **4.14** | **169** | Pn | **Pn** | **18 03 56.7** | **+1.2** |
| VAF | | | | Sn | **Sn** | **18 04 45.4** | **+0.9** |
| **VAF** | **Ylistaro** | **4.14** | **169** | PN | **Pn** | **18 03 56.7** | **+1.2** |
| VAF | | | | SN | **Sn** | **18 04 45.4** | **+0.9** |
| **HEMU** | **Hemsoen** | **4.60** | **197** | Pn | **Pn** | **18 04 04.2** | **+2.3** |
| **HEMU** | **Hemsoen** | **4.60** | **197** | PN | **Pn** | **18 04 04.2** | **+2.3** |
| | baz=11 | | | | | | |
| **APA0** | **Apatity Array** | **4.69** | **78** | Pn | **Pn** | **18 04 03.1** | **-0.1** |
| | baz=248,slow=12 | | | | | | |
| APA0 | | | | Sn | **Sn** | **18 04 58.2** | **0.0** |
| | baz=263,slow=18 | | | | | | |
| APA0 | | | | Lg | Lg | 18 05 15.2 | |
| | baz=284,slow=28 | | | | | | |
| **APA0** | **Apatity Array** | **4.69** | **78** | Pn | **Pn** | **18 04 03.1** | **-0.1** |
| | baz=248,slow=12 | | | | | | |
| APA0 | | | | Sn | **Sn** | **18 04 58.2** | **0.0** |
| | baz=263,slow=18 | | | | | | |
| APA0 | | | | Lg | Lg | 18 05 15.2 | |
| | baz=284,slow=28 | | | | | | |
| **APA0** | **Apatity Array** | **4.69** | **78** | Pn | **Pn** | **18 04 03.1** | **-0.1** |
| | SNR=50 | | | | | | |
| APA0 | | | | Sn | **Sn** | **18 04 58.2** | **0.0** |
| | SNR=50 | | | | | | |
| APA0 | | | | Lg | Lg | 18 05 15.2 | |
| | SNR=4.2 | | | | | | |
| **FIA0** | **FINESS Array S** | **6.10** | **156** | Pn | **Pn** | **18 04 23.3** | **+0.8** |
| | baz=345,slow=14 | | | | | | |
| FIA0 | | | | Sn | **Sn** | **18 05 31.9** | **-0.9** |
| | baz=346,slow=28 | | | | | | |
| **FIA0** | **FINESS Array S** | **6.10** | **156** | Pn | **Pn** | **18 04 23.3** | **+0.8** |
| | baz=345,slow=14 | | | | | | |
| FIA0 | | | | Sn | **Sn** | **18 05 31.9** | **-0.9** |
| | baz=346,slow=28 | | | | | | |
| **FIA0** | **FINESS Array S** | **6.10** | **156** | Pn | **Pn** | **18 04 23.3** | **+0.8** |
| | SNR=50 | | | | | | |
| FIA0 | | | | Sn | **Sn** | **18 05 31.9** | **-0.9** |
| | SNR=50 | | | | | | |
| **FINES** | **FINESS Array B** | **6.10** | **156** | Pn | **Pn** | **18 04 23.2** | **+0.8** |
| | comp=Z,0.1nm,0.3s,baz=347,slow=12,SNR=2.4 | | | | | | |
| FINES | | | | Sn | **Sn** | **18 05 32.7** | **-0.1** |
| | comp=Z,0.3nm,0.3s,baz=346,slow=23,SNR=5.9 | | | | | | |
| **NB2** | **NORSAR Subarra** | **7.41** | **220** | Pn | **Pn** | **18 04 39.4** | **-1.1** |
| | baz=27,slow=14 | | | | | | |
| **NB2** | **NORSAR Subarra** | **7.41** | **220** | Pn | **Pn** | **18 04 39.4** | **-1.1** |
| | baz=27,slow=14 | | | | | | |
| **NB2** | **NORSAR Subarra** | **7.41** | **220** | Pn | **Pn** | **18 04 39.4** | **-1.1** |
| | SNR=50 | | | | | | |
| **NOA** | **NORSAR Array B** | **7.41** | **220** | Pn | **Pn** | **18 04 40.0** | **-0.6** |
| | comp=Z,0.1nm,0.3s,baz=67,slow=14,SNR=2.2 | | | | | | |
| **HFS** | **Hagfors** | **7.69** | **208** | Pn | **Pn** | **18 04 43.9** | **-0.3** |
| | baz=16,slow=14 | | | | | | |
| **HFS** | **Hagfors** | **7.69** | **208** | Pn | **Pn** | **18 04 43.9** | **-0.3** |
| | baz=16,slow=14 | | | | | | |
| **HFS** | **Hagfors** | **7.69** | **208** | Pn | **Pn** | **18 04 43.9** | **-0.3** |
| | SNR=50 | | | | | | |

*ISK **15** 18:17:16.0, 38°.73N×43°.24E, h5km, MD2.7*
*ISCJB **15** 18:17:17.5±0.7, 38°.74N±0°.03×43°.24E±0°.07, h6km±7km, Error ellipse: s-maj=8.8km s-min=4.8km az=5.1*
*CSEM **15** 18:17:17.4±0.2, 38°.73N×43°.26E, h5km, MD2.7, Error ellipse: s-maj=6.9km s-min=3.7km az=99.0*
*DDA **15** 18:17:17.7, 38°.71N×43°.32E, h7km, Md2.6*

**ISC 15 18:17:17.8±0.9, 38°.73N±0°.02×43°.28E±0°.05, h12km±8km, n26, σ0s89/37, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.16** | **146** | *e*PG | **Pg** | **18 17 22.3** | **+0.7** |
| **VANB** | **Van** | **0.16** | **146** | *e*Pg | **Pg** | **18 17 22.3** | **+0.7** |
| **TVAN** | **Van** | **0.22** | **152** | *i* P | **Pg** | **18 17 21.6** | **-1.2** |
| TVAN | | | | *i* S | **Sg** | **18 17 25.3** | **-0.7** |
| **TVAN** | **Van** | **0.22** | **152** | P | **Pg** | **18 17 21.5** | **-1.2** |
| TVAN | | | | S | **Sg** | **18 17 25.3** | **-0.7** |
| **ERCV** | **ERCIS-VAN** | **0.30** | **9** | *e*PG | **Pg** | **18 17 23.4** | **-0.6** |
| **ERCV** | **ERCIS-VAN** | **0.30** | **9** | *e*Pg | **Pg** | **18 17 23.4** | **-0.6** |
| **VMUR** | **Van-Muradiye** | **0.35** | **41** | *i* P | **Pg** | **18 17 24.6** | **-0.4** |
| VMUR | | | | *i* S | **Sg** | **18 17 30.0** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.35** | **41** | P | **Pg** | **18 17 24.6** | **-0.4** |
| VMUR | | | | S | **Sg** | **18 17 30.0** | **+0.3** |
| **GEVA** | **Gevas** | **0.45** | **202** | *i* P | **Pb** | **18 17 27.0** | **-0.7** |
| GEVA | | | | *i* S | **Sb** | **18 17 36.4** | **+2.0** |
| **GEVA** | **Gevas** | **0.45** | **202** | P | **Pb** | **18 17 27.0** | **-0.7** |
| GEVA | | | | S | **Sb** | **18 17 36.4** | **+2.0** |
| **CLDR** | **Caldiran** | **0.65** | **50** | *e*PG | **Pg** | **18 17 30.3** | **-0.2** |
| CLDR | | | | *e*SG | **Sb** | **18 17 40.6** | **+0.2** |
| **CLDR** | **Caldiran** | **0.65** | **50** | *i* P | **Pg** | **18 17 29.9** | **-0.6** |
| CLDR | | | | *i* S | **Sb** | **18 17 40.1** | **-0.3** |
| **CLDR** | **Caldiran** | **0.65** | **50** | P | **Pg** | **18 17 29.9** | **-0.6** |
| **CLDR** | **Caldiran** | **0.65** | **50** | *e*Pg | **Pg** | **18 17 30.3** | **-0.2** |
| CLDR | | | | S | **Sb** | **18 17 40.1** | **-0.3** |
| **TUTA** | **Tutak** | **0.77** | **332** | *i* P | **Pb** | **18 17 33.3** | **+0.1** |
| **TUTA** | **Tutak** | **0.77** | **332** | P | **Pb** | **18 17 33.3** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **0.88** | **346** | *e*PG | **Pg** | **18 17 33.6** | **-1.1** |
| **AGRB** | **Hanur-Agry** | **0.88** | **346** | *e*Pg | **Pg** | **18 17 33.7** | **-1.1** |
| **HAKT** | **HAKKARI** | **1.22** | **164** | *i* P | **Pg** | **18 17 39.9** | **-1.4** |
| HAKT | | | | *i* S | **Sb** | **18 17 57.6** | **+1.1** |
| **HAKT** | **HAKKARI** | **1.22** | **164** | P | **Pg** | **18 17 39.8** | **-1.4** |
| HAKT | | | | S | **Sb** | **18 17 57.7** | **+1.1** |
| **SIRT** | **Sirnak** | **1.39** | **209** | *e*PN | **Pn** | **18 17 43.5** | **+0.4** |
| **SIRT** | **Sirnak** | **1.39** | **209** | *e*Pn | **Pn** | **18 17 43.5** | **+0.4** |
| **TASB** | **TASBURUN-IGDIR** | **1.46** | **30** | *e*PN | **Pn** | **18 17 44.8** | **+0.7** |
| **TASB** | **TASBURUN-IGDIR** | **1.46** | **30** | *e*Pn | **Pn** | **18 17 44.8** | **+0.7** |
| **CUKT** | **Cukurca** | **1.50** | **170** | *e*PN | **Pn** | **18 17 45.1** | **+0.4** |
| **CUKT** | **Cukurca** | **1.50** | **170** | *e*Pn | **Pn** | **18 17 45.1** | **+0.4** |

**IDC 15 18:36:22.4±2.0, 6°.87S×129°.36E, h0km, mb3.4/1, mb1 3.6/4, mb1mx3.3/38, mbtmp3.4/4, ML3.3/3, Error ellipse: s-maj=78.8km s-min=27.6km az=76.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **11.74** | **198** | Pn | Pn | 18 39 13.2 | +1.9 |
| | 0.1nm,0.3s,baz=24,slow=9.2,SNR=10 | | | | | | |
| FITZ | | | | Sn | Sn | 18 41 11.8 | -11 |
| | 0.1nm,0.3s,baz=32,slow=19,SNR=4.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **13.87** | **160** | Pn | Pn | 18 39 39.1 | -1.4 |
| | 0.2nm,0.3s,baz=337,slow=13,SNR=18 | | | | | | |
| WRA | | | | Sn | Sn | 18 41 59.2 | -16 |
| | 0.5nm,0.3s,baz=333,slow=23,SNR=9.7 | | | | | | |
| **ASAR** | **Alice Springs** | **17.27** | **166** | P | Pn | 18 40 24.6 | -0.6 |
| | 0.1nm,0.3s,baz=343,slow=9.6,SNR=8.0 | | | | | | |
| ASAR | | | | S | Sn | 18 43 22.9 | -15 |
| | 0.1nm,0.3s,baz=319,slow=15,SNR=4.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.76** | **327** | P | P | 18 47 22.1 | 0.0 |
| | 0.2nm,0.4s,baz=124,slow=6.8,SNR=2.7 | | | | | | |

**JMA 15 18:44:09.3±0.2, 38°.49N×142°.18E, h24km±2km, M3.5, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JIO** | **Ouri** | **0.65** | **267** | *e*S | Sb | 18 44 30.4 | -0.3 |
| **OFUJ** | **Ofunato** | **0.71** | **326** | P | Pb | 18 44 23.0 | -0.1 |
| OFUJ | | | | *e*S | Sb | 18 44 32.2 | -0.2 |
| **JMK** | **Ichinoseki** | **0.88** | **302** | *e*S | Sb | 18 44 37.5 | +0.2 |
| **JOU** | **Okura** | **1.20** | **265** | *e*S | Sb | 18 44 46.4 | 0.0 |
| **JOM** | **Ohasama** | **1.20** | **325** | P | Pb | 18 44 31.2 | -0.2 |
| JOM | | | | *e*S | Sn | 18 44 45.9 | -0.2 |

*IDC **15** 18:44:54.2±2.1, 46°.79N×155°.70E, h0km, mb3.7/4, mb1 3.8/5, mb1mx3.4/37, mbtmp3.7/5, ML2.2/1, Error ellipse: s-maj=68.8km s-min=28.2km az=89.0*
*SKHL **15** 18:45:00.7±0.8, 45°.10N×155°.66E, h53km±1km, mb4.6/3*
*MOS **15** 18:45:01.4±1.5, 45°.15N×155°.60E, h45km, mb4.0/3, Error ellipse: s-maj=31.6km s-min=25.8km az=82.1*

**ISC 15 18:44:53.6±1.9, 46°.0N±0°.1×155°.9E±0°.1, h18km, n17, σ2s15/23, mb3.7/5, East of Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SKR** | **Severo-Kuril's** | **4.65** | **2** | *e*P | **Pg** | **18 46 22.6** | **0.0** |
| SKR | | | | *e*S | **Sg** | **18 47 23.2** | **+0.4** |
| SKR | | | | pmax | pmax | | |
| | comp=Z,40nm,0.7s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=N,7.0nm,0.6s | | | | | | |
| **SKR** | **Severo-Kuril's** | **4.65** | **2** | *e*P | **Pg** | **18 46 22.6** | **0.0** |
| SKR | | | | AMB | AMB | 18 46 22.9 | |
| | comp=N,45nm,0.7s | | | | | | |
| SKR | | | | *e*S | **Sg** | **18 47 23.2** | **+0.4** |
| SKR | | | | A | A | 18 47 27.0 | |
| | comp=N,71nm,0.6s | | | | | | |
| SKR | | | | A | A | 18 47 27.0 | |
| | comp=N,129nm,0.6s | | | | | | |
| **KUR** | **Kuril'sk** | **5.66** | **265** | *e*P | **Pn** | **18 46 20.3** | **+3.5** |
| KUR | | | | *e*S | **Sn** | **18 47 19.9** | **-1.4** |
| KUR | | | | pmax | pmax | | |
| | comp=Z,64nm,0.4s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,51nm,0.2s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=N,26nm,0.3s | | | | | | |
| **KUR** | **Kuril'sk** | **5.66** | **265** | *e*P | **Pn** | **18 46 20.3** | **+3.5** |
| KUR | | | | AMB | AMB | 18 46 22.0 | |
| | comp=N,19nm,0.3s | | | | | | |
| KUR | | | | *e*S | **Sn** | **18 47 20.2** | **-1.1** |
| KUR | | | | A | A | 18 47 22.8 | |
| | comp=N,57nm,0.3s | | | | | | |
| KUR | | | | A | A | 18 47 22.8 | |
| | comp=N,32nm,0.3s | | | | | | |
| **SHO** | **Shikotan** | **6.76** | **255** | *e*P | **Pn** | **18 46 34.1** | **+2.2** |
| SHO | | | | *e*S | **Sn** | **18 47 45.4** | **-3.0** |
| SHO | | | | pmax | pmax | | |
| | comp=Z,31nm,0.2s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=N,14nm,0.3s | | | | | | |
| **SHO** | **Shikotan** | **6.76** | **255** | *e*P | **Pn** | **18 46 34.1** | **+2.2** |
| SHO | | | | *e*S | **Sn** | **18 47 44.7** | **-3.7** |
| **PETK** | **Petropavlovsk-** | **7.18** | **9** | Pn | Pn | 18 46 30.1 | -7.5 |
| | comp=N,0.2nm,0.3s,baz=201,slow=7.7,SNR=8.7 | | | | | | |
| PETK | | | | Sn | Sn | 18 47 36.9 | -22 |
| | comp=N,0.1nm,0.3s,baz=122,slow=18,SNR=2.8 | | | | | | |
| **PET** | **Petropavlovsk** | **7.22** | **14** | *e*P | **Pb** | **18 46 58.0** | **-0.4** |
| **PET** | **Petropavlovsk** | **7.22** | **14** | *e*P | **Pb** | **18 46 58.0** | **-0.4** |
| **YUK** | **Yuzh-Kuril'sk** | **7.36** | **258** | *e*P | **Pn** | **18 46 43.3** | **+3.2** |
| YUK | | | | *e*S | **Sn** | **18 48 03.3** | **+0.2** |
| YUK | | | | pmax | pmax | | |
| | comp=E,15nm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=Z,61nm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=N,9.0nm,0.1s | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **7.36** | **258** | *e*P | **Pn** | **18 46 43.3** | **+3.2** |
| YUK | | | | AMB | AMB | 18 46 44.9 | |
| | comp=N,29nm,0.6s | | | | | | |
| YUK | | | | *e*S | **Sn** | **18 48 00.4** | **-2.7** |
| YUK | | | | A | A | 18 48 05.0 | |
| | comp=N,305nm,1.0s | | | | | | |
| YUK | | | | A | A | 18 48 05.0 | |
| | comp=N,169nm,1.0s | | | | | | |
| **KURK** | **Kurchatov** | **49.33** | **305** | P | **P** | **18 53 41.2** | **-0.2** |
| KURK | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.6s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **49.43** | **305** | P | **P** | **18 53 41.2** | **-0.9** |
| | comp=Z,0.5nm,0.6s,baz=70,slow=8.3,SNR=5.9 | | | | | | |
| **BVAR** | **Borovoye Array** | **52.77** | **311** | P | **P** | **18 54 06.5** | **-0.7** |
| | comp=Z,0.5nm,0.5s,baz=55,slow=7.1,SNR=4.1 | | | | | | |
| **FINES** | **FINESS Array B** | **65.48** | **336** | P | **P** | **18 55 34.0** | **-1.1** |
| | comp=Z,3.4nm,0.9s,baz=35,slow=5.1,SNR=4.7 | | | | | | |
| **FINES** | **FINESS Array B** | **65.48** | **336** | P | **P** | **18 55 34.0** | **-1.1** |
| FINES | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.9s | | | | | | |
| **WRA** | **Warramunga Arr** | **68.51** | **202** | P | P | 18 56 02.4 | +7.7 |
| | comp=Z,0.4nm,0.8s,baz=19,slow=6.8,SNR=3.5 | | | | | | |

**WEL 15 18:48:09.9±0.2, 40°.32S×173°.28E, h188km±2km, ML3.9/33, 5C-10D, Error ellipse: s-maj=1.6km s-min=0.7km az=90.0, Cook Strait**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DUWZ** | **D'Urville Isla** | **0.69** | **135** | ⇓PN | Pn | 18 48 36.5 | 0.0 |
| DUWZ | | | | SN | Sn | 18 48 56.2 | -0.9 |
| **QRZ** | **Quartz Range** | **0.76** | **228** | PN | Pn | 18 48 36.6 | -0.2 |
| QRZ | | | | SN | Sn | 18 48 56.2 | -1.6 |
| **NNZ** | **Nelson** | **0.90** | **175** | ⇓PN | Pn | 18 48 37.5 | -0.1 |
| NNZ | | | | SN | Sn | 18 48 57.9 | -1.4 |
| **NMEZ** | **Namu Road** | **1.02** | **27** | ⇑PN | Pn | 18 48 38.4 | -0.1 |
| **NWEZ** | **Newall Road** | **1.14** | **24** | PN | Pn | 18 48 39.3 | -0.1 |
| **TCW** | **Tory Channel** | **1.17** | **140** | PN | Pn | 18 48 40.0 | +0.4 |
| TCW | | | | AML | AML | 18 49 03.4 | |
| TCW | | | | AML | AML | 18 49 03.9 | |
| **KHEZ** | **Kahui Hut** | **1.17** | **29** | ⇓PN | Pn | 18 48 39.6 | -0.2 |
| KHEZ | | | | SN | Sn | 18 49 02.8 | -0.1 |
| **PREZ** | **Palmer Road** | **1.19** | **35** | PN | Pn | 18 48 39.5 | -0.4 |
| **TUWZ** | **Tuamarina** | **1.22** | **156** | ⇑PN | Pn | 18 48 40.2 | +0.2 |
| TUWZ | | | | AML | AML | 18 49 04.5 | |
| TUWZ | | | | AML | AML | 18 49 04.8 | |
| **LREZ** | **Lake Rotokare** | **1.22** | **46** | PN | Pn | 18 48 40.1 | 0.0 |
| **NEZ** | **North Egmont** | **1.23** | **31** | ⇓PN | Pn | 18 48 39.8 | -0.5 |
| **PKE** | **Pukeiti** | **1.25** | **26** | PN | Pn | 18 48 40.1 | -0.4 |
| **DREZ** | **Durham Road** | **1.34** | **33** | PN | Pn | 18 48 40.9 | -0.2 |
| **KIW** | **Kapiti Island** | **1.36** | **114** | ⇑PN | Pn | 18 48 41.1 | -0.1 |
| KIW | | | | AML | AML | 18 49 05.5 | |
| KIW | | | | AML | AML | 18 49 05.5 | |
| **WAZ** | **Wanganui** | **1.43** | **67** | PN | Pn | 18 48 42.1 | +0.2 |
| **BSWZ** | **Blackbirch Sta** | **1.47** | **162** | PN | Pn | 18 48 42.4 | +0.3 |
| BSWZ | | | | AML | AML | 18 49 08.5 | |
| BSWZ | | | | AML | AML | 18 49 09.1 | |
| **THZ** | **Tophouse** | **1.47** | **191** | ⇓PN | Pn | 18 48 42.1 | -0.1 |
| **WEL** | **Wellington** | **1.49** | **131** | PN | Pn | 18 48 42.3 | 0.0 |
| WEL | | | | AML | AML | 18 49 07.6 | |
| WEL | | | | AML | AML | 18 49 07.8 | |
| WEL | | | | AML | AML | 18 49 07.9 | |
| WEL | | | | AML | AML | 18 49 07.9 | |
| **OGWZ** | **Otaki Gorge** | **1.53** | **110** | PN | Pn | 18 48 42.7 | 0.0 |
| OGWZ | | | | AML | AML | 18 49 07.6 | |
| OGWZ | | | | AML | AML | 18 49 07.9 | |
| **OHWZ** | **Ohakea** | **1.56** | **86** | PN | Pn | 18 48 43.5 | +0.4 |
| **CAW** | **Cannon Point** | **1.57** | **121** | PN | Pn | 18 48 43.1 | -0.1 |
| CAW | | | | AML | AML | 18 49 09.6 | |
| CAW | | | | AML | AML | 18 49 09.9 | |
| **BHW** | **Baring Head** | **1.63** | **132** | PN | Pn | 18 48 43.3 | -0.3 |
| BHW | | | | AML | AML | 18 49 08.5 | |
| BHW | | | | AML | AML | 18 49 09.8 | |
| **VRZ** | **Vera Road** | **1.65** | **44** | ⇓PN | Pn | 18 48 43.3 | -0.7 |
|

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| BHHZ | | | | AML | AML | 18 49 24.5 | | |
| **CPWZ** | **Castlepoint** | **2.30** | **106** | PN | Pn | 18 48 51.1 | +0.3 | |
| CPWZ | | | | AML | AML | 18 49 24.0 | | |
| CPWZ | | | | AML | AML | 18 49 24.5 | | |
| **WPHZ** | **Waipukurau** | **2.44** | **85** | PN | Pn | 18 48 51.8 | -0.6 | |
| WPHZ | | | | AML | AML | 18 49 25.1 | | |
| WPHZ | | | | AML | AML | 18 49 25.2 | | |
| **KRHZ** | **Kereru** | **2.47** | **75** | PN | Pn | 18 48 51.7 | -1.0 | |
| KRHZ | | | | AML | AML | 18 49 27.4 | | |
| KRHZ | | | | AML | AML | 18 49 28.4 | | |
| **PRHZ** | **Porangahau** | **2.57** | **90** | PN | Pn | 18 48 53.5 | -0.3 | |
| PRHZ | | | | AML | AML | 18 49 29.3 | | |
| PRHZ | | | | AML | AML | 18 49 29.6 | | |
| **LTZ** | **Lake Taylor** | **2.57** | **197** | PN | Pn | 18 48 52.9 | -0.9 | |
| **PXZ** | **Pawanui** | **2.76** | **85** | PN | Pn | 18 48 55.2 | -0.8 | |
| PXZ | | | | AML | AML | 18 49 33.2 | | |
| **INZ** | **Inchbonnie** | **2.77** | **209** | ⇓PN | Pn | 18 48 55.0 | -1.0 | |
| **KAHZ** | **Kahuranaki** | **2.81** | **80** | PN | Pn | 18 48 56.0 | -0.7 | |
| KAHZ | | | | AML | AML | 18 49 36.9 | | |
| **OXZ** | **Oxford** | **3.14** | **197** | PN | Pn | 18 48 58.8 | -1.7 | |
| **MQZ** | **McQueen's Vall** | **3.42** | **188** | PN | Pn | 18 49 01.8 | -2.0 | |
| **KNZ** | **Kokohu** | **3.63** | **71** | PN | Pn | 18 49 05.2 | -1.4 | |
| **MHGZ** | **Mahia Peninsul** | **3.76** | **73** | PN | Pn | 18 49 07.1 | -1.1 | |
| **RIGZ** | **Rimuhau** | **3.83** | **67** | PN | Pn | 18 49 06.8 | -2.3 | |
| RIGZ | | | | AML | AML | 18 49 54.0 | | |
| RIGZ | | | | AML | AML | 18 49 54.3 | | |
| **TWGZ** | **Tauwhareparae** | **4.23** | **61** | AML | AML | 18 50 03.5 | | |
| TWGZ | | | | AML | AML | 18 50 04.0 | | |
| **PUZ** | **Puketiti** | **4.47** | **61** | SN | Sn | 18 50 04.6 | -5.6 | |
| **WMGZ** | **Waiomatatini S** | **4.72** | **60** | AML | AML | 18 50 13.4 | | |
| WMGZ | | | | AML | AML | 18 50 13.6 | | |

*ATH **15** 18:51:41.6,39˚.20N×26˚.55E,h15km±4km, ML2.1/5, Error ellipse: s-maj=5.1km s-min=1.3km az=255.0*
*ISK **15** 18:51:41.7,39˚.17N×26˚.48E,h4km, MD2.8*
*THE **15** 18:51:42.6,39˚.18N×26˚.47E,h0km±1km,ML2.0/7, Error ellipse: s-maj=1.2km s-min=0.5km az=91.0*
*DDA **15** 18:51:42.1,39˚.15N×26˚.46E,h7km, Ml3.0*
*CSEM **15** 18:51:42.6±0.1,39˚.16N±0˚.02×26˚.47E,h8km,ML2.0, Error ellipse: s-maj=2.2km s-min=1.6km az=77.0*
*ISCJB **15** 18:51:42.5±0.3,39˚.16N±0˚.02×26˚.48E±0˚.03,h6km±3km, Error ellipse: s-maj=3.5km s-min=2.5km az=162.7*
**ISC 15 18:51:42.6±0.8,39˚.16N±0˚.02×26˚.46E±0˚.02,h12km±6km, n86,σ0s79/121,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PRK** | **Paraskevi** | **0.17** | **300** | P | **Pg** | **18 51 47.0** | **+0.5** |
| PRK | | | | S | **Sg** | **18 51 50.1** | **+0.9** |
| PRK | | | | AML | AML | 18 51 51.1 | |
| | comp=N,3976μm,0.6s | | | | | | |
| PRK | | | | AML | AML | 18 51 52.6 | |
| | comp=E,3736μm,0.5s | | | | | | |
| **PRK** | **Paraskevi** | **0.17** | **300** | P | **Pg** | **18 51 46.7** | **+0.2** |
| PRK | | | | S | **Sg** | **18 51 49.8** | **+0.6** |
| **PRK** | **Paraskevi** | **0.17** | **300** | P | **Pg** | **18 51 46.7** | **+0.2** |
| PRK | | | | S | **Sg** | **18 51 49.8** | **+0.6** |
| **CUND** | **Cunda Adasi-Ba** | **0.24** | **42** | *e*PG | **Pg** | **18 51 46.9** | **-0.8** |
| CUND | | | | *e*SG | **Sg** | **18 51 50.6** | **-0.4** |
| **CUND** | **Cunda Adasi-Ba** | **0.24** | **42** | *e*Pg | **Pg** | **18 51 46.9** | **-0.8** |
| CUND | | | | *e*Sg | **Sg** | **18 51 50.6** | **-0.4** |
| **CAND** | **Candarli** | **0.34** | **128** | *e*PG | **Pg** | **18 51 49.0** | **-0.4** |
| CAND | | | | *e*SG | **Sg** | **18 51 54.2** | **+0.3** |
| **DKL** | **Dikili** | **0.35** | **104** | *e*PG | **Pg** | **18 51 49.2** | **-0.6** |
| DKL | | | | *e*SG | **Sg** | **18 51 54.7** | **+0.2** |
| **DKL** | **Dikili** | **0.35** | **104** | *e*Pg | **Pg** | **18 51 49.2** | **-0.6** |
| DKL | | | | *e*Sg | **Sg** | **18 51 54.7** | **+0.2** |
| **SIGR** | **SIGRI** | **0.47** | **276** | *e*PG | **Pg** | **18 51 52.0** | **0.0** |
| **SIGR** | **SIGRI** | **0.47** | **276** | P | **Pg** | **18 51 51.7** | **-0.2** |
| SIGR | | | | S | **Sg** | **18 51 58.7** | **+0.4** |
| SIGR | | | | AML | AML | 18 52 05.1 | |
| | comp=E,222μm,0.2s | | | | | | |
| SIGR | | | | AML | AML | 18 52 08.9 | |
| | comp=N,241μm,0.3s | | | | | | |
| **SIGR** | **SIGRI** | **0.47** | **276** | P | **Pg** | **18 51 51.9** | **0.0** |
| SIGR | | | | S | **Sg** | **18 51 58.7** | **+0.4** |
| **SIGR** | **SIGRI** | **0.47** | **276** | P | **Pg** | **18 51 51.9** | **0.0** |
| SIGR | | | | S | **Sb** | **18 51 59.4** | **-0.5** |
| **KRBN** | **Karaburun** | **0.57** | **173** | *e*PG | **Pg** | **18 51 53.6** | **-0.1** |
| **KRBN** | **Karaburun** | **0.57** | **173** | *e*Pg | **Pg** | **18 51 53.6** | **-0.1** |
| **BAYC** | **CANAKKALE_Bayr** | **0.58** | **6** | *i* P | **Pg** | **18 51 53.9** | **-0.2** |
| BAYC | | | | *i* S | **Sg** | **18 52 02.2** | **+0.4** |
| **BAYC** | **CANAKKALE_Bayr** | **0.58** | **6** | P | **Pg** | **18 51 53.9** | **-0.2** |
| BAYC | | | | S | **Sg** | **18 52 02.2** | **+0.4** |
| **EZN** | **Ezine** | **0.67** | **351** | *e*PG | **Pg** | **18 51 55.3** | **-0.5** |
| **EZN** | **Ezine** | **0.67** | **351** | *e*Pg | **Pg** | **18 51 55.3** | **-0.5** |
| **BOZC** | **Bozcaada** | **0.75** | **335** | *e*PG | **Pg** | **18 51 56.9** | **-0.3** |
| **BOZC** | **Bozcaada** | **0.75** | **335** | *i* P | **Pg** | **18 51 57.1** | **-0.1** |
| BOZC | | | | *i* S | **Sg** | **18 52 07.2** | **+0.2** |
| **BOZC** | **Bozcaada** | **0.75** | **335** | *e*Pg | **Pg** | **18 51 56.9** | **-0.3** |
| **URLA** | **Izmir** | **0.81** | **173** | *e*PG | **Pg** | **18 51 57.7** | **-0.5** |
| **URLA** | **Izmir** | **0.81** | **173** | *i* P | **Pg** | **18 51 57.4** | **-0.8** |
| URLA | | | | *i* S | **Sb** | **18 52 09.7** | **+0.2** |
| **URLA** | **Izmir** | **0.81** | **173** | P | **Pg** | **18 51 57.4** | **-0.8** |
| **URLA** | **Izmir** | **0.81** | **173** | *e*Pg | **Pg** | **18 51 57.7** | **-0.5** |
| URLA | | | | S | **Sb** | **18 52 09.7** | **+0.2** |
| **CHOS** | **Chios island** | **0.83** | **203** | *e*PG | **Pg** | **18 51 58.8** | **0.0** |
| **CHOS** | **Chios island** | **0.83** | **203** | P | **Pg** | **18 51 58.7** | **-0.1** |
| CHOS | | | | S | **Sn** | **18 52 12.1** | **-0.5** |
| CHOS | | | | AML | AML | 18 52 13.4 | |
| | comp=N,367μm,0.3s | | | | | | |
| CHOS | | | | AML | AML | 18 52 14.3 | |
| | comp=E,451μm,0.3s | | | | | | |
| **CHOS** | **Chios island** | **0.83** | **203** | *e*Pg | **Pg** | **18 51 58.8** | **0.0** |
| CHOS | | | | S | **Sn** | **18 52 12.1** | **-0.5** |
| **CHOS** | **Chios island** | **0.83** | **203** | P | **Pg** | **18 51 58.5** | **-0.3** |
| CHOS | | | | S | **Sn** | **18 52 12.2** | **-0.5** |
| **ZEY** | **˜zmir** | **0.92** | **178** | *i* P | **Pb** | **18 51 59.5** | **-1.0** |
| ZEY | | | | *i* S | **Sn** | **18 52 13.9** | **-0.7** |
| **STEP** | **BALIKESIR_Sava** | **1.00** | **77** | *i* P | **Pg** | **18 52 01.9** | **0.0** |
| STEP | | | | *i* S | **Sg** | **18 52 14.8** | **-0.1** |
| **STEP** | **BALIKESIR_Sava** | **1.00** | **77** | P | **Pg** | **18 52 01.9** | **0.0** |
| STEP | | | | S | **Sg** | **18 52 14.8** | **-0.1** |
| **BALY** | **Balya** | **1.07** | **57** | *i* P | **Pn** | **18 52 03.5** | **0.0** |
| **BALY** | **Balya** | **1.07** | **57** | P | **Pn** | **18 52 03.5** | **0.0** |
| **AKHS** | **Akhisar** | **1.09** | **104** | *i* P | **Pb** | **18 52 03.2** | **-0.2** |
| **AKHS** | **Akhisar** | **1.09** | **104** | P | **Pb** | **18 52 03.2** | **-0.2** |
| **GADA** | **Gvkgeada** | **1.12** | **337** | *e*PN | **Pb** | **18 52 03.8** | **-0.2** |
| **GADA** | **Gvkgeada** | **1.12** | **337** | *e*Pn | **Pb** | **18 52 03.8** | **-0.2** |
| **GMLD** | **Gumuldur** | **1.14** | **162** | *e*Pn | **Pb** | **18 52 04.0** | **-0.3** |
| **GMLD** | **Gumuldur** | **1.14** | **162** | *e*Pn | **Pb** | **18 52 04.0** | **-0.3** |
| **DGB** | **˜zmir** | **1.15** | **163** | *i* P | **Pb** | **18 52 03.6** | **-0.9** |
| DGB | | | | *i* S | **Sb** | **18 52 19.0** | **-0.5** |
| **BALB** | **Balikesir** | **1.20** | **66** | *e*PN | **Pn** | **18 52 05.0** | **-0.3** |
| **BALB** | **Balikesir** | **1.20** | **66** | *e*Pn | **Pn** | **18 52 05.0** | **-0.3** |
| **LPK** | **Lapseki** | **1.23** | **11** | *e*PN | **Pb** | **18 52 05.8** | **-0.1** |
| **LPK** | **Lapseki** | **1.23** | **11** | *e*Pn | **Pb** | **18 52 05.8** | **-0.1** |
| **LIA** | **Limnos Island** | **1.23** | **307** | P | **Pg** | **18 52 06.6** | **+0.2** |
| LIA | | | | S | **Sg** | **18 52 23.6** | **+1.2** |
| LIA | | | | AML | AML | 18 52 26.8 | |
| | comp=N,156μm,0.4s | | | | | | |
| LIA | | | | AML | AML | 18 52 27.2 | |
| | comp=E,113μm,0.4s | | | | | | |
| **LIA** | **Limnos Island** | **1.23** | **307** | P | **Pb** | **18 52 05.9** | **0.0** |
| LIA | | | | S | **Sg** | **18 52 23.3** | **+0.9** |
| **LIA** | **Limnos Island** | **1.23** | **307** | P | **Pb** | **18 52 05.9** | **0.0** |
| LIA | | | | S | **Sg** | **18 52 23.3** | **+0.9** |
| **GELI** | **Tayfur-Gelibol** | **1.24** | **0** | *e*PN | **Pb** | **18 52 05.8** | **-0.2** |
| **GELI** | **Tayfur-Gelibol** | **1.24** | **0** | *e*Pn | **Pb** | **18 52 05.8** | **-0.2** |
| **GONE** | **Gonen-Balikesi** | **1.29** | **46** | *e*PN | **Pb** | **18 52 06.7** | **-0.3** |
| **GONE** | **Gonen-Balikesi** | **1.29** | **46** | *e*Pn | **Pb** | **18 52 06.7** | **-0.3** |
| **KRBG** | **Karabiga-Canak** | **1.39** | **27** | *e*PN | **Pb** | **18 52 08.3** | **-0.3** |
| **KRBG** | **Karabiga-Canak** | **1.39** | **27** | *e*Pn | **Pb** | **18 52 08.3** | **-0.3** |
| **SMG** | **Samos** | **1.48** | **168** | P | **Pn** | **18 52 08.1** | **-1.0** |
| **SMG** | **Samos** | **1.48** | **168** | P | **Pb** | **18 52 09.7** | **-0.4** |
| SMG | | | | S | **Sg** | **18 52 30.9** | **+0.7** |
| **SMG** | **Samos** | **1.48** | **168** | P | **Pb** | **18 52 09.7** | **-0.4** |
| SMG | | | | S | **Sg** | **18 52 30.9** | **+0.7** |
| **SMTH** | **Samothraki Isl** | **1.49** | **332** | P | **Pn** | **18 52 09.6** | **+0.2** |
| SMTH | | | | S | **Sb** | **18 52 29.4** | **+0.1** |
| SMTH | | | | AML | AML | 18 52 33.1 | |
| | comp=N,70μm,0.2s | | | | | | |
| SMTH | | | | AML | AML | 18 52 33.9 | |
| | comp=E,80μm,0.2s | | | | | | |
| **SMTH** | **Samothraki Isl** | **1.49** | **332** | P | **Pn** | **18 52 09.6** | **+0.2** |
| SMTH | | | | S | **Sb** | **18 52 29.4** | **+0.1** |
| **SMTH** | **Samothraki Isl** | **1.49** | **332** | P | **Pn** | **18 52 09.5** | **+0.2** |
| SMTH | | | | S | **Sg** | **18 52 30.1** | **-0.6** |
| **ERIK** | **Erikli-Kesan** | **1.51** | **1** | *e*Pn | **Pb** | **18 52 10.2** | **-0.4** |
| **ERIK** | **Erikli-Kesan** | **1.51** | **1** | *e*Pn | **Pb** | **18 52 10.2** | **-0.4** |
| **GCAM** | **G?zelcaml?** | **1.58** | **157** | *e*PN | **Pb** | **18 52 11.9** | **+0.1** |
| **GCAM** | **G?zelcaml?** | **1.58** | **157** | *e*Pn | **Pb** | **18 52 11.9** | **+0.1** |
| **ENEZ** | **Enez** | **1.59** | **351** | *e*PN | **Pb** | **18 52 11.3** | **-0.7** |
| **ENEZ** | **Enez** | **1.59** | **351** | *e*Pn | **Pb** | **18 52 11.3** | **-0.7** |
| **EDC** | **Edincik** | **1.60** | **42** | *e*PN | **Pb** | **18 52 11.3** | **-0.9** |
| **EDC** | **Edincik** | **1.60** | **42** | *e*Pn | **Pb** | **18 52 11.3** | **-0.9** |
| **RKY** | **Sarkoy-Tekirda** | **1.62** | **20** | *e*PN | **Pb** | **18 52 11.8** | **-0.7** |
| **RKY** | **Sarkoy-Tekirda** | **1.62** | **20** | *e*Pn | **Pb** | **18 52 11.9** | **-0.7** |
| **SART** | **Tekirdag** | **1.62** | **20** | *i* P | **Pb** | **18 52 12.2** | **-0.4** |
| **SART** | **Tekirdag** | **1.62** | **20** | P | **Pb** | **18 52 12.2** | **-0.4** |
| **KESN** | **Edirne-Kesan** | **1.67** | **6** | *i* P | **Pb** | **18 52 12.9** | **-0.7** |
| KESN | | | | *i* S | **Sb** | **18 52 35.4** | **+0.6** |
| **KESN** | **Edirne-Kesan** | **1.67** | **6** | P | **Pb** | **18 52 12.9** | **-0.7** |
| KESN | | | | S | **Sb** | **18 52 35.4** | **+0.6** |
| **DEMI** | **Demirci** | **1.76** | **93** | *i* P | **Sg** | **18 52 45.6** | **+6.5** |
| **ALN** | **Alexandroupoli** | **1.77** | **350** | *e*PN | **Pb** | **18 52 14.0** | **-1.0** |
| **ALN** | **Alexandroupoli** | **1.77** | **350** | P | **Pn** | **18 52 13.1** | **0.0** |
| **ALN** | **Alexandroupoli** | **1.77** | **350** | P | **Pn** | **18 52 13.2** | **+0.2** |
| **ALN** | **Alexandroupoli** | **1.77** | **350** | *e*Pn | **Pb** | **18 52 14.0** | **-1.0** |
| ALN | | | | S | **Sb** | **18 52 36.7** | **-0.4** |
| **ALN** | **Alexandroupoli** | **1.77** | **350** | P | **Pn** | **18 52 13.2** | **+0.2** |
| ALN | | | | S | **Sb** | **18 52 36.7** | **-0.4** |
| **KCTX** | **Karacabey (Bur** | **1.83** | **52** | *e*PN | **Pn** | **18 52 14.6** | **+0.6** |
| **KCTX** | **Karacabey (Bur** | **1.83** | **52** | *e*Pn | **Pn** | **18 52 14.6** | **+0.6** |
| **KULA** | **Kula-Manisa** | **1.83** | **110** | *e*PN | **Pn** | **18 52 14.9** | **+0.8** |
| **KULA** | **Kula-Manisa** | **1.83** | **110** | *e*Pn | **Pn** | **18 52 14.9** | **+0.8** |
| **TVSB** | **Tavsanli** | **2.34** | **82** | *e*PN | **Pn** | **18 52 22.2** | **+1.1** |
| **TVSB** | **Tavsanli** | **2.34** | **82** | *e*Pn | **Pn** | **18 52 22.2** | **+1.1** |

*ISK **15** 19:33:48.6,38˚.74N×43˚.56E,h5km, MD2.9*
*ISCJB **15** 19:33:50.0±0.4,38˚.75N±0˚.02×43˚.52E±0˚.04, h6km±4km, Error ellipse: s-maj=4.9km s-min=3.2km az=2.0*
*CSEM **15** 19:33:49.7±0.2,38˚.74N×43˚.53E, h5km, MD2.9, Error ellipse: s-maj=5.3km s-min=3.6km az=92.0*
*DDA **15** 19:33:49.1,38˚.74N×43˚.55E,h7km, Ml2.9*
**ISC 15 19:33:49.5±0.9,38.75N±0˚.02×43.52E±0˚.02,h17km±7km, n50,σ0s69/70,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.18** | **213** | *e*PG | **Pb** | **19 33 54.9** | **+0.4** |
| **VANB** | **Van** | **0.18** | **213** | *e*Pg | **Pb** | **19 33 54.9** | **+0.4** |
| **TVAN** | **Van** | **0.24** | **202** | *i* P | **Pg** | **19 33 54.6** | **-0.5** |
| TVAN | | | | *i* S | **Sb** | **19 33 59.8** | **+0.3** |
| **TVAN** | **Van** | **0.24** | **202** | P | **Pg** | **19 33 54.6** | **-0.5** |
| TVAN | | | | S | **Sb** | **19 33 59.8** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.24** | **10** | *i* P | **Pg** | **19 33 54.7** | **-0.5** |
| VMUR | | | | *i* S | **Sb** | **19 34 00.7** | **+1.0** |
| **VMUR** | **Van-Muradiye** | **0.24** | **10** | P | **Pg** | **19 33 54.7** | **-0.5** |
| VMUR | | | | S | **Sb** | **19 34 00.7** | **+1.0** |
| **ERCV** | **ERCIS-VAN** | **0.30** | **333** | *e*PG | **Pg** | **19 33 55.6** | **-0.5** |
| **ERCV** | **ERCIS-VAN** | **0.30** | **333** | *e*Pg | **Pg** | **19 33 55.7** | **-0.5** |
| **CLDR** | **Caldiran** | **0.50** | **38** | *e*PG | **Pg** | **19 33 59.4** | **-0.4** |
| CLDR | | | | *e*SG | **Sb** | **19 34 07.2** | **0.0** |
| **CLDR** | **Caldiran** | **0.50** | **38** | *i* P | **Pg** | **19 33 59.3** | **-0.4** |
| CLDR | | | | *i* S | **Sb** | **19 34 08.7** | **+1.4** |
| **CLDR** | **Caldiran** | **0.50** | **38** | P | **Pg** | **19 33 59.3** | **-0.4** |
| CLDR | | | | *e*Sg | **Sb** | **19 34 07.2** | **0.0** |
| CLDR | | | | S | **Sb** | **19 34 08.6** | **+1.4** |
| **GEVA** | **Gevas** | **0.56** | **220** | *i* P | **Pg** | **19 34 00.0** | **-0.8** |
| GEVA | | | | *i* S | **Sb** | **19 34 09.2** | **+0.3** |
| **GEVA** | **Gevas** | **0.56** | **220** | P | **Pg** | **19 34 00.0** | **-0.8** |
| GEVA | | | | S | **Sb** | **19 34 09.2** | **+0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.62** | **276** | *i* P | **Pg** | **19 34 01.5** | **-0.4** |
| ADCV | | | | *i* S | **Sb** | **19 34 11.4** | **+0.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.62** | **276** | P | **Pg** | **19 34 01.5** | **-0.4** |
| ADCV | | | | S | **Sb** | **19 34 11.4** | **+0.8** |
| **BASK** | **Baskale_VAN** | **0.79** | **151** | *i* S | **Sb** | **19 34 15.6** | **+0.1** |
| **BASK** | **Baskale_VAN** | **0.79** | **151** | S | **Sb** | **19 34 15.6** | **+0.1** |
| **DYDN** | **Diyadin** | **0.81** | **10** | *i* P | **Pb** | **19 34 04.7** | **-0.5** |
| DYDN | | | | *i* S | **Sg** | **19 34 16.7** | **+0.7** |
| **DYDN** | **Diyadin** | **0.81** | **10** | P | **Pb** | **19 34 04.7** | **-0.5** |
| DYDN | | | | S | **Sg** | **19 34 16.7** | **+0.7** |
| **TUTA** | **Tutak** | **0.85** | **320** | *i* P | **Pb** | **19 34 04.9** | **-1.1** |
| TUTA | | | | *i* S | **Sn** | **19 34 18.6** | **-0.7** |
| **TUTA** | **Tutak** | **0.85** | **320** | P | **Pb** | **19 34 04.9** | **-1.1** |
| TUTA | | | | S | **Sn** | **19 34 18.5** | **-0.7** |
| **AGRB** | **Hanur-Agry** | **0.92** | **334** | *e*PG | **Pn** | **19 34 07.7** | **-0.2** |
| **AGRB** | **Hanur-Agry** | **0.92** | **334** | *e*Pg | **Pn** | **19 34 07.7** | **-0.2** |
| **HAKT** | **HAKKARI** | **1.20** | **173** | *i* P | **Pn** | **19 34 11.0** | **-0.7** |
| HAKT | | | | *i* S | **Sg** | **19 34 30.4** | **+2.0** |
| **HAKT** | **HAKKARI** | **1.20** | **173** | P | **Pn** | **19 34 11.0** | **-0.7** |
| HAKT | | | | S | **Sg** | **19 34 30.4** | **+2.0** |
| **EKAR** | **Karacoban** | **1.24** | **295** | *i* P | **Pb** | **19 34 12.8** | **+0.2** |
| **EKAR** | **Karacoban** | **1.24** | **295** | P | **Pb** | **19 34 12.8** | **+0.2** |
| **YOVA** | **Hakkari_Y˜...kse** | **1.31** | **152** | *i* P | **Pb** | **19 34 13.7** | **-0.2** |
| YOVA | | | | *i* S | **Sg** | **19 34 31.8** | **-0.2** |
| **YOVA** | **Hakkari_Y˜...kse** | **1.31** | **152** | P | **Pb** | **19 34 13.6** | **-0.2** |
| YOVA | | | | S | **Sg** | **19 34 31.8** | **-0.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.35** | **24** | *e*PN | **Pg** | **19 34 15.6** | **-0.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.35** | **24** | *e*Pn | **Pg** | **19 34 15.6** | **-0.1** |
| **EATA** | **Eleskirt** | **1.37** | **325** | *i* P | **Pb** | **19 34 15.0** | **+0.1** |
| **EATA** | **Eleskirt** | **1.37** | **325** | P | **Pb** | **19 34 15.0** | **+0.1** |
| **SRTM** | **Siirt_Merkez** | **1.46** | **239** | *i* P | **Pg** | **19 34 17.4** | **-0.4** |
| **SRTM** | **Siirt_Merkez** | **1.46** | **239** | P | **Pg** | **19 34 17.4** | **-0.4** |
| **CUKT** | **Cukurca** | **1.50** | **177** | *e*PN | **Pb** | **19 34 17.3** | **+0.3** |
| **CUKT** | **Cukurca** | **1.50** | **177** | *e*Pn | **Pb** | **19 34 17.3** | **+0.3** |
| **SIRT** | **Sirnak** | **1.51** | **215** | *e*PN | **Pg** | **19 34 18.0** | **-0.6** |
| **SIRT** | **Sirnak** | **1.51** | **215** | *e*Pn | **Pg** | **19 34 18.0** | **-0.6** |
| **VRTB** | **Varto-Mus** | **1.66** | **285** | *e*PN | **Pg** | **19 34 21.1** | **-0.4** |
| **VRTB** | **Varto-Mus** | **1.66** | **285** | *e*Pn | **Pg** | **19 34 21.1** | **-0.4** |
| **DIGO** | **Kars** | **1.67** | **356** | *i* P | **Pg** | **19 34 21.2** | **-0.5** |
| **DIGO** | **Kars** | **1.67** | **356** | P | **Pg** | **19 34 21.2** | **-0.5** |
| **HOMI** | **Horasan** | **1.80** | **317** | *i* P | **Pb** | **19 34 22.6** | **+0.4** |
| **SENK** | **Senkaya-Erzuru** | **2.02** | **334** | *e*PN | **Pb** | **19 34 25.9** | **0.0** |
| **SENK** | **Senkaya-Erzuru** | **2.02** | **334** | *e*Pn | **Pb** | **19 34 25.9** | **0.0** |
| **BNGB** | **Bing˜l** | **2.23** | **277** | *e*PN | **Pb** | **19 34 28.8** | **-0.7** |
| **BINT** | **Bingol** | **2.37** | **274** | *e*Pn | **Pn** | **19 34 28.8** | **+1.1** |
| **YEDI** | **Yedisu-Bingol** | **2.41** | **287** | *e*PN | **Pb** | **19 34 31.6** | **-1.0** |
| **YEDI** | **Yedisu-Bingol** | **2.41** | **287** | *e*Pn | **Pb** | **19 34 31.6** | **-1.0** |

*ISCJB **15** 19:59:47.6±0.4,50˚.14N±0˚.03×18˚.97E±0˚.03,h0km, Error ellipse: s-maj=4.6km s-min=2.1km az=15.1*
*CSEM **15** 19:59:48.7±0.3,50˚.14N×19˚.02E,h2km, ML3.2/12, Error ellipse: s-maj=7.6km s-min=3.4km az=15.0*
*IPEC **15** 19:59:49.0±0.2,50˚.16N×19˚.09E,h1km±1km, ML2.1/3, Error ellipse: s-maj=2.7km s-min=1.1km az=166.0*
*PRU **15** 19:59:49.7,50˚.15N×19˚.02E,h0km*
*WAR **15** 19:59:49.8,50˚.09N×19˚.15E,h1km, Mw2.7*
**ISC 15 19:59:48.6±0.8,50˚.13N±0˚.03×19˚.04E±0˚.02,h0km,n46, σ1s00/84,Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OJC** | **Ojcow** | **0.49** | **79** | *e*Pg | **Pg** | **19 59 58.0** | **0.0** |
| OJC | | | | *e*Sg | **Sg** | **20 00 04.3** | **-0.2** |
| **OJC** | **Ojcow** | **0.49** | **79** | *e*Pg | **Pg** | **19 59 58.0** | **0.0** |
| OJC | | | | *e*Sg | **Sg** | **20 00 04.3** | **-0.2** |
| **OJC** | **Ojcow** | **0.49** | **79** | *e*Pg | **Pg** | **19 59 58.0** | **0.0** |
| OJC | | | | *e*Sg | **Sg** | **20 00 04.3** | **-0.2** |
| **OKC** | **Ostrava-Krasne** | **0.65** | **244** | *e*PG | **Pb** | **20 00 02.9** | **+0.1** |
| OKC | | | | *e*SG | **Sb** | **20 00 12.2** | **-0.1** |
| | comp=Z,26nm,0.2s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **0.65** | **244** | Pg | **Pb** | **20 00 02.9** | **+0.1** |
| OKC | | | | Sg | **Sb** | **20 00 12.2** | **-0.1** |
| | 26nm,0.2s | | | | | | |
| **LANS** | **Liptovska Anna** | **1.02** | **164** | *e*Pg | **Pg** | **20 00 08.4** | **+0.3** |
| LANS | | | | *e*Sg | **Sb** | **20 00 22.0** | **-1.0** |
| **LANS** | **Liptovska Anna** | **1.02** | **164** | *e*Pg | **Pg** | **20 00 08.4** | **+0.3** |
| LANS | | | | *e*Sg | **Sb** | **20 00 22.0** | **-1.0** |
| **MORC** | **Moravsky Berou** | **1.03** | **251** | *e*Pg | **Pb** | **20 00 09.4** | **+0.1** |
| MORC | | | | *e*Sg | **Sb** | **20 00 22.8** | **-0.6** |
| | 32nm,0.2s | | | | | | |
| **NIE** | **Niedzica** | **1.08** | **131** | *e*Pg | **Pg** | **20 00 09.2** | **-0.1** |
| NIE | | | | *e*Sg | **Sb** | **20 00 24.7** | **-0.2** |
| **NIE** | **Niedzica** | **1.08** | **131** | *e*Pg | **Pg** | **20 00 09.2** | **-0.1** |
| NIE | | | | *e*Sg | **Sb** | **20 00 24.7** | **-0.2** |
| **NIE** | **Niedzica** | **1.08** | **131** | *e*Pg | **Pg** | **20 00 09.2** | **-0.1** |
| NIE | | | | *e*Sg | **Sb** | **20 00 24.7** | **-0.2** |
| **KRLC** | **Kraliky** | **1.46** | **269** | *e*PG | **Pn** | **20 00 16.0** | **-0.2** |
| KRLC | | | | *e*SG | **Sn** | **20 00 36.5** | **+0.5** |
| | comp=Z,7.5nm,0.2s | | | | | | |
| **KRLC** | **Kraliky** | **1.46** | **269** | Pg | **Pn** | **20 00 16.0** | **-0.2** |
| KRLC | | | | Sg | **Sn** | **20 00 36.5** | **+0.5** |
| | 7.5nm,0.2s | | | | | | |
| **STHS** | **Stebnicka Huta** | **1.59** | **116** | *e*Pn | **Pg** | **20 00 19.2** | **+0.1** |
| STHS | | | | *e*Sn | **Sg** | **20 00 41.7** | **+1.9** |
| **STHS** | **Stebnicka Huta** | **1.59** | **116** | *e*PN | **Pg** | **20 00 19.2** | **+0.1** |
| STHS | | | | *e*SN | **Sg** | **20 00 41.7** | **+1.9** |
| STHS | | | | *e*LG | Lg | 20 00 49.4 | |
| **VYHS** | **Vyhne** | **1.64** | **185** | *e*Pg | **Pn** | **20 00 18.3** | **-0.4** |
| VYHS | | | | *e*Sn | **Sn** | **20 00 39.9** | **-0.6** |
| **VYHS** | **Vyhne** | **1.64** | **185** | *e*PG | **Pn** | **20 00 18.3** | **-0.4** |
| VYHS | | | | *e*SN | **Sn** | **20 00 39.9** | **-0.6** |
| VYHS | | | | *e*LG | Lg | 20 00 40.6 | |
| **DPC** | **Dobruska-Polom** | **1.76** | **278** | *e*PG | **Pb** | **20 00 21.1** | **-0.7** |
| DPC | | | | *e*SG | **Sg** | **20 00 45.0** | **-0.1** |
| | comp=Z,28nm,0.2s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.76** | **278** | Pg | **Pb** | **20 00 21.1** | **-0.7** |
| DPC | | | | Sg | **Sg** | **20 00 45.0** | **-0.1** |
| | 28nm,0.2s | | | | | | |
| **VRAC** | **Vranov** | **1.79** | **244** | *e*Pn | **Pb** | **20 00 21.6** | **-0.6** |
| VRAC | | | | *e*Sg | **Sg** | **20 00 46.3** | **+0.3** |
| | 23nm,0.3s | | | | | | |
| **KSP** | **Ksiaz** | **1.90** | **293** | *e*Pg | **Pg** | **20 00 25.7** | **+0.8** |
| KSP | | | | *e*Sg | **Sg** | **20 00 51.7** | **+2.2** |
| **KSP** | **Ksiaz** | **1.90** | **293** | *e*Pg | **Pg** | **20 00 25.7** | **+0.8** |
| KSP | | | | *e*Sg | **Sg** | **20 00 51.7** | **+2.2** |
| **KSP** | **Ksiaz** | **1.90** | **293** | *e*Pg | **Pg** | **20 00 25.7** | **+0.8** |
| KSP | | | | *e*Sg | **Sg** | **20 00 51.7** | **+2.2** |
| **KECS** | **Kecovo** | **1.90** | **150** | *e*Pg | **Pb** | **20 00 24.1** | **0.0** |
| KECS | | | | *e*Sn | **Sn** | **20 00 46.2** | **-0.6** |
| **KECS** | **Kecovo** | **1.90** | **150** | *e* | **Pn** | **20 00 21.2** | **-1.0** |
| **KECS** | **Kecovo** | **1.90** | **150** | *e*PG | **Pb** | **20 00 24.1** | **0.0** |
| KECS | | | | *e*SN | **Sn** | **20 00 46.2** | **-0.6** |
| KECS | | | | *e*LG | Lg | 20 00 50.3 | |
| **UPC** | **Upice** | **1.98** | **282** | *e*PG | **Pb** | **20 00 25.1** | **-0.4** |
| UPC | | | | *e*SG | **Sg** | **20 00 51.7** | **-0.4** |
| | comp=Z,13nm,0.2s | | | | | | |
| **UPC** | **Upice** | **1.98** | **282** | Pg | **Pb** | **20 00 25.1** | **-0.4** |
| UPC | | | | Sg | **Sg** | **20 00 51.7** | **-0.4** |
| | 13nm,0.2s | | | | | | |
| **CRVS** | **Cervenica-Dubn** | **2.00** | **127** | *e*Pn | **Pb** | **20 00 25.7** | **-0.1** |
| CRVS | | | | *e*Sn | **Sb** | **20 00 51.2** | **0.0** |
| **CRVS** | **Cervenica-Dubn** | **2.00** | **127** | *e*PN | **Pb** | **20 00 25.7** | **-0.1** |
| CRVS | | | | *e*SN | **Sb** | **20 00 51.2** | **0.0** |
| **KRUC** | **Moravsky** | **2.03** | **239** | *e*Pn | **Pn** | **20 00 24.7** | **+0.7** |
| KRUC | | | | *e*Sg | **Sg** | **20 00 53.6** | **-0.

**n19,σ0ᵗ58/37, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.20** | **154** | *e*PG | **Pb** | **20 16 59.7** | **+0.3** |
| VANB | | | | *e*SG | **Sb** | **20 17 04.7** | **+1.7** |
| **VANB** | **Van** | **0.20** | **154** | *e*Pg | **Pb** | **20 16 59.7** | **+0.3** |
| **ERCV** | **ERCIS-VAN** | **0.25** | **10** | *e*PG | **Pg** | **20 16 59.5** | **0.0** |
| ERCV | | | | *e*SG | **Sb** | **20 17 04.3** | **-0.5** |
| **ERCV** | **ERCIS-VAN** | **0.25** | **10** | *e*Pg | **Pg** | **20 16 59.5** | **0.0** |
| ERCV | | | | *e*Sg | **Sb** | **20 17 04.3** | **-0.5** |
| **TVAN** | **Van** | **0.26** | **158** | *i* P | **Pb** | **20 16 59.8** | **-0.8** |
| TVAN | | | | *i* S | **Sb** | **20 17 05.3** | **+0.3** |
| **TVAN** | **Van** | **0.26** | **158** | P | **Pb** | **20 16 59.8** | **-0.8** |
| TVAN | | | | S | **Sb** | **20 17 05.3** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.31** | **46** | *i* P | **Pb** | **20 17 00.9** | **-0.6** |
| VMUR | | | | *i* S | **Sb** | **20 17 06.5** | **0.0** |
| **VMUR** | **Van-Muradiye** | **0.31** | **46** | P | **Pb** | **20 17 00.9** | **-0.6** |
| VMUR | | | | S | **Sb** | **20 17 06.5** | **0.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.44** | **275** | *i* P | **Pg** | **20 17 02.8** | **0.0** |
| ADCV | | | | *i* S | **Sg** | **20 17 09.0** | **+0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.44** | **275** | P | **Pg** | **20 17 02.8** | **0.0** |
| ADCV | | | | S | **Sg** | **20 17 09.0** | **+0.3** |
| **GEVA** | **Gevas** | **0.49** | **201** | *i* P | **Pg** | **20 17 03.0** | **-0.7** |
| GEVA | | | | *i* S | **Sb** | **20 17 10.8** | **-0.8** |
| **GEVA** | **Gevas** | **0.49** | **201** | P | **Pg** | **20 17 03.0** | **-0.7** |
| GEVA | | | | S | **Sb** | **20 17 10.8** | **-0.8** |
| **CLDR** | **Caldiran** | **0.62** | **53** | *e*PG | **Pg** | **20 17 05.9** | **-0.3** |
| CLDR | | | | *e*SG | **Sb** | **20 17 15.4** | **0.0** |
| **CLDR** | **Caldiran** | **0.62** | **53** | *i* P | **Pg** | **20 17 05.9** | **-0.3** |
| CLDR | | | | *i* S | **Sb** | **20 17 15.8** | **+0.4** |
| **CLDR** | **Caldiran** | **0.62** | **53** | P | **Pg** | **20 17 05.9** | **-0.3** |
| CLDR | | | | *e*Sg | **Sb** | **20 17 15.4** | **0.0** |
| **AGRB** | **Hanur-Agry** | **0.83** | **344** | *e*PG | **Pg** | **20 17 09.7** | **-0.5** |
| AGRB | | | | *e*SG | **Sb** | **20 17 21.9** | **+0.3** |
| **AGRB** | **Hanur-Agry** | **0.83** | **344** | *e*Pg | **Pg** | **20 17 09.7** | **-0.5** |
| AGRB | | | | *e*Sg | **Sb** | **20 17 21.9** | **+0.3** |
| **EKAR** | **Karacoban** | **1.06** | **297** | *i* P | **Pn** | **20 17 15.6** | **+0.9** |
| EKAR | | | | *i* S | **Sn** | **20 17 29.1** | **-0.3** |
| **EKAR** | **Karacoban** | **1.06** | **297** | P | **Pn** | **20 17 15.6** | **+0.9** |
| EKAR | | | | S | **Sn** | **20 17 29.1** | **-0.3** |

*ISCJB **15** 20:20:28.0±1.0,5.8S±0.1×147.9E±0.1, h100km, mb3.9/4, Error ellipse: s-maj=19.9km s-min=11.3km az=37.8*
*NEIC **15** 20:20:30.6±1.4,5.86S×148.00E, h114km±15km, mb4.2/3, Error ellipse: s-maj=36.2km s-min=10.2km az=137.0*
*IDC **15** 20:20:30.5±7.8,5.88S×147.99E, h112km±47km, mb3.9/3, mb1 4.0/5, mb1mx3.4/38, mbtmp4.2/5, MS3.2/1, Ms1 3.2/1, ms1mx2.6/30, Error ellipse: s-maj=70.4km s-min=51.1km az=59.0*

**ISC 15 20:20:29.1±1.3, 5.7S±0.1×147.8E±0.2, h100km, n12, σ1ᵗ16/13, mb4.0/4, Eastern New Guinea region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **3.70** | **190** | P | **Pn** | **20 21 24.8** | **+0.6** |
| | 6.1nm,0.3s,baz=294,slow=17,SNR=17 | | | | | | |
| PMG | | | | S | **Sn** | **20 22 06.9** | **-0.1** |
| | 7.5nm,0.3s,baz=348,slow=14,SNR=7.4 | | | | | | |
| **RABL** | **Rabaul** | **4.58** | **71** | *e*Pn | **Pn** | **20 21 36.3** | **+0.1** |
| **COEN** | **Coen** | **9.36** | **209** | *e*Pn | **Pn** | **20 22 42.2** | **+1.0** |
| **WRAB** | **Tennant Creek** | **19.25** | **222** | *e*P | **Pn** | **20 24 46.6** | **-1.2** |
| | 7.4nm,0.6s | | | | | | |
| **WB2** | **Warramunga Arr** | **19.26** | **222** | *e*P | **Pn** | **20 24 45.3** | **-2.6** |
| **WR1** | **Warramunga Arr** | **19.27** | **222** | *e*P | **Pn** | **20 24 47.1** | **-0.9** |
| | 6.9nm,0.5s | | | | | | |
| **WRA** | **Warramunga Arr** | **19.27** | **222** | P | **Pn** | **20 24 47.1** | **-0.9** |
| | 0.9nm,0.3s,baz=46,slow=11,SNR=36 | | | | | | |
| **AS01** | **Alice Springs** | **22.27** | **215** | *e*P | **P** | **20 25 18.7** | **+0.5** |
| **AS31** | **Alice Springs** | **22.30** | **216** | *e*P | **P** | **20 25 19.0** | **+0.5** |
| | 2.5nm,0.5s | | | | | | |
| **ASAR** | **Alice Springs** | **22.30** | **216** | P | **P** | **20 25 19.2** | **+0.7** |
| | 5.6nm,0.5s,baz=49,slow=8.9,SNR=115 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **24.91** | **239** | P | **P** | **20 25 43.7** | **+0.8** |
| | 2.6nm,0.3s,baz=54,slow=11,SNR=36 | | | | | | |
| FITZ | | | | LR | LR | 20 37 52.4 | |
| | comp=Z,50nm,18.3s,baz=100,slow=42 | | | | | | |
| **STKA** | **Stephens Creek** | **26.65** | **192** | P | **P** | **20 25 57.7** | **-0.8** |
| | 1.1nm,0.5s,baz=10,slow=11,SNR=4.0 | | | | | | |

**IDC 15 20:29:23.6±6.8, 15.36S×173.10W, h0km, mb3.4/2, mb1 3.6/2, mb1mx3.2/37, mbtmp3.4/2, Error ellipse: s-maj=341.7km s-min=26.4km az=143.0, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AFI** | **Afiamalu** | **1.93** | **42** | P | Pn | 20 29 56.6 | -1.2 |
| | 50nm,0.3s,baz=42,slow=0.7,SNR=16 | | | | | | |
| AFI | | | | Sn | Sn | 20 30 14.3 | -8.5 |
| | 58nm,0.3s,baz=194,slow=20,SNR=10 | | | | | | |
| **WRA** | **Warramunga Arr** | **50.13** | **257** | P | P | 20 38 19.9 | -1.3 |
| | 0.4nm,1.0s,baz=90,slow=6.8,SNR=5.5 | | | | | | |
| **ASAR** | **Alice Springs** | **50.40** | **252** | P | P | 20 38 22.8 | -0.4 |
| | 0.4nm,0.7s,baz=84,slow=7.9,SNR=5.8 | | | | | | |
| **BRTR** | **Keskin Array B** | **146.30** | **321** | PKPbc | PKPab | 20 49 08.2 | +0.6 |
| | 1.0nm,0.8s,baz=74,slow=2.1,SNR=6.4 | | | | | | |

*SOME **15** 20:34:44.9,45.45N×80.22E, h15km*
*NNC **15** 20:34:45.2±3.8,45.30N×80.35E, h28km±77km, mb2.8, mpv2.2, Error ellipse: s-maj=46.8km s-min=17.0km az=47.0*

**ISC 15 20:34:42.3±1.3, 45.47N±0.04×80.39E±0.05, h4km±18km, n8, σ0ᵗ79/15, 4C-2D, Kazakhstan-Xinjiang border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KAPS** | **Kapalarasan** | **0.75** | **256** | *e*P | **Pg** | **20 34 56.5** | **-0.2** |
| | 1.6nm,0.1s | | | | | | |
| KAPS | | | | *e*S | **Sg** | **20 35 05.4** | **-1.0** |
| | 12nm,0.2s | | | | | | |
| **DJR** | **Jarkent** | **1.22** | **201** | *e*P | **Pg** | **20 35 05.8** | **+0.2** |
| | 27nm,0.2s | | | | | | |
| DJR | | | | *e*S | **Sb** | **20 35 20.7** | **-1.3** |
| | 30nm,0.5s | | | | | | |
| **MAKZ** | **Makanchi** | **1.73** | **39** | ⇓Pn | **Pg** | **20 35 15.4** | **-0.1** |
| | 0.8nm,0.3s | | | | | | |
| MAKZ | | | | ⇑Sn | **Sg** | **20 35 38.7** | **+0.7** |
| | 6.8nm,0.3s | | | | | | |
| **MK31** | **Makanchi Array** | **1.87** | **44** | ⇑Pn | **Pg** | **20 35 17.4** | **-0.7** |
| | 0.3nm,0.3s,baz=219,slow=15,SNR=78 | | | | | | |
| MK31 | | | | ⇑Sn | **Sg** | **20 35 42.5** | **+0.2** |
| | 2.2nm,0.3s,baz=224,slow=28,SNR=23 | | | | | | |
| **KTMS** | **Ketmen** | **2.03** | **181** | *e*P | **Pg** | **20 35 21.6** | **+0.4** |
| | 8.8nm,0.3s | | | | | | |
| KTMS | | | | *e*S | **Sg** | **20 35 47.4** | **+0.1** |
| | 14nm,0.3s | | | | | | |
| **ARXS** | **Arharly** | **2.21** | **236** | *e*P | **Pb** | **20 35 23.8** | **+0.9** |
| | 1.6nm,0.3s | | | | | | |
| ARXS | | | | *e*S | **Sb** | **20 35 51.7** | **+1.0** |
| | 6.6nm,0.4s | | | | | | |
| **PDGK** | **Podgornoye** | **2.24** | **197** | ⇑Pg | **Pb** | **20 35 23.3** | **0.0** |
| | 2.7nm,0.5s | | | | | | |
| PDGK | | | | ⇓Lg | Lg | 20 35 51.4 | |
| | 16nm,0.5s | | | | | | |
| **UZB** | **Uzynbulak** | **2.52** | **203** | *e*P | **Pb** | **20 35 28.4** | **+0.2** |
| | 0.8nm,0.4s | | | | | | |
| UZB | | | | *e*S | **Sb** | **20 35 58.7** | **-1.0** |
| | 11nm,0.2s | | | | | | |

*CSEM **15** 20:36:48.7±1.9,31.85N×47.43E, h5km, ML2.8, Error ellipse: s-maj=72.6km s-min=15.0km az=22.0*
*ISN **15** 20:36:50.3±0.3,32.53N×47.71E, h0km, ML2.8*

**TEH 15 20:36:55.8, 32.46N×47.94E, h4km, ML2.8, Iran-Iraq border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **IGHG** | **Ghaleghazi** | **2.18** | **329** | *e*AMB | AMB | 20 37 38.4 | |
| | comp=Z,568nm,0.1s | | | | | | |
| IGHG | | | | *e*Sg | Sb | 20 38 03.7 | +0.1 |
| **IVIS** | **Veis** | **2.25** | **336** | *e*Pn | Pn | 20 37 34.2 | +0.3 |
| IVIS | | | | *e*AMB | AMB | 20 38 06.1 | |
| | comp=N,604nm,0.3s | | | | | | |
| **IVIS** | **Veis** | **2.25** | **336** | *e*Pn | Pn | 20 37 34.2 | +0.3 |
| **IPIR** | **Pirpir** | **2.50** | **84** | *e*Pn | Pn | 20 37 37.7 | +0.1 |
| IPIR | | | | *e*AMB | AMB | 20 38 11.0 | |
| | comp=Z,371nm,0.2s | | | | | | |
| **IPIR** | **Pirpir** | **2.50** | **84** | *e*Pn | Pn | 20 37 37.7 | +0.1 |
| **ILIN** | **Lien** | **2.58** | **342** | *e*Pn | Pn | 20 37 38.7 | +0.1 |
| ILIN | | | | *e*AMB | AMB | 20 38 14.9 | |
| | comp=E,577nm,0.1s | | | | | | |
| **ILIN** | **Lien** | **2.58** | **342** | *e*Pn | Pn | 20 37 38.7 | +0.1 |
| **IKLH** | **Kolahrood** | **3.18** | **73** | *e*Pn | Pn | 20 37 46.1 | -0.8 |
| IKLH | | | | *e*AMB | AMB | 20 38 39.0 | |
| | comp=Z,178nm,0.2s | | | | | | |
| **IKLH** | **Kolahrood** | **3.18** | **73** | *e*Pn | Pn | 20 37 46.1 | -0.8 |
| **QAM** | **Ghamsar** | **3.21** | **65** | *e*Pn | Pn | 20 37 46.8 | -0.4 |
| QAM | | | | *e*AMB | AMB | 20 38 31.8 | |
| | comp=Z,339nm,0.2s | | | | | | |
| **IRAM** | **Ramesheh** | **3.83** | **99** | *e*Pn | Pn | 20 37 55.0 | -0.7 |
| IRAM | | | | *e*AMB | AMB | 20 38 51.2 | |
| | comp=N,96nm,0.2s | | | | | | |
| **IRAM** | **Ramesheh** | **3.83** | **99** | *e*Pn | Pn | 20 37 55.0 | -0.7 |

*IDC **15** 20:39:40.3±1.9,44.35N×105.51W, h0km, mb1 3.4/3, mb1mx3.1/55, mbtmp3.1/3, ML3.0/3, Error ellipse: s-maj=56.4km s-min=9.6km az=144.0*
*NEIC **15** 20:39:41.7±1.0,44.37N×105.00W, h0km, MN3.0, Error ellipse: s-maj=12.3km s-min=12.0km az=77.0, Suspected Mining explosion.*
*NEIC 41 km [26 miles] ENE of Gillette.*

**ISC 15 20:39:36.4±1.0, 44.18N±0.04×105.69W±0.05, h0km, n35, σ1ᵗ48/33, Wyoming**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RSSD** | **Black Hills** | **1.19** | **92** | *e*Pn | **Pn** | **20 40 01.6** | **+1.0** |
| **K22A** | **Casper** | **1.64** | **202** | *e*Pn | Pg | 20 40 15.9 | +8.0 |
| **LAO** | **LASA Array** | **2.54** | **352** | *e*Pn | **Pb** | **20 40 22.5** | **-0.4** |
| **RLMT** | **Red Lodge** | **2.72** | **292** | *e*Pn | **Pg** | **20 40 28.3** | **-0.3** |
| **RWWY** | **Rawlins** | **2.73** | **205** | *e*Pn | **Pg** | **20 40 32.3** | **+3.6** |
| **PHWY** | **Pilot Hill** | **2.88** | **176** | *e*Pn | **Pg** | **20 40 31.8** | **+0.2** |
| **BW06** | **Boulder Array** | **3.15** | **245** | *e*Pn | **Pg** | **20 40 37.0** | **+0.2** |
| **PD31** | **Pinedale Array** | **3.15** | **245** | *e*Pn | **Pg** | **20 40 36.9** | **+0.1** |
| **PDAR** | **Pinedale Array** | **3.15** | **245** | Pn | **Pg** | **20 40 37.0** | **+0.2** |
| | 1.2nm,0.3s,baz=66,slow=16,SNR=14 | | | | | | |
| PDAR | | | | Lg | Lg | 20 41 24.5 | |
| | 4.5nm,0.3s,baz=55,slow=26,SNR=8.3 | | | | | | |
| **PDAR** | **Pinedale Array** | **3.15** | **245** | *e*Pn | **Pg** | **20 40 40.5** | **+3.7** |
| PDAR | | | | Lg | Lg | 20 41 24.5 | |
| **GCMT** | **Greycliff** | **3.25** | **301** | *e*Pn | **Pb** | **20 40 35.6** | **+0.5** |
| **N23A** | **Red Feather La** | **3.29** | **183** | *e*Pn | **Pg** | **20 40 39.2** | **-0.2** |
| **H17A** | **Grant Village** | **3.51** | **275** | *e*Pn | **Pg** | **20 40 42.6** | **-1.2** |
| **YNR** | **Norris Junctio** | **3.61** | **280** | *e*Pn | **Pg** | **20 40 45.7** | **0.0** |
| **MOOW** | **Moose Ponds** | **3.67** | **265** | *e*Pn | **Pg** | **20 40 47.1** | **+0.3** |
| **YPP** | **Pitchstone Pla** | **3.68** | **273** | *e*Pn | **Pg** | **20 40 47.8** | **+0.9** |
| **YFT** | **Old Faithful** | **3.70** | **276** | *e*Pn | **Pg** | **20 40 48.1** | **+0.7** |
| **SNOW** | **Snow King Moun** | **3.73** | **261** | *e*Pn | **Pg** | **20 40 50.0** | **+2.0** |
| **YHH** | **Holmes Hill** | **3.74** | **281** | *e*Pn | **Pg** | **20 40 47.8** | **-0.3** |
| **IMW** | **Indian Meadow** | **3.79** | **268** | *e*Pn | **Pg** | **20 40 51.0** | **+1.9** |
| **YMR** | **Madison River** | **3.81** | **279** | *e*Pn | **Pg** | **20 40 50.5** | **+1.0** |
| **REDW** | **Red Top Meadow** | **3.83** | **259** | *e*Pn | **Pg** | **20 40 50.3** | **+0.5** |
| **TPAW** | **Teton Pass** | **3.87** | **262** | *e*Pn | **Pg** | **20 40 50.1** | **-0.4** |
| **FXWY** | **Fox Creek** | **3.89** | **264** | *e*Pn | **Pg** | **20 40 53.1** | **+2.1** |
| **YHB** | **Horse Butte** | **3.98** | **280** | *e*Pn | **Pg** | **20 40 53.3** | **+0.6** |
| **QLMT** | **Earthquake Lak** | **4.16** | **281** | *e*Pn | **Pg** | **20 40 55.4** | **-0.7** |
| **O20A** | **White River Ci** | **4.46** | **206** | *e*Pn | **Pb** | **20 40 54.5** | **-1.3** |
| **HWUT** | **Hardware Ranch** | **5.02** | **241** | *e*Pn | **Pb** | **20 41 02.9** | **-2.4** |
| **MCMT** | **McKenzie Canyo** | **5.16** | **280** | *e*Pn | **Pb** | **20 41 08.3** | **+0.1** |
| **TCUT** | **Toone Canyon** | **5.21** | **236** | *e*Pn | **Pb** | **20 41 08.6** | **+0.1** |
| **P18A** | **Preston Nutter** | **5.67** | **218** | *e*Pn | **Pb** | **20 41 13.7** | **-2.8** |
| **HVU** | **Hansel Valley** | **5.72** | **248** | *e*Pn | **Pb** | **20 41 15.3** | **-1.9** |
| **I10CA** | **LAC DU BONNET** | **8.92** | **44** | *i* | | 21 33 40.0 | |
| | baz=224,slow=326,SNR=1.5 | | | | | | |
| **ULM** | **Lac du Bonnet** | **9.03** | **44** | Pn | **Pn** | **20 41 47.0** | **-0.9** |
| | 0.5nm,0.3s,baz=228,slow=14,SNR=4.1 | | | | | | |
| ULM | | | | Lg | Lg | 20 44 13.3 | |
| | 0.4nm,0.3s,baz=141,slow=20,SNR=5.4 | | | | | | |
| **YKA** | **Yellowknife Ar** | **19.07** | **347** | P | **Pn** | **20 44 01.4** | **+0.6** |
| | 0.1nm,0.3s,baz=161,slow=12,SNR=3.6 | | | | | | |

*ISK **15** 20:59:28.8,38.76N×43.21E, h5km, MD2.5*
*ISCJB **15** 20:59:29.8±0.4,38.78N±0.02×43.24E±0.03, h10km±4km, Error ellipse: s-maj=4.6km s-min=3.5km az=25.4*
*DDA **15** 20:59:29.3,38.77N×43.23E, h7km, Ml2.8*
*CSEM **15** 20:59:29.5±0.2,38.78N×43.25E, h10km, MD2.5, Error ellipse: s-maj=3.8km s-min=3.2km az=106.0*

**ISC 15 20:59:29.7±0.8, 38.78N±0.02×43.24E±0.02, h15km±7km, n32, σ0ᵗ65/55, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.22** | **147** | *e*PG | **Pg** | **20 59 35.1** | **+0.3** |
| VANB | | | | *e*SG | **Sb** | **20 59 39.7** | **+0.3** |
| **VANB** | **Van** | **0.22** | **147** | *e*Pg | **Pg** | **20 59 35.1** | **+0.3** |
| VANB | | | | *e*Sg | **Sb** | **20 59 39.7** | **+0.3** |
| **ERCV** | **ERCIS-VAN** | **0.25** | **18** | *e*PG | **Pg** | **20 59 34.7** | **-0.7** |
| ERCV | | | | *e*SG | **Sg** | **20 59 39.2** | **0.0** |
| **ERCV** | **ERCIS-VAN** | **0.25** | **18** | *e*Pg | **Pg** | **20 59 34.7** | **-0.7** |
| ERCV | | | | *e*Sg | **Sg** | **20 59 39.2** | **0.0** |
| **TVAN** | **Van** | **0.28** | **152** | *i* P | **Pg** | **20 59 35.1** | **-0.8** |
| TVAN | | | | *i* S | **Sg** | **20 59 40.0** | **-0.1** |
| **TVAN** | **Van** | **0.28** | **152** | P | **Pg** | **20 59 35.1** | **-0.8** |
| TVAN | | | | S | **Sg** | **20 59 40.0** | **-0.1** |
| **VMUR** | **Van-Muradiye** | **0.33** | **51** | *i* P | **Pg** | **20 59 36.6** | **-0.1** |
| VMUR | | | | *i* S | **Sb** | **20 59 42.5** | **-0.3** |
| **VMUR** | **Van-Muradiye** | **0.33** | **51** | P | **Pg** | **20 59 36.6** | **-0.1** |
| VMUR | | | | S | **Sb** | **20 59 42.5** | **-0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.40** | **274** | *i* P | **Pg** | **20 59 37.7** | **-0.2** |
| ADCV | | | | *i* S | **Sg** | **20 59 43.9** | **+0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.40** | **274** | P | **Pg** | **20 59 37.7** | **-0.2** |
| ADCV | | | | S | **Sg** | **20 59 43.8** | **+0.3** |
| **GEVA** | **Gevas** | **0.49** | **197** | *i* P | **Pg** | **20 59 38.1** | **-1.4** |
| GEVA | | | | *i* S | **Sg** | **20 59 45.9** | **-0.2** |
| **GEVA** | **Gevas** | **0.49** | **197** | P | **Pg** | **20 59 38.1** | **-1.4** |
| GEVA | | | | S | **Sg** | **20 59 45.9** | **-0.2** |
| **CLDR** | **Caldiran** | **0.64** | **55** | *e*PG | **Pg** | **20 59 42.2** | **-0.2** |
| CLDR | | | | *e*SG | **Sb** | **20 59 51.8** | **0.0** |
| **CLDR** | **Caldiran** | **0.64** | **55** | *i* P | **Pg** | **20 59 40.5** | **-1.9** |
| CLDR | | | | *i* S | **Sg** | **20 59 51.3** | **+0.3** |
| **CLDR** | **Caldiran** | **0.64** | **55** | P | **Pg** | **20 59 40.5** | **-1.9** |
| **CLDR** | **Caldiran** | **0.64** | **55** | *e*Pg | **Pg** | **20 59 42.2** | **-0.2** |
| CLDR | | | | S | **Sg** | **20 59 51.3** | **+0.3** |
| **TUTA** | **Tutak** | **0.70** | **332** | *i* P | **Pg** | **20 59 42.9** | **-0.7** |
| TUTA | | | | *i* S | **Sg** | **20 59 52.5** | **-0.4** |
| **TUTA** | **Tutak** | **0.70** | **332** | P | **Pg** | **20 59 42.9** | **-0.7** |
| TUTA | | | | S | **Sg** | **20 59 52.5** | **-0.4** |
| **AGRB** | **Hanur-Agry** | **0.82** | **347** | *e*PG | **Pg** | **20 59 45.0** | **-0.7** |
| **AGRB** | **Hanur-Agry** | **0.82** | **347** | *e*Pg | **Pg** | **20 59 45.0** | **-0.7** |
| **EKAR** | **Karacoban** | **1.03** | **298** | *i* P | **Pn** | **20 59 50.7** | **+0.8** |
| EKAR | | | | *i* S | **Sn** | **21 00 05.3** | **+1.1** |
| **EKAR** | **Karacoban** | **1.03** | **298** | P | **Pn** | **20 59 50.7** | **+0.8** |
| EKAR | | | | S | **Sn** | **21 00 05.3** | **+1.1** |
| **EATA** | **Eleskirt** | **1.23** | **332** | *i* P | **Pn** | **20 59 52.6** | **-0.1** |
| EATA | | | | *i* S | **Sn** | **21 00 09.3** | **+0.1** |
| **EATA** | **Eleskirt** | **1.23** | **332** | P | **Pn** | **20 59 52.6** | **-0.1** |
| EATA | | | | S | **Sn** | **21 00 09.3** | **+0.1** |
| **SRTM** | **Siirt_Merkez** | **1.30** | **233** | *i* P | **Pb** | **20 59 53.8** | **-0.2** |
| SRTM | | | | *i* S | **Sg** | **21 00 11.2** | **-0.5** |
| **SRTM** | **Siirt_Merkez** | **1.30** | **233** | P | **Pb** | **20 59 53.8** | **-0.2** |
| SRTM | | | | S | **Sg** | **21 00 11.2** | **-0.5** |
| **SIRT** | **Sirnak** | **1.42** | **206** | *e*PN | **Pn** | **20 59 55.5** | **+0.3** |
| **SIRT** | **Sirnak** | **1.42** | **206** | *e*Pn | **Pn** | **20 59 55.5** | **+0.3** |
| **TASB** | **TASBURUN-IGDIR** | **1.43** | **33** | *e*Pn | **Pb** | **20 59 56.3** | **+0.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.43** | **33** | *e*Pn | **Pb** | **20 59 56.3** | **+0.1** |
| **CUKT** | **Cukurca** | **1.56** | **169** | *e*PN | **Pn** | **20 59 57.6** | **+0.5** |
| **CUKT** | **Cukurca** | **1.56** | **169** | *e*Pn | **Pn** | **20 59 57.6** | **+0.5** |

**MEX 15 21:12:41.7±0.3, 15.74N×93.88W, h91km±6km, MD3.9, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PCIG** | | **0.64** | **93** | *e*P | Pn | 21 12 56.4 | -1.3 |
| PCIG | | | | *i* S | Sn | 21 13 08.2 | -1.5 |
| **TGIG** | | **1.27** | **35** | *e*P | Pn | 21 13 03.4 | -1.3 |
| TGIG | | | | *e*S | Sn | 21 13 20.4 | -1.5 |
| **CCIG** | **Comitan** | **1.77** | **72** | *e*P | Pn | 21 13 10.0 | -1.0 |
| CCIG | | | | *e*S | Sn | 21 13 32.0 | -1.4 |

*IDC **15** 21:34:41.8±0.7, 7.56S×130.35E, h0km, mb4.2/9, mb1 4.3/10, mb1mx4.1/31, mbtmp4.2/10, ML2.5/1, MS3.4/4, Ms1 3.4/4, ms1mx3.1/23, Error ellipse: s-maj=38.2km s-min=16.2km az=69.0*
*ISCJB **15** 21:34:42.7±0.4, 7.83S±0.03×130.72E±0.04, h33km, mb4.2/13, MS3.2/3, Error ellipse: s-maj=5.4km s-min=4.2km az=173.5*
*NEIC **15** 21:34:45.3±0.5, 7.83S×130.61E, h35km, mb4.4/3, Error ellipse: s-maj=12.8km s-min=9.0km az=76.0*
*DJA **15** 21:34:47.0±0.4, 8°S±2°×13°1E±°, h36km±7km, M4.6/7, mb4.6/7, mB4.9/4, MLv4.7/5, Mw(mB)4.2/4*

**ISC 15 21:34:45.8±0.5, 7.81S±0.05×130.62E±0.05, h35km, n45, σ2ᵗ45/53, mb4.2/13, MS3.3/3, Tanimbar Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SAUI** | **Saumlaki** | **0.69** | **104** | P | Pn | 21 35 03.5 | +4.4 |
| SAUI | | | | S | **Sn** | **21 35 11.1** | **+2.4** |
| **MSAI** | **Masohi** | **4.74** | **339** | P | **Pn** | **21 35 53.2** | **-1.7** |
| **AAI** | **Ambon** | **4.75** | **329** | P | **Pn** | **21 35 52.8** | **-2.2** |
| **FAKI** | **Fak Fak** | **5.12** | **19** | P | **Pn** | **21 35 59.2** | **-0.9** |
| FAKI | | | | S | **Sn** | **21 36 57.1** | **-0.9** |
| **FAKI** | **Fak Fak** | **5.12** | **19** | *e*Pn | **Pn** | **21 35 59.0** | **-1.1** |
| | 79nm,0.6s | | | | | | |
| **NLAI** | **Namlea** | **5.74** | **322** | P | **Pn** | **21 36 09.3** | **+0.8** |
| **SOEI** | **Soe** | **6.57** | **252** | P | **Pn** | **21 36 20.9** | **+0.8** |
| SOEI | | | | S | **Sn** | **21 37 34.8** | **+0.9** |
| **SOEI** | **Soe** | **6.57** | **252** | *e*Pn | **Pn** | **21 36 20.0** | **-0.1** |
| | 54nm,0.8s | | | | | | |
| SOEI | | | | *e*Sn | **Sn** | **21 37 36.9** | **+3.0** |
| **SWI** | **Sorong** | **6.93** | **5** | P | **Pn** | **21 36 24.2** | **-0.7** |
| | 28nm,0.6s,697nm0.1nm | | | | | | |
| **SANI** | **Sanana** | **7.35** | **321** | P | **Pn** | **21 36 33.4** | **+2.7** |
| **LBMI** | **Labuha** | **7.77** | **336** | P | **Pn** | **21 36 36.2** | **-0.3** |
| | 76nm,1.5s,975nm0.3nm | | | | | | |
| **LUWI** | **Luwuk** | **10.31** | **310** | P | **Pn** | **21 37 15.6** | **+4.2** |
| **WSI** | **Waingapu** | **10.37** | **259** | P | **Pn** | **21 37 08.9** | **-3.2** |
| **WBSI** | **Waikabubak, Su** | **11.25** | **260** | P | **Pn** | **21 37 24.5** | **+0.3** |
| **APSI** | **Ampana** | **11.27** | **307** | P | **Pn** | **21 37 27.4** | **+3.0** |
| **FITZ** | **Fitzroy Crossi** | **11.32** | **205** | Pn | **Pn** | **21 37 22.9** | **-2.2** |
| | 3.2nm,0.3s,baz=34,slow=12,SNR=63 | | | | | | |
| FITZ | | | | Sn | **Sn** | **21 39 24.3** | **-6.2** |
| | 1.3nm,0.3s,baz=103,slow=21,SNR=3.8 | | | | | | |
| **MRSI** | **Marisa** | **11.95** | **313** | P | **Pn** | **21 37 35.9** | **+2.2** |
| **WRAB** | **Tennant Creek** | **12.58** | **164** | *e*Pn | **Pn** | **21 37 40.8** | **-1.6** |
| | 22nm,0.9s | | | | | | |
| WRAB | | | | *e*Sn | **Sn** | **21 39 58.4** | **-3.0** |
| **WRA** | **Warramunga Arr** | **12.59** | **164** | Pn | **Pn** | **21 37 40.6** | **-1.9** |
| | 1.3nm,0.3s,baz=340,slow=14,SNR=52 | | | | | | |
| WRA | | | | Sn | **Sn** | **21 39 59.9** | **-1.6** |
| | 1.5nm,0.3s,baz=352,slow=21,SNR=6.4 | | | | | | |
| **PCI** | **Palu** | **12.75** | **302** | P | **Pn** | **21 37 47.8** | **+3.1** |
| **PLAI** | **Plampang** | **12.75** | **265** | P | **Pn** | **21 37 46.7** | **+2.0** |
| **MPSI** | **Mapaga** | **13.41** | **307** | P | **Pn** | **21 37 54.1** | **+0.4** |
| **COEN** | **Coen** | **13.76** | **117** | *e*Pn | **Pn** | **21 37 58.3** | **-0.1** |
| | 16nm,0.9s | | | | | | |
| **ASAR** | **Alice Springs** | **16.08** | **169** | Pn | **Pn** | **21 38 27.6** | **-1.7** |
| | 0.7nm,0.3s,baz=340,slow=10,SNR=59 | | | | | | |
| ASAR | | | | Sn | **Sn** | **21 41 25.9** | **-0.8** |
| | 0.5nm,0.3s,baz=322,slow=14,SNR=5.3 | | | | | | |
| ASAR | | | | LR | LR | 21 44 55.4 | |
| | comp=Z,178nm,19.1s,baz=347,slow=38 | | | | | | |
| **PMG** | **Port Moresby** | **16.43** | **97** | Pn | **P** | **21 38 39.4** | **+3.1** |
| | 0.6nm,0.3s,baz=270,slow=9.7,SNR=5.3 | | | | | | |
| **PMG** | **Port Moresby** | **16.43** | **97** | *e*Pn | **Pn** | **21 38 33.4** | **-0.4** |
| | 11nm,0.8s | | | | | | |
| **MTKI** | **Muara Teweh, K** | **17.09** | **293** | P | **P** | **21 38 43.7** | **+0.1** |
| **STKA** | **Stephens Creek** | **26.04** | **158** | P | **P** | **21 40 18.8** | **+3.0** |
| | 6.1nm,0.7s,baz=323,slow=12,SNR=12 | | | | | | |
| STKA | | | | LR | LR | 21 51 48.7 | |
| | comp=Z,152nm,20.7s,baz=21,slow=39 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **40.72** | **310** | P | **P** | **21 42 21.7** | **-1.8** |
| | 0.9nm,0.6s,baz=137,slow=7.5,SNR=6.4 | | | | | | |
| CMAR | | | | PcP | **PcP** | **21 44 26.0** | **+1.3** |
| | 0.6nm,0.9s,baz=191,slow=2.4,SNR=4.1 | | | | | | |
| CMAR | | | | LR | LR | 22 00 11.2 | |
| | comp=Z,39nm,18.0s,baz=156,slow=38 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **44.69** | **9** | P | **P** | **21 42 54.1** | **-1.4** |
| | 3.4nm,0.8s,baz=184,slow=9.4,SNR=5.6 | | | | | | |
| **KSRS** | **Korea Array** | **45.10** | **357** | LR | LR | 22 02 39.4 | |
| | comp=Z,13nm,19.0s,baz=350,slow=37 | | | | | | |
| **GTA** | **Gaotai** | **54.97** | **331** | *e*P | **P** | **21 44 11.3** | **-2.4** |
| GTA | | | | pP | pP | 21 44 15.8 | -8.5 |
| GTA | | | | s

*IDC **15** 22:17:02.2±1.7,5˚.03S×103˚.10E,h0$^{km}$,mb4.2/9, mb1 4.3/9,mb1mx3.9/42,mbtmp4.2/9,Error ellipse: s-maj=78.2km s-min=14.8km az=53.0*
*DJA **15** 22:17:06.9±0.7,5˚.3S×10˚.3E±˚,h16$^{km}$±5$^{km}$,M4.6/6, mb4.8/2,MLv4.5/6*
*ISCJB **15** 22:17:07.8±0.8,5˚.19S±0˚.08×103˚.08E±0˚.06,h61$^{km}$±6$^{km}$, mb4.2/10,Error ellipse: s-maj=15.4km s-min=4.3km az=37.3*
*NEIC **15** 22:17:10.5±1.2,4˚.92S×103˚.32E,h59$^{km}$±8$^{km}$,mb4.4/1, Error ellipse: s-maj=53.4km s-min=7.4km az=51.0*

**ISC 15 22:17:08.9**±1.3,**5˚.2S**±0˚.1×**103˚.09E**±0˚.09,**h53**$^{km}$±12$^{km}$, **n46**,σ1°**31**/49,**mb4.2**/10,**Southern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MNAI** | **Manna** | **0.84** | **351** | P | **Pn** | **22 17 24.1** | **-0.6** |
| MNAI | | | | S | **Sn** | **22 17 35.6** | **-0.6** |
| **MNAI** | **Manna** | **0.84** | **351** | *e*Pn | **Pn** | **22 17 24.3** | **-0.4** |
| MNAI | | | | *e*Sn | **Sn** | **22 17 35.6** | **-0.6** |
| **LWLI** | **Liwa** | **0.98** | **80** | P | **Pn** | **22 17 25.7** | **-1.0** |
| LWLI | | | | S | **Sn** | **22 17 38.3** | **-1.4** |
| **KASI** | **Kota Agung** | **1.44** | **103** | P | **Pn** | **22 17 32.2** | **-0.5** |
| KASI | | | | S | **Sn** | **22 17 49.1** | **-1.5** |
| **KLI** | **Kotabumi** | **1.79** | **79** | P | **Pn** | **22 17 37.8** | **+0.3** |
| KLI | | | | S | **Sn** | **22 18 00.9** | **+1.7** |
| **BLSI** | **Bandar Lampung** | **2.16** | **95** | P | **Pn** | **22 17 42.7** | **+0.2** |
| BLSI | | | | S | **Sn** | **22 18 08.2** | **+0.1** |
| **MASI** | **Maura Aman, Be** | **2.21** | **338** | P | **Pn** | **22 17 43.9** | **+0.7** |
| MASI | | | | S | **Sn** | **22 18 13.4** | **+4.0** |
| **SBJI** | **Serang** | **3.17** | **107** | S | **Sn** | **22 18 37.2** | **+4.4** |
| **SKJI** | **Sukabumi** | **3.89** | **118** | P | **Pn** | **22 18 07.0** | **+0.7** |
| **PPSI** | **Pulau Pagai** | **3.91** | **308** | P | **Pn** | **22 18 07.7** | **+1.2** |
| **CNJI** | **Cibinong** | **4.53** | **118** | P | **Pn** | **22 18 15.6** | **+0.5** |
| **PDSI** | **Padang** | **5.00** | **328** | P | **Pn** | **22 18 22.2** | **+0.7** |
| PDSI | | | | S | **Sn** | **22 19 19.2** | **+1.2** |
| **CISI** | **Cisompet, Garu** 94nm,0.4s | **5.25** | **117** | *e*Pn | **Pn** | **22 18 25.6** | **+0.6** |
| CISI | | | | *e*Sn | **Sn** | **22 19 21.2** | **-3.1** |
| **SISI** | **Saibi** 80nm,0.7s,0.4nm | **5.54** | **314** | P | **Pn** | **22 18 29.1** | **+0.2** |
| **BKNI** | **Bangkinang** | **5.85** | **340** | P | **Pn** | **22 18 34.2** | **+1.0** |
| **PBSI** | **Pulau Batu** | **7.01** | **317** | P | **Pn** | **22 18 49.6** | **+0.6** |
| **UGM** | **Wanagama** | **7.87** | **110** | P | **Pn** | **22 19 02.9** | **+2.1** |
| **GSI** | **Gunungsitoli** | **8.48** | **319** | P | **Pn** | **22 19 08.4** | **-0.9** |
| **PCJI** | **Pacitan** | **8.57** | **111** | P | **Pn** | **22 19 10.6** | **+0.2** |
| **PWJI** | **Pagerwojo** | **9.10** | **108** | P | **Pn** | **22 19 18.9** | **+1.2** |
| **CMAR** | **Chiang Mai Arr** 2.7nm,0.6s,baz=180,slow=9.2,SNR=16 | **23.86** | **350** | P | **P** | **22 22 15.9** | **-1.6** |
| **FITZ** | **Fitzroy Crossi** 3.7nm,0.8s,baz=304,slow=4.9,SNR=8.0 | **25.50** | **122** | P | **P** | **22 22 32.7** | **+0.2** |
| **H08S2** | **Diego Garcia H** baz=87,slow=76,SNR=12 | **30.49** | **264** | T | T | 22 55 31.2 | |
| **H08S3** | **Diego Garcia H** baz=87,slow=76,SNR=15 | **30.50** | **264** | T | T | 22 55 30.9 | |
| **H08S1** | **Diego Carcia H** baz=87,slow=76,SNR=11 | **30.51** | **264** | T | T | 22 55 32.7 | |
| **H01W3** | **Cape Leeuwin H** baz=340,slow=76,SNR=14 | **31.26** | **162** | T | T | 22 56 42.9 | |
| **H01W2** | **Cape Leeuwin H** baz=340,slow=76,SNR=11 | **31.27** | **162** | T | T | 22 56 35.1 | |
| **H01W1** | **Cape Leeuwin H** baz=340,slow=76,SNR=10 | **31.27** | **162** | T | T | 22 56 42.8 | |
| **WRA** | **Warramunga Arr** 1.9nm,0.8s,baz=306,slow=9.0,SNR=28 | **33.75** | **119** | P | **P** | **22 23 46.0** | **+0.2** |
| **WRAB** | **Tennant Creek** 2.5nm,0.4s | **33.75** | **119** | *e*P | **P** | **22 23 45.9** | **+0.1** |
| **ASAR** | **Alice Springs** 2.3nm,0.5s,baz=297,slow=7.7,SNR=27 | **34.90** | **125** | P | **P** | **22 23 56.5** | **+0.8** |
| **ODAN** | **Odare** | **35.30** | **335** | *e*P | **P** | **22 23 59.0** | **-0.4** |
| **TAPN** | **Taplejung** 9.8nm,0.7s | **35.61** | **336** | *e*P | **P** | **22 24 01.5** | **-0.5** |
| **RAMN** | **Ramite** | **35.72** | **334** | *e*P | **P** | **22 24 02.3** | **-0.6** |
| **JIRN** | **Jiri** | **36.51** | **334** | *e*P | **P** | **22 24 09.6** | **-0.3** |
| **PKI** | **Pulchoki** | **36.78** | **333** | *e*P | **P** | **22 24 11.3** | **-0.8** |
| **GUN** | **Gumba** 16nm,0.6s | **36.87** | **334** | *e*P | **P** | **22 24 12.5** | **-0.3** |
| **DMN** | **Daman** | **36.95** | **333** | *e*P | **P** | **22 24 12.7** | **-0.7** |
| **KKN** | **Kakani** | **37.03** | **333** | *e*P | **P** | **22 24 13.4** | **-0.6** |
| **KOLN** | **Koldanda** 14nm,0.7s | **37.79** | **331** | *e*P | **P** | **22 24 20.3** | **-0.2** |
| **PYUN** | **Piuthan** | **38.36** | **331** | *e*P | **P** | **22 24 25.5** | **+0.2** |
| **STKA** | **Stephens Creek** 2.1nm,0.5s,baz=303,slow=8.0,SNR=8.2 | **44.74** | **131** | P | **P** | **22 25 18.8** | **+1.5** |
| **SONM** | **Songino Array** 0.7nm,0.7s,baz=178,slow=9.3,SNR=8.4 | **52.89** | **3** | P | **P** | **22 26 19.2** | **-0.4** |
| **MKAR** | **Makanchi Array** 1.5nm,0.6s,baz=145,slow=7.9,SNR=21 | **54.95** | **343** | P | **P** | **22 26 34.1** | **-0.4** |
| **GEYT** | **Alibeck** 2.0nm,0.6s,baz=116,slow=6.8,SNR=4.6 | **59.86** | **320** | P | **P** | **22 27 09.0** | **-0.4** |
| **ZALV** | **Zalesovo Beam** 2.5nm,0.5s,baz=165,slow=6.1,SNR=16 | **60.89** | **348** | P | **P** | **22 27 14.9** | **-1.1** |

*IDC **15** 22:29:19.9±3.0,36˚.30N×71˚.21E,h143$^{km}$±26$^{km}$,mb3.6/8, mb1 3.5/13,mb1mx3.2/44,mbtmp3.9/13,Error ellipse: s-maj=22.4km s-min=16.7km az=180.0*
*ISCJB **15** 22:29:22.8±0.4,36˚.56N±0˚.04×71˚.20E±0˚.06,h188$^{km}$, mb3.6/7,Error ellipse: s-maj=7.7km s-min=4.3km az=139.3*
*NNC **15** 22:29:31.6±3.6,37˚.27N×71˚.52E,h232$^{km}$±37$^{km}$,mb2.5, mpv3.6,Error ellipse: s-maj=41.5km s-min=29.9km az=71.0*

**ISC 15 22:29:24.0**±0.6,**36˚.64N**±0˚.06×**71˚.20E**±0˚.06,**h188**$^{km}$,**n35**, σ2°**40**/38,**mb3.6**/7,**8C-6D,Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SFK** | **Sufi-Kurgan** 11nm,0.4s | **3.83** | **28** | ⇑P | **Pn** | **22 30 23.5** | **+0.2** |
| SFK | | | | ⇑S | **Sn** | **22 31 07.4** | **-2.5** |
| **THN** | **Thein Dam** | **5.61** | **137** | *e*P | Pn | 22 30 43.0 | -3.0 |
| THN | | | | *e*S | **Sn** | **22 31 45.0** | **-5.6** |
| **MNAS** | **Manas** 2.4nm,0.5s | **5.93** | **9** | ⇑P | **Pn** | **22 30 50.5** | **+0.3** |
| MNAS | | | | ⇑S | **Sn** | **22 31 53.8** | **-4.5** |
| **KK31** | **Karatay Array** 2.9nm,0.3s,baz=174,slow=12,SNR=113 | **6.48** | **356** | ⇓P | **Pn** | **22 30 57.4** | **+0.1** |
| KK31 | | | | ⇓S | **Sn** | **22 32 06.9** | **-4.2** |
| **AAK** | **Ala-Archa** 1.2nm,0.3s,baz=161,slow=5.7,SNR=18 | **6.51** | **22** | P | **Pn** | **22 30 57.9** | **+0.1** |
| AAK | | | | S | Sn | 22 32 06.6 | -5.4 |
| **AAK** | **Ala-Archa** 3.7nm,0.6s | **6.51** | **22** | ⇑P | **Pn** | **22 30 59.2** | **+1.4** |
| AAK | | | | ⇑S | **Sn** | **22 32 08.0** | **-4.0** |
| **TKM2** | **Tokmak 2** 5.7nm,1.1s | **7.13** | **27** | ⇓P | **Pn** | **22 31 06.8** | **+0.8** |
| TKM2 | | | | ⇑S | Sn | 22 32 16.3 | -10 |
| **GEYT** | **Alibeck** 1.5nm,0.6s | **10.51** | **281** | P | **Pn** | **22 31 48.0** | **-2.0** |
| GEYT | | | | S | **Sn** | **22 33 44.4** | **-2.6** |
| **MKAR** | **Makanchi Array** 0.1nm,0.3s,baz=220,slow=13,SNR=3.4 | **13.09** | **36** | P | **Pn** | **22 32 22.5** | **-0.3** |
| **PYUN** | **Piuthan** 13nm,0.4s | **13.09** | **127** | *e*P | Pn | 22 32 20.6 | -2.7 |
| **DANN** | **Dangsing** | **13.43** | **124** | *e*P | **Pn** | **22 32 26.2** | **-1.4** |
| **KOLN** | **Koldanda** 8.9nm,0.4s | **13.71** | **127** | *e*P | Pn | 22 32 29.0 | -2.0 |
| **GKN** | **Gorkha** | **14.24** | **123** | *e*P | **Pn** | **22 32 36.4** | **-1.1** |
| **DMN** | **Daman** 18nm,0.6s | **14.81** | **123** | *e*P | **Pn** | **22 32 43.9** | **-0.8** |
| **KKN** | **Kakani** 12nm,0.5s | **14.81** | **123** | *e*P | Pn | 22 32 43.0 | -1.6 |
| **KURBB** | **Kurchatov Arra** 0.0nm,0.3s,baz=208,slow=10,SNR=6.2 | **14.94** | **18** | P | **Pn** | **22 32 48.8** | **+3.0** |
| **PKIN** | **Phulchoki** 16nm,0.5s | **15.03** | **123** | *e*P | **Pn** | **22 32 46.3** | **-1.0** |
| **PKI** | **Pulchoki** 16nm,0.4s | **15.04** | **123** | *e*P | **Pn** | **22 32 46.9** | **-0.7** |
| **AB31** | **Akbulak array** 0.5nm,0.4s | **15.04** | **330** | ⇓P | **Pn** | **22 32 47.5** | **+0.4** |
| AB31 | | | | ⇓S | Sn | 22 35 25.3 | -10 |
| **GUN** | **Gumba** 14nm,0.6s | **15.14** | **121** | *e*P | **Pn** | **22 32 47.7** | **-1.2** |
| **JIRN** | **Jiri** 323nm,0.6s | **15.52** | **121** | *e*P | **Pn** | **22 32 53.0** | **-0.4** |
| **RAMN** | **Ramite** 16nm,0.5s | **16.25** | **122** | *e*P | **P** | **22 33 01.3** | **-0.4** |
| **BVAR** | **Borovoye Array** 0.2nm,0.3s,baz=150,slow=10.0,SNR=4.1 | **16.40** | **358** | P | **P** | **22 33 05.4** | **+2.6** |
| **AKTO** | **Aktyubinsk** 3.3nm,1.1s | **16.75** | **330** | ⇑P | **P** | **22 33 08.2** | **+1.5** |
| AKTO | | | | ⇓S | **S** | **22 36 06.7** | **-4.9** |
| **TAPN** | **Taplejung** 12nm,0.4s | **16.77** | **119** | *e*P | **P** | **22 33 10.3** | **+2.8** |
| **ODAN** | **Odare** 14nm,0.5s | **16.85** | **121** | *e*P | **P** | **22 33 10.1** | **+1.8** |
| **ZALV** | **Zalesovo Beam** 2.6nm,0.3s,baz=223,slow=12,SNR=16 | **19.72** | **24** | P | **P** | **22 33 40.6** | **+1.7** |
| **FINES** | **FINESS Array B** 8.0nm,1.1s,baz=111,slow=10,SNR=6.1 | **37.46** | **326** | P | **P** | **22 36 21.6** | **+2.7** |
| **ARCES** | **ARCESS Array B** 1.1nm,0.5s,baz=116,slow=8.2,SNR=10.0 | **41.08** | **337** | P | **P** | **22 36 51.9** | **+3.1** |
| **NB2** | **NORSAR Subarra** comp=Z,0.8nm,0.5s,baz=94,slow=7.9 | **44.37** | **323** | P | **P** | **22 37 17.6** | **+2.2** |
| **NOA** | **NORSAR Array B** comp=Z,1.0nm,0.5s,baz=104,slow=7.1,SNR=5.7 | **44.37** | **323** | P | **P** | **22 37 17.6** | **+2.2** |
| **TORD** | **Torodi Ar. Bea** comp=Z,0.3nm,0.3s,baz=50,slow=6.0,SNR=12 | **65.88** | **269** | P | **P** | **22 39 50.2** | **+0.4** |
| **YKA** | **Yellowknife Ar** comp=Z,0.5nm,0.5s,baz=349,slow=5.3,SNR=10.0 | **81.10** | **3** | P | **P** | **22 41 20.2** | **+2.4** |
| **WRA** | **Warramunga Arr** comp=Z,0.5nm,0.7s,baz=327,slow=5.0,SNR=7.9 | **81.92** | **122** | P | **P** | **22 41 22.8** | **+0.1** |
| **ASAR** | **Alice Springs** comp=Z,0.6nm,0.5s,baz=310,slow=4.9,SNR=7.4 | **84.20** | **125** | P | **P** | **22 41 34.6** | **+0.3** |

*NSSC **15** 22:32:49.6±0.7,38˚.63N×43˚.57E,h0$^{km}$±229$^{km}$,ML2.4*
*DDA **15** 22:32:52.8,38˚.61N×43˚.20E,h5$^{km}$,Ml3.5*
*ISK **15** 22:32:52.6,38˚.61N×43˚.23E,h2$^{km}$,MD3.3*
*ISCJB **15** 22:32:53.5±0.4,38˚.60N±0˚.02×43˚.20E±0˚.03,h5$^{km}$±4$^{km}$, Error ellipse: s-maj=4.0km s-min=3.1km az=167.9*
*CSEM **15** 22:32:53.3±0.1,38˚.60N×43˚.22E,h2$^{km}$,MD3.3,Error ellipse: s-maj=3.5km s-min=2.9km az=103.0*

**ISC 15 22:32:53.5**±0.9,**38˚.61N**±0˚.02×**43˚.21E**±0˚.02,**h9**$^{km}$±7$^{km}$, **n74**,σ1°**05**/99,**Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.14** | **95** | *e*PG | **Pg** | **22 32 57.0** | **+0.3** |
| VANB | | | | *e*SG | **Sg** | **22 33 00.2** | **+1.4** |
| **VANB** | **Van** | **0.14** | **95** | *e*Pg | **Pg** | **22 32 57.0** | **+0.3** |
| **TVAN** | **Van** | **0.17** | **118** | *i* P | **Pg** | **22 32 57.1** | **-0.1** |
| TVAN | | | | *i* S | **Sg** | **22 32 59.4** | **-0.4** |
| **TVAN** | **Van** | **0.17** | **118** | P | **Pg** | **22 32 57.1** | **-0.1** |
| TVAN | | | | S | **Sg** | **22 32 59.4** | **-0.4** |
| **GEVA** | **Gevas** | **0.32** | **203** | *i* P | **Pg** | **22 32 59.5** | **-0.4** |
| GEVA | | | | *i* S | **Sg** | **22 33 03.2** | **-1.0** |
| **GEVA** | **Gevas** | **0.32** | **203** | P | **Pg** | **22 32 59.5** | **-0.4** |
| GEVA | | | | S | **Sg** | **22 33 03.2** | **-1.0** |
| **ERCV** | **ERCIS-VAN** | **0.42** | **13** | *e*PG | **Pg** | **22 33 01.0** | **-0.9** |
| ERCV | | | | *e*SG | **Sg** | **22 33 08.4** | **-1.5** |
| **ERCV** | **ERCIS-VAN** | **0.42** | **13** | *e*Pg | **Pg** | **22 33 01.0** | **-0.9** |
| ERCV | | | | *e*Sg | **Sb** | **22 33 08.4** | **-1.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.43** | **298** | *i* P | **Pg** | **22 33 01.5** | **-0.5** |
| ADCV | | | | *i* S | **Sb** | **22 33 09.0** | **-1.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.43** | **298** | P | **Pg** | **22 33 01.5** | **-0.5** |
| ADCV | | | | S | **Sb** | **22 33 09.0** | **-1.2** |
| **VMUR** | **Van-Muradiye** | **0.47** | **36** | *i* P | **Pb** | **22 33 02.9** | **-1.3** |
| VMUR | | | | *i* S | **Sb** | **22 33 10.6** | **-0.8** |
| **VMUR** | **Van-Muradiye** | **0.47** | **36** | P | **Pb** | **22 33 02.9** | **-1.3** |
| VMUR | | | | S | **Sb** | **22 33 10.6** | **-0.8** |
| **CLDR** | **Caldiran** | **0.77** | **46** | *e*PG | **Pb** | **22 33 08.0** | **-1.1** |
| CLDR | | | | *e*SG | **Sb** | **22 33 19.4** | **-0.5** |
| **CLDR** | **Caldiran** | **0.77** | **46** | *i* P | **Pb** | **22 33 08.1** | **-1.1** |
| CLDR | | | | *i* S | **Sb** | **22 33 20.1** | **+0.2** |
| **CLDR** | **Caldiran** | **0.77** | **46** | P | **Pb** | **22 33 08.1** | **-1.1** |
| CLDR | | | | *e*Sg | **Sb** | **22 33 19.4** | **-0.5** |
| CLDR | | | | S | **Sb** | **22 33 20.1** | **+0.2** |
| **BASK** | **Baskale_VAN** | **0.83** | **131** | *i* P | **Pg** | **22 33 08.5** | **-1.1** |
| BASK | | | | *i* S | **Sb** | **22 33 23.1** | **+1.3** |
| **BASK** | **Baskale_VAN** | **0.83** | **131** | P | **Pg** | **22 33 08.5** | **-1.1** |
| BASK | | | | S | **Sb** | **22 33 23.0** | **+1.3** |
| **TUTA** | **Tutak** | **0.85** | **339** | *i* P | **Pg** | **22 33 08.8** | **-1.2** |
| TUTA | | | | *i* S | **Sg** | **22 33 21.2** | **+0.1** |
| **TUTA** | **Tutak** | **0.85** | **339** | P | **Pg** | **22 33 08.8** | **-1.2** |
| TUTA | | | | S | **Sg** | **22 33 21.2** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **0.98** | **350** | *e*PG | **Pg** | **22 33 11.7** | **-0.8** |
| AGRB | | | | *e*SG | **Sb** | **22 33 26.4** | **+0.4** |
| **AGRB** | **Hanur-Agry** | **0.98** | **350** | *e*Pg | **Pg** | **22 33 11.7** | **-0.8** |
| AGRB | | | | *e*Sg | **Sb** | **22 33 26.4** | **+0.4** |
| **DYDN** | **Diyadin** | **1.00** | **21** | *i* P | **Pb** | **22 33 13.3** | **0.0** |
| **DYDN** | **Diyadin** | **1.00** | **21** | P | **Pb** | **22 33 13.3** | **0.0** |
| **EKAR** | **Karacoban** | **1.11** | **306** | *i* P | **Pg** | **22 33 14.2** | **-0.6** |
| **EKAR** | **Karacoban** | **1.11** | **306** | P | **Pg** | **22 33 14.2** | **-0.6** |
| **HAKT** | **HAKKARI** | **1.12** | **159** | *i* P | **Pg** | **22 33 13.7** | **-1.3** |
| **HAKT** | **HAKKARI** | **1.12** | **159** | P | **Pg** | **22 33 13.7** | **-1.3** |
| **SRTM** | **Siirt_Merkez** | **1.19** | **239** | *i* P | **Pb** | **22 33 16.2** | **-0.1** |
| **SRTM** | **Siirt_Merkez** | **1.19** | **239** | P | **Pb** | **22 33 16.2** | **-0.1** |
| **SIRT** | **Sirnak** | **1.26** | **209** | *e*PN | **Pn** | **22 33 17.8** | **+0.3** |
| **SIRT** | **Sirnak** | **1.26** | **209** | *e*Pn | **Pn** | **22 33 17.8** | **+0.3** |
| **SIRN** | **S˘˘rnak** | **1.28** | **210** | *i* P | **Pn** | **22 33 18.4** | **+0.8** |
| **SIRN** | **S˘˘rnak** | **1.28** | **210** | P | **Pn** | **22 33 18.4** | **+0.8** |
| **YOVA** | **Hakkari_Y˘…kse** | **1.33** | **140** | *i* P | **Pg** | **22 33 18.0** | **-1.0** |
| **YOVA** | **Hakkari_Y˘…kse** | **1.33** | **140** | P | **Pg** | **22 33 18.0** | **-1.0** |
| **EATA** | **Eleskirt** | **1.37** | **336** | *i* P | **Pg** | **22 33 18.3** | **-1.6** |
| **EATA** | **Eleskirt** | **1.37** | **336** | P | **Pg** | **22 33 18.3** | **-1.6** |
| **CUKT** | **Cukurca** | **1.39** | **167** | *e*PN | **Pn** | **22 33 19.4** | **0.0** |
| **CUKT** | **Cukurca** | **1.39** | **167** | *i* P | **Pn** | **22 33 19.3** | **0.0** |
| **CUKT** | **Cukurca** | **1.39** | **167** | P | **Pn** | **22 33 19.3** | **0.0** |
| **VRTB** | **Varto-Mus** | **1.48** | **292** | *e*PN | **Pb** | **22 33 21.0** | **-0.2** |
| **VRTB** | **Varto-Mus** | **1.48** | **292** | *i* P | **Pb** | **22 33 21.1** | **-0.2** |
| **VRTB** | **Varto-Mus** | **1.48** | **292** | P | **Pb** | **22 33 21.1** | **-0.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.59** | **30** | *e*PN | **Pb** | **22 33 22.7** | **-0.4** |
| **TASB** | **TASBURUN-IGDIR** | **1.59** | **30** | *e*Pn | **Pb** | **22 33 22.7** | **-0.4** |
| **BNGL** | **BINGOL** | **1.65** | **283** | *i* P | **Pb** | **22 33 24.2** | **0.0** |
| **BTMN** | **Batman** | **1.69** | **246** | *i* P | **Pb** | **22 33 25.0** | **+0.2** |
| **BTMN** | **Batman** | **1.69** | **246** | P | **Pb** | **22 33 25.0** | **+0.2** |
| **DIGO** | **Kars** | **1.81** | **4** | *i* P | **Pb** | **22 33 26.7** | **-0.3** |
| **DIGO** | **Kars** | **1.81** | **4** | P | **Pb** | **22 33 26.7** | **-0.3** |
| **ERZM** | **Erzurum** | **1.93** | **313** | *i* P | **Pb** | **22 33 29.1** | **0.0** |
| **ERZM** | **Erzurum** | **1.93** | **313** | P | **Pb** | **22 33 29.1** | **0.0** |
| **BNGB** | **Bing˜¶l** | **2.02** | **282** | *e*PN | **Pn** | **22 33 28.8** | **+0.9** |
| **KARS** | **Kars** | **2.02** | **357** | *e*PN | **Pn** | **22 33 28.5** | **+0.5** |
| **KARS** | **Kars** | **2.02** | **357** | *e*Pn | **Pn** | **22 33 28.5** | **+0.5** |
| **SENK** | **Senkaya-Erzuru** | **2.06** | **341** | *e*PN | **Pn** | **22 33 29.3** | **+0.7** |
| **SENK** | **Senkaya-Erzuru** | **2.06** | **341** | *e*Pn | **Pn** | **22 33 29.3** | **+0.7** |
| **EAK** | **Akyaka** | **2.10** | **8** | *i* P | **Pg** | **22 33 33.7** | **-0.1** |
| **EAK** | **Akyaka** | **2.10** | **8** | P | **Pg** | **22 33 33.7** | **-0.1** |
| **BINT** | **Bingol** | **2.15** | **278** | *e*Pn | **Pn** | **22 33 28.8** | **-0.9** |
| **YEDI** | **Yedisu-Bingol** | **2.24** | **293** | *e*PN | **Pn** | **22 33 31.9** | **+0.9** |
| **YEDI** | **Yedisu-Bingol** | **2.24** | **293** | *e*Pn | **Pn** | **22 33 31.9** | **+0.9** |
| **DIY** | **Diyarbakir** | **2.46** | **254** | *e*Pn | **Pn** | **22 33 35.8** | **+1.9** |
| **MAZI** | **Mazidag** | **2.47** | **243** | *e*PN | **Pn** | **22 33 35.3** | **+1.2** |
| **MAZI** | **Mazidag** | **2.47** | **243** | *e*Pn | **Pn** | **22 33 35.3** | **+1.2** |
| **DYBB** | **Diyarbakir** | **2.51** | **256** | *e*PN | **Pn** | **22 33 35.8** | **+1.3** |
| **KBSD** | **Kabsdagh** | **2.66** | **234** | *e*P | **Pn** | **22 33 36.7** | **+0.1** |
| KBSD | | | | *e*S | **Sn** | **22 34 11.9** | **+3.0** |
| KBSD | | | | AML | AML | 22 34 28.1 | |
| | comp=Z,42nm,0.5s | | | | | | |
| **PTK** | **Pertek** | **3.00** | **277** | *e*PN | **Pn** | **22 33 43.2** | **+1.7** |
| **PTK** | **Pertek** | **3.00** | **277** | *e*Pn | **Pn** | **22 33 43.2** | **+1.7** |
| **SVRC** | **Sivrice-ELAZID** | **3.08** | **267** | *e*PN | **Pn** | **22 33 44.2** | **+1.7** |
| **SVRC** | **Sivrice-ELAZID** | **3.08** | **267** | *e*Pn | **Pn** | **22 33 44.2** | **+1.7** |
| **SFNV** | **Sufian** | **3.30** | **229** | *e*P | **Pn** | **22 33 46.4** | **+1.0** |
| SFNV | | | | *e*S | **Sn** | **22 34 27.0** | **+2.3** |
| SFNV | | | | AML | AML | 22 34 48.9 | |
| | comp=Z,31nm,0.6s | | | | | | |
| **MZRK** | **Al-Mazaregh** | **3.45** | **217** | *e*P | **Pn** | **22 33 48.0** | **+0.5** |
| MZRK | | | | *e*S | **Sn** | **22 34 29.2** | **+0.8** |
| MZRK | | | | AML | AML | 22 34 52.0 | |
| | comp=Z,22nm,0.4s | | | | | | |
| **KSRV** | **Kasrt alli** | **4.33** | **232** | *e*P | **Pb** | **22 34 05.9** | **-4.0** |
| KSRV | | | | *e*S | **Sb** | **22 35 01.7** | **-0.6** |
| KSRV | | | | AML | AML | 22 35 23.5 | |
| | comp=Z,10nm,0.7s | | | | | | |

*ISCJB **15** 22:38:05.4±0.9,21˚.85S±0˚.1×178˚.9E±0˚.1,h10$^{km}$,mb4.2/12, MS3.6/1,Error ellipse: s-maj=20.4km s-min=16.6km az=33.2*
*NEIC **15** 22:38:06.9±1.0,21˚.71S×178˚.89E,h10$^{km}$,mb4.3/8,Error ellipse: s-maj=24.6km s-min=18.1km az=218.0*

*IDC **15** 22:38:06.0±3.9,21˚.83S×178˚.83E,h0$^{km}$,mb4.3/4, mb1 4.5/4,mb1mx4.0/26,mbtmp4.3/4,MS3.6/1,Ms1 3.6/1, ms1mx2.7/32,Error ellipse: s-maj=159.6km s-min=36.0km az=143.0*

**ISC 15 22:38:06.5**±0.9,**21˚.7S**±0˚.1×**178˚.8E**±0˚.1,**h10**$^{km}$,**n15**, σ1°**91**/13,**mb4.3**/12,**South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **8.10** | **159** | Pn | **Pn** | **22 40 03.5** | **-0.7** |
| **EIDS** | **Eidsvold** 0.4nm,0.4s | **25.70** | **256** | P | **P** | **22 43 38.3** | **+1.3** |
| **CTAO** | **Charters Tower** | **30.46** | **267** | *e*P | **P** | **22 44 22.2** | **+2.6** |
| **TAU** | **Tasmania Unive** 3.0nm,0.6s | **33.73** | **224** | *e*P | P | 22 44 42.8 | -5.3 |
| **STKA** | **Stephens Creek** 3.4nm,0.4s,baz=101,slow=11,SNR=15 | **34.62** | **245** | P | **P** | **22 44 55.5** | **-0.5** |
| **ASAR** | **Alice Springs** 3.5nm,0.7s,baz=89,slow=8.4,SNR=29 | **41.38** | **258** | P | **P** | **22 45 53.8** | **+0.6** |
| **WRAB** | **Tennant Creek** 2.4nm,0.4s | **41.52** | **264** | *e*P | **P** | **22 45 54.9** | **+0.6** |
| **WRA** | **Warramunga Arr** 4.1nm,0.7s,baz=95,slow=8.3,SNR=209 | **41.53** | **264** | P | **P** | **22 45 55.9** | **+1.5** |
| **NWAO** | **Narrogin (SRO)** comp=Z,53nm,19.9s,slow=33 | **55.20** | **244** | LR | LR | 23 08 34.7 | |
| **KKM** | **Kota Kinabalu** 3.6nm,0.6s | **67.23** | **287** | P | **P** | **22 49 02.1** | **+0.4** |
| **MAJO** | **Matsushiro** 0.8nm,0.3s | **69.46** | **326** | P | **P** | **22 49 13.6** | **-1.5** |
| **BJT** | **Baijiatuan** 3.8nm,0.4s | **84.67** | **317** | P | **P** | **22 50 37.5** | **-3.1** |
| **CHTO** | **Chiang Mai** 0.7nm,0.4s | **87.88** | **291** | P | **P** | **22 50 54.5** | **-2.3** |
| **ILAR** | **Eielson Array** 0.9nm,1.1s,baz=226,slow=4.6,SNR=4.9 | **90.13** | **14** | P | **P** | **22 51 08.2** | **+1.9** |
| **ANMO** | **Albuquerque** 0.3nm,0.4s | **90.45** | **52** | P | **P** | **22 51 10.7** | **+1.9** |

*NNC **15** 23:03:28.2±10.0,37˚.05N×70˚.01E,h9$^{km}$±389$^{km}$,mb3.7, mpv3.4,Error ellipse: s-maj=418.3km s-min=40.1km az=23.0*

**ISC 15 23:03:19.9**±2.2,**36˚.24N**±0˚.08×**70˚.2E**±0˚.2,**h110**$^{km}$,**n18**, σ1°**94**/21,**7C-3D,Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SFK** | **Sufi-Kurgan** 2.8nm,0.3s | **4.56** | **33** | ⇑Pn | **Pn** | **23 04 31.8** | **+4.8** |
| SFK | | | | ⇑Sn | **Sn** | **23 05 19.8** | **+0.7** |
| **THN** | **Thein Dam** | **5.92** | **128** | *e*P | Pn | 23 04 51.5 | +6.4 |
| **MNAS** | **Manas** 2.1nm,0.8s | **6.48** | **15** | ⇓Pn | **Pn** | **23 04 55.2** | **+2.3** |
| MNAS | | | | ⇑Sn | **Sn** | **23 06 04.2** | **-1.2** |
| **KK31** | **Karatay Array** 1.1nm,0.5s,baz=190,slow=16,SNR=36 | **6.86** | **2** | ⇑Pn | **Pn** | **23 04 58.8** | **+0.9** |
| KK31 | | | | ⇑Sn | Sn | 23 06 07.7 | -6.7 |
| **AAK** | **Ala-Archa** 2.4nm,0.4s | **7.19** | **26** | ⇑Pn | **Pn** | **23 05 03.5** | **+1.0** |
| AAK | | | | ⇑Sn | **Sn** | **23 06 19.2** | **-3.4** |
| **TKM2** | **Tokmak 2** 2.0nm,0.8s | **7.85** | **30** | ⇓Pn | **Pn** | **23 05 11.7** | **+0.2** |
| TKM2 | | | | ⇓Sn | **Sn** | **23 06 36.6** | **-2.2** |
| **PYUN** | **Piuthan** 11nm,0.4s | **13.50** | **123** | *e*P | **Pn** | **23 06 27.7** | **+0.4** |
| **KOLN** | **Koldanda** | **14.13** | **123** | *e*P | **Pn** | **23 06 34.9** | **-0.4** |
| **GKN** | **Gorkha** | **14.70** | **120** | *e*P | **P** | **23 06 45.1** | **-0.7** |
| **DMN** | **Daman** 9.8nm,0.3s | **15.27** | **120** | *e*P | **Pn** | **23 06 50.6** | **+0.8** |
| **KKN** | **Kakani** 27nm,0.5s | **15.28** | **119** | *e*P | **Pn** | **23 06 50.5** | **+0.6** |
| **PKIN** | **Phulchoki** | **15.49** | **120** | *e*P | **Pn** | **23 06 53.2** | **+0.6** |
| **PKI** | **Pulchoki** 12nm,0.3s | **15.50** | **120** | *e*P | **Pn** | **23 06 53.3** | **+0.5** |
| **GUN** | **Gumba** 16nm,0.5s | **15.63** | **118** | *e*P | **P** | **23 06 56.9** | **+0.6** |
| **JIRN** | **Jiri** 186nm,0.6s | **16.00** | **118** | *e*P | **Pn** | **23 06 59.4** | **+0.3** |
| **RAMN** | **Ramite** 16nm,0.5s | **16.72** | **119** | *e*P | **Pn** | **23 07 04.9** | **-2.9** |
| **TAPN** | **Taplejung** 16nm,0.5s | **17.28** | **116** | *e*P | **Pn** | **23 07 14.9** | **+0.2** |
| **ODAN** | **Odare** 26nm,0.7s | **17.34** | **118** | *e*P | **P** | **23 07 12.1** | **-2.9** |

*ISK **15**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| KUR | **Kuril'sk** | **0.95** | **354** | *i* P | **Pg** | **23 08 35.5** | **0.0** |
| KUR | | | | AMB | AMB | 23 08 36.4 | |
| | 110nm,0.3s | | | | | | |
| KUR | | | | *i* S | **Sg** | **23 08 47.1** | **-0.8** |
| KUR | | | | A | A | 23 08 47.7 | |
| | 225nm,0.2s | | | | | | |
| KUR | | | | A | A | 23 08 47.7 | |
| | 488nm,0.2s | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **1.57** | **262** | *e*P | **Pn** | **23 08 45.7** | **-0.5** |
| YUK | | | | AMB | AMB | 23 08 48.3 | |
| | 76nm,0.3s | | | | | | |
| YUK | | | | *e*S | **Sn** | **23 09 06.5** | **-0.6** |
| YUK | | | | A | A | 23 09 09.7 | |
| | 310nm,0.2s | | | | | | |
| **LAGR** | **Lagunnoye** | **1.62** | **263** | *e*P | **Pn** | **23 08 47.2** | **+0.4** |
| LAGR | | | | *e*S | **Sn** | **23 09 07.2** | **-1.1** |
| **GRPR** | **Tuman** | **1.64** | **260** | *e*P | **Pb** | **23 08 48.2** | **0.0** |
| GRPR | | | | *e*S | **Sn** | **23 09 08.4** | **-0.4** |
| **GLVR** | **Golovnino** | **1.88** | **254** | *e*P | **Pb** | **23 08 52.1** | **-0.2** |
| GLVR | | | | *e*S | **Sb** | **23 09 16.4** | **+0.1** |
| **NEM2** | **Nemuro 2** | **1.88** | **242** | P | **Pn** | **23 08 50.3** | **-0.2** |
| NEM2 | | | | *e*S | **Sn** | **23 09 12.9** | **-1.9** |
| **JRA** | **Rausu** | **2.11** | **262** | P | **Pn** | **23 08 54.9** | **+1.3** |
| **JNK** | **Nakash** | **2.48** | **255** | P | **Pn** | **23 08 59.8** | **+1.1** |
| JNK | | | | *e*S | **Sn** | **23 09 29.4** | **-0.2** |
| **JAK** | **Akkeshi** | **2.73** | **243** | P | **Pn** | **23 09 02.7** | **+0.6** |
| JAK | | | | *e*S | **Sn** | **23 09 33.9** | **-1.8** |
| **JAR** | **Ashorobuto** | **3.23** | **254** | P | **Pn** | **23 09 11.0** | **+2.0** |
| JAR | | | | *e*S | **Sn** | **23 09 49.1** | **+1.1** |
| **JCH** | **Churui** | **3.77** | **245** | P | **Pn** | **23 09 18.2** | **+1.7** |
| JCH | | | | *e*S | **Sn** | **23 10 00.8** | **-0.7** |
| **JNBK** | **Urakawa-nobuka** | **4.33** | **244** | P | **Pn** | **23 09 25.6** | **+1.4** |
| **YSS** | **Yuzh-Sakhalins** | **4.55** | **308** | *e*P | **Pn** | **23 09 28.0** | **+0.8** |

*NIED* ***15*** *23:18:00,36.90N×142.10E,h20km,Mw3.8 Best double couple: M₀5.36000×10¹⁴ NP1:φ₈213.00000°,δ14.00000°, λ94.00000°. NP2:φ₈29.00000°,δ76.00000°,λ89.00000°.*

*IDC* ***15*** *23:18:10.6±1.1,36.75N×142.27E,h0km,mb3.7/7, mb1 3.8/9,mb1mx3.6/56,mbtmp3.7/9,ML3.7/2,MS3.1/4, Ms1 3.1/4,ms1mx2.7/46,Error ellipse: s-maj=24.7km s-min=20.1km az=121.0*

*ISCJB* ***15*** *23:18:11.9±0.7,36.83N±0.04×142.22E±0.07,h19km, mb3.7/7,MS3.6/2,Error ellipse: s-maj=7.8km s-min=5.3km az=15.0*

*JMA* ***15*** *23:18:14.8±0.2,36.90N×142.05E,h54km±5km,M3.7*

**ISC 15 23:18:13.5±0.9,36.81N±0.04×142.03E±0.06,h19km,n32, σ1ˢ28/29,mb3.7/7,Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ONAJ** | **Iwakimizuishiy** | **1.03** | **287** | P | **Pn** | **23 18 32.9** | **0.0** |
| **JFK** | **Kawauchi** | **1.08** | **301** | P | **Pn** | **23 18 33.2** | **-0.3** |
| **JHO** | **Hitachi** | **1.19** | **261** | P | **Pg** | **23 18 36.0** | **-0.5** |
| **JMM** | **Marumori** | **1.44** | **317** | P | **Pn** | **23 18 38.4** | **-0.2** |
| **JFT** | **Otama** | **1.53** | **298** | P | **Pn** | **23 18 40.4** | **+0.7** |
| JFT | | | | *e*S | **Sn** | **23 18 59.0** | **-0.1** |
| **JIO** | **Ouri** | **1.73** | **342** | P | **Pn** | **23 18 41.9** | **-0.6** |
| **JOU** | **Okura** | **1.89** | **325** | P | **Pn** | **23 18 44.5** | **-0.3** |
| **JAG** | **Ashikaga** | **2.11** | **260** | P | **Pn** | **23 18 49.2** | **+1.5** |
| **JMK** | **Ichinoseki** | **2.23** | **344** | P | **Pn** | **23 18 49.1** | **-0.3** |
| **BSO1** | **Boso 1** | **2.32** | **202** | P | **Pb** | **23 18 52.5** | **-1.8** |
| BSO1 | | | | S | **Sb** | **23 19 20.6** | **-1.7** |
| **JYK** | **Kaneyama** | **2.48** | **328** | P | **Pn** | **23 18 52.9** | **0.0** |
| **JRY** | **Ryogami san** | **2.65** | **253** | P | **Pn** | **23 18 56.7** | **+1.6** |
| JRY | | | | *e*S | **Sn** | **23 19 28.4** | **+1.7** |
| **JOM** | **Ohasama** | **2.72** | **348** | P | **Pn** | **23 18 56.1** | **0.0** |
| **MJAR** | **Matsushiro Arr** | **3.08** | **266** | Pn | **Pb** | **23 19 04.5** | **-3.2** |
| | 6.5nm,0.3s,baz=99,slow=10,SNR=27 | | | | | | |
| MJAR | | | | Sn | **Sb** | **23 19 43.9** | **-1.1** |
| | 4.0nm,0.3s,baz=93,slow=11,SNR=4.8 | | | | | | |
| MJAR | | | | LR | LR | 23 20 35.7 | |
| | comp=Z,184nm,18.2s,baz=120,slow=45 | | | | | | |
| **MAT** | **Matsushiro** | **3.09** | **266** | P | **Pb** | **23 19 05.0** | **-2.7** |
| MAT | | | | S | **Sb** | **23 19 44.4** | **-0.6** |
| **JHJ** | **Hachijo jima 2** | **4.12** | **207** | Pn | **Pn** | **23 19 16.1** | **+0.7** |
| | 16nm,0.3s,baz=92,slow=22,SNR=6.0 | | | | | | |
| JHJ | | | | Sn | **Sn** | **23 20 03.6** | **+0.6** |
| | 39nm,0.3s,baz=303,slow=22,SNR=6.3 | | | | | | |
| **KSRS** | **Korea Array** | **11.28** | **277** | LR | LR | 23 25 29.4 | |
| | comp=Z,19nm,18.0s,baz=46,slow=38 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **27.61** | **121** | T | T | 23 52 55.9 | |
| | SNR=11 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **27.62** | **121** | T | T | 23 52 20.0 | |
| | baz=128,slow=74,SNR=25 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **27.63** | **121** | T | T | 23 52 39.6 | |
| | baz=25,slow=74,SNR=20 | | | | | | |
| **SONM** | **Songino Array** | **28.32** | **304** | P | **P** | **23 24 07.9** | **+1.9** |
| | 1.6nm,0.8s,baz=107,slow=8.9,SNR=8.2 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.32** | **123** | T | T | 23 54 12.9 | |
| | baz=316,slow=76,SNR=7.1 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.32** | **123** | T | T | 23 53 52.7 | |
| | baz=316,slow=76,SNR=7.2 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.34** | **123** | T | T | 23 53 45.8 | |
| | baz=316,slow=76,SNR=4.6 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.43** | **313** | P | **P** | **23 26 08.0** | **+1.3** |
| | 0.7nm,0.4s,baz=73,slow=6.5,SNR=4.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.66** | **302** | P | **P** | **23 26 25.7** | **+0.9** |
| | 0.4nm,0.5s,baz=85,slow=8.4,SNR=6.0 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **46.53** | **308** | P | **P** | **23 26 40.5** | **+1.0** |
| | 1.4nm,0.6s,baz=82,slow=8.3,SNR=12 | | | | | | |
| **ILAR** | **Eielson Array** | **49.42** | **32** | P | **P** | **23 27 01.4** | **-0.3** |
| | 0.5nm,0.9s,baz=266,slow=5.2,SNR=4.2 | | | | | | |
| **AAK** | **Ala-Archa** | **51.03** | **299** | LR | LR | 23 48 48.5 | |
| | comp=Z,53nm,18.2s,baz=52,slow=36 | | | | | | |
| **INK** | **Inuvik** | **54.36** | **27** | P | **P** | **23 27 38.8** | **+0.3** |
| | 0.5nm,0.4s,baz=273,slow=4.4,SNR=5.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **56.91** | **189** | P | **P** | **23 27 56.9** | **-0.4** |
| | 0.5nm,0.9s,baz=8.2,slow=7.6,SNR=3.4 | | | | | | |
| **YBH** | **Yreka Blue Hor** | **70.09** | **52** | LR | LR | 23 53 20.3 | |
| | comp=Z,42nm,21.4s,baz=339,slow=30 | | | | | | |

*KRNET* ***15*** *23:21:09.7±0.1,39.52N×73.45E,mb3.5*

*NNC* ***15*** *23:21:12.2±3.1,39.69N×73.84E,h0km,mb3.6,mpv3.4, Error ellipse: s-maj=34.7km s-min=13.9km az=38.0*

*IDC* ***15*** *23:21:12.1±2.1,39.91N×72.93E,h0km,mb3.7/3, mb1 3.6/7,mb1mx3.3/51,mbtmp3.5/7,ML2.7/4,MS2.9/2, Ms1 2.9/2,ms1mx2.4/59,Error ellipse: s-maj=44.9km s-min=16.4km az=130.0*

**ISC 15 23:21:09.5±2.2,39.61N±0.08×73.90E±0.05,h2km±11km, n36,σ1ˢ78/51,mb3.9/3,30C-10D,Tajikistan-Xinjiang border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SFK** | **Sufi-Kurgan** | **0.51** | **323** | ⇓*e*P | **Pg** | **23 21 19.4** | **+0.2** |
| SFK | | | | | **Sg** | **23 21 27.0** | **+1.2** |
| | baz=5.0 | | | ⇓*e*S | | | |
| **SFK** | **Sufi-Kurgan** | **0.51** | **323** | ⇑P | **Pg** | **23 21 19.5** | **+0.2** |
| SFK | 130nm,0.4s | | | ⇓S | **Sg** | **23 21 26.4** | **+0.6** |
| | 407nm,0.3s | | | | | | |
| **ARSB** | **Arslanbob** | **1.85** | **338** | ⇑*i*P | **Pb** | **23 21 44.5** | **+0.3** |
| ARSB | baz=349 | | | ⇑*e*S | **Sg** | **23 22 09.0** | **0.0** |
| | baz=349 | | | | | | |
| **TOKL** | **Toktogul** | **2.46** | **342** | ⇓*e*P | **Pb** | **23 21 53.8** | **-0.7** |
| TOKL | baz=350 | | | ⇓*e*S | **Sb** | **23 22 25.4** | **+0.2** |
| | baz=350 | | | | | | |
| **AML** | **Almayashu** | **2.52** | **356** | ⇑*i*P | **Pb** | **23 21 55.1** | **-0.7** |
| AML | baz=4.0 | | | ⇑*i*S | **Sg** | **23 22 29.6** | **-1.0** |
| | baz=4.0 | | | | | | |
| **AML** | **Almayashu** | **2.52** | **356** | P | **Pb** | **23 21 55.4** | **-0.4** |
| | SNR=48 | | | | | | |
| **ARK** | **Arkit** | **2.63** | **327** | ⇑*e*P | **Pn** | **23 21 54.7** | **+1.5** |
| ARK | baz=334 | | | ⇑*e*S | **Sn** | **23 22 26.6** | **+0.8** |
| | baz=334 | | | | | | |
| **UCH** | **Uchtor** | **2.65** | **10** | ⇑*i*P | **Pb** | **23 21 57.9** | **-0.2** |
| UCH | baz=16 | | | ⇑*i*S | **Sg** | **23 22 34.3** | **-0.5** |
| | baz=16 | | | | | | |
| **UCH** | **Uchtor** | **2.65** | **10** | P | **Pb** | **23 21 58.2** | **+0.1** |
| | SNR=43 | | | | | | |
| **KZA** | **Kyzart** | **2.67** | **22** | ⇑*i*P | **Pb** | **23 21 59.0** | **+0.7** |
| KZA | baz=28 | | | ⇑*i*S | **Sg** | **23 22 35.8** | **+0.5** |
| | baz=28 | | | | | | |
| **KZA** | **Kyzart** | **2.67** | **22** | P | **Pb** | **23 21 59.4** | **+1.1** |
| | SNR=7.6 | | | | | | |
| **EKS2** | **Erkin-Say** | **3.05** | **358** | ⇑*i*P | **Pb** | **23 22 03.0** | **-1.5** |
| | baz=5.0 | | | | | | |
| EKS2 | | | | ⇑*i*S | **Sb** | **23 22 41.8** | **-0.5** |
| | baz=5.0 | | | | | | |
| **EKS2** | **Erkin-Say** | **3.05** | **358** | P | **Pb** | **23 22 03.1** | **-1.5** |
| | SNR=16 | | | | | | |
| **AAK** | **Ala-Archa** | **3.06** | **8** | Pn | **Pb** | **23 22 03.8** | **-0.9** |
| | 3.1nm,0.3s,baz=149,slow=7.1,SNR=14 | | | | | | |
| AAK | | | | Pg | **Pg** | **23 22 07.5** | **-0.6** |
| | 8.2nm,0.3s,baz=152,slow=7.6,SNR=24 | | | | | | |
| AAK | | | | Lg | Lg | 23 22 46.6 | |
| | 1.6nm,0.3s,baz=139,slow=21,SNR=2.0 | | | | | | |
| **AAK** | **Ala-Archa** | **3.06** | **8** | ⇑*i*P | **Pb** | **23 22 03.5** | **-1.3** |
| | baz=14 | | | | | | |
| AAK | | | | ⇑*i*S | **Sb** | **23 22 43.0** | **+0.4** |
| | baz=14 | | | | | | |
| **AAK** | **Ala-Archa** | **3.06** | **8** | ⇓Pn | **Pb** | **23 22 03.4** | **-1.3** |
| | 9.7nm,0.4s | | | | | | |
| AAK | | | | ⇑Lg | Lg | 23 22 49.0 | |
| | 52nm,1.1s | | | | | | |
| **AAK** | **Ala-Archa** | **3.06** | **8** | P | **Pb** | **23 22 03.9** | **-0.9** |
| | SNR=8.8 | | | | | | |
| **MNAS** | **Manas** | **3.06** | **340** | ⇑*i*P | **Pn** | **23 22 02.0** | **+2.9** |
| | baz=347 | | | | | | |
| MNAS | | | | ⇑*i*S | **Sb** | **23 22 40.1** | **-2.6** |
| | baz=347 | | | | | | |
| **MNAS** | **Manas** | **3.06** | **340** | ⇑Pn | **Pn** | **23 22 02.1** | **+3.0** |
| | 8.2nm,0.6s | | | | | | |
| MNAS | | | | ⇑Lg | Lg | 23 22 48.1 | |
| | 53nm,0.6s | | | | | | |
| **KBK** | **Karagaybulak** | **3.14** | **14** | P | **Pb** | **23 22 06.6** | **+0.4** |
| | SNR=18 | | | | | | |
| **ULHL** | **Ulahol** | **3.17** | **33** | ⇑*i*P | **Pb** | **23 22 06.8** | **0.0** |
| | baz=37 | | | | | | |
| ULHL | | | | ⇑*i*S | **Sb** | **23 22 48.2** | **+2.2** |
| | baz=37 | | | | | | |
| **ULHL** | **Ulahol** | **3.17** | **33** | P | **Pb** | **23 22 07.5** | **+0.8** |
| | SNR=7.9 | | | | | | |
| **FRU1** | **Bishkek** | **3.24** | **10** | ⇑*e*P | **Pb** | **23 22 05.8** | **-2.1** |
| | baz=15 | | | | | | |
| FRU1 | | | | ⇑*e*S | **Sb** | **23 22 46.7** | **-1.1** |
| | baz=15 | | | | | | |
| **BOOM** | **Boomskoye usch** | **3.26** | **28** | ⇑*e*P | **Pb** | **23 22 07.1** | **-1.2** |
| | baz=32 | | | | | | |
| BOOM | | | | ⇑*e*S | **Sb** | **23 22 49.6** | **+1.1** |
| | baz=32 | | | | | | |
| **TKM2** | **Tokmak 2** | **3.54** | **21** | ⇓Pn | **Pb** | **23 22 10.5** | **-2.6** |
| | 5.2nm,0.5s | | | | | | |
| TKM2 | | | | ⇓Lg | Lg | 23 23 03.5 | |
| | 25nm,0.9s | | | | | | |
| **USP** | **Ospenovka** | **3.68** | **7** | ⇑*i*P | **Pn** | **23 22 11.7** | **+4.2** |
| | baz=12 | | | | | | |
| USP | | | | ⇑*i*S | **Sb** | **23 22 58.3** | **-2.1** |
| | baz=12 | | | | | | |
| **USP** | **Ospenovka** | **3.68** | **7** | P | **Pn** | **23 22 12.0** | **+4.5** |
| | SNR=9.5 | | | | | | |
| **KK31** | **Karatay Array** | **4.32** | **325** | ⇓Pn | **Pn** | **23 22 18.7** | **+2.4** |
| | 1.0nm,0.3s,baz=136,slow=12,SNR=21 | | | | | | |
| KK31 | | | | ⇓Pg | **Pb** | **23 22 28.4** | **+2.2** |
| | 1.4nm,0.3s,baz=141,slow=15,SNR=4.7 | | | | | | |
| KK31 | | | | ⇑Sn | **Sn** | **23 23 10.9** | **+3.6** |
| | 2.3nm,0.3s,baz=136,slow=26 | | | | | | |
| KK31 | | | | ⇑Lg | Lg | 23 23 23.3 | |
| | 6.2nm,0.4s,baz=133,slow=30 | | | | | | |
| **MKAR** | **Makanchi Array** | **9.43** | **38** | Pn | Pn | 23 23 35.5 | +9.1 |
| | 0.0nm,0.3s,baz=215,slow=11,SNR=2.6 | | | | | | |
| **BVAR** | **Borovoye Array** | **13.63** | **351** | Pn | **Pn** | **23 24 20.0** | **-3.8** |
| | 0.1nm,0.3s,baz=158,slow=10,SNR=1.8 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **16.14** | **24** | Pn | **P** | **23 25 01.0** | **+0.3** |
| | 0.1nm,0.3s,baz=193,slow=5.9,SNR=1.3 | | | | | | |
| **ARCES** | **ARCESS Array B** | **39.21** | **335** | P | **P** | **23 28 37.9** | **-0.8** |
| | 2.7nm,0.8s,baz=99,slow=8.1,SNR=1.5 | | | | | | |
| **KLR** | **Kul'dur** | **41.49** | **57** | LR | LR | 23 49 34.8 | |
| | comp=Z,4.6nm,19.0s,slow=41 | | | | | | |
| **TIXI** | **Tiksi** | **42.03** | **23** | LR | LR | 23 49 23.9 | |
| | comp=Z,48nm,19.1s,baz=190,slow=40 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **68.07** | **269** | P | **P** | **23 32 09.0** | **-2.0** |
| | 0.1nm,0.4s,baz=48,slow=6.0,SNR=1.6 | | | | | | |
| **INK** | **Inuvik** | **70.45** | **10** | P | **P** | **23 32 25.1** | **+0.3** |
| | 0.8nm,0.9s,baz=343,slow=11,SNR=1.7 | | | | | | |

**MAN 15 23:34:01,13.78N×121.00E,h1km,mb3.8,ML2.5,MS2.1, 1D,Mindoro**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PGP** | **Puerto Galera** | **0.28** | **190** | ⇓*e*P | **Pg** | 23 34 07.0 | +0.6 |
| PGP | | | | *i* S | **Sg** | 23 34 10.2 | 0.0 |
| **LUBP** | **Lubang** | **0.74** | **266** | *e*P | **Pb** | 23 34 16.1 | -0.5 |
| LUBP | | | | *e*S | **Sb** | 23 34 27.1 | -0.1 |
| **BOAC** | **Boac** | **0.88** | **111** | *e*P | **Pb** | 23 34 19.3 | +0.3 |
| BOAC | | | | *e*S | **Sn** | 23 34 33.5 | -0.4 |
| **SJMP** | **San Jose** | **1.32** | **175** | *e*P | **Pb** | 23 34 27.2 | +0.6 |
| SJMP | | | | *e*S | **Sn** | 23 34 46.5 | +1.7 |

**IDC 15 23:40:22.7±3.2,49.07S×124.74E,h0km,mb3.7/3, mb1 4.0/3,mb1mx3.6/36,mbtmp3.7/3,MS3.4/2,Ms1 3.5/2, ms1mx3.0/16,Error ellipse: s-maj=79.9km s-min=61.3km az=137.0,Western Indian-Antarctic Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **H01W1** | **Cape Leeuwin H** | **16.18** | **327** | T | T | 00 00 20.1 | |
| | baz=156,slow=74,SNR=96 | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **16.19** | **327** | T | T | 00 00 19.3 | |
| | baz=156,slow=74,SNR=77 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **16.20** | **327** | T | T | 00 00 21.7 | |
| | baz=156,slow=74,SNR=107 | | | | | | |
| **ASAR** | **Alice Springs** | **26.37** | **19** | P | P | 23 46 00.3 | -0.3 |
| | 1.3nm,0.9s,baz=194,slow=8.8,SNR=7.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **30.07** | **18** | P | P | 23 46 33.8 | +0.2 |
| | 0.3nm,0.9s,baz=194,slow=11,SNR=2.7 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **30.90** | **2** | LR | LR | 23 58 06.2 | |
| | comp=Z,45nm,20.4s,baz=158,slow=34 | | | | | | |
| **VNDA** | **Vanda** | **31.85** | **166** | LR | LR | 23 58 40.9 | |
| | comp=Z,103nm,19.0s,baz=316,slow=34 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **71.04** | **334** | P | P | 23 51 42.5 | +0.2 |
| | 0.9nm,0.5s,baz=196,slow=6.3,SNR=6.5 | | | | | | |
| **YKA** | **Yellowknife Ar** | **145.38** | **45** | PKPbc | PKPbc | 00 00 00.1 | -1.0 |
| | 1.9nm,0.8s,baz=266,slow=3.4,SNR=7.8 | | | | | | |

*NEIC* ***15*** *23:44:14.6±0.8,9.03N×126.40E,h37km±8km,mb4.3/17, Error ellipse: s-maj=8.3km s-min=5.5km az=79.0*

*NEIC Felt [II PIVS] at Claveria.*

*MAN* ***15*** *23:44:15,8.92N×126.46E,h14km,mb4.8,ML3.8,MS3.8*

*MAN INTENSITY II - CLAVER SURIGAO DEL NORTE.*

*IDC* ***15*** *23:44:18.3±2.7,8.96N×126.30E,h80km±27km,mb3.7/12, mb1 3.9/13,mb1mx3.6/51,mbtmp4.0/13,MS3.1/5, Ms1 3.1/5,ms1mx2.8/36,Error ellipse: s-maj=37.0km s-min=13.3km az=78.0*

**ISC 15 23:44:13.4±1.3,8.97N±0.03×126.49E±0.06,h31km±10km, n51,σ1ˢ34/50,mb4.1/24,MS3.0/4,2C-1D,Mindanao**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BIPH** | **Bislig** | **0.79** | **190** | ⇑*i*P | **Pn** | **23 44 29.3** | **+0.9** |
| BIPH | | | | *i* S | **Sb** | **23 44 39.7** | **+0.7** |
| **BUTP** | **Butuan** | **0.86** | **270** | *e*P | **Pn** | **23 44 30.1** | **+0.8** |
| BUTP | | | | *e*S | **Sn** | **23 44 41.5** | **+0.6** |
| **SCPH** | **Surigao** | **1.28** | **309** | *e*P | **Pb** | **23 44 36.6** | **-0.3** |
| SCPH | | | | *i* S | **Sn** | **23 44 49.2** | **-2.1** |
| **BUKP** | **Musuan** | **1.78** | **233** | *e*P | **Pn** | **23 44 44.1** | **+2.0** |
| BUKP | | | | *e*S | **Sb** | **23 45 06.9** | **-0.5** |
| **MSLP** | **Maasin** | **1.99** | **306** | *e*P | **Pb** | **23 44 48.3** | **-0.6** |
| MSLP | | | | *e*S | **Sb** | **23 45 13.9** | **+0.7** |
| **MATI** | **Mati** | **2.02** | **187** | *e*P | **Pb** | **23 44 48.5** | **-1.0** |
| MATI | | | | *e*S | **Sb** | **23 45 13.2** | **-1.0** |
| **DAV** | **Davao City (W)** | **2.09** | **206** | P | **Pb** | **23 44 50.0** | **-0.7** |
| | 60nm,0.3s,baz=356,slow=8.1,SNR=6.5 | | | | | | |
| DAV | | | | S | **Sb** | **23 45 15.2** | **-1.0** |
| | 63nm,0.3s,baz=307,slow=22,SNR=8.5 | | | | | | |
| DAV | | | | LR | LR | 23 46 01.2 | |
| | comp=Z,704nm,18.7s,baz=332,slow=51 | | | | | | |
| **DAV** | **Davao City (W)** | **2.09** | **206** | *e*Pn | **Pn** | **23 44 47.0** | **+0.7** |
| **PLP** | **Palo** | **2.65** | **326** | ⇓*e*P | **Pn** | **23 44 56.9** | **+2.9** |
| PLP | | | | *e*S | **Sn** | **23 45 24.7** | **-0.3** |
| **OCLP** | **Ormoc** | **2.78** | **318** | *e*P | Pn | 23 44 49.8 | -6.1 |
| **BESP** | **Borongan** | **2.82** | **338** | *e*P | **Pb** | **23 45 00.9** | **-2.1** |
| BESP | | | | *e*S | **Sb** | **23 45 36.0** | **-1.1** |
| **RCP** | **Roxas** | **4.50** | **305** | ⇑*e*P | **Pn** | **23 45 24.3** | **+4.8** |
| **KKM** | **Kota Kinabalu** | **10.60** | **255** | *e*Pn | **Pn** | **23 46 43.4** | **+0.1** |
| **NACB** | **Ninganchiao** | **15.83** | **343** | Pn | **Pn** | **23 47 53.6** | **-0.5** |
| | 7.7nm,0.6s | | | | | | |
| **YHNB** | **Yeheng** | **16.36** | **343** | Pn | **Pn** | **23 48 00.4** | **-0.6** |
| | 5.0nm,0.6s | | | | | | |
| **TATO** | **Taipei** | **16.62** | **344** | Pn | **Pn** | **23 48 04.3** | **+0.1** |
| | 6.9nm,0.3s | | | | | | |
| **KSM** | **Kuching** | **17.74** | **246** | Pn | Pn | **23 48 18.9** | **+0.6** |
| | 3.1nm,0.3s | | | | | | |
| **GUMO** | **Guam** | **18.59** | **74** | P | **Pn** | **23 48 29.7** | **+1.0** |
| | 16nm,0.4s | | | | | | |
| **JCJ** | **Chichijima** | **23.36** | **37** | LR | LR | 23 56 29.2 | |
| | comp=Z,36nm,21.9s,baz=354,slow=31 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **26.91** | **182** | P | **P** | **23 49 51.9** | **0.0** |
| | 1.2nm,0.3s,baz=1.0,slow=7.7,SNR=15 | | | | | | |
| **PMG** | **Port Moresby** | **27.51** | **131** | P | **P** | **23 49 59.1** | **+1.7** |
| | 3.1nm,0.4s | | | | | | |
| **KSRS** | **Korea Array** | **28.39** | **2** | LR | LR | 00 02 53.5 | |
| | comp=Z,40nm,18.8s,baz=31,slow=39 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **29.45** | **19** | LR | LR | 00 03 13.8 | |
| | comp=Z,29nm,18.5s,baz=345,slow=38 | | | | | | |
| **WRAB** | **Tennant Creek** | **29.74** | **165** | *e*P | **P** | **23 50 18.1** | **+0.9** |
| | 1.0nm,0.5s | | | | | | |
| **WRA** | **Warramunga Arr** | **29.75** | **165** | P | **P** | **23 50 17.3** | **0.0** |
| | 0.7nm,0.2s,baz=345,slow=7.9,SNR=49 | | | | | | |
| **ASAR** | **Alice Springs** | **33.23** | **168** | P | **P** | **23 50 48.1** | **+0.2** |
| | 0.7nm,0.3s,baz=350,slow=7.5,SNR=12 | | | | | | |
| **CTAO** | **Charters Tower** | **34.81** | **146** | P | **P** | **23 51 03.6** | **+2.0** |
| | 13nm,0.5s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **35.42** | **7** | P | **P** | **23 51 06.6** | **-0.1** |
| | 3.4nm,0.6s,baz=197,slow=7.8,SNR=5.8 | | | | | | |
| USRK | | | | LR | LR | 00 05 52.1 | |
| | comp=Z,37nm,19.4s,baz=71,slow=36 | | | | | | |
| **MDJ** | **Mudanjiang** | **35.62** | **4** | P | **P** | **23 51 08.2** | **-0.1** |
| | 2.7nm,0.3s | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **40.09** | **72** | T | T | 00 34 48.2 | |
| | baz=262,slow=75,SNR=324 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **40.11** | **72** | T | T | 00 34 49.2 | |
| | baz=262,slow=75,SNR=91 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **40.11** | **72** | T | T | 00 34 49.2 | |
| | baz=262,slow=75,SNR=96 | | | | | | |
| **KLR** | **Kul'dur** | **40.37** | **5** | P | **P** | **23 51 49.2** | **+0.9** |
| | 0.2nm,0.5s,baz=189,slow=7.9,SNR=11 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **40.47** | **70** | T | T | 00 35 22.9 | |
| **H11N2** | **WAKE ISLAND Hy** | **40.48** | **70** | T | T | 00 35 22.9 | |
| **H11N3** | **WAKE ISLAND Hy** | **40.49** | **70** | T | T | 00 35 22.9 | |
| **STKA** | **Stephens Creek** | **43.10** | **161** | P | **P** | **23 52 11.6** | **+0.7** |
| | 1.8nm,0.5s,baz=337,slow=6.1,SNR=6.6 | | | | | | |
| **TLY** | **Talaya** | **46.53** | **341** | *e*P | **P** | **23 52 37.9** | **-0.1** |
| | 4.2nm,0.7s | | | | | | |
| **MKAR** | **Makanchi Array** | **53.19** | **323** | P | **P** | **23 53 27.9** | **-0.9** |
| | 1.2nm,0.6s,baz=123,slow=8.1,SNR=16 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **55.87** | **332** | P | **P** | **23 53 45.7** | **-2.3** |
| | 0.7nm,0.5s,baz=301,slow=25,SNR=3.2 | | | | | | |
| **KURK** | **Kurchatov** | **57.26** | **326** | *e*P | **P** | **23 53 56.8** | **-1.1** |
| | 7.2nm,0.5s | | | | | | |
| **BRVK** | **Borovoye** | **62.93** | **326** | P | **P** | **23 54 36.6** | **-0.2** |
| | 3.0nm,0.6s | | | | | | |
| **ARU** | **Arti** | **70.43** | **327** | *e*P | **P** | **23 55 24.2** | **-0.4** |
| | 0.9nm,0.5s | | | | | | |
| **KIV** | **Kislovodsk** | **79.39** | **313** | P | **P** | **23 56 17.2** | **+0.5** |
| | 1.2nm,0.6s | | | | | | |
| **COLA** | **College** | **80.10** | **26** | P | **P** | **23 56 20.4** | **+0.4** |
| | 1.7nm,0.4s | | | | | | |
| **ILAR** | **Eielson Array** | **80.51** | **26** | P | **P** | **23 56 22.2** | **-0.1** |
| | 6.5nm,0.9s,baz=248,slow=4.5,SNR=5.8 | | | | | | |
| **INK** | **Inuvik** | **85.41** | **22** | P | **P** | **23 56 48.0** | **+0.4** |
| | 1.3nm,0.9s | | | | | | |
| **ARCES** | **ARCESS Array B** | **85.48** | **340** | P | **P** | **23 56 47.4** | **-0.6** |
| | 4.1nm,1.0s,baz=78,slow=5.8,SNR=7.3 | | | | | | |
| **FINES** | **FINESS Array B** | **87.14** | **332** | P | **P** | **23 56 54.7** | **-1.5** |
| | 1.3nm,0.4s,baz=100,slow=2.9,SNR=9.6 | | | | | | |
| **PSZ** | **Piszkesteto** | **94.32** | **320** | P | **P** | **23 57 29.6** | **-0.6** |
| | 1.2nm,0.5s | | | | | | |
| **YKA** | **Yellowknife Ar** | **94.85** | **24** | P | **P** | **23 57 29.4** | **-2.7** |
| | 0.4nm,0.6s,baz=301,slow=3.5,SNR=6.2 | | | | | | |

**IDC 16 00:07:41.2±1.9,55.04S×28.12W,h0km,mb3.8/1, mb1 3.8/1,mb1mx3.5/16,mbtmp3.8/1,Error ellipse: s-maj=102.2km s-min=70.5km az=138.0,South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TORD** | **Torodi Ar. Bea** | **72.44** | **31** | P | P | 00 19 09.2 | +0.1 |
| | 0.6nm,0.6s,baz=200,slow=6.5,SNR=9.3 | | | | | | |
| **ILAR** | **Eielson Array** | **149.04** | **313** | PKPbc | PKPbc | 00 27 29.1 | -0.6 |
| | 0.8nm,0.8s,baz=120,slow=2.1,SNR=12 | | | | | | |
| **SONM** | **Songino Array** | **151.18** | **85** | PKPbc | PKPbc | 00 27 35.2 | -0.3 |
| | 0.3nm,0.7s,baz=247,slow=1.1,SNR=2.8 | | | | | | |

**IDC 16 00:11:52.5±1.8,55.18S×28.04W,h0km,mb3.9/1, mb1 3.9/1,mb1mx3.5/19,mbtmp3.9/1,Error ellipse: s-maj=101.5km s-min=67.9km az=144.0,South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TORD** | **Torodi Ar. Bea** | **72.55** | **30** | P | P | 00 23 21.1 | 0.0 |
| | 0.8nm,0.6s,baz=197,slow=6.2,SNR=7.1 | | | | | | |
| **YKA** | **Yellowknife Ar** | **135.20** | **319** | PKP | PKPdf | 00 31 12.6 | +0.2 |
| | 0.2nm,0.6

| | | | | | | |
|---|---|---|---|---|---|---|
| POHA | | | *e*Sb | Sb | 00 22 25.6 | -1.9 |
| **HLK** | **Haleakala** | **1.66 329** | *e*Pn | Pn | 00 22 35.4 | -2.4 |
| **KIP** | **Kipapa** | **3.26 310** | *e*Pn | Pn | 00 22 56.8 | -2.7 |

*CSEM* ***16*** *00:36:18.1±0.3,37.57N×27.52E,h10km,MD2.5,Error ellipse: s-maj=8.5km s-min=3.9km az=57.0*
*ISK* ***16*** *00:36:18.3,37.52N×27.42E,h12km,MD2.5*
*ISCJB* ***16*** *00:36:19.6±0.6,37.49N±0.03×27.22E±0.05,h13km±4km, Error ellipse: s-maj=7.9km s-min=3.8km az=154.3*
*DDA* ***16*** *00:36:19.0,37.48N×27.15E,h7km,Ml2.5*
**ISC 16 00:36:18.7±1.0,37.54N±0.03×27.40E±0.05,h14km±8km, n23,σ0.87/38,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GCAM** | **G?zelcaml?** | **0.21** | **320** | *e*PG | **Pg** | **00 36 23.6** | **+0.3** |
| GCAM | | | | *e*SG | **Sb** | **00 36 27.7** | **-0.3** |
| **GCAM** | **G?zelcaml?** | **0.21** | **320** | *i* P | **Pb** | **00 36 24.3** | **0.0** |
| GCAM | | | | *i* S | **Sb** | **00 36 28.3** | **+0.3** |
| **GCAM** | **G?zelcaml?** | **0.21** | **320** | *e*Pg | **Pg** | **00 36 23.6** | **+0.3** |
| **GCAM** | **G?zelcaml?** | **0.21** | **320** | P | **Pb** | **00 36 24.3** | **0.0** |
| GCAM | | | | *e*Sg | **Sb** | **00 36 27.7** | **-0.3** |
| GCAM | | | | S | **Sb** | **00 36 28.3** | **+0.3** |
| **AYDN** | **Tasoluk** | **0.40** | **72** | *i* P | **Pn** | **00 36 30.9** | **+0.9** |
| AYDN | | | | *i* S | **Sn** | **00 36 39.2** | **+1.8** |
| **BDRM** | **Kayabasi** | **0.48** | **176** | *i* P | **Pg** | **00 36 28.4** | **+0.3** |
| BDRM | | | | *i* S | **Sb** | **00 36 35.8** | **+0.1** |
| **BDRM** | **Kayabasi** | **0.48** | **176** | P | **Pg** | **00 36 28.4** | **+0.3** |
| BDRM | | | | S | **Sb** | **00 36 35.8** | **+0.1** |
| **BODT** | **Bodrum** | **0.48** | **189** | *e*PG | **Pg** | **00 36 28.0** | **-0.2** |
| BODT | | | | *e*SG | **Sg** | **00 36 35.0** | **+0.3** |
| **BODT** | **Bodrum** | **0.48** | **189** | *e*Pg | **Pg** | **00 36 28.0** | **-0.2** |
| BODT | | | | *e*Sg | **Sg** | **00 36 35.0** | **+0.3** |
| **DGB** | **˜zmir** | **0.66** | **321** | *i* P | **Pg** | **00 36 31.0** | **-0.4** |
| DGB | | | | *i* S | **Sg** | **00 36 39.4** | **-0.7** |
| **ZEY** | **˜zmir** | **1.00** | **315** | *i* P | **Pb** | **00 36 37.0** | **-0.6** |
| ZEY | | | | *i* S | **Sb** | **00 36 49.0** | **-1.6** |
| **URLA** | **Izmir** | **1.04** | **322** | *e*PG | **Pg** | **00 36 39.0** | **+0.3** |
| URLA | | | | *e*SG | **Sn** | **00 36 53.4** | **+0.2** |
| **URLA** | **Izmir** | **1.04** | **322** | *i* P | **Pb** | **00 36 38.6** | **+0.2** |
| URLA | | | | *i* S | **Sb** | **00 36 51.2** | **-0.7** |
| **URLA** | **Izmir** | **1.04** | **322** | P | **Pb** | **00 36 38.6** | **+0.2** |
| **URLA** | **Izmir** | **1.04** | **322** | *e*Pg | **Pg** | **00 36 39.0** | **+0.3** |
| URLA | | | | S | **Sb** | **00 36 51.2** | **-0.7** |
| URLA | | | | *e*Sg | **Sn** | **00 36 53.4** | **+0.2** |
| **TURN** | **Turunc** | **1.17** | **124** | *e*PG | **Pn** | **00 36 37.9** | **-2.7** |
| **TURN** | **Turunc** | **1.17** | **124** | *e*Pg | **Pn** | **00 36 37.9** | **-2.7** |
| **CHOS** | **Chios island** | **1.36** | **309** | *e*PN | **Pb** | **00 36 43.9** | **-0.1** |
| **CHOS** | **Chios island** | **1.36** | **309** | *e*Pn | **Pb** | **00 36 43.9** | **-0.1** |
| **APE** | **Apeiranthos** | **1.57** | **253** | *e*PN | **Pn** | **00 36 46.7** | **+0.6** |
| **APE** | **Apeiranthos** | **1.57** | **253** | *e*Pn | **Pn** | **00 36 46.7** | **+0.6** |
| **FETY** | **Fethiye** | **1.62** | **123** | *e*PN | **Pn** | **00 36 47.3** | **+0.5** |
| **FETY** | **Fethiye** | **1.62** | **123** | *e*Pn | **Pn** | **00 36 47.3** | **+0.5** |

*ISCJB* ***16*** *00:38:17.7±0.6,55.18S±0.09×27.9W±0.2,h10km,mb4.5/9, Error ellipse: s-maj=20.7km s-min=10.4km az=157.8*
*IDC* ***16*** *00:38:18.2±0.9,55.21S×27.95W,h0km,mb4.0/4, mb1 4.2/5,mb1mx3.8/22,mbtmp4.1/5,ML4.3/1,Error ellipse: s-maj=37.6km s-min=23.5km az=63.0*
*NEIC* ***16*** *00:38:23.2±0.3,55.20S×27.91W,h35km,mb4.6/4,Error ellipse: s-maj=13.4km s-min=8.6km az=69.0*
**ISC 16 00:38:19.6±0.6,55.2S±0.1×28.0W±0.2,h10km,n18, σ0.38/18,mb4.5/9,South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VNA3** | **Neumayer Olymp** | **17.94** | **161** | P | **Pn** | **00 42 29.3** | **+0.5** |
| **VNA2** | **Neumayer--Watz** baz=319,slow=13 | **18.14** | **158** | P | **Pn** | **00 42 31.2** | **-0.1** |
| **SNAA** | **Sanae** | **19.70** | **157** | P | **P** | **00 42 48.1** | **-0.6** |
| **SNAA** | **Sanae** 0.8nm,0.3s,baz=303,slow=10,SNR=30 | **19.70** | **157** | P | **P** | **00 42 48.0** | **-0.6** |
| **SNAA** | **Sanae** | **19.70** | **157** | *e*P | **P** | **00 42 48.1** | **-0.6** |
| **TRIS** | **Tristan da Cun** 15nm,0.4s | **21.04** | **37** | P | **P** | **00 43 03.1** | **-0.2** |
| **CPUP** | **Villa Florida** 1.2nm,0.8s,baz=144,slow=8.7,SNR=2.7 | **35.92** | **311** | P | **P** | **00 45 19.6** | **-0.3** |
| **SBA** | **Scott Base** 3.6nm,0.8s | **46.90** | **184** | P | **P** | **00 46 49.4** | **+0.1** |
| **VNDA** | **Vanda** 1.3nm,0.7s,baz=169,slow=6.6,SNR=4.2 | **47.40** | **183** | P | **P** | **00 46 53.7** | **+0.4** |
| **LPAZ** | **La Paz** 1.1nm,0.5s,baz=166,slow=4.2,SNR=5.2 | **49.53** | **305** | P | **P** | **00 47 11.6** | **+0.5** |
| **CASY** | **Casey** | **54.85** | **161** | P | **P** | **00 47 49.6** | **+0.2** |
| **NNA** | **Nana** 3.4nm,0.4s | **57.46** | **299** | P | **P** | **00 48 08.3** | **-0.4** |
| **OTAV** | **Otavalo** 0.9nm,0.5s | **68.82** | **304** | P | **P** | **00 49 24.6** | **0.0** |
| **TORD** | **Torodi Ar. Bea** 2.9nm,0.6s,baz=199,slow=6.1,SNR=25 | **72.53** | **30** | P | **P** | **00 49 47.0** | **+0.5** |
| **COCO** | **West Island** 174nm,0.8s | **98.50** | **126** | P | **P** | **00 51 58.1** | **-0.2** |
| **YKA** | **Yellowknife Ar** 0.2nm,0.6s,baz=129,slow=2.4,SNR=4.4 | **135.25** | **319** | PKP | **PKPdf** | **00 57 37.7** | **-0.1** |
| **ILAR** | **Eielson Array** 2.7nm,0.7s,baz=129,slow=2.2,SNR=34 | **149.22** | **313** | PKPbc | **PKPbc** | **00 58 06.8** | **0.0** |
| **SONM** | **Songino Array** 0.7nm,0.5s,baz=230,slow=3.6,SNR=6.4 | **151.10** | **86** | PKPbc | **PKPbc** | **00 58 12.1** | **0.0** |

**IDC 16 00:40:36.3±14.0,17.47S×179.18W,h486km±166km, mb3.5/5,mb1 3.8/5,mb1mx3.3/27,mbtmp4.3/5,Error ellipse: s-maj=121.5km s-min=46.9km az=163.0,Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **STKA** | **Stephens Creek** 3.7nm,0.6s,baz=97,slow=11,SNR=8.0 | **38.20** | **240** | P | P | 00 47 13.2 | -0.3 |
| **WRA** | **Warramunga Arr** 2.7nm,0.5s,baz=98,slow=6.6,SNR=62 | **43.99** | **259** | P | P | 00 47 59.7 | -0.2 |
| **ASAR** | **Alice Springs** 20nm,0.5s,baz=89,slow=8.4,SNR=305 | **44.20** | **254** | P | P | 00 48 01.6 | +0.1 |
| **TXAR** | **Lajitas Array** 0.8nm,0.8s,baz=215,slow=5.8,SNR=6.0 | **86.38** | **58** | P | P | 00 52 27.1 | +0.3 |
| **PDAR** | **Pinedale Array** 0.5nm,0.8s,baz=222,slow=2.0,SNR=4.8 | **87.54** | **44** | P | P | 00 52 31.8 | -0.4 |
| **BRTR** | **Keskin Array B** 0.4nm,0.7s,baz=103,slow=3.9,SNR=4.0 | **143.95** | **315** | PKP | PKPab | 00 59 15.5 | +0.2 |

**IDC 16 00:56:31.8±8.0,8.12S×130.31E,h70km±90km,mb3.0/1, mb1 3.3/4,mb1mx3.1/31,mbtmp3.3/4,ML3.2/3,MS3.0/1, Ms1 3.0/1,ms1mx2.5/12,Error ellipse: s-maj=56.4km s-min=47.3km az=7.0,Tanimbar Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **FITZ** | **Fitzroy Crossi** 0.4nm,0.3s,baz=31,slow=13,SNR=11 | **10.92** | **204** | P | Pn | 00 59 05.8 | +0.5 |
| FITZ | | | | S | Sn | 01 01 08.0 | +2.2 |
| **WRA** | **Warramunga Arr** 0.1nm,0.3s,baz=193,slow=19,SNR=2.4 | **12.39** | **162** | P | Pn | 00 59 23.9 | -1.4 |
| WRA | | | | S | Sn | 01 01 41.0 | -0.7 |
| **DAV** | **Davao City (W)** 0.1nm,0.3s,baz=340,slow=23,SNR=3.8 | **15.81** | **343** | LR | LR | 01 06 09.5 | |
| **ASAR** | **Alice Springs** comp=Z,55nm,20.4s,baz=127,slow=37 | **15.84** | **168** | P | Pn | 01 00 11.8 | +1.1 |
| **MKAR** | **Makanchi Array** 0.1nm,0.3s,baz=352,slow=8.8,SNR=2.7 | **69.32** | **327** | P | P | 01 07 31.8 | 0.0 |
| | 0.2nm,0.6s,baz=119,slow=9.0,SNR=3.0 | | | | | | |

*SJA* ***16*** *00:58:37.0±0.6,36.95S×75.02W,h31km±17km,ML4.1, MW4.9*
*GUC* ***16*** *00:58:47.4±0.5,37.21S×73.92W,h32km±11km,ML4.0*
*NEIC* ***16*** *00:58:47.0±0.0,37.20S×73.91W,h32km,mb4.4/15, ML4.0(GUC),After GUC.*
*NEIC Felt [III] at Concepcion and Florida and [II] at Arauco and Lebu.*
*IDC* ***16*** *00:58:51.2±5.6,36.96S×73.67W,h35km±47km,mb3.8/7, mb1 4.0/8,mb1mx3.8/33,mbtmp4.0/8,ML3.6/1,MS3.9/6, Ms1 3.8/6,ms1mx3.5/26,Error ellipse: s-maj=40.7km s-min=26.2km az=76.0*
**ISC 16 00:58:47.6±1.8,36.93S±0.04×73.93W±0.07,h14km±11km, n48,σ1.35/48,mb4.4/16,MS3.9/4,2D,Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CCSP** | **San Pedro de C** | **0.67** | **83** | *i* P | **Pg** | **00 59 00.5** | **-0.1** |
| CCSP | | | | *i* S | **Sb** | **00 59 10.7** | **+0.6** |
| CCSP | comp=N,13μm,0.4s | | | IAML | | 00 59 18.3 | |
| **COCH** | **Cobquecura** | **1.22** | **49** | *i* P | Pb | 00 59 04.4 | -6.1 |
| **COCH** | **Cobquecura** | **1.22** | **49** | ⇓*i* P | **Pb** | **00 59 10.8** | **+0.4** |
| COCH | | | | *i* S | **Sn** | **00 59 28.8** | **+2.3** |
| COCH | comp=N,2μm,0.6s | | | IAML | | 00 59 35.4 | |
| **CCHI** | **Chillan** | **1.52** | **78** | *i* P | **Pn** | **00 59 15.6** | **+1.2** |
| **CCHI** | **Chillan** | **1.52** | **78** | *i* P | **Pn** | **00 59 14.1** | **-0.3** |
| CCHI | | | | *i* S | **Sn** | **00 59 33.8** | **-0.3** |
| CCHI | comp=E,4μm,1.0s | | | IAML | | 00 59 44.7 | |
| **TMU** | **Temuco** | **2.09** | **150** | ⇓*i* P | **Pn** | **00 59 21.6** | **-0.6** |
| TMU | | | | *i* S | **Sg** | **00 59 54.1** | **-0.7** |
| **CANA** | **Caviahue** | **2.48** | **114** | *i* P | **Pn** | **00 59 29.1** | **+1.4** |
| CANA | | | | *i* S | **Sg** | **01 00 08.2** | **+1.0** |
| CANA | comp=Z,424nm,0.6s | | | IAML | | 01 00 15.3 | |
| **GO05** | **HualaæØ** | **2.51** | **41** | *e*Pn | **Pn** | **00 59 26.6** | **-1.5** |
| **GO05** | **HualaæØ** | **2.51** | **41** | *i* P | **Pn** | **00 59 27.8** | **-0.3** |
| **GO05** | **HualaæØ** | **2.51** | **41** | *i* P | **Pn** | **00 59 26.8** | **-1.3** |
| GO05 | | | | *i* S | **Sg** | **01 00 10.6** | **+2.3** |
| GO05 | comp=E,1μm,1.1s | | | IAML | | 01 00 24.2 | |
| **ROC1** | **El Roble** | **4.61** | **32** | *e*Pn | **Pn** | **00 59 56.3** | **-0.9** |
| **ROC1** | **El Roble** | **4.61** | **32** | *i* P | **Pn** | **00 59 55.6** | **-1.6** |
| **PEL** | **Peldehue** | **4.62** | **36** | *e*Pn | **Pn** | **00 59 55.9** | **-1.2** |
| **PLCA** | **Paso Flores** comp=E,0.8nm,0.3s,baz=334,slow=13,SNR=18 | **4.62** | **146** | Pn | **Pn** | **00 59 57.3** | **+0.1** |
| PLCA | | | | Lg | Lg | 01 01 15.4 | |
| PLCA | comp=E,2.6nm,0.3s,baz=330,slow=9.5,SNR=5.4 | | | LR | LR | 01 01 45.8 | |
| **PB11** | **IPOC Station P** comp=E,1μm,21.2s,baz=346,slow=39 | **17.51** | **13** | *e*Pn | **Pn** | **01 02 49.6** | **-1.9** |
| **PLCA** | **Paso Flores** | **4.62** | **146** | *i* P | **Pn** | **00 59 55.6** | **-1.5** |
| **AUSP** | **Uspallata** | **6.01** | **40** | *i* P | **Pn** | **01 00 16.5** | **+0.2** |
| **RTLS** | **Leoncito** | **6.39** | **38** | *i* P | **Pn** | **01 00 20.8** | **-0.9** |
| **LCO** | **Las Campanas** | **8.35** | **20** | *e*Pn | **Pn** | **01 00 48.2** | **-0.4** |
| **TRQA** | **Tornquist** | **9.57** | **100** | *e*Pn | **Pn** | **01 01 02.7** | **-2.2** |
| **PB10** | **IPOC Station P** | **13.69** | **13** | *e*Pn | **Pn** | **01 02 00.1** | **-1.2** |
| **PB01** | **IPOC Station P** comp=E,20nm,1.1s | **16.30** | **15** | *e*Pn | **Pn** | **01 02 34.4** | **-1.8** |
| **PB11** | **IPOC Station P** comp=E,28nm,1.2s | **17.51** | **13** | *e*Pn | **Pn** | **01 02 49.6** | **-1.9** |
| **CPUP** | **Villa Florida** comp=E,558nm,19.4s,baz=236,slow=41 | **17.62** | **58** | LR | LR | 01 10 40.8 | |
| **CPUP** | **Villa Florida** | **17.62** | **58** | *e*Pn | **Pn** | **01 02 50.7** | **-2.1** |
| **MNMC** | **Minye Minye** comp=E,9.5nm,0.7s | **18.14** | **13** | *e*Pn | **Pn** | **01 02 59.2** | **-0.2** |
| **EFI** | **East Falkland** comp=E,31nm,1.1s | **18.55** | **148** | *e*P | **P** | **01 03 03.6** | **-0.1** |
| **LPAZ** | **La Paz** comp=E,5.2nm,0.9s,baz=176,slow=9.6,SNR=9.5 | **21.19** | **16** | P | **P** | **01 03 35.0** | **+1.5** |
| **LPAZ** | **La Paz** comp=E,11nm,1.1s | **21.19** | **16** | *e*P | **P** | **01 03 33.6** | **+0.2** |
| **SIV** | **San Ignacio** comp=E,5.9nm,1.1s,baz=230,slow=14,SNR=11 | **23.77** | **32** | P | **P** | **01 04 00.1** | **+0.2** |
| SIV | | | | LR | LR | 01 15 19.8 | |
| **NNA** | **Nana** comp=E,71nm,18.1s,baz=174,slow=33 | **24.97** | **353** | LR | LR | 01 12 30.7 | |
| **BDFB** | **Brasilia** comp=E,13nm,1.2s | **31.28** | **54** | *e*P | **P** | **01 05 05.8** | **-1.6** |
| **RPN** | **Rapa Nui** comp=E,206nm,18.7s,baz=80,slow=29 | **31.41** | **278** | LR | LR | 01 14 05.5 | |
| **PTGA** | **Pitinga** comp=E,2.1nm,0.6s,baz=216,slow=14,SNR=3.9 | **38.27** | **23** | P | **P** | **01 06 07.5** | **0.0** |
| **PTGA** | **Pitinga** comp=E,7.5nm,1.1s | **38.27** | **23** | *e*P | **P** | **01 06 06.3** | **-1.3** |
| **PRAC** | **Prado** comp=E,32nm,1.6s | **40.44** | **359** | *e*P | **P** | **01 06 26.6** | **+0.8** |
| **RUSC** | **La Rusia** comp=E,9.8nm,1.4s | **42.61** | **1** | *e*P | **P** | **01 06 44.4** | **+0.4** |
| **HELC** | **Santa Helena** comp=E,11nm,0.7s | **42.92** | **358** | *e*P | **P** | **01 06 46.9** | **+0.5** |
| **SNAA** | **Sanae** comp=E,14nm,1.3s | **49.48** | **157** | *e*P | **P** | **01 07 37.5** | **+0.4** |
| **TXAR** | **Lajitas Array** comp=E,1.4nm,0.8s,baz=155,slow=9.1,SNR=8.8 | **71.58** | **333** | P | **P** | **01 10 09.5** | **+1.1** |
| **TX31** | **Lajitas Ar. Si** | **71.58** | **333** | *e*P | **P** | **01 10 09.4** | **+1.0** |
| **SWET** | **Sewanee** comp=E,6.0nm,0.8s | **72.64** | **350** | *e*P | **P** | **01 10 15.3** | **+0.7** |
| **DBIC** | **Dimbokro** comp=E,3.2nm,1.0s,baz=233,slow=5.9,SNR=4.5 | **77.57** | **72** | P | **P** | **01 10 42.0** | **-1.5** |
| DBIC | comp=E,55nm,18.7s,baz=306,slow=34 | | | LR | LR | 01 42 57.2 | |
| **ANMO** | **Albuquerque** comp=E,4.4nm,1.3s | **77.65** | **333** | *e*P | **P** | **01 10 45.7** | **+2.0** |
| **WUAZ** | **Wupatki** comp=E,1.0nm,0.7s | **80.04** | **330** | P | P | 01 10 55.1 | -1.6 |
| **SMCO** | **Snowmass** | **81.62** | **335** | *e*P | **P** | **01 11 09.3** | **+3.9** |
| **ECSD** | **EROS Data Cent** comp=E,2.2nm,0.7s | **82.89** | **344** | *e*P | P | 01 11 09.7 | -1.8 |
| **PDAR** | **Pinedale Array** comp=E,0.2nm,0.5s,baz=168,slow=4.6,SNR=2.5 | **85.71** | **335** | P | **P** | **01 11 27.4** | **+1.3** |
| **TORD** | **Torodi Ar. Bea** comp=E,1.7nm,1.2s,baz=246,slow=4.1,SNR=4.4 | **86.64** | **71** | P | **P** | **01 11 30.2** | **-0.8** |

*ISCJB* ***16*** *01:00:16.8±0.8,37.60N±0.03×32.97E±0.04,h5km±7km, Error ellipse: s-maj=5.9km s-min=4.7km az=41.2*
*ISK* ***16*** *01:00:16.2,37.59N×32.94E,h6km,MD2.6*
*CSEM* ***16*** *01:00:17.0±0.1,37.60N×32.95E,h8km,MD2.4,Error ellipse: s-maj=3.1km s-min=2.2km az=56.0*
*DDA* ***16*** *01:00:17.1,37.58N×32.94E,h7km,Md2.4*
**ISC 16 01:00:16.9±1.2,37.60N±0.03×32.93E±0.03,h8km±12km, n30,σ0.40/45,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KMER** | **Konya-Meram** | **0.48** | **291** | *i* P | **Pg** | **01 00 26.4** | **+0.1** |
| KMER | | | | *i* S | **Sb** | **01 00 34.2** | **-0.9** |
| **KMER** | **Konya-Meram** | **0.48** | **291** | P | **Pg** | **01 00 26.4** | **+0.1** |
| KMER | | | | S | **Sb** | **01 00 34.2** | **-0.9** |
| **KONT** | **Konya--Tatoy** | **0.57** | **308** | *e*PG | **Pg** | **01 00 27.8** | **-0.2** |
| KONT | | | | *e*SG | **Sb** | **01 00 36.9** | **-0.7** |
| **KONT** | **Konya--Tatoy** | **0.57** | **308** | *i* P | **Pg** | **01 00 28.2** | **+0.2** |
| KONT | | | | *i* S | **Sb** | **01 00 37.8** | **+0.2** |
| **KONT** | **Konya--Tatoy** | **0.57** | **308** | *e*Pg | **Pg** | **01 00 27.8** | **-0.2** |
| KONT | | | | *e*Sg | **Sb** | **01 00 36.9** | **-0.7** |
| **SULT** | **Sultanhani-AKS** | **0.76** | **37** | *e*PG | **Pg** | **01 00 31.1** | **-0.4** |
| SULT | | | | *e*SG | **Sg** | **01 00 42.1** | **+0.7** |
| **SULT** | **Sultanhani-AKS** | **0.76** | **37** | *e*Pg | **Pg** | **01 00 31.1** | **-0.4** |
| SULT | | | | *e*Sg | **Sg** | **01 00 42.1** | **+0.7** |
| **ERMK** | **Ermenek** | **0.95** | **181** | *i* P | **Pg** | **01 00 35.1** | **-0.1** |
| ERMK | | | | *i* S | **Sb** | **01 00 48.7** | **+0.1** |
| **ERMK** | **Ermenek** | **0.95** | **181** | P | **Pg** | **01 00 35.1** | **-0.1** |
| ERMK | | | | S | **Sb** | **01 00 48.7** | **+0.1** |
| **CHBY** | **Cihanbeyli** | **0.99** | **358** | *e*PG | **Pg** | **01 00 35.6** | **-0.3** |
| CHBY | | | | *e*SG | **Sb** | **01 00 49.7** | **+0.2** |
| **CHBY** | **Cihanbeyli** | **0.99** | **358** | *e*Pg | **Pg** | **01 00 35.6** | **-0.3** |
| CHBY | | | | *e*Sg | **Sb** | **01 00 49.7** | **+0.2** |
| **DOGA** | **KONYA_Doganhis** | **1.12** | **297** | *i* P | **Pn** | **01 00 39.9** | **+0.8** |
| DOGA | | | | *i* S | **Sb** | **01 00 53.6** | **0.0** |
| **DOGA** | **KONYA_Doganhis** | **1.12** | **297** | P | **Pn** | **01 00 39.9** | **+0.8** |
| DOGA | | | | S | **Sb** | **01 00 53.6** | **0.0** |
| **KDHN** | **Kadinhani** | **1.13** | **325** | *i* P | **Pb** | **01 00 38.9** | **+0.1** |
| KDHN | | | | *i* S | **Sg** | **01 00 52.6** | **-0.6** |
| **KDHN** | **Kadinhani** | **1.13** | **325** | P | **Pb** | **01 00 38.9** | **+0.1** |
| KDHN | | | | S | **Sg** | **01 00 52.7** | **-0.6** |
| **KEBE** | **Keben-Mersin** | **1.30** | **151** | *e*PN | **Pn** | **01 00 41.4** | **-0.1** |
| **KEBE** | **Keben-Mersin** | **1.30** | **151** | *e*Pn | **Pn** | **01 00 41.4** | **-0.1** |
| **MERS** | **Mersin** | **1.46** | **119** | *e*PN | **Pn** | **01 00 43.7** | **0.0** |
| **MERS** | **Mersin** | **1.46** | **119** | *e*Pn | **Pn** | **01 00 43.7** | **0.0** |
| **KIZK** | **Mersin** | **1.48** | **139** | *e*PN | **Pn** | **01 00 44.0** | **+0.2** |
| **AKKU** | **Akkuyu-Mersin** | **1.52** | **161** | *e*PN | **Pn** | **01 00 44.5** | **+0.1** |
| **AKKU** | **Akkuyu-Mersin** | **1.52** | **161** | *e*Pn | **Pn** | **01 00 44.5** | **+0.1** |
| **KIZT** | **Kizilcal** | **1.53** | **327** | *e*PN | **Pn** | **01 00 44.8** | **+0.1** |
| **KIZT** | **Kizilcal** | **1.53** | **327** | *e*Pn | **Pn** | **01 00 44.8** | **+0.1** |
| **KARA** | **Karaisali** | **1.72** | **101** | *e*PN | **Pn** | **01 00 47.3** | **+0.1** |
| **KARA** | **Karaisali** | **1.72** | **101** | *e*Pn | **Pn** | **01 00 47.3** | **+0.1** |
| **AFSR** | **Af˙ar-Bala (A** | **1.85** | **3** | *e*PN | **Pn** | **01 00 49.2** | **+0.1** |
| **AFSR** | **Af˙ar-Bala (A** | **1.85** | **3** | *e*Pn | **Pn** | **01 00 49.2** | **+0.1** |
| **KAMT** | **Kaman** | **1.87** | **19** | *e*PN | **Pn** | **01 00 49.8** | **+0.4** |
| **KAMT** | **Kaman** | **1.87** | **19** | *e*Pn | **Pn** | **01 00 49.8** | **+0.4** |

*NNC* ***16*** *01:00:45.3±5.1,36.49N×70.40E,h0km,mb4.2,mpv3.8, Error ellipse: s-maj=40.7km s-min=19.9km az=4.0*

**ISC 16 01:00:42.7±4.1,36.3N±0.3×70.0E±0.1,h213km,n10, σ1.00/14,4C-4D,Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DZET** | **Dzherino** 14nm,0.4s | **2.63** | **339** | ⇓Pn | **Pn** | **01 01 30.0** | **+1.1** |
| DZET | | | | ⇓Sn | **S** | **01 02 02.8** | **-2.1** |
| **SFK** | **Sufi-Kurgan** 9.3nm,0.4s | **4.58** | **36** | ⇑Pn | **Pn** | **01 01 52.9** | **+0.7** |
| SFK | | | | ⇑Sn | **S** | **01 02 45.3** | **-1.5** |
| **MNAS** | **Manas** 3.0nm,0.5s | **6.43** | **17** | ⇓Pn | **Pn** | **01 02 15.7** | **0.0** |
| MNAS | | | | ⇓Sn | **S** | **01 03 30.8** | **+1.4** |
| **AML** | **Almayashu** SNR=10 | **6.44** | **25** | P | **Pn** | **01 02 15.8** | **-0.3** |
| **UCH** | **Uchtor** SNR=6.0 | **6.83** | **29** | P | **Pn** | **01 02 21.1** | **0.0** |
| **EKS2** | **Erkin-Say** SNR=16 | **6.95** | **24** | P | **Pn** | **01 02 22.4** | **+0.1** |
| **KZA** | **Kyzart** SNR=8.3 | **7.02** | **34** | P | **Pn** | **01 02 23.4** | **0.0** |
| **AAK** | **Ala-Archa** 5.1nm,0.4s | **7.17** | **27** | ⇑Pn | **Pn** | **01 02 25.3** | **0.0** |
| AAK | | | | ⇑Sn | **S** | **01 03 47.8** | **+0.9** |
| **AAK** | **Ala-Archa** 5.6nm,0.9s SNR=8.3 | **7.17** | **27** | P | **Pn** | **01 02 25.0** | **-0.2** |
| **USP** | **Ospenovka** SNR=8.6 | **7.72** | **25** | P | **Pn** | **01 02 32.1** | **-0.2** |

*ISK* ***16*** *01:09:55.8,38.70N×43.12E,h7km,MD2.4*
*CSEM* ***16*** *01:09:56.5±0.2,38.70N×43.15E,h15km,MD2.4,Error ellipse: s-maj=5.6km s-min=4.1km az=90.0*
*ISCJB* ***16*** *01:09:57.2±0.5,38.71N±0.02×43.14E±0.04,h10km±5km, Error ellipse: s-maj=4.8km s-min=3.7km az=173.6*
*DDA* ***16*** *01:09:57.2,38.69N×43.16E,h7km,Ml2.5*
**ISC 16 01:09:57.0±0.9,38.70N±0.02×43.16E±0.03,h16km±7km, n24,σ0.84/46,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.21** | **121** | *e*PG | **Pg** | **01 10 02.1** | **+0.1** |
| VANB | | | | *e*SG | **Sb** | **01 10 06.6** | **+0.4** |
| **VANB** | **Van** | **0.21** | **121** | *e*Pg | **Pg** | **01 10 02.1** | **+0.1** |
| VANB | | | | *e*Sg | **Sb** | **01 10 06.6** | **+0.4** |
| **TVAN** | **Van** | **0.26** | **132** | *i* P | **Pg** | **01 10 02.0** | **-0.8** |
| TVAN | | | | *i* S | **Sg** | **01 10 06.9** | **+0.1** |
| **TVAN** | **Van** | **0.26** | **132** | P | **Pg** | **01 10 02.0** | **-0.8** |
| TVAN | | | | S | **Sg** | **01 10 06.9** | **+0.1** |
| **ERCV** | **ERCIS-VAN** | **0.34** | **24** | *e*PG | **Pg** | **01 10 03.4** | **-0.9** |
| ERCV | | | | *e*SG | **Sg** | **01 10 09.0** | **-0.2** |
| **ERCV** | **ERCIS-VAN** | **0.34** | **24** | *e*Pg | **Pg** | **01 10 03.4** | **-0.9** |
| ERCV | | | | *e*Sg | **Sg** | **01 10 09.0** | **-0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.36** | **287** | *i* P | **Pg** | **01 10 04.7** | **+0.3** |
| ADCV | | | | *i* S | **Sb** | **01 10 10.8** | **+0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.36** | **287** | P | **Pg** | **01 10 04.7** | **+0.3** |
| ADCV | | | | S | **Sb** | **01 10 10.8** | **+0.2** |
| **GEVA** | **Gevas** | **0.40** | **192** | *i* P | **Pg** | **01 10 04.3** | **-0.9** |
| GEVA | | | | *i* S | **Sg** | **01 10 11.1** | **+0.3** |
| **GEVA** | **Gevas** | **0.40** | **192** | P | **Pg** | **01 10 04.3** | **-0.9** |
| GEVA | | | | S | **Sg** | **01 10 11.1** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.43** | **48** | *i* P | **Pg** | **01 10 06.4** | **+0.6** |
| VMUR | | | | *i* S | **Sb** | **01 10 13.5** | **+0.8** |
| **VMUR** | **Van-Muradiye** | **0.43** | **48** | P | **Pg** | **01 10 06.4** | **+0.6** |
| VMUR | | | | S | **Sb** | **01 10 13.5** | **+0.8** |
| **CLDR** | **Caldiran** | **0.73** | **53** | *e*PG | **Pg** | **01 10 10.9** | **-0.5** |
| CLDR | | | | *e*SG | **Sb** | **01 10 22.3** | **+0.8** |
| **CLDR** | **Caldiran** | **0.73** | **53** | *i* P | **Pg** | **01 10 10.1** | **-1.4** |
| CLDR | | | | *i* S | **Sb** | **01 10 23.1** | **+1.6** |
| **CLDR** | **Caldiran** | **0.73** | **53** | P | **Pg** | **01 10 10.1** | **-1.4** |
| **CLDR** | **Caldiran** | **0.73** | **53** | *e*Pg | **Pg** | **01 10 11.0** | **-0.5** |
| CLDR | | | | *e*Sg | **Sb** | **01 10 22.3** | **+0.8** |
| CLDR | | | | S | **Sb** | **01 10 23.1** | **+1.6** |
| **TUTA** | **Tutak** | **0.75** | **339** | *i* P | **Pg** | **01 10 11.8** | **+0.1** |
| TUTA | | | | *i* S | **Sb** | **01 10 22.4** | **+0.5** |
| **TUTA** | **Tutak** | **0.75** | **339** | P | **Pg** | **01 10 11.8** | **+0.1** |
| TUTA | | | | S | **Sb** | **01 10 22.4** | **+0.5** |
| **AGRB** | **Hanur-Agry** | **0.88** | **351** | *e*PG | **Pg** | **01 10 13.2** | **-1.0** |
| AGRB | | | | *e*SG | **Sg** | **01 10 26.0** | **-0.2** |
| **AGRB** | **Hanur-Agry** | **0.88** | **351** | *e*Pg | **Pg** | **01 10 13.2** | **-1.0** |
| AGRB | | | | *e*Sg | **Sg** | **01 10 26.0** | **-0.2** |
| **HAKT** | **HAKKARI** | **1.22** | **159** | *i* P | **Pn** | **01 10 18.2** | **-1.5** |
| HAKT | | | | *i* S | **Sg** | **01 10 38.1** | **+1.5** |
| **HAKT** | **HAKKARI** | **1.22** | **159** | P | **Pn** | **01 10 18.2** | **-1.5** |
| HAKT | | | | S | **Sg** | **01 10 38.1** | **+1.5** |
| **CUKT** | **Cukurca** | **1.50** | **166** | *e*PN | **Pn** | **01 10 23.7** | **+0.4** |
| **CUKT** | **Cukurca** | **1.50** | **166** | *e*Pn | **Pn** | **01 10 23.7** | **+0.4** |

*DDA* ***16*** *01:12:02.9,37.05N

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| KULA | Kula-Manisa | 0.68 | 206 | *e*PG | Pg | 01 13 57.8 | -0.1 |
| KULA | Kula-Manisa | 0.68 | 206 | *e*Pg | Pg | 01 13 57.8 | -0.1 |
| KHAL | Karahalli | 0.83 | 155 | *i* P | Pg | 01 14 00.8 | 0.0 |
| KHAL | | | | *i* S | Sg | 01 14 10.6 | -1.1 |
| KHAL | Karahalli | 0.83 | 155 | P | Pg | 01 14 00.8 | 0.0 |
| KHAL | | | | S | Sg | 01 14 10.6 | -1.1 |
| ORLT | Orhaneli | 0.93 | 353 | *e*PG | Pb | 01 14 02.5 | -0.2 |
| ORLT | Orhaneli | 0.93 | 353 | *e*Pg | Pb | 01 14 02.5 | -0.2 |
| BALB | Balikesir | 1.04 | 300 | *e*PG | Pn | 01 14 05.4 | +0.3 |
| BALB | Balikesir | 1.04 | 300 | *e*Pg | Pn | 01 14 05.4 | +0.3 |
| STEP | BALIKESIR_Sava | 1.06 | 284 | *i* P | Pb | 01 14 05.3 | +0.3 |
| STEP | | | | *i* S | Sg | 01 14 18.3 | -0.6 |
| STEP | BALIKESIR_Sava | 1.06 | 284 | P | Pb | 01 14 05.3 | +0.3 |
| STEP | | | | S | Sg | 01 14 18.3 | -0.6 |
| IGD | Bursa | 1.14 | 6 | *i* P | Pg | 01 14 06.2 | -0.5 |
| IGD | | | | *i* S | Sb | 01 14 21.3 | +0.1 |
| MDNY | Mudanya-Bursa | 1.25 | 354 | *e*PN | Pn | 01 14 08.7 | +0.7 |
| MDNY | Mudanya-Bursa | 1.25 | 354 | *e*Pn | Pn | 01 14 08.7 | +0.7 |
| KCTX | Karacabey (Bur | 1.25 | 335 | *e*PN | Pg | 01 14 09.1 | +0.3 |
| KCTX | Karacabey (Bur | 1.25 | 335 | *e*Pn | Pg | 01 14 09.1 | +0.3 |
| SHUT | Suhut-Afyon | 1.31 | 115 | *e*PN | Pg | 01 14 09.9 | 0.0 |
| SHUT | Suhut-Afyon | 1.31 | 115 | *e*Pn | Pg | 01 14 09.9 | 0.0 |
| ARMT | Armutlu | 1.44 | 355 | *e*PN | Pg | 01 14 11.8 | -0.6 |
| ARMT | Armutlu | 1.44 | 355 | *e*Pn | Pg | 01 14 11.9 | -0.6 |
| GULT | Gulveren | 1.73 | 41 | *e*PN | Pb | 01 14 15.8 | -0.7 |
| GULT | Gulveren | 1.73 | 41 | *e*Pn | Pb | 01 14 15.8 | -0.7 |

**IDC 16 01:20:13.6±9.8, 31°.65N×141°.48E, h0km, mb3.5/3, mb1 3.6/5, mb1mx3.4/38, mbtmp3.6/5, ML3.4/2, Error ellipse: s-maj=350.9km s-min=21.7km az=65.0, Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JHJ** | **Hachijo jima 2** | **2.05** | **316** | Pn | Pn | 01 20 48.9 | -0.4 |
| | 16nm,0.3s,baz=75,slow=22,SNR=3.7 | | | | | | |
| **JCJ** | **Chichijima** | **4.58** | **172** | Pn | Pn | 01 21 24.8 | +0.6 |
| | 3.8nm,0.3s,baz=277,slow=22,SNR=6.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **47.19** | **306** | P | P | 01 28 47.9 | 0.0 |
| | 0.2nm,0.6s,baz=87,slow=9.7,SNR=3.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **51.75** | **189** | P | P | 01 29 21.8 | -1.1 |
| | 0.8nm,0.6s,baz=6.8,slow=7.7,SNR=12 | | | | | | |
| **ASAR** | **Alice Springs** | **55.48** | **188** | P | P | 01 29 51.1 | +0.9 |
| | 0.3nm,0.5s,baz=16,slow=14,SNR=5.5 | | | | | | |

*IDC **16** 01:37:21.2±1.3, 17°.07S×171°.65E, h0km, mb4.4/9, mb1 4.6/10, mb1mx4.3/30, mbtmp4.4/10, ML3.8/1, MS3.7/21, Ms1 3.7/21, ms1mx3.7/31, Error ellipse: s-maj=59.2km s-min=19.6km az=145.0*

*NEIC **16** 01:37:22.5±0.4, 17°.08S×171°.59E, h10km, mb4.4/10, Error ellipse: s-maj=17.1km s-min=8.4km az=152.0*

*ISCJB **16** 01:37:24.4±0.4, 17°.25S±0°.10×171°.63E±0°.08, h33km, mb4.5/20, MS3.8/18, Error ellipse: s-maj=16.7km s-min=7.1km az=143.9*

*GCMT **16** 01:37:28.3±0.3, 17°.05S×171°.56E, h20km, MW5.0/75, Moment Tensor Solution. s23,c31; s75,c98; Duration: 0 Moment tensor: Scale 10^16 Nm; Mrr-4.15±.24; Mθθ3.90±.17; Mφφ0.25±.14; Mrθ-1.17±.28; Mθφ-0.99±.10; Mφr-0.14±.28; Best double couple: M◦4.31600×10^16 NP1:φs99.00000°, δ53.00000°, λ-97.00000°. NP2: φs290.00000°, δ38.00000°, λ-81.00000°. Principal axes: T 4.2970, Plg7.0000°, Azm194.0000°; N 0.0430, Plg5.0000°, Azm103.0000°; P -4.3340, Plg81.0000°, Azm337.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

**ISC 16 01:37:26.2±0.6, 17°.2S±0°.1×171°.6E±0°.1, h35km, n68, σ1§32/46, mb4.4/19, MS3.9/18, Vanuatu Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MSVF** | **Nonsavu** | **6.16** | **96** | *e*Pn | **Pn** | **01 38 55.0** | **+0.1** |
| | 150nm,1.4s | | | | | | |
| **DZM** | **Mont Dzumac** | **6.91** | **224** | Pn | **Pn** | **01 39 05.6** | **+0.5** |
| | 1.7nm,0.3s,baz=58,slow=22,SNR=9.5 | | | | | | |
| DZM | | | | Sn | **Sn** | **01 40 22.6** | **0.0** |
| | baz=320,slow=23,SNR=2.5 | | | | | | |
| DZM | | | | LR | LR | 01 41 26.4 | |
| | comp=Z,2μm,21.2s,baz=34,slow=35 | | | | | | |
| **DZM** | **Mont Dzumac** | **6.91** | **224** | *e*Pn | **Pn** | **01 39 06.3** | **+1.2** |
| | 3.0nm,0.3s | | | | | | |
| DZM | | | | *e*LR | LR | 01 40 38.1 | |
| | 3μm,27.4s | | | | | | |
| **HNR** | **Honiara** | **13.71** | **303** | LR | LR | 01 45 25.1 | |
| | comp=Z,100nm,20.7s,slow=35 | | | | | | |
| **AFI** | **Afiamalu** | **16.32** | **81** | LR | LR | 01 46 59.6 | |
| | comp=Z,93nm,19.1s,baz=324,slow=36 | | | | | | |
| **ARMA** | **Armidale** | **22.51** | **230** | *e*P | **P** | **01 42 23.4** | **+0.3** |
| | 14nm,0.8s | | | | | | |
| **CTA** | **Charters Tower** | **24.21** | **259** | P | **P** | **01 42 41.3** | **+1.5** |
| | 14nm,0.9s,baz=93,slow=17,SNR=7.5 | | | | | | |
| **CTAO** | **Charters Tower** | **24.21** | **259** | *e*P | **P** | **01 42 40.6** | **+0.8** |
| | 202nm,1.1s | | | | | | |
| **RPZ** | **Rata Peaks** | **26.48** | **181** | LR | LR | 01 51 53.3 | |
| | comp=Z,236nm,21.1s,baz=356,slow=33 | | | | | | |
| **CAN** | **Canberra** | **27.08** | **224** | *e*P | **P** | **01 43 05.3** | **-0.4** |
| | 8.8nm,0.8s | | | | | | |
| **COEN** | **Coen** | **27.58** | **273** | *e*P | **P** | **01 43 07.5** | **-2.8** |
| | 7.7nm,1.0s | | | | | | |
| **STKA** | **Stephens Creek** | **30.88** | **236** | P | **P** | **01 43 40.4** | **+1.0** |
| | 3.4nm,0.8s,baz=74,slow=11,SNR=4.5 | | | | | | |
| STKA | | | | LR | LR | 01 55 17.5 | |
| | comp=Z,285nm,20.1s,baz=56,slow=35 | | | | | | |
| **WRAB** | **Tennant Creek** | **35.40** | **260** | *e*P | **P** | **01 44 16.7** | **-2.4** |
| | 4.4nm,0.9s | | | | | | |
| **WRA** | **Warramunga Arr** | **35.41** | **260** | P | **P** | **01 44 18.1** | **-1.0** |
| | 5.2nm,1.0s,baz=90,slow=8.1,SNR=18 | | | | | | |
| WRA | | | | LR | LR | 01 59 05.8 | |
| | comp=Z,71nm,18.9s,baz=65,slow=37 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **35.75** | **352** | T | T | 02 21 59.8 | |
| | baz=171,slow=76,SNR=12 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **35.76** | **352** | T | T | 02 22 04.8 | |
| | baz=171,slow=76,SNR=9.5 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **35.77** | **352** | T | T | 02 22 01.5 | |
| | baz=171,slow=76,SNR=7.5 | | | | | | |
| **ASAR** | **Alice Springs** | **35.86** | **253** | P | **P** | **01 44 22.7** | **-0.3** |
| | 18nm,0.8s,baz=80,slow=9.0,SNR=95 | | | | | | |
| ASAR | | | | LR | LR | 01 58 05.1 | |
| | comp=Z,143nm,20.5s,baz=92,slow=35 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **36.93** | **353** | T | T | 02 23 27.2 | |
| | baz=172,slow=76,SNR=14 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **36.93** | **353** | T | T | 02 23 30.8 | |
| | baz=172,slow=76,SNR=7.9 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **36.95** | **353** | T | T | 02 23 31.8 | |
| | baz=172,slow=76,SNR=14 | | | | | | |
| **PPT** | **Papeete** | **36.99** | **97** | LR | LR | 01 56 56.2 | |
| | comp=Z,42nm,19.2s,baz=276,slow=32 | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **47.61** | **86** | *e*LR | LR | 01 59 50.2 | |
| | 248nm,26.1s | | | | | | |
| **MBWA** | **Marble Bar** | **49.01** | **257** | *e*P | **P** | **01 46 09.3** | **-0.5** |
| | 80nm,0.8s | | | | | | |
| **VNDA** | **Vanda** | **60.59** | **182** | LR | LR | 02 09 21.4 | |
| | comp=Z,78nm,21.7s,baz=359,slow=32 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **62.03** | **330** | LR | LR | 02 10 30.2 | |
| | comp=Z,56nm,21.8s,baz=175,slow=32 | | | | | | |
| **KSRS** | **Korea Array** | **68.12** | **324** | LR | LR | 02 14 32.0 | |
| | comp=Z,12nm,21.7s,baz=140,slow=33 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **70.98** | **331** | LR | LR | 02 14 35.5 | |
| | comp=Z,49nm,21.6s,baz=112,slow=32 | | | | | | |
| **PETK** | **Petropavlovsk-** | **71.00** | **351** | LR | LR | 02 12 41.9 | |
| | comp=Z,118nm,21.1s,baz=126,slow=30 | | | | | | |
| **MA2** | **Magadan** | **78.32** | **349** | LR | LR | 02 17 12.1 | |
| | comp=Z,118nm,20.9s,baz=130,slow=31 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **79.75** | **293** | P | **P** | **01 49 32.8** | **+1.6** |
| | 1.3nm,0.3s,baz=123,slow=4.6,SNR=6.9 | | | | | | |
| **YAK** | **Yakutsk** | **85.60** | **342** | LR | LR | 02 22 51.9 | |
| | comp=Z,71nm,21.6s,baz=92,slow=32 | | | | | | |
| **ULN** | **Ulaanbaatar** | **86.58** | **322** | *e*P | **P** | **01 50 06.0** | **0.0** |
| | 1.6nm,0.7s | | | | | | |
| **SONM** | **Songino Array** | **86.94** | **322** | P | **P** | **01 50 08.1** | **+0.4** |
| | 0.3nm,0.4s,baz=151,slow=3.4,SNR=3.8 | | | | | | |
| **COLA** | **College** | **87.41** | **16** | *e*P | **P** | **01 50 09.4** | **0.0** |
| | 7.7nm,1.1s | | | | | | |
| **ILAR** | **Eielson Array** | **87.59** | **17** | P | **P** | **01 50 09.3** | **-1.0** |
| | 3.1nm,1.0s,baz=237,slow=5.8,SNR=12 | | | | | | |
| ILAR | | | | LR | LR | 02 24 02.7 | |
| | comp=Z,116nm,19.7s,baz=222,slow=32 | | | | | | |
| **TUC** | **Tucson** | **88.97** | **56** | *e*P | **P** | **01 50 18.5** | **+0.8** |
| | 1.2nm,0.7s | | | | | | |
| **WUAZ** | **Wupatki** | **89.66** | **53** | *e*P | **P** | **01 50 20.4** | **-0.5** |
| | 10nm,1.5s | | | | | | |
| **DUG** | **Dugway, Tooele** | **90.34** | **48** | *e*P | **P** | **01 50 24.1** | **+0.1** |
| | 4.6nm,1.3s | | | | | | |
| **TLY** | **Talaya** | **90.35** | **325** | LR | LR | 02 26 27.9 | |
| | comp=Z,50nm,20.7s,baz=90,slow=33 | | | | | | |
| **HLID** | **Hailey** | **90.53** | **44** | *e*P | **P** | **01 50 24.8** | **-0.1** |
| | 1.6nm,0.9s | | | | | | |
| **SNAA** | **Sanae** | **91.32** | **182** | *e*P | **P** | **01 50 25.8** | **-2.2** |
| **PDAR** | **Pinedale Array** | **93.54** | **46** | LR | LR | 02 28 07.0 | |
| | comp=Z,43nm,19.5s,baz=310,slow=33 | | | | | | |
| **TXAR** | **Lajitas Array** | **93.78** | **61** | P | **P** | **01 50 41.1** | **+1.0** |
| | 0.7nm,0.9s,baz=272,slow=3.6,SNR=4.8 | | | | | | |
| TXAR | | | | LR | LR | 02 24 03.6 | |
| | comp=Z,73nm,21.7s,baz=0.0,slow=30 | | | | | | |
| **YKA** | **Yellowknife Ar** | **97.79** | **27** | P | Pdif | 01 50 57.5 | 0.0 |
| | 1.4nm,1.0s,baz=258,slow=4.9,SNR=6.7 | | | | | | |
| YKA | | | | LR | LR | 02 29 06.3 | |
| | comp=Z,11nm,19.2s,baz=180,slow=32 | | | | | | |
| **PLCA** | **Paso Flores** | **98.55** | **137** | LR | LR | 02 27 35.4 | |
| | comp=Z,46nm,19.5s,baz=338,slow=31 | | | | | | |
| **MKAR** | **Makanchi Array** | **101.85** | **315** | P | **Pdif** | **01 51 17.0** | **+1.0** |
| | 0.5nm,0.8s,baz=98,slow=5.4,SNR=4.2 | | | | | | |
| **ARU** | **Arti** | **116.86** | **325** | *e*PKPdf | **PKPdf** | **01 56 06.5** | **-0.3** |
| ARCES | **ARCESS Array B** | **123.61** | **346** | PKP | **PKPdf** | **01 56 19.5** | **0.0** |
| | 2.8nm,0.8s,baz=214,slow=1.3,SNR=5.0 | | | | | | |
| GERES | **GERESS Array B** | **143.64** | **335** | PKP | PKPbc | 01 56 55.2 | +0.2 |
| | 0.8nm,0.8s,baz=76,slow=4.1,SNR=5.4 | | | | | | |
| **MOA** | **Molln** | **144.19** | **334** | *e*pPKiKP | **PKPdf** | **01 57 04.6** | **+6.1** |
| | 16nm,1.5s | | | | | | |
| **SOKA** | **Soboth** | **144.75** | **332** | *e*PKPdf | **PKPdf** | **01 56 59.0** | **-0.5** |
| | 10nm,1.3s | | | | | | |
| **OBKA** | **Obir** | **145.10** | **332** | *e*PKPdf | **PKPdf** | **01 56 60.0** | **-0.1** |
| | 14nm,1.7s | | | | | | |
| **KBA** | **Koelnbreinsper** | **145.19** | **334** | *e*PKPab | **PKPbc** | **01 56 58.9** | **-1.1** |
| | 8.2nm,0.8s | | | | | | |
| **STU** | **Stuttgart** | **145.37** | **339** | *e*PKPbc | **PKPab** | **01 57 01.2** | **+0.7** |
| **MYKA** | **Terra Mystica** | **145.41** | **333** | *e*PKPdf | **PKPbc** | **01 56 59.9** | **-0.7** |
| | 26nm,1.7s | | | | | | |
| **WLF** | **Walferdange** | **145.50** | **343** | *e*PKPbc | **PKPab** | **01 57 01.6** | **+0.7** |
| **WTTA** | **Wattenberg** | **145.74** | **336** | *e*PKPab | **PKPdf** | **01 57 01.1** | **-0.2** |
| | 5.6nm,0.7s | | | | | | |
| **ABTA** | **Abfaltersbach** | **145.80** | **334** | *e*PKPbc | **PKPdf** | **01 57 00.8** | **-0.5** |
| | 15nm,0.9s | | | | | | |
| **MOTA** | **Moosalm** | **145.88** | **336** | *e*PKPab | **PKPab** | **01 57 02.5** | **0.0** |
| | 16nm,1.0s | | | | | | |
| **RETA** | **Reutte** | **145.89** | **337** | *e*PKPab | **PKPbc** | **01 57 02.1** | **0.0** |
| | 16nm,1.4s | | | | | | |
| **BFO** | **Black Forest** | **146.04** | **340** | *e*PKPbc | **PKPab** | **01 57 02.9** | **-0.1** |
| **FETA** | **Feichten** | **146.29** | **336** | *e*pPKPdf | **PKPab** | **01 57 04.2** | **0.0** |
| | 23nm,1.4s | | | | | | |
| **DAVA** | **Damuels** | **146.39** | **337** | *e*PKPab | **PKPbc** | **01 57 03.2** | **-0.5** |
| | 19nm,1.4s | | | | | | |
| DAVOX | **Davos/Dischmat** | **146.81** | **337** | PKPbc | **PKPbc** | **01 57 05.5** | **+0.6** |
| | 6.7nm,0.9s,baz=23,slow=5.5,SNR=7.7 | | | | | | |
| **TUE** | **Stuetta** | **147.27** | **337** | *e*PKPbc | **PKPbc** | **01 57 05.7** | **-0.6** |
| **CUC** | **Castrocucco** | **149.05** | **322** | *e*PKPbc | **PKPbc** | **01 57 10.8** | **-0.2** |
| **BNI** | **Bardonecchia** | **149.45** | **339** | *e*PKPbc | **PKPbc** | **01 57 12.5** | **+0.5** |

**IDC 16 01:56:32.2±1.8, 5°.67N×127°.59E, h0km, mb3.2/3, mb1 3.3/3, mb1mx3.2/31, mbtmp3.2/3, MS3.4/1, Ms1 3.4/1, ms1mx2.7/9, Error ellipse: s-maj=173.5km s-min=26.3km az=70.0, Philippine Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **26.31** | **166** | P | P | 02 02 09.9 | +0.1 |
| | 0.3nm,1.0s,baz=348,slow=10,SNR=3.4 | | | | | | |
| **SONM** | **Songino Array** | **45.76** | **340** | P | P | 02 04 56.4 | +0.8 |
| | 0.2nm,0.3s,baz=148,slow=8.4,SNR=2.3 | | | | | | |
| SONM | | | | LR | LR | 02 25 35.6 | |
| | comp=Z,40nm,19.0s,baz=228,slow=38 | | | | | | |
| **MKAR** | **Makanchi Array** | **56.48** | **324** | P | P | 02 06 15.0 | -1.1 |
| | 0.4nm,0.8s,baz=111,slow=6.6,SNR=5.3 | | | | | | |

*DDA **16** 02:21:01.9, 38°.73N×43°.70E, h7km, Ml2.7*

*ISCJB **16** 02:21:02.8±0.7, 38°.75N±0°.03×43°.66E±0°.06, h8km±6km, Error ellipse: s-maj=7.8km s-min=4.2km az=23.3*

*CSEM **16** 02:21:02.9±0.2, 38°.77N×43°.62E, h10km, MD2.8, Error ellipse: s-maj=5.8km s-min=3.5km az=109.0*

*ISK **16** 02:21:02.4, 38°.76N×43°.61E, h6km, MD2.8*

**ISC 16 02:21:03.0±1.0, 38°.74N±0°.03×43°.66E±0°.04, h13km±7km, n28, σ0§94/42, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.26** | **344** | *i* P | **Pg** | **02 21 07.8** | **-0.7** |
| VMUR | | | | *i* S | **Sg** | **02 21 13.6** | **+1.3** |
| **VMUR** | **Van-Muradiye** | **0.26** | **344** | P | **Pg** | **02 21 07.8** | **-0.7** |
| VMUR | | | | S | **Sg** | **02 21 13.6** | **+1.3** |
| **VANB** | **Van** | **0.26** | **235** | *e*PG | **Pg** | **02 21 08.8** | **+0.3** |
| **VANB** | **Van** | **0.26** | **235** | *e*Pg | **Pg** | **02 21 08.8** | **+0.3** |
| **TVAN** | **Van** | **0.29** | **223** | *i* P | **Pg** | **02 21 08.7** | **-0.4** |
| TVAN | | | | *i* S | **Sg** | **02 21 13.1** | **-0.2** |
| **TVAN** | **Van** | **0.29** | **223** | P | **Pg** | **02 21 08.7** | **-0.4** |
| TVAN | | | | S | **Sg** | **02 21 13.1** | **-0.2** |
| **ERCV** | **ERCIS-VAN** | **0.37** | **318** | *e*PG | **Pg** | **02 21 09.4** | **-1.2** |
| **ERCV** | **ERCIS-VAN** | **0.37** | **318** | *e*Pg | **Pg** | **02 21 09.4** | **-1.2** |
| **CLDR** | **Caldiran** | **0.45** | **27** | *e*PG | **Pg** | **02 21 11.5** | **-0.4** |
| CLDR | | | | *e*SG | **Sb** | **02 21 18.4** | **-1.1** |
| **CLDR** | **Caldiran** | **0.45** | **27** | *e*Pg | **Pg** | **02 21 11.5** | **-0.4** |
| CLDR | | | | *e*Sg | **Sb** | **02 21 18.4** | **-1.1** |
| **GEVA** | **Gevas** | **0.64** | **228** | *i* P | **Pg** | **02 21 14.4** | **-1.1** |
| GEVA | | | | *i* S | **Sb** | **02 21 24.2** | **-0.8** |
| **GEVA** | **Gevas** | **0.64** | **228** | P | **Pg** | **02 21 14.4** | **-1.1** |
| GEVA | | | | S | **Sb** | **02 21 24.2** | **-0.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.73** | **275** | *i* P | **Pb** | **02 21 17.3** | **-0.4** |
| ADCV | | | | *i* S | **Sb** | **02 21 27.7** | **0.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.73** | **275** | P | **Pb** | **02 21 17.3** | **-0.4** |
| ADCV | | | | S | **Sb** | **02 21 27.7** | **0.0** |
| **TUTA** | **Tutak** | **0.93** | **315** | *i* P | **Pg** | **02 21 19.9** | **-1.0** |
| **TUTA** | **Tutak** | **0.93** | **315** | P | **Pg** | **02 21 20.0** | **-1.0** |
| **AGRB** | **Hanur-Agry** | **0.98** | **328** | *e*PG | **Pg** | **02 21 20.7** | **-1.2** |
| AGRB | | | | *e*SG | **Sb** | **02 21 34.7** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **0.98** | **328** | *e*Pg | **Pg** | **02 21 20.7** | **-1.2** |
| AGRB | | | | *e*Sg | **Sb** | **02 21 34.7** | **-0.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.32** | **20** | *e*PN | **Pg** | **02 21 27.6** | **-0.6** |
| **TASB** | **TASBURUN-IGDIR** | **1.32** | **20** | *e*Pn | **Pg** | **02 21 27.7** | **-0.6** |
| **EKAR** | **Karacoban** | **1.34** | **293** | *i* P | **Pn** | **02 21 27.0** | **-0.6** |
| EKAR | | | | *i* S | **Sn** | **02 21 47.9** | **+2.4** |
| **EKAR** | **Karacoban** | **1.34** | **293** | P | **Pn** | **02 21 27.0** | **-0.6** |
| EKAR | | | | S | **Sn** | **02 21 47.9** | **+2.4** |
| **CUKT** | **Cukurca** | **1.49** | **182** | *e*PN | **Pb** | **02 21 30.7** | **+0.1** |
| **CUKT** | **Cukurca** | **1.49** | **182** | *e*Pn | **Pb** | **02 21 30.7** | **+0.1** |
| **SIRT** | **Sirnak** | **1.57** | **218** | *e*PN | **Pb** | **02 21 31.7** | **-0.2** |
| **SIRT** | **Sirnak** | **1.57** | **218** | *e*Pn | **Pb** | **02 21 31.7** | **-0.2** |
| **SENK** | **Senkaya-Erzuru** | **2.08** | **331** | *e*PN | **Pn** | **02 21 38.0** | **+0.3** |
| **SENK** | **Senkaya-Erzuru** | **2.08** | **331** | *e*Pn | **Pn** | **02 21 38.0** | **+0.3** |

*ISK **16** 02:32:25.4, 38°.60N×43°.21E, h20km, MD2.6*

*CSEM **16** 02:32:26.3±0.2, 38°.60N×43°.26E, h20km, MD2.6, Error ellipse: s-maj=4.9km s-min=4.7km az=88.0*

*ISCJB **16** 02:32:27.2±0.8, 38°.62N±0°.04×43°.27E±0°.06, h20km±8km, Error ellipse: s-maj=8.1km s-min=5.6km az=36.8*

*DDA **16** 02:32:27.3, 38°.64N×43°.27E, h7km, Ml2.5*

**ISC 16 02:32:26.8±0.9, 38°.64N±0°.03×43°.26E±0°.03, h18km±4km, n20, σ0§54/37, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.11** | **116** | *e*PG | **Pg** | **02 32 30.6** | **-0.2** |
| VANB | | | | *e*SG | **Sg** | **02 32 34.2** | **+0.8** |
| **VANB** | **Van** | **0.11** | **116** | *e*Pg | **Pg** | **02 32 30.6** | **-0.2** |
| VANB | | | | *e*Sg | **Sg** | **02 32 34.2** | **+0.8** |
| **TVAN** | **Van** | **0.16** | **135** | *i* P | **Pb** | **02 32 31.0** | **-0.1** |
| TVAN | | | | *i* S | **Sg** | **02 32 34.0** | **-0.5** |
| **TVAN** | **Van** | **0.16** | **135** | P | **Pb** | **02 32 31.0** | **-0.1** |
| TVAN | | | | S | **Sg** | **02 32 34.0** | **-0.5** |
| **GEVA** | **Gevas** | **0.37** | **206** | *i* P | **Pg** | **02 32 34.4** | **-0.2** |
| GEVA | | | | *i* S | **Sb** | **02 32 41.1** | **+0.6** |
| **GEVA** | **Gevas** | **0.37** | **206** | P | **Pg** | **02 32 34.4** | **-0.2** |
| **ERCV** | **ERCIS-VAN** | **0.38** | **9** | *e*PG | **Pg** | **02 32 34.6** | **-0.3** |
| ERCV | | | | *e*SG | **Sb** | **02 32 41.4** | **+0.5** |
| **ERCV** | **ERCIS-VAN** | **0.38** | **9** | *e*Pg | **Pg** | **02 32 34.6** | **-0.3** |
| ERCV | | | | *e*Sg | **Sb** | **02 32 41.4** | **+0.5** |
| **VMUR** | **Van-Muradiye** | **0.42** | **35** | *i* P | **Pb** | **02 32 36.3** | **+0.4** |
| VMUR | | | | *i* S | **Sb** | **02 32 42.9** | **+0.8** |
| **VMUR** | **Van-Muradiye** | **0.42** | **35** | P | **Pb** | **02 32 36.3** | **+0.4** |
| VMUR | | | | S | **Sb** | **02 32 42.9** | **+0.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.45** | **291** | *i* P | **Pb** | **02 32 36.3** | **-0.1** |
| ADCV | | | | *i* S | **Sb** | **02 32 44.1** | **+1.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.45** | **291** | P | **Pb** | **02 32 36.3** | **-0.1** |
| ADCV | | | | S | **Sb** | **02 32 44.1** | **+1.2** |
| **CLDR** | **Caldiran** | **0.71** | **46** | *e*PG | **Pb** | **02 32 40.9** | **0.0** |
| CLDR | | | | *e*SG | **Sn** | **02 32 52.3** | **-0.7** |
| **CLDR** | **Caldiran** | **0.71** | **46** | *e*Pg | **Pb** | **02 32 40.9** | **0.0** |
| CLDR | | | | *e*Sg | **Sn** | **02 32 52.3** | **-0.7** |
| **TUTA** | **Tutak** | **0.83** | **335** | *i* P | **Pb** | **02 32 42.7** | **-0.2** |
| TUTA | | | | *i* S | **Sb** | **02 32 53.6** | **-0.3** |
| **TUTA** | **Tutak** | **0.83** | **335** | P | **Pb** | **02 32 42.7** | **-0.2** |
| TUTA | | | | S | **Sb** | **02 32 53.6** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **0.95** | **347** | *e*PG | **Pb** | **02 32 44.5** | **-0.5** |
| **AGRB** | **Hanur-Agry** | **0.95** | **347** | *e*Pg | **Pb** | **02 32 44.5** | **-0.5** |
| **EATA** | **Eleskirt** | **1.35** | **334** | *i* P | **Pb** | **02 32 52.0** | **+0.1** |
| EATA | | | | *i* S | **Sn** | **02 33 08.7** | **-0.3** |
| **EATA** | **Eleskirt** | **1.35** | **334** | P | **Pb** | **02 32 52.0** | **+0.1** |
| EATA | | | | S | **Sn** | **02 33 08.6** | **-0.3** |

*ISCJB **16** 02:42:14.3±1.4, 67°.79N±0°.05×34°.0E±0°.2, h0km, Error ellipse: s-maj=11.8km s-min=6.3km az=12.2*

*CSEM **16** 02:42:16.8±0.7, 67°.70N×34°.02E, h2km, ML2.8, Error ellipse: s-maj=16.7km s-min=8.7km az=104.0, Suspected Mining explosion.*

*KOLA **16** 02:42:19.0, 67°.66N×33°.78E, h0km*

*NAO **16** 02:42:19.6±1.1, 67°.68N×33°.67E, ML2.8*

*IDC **16** 02:42:21.5±2.6, 67°.67N×33°.39E, h0km, mb1 3.5/3, mb1mx3.2/53, mbtmp3.4/3, ML2.9/3, Error ellipse: s-maj=28.4km s-min=9.0km az=76.0*

**ISC 16 02:42:16.6±1.6, 67°.64N±0°.05×33°.98E±0°.10, h0km, n20, σ1§41/32, Baltic States-Belarus-Northwestern Russia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **APA** | **Apatity** | **0.23** | **252** | P | **Pg** | **02 42 22.0** | **+1.1** |
| APA | | | | S | **Sg** | **02 42 24.2** | **+0.3** |
| **APZ9** | **Apatity** | **0.23** | **252** | Pg | **Pg** | **02 42 22.1** | **+1.2** |
| APZ9 | | | | Lg | Lg | 02 42 24.7 | |
| **APZ9** | **Apatity** | **0.23** | **252** | Pg | **Pg** | **02 42 22.1** | **+1.2** |
| APZ9 | | | | Lg | Lg | 02 42 24.7 | |
| **APZ9** | **Apatity** | **0.23** | **252** | Pg | **Pg** | **02 42 22.1** | **+1.2** |
| APZ9 | | | | Lg | Lg | 02 42 24.7 | |
| **APA0** | **Apatity Array** | **0.38** | **265** | Pg | **Pg** | **02 42 24.4** | **+0.6** |
| | baz=73,slow=16 | | | | | | |
| APA0 | | | | Lg | Lg | 02 42 28.8 | |
| | baz=72,slow=28 | | | | | | |
| APA0 | | | | Rg | Rg | 02 42 30.4 | |
| | baz=68,slow=37 | | | | | | |
| **APA0** | **Apatity Array** | **0.38** | **265** | P | **Pg** | **02 42 24.4** | **+0.6** |
| APA0 | | | | S | **Sg** | **02 42 28.4** | **-0.2** |
| **APA0** | **Apatity Array** | **0.38** | **265** | Pg | **Pg** | **02 42 24.4** | **+0.6** |
| | baz=73,slow=16 | | | | | | |
| APA0 | | | | Lg | Lg | 02 42 28.8 | |
| | baz=72,slow=28 | | | | | | |
| APA0 | | | | Rg | Rg | 02 42 30.4 | |
| | baz=68,slow=37 | | | | | | |
| **APA0** | **Apatity Array** | **0.38** | **265** | Pg | **Pg** | **02 42 24.4** | **+0.6** |
| | SNR=525 | | | | | | |
| APA0 | | | | Lg | Lg | 02 42 28.8 | |
| **ARA0** | **ARCESS Array S** | **3.64** | **305** | Pn | **Pn** | **02 43 15.2** | **+1.1** |
| | baz=122,slow=14 | | | | | | |
| ARA0 | | | | Pg | **Pb** | **02 43 23.1** | **+1.4** |
| | baz=118,slow=16 | | | | | | |
| ARA0 | | | | Sn | **Sn** | **02 43 56.2** | **-1.5** |
| | baz=120,slow=28 | | | | | | |
| ARA0 | | | | Lg | Lg | 02 44 10.9 | |
| | baz=125,slow=37 | | | | | | |
| **ARA0** | **ARCESS Array S** | **3.64** | **305** | Pn | **Pn** | **02 43 15.2** | **+1.1** |
| | baz=122,slow=14 | | | | | | |
| ARA0 | | | | Pg | **Pb** | **02 43 23.1** | **+1.4** |
| | baz=118,slow=16 | | | | | | |
| ARA0 | | | | Sn | **Sn** | **02 43 56.2** | **-1.5** |
| | baz=120,slow=28 | | | | | | |
| ARA0 | | | | Lg | Lg | 02 44 10.9 | |
| | baz=125,slow=37 | | | | | | |
| **ARA0** | **ARCESS Array S** | **3.64** | **305** | Pn | **Pn** | **02 43 15.2** | **+1.1** |
| | SNR=253 | | | | | | |
| ARA0 | | | | Sn | **Sn** | **02 43 56.2** | **-1.5** |
| | SNR=8.4 | | | | | | |
| ARA0 | | | | Lg | Lg | 02 44 10.9 | |
| | SNR=1.2 | | | | | | |
| ARCES | **ARCESS Array B** | **3.64** | **305** | Pn | **Pn** | **02 43 15.1** | **+1.0** |
| | 2.7nm,0.3s,baz=122,slow=15,SNR=192 | | | | | | |
| ARCES | | | | Pg | **Pb** | **02 43 23.8** | **+2.1** |
| | 3.1nm,0.3s,baz=116,slow=15,SNR=22 | | | | | | |
| ARCES | | | | Sn | **Sn** | **02 43 55.9** | **-1.8** |
| | 1.8nm,

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| VANB | | | | *e*SG | | **Sg** | **02 46 41.0** | **+1.4** |
| **VANB** | **Van** | **0.20** | **117** | *e*Pg | | **Pg** | **02 46 36.2** | **-0.3** |
| VANB | | | | *e*Sg | | **Sg** | **02 46 41.0** | **+1.4** |
| **TVAN** | **Van** | **0.25** | **129** | *i* P | | **Pg** | **02 46 36.2** | **-1.1** |
| TVAN | | | | *i* S | | **Sg** | **02 46 40.8** | **-0.2** |
| **TVAN** | **Van** | **0.25** | **129** | P | | **Pg** | **02 46 36.2** | **-1.1** |
| TVAN | | | | S | | **Sg** | **02 46 40.8** | **-0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.36** | **289** | *i* P | | **Pg** | **02 46 38.8** | **-0.3** |
| ADCV | | | | *i* S | | **Sb** | **02 46 45.2** | **-0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.36** | **289** | P | | **Pg** | **02 46 38.8** | **-0.3** |
| ADCV | | | | S | | **Sb** | **02 46 45.2** | **-0.5** |
| **ERCV** | **ERCIS-VAN** | **0.36** | **23** | *e*PG | | **Pg** | **02 46 38.2** | **-0.9** |
| ERCV | | | | *e*SG | | **Sb** | **02 46 44.3** | **-1.4** |
| **ERCV** | **ERCIS-VAN** | **0.36** | **23** | *e*Pg | | **Pg** | **02 46 38.2** | **-0.9** |
| ERCV | | | | *e*Sg | | **Sb** | **02 46 44.3** | **-1.4** |
| **GEVA** | **Gevas** | **0.39** | **192** | *i* P | | **Pg** | **02 46 38.1** | **-1.5** |
| GEVA | | | | *i* S | | **Sb** | **02 46 45.6** | **-0.8** |
| **GEVA** | **Gevas** | **0.39** | **192** | P | | **Pg** | **02 46 38.1** | **-1.5** |
| GEVA | | | | S | | **Sb** | **02 46 45.6** | **-0.8** |
| **VMUR** | **Van-Muradiye** | **0.44** | **47** | *i* P | | **Pg** | **02 46 40.2** | **-0.4** |
| VMUR | | | | *i* S | | **Sb** | **02 46 47.5** | **-0.6** |
| **VMUR** | **Van-Muradiye** | **0.44** | **47** | P | | **Pg** | **02 46 40.2** | **-0.4** |
| VMUR | | | | S | | **Sb** | **02 46 47.5** | **-0.6** |
| **CLDR** | **Caldiran** | **0.75** | **52** | *e*PG | | **Pg** | **02 46 45.5** | **-0.8** |
| CLDR | | | | *e*SG | | **Sb** | **02 46 56.6** | **-0.3** |
| **CLDR** | **Caldiran** | **0.75** | **52** | *i* P | | **Pg** | **02 46 45.1** | **-1.2** |
| CLDR | | | | *i* S | | **Sb** | **02 46 56.1** | **-0.8** |
| **CLDR** | **Caldiran** | **0.75** | **52** | P | | **Pg** | **02 46 45.1** | **-1.2** |
| **CLDR** | **Caldiran** | **0.75** | **52** | *e*Pg | | **Pg** | **02 46 45.5** | **-0.8** |
| CLDR | | | | S | | **Sb** | **02 46 56.1** | **-0.8** |
| **TUTA** | **Tutak** | **0.76** | **339** | *i* P | | **Pg** | **02 46 45.6** | **-1.0** |
| TUTA | | | | *i* S | | **Sg** | **02 46 56.1** | **-0.5** |
| **TUTA** | **Tutak** | **0.76** | **339** | P | | **Pg** | **02 46 45.6** | **-1.0** |
| TUTA | | | | S | | **Sg** | **02 46 56.1** | **-0.5** |
| **AGRB** | **Hanur-Agry** | **0.89** | **352** | *e*PG | | **Pg** | **02 46 48.1** | **-1.0** |
| **AGRB** | **Hanur-Agry** | **0.89** | **352** | *e*Pg | | **Pg** | **02 46 48.1** | **-1.0** |
| **EKAR** | **Karacoban** | **1.02** | **304** | *i* P | | **Pb** | **02 46 51.9** | **+0.4** |
| EKAR | | | | *i* S | | **Sn** | **02 47 08.2** | **+1.9** |
| **EKAR** | **Karacoban** | **1.02** | **304** | P | | **Pb** | **02 46 51.9** | **+0.4** |
| EKAR | | | | S | | **Sn** | **02 47 08.2** | **+1.9** |
| **SRTM** | **Siirt_Merkez** | **1.20** | **235** | *i* P | | **Pg** | **02 46 53.8** | **-1.0** |
| SRTM | | | | *i* S | | **Sn** | **02 47 11.2** | **+0.8** |
| **SRTM** | **Siirt_Merkez** | **1.20** | **235** | P | | **Pg** | **02 46 53.8** | **-1.0** |
| SRTM | | | | S | | **Sn** | **02 47 11.2** | **+0.8** |
| **EATA** | **Eleskirt** | **1.28** | **336** | *i* P | | **Pg** | **02 46 54.9** | **-1.6** |
| EATA | | | | *i* S | | **Sn** | **02 47 13.7** | **+0.9** |
| **EATA** | **Eleskirt** | **1.28** | **336** | P | | **Pg** | **02 46 54.9** | **-1.6** |
| EATA | | | | S | | **Sn** | **02 47 13.7** | **+0.9** |
| **SIRT** | **Sirnak** | **1.31** | **206** | *e*PN | | **Pg** | **02 46 56.6** | **-0.5** |
| **SIRT** | **Sirnak** | **1.31** | **206** | *e*Pn | | **Pg** | **02 46 56.6** | **-0.5** |
| **CUKT** | **Cukurca** | **1.48** | **166** | *e*PN | | **Pb** | **02 46 59.1** | **-0.2** |
| **CUKT** | **Cukurca** | **1.48** | **166** | *e*Pn | | **Pb** | **02 46 59.1** | **-0.2** |
| **BNGB** | **Bingˆǁ** | **1.96** | **280** | *e*PN | | **Pn** | **02 47 05.8** | **+1.1** |
| **SENK** | **Senkaya-Erzuru** | **1.97** | **342** | *e*PN | | **Pn** | **02 47 06.0** | **+1.0** |
| **SENK** | **Senkaya-Erzuru** | **1.97** | **342** | *e*Pn | | **Pn** | **02 47 06.0** | **+1.0** |
| **BINT** | **Bingol** | **2.09** | **276** | *e*Pn | | **Pn** | **02 47 05.8** | **-0.8** |

*IDC* ***16*** *02:49:30.3±2.8, 2˚.74N×128˚.69E, h217km±28km, mb3.5/7, mb1 3.7/7, mb1mx3.3/38, mbtmp4.0/7, MS2.7/1, Ms1 2.7/1, ms1mx2.3/24, Error ellipse: s-maj=31.2km s-min=12.8km az=79.0*

*ISCJB* ***16*** *02:49:34.1±0.7, 2˚.47N±0˚.06×128˚.15E±0˚.05, h250km, mb3.8/6, Error ellipse: s-maj=8.5km s-min=6.7km az=168.0*

*DJA* ***16*** *02:49:35.2±0.3, 3˚N±3˚×12˚8E±˚, h174km±3km, M4.5/15, mb4.6/15, mB4.7/6, MLv4.8/8, Mw(mB)3.9/6*

**ISC 16 02:49:34.7±0.8, 2˚.46N±0˚.07×128˚.23E±0˚.07, h250km, n25, σ2°88/32, mb3.8/6, Halmahera**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SGSI** | **Sangihe** | **2.96** | **294** | P | **Pn** | **02 50 25.4** | **-1.4** |
| SGSI | | | | S | | 02 50 57.4 | -11 |
| **LBMI** | **Labuha** | **3.16** | **193** | P | **Pn** | **02 50 29.1** | **+0.1** |
| LBMI | | | | S | **S** | **02 51 04.6** | **-7.5** |
| **KMSI** | **Cibinong** | **4.64** | **246** | P | **Pn** | **02 50 46.4** | **+0.2** |
| KMSI | | | | S | **S** | **02 51 36.8** | **-6.3** |
| **SANI** | **Sanana** | **5.01** | **207** | P | **Pn** | **02 50 50.8** | **+0.1** |
| SANI | | | | S | **S** | **02 51 48.3** | **-2.9** |
| **DAV** | **Davao City (W)** | **5.29** | **330** | LR | LR | 02 52 26.6 | |
| | comp=Z,666nm,19.1s,baz=9.5,slow=33 | | | | | | |
| **NLAI** | **Namlea** | **5.77** | **191** | P | **Pn** | **02 51 01.4** | **+1.3** |
| NLAI | | | | S | **S** | **02 52 05.6** | **-2.7** |
| **LUWI** | **Luwuk** | **6.47** | **238** | P | **Pn** | **02 51 09.9** | **+1.1** |
| LUWI | | | | S | **S** | **02 52 20.0** | **-4.2** |
| **MRSI** | **Marisa** | **6.59** | **253** | P | **Pn** | **02 51 11.1** | **+0.8** |
| MRSI | | | | S | **S** | **02 52 21.9** | **-4.9** |
| **APSI** | **Ampana** | **7.38** | **243** | P | **Pn** | **02 51 22.4** | **+2.1** |
| APSI | | | | S | **S** | **02 52 42.2** | **-2.9** |
| **SPSI** | **Sidrap Palu** | **10.60** | **233** | P | **Pn** | **02 51 59.0** | **-1.8** |
| SPSI | | | | S | **S** | **02 54 03.3** | **+3.6** |
| **SOEI** | **Soe** | **12.76** | **198** | P | **Pn** | **02 52 30.9** | **+3.0** |
| SOEI | | | | S | Pn | 02 52 33.6 | +5.7 |
| **EDFI** | **Ende, Flores** | **12.90** | **210** | P | **P** | **02 52 34.1** | **+2.5** |
| **GENI** | **Genyem** | **12.95** | **113** | P | **P** | **02 52 31.3** | **-0.6** |
| | 108nm,0.6s | | | | | | |
| **JAY** | **Jayapura** | **13.41** | **112** | P | **P** | **02 52 37.5** | **+0.3** |
| **PLAI** | **Plampang** | **15.31** | **223** | P | **Pn** | **02 53 02.8** | **+4.1** |
| | 54nm,0.8s | | | | | | |
| **JAGI** | **Jajag, Banyuwa** | **17.75** | **232** | P | **Pn** | **02 53 29.7** | **+2.2** |
| | 28nm,0.8s | | | | | | |
| **BLJI** | **Banyuglugur** | **17.78** | **235** | P | Pn | 02 53 36.6 | +8.8 |
| **PWJI** | **Pagerwojo** | **19.41** | **237** | P | **Pn** | **02 53 48.4** | **+1.4** |
| **FITZ** | **Fitzroy Crossi** | **20.59** | **187** | P | **P** | **02 53 55.6** | **+0.4** |
| | 2.2nm,0.5s,baz=21,slow=7.7,SNR=20 | | | | | | |
| **WRA** | **Warramunga Arr** | **23.06** | **165** | P | **P** | **02 54 18.7** | **+0.3** |
| | 1.5nm,0.4s,baz=342,slow=10,SNR=34 | | | | | | |
| **ASAR** | **Alice Springs** | **26.55** | **168** | P | **P** | **02 54 50.3** | **+0.3** |
| | 1.5nm,0.4s,baz=353,slow=7.6,SNR=41 | | | | | | |
| ASAR | | | | ScP | **ScP** | **03 01 25.6** | **+1.8** |
| | 0.6nm,0.6s,baz=339,slow=2.1,SNR=5.7 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **32.80** | **301** | P | **P** | **02 55 46.7** | **+1.7** |
| | 4.5nm,0.3s,baz=106,slow=5.9,SNR=4.2 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **35.14** | **14** | P | P | 02 55 59.2 | -5.6 |
| | 1.9nm,0.6s,baz=186,slow=10,SNR=5.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **59.45** | **325** | P | **P** | **02 59 10.2** | **-1.3** |
| | 0.3nm,0.5s,baz=120,slow=8.5,SNR=3.0 | | | | | | |
| MKAR | | | | pP | **pP** | **03 00 06.3** | **-0.9** |
| | 0.5nm,0.5s,baz=117,slow=8.7,SNR=3.6 | | | | | | |
| **ILAR** | **Eielson Array** | **85.60** | **25** | P | **P** | **03 01 42.8** | **-2.0** |
| | 0.3nm,0.5s,baz=273,slow=5.2,SNR=4.0 | | | | | | |

*ISK* ***16*** *03:04:07.9, 37˚.23N×28˚.71E, h7km, MD2.8*

*ISCJB* ***16*** *03:04:08.2±0.6, 37˚.23N±0˚.02×28˚.70E±0˚.05, h6km±8km, Error ellipse: s-maj=6.3km s-min=4.1km az=8.6*

*DDA* ***16*** *03:04:08.0, 37˚.21N×28˚.75E, h7km, Ml2.8*

*CSEM* ***16*** *03:04:08.4±0.1, 37˚.23N×28˚.72E, h8km, ML2.8, Error ellipse: s-maj=2.7km s-min=2.1km az=103.0*

**ISC 16 03:04:08.6±1.0, 37˚.23N±0˚.02×28˚.76E±0˚.03, h9km±10km, n33, σ0°85/50, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TAVA** | **DENIZLI_Tavas** | **0.27** | **28** | *i* P | **Pg** | **03 04 13.8** | **-0.2** |
| TAVA | | | | *i* S | **Sg** | **03 04 18.3** | **+0.6** |
| **TAVA** | **DENIZLI_Tavas** | **0.27** | **28** | P | **Pg** | **03 04 13.8** | **-0.2** |
| TAVA | | | | S | **Sg** | **03 04 18.3** | **+0.6** |
| **TURN** | **Turunc** | **0.38** | **199** | *e*PG | **Pn** | **03 04 19.7** | **-0.5** |
| **TURN** | **Turunc** | **0.38** | **199** | *i* P | **Pg** | **03 04 19.5** | **-0.7** |
| TURN | | | | *i* S | **Sb** | **03 04 28.2** | **+4.8** |
| **TURN** | **Turunc** | **0.38** | **199** | *e*Pg | **Pn** | **03 04 19.7** | **-0.5** |
| **DALY** | **Dalyan (Muˇla** | **0.42** | **191** | *e*PG | **Pg** | **03 04 16.1** | **-0.7** |
| DALY | | | | *e*SG | **Sg** | **03 04 22.8** | **+0.5** |
| **DALY** | **Dalyan (Muˇla** | **0.42** | **191** | *i* P | **Pg** | **03 04 16.5** | **-0.3** |
| DALY | | | | *i* S | **Sg** | **03 04 21.9** | **-0.4** |
| **DALY** | **Dalyan (Muˇla** | **0.42** | **191** | *e*Pg | **Pg** | **03 04 16.5** | **-0.7** |
| **DALY** | **Dalyan (Muˇla** | **0.42** | **191** | P | **Pg** | **03 04 16.5** | **-0.3** |
| DALY | | | | S | **Sg** | **03 04 21.9** | **-0.4** |
| DALY | | | | *e*Sg | **Sg** | **03 04 22.8** | **+0.5** |
| **DNZL** | **Cakiroluk** | **0.52** | **27** | *i* P | **Pg** | **03 04 18.6** | **-0.1** |
| DNZL | | | | *i* S | **Sg** | **03 04 26.4** | **+0.9** |
| **DNZL** | **Cakiroluk** | **0.52** | **27** | P | **Pg** | **03 04 18.6** | **-0.1** |
| DNZL | | | | S | **Sg** | **03 04 26.4** | **+0.9** |
| **DENT** | **Denizli** | **0.57** | **23** | *e*PG | **Pg** | **03 04 19.7** | **0.0** |
| DENT | | | | *e*SG | **Sb** | **03 04 28.2** | **-0.9** |
| **DENT** | **Denizli** | **0.57** | **23** | *e*Pg | **Pg** | **03 04 19.7** | **0.0** |
| DENT | | | | *e*Sg | **Sb** | **03 04 28.2** | **-0.9** |
| **GLHS** | **Glhisar (BURDU** | **0.60** | **97** | *e*PG | **Pb** | **03 04 20.8** | **-0.5** |
| GLHS | | | | *e*SG | **Sb** | **03 04 30.0** | **+0.1** |
| **GLHS** | **Glhisar (BURDU** | **0.60** | **97** | *e*Pg | **Pb** | **03 04 20.8** | **-0.5** |
| GLHS | | | | *e*Sg | **Sb** | **03 04 30.0** | **+0.1** |
| **GOLH** | **Golhisar** | **0.64** | **89** | *i* P | **Pg** | **03 04 21.1** | **0.0** |
| GOLH | | | | *i* S | **Sb** | **03 04 31.5** | **+0.3** |
| **GOLH** | **Golhisar** | **0.64** | **89** | P | **Pg** | **03 04 21.1** | **0.0** |
| GOLH | | | | S | **Sb** | **03 04 31.5** | **+0.3** |
| **FETY** | **Fethiye** | **0.65** | **156** | *e*PG | **Pg** | **03 04 20.6** | **-0.5** |
| FETY | | | | *e*SG | **Sb** | **03 04 30.9** | **-0.4** |
| **FETY** | **Fethiye** | **0.65** | **156** | *e*Pg | **Pg** | **03 04 20.6** | **-0.5** |
| FETY | | | | *e*Sg | **Sb** | **03 04 30.9** | **-0.4** |
| **AYDN** | **Tasoluk** | **0.82** | **302** | *i* P | **Pg** | **03 04 24.3** | **-0.1** |
| **AYDN** | **Tasoluk** | **0.82** | **302** | P | **Pg** | **03 04 24.3** | **-0.1** |
| **ELL** | **Elmali** | **1.04** | **117** | *e*PG | **Pg** | **03 04 29.0** | **+0.1** |
| **ELL** | **Elmali** | **1.04** | **117** | *e*Pg | **Pb** | **03 04 29.0** | **+0.1** |
| **BODT** | **Bodrum** | **1.17** | **262** | *e*PN | **Pb** | **03 04 30.2** | **-0.7** |
| **BODT** | **Bodrum** | **1.17** | **262** | *e*Pn | **Pb** | **03 04 30.3** | **-0.7** |
| **AKAS** | **Kas** | **1.21** | **145** | *e*PN | **Pn** | **03 04 31.7** | **-0.1** |
| **AKAS** | **Kas** | **1.21** | **145** | *e*Pn | **Pn** | **03 04 31.7** | **-0.1** |
| **KULA** | **Kula-Manisa** | **1.29** | **357** | *e*PN | **Pb** | **03 04 32.7** | **-0.3** |
| **KULA** | **Kula-Manisa** | **1.29** | **357** | *e*Pn | **Pb** | **03 04 32.7** | **-0.3** |
| **KORT** | **Korkueli** | **1.29** | **100** | *e*PN | **Pg** | **03 04 33.5** | **0.0** |
| **KORT** | **Korkueli** | **1.29** | **100** | *e*Pn | **Pg** | **03 04 33.5** | **0.0** |
| **KARP** | **Karpathos** | **2.11** | **218** | *e*PN | **Pn** | **03 04 44.7** | **+0.5** |
| **KARP** | **Karpathos** | **2.11** | **218** | *e*Pn | **Pn** | **03 04 44.7** | **+0.5** |

*KNET* ***16*** *03:14:39.8±0.1, 42˚.30N×75˚.87E, h3km±5km, ml3.2, Error ellipse: s-maj=0.6km s-min=0.4km az=151.0*

*NNC* ***16*** *03:14:40.0±0.8, 42˚.31N×75˚.87E, h0km, mb3.9, mpv3.7, Error ellipse: s-maj=5.2km s-min=3.6km az=163.0*

*KRNET* ***16*** *03:14:40.2±0.1, 42˚.30N×75˚.86E, h15km, mb3.7*

*SOME* ***16*** *03:14:41.1, 42˚.32N×75˚.88E, h5km*

*BJI* ***16*** *03:14:42.1, 42˚.45N×75˚.74E, h15km, ML3.3/6*

**ISC 16 03:14:40.0±0.9, 42˚.32N±0˚.02×75˚.86E±0˚.01, h13km±7km, n60, σ1°22/110, 32C-31D, Lake Issyk-Kul region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **BOOM** | **Boomskoye usch** | **0.18** | **20** | ⇑*i* P | **Pg** | **03 14 44.8** | **+0.4** |
| | baz=18 | | | | | | |
| BOOM | | | | ⇑*i* S | **Sg** | **03 14 48.0** | **+0.6** |
| | baz=18 | | | | | | |
| **ULHL** | **Ulahol** | **0.30** | **104** | ⇑*i* P | **Pg** | **03 14 45.8** | **-0.4** |
| | baz=105 | | | | | | |
| ULHL | | | | ⇑*i* S | **Sg** | **03 14 49.7** | **-0.7** |
| | baz=105 | | | | | | |
| **ULHL** | **Ulahol** | **0.30** | **104** | P | **Pg** | **03 14 45.8** | **-0.4** |
| | 307nm,0.1s,SNR=1771 | | | | | | |
| ULHL | | | | ⇑S | **Sg** | **03 14 49.7** | **-0.7** |
| | 3µm,0.2s | | | | | | |
| **KZA** | **Kyzart** | **0.51** | **242** | ⇑*i* P | **Pb** | **03 14 50.5** | **-0.5** |
| | baz=244 | | | | | | |
| KZA | | | | ⇑*i* S | **Sb** | **03 14 57.7** | **-0.8** |
| | baz=244 | | | | | | |
| **KZA** | **Kyzart** | **0.51** | **242** | ⇑P | **Pb** | **03 14 50.5** | **-0.5** |
| | 412nm,0.2s,SNR=236 | | | | | | |
| KZA | | | | ⇓S | **Sb** | **03 14 57.9** | **-0.6** |
| | 235nm,0.2s | | | | | | |
| **TKM2** | **Tokmak 2** | **0.63** | **343** | ⇓*i* P | **Pb** | **03 14 53.1** | **0.0** |
| | baz=343 | | | | | | |
| TKM2 | | | | ⇓*i* S | **Sb** | **03 15 01.8** | **-0.1** |
| | baz=343 | | | | | | |
| **TKM2** | **Tokmak 2** | **0.63** | **343** | ⇑P | **Pb** | **03 14 53.1** | **0.0** |
| | 112nm,0.3s | | | | | | |
| TKM2 | | | | ⇑S | **Sb** | **03 15 02.1** | **+0.2** |
| | 476nm,0.3s | | | | | | |
| **TKM2** | **Tokmak 2** | **0.63** | **343** | ⇓P | **Pb** | **03 14 53.1** | **0.0** |
| | 238nm,0.2s,SNR=210 | | | | | | |
| TKM2 | | | | ⇓S | **Sb** | **03 15 02.3** | **+0.4** |
| | 1µm,0.1s | | | | | | |
| **KST** | **Kastek** | **0.73** | **6** | *e*P | **Pb** | **03 14 55.1** | **+0.4** |
| | 26nm,0.3s | | | | | | |
| KST | | | | *e*S | **Sb** | **03 15 05.4** | **+0.7** |
| | 1µm,0.3s | | | | | | |
| **KBK** | **Karagaybulak** | **0.75** | **297** | ⇓*i* P | **Pb** | **03 14 55.3** | **+0.2** |
| | baz=298 | | | | | | |
| KBK | | | | ⇓*i* S | **Sb** | **03 15 05.9** | **+0.7** |
| | baz=298 | | | | | | |
| **KBK** | **Karagaybulak** | **0.75** | **297** | ⇓P | **Pb** | **03 14 55.3** | **+0.2** |
| | 78nm,0.1s,SNR=109 | | | | | | |
| KBK | | | | ⇑S | **Sb** | **03 15 06.0** | **+0.7** |
| | 859nm,0.2s | | | | | | |
| **BMNS** | **Besmoynak** | **0.80** | **350** | *e*P | **Pb** | **03 14 56.2** | **+0.2** |
| | 212nm,0.3s | | | | | | |
| BMNS | | | | *e*S | **Sb** | **03 15 07.4** | **+0.7** |
| | 1µm,0.3s | | | | | | |
| **MTBS** | **Maitube** | **0.92** | **27** | *e*P | **Pb** | **03 14 58.0** | **+0.2** |
| | 143nm,0.2s | | | | | | |
| MTBS | | | | *e*S | **Sb** | **03 15 10.4** | **+0.4** |
| | 913nm,0.2s | | | | | | |
| **DGS** | **Degeres** | **0.93** | **356** | *e*P | **Pb** | **03 14 58.3** | **+0.3** |
| | 44nm,0.2s | | | | | | |
| DGS | | | | *e*S | **Sb** | **03 15 11.3** | **+1.0** |
| | 692nm,0.3s | | | | | | |
| **UCH** | **Uchtor** | **1.00** | **265** | ⇑*i* P | **Pb** | **03 14 59.1** | **-0.3** |
| | baz=266 | | | | | | |
| UCH | | | | ⇑*i* S | **Sb** | **03 15 12.7** | **0.0** |
| | baz=266 | | | | | | |
| **UCH** | **Uchtor** | **1.00** | **265** | P | **Pb** | **03 14 59.1** | **-0.3** |
| | 57nm,0.2s,SNR=259 | | | | | | |
| **FRU1** | **Bishkek** | **1.03** | **299** | ⇓*i* P | **Pn** | **03 15 00.6** | **+0.4** |
| | baz=300 | | | | | | |
| FRU1 | | | | ⇓*i* S | **Sn** | **03 15 14.8** | **+0.3** |
| | baz=300 | | | | | | |
| **AAK** | **Ala-Archa** | **1.06** | **288** | ⇑*i* P | **Pb** | **03 15 00.1** | **-0.1** |
| | baz=289 | | | | | | |
| AAK | | | | ⇑*i* S | **Sb** | **03 15 14.5** | **+0.5** |
| | baz=289 | | | | | | |
| **AAK** | **Ala-Archa** | **1.06** | **288** | ⇑P | **Pn** | **03 15 00.2** | **-0.3** |
| | 28nm,0.3s | | | | | | |
| AAK | | | | ⇓S | **Sb** | **03 15 14.5** | **+0.5** |
| | 303nm,0.3s | | | | | | |
| **AAK** | **Ala-Archa** | **1.06** | **288** | P | **Pn** | **03 15 00.3** | **-0.3** |
| | 65nm,0.1s,SNR=155 | | | | | | |
| **CHMS** | **Chumysh** | **1.06** | **310** | ⇓*i* P | **Pn** | **03 15 00.6** | **0.0** |
| | baz=311 | | | | | | |
| CHMS | | | | ⇓*i* S | **Sn** | **03 15 14.9** | **-0.4** |
| | baz=311 | | | | | | |
| **CHMS** | **Chumysh** | **1.06** | **310** | P | **Pn** | **03 15 00.6** | **0.0** |
| | 39nm,0.1s,SNR=151 | | | | | | |
| **TNSS** | **Tian-Shan** | **1.08** | **48** | *e*P | **Pn** | **03 15 00.9** | **-0.3** |
| | 272nm,0.2s | | | | | | |
| TNSS | | | | *e*S | **Sb** | **03 15 15.6** | **+0.6** |
| | 226nm,0.3s | | | | | | |
| **AAA** | **Alma-Ata** | **1.19** | **41** | *e*P | **Pn** | **03 15 03.3** | **+0.9** |
| | 307nm,0.3s | | | | | | |
| AAA | | | | *e*S | **Sn** | **03 15 19.4** | **+1.0** |
| | 779nm,0.2s | | | | | | |
| **MDOK** | **Medeo** | **1.22** | **46** | ⇑P | **Pn** | **03 15 03.2** | **+0.4** |
| MDOK | | | | ⇓S | **Sn** | **03 15 19.7** | **+0.3** |
| **MDOK** | **Medeo** | **1.22** | **46** | *e*P | **Pn** | **03 15 03.3** | **+0.4** |
| | 166nm,0.5s | | | | | | |
| MDOK | | | | *e*S | **Sn** | **03 15 19.8** | **+0.5** |
| | 147nm,0.4s | | | | | | |
| **USP** | **Ospenovka** | **1.38** | **314** | ⇓*i* P | **Pg** | **03 15 06.0** | **-0.5** |
| | baz=314 | | | | | | |
| USP | | | | ⇓*i* S | **Sg** | **03 15 25.0** | **+0.6** |
| | baz=314 | | | | | | |
| **USP** | **Ospenovka** | **1.38** | **314** | ⇓P | **Pg** | **03 15 06.1** | **-0.4** |
| | 159nm,0.2s,SNR=74 | | | | | | |
| **EKS2** | **Erkin-Say** | **1.57** | **283** | ⇑*i* P | **Pg** | **03 15 10.1** | **-0.1** |
| | baz=284 | | | | | | |
| EKS2 | | | | ⇑*i* S | **Sg** | **03 15 31.6** | **+0.9** |
| | baz=284 | | | | | | |
| **EKS2** | **Erkin-Say** | **1.57** | **283** | P | **Pg** | **03 15 10.2** | **0.0** |
| | 33nm,0.2s,SNR=179 | | | | | | |
| **AML** | **Almayashu** | **1.61** | **264** | ⇑*i* P | **Pg** | **03 15 10.2** | **-0.8** |
| | baz=265 | | | | | | |
| AML | | | | ⇑*i* S | **Sg** | **03 15 32.3** | **+0.3** |
| | baz=265 | | | | | | |
| **AML** | **Almayashu** | **1.61** | **264** | P | **Pg** | **03 15 10.2** | **-0.8** |
| | 80nm,0.1s,SNR=37 | | | | | | |
| **KUU** | **Kurty** | **1.62** | **13** | *e*P | **Pg** | **03 15 10.7** | **-0.4** |
| | 32nm,0.3s | | | | | | |
| KUU | | | | *e*S | **Sg** | **03 15 32.2** | **+0.2** |
| | 782nm,0.5s | | | | | | |
| **CHKK** | **Chushkaly** | **1.75** | **28** | *e*P | **Pg** | **03 15 12.8** | **-0.8** |
| | 59nm,0.5s | | | | | | |
| CHKK | | | | *e*S | **Sg** | **03 15 35.9** | **-0.3** |
| | 895nm,0.2s | | | | | | |
| **PRZ** | **Przheval'sk** | **1.89** | **84** | ⇑*i* P | **Pg** | **03 15 15.2** | **-1.1** |
| | baz=84 | | | | | | |
| PRZ | | | | ⇑*i* S | **Sg** | **03 15 40.3** | **-0.6** |
| | baz=84 | | | | | | |
| **MRKS** | **Merke** | **1.99** | **283** | *e*P | **Pg** | **03 15 17.8** | **-0.4** |
| | 60nm,0.3s | | | | | | |
| MRKS | | | | *e*S | **Sg** | **03 15 44.3** | **+0.4** |
| | 198nm,0.2s | | | | | | |
| **SATY** | **Saty** | **2.02** | **68** | *e*P | **Pb** | **03 15 16.6** | **0.0** |
| | 92nm,0.3s | | | | | | |
| SATY | | | | *e*S | **Sb** | **03 15 42.4** | **+0.6** |
| | 497nm,0.3s | | | | | | |
| **KURS** | **Kuram** | **2.07** | **55** | *e*P | **Pg** | **03 15 18.3** | **-1.3** |
| | 35nm,0.2s | | | | | | |
| KURS | | | | *e*S | **Sg** | **03 15 45.1** | **-1.3** |
| | 154nm,0.5s | | | | | | |
| **ZHN** | **Zhinishke** | **2.08** | **65** | ⇓*i* P | **Pb** | **03 15 18.1** | **+0.4** |
| | 63nm,0.3s | | | | | | |
| ZHN | | | | ⇓*i* S | **Sg** | **03 15 45.9** | **-1.1** |
| | 639nm,0.2s | | | | | | |
| **TOKL** | **Toktogul** | **2.25** | **261** | ⇓*i* P | **Pb** | **03 15 20.7** | **+0.2** |
| | baz=262 | | | | | | |
| TOKL | | | | ⇓*i* S | **Sb** | **03 15 49.2** | **+0.9** |
| | baz=262 | | | | | | |
| **ARSB** | **Arslanbob** | **2.37** | **246** | ⇑*i* P | **Pb** | **03 15 22.7** | **+0.2** |
| | baz=247 | | | | | | |
| ARSB | | | | ⇑*i* S | **Sb** | **03 15 52.3** | **+0.7** |
| | baz=247 | | | | | | |
| **KPKS** | **Kokpek** | **2.38** | **60** | *e*P | **Pg** | **03 15 24.7** | **-0.9** |
| | 246nm,0.4s | | | | | | |
| KPKS | | | | *e*S | **Sg** | **03 15 56.2** | **-0.1** |
| | 479nm,0.6s | | | | | | |
| **ARXS** | **Arharly** | **2.38** | **37** | *e*P | **Pb** | **03 15 22.6** | **-0.2** |
| | 191nm,0.3s | | | | | | |
| ARXS | | | | *e*S | **Sb** | **03 15 52.8** | **+0.7** |
| | 461nm,0.3s | | | | | | |
| **UZB** | **Uzynbulak** | **2.48** | **69** | *e*P | **Pg** | **03 15 25.6** | **-1.9** |
| | 138nm,0.3s | | | | | | |
| UZB | | | | *e*S | **Sg** | **03 15 57.4** | **-2.2** |
| | 287nm,0.5s | | | | | | |
| **MNAS** | **Manas** | **2.49** | **275** | ⇓Pg | **Pg** | **03 15 25.9** | **-1.8** |
| | 22nm,0.5s | | | | | | |
| MNAS | | | | ⇓Lg | Lg | 03 16 00.7 | |
| | 70nm,0.6s | | | | | | |
| **KSH** | **Kashi** | **2.80** | **178** | Pn | **Pg** | **03 15 35.8** | **+2.2** |
| KSH | | | | Sn | **Sg** | **03 16 15.3** | **+5.4** |
| KSH | | | | smax | smax | | |
| | comp=N,240nm,0.9s | | | | | | |
| KSH | | | | smax | smax | | |
| | comp=E,670nm,1.1s | | | | | | |
| **PDGK** | **Podgornoye** | **2.86** | **68** | ⇓*e*P | **Pb** | **03 15 28.7** | **-2.2** |
| | baz=68 | | | | | | |
| PDGK | | | | ⇓*i* S | **Sb** | **03 16 03.7** | **-2.2** |
| | baz=68 | | | | | | |
| **PDGK** | **Podgornoye** | **2.86** | **68** | ⇓Pg | **Pb** | **03 15 29.4** | **-1.5** |
| | 18nm,0.4s | | | | | | |
| PDGK | | | | ⇓Lg | Lg | 03 16 08.0 | |
| | 87nm,0.6s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **2.91** | **218** | ⇑*i* P | **Pb** | **03 15 30.0** | **-1.8** |
| | baz=219 | | | | | | |
| SFK | | | | ⇑*i* S | **Sb** | **03 16 05.4** | **-1.9** |
| | baz=219 | | | | | | |
| **SFK** | **Sufi-Kurgan** | **2.91** | **218** | ⇓Pn | **Pb** | **03 15 30.5** | **-1.3** |
| | 6.2nm,0.6s | | | | | | |
| SFK | | | | ⇓Pg | **Pg** | **03 15 34.0** | **-1.6** |
| | 31nm,0.5s | | | | | | |
| SFK | | | | ⇓Lg | Lg | 03 16 13.2 | |
| | 72nm,0.6s | | | | | | |
| **ARK** | **Arkit** | **2.94** | **261** | ⇑*i* P | **Pb** | **03 15 30.4** | **-2.0** |
| | baz=261 | | | | | | |
| ARK | | | | ⇑*i* S | **Sb** | **03 16 05.6** | **-2.7** |
| | baz=261 | | | | | | |
| **BTLS** | **Baital** | **3.02** | **335** | *e*P | **Pg** | **03 15 36.0** | **-2.0** |
| | 37nm,0.3s | | | | | | |
| BTLS | | | | *e*S | **Sg** | **03 16 14.9** | **-2.2** |
| | 46nm,0.3s | | | | | | |
| **TDK** | **Taldyqorghan** | **3.26** | **34** | *e*P | **Pb** | **03 15 36.5** | **-1.3** |
| | 70nm,0.5s | | | | | | |
| TDK | | | | *e*S | **Sb** | **03 16 16.8** | **-0.6** |
| | 89nm,0.3s | | | | | | |
| **DZA** | **Taraz** | **3.39** | **281** | *e*P | **Pg** | **03 15 45.1** | **+0.2** |
| DZA | | | | *e*S | **Sg** | **03 16 30.7** | **+1.9** |
| **KTMS** | **Ketmen** | **3.49** | **70** | *e*P | **Pb** | **03 15 41.7** | **0.0** |
| | 17nm,0.2s | | | | | | |
| KTMS | | | | *e*S | **Sb** | **03 16 25.8** | **+1.7** |
| | 69nm,0.5s | | | | | | |
| **DJR** | **Jarkent** | **3.51** | **54** | *e*P | **Pb** | **03 15 41.9** | **0.0** |
| | 82nm,0.3s | | | | | | |
| DJR | | | | *e*S | **Sb** | **03 16 26.1** | **+1.6** |
| | 78nm,0.4s | | | | | | |
| **KAPS** | **Kapalarasan** | **3.90** | **39** | *e*P | **Pb** | **03 15 50.9** | **+2.2** |
| | 22nm,0.4s | | | | | | |
| KAPS | | | | *e*S | **Sg** | **03 16 41.8** | **-3.5** |
| | 52nm,0

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| | 0.6nm,1.1s,baz=272,slow=5.3,SNR=3.2 | | | | | | |
| **ASAR** | **Alice Springs** | **55.63** | **189** | P | **P** | **03 57 12.9** | **+0.1** |
| | 0.4nm,0.5s,baz=18,slow=13,SNR=6.0 | | | | | | |

*ISCJB **16** 03:49:44.2±0.6,57.4S±0.1×26.0W±0.3,h65km,mb4.4/11, Error ellipse: s-maj=23.0km s-min=10.9km az=151.6*
*NEIC **16** 03:49:46.2±1.9,57.3S×26.04W,h69km±16km,mb4.5/1, Error ellipse: s-maj=13.7km s-min=7.2km az=54.0*
*IDC **16** 03:49:46.4±5.0,57.37S×25.98W,h68km±44km,mb4.1/9, mb1 4.2/10,mb1mx3.9/22,mbtmp4.3/10,ML4.2/1,MS3.4/4, Ms1 3.3/4,ms1mx3.0/18,Error ellipse: s-maj=25.5km s-min=15.0km az=55.0*

**ISC 16 03:49:45.8±0.5,57.4S±0.1×26.0W±0.2,h65km,n40, σ0.955/37,mb4.5/11,South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SNAA** | **Sanae** | **17.26** | **155** | P | **P** | **03 53 42.7** | **-0.1** |
| | 0.9nm,0.3s,baz=327,slow=14,SNR=16 | | | | | | |
| **SNAA** | **Sanae** | **17.26** | **155** | *e*Pn | **Pn** | **03 53 41.9** | **-0.3** |
| | 286nm,0.8s | | | | | | |
| **PMSA** | **Palmer Station** | **19.58** | **232** | LR | LR | 03 59 56.9 | |
| | comp=Z,124nm,20.6s,baz=130,slow=31 | | | | | | |
| **QSPA** | **South Pole Qui** | **32.88** | **180** | *e*P | **P** | **03 56 13.4** | **+0.2** |
| | 45nm,0.6s | | | | | | |
| **PLCA** | **Paso Flores** | **32.90** | **281** | P | **P** | **03 56 13.1** | **-0.5** |
| | 2.3nm,0.8s,baz=171,slow=4.2,SNR=5.3 | | | | | | |
| PLCA | | | | LR | LR | 04 08 10.9 | |
| | comp=Z,49nm,19.1s,baz=134,slow=34 | | | | | | |
| **CPUP** | **Villa Florida** | **38.18** | **311** | P | **P** | **03 56 58.5** | **-0.3** |
| | 1.5nm,0.5s,baz=155,slow=11,SNR=8.4 | | | | | | |
| CPUP | | | | PcP | **PcP** | **03 59 12.5** | **+0.3** |
| | 1.7nm,0.6s,baz=165,slow=4.2,SNR=5.4 | | | | | | |
| **MAW** | **Mawson** | **38.69** | **142** | P | **P** | **03 57 02.4** | **-0.2** |
| | 1.4nm,0.7s,baz=237,slow=7.5,SNR=2.5 | | | | | | |
| MAW | | | | LR | LR | 04 10 28.0 | |
| | comp=Z,34nm,20.9s,baz=238,slow=32 | | | | | | |
| **BDFB** | **Brasilia** | **44.84** | **329** | P | **P** | **03 57 54.7** | **+1.2** |
| | 4.1nm,0.4s,baz=293,slow=3.3,SNR=10 | | | | | | |
| **VNDA** | **Vanda** | **45.28** | **182** | P | **P** | **03 57 57.4** | **+1.2** |
| | 5.6nm,0.6s,baz=186,slow=6.5,SNR=23 | | | | | | |
| **BOSA** | **Boshof** | **45.68** | **73** | LR | LR | 04 12 49.6 | |
| | comp=Z,57nm,19.5s,baz=226,slow=30 | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **49.09** | **15** | T | T | 04 52 09.4 | |
| | baz=188,slow=75,SNR=19 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **49.09** | **15** | T | T | 04 52 09.3 | |
| | baz=188,slow=75,SNR=29 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **49.11** | **15** | T | T | 04 52 10.4 | |
| | baz=188,slow=75,SNR=27 | | | | | | |
| **H10N1** | **ASCENSION HYDR** | **50.21** | **15** | T | T | 04 52 54.0 | |
| | baz=203 | | | | | | |
| **H10N3** | **ASCENSION HYDR** | **50.21** | **15** | T | T | 04 53 39.2 | |
| | baz=203,slow=74,SNR=16 | | | | | | |
| **H10N2** | **ASCENSION HYDR** | **50.22** | **15** | T | T | 04 53 39.3 | |
| | baz=203,slow=74,SNR=6.2 | | | | | | |
| **LPAZ** | **La Paz** | **51.68** | **305** | P | **P** | **03 58 46.7** | **-0.1** |
| | 6.2nm,0.4s,baz=137,slow=6.2,SNR=46 | | | | | | |
| LPAZ | | | | PcP | **PcP** | **04 00 00.3** | **+0.8** |
| | 0.9nm,0.3s,baz=110,slow=2.1,SNR=2.5 | | | | | | |
| **SAML** | **Samuel** | **56.20** | **314** | *e*P | **P** | **03 59 18.3** | **-0.7** |
| | 3.3nm,0.7s | | | | | | |
| **DBIC** | **Dimbokro** | **66.11** | **23** | P | **P** | **04 00 26.1** | **+0.2** |
| | 1.5nm,0.5s,baz=182,slow=6.9,SNR=4.7 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **73.89** | **28** | P | **P** | **04 01 13.9** | **+0.3** |
| | 3.1nm,0.5s,baz=201,slow=6.5,SNR=35 | | | | | | |
| TORD | | | | pP | **pP** | **04 01 30.2** | **-0.9** |
| | 4.6nm,0.8s,baz=194,slow=6.5,SNR=8.2 | | | | | | |
| **ASAR** | **Alice Springs** | **97.53** | **161** | P | **P** | **04 03 11.9** | **-0.8** |
| | 0.3nm,0.4s,baz=175,slow=3.6,SNR=3.4 | | | | | | |
| **TNTI** | **Ternate** | **119.70** | **149** | *e*PKPdf | **PKPdf** | **04 08 28.2** | **-0.1** |
| **RSSD** | **Black Hills** | **120.16** | **305** | *e*PKPdf | **PKPdf** | **04 08 28.2** | **-0.3** |
| **DUG** | **Dugway, Tooele** | **121.16** | **297** | *e*PKPdf | **PKPdf** | **04 08 30.3** | **-0.1** |
| **PDAR** | **Pinedale Array** | **121.60** | **301** | PKP | **PKPdf** | **04 08 30.5** | **-0.8** |
| | 0.5nm,0.5s,baz=137,slow=3.9,SNR=6.9 | | | | | | |
| **ULM** | **Lac du Bonnet** | **121.66** | **315** | PKP | **PKPdf** | **04 08 29.9** | **-1.0** |
| | 1.7nm,0.6s,baz=103,slow=3.7,SNR=3.2 | | | | | | |
| **FINES** | **FINESS Array B** | **125.24** | **28** | PKP | **PKPdf** | **04 08 37.0** | **-0.3** |
| | 3.8nm,0.8s,baz=186,slow=1.9,SNR=6.8 | | | | | | |
| **WVOR** | **Wild Horse Val** | **125.71** | **294** | *e*PKPdf | **PKPdf** | **04 08 39.7** | **+0.6** |
| **BMO** | **Blue Mountains** | **126.85** | **297** | *e*PKPdf | **PKPdf** | **04 08 41.1** | **0.0** |
| **AKTO** | **Aktyubinsk** | **127.58** | **53** | PKP | **PKPdf** | **04 08 42.4** | **+0.1** |
| | 1.2nm,0.7s,baz=232,slow=0.8,SNR=4.3 | | | | | | |
| **AAK** | **Ala-Archa** | **129.78** | **71** | *e*PKPdf | **PKPdf** | **04 08 47.7** | **+0.8** |
| **BVAR** | **Borovoye Array** | **134.92** | **58** | PKP | **PKPdf** | **04 08 56.6** | **+0.6** |
| | 0.6nm,0.5s,baz=188,slow=3.1,SNR=4.0 | | | | | | |
| **YKA** | **Yellowknife Ar** | **137.59** | **317** | PKP | **PKPdf** | **04 09 00.6** | **0.0** |
| | 1.5nm,0.3s,baz=128,slow=2.2,SNR=30 | | | | | | |
| **INK** | **Inuvik** | **147.24** | **319** | PKPbc | **PKPbc** | **04 09 20.0** | **0.0** |
| | 6.0nm,0.4s,baz=82,slow=2.0,SNR=73 | | | | | | |
| **DAWY** | **Dawson** | **148.16** | **310** | *e*PKPbc | **PKPbc** | **04 09 22.2** | **-0.4** |
| **SONM** | **Songino Array** | **150.13** | **88** | PKPbc | **PKPbc** | **04 09 27.9** | **-0.3** |
| | 2.3nm,0.7s,baz=224,slow=2.7,SNR=14 | | | | | | |
| **ILAR** | **Eielson Array** | **151.48** | **310** | PKP | **PKPdf** | **04 09 24.0** | **-0.5** |
| | 0.5nm,0.9s,baz=187,slow=2.7,SNR=4.5 | | | | | | |
| ILAR | | | | PKPbc | **PKPbc** | **04 09 30.7** | **0.0** |
| | 8.5nm,0.7s,baz=143,slow=4.2,SNR=136 | | | | | | |
| **COLA** | **College** | **151.91** | **310** | *e*PKPbc | **PKPbc** | **04 09 31.0** | **-0.5** |
| COLA | | | | *e*PKPab | **PKPab** | **04 09 41.0** | **-0.2** |
| **MCK** | **McKinley** | **152.11** | **307** | *e*PKPbc | **PKPbc** | **04 09 32.5** | **+0.3** |
| **KTH** | **Kantishna Hill** | **152.94** | **306** | *e*PKPbc | **PKPbc** | **04 09 34.3** | **+0.2** |

*ISCJB **16** 04:06:16.4±0.3,6.85N±0.04×73.13W±0.04,h168km±3km, mb3.9/17,Error ellipse: s-maj=7.6km s-min=5.3km az=36.0*
*NEIC **16** 04:06:17.2±0.6,6.95N×73.19W,h172km±7km,mb4.1/9, Error ellipse: s-maj=12.1km s-min=8.8km az=108.0*
*IDC **16** 04:06:18.4±0.5,6.81N×73.00W,h165km±5km,mb3.4/8, mb1 3.6/11,mb1mx3.4/27,mbtmp3.9/11,MS3.6/1, Ms1 3.6/1,ms1mx2.6/19,Error ellipse: s-maj=13.9km s-min=7.3km az=129.0*
*RSNC **16** 04:06:20.6±1.0,6.72N×73.12W,h141km±5km,ML4.0*

**ISC 16 04:06:17.0±0.6,6.84N±0.04×73.14W±0.05,h163km±5km, n45,σ1.581/62,mb4.0/17,1C-4D,Northern Colombia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BARC** | **Barichara** | **0.25** | **191** | *i*P | **Pn** | **04 06 39.6** | **+0.3** |
| BARC | | | | *e*S | **Sn** | **04 06 54.8** | **-1.7** |
| BARC | | | | *i* | | 04 06 56.5 | |
| | comp=Z,4μm,0.4s | | | | | | |
| **BRRC** | **Barranca, Sant** | **0.63** | **295** | *i*P | **Pn** | **04 06 41.5** | **+0.9** |
| BRRC | | | | *e*S | **Sn** | **04 06 58.9** | **+0.3** |
| BRRC | | | | *i* | | 04 07 01.9 | |
| | comp=Z,2μm,0.1s | | | | | | |
| **PAMC** | **Pamplona, Colo** | **0.66** | **41** | *i*P | **Pn** | **04 06 42.5** | **+1.2** |
| PAMC | | | | *e*S | **Sn** | **04 06 59.5** | **-0.4** |
| **RUSC** | **La Rusia** | **0.94** | **177** | *i*P | **Pn** | **04 06 43.5** | **+0.2** |
| RUSC | | | | *e*S | **Sn** | **04 07 00.9** | **-2.4** |
| RUSC | | | | *i* | | 04 07 03.3 | |
| | comp=Z,2μm,0.4s | | | | | | |
| **RUSC** | **La Rusia** | **0.94** | **177** | *e*Pn | **Pn** | **04 06 43.4** | **+0.2** |
| **YOPC** | **Yopal, Colombi** | **1.64** | **154** | *e*P | **Pn** | **04 06 50.1** | **+0.9** |
| YOPC | | | | *e*S | **Sn** | **04 07 11.7** | **-2.3** |
| YOPC | | | | *i* | | 04 07 18.1 | |
| | comp=Z,568nm,0.5s | | | | | | |
| **NORC** | **Norcasia** | **2.14** | **234** | *e*P | **Pn** | **04 06 55.4** | **+0.8** |
| NORC | | | | *e*S | **Sn** | **04 07 22.7** | **-1.0** |
| **CHIC** | **Chingaza** | **2.27** | **195** | *i*P | **Pn** | **04 06 57.2** | **+0.6** |
| CHIC | | | | *e*S | **Sn** | **04 07 25.8** | **-1.4** |
| CHIC | | | | *i* | | 04 07 31.3 | |
| | comp=Z,334nm,0.3s | | | | | | |
| **ROSC** | **El Rosal** | **2.31** | **211** | P | **Pn** | **04 06 58.7** | **+1.7** |
| | comp=Z,68nm,0.3s,baz=55,slow=6.6,SNR=257 | | | | | | |
| ROSC | | | | S | **Sn** | **04 07 30.9** | **+3.0** |
| | comp=Z,170nm,0.3s,baz=47,slow=19,SNR=12 | | | | | | |
| **ROSC** | **El Rosal** | **2.31** | **211** | *e*Pn | **Pn** | **04 06 59.1** | **+2.1** |
| **HELC** | **Santa Helena** | **2.46** | **255** | *e*P | **Pn** | **04 07 00.7** | **+1.9** |
| HELC | | | | *e*S | **Sn** | **04 07 31.3** | **+0.3** |
| HELC | | | | *i* | | 04 07 38.1 | |
| | comp=Z,394nm,0.5s | | | | | | |
| **HELC** | **Santa Helena** | **2.46** | **255** | *e*Pn | **Pn** | **04 06 59.9** | **+1.2** |
| **GUYC** | **Guyana, Colomb** | **2.76** | **235** | *e*P | **Pn** | **04 07 04.5** | **+2.1** |
| GUYC | | | | *i* | | 04 07 46.4 | |
| | comp=Z,986nm,0.3s | | | | | | |
| **VILC** | **Villavicencio,** | **2.77** | **192** | *e*P | **Pn** | **04 07 02.5** | **+0.3** |
| VILC | | | | *e*S | **Sn** | **04 07 35.3** | **-2.0** |
| VILC | | | | *i* | | 04 07 44.2 | |
| | comp=Z,328nm,0.5s | | | | | | |
| **TOLC** | **Tolima** | **3.12** | **224** | *i*P | **Pn** | **04 07 08.8** | **+1.9** |
| **SDV** | **Santo Domingo** | **3.21** | **50** | P | **Pn** | **04 07 09.0** | **+1.3** |
| | comp=Z,320nm,0.3s,baz=231,slow=10,SNR=97 | | | | | | |
| SDV | | | | S | **Sn** | **04 07 47.0** | **0.0** |
| | comp=Z,82nm,0.3s,baz=253,slow=21,SNR=23 | | | | | | |
| **PRAC** | **Prado** | **3.56** | **209** | *e*P | **Pn** | **04 07 12.7** | **+0.6** |
| PRAC | | | | *e*S | **Sn** | **04 07 55.1** | **+0.1** |
| **PRAC** | **Prado** | **3.56** | **209** | *e*Pn | **Pn** | **04 07 12.7** | **+0.6** |
| PRAC | | | | *e*Sn | **Sn** | **04 07 55.3** | **+0.4** |
| **BCIP** | **Isla Barro Col** | **7.03** | **290** | *e*Pn | **Pn** | **04 07 56.9** | **-0.7** |
| **OTAV** | **Otavalo** | **8.43** | **219** | *e*Pn | **Pn** | **04 08 18.5** | **+1.8** |
| OTAV | | | | *e*Sn | **Sn** | **04 09 43.9** | **-7.1** |
| **PCRV** | **Puerto La Cruz** | **9.04** | **68** | P | **Pn** | **04 08 26.0** | **+1.8** |
| | comp=Z,1.4nm,0.3s,baz=310,slow=2.4,SNR=8.8 | | | | | | |
| **MTDJ** | **Mount Denham** | **12.10** | **340** | *e*Pn | **P** | **04 09 09.0** | **-1.3** |
| **GTBY** | **Guantanamo Bay** | **13.15** | **352** | *e*Pn | **Pn** | **04 09 14.2** | **-3.5** |
| **CBYP** | **Canovanas** | **13.39** | **31** | *e*Pn | **Pn** | **04 09 20.6** | **-0.4** |
| **LPAZ** | **La Paz** | **23.51** | **168** | P | **P** | **04 11 13.2** | **+0.2** |
| | comp=Z,2.2nm,0.7s,baz=317,slow=8.0,SNR=3.9 | | | | | | |
| LPAZ | | | | pP | **pP** | **04 11 46.3** | **+2.1** |
| | comp=Z,3.3nm,0.7s,baz=342,slow=12,SNR=6.9 | | | | | | |
| **LPAZ** | **La Paz** | **23.51** | **168** | *e*P | **P** | **04 11 13.3** | **+0.2** |
| | comp=Z,6.7nm,1.0s | | | | | | |
| **BDFB** | **Brasilia** | **33.44** | **132** | P | **P** | **04 12 41.8** | **+1.0** |
| | comp=Z,2.9nm,0.6s,baz=82,slow=12,SNR=4.3 | | | | | | |
| **WCI** | **Wyandotte Cave** | **33.45** | **341** | *e*P | **P** | **04 12 38.6** | **-1.9** |
| | comp=Z,28nm,0.8s | | | | | | |
| **TXAR** | **Lajitas Array** | **36.44** | **312** | P | **P** | **04 13 09.2** | **+2.8** |
| | comp=Z,0.6nm,0.8s,baz=121,slow=11,SNR=3.5 | | | | | | |
| **WMOK** | **Wichita Mounta** | **36.45** | **323** | *e*P | **P** | **04 13 02.3** | **-4.1** |
| | comp=Z,1.6nm,0.8s | | | | | | |
| **MNTX** | **Cornudas Mount** | **38.95** | **314** | *e*P | **P** | **04 13 26.6** | **-0.7** |
| | comp=Z,1.2nm,0.8s | | | | | | |
| **TUC** | **Tucson** | **43.22** | **311** | *e*P | **P** | **04 14 00.6** | **-1.7** |
| | comp=Z,1.6nm,0.8s | | | | | | |
| **ISCO** | **Idaho Springs** | **43.88** | **323** | *e*P | **P** | **04 14 05.8** | **-1.9** |
| | comp=Z,14nm,1.9s | | | | | | |
| **MVCO** | **Mesa Verde** | **44.13** | **318** | *e*P | **P** | **04 14 07.8** | **-1.9** |
| | comp=Z,15nm,1.9s | | | | | | |
| **PHWY** | **Pilot Hill** | **44.76** | **325** | *e*P | **P** | **04 14 14.2** | **-0.6** |
| | comp=Z,7.7nm,1.4s | | | | | | |
| **TRQA** | **Tornquist** | **45.86** | **168** | *e*P | **P** | **04 14 23.0** | **0.0** |
| | comp=Z,17nm,1.4s | | | | | | |
| **ULM** | **Lac du Bonnet** | **47.26** | **340** | P | **P** | **04 14 35.4** | **+1.7** |
| | comp=Z,2.3nm,0.6s,baz=163,slow=4.5,SNR=5.1 | | | | | | |
| **PDAR** | **Pinedale Array** | **48.05** | **324** | P | **P** | **04 14 42.0** | **+1.7** |
| | comp=Z,0.5nm,0.8s,baz=116,slow=6.8,SNR=3.9 | | | | | | |
| PDAR | | | | LR | LR | 04 38 42.4 | |
| | comp=Z,58nm,18.0s,baz=349,slow=40 | | | | | | |
| **HLID** | **Hailey** | **51.41** | **322** | *e*P | **P** | **04 15 05.0** | **-0.6** |
| | comp=Z,0.7nm,0.7s | | | | | | |
| **YKA** | **Yellowknife Ar** | **63.24** | **340** | P | **P** | **04 16 29.6** | **+1.8** |
| | comp=Z,0.6nm,0.5s,baz=134,slow=6.8,SNR=16 | | | | | | |
| YKA | | | | pP | **pP** | **04 17 08.0** | **+1.6** |
| | comp=Z,0.7nm,0.8s,baz=132,slow=7.0,SNR=3.8 | | | | | | |
| **DBIC** | **Dimbokro** | **67.75** | **86** | P | **P** | **04 16 57.2** | **-0.5** |
| | comp=Z,1.5nm,0.6s,baz=292,slow=7.0,SNR=3.8 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **73.75** | **78** | P | **P** | **04 17 33.6** | **-0.4** |
| | comp=Z,0.1nm,0.3s,baz=280,slow=5.8,SNR=4.6 | | | | | | |
| **WMQ** | **Urumqi** | **126.67** | **17** | P | **PKPdf** | **04 25 00.0** | **-1.5** |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,370nm,8.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,87nm,18.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,110nm,16.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,79nm,18.5s | | | | | | |
| **ASAR** | **Alice Springs** | **149.11** | **234** | PKPbc | **PKPbc** | **04 25 47.3** | **+0.4** |
| | comp=Z,2.9nm,0.7s,baz=120,slow=3.4,SNR=26 | | | | | | |
| **WRA** | **Warramunga Arr** | **150.33** | **241** | PKPbc | **PKPbc** | **04 25 51.0** | **+1.0** |
| | comp=Z,2.0nm,0.5s,baz=106,slow=2.3,SNR=5.0 | | | | | | |
| WRA | | | | pPKPbc | **pPKPbc** | **04 26 32.7** | **0.0** |
| | comp=Z,0.6nm,0.6s,baz=104,slow=2.6,SNR=2.1 | | | | | | |

*ISCJB **16** 04:18:37.8±0.6,42.61N±0.08×140.69E±0.07, h143km±5km,mb3.4/5,Error ellipse: s-maj=13.8km s-min=7.7km az=156.9*
*JMA **16** 04:18:38.6±0.1,42.62N×140.72E,h141km±1km,M2.8*
*IDC **16** 04:18:56.8±13.0,42.58N×140.21E,h318km±181km, mb3.0/5,mb1 3.1/5,mb1mx2.9/25,mbtmp3.6/5,Error ellipse: s-maj=282.8km s-min=26.7km az=170.0*

**ISC 16 04:18:38.9±0.9,42.59N±0.07×140.71E±0.06,h141km±6km, n19,σ0.979/26,mb3.2/5,Hokkaido region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JNB** | **Noboribetsu** | **0.27** | **116** | P | **Pn** | **04 18 57.9** | **-0.3** |
| JNB | | | | *e*S | **Sn** | **04 19 12.5** | **-0.4** |
| **JSH** | **Shimam** | **0.49** | **277** | P | **Pn** | **04 18 59.1** | **0.0** |
| JSH | | | | *e*S | **Sn** | **04 19 14.7** | **+0.2** |
| **JYM2** | **Yakumo 2** | **0.53** | **208** | P | **Pn** | **04 18 59.5** | **+0.1** |
| JYM2 | | | | *e*S | **Sn** | **04 19 14.7** | **-0.2** |
| **JEW** | **Eniwo** | **0.60** | **65** | P | **Pn** | **04 18 59.7** | **-0.1** |
| JEW | | | | *e*S | **Sn** | **04 19 16.3** | **+0.6** |
| **JKB** | **Kayabe** | **0.74** | **161** | P | **Pn** | **04 19 00.7** | **0.0** |
| **JSK** | **Shakotan** | **0.78** | **348** | P | **Pn** | **04 19 00.6** | **-0.4** |
| **JOSM** | **Okushiri--Mats** | **1.04** | **242** | P | **Pn** | **04 19 03.2** | **0.0** |
| **JSR** | **Shiriuchi** | **1.08** | **192** | P | **Pn** | **04 19 03.7** | **+0.2** |
| **JOT** | **Ohata** | **1.23** | **168** | P | **Pn** | **04 19 04.9** | **-0.1** |
| **JBT2** | **Biratori 2** | **1.24** | **81** | P | **Pn** | **04 19 04.7** | **-0.3** |
| JBT2 | | | | *e*S | **Sn** | **04 19 25.2** | **+0.3** |
| **JHR** | **Hokuryu** | **1.37** | **32** | P | **Pn** | **04 19 06.6** | **+0.2** |
| **JNBK** | **Urakawa-nobuka** | **1.54** | **101** | P | **Pn** | **04 19 07.7** | **-0.5** |
| **JCH** | **Churui** | **1.96** | **88** | P | **Pn** | **04 19 12.5** | **-0.5** |
| JCH | | | | *e*S | **Sn** | **04 19 38.4** | **-0.7** |
| **JKK2** | **Kamakawa 2** | **1.97** | **49** | P | **Pn** | **04 19 12.9** | **-0.2** |
| JKK2 | | | | *e*S | **Sn** | **04 19 38.8** | **-0.5** |
| **SONM** | **Songino Array** | **24.60** | **294** | P | **P** | **04 23 45.6** | **-0.4** |
| | 0.2nm,0.4s,baz=88,slow=8.8,SNR=3.2 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **37.94** | **307** | P | **P** | **04 25 42.1** | **-0.2** |
| | 1.0nm,0.6s,baz=74,slow=9.4,SNR=4.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **40.92** | **297** | P | **P** | **04 26 06.5** | **-0.7** |
| | 0.3nm,0.5s,baz=85,slow=8.5,SNR=4.2 | | | | | | |
| **ILAR** | **Eielson Array** | **45.18** | **35** | P | **P** | **04 26 44.0** | **+2.9** |
| | 0.2nm,0.6s,baz=281,slow=9.1,SNR=2.8 | | | | | | |
| **FINES** | **FINESS Array B** | **63.68** | **331** | P | **P** | **04 28 53.1** | **-1.6** |
| | 6.5nm,1.0s,baz=62,slow=4.5,SNR=5.5 | | | | | | |

*ISCJB **16** 04:31:05.6±0.7,51.50N±0.03×16.13E±0.03,h0km,Error ellipse: s-maj=4.6km s-min=2.8km az=16.5*
*CSEM **16** 04:31:06.7±0.4,51.53N×16.10E,h2km,ML2.9/9,Error ellipse: s-maj=6.5km s-min=3.7km az=4.0*
*WAR **16** 04:31:07.9,51.53N×16.07E,h1km,Mw2.3*
*VIE **16** 04:31:08.3±0.8,51.43N×16.01E,h0km,mb2.3/2,ML2.3/5, Error ellipse: s-maj=7.1km s-min=4.4km az=7.0, Suspected Mining induced.*

**ISC 16 04:31:07.2±1.0,51.54N±0.05×16.10E±0.02,h0km,n41, σ0.975/79,Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KSP** | **Ksiaz** | **0.70** | **170** | *e*Pg | **Pg** | **04 31 21.0** | **+0.4** |
| KSP | | | | *e*Sg | **Sg** | **04 31 30.3** | **+0.6** |
| **KSP** | **Ksiaz** | **0.70** | **170** | *e*Pg | **Pg** | **04 31 21.0** | **+0.4** |
| KSP | | | | *e*Sg | **Sg** | **04 31 30.3** | **+0.6** |
| **KSP** | **Ksiaz** | **0.70** | **170** | *e*Pg | **Pg** | **04 31 21.0** | **+0.4** |
| KSP | | | | *e*Sg | **Sg** | **04 31 30.3** | **+0.6** |
| **UPC** | **Upice** | **1.03** | **183** | *e*PG | **Pb** | **04 31 27.2** | **-0.7** |
| UPC | | | | *e*SG | **Sg** | **04 31 40.6** | **+0.4** |
| | comp=Z,26nm,0.3s | | | | | | |
| **UPC** | **Upice** | **1.03** | **183** | Pg | **Pb** | **04 31 27.2** | **-0.7** |
| UPC | | | | Sg | **Sg** | **04 31 40.6** | **+0.4** |
| | 26nm,0.3s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.19** | **173** | *e*PG | **Pg** | **04 31 29.8** | **-0.3** |
| DPC | | | | *e*SG | **Sg** | **04 31 45.2** | **-0.3** |
| | comp=Z,15nm,0.6s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.19** | **173** | Pg | **Pg** | **04 31 29.8** | **-0.3** |
| DPC | | | | Sg | **Sg** | **04 31 45.2** | **-0.3** |
| | 15nm,0.6s | | | | | | |
| **PVCC** | **Panska Ves** | **1.40** | **224** | *e*PG | **Pn** | **04 31 33.5** | **-0.4** |
| PVCC | | | | *e*SG | **Sn** | **04 31 53.2** | **+0.2** |
| | comp=Z,38nm,0.2s | | | | | | |
| **PVCC** | **Panska Ves** | **1.40** | **224** | Pg | **Pn** | **04 31 33.5** | **-0.4** |
| PVCC | | | | Sg | **Sn** | **04 31 53.2** | **+0.2** |
| | 38nm,0.2s | | | | | | |
| **BRG** | **Berggiesshubel** | **1.51** | **245** | PN | **Pb** | **04 31 35.9** | **-0.2** |
| BRG | | | | PG | **Pg** | **04 31 36.1** | **0.0** |
| BRG | | | | SG | **Sn** | **04 31 56.2** | **+0.4** |
| | 28nm,0.4s | | | | | | |
| **BRG** | **Berggiesshubel** | **1.51** | **245** | PN | **Pb** | **04 31 35.9** | **-0.2** |
| BRG | | | | PG | **Pg** | **04 31 36.1** | **0.0** |
| BRG | | | | SG | **Sn** | **04 31 56.2** | **+0.4** |
| | 28nm,0.4s | | | | | | |
| **KRLC** | **Kraliky** | **1.52** | **163** | *e*PG | **Pn** | **04 31 35.2** | **-0.5** |
| KRLC | | | | *e*SG | **Sg** | **04 31 55.8** | **-0.3** |
| | comp=Z,3.6nm,0.2s | | | | | | |
| **KRLC** | **Kraliky** | **1.52** | **163** | Pg | **Pn** | **04 31 35.2** | **-0.5** |
| KRLC | | | | Sg | **Sg** | **04 31 55.8** | **-0.3** |
| | 3.6nm,0.2s | | | | | | |
| **PRA** | **Prague** | **1.81** | **216** | *e*PN | **Pn** | **04 31 39.2** | **-0.4** |
| **PRA** | **Prague** | **1.81** | **216** | Pn | **Pn** | **04 31 39.2** | **-0.4** |
| **GOPC** | **GO Pecny, Ondr** | **1.82** | **208** | *e*PG | **Pb** | **04 31 41.0** | **-0.4** |
| GOPC | | | | *e*SG | **Sg** | **04 32 05.6** | **-0.2** |
| **GOPC** | **GO Pecny, Ondr** | **1.82** | **208** | Pg | **Pb** | **04 31 41.0** | **-0.4** |
| GOPC | | | | Sg | **Sg** | **04 32 05.6** | **-0.2** |
| **PRU** | **Pruhonice** | **1.84** | **213** | *e*PN | **Pn** | **04 31 39.2** | **-0.8** |
| PRU | | | | *e*PG | **Pb** | **04 31 40.9** | **-0.7** |
| PRU | | | | *e*SG | **Sb** | **04 32 05.5** | **+0.3** |
| | comp=Z,8.7nm,0.3s | | | | | | |
| **PRU** | **Pruhonice** | **1.84** | **213** | Pn | **Pn** | **04 31 39.2** | **-0.8** |
| **PRU** | **Pruhonice** | **1.84** | **213** | Pg | **Pb** | **04 31 40.9** | **-0.7** |
| PRU | | | | Sg | **Sb** | **04 32 05.5** | **+0.3** |
| | 8.7nm,0.3s | | | | | | |
| **CLL** | **Collm** | **1.95** | **265** | *e*Pn | **Pn** | **04 31 40.0** | **-1.6** |
| CLL | | | | *e*Pg | **Pb** | **04 31 43.0** | **-0.6** |
| CLL | | | | *e*Sg | **Sg** | **04 32 10.0** | **+0.1** |
| | comp=Z,10.0nm,0.7s | | | | | | |
| **MORC** | **Moravsky Berou** | **1.98** | **152** | *e*Pn | **Pn** | **04 31 41.2** | **-0.9** |
| MORC | | | | *e*Sg | **Sg** | **04 32 09.9** | **-1.0** |
| **OKC** | **Ostrava-Krasne** | **2.14** | **142** | *e*PG | **Pb** | **04 31 46.6** | **-0.2** |
| OKC | | | | *e*SG | **Sb** | **04 32 14.5** | **+0.6** |
| | comp=Z,10nm,0.4s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **2.14** | **142** | Pg | **Pb** | **04 31 46.6** | **-0.2** |
| OKC | | | | Sg | **Sb** | **04 32 14.5** | **+0.6** |
| | comp=Z,10nm,0.4s | | | | | | |
| **VRAC** | **Vranov** | **2.25** | **172** | *e*Pn | **Pn** | **04 31 45.7** | **0.0** |
| VRAC | | | | *e*Sg | **Sg** | **04 32 19.0** | **-0.5** |
| **NKC** | **Novy Kostel** | **2.65** | **242** | *e*PN | **Pn** | **04 31 51.4** | **+0.2** |
| NKC | | | | *e*PG | **Pb** | **04 31 56.5** | **+0.9** |
| NKC | | | | *e*SG | **Sg** | **04 32 32.7** | **+0.3** |
| | comp=Z,21nm,0.4s | | | | | | |
| **NKC** | **Novy Kostel** | **2.65** | **242** | Pn | **Pn** | **04 31 51.4** | **+0.2** |
| **OJC** | **Ojcow** | **2.69** | **118** | *e*Pg | **Pg** | **04 31 58.7** | **0.0** |
| OJC | | | | *e*Sg | **Sg** | **04 32 34.7** | **+1.2** |
| **OJC** | **Ojcow** | **2.69** | **118** | *e*Pg | **Pg** | **04 31 58.7** | **0.0** |
| OJC | | | | *e*Sg | **Sg** | **04 32 34.7** | **+1.2** |
| **OJC** | **Ojcow** | **2.69** | **118** | *e*Pg | **Pg** | **04 31 58.7** | **0.0** |
| OJC | | | | *e*Sg | **Sg** | **04 32 34.7** | **+1.2** |
| **KHC** | **Kasperske Hory** | **2.90** | **215** | *e*PN | **Pn** | **04 31 54.7** | **+0.1** |
| KHC | | | | *e*PG | **Pb** | **04 32 00.4** | **+0.6** |
| KHC | | | | *e*SN | **Sn** | **04 32 29.6** | **-0.6** |
| KHC | | | | *e*SG | **Sg** | **04 32 39.6** | **-0.6** |
| **KHC** | **Kasperske Hory** | **2.90** | **215** | Pn | **Pn** | **04 31 54.7** | **+0.1** |
| **LANS** | **Liptovska Anna** | **3.22** | **137** | *e*PG | **Pg** | **04 32 08.0** | **-0.8** |
| LANS | | | | *e*SG | **Sg** | **04 32 49.1** | **-1.4** |
| **VYHS** | **Vyhne** | **3.52** | **149** | *e*Sg | **Sg** | **04 32 59.4** | **-0.8** |
| **VYHS** | **Vyhne** | **3.52** | **149** | *e*SG | **Sg** | **04 32 59.4** | **-0.8** |
| **CONA** | **Conrad Observa** | **3.61** | **183** | Pn | **Pn** | **04 32 05.1** | **+0.6** |
| | comp=Z,0.8nm,0.4s | | | | | | |
| **CONA** | **Conrad Observa** | **3.61** | **183** | Pg | **Pg** | **04 32 15.6** | **-0.8** |
| | comp=Z,0.9nm,0.2s | | | | | | |
| CONA | | | | Sg | **Sg** | **04 33 03.2** | **0.0** |
| | comp=Z,5.6nm,0.5s | | | | | | |
| **MOA** | **Molln** | **3.88** | **199** | Pn | **Pn** | **04 32 08.4** | **+0.4** |
| | comp=Z,0.8nm,0.2s | | | | | | |
| MOA | | | | Sg | **Sg** | **04 33 11.4** | **-0.2** |
| | comp=Z,1.6nm,0.5s | | | | | | |
| **STHS** | **Stebnicka Huta** | **3.91** | **121** | *e*Pg | **Pg** | **04 32 20.7** | **-1.4** |
| **STHS** | **Stebnicka Huta** | **3.91** | **121** | *e

*Error ellipse: s-maj=7.3km s-min=2.9km az=10.0*
*THE **16** 04:42:02.0,34°.89N×24°.83E,h34$^{km}_{\pm 2}$km,ML3.4/14,Error ellipse: s-maj=2.0km s-min=0.7km az=1.0*
*ISK **16** 04:42:09.0,35°.59N×25°.68E,h9km,MD4.0*
*DDA **16** 04:43:05.6,35°.25N×26°.03E,h30$^{km}_{\pm}$,Ml3.5*

**ISC 16 04:42:00.3**±0.7,**34°.88N**±0°.04×**24°.86E**±0°.02,**h44**km±5km,
**n247**,σ1º**45**/309,**mb3.9**/15,**MS3.1**/3,**3C**,**Crete**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **SIVA** | **Sivas** | **0.14** | **344** | **P** | | **Pn** | **04 42 06.4** | **-1.3** |
| SIVA | | | | S | | **Sn** | **04 42 11.7** | **-1.2** |
| SIVA | | | | AML | AML | | 04 42 12.8 | |
| | comp=E,59832μm,0.5s | | | | | | | |
| SIVA | | | | AML | AML | | 04 42 13.9 | |
| | comp=N,92756μm,0.7s | | | | | | | |
| **SIVA** | **Sivas** | **0.14** | **344** | P | | **Pn** | **04 42 06.9** | **-0.8** |
| SIVA | | | | S | | **Sn** | **04 42 13.3** | **+0.5** |
| **SIVA** | **Sivas** | **0.14** | **344** | P | | **Pn** | **04 42 06.9** | **-0.8** |
| SIVA | | | | S | | **Sn** | **04 42 13.3** | **+0.5** |
| **IDI** | **Anoyia** | **0.41** | **4** | P | | **Pn** | **04 42 10.3** | **+0.2** |
| | comp=N,209nm,0.3s,baz=235,slow=7.9,SNR=1385 | | | | | | | |
| IDI | | | | S | | **Sn** | **04 42 18.9** | **+1.8** |
| | comp=N,398nm,0.3s,baz=173,slow=23,SNR=39 | | | | | | | |
| **IDI** | **Anoyia** | **0.41** | **4** | P | | **Pn** | **04 42 10.6** | **+0.4** |
| IDI | | | | S | | **Sn** | **04 42 17.1** | **0.0** |
| IDI | | | | AML | AML | | 04 42 20.0 | |
| | comp=N,12642μm,0.5s | | | | | | | |
| IDI | | | | AML | AML | | 04 42 20.7 | |
| | comp=E,12509μm,0.6s | | | | | | | |
| **IDI** | **Anoyia** | **0.41** | **4** | P | | **Pn** | **04 42 10.6** | **+0.4** |
| IDI | | | | S | | **Sn** | **04 42 17.2** | **0.0** |
| **IDI** | **Anoyia** | **0.41** | **4** | P | | **Pn** | **04 42 10.4** | **+0.2** |
| IDI | | | | S | | **Sn** | **04 42 17.2** | **0.0** |
| **IACM** | **Heraklion** | **0.46** | **22** | P | | **Pn** | **04 42 11.6** | **+0.9** |
| IACM | | | | S | | **Sn** | **04 42 17.4** | **-0.6** |
| IACM | | | | AML | AML | | 04 42 26.8 | |
| | comp=N,52299μm,0.6s | | | | | | | |
| IACM | | | | AML | AML | | 04 42 33.4 | |
| | comp=E,48596μm,0.7s | | | | | | | |
| **IACM** | **Heraklion** | **0.46** | **22** | P | | **Pn** | **04 42 11.6** | **+0.9** |
| IACM | | | | S | | **Sn** | **04 42 18.8** | **+0.7** |
| **IACM** | **Heraklion** | **0.46** | **22** | P | | **Pn** | **04 42 11.4** | **+0.7** |
| IACM | | | | S | | **Sn** | **04 42 18.8** | **+0.7** |
| **LAST** | **Lasithi** | **0.58** | **61** | P | | **Pn** | **04 42 13.5** | **+1.1** |
| LAST | | | | S | | **Sn** | **04 42 23.4** | **+2.5** |
| LAST | | | | AML | AML | | 04 42 26.6 | |
| | comp=E,4488μm,1.0s | | | | | | | |
| LAST | | | | AML | AML | | 04 42 30.0 | |
| | comp=N,4649μm,1.0s | | | | | | | |
| **LAST** | **Lasithi** | **0.58** | **61** | P | | **Pn** | **04 42 13.5** | **+1.1** |
| LAST | | | | S | | **Sn** | **04 42 23.5** | **+2.5** |
| **LAST** | **Lasithi** | **0.58** | **61** | P | | **Pn** | **04 42 13.3** | **+0.9** |
| LAST | | | | S | | **Sn** | **04 42 22.8** | **+1.8** |
| **GVD** | **Gavdhos** | **0.64** | **267** | P | | **Pn** | **04 42 12.5** | **-0.5** |
| GVD | | | | S | | **Sn** | **04 42 23.1** | **+1.0** |
| GVD | | | | AML | AML | | 04 42 27.5 | |
| | comp=N,25702μm,0.4s | | | | | | | |
| GVD | | | | AML | AML | | 04 42 31.4 | |
| | comp=E,27700μm,0.4s | | | | | | | |
| **GVD** | **Gavdhos** | **0.64** | **267** | P | | **Pn** | **04 42 12.9** | **-0.1** |
| GVD | | | | S | | **Sn** | **04 42 23.1** | **+1.0** |
| **GVD** | **Gavdhos** | **0.64** | **267** | P | | **Pn** | **04 42 12.9** | **-0.1** |
| GVD | | | | S | | **Sn** | **04 42 23.2** | **+1.1** |
| **NPS** | **Neapolis** | **0.73** | **58** | P | | **Pn** | **04 42 15.8** | **+1.6** |
| NPS | | | | S | | **Sn** | **04 42 26.2** | **+1.9** |
| **NPS** | **Neapolis** | **0.73** | **58** | P | | **Pn** | **04 42 16.3** | **+2.1** |
| NPS | | | | S | | **Sn** | **04 42 25.5** | **+1.2** |
| NPS | | | | AML | AML | | 04 42 31.8 | |
| | comp=N,4687μm,0.7s | | | | | | | |
| NPS | | | | AML | AML | | 04 42 33.1 | |
| | comp=E,4650μm,0.8s | | | | | | | |
| **NPS** | **Neapolis** | **0.73** | **58** | P | | **Pn** | **04 42 15.8** | **+1.6** |
| NPS | | | | S | | **Sn** | **04 42 26.2** | **+1.9** |
| **NPS** | **Neapolis** | **0.73** | **58** | P | | **Pn** | **04 42 15.8** | **+1.6** |
| NPS | | | | S | | **Sn** | **04 42 26.2** | **+1.9** |
| **VAM** | **Vamos** | **0.75** | **314** | P | | **Pn** | **04 42 15.3** | **+0.8** |
| VAM | | | | S | | **Sn** | **04 42 26.5** | **+1.6** |
| **VAM** | **Vamos** | **0.75** | **314** | P | | **Pn** | **04 42 15.6** | **+1.1** |
| VAM | | | | S | | **Sn** | **04 42 25.2** | **+0.4** |
| VAM | | | | AML | AML | | 04 42 30.0 | |
| | comp=E,13940μm,0.7s | | | | | | | |
| VAM | | | | AML | AML | | 04 42 31.4 | |
| | comp=N,13127μm,0.4s | | | | | | | |
| **VAM** | **Vamos** | **0.75** | **314** | P | | **Pn** | **04 42 15.3** | **+0.8** |
| VAM | | | | S | | **Sn** | **04 42 26.5** | **+1.6** |
| **VAM** | **Vamos** | **0.75** | **314** | P | | **Pn** | **04 42 15.3** | **+0.8** |
| VAM | | | | S | | **Sn** | **04 42 26.5** | **+1.6** |
| **IMMV** | **Iera Moni Meta** | **0.92** | **309** | P | | **Pn** | **04 42 19.0** | **+2.1** |
| IMMV | | | | S | | **Sn** | **04 42 29.0** | **0.0** |
| IMMV | | | | AML | AML | | 04 42 33.4 | |
| | comp=N,10642μm,0.7s | | | | | | | |
| IMMV | | | | AML | AML | | 04 42 38.3 | |
| | comp=E,10620μm,0.7s | | | | | | | |
| **IMMV** | **Iera Moni Meta** | **0.92** | **309** | P | | **Pn** | **04 42 18.4** | **+1.6** |
| IMMV | | | | S | | **Sn** | **04 42 30.0** | **+1.0** |
| **IMMV** | **Iera Moni Meta** | **0.92** | **309** | P | | **Pn** | **04 42 18.4** | **+1.6** |
| IMMV | | | | S | | **Sn** | **04 42 30.0** | **+1.0** |
| **ZKR** | **Zakros** | **1.14** | **78** | P | | **Pn** | **04 42 21.4** | **+1.6** |
| ZKR | | | | S | | **Sn** | **04 42 38.0** | **+3.7** |
| ZKR | | | | AML | AML | | 04 42 50.0 | |
| | comp=N,922μm,0.6s | | | | | | | |
| ZKR | | | | AML | AML | | 04 42 51.1 | |
| | comp=E,2302μm,1.0s | | | | | | | |
| **ZKR** | **Zakros** | **1.14** | **78** | P | | **Pn** | **04 42 21.4** | **+1.6** |
| ZKR | | | | S | | **Sn** | **04 42 35.9** | **+1.6** |
| **ZKR** | **Zakros** | **1.14** | **78** | P | | **Pn** | **04 42 21.7** | **+1.9** |
| ZKR | | | | S | | **Sn** | **04 42 35.9** | **+1.6** |
| **THR6** | **Thira Island,** | **1.54** | **16** | P | | **Pn** | **04 42 26.2** | **+1.0** |
| **THR6** | **Thira Island,** | **1.54** | **16** | P | | **Pn** | **04 42 26.2** | **+1.0** |
| **THR6** | **Thira Island,** | **1.54** | **16** | P | | **Pn** | **04 42 26.8** | **+1.6** |
| **SAP1** | **Santorini-Akro** | **1.54** | **16** | P | | **Pn** | **04 42 24.7** | **-0.5** |
| **SAP1** | **Santorini-Akro** | **1.54** | **16** | P | | **Pn** | **04 42 24.7** | **-0.5** |
| **THT1** | **Athinios (Pele** | **1.57** | **17** | P | | **Pn** | **04 42 26.9** | **+1.2** |
| **THT1** | **Athinios (Pele** | **1.57** | **17** | P | | **Pn** | **04 42 26.9** | **+1.2** |
| **THR5** | **Thira Island,** | **1.58** | **14** | P | | **Pn** | **04 42 26.6** | **+0.7** |
| **THR5** | **Thira Island,** | **1.58** | **14** | P | | **Pn** | **04 42 26.6** | **+0.7** |
| **THR3** | **Thira Island,** | **1.59** | **16** | P | | **Pn** | **04 42 27.0** | **+1.1** |
| **THR3** | **Thira Island,** | **1.59** | **16** | P | | **Pn** | **04 42 27.0** | **+1.1** |
| **THR3** | **Thira Island,** | **1.59** | **16** | P | | **Pn** | **04 42 27.2** | **+1.3** |
| **SAP2K** | **Karterados** | **1.60** | **17** | P | | **Pn** | **04 42 26.8** | **+0.7** |
| **THR7** | **Fira-Santorini** | **1.61** | **17** | P | | **Pn** | **04 42 27.9** | **+1.7** |
| **THR7** | **Fira-Santorini** | **1.61** | **17** | P | | **Pn** | **04 42 27.9** | **+1.7** |
| **ANKY** | **Antikythira Is** | **1.61** | **308** | P | | **Pn** | **04 42 26.2** | **0.0** |
| ANKY | | | | S | | **Sn** | **04 42 46.6** | **+0.8** |
| ANKY | | | | AML | AML | | 04 43 03.0 | |
| | comp=E,2134μm,0.7s | | | | | | | |
| ANKY | | | | AML | AML | | 04 43 07.5 | |
| | comp=N,1376μm,0.5s | | | | | | | |
| **ANKY** | **Antikythira Is** | **1.61** | **308** | P | | **Pn** | **04 42 26.2** | **0.0** |
| ANKY | | | | S | | **Sn** | **04 42 46.6** | **+0.8** |
| **ANKY** | **Antikythira Is** | **1.61** | **308** | P | | **Pn** | **04 42 27.2** | **+1.0** |
| ANKY | | | | S | | **Sn** | **04 42 46.7** | **+0.9** |
| **THR2** | **Thira island,** | **1.63** | **17** | P | | **Pn** | **04 42 27.3** | **+0.8** |
| **THR2** | **Thira island,** | **1.63** | **17** | P | | **Pn** | **04 42 27.3** | **+0.8** |
| **THR2** | **Thira island,** | **1.63** | **17** | P | | **Pn** | **04 42 27.7** | **+1.2** |
| **CMBO** | **Columbo, Santo** | **1.65** | **16** | P | | **Pn** | **04 42 28.1** | **+1.3** |
| **CMBO** | **Columbo, Santo** | **1.65** | **16** | P | | **Pn** | **04 42 27.9** | **+1.1** |
| **CMBO** | **Columbo, Santo** | **1.65** | **16** | P | | **Pn** | **04 42 27.9** | **+1.1** |
| **MHLO** | **Agia Marina, M** | **1.84** | **349** | P | | **Pn** | **04 42 30.1** | **+0.7** |
| MHLO | | | | S | | **Sn** | **04 42 51.9** | **+0.3** |
| MHLO | | | | AML | AML | | 04 43 04.3 | |
| | comp=N,4177μm,0.5s | | | | | | | |
| MHLO | | | | AML | AML | | 04 43 06.2 | |
| | comp=E,4017μm,0.6s | | | | | | | |
| **MHLO** | **Agia Marina, M** | **1.84** | **349** | P | | **Pn** | **04 42 30.1** | **+0.7** |
| MHLO | | | | S | | **Sn** | **04 42 53.1** | **+1.6** |
| **MHLO** | **Agia Marina, M** | **1.84** | **349** | P | | **Pn** | **04 42 30.2** | **+0.8** |
| MHLO | | | | S | | **Sn** | **04 42 53.1** | **+1.6** |
| **MHLA** | **Plaka, Milos I** | **1.89** | **349** | P | | **Pn** | **04 42 31.2** | **+1.1** |
| **MHLA** | **Plaka, Milos I** | **1.89** | **349** | P | | **Pn** | **04 42 31.2** | **+1.1** |
| **KARP** | **Karpathos** | **2.00** | **70** | *e*PN | | **Pn** | **04 42 32.5** | **+0.9** |
| KARP | | | | *e*SN | | **Sn** | **04 42 49.7** | **-5.7** |
| **KARP** | **Karpathos** | **2.00** | **70** | P | | **Pn** | **04 42 33.4** | **+1.8** |
| **KARP** | **Karpathos** | **2.00** | **70** | *e*Pn | | **Pn** | **04 42 32.5** | **+0.9** |
| **KARP** | **Karpathos** | **2.00** | **70** | P | | **Pn** | **04 42 33.4** | **+1.8** |
| **KARP** | **Karpathos** | **2.00** | **70** | P | | **Pn** | **04 42 33.7** | **+2.1** |
| **KYTH** | **Kithira** | **2.02** | **314** | P | | **Pn** | **04 42 32.4** | **+0.5** |
| **APE** | **Apeiranthos** | **2.25** | **14** | *e*PN | | **Pn** | **04 42 36.4** | **+1.3** |
| APE | | | | *e*SN | | **Sn** | **04 42 56.7** | **-5.0** |
| **APE** | **Apeiranthos** | **2.25** | **14** | *e*P | | **Pn** | **04 42 35.4** | **+0.3** |
| **APE** | **Apeiranthos** | **2.25** | **14** | P | | **Pn** | **04 42 34.7** | **-0.4** |
| **APE** | **Apeiranthos** | **2.25** | **14** | *e*Pn | | **Pn** | **04 42 36.0** | **+0.9** |
| **APE** | **Apeiranthos** | **2.25** | **14** | *e*Pn | | **Pn** | **04 42 36.4** | **+1.3** |
| APE | | | | S | | **Sn** | **04 43 04.0** | **+2.3** |
| **APE** | **Apeiranthos** | **2.25** | **14** | P | | **Pn** | **04 42 36.0** | **+0.9** |
| APE | | | | S | | **Sn** | **04 43 04.0** | **+2.3** |
| **VLI** | **Veliai** | **2.41** | **320** | P | | **Pn** | **04 42 37.9** | **+0.7** |
| VLI | | | | S | | **Sn** | **04 43 06.1** | **+0.6** |
| VLI | | | | AML | AML | | 04 43 13.9 | |
| | comp=N,484μm,0.4s | | | | | | | |
| VLI | | | | AML | AML | | 04 43 21.4 | |
| | comp=E,378μm,0.9s | | | | | | | |
| **VLI** | **Veliai** | **2.41** | **320** | P | | **Pn** | **04 42 37.7** | **+0.5** |
| VLI | | | | S | | **Sn** | **04 43 05.8** | **+0.3** |
| **VLI** | **Veliai** | **2.41** | **320** | P | | **Pn** | **04 42 37.7** | **+0.5** |
| VLI | | | | S | | **Sn** | **04 43 05.8** | **+0.3** |
| **KRND** | **KRANIDI** | **2.85** | **332** | P | | **Pn** | **04 42 43.4** | **+0.1** |
| KRND | | | | S | | **Sn** | **04 43 16.4** | **0.0** |
| KRND | | | | AML | AML | | 04 43 29.6 | |
| | comp=E,407μm,0.5s | | | | | | | |
| KRND | | | | AML | AML | | 04 43 31.4 | |
| | comp=N,299μm,0.3s | | | | | | | |
| **KRND** | **KRANIDI** | **2.85** | **332** | P | | **Pn** | **04 42 43.4** | **+0.1** |
| KRND | | | | S | | **Sn** | **04 43 16.4** | **0.0** |
| **DID** | **Didima** | **2.93** | **334** | P | | **Pn** | **04 42 44.0** | **-0.4** |
| DID | | | | S | | **Sn** | **04 43 17.4** | **-1.0** |
| **BODT** | **Bodrum** | **2.95** | **42** | *e*PN | | **Pn** | **04 42 43.8** | **-0.8** |
| **BODT** | **Bodrum** | **2.95** | **42** | *e*Pn | | **Pn** | **04 42 43.8** | **-0.8** |
| **ARG** | **Arkhangelos** | **2.98** | **62** | P | | **Pn** | **04 42 46.5** | **+1.5** |
| ARG | | | | S | | **Sn** | **04 43 22.7** | **+3.2** |
| **ARG** | **Arkhangelos** | **2.98** | **62** | P | | **Pn** | **04 42 46.1** | **+1.1** |
| **ARG** | **Arkhangelos** | **2.98** | **62** | P | | **Pn** | **04 42 46.1** | **+1.1** |
| ARG | | | | S | | **Sn** | **04 43 22.7** | **+3.2** |
| **ARG** | **Arkhangelos** | **2.98** | **62** | P | | **Pn** | **04 42 46.5** | **+1.5** |
| ARG | | | | S | | **Sn** | **04 43 22.7** | **+3.2** |
| **VLY** | **Voula,Athens** | **3.09** | **344** | P | | **Pn** | **04 42 47.7** | **+1.2** |
| **VLY** | **Voula,Athens** | **3.09** | **344** | P | | **Pn** | **04 42 47.7** | **+1.2** |
| **KARY** | **Karystos** | **3.16** | **354** | P | | **Pn** | **04 42 48.1** | **+0.6** |
| **KARY** | **Karystos** | **3.16** | **354** | P | | **Pn** | **04 42 48.1** | **+0.6** |
| **ATHU** | **Athens Univers** | **3.20** | **345** | P | | **Pn** | **04 42 47.7** | **-0.4** |
| **ATHU** | **Athens Univers** | **3.20** | **345** | P | | **Pn** | **04 42 47.7** | **-0.4** |
| **PYL** | **PYLOS** | **3.23** | **309** | P | | **Pn** | **04 42 48.5** | **0.0** |
| PYL | | | | S | | **Sn** | **04 43 23.9** | **-1.8** |
| **PYL** | **PYLOS** | **3.23** | **309** | P | | **Pn** | **04 42 48.5** | **0.0** |
| PYL | | | | S | | **Sn** | **04 43 23.9** | **-1.8** |
| **SMG** | **Samos** | **3.24** | **29** | P | | **Pn** | **04 42 49.2** | **+0.5** |
| **SMG** | **Samos** | **3.24** | **29** | P | | **Pn** | **04 42 49.2** | **+0.5** |
| **PTL** | **Penteli** | **3.26** | **346** | P | | **Pn** | **04 42 49.9** | **+0.9** |
| **PTL** | **Penteli** | **3.26** | **346** | P | | **Pn** | **04 42 49.9** | **+0.9** |
| **ITM** | **Ithomi** | **3.30** | **315** | P | | **Pn** | **04 42 49.1** | **-0.4** |
| ITM | | | | S | | **Sn** | **04 43 26.7** | **-0.8** |
| **ITM** | **Ithomi** | **3.30** | **315** | P | | **Pn** | **04 42 49.1** | **-0.4** |
| ITM | | | | S | | **Sn** | **04 43 26.7** | **-0.8** |
| **GCAM** | **G?zelcaml?** | **3.41** | **34** | *e*PN | | **Pn** | **04 42 50.5** | **-0.4** |
| **GCAM** | **G?zelcaml?** | **3.41** | **34** | *e*Pn | | **Pn** | **04 42 50.5** | **-0.4** |
| **LOUT** | **Loutraki** | **3.45** | **334** | P | | **Pn** | **04 42 53.5** | **+2.0** |
| **LOUT** | **Loutraki** | **3.45** | **334** | P | | **Pn** | **04 42 53.5** | **+2.0** |
| **LTK** | **Loutraki** | **3.49** | **335** | P | | **Pn** | **04 42 51.6** | **-0.3** |
| **LTK** | **Loutraki** | **3.49** | **335** | P | | **Pn** | **04 42 51.7** | **-0.3** |
| **VILL** | **Villia** | **3.51** | **340** | P | | **Pn** | **04 42 52.3** | **0.0** |
| **VIL2** | **Platees** | **3.56** | **339** | P | | **Pn** | **04 42 52.3** | **-0.8** |
| **EREA** | **Eretria** | **3.61** | **348** | P | | **Pn** | **04 42 54.1** | **+0.4** |
| **EREA** | **Eretria** | **3.61** | **348** | P | | **Pn** | **04 42 54.1** | **+0.4** |
| **THAL** | **Thalero** | **3.61** | **331** | P | | **Pn** | **04 42 54.2** | **+0.5** |
| **THAL** | **Thalero** | **3.61** | **331** | P | | **Pn** | **04 42 54.2** | **+0.5** |
| **CHOS** | **Chios island** | **3.63** | **15** | *e*PN | | **Pn** | **04 42 55.5** | **+1.5** |
| **CHOS** | **Chios island** | **3.63** | **15** | *e*Pn | | **Pn** | **04 42 55.5** | **+1.5** |
| **TURN** | **Turunc** | **3.63** | **56** | *e*PN | | Pn | 04 42 49.6 | -4.4 |
| **TURN** | **Turunc** | **3.63** | **56** | *e*P | | **Pn** | **04 42 51.4** | **-2.6** |
| TURN | | | | *e*S | | Sn | 04 43 28.2 | -7.4 |
| **TURN** | **Turunc** | **3.63** | **56** | P | | **Pn** | **04 42 51.4** | **-2.6** |
| **DALY** | **Dalyan (Mu˘la** | **3.64** | **57** | *e*PN | | **Pn** | **04 42 54.0** | **-0.1** |
| **DALY** | **Dalyan (Mu˘la** | **3.64** | **57** | *e*P | | **Pn** | **04 42 55.7** | **+1.6** |
| DALY | | | | *e*S | | **Sn** | **04 43 32.9** | **-2.8** |
| **DALY** | **Dalyan (Mu˘la** | **3.64** | **57** | *e*Pn | | **Pn** | **04 42 54.0** | **-0.1** |
| **DALY** | **Dalyan (Mu˘la** | **3.64** | **57** | P | | **Pn** | **04 42 55.7** | **+1.6** |
| DALY | | | | S | | **Sn** | **04 43 32.9** | **-2.8** |
| **GUR** | **Goura** | **3.66** | **327** | P | | **Pn** | **04 42 54.5** | **0.0** |
| **GUR** | **Goura** | **3.66** | **327** | P | | **Pn** | **04 42 54.5** | **0.0** |
| **AMT** | **Artemida-Makis** | **3.67** | **317** | P | | **Pn** | **04 42 56.3** | **+1.7** |
| **AMT** | **Artemida-Makis** | **3.67** | **317** | P | | **Pn** | **04 42 56.3** | **+1.7** |
| **URLA** | **Izmir** | **3.74** | **21** | *e*PN | | **Pn** | **04 42 56.3** | **+0.7** |
| **URLA** | **Izmir** | **3.74** | **21** | *e*Pn | | **Pn** | **04 42 56.3** | **+0.7** |
| **KLV** | **Kalavryta, Ach** | **3.84** | **326** | P | | **Pn** | **04 42 56.5** | **-0.4** |
| **KLV** | **Kalavryta, Ach** | **3.84** | **326** | P | | **Pn** | **04 42 56.5** | **-0.4** |
| **FETY** | **Fethiye** | **3.86** | **62** | *e*PN | | **Pn** | **04 42 57.4** | **+0.3** |
| **FETY** | **Fethiye** | **3.86** | **62** | *e*Pn | | **Pn** | **04 42 57.4** | **+0.3** |
| **FETY** | **Fethiye** | **3.86** | **62** | P | | **Pn** | **04 42 57.7** | **+0.6** |
| FETY | | | | S | | **Sn** | **04 43 39.5** | **-1.7** |
| **DRO** | **Drossia** | **3.98** | **321** | P | | **Pn** | **04 42 59.0** | **+0.2** |
| **DRO** | **Drossia** | **3.98** | **321** | P | | **Pn** | **04 42 59.0** | **+0.2** |
| **DSF** | **Desfina** | **3.99** | **333** | P | | **Pn** | **04 42 59.8** | **+0.8** |
| **DSF** | **Desfina** | **3.99** | **333** | P | | **Pn** | **04 42 59.8** | **+0.8** |
| **LKR** | **Lokris** | **4.05** | **339** | P | | **Pn** | **04 42 59.6** | **-0.1** |
| **LKR** | **Lokris** | **4.05** | **339** | P | | **Pn** | **04 42 59.6** | **-0.1** |
| **AKAS** | **Kas** | **4.10** | **69** | *e*PN | | **Pn** | **04 43 00.8** | **+0.4** |
| **AKAS** | **Kas** | **4.10** | **69** | *e*P | | **Pn** | **04 43 00.6** | **+0.1** |
| AKAS | | | | *e*S | | **Sn** | **04 43 43.8** | **-3.5** |
| **AKAS** | **Kas** | **4.10** | **69** | P | | **Pn** | **04 43 00.6** | **+0.1** |
| **AKAS** | **Kas** | **4.10** | **69** | *e*Pn | | **Pn** | **04 43 00.9** | **+0.4** |
| AKAS | | | | S | | **Sn** | **04 43 43.8** | **-3.5** |
| **KALE** | **Kalithea** | **4.13** | **329** | P | | **Pn** | **04 43 00.9** | **0.0** |
| **KALE** | **Kalithea** | **4.13** | **329** | P | | **Pn** | **04 43 00.9** | **0.0** |
| **TRIZ** | **Trizonia** | **4.14** | **328** | P | | **Pn** | **04 43 02.3** | **+1.4** |
| **TRIZ** | **Trizonia** | **4.14** | **328** | P | | **Pn** | **04 43 02.3** | **+1.4** |
| **TAVA** | **DENIZLI_Tavas** | **4.17** | **51** | *e*P | | **Pn** | **04 43 02.9** | **+1.4** |
| TAVA | | | | *e*S | | **Sn** | **04 43 47.1** | **-2.0** |
| **TAVA** | **DENIZLI_Tavas** | **4.17** | **51** | P | | **Pn** | **04 43 02.9** | **+1.4** |
| TAVA | | | | S | | **Sn** | **04 43 47.1** | **-2.0** |
| **SERG** | **Sergoula** | **4.18** | **328** | P | | **Pn** | **04 43 02.1** | **+0.5** |
| **SERG** | **Sergoula** | **4.18** | **328** | P | | **Pn** | **04 43 02.1** | **+0.5** |
| **AXAR** | **Agios Charalam** | **4.26** | **336** | P | | **Pn** | **04 43 04.6** | **+2.0** |
| **AXAR** | **Agios Charalam** | **4.26** | **336** | P | | **Pn** | **04 43 04.6** | **+2.0** |
| **EFP** | **Efpalio** | **4.26** | **327** | P | | **Pn** | **04 43 02.3** | **-0.3** |
| **EFP** | **Efpalio** | **4.26** | **327** | P | | **Pn** | **04 43 02.3** | **-0.3** |
| **ANX** | **Ano Chora** | **4.39** | **328** | P | | **Pn** | **04 43 05.8** | **+1.3** |
| **ANX** | **Ano Chora** | **4.39** | **328** | P | | **Pn** | **04 43 05.8** | **+1.3** |
| **GLHS** | **Gihisar (BURDU** | **4.39** | **58** | *e*PN | | **Pn** | **04 43 04.6** | **0.0** |
| **GLHS** | **Gihisar (BURDU** | **4.39** | **58** | *e*Pn | | **Pn** | **04 43 04.6** | **0.0** |
| **SKIA** | **Skiathos** | **4.42** | **346** | P | | **Pn** | **04 43 05.0** | **+0.2** |
| **SKIA** | **Skiathos** | **4.42** | **346** | P | | **Pn** | **04 43 05.0** | **+0.2** |
| **GOLH** | **Golhisar** | **4.48** | **57** | *e*P | | **Pn** | **04 43 07.1** | **+1.4** |
| GOLH | | | | *e*S | | **Sn** | **04 43 53.6** | **-3.0** |
| **GOLH** | **Golhisar** | **4.48** | **57** | P | | **Pn** | **04 43 07.1** | **+1.4** |
| GOLH | | | | S | | **Sn** | **04 43 53.6** | **-3.0** |
| **ELL** | **Elmali** | **4.51** | **64** | *e*PN | | **Pn** | **04 43 07.0** | **+0.9** |
| **ELL** | **Elmali** | **4.51** | **64** | P | | **Pn** | **04 43 07.3** | **+1.2** |
| **ELL** | **Elmali** | **4.51** | **64** | *e*Pn | | **Pn** | **04 43 07.0** | **+0.9** |
| **ELL** | **Elmali** | **4.51** | **64** | P | | **Pn** | **04 43 07.3** | **+1.2** |
| **PVO** | **Paravola** | **4.59** | **325** | P | | **Pn** | **04 43 08.5** | **+1.4** |
| **PVO** | **Paravola** | **4.59** | **325** | P | | **Pn** | **04 43 08.5** | **+1.4** |
| **AGG** | **Agios Georgios** | **4.60** | **335** | P | | **Pn** | **04 43 08.1** | **+0.8** |
| **AGG** | **Agios Georgios** | **4.60** | **335** | P | | **Pn** | **04 43 08.1** | **+0.8** |
| **XOR** | **Xorichti** | **4.67** | **344** | P | | **Pn** | **04 43 07.9** | **-0.4** |
| **XOR** | **Xorichti** | **4.67** | **344** | P | | **Pn** | **04 43 07.9** | **-0.4** |
| **PDO** | **Prodromos** | **4.74** | **323** | P | | **Pn** | **04 43 11.8** | **+2.7** |
| **PDO** | **Prodromos** | **4.74** | **323** | P | | **Pn** | **04 43 11.9** | **+2.7** |
| **KORT** | **Korkueli** | **4.93** | **63** | *e*PN | | **Pn** | **04 43 12.7** | **+0.8** |
| **KORT** | **Korkueli** | **4.93** | **63** | *e*P | | **Pn** | **04 43 12.9** | **+1.0** |
| KORT | | | | *e*S | | **Sn** | **04 44 07.1** | **-0.7** |
| **KORT** | **Korkueli** | **4.93** | **63** | *e*Pn | | **Pn** | **04 43 12.7** | **+0.8** |
| KORT | | | | S | | **Sn** | **04 44 07.1** | **-0.7** |
| **LKD2** | **Lefkada island** | **5.15** | **320** | P | | **Pn** | **04 43 17.4** | **+2.5** |
| **LKD2** | **Lefkada island** | **5.15** | **320** | P | | **Pn** | **04 43 17.4** | **+2.5** |
| **THL** | **Klokotos Trika** | **5.20** | **335** | P | | **Pn** | **04 43 18.6** | **+3.1** |
| **SIMA** | **Simav-Kutahya** | **5.34** | **37** | *e*PN | | **Pn** | **04 43 17.2** | **-0.3** |
| **SIMA** | **Simav-Kutahya** | **5.34** | **37** | *e*Pn | | **Pn** | **04 43 17.2** | **-0.3** |
| **SUTC** | **Sutluce-Ispart** | **5.60** | **61** | *e*PN | | **Pn** | **04 43 22.3** | **+1.1** |
| **SUTC** | **Sutluce-Ispart** | **5.60** | **61** | *e*Pn | | **Pn** | **04 43 22.3** | **+1.1** |
| **TVSB** | **Tavsanli** | **5.86** | **38** | *e*PN | | **Pn** | **04 43 25.1** | **+0.5** |
| **TVSB** | **Tavsanli** | **5.86** | **38** | *e*Pn | | **Pn** | **04 43 25.1** | **+0.5** |
| **SHUT** | **Suhut-Afyon** | **5.86** | **50** | *e*PN | | **Pn** | **04 43 25.1** | **+0.4** |
| **SHUT** | **Suhut-Afyon** | **5.86** | **50** | *e*Pn | | **Pn** | **04 43 25.1** | **+0.4** |
| **KIZT** | **Kizilcal** | **6.90** | **53** | *e*PN | | **Pn** | **04 43 39.4** | **+0.5** |
| **KIZT** | **Kizilcal** | **6.90** | **53** | *e*Pn | | **Pn** | **04 43 39.4** | **+0.5** |
| **BRTR** | **Keskin Array B** | **8.50** | **53** | P | | **Pn** | **04 44 00.8** | **-0.2** |
| | comp=E,0.1nm,0.3s,baz=227,slow=13,SNR=5.6 | | | | | | | |
| **BRTR** | **Keskin Array B** | **8.50** | **53** | *ce*P | | **Pn** | **04 44 02.4** | **+1.5** |
| BRTR | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.5s | | | | | | | |
| **BRTR** | **Keskin Array B** | **8.50** | **53** | *e*P | | **Pn** | **04 44 02.4** | **+1.5** |
| | comp=Z,1.0nm,0.5s | | | | | | | |
| **MMAI** | **Mount Meron Ar** | **8.96** | **99** | P | | **Pn** | **04 44 05.6** | **-1.5** |
| | comp=Z,1.2nm,0.3s,baz=294,slow=11,SNR=4.3 | | | | | | | |
| MMAI | | | | S | | **Sn** | **04 45 40.6** | **-6.0** |
| | comp=Z,2.5nm,0.3s,baz=262,slow=24,SNR=4.4 | | | | | | | |
| **STON** | **Ston** | **9.73** | **327** | *e*Pn | | **Pn** | **04 44 15.4** | **-2.1** |
| STON | | | | Sn | | Sn | 04 45 54.4 | -11 |
| **EIL** | **Elat** | **10.00** | **119** | P | | **Pn** | **04 44 19.1** | **-2.2** |
| | comp=Z,0.8nm,0.3s,baz=328,slow=4.4,SNR=14 | | | | | | | |
| EIL | | | | S | | Sn | 04 46 00.6 | -12 |
| | comp=Z,0.8nm,0.3s,baz=315,slow=6.6,SNR=4.5 | | | | | | | |
| **MLR** | **Muntele Rosu** | **10.63** | **4** | LR | | LR | 04 49 05.3 | |
| | comp=Z,13nm,18.1s,baz=180,slow=40 | | | | | | | |
| **UDBI** | **Udbina** | **11.90** | **327** | *e*Pn | | **Pn** | **04 44 45.4** | **-2.0** |
| **UDBI** | **Udbina** | **11.90** | **327** | *e*Pn | | **Pn** | **04 44 45.3** | **-2.0** |
| **NVLJ** | **Novalja** | **12.34** | **325** | *e*Pn | | **Pn** | **04 44 49.5** | **-3.8** |
| NVLJ | | | | Sn | | Sn | 04 46 57.1 | -12 |
| **AKASG** | **Malin Array Be** | **16.13** | **10** | P | | **Pn** | **04 45 42.9** | **-0.8** |
| | comp=Z,2.1nm,0.3s,baz=201,slow=11,SNR=18 | | | | | | | |
| **AKASG** | **Malin Array Be** | **16.13** | **10** | *ce*P | | **Pn** | **04 45 44.5** | **+0.8** |
| AKASG | | | | pmax | pmax | | | |
| | comp=Z,9.0nm,0.6s | | | | | | | |
| **AKASG** | **Malin Array Be** | **16.13** | **10** | *e*P | | **Pn** | **04 45 44.5** | **+0.8** |
| | comp=Z,9.0nm,0.6s | | | | | | | |
| **NEY** | **Neytrino** | **16.17** | **54** | *e*P | | **Pn** | **04 45 45.7** | **+1.2** |
| **NEY** | **Neytrino** | **16.17** | **54** | *e*P | | **Pn** | **04 45 45.7** | **+1.2** |
| **GERES** | **GERESS Array B** | **16.21** | **333** | P | | **Pn** | **04 45 45.8** | **+0.9** |
| | comp=Z,0.3nm,0.3s,baz=148,slow=12,SNR=23 | | | | | | | |
| **KIV** | **Kislovodsk** | **16.46** | **51** | *i* P | | **P** | **04 45 50.9** | **+0.6** |
| KIV | | | | pmax | pmax | | | |
| | comp=Z,11nm,0.9s | | | | | | | |
| **KIV** | **Kislovodsk** | **16.46** | **51** | *i* P | | **P** | **04 45 50.9** | **+0.6** |
| | comp=Z,11nm,0.9s | | | | | | | |
| **KVAR** | **Kislovodsk Arr

*ISCJB **16** 04:57:00.6±1.2,52.°0N±0.°2×170.°74W±0.°10,h35km, mb3.2/2,MS3.1/1,Error ellipse: s-maj=24.5km s-min=4.2km az=161.6*

*IDC **16** 04:57:00.9±7.5,52.°35N×169.°98W,h0km,mb3.3/2, mb1 3.8/4,mb1mx3.3/63,mbtmp3.6/4,ML3.3/2,MS3.1/1, Ms1 3.1/1,ms1mx2.5/30,Error ellipse: s-maj=128.4km s-min=71.1km az=97.0*

*NEIC **16** 04:57:01.1±0.0,52.°14N×170.°84W,h26km,ML3.4(AEIC), After AEIC.*

**ISC 16 04:57:01.2±1.6,52.°0N±0.°2×170.°74W±0.°08,h35km,n19, σ1§25/22,Fox Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **NIKH** | **Nikolski High** | **1.51** | **49** | P | **Pn** | **04 57 24.9** | **-0.8** |
| NIKH | | | | S | **Sn** | **04 57 43.0** | **-1.2** |
| **OKSP** | **Okmok Steeple** | **1.95** | **49** | P | **Pn** | **04 57 31.9** | **0.0** |
| **KOSE** | **Korovin Southe** | **2.07** | **281** | P | **Pn** | **04 57 34.5** | **+1.1** |
| **OKSO** | **Okmok South** | **2.08** | **48** | P | **Pn** | **04 57 34.0** | **+0.5** |
| OKSO | | | | S | **Sn** | **04 57 59.8** | **+1.6** |
| **KOFP** | **Korovin Flat P** | **2.09** | **279** | P | **Pn** | **04 57 34.1** | **+0.4** |
| **ATKA** | **Atka Island** | **2.14** | **277** | P | **Pn** | **04 57 34.2** | **-0.1** |
| ATKA | | | | S | **Sn** | **04 57 58.7** | **-0.9** |
| **OKTU** | **Okmok Mt. Tuli** | **2.15** | **49** | P | **Pn** | **04 57 35.3** | **+0.7** |
| **KOKL** | **Mount Kliuchef** | **2.16** | **280** | P | **Pn** | **04 57 35.6** | **+0.9** |
| **KOWE** | **Korovin West** | **2.19** | **281** | P | **Pn** | **04 57 36.4** | **+1.3** |
| **OKFG** | **Magazine Ridge** | **2.23** | **49** | P | **Pn** | **04 57 36.2** | **+0.7** |
| OKFG | | | | S | **Sn** | **04 58 03.6** | **+1.8** |
| **MREP** | **Makushin Rep't** | **3.03** | **51** | P | **Pn** | **04 57 47.3** | **+0.8** |
| **MSW** | **Makushin Switc** | **3.07** | **50** | P | **Pn** | **04 57 49.7** | **+2.6** |
| **GSMY** | **Great Sitkin M** | **3.29** | **273** | P | **Pn** | **04 57 51.1** | **+1.0** |
| **GSTD** | **Great Sitkin T** | **3.34** | **273** | P | **Pn** | **04 57 51.4** | **+0.5** |
| **KDAK** | **Kodiak Island** | **11.93** | **54** | Pn | **Pn** | **04 59 46.7** | **-1.8** |
| | 0.5nm,0.3s,baz=252,slow=6.2,SNR=8.5 | | | | | | |
| **ILAR** | **Eielson Array** | **17.74** | **35** | P | **P** | **05 01 03.8** | **-1.8** |
| | 0.0nm,0.3s,baz=234,slow=9.1,SNR=3.5 | | | | | | |
| **YKA** | **Yellowknife Ar** | **31.12** | **48** | P | **P** | **05 03 15.2** | **-0.7** |
| | 0.1nm,0.3s,baz=275,slow=7.2,SNR=4.3 | | | | | | |
| **PDAR** | **Pinedale Array** | **41.30** | **78** | P | **P** | **05 04 44.0** | **+0.7** |
| | 0.5nm,0.5s,baz=298,slow=3.2,SNR=5.4 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **57.13** | **317** | LR | LR | 05 32 35.6 | |
| | comp=Z,17nm,19.7s,baz=66,slow=37 | | | | | | |

*IDC **16** 04:57:45.0±0.9,19.°52N×147.°52E,h0km,mb3.8/10, mb1 4.0/11,mb1mx3.7/56,mbtmp3.9/11,ML4.7/1,Error ellipse: s-maj=30.9km s-min=19.8km az=85.0*

*ISCJB **16** 04:57:48.1±0.7,19.°58N±0.°05×147.°3E±0.°1,h29km, mb3.8/12,Error ellipse: s-maj=18.4km s-min=6.5km az=175.1*

*NEIC **16** 04:57:51.8±1.6,19.°55N×147.°48E,h48km±13km,mb4.3/2, Error ellipse: s-maj=22.5km s-min=8.8km az=85.0*

**ISC 16 04:57:49.8±0.8,19.°58N±0.°07×147.°5E±0.°1,h29km,n20, σ1§22/20,mb3.8/12,Mariana Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GUMO** | **Guam** | **6.45** | **203** | Pn | **Pn** | **04 59 24.4** | **+1.6** |
| | 17nm,0.3s,baz=158,slow=22,SNR=4.2 | | | | | | |
| GUMO | | | | Sn | **Sn** | **05 00 33.8** | **-1.8** |
| | 28nm,0.3s,baz=325,slow=22,SNR=4.6 | | | | | | |
| **CBIJ** | **Chichi jima** | **8.90** | **328** | Pn | **Pn** | **04 59 58.1** | **+1.7** |
| CBIJ | | | | Sn | **Sn** | **05 01 33.9** | **-1.9** |
| **JCJ** | **Chichijima** | **8.90** | **328** | Pn | **Pn** | **04 59 58.1** | **+1.7** |
| | 7.5nm,0.3s,baz=266,slow=23,SNR=5.7 | | | | | | |
| JCJ | | | | Sn | **Sn** | **05 01 33.9** | **-1.9** |
| | 6.3nm,0.3s,baz=126,slow=23,SNR=3.8 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **18.23** | **90** | T | T | 05 20 25.5 | |
| | baz=276,slow=75,SNR=8.5 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **18.23** | **90** | T | T | 05 20 26.2 | |
| | baz=276,slow=75,SNR=7.8 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **18.24** | **90** | T | T | 05 20 31.9 | |
| | baz=276,slow=75,SNR=6.5 | | | | | | |
| **WRAB** | **Tennant Creek** | **41.32** | **199** | *e*P | **P** | **05 05 33.0** | **0.0** |
| | 2.2nm,0.7s | | | | | | |
| **WRA** | **Warramunga Arr** | **41.33** | **199** | P | **P** | **05 05 31.9** | **-1.3** |
| | 0.8nm,0.7s,baz=31,slow=8.9,SNR=9.8 | | | | | | |
| **SONM** | **Songino Array** | **43.51** | **320** | P | **P** | **05 05 52.1** | **+1.3** |
| | 0.2nm,0.3s,baz=140,slow=7.0,SNR=2.9 | | | | | | |
| **ASAR** | **Alice Springs** | **44.97** | **198** | P | **P** | **05 06 02.0** | **-0.5** |
| | 0.3nm,0.3s,baz=28,slow=8.2,SNR=4.9 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **58.33** | **322** | P | **P** | **05 07 42.2** | **+0.2** |
| | 0.3nm,0.3s,baz=116,slow=6.8,SNR=3.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **59.05** | **313** | P | **P** | **05 07 47.4** | **+0.1** |
| | 0.3nm,0.5s,baz=94,slow=7.5,SNR=7.1 | | | | | | |
| **KURK** | **Kurchatov** | **61.73** | **318** | P | **P** | **05 08 05.9** | **+0.5** |
| **KURBB** | **Kurchatov Arra** | **61.78** | **318** | P | **P** | **05 08 05.9** | **+0.1** |
| | 0.5nm,0.3s,baz=92,slow=7.7,SNR=5.6 | | | | | | |
| **ILAR** | **Eielson Array** | **62.13** | **26** | P | **P** | **05 08 07.1** | **-0.8** |
| | 0.6nm,0.8s,baz=260,slow=4.3,SNR=4.6 | | | | | | |
| **BVAR** | **Borovoye Array** | **66.85** | **320** | P | **P** | **05 08 39.3** | **+0.4** |
| | 0.7nm,0.4s,baz=82,slow=5.3,SNR=7.1 | | | | | | |
| **BRVK** | **Borovoye** | **66.92** | **320** | *e*P | **P** | **05 08 39.6** | **+0.2** |
| | 3.0nm,0.6s | | | | | | |
| **YKA** | **Yellowknife Ar** | **76.44** | **28** | P | **P** | **05 09 36.3** | **-0.1** |
| | 0.4nm,0.5s,baz=284,slow=5.6,SNR=8.8 | | | | | | |
| **FINES** | **FINESS Array B** | **86.77** | **336** | P | **P** | **05 10 29.5** | **-1.5** |
| | 0.8nm,0.3s,baz=64,slow=3.5,SNR=6.3 | | | | | | |
| **LPAZ** | **La Paz** | **146.03** | **90** | PKPbc | **PKPab** | **05 17 29.4** | **+0.3** |
| | 0.8nm,0.5s,baz=338,slow=2.6,SNR=5.1 | | | | | | |

**MEX 16 04:57:56.9±0.3,32.°35N×115.°20W,h13km±61km,MD3.5, California-Baja California border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MBIG** | **Mexicali** | **0.06** | **357** | *e*P | Pg | 04 57 59.1 | -0.3 |
| **CBX** | **Cerro Bola** | **1.24** | **269** | *e*P | Pn | 04 58 16.2 | -3.9 |
| CBX | | | | *e*S | Sb | 04 58 31.6 | -4.7 |
| **TJIG** | **Tijuana** | **1.25** | **274** | *e*P | Pn | 04 58 16.5 | -3.7 |
| TJIG | | | | *e*S | Sb | 04 58 31.8 | -4.7 |

*ISK **16** 05:08:12.9,38.°73N×43.°24E,h5km,MD2.6*

*ISCJB **16** 05:08:14.6±0.4,38.°73N±0.°02×43.°20E±0.°04,h5km±6km, Error ellipse: s-maj=5.1km s-min=3.8km az=161.5*

*CSEM **16** 05:08:14.0±0.2,38.°72N×43.°22E,h8km,MD2.6,Error ellipse: s-maj=4.7km s-min=3.8km az=83.0*

*DDA **16** 05:08:14.1,38.°71N×43.°21E,h7km,Ml2.9*

**ISC 16 05:08:14.7±0.9,38.°73N±0.°02×43.°21E±0.°02,h12km±7km, n28,σ1§22/47,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.19** | **132** | *e*PG | **Pg** | **05 08 19.1** | **+0.2** |
| VANB | | | | *e*SG | **Sg** | **05 08 23.7** | **+1.7** |
| **VANB** | **Van** | **0.19** | **132** | *e*Pg | **Pg** | **05 08 19.1** | **+0.2** |
| **TVAN** | **Van** | **0.25** | **141** | *i* P | **Pg** | **05 08 19.1** | **-1.0** |
| TVAN | | | | *i* S | **Sg** | **05 08 23.7** | **+0.1** |
| **TVAN** | **Van** | **0.25** | **141** | P | **Pg** | **05 08 19.0** | **-1.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.39** | **283** | *i* P | **Pg** | **05 08 21.9** | **-0.5** |
| ADCV | | | | *i* S | **Sb** | **05 08 28.9** | **-0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.39** | **283** | P | **Pg** | **05 08 21.9** | **-0.5** |
| ADCV | | | | S | **Sb** | **05 08 28.9** | **-0.7** |
| **VMUR** | **Van-Muradiye** | **0.39** | **47** | *i* P | **Pg** | **05 08 22.3** | **-0.2** |
| VMUR | | | | *i* S | **Sb** | **05 08 29.3** | **-0.4** |
| **VMUR** | **Van-Muradiye** | **0.39** | **47** | P | **Pg** | **05 08 22.3** | **-0.2** |
| VMUR | | | | S | **Sb** | **05 08 29.3** | **-0.4** |
| **GEVA** | **Gevas** | **0.43** | **196** | *i* P | **Pg** | **05 08 21.7** | **-1.4** |
| GEVA | | | | *i* S | **Sg** | **05 08 29.0** | **+0.1** |
| **GEVA** | **Gevas** | **0.43** | **196** | P | **Pg** | **05 08 21.7** | **-1.4** |
| GEVA | | | | S | **Sg** | **05 08 29.0** | **+0.1** |
| **CLDR** | **Caldiran** | **0.69** | **53** | *e*PG | **Pg** | **05 08 27.0** | **-1.2** |
| CLDR | | | | *e*SG | **Sb** | **05 08 37.4** | **-1.1** |
| **CLDR** | **Caldiran** | **0.69** | **53** | *i* P | **Pg** | **05 08 27.3** | **-0.9** |
| CLDR | | | | *i* S | **Sb** | **05 08 37.5** | **-1.1** |
| **CLDR** | **Caldiran** | **0.69** | **53** | *e*Pg | **Pg** | **05 08 27.0** | **-1.2** |
| **CLDR** | **Caldiran** | **0.69** | **53** | P | **Pg** | **05 08 27.3** | **-0.9** |
| CLDR | | | | *e*Sg | **Sb** | **05 08 37.4** | **-1.1** |
| **TUTA** | **Tutak** | **0.74** | **336** | *i* P | **Pg** | **05 08 28.2** | **-0.9** |
| TUTA | | | | *i* S | **Sg** | **05 08 39.0** | **+0.1** |
| **TUTA** | **Tutak** | **0.74** | **336** | P | **Pg** | **05 08 28.2** | **-0.9** |
| TUTA | | | | S | **Sg** | **05 08 39.0** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **0.87** | **349** | *e*PG | **Pg** | **05 08 30.6** | **-0.8** |
| **AGRB** | **Hanur-Agry** | **0.87** | **349** | *e*Pg | **Pg** | **05 08 30.6** | **-0.8** |
| **EKAR** | **Karacoban** | **1.04** | **301** | *i* P | **Pn** | **05 08 35.4** | **+0.1** |
| EKAR | | | | *i* S | **Sn** | **05 08 53.1** | **+3.3** |
| **EKAR** | **Karacoban** | **1.04** | **301** | P | **Pn** | **05 08 35.4** | **+0.1** |
| EKAR | | | | S | **Sn** | **05 08 53.1** | **+3.3** |
| **HAKT** | **HAKKARI** | **1.23** | **161** | *i* P | **Pg** | **05 08 36.8** | **-1.5** |
| HAKT | | | | *i* S | **Sn** | **05 08 56.9** | **+2.2** |
| **HAKT** | **HAKKARI** | **1.23** | **161** | P | **Pg** | **05 08 36.8** | **-1.5** |
| HAKT | | | | S | **Sn** | **05 08 56.9** | **+2.2** |
| **EATA** | **Eleskirt** | **1.26** | **334** | *i* P | **Pg** | **05 08 37.7** | **-1.3** |
| EATA | | | | *i* S | **Sn** | **05 08 56.4** | **+0.8** |
| **EATA** | **Eleskirt** | **1.26** | **334** | P | **Pg** | **05 08 37.7** | **-1.3** |
| EATA | | | | S | **Sn** | **05 08 56.4** | **+0.8** |
| **SIRT** | **Sirnak** | **1.36** | **207** | *e*PN | **Pg** | **05 08 40.2** | **-0.7** |
| **SIRT** | **Sirnak** | **1.36** | **207** | *e*Pn | **Pg** | **05 08 40.2** | **-0.7** |
| **CUKT** | **Cukurca** | **1.51** | **168** | *e*PN | **Pb** | **05 08 42.1** | **-0.6** |
| **CUKT** | **Cukurca** | **1.51** | **168** | *e*Pn | **Pb** | **05 08 42.1** | **-0.6** |

*ISCJB **16** 05:19:44.7±1.0,50.°40N±0.°07×18.°73E±0.°05,h0km,Error ellipse: s-maj=10.7km s-min=4.5km az=177.2*

*CSEM **16** 05:19:45.6±0.2,50.°40N×18.°75E,h1km,ML4.4,Error ellipse: s-maj=6.1km s-min=2.5km az=177.0*

*PRU **16** 05:19:46.4,50.°33N×18.°77E,h0km*

**ISC 16 05:19:46.0±1.2,50.°37N±0.°07×18.°76E±0.°03,h0km,n9, σ0§33/18,Poland**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **OKC** | **Ostrava-Krasne** | **0.66** | **217** | *e*PG | **Pg** | **05 19 58.4** | **-0.1** |
| OKC | | | | *e*SG | **Sg** | **05 20 07.6** | **+0.6** |
| **OKC** | **Ostrava-Krasne** | **0.66** | **217** | Pg | **Pg** | **05 19 58.4** | **-0.1** |
| OKC | | | | Sg | **Sg** | **05 20 07.6** | **+0.6** |
| **OJC** | **Ojcow** | **0.69** | **102** | *e*Pg | **Pg** | **05 19 58.9** | **-0.2** |
| OJC | | | | *e*Sg | **Sg** | **05 20 08.2** | **+0.3** |
| **OJC** | **Ojcow** | **0.69** | **102** | *e*Pg | **Pg** | **05 19 58.9** | **-0.2** |
| OJC | | | | *e*Sg | **Sg** | **05 20 08.2** | **+0.3** |
| **MORC** | **Moravsky Berou** | **0.98** | **233** | *e*Pg | **Pg** | **05 20 04.3** | **-0.4** |
| MORC | | | | *e*Sg | **Sg** | **05 20 16.9** | **-0.5** |
| **KRLC** | **Kraliky** | **1.30** | **258** | *e*PG | **Pg** | **05 20 10.8** | **-0.1** |
| KRLC | | | | *e*SG | **Sg** | **05 20 27.8** | **+0.1** |
| **KRLC** | **Kraliky** | **1.30** | **258** | Pg | **Pg** | **05 20 10.8** | **-0.1** |
| KRLC | | | | Sg | **Sg** | **05 20 27.8** | **+0.1** |
| **DPC** | **Dobruska-Polom** | **1.56** | **270** | *e*PG | **Pn** | **05 20 14.9** | **-0.1** |
| DPC | | | | *e*SG | **Sg** | **05 20 36.4** | **+0.4** |
| **DPC** | **Dobruska-Polom** | **1.56** | **270** | Pg | **Pn** | **05 20 14.9** | **-0.1** |
| DPC | | | | Sg | **Sg** | **05 20 36.4** | **+0.4** |

*NIED **16** 05:27:00,38.°50N×142.°30E,h17km,Mw4.1 Best double couple: M0 1.81000×10^15 NP1:φs 319.00000°,δ17.00000°, λ134.00000°. NP2:φs 93.00000°,δ78.00000°,λ78.00000°.*

*BJI **16** 05:27:24.1,38.°22N×142.°81E,h30km,mb4.4/27,mB5.0/17, Ms4.2/14,Ms7 4.1/10*

*IDC **16** 05:27:25.3±0.6,38.°43N×142.°12E,h0km,mb4.3/19, mb1 4.4/22,mb1mx4.3/35,mbtmp4.3/22,ML4.2/3,MS2.2/2, Ms1 2.2/2,ms1mx2.2/46,Error ellipse: s-maj=18.9km s-min=12.8km az=104.0*

*MOS **16** 05:27:26.2±1.1,38.°53N×142.°12E,h15km,mb4.8/18,Error ellipse: s-maj=11.1km s-min=5.7km az=87.1*

*ISCJB **16** 05:27:26.8±0.8,38.°44N±0.°02×142.°18E±0.°04,h19km±5km, mb4.6/63,MS3.8/3,Error ellipse: s-maj=5.8km s-min=3.6km az=27.6*

*NEIC **16** 05:27:27.9±1.9,38.°43N×142.°16E,h14km±12km,mb4.8/33, Error ellipse: s-maj=5.8km s-min=3.8km az=109.0*

*NEIC Recorded [1 JMA] in Iwate and Miyagi.*

*JMA **16** 05:27:27.3±0.1,38.°49N×142.°19E,h23km±1km,M4.4*

*JMA Felt I J1.*

**ISC 16 05:27:27.0±1.2,38.°47N±0.°04×142.°20E±0.°04,h9km±6km, n159,σ1§51/171,mb4.7/63,MS3.8/4,4C-4D,Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JIO** | **Ouri** | **0.67** | **269** | P | **Pg** | **05 27 40.1** | **+0.2** |
| JIO | | | | S | **Sg** | **05 27 48.5** | **-0.1** |
| **OFUJ** | **Ofunato** | **0.74** | **326** | P | **Pg** | **05 27 41.0** | **-0.2** |
| OFUJ | | | | S | **Sg** | **05 27 50.6** | **-0.3** |
| **JMK** | **Ichinoseki** | **0.91** | **302** | P | **Pg** | **05 27 43.8** | **-0.6** |
| **JOU** | **Okura** | **1.21** | **266** | P | **Pb** | **05 27 49.1** | **-1.0** |
| JOU | | | | S | **Sb** | **05 28 04.7** | **-1.1** |
| **JOM** | **Ohasama** | **1.23** | **325** | P | **Pn** | **05 27 48.8** | **-1.5** |
| JOM | | | | *e*S | **Sb** | **05 28 04.3** | **-2.0** |
| **JMM** | **Marumori** | **1.26** | **242** | P | **Pn** | **05 27 48.9** | **-1.9** |
| JMM | | | | S | **Sb** | **05 28 04.9** | **-2.3** |
| **JYK** | **Kaneyama** | **1.51** | **288** | P | **Pn** | **05 27 53.6** | **-0.6** |
| JYK | | | | *e*S | **Sn** | **05 28 12.4** | **-1.6** |
| **JFK** | **Kawauchi** | **1.52** | **224** | P | **Pn** | **05 27 51.9** | **-2.5** |
| JFK | | | | *e*S | **Sn** | **05 28 10.5** | **-3.8** |
| **JRG** | **Rokugo** | **1.53** | **308** | P | **Pn** | **05 27 53.6** | **-0.9** |
| **ERM** | **Erimo** | **3.62** | **11** | *de*P | **Pn** | **05 28 23.4** | **+0.3** |
| ERM | | | | pmax | pmax | | |
| | comp=Z,111nm,1.2s | | | | | | |
| **ERM** | **Erimo** | **3.62** | **11** | *e*Pn | **Pn** | **05 28 24.1** | **+0.9** |
| **MJAR** | **Matsushiro Arr** | **3.71** | **240** | Pn | **Pn** | **05 28 24.7** | **+0.2** |
| | comp=Z,5.4nm,0.3s,baz=36,slow=14,SNR=16 | | | | | | |
| **MAJO** | **Matsushiro** | **3.71** | **240** | *i* P | **Pn** | **05 28 25.5** | **+1.0** |
| **MAJO** | **Matsushiro** | **3.71** | **240** | *e*Pn | **Pn** | **05 28 25.4** | **+0.9** |
| **MAT** | **Matsushiro** | **3.71** | **240** | P | **Pn** | **05 28 24.8** | **+0.3** |
| MAT | | | | *e*S | **Sn** | **05 29 07.3** | **-1.1** |
| **MJB9** | **Matsu-Tunnel** | **3.71** | **240** | *e*Pn | **Pn** | **05 28 25.4** | **+0.9** |
| **INU** | **Inuyama** | **5.19** | **235** | *e*Pn | **Pn** | **05 28 46.5** | **+1.7** |
| **ASAJ** | **Asahikawa** | **5.65** | **3** | Pn | **Pn** | **05 28 51.7** | **+0.6** |
| | comp=Z,9.2nm,0.3s,baz=232,slow=8.1,SNR=32 | | | | | | |
| **JHJ2** | **Mitsune** | **5.69** | **201** | *e*Pn | **Pn** | **05 28 50.7** | **-0.8** |
| **JHJ** | **Hachijo jima 2** | **5.69** | **201** | Pn | **Pn** | **05 28 50.6** | **-1.0** |
| | comp=Z,35nm,0.3s,baz=187,slow=5.7,SNR=7.0 | | | | | | |
| JHJ | | | | Sn | **Sn** | **05 29 55.6** | **-1.5** |
| | comp=Z,16nm,0.3s,baz=88,slow=22,SNR=2.6 | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **6.21** | **25** | *e*P | **Pn** | **05 28 56.9** | **-1.8** |
| YUK | | | | S | **Sn** | **05 30 06.5** | **-3.3** |
| YUK | | | | pmax | pmax | | |
| | comp=E,225nm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=Z,67nm,0.2s | | | | | | |
| **KUR** | **Kuril'sk** | **7.97** | **30** | *e*P | **Pn** | **05 29 21.5** | **-1.4** |
| KUR | | | | *e*S | **Sn** | **05 30 49.0** | **-4.2** |
| KUR | | | | pmax | pmax | | |
| | comp=E,24nm,0.3s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=Z,40nm,0.3s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=N,18nm,0.2s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **8.49** | **3** | *e*P | **Pn** | **05 29 30.9** | **+0.9** |
| YSS | | | | *e*S | **Sn** | **05 31 06.5** | **+0.6** |
| YSS | | | | pmax | pmax | | |
| | comp=Z,40nm,0.9s | | | | | | |
| **KSRS** | **Korea Array** | **11.32** | **269** | LR | LR | 05 33 56.4 | |
| | comp=Z,25nm,19.7s,baz=185,slow=35 | | | | | | |
| **CBIJ** | **Chichi jima** | **11.34** | **180** | *e*Pn | **Pn** | **05 30 06.3** | **-2.9** |
| **JCJ** | **Chichijima** | **11.34** | **180** | Pn | **Pn** | 05 30 05.0 | -4.2 |
| | comp=Z,21nm,0.3s,baz=257,slow=22,SNR=22 | | | | | | |
| **KLR** | **Kul'dur** | **13.12** | **328** | Pn | **Pn** | **05 30 33.9** | **+0.4** |
| | comp=Z,0.0nm,0.3s,baz=137,slow=14,SNR=3.6 | | | | | | |
| KLR | | | | LR | LR | 05 35 21.7 | |
| | comp=Z,6.2nm,21.8s,baz=342,slow=36 | | | | | | |
| **SKR** | **Severo-Kuril's** | **15.70** | **34** | *i* P | **Pn** | **05 31 09.3** | **+1.1** |
| **NJ2** | **Nanjing** | **20.09** | **259** | *e*P | **P** | **05 32 01.4** | **+0.7** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,11nm,0.7s | | | | | | |
| **BJI** | **Beijing** | **20.20** | **283** | P | **P** | **05 32 02.8** | **+0.9** |
| BJI | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.4s | | | | | | |
| **MA2** | **Magadan** | **21.82** | **12** | P | **P** | **05 32 19.3** | **0.0** |
| | comp=Z,19nm,0.7s,baz=200,slow=11,SNR=5.4 | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **23.65** | **285** | *e*P | **P** | **05 32 38.6** | **-0.1** |
| HHC | | | | pP | sP | 05 32 47.8 | +5.3 |
| HHC | | | | sP | pP | 05 32 51.9 | +11 |
| HHC | | | | S | **S** | **05 36 45.8** | **-7.7** |
| HHC | | | | PcS | **PcS** | **05 40 03.6** | **+1.0** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.0s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,110nm,6.9s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,130nm,19.7s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,180nm,17.3s | | | | | | |
| **YAK** | **Yakutsk** | **24.82** | **346** | P | **P** | **05 32 48.4** | **-0.8** |
| | comp=Z,15nm,0.4s,baz=300,slow=0.5,SNR=4.9 | | | | | | |
| **YAK** | **Yakutsk** | **24.82** | **346** | *e*P | **P** | **05 32 47.7** | **-1.4** |
| YAK | | | | pmax | pmax | | |
| | comp=Z,15nm,0.9s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,4.0nm,1.0s | | | | | | |
| **YAK** | **Yakutsk** | **24.82** | **346** | *e*P | **P** | **05 32 48.7** | **-0.4** |
| | comp=N,25nm,0.6s | | | | | | |
| **SEY** | **Seymchan** | **25.27** | **11** | P | **P** | **05 32 54.5** | **+1.3** |
| | comp=N,11nm,0.8s,baz=190,slow=11,SNR=14 | | | | | | |
| **SEY** | **Seymchan** | **25.27** | **11** | *ce*P | **P** | **05 32 53.7** | **+0.5** |
| **BOD** | **Bodaibo** | **26.67** | **326** | *e*P | **P** | **05 33 04.2** | **-1.8** |
| BOD | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.5s | | | | | | |
| **SONA1** | **Songino Array** | **27.53** | **302** | *e*P | **P** | **05 33 13.8** | **-0.2** |
| **SONM** | **Songino Array** | **27.54** | **302** | P | **P** | **05 33 13.8** | **-0.2** |
| | comp=Z,0.3nm,0.4s,baz=101,slow=9.1,SNR=3.6 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.39** | **124** | T | T | 06 03 07.4 | |
| | baz=317,slow=75,SNR=1759 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.40** | **124** | T | T | 06 03 11.7 | |
| | baz=317,slow=75,SNR=1775 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.41** | **124** | T | T | 06 03 19.5 | |
| | baz=317,slow=75,SNR=2205 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.16** | **126** | T | T | 06 04 00.2 | |
| | baz=318,slow=76,SNR=499 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.16** | **126** | T | T | 06 04 00.4 | |
| | baz=318,slow=76,SNR=627 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.17** | **126** | T | T | 06 04 02.8 | |
| | baz=318,slow=76,SNR=316 | | | | | | |
| **LZH** | **Lanzhou** | **30.47** | **278** | *e*P | **P** | **05 33 41.0** | **+0.8** |
| LZH | | | | pP | sP | 05 33 50.8 | +6.7 |
| LZH | | | | sP | pP | 05 33 54.8 | +12 |
| LZH | | | | PP | **PnPn** | **05 34 40.3** | **+1.6** |
| LZH | | | | pmax | pmax | | |
| | comp=Z,13nm,1.0s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,93nm,7.3s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,220nm,13.7s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,180nm,13.8s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,150nm,15.0s | | | | | | |
| **GSTR** | **Great Sitkin T** | **31.91** | **51** | *e*P | **P** | **05 33 51.3** | **-1.3** |
| **GYA** | **Guiyang** | **32.09** | **259** | P | **P** | **05 33 53.5** | **-1.1** |
| GYA | | | | pmax | pmax | | |
| | comp=Z,20nm,0.8s | | | | | | |
| **GTA** | **Gaotai** | **32.76** | **285** | *e*P | P | 05 34 06.4 | +6.0 |
| GTA | | | | pP | sP | 05 34 15.5 | +11 |
| GTA | | | | sP | pP | 05 34 19.8 | +17 |
| GTA | | | | S | **S** | **05 39 22.5** | **+5.2** |
| GTA | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.7s | | | | | | |
| GTA | | | | pmax | pmax | | |
| | comp=Z,130nm,5.2s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,180nm,13.8s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,190nm,13.8s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,92nm,15.7s | | | | | | |
| **ATKA** | **Atka Island** | **33.06** | **51** | *e*P | **P** | **05 34 01.3** | **-1.3** |
| | comp=Z,304nm,1.6s | | | | | | |
| **TIXI** | **Tiksi** | **33.95** | **352** | P | **P** | **05 34 09.2** | **-0.9** |
| | comp=Z,2.5nm,0.5s,baz=146,slow=11,SNR=5.0 | | | | | | |
| **TIXI** | **Tiksi** | **33.95** | **352** | *i* P | **P** | **05 34 09.5** | **-0.6** |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.9s | | | | | | |
| **TIXI** | **Tiksi** | **33.95** | **352** | *e*P | **P** | **05 34 09.3** | **-0.8** |
| | comp=Z,2.9nm,0.6s | | | | | | |
| **KMI** | **Kunming** | **35.81** | **260** | P | **P** | **05 34 27.3** | **+0.3** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.5s | | | | | | |
| **DGZ** | **Jazzator, Alta** | **40.08** | **305** | *i* P | **P** | **05 35 01.8** | **-0.9** |
| DGZ | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.8s | | | | | | |
| **WMQ** | **Urumqi** | **40.77** | **296** | P | **P** | **05 35 10.3** | **+1.9** |
| WMQ | | | | pP | sP | 05 35 14.9 | +2.6 |
| WMQ | | | | sP | pP | 05 35 17.4 | +6.2 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,25nm,0.7s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,390nm,4.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,120nm,15.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,140nm,20.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,65nm,21.3s | | | | | | |
| **ZAA0** | **Zalesovo Array** | **41.42** | **311** | *e*P | **P** | **05 35 13.3** | **-0.3** |
| | comp=Z,3.4nm,0.6s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.42** | **311** | P | **P** | **05 35 13.2** | **-0.4** |
| | comp=Z,2.8nm,0.5s,baz=81,slow=7.6,SNR=11 | | | | | | |
| **FAKI** | **Fak Fak** | **42.20** | **195** | *e*P | **P** | **05 35 20.7** | **+0.4** |
| | comp=Z,27nm,1.1s | | | | | | |
| **NVS** | **Novosibirsk** | **42.32** | **313** | *e*P | **P** | **05 35 18.5** | **-2.3** |
| **MK01** | **Makanchi Array** | **43.90** | **301** | *e*P | **P** | **05 35 33.6** | **-0.2** |
| **MK31** | **Makanchi Array** | **43.90** | **301** | *e*P | **P** | **05 35 33.8** | **0.0** |
| **MK31** | **Makanchi Array** | **43.90** | **301** | *e*P | **P** | **05 35 33.8** | **0.0** |
| **MKAR** | **Makanchi Array** | **43.90** | **301** | P | **P** | **05 35 33.6** | **-0.2** |
| | comp=Z,2.8nm,0.9s,baz=84,slow=9.4,SNR=13 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.90** | **301** | *i* P | **P** | **05 35 34.0** | **+0.2** |
| MKAR | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.9s | | | | | | |
| **SVW2** | **Sparrevohn** | **44.01** | **38** | *e*P | **P** | **05 35 35.5** |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | comp=Z,11nm,0.8s | | | | | | | | | |
| **WRAB** | **Tennant Creek** | **58.56** | **189** | *e*P | | **P** | | **05 37 23.2** | **-0.7** |
| | comp=Z,11nm,0.8s | | | | | | | | | |
| **WB2** | **Warramunga Arr** | **58.57** | **189** | *e*P | | **P** | | **05 37 22.9** | **-1.1** |
| | comp=Z,9.2nm,0.8s | | | | | | | | | |
| **WRA** | **Warramunga Arr** | **58.57** | **189** | P | | **P** | | **05 37 23.0** | **-1.0** |
| | comp=Z,5.9nm,0.4s,baz=7.3,slow=7.3,SNR=49 | | | | | | | | | |
| **LVZ** | **Lovozero** | **61.06** | **336** | *e*P | | **P** | | **05 37 41.1** | **+0.4** |
| LVZ | | | | pmax | pmax | | | | | |
| | comp=Z,59nm,1.3s | | | | | | | | | |
| **LVZ** | **Lovozero** | **61.06** | **336** | *e*P | | **P** | | **05 37 41.1** | **+0.4** |
| | comp=Z,59nm,1.3s | | | | | | | | | |
| **APA** | **Apatity** | **61.64** | **336** | ⇓*i*P | | **P** | | **05 37 48.0** | **+3.5** |
| APA | | | | pmax | pmax | | | | | |
| | comp=Z,6.0nm,1.1s | | | | | | | | | |
| **YKW3** | **Yellowknife Ar** | **62.22** | **31** | *e*P | | **P** | | **05 37 49.3** | **+0.7** |
| | comp=Z,22nm,2.0s | | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **62.26** | **31** | P | | **P** | | **05 37 48.6** | **-0.1** |
| | comp=Z,0.5nm,0.7s,baz=300,slow=6.1,SNR=7.1 | | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **62.26** | **31** | *ce*P | | **P** | | **05 37 48.5** | **-0.3** |
| YKA | | | | pmax | pmax | | | | | |
| | comp=Z,1.0nm,0.6s | | | | | | | | | |
| **AS01** | **Alice Springs** | **62.29** | **189** | *e*P | | **P** | | **05 37 49.0** | **-0.4** |
| **AS31** | **Alice Springs** | **62.29** | **189** | *e*P | | **P** | | **05 37 49.2** | **-0.3** |
| | comp=Z,1.5nm,0.8s | | | | | | | | | |
| **ASAR** | **Alice Springs** | **62.30** | **189** | P | | **P** | | **05 37 48.9** | **-0.6** |
| | comp=Z,4.7nm,0.6s,baz=6.5,slow=4.9,SNR=45 | | | | | | | | | |
| **ARCES** | **ARCESS Array B** | **62.88** | **339** | P | | **P** | | **05 37 52.8** | **-0.1** |
| | comp=Z,8.0nm,1.0s,baz=50,slow=8.2,SNR=8.8 | | | | | | | | | |
| **ARCES** | **ARCESS Array B** | **62.88** | **339** | *e*P | | **P** | | **05 37 53.0** | **+0.2** |
| **LTY** | **Liberty** | **67.22** | **47** | *e*P | | **P** | | **05 38 22.2** | **+0.6** |
| | comp=Z,11nm,1.6s | | | | | | | | | |
| **OBN** | **Obninsk** | **67.32** | **323** | *i*P | | **P** | | **05 38 21.5** | **-0.4** |
| **FIA1** | **FINESS Array S** | **67.84** | **332** | *e*P | | **P** | | **05 38 24.6** | **-0.4** |
| **FINES** | **FINESS Array B** | **67.84** | **332** | P | | **P** | | **05 38 24.6** | **-0.5** |
| | comp=Z,4.9nm,0.7s,baz=33,slow=8.7,SNR=8.8 | | | | | | | | | |
| **D08A** | **Wollman Farm,** | **68.33** | **47** | *e*P | | **P** | | **05 38 28.7** | **+0.3** |
| | comp=Z,11nm,1.6s | | | | | | | | | |
| **NEW** | **Newport** | **68.67** | **45** | *e*P | | **P** | | **05 38 31.5** | **+0.9** |
| NEW | | | | pmax | pmax | | | | | |
| | comp=Z,4.0nm,1.0s | | | | | | | | | |
| **NEW** | **Newport** | **68.67** | **45** | *e*P | | **P** | | **05 38 31.4** | **+0.9** |
| | comp=Z,3.7nm,1.0s | | | | | | | | | |
| **SUMG** | **Summit** | **69.25** | **0** | *e*P | | **P** | | **05 38 34.6** | **+0.4** |
| SUMG | | | | pmax | pmax | | | | | |
| | comp=Z,7.0nm,0.9s | | | | | | | | | |
| **SUMG** | **Summit** | **69.25** | **0** | *e*P | | **P** | | **05 38 34.6** | **+0.4** |
| | comp=Z,6.6nm,0.9s | | | | | | | | | |
| **KIV** | **Kislovodsk** | **70.44** | **311** | *i*P | | **P** | | **05 38 41.9** | **+0.2** |
| KIV | | | | *i* | | | | 05 39 09.1 | | |
| KIV | | | | pmax | pmax | | | | | |
| | comp=Z,7.0nm,0.9s | | | | | | | | | |
| **BBOO** | **Buckleboo** | **71.15** | **185** | *e*P | | **P** | | **05 38 45.7** | **0.0** |
| | comp=Z,60nm,1.6s | | | | | | | | | |
| **LRM** | **Limekiln Ridge** | **72.69** | **45** | *e*P | | **P** | | **05 38 56.7** | **+1.3** |
| **DLMT** | **Dillon** | **72.89** | **45** | *e*P | | **P** | | **05 38 57.4** | **+0.9** |
| | comp=Z,11nm,1.8s | | | | | | | | | |
| **NC405** | **NORSAR Array S** | **72.90** | **337** | *e*P | | **P** | | **05 38 56.0** | **0.0** |
| **NC204** | **NORSAR Array S** | **73.05** | **338** | *e*P | | **P** | | **05 38 56.5** | **-0.6** |
| **NB201** | **NORSAR Array S** | **73.07** | **337** | *e*P | | **P** | | **05 38 56.7** | **-0.4** |
| **NB2** | **NORSAR Subarra** | **73.11** | **337** | P | | **P** | | **05 38 56.5** | **-0.8** |
| | comp=Z,1.5nm,0.6s,baz=39,slow=6.2 | | | | | | | | | |
| **NB2** | **NORSAR Subarra** | **73.11** | **337** | P | | **P** | | **05 38 56.5** | **-0.8** |
| NB2 | | | | pmax | pmax | | | | | |
| | comp=Z,1.0nm,0.6s | | | | | | | | | |
| **NOA** | **NORSAR Array B** | **73.11** | **337** | P | | **P** | | **05 38 56.8** | **-0.6** |
| | comp=Z,1.8nm,0.6s,baz=41,slow=6.1,SNR=8.5 | | | | | | | | | |
| **BOZ** | **Bozeman (W)** | **73.28** | **45** | *e*P | | **P** | | **05 38 59.7** | **+0.9** |
| BOZ | | | | pmax | pmax | | | | | |
| | comp=Z,13nm,1.8s | | | | | | | | | |
| **BOZ** | **Bozeman (W)** | **73.28** | **45** | *e*P | | **P** | | **05 38 59.7** | **+0.9** |
| | comp=Z,13nm,1.8s | | | | | | | | | |
| **AKASG** | **Malin Array Be** | **73.55** | **322** | P | | **P** | | **05 38 59.0** | **-1.0** |
| | comp=Z,1.8nm,0.6s,baz=45,slow=6.5,SNR=8.5 | | | | | | | | | |
| **H17A** | **Grant Village** | **74.61** | **45** | *e*P | | **P** | | **05 39 09.6** | **+2.8** |
| | comp=Z,8.0nm,0.5s | | | | | | | | | |
| **R11A** | **Troy Canyon, C** | **75.39** | **53** | *e*P | | **P** | | **05 39 12.1** | **+0.8** |
| | comp=Z,2.7nm,1.2s | | | | | | | | | |
| **BW06** | **Boulder Array** | **76.22** | **46** | *e*P | | **P** | | **05 39 16.4** | **+0.5** |
| | comp=Z,11nm,1.8s | | | | | | | | | |
| **PD31** | **Pinedale Array** | **76.22** | **46** | *e*P | | **P** | | **05 39 16.6** | **+0.6** |
| **PDAR** | **Pinedale Array** | **76.22** | **46** | P | | **P** | | **05 39 16.1** | **+0.2** |
| | comp=Z,1.6nm,0.6s,baz=243,slow=1.5,SNR=16 | | | | | | | | | |
| **PDAR** | **Pinedale Array** | **76.22** | **46** | *e*P | | **P** | | **05 39 16.3** | **+0.4** |
| **KWP** | **Kalwaria Pacla** | **77.33** | **325** | P | | **P** | | **05 39 23.0** | **+1.2** |
| **BUR08** | **Bucovina Ar. S** | **77.56** | **322** | *e*P | | **P** | | **05 39 23.7** | **+0.5** |
| **BUR04** | **Bucovina Ar. S** | **77.57** | **322** | *e*P | | **P** | | **05 39 23.9** | **+0.5** |
| **PV10** | **Paradox Valley** | **79.36** | **49** | *e*P | | **P** | | **05 39 35.3** | **+1.7** |
| **DPC** | **Dobruska-Polom** | **79.57** | **328** | *e*P | | **P** | | **05 39 35.5** | **+1.3** |
| **DPC** | **Dobruska-Polom** | **79.57** | **328** | *e*P | | **P** | | **05 39 35.5** | **+1.3** |
| **CLL** | **Collm** | **80.16** | **330** | *e*P | | **P** | | **05 39 33.0** | **-4.3** |
| CLL | | | | *e* | | | | 05 39 39.0 | | |
| **CLL** | **Collm** | **80.16** | **330** | *e*P | | **P** | | **05 39 39.0** | **+1.7** |
| **KHC** | **Kasperske Hory** | **81.65** | **329** | *e*P | | **P** | | **05 39 45.7** | **+0.4** |
| **KHC** | **Kasperske Hory** | **81.65** | **329** | *e*P | | **P** | | **05 39 45.8** | **+0.4** |
| KHC | | | | pmax | pmax | | | | | |
| | comp=Z,13nm,1.9s | | | | | | | | | |
| **KHC** | **Kasperske Hory** | **81.65** | **329** | *e*P | | **P** | | **05 39 45.8** | **+0.4** |
| | comp=Z,13nm,1.9s | | | | | | | | | |
| **GEC2** | **GERESS Array S** | **81.82** | **329** | *e*P | | **P** | | **05 39 46.6** | **+0.2** |
| GEC2 | | | | pmax | pmax | | | | | |
| | comp=Z,27nm,1.9s | | | | | | | | | |
| **GEC2** | **GERESS Array S** | **81.82** | **329** | *e*P | | **P** | | **05 39 46.6** | **+0.2** |
| | comp=Z,27nm,1.9s | | | | | | | | | |
| **GERES** | **GERESS Array B** | **81.82** | **329** | P | | **P** | | **05 39 46.1** | **-0.3** |
| | comp=Z,0.6nm,0.5s,baz=23,slow=8.0,SNR=4.2 | | | | | | | | | |
| **GEA0** | **GERESS Array S** | **81.83** | **329** | *e*P | | **P** | | **05 39 46.1** | **-0.2** |
| **ECSD** | **EROS Data Cent** | **82.41** | **39** | *e*P | | **P** | | **05 39 49.9** | **+0.5** |
| | comp=Z,11nm,1.4s | | | | | | | | | |
| **ANMO** | **Albuquerque** | **83.19** | **50** | *ce*P | | **P** | | **05 39 53.4** | **-0.5** |
| ANMO | | | | pmax | pmax | | | | | |
| | comp=Z,8.0nm,2.5s | | | | | | | | | |
| **FUORN** | **Ofenpass-Fuorn** | **85.00** | **329** | *e*P | | **P** | | **05 40 03.3** | **+0.3** |
| | comp=Z,32nm,1.6s | | | | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **88.75** | **53** | *e*P | | **P** | | **05 40 22.3** | **+0.9** |
| **TXAR** | **Lajitas Array A** | **88.76** | **53** | P | | **P** | | **05 40 21.7** | **+0.3** |
| | comp=Z,0.6nm,0.6s,baz=308,slow=4.1,SNR=4.6 | | | | | | | | | |
| **WHAR** | **Wooly Hollow** | **90.96** | **42** | *e*P | | **P** | | **05 40 32.2** | **+0.7** |
| | comp=Z,24nm,1.5s | | | | | | | | | |
| **LPAZ** | **La Paz** | **145.42** | **59** | PKPbc | | **PKPdf** | | **05 47 06.8** | **+0.3** |
| | comp=Z,1.1nm,0.7s,baz=337,slow=3.1,SNR=7.0 | | | | | | | | | |
| **LPAZ** | **La Paz** | **145.42** | **59** | *e*PKIKP | | **PKPbc** | | **05 47 06.3** | **-0.2** |
| **LPAZ** | **La Paz** | **145.42** | **59** | *e*PKPdf | | **PKPbc** | | **05 47 06.3** | **-0.2** |
| **MNMC** | **Minye Minye** | **146.37** | **64** | *e*PKPdf | | **PKPdf** | | **05 47 08.2** | **+0.6** |
| **PB11** | **IPOC Station P** | **146.74** | **65** | *e*PKPbc | | **PKPab** | | **05 47 10.7** | **-0.3** |
| **PB10** | **IPOC Station P** | **148.40** | **71** | *e*PKPdf | | **PKPdf** | | **05 47 10.0** | **-0.6** |
| **ROC1** | **El Roble** | **152.58** | **89** | *e*PKPdf | | **PKPdf** | | **05 47 16.8** | **-0.4** |

**IDC 16 05:50:27.4±1.9, 4°.86N×126°.09E, h0km, mb3.8/5, mb1 3.9/5, mb1mx3.5/54, mbtmp3.8/5, Error ellipse: s-maj=207.7km s-min=20.9km az=65.0, Talaud Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **25.95** | **162** | P | P | 05 56 01.5 | -0.3 |
| | 1.0nm,0.8s,baz=341,slow=9.7,SNR=6.3 | | | | | | |
| **ASAR** | **Alice Springs** | **29.36** | **165** | P | P | 05 56 32.3 | -0.1 |
| | 0.9nm,0.6s,baz=347,slow=7.6,SNR=12 | | | | | | |
| **STKA** | **Stephens Creek** | **39.41** | **159** | P | P | 05 57 59.4 | +0.3 |
| | 2.6nm,0.7s,baz=344,slow=8.8,SNR=4.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **56.27** | **325** | P | P | 06 00 10.0 | +0.2 |
| | 0.3nm,0.5s,baz=121,slow=8.3,SNR=4.3 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **60.45** | **327** | P | P | 06 00 38.6 | -0.3 |
| | 0.4nm,0.5s,baz=131,slow=6.4,SNR=4.0 | | | | | | |

*ISK **16** 05:51:14.6, 38°.63N×43°.23E, h5km, MD2.7*
*ISCJB **16** 05:51:15.9±0.5, 38°.62N±0°.02×43°.23E±0°.04, h4km±7km, Error ellipse: s-maj=5.3km s-min=4.0km az=163.5*
*DDA **16** 05:51:15.5, 38°.62N×43°.23E, h7km, Ml2.8*
*CSEM **16** 05:51:15.4±0.2, 38°.61N×43°.24E, h5km, MD2.7, Error ellipse: s-maj=5.5km s-min=4.7km az=87.0*

**ISC 16 05:51:16.0±1.0, 38°.63N±0°.02×43°.23E±0°.03, h7km±8km, n28, σ1°44/49, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.13** | **106** | *e*PG | **Pg** | **05 51 19.0** | **+0.2** |
| **VANB** | **Van** | **0.13** | **106** | *e*Pg | **Pg** | **05 51 19.0** | **+0.2** |
| **TVAN** | **Van** | **0.17** | **126** | *i*P | **Pg** | **05 51 18.8** | **-0.7** |
| TVAN | | | | *i*S | **Sg** | **05 51 22.5** | **+0.5** |
| **TVAN** | **Van** | **0.17** | **126** | P | **Pg** | **05 51 18.8** | **-0.7** |
| TVAN | | | | S | **Sg** | **05 51 22.5** | **+0.5** |
| **GEVA** | **Gevas** | **0.34** | **203** | *i*P | **Pg** | **05 51 22.0** | **-0.8** |
| GEVA | | | | *i*S | **Sb** | **05 51 29.3** | **-0.9** |
| **GEVA** | **Gevas** | **0.34** | **203** | P | **Pg** | **05 51 22.0** | **-0.8** |
| GEVA | | | | S | **Sb** | **05 51 29.3** | **-0.9** |
| **ADCV** | **BITLIS_Adilcev** | **0.43** | **294** | *i*P | **Pg** | **05 51 23.8** | **-0.6** |
| ADCV | | | | *i*S | **Sb** | **05 51 31.4** | **-1.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.43** | **294** | P | **Pg** | **05 51 23.8** | **-0.6** |
| ADCV | | | | S | **Sb** | **05 51 31.5** | **-1.3** |
| **VMUR** | **Van-Muradiye** | **0.45** | **37** | *i*P | **Pg** | **05 51 24.3** | **-0.4** |
| VMUR | | | | *i*S | **Sb** | **05 51 32.9** | **-0.4** |
| **VMUR** | **Van-Muradiye** | **0.45** | **37** | P | **Pg** | **05 51 24.3** | **-0.4** |
| VMUR | | | | S | **Sb** | **05 51 32.9** | **-0.4** |
| **CLDR** | **Caldiran** | **0.74** | **46** | *e*PG | **Pg** | **05 51 30.1** | **-0.2** |
| CLDR | | | | *e*SG | **Sb** | **05 51 41.3** | **-0.5** |
| **CLDR** | **Caldiran** | **0.74** | **46** | *i*P | **Pg** | **05 51 28.6** | **-1.7** |
| CLDR | | | | *i*S | **Sb** | **05 51 42.0** | **+0.2** |
| **CLDR** | **Caldiran** | **0.74** | **46** | P | **Pg** | **05 51 28.6** | **-1.7** |
| **CLDR** | **Caldiran** | **0.74** | **46** | *e*Pg | **Pg** | **05 51 30.1** | **-0.2** |
| CLDR | | | | *e*Sg | **Sb** | **05 51 41.3** | **-0.5** |
| CLDR | | | | S | **Sb** | **05 51 42.0** | **+0.2** |
| **TUTA** | **Tutak** | **0.84** | **337** | *i*P | **Pg** | **05 51 30.9** | **-1.2** |
| TUTA | | | | *i*S | **Sb** | **05 51 43.4** | **-1.1** |
| **TUTA** | **Tutak** | **0.84** | **337** | P | **Pg** | **05 51 30.9** | **-1.2** |
| TUTA | | | | S | **Sb** | **05 51 43.4** | **-1.1** |
| **AGRB** | **Hanur-Agry** | **0.96** | **349** | *e*PG | **Pg** | **05 51 34.1** | **-0.4** |
| AGRB | | | | *e*SG | **Sn** | **05 51 48.6** | **-1.5** |
| **AGRB** | **Hanur-Agry** | **0.96** | **349** | *e*Pg | **Pg** | **05 51 34.1** | **-0.4** |
| AGRB | | | | *e*Sg | **Sn** | **05 51 48.6** | **-1.5** |
| **EKAR** | **Karacoban** | **1.10** | **305** | *i*P | **Pn** | **05 51 38.0** | **0.0** |
| EKAR | | | | *i*S | **Sn** | **05 52 00.1** | **+6.5** |
| **EKAR** | **Karacoban** | **1.10** | **305** | P | **Pn** | **05 51 38.0** | **0.0** |
| **HAKT** | **HAKKARI** | **1.14** | **160** | *i*P | **Pg** | **05 51 35.7** | **-2.1** |
| HAKT | | | | *i*S | **Sn** | **05 51 56.6** | **+2.2** |
| **HAKT** | **HAKKARI** | **1.14** | **160** | P | **Pg** | **05 51 35.7** | **-2.1** |
| HAKT | | | | S | **Sn** | **05 51 56.6** | **+2.2** |
| **EATA** | **Eleskirt** | **1.36** | **335** | *i*P | **Pn** | **05 51 40.6** | **-1.0** |
| EATA | | | | *i*S | **Sg** | **05 52 00.9** | **+1.2** |
| **EATA** | **Eleskirt** | **1.36** | **335** | P | **Pn** | **05 51 40.6** | **-1.0** |
| EATA | | | | S | **Sg** | **05 52 00.9** | **+1.2** |
| **CUKT** | **Cukurca** | **1.41** | **168** | *e*PN | **Pb** | **05 51 42.4** | **-0.3** |
| **CUKT** | **Cukurca** | **1.41** | **168** | *e*Pn | **Pb** | **05 51 42.4** | **-0.3** |
| **MAZI** | **Mazidag** | **2.49** | **243** | *e*PN | **Pn** | **05 51 57.7** | **+0.8** |
| **MAZI** | **Mazidag** | **2.49** | **243** | *e*Pn | **Pn** | **05 51 57.7** | **+0.8** |

**KRSC 16 05:56:34.4±1.4, 49°.52N×156°.80E, h48km±24km, ML3.9, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SKR** | **Severo-Kuril's** | **1.25** | **340** | *e*P | Pn | 05 56 55.5 | +0.1 |
| SKR | | | | *e*S | Sn | 05 57 12.0 | +1.0 |
| **KDTR** | **Khodutka, Kamc** | **2.44** | **19** | *e*P | Pn | 05 57 14.6 | +2.9 |
| KDTR | | | | *e*S | Sn | 05 57 44.9 | +4.7 |
| **ASAK** | **Asacha** | **2.95** | **13** | *e*P | Pn | 05 57 21.8 | +2.9 |
| **MTVR** | **Mutnovka** | **3.10** | **16** | *e*P | Pn | 05 57 24.3 | +3.4 |
| MTVR | | | | *e*S | Sn | 05 58 01.5 | +4.8 |
| **RUS** | **Russkaya** | **3.11** | **20** | *e*P | Pn | 05 57 24.1 | +3.1 |
| RUS | | | | *e*S | Sn | 05 58 01.1 | +4.2 |
| **UGLR** | **Uglovaya** | **3.91** | **18** | *e*P | Pn | 05 57 35.9 | +3.9 |
| **AVH** | **Avacha** | **3.94** | **17** | *e*P | Pn | 05 57 36.6 | +4.1 |
| **SDLR** | **Sedlovina** | **3.99** | **18** | *e*P | Pn | 05 57 36.6 | +3.5 |
| **NLC** | **Nalytchevo** | **3.99** | **23** | *e*S | Sn | 05 58 22.0 | +3.5 |
| **GNL** | **Ganaly** | **4.24** | **9** | *e*P | Pn | 05 57 41.3 | +4.7 |

*BJI **16** 06:11:59.6, 36°.26N×140°.11E, h80km, mb4.6/36, mB5.1/23, Ms4.5/14, Ms7 4.4/13*
*NIED **16** 06:12:00, 36°.40N×140°.10E, h74km, Mw4.7 Best double couple: M0 1.34000×10^16 NP1:φs 180.00000°, δ28.00000°, λ71.00000°. NP2:φs 22.00000°, δ63.00000°, λ100.00000°.*
*ISCJB **16** 06:12:01.2±0.2, 36°.33N±0°.02×140°.02E±0°.03, h83km±1km, mb4.6/87, Error ellipse: s-maj=4.2km s-min=3.2km az=141.1*
*IDC **16** 06:12:01.6±0.6, 36°.34N×140°.04E, h75km±5km, mb4.1/26, mb1 4.2/28, mb1mx4.2/46, mbtmp4.4/28, MS3.3/12, Ms1 3.4/12, ms1mx3.1/35, Error ellipse: s-maj=8.5km s-min=7.6km az=37.0*
*JMA **16** 06:12:02.1±0.1, 36°.34N×140°.05E, h73km±1km, M4.3 Broadband fault plane solution: P waves. NP1: φs 19.00000°, δ72.00000°, λ100.00000°. NP2: φs 170.00000°, δ21.00000°, λ63.00000°. Principal axes: T Plg62.0000°, Azm303.0000°; N Plg9.0000°, Azm195.0000°; P Plg26.0000°, Azm101.0000°;*
*JMA Felt III J1.*
*MOS **16** 06:12:03.7±0.9, 36°.71N×139°.87E, h89km, mb4.7/36 Error ellipse: s-maj=8.6km s-min=5.8km az=113.6*
*NEIC **16** 06:12:03.4±0.4, 36°.35N×139°.93E, h86km±3km, mb4.8/36, Error ellipse: s-maj=5.1km s-min=4.2km az=143.0*
*NEIC Felt at Koga. Recorded [3 JMA] in Ibaraki and Tochigi.*

**ISC 16 06:12:01.8±0.5, 36°.32N±0°.03×140°.07E±0°.03, h75km±4km, n259, σ1°30/285, mb4.6/87, 24C-6D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JHO** | **Hitachi** | **0.50** | **54** | ⇑P | **Pn** | **06 12 15.0** | **-0.1** |
| JHO | | | | S | **Sn** | **06 12 24.9** | **0.0** |
| **JAG** | **Ashikaga** | **0.51** | **282** | ⇓P | **Pn** | **06 12 15.2** | **+0.1** |
| JAG | | | | S | **Sn** | **06 12 24.8** | **-0.2** |
| **CHOJ** | **Chosi** | **0.89** | **134** | P | **Pn** | **06 12 20.1** | **+0.9** |
| CHOJ | | | | *e*S | **Sn** | **06 12 32.9** | **+0.7** |
| **ONAJ** | **Iwakimizuishiy** | **0.98** | **37** | ⇑P | **Pn** | **06 12 20.3** | **0.0** |
| ONAJ | | | | S | **Sn** | **06 12 34.5** | **+0.4** |
| **JRY** | **Ryogami san** | **0.99** | **252** | ⇓P | **Pn** | **06 12 21.0** | **+0.6** |
| JRY | | | | S | **Sn** | **06 12 35.0** | **+0.6** |
| **JFT** | **Otama** | **1.21** | **10** | ⇓P | **Pn** | **06 12 23.7** | **+0.5** |
| JFT | | | | S | **Sn** | **06 12 39.7** | **+0.4** |
| **JFK** | **Kawauchi** | **1.23** | **32** | ⇑P | **Pn** | **06 12 23.4** | **0.0** |
| JFK | | | | S | **Sn** | **06 12 39.7** | **0.0** |
| **JOD2** | **Odawara 2** | **1.32** | **217** | P | **Pn** | **06 12 25.2** | **+0.6** |
| JOD2 | | | | S | **Sn** | **06 12 41.7** | **-0.1** |
| **JYN** | **Shimob** | **1.48** | **237** | P | **Pn** | **06 12 27.9** | **+1.1** |
| JYN | | | | *e*S | **Sn** | **06 12 46.5** | **+0.9** |
| **MJAR** | **Matsushiro Arr** | **1.51** | **279** | P | **Pn** | **06 12 27.4** | **+0.3** |
| | 207nm,0.3s,baz=90,slow=11,SNR=1359 | | | | | | |
| MJAR | | | | S | **Sn** | **06 12 45.0** | **-1.2** |
| | 123nm,0.3s,baz=75,slow=11,SNR=11 | | | | | | |
| MJAR | | | | LR | LR | 06 13 15.5 | |
| | comp=Z,553nm,18.4s,baz=120,slow=51 | | | | | | |
| **MAJO** | **Matsushiro** | **1.52** | **279** | *d*P | **Pn** | **06 12 27.8** | **+0.7** |
| **MAJO** | **Matsushiro** | **1.52** | **279** | *e*Pn | **Pn** | **06 12 28.5** | **+1.3** |
| MAJO | | | | *e*Sn | **Sn** | **06 12 46.5** | **+0.2** |
| **MAT** | **Matsushiro** | **1.52** | **279** | P | **Pn** | **06 12 27.4** | **+0.3** |
| MAT | | | | S | **Sn** | **06 12 44.2** | **-2.1** |
| **MAT** | **Matsushiro** | **1.52** | **279** | P | **Pn** | **06 12 28.1** | **+0.7** |
| **MJB9** | **Matsu-Tunnel** | **1.52** | **279** | *e*Pn | **Pn** | **06 12 28.5** | **+1.3** |
| MJB9 | | | | *e*Sn | **Sn** | **06 12 46.5** | **+0.1** |
| **BSO3** | **Boso 3** | **1.56** | **166** | ⇑P | **Pn** | **06 12 28.2** | **+0.8** |
| **JNS** | **Sasagawa** | **1.61** | **338** | ⇓P | **Pn** | **06 12 28.5** | **+0.2** |
| JNS | | | | *e*S | **Sn** | **06 12 48.8** | **+0.4** |
| **JMM** | **Marumori** | **1.65** | **20** | ⇑P | **Pn** | **06 12 29.3** | **+0.5** |
| JMM | | | | S | **Sn** | **06 12 50.1** | **+0.8** |
| **BSO1** | **Boso 1** | **1.82** | **156** | P | **Pn** | **06 12 32.2** | **+1.5** |
| **JYK** | **Kaneyama** | **2.60** | **5** | ⇑P | **Pn** | **06 12 43.0** | **+1.4** |
| **INU** | **Inuyama** | **2.66** | **250** | *e*Pn | **Pn** | **06 12 44.4** | **+2.0** |
| **JMK** | **Ichinoseki** | **2.78** | **19** | P | **Pn** | **06 12 44.8** | **+0.8** |
| **JHJ** | **Hachijo jima 2** | **3.20** | **184** | P | **Pn** | **06 12 50.5** | **+0.7** |
| | 190nm,0.3s,baz=120,slow=22,SNR=16 | | | | | | |
| JHJ | | | | S | **Sn** | **06 13 26.7** | **-0.1** |
| | 232nm,0.3s,baz=61,slow=23,SNR=13 | | | | | | |
| **JHJ2** | **Mitsune** | **3.21** | **184** | *e*Pn | **Pn** | **06 12 50.4** | **+0.5** |
| **ERM** | **Erimo** | **6.17** | **22** | *i*P | **Pn** | **06 13 29.1** | **-1.1** |
| **ERM** | **Erimo** | **6.17** | **22** | *e*Pn | **Pn** | **06 13 30.1** | **-0.2** |
| **ASAJ** | **Asahikawa** | **8.02** | **13** | P | **Pn** | **06 13 55.8** | **+0.2** |
| | 1.9nm,0.3s,baz=205,slow=17,SNR=6.5 | | | | | | |
| **ASAJ** | **Asahikawa** | **8.02** | **13** | *e*Pn | **Pn** | **06 13 55.6** | **+0.1** |
| **CBIJ** | **Chichi jima** | **9.37** | **168** | *e*Pn | **Pn** | **06 14 11.5** | **-2.5** |
| CBIJ | | | | S | Sn | 06 15 48.2 | -10 |
| **JCJ** | **Chichijima** | **9.37** | **168** | P | **Pn** | **06 14 10.6** | **-3.4** |
| | 20nm,0.3s,baz=296,slow=17,SNR=11 | | | | | | |
| JCJ | | | | S | Sn | 06 15 48.2 | -10 |
| | 26nm,0.3s,baz=274,slow=22,SNR=9.9 | | | | | | |
| **KSRS** | **Korea Array** | **9.79** | **280** | P | **Pn** | **06 14 22.8** | **+3.1** |
| | 0.7nm,0.3s,baz=93,slow=13,SNR=9.2 | | | | | | |
| KSRS | | | | LR | LR | 06 18 31.6 | |
| | comp=Z,41nm,18.1s,baz=67,slow=40 | | | | | | |
| **KSAR** | **Wonju Array Be** | **9.82** | **280** | P | **Pn** | **06 14 22.8** | **+2.7** |
| **KSAR** | **Wonju Array Be** | **9.82** | **280** | P | **Pn** | **06 14 22.8** | **+2.7** |
| **USRK** | **Ussuriysk Ar.** | **10.00** | **324** | P | **Pn** | **06 14 24.6** | **+2.1** |
| | 0.7nm,0.3s,baz=139,slow=13,SNR=18 | | | | | | |
| USRK | | | | LR | LR | 06 17 49.3 | |
| | comp=Z,202nm,21.9s,baz=124,slow=35 | | | | | | |
| **CN2** | **Changchun** | **13.45** | **308** | *e*P | **P** | **06 15 16.6** | **+0.7** |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.7s | | | | | | |
| **KLR** | **Kul'dur** | **14.26** | **337** | LR | LR | 06 20 23.5 | |
| | comp=Z,7.5nm,21.5s,baz=129,slow=35 | | | | | | |
| **NJ2** | **Nanjing** | **18.05** | **263** | *e*P | **Pn** | **06 16 07.4** | **-0.1** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,11nm,0.9s | | | | | | |
| **BJI** | **Beijing** | **19.13** | **288** | P | **P** | **06 16 17.5** | **-1.2** |
| BJI | | | | pmax | pmax | | |
| | comp=Z,14nm,1.1s | | | | | | |
| BJI | | | | pmax | pmax | | |
| | comp=Z,290nm,5.2s | | | | | | |
| **BJT** | **Baijiatuan** | **19.13** | **288** | *e*P | **P** | **06 16 18.0** | **-0.8** |
| BJT | | | | pmax | pmax | | |
| | comp=Z,14nm,0.7s | | | | | | |
| **BJT** | **Baijiatuau** | **19.13** | **288** | *e*P | **P** | **06 16 18.0** | **-0.8** |
| | comp=Z,14nm,0.7s | | | | | | |
| **HIA** | **Hailar** | **19.66** | **317** | *i*P | **Pn** | **06 16 25.6** | **-1.0** |
| HIA | | | | pmax | pmax | | |
| | comp=Z,25nm,2.8s | | | | | | |
| **PETK** | **Petropavlovsk-** | **20.85** | **31** | LR | LR | 06 23 57.8 | |
| | comp=Z,42nm,19.6s,baz=223,slow=34 | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **22.68** | **290** | *e*P | **P** | **06 16 57.3** | **+0.2** |
| HHC | | | | pP | pP | 06 17 13.9 | +1.2 |
| HHC | | | | sP | sP | 06 17 23.4 | +1.3 |
| HHC | | | | S | **S** | **06 20 54.4** | **-5.5** |
| HHC | | | | PcS | **PcS** | **06 24 27.1** | **+1.3** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,15nm,0.8s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,90nm,6.2s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,130nm,17.5s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,170nm,17.5s | | | | | | |
| **MA2** | **Magadan** | **24.29** | **13** | P | **P** | **06 17 11.2** | **-0.5** |
| | comp=Z,15nm,0.7s,baz=205,slow=11,SNR=6.1 | | | | | | |
| MA2 | | | | LR | LR | 06 26 50.2 | |
| | comp=Z,46nm,19.4s,baz=186,slow=37 | | | | | | |
| **ENH** | **Enshi** | **26.20** | **266** | *e*P | **P** | **06 17 28.1** | **-1.3** |
| **YAK** | **Yakutsk** | **26.55** | **349** | *e*P | **P** | **06 17 29.4** | **-2.7** |
| YAK | | | | pmax | pmax | | |
| | comp=N,7.0nm,1.0s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=Z,12nm,1.0s | | | | | | |
| **SONA1** | **Songino Array** | **27.30** | **305** | *e*P | **P** | **06 17 38.4** | **-0.9** |
| **SONM** | **Songino Array** | **27.30** | **305** | P | **P** | **06 17 37.9** | **-1.4** |
| | comp=Z,1.7nm,0.6s,baz=108,slow=8.6,SNR=10.0 | | | | | | |
| SONM | | | | PcP | **PcP** | **06 20 57.5** | **+0.5** |
| | comp=Z,0.3nm,0.5s,baz=107,slow=2.6,SNR=3.9 | | | | | | |
| SONM | | | | LR | LR | 06 28 50.8 | |
| | comp=Z,78nm,21.1s,baz=33,slow=37 | | | | | | |
| **BOD** | **Bodaibo** | **27.57** | **329** | *e*P | **P** | **06 17 39.8** | **-1.6** |
| BOD | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.9s | | | | | | |
| **SEY** | **Seymchan** | **27.71** | **12** | *i*P | **P** | **06 17 43.3** | **+0.8** |
| **H11N2** | **WAKE ISLAND Hy** | **28.74** | **118** | T | T | 06 48 06.2 | |
| | baz=313,slow=75,SNR=40 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.75** | **118** | T | T | 06 48 06.1 | |
| | baz=313,slow=75,SNR=54 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28

comp=Z,9.1nm,0.7s,baz=85,slow=8.0,SNR=32
**RAMN Ramite 45.97 274** *e*P P 06 20 17.2 -0.6
comp=Z,24nm,0.7s
**RAMN Ramite 45.97 274** *e*P P 06 20 17.1 -0.7
comp=Z,24nm,0.7s
**JIRN Jiri 46.00 275** *e*P P 06 20 18.0 -0.1
comp=Z,166nm,0.8s
**JIRN Jiri 46.00 275** *e*P P 06 20 18.1 -0.1
comp=Z,133nm,0.7s
**GUN Gumba 46.15 276** *e*P P 06 20 19.0 -0.3
comp=Z,37nm,0.9s
**GUN Gumba 46.15 276** *e*P P 06 20 19.0 -0.3
comp=Z,37nm,0.9s
**PDGK Podgornoye 46.15 298** P P 06 20 18.6 -0.2
PDGK pmax pmax
comp=Z,18nm,1.0s
**PKI Pulchoki 46.67 275** *e*P P 06 20 22.6 -0.7
comp=Z,11nm,0.7s
**PKI Pulchoki 46.67 275** *e*P P 06 20 22.6 -0.7
comp=Z,12nm,0.7s
**PKIN Phulchoki 46.67 275** *e*P P 06 20 22.5 -0.7
comp=Z,9.8nm,0.6s
**PKIN Phulchoki 46.67 275** *e*P P 06 20 22.6 -0.7
comp=Z,9.8nm,0.6s
**KKN Kakani 46.68 276** *e*P P 06 20 22.7 -0.6
**KKN Kakani 46.68 276** *e*P P 06 20 22.7 -0.6
**DMN Daman 46.90 276** *e*P P 06 20 24.5 -0.5
**DMN Daman 46.90 276** *e*P P 06 20 24.5 -0.5
**DANN Dangsing 47.66 277** *e*P P 06 20 31.4 +0.4
comp=Z,3.8nm,0.9s
**DANN Dangsing 47.66 277** *e*P P 06 20 31.5 +0.4
comp=Z,3.8nm,0.9s
**KOLN Koldanda 48.04 277** *e*P P 06 20 33.4 -0.3
**KOLN Koldanda 48.04 277** *e*P P 06 20 33.5 -0.3
**KDAK Kodiak Island 48.35 41** *ce*P P 06 20 36.8 +1.3
**KDAK Kodiak Island 48.35 41** *e*P P 06 20 36.5 +1.0
comp=Z,201nm,1.8s
**PYUN Piuthan 48.39 277** *e*P P 06 20 36.5 0.0
comp=Z,47nm,0.9s
**PYUN Piuthan 48.39 277** *e*P P 06 20 36.2 -0.3
comp=Z,47nm,0.9s
**KTH Kantishna Hill 48.94 34** *e*P P 06 20 41.6 +1.6
comp=Z,36nm,1.6s
**MLY Manley 49.03 32** *e*P P 06 20 42.3 +1.6
comp=Z,3.9nm,0.8s
**KSH Kashi 49.71 294** P P 06 20 50.1 +3.8
KSH pP pP 06 21 08.1 +3.0
KSH PcP **PcP** **06 22 09.3 +2.8**
KSH PP **PP** **06 22 47.1 +5.8**
KSH S **S** **06 27 53.3 +3.6**
KSH ScS **ScS** **06 30 29.9 -0.9**
KSH SS **SS** **06 31 24.0 +1.4**
KSH pmax pmax
comp=Z,4.0nm,0.5s
KSH pmax pmax
comp=Z,91nm,6.6s
KSH LR LR
comp=Z,130nm,5.8s
KSH LR LR
comp=Z,140nm,5.0s
KSH LR LR
comp=Z,240nm,6.1s
**MCK McKinley 49.83 33** *e*P P 06 20 47.9 +1.1
MCK pmax pmax
comp=Z,42nm,1.7s
**MCK McKinley 49.83 33** *e*P P 06 20 47.9 +1.1
comp=Z,42nm,1.7s
**PMR Palmer 49.84 36** *e*P P 06 20 47.8 +1.0
PMR pmax pmax
comp=Z,71nm,1.9s
**PMR Palmer 49.84 36** *e*P P 06 20 47.8 +1.0
comp=Z,71nm,1.9s
**RND Reindeer 49.87 34** *e*P P 06 20 47.8 +0.6
RND pmax pmax
comp=Z,11nm,0.9s
**RND Reindeer 49.87 34** *e*P P 06 20 47.8 +0.6
comp=Z,11nm,0.9s
**AAK Ala-Archa 49.88 299** P P 06 20 47.7 +0.1
comp=Z,3.2nm,0.7s,baz=71,slow=4.9,SNR=9.9
**AAK Ala-Archa 49.88 299** *e*P P 06 20 48.0 +0.4
AAK pmax pmax
comp=Z,5.0nm,1.0s
**AAK Ala-Archa 49.88 299** *e*P P 06 20 48.0 +0.4
comp=Z,5.2nm,1.0s
**MDM Murphy Dome 50.09 32** *e*P P 06 20 50.3 +1.5
comp=Z,11nm,0.8s
**BVAR Borovoye Array 50.25 313** P P 06 20 48.8 -1.3
comp=Z,1.6nm,0.6s,baz=86,slow=7.0,SNR=11
BVAR PcP **PcP** **06 22 07.9 -0.2**
comp=Z,2.3nm,0.7s,baz=72,slow=4.8,SNR=4.9
**CCB Clear Creek Bu 50.28 32** *e*P P 06 20 51.9 +1.8
comp=Z,16nm,1.6s
**BRVK Borovoye 50.31 313** *ce*P P 06 20 50.5 0.0
BRVK pmax pmax
comp=Z,11nm,1.2s
**DHY Denali Highway 50.56 34** *e*P P 06 20 54.0 +1.5
comp=Z,48nm,2.0s
**ILAR Eielson Array 50.67 32** P P 06 20 53.4 +0.2
comp=Z,5.1nm,0.7s,baz=271,slow=6.0,SNR=62
**ILB Eielson Array 50.67 32** *e*P P 06 20 53.8 +0.7
**IL1 Eielson Array 50.67 32** *e*P P 06 20 53.8 +0.7
**MNAS Manas 51.33 299** P P 06 20 58.7 +0.2
MNAS pmax pmax
comp=Z,9.0nm,0.9s
**SFK Sufi-Kurgan 51.36 296** P P 06 20 58.6 -0.3
SFK pmax pmax
comp=Z,9.0nm,0.7s
**RAGM Ragged Mountai 52.13 37** *e*P P 06 21 06.0 +1.9
comp=Z,126nm,1.2s
**EGAK Eagle 53.12 32** *e*P P 06 21 12.1 +0.9
comp=Z,4.9nm,0.8s
**DZET Dzherino 55.18 296** P P 06 21 26.1 -0.7
DZET pmax pmax
comp=Z,10.0nm,0.7s
**INK Inuvik 55.51 27** P P 06 21 28.8 +0.3
comp=Z,4.4nm,0.7s,baz=304,slow=6.5,SNR=34
**INK Inuvik 55.51 27** *e*P P 06 21 29.4 +0.9
INK pmax pmax
comp=Z,5.0nm,0.7s
**INK Inuvik 55.51 27** *e*P P 06 21 29.4 +0.9
comp=Z,4.9nm,0.7s
**HYT Haines Junctio 55.51 36** *e*P P 06 21 31.6 +2.7
comp=Z,61nm,2.0s
**ARU Arti 56.18 319** P P 06 21 33.3 -0.2
comp=Z,3.7nm,0.4s,baz=73,slow=4.7,SNR=7.7
**ARU Arti 56.18 319** *e*P P 06 21 32.9 -0.6
ARU pmax pmax
comp=Z,5.0nm,1.3s
**ARU Arti 56.18 319** *e*P P 06 21 32.8 -0.7
comp=Z,5.5nm,0.5s
**WRAB Tennant Creek 56.21 186** *i*P P 06 21 33.9 -0.2
WRAB pmax pmax
comp=Z,6.0nm,0.9s
**WB2 Warramunga Arr 56.22 186** *e*P P 06 21 34.1 -0.1
comp=Z,5.2nm,0.9s
**WRA Warramunga Arr 56.22 186** P P 06 21 33.8 -0.3
comp=Z,3.9nm,0.6s,baz=3.1,slow=7.5,SNR=8.4
**WHY Whitehorse 56.80 36** *e*P P 06 21 39.4 +1.3
comp=Z,23nm,1.4s
**AKTO Aktyubinsk 58.34 312** P P 06 21 48.2 -0.6
comp=Z,3.4nm,0.7s,baz=73,slow=13,SNR=6.8
**AS01 Alice Springs 59.94 186** *e*P P 06 22 00.3 +0.2
**ASAR Alice Springs 59.95 187** P P 06 22 00.3 +0.2
comp=Z,1.2nm,0.7s,baz=14,slow=5.9,SNR=9.5
**MBWA Marble Bar 60.32 202** *e*P P 06 22 03.3 +0.6
comp=Z,24nm,1.3s
**GEYT Alibeck 63.23 299** P P 06 22 22.1 -0.2
comp=Z,6.5nm,1.0s,baz=64,slow=6.8,SNR=5.9
GEYT LR LR 06 52 34.8
comp=Z,46nm,18.1s,baz=150,slow=38
**KLMR Klimovskoe 63.78 328** *e*P P 06 22 22.0 -3.4
KLMR pmax pmax
comp=Z,12nm,1.3s
**ARCES ARCESS Array B 64.28 339** P P 06 22 28.5 -0.1
comp=Z,3.9nm,0.8s,baz=30,slow=7.3,SNR=15
**ARCES ARCESS Array B 64.28 339** *e*P P 06 22 28.7 +0.1
**ARCES ARCESS Array B 64.28 339** *e*P P 06 22 28.7 +0.1
**YKA Yellowknife Ar 64.96 30** P P 06 22 32.8 -0.3
comp=Z,1.3nm,0.8s,baz=303,slow=6.6,SNR=18
YKA pP **pP** **06 22 51.7 -1.0**
comp=Z,0.5nm,0.7s,baz=305,slow=6.7,SNR=4.1
**YKA Yellowknife Ar 64.96 30** *ce*P P 06 22 33.2 +0.1
YKA pmax pmax
comp=Z,1.0nm,0.8s
**DAG Danmarks Havn 66.39 355** *i*P P 06 22 41.2 -0.9
DAG pmax pmax
comp=Z,5.0nm,0.7s
**DAG Danmarks Havn 66.39 355** *i*P P 06 22 41.2 -0.9
comp=Z,5.1nm,0.7s
**VRH Novokhopyorsk 67.38 318** *e*P P 06 22 46.9 -1.9
VRH pmax pmax
comp=Z,10.0nm,0.8s
**STKA Stephens Creek 67.86 179** P P 06 22 52.4 +0.5
comp=Z,3.3nm,0.8s,baz=334,slow=7.9,SNR=5.2
**OBN Obninsk 68.01 323** *e*P P 06 22 50.5 -2.2
OBN pmax pmax
comp=Z,6.0nm,0.8s
**LPSR Galich'ya Gora 68.15 320** *e*P P 06 22 52.4 -1.2
LPSR pmax pmax
comp=Z,20nm,0.8s
**VSR Storozhevoye 68.75 318** *e*P P 06 22 56.3 -1.1
VSR pmax pmax
comp=Z,10.0nm,0.8s
**FIA1 FINESS Array S 68.93 332** *e*P P 06 22 57.7 -0.6
**FINES FINESS Array B 68.94 332** P P 06 22 57.8 -0.5
comp=Z,8.7nm,0.9s,baz=78,slow=9.9,SNR=8.5
**FINES FINESS Array B 68.94 332** *ce*P P 06 22 58.0 -0.3
FINES pmax pmax
comp=Z,9.0nm,0.9s
**ZEI Tsey 70.41 309** *e*P P 06 23 05.8 -2.2
ZEI pmax pmax
comp=Z,2.0nm,0.8s
**KBZ Khabaz 70.54 310** P P 06 23 08.6 +0.1
comp=Z,7.1nm,0.8s,baz=34,slow=3.9,SNR=13
**KIV Kislovodsk 70.55 311** *i*P P 06 23 07.8 -0.9
KIV *i* 06 23 28.5
KIV pmax pmax
comp=Z,16nm,0.9s
**KIV Kislovodsk 70.55 311** *e*P P 06 23 09.3 +0.6
comp=Z,20nm,0.9s
**NEY Neytrino 70.90 310** *e*P P 06 23 11.5 +0.5
NEY pmax pmax
comp=Z,1.0nm,0.9s
**GNI Garni 71.26 306** *ce*P P 06 23 13.8 +0.6
GNI pmax pmax
comp=Z,12nm,0.7s
**SUMG Summit 71.39 360** *i*P P 06 23 14.4 +0.7
SUMG pmax pmax
comp=Z,13nm,0.9s
**SUMG Summit 71.39 360** *i*P P 06 23 14.4 +0.7
comp=Z,13nm,0.9s
**SUMG Summit 71.39 360** *e*P P 06 23 14.0 +0.3
comp=Z,15nm,1.0s
**AKH Akhalkalaki 71.39 308**⇑ *i*P P 06 23 14.9 +0.9
**ARTV Artvin 72.51 308** *e*P P 06 23 20.9 +0.2
comp=Z,3.0nm,0.7s
**BMO Blue Mountains 73.21 46** *e*P P 06 23 25.9 +1.3
BMO pmax pmax
comp=Z,5.0nm,1.1s
**BMO Blue Mountains 73.21 46** *e*P P 06 23 25.9 +1.3
comp=Z,5.0nm,1.1s
**AKASG Malin Array Be 74.19 322** P P 06 23 29.2 -0.9
comp=Z,8.8nm,0.7s,baz=47,slow=6.1,SNR=40
AKASG LR LR 06 58 58.0
comp=Z,65nm,18.6s,baz=290,slow=38
**AKBB Malin Array Si 74.19 322** *e*P P 06 23 29.6 -0.5
AKBB pmax pmax
comp=Z,9.0nm,0.7s
**AKBB Malin Array Si 74.19 322** *e*P P 06 23 29.6 -0.5
comp=Z,9.3nm,0.7s
**NC405 NORSAR Array S 74.20 337** *e*P P 06 23 29.9 -0.1
**AK11 Malin Array Si 74.23 322** *e*P P 06 23 30.0 -0.4
**NC204 NORSAR Array S 74.38 337** *e*P P 06 23 30.3 -0.8
**NB201 NORSAR Array S 74.39 337** *e*P P 06 23 30.8 -0.4
**NB2 NORSAR Subarra 74.42 337** P P 06 23 30.6 -0.7
comp=Z,3.7nm,0.7s,baz=41,slow=5.9
**NOA NORSAR Array B 74.42 337** P P 06 23 30.4 -1.0
comp=Z,5.1nm,0.7s,baz=41,slow=5.8,SNR=17
NOA LR LR 06 58 58.2
comp=Z,20nm,18.7s,baz=335,slow=38
**NBO02 NORSAR Array S 74.53 337** *e*P P 06 23 32.3 +0.3
**NBO00 NORSAR Array S 74.56 337** *e*P P 06 23 32.4 +0.2
**PAHR Pah Rah Range 74.86 52** *e*P P 06 23 36.0 +1.6
comp=Z,4.4nm,1.0s
**LRM Limekiln Ridge 75.41 44** *e*P P 06 23 38.7 +1.1
**DLMT Dillon 75.61 44** *e*P P 06 23 39.7 +1.1
comp=Z,4.6nm,0.8s
**BOZ Bozeman (W) 76.00 43** *e*P P 06 23 41.8 +0.9
BOZ pmax pmax
comp=Z,7.0nm,1.4s
**BOZ Bozeman (W) 76.00 43** *e*P P 06 23 41.8 +0.9
comp=Z,6.8nm,1.4s
**KVN Kaiserville 76.05 52** P P 06 23 42.7 +1.4
KVN pmax pmax
comp=Z,7.0nm,1.2s
**SORM Soroca 76.25 320**⇑ *i*P P 06 23 41.5 -0.5
**SORM Soroca 76.25 320**⇑ P P 06 23 41.5 -0.5
**NV01 Mina Array Sit 76.28 52** *e*P P 06 23 43.6 +1.0
**RLMT Red Lodge 77.60 43** *e*P P 06 23 51.5 +1.5
comp=Z,19nm,1.8s
**BUR08 Bucovina Ar. S 78.18 321** *e*P P 06 23 53.0 0.0
**TESR Tescani 78.18 320**⇑ *i*P P 06 23 52.4 -0.5
**BUR04 Bucovina Ar. S 78.19 321** *e*P P 06 23 53.2 +0.2
**BURAR Bucovina Array 78.19 321**⇑ *i*P P 06 23 52.3 -0.7
**BURAR Bucovina Array 78.19 321**⇑ P P 06 23 52.3 -0.7
**BR131 Keskin Array S 78.51 311** *e*P P 06 23 54.9 0.0
**BRTR Keskin Array B 78.51 311** P P 06 23 54.4 -0.6
comp=Z,3.3nm,0.8s,baz=95,slow=3.0,SNR=12
**STHS Stebnicka Huta 78.91 324** *e*P P 06 23 57.3 +0.5
STHS pmax pmax
comp=Z,5.0nm,1.1s
**STHS Stebnicka Huta 78.91 324** *e*P P 06 23 57.3 +0.5
**PDAR Pinedale Array 78.94 45** P P 06 23 57.1 -0.3
comp=Z,0.7nm,0.6s,baz=258,slow=2.7,SNR=7.7
PDAR pP **pP** **06 24 17.3 -0.2**
comp=Z,0.8nm,0.6s,baz=207,slow=1.7,SNR=4.8
**PDAR Pinedale Array 78.94 45** *e*P P 06 23 58.0 +0.6
PDAR pP **pP** **06 24 17.3 -0.2**
**OJC Ojcow 79.02 326** *e*P P 06 23 58.0 +0.6
OJC pmax pmax
comp=Z,10.0nm,0.7s
**OJC Ojcow 79.02 326** *e*P P 06 23 58.0 +0.6
comp=Z,9.6nm,0.7s
**CRVS Cervenica-Dubn 79.16 324** *e*P P 06 23 56.9 -1.3
**CRVS Cervenica-Dubn 79.16 324** *e*P P 06 23 56.9 -1.3
**DOPR Dopca 79.20 320**⇑ *i*P P 06 23 58.6 +0.1
**ARR Arges 79.39 320**⇑ *i*P P 06 24 04.1 +1.2
**DRGR 80.01 322**⇑ *i*P P 06 24 02.4 -0.5
**DRGR 80.01 322**⇑ P P 06 24 02.4 -0.5
**MSU Marysvale 80.07 49** *e*P P 06 24 05.7 +2.1
**MSU Marysvale 80.07 49** *e*P P 06 24 05.7 +2.1
**MTPU Mount Pierson 80.36 50** *e*P P 06 24 07.2 +1.9
comp=Z,3.2nm,0.9s
**KRLC Kraliky 80.48 327** *e*P P 06 24 05.3 -0.1
**KRLC Kraliky 80.48 327** *e*P P 06 24 05.3 -0.1
**DPC Dobruska-Polom 80.48 327** *e*P P 06 24 05.5 +0.2
DPC *ex* x 06 24 15.4
**DPC Dobruska-Polom 80.48 327** *e*P P 06 24 05.5 +0.2
**VYHS Vyhne 80.69 325** *e*P P 06 24 07.1 +0.6
**VYHS Vyhne 80.69 325** *e*P P 06 24 07.1 +0.6
VYHS *e* 06 56 34.8
VYHS *e* 06 57 13.1
**ULM Lac du Bonnet 80.69 33** P P 06 24 06.0 -0.4
comp=Z,1.9nm,0.8s,baz=308,slow=4.9,SNR=3.0
**ULM Lac du Bonnet 80.69 33** *e*P P 06 24 06.7 +0.3
ULM pmax pmax
comp=Z,41nm,1.9s
**ULM Lac du Bonnet 80.69 33** *e*P P 06 24 06.7 +0.3
comp=Z,41nm,1.9s
**PVCC Panska Ves 81.10 328** *e*P P 06 24 08.8 +0.2
**PVCC Panska Ves 81.10 328** *e*P P 06 24 08.8 +0.2
**BRG Berggiesshubel 81.11 329** *e*(P) P 06 24 08.2 -0.4
comp=Z,6.0nm,1.1s
**BRG Berggiesshubel 81.11 329** *e*(P) P 06 24 08.2 -0.4
comp=Z,6.0nm,1.1s
**BRG Berggiesshubel 81.11 329** *e*P P 06 24 08.2 -0.4
BRG pmax pmax
comp=Z,6.0nm,1.1s
**CLL Collm 81.17 330** *e*P P 06 24 08.0 -0.9
**CLL Collm 81.17 330** *e*P P 06 24 08.0 -0.9
**GOPC GO Pecny, Ondr 81.47 328** *e*P P 06 24 10.9 +0.3
**GOPC GO Pecny, Ondr 81.47 328** *e*P P 06 24 10.9 +0.3
**PRU Pruhonice 81.52 328** *e*P P 06 24 10.7 -0.1
**PRU Pruhonice 81.52 328** *e*P P 06 24 10.7 -0.1
**KHC Kasperske Hory 82.58 328** *e*P P 06 24 15.8 -0.6
**KHC Kasperske Hory 82.58 328** *e*P P 06 24 15.8 -0.6
**VTS Vitosha 82.63 318** *e*P P 06 24 17.3 +0.3
VTS pmax pmax
comp=Z,6.0nm,0.9s
**VTS Vitosha 82.63 318** *e*P P 06 24 17.3 +0.3
comp=Z,6.0nm,0.9s
**GERES GERESS Array B 82.74 328** P P 06 24 16.7 -0.7
comp=Z,1.3nm,0.6s,baz=50,slow=12,SNR=5.5
GERES LR LR 07 02 25.0
comp=Z,34nm,19.4s,baz=306,slow=37
**GEA0 GERESS Array S 82.74 328** *e*P P 06 24 17.4 0.0
**FUORN Ofenpass-Fuorn 85.93 328** *e*P P 06 24 33.8 0.0
comp=Z,60nm,2.0s
**TX31 Lajitas Ar. Si 91.41 52** *e*P P 06 25 00.8 +1.0
**TXAR Lajitas Array 91.41 52** P P 06 25 00.4 +0.5
comp=Z,0.5nm,0.6s,baz=256,slow=1.6,SNR=3.8
TXAR pP **pP** **06 25 20.3 -0.1**
comp=Z,0.6nm,0.5s,baz=309,slow=3.2,SNR=4.3
**TOA0 Torodi Ar. Sit 117.05 313** *e*PKPdf **PKPdf** **06 30 38.1 -0.4**
**TORD Torodi Ar. Bea 117.05 313** PKP **PKPdf** **06 30 37.8 -0.7**
comp=Z,0.5nm,0.5s,baz=18,slow=2.3,SNR=5.6
**KOWA Kowa 119.13 319** *e*PKPdf **PKPdf** **06 30 42.1 -0.5**
**DBIC Dimbokro 126.05 315** PKP **PKPdf** **06 30 55.8 0.0**
comp=Z,1.4nm,0.7s,baz=177,slow=0.6,SNR=3.7
**SNAA Sanae 139.75 197** PKP **PKPdf** **06 31 13.4 -6.5**
**VNA2 Neumayer--Watz 141.33 196** PKP **PKPdf** **06 31 17.0 -5.7**
baz=356,slow=0.5
**VNA3 Neumayer Olymp 141.60 195** PKP **PKPdf** **06 31 17.2 -6.0**
**LPAZ La Paz 147.99 59** PKPbc **PKPbc** **06 31 40.3 +0.5**
comp=Z,2.3nm,0.7s,baz=20,slow=11,SNR=13
**LPAZ La Paz 147.99 59** *e*PKP2 **PKPbc** **06 31 40.4 +0.7**
**LPAZ La Paz 147.99 59** *e*PKPbc **PKPbc** **06 31 40.4 +0.7**
**MNMC Minye Minye 148.83 65** *e*PKPbc **PKPbc** **06 31 42.7 +1.3**
**PB11 IPOC Station P 149.18 66** *e*PKPbc **PKPbc** **06 31 43.1 +0.9**

**JMA 16 06:38:10.3±0.2, 37.48N×144.44E, h44km, M3.7, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JIO** | **Ouri** | **2.63** | **293** | P | Pn | 06 38 52.1 | +1.9 |
| JIO | | | | S | Sn | 06 39 22.9 | +2.0 |
| **OFUJ** | **Ofunato** | **2.70** | **307** | P | Pn | 06 38 52.7 | +1.5 |
| OFUJ | | | | S | Sn | 06 39 24.3 | +1.6 |
| **JFK** | **Kawauchi** | **2.84** | **269** | P | Pn | 06 38 54.6 | +1.4 |
| JFK | | | | *e*S | Sn | 06 39 26.9 | +0.7 |
| **ONAJ** | **Iwakimizuishiy** | **2.93** | **264** | P | Pn | 06 38 55.6 | +1.2 |
| ONAJ | | | | S | Sn | 06 39 29.5 | +1.1 |
| **JMK** | **Ichinoseki** | **2.93** | **301** | P | Pn | 06 38 55.9 | +1.5 |
| JMK | | | | S | Sn | 06 39 30.1 | +1.8 |
| **JOM** | **Ohasama** | **3.17** | **310** | P | Pn | 06 38 59.5 | +1.8 |
| JOM | | | | S | Sn | 06 39 36.6 | +2.3 |
| **JFT** | **Otama** | **3.26** | **272** | P | Pn | 06 39 01.7 | +2.7 |
| JFT | | | | *e*S | Sn | 06 39 39.0 | +2.4 |
| **BSO1** | **Boso 1** | **3.98** | **226** | *e*S | Sn | 06 39 55.2 | +1.9 |
| **JRY** | **Ryogami san** | **4.68** | **253** | P | Pn | 06 39 19.5 | +1.1 |
| JRY | | | | *e*S | Sn | 06 40 11.4 | -0.1 |
| **JCH** | **Churui** | **5.19** | **351** | P | Pn | 06 39 24.1 | -1.3 |
| JCH | | | | *e*S | Sn | 06 40 19.3 | -4.7 |

*IDC* ***16*** *06:46:54.0±2.0, 10.36S×120.52E, h0km, mb3.4/1, mb1 4.0/4, mb1mx3.7/28, mbtmp3.7/4, ML3.7/3, Error ellipse: s-maj=165.7km s-min=24.8km az=53.0*
*ISCJB* ***16*** *06:46:56.6±0.7, 10.64S±0.06×120.32E±0.05, h31km, mb3.4/1, Error ellipse: s-maj=9.6km s-min=6.4km az=37.3*
*DJA* ***16*** *06:46:58.7±0.7, 10°S±5'×12°E±°, h11km±4km, M3.7/6, MLv3.7/6*
**ISC 16 06:46:57.7±0.9, 10.61S±0.07×120.29E±0.06, h31km, n10, σ2s 03/14, Sumba region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **BASI** | **Baing, Sumba** | **0.48** | **36** | P | **Pb** | **06 47 07.0** | **-0.8** |
| BASI | | | | S | **Sb** | **06 47 13.2** | **-1.6** |
| **WBSI** | **Waikabubak, Su** | **1.31** | **317** | P | **Pn** | **06 47 20.1** | **+0.2** |
| WBSI | | | | S | **Sn** | **06 47 36.7** | **+0.3** |
| **EDFI** | **Ende, Flores** | **2.31** | **37** | P | **Pn** | **06 47 34.4** | **+0.7** |
| **PLAI** | **Plampang** | **3.05** | **305** | P | **Pn** | **06 47 44.6** | **+0.8** |
| PLAI | | | | S | **Sn** | **06 48 20.5** | **+1.3** |
| **SOEI** | **Soe** | **4.00** | **78** | P | **Pn** | **06 48 00.9** | **+3.9** |
| **JAGI** | **Jajag, Banyuwa** | **6.42** | **289** | S | **Sn** | **06 49 41.3** | **-1.1** |
| **FITZ** | **Fitzroy Crossi** | **9.07** | **146** | Pn | **Pn** | **06 49 07.8** | **+1.3** |
| | 0.5nm,0.3s,baz=336,slow=8.8,SNR=22 | | | | | | |
| FITZ | | | | Sn | **Sn** | **06 50 43.7** | **-3.9** |
| | 1.0nm,0.3s,baz=190,slow=22,SNR=5.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **16.41** | **126** | Pn | **Pn** | **06 50 44.5** | **-1.4** |
| | 0.3nm,0.3s,baz=297,slow=13,SNR=8.3 | | | | | | |
| **ASAR** | **Alice Springs** | **18.36** | **137** | P | **Pn** | **06 51 12.0** | **+1.9** |
| | 0.4nm,0.3s,baz=313,slow=12,SNR=25 | | | | | | |
| **MKAR** | **Makanchi Array** | **66.46** | **333** | P | **P** | **06 57 44.3** | **+0.1** |
| | 0.2nm,0.5s,baz=148,slow=8.4,SNR=3.4 | | | | | | |

*VIE* ***16*** *06:55:44.9±0.3, 47.84N×14.24E, h4km, mb2.6/10, ML2.9/12, Error ellipse: s-maj=2.5km s-min=1.8km az=151.0*
*CSEM* ***16*** *06:55:44.8±0.1, 47.88N×14.25E, h2km, ML3.5/25, Error ellipse: s-maj=3.0km s-min=2.3km az=103.0*
*ROM* ***16*** *06:55:44.8±0.3, 48.02N×14.73E, h49km±6km, Md2.6/9, Ml3.0/3, Error ellipse: s-maj=4.8km s-min=4.3km az=26.0*
*IPEC* ***16*** *06:55:44.9±0.1, 47.84N×14.30E, h1km, ML2.9/7, Error ellipse: s-maj=0.8km s-min=0.7km az=66.0*
*PRU* ***16*** *06:55:45.9, 47.89N×14.27E, h0km*
*LDG* ***16*** *06:55:45.8±0.1, 47.85N×14.25E, h10km, Ml2.9/6, Error ellipse: s-maj=2.7km s-min=2.1km az=64.0*
*BGR* ***16*** *06:55:45.8±0.2, 47.86N×14.25E, h10km, ML3.0/15, Error ellipse: s-maj=4.4km s-min=2.2km az=63.0*
*BGR Felt in Molln.*
**ISC 16 06:55:44.6±0.8, 47.87N±0.01×14.24E±0.02, h6km±4km, n123, σ1s 41/197, 1C, Austria**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MOA** | **Molln** | **0.02** | **141** | *e*Pg | **Pg** | **06 55 45.6** | **-0.1** |
| MOA | | | | *e*Sg | **Sg** | **06 55 46.7** | **+0.1** |
| **MOA** | **Molln** | **0.02** | **141** | Pg | **Pg** | **06 55 45.6** | **-0.1** |
| MOA | | | | Sg | **Sg** | **06 55 46.6** | **0.0** |
| | 9μm,0.1s | | | | | | |
| **RJOB** | **Jochberg** | **0.98** | **263** | *e*Pg | **Pb** | **06 56 04.7** | **+0.5** |
| **RJOB** | **Jochberg** | **0.98** | **263** | Pg | **Pb** | **06 56 04.7** | **+0.5** |
| **KBA** | **Koelnbreinsper** | **1.00** | **218** | Sg | **Sb** | **06 56 17.5** | **-0.4** |
| | 59nm,0.2s | | | | | | |
| **GEC2** | **GERESS Array S** | **1.04** | **340** | *e*Pg | **Pb** | **06 56 05.4** | **+0.2** |
| GEC2 | | | | *e*Sg | **Sn** | **06 56 20.4** | **-0.6** |
| **GEC2** | **GERESS Array S** | **1.04** | **340** | Pg | **Pb** | **06 56 05.4** | **+0.2** |
| GEC2 | | | | Sg | **Sn** | **06 56 20.4** | **-0.6** |
| **ARSA** | **Arzberg** | **1.06** | **125** | *e*Pg | **Pb** | **06 56 05.5** | **0.0** |
| ARSA | | | | *e*Sg | **Sn** | **06 56 21.7** | **+0.4** |
| **ARSA** | **Arzberg** | **1.06** | **125** | Pg | **Pb** | **06 56 05.5** | **0.0** |
| ARSA | | | | Sg | **Sb** | **06 56 20.3** | **+0.6** |
| | 59nm,0.3s | | | | | | |
| **CONA** | **Conrad Observa** | **1.09** | **86** | Pg | **Pg** | **06 56 05.7** | **+0.2** |
| | 31nm,0.2s,SNR=68 | | | | | | |
| CONA | | | | Sg | **Sn** | **06 56 21.7** | **-0.4** |
| | 73nm,0.2s | | | | | | |
| **MYKA** | **Terra Mystica** | **1.30** | **199** | Pg | **Pn** | **06 56 09.4** | **-0.1** |
| | 20nm,0.3s,SNR=12 | | | | | | |
| MYKA | | | | Sg | **Sn** | **06 56 28.1** | **+0.8** |
| | 30nm,0.3s | | | | | | |
| **SOKA** | **Soboth** | **1.30** | **155** | Pg | **Pn** | **06 56 09.2** | **-0.3** |
| | SNR=9.7 | | | | | | |
| SOKA | | | | Sg | **Sg** | **06 56 26.5** | **-0.1** |
| | 36nm,0.2s | | | | | | |
| **KHC** | **Kasperske Hory** | **1.34** | **341** | *e*PG | **Pg** | **06 56 10.9** | **+0.6** |
| KHC | | | | *e*SG | **Sn** | **06 56 29.2** | **+1.0** |
| | comp=Z,136nm,0.2s | | | | | | |
| **KHC** | **Kasperske Hory** | **1.34** | **341** | Pg | **Pg** | **06 56 10.9** | **+0.6** |
| **PERS** | **Pernice** | **1.37** | **154** | *i*Pn | **Pn** | **06 56 09.8** | **-0.6** |
| PERS | | | | *e*Sn | **Sn** | **06 56 29.2** | **+0.4** |
| | comp=Z,31nm,0.2s | | | | | | |
| **PERS** | **Pernice** | **1.37** | **154** | *i*Pn | **Pn** | **06 56 09.8** | **-0.6** |
| **OBKA** | **Obir** | **1.37** | **171** | *e*Pg | **Pg** | **06 56 11.9** | **+0.9** |
| OBKA | | | | *e*Sg | **Sn** | **06 56 31.1** | **+2.0** |
| **OBKA** | **Obir** | **1.37** | **171** | Pg | **Pg** | **06 56 11.9** | **+0.9** |
| OBKA | | | | Sg | **Sn** | **06 56 31.1** | **+2.0** |
| | comp=Z,37nm,0.3s | | | | | | |
| **ACOM** | **Acomizza, Ital** | **1.41** | **201** | Pg | **Pg** | **06 56 12.3** | **+0.6** |
| ACOM | | | | Sg | **Sn** | **06 56 32.0** | **+1.9** |
| **ACOM** | **Acomizza, Ital** | **1.41** | **201** | Pg | **Pg** | **06 56 12.3** | **+0.6** |
| ACOM | | | | Sg | **Sn** | **06 56 32.0** | **+1.9** |
| **GORS** | **Gorjuse** | **1.56** | **186** | *i*Pn | **Pn** | **06 56 13.7** | **+0.6** |
| GORS | | | | *e*Sn | **Sb** | **06 56 34.4** | **+0.4** |
| | comp=Z,46nm,0.4s | | | | | | |
| **GORS** | **Gorjuse** | **1.56** | **186** | *i*Pn | **Pn** | **06 56 13.6** | **+0.6** |
| **WET** | **Wettzell** | **1.57** | **325** | *e*Pg | **Pg** | **06 56 15.0** | **+0.3** |

| Code | Station Name | Δ° | AZ° | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| WET | | | | eSg | Sg | 06 56 36.4 | +1.4 |
| **WET** | **Wettzell** | **1.57** | **325** | Pg | **Pg** | **06 56 15.0** | **+0.3** |
| **SOP** | **Sopron** | **1.57** | **96⇑** | ex | **Pg** | **06 56 15.2** | **+0.5** |
| SOP | | | | ex | **Sg** | **06 56 36.6** | **+1.5** |
| **MOZS** | **Mozjanca** | **1.58** | **175** | i Pn | **Pb** | **06 56 14.0** | **-0.3** |
| **MOZS** | **Mozjanca** | **1.58** | **175** | i Pn | **Pb** | **06 56 14.0** | **-0.3** |
| **PTCC** | **Patocco-Chiusa** | **1.58** | **203** | Pg | **Pg** | **06 56 14.9** | **-0.1** |
| PTCC | | | | Sg | **Sg** | **06 56 36.9** | **+1.4** |
| | comp=Z,58nm,0.5s | | | | | | |
| **PTCC** | **Patocco-Chiusa** | **1.58** | **203** | Pg | **Pg** | **06 56 14.9** | **-0.1** |
| PTCC | | | | Sg | **Sg** | **06 56 36.9** | **+1.4** |
| | comp=Z,58nm,0.5s | | | | | | |
| **FVI** | **Forni Avoltri** | **1.62** | **219** | Pg | **Pg** | **06 56 15.8** | **+0.2** |
| FVI | | | | Sg | **Sg** | **06 56 39.0** | **+2.5** |
| | comp=Z,87nm,0.5s | | | | | | |
| **FVI** | **Forni Avoltri** | **1.62** | **219** | Pg | **Pg** | **06 56 15.8** | **+0.2** |
| FVI | | | | Sg | **Sg** | **06 56 39.0** | **+2.5** |
| | comp=Z,87nm,0.5s | | | | | | |
| **ABTA** | **Abfaltersbach** | **1.63** | **227** | Pg | **Pg** | **06 56 16.0** | **+0.2** |
| | comp=Z,31nm,0.4s | | | | | | |
| ABTA | | | | Sg | **Sg** | **06 56 39.2** | **+2.3** |
| | comp=Z,21nm,0.2s | | | | | | |
| **CADS** | **Cadrg** | **1.68** | **192** | i Pn | **Pn** | **06 56 14.8** | **+0.2** |
| CADS | | | | eSn | **Sg** | **06 56 38.6** | **+0.1** |
| **CADS** | **Cadrg** | **1.68** | **192** | i Pn | **Pn** | **06 56 14.8** | **+0.2** |
| CADS | | | | eSn | **Sg** | **06 56 38.6** | **+0.1** |
| **RISI** | **Rein** | **1.73** | **239** | Pg | **Pb** | **06 56 17.6** | **+0.6** |
| RISI | | | | Sg | **Sg** | **06 56 41.9** | **+1.5** |
| **RISI** | **Rein** | **1.73** | **239** | Pg | **Pb** | **06 56 17.6** | **+0.6** |
| RISI | | | | Sg | **Sg** | **06 56 41.9** | **+1.5** |
| **VINO** | **Villanova** | **1.74** | **203** | Pg | **Pb** | **06 56 17.3** | **+0.3** |
| **VINO** | **Villanova** | **1.74** | **203** | Pg | **Pb** | **06 56 17.3** | **+0.3** |
| **KRUC** | **Moravsky** | **1.86** | **49** | ePn | **Pn** | **06 56 17.7** | **+0.5** |
| KRUC | | | | eSg | **Sb** | **06 56 43.0** | **+0.3** |
| | comp=Z,78nm,0.3s | | | | | | |
| **WTTA** | **Wattenberg** | **1.87** | **252** | Pg | **Pb** | **06 56 19.3** | **0.0** |
| **WTTA** | **Wattenberg** | **1.87** | **252** | ePg | **Pb** | **06 56 19.8** | **+0.5** |
| WTTA | | | | eSg | **Sg** | **06 56 45.8** | **+1.2** |
| **WTTA** | **Wattenberg** | **1.87** | **252** | Pg | **Pb** | **06 56 19.8** | **+0.5** |
| WTTA | | | | Sg | **Sg** | **06 56 45.8** | **+1.2** |
| **WATA** | **Walderalm** | **1.88** | **255** | Pn | **Pb** | **06 56 19.6** | **+0.1** |
| | comp=Z,6.3nm,0.1s,SNR=13 | | | | | | |
| WATA | | | | Sg | **Sg** | **06 56 46.3** | **+1.2** |
| | comp=Z,13nm,0.2s | | | | | | |
| **STAL** | **STALIGIAL** | **1.92** | **214** | Pg | **Pb** | **06 56 19.8** | **-0.3** |
| **STAL** | **STALIGIAL** | **1.92** | **214** | Pg | **Pb** | **06 56 19.8** | **-0.3** |
| **ZST** | **Bratislava** | **1.95** | **79** | eSG | **Sb** | **06 56 45.1** | **+0.1** |
| ZST | | | | eLG | Lg | 06 56 48.0 | |
| **FUR** | **Furstenfeldbru** | **2.02** | **280** | eSg | **Sg** | **06 56 50.4** | **+1.1** |
| **FUR** | **Furstenfeldbru** | **2.02** | **280** | Sg | **Sg** | **06 56 50.4** | **+1.1** |
| **GOPC** | **GO Pecny, Ondr** | **2.08** | **10** | ePN | **Pn** | **06 56 21.2** | **+1.1** |
| GOPC | | | | eSG | **Sg** | **06 56 51.0** | **-0.4** |
| | comp=Z,37nm,0.2s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **2.08** | **10** | Pn | **Pn** | **06 56 21.2** | **+1.1** |
| GOPC | | | | Sg | **Sg** | **06 56 51.0** | **-0.4** |
| | comp=Z,37nm,0.2s | | | | | | |
| **VRAC** | **Vranov** | **2.12** | **46** | ePn | **Pn** | **06 56 21.3** | **+0.6** |
| VRAC | | | | eSg | **Sb** | **06 56 51.1** | **+0.9** |
| | comp=Z,73nm,0.4s | | | | | | |
| **PRU** | **Pruhonice** | **2.13** | **5** | ePN | **Pn** | **06 56 21.7** | **+0.9** |
| PRU | | | | eSG | **Sb** | **06 56 51.7** | **+1.3** |
| | comp=Z,34nm,0.3s | | | | | | |
| **PRU** | **Pruhonice** | **2.13** | **5** | Pn | **Pn** | **06 56 21.7** | **+0.9** |
| PRU | | | | Sg | **Sb** | **06 56 51.7** | **+1.3** |
| | comp=Z,34nm,0.3s | | | | | | |
| **ROSI** | **Rosskopf** | **2.14** | **245** | Pg | **Pb** | **06 56 24.1** | **+0.1** |
| | comp=Z,108nm,0.4s | | | | | | |
| **ROSI** | **Rosskopf** | **2.14** | **245** | Pg | **Pb** | **06 56 24.1** | **+0.1** |
| | comp=Z,108nm,0.4s | | | | | | |
| **MOTA** | **Moosalm** | **2.19** | **257** | Pn | **Pn** | **06 56 22.8** | **+1.1** |
| | comp=Z,5.6nm,0.1s | | | | | | |
| MOTA | | | | Sg | **Sg** | **06 56 54.0** | **-0.9** |
| | comp=Z,27nm,0.2s | | | | | | |
| **POLC** | **Polcenigo** | **2.19** | **214** | Pg | **Pb** | **06 56 24.0** | **-0.7** |
| **POLC** | **Polcenigo** | **2.19** | **214** | Pg | **Pb** | **06 56 24.0** | **-0.7** |
| **PRA** | **Prague** | **2.21** | **3** | eSG | **Sg** | **06 56 55.4** | **-0.2** |
| | comp=Z,57nm,0.4s | | | | | | |
| **PRA** | **Prague** | **2.21** | **3** | Sg | **Sg** | **06 56 55.4** | **-0.2** |
| | comp=Z,57nm,0.4s | | | | | | |
| **BEHE** | **Becsehely** | **2.22** | **128** | ex | **Pg** | **06 56 24.0** | **-3.2** |
| BEHE | | | | ex | **Sb** | **06 56 52.5** | **-0.5** |
| **BEHE** | **Becsehely** | **2.22** | **128** | ePg | **Pg** | **06 56 24.0** | **-3.2** |
| BEHE | | | | eSn | **Sb** | **06 56 52.5** | **-0.5** |
| **SMOL** | **Smolenice** | **2.23** | **72** | ePg | **Pn** | **06 56 23.3** | **+1.2** |
| **SMOL** | **Smolenice** | **2.23** | **72** | ePG | **Pn** | **06 56 23.3** | **+1.2** |
| SMOL | | | | eSG | **Sb** | **06 56 52.0** | **-1.1** |
| **RETA** | **Reutte** | **2.38** | **262** | Pn | **Pb** | **06 56 27.3** | **-0.7** |
| | comp=Z,5.9nm,0.2s | | | | | | |
| RETA | | | | Sg | **Sg** | **06 57 01.5** | **+0.3** |
| | comp=Z,18nm,0.3s | | | | | | |
| **FETA** | **Feichten** | **2.53** | **252** | Pg | **Pb** | **06 56 31.9** | **+1.3** |
| | comp=Z,2.9nm,0.2s | | | | | | |
| FETA | | | | Sg | **Sg** | **06 57 08.0** | **+2.1** |
| | comp=Z,12nm,0.4s | | | | | | |
| **MANZ** | **Manzenberg** | **2.55** | **327** | ePg | **Pg** | **06 56 32.7** | **-0.7** |
| MANZ | | | | eSg | **Sg** | **06 57 06.8** | **+0.4** |
| **MANZ** | **Manzenberg** | **2.55** | **327** | Pg | **Pg** | **06 56 32.7** | **-0.7** |
| MANZ | | | | Sg | **Sg** | **06 57 06.8** | **+0.4** |
| **NKC** | **Novy Kostel** | **2.65** | **334** | ePN | **Pb** | **06 56 30.6** | **-1.9** |
| NKC | | | | ePG | **Pb** | **06 56 34.0** | **+1.5** |
| NKC | | | | eSG | **Sg** | **06 57 09.5** | **-0.1** |
| | comp=Z,44nm,0.3s | | | | | | |
| **NKC** | **Novy Kostel** | **2.65** | **334** | Pn | **Pb** | **06 56 30.6** | **-1.9** |
| **NKC** | **Novy Kostel** | **2.65** | **334** | Pg | **Pb** | **06 56 34.0** | **+1.5** |
| NKC | | | | Sg | **Sg** | **06 57 10.0** | **+0.4** |
| **PVCC** | **Panska Ves** | **2.67** | **4** | ePG | **Pb** | **06 56 33.7** | **+0.8** |
| **PVCC** | **Panska Ves** | **2.67** | **4** | Pg | **Pb** | **06 56 33.7** | **+0.8** |
| **ROHR** | **Rohrbach** | **2.69** | **333** | ePg | **Pg** | **06 56 35.0** | **-1.1** |
| ROHR | | | | eSg | **Sg** | **06 57 11.1** | **+0.2** |
| **ROHR** | **Rohrbach** | **2.69** | **333** | Pg | **Pg** | **06 56 35.0** | **-1.1** |
| ROHR | | | | Sg | **Sg** | **06 57 11.1** | **+0.2** |
| **GRA1** | **Grafenberg Arr** | **2.71** | **314** | Pg | **Pg** | **06 56 37.2** | **+0.7** |
| GRA1 | | | | Sg | **Sg** | **06 57 12.4** | **+0.9** |
| **GRF** | **Grafenberg Arr** | **2.71** | **314** | ePg | **Pg** | **06 56 37.2** | **+0.7** |
| GRF | | | | eSg | **Sg** | **06 57 12.4** | **+0.9** |
| **OBER** | **Oberstdorf** | **2.71** | **262** | eSg | **Sg** | **06 57 12.2** | **+0.5** |
| **OBER** | **Oberstdorf** | **2.71** | **262** | Sg | **Sg** | **06 57 12.2** | **+0.5** |
| **WERN** | **Wernitzgruen** | **2.72** | **334** | ePg | **Pg** | **06 56 37.1** | **+0.5** |
| WERN | | | | eSg | **Sg** | **06 57 12.5** | **+0.7** |
| **WERN** | **Wernitzgruen** | **2.72** | **334** | Pg | **Pg** | **06 56 37.1** | **+0.5** |
| WERN | | | | Sg | **Sg** | **06 57 12.5** | **+0.7** |
| **CSKK** | **Csˆ‡kako** | **2.76** | **99** | ex | **Pg** | **06 56 39.0** | **+1.4** |
| **KRLC** | **Kraliky** | **2.77** | **36** | ePN | **Pn** | **06 56 30.7** | **+1.0** |
| KRLC | | | | eSG | **Sg** | **06 57 13.7** | **+0.1** |
| | comp=Z,12nm,0.4s | | | | | | |
| **KRLC** | **Kraliky** | **2.77** | **36** | Pn | **Pn** | **06 56 30.7** | **+1.0** |
| KRLC | | | | Sg | **Sg** | **06 57 13.7** | **+0.1** |
| | comp=Z,12nm,0.4s | | | | | | |
| **GUNZ** | **Gunzen** | **2.80** | **334** | ePg | **Pg** | **06 56 39.0** | **+0.8** |
| GUNZ | | | | eSg | **Sg** | **06 57 14.7** | **+0.2** |
| **GUNZ** | **Gunzen** | **2.80** | **334** | Pg | **Pg** | **06 56 39.0** | **+0.8** |
| GUNZ | | | | Sg | **Sg** | **06 57 14.7** | **+0.2** |
| **DPC** | **Dobruska-Polom** | **2.83** | **28** | ePN | **Pn** | **06 56 31.0** | **+0.5** |
| DPC | | | | eSG | **Sg** | **06 57 15.9** | **+0.2** |
| | comp=Z,54nm,0.4s | | | | | | |
| **DPC** | **Dobruska-Polom** | **2.83** | **28** | Pn | **Pn** | **06 56 31.0** | **+0.5** |
| DPC | | | | Sg | **Sg** | **06 57 15.9** | **+0.2** |
| | comp=Z,54nm,0.4s | | | | | | |
| **UPC** | **Upice** | **2.89** | **23** | eSG | **Sg** | **06 57 17.6** | **+0.3** |
| | comp=Z,50nm,0.3s | | | | | | |
| **UPC** | **Upice** | **2.89** | **23** | Sg | **Sg** | **06 57 17.6** | **+0.3** |
| | comp=Z,50nm,0.3s | | | | | | |
| **MORC** | **Moravsky Berou** | **2.90** | **48** | ePn | **Pn** | **06 56 32.9** | **+1.5** |
| **DAVA** | **Damuels** | **3.01** | **260** | Pn | **Pn** | **06 56 35.2** | **+2.1** |
| | comp=Z,1.5nm,0.2s | | | | | | |
| **DAVA** | **Damuels** | **3.01** | **260** | Pg | **Pg** | **06 56 41.6** | **-0.7** |
| | comp=Z,11nm,0.2s | | | | | | |
| DAVA | | | | Sg | **Sg** | **06 57 21.7** | **+0.4** |
| | comp=Z,13nm,0.3s | | | | | | |
| **BRG** | **Berggiesshubel** | **3.02** | **356** | PG | **Pg** | **06 56 42.2** | **-0.1** |
| BRG | | | | SG | **Sg** | **06 57 24.2** | **+2.7** |
| | comp=Z,28nm,0.8s | | | | | | |
| **BRG** | **Berggiesshubel** | **3.02** | **356** | PG | **Pg** | **06 56 42.2** | **-0.1** |
| BRG | | | | SG | **Sg** | **06 57 24.2** | **+2.7** |
| | comp=Z,28nm,0.8s | | | | | | |
| **BRG** | **Berggiesshubel** | **3.02** | **356** | ePg | **Pg** | **06 56 42.6** | **+0.2** |
| BRG | | | | eSg | **Sg** | **06 57 22.3** | **+0.9** |
| **BRG** | **Berggiesshubel** | **3.02** | **356** | Pg | **Pg** | **06 56 42.6** | **+0.2** |
| BRG | | | | Sg | **Sg** | **06 57 22.3** | **+0.9** |
| **OKC** | **Ostrava-Krasne** | **3.25** | **51** | eSG | **Sg** | **06 57 27.1** | **-1.7** |
| | comp=Z,44nm,0.4s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **3.25** | **51** | Sg | **Sg** | **06 57 27.1** | **-1.7** |
| | comp=Z,44nm,0.4s | | | | | | |
| **MOX** | **Moxa** | **3.27** | **329** | ePg | **Pg** | **06 56 47.5** | **+0.3** |
| MOX | | | | eSg | **Sg** | **06 57 29.6** | **0.0** |
| **MOX** | **Moxa** | **3.27** | **329** | Pg | **Pg** | **06 56 47.5** | **+0.3** |
| MOX | | | | Sg | **Sg** | **06 57 29.6** | **0.0** |
| **CLL** | **Collm** | **3.54** | **347** | e(Pn) | **Pn** | **06 56 42.0** | **+1.9** |
| CLL | | | | ePg | **Pg** | **06 56 52.0** | **-0.4** |
| CLL | | | | eSg | **Sg** | **06 57 36.0** | **-2.2** |
| | comp=Z,61nm,1.1s | | | | | | |
| **KECS** | **Kecovo** | **4.22** | **79** | ePn | **Pn** | **06 56 47.1** | **-2.4** |
| **KECS** | **Kecovo** | **4.22** | **79** | ePN | **Pn** | **06 56 47.1** | **-2.4** |
| **CDF** | **Champ du Feu** | **4.70** | **279** | eSg | **Sg** | **06 58 13.5** | **-1.9** |
| | comp=Z,6.9nm,0.3s | | | | | | |
| **CDF** | **Champ du Feu** | **4.70** | **279** | eSg | **Sg** | **06 58 13.5** | **-1.9** |
| | comp=Z,3.5nm,0.3s | | | | | | |
| **HINF** | **Hinteralfeld** | **4.98** | **272** | ePn | **Pn** | **06 56 58.6** | **-1.4** |
| HINF | | | | eSn | **Sn** | **06 57 53.2** | **-4.7** |
| HINF | | | | eSg | **Sg** | **06 58 22.2** | **-2.2** |
| | comp=Z,7.0nm,0.4s | | | | | | |
| **HINF** | **Hinteralfeld** | **4.98** | **272** | ePn | **Pn** | **06 56 58.6** | **-1.4** |
| **HAU** | **Haudompre** | **5.31** | **274** | eSg | **Sg** | **06 58 32.5** | **-2.5** |
| | comp=Z,4.7nm,0.3s | | | | | | |
| **STON** | **Ston** | **5.56** | **153** | ePn | **Pn** | **06 57 09.6** | **+1.8** |
| **STON** | **Ston** | **5.56** | **153** | ePn | **Pn** | **06 57 09.6** | **+1.8** |
| **LPG** | **La Plagne** | **5.67** | **248** | eP | **Pn** | **06 57 12.7** | **+2.9** |
| LPG | | | | eSn | **Sn** | **06 58 10.1** | **-5.3** |
| LPG | | | | eSg | **Sg** | **06 58 43.7** | **-3.1** |
| | comp=Z,1.0nm,0.3s | | | | | | |
| **LPG** | **La Plagne** | **5.67** | **248** | eP | **Pn** | **06 57 12.7** | **+2.9** |
| **LPL** | **La Plagne** | **5.68** | **248** | ePn | **Pn** | **06 57 08.3** | **-1.4** |
| **LPL** | **La Plagne** | **5.68** | **248** | eP | **Pn** | **06 57 12.8** | **+3.1** |
| **LPL** | **La Plagne** | **5.68** | **248** | eP | **Pn** | **06 57 12.8** | **+3.1** |
| **PAGF** | **Fort de Pagny** | **5.74** | **280** | ePn | **Pn** | **06 57 08.7** | **-1.6** |
| PAGF | | | | eSg | **Sg** | **06 58 45.8** | **-2.9** |
| | comp=Z,0.7nm,0.2s | | | | | | |
| **MBDF** | **Montbardon** | **6.05** | **242** | ePn | **Pn** | **06 57 13.2** | **-1.7** |
| **MBDF** | **Montbardon** | **6.05** | **242** | eP | **Pn** | **06 57 17.9** | **+3.0** |
| MBDF | | | | eSn | **Sn** | **06 58 18.8** | **-5.8** |
| | comp=Z,1.1nm,0.2s | | | | | | |
| **MBDF** | **Montbardon** | **6.05** | **242** | eP | **Pn** | **06 57 17.9** | **+3.0** |
| **ORIF** | **Oris-en-Rattie** | **6.49** | **246** | eP | **Pn** | **06 57 22.5** | **+1.7** |
| **ORIF** | **Oris-en-Rattie** | **6.49** | **246** | eP | **Pn** | **06 57 22.5** | **+1.7** |
| **LASF** | **Ste Croix** | **8.17** | **246** | ePn | **Pn** | **06 57 41.7** | **-2.0** |

**MEX 16 06:58:53.2**±0.4**, 15°.18N×93°.40W, h64**km±16km**, MD3.6, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PCIG** | | **0.55** | **18** | eP | Pn | 06 59 04.7 | -1.3 |
| PCIG | | | | eS | Sn | 06 59 13.6 | -1.9 |
| **TGIG** | | **1.61** | **9** | eP | Pn | 06 59 17.6 | -2.0 |
| TGIG | | | | eS | Sn | 06 59 37.5 | -2.0 |
| **CCIG** | **Comitan** | **1.64** | **48** | eP | Pn | 06 59 18.6 | -1.4 |

*ISCJB **16** 06:59:12.5±0.6, 38°.57N±0°.04×43°.26E±0°.05, h6km±6km, Error ellipse: s-maj=7.0km s-min=4.9km az=44.4*
*CSEM **16** 06:59:12.2±0.3, 38°.58N×43°.21E, h2km, ML2.4, Error ellipse: s-maj=6.0km s-min=5.4km az=114.0*
*ISK **16** 06:59:12.1, 38°.60N×43°.30E, h5km, ML2.4*
*DDA **16** 06:59:12.1, 38°.54N×43°.26E, h7km, Ml2.7*
**ISC 16 06:59:12.3**±1.1**, 38°.59N**±0°.03×**43°.24E**±0°.03**, h6**km±13km**, n23,** σ**0s.65**/31**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.12** | **87** | ePG | **Pg** | **06 59 15.0** | **+0.1** |
| **VANB** | **Van** | **0.12** | **87** | ePg | **Pg** | **06 59 15.0** | **+0.1** |
| **TVAN** | **Van** | **0.14** | **115** | i P | **Pg** | **06 59 14.3** | **-1.1** |
| **TVAN** | **Van** | **0.14** | **115** | P | **Pg** | **06 59 14.3** | **-1.1** |
| **GEVA** | **Gevas** | **0.31** | **207** | i P | **Pg** | **06 59 17.6** | **-0.9** |
| GEVA | | | | i S | **Sg** | **06 59 23.6** | **+1.0** |
| **GEVA** | **Gevas** | **0.31** | **207** | P | **Pg** | **06 59 17.6** | **-0.9** |
| GEVA | | | | S | **Sg** | **06 59 23.6** | **+1.0** |
| **ERCV** | **ERCIS-VAN** | **0.44** | **10** | ePG | **Pb** | **06 59 21.6** | **-0.9** |
| **ERCV** | **ERCIS-VAN** | **0.44** | **10** | ePg | **Pb** | **06 59 21.7** | **-0.9** |
| **ADCV** | **BITLIS_Adilcev** | **0.46** | **299** | i P | **Pg** | **06 59 21.3** | **+0.1** |
| ADCV | | | | i S | **Sb** | **06 59 30.0** | **-0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.46** | **299** | P | **Pg** | **06 59 21.3** | **+0.1** |
| **VMUR** | **Van-Muradiye** | **0.48** | **33** | i P | **Pg** | **06 59 21.8** | **+0.2** |
| VMUR | | | | i S | **Sb** | **06 59 30.9** | **+0.2** |
| **VMUR** | **Van-Muradiye** | **0.48** | **33** | P | **Pg** | **06 59 21.8** | **+0.2** |
| **CLDR** | **Caldiran** | **0.77** | **43** | ePG | **Pg** | **06 59 27.2** | **+0.1** |
| CLDR | | | | eSG | **Sb** | **06 59 38.3** | **-0.7** |
| **CLDR** | **Caldiran** | **0.77** | **43** | i P | **Pg** | **06 59 27.1** | **+0.1** |
| CLDR | | | | i S | **Sb** | **06 59 39.5** | **+0.5** |
| **CLDR** | **Caldiran** | **0.77** | **43** | ePg | **Pg** | **06 59 27.2** | **+0.1** |
| CLDR | | | | eSg | **Sb** | **06 59 38.3** | **-0.7** |
| CLDR | | | | S | **Sb** | **06 59 39.5** | **+0.5** |
| **TUTA** | **Tutak** | **0.88** | **338** | i P | **Pg** | **06 59 28.4** | **-0.8** |
| **TUTA** | **Tutak** | **0.88** | **338** | P | **Pg** | **06 59 28.4** | **-0.8** |
| **AGRB** | **Hanur-Agry** | **1.00** | **349** | ePG | **Pb** | **06 59 32.4** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **1.00** | **349** | ePg | **Pb** | **06 59 32.4** | **+0.1** |
| **EKAR** | **Karacoban** | **1.13** | **306** | i P | **Pg** | **06 59 34.1** | **0.0** |
| **EKAR** | **Karacoban** | **1.13** | **306** | P | **Pg** | **06 59 34.1** | **0.0** |
| **CUKT** | **Cukurca** | **1.37** | **168** | ePN | **Pg** | **06 59 39.3** | **+0.7** |
| **CUKT** | **Cukurca** | **1.37** | **168** | ePn | **Pg** | **06 59 39.3** | **+0.7** |

**IDC 16 07:17:44.8**±2.8**, 53°.56N×87°.85E, h0**km**, mb1 3.0**/2**, mb1mx2.8**/59**, mbtmp3.0**/2**, ML2.8**/2**, Error ellipse: s-maj=26.1km s-min=17.5km az=84.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **I46RU** | **ZALESOVO INFRA** | **1.84** | **284** | i | | 07 31 22.8 | |
| | baz=99,slow=342,SNR=8.1 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **1.84** | **284** | Pn | Pn | 07 18 17.1 | -0.5 |
| | 1.6nm,0.3s,baz=99,slow=15,SNR=12 | | | | | | |
| ZALV | | | | Sn | Sb | 07 18 43.0 | +0.2 |
| | 2.6nm,0.3s,baz=106,slow=24,SNR=11 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **6.45** | **247** | Pn | Pn | 07 19 21.6 | +0.7 |
| | 0.1nm,0.3s,baz=61,slow=14,SNR=6.6 | | | | | | |
| KURBB | | | | Sn | Sn | 07 20 34.0 | -1.1 |
| | 0.0nm,0.3s,baz=66,slow=24,SNR=2.6 | | | | | | |
| KURBB | | | | Lg | Lg | 07 21 07.3 | |
| | 0.0nm,0.3s,baz=62,slow=32,SNR=4.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **7.65** | **210** | Pn | Pn | 07 19 38.6 | +1.2 |
| | 0.2nm,0.3s,baz=27,slow=13,SNR=13 | | | | | | |
| MKAR | | | | Sn | Sn | 07 21 04.8 | 0.0 |
| | 0.0nm,0.3s,baz=28,slow=25,SNR=4.5 | | | | | | |
| MKAR | | | | Lg | Lg | 07 21 49.0 | |
| | 0.1nm,0.3s,baz=28,slow=30,SNR=3.6 | | | | | | |

**JMA 16 07:18:19.1**±0.1**, 28°.13N×129°.52E, h27**km±3km**, M3.6, Ryukyu Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JAM** | **Amami Oshima** | **0.29** | **15** | P | Pb | 07 18 25.8 | -0.4 |
| JAM | | | | S | Sb | 07 18 30.6 | -0.4 |
| **JAMN** | **Amaminishikomi** | **0.33** | **290** | P | Pb | 07 18 26.6 | 0.0 |
| JAMN | | | | S | Sb | 07 18 32.4 | +0.6 |
| **JZK** | **Kikaishima** | **0.44** | **65** | P | Pb | 07 18 28.2 | -0.2 |
| JZK | | | | eS | Sn | 07 18 36.1 | -0.6 |
| **JTK** | **Tokunoshima** | **0.61** | **236** | P | Pb | 07 18 30.6 | -0.6 |
| JTK | | | | S | Sb | 07 18 38.8 | -0.7 |
| **JTAJ** | **Takarajima** | **1.06** | **345** | P | Pn | 07 18 38.0 | -0.1 |
| JTAJ | | | | eS | Sb | 07 18 52.3 | +0.1 |
| **JOKE** | **Okinoerabujima** | **1.14** | **228** | P | Pn | 07 18 39.4 | +0.1 |
| JOKE | | | | eS | Sb | 07 18 54.7 | +0.2 |
| **JOW** | **Kunigami** | **1.70** | **221** | P | Pn | 07 18 47.2 | +0.2 |
| JOW | | | | S | Sn | 07 19 09.3 | +1.4 |
| **JNN** | **Nakanoshima** | **1.73** | **10** | P | Pn | 07 18 47.9 | +0.4 |
| JNN | | | | eS | Sb | 07 19 10.5 | -1.1 |
| **JIH** | **Iheya** | **1.76** | **232** | P | Pn | 07 18 48.5 | +0.7 |
| JIH | | | | eS | Sb | 07 19 12.1 | -0.2 |
| **JNTH** | **Nagotoyohara** | **2.09** | **220** | P | Pn | 07 18 52.6 | +0.3 |
| JNTH | | | | eS | Sn | 07 19 17.6 | +0.2 |
| **JYAK** | **Yakushimahirau** | **2.27** | **22** | P | Pn | 07 18 55.8 | +0.9 |
| JYAK | | | | eS | Sb | 07 19 24.7 | -2.4 |

**IDC 16 07:27:07.7**±999.0**, 57°.06N×33°.95E, h0**km**, Error ellipse: s-maj=817.7km s-min=56.8km az=99.0, Baltic States-Belarus-Northwestern Russia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **I43RU** | **DUBNA INFRASON** | **1.83** | **99** | i | | 07 39 10.0 | |
| | baz=282,slow=300,SNR=0.8 | | | | | | |
| **I31KZ** | **AKTYUBINSK INF** | **15.68** | **105** | i | | 09 01 30.0 | |
| | baz=306,slow=326,SNR=0.6 | | | | | | |
| **I46RU** | **ZALESOVO INFRA** | **28.43** | **74** | i | | 10 20 40.0 | |
| | baz=296,slow=339,SNR=0.7 | | | | | | |

*SJA **16** 07:28:06.3±0.3, 32°.93S×70°.28W, h109km±4km, ML2.4, MW3.0*
*ISCJB **16** 07:28:07.1±1.6, 32°.93S±0°.08×70°.28W±0°.08, h110km±13km, Error ellipse: s-maj=13.8km s-min=10.3km az=168.0*
*GUC **16** 07:28:07.2±0.6, 32°.86S×70°.21W, h103km±6km, ML2.7*
**ISC 16 07:28:07.6**±3.2**, 32°.94S**±0°.08×**70°.28W**±0°.08**, h105**km±24km**, n11,** σ**0s.35**/18**, Chile-Argentina border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FCH** | **Farellones** | **0.39** | **181** | eP | **Pn** | **07 28 23.5** | **-0.2** |
| FCH | | | | i S | **Sn** | **07 28 35.5** | **-0.2** |
| FCH | | | | IAML | | 07 28 36.0 | |
| | comp=N,521nm,0.2s | | | | | | |
| **PEL** | **Peldehue** | **0.40** | **239** | eP | **Pn** | **07 28 23.2** | **-0.2** |
| PEL | | | | i S | **Sn** | **07 28 35.0** | **-0.2** |
| PEL | | | | IAML | | 07 28 36.3 | |
| | comp=N,201nm,0.4s | | | | | | |
| **ROCH** | **El Roble** | **0.61** | **267** | eP | **Pn** | **07 28 25.0** | **-0.1** |
| ROCH | | | | i S | **Sn** | **07 28 38.5** | **+0.3** |
| ROCH | | | | IAML | | 07 28 38.8 | |
| | comp=N,592nm,0.4s | | | | | | |
| **ROC1** | **El Roble** | **0.62** | **266** | i P | **Pn** | **07 28 24.9** | **-0.3** |
| ROC1 | | | | i S | **Sn** | **07 28 38.8** | **+0.5** |
| **ANTU** | **Antumapu** | **0.70** | **205** | eP | **Pn** | **07 28 25.3** | **-0.3** |
| ANTU | | | | i S | **Sn** | **07 28 39.1** | **+0.1** |
| ANTU | | | | IAML | | 07 28 39.2 | |
| | comp=N,380nm,0.5s | | | | | | |
| **LMEL** | **Las Melosas** | **0.91** | **176** | eP | **Pn** | **07 28 27.5** | **-0.2** |
| LMEL | | | | i S | **Sn** | **07 28 43.7** | **+0.9** |
| **AUSP** | **Uspallata** | **1.04** | **47** | i P | **Pn** | **07 28 29.2** | **+0.1** |
| **ARCO** | **CERRO ARCO** | **1.14** | **86** | i P | **Pn** | **07 28 30.0** | **-0.1** |
| ARCO | | | | IAML | | 07 28 30.6 | |
| | comp=Z,48nm,0.3s | | | | | | |
| ARCO | | | | i S | **Sn** | **07 28 47.3** | **+0.1** |
| **AAGR** | **Agrelo** | **1.23** | **97** | i P | **Pn** | **07 28 30.9** | **-0.2** |
| **ASAL** | **Salagasta** | **1.27** | **75** | i P | **Pn** | **07 28 31.4** | **-0.1** |
| **RTCV** | **Cerro Valdivia** | **1.82** | **54** | i P | **Pn** | **07 28 37.9** | **-0.3** |

*ISCJB **16** 07:28:09.6±0.6, 20°.31N±0°.07×145°.2E±0°.2, h100km, mb3.7/15, Error ellipse: s-maj=21.6km s-min=9.3km az=169.4*
*IDC **16** 07:28:11.5±3.3, 20°.30N×145°.28E, h105km±28km, mb3.5/15, mb1 3.7/17, mb1mx3.6/50, mbtmp3.9/17, Error ellipse: s-maj=24.7km s-min=12.8km az=93.0*
**ISC 16 07:28:10.9**±0.8**, 20°.29N**±0°.10×**145°.3E**±0°.2**, h100**km**, n18,** σ**1s.04**/20**, mb3.7**/15**, Mariana Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JCJ** | **Chichijima** | **7.35** | **338** | P | **Pn** | **07 29 56.2** | **+0.7** |
| | baz=255,slow=20 | | | | | | |
| JCJ | | | | S | **Sn** | **07 31 15.3** | **-2.0** |
| | 9.6nm,0.3s,baz=297,slow=23,SNR=6.8 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **17.34** | **341** | P | **Pn** | **07 32 07.6** | **+1.0** |
| | 0.5nm,0.3s,baz=165,slow=10,SNR=3.4 | | | | | | |
| **KSRS** | **Korea Array** | **22.82** | **322** | P | **P** | **07 33 06.3** | **+1.0** |
| | 2.3nm,0.7s,baz=144,slow=9.2,SNR=4.9 | | | | | | |
| **KLR** | **Kul'dur** | **30.84** | **343** | P | **P** | **07 34 18.2** | **+0.9** |
| | 0.1nm,0.3s,baz=156,slow=12,SNR=8.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **41.39** | **196** | P | **P** | **07 35 47.9** | **+0.4** |
| | 1.0nm,0.6s,baz=19,slow=8.8,SNR=11 | | | | | | |
| **SONM** | **Songino Array** | **41.67** | **320** | P | **P** | **07 35 49.9** | **+0.2** |
| | 0.5nm,0.4s,baz=132,slow=6.8,SNR=8.6 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **42.74** | **208** | P | **P** | **07 35 58.7** | **+0.2** |
| | 2.9nm,0.5s,baz=32,slow=11,SNR=22 | | | | | | |
| **ASAR** | **Alice Springs** | **45.07** | **195** | P | **P** | **07 36 16.9** | **-0.2** |
| | 0.5nm,0.6s,baz=18,slow=6.8,SNR=5.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **56.53** | **322** | P | **P** | **07 37 41.1** | **-1.6** |
| | 1.3nm,0.7s,baz=110,slow=7.3,SNR=5.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **57.09** | **313** | P | **P** | **07 37 47.5** | **+0.7** |
| | 1.2nm,0.5s,baz=90,slow=8.3,SNR=25 | | | | | | |
| MKAR | | | | PcP | **PcP** | **07 38 40.4** | **-0.2** |
| | 0.5nm,0.5s,baz=70,slow=5.9,SNR=4.7 | | | | | | |
| **ILAR** | **Eielson Array** | **62.40** | **27** | P | **P** | **07 38 22.6** | **-0.3** |
| | 0.3nm,0.7s,baz=240,slow=5.9,SNR=4.7 | | | | | | |
| **INK** | **Inuvik** | **68.08** | **23** | P | **P** | **07 39 00.3** | **+1.0** |
| | 0.7nm,0.8s,baz=255,slow=9.2,SNR=3.0 | | | | | | |
| **YKA** | **Yellowknife Ar** | **76.78** | **28** | P | **P** | **07 39 51.8** | **+0.6** |
| | 0.4nm,0.5s,baz=291,slow=5.6,SNR=8.2 | | | | | | |
| **ARCES** | **ARCESS Array B** | **80.87** | **342** | P | **P** | **07 40 13.8** | **+0.3** |
| | 1.6nm,0.9s,baz=61,slow=7.6,SNR=3.3 | | | | | | |
| **FINES** | **FINESS Array B** | **85.29** | **335** | P | **P** | **07 40 35.3** | **-1.0** |
| | 1.3nm,0.3s,baz=71,slow=4.9,SNR=15 | | | | | | |
| **PDAR** | **Pinedale Array** | **86.99** | **45** | P | **P** | **07 40 45.5** | **+0.1** |
| | 0.1nm,0.4s,baz=14,slow=4.6,SNR=2.8 | | | | | | |
| **BRTR** | **Keskin Array B** | **92.73** | **314** | P | **P** | **07 41 11.4** | **-0.9** |
| | 0.4nm,0.6s,baz=16,slow=6.6,SNR=2.3 | | | | | | |
| **LPAZ** | **La Paz** | **148.06** | **88** | PKPbc | **PKPbc** | **07 47 44.4** | **-2.1** |
| | 0.5nm,0.5s,baz=270,slow=6.1,SNR=4.2 | | | | | | |

*ISCJB **16** 07:31:00.0±1.3, 32°.3S±0°.1×179°.9E±0°.2, h372km, mb3.7/6, Error ellipse: s-maj=25.1km s-min=14.1km az=8.5*
*IDC **16** 07:31:06.0±3.6, 32°.58S×179°.68E, h415km±35km, mb3.5/6, mb1 3.8/7, mb1mx3.4/33, mbtmp4.4/7, Error ellipse: s-maj=46.3km s-min=22.1km az=17.0*
**ISC 16 07:31:00.9**±1.1**, 32°.5S**±0°.1×**180°.0E**±0°.2**, h372**km**, n11,** σ**0s.63**/12**, mb3.7**/6**, South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **URZ** | **Urewera** | **6.23** | **201** | P | Pn | 07 32 39.9 | +5.0 |
| | 42nm,0.3s,baz=333,slow=2.0,SNR=155 | | | | | | |
| URZ | | | | S | **S** | **07 33 51.5** | **+0.2** |
| | 28nm,0.3s,baz=225,slow=23,SNR=22 | | | | | | |
| **STKA** | **Stephens Creek** | **32.37** | **261** | P | **P** | **07 36 57.9** | **+0.6** |
| | 1.5nm,0.6s,baz=104,slow=12,SNR=3.5 | | | | | | |
| **CTA** | **Charters Tower** | **32.51** | **284** | P | **P** | **07 36 59.1** | **+0.6** |
| | 6.3nm,0.5s,baz=105,slow=11,SNR=16 | | | | | | |
| **ASAR** | **Alice Springs** | **41.32** | **270** | P | **P** | **07 38 11.2** | **-0.8** |
| | 2.3nm,0.5s,baz=107,slow=7.6,SNR=37 | | | | | | |
| **WRA** | **Warramunga Arr** | **42.50** | **276** | P | **P** | **07 38 20.5** | **-0.9** |
| | 4.3nm,0.3s,baz=115,slow=7.6,SNR=79 | | | | | | |
| WRA | | | | PcP | **PcP** | **07 40 06.0** | **-0.4** |
| | 0.4nm,0.9s,baz=124,slow=2.7,SNR=2.6 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **50.67** | **273** | P | **P** | **07 39 23.4** | **-0.6** |
| | 1.6nm,0.5s,baz=131,slow=4.6,SNR=7.5 | | | | | | |
| **TXAR** | **Lajitas Array** | **94.96** | **58** | P | **P** | **07 43 42.0** | **-0.1** |
| | 0.3nm,0.5s,baz=132,slow=1.9,SNR=3.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **117.76** | **310** | PKP | **PKPdf** | **07 49 03.1** | **-0.1** |
| | 0.2nm,0.7s,baz=90,slow=2.9,SNR=3.3 | | | | | | |
| **FINES** | **FINESS Array B** | **146.44** | **338** | PKPbc | **PKPbc** | **07 49 58.9** | **+0.9** |
| | 2.3nm,0.6s,baz=40,slow=4.8,SNR=15 | | | | | | |
| **BRTR** | **Keskin Array B** | **151.97** | **295** | PKPbc | **PKPbc** | **07 50 12.6** | **+0.1** |
| | 0.4nm,0.5s,baz=116,slow=3.4,SNR=3.4 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **160.70** | **185** | PKPab | **PKPab** | **07 51 01.0** | **-0.3** |
| | 0.3nm,0.5s,baz=180,slow=5.8,SNR=3.9 | | | | | | |

**IDC 16 08:00:46.3**±3.1**, 52°.15N×35°.64E, h0**km**, mb3.2**/1**, mb1 3.8**/3**, mb1mx3.2**/35**, mbtmp3.6**/3**, ML3.2**/2**, MS2.7**/1**, Ms1 2.7**/1**, ms1mx2.2**/36**, Error ellipse: s-maj=46.8km s-min=14.2km az=132.0, Baltic States-Belarus-Northwestern Russia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OBN** | **Obninsk** | **3.02** | **10** | Sn | Sn | 08 02 11.6 | -0.6 |
| | 4.3nm,0.3s,baz=15,slow=20,SNR=4.7 | | | | | | |
| **AKASG** | **Malin Array Be** | **4.27** | **253** | Pn | Pn | 08 01 50.9 | -1.6 |
| | 0.6nm,0.3s,baz=67,slow=11,SNR=4.0 | | | | | | |
| AKASG | | | | Pg | Pb | 08 02 02.3 | +0.1 |
| | 1.0nm,0.3s,baz=60,slow=16,SNR=5.6 | | | | | | |
| AKASG | | | | Sn | Sn | 08 02 39.4 | -3.6 |
| | 1.9nm,0.3s,baz=61,slow=21,SNR=4.7 | | | | | | |
| AKASG | | | | Lg | Lg | 08 02 57.1 | |
| | 1.8nm,0.3s,baz=68,slow=30,SNR=4.3 | | | | | | |
| **FINES** | **FINESS Array B** | **10.68** | **334** | Pn | Pn | 08 03 16.0 | -4.3 |
| | baz=153,slow=12,SNR=2.7 | | | | | | |
| **I31KZ** | **AKTYUBINSK INF** | **14.12** | **88** | i | | 09 24 40.0 | |
| | baz=287,slow=317,SNR=2.3 | | | | | | |
| **ARCES** | **ARCESS Array B** | **18.08** | **349** | P | Pn | 08 04 57.8 | -0.9 |
| | 0.1nm,0.3s,baz=163,slow=9.4,SNR=5.5 | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **EIL** | **Elat** | **22.46** | **182** | LR | LR | 08 16 51.0 | | |
| | comp=Z,18nm,18.1s,baz=24,slow=43 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **63.31** | **345** | P | P | 08 11 16.0 | -0.4 | |
| | 0.2nm,0.6s,baz=13,slow=6.7,SNR=4.1 | | | | | | | |

**IDC 16 08:01:09.2±2.3, 1°10S×127°47E, h0km, mb3.3/2, mb1 3.4/3, mb1mx3.2/39, mbtmp3.2/3, ML3.0/1, Error ellipse: s-maj=198.3km s-min=27.2km az=67.0, Halmahera**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **19.90** | **161** | P | Pn | 08 05 43.4 | -0.7 |
| | 0.0nm,0.3s,baz=340,slow=12,SNR=3.3 | | | | | | |
| **ASAR** | **Alice Springs** | **23.29** | **165** | P | P | 08 06 18.2 | -0.7 |
| | 0.7nm,0.8s,baz=335,slow=9.8,SNR=6.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **61.94** | **326** | P | P | 08 11 30.9 | 0.0 |
| | 0.2nm,0.4s,baz=120,slow=8.3,SNR=4.5 | | | | | | |

*SJA **16** 08:08:15.9±0.6, 29.°86S×71.°44W, h6km±7km, ML3.2, MW3.6*

*ISCJB **16** 08:08:17.5±1.2, 29.°81S±0.°04×71.°50W±0.°10, h10km, Error ellipse: s-maj=12.7km s-min=5.5km az=16.0*

*GUC **16** 08:08:20.5±0.6, 29.°81S×70.°66W, h54km±7km, ML3.4*

**ISC 16 08:08:17.8±1.7, 29.°77S±0.°05×71.°5W±0.°1, h10km, n13, σ0°73/19, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TLL** | **Tololo Astrono** | **0.73** | **123** | *e*P | **Pg** | **08 08 32.3** | **+0.4** |
| TLL | | | | *i* S | **Sg** | **08 08 40.7** | **-0.7** |
| TLL | | | | IAML | | 08 08 41.8 | |
| | comp=N,3μm,0.5s | | | | | | |
| **LCO** | **Las Campanas** | **1.03** | **43** | *i* P | **Pg** | **08 08 37.2** | **-0.4** |
| LCO | | | | *i* S | **Sb** | **08 08 52.1** | **+0.5** |
| **LCO** | **Las Campanas** | **1.03** | **43** | *e*P | **Pg** | **08 08 37.7** | **0.0** |
| LCO | | | | *i* S | **Sg** | **08 08 49.8** | **-1.3** |
| LCO | | | | IAML | | 08 08 50.7 | |
| | comp=E,1μm,0.3s | | | | | | |
| **AGUA** | **GUANDACOL** | **2.64** | **85** | *i* P | **Pn** | **08 09 00.9** | **+0.4** |
| **AMOG** | **MOGNA** | **2.85** | **115** | *i* P | **Pn** | **08 09 03.2** | **-0.3** |
| **AUSP** | **Uspallata** | **3.05** | **144** | *i* P | **Pn** | **08 09 06.6** | **+0.2** |
| **VCA** | **Vinchina** | **3.06** | **71** | *i* P | **Pn** | **08 09 07.6** | **+1.2** |
| **ROCH** | **El Roble** | **3.22** | **173** | *e*P | **Pn** | **08 09 08.7** | **0.0** |
| ROCH | | | | *i* S | **Sn** | **08 09 48.5** | **+1.2** |
| ROCH | | | | IAML | | 08 10 00.3 | |
| | comp=N,161nm,0.6s | | | | | | |
| **ROC1** | **El Roble** | **3.23** | **173** | *i* P | **Pn** | **08 09 08.6** | **-0.1** |
| **RTCV** | **Cerro Valdivia** | **3.30** | **130** | *i* P | **Pn** | **08 09 09.2** | **-0.4** |
| **PEL** | **Peldehue** | **3.44** | **168** | *e*P | **Pn** | **08 09 11.9** | **+0.5** |
| PEL | | | | *i* S | **Sn** | **08 09 50.9** | **-1.4** |
| PEL | | | | IAML | | 08 10 04.9 | |
| | comp=E,116nm,0.5s | | | | | | |
| **ASAL** | **Salagasta** | **3.63** | **142** | *i* P | **Pn** | **08 09 14.2** | **+0.1** |
| **ARCO** | **CERRO ARCO** | **3.77** | **145** | *i* P | **Pn** | **08 09 15.9** | **-0.3** |
| ARCO | | | | *i* S | **Sn** | **08 10 01.3** | **+0.5** |
| ARCO | | | | IAML | | 08 10 09.4 | |
| | comp=Z,39nm,0.6s | | | | | | |

*ATH **16** 08:11:31.9, 38.°85N×27.°93E, h12km±2km, ML3.1/4, Error ellipse: s-maj=3.7km s-min=1.7km az=193.0*

*IASPEI **16** 08:11:33.7±0.8, 38.°82N±0.°02×27.°84E±0.°02, h8km±5km, Error ellipse: s-maj=2.8km s-min=2.6km az=119.3, GT5 selection from ISC bulletin GT5 identified by Bond¨jr and McLaughlin (2009) selection criteria Bond¨jr and McLaughlin, A new ground truth data set for seismic studies, Seism. Res. Let., 80, 465-472, 2009*

*ISK **16** 08:11:33.8, 38.°79N×27.°85E, h5km, ML3.3*

*DDA **16** 08:11:33.5, 38.°83N×27.°84E, h26km, Ml3.6*

*CSEM **16** 08:11:34.1±0.1, 38.°79N×27.°84E, h2km, ML3.6, Error ellipse: s-maj=1.7km s-min=1.6km az=84.0*

**ISC 16 08:11:33.8±0.8, 38.°83N±0.°01×27.°85E±0.°01, h8km±5km, n163, σ0°92/205, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **AKHS** | **Akhisar** | **0.05** | **333** | *i* P | **Pg** | **08 11 35.6** | **+0.2** |
| AKHS | | | | *i* S | **Sg** | **08 11 36.9** | **+0.1** |
| **AKHS** | **Akhisar** | **0.05** | **333** | P | **Pg** | **08 11 35.7** | **+0.2** |
| AKHS | | | | S | **Sg** | **08 11 36.9** | **+0.1** |
| **AKS** | **Akhisar** | **0.05** | **332** | *e*PG | **Pg** | **08 11 35.4** | **-0.1** |
| **AKS** | **Akhisar** | **0.05** | **332** | *e*Pg | **Pg** | **08 11 35.4** | **-0.1** |
| **STEP** | **BALIKESIR_Sava** | **0.55** | **350** | *i* P | **Pg** | **08 11 44.4** | **-0.1** |
| STEP | | | | *i* S | **Sb** | **08 11 53.7** | **-0.2** |
| **STEP** | **BALIKESIR_Sava** | **0.55** | **350** | P | **Pg** | **08 11 44.4** | **-0.1** |
| STEP | | | | S | **Sb** | **08 11 53.7** | **-0.2** |
| **MANT** | **Manisa** | **0.65** | **121** | *i* P | **Pg** | **08 11 46.5** | **+0.1** |
| MANT | | | | *i* S | **Sg** | **08 11 55.5** | **+0.5** |
| **MANT** | **Manisa** | **0.65** | **121** | P | **Pg** | **08 11 46.5** | **+0.1** |
| MANT | | | | S | **Sg** | **08 11 55.5** | **+0.5** |
| **DEMI** | **Demirci** | **0.71** | **73** | *i* P | **Pb** | **08 11 47.9** | **-0.6** |
| DEMI | | | | *i* S | **Sg** | **08 11 57.2** | **+0.4** |
| **DEMI** | **Demirci** | **0.71** | **73** | P | **Pb** | **08 11 47.9** | **-0.6** |
| DEMI | | | | S | **Sg** | **08 11 57.2** | **+0.4** |
| **KULA** | **Kula-Manisa** | **0.71** | **116** | *e*PG | **Pg** | **08 11 47.6** | **+0.1** |
| **KULA** | **Kula-Manisa** | **0.71** | **116** | *e*Pg | **Pg** | **08 11 47.6** | **+0.1** |
| **DKL** | **Dikili** | **0.77** | **288** | *e*PG | **Pb** | **08 11 49.3** | **-0.2** |
| **DKL** | **Dikili** | **0.77** | **288** | *e*Pg | **Pb** | **08 11 49.3** | **-0.2** |
| **BALB** | **Balikesir** | **0.81** | **2** | *e*PG | **Pn** | **08 11 50.8** | **-0.7** |
| BALB | | | | *e*SG | **Sn** | **08 12 02.8** | **-1.0** |
| **BALB** | **Balikesir** | **0.81** | **2** | *e*Pg | **Pn** | **08 11 50.8** | **-0.7** |
| BALB | | | | *e*Sg | **Sn** | **08 12 02.8** | **-1.0** |
| **CAND** | **Candarli** | **0.82** | **279** | *e*PG | **Pb** | **08 11 50.3** | **0.0** |
| **SIMA** | **Simav-Kutahya** | **0.92** | **74** | *e*PG | **Pb** | **08 11 51.9** | **-0.2** |
| **SIMA** | **Simav-Kutahya** | **0.92** | **74** | *e*Pg | **Pb** | **08 11 51.9** | **-0.2** |
| **BALY** | **Balya** | **0.92** | **349** | *i* P | **Pg** | **08 11 51.5** | **0.0** |
| BALY | | | | *i* S | **Sb** | **08 12 05.1** | **+0.5** |
| **BALY** | **Balya** | **0.92** | **349** | P | **Pg** | **08 11 51.5** | **0.0** |
| BALY | | | | S | **Sb** | **08 12 05.1** | **+0.5** |
| **DST** | **Dursunbey** | **0.98** | **38** | *e*PG | **Pn** | **08 11 53.6** | **-0.3** |
| DST | | | | *e*SG | **Sn** | **08 12 08.3** | **+0.3** |
| **DST** | **Dursunbey** | **0.98** | **38** | *e*Pg | **Pn** | **08 11 53.6** | **-0.3** |
| DST | | | | *e*Sg | **Sn** | **08 12 08.3** | **+0.3** |
| **KRBN** | **Karaburun** | **1.04** | **257** | *e*PG | **Pb** | **08 11 54.1** | **+0.1** |
| **KRBN** | **Karaburun** | **1.04** | **257** | *e*Pg | **Pb** | **08 11 54.1** | **+0.1** |
| **GMLD** | **Gumuldur** | **1.05** | **224** | *e*PG | **Pg** | **08 11 53.9** | **0.0** |
| **GMLD** | **Gumuldur** | **1.05** | **224** | *e*Pg | **Pg** | **08 11 53.9** | **0.0** |
| **KUSD** | **Kusadasi-Aydin** | **1.06** | **205** | *e*PG | **Pg** | **08 11 54.0** | **-0.2** |
| **KUSD** | **Kusadasi-Aydin** | **1.06** | **205** | *e*Pg | **Pg** | **08 11 54.0** | **-0.2** |
| **DGB** | **˙zmir** | **1.08** | **224** | *i* P | **Pg** | **08 11 54.2** | **-0.4** |
| DGB | | | | *i* S | **Sb** | **08 12 08.9** | **-0.2** |
| **URLA** | **Izmir** | **1.09** | **245** | *e*PG | **Pb** | **08 11 54.7** | **-0.2** |
| **URLA** | **Izmir** | **1.09** | **245** | *i* P | **Pg** | **08 11 54.4** | **-0.2** |
| URLA | | | | *i* S | **Sb** | **08 12 09.2** | **0.0** |
| **URLA** | **Izmir** | **1.09** | **245** | P | **Pg** | **08 11 54.4** | **-0.2** |
| **URLA** | **Izmir** | **1.09** | **245** | *e*Pg | **Pg** | **08 11 54.7** | **-0.2** |
| URLA | | | | S | **Sb** | **08 12 09.2** | **0.0** |
| **AYDN** | **Tasoluk** | **1.17** | **179** | *i* P | **Pg** | **08 11 55.8** | **-0.4** |
| AYDN | | | | *i* S | **Sg** | **08 12 11.2** | **-0.2** |
| **AYDN** | **Tasoluk** | **1.17** | **179** | P | **Pg** | **08 11 55.8** | **-0.4** |
| AYDN | | | | S | **Sg** | **08 12 11.2** | **-0.2** |
| **ZEY** | **˙zmir** | **1.21** | **241** | *i* P | **Pb** | **08 11 56.5** | **-0.4** |
| ZEY | | | | *i* S | **Sn** | **08 12 13.2** | **-0.4** |
| **GCAM** | **G?zelcaml?** | **1.23** | **203** | *e*PN | **Pn** | **08 11 56.9** | **-0.4** |
| **GCAM** | **G?zelcaml?** | **1.23** | **203** | *i* P | **Pn** | **08 11 56.3** | **-1.0** |
| GCAM | | | | *i* S | **Sb** | **08 12 12.7** | **-0.6** |
| **GCAM** | **G?zelcaml?** | **1.23** | **203** | P | **Pn** | **08 11 56.3** | **-1.0** |
| **GCAM** | **G?zelcaml?** | **1.23** | **203** | *e*Pn | **Pn** | **08 11 56.9** | **-0.4** |
| GCAM | | | | S | **Sb** | **08 12 12.7** | **-0.6** |
| **PRK** | **Paraskevi** | **1.29** | **289** | P | **Pn** | **08 11 58.0** | **-0.2** |
| PRK | | | | S | **Sn** | **08 12 13.2** | **+0.4** |
| PRK | | | | AML | AML | 08 12 20.1 | |
| | comp=N,983μm,0.4s | | | | | | |
| PRK | | | | AML | AML | 08 12 22.4 | |
| | comp=E,1286μm,0.7s | | | | | | |
| **PRK** | **Paraskevi** | **1.29** | **289** | P | **Pn** | **08 11 58.0** | **-0.2** |
| PRK | | | | S | **Sn** | **08 12 16.8** | **+1.1** |
| **GDZ** | **Gediz** | **1.30** | **78** | *i* P | **Pn** | **08 11 58.3** | **-0.1** |
| GDZ | | | | *i* S | **Sn** | **08 12 16.1** | **0.0** |
| **GDZ** | **Gediz** | **1.30** | **78** | P | **Pn** | **08 11 58.3** | **-0.1** |
| GDZ | | | | S | **Sn** | **08 12 16.1** | **0.0** |
| **BAYC** | **CANAKKALE_Bayr** | **1.36** | **312** | *i* P | **Pg** | **08 11 59.7** | **-0.1** |
| BAYC | | | | *i* S | **Sg** | **08 12 17.9** | **+0.5** |
| **BAYC** | **CANAKKALE_Bayr** | **1.36** | **312** | P | **Pg** | **08 11 59.7** | **-0.1** |
| BAYC | | | | S | **Sg** | **08 12 17.9** | **+0.5** |
| **KHAL** | **Karahalli** | **1.37** | **109** | *i* P | **Pn** | **08 11 59.2** | **-0.1** |
| KHAL | | | | *i* S | **Sg** | **08 12 19.1** | **+1.3** |
| **KHAL** | **Karahalli** | **1.37** | **109** | P | **Pn** | **08 11 59.2** | **-0.1** |
| KHAL | | | | S | **Sg** | **08 12 19.1** | **+1.3** |
| **SMG** | **Samos** | **1.37** | **216** | P | **Pn** | **08 11 59.3** | **0.0** |
| SMG | | | | S | **Sg** | **08 12 18.9** | **+1.0** |
| SMG | | | | AML | AML | 08 12 22.9 | |
| | comp=E,1753μm,0.3s | | | | | | |
| SMG | | | | AML | AML | 08 12 22.9 | |
| | comp=N,1541μm,0.3s | | | | | | |
| **SMG** | **Samos** | **1.37** | **216** | P | **Pn** | **08 11 59.3** | **0.0** |
| SMG | | | | S | **Sg** | **08 12 18.9** | **+1.0** |
| **TVSB** | **Tavsanli** | **1.40** | **63** | *e*PN | **Pg** | **08 12 00.7** | **0.0** |
| **TVSB** | **Tavsanli** | **1.40** | **63** | *e*Pn | **Pg** | **08 12 00.7** | **0.0** |
| **KHL** | **Karahalli** | **1.41** | **111** | *e*PN | **Pg** | **08 12 00.6** | **-0.2** |
| **KHL** | **Karahalli** | **1.41** | **111** | *e*Pn | **Pg** | **08 12 00.6** | **-0.2** |
| **DENT** | **Denizli** | **1.43** | **139** | *e*PN | **Pb** | **08 12 00.6** | **-0.1** |
| **DENT** | **Denizli** | **1.43** | **139** | *e*Pn | **Pb** | **08 12 00.6** | **-0.1** |
| **ORLT** | **Orhaneli** | **1.46** | **34** | *e*PN | **Pg** | **08 12 01.9** | **+0.2** |
| **ORLT** | **Orhaneli** | **1.46** | **34** | *e*Pn | **Pg** | **08 12 02.0** | **+0.2** |
| **CHOS** | **Chios island** | **1.47** | **253** | P | **Pn** | **08 12 00.1** | **-0.6** |
| CHOS | | | | S | **Sg** | **08 12 21.5** | **+0.4** |
| CHOS | | | | AML | AML | 08 12 23.0 | |
| | comp=N,800μm,0.4s | | | | | | |
| CHOS | | | | AML | AML | 08 12 24.2 | |
| | comp=E,1286μm,0.3s | | | | | | |
| **CHOS** | **Chios island** | **1.47** | **253** | P | **Pn** | **08 12 00.1** | **-0.6** |
| CHOS | | | | S | **Sg** | **08 12 21.5** | **+0.4** |
| **DNZL** | **Cakiroluk** | **1.48** | **140** | *i* P | **Pn** | **08 12 00.6** | **-0.4** |
| DNZL | | | | *i* S | **Sg** | **08 12 21.5** | **+0.1** |
| **DNZL** | **Cakiroluk** | **1.48** | **140** | P | **Pn** | **08 12 00.6** | **-0.4** |
| DNZL | | | | S | **Sg** | **08 12 21.5** | **+0.1** |
| **KCTX** | **Karacabey (Bur** | **1.49** | **15** | *e*PN | **Pb** | **08 12 01.6** | **-0.1** |
| **KCTX** | **Karacabey (Bur** | **1.49** | **15** | *e*Pn | **Pb** | **08 12 01.6** | **-0.1** |
| **EZN** | **Ezine** | **1.54** | **311** | *e*PN | **Pg** | **08 12 03.1** | **-0.2** |
| **EZN** | **Ezine** | **1.54** | **311** | *e*Pn | **Pg** | **08 12 03.2** | **-0.2** |
| **SIGR** | **SIGRI** | **1.59** | **284** | *e*PN | **Pb** | **08 12 03.7** | **+0.2** |
| **SIGR** | **SIGRI** | **1.59** | **284** | P | **Pb** | **08 12 03.0** | **-0.5** |
| SIGR | | | | S | **Sg** | **08 12 25.8** | **+0.8** |
| SIGR | | | | AML | AML | 08 12 27.5 | |
| | comp=N,610μm,0.6s | | | | | | |
| SIGR | | | | AML | AML | 08 12 29.4 | |
| | comp=E,656μm,0.6s | | | | | | |
| **SIGR** | **SIGRI** | **1.59** | **284** | P | **Pb** | **08 12 03.0** | **-0.5** |
| **SIGR** | **SIGRI** | **1.59** | **284** | *e*Pn | **Pb** | **08 12 03.7** | **+0.2** |
| SIGR | | | | S | **Sg** | **08 12 25.8** | **+0.8** |
| **TAVA** | **DENIZLI_Tavas** | **1.60** | **148** | *i* P | **Pn** | **08 12 02.4** | **-0.2** |
| TAVA | | | | *i* S | **Sb** | **08 12 24.4** | **+0.2** |
| **TAVA** | **DENIZLI_Tavas** | **1.60** | **148** | P | **Pn** | **08 12 02.3** | **-0.2** |
| TAVA | | | | S | **Sb** | **08 12 24.4** | **+0.2** |
| **KRBG** | **Karabiga-Canak** | **1.62** | **345** | *e*PN | **Pg** | **08 12 04.5** | **-0.3** |
| **KRBG** | **Karabiga-Canak** | **1.62** | **345** | *e*Pn | **Pg** | **08 12 04.5** | **-0.3** |
| **BOZC** | **Bozcaada** | **1.72** | **307** | *e*PN | **Pb** | **08 12 05.8** | **+0.2** |
| **BOZC** | **Bozcaada** | **1.72** | **307** | *i* P | **Pn** | **08 12 04.6** | **+0.6** |
| **BOZC** | **Bozcaada** | **1.72** | **307** | *e*Pn | **Pb** | **08 12 05.8** | **+0.2** |
| **MDNY** | **Mudanya-Bursa** | **1.73** | **27** | *e*PN | **Pb** | **08 12 06.0** | **+0.2** |
| **MDNY** | **Mudanya-Bursa** | **1.73** | **27** | *e*Pn | **Pb** | **08 12 06.1** | **+0.2** |
| **LPK** | **Lapseki** | **1.75** | **332** | *e*PN | **Pb** | **08 12 05.5** | **-0.6** |
| **LPK** | **Lapseki** | **1.75** | **332** | *e*Pn | **Pb** | **08 12 05.6** | **-0.6** |
| **IGD** | **Bursa** | **1.77** | **36** | *i* P | **Pb** | **08 12 05.5** | **-1.1** |
| **BDRM** | **Kayabasi** | **1.79** | **190** | *i* P | **Pn** | **08 12 04.3** | **-0.8** |
| **BDRM** | **Kayabasi** | **1.79** | **190** | P | **Pn** | **08 12 04.3** | **-0.8** |
| **BODT** | **Bodrum** | **1.82** | **194** | *e*PN | **Pn** | **08 12 06.1** | **+0.7** |
| **BODT** | **Bodrum** | **1.82** | **194** | *e*Pn | **Pn** | **08 12 06.1** | **+0.7** |
| **GELI** | **Tayfur-Gelibol** | **1.89** | **326** | *e*PN | **Pb** | **08 12 08.3** | **-0.2** |
| **GELI** | **Tayfur-Gelibol** | **1.89** | **326** | *e*Pn | **Pb** | **08 12 08.3** | **-0.2** |
| **KZIL** | **AFYON_Kizioren** | **1.89** | **107** | *i* P | **Pn** | **08 12 07.2** | **+0.7** |
| **KZIL** | **AFYON_Kizioren** | **1.89** | **107** | P | **Pn** | **08 12 07.2** | **+0.7** |
| **ARMT** | **Armutlu** | **1.90** | **24** | *e*PN | **Pb** | **08 12 08.2** | **-0.5** |
| **ARMT** | **Armutlu** | **1.90** | **24** | *e*Pn | **Pb** | **08 12 08.3** | **-0.5** |
| **GEMT** | **Gemlik** | **1.91** | **33** | *e*PN | **Pb** | **08 12 08.6** | **-0.3** |
| **GEMT** | **Gemlik** | **1.91** | **33** | *e*Pn | **Pb** | **08 12 08.6** | **-0.3** |
| **RKY** | **Sarkoy-Tekirda** | **1.92** | **345** | *e*PN | **Pb** | **08 12 08.8** | **-0.4** |
| **RKY** | **Sarkoy-Tekirda** | **1.92** | **345** | *e*Pn | **Pb** | **08 12 08.8** | **-0.4** |
| **SART** | **Tekirdag** | **1.92** | **345** | *i* P | **Pn** | **08 12 07.0** | **0.0** |
| SART | | | | *i* S | **Sb** | **08 12 32.8** | **-0.6** |
| **SART** | **Tekirdag** | **1.92** | **345** | P | **Pn** | **08 12 07.0** | **0.0** |
| SART | | | | S | **Sb** | **08 12 32.8** | **-0.6** |
| **SBT5** | **Esenkoy-Cinarc** | **1.97** | **24** | *e*PN | **Pb** | **08 12 09.2** | **-0.6** |
| **SBT5** | **Esenkoy-Cinarc** | **1.97** | **24** | *e*Pn | **Pb** | **08 12 09.2** | **-0.6** |
| **GADA** | **Gvkgeada** | **2.03** | **313** | *e*PN | **Pb** | **08 12 10.3** | **-0.6** |
| **GADA** | **Gvkgeada** | **2.03** | **313** | *e*Pn | **Pb** | **08 12 10.3** | **-0.6** |
| **TURN** | **Turunc** | **2.05** | **163** | *e*PN | **Pb** | **08 12 09.8** | **-1.4** |
| **TURN** | **Turunc** | **2.05** | **163** | *e*Pn | **Pb** | **08 12 09.8** | **-1.4** |
| **SBT3** | **Marmara-Eregli** | **2.05** | **3** | *e*PN | **Pb** | **08 12 10.7** | **-0.5** |
| **SBT3** | **Marmara-Eregli** | **2.05** | **3** | *e*Pn | **Pb** | **08 12 10.7** | **-0.5** |
| **CAVI** | **Cavuskoy** | **2.06** | **48** | *e*PN | **Pb** | **08 12 10.5** | **-1.0** |
| **CAVI** | **Cavuskoy** | **2.06** | **48** | *e*Pn | **Pb** | **08 12 10.5** | **-1.0** |
| **GOLH** | **Golhisar** | **2.09** | **139** | *i* P | **Pn** | **08 12 09.4** | **+0.1** |
| **GOLH** | **Golhisar** | **2.09** | **139** | P | **Pn** | **08 12 09.4** | **+0.1** |
| **ERIK** | **Erikli-Kesan** | **2.10** | **331** | *e*PN | **Pb** | **08 12 11.4** | **-0.8** |
| **ERIK** | **Erikli-Kesan** | **2.10** | **331** | *e*Pn | **Pb** | **08 12 11.4** | **-0.8** |
| **SBT2** | **Guzelce-Avcila** | **2.11** | **14** | *e*PN | **Pb** | **08 12 11.4** | **-0.8** |
| **SBT2** | **Guzelce-Avcila** | **2.11** | **14** | *e*Pn | **Pb** | **08 12 11.4** | **-0.8** |
| **DALY** | **Dalyan (Mu˙la** | **2.11** | **162** | *e*PN | **Pn** | **08 12 10.2** | **+0.8** |
| **DALY** | **Dalyan (Mu˙la** | **2.11** | **162** | *e*Pn | **Pn** | **08 12 10.2** | **+0.8** |
| **GLHS** | **Glhisar (BURDU** | **2.12** | **142** | *e*PN | **Pn** | **08 12 10.6** | **+0.9** |
| **GLHS** | **Glhisar (BURDU** | **2.12** | **142** | *e*Pn | **Pn** | **08 12 10.6** | **+0.9** |
| **SHUT** | **Suhut-Afyon** | **2.14** | **97** | *e*PN | **Pn** | **08 12 11.1** | **+1.2** |
| **SHUT** | **Suhut-Afyon** | **2.14** | **97** | *e*Pn | **Pn** | **08 12 11.1** | **+1.2** |
| **ADVT** | **Abdulvahap** | **2.17** | **42** | *e*PN | **Pb** | **08 12 12.0** | **-1.3** |
| **ADVT** | **Abdulvahap** | **2.17** | **42** | *e*Pn | **Pb** | **08 12 12.0** | **-1.3** |
| **KESN** | **Edirne-Kesan** | **2.18** | **336** | *i* P | **Pn** | **08 12 10.6** | **-0.2** |
| **KESN** | **Edirne-Kesan** | **2.18** | **336** | P | **Pn** | **08 12 10.6** | **-0.2** |
| **BUY** | **Buyukada** | **2.24** | **26** | *e*PN | **Pb** | **08 12 13.2** | **-1.4** |
| **BUY** | **Buyukada** | **2.24** | **26** | *e*Pn | **Pb** | **08 12 13.2** | **-1.4** |
| **ENEZ** | **Enez** | **2.31** | **326** | *e*PN | **Pb** | **08 12 14.1** | **-1.5** |
| **ENEZ** | **Enez** | **2.31** | **326** | *e*Pn | **Pb** | **08 12 14.1** | **-1.5** |
| **LIA** | **Limnos Island** | **2.32** | **298** | P | **Pn** | **08 12 12.4** | **+0.1** |
| **LIA** | **Limnos Island** | **2.32** | **298** | P | **Pn** | **08 12 12.4** | **+0.1** |
| **FETY** | **Fethiye** | **2.40** | **155** | *e*PN | **Pn** | **08 12 14.4** | **+1.0** |
| **FETY** | **Fethiye** | **2.40** | **155** | P | **Pn** | **08 12 14.3** | **+0.8** |
| **KAVV** | **Kandilli-Istan** | **2.42** | **22** | *e*PN | **Pb** | **08 12 15.6** | **-1.9** |
| **KAVV** | **Kandilli-Istan** | **2.42** | **22** | *e*Pn | **Pb** | **08 12 15.6** | **-1.9** |
| **ISK** | **Istanbul-Kandi** | **2.42** | **22** | *e*PN | **Pb** | **08 12 15.7** | **-1.9** |
| **ISK** | **Istanbul-Kandi** | **2.42** | **22** | *e*Pn | **Pb** | **08 12 15.7** | **-1.9** |
| **SMTH** | **Samothraki Isl** | **2.42** | **313** | P | **Pn** | **08 12 13.8** | **0.0** |
| **SMTH** | **Samothraki Isl** | **2.42** | **313** | P | **Pn** | **08 12 13.8** | **0.0** |
| **HRT** | **Hereke** | **2.43** | **35** | *e*PN | **Pn** | **08 12 15.5** | **+1.6** |
| **HRT** | **Hereke** | **2.43** | **35** | *e*Pn | **Pn** | **08 12 15.5** | **+1.6** |
| **ALN** | **Alexandroupoli** | **2.48** | **327** | *e*PN | **Pb** | **08 12 16.6** | **-2.1** |
| **ALN** | **Alexandroupoli** | **2.48** | **327** | *e*Pn | **Pb** | **08 12 16.6** | **-2.1** |
| **APE** | **Apeiranthos** | **2.54** | **227** | *e*PN | **Pn** | **08 12 16.7** | **+1.3** |
| **APE** | **Apeiranthos** | **2.54** | **227** | *e*Pn | **Pn** | **08 12 16.7** | **+1.3** |
| **KLYT** | **Kilyos** | **2.59** | **20** | *e*PN | **Pb** | **08 12 18.2** | **-2.2** |
| **KLYT** | **Kilyos** | **2.59** | **20** | *e*Pn | **Pb** | **08 12 18.2** | **-2.2** |
| **GULT** | **Gulveren** | **2.61** | **51** | *e*PN | **Pn** | **08 12 18.3** | **+1.9** |
| **GULT** | **Gulveren** | **2.61** | **51** | *e*Pn | **Pn** | **08 12 18.3** | **+1.9** |
| **SPNC** | **Sapanca-Adapaz** | **2.65** | **45** | *e*PN | **Pb** | **08 12 19.0** | **-2.5** |
| **SPNC** | **Sapanca-Adapaz** | **2.65** | **45** | *e*Pn | **Pb** | **08 12 19.0** | **-2.5** |
| **CTYL** | **Yalikoy Yolu** | **2.66** | **7** | *e*PN | **Pb** | **08 12 19.3** | **-2.4** |
| **CTYL** | **Yalikoy Yolu** | **2.66** | **7** | *e*Pn | **Pb** | **08 12 19.3** | **-2.4** |
| **KORT** | **Korkueli** | **2.70** | **132** | *e*PN | **Pn** | **08 12 18.6** | **+1.0** |
| **KORT** | **Korkueli** | **2.70** | **132** | *e*Pn | **Pn** | **08 12 18.6** | **+1.0** |
| **SILT** | **Sile** | **2.70** | **30** | *e*PN | **Pb** | **08 12 19.7** | **-2.6** |
| **SILT** | **Sile** | **2.70** | **30** | *e*Pn | **Pb** | **08 12 19.7** | **-2.6** |
| **SVRH** | **Sivrihisar-ESK** | **2.93** | **77** | *e*PN | **Pn** | **08 12 22.7** | **+2.0** |
| **SVRH** | **Sivrihisar-ESK** | **2.93** | **77** | *e*Pn | **Pn** | **08 12 22.7** | **+2.0** |
| **EDRB** | **Edirne** | **3.13** | **345** | *e*PN | **Pn** | **08 12 25.9** | **+2.5** |
| **EDRB** | **Edirne** | **3.13** | **345** | *e*Pn | **Pn** | **08 12 25.9** | **+2.5** |
| **KIZT** | **Kizilcal** | **3.15** | **88** | *e*PN | **Pn** | **08 12 24.7** | **+0.8** |
| **KIZT** | **Kizilcal** | **3.15** | **88** | *e*Pn | **Pn** | **08 12 24.7** | **+0.8** |
| KSP | | | | *e*Sg | **Sg** | **08 13 49.1** | **+0.6** |
| **UPC** | **Upice** | **0.97** | **185** | *e*PG | **Pb** | **08 13 47.3** | **-0.4** |
| UPC | | | | *e*SG | **Sg** | **08 13 59.5** | **+0.4** |
| | comp=Z,81nm,0.4s | | | | | | |
| **UPC** | **Upice** | **0.97** | **185** | Pg | **Pb** | **08 13 47.3** | **-0.4** |
| UPC | | | | Sg | **Sg** | **08 13 59.5** | **+0.4** |
| | 81nm,0.4s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.13** | **174** | *e*PG | **Pg** | **08 13 49.4** | **-0.2** |
| DPC | | | | *e*SG | **Sg** | **08 14 04.1** | **-0.2** |
| | comp=Z,17nm,0.4s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.13** | **174** | Pg | **Pg** | **08 13 49.4** | **-0.2** |
| DPC | | | | Sg | **Sg** | **08 14 04.1** | **-0.2** |
| | 17nm,0.4s | | | | | | |
| **PVCC** | **Panska Ves** | **1.37** | **227** | *e*PG | **Pn** | **08 13 54.3** | **-0.1** |
| PVCC | | | | *e*SG | **Sb** | **08 14 12.5** | **0.0** |
| | comp=Z,86nm,0.4s | | | | | | |
| **PVCC** | **Panska Ves** | **1.37** | **227** | Pg | **Pn** | **08 13 54.3** | **-0.1** |
| PVCC | | | | Sg | **Sb** | **08 14 12.5** | **0.0** |
| | 86nm,0.4s | | | | | | |
| **KRLC** | **Kraliky** | **1.46** | **163** | *e*PG | **Pg** | **08 13 55.8** | **-0.1** |
| KRLC | | | | *e*SG | **Sg** | **08 14 14.3** | **-0.5** |
| | comp=Z,7.0nm,0.4s | | | | | | |
| **KRLC** | **Kraliky** | **1.46** | **163** | Pg | **Pg** | **08 13 55.8** | **-0.1** |
| KRLC | | | | Sg | **Sg** | **08 14 14.3** | **-0.5** |
| | 7.0nm,0.4s | | | | | | |
| **BRG** | **Berggiesshubel** | **1.51** | **247** | PG | **Pb** | **08 13 56.5** | **-0.3** |
| BRG | | | | SG | **Sn** | **08 14 16.6** | **0.0** |
| | 27nm,0.4s | | | | | | |
| **BRG** | **Berggiesshubel** | **1.51** | **247** | PG | **Pb** | **08 13 56.5** | **-0.3** |
| BRG | | | | SG | **Sn** | **08 14 16.6** | **0.0** |
| | 27nm,0.4s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **1.78** | **209** | *e*PG | **Pb** | **08 14 01.1** | **-0.4** |
| **GOPC** | **GO Pecny, Ondr** | **1.78** | **209** | Pg | **Pb** | **08 14 01.1** | **-0.4** |
| **PRU** | **Pruhonice** | **1.80** | **215** | *e*PG | **Pb** | **08 14 01.1** | **-0.7** |
| PRU | | | | *e*SG | **Sg** | **08 14 26.5** | **+0.7** |
| | comp=Z,13nm,0.3s | | | | | | |
| **PRU** | **Pruhonice** | **1.80** | **215** | Pg | **Pb** | **08 14 01.1** | **-0.7** |
| PRU | | | | Sg | **Sg** | **08 14 26.5** | **+0.7** |
| | 13nm,0.3s | | | | | | |
| **MORC** | **Moravsky Berou** | **1.92** | **152** | *e*Pn | **Pn** | **08 14 01.6** | **-0.4** |
| MORC | | | | *e*Sg | **Sb** | **08 14 28.1** | **-0.3** |
| **CLL** | **Collm** | **1.97** | **266** | *e*Pn | **Pn** | **08 14 02.0** | **-0.6** |
| CLL | | | | *e*Pg | **Pb** | **08 14 05.0** | **+0.3** |
| CLL | | | | *e*Sg | **Sb** | **08 14 30.0** | **+0.2** |
| | comp=Z,22nm,0.3s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **2.08** | **141** | *e*SG | **Sb** | **08 14 33.0** | **+0.1** |
| | comp=Z,16nm,0.6s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **2.08** | **141** | Sg | **Sb** | **08 14 33.0** | **+0.1** |
| | comp=Z,16nm,0.6s | | | | | | |
| **VRAC** | **Vranov** | **2.19** | **172** | *e*Pn | **Pn** | **08 14 06.3** | **+0.7** |
| VRAC | | | | *e*Sg | **Sg** | **08 14 38.1** | **-0.1** |
| **NKC** | **Novy Kostel** | **2.65** | **243** | *e*PN | **Pn** | **08

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **ERZM** | **Erzurum** | **0.72** | **59** | *i* P | **Pg** | **08 24 01.2** | **+0.2** |
| **ERZM** | **Erzurum** | **0.72** | **59** | P | **Pg** | **08 24 01.2** | **+0.2** |
| **BNGL** | **BINGOL** | **0.75** | **142** | *i* P | **Pb** | **08 24 02.2** | **-0.9** |
| BNGL | | | | *i* S | **Sb** | **08 24 13.8** | **-0.1** |
| **VRTB** | **Varto-Mus** | **0.79** | **119** | *e*PG | **Pg** | **08 24 02.5** | **+0.2** |
| **VRTB** | **Varto-Mus** | **0.79** | **119** | *i* P | **Pg** | **08 24 02.5** | **+0.2** |
| **VRTB** | **Varto-Mus** | **0.79** | **119** | *e*Pg | **Pg** | **08 24 02.6** | **+0.2** |
| **TNCL** | **Tunceli-Merkez** | **0.90** | **242** | *i* P | **Pb** | **08 24 04.6** | **-1.1** |
| TNCL | | | | *i* S | **Sn** | **08 24 20.1** | **-0.8** |
| **TNCL** | **Tunceli-Merkez** | **0.90** | **242** | P | **Pb** | **08 24 04.6** | **-1.1** |
| **PTK** | **Pertek** | **1.12** | **235** | *e*PN | **Pb** | **08 24 08.8** | **-0.7** |
| PTK | | | | *e*SN | **Sn** | **08 24 25.1** | **-1.3** |
| **PTK** | **Pertek** | **1.12** | **235** | *e*Pn | **Pb** | **08 24 08.8** | **-0.7** |
| PTK | | | | *e*Sn | **Sn** | **08 24 25.1** | **-1.3** |
| **HANI** | **Diyarbakir_Han** | **1.13** | **186** | *i* P | **Pb** | **08 24 09.0** | **-0.7** |
| HANI | | | | *i* S | **Sn** | **08 24 26.3** | **-0.3** |
| **HANI** | **Diyarbakir_Han** | **1.13** | **186** | P | **Pb** | **08 24 09.0** | **-0.7** |
| HANI | | | | S | **Sn** | **08 24 26.3** | **-0.3** |
| **HOMI** | **Horasan** | **1.15** | **64** | *i* P | **Pg** | **08 24 08.3** | **-1.0** |
| HOMI | | | | *i* S | **Sn** | **08 24 27.8** | **+0.5** |
| **KELT** | **Kelkit** | **1.17** | **301** | *i* P | **Pb** | **08 24 09.7** | **-0.8** |
| KELT | | | | *i* S | **Sn** | **08 24 28.1** | **+0.3** |
| **KELT** | **Kelkit** | **1.17** | **301** | P | **Pb** | **08 24 09.7** | **-0.8** |
| **EKAR** | **Karacoban** | **1.20** | **103** | *i* P | **Pg** | **08 24 09.8** | **-0.3** |
| EKAR | | | | *i* S | **Sn** | **08 24 29.5** | **+1.0** |
| **EKAR** | **Karacoban** | **1.20** | **103** | P | **Pg** | **08 24 09.9** | **-0.3** |
| EKAR | | | | S | **Sn** | **08 24 29.5** | **+1.0** |
| **REFA** | **Refahiye_ERZ~** | **1.40** | **265** | *i* P | **Pg** | **08 24 14.3** | **+0.3** |
| REFA | | | | *i* S | **Sn** | **08 24 37.9** | **+4.7** |
| **REFA** | **Refahiye_ERZ~** | **1.40** | **265** | P | **Pg** | **08 24 14.3** | **+0.3** |
| **SVRC** | **Sivrice-ELAZID** | **1.52** | **220** | *e*PN | **Pg** | **08 24 15.9** | **-0.4** |
| **SVRC** | **Sivrice-ELAZID** | **1.52** | **220** | *e*Pn | **Pg** | **08 24 15.9** | **-0.4** |
| **EATA** | **Eleskirt** | **1.52** | **77** | *i* P | **Pn** | **08 24 15.6** | **-0.3** |
| EATA | | | | *i* S | **Sg** | **08 24 38.8** | **+2.6** |
| **EATA** | **Eleskirt** | **1.52** | **77** | P | **Pn** | **08 24 15.6** | **-0.3** |
| EATA | | | | S | **Sg** | **08 24 38.8** | **+2.6** |
| **ILIC** | **ilic-Erzincan** | **1.54** | **267** | *e*PN | **Pg** | **08 24 16.1** | **-0.7** |
| **ILIC** | **ilic-Erzincan** | **1.54** | **267** | *e*Pn | **Pg** | **08 24 16.1** | **-0.7** |
| **KTUT** | **Trabzon** | **1.57** | **337** | *e*PN | **Pg** | **08 24 17.2** | **0.0** |
| **KTUT** | **Trabzon** | **1.57** | **337** | *e*Pn | **Pg** | **08 24 17.2** | **0.0** |
| **DYBB** | **Diyarbakir** | **1.62** | **192** | *e*PN | **Pb** | **08 24 17.6** | **-0.4** |
| **KEMA** | **Kemaliye** | **1.62** | **261** | *i* P | **Pg** | **08 24 17.7** | **-0.7** |
| KEMA | | | | *i* S | **Sg** | **08 24 42.1** | **+2.7** |
| **KEMA** | **Kemaliye** | **1.62** | **261** | P | **Pg** | **08 24 17.7** | **-0.7** |
| **DDEM** | **Demirkent** | **1.63** | **34** | *i* P | **Pg** | **08 24 17.9** | **-0.5** |
| DDEM | | | | *i* S | **Sn** | **08 24 38.2** | **-0.7** |
| **DDEM** | **Demirkent** | **1.63** | **34** | P | **Pg** | **08 24 17.9** | **-0.5** |
| DDEM | | | | S | **Sn** | **08 24 38.2** | **-0.7** |
| **DIY** | **Diyarbakir** | **1.67** | **189** | *e*Pn | **Pb** | **08 24 17.6** | **-1.1** |
| **SENK** | **Senkaya-Erzuru** | **1.71** | **53** | *e*PN | **Pb** | **08 24 19.5** | **-0.1** |
| **SENK** | **Senkaya-Erzuru** | **1.71** | **53** | *e*Pn | **Pb** | **08 24 19.5** | **-0.1** |
| **BTMN** | **Batman** | **1.74** | **161** | *i* P | **Pg** | **08 24 20.1** | **-0.5** |
| BTMN | | | | *i* S | **Sg** | **08 24 45.0** | **+1.9** |
| **BTMN** | **Batman** | **1.74** | **161** | P | **Pg** | **08 24 20.1** | **-0.5** |
| BTMN | | | | S | **Sg** | **08 24 45.0** | **+1.9** |
| **TUTA** | **Tutak** | **1.75** | **94** | *i* P | **Pn** | **08 24 18.6** | **-0.3** |
| TUTA | | | | *i* S | **Sg** | **08 24 44.9** | **+1.5** |
| **TUTA** | **Tutak** | **1.75** | **94** | P | **Pn** | **08 24 18.6** | **-0.3** |
| TUTA | | | | S | **Sg** | **08 24 44.9** | **+1.5** |
| **DAGI** | **Agillar** | **1.85** | **34** | *i* P | **Pb** | **08 24 21.0** | **-1.0** |
| DAGI | | | | *i* S | **Sg** | **08 24 46.1** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **1.88** | **88** | *e*PN | **Pb** | **08 24 21.9** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **1.88** | **88** | *e*Pn | **Pb** | **08 24 21.9** | **-0.6** |
| **SRTM** | **Siirt_Merkez** | **1.88** | **145** | *i* P | **Pb** | **08 24 22.3** | **-0.1** |
| SRTM | | | | *i* S | **Sg** | **08 24 49.4** | **+1.8** |
| **SRTM** | **Siirt_Merkez** | **1.88** | **145** | P | **Pb** | **08 24 22.3** | **-0.1** |
| SRTM | | | | S | **Sg** | **08 24 49.4** | **+1.8** |
| **SUSE** | **Susehri** | **1.93** | **291** | *i* P | **Pb** | **08 24 22.8** | **-0.6** |
| SUSE | | | | *i* S | **Sg** | **08 24 52.5** | **+3.2** |
| **SUSE** | **Susehri** | **1.93** | **291** | P | **Pb** | **08 24 22.8** | **-0.6** |
| **ARTV** | **Artvin** | **1.94** | **32** | *i* P | **Pb** | **08 24 22.4** | **-1.2** |
| ARTV | | | | *i* S | **Sg** | **08 24 49.2** | **-0.6** |
| **ARTV** | **Artvin** | **1.94** | **32** | P | **Pb** | **08 24 22.4** | **-1.2** |
| ARTV | | | | S | **Sg** | **08 24 49.2** | **-0.6** |
| **MALT** | **Malatya** | **2.07** | **234** | *e*PN | **Pb** | **08 24 24.0** | **-1.6** |
| **MALT** | **Malatya** | **2.07** | **234** | *e*Pn | **Pb** | **08 24 24.0** | **-1.6** |
| **MAZI** | **Mazidag** | **2.08** | **183** | *e*PN | **Pb** | **08 24 24.0** | **-1.9** |
| **MAZI** | **Mazidag** | **2.08** | **183** | *e*Pn | **Pb** | **08 24 24.0** | **-1.9** |
| **HEKM** | **Malatya_Hekimh** | **2.13** | **253** | *i* P | **Pg** | **08 24 27.6** | **-0.4** |
| HEKM | | | | *i* S | **Sg** | **08 24 59.0** | **+3.4** |
| **CUZAR** | **Zara_SIVAS** | **2.18** | **280** | *i* P | **Pg** | **08 24 27.8** | **-1.2** |
| CUZAR | | | | *i* S | **Sg** | **08 24 59.5** | **+2.2** |
| **KARS** | **Kars** | **2.21** | **60** | *e*PN | **Pb** | **08 24 26.8** | **-1.4** |
| **KARS** | **Kars** | **2.21** | **60** | *e*Pn | **Pb** | **08 24 26.8** | **-1.4** |
| **MARD** | **Mardin** | **2.23** | **176** | *i* P | **Pb** | **08 24 28.2** | **-0.3** |
| MARD | | | | *i* S | **Sg** | **08 24 58.5** | **-0.4** |
| **GRSN** | **GIRESUNGRSN** | **2.23** | **309** | *i* P | **Pb** | **08 24 28.4** | **0.0** |
| **VANB** | **Van** | **2.40** | **112** | *e*PN | **Pb** | **08 24 29.6** | **-1.7** |
| **VANB** | **Van** | **2.40** | **112** | *e*Pn | **Pb** | **08 24 29.6** | **-1.7** |
| **VMUR** | **Van-Muradiye** | **2.40** | **102** | *i* P | **Pb** | **08 24 30.4** | **-1.0** |
| **VMUR** | **Van-Muradiye** | **2.40** | **102** | P | **Pb** | **08 24 30.4** | **-1.0** |
| **AKCD** | **Akcadag** | **2.41** | **240** | *i* P | **Pb** | **08 24 29.2** | **-2.2** |
| **AKCD** | **Akcadag** | **2.41** | **240** | P | **Pb** | **08 24 29.2** | **-2.2** |
| **CUKAN** | **kangal_SIVAS** | **2.41** | **266** | *i* P | **Pg** | **08 24 32.0** | **-1.4** |
| **DYDN** | **Diyadin** | **2.42** | **89** | *i* P | **Pb** | **08 24 31.1** | **-0.6** |
| DYDN | | | | *i* S | **Sg** | **08 25 04.7** | **-0.3** |
| **DYDN** | **Diyadin** | **2.42** | **89** | P | **Pb** | **08 24 31.1** | **-0.6** |
| **URFA** | **Urfa** | **2.50** | **214** | *e*PN | **Pn** | **08 24 29.9** | **+0.7** |
| **URFA** | **Urfa** | **2.50** | **214** | *e*Pn | **Pn** | **08 24 29.9** | **+0.7** |
| **SIRT** | **Sirnak** | **2.51** | **144** | *e*PN | **Pn** | **08 24 30.2** | **+0.8** |
| **SIRT** | **Sirnak** | **2.51** | **144** | *e*Pn | **Pn** | **08 24 30.2** | **+0.8** |
| **CLDR** | **Caldiran** | **2.63** | **98** | *e*PN | **Pn** | **08 24 32.7** | **+1.6** |
| **CLDR** | **Caldiran** | **2.63** | **98** | *e*Pn | **Pn** | **08 24 32.7** | **+1.6** |
| **CUKT** | **Cukurca** | **3.31** | **133** | *e*PN | **Pn** | **08 24 42.0** | **+1.6** |
| **CUKT** | **Cukurca** | **3.31** | **133** | *e*Pn | **Pn** | **08 24 42.0** | **+1.6** |
| **ONI** | **Oni** | **3.75** | **35** | P | **Pg** | **08 24 56.9** | **-2.2** |
| ONI | | | | S | **Sb** | **08 25 40.2** | **0.0** |

**MEX 16 08:34:25.0±0.8, 17°.85N×99°.98W, h59km±10km, MD3.7, Guerrero**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MEIG** | **Mezcala** | **0.35** | **77** | *e*P | Pn | 08 34 33.7 | -1.8 |
| MEIG | | | | *e*S | Sn | 08 34 41.1 | -2.0 |
| **ARIG** | **Puente Sto Nin** | **0.56** | **321** | *e*P | Pn | 08 34 36.3 | -1.3 |
| ARIG | | | | *e*S | Sn | 08 34 45.4 | -1.2 |
| **PLIG** | **Platanillo** | **0.71** | **40** | *e*P | Pn | 08 34 38.0 | -1.4 |
| PLIG | | | | *e*S | Sn | 08 34 48.3 | -1.6 |
| **CAIG** | **El Cayaco** | **0.84** | **199** | *e*P | Pn | 08 34 38.8 | -2.1 |
| CAIG | | | | *i* S | Sn | 08 34 51.6 | -1.1 |
| **ACX** | **Acapulco** | **0.98** | **173** | *i* P | Pn | 08 34 40.7 | -2.0 |
| ACX | | | | *e*S | Sn | 08 34 53.3 | -2.6 |
| **YAIG** | **Yautepec** | **1.33** | **40** | *e*P | Pn | 08 34 45.8 | -1.8 |
| YAIG | | | | *i* S | Sn | 08 35 02.6 | -1.8 |
| **TLIG** | **Tlapa** | **1.38** | **102** | *e*P | Pn | 08 34 47.1 | -1.0 |
| TLIG | | | | *e*S | Sn | 08 35 03.3 | -2.1 |

**IDC 16 08:41:06.4±2.8, 7°.57S×67°.81E, h0km, mb3.5/5, mb1 3.8/5, mb1mx3.4/43, mbtmp3.5/5, MS3.5/7, Ms1 3.5/7, ms1mx3.0/48, Error ellipse: s-maj=94.8km s-min=26.1km az=55.0, Mid-Indian Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **H08N3** | **Diego Garcia H** | **3.39** | **69** | T | T | 08 45 58.8 | |
| | baz=244,slow=76,SNR=808 | | | | | | |
| **H08N2** | **Diego Garcia H** | **3.40** | **69** | T | T | 08 46 00.9 | |
| | baz=244,slow=76,SNR=756 | | | | | | |
| **H08N1** | **Diego Garcia H** | **3.41** | **69** | T | T | 08 46 00.5 | |
| | baz=244,slow=76,SNR=794 | | | | | | |
| **KMBO** | **Kilima Mbogo** | **31.12** | **280** | LR | LR | 08 59 06.1 | |
| | comp=Z,36nm,18.1s,baz=89,slow=35 | | | | | | |
| **PSI** | **Prapat** | **32.71** | **73** | LR | LR | 08 58 36.2 | |
| | comp=Z,106nm,19.5s,baz=236,slow=32 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **50.40** | **129** | T | T | 09 43 54.4 | |
| | baz=292,slow=75,SNR=9.8 | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **50.41** | **130** | T | T | 09 43 57.1 | |
| | baz=292,slow=75,SNR=9.6 | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **50.42** | **130** | T | T | 09 43 57.7 | |
| | baz=292,slow=75,SNR=9.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **55.64** | **12** | P | P | 08 50 43.9 | -0.3 |
| | 0.3nm,0.8s,baz=204,slow=9.5,SNR=2.4 | | | | | | |
| **KBZ** | **Khabaz** | **55.83** | **338** | P | P | 08 50 45.6 | +0.1 |
| | 0.6nm,0.4s,baz=175,slow=12,SNR=2.5 | | | | | | |
| **BRTR** | **Keskin Array B** | **56.69** | **329** | LR | LR | 09 14 01.5 | |
| | comp=Z,20nm,18.4s,baz=61,slow=35 | | | | | | |
| **AKTO** | **Aktyubinsk** | **58.39** | **353** | LR | LR | 09 15 24.6 | |
| | comp=Z,33nm,18.3s,slow=35 | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **MAW** | **Mawson** | **60.04** | **182** | LR | LR | 09 12 55.7 | |
| | comp=Z,39nm,18.2s,baz=58,slow=32 | | | | | | | |
| **SONM** | **Songino Array** | **64.83** | **28** | P | P | 08 51 47.6 | +0.3 |
| | 0.4nm,0.6s,baz=205,slow=8.9,SNR=3.2 | | | | | | | |
| **ASAR** | **Alice Springs** | **65.13** | **112** | P | P | 08 51 50.0 | +0.3 |
| | 0.7nm,0.9s,baz=278,slow=6.5,SNR=2.6 | | | | | | | |
| **WRA** | **Warramunga Arr** | **65.43** | **108** | P | P | 08 51 51.3 | -0.4 |
| | 0.2nm,0.6s,baz=279,slow=5.8,SNR=2.8 | | | | | | | |
| **DBIC** | **Dimbokro** | **73.84** | **279** | LR | LR | 09 24 20.3 | | |
| | comp=Z,47nm,19.1s,baz=331,slow=35 | | | | | | | |
| **FINES** | **FINESS Array B** | **76.08** | **341** | LR | LR | 09 26 48.4 | | |
| | comp=Z,34nm,18.9s,baz=200,slow=36 | | | | | | | |

*ISCJB **16** 09:00:25.3±0.5, 66°.43N±0°.03×14°.76E±0°.10, h0km, Error ellipse: s-maj=6.1km s-min=4.2km az=35.5*
*CSEM **16** 09:00:27.2±0.2, 66°.48N×14°.55E, h2km, ML2.0, Error ellipse: s-maj=9.0km s-min=4.3km az=148.0, Suspected Mining explosion.*
*BER **16** 09:00:27.9±1.8, 66°.31N×14°.58E, h0km, ML2.0, ML2.4(NAO), Suspected explosion*
*NAO **16** 09:00:28.1±1.7, 66°.52N×14°.82E, ML2.4*
*IDC **16** 09:00:31.0±1.5, 66°.58N×14°.59E, h0km, mb1 3.3/4, mb1mx3.1/47, mbtmp3.2/4, ML2.3/4, Error ellipse: s-maj=18.6km s-min=8.5km az=120.0*

**ISC 16 09:00:27.9±0.8, 66°.56N±0°.04×14°.46E±0°.05, h0km, n34, σ2s31/38, Northern Norway**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MOR8** | **Moi Rana** | **0.39** | **181** | *e*P | Pg | 09 00 28.9 | -6.5 |
| **KONS** | **Konsvik** | **0.54** | **264** | *e*P | **Pg** | **09 00 38.2** | **0.0** |
| **KONS** | **Konsvik** | **0.54** | **264** | *e*P | **Pg** | **09 00 38.2** | **0.0** |
| | SNR=90 | | | | | | |
| **STOK** | **Stokkvaagen** | **0.62** | **249** | *e*P | **Pg** | **09 00 39.5** | **-0.2** |
| STOK | | | | IAML | | 09 01 03.7 | |
| | comp=Z,69nm,0.4s | | | | | | |
| **STOK** | **Stokkvaagen** | **0.62** | **249** | *e*P | **Pg** | **09 00 39.5** | **-0.2** |
| | SNR=90 | | | | | | |
| **STEI** | **Steigen** | **1.41** | **12** | *e*P | **Pb** | **09 00 57.3** | **+2.3** |
| STEI | | | | IAML | | 09 01 26.7 | |
| | comp=Z,25nm,0.4s | | | | | | |
| **LOF** | **Lofoten** | **1.61** | **348** | *e*P | **Pn** | **09 00 57.6** | **0.0** |
| LOF | | | | *e*S | **Sg** | **09 01 22.7** | **+3.1** |
| LOF | | | | IAML | | 09 01 37.6 | |
| | comp=Z,27nm,0.4s | | | | | | |
| **LOF** | **Lofoten** | **1.61** | **348** | *e*P | **Pn** | **09 00 57.6** | **0.0** |
| | SNR=50 | | | | | | |
| **KIF** | **Kilpisjarvi** | **3.44** | **42** | Pn | **Pn** | **09 01 22.8** | **+0.2** |
| KIF | | | | Sn | **Sn** | **09 02 02.9** | **-1.0** |
| **KIF** | **Kilpisjarvi** | **3.44** | **42** | *e*P | **Pn** | **09 01 23.3** | **+0.7** |
| KIF | | | | Sn | **Sn** | **09 02 02.9** | **-1.0** |
| **KIF** | **Kilpisjarvi** | **3.44** | **42** | Pn | **Pn** | **09 01 22.8** | **+0.2** |
| **KIF** | **Kilpisjarvi** | **3.44** | **42** | *e*P | **Pn** | **09 01 23.3** | **+0.7** |
| | SNR=50 | | | | | | |
| KIF | | | | Sn | **Sn** | **09 02 02.9** | **-1.0** |
| | SNR=50 | | | | | | |
| **KTK1** | **Kautokeino** | **4.14** | **50** | *e*P | **Pn** | **09 01 35.1** | **+2.9** |
| **ARA0** | **ARCESS Array S** | **5.11** | **49** | Pn | **Pn** | **09 01 44.0** | **-1.5** |
| | baz=231,slow=14 | | | | | | |
| ARA0 | | | | Sn | **Sn** | **09 02 38.9** | **-6.2** |
| | baz=236,slow=28 | | | | | | |
| **ARA0** | **ARCESS Array S** | **5.11** | **49** | Pn | **Pn** | **09 01 44.0** | **-1.5** |
| | baz=231,slow=14 | | | | | | |
| ARA0 | | | | Sn | **Sn** | **09 02 38.9** | **-6.2** |
| | baz=236,slow=28 | | | | | | |
| **ARA0** | **ARCESS Array S** | **5.11** | **49** | Pn | **Pn** | **09 01 44.0** | **-1.5** |
| | SNR=50 | | | | | | |
| **ARCES** | **ARCESS Array B** | **5.11** | **49** | Pn | **Pn** | **09 01 44.6** | **-0.9** |
| | comp=Z,0.1nm,0.3s,baz=235,slow=14,SNR=4.1 | | | | | | |
| ARCES | | | | Sn | **Sn** | **09 02 44.0** | **-1.0** |
| | comp=Z,0.4nm,0.3s,baz=235,slow=22,SNR=3.6 | | | | | | |
| ARCES | | | | Lg | Lg | 09 03 11.5 | |
| | comp=Z,1.6nm,0.3s,baz=235,slow=22,SNR=5.4 | | | | | | |
| **AKN** | **Aaknes** | **5.46** | **220** | Sn | **Sn** | **09 02 52.0** | **-1.9** |
| AKN | | | | Lg | Lg | 09 03 20.6 | |
| **AKN** | **Aaknes** | **5.46** | **220** | Sn | **Sn** | **09 02 52.0** | **-1.9** |
| AKN | | | | Lg | Lg | 09 03 20.6 | |
| **AKN** | **Aaknes** | **5.46** | **220** | Sn | **Sn** | **09 02 52.0** | **-1.9** |
| | SNR=50 | | | | | | |
| AKN | | | | Lg | Lg | 09 03 20.6 | |
| | SNR=50 | | | | | | |
| **NB2** | **NORSAR Subarra** | **5.73** | **196** | Lg | Lg | 09 03 26.8 | |
| **NB2** | **NORSAR Subarra** | **5.73** | **196** | Lg | Lg | 09 03 26.8 | |
| **NB2** | **NORSAR Subarra** | **5.73** | **196** | Lg | Lg | 09 03 26.8 | |
| | SNR=50 | | | | | | |
| **NOA** | **NORSAR Array B** | **5.73** | **196** | Pn | **Pn** | **09 01 56.8** | **+2.7** |
| | comp=Z,0.2nm,0.3s,baz=12,slow=13,SNR=2.6 | | | | | | |
| NOA | | | | Sn | **Sn** | **09 03 01.4** | **+0.9** |
| | comp=Z,0.5nm,0.3s,baz=207,slow=20,SNR=2.7 | | | | | | |
| NOA | | | | Lg | Lg | 09 03 26.2 | |
| | comp=Z,1.7nm,0.3s,baz=5.5,slow=5.3,SNR=5.8 | | | | | | |
| **HFS** | **Hagfors** | **6.46** | **183** | Sn | **Sn** | **09 03 15.4** | **-3.1** |
| | baz=6.3,slow=18 | | | | | | |
| HFS | | | | Lg | Lg | 09 03 50.9 | |
| | baz=8.1,slow=28 | | | | | | |
| **HFS** | **Hagfors** | **6.46** | **183** | Pn | **Pn** | **09 02 06.8** | **+2.6** |
| | comp=Z,0.1nm,0.3s,baz=13,slow=14,SNR=3.0 | | | | | | |
| HFS | | | | Sn | **Sn** | **09 03 16.0** | **-2.5** |
| | comp=Z,0.4nm,0.3s,baz=12,slow=22,SNR=4.4 | | | | | | |
| HFS | | | | Lg | Lg | 09 03 49.3 | |
| | comp=Z,0.7nm,0.3s,baz=352,slow=31,SNR=4.0 | | | | | | |
| **HFS** | **Hagfors** | **6.46** | **183** | Sn | **Sn** | **09 03 15.4** | **-3.1** |
| | baz=6.3,slow=18 | | | | | | |
| HFS | | | | Lg | Lg | 09 03 50.9 | |
| | baz=8.1,slow=28 | | | | | | |
| **HFS** | **Hagfors** | **6.46** | **183** | Sn | **Sn** | **09 03 15.4** | **-3.1** |
| | SNR=50 | | | | | | |
| HFS | | | | Lg | Lg | 09 03 50.9 | |
| | SNR=5.0 | | | | | | |
| **FIA0** | **FINESS Array S** | **7.24** | **130** | Lg | Lg | 09 04 09.9 | |
| | baz=328,slow=28 | | | | | | |
| **FIA0** | **FINESS Array S** | **7.24** | **130** | Lg | Lg | 09 04 09.9 | |
| | baz=328,slow=28 | | | | | | |
| **FINES** | **FINESS Array B** | **7.24** | **130** | Pn | **Pn** | **09 02 17.8** | **+3.1** |
| | comp=Z,0.2nm,0.3s,baz=315,slow=14,SNR=4.6 | | | | | | |
| FINES | | | | Sn | **Sn** | **09 03 35.7** | **-1.7** |
| | comp=Z,0.2nm,0.3s,baz=325,slow=19,SNR=3.1 | | | | | | |
| FINES | | | | Lg | Lg | 09 04 14.5 | |
| | comp=Z,1.2nm,0.3s,baz=327,slow=25,SNR=6.0 | | | | | | |
| **APA0** | **Apatity Array** | **7.31** | **73** | Sn | **Sn** | **09 03 38.5** | **-0.6** |
| | baz=278,slow=37 | | | | | | |
| APA0 | | | | Lg | Lg | 09 04 16.1 | |
| | baz=275,slow=28 | | | | | | |
| **APA0** | **Apatity Array** | **7.31** | **73** | Sn | **Sn** | **09 03 38.5** | **-0.6** |
| | baz=278,slow=37 | | | | | | |
| APA0 | | | | Lg | Lg | 09 04 16.1 | |
| | baz=275,slow=28 | | | | | | |
| **APA0** | **Apatity Array** | **7.31** | **73** | Sn | **Sn** | **09 03 38.5** | **-0.6** |
| | SNR=50 | | | | | | |

*NEIC **16** 09:09:55.5±0.0, 15°.70N×98°.25W, h16km, MD4.1(MEX), After MEX.*

**MEX 16 09:09:55.5±0.9, 15°.70N×98°.25W, h16km±21km, MD4.1, Off coast of Guerrero**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PNIG** | **Pinotepa** | **0.70** | **9** | *e*P | Pg | 09 10 07.0 | -2.3 |
| PNIG | | | | *e*S | Sg | 09 10 15.4 | -3.2 |
| **PNIG** | **Pinotepa** | **0.70** | **9** | *e*P | Pg | 09 10 07.0 | -2.3 |
| PNIG | | | | *e*S | Sg | 09 10 15.4 | -3.2 |
| **TLIG** | **Tlapa** | **1.88** | **351** | *e*P | Pn | 09 10 23.9 | -3.2 |
| TLIG | | | | *e*S | Sn | 09 10 46.1 | -4.6 |
| **TLIG** | **Tlapa** | **1.88** | **351** | *e*P | Pn | 09 10 23.9 | -3.2 |
| TLIG | | | | *e*S | Sn | 09 10 46.1 | -4.6 |
| **ACX** | **Acapulco** | **1.94** | **307** | *e*P | Pn | 09 10 28.1 | +0.3 |
| ACX | | | | *e*S | Sn | 09 10 43.8 | -8.2 |
| **ACX** | **Acapulco** | **1.94** | **307** | *e*P | Pn | 09 10 28.1 | +0.3 |
| ACX | | | | *e*S | Sn | 09 10 43.8 | -8.2 |
| **VHO** | **Vista Hermosa** | **2.00** | **46** | *e*P | Pn | 09 10 26.0 | -2.8 |
| VHO | | | | *e*S | Sn | 09 10 48.5 | -5.0 |
| **VHO** | **Vista Hermosa** | **2.00** | **46** | *e*P | Pn | 09 10 26.0 | -2.8 |
| VHO | | | | *e*S | Sn | 09 10 48.5 | -5.0 |
| **HUIG** | **Huatulco** | **2.06** | **88** | *e*P | Pn | 09 10 27.1 | -2.4 |
| HUIG | | | | *e*S | Sn | 09 10 50.3 | -4.6 |
| **HUIG** | **Huatulco** | **2.06** | **88** | *e*P | Pn | 09 10 27.1 | -2.4 |
| HUIG | | | | *e*S | Sn | 09 10 50.3 | -4.6 |
| **CAIG** | **El Cayaco** | **2.36** | **305** | *e*P | Pn | 09 10 29.5 | -4.1 |
| CAIG | | | | *e*S | Sn | 09 10 55.9 | -6.3 |
| **CAIG** | **El Cayaco** | **2.36** | **305** | *e*P | Pn | 09 10 29.5 | -4.1 |
| CAIG | | | | *e*S | Sn | 09 10 55.9 | -6.3 |
| **PLIG** | **Platanillo** | **2.94** | **336** | *e*P | Pn | 09 10 40.4 | -1.2 |
| PLIG | | | | *e*S | Sn | 09 11 13.9 | -2.8 |
| **PLIG** | **Platanillo** | **2.94** | **336** | *e*P | Pn | 09 10 40.4 | -1.2 |
| PLIG | | | | *e*S | Sn | 09 11 13.9 | -2.8 |
| **ARIG** | **Puente Sto Nin** | **3.26** | **322** | *e*P | Pn | 09 10 43.8 | -2.3 |
| ARIG | | | | *e*S | Sn | 09 11 21.1 | -3.6 |

**MAN 16 09:15:24, 10°.32N×124°.64E, h42km, mb4.2, ML3.0, MS2.8, 1C, Leyte**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MSLP** | **Maasin** | **0.28** | **130** | *e*P | Pn | 09 15 34.4 | +2.1 |
| MSLP | | | | *e*S | Sn | 09 15 41.4 | +3.4 |
| **PLP** | **Palo** | **0.91** | **22** | *e*P | Pn | 09 15 41.6 | +1.2 |
| PLP | | | | *e*S | Sn | 09 15 53.4 | +1.2 |
| **BESP** | **Borongan** | **1.50** | **31** | *e*P | Pn | 09 15 48.4 | 0.0 |
| BESP | | | | *e*S | Sn | 09 16 08.3 | +1.5 |

**IDC 16 09:26:32.9±2.5, 54°.30N×86°.12E, h0km, mb1 3.2/2, mb1mx2.9/52, mbtmp3.2/2, ML2.8/2, Error ellipse: s-maj=20.3km s-min=12.2km az=49.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **I46RU** | **ZALESOVO INFRA** | **0.84** | **246** | *i* | | 09 32 10.0 | |
| | baz=64,slow=340,SNR=0.8 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **0.84** | **246** | Pg | Pg | 09 26 47.4 | -1.7 |
| | 1.3nm,0.3s,baz=61,slow=17,SNR=12 | | | | | | |
| ZALV | | | | Lg | Lg | 09 27 01.3 | |
| | 3.9nm,0.3s,baz=66,slow=27,SNR=20 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **5.92** | **235** | Pn | Pn | 09 28 03.9 | +2.1 |
| | 0.1nm,0.3s,baz=52,slow=14,SNR=6.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **7.90** | **199** | Pn | Pn | 09 28 29.5 | +0.4 |
| | 0.3nm,0.3s,baz=23,slow=14,SNR=17 | | | | | | |

*NIED **16** 09:32:00, 24°.70N×122°.40E, h38km, Mw4.7 Best double couple: M0 1.34000×10^16 NP1:φs180.00000°, δ19.00000°, λ-16.00000°. NP2:φs285.00000°, δ85.00000°, λ-109.00000°.*
*ISCJB **16** 09:32:55.4±0.5, 24°.74N±0°.02×122°.46E±0°.02, h10km±3km, mb3.5/4, Error ellipse: s-maj=4.2km s-min=2.3km az=14.5*
*JMA **16** 09:32:56.2±0.1, 24°.65N×122°.38E, h34km±4km, M3.5*
*TAP **16** 09:32:56.8, 24°.73N×122°.30E, h10km, ML3.9, D*
*IDC **16** 09:33:25.6±24.0, 25°.10N×123°.56E, h310km±301km, mb2.8/4, mb1 2.9/5, mb1mx2.6/46, mbtmp3.5/5, ML3.4/1, MS3.0/1, Ms1 3.0/1, ms1mx2.5/8, Error ellipse: s-maj=193.1km s-min=18.2km az=58.0*

**ISC 16 09:32:55.9±1.0, 24°.67N±0°.03×122°.41E±0°.02, h13km±8km, n58, σ1s06/93, mb3.6/4, 2C, Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TWB1** | **Santiao Chiao** | **0.51** | **311** | *i* P | **Pg** | **09 33 05.5** | **-0.4** |
| | baz=315 | | | | | | |
| TWB1 | | | | *i* S | **Sg** | **09 33 11.3** | **-1.4** |
| | baz=315 | | | | | | |
| **TWC** | **Suao** | **0.51** | **263** | *i* P | **Pg** | **09 33 05.3** | **-0.7** |
| | baz=262 | | | | | | |
| TWC | | | | *e*S | **Sg** | **09 33 11.7** | **-1.2** |
| | baz=262 | | | | | | |
| **JYNG** | **Yonaguni jima** | **0.54** | **114** | P | **Pb** | **09 33 07.3** | **+0.1** |
| JYNG | | | | S | **Sb** | **09 33 14.8** | **0.0** |
| **YOJ** | **Yonaguni jima** | **0.59** | **111** | P | **Pb** | **09 33 08.1** | **0.0** |
| YOJ | | | | S | **Sg** | **09 33 16.4** | **+1.2** |
| **ILA** | **Ilan** | **0.61** | **279** | P | **Pb** | **09 33 07.6** | **-0.8** |
| | baz=264 | | | | | | |
| ILA | | | | *e*S | **Sg** | **09 33 17.2** | **+1.3** |
| | baz=264 | | | | | | |
| **ENA** | **Nanau** | **0.66** | **248** | *e*P | **Pb** | **09 33 08.1** | **-1.1** |
| | baz=238 | | | | | | |
| **TWE** | **Neicheng** | **0.68** | **274** | ⇑*i*P | **Pb** | **09 33 08.2** | **-1.4** |
| | baz=260 | | | | | | |
| TWE | | | | S | **Sb** | **09 33 16.9** | **-2.0** |
| | baz=260 | | | | | | |
| **NWF** | **Wu-fen Shan** | **0.69** | **305** | *i* P | **Pb** | **09 33 10.0** | **+0.1** |
| | baz=305 | | | | | | |
| NWF | | | | S | **Sb** | **09 33 19.1** | **-0.4** |
| | baz=305 | | | | | | |
| **EHP** | **Heping

baz=210
**TCU Taichung 1.66 252** *e*P **Pg** 09 33 27.9 **0.0**
baz=232
**JISG Ishigakijimahi 1.73 92** P **Pn** 09 33 24.9 **-0.8**
**WNT Mingjian 1.76 244** *e*P **Pb** 09 33 27.3 **-0.8**
baz=258
WNT *e*S **Sg** **09 33 53.0 +0.3**
baz=258
**ALS Alishan 1.87 232** *e*P **Pb** 09 33 29.8 **-0.3**
baz=209
**CHN5 Tsauling 1.91 236** *e*P **Pb** 09 33 30.7 **0.0**
baz=211
**ELDTW Lidau 1.95 221** *e*S **Sb** 09 33 53.8 **-1.9**
baz=200
**WGK Gukeng 1.95 240** *e*S **Sg** 09 33 58.6 **-0.2**
baz=234
**JTJ Tarama 2.09 90** P **Pn** 09 33 30.8 **+0.2**
**CHN2 Minshiung 2.10 238** *e*S **Sg** 09 34 02.8 **-0.8**
baz=212
**CHN4 Tsaushan 2.12 232** P **Pb** 09 33 33.8 **-0.4**
baz=207
CHN4 *e*S **Sb** 09 34 00.4 **0.0**
baz=207
**STYT Tauyuan 2.13 225** *e*P **Pb** 09 33 33.1 **-1.3**
baz=202
STYT *e*S **Sb** 09 33 60.0 **-0.9**
baz=202
**CHY Chiayi 2.16 238** *e*S **Sg** 09 34 03.6 **-1.8**
baz=213
**WTP Ta-pu 2.17 229** *e*P **Pn** 09 33 33.0 **+1.2**
baz=205
WTP *e*S **Sb** 09 34 02.4 **+0.4**
baz=205
**TWG Pinlang 2.21 214** *e*P **Pn** 09 33 33.4 **+1.0**
baz=206
TWG *e*S **Sn** 09 33 59.8 **+0.2**
baz=206
**TWK Hsinying 2.25 232** *e*P **Pb** 09 33 34.7 **-1.7**
baz=208
TWK *e*S **Sb** 09 34 04.3 **+0.2**
baz=208
**CHN1 Nanshi 2.27 230** *e*P **Pb** 09 33 35.4 **-1.4**
baz=205
CHN1 *e*S **Sb** 09 34 05.3 **+0.5**
baz=205
**SGST Jiashian 2.30 227** *e*P **Pb** 09 33 35.3 **-2.1**
baz=203
SGST *e*S **Sb** 09 34 04.2 **-1.5**
baz=203
**EAST Anshuo 2.69 212** *e*P **Pn** 09 33 40.3 **+1.3**
baz=207
**SCZT Fangliau 2.82 216** *e*P **Pn** 09 33 42.7 **+2.1**
baz=194
SCZT *e*S **Sb** 09 34 16.8 **-3.7**
baz=194
**KSRS Korea Array 13.58 19** P **P** 09 36 19.0 **+1.7**
0.2nm,0.3s,baz=198,slow=11,SNR=2.5
KSRS LR LR 09 41 41.0
comp=Z,63nm,19.2s,baz=200,slow=39
**SONM Songino Array 26.37 335** P **P** 09 38 33.2 **+1.2**
1.0nm,0.9s,baz=147,slow=8.4,SNR=4.2
**MKAR Makanchi Array 38.77 315** P P 09 40 25.3 +5.2
0.2nm,0.5s,baz=100,slow=7.4,SNR=3.0
**WRA Warramunga Arr 45.84 164** P **P** 09 41 18.1 **+0.2**
1.7nm,0.9s,baz=346,slow=8.6,SNR=6.0
**ASAR Alice Springs 49.33 166** P **P** 09 41 45.9 **+0.9**
0.4nm,0.6s,baz=342,slow=7.8,SNR=9.0

**KRSC 16 09:34:10.0±1.5, 50°59N×157°42E, h39km±21km, ML3.5, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | | h m s | ISC |
| **SKR** | **Severo-Kuril's** | **0.83** | **277** | *e*P | Pn | | 09 34 25.4 | +0.2 |
| SKR | | | | *e*S | Sn | | 09 34 37.1 | +0.8 |
| **ASAK** | **Asacha** | **1.82** | **9** | *e*P | Pn | | 09 34 41.1 | +2.3 |
| **MTVR** | **Mutnovka** | **1.95** | **14** | *e*P | Pn | | 09 34 42.8 | +2.1 |
| MTVR | | | | *e*S | Sn | | 09 35 07.5 | +3.5 |
| **RUS** | **Russkaya** | **1.96** | **20** | *e*P | Pn | | 09 34 42.4 | +1.7 |
| RUS | | | | *e*S | Sn | | 09 35 06.4 | +2.4 |
| **PET** | **Petropavlovsk** | **2.55** | **17** | *e*P | Pn | | 09 34 51.9 | +3.2 |
| PET | | | | *e*S | Sn | | 09 35 22.9 | +4.4 |
| **DALK** | **Dalny** | **2.58** | **18** | *e*P | Pn | | 09 34 51.5 | +2.4 |
| DALK | | | | *e*S | Sn | | 09 35 22.2 | +3.1 |
| **AVH** | **Avacha** | **2.80** | **16** | *e*P | Pn | | 09 34 56.1 | +3.9 |
| **KRER** | **Koryakskii** | **2.84** | **16** | *e*P | Pn | | 09 34 56.8 | +3.9 |
| **SDLR** | **Sedlovina** | **2.84** | **18** | *e*P | Pn | | 09 34 55.3 | +2.5 |
| **NLC** | **Nalytchevo** | **2.84** | **24** | *e*S | Sn | | 09 35 28.1 | +2.4 |
| **GNL** | **Ganaly** | **3.12** | **6** | *e*P | Pn | | 09 35 01.9 | +5.2 |

**IDC 16 09:37:53.8±3.3, 9°80S×79°97W, h0km, mb3.5/2, mb1 3.9/2, mb1mx3.6/21, mbtmp3.5/2, MS2.9/1, Ms1 2.9/1, ms1mx2.7/12, Error ellipse: s-maj=207.9km s-min=71.3km az=74.0, Off coast of northern Peru**

| Code | Station Name | Δ° | AZ° | Phase ID | | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | | h m s | ISC |
| **ROSC** | **El Rosal** | **15.60** | **21** | LR | LR | | 09 48 21.9 | |
| comp=Z,43nm,18.3s,baz=26,slow=40 | | | | | | | | |
| **TXAR** | **Lajitas Array** | **45.12** | **330** | P | P | | 09 46 12.1 | -0.1 |
| 0.3nm,0.5s,baz=144,slow=6.3,SNR=2.5 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **76.89** | **344** | P | P | | 09 49 47.6 | +0.1 |
| 0.3nm,0.6s,baz=143,slow=6.2,SNR=10.0 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **135.12** | **229** | PKP | PKPdf | | 09 57 15.7 | -0.6 |
| 0.2nm,0.4s,baz=136,slow=1.3,SNR=3.3 | | | | | | | | |

*NIED **16** 09:46:00, 39°10N×142°20E, h53km, Mw4.2 Best double couple: M₀2.30000×10¹⁵ NP1:φ₀186.00000°, δ26.00000°, λ71.00000°. NP2:φ₀27.00000°, δ65.00000°, λ99.00000°.*
*ISCJB **16** 09:46:16.0±0.9, 39°08N±0°04×142°2E±0°1, h49km±6km, mb3.8/11, Error ellipse: s-maj=14.0km s-min=5.7km az=17.1*
*JMA **16** 09:46:16.7±0.1, 39°11N×142°20E, h43km±1km, M3.7*
*JMA Felt II J1.*
*IDC **16** 09:46:19.1±2.5, 39°06N×142°14E, h64km±20km, mb3.5/11, mb1 3.7/13, mb1mx3.6/33, mbtmp3.8/13, MS2.8/1, Ms1 2.8/1, ms1mx2.1/34, Error ellipse: s-maj=22.8km s-min=14.6km az=114.0*
**ISC 16 09:46:17.6±1.4, 39°12N±0°05×142°19E±0°10, h43km±11km, n34, σ1°77/35, mb3.7/11, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | | h m s | ISC |
| **OFUJ** | **Ofunato** | **0.41** | **265** | P | **Pn** | | **09 46 26.6** | **-0.6** |
| OFUJ | | | | S | **Sn** | | **09 46 33.4** | **-0.7** |
| **MIYJ** | **Miyakonagasawa** | **0.54** | **328** | P | **Pn** | | **09 46 28.2** | **-0.8** |
| MIYJ | | | | S | **Sn** | | **09 46 36.1** | **-1.0** |
| **JMK** | **Ichinoseki** | **0.77** | **258** | P | **Pn** | | **09 46 31.4** | **-0.6** |
| JMK | | | | S | **Sn** | | **09 46 41.8** | **-0.7** |
| **JOM** | **Ohasama** | **0.78** | **297** | P | **Pn** | | **09 46 31.7** | **-0.5** |
| JOM | | | | S | **Sn** | | **09 46 42.2** | **-0.6** |
| **JTH** | **Tanohata** | **0.86** | **343** | P | **Pn** | | **09 46 32.3** | **-0.9** |
| JTH | | | | S | **Sn** | | **09 46 44.1** | **-0.6** |
| **JIO** | **Ouri** | **0.93** | **225** | P | **Pn** | | **09 46 32.9** | **-1.3** |
| JIO | | | | S | **Sn** | | **09 46 44.1** | **-2.2** |
| **JKZ** | **Kuzumaki** | **1.09** | **323** | P | **Pn** | | **09 46 36.5** | **0.0** |
| JKZ | | | | S | **Sn** | | **09 46 50.4** | **0.0** |
| **JRG** | **Rokugo** | **1.24** | **284** | P | **Pn** | | **09 46 38.2** | **-0.2** |
| **JANG** | **Nango** | **1.36** | **338** | P | **Pn** | | **09 46 39.6** | **-0.5** |
| **JOU** | **Okura** | **1.41** | **238** | P | **Pn** | | **09 46 39.9** | **-0.8** |
| **JYK** | **Kaneyama** | **1.44** | **263** | P | **Pn** | | **09 46 40.9** | **-0.2** |
| **MAT** | **Matsushiro** | **4.07** | **232** | P | **Pn** | | **09 47 18.8** | **+1.6** |
| MAT | | | | *e*S | **Sn** | | **09 48 10.6** | **+7.0** |
| **MJAR** | **Matsushiro Arr** | **4.07** | **232** | P | **Pn** | | **09 47 18.7** | **+1.5** |
| 4.3nm,0.3s,baz=36,slow=12,SNR=57 | | | | | | | | |
| **ASAJ** | **Asahikawa** | **5.01** | **3** | P | **Pn** | | **09 47 31.0** | **+0.9** |
| 2.9nm,0.3s,baz=224,slow=7.5,SNR=10 | | | | | | | | |
| ASAJ | | | | S | **Sn** | | **09 48 29.6** | **+3.0** |
| 1.3nm,0.3s,baz=300,slow=20,SNR=2.9 | | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **9.17** | **307** | P | Pn | | 09 48 31.1 | +3.9 |
| 0.4nm,0.3s,baz=109,slow=17,SNR=4.8 | | | | | | | | |
| **KSRS** | **Korea Array** | **11.34** | **266** | LR | LR | | 09 52 56.6 | |
| comp=Z,51nm,20.7s,baz=84,slow=35 | | | | | | | | |
| **KLR** | **Kul'dur** | **12.57** | **327** | P | **Pn** | | **09 49 17.2** | **+3.5** |
| 0.0nm,0.3s,baz=126,slow=17,SNR=2.7 | | | | | | | | |
| **SONM** | **Songino Array** | **27.19** | **300** | P | **P** | | **09 51 56.9** | **-0.3** |
| 0.7nm,0.7s,baz=99,slow=8.9,SNR=2.9 | | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy 28.77 125** | | | T | T | | 10 22 31.7 | |
| baz=318,slow=75,SNR=1823 | | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy 28.77 125** | | | T | T | | 10 22 33.7 | |
| baz=318,slow=75,SNR=1683 | | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy 28.78 125** | | | T | T | | 10 22 37.2 | |
| baz=318,slow=75,SNR=745 | | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy 29.55 127** | | | T | T | | 10 23 33.0 | |
| baz=319,slow=76,SNR=154 | | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy 29.55 127** | | | T | T | | 10 23 33.0 | |
| baz=319,slow=76,SNR=288 | | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy 29.57 127** | | | T | T | | 10 23 34.2 | |
| baz=319,slow=76,SNR=199 | | | | | | | | |
| **ZALV** | **Zalesovo Beam 40.99 311** | | | P | **P** | | **09 53 55.7** | **-0.4** |
| 1.5nm,0.5s,baz=81,slow=9.2,SNR=7.1 | | | | | | | | |
| **MKAR** | **Makanchi Array 43.56 300** | | | P | **P** | | **09 54 16.6** | **-0.5** |
| 2.3nm,0.7s,baz=86,slow=10,SNR=26 | | | | | | | | |
| **ILAR** | **Eielson Array 47.42 33** | | | P | **P** | | **09 54 47.5** | **+0.2** |
| 0.5nm,0.6s,baz=268,slow=6.2,SNR=11 | | | | | | | | |
| **INK** | **Inuvik 52.26 28** | | | P | **P** | | **09 55 24.6** | **+0.6** |
| 0.6nm,0.8s,baz=297,slow=13,SNR=3.2 | | | | | | | | |
| **WRA** | **Warramunga Arr 59.20 189** | | | P | **P** | | **09 56 12.5** | **-1.8** |
| 0.5nm,0.4s,baz=6.7,slow=7.0,SNR=12 | | | | | | | | |
| **YKA** | **Yellowknife Ar 61.71 31** | | | P | **P** | | **09 56 31.0** | **+0.1** |
| 0.2nm,0.7s,baz=307,slow=6.6,SNR=4.2 | | | | | | | | |
| **FINES** | **FINESS Array B 67.26 332** | | | P | **P** | | **09 57 05.8** | **-1.3** |
| 2.4nm,0.6s,baz=46,slow=6.6,SNR=5.1 | | | | | | | | |
| **NOA** | **NORSAR Array B 72.50 337** | | | P | **P** | | **09 57 38.5** | **-1.0** |
| 0.7nm,0.8s,baz=28,slow=7.6,SNR=2.5 | | | | | | | | |
| **AKASG** | **Malin Array Be 73.03 322** | | | P | **P** | | **09 57 41.7** | **-1.0** |
| 0.8nm,0.4s,baz=45,slow=5.7,SNR=5.9 | | | | | | | | |
| **BRTR** | **Keskin Array B 77.93 312** | | | P | **P** | | **09 58 10.9** | **-0.3** |
| 0.4nm,0.6s,baz=32,slow=8.5,SNR=3.1 | | | | | | | | |

**SJA 16 10:05:43.4±0.7, 23°52S×66°72W, h245km±19km, ML2.2, MW3.7, Jujuy Province**

| Code | Station Name | Δ° | AZ° | Phase ID | | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | | h m s | ISC |
| **HJA** | **Humahuaca** | **1.25** | **76** | *i* P | Pn | | 10 06 20.2 | +0.3 |
| **SLA** | **San Lorenzo** | **1.64** | **137** | *i* P | Pn | | 10 06 23.0 | +0.5 |
| SLA | | | | IAML | | | 10 06 24.1 | |
| comp=Z,12nm,0.4s | | | | | | | | |
| **AZAP** | **Zapla** | **1.67** | **115** | *i* P | Pn | | 10 06 23.3 | +0.4 |
| **YJA** | **Yavi** | **1.74** | **40** | *i* P | Pn | | 10 06 24.2 | +0.5 |
| YJA | | | | IAML | | | 10 06 25.7 | |
| comp=Z,6.9nm,0.2s | | | | | | | | |
| YJA | | | | *i* S | S | | 10 06 55.1 | -0.2 |
| **ASTB** | **Santa Barbara** | **2.12** | **102** | *i* P | Pn | | 10 06 27.5 | +0.8 |
| ASTB | | | | *i* S | S | | 10 06 59.4 | -1.5 |

**IDC 16 10:08:04.2±65.0, 23°39S×177°62W, h0km, mb3.9/3, mb1 4.1/3, mb1mx3.8/23, mbtmp3.9/3, Error ellipse: s-maj=1190.0km s-min=164.2km az=87.0, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | | h m s | ISC |
| **STKA** | **Stephens Creek** | **36.93** | **248** | P | P | | 10 15 15.2 | 0.0 |
| 1.1nm,0.6s,baz=95,slow=12,SNR=3.2 | | | | | | | | |
| **ASAR** | **Alice Springs** | **44.27** | **260** | P | P | | 10 16 15.7 | -0.3 |
| 0.5nm,0.5s,baz=93,slow=8.6,SNR=16 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **44.62** | **265** | P | P | | 10 16 18.6 | -0.1 |
| 1.1nm,0.4s,baz=105,slow=8.2,SNR=18 | | | | | | | | |

*ISCJB **16** 10:26:46.8±0.8, 5°88N±0°03×73°64W±0°04, h134km±7km, Error ellipse: s-maj=6.8km s-min=4.0km az=25.7*
*RSNC **16** 10:26:48.1±0.7, 5°87N×73°64W, h125km±5km, ML3.2*
*IDC **16** 10:26:48.2±5.6, 5°62N×75°45W, h111km±157km, Error ellipse: s-maj=912.7km s-min=84.4km az=42.0*
**ISC 16 10:26:46.6±1.1, 5°87N±0°03×73°63W±0°05, h134km±8km, n23, σ0°56/42, 3C-1D, Colombia**

| Code | Station Name | Δ° | AZ° | Phase ID | | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | | h m s | ISC |
| **RUSC** | **La Rusia** | **0.55** | **87** | *i*↓P | **Pn** | | **10 27 07.1** | **+0.1** |
| RUSC | | | | *e*S | **Sn** | | **10 27 22.0** | **-0.4** |
| RUSC | | | | *i* | | | 10 27 23.0 | |
| comp=Z,252nm,0.3s | | | | | | | | |
| **CTAU** | **Tausa, Cundina** | **0.78** | **212** | *i* P | **Pn** | | **10 27 09.2** | **+0.5** |
| CTAU | | | | *e*S | **Sn** | | **10 27 24.6** | **-0.7** |
| **BARC** | **Barichara** | **0.85** | **32** | *i* P | **Pn** | | **10 27 09.2** | **+0.2** |
| BARC | | | | *e*S | **Sn** | | **10 27 25.3** | **-0.5** |
| BARC | | | | *i* | | | 10 27 27.2 | |
| comp=Z,1μm,0.3s | | | | | | | | |
| **CTAB** | **Cerro Tablazo,** | **1.02** | **214** | *i* P | **Pn** | | **10 27 11.7** | **+1.0** |
| CTAB | | | | *e*S | **Sn** | | **10 27 29.0** | **+0.2** |
| **ROSC** | **El Rosal** | **1.23** | **214** | P | **Pn** | | **10 27 13.7** | **+1.1** |
| comp=Z,19nm,0.3s,baz=206,slow=3.4,SNR=29 | | | | | | | | |
| ROSC | | | | S | **Sn** | | **10 27 33.2** | **+0.9** |
| comp=Z,21nm,0.3s,baz=240,slow=20,SNR=7.4 | | | | | | | | |
| **ROSC** | **El Rosal** | **1.23** | **214** | ↑*i* P | **Pn** | | **10 27 13.4** | **+0.8** |
| ROSC | | | | *e*S | **Sn** | | **10 27 32.2** | **-0.1** |
| ROSC | | | | *i* | | | 10 27 38.3 | |
| comp=Z,182nm,0.4s | | | | | | | | |
| **CHIC** | **Chingaza** | **1.23** | **185** | ↑*i* P | **Pn** | | **10 27 12.7** | **0.0** |
| CHIC | | | | *e*S | **Sn** | | **10 27 32.3** | **-0.1** |
| CHIC | | | | *i* | | | 10 27 34.9 | |
| comp=Z,194nm,0.3s | | | | | | | | |
| **BRRC** | **Barranca, Sant** | **1.23** | **356** | *e*P | **Pn** | | **10 27 12.4** | **+0.2** |
| BRRC | | | | *e*S | **Sn** | | **10 27 31.3** | **-0.4** |
| BRRC | | | | *i* | | | 10 27 38.2 | |
| comp=Z,232nm,0.2s | | | | | | | | |
| **NORC** | **Norcasia** | **1.27** | **256** | *e*P | **Pn** | | **10 27 12.2** | **-0.4** |
| NORC | | | | *e*S | **Sn** | | **10 27 31.7** | **-0.6** |
| **GIRC** | **Giron, Santand** | **1.28** | **20** | ↑*i* P | **Pn** | | **10 27 13.2** | **+0.4** |
| GIRC | | | | *e*S | **Sn** | | **10 27 32.6** | **-0.2** |
| **YOPC** | **Yopal, Colombi** | **1.31** | **113** | *e*P | **Pn** | | **10 27 13.2** | **+0.1** |
| YOPC | | | | *i* | | | 10 27 14.3 | |
| comp=Z,124nm,0.5s | | | | | | | | |
| YOPC | | | | *e*S | **Sn** | | **10 27 34.0** | **+0.7** |
| **CVER** | **Cruz Verde, Cu** | **1.41** | **198** | *e*P | **Pn** | | **10 27 15.3** | **+0.7** |
| **PAMC** | **Pamplona, Colo** | **1.73** | **32** | *e*P | **Pn** | | **10 27 18.5** | **+0.4** |
| PAMC | | | | *e*S | **Sn** | | **10 27 42.8** | **+0.5** |
| **VILC** | **Villavicencio,** | **1.74** | **182** | *e*P | **Pn** | | **10 27 17.7** | **-0.2** |
| VILC | | | | *e*S | **Sn** | | **10 27 41.7** | **-0.2** |
| VILC | | | | *i* | | | 10 27 46.8 | |
| comp=Z,117nm,0.4s | | | | | | | | |
| **GUYC** | **Guyana, Colomb** | **1.86** | **250** | *e*P | **Pn** | | **10 27 20.3** | **+0.7** |
| GUYC | | | | *i* | | | 10 27 23.1 | |
| comp=Z,179nm,0.6s | | | | | | | | |
| GUYC | | | | *e*S | **Sn** | | **10 27 45.2** | **+0.4** |
| **HELC** | **Santa Helena** | **1.91** | **280** | *e*P | **Pn** | | **10 27 20.6** | **+0.4** |
| HELC | | | | *e*S | **Sn** | | **10 27 45.8** | **0.0** |
| HELC | | | | *i* | | | 10 27 52.1 | |
| comp=Z,209nm,0.4s | | | | | | | | |
| **TOLC** | **Tolima** | **2.11** | **233** | *e*P | **Pn** | | **10 27 22.7** | **+0.2** |
| TOLC | | | | *e*S | **Sn** | | **10 27 50.1** | **+0.1** |
| **OCAC** | **Ocana** | **2.38** | **8** | *e*P | **Pn** | | **10 27 26.3** | **+0.7** |
| OCAC | | | | *i* | | | 10 28 06.2 | |
| comp=Z,145nm,0.4s | | | | | | | | |
| **PRAC** | **Prado** | **2.48** | **210** | *e*P | **Pn** | | **10 27 26.6** | **-0.2** |
| PRAC | | | | *e*S | **Sn** | | **10 27 57.2** | **-0.5** |
| **SJAC** | **San Juan de Ar** | **2.60** | **187** | *e*P | **Pn** | | **10 27 29.1** | **+0.8** |
| SJAC | | | | *e*S | **Sn** | | **10 28 01.2** | **+0.7** |
| **CODC** | **Agust`>n Codaz** | **4.05** | **3** | *e*P | **Pn** | | **10 27 47.7** | **+0.5** |
| CODC | | | | *e*S | **Sn** | | **10 28 34.7** | **+0.6** |
| CODC | | | | *i* | | | 10 28 50.9 | |
| comp=Z,64nm,0.5s | | | | | | | | |
| **ASAR** | **Alice Springs** | **148.14** | **233** | PKPbc | **PKPbc** | | **10 46 17.0** | **-0.6** |
| comp=Z,0.3nm,0.7s,baz=131,slow=2.8,SNR=4.7 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **149.43** | **240** | PKPbc | **PKPbc** | | **10 46 20.0** | **-0.9** |
| comp=Z,0.1nm,0.3s,baz=105,slow=3.2,SNR=5.1 | | | | | | | | |

*SJA **16** 10:27:15.5±0.6, 32°54S×67°90W, h9km±4km, ML3.8, MW3.8*
*GUC **16** 10:27:17.1±0.3, 32°40S×68°10W, h6km±7km, ML3.8*
*IDC **16** 10:27:38.6±2.5, 31°67S×66°81W, h174km±24km, mb3.6/1, mb1 3.3/5, mb1mx3.2/29, mbtmp3.8/5, Error ellipse: s-maj=48.9km s-min=20.0km az=114.0*
**ISC 16 10:27:13.5±1.2, 32°68S±0°04×67°80W±0°03, h5km±10km, n27, σ1°31/37, Mendoza Province**

| Code | Station Name | Δ° | AZ° | Phase ID | | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | | h m s | ISC |
| **ACAN** | **Cantantal** | **0.66** | **52** | *i* P | **Pn** | | **10 27 28.8** | **-0.7** |
| **ASAL** | **Salagasta** | **0.88** | **276** | *i* P | **Pg** | | **10 27 31.3** | **+0.9** |
| **AAGR** | **Agrelo** | **0.95** | **245** | *i* P | **Pn** | | **10 27 33.9** | **+0.3** |
| **ARCO** | **CERRO ARCO** | **0.97** | **260** | *i* P | **Pn** | | **10 27 33.8** | **-0.1** |
| ARCO | | | | IAML | | | 10 27 34.3 | |
| comp=Z,2μm,0.2s | | | | | | | | |
| ARCO | | | | *i* S | **Sn** | | **10 27 48.1** | **0.0** |
| **AVIZ** | **Vizcacheras** | **0.99** | **217** | *i* P | **Pn** | | **10 27 35.8** | **+1.6** |
| **RTCV** | **Cerro Valdivia** | **1.03** | **322** | *i* P | **Pg** | | **10 27 32.6** | **-0.6** |
| **SJA** | **San Juan** | **1.32** | **330** | IAML | | | 10 27 57.5 | |
| comp=Z,1μm,0.5s | | | | | | | | |
| **AUSP** | **Uspallata** | **1.42** | **288** | *i* P | **Pn** | | **10 27 39.6** | **-0.6** |
| **RTLL** | **Cerro Villicun** | **1.47** | **337** | *i* P | **Pn** | | **10 27 40.1** | **-0.5** |
| RTLL | | | | *i* S | **Sn** | | **10 27 58.2** | **-2.0** |
| **AMOG** | **MOGNA** | **1.83** | **341** | *e*P | **Pn** | | **10 27 47.1** | **+1.3** |
| AMOG | | | | *e*S | **Sn** | | **10 28 10.1** | **+0.7** |
| **FCH** | **Farellones** | **2.19** | **252** | *e*P | **Pg** | | **10 27 55.1** | **-0.4** |
| FCH | | | | *i* S | **Sg** | | **10 28 23.9** | **+0.1** |
| FCH | | | | IAML | | | 10 28 24.4 | |
| comp=N,950nm,0.4s | | | | | | | | |
| **LMEL** | **Las Melosas** | **2.33** | **239** | *e*P | **Pg** | | **10 27 57.6** | **-0.4** |
| LMEL | | | | *i* S | **Sg** | | **10 28 28.4** | **+0.2** |
| LMEL | | | | IAML | | | 10 28 31.1 | |
| comp=N,719nm,0.6s | | | | | | | | |
| **CLCH** | **Cerro Calan** | **2.41** | **252** | *e*P | **Pb** | | **10 27 57.7** | **+0.3** |
| CLCH | | | | *i* S | **Sg** | | **10 28 30.6** | **-0.2** |
| **PEL** | **Peldehue** | **2.47** | **258** | *e*P | **Pb** | | **10 27 57.9** | **-0.6** |
| PEL | | | | *i* S | **Sb** | | **10 28 30.3** | **+1.1** |
| PEL | | | | IAML | | | 10 28 31.8 | |
| comp=N,559nm,0.5s | | | | | | | | |
| **SUCO** | **SUCO** | **2.54** | **106** | *i* P | **Pg** | | **10 28 03.1** | **+0.9** |
| **ROCH** | **El Roble** | **2.72** | **263** | *e*P | **Pn** | | **10 28 00.6** | **+2.5** |
| ROCH | | | | *i* S | **Sb** | | **10 28 35.7** | **-0.8** |
| ROCH | | | | IAML | | | 10 28 40.1 | |
| comp=N,746nm,0.7s | | | | | | | | |
| **ROC1** | **El Roble** | **2.72** | **263** | *e*P | **Pn** | | **10 28 00.6** | **+2.5** |
| ROC1 | | | | *e*S | **Sb** | | **10 28 35.3** | **-1.3** |
| **TCA** | **Tanti** | **3.03** | **65** | *i* P | **Pn** | | **10 28 03.8** | **+1.6** |
| TCA | | | | *e*S | **Sg** | | **10 28 49.6** | **-1.4** |
| TCA | | | | IAML | | | 10 28 57.0 | |
| comp=Z,576nm,0.6s | | | | | | | | |
| **AGUA** | **GUANDACOL** | **3.24** | **349** | *e*P | **Pn** | | **10 28 07.5** | **+2.4** |
| **VCA** | **Vinchina** | **3.95** | **355** | *i* P | **Pn** | | **10 28 17.1** | **+2.2** |
| **CYA** | **Choya** | **4.56** | **23** | *e*P | **Pn** | | **10 28 23.9** | **+0.7** |
| **PLCA** | **Paso Flores** | **8.33** | **195** | P | **Pg** | | **10 29 51.5** | **-1.6** |
| comp=Z,0.1nm,0.3s,baz=22,slow=11,SNR=3.1 | | | | | | | | |
| PLCA | | | | S | **Sg** | | **10 31 40.5** | **-0.5** |
| comp=Z,0.4nm,0.3s,baz=33,slow=8.2,SNR=3.3 | | | | | | | | |
| **CPUP** | **Villa Florida** | **11.10** | **58** | P | **Pn** | | **10 29 55.6** | **+2.8** |
| comp=Z,0.3nm,0.3s,baz=234,slow=12,SNR=3.2 | | | | | | | | |
| **LPAZ** | **La Paz** | **16.32** | **359** | P | **P** | | **10 31 07.7** | **+0.5** |
| comp=Z,0.6nm,0.3s,baz=136,slow=6.4,SNR=12 | | | | | | | | |
| **SIV** | **San Ignacio** | **17.70** | **22** | P | **Pn** | | **10 31 20.2** | **-0.7** |
| comp=Z,0.1nm,0.3s,baz=209,slow=10,SNR=6.9 | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **80.43** | **68** | P | **P** | | **10 39 25.7** | **-0.8** |
| comp=Z,0.7nm,0.6s,baz=254,slow=3.9,SNR=7.2 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **151.18** | **34** | PKPbc | **PKPbc** | | **10 47 06.6** | **-0.7** |
| comp=Z,3.8nm,0.4s,baz=306,slow=3.4,SNR=16 | | | | | | | | |

*CSEM **16** 10:30:50.9±0.2, 38°72N×43°53E, h10km, ML3.1, Error ellipse: s-maj=5.4km s-min=3.7km az=101.0*
*ISK **16** 10:30:50.6, 38°73N×43°46E, h8km, ML3.1*
*ISCJB **16** 10:30:51.3±0.5, 38°71N±0°02×43°51E±0°04, h8km±4km, Error ellipse: s-maj=5.3km s-min=3.5km az=10.3*
*DDA **16** 10:31:47.0, 38°71N×43°57E, h7km, Ml3.4*
**ISC 16 10:30:51.0±1.1, 38°72N±0°02×43°56E±0°03, h3km±10km, n45, σ1°38/70, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | | h m s | ISC |
| **VANB** | **Van** | **0.18** | **227** | *e*PG | **Pg** | | **10 30 55.6** | **+1.1** |
| **VANB** | **Van** | **0.18** | **227** | *e*Pg | **Pg** | | **10 30 55.6** | **+1.1** |
| **TVAN** | **Van** | **0.22** | **212** | *i* P | **Pg** | | **10 30 55.6** | **+0.4** |
| TVAN | | | | *i* S | **Sg** | | **10 31 00.5** | **+2.3** |
| **TVAN** | **Van** | **0.22** | **212** | P | **Pg** | | **10 30 55.7** | **+0.4** |
| TVAN | | | | S | **Sg** | | **10 31 00.5** | **+2.3** |
| **VMUR** | **Van-Muradiye** | **0.27** | **3** | *i* P | **Pg** | | **10 30 56.6** | **+0.4** |
| VMUR | | | | *i* S | **Sb** | | **10 31 02.6** | **-1.1** |
| **VMUR** | **Van-Muradiye** | **0.27** | **3** | P | **Pg** | | **10 30 56.6** | **+0.4** |
| VMUR | | | | S | **Sb** | | **10 31 02.6** | **-1.1** |
| **CLDR** | **Caldiran** | **0.51** | **34** | *e*PG | **Pg** | | **10 31 01.6** | **+0.9** |
| CLDR | | | | *e*SG | **Sb** | | **10 31 09.8** | **-0.8** |
| **CLDR** | **Caldiran** | **0.51** | **34** | *i* P | **Pg** | | **10 31 01.2** | **+0.5** |
| CLDR | | | | *i* S | **Sb** | | **10 31 09.8** | **-0.8** |
| **CLDR** | **Caldiran** | **0.51** | **34** | P | **Pg** | | **10 31 01.2** | **+0.5** |
| **CLDR** | **Caldiran** | **0.51** | **34** | *e*Pg | **Pg** | | **10 31 01.7** | **+0.9** |
| CLDR | | | | S | **Sb** | | **10 31 09.8** | **-0.8** |
| **GEVA** | **Gevas** | **0.56** | **224** | *i* P | **Pg** | | **10 31 01.2** | **-0.6** |
| GEVA | | | | *i* S | **Sg** | | **10 31 06.9** | **-2.2** |
| **GEVA** | **Gevas** | **0.56** | **224** | P | **Pg** | | **10 31 01.2** | **-0.6** |
| GEVA | | | | S | **Sg** | | **10 31 06.9** | **-2.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.66** | **278** | *i* P | **Pg** | | **10 31 03.0** | **-0.6** |
| ADCV | | | | *i* S | **Sg** | | **10 31 13.0** | **+0.9** |
| **ADCV** | **BITLIS_Adilcev** | **0.66** | **278** | P | **Pg** | | **10 31 03.0** | **-0.6** |
| ADCV | | | | S | **Sg** | | **10 31 13.0** | **+0.9** |
| **BASK** | **Baskale_VAN** | **0.75** | **152** | *i* P | **Pg** | | **10 31 04.9** | **-0.5** |
| BASK | | | | *i* S | **Sb** | | **10 31 18.1** | **+0.5** |
| **BASK** | **Baskale_VAN** | **0.75** | **152** | P | **Pg** | | **10 31 04.9** | **-0.5** |
| BASK | | | | S | **Sb** | | **10 31 18.1** | **+0.5** |
| **DYDN** | **Diyadin** | **0.83** | **7** | *i* P | **Pg** | | **10 31 06.8** | **-0.1** |
| DYDN | | | | *i* S | **Sb** | | **10 31 20.3** | **+0.5** |
| **DYDN** | **Diyadin** | **0.83** | **7** | P | **Pg** | | **10 31 06.8** | **-0.1** |
| DYDN | | | | S | **Sb** | | **10 31 20.3** | **+0.5** |
| **TUTA** | **Tutak** | **0.89** | **320** | *i* P | **Pg** | | **10 31 06.8** | **-1.3** |
| TUTA | | | | *i* S | **Sg** | | **10 31 20.1** | **+0.4** |
| **TUTA** | **Tutak** | **0.89** | **320** | P | **Pg** | | **10 31 06.8** | **-1.3** |
| TUTA | | | | S | **Sg** | | **10 31 20.1** | **+0.4** |
| **AGRB** | **Hanur-Agry** | **0.96** | **333** | *e*PG | **Pg** | | **10 31 08.7** | **-0.7** |
| **AGRB** | **Hanur-Agry** | **0.96** | **333** | *e*Pg | **Pg** | | **10 31 08.7** | **-0.7** |
| **HAKT** | **HAKKARI** | **1.17** | **174** | *i* P | **Pb** | | **10 31 11.8** | **-2.1** |
| HAKT | | | | *i* S | **Sn** | | **10 

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| APA0 | | | | Lg | Lg | 10 40 36.9 | | | |
| | baz=95,slow=14 | | | | | | | | |
| APA0 | | | | Rg | Rg | 10 40 38.6 | | | |
| | baz=78,slow=37 | | | | | | | | |
| **APA0** | **Apatity Array** | **0.36** | **282** | Pg | **Pb** | **10 40 31.7** | **0.0** | | |
| | SNR=399 | | | | | | | | |
| APA0 | | | | Lg | Lg | 10 40 36.9 | | | |
| | SNR=50 | | | | | | | | |
| **VRF** | **Varrio** | **1.66** | **279** | Pg | **Pg** | **10 40 54.6** | **-0.4** | | |
| VRF | | | | Sn | **Sb** | **10 41 15.2** | **+0.4** | | |
| **VRF** | **Varrio** | **1.66** | **279** | PG | **Pg** | **10 40 54.6** | **-0.4** | | |
| VRF | | | | MSG | | 10 41 13.9 | | | |
| | comp=Z,19nm,0.2s | | | | | | | | |
| VRF | | | | SN | **Sb** | **10 41 15.2** | **+0.4** | | |
| **KU6** | **Riekki** | **2.20** | **228** | Pb | **Pg** | **10 41 05.1** | **-0.2** | | |
| **KU6** | **Riekki** | **2.20** | **228** | PB | **Pg** | **10 41 05.1** | **-0.2** | | |
| KU6 | | | | MSG | | 10 41 32.5 | | | |
| | comp=Z,9.5nm,0.2s | | | | | | | | |
| KU6 | | | | SG | **Sg** | **10 41 34.6** | **+0.9** | | |
| **MSF** | **Maaselka** | **2.53** | **232** | Pb | **Pg** | **10 41 11.1** | **-0.5** | | |
| **MSF** | **Maaselka** | **2.53** | **232** | PB | **Pg** | **10 41 11.1** | **-0.5** | | |
| MSF | | | | SG | **Sg** | **10 41 44.2** | **-0.1** | | |
| **SGF** | **Sodankyl** | **2.85** | **272** | Pg | **Pg** | **10 41 15.8** | **-1.8** | | |
| SGF | | | | Sg | **Sb** | **10 41 51.2** | **+2.4** | | |
| **SGF** | **Sodankyl** | **2.85** | **272** | PG | **Pg** | **10 41 15.8** | **-1.8** | | |
| SGF | | | | SG | **Sb** | **10 41 51.2** | **+2.4** | | |
| **RNF** | **Rovaniemi** | **3.23** | **257** | Pb | **Pb** | **10 41 21.1** | **+0.6** | | |
| RNF | | | | Sb | **Sb** | **10 42 00.9** | **+1.1** | | |
| **RNF** | **Rovaniemi** | **3.23** | **257** | PB | **Pb** | **10 41 21.2** | **+0.6** | | |
| | baz=71 | | | | | | | | |
| RNF | | | | SB | **Sb** | **10 42 00.9** | **+1.1** | | |
| **ARA0** | **ARCESS Array S** | **3.69** | **307** | Pn | **Pn** | **10 41 22.3** | **+2.1** | | |
| | baz=121,slow=16 | | | | | | | | |
| ARA0 | | | | Sn | **Sn** | **10 42 04.4** | **+0.8** | | |
| | baz=122,slow=28 | | | | | | | | |
| ARA0 | | | | Lg | Lg | 10 42 15.6 | | | |
| | baz=120,slow=37 | | | | | | | | |
| **ARA0** | **ARCESS Array S** | **3.69** | **307** | Pn | **Pn** | **10 41 22.3** | **+2.1** | | |
| | baz=121,slow=16 | | | | | | | | |
| ARA0 | | | | Sn | **Sn** | **10 42 04.4** | **+0.8** | | |
| | baz=122,slow=28 | | | | | | | | |
| ARA0 | | | | Lg | Lg | 10 42 15.6 | | | |
| | baz=120,slow=37 | | | | | | | | |
| **ARA0** | **ARCESS Array S** | **3.69** | **307** | Pn | **Pn** | **10 41 22.3** | **+2.1** | | |
| | SNR=8.3 | | | | | | | | |
| ARA0 | | | | Sn | **Sn** | **10 42 04.4** | **+0.8** | | |
| | SNR=5.7 | | | | | | | | |
| ARA0 | | | | Lg | Lg | 10 42 15.6 | | | |
| | SNR=50 | | | | | | | | |
| **HEF** | **Hetta** | **3.96** | **288** | Sn | **Sn** | **10 42 12.5** | **+2.1** | | |
| **HEF** | **Hetta** | **3.96** | **288** | SN | **Sn** | **10 42 12.6** | **+2.1** | | |
| **OUL** | **Oulu** | **4.06** | **237** | Pg | **Pg** | **10 41 39.0** | **-1.9** | | |
| OUL | | | | Sg | **Sg** | **10 42 32.5** | **-1.0** | | |
| **OUL** | **Oulu** | **4.06** | **237** | PG | **Pg** | **10 41 39.0** | **-1.9** | | |
| OUL | | | | SG | **Sg** | **10 42 32.5** | **-1.0** | | |
| **TOF** | **Tornio** | **4.07** | **253** | Pg | **Pg** | **10 41 38.4** | **-2.5** | | |
| **TOF** | **Tornio** | **4.07** | **253** | PG | **Pg** | **10 41 38.4** | **-2.5** | | |
| **KALU** | **Kalix** | **4.52** | **253** | Sg | **Sg** | **10 42 44.4** | **-3.6** | | |
| **KALU** | **Kalix** | **4.52** | **253** | SG | **Sg** | **10 42 44.5** | **-3.6** | | |
| **LANU** | **Lannavaara** | **4.56** | **282** | Pn | **Pn** | **10 41 32.8** | **+0.7** | | |
| LANU | | | | Sg | **Sg** | **10 42 45.0** | **-4.3** | | |
| **LANU** | **Lannavaara** | **4.56** | **282** | PN | **Pn** | **10 41 32.8** | **+0.7** | | |
| LANU | | | | SG | **Sg** | **10 42 45.1** | **-4.3** | | |
| **ERTU** | **Ertsjaerv** | **4.70** | **263** | Pn | **Pn** | **10 41 36.9** | **+2.9** | | |
| ERTU | | | | Sn | **Sn** | **10 42 30.5** | **+2.1** | | |
| **ERTU** | **Ertsjaerv** | **4.70** | **263** | PN | **Pn** | **10 41 37.0** | **+2.9** | | |
| ERTU | | | | SN | **Sn** | **10 42 30.6** | **+2.1** | | |
| **FIA0** | **FINESS Array S** | **6.98** | **213** | Pn | **Pn** | **10 42 05.5** | **+0.2** | | |
| FIA0 | | | | Sn | **Sn** | **10 43 24.4** | **-0.3** | | |
| | baz=40,slow=28 | | | | | | | | |
| FIA0 | | | | Lg | Lg | 10 44 02.4 | | | |
| | baz=35,slow=28 | | | | | | | | |
| **FIA0** | **FINESS Array S** | **6.98** | **213** | Pn | **Pn** | **10 42 05.5** | **+0.2** | | |
| FIA0 | | | | Sn | **Sn** | **10 43 24.4** | **-0.3** | | |
| | baz=40,slow=28 | | | | | | | | |
| FIA0 | | | | Lg | Lg | 10 44 02.4 | | | |
| | baz=35,slow=28 | | | | | | | | |
| **FIA0** | **FINESS Array S** | **6.98** | **213** | Pn | **Pn** | **10 42 05.5** | **+0.2** | | |
| FIA0 | | | | Sn | **Sn** | **10 43 24.4** | **-0.3** | | |
| FIA0 | | | | Lg | Lg | 10 44 02.4 | | | |
| | SNR=50 | | | | | | | | |
| **SPA0** | **Spitsbergen Ar** | **11.79** | **342** | Pn | **Pn** | **10 43 09.7** | **-1.4** | | |
| | baz=137,slow=18 | | | | | | | | |
| **SPA0** | **Spitsbergen Ar** | **11.79** | **342** | Pn | **Pn** | **10 43 09.7** | **-1.4** | | |
| | baz=137,slow=18 | | | | | | | | |

*IDC* ***16*** *11:25:22.4±1.4, 7.°09S×155.°40E, h0km, mb3.7/7, mb1 3.9/7, mb1mx3.8/21, mbtmp3.7/7, MS3.2/1, Ms1 3.2/1, ms1mx2.5/28, Error ellipse: s-maj=65.6km s-min=22.9km az=126.0*

*ISCJB* ***16*** *11:25:28.1±1.2, 7.°2S±0.°2×155.°4E±0.°3, h50km, mb3.5/7, MS3.1/1, Error ellipse: s-maj=52.2km s-min=18.1km az=36.5*

**ISC 16 11:25:29.5±1.3, 7.°2S±0.°3×155.°4E±0.°4, h50km, n8, σ0s52/8, mb3.6/7, Bougainville-Solomon Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **24.03** | **236** | P | **P** | **11 30 40.0** | **0.0** |
| | 1.9nm,0.8s,baz=57,slow=9.2,SNR=5.8 | | | | | | |
| **ASAR** | **Alice Springs** | **26.34** | **229** | P | **P** | **11 31 00.6** | **-0.4** |
| | 0.3nm,0.8s,baz=60,slow=9.9,SNR=4.3 | | | | | | |
| ASAR | | | | LR | LR | 11 41 01.8 | |
| | comp=Z,46nm,18.5s,baz=72,slow=36 | | | | | | |
| **STKA** | **Stephens Creek** | **27.75** | **206** | P | **P** | **11 31 14.0** | **+0.5** |
| | 2.8nm,0.9s,baz=8.1,slow=15,SNR=3.6 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **30.93** | **247** | P | **P** | **11 31 41.8** | **-0.1** |
| | 1.4nm,0.8s,baz=72,slow=14,SNR=4.2 | | | | | | |
| **ILAR** | **Eielson Array** | **83.39** | **21** | P | **P** | **11 37 50.8** | **-0.2** |
| | 0.4nm,1.0s,baz=236,slow=4.2,SNR=5.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **83.77** | **319** | P | **P** | **11 37 54.0** | **+0.5** |
| | 0.3nm,0.7s,baz=95,slow=5.6,SNR=3.1 | | | | | | |
| **YKA** | **Yellowknife Ar** | **96.31** | **28** | P | **P** | **11 38 52.6** | **+0.2** |
| | 0.1nm,0.5s,baz=262,slow=4.9,SNR=4.2 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **153.42** | **285** | PKPbc | **PKPbc** | **11 45 22.7** | **-0.7** |
| | 0.4nm,0.7s,baz=90,slow=2.9,SNR=4.0 | | | | | | |

*ISK* ***16*** *11:26:01.6, 35.°55N×27.°14E, h29km, ML2.8*
*THE* ***16*** *11:26:02.5, 35.°70N×27.°37E, h6km±7km, ML2.8/4, Error ellipse: s-maj=20.9km s-min=1.0km az=141.0*
*ISCJB* ***16*** *11:26:03.0±0.8, 35.°75N±0.°05×27.°24E±0.°04, h10km±7km, Error ellipse: s-maj=9.0km s-min=2.9km az=149.1*
*ATH* ***16*** *11:26:02.1, 35.°78N×27.°23E, h17km±2km, ML2.9/6, Error ellipse: s-maj=4.3km s-min=1.2km az=139.0*
*CSEM* ***16*** *11:26:02.9±0.2, 35.°72N×27.°28E, h8km, ML2.8, Error ellipse: s-maj=7.3km s-min=3.0km az=150.0*
*DDA* ***16*** *11:26:35.0, 35.°97N×27.°58E, h2km, Ml3.2*

**ISC 16 11:26:02.7±0.8, 35.°73N±0.°04×27.°30E±0.°03, h12km±7km, n62, σ1s32/100, Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KARP** | **Karpathos** | **0.22** | **211** | *e*Pg | **Pg** | **11 26 06.8** | **-0.5** |
| KARP | | | | *e*Sg | **Sg** | **11 26 10.7** | **+0.1** |
| **KARP** | **Karpathos** | **0.22** | **211** | P | **Pg** | **11 26 06.9** | **-0.5** |
| KARP | | | | S | **Sg** | **11 26 09.7** | **-0.9** |
| KARP | | | | AML | AML | 11 26 11.2 | |
| | comp=N,25978μm,0.2s | | | | | | |
| KARP | | | | AML | AML | 11 26 11.2 | |
| | comp=E,20441μm,0.1s | | | | | | |
| **KARP** | **Karpathos** | **0.22** | **211** | *e*Pg | **Pg** | **11 26 06.9** | **-0.5** |
| **KARP** | **Karpathos** | **0.22** | **211** | P | **Pg** | **11 26 07.4** | **0.0** |
| KARP | | | | S | **Sg** | **11 26 10.7** | **+0.1** |
| **KARP** | **Karpathos** | **0.22** | **211** | P | **Pg** | **11 26 07.4** | **0.0** |
| KARP | | | | S | **Sg** | **11 26 10.7** | **+0.1** |
| **ARG** | **Arkhangelos** | **0.83** | **54** | P | **Pg** | **11 26 18.3** | **-0.4** |
| ARG | | | | S | **Sg** | **11 26 30.0** | **+0.4** |
| ARG | | | | AML | AML | 11 26 32.1 | |
| | comp=E,1719μm,0.2s | | | | | | |
| ARG | | | | AML | AML | 11 26 32.5 | |
| | comp=N,740μm,0.2s | | | | | | |
| **ARG** | **Arkhangelos** | **0.83** | **54** | P | **Pg** | **11 26 18.3** | **-0.4** |
| ARG | | | | S | **Sg** | **11 26 30.0** | **+0.4** |
| **ARG** | **Arkhangelos** | **0.83** | **54** | P | **Pg** | **11 26 18.3** | **-0.4** |
| ARG | | | | S | **Sg** | **11 26 29.2** | **-0.4** |
| **ZKR** | **Zakros** | **1.08** | **235** | P | **Pb** | **11 26 23.0** | **-0.2** |
| ZKR | | | | S | **Sb** | **11 26 37.2** | **0.0** |
| ZKR | | | | AML | AML | 11 26 42.2 | |
| | comp=N,450μm,0.3s | | | | | | |
| ZKR | | | | AML | AML | 11 26 44.0 | |
| | comp=E,1047μm,0.5s | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **ZKR** | **Zakros** | **1.08** | **235** | P | **Pb** | **11 26 23.0** | **-0.2** | | |
| ZKR | | | | S | **Sb** | **11 26 37.2** | **0.0** | | |
| **ZKR** | **Zakros** | **1.08** | **235** | P | **Pg** | **11 26 22.4** | **-1.0** | | |
| ZKR | | | | S | **Sn** | **11 26 38.9** | **+0.5** | | |
| **MRSB** | **Marmaris-Mugla** | **1.22** | **36** | *e*PN | **Pg** | **11 26 26.4** | **+0.2** | | |
| **MRSB** | **Marmaris-Mugla** | **1.22** | **36** | *e*Pn | **Pg** | **11 26 26.4** | **+0.2** | | |
| **BODT** | **Bodrum** | **1.33** | **0** | *e*PN | **Pn** | **11 26 27.3** | **+0.3** | | |
| **BODT** | **Bodrum** | **1.33** | **0** | *e*Pn | **Pn** | **11 26 27.3** | **+0.3** | | |
| **BDRM** | **Kayabasi** | **1.33** | **5** | *i* P | **Pb** | **11 26 28.1** | **+0.4** | | |
| BDRM | | | | *i* S | **Sb** | **11 26 45.0** | **+0.3** | | |
| **BDRM** | **Kayabasi** | **1.33** | **5** | P | **Pb** | **11 26 28.1** | **+0.4** | | |
| BDRM | | | | S | **Sb** | **11 26 45.0** | **+0.3** | | |
| **NPS** | **Neapolis** | **1.45** | **252** | P | **Pb** | **11 26 29.3** | **-0.3** | | |
| NPS | | | | S | **Sn** | **11 26 46.9** | **-0.8** | | |
| NPS | | | | AML | AML | 11 26 50.1 | | | |
| | comp=E,1236μm,0.5s | | | | | | | | |
| NPS | | | | AML | AML | 11 26 51.1 | | | |
| | comp=N,1114μm,0.2s | | | | | | | | |
| **NPS** | **Neapolis** | **1.45** | **252** | P | **Pn** | **11 26 29.0** | **+0.3** | | |
| NPS | | | | S | **Sn** | **11 26 47.4** | **-0.3** | | |
| **NPS** | **Neapolis** | **1.45** | **252** | P | **Pn** | **11 26 29.0** | **+0.3** | | |
| NPS | | | | S | **Sn** | **11 26 47.4** | **-0.3** | | |
| **DALY** | **Dalyan (Mu¨la** | **1.54** | **45** | *e*PN | **Pn** | **11 26 30.8** | **+0.9** | | |
| **DALY** | **Dalyan (Mu¨la** | **1.54** | **45** | *i* P | **Pn** | **11 26 30.7** | **+0.9** | | |
| DALY | | | | *i* S | **Sb** | **11 26 51.9** | **+1.3** | | |
| **DALY** | **Dalyan (Mu¨la** | **1.54** | **45** | *e*Pn | **Pn** | **11 26 30.8** | **+0.9** | | |
| DALY | | | | S | **Sb** | **11 26 51.9** | **+1.3** | | |
| **TURN** | **Turunc** | **1.55** | **42** | *e*PN | **Pn** | **11 26 26.5** | **-3.6** | | |
| **TURN** | **Turunc** | **1.55** | **42** | *i* P | **Pn** | **11 26 26.5** | **-3.6** | | |
| TURN | | | | *i* S | **Sn** | **11 26 44.0** | **-6.1** | | |
| **TURN** | **Turunc** | **1.55** | **42** | P | **Pn** | **11 26 26.5** | **-3.6** | | |
| **LAST** | **Lasithi** | **1.59** | **250** | P | **Pb** | **11 26 31.4** | **-0.6** | | |
| LAST | | | | S | **Sg** | **11 26 53.0** | **-0.8** | | |
| LAST | | | | AML | AML | 11 26 56.0 | | | |
| | comp=E,396μm,0.3s | | | | | | | | |
| LAST | | | | AML | AML | 11 26 56.4 | | | |
| | comp=N,267μm,0.4s | | | | | | | | |
| **LAST** | **Lasithi** | **1.59** | **250** | P | **Pn** | **11 26 31.0** | **+0.3** | | |
| LAST | | | | S | **Sb** | **11 26 52.2** | **+0.1** | | |
| **LAST** | **Lasithi** | **1.59** | **250** | P | **Pn** | **11 26 31.0** | **+0.3** | | |
| LAST | | | | S | **Sb** | **11 26 52.2** | **+0.1** | | |
| **FETY** | **Fethiye** | **1.70** | **58** | *e*PN | **Pn** | **11 26 32.9** | **+0.7** | | |
| **FETY** | **Fethiye** | **1.70** | **58** | *e*Pn | **Pn** | **11 26 32.9** | **+0.7** | | |
| **FETY** | **Fethiye** | **1.70** | **58** | P | **Pn** | **11 26 33.4** | **+1.2** | | |
| FETY | | | | S | **Sb** | **11 26 56.5** | **+1.2** | | |
| **AKAS** | **Kas** | **1.94** | **74** | *e*PN | **Pn** | **11 26 35.8** | **+0.3** | | |
| **AKAS** | **Kas** | **1.94** | **74** | *i* P | **Pn** | **11 26 35.4** | **-0.1** | | |
| **AKAS** | **Kas** | **1.94** | **74** | P | **Pn** | **11 26 35.4** | **-0.1** | | |
| **AKAS** | **Kas** | **1.94** | **74** | *e*Pn | **Pn** | **11 26 35.8** | **+0.3** | | |
| **APE** | **Apeiranthos** | **1.95** | **314** | P | **Pn** | **11 26 35.2** | **-0.5** | | |
| APE | | | | S | **Sn** | **11 26 59.0** | **-1.1** | | |
| **APE** | **Apeiranthos** | **1.95** | **314** | P | **Pn** | **11 26 35.2** | **-0.5** | | |
| APE | | | | S | **Sn** | **11 26 59.0** | **-1.1** | | |
| **IDI** | **Anoyia** | **2.01** | **258** | P | **Pn** | **11 26 37.8** | **+1.3** | | |
| IDI | | | | S | **Sn** | **11 27 00.9** | **-0.7** | | |
| IDI | | | | AML | AML | 11 27 06.8 | | | |
| | comp=N,275μm,0.5s | | | | | | | | |
| IDI | | | | AML | AML | 11 27 11.1 | | | |
| | comp=E,293μm,0.3s | | | | | | | | |
| **IDI** | **Anoyia** | **2.01** | **258** | P | **Pn** | **11 26 37.8** | **+1.3** | | |
| IDI | | | | S | **Sn** | **11 27 00.9** | **-0.7** | | |
| **SIVA** | **Sivas** | **2.15** | **251** | P | **Pn** | **11 26 36.9** | **-1.4** | | |
| SIVA | | | | S | **Sn** | **11 27 05.7** | **+0.7** | | |
| **SIVA** | **Sivas** | **2.15** | **251** | P | **Pn** | **11 26 36.9** | **-1.4** | | |
| SIVA | | | | S | **Sn** | **11 27 05.7** | **+0.7** | | |
| **TAVA** | **DENIZLI_Tavas** | **2.16** | **36** | *i* P | **Pb** | **11 26 41.2** | **-0.7** | | |
| TAVA | | | | *i* S | **Sb** | **11 27 08.9** | **+0.2** | | |
| **TAVA** | **DENIZLI_Tavas** | **2.16** | **36** | P | **Pb** | **11 26 41.2** | **-0.7** | | |
| TAVA | | | | S | **Sb** | **11 27 08.9** | **+0.2** | | |
| **GLHS** | **Glhisar (BURDU** | **2.27** | **51** | *e*PN | **Pn** | **11 26 41.2** | **+1.1** | | |
| **GLHS** | **Glhisar (BURDU** | **2.27** | **51** | *e*Pn | **Pn** | **11 26 41.2** | **+1.1** | | |
| **ELL** | **Elmali** | **2.34** | **64** | *e*PN | **Pn** | **11 26 42.0** | **+0.9** | | |
| **ELL** | **Elmali** | **2.34** | **64** | *e*Pn | **Pn** | **11 26 42.0** | **+0.9** | | |
| **GOLH** | **Golhisar** | **2.36** | **50** | *i* P | **Pn** | **11 26 43.3** | **+1.9** | | |
| GOLH | | | | *i* S | **Sb** | **11 27 16.1** | **+1.7** | | |
| **GOLH** | **Golhisar** | **2.36** | **50** | P | **Pn** | **11 26 43.3** | **+1.9** | | |
| GOLH | | | | S | **Sb** | **11 27 16.1** | **+1.7** | | |
| **DNZL** | **Cakiroluk** | **2.41** | **35** | *i* P | **Pb** | **11 26 46.1** | **+0.1** | | |
| DNZL | | | | *i* S | **Sb** | **11 27 17.2** | **+1.5** | | |
| **DNZL** | **Cakiroluk** | **2.41** | **35** | P | **Pb** | **11 26 46.1** | **+0.1** | | |
| DNZL | | | | S | **Sb** | **11 27 17.2** | **+1.5** | | |
| **VAM** | **Vamos** | **2.55** | **264** | P | **Pn** | **11 26 45.6** | **+1.8** | | |
| VAM | | | | S | **Sn** | **11 27 13.7** | **-1.0** | | |
| **VAM** | **Vamos** | **2.55** | **264** | P | **Pn** | **11 26 45.6** | **+1.8** | | |
| VAM | | | | S | **Sn** | **11 27 13.7** | **-1.0** | | |
| **IMMV** | **Iera Moni Meta** | **2.72** | **265** | P | **Pn** | **11 26 48.1** | **+2.0** | | |
| **IMMV** | **Iera Moni Meta** | **2.72** | **265** | P | **Pn** | **11 26 48.1** | **+2.0** | | |
| **KORT** | **Korkueli** | **2.77** | **62** | *e*PN | **Pn** | **11 26 48.1** | **+1.1** | | |
| **KORT** | **Korkueli** | **2.77** | **62** | *e*Pn | **Pn** | **11 26 48.1** | **+1.1** | | |
| **SUTC** | **Sutluce-Ispart** | **3.45** | **59** | *e*PN | **Pn** | **11 26 57.8** | **+1.5** | | |
| **SUTC** | **Sutluce-Ispart** | **3.45** | **59** | *e*Pn | **Pn** | **11 26 57.8** | **+1.5** | | |
| **VLI** | **Veliai** | **3.66** | **287** | P | **Pn** | **11 27 01.7** | **+2.6** | | |
| VLI | | | | S | **Sn** | **11 27 41.0** | **-1.2** | | |
| **VLI** | **Veliai** | **3.66** | **287** | P | **Pn** | **11 27 01.7** | **+2.6** | | |
| VLI | | | | S | **Sn** | **11 27 41.0** | **-1.2** | | |

**IDC 16 11:28:35.9±999.0, 38.°85N×54.°97E, h0km, Error ellipse: s-maj=689.2km s-min=204.0km az=21.0, Turkmenistan**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **I31KZ** | **AKTYUBINSK INF** | **11.76** | **10** | *i* | | 12 35 30.0 | |
| | baz=191,slow=372,SNR=1.6 | | | | | | |
| **I46RU** | **ZALESOVO INFRA** | **25.28** | **44** | *i* | | 14 08 53.7 | |
| | baz=244,slow=370,SNR=0.8 | | | | | | |
| **I34MN** | **SONGINO INFRAS** | **37.86** | **59** | *i* | | 15 23 40.0 | |
| | baz=273,slow=336,SNR=0.3 | | | | | | |

*ISCJB* ***16*** *11:29:47.6±0.4, 41.°57N±0.°03×35.°43E±0.°04, h0km, Error ellipse: s-maj=4.6km s-min=2.8km az=139.6*
*CSEM* ***16*** *11:29:47.7±0.2, 41.°56N×35.°39E, h1km, ML2.6, Error ellipse: s-maj=5.9km s-min=3.8km az=59.0, Suspected Mining explosion.*
*DDA* ***16*** *11:29:47.6, 41.°57N×35.°45E, h7km, Md2.8, Suspected Mining explosion.*
*ISK* ***16*** *11:29:47.4, 41.°54N×35.°38E, h7km, ML2.6*

**ISC 16 11:29:47.4±0.8, 41.°53N±0.°03×35.°41E±0.°03, h0km, n26, σ0s64/44, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DIKM** | **Dikmen** | **0.17** | **317** | *e*PG | **Pg** | **11 29 50.8** | **+0.2** |
| DIKM | | | | *e*SG | **Sg** | **11 29 53.4** | **+0.6** |
| **DIKM** | **Dikmen** | **0.17** | **317** | *e*Pg | **Pg** | **11 29 50.8** | **+0.2** |
| DIKM | | | | *e*Sg | **Sg** | **11 29 53.4** | **+0.6** |
| **BOYT** | **Boyabat** | **0.40** | **255** | *i* P | **Pb** | **11 29 56.3** | **-1.0** |
| **HAVZ** | **Havza** | **0.51** | **153** | *i* P | **Pb** | **11 29 58.2** | **-0.9** |
| HAVZ | | | | *i* S | **Sb** | **11 30 06.1** | **-1.1** |
| **SINO** | **SINOP_Merkez** | **0.52** | **342** | *i* P | **Pg** | **11 29 57.2** | **-0.1** |
| SINO | | | | *i* S | **Sg** | **11 30 04.0** | **0.0** |
| **SINO** | **SINOP_Merkez** | **0.52** | **342** | P | **Pg** | **11 29 57.2** | **-0.1** |
| SINO | | | | S | **Sg** | **11 30 04.0** | **0.0** |
| **SNOP** | **Sinop** | **0.52** | **343** | *e*PG | **Pg** | **11 29 57.4** | **+0.1** |
| SNOP | | | | *e*SG | **Sg** | **11 30 04.9** | **+0.9** |
| **SNOP** | **Sinop** | **0.52** | **343** | *e*Pg | **Pg** | **11 29 57.4** | **+0.1** |
| SNOP | | | | *e*Sg | **Sg** | **11 30 04.9** | **+0.9** |
| **SAMS** | **Samsun-Alacam** | **0.61** | **106** | *i* P | **Pg** | **11 29 59.4** | **+0.4** |
| SAMS | | | | *i* S | **Sg** | **11 30 07.8** | **+0.9** |
| **KVT** | **Kavak** | **0.65** | **133** | *e*PG | **Pb** | **11 30 01.1** | **-0.6** |
| KVT | | | | *e*SG | **Sb** | **11 30 11.0** | **-0.4** |
| **KVT** | **Kavak** | **0.65** | **133** | *e*Pg | **Pb** | **11 30 01.1** | **-0.6** |
| KVT | | | | *e*Sg | **Sb** | **11 30 11.0** | **-0.4** |
| **CTAK** | **Corum_Osmancik** | **0.99** | **208** | *i* P | **Pb** | **11 30 07.7** | **+0.1** |
| CTAK | | | | *i* S | **Sn** | **11 30 23.1** | **-0.5** |
| **CTAK** | **Corum_Osmancik** | **0.99** | **208** | P | **Pb** | **11 30 07.7** | **+0.1** |
| CTAK | | | | S | **Sn** | **11 30 23.1** | **-0.5** |
| **BZK** | **Bozkurt** | **1.14** | **293** | *e*PN | **Pg** | **11 30 09.0** | **-0.2** |
| **BZK** | **Bozkurt** | **1.14** | **293** | *e*Pn | **Pg** | **11 30 09.0** | **-0.2** |
| **TOS** | **Tosya** | **1.16** | **245** | *e*PN | **Pg** | **11 30 09.6** | **+0.1** |
| **TOS** | **Tosya** | **1.16** | **245** | *e*Pn | **Pg** | **11 30 09.6** | **+0.1** |
| **COAL** | **Corum-Alaca** | **1.31** | **194** | *i* P | **Pn** | **11 30 12.8** | **-0.2** |
| COAL | | | | *i* S | **Sn** | **11 30 32.8** | **+1.5** |
| **COAL** | **Corum-Alaca** | **1.31** | **194** | P | **Pn** | **11 30 12.8** | **-0.2** |
| COAL | | | | S | **Sn** | **11 30 32.8** | **+1.5** |
| **ERBA** | **Erbaa** | **1.32** | **129** | *i* P | **Pb** | **11 30 12.8** | **-0.2** |
| ERBA | | | | *i* S | **Sn** | **11 30 31.6** | **+0.1** |
| **ERBA** | **Erbaa** | **1.32** | **129** | P | **Pb** | **11 30 12.9** | **-0.2** |
| ERBA | | | | S | **Sn** | **11 30 31.6** | **+0.1** |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **ILGA** | **Ilgaz** | **1.36** | **250** | *i* P | **Pn** | **11 30 13.8** | **-0.1** | | |
| ILGA | | | | *i* S | **Sn** | **11 30 34.1** | **+1.3** | | |
| **ILGA** | **Ilgaz** | **1.36** | **250** | P | **Pn** | **11 30 13.8** | **-0.1** | | |
| ILGA | | | | S | **Sn** | **11 30 34.1** | **+1.3** | | |
| **CANT** | **Cankiri** | **1.64** | **236** | *e*PN | **Pn** | **11 30 17.1** | **-0.4** | | |
| **KURC** | **Kurucasile-Bar** | **2.02** | **280** | *e*PN | **Pn** | **11 30 22.4** | **-0.4** | | |
| **KURC** | **Kurucasile-Bar** | **2.02** | **280** | *e*Pn | **Pn** | **11 30 22.4** | **-0.4** | | |

**NNC 16 11:31:30.7±6.0, 36.°72N×70.°93E, h0km, mb3.6, mpv3.2, 4C-4D, Error ellipse: s-maj=48.5km s-min=22.1km az=176.0, Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DZET** | **Dzherino** | **2.67** | **322** | ⇓Pn | Pn | **11 32 14.9** | **-0.1** |
| | 2.2nm,0.3s | | | | | | |
| DZET | | | | ⇑Sn | Sn | 11 32 50.0 | +1.8 |
| | 8.4nm,0.3s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **3.86** | **31** | ⇓Pn | Pn | 11 32 31.9 | +0.4 |
| | 2.8nm,0.6s | | | | | | |
| SFK | | | | ⇑Sn | Sn | 11 33 19.6 | +1.9 |
| | 3.2nm,0.2s | | | | | | |
| **MNAS** | **Manas** | **5.88** | **11** | ⇑Pn | Pn | 11 32 58.1 | -1.2 |
| | 1.6nm,0.5s | | | | | | |
| MNAS | | | | ⇓Sn | Sn | 11 34 07.6 | 0.0 |
| | 1.1nm,0.4s | | | | | | |
| **KK31** | **Karatay Array** | **6.38** | **357** | ⇓Pn | Pn | 11 33 05.0 | -1.1 |
| | 1.9nm,0.3s,baz=184,slow=14,SNR=43 | | | | | | |
| KK31 | | | | ⇑Sn | Sn | 11 34 18.9 | -0.7 |
| | 0.8nm,0.4s,baz=187,slow=22 | | | | | | |

**IDC 16 11:36:33.5±5.8, 8.°92S×128.°66E, h0km, mb3.8/1, mb1 4.0/4, mb1mx3.5/42, mbtmp3.8/4, ML3.9/3, MS2.7/1, Ms1 2.7/1, ms1mx2.3/34, Error ellipse: s-maj=69.2km s-min=53.7km az=138.0, Timor Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **FITZ** | **Fitzroy Crossi** | **9.59** | **198** | Pn | Pn | **11 38 53.1** | **+0.2** |
| | 1.3nm,0.3s,baz=20,slow=9.9,SNR=88 | | | | | | |
| FITZ | | | | Sn | Sn | 11 40 43.8 | +2.4 |
| | 1.2nm,0.3s,baz=298,slow=23,SNR=8.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **12.26** | **154** | Pn | Pn | 11 39 29.5 | 0.0 |
| | 0.7nm,0.3s,baz=330,slow=13,SNR=29 | | | | | | |
| WRA | | | | Sn | Sn | 11 41 48.0 | +1.0 |
| | 1.1nm,0.3s,baz=328,slow=22,SNR=9.1 | | | | | | |
| **ASAR** | **Alice Springs** | **15.50** | **162** | Pn | Pn | 11 40 13.0 | -0.6 |
| | 0.2nm,0.3s,baz=334,slow=9.4,SNR=19 | | | | | | |
| ASAR | | | | Sn | Sn | 11 43 07.8 | +1.7 |
| | 0.3nm,0.3s,baz=346,slow=25,SNR=7.1 | | | | | | |
| **DAV** | **Davao City (W)** | **16.18** | **349** | LR | LR | 11 46 09.5 | |
| | comp=Z,31nm,20.9s,baz=337,slow=36 | | | | | | |
| **STKA** | **Stephens Creek** | **25.81** | **154** | P | P | 11 42 06.5 | -0.1 |
| | 1.3nm,0.7s,baz=332,slow=13,SNR=4.0 | | | | | | |

*ISCJB* ***16*** *11:42:19.5±0.5, 1.°37S±0.°05×100.°64E±0.°06, h58km, mb3.9/11, Error ellipse: s-maj=8.9km s-min=7.6km az=5.0*
*DJA* ***16*** *11:42:22.4±0.5, 2.°5S±3.°×10.°0E±.°, h20km±6km, M4.2/7, MLv4.2/7*
*IDC* ***16*** *11:42:24.4±3.8, 1.°45S×100.°71E, h95km±31km, mb3.6/11, mb1 3.6/13, mb1mx3.4/52, mbtmp3.9/13, Error ellipse: s-maj=55.9km s-min=14.5km az=54.0*

**ISC 16 11:42:21.0±0.7, 1.°48S±0.°05×100.°48E±0.°06, h58km, n25, σ2s05/27, mb4.0/11, Southern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PDSI** | **Padang** | **0.56** | **359** | P | **Pn** | **11 42 35.0** | **+1.4** |
| PDSI | | | | S | **Sn** | **11 42 44.3** | **+1.6** |
| **PPSI** | **Pulau Pagai** | **1.36** | **200** | P | **Pn** | **11 42 45.8** | **+2.0** |
| PPSI | | | | S | **Sn** | **11 43 03.3** | **+2.5** |
| **SISI** | **Saibi** | **1.39** | **276** | P | **Pn** | **11 42 45.9** | **+1.7** |
| SISI | | | | Pg | **Pn** | **11 42 47.3** | **+3.1** |
| SISI | | | | S | **Sn** | **11 43 02.5** | **+0.9** |
| **BKNI** | **Bangkin

*$M_{rr}$-0.05±.03; $M_{\theta\theta}$0.87±.03; $M_{\phi\phi}$-0.81±.03; $M_{r\theta}$0.18±.05; $M_{\theta\phi}$-1.44±.03; $M_{r\phi}$-0.41±.06; Best double couple: $M_0$1.72700×$10^{17}$ NP1:$\phi_s$165.00000°,δ89.00000°, λ15.00000°. NP2:$\phi_s$75.00000°,δ75.00000°,λ178.00000°. Principal axes: T 1.7670, Plg11.0000°, Azm31.0000°; N -0.0800, Plg75.0000°, Azm171.0000°; P -1.6870, Plg9.0000°, Azm299.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

**ISC 16 12:02:58.5**±0.3,**45.79S**±0.05×**76.40W**±0.06,**h23**km,**n282,** σ1$\Downarrow$**97**/160,**mb5.2**/55,**MS5.1**/142,**1C,Off coast of southern Chile**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **CHRN** | **Cochrane** | **3.01** | **120** | *e*Pn | | **Pn** | | **12 03 41.1** | **-3.5** |
| **CHRN** | **Cochrane** | **3.01** | **120** | *e*P | | **Pn** | | **12 03 42.1** | **-2.6** |
| CHRN | | | | *e*S | | **Sn** | | **12 04 20.5** | **+0.5** |
| CHRN | | | | IAML | | | | 12 04 55.4 | |
| | comp=N,769nm,1.2s | | | | | | | | |
| **GO07** | **Milladeo Hill,** | **3.31** | **37** | *e*P | | **Pn** | | **12 03 45.8** | **-3.1** |
| GO07 | | | | IAML | | | | 12 05 12.3 | |
| | comp=N,2μm,4.2s | | | | | | | | |
| **GO09** | **Cerro Castillo** | **6.11** | **155** | *e*Pn | | **Pn** | | **12 04 23.8** | **-3.5** |
| **GO09** | **Cerro Castillo** | **6.11** | **155** | *e*P | | **Pn** | | **12 04 24.9** | **-2.4** |
| GO09 | | | | *e*S | | **Sn** | | **12 05 36.8** | **+0.2** |
| **PLCA** | **Paso Flores** | **6.61** | **42** | Pn | | **Pn** | | **12 04 33.8** | **-0.5** |
| | comp=N,0.6nm,0.3s,baz=238,slow=15,SNR=24 | | | | | | | | |
| PLCA | | | | LR | | LR | | 12 07 09.9 | |
| | comp=N,32μm,20.3s,baz=234,slow=38 | | | | | | | | |
| **PLCA** | **Paso Flores** | **6.61** | **42** | *i*P | | **Pn** | | **12 04 32.8** | **-1.5** |
| PLCA | | | | *e*S | | **Sn** | | **12 05 47.0** | **-2.0** |
| **USHA** | **Ushuaia** | **10.38** | **154** | Pn | | **Pn** | | **12 05 22.3** | **-3.5** |
| | comp=N,58nm,0.3s,baz=298,slow=12,SNR=9.2 | | | | | | | | |
| USHA | | | | LR | | LR | | 12 09 07.1 | |
| | comp=N,42μm,20.8s,baz=306,slow=36 | | | | | | | | |
| **GO05** | **HualaæØ** | **11.29** | **19** | *e*Pn | | **Pn** | | **12 05 36.3** | **-2.0** |
| **TRQA** | **Tornquist** | **13.21** | **59** | *e*Pn | | **Pn** | | **12 06 01.2** | **-3.4** |
| **PEL** | **Peldehue** | **13.37** | **21** | *e*P | | **Pn** | | **12 06 03.0** | **-3.8** |
| **PEL** | **Peldehue** | **13.37** | **21** | *e*Pn | | **Pn** | | **12 06 03.0** | **-3.8** |
| **EFI** | **East Falkland** | **13.45** | **123** | *i* P | | **Pn** | | **12 06 03.9** | **-3.7** |
| **ROC1** | **El Roble** | **13.45** | **20** | *e*Pn | | **Pn** | | **12 06 04.9** | **-3.2** |
| **LCO** | **Las Campanas** | **17.34** | **17** | *e*Pn | | **Pn** | | **12 06 58.3** | **-0.9** |
| | comp=N,81nm,1.3s | | | | | | | | |
| LCO | | | | *e*Sn | | **Sn** | | **12 10 12.2** | **+0.7** |
| **PMSA** | **Palmer Station** | **20.21** | **165** | LR | | LR | | 12 13 33.8 | |
| | comp=N,4μm,20.6s,baz=314,slow=32 | | | | | | | | |
| **PMSA** | **Palmer Station** | **20.21** | **165** | PFAKE | | | | 12 07 40.0 | +6.6 |
| PMSA | | | | LR | | LR | | | |
| | comp=Z,5μm,22.0s | | | | | | | | |
| **PB10** | **IPOC Station P** | **22.72** | **14** | *e*P | | **P** | | **12 07 59.5** | **+0.8** |
| | comp=Z,160nm,1.4s | | | | | | | | |
| **PB04** | **IPOC Station P** | **23.95** | **14** | *e*P | | **P** | | **12 08 10.2** | **-0.8** |
| | comp=Z,74nm,1.2s | | | | | | | | |
| **CPUP** | **Villa Florida** | **24.68** | **45** | P | | **P** | | **12 08 16.8** | **-0.8** |
| | comp=Z,39nm,1.0s,baz=214,slow=9.4,SNR=29 | | | | | | | | |
| CPUP | | | | LR | | LR | | 12 18 40.0 | |
| | comp=Z,10μm,19.1s,baz=215,slow=38 | | | | | | | | |
| **CPUP** | **Villa Florida** | **24.68** | **45** | *e*P | | **P** | | **12 08 17.7** | **+0.1** |
| CPUP | | | | pmax | | pmax | | | |
| | comp=Z,81nm,1.1s | | | | | | | | |
| **CPUP** | **Villa Florida** | **24.68** | **45** | *e*P | | **P** | | **12 08 17.6** | **+0.1** |
| | comp=Z,81nm,1.1s | | | | | | | | |
| **PB01** | **IPOC Station P** | **25.32** | **15** | *e*P | | **P** | | **12 08 23.6** | **0.0** |
| | comp=Z,54nm,1.2s | | | | | | | | |
| **PB11** | **IPOC Station P** | **26.55** | **14** | *e*P | | **P** | | **12 08 34.8** | **+0.1** |
| | comp=Z,46nm,1.1s | | | | | | | | |
| **HOPE** | **Hope Point** | **26.70** | **123** | PFAKE | | | | 12 08 50.0 | +14 |
| HOPE | | | | LR | | LR | | | |
| | comp=Z,3μm,19.0s | | | | | | | | |
| **MNMC** | **Minye Minye** | **27.17** | **14** | *e*P | | **P** | | **12 08 39.8** | **-0.7** |
| | comp=Z,46nm,1.1s | | | | | | | | |
| **LPAZ** | **La Paz** | **30.21** | **16** | P | | **P** | | **12 09 08.2** | **+0.2** |
| | comp=Z,4.5nm,0.9s,baz=180,slow=7.5,SNR=15 | | | | | | | | |
| **LPAZ** | **La Paz** | **30.21** | **16** | *e*P | | **P** | | **12 09 08.0** | **0.0** |
| **LPAZ** | **La Paz** | **30.21** | **16** | *e*P | | **P** | | **12 09 07.9** | **0.0** |
| | comp=Z,35nm,1.4s | | | | | | | | |
| **RPN** | **Rapa Nui** | **32.07** | **294** | PFAKE | | | | 12 09 40.0 | +16 |
| RPN | | | | LR | | LR | | | |
| | comp=Z,3μm,22.0s | | | | | | | | |
| **NNA** | **Nana** | **33.69** | **359** | PFAKE | | | | 12 09 50.0 | +12 |
| NNA | | | | LR | | LR | | | |
| | comp=Z,1μm,20.0s | | | | | | | | |
| **BDFB** | **Brasilia** | **38.32** | **48** | P | | **P** | | **12 10 17.3** | **-0.3** |
| | comp=Z,8.8nm,0.8s,baz=45,slow=5.7,SNR=9.0 | | | | | | | | |
| BDFB | | | | LR | | LR | | 12 27 30.2 | |
| | comp=Z,7μm,18.4s,baz=356,slow=38 | | | | | | | | |
| **BDFB** | **Brasilia** | **38.32** | **48** | *e*P | | **P** | | **12 10 18.1** | **+0.5** |
| **BDFB** | **Brasilia** | **38.32** | **48** | *e*P | | **P** | | **12 10 18.1** | **+0.5** |
| **SAML** | **Samuel** | **38.42** | **21** | PFAKE | | | | 12 10 30.0 | +12 |
| SAML | | | | LR | | LR | | | |
| | comp=Z,4μm,20.0s | | | | | | | | |
| **VNA3** | **Neumayer Olymp** | **40.06** | **152** | P | | **P** | | **12 10 30.5** | **-0.9** |
| **VNA1** | **Neumayer--Stat** | **40.50** | **152** | P | | **P** | | **12 10 37.5** | **+2.5** |
| **VNA2** | **Neumayer--Watz** | **40.79** | **152** | P | | **P** | | **12 10 36.5** | **-0.9** |
| | baz=274,slow=9.1 | | | | | | | | |
| **SNAA** | **Sanae** | **42.24** | **153** | P | | **P** | | **12 10 48.0** | **-1.4** |
| **SNAA** | **Sanae** | **42.24** | **153** | P | | **P** | | **12 10 47.9** | **-1.5** |
| | comp=Z,7.3nm,0.9s,baz=6.2,slow=12,SNR=8.9 | | | | | | | | |
| **SNAA** | **Sanae** | **42.24** | **153** | *e*P | | **P** | | **12 10 48.9** | **-0.5** |
| **SNAA** | **Sanae** | **42.24** | **153** | *e*P | | **P** | | **12 10 48.2** | **-1.1** |
| | comp=Z,26nm,1.0s | | | | | | | | |
| **QSPA** | **South Pole Qui** | **44.46** | **180** | *e*P | | **P** | | **12 11 07.0** | **-0.5** |
| | comp=Z,30nm,1.4s | | | | | | | | |
| QSPA | | | | LR | | LR | | | |
| | comp=Z,1μm,19.0s | | | | | | | | |
| **OTAV** | **Otavalo** | **45.87** | **357** | PFAKE | | | | 12 11 30.0 | +11 |
| OTAV | | | | LR | | LR | | | |
| | comp=Z,944nm,19.0s | | | | | | | | |
| **PAYG** | **Puerto Ayora** | **46.56** | **341** | PFAKE | | | | 12 11 40.0 | +16 |
| PAYG | | | | LR | | LR | | | |
| | comp=Z,817nm,19.0s | | | | | | | | |
| **NVL** | **N'lazarevskaya** | **47.06** | **153** | *e*P | | **P** | | **12 11 30.4** | **+2.7** |
| NVL | | | | *e*S | | **S** | | **12 18 20.1** | **+2.2** |
| **PTGA** | **Pitinga** | **47.14** | **23** | *e*P | | **P** | | **12 11 29.7** | **+0.8** |
| | comp=Z,17nm,0.8s | | | | | | | | |
| PTGA | | | | LR | | LR | | | |
| | comp=Z,43μm,22.0s | | | | | | | | |
| **ROSC** | **El Rosal** | **50.44** | **3** | LR | | LR | | 12 31 39.1 | |
| | comp=Z,2μm,18.3s,baz=196,slow=34 | | | | | | | | |
| **SBA** | **Scott Base** | **50.86** | **194** | PFAKE | | | | 12 12 10.0 | +13 |
| SBA | | | | LR | | LR | | | |
| | comp=Z,717nm,19.0s | | | | | | | | |
| **VNDA** | **Vanda** | **51.89** | **194** | P | | **P** | | **12 12 04.6** | **+0.1** |
| | comp=Z,1.9nm,0.8s,baz=128,slow=5.7,SNR=4.9 | | | | | | | | |
| VNDA | | | | LR | | LR | | 12 32 01.9 | |
| | comp=Z,738nm,18.2s,baz=140,slow=34 | | | | | | | | |
| **VNDA** | **Vanda** | **51.89** | **194** | *e*P | | **P** | | **12 12 04.8** | **+0.4** |
| **VNDA** | **Vanda** | **51.89** | **194** | *e*P | | **P** | | **12 12 04.8** | **+0.4** |
| **RKT** | **Rikitea** | **52.06** | **275** | *e*S | | **S** | | **12 19 26.0** | **-2.9** |
| | comp=Z,418nm,28.5s | | | | | | | | |
| RKT | | | | *e*LQ | | LQ | | 12 24 48.0 | |
| | comp=Z,1μm,32.2s | | | | | | | | |
| RKT | | | | *e*LR | | LR | | 12 26 59.9 | |
| | comp=Z,1μm,28.0s | | | | | | | | |
| **RCBR** | **Riachuelo** | **53.03** | **54** | PFAKE | | | | 12 12 20.0 | +6.3 |
| RCBR | | | | LR | | LR | | | |
| | comp=Z,3μm,21.0s | | | | | | | | |
| **SDV** | **Santo Domingo** | **54.67** | **7** | PFAKE | | | | 12 12 40.0 | +14 |
| SDV | | | | LR | | LR | | | |
| | comp=Z,979nm,20.0s | | | | | | | | |
| **BCIP** | **Isla Barro Col** | **54.79** | **356** | *e*P | | P | | 12 12 31.7 | +5.3 |
| | comp=Z,126nm,0.8s | | | | | | | | |
| BCIP | | | | LR | | LR | | | |
| | comp=Z,682nm,20.0s | | | | | | | | |
| **JTS** | **JuntasAbangare** | **56.35** | **350** | PFAKE | | | | 12 12 50.0 | +12 |
| JTS | | | | LR | | LR | | | |
| | comp=Z,890nm,22.0s | | | | | | | | |
| **GRGR** | **Grenville** | **59.16** | **17** | PFAKE | | | | 12 13 10.0 | +13 |
| GRGR | | | | LR | | LR | | | |
| | comp=Z,1μm,20.0s | | | | | | | | |
| **BBGH** | **Gun Hill** | **60.59** | **19** | PFAKE | | | | 12 13 20.0 | +13 |
| BBGH | | | | LR | | LR | | | |
| | comp=Z,1μm,20.0s | | | | | | | | |
| **FDF** | **Fort de France** | **61.79** | **17** | PFAKE | | | | 12 13 30.0 | +15 |
| FDF | | | | LR | | LR | | | |
| | comp=Z,2μm,21.0s | | | | | | | | |
| **TBI** | **Tubuai** | **62.04** | **265** | *e*S | | **S** | | **12 21 40.2** | **-0.2** |
| | comp=Z,504nm,28.8s | | | | | | | | |
| TBI | | | | *e*LQ | | LQ | | 12 29 02.9 | |
| | comp=Z,2μm,32.2s | | | | | | | | |
| TBI | | | | *e*LR | | LR | | 12 31 37.9 | |
| | comp=Z,1μm,26.8s | | | | | | | | |
| **MAW** | **Mawson** | **62.83** | **164** | LR | | LR | | 12 39 33.5 | |
| | comp=Z,2μm,21.7s,baz=211,slow=35 | | | | | | | | |
| **MTDJ** | **Mount Denham** | **63.71** | **359** | PFAKE | | | | 12 13 40.0 | +12 |
| MTDJ | | | | LR | | LR | | | |
| | comp=Z,603nm,22.0s | | | | | | | | |
| **SJG** | **San Juan** | **64.27** | **11** | PFAKE | | | | 12 13 40.0 | +8.3 |
| SJG | | | | LR | | LR | | | |
| | comp=Z,2μm,19.0s | | | | | | | | |
| **ANWB** | **Willy Bob** | **64.53** | **15** | PFAKE | | | | 12 13 50.0 | +17 |
| ANWB | | | | LR | | LR | | | |
| | comp=Z,862nm,19.0s | | | | | | | | |
| **SDDR** | **Presa de Saban** | **64.62** | **5** | PFAKE | | | | 12 13 50.0 | +16 |
| SDDR | | | | LR | | LR | | | |
| | comp=Z,1μm,21.0s | | | | | | | | |
| **ASCN** | **Ascension** | **64.98** | **75** | PFAKE | | | | 12 13 50.0 | +13 |
| ASCN | | | | LR | | LR | | | |
| | comp=Z,619nm,19.0s | | | | | | | | |
| **SHEL** | **Horse Pasture** | **65.28** | **88** | PFAKE | | | | 12 13 50.0 | +11 |
| SHEL | | | | LR | | LR | | | |
| | comp=Z,449nm,20.0s | | | | | | | | |
| **GTBY** | **Guantanamo Bay** | **65.41** | **1** | PFAKE | | | | 12 13 50.0 | +11 |
| GTBY | | | | LR | | LR | | | |
| | comp=Z,570nm,20.0s | | | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **65.47** | **283** | *e*S | | **S** | | **12 22 20.0** | **-3.5** |
| | comp=Z,747nm,30.9s | | | | | | | | |
| TAOE | | | | *e*LQ | | LQ | | 12 30 24.0 | |
| | comp=Z,565nm,28.7s | | | | | | | | |
| TAOE | | | | *e*LR | | LR | | 12 33 05.8 | |
| | comp=Z,892nm,28.1s | | | | | | | | |
| **TVO** | **Taravao** | **65.58** | **269** | *e*T | | T | | 13 24 49.2 | |
| | comp=Z,1.1nm,0.3s | | | | | | | | |
| **TIAR** | **Tiarei** | **65.80** | **269** | *e*T | | T | | 13 25 04.8 | |
| | comp=Z,2.1nm,0.2s | | | | | | | | |
| **PAE** | **Paea** | **65.89** | **269** | *e*T | | T | | 13 25 12.6 | |
| | comp=Z,1.1nm,0.3s | | | | | | | | |
| **PPT2** | **Papeete2** | **65.94** | **269** | *e*S | | **S** | | **12 22 28.4** | **-0.7** |
| | comp=Z,780nm,28.2s | | | | | | | | |
| **PPT2** | **Papeete2** | **65.94** | **269** | *e*LR | | LR | | 12 33 28.0 | |
| | comp=Z,572nm,26.0s | | | | | | | | |
| **PPT2** | **Papeete2** | **65.94** | **269** | *e*T | | T | | 13 25 15.4 | |
| | comp=Z,1.6nm,0.2s | | | | | | | | |
| **PPT** | **Papeete** | **65.95** | **269** | LR | | LR | | 12 34 52.0 | |
| | comp=Z,333nm,19.4s,baz=134,slow=29 | | | | | | | | |
| **SUR** | **Sutherland** | **72.16** | **118** | PFAKE | | | | 12 14 30.0 | +8.5 |
| SUR | | | | LR | | LR | | | |
| | comp=Z,2μm,20.0s | | | | | | | | |
| **SNZO** | **South Karori** | **72.60** | **228** | PFAKE | | | | 12 14 40.0 | +16 |
| SNZO | | | | LR | | LR | | | |
| | comp=Z,2μm,20.0s | | | | | | | | |
| **RPZ** | **Rata Peaks** | **72.70** | **225** | LR | | LR | | 12 38 29.9 | |
| | comp=Z,2μm,20.5s,baz=138,slow=29 | | | | | | | | |
| **URZ** | **Urewera** | **73.49** | **232** | LR | | LR | | 12 39 15.8 | |
| | comp=Z,846nm,20.4s,baz=180,slow=30 | | | | | | | | |
| **SACV** | **Santiago Islan** | **76.96** | **52** | PFAKE | | | | 12 15 00.0 | +11 |
| SACV | | | | LR | | LR | | | |
| | comp=Z,726nm,21.0s | | | | | | | | |
| **RAO** | **Raoul Island** | **76.98** | **242** | PFAKE | | | | 12 15 00.0 | +11 |
| RAO | | | | LR | | LR | | | |
| | comp=Z,3μm,20.0s | | | | | | | | |
| **HPIG** | | **77.11** | **333** | *e*P | | **P** | | **12 14 51.7** | **+1.7** |
| | comp=Z,40nm,1.8s | | | | | | | | |
| **BRAL** | **Brewton** | **77.20** | **351** | PFAKE | | | | 12 15 00.0 | +10 |
| BRAL | | | | LR | | LR | | | |
| | comp=Z,481nm,20.0s | | | | | | | | |
| **HKT** | **Hockley** | **77.42** | **343** | *i* P | | **P** | | **12 14 53.4** | **+2.1** |
| HKT | | | | pmax | | pmax | | | |
| | comp=Z,15nm,1.2s | | | | | | | | |
| **BOSA** | **Boshof** | **77.52** | **118** | P | | **P** | | **12 14 52.5** | **-0.1** |
| | comp=Z,12nm,1.0s,baz=208,slow=4.7,SNR=10 | | | | | | | | |
| BOSA | | | | LR | | LR | | 12 45 25.1 | |
| | comp=Z,919nm,19.2s,baz=216,slow=33 | | | | | | | | |
| **BBSR** | **BB Station** | **78.51** | **10** | PFAKE | | | | 12 15 10.0 | +13 |
| BBSR | | | | LR | | LR | | | |
| | comp=Z,433nm,22.0s | | | | | | | | |
| **NHSC** | **New Hope** | **78.60** | **357** | PFAKE | | | | 12 15 10.0 | +12 |
| NHSC | | | | LR | | LR | | | |
| | comp=Z,543nm,19.0s | | | | | | | | |
| **LTX** | **Lajitas** | **78.76** | **336** | *e*P | | **P** | | **12 15 00.2** | **+1.2** |
| **LTX** | **Lajitas** | **78.76** | **336** | *e*P | | **P** | | **12 15 00.2** | **+1.2** |
| **TX31** | **Lajitas Ar. Si** | **78.76** | **336** | *e*P | | **P** | | **12 15 00.9** | **+1.9** |
| **TXAR** | **Lajitas Array** | **78.76** | **336** | P | | **P** | | **12 15 00.2** | **+1.2** |
| | comp=Z,1.9nm,0.9s,baz=142,slow=6.2,SNR=10 | | | | | | | | |
| **JCT** | **Junction City** | **78.82** | **340** | *e*P | | **P** | | **12 15 00.9** | **+1.6** |
| JCT | | | | pmax | | pmax | | | |
| | comp=Z,39nm,1.4s | | | | | | | | |
| JCT | | | | MLR | | MLR | | | |
| | comp=Z,228nm,20.0s | | | | | | | | |
| **JCT** | **Junction City** | **78.82** | **340** | *e*P | | **P** | | **12 15 00.9** | **+1.6** |
| | comp=Z,39nm,1.4s | | | | | | | | |
| JCT | | | | LR | | LR | | | |
| | comp=Z,228nm,20.0s | | | | | | | | |
| **NATX** | **Nacogdoches** | **78.94** | **344** | PFAKE | | | | 12 15 10.0 | +10 |
| NATX | | | | LR | | LR | | | |
| | comp=Z,558nm,21.0s | | | | | | | | |
| **GOGA** | **Godfrey** | **79.09** | **354** | PFAKE | | | | 12 15 10.0 | +9.4 |
| GOGA | | | | LR | | LR | | | |
| | comp=Z,650nm,19.0s | | | | | | | | |
| **TSUM** | **Tsumeb** | **79.19** | **106** | PFAKE | | | | 12 15 10.0 | +8.2 |
| TSUM | | | | LR | | LR | | | |
| | comp=Z,816nm,20.0s | | | | | | | | |
| **CNNC** | **Cliffs of the** | **80.66** | **359** | PFAKE | | | | 12 15 20.0 | +11 |
| CNNC | | | | LR | | LR | | | |
| | comp=Z,617nm,20.0s | | | | | | | | |
| **ABTX** | **Abilene, Hawle** | **80.84** | **340** | *e*P | | P | | 12 15 15.9 | +5.8 |
| | comp=Z,8.9nm,0.9s | | | | | | | | |
| **MIAR** | **Mount Ida** | **81.46** | **346** | PFAKE | | | | 12 15 30.0 | +17 |
| MIAR | | | | LR | | LR | | | |
| | comp=Z,430nm,20.0s | | | | | | | | |
| **MNTX** | **Cornudas Mount** | **81.48** | **335** | *e*P | | **P** | | **12 15 14.5** | **+0.9** |
| | comp=Z,21nm,1.8s | | | | | | | | |
| MNTX | | | | LR | | LR | | | |
| | comp=Z,406nm,22.0s | | | | | | | | |
| **X35A** | **Drake** | **81.96** | **343** | *e*P | | **P** | | **12 15 16.7** | **+0.7** |
| | comp=Z,30nm,1.5s | | | | | | | | |
| **WHAR** | **Wooly Hollow** | **81.97** | **347** | *e*P | | **P** | | **12 15 17.1** | **+1.1** |
| | comp=Z,25nm,1.3s | | | | | | | | |
| **DBIC** | **Dimbokro** | **82.09** | **72** | P | | **P** | | **12 15 17.1** | **-0.1** |
| | comp=Z,1.8nm,0.7s,baz=190,slow=6.1,SNR=2.7 | | | | | | | | |
| **DBIC** | **Dimbokro** | **82.09** | **72** | *e*P | | **P** | | **12 15 16.9** | **-0.3** |
| DBIC | | | | pmax | | pmax | | | |
| | comp=Z,22nm,1.1s | | | | | | | | |
| **DBIC** | **Dimbokro** | **82.09** | **72** | *e*P | | **P** | | **12 15 16.9** | **-0.3** |
| | comp=Z,22nm,1.1s | | | | | | | | |
| **WVT** | **Waverly** | **82.19** | **351** | *e*P | | **P** | | **12 15 17.1** | **0.0** |
| WVT | | | | pmax | | pmax | | | |
| | comp=Z,27nm,1.4s | | | | | | | | |
| **WVT** | **Waverly** | **82.19** | **351** | *e*P | | **P** | | **12 15 17.1** | **0.0** |
| | comp=Z,27nm,1.4s | | | | | | | | |
| **WMOK** | **Wichita Mounta** | **82.67** | **342** | PFAKE | | | | 12 15 30.0 | +10 |
| WMOK | | | | LR | | LR | | | |
| | comp=Z,404nm,21.0s | | | | | | | | |
| **BLA** | **Blacksburg** | **82.70** | **357** | PFAKE | | | | 12 15 30.0 | +10 |
| BLA | | | | LR | | LR | | | |
| | comp=Z,471nm,19.0s | | | | | | | | |
| **MSTX** | **Muleshoe** | **82.90** | **338** | *e*P | | **P** | | **12 15 22.4** | **+1.4** |
| | comp=Z,32nm,1.4s | | | | | | | | |
| **V36A** | **Jenks** | **83.09** | **344** | *e*P | | **P** | | **12 15 22.9** | **+1.1** |
| | comp=Z,21nm,0.8s | | | | | | | | |
| **TUL1** | **Leonard** | **83.19** | **344** | *e*P | | **P** | | **12 15 23.4** | **+1.0** |
| | comp=Z,22nm,1.1s | | | | | | | | |
| **AMTX** | **Amarillo** | **83.49** | **339** | *e*P | | **P** | | **12 15 25.2** | **+1.2** |
| | comp=Z,46nm,1.7s | | | | | | | | |
| **CBN** | **Corbin Frederi** | **83.62** | **359** | PFAKE | | | | 12 15 40.0 | +16 |
| CBN | | | | LR | | LR | | | |
| | comp=Z,826nm,20.0s | | | | | | | | |
| **TUC** | **Tucson** | **83.74** | **331** | *e*P | | **P** | | **12 15 27.4** | **+2.0** |
| TUC | | | | pmax | | pmax | | | |
| | comp=Z,16nm,1.7s | | | | | | | | |
| TUC | | | | MLR | | MLR | | | |
| | comp=Z,508nm,19.0s | | | | | | | | |
| **TUC** | **Tucson** | **83.74** | **331** | *e*P | | **P** | | **12 15 27.4** | **+2.0** |
| | comp=Z,16nm,1.7s | | | | | | | | |
| TUC | | | | LR | | LR | | | |
| | comp=Z,508nm,19.0s | | | | | | | | |
| **U35A** | **Pawnee** | **83.81** | **344** | *e*P | | **P** | | **12 15 26.5** | **+0.9** |
| | comp=Z,40nm,1.4s | | | | | | | | |
| **AFI** | **Afiamalu** | **83.86** | **256** | LR | | LR | | 12 45 44.6 | |
| | comp=Z,440nm,18.1s,baz=158,slow=31 | | | | | | | | |
| **CCM** | **Cathedral Cave** | **84.53** | **348** | *e*P | | **P** | | **12 15 28.5** | **-0.6** |
| CCM | | | | pmax | | pmax | | | |
| | comp=Z,22nm,1.0s | | | | | | | | |
| **CCM** | **Cathedral Cave** | **84.53** | **348** | *e*P | | **P** | | **12 15 28.5** | **-0.6** |
| | comp=Z,22nm,1.0s | | | | | | | | |
| **ANMO** | **Albuquerque** | **84.83** | **336** | *e*P | | **P** | | **12 15 32.4** | **+1.5** |
| ANMO | | | | pmax | | pmax | | | |
| | comp=Z,23nm,2.7s | | | | | | | | |
| **ANMO** | **Albuquerque** | **84.83** | **336** | *e*P | | **P** | | **12 15 32.5** | **+1.5** |
| | comp=Z,10nm,1.1s | | | | | | | | |
| ANMO | | | | LR | | LR | | | |
| | comp=Z,537nm,19.0s | | | | | | | | |
| **ACSO** | **Alum Creek Sta** | **85.84** | **355** | PFAKE | | | | 12 15 50.0 | +14 |
| ACSO | | | | LR | | LR | | | |
| | comp=Z,494nm,21.0s | | | | | | | | |
| **T25A** | **Trinidad** | **86.32** | **338** | *e*P | | **P** | | **12 15 38.7** | **+0.4** |
| | comp=Z,24nm,1.2s | | | | | | | | |
| **MHTCO** | **State Highway** | **86.38** | **338** | *e*P | | **P** | | **12 15 41.1** | **+2.4** |
| | comp=Z,27nm,1.5s | | | | | | | | |
| **KSU1** | **Kansas State U** | **86.43** | **344** | PFAKE | | | | 12 15 50.0 | +11 |
| KSU1 | | | | LR | | LR | | | |
| | comp=Z,458nm,22.0s | | | | | | | | |
| **HDIL** | **Hopedale** | **86.73** | **350** | PFAKE | | | | 12 15 50.0 | +10 |
| HDIL | | | | LR | | LR | | | |
| | comp=Z,420nm,20.0s | | | | | | | | |
| **CBKS** | **Cedar Bluff** | **86.79** | **342** | PFAKE | | | | 12 15 50.0 | +10 |
| CBKS | | | | LR | | LR | | | |
| | comp=Z,432nm,22.0s | | | | | | | | |
| **WUAZ** | **Wupatki** | **86.87** | **332** | *e*P | | **P** | | **12 15 42.4** | **+1.3** |
| | comp=Z,50nm,1.8s | | | | | | | | |
| WUAZ | | | | LR | | LR | | | |
| | comp=Z,484nm,22.0s | | | | | | | | |
| **XPFO** | **Piæon Flat** | **86.94** | **327** | *e*P | | **P** | | **12 15 43.9** | **+2.5** |
| | comp=Z,40nm,1.8s | | | | | | | | |
| **PFO** | **Pinyon Flats O** | **86.94** | **327** | *e*P | | **P** | | **12 15 43.6** | **+2.2** |
| PFO | | | | pmax | | pmax | | | |
| | comp=Z,40nm,1.8s | | | | | | | | |
| PFO | | | | MLR | | MLR | | | |
| | comp=Z,442nm,19.0s | | | | | | | | |
| **PFO** | **Pinyon Flats O** | **86.94** | **327** | *e*P | | **P** | | **12 15 43.6** | **+2.2** |
| | comp=Z,40nm,1.8s | | | | | | | | |
| PFO | | | | LR | | LR | | | |
| | comp=Z,442nm,19.0s | | | | | | | | |
| **SDCO** | **Great Sand Dun** | **87.18** | **337** | *e*P | | **P** | | **12 15 44.4** | **+1.8** |
| | comp=Z,17nm,1.6s | | | | | | | | |
| SDCO | | | | LR | | LR | | | |
| | comp=Z,367nm,20.0s | | | | | | | | |
| **MVCO** | **Mesa Verde** | **87.53** | **335** | *e*P | | **P** | | **12 15 46.2** | **+1.9** |
| | comp=Z,24nm,1.6s | | | | | | | | |
| MVCO | | | | LR | | LR | | | |
| | comp=Z,634nm,19.0s | | | | | | | | |
| **S22A** | **4UR Ranch, Cre** | **87.55** | **336** | *e*P | | **P** | | **12 15 46.7** | **+2.3** |
| | comp=Z,30nm,1.5s | | | | | | | | |
| **AAM** | **Ann Arbor** | **87.94** | **355** | PFAKE | | | | 12 16 00.0 | +14 |
| AAM | | | | LR | | LR | | | |
| | comp=Z,779nm,20.0s | | | | | | | | |
| **Q24A** | **Divide** | **88.23** | **338** | *e*P | | **P** | | **12 15 49.2** | **+1.6** |
| | comp=Z,17nm,1.4s | | | | | | | | |
| **KOWA** | **Kowa** | **88.43** | **67** | *e*P | | **P** | | **12 15 47.9** | **-0.9** |
| | comp=Z,10.0nm,0.9s | | | | | | | | |
| **SCIA** | **State Center** | **88.59** | **348** | PFAKE | | | | 12 16 00.0 | +11 |
| SCIA | | | | LR | | LR | | | |
| | comp=Z,314nm,20.0s | | | | | | | | |
| **LCMT** | **Little Creek M** | **88.85** | **331** | *e*P | | **P** | | **12 15 52.4** | **+1.9** |
| | comp=Z,30nm,2.0s | | | | | | | | |
| **SMCO** | **Snowmass** | **88.92** | **337** | *e*P | | P | | 12 15 56.7 | +5.6 |
| | comp=Z,48nm,1.8s | | | | | | | | |
| **LSZ** | **Lusaka** | **89.03** | **111** | PFAKE | | | | 12 16 00.0 | +8.1 |
| LSZ | | | | LR | | LR | | | |
| | comp=Z,830nm,20.0s | | | | | | | | |
| **SHPR** | **Sheep Range** | **89.06** | **330** | *e*P | | **P** | | **12 15 53.9** | **+2.5** |
| | comp=Z,16nm,1.2s | | | | | | | | |
| **ISCO** | **Idaho Springs** | **89.14** | **338** | *e*P | | **P** | | **12 15 53.3** | **+1.4** |
| ISCO | | | | pmax | | pmax | | | |
| | comp=Z,30nm,1.8s | | | | | | | | |
| ISCO | | | | MLR | | MLR | | | |
| | comp=Z,303nm,19.0s | | | | | | | | |
| **ISCO** | **Idaho Springs** | **89.14** | **338** | *e*P | | **P** | | **12 15 53.3** | **+1.4** |
| | comp=Z,30nm,1.8s | | | | | | | | |
| ISCO | | | | LR | | LR | | | |
| | comp=Z,303nm,19.0s | | | | | | | | |
| **JFWS** | **Jewell Farm** | **89.17** | **350** | PFAKE | | | | 12 16 00.0 | +8.4 |
| JFWS | | | | LR | | LR | | | |
| | comp=Z,644nm,19.0s | | | | | | | | |
| **SZCU** | **Shurtz Canyon** | **89.33** | **332** | *e*P | | **P** | | **12 15 55.6** | **+2.8** |
| | comp=Z,37nm,1.7s | | | | | | | | |
| **OGNE** | **Ogallala** | **89.34** | **341** | PFAKE | | | | 12 16 10.0 | +17 |
| OGNE | | | | LR | | LR | | | |
| | comp=Z,299nm,20.0s | | | | | | | | |
| **CCUT** | **Cedar City** | **89.38** | **331** | *e*P | | **P** | | **12 15 55.2** | **+2.2** |
| | comp=Z,28nm,1.6s | | | | | | | | |
| **CAN** | **Canberra** | **89.46** | **216** | PFAKE | | | | 12 16 10.0 | +16 |
| CAN | | | | LR | | LR | | | |
| | comp=Z,1μm,20.0s | | | | | | | | |
| **DAC** | **Darwin (Calif)** | **89.74** | **328** | *e*P | | **P** | | **12 15 56.8** | **+2.1** |
| DAC | | | | pmax | | pmax | | | |
| | comp=Z,5.0nm,1.0s | | | | | | | | |
| **DAC** | **Darwin (Calif)** | **89.74** | **328** | *e*P | | **P** | | **12 15 56.8** | **+2.1** |
| | comp=Z,4.7nm,1.0s | | | | | | | | |
| **LONY** | **Lake Ozonia** | **90.04** | **1** | PFAKE | | | | 12 16 10.0 | +14 |
| LONY | | | | LR | | LR | | | |
| | comp=Z,668nm,19.0s | | | | | | | | |
| **N23A** | **Red Feather La** | **90.25** | **338** | *e*P | | **P** | | **12 15 58.9** | **+1.8** |
| | comp=Z,33nm,1.5s | | | | | | | | |
| **PHWY** | **Pilot Hill** | **90.51** | **339** | *e*P | | **P** | | **12 15 58.5** | **+0.2** |
| | comp=Z,16nm,1.4s | | | | | | | | |
| **GLMI** | **Grayling** | **90.52** | **354** | PFAKE | | | | 12 16 10.0 | +12 |
| GLMI | | | | LR | | LR | | | |
| | comp=Z,629nm,20.0s | | | | | | | | |
| **PKME** | **Peaks-Kenny Pk** | **90.88** | **5** | PFAKE | | | | 12 16 10.0 | +11 |
| PKME | | | | LR | | LR | | | |
| | comp=Z,985nm,19.0s | | | | | | | | |
| **ECSD** | **EROS Data Cent** | **90.93** | **345** | *e*P | | **P** | | **12 16 00.2** | **+0.4** |
| | comp=Z,9.5nm,0.8s | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **91.19** | **72** | P | | **P** | | **12 16 02.8** | **+1.1** |
| | comp=Z,0.7nm,0.8s,baz=243,slow=4.1,SNR=3.9 | | | | | | | | |
| TORD |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **CTAO** | **Charters Tower** | **103.87** | **221** | PFAKE | | | 12 17 10.0 | +11 | | |
| CTAO | | | | LR | LR | | | | | |
| | comp=Z,569nm,19.0s | | | | | | | | | |
| **HNR** | **Honiara** | **105.44** | **238** | PFAKE | | | 12 21 30.0 | | | |
| HNR | | | | LR | LR | | | | | |
| | comp=Z,516nm,19.0s | | | | | | | | | |
| **KMBO** | **Kilima Mbogo** | **105.47** | **108** | PFAKE | | | 12 21 30.0 | | | |
| KMBO | | | | LR | LR | | | | | |
| | comp=Z,565nm,20.0s | | | | | | | | | |
| **MTE** | **Manteigas** | **105.57** | **48** | PFAKE | | | 12 21 30.0 | | | |
| MTE | | | | LR | LR | | | | | |
| | comp=Z,2μm,22.0s | | | | | | | | | |
| **PAB** | **San Pablo** | **106.64** | **50** | PFAKE | | | 12 21 30.0 | | | |
| PAB | | | | LR | LR | | | | | |
| | comp=Z,2μm,19.0s | | | | | | | | | |
| **WRAB** | **Tennant Creek** | **108.88** | **211** | PFAKE | | | 12 21 40.0 | | | |
| WRAB | | | | LR | LR | | | | | |
| | comp=Z,1μm,22.0s | | | | | | | | | |
| **MBWA** | **Marble Bar** | **111.78** | **196** | PFAKE | | | 12 21 40.0 | | | |
| MBWA | | | | LR | LR | | | | | |
| | comp=Z,633nm,19.0s | | | | | | | | | |
| **PMG** | **Port Moresby** | **112.60** | **227** | PFAKE | | | 12 21 50.0 | | | |
| PMG | | | | LR | LR | | | | | |
| | comp=Z,325nm,19.0s | | | | | | | | | |
| **MSEY** | **Mahe Island** | **114.06** | **126** | PFAKE | | | 12 21 50.0 | +14 | | |
| MSEY | | | | LR | LR | | | | | |
| | comp=Z,541nm,19.0s | | | | | | | | | |
| **SFJD** | **Kangerlussuaq** | **114.16** | **11** | PFAKE | | | 12 21 50.0 | +16 | | |
| SFJD | | | | LR | LR | | | | | |
| | comp=Z,377nm,20.0s | | | | | | | | | |
| **VSL** | **Villasalto** | **114.37** | **58** | PFAKE | | | 12 21 50.0 | +14 | | |
| VSL | | | | LR | LR | | | | | |
| | comp=Z,1μm,20.0s | | | | | | | | | |
| **WDD** | **Wied Dalam** | **115.19** | **64** | PFAKE | | | 12 21 50.0 | +13 | | |
| WDD | | | | LR | LR | | | | | |
| | comp=Z,762nm,20.0s | | | | | | | | | |
| **SSB** | **Saint Sauveur** | **115.35** | **50** | PFAKE | | | 12 21 50.0 | +12 | | |
| SSB | | | | LR | LR | | | | | |
| | comp=Z,2μm,19.0s | | | | | | | | | |
| **BNI** | **Bardonecchia** | **116.37** | **52** | PFAKE | | | 12 21 50.0 | +10 | | |
| BNI | | | | LR | LR | | | | | |
| | comp=Z,2μm,20.0s | | | | | | | | | |
| **CEL** | **Celeste** | **117.55** | **63** | PFAKE | | | 12 21 50.0 | +8.0 | | |
| CEL | | | | LR | LR | | | | | |
| | comp=Z,947nm,22.0s | | | | | | | | | |
| **AQU** | **L'Aquila** | **118.54** | **58** | PFAKE | | | 12 22 00.0 | +16 | | |
| AQU | | | | LR | LR | | | | | |
| | comp=Z,922nm,21.0s | | | | | | | | | |
| **CUC** | **Castrocucco** | **118.56** | **61** | PFAKE | | | 12 22 00.0 | +16 | | |
| CUC | | | | LR | LR | | | | | |
| | comp=Z,446nm,19.0s | | | | | | | | | |
| **ECH** | **Echery** | **118.59** | **49** | PFAKE | | | 12 22 00.0 | +16 | | |
| ECH | | | | LR | LR | | | | | |
| | comp=Z,1μm,19.0s | | | | | | | | | |
| **TUE** | **Stuetta** | **118.71** | **52** | PFAKE | | | 12 22 00.0 | +16 | | |
| TUE | | | | LR | LR | | | | | |
| | comp=Z,2μm,19.0s | | | | | | | | | |
| **WLF** | **Walferdange** | **118.95** | **47** | PFAKE | | | 12 22 00.0 | +16 | | |
| WLF | | | | LR | LR | | | | | |
| | comp=Z,2μm,21.0s | | | | | | | | | |
| **BFO** | **Black Forest** | **119.28** | **50** | PFAKE | | | 12 22 00.0 | +15 | | |
| BFO | | | | LR | LR | | | | | |
| | comp=Z,1μm,21.0s | | | | | | | | | |
| **EGAK** | **Eagle** | **121.17** | **333** | PFAKE | | | 12 22 00.0 | +12 | | |
| EGAK | | | | LR | LR | | | | | |
| | comp=Z,685nm,21.0s | | | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **121.71** | **264** | T | T | | 14 35 09.9 | | | |
| | baz=137 | | | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **121.72** | **264** | T | T | | 14 35 17.9 | | | |
| | baz=137 | | | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **121.72** | **264** | T | T | | 14 35 16.1 | | | |
| | baz=137 | | | | | | | | | |
| **TIR** | **Tirane** | **121.85** | **62** | PFAKE | | | 12 22 00.0 | +10 | | |
| TIR | | | | LR | LR | | | | | |
| | comp=Z,718nm,21.0s | | | | | | | | | |
| **COCO** | **West Island** | **121.97** | **172** | PFAKE | | | 12 22 00.0 | +8.8 | | |
| COCO | | | | LR | LR | | | | | |
| | comp=Z,1μm,22.0s | | | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **122.39** | **265** | T | T | | 14 36 02.2 | | | |
| | baz=137,slow=75,SNR=6.5 | | | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **122.40** | **265** | T | T | | 14 36 10.7 | | | |
| | baz=137,slow=75,SNR=4.8 | | | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **122.41** | **265** | T | T | | 14 36 03.9 | | | |
| | baz=137,slow=75,SNR=7.3 | | | | | | | | | |
| **GERES** | **GERESS Array B** | **122.49** | **52** | PKP | | **PKPdf** | **12 21 51.5** | **+0.2** | | |
| | comp=Z,0.3nm,0.3s,baz=50,slow=3.1,SNR=2.0 | | | | | | | | | |
| **KHC** | **Kasperske Hory** | **122.58** | **51** | AMS | AMS | | 13 10 00.0 | | | |
| | comp=Z,1μm,24.1s | | | | | | | | | |
| **ILAR** | **Eielson Array** | **123.05** | **331** | PKP | | **PKPdf** | **12 21 50.9** | **-0.8** | | |
| | comp=Z,0.4nm,0.8s,baz=141,slow=3.0,SNR=3.8 | | | | | | | | | |
| **ILB** | **Eielson Array** | **123.05** | **331** | *e*PKPdf | | **PKPdf** | **12 21 53.7** | **+2.1** | | |
| **PRU** | **Pruhonice** | **123.58** | **51** | AMS | AMS | | 13 11 10.0 | | | |
| | comp=Z,1μm,19.3s | | | | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **123.67** | **51** | AMS | AMS | | 13 10 30.0 | | | |
| | comp=Z,1μm,25.4s | | | | | | | | | |
| **PVCC** | **Panska Ves** | **123.88** | **50** | AMS | AMS | | 13 16 30.0 | | | |
| | comp=Z,1μm,19.8s | | | | | | | | | |
| **UPC** | **Upice** | **124.65** | **51** | AMS | AMS | | 13 11 50.0 | | | |
| | comp=Z,900nm,21.8s | | | | | | | | | |
| **PSZ** | **Piszkesteto** | **125.47** | **55** | PFAKE | | | 12 22 10.0 | +13 | | |
| PSZ | | | | LR | LR | | | | | |
| | comp=Z,1μm,20.0s | | | | | | | | | |
| **CSS** | **Mathiatis** | **126.98** | **75** | PFAKE | | | 12 22 10.0 | +10 | | |
| CSS | | | | LR | LR | | | | | |
| | comp=Z,63nm,19.0s | | | | | | | | | |
| **KAPI** | **Kappang** | **127.41** | **200** | PFAKE | | | 12 22 10.0 | +8.3 | | |
| KAPI | | | | LR | LR | | | | | |
| | comp=Z,341nm,19.0s | | | | | | | | | |
| **RAYN** | **Ar Rayn** | **128.53** | **95** | PFAKE | | | 12 22 20.0 | +16 | | |
| RAYN | | | | LR | LR | | | | | |
| | comp=Z,567nm,21.0s | | | | | | | | | |
| **BR231** | **Keskin MP Arra** | **129.26** | **70** | *e*PKPdf | | **PKPdf** | **12 22 05.8** | **+1.3** | | |
| **ANTO** | **Ankara** | **129.28** | **70** | PFAKE | | | 12 22 20.0 | +16 | | |
| ANTO | | | | LR | LR | | | | | |
| | comp=Z,323nm,21.0s | | | | | | | | | |
| **BRTR** | **Keskin Array B** | **129.77** | **70** | PKP | | **PKPdf** | **12 22 06.3** | **+0.8** | | |
| | comp=Z,1.5nm,0.9s,baz=199,slow=6.0,SNR=5.8 | | | | | | | | | |
| **BR101** | **Keskin Array S** | **129.77** | **70** | *e*PKPdf | | **PKPdf** | **12 22 06.3** | **+0.8** | | |
| **AKASG** | **Malin Array Be** | **132.16** | **56** | PKP | | **PKPdf** | **12 22 09.3** | **-0.1** | | |
| | comp=Z,0.2nm,0.3s,baz=262,slow=3.0,SNR=2.5 | | | | | | | | | |
| **ANN** | **Anapa** | **134.67** | **66** | *i* PKIKP | | PKPdf | 12 22 22.7 | +8.4 | | |
| ANN | | | | pmax | | pmax | | | | |
| | comp=Z,86nm,1.0s | | | | | | | | | |
| ANN | | | | MLR | | MLR | | | | |
| | comp=N,654nm,22.0s | | | | | | | | | |
| ANN | | | | MLR | | MLR | | | | |
| | comp=Z,729nm,22.0s | | | | | | | | | |
| ANN | | | | MLR | | MLR | | | | |
| | comp=E,621nm,22.0s | | | | | | | | | |
| **KSM** | **Kuching** | **135.48** | **190** | PFAKE | | | 12 22 30.0 | +13 | | |
| KSM | | | | LR | LR | | | | | |
| | comp=Z,379nm,22.0s | | | | | | | | | |
| **GNI** | **Garni** | **137.41** | **76** | PFAKE | | | 12 22 30.0 | +10 | | |
| GNI | | | | LR | LR | | | | | |
| | comp=Z,413nm,21.0s | | | | | | | | | |
| **KIV** | **Kislovodsk** | **137.71** | **70** | *i* PKIKP | | **PKPdf** | **12 22 21.6** | **+1.4** | | |
| KIV | | | | pmax | | pmax | | | | |
| | comp=Z,9.0nm,1.0s | | | | | | | | | |
| **KIV** | **Kislovodsk** | **137.71** | **70** | PFAKE | | | 12 22 30.0 | +10 | | |
| KIV | | | | LR | LR | | | | | |
| | comp=Z,279nm,20.0s | | | | | | | | | |
| **OBN** | **Obninsk** | **137.87** | **52** | *i* PKHKP | | PKPpre | 12 22 13.3 | | | |
| OBN | | | | pmax | | pmax | | | | |
| | comp=Z,8.0nm,0.8s | | | | | | | | | |
| **OBN** | **Obninsk** | **137.87** | **52** | PFAKE | | | 12 22 30.0 | +10 | | |
| OBN | | | | LR | LR | | | | | |
| | comp=Z,959nm,21.0s | | | | | | | | | |
| **ZEI** | **Tsey** | **138.02** | **72** | *i* PKIKP | | **PKPdf** | **12 22 28.0** | **+7.0** | | |
| ZEI | | | | pmax | | pmax | | | | |
| | comp=Z,3.0nm,1.1s | | | | | | | | | |
| **KKM** | **Kota Kinabalu** | **138.92** | **199** | PFAKE | | | 12 22 40.0 | +17 | | |
| KKM | | | | LR | LR | | | | | |
| | comp=Z,425nm,21.0s | | | | | | | | | |
| **LVZ** | **Lovozero** | **139.15** | **33** | PFAKE | | | 12 22 30.0 | +8.0 | | |
| LVZ | | | | LR | LR | | | | | |
| | comp=Z,658nm,21.0s | | | | | | | | | |
| **KULM** | **Kulim** | **139.58** | **175** | PFAKE | | | 12 22 40.0 | +16 | | |
| KULM | | | | LR | LR | | | | | |
| | comp=Z,653nm,20.0s | | | | | | | | | |
| **KLMR** | **Klimovskoe** | **140.59** | **44** | *e*PKHKP | | PKPpre | 12 22 17.1 | | | |
| KLMR | | | | pmax | | pmax | | | | |
| | comp=Z,7.0nm,0.9s | | | | | | | | | |
| **PET** | **Petropavlovsk** | **144.24** | **302** | PFAKE | | | 12 22 40.0 | +8.5 | | |
| PET | | | | LR | LR | | | | | |
| | comp=Z,570nm,22.0s | | | | | | | | | |
| **PETK** | **Petropavlovsk-** | **144.82** | **302** | PKP | | **PKPab** | **12 22 30.1** | **-1.5** | | |
| | comp=Z,5.3nm,0.8s,baz=85,slow=4.8,SNR=4.1 | | | | | | | | | |
| **PEA1** | **Petropavlovsk-** | **144.82** | **302** | *e*PKPbc | | **PKPab** | **12 22 30.1** | **-1.5** | | |
| **HYB** | **Hyderabad** | **144.86** | **135** | *i* PKP | | **PKPdf** | **12 22 34.0** | **+0.3** | | |
| **GEYT** | **Alibeck** | **145.61** | **87** | PKPbc | | **PKPab** | **12 22 35.2** | **+0.1** | | |
| | comp=Z,6.6nm,0.9s,baz=278,slow=4.3,SNR=10 | | | | | | | | | |
| **ARU** | **Arti** | **150.31** | **53** | *i* PKIKP | | **PKPbc** | **12 22 47.3** | **+0.6** | | |
| ARU | | | | | | | 12 26 19.8 | | | |
| **ARU** | **Arti** | **150.31** | **53** | *e*PKPbc | | **PKPbc** | **12 22 47.5** | **+0.8** | | |
| ARU | | | | *e*PKPab | | **PKPab** | **12 22 52.9** | **-0.3** | | |
| ARU | | | | LR | LR | | | | | |
| | comp=Z,846nm,21.0s | | | | | | | | | |
| **TIXI** | **Tiksi** | **151.41** | **344** | PFAKE | | | 12 22 50.0 | +1.2 | | |
| TIXI | | | | LR | LR | | | | | |
| | comp=Z,324nm,19.0s | | | | | | | | | |
| **ERM** | **Erimo** | **151.45** | **277** | PFAKE | | | 12 23 00.0 | +1.7 | | |
| ERM | | | | LR | LR | | | | | |
| | comp=Z,499nm,21.0s | | | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **152.47** | **170** | PKPbc | | **PKPbc** | **12 22 51.5** | **-1.4** | | |
| | comp=Z,1.1nm,0.4s,baz=211,slow=4.1,SNR=9.1 | | | | | | | | | |
| **CHTO** | **Chiang Mai** | **152.83** | **170** | PFAKE | | | 12 23 00.0 | -4.6 | | |
| CHTO | | | | LR | LR | | | | | |
| | comp=Z,384nm,21.0s | | | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **153.15** | **287** | PFAKE | | | 12 23 00.0 | -5.3 | | |
| YSS | | | | LR | LR | | | | | |
| | comp=Z,272nm,21.0s | | | | | | | | | |
| **BRVK** | **Borovoye** | **157.30** | **59** | PFAKE | | | 12 23 00.0 | +8.5 | | |
| BRVK | | | | LR | LR | | | | | |
| | comp=Z,402nm,20.0s | | | | | | | | | |
| **YAK** | **Yakutsk** | **157.87** | **327** | PFAKE | | | 12 23 00.0 | +8.1 | | |
| YAK | | | | LR | LR | | | | | |
| | comp=Z,451nm,20.0s | | | | | | | | | |
| **KSH** | **Kashi** | **158.80** | **97** | *e*PKP | | **PKPdf** | **12 22 55.5** | **+1.5** | | |
| KSH | | | | PP | | **PP** | **12 27 12.3** | **+1.1** | | |
| KSH | | | | SKS | | **SKSdf** | **12 29 59.3** | **+1.2** | | |
| KSH | | | | SKKS | | **SKKSac** | **12 33 59.0** | **+0.8** | | |
| KSH | | | | SS | | **SS** | **12 47 08.8** | **-4.4** | | |
| KSH | | | | AMB | | AMB | | | | |
| | comp=Z,83nm,5.6s | | | | | | | | | |
| KSH | | | | LR | | LR | | | | |
| | comp=Z,50nm,5.1s | | | | | | | | | |
| KSH | | | | LR | | LR | | | | |
| | comp=Z,42nm,5.3s | | | | | | | | | |
| KSH | | | | LR | | LR | | | | |
| | comp=Z,330nm,10.1s | | | | | | | | | |
| **AAK** | **Ala-Archa** | **158.95** | **88** | PFAKE | | | 12 23 10.0 | +16 | | |
| AAK | | | | LR | LR | | | | | |
| | comp=Z,501nm,20.0s | | | | | | | | | |
| **KMI** | **Kunming** | **159.37** | **178** | PKP | | **PKPdf** | **12 22 54.9** | **-0.3** | | |
| KMI | | | | LR | LR | | | | | |
| | comp=Z,400nm,20.1s | | | | | | | | | |
| KMI | | | | LR | LR | | | | | |
| | comp=Z,290nm,24.9s | | | | | | | | | |
| KMI | | | | LR | LR | | | | | |
| | comp=Z,430nm,22.1s | | | | | | | | | |
| **GYA** | **Guiyang** | **160.56** | **188** | PKP | | **PKPdf** | **12 22 56.0** | **-0.4** | | |
| GYA | | | | PKPab | | **pPKPab** | **12 23 40.8** | **-4.5** | | |
| GYA | | | | PKS | | **PKSdf** | **12 26 28.4** | **-1.6** | | |
| GYA | | | | PP | | **PP** | **12 27 22.6** | **+3.2** | | |
| GYA | | | | AMB | | AMB | | | | |
| | comp=Z,120nm,8.2s | | | | | | | | | |
| **INCN** | **Inchon** | **160.94** | **252** | PFAKE | | | 12 23 10.0 | +14 | | |
| INCN | | | | LR | LR | | | | | |
| | comp=Z,361nm,21.0s | | | | | | | | | |
| **LSA** | **Lhasa** | **161.20** | **144** | PFAKE | | | 12 23 10.0 | +13 | | |
| LSA | | | | LR | LR | | | | | |
| | comp=Z,431nm,21.0s | | | | | | | | | |
| **MDJ** | **Mudanjiang** | **161.67** | **276** | PFAKE | | | 12 23 10.0 | +13 | | |
| MDJ | | | | LR | LR | | | | | |
| | comp=Z,334nm,19.0s | | | | | | | | | |
| **KURK** | **Kurchatov** | **162.69** | **64** | PFAKE | | | 12 23 10.0 | +12 | | |
| KURK | | | | LR | LR | | | | | |
| | comp=Z,967nm,20.0s | | | | | | | | | |
| **ENH** | **Enshi** | **163.84** | **199** | PFAKE | | | 12 23 10.0 | +11 | | |
| ENH | | | | LR | LR | | | | | |
| | comp=Z,416nm,20.0s | | | | | | | | | |
| **NVS** | **Novosibirsk** | **164.20** | **48** | *e*PKIKP | | **PKPdf** | **12 23 04.1** | **+5.2** | | |
| NVS | | | | pmax | | pmax | | | | |
| | comp=Z,24nm,1.8s | | | | | | | | | |
| **MK32** | **Makanchi Array** | **165.23** | **78** | *e*PKPdf | | **PKPdf** | **12 23 00.4** | **+0.3** | | |
| MK32 | | | | *e*PKPab | | **PKPab** | **12 23 55.9** | **-2.0** | | |
| MK32 | | | | *e*PP | | **PP** | **12 27 46.9** | **+1.5** | | |
| **MKAR** | **Makanchi Array** | **165.23** | **78** | PKP | | **PKPdf** | **12 23 00.4** | **+0.3** | | |
| | comp=Z,0.7nm,1.0s,baz=85,slow=2.6,SNR=4.1 | | | | | | | | | |
| MKAR | | | | PKPab | | **PKPab** | **12 23 55.9** | **-2.0** | | |
| | comp=Z,0.7nm,0.8s,baz=250,slow=3.8,SNR=2.6 | | | | | | | | | |
| MKAR | | | | PP | | **PP** | **12 27 46.9** | **+1.5** | | |
| | comp=Z,1.4nm,1.2s,baz=251,slow=4.4,SNR=3.0 | | | | | | | | | |
| **MK01** | **Makanchi Array** | **165.24** | **79** | *e*PKPdf | | **PKPdf** | **12 22 59.6** | **-0.6** | | |
| **ZAA1** | **Zalesovo Array** | **165.42** | **49** | *e*PKPdf | | **PKPdf** | **12 23 01.0** | **+1.0** | | |
| **ZAA0** | **Zalesovo Array** | **165.43** | **49** | *e*PKPdf | | **PKPdf** | **12 22 59.1** | **-0.9** | | |
| **ZALV** | **Zalesovo Beam** | **165.43** | **49** | PKP | | **PKPdf** | **12 23 01.0** | **+1.0** | | |
| | comp=Z,1.4nm,0.8s,baz=274,slow=2.6,SNR=5.7 | | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **165.43** | **49** | *e*PKIKP | | **PKPdf** | **12 22 58.5** | **-1.5** | | |
| **ZALV** | **Zalesovo Beam** | **165.43** | **49** | *e*PKPdf | | **PKPdf** | **12 22 58.5** | **-1.5** | | |
| **WMQ** | **Urumqi** | **168.53** | **94** | PKP | | **PKPdf** | **12 23 03.8** | **+1.0** | | |
| WMQ | | | | AMB | | AMB | | | | |
| | comp=Z,490nm,4.9s | | | | | | | | | |
| **HIA** | **Hailar** | **168.55** | **294** | PFAKE | | | 12 23 10.0 | +7.4 | | |
| HIA | | | | LR | LR | | | | | |
| | comp=Z,384nm,21.0s | | | | | | | | | |
| **BJT** | **Baijiatuau** | **169.13** | **242** | PFAKE | | | 12 23 10.0 | +6.8 | | |
| BJT | | | | LR | LR | | | | | |
| | comp=Z,887nm,20.0s | | | | | | | | | |
| **BJI** | **Beijing** | **169.14** | **243** | PKP | | **PKPdf** | **12 23 03.1** | **-0.1** | | |
| BJI | | | | PP | | **PP** | **12 28 05.3** | **+0.2** | | |
| BJI | | | | SS | | SS | 12 49 05.5 | +6.6 | | |
| BJI | | | | LR | | LR | | | | |
| | comp=Z,550nm,18.3s | | | | | | | | | |
| BJI | | | | LR | | LR | | | | |
| | comp=Z,300nm,20.9s | | | | | | | | | |
| BJI | | | | LR | | LR | | | | |
| | comp=Z,630nm,23.5s | | | | | | | | | |
| **LZH** | **Lanzhou** | **170.31** | **181** | *e*PKP | | **PKPdf** | **12 23 00.9** | **-3.4** | | |
| LZH | | | | pPKP | | pPKPdf | 12 23 11.5 | -0.6 | | |
| LZH | | | | PKS | | **PKSdf** | **12 26 33.0** | **-3.8** | | |
| LZH | | | | PP | | **PP** | **12 28 11.0** | **+0.9** | | |
| LZH | | | | AMB | | AMB | | | | |
| | comp=Z,260nm,14.2s | | | | | | | | | |
| LZH | | | | LR | | LR | | | | |
| | comp=Z,530nm,18.3s | | | | | | | | | |
| LZH | | | | LR | | LR | | | | |
| | comp=Z,460nm,16.1s | | | | | | | | | |
| LZH | | | | LR | | LR | | | | |
| | comp=Z,620nm,19.2s | | | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **172.38** | **232** | *e*PKP | | **PKPdf** | **12 23 07.3** | **+2.2** | | |
| **GTA** | **Gaotai** | **173.04** | **155** | *e*PKP | | **PKPdf** | **12 23 07.0** | **+1.6** | | |
| GTA | | | | PKPab | | **pPKPab** | **12 24 35.9** | **-4.2** | | |
| GTA | | | | PP | | **PP** | **12 28 27.1** | **+3.2** | | |
| GTA | | | | SKS | | **SKSdf** | **12 30 07.8** | **+0.7** | | |
| GTA | | | | SKKS | | **SKKSac** | **12 35 14.4** | **+5.2** | | |
| GTA | | | | SS | | **SS** | **12 49 38.4** | **+2.2** | | |
| GTA | | | | AMB | | AMB | | | | |
| | comp=Z,83nm,6.1s | | | | | | | | | |
| GTA | | | | LR | | LR | | | | |
| | comp=Z,460nm,20.0s | | | | | | | | | |
| GTA | | | | LR | | LR | | | | |
| | comp=Z,370nm,19.2s | | | | | | | | | |
| GTA | | | | LR | | LR | | | | |
| | comp=Z,340nm,20.0s | | | | | | | | | |
| **TLY** | **Talaya** | **174.10** | **360** | PFAKE | | | 12 23 20.0 | +15 | | |
| TLY | | | | LR | | LR | | | | |
| | comp=Z,632nm,21.0s | | | | | | | | | |
| **ULN** | **Ulaanbaatar** | **176.85** | **313** | PFAKE | | | 12 23 20.0 | +14 | | |
| ULN | | | | LR | | LR | | | | |
| | comp=Z,505nm,20.0s | | | | | | | | | |

*IDC **16** 12:03:19.4±1.8, 52.°02N×171.°67W, h0km, mb3.4/5, mb1 3.5/6, mb1mx3.4/43, mbtmp3.3/6, ML2.6/1, Error ellipse: s-maj=49.4km s-min=29.8km az=154.0*
*ISCJB **16** 12:03:26.3±1.1, 52.°1N±0.°2×171.°5W±0.°1, h68km±7km, mb3.3/5, Error ellipse: s-maj=35.5km s-min=4.5km az=164.4*
*NEIC **16** 12:03:26.8±0.0, 52.°18N×171.°56W, h36km, ML3.0(AEIC), After AEIC.*

**ISC 16 12:03:26.8±2.0, 52.°1N±0.°3×171.°49W±0.°08, h57km±14km, n26, σ1°01/25, mb3.7/5, Fox Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KOFP** | **Korovin Flat P** | **1.62** | **279** | P | | **Pn** | **12 03 53.0** | **-0.1** |
| **ATKA** | **Atka Island** | **1.67** | **276** | P | | **Pn** | **12 03 53.0** | **-0.7** |
| ATKA | | | | S | | **Sn** | **12 04 13.3** | **-0.7** |
| **KOKL** | **Mount Kliuchef** | **1.69** | **280** | P | | **Pn** | **12 03 54.1** | **+0.2** |
| **KOWE** | **Korovin West** | **1.73** | **282** | P | | **Pn** | **12 03 56.1** | **+1.7** |
| **NIKH** | **Nikolski High** | **1.86** | **59** | P | | **Pn** | **12 03 55.5** | **-0.7** |
| NIKH | | | | S | | **Sn** | **12 04 17.4** | **-1.1** |
| **OKSO** | **Okmok South** | **2.41** | **56** | P | | **Pn** | **12 04 04.2** | **+0.5** |
| OKSO | | | | S | | **Sn** | **12 04 33.6** | **+1.5** |
| **OKWE** | **Okmok W'ng Wal** | **2.44** | **53** | P | | **Pn** | **12 04 05.0** | **+0.9** |
| **OKAK** | **Okmok** | **2.44** | **50** | P | | **Pn** | **12 04 03.7** | **-0.5** |
| **OKTU** | **Okmok Mt. Tuli** | **2.49** | **56** | P | | **Pn** | **12 04 05.5** | **+0.7** |
| **OKFG** | **Magazine Ridge** | **2.57** | **57** | P | | **Pn** | **12 04 06.0** | **+0.1** |
| OKFG | | | | S | | **Sn** | **12 04 36.9** | **+1.0** |
| **GSMY** | **Great Sitkin M** | **2.82** | **272** | P | | **Pn** | **12 04 10.1** | **+0.7** |
| **GSTD** | **Great Sitkin T** | **2.87** | **272** | P | | **Pn** | **12 04 10.2** | **0.0** |
| GSTD | | | | S | | **Sn** | **12 04 44.3** | **+0.8** |
| **MREP** | **Makushin Rep't** | **3.37** | **57** | P | | **Pn** | **12 04 17.3** | **+0.4** |
| **KICM** | **Kanaga Island** | **3.53** | **270** | P | | **Pn** | **12 04 19.0** | **0.0** |
| **ILAR** | **Eielson Array** | **17.96** | **35** | P | | **P** | **12 07 29.2** | **-2.8** |
| | 0.0nm,0.3s,baz=234,slow=9.7,SNR=3.1 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **31.43** | **48** | P | | **P** | **12 09 43.3** | **+1.1** |
| | 0.1nm,0.6s,baz=270,slow=7.6,SNR=3.3 | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **36.41** | **216** | T | | T | 12 49 04.0 | |
| | baz=21,slow=75,SNR=3.5 | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **36.42** | **216** | T | | T | 12 48 54.5 | |
| | baz=21 | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **36.43** | **216** | T | | T | 12 49 03.2 | |
| | baz=21,slow=75,SNR=3.3 | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **37.60** | **215** | T | | T | 12 50 25.4 | |
| | baz=313,slow=74,SNR=3.2 | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **37.62** | **215** | T | | T | 12 50 29.3 | |
| | baz=313,slow=74,SNR=3.0 | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **37.62** | **215** | T | | T | 12 50 28.7 | |
| | baz=313 | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **61.84** | **317** | P | | **P** | **12 13 39.4** | **-0.1** |
| | 0.4nm,0.7s,baz=35,slow=3.4,SNR=3.1 | | | | | | | |
| **MKAR** | **Makanchi Array** | **63.06** | **312** | P | | **P** | **12 13 47.4** | **-0.4** |
| | 0.1nm,0.3s,baz=29,slow=5.5,SNR=4.0 | | | | | | | |
| **BVAR** | **Borovoye Array** | **63.19** | **323** | P | | **P** | **12 13 49.0** | **+0.5** |
| | 0.5nm,0.5s,baz=53,slow=5.1,SNR=4.9 | | | | | | | |
| **ASAR** | **Alice Springs** | **89.20** | **228** | P | | **P** | **12 16 16.1** | **0.0** |
| | 0.3nm,0.7s,baz=26,slow=5.8,SNR=5.0 | | | | | | | |

*ISCJB **16** 12:42:08.8±0.5, 43.°69N±0.°08×138.°68E±0.°08, h250km, mb3.4/6, Error ellipse: s-maj=11.0km s-min=7.2km az=22.4*
*IDC **16** 12:42:08.1±4.8, 43.°89N×138.°98E, h240km±34km, mb3.2/6, mb1 3.2/8, mb1mx2.9/45, mbtmp3.6/8, Error ellipse: s-maj=77.2km s-min=14.2km az=65.0*
*JMA **16** 12:42:12.2±0.3, 43.°64N×138.°88E, h238km, M3.1*

**ISC 16 12:42:09.3±0.9, 43.°68N±0.°08×138.°78E±0.°07, h250km, n19, σ1°55/22, mb3.4/6, Eastern Sea of Japan**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JSK** | **Shakotan** | **1.27** | **104** | P | | **Pn** | **12 42 47.1** | **+1.2** |
| **JOSM** | **Okushiri--Mats** | **1.67** | **162** | P | | **Pn** | **12 42 50.4** | **+1.4** |
| **JHR** | **Hokuryu** | **2.13** | **87** | P | | **Pn** | **12 42 54.6** | **+1.7** |
| **JKB** | **Kayabe** | **2.44** | **136** | P | | **Pn** | **12 42 57.0** | **+1.1** |
| **JWK2** | **Keihoku** | **2.77** | **53** | P | | **Pn** | **12 43 01.0** | **+1.9** |
| **JKK2** | **Kamakawa 2** | **2.88** | **85** | P | | **Pn** | **12 43 02.6** | **+2.2** |
| **JCH** | **Churui** | **3.51** | **106** | P | | **Pn** | **12 43 07.5** | **+0.1** |
| JCH | | | | *e*S | | **S** | **12 43 51.7** | **-1.8** |
| **JAR** | **Ashorobuto** | **3.65** | **94** | P | | **Pn** | **12 43 10.6** | **+1.7** |
| **JTKR** | **Abashiri--Toko** | **3.72** | **84** | P | | **Pn** | **12 43 11.5** | **+1.8** |
| **JANG** | **Nango** | **3.88** | **147** | P | | **Pn** | **12 43 12.5** | **+0.8** |
| JANG | | | | *e*S | | **S** | **12 43 59.2** | **-2.0** |
| **JAK** | **Akkeshi** | **4.37** | **97** | P | | **Pn** | **12 43 18.0** | **+0.7** |
| JAK | | | | *e*S | | **S** | **12 44 09.2** | **-2.2** |
| **USRK** | **Ussuriysk Ar.** | **4.94** | **278** | P | | **Pn** | **12 43 23.6** | **-0.6** |
| | 0.3nm,0.3s,baz=96,slow=10,SNR=2.9 | | | | | | | |
| **MJAR** | **Matsushiro Ar** | **7.14** | **184** | P | | **Pn** | **12 43 54.1** | **+2.3** |
| | 0.2nm,0.3s,baz=6.4,slow=13,SNR=3.2 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **36.16** | **306** | P | | **P** | **12 48 46.8** | **-0.8** |
| | 0.5nm,0.5s,baz=99,slow=8.1,SNR=3.1 | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **40.55** | **302** | P | | **P** | **12 49 23.8** | **-0.4** |
| | 1.7nm,0.6s,baz=78,slow=8.8,SNR=7.1 | | | | | | | |
| **BVAR** | **Borovoye Array** | **44.78** | **307** | P | | **P** | **12 49 58.1** | **+0.1** |
| | 1.0nm,0.4s,baz=76,slow=9.4,SNR=11 | | | | | | | |
| **FINES** | **FINESS Array B** | **62.03** | **330** | P | | **P** | **12 52 01.6** | **-1.2** |
| | 3.0nm,0.8s,baz=55,slow=12,SNR=3.5 | | | | | | | |
| **WRA** | **Warramunga Arr** | **63.44** | **185** | P | | **P** | **12 52 13.3** | **+0.8** |
| | 0.2nm,0.5s,baz=3.6,slow=6.7,SNR=4.5 | | | | | | | |
| **ASAR** | **Alice Springs** | **67.16** | **185** | P | | **P** | **12 52 37.8** | **+1.4** |
| | 0.2nm,0.8s,baz=0.0,slow=5.6,SNR=3.4 | | | | | | | |

*ISK **16** 12:43:47.3, 38.°91N×43.°55E, h22km, ML2.6*
*DDA **16** 12:43:47.6, 38.°86N×43.°55E, h17km, Ml3.0*
*CSEM **16** 12:43:47.8±0.3, 38.°89N×43.°57E, h15km, ML3.0, Error ellipse: s-maj=7.1km s-min=5.4km az=122.0*
*ISCJB **16** 12:43:48.6±0.7, 38.°89N±0.°03×43.°58E±0.°06, h12km±4km, Error ellipse: s-maj=7.7km s-min=4.8km az=23.8*

**ISC 16 12:43:47.5±1.0, 38.°86N±0.°03×43.°56E±0.°04, h19km±7km, n21, σ0°95/38, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VMUR** | **Van-Muradiye** | **0.13** | **3** | *i* P | | **Pg** | **12 43 51.4** | **-0.5** |
| VMUR | | | | *i* S | | **Sb** | **

λ161.00000°. NP2:φs177.00000°,δ72.00000°,λ13.00000°. Principal axes: T 5.1600, Plg22.0000°, Azm39.0000°; N 0.2300, Plg68.0000°, Azm232.0000°; P -5.3900, Plg4.0000°, Azm131.0000°;

BJI **16** 12:54:25.2, 45.90S×76.30W, h10km, mB5.3/21, Ms5.7/22, Ms7 5.7/22

GCMT **16** 12:54:25.4±0.1, 46.01S×76.57W, h15km, MW5.7/130, Moment Tensor Solution. s109,c193; s130,c359; Duration: 1s8 Moment tensor: Scale 1017Nm; Mrr-0.81±.05; Mθθ2.47±.05; Mφφ-1.65±.05; Mrθ1.17±.15; Mθφ-4.23±.04; Mφr-1.50±.16; Best double couple: M=5.02000×1017 NP1:φs167.00000°,δ87.00000°, λ19.00000°. NP2:φs76.00000°,δ71.00000°,λ177.00000°. Principal axes: T 5.6150, Plg16.0000°, Azm33.0000°; N -1.1830, Plg71.0000°, Azm176.0000°; P -4.4240, Plg11.0000°, Azm300.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.

MOS **16** 12:54:25.5±1.2, 45.84S×76.23W, h19km, mb5.6/25, MS5.4/16 Error ellipse: s-maj=19.5km s-min=9.8km az=91.6

**ISC 16 12:54:24.4**±0.6, **45.84S**±0.04×**76.57W**±0.06, **h10**km±3km, **h10:pP-P,n667,**σ1s**77/527,mb5.4/89,MS5.4/187,**
**16C-5D, Off coast of southern Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **CHRN** | **Cochrane** | **3.09** | **119** | *e*Pn | | **Pn** | **12 55 09.6** | **-3.6** |
| **CHRN** | **Cochrane** | **3.09** | **119** | *e*P | | **Pn** | **12 55 10.1** | **-3.0** |
| CHRN | | | | *e*S | | **Sn** | **12 55 50.0** | **-0.2** |
| **GO07** | **Milladeo Hill,** | **3.43** | **38** | *e*P | | **Pn** | **12 55 14.2** | **-3.8** |
| GO07 | | | | *e*S | | **Sn** | **12 55 56.6** | **-2.1** |
| GO07 | | | | IAML | | | 12 56 57.7 | |
| | comp=E,2μm,3.7s | | | | | | | |
| **GO09** | **Cerro Castillo** | **6.11** | **154** | *e*Pn | | **Pn** | **12 55 51.8** | **-3.0** |
| **GO09** | **Cerro Castillo** | **6.11** | **154** | *e*P | | **Pn** | **12 55 51.5** | **-3.2** |
| GO09 | | | | *e*S | | **Sn** | **12 56 58.9** | **-5.8** |
| **PLCA** | **Paso Flores** | **6.74** | **43** | Pn | | **Pn** | **12 56 01.5** | **-2.0** |
| | comp=E,1.1nm,0.3s,baz=238,slow=14,SNR=36 | | | | | | | |
| PLCA | | | | LR | | LR | 12 58 40.4 | |
| | comp=E,83μm,20.3s,baz=236,slow=39 | | | | | | | |
| **PLCA** | **Paso Flores** | **6.74** | **43** | *e*P | | **Pn** | **12 56 02.3** | **-1.1** |
| **PLCA** | **Paso Flores** | **6.74** | **43** | *e*Pn | | **Pn** | **12 55 59.9** | **-3.6** |
| **USHA** | **Ushuaia** | **10.38** | **153** | Pn | | **Pn** | **12 56 53.3** | **0.0** |
| | comp=E,167nm,0.3s,baz=283,slow=11,SNR=14 | | | | | | | |
| USHA | | | | LR | | LR | 13 00 35.7 | |
| | comp=E,114μm,20.5s,baz=305,slow=36 | | | | | | | |
| **GO05** | **HualaæØ** | **11.38** | **20** | *e*Pn | | **Pn** | **12 57 05.3** | **-1.8** |
| **TRQA** | **Tornquist** | **13.35** | **59** | *e*Pn | | **Pn** | **12 57 31.9** | **-2.0** |
| **PEL** | **Peldehue** | **13.47** | **22** | *e*P | | **Pn** | **12 57 31.5** | **-4.1** |
| **PEL** | **Peldehue** | **13.47** | **22** | *e*Pn | | **Pn** | **12 57 31.5** | **-4.1** |
| **EFI** | **East Falkland** | **13.52** | **122** | I/P | | **Pn** | **12 57 34.2** | **-1.9** |
| **EFI** | **East Falkland** | **13.52** | **122** | *e*Pn | | **Pn** | **12 57 33.6** | **-2.5** |
| **ROC1** | **El Roble** | **13.54** | **20** | *e*Pn | | **Pn** | **12 57 33.6** | **-3.2** |
| **LCO** | **Las Campanas** | **17.43** | **17** | *e*Pn | | **Pn** | **12 58 25.2** | **-2.7** |
| | comp=E,174nm,1.4s | | | | | | | |
| **PMSA** | **Palmer Station** | **20.19** | **164** | LR | | LR | 13 05 01.7 | |
| | comp=E,10μm,20.1s,baz=320,slow=32 | | | | | | | |
| **PB10** | **IPOC Station P** | **22.81** | **14** | *e*P | | **P** | **12 59 26.9** | **-0.5** |
| | comp=E,178nm,1.4s | | | | | | | |
| **PB04** | **IPOC Station P** | **24.03** | **15** | *e*P | | **P** | **12 59 39.2** | **-0.5** |
| | comp=E,272nm,1.5s | | | | | | | |
| **CPUP** | **Villa Florida** | **24.81** | **45** | P | | **P** | **12 59 46.0** | **-0.6** |
| | comp=E,61nm,1.0s,baz=218,slow=8.9,SNR=55 | | | | | | | |
| CPUP | | | | LR | | LR | 13 10 10.6 | |
| | comp=E,25μm,19.3s,baz=216,slow=38 | | | | | | | |
| **CPUP** | **Villa Florida** | **24.81** | **45** | *e*P | | **P** | **12 59 46.4** | **-0.2** |
| CPUP | | | | pmax | | pmax | | |
| | comp=Z,197nm,1.3s | | | | | | | |
| **CPUP** | **Villa Florida** | **24.81** | **45** | *e*P | | **P** | **12 59 46.4** | **-0.2** |
| | comp=Z,197nm,1.3s | | | | | | | |
| **PB01** | **IPOC Station P** | **25.41** | **16** | *e*P | | **P** | **12 59 52.1** | **-0.1** |
| | comp=Z,71nm,1.1s | | | | | | | |
| **PB11** | **IPOC Station P** | **26.63** | **15** | *e*P | | **P** | **13 00 00.2** | **-3.1** |
| | comp=Z,179nm,1.5s | | | | | | | |
| **HOPE** | **Hope Point** | **26.77** | **123** | | PFAKE | | 13 00 10.0 | +5.9 |
| HOPE | | | | LR | | LR | | |
| | comp=Z,7μm,19.0s | | | | | | | |
| **MNMC** | **Minye Minye** | **27.26** | **15** | *e*P | | **P** | **13 00 06.9** | **-2.3** |
| | comp=Z,204nm,1.7s | | | | | | | |
| **LPAZ** | **La Paz** | **30.30** | **16** | P | | **P** | **13 00 36.3** | **-0.3** |
| | comp=Z,5.9nm,0.7s,baz=204,slow=9.7,SNR=11 | | | | | | | |
| **LPAZ** | **La Paz** | **30.30** | **16** | *e*P | | **P** | **13 00 36.7** | **+0.1** |
| **LPAZ** | **La Paz** | **30.30** | **16** | *e*P | | **P** | **13 00 36.1** | **-0.5** |
| | comp=Z,82nm,1.6s | | | | | | | |
| **RPN** | **Rapa Nui** | **31.98** | **294** | | PFAKE | | 13 01 10.0 | +19 |
| RPN | | | | LR | | LR | | |
| | comp=Z,6μm,20.0s | | | | | | | |
| **SIV** | **San Ignacio** | **32.47** | **29** | P | | **P** | **13 00 53.3** | **-1.7** |
| | comp=Z,15nm,1.1s,baz=227,slow=11,SNR=9.5 | | | | | | | |
| SIV | | | | LR | | LR | 13 15 49.3 | |
| | comp=Z,8μm,18.1s,baz=217,slow=40 | | | | | | | |
| **NNA** | **Nana** | **33.74** | **360** | LR | | LR | 13 11 50.8 | |
| | comp=Z,6μm,18.9s,baz=184,slow=31 | | | | | | | |
| **BDFB** | **Brasilia** | **38.45** | **48** | P | | **P** | **13 01 45.8** | **-0.8** |
| | comp=Z,15nm,0.8s,baz=8.7,slow=4.3,SNR=12 | | | | | | | |
| BDFB | | | | LR | | LR | 13 19 01.1 | |
| | comp=Z,21μm,18.1s,baz=356,slow=39 | | | | | | | |
| **BDFB** | **Brasilia** | **38.45** | **48** | *e*P | | **P** | **13 01 47.0** | **+0.4** |
| BDFB | | | | pmax | | pmax | | |
| | comp=Z,99nm,1.2s | | | | | | | |
| **SAML** | **Samuel** | **38.52** | **22** | *e*P | | **P** | **13 01 46.1** | **-0.9** |
| | comp=Z,75nm,1.4s | | | | | | | |
| SAML | | | | LR | | LR | | |
| | comp=Z,11μm,21.0s | | | | | | | |
| **ATAH** | **Atahualpa** | **38.60** | **357** | P | | **P** | **13 01 48.8** | **+0.7** |
| | comp=Z,6.4nm,0.9s,baz=171,slow=4.4,SNR=6.9 | | | | | | | |
| ATAH | | | | LR | | LR | 13 14 22.3 | |
| | comp=Z,7μm,19.8s,baz=183,slow=31 | | | | | | | |
| **VNA3** | **Neumayer Olymp** | **40.06** | **152** | P | | **P** | **13 01 58.8** | **-0.5** |
| **VNA1** | **Neumayer--Stat** | **40.51** | **152** | P | | **P** | **13 02 04.4** | **+1.4** |
| **VNA2** | **Neumayer--Watz** | **40.80** | **152** | P | | **P** | **13 02 04.9** | **-0.5** |
| | baz=276,slow=8.6 | | | | | | | |
| **SNAA** | **Sanae** | **42.24** | **153** | P | | **P** | **13 02 16.7** | **-0.7** |
| **SNAA** | **Sanae** | **42.24** | **153** | P | | **P** | **13 02 16.7** | **-0.7** |
| | comp=Z,11nm,0.9s,baz=40,slow=21,SNR=16 | | | | | | | |
| **SNAA** | **Sanae** | **42.24** | **153** | *e*P | | **P** | **13 02 16.3** | **-1.0** |
| **SNAA** | **Sanae** | **42.24** | **153** | *e*P | | **P** | **13 02 16.4** | **-0.9** |
| | comp=Z,41nm,1.1s | | | | | | | |
| **QSPA** | **South Pole Qui** | **44.40** | **180** | *e*P | | **P** | **13 02 35.0** | **0.0** |
| | comp=Z,45nm,1.1s | | | | | | | |
| QSPA | | | | LR | | LR | | |
| | comp=Z,3μm,19.0s | | | | | | | |
| **OTAV** | **Otavalo** | **45.92** | **357** | *e*P | | **P** | **13 02 49.8** | **+2.0** |
| | comp=Z,68nm,1.5s | | | | | | | |
| OTAV | | | | LR | | LR | | |
| | comp=Z,2μm,19.0s | | | | | | | |
| **PAYG** | **Puerto Ayora** | **46.58** | **341** | | PFAKE | | 13 03 10.0 | +18 |
| PAYG | | | | LR | | LR | | |
| | comp=Z,3μm,19.0s | | | | | | | |
| **NVL** | **N'lazarevskaya** | **47.07** | **153** | *e*P | | **P** | **13 02 56.2** | **+0.5** |
| NVL | | | | *e*S | | **S** | **13 09 46.2** | **-1.0** |
| **PTGA** | **Pitinga** | **47.24** | **23** | P | | **P** | **13 02 56.9** | **-0.8** |
| | comp=Z,12nm,0.9s,baz=209,slow=8.0,SNR=11 | | | | | | | |
| **PTGA** | **Pitinga** | **47.24** | **23** | *e*P | | **P** | **13 02 57.0** | **-0.8** |
| | comp=Z,38nm,1.0s | | | | | | | |
| PTGA | | | | LR | | LR | | |
| | comp=Z,34μm,20.0s | | | | | | | |
| **TRIS** | **Tristan da Cun** | **47.78** | **103** | | PFAKE | | 13 03 10.0 | +8.3 |
| TRIS | | | | LR | | LR | | |
| | comp=Z,3μm,21.0s | | | | | | | |
| **PRAC** | **Prado** | **49.36** | **2** | *e*P | | **P** | **13 03 11.4** | **-2.7** |
| **ROSC** | **El Rosal** | **50.50** | **3** | LR | | LR | 13 22 59.3 | |
| | comp=Z,6μm,18.8s,baz=198,slow=34 | | | | | | | |
| **ROSC** | **El Rosal** | **50.50** | **3** | *e*P | | P | 13 03 14.7 | -8.4 |
| **ROSC** | **El Rosal** | **50.50** | **3** | *e*P | | **P** | **13 03 22.3** | **-0.8** |
| | comp=Z,97nm,2.0s | | | | | | | |
| **SBA** | **Scott Base** | **50.77** | **194** | | PFAKE | | 13 03 40.0 | +16 |
| SBA | | | | LR | | LR | | |
| | comp=Z,2μm,19.0s | | | | | | | |
| **RUSC** | **La Rusia** | **51.60** | **4** | *e*P | | P | 13 03 24.7 | -6.8 |
| **RUSC** | **La Rusia** | **51.60** | **4** | *e*P | | **P** | **13 03 32.0** | **+0.5** |
| | comp=Z,33nm,1.6s | | | | | | | |
| **VNDA** | **Vanda** | **51.80** | **194** | P | | **P** | **13 03 31.8** | **-0.1** |
| | comp=Z,6.9nm,0.9s,baz=91,slow=20,SNR=10 | | | | | | | |
| VNDA | | | | LR | | LR | 13 23 38.5 | |
| | comp=Z,2μm,18.0s,baz=138,slow=34 | | | | | | | |
| **VNDA** | **Vanda** | **51.80** | **194** | *e*P | | **P** | **13 03 31.7** | **-0.1** |
| VNDA | | | | pmax | | pmax | | |
| | comp=Z,27nm,1.2s | | | | | | | |
| **VNDA** | **Vanda** | **51.80** | **194** | *e*P | | **P** | **13 03 29.4** | **-2.4** |
| | comp=Z,27nm,1.3s | | | | | | | |
| **RKT** | **Rikitea** | **51.95** | **275** | *e*S | | **S** | **13 10 52.9** | **-3.7** |
| | comp=Z,1μm,29.0s | | | | | | | |
| RKT | | | | *e*LQ | | LQ | 13 16 21.6 | |
| | comp=Z,4μm,34.2s | | | | | | | |
| RKT | | | | *e*LR | | LR | 13 18 34.0 | |
| | comp=Z,3μm,27.5s | | | | | | | |
| **BRRC** | **Barranca, Sant** | **52.77** | **4** | *e*P | | **P** | **13 03 37.3** | **-2.4** |
| **RCBR** | **Riachuelo** | **53.16** | **54** | | PFAKE | | 13 03 50.0 | +7.3 |
| RCBR | | | | LR | | LR | | |
| | comp=Z,7μm,20.0s | | | | | | | |
| **SDV** | **Santo Domingo** | **54.74** | **7** | P | | **P** | **13 03 53.4** | **-0.8** |
| | comp=Z,1.9nm,0.2s,baz=117,slow=2.3,SNR=3.8 | | | | | | | |
| **SDV** | **Santo Domingo** | **54.74** | **7** | *e*P | | P | 13 03 47.3 | -7.0 |
| **SDV** | **Santo Domingo** | **54.74** | **7** | | PFAKE | | 13 04 10.0 | +16 |
| SDV | | | | LR | | LR | | |
| | comp=Z,3μm,19.0s | | | | | | | |
| **BCIP** | **Isla Barro Col** | **54.84** | **356** | | PFAKE | | 13 04 10.0 | +15 |
| BCIP | | | | LR | | LR | | |
| | comp=Z,2μm,20.0s | | | | | | | |
| **JTS** | **JuntasAbangare** | **56.38** | **350** | *e*P | | **P** | **13 04 07.8** | **+1.9** |
| **JTS** | **JuntasAbangare** | **56.38** | **350** | | PFAKE | | 13 04 20.0 | +14 |
| JTS | | | | LR | | LR | | |
| | comp=Z,2μm,21.0s | | | | | | | |
| **GRGR** | **Grenville** | **59.26** | **17** | | PFAKE | | 13 04 40.0 | +14 |
| GRGR | | | | LR | | LR | | |
| | comp=Z,3μm,20.0s | | | | | | | |
| **BBGH** | **Gun Hill** | **60.69** | **19** | | PFAKE | | 13 04 50.0 | +14 |
| BBGH | | | | LR | | LR | | |
| | comp=Z,4μm,21.0s | | | | | | | |
| **FDF** | **Fort de France** | **61.88** | **17** | | PFAKE | | 13 05 00.0 | +16 |
| FDF | | | | LR | | LR | | |
| | comp=Z,4μm,22.0s | | | | | | | |
| **TBI** | **Tubuai** | **61.91** | **265** | *e*LQ | | LQ | 13 20 35.6 | |
| | comp=Z,6μm,33.0s | | | | | | | |
| TBI | | | | *e*LR | | LR | 13 23 03.2 | |
| | comp=Z,3μm,27.8s,baz=131 | | | | | | | |
| **MAW** | **Mawson** | **62.81** | **164** | P | | **P** | **13 04 50.7** | **+1.2** |
| | comp=Z,17nm,1.1s,baz=231,slow=8.5,SNR=7.6 | | | | | | | |
| MAW | | | | LR | | LR | 13 31 01.7 | |
| | comp=Z,7μm,21.6s,baz=208,slow=35 | | | | | | | |
| **MAW** | **Mawson** | **62.81** | **164** | *e*P | | **P** | **13 04 50.6** | **+1.0** |
| MAW | | | | pmax | | pmax | | |
| | comp=Z,10.0nm,1.4s | | | | | | | |
| **MAW** | **Mawson** | **62.81** | **164** | *e*P | | **P** | **13 04 50.5** | **+1.0** |
| | comp=Z,10nm,1.4s | | | | | | | |
| **MTDJ** | **Mount Denham** | **63.77** | **359** | | PFAKE | | 13 05 10.0 | +13 |
| MTDJ | | | | LR | | LR | | |
| | comp=Z,1μm,20.0s | | | | | | | |
| **SJG** | **San Juan** | **64.35** | **11** | | PFAKE | | 13 05 10.0 | +10 |
| SJG | | | | LR | | LR | | |
| | comp=Z,4μm,19.0s | | | | | | | |
| **ANWB** | **Willy Bob** | **64.62** | **16** | | PFAKE | | 13 05 10.0 | +8.0 |
| ANWB | | | | LR | | LR | | |
| | comp=Z,2μm,19.0s | | | | | | | |
| **SDDR** | **Presa de Saban** | **64.69** | **6** | | PFAKE | | 13 05 10.0 | +7.4 |
| SDDR | | | | LR | | LR | | |
| | comp=Z,2μm,21.0s | | | | | | | |
| **ASCN** | **Ascension** | **65.11** | **75** | | PFAKE | | 13 05 20.0 | +14 |
| ASCN | | | | LR | | LR | | |
| | comp=Z,2μm,20.0s | | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **65.37** | **283** | *e*S | | **S** | **13 13 45.4** | **-6.2** |
| | comp=Z,2μm,28.3s | | | | | | | |
| TAOE | | | | *e*LQ | | LQ | 13 22 00.6 | |
| | comp=Z,2μm,27.9s | | | | | | | |
| TAOE | | | | *e*LR | | LR | 13 24 47.2 | |
| | comp=Z,2μm,28.5s | | | | | | | |
| **SHEL** | **Horse Pasture** | **65.40** | **88** | | PFAKE | | 13 05 20.0 | +13 |
| SHEL | | | | LR | | LR | | |
| | comp=Z,959nm,20.0s | | | | | | | |
| **TVO** | **Taravao** | **65.46** | **269** | *e*T | | T | 14 16 10.2 | |
| | comp=Z,1.6nm,0.3s | | | | | | | |
| **GTBY** | **Guantanamo Bay** | **65.47** | **2** | | PFAKE | | 13 05 20.0 | +12 |
| GTBY | | | | LR | | LR | | |
| | comp=Z,1μm,20.0s | | | | | | | |
| **TIAR** | **Tiarei** | **65.67** | **270** | *e*P | | **P** | **13 05 07.5** | **-1.6** |
| | comp=Z,26nm,1.3s | | | | | | | |
| **TIAR** | **Tiarei** | **65.67** | **270** | *e*T | | T | 14 16 27.0 | |
| | comp=Z,3.2nm,0.2s | | | | | | | |
| **PAE** | **Paea** | **65.77** | **269** | *e*T | | T | 14 16 31.9 | |
| | comp=Z,1.5nm,0.3s | | | | | | | |
| **PPT2** | **Papeete2** | **65.81** | **269** | *e*P | | **P** | **13 05 08.9** | **-1.2** |
| | comp=Z,62nm,1.5s | | | | | | | |
| PPT2 | | | | *e*S | | **S** | **13 13 51.3** | **-5.7** |
| | comp=Z,2μm,28.0s | | | | | | | |
| PPT2 | | | | *e*LQ | | LQ | 13 21 34.4 | |
| | comp=Z,2μm,26.0s | | | | | | | |
| PPT2 | | | | *e*LR | | LR | 13 24 56.7 | |
| | comp=Z,1μm,25.2s | | | | | | | |
| **PPT2** | **Papeete2** | **65.81** | **269** | *e*T | | T | 14 16 36.8 | |
| | comp=Z,2.5nm,0.3s | | | | | | | |
| **PPT** | **Papete** | **65.83** | **269** | LR | | LR | 13 26 21.6 | |
| | comp=Z,721nm,20.4s,baz=156,slow=29 | | | | | | | |
| **TEIG** | **Tepich** | **66.61** | **348** | | PFAKE | | 13 05 30.0 | +15 |
| TEIG | | | | LR | | LR | | |
| | comp=Z,5.0nm,20.0s | | | | | | | |
| **GRTK** | **Grand Turk** | **67.22** | **5** | | PFAKE | | 13 05 30.0 | +11 |
| GRTK | | | | LR | | LR | | |
| | comp=Z,2μm,21.0s | | | | | | | |
| **CASY** | **Casey** | **68.08** | **183** | | PFAKE | | 13 05 40.0 | +16 |
| CASY | | | | LR | | LR | | |
| | comp=Z,1.0nm,19.0s | | | | | | | |
| **RAR** | **Rarotonga** | **70.46** | **259** | LR | | LR | 13 29 57.7 | |
| | comp=Z,2μm,18.5s,baz=156,slow=30 | | | | | | | |
| **RAR** | **Rarotonga** | **70.46** | **259** | | PFAKE | | 13 05 50.0 | +11 |
| RAR | | | | LR | | LR | | |
| | comp=Z,3μm,19.0s | | | | | | | |
| **SUR** | **Sutherland** | **72.24** | **118** | *e*P | | **P** | **13 05 49.4** | **-0.6** |
| | comp=Z,54nm,1.1s | | | | | | | |
| SUR | | | | LR | | LR | | |
| | comp=Z,4μm,20.0s | | | | | | | |
| **SNZO** | **South Karori** | **72.47** | **228** | | PFAKE | | 13 06 10.0 | +19 |
| SNZO | | | | LR | | LR | | |
| | comp=Z,4μm,22.0s | | | | | | | |
| **RPZ** | **Rata Peaks** | **72.57** | **225** | LR | | LR | 13 29 46.3 | |
| | comp=Z,6μm,21.2s,baz=101,slow=29 | | | | | | | |
| **URZ** | **Urewera** | **73.36** | **232** | LR | | LR | 13 30 53.3 | |
| | comp=Z,3μm,20.7s,baz=180,slow=30 | | | | | | | |
| **KVTX** | **Kingsville** | **75.57** | **341** | | PFAKE | | 13 06 20.0 | +11 |
| KVTX | | | | LR | | LR | | |
| | comp=Z,1μm,19.0s | | | | | | | |
| **RAO** | **Raoul Island** | **76.85** | **242** | LR | | LR | 13 33 27.2 | |
| | comp=Z,1μm,20.9s,baz=49,slow=30 | | | | | | | |
| **SACV** | **Santiago Islan** | **77.09** | **52** | | PFAKE | | 13 06 30.0 | +12 |
| SACV | | | | LR | | LR | | |
| | comp=Z,2μm,21.0s | | | | | | | |
| **BRAL** | **Brewton** | **77.24** | **351** | | PFAKE | | 13 06 30.0 | +12 |
| BRAL | | | | LR | | LR | | |
| | comp=Z,1μm,19.0s | | | | | | | |
| **HKT** | **Hockley** | **77.44** | **343** | *e*P | | **P** | **13 06 20.3** | **+0.8** |
| HKT | | | | pmax | | pmax | | |
| | comp=Z,79nm,1.9s | | | | | | | |
| **BOSA** | **Boshof** | **77.60** | **118** | P | | **P** | **13 06 21.9** | **+0.9** |
| | comp=Z,35nm,1.0s,baz=200,slow=6.7,SNR=8.8 | | | | | | | |
| BOSA | | | | LR | | LR | 13 36 45.2 | |
| | comp=Z,2μm,19.1s,baz=220,slow=33 | | | | | | | |
| **BOSA** | **Boshof** | **77.60** | **118** | *e*P | | **P** | **13 06 20.0** | **-1.0** |
| BOSA | | | | pmax | | pmax | | |
| | comp=Z,45nm,1.0s | | | | | | | |
| **BOSA** | **Boshof** | **77.60** | **118** | *e*P | | **P** | **13 06 20.0** | **-1.0** |
| | comp=Z,45nm,1.0s | | | | | | | |
| **247A** | **Quitman** | **78.30** | **350** | P | | **P** | **13 06 24.9** | **+0.6** |
| | baz=171 | | | | | | | |
| **BBSR** | **BB Station** | **78.59** | **10** | | PFAKE | | 13 06 40.0 | +14 |
| BBSR | | | | LR | | LR | | |
| | comp=Z,2μm,22.0s | | | | | | | |
| **NHSC** | **New Hope** | **78.65** | **357** | | PFAKE | | 13 06 40.0 | +14 |
| NHSC | | | | LR | | LR | | |
| | comp=Z,1μm,19.0s | | | | | | | |
| **TXAR** | **Lajitas Array** | **78.76** | **336** | LR | | LR | 13 35 21.4 | |
| | comp=Z,1μm,20.2s,baz=0.0,slow=31 | | | | | | | |
| **JCT** | **Junction City** | **78.84** | **340** | | PFAKE | | 13 06 40.0 | +13 |
| JCT | | | | LR | | LR | | |
| | comp=Z,547nm,21.0s | | | | | | | |
| **NATX** | **Nacogdoches** | **78.96** | **344** | | PFAKE | | 13 06 40.0 | +12 |
| NATX | | | | LR | | LR | | |
| | comp=Z,941nm,20.0s | | | | | | | |
| **145A** | **Houston Renfro** | **79.01** | **349** | P | | **P** | **13 06 28.1** | **-0.1** |
| | baz=170 | | | | | | | |
| **LRAL** | **Lakeview Retre** | **79.08** | **351** | P | | **P** | **13 06 28.2** | **-0.4** |
| | baz=172 | | | | | | | |
| **LRAL** | **Lakeview Retre** | **79.08** | **351** | *e*P | | **P** | **13 06 29.5** | **+0.9** |
| | comp=Z,25nm,1.3s | | | | | | | |
| **GOGA** | **Godfrey** | **79.13** | **354** | *e*P | | **P** | **13 06 29.8** | **+0.9** |
| GOGA | | | | pmax | | pmax | | |
| | comp=Z,48nm,1.1s | | | | | | | |
| GOGA | | | | MLR | | MLR | | |
| | comp=Z,1μm,20.0s | | | | | | | |
| **GOGA** | **Godfrey** | **79.13** | **354** | *e*P | | **P** | **13 06 29.8** | **+0.9** |
| | comp=Z,48nm,1.1s | | | | | | | |
| GOGA | | | | LR | | LR | | |
| | comp=Z,1μm,20.0s | | | | | | | |
| **TSUM** | **Tsumeb** | **79.29** | **106** | *e*P | | **P** | **13 06 30.1** | **-0.4** |
| | comp=Z,34nm,1.5s | | | | | | | |
| TSUM | | | | LR | | LR | | |
| | comp=Z,2μm,19.0s | | | | | | | |
| **Z47A** | **Carrollton** | **79.36** | **350** | P | | **P** | **13 06 30.7** | **+0.6** |
| | baz=172 | | | | | | | |
| **Z48A** | **Northport** | **79.48** | **351** | P | | **P** | **13 06 32.1** | **+1.4** |
| | baz=172 | | | | | | | |
| **Z44A** | **Pea Ridge, Bel** | **79.75** | **348** | P | | **P** | **13 06 33.6** | **+1.4** |
| | baz=170 | | | | | | | |
| **JSC** | **Jenkinsville** | **79.87** | **356** | *e*P | | **P** | **13 06 34.1** | **+1.3** |
| JSC | | | | pmax | | pmax | | |
| | comp=Z,110nm,1.7s | | | | | | | |
| **JSC** | **Jenkinsville** | **79.87** | **356** | *e*P | | **P** | **13 06 33.8** | **+1.0** |
| | comp=Z,113nm,1.7s | | | | | | | |
| **HODGE** | **Hodges** | **79.87** | **355** | *e*P | | **P** | **13 06 33.8** | **+0.9** |
| | comp=Z,23nm,0.7s | | | | | | | |
| **Y47A** | **UCPARC, Winfie** | **80.03** | **350** | P | | **P** | **13 06 34.9** | **+1.1** |
| | baz=172 | | | | | | | |
| **Y45A** | **Yeager Farm, C** | **80.20** | **349** | P | | **P** | **13 06 35.8** | **+1.1** |
| | baz=170 | | | | | | | |
| **X49A** | **Woodville** | **80.47** | **352** | P | | **P** | **13 06 36.4** | **+0.3** |
| | baz=173 | | | | | | | |
| **WLAR** | **White Oak Lake** | **80.57** | **346** | *e*P | | **P** | **13 06 38.5** | **+1.8** |
| | comp=Z,48nm,1.1s | | | | | | | |
| **X47A** | **Russelville** | **80.64** | **351** | P | | **P** | **13 06 37.6** | **+0.6** |
| | baz=172 | | | | | | | |
| **BG3** | **Lake Jocassee** | **80.67** | **355** | *e*P | | **P** | **13 06 38.7** | **+1.5** |
| | comp=Z,19nm,0.9s | | | | | | | |
| **CNNC** | **Cliffs of the** | **80.72** | **359** | | PFAKE | | 13 06 50.0 | +13 |
| CNNC | | | | LR | | LR | | |
| | comp=Z,1μm,21.0s | | | | | | | |
| **KMSC** | **Kings Mountain** | **80.73** | **356** | P | | **P** | **13 06 38.8** | **+1.3** |
| | baz=176 | | | | | | | |
| **X45A** | **UM Field Stati** | **80.73** | **349** | P | | **P** | **13 06 39.2** | **+1.6** |
| | baz=171 | | | | | | | |
| **OXF** | **Oxford** | **80.82** | **349** | *e*P | | **P** | **13 06 39.6** | **+1.6** |
| OXF | | | | pmax | | pmax | | |
| | comp=Z,73nm,1.2s | | | | | | | |
| **OXF** | **Oxford** | **80.82** | **349** | *e*P | | **P** | **13 06 38.8** | **+0.8** |
| | comp=Z,73nm,1.3s | | | | | | | |
| **PAF** | **Port-aux-Franc** | **80.88** | **159** | | PFAKE | | 13 06 50.0 | +12 |
| PAF | | | | LR | | LR | | |
| | comp=Z,2μm,19.0s | | | | | | | |
| **SWET** | **Sewanee** | **81.13** | **352** | *e*P | | **P** | **13 06 40.6** | **+0.9** |
| | comp=Z,35nm,0.8s | | | | | | | |
| **X42A** | **Stuttgart** | **81.17** | **347** | P | | **P** | **13 06 40.2** | **+0.4** |
| | baz=169 | | | | | | | |
| **X41A** | **Kaden, Bauxite** | **81.26** | **347** | P | | **P** | **13 06 40.9** | **+0.6** |
| | baz=168 | | | | | | | |
| **X40A** | **Basin Creek Fa** | **81.30** | **346** | P | | **P** | **13 06 41.2** | **+0.6** |
| | baz=168 | | | | | | | |
| **W45A** | **Hickory Valley** | **81.43** | **350** | P | | **P** | **13 06 41.6** | **+0.4** |
| | baz=171 | | | | | | | |
| **MNTX** | **Cornudas Mount** | **81.48** | **335** | | PFAKE | | 13 06 50.0 | +8.4 |
| MNTX | | | | LR | | LR | | |
| | comp=Z,951nm,20.0s | | | | | | | |
| **MIAR** | **Mount Ida** | **81.48** | **346** | | PFAKE | | 13 06 50.0 | +8.5 |
| MIAR | | | | LR | | LR | | |
| | comp=Z,810nm,20.0s | | | | | | | |
| **UALR** | **University of** | **81.50** | **347** | *e*P | | **P** | **13 06 42.1** | **+0.5** |
| | comp=Z,115nm,1.7s | | | | | | | |
| **V48A** | **Smith Brothers** | **81.73** | **352** | P | | **P** | **13 06 43.4** | **+0.6** |
| | baz=172 | | | | | | | |
| **LIC** | **Lamto** | **81.78** | **72** | *e*P | | **P** | **13 06 43.1** | **-0.5** |
| | comp=Z,129nm,1.5s | | | | | | | |
| **W41B** | **Gary Mavity, V** | **81.88** | **347** | P | | **P** | **13 06 43.4** | **-0.1** |
| | baz=169 | | | | | | | |
| **WHAR** | **Wooly Hollow** | **82.00** | **347** | *e*P | | **P** | **13 06 45.3** | **+1.1** |
| | comp=Z,94nm,1.5s | | | | | | | |
| **W40A** | **Ferguson Farm,** | **82.03** | **346** | *e*P | | **P** | **13 06 46.5** | **+2.1** |
| | comp=Z,173nm,1.8s | | | | | | | |
| **KIC** | **Kosan Boka** | **82.07** | **72** | *e*P | | **P** | **13 06 44.6** | **-0.6** |
| | comp=Z,67nm,1.3s | | | | | | | |
| **TIC** | **Toumodi** | **82.10** | **72** | *e*P | | **P** | **13 06 44.9** | **-0.4** |
| **DBIC** | **Dimbokro** | **82.22** | **72** | P | | **P** | **13 06 45.6** | **-0.3** |
| | comp=Z,12nm,1.0s,baz=162,slow=8.7,SNR=5.3 | | | | | | | |
| **DBIC** | **Dimbokro** | **82.22** | **72** | *e*P | | **P** | **13 06 46.2** | **+0.3** |
| DBIC | | | | pmax | | pmax | | |
| | comp=Z,33nm,1.3s | | | | | | | |
| **DBIC** | **Dimbokro** | **82.22** | **72** | *e*P | | **P** | **13 06 46.2** | **+0.3** |
| | comp=Z,33nm,1.3s | | | | | | | |
| **WVT** | **Waverly** | **82.23** | **351** | P | | **P** | **13 06 46.0** | **+0.6** |
| | baz=172 | | | | | | | |
| **WVT** | **Waverly** | **82.23** | **351** | *e*P | | **P** | **13 06 45.3** | **-0.1** |
| WVT | | | | pmax | | pmax | | |
| | comp=Z,75nm,1.4s | | | | | | | |
| **WVT** | **Waverly** | **82.23** | **351** | *e*P | | **P** | **13 06 45.3** | **-0.1** |
| | comp=Z,75nm,1.4s | | | | | | | |
| **V42A** | **Cord** | **82.37** | **348** | P | | **P** | **13 06 47.0** | **+0.9** |
| | baz=169 | | | | | | | |
| **V41A** | **Mountainview** | **82.46** | **347** | P | | **P** | **13 06 47.3** | **+0.6** |
| | baz=169 | | | | | | | |
| **U48A** | **Cassie Pea, Po** | **82.47** | **352** | P | | **P** | **13 06 48.8** | **+2.1** |
| | baz=173 | | | | | | | |
| **U47A** | **Clarksville** | **82.48** | **351** | P | | **P** | **13 06 47.0** | **+0.3** |
| | baz=172 | | | | | | | |
| **U45A** | **Rockin P Farm,** | **82.55** | **350** | P | | **P** | **13 06 47.9** | **+0.9** |
| | baz=171 | | | | | | | |
| **V40A** | **Witts Springs** | **82.59** | **347** | P | | **P** | **13 06 48.2** | **+0.8** |
| | baz=168 | | | | | | | |
| **WMOK** | **Wichita Mounta** | **82.68** | **342** | | PFAKE | | 13 07 00.0 | +12 |
| WMOK | | | | LR | | LR | | |
| | comp=Z,541nm,20.0s | | | | | | | |
| **BLA** | **Blacksburg** | **82.75** | **357** | | PFAKE | | 13 07 00.0 | +12 |
| BLA | | | | LR | | LR | | |
| | comp=Z,1μm,20.0s | | | | | | | |
| **U43A** | **Rector** | **82.78** | **349** | P | | **P** | **13 06 49.9** | **+1.7** |
| | baz=170 | | | | | | | |
| **U42A** | **Revenden** | **82.88** | **348** | P | | **P** | **13 06 49.7** | **+0.9** |
| | baz=169 | | | | | | | |
| **U41A** | **Viola** | **82.98** | **348** | P | | **P** | **13 06 50.2** | **+0.9** |
| | baz=169 | | | | | | | |
| **T47A**

| | | | | | | |
|---|---|---|---|---|---|---|
| T40A | Mansfield | 83.86 | 347 | P | P | 13 06 55.2 +1.3 |
| | baz=168 | | | | | |
| T39A | Clever | 83.87 | 347 | P | P | 13 06 55.0 +1.1 |
| | baz=168 | | | | | |
| S43A | Fulton Ridge, | 83.92 | 349 | P | P | 13 06 55.0 +0.8 |
| | baz=170 | | | | | |
| S44A | Carbondale | 83.94 | 350 | P | P | 13 06 55.1 +0.9 |
| | baz=171 | | | | | |
| SIUC | Southern Illin | 83.96 | 350 | eP | P | 13 06 55.0 +0.7 |
| | comp=Z,67nm,1.3s | | | | | |
| T38A | Diamond | 84.03 | 346 | P | P | 13 06 55.6 +0.8 |
| | baz=167 | | | | | |
| 214A | Organ Pipe Nat | 84.11 | 330 | P | P | 13 06 56.3 +1.0 |
| | baz=155 | | | | | |
| WCI | Wyandotte Cave | 84.15 | 352 | P | P | 13 06 56.9 +1.6 |
| | baz=173 | | | | | |
| Y22D | IRIS PASSCAL I | 84.15 | 335 | P | P | 13 06 56.5 +0.9 |
| | baz=159 | | | | | |
| Y22E | IRIS PASSCAL I | 84.15 | 335 | P | P | 13 06 56.2 +0.6 |
| | baz=159 | | | | | |
| S41A | Jillco Farms, | 84.17 | 348 | P | P | 13 06 56.5 +1.1 |
| | baz=169 | | | | | |
| S42A | Caledonia | 84.21 | 349 | P | P | 13 06 56.7 +1.1 |
| | baz=170 | | | | | |
| T37A | Cheneyville 18 | 84.23 | 345 | P | P | 13 06 56.6 +0.9 |
| | baz=167 | | | | | |
| R47A | Wooly Knot Far | 84.24 | 352 | P | P | 13 06 56.3 +0.6 |
| | baz=173 | | | | | |
| R48A | Northridge Ran | 84.28 | 353 | P | P | 13 06 57.3 +1.3 |
| | baz=173 | | | | | |
| LPM | Los Pinos Moun | 84.29 | 335 | eP | P | 13 06 54.8 -1.6 |
| S40A | Lebanon | 84.29 | 347 | P | P | 13 06 56.6 +0.6 |
| | baz=169 | | | | | |
| T35A | Sooner Cattle | 84.32 | 344 | P | P | 13 06 57.3 +1.1 |
| | baz=166 | | | | | |
| T36A | Boggs Farm, Ca | 84.34 | 345 | P | P | 13 06 57.1 +0.9 |
| | baz=166 | | | | | |
| FVM | French Village | 84.38 | 349 | eP | P | 13 06 57.3 +0.9 |
| FVM | | | | pmax | pmax | |
| | comp=Z,50nm,1.3s | | | | | |
| FVM | French Village | 84.38 | 349 | eP | P | 13 06 57.3 +0.9 |
| | comp=Z,50nm,1.3s | | | | | |
| R45A | Skylar, Fairfi | 84.42 | 351 | P | P | 13 06 57.2 +0.6 |
| | baz=172 | | | | | |
| R44A | Waltonville | 84.47 | 350 | P | P | 13 06 57.2 +0.3 |
| | baz=171 | | | | | |
| S39A | Bolivar | 84.51 | 347 | P | P | 13 06 57.5 +0.3 |
| | baz=168 | | | | | |
| S38A | Stockton | 84.55 | 346 | P | P | 13 06 58.4 +1.1 |
| | baz=168 | | | | | |
| T34A | McClaskey Farm | 84.56 | 344 | P | P | 13 06 58.7 +1.4 |
| | baz=165 | | | | | |
| CCM | Cathedral Cave | 84.56 | 348 | P | P | 13 06 58.7 +1.4 |
| | baz=169 | | | | | |
| CCM | Cathedral Cave | 84.56 | 348 | eP | P | 13 06 57.9 +0.5 |
| CCM | | | | pmax | pmax | |
| | comp=Z,63nm,0.9s | | | | | |
| CCM | Cathedral Cave | 84.56 | 348 | eP | P | 13 06 57.9 +0.5 |
| | comp=Z,63nm,0.9s | | | | | |
| R43A | Red Bud | 84.60 | 349 | P | P | 13 06 58.9 +1.4 |
| | baz=170 | | | | | |
| R42A | Luebbering | 84.72 | 349 | P | P | 13 06 59.7 +1.6 |
| | baz=170 | | | | | |
| R41A | Rosebud | 84.81 | 348 | P | P | 13 06 58.7 +0.1 |
| | baz=169 | | | | | |
| ANMO | Albuquerque | 84.83 | 336 | P | P | 13 06 57.6 -1.5 |
| | baz=159 | | | | | |
| ANMO | Albuquerque | 84.83 | 336 | PFAKE | | 13 07 10.0 +11 |
| ANMO | | | | LR | LR | |
| | comp=Z,1µm,19.0s | | | | | |
| S37A | Fort Scott | 84.83 | 346 | P | P | 13 06 58.8 +0.1 |
| | baz=167 | | | | | |
| Q47A | Bedord North L | 84.86 | 352 | P | P | 13 07 00.2 +1.3 |
| | baz=173 | | | | | |
| S36A | Lake Cedric, C | 84.93 | 345 | P | P | 13 07 00.1 +0.8 |
| | baz=166 | | | | | |
| R40A | Maddies Statio | 84.94 | 348 | P | P | 13 07 00.3 +1.1 |
| | baz=169 | | | | | |
| Q45A | Warren Harvey, | 85.00 | 351 | P | P | 13 06 59.8 +0.3 |
| | baz=172 | | | | | |
| S35A | Otter Creek Ra | 85.03 | 344 | P | P | 13 07 00.6 +0.8 |
| | baz=166 | | | | | |
| R39A | Chumby, Stover | 85.08 | 347 | P | P | 13 07 00.5 +0.6 |
| | baz=168 | | | | | |
| R38A | Fenwick Farm, | 85.09 | 346 | P | P | 13 07 00.9 +0.8 |
| | baz=168 | | | | | |
| XMAS | Kiritimati | 85.10 | 278 | PFAKE | | 13 07 10.0 +9.3 |
| XMAS | | | | LR | LR | |
| | comp=Z,6.0nm,22.0s | | | | | |
| Q44A | Meyer Farm, Va | 85.11 | 350 | P | P | 13 07 00.9 +0.8 |
| | baz=171 | | | | | |
| S34A | Willow Spring | 85.20 | 344 | P | P | 13 07 01.7 +1.1 |
| | baz=165 | | | | | |
| Q43A | New Douglas | 85.22 | 350 | P | P | 13 07 00.7 +0.1 |
| | baz=170 | | | | | |
| Q42A | Golden Eagle | 85.30 | 349 | P | P | 13 07 01.6 +0.6 |
| | baz=170 | | | | | |
| P47A | Martinsville | 85.39 | 352 | P | P | 13 07 01.5 0.0 |
| | baz=173 | | | | | |
| Q41A | Truxton | 85.44 | 349 | P | P | 13 07 02.1 +0.3 |
| | baz=169 | | | | | |
| R36A | Gordon, Harris | 85.50 | 345 | P | P | 13 07 02.9 +0.8 |
| | baz=166 | | | | | |
| P45A | Graceland, Par | 85.58 | 351 | P | P | 13 07 02.5 0.0 |
| | baz=172 | | | | | |
| Q40A | Laux Farm, Aux | 85.60 | 348 | P | P | 13 07 02.9 +0.3 |
| | baz=169 | | | | | |
| P46A | Rosedale | 85.61 | 352 | P | P | 13 07 02.4 -0.2 |
| | baz=172 | | | | | |
| P44A | Sand Creek, Wi | 85.62 | 351 | P | P | 13 07 03.2 +0.6 |
| | baz=171 | | | | | |
| R35A | Emporia Munici | 85.63 | 345 | P | P | 13 07 04.3 +1.6 |
| | baz=166 | | | | | |
| Q39A | Willow Grove F | 85.78 | 347 | P | P | 13 07 04.6 +1.1 |
| | baz=168 | | | | | |
| Q38A | Cooks Store, C | 85.80 | 347 | P | P | 13 07 04.9 +1.4 |
| | baz=168 | | | | | |
| R34A | Isabella, Hill | 85.80 | 344 | P | P | 13 07 04.4 +0.8 |
| | baz=165 | | | | | |
| GLA | Glamis | 85.82 | 329 | P | P | 13 07 05.8 +2.0 |
| | baz=154 | | | | | |
| Q37A | Longview Farm, | 85.86 | 346 | P | P | 13 07 04.4 +0.6 |
| | baz=167 | | | | | |
| ACSO | Alum Creek Sta | 85.89 | 355 | PFAKE | | 13 07 20.0 +16 |
| ACSO | | | | LR | LR | |
| | comp=Z,1µm,20.0s | | | | | |
| P42A | Winchester | 85.94 | 349 | P | P | 13 07 05.8 +1.6 |
| | baz=170 | | | | | |
| W18A | Petrified Fore | 85.98 | 333 | P | P | 13 07 06.3 +1.6 |
| | baz=157 | | | | | |
| Q36A | Arnold C. Orve | 86.11 | 345 | P | P | 13 07 06.4 +1.3 |
| | baz=167 | | | | | |
| P40A | Paris | 86.12 | 348 | P | P | 13 07 06.2 +1.1 |
| | baz=169 | | | | | |
| P41A | Barry, Barry | 86.12 | 349 | P | P | 13 07 06.7 +1.6 |
| | baz=170 | | | | | |
| O45A | Potomac | 86.29 | 351 | P | P | 13 07 06.7 +0.8 |
| | baz=172 | | | | | |
| T25A | Trinidad | 86.33 | 338 | P | P | 13 07 07.3 +0.8 |
| | baz=161 | | | | | |
| T25A | Trinidad | 86.33 | 338 | eP | P | 13 07 08.0 +1.5 |
| | comp=Z,78nm,1.1s | | | | | |
| Y12C | Blythe | 86.34 | 329 | P | P | 13 07 07.9 +1.5 |
| | baz=154 | | | | | |
| Y12C | Blythe | 86.34 | 329 | eP | P | 13 07 08.4 +2.1 |
| | comp=Z,13nm,0.9s | | | | | |
| Q34A | Chapman | 86.34 | 344 | P | P | 13 07 06.8 +0.6 |
| | baz=166 | | | | | |
| N59A | State Game Lan | 86.38 | 1 | P | P | 13 07 07.8 +1.4 |
| | baz=180 | | | | | |
| MHTCO | State Highway | 86.39 | 338 | eP | P | 13 07 08.3 +1.5 |
| | comp=Z,150nm,1.9s | | | | | |
| P38A | Dawn | 86.44 | 347 | P | P | 13 07 07.8 +1.1 |
| | baz=168 | | | | | |
| KSU1 | Kansas State U | 86.46 | 345 | PFAKE | | 13 07 20.0 +13 |
| KSU1 | | | | LR | LR | |
| | comp=Z,942nm,21.0s | | | | | |
| O43A | Sugar Creek Fa | 86.50 | 350 | P | P | 13 07 07.8 +0.8 |
| | baz=171 | | | | | |
| O41A | Passleys Farm, | 86.53 | 349 | P | P | 13 07 08.0 +0.8 |
| | baz=170 | | | | | |
| P37A | Lathrop | 86.53 | 346 | P | P | 13 07 07.7 +0.6 |
| | baz=167 | | | | | |
| PDMCI | Parker Dam,Lak | 86.70 | 330 | P | P | 13 07 10.9 +2.8 |
| | baz=154 | | | | | |
| P35A | Duane Minner, | 86.76 | 345 | P | P | 13 07 08.6 +0.3 |
| | baz=166 | | | | | |
| HDIL | Hopedale | 86.77 | 350 | PFAKE | | 13 07 20.0 +12 |
| HDIL | | | | LR | LR | |
| | comp=Z,1µm,19.0s | | | | | |
| CBKS | Cedar Bluff | 86.81 | 342 | P | P | 13 07 09.3 +0.8 |
| | baz=164 | | | | | |
| CBKS | Cedar Bluff | 86.81 | 342 | eP | P | 13 07 10.2 +1.6 |
| CBKS | | | | pmax | pmax | |
| | comp=Z,91nm,1.3s | | | | | |
| CBKS | | | | MLR | MLR | |
| | comp=Z,717nm,19.0s | | | | | |
| CBKS | Cedar Bluff | 86.81 | 342 | eP | P | 13 07 10.2 +1.6 |
| | comp=Z,91nm,1.3s | | | | | |
| CBKS | | | | LR | LR | |
| | comp=Z,717nm,19.0s | | | | | |
| WUAZ | Wupatki | 86.87 | 332 | P | P | 13 07 11.2 +2.1 |
| | baz=156 | | | | | |
| WUAZ | Wupatki | 86.87 | 332 | eP | P | 13 07 11.4 +2.3 |
| | comp=Z,62nm,1.1s | | | | | |
| WUAZ | | | | LR | LR | |
| | comp=Z,1µm,21.0s | | | | | |
| N44A | Piper City | 86.88 | 351 | P | P | 13 07 10.1 +1.3 |
| | baz=172 | | | | | |
| O39A | Kirksville | 86.90 | 348 | P | P | 13 07 09.5 +0.6 |
| | baz=169 | | | | | |
| XPFO | Piæon Flat | 86.92 | 328 | eP | P | 13 07 10.6 +1.1 |
| | comp=Z,36nm,1.4s | | | | | |
| PFO | Pinyon Flats O | 86.93 | 328 | P | P | 13 07 11.5 +2.1 |
| | comp=Z,8.5nm,1.1s,baz=149,slow=6.3,SNR=4.4 | | | | | |
| PFO | Pinyon Flats O | 86.93 | 328 | P | P | 13 07 11.5 +2.1 |
| | baz=153 | | | | | |
| PFO | Pinyon Flats O | 86.93 | 328 | eP | P | 13 07 11.1 +1.7 |
| PFO | | | | pmax | pmax | |
| | comp=Z,31nm,1.4s | | | | | |
| PFO | | | | MLR | MLR | |
| | comp=Z,1µm,20.0s | | | | | |
| PFO | Pinyon Flats O | 86.93 | 328 | eP | P | 13 07 11.1 +1.7 |
| | comp=Z,31nm,1.4s | | | | | |
| PFO | | | | LR | LR | |
| | comp=Z,1µm,20.0s | | | | | |
| P34A | Walnut Farm, R | 86.93 | 344 | P | P | 13 07 10.4 +1.3 |
| | baz=166 | | | | | |
| IRM | Iron Mountain | 86.93 | 329 | P | P | 13 07 11.5 +2.2 |
| | baz=154 | | | | | |
| O37A | Wolven Farm, M | 87.06 | 347 | P | P | 13 07 10.8 +1.1 |
| | baz=168 | | | | | |
| BELC | Belle Mtn. Jos | 87.10 | 328 | P | P | 13 07 11.8 +1.5 |
| | baz=153 | | | | | |
| N41A | Harden Midland | 87.11 | 349 | P | P | 13 07 11.5 +1.6 |
| | baz=170 | | | | | |
| N42A | Yates City | 87.13 | 350 | P | P | 13 07 11.1 +1.1 |
| | baz=170 | | | | | |
| O36A | Bolckow | 87.17 | 346 | P | P | 13 07 11.0 +0.8 |
| | baz=167 | | | | | |
| SDCO | Great Sand Dun | 87.19 | 337 | P | P | 13 07 13.0 +2.2 |
| | baz=160 | | | | | |
| SDCO | Great Sand Dun | 87.19 | 337 | eP | P | 13 07 12.4 +1.7 |
| | comp=Z,42nm,1.6s | | | | | |
| SDCO | | | | LR | LR | |
| | comp=Z,863nm,20.0s | | | | | |
| MURC | Murrieta | 87.19 | 327 | P | P | 13 07 12.3 +1.7 |
| | baz=153 | | | | | |
| N39A | Derby Farms, D | 87.51 | 348 | P | P | 13 07 12.6 +0.8 |
| | baz=169 | | | | | |
| O34A | Beatrice | 87.52 | 345 | P | P | 13 07 13.3 +1.3 |
| | baz=166 | | | | | |
| MVCO | Mesa Verde | 87.53 | 335 | P | P | 13 07 14.6 +2.2 |
| | baz=158 | | | | | |
| MVCO | Mesa Verde | 87.53 | 335 | eP | P | 13 07 13.6 +1.2 |
| | comp=Z,188nm,1.9s | | | | | |
| MVCO | | | | LR | LR | |
| | comp=Z,1µm,20.0s | | | | | |
| N38A | Joes South For | 87.53 | 347 | P | P | 13 07 13.3 +1.3 |
| | baz=168 | | | | | |
| S22A | 4UR Ranch, Cre | 87.55 | 336 | P | P | 13 07 14.9 +2.4 |
| | baz=159 | | | | | |
| S22A | 4UR Ranch, Cre | 87.55 | 336 | eP | P | 13 07 14.7 +2.1 |
| | comp=Z,30nm,1.0s | | | | | |
| O33A | Hebron | 87.58 | 344 | P | P | 13 07 15.1 +2.8 |
| | baz=165 | | | | | |
| N37A | Lee Faris, Mou | 87.65 | 347 | P | P | 13 07 16.0 +3.4 |
| | baz=167 | | | | | |
| KSCO | Kaye Shedlock' | 87.65 | 340 | P | P | 13 07 16.7 +3.9 |
| | baz=162 | | | | | |
| KSCO | Kaye Shedlock' | 87.65 | 340 | eP | P | 13 07 14.8 +2.0 |
| | comp=Z,114nm,1.6s | | | | | |
| BINY | Binghamton | 87.66 | 0 | PFAKE | | 13 07 20.0 +7.4 |
| BINY | | | | LR | LR | |
| | comp=Z,2µm,19.0s | | | | | |
| GMRC | Granite Mounta | 87.68 | 329 | P | P | 13 07 15.5 +2.5 |
| | baz=154 | | | | | |
| MSVF | Nonsavu | 87.72 | 247 | PFAKE | | 13 07 30.0 +16 |
| MSVF | | | | LR | LR | |
| | comp=Z,2µm,22.0s | | | | | |
| M41A | Milan | 87.73 | 350 | P | P | 13 07 14.4 +1.5 |
| | baz=170 | | | | | |
| M40A | Post Highland | 87.89 | 349 | P | P | 13 07 15.8 +2.1 |
| | baz=169 | | | | | |
| BFSC | Mount Baldy Ra | 87.94 | 327 | P | P | 13 07 14.9 +0.6 |
| | baz=152 | | | | | |
| AAM | Ann Arbor | 87.99 | 355 | PFAKE | | 13 07 30.0 +16 |
| AAM | | | | LR | LR | |
| | comp=Z,2µm,22.0s | | | | | |
| N35A | Tabor | 87.99 | 346 | P | P | 13 07 15.1 +0.9 |
| | baz=166 | | | | | |
| M39A | Webster | 88.05 | 348 | P | P | 13 07 15.3 +0.9 |
| | baz=169 | | | | | |
| N34A | Lincoln | 88.12 | 345 | P | P | 13 07 16.9 +2.1 |
| | baz=166 | | | | | |
| Q24A | Divide | 88.24 | 338 | P | P | 13 07 17.5 +1.7 |
| | baz=160 | | | | | |
| Q24A | Divide | 88.24 | 338 | eP | P | 13 07 17.2 +1.4 |
| | comp=Z,74nm,1.7s | | | | | |
| M37A | Trindle Farm, | 88.26 | 347 | P | P | 13 07 17.6 +2.1 |
| | baz=168 | | | | | |
| PV01 | Paradox Valley | 88.41 | 335 | eP | P | 13 07 17.8 +1.3 |
| L41A | Preston | 88.41 | 350 | P | P | 13 07 15.7 -0.4 |
| | baz=170 | | | | | |
| L40A | Anamosa | 88.49 | 349 | P | P | 13 07 16.7 +0.2 |
| | baz=170 | | | | | |
| PV05 | Paradox Valley | 88.51 | 335 | eP | P | 13 07 18.7 +1.6 |
| GSC | Goldstone, Bar | 88.56 | 328 | P | P | 13 07 19.1 +1.9 |
| | baz=153 | | | | | |
| GSC | Goldstone, Bar | 88.56 | 328 | eP | P | 13 07 19.2 +2.1 |
| GSC | | | | pmax | pmax | |
| | comp=Z,13nm,1.1s | | | | | |
| GSC | Goldstone, Bar | 88.56 | 328 | eP | P | 13 07 19.2 +2.1 |
| | comp=Z,13nm,1.1s | | | | | |
| KOWA | Kowa | 88.56 | 68 | eP | P | 13 07 17.5 0.0 |
| | comp=Z,25nm,1.4s | | | | | |
| M35A | Neola | 88.59 | 346 | P | P | 13 07 21.0 +4.0 |
| | baz=166 | | | | | |
| SCIA | State Center | 88.62 | 348 | P | P | 13 07 18.6 +1.5 |
| | baz=168 | | | | | |
| SCIA | State Center | 88.62 | 348 | eP | P | 13 07 18.2 +1.0 |
| | comp=Z,80nm,1.1s | | | | | |
| SCIA | | | | LR | LR | |
| | comp=Z,889nm,19.0s | | | | | |
| EDW2 | Edwards Air Fo | 88.63 | 327 | P | P | 13 07 21.3 +3.8 |
| | baz=152 | | | | | |
| L39A | Vinton | 88.66 | 349 | P | P | 13 07 17.5 +0.2 |
| | baz=169 | | | | | |
| PV10 | Paradox Valley | 88.77 | 335 | eP | P | 13 07 20.2 +1.9 |
| K43A | Burlington | 88.78 | 351 | P | P | 13 07 16.8 -1.1 |
| | baz=172 | | | | | |
| L38A | Oak Wood Farm, | 88.81 | 348 | P | P | 13 07 18.3 +0.2 |
| | baz=168 | | | | | |
| LCMT | Little Creek M | 88.84 | 331 | eP | P | 13 07 20.9 +2.3 |
| | comp=Z,17nm,1.1s | | | | | |
| K41A | Shullsburg | 88.91 | 350 | P | P | 13 07 19.3 +0.9 |
| | baz=170 | | | | | |
| PV09 | Paradox Valley | 88.91 | 335 | eP | P | 13 07 20.6 +1.6 |
| SMCO | Snowmass | 88.93 | 337 | eP | P | 13 07 20.8 +1.6 |
| | comp=Z,78nm,1.4s | | | | | |
| K42A | Prairie Point, | 88.97 | 351 | P | P | 13 07 20.2 +1.5 |
| | baz=171 | | | | | |
| SHPR | Sheep Range | 89.05 | 330 | eP | P | 13 07 21.4 +1.9 |
| | comp=Z,33nm,1.4s | | | | | |
| K40A | Colesburg | 89.11 | 349 | P | P | 13 07 20.3 +0.9 |
| | baz=170 | | | | | |
| LSZ | Lusaka | 89.12 | 111 | eP | P | 13 07 20.8 +0.3 |
| LSZ | | | | pmax | pmax | |
| | comp=Z,27nm,1.4s | | | | | |
| LSZ | | | | MLR | MLR | |
| | comp=Z,2µm,20.0s | | | | | |
| LSZ | Lusaka | 89.12 | 111 | eP | P | 13 07 20.8 +0.3 |
| | comp=Z,27nm,1.4s | | | | | |
| LSZ | | | | LR | LR | |
| | comp=Z,2µm,20.0s | | | | | |
| ISCO | Idaho Springs | 89.15 | 338 | P | P | 13 07 21.8 +1.7 |
| | baz=160 | | | | | |
| ISCO | Idaho Springs | 89.15 | 338 | eP | P | 13 07 22.0 +1.9 |
| ISCO | | | | pmax | pmax | |
| | comp=Z,21nm,0.8s | | | | | |
| ISCO | | | | MLR | MLR | |
| | comp=Z,726nm,19.0s | | | | | |
| ISCO | Idaho Springs | 89.15 | 338 | eP | P | 13 07 22.0 +1.9 |
| | comp=Z,22nm,0.8s | | | | | |
| ISCO | | | | LR | LR | |
| | comp=Z,726nm,19.0s | | | | | |
| L35A | Bielow Farm, R | 89.19 | 346 | P | P | 13 07 20.1 +0.2 |
| | baz=166 | | | | | |
| JFWS | Jewell Farm | 89.21 | 350 | P | P | 13 07 21.4 +1.5 |
| | baz=170 | | | | | |
| JFWS | Jewell Farm | 89.21 | 350 | eP | P | 13 07 20.9 +1.0 |
| JFWS | | | | pmax | pmax | |
| | comp=Z,89nm,1.1s | | | | | |
| JFWS | | | | MLR | MLR | |
| | comp=Z,2µm,21.0s | | | | | |
| JFWS | Jewell Farm | 89.21 | 350 | eP | P | 13 07 20.9 +1.0 |
| | comp=Z,89nm,1.1s | | | | | |
| JFWS | | | | LR | LR | |
| | comp=Z,2µm,21.0s | | | | | |
| K39A | Oelwein | 89.21 | 349 | P | P | 13 07 20.1 +0.2 |
| | baz=169 | | | | | |
| K38A | Parkersburg | 89.28 | 348 | P | P | 13 07 23.0 +2.8 |
| | baz=168 | | | | | |
| SZCU | Shurtz Canyon | 89.32 | 332 | eP | P | 13 07 22.7 +1.9 |
| | comp=Z,62nm,1.7s | | | | | |
| CAN | Canberra | 89.34 | 216 | PFAKE | | 13 07 30.0 +8.9 |
| CAN | | | | LR | LR | |
| | comp=Z,3µm,20.0s | | | | | |
| OGNE | Ogallala | 89.36 | 341 | PFAKE | | 13 07 30.0 +9.3 |
| OGNE | | | | LR | LR | |
| | comp=Z,788nm,19.0s | | | | | |
| CCUT | Cedar City | 89.37 | 332 | eP | P | 13 07 23.5 +2.4 |
| | comp=Z,38nm,1.6s | | | | | |
| MTPU | Mount Pierson | 89.43 | 333 | eP | P | 13 07 23.2 +1.7 |
| | comp=Z,59nm,0.9s | | | | | |
| J42A | Columbus | 89.48 | 351 | P | P | 13 07 21.3 +0.2 |
| | baz=171 | | | | | |
| MPMC | Manual Prospec | 89.49 | 328 | P | P | 13 07 22.8 +1.1 |
| | baz=152 | | | | | |
| ISA | Isabella, Lake | 89.51 | 327 | P | P | 13 07 21.6 0.0 |
| | baz=152 | | | | | |
| K36A | Gilmore City | 89.53 | 347 | P | P | 13 07 19.1 -2.3 |
| | baz=167 | | | | | |
| FURC | Furnace Creek, | 89.62 | 329 | P | P | 13 07 24.7 +2.7 |
| | baz=153 | | | | | |
| J41A | Loganville | 89.62 | 350 | P | P | 13 07 22.7 +0.9 |
| | baz=170 | | | | | |
| K35A | Storm Lake | 89.73 | 346 | P | P | 13 07 23.8 +1.5 |
| | baz=167 | | | | | |
| J40A | Soldiers Grove | 89.74 | 350 | P | P | 13 07 24.5 +2.1 |
| | baz=170 | | | | | |
| J39A | Decorah | 89.81 | 349 | P | P | 13 07 22.3 -0.4 |
| | baz=169 | | | | | |
| TPNV | Topopah Spring | 89.83 | 329 | P | P | 13 07 24.4 +1.2 |
| | baz=153 | | | | | |
| K34A | Le Mars | 89.84 | 346 | P | P | 13 07 25.6 +2.8 |
| | baz=166 | | | | | |
| MSU | Marysvale | 89.86 | 333 | eP | P | 13 07 24.2 +0.8 |
| MSU | Marysvale | 89.86 | 333 | eP | P | 13 07 24.2 +0.8 |
| VES | Vestal, Richgr | 89.90 | 327 | P | P | 13 07 25.3 +2.0 |
| | baz=152 | | | | | |
| J38A | Wedel Dairy, R | 89.90 | 348 | P | P | 13 07 23.3 +0.2 |
| | baz=169 | | | | | |
| I43A | Langenfeld Bro | 89.93 | 352 | P | P | 13 07 24.1 +0.9 |
| | baz=172 | | | | | |
| I42A | Draeger Farm, | 90.02 | 351 | P | P | 13 07 25.1 +1.5 |
| | baz=171 | | | | | |
| J37A | Redenius Farm, | 90.05 | 348 | P | P | 13 07 24.0 +0.2 |
| | baz=168 | | | | | |
| LONY | Lake Ozonia | 90.10 | 1 | PFAKE | | 13 07 40.0 +16 |
| LONY | | | | LR | LR | |
| | comp=Z,1µm,22.0s | | | | | |
| J36A | Seneca 1, Swea | 90.18 | 347 | P | P | 13 07 25.9 +1.5 |
| | baz=167 | | | | | |
| I40A | Norwalk | 90.22 | 350 | P | P | 13 07 25.4 +0.8 |
| | baz=170 | | | | | |
| N23A | Red Feather La | 90.26 | 338 | P | P | 13 07 26.4 +1.2 |
| | baz=160 | | | | | |
| N23A | Red Feather La | 90.26 | 338 | eP | P | 13 07 27.1 +1.9 |
| | comp=Z,38nm,1.3s | | | | | |
| I39A | Houston | 90.30 | 349 | P | P | 13 07 25.2 +0.2 |
| | baz=169 | | | | | |
| PHWY | Pilot Hill | 90.52 | 339 | eP | P | 13 07 27.9 +1.4 |
| | comp=Z,26nm,1.3s | | | | | |
| GLMI | Grayling | 90.56 | 354 | PFAKE | | 13 07 40.0 +14 |
| GLMI | | | | LR | LR | |
| | comp=Z,2µm,21.0s | | | | | |
| I38A | Scanlan Farm, | 90.59 | 349 | P | P | 13 07 27.8 +1.5 |
| | baz=169 | | | | | |
| I37A | Lemond, Waseca | 90.71 | 348 | P | P | 13 07 27.7 +0.9 |
| | baz=168 | | | | | |
| I35A | Creekview Farm | 90.80 | 347 | P | P | 13 07 29.4 +2.1 |
| | baz=167 | | | | | |
| R11A | Troy Canyon, C | 90.85 | 330 | P | P | 13 07 30.4 +2.5 |
| | baz=154 | | | | | |
| R11A | Troy Canyon, C | 90.85 | 330 | eP | P | 13 07 31.1 +3.2 |
| | comp=Z,16nm,1.4s | | | | | |
| ECSD | EROS Data Cent | 90.95 | 346 | P | P | 13 07 28.2 +0.2 |
| | baz=166 | | | | | |
| ECSD | EROS Data Cent | 90.95 | 346 | eP | P | 13 07 27.7 -0.3 |
| | comp=Z,23nm,0.9s | | | | | |
| ECSD | | | | LR | LR | |
| | comp=Z,1µm,19.0s | | | | | |
| PKME | Peaks-Kenny Pk | 90.95 | 5 | PFAKE | | 13 07 40.0 +12 |
| PKME | | | | LR | LR | |
| | comp=Z,2µm,19.0s | | | | | |
| MPU | Maple Canyon | 91.06 | 334 | eP | P | 13 07 31.0 +2.2 |
| | comp=Z,12nm,0.9s | | | | | |
| H39A | Augusta | 91.08 | 350 | P | P | 13 07 30.7 +2.1 |
| | baz=169 | | | | | |
| I34A | Hadley | 91.12 | 346 | P | P | 13 07 29.6 +0.9 |
| | baz=166 | | | | | |
| NLU | North Lily Min | 91.14 | 333 | eP | P | 13 07 31.3 +2.0 |
| | comp=Z,48nm,1.8s | | | | | |
| I33A | Coleman | 91.29 | 346 | P | P | 13 07 29.8 +0.2 |
| | baz=166 | | | | | |
| TOA0 | Torodi Ar. Sit | 91.33 | 73 | eP | P | 13 07 29.6 -0.9 |
| TORD | Torodi Ar. Bea | 91.33 | 73 | P | P | 13 07 30.1 -0.4 |
| | comp=Z,0.6nm,0.8s,baz=238,slow=5.1,SNR=4.4 | | | | | |
| TORD | | | | PP | PP | 13 11 11.2 +3.2 |
| | comp=Z,1.3nm,1.1s,baz=211,slow=5.9,SNR=3.5 | | | | | |
| TORD | | | | LR | LR | 13 46 09.8 |
| | comp=Z,1µm,18.9s,baz=230,slow=34 | | | | | |
| TOA1 | Torodi Ar. Sit | 91.33 | 73 | eP | P | 13 07 30.1 -0.4 |
| TOA1 | | | | ePP | PP | 13 11 11.2 +3.1 |
| H36A | Jessenland, He | 91.34 | 348 | P | P | 13 07 31.3 +1.5 |
| | baz=168 | | | | | |
| DZM | Mont Dzumac | 91.55 | 236 | LR | LR | 13 41 09.9 |
| | comp=Z,1µm,20.6s,baz=162,slow=31 | | | | | |
| DZM | Mont Dzumac | 91.55 | 236 | eS | S | 13 18 25.7 -6.1 |
| | comp=Z,626nm,26.8s | | | | | |
| DZM | Mont Dzumac | 91.55 | 236 | eLR | LR | 13 36 49.2 |
| | comp=Z,6µm,29.1s | | | | | |
| DUG | Dugway, Tooele | 91.60 | 333 | P | P | 13 07 32.6 +1.3 |
| | baz=155 | | | | | |
| DUG | Dugway, Tooele | 91.60 | 333 | PFAKE | | 13 07 40.0 +8.7 |
| DUG | | | | LR | LR | |
| | comp=Z,774nm,19.0s | | | | | |
| H35A | Sunnyside Ranc | 91.60 | 347 | P | P | 13 07 31.8 +0.9 |
| | baz=167 | | | | | |
| H34A | Spellman Lake, | 91.72 | 346 | P | P | 13 07 32.4 +0.9 |
| | baz=166 | | | | | |
| SPMN | Marine on St. | 91.81 | 349 | P | P | 13 07 31.5 -0.4 |
| | baz=168 | | | | | |
| H32A | Carlson Farm, | 91.84 | 345 | P | P | 13 07 36.2 +4.0 |
| | baz=165 | | | | | |
| F44A | Big Bay de Noc | 91.84 | 353 | P | P | 13 07 32.9 +0.9 |
| | baz=173 | | | | | |
| NV01 | Mina Array Sit | 91.89 | 328 | eP | P | 13 07 35.7 +3.0 |
| H33A | Prehn Over Nor | 91.89 | 346 | P | P | 13 07 33.2 +0.8 |
| | baz=166 | | | | | |
| G35A | Watkins | 92.05 | 347 | P | P | 13 07 33.9 +0.9 |
| | baz=167 | | | | | |
| K22A | Casper | 92.06 | 338 | P | P | 13 07 34.7 +1.3 |
| | baz=159 | | | | | |
| K22A | Casper | 92.06 | 338 | eP | P | 13 07 34.8 +1.4 |
| | comp=Z,98nm,1.9s | | | | | |
| F39A | Loretta | 92.25 | 350 | P | P | 13 07 32.9 -1.1 |
| | baz=170 | | | | | |
| G33A | Ortonville | 92.34 | 346 | P | P | 13 07 35.3 +0.9 |
| | baz=166 | | | | | |
| F38A | Pierce - Schro | 92.41 | 349 | P | P | 13 07 37.5 +2.8 |
| | baz=169 | | | | | |
| SPUT | South Promonto | 92.50 | 334 | eP | P | 13 07 38.5 +3.0 |

comp=Z,14nm,1.3s
**F36A Milaca 92.54 348 P P 13 07 34.9 -0.4**
baz=168
**G32A Webster 92.58 345 P P 13 07 35.1 -0.4**
baz=165
**F35A Swanville 92.69 348 P P 13 07 36.9 +0.9**
baz=167
**F34A Alexandria 92.73 347 P P 13 07 37.7 +1.5**
baz=167
**RSSD Black Hills 92.83 341 P P 13 07 37.6 +0.6**
baz=161
**F33A 5 Mile Ranch, 92.94 346 P P 13 07 38.0 +0.9**
baz=166
**BW06 Boulder Array 92.98 336 P P 13 07 38.3 +0.6**
baz=157
**BW06 Boulder Array 92.98 336 eP P 13 07 37.2 -0.6**
comp=Z,40nm,1.9s
BW06 LR LR
comp=Z,1μm,19.0s
**PDAR Pinedale Array 92.98 336 P P 13 07 39.5 +1.7**
comp=Z,1.4nm,0.9s,baz=149,slow=3.1,SNR=5.1
PDAR LR LR 13 43 28.2
comp=Z,732nm,19.4s,baz=156,slow=32
**PDAR Pinedale Array 92.98 336 eP P 13 07 38.7 +1.0**
**E36A McGregor 93.14 349 P P 13 07 38.9 +0.9**
baz=168
**AHID Auburn Hatcher 93.42 335 eP P 13 07 39.8 +0.1**
comp=Z,11nm,0.8s
AHID LR LR
comp=Z,921nm,19.0s
**FUNA Funafuti 93.70 254 PFAKE 13 08 00.0 +18**
FUNA LR LR
comp=Z,11μm,19.0s
**D35A Remer 93.81 348 P P 13 07 42.6 +1.5**
baz=168
**E31A Nome 93.91 345 P P 13 07 41.8 +0.2**
baz=165
**C36A Pine Crest Far 94.30 349 P P 13 07 43.6 +0.2**
baz=168
**EYMN Ely 94.32 350 PFAKE 13 08 00.0 +17**
EYMN LR LR
comp=Z,1μm,22.0s
**C35A Jirik Farms, M 94.40 348 P P 13 07 45.3 +1.5**
baz=168
**IMW Indian Meadow 94.42 336 eP P 13 07 46.2 +1.8**
comp=Z,4.8nm,0.9s
**C33A Trail 94.73 347 P P 13 07 46.8 +1.5**
baz=166
**LKWY Lake 94.88 336 PFAKE 13 08 00.0 +14**
LKWY LR LR
comp=Z,937nm,19.0s
**B35A Bob, Littlefor 95.01 349 P P 13 07 50.0 +3.4**
baz=168
**CMLA Cha da Macela 95.04 38 PFAKE 13 08 00.0 +13**
CMLA LR LR
comp=Z,3μm,20.0s
**C31A Landman Farms, 95.08 346 P P 13 07 46.5 -0.4**
baz=165
**RLMT Red Lodge 95.08 337 PFAKE 13 08 00.0 +13**
RLMT LR LR
comp=Z,1μm,20.0s
**HLID Hailey 95.15 333 P P 13 07 49.5 +1.8**
baz=154
**HLID Hailey 95.15 333 PFAKE 13 08 00.0 +12**
HLID LR LR
comp=Z,646nm,22.0s
**YHH Holmes Hill 95.21 336 eP P 13 07 49.1 +1.1**
comp=Z,4.4nm,1.0s
**STKA Stephens Creek 95.26 212 LR LR 13 43 17.6**
comp=Z,2μm,18.9s,baz=145,slow=31
**AGMN Agassiz Nation 95.26 347 P P 13 07 47.3 -0.4**
baz=166
**AGMN Agassiz Nation 95.26 347 eP P 13 07 48.3 +0.6**
comp=Z,10nm,0.8s
AGMN LR LR
comp=Z,1μm,21.0s
**B32A Ashes, Strandq 95.47 347 P P 13 07 48.3 -0.4**
baz=166
**WVOR Wild Horse Val 95.54 330 PFAKE 13 08 00.0 +11**
WVOR LR LR
comp=Z,751nm,22.0s
**LAO LASA Array 95.77 340 PFAKE 13 08 00.0 +10**
LAO LR LR
comp=Z,666nm,19.0s
**GCMT Greycliff 95.81 337 eP P 13 07 51.9 +1.4**
**A33A Warroad 95.82 348 P P 13 07 48.6 -1.7**
baz=167
**BOZ Bozeman (W) 96.17 336 PFAKE 13 08 00.0 +7.8**
BOZ LR LR
comp=Z,875nm,19.0s
**YBH Yreka Blue Hor 96.41 327 LR LR 13 42 14.8**
comp=Z,508nm,21.7s,baz=144,slow=30
**POHA Pohakuloa 96.56 291 PFAKE 13 08 10.0 +15**
POHA LR LR
comp=Z,3μm,21.0s
**DGMT Dagmar 96.98 342 PFAKE 13 08 10.0 +14**
DGMT LR LR
comp=Z,985nm,19.0s
**ULM Lac du Bonnet 97.17 348 P P 13 07 56.6 +0.2**
comp=Z,1.8nm,0.8s,baz=208,slow=3.1,SNR=2.7
**BMO Blue Mountains 97.23 332 PFAKE 13 08 10.0 +13**
BMO LR LR
comp=Z,999nm,19.0s
**ABPO Ambohimpanom 97.83 127 PFAKE 13 08 10.0 +9.4**
ABPO LR LR
comp=Z,682nm,19.0s
**EGMT Eagleton 97.89 338 PFAKE 13 08 10.0 +10**
EGMT LR LR
comp=Z,918nm,19.0s
**HAWA Hanford 99.33 331 PFAKE 13 08 20.0 +14**
HAWA LR LR
comp=Z,721nm,19.0s
**NEW Newport 100.20 334 PFAKE 13 08 20.0 +10**
NEW LR LR
comp=Z,803nm,19.0s
**RER Riviere de l'E 100.53 135 PFAKE 13 08 20.0 +7.6**
RER LR LR
comp=Z,2μm,19.0s
**NWAO Narrogin (SRO) 100.60 192 PFAKE 13 08 30.0 +17**
NWAO LR LR
comp=Z,2μm,21.0s
**TAM Tamanrasset 100.76 69 PFAKE 13 08 20.0 +6.6**
TAM LR LR
comp=Z,1μm,20.0s
**RTC Rabat Centre 101.34 53 PFAKE 13 08 30.0 +15**
RTC LR LR
comp=Z,14μm,20.0s
**FFC Flin Flon 102.49 345 PFAKE 13 08 30.0 +10**
FFC LR LR
comp=Z,1μm,19.0s
**CTAO Charters Tower 103.75 221 PFAKE 13 08 40.0 +13**
CTAO LR LR
comp=Z,1μm,19.0s
**HNR Honiara 105.31 239 PFAKE 13 13 00.0**
HNR LR LR
comp=Z,1μm,19.0s
**KMBO Kilima Mbogo 105.57 108 PFAKE 13 13 00.0**
KMBO LR LR
comp=Z,1μm,20.0s
**MTE Manteigas 105.70 48 PFAKE 13 13 00.0**
MTE LR LR
comp=Z,4μm,22.0s
**PAB San Pablo 106.77 50 PFAKE 13 13 00.0**
PAB LR LR
comp=Z,3μm,20.0s
**WRAB Tennant Creek 108.77 211 PFAKE 13 13 10.0**
WRAB LR LR
comp=Z,4μm,22.0s
**MBWA Marble Bar 111.69 196 PFAKE 13 13 10.0**
MBWA LR LR
comp=Z,1μm,19.0s
**YKA Yellowknife Ar 112.19 342 PKKPab PKKPab 13 23 53.3 -2.1**
comp=Z,0.2nm,0.8s,baz=334,slow=3.1,SNR=4.0
**PMG Port Moresby 112.47 228 PFAKE 13 13 10.0**
PMG LR LR
comp=Z,1μm,20.0s
**MSEY Mahe Island 114.13 126 PFAKE 13 13 20.0 +16**
MSEY LR LR
comp=Z,1μm,20.0s
**SFJD Kangerlussuaq 114.24 11 PFAKE 13 13 20.0 +17**
SFJD LR LR
comp=Z,1μm,19.0s
**VSL Villasalto 114.51 58 PFAKE 13 13 20.0 +16**
VSL LR LR
comp=Z,2μm,22.0s
**WDD Wied Dalam 115.32 64 PFAKE 13 13 20.0 +14**
WDD LR LR
comp=Z,2μm,20.0s
**SSB Saint Sauveur 115.48 51 PFAKE 13 13 20.0 +14**
SSB LR LR
comp=Z,4μm,19.0s
**BNI Bardonecchia 116.50 52 PFAKE 13 13 20.0 +12**
BNI LR LR
comp=Z,4μm,20.0s
**CEL Celeste 117.69 63 PFAKE 13 13 20.0 +10**
CEL LR LR
comp=Z,2μm,22.0s
**ESK Eskdalemuir 118.19 38 PFAKE 13 13 20.0 +9.3**
ESK LR LR
comp=Z,3μm,20.0s
**BORG Borgarnes 118.36 24 PFAKE 13 13 20.0 +9.2**
BORG LR LR
comp=Z,680nm,21.0s
**AQU L'Aquila 118.67 58 PFAKE 13 13 20.0 +7.8**
AQU LR LR
comp=Z,2μm,21.0s
**CUC Castrocucco 118.70 61 PFAKE 13 13 20.0 +7.7**
CUC LR LR
comp=Z,1μm,19.0s
**ECH Echery 118.72 49 PFAKE 13 13 20.0 +8.0**
ECH LR LR
comp=Z,3μm,21.0s
**TUE Stuetta 118.85 52 PFAKE 13 13 20.0 +7.4**
TUE LR LR
comp=Z,3μm,20.0s
**WLF Walferdange 119.08 48 PFAKE 13 13 20.0 +7.4**
WLF LR LR
comp=Z,3μm,21.0s
**BFO Black Forest 119.42 50 PFAKE 13 13 30.0 +17**
BFO LR LR
comp=Z,3μm,21.0s
**DGAR Diego Garcia 120.18 144 PFAKE 13 13 30.0 +14**
DGAR LR LR
comp=Z,1μm,21.0s
**EGAK Eagle 121.17 333 PFAKE 13 13 30.0 +14**
EGAK LR LR
comp=Z,1μm,21.0s
**H11S2 WAKE ISLAND Hyl 121.58 264 T T 15 26 34.1**
baz=136
**H11S1 WAKE ISLAND Hyl 121.60 264 T T 15 26 34.2**
baz=136
**H11S3 WAKE ISLAND Hyl 121.60 264 T T 15 26 35.5**
baz=136
**COCO West Island 121.93 172 PFAKE 13 13 30.0 +11**
COCO LR LR
comp=Z,2μm,22.0s
**TIR Tirane 121.98 62 PFAKE 13 13 30.0 +12**
TIR LR LR
comp=Z,2μm,19.0s
**H11N3 WAKE ISLAND Hyl 122.27 266 T T 15 27 27.1**
baz=150
**H11N1 WAKE ISLAND Hyl 122.28 265 T T 15 27 29.9**
baz=150
**H11N2 WAKE ISLAND Hyl 122.28 266 T T 15 27 27.3**
baz=150,SNR=5.5
**GERES GERESS Array B 122.62 52 PKP PKPdf 13 13 19.2 -0.4**
comp=Z,1.2nm,0.6s,baz=107,slow=1.4,SNR=5.2
**SANT Santorini 122.67 70 PFAKE 13 13 30.0 +10**
SANT LR LR
comp=Z,765nm,20.0s
**KHC Kasperske Hory 122.71 51 ePKP PKPdf 13 13 23.0 +3.3**
KHC AMS AMS 14 08 00.0
comp=Z,2μm,19.0s
**KHC Kasperske Hory 122.71 51 ePKIKP PKPdf 13 13 23.0 +3.3**
KHC MLR MLR
comp=Z,2μm,19.0s
**NKC Novy Kostel 122.72 50 AMS AMS 14 07 30.0**
comp=Z,2μm,18.3s
**ILAR Eielson Array 123.04 331 PKP PKPdf 13 13 19.4 -0.4**
comp=Z,1.2nm,0.8s,baz=163,slow=2.3,SNR=2.7
**ILB Eielson Array 123.04 331 ePKPpre PKPpre 13 13 14.0**
**COLA College 123.43 331 ePKIKP PKPdf 13 13 17.1 -3.4**
**COLA College 123.43 331 PFAKE 13 13 30.0 +10**
COLA LR LR
comp=Z,905nm,19.0s
**CLL Collm 123.60 49 eSS SS 13 31 49.0 -2.8**
CLL eSSS SSS 13 36 24.0
**PRA Prague 123.69 51 AMS AMS 14 06 20.0**
comp=Z,2μm,21.8s
**PRU Pruhonice 123.71 51 AMS AMS 14 09 20.0**
comp=Z,1μm,16.3s
**GOPC GO Pecny, Ondr 123.80 51 AMS AMS 14 09 50.0**
comp=Z,2μm,20.0s
**PVCC Panska Ves 124.02 50 AMS AMS 14 08 20.0**
comp=Z,2μm,18.5s
**VTS Vitosha 124.74 62⇓ iP PKPdf 13 13 29.8 +5.8**
**VTS Vitosha 124.74 62⇓ PKIKP PKPdf 13 13 29.8 +5.8**
**DPC Dobruska-Polom 124.87 51 ePKP PKPdf 13 13 29.9 +6.1**
DPC AMS AMS 14 12 10.0
comp=Z,900nm,21.7s
**DPC Dobruska-Polom 124.87 51 ePKIKP PKPdf 13 13 29.9 +6.1**
DPC MLR MLR
comp=Z,900nm,21.7s
**MDVR Moldovita 125.01 59⇑ iP PKPdf 13 13 25.6 +1.3**
**VYHS Vyhne 125.30 54 ePKIKP PKPdf 13 13 26.1 +1.5**
**VYHS Vyhne 125.30 54 ePKP PKPdf 13 13 26.1 +1.5**
**HERR Herculane 125.49 60⇑ iP PKPdf 13 13 26.6 +1.5**
**PSZ Piszkesteto 125.60 55 PFAKE 13 13 40.0 +15**
PSZ LR LR
comp=Z,2μm,20.0s
**OKC Ostrava-Krasne 125.61 53 AMS AMS 14 10 10.0**
comp=Z,2μm,22.0s
**DRGR 126.66 58⇑ iP PKPdf 13 13 27.6 +0.2**
**DRGR 126.66 58⇑ PKIKP PKPdf 13 13 27.6 +0.2**
**ARR Arges 127.08 60⇑ iP PKPdf 13 13 29.5 +1.3**
**CSS Mathiatis 127.11 76 PFAKE 13 13 40.0 +11**
CSS LR LR
comp=Z,151nm,21.0s
**KAPI Kappang 127.32 201 PFAKE 13 13 40.0 +10**
KAPI LR LR
comp=Z,880nm,20.0s
**VOIR 127.37 60⇑ iP PKPdf 13 13 30.0 +1.2**
**VOIR 127.37 60⇑ PKIKP PKPdf 13 13 30.0 +1.2**
**MMAI Mount Meron Ar 127.42 79 PKP PKPdf 13 13 30.7 +1.4**
comp=Z,0.4nm,0.3s,baz=224,slow=4.0,SNR=3.0
**DAG Danmarks Havn 127.62 14 ePKIKP PKPdf 13 13 33.3 +5.1**
DAG pmax pmax
comp=Z,8.0nm,1.0s
DAG MLR MLR
comp=Z,2μm,19.0s
**DAG Danmarks Havn 127.62 14 i P PKPdf 13 13 33.3 +5.1**
comp=Z,8.3nm,1.0s
comp=Z,1μm,19.0s
**NB200 NORSAR Array S 127.70 38 ePKPdf PKPdf 13 13 28.8 -0.1**
**NOA NORSAR Array B 127.70 38 PKP PKPdf 13 13 28.8 -0.1**
comp=Z,1.8nm,1.0s,baz=244,slow=2.1,SNR=2.6
**DOPR Dopca 127.84 60⇓ iP PKPdf 13 13 30.1 +0.5**
**MLR Muntele Rosu 127.94 61⇑ iP PKPdf 13 13 25.4 -4.6**
**MLR Muntele Rosu 127.94 61 ePKIKP PKPdf 13 13 30.5 +0.5**
**MLR Muntele Rosu 127.94 61 ePKPdf PKPdf 13 13 30.5 +0.5**
**ASF Jabal al Asfar 127.95 81 PKP PKPdf 13 13 31.9 +1.5**
comp=Z,3.0nm,0.8s,baz=90,slow=2.0,SNR=3.5
**PLOR Plostina 128.55 60⇑ iP PKPdf 13 13 31.4 +0.4**
**PLOR Plostina 128.55 60⇑ PKIKP PKPdf 13 13 31.4 +0.4**
**BUR04 Bucovina Ar. S 128.55 58 ePKPdf PKPdf 13 13 31.6 +0.6**
**BURAR Bucovina Array 128.55 58⇓ iP PKPdf 13 13 32.7 +1.7**
**BURAR Bucovina Array 128.55 58⇓ PKIKP PKPdf 13 13 32.7 +1.7**
**VRI Vrincioaia 128.60 60⇑ iP PKPdf 13 13 27.8 -3.3**
**VRI Vrincioaia 128.60 60⇑ PKIKP PKPdf 13 13 27.8 -3.3**
**RAYN Ar Rayn 128.65 95 PFAKE 13 13 40.0 +8.1**
RAYN LR LR
comp=Z,1μm,21.0s
**TESR Tescani 128.87 60⇑ iP PKPdf 13 13 32.0 +0.5**
**CFR Carcaliu 129.13 62⇑ iP PKPdf 13 13 33.8 +1.8**
**CFR Carcaliu 129.13 62⇑ PKIKP PKPdf 13 13 33.8 +1.8**
**BR231 Keskin MP Arra 129.40 70 ePKPdf PKPdf 13 13 34.2 +1.3**
**ANTO Ankara 129.42 70 PFAKE 13 13 40.0 +7.1**
ANTO LR LR
comp=Z,760nm,21.0s
**BR101 Keskin Array S 129.90 71 ePKPdf PKPdf 13 13 35.1 +1.2**
**BR131 Keskin Array S 129.90 71 ePKPdf PKPdf 13 13 35.1 +1.2**
**BRTR Keskin Array B 129.90 71 PKP PKPdf 13 13 35.1 +1.2**
comp=Z,2.6nm,0.9s,baz=150,slow=2.7,SNR=9.9
**KIS Kishinev 130.42 60 ePKP PKPpre 13 13 08.0**
KIS eSKKS 13 21 36.0
KIS eLR LR 14 00 20.0
comp=Z,2μm,22.0s
**KIS Kishinev 130.42 60 ePKHKP PKPpre 13 13 08.0**
KIS MLR MLR
comp=Z,2μm,20.0s
KIS MLR MLR
comp=Z,2μm,22.0s
**AKASG Malin Array Be 132.29 56 PKhKP PKPpre 13 13 30.7**
comp=Z,1.0nm,0.5s,baz=258,slow=2.3,SNR=9.1
AKASG PKP **PKPdf 13 13 36.8 -1.0**
comp=Z,1.4nm,0.7s,baz=259,slow=2.4,SNR=4.5
**AKBB Malin Array Si 132.29 56 ePKIKP PKPdf 13 13 37.1 -0.8**
**AKBB Malin Array Si 132.29 56 ePKPdf PKPdf 13 13 37.0 -0.8**
**GUMO Guam 132.57 241 PFAKE 13 13 50.0 +11**
GUMO LR LR
comp=Z,802nm,19.0s
**NACGM Naroch 132.61 50 eLR LR 13 13 14.0**
**KBS Kingsbay 134.28 16 PFAKE 13 13 50.0 +9.2**
KBS LR LR
comp=Z,899nm,20.0s
**ANN Anapa 134.80 66 i PKIKP PKPdf 13 13 40.0 -2.7**
ANN pmax pmax
comp=Z,86nm,1.0s
ANN MLR MLR
comp=N,1μm,21.0s
ANN MLR MLR
comp=Z,1μm,21.0s
ANN MLR MLR
comp=E,1μm,21.0s
**KSM Kuching 135.40 190 PFAKE 13 14 00.0 +15**
KSM LR LR
comp=Z,797nm,21.0s
**KEV Kevo 136.68 30 PFAKE 13 14 00.0 +15**
KEV LR LR
comp=Z,1μm,21.0s
**DAV Davao City (W) 136.89 213 PFAKE 13 14 00.0 +12**
DAV LR LR
comp=Z,517nm,19.0s
**GNI Garni 137.54 76 ePKIKP PKPdf 13 13 48.1 -0.2**
**GNI Garni 137.54 76 PFAKE 13 14 00.0 +12**
GNI LR LR
comp=Z,768nm,20.0s
**NEY Neytrino 137.57 71 ePKIKP PKPdf 13 13 48.8 +0.6**
**ONI Oni 137.77 72 ePKHKP PKPpre 13 13 39.7**
**KIV Kislovodsk 137.85 70 ePKIKP PKPdf 13 13 47.9 -0.7**
KIV *i* 13 13 55.4
KIV pmax pmax
comp=Z,7.0nm,0.9s
**KIV Kislovodsk 137.85 70 PFAKE 13 14 00.0 +11**
KIV LR LR
comp=Z,659nm,20.0s
**OBN Obninsk 138.00 52 ePKIKP PKPdf 13 13 48.5 +0.2**
OBN pmax pmax
comp=Z,11nm,1.3s
**OBN Obninsk 138.00 52 PFAKE 13 14 00.0 +12**
OBN LR LR
comp=Z,2μm,21.0s
**ZEI Tsey 138.16 72 i PKIKP PKPdf 13 13 57.6 +8.2**
ZEI pmax pmax
comp=Z,5.0nm,1.0s
**KKM Kota Kinabalu 138.83 200 PFAKE 13 14 00.0 +8.6**
KKM LR LR
comp=Z,852nm,22.0s
**LVZ Lovozero 139.26 33 PFAKE 13 14 00.0 +10**
LVZ LR LR
comp=Z,1μm,22.0s
**KULM Kulim 139.53 176 PFAKE 13 14 10.0 +17**
KULM LR LR
comp=Z,2μm,21.0s
**KLMR Klimovskoe 140.72 44 ePKHKP PKPpre 13 13 42.5**
KLMR pmax pmax
comp=Z,31nm,1.4s
**SRLM Srisailam 143.94 137 ePKPdf PKPdf 13 13 59.9 -0.4**
**PET Petropavlovsk 144.17 302 PFAKE 13 14 10.0 +11**
PET LR LR
comp=Z,763nm,20.0s
**ADKI Addanki 144.22 139 ePKPdf PKPdf 13 14 01.0 +0.3**
**KLRI Killari 144.47 132 ePKPdf PKPab 13 13 57.3 -2.2**
**NJS Nagarjunasagar 144.53 138 ePKPdf PKPdf 13 14 00.9 -0.3**
**PETK Petropavlovsk- 144.75 302 PKP PKPbc 13 13 59.9 +0.3**
comp=Z,7.5nm,0.7s,baz=83,slow=9.2,SNR=9.3
**PEA1 Petropavlovsk- 144.75 302 ePKPdf PKPbc 13 13 59.9 +0.3**
**HYB Hyderabad 144.91 136 i PKP PKPdf 13 14 02.0 0.0**
**HYBB Hyderabad (bro 144.91 136 ePKPdf PKPdf 13 14 01.6 -0.4**
**GEYT Alibeck 145.74 87 PKPbc PKPdf 13 14 02.9 +0.1**
comp=Z,9.3nm,0.7s,baz=270,slow=4.4,SNR=20
**SRSP Sriramsagar 146.08 134 ePKPab PKPab 13 14 05.0 -0.4**
**PVM Polavaram 146.20 140 ePKPab PKPab 13 14 05.9 +0.1**
**RPR Rampur 146.50 135 ePKPbc PKPdf 13 14 05.2 +0.5**
**SEY Seymchan 147.76 320 i PKIKP PKPdf 13 14 06.7 +1.4**
**CHLP Challavanipeta 148.36 143 ePKPdf PKPdf 13 14 08.2 +0.5**
**AKTO Aktyubinsk 149.72 65 PKPbc PKPbc 13 14 13.1 -0.6**
comp=Z,14nm,1.1s,baz=242,slow=2.8,SNR=17
**ARU Arti 150.44 53 PKPbc PKPbc 13 14 14.1 -1.1**
comp=Z,32nm,0.9s,baz=269,slow=2.1,SNR=26
**ARU Arti 150.44 53 i PKIKP PKPbc 13 14 15.1 -0.1**
ARU 13 17 49.5
ARU SS SS 13 37 04.0 -6.8
**ARU Arti 150.44 53 ePKPbc PKPbc 13 14 15.2 +0.1**
ARU LR LR
comp=Z,2μm,20.0s
**ERM Erimo 151.34 277 PFAKE 13 14 20.0 +2.3**
ERM LR LR
comp=Z,782nm,21.0s
**TIXI Tiksi 151.43 343 ePKIKP PKPbc 13 14 14.7 -2.3**
TIXI pmax pmax
comp=Z,31nm,1.6s
**TIXI Tiksi 151.43 343 ePKPbc PKPbc 13 14 16.4 -0.6**
TIXI LR LR
comp=Z,781nm,21.0s
**SVE Sverdlovsk 151.56 52 ePKIKP PKPbc 13 14 16.6 -1.2**
SVE pmax pmax
comp=Z,53nm,1.6s
**MJAR Matsushiro Arr 152.41 263 PKPbc PKPbc 13 14 20.0 -0.4**
baz=147,slow=4.8
**MAJO Matsushiro 152.41 263 PFAKE 13 14 30.0 -0.7**
MAJO LR LR
comp=Z,1μm,22.0s
**CMAR Chiang Mai Arr 152.44 171 PKP PKPdf 13 14 15.3 +1.2**
comp=Z,2.8nm,0.9s,baz=223,slow=3.8,SNR=5.6
CMAR PKPbc **sPKPdf 13 14 19.8 +1.3**
baz=213,slow=3.6
**QIZ Qiongzhong 152.74 193 PFAKE 13 14 30.0 -2.3**
QIZ LR LR
comp=Z,914nm,19.0s
**CHTO Chiang Mai 152.79 171 ePKIKP PKPbc 13 14 22.4 +0.7**
CHTO MLR MLR
comp=Z,1μm,22.0s
**CHTO Chiang Mai 152.79 171 ePKPbc PKPbc 13 14 22.4 +0.7**
CHTO LR LR
comp=Z,1μm,22.0s
**YSS Yuzh-Sakhalins 153.04 287 PFAKE 13 14 30.0 -3.0**
YSS LR LR
comp=Z,627nm,22.0s
**YHNB Yeheng 154.40 220 PFAKE 13 14 30.0 +4.8**
YHNB LR LR
comp=Z,990nm,20.0s
**TATO Taipei 154.61 221 PFAKE 13 14 30.0 +4.5**
TATO LR LR
comp=Z,2μm,19.0s
**BRVK Borovoye 157.43 59 PFAKE 13 14 30.0 +10**
BRVK LR LR
comp=Z,858nm,20.0s
**BVAR Borovoye Array 157.50 59 PKP PKPdf 13 14 20.9 +1.0**
comp=Z,1.5nm,0.9s,baz=270,slow=2.9,SNR=4.0
**YAK Yakutsk 157.85 326 ePKP2 PKPab 13 14 55.0 +2.0**
YAK MLR MLR
comp=Z,833nm,20.0s
**YAK Yakutsk 157.85 326 ePKPab PKPab 13 14 55.0 +2.0**
YAK LR LR
comp=Z,833nm,20.0s
**KSH Kashi 158.91 98 PKP PKPdf 13 14 24.9 +2.6**
KSH PP **PP 13 18 43.0 +3.1**
KSH SKS **SKSdf 13 21 30.3 +2.4**
KSH SKKS **SKKSac 13 25 30.3 +1.9**
KSH SS **SS 13 38 42.0 -1.9**
KSH LR LR
comp=Z,54nm,4.2s
KSH LR LR
comp=Z,64nm,4.8s
KSH LR LR
comp=Z,470nm,9.5s
**AAK Ala-Archa 159.08 88 ePKIKP PKPdf 13 14 23.2 +0.8**
AAK MLR MLR
comp=Z,1μm,21.0s
**AAK Ala-Archa 159.08 88 ePKPdf PKPdf 13 14 23.2 +0.8**
AAK LR LR
comp=Z,1μm,21.0s
**FRU Bishkek 159.22 88 ePKIKP PKPdf 13 14 22.0 -0.4**
FRU *e* 13 14 56.0
FRU *e* 13 18 40.0

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **KMI** | **Kunming** | **159.32** | **178** | PKP | **PKPdf** | **13 14 24.4** | **+1.1** |
| KMI | | | | SKKS | | 13 25 34.9 | |
| KMI | | | | LR | LR | | |
| | comp=Z,700nm,19.4s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,340nm,20.5s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,1μm,20.5s | | | | | | |
| **SSE** | **Sheshan** | **159.81** | **229** | PKP | **PKPdf** | **13 14 26.4** | **+3.0** |
| SSE | | | | PP | **PP** | **13 18 51.1** | **+7.1** |
| SSE | | | | SS | SS | 13 38 58.8 | +6.7 |
| SSE | | | | AMB | AMB | | |
| | comp=Z,130nm,3.6s | | | | | | |
| SSE | | | | LR | LR | | |
| | comp=Z,510nm,33.7s | | | | | | |
| SSE | | | | LR | LR | | |
| | comp=Z,520nm,33.7s | | | | | | |
| SSE | | | | LR | LR | | |
| | comp=Z,850nm,27.2s | | | | | | |
| **GYA** | **Guiyang** | **160.48** | **189** | PKP | **PKPdf** | **13 14 24.6** | **+0.1** |
| GYA | | | | PKPab | **pPKPab** | **13 15 08.3** | **-0.4** |
| GYA | | | | PKS | **PKSdf** | **13 17 55.3** | **-2.8** |
| GYA | | | | PP | **PP** | **13 18 51.0** | **+3.9** |
| GYA | | | | AMB | AMB | | |
| | comp=Z,160nm,8.4s | | | | | | |
| **INCN** | **Inchon** | **160.80** | **252** | PFAKE | | 13 14 40.0 | +16 |
| INCN | | | | LR | LR | | |
| | comp=Z,1μm,22.0s | | | | | | |
| **LSA** | **Lhasa** | **161.22** | **145** | PFAKE | | 13 14 40.0 | +14 |
| LSA | | | | LR | LR | | |
| | comp=Z,934nm,20.0s | | | | | | |
| **MDJ** | **Mudanjiang** | **161.55** | **276** | PKP | **PKPdf** | **13 14 25.8** | **+0.9** |
| MDJ | | | | PKP | **sPKPdf** | **13 14 29.3** | **0.0** |
| MDJ | | | | sPKP | | 13 14 30.4 | |
| MDJ | | | | PP | **PP** | **13 18 55.6** | **+1.7** |
| MDJ | | | | SS | SS | 13 39 15.4 | +4.0 |
| MDJ | | | | AMB | AMB | | |
| | comp=Z,74nm,4.7s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=Z,440nm,26.6s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=Z,380nm,19.5s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=Z,650nm,21.3s | | | | | | |
| **MDJ** | **Mudanjiang** | **161.55** | **276** | PFAKE | | 13 14 40.0 | +15 |
| MDJ | | | | LR | LR | | |
| | comp=Z,751nm,21.0s | | | | | | |
| **NJ2** | **Nanjing** | **161.78** | **226** | *e*PKP | **PKPdf** | **13 14 26.3** | **+0.8** |
| **KURBB** | **Kurchatov Arra** | **162.77** | **65** | PKP | **PKPdf** | **13 14 26.2** | **+0.3** |
| | comp=Z,1.5nm,1.0s,baz=276,slow=1.2,SNR=8.4 | | | | | | |
| KURBB | | | | PKPab | **PKPab** | **13 15 14.8** | **-0.1** |
| | comp=Z,1.8nm,1.0s,baz=289,slow=3.3,SNR=6.0 | | | | | | |
| KURBB | | | | PP | **PP** | **13 18 60.0** | **-0.3** |
| | baz=270,slow=5.7 | | | | | | |
| **KURK** | **Kurchatov** | **162.82** | **65** | *e*PKIKP | **PKPdf** | **13 14 26.2** | **+0.3** |
| KURK | | | | *e* | | 13 14 26.9 | |
| KURK | | | | *e* | | 13 15 14.8 | |
| KURK | | | | *e* | | 13 19 00.0 | |
| KURK | | | | MLR | MLR | | |
| | comp=Z,2μm,20.0s | | | | | | |
| **KURK** | **Kurchatov** | **162.82** | **65** | *e*PKPdf | **PKPdf** | **13 14 26.2** | **+0.3** |
| KURK | | | | *e*PKPdf | **pPKPdf** | **13 14 26.9** | **-2.3** |
| KURK | | | | *e*PKPab | **PKPab** | **13 15 14.8** | **-0.3** |
| KURK | | | | *e*PP | **PP** | **13 18 60.0** | **-0.5** |
| KURK | | | | LR | LR | | |
| | comp=Z,2μm,20.0s | | | | | | |
| **ENH** | **Enshi** | **163.75** | **199** | PFAKE | | 13 14 40.0 | +12 |
| ENH | | | | LR | LR | | |
| | comp=Z,622nm,20.0s | | | | | | |
| **CN2** | **Changchun** | **164.25** | **270** | *e*PKP | **PKPdf** | **13 14 25.3** | **-2.2** |
| CN2 | | | | PP | **PP** | **13 19 10.4** | **+2.2** |
| CN2 | | | | LR | LR | | |
| | comp=Z,400nm,20.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,600nm,20.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,700nm,21.0s | | | | | | |
| **NVS** | **Novosibirsk** | **164.33** | **48** | *e*PKIKP | **PKPdf** | **13 14 27.1** | **-0.1** |
| NVS | | | | pmax | pmax | | |
| | comp=Z,20nm,0.9s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=E,10.0nm,1.7s | | | | | | |
| **CD2** | **Chengdu** | **165.09** | **181** | *e*PKP | **PKPdf** | **13 14 27.5** | **-1.3** |
| CD2 | | | | PP | **PP** | **13 19 16.8** | **+5.4** |
| CD2 | | | | SKKS | | 13 25 58.8 | |
| CD2 | | | | SS | **SS** | **13 39 47.9** | **+2.2** |
| CD2 | | | | AMB | AMB | | |
| | comp=E,290nm,9.5s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=E,1μm,18.0s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=E,950nm,18.0s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=E,1μm,22.0s | | | | | | |
| **MK31** | **Makanchi Array** | **165.37** | **79** | *e*PKP2 | **PKPab** | **13 15 25.7** | **-0.8** |
| **MK31** | **Makanchi Array** | **165.37** | **79** | *e*PKPab | **PKPab** | **13 15 25.7** | **-0.8** |
| **MK32** | **Makanchi Array** | **165.37** | **79** | *e*PKPdf | **PKPdf** | **13 14 29.2** | **+0.8** |
| MK32 | | | | *e*PKPab | **PKPab** | **13 15 25.2** | **-1.3** |
| MK32 | | | | *e*PP | **PP** | **13 19 13.2** | **-0.9** |
| **MKAR** | **Makanchi Array** | **165.37** | **79** | PKP | **PKPdf** | **13 14 29.2** | **+0.8** |
| | comp=E,1.2nm,1.0s,baz=180,slow=0.5,SNR=5.3 | | | | | | |
| MKAR | | | | PKPab | **PKPab** | **13 15 25.2** | **-1.3** |
| | comp=E,1.1nm,0.8s,baz=253,slow=5.3,SNR=3.6 | | | | | | |
| MKAR | | | | PP | **PP** | **13 19 13.2** | **-0.9** |
| | baz=336,slow=3.2 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **165.56** | **49** | *e*PKPdf | **PKPdf** | **13 14 28.2** | **-0.1** |
| **ZAA0** | **Zalesovo Array** | **165.56** | **49** | *e*PKPdf | **PKPdf** | **13 14 28.2** | **-0.1** |
| **ZALV** | **Zalesovo Beam** | **165.56** | **49** | PKP | **PKPdf** | **13 14 28.2** | **-0.1** |
| | comp=E,2.2nm,0.7s,baz=270,slow=2.4,SNR=11 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **165.56** | **49** | *e*PKIKP | **PKPdf** | **13 14 27.6** | **-0.7** |
| **ZALV** | **Zalesovo Beam** | **165.56** | **49** | *e*PKPdf | **PKPdf** | **13 14 27.6** | **-0.7** |
| **BOD** | **Bodaibo** | **166.37** | **335** | *e*PKP2 | **PKPab** | **13 15 23.2** | **-7.2** |
| BOD | | | | pmax | pmax | | |
| | comp=Z,12nm,1.8s | | | | | | |
| **HIA** | **Hailar** | **168.46** | **293** | PFAKE | | 13 14 40.0 | +9.3 |
| HIA | | | | LR | LR | | |
| | comp=Z,738nm,21.0s | | | | | | |
| **WMQ** | **Urumqi** | **168.65** | **95** | PKP | **PKPdf** | **13 14 31.8** | **+0.8** |
| WMQ | | | | PKPab | **pPKPab** | **13 15 43.0** | **-1.4** |
| WMQ | | | | PP | **PP** | **13 19 33.1** | **+2.0** |
| WMQ | | | | SS | SS | 13 40 18.5 | -5.6 |
| WMQ | | | | AMB | AMB | | |
| | comp=Z,420nm,5.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,640nm,21.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,1μm,18.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,1μm,20.9s | | | | | | |
| **BJT** | **Baijiatuan** | **169.00** | **243** | PFAKE | | 13 14 40.0 | +8.7 |
| BJT | | | | LR | LR | | |
| | comp=Z,2μm,21.0s | | | | | | |
| **BJI** | **Beijing** | **169.01** | **243** | PKP | **PKPdf** | **13 14 29.3** | **-2.0** |
| BJI | | | | LR | LR | | |
| | comp=Z,730nm,21.1s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,2μm,21.5s | | | | | | |
| **LZH** | **Lanzhou** | **170.25** | **182** | *e*PKP | **PKPdf** | **13 14 29.3** | **-3.1** |
| LZH | | | | pPKP | sPKPdf | 13 14 39.6 | +2.8 |
| LZH | | | | PKS | **PKSdf** | **13 18 01.0** | **-3.9** |
| LZH | | | | SKKS | | 13 26 22.0 | |
| LZH | | | | AMB | AMB | | |
| | comp=Z,190nm,7.3s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,920nm,19.7s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,680nm,18.3s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,890nm,18.4s | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **172.25** | **233** | *e*PKP | **PKPdf** | **13 14 35.5** | **+2.3** |
| **GTA** | **Gaotai** | **173.04** | **156** | PKP | **PKPdf** | **13 14 33.6** | **0.0** |
| GTA | | | | PKPab | **pPKPab** | **13 16 02.4** | **-1.5** |
| GTA | | | | PP | **PP** | **13 19 55.0** | **+3.0** |
| GTA | | | | SKS | **SKSdf** | **13 21 35.5** | **-1.3** |
| GTA | | | | SKKS | **SKKSac** | **13 26 40.4** | **+1.6** |
| GTA | | | | SS | **SS** | **13 41 07.1** | **+1.5** |
| GTA | | | | AMB | AMB | | |
| | comp=Z,190nm,7.6s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,630nm,20.0s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,680nm,19.5s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,1μm,21.9s | | | | | | |
| **TLY** | **Talaya** | **174.16** | **359** | PFAKE | | 13 14 40.0 | +6.6 |
| TLY | | | | LR | LR | | |
| | comp=Z,1μm,19.0s | | | | | | |
| **ULN** | **Ulaanbaatar** | **176.79** | **310** | PFAKE | | 13 14 50.0 | +16 |
| ULN | | | | LR | LR | | |
| | comp=Z,776nm,20.0s | | | | | | |
| **SONA0** | **Songino Array** | **177.15** | **315** | *e*PKPdf | **PKPdf** | **13 14 34.5** | **0.0** |
| SONA0 | | | | *e*PKPab | **pPKPab** | **13 16 22.1** | **+0.1** |
| SONA0 | | | | *e*PP | **PP** | **13 20 14.3** | **+2.1** |
| **SONM** | **Songino Array** | **177.15** | **315** | PKP | **PKPdf** | **13 14 34.5** | **0.0** |
| | comp=Z,0.9nm,1.0s,baz=7.6,slow=4.4 | | | | | | |
| SONM | | | | PKPab | **pPKPab** | **13 16 22.1** | **+0.1** |
| | baz=270,slow=2.9 | | | | | | |
| SONM | | | | PP | **PP** | **13 20 14.3** | **+2.1** |
| | baz=57,slow=5.3 | | | | | | |

*NEIC* ***16*** *13:02:23.9±0.0, 16°.22N×98°.30W, h6km, mb4.8/77, MD5.0(MEX), After MEX.*
*NEIC Felt at Cuernavaca, Oaxaca and Pinotepa Nacional.*
*MEX* ***16*** *13:02:23.9±0.8, 16°.22N×98°.30W, h6km±6km, MD5.0*
*IDC* ***16*** *13:02:23.4±0.6, 16°.22N×98°.14W, h22km±3km, mb4.2/18, mb1 4.4/20, mb1mx4.2/41, mbtmp4.4/20, ML3.9/2, MS4.1/3, Ms1 4.1/3, ms1mx3.6/42, Error ellipse: s-maj=15.5km s-min=10.3km az=48.0*
*ISCJB* ***16*** *13:02:23.6±0.5, 16°.46N±0°.03×98°.02W±0°.03, h25km±3km, mb4.7/73, Error ellipse: s-maj=5.5km s-min=4.1km az=38.9*
*MOS* ***16*** *13:02:23.1±0.9, 16°.30N×98°.03W, h27km, mb5.0/19, Error ellipse: s-maj=15.8km s-min=6.7km az=101.2*
*BJI* ***16*** *13:02:24.3, 16°.40N×98°.00W, h26km, mB5.4/1, Ms5.3/4, Ms7 5.3/2*

**ISC 16 13:02:23.4±0.6, 16°.23N±0°.04×98°.19W±0°.03, h23km±3km, n250,σ1°90/287, mb4.8/73, MS5.2/5, 1C, Near coast of Guerrero**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time h m s | Res |
|---|---|---|---|---|---|---|---|
| **PNIG** | **Pinotepa** | **0.18** | **19** | *e*P | **Pb** | **13 02 28.3** | **-0.2** |
| PNIG | | | | *i* S | **Sb** | **13 02 32.1** | **0.0** |
| **PNIG** | **Pinotepa** | **0.18** | **19** | *e*P | **Pb** | 13 02 28.3 | -0.2 |
| PNIG | | | | *i* S | **Sb** | **13 02 32.1** | **0.0** |
| **TLIG** | **Tlapa** | **1.38** | **345** | *e*P | **Pn** | **13 02 45.9** | **-1.5** |
| TLIG | | | | *i* S | **Sn** | **13 03 02.4** | **-2.6** |
| **TLIG** | **Tlapa** | **1.38** | **345** | *e*Pn | **Pn** | **13 02 46.1** | **-1.3** |
| TLIG | | | | *e*Sn | **Sn** | **13 03 03.1** | **-2.0** |
| **HMTT** | **Tlapaneco** | **1.60** | **347** | *e*P | **Pn** | **13 02 49.5** | **-1.0** |
| HMTT | | | | *i* S | **Sn** | **13 03 07.9** | **-2.6** |
| **VHO** | **Vista Hermosa** | **1.63** | **59** | *e*P | **Pb** | **13 02 50.7** | **-2.2** |
| VHO | | | | *e*S | **Sb** | **13 03 13.6** | **+0.5** |
| **VHO** | **Vista Hermosa** | **1.63** | **59** | *e*P | **Pb** | 13 02 50.7 | -2.2 |
| VHO | | | | *e*S | **Sb** | 13 03 13.6 | +0.5 |
| **ACX** | **Acapulco** | **1.73** | **292** | *e*P | Pn | 13 02 48.9 | -3.2 |
| ACX | | | | *i* S | **Sn** | **13 03 09.6** | **-3.9** |
| **ACX** | **Acapulco** | **1.73** | **292** | *e*P | Pn | 13 02 48.9 | -3.2 |
| ACX | | | | *i* S | **Sn** | 13 03 09.6 | -3.9 |
| **HUIG** | **Huatulco** | **2.05** | **102** | *e*P | **Pn** | **13 02 56.1** | **-0.4** |
| HUIG | | | | *e*S | **Sn** | **13 03 18.1** | **-3.2** |
| **HUIG** | **Huatulco** | **2.05** | **102** | *e*P | **Pn** | 13 02 56.1 | -0.4 |
| HUIG | | | | *e*S | **Sn** | 13 03 18.1 | -3.2 |
| **CAIG** | **El Cayaco** | **2.16** | **293** | *e*P | **Pn** | **13 02 55.6** | **-2.3** |
| CAIG | | | | *i* S | **Sn** | **13 03 20.9** | **-3.1** |
| **CAIG** | **El Cayaco** | **2.16** | **293** | *e*P | **Pn** | 13 02 55.6 | -2.3 |
| CAIG | | | | *i* S | **Sn** | 13 03 20.9 | -3.1 |
| **MEIG** | **Mezcala** | **2.18** | **321** | *e*P | **Pn** | **13 02 57.2** | **-1.1** |
| MEIG | | | | *e*S | **Sn** | **13 03 22.4** | **-2.2** |
| **MEIG** | **Mezcala** | **2.18** | **321** | *e*P | **Pn** | 13 02 57.2 | -1.1 |
| MEIG | | | | *e*S | **Sn** | 13 03 22.4 | -2.2 |
| **PLIG** | **Platanillo** | **2.50** | **330** | *e*P | **Pb** | **13 03 08.0** | **+0.4** |
| PLIG | | | | *e*S | **Sb** | **13 03 40.2** | **+2.2** |
| **PLIG** | **Platanillo** | **2.50** | **330** | *e*P | **Pb** | 13 03 08.0 | +0.4 |
| PLIG | | | | *e*S | **Sb** | 13 03 40.2 | +2.2 |
| **UNM** | **Universidad Na** | **3.23** | **343** | *e*P | **Pn** | **13 03 13.7** | **+0.7** |
| **UNM** | **Universidad Na** | **3.23** | **343** | *e*Pn | **Pn** | 13 03 13.7 | +0.7 |
| UNM | | | | *e*Pg | **Pb** | **13 03 20.3** | **+0.1** |
| **CMIG** | **Matias Romero** | **3.28** | **74** | Pn | **Pn** | **13 03 12.5** | **-0.9** |
| | 16nm,0.3s,baz=255,slow=12,SNR=66 | | | | | | |
| CMIG | | | | Pg | **Pb** | **13 03 23.0** | **+2.1** |
| | 28nm,0.3s,baz=259,slow=15,SNR=35 | | | | | | |
| CMIG | | | | Sn | **Sn** | **13 03 51.2** | **-0.6** |
| | 95nm,0.3s,baz=31,slow=23,SNR=5.5 | | | | | | |
| CMIG | | | | Lg | Lg | 13 04 06.6 | |
| | 335nm,0.3s,baz=237,slow=13,SNR=9.7 | | | | | | |
| CMIG | | | | LR | LR | 13 04 27.1 | |
| | comp=Z,698nm,20.0s,baz=224,slow=38 | | | | | | |
| **ZIIG** | **Zihuatanejo** | **3.43** | **294** | *e*P | **Pn** | **13 03 15.0** | **-0.4** |
| ZIIG | | | | *e*S | **Sn** | **13 03 54.1** | **-1.2** |
| **ZIIG** | **Zihuatanejo** | **3.43** | **294** | *e*P | **Pn** | 13 03 15.0 | -0.4 |
| ZIIG | | | | *e*S | **Sn** | 13 03 54.1 | -1.2 |
| **LVIG** | **Laguna Verde** | **3.87** | **26** | *e*Pn | **Pn** | **13 03 21.4** | **0.0** |
| **TUIG** | **Tuzandepeti** | **4.02** | **63** | *e*Pn | **Pn** | **13 03 24.8** | **+1.1** |
| **MOIG** | **Morelia** | **4.47** | **321** | *e*Pn | **Pn** | **13 03 31.4** | **+1.4** |
| **CCIG** | **Comitan** | **5.81** | **89** | *e*Pn | **Pn** | **13 03 50.4** | **+1.9** |
| **ZAIG** | **Zacatecas** | **7.71** | **328** | *e*Pn | **Pn** | **13 04 15.9** | **+1.3** |
| **LNIG** | **Linares** | **8.71** | **352** | *e*Pn | **Pn** | **13 04 28.2** | **+0.1** |
| **833A** | **Chaparral WMA,** | **12.09** | **355** | P | **Pn** | **13 05 13.1** | **-1.3** |
| | baz=175,SNR=11 | | | | | | |
| **HPIG** | | **12.72** | **328** | *e*Pn | **Pn** | **13 05 23.8** | **+0.7** |
| **SLBS** | **Sierra La Lagu** | **13.31** | **306** | *e*Pn | **Pn** | **13 05 33.2** | **+2.1** |
| **HKT** | **Hockley** | **13.83** | **9** | *i* P | **Pn** | **13 05 39.1** | **+1.1** |
| **TXAR** | **Lajitas Array** | **13.99** | **340** | Pn | **Pn** | **13 05 41.6** | **+1.2** |
| | 0.1nm,0.3s,baz=155,slow=12,SNR=12 | | | | | | |
| TXAR | | | | Lg | Lg | 13 09 47.4 | |
| | 0.1nm,0.3s,baz=160,slow=30,SNR=5.2 | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **13.99** | **340** | *e*Pn | **Pn** | **13 05 41.5** | **+1.2** |
| **JTS** | **JuntasAbangare** | **14.16** | **113** | P | **P** | **13 05 47.1** | **-3.0** |
| JTS | | | | pmax | pmax | | |
| | comp=Z,53nm,1.1s | | | | | | |
| **JTS** | **JuntasAbangare** | **14.16** | **113** | Pn | **P** | **13 05 47.1** | **-3.0** |
| | comp=Z,53nm,1.1s | | | | | | |
| **JCT** | **Junction City** | **14.27** | **354** | P | **Pn** | **13 05 43.0** | **-1.1** |
| | baz=174 | | | | | | |
| **JCT** | **Junction City** | **14.27** | **354** | *e*P | **Pn** | **13 05 41.2** | **-2.9** |
| **JCT** | **Junction City** | **14.27** | **354** | *e*Pn | **Pn** | **13 05 41.2** | **-2.9** |
| **435B** | **Jarrell** | **14.50** | **2** | P | **Pn** | **13 05 46.4** | **-0.9** |
| | baz=183 | | | | | | |
| **336A** | **Riesel** | **15.14** | **4** | P | **Pn** | **13 05 54.6** | **-1.3** |
| | baz=185,SNR=7.9 | | | | | | |
| **441A** | **DeRidder** | **15.16** | **17** | P | **Pn** | **13 05 54.3** | **-1.9** |
| | baz=199 | | | | | | |
| **442A** | **Mamou** | **15.35** | **19** | P | **Pn** | **13 05 56.9** | **-1.8** |
| | baz=202 | | | | | | |
| **WHTX** | **Lake Whitney,** | **15.71** | **2** | P | **Pn** | **13 06 01.4** | **-1.9** |
| | baz=183,SNR=7.3 | | | | | | |
| **WHTX** | **Lake Whitney,** | **15.71** | **2** | *e*Pn | **Pn** | **13 06 00.0** | **-3.3** |
| | comp=Z,74nm,1.2s | | | | | | |
| **341A** | **Kurthwood** | **15.72** | **16** | P | **Pn** | **13 06 01.2** | **-2.3** |
| | baz=198 | | | | | | |
| **236A** | **Katherine and** | **15.78** | **5** | P | **Pn** | **13 06 02.7** | **-1.5** |
| | baz=186,SNR=7.8 | | | | | | |
| **NATX** | **Nacogdoches** | **15.80** | **11** | P | **Pn** | **13 06 02.7** | **-1.8** |
| | baz=193 | | | | | | |
| **NATX** | **Nacogdoches** | **15.80** | **11** | *e*Pn | **Pn** | **13 06 03.2** | **-1.2** |
| | comp=Z,154nm,1.6s | | | | | | |
| **237A** | **Washetta, Mont** | **15.86** | **7** | P | **Pn** | **13 06 03.5** | **-1.7** |
| | baz=189,SNR=7.0 | | | | | | |
| **342A** | **Flagon Creek P** | **16.00** | **18** | P | **Pn** | **13 06 05.3** | **-1.7** |
| | baz=201 | | | | | | |
| **445A** | **Amite** | **16.12** | **25** | P | **Pn** | **13 06 06.5** | **-2.1** |
| | baz=208 | | | | | | |
| **136A** | **Ennis** | **16.25** | **5** | P | **Pn** | **13 06 08.4** | **-1.8** |
| | baz=186 | | | | | | |
| **ABTX** | **Abilene, Hawle** | **16.38** | **356** | P | **Pn** | **13 06 10.6** | **-1.4** |
| | baz=175,SNR=21 | | | | | | |
| **ABTX** | **Abilene, Hawle** | **16.38** | **356** | *e*Pn | **Pn** | **13 06 10.7** | **-1.3** |
| | comp=Z,261nm,1.5s | | | | | | |
| **241A** | **Mo Tay, Goldon** | **16.44** | **16** | P | **Pn** | **13 06 11.5** | **-1.2** |
| | baz=198 | | | | | | |
| **137A** | **Heron Place, G** | **16.45** | **7** | P | **Pn** | **13 06 11.5** | **-1.3** |
| | baz=189,SNR=5.8 | | | | | | |
| **446A** | **Poplarville** | **16.59** | **28** | P | **Pn** | **13 06 12.7** | **-1.8** |
| | baz=211 | | | | | | |
| **138A** | **Matatall Enter** | **16.60** | **9** | P | **Pn** | **13 06 13.1** | **-1.6** |
| | baz=191 | | | | | | |
| **344A** | **Westbrook Farm** | **16.61** | **23** | P | **Pn** | **13 06 13.1** | **-1.7** |
| | baz=206 | | | | | | |
| **242A** | **Grayson** | **16.69** | **18** | P | **Pn** | **13 06 14.4** | **-1.5** |
| | baz=201 | | | | | | |
| **243A** | **Waterproof** | **16.74** | **20** | P | **Pn** | **13 06 14.9** | **-1.5** |
| | baz=203 | | | | | | |
| **MNTX** | **Cornudas Mount** | **16.74** | **338** | P | **Pn** | **13 06 15.4** | **-1.1** |
| | baz=156,SNR=16 | | | | | | |
| **MNTX** | **Cornudas Mount** | **16.74** | **338** | *e*Pn | **Pn** | **13 06 14.0** | **-2.5** |
| | comp=Z,14nm,1.1s | | | | | | |
| **345A** | **Thompson Farm,** | **16.76** | **25** | P | **Pn** | **13 06 14.8** | **-1.9** |
| | baz=208 | | | | | | |
| **447A** | **Lucedale** | **16.92** | **29** | P | **Pn** | **13 06 16.7** | **-2.1** |
| | baz=213 | | | | | | |
| **141A** | **Papa Simpson,** | **17.00** | **15** | P | **Pn** | **13 06 18.0** | **-1.6** |
| | baz=198 | | | | | | |
| **Z36A** | **Blue Ridge** | **17.05** | **5** | P | **Pn** | **13 06 18.8** | **-1.6** |
| | baz=186,SNR=8.7 | | | | | | |
| **Z37A** | **Pogue Cattle C** | **17.06** | **7** | P | **Pn** | **13 06 19.0** | **-1.5** |
| | baz=189,SNR=5.8 | | | | | | |
| **SRIG** | **Santa Rosalia** | **17.08** | **313** | *e*Pn | **Pn** | **13 06 22.5** | **+1.8** |
| | comp=Z,22nm,1.0s | | | | | | |
| **244A** | **Avery, Jackson** | **17.16** | **22** | P | **Pn** | **13 06 20.0** | **-1.8** |
| | baz=205 | | | | | | |
| **Z38A** | **Mt. Pleasant** | **17.21** | **9** | P | **Pn** | **13 06 20.7** | **-1.6** |
| | baz=191 | | | | | | |
| **142A** | **Monroe** | **17.21** | **18** | P | **Pn** | **13 06 20.9** | **-1.5** |
| | baz=201 | | | | | | |
| **EPT** | **El Paso** | **17.23** | **335** | *e*Pn | **P** | **13 06 23.7** | **-0.5** |
| | comp=Z,59nm,1.6s | | | | | | |
| **Z39A** | **Irene McRaven,** | **17.33** | **11** | P | **Pn** | **13 06 22.2** | **-1.6** |
| | baz=193 | | | | | | |
| **HSIG** | | **17.33** | **319** | *e*P | **P** | **13 06 26.0** | **+0.8** |
| | comp=Z,27nm,1.2s | | | | | | |
| **VBMS** | **Vicksburg** | **17.38** | **22** | P | **Pn** | **13 06 22.4** | **-2.0** |
| | baz=206 | | | | | | |
| **VBMS** | **Vicksburg** | **17.38** | **22** | *e*Pn | **Pn** | **13 06 21.1** | **-3.4** |
| | comp=Z,151nm,1.4s | | | | | | |
| **245A** | **Little AP, Sta** | **17.45** | **24** | P | **Pn** | **13 06 23.2** | **-2.1** |
| | baz=208 | | | | | | |
| **Z40A** | **Long Farm, Mag** | **17.50** | **13** | P | **Pn** | **13 06 24.4** | **-1.6** |
| | baz=196 | | | | | | |
| **Y35A** | **Marietta** | **17.64** | **3** | P | **Pn** | **13 06 26.4** | **-1.3** |
| | baz=184,SNR=7.1 | | | | | | |
| **Z41A** | **Richland Creek** | **17.64** | **15** | P | **Pn** | **13 06 26.2** | **-1.5** |
| | baz=198 | | | | | | |
| **348A** | **Jackson** | **17.79** | **30** | P | **Pn** | **13 06 27.2** | **-2.3** |
| | baz=214 | | | | | | |
| **Y37A** | **Hugo** | **17.83** | **7** | P | **Pn** | **13 06 27.7** | **-2.3** |
| | baz=188 | | | | | | |
| **Z42A** | **Norrel Spur, H** | **17.89** | **17** | P | **Pn** | **13 06 28.3** | **-2.4** |
| | baz=200 | | | | | | |
| **Y38A** | **Idabel** | **17.90** | **9** | P | **Pn** | **13 06 28.5** | **-2.4** |
| | baz=191 | | | | | | |
| **X35A** | **Drake** | **18.13** | **3** | P | **Pn** | **13 06 31.6** | **-2.2** |
| | baz=184,SNR=10 | | | | | | |
| **X35A** | **Drake** | **18.13** | **3** | *e*Pn | **Pn** | **13 06 32.4** | **-1.4** |
| | comp=Z,38nm,0.8s | | | | | | |
| **MSTX** | **Muleshoe** | **18.15** | **348** | P | **Pn** | **13 06 31.6** | **-2.5** |
| | baz=166,SNR=13 | | | | | | |
| **MSTX** | **Muleshoe** | **18.15** | **348** | *e*Pn | **Pn** | **13 06 30.8** | **-3.2** |
| | comp=Z,53nm,1.0s | | | | | | |
| **Y40A** | **Okolona** | **18.25** | **13** | P | **Pn** | **13 06 32.8** | **-2.4** |
| | baz=196 | | | | | | |
| **Y41A** | **Eaglette Beard** | **18.29** | **15** | P | **Pn** | **13 06 33.2** | **-2.4** |
| | baz=198 | | | | | | |
| **X36A** | **Centrahoma** | **18.34** | **5** | P | **Pn** | **13 06 33.8** | **-2.5** |
| | baz=186,SNR=6.1 | | | | | | |
| **121A** | **Cookes Peak, D** | **18.42** | **334** | P | **P** | **13 06 34.5** | **-2.9** |
| | baz=150,SNR=7.0 | | | | | | |
| **121A** | **Cookes Peak, D** | **18.42** | **334** | *e*Pn | **P** | **13 06 37.6** | **+0.2** |
| | comp=Z,42nm,1.2s | | | | | | |
| **WMOK** | **Wichita Mounta** | **18.44** | **358** | P | **P** | **13 06 35.2** | **-2.3** |
| | baz=179 | | | | | | |
| **WMOK** | **Wichita Mounta** | **18.44** | **358** | *e*P | **P** | **13 06 33.5** | **-3.9** |
| WMOK | | | | pmax | pmax | | |
| | comp=Z,55nm,1.4s | | | | | | |
| **WMOK** | **Wichita Mounta** | **18.44** | **358** | *e*P | **P** | **13 06 33.5** | **-3.9** |
| | comp=Z,55nm,1.4s | | | | | | |
| **Y42A** | **Garnett, Star** | **18.46** | **17** | P | **P** | **13 06 35.0** | **-2.5** |
| | baz=200 | | | | | | |
| **X37A** | **Clayton** | **18.46** | **7** | P | **P** | **13 06 35.7** | **-1.9** |
| | baz=189,SNR=10 | | | | | | |
| **X37A** | **Clayton** | **18.46** | **7** | *e*P | **P** | **13 06 36.6** | **-1.0** |
| | comp=Z,78nm,1.4s | | | | | | |
| **X39A** | **Fountain Ranch** | **18.57** | **11** | P | **P** | **13 06 37.1** | **-1.7** |
| | baz=193 | | | | | | |
| **X38A** | **Whitesboro** | **18.61** | **9** | P | **P** | **13 06 36.8** | **-2.4** |
| | baz=190,SNR=6.8 | | | | | | |
| **MIAR** | **Mount Ida** | **18.71** | **12** | P | **P** | **13 06 38.5** | **-1.8** |
| | baz=194,SNR=10.0 | | | | | | |
| **MIAR** | **Mount Ida** | **18.71** | **12** | *e*P | **P** | **13 06 39.3** | **-1.0** |
| | comp=Z,34nm,1.1s | | | | | | |
| **AMTX** | **Amarillo** | **18.84** | **351** | P | **P** | **13 06 40.4** | **-1.5** |
| | baz=170 | | | | | | |
| **W35A** | **Tecumseh** | **18.89** | **3** | P | **P** | **13 06 40.7** | **-1.6** |
| | baz=184,SNR=10 | | | | | | |
| **W35A** | **Tecumseh** | **18.89** | **3** | *e*P | **Pn** | **13 06 42.0** | **-0.9** |
| | comp=Z,41nm,0.9s | | | | | | |
| **W36A** | **Wetumka** | **18.92** | **5** | P | **P** | **13 06 40.5** | **-2.1** |
| | baz=186,SNR=6.8 | | | | | | |
| **W36A** | **Wetumka** | **18.92** | **5** | *e*Pn | **Pn** | **13 06 42.1** | **-1.2** |
| | comp=Z,43nm,1.0s | | | | | | |
| **W37B** | **Quinton** | **19.00** | **7** | P | **P** | **13 06 41.7** | **-1.7** |
| | baz=188 | | | | | | |
| **W37B** | **Quinton** | **19.00** | **7** | *e*P | **Pn** | **13 06 43.0** | **-1.2** |
| | comp=Z,165nm,1.9s | | | | | | |
| **W38A** | **Poteau** | **19.05** | **9** | P | **P** | **13 06 42.6** | **-1.5** |
| | baz=191 | | | | | | |
| **UALR** | **University of** | **19.20** | **15** | *e*P | **Pn** | **13 06 45.4** | **-1.3** |
| | comp=Z,115nm,1.7s | | | | | | |
| **OK020** | **N3440 Road, Me** | **19.27** | **3** | *e*P | **Pn** | **13 06 46.5** | **-1.0** |
| | comp=Z,53nm,0.9s | | | | | | |
| **W39A** | **Magazine** | **19.30** | **11** | P | **P** | **13 06 45.1** | **-1.7** |
| | baz=193,SNR=9.7 | | | | | | |
| **OK021** | **N3530 Road, Sp** | **19.34** | **4** | *e*P | **Pn** | **13 06 47.3** | **-1.1** |
| | comp=Z,124nm,1.4s | | | | | | |
| **BNM** | **Barren Site** | **19.40** | **338** | *e*P | **Pn** | **13 06 50.6** | **+1.3** |
| **V35A** | **Meyer Ranch, C** | **19.50** | **3** | P | **P** | **13 06 47.1** | **-1.8** |
| | baz=184,SNR=6.3 | | | | | | |
| **V35A** | **Meyer Ranch, C** | **19.50** | **3** | *e*P | **P** | **13 06 48.5** | **-0.4** |
| | comp=Z,45nm,0.9s | | | | | | |
| **V36A** | **Jenks** | **19.59** | **5** | P | **P** | **13 06 47.9** | **-2.0** |
| | baz=187,SNR=11 | | | | | | |
| **TUC** | **Tucson** | **19.68** | **327** | *e*P | **Pn** | **13 06 53.4** | **+0.8** |
| | comp=Z,28nm,1.2s | | | | | | |
| **TUL1** | **Leonard** | **19.72** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **WCI** | **Wyandotte Cave** | **24.29** | **23** | *e*P | **P** | **13 07 41.7** | **+2.6** |
| WCI | comp=Z,42nm,1.0s | | | pmax | pmax | | |
| **WCI** | **Wyandotte Cave** | **24.29** | **23** | *e*P | **P** | **13 07 41.7** | **+2.6** |
| | comp=Z,42nm,1.0s | | | | | | |
| **PKCU** | **Pink Cliffs** | **24.55** | **332** | *e*P | **P** | **13 07 46.5** | **+4.6** |
| | comp=Z,76nm,1.5s | | | | | | |
| **OTAV** | **Otavalo** | **25.13** | **127** | *e*P | **P** | **13 07 48.3** | **+0.9** |
| | comp=Z,7.8nm,0.8s | | | | | | |
| **O20A** | **White River Ci** | **25.38** | **342** | *e*P | **P** | **13 07 51.4** | **+2.2** |
| | comp=Z,34nm,1.1s | | | | | | |
| **P18A** | **Preston Nutter** | **25.58** | **338** | *e*P | **P** | **13 07 54.4** | **+3.2** |
| | comp=Z,44nm,1.1s | | | | | | |
| **RWWY** | **Rawlins** | **26.54** | **345** | *e*P | **P** | **13 08 04.8** | **+5.0** |
| | comp=Z,55nm,1.3s | | | | | | |
| **RUSC** | **La Rusia** | **26.66** | **110** | *e*P | **P** | **13 08 03.2** | **+1.9** |
| | comp=Z,11nm,1.3s | | | | | | |
| **TCUT** | **Toone Canyon** | **27.32** | **338** | *e*P | **P** | **13 08 10.6** | **+3.8** |
| | comp=Z,52nm,1.3s | | | | | | |
| **BGU** | **Big Grassy Mou** | **27.77** | **335** | *e*P | **P** | **13 08 15.7** | **+5.0** |
| | comp=Z,7.8nm,1.1s | | | | | | |
| **SDV** | **Santo Domingo** | **27.84** | **102** | P | **P** | **13 08 11.3** | **-0.3** |
| | comp=Z,6.4nm,0.8s,baz=296,slow=4.3,SNR=7.3 | | | | | | |
| **SDV** | **Santo Domingo** | **27.84** | **102** | *e*P | **P** | **13 08 13.1** | **+1.4** |
| | comp=Z,10.0nm,0.9s | | | | | | |
| **PDAR** | **Pinedale Array** | **28.19** | **342** | P | **P** | **13 08 14.2** | **-0.4** |
| | comp=Z,1.5nm,0.7s,baz=141,slow=7.6,SNR=5.1 | | | | | | |
| PDAR | | | | PcP | **PcP** | **13 11 27.4** | **-0.6** |
| | comp=Z,1.0nm,0.8s,baz=151,slow=4.0,SNR=4.3 | | | | | | |
| PDAR | | | | LR | LR | 13 20 46.2 | |
| | comp=Z,538nm,21.6s,baz=171,slow=39 | | | | | | |
| **NV11** | **Mina Array Sit** | **28.23** | **325** | *e*P | **P** | **13 08 17.7** | **+2.8** |
| | comp=Z,1.0nm,1.0s | | | | | | |
| **NV01** | **Mina Array Sit** | **28.31** | **325** | *e*P | **P** | **13 08 18.0** | **+2.3** |
| **KVN** | **Kaiserville** | **28.65** | **326** | P | **P** | **13 08 22.3** | **+3.6** |
| KVN | comp=Z,6.0nm,1.1s | | | pmax | pmax | | |
| **REDW** | **Red Top Meadow** | **29.12** | **341** | *e*P | **P** | **13 08 27.2** | **+4.3** |
| | comp=Z,11nm,1.1s | | | | | | |
| **SNOW** | **Snow King Moun** | **29.18** | **341** | *e*P | **P** | **13 08 25.8** | **+2.4** |
| | comp=Z,13nm,1.0s | | | | | | |
| **FXWY** | **Fox Creek** | **29.43** | **341** | *e*P | P | 13 08 30.5 | +5.0 |
| | comp=Z,8.9nm,1.3s | | | | | | |
| **MOOW** | **Moose Ponds** | **29.44** | **341** | *e*P | **P** | **13 08 28.1** | **+2.5** |
| | comp=Z,4.7nm,1.0s | | | | | | |
| **RLMT** | **Red Lodge** | **30.28** | **344** | *e*P | **P** | **13 08 35.7** | **+2.6** |
| | comp=Z,59nm,1.9s | | | | | | |
| **ATAH** | **Atahualpa** | **30.37** | **138** | P | **P** | **13 08 37.2** | **+2.8** |
| | comp=Z,8.6nm,0.7s,baz=304,slow=4.5,SNR=4.5 | | | | | | |
| **BOZ** | **Bozeman (W)** | **31.38** | **342** | *e*P | **P** | **13 08 40.9** | **-1.7** |
| BOZ | comp=Z,20nm,1.5s | | | pmax | pmax | | |
| **BOZ** | **Bozeman (W)** | **31.38** | **342** | *e*P | **P** | **13 08 40.9** | **-1.7** |
| | comp=Z,20nm,1.5s | | | | | | |
| **WVOR** | **Wild Horse Val** | **31.45** | **330** | *e*P | **P** | **13 08 45.4** | **+2.0** |
| WVOR | comp=Z,23nm,1.3s | | | pmax | pmax | | |
| **WVOR** | **Wild Horse Val** | **31.45** | **330** | *e*P | **P** | **13 08 45.4** | **+2.0** |
| | comp=Z,23nm,1.3s | | | | | | |
| **DLMT** | **Dillon** | **31.47** | **340** | *e*P | **P** | **13 08 45.4** | **+1.9** |
| | comp=Z,14nm,1.0s | | | | | | |
| **MDND** | **Maddock** | **31.56** | **358** | *e*P | **P** | **13 08 44.9** | **+0.9** |
| | comp=Z,43nm,1.1s | | | | | | |
| **MOD** | **Modoc Plateau** | **31.88** | **328** | *e*P | **P** | **13 08 45.8** | **-1.3** |
| | comp=Z,9.7nm,0.9s | | | | | | |
| **AGMN** | **Agassiz Nation** | **32.04** | **3** | *e*P | **P** | **13 08 48.5** | **+0.3** |
| | comp=Z,10nm,0.8s | | | | | | |
| **J08A** | **Circle Bar Ran** | **32.09** | **332** | *e*P | **P** | **13 08 50.8** | **+1.8** |
| | comp=Z,20nm,0.9s | | | | | | |
| **BMO** | **Blue Mountains** | **32.77** | **335** | *e*P | **P** | **13 08 55.8** | **+1.0** |
| BMO | comp=Z,6.0nm,1.1s | | | pmax | pmax | | |
| **BMO** | **Blue Mountains** | **32.77** | **335** | *e*P | **P** | **13 08 55.8** | **+1.0** |
| | comp=Z,5.9nm,1.1s | | | | | | |
| **EGMT** | **Eagleton** | **33.11** | **346** | *e*P | **P** | **13 09 01.6** | **+3.9** |
| | comp=Z,31nm,1.5s | | | | | | |
| **I07A** | **Izee** | **33.13** | **331** | *e*P | **P** | **13 08 59.7** | **+1.8** |
| | comp=Z,6.6nm,0.9s | | | | | | |
| **F10A** | **Beach Ranch, E** | **33.66** | **336** | *e*P | **P** | **13 09 03.7** | **+1.1** |
| | comp=Z,16nm,1.1s | | | | | | |
| **G08A** | **Pilot Rock** | **33.83** | **333** | *e*P | **P** | **13 09 04.6** | **+0.6** |
| | comp=Z,9.7nm,1.0s | | | | | | |
| **ULM** | **Lac du Bonnet** | **33.99** | **3** | P | **P** | **13 09 04.9** | **-0.3** |
| | comp=Z,4.5nm,1.0s,baz=175,slow=15,SNR=3.3 | | | | | | |
| **H04A** | **Detroit Lake** | **34.85** | **329** | *e*P | **P** | **13 09 14.3** | **+1.4** |
| | comp=Z,29nm,1.1s | | | | | | |
| **NEW** | **Newport** | **35.53** | **338** | P | **P** | **13 09 17.9** | **-0.8** |
| | comp=Z,1.5nm,0.7s,baz=140,slow=7.9,SNR=3.7 | | | | | | |
| NEW | | | | PcP | **PcP** | **13 11 47.2** | **-0.4** |
| | comp=Z,4.3nm,0.9s,baz=108,slow=1.5,SNR=6.7 | | | | | | |
| **C09A** | **Chrisman Ranch** | **35.58** | **337** | *e*P | **P** | **13 09 21.0** | **+2.0** |
| | comp=Z,9.9nm,1.0s | | | | | | |
| **LTY** | **Liberty** | **36.11** | **334** | *e*P | **P** | **13 09 24.9** | **+1.3** |
| | comp=Z,21nm,1.4s | | | | | | |
| **LON** | **Longmire** | **36.21** | **332** | *e*P | **P** | **13 09 26.0** | **+1.5** |
| LON | comp=Z,11nm,1.1s | | | pmax | pmax | | |
| **LON** | **Longmire** | **36.21** | **332** | *e*P | **P** | **13 09 26.0** | **+1.5** |
| | comp=Z,11nm,1.1s | | | | | | |
| **PTGA** | **Pitinga** | **41.31** | **110** | P | **P** | **13 10 07.5** | **-0.2** |
| | comp=Z,2.6nm,0.7s,baz=273,slow=11,SNR=4.6 | | | | | | |
| **PTGA** | **Pitinga** | **41.31** | **110** | *e*P | **P** | **13 10 08.0** | **+0.3** |
| | comp=Z,22nm,1.5s | | | | | | |
| **LPAZ** | **La Paz** | **43.85** | **136** | P | **P** | **13 10 28.8** | **-0.1** |
| | comp=Z,3.8nm,1.0s,baz=340,slow=9.6,SNR=8.4 | | | | | | |
| LPAZ | | | | PcP | **PcP** | **13 12 14.5** | **-0.7** |
| | comp=Z,2.4nm,0.9s,baz=331,slow=3.9,SNR=4.0 | | | | | | |
| **LPAZ** | **La Paz** | **43.85** | **136** | *e*P | **P** | **13 10 29.5** | **+0.6** |
| LPAZ | | | | | | 13 12 14.5 | |
| LPAZ | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.1s | | | | | | |
| **LPAZ** | **La Paz** | **43.85** | **136** | *e*P | **P** | **13 10 29.5** | **+0.6** |
| | comp=Z,7.2nm,1.1s | | | | | | |
| LPAZ | | | | PcP | **PcP** | **13 12 14.5** | **-0.7** |
| **YKA** | **Yellowknife Ar** | **47.64** | **350** | P | **P** | **13 10 57.2** | **-0.3** |
| | comp=Z,3.7nm,1.1s,baz=158,slow=7.1,SNR=13 | | | | | | |
| YKA | | | | PcP | **PcP** | **13 12 26.6** | **-0.2** |
| | comp=Z,0.9nm,0.8s,baz=153,slow=3.8,SNR=4.5 | | | | | | |
| **SIV** | **San Ignacio** | **48.64** | **129** | P | **P** | **13 11 04.9** | **-1.1** |
| | comp=Z,3.7nm,0.9s,baz=311,slow=8.8,SNR=4.7 | | | | | | |
| SIV | | | | PcP | **PcP** | **13 12 32.0** | **+0.7** |
| | comp=Z,2.2nm,0.7s,baz=308,slow=6.1,SNR=3.6 | | | | | | |
| **EGAK** | **Eagle** | **56.49** | **339** | *e*P | **P** | **13 12 04.1** | **+0.7** |
| | comp=Z,16nm,1.3s | | | | | | |
| **INK** | **Inuvik** | **56.69** | **345** | P | **P** | **13 12 05.2** | **+0.5** |
| | comp=Z,6.8nm,0.9s,baz=126,slow=7.5,SNR=19 | | | | | | |
| INK | | | | pP | **pP** | **13 12 12.0** | **+0.1** |
| | comp=Z,7.2nm,0.8s,baz=132,slow=7.2,SNR=11 | | | | | | |
| **INK** | **Inuvik** | **56.69** | **345** | *e*P | **P** | **13 12 05.2** | **+0.5** |
| INK | | | | *PP | **pP** | **13 12 12.0** | **+0.1** |
| INK | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.9s | | | | | | |
| **INK** | **Inuvik** | **56.69** | **345** | *e*P | **P** | **13 12 05.2** | **+0.5** |
| | comp=Z,9.6nm,0.9s | | | | | | |
| INK | | | | pP | **pP** | **13 12 12.0** | **+0.1** |
| **CPUP** | **Villa Florida** | **58.02** | **136** | P | **P** | **13 12 13.3** | **-1.4** |
| | comp=Z,4.6nm,0.9s,baz=335,slow=7.1,SNR=7.3 | | | | | | |
| **HDA** | **Harding Lake** | **58.32** | **337** | *e*P | **P** | **13 12 17.0** | **+0.7** |
| | comp=Z,68nm,1.4s | | | | | | |
| **SUA** | **Susitna One** | **58.40** | **333** | *e*P | **P** | **13 12 17.9** | **+0.9** |
| | comp=Z,128nm,1.9s | | | | | | |
| **IL1** | **Eielson Array** | **58.49** | **338** | *e*P | **P** | **13 12 17.6** | **+0.1** |
| **ILAR** | **Eielson Array** | **58.49** | **338** | P | **P** | **13 12 17.8** | **+0.3** |
| | comp=Z,4.9nm,1.1s,baz=147,slow=4.7,SNR=26 | | | | | | |
| ILAR | | | | pP | **pP** | **13 12 25.1** | **+0.3** |
| | comp=Z,7.1nm,1.1s,baz=143,slow=4.7,SNR=16 | | | | | | |
| ILAR | | | | PcP | **PcP** | **13 13 07.5** | **-0.3** |
| | comp=Z,1.8nm,1.0s,baz=143,slow=1.9,SNR=5.5 | | | | | | |
| **ILB** | **Eielson Array** | **58.49** | **338** | *e*P | **P** | **13 12 18.2** | **+0.7** |
| **RND** | **Reindeer** | **58.53** | **336** | *e*P | **P** | **13 12 19.2** | **+1.3** |
| RND | comp=Z,19nm,1.0s | | | pmax | pmax | | |
| **RND** | **Reindeer** | **58.53** | **336** | *e*P | **P** | **13 12 19.2** | **+1.3** |
| | comp=Z,19nm,1.0s | | | | | | |
| **MCK** | **McKinley** | **58.73** | **336** | *e*P | **P** | **13 12 20.2** | **+1.0** |
| MCK | comp=Z,25nm,1.2s | | | pmax | pmax | | |
| **MCK** | **McKinley** | **58.73** | **336** | *e*P | **P** | **13 12 20.2** | **+1.0** |
| | comp=Z,25nm,1.2s | | | | | | |
| **BDFB** | **Brasilia** | **58.78** | **120** | P | **P** | **13 12 20.6** | **+0.2** |
| | comp=Z,9.8nm,0.8s,baz=78,slow=7.5,SNR=11 | | | | | | |
| **BDFB** | **Brasilia** | **58.78** | **120** | *e*P | **P** | **13 12 20.7** | **+0.4** |
| BDFB | comp=Z,21nm,0.8s | | | pmax | pmax | | |
| **BDFB** | **Brasilia** | **58.78** | **120** | *e*P | **P** | **13 12 20.7** | **+0.4** |
| | comp=Z,20nm,0.8s | | | | | | |
| **RSO** | **Redoubt South** | **58.86** | **332** | *e*P | **P** | **13 12 21.6** | **+1.3** |
| **COLA** | **College** | **58.90** | **338** | *i* P | **P** | **13 12 21.2** | **+0.9** |
| COLA | comp=Z,5.0nm,1.0s | | | pmax | pmax | | |
| **TRF** | **Thorofare Moun** | **59.12** | **336** | *e*P | **P** | **13 12 23.1** | **+1.0** |
| | comp=Z,27nm,1.0s | | | | | | |
| **KTH** | **Kantishna Hill** | **59.42** | **336** | *e*P | **P** | **13 12 24.7** | **+0.7** |
| | comp=Z,21nm,1.2s | | | | | | |
| **MLY** | **Manley** | **60.04** | **337** | *e*P | **P** | **13 12 29.1** | **+0.8** |
| | comp=Z,57nm,2.0s | | | | | | |
| **COLD** | **Coldfoot** | **60.93** | **339** | *e*P | **P** | **13 12 35.3** | **+1.0** |
| | comp=Z,18nm,1.8s | | | | | | |
| **PLCA** | **Paso Flores** | **62.21** | **157** | P | **P** | **13 12 44.0** | **+0.7** |
| | comp=Z,4.8nm,0.9s,baz=4.8,slow=12,SNR=5.6 | | | | | | |
| **SUMG** | **Summit** | **65.75** | **17** | *e*P | **P** | **13 13 06.3** | **-0.3** |
| SUMG | comp=Z,6.0nm,0.9s | | | pmax | pmax | | |
| **SUMG** | **Summit** | **65.75** | **17** | *i* P | **P** | **13 13 06.3** | **-0.3** |
| | comp=Z,6.3nm,0.9s | | | | | | |
| **BORG** | **Borgarnes** | **69.85** | **26** | *i* P | **P** | **13 13 32.0** | **0.0** |
| **ESDC** | **Sonseca Array** | **83.00** | **51** | P | **P** | **13 14 47.7** | **+0.6** |
| | comp=Z,1.1nm,0.8s,baz=314,slow=7.8,SNR=3.1 | | | | | | |
| **SEY** | **Seymchan** | **84.22** | **334** | *i* P | **P** | **13 14 54.6** | **+1.8** |
| **PETK** | **Petropavlovsk-** | **85.39** | **324** | P | **P** | **13 14 59.8** | **+0.9** |
| | comp=Z,8.5nm,0.9s,baz=61,slow=12,SNR=2.4 | | | | | | |
| **ARCES** | **ARCESS Array B** | **85.84** | **17** | P | **P** | **13 15 00.5** | **-0.4** |
| | comp=Z,5.1nm,0.9s,baz=327,slow=4.3,SNR=5.0 | | | | | | |
| **TIXI** | **Tiksi** | **86.79** | **347** | *i* P | **P** | **13 15 06.4** | **+1.0** |
| TIXI | comp=Z,4.0nm,1.0s | | | pmax | pmax | | |
| **MSVF** | **Nonsavu** | **89.12** | **251** | *e*P | **P** | **13 15 19.9** | **+2.2** |
| MSVF | comp=Z,41nm,1.5s | | | pmax | pmax | | |
| **MSVF** | **Nonsavu** | **89.12** | **251** | *e*P | **P** | **13 15 19.9** | **+2.2** |
| | comp=Z,40nm,1.5s | | | | | | |
| **YAK** | **Yakutsk** | **93.38** | **339** | *i* P | **P** | **13 15 35.9** | **-0.6** |
| YAK | comp=Z,12nm,1.1s | | | pmax | pmax | | |
| **OBN** | **Obninsk** | **99.28** | **24** | *e*P | **Pdif** | **13 16 04.1** | **+0.6** |
| OBN | comp=Z,7.0nm,1.1s | | | pmax | pmax | | |
| **SOC** | **Sochi** | **109.10** | **31** | *e*P | **Pdif** | **13 16 47.2** | **-0.2** |
| SOC | | | | *e*PPP | PPP | 13 23 44.0 | |
| **HHC** | **Hu-ho-hao-te** | **116.86** | **335** | *e*PKP | **PKPdf** | **13 21 06.9** | **+0.3** |
| **WMQ** | **Urumqi** | **120.01** | **355** | PKP | **PKPdf** | **13 21 13.8** | **+1.3** |
| WMQ | comp=Z,900nm,35.3s | | | LR | LR | | |
| **NJ2** | **Nanjing** | **120.30** | **324** | *e*PKP | **PKPdf** | **13 21 15.5** | **+2.2** |
| **GEYT** | **Alibeck** | **121.71** | **22** | PKP | **PKPdf** | **13 21 16.2** | **+0.2** |
| | comp=Z,2.0nm,0.6s,baz=10,slow=1.6,SNR=4.2 | | | | | | |
| **STKA** | **Stephens Creek** | **123.87** | **242** | PKP | **PKPdf** | **13 21 19.9** | **-0.2** |
| | comp=Z,6.6nm,0.8s,baz=110,slow=2.3,SNR=9.9 | | | | | | |
| STKA | | | | pPKP | **pPKPdf** | **13 21 27.4** | **-0.4** |
| | comp=Z,4.8nm,0.8s,baz=282,slow=4.2,SNR=4.7 | | | | | | |
| **LZH** | **Lanzhou** | **123.95** | **339** | *e*PKP | **PKPdf** | **13 21 18.8** | **-1.7** |
| LZH | | | | sPKP | | 13 21 32.9 | |
| LZH | | | | PP | **PP** | **13 23 07.0** | **+4.2** |
| LZH | | | | LR | LR | | |
| | comp=Z,370nm,18.3s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,860nm,19.1s | | | | | | |
| **KSH** | **Kashi** | **124.28** | **5** | *e*PKP | **PKPdf** | **13 21 20.5** | **-0.5** |
| KSH | | | | sPKP | | 13 21 34.9 | |
| KSH | | | | PP | **PP** | **13 23 09.9** | **+5.2** |
| KSH | | | | SKS | **SKSdf** | **13 28 27.1** | **-4.8** |
| KSH | | | | SKKS | **SKKSac** | **13 29 58.0** | **-5.7** |
| KSH | | | | SS | **SS** | **13 39 56.0** | **+1.7** |
| **BOSA** | **Boshof** | **126.71** | **114** | PKP | **PKPdf** | **13 21 25.9** | **+0.1** |
| | comp=Z,2.8nm,0.8s,baz=258,slow=3.1,SNR=4.8 | | | | | | |
| BOSA | | | | pPKP | **pPKPdf** | **13 21 32.9** | **-0.7** |
| | comp=Z,4.7nm,1.0s,baz=149,slow=5.9,SNR=3.3 | | | | | | |
| **MAW** | **Mawson** | **127.20** | **171** | PKP | **PKPdf** | **13 21 25.5** | **+0.1** |
| | comp=Z,2.2nm,0.7s,baz=98,slow=1.7,SNR=3.6 | | | | | | |
| **WRAB** | **Tennant Creek** | **130.08** | **257** | *c* PKIKP | **PKPdf** | **13 21 32.9** | **+0.6** |
| WRAB | comp=Z,16nm,1.0s | | | pmax | pmax | | |
| **WRA** | **Warramunga Arr** | **130.09** | **257** | PKP | **PKPdf** | **13 21 32.2** | **-0.2** |
| | comp=Z,5.4nm,0.9s,baz=82,slow=1.8,SNR=35 | | | | | | |
| WRA | | | | pPKP | **pPKPdf** | **13 21 39.8** | **-0.3** |
| | comp=Z,4.3nm,1.0s,baz=79,slow=1.5,SNR=9.7 | | | | | | |
| **ASAR** | **Alice Springs** | **130.69** | **253** | PKP | **PKPdf** | **13 21 33.0** | **-0.4** |
| | comp=Z,2.7nm,0.8s,baz=110,slow=2.0,SNR=14 | | | | | | |
| ASAR | | | | pPKP | **pPKPdf** | **13 21 40.5** | **-0.6** |
| | comp=Z,2.3nm,0.9s,baz=142,slow=2.5,SNR=5.5 | | | | | | |
| **KMI** | **Kunming** | **134.12** | **333** | PKP | **PKPdf** | **13 21 38.0** | **-2.2** |
| KMI | comp=Z,340nm,20.5s | | | LR | LR | | |
| **CMAR** | **Chiang Mai Arr** | **141.63** | **333** | PKP | **PKPdf** | **13 21 51.5** | **-2.4** |
| | comp=Z,1.1nm,0.8s,baz=28,slow=2.1,SNR=7.0 | | | | | | |
| **ABPO** | **Ambohimpanom** | **146.95** | **100** | *i* PKP2 | **PKPab** | **13 22 06.5** | **-0.1** |

*KRNET **16** 13:09:52.1±0.1, 38.37N×75.09E, mb3.1*
**NNC 16 13:09:49.8±6.6, 38.08N×72.66E, h0km, mb3.6, mpv3.2, 15C-5D, Error ellipse: s-maj=50.4km s-min=36.9km az=148.0, Tajikistan**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SFK** | **Sufi-Kurgan** | **2.04** | **19** | ⇑*i*P | Pb | 13 10 27.8 | -0.1 |
| SFK | baz=324 | | | ⇑*i*S | Sb | 13 10 53.8 | -0.1 |
| | baz=324 | | | | | | |
| **SFK** | **Sufi-Kurgan** | **2.04** | **19** | ⇓Pg | Pb | 13 10 28.0 | +0.1 |
| SFK | 4.1nm,0.2s | | | ⇑Sn | Sb | 13 10 54.0 | +0.1 |
| | 69nm,0.2s | | | | | | |
| **AML** | **Almayashu** | **4.13** | **11** | ⇓*i*P | Pn | 13 10 53.3 | -1.1 |
| AML | baz=344 | | | ⇓*i*S | Sn | 13 11 37.6 | -6.0 |
| | baz=344 | | | | | | |
| **AML** | **Almayashu** | **4.13** | **11** | P | Pn | 13 10 53.7 | -0.7 |
| | SNR=7.0 | | | | | | |
| **UCH** | **Uchtor** | **4.38** | **18** | ⇑*i*P | Pn | 13 10 52.7 | -5.3 |
| UCH | baz=354 | | | ⇑*i*S | Sn | 13 11 36.7 | -13 |
| | baz=354 | | | | | | |
| **UCH** | **Uchtor** | **4.38** | **18** | P | Pn | 13 10 54.9 | -3.1 |
| | SNR=12 | | | | | | |
| **MNAS** | **Manas** | **4.41** | **359** | ⇑Pn | Pn | 13 11 00.1 | +2.1 |
| MNAS | 1.2nm,0.4s | | | ⇑Sn | Sn | 13 11 49.3 | -0.8 |
| | 15nm,0.4s | | | | | | |
| **KZA** | **Kyzart** | **4.46** | **26** | ⇑*i*P | Pn | 13 10 50.3 | -8.8 |
| KZA | baz=2.0 | | | ⇑*i*S | Sn | 13 11 33.0 | -19 |
| | baz=2.0 | | | | | | |
| **KZA** | **Kyzart** | **4.46** | **26** | P | Pn | 13 10 53.8 | -5.3 |
| | SNR=19 | | | | | | |
| **EKS2** | **Erkin-Say** | **4.66** | **10** | ⇑*i*P | Pn | 13 10 59.5 | -2.0 |
| EKS2 | baz=347 | | | ⇑*i*S | Sn | 13 11 49.2 | -7.1 |
| | baz=347 | | | | | | |
| **EKS2** | **Erkin-Say** | **4.66** | **10** | P | Pn | 13 11 01.6 | +0.1 |
| | SNR=8.5 | | | | | | |
| **AAK** | **Ala-Archa** | **4.77** | **17** | ⇑Pn | Pn | 13 11 00.5 | -2.5 |
| AAK | 4.1nm,1.1s | | | ⇓Sn | Sn | 13 11 57.3 | -1.7 |
| | 3.9nm,0.6s | | | | | | |
| **KBK** | **Karagaybulak** | **4.90** | **20** | P | Pn | 13 11 00.8 | -4.1 |
| | SNR=6.0 | | | | | | |
| **CHMS** | **Chumysh** | **5.17** | **17** | P | Pn | 13 11 05.1 | -3.3 |
| | SNR=5.1 | | | | | | |
| **KK31** | **Karatay Array** | **5.28** | **343** | ⇑Pn | Pn | 13 11 11.6 | +1.7 |
| KK31 | 0.6nm,0.5s,baz=157,slow=13,SNR=8.5 | | | ⇑Sn | Sn | 13 12 13.9 | +2.4 |
| | 5.2nm,0.5s,baz=167,slow=26,SNR=8.9 | | | | | | |
| **TKM2** | **Tokmak 2** | **5.33** | **24** | ⇑Pn | Pn | 13 11 08.4 | -2.4 |
| TKM2 | 4.3nm,0.5s | | | ⇓Sn | Sn | 13 12 12.6 | -0.4 |
| | 8.3nm,1.1s | | | | | | |
| **TKM2** | **Tokmak 2** | **5.33** | **24** | P | Pn | 13 11 05.3 | -5.5 |
| | SNR=6.9 | | | | | | |

**BUC 16 13:11:40.5±0.2, 46.13N×22.90E, h2km±4km, MD2.1/2, 2C-4D, Error ellipse: s-maj=2.2km s-min=0.5km az=117.0, Romania**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DRGR** | | **0.67** | **349** | ⇓*i*P | Pb | 13 11 54.3 | -0.8 |
| **DRGR** | | **0.67** | **349** | ⇓*i*P | Pb | 13 11 54.3 | -0.8 |
| DRGR | | | | *i* S | Sb | 13 12 04.0 | -0.9 |
| **BZS** | **Buzias** | **1.03** | **241** | ⇓*i*P | Pb | 13 12 01.4 | +0.3 |
| **BZS** | **Buzias** | **1.03** | **241** | ⇓*i*P | Pb | 13 12 01.4 | +0.3 |
| BZS | | | | *i* S | Sn | 13 12 16.3 | -0.8 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **VOIR** | | **1.66** | **114** | ⇑*i*P | Pb | 13 12 11.9 | +0.1 |
| **VOIR** | | **1.66** | **114** | ⇑*i*P | Pb | 13 12 11.9 | +0.1 |
| VOIR | | | | *i* S | Sg | 13 12 34.3 | +0.6 |

**IDC 16 13:14:13.0±1.6, 45.98S×75.98W, h0km, mb4.0/3, mb1 4.1/4, mb1mx3.9/22, mbtmp3.9/4, ML3.5/1, Error ellipse: s-maj=55.3km s-min=29.0km az=102.0, Off coast of southern Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PLCA** | **Paso Flores** | **6.57** | **39** | Pn | Pn | 13 15 50.7 | -0.2 |
| | 0.2nm,0.3s,baz=207,slow=4.5,SNR=6.0 | | | | | | |
| **CPUP** | **Villa Florida** | **24.61** | **44** | P | P | 13 19 35.0 | +0.1 |
| | 2.3nm,0.6s,baz=215,slow=9.2,SNR=5.3 | | | | | | |
| **MAW** | **Mawson** | **62.56** | **163** | P | P | 13 24 38.1 | 0.0 |
| | 3.0nm,0.9s,baz=214,slow=7.3,SNR=2.8 | | | | | | |
| **TXAR** | **Lajitas Array** | **79.05** | **336** | P | P | 13 26 18.9 | 0.0 |
| | 0.5nm,0.7s,baz=152,slow=4.0,SNR=3.5 | | | | | | |
| **H11S2** | **WAKE ISLAND Hyd** | **21.98** | **264** | T | T | 15 46 15.6 | |
| | baz=135,slow=75,SNR=11 | | | | | | |
| **H11S1** | **WAKE ISLAND Hyd** | **21.99** | **264** | T | T | 15 46 18.1 | |
| | baz=135,slow=75,SNR=6.0 | | | | | | |
| **H11S3** | **WAKE ISLAND Hyd** | **21.99** | **264** | T | T | 15 46 17.4 | |
| | baz=135,slow=75,SNR=5.5 | | | | | | |

*ISCJB **16** 13:26:07.0±0.4, 23.16N×121.67E±0.02, h25km±3km, Error ellipse: s-maj=3.7km s-min=2.6km az=151.4*
*JMA **16** 13:26:07.1±0.1, 23.17N×121.59E, h40km±2km, M3.4*
*TAP **16** 13:26:08.4, 23.20N×121.56E, h38km, ML3.8, C*
**ISC 16 13:26:07.7±1.0, 23.16N±0.03×121.61E±0.03, h31km±9km, n58, σ0.974/96, 9C-6D, Taiwan**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CHKT** | **Chengkung** | **0.23** | **255** | *e*P | **Pn** | **13 26 15.3** | **+0.3** |
| | baz=238 | | | | | | |
| **TWF1** | **Yuli** | **0.34** | **304** | ⇓*i*P | **Pn** | **13 26 16.6** | **+0.1** |
| | baz=305 | | | | | | |
| TWF1 | | | | S | **Sn** | **13 26 22.5** | **0.0** |
| | baz=305 | | | | | | |
| **EHY** | **Hungye** | **0.43** | **322** | ⇓*i*P | **Pb** | **13 26 17.3** | **+0.2** |
| | baz=316 | | | | | | |
| EHY | | | | *i* S | **Sb** | **13 26 23.8** | **+0.2** |
| | baz=316 | | | | | | |
| **ELDTW** | **Lidau** | **0.55** | **273** | ⇑P | **Pb** | **13 26 18.7** | **-0.2** |
| | baz=268 | | | | | | |
| ELDTW | | | | S | **Sb** | **13 26 25.7** | **-1.1** |
| | baz=268 | | | | | | |
| **TEGC** | **Jichi Village** | **0.55** | **353** | *e*P | **Pn** | **13 26 19.7** | **+0.4** |
| | baz=7.0 | | | | | | |
| **TTN** | **Taitung** | **0.59** | **227** | *e*P | **Pb** | **13 26 19.6** | **0.0** |
| | baz=214 | | | | | | |
| **TWG** | **Pinlang** | **0.60** | **236** | ⇑*i*P | **Pb** | **13 26 19.6** | **-0.2** |
| | baz=240 | | | | | | |
| TWG | | | | *e*S | **Sb** | **13 26 27.3** | **-0.7** |
| | baz=240 | | | | | | |
| **ESL** | **Shilin** | **0.67** | **346** | *e*P | **Pn** | **13 26 20.2** | **-0.9** |
| | baz=341 | | | | | | |
| ESL | | | | *e*S | **Sb** | **13 26 28.7** | **-1.3** |
| | baz=341 | | | | | | |
| **YUS** | **Yu-Shan** | **0.69** | **299** | ⇓*i*P | **Pn** | **13 26 21.6** | **-0.1** |
| | baz=298 | | | | | | |
| YUS | | | | S | **Sb** | **13 26 30.5** | **-0.5** |
| | baz=298 | | | | | | |
| **STYT** | **Tauyuan** | **0.79** | **270** | ⇑P | **Pn** | **13 26 22.7** | **+0.1** |
| | baz=267 | | | | | | |
| STYT | | | | S | **Sn** | **13 26 32.9** | **-0.4** |
| | baz=267 | | | | | | |
| **HWA** | **Hwalien** | **0.81** | **360** | *e*P | **Pn** | **13 26 22.7** | **-0.2** |
| | baz=14 | | | | | | |
| **ALS** | **Alishan** | **0.82** | **295** | ⇓*i*P | **Pb** | **13 26 23.8** | **+0.2** |
| | baz=295 | | | | | | |
| ALS | | | | S | **Sn** | **13 26 34.2** | **-0.3** |
| | baz=295 | | | | | | |
| **ECL** | **Taimali** | **0.82** | **227** | ⇑P | **Pn** | **13 26 22.1** | **-1.0** |
| | baz=222 | | | | | | |
| ECL | | | | *e*S | **Sn** | **13 26 33.2** | **-1.1** |
| | baz=222 | | | | | | |
| **TWD** | **Chiawan** | **0.92** | **359** | ⇑P | **Pn** | **13 26 24.1** | **-0.3** |
| | baz=352 | | | | | | |
| TWD | | | | S | **Sn** | **13 26 35.5** | **-1.0** |
| | baz=352 | | | | | | |
| **WTP** | **Ta-pu** | **0.92** | **275** | P | **Pb** | **13 26 25.2** | **+0.1** |
| | baz=273 | | | | | | |
| WTP | | | | *e*S | **Sb** | **13 26 37.3** | **+0.2** |
| | baz=273 | | | | | | |
| **SGST** | **Jiashian** | **0.95** | **265** | ⇓P | **Pb** | **13 26 25.9** | **+0.3** |
| | baz=262 | | | | | | |
| SGST | | | | S | **Sb** | **13 26 39.0** | **+1.1** |
| | baz=262 | | | | | | |
| **CHN4** | **Tsaushan** | **0.95** | **282** | ⇑*i*P | **Pb** | **13 26 25.8** | **+0.1** |
| | baz=280 | | | | | | |
| CHN4 | | | | *i* S | **Sb** | **13 26 38.9** | **+0.9** |
| | baz=280 | | | | | | |
| **CHN5** | **Tsauling** | **0.96** | **297** | ⇑P | **Pb** | **13 26 26.1** | **+0.2** |
| | baz=297 | | | | | | |
| CHN5 | | | | S | **Sb** | **13 26 39.2** | **+0.9** |
| | baz=297 | | | | | | |
| **SSD** | **Sandimen** | **0.99** | **246** | *e*P | **Pn** | **13 26 25.4** | **-0.1** |
| | baz=237 | | | | | | |
| **CHN1** | **Nanshi** | **1.00** | **272** | ⇑*i*P | **Pb** | **13 26 26.7** | **+0.3** |
| | baz=264 | | | | | | |
| CHN1 | | | | S | **Sb** | **13 26 40.4** | **+1.2** |
| | baz=264 | | | | | | |
| **TYC** | **Yuchr** | **1.01** | **317** | ⇓*i*P | **Pb** | **13 26 26.3** | **-0.3** |
| | baz=328 | | | | | | |
| TYC | | | | S | **Sn** | **13 26 39.0** | **+0.1** |
| | baz=328 | | | | | |

baz=290
**WTCT Ta-ch'eng** 1.41 300 *e*P Pn 13 26 31.4 +0.2
baz=300
WTCT *e*S Sb 13 26 49.8 -1.1
baz=300
**TWQ1 Liyutan** 1.41 327 P Pb 13 26 32.9 -0.4
baz=331
TWQ1 S Sb 13 26 50.7 -0.3
baz=331
**TWC Suao** 1.46 9 *e*P Pn 13 26 31.9 0.0
baz=12
TWC *e*S Sn 13 26 49.8 -0.1
baz=12
**NSY Sanyi** 1.47 328 *e*P Pb 13 26 33.9 -0.5
baz=332
NSY S Sb 13 26 53.1 +0.4
baz=332
**ENTT Nioudou** 1.47 358 *e*P Pn 13 26 32.2 +0.1
baz=3.0
**NSK Sanguang** 1.53 351 *e*P Pn 13 26 33.3 +0.5
baz=357
NSK *e*S Sn 13 26 51.3 -0.4
baz=357
**TWE Neicheng** 1.55 2 *e*P Pn 13 26 33.4 +0.3
baz=358
**NSTT Nanjuang** 1.57 339 *e*P Pn 13 26 33.1 -0.3
baz=343
**WDGT Dungji** 1.80 274 *e*P Pn 13 26 36.4 -0.1
baz=272
**YOJ Yonaguni jima** 1.82 44 P Pn 13 26 37.9 +1.0
**NWF Wu-fen Shan** 1.91 5 *e*P Pn 13 26 39.4 +1.3
baz=9.0
**PNG Penghu** 1.93 282 *e*P Pn 13 26 38.5 +0.1
baz=268
PNG *e*S Sn 13 27 00.3 -1.2
baz=268
**HATJ Hateruma jima** 2.20 66 P Pn 13 26 42.5 +0.4
HATJ S Sn 13 27 08.3 +0.1
**IRIF Iriomote-Funau** 2.27 59 P Pn 13 26 43.6 +0.6
IRIF *e*S Sn 13 27 10.6 +0.8
**JKRS Kuro-shima** 2.45 64 P Pn 13 26 46.3 +0.9
JKRS S Sn 13 27 14.8 +0.5
**JIJ Ishigaki jima** 2.61 62 P Pn 13 26 47.9 +0.2
JIJ S Sn 13 27 17.4 -1.0
**JISG Ishigakijimahi** 2.85 60 P Pn 13 26 50.9 -0.1
JISG *e*S Sn 13 27 22.7 -1.6
**JTJ Tarama** 3.19 62 P Pn 13 26 56.3 +0.6
JTJ S Sn 13 27 32.2 -0.4

*IDC* ***16*** *13:36:25.9±6.7, 22.°55S×171.°10E, h40km±51km, mb4.1/9, mb1 4.2/10, mb1mx4.0/34, mbtmp4.3/10, ML4.6/1, MS3.9/1, Ms1 4.0/1, ms1mx3.3/28, Error ellipse: s-maj=38.0km s-min=26.5km az=69.0*

**ISC 16 13:36:26.1±0.9, 22.°5S±0.°2×171.°1E±0.°1, h42km, n16, σ1♀13/18, mb4.1/9, Southeast of Loyalty Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **4.33** | **275** | P | **Pn** | **13 37 30.1** | **+0.6** |
| | 33nm,0.3s,baz=125,slow=13,SNR=276 | | | | | | |
| DZM | | | | S | **Sn** | **13 38 18.2** | **-0.6** |
| | 19nm,0.3s,baz=125,slow=23,SNR=8.8 | | | | | | |
| **URZ** | **Urewera** | **16.54** | **163** | P | **P** | **13 40 18.6** | **+1.5** |
| | 0.4nm,0.3s,baz=330,slow=8.1,SNR=2.9 | | | | | | |
| **PMG** | **Port Moresby** | **26.39** | **296** | P | **P** | **13 42 00.0** | **+1.3** |
| | 7.2nm,0.8s,baz=96,slow=6.2,SNR=4.7 | | | | | | |
| **STKA** | **Stephens Creek** | **27.79** | **244** | P | **P** | **13 42 11.4** | **+0.2** |
| | 3.7nm,0.7s,baz=70,slow=9.3,SNR=6.8 | | | | | | |
| **ASAR** | **Alice Springs** | **34.18** | **261** | P | **P** | **13 43 07.1** | **-0.6** |
| | 4.2nm,0.8s,baz=85,slow=9.2,SNR=37 | | | | | | |
| **WRA** | **Warramunga Arr** | **34.31** | **267** | P | **P** | **13 43 07.6** | **-1.2** |
| | 0.6nm,0.5s,baz=96,slow=8.5,SNR=30 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **42.74** | **267** | P | **P** | **13 44 20.1** | **+0.5** |
| | 7.9nm,0.7s,baz=150,slow=12,SNR=26 | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **48.36** | **245** | P | **P** | **13 45 03.6** | **-0.3** |
| | 4.4nm,0.8s,baz=321,slow=13,SNR=4.0 | | | | | | |
| **VNDA** | **Vanda** | **55.26** | **182** | P | **P** | **13 45 54.5** | **-0.2** |
| | 1.0nm,0.7s,baz=6.2,slow=8.3,SNR=3.0 | | | | | | |
| VNDA | | | | LR | LR | 14 07 39.6 | |
| | comp=Z,107nm,18.6s,baz=99,slow=34 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **91.41** | **294** | P | **P** | **13 48 40.6** | **+1.5** |
| | 0.7nm,0.5s,baz=129,slow=3.1,SNR=4.7 | | | | | | |
| **SONM** | **Songino Array** | **90.85** | **322** | P | **P** | **13 49 26.3** | **+1.2** |
| | 0.7nm,0.8s,baz=152,slow=6.5,SNR=3.1 | | | | | | |
| **ARCES** | **ARCESS Array B** | **128.64** | **345** | PKP | **PKPdf** | **13 55 26.6** | **-1.3** |
| | 1.6nm,0.8s,baz=114,slow=2.2,SNR=3.2 | | | | | | |
| **KHC** | **Kasperske Hory** | **148.01** | **332** | *e*P | **PKPbc** | **13 56 05.5** | **-1.4** |
| **GERES** | **GERESS Array B** | **148.16** | **331** | PKPbc | **PKPbc** | **13 56 06.3** | **-1.1** |
| | 2.5nm,0.8s,baz=9.1,slow=3.4,SNR=5.8 | | | | | | |
| **DAVOX** | **Davos/Dischmat** | **151.41** | **332** | PKPbc | **PKPbc** | **13 56 14.3** | **-1.2** |
| | 3.9nm,0.7s,baz=101,slow=5.2,SNR=3.4 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **166.29** | **229** | PKP | **PKPdf** | **13 56 26.4** | **-1.2** |
| | 0.5nm,0.9s,baz=94,slow=1.5,SNR=2.8 | | | | | | |
| TORD | | | | PKPab | **PKPab** | **13 57 27.8** | **-0.9** |
| | 0.6nm,0.9s,baz=104,slow=3.0,SNR=3.2 | | | | | | |

**JMA 16 13:38:12.2±0.1, 37.°45N×141.°50E, h40km±2km, M3.7, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JFK** | **Kawauchi** | **0.51** | **261** | P | Pn | 13 38 22.9 | -0.2 |
| JFK | | | | S | Sn | 13 38 30.0 | -0.7 |
| **ONAJ** | **Iwakimizuishiy** | **0.66** | **238** | P | Pn | 13 38 25.0 | -0.1 |
| ONAJ | | | | S | Sn | 13 38 33.5 | -0.9 |
| **JMM** | **Marumori** | **0.70** | **307** | P | Pn | 13 38 25.5 | -0.1 |
| JMM | | | | *e*S | Sn | 13 38 34.9 | -0.3 |
| **JFT** | **Otama** | **0.93** | **275** | P | Pn | 13 38 29.5 | +0.7 |
| JFT | | | | S | Sn | 13 38 41.4 | +0.5 |
| **JIO** | **Ouri** | **1.01** | **353** | P | Pn | 13 38 29.9 | 0.0 |
| JIO | | | | S | Sn | 13 38 42.2 | -0.7 |
| **JHO** | **Hitachi** | **1.12** | **222** | P | Pn | 13 38 30.9 | -0.5 |
| JHO | | | | S | Sn | 13 38 43.9 | -1.7 |
| **JOU** | **Okura** | **1.13** | **324** | P | Pn | 13 38 31.9 | +0.4 |
| JOU | | | | *e*S | Sn | 13 38 46.5 | +0.7 |
| **JYS** | **Shirataka** | **1.37** | **305** | P | Pn | 13 38 36.1 | +1.2 |
| JYS | | | | S | Sn | 13 38 53.5 | +1.7 |
| **JFY** | **Yanaizu** | **1.43** | **269** | P | Pn | 13 38 36.4 | +0.7 |
| JFY | | | | S | Sn | 13 38 54.4 | +1.1 |
| **JMK** | **Ichinoseki** | **1.52** | **352** | P | Pn | 13 38 37.5 | +0.7 |
| **MAT** | **Matsushiro** | **2.79** | **252** | P | Pn | 13 38 56.3 | +2.0 |
| MAT | | | | *e*S | Sn | 13 39 30.3 | +3.6 |

*IDC* ***16*** *13:42:38.5±0.8, 6.°14S×151.°68E, h0km, mb4.2/8, mb1 4.4/10, mb1mx4.0/43, mbtmp4.2/10, ML2.8/2, MS4.1/2, Ms1 4.2/2, ms1mx3.5/26, Error ellipse: s-maj=34.1km s-min=17.3km az=121.0*
*ISCJB* ***16*** *13:42:42.8±0.7, 6.°2S±0.°1×151.°5E±0.°1, h41km, mb4.1/10, MS4.0/2, Error ellipse: s-maj=21.5km s-min=10.2km az=44.2*
*NEIC* ***16*** *13:42:46.3±2.5, 6.°19S×151.°53E, h57km±20km, mb4.3/2, Error ellipse: s-maj=20.6km s-min=15.5km az=96.0*

**ISC 16 13:42:44.6±0.8, 6.°2S±0.°1×151.°6E±0.°2, h41km, n18, σ1♀76/17, mb4.1/9, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **5.47** | **234** | Pn | **Pn** | **13 44 04.3** | **+0.7** |
| | 7.9nm,0.3s,baz=45,slow=10,SNR=37 | | | | | | |
| PMG | | | | Sn | **Sn** | **13 45 05.0** | **-0.4** |
| | 12nm,0.3s,baz=176,slow=20,SNR=5.8 | | | | | | |
| **CTA** | **Charters Tower** | **14.80** | **200** | Pn | **Pn** | **13 46 11.5** | **+0.3** |
| | 0.1nm,0.3s,baz=7.1,slow=8.1,SNR=2.2 | | | | | | |
| **DZM** | **Mont Dzumac** | **21.34** | **139** | LR | LR | 13 53 50.6 | |
| | comp=Z,322nm,18.4s,baz=246,slow=32 | | | | | | |
| **WRAB** | **Tennant Creek** | **21.66** | **229** | *e*P | **P** | **13 47 31.0** | **-0.8** |
| | 3.1nm,0.5s | | | | | | |
| **WRA** | **Warramunga Arr** | **21.67** | **229** | P | **P** | **13 47 31.1** | **-0.9** |
| | 6.0nm,0.7s,baz=55,slow=11,SNR=43 | | | | | | |
| WRA | | | | ScP | **ScP** | **13 55 12.1** | **+5.6** |
| | 1.4nm,0.9s,baz=40,slow=2.3,SNR=5.2 | | | | | | |
| **ASAR** | **Alice Springs** | **24.36** | **223** | P | **P** | **13 47 59.0** | **0.0** |
| | 9.8nm,0.8s,baz=55,slow=9.5,SNR=71 | | | | | | |
| **STKA** | **Stephens Creek** | **27.25** | **199** | P | **P** | **13 48 24.6** | **-0.5** |
| | 5.1nm,0.9s,baz=345,slow=11,SNR=7.0 | | | | | | |
| **SOEI** | **Soe** | **27.32** | **261** | P | **P** | **13 48 24.6** | **-1.4** |
| | 17nm,0.8s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **27.99** | **243** | P | **P** | **13 48 30.9** | **-0.9** |
| | 6.7nm,0.6s,baz=57,slow=7.8,SNR=27 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **57.41** | **296** | LR | LR | 14 17 12.6 | |
| | comp=Z,258nm,21.6s,baz=225,slow=36 | | | | | | |
| **SONM** | **Songino Array** | **66.86** | **329** | P | **P** | **13 53 33.8** | **+1.3** |
| | 0.7nm,0.7s,baz=150,slow=4.6,SNR=2.4 | | | | | | |
| **VNDA** | **Vanda** | **71.53** | **178** | P | **P** | **13 54 01.4** | **+0.6** |
| | 1.6nm,0.9s,baz=347,slow=5.1,SNR=3.7 | | | | | | |
| **QSPA** | **South Pole Qui** | **83.81** | **180** | *e*P | **P** | **13 55 08.5** | **-1.1** |
| **ILAR** | **Eielson Array** | **83.85** | **22** | P | **P** | **13 55 07.8** | **-1.8** |
| | 1.1nm,0.8s,baz=245,slow=4.7,SNR=9.6 | | | | | | |
| **YKA** | **Yellowknife Ar** | **97.17** | **28** | P | Pdif | 13 56 12.9 | +0.4 |
| | 0.4nm,0.8s,baz=270,slow=4.8,SNR=5.4 | | | | | | |
| **GERES** | **GERESS Array B** | **124.58** | **327** | PKP | **PKPdf** | **14 01 39.8** | **0.0** |
| | 0.9nm,0.7s,baz=75,slow=1.5,SNR=4.0 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **149.57** | **285** | PKPbc | **PKPbc** | **14 02 30.5** | **-0.3** |
| | 2.7nm,0.6s,baz=68,slow=2.8,SNR=21 | | | | | | |
| **BDFB** | **Brasilia** | **150.89** | **138** | PKPbc | **PKPbc** | **14 02 34.4** | **+0.4** |
| | 3.1nm,1.0s,baz=309,slow=6.5,SNR=2.2 | | | | | | |

*ISN* ***16*** *13:48:31.0±187.0, 39.°69N×40.°39E, h0km±999km, ML3.8*
*DDA* ***16*** *13:48:33.1, 39.°52N×40.°60E, h3km, Ml3.7*
*ISK* ***16*** *13:48:33.2, 39.°54N×40.°57E, h5km, ML3.6*
*CSEM* ***16*** *13:48:34.4±0.2, 39.°51N×40.°61E, h2km, ML3.6, Error ellipse: s-maj=4.2km s-min=3.7km az=8.0*
*ISCJB* ***16*** *13:48:35.1±0.2, 39.°51N±0.°02×40.°60E±0.°02, h10km, mb3.3/4, Error ellipse: s-maj=2.9km s-min=2.6km az=155.5*
*IDC* ***16*** *13:48:37.2±1.1, 39.°68N×40.°17E, h0km, mb3.4/4, mb1 3.5/7, mb1mx3.3/44, mbtmp3.4/7, ML2.2/3, Error ellipse: s-maj=26.5km s-min=12.2km az=166.0*

**ISC 16 13:48:35.0±0.6, 39.°52N±0.°02×40.°60E±0.°02, h10km, n96, σ1♀46/122, mb3.3/4, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **YEDI** | **Yedisu-Bingol** | **0.09** | **208** | *e*PG | **Pg** | **13 48 36.1** | **-1.6** |
| **YEDI** | **Yedisu-Bingol** | **0.09** | **208** | *e*Pg | **Pg** | **13 48 36.1** | **-1.6** |
| **ECAT** | **Cat-ERZURUM** | **0.30** | **73** | *i* P | **Pg** | **13 48 39.6** | **-1.5** |
| ECAT | | | | *i* S | **Sg** | **13 48 44.2** | **-1.0** |
| **ECAT** | **Cat-ERZURUM** | **0.30** | **73** | P | **Pg** | **13 48 39.6** | **-1.5** |
| ECAT | | | | S | **Sg** | **13 48 44.2** | **-1.0** |
| **KOPT** | **Kop Dagi** | **0.50** | **351** | *i* P | **Pg** | **13 48 43.8** | **-1.1** |
| **KOPT** | **Kop Dagi** | **0.50** | **351** | P | **Pg** | **13 48 43.8** | **-1.1** |
| **BNGB** | **Bing¯¶i** | **0.53** | **173** | *e*PG | **Pg** | **13 48 44.3** | **-1.1** |
| BNGB | | | | *e*SG | **Sb** | **13 48 54.0** | **-0.3** |
| **BINT** | **Bingol** | **0.65** | **188** | *e*Pg | **Pg** | **13 48 44.3** | **-3.3** |
| BINT | | | | *e*Sg | **Sg** | **13 48 54.0** | **-2.1** |
| **ERZN** | **Erzincan** | **0.68** | **276** | *e*PG | **Pg** | **13 48 46.5** | **-1.8** |
| ERZN | | | | *e*SG | **Sb** | **13 48 57.1** | **-1.5** |
| **BNGL** | **BINGOL** | **0.71** | **143** | *i* P | **Pg** | **13 48 48.0** | **-0.8** |
| **EUZM** | **Uzumlu** | **0.72** | **285** | *i* P | **Pg** | **13 48 47.2** | **-1.8** |
| EUZM | | | | *i* S | **Sb** | **13 48 58.2** | **-1.6** |
| **EUZM** | **Uzumlu** | **0.72** | **285** | P | **Pg** | **13 48 47.2** | **-1.8** |
| EUZM | | | | S | **Sb** | **13 48 58.2** | **-1.6** |
| **VRTB** | **Varto-Mus** | **0.76** | **118** | *e*PG | **Pg** | **13 48 48.7** | **-0.9** |
| **VRTB** | **Varto-Mus** | **0.76** | **118** | *i* P | **Pg** | **13 48 48.0** | **-1.6** |
| **VRTB** | **Varto-Mus** | **0.76** | **118** | P | **Pg** | **13 48 48.0** | **-1.6** |
| **VRTB** | **Varto-Mus** | **0.76** | **118** | *e*Pg | **Pg** | **13 48 48.7** | **-0.9** |
| **TNCL** | **Tunceli-Merkez** | **0.92** | **244** | *i* P | **Pg** | **13 48 50.9** | **-1.7** |
| TNCL | | | | *i* S | **Sn** | **13 49 06.4** | **-0.9** |
| **TNCL** | **Tunceli-Merkez** | **0.92** | **244** | P | **Pg** | **13 48 50.9** | **-1.7** |
| TNCL | | | | S | **Sn** | **13 49 06.4** | **-0.9** |
| **BAYT** | **Ayd¯–ntepe-Bay** | **0.94** | **338** | *e*PG | **Pg** | **13 48 51.6** | **-1.5** |
| BAYT | | | | *e*SG | **Sb** | **13 49 05.4** | **-0.7** |
| **BAYT** | **Ayd¯–ntepe-Bay** | **0.94** | **338** | *e*Pg | **Pg** | **13 48 51.6** | **-1.5** |
| BAYT | | | | *e*Sg | **Sb** | **13 49 05.4** | **-0.7** |
| **HANI** | **Diyarbakir_Han** | **1.12** | **188** | *i* P | **Pb** | **13 48 54.7** | **-1.7** |
| HANI | | | | *i* S | **Sn** | **13 49 13.1** | **+0.9** |
| **HANI** | **Diyarbakir_Han** | **1.12** | **188** | P | **Pb** | **13 48 54.7** | **-1.7** |
| HANI | | | | S | **Sn** | **13 49 13.1** | **+0.9** |
| **PTK** | **Pertek** | **1.13** | **237** | *e*PN | **Pg** | **13 48 55.6** | **-1.1** |
| **PTK** | **Pertek** | **1.13** | **237** | *e*Pn | **Pg** | **13 48 55.6** | **-1.1** |
| **KELT** | **Kelkit** | **1.21** | **302** | *i* P | **Pb** | **13 48 55.9** | **-2.2** |
| KELT | | | | *i* S | **Sn** | **13 49 16.1** | **+1.3** |
| **KELT** | **Kelkit** | **1.21** | **302** | P | **Pb** | **13 48 55.9** | **-2.2** |
| KELT | | | | S | **Sn** | **13 49 16.0** | **+1.3** |
| **REFA** | **Refahiye_ERZ¯** | **1.43** | **266** | *i* P | **Pg** | **13 49 01.0** | **-1.4** |
| REFA | | | | *i* S | **Sg** | **13 49 21.9** | **+1.0** |
| **REFA** | **Refahiye_ERZ¯** | **1.43** | **266** | P | **Pg** | **13 49 01.0** | **-1.4** |
| REFA | | | | S | **Sg** | **13 49 21.9** | **+1.0** |
| **EATA** | **Eleskirt** | **1.50** | **76** | *i* P | **Pn** | **13 49 01.8** | **-0.4** |
| **EATA** | **Eleskirt** | **1.50** | **76** | P | **Pn** | **13 49 01.8** | **-0.4** |
| **SVRC** | **Sivrice-ELAZID** | **1.52** | **222** | *e*PN | **Pb** | **13 49 02.6** | **-0.8** |
| **SVRC** | **Sivrice-ELAZID** | **1.52** | **222** | *e*Pn | **Pb** | **13 49 02.6** | **-0.8** |
| **ILIC** | **ilic-Erzincan** | **1.57** | **268** | *e*PN | **Pb** | **13 49 03.0** | **-1.3** |
| **ILIC** | **ilic-Erzincan** | **1.57** | **268** | *e*Pn | **Pb** | **13 49 03.0** | **-1.3** |
| **KTUT** | **Trabzon** | **1.60** | **337** | *e*PN | **Pb** | **13 49 03.3** | **-1.3** |
| **KTUT** | **Trabzon** | **1.60** | **337** | *e*Pn | **Pb** | **13 49 03.3** | **-1.3** |
| **DYBB** | **Diyarbakir** | **1.61** | **193** | *e*PN | **Pb** | **13 49 04.0** | **-0.8** |
| **DDEM** | **Demirkent** | **1.63** | **32** | *i* P | **Pb** | **13 49 03.9** | **-1.3** |
| DDEM | | | | *i* S | **Sg** | **13 49 27.4** | **0.0** |
| **DDEM** | **Demirkent** | **1.63** | **32** | P | **Pb** | **13 49 03.9** | **-1.3** |
| DDEM | | | | S | **Sg** | **13 49 27.4** | **0.0** |
| **DIY** | **Diyarbakir** | **1.65** | **190** | *e*Pn | **Pn** | **13 49 04.0** | **-0.1** |
| **KEMA** | **Kemaliye** | **1.65** | **262** | *i* P | **Pb** | **13 49 04.7** | **-0.9** |
| KEMA | | | | *i* S | **Sg** | **13 49 27.8** | **-0.3** |
| **KEMA** | **Kemaliye** | **1.65** | **262** | P | **Pb** | **13 49 04.7** | **-0.9** |
| KEMA | | | | S | **Sg** | **13 49 27.8** | **-0.3** |
| **BTMN** | **Batman** | **1.71** | **162** | *i* P | **Pg** | **13 49 06.8** | **-1.0** |
| BTMN | | | | *i* S | **Sg** | **13 49 32.0** | **+2.0** |
| **BTMN** | **Batman** | **1.71** | **162** | P | **Pg** | **13 49 06.8** | **-1.0** |
| BTMN | | | | S | **Sg** | **13 49 32.0** | **+2.0** |
| **AGRB** | **Hanur-Agry** | **1.85** | **88** | *e*PN | **Pb** | **13 49 07.9** | **-1.1** |
| **AGRB** | **Hanur-Agry** | **1.85** | **88** | *e*Pn | **Pb** | **13 49 07.7** | **-1.1** |
| **DAGI** | **Agillar** | **1.85** | **32** | *i* P | **Pb** | **13 49 07.7** | **-1.3** |
| DAGI | | | | *i* S | **Sb** | **13 49 32.0** | **-0.3** |
| **ARTV** | **Artvin** | **1.95** | **31** | *i* P | **Pb** | **13 49 09.8** | **-0.9** |
| ARTV | | | | *i* S | **Sb** | **13 49 34.1** | **-1.0** |
| **ARTV** | **Artvin** | **1.95** | **31** | P | **Pb** | **13 49 09.8** | **-0.9** |
| ARTV | | | | S | **Sb** | **13 49 34.1** | **-1.0** |
| **SUSE** | **Susehri** | **1.97** | **291** | *i* P | **Pg** | **13 49 11.0** | **-1.8** |
| SUSE | | | | *i* S | **Sg** | **13 49 38.7** | **+0.4** |
| **SUSE** | **Susehri** | **1.97** | **291** | P | **Pg** | **13 49 11.0** | **-1.8** |
| SUSE | | | | S | **Sg** | **13 49 38.7** | **+0.4** |
| **ESPY** | **Espiye-Giresun** | **2.00** | **315** | *e*PN | **Pb** | **13 49 08.9** | **-2.6** |
| **ESPY** | **Espiye-Giresun** | **2.00** | **315** | *e*Pn | **Pb** | **13 49 08.9** | **-2.6** |
| **MAZI** | **Mazidag** | **2.06** | **183** | *e*PN | **Pb** | **13 49 10.5** | **-2.1** |
| **MAZI** | **Mazidag** | **2.06** | **183** | *e*Pn | **Pb** | **13 49 10.5** | **-2.1** |
| **MALT** | **Malatya** | **2.08** | **235** | *e*PN | **Pb** | **13 49 10.5** | **-2.4** |
| **MALT** | **Malatya** | **2.08** | **235** | *e*Pn | **Pb** | **13 49 10.5** | **-2.4** |
| **HEKM** | **Malatya_Hekimh** | **2.15** | **253** | *i* P | **Pb** | **13 49 14.0** | **-0.2** |
| **HEKM** | **Malatya_Hekimh** | **2.15** | **253** | P | **Pb** | **13 49 14.0** | **-0.2** |
| **KARS** | **Kars** | **2.20** | **59** | *e*PN | **Pb** | **13 49 12.6** | **-2.4** |
| **KARS** | **Kars** | **2.20** | **59** | *e*Pn | **Pb** | **13 49 12.6** | **-2.4** |
| **CUZAR** | **Zara_SIVAS** | **2.21** | **280** | *i* P | **Pb** | **13 49 14.0** | **-1.2** |
| **CUZAR** | **Zara_SIVAS** | **2.21** | **280** | P | **Pb** | **13 49 14.0** | **-1.2** |
| **VANB** | **Van** | **2.36** | **112** | *e*PN | **Pb** | **13 49 16.0** | **-1.7** |
| **VANB** | **Van** | **2.36** | **112** | *e*Pn | **Pb** | **13 49 16.0** | **-1.7** |
| **SIRT** | **Sirnak** | **2.48** | **144** | *e*PN | **Pb** | **13 49 17.0** | **-2.7** |
| **SIRT** | **Sirnak** | **2.48** | **144** | *e*Pn | **Pb** | **13 49 17.0** | **-2.7** |
| **URFA** | **Urfa** | **2.50** | **214** | *e*PN | **Pn** | **13 49 16.8** | **+1.0** |
| **URFA** | **Urfa** | **2.50** | **214** | *e*Pn | **Pn** | **13 49 16.8** | **+1.0** |
| **CLDR** | **Caldiran** | **2.60** | **97** | *e*PN | **Pn** | **13 49 18.7** | **+1.4** |
| **CLDR** | **Caldiran** | **2.60** | **97** | *e*Pn | **Pn** | **13 49 18.7** | **+1.4** |
| **DARE** | **Darende-Malaty** | **2.61** | **250** | *e*PN | **Pn** | **13 49 17.9** | **+0.6** |
| **DARE** | **Darende-Malaty** | **2.61** | **250** | *e*Pn | **Pn** | **13 49 17.9** | **+0.6** |
| **RSDY** | **Resadiye-TOKAT** | **2.66** | **290** | *e*PN | **Pn** | **13 49 18.6** | **+0.6** |
| **RSDY** | **Resadiye-TOKAT** | **2.66** | **290** | *e*Pn | **Pn** | **13 49 18.6** | **+0.6** |
| **SVSK** | **Karacayir** | **2.81** | **279** | *e*PN | **Pn** | **13 49 21.2** | **+1.3** |
| **SVSK** | **Karacayir** | **2.81** | **279** | *e*Pn | **Pn** | **13 49 21.2** | **+1.3** |
| **BGD** | **Bogdanovka** | **2.88** | **52** | P | **Pg** | **13 49 28.9** | **-1.3** |
| **AKH** | **Akhalkalaki** | **2.90** | **49** | *e*PN | **Pn** | **13 49 22.4** | **+1.0** |
| **AKH** | **Akhalkalaki** | **2.90** | **49** | P | **Pg** | **13 49 30.5** | **-0.1** |
| **AKH** | **Akhalkalaki** | **2.90** | **49** | *e*Pn | **Pn** | **13 49 22.4** | **+1.0** |
| **GNI** | **Garni** | **3.25** | **78** | Pn | **Pg** | **13 49 36.4** | **-0.8** |
| | 4.9nm,0.3s,baz=242,slow=2.9,SNR=17 | | | | | | |
| **SARI** | **SarD1z-Kayseri** | **3.44** | **252** | *e*PN | **Pn** | **13 49 29.8** | **+0.9** |
| **KMRS** | **Kahramanmaras** | **3.53** | **236** | *e*PN | **Pn** | **13 49 31.1** | **+1.2** |
| **KMRS** | **Kahramanmaras** | **3.53** | **236** | *e*Pn | **Pn** | **13 49 31.1** | **+1.2** |
| **GAZ** | **Gaziantep** | **3.55** | **230** | *e*PN | **Pn** | **13 49 31.7** | **+1.5** |
| **GAZ** | **Gaziantep** | **3.55** | **230** | *e*Pn | **Pn** | **13 49 31.7** | **+1.5** |
| **ONI** | **Oni** | **3.75** | **34** | P | **Pg** | **13 49 44.3** | **-2.5** |
| **BNN** | **Bunyan** | **3.75** | **261** | *e*PN | **Pn** | **13 49 34.4** | **+1.3** |
| **BNN** | **Bunyan** | **3.75** | **261** | *e*Pn | **Pn** | **13 49 34.4** | **+1.3** |
| **KBZ** | **Khabaz** | **4.54** | **22** | Pn | Pn | 13 49 48.1 | +4.4 |
| | 0.2nm,0.3s,baz=209,slow=19,SNR=3.0 | | | | | | |
| **BRTR** | **Keskin Array B** | **5.38** | **274** | Pn | **Pn** | **13 49 56.5** | **+1.0** |
| | 0.2nm,0.3s,baz=98,slow=14,SNR=9.0 | | | | | | |
| **FINES** | **FINESS Array B** | **23.70** | **343** | P | **P** | **13 53 49.5** | **+2.8** |
| | 3.8nm,0.9s,baz=150,slow=17,SNR=5.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **30.98** | **63** | P | P | 13 54 57.2 | +4.9 |
| | 0.1nm,0.5s,baz=282,slow=10,SNR=3.0 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **43.15** | **243** | P | **P** | **13 56 35.8** | **-0.1** |
| | 0.8nm,1.0s,baz=39,slow=5.5,SNR=3.8 | | | | | | |
| **YKA** | **Yellowknife Ar** | **76.39** | **348** | P | **P** | **14 00 26.8** | **+2.7** |
| | 0.2nm,0.8s,baz=13,slow=5.7,SNR=3.3 | | | | | | |

**TRN 16 13:59:39.6, 11.°25N×61.°77W, h23km, MD3.8, 2C, Windward Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TCE** | **Chacachacare** | **0.55** | **179** | *e*P | Pb | 13 59 51.4 | +0.6 |
| **TRN** | **Trinidad (W)** | **0.70** | **149** | ⇑*i*P | Pb | 13 59 53.2 | +0.1 |
| TRN | | | | *e*S | Sn | 14 00 04.0 | -0.2 |
| **GRGR** | **Grenville** | **0.88** | **7** | ⇑*i*P | Pb | 13 59 56.0 | -0.3 |
| GRGR | | | | *e*S | Sn | 14 00 09.7 | +0.9 |
| **TPP** | **Pointe-a-Pierr** | **0.98** | **162** | *e*P | Pn | 13 59 58.7 | +0.7 |
| TPP | | | | *e*S | Sn | 14 00 10.9 | -0.2 |
| **TBH** | **Brigand Hill** | **1.03** | **138** | *e*P | Pb | 13 59 58.9 | +0.1 |
| TBH | | | | *e*S | Sn | 14 00 13.6 | +1.3 |
| **BOT** | **Bacolet** | **1.03** | **95** | *e*P | Pn | 13 59 58.2 | -0.5 |
| BOT | | | | *e*S | Sn | 14 00 12.9 | +0.5 |
| **TOSP** | **Speyside** | **1.21** | **88** | *e*P | Pn | 14 00 00.5 | -0.6 |
| TOSP | | | | *e*S | Sb | 14 00 17.7 | +0.7 |
| **SVB** | **Belmont** | **2.07** | **14** | *e*P | Pn | 14 00 12.8 | -0.2 |
| SVB | | | | *e*S | Sn | 14 00 38.7 | +0.6 |
| **SVCV** | **St. Vincent, C** | **2.10** | **17** | *e*P | Pn | 14 00 13.9 | +0.5 |
| SVCV | | | | *e*S | Sn | 14 00 38.9 | 0.0 |
| **SVV** | **Soufriere Volc** | **2.12** | **15** | *e*S | Sn | 14 00 39.5 | 0.0 |
| **SSV** | **Crater Summit** | **2.14** | **15** | *e*S | Sn | 14 00 39.9 | 0.0 |
| **MCLT** | **Moule a Chique** | **2.57** | **18** | *e*P | Pn | 14 00 19.6 | -0.3 |
| MCLT | | | | *e*S | Sn | 14 00 50.7 | +0.1 |
| **SLB** | **Belfond** | **2.66** | **15** | *e*P | Pn | 14 00 22.5 | +1.4 |
| SLB | | | | *e*S | Sn | 14 00 52.1 | -0.5 |

**IDC 16 14:03:00.5±2.0, 4.°41S×127.°75E, h0km, mb3.2/2, mb1 3.5/4, mb1mx3.4/36, mbtmp3.4/4, ML3.1/2, Error ellipse: s-maj=109.4km s-min=27.3km az=71.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **13.76** | **188** | Pn | Pn | 14 06 15.6 | -1.4 |
| | 0.1nm,0.3s,baz=24,slow=10.0,SNR=2.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **16.72** | **158** | Pn | Pn | 14 06 57.5 | +1.1 |
| | 0.1nm,0.3s,baz=338,slow=12,SNR=4.6 | | | | | | |
| **ASAR** | **Alice Springs** | **20.04** | **163** | P | P | 14 07 35.4 | 0.0 |
| | 0.5nm,0.6s,baz=342,slow=12,SNR=9.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **64.85** | **327** | P | P | 14 13 41.5 | 0.0 |
| | 0.2nm,0.4s,baz=113,slow=8.1,SNR=4.9 | | | | | | |

**TAP 16 14:10:15.7, 21.°16N×121.°38E, h68km±1km, ML3.5, 1C, D, Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TSEB** | **Hengchuen, Pin** | **0.87** | **329** | *e*S | Sn | 14 10 46.0 | +1.2 |
| | baz=319 | | | | | | |
| **LAY** | **Lan-yu** | **0.89** | **10** | *e*P | Pn | 14 10 33.0 | +0.2 |
| | baz=10.0 | | | | | | |
| **TWK1** | **Hengchun** | **0.95** | **326** | *e*P | Pn | 14 10 33.4 | -0.1 |
| | baz=320 | | | | | | |
| TWK1 | | | | S | Sn | 14 10 47.4 | +0.7 |
| | baz=320 | | | | | | |
| **HEN** | **Hengchun** | **1.04** | **325** | *e*P | Pn | 14 10 35.5 | +0.9 |
| | baz=318 | | | | | | |
| **EAST** | **Anshuo** | **1.32** | **338** | *e*P | Pn | 14 10 37.7 | -0.6 |
| | baz=347 | | | | | | |
| **SCZT** | **Fangliau** | **1.40** | **330** | *e*P | Pn | 14 10 40.2 | +0.8 |
| | baz=322 | | | | | | |
| SCZT | | | | S | Sn | 14 10 58.0 | +0.8 |
| | baz=322 | | | | | | |
| **ECL** | **Taimali** | **1.49** | **345** | ⇑P | Pn | 14 10 39.3 | -1.2 |
| | baz=345 | | | | | | |
| **TWG** | **Pinlang** | **1.68** | **350**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **GEVA** | **Gevas** | **0.32** | **188** | P | **Pb** | **14 27 53.8** | **-0.7** |
| GEVA | | | | S | **Sb** | **14 28 00.4** | **+0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.35** | **300** | *i* P | **Pb** | **14 27 54.3** | **-0.7** |
| ADCV | | | | *i* S | **Sb** | **14 28 01.3** | **+0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.35** | **300** | P | **Pb** | **14 27 54.3** | **-0.7** |
| ADCV | | | | S | **Sb** | **14 28 01.3** | **+0.6** |
| **VMUR** | **Van-Muradiye** | **0.51** | **45** | *i* P | **Pg** | **14 27 56.4** | **-0.1** |
| VMUR | | | | *i* S | **Sg** | **14 28 04.6** | **+1.3** |
| **VMUR** | **Van-Muradiye** | **0.51** | **45** | P | **Pg** | **14 27 56.4** | **-0.1** |
| VMUR | | | | S | **Sg** | **14 28 04.6** | **+1.3** |
| **TUTA** | **Tutak** | **0.81** | **343** | *i* P | **Pb** | **14 28 01.8** | **-1.0** |
| TUTA | | | | *i* S | **Sb** | **14 28 13.2** | **-0.5** |
| **TUTA** | **Tutak** | **0.81** | **343** | P | **Pb** | **14 28 01.8** | **-1.0** |
| TUTA | | | | S | **Sb** | **14 28 13.2** | **-0.5** |
| **CLDR** | **Caldiran** | **0.81** | **51** | *e*PG | **Pg** | **14 28 01.8** | **-0.4** |
| CLDR | | | | *e*SG | **Sg** | **14 28 13.6** | **+0.7** |
| **CLDR** | **Caldiran** | **0.81** | **51** | *i* P | **Pg** | **14 28 01.1** | **-1.1** |
| CLDR | | | | *i* S | **Sg** | **14 28 13.0** | **+0.1** |
| **CLDR** | **Caldiran** | **0.81** | **51** | P | **Pg** | **14 28 01.1** | **-1.1** |
| **CLDR** | **Caldiran** | **0.81** | **51** | *e*Pg | **Pg** | **14 28 01.8** | **-0.4** |
| CLDR | | | | S | **Sg** | **14 28 13.0** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **0.95** | **354** | *e*PG | **Pb** | **14 28 04.5** | **-0.7** |
| AGRB | | | | *e*SG | **Sb** | **14 28 18.3** | **+0.5** |
| **AGRB** | **Hanur-Agry** | **0.95** | **354** | *e*Pg | **Pb** | **14 28 04.5** | **-0.7** |
| AGRB | | | | *e*Sg | **Sb** | **14 28 18.3** | **+0.5** |
| **EATA** | **Eleskirt** | **1.32** | **339** | *i* P | **Pb** | **14 28 11.3** | **-0.3** |
| EATA | | | | *i* S | **Sn** | **14 28 29.8** | **+0.7** |
| **EATA** | **Eleskirt** | **1.32** | **339** | P | **Pb** | **14 28 11.3** | **-0.3** |
| EATA | | | | S | **Sn** | **14 28 29.8** | **+0.7** |

**IDC 16 14:34:26.0**±10.0, **13.75S**×**167.10E**, **h153**km±96km, **mb3.3**/3, **mb1 3.4**/4, **mb1mx3.1**/37, **mbtmp3.7**/4, **Error ellipse: s-maj=99.7km s-min=42.1km az=169.0, Vanuatu Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DZM** | **Mont Dzumac** | **8.30** | **184** | P | Pn | 14 36 23.5 | 0.0 |
| | 0.3nm,0.3s,baz=210,slow=20,SNR=3.0 | | | | | | |
| **STKA** | **Stephens Creek** | **29.51** | **228** | P | P | 14 40 16.1 | +0.1 |
| | 0.7nm,0.4s,baz=85,slow=11,SNR=5.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **31.92** | **254** | P | P | 14 40 37.6 | +0.2 |
| | 0.3nm,0.3s,baz=86,slow=9.2,SNR=9.8 | | | | | | |
| **ASAR** | **Alice Springs** | **32.88** | **248** | P | P | 14 40 45.4 | -0.4 |
| | 0.2nm,0.3s,baz=76,slow=9.5,SNR=13 | | | | | | |
| **ARCES** | **ARCESS Array B** | **119.27** | **345** | PKP | PKPdf | 14 52 56.2 | -0.2 |
| | 3.0nm,0.9s,baz=101,slow=1.8,SNR=3.5 | | | | | | |

*ISCJB* ***16*** *14:35:19.3*±*1.4, 37.63N*×*0.06*×*141.93E*±*0.08, h26*km±*7km, mb3.4/3, Error ellipse: s-maj=12.9km s-min=7.4km az=38.4*

*JMA* ***16*** *14:35:21.4*±*0.1, 37.65N*×*141.80E, h34*km±*2km, M3.4*

*IDC* ***16*** *14:35:21.5*±*3.2, 37.70N*×*142.17E, h58*km±*26km, mb3.1/3, mb1 3.3/5, mb1mx3.1/44, mbtmp3.3/5, ML2.9/2, Error ellipse: s-maj=31.2km s-min=14.0km az=120.0*

**ISC 16 14:35:19.1**±3.3, **37.62N**±0.06×**141.92E**±0.09, **h25**km±24km, **n16**,σ1§**41**/24, **mb3.5**/3, **Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JFK** | **Kawauchi** | **0.87** | **253** | P | **Pn** | **14 35 36.1** | **+0.4** |
| JFK | | | | S | **Sn** | **14 35 46.5** | **-1.1** |
| **JMM** | **Marumori** | **0.92** | **286** | P | **Pn** | **14 35 36.8** | **+0.3** |
| JMM | | | | S | **Sn** | **14 35 47.4** | **-1.5** |
| **JIO** | **Ouri** | **0.94** | **332** | P | **Pn** | **14 35 37.5** | **+0.8** |
| JIO | | | | S | **Sn** | **14 35 48.5** | **-0.9** |
| **ONAJ** | **Iwakimizuishiy** | **1.03** | **240** | P | **Pn** | **14 35 38.6** | **+0.6** |
| **JOU** | **Okura** | **1.24** | **307** | P | **Pn** | **14 35 41.9** | **+1.1** |
| **JFT** | **Otama** | **1.26** | **266** | P | **Pn** | **14 35 42.4** | **+1.3** |
| JFT | | | | S | **Sn** | **14 35 57.3** | **0.0** |
| **JMK** | **Ichinoseki** | **1.44** | **338** | P | **Pn** | **14 35 44.8** | **+1.3** |
| **JYS** | **Shirataka** | **1.58** | **293** | P | **Pn** | **14 35 47.0** | **+1.5** |
| JYS | | | | S | **Sn** | **14 36 06.3** | **+1.1** |
| **JFY** | **Yanaizu** | **1.77** | **264** | P | **Pn** | **14 35 49.9** | **+1.7** |
| JFY | | | | S | **Sn** | **14 36 11.5** | **+1.6** |
| **JYK** | **Kaneyama** | **1.78** | **317** | P | **Pn** | **14 35 49.6** | **+1.3** |
| **JOM** | **Ohasama** | **1.91** | **345** | P | **Pn** | **14 35 52.0** | **+2.0** |
| **MJAR** | **Matsushiro Arr** | **3.16** | **251** | P | **Pn** | **14 36 10.2** | **+3.0** |
| | 0.5nm,0.3s,baz=83,slow=15,SNR=9.6 | | | | | | |
| MJAR | | | | S | **Sb** | **14 36 51.0** | **-1.6** |
| | 1.0nm,0.3s,baz=12,slow=16,SNR=4.4 | | | | | | |
| **ASAJ** | **Asahikawa** | **6.51** | **4** | P | **Pn** | **14 36 54.5** | **+1.3** |
| | 0.4nm,0.3s,baz=207,slow=4.5,SNR=4.4 | | | | | | |
| ASAJ | | | | S | **Sn** | **14 38 05.6** | **-1.0** |
| | 0.2nm,0.3s,baz=96,slow=18,SNR=2.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.15** | **302** | P | **P** | **14 43 24.8** | **-0.8** |
| | 0.2nm,0.7s,baz=86,slow=7.8,SNR=2.4 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **45.96** | **308** | P | **P** | **14 43 39.4** | **-0.4** |
| | 0.2nm,0.3s,baz=82,slow=8.2,SNR=3.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **57.70** | **188** | P | **P** | **14 45 07.1** | **-0.5** |
| | 0.5nm,0.9s,baz=5.2,slow=7.2,SNR=3.8 | | | | | | |

*CSEM* ***16*** *15:02:04.1, 46.88N*×*8.60E, h4*km*, ML0.9/7, Suspected Mining explosion.*

**ZUR 16 15:02:04.1, 46.88N**×**8.60E, h4**km±3km, **ML0.9**/7, **8C-4D, Suspected Mining explosion., Switzerland**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MUO** | **Muotathal** | **0.10** | **14** | ⇑*i* Pg | Pg | 15 02 06.6 | +0.5 |
| | 76nm,0.4s | | | | | | |
| **MUO** | **Muotathal** | **0.10** | **14** | ⇑*i* Pg | Pg | 15 02 06.6 | +0.5 |
| | 76nm,0.4s | | | | | | |
| **BNALP** | **Bannalp** | **0.12** | **268** | ⇑*i* Pg | Pg | 15 02 06.9 | +0.3 |
| | 45nm,0.7s | | | | | | |
| **BNALP** | **Bannalp** | **0.12** | **268** | ⇑*i* Pg | Pg | 15 02 06.9 | +0.3 |
| | 45nm,0.7s | | | | | | |
| **CURA** | **Stauanlage Cun** | **0.25** | **163** | ⇑*i* Pg | Pg | 15 02 09.6 | +0.6 |
| | 35nm,0.2s | | | | | | |
| **CURA** | **Stauanlage Cun** | **0.25** | **163** | ⇑*i* Pg | Pg | 15 02 09.6 | +0.6 |
| | 35nm,0.2s | | | | | | |
| **CUNA** | **Curaglia** | **0.26** | **141** | *i* Pg | Pg | 15 02 09.4 | +0.2 |
| | 70nm,0.2s | | | | | | |
| CUNA | | | | *e*Sg | Sg | 15 02 13.2 | +0.5 |
| | 70nm,0.2s | | | | | | |
| **CUNA** | **Curaglia** | **0.26** | **141** | *i* Pg | Pg | 15 02 09.4 | +0.2 |
| | 70nm,0.2s | | | | | | |
| CUNA | | | | *e*Sg | Sg | 15 02 13.2 | +0.5 |
| | 70nm,0.2s | | | | | | |
| **NALPS** | **Val Nalps** | **0.30** | **160** | *i* Pg | Pg | 15 02 10.3 | +0.4 |
| | 37nm,0.1s | | | | | | |
| **NALPS** | **Val Nalps** | **0.30** | **160** | *i* Pg | Pg | 15 02 10.3 | +0.4 |
| | 37nm,0.1s | | | | | | |
| **HASLI** | **Hasliberg/Brie** | **0.33** | **249** | *e*Sg | Sg | 15 02 11.1 | -3.8 |
| | 58nm,0.3s | | | | | | |
| **HASLI** | **Hasliberg/Brie** | **0.33** | **249** | *e*Sg | Sg | 15 02 11.1 | -3.8 |
| | 58nm,0.3s | | | | | | |
| **PANIX** | **Pigniu (Panix)** | **0.35** | **98** | *i* Sg | Sg | 15 02 11.2 | -4.3 |
| | 9.3nm,1.6s | | | | | | |
| **PANIX** | **Pigniu (Panix)** | **0.35** | **98** | ⇓*i* Pg | Pn | 15 02 15.9 | -0.3 |
| | 9.3nm,1.6s | | | | | | |
| **PANIX** | **Pigniu (Panix)** | **0.35** | **98** | *i* Sg | Sg | 15 02 11.2 | -4.3 |
| | 9.3nm,1.6s | | | | | | |
| **PANIX** | **Pigniu (Panix)** | **0.35** | **98** | ⇓*i* Pg | Pn | 15 02 15.9 | -0.3 |
| | 9.3nm,1.6s | | | | | | |
| **GRIMS** | **Grimsel Gerste** | **0.36** | **214** | ⇑*i* Pg | Pb | 15 02 12.6 | -0.6 |
| | 8.9nm,0.5s | | | | | | |
| **GRIMS** | **Grimsel Gerste** | **0.36** | **214** | ⇑*i* Pg | Pb | 15 02 12.6 | -0.6 |
| | 8.9nm,0.5s | | | | | | |
| **FUSIO** | **Fusio** | **0.42** | **174** | ⇓*i* Pg | Pb | 15 02 15.7 | +1.5 |
| **FUSIO** | **Fusio** | **0.42** | **174** | ⇓*i* Pg | Pb | 15 02 15.7 | +1.5 |

*KRNET* ***16*** *15:03:16.1*±*0.1, 42.83N*×*79.46E, mb2.8*

*NNC* ***16*** *15:03:20.3*±*0.9, 43.00N*×*79.25E, h0*km*, mb2.9, mpv2.5, Error ellipse: s-maj=9.1km s-min=2.0km az=143.0*

*SOME* ***16*** *15:03:20.4, 43.00N*×*79.23E, h5*km

**ISC 16 15:03:19.2**±1.2, **42.93N**±0.04×**79.26E**±0.03, **h5**km±11km, **n29**,σ1§**14**/57, **20C-10D, Lake Issyk-Kul region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **UZB** | **Uzynbulak** | **0.28** | **321** | *e*P | **Pg** | **15 03 25.0** | **+0.3** |
| | 25nm,0.0s | | | | | | |
| UZB | | | | *e*S | **Sg** | **15 03 28.2** | **-0.2** |
| | 272nm,0.0s | | | | | | |
| **PDGK** | **Podgornoye** | **0.43** | **23** | ⇑*i* P | **Pg** | **15 03 26.5** | **-1.1** |
| | baz=2.0 | | | | | | |
| PDGK | | | | ⇑*i* S | **Sg** | **15 03 32.9** | **-0.3** |
| | baz=2.0 | | | | | | |
| **PDGK** | **Podgornoye** | **0.43** | **23** | ⇓P | **Pg** | **15 03 27.6** | **+0.1** |
| | 5.7nm,0.2s | | | | | | |
| PDGK | | | | ⇓S | **Sg** | **15 03 32.8** | **-0.5** |
| | 116nm,0.4s | | | | | | |
| **SATY** | **Saty** | **0.64** | **282** | *e*P | **Pg** | **15 03 32.2** | **+0.6** |
| | 36nm,0.1s | | | | | | |
| SATY | | | | ⇑*i* S | **Sg** | **15 03 40.1** | **+0.3** |
| | 192nm,0.1s | | | | | | |
| **ZHN** | **Zhinishke** | **0.65** | **292** | ⇑*i* P | **Pg** | **15 03 32.0** | **+0.3** |
| | 8.2nm,0.3s | | | | | | |
| ZHN | | | | *e*S | **Sg** | **15 03 40.2** | **+0.1** |
| | 199nm,0.2s | | | | | | |
| **KPKS** | **Kokpek** | **0.68** | **322** | *e*P | **Pg** | **15 03 32.2** | **-0.1** |
| | 33nm,0.1s | | | | | | |
| KPKS | | | | *e*S | **Sg** | **15 03 40.5** | **-0.6** |
| | 67nm,0.3s | | | | | | |
| **PRZ** | **Przheval'sk** | **0.78** | **235** | ⇓*i* P | **Pg** | **15 03 32.4** | **-1.7** |
| | baz=246 | | | | | | |
| PRZ | | | | ⇓*i* S | **Sg** | **15 03 45.9** | **+1.7** |
| | baz=246 | | | | | | |
| **KTMS** | **Ketmen** | **0.95** | **57** | *e*P | **Pb** | **15 03 38.2** | **0.0** |
| | 25nm,0.2s | | | | | | |
| KTMS | | | | *e*S | **Sg** | **15 03 50.2** | **+0.5** |
| | 32nm,0.1s | | | | | | |
| **KURS** | **Kuram** | **0.97** | **305** | *e*P | **Pg** | **15 03 37.9** | **+0.1** |
| | 0.7nm,0.1s | | | | | | |
| KURS | | | | *e*S | **Sg** | **15 03 50.0** | **-0.5** |
| | 7.2nm,0.5s | | | | | | |
| **DJR** | **Jarkent** | **1.45** | **15** | ⇑*i* P | **Pn** | **15 03 46.1** | **-0.2** |
| | 14nm,0.2s | | | | | | |
| DJR | | | | *e*S | **Sn** | **15 04 04.2** | **-1.5** |
| | 53nm,0.3s | | | | | | |
| **KOTS** | **Kotyrbulak** | **1.60** | **282** | *e*P | **Pb** | **15 03 49.7** | **+0.3** |
| | 7.0nm,0.1s | | | | | | |
| KOTS | | | | *e*S | **Sg** | **15 04 11.1** | **+0.4** |
| | 13nm,0.2s | | | | | | |
| **MDOK** | **Medeo** | **1.64** | **279** | ⇑P | **Pb** | **15 03 50.0** | **0.0** |
| MDOK | | | | S | **Sg** | **15 04 12.0** | **+0.2** |
| **MDOK** | **Medeo** | **1.64** | **279** | *e*P | **Pb** | **15 03 49.6** | **-0.4** |
| | 4.2nm,0.4s | | | | | | |
| MDOK | | | | *e*S | **Sg** | **15 04 11.6** | **-0.3** |
| | 7.8nm,0.4s | | | | | | |
| **ARXS** | **Arharly** | **1.65** | **321** | *e*P | **Pb** | **15 03 49.5** | **-0.7** |
| | 8.9nm,0.2s | | | | | | |
| ARXS | | | | *e*S | **Sb** | **15 04 10.4** | **-1.0** |
| | 11nm,0.2s | | | | | | |
| **TNSS** | **Tian-Shan** | **1.70** | **274** | ⇓*i* P | **Pb** | **15 03 51.3** | **+0.1** |
| | 6.5nm,0.3s | | | | | | |
| TNSS | | | | *e*S | **Sb** | **15 04 13.4** | **+0.3** |
| | 14nm,0.3s | | | | | | |
| **CHKK** | **Chushkaly** | **1.90** | **300** | *e*P | **Pb** | **15 03 53.9** | **-0.4** |
| | 2.7nm,0.2s | | | | | | |
| CHKK | | | | *e*S | **Sb** | **15 04 17.3** | **-1.0** |
| | 54nm,0.3s | | | | | | |
| **KTBS** | **Karatobe** | **2.04** | **293** | *e*P | **Pb** | **15 03 56.3** | **-0.4** |
| | 6.8nm,0.2s | | | | | | |
| KTBS | | | | *e*S | **Sb** | **15 04 23.0** | **+0.6** |
| | 102nm,0.4s | | | | | | |
| **MTBS** | **Maitube** | **2.09** | **276** | *e*P | **Pg** | **15 03 59.3** | **+0.1** |
| | 6.1nm,0.3s | | | | | | |
| MTBS | | | | *e*S | **Sg** | **15 04 26.3** | **+0.1** |
| | 16nm,0.2s | | | | | | |
| **ULHL** | **Ulahol** | **2.33** | **254** | ⇑*i* P | **Pb** | **15 04 02.1** | **+0.2** |
| | baz=257 | | | | | | |
| ULHL | | | | ⇑*i* S | **Sg** | **15 04 33.1** | **-1.0** |
| | baz=257 | | | | | | |
| **KUU** | **Kurty** | **2.34** | **295** | *e*P | **Pb** | **15 04 01.0** | **-0.8** |
| | 3.8nm,0.2s | | | | | | |
| KUU | | | | ⇓*i* S | **Sb** | **15 04 31.3** | **+0.3** |
| | 48nm,0.3s | | | | | | |
| **KAPS** | **Kapalarasan** | **2.35** | **2** | ⇓*i* P | **Pb** | **15 04 01.5** | **-0.6** |
| | 4.5nm,0.6s | | | | | | |
| KAPS | | | | *e*S | **Sb** | **15 04 30.8** | **-0.7** |
| | 16nm,0.2s | | | | | | |
| **KST** | **Kastek** | **2.42** | **274** | ⇑*i* P | **Pg** | **15 04 05.0** | **-0.7** |
| | 2.8nm,0.3s | | | | | | |
| KST | | | | ⇑*i* S | **Sg** | **15 04 36.8** | **-0.2** |
| | 9.9nm,0.6s | | | | | | |
| **BOOM** | **Boomskoye usch** | **2.49** | **261** | ⇑*i* P | **Pn** | **15 04 01.6** | **+1.1** |
| | baz=264 | | | | | | |
| BOOM | | | | ⇑*i* S | **Sb** | **15 04 35.9** | **+0.4** |
| | baz=264 | | | | | | |
| **DGS** | **Degeres** | **2.58** | **278** | *e*P | **Pb** | **15 04 06.6** | **+0.7** |
| | 3.3nm,0.4s | | | | | | |
| DGS | | | | *e*S | **Sb** | **15 04 39.5** | **+1.6** |
| | 20nm,0.4s | | | | | | |
| **TKM2** | **Tokmak 2** | **2.69** | **271** | ⇑*i* P | **Pb** | **15 04 07.1** | **-0.9** |
| | baz=273 | | | | | | |
| TKM2 | | | | ⇑*i* S | **Sb** | **15 04 41.5** | **+0.1** |
| | baz=273 | | | | | | |
| **TKM2** | **Tokmak 2** | **2.69** | **271** | ⇑Pg | **Pb** | **15 04 07.9** | **0.0** |
| | 5.6nm,1.1s | | | | | | |
| TKM2 | | | | ⇓Lg | Lg | 15 04 45.2 | |
| | 3.3nm,0.3s | | | | | | |
| **KZA** | **Kyzart** | **3.09** | **255** | ⇑*i* P | **Pb** | **15 04 12.5** | **-2.3** |
| | baz=258 | | | | | | |
| KZA | | | | ⇑*i* S | **Sb** | **15 04 51.1** | **-1.8** |
| | baz=258 | | | | | | |
| **USP** | **Ospenovka** | **3.50** | **277** | ⇑*i* P | **Pn** | **15 04 17.8** | **+3.4** |
| | baz=279 | | | | | | |
| USP | | | | ⇑*i* S | **Sb** | **15 05 00.2** | **-4.4** |
| | baz=279 | | | | | | |
| **MK31** | **Makanchi Array** | **4.42** | **28** | ⇓Pn | **Pn** | **15 04 28.5** | **+1.6** |
| | 0.1nm,0.3s,baz=195,slow=14,SNR=7.1 | | | | | | |
| MK31 | | | | ⇓Pg | **Pb** | **15 04 39.0** | **+1.7** |
| | 0.7nm,0.7s,baz=195,slow=16,SNR=3.7 | | | | | | |
| MK31 | | | | ⇑Lg | Lg | 15 05 37.0 | |
| | 0.7nm,0.5s,baz=206,slow=28,SNR=6.9 | | | | | | |

**IDC 16 15:03:34.6**±4.8, **7.05S**×**156.27E**, **h0**km, **mb3.7**/7, **mb1 3.8**/7, **mb1mx3.6**/32, **mbtmp3.7**/7, **Error ellipse: s-maj=138.7km s-min=29.1km az=113.0, Bougainville-Solomon Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **24.83** | **237** | P | P | 15 08 58.3 | -0.6 |
| | 0.7nm,0.5s,baz=60,slow=9.8,SNR=12 | | | | | | |
| **ASAR** | **Alice Springs** | **27.09** | **230** | P | P | 15 09 20.4 | +1.0 |
| | 0.2nm,0.6s,baz=58,slow=9.9,SNR=4.7 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **27.39** | **22** | T | T | 15 39 07.0 | |
| | baz=202,slow=76,SNR=33 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **27.39** | **22** | T | T | 15 39 09.8 | |
| | baz=202,slow=76,SNR=32 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **27.40** | **22** | T | T | 15 38 56.9 | |
| | baz=202,slow=76,SNR=9.6 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.58** | **21** | T | T | 15 40 38.8 | |
| | baz=194,slow=74 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.59** | **21** | T | T | 15 40 32.7 | |
| | baz=194,slow=74 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.60** | **21** | T | T | 15 40 35.1 | |
| | baz=194 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **61.95** | **295** | P | P | 15 13 56.5 | -0.4 |
| | 0.6nm,0.8s,baz=101,slow=4.7,SNR=4.2 | | | | | | |
| **SONM** | **Songino Array** | **70.07** | **327** | P | P | 15 14 50.1 | +1.4 |
| | 1.0nm,0.6s,baz=125,slow=6.6,SNR=6.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **84.28** | **318** | P | P | 15 16 08.9 | +0.5 |
| | 1.0nm,0.7s,baz=104,slow=5.7,SNR=9.7 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **84.93** | **326** | P | P | 15 16 11.0 | -0.6 |
| | 0.4nm,0.4s,baz=119,slow=8.9,SNR=3.3 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **87.69** | **321** | P | P | 15 16 24.0 | -1.2 |
| | 0.2nm,0.2s,baz=96,slow=5.8,SNR=3.3 | | | | | | |

*ISN* ***16*** *15:12:08.3*±*1.1, 38.97N*×*43.05E, h0*km*, 65*km*, ML3.7*

*ISK* ***16*** *15:12:15.9, 38.65N*×*43.07E, h5*km*, ML3.2*

*DDA* ***16*** *15:12:16.8, 38.63N*×*43.06E, h20*km*, Ml3.7*

*ISCJB* ***16*** *15:12:17.2*±*0.4, 38.63N*±*0.02*×*43.09E*±*0.02, h3*km±*3km, Error ellipse: s-maj=2.9km s-min=2.1km az=169.7*

*CSEM* ***16*** *15:12:17.4*±*0.1, 38.61N*×*43.05E, h5*km*, ML3.2, Error ellipse: s-maj=3.1km s-min=2.5km az=169.0*

*AZER* ***16*** *15:12:19.1*±*0.9, 38.44N*×*43.12E, h20*km*, Error ellipse: s-maj=9.0km s-min=6.9km az=29.0*

**ISC 16 15:12:17.7**±0.9, **38.63N**±0.01×**43.07E**±0.01, **h8**km±8km, **n111**,σ1§**23**/189, **23C-20D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.26** | **98** | PG | **Pg** | **15 12 23.0** | **+0.1** |
| VANB | | | | *e*SG | **Sb** | **15 12 28.3** | **-1.0** |
| **VANB** | **Van** | **0.26** | **98** | *i* Pg | **Pg** | **15 12 23.0** | **+0.1** |
| VANB | | | | *e*Sg | **Sb** | **15 12 28.3** | **-1.0** |
| **TVAN** | **Van** | **0.29** | **111** | ⇓*i* P | **Pg** | **15 12 23.6** | **+0.1** |
| TVAN | | | | *i* S | **Sg** | **15 12 28.8** | **+1.5** |
| **TVAN** | **Van** | **0.29** | **111** | P | **Pg** | **15 12 23.6** | **+0.1** |
| TVAN | | | | S | **Sg** | **15 12 28.8** | **+1.5** |
| **GEVA** | **Gevas** | **0.32** | **181** | ⇓*i* P | **Pg** | **15 12 23.3** | **-0.7** |
| GEVA | | | | *i* S | **Sg** | **15 12 28.5** | **+0.2** |
| **GEVA** | **Gevas** | **0.32** | **181** | P | **Pg** | **15 12 23.3** | **-0.7** |
| GEVA | | | | S | **Sg** | **15 12 28.5** | **+0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.32** | **304** | *i* P | **Pg** | **15 12 23.9** | **-0.2** |
| ADCV | | | | *i* S | **Sg** | **15 12 29.3** | **+0.9** |
| **ADCV** | **BITLIS_Adilcev** | **0.32** | **304** | P | **Pg** | **15 12 23.9** | **-0.2** |
| ADCV | | | | S | **Sg** | **15 12 29.3** | **+0.9** |
| **VMUR** | **Van-Muradiye** | **0.53** | **48** | ⇑*i* P | **Pg** | **15 12 27.9** | **-0.2** |
| VMUR | | | | *i* S | **Sb** | **15 12 36.5** | **-0.9** |
| **VMUR** | **Van-Muradiye** | **0.53** | **48** | P | **Pg** | **15 12 27.9** | **-0.2** |
| VMUR | | | | S | **Sb** | **15 12 36.5** | **-0.9** |
| **TUTA** | **Tutak** | **0.80** | **346** | ⇓*i* P | **Pg** | **15 12 31.9** | **-1.2** |
| TUTA | | | | *i* S | **Sg** | **15 12 42.5** | **-1.0** |
| **TUTA** | **Tutak** | **0.80** | **346** | P | **Pg** | **15 12 31.9** | **-1.2** |
| TUTA | | | | S | **Sg** | **15 12 42.5** | **-1.0** |
| **CLDR** | **Caldiran** | **0.84** | **52** | *e*PG | **Pg** | **15 12 32.9** | **-1.0** |
| CLDR | | | | *e*SG | **Sg** | **15 12 45.3** | **+0.4** |
| **CLDR** | **Caldiran** | **0.84** | **52** | ⇑*i* P | **Pg** | **15 12 32.7** | **-1.2** |
| CLDR | | | | *i* S | **Sb** | **15 12 45.9** | **-0.4** |
| **CLDR** | **Caldiran** | **0.84** | **52** | P | **Pg** | **15 12 32.7** | **-1.2** |
| **CLDR** | **Caldiran** | **0.84** | **52** | *e*Pg | **Pg** | **15 12 32.9** | **-1.0** |
| CLDR | | | | *e*Sg | **Sg** | **15 12 45.3** | **+0.4** |
| **BASK** | **Baskale_VAN** | **0.94** | **128** | *e*P | **Pg** | **15 12 34.0** | **-1.7** |
| BASK | | | | *i* S | **Sb** | **15 12 48.6** | **-0.4** |
| **BASK** | **Baskale_VAN** | **0.94** | **128** | P | **Pg** | **15 12 34.0** | **-1.7** |
| BASK | | | | S | **Sb** | **15 12 48.6** | **-0.4** |
| **AGRB** | **Hanur-Agry** | **0.95** | **357** | *e*PG | **Pg** | **15 12 34.7** | **-1.3** |
| **AGRB** | **Hanur-Agry** | **0.95** | **357** | *e*Pg | **Pg** | **15 12 34.7** | **-1.3** |
| **EKAR** | **Karacoban** | **1.00** | **309** | ⇓*i* P | **Pg** | **15 12 35.9** | **-1.1** |
| EKAR | | | | *i* S | **Sg** | **15 12 50.5** | **+0.5** |
| **EKAR** | **Karacoban** | **1.00** | **309** | P | **Pg** | **15 12 35.9** | **-1.1** |
| EKAR | | | | S | **Sg** | **15 12 50.5** | **+0.5** |
| **DYDN** | **Diyadin** | **1.03** | **28** | *i* P | **Pg** | **15 12 36.9** | **-0.7** |
| DYDN | | | | *i* S | **Sg** | **15 12 50.9** | **-0.1** |
| **DYDN** | **Diyadin** | **1.03** | **28** | P | **Pg** | **15 12 36.9** | **-0.7** |
| DYDN | | | | S | **Sg** | **15 12 50.9** | **-0.1** |
| **HAKT** | **HAKKARI** | **1.18** | **154** | ⇓*i* P | **Pb** | **15 12 38.5** | **-2.1** |
| HAKT | | | | *i* S | **Sn** | **15 13 02.1** | **+4.9** |
| **HAKT** | **HAKKARI** | **1.18** | **154** | P | **Pb** | **15 12 38.5** | **-2.1** |
| **SIRT** | **Sirnak** | **1.23** | **204** | *e*PN | **Pn** | **15 12 41.0** | **-0.2** |
| **SIRT** | **Sirnak** | **1.23** | **204** | *e*Pn | **Pn** | **15 12 41.1** | **-0.2** |
| **SIRN** | **S¨–rnak** | **1.24** | **205** | *i* P | **Pn** | **15 12 41.1** | **-0.3** |
| SIRN | | | | *i* S | **Sn** | **15 12 59.1** | **+0.6** |
| **SIRN** | **S¨–rnak** | **1.24** | **205** | P | **Pn** | **15 12 41.2** | **-0.3** |
| SIRN | | | | S | **Sn** | **15 12 59.1** | **+0.6** |
| **EATA** | **Eleskirt** | **1.31** | **340** | ⇓*i* P | **Pn** | **15 12 41.0** | **-1.6** |
| EATA | | | | *i* S | **Sb** | **15 12 59.9** | **+0.1** |
| **EATA** | **Eleskirt** | **1.31** | **340** | P | **Pn** | **15 12 41.0** | **-1.6** |
| EATA | | | | S | **Sb** | **15 12 59.9** | **+0.1** |
| **VRTB** | **Varto-Mus** | **1.36** | **293** | *e*PN | **Pn** | **15 12 42.3** | **-0.9** |
| **VRTB** | **Varto-Mus** | **1.36** | **293** | ⇓*i* P | **Pn** | **15 12 41.9** | **-1.3** |
| VRTB | | | | *i* S | **Sb** | **15 13 00.0** | **-1.2** |
| **VRTB** | **Varto-Mus** | **1.36** | **293** | P | **Pn** | **15 12 41.9** | **-1.3** |
| **VRTB** | **Varto-Mus** | **1.36** | **293** | *e*Pn | **Pn** | **15 12 42.3** | **-0.9** |
| VRTB | | | | S | **Sb** | **15 13 00.0** | **-1.2** |
| **CUKT** | **Cukurca** | **1.45** | **163** | *e*PN | **Pn** | **15 12 44.5** | **+0.2** |
| **CUKT** | **Cukurca** | **1.45** | **163** | *i* P | **Pn** | **15 12 43.6** | **-0.6** |
| CUKT | | | | *i* S | **Sg** | **15 13 06.8** | **+2.6** |
| **CUKT** | **Cukurca** | **1.45** | **163** | P | **Pn** | **15 12 43.7** | **-0.6** |
| **CUKT** | **Cukurca** | **1.45** | **163** | *e*Pn | **Pn** | **15 12 44.5** | **+0.2** |
| CUKT | | | | S | **Sg** | **15 13 06.8** | **+2.6** |
| **BNGL** | **BINGOL** | **1.53** | **283** | *i* P | **Pn** | **15 12 45.2** | **-0.4** |
| BNGL | | | | *i* S | **Sb** | **15 13 06.2** | **+0.1** |
| **BTMN** | **Batman** | **1.59** | **243** | ⇑*i* P | **Pn** | **15 12 46.2** | **-0.1** |
| BTMN | | | | *i* S | **Sb** | **15 13 07.9** | **+0.1** |
| **BTMN** | **Batman** | **1.59** | **243** | P | **Pn** | **15 12 46.2** | **-0.1** |
| BTMN | | | | S | **Sb** | **15 13 07.9** | **+0.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.63** | **34** | *e*PN | **Pn** | **15 12 46.5** | **-0.3** |
| **TASB** | **TASBURUN-IGDIR** | **1.63** | **34** | *e*Pn | **Pn** | **15 12 46.5** | **-0.3** |
| **HOMI** | **Horasan** | **1.68** | **328** | *i* P | **Pn** | **15 12 47.7** | **+0.1** |
| HOMI | | | | *i* S | **Sg** | **15 13 12.7** | **+1.1** |
| **HYR** | **Heyderabad** | **1.76** | **51** | ⇓P | **Pb** | **15 12 50.1** | **-0.2** |
| | SNR=2.8 | | | | | | |
| HYR | | | | ⇓S | **Sb** | **15 13 13.5** | **+0.8** |
| **HYR** | **Heyderabad** | **1.76** | **51** | P | **Pb** | **15 12 50.1** | **-0.2** |
| | SNR=2.8 | | | | | | |
| HYR | | | | S | **Sb** | **15 13 13.5** | **+0.8** |
| **DIGO** | **Kars** | **1.80** | **8** | *i* P | **Pn** | **15 12 49.3** | **0.0** |
| DIGO | | | | *i* S | **Sg** | **15 13 16.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **ZRD** | **Zardab** | **3.94** | **64** | ⇓P | **Pn** | **15 13 19.3** | **+0.9** |
| ZRD | | | | ⇑S | **Sn** | **15 14 06.0** | **+1.3** |
| **ZRD** | **Zardab** | **3.94** | **64** | P | **Pn** | **15 13 19.3** | **+0.9** |
| ZRD | | | | S | **Sn** | **15 14 06.1** | **+1.3** |
| **ZKTA** | **Zakatala** | **4.06** | **41** | ⇓P | **Pn** | **15 13 21.7** | **+1.6** |
| ZKTA | | | | ⇑S | **Sn** | **15 14 10.9** | **+3.1** |
| **SEKA** | **Sheki** | **4.09** | **50** | ⇑P | **Pn** | **15 13 22.5** | **+1.9** |
| SEKA | | | | ⇓S | **Sn** | **15 14 12.6** | **+3.9** |
| **SEKA** | **Sheki** | **4.09** | **50** | P | **Pn** | **15 13 22.5** | **+1.9** |
| SEKA | | | | S | **Sn** | **15 14 12.6** | **+3.9** |
| **LRK** | **Lerik** SNR=3.4 | **4.13** | **88** | ⇑P | **Pn** | **15 13 20.7** | **-0.5** |
| LRK | | | | ⇓S | **Sn** | **15 14 08.6** | **-1.2** |
| **LRK** | **Lerik** SNR=3.4 | **4.13** | **88** | P | **Pn** | **15 13 20.7** | **-0.5** |
| LRK | | | | S | **Sn** | **15 14 08.6** | **-1.2** |
| **GLBA** | **Clilabad** | **4.20** | **80** | ⇓P | **Pn** | **15 13 22.0** | **0.0** |
| GLBA | | | | ⇑S | **Sn** | **15 14 11.2** | **-0.1** |
| **GLBA** | **Clilabad** | **4.20** | **80** | P | **Pn** | **15 13 22.0** | **0.0** |
| GLBA | | | | S | **Sn** | **15 14 11.2** | **-0.1** |
| **KDMR** | **Kurdemir** | **4.33** | **65** | ⇓P | **Pn** | **15 13 24.3** | **+0.6** |
| KDMR | | | | ⇑S | **Sn** | **15 14 15.5** | **+1.2** |
| **KDMR** | **Kurdemir** | **4.33** | **65** | P | **Pn** | **15 13 24.3** | **+0.6** |
| KDMR | | | | S | **Sn** | **15 14 15.5** | **+1.2** |
| **SAAT** | **Saatly** | **4.34** | **72** | ⇓P | **Pn** | **15 13 23.8** | **-0.1** |
| SAAT | | | | ⇑S | **Sn** | **15 14 14.2** | **-0.4** |
| **SAAT** | **Saatly** | **4.34** | **72** | P | **Pn** | **15 13 23.8** | **-0.1** |
| SAAT | | | | S | **Sn** | **15 14 14.2** | **-0.4** |
| **QBL** | **Gabala** SNR=4.9 | **4.34** | **56** | ⇑P | **Pn** | **15 13 24.9** | **+0.9** |
| QBL | | | | ⇑S | **Sn** | **15 14 16.9** | **+2.0** |
| **QBL** | **Gabala** SNR=4.9 | **4.34** | **56** | P | **Pn** | **15 13 24.9** | **+0.9** |
| QBL | | | | S | **Sn** | **15 14 16.9** | **+2.0** |
| **LKRN** | **Lenkeran, Azer** SNR=14 | **4.47** | **87** | ⇑P | **Pn** | **15 13 25.5** | **-0.3** |
| LKRN | | | | ⇓S | **Sn** | **15 14 17.4** | **-0.6** |
| **LKRN** | **Lenkeran, Azer** SNR=14 | **4.47** | **87** | P | **Pn** | **15 13 25.5** | **-0.3** |
| LKRN | | | | S | **Sn** | **15 14 17.4** | **-0.6** |

*ISCJB* ***16*** *15:12:42.3±0.6, 7.76N±0.03×93.95E±0.03, h36km±5km, mb4.7/79, MS3.9/29, Error ellipse: s-maj=5.9km s-min=3.4km az=143.2*

*BJI* ***16*** *15:12:42.9, 7.56N×93.99E, h46km, mb4.6/50, mB5.0/37, Ms4.5/34, Ms7 4.2/36*

*MOS* ***16*** *15:12:42.2±1.2, 7.85N×93.98E, h33km, mb5.2/26, Error ellipse: s-maj=10.9km s-min=5.7km az=115.6*

*IDC* ***16*** *15:12:44.8±1.9, 7.80N×94.13E, h42km±17km, mb4.2/25, mb1 4.3/26, mb1mx4.2/38, mbtmp4.5/26, ML4.1/1, MS3.8/22, Ms1 3.8/22, ms1mx3.6/55, Error ellipse: s-maj=18.9km s-min=9.3km az=52.0*

*NEIC* ***16*** *15:12:44.1±0.2, 7.89N×94.13E, h35km, mb4.9/26, Error ellipse: s-maj=9.5km s-min=4.7km az=44.0*

*DJA* ***16*** *15:12:45.3±0.7, 8.1N±2.2×9.4E±.5, h33km±6km, M4.9/24, mb4.8/24, mB5.3/8, MLv5.1/8, Mw(mB)4.7/8*

*KLM* ***16*** *15:12:47.2, 7.39N×93.94E, h30km, mb4.7*

**ISC 16 15:12:43.8±0.9, 7.77N±0.04×93.92E±0.04, h32km±6km, n245, σ1.9 96/277, mb4.7/78, MS3.8/29, 26C-10D, Nicobar Islands region**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **LHMI** | **Lhok Sumawe** | **3.92** | **130** | P | | | **Pn** | **15 13 43.2** | **+1.3** |
| **LHMI** | **Lhok Sumawe** | **3.92** | **130** | *e*Pn | | | **Pn** | **15 13 42.3** | **+0.3** |
| **PBA** | **Port Blair** | **4.03** | **343** | *e*P | | | Pn | 15 13 41.0 | -2.5 |
| PBA | | | | *ex* | | | x | 15 14 17.3 | |
| **MLSI** | **Meulaboh, Aceh** | **4.26** | **144** | P | | | **Pn** | **15 13 48.0** | **+1.4** |
| MLSI | | | | S | | | **Sn** | **15 14 37.4** | **+2.0** |
| **DGPR** | **DIGLIPUR** | **5.46** | **350** | *e*P | | | **Pn** | **15 14 02.1** | **-1.0** |
| DGPR | | | | *e*S | | | **Sn** | **15 14 59.5** | **-5.4** |
| **TPTI** | | **5.53** | **144** | P | | | **Pn** | **15 14 03.9** | **-0.1** |
| TPTI | | | | S | | | **Sn** | **15 15 04.8** | **-1.7** |
| **KCSI** | **Kotacane, Aceh** | **5.70** | **138** | P | | | **Pn** | **15 14 08.7** | **+2.3** |
| **SNSI** | **Sinabang, Aceh** | **5.84** | **156** | P | | | **Pn** | **15 14 05.8** | **-2.5** |
| SNSI | | | | S | | | **Sn** | **15 15 12.2** | **-2.0** |
| **PSI** | **Prapat** 3.6nm,0.3s,baz=307,slow=10,SNR=9.9 | **7.01** | **134** | P | | | **Pn** | **15 14 25.4** | **+0.9** |
| PSI | 1.3nm,0.3s,baz=135,slow=9.9,SNR=1.3 | | | S | | | **Sn** | **15 15 42.9** | **-0.3** |
| PSI | comp=Z,2μm,18.6s,baz=298,slow=42 | | | LR | | | LR | 15 17 36.5 | |
| **PSI** | **Prapat** | **7.01** | **134** | *e*P | | | **Pn** | **15 14 26.5** | **+2.0** |
| PSI | | | | S | | | **Sn** | **15 15 42.9** | **-0.3** |
| **PSI** | **Prapat** | **7.01** | **134** | *e*Pn | | | **Pn** | **15 14 26.5** | **+2.0** |
| PSI | | | | S | | | **Sn** | **15 15 42.9** | **-0.3** |
| **KULM** | **Kulim** | **7.12** | **110** | ⇑P | | | **Pn** | **15 14 25.5** | **-0.4** |
| **KULM** | **Kulim** | **7.12** | **110** | *e*Pn | | | **Pn** | **15 14 23.9** | **-2.0** |
| KULM | | | | *e*Sn | | | **Sn** | **15 15 44.2** | **-1.7** |
| **GSI** | **Gunungsitoli** | **7.38** | **150** | P | | | Pn | 15 14 36.5 | +7.0 |
| GSI | | | | S | | | **Sn** | **15 15 49.0** | **-3.2** |
| **IPM** | **Ipoh** | **7.78** | **114** | ⇑P | | | **Pn** | **15 14 34.1** | **-0.9** |
| **IPM** | **Ipoh** | **7.78** | **114** | *e*Pn | | | **Pn** | **15 14 31.9** | **-3.1** |
| IPM | | | | *e*Sn | | | **Sn** | **15 15 58.9** | **-3.3** |
| **KTGM** | **Kuala Trenggan** | **9.47** | **104** | ⇓P | | | **Pn** | **15 14 58.9** | **+0.7** |
| **BKNI** | **Bangkinang** | **10.25** | **136** | P | | | Pn | 15 15 19.8 | +11 |
| **PDSI** | **Padang** | **10.81** | **143** | P | | | Pn | 15 15 24.9 | +8.3 |
| **CM01** | **Chiang Mai Arr** | **11.67** | **24** | *e*Pn | | | **Pn** | **15 15 32.2** | **+3.9** |
| **CM31** | **Chiang Mai Arr** | **11.70** | **24** | *e*Pn | | | **Pn** | **15 15 32.1** | **+3.5** |
| **CMAR** | **Chiang Mai Arr** 0.4nm,0.3s,baz=214,slow=13,SNR=56 | **11.70** | **24** | P | | | **Pn** | **15 15 31.6** | **+2.9** |
| CMAR | comp=Z,363nm,18.3s,baz=213,slow=38 | | | LR | | | LR | 15 20 01.2 | |
| CMAR | 0.1nm,0.3s,baz=230,slow=4.0,SNR=5.3 | | | ScP | | | **ScP** | **15 24 48.3** | **+0.2** |
| **CMAR** | **Chiang Mai Arr** | **11.70** | **24** | *i* P | | | **Pn** | **15 15 32.5** | **+3.9** |
| CMAR | comp=Z,11nm,0.9s | | | pmax | | | pmax | | |
| **CHTO** | **Chiang Mai** | **12.02** | **23** | *e*P | | | **Pn** | **15 15 34.1** | **+1.1** |
| **CHTO** | **Chiang Mai** | **12.02** | **23** | *e*Pn | | | **Pn** | **15 15 34.1** | **+1.1** |
| **PALK** | **Pallekele** comp=Z,1.0nm,0.3s,baz=24,slow=24,SNR=5.0 | **13.12** | **269** | P | | | **P** | **15 15 55.4** | **-2.4** |
| PALK | comp=Z,2.1nm,0.3s,baz=30,slow=23,SNR=6.6 | | | S | | | **Sn** | **15 18 06.5** | **-6.6** |
| PALK | comp=Z,999nm,18.7s,baz=116,slow=36 | | | LR | | | LR | 15 20 39.3 | |
| **VIS** | **Vishakhapatnam** | **14.30** | **315** | *e*P | | | **Pn** | **15 16 05.1** | **+0.9** |
| VIS | comp=Z,38nm,1.4s | | | AMB | | | AMB | 15 16 13.4 | |
| VIS | | | | *ex* | | | x | 15 18 34.8 | |
| **MDRS** | **Chennai** | **14.44** | **293** | *e*P | | | **Pn** | **15 16 08.0** | **+1.8** |
| **KSM** | **Kuching** | **17.48** | **110** | ⇓P | | | **P** | **15 16 47.4** | **+1.0** |
| **KSM** | **Kuching** comp=Z,36nm,1.1s | **17.48** | **110** | *e*Pn | | | **Pn** | **15 16 44.7** | **-0.7** |
| **BOK** | **Bokaro** | **17.70** | **335** | *e*P | | | **Pn** | **15 16 46.6** | **-1.4** |
| **HYB** | **Hyderabad** comp=Z,20nm,1.1s | **17.79** | **304** | *i* P | | | **P** | **15 16 52.0** | **+2.2** |
| HYB | | | | *e*S | | | **Sn** | **15 20 09.0** | **+2.3** |
| **HYB** | **Hyderabad** | **17.79** | **304** | *e*P | | | **Pn** | **15 16 46.5** | **-2.7** |
| **SHL** | **Shillong** | **17.81** | **354** | *e*P | | | **Pn** | **15 16 46.1** | **-3.4** |
| **SBUM** | **Sibu** | **18.97** | **105** | ⇓P | | | **Pn** | **15 17 04.7** | **+1.1** |
| **SBUM** | **Sibu** comp=Z,31nm,1.3s | **18.97** | **105** | *e*P | | | **Pn** | **15 17 05.6** | **+1.9** |
| **QIZ** | **Qiongzhong** | **19.09** | **53** | P | | | **P** | **15 17 00.5** | **-3.5** |
| QIZ | | | | S | | | **Sn** | **15 20 34.8** | **-3.3** |
| QIZ | comp=Z,2μm,11.1s | | | LR | | | LR | | |
| QIZ | comp=Z,920nm,9.3s | | | LR | | | LR | | |
| **STKI** | **Sintang** comp=Z,20nm,1.1s | **19.10** | **113** | P | | | **Pn** | **15 17 09.7** | **+4.5** |
| **KMI** | **Kunming** | **19.20** | **25** | P | | | **Pn** | **15 17 07.3** | **+0.7** |
| KMI | | | | pP | | | sP | 15 17 16.4 | -1.6 |
| KMI | | | | sP | | | pP | 15 17 22.3 | +8.4 |
| KMI | | | | S | | | **S** | **15 20 41.3** | **-0.2** |
| KMI | | | | sS | | | sS | 15 20 57.0 | +1.9 |
| KMI | comp=Z,20nm,1.0s | | | pmax | | | pmax | | |
| KMI | comp=Z,79nm,4.8s | | | pmax | | | pmax | | |
| KMI | comp=Z,850nm,10.7s | | | LR | | | LR | | |
| KMI | comp=Z,540nm,10.7s | | | LR | | | LR | | |
| KMI | comp=Z,470nm,11.8s | | | LR | | | LR | | |
| **NGP** | **Nagpur** | **19.58** | **314** | *e*P | | | **P** | **15 17 09.1** | **-0.3** |
| **BTM** | **Bintulu** | **19.60** | **102** | ⇑P | | | **Pn** | **15 17 12.9** | **+1.7** |
| **ODAN** | **Odare** comp=Z,37nm,0.5s | **19.98** | **343** | *e*P | | | **P** | **15 17 14.1** | **+0.2** |
| **RAMN** | **Ramite** | **20.30** | **341** | *e*P | | | **P** | **15 17 18.1** | **+0.6** |
| | comp=Z,220nm,1.0s | | | | | | | | |
| **JBP** | **Jabalpur** | **20.34** | **320** | *e*P | | | **P** | **15 17 18.1** | **+0.5** |
| JBP | | | | *ex* | | | x | 15 17 22.1 | |
| **TAPN** | **Taplejung** comp=Z,79nm,0.5s | **20.35** | **344** | *e*P | | | **P** | **15 17 18.1** | **+0.1** |
| **JIRN** | **Jiri** | **21.10** | **341** | *e*P | | | **P** | **15 17 26.1** | **-0.1** |
| **PKI** | **Pulchoki** comp=Z,44nm,0.5s | **21.28** | **339** | *e*P | | | **P** | **15 17 27.9** | **-0.3** |
| **PKIN** | **Phulchoki** comp=Z,40nm,0.5s | **21.29** | **339** | *e*P | | | **P** | **15 17 27.9** | **-0.3** |
| **DMN** | **Daman** comp=Z,72nm,0.9s | **21.43** | **338** | *e*P | | | **P** | **15 17 29.6** | **0.0** |
| **GUN** | **Gumba** comp=Z,127nm,0.7s | **21.43** | **340** | *e*P | | | **P** | **15 17 29.6** | **-0.2** |
| **KKN** | **Kakani** comp=Z,33nm,0.5s | **21.53** | **339** | *e*P | | | **P** | **15 17 30.4** | **-0.3** |
| **LSA** | **Lhasa** | **21.97** | **354** | P | | | **P** | **15 17 34.9** | **-0.8** |
| LSA | comp=Z,28nm,1.0s | | | pmax | | | pmax | | |
| **LSA** | **Lhasa** comp=Z,43nm,0.6s | **21.97** | **354** | *e*P | | | **P** | **15 17 34.7** | **-1.0** |
| LSA | comp=Z,43nm,0.6s | | | pmax | | | pmax | | |
| **LSA** | **Lhasa** comp=Z,43nm,0.6s | **21.97** | **354** | *e*P | | | **P** | **15 17 34.7** | **-1.0** |
| **BHPL** | **Bhopal** | **22.08** | **316** | *e*P | | | **P** | **15 17 37.9** | **+1.5** |
| **KOLN** | **Koldanda** comp=Z,140nm,0.9s | **22.16** | **335** | *e*P | | | **P** | **15 17 37.6** | **+0.1** |
| **GYA** | **Guiyang** | **22.19** | **32** | ⇑ *i* P | | | **P** | **15 17 44.4** | **+6.7** |
| GYA | | | | pP | | | sP | 15 17 50.3 | +0.1 |
| GYA | | | | PP | | | **PnPn** | **15 18 06.4** | **+5.8** |
| GYA | | | | S | | | **S** | **15 21 33.0** | **-7.5** |
| GYA | | | | sS | | | sS | 15 21 54.6 | +0.2 |
| GYA | | | | SS | | | **SnSn** | **15 22 16.8** | **+8.1** |
| GYA | comp=Z,30nm,1.0s | | | pmax | | | pmax | | |
| GYA | comp=Z,120nm,5.0s | | | pmax | | | pmax | | |
| GYA | comp=N,620nm,16.8s | | | LR | | | LR | | |
| GYA | comp=E,580nm,17.0s | | | LR | | | LR | | |
| GYA | comp=Z,610nm,17.2s | | | LR | | | LR | | |
| **KKM** | **Kota Kinabalu** | **22.20** | **93** | ⇓P | | | **P** | **15 17 41.3** | **+3.4** |
| **KKM** | **Kota Kinabalu** comp=Z,84nm,1.4s | **22.20** | **93** | *e*P | | | **P** | **15 17 35.9** | **-2.0** |
| **POO** | **Poona** | **22.25** | **301** | *e*P | | | **P** | **15 17 38.8** | **+0.4** |
| **DANN** | **Dangsing** comp=Z,6.6nm,0.9s | **22.61** | **336** | *e*P | | | **P** | **15 17 42.1** | **-0.3** |
| **MTKI** | **Muara Teweh, K** | **22.64** | **112** | P | | | **P** | **15 17 45.7** | **+3.2** |
| **PYUN** | **Piuthan** comp=Z,122nm,0.8s | **22.71** | **334** | *e*P | | | **P** | **15 17 43.2** | **-0.1** |
| **KDM** | **Kudat** | **22.74** | **91** | ⇑P | | | **P** | **15 17 47.1** | **+3.6** |
| **SDKM** | **Sandakan** | **23.21** | **94** | ⇑P | | | **P** | **15 17 51.0** | **+2.6** |
| **MYLDM** | **Lahad Datu** comp=Z,177nm,1.6s | **24.55** | **95** | *e*P | | | **P** | **15 18 03.7** | **+2.6** |
| **CD2** | **Chengdu** | **24.80** | **20** | *e*P | | | **P** | **15 18 03.6** | **+0.5** |
| CD2 | | | | pP | | | sP | 15 18 14.3 | -1.8 |
| CD2 | | | | sP | | | pP | 15 18 21.1 | +8.8 |
| CD2 | | | | PP | | | **PnPn** | **15 18 37.3** | **+1.1** |
| CD2 | | | | S | | | **S** | **15 22 17.3** | **-6.4** |
| CD2 | | | | sS | | | sS | 15 22 41.8 | +3.0 |
| CD2 | | | | SS | | | **SnSn** | **15 23 17.0** | **+4.7** |
| CD2 | comp=Z,20nm,0.6s | | | pmax | | | pmax | | |
| CD2 | comp=Z,210nm,6.6s | | | pmax | | | pmax | | |
| CD2 | comp=Z,780nm,9.5s | | | LR | | | LR | | |
| CD2 | comp=Z,880nm,8.5s | | | LR | | | LR | | |
| CD2 | comp=Z,870nm,10.5s | | | LR | | | LR | | |
| **BLJI** | **Banyuglugur** | **24.94** | **128** | P | | | **P** | **15 18 06.5** | **+2.0** |
| **DGAR** | **Diego Garcia** | **26.18** | **235** | *i* P | | | **P** | **15 18 15.9** | **+0.1** |
| **H08S3** | **Diego Garcia H** baz=54,slow=76,SNR=747 | **26.28** | **235** | T | | | T | 15 45 08.4 | |
| **H08S2** | **Diego Garcia H** baz=54,slow=76,SNR=276 | **26.28** | **235** | T | | | T | 15 44 53.9 | |
| **H08S1** | **Diego Carcia H** baz=54,slow=76,SNR=34 | **26.30** | **235** | T | | | T | 15 44 56.9 | |
| **MPSI** | **Mapaga** comp=Z,19nm,1.0s | **26.93** | **105** | P | | | **P** | **15 18 24.1** | **+1.6** |
| **SMLA** | **Simla** | **28.02** | **328** | *e*P | | | **P** | **15 18 31.7** | **-0.5** |
| SMLA | comp=Z,22nm,1.5s | | | AMB | | | AMB | 15 18 40.7 | |
| **MRSI** | **Marisa** | **28.85** | **103** | P | | | **P** | **15 18 42.2** | **+2.4** |
| **DHRM** | **DHARAMSHALA** | **29.36** | **328** | *e*P | | | **P** | **15 18 43.6** | **-0.7** |
| **LZH** | **Lanzhou** | **29.61** | **16** | *e*P | | | **P** | **15 18 46.9** | **+0.5** |
| LZH | | | | pP | | | sP | 15 18 58.5 | -1.0 |
| LZH | | | | sP | | | pP | 15 19 03.3 | +7.6 |
| LZH | | | | PP | | | **PnPn** | **15 19 45.6** | **+3.6** |
| LZH | | | | *e*S | | | **S** | **15 23 37.1** | **-2.8** |
| LZH | | | | sS | | | sS | 15 23 58.3 | +3.2 |
| LZH | | | | SS | | | **SnSn** | **15 25 15.3** | **+5.4** |
| LZH | comp=Z,24nm,1.2s | | | pmax | | | pmax | | |
| LZH | comp=Z,180nm,7.2s | | | pmax | | | pmax | | |
| LZH | comp=Z,410nm,13.2s | | | LR | | | LR | | |
| LZH | comp=Z,350nm,13.1s | | | LR | | | LR | | |
| LZH | comp=Z,450nm,15.1s | | | LR | | | LR | | |
| **WHN** | **Wuhan** | **29.65** | **37** | *e*P | | | **P** | **15 18 47.8** | **+1.1** |
| WHN | | | | S | | | **S** | **15 23 40.8** | **+0.5** |
| WHN | comp=Z,1μm,11.5s | | | LR | | | LR | | |
| **THN** | **Thein Dam** | **29.81** | **328** | *e*P | | | **P** | **15 18 46.0** | **-2.0** |
| **GTA** | **Gaotai** | **31.95** | **9** | *e*P | | | **P** | **15 19 07.5** | **+0.5** |
| GTA | | | | PcP | | | **PcP** | **15 21 56.9** | **+0.1** |
| GTA | | | | S | | | **S** | **15 24 15.8** | **-0.6** |
| GTA | | | | ScP | | | **ScP** | **15 25 38.8** | **+0.6** |
| GTA | | | | ScS | | | **ScS** | **15 29 35.0** | **-1.7** |
| GTA | comp=Z,9.0nm,1.1s | | | pmax | | | pmax | | |
| GTA | comp=Z,150nm,5.5s | | | pmax | | | pmax | | |
| GTA | comp=Z,140nm,14.7s | | | LR | | | LR | | |
| GTA | comp=Z,190nm,15.2s | | | LR | | | LR | | |
| GTA | comp=Z,140nm,17.1s | | | LR | | | LR | | |
| **NJ2** | **Nanjing** | **33.49** | **40** | *e*P | | | **P** | **15 19 21.1** | **+0.7** |
| NJ2 | comp=Z,13nm,0.8s | | | pmax | | | pmax | | |
| **KBL** | **Kabul** | **35.12** | **323** | *e*P | | | **P** | **15 19 35.3** | **+0.5** |
| KBL | comp=Z,10.0nm,0.8s | | | pmax | | | pmax | | |
| **KBL** | **Kabul** comp=Z,10nm,0.8s | **35.12** | **323** | *e*P | | | **P** | **15 19 35.3** | **+0.5** |
| **KSH** | **Kashi** | **35.48** | **336** | P | | | **P** | **15 19 41.8** | **+4.1** |
| KSH | | | | pP | | | sP | 15 19 53.4 | +2.5 |
| KSH | | | | PP | | | **PP** | **15 21 02.6** | **+4.0** |
| KSH | | | | PcP | | | **PcP** | **15 22 09.3** | **+2.5** |
| KSH | | | | S | | | **S** | **15 25 13.4** | **+2.3** |
| KSH | | | | SS | | | **SnSn** | **15 27 34.5** | **+2.2** |
| KSH | | | | ScS | | | **ScS** | **15 29 54.4** | **-0.8** |
| KSH | comp=Z,8.0nm,0.5s | | | pmax | | | pmax | | |
| KSH | comp=Z,52nm,3.7s | | | pmax | | | pmax | | |
| KSH | comp=Z,150nm,5.3s | | | LR | | | LR | | |
| KSH | comp=Z,130nm,6.0s | | | LR | | | LR | | |
| KSH | comp=Z,160nm,6.7s | | | LR | | | LR | | |
| **GIRL** | **Giralia** baz=36 | **36.18** | **147** | P | | | **P** | **15 19 42.9** | **-0.8** |
| **WMQ** | **Urumqi** | **36.32** | **352** | P | | | **P** | **15 19 45.6** | **+0.8** |
| WMQ | | | | pP | | | sP | 15 19 58.5 | +0.5 |
| WMQ | | | | sP | | | pP | 15 20 03.8 | +10 |
| WMQ | comp=Z,35nm,0.9s | | | pmax | | | pmax | | |
| WMQ | comp=Z,480nm,5.9s | | | pmax | | | pmax | | |
| WMQ | comp=Z,180nm,24.5s | | | LR | | | LR | | |
| WMQ | comp=Z,630nm,28.5s | | | LR | | | LR | | |
| WMQ | comp=Z,260nm,24.5s | | | LR | | | LR | | |
| **HHC** | **Hu-ho-hao-te** | **36.50** | **23** | *e*P | | | **P** | **15 19 45.1** | **-1.3** |
| HHC | | | | pP | | | pP | 15 19 57.3 | +1.6 |
| HHC | | | | sP | | | sP | 15 20 02.6 | +3.0 |
| HHC | | | | S | | | **S** | **15 25 23.3** | **-3.3** |
| HHC | | | | PcS | | | **PcS** | **15 25 54.8** | **-2.9** |
| HHC | comp=Z,9.0nm,0.9s | | | pmax | | | pmax | | |
| HHC | comp=Z,98nm,13.6s | | | LR | | | LR | | |
| HHC | comp=Z,320nm,11.1s | | | LR | | | LR | | |
| HHC | comp=Z,110nm,12.3s | | | LR | | | LR | | |
| **SFK** | **Sufi-Kurgan** | **36.94** | **334** | P | | | **P** | **15 19 50.8** | **+0.5** |
| SFK | comp=Z,18nm,1.1s | | | pmax | | | pmax | | |
| **WSAR** | **Wadi Sarin** comp=Z,3.7nm,1.0s,baz=162,slow=3.2,SNR=3.2 | **37.19** | **298** | P | | | **P** | **15 19 55.2** | **+2.8** |
| WSAR | comp=Z,196nm,21.6s,baz=128,slow=34 | | | LR | | | LR | 15 33 44.5 | |
| **BJI** | **Beijing** | **37.80** | **28** | P | | | **P** | **15 19 58.9** | **+1.6** |
| BJI | comp=Z,10.0nm,1.0s | | | pmax | | | pmax | | |
| BJI | comp=Z,150nm,20.2s | | | LR | | | LR | | |
| **SWI** | **Sorong** | **38.21** | **101** | P | | | **P** | **15 20 02.2** | **+1.1** |
| **SWI** | **Sorong** | **38.21** | **101** | P | | | **P** | **15 20 03.2** | **+2.1** |
| SWI | comp=Z,20nm,1.0s | | | pmax | | | pmax | | |
| **AAK** | **Ala-Archa** comp=Z,5.2nm,0.9s,baz=152,slow=8.2,SNR=10 | **38.72** | **337** | P | | | **P** | **15 20 06.0** | **+0.8** |
| **AAK** | **Ala-Archa** | **38.72** | **337** | *i* P | | | **P** | **15 20 05.1** | **-0.1** |
| AAK | comp=Z,8.0nm,1.0s | | | pmax | | | pmax | | |
| **AAK** | **Ala-Archa** comp=Z,7.5nm,0.8s | **38.72** | **337** | *e*P | | | **P** | **15 20 05.7** | **+0.4** |
| **MNAS** | **Manas** | **39.40** | **335** | P | | | **P** | **15 20 11.7** | **+0.8** |
| MNAS | comp=Z,10.0nm,0.7s | | | pmax | | | pmax | | |
| **UOSS** | **Minazif** comp=Z,17nm,1.4s | **39.83** | **300** | *e*P | | | **P** | **15 20 17.4** | **+2.8** |
| **MK01** | **Makanchi Array** | **40.12** | **348** | *e*P | | | **P** | **15 20 15.9** | **-0.8** |
| **MK31** | **Makanchi Array** | **40.14** | **348** | *e*P | | | **P** | **15 20 14.1** | **-2.8** |
| **MK31** | **Makanchi Array** | **40.14** | **348** | *e*P | | | **P** | **15 20 14.1** | **-2.8** |
| **MKAR** | **Makanchi Array** comp=Z,2.0nm,0.7s,baz=168,slow=7.9,SNR=21 | **40.14** | **348** | P | | | **P** | **15 20 16.5** | **-0.4** |
| MKAR | comp=Z,135nm,18.4s,baz=152,slow=41 | | | LR | | | LR | 15 40 17.1 | |
| **FITZ** | **Fitzroy Crossi** comp=Z,4.1nm,0.9s,baz=314,slow=5.5,SNR=7.6 | **40.51** | **130** | P | | | **P** | **15 20 18.3** | **-1.9** |
| FITZ | comp=Z,99nm,20.9s,baz=300,slow=37 | | | LR | | | LR | 15 37 37.8 | |
| **FITZ** | **Fitzroy Crossi** baz=40,SNR=5.7 | **40.51** | **130** | P | | | **P** | **15 20 18.6** | **-1.7** |
| **SONM** | **Songino Array** comp=Z,7.0nm,0.9s,baz=196,slow=8.9,SNR=30 | **41.31** | **13** | P | | | **P** | **15 20 27.0** | **+0.4** |
| SONM | comp=Z,3.4nm,1.2s,baz=182,slow=4.6,SNR=3.4 | | | PcP | | | **PcP** | **15 22 25.0** | **+0.2** |
| SONM | comp=Z,130nm,19.0s,baz=182,slow=38 | | | LR | | | LR | 15 38 56.1 | |
| **SONA1** | **Songino Array** | **41.33** | **13** | *e*P | | | **P** | **15 20 26.6** | **-0.1** |
| **ULN** | **Ulaanbaatar** | **41.49** | **13** | *ce*P | | | **P** | **15 20 28.2** | **+0.1** |
| ULN | comp=Z,6.0nm,1.0s | | | pmax | | | pmax | | |
| **ULN** | **Ulaanbaatar** comp=Z,5.0nm,0.9s | **41.49** | **13** | P | | | **P** | **15 20 26.4** | **-1.7** |
| **DGZ** | **Jazzator, Alta** | **42.15** | **354** | *i* P | | | **P** | **15 20 32.7** | **-0.8** |
| DGZ | comp=Z,2.0nm,1.0s | | | pmax | | | pmax | | |
| **ZAK** | **Zakamensk** comp=Z,3.0nm,1.2s | **43.19** | **9** | *e*P | | | **P** | **15 20 39.6** | **-2.2** |
| ZAK | | | | pmax | | | pmax | | |
| **HVS** | **Khovu-Aksy** comp=Z,21nm,0.9s | **43.23** | **360** | *i* P | | | **P** | **15 20 40.4** | **-1.8** |
| HVS | | | | pmax | | | pmax | | |
| **GEYT** | **Alibeck** comp=Z,8.4nm,0.7s,baz=144,slow=8.0,SNR=18 | **44.13** | **318** | P | | | **P** | **15 20 50.6** | **+1.1** |
| GEYT | comp=Z,104nm,22.0s,baz=110,slow=38 | | | LR | | | LR | 15 40 36.7 | |
| **KURBB** | **Kurchatov Arra** comp=Z,3.8nm,0.8s,baz=165,slow=7.2,SNR=31 | **44.60** | **346** | P | | | **P** | **15 20 53.1** | **+0.2** |
| KURBB | comp=Z,2.5nm,0.9s,baz=161,slow=2.9,SNR=5.6 | | | PcP | | | **PcP** | **15 22 35.0** | **-0.5** |
| **KURK** | **Kurchatov** | **44.66** | **346** | *ce*P | | | **P** | **15 20 53.8** | **+0.3** |
| KURK | comp=Z,69nm,1.7s | | | pmax | | | pmax | | |
| **KURK** | **Kurchatov** comp=Z,24nm,1.4s | **44.66** | **346** | *e*P | | | **P** | **15 20 52.7** | **-0.8** |
| KURK | | | | PcP | | | **PcP** | **15 22 35.0** | **-0.8** |
| **MUN** | **Mundaring** baz=45,SNR=3.3 | **44.89** | **153** | P | | | **P** | **15 20 56.3** | **+0.7** |
| **KLBR** | **Kellerberrin** baz=46 | **45.29** | **151** | P | | | **P** | **15 20 58.2** | **-0.6** |
| **NWAO** | **Narrogin (SRO)** comp=Z,8.2nm,0.9s,baz=315,slow=2.9,SNR=3.2 | **46.15** | **153** | P | | | **P** | **15 21 05.2** | **-0.3** |
| **NWAO** | **Narrogin (SRO)** baz=46 | **46.15** | **153** | P | | | **P** | **15 21 05.3** | **-0.3** |
| NWAO | baz=46 | | | P | | | **P** | **15 21 05.3** | **-0.3** |
| **ZAA0** | **Zalesovo Array** comp=Z,27nm,1.0s | **46.63** | **353** | *e*P | | | **P** | **15 21 09.0** | **-0.1** |
| **ZALV** | **Zalesovo Beam** comp=Z,8.8nm,0.3s,baz=169,slow=8.5,SNR=66 | **46.63** | **353** | P | | | **P** | **15 21 09.3** | **+0.3** |
| ZALV | comp=Z,1.2nm,0.9s,baz=256,slow=3.1,SNR=4.5 | | | ScP | | | **ScP** | **15 26 34.2** | **+0.2** |
| ZALV | comp=Z,126nm,19.0s,baz=244,slow=42 | | | LR | | | LR | 15 45 07.5 | |
| **ZALV** | **Zalesovo Beam** | **46.63** | **353** | *e*P | | | **P** | **15 21 08.4** | **-0.7** |
| **ZALV** | **Zalesovo Beam** | **46.63** | **353** | *e*P | | | **P** | **15 21 08.3** | **-0.7** |
| ZALV | | | | ScP | | | **ScP** | **15 26 34.2** | **+0.2** |
| **NVS** | **Novosibirsk** | **47.72** | **352** | ⇑ *i*P | | | **P** | **15 21 17.4** | **-0.1** |
| NVS | comp=Z,25nm,0.9s | | | pmax | | | pmax | | |
| NVS | comp=N,14nm,0.7s | | | pmax | | | pmax | | |
| NVS | comp=E,6.0nm,0.7s | | | P | | | **P** | **15 21 05.3** | **-0.3** |
| **WRA** | **Warramunga Arr** comp=E,4.1nm,0.8s,baz=305,slow=8.4,SNR=57 | **48.38** | **125** | P | | | **P** | **15 21 21.4** | **-1.7** |
| WRA | comp=E,0.9nm,0.7s,baz=311,slow=3.1,SNR=2.2 | | | PcP | | | **PcP** | **15 22 49.2** | **-0.2** |
| WRA | comp=E,1.7nm,1.1s,baz=303,slow=4.1,SNR=4.9 | | | ScP | | | **ScP** | **15 26 38.4** | **-3.7** |
| WRA | comp=E,91nm,19.1s,baz=280,slow=38 | | | LR | | | LR | 15 42 54.0 | |
| **WRAB** | **Tennant Creek** | **48.38** | **125** | *e*P | | | **P** | **15 21 21.9** | **-1.3** |
| WRAB | comp=Z,6.0nm,0.7s | | | pmax | | | pmax | | |
| **WRAB** | **Tennant Creek** comp=Z,6.3nm,0.7s | **48.38** | **125** | *e*P | | | **P** | **15 21 21.9** | **-1.3** |
| **WB2** | **Warramunga Arr** | **48.39** | **125** | *e*P | | | **P** | **15 21 22.2** | **-1.1** |
| **RAYN** | **Ar Rayn** comp=Z,29nm,0.9s | **48.93** | **294** | P | | | **P** | **15 21 28.2** | **+0.8** |
| **BVAR** | **Borovoye Array** comp=Z,118nm,20.4s,baz=234,slow=39 | **49.02** | **341** | LR | | | LR | 15 44 48.7 | |
| **BRVK** | **Borovoye** comp=Z,2.0nm,1.1s | **49.08** | **341** | *ce*P | | | **P** | **15 21 27.5** | **-0.5** |
| BRVK | | | | pmax | | | pmax | | |
| **USRK** | **Ussuriysk Ar.** comp=Z,136nm,18.2s,baz=235,slow=38 | **49

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **GNI** | **Garni** | **54.36** | **314** | *e*P | **P** | **15 22 08.3** | **+0.4** |
| | comp=Z,27nm,1.1s | | | | | | | |
| **SVE** | **Sverdlovsk** | **55.42** | **339** | ⇓*i*P | **P** | **15 22 15.5** | **+0.4** |
| SVE | | | | pmax | pmax | | | |
| | comp=Z,17nm,0.8s | | | | | | | |
| **PMG** | **Port Moresby** | **55.71** | **107** | *ce*P | **P** | **15 22 18.1** | **+0.3** |
| PMG | | | | pmax | pmax | | | |
| | comp=Z,61nm,1.1s | | | | | | | |
| **ARU** | **Arti** | **55.90** | **337** | *d i*P | **P** | **15 22 18.2** | **-0.4** |
| ARU | | | | | | 15 24 17.9 | | |
| ARU | | | | S | **S** | **15 30 06.3** | **+2.3** |
| ARU | | | | pmax | pmax | | | |
| | comp=Z,19nm,1.7s | | | | | | | |
| **ARU** | **Arti** | **55.90** | **337** | *e*P | **P** | **15 22 18.1** | **-0.4** |
| | comp=Z,29nm,1.5s | | | | | | | |
| **ZEI** | **Tsey** | **55.97** | **317** | *e*P | **P** | **15 22 18.5** | **-1.1** |
| ZEI | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.8s | | | | | | | |
| **BBOO** | **Buckleboo** | **56.88** | **138** | P | **P** | **15 22 26.2** | **+0.3** |
| | baz=57 | | | | | | | |
| **KBZ** | **Khabaz** | **57.02** | **318** | P | **P** | **15 22 25.6** | **-1.1** |
| | comp=Z,3.3nm,0.9s,baz=87,slow=6.0,SNR=5.4 | | | | | | | |
| **KMBO** | **Kilima Mbogo** | **57.20** | **264** | P | **P** | **15 22 31.1** | **+2.3** |
| | comp=Z,6.3nm,0.9s,baz=48,slow=9.4,SNR=13 | | | | | | | |
| KMBO | | | | LR | LR | 15 44 14.3 | | |
| | comp=Z,59nm,18.9s,baz=92,slow=33 | | | | | | | |
| **KMBO** | **Kilima Mbogo** | **57.20** | **264** | *e*P | **P** | **15 22 31.1** | **+2.3** |
| KMBO | | | | pmax | pmax | | | |
| | comp=Z,12nm,1.1s | | | | | | | |
| **KMBO** | **Kilima Mbogo** | **57.20** | **264** | *e*P | **P** | **15 22 31.1** | **+2.3** |
| | comp=Z,12nm,1.1s | | | | | | | |
| **KIV** | **Kislovodsk** | **57.25** | **318** | *i*P | **P** | **15 22 26.4** | **-2.1** |
| KIV | | | | *i* | | 15 22 33.9 | | |
| KIV | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,0.8s | | | | | | | |
| KIV | | | | MLR | MLR | | | |
| | comp=Z,75nm,18.0s | | | | | | | |
| **KIV** | **Kislovodsk** | **57.25** | **318** | *e*P | **P** | **15 22 27.8** | **-0.7** |
| | comp=Z,13nm,0.8s | | | | | | | |
| **NKL** | **Nikolayevsk** | **58.93** | **31** | *e*P | **P** | **15 22 41.0** | **+1.1** |
| **QLP** | **Quilpie** | **59.54** | **127** | P | **P** | **15 22 44.1** | **-0.5** |
| | baz=60,SNR=12 | | | | | | | |
| **YAK** | **Yakutsk** | **60.16** | **19** | *e*P | **P** | **15 22 45.2** | **-3.1** |
| YAK | | | | pmax | pmax | | | |
| | comp=Z,14nm,0.9s | | | | | | | |
| YAK | | | | pmax | pmax | | | |
| | comp=N,5.0nm,1.0s | | | | | | | |
| YAK | | | | pmax | pmax | | | |
| | comp=E,6.0nm,1.1s | | | | | | | |
| **YAK** | **Yakutsk** | **60.16** | **19** | *e*P | **P** | **15 22 45.3** | **-2.9** |
| | comp=E,25nm,1.1s | | | | | | | |
| **STKA** | **Stephens Creek** | **60.19** | **134** | P | **P** | **15 22 46.0** | **-2.9** |
| | comp=E,1.2nm,0.5s,baz=290,slow=14,SNR=3.1 | | | | | | | |
| **STKA** | **Stephens Creek** | **60.19** | **134** | P | **P** | **15 22 48.5** | **-0.5** |
| | baz=60 | | | | | | | |
| **BR131** | **Keskin Array S** | **62.33** | **311** | *e*P | **P** | **15 23 01.3** | **-2.3** |
| **BRTR** | **Keskin Array B** | **62.33** | **311** | P | **P** | **15 23 02.4** | **-1.3** |
| | comp=E,2.5nm,0.7s,baz=120,slow=7.3,SNR=15 | | | | | | | |
| BRTR | | | | LR | LR | 15 52 44.0 | | |
| | comp=E,37nm,19.4s,baz=96,slow=38 | | | | | | | |
| **VSR** | **Storozhevoye** | **62.35** | **325** | *i*P | **P** | **15 23 02.2** | **-1.1** |
| VSR | | | | pmax | pmax | | | |
| | comp=Z,90nm,0.9s | | | | | | | |
| **CMSA** | **Cobar Meteorol** | **63.02** | **131** | P | **P** | **15 23 06.2** | **-1.9** |
| | baz=63 | | | | | | | |
| **RMQ** | **Roma** | **63.13** | **125** | P | **P** | **15 23 08.9** | **-0.1** |
| | baz=63 | | | | | | | |
| **MOS** | **Moscow** | **65.06** | **329** | *e*P | P | 15 23 26.5 | +5.5 |
| MOS | | | | pmax | pmax | | | |
| | comp=Z,52nm,0.8s | | | | | | | |
| **OBN** | **Obninsk** | **65.35** | **328** | *i*P | **P** | **15 23 21.7** | **-1.2** |
| OBN | | | | *i* | | 15 23 27.6 | | |
| OBN | | | | *i* | | 15 23 52.6 | | |
| OBN | | | | pmax | pmax | | | |
| | comp=Z,39nm,1.7s | | | | | | | |
| OBN | | | | MLR | MLR | | | |
| | comp=Z,104nm,18.0s | | | | | | | |
| **TOO** | **Toolangi** | **65.93** | **137** | P | **P** | **15 23 27.2** | **+0.2** |
| | baz=66,SNR=4.1 | | | | | | | |
| **KLMR** | **Klimovskoe** | **66.46** | **334** | *e*P | **P** | **15 23 25.9** | **-4.1** |
| KLMR | | | | pmax | pmax | | | |
| | comp=Z,37nm,1.5s | | | | | | | |
| **CAN** | **Canberra** | **67.26** | **133** | P | **P** | **15 23 35.1** | **-0.5** |
| | baz=67 | | | | | | | |
| **TIXI** | **Tiksi** | **67.38** | **11** | ⇑*e*P | **P** | **15 23 35.1** | **-0.5** |
| TIXI | | | | pmax | pmax | | | |
| | comp=Z,30nm,1.6s | | | | | | | |
| **TIXI** | **Tiksi** | **67.38** | **11** | *e*P | **P** | **15 23 34.7** | **-0.9** |
| | comp=Z,48nm,1.6s | | | | | | | |
| **AKASG** | **Malin Array Be** | **68.10** | **322** | P | **P** | **15 23 39.3** | **-1.3** |
| | comp=Z,1.7nm,0.7s,baz=87,slow=5.4,SNR=8.3 | | | | | | | |
| AKASG | | | | LR | LR | 15 56 01.2 | | |
| | comp=Z,43nm,20.7s,baz=25,slow=38 | | | | | | | |
| **VRI** | **Vrincioaia** | **68.63** | **316** | ⇑*i*P | **P** | **15 23 44.3** | **+0.3** |
| **VRI** | **Vrincioaia** | **68.63** | **316** | ⇑P | **P** | **15 23 44.3** | **+0.3** |
| **TMCR** | **Tamitsa** | **68.64** | **337** | *e*P | **P** | **15 23 43.8** | **+0.1** |
| TMCR | | | | pmax | pmax | | | |
| | comp=Z,43nm,1.4s | | | | | | | |
| **PLOR** | **Plostina** | **68.68** | **316** | ⇑*i*P | **P** | **15 23 44.7** | **+0.3** |
| **PLOR** | **Plostina** | **68.68** | **316** | ⇑P | **P** | **15 23 44.7** | **+0.3** |
| **TESR** | **Tescani** | **68.81** | **317** | ⇑*i*P | **P** | **15 23 45.0** | **-0.1** |
| **LSZ** | **Lusaka** | **69.03** | **250** | *e*P | **P** | **15 23 48.7** | **+1.5** |
| LSZ | | | | pmax | pmax | | | |
| | comp=Z,9.0nm,0.9s | | | | | | | |
| **LSZ** | **Lusaka** | **69.03** | **250** | *e*P | **P** | **15 23 48.7** | **+1.5** |
| | comp=Z,8.8nm,0.9s | | | | | | | |
| **MLR** | **Muntele Rosu** | **69.09** | **316** | ⇑*i*P | **P** | **15 23 47.1** | **0.0** |
| **MLR** | **Muntele Rosu** | **69.09** | **316** | ⇑P | **P** | **15 23 47.1** | **0.0** |
| **MLR** | **Muntele Rosu** | **69.09** | **316** | *e*P | **P** | **15 23 46.7** | **-0.4** |
| | comp=Z,46nm,1.4s | | | | | | | |
| **VOIR** | | **69.71** | **316** | ⇑*i*P | **P** | **15 23 49.8** | **-1.0** |
| **VOIR** | | **69.71** | **316** | ⇑P | **P** | **15 23 49.8** | **-1.0** |
| **BURAR** | **Bucovina Array** | **69.98** | **318** | ⇓*i*P | **P** | **15 23 52.7** | **+0.2** |
| **BURAR** | **Bucovina Array** | **69.98** | **318** | ⇓P | **P** | **15 23 52.7** | **+0.2** |
| **BUR04** | **Bucovina Ar. S** | **69.98** | **318** | *e*P | **P** | **15 23 51.3** | **-1.2** |
| **ARR** | **Arges** | **69.98** | **315** | ⇑*i*P | **P** | **15 23 51.7** | **-0.8** |
| **VTS** | **Vitosha** | **70.59** | **312** | ⇑*i*P | **P** | **15 23 55.6** | **-0.8** |
| **VTS** | **Vitosha** | **70.59** | **312** | ⇑P | **P** | **15 23 55.6** | **-0.8** |
| **HERR** | **Herculane** | **71.46** | **315** | ⇑*i*P | **P** | **15 24 01.4** | **0.0** |
| **DRGR** | | **71.53** | **317** | ⇓*i*P | **P** | **15 24 02.1** | **+0.2** |
| **DRGR** | | **71.53** | **317** | ⇓P | **P** | **15 24 02.1** | **+0.2** |
| **CRVS** | **Cervenica-Dubn** | **72.67** | **319** | *e*P | **P** | **15 24 09.0** | **+0.4** |
| **CRVS** | **Cervenica-Dubn** | **72.67** | **319** | *e*P | **P** | **15 24 09.0** | **+0.4** |
| **FIA1** | **FINESS Array S** | **72.70** | **332** | *e*P | **P** | **15 24 08.3** | **-0.2** |
| **FINES** | **FINESS Array B** | **72.70** | **332** | P | **P** | **15 24 08.4** | **-0.1** |
| | comp=Z,15nm,0.8s,baz=100,slow=6.3,SNR=25 | | | | | | | |
| FINES | | | | LR | LR | 16 00 34.3 | | |
| | comp=Z,50nm,20.0s,baz=113,slow=39 | | | | | | | |
| **KECS** | **Kecovo** | **73.25** | **318** | *e*P | **P** | **15 24 10.4** | **-1.6** |
| KECS | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,1.1s | | | | | | | |
| **KECS** | **Kecovo** | **73.25** | **318** | *e*P | **P** | **15 24 10.4** | **-1.6** |
| **ARCES** | **ARCESS Array B** | **75.29** | **340** | P | **P** | **15 24 23.1** | **-0.4** |
| | comp=Z,4.3nm,0.8s,baz=104,slow=5.5,SNR=10 | | | | | | | |
| ARCES | | | | LR | LR | 16 00 16.5 | | |
| | comp=Z,172nm,19.7s,baz=108,slow=38 | | | | | | | |
| **BOSA** | **Boshof** | **75.34** | **238** | P | **P** | **15 24 25.6** | **+0.8** |
| | comp=Z,13nm,1.0s,baz=82,slow=5.8,SNR=12 | | | | | | | |
| **BOSA** | **Boshof** | **75.34** | **238** | *e*P | **P** | **15 24 25.2** | **+0.5** |
| BOSA | | | | pmax | pmax | | | |
| | comp=Z,43nm,1.5s | | | | | | | |
| **BOSA** | **Boshof** | **75.34** | **238** | *e*P | **P** | **15 24 25.2** | **+0.5** |
| | comp=Z,43nm,1.5s | | | | | | | |
| **DPC** | **Dobruska-Polom** | **76.15** | **320** | *e*P | **P** | **15 24 29.6** | **+0.8** |
| DPC | | | | *e*pP | **pP** | **15 24 33.6** | **-5.2** |
| **DPC** | **Dobruska-Polom** | **76.15** | **320** | *e*P | **P** | **15 24 29.6** | **+0.8** |
| DPC | | | | *e* | | 15 24 33.6 | | |
| **UPC** | **Upice** | **76.36** | **320** | *e*P | **P** | **15 24 30.6** | **+0.6** |
| **UPC** | **Upice** | **76.36** | **320** | *e*P | **P** | **15 24 30.6** | **+0.6** |
| **SOKA** | **Soboth** | **76.77** | **316** | *e*P | **P** | **15 24 32.1** | **-0.4** |
| | comp=Z,16nm,1.4s | | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **77.10** | **319** | *e*P | **P** | **15 24 34.4** | **+0.2** |
| **GOPC** | **GO Pecny, Ondr** | **77.10** | **319** | *e*P | **P** | **15 24 34.4** | **+0.2** |
| **GEA0** | **GERESS Array S** | **77.76** | **318** | *e*P | **P** | **15 24 37.8** | **-0.2** |
| **GEC2** | **GERESS Array S** | **77.76** | **318** | *e*P | **P** | **15 24 38.3** | **+0.3** |
| GEC2 | | | | pmax | pmax | | | |
| | comp=Z,8.0nm,0.5s | | | | | | | |
| **GEC2** | **GERESS Array S** | **77.76** | **318** | *e*P | **P** | **15 24 38.3** | **+0.3** |
| | comp=Z,7.7nm,0.5s | | | | | | | |
| **GERES** | **GERESS Array B** | **77.76** | **318** | P | **P** | **15 24 38.3** | **+0.3** |
| | comp=Z,3.2nm,0.7s,baz=83,slow=5.5,SNR=12 | | | | | | | |
| **KHC** | **Kasperske Hory** | **77.85** | **319** | *e*P | **P** | **15 24 38.5** | **0.0** |
| KHC | | | | *e*pP | **PcP** | **15 24 44.5** | **-3.8** |
| **KHC** | **Kasperske Hory** | **77.85** | **319** | *e*P | **P** | **15 24 38.5** | **0.0** |
| KHC | | | | *e* | | 15 24 44.5 | | |
| **CLL** | **Collm** | **78.31** | **321** | *e*(pP) | pP | 15 24 48.0 | -2.9 |
| **MAW** | **Mawson** | **78.39** | **192** | P | **P** | **15 24 43.6** | **+2.8** |
| | comp=Z,2.3nm,0.5s,baz=338,slow=5.4,SNR=4.0 | | | | | | | |
| **ABTA** | **Abfaltersbach** | **78.50** | **316** | *i*P | **P** | **15 24 42.7** | **+0.5** |
| | comp=Z,5.9nm,1.2s | | | | | | | |
| **MOTA** | **Moosalm** | **79.47** | **317** | *i*P | **P** | **15 24 46.9** | **-0.7** |
| | comp=Z,8.4nm,0.9s | | | | | | | |
| **NB2** | **NORSAR Subarra** | **79.72** | **331** | P | **P** | **15 24 47.3** | **-1.2** |
| | comp=Z,25nm,1.2s,baz=92,slow=5.3 | | | | | | | |
| **NB2** | **NORSAR Subarra** | **79.72** | **331** | P | **P** | **15 24 46.5** | **-2.0** |
| NB2 | | | | pmax | pmax | | | |
| | comp=Z,22nm,1.4s | | | | | | | |
| **NB2** | **NORSAR Subarra** | **79.72** | **331** | P | **P** | **15 24 47.3** | **-1.2** |
| | baz=92,slow=5.3 | | | | | | | |
| **NOA** | **NORSAR Array B** | **79.72** | **331** | P | **P** | **15 24 48.0** | **-0.4** |
| | comp=Z,4.7nm,0.8s,baz=94,slow=5.4,SNR=11 | | | | | | | |
| NOA | | | | LR | LR | 16 04 25.1 | | |
| | comp=Z,67nm,18.2s,baz=95,slow=39 | | | | | | | |
| **FETA** | **Feichten** | **79.73** | **316** | *e*P | **P** | **15 24 48.7** | **-0.2** |
| | comp=Z,5.9nm,0.9s | | | | | | | |
| **TSUM** | **Tsumeb** | **79.79** | **249** | *e*P | **P** | **15 24 50.5** | **+0.7** |
| | comp=Z,7.5nm,1.0s | | | | | | | |
| **TAM** | **Tamanrasset** | **85.57** | **292** | *e*P | **P** | **15 25 21.7** | **+1.9** |
| TAM | | | | pmax | pmax | | | |
| | comp=Z,23nm,1.7s | | | | | | | |
| **TAM** | **Tamanrasset** | **85.57** | **292** | *e*P | **P** | **15 25 21.7** | **+1.9** |
| | comp=Z,23nm,1.7s | | | | | | | |
| **TOA0** | **Torodi Ar. Sit** | **90.41** | **283** | *e*P | **P** | **15 25 43.5** | **+0.5** |
| **TORD** | **Torodi Ar. Bea** | **90.41** | **283** | P | **P** | **15 25 43.5** | **+0.5** |
| | comp=Z,2.4nm,0.9s,baz=92,slow=4.7,SNR=13 | | | | | | | |
| **ES19** | **SONSECA Array** | **91.06** | **310** | *e*P | **P** | **15 25 46.2** | **+0.6** |
| **ESDC** | **Sonseca Array** | **91.12** | **310** | P | **P** | **15 25 46.0** | **+0.2** |
| | comp=Z,1.9nm,0.7s,baz=64,slow=5.3,SNR=6.7 | | | | | | | |
| **IMAR** | **Indian Mountai** | **91.81** | **22** | *e*P | **P** | **15 25 48.8** | **+0.4** |
| **MDT** | **Midelt** | **92.95** | **304** | LR | LR | 16 18 39.6 | | |
| | comp=Z,12nm,19.7s,slow=42 | | | | | | | |
| **ILAR** | **Eielson Array** | **94.92** | **22** | P | **P** | **15 26 01.5** | **-1.3** |
| | comp=Z,0.7nm,1.0s,baz=288,slow=5.1,SNR=4.6 | | | | | | | |
| **DBIC** | **Dimbokro** | **97.74** | **278** | P | Pdif | 15 26 18.2 | +1.6 |
| | comp=Z,1.6nm,0.5s,baz=128,slow=4.9,SNR=2.8 | | | | | | | |
| **ULM** | **Lac du Bonnet** | **121.60** | **7** | PKP | **PKPdf** | **15 31 33.3** | **-1.2** |
| | comp=Z,1.4nm,0.7s,baz=191,slow=22,SNR=2.4 | | | | | | | |
| **PDAR** | **Pinedale Array** | **125.34** | **21** | PKP | **PKPdf** | **15 31 41.8** | **-0.5** |
| | comp=Z,1.2nm,0.9s,baz=5.7,slow=3.0,SNR=6.4 | | | | | | | |
| **TXAR** | **Lajitas Array** | **139.41** | **24** | PKP | **PKPdf** | **15 32 08.7** | **-0.2** |
| | comp=Z,1.3nm,1.0s,baz=302,slow=2.8,SNR=5.9 | | | | | | | |
| **PLCA** | **Paso Flores** | **144.37** | **200** | PKP | PKPbc | 15 32 16.2 | +0.5 |
| | comp=Z,6.2nm,1.1s,baz=224,slow=3.3,SNR=4.6 | | | | | | | |
| **CPUP** | **Villa Florida** | **147.03** | **232** | PKPbc | **PKPbc** | **15 32 23.9** | **-0.2** |
| | comp=Z,5.0nm,0.8s,baz=95,slow=2.7,SNR=12 | | | | | | | |
| **CPUP** | **Villa Florida** | **147.03** | **232** | PKP2 | **PKPbc** | **15 32 24.0** | **-0.2** |

*ISCJB **16** 15:25:21.0±0.7, 7.7°N±0.1°×93.9°E±0.2°, h18km, mb3.9/13, Error ellipse: s-maj=19.0km s-min=11.6km az=155.9*
*IDC **16** 15:25:27.5±6.1, 7.7°N×94.0°E, h54km±55km, mb3.7/13, mb1 3.7/14,mb1mx3.5/51,mbtmp3.9/14,ML3.5/1, Error ellipse: s-maj=35.3km s-min=16.2km az=56.0*

**ISC 16 15:25:22.8**±0.8, **7.7°N**±0.1°×**93.9°E**±0.2°, **h18km, n31,** σ0.8**82/28, mb3.9**/13**, Nicobar Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CMAR** | **Chiang Mai Arr** | **11.79** | **24** | P | **Pn** | **15 28 11.2** | **+1.0** |
| | 0.1nm,0.3s,baz=214,slow=14,SNR=11 | | | | | | |
| **RAMN** | **Ramite** | **20.41** | **341** | *e*P | **P** | **15 30 00.7** | **+1.4** |
| | 26nm,0.7s | | | | | | |
| **TAPN** | **Taplejung** | **20.46** | **344** | *e*P | **P** | **15 30 00.3** | **+0.5** |
| | 24nm,0.6s | | | | | | |
| **TAPN** | **Taplejung** | **20.46** | **344** | *e*P | **P** | **15 30 00.3** | **+0.5** |
| | 24nm,0.6s | | | | | | |
| **JIRN** | **Jiri** | **21.20** | **341** | *e*P | **P** | **15 30 08.7** | **+0.7** |
| **PKI** | **Pulchoki** | **21.39** | **339** | *e*P | **P** | **15 30 10.3** | **+0.4** |
| | 8.2nm,0.5s | | | | | | |
| **PKIN** | **Phulchoki** | **21.40** | **339** | *e*P | **P** | **15 30 10.2** | **+0.2** |
| | 6.8nm,0.5s | | | | | | |
| **DMN** | **Daman** | **21.53** | **338** | *e*P | **P** | **15 30 12.0** | **+0.6** |
| | 9.4nm,0.7s | | | | | | |
| **GUN** | **Gumba** | **21.54** | **340** | *e*P | **P** | **15 30 11.2** | **-0.3** |
| | 15nm,0.7s | | | | | | |
| **KKN** | **Kakani** | **21.64** | **339** | *e*P | **P** | **15 30 13.2** | **+0.7** |
| | 8.0nm,0.5s | | | | | | |
| **KOLN** | **Koldanda** | **22.27** | **335** | *e*P | **P** | **15 30 19.4** | **+0.2** |
| **DANN** | **Dangsing** | **22.72** | **336** | *e*P | **P** | **15 30 23.7** | **-0.4** |
| **PYUN** | **Piuthan** | **22.82** | **334** | *e*P | **P** | **15 30 24.3** | **-0.8** |
| **H08S3** | **Diego Garcia H** | **26.22** | **235** | T | T | 15 57 36.5 | |
| | baz=54,slow=74,SNR=22 | | | | | | |
| **H08S2** | **Diego Garcia H** | **26.23** | **235** | T | T | 15 57 40.6 | |
| | baz=54,slow=74,SNR=8.4 | | | | | | |
| **H08S1** | **Diego Carcia H** | **26.24** | **235** | T | T | 15 57 42.6 | |
| | baz=54 | | | | | | |
| **MKAR** | **Makanchi Array** | **40.25** | **348** | P | **P** | **15 32 57.5** | **-1.1** |
| | 0.4nm,0.7s,baz=177,slow=7.9,SNR=3.8 | | | | | | |
| **SONM** | **Songino Array** | **41.42** | **13** | P | **P** | **15 33 08.4** | **0.0** |
| | 1.1nm,0.8s,baz=190,slow=8.8,SNR=7.3 | | | | | | |
| **GEYT** | **Alibeck** | **44.22** | **318** | P | **P** | **15 33 32.0** | **+0.8** |
| | 2.3nm,0.6s,baz=147,slow=7.1,SNR=4.3 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **44.71** | **346** | PcP | **PcP** | **15 35 16.8** | **-0.1** |
| | 0.3nm,0.4s,baz=155,slow=2.2,SNR=4.4 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **46.74** | **353** | P | **P** | **15 33 50.5** | **-0.2** |
| | 2.9nm,0.8s,baz=177,slow=8.2,SNR=12 | | | | | | |
| **WRA** | **Warrunnga Arr** | **48.31** | **125** | P | **P** | **15 34 03.1** | **-0.4** |
| | 0.5nm,0.5s,baz=307,slow=8.7,SNR=13 | | | | | | |
| **ASAR** | **Alice Springs** | **49.94** | **130** | P | **P** | **15 34 15.7** | **-0.3** |
| | 0.7nm,0.6s,baz=298,slow=7.0,SNR=10 | | | | | | |
| **AKTO** | **Aktyubinsk** | **52.04** | **332** | P | **P** | **15 34 31.0** | **-0.4** |
| | 0.6nm,0.5s,baz=103,slow=14,SNR=2.7 | | | | | | |
| **BRTR** | **Keskin Array B** | **62.41** | **311** | P | **P** | **15 35 43.9** | **-1.2** |
| | 0.4nm,0.6s,baz=128,slow=8.0,SNR=4.0 | | | | | | |
| **FINES** | **FINESS Array B** | **72.81** | **332** | P | **P** | **15 36 48.4** | **-1.7** |
| | 1.9nm,0.7s,baz=103,slow=8.1,SNR=7.1 | | | | | | |
| **BOSA** | **Boshof** | **75.29** | **238** | P | **P** | **15 37 07.3** | **+1.9** |
| | 3.1nm,0.9s,baz=43,slow=4.9,SNR=3.8 | | | | | | |
| **ARCES** | **ARCESS Array B** | **75.40** | **340** | P | **P** | **15 37 05.3** | **+0.2** |
| | 2.2nm,0.9s,baz=113,slow=9.1,SNR=2.7 | | | | | | |
| **HFS** | **Hagfors** | **78.54** | **330** | P | **P** | **15 37 23.0** | **+0.1** |
| | 3.7nm,1.0s,baz=109,slow=11,SNR=3.1 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **90.44** | **283** | P | **P** | **15 38 24.4** | **+0.3** |
| | 0.6nm,0.8s,baz=84,slow=3.0,SNR=3.5 | | | | | | |
| **CPUP** | **Villa Florida** | **146.96** | **232** | PKPbc | **PKPab** | **15 45 05.8** | **-0.7** |
| | 0.7nm,0.5s,baz=185,slow=2.6,SNR=3.4 | | | | | | |

*ISN **16** 15:43:18.7±1.4, 38.7°N×43.2°E, h0km±143km, ML3.6*
*DDA **16** 15:43:21.6, 38.7°N×43.2°E, h23km, Ml3.8*
*ISK **16** 15:43:21.4, 38.7°N×43.2°E, h5km, ML3.2*
*CSEM **16** 15:43:22.1±0.2, 38.7°N×43.2°E, h2km, ML3.2, Error ellipse: s-maj=3.8km s-min=3.4km az=80.0*

**ISC 16 15:43:23.1**±0.9, **38.7°N**±0.02°×**43.1°E**±0.02°, **h16km**±6km, **n74,** σ1.1**963/111, 7D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.20** | **127** | PG | **Pg** | **15 43 27.7** | **-0.2** |
| VANB | | | | *e*SG | **Sg** | **15 43 32.4** | **+1.3** |
| **VANB** | **Van** | **0.20** | **127** | Pg | **Pg** | **15 43 27.7** | **-0.2** |
| **TVAN** | **Van** | **0.25** | **138** | ⇓*i*P | **Pg** | **15 43 27.7** | **-1.1** |
| TVAN | | | | *i* S | **Sb** | **15 43 32.5** | **-1.1** |
| **TVAN** | **Van** | **0.25** | **138** | P | **Pg** | **15 43 27.7** | **-1.1** |
| TVAN | | | | S | **Sb** | **15 43 32.5** | **-1.1** |
| **ERCV** | **ERCIS-VAN** | **0.33** | **21** | *e*PG | **Pg** | **15 43 28.6** | **-1.5** |
| ERCV | | | | *e*SG | **Sb** | **15 43 33.8** | **-2.0** |
| **ERCV** | **ERCIS-VAN** | **0.33** | **21** | *e*Pg | **Pg** | **15 43 28.6** | **-1.5** |
| ERCV | | | | *e*Sg | **Sb** | **15 43 33.8** | **-2.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.38** | **285** | ⇓*i*P | **Pg** | **15 43 29.8** | **-1.1** |
| ADCV | | | | *i* S | **Sb** | **15 43 36.2** | **-1.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.38** | **285** | P | **Pg** | **15 43 29.8** | **-1.1** |
| ADCV | | | | S | **Sb** | **15 43 36.2** | **-1.0** |
| **VMUR** | **Van-Muradiye** | **0.41** | **47** | ⇓*i*P | **Pb** | **15 43 30.5** | **-1.5** |
| VMUR | | | | *i* S | **Sb** | **15 43 37.4** | **-0.7** |
| **VMUR** | **Van-Muradiye** | **0.41** | **47** | P | **Pb** | **15 43 30.5** | **-1.5** |
| VMUR | | | | S | **Sb** | **15 43 37.4** | **-0.7** |
| **CLDR** | **Caldiran** | **0.71** | **53** | *e*PG | **Pg** | **15 43 35.6** | **-1.5** |
| CLDR | | | | *e*SG | **Sb** | **15 43 46.0** | **-0.9** |
| **CLDR** | **Caldiran** | **0.71** | **53** | ⇓*i*P | **Pg** | **15 43 35.4** | **-1.7** |
| CLDR | | | | *i* S | **Sb** | **15 43 46.5** | **-0.4** |
| **CLDR** | **Caldiran** | **0.71** | **53** | *e*Pg | **Pg** | **15 43 35.6** | **-1.5** |
| CLDR | | | | *e*Sg | **Sb** | **15 43 46.0** | **-0.9** |
| **TUTA** | **Tutak** | **0.75** | **337** | ⇓*i*P | **Pg** | **15 43 36.1** | **-1.7** |
| TUTA | | | | *i* S | **Sb** | **15 43 46.6** | **-1.4** |
| **TUTA** | **Tutak** | **0.75** | **337** | P | **Pg** | **15 43 36.1** | **-1.7** |
| TUTA | | | | S | **Sb** | **15 43 46.6** | **-1.4** |
| **AGRB** | **Hanur-Agry** | **0.88** | **350** | *e*Pg | **Pg** | **15 43 38.4** | **-1.8** |
| **AGRB** | **Hanur-Agry** | **0.88** | **350** | *e*Pg | **Pg** | **15 43 38.4** | **-1.8** |
| **DYDN** | **Diyadin** | **0.92** | **25** | *i* P | **Pg** | **15 43 39.1** | **-1.8** |
| DYDN | | | | *i* S | **Sn** | **15 43 57.4** | **+2.8** |
| **DYDN** | **Diyadin** | **0.92** | **25** | P | **Pg** | **15 43 39.2** | **-1.8** |
| **BASK** | **Baskale_VAN** | **0.92** | **136** | *i* P | **Pg** | **15 43 38.5** | **-2.5** |
| BASK | | | | *i* S | **Sb** | **15 43 52.8** | **0.0** |
| **BASK** | **Baskale_VAN** | **0.92** | **136** | P | **Pg** | **15 43 38.5** | **-2.5** |
| BASK | | | | S | **Sb** | **15 43 52.8** | **0.0** |
| **EKAR** | **Karacoban** | **1.03** | **302** | *i* P | **Pg** | **15 43 41.5** | **-1.6** |
| EKAR | | | | *i* S | **Sn** | **15 43 58.3** | **+0.9** |
| **EKAR** | **Karacoban** | **1.03** | **302** | P | **Pg** | **15 43 41.5** | **-1.6** |
| EKAR | | | | S | **Sn** | **15 43 58.3** | **+0.9** |
| **HAKT** | **HAKKARI** | **1.22** | **160** | ⇓*i*P | **Pg** | **15 43 44.0** | **-2.8** |
| HAKT | | | | *i* S | **Sn** | **15 44 03.7** | **+1.6** |
| **HAKT** | **HAKKARI** | **1.22** | **160** | P | **Pg** | **15 43 44.0** | **-2.8** |
| HAKT | | | | S | **Sn** | **15 44 03.7** | **+1.6** |
| **EATA** | **Eleskirt** | **1.27** | **335** | ⇓*i*P | **Pg** | **15 43 45.5** | **-2.2** |
| EATA | | | | *i* S | **Sn** | **15 44 03.8** | **+0.4** |
| **EATA** | **Eleskirt** | **1.27** | **335** | P | **Pg** | **15 43 45.5** | **-2.2** |
| EATA | | | | S | **Sn** | **15 44 03.8** | **+0.4** |
| **SIRT** | **Sirnak** | **1.35** | **206** | *e*PN | **Pg** | **15 43 48.5** | **-0.6** |
| **SIRT** | **Sirnak** | **1.35** | **206** | *e*Pn | **Pg** | **15 43 48.5** | **-0.6** |
| **SIRN** | **S¨–rnak** | **1.36** | **207** | *i* P | **Pn** | **15 43 47.4** | **-0.2** |
| SIRN | | | | *i* S | **Sn** | **15 44 07.8** | **+2.5** |
| **SIRN** | **S¨–rnak** | **1.36** | **207** | P | **Pn** | **15 43 47.3** | **-0.2** |
| SIRN | | | | S | **Sn** | **15 44 07.8** | **+2.5** |
| **VRTB** | **Varto-Mus** | **1.43** | **289** | *e*PN | **Pg** | **15 43 49.1** | **-1.5** |
| **VRTB** | **Varto-Mus** | **1.43** | **289** | *i* P | **Pn** | **15 43 47.1** | **-1.4** |
| VRTB | | | | *i* S | **Sn** | **15 44 10.3** | **+3.3** |
| **VRTB** | **Varto-Mus** | **1.43** | **289** | P | **Pn** | **15 43 47.1** | **-1.4** |
| **VRTB** | **Varto-Mus** | **1.43** | **289** | *e*Pn | **Pg** | **15 43 49.1** | **-1.5** |
| VRTB | | | | S | **Sn** | **15 44 10.3** | **+3.3** |
| **CUKT** | **Cukurca** | **1.50** | **167** | *e*PN | **Pg** | **15 43 50.6** | **-1.4** |
| **CUKT** | **Cukurca** | **1.50** | **167** | *e*Pn | **Pg** | **15 43 50.6** | **-1.4** |
| **TASB** | **TASBURUN-IGDIR** | **1.51** | **32** | *e*PN | **Pb** | **15 43 49.9** | **-0.8** |
| **TASB** | **TASBURUN-IGDIR** | **1.51** | **32** | *e*Pn | **Pb** | **15 43 49.9** | **-0.8** |
| **BNGL** | **BINGOL** | **1.61** | **279** | *i* P | **Pb** | **15 43 52.1** | **-0.5** |
| BNGL | | | | *i* S | **Sg** | **15 44 13.9** | **-1.3** |
| **HOMI** | **Horasan** | **1.66** | **324** | *i* P | **Pb** | **15 43 52.5** | **-1.0** |
| HOMI | | | | *i* S | **Sg** | **15 44 16.2** | **-0.5** |
| **DIGO** | **Kars** | **1.71** | **5** | *i* P | **Pb** | **15 43 53.3** | **-0.9** |
| DIGO | | | | *i* S | **Sg** | **15 44 21.3** | **+3.2** |
| **DIGO** | **Kars** | **1.71** | **5** | P | **Pb** | **15 43 53.3** | **-0.9** |
| **BTMN** | **Batman** | **1.72** | **242** | *i* P | **Pn** | **15 43 53.1** | **+0.7** |
| BTMN | | | | *i* S | **Sg** | **15 44 17.4** | **-1.2** |
| **BTMN** | **Batman** | **1.72** | **242** | P | **Pn** | **15 43 53.2** | **+0.7** |
| BTMN | | | | S | **Sg** | **15 44 17.4** | **-1.2** |
| **ERZM** | **Erzurum** | **1.85** | **311** | *i* P | **Pb** | **15 43 55.6** | **-1.1** |
| ERZM | | | | *i* S | **Sg** | **15 44 23.8** | **+1.1** |
| **ERZM** | **Erzurum** | **1.85** | **311** | P | **Pb** | **15 43 55.6** | **-1.1** |
| ERZM | | | | S | **Sg** | **15 44 23.8** | **+1.1** |
| **KARS** | **Kars** | **1.91** | **357** | *e*PN | **Pn** | **15 43 55.8** | **+0.6** |
| **K

**CHTO Chiang Mai 12.09 24** *e*Pn **Pn** **15 50 17.0 +0.7**
**PALK Pallekele 13.04 269** Pn **Pn** **15 50 33.1 +3.8**
1.1nm,0.3s,baz=31,slow=19,SNR=4.6
PALK Sn **Sn** **15 52 46.6 -6.8**
3.0nm,0.3s,baz=158,slow=10,SNR=6.7
PALK LR LR 15 55 22.0
comp=Z,3µm,19.1s,baz=116,slow=36
**MASI Maura Aman, Be 13.66 142** P **Pn** **15 50 36.6 -1.1**
**VIS Vishakhapatnam 14.28 315** *i* P **Pn** **15 50 47.5 +1.4**
VIS x 15 53 14.2
**CHLP Challavanipeta 14.34 319** *e*P **Pn** **15 50 48.0 +1.0**
CHLP *e*S Sn 15 53 15.5 -10
**MDRS Chennai 14.39 293** *e*P **Pn** **15 50 50.7 +3.0**
MDRS AMB AMB 15 50 57.1
comp=Z,49nm,0.6s
**SKHT Srikalahasti 15.12 295** *e*P **Pn** **15 50 59.4 +1.8**
SKHT *e*S **Sn** **15 53 36.2 -7.8**
**PVM Polavaram 15.23 310** *e*P **Pn** **15 51 00.3 +1.4**
PVM *e*S Sn 15 53 35.8 -11
**ADKI Addanki 15.80 302** *e*P **P** **15 51 09.4 -0.4**
ADKI *e*S **Sn** **15 53 51.4 -9.0**
**LWLI Liwa 16.24 141** P **P** **15 51 20.9 +5.9**
**NJS Nagarjunasagar 16.70 303** *e*P **P** **15 51 21.5 +1.7**
NJS *e*S **Sn** **15 54 18.0 -4.4**
**SRLM Srisailam 16.83 301** *e*P **P** **15 51 22.5 +1.1**
SRLM *e*S **Sn** **15 54 16.3 -9.3**
**KASI Kota Agung 16.91 141** P **Pn** **15 51 20.3 -0.2**
**KSM Kuching 17.54 110** ⇑P **Pn** **15 51 28.4 +0.1**
**KSM Kuching 17.54 110** Pn **Pn** **15 51 21.9 -6.5**
comp=Z,37nm,1.0s
**BOK Bokaro 17.72 335** *e*P **Pn** **15 51 30.0 -0.5**
BOK AMB AMB 15 51 37.6
comp=Z,44nm,5.0s
**HYB Hyderabad 17.75 304** *i* P **P** **15 51 35.0 +3.4**
HYB *e* 15 51 40.0
HYB *e*S **Sn** **15 54 51.0 +2.9**
**HYB Hyderabad 17.75 304** *e*P **P** **15 51 32.5 +0.9**
**HYBB Hyderabad (bro 17.76 304** *e*P **P** **15 51 34.0 +2.4**
HYBB *e*Sn **Sn** **15 54 51.7 +3.5**
**URV Uravakonda 17.77 295** *e*P **P** **15 51 36.4 +4.6**
URV *e*S **Sn** **15 54 42.5 -6.0**
**SHL Shillong 17.85 354** *e*P **Pn** **15 51 32.0 -0.3**
**RPR Rampur 17.96 310** *e*P **P** **15 51 35.4 +1.6**
RPR *e*S **Sn** **15 54 54.6 +1.6**
**SRSP Sriramsagar 18.73 308** *e*P **Pn** **15 51 43.0 0.0**
**SBUM Sibu 19.03 105** ⇑P **Pn** **15 51 46.8 +0.2**
**SBUM Sibu 19.03 105** *e*P **P** **15 51 45.6 0.0**
comp=Z,81nm,1.6s
**STKI Sintang 19.15 113** P **Pn** **15 51 51.0 +3.0**
**QIZ Qiongzhong 19.18 53** P **P** **15 51 46.3 -1.0**
QIZ pP **pP** **15 51 57.4 +1.6**
QIZ sP **sP** **15 52 02.8 +3.0**
QIZ S **S** **15 55 25.4 +2.4**
QIZ pmax pmax
comp=Z,30nm,2.7s
QIZ LR LR
comp=Z,3µm,13.5s
QIZ LR LR
comp=Z,1µm,14.4s
QIZ LR LR
comp=Z,1µm,11.0s
**KMI Kunming 19.28 25** P **Pn** **15 51 52.3 +2.6**
KMI pP sP 15 51 59.6 -1.5
KMI S **S** **15 55 27.3 +2.0**
KMI sS sS 15 55 36.6 -2.4
KMI pmax pmax
comp=Z,19nm,1.3s
KMI pmax pmax
comp=Z,110nm,3.1s
KMI LR LR
comp=Z,710nm,18.3s
KMI LR LR
comp=Z,1µm,17.1s
KMI LR LR
comp=Z,1µm,14.8s
**BTM Bintulu 19.66 102** ⇑P **Pn** **15 51 55.1 +0.9**
**KLRI Killari 19.69 303** *e*Pn **Pn** **15 51 55.6 +1.1**
KLRI *e*S **S** **15 55 34.7 +1.2**
**ODAN Odare 20.00 343** *e*P **P** **15 51 56.5 +0.1**
comp=Z,78nm,0.5s
**RAMN Ramite 20.33 341** *e*P Pn 15 52 01.3 -0.8
comp=Z,546nm,1.1s
**JBP Jabalpur 20.33 321**⇑ *e*P **P** **15 52 00.6 +0.9**
JBP *e*x x 15 55 46.7
**TAPN Taplejung 20.38 344** *e*P **P** **15 52 01.0 +0.5**
comp=Z,161nm,0.6s
**GOA Goa 21.06 293** *e*P **P** **15 52 08.8 +1.0**
GOA AMB AMB 15 52 32.1
comp=Z,26nm,0.3s
**JIRN Jiri 21.12 341** *e*P **P** **15 52 09.1 +0.4**
comp=Z,450nm,0.4s
**PKI Pulchoki 21.30 339** *e*P **P** **15 52 10.8 +0.2**
comp=Z,85nm,0.5s
**PKIN Phulchoki 21.31 339** *e*P **P** **15 52 12.0 +1.4**
comp=Z,91nm,0.5s
**DMN Daman 21.45 338** *e*P **P** **15 52 12.4 +0.3**
comp=Z,124nm,0.7s
**GUN Gumba 21.45 340** *e*P **P** **15 52 12.4 +0.2**
comp=Z,109nm,0.5s
**KKN Kakani 21.55 339** *e*P **P** **15 52 13.3 +0.2**
comp=Z,60nm,0.5s
**GKN Gorkha 21.98 338** *e*P **P** **15 52 17.7 +0.1**
**LSA Lhasa 22.02 354** P **P** **15 52 17.3 -1.1**
LSA pmax pmax
comp=Z,18nm,1.0s
**LSA Lhasa 22.02 354** *e*P **P** **15 52 17.6 -0.8**
LSA pmax pmax
comp=Z,72nm,0.9s
**LSA Lhasa 22.02 354** *e*P **P** **15 52 17.6 -0.8**
comp=Z,72nm,0.9s
**BHPL Bhopal 22.07 316** *e*P **P** **15 52 20.9 +2.4**
BHPL AMB AMB 15 52 29.3
comp=Z,47nm,0.8s
**SMRI Semarang 22.11 131** *e*P **P** **15 52 14.7 -4.4**
comp=Z,260nm,1.3s
**KOLN Koldanda 22.18 335** *e*P **P** **15 52 20.3 +0.4**
**POO Pooma 22.21 301** *e*P **P** **15 52 20.0 -0.2**
**KKM Kota Kinabalu 22.27 93** ⇓P **P** **15 52 24.1 +3.2**
**GYA Guiyang 22.27 32** P **P** **15 52 27.5 +6.7**
GYA pP sP 15 52 33.0 -0.4
GYA PP **PnPn** **15 52 48.8 +4.8**
GYA S **S** **15 56 17.4 -6.8**
GYA sS sS 15 56 38.8 +0.5
GYA SS **SnSn** **15 56 59.3 +6.4**
GYA pmax pmax
comp=Z,40nm,1.0s
GYA pmax pmax
comp=Z,120nm,5.0s
GYA LR LR
comp=N,580nm,16.8s
GYA LR LR
comp=E,550nm,17.0s
GYA LR LR
comp=Z,520nm,17.2s
**DANN Dangsing 22.63 336** *e*P **P** **15 52 24.3 -0.5**
**MTKI Muara Teweh, K 22.69 111** P **P** **15 52 28.6 +3.4**
**PYUN Piuthan 22.72 334** *e*P **P** **15 52 26.3 +0.6**
**SDKM Sandakan 23.28 94** ⇓P **P** **15 52 33.2 +1.8**
**TSM Tawau 24.13 97** ⇑P **P** **15 52 42.3 +2.9**
**CD2 Chengdu 24.87 21** *e*P **P** **15 52 46.6 +0.6**
CD2 pP pP 15 52 56.4 +1.2
CD2 sP sP 15 53 02.3 +3.2
CD2 PP **PnPn** **15 53 21.6 +2.2**
CD2 S **S** **15 57 08.8 +1.7**
CD2 sS sS 15 57 24.4 +2.1
CD2 SS **SnSn** **15 58 06.6 +10**
CD2 pmax pmax
comp=Z,20nm,1.4s
CD2 pmax pmax
comp=Z,340nm,4.8s
CD2 LR LR
comp=Z,1µm,14.2s
CD2 LR LR
comp=Z,1µm,10.4s
CD2 LR LR
comp=Z,1µm,11.4s
**BLJI Banyuglugur 24.97 128** P **P** **15 52 47.3 +0.3**
**DGAR Diego Garcia 26.09 235** *i* P **P** **15 52 59.3 +2.1**
**H08S3 Diego Garcia H 26.19 235** T T 16 19 42.8
baz=54,slow=76,SNR=860
**H08S2 Diego Garcia H 26.19 235** T T 16 19 43.5
baz=54,slow=76,SNR=456
**H08S1 Diego Carcia H 26.21 235** T T 16 19 44.6
baz=54,slow=76,SNR=54

**TGY Tagaytay City 27.33 74** LR LR 16 03 35.6
comp=Z,523nm,18.3s,baz=254,slow=36
**SMLA Simla 28.02 328** *e*P **P** **15 53 15.2 +0.9**
SMLA AMB AMB 15 53 23.3
comp=Z,22nm,0.7s
**DHRM DHARAMSHALA 29.36 329** *e*P **P** **15 53 26.5 -0.1**
**XAN Xi'an 29.66 26** P P 15 53 34.3 +5.3
XAN pmax pmax
comp=Z,17nm,1.1s
XAN LR LR
comp=Z,490nm,15.3s
XAN LR LR
comp=Z,220nm,11.6s
XAN LR LR
comp=Z,710nm,13.5s
**LZH Lanzhou 29.68 17** ⇑P **P** **15 53 29.8 +0.5**
LZH pP sP 15 53 41.3 -1.2
LZH sP pP 15 53 46.3 +7.7
LZH PP **PnPn** **15 54 27.9 +2.7**
LZH *e*S **S** **15 58 22.0 -1.2**
LZH SS **SnSn** **15 59 57.3 +3.4**
LZH pmax pmax
comp=Z,15nm,1.0s
LZH pmax pmax
comp=Z,78nm,5.4s
LZH LR LR
comp=Z,590nm,13.8s
LZH LR LR
comp=Z,1µm,15.1s
LZH LR LR
comp=Z,730nm,14.6s
**THN Thein Dam 29.81 328** *e*P **P** **15 53 28.9 -1.3**
**GTA Gaotai 32.01 9** P **P** **15 53 49.9 +0.2**
GTA S **S** **15 58 59.6 +0.1**
GTA SS **SnSn** **16 00 52.1 +1.7**
GTA pmax pmax
comp=Z,7.0nm,1.1s
GTA pmax pmax
comp=Z,140nm,4.6s
GTA LR LR
comp=Z,280nm,19.0s
GTA LR LR
comp=Z,310nm,18.5s
GTA LR LR
comp=Z,300nm,19.0s
**NJ2 Nanjing 33.58 40** *e*P **P** **15 54 01.5 -1.9**
NJ2 pmax pmax
comp=Z,6.0nm,1.0s
**SOEI Soe 34.92 119** *e*P P 15 54 10.3 -5.0
comp=Z,45nm,1.3s
**KBL Kabul 35.12 323** *e*P **P** **15 54 15.9 -1.1**
KBL pmax pmax
comp=Z,12nm,1.0s
**KBL Kabul 35.12 323** *e*P **P** **15 54 15.9 -1.1**
comp=Z,12nm,1.0s
**KSH Kashi 35.49 336** P **P** **15 54 21.3 +1.2**
KSH pP sP 15 54 34.1 +0.8
KSH PP **PP** **15 55 43.0 +2.0**
KSH PcP **PcP** **15 56 50.1 +1.0**
KSH S **S** **15 59 52.8 -0.7**
KSH SS **SnSn** **16 02 14.8 -0.1**
KSH ScS **ScS** **16 04 34.3 -3.2**
KSH pmax pmax
comp=Z,10.0nm,0.6s
KSH pmax pmax
comp=Z,87nm,3.4s
KSH LR LR
comp=Z,160nm,7.0s
KSH LR LR
comp=Z,140nm,6.0s
KSH LR LR
comp=Z,320nm,6.0s
**WMQ Urumqi 36.36 352** P **P** **15 54 28.4 +1.0**
WMQ pP sP 15 54 42.0 +1.4
WMQ sP pP 15 54 48.1 +11
WMQ pmax pmax
comp=Z,40nm,0.7s
WMQ pmax pmax
comp=Z,770nm,6.1s
WMQ LR LR
comp=Z,540nm,24.9s
WMQ LR LR
comp=Z,1µm,28.5s
WMQ LR LR
comp=Z,600nm,24.9s
**HHC Hu-ho-hao-te 36.58 23** *e*P **P** **15 54 31.4 +2.1**
HHC pP sP 15 54 43.5 +1.0
HHC sP pP 15 54 49.1 +10
HHC S **S** **16 00 04.4 -5.6**
HHC pmax pmax
comp=Z,19nm,0.9s
HHC pmax pmax
comp=Z,230nm,6.7s
HHC LR LR
comp=Z,520nm,13.5s
HHC LR LR
comp=Z,680nm,15.0s
HHC LR LR
comp=Z,390nm,14.8s
**SFK Sufi-Kurgan 36.95 334** *i* P **P** **15 54 32.5 -0.2**
SFK pmax pmax
comp=Z,30nm,1.0s
**WSAR Wadi Sarin 37.15 299** P **P** **15 54 37.2 +3.0**
comp=Z,1.9nm,0.5s,baz=158,slow=7.1,SNR=6.5
**PDGK Podgornoye 37.64 343** *i* P **P** **15 54 38.4 +0.1**
PDGK pmax pmax
comp=Z,7.0nm,0.7s
**BJI Beijing 37.88 28** P **P** **15 54 39.8 -0.4**
BJI pmax pmax
comp=Z,5.0nm,0.5s
**SWI Sorong 38.27 101** P **P** **15 54 44.2 +0.3**
SWI pmax pmax
comp=Z,40nm,1.1s
**TKM2 Tokmak 2 38.56 338** *i* P **P** **15 54 44.8 -1.4**
TKM2 pmax pmax
comp=Z,7.0nm,0.8s
**AAK Ala-Archa 38.74 337** P **P** **15 54 48.5 +0.9**
comp=Z,3.7nm,0.8s,baz=158,slow=4.2,SNR=7.8
**AAK Ala-Archa 38.74 337** *e*P **P** **15 54 47.2 -0.4**
AAK pmax pmax
comp=Z,14nm,1.3s
**AAK Ala-Archa 38.74 337** *e*P **P** **15 54 48.2 +0.7**
comp=Z,33nm,1.5s
**FRU Bishkek 38.86 337** *e*P **P** **15 54 44.0 -4.4**
FRU *e* 15 55 04.0
**MNAS Manas 39.41 335** *i* P **P** **15 54 54.1 +0.9**
MNAS pmax pmax
comp=Z,10.0nm,0.6s
**FAKI Fak Fak 39.74 104** *e*P **P** **15 54 55.7 -0.5**
comp=Z,16nm,1.0s
**UOSS Minazif 39.79 300** *e*P **P** **15 54 58.7 +2.2**
comp=Z,17nm,1.4s
**MK01 Makanchi Array 40.15 348** *e*P **P** **15 54 58.2 -1.0**
**MK31 Makanchi Array 40.18 348** *e*P **P** **15 54 58.1 -1.3**
**MK31 Makanchi Array 40.18 348** *e*P **P** **15 54 58.1 -1.3**
**MKAR Makanchi Array 40.18 348** P **P** **15 54 58.8 -0.6**
comp=Z,1.8nm,0.6s,baz=173,slow=8.0,SNR=16
**MKAR Makanchi Array 40.18 348** *ce*P **P** **15 54 58.7 -0.7**
MKAR pmax pmax
comp=Z,2.0nm,0.6s
**FITZ Fitzroy Crossi 40.54 130** P **P** **15 55 00.8 -1.9**
comp=Z,4.8nm,0.8s,baz=315,slow=7.0,SNR=9.5
**SONM Songino Array 41.38 13** P **P** **15 55 09.3 -0.1**
comp=Z,4.0nm,0.7s,baz=196,slow=9.2,SNR=19
SONM ScP **ScP** **16 00 54.3 -0.8**
comp=Z,0.8nm,0.7s,baz=220,slow=3.4,SNR=4.3
SONM LR LR 16 13 40.4
comp=Z,471nm,18.9s,baz=185,slow=38
**SONA1 Songino Array 41.39 13** *e*P **P** **15 55 06.7 -2.9**
**ULN Ulaanbaatar 41.56 13** *i* P **P** **15 55 09.9 -1.0**
ULN pmax pmax
comp=Z,4.0nm,1.0s
**ULN Ulaanbaatar 41.56 13** *e*P **P** **15 55 10.0 -1.0**
comp=Z,12nm,0.9s
**DGZ Jazzator, Alta 42.19 354** *i* P **P** **15 55 15.5 -0.5**
DGZ pmax pmax
comp=Z,2.0nm,0.9s
**KSAR Wonju Array Be 42.74 41** P **P** **15 55 23.9 +3.4**
**KSAR Wonju Array Be 42.74 41** P **P** **15 55 23.9 +3.4**
**KSRS Korea Array 42.77 41** P **P** **15 55 23.9 +3.1**
comp=Z,1.2nm,0.8s,baz=221,slow=9.9,SNR=3.3
**ZAK Zakamensk 43.25 9** *e*P P 15 55 31.0 +6.4
ZAK pmax pmax
comp=Z,7.0nm,1.2s
**HVS Khovu-Aksy 43.28 360** *i* P **P** **15 55 24.5 -0.3**
HVS pmax pmax
comp=Z,26nm,0.9s
**GEYT Alibeck 44.12 318** P **P** **15 55 32.8 +1.1**
comp=Z,6.1nm,0.6s,baz=142,slow=7.5,SNR=14
GEYT LR LR 16 17 09.7
comp=Z,243nm,18.4s,baz=140,slow=40
**KURBB Kurchatov Arra 44.63 346** P **P** **15 55 35.5 0.0**
comp=Z,3.2nm,0.8s,baz=167,slow=7.3,SNR=25
KURBB PcP **PcP** **15 57 18.8 +0.9**
comp=Z,2.9nm,0.9s,baz=156,slow=3.0,SNR=4.5
KURBB ScP **ScP** **16 01 08.1 +0.1**
comp=Z,2.0nm,1.0s,baz=156,slow=3.4,SNR=7.9
**KURK Kurchatov 44.69 346** *ce*P **P** **15 55 36.0 0.0**
KURK pmax pmax
comp=Z,7.0nm,1.1s
**KURK Kurchatov 44.69 346** *e*P **P** **15 55 35.5 -0.5**
comp=Z,43nm,1.6s
KURK PcP **PcP** **15 57 18.8 +0.7**
KURK ScP **ScP** **16 01 08.1 -0.1**
**CN2 Changchun 45.32 32** *e*P **P** **15 55 42.3 +1.2**
CN2 pmax pmax
comp=Z,10.0nm,0.6s
CN2 LR LR
comp=Z,500nm,15.0s
CN2 LR LR
comp=Z,500nm,15.0s
CN2 LR LR
comp=Z,500nm,14.0s
**NWAO Narrogin (SRO) 46.14 152** P **P** **15 55 47.7 0.0**
comp=Z,15nm,0.7s,baz=193,slow=9.4,SNR=11
**NWAO Narrogin (SRO) 46.14 152** *e*P **P** **15 55 47.3 -0.4**
NWAO pmax pmax
comp=Z,132nm,1.9s
**NWAO Narrogin (SRO) 46.14 152** *e*P **P** **15 55 47.3 -0.4**
comp=Z,132nm,1.9s
**ZAA0 Zalesovo Array 46.67 353** *e*P **P** **15 55 50.6 -1.0**
comp=Z,46nm,1.1s
**ZALV Zalesovo Beam 46.67 353** P **P** **15 55 51.2 -0.4**
comp=Z,10nm,0.3s,baz=178,slow=7.5,SNR=44
ZALV LR LR 16 19 49.4
comp=Z,278nm,18.6s,baz=250,slow=42
**ZALV Zalesovo Beam 46.67 353** *e*P **P** **15 55 51.1 -0.5**
**ZALV Zalesovo Beam 46.67 353** *e*P **P** **15 55 51.1 -0.5**
**NVS Novosibirsk 47.76 352**⇓ *i*P **P** **15 56 00.0 0.0**
NVS *e*S **S** **16 02 54.8 +0.6**
NVS pmax pmax
comp=N,25nm,1.3s
NVS pmax pmax
comp=Z,34nm,1.3s
NVS pmax pmax
comp=E,16nm,1.1s
NVS smax smax
comp=N,5.0nm,1.8s
NVS smax smax
comp=E,14nm,1.8s
**WRA Warramunga Arr 48.41 125** P **P** **15 56 03.6 -2.1**
comp=E,6.9nm,0.8s,baz=306,slow=8.5,SNR=46
WRA LR LR 16 17 48.0
comp=E,264nm,20.7s,baz=305,slow=38
**WRAB Tennant Creek 48.41 125** *ce*P **P** **15 56 04.4 -1.3**
WRAB pmax pmax
comp=Z,19nm,0.7s
**WRAB Tennant Creek 48.41 125** *e*P **P** **15 56 02.1 -3.6**
comp=Z,13nm,0.9s
**WB2 Warramunga Arr 48.42 125** *e*P **P** **15 56 03.3 -2.4**
comp=Z,10nm,0.8s
**RAYN Ar Rayn 48.88 294** *e*P **P** **15 56 10.4 +1.1**
comp=Z,70nm,1.6s
**BRVK Borovoye 49.10 341** *ce*P **P** **15 56 09.8 -0.6**
BRVK pmax pmax
comp=Z,3.0nm,1.1s
**USRK Ussuriysk Ar. 49.21 36** P P 15 56 05.8 -5.6
comp=Z,1.8nm,0.7s,baz=237,slow=13,SNR=2.7
**MJAR Matsushiro Arr 49.48 48** LR LR 16 17 43.5
comp=Z,124nm,20.9s,baz=115,slow=37
**JCJ Chichijima 49.63 61** LR LR 16 15 54.4
comp=Z,65nm,20.5s,baz=334,slow=35
**ASAR Alice Springs 50.04 130** P **P** **15 56 16.1 -2.0**
comp=Z,6.9nm,0.7s,baz=302,slow=7.2,SNR=74
ASAR PcP **PcP** **15 57 38.0 +0.2**
comp=Z,2.6nm,0.8s,baz=310,slow=4.2,SNR=2.9
ASAR LR LR 16 18 26.3
comp=Z,191nm,20.7s,baz=306,slow=37
**AS01 Alice Springs 50.08 130** *e*P **P** **15 56 16.0 -2.4**
**AB31 Akbulak array 50.23 332** *ce*P **P** **15 56 19.0 -0.1**
AB31 pmax pmax
comp=Z,3.0nm,0.5s
**FORT Forrest 50.40 141** *e*P **P** **15 56 19.4 -1.2**
comp=Z,644nm,1.1s
**GUMO Guam 50.41 79** LR LR 16 19 03.3
comp=Z,77nm,19.0s,baz=314,slow=38
**KLR Kul'dur 52.17 31** P **P** **15 56 34.1 +0.5**
comp=Z,0.2nm,0.9s,baz=127,slow=18,SNR=4.8
**BOD Bodaibo 52.37 13** *e*P **P** **15 56 33.7 -1.3**
BOD pmax pmax
comp=Z,16nm,1.1s
**HABR Khabarovsk 53.43 33** *e*P **P** **15 56 38.8 -4.2**
HABR *e**PP **pP** **15 56 49.0 -3.7**
HABR *e**SP **sP** **15 56 53.2 -3.3**
HABR *e* 15 57 46.2
HABR *e* 15 58 39.4
HABR *e*PPP PPP 15 59 45.3
HABR *e*S **S** **16 04 08.1 -5.1**
HABR *e**SS **pS** **16 04 25.4 +0.6**
HABR *e* 16 06 25.3
HABR *e*SS **SS** **16 07 50.5 -3.1**
HABR *e*SSS SSS 16 09 42.5
HABR pmax pmax
comp=E,42nm,2.3s
HABR pmax pmax
comp=N,34nm,2.3s
HABR pmax pmax
comp=Z,38nm,2.3s
HABR MLR MLR
comp=Z,340nm,18.0s
**MAK Makhachkala 53.64 319** *e*P **P** **15 56 43.0 -1.6**
MAK *e* 15 58 41.9
MAK *e*S **S** **16 04 15.3 -0.9**
MAK pmax pmax
comp=Z,185nm,1.1s
MAK MLR MLR
comp=Z,168nm,16.0s
**GNI Garni 54.34 315** *e*P **P** **15 56 49.4 -0.6**
GNI pmax pmax
comp=Z,29nm,1.2s
**SVE Sverdlovsk 55.44 339**⇓ *i*P **P** **15 56 57.7 +0.3**
SVE pmax pmax
comp=Z,34nm,1.5s
**PMG Port Moresby 55.77 107** *d i*P **P** **15 56 59.4 -1.1**
PMG pmax pmax
comp=Z,81nm,0.9s
**ARU Arti 55.92 337** *c i*P **P** **15 57 01.1 +0.2**
ARU 15 58 00.1
ARU 15 59 04.1
ARU S **S** **16 04 47.1 +0.7**
ARU SS **SS** **16 08 32.4 -0.2**
ARU pmax pmax
comp=Z,22nm,2.5s
**ARU Arti 55.92 337** *e*P **P** **15 57 00.7 -0.2**
comp=Z,20nm,1.3s
**ZEI Tsey 55.96 317** *e*P **P** **15 56 58.5 -3.2**
ZEI pmax pmax
comp=Z,2.0nm,0.6s
**NCK Nalchik 56.45 318** *i* P **P** **15 57 06.5 +1.6**
NCK pmax pmax
comp=Z,5.0nm,1.0s
**NEY Neytrino 56.94 317** *i* P **P** **15 57 08.8 +0.2**
**KBZ Khabaz 57.01 318** P **P** **15 57 09.4 +0.6**
comp=Z,2.5nm,0.9s,baz=135,slow=7.1,SNR=2.6
KBZ LR LR 16 25 10.5
comp=Z,90nm,20.4s,baz=116,slow=40
**KMBO Kilima Mbogo 57.12 264** P **P** **15 57 13.0 +2.6**
comp=Z,1.8nm,0.6s,baz=55,slow=8.1,SNR=8.3
KMBO LR LR 16 18 57.1
comp=Z,308nm,19.2s,baz=89,slow=33
**KMBO Kilima Mbogo 57.12 264** *i* P **P** **15 57 14.0 +3.6**
KMBO pmax pmax
comp=Z,1.0nm,0.4s
**KIV Kislovodsk 57.24 318** *i* P **P** **15 57 10.2 -0.4**
KIV *i* 15 59 24.0
KIV pmax pmax
comp=Z,12nm,1.0s
KIV MLR MLR
comp=Z,138nm,20.0s
**NKL Nikolayevsk 59.01 31** *e*P **P** **15 57 23.0 +0.3**
**STKA Stephens Creek 60.21 133** P **P** **15 57 29.5 -1.9**
comp=Z,5.0nm,0.8s,baz=301,slow=6.3,SNR=9.0

STKA LR LR 16 28 19.2
comp=Z,174nm,18.7s,baz=284,slow=41
**STKA Stephens Creek 60.21 133** *e*P **P 15 57 28.7 -2.6**
STKA pmax pmax
comp=Z,2.0nm,1.0s
**STKA Stephens Creek 60.21 133** *e*P **P 15 57 28.7 -2.6**
comp=Z,1.9nm,1.0s
**YAK Yakutsk 60.24 19** P **P 15 57 30.0 -1.0**
comp=Z,4.9nm,0.5s,baz=316,slow=6.8,SNR=8.8
**YAK Yakutsk 60.24 19** *e*P **P 15 57 29.4 -1.6**
YAK pmax pmax
comp=Z,18nm,1.3s
YAK pmax pmax
comp=E,9.0nm,1.4s
YAK pmax pmax
comp=N,5.0nm,1.3s
**YAK Yakutsk 60.24 19** *e*P **P 15 57 30.1 -0.8**
comp=N,33nm,0.9s
**BRTR Keskin Array B 62.31 311** P **P 15 57 44.2 -1.4**
comp=N,1.9nm,0.7s,baz=126,slow=7.2,SNR=11
BRTR LR LR 16 27 49.8
comp=N,95nm,21.1s,baz=102,slow=39
**BRTR Keskin Array B 62.31 311** *i* P **P 15 57 45.0 -0.7**
BRTR pmax pmax
comp=Z,2.0nm,0.7s
**BR131 Keskin Array S 62.31 311** *e*P **P 15 57 43.6 -2.1**
**VSR Storozhevoye 62.35 325** *i* P **P 15 57 44.3 -1.2**
VSR pmax pmax
comp=Z,8.0nm,0.9s
**MOS Moscow 65.06 329** *e*P **P 15 58 05.6 +2.3**
**OBN Obninsk 65.36 328** *i* P **P 15 58 03.5 -1.7**
OBN *i* 15 58 34.7
OBN pmax pmax
comp=Z,13nm,1.2s
OBN MLR MLR
comp=Z,149nm,15.0s
**KLMR Klimovskoe 66.47 334** *e*P **P 15 58 08.4 -3.9**
KLMR pmax pmax
comp=Z,21nm,1.1s
**MA2 Magadan 67.04 28** P **P 15 58 14.3 -1.7**
comp=Z,37nm,0.8s,baz=238,slow=6.2,SNR=3.5
**CAN Canberra 67.28 133** *e*P **P 15 58 16.4 -1.6**
CAN pmax pmax
comp=Z,17nm,0.7s
**CAN Canberra 67.28 133** *e*P **P 15 58 16.4 -1.6**
comp=Z,17nm,0.7s
**TIXI Tiksi 67.44 11** *de*P **P 15 58 17.3 -1.0**
TIXI pmax pmax
comp=Z,8.0nm,0.6s
**TIXI Tiksi 67.44 11** *e*P **P 15 58 16.6 -1.7**
comp=Z,46nm,1.5s
**HNR Honiara 68.01 103** LR LR 16 31 37.1
comp=Z,72nm,18.6s,baz=268,slow=39
**AKASG Malin Array Be 68.09 322** P **P 15 58 21.4 -1.4**
comp=Z,0.7nm,0.5s,baz=84,slow=4.9,SNR=6.4
AKASG LR LR 16 33 08.8
comp=Z,85nm,18.7s,baz=85,slow=40
**PETK Petropavlovsk- 68.30 36** LR LR 16 29 29.8
comp=Z,75nm,20.5s,baz=234,slow=37
**VRI Vrincioaia 68.61 316**⇑ *i*P **P 15 58 26.4 +0.2**
**VRI Vrincioaia 68.61 316** P **P 15 58 26.7 +0.5**
VRI pmax pmax
comp=Z,148nm,1.2s
**TMCR Tamitsa 68.66 337** *e*P **P 15 58 28.7 +2.7**
TMCR pmax pmax
comp=Z,19nm,0.9s
**PLOR Plostina 68.66 316**⇓ *i*P **P 15 58 26.3 -0.2**
**TESR Tescani 68.79 317**⇑ *i*P **P 15 58 27.3 0.0**
**LSZ Lusaka 68.94 250** *e*P **P 15 58 28.9 +0.1**
LSZ pmax pmax
comp=Z,6.0nm,0.6s
**LSZ Lusaka 68.94 250** *e*P **P 15 58 28.9 +0.1**
comp=Z,5.9nm,0.6s
**MLR Muntele Rosu 69.08 316**⇑ *i*P **P 15 58 29.5 +0.3**
**MLR Muntele Rosu 69.08 316** *e*P **P 15 58 28.4 -0.8**
MLR pmax pmax
comp=Z,22nm,1.1s
**MLR Muntele Rosu 69.08 316** *e*P **P 15 58 28.4 -0.8**
comp=Z,22nm,1.1s
**SEY Seymchan 69.19 25** P **P 15 58 29.1 -0.3**
comp=Z,1.7nm,0.7s,baz=288,slow=8.3,SNR=7.1
**VOIR 69.69 316**⇓ *i*P **P 15 58 32.6 -0.3**
**VOIR 69.69 316** P **P 15 58 32.6 -0.3**
VOIR pmax pmax
comp=Z,8.0nm,1.6s
**ARR Arges 69.97 315**⇑ *i*P **P 15 58 33.5 -1.1**
**BURAR Bucovina Array 69.97 318**⇓ *i*P **P 15 58 34.2 -0.4**
**BUR04 Bucovina Ar. S 69.97 318** *e*P **P 15 58 33.3 -1.4**
**BUR08 Bucovina Ar. S 69.98 318** *e*P **P 15 58 33.7 -1.1**
**JOF Joensuu 70.86 335** P **P 15 58 40.0 +0.4**
JOF pmax pmax
comp=Z,35nm,0.9s
**DRGR 71.51 317** P **P 15 58 44.3 +0.3**
DRGR pmax pmax
comp=Z,61nm,0.7s
**FIA1 FINESS Array S 72.71 332** *e*P **P 15 58 50.1 -0.7**
**FINES FINESS Array B 72.71 332** P **P 15 58 50.0 -0.8**
comp=Z,6.4nm,0.6s,baz=94,slow=5.6,SNR=30
FINES LR LR 16 35 20.3
comp=Z,156nm,18.8s,baz=114,slow=40
**FINES FINESS Array B 72.71 332** P **P 15 58 50.0 -0.8**
**MSF Maaselka 72.85 337** P **P 15 58 52.1 +0.5**
MSF pmax pmax
comp=Z,57nm,1.2s
**SUF Sumiainen 73.04 334** P **P 15 58 52.5 -0.2**
SUF pmax pmax
comp=Z,54nm,1.0s
**KECS Kecovo 73.24 318** *e*P **P 15 58 55.7 +1.5**
KECS pmax pmax
comp=Z,2.0nm,1.0s
**KECS Kecovo 73.24 318** *e*P **P 15 58 55.7 +1.5**
**NIE Niedzica 73.48 319** *e*P **P 15 58 56.2 +0.6**
**NIE Niedzica 73.48 319** *e*P **P 15 58 56.2 +0.6**
**OUL Oulu 73.83 336** P **P 15 58 56.4 -0.9**
OUL pmax pmax
comp=Z,30nm,1.1s
**SGF Sodankyl 74.31 338** P **P 15 59 00.7 +0.7**
SGF pmax pmax
comp=Z,41nm,0.9s
**VYHS Vyhne 74.33 318** *e*P **P 15 59 01.7 +1.1**
**VYHS Vyhne 74.33 318** *e*P **P 15 59 01.7 +1.1**
**VAF Ylistaro 74.66 333** P **P 15 59 02.3 +0.1**
VAF pmax pmax
comp=Z,51nm,0.8s
**OKC Ostrava-Krasne 74.92 319** *e*P **P 15 59 04.3 +0.3**
OKC *ep*P **pP 15 59 11.6 -2.4**
**BOSA Boshof 75.25 238** P **P 15 59 07.7 +1.2**
comp=Z,6.5nm,0.6s,baz=86,slow=4.1,SNR=20
BOSA LR LR 16 31 06.3
comp=Z,48nm,18.1s,baz=72,slow=35
**ARCES ARCESS Array B 75.31 340** P **P 15 59 06.9 +1.0**
comp=Z,2.8nm,0.7s,baz=101,slow=6.3,SNR=14
ARCES LR LR 16 34 57.4
comp=Z,343nm,19.7s,baz=113,slow=38
**DPC Dobruska-Polom 76.14 320** *e*P **P 15 59 11.9 +0.9**
DPC *ep*P **pP 15 59 17.8 -3.3**
**KSP Ksiaz 76.20 320** *e*P **P 15 59 12.6 +1.3**
**KSP Ksiaz 76.20 320** *e*P **P 15 59 12.6 +1.3**
**SOKA Soboth 76.75 316** *i* P **P 15 59 14.5 -0.2**
comp=Z,12nm,1.5s
**DZM Mont Dzumac 76.99 115** LR LR 16 34 19.1
comp=Z,141nm,18.1s,baz=268,slow=37
**GOPC GO Pecny, Ondr 77.09 319** *e*P **P 15 59 16.9 +0.5**
GOPC *ep*P **pP 15 59 23.4 -3.1**
**PRU Pruhonice 77.25 319** *e*P **P 15 59 17.7 +0.4**
PRU *ep*P **pP 15 59 23.7 -3.6**
**MOA Molln 77.33 317** *e*P **P 15 59 17.0 -0.8**
comp=Z,9.0nm,1.3s
**BRG Berggiesshubel 77.69 320** *e*P **P 15 59 19.8 +0.1**
comp=Z,7.1nm,0.9s
**BRG Berggiesshubel 77.69 320** *e*P **P 15 59 19.8 +0.1**
comp=Z,7.1nm,0.9s
BRG pmax pmax
comp=Z,7.0nm,0.9s
**GEA0 GERESS Array S 77.75 318** *e*P **P 15 59 18.3 -1.9**
**GERES GERESS Array B 77.75 318** P **P 15 59 20.2 +0.1**
comp=Z,1.8nm,0.6s,baz=83,slow=5.1,SNR=11
GERES LR LR 16 39 32.0
comp=Z,56nm,18.2s,baz=303,slow=40
**KHC Kasperske Hory 77.84 319** *e*P **P 15 59 20.9 +0.3**
KHC *ep*P **pCP 15 59 27.2 -3.3**
**KHC Kasperske Hory 77.84 319** *e*P **P 15 59 20.5 -0.1**
**CLL Collm 78.30 321** *e*P P 15 59 30.0 +7.0
**CLL Collm 78.30 321** *e*(pP) pP 15 59 30.0 -3.1

**WET Wettzell 78.30 319** P **P 15 59 23.5 +0.4**
WET pmax pmax
comp=Z,23nm,1.4s
**MAW Mawson 78.32 192** P **P 15 59 24.1 +1.4**
comp=Z,2.6nm,0.6s,baz=22,slow=5.4,SNR=10
MAW LR LR 16 30 30.9
comp=Z,78nm,18.2s,baz=61,slow=33
**WTTA Wattenberg 79.09 317** *i* P **P 15 59 26.7 -1.0**
comp=Z,8.7nm,1.1s
**RETA Reutte 79.69 317** *e*P **P 15 59 29.9 -1.0**
comp=Z,10nm,0.9s
**NB2 NORSAR Subarra 79.72 331** P **P 15 59 30.3 -0.4**
comp=Z,18nm,1.0s,baz=93,slow=5.9
**NB2 NORSAR Subarra 79.72 331** P **P 15 59 31.7 +1.0**
NB2 pmax pmax
comp=Z,4.0nm,0.9s
**NB2 NORSAR Subarra 79.72 331** P **P 15 59 30.3 -0.4**
baz=93,slow=5.9
**NOA NORSAR Array B 79.72 331** P **P 15 59 30.1 -0.6**
comp=Z,3.7nm,0.8s,baz=96,slow=5.1,SNR=5.9
NOA LR LR 16 38 48.2
comp=Z,134nm,19.1s,baz=110,slow=39
**SPITS Spitsbergen Ar 79.93 348** P **P 15 59 31.1 -0.4**
comp=Z,2.9nm,0.5s,baz=97,slow=6.0
**DAVOX Davos/Dischmat 80.30 316** P **P 15 59 35.0 +0.7**
comp=Z,4.0nm,0.5s
**DAVOX Davos/Dischmat 80.30 316** P **P 15 59 35.0 +0.7**
**KEST Kesra 81.09 305** LR LR 16 42 17.6
comp=Z,72nm,18.2s,baz=287,slow=40
**TORD Torodi Ar. Bea 90.35 283** P **P 16 00 25.2 +0.3**
comp=Z,1.6nm,0.6s,baz=86,slow=4.9,SNR=11
TORD LR LR 16 40 42.2
comp=Z,155nm,18.6s,baz=30,slow=35
**ESDC Sonseca Array 91.09 310** P **P 16 00 28.0 0.0**
comp=Z,0.9nm,0.5s,baz=64,slow=4.1,SNR=5.5
ESDC LR LR 16 45 00.2
comp=Z,67nm,20.3s,baz=285,slow=38
**VNDA Vanda 92.83 168** P **P 16 00 36.5 +1.5**
comp=Z,1.2nm,0.8s,baz=271,slow=8.2,SNR=2.6
VNDA LR LR 16 39 56.5
comp=Z,78nm,18.0s,baz=296,slow=34
**ILAR Eielson Array 95.00 22** P **P 16 00 44.2 -1.1**
comp=Z,0.3nm,0.5s,baz=296,slow=4.4,SNR=7.2
ILAR PP **PP 16 04 40.6 +6.3**
comp=Z,0.7nm,0.8s,baz=298,slow=7.0,SNR=4.8
**INK Inuvik 97.22 16** P **P 16 00 54.8 -0.6**
comp=Z,2.8nm,1.2s,baz=265,slow=4.9,SNR=3.7
**DBIC Dimbokro 97.67 278** P Pdif 16 01 00.2 +1.6
comp=Z,2.9nm,0.9s,baz=90,slow=8.6,SNR=3.2
DBIC LR LR 16 45 38.4
comp=Z,262nm,18.4s,baz=68,slow=36
**YKA Yellowknife Ar 106.64 13** PP PP 16 06 06.3 +4.2
comp=Z,0.5nm,0.7s,baz=337,slow=7.8,SNR=6.1
**ULM Lac du Bonnet 121.66 7** PKP **PKPdf 16 06 15.2 -1.5**
comp=Z,1.1nm,0.5s,baz=85,slow=2.9,SNR=3.4
**PDAR Pinedale Array 125.42 21** PKP **PKPdf 16 06 24.4 -0.2**
comp=Z,1.2nm,0.9s,baz=48,slow=2.2,SNR=5.2
**TXAR Lajitas Array 139.49 24** PKP **PKPdf 16 06 51.0 -0.2**
comp=Z,1.0nm,1.1s,baz=344,slow=1.1,SNR=3.4
**PLCA Paso Flores 144.30 201** PKP **PKPdf 16 06 59.2 -0.2**
comp=Z,3.5nm,0.8s,baz=200,slow=2.3,SNR=3.7
**CPUP Villa Florida 146.94 232** PKPbc **PKPbc 16 07 06.2 0.0**
comp=Z,4.3nm,0.8s,baz=134,slow=3.6,SNR=8.1
**ROC1 El Roble 151.21 207** *e*PKPbc **PKPbc 16 07 17.3 +0.1**

*JMA **16** 16:04:54.5±0.3,30.°95N×139.°19E, h468km±4km, M3.6*
*IDC **16** 16:04:59.7±0.8,30.°96N×138.°71E, h390km±17km, mb3.1/7, mb1 3.1/10, mb1mx2.9/44, mbtmp3.8/10, Error ellipse: s-maj=46.1km s-min=12.6km az=70.0*
**ISC 16 16:04:58.5±0.8, 30.°90N±0.°07×139.°0E±0.°1, h384km, n30, σ1§60/33, mb3.5/8, Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **JHJ** | **Hachijo jima 2** | **2.32** | **17** | P | | **Pn** | | **16 05 57.3** | **+2.2** |
| JHJ | 8.2nm,0.3s,baz=339,slow=20,SNR=6.4 | | | S | | **S** | | **16 06 43.7** | **+2.9** |
| | 34nm,0.3s,baz=10,slow=23,SNR=6.5 | | | | | | | | |
| **JHJ2** | **Mitsune** | **2.32** | **18** | P | | **Pn** | | **16 05 58.7** | **+3.6** |
| **JIE** | **Ise** | **3.97** | **332** | P | | **Pn** | | **16 06 11.1** | **+1.9** |
| **JHMK** | **Hamakita** | **4.04** | **346** | P | | **Pn** | | **16 06 11.8** | **+2.1** |
| **HMMJ** | **Hamamatsu 2** | **4.08** | **346** | P | | **Pn** | | **16 06 12.3** | **+2.0** |
| **BSO3** | **Boso 3** | **4.11** | **18** | P | | **Pn** | | **16 06 10.9** | **+0.7** |
| **BSO1** | **Boso 1** | **4.11** | **24** | P | | **Pn** | | **16 06 11.5** | **+1.5** |
| **BSO4** | **Boso 4** | **4.24** | **15** | P | | **Pn** | | **16 06 12.7** | **+1.0** |
| BSO4 | | | | S | | **S** | | **16 07 14.5** | **+3.3** |
| **JOD2** | **Odawara 2** | **4.35** | **1** | P | | **Pn** | | **16 06 14.0** | **+1.0** |
| **JNY** | **Yasuok** | **4.54** | **349** | P | | **Pn** | | **16 06 16.4** | **+1.4** |
| **JAO** | **Obara** | **4.58** | **342** | P | | **Pn** | | **16 06 17.0** | **+1.6** |
| **CBIJ** | **Chichi jima** | **4.72** | **143** | P | | **Pn** | | **16 06 17.1** | **+0.1** |
| **JCJ** | **Chichijima** | **4.72** | **143** | P | | **Pn** | | **16 06 17.4** | **+0.5** |
| | 10nm,0.3s,baz=352,slow=20,SNR=9.9 | | | | | | | | |
| JCJ | | | | S | | **S** | | **16 07 20.2** | **-0.4** |
| | 26nm,0.3s,baz=319,slow=23,SNR=14 | | | | | | | | |
| **JHU** | **Hanno** | **4.95** | **3** | P | | **Pn** | | **16 06 19.4** | **+0.3** |
| **JRY** | **Ryogami san** | **5.11** | **359** | P | | **Pn** | | **16 06 21.2** | **+0.4** |
| JRY | | | | *e*S | | **S** | | **16 07 29.3** | **+1.7** |
| **JYT** | **Yasato** | **5.41** | **11** | P | | **Pn** | | **16 06 23.6** | **-0.4** |
| **JAG** | **Ashikaga** | **5.53** | **4** | P | | **Pn** | | **16 06 25.0** | **-0.3** |
| **MJAR** | **Matsushiro Arr** | **5.66** | **354** | P | | **Pn** | | **16 06 26.9** | **+0.2** |
| | 1.7nm,0.3s,baz=165,slow=9.6,SNR=20 | | | | | | | | |
| **MAT** | **Matsushiro** | **5.67** | **354** | P | | **Pn** | | **16 06 27.2** | **+0.4** |
| **JHO** | **Hitachi** | **5.85** | **13** | P | | **Pn** | | **16 06 28.1** | **-0.7** |
| **JFK** | **Kawauchi** | **6.64** | **13** | S | | **S** | | **16 07 55.8** | **-2.7** |
| **KSRS** | **Korea Array** | **11.23** | **309** | P | | **P** | | **16 07 29.4** | **-0.8** |
| | 0.2nm,0.3s,baz=124,slow=11,SNR=5.2 | | | | | | | | |
| **SONM** | **Songino Array** | **30.04** | **314** | P | | **P** | | **16 10 32.3** | **-1.5** |
| | 0.6nm,0.6s,baz=111,slow=7.9,SNR=2.7 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **44.78** | **317** | P | | **P** | | **16 12 34.9** | **-0.7** |
| | 1.1nm,0.4s,baz=104,slow=8.5,SNR=4.6 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **45.91** | **307** | P | | **P** | | **16 12 43.5** | **-0.9** |
| | 0.7nm,0.3s,baz=80,slow=11,SNR=22 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **50.74** | **186** | P | | **P** | | **16 13 21.7** | **+0.6** |
| | 0.4nm,0.3s,baz=1.4,slow=7.8,SNR=20 | | | | | | | | |
| **ASAR** | **Alice Springs** | **54.47** | **186** | P | | **P** | | **16 13 49.1** | **+1.1** |
| | 0.2nm,0.5s,baz=355,slow=4.9,SNR=14 | | | | | | | | |
| **INK** | **Inuvik** | **60.78** | **25** | P | | P | | 16 14 36.2 | +5.4 |
| | 4.0nm,0.4s,baz=213,slow=7.2,SNR=8.3 | | | | | | | | |
| **FINES** | **FINESS Array B** | **73.29** | **332** | P | | **P** | | **16 15 48.8** | **0.0** |
| | 1.1nm,0.5s,baz=58,slow=4.7,SNR=9.2 | | | | | | | | |
| **AKASG** | **Malin Array Be** | **77.89** | **322** | P | | **P** | | **16 16 14.2** | **-0.6** |
| | 0.8nm,0.4s,baz=52,slow=5.4,SNR=4.4 | | | | | | | | |

*IDC **16** 16:16:10.5±1.1,37.°71N×142.°50E, h0km, mb3.4/4, mb1 3.6/7, mb1mx3.4/55, mbtmp3.5/7, ML3.4/3, Error ellipse: s-maj=27.6km s-min=22.4km az=121.0*
*ISCJB **16** 16:16:18.5±1.0,37.°41N±0.°04×141.°88E±0.°09, h48km±11km, mb3.4/4, Error ellipse: s-maj=11.7km s-min=6.3km az=15.3*
*JMA **16** 16:16:19.6±0.1,37.°44N×141.°79E, h43km±2km, M3.6*
*JMA Felt I J1.*
**ISC 16 16:16:16.5±1.7, 37.°46N±0.°05×141.°99E±0.°08, h31km±12km, n25, σ1§63/30, mb3.5/4, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **JFK** | **Kawauchi** | **0.89** | **264** | P | | **Pb** | | **16 16 33.6** | **+0.2** |
| JFK | | | | S | | **Sb** | | **16 16 43.4** | **-1.6** |
| **ONAJ** | **Iwakimizuishiy** | **1.01** | **249** | P | | **Pn** | | **16 16 35.3** | **+0.7** |
| ONAJ | | | | S | | **Sb** | | **16 16 46.6** | **-1.9** |
| **JMM** | **Marumori** | **1.03** | **293** | P | | **Pb** | | **16 16 36.0** | **+0.3** |
| JMM | | | | S | | **Sb** | | **16 16 47.5** | **-1.3** |
| **JIO** | **Ouri** | **1.11** | **333** | P | | **Pb** | | **16 16 38.4** | **+1.3** |
| JIO | | | | S | | **Sn** | | **16 16 51.4** | **+1.3** |
| **JFT** | **Otama** | **1.31** | **273** | P | | **Pn** | | **16 16 40.2** | **+1.5** |
| JFT | | | | S | | **Sn** | | **16 16 54.9** | **-0.3** |
| **JOU** | **Okura** | **1.38** | **311** | P | | **Pb** | | **16 16 41.6** | **0.0** |
| JOU | | | | S | | **Sb** | | **16 16 58.3** | **-0.6** |
| **JHO** | **Hitachi** | **1.42** | **234** | P | | **Pn** | | **16 16 40.7** | **+0.6** |
| JHO | | | | S | | **Sn** | | **16 16 56.4** | **-1.4** |
| **JMK** | **Ichinoseki** | **1.60** | **338** | P | | **Pb** | | **16 16 45.9** | **+0.5** |
| JMK | | | | *e*S | | **Sb** | | **16 17 05.4** | **+0.1** |
| **JYS** | **Shirataka** | **1.70** | **297** | P | | **Pb** | | **16 16 46.0** | **-1.0** |
| JYS | | | | *e*S | | **Sn** | | **16 17 05.9** | **+1.2** |
| **JFY** | **Yanaizu** | **1.82** | **269** | P | | **Pn** | | **16 16 47.1** | **+1.5** |
| JFY | | | | *e*S | | **Sn** | | **16 17 07.6** | **0.0** |
| **JYK** | **Kaneyama** | **1.94** | **319** | P | | **Pb** | | **16 16 50.0** | **-1.1** |
| **MJAR** | **Matsushiro Arr** | **3.16** | **254** | Pn | | **Pn** | | **16 17 06.4** | **+2.2** |
| | 2.6nm,0.3s,baz=78,slow=17,SNR=24 | | | | | | | | |
| MJAR | | | | Sn | | **Sb** | | **16 17 50.4** | **+0.4** |
| | 3.7nm,0.3s,baz=306,slow=34,SNR=4.3 | | | | | | | | |
| **MAT** | **Matsushiro** | **3.16** | **254** | P | | **Pn** | | **16 17 06.5** | **+2.4** |
| MAT | | | | *e*S | | **Sn** | | **16 17 43.7** | **+2.9** |
| **JHJ** | **Hachijo jima 2** | **4.69** | **203** | Pn | | **Pn** | | **16 17 28.0** | **+2.8** |
| | 12nm,0.3s,baz=343,slow=19,SNR=3.1 | | | | | | | | |
| **KSRS** | **Korea Array** | **11.18** | **274** | Pn | | Pn | | 16 18 59.4 | +5.3 |
| | 0.1nm,0.3s,baz=89,slow=14,SNR=3.7 | | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **27.98** | **122** | T | | T | | 16 52 27.4 | |
| | baz=314,slow=75,SNR=15 | | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **27.99** | **122** | T | | T | | 16 52 29.0 | |
| | baz=314,slow=75,SNR=21 | | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.00** | **122** | T | | T | | 16 52 29.9 | |
| | baz=314,slow=75,SNR=19 | | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.72** | **124** | T | | T | | 16 52 38.8 | |
| | baz=316,slow=75,SNR=13 | | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.72** | **124** | T | | T | | 16 52 53.9 | |
| | baz=316,slow=75,SNR=16 | | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.73** | **124** | T | | T | | 16 52 38.5 | |
| | baz=316,slow=75,SNR=11 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **44.28** | **302** | P | | **P** | | **16 24 23.5** | **+0.3** |
| | 0.4nm,0.7s,baz=75,slow=8.1,SNR=4.0 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **57.55** | **189** | P | | **P** | | **16 26 03.7** | **+0.5** |
| | 0.5nm,0.5s,baz=5.9,slow=7.3,SNR=9.5 | | | | | | | | |
| **ASAR** | **Alice Springs** | **61.28** | **188** | P | | **P** | | **16 26 30.0** | **+1.1** |
| | 0.4nm,0.8s,baz=13,slow=6.8,SNR=3.7 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **63.21** | **30** | P | | **P** | | **16 26 37.1** | **-4.2** |
| | 0.1nm,0.6s,baz=284,slow=7.6,SNR=3.2 | | | | | | | | |

*ISCJB **16** 16:18:59.9±0.6,7.°80N±0.°10×94.°0E±0.°1, h18km, mb3.7/11, MS3.5/2, Error ellipse: s-maj=19.8km s-min=12.3km az=153.3*
*IDC **16** 16:19:05.9±3.6,7.°79N×94.°17E, h54km±34km, mb3.5/11, mb1 3.6/13, mb1mx3.4/58, mbtmp3.8/13, ML3.7/2, MS3.3/4, Ms1 3.4/4, ms1mx2.9/32, Error ellipse: s-maj=30.2km s-min=15.1km az=64.0*
**ISC 16 16:19:02.0±0.7, 7.°8N±0.°1×93.°9E±0.°1, h18km, n18, σ1§66/15, mb3.9/11, Nicobar Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **PSI** | **Prapat** | **7.01** | **135** | P | | **Pn** | | **16 20 46.0** | **+2.0** |
| | 0.9nm,0.3s,baz=327,slow=17,SNR=2.8 | | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **11.68** | **24** | P | | **Pn** | | **16 21 49.0** | **+1.1** |
| | 0.2nm,0.3s,baz=212,slow=15,SNR=16 | | | | | | | | |
| CMAR | | | | LR | | LR | | 16 25 39.5 | |
| | comp=Z,74nm,19.1s,baz=236,slow=34 | | | | | | | | |
| **PALK** | **Pallekele** | **13.12** | **269** | LR | | LR | | 16 26 59.4 | |
| | comp=Z,142nm,18.1s,baz=116,slow=35 | | | | | | | | |
| **H08S3** | **Diego Garcia H** | **26.30** | **235** | T | | T | | 16 51 10.8 | |
| | baz=54,slow=76,SNR=57 | | | | | | | | |
| **H08S2** | **Diego Garcia H** | **26.30** | **235** | T | | T | | 16 51 19.9 | |
| | baz=54,slow=76,SNR=41 | | | | | | | | |
| **H08S1** | **Diego Garcia H** | **26.31** | **235** | T | | T | | 16 51 17.7 | |
| | baz=54,slow=76,SNR=5.2 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **40.13** | **348** | P | | **P** | | **16 26 35.6** | **-1.3** |
| | 0.4nm,0.7s,baz=173,slow=8.6,SNR=4.1 | | | | | | | | |
| **SONM** | **Songino Array** | **41.30** | **13** | P | | **P** | | **16 26 46.3** | **-0.3** |
| | 0.3nm,0.5s,baz=202,slow=11,SNR=2.4 | | | | | | | | |
| **KSRS** | **Korea Array** | **42.67** | **41** | LR | | LR | | 16 45 35.6 | |
| | comp=Z,20nm,19.3s,baz=230,slow=37 | | | | | | | | |
| **GEYT** | **Alibeck** | **44.13** | **318** | P | | **P** | | **16 27 09.5** | **-0.1** |
| | 1.7nm,0.6s,baz=110,slow=7.8,SNR=3.2 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **46.62** | **353** | P | | **P** | | **16 27 28.0** | **-1.0** |
| | 1.1nm,0.4s,baz=176,slow=8.0,SNR=9.2 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **48.38** | **125** | P | | **P** | | **16 27 40.6** | **-2.6** |
| | 0.2nm,0.7s,baz=303,slow=9.1,SNR=7.1 | | | | | | | | |
| WRA | | | | PcP | | **PcP** | | **16 29 11.4** | **+1.6** |
| | 0.3nm,0.5s,baz=311,slow=2.9,SNR=5.4 | | | | | | | | |
| **ASAR** | **Alice Springs** | **50.02** | **130** | P | | **P** | | **16 27 53.2** | **-2.5** |
| | 0.6nm,0.8s,baz=302,slow=7.6,SNR=8.2 | | | | | | | | |
| ASAR | | | | PcP | | **PcP** | | **16 29 14.1** | **-1.6** |
| | 0.2nm,0.7s,baz=298,slow=3.2,SNR=2.9 | | | | | | | | |
| **FINES** | **FINESS Array B** | **72.70** | **332** | P | | **P** | | **16 30 27.0** | **-1.7** |
| | 2.8nm,0.9s,baz=193,slow=7.6,SNR=3.7 | | | | | | | | |
| FINES | | | | LR | | LR | | 17 04 14.4 | |
| | comp=Z,58nm,18.1s,baz=38,slow=37 | | | | | | | | |
| **ARCES** | **ARCESS Array B** | **75.28** | **340** | P | | **P** | | **16 30 44.1** | **+0.4** |
| | 2.0nm,0.8s,baz=96,slow=5.9,SNR=3.3 | | | | | | | | |
| **BOSA** | **Boshof** | **75.36** | **238** | P | | **P** | | **16 30 44.9** | **-0.1** |
| | 0.9nm,0.7s,baz=67,slow=6.4,SNR=2.0 | | | | | | | | |
| **NOA** | **NORSAR Array B** | **79.71** | **331** | P | | **P** | | **16 31 09.4** | **+0.8** |
| | 1.6nm,0.9s,baz=100,slow=4.5,SNR=2.9 | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **90.42** | **283** | P | | **P** | | **16 32 04.9** | **+1.7** |
| | 0.1nm,0.3s,baz=90,slow=8.6,SNR=2.5 | | | | | | | | |

*ISCJB **16** 16:21:50.3±0.4,46.°83N±0.°05×153.°01E±0.°07, h56km, mb4.2/23, MS3.7/8, Error ellipse: s-maj=8.9km s-min=3.4km az=138.8*
*SKHL **16** 16:21:52.1±0.7,46.°96N×153.°12E, h74km±5km, mb4.6/9*
*MOS **16** 16:21:53.4±1.2,46.°94N×152.°92E, h80km, mb4.3/4, Error ellipse: s-maj=10.9km s-min=7.0km az=80.9*
*NEIC **16** 16:21:54.5±1.0,46.°97N×152.°96E, h75km±9km, mb4.4/2, Error ellipse: s-maj=14.1km s-min=6.7km az=135.0*
*IDC **16** 16:21:55.2±2.4,46.°99N×152.°88E, h80km±21km, mb3.8/19, mb1 4.0/24, mb1mx3.9/51, mbtmp4.1/24, MS3.5/8, Ms1 3.6/8, ms1mx3.1/40, Error ellipse: s-maj=17.5km s-min=11.1km az=140.0*
**ISC 16 16:21:51.5±0.6, 46.°81N±0.°07×153.°10E±0.°07, h56km, n120, σ1§84/131, mb4.2/23, MS3.7/8, 6C-8D, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **KUR** | **Kuril'sk** | **3.97** | **248** | *d* iPN | | **Pn** | | **16 22 51.2** | **+1.4** |
| KUR | | | | *i* S | | **Sn** | | **16 23 37.5** | **+2.5** |
| KUR | | | | pmax | | pmax | | | |
| | comp=Z,88nm,0.4s | | | | | | | | |
| KUR | | | | smax | | smax | | | |
| | comp=N,153nm,0.7s | | | | | | | | |
| KUR | | | | smax | | smax | | | |
| | comp=E,205nm,0.7s | | | | | | | | |
| **KUR** | **Kuril'sk** | **3.97** | **248** | *i* P | | **Pn** | | **16 22 51.2** | **+1.4** |
| KUR | | | | AMB | | AMB | | 16 22 58.2 | |
| | comp=E,88nm,0.4s | | | | | | | | |
| KUR | | | | *i* S | | **Sn** | | **16 23 36.0** | **+1.0** |
| KUR | | | | A | | A | | 16 23 45.6 | |
| | comp=E,205nm,0.5s | | | | | | | | |
| KUR | | | | A | | A | | 16 23 45.6 | |
| | comp=E,153nm,0.5s | | | | | | | | |
| **SKR** | **Severo-Kuril's** | **4.36** | **26** | *e*PN | | **Pn** | | **16 22 51.7** | **-3.4** |
| SKR | | | | *e*S | | **Sn** | | **16 23 40.4** | **-4.2** |
| SKR | | | | smax | | smax | | | |
| | comp=E,304nm,0.5s | | | | | | | | |
| SKR | | | | smax | | smax | | | |
| | comp=N,364nm,0.7s | | | | | | | | |
| **SKR** | **Severo-Kuril's** | **4.36** | **26** | *e*P | | **Pn** | | **16 22 51.7** | **-3.4** |
| SKR | | | | *e*S | | **Sn** | | **16 23 39.7** | **-4.9** |
| SKR | | | | A | | A | | 16 24 02.5 | |
| | comp=N,350nm,0.5s | | | | | | | | |
| SKR | | | | A | | A | | 16 24 02.5 | |
| | comp=N,364nm,0.5s | | | | | | | | |
| **SHO** | **Shikotan** | **5.30** | **239** | *i* PN | | **Pn** | | **16 23 07.1** | **-1.0** |
| SHO | | | | *e*S | | **Sn** | | **16 24 08.8** | **+0.9** |
| SHO | | | | pmax | | pmax | | | |
| | comp=Z,57nm,0.5s | | | | | | | | |
| SHO | | | | pmax | | pmax | | | |
| | comp=N,103nm,0.6s | | | | | | | | |
| SHO | | | | pmax | | pmax | | | |
| | comp=E,81nm,0.6s | | | | | | | | |
| SHO | | | | smax | | smax | | | |
| | comp=N,230nm,0.8s | | | | | | | | |
| SHO | | | | smax | | smax | | | |
| | comp=E,447nm,0.8s | | | | | | | | |
| **SHO** | **Shikotan** | **5.30** | **239** | *e*P | | **Pn** | | **16 23 08.1** | **0.0** |
| SHO | | | | AMB | | AMB | | 16 23 18.3 | |
| | comp=E,57nm,0.5s | | | | | | | | |
| SHO | | | | *e*S | | **Sn** | | **16 24 08.8** | **+0.9** |
| SHO |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| YUK | | | | AMB | AMB | 16 23 20.4 | |
| | comp=E,89nm,0.4s | | | | | | |
| YUK | | | | *e*S | **Sn** | **16 24 21.1** | **+1.1** |
| YUK | | | | A | A | 16 24 27.5 | |
| | comp=E,142nm,0.4s | | | | | | |
| YUK | | | | A | A | 16 24 27.5 | |
| | comp=E,76nm,0.4s | | | | | | |
| **NEM2** | **Nemuro 2** | **6.24** | **239** | P | **Pn** | **16 23 20.0** | **-0.9** |
| NEM2 | | | | *e*S | **Sn** | **16 24 28.4** | **-2.4** |
| **JRA** | **Rausu** | **6.31** | **246** | P | **Pn** | **16 23 23.5** | **+1.7** |
| **JNK** | **Nakash** | **6.74** | **244** | P | **Pn** | **16 23 28.7** | **+0.9** |
| JNK | | | | *e*S | **Sn** | **16 24 43.0** | **-0.1** |
| **PETK** | **Petropavlovsk-** | **6.97** | **24** | P | **Pn** | **16 23 31.2** | **+0.3** |
| | comp=E,0.8nm,0.3s,baz=179,slow=12,SNR=20 | | | | | | |
| PETK | | | | S | **Sn** | **16 24 54.8** | **+6.1** |
| | baz=188,slow=17,SNR=2.3 | | | | | | |
| **JTKR** | **Abashiri--Toko** | **7.06** | **250** | P | **Pn** | **16 23 34.0** | **+1.8** |
| **JAK** | **Akkeshi** | **7.08** | **240** | P | **Pn** | **16 23 31.5** | **-0.9** |
| JAK | | | | *e*S | **Sn** | **16 24 47.8** | **-3.6** |
| **YSS** | **Yuzh-Sakhalins** | **7.09** | **275** | *e*PN | **Pn** | **16 23 34.8** | **+2.3** |
| YSS | | | | *e*S | **Sn** | **16 24 52.3** | **+0.7** |
| YSS | | | | pmax | pmax | | |
| | comp=Z,20nm,1.3s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **7.09** | **275** | *e*P | **Pn** | **16 23 34.8** | **+2.3** |
| YSS | | | | AMB | AMB | 16 23 36.8 | |
| | comp=Z,20nm,1.0s | | | | | | |
| YSS | | | | *e*S | **Sn** | **16 24 51.3** | **-0.3** |
| **PET** | **Petropavlovsk** | **7.18** | **28** | *e*PN | **Pn** | **16 23 36.6** | **+2.9** |
| **PET** | **Petropavlovsk** | **7.18** | **28** | *i* P | **Pn** | **16 23 31.8** | **-1.9** |
| PET | | | | *i* S | **Sn** | **16 24 48.3** | **-5.4** |
| PET | | | | A | A | 16 24 50.9 | |
| | comp=Z,73nm,0.6s | | | | | | |
| PET | | | | A | A | 16 24 50.9 | |
| | comp=Z,87nm,0.6s | | | | | | |
| **PET** | **Petropavlovsk** | **7.18** | **28** | *e*Pn | **Pn** | **16 23 35.1** | **+1.4** |
| **JAR** | **Ashorobuto** | **7.48** | **245** | P | **Pn** | **16 23 38.9** | **+1.0** |
| JAR | | | | *e*S | **Sn** | **16 25 00.1** | **-1.2** |
| **JOB** | **Onbets** | **7.65** | **243** | P | **Pn** | **16 23 40.2** | **0.0** |
| JOB | | | | *e*S | **Sn** | **16 25 02.4** | **-3.1** |
| **HRK** | **Horoka** | **7.80** | **248** | *e*P | **Pn** | **16 23 43.9** | **+1.6** |
| **JKA** | **Kamikawa-asahi** | **7.86** | **254** | *e*P | **Pn** | **16 23 45.9** | **+2.9** |
| **ASAJ** | **Asahikawa** | **7.86** | **254** | P | **Pn** | **16 23 45.9** | **+2.9** |
| | comp=Z,1.3nm,0.3s,baz=82,slow=17,SNR=11 | | | | | | |
| **ASAJ** | **Asahikawa** | **7.86** | **254** | *e*Pn | **Pn** | **16 23 44.5** | **+1.4** |
| | comp=Z,17nm,1.0s | | | | | | |
| **JKK2** | **Kamakawa 2** | **7.86** | **252** | P | **Pn** | **16 23 45.4** | **+2.3** |
| **TYV** | **Tymovskoe** | **7.99** | **304** | *e*P | **Pn** | **16 23 45.9** | **+1.0** |
| TYV | | | | AMB | AMB | 16 23 50.0 | |
| | comp=Z,10.0nm,0.9s | | | | | | |
| **JCH** | **Churui** | **8.10** | **242** | P | **Pn** | **16 23 45.6** | **-0.8** |
| JCH | | | | *e*S | **Sn** | **16 25 12.4** | **-4.1** |
| **JFR** | **Furan** | **8.29** | **248** | P | **Pn** | **16 23 50.5** | **+1.5** |
| **MYR** | **Moyori** | **8.34** | **241** | *e*P | **Pn** | **16 23 49.1** | **-0.5** |
| **JBT2** | **Biratori 2** | **8.63** | **246** | P | **Pn** | **16 23 54.2** | **+0.6** |
| **JNBK** | **Urakawa-nobuka** | **8.66** | **242** | P | **Pn** | **16 23 53.1** | **-1.0** |
| JNBK | | | | *e*S | **Sn** | **16 25 25.3** | **-5.0** |
| **JNB** | **Noboribetsu** | **9.63** | **248** | P | **Pn** | **16 24 07.5** | **+0.2** |
| JNB | | | | *e*S | **Sn** | **16 25 51.0** | **-2.9** |
| **JKB** | **Kayabe** | **9.94** | **245** | P | **Pn** | **16 24 09.9** | **-1.7** |
| JKB | | | | *e*S | **Sn** | **16 25 54.4** | **-7.1** |
| **NKL** | **Nikolayevsk** | **10.20** | **313** | *e*PN | **Pn** | **16 24 15.5** | **+0.5** |
| NKL | | | | pmax | pmax | | |
| | comp=N,38nm,1.2s | | | | | | |
| NKL | | | | pmax | pmax | | |
| | comp=Z,70nm,1.2s | | | | | | |
| **NKL** | **Nikolayevsk** | **10.20** | **313** | *e*P | **Pn** | **16 24 15.5** | **+0.5** |
| NKL | | | | AMB | AMB | 16 24 18.5 | |
| | comp=Z,38nm,1.0s | | | | | | |
| NKL | | | | AMB | AMB | 16 24 18.5 | |
| | comp=Z,70nm,1.0s | | | | | | |
| **JYM2** | **Yakumo 2** | **10.23** | **247** | P | **Pn** | **16 24 15.2** | **-0.4** |
| **JANG** | **Nango** | **10.57** | **237** | P | Pn | 16 24 14.9 | -5.3 |
| JANG | | | | *e*S | Sn | 16 26 04.7 | -12 |
| **GRNR** | **Gornyy** | **11.69** | **296** | *e*P | **Pn** | **16 24 36.0** | **+0.6** |
| GRNR | | | | AMB | AMB | 16 24 39.0 | |
| | comp=Z,14nm,0.9s | | | | | | |
| **MA2** | **Magadan** | **12.86** | **355** | P | **Pn** | **16 24 51.8** | **+0.4** |
| | comp=Z,1.3nm,0.3s,baz=166,slow=8.4,SNR=8.9 | | | | | | |
| **EKMR** | **Ekimchan** | **14.38** | **303** | *e*P | **Pn** | **16 25 11.0** | **-0.9** |
| EKMR | | | | AMB | AMB | 16 25 27.0 | |
| | comp=Z,6.0nm,0.8s | | | | | | |
| **KLR** | **Kul'dur** | **14.48** | **287** | P | **P** | **16 25 18.3** | **-0.2** |
| | comp=Z,0.0nm,0.3s,baz=101,slow=15,SNR=7.8 | | | | | | |
| KLR | | | | LR | LR | 16 30 11.0 | |
| | comp=Z,11nm,20.7s,baz=151,slow=35 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **15.02** | **268** | P | **Pn** | **16 25 21.1** | **+0.8** |
| | comp=Z,0.2nm,0.3s,baz=64,slow=13,SNR=3.3 | | | | | | |
| USRK | | | | LR | LR | 16 30 49.5 | |
| | comp=Z,91nm,21.3s,baz=136,slow=36 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **15.11** | **233** | P | **P** | **16 25 25.3** | **-0.3** |
| | comp=Z,0.2nm,0.3s,baz=30,slow=9.0,SNR=7.8 | | | | | | |
| **SEY** | **Seymchan** | **16.16** | **359** | P | **P** | **16 25 37.1** | **+0.1** |
| | comp=Z,0.2nm,0.3s,baz=166,slow=14,SNR=4.5 | | | | | | |
| **BMKR** | **Bomnak** | **17.19** | **306** | *e*P | **Pn** | **16 25 46.5** | **-1.1** |
| BMKR | | | | AMB | AMB | 16 25 53.0 | |
| | comp=Z,10.0nm,1.0s | | | | | | |
| **ZEA** | **Zeya** | **17.85** | **302** | *e*rx | rx | 16 25 57.7 | |
| **YAK** | **Yakutsk** | **20.26** | **327** | P | Pn | 16 26 22.6 | -1.8 |
| | comp=Z,5.0nm,0.5s,baz=207,slow=6.2,SNR=6.5 | | | | | | |
| **KSRS** | **Korea Array** | **20.80** | **252** | P | **P** | **16 26 30.1** | **+2.1** |
| | comp=Z,3.7nm,0.9s,baz=57,slow=11,SNR=5.7 | | | | | | |
| KSRS | | | | LR | LR | 16 34 53.6 | |
| | comp=Z,44nm,18.5s,baz=75,slow=38 | | | | | | |
| **KSAR** | **Wonju Array Be** | **20.84** | **252** | P | **P** | **16 26 30.2** | **+1.8** |
| **KSAR** | **Wonju Array Be** | **20.84** | **252** | *e*P | **P** | **16 26 30.2** | **+1.8** |
| **KSAR** | **Wonju Array Be** | **20.84** | **252** | P | **P** | **16 26 30.1** | **+1.8** |
| **H11N2** | **WAKE ISLAND Hy** | **29.28** | **153** | T | T | 16 59 03.9 | |
| | baz=340,slow=75,SNR=237 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **29.29** | **153** | T | T | 16 59 10.6 | |
| | baz=340,slow=75,SNR=190 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **29.30** | **153** | T | T | 16 59 23.5 | |
| | baz=340,slow=75,SNR=159 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **30.37** | **154** | T | T | 17 00 52.2 | |
| | baz=341,slow=76,SNR=633 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **30.38** | **154** | T | T | 17 00 31.0 | |
| | baz=341,slow=76,SNR=650 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **30.39** | **154** | T | T | 17 00 36.8 | |
| | baz=341,slow=76,SNR=555 | | | | | | |
| **SONM** | **Songino Array** | **31.30** | **289** | P | **P** | **16 28 04.9** | **-1.4** |
| | comp=Z,0.2nm,0.3s,baz=61,slow=6.8,SNR=3.1 | | | | | | |
| SONM | | | | LR | LR | 16 40 47.9 | |
| | comp=Z,106nm,18.6s,baz=24,slow=36 | | | | | | |
| **ILAR** | **Eielson Array** | **36.51** | **39** | P | **P** | **16 28 51.8** | **+0.8** |
| | comp=Z,1.6nm,0.9s,baz=262,slow=7.4,SNR=10 | | | | | | |
| **INK** | **Inuvik** | **41.61** | **32** | P | **P** | **16 29 34.9** | **+1.4** |
| | comp=Z,4.6nm,0.9s,baz=285,slow=8.2,SNR=15 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.56** | **306** | PcP | **PcP** | **16 31 32.9** | **+0.1** |
| | comp=Z,0.9nm,0.7s,baz=90,slow=3.0,SNR=5.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **46.90** | **297** | P | **P** | **16 30 14.7** | **-1.5** |
| | comp=Z,1.0nm,0.9s,baz=62,slow=5.6,SNR=7.0 | | | | | | |
| MKAR | | | | PcP | **PcP** | **16 31 47.4** | **-0.6** |
| | comp=Z,0.9nm,0.9s,baz=84,slow=3.0,SNR=3.5 | | | | | | |
| MKAR | | | | LR | LR | 16 51 13.8 | |
| | comp=Z,97nm,18.3s,baz=40,slow=38 | | | | | | |
| **LSA** | **Lhasa** | **50.26** | **273** | *e*P | **P** | **16 30 43.9** | **+1.2** |
| LSA | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.4s | | | | | | |
| **LSA** | **Lhasa** | **50.26** | **273** | *e*P | **P** | **16 30 43.9** | **+1.2** |
| | comp=Z,2.0nm,0.4s | | | | | | |
| **RES** | **Resolute Bay** | **50.78** | **19** | P | **P** | **16 30 44.5** | **-0.8** |
| | comp=Z,2.1nm,0.9s,baz=322,slow=8.8,SNR=4.2 | | | | | | |
| **YKA** | **Yellowknife Ar** | **50.88** | **37** | P | **P** | **16 30 47.4** | **+1.1** |
| | comp=Z,2.3nm,0.8s,baz=297,slow=7.3,SNR=20 | | | | | | |
| YKA | | | | PcP | **PcP** | **16 32 02.6** | **+0.5** |
| | comp=Z,0.6nm,0.8s,baz=301,slow=3.7,SNR=3.9 | | | | | | |
| **CHTO** | **Chiang Mai** | **52.12** | **257** | P | **P** | **16 30 55.9** | **-0.2** |
| CHTO | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.9s | | | | | | |
| **CHTO** | **Chiang Mai** | **52.12** | **257** | *e*P | **P** | **16 30 55.9** | **-0.2** |
| **CHTO** | **Chiang Mai** | **52.12** | **257** | P | **P** | **16 30 55.9** | **-0.2** |
| | comp=Z,3.1nm,0.9s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **52.37** | **256** | P | **P** | **16 30 59.6** | **+1.6** |
| | comp=Z,1.7nm,0.7s,baz=35,slow=7.4,SNR=16 | | | | | | |
| CMAR | | | | LR | LR | 16 56 08.3 | |
| | comp=Z,27nm,18.5s,baz=105,slow=39 | | | | | | |
| **AAK** | **Ala-Archa** | **53.79** | **296** | LR | LR | 16 56 29.7 | |
| | comp=Z,65nm,18.1s,baz=18,slow=39 | | | | | | |
| **TAPN** | **Taplejung** | **54.08** | **273** | *e*P | **P** | **16 31 11.4** | **+0.5** |
| | comp=Z,9.3nm,0.9s | | | | | | |
| **JIRN** | **Jiri** | **54.93** | **275** | *e*P | **P** | **16 31 17.5** | **+0.4** |
| | comp=Z,82nm,0.7s | | | | | | |
| **GUN** | **Gumba** | **54.98** | **275** | *e*P | **P** | **16 31 19.7** | **+2.3** |
| **RAMN** | **Ramite** | **55.10** | **274** | *e*P | **P** | **16 31 18.3** | **+0.1** |
| | comp=Z,20nm,0.8s | | | | | | |
| **KKN** | **Kakani** | **55.47** | **275** | *e*P | **P** | **16 31 22.0** | **+1.2** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **PKI** | **Pulchoki** | **55.52** | **275** | *e*P | **P** | **16 31 21.3** | **0.0** |
| | comp=Z,5.7nm,0.8s | | | | | | |
| **PKIN** | **Phulchoki** | **55.52** | **275** | *e*P | **P** | **16 31 22.5** | **+1.3** |
| | comp=Z,6.3nm,0.6s | | | | | | |
| **DMN** | **Daman** | **55.70** | **275** | *e*P | **P** | **16 31 23.1** | **+0.6** |
| | comp=Z,16nm,0.9s | | | | | | |
| **KOLN** | **Koldanda** | **56.63** | **276** | *e*P | **P** | **16 31 29.3** | **+0.2** |
| | comp=Z,18nm,1.1s | | | | | | |
| **ARCES** | **ARCESS Array B** | **57.79** | **341** | P | **P** | **16 31 35.6** | **-0.8** |
| | comp=Z,2.3nm,0.9s,baz=17,slow=4.7,SNR=2.8 | | | | | | |
| **AKTO** | **Aktyubinsk** | **58.68** | **312** | LR | LR | 16 59 30.8 | |
| | comp=Z,95nm,18.1s,slow=39 | | | | | | |
| **SUMG** | **Summit** | **60.64** | **4** | *e*P | **P** | **16 31 56.0** | **-0.5** |
| SUMG | | | | pmax | pmax | | |
| | comp=Z,16nm,1.0s | | | | | | |
| **SUMG** | **Summit** | **60.64** | **4** | *i* P | **P** | **16 31 56.5** | **0.0** |
| | comp=Z,18nm,0.9s | | | | | | |
| **SUMG** | **Summit** | **60.64** | **4** | *e*P | **P** | **16 31 56.0** | **-0.5** |
| | comp=Z,16nm,1.0s | | | | | | |
| **FINES** | **FINESS Array B** | **63.98** | **335** | P | **P** | **16 32 17.8** | **-0.6** |
| | comp=Z,4.3nm,0.7s,baz=30,slow=7.0,SNR=11 | | | | | | |
| **PDAR** | **Pinedale Array** | **64.72** | **54** | P | **P** | **16 32 25.1** | **+1.2** |
| | comp=Z,1.6nm,0.8s,baz=278,slow=1.6,SNR=16 | | | | | | |
| **NB2** | **NORSAR Subarra** | **68.17** | **341** | P | **P** | **16 32 44.5** | **-0.9** |
| | comp=Z,2.5nm,0.6s,baz=27,slow=6.5 | | | | | | |
| **NOA** | **NORSAR Array B** | **68.17** | **341** | P | **P** | **16 32 44.9** | **-0.5** |
| | comp=Z,4.1nm,0.7s,baz=28,slow=6.4,SNR=11 | | | | | | |
| NOA | | | | LR | LR | 17 04 57.1 | |
| | comp=Z,44nm,18.2s,baz=125,slow=38 | | | | | | |
| **WRA** | **Warramunga Arr** | **68.57** | **199** | P | **P** | **16 32 48.7** | **+0.4** |
| | comp=Z,0.3nm,0.6s,baz=13,slow=6.1,SNR=2.7 | | | | | | |
| **KBZ** | **Khabaz** | **70.81** | **314** | P | **P** | **16 33 02.5** | **+0.7** |
| | comp=Z,2.7nm,0.8s,baz=104,slow=6.4,SNR=4.1 | | | | | | |
| **AKASG** | **Malin Array Be** | **71.49** | **326** | P | **P** | **16 33 04.8** | **-1.0** |
| | comp=Z,3.4nm,0.5s,baz=34,slow=6.3,SNR=18 | | | | | | |
| **ASAR** | **Alice Springs** | **72.26** | **199** | P | **P** | **16 33 12.4** | **+1.7** |
| | comp=Z,0.9nm,0.7s,baz=11,slow=5.8,SNR=12 | | | | | | |
| **STHS** | **Stebnicka Huta** | **75.46** | **330** | *e*P | **P** | **16 33 28.7** | **-0.6** |
| STHS | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.8s | | | | | | |
| **STHS** | **Stebnicka Huta** | **75.46** | **330** | *e*P | **P** | **16 33 28.7** | **-0.6** |
| **BURAR** | **Bucovina Array** | **75.53** | **327** | ⇑*i*P | **P** | **16 33 29.9** | **+0.1** |
| **BURAR** | **Bucovina Array** | **75.53** | **327** | ⇑P | **P** | **16 33 29.9** | **+0.1** |
| **TESR** | **Tescani** | **75.89** | **325** | ⇓*i*P | **P** | **16 33 31.5** | **-0.3** |
| **MORC** | **Moravsky Berou** | **76.38** | **332** | ⇑*i*P | **P** | **16 33 34.9** | **+0.4** |
| **MORC** | **Moravsky Berou** | **76.38** | **332** | ⇑P | **P** | **16 33 34.9** | **+0.4** |
| **CLL** | **Colm** | **76.40** | **336** | *i* P | **P** | **16 33 33.7** | **-0.9** |
| | comp=Z,13nm,1.1s | | | | | | |
| **KECS** | **Kecovo** | **76.51** | **330** | *e*P | **P** | **16 33 35.5** | **+0.2** |
| KECS | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.9s | | | | | | |
| **KECS** | **Kecovo** | **76.51** | **330** | *e*P | **P** | **16 33 35.5** | **+0.2** |
| **MLR** | **Muntele Rosu** | **77.01** | **325** | ⇓*i*P | **P** | **16 33 39.3** | **+1.0** |
| **MLR** | **Muntele Rosu** | **77.01** | **325** | ⇓P | **P** | **16 33 39.4** | **+1.1** |
| **VYHS** | **Vyhne** | **77.07** | **331** | *e*P | **P** | **16 33 38.0** | **-0.4** |
| **VYHS** | **Vyhne** | **77.07** | **331** | *e*P | **P** | **16 33 38.0** | **-0.4** |
| **GOPC** | **GO Pecny, Ondr** | **77.12** | **334** | *e*P | **P** | **16 33 38.8** | **+0.1** |
| **PRU** | **Pruhonice** | **77.13** | **334** | *e*P | **P** | **16 33 38.9** | **+0.2** |
| **VOIR** | | **77.40** | **325** | ⇓*i*P | **P** | **16 33 40.8** | **+0.4** |
| **VOIR** | | **77.40** | **325** | ⇓P | **P** | **16 33 40.8** | **+0.4** |
| **TXAR** | **Lajitas Array** | **77.47** | **61** | P | **P** | **16 33 42.4** | **+1.3** |
| | comp=Z,1.5nm,0.5s,baz=296,slow=4.3,SNR=20 | | | | | | |
| **KHC** | **Kasperske Hory** | **78.18** | **334** | *e*P | **P** | **16 33 44.4** | **-0.2** |
| **KHC** | **Kasperske Hory** | **78.18** | **334** | *e*P | **P** | **16 33 44.0** | **-0.6** |
| **KHC** | **Kasperske Hory** | **78.18** | **334** | *e*P | **P** | **16 33 44.0** | **-0.6** |
| **BRTR** | **Keskin Array B** | **78.34** | **317** | P | **P** | **16 33 45.4** | **-0.4** |
| | comp=Z,1.4nm,0.8s,baz=87,slow=3.6,SNR=6.8 | | | | | | |
| **RAO** | **Raoul Island** | **80.11** | **155** | LR | LR | 17 05 50.9 | |
| | comp=Z,393nm,19.2s,baz=210,slow=33 | | | | | | |
| **VTS** | **Vitosha** | **80.51** | **325** | ⇑*i*P | **P** | **16 33 57.7** | **+0.1** |
| **VTS** | **Vitosha** | **80.51** | **325** | ⇑P | **P** | **16 33 57.7** | **+0.1** |

***GUC* 16** *16:39:22.9±0.5, 25.°86S×70.°33W, h45km±8km, MLS.9*
*SJA* **16** *16:39:25.4±0.9, 25.°85S×70.°48W, h47km±16km, MLS.3, MW3.1*
*IDC* **16** *16:39:25.7±1.1, 25.°98S×70.°22W, h53km±7km, mb3.6/1, mb1 3.8/3, mb1mx3.4/23, mbtmp3.8/3, Error ellipse: s-maj=65.5km s-min=34.2km az=124.0*
**ISC 16 16:39:24.5±0.8, 25.°81S±0.°04×70.°66W±0.°07, h43km±7km, n31, σ2s21/38, 3C-1D, Near coast of northern Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **PB14** | **IPOC Station P** | **1.20** | **11** | *e*P | | **Pn** | **Pn** | **16 39 47.2** | **+2.1** |
| PB14 | | | | *e*S | | **Sn** | **Sn** | **16 40 04.4** | **+4.0** |
| **PB14** | **IPOC Station P** | **1.20** | **11** | ⇑*i*P | | **Pn** | **Pn** | **16 39 47.2** | **+2.1** |
| PB14 | | | | *e*S | | **Sn** | **Sn** | **16 40 03.0** | **+2.6** |
| PB14 | | | | IAML | | | | 16 40 06.8 | |
| | comp=E,3μm,0.4s | | | | | | | | |
| **CDCH** | **Caldera** | **1.26** | **187** | *e*P | | **Pn** | **Pn** | **16 39 46.0** | **+0.4** |
| CDCH | | | | *i* S | | **Sn** | **Sn** | **16 40 03.3** | **+1.9** |
| **CPCH** | **Copiapo** | **1.56** | **170** | *e*P | | **Pn** | **Pn** | **16 39 49.0** | **-0.9** |
| CPCH | | | | *e*S | | **Sn** | **Sn** | **16 40 08.7** | **-0.3** |
| **ANCH** | **Antofagasta** | **2.13** | **6** | *e*P | | **Pn** | **Pn** | **16 39 58.8** | **+1.2** |
| **PB10** | **IPOC Station P** | **2.29** | **2** | *i* P | | Pn | Pn | 16 40 16.5 | +17 |
| PB10 | | | | *i* S | | Sn | Sn | 16 40 41.3 | +15 |
| **PB10** | **IPOC Station P** | **2.29** | **2** | ⇑*i*P | | **Pn** | **Pn** | **16 40 00.4** | **+0.6** |
| PB10 | | | | *i* S | | Sn | Sn | 16 40 16.6 | -10 |
| PB10 | | | | IAML | | | | 16 40 17.6 | |
| | comp=N,825nm,0.3s | | | | | | | | |
| **VACH** | **Vallenar** | **2.76** | **182** | *e*P | | Pn | Pn | 16 40 12.0 | +5.8 |
| VACH | | | | *i* S | | **Sn** | **Sn** | **16 40 45.1** | **+6.8** |
| **PB04** | **IPOC Station P** | **3.49** | **8** | ⇑*i*P | | **Pn** | **Pn** | **16 40 16.6** | **+0.1** |
| PB04 | | | | *e*S | | **Sn** | **Sn** | **16 40 54.2** | **-2.4** |
| PB04 | | | | IAML | | | | 16 41 17.8 | |
| | comp=N,295nm,0.6s | | | | | | | | |
| **VCA** | **Vinchina** | **3.64** | **144** | *e*P | | **Pn** | **Pn** | **16 40 20.6** | **+2.1** |
| VCA | | | | IAML | | | | 16 40 24.9 | |
| | comp=Z,134nm,0.4s | | | | | | | | |
| **AGUA** | **GUANDACOL** | **4.14** | **153** | *e*P | | Pn | Pn | 16 40 29.0 | +3.7 |
| **FSA** | **Cafayete** | **4.22** | **95** | *e*P | | **Pn** | **Pn** | **16 40 28.2** | **+1.7** |
| FSA | | | | IAML | | | | 16 40 31.0 | |
| | comp=Z,30nm,0.5s | | | | | | | | |
| **SLA** | **San Lorenzo** | **4.79** | **78** | *i* P | | Pn | Pn | 16 40 39.8 | +5.5 |
| SLA | | | | IAML | | | | 16 40 40.6 | |
| | comp=Z,15nm,0.5s | | | | | | | | |
| **AHML** | **Horco Molle** | **4.88** | **103** | ⇓*e*P | | **Pn** | **Pn** | **16 40 38.2** | **+2.8** |
| AHML | | | | IAML | | | | 16 40 39.3 | |
| | comp=Z,21nm,0.6s | | | | | | | | |
| **CYA** | **Choya** | **5.06** | **122** | *e*P | | **Pn** | **Pn** | **16 40 39.2** | **+1.4** |
| CYA | | | | IAML | | | | 16 40 40.7 | |
| | comp=Z,55nm,0.4s | | | | | | | | |
| CYA | | | | *e*S | | **Sn** | **Sn** | **16 41 34.3** | **-0.8** |
| **AZAP** | **Zapla** | **5.31** | **74** | *e*P | | **Pn** | **Pn** | **16 40 43.3** | **+1.7** |
| **HJA** | **Humahuaca** | **5.44** | **63** | *e*P | | **Pn** | **Pn** | **16 40 46.7** | **+3.3** |
| HJA | | | | IAML | | | | 16 40 49.8 | |
| | comp=Z,14nm,0.6s | | | | | | | | |
| **AMOG** | **MOGNA** | **5.45** | **160** | *e*P | | **Pn** | **Pn** | **16 40 46.3** | **+2.9** |
| **ASTB** | **Santa Barbara** | **5.93** | **73** | *e*P | | **Pn** | **Pn** | **16 40 51.3** | **+1.3** |
| **YJA** | **Yavi** | **5.93** | **54** | *e*P | | **Pn** | **Pn** | **16 40 53.6** | **+3.3** |
| YJA | | | | IAML | | | | 16 40 57.6 | |
| | comp=Z,3.0nm,0.6s | | | | | | | | |
| **RTCV** | **Cerro Valdivia** | **6.31** | **163** | *e*P | | **Pn** | **Pn** | **16 40 56.9** | **+1.9** |
| **ALOL** | **LOMAS DE OLMED** | **6.38** | **73** | *e*P | | **Pn** | **Pn** | **16 40 57.0** | **+1.0** |
| **AUSP** | **Uspallata** | **6.49** | **170** | *e*P | | **Pn** | **Pn** | **16 40 58.4** | **+0.7** |
| **TCA** | **Tanti** | **7.66** | **137** | *e*P | | **Pn** | **Pn** | **16 41 13.7** | **0.0** |
| TCA | | | | IAML | | | | 16 41 15.0 | |
| | comp=Z,13nm,0.5s | | | | | | | | |
| TCA | | | | *i* S | | **Sn** | **Sn** | **16 42 38.3** | **-1.0** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **LPAZ** | **La Paz** | **9.76** | **14** | P | **Pn** | **16 41 43.1** | **+0.2** |
| | comp=Z,0.4nm,0.3s,baz=215,slow=6.4,SNR=6.1 | | | | | | |
| **SIV** | **San Ignacio** | **13.25** | **44** | P | **Pn** | **16 42 29.4** | **-0.7** |
| | comp=Z,0.4nm,0.3s,baz=245,slow=12,SNR=3.6 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **80.31** | **70** | P | **P** | **16 51 29.7** | **-1.8** |
| | comp=Z,0.9nm,0.7s,baz=245,slow=5.2,SNR=5.1 | | | | | | |
| TORD | | | | pP | **pP** | **16 51 44.4** | **+0.1** |
| | comp=Z,0.6nm,0.5s,baz=256,slow=4.7,SNR=3.8 | | | | | | |
| **ASAR** | **Alice Springs** | **125.37** | **208** | PKP | **PKPdf** | **16 58 20.3** | **-1.2** |
| | comp=Z,0.1nm,0.6s,baz=153,slow=1.5,SNR=3.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **128.44** | **211** | PKP | **PKPdf** | **16 58 27.0** | **-0.4** |
| | comp=Z,0.2nm,0.8s,baz=162,slow=1.7,SNR=3.3 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **146.51** | **26** | PKPbc | **PKPbc** | **16 59 00.8** | **0.0** |
| | comp=Z,1.5nm,0.7s,baz=310,slow=4.7,SNR=7.6 | | | | | | |
| ZALV | | | | pPKPbc | **sPKPdf** | **16 59 16.2** | **-1.2** |
| | comp=Z,0.8nm,0.5s,baz=304,slow=3.4,SNR=3.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **150.02** | **39** | PKPbc | **PKPbc** | **16 59 10.1** | **-0.2** |
| | comp=Z,0.9nm,0.8s,baz=299,slow=2.4,SNR=6.1 | | | | | | |
| MKAR | | | | pPKPbc | **sPKPbc** | **16 59 25.2** | **-3.1** |
| | comp=Z,0.6nm,0.7s,baz=282,slow=2.4,SNR=5.1 | | | | | | |

***GUC* 16** *16:49:33.4±0.4, 36.°96S×73.°97W, h32km±4km, MLS.7*
**ISC 16 16:49:30.7±2.5, 36.°92S±0.°05×74.°3W±0.°1, h22km±19km, n9, σ2s81/15, Off coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **CCSP** | **San Pedro de C** | **0.92** | **86** | *e*P | | **Pn** | **Pn** | **16 49 47.1** | **-1.1** |
| CCSP | | | | *e*S | | **Sn** | **Sn** | **16 49 57.9** | **-2.8** |
| CCSP | | | | IAML | | | | 16 50 01.2 | |
| | comp=N,5μm,0.2s | | | | | | | | |
| **COCH** | **Cobquecura** | **1.42** | **57** | *i* P | | **Pn** | | **16 49 55.3** | **+0.3** |
| COCH | | | | *i* S | | **Sb** | | **16 50 18.6** | **+4.7** |
| **COCH** | **Cobquecura** | **1.42** | **57** | *e*P | | **Pb** | | **16 49 56.0** | **-0.3** |
| COCH | | | | IAML | | | | 16 50 21.8 | |
| | comp=N,978nm,0.6s | | | | | | | | |
| **CCHI** | **Chillan** | **1.77** | **81** | *e*P | | **Pb** | | **16 50 02.5** | **0.0** |
| CCHI | | | | *e*S | | **Sb** | | **16 50 25.7** | **+1.4** |
| **TMU** | **Temuco** | **2.24** | **145** | *e*P | | **Pb** | | **16 50 08.8** | **-1.6** |
| TMU | | | | *e*S | | **Sb** | | **16 50 35.6** | **-2.1** |
| **GO05** | **HualaæØ** | **2.68** | **45** | *e*P | | **Pb** | | **16 50 15.7** | **-2.2** |
| GO05 | | | | *e*S | | **Sb** | | **16 50 47.2** | **-3.2** |
| GO05 | | | | IAML | | | | 16 51 10.1 | |
| | comp=E,443nm,0.7s | | | | | | | | |
| **CANA** | **Caviahue** | **2.72** | **112** | *e*P | | **Pb** | | **16 50 17.1** | **-1.7** |
| CANA | | | | *e*S | | **Sb** | | **16 50 54.7** | **+3.0** |
| CANA | | | | IAML | | | | 16 51 04.8 | |
| | comp=Z,174nm,0.7s | | | | | | | | |
| **PLCA** | **Paso Flores** | **4.78** | **144** | *e*P | | **Pn** | | **16 50 45.0** | **+3.6** |
| PLCA | | | | IAML | | | | 16 52 06.2 | |
| | comp=Z,29nm,0.5s | | | | | | | | |
| **AUSP** | **Uspallata** | **6.16** | **42** | *e*P | | **Pn** | | **16 51 03.4** | **+2.8** |

**IDC 16 17:25:28.6±5.3, 6.°34S×154.°53E, h0km, mb3.3/3, mb1 3.6/3, mb1mx3.4/24, mbtmp3.4/3, Error ellipse: s-maj=156.6km s-min=41.8km az=111.0, Bougainville-Solomon Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **23.82** | **234** | P | | P | P | 17 30 44.3 | +0.8 |
| | 1.3nm,1.1s,baz=59,slow=9.8,SNR=7.4 | | | | | | | | |
| **ASAR** | **Alice Springs** | **26.27** | **227** | P | | P | | 17 31 05.3 | -0.6 |
| | 0.9nm,0.6s,baz=59,slow=9.4,SNR=18 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **82.61** | **319** | P | | P | P | 17 37 53.9 | 0.0 |
| | 0.2nm,0.7s,baz=104,slow=5.0,SNR=1.9 | | | | | | | | |

**IDC 16 17:42:44.2±8.2, 7.°88N×94.°31E, h0km, mb3.5/3, mb1 3.6/3, mb1mx3.2/45, mbtmp3.5/3, Error ellipse: s-maj=397.2km s-min=31.8km az=60.0, Nicobar Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **ZALV** | **Zalesovo Beam** | **46.58** | **352** | P | | P | P | 17 51 13.6 | -0.1 |
| | 0.5nm,0.3s,baz=164,slow=7.7,SNR=3.5 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **48.13** | **126** | P | | P | | 17 51 26.4 | +0.1 |
| | 0.3nm,0.7s,baz=307,slow=8.5,SNR=4.0 | | | | | | | | |
| **ASAR** | **Alice Springs** | **49.79** | **130** | P | | P | | 17 51 38.8 | -0.3 

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **TRQA** | **Tornquist** | **31.59** | **298** | *e*P | **P** | **17 54 45.7** | **-0.3** |
| | 29nm,1.7s | | | | | | |
| **MAW** | **Mawson** | **36.65** | **140** | LR | LR | 18 10 09.0 | |
| | comp=Z,58nm,18.0s,baz=249,slow=36 | | | | | | |
| **CPUP** | **Villa Florida** | **39.95** | **313** | P | **P** | **17 55 56.2** | **-1.3** |
| | 2.0nm,0.7s,baz=168,slow=7.0,SNR=4.3 | | | | | | |
| **CPUP** | **Villa Florida** | **39.95** | **313** | *e*P | **P** | **17 55 55.9** | **-1.7** |
| | 11nm,1.5s | | | | | | |
| **VNDA** | **Vanda** | **42.64** | **183** | *e*P | **P** | **17 56 20.7** | **+1.6** |
| | 10nm,1.7s | | | | | | |
| **LCO** | **Las Campanas** | **43.11** | **296** | *e*P | **P** | **17 56 21.9** | **-1.9** |
| | 31nm,1.8s | | | | | | |
| **MNMC** | **Minye Minye** | **51.26** | **303** | *e*P | **P** | **17 57 26.6** | **-0.8** |
| | 7.9nm,0.7s | | | | | | |
| **ASCN** | **Ascension** | **52.70** | **15** | *e*P | **P** | **17 57 37.9** | **+0.1** |
| | 133nm,1.1s | | | | | | |
| **LPAZ** | **La Paz** | **53.21** | **306** | P | **P** | **17 57 42.0** | **-0.2** |
| | 1.0nm,0.4s,baz=154,slow=8.4,SNR=3.8 | | | | | | |
| **LPAZ** | **La Paz** | **53.21** | **306** | *e*P | **P** | **17 57 41.8** | **-0.4** |
| **PTCN** | **Pitcairn Islan** | **75.32** | **245** | *e*P | **P** | **18 00 08.0** | **+1.6** |
| | 361nm,1.1s | | | | | | |
| **TOA0** | **Torodi Ar. Sit** | **76.24** | **28** | *e*P | **P** | **18 00 12.6** | **+1.0** |
| | 3.9nm,0.6s | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **76.24** | **28** | P | **P** | **18 00 12.9** | **+1.4** |
| | 4.1nm,0.5s,baz=198,slow=6.4,SNR=53 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **76.24** | **28** | *e*P | **P** | **18 00 12.9** | **+1.3** |
| **SDV** | **Santo Domingo** | **77.25** | **315** | *e*P | **P** | **18 00 15.1** | **-2.4** |
| | 29nm,1.5s | | | | | | |
| **ASAR** | **Alice Springs** | **95.02** | **162** | P | **P** | **18 01 47.1** | **+1.2** |
| | 0.6nm,0.8s,baz=183,slow=3.9,SNR=12 | | | | | | |
| **WRA** | **Warramunga Arr** | **98.74** | **161** | P | Pdif | 18 02 03.8 | +1.0 |
| | 1.0nm,1.1s,baz=192,slow=4.6,SNR=3.0 | | | | | | |
| **WR1** | **Warramunga Arr** | **98.75** | **161** | *e*P | Pdif | 18 02 03.8 | +1.0 |
| | 16nm,1.6s | | | | | | |
| **FIA0** | **FINESS Array S** | **127.58** | **29** | *e*PKPdf | **PKPdf** | **18 07 27.1** | **+0.5** |
| **FINES** | **FINESS Array B** | **127.58** | **29** | PKP | **PKPdf** | **18 07 27.1** | **+0.5** |
| | 0.9nm,0.6s,baz=160,slow=6.1,SNR=6.1 | | | | | | |
| **YKA** | **Yellowknife Ar** | **139.47** | **314** | PKP | **PKPdf** | **18 07 48.3** | **-0.6** |
| | 0.1nm,0.4s,baz=134,slow=2.0,SNR=5.3 | | | | | | |
| **YKB5** | **Yellowknife Ar** | **139.47** | **314** | *e*PKPdf | **PKPdf** | **18 07 48.6** | **-0.4** |
| **INK** | **Inuvik** | **149.18** | **316** | PKPbc | **PKPbc** | **18 08 08.8** | **-1.0** |
| | 1.4nm,0.8s,baz=120,slow=4.5,SNR=3.7 | | | | | | |
| **INK** | **Inuvik** | **149.18** | **316** | *e*PKPbc | **PKPbc** | **18 08 09.1** | **-0.8** |
| **SONA0** | **Songino Array** | **150.14** | **92** | *e*PKPbc | **PKPbc** | **18 08 14.5** | **+1.4** |
| **SONM** | **Songino Array** | **150.14** | **92** | PKPbc | **PKPbc** | **18 08 14.5** | **+1.4** |
| | 1.9nm,0.8s,baz=215,slow=2.7,SNR=8.5 | | | | | | |
| **ILAR** | **Eielson Array** | **153.08** | **306** | PKPbc | **PKPbc** | **18 08 18.4** | **-0.7** |
| | 0.3nm,0.4s,baz=143,slow=2.1,SNR=8.4 | | | | | | |

*MOS* ***16*** *17:50:49.7±1.0, 45°.23N×152°.37E, h42km, mb4.2/1, Error ellipse: s-maj=99.9km s-min=19.5km az=164.3*
*SKHL* ***16*** *17:50:49.7±0.6, 45°.24N×152°.34E, h37km±3km, mb4.9/3*
*IDC* ***16*** *17:50:52.7±2.1, 47°.00N×150°.84E, h186km±19km, mb3.2/10, mb1 3.5/12, mb1mx3.2/46, mbtmp3.7/12, Error ellipse: s-maj=20.5km s-min=13.2km az=145.0*
*JMA* ***16*** *17:50:53.2±0.5, 45°.86N×151°.38E, h184km, M3.9*
**ISC 16 17:50:49.4±0.8, 46°.6N±0°.1×151°.3E±0°.1, h166km, n54, σ2$^{s}$62/60, mb3.5/10, 3C-1D, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KUR** | **Kuril'sk** | **2.73** | **241** | *c i*PN | Pn | 17 51 39.1 | +5.1 |
| KUR | | | | *i* S | **Sn** | **17 52 15.6** | **+7.0** |
| KUR | | | | pmax | pmax | | |
| | comp=Z,58nm,0.3s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=N,17nm,0.2s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=E,28nm,0.2s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=N,93nm,0.2s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,62nm,0.2s | | | | | | |
| **KUR** | **Kuril'sk** | **2.73** | **241** | *i* P | **Pn** | **17 51 37.4** | **+3.4** |
| KUR | | | | AMB | AMB | 17 51 37.9 | |
| | comp=E,17nm,0.3s | | | | | | |
| KUR | | | | AMB | AMB | 17 51 37.9 | |
| | comp=E,28nm,0.3s | | | | | | |
| KUR | | | | AMB | AMB | 17 51 37.9 | |
| | comp=E,58nm,0.3s | | | | | | |
| KUR | | | | *i* S | **Sn** | **17 52 13.8** | **+5.2** |
| KUR | | | | A | A | 17 52 18.5 | |
| | comp=E,93nm,0.2s | | | | | | |
| KUR | | | | A | A | 17 52 18.5 | |
| | comp=E,62nm,0.2s | | | | | | |
| **SHO** | **Shikotan** | **4.14** | **230** | *c i*PN | **Pn** | **17 51 53.1** | **+1.2** |
| SHO | | | | *i* S | **Sn** | **17 52 40.0** | **-0.6** |
| SHO | | | | pmax | pmax | | |
| | comp=Z,100nm,0.3s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=E,129nm,0.2s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=N,72nm,0.1s | | | | | | |
| **SHO** | **Shikotan** | **4.14** | **230** | *e*P | **Pn** | **17 51 52.2** | **+0.3** |
| SHO | | | | AMB | AMB | 17 51 53.3 | |
| | comp=N,100nm,0.3s | | | | | | |
| SHO | | | | *i* S | **Sn** | **17 52 38.5** | **-2.1** |
| SHO | | | | A | A | 17 52 42.7 | |
| | comp=N,72nm,0.2s | | | | | | |
| SHO | | | | A | A | 17 52 42.7 | |
| | comp=N,129nm,0.2s | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **4.58** | **238** | *d i*PN | **Pn** | **17 52 00.1** | **+2.5** |
| YUK | | | | pmax | pmax | | |
| | comp=Z,85nm,0.3s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=N,26nm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=E,34nm,0.2s | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **4.58** | **238** | *i* P | **Pn** | **17 52 00.1** | **+2.5** |
| YUK | | | | AMB | AMB | 17 52 01.7 | |
| | comp=E,26nm,0.3s | | | | | | |
| YUK | | | | AMB | AMB | 17 52 01.7 | |
| | comp=E,34nm,0.3s | | | | | | |
| YUK | | | | AMB | AMB | 17 52 01.7 | |
| | comp=E,85nm,0.3s | | | | | | |
| YUK | | | | *e*S | **Sn** | **17 52 52.8** | **+2.0** |
| YUK | | | | A | A | 17 52 57.8 | |
| | comp=E,57nm,0.3s | | | | | | |
| YUK | | | | A | A | 17 52 57.8 | |
| | comp=E,86nm,0.3s | | | | | | |
| **LAGR** | **Lagunnoye** | **4.61** | **239** | PN | **Pn** | **17 52 00.9** | **+2.9** |
| **LAGR** | **Lagunnoye** | **4.61** | **239** | *e*P | **Pn** | **17 52 00.9** | **+2.9** |
| LAGR | | | | *i* S | **Sn** | **17 52 54.1** | **+2.5** |
| **GRPR** | **Tuman** | **4.66** | **238** | *i*PN | **Pn** | **17 52 01.2** | **+2.6** |
| **GRPR** | **Tuman** | **4.66** | **238** | *i* P | **Pn** | **17 52 01.2** | **+2.6** |
| GRPR | | | | *e*S | **Sn** | **17 52 54.6** | **+2.0** |
| **GLVR** | **Golovnino** | **4.96** | **237** | PN | **Pn** | **17 52 05.2** | **+2.7** |
| **GLVR** | **Golovnino** | **4.96** | **237** | *e*P | **Pn** | **17 52 05.2** | **+2.7** |
| GLVR | | | | *i* S | **Sn** | **17 53 02.2** | **+2.6** |
| **NEM2** | **Nemuro 2** | **5.07** | **232** | P | **Pn** | **17 52 04.3** | **+0.4** |
| NEM2 | | | | *e*S | **Sn** | **17 52 59.6** | **-2.6** |
| **JTKR** | **Abashiri--Toko** | **5.81** | **246** | P | **Pn** | **17 52 16.2** | **+2.6** |
| **JAK** | **Akkeshi** | **5.89** | **235** | P | **Pn** | **17 52 15.1** | **+0.4** |
| JAK | | | | *e*S | **Sn** | **17 53 19.4** | **-2.2** |
| **JAR** | **Ashorobuto** | **6.25** | **241** | P | **Pn** | **17 52 21.9** | **+2.4** |
| **JOB** | **Onbets** | **6.44** | **238** | P | **Pn** | **17 52 23.1** | **+1.1** |
| JOB | | | | *e*S | **Sn** | **17 53 32.3** | **-2.5** |
| **ASAJ** | **Asahikawa** | **6.58** | **251** | P | **Pn** | **17 52 27.1** | **+3.2** |
| | comp=E,1.3nm,0.3s,baz=65,slow=16,SNR=12 | | | | | | |
| **ASAJ** | **Asahikawa** | **6.58** | **251** | P | **Pn** | **17 52 27.1** | **+3.2** |
| **JKK2** | **Kamakawa 2** | **6.59** | **249** | P | **Pn** | **17 52 26.8** | **+2.8** |
| **JCH** | **Churui** | **6.89** | **238** | P | **Pn** | **17 52 28.4** | **+0.4** |
| JCH | | | | *e*S | **Sn** | **17 53 41.7** | **-3.9** |
| **TYV** | **Tymovskoe** | **7.11** | **310** | *e*P | Pn | 17 52 53.4 | +23 |
| **MYR** | **Moyori** | **7.14** | **236** | *e*P | **Pn** | **17 52 31.5** | **+0.2** |
| **JBT2** | **Biratori 2** | **7.39** | **242** | P | **Pn** | **17 52 36.9** | **+2.3** |
| **JNBK** | **Urakawa-nobuka** | **7.45** | **238** | P | **Pn** | **17 52 34.9** | **-0.5** |
| JNBK | | | | *e*S | **Sn** | **17 53 53.9** | **-5.1** |
| **PETK** | **Petropavlovsk-** | **7.74** | **30** | P | **Pn** | **17 52 38.2** | **-0.9** |
| | comp=E,0.6nm,0.3s,baz=236,slow=11,SNR=5.3 | | | | | | |
| PETK | | | | S | **Sn** | **17 54 04.8** | **-0.8** |
| | comp=E,0.4nm,0.3s,baz=243,slow=13,SNR=3.2 | | | | | | |
| **JKB** | **Kayabe** | **8.71** | **241** | *e*S | **Sn** | **17 54 21.4** | **-7.7** |
| **JYM2** | **Yakumo 2** | **8.99** | **244** | P | **Pn** | **17 52 55.9** | **+0.2** |
| **JANG** | **Nango** | **9.41** | **232** | P | **Pn** | **17 52 59.4** | **-2.0** |
| JANG | | | | *e*S | Sn | 17 54 38.4 | -7.6 |
| **H11N2** | **WAKE ISLAND Hy** | **29.71** | **149** | T | T | 18 28 02.7 | |
| | baz=337,slow=75 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **29.72** | **149** | T | T | 18 28 35.3 | |
| | baz=337,slow=75 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **29.72** | **149** | T | T | 18 28 20.2 | |
| | baz=337,slow=75 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **30.77** | **150** | T | T | 18 29 57.9 | |
| | baz=331,slow=74 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **30.78** | **150** | T | T | 18 29 40.6 | |
| | baz=331,slow=74 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **30.79** | **150** | T | T | 18 29 39.0 | |
| | baz=331 | | | | | | |
| **ILAR** | **Eielson Array** | **37.47** | **38** | P | **P** | **17 57 46.5** | **+0.1** |
| | comp=E,0.4nm,0.8s,baz=262,slow=6.9,SNR=5.9 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.66** | **305** | P | **P** | **17 58 18.1** | **-3.0** |
| | comp=E,0.4nm,0.4s,baz=52,slow=8.4,SNR=3.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **45.87** | **297** | P | **P** | **17 58 53.0** | **-1.9** |
| | comp=E,0.4nm,0.5s,baz=61,slow=6.3,SNR=6.3 | | | | | | |
| **YKA** | **Yellowknife Ar** | **51.81** | **36** | P | **P** | **17 59 40.4** | **+0.7** |
| | comp=E,0.4nm,0.4s,baz=299,slow=6.7,SNR=8.6 | | | | | | |
| **TAPN** | **Taplejung** | **52.83** | **272** | *e*P | **P** | **17 59 49.3** | **+1.2** |
| **ODAN** | **Odare** | **53.35** | **272** | *e*P | **P** | **17 59 52.9** | **+1.0** |
| **JIRN** | **Jiri** | **53.68** | **273** | *e*P | **P** | **17 59 55.0** | **+0.6** |
| **GUN** | **Gumba** | **53.73** | **274** | *e*P | **P** | **17 59 56.4** | **+1.6** |
| **RAMN** | **Ramite** | **53.84** | **272** | *e*P | **P** | **17 59 56.0** | **+0.5** |
| | comp=E,7.0nm,0.4s | | | | | | |
| **KKN** | **Kakani** | **54.22** | **274** | *e*P | **P** | **17 59 59.0** | **+0.8** |
| **PKI** | **Pulchoki** | **54.27** | **274** | *e*P | **P** | **17 59 58.9** | **+0.2** |
| **KOLN** | **Koldanda** | **55.39** | **275** | *e*P | **P** | **18 00 07.1** | **+0.6** |
| | comp=E,2.3nm,0.3s | | | | | | |
| **PYUN** | **Piuthan** | **55.60** | **276** | *e*P | **P** | **18 00 08.5** | **+0.5** |
| **ARCES** | **ARCESS Array B** | **57.57** | **340** | P | **P** | **18 00 19.5** | **-1.6** |
| | comp=E,3.2nm,1.0s,baz=38,slow=10,SNR=2.2 | | | | | | |
| **FINES** | **FINESS Array B** | **63.63** | **334** | P | **P** | **18 00 59.0** | **-3.0** |
| | comp=E,2.1nm,0.7s,baz=46,slow=8.2,SNR=7.2 | | | | | | |
| **PDAR** | **Pinedale Array** | **65.87** | **53** | P | **P** | **18 01 18.4** | **+1.2** |
| | comp=E,0.4nm,0.6s,baz=271,slow=2.6,SNR=5.7 | | | | | | |
| **NOA** | **NORSAR Array B** | **67.95** | **340** | P | **P** | **18 01 27.9** | **-1.9** |
| | comp=E,1.1nm,0.8s,baz=31,slow=6.6,SNR=4.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **67.97** | **197** | P | **P** | **18 01 32.8** | **+2.5** |
| | comp=E,0.4nm,1.0s,baz=14,slow=6.7,SNR=2.3 | | | | | | |
| **TXAR** | **Lajitas Array** | **78.68** | **59** | P | **P** | **18 02 34.5** | **+1.3** |
| | comp=E,0.5nm,0.5s,baz=299,slow=4.1,SNR=6.7 | | | | | | |

*ISCJB* ***16*** *18:03:34.6±0.4, 7°.78N±0°.07×93°.9E±0°.1, h20km, mb3.9/13, Error ellipse: s-maj=18.5km s-min=5.3km az=149.1*
*IDC* ***16*** *18:03:40.6±3.6, 7°.80N×94°.07E, h60km±33km, mb3.6/12, mb1 3.7/14, mb1mx3.5/39, mbtmp3.8/14, ML3.6/2, Error ellipse: s-maj=31.5km s-min=13.2km az=58.0*
*DJA* ***16*** *18:03:41.7±1.5, 8°.7N±7°.9×94°.4E±1°.3, h182km±23km, M4.3/6, mB4.6/1, mb4.1/4, MLv4.4/6, Mw(mB)3.8/1*
**ISC 16 18:03:36.1±0.6, 7°.72N±0°.09×93°.8E±0°.1, h20km, n30, σ1$^{s}$53/29, mb4.0/13, Nicobar Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MLSI** | **Meulaboh, Aceh** | **4.29** | **143** | P | **Pn** | **18 04 41.9** | **+1.7** |
| MLSI | | | | S | **Sn** | **18 05 32.0** | **+2.3** |
| **TPTI** | | **5.55** | **143** | P | **Pn** | **18 04 57.6** | **0.0** |
| TPTI | | | | S | **Sn** | **18 05 58.5** | **-2.4** |
| **KCSI** | **Kotacane, Aceh** | **5.73** | **136** | P | **Pn** | **18 05 03.0** | **+2.9** |
| **PSI** | **Prapat** | **7.05** | **134** | P | **Pn** | **18 05 20.8** | **+2.4** |
| | 0.7nm,0.3s,baz=350,slow=12,SNR=2.9 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **11.78** | **25** | P | **Pn** | **18 06 24.1** | **+1.0** |
| | 0.1nm,0.3s,baz=215,slow=14,SNR=12 | | | | | | |
| **ODAN** | **Odare** | **19.99** | **343** | *e*P | **P** | **18 08 09.3** | **+1.6** |
| | 13nm,0.6s | | | | | | |
| **RAMN** | **Ramite** | **20.32** | **341** | *e*P | **P** | **18 08 13.1** | **+1.8** |
| | 24nm,0.5s | | | | | | |
| **TAPN** | **Taplejung** | **20.37** | **344** | *e*P | **P** | **18 08 12.9** | **+1.0** |
| | 15nm,0.4s | | | | | | |
| **JIRN** | **Jiri** | **21.11** | **341** | *e*P | **P** | **18 08 21.3** | **+1.3** |
| | 90nm,0.6s | | | | | | |
| **PKI** | **Pulchoki** | **21.29** | **339** | *e*P | **P** | **18 08 22.3** | **+0.4** |
| | 12nm,0.5s | | | | | | |
| **DMN** | **Daman** | **21.43** | **338** | *e*P | **P** | **18 08 24.0** | **+0.6** |
| | 24nm,0.8s | | | | | | |
| **KKN** | **Kakani** | **21.54** | **339** | *e*P | **P** | **18 08 24.9** | **+0.5** |
| | 11nm,0.6s | | | | | | |
| **KOLN** | **Koldanda** | **22.16** | **335** | *e*P | **P** | **18 08 30.2** | **-1.0** |
| | 12nm,0.7s | | | | | | |
| **PYUN** | **Piuthan** | **22.71** | **335** | *e*P | **P** | **18 08 36.4** | **-0.6** |
| **H08S3** | **Diego Garcia H** | **26.17** | **235** | T | T | 18 35 42.5 | |
| | baz=55,slow=76,SNR=132 | | | | | | |
| **H08S2** | **Diego Garcia H** | **26.17** | **235** | T | T | 18 35 53.5 | |
| | baz=55,slow=76,SNR=63 | | | | | | |
| **H08S1** | **Diego Garcia H** | **26.19** | **235** | T | T | 18 35 51.4 | |
| | baz=55,slow=76,SNR=12 | | | | | | |
| **MKAR** | **Makanchi Array** | **40.17** | **348** | P | **P** | **18 11 08.8** | **-2.1** |
| | 0.3nm,0.7s,baz=160,slow=7.7,SNR=3.2 | | | | | | |
| **SONM** | **Songino Array** | **41.38** | **13** | P | **P** | **18 11 19.9** | **-1.2** |
| | 0.8nm,0.6s,baz=194,slow=9.3,SNR=4.9 | | | | | | |
| **GEYT** | **Alibeck** | **44.10** | **318** | P | **P** | **18 11 45.0** | **+1.8** |
| | 2.2nm,0.5s,baz=123,slow=8.8,SNR=5.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **46.67** | **353** | P | **P** | **18 12 03.3** | **+0.1** |
| | 1.5nm,0.4s,baz=179,slow=7.8,SNR=11 | | | | | | |
| **WRA** | **Warramunga Arr** | **48.43** | **125** | P | **P** | **18 12 15.7** | **-1.8** |
| | 0.2nm,0.3s,baz=306,slow=8.1,SNR=19 | | | | | | |
| **ASAR** | **Alice Springs** | **50.06** | **130** | P | **P** | **18 12 28.3** | **-1.6** |
| | 0.4nm,0.6s,baz=302,slow=7.8,SNR=15 | | | | | | |
| ASAR | | | | PcP | **PcP** | **18 13 48.7** | **-0.9** |
| | 0.2nm,0.7s,baz=328,slow=3.3,SNR=2.6 | | | | | | |
| **STKA** | **Stephens Creek** | **60.23** | **133** | P | **P** | **18 13 41.8** | **-1.4** |
| | 1.6nm,0.9s,baz=318,slow=16,SNR=2.3 | | | | | | |
| **BRTR** | **Keskin Array B** | **62.29** | **311** | P | **P** | **18 13 56.2** | **-1.0** |
| | 0.5nm,0.6s,baz=101,slow=6.7,SNR=4.1 | | | | | | |
| **FINES** | **FINESS Array B** | **72.70** | **332** | P | **P** | **18 15 02.2** | **-0.2** |
| | 2.4nm,0.7s,baz=101,slow=6.0,SNR=8.9 | | | | | | |
| **BOSA** | **Boshof** | **75.23** | **238** | P | **P** | **18 15 19.8** | **+1.7** |
| | 1.6nm,0.6s,baz=133,slow=12,SNR=3.1 | | | | | | |
| **ARCES** | **ARCESS Array B** | **75.30** | **340** | P | **P** | **18 15 17.7** | **+0.2** |
| | 1.1nm,0.8s,baz=138,slow=4.5,SNR=3.2 | | | | | | |
| **NB2** | **NORSAR Subarra** | **79.71** | **331** | P | P | 18 15 35.8 | -6.6 |
| | comp=Z,7.2nm,1.2s,baz=97,slow=5.1 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **90.32** | **283** | P | **P** | **18 16 36.3** | **-0.3** |
| | comp=Z,0.2nm,0.4s,baz=99,slow=3.6,SNR=2.9 | | | | | | |

*ISK* ***16*** *18:32:13.6, 38°.68N×43°.24E, h5km, ML2.4*
*CSEM* ***16*** *18:32:14.0±0.2, 38°.66N×43°.18E, h5km, ML2.4, Error ellipse: s-maj=3.9km s-min=3.0km az=79.0*
*DDA* ***16*** *18:32:14.2, 38°.65N×43°.17E, h7km, Md2.7*
**ISC 16 18:32:14.6±0.8, 38°.67N±0°.02×43°.21E±0°.02, h11km±6km, n32, σ1$^{s}$27/55, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.16** | **119** | *e*PG | **Pg** | **18 32 18.3** | **+0.1** |
| VANB | | | | *e*SG | **Sg** | **18 32 21.8** | **+1.0** |
| **VANB** | **Van** | **0.16** | **119** | *e*Pg | **Pg** | **18 32 18.3** | **+0.1** |
| VANB | | | | *e*Sg | **Sg** | **18 32 21.8** | **+1.0** |
| **TVAN** | **Van** | **0.21** | **134** | *i* P | **Pg** | **18 32 18.2** | **-0.9** |
| TVAN | | | | *i* S | **Sg** | **18 32 22.4** | **+0.3** |
| **TVAN** | **Van** | **0.21** | **134** | P | **Pg** | **18 32 18.2** | **-0.9** |
| TVAN | | | | S | **Sg** | **18 32 22.5** | **+0.3** |
| **ERCV** | **ERCIS-VAN** | **0.36** | **16** | *e*PG | **Pg** | **18 32 21.0** | **-0.8** |
| ERCV | | | | *e*SG | **Sg** | **18 32 26.4** | **-0.2** |
| **ERCV** | **ERCIS-VAN** | **0.36** | **16** | *e*Pg | **Pg** | **18 32 21.0** | **-0.8** |
| ERCV | | | | *e*Sg | **Sg** | **18 32 26.5** | **-0.2** |
| **GEVA** | **Gevas** | **0.38** | **199** | *i* P | **Pg** | **18 32 20.6** | **-1.6** |
| GEVA | | | | *i* S | **Sb** | **18 32 28.1** | **-1.4** |
| **GEVA** | **Gevas** | **0.38** | **199** | P | **Pg** | **18 32 20.6** | **-1.6** |
| GEVA | | | | S | **Sb** | **18 32 28.1** | **-1.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.41** | **290** | *i* P | **Pg** | **18 32 21.7** | **-1.0** |
| ADCV | | | | *i* S | **Sg** | **18 32 28.5** | **+0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.41** | **290** | P | **Pg** | **18 32 21.7** | **-1.0** |
| ADCV | | | | S | **Sg** | **18 32 28.5** | **+0.4** |
| **VMUR** | **Van-Muradiye** | **0.42** | **41** | *i* P | **Pb** | **18 32 23.3** | **-0.9** |
| VMUR | | | | *i* S | **Sb** | **18 32 31.9** | **+1.2** |
| **VMUR** | **Van-Muradiye** | **0.42** | **41** | P | **Pb** | **18 32 23.3** | **-0.9** |
| VMUR | | | | S | **Sb** | **18 32 31.9** | **+1.2** |
| **CLDR** | **Caldiran** | **0.72** | **49** | *e*PG | **Pg** | **18 32 27.8** | **-0.8** |
| **CLDR** | **Caldiran** | **0.72** | **49** | *i* P | **Pb** | **18 32 28.6** | **-0.7** |
| CLDR | | | | *i* S | **Sn** | **18 32 40.9** | **-1.3** |
| **CLDR** | **Caldiran** | **0.72** | **49** | *e*Pg | **Pg** | **18 32 27.8** | **-0.8** |
| **CLDR** | **Caldiran** | **0.72** | **49** | P | **Pb** | **18 32 28.6** | **-0.7** |
| CLDR | | | | S | **Sn** | **18 32 40.9** | **-1.3** |
| **TUTA** | **Tutak** | **0.79** | **337** | *i* P | **Pg** | **18 32 28.8** | **-1.1** |
| TUTA | | | | *i* S | **Sb** | **18 32 40.7** | **-0.7** |
| **TUTA** | **Tutak** | **0.79** | **337** | P | **Pg** | **18 32 28.8** | **-1.1** |
| TUTA | | | | S | **Sb** | **18 32 40.7** | **-0.7** |
| **AGRB** | **Hanur-Agry** | **0.92** | **349** | *e*PG | **Pb** | **18 32 31.7** | **-1.0** |
| AGRB | | | | *e*SG | **Sb** | **18 32 44.8** | **-0.2** |
| **AGRB** | **Hanur-Agry** | **0.92** | **349** | *e*Pg | **Pb** | **18 32 31.7** | **-1.0** |
| AGRB | | | | *e*Sg | **Sb** | **18 32 44.8** | **-0.2** |
| **EKAR** | **Karacoban** | **1.07** | **303** | *i* P | **Pn** | **18 32 37.7** | **+1.9** |
| EKAR | | | | *i* S | **Sn** | **18 32 52.4** | **+1.6** |
| **EKAR** | **Karacoban** | **1.07** | **303** | P | **Pn** | **18 32 37.7** | **+1.9** |
| EKAR | | | | S | **Sn** | **18 32 52.4** | **+1.6** |
| **HAKT** | **HAKKARI** | **1.18** | **161** | *i* P | **Pn** | **18 32 36.8** | **-0.5** |
| HAKT | | | | *i* S | **Sn** | **18 32 59.0** | **+5.5** |
| **HAKT** | **HAKKARI** | **1.18** | **161** | P | **Pn** | **18 32 36.8** | **-0.5** |
| **EATA** | **Eleskirt** | **1.31** | **335** | *i* P | **Pg** | **18 32 39.0** | **-0.9** |
| EATA | | | | *i* S | **Sn** | **18 32 57.8** | **+0.9** |
| **EATA** | **Eleskirt** | **1.31** | **335** | P | **Pg** | **18 32 39.0** | **-0.9** |
| EATA | | | | S | **Sn** | **18 32 57.8** | **+0.9** |
| **SIRT** | **Sirnak** | **1.32** | **208** | *e*PN | **Pg** | **18 32 39.3** | **-0.6** |
| **SIRT** | **Sirnak** | **1.32** | **208** | *e*Pn | **Pg** | **18 32 39.3** | **-0.6** |
| **VRTB** | **Varto-Mus** | **1.46** | **290** | *e*PN | **Pb** | **18 32 41.3** | **-0.5** |
| **VRTB** | **Varto-Mus** | **1.46** | **290** | *e*Pn | **Pb** | **18 32 41.3** | **-0.5** |
| **CUKT** | **Cukurca** | **1.46** | **168** | *e*PN | **Pg** | **18 32 41.3** | **-1.3** |
| **CUKT** | **Cukurca** | **1.46** | **168** | *e*Pn | **Pg** | **18 32 41.3** | **-1.3** |

*IDC* ***16*** *18:33:49.0±0.8, 31°.63N×141°.85E, h0km, mb3.6/9, mb1 3.8/12, mb1mx3.7/48, mbtmp3.7/12, ML3.2/4, MS3.9/1, Ms1 3.9/1, ms1mx2.5/33, Error ellipse: s-maj=26.4km s-min=14.5km az=75.0*
*ISCJB* ***16*** *18:33:50.9±0.3, 31°.64N±0°.03×141°.85E±0°.07, h29km, mb4.4/17, MS3.9/1, Error ellipse: s-maj=8.7km s-min=3.6km az=161.3*
*NEIC* ***16*** *18:33:52.9±2.0, 31°.61N×141°.88E, h28km±14km, mb4.8/5, Error ellipse: s-maj=8.9km s-min=5.2km az=84.0*
*JMA* ***16*** *18:33:54.4±0.4, 31°.87N×141°.79E, h89km, M3.4*
**ISC 16 18:33:53.0±0.6, 31°.67N±0°.05×141°.89E±0°.08, h29km, n46, σ1$^{s}$27/52, mb4.1/17, Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JHJ2** | **Mitsune** | **2.27** | **310** | P | **Pn** | **18 34 27.9** | **-0.6** |
| JHJ2 | | | | *e*S | **Sn** | **18 34 53.7** | **-1.8** |
| **JHJ2** | **Mitsune** | **2.27** | **310** | *e*Pn | **Pn** | **18 34 27.6** | **-0.8** |
| **JHJ** | **Hachijo jima 2** | **2.29** | **310** | Pn | **Pn** | **18 34 27.5** | **-1.4** |
| | 11nm,0.3s,baz=54,slow=19,SNR=4.8 | | | | | | |
| JHJ | | | | Sn | **Sn** | **18 34 54.9** | **-1.2** |
| | 19nm,0.3s,baz=114,slow=20,SNR=3.6 | | | | | | |
| **BSO3** | **Boso 3** | **3.33** | **340** | P | **Pn** | **18 34 42.3** | **-0.6** |
| **BSO4** | **Boso 4** | **3.56** | **339** | P | **Pn** | **18 34 46.2** | **0.0** |
| **CBIJ** | **Chichi jima** | **4.56** | **177** | *e*Pn | **Pn** | **18 34 60.0** | **-0.1** |
| CBIJ | | | | *e*Sn | **Sn** | **18 35 50.7** | **-1.5** |
| **JCJ** | **Chichijima** | **4.56** | **177** | Pn | **Pn** | **18 34 59.6** | **-0.4** |
| | 4.7nm,0.3s,baz=330,slow=20,SNR=3.7 | | | | | | |
| JCJ | | | | Sn | **Sn** | **18 35 52.2** | **0.0** |
| | 6.9nm,0.3s,baz=270,slow=20,SNR=2.2 | | | | | | |
| **JHU** | **Hanno** | **4.70** | **333** | P | **Pn** | **18 35 01.6** | **-0.4** |
| JHU | | | | *e*S | **Sn** | **18 35 52.1** | **-3.5** |
| **JYT** | **Yasato** | **4.76** | **343** | P | **Pn** | **18 35 02.7** | **-0.1** |
| **JRY** | **Ryogami san** | **5.00** | **331** | P | **Pn** | **18 35 06.0** | **-0.1** |
| **JHO** | **Hitachi** | **5.05** | **348** | P | **Pn** | **18 35 05.1** | **-1.7** |
| JHO | | | | *e*S | **Sn** | **18 36 00.7** | **-3.4** |
| **JAG** | **Ashikaga** | **5.16** | **338** | P | **Pn** | **18 35 07.3** | **-0.9** |
| **MJAR** | **Matsushiro Arr** | **5.74** | **329** | Pn | **Pn** | **18 35 16.7** | **+0.4** |
| | 1.4nm,0.3s,baz=150,slow=11,SNR=10 | | | | | | |
| MJAR | | | | Sn | **Sn** | **18 36 21.4** | **+0.3** |
| | 0.5nm,0.3s,baz=350,slow=33,SNR=2.9 | | | | | | |
| **MAJO** | **Matsushiro** | **5.74** | **329** | *e*Pn | **Pn** | **18 35 17.3** | **+1.0** |
| **MJB9** | **Matsu-Tunnel** | **5.75** | **329** | *e*Pn | **Pn** | **18 35 17.3** | **+1.0** |
| **ERM** | **Erimo** | **10.38** | **5** | *e*Pn | **Pn** | **18 36 20.2** | **+0.4** |
| **JOW** | **Kunigami** | **12.82** | **251** | *e*Pn | **Pn** | **18 36 53.9** | **+0.6** |
| **KLR** | **Kul'dur** | **19.13** | **339** | P | **P** | **18 38 13.7** | **+0.1** |
| | 0.0nm,0.3s,baz=163,slow=11,SNR=2.2 | | | | | | |
| **SONA1** | **Songino Array** | **31.37** | **311** | *e*P | **P** | **18 40 15.1** | **+3.9** |
| **SONA0** | **Songino Array** | **31.37** | **311** | *e*P | **

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.10** | **292** | *i* P | **Pg** | **19 20 43.9** | **-0.6** |
| VMUR | | | | *i* S | **Sg** | **19 20 47.3** | **+0.7** |
| **VMUR** | **Van-Muradiye** | **0.10** | **292** | P | **Pg** | **19 20 43.9** | **-0.6** |
| VMUR | | | | S | **Sg** | **19 20 47.3** | **+0.7** |
| **CLDR** | **Caldiran** | **0.26** | **42** | *e*PG | **Pg** | **19 20 46.9** | **-0.1** |
| CLDR | | | | *e*SG | **Sg** | **19 20 51.5** | **+0.8** |
| **CLDR** | **Caldiran** | **0.26** | **42** | *i* P | **Pg** | **19 20 46.7** | **-0.3** |
| CLDR | | | | *i* S | **Sb** | **19 20 52.0** | **-0.9** |
| **CLDR** | **Caldiran** | **0.26** | **42** | P | **Pg** | **19 20 46.7** | **-0.3** |
| **CLDR** | **Caldiran** | **0.26** | **42** | *e*Pg | **Pg** | **19 20 46.9** | **-0.1** |
| CLDR | | | | *e*Sg | **Sg** | **19 20 51.5** | **+0.8** |
| CLDR | | | | S | **Sb** | **19 20 52.0** | **-0.9** |
| **VANB** | **Van** | **0.43** | **214** | *e*PG | **Pg** | **19 20 50.6** | **-0.6** |
| **VANB** | **Van** | **0.43** | **214** | *e*Pg | **Pb** | **19 20 50.6** | **-0.6** |
| **TVAN** | **Van** | **0.48** | **208** | *i* P | **Pg** | **19 20 50.8** | **-0.1** |
| TVAN | | | | *i* S | **Sb** | **19 21 00.5** | **+1.2** |
| **TVAN** | **Van** | **0.48** | **208** | P | **Pg** | **19 20 50.8** | **-0.1** |
| **DYDN** | **Diyadin** | **0.59** | **360** | *i* P | **Pg** | **19 20 53.0** | **-0.1** |
| DYDN | | | | *i* S | **Sb** | **19 21 03.3** | **+0.8** |
| **DYDN** | **Diyadin** | **0.59** | **360** | P | **Pg** | **19 20 53.0** | **-0.1** |
| DYDN | | | | S | **Sb** | **19 21 03.3** | **+0.8** |
| **AGRB** | **Hanur-Agry** | **0.83** | **319** | *e*PG | **Pg** | **19 20 57.3** | **-0.3** |
| AGRB | | | | *e*SG | **Sb** | **19 21 09.4** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **0.83** | **319** | *e*Pg | **Pg** | **19 20 57.3** | **-0.3** |
| AGRB | | | | *e*Sg | **Sb** | **19 21 09.4** | **+0.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.11** | **22** | *e*PN | **Pb** | **19 21 02.6** | **-0.3** |
| **TASB** | **TASBURUN-IGDIR** | **1.11** | **22** | *e*Pn | **Pb** | **19 21 02.6** | **-0.3** |

*ISCJB **16** 19:23:39.8±1.4,51°.47N±0°.06×16°.07E±0°.06,h0km, Error ellipse: s-maj=8.8km s-min=4.4km az=27.7*
*CSEM **16** 19:23:40.4±1.1,51°.49N×16°.09E,h1km,ML3.1/4, Error ellipse: s-maj=15.9km s-min=8.1km az=16.0*
*PRU **16** 19:23:41.1,51°.47N×16°.14E,h0km*
*WAR **16** 19:23:41.5,51°.48N×16°.11E,h1km,Mw2.1*
**ISC 16 19:23:41.4±1.8,51°.47N±0°.08×16°.10E±0°.05,h0km,n20, σ0§38/36,Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KSP** | **Ksiaz** | **0.64** | **169** | *e*Pg | **Pg** | **19 23 53.7** | **0.0** |
| KSP | | | | *e*Sg | **Sg** | **19 24 02.3** | **+0.3** |
| **KSP** | **Ksiaz** | **0.64** | **169** | *e*Pg | **Pg** | **19 23 53.7** | **0.0** |
| KSP | | | | *e*Sg | **Sg** | **19 24 02.3** | **+0.3** |
| **KSP** | **Ksiaz** | **0.64** | **169** | *e*Pg | **Pg** | **19 23 53.7** | **0.0** |
| KSP | | | | *e*Sg | **Sg** | **19 24 02.3** | **+0.3** |
| **UPC** | **Upice** | **0.97** | **183** | *e*PG | **Pg** | **19 23 59.7** | **-0.2** |
| UPC | | | | *e*SG | **Sg** | **19 24 12.5** | **+0.1** |
| comp=Z,23nm,0.4s | | | | | | | |
| **UPC** | **Upice** | **0.97** | **183** | Pg | **Pg** | **19 23 59.7** | **-0.2** |
| UPC | | | | Sg | **Sg** | **19 24 12.5** | **+0.1** |
| 23nm,0.4s | | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.13** | **173** | *e*PG | **Pg** | **19 24 02.4** | **-0.7** |
| DPC | | | | *e*SG | **Sg** | **19 24 17.3** | **-0.4** |
| comp=Z,9.1nm,0.2s | | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.13** | **173** | Pg | **Pg** | **19 24 02.4** | **-0.7** |
| DPC | | | | Sg | **Sg** | **19 24 17.3** | **-0.4** |
| 9.1nm,0.2s | | | | | | | |
| **PVCC** | **Panska Ves** | **1.35** | **226** | *e*PG | **Pb** | **19 24 07.4** | **-0.2** |
| PVCC | | | | *e*SG | **Sn** | **19 24 25.8** | **-0.3** |
| comp=Z,40nm,0.2s | | | | | | | |
| **PVCC** | **Panska Ves** | **1.35** | **226** | Pg | **Pb** | **19 24 07.4** | **-0.2** |
| PVCC | | | | Sg | **Sn** | **19 24 25.8** | **-0.3** |
| 40nm,0.2s | | | | | | | |
| **BRG** | **Berggiesshubel** | **1.48** | **247** | PG | **Pg** | **19 24 10.2** | **+0.4** |
| BRG | | | | SG | **Sn** | **19 24 29.5** | **+0.2** |
| 15nm,0.4s | | | | | | | |
| **BRG** | **Berggiesshubel** | **1.48** | **247** | PG | **Pg** | **19 24 10.2** | **+0.4** |
| BRG | | | | SG | **Sn** | **19 24 29.5** | **+0.2** |
| 15nm,0.4s | | | | | | | |
| **PRU** | **Pruhonice** | **1.78** | **214** | *e*PG | **Pn** | **19 24 13.8** | **+0.3** |
| PRU | | | | *e*SG | **Sb** | **19 24 38.2** | **+0.4** |
| **PRU** | **Pruhonice** | **1.78** | **214** | Pg | **Pn** | **19 24 13.8** | **+0.3** |
| PRU | | | | Sg | **Sb** | **19 24 38.2** | **+0.4** |
| **CLL** | **Collm** | **1.94** | **266** | *e*Pg | **Pb** | **19 24 17.0** | **-0.7** |
| CLL | | | | *e*Sg | **Sg** | **19 24 44.0** | **+0.1** |
| **OKC** | **Ostrava-Krasne** | **2.09** | **141** | *e*SG | **Sb** | **19 24 47.1** | **+0.4** |
| **OKC** | **Ostrava-Krasne** | **2.09** | **141** | Sg | **Sb** | **19 24 47.1** | **+0.4** |
| **NKC** | **Novy Kostel** | **2.62** | **243** | *e*SG | **Sg** | **19 25 05.2** | **-0.4** |
| comp=Z,9.0nm,0.3s | | | | | | | |
| **NKC** | **Novy Kostel** | **2.62** | **243** | Sg | **Sg** | **19 25 05.2** | **-0.4** |
| 9.0nm,0.3s | | | | | | | |
| **KHC** | **Kasperske Hory** | **2.84** | **216** | *e*PN | **Pn** | **19 24 28.0** | **-0.1** |
| KHC | | | | *e*PG | **Pb** | **19 24 33.5** | **+0.4** |
| KHC | | | | *e*SG | **Sg** | **19 25 12.0** | **-0.8** |
| **KHC** | **Kasperske Hory** | **2.84** | **216** | Pn | **Pn** | **19 24 28.0** | **-0.1** |

*BJI **16** 19:30:12.3,3°.74N×93°.25E,h27km,mb4.7/60,mB5.0/44, Ms4.7/44,Ms7 4.4/41*
*ISCJB **16** 19:30:12.6±1.0,4°.20N±0°.03×93°.21E±0°.02,h4km±6km, mb4.9/143,MS4.1/29, Error ellipse: s-maj=5.5km s-min=3.0km az=34.1*
*IDC **16** 19:30:14.1±0.5,4°.22N×93°.24E,h0km,mb4.4/32, mb1 4.5/35,mb1mx4.4/55,mbtmp4.4/35,ML3.9/3,MS3.8/20, Ms1 3.8/20,ms1mx3.6/48, Error ellipse: s-maj=14.9km s-min=11.1km az=43.0*
*NEIC **16** 19:30:14.3±2.5,4°.19N×93°.24E,h6km±15km,mb5.2/62, Error ellipse: s-maj=7.1km s-min=4.3km az=223.0*
*MOS **16** 19:30:15.3±1.1,4°.25N×93°.24E,h21km,mb5.2/60, Error ellipse: s-maj=9.1km s-min=4.8km az=117.0*
*DJA **16** 19:30:16.0±1.2,4°.1N±4°×9°.3E±°,h22km±12km,M4.8/13, mb4.8/13,mB5.3/8,MLv4.9/11,Mw(mB)4.7/8*
*KLM **16** 19:30:17.7,4°.42N×93°.21E,h13km,mb4.9*
**ISC 16 19:30:18.0±0.5,4°.19N±0°.04×93°.23E±0°.04,h31km±3km, h31km:pP-P,n409,σ1§45/445,mb5.0/146,MS4.0/30, 29C-16D,Off west coast of northern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MLSI** | **Meulaboh, Aceh** | **3.17** | **89** | P | **Pn** | **19 31 06.2** | **+0.4** |
| **SNSI** | **Sinabang, Aceh** | **3.57** | **120** | P | **Pn** | **19 31 10.3** | **-1.0** |
| SNSI | | | | S | **Sn** | **19 31 50.8** | **-1.6** |
| **LHMI** | **Lhok Sumawe** | **3.85** | **74** | P | **Pn** | **19 31 17.5** | **+2.4** |
| LHMI | | | | S | **Sb** | **19 32 08.6** | **-2.8** |
| **LHMI** | **Lhok Sumawe** | **3.85** | **74** | *e*Pn | Pn | 19 31 08.8 | -6.3 |
| **TPTI** | | **4.05** | **103** | P | **Pn** | **19 31 17.6** | **-0.3** |
| **KCSI** | **Kotacane, Aceh** | **4.58** | **98** | P | **Pn** | **19 31 27.1** | **+1.8** |
| **GSI** | **Gunungsitoli** | **5.21** | **123** | P | **Pn** | **19 31 33.6** | **-0.2** |
| **GSI** | **Gunungsitoli** | **5.21** | **123** | *e*Pn | **Pn** | **19 31 32.5** | **-1.3** |
| **PSI** | **Prapat** | **5.85** | **103** | Pn | **Pn** | **19 31 44.5** | **+1.7** |
| 8.4nm,0.3s,baz=310,slow=11,SNR=14 | | | | | | | |
| PSI | | | | Sn | **Sn** | **19 32 47.5** | **-1.5** |
| 2.2nm,0.3s,baz=236,slow=15,SNR=2.1 | | | | | | | |
| **PSI** | **Prapat** | **5.85** | **103** | *e*P | **Pn** | **19 31 39.8** | **-3.0** |
| PSI | | | | | | 19 32 47.5 | |
| **PSI** | **Prapat** | **5.85** | **103** | *e*Pn | **Pn** | **19 31 39.8** | **-3.0** |
| PSI | | | | Sn | **Sn** | **19 32 47.5** | **-1.5** |
| **PBSI** | **Pulau Batu** | **6.58** | **130** | P | **Pn** | **19 31 52.2** | **-0.5** |
| **PBA** | **Port Blair** | **7.43** | **356** | *e*P | Pn | 19 32 02.4 | -2.0 |
| **KULM** | **Kulim** | **7.48** | **81** | ⇓P | **Pn** | **19 32 05.8** | **+0.7** |
| **KULM** | **Kulim** | **7.48** | **81** | *e*Pn | **Pn** | **19 32 05.4** | **+0.4** |
| **IPM** | **Ipoh** | **7.78** | **88** | ⇑P | **Pn** | **19 32 11.2** | **+1.9** |
| **IPM** | **Ipoh** | **7.78** | **88** | *e*Pn | **Pn** | **19 32 09.2** | **-0.1** |
| **SISI** | **Saibi** | **8.02** | **133** | P | **Pn** | **19 32 11.8** | **-0.8** |
| **BKNI** | **Bangkinang** | **8.70** | **116** | *e*Pn | **Pn** | **19 32 21.6** | **-0.2** |
| **PDSI** | **Padang** | **8.83** | **125** | P | **Pn** | **19 32 26.4** | **+2.7** |
| **DGPR** | **DIGLIPUR** | **8.93** | **358** | P | **Pn** | **19 32 24.1** | **-0.9** |
| **KTGM** | **Kuala Trenggan** | **9.94** | **83** | ⇑P | **Pn** | **19 32 40.2** | **+1.4** |
| **KGM** | **Kluang** | **10.31** | **102** | ⇓P | **Pn** | **19 32 45.5** | **+1.6** |
| **MYKOM** | **Kota Tinggi** | **10.87** | **102** | ⇓P | **Pn** | **19 32 52.1** | **+0.5** |
| **MYKOM** | **Kota Tinggi** | **10.87** | **102** | *e*Pn | **Pn** | **19 32 50.6** | **-1.0** |
| **PALK** | **Pallekele** | **12.83** | **284** | Pn | **Pn** | **19 33 16.7** | **-1.8** |
| 1.6nm,0.3s,baz=26,slow=24,SNR=11 | | | | | | | |
| PALK | | | | Sn | Sn | 19 35 28.9 | -11 |
| 2.5nm,0.3s,baz=30,slow=20,SNR=5.5 | | | | | | | |
| PALK | | | | LR | LR | 19 37 22.2 | |
| comp=Z,493nm,22.0s,baz=116,slow=33 | | | | | | | |
| **PALK** | **Pallekele** | **12.83** | **284** | *e*P | **Pn** | **19 33 16.3** | **-2.2** |
| **PALK** | **Pallekele** | **12.83** | **284** | *e*Pn | **Pn** | **19 33 16.3** | **-2.2** |
| PALK | | | | *e*Sn | Sn | 19 35 27.9 | -12 |
| **MNAI** | **Manna** | **12.91** | **131** | *e*Pn | Pn | 19 33 13.6 | -5.9 |
| **LWLI** | **Liwa** | **14.17** | **130** | P | P | 19 33 54.2 | +10 |
| **CM01** | **Chiang Mai Arr** | **15.21** | **21** | *e*Pn | **Pn** | **19 33 48.9** | **-1.9** |
| **CM31** | **Chiang Mai Arr** | **15.24** | **21** | *e*Pn | **Pn** | **19 33 50.1** | **-1.1** |
| **CMAR** | **Chiang Mai Arr** | **15.24** | **21** | Pn | **Pn** | **19 33 50.2** | **-0.9** |
| 0.1nm,0.3s,baz=219,slow=13,SNR=38 | | | | | | | |
| CMAR | | | | LR | LR | 19 40 50.8 | |
| comp=Z,129nm,18.0s,baz=220,slow=42 | | | | | | | |
| **MDRS** | **Chennai** | **15.56** | **305** | *e*P | **Pn** | **19 33 54.4** | **-0.9** |
| **CHTO** | **Chiang Mai** | **15.57** | **21** | *e*P | **Pn** | **19 33 54.2** | **-1.2** |
| CHTO | | | | pmax | pmax | | |
| comp=Z,62nm,0.9s | | | | | | | |
| **CHTO** | **Chiang Mai** | **15.57** | **21** | *e*Pn | **Pn** | **19 33 54.2** | **-1.2** |
| comp=Z,62nm,0.9s | | | | | | | |
| **SKHT** | **Srikalahasti** | **16.37** | **306** | *e*P | **P** | **19 34 08.6** | **+0.4** |
| SKHT | | | | *e*S | Sn | 19 36 54.7 | -12 |
| **VIS** | **Vishakhapatnam** | **16.57** | **325** | *i* P | **Pn** | **19 34 07.4** | **-0.9** |
| VIS | | | | AMB | AMB | 19 34 08.3 | |
| comp=Z,54nm,0.6s | | | | | | | |
| VIS | | | | *i* x | x | 19 36 58.6 | |
| **CHLP** | **Challavanipeta** | **16.82** | **328** | *e*Pn | **Pn** | **19 34 09.9** | **-1.4** |
| CHLP | | | | *e*S | Sn | 19 37 00.0 | -17 |
| **PVM** | **Polavaram** | **17.25** | **320** | *e*P | **Pn** | **19 34 15.1** | **-1.7** |
| PVM | | | | *e*S | Sn | 19 37 16.8 | -11 |
| **KSM** | **Kuching** | **17.27** | **99** | *e*Pn | **Pn** | **19 34 16.8** | **-0.3** |
| comp=Z,40nm,1.2s | | | | | | | |
| **ADKI** | **Addanki** | **17.43** | **313** | *e*Pn | **Pn** | **19 34 18.2** | **-0.8** |
| ADKI | | | | *e*S | Sn | 19 37 19.5 | -13 |
| **NJS** | **Nagarjunasagar** | **18.38** | **313** | *e*P | **P** | **19 34 30.1** | **-0.3** |
| NJS | | | | *e*S | **Sn** | **19 37 54.0** | **-1.2** |
| **SRLM** | **Srisailam** | **18.40** | **311** | *e*P | **Pn** | **19 34 30.9** | **0.0** |
| SRLM | | | | *e*S | **Sn** | **19 37 52.6** | **-3.1** |
| **CISI** | **Cisompet, Garu** | **18.66** | **129** | *e*P | **P** | **19 34 32.8** | **-0.9** |
| comp=Z,90nm,1.2s | | | | | | | |
| **STKI** | **Sintang** | **18.69** | **102** | P | **Pn** | **19 34 35.5** | **+1.0** |
| **URV** | **Uravakonda** | **19.01** | **305** | *e*P | **P** | **19 34 36.9** | **-0.6** |
| URV | | | | *e*S | **Sn** | **19 38 11.1** | **+0.5** |
| **XMIS** | **Christmas Isla** | **19.12** | **140** | *e*P | **P** | **19 34 37.0** | **-1.7** |
| comp=Z,355nm,1.5s | | | | | | | |
| **HYB** | **Hyderabad** | **19.48** | **314** | *i* P | **P** | **19 34 43.0** | **+0.4** |
| HYB | | | | *e*SP | **pP** | **19 34 50.0** | **-0.9** |
| HYB | | | | *e*S | **Sn** | **19 38 24.0** | **+2.1** |
| **HYB** | **Hyderabad** | **19.48** | **314** | *e*P | **P** | **19 34 42.4** | **-0.2** |
| **HYBB** | **Hyderabad (bro** | **19.48** | **314** | *e*P | **P** | **19 34 42.1** | **-0.6** |
| HYBB | | | | *e*S | **Sn** | **19 38 22.6** | **+0.7** |
| **BTM** | **Bintulu** | **19.84** | **92** | ⇑P | **Pn** | **19 34 48.5** | **+0.2** |
| **RPR** | **Rampur** | **19.94** | **318** | *e*P | **P** | **19 34 48.0** | **+0.4** |
| RPR | | | | *e*S | **S** | **19 38 30.3** | **-0.3** |
| **SRSP** | **Sriramsagar** | **20.64** | **316** | *e*P | **P** | **19 34 54.8** | **-0.3** |
| **BOK** | **Bokaro** | **20.73** | **341** | *e*P | **P** | **19 34 56.1** | **-0.1** |
| **SHL** | **Shillong** | **21.29** | **357** | *e*P | **P** | **19 34 59.9** | **-2.4** |
| **KLRI** | **Killari** | **21.33** | **312** | *e*P | **P** | **19 35 02.3** | **-0.5** |
| **NGP** | **Nagpur** | **21.77** | **322** | *e*P | **P** | **19 35 07.4** | **0.0** |
| NGP | | | | *ex* | x | 19 35 36.3 | |
| **QIZ** | **Qiongzhong** | **21.93** | **46** | P | **P** | **19 35 08.8** | **-0.2** |
| QIZ | | | | sP | **pP** | **19 35 17.1** | **-0.3** |
| QIZ | | | | S | **S** | **19 39 10.8** | **+1.1** |
| QIZ | | | | LR | LR | | |
| comp=Z,1μm,11.7s | | | | | | | |
| QIZ | | | | LR | LR | | |
| comp=Z,1μm,11.1s | | | | | | | |
| QIZ | | | | LR | LR | | |
| comp=Z,2μm,11.7s | | | | | | | |
| **GOA** | **Goa** | **22.14** | **302** | *e*P | **P** | **19 35 11.2** | **-0.2** |
| **KMI** | **Kunming** | **22.73** | **23** | P | **P** | **19 35 19.3** | **+1.5** |
| KMI | | | | pP | pP | 19 35 27.3 | +1.1 |
| KMI | | | | sP | sP | 19 35 31.1 | +0.9 |
| KMI | | | | S | **S** | **19 39 23.8** | **-1.0** |
| KMI | | | | pmax | pmax | | |
| comp=Z,17nm,1.2s | | | | | | | |
| KMI | | | | pmax | pmax | | |
| comp=Z,84nm,3.9s | | | | | | | |
| KMI | | | | LR | LR | | |
| comp=Z,960nm,10.0s | | | | | | | |
| KMI | | | | LR | LR | | |
| comp=Z,550nm,10.7s | | | | | | | |
| KMI | | | | LR | LR | | |
| comp=Z,1μm,10.2s | | | | | | | |
| **KKM** | **Kota Kinabalu** | **22.97** | **84** | ⇑P | **P** | **19 35 22.7** | **+2.3** |
| **KKM** | **Kota Kinabalu** | **22.97** | **84** | *e*P | **P** | **19 35 21.4** | **+1.1** |
| comp=Z,46nm,0.9s | | | | | | | |
| **ODAN** | **Odare** | **23.22** | **347** | *e*P | **P** | **19 35 23.2** | **+0.3** |
| comp=Z,158nm,0.9s | | | | | | | |
| **RAMN** | **Ramite** | **23.50** | **345** | *e*P | **P** | **19 35 26.2** | **+0.6** |
| comp=Z,242nm,1.1s | | | | | | | |
| **TAPN** | **Taplejung** | **23.62** | **348** | *e*P | **P** | **19 35 26.3** | **-0.6** |
| comp=Z,155nm,0.9s | | | | | | | |
| **POO** | **Poona** | **23.70** | **308** | *e*P | **P** | **19 35 26.6** | **-0.9** |
| **H08S2** | **Diego Garcia H** | **23.80** | **240** | T | T | 20 00 15.9 | |
| baz=61,slow=76,SNR=566 | | | | | | | |
| **H08S3** | **Diego Garcia H** | **23.80** | **240** | T | T | 20 00 15.9 | |
| baz=61,slow=76,SNR=1391 | | | | | | | |
| **H08S1** | **Diego Carcia H** | **23.81** | **240** | T | T | 20 00 12.7 | |
| baz=61,slow=76,SNR=183 | | | | | | | |
| **SDKM** | **Sandakan** | **23.92** | **86** | ⇓P | **P** | **19 35 31.3** | **+1.7** |
| **JIRN** | **Jiri** | **24.28** | **345** | *e*P | **P** | **19 35 33.5** | **+0.4** |
| **BHPL** | **Bhopal** | **24.33** | **323** | *e*P | **P** | **19 35 29.1** | **-4.1** |
| **JAGI** | **Jajag, Banyuwa** | **24.37** | **121** | *e*P | **P** | **19 35 32.7** | **-1.0** |
| comp=Z,119nm,1.7s | | | | | | | |
| **PKI** | **Pulchoki** | **24.41** | **343** | *e*P | **P** | **19 35 34.6** | **+0.3** |
| comp=Z,228nm,1.1s | | | | | | | |
| **PKIN** | **Phulchoki** | **24.42** | **343** | *e*P | **P** | **19 35 35.0** | **+0.7** |
| **DMN** | **Daman** | **24.54** | **342** | *e*P | **P** | **19 35 36.3** | **+0.9** |
| comp=Z,75nm,1.0s | | | | | | | |
| **TSM** | **Tawau** | **24.58** | **89** | ⇓P | **P** | **19 35 37.5** | **+1.9** |
| **GUN** | **Gumba** | **24.60** | **344** | *e*P | **P** | **19 35 36.5** | **+0.5** |
| **KKN** | **Kakani** | **24.66** | **343** | *e*P | **P** | **19 35 36.5** | **+0.1** |
| comp=Z,75nm,0.8s | | | | | | | |
| **KOLN** | **Koldanda** | **25.18** | **340** | *e*P | **P** | **19 35 41.8** | **+0.7** |
| comp=Z,160nm,1.1s | | | | | | | |
| **MYLDM** | **Lahad Datu** | **25.21** | **87** | ⇑P | **P** | **19 35 43.4** | **+2.1** |
| **MYLDM** | **Lahad Datu** | **25.21** | **87** | *e*P | **P** | **19 35 42.3** | **+1.0** |
| comp=Z,159nm,1.1s | | | | | | | |
| **LSA** | **Lhasa** | **25.45** | **356** | P | **P** | **19 35 45.3** | **+1.5** |
| LSA | | | | pmax | pmax | | |
| comp=Z,31nm,1.2s | | | | | | | |
| **LSA** | **Lhasa** | **25.45** | **356** | *e*P | **P** | **19 35 44.5** | **+0.7** |
| LSA | | | | pmax | pmax | | |
| comp=Z,40nm,0.9s | | | | | | | |
| **LSA** | **Lhasa** | **25.45** | **356** | *e*P | **P** | **19 35 44.5** | **+0.7** |
| comp=Z,40nm,0.9s | | | | | | | |
| **GYA** | **Guiyang** | **25.61** | **29** | ⇑P | **P** | **19 35 45.6** | **+0.7** |
| GYA | | | | pP | pP | 19 35 53.0 | -0.8 |
| GYA | | | | PP | **PnPn** | **19 36 26.4** | **+4.8** |
| GYA | | | | PcP | **PcP** | **19 39 17.3** | **+1.8** |
| GYA | | | | S | **S** | **19 40 10.8** | **-0.4** |
| GYA | | | | sS | pS | 19 40 22.3 | +1.0 |
| GYA | | | | SS | **SnSn** | **19 41 14.6** | **+8.0** |
| GYA | | | | ScP | **ScP** | **19 42 53.0** | **+0.1** |
| GYA | | | | pmax | pmax | | |
| comp=Z,30nm,0.8s | | | | | | | |
| GYA | | | | pmax | pmax | | |
| comp=Z,140nm,5.2s | | | | | | | |
| GYA | | | | LR | LR | | |
| comp=Z,680nm,16.8s | | | | | | | |
| GYA | | | | LR | LR | | |
| comp=Z,650nm,17.0s | | | | | | | |
| GYA | | | | LR | LR | | |
| comp=Z,620nm,17.2s | | | | | | | |
| **DANN** | **Dangsing** | **25.66** | **340** | *e*P | **P** | **19 35 46.4** | **+0.9** |
| **PYUN** | **Piuthan** | **25.70** | **339** | *e*P | **P** | **19 35 46.2** | **+0.4** |
| comp=Z,95nm,0.8s | | | | | | | |
| **PCI** | **Palu** | **27.07** | **100** | P | **P** | **19 35 59.2** | **+1.1** |
| PCI | | | | pmax | pmax | | |
| comp=Z,74nm,1.1s | | | | | | | |
| **CD2** | **Chengdu** | **28.37** | **19** | ⇓*i*P | **P** | **19 36 09.8** | **+0.2** |
| CD2 | | | | pP | pP | 19 36 16.8 | -1.8 |
| CD2 | | | | PP | **PnPn** | **19 37 03.0** | **+3.8** |
| CD2 | | | | PcP | **PcP** | **19 39 14.9** | **-7.0** |
| CD2 | | | | S | **S** | **19 40 51.6** | **-3.0** |
| CD2 | | | | sS | sS | 19 41 09.9 | +0.4 |
| CD2 | | | | ScS | **ScS** | **19 46 45.8** | **-8.2** |
| CD2 | | | | pmax | pmax | | |
| comp=Z,20nm,1.0s | | | | | | | |
| CD2 | | | | pmax | pmax | | |
| comp=Z,190nm,5.7s | | | | | | | |
| CD2 | | | | LR | LR | | |
| comp=Z,1μm,9.5s | | | | | | | |
| CD2 | | | | LR | LR | | |
| comp=Z,990nm,10.4s | | | | | | | |
| CD2 | | | | LR | LR | | |
| comp=Z,910nm,13.3s | | | | | | | |
| **TGY** | **Tagaytay City** | **29.04** | **68** | LR | LR | 19 47 55.8 | |
| comp=Z,380nm,18.6s,baz=102,slow=37 | | | | | | | |
| **LUWI** | **Luwuk** | **29.98** | **99** | *e*P | **P** | **19 36 20.4** | **-3.6** |
| comp=Z,181nm,1.3s | | | | | | | |
| **SMLA** | **Simla** | **30.77** | **332** | *e*P | **P** | **19 36 31.4** | **+0.6** |
| **DHRM** | **DHARAMSHALA** | **32.11** | **332** | *e*P | **P** | **19 36 43.2** | **+0.3** |
| DHRM | | | | AMB | AMB | 19 36 53.1 | |
| comp=Z,12nm,0.5s | | | | | | | |
| **TPUB** | **Ta-pu** | **32.58** | **52** | *e*P | **P** | **19 36 45.6** | **-1.3** |
| comp=Z,230nm,2.0s | | | | | | | |
| **WHN** | **Wuhan** | **32.93** | **35** | ⇓P | **P** | **19 36 50.8** | **+1.0** |
| WHN | | | | pP | **pP** | **19 36 57.8** | **-1.0** |
| WHN | | | | pmax | pmax | | |
| comp=Z,62nm,1.2s | | | | | | | |
| WHN | | | | LR | LR | | |
| comp=Z,1μm,5.1s | | | | | | | |
| WHN | | | | LR | LR | | |
| comp=Z,2μm,14.2s | | | | | | | |
| WHN | | | | LR | LR | | |
| comp=Z,2μm,11.2s | | | | | | | |
| **XAN** | **Xi'an** | **33.09** | **24** | P | **P** | **19 36 50.5** | **-0.8** |
| XAN | | | | pP | pP | 19 36 57.3 | -3.0 |
| XAN | | | | pmax | pmax | | |
| comp=Z,20nm,1.0s | | | | | | | |
| **LZH** | **Lanzhou** | **33.21** | **16** | ⇑P | **P** | **19 36 52.5** | **+0.1** |
| LZH | | | | pP | pP | 19 36 59.0 | -2.5 |
| LZH | | | | PP | **PnPn** | **19 38 03.8** | **+0.7** |
| LZH | | | | S | **S** | **19 42 10.0** | **-0.5** |
| LZH | | | | pmax | pmax | | |
| comp=Z,23nm,1.2s | | | | | | | |
| LZH | | | | pmax | pmax | | |
| comp=Z,130nm,5.8s | | | | | | | |
| LZH | | | | LR | LR | | |
| comp=Z,1μm,14.4s | | | | | | | |
| LZH | | | | LR | LR | | |
| comp=Z,1μm,13.4s | | | | | | | |
| LZH | | | | LR | LR | | |
| comp=Z,1μm,16.0s | | | | | | | |
| **GIRL** | **Giralia** | **33.66** | **143** | P | **P** | **19 36 58.8** | **+2.6** |
| baz=34 | | | | | | | |
| **NACB** | **Ninganchiao** | **33.79** | **51** | *e*P | **P** | **19 36 56.0** | **-1.4** |
| comp=Z,220nm,2.0s | | | | | | | |
| **SOEI** | **Soe** | **33.89** | **114** | *e*P | **P** | **19 36 55.6** | **-3.0** |
| comp=Z,41nm,1.1s | | | | | | | |
| **TNTI** | **Ternate** | **34.27** | **95** | *e*P | **P** | **19 36 58.8** | **-3.0** |
| comp=Z,14nm,1.0s | | | | | | | |
| **GTA** | **Gaotai** | **35.56** | **9** | P | **P** | **19 37 13.5** | **+0.8** |
| GTA | | | | pP | pP | 19 37 20.6 | -1.2 |
| GTA | | | | sP | sP | 19 37 23.5 | -2.1 |
| GTA | | | | PcP | **PcP** | **19 39 43.4** | **+2.0** |
| GTA | | | | S | **S** | **19 42 47.8** | **+1.1** |
| GTA | | | | sS | sS | 19 43 00.3 | -1.4 |
| GTA | | | | ScP | **ScP** | **19 43 24.1** | **-1.2** |
| GTA | | | | pmax | pmax | | |
| comp=Z,9.0nm,1.3s | | | | | | | |
| GTA | | | | pmax | pmax | | |
| comp=Z,110nm,5.9s | | | | | | | |
| GTA | | | | LR | LR | | |
| comp=Z,160nm,12.4s | | | | | | | |
| GTA | | | | LR | LR | | |
| comp=Z,180nm,15.2s | | | | | | | |
| GTA | | | | LR | LR | | |
| comp=Z,170nm,14.7s | | | | | | | |
| **AAI** | **Ambon** | **35.81** | **102** | P | **P** | **19 37 15.2** | **+0.2** |
| AAI | | | | pmax | pmax | | |
| comp=Z,134nm,0.9s | | | | | | | |
| **NJ2** | **Nanjing** | **36.68** | **38** | *e*P | **P** | **19 37 22.1** | **-0.1** |
| NJ2 | | | | pmax | pmax | | |
| comp=Z,18nm,0.8s | | | | | | | |
| **KBL** | **Kabul** | **37.62** | **326** | *e*P | **P** | **19 37 29.0** | **-1.4** |
| KBL | | | | pmax | pmax | | |
| comp=Z,4.0nm,0.8s | | | | | | | |
| **KBL** | **Kabul** | **37.62** | **326** | *e*P | **P** | **19 37 29.0** | **-1.4** |
| comp=Z,4.4nm,0.8s | | | | | | | |
| **SWI** | **Sorong** | **38.33** | **97** | P | **P** | **19 37 36.8** | **+0.3** |
| SWI | | | | pmax | pmax | | |
| comp=Z,42nm,1.0s | | | | | | | |
| **KSH** | **Kashi** | **38.48** | **338** | *e*P | **P** | **19 37 36.3** | **-1.2** |
| KSH | | | | pP | pP | 19 37 43.4 | -3.3 |
| KSH | | | | PP | **PnPn** | **19 39 09.3** | **+1.4** |
| KSH | | | | PcP | **PcP** | **19 39 51.5** | **+1.3** |
| KSH | | | | S | **S** | **19 43 26.3** | **-4.8** |
| KSH | | | | ScS | **ScS** | **19 47 41.3** | **-5.1** |
| KSH | | | | pmax | pmax | | |
| comp=Z,3.0nm,0.7s | | | | | | | |
| KSH | | | | pmax | pmax | | |
| comp=Z,100nm,5.2s | | | | | | | |
| KSH | | | | LR | LR | | |
| comp=Z,120nm,5.3s | | | | | | | |
| KSH | | | | LR | LR | | |
| comp=Z,190nm,5.1s | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **38.89** | **126** | P | **P** | **19 37 40.9** | **-0.1** |
| comp=Z,4.0nm,1.0s,baz=324,slow=8.1,SNR=7.1 | | | | | | | |
| **FAKI** | **Fak Fak** | **39.63** | **100** | *e*P | **P** | **19 37 45.1** | **-2.2** |
| comp=Z,31nm,1.1s | | | | | | | |
| **WMQ** | **Urumqi** | **39.77** | **354** | P | **P** | **19 37 48.8** | **+0.7** |
| WMQ | | | | pP | pP | 19 37 56.1 | -1.2 |
| WMQ | | | | sP | sP | 19 38 00.3 | -0.7 |
| WMQ | | | | pmax | pmax | | |
| comp=Z,30nm,0.7s | | | | | | | |
| WMQ | | | | pmax | pmax | | |
| comp=Z,330nm,3.8s | | | | | | | |
| WMQ | | | | LR | LR | | |
| comp=Z,410nm,38.9s | | | | | | | |
| WMQ | | | | LR | LR | | |
| comp=Z,110nm,25.3s | | | | | | | |
| WMQ | | | | LR | LR | | |
| comp=Z,91nm,17.7s | | | | | | | |
| **SFK** | **Sufi-Kurgan** | **39.86** | **336** | *i* P | **P** | **19 37 49.2** | **0.0** |
| SFK | | | | pmax | pmax | | |
| comp=Z,17nm,1.1s | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **40.05** | **22** | *e*P | **P** | **19 37 49.9** | **-0.6** |
| HHC | | | | PcP | **PcP** | **19 39 55.4** | **+0.3** |
| HHC | | | | ScP | **ScP** | **19 43 41.4** | **-0.7** |
| HHC | | | | PcS | **PcS** | **19 43 44.5** | **-0.9** |
| HHC | | | | S | **S** | **19 43 55.3** | **+0.7** |
| HHC | | | | pmax | pmax | | |
| comp=Z,8.0nm,0.8s | | | | | | | |
| HHC | | | | pmax | pmax | | |
| comp=

baz=330,slow=76,SNR=135
**H01W2 Cape Leeuwin H 43.58 155** T T 20 24 45.7
baz=330,slow=76,SNR=120
**H01W1 Cape Leeuwin H 43.58 155** T T 20 24 55.1
baz=330,slow=76,SNR=169
**KK31 Karatay Array 43.67 336** *i* P **P** **19 38 18.4 -1.7**
KK31 pmax pmax
comp=Z,8.0nm,0.9s
**KMBL Kambalda 44.68 144** P **P** **19 38 29.4 +1.1**
baz=45
**WRKA Warakurna 44.77 132** P **P** **19 38 29.8 +0.7**
baz=45,SNR=4.0
**TJN Taejon 44.84 40***ce*P P 19 38 34.9 +5.5
**SONA0 Songino Array 44.93 13** *e*P **P** **19 38 31.5 +1.3**
SONA0 *e*PcP **PcP** **19 40 12.1 +0.9**
**SONM Songino Array 44.93 13** P **P** **19 38 31.5 +1.3**
comp=Z,1.2nm,0.8s,baz=187,slow=7.5,SNR=10.0
SONM PcP **PcP** **19 40 12.1 +0.9**
comp=Z,2.6nm,0.8s,baz=205,slow=5.2,SNR=4.7
SONM LR LR 19 58 46.4
comp=Z,125nm,19.3s,baz=186,slow=38
**SONA1 Songino Array 44.94 13** *e*P **P** **19 38 30.3 0.0**
SONA1 *e*PcP **PcP** **19 40 12.3 +1.0**
**INCN Inchon 45.06 38** *e*P **P** **19 38 30.5 -0.8**
comp=Z,81nm,1.4s
**ULN Ulaanbaatar 45.10 13** *e*P **P** **19 38 32.5 +0.9**
ULN pmax pmax
comp=Z,7.0nm,1.2s
**ULN Ulaanbaatar 45.10 13** *e*P **P** **19 38 31.3 -0.3**
ULN *e*PcP **PcP** **19 40 12.2 +0.3**
**DGZ Jazzator, Alta 45.61 355***c i*P **P** **19 38 37.0 +1.4**
DGZ pmax pmax
comp=Z,6.0nm,1.1s
**KS15 Wonju Array Si 45.82 39** *e*P **P** **19 38 37.5 +0.3**
**KSAR Wonju Array Be 45.82 39** P **P** **19 38 38.0 +0.8**
**KSAR Wonju Array Be 45.82 39** P **P** **19 38 38.0 +0.8**
**KS01 Wonju Array Si 45.84 39** *e*P **P** **19 38 37.0 -0.4**
**KSRS Korea Array 45.85 39** P **P** **19 38 38.0 +0.6**
comp=Z,3.9nm,1.0s,baz=220,slow=9.5,SNR=7.5
KSRS LR LR 19 59 52.9
comp=Z,118nm,19.0s,baz=236,slow=39
**GEYT Alibeck 46.40 321** P **P** **19 38 43.0 +1.2**
comp=Z,8.6nm,0.9s,baz=148,slow=8.7,SNR=21
GEYT LR LR 19 59 49.6
comp=Z,59nm,21.1s,baz=65,slow=38
**HVS Khovu-Aksy 46.78 0**⇑ *i*P **P** **19 38 45.4 +0.7**
HVS pmax pmax
comp=Z,60nm,0.9s
**WR1 Warramunga Arr 46.98 122** *e*P **P** **19 38 47.1 +0.5**
comp=Z,17nm,1.0s
**WRA Warramunga Arr 46.98 122** P **P** **19 38 47.1 +0.5**
comp=Z,12nm,1.1s,baz=301,slow=8.8,SNR=33
**WRAB Tennant Creek 46.98 122** *e*P **P** **19 38 47.1 +0.5**
WRAB pmax pmax
comp=Z,17nm,0.9s
**WRAB Tennant Creek 46.98 122** *e*P **P** **19 38 47.1 +0.5**
comp=Z,17nm,0.9s
**WB2 Warramunga Arr 46.99 122** *e*P **P** **19 38 46.4 -0.2**
**KURBB Kurchatov Arra 47.89 347** P **P** **19 38 54.0 +0.8**
comp=Z,12nm,0.7s,baz=170,slow=6.9,SNR=140
KURBB PcP **PcP** **19 40 22.4 +1.0**
comp=Z,2.3nm,0.9s,baz=163,slow=3.8,SNR=3.0
**KURK Kurchatov 47.96 348***c i*P **P** **19 38 54.3 +0.6**
KURK pmax pmax
comp=Z,22nm,1.2s
**KURK Kurchatov 47.96 348** *e*P **P** **19 38 54.0 +0.3**
**AS31 Alice Springs 48.35 127** *e*P **P** **19 38 57.1 -0.2**
AS31 *e*PcP **PcP** **19 40 23.4 -0.3**
**ASAR Alice Springs 48.35 127** P **P** **19 38 57.6 +0.3**
comp=Z,2.4nm,0.9s,baz=301,slow=7.4,SNR=16
ASAR PcP **PcP** **19 40 25.1 +1.4**
comp=Z,1.6nm,0.8s,baz=304,slow=3.7,SNR=5.3
ASAR LR LR 20 01 26.3
comp=Z,54nm,19.4s,baz=7.5,slow=39
**AS01 Alice Springs 48.39 127** *e*P **P** **19 38 57.2 -0.3**
AS01 *e*PcP **PcP** **19 40 24.4 +0.6**
**CN2 Changchun 48.62 31** *e*P **P** **19 38 58.9 0.0**
CN2 *ep*P pP 19 39 06.5 -1.8
CN2 pmax pmax
comp=Z,10.0nm,0.6s
CN2 pmax pmax
comp=Z,200nm,3.0s
CN2 LR LR
comp=Z,200nm,11.0s
CN2 LR LR
comp=Z,200nm,11.0s
CN2 LR LR
comp=Z,200nm,12.0s
**RAYN Ar Rayn 49.86 297** *e*P **P** **19 39 09.5 +0.7**
comp=Z,11nm,1.1s
**ZAA0 Zalesovo Array 50.07 354** *e*P **P** **19 39 10.7 +0.9**
comp=Z,39nm,1.1s
**ZALV Zalesovo Beam 50.07 354** P **P** **19 39 10.8 +1.0**
comp=Z,10nm,0.5s,baz=179,slow=7.8,SNR=63
ZALV LR LR 20 06 05.5
comp=Z,54nm,18.5s,baz=219,slow=43
**ZALV Zalesovo Beam 50.07 354** *e*P **P** **19 39 10.3 +0.5**
**ZALV Zalesovo Beam 50.07 354** *e*P **P** **19 39 10.3 +0.5**
**ZAA1 Zalesovo Array 50.08 354** *e*P **P** **19 39 10.8 +1.0**
**ATD Arta Tunnel 50.38 281** *e*P **P** **19 39 14.2 +1.3**
comp=Z,28nm,1.1s
**NVS Novosibirsk 51.14 353**⇓ *i*P **P** **19 39 18.8 +0.9**
NVS *e*S **S** **19 46 37.0 +3.3**
NVS pmax pmax
comp=Z,18nm,0.8s
NVS pmax pmax
comp=N,21nm,0.8s
NVS pmax pmax
comp=E,9.0nm,0.8s
NVS smax smax
comp=N,8.0nm,2.0s
NVS smax smax
comp=E,12nm,2.0s
**MDJ Mudanjiang 51.36 33** P **P** **19 39 20.8 +1.1**
MDJ pmax pmax
comp=E,18nm,1.5s
MDJ pmax pmax
comp=E,64nm,3.8s
**MDJ Mudanjiang 51.36 33** *e*P **P** **19 39 21.7 +2.0**
comp=E,34nm,1.1s
**BVAR Borovoye Array 52.19 343** P **P** **19 39 26.2 +0.4**
comp=E,6.8nm,0.7s,baz=142,slow=7.5,SNR=26
**BRVK Borovoye 52.24 343** *e*P **P** **19 39 26.0 -0.2**
BRVK pmax pmax
comp=Z,15nm,0.9s
**BRVK Borovoye 52.24 343** *e*P **P** **19 39 26.0 -0.2**
comp=Z,15nm,0.9s
**MJAR Matsushiro Arr 52.32 46** P **P** **19 39 27.2 +0.1**
comp=Z,0.5nm,0.5s,baz=248,slow=7.5,SNR=4.0
MJAR LR LR 20 04 21.9
comp=Z,120nm,18.1s,baz=240,slow=39
**USRK Ussuriysk Ar. 52.42 35** P **P** **19 39 28.5 +0.8**
comp=Z,2.6nm,0.7s,baz=232,slow=7.1,SNR=3.5
USRK LR LR 20 02 00.8
comp=Z,132nm,18.4s,baz=184,slow=36
**AB31 Akbulak array 53.05 333** *i* P **P** **19 39 31.8 -0.4**
AB31 pmax pmax
comp=Z,14nm,0.8s
**FURI Furi 54.35 278** *e*P **P** **19 39 43.6 +0.9**
comp=Z,53nm,1.5s
**MTSU Mount Surprise 55.02 115** P **P** **19 39 48.7 +1.6**
baz=55
**BOD Bodaibo 55.92 13** *e*P **P** **19 39 52.6 -0.3**
BOD pmax pmax
comp=Z,18nm,1.4s
**KMBO Kilima Mbogo 56.18 266** P **P** **19 39 57.6 +1.8**
comp=Z,3.7nm,0.8s,baz=66,slow=10,SNR=6.3
KMBO LR LR 19 59 39.7
comp=Z,81nm,21.3s,baz=94,slow=31
**KMBO Kilima Mbogo 56.18 266** *e*P **P** **19 39 56.8 +0.9**
KMBO pmax pmax
comp=Z,7.0nm,1.1s
**KMBO Kilima Mbogo 56.18 266** *e*P **P** **19 39 56.8 +0.9**
comp=Z,7.4nm,1.1s
**GNI Garni 56.40 316** P **P** **19 39 58.1 +1.2**
comp=Z,9.4nm,0.7s,baz=152,slow=7.1,SNR=3.9
**GNI Garni 56.40 316***ce*P **P** **19 39 56.7 -0.2**
GNI pmax pmax
comp=Z,90nm,1.7s
**GNI Garni 56.40 316** *e*P **P** **19 39 56.8 -0.1**
comp=Z,20nm,1.1s
**HABR Khabarovsk 56.71 32** *e*P **P** **19 39 59.8 +1.1**
HABR *e**PP **pP** **19 40 10.0 +1.8**
HABR *e* 19 40 55.8
HABR *e* 19 42 06.0
HABR *e*PPP PPP 19 43 22.1
HABR *e*S **S** **19 47 50.5 +1.2**
HABR *e* 19 48 03.1
HABR *e**SS **sS** **19 48 06.8 +1.8**
HABR *e* 19 49 46.5
HABR *e*SS **SS** **19 51 39.6 +2.1**
HABR pmax pmax
comp=N,47nm,1.6s
HABR pmax pmax
comp=E,16nm,1.6s
HABR pmax pmax
comp=Z,45nm,1.6s
HABR MLR MLR
comp=Z,94nm,23.0s
**CTAO Charters Tower 57.38 117** *e*P **P** **19 40 02.9 -1.1**
CTAO pmax pmax
comp=Z,39nm,1.4s
**CTAO Charters Tower 57.38 117** *e*P **P** **19 40 02.9 -1.1**
comp=Z,39nm,1.4s
**MARD Mardin 58.10 312** *e*P **P** **19 40 05.5 -3.4**
comp=Z,23nm,0.6s
**ZEI Tsey 58.15 319** *e*P **P** **19 40 07.5 -1.8**
ZEI pmax pmax
comp=Z,2.0nm,0.9s
**CLNS Chul'man 58.18 20** *e*P **P** **19 40 05.2 -3.8**
CLNS pmax pmax
comp=Z,13nm,0.9s
CLNS pmax pmax
comp=N,9.0nm,1.4s
CLNS pmax pmax
comp=E,6.0nm,1.5s
**STKA Stephens Creek 58.30 132** P **P** **19 40 10.5 +0.3**
comp=E,2.7nm,1.0s,baz=315,slow=8.6,SNR=2.3
**STKA Stephens Creek 58.30 132** *e*P **P** **19 40 10.5 +0.3**
STKA pmax pmax
comp=Z,4.0nm,1.5s
**STKA Stephens Creek 58.30 132** *e*P **P** **19 40 10.5 +0.3**
comp=Z,4.1nm,1.5s
**SVE Sverdlovsk 58.49 340**⇑ *i*P **P** **19 40 11.8 +0.7**
SVE pmax pmax
comp=Z,47nm,0.9s
**ARTV Artvin 58.78 316** *e*P **P** **19 40 13.4 -0.3**
comp=Z,11nm,1.3s
**ASAJ Asahikawa 58.79 40** *e*P **P** **19 40 13.0 -0.4**
comp=Z,32nm,1.3s
**ARU Arti 58.93 338***c i*P **P** **19 40 13.7 -0.4**
ARU 19 42 22.8
ARU S **S** **19 48 15.9 -2.2**
ARU pmax pmax
comp=Z,35nm,1.7s
**ARU Arti 58.93 338** *e*P **P** **19 40 13.2 -0.9**
comp=Z,20nm,1.0s
**KBZ Khabaz 59.23 320** P **P** **19 40 16.5 +0.1**
comp=Z,2.6nm,0.9s,baz=345,slow=3.5,SNR=3.6
**KOPT Kop Dagi 59.31 315** *e*P P 19 40 10.5 -7.0
comp=Z,19nm,1.2s
**KIV Kislovodsk 59.47 320** *i* P **P** **19 40 16.2 -2.1**
KIV *i* 19 40 22.3
KIV pmax pmax
comp=Z,16nm,1.4s
**KIV Kislovodsk 59.47 320** *e*P **P** **19 40 16.6 -1.7**
comp=Z,28nm,1.4s
**ASF Jabal al Asfar 59.51 305** P **P** **19 40 19.8 +1.0**
comp=Z,0.6nm,0.4s,baz=237,slow=2.3,SNR=3.9
**YSS Yuzh-Sakhalins 60.24 37** *e*P P 19 40 31.6 +8.3
YSS pmax pmax
comp=Z,40nm,1.1s
**YSS Yuzh-Sakhalins 60.24 37** *e*P **P** **19 40 23.3 -0.1**
comp=Z,65nm,1.2s
**EIL Elat 60.52 302** P **P** **19 40 27.2 +1.6**
comp=Z,7.1nm,0.8s,baz=312,slow=1.2,SNR=6.0
**MMAI Mount Meron Ar 60.95 306** P **P** **19 40 30.7 +2.1**
comp=Z,2.4nm,0.7s,baz=80,slow=5.5,SNR=7.1
**CMSA Cobar Meteorol 61.25 129** P **P** **19 40 31.9 +1.4**
baz=62,SNR=7.1
**RMQ Roma 61.73 123** P **P** **19 40 36.4 +2.5**
baz=62
**TOKA Tokat 62.30 314** *e*P **P** **19 40 38.4 +0.9**
comp=Z,15nm,0.9s
**NKL Nikolayevsk 62.34 30** *e*P **P** **19 40 37.5 +0.1**
NKL pmax pmax
comp=Z,26nm,1.0s
**VRH Novokhopyorsk 63.45 327** *e*P **P** **19 40 44.1 -0.7**
VRH pmax pmax
comp=Z,10.0nm,1.0s
**YAK Yakutsk 63.75 18** P **P** **19 40 46.8 +0.2**
comp=Z,4.2nm,0.3s,baz=334,slow=2.3,SNR=13
**YAK Yakutsk 63.75 18** *e*P **P** **19 40 46.4 -0.2**
YAK pmax pmax
comp=Z,40nm,1.1s
YAK pmax pmax
comp=N,16nm,1.4s
YAK pmax pmax
comp=E,14nm,1.3s
**YAK Yakutsk 63.75 18** *e*P **P** **19 40 46.0 -0.7**
comp=E,33nm,0.8s
**BR101 Keskin Array S 64.18 312** *e*P **P** **19 40 50.1 0.0**
**BR131 Keskin Array S 64.18 312** *e*P **P** **19 40 49.4 -0.7**
**BRTR Keskin Array B 64.18 312** P **P** **19 40 50.1 0.0**
comp=E,5.7nm,0.8s,baz=132,slow=7.6,SNR=30
BRTR LR LR 20 09 30.0
comp=E,32nm,20.8s,baz=94,slow=37
**YNG Young 64.48 131** P **P** **19 40 53.7 +1.7**
baz=65
**ILGA Ilgaz 64.52 314** *e*P **P** **19 40 52.7 +0.2**
comp=E,55nm,1.4s
**ANTO Ankara 64.84 312** *e*P **P** **19 40 53.1 -1.3**
ANTO pmax pmax
comp=Z,51nm,1.5s
**ANTO Ankara 64.84 312** *e*P **P** **19 40 53.1 -1.3**
comp=Z,50nm,1.5s
**BR231 Keskin MP Arra 64.85 312** *e*P **P** **19 40 52.7 -1.8**
**VSR Storozhevoye 64.87 326** *e*P **P** **19 40 51.7 -2.5**
VSR pmax pmax
comp=Z,10.0nm,1.2s
**CAN Canberra 65.36 132** P **P** **19 40 59.5 +1.8**
baz=66
**CAN Canberra 65.36 132** *e*P **P** **19 40 55.7 -2.1**
CAN pmax pmax
comp=Z,78nm,2.0s
**CAN Canberra 65.36 132** *e*P **P** **19 40 55.6 -2.1**
comp=Z,78nm,2.0s
**ARMA Armidale 65.49 126** P **P** **19 41 00.9 +2.1**
baz=66
**ARMA Armidale 65.49 126** *e*P **P** **19 41 01.0 +2.1**
comp=Z,59nm,1.9s
**SIM Simferopol' 65.50 318***ce*P **P** **19 40 58.6 +0.2**
SIM pmax pmax
comp=Z,16nm,0.9s
**LPSR Galich'ya Gora 65.63 327** *e*P P 19 41 05.1 +6.0
LPSR pmax pmax
comp=Z,10.0nm,0.8s
**MGCD Mangrove Creek 66.11 129** P **P** **19 41 03.6 +1.1**
baz=66,SNR=6.0
**LSZ Lusaka 67.22 252** LR LR 20 06 28.6
comp=Z,210nm,19.6s,baz=128,slow=32
**LSZ Lusaka 67.22 252** *e*P **P** **19 41 10.8 +0.7**
LSZ pmax pmax
comp=Z,21nm,1.8s
**LSZ Lusaka 67.22 252** *e*P **P** **19 41 10.8 +0.7**
comp=Z,21nm,1.8s
**TAU Tasmania Unive 67.64 140** *e*P **P** **19 41 13.4 +1.3**
TAU pmax pmax
comp=Z,83nm,1.8s
**TAU Tasmania Unive 67.64 140** *e*P **P** **19 41 13.4 +1.3**
comp=Z,83nm,1.8s
**MANT Manisa 67.67 310** *e*P **P** **19 41 11.6 -1.1**
comp=Z,60nm,1.4s
**OBN Obninsk 68.01 329** *i* P **P** **19 41 12.6 -1.6**
OBN *i* 19 41 20.3
OBN *i* 19 41 44.7
OBN pmax pmax
comp=Z,10.0nm,1.1s
**OBN Obninsk 68.01 329** *e*P **P** **19 41 14.3 +0.1**
comp=Z,16nm,0.8s
**TIRR Tirgusor 69.23 316**⇓ *i*P **P** **19 41 22.6 +0.6**
**TIRR Tirgusor 69.23 316** *e*P **P** **19 41 22.2 +0.2**
TIRR pmax pmax
comp=Z,29nm,1.1s
**TIRR Tirgusor 69.23 316** *e*P **P** **19 41 22.2 +0.2**
comp=Z,29nm,1.1s
**KLMR Klimovskoe 69.37 335** *e*P P 19 41 13.5 -9.1
KLMR pmax pmax
comp=Z,25nm,1.5s
**CFR Carcaliu 69.61 317**⇓ *i*P **P** **19 41 24.8 +0.5**
**MILM Milestii Mici 69.63 319**⇑ *i*P **P** **19 41 24.1 -0.3**
**SKR Severo-Kuril's 69.81 37**⇑ *e*P P 19 41 31.2 +5.8
**LEOM Leova 69.88 318**⇑ *i*P **P** **19 41 26.5 +0.5**
**SORM Soroca 70.27 320**⇑ *i*P **P** **19 41 28.2 -0.2**
**AKASG Malin Array Be 70.48 323** P **P** **19 41 28.6 -1.1**
comp=Z,1.1nm,0.7s,baz=95,slow=4.7,SNR=11
**AKBB Malin Array Si 70.48 323** *e*P **P** **19 41 28.6 -1.0**
AKBB pmax pmax
comp=Z,14nm,1.4s
**AKBB Malin Array Si 70.48 323** *e*P **P** **19 41 28.6 -1.0**
comp=Z,14nm,1.4s
**ISR Istrita 70.68 316** P **P** **19 41 30.7 -0.4**
ISR pmax pmax
comp=Z,51nm,1.3s
**VRI Vrincioaia 70.74 317**⇑ *i*P **P** **19 41 32.6 +1.3**
**VRI Vrincioaia 70.74 317** P **P** **19 41 32.9 +1.6**
**PLOR Plostina 70.79 317**⇑ *i*P **P** **19 41 32.9 +1.2**
**PLOR Plostina 70.79 317** P **P** **19 41 32.9 +1.2**
**TESR Tescani 70.95 318**⇓ *i*P **P** **19 41 33.7 +1.1**
**TIXI Tiksi 71.00 11***ce*P **P** **19 41 35.0 +2.7**
TIXI pmax pmax
comp=Z,28nm,1.0s
**TIXI Tiksi 71.00 11** *e*P **P** **19 41 31.6 -0.7**
comp=Z,22nm,0.9s
**MLR Muntele Rosu 71.18 317** LR LR 20 19 18.1
comp=Z,10nm,18.9s,baz=266,slow=41
**MLR Muntele Rosu 71.18 317**⇓ *i*P **P** **19 41 35.5 +1.3**
**MLR Muntele Rosu 71.18 317** *e*P **P** **19 41 35.0 +0.8**
**MLR Muntele Rosu 71.18 317** *e*P **P** **19 41 35.0 +0.8**
**PRAR RASCA 71.44 319**⇑ *i*P **P** **19 41 36.1 +0.5**
**PETK Petropavlovsk- 71.51 35** LR LR 20 18 55.5
comp=Z,69nm,18.3s,baz=170,slow=41
**HUMR Humele 71.63 316**⇓ *i*P **P** **19 41 37.5 +0.8**
**TMCR Tamitsa 71.65 338** P **P** **19 41 34.3 -2.1**
TMCR pmax pmax
comp=Z,25nm,0.8s
**DOPR Dopca 71.67 317**⇑ *i*P **P** **19 41 37.4 +0.4**
**PAIG Paliouri 71.67 311** P **P** **19 41 38.2 +1.1**
PAIG pmax pmax
comp=Z,35nm,1.1s
**LBTB Lobatse 71.71 242** LR LR 20 08 14.3
comp=Z,136nm,20.5s,baz=66,slow=32
**VOIR 71.78 317**⇑ *i*P **P** **19 41 37.6 -0.1**
**VOIR 71.78 317** P **P** **19 41 39.4 +1.7**
VOIR pmax pmax
comp=Z,9.0nm,2.2s
**ARR Arges 72.05 316**⇓ *i*P **P** **19 41 39.7 +0.3**
**BURAR Bucovina Array 72.17 319**⇑ *i*P **P** **19 41 41.4 +1.3**
**BURAR Bucovina Array 72.17 319** P **P** **19 41 41.3 +1.2**
**BUR04 Bucovina Ar. S 72.18 319** *e*P **P** **19 41 40.4 +0.3**
**BUR08 Bucovina Ar. S 72.19 319** *e*P **P** **19 41 41.0 +0.9**
**KNT Kendrikon 72.47 312** P **P** **19 41 41.7 -0.2**
KNT pmax pmax
comp=Z,14nm,1.4s
**VTS Vitosha 72.50 313**⇑ *i*P **P** **19 41 42.5 +0.3**
**VTS Vitosha 72.50 313** *e*P **P** **19 41 41.8 -0.4**
VTS pmax pmax
comp=Z,15nm,1.1s
**VTS Vitosha 72.50 313** *e*P **P** **19 41 41.8 -0.4**
comp=Z,15nm,1.1s
**SEY Seymchan 72.63 24** P **P** **19 41 42.3 0.0**
comp=Z,3.1nm,0.8s,baz=54,slow=20,SNR=5.5
**GRG Griva 72.81 312** P **P** **19 41 43.9 0.0**
GRG pmax pmax
comp=Z,21nm,1.2s
**BOSA Boshof 72.89 239** P **P** **19 41 45.2 +0.5**
comp=Z,6.3nm,1.1s,baz=57,slow=7.2,SNR=3.9
BOSA LR LR 20 07 45.0
comp=Z,80nm,21.6s,baz=84,slow=31
**DEV Deva 73.35 317** P **P** **19 41 48.1 +1.2**
DEV pmax pmax
comp=Z,42nm,1.2s
**LVV L'vov 73.45 321** *e*P P 19 41 54.0 +6.5
**HERR Herculane 73.49 316**⇓ *i*P **P** **19 41 48.5 +0.7**
**DRGR 73.66 318**⇓ *i*P **P** **19 41 50.0 +1.1**
**DRGR 73.66 318** P **P** **19 41 49.5 +0.6**
DRGR pmax pmax
comp=Z,25nm,1.4s
**JOF Joensuu 73.77 335** P **P** **19 41 51.1 +2.1**
JOF pmax pmax
comp=Z,22nm,2.8s
**MDVR Moldovita 73.97 315**⇑ *i*P **P** **19 41 50.9 +0.2**
**BZS Buzias 74.18 316**⇑ *i*P **P** **19 41 52.0 +0.2**
**KWP Kalwaria Pacla 74.25 320** *e*P P 19 42 00.3 +8.1
**KWP Kalwaria Pacla 74.25 320** *e*P **P** **19 41 52.4 +0.2**
KWP pmax pmax
comp=Z,213nm,0.9s
**KWP Kalwaria Pacla 74.25 320** *e*P **P** **19 41 52.4 +0.2**
comp=Z,212nm,0.9s
**UZH Uzhgorod 74.31 319** *e*P **P** **19 41 51.0 -1.5**
UZH *e* 19 42 03.5
**MAW Mawson 74.77 192** P **P** **19 41 56.8 +2.1**
comp=Z,3.7nm,0.9s,baz=42,slow=6.7,SNR=4.6
**CRVS Cervenica-Dubn 74.90 320** *e*P **P** **19 41 58.1 +2.1**
CRVS *e* 19 42 05.0
**CRVS Cervenica-Dubn 74.90 320** *e*P **P** **19 41 58.1 +2.1**
CRVS *e* 19 42 05.0
**STHS Stebnicka Huta 75.14 320** *e*P **P** **19 41 59.4 +2.1**
STHS *e* 19 42 05.6
STHS pmax pmax
comp=Z,12nm,1.0s
**STHS Stebnicka Huta 75.14 320** *e*P **P** **19 41 59.4 +2.1**
STHS *e* 19 42 05.6
**KECS Kecovo 75.46 319** *e*P **P** **19 42 00.6 +1.4**
KECS *e* 19 42 07.6
KECS pmax pmax
comp=Z,5.0nm,0.9s
**KECS Kecovo 75.46 319** *e*P **P** **19 42 00.6 +1.4**
KECS *e* 19 42 07.6
**FIA1 FINESS Array S 75.53 333** *e*P **P** **19 41 59.1 -0.2**
**FIA0 FINESS Array S 75.53 333** *e*P **P** **19 41 58.9 -0.4**
**FIA0 FINESS Array S 75.53 333** *e*P **P** **19 41 58.9 -0.4**
**FINES FINESS Array B 75.53 333** P **P** **19 41 58.9 -0.4**
comp=Z,4.5nm,0.8s,baz=241,slow=6.3,SNR=6.6
**PSZ Piszkesteto 75.75 318** *e*P **P** **19 42 01.5 +0.5**
PSZ pmax pmax
comp=Z,30nm,1.5s
**PSZ Piszkesteto 75.75 318** *e*P **P** **19 42 01.5 +0.5**
comp=Z,30nm,1.5s
**MSF Maaselka 75.85 338** P **P** **19 42 01.3 +0.3**
MSF pmax pmax
comp=Z,25nm,2.7s
**OJC Ojcow 76.21 321** *e*P **P** **19 42 04.3 +0.8**
**OJC Ojcow 76.21 321** *e*P **P** **19 42 03.7 +0.3**
OJC pmax pmax
comp=Z,19nm,1.0s
**OJC Ojcow 76.21 321** *e*P **P** **19 42 03.6 +0.3**
comp=Z,19nm,1.0s
**VYHS Vyhne 76.54 319** *e*P **P** **19 42 06.2 +0.8**
VYHS *e* 19 42 12.8
VYHS pmax pmax
comp=Z,11nm,1.3s
**VYHS Vyhne 76.54 319** *e*P **P** **19 42 06.2 +0.8**
VYHS *e* 19 42 12.8
**BLY Banja Luka 77.15 315** *e*P **P** **19 42 09.0 +0.2**
comp=Z,67nm,1.6s
**OKC Ostrava-Krasne 77.19 320** *e*P **P** **19 42 10.1 +1.1**
OKC *ep*P **pP** **19 42 17.0 -1.8**
**OKC Ostrava-Krasne 77.19 320** *e*P **P** **19 42 10.1 +1.1**
OKC *e* 19 42 17.0
**MODS Modra-Piesok 77.55 319** *e*P **P** **19 42 11.0 0.0**
MODS *e* 19 42 18.3
**MODS Modra-Piesok 77.55 319** *e*P **P** **19 42 11.0 0.0**
MODS *e* 19 42 18.3
**MORC Moravsky Berou 77.57 320** *e*P **P** **19 42 11.6 +0.4**
MORC pmax pmax
comp=Z,67nm,1.2s
**MORC Moravsky Berou 77.57 320** *e*P **P** **19 42 11.6 +0.4**
comp=Z,67nm,1.2s
**KRLC Kraliky 78.10 320** *e*P **P** **19 42 15.5 +1.4**
**KRLC Kraliky 78.10 320** *e*P **P** **19 42 15.5 +1.4**
**ARA0 ARCESS Array S 78.41 341** *e*P **P** **19 42 15.7 +0.4**
**ARCES ARCESS Array B 78.41 341** P **P** **19 42 15.7 +0.4**
comp=Z,6.2nm,0.9s,baz=81,slow=10.0,SNR=6.2
**ARCES ARCESS Array B 78.41 341** *e*P **P** **19 42 15.5 +0.1**
**ARCES ARCESS Array B 78.41 341** *e*P **P** **19 42 15.5 +0.1**
**DPC Dobruska-Polom 78.43 320** *e*P **P** **19 42 17.2 +1.3**
DPC *ep*P **PcP** **19 42 24.5 -0.6**
**DPC Dobruska-Polom 78.43 320** *e*P **P** **19 42 17.2 +1.3**
DPC *e* 19 42 24.5
**CONA Conrad Observa 78.44 318** *e*P **P** **19 42 15.7 -0.4**
comp=Z,9.7nm,1.4s
**KSP Ksiaz 78.51 321** *e*P **P** **19 42 18.0 +1.7**
**KSP Ksiaz 78.51 321** *e*P **P** **19 42 18.0 +1.7**
**ARSA Arzberg 78.59 317** *i* pP **P** **19 42 18.4 +1.6**
comp=Z,22nm,1.2s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **BOJS** | **Bojanci** | **78.59** | **315** | *i* P | | **P** | **19 42 17.8** | **+1.0** |
| BOJS | | | | *i* | | | 19 42 25.0 | |
| **UPC** | **Upice** | **78.65** | **321** | *e*P | | **P** | **19 42 18.6** | **+1.5** |
| **UPC** | **Upice** | **78.65** | **321** | *e*P | | **P** | **19 42 18.6** | **+1.5** |
| **PERS** | **Pernice** | **78.80** | **317** | *i* P | | **P** | **19 42 19.0** | **+1.0** |
| PERS | | | | *i* | | | 19 42 26.6 | |
| **SOKA** | **Soboth** | **78.86** | **317** | *e*pP | | **P** | **19 42 19.7** | **+1.3** |
| | comp=Z,23nm,1.2s | | | | | | | |
| **VISS** | **Visnje** | **78.91** | **316** | *i* P | | **P** | **19 42 16.8** | **-1.8** |
| VISS | | | | *i* | | | 19 42 26.1 | |
| **OBKA** | **Obir** | **79.18** | **316** | *e*pP | | **P** | **19 42 21.2** | **+1.0** |
| | comp=Z,22nn,1.1s | | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **79.36** | **320** | *e*P | | **P** | **19 42 21.8** | **+0.8** |
| GOPC | | | | *e*pP | | **PcP** | **19 42 29.6** | **+0.5** |
| **GOPC** | **GO Pecny, Ondr** | **79.36** | **320** | *e*P | | **P** | **19 42 21.8** | **+0.8** |
| GOPC | | | | *e* | | | 19 42 29.6 | |
| **JAVS** | **Javornik** | **79.46** | **316** | *i* P | | P | 19 42 15.3 | -6.4 |
| **PRU** | **Pruhonice** | **79.53** | **320** | *e*P | | **P** | **19 42 23.1** | **+1.2** |
| PRU | | | | *e*pP | | **PcP** | **19 42 30.4** | **+0.6** |
| **PRU** | **Pruhonice** | **79.53** | **320** | *e*P | | **P** | **19 42 23.1** | **+1.2** |
| PRU | | | | *e* | | | 19 42 30.4 | |
| **GEA0** | **GERESS Array S** | **79.96** | **319** | *e*P | | **P** | **19 42 25.7** | **+1.3** |
| **GEC2** | **GERESS Array S** | **79.96** | **319** | *e*P | | **P** | **19 42 25.0** | **+0.6** |
| GEC2 | | | | pmax | | pmax | | |
| | comp=Z,23nm,1.0s | | | | | | | |
| **GEC2** | **GERESS Array S** | **79.96** | **319** | *e*P | | **P** | **19 42 25.0** | **+0.6** |
| | comp=Z,23nm,1.0s | | | | | | | |
| **GERES** | **GERESS Array B** | **79.96** | **319** | P | | **P** | **19 42 25.6** | **+1.2** |
| | comp=Z,6.3nm,0.8s,baz=66,slow=7.5,SNR=9.1 | | | | | | | |
| **BRG** | **Berggiesshubel** | **80.00** | **321** | *e*P | | **P** | **19 42 25.4** | **+1.0** |
| | comp=Z,11nm,1.2s | | | | | | | |
| BRG | | | | *e* | | | 19 42 32.9 | |
| | comp=Z,11nm,0.9s | | | | | | | |
| **BRG** | **Berggiesshubel** | **80.00** | **321** | *e*P | | **P** | **19 42 25.4** | **+1.0** |
| | comp=Z,11nm,1.2s | | | | | | | |
| BRG | | | | *e* | | | 19 42 32.9 | |
| | comp=Z,11nm,0.9s | | | | | | | |
| **BRG** | **Berggiesshubel** | **80.00** | **321** | *e*P | | **P** | **19 42 25.4** | **+1.0** |
| BRG | | | | *e* | | | 19 42 32.9 | |
| BRG | | | | pmax | | pmax | | |
| | comp=Z,11nm,1.2s | | | | | | | |
| **KHC** | **Kasperske Hory** | **80.07** | **319** | *e*P | | **P** | **19 42 26.8** | **+1.9** |
| KHC | | | | *e*pP | | **pP** | **19 42 34.9** | **+0.2** |
| **KHC** | **Kasperske Hory** | **80.07** | **319** | *e*P | | **P** | **19 42 24.9** | **0.0** |
| KHC | | | | pmax | | pmax | | |
| | comp=Z,6.0nm,1.3s | | | | | | | |
| **KHC** | **Kasperske Hory** | **80.07** | **319** | *e*P | | **P** | **19 42 24.9** | **0.0** |
| | comp=Z,5.5nm,1.3s | | | | | | | |
| **WET** | **Wettzell** | **80.53** | **319** | P | | **P** | **19 42 28.3** | **+0.9** |
| WET | | | | pmax | | pmax | | |
| | comp=Z,24nm,2.5s | | | | | | | |
| **ABTA** | **Abfaltersbach** | **80.60** | **317** | *e*P | | **P** | **19 42 27.0** | **-0.9** |
| | comp=Z,13nm,1.7s | | | | | | | |
| **CLL** | **Collm** | **80.63** | **321** | *e*P | | **P** | **19 42 25.9** | **-1.9** |
| CLL | | | | pmax | | pmax | | |
| | comp=Z,31nm,1.6s | | | | | | | |
| **CLL** | **Collm** | **80.63** | **321** | *e*P | | **P** | **19 42 28.0** | **+0.2** |
| CLL | | | | *e*(sP) | | **PcP** | **19 42 35.0** | **+0.5** |
| **CLL** | **Collm** | **80.63** | **321** | *e*P | | **P** | **19 42 25.9** | **-1.9** |
| | comp=Z,30nm,1.6s | | | | | | | |
| **MOTA** | **Moosalm** | **81.59** | **317** | *i* P | | **P** | **19 42 33.5** | **+0.3** |
| | comp=Z,13nm,1.0s | | | | | | | |
| **GRFO** | **Grafenberg** | **81.64** | **319** | *e*P | | **P** | **19 42 34.4** | **+1.2** |
| GRFO | | | | pmax | | pmax | | |
| | comp=Z,28nm,1.2s | | | | | | | |
| **GRFO** | **Grafenberg** | **81.64** | **319** | *e*P | | **P** | **19 42 34.4** | **+1.2** |
| | comp=Z,28nm,1.2s | | | | | | | |
| **RETA** | **Reutte** | **81.83** | **317** | *e*P | | **P** | **19 42 33.9** | **-0.5** |
| | comp=Z,13nm,1.4s | | | | | | | |
| **FETA** | **Feichten** | **81.83** | **317** | *i* P | | **P** | **19 42 35.2** | **+0.7** |
| | comp=Z,12nm,1.2s | | | | | | | |
| **DAVA** | **Damuels** | **82.42** | **317** | *i* pP | | **P** | **19 42 38.6** | **+1.0** |
| | comp=Z,26nm,1.3s | | | | | | | |
| **NOA** | **NORSAR Array B** | **82.48** | **331** | LR | | LR | 20 22 00.5 | |
| | comp=Z,24nm,20.1s,baz=335,slow=38 | | | | | | | |
| **TAM** | **Tamanrasset** | **86.28** | **292** | *e*P | | **P** | **19 42 59.0** | **+1.3** |
| TAM | | | | pmax | | pmax | | |
| | comp=Z,21nm,1.5s | | | | | | | |
| **TAM** | **Tamanrasset** | **86.28** | **292** | *e*P | | **P** | **19 42 59.0** | **+1.3** |
| | comp=Z,21nm,1.5s | | | | | | | |
| **GAMB** | **Gambell** | **88.52** | **26** | *e*P | | **P** | **19 43 05.2** | **-2.1** |
| | comp=Z,38nm,1.0s | | | | | | | |
| **TOA0** | **Torodi Ar. Sit** | **90.55** | **283** | *e*P | | **P** | **19 43 17.9** | **-0.1** |
| **TORD** | **Torodi Ar. Bea** | **90.55** | **283** | P | | **P** | **19 43 17.7** | **-0.2** |
| | comp=Z,1.7nm,1.1s,baz=90,slow=2.8,SNR=6.9 | | | | | | | |
| TORD | | | | LR | | LR | 20 22 42.1 | |
| | comp=Z,58nn,19.0s,baz=0.0,slow=35 | | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **90.55** | **283** | *e*P | | **P** | **19 43 17.7** | **-0.2** |
| **ES19** | **SONSECA Array** | **92.82** | **310** | *e*P | | **P** | **19 43 28.8** | **+0.8** |
| **ESDC** | **Sonseca Array** | **92.88** | **310** | P | | **P** | **19 43 29.1** | **+0.8** |
| | comp=Z,1.7nm,0.7s,baz=70,slow=3.9,SNR=5.2 | | | | | | | |
| **DBIC** | **Dimbokro** | **97.52** | **277** | LR | | LR | 20 25 00.5 | |
| | comp=Z,63nn,20.4s,baz=49,slow=34 | | | | | | | |
| **ILAR** | **Eielson Array** | **98.47** | **22** | P | | Pdif | 19 43 55.4 | +2.2 |
| | comp=Z,0.5nn,0.8s,baz=308,slow=4.4,SNR=3.4 | | | | | | | |
| ILAR | | | | PP | | **PP** | **19 47 51.0** | **-2.3** |
| | comp=Z,0.5nn,1.0s,baz=304,slow=6.4,SNR=2.9 | | | | | | | |
| **ILB** | **Eielson Array** | **98.47** | **22** | *e*P | | Pdif | 19 43 55.4 | +2.2 |
| ILB | | | | *e*PP | | **PP** | **19 47 51.0** | **-2.3** |
| **YKA** | **Yellowknife Ar** | **110.19** | **13** | Pdiff | | **Pdif** | **19 44 45.2** | **-0.1** |
| | comp=Z,0.1nn,0.4s,baz=316,slow=1.7,SNR=2.8 | | | | | | | |
| YKA | | | | PP | | **PP** | **19 49 19.8** | **-0.3** |
| | comp=Z,0.2nn,0.7s,baz=332,slow=8.2,SNR=4.0 | | | | | | | |
| **YKB5** | **Yellowknife Ar** | **110.19** | **13** | *e*Pdif | | **Pdif** | **19 44 45.2** | **-0.1** |
| YKB5 | | | | *e*PP | | **PP** | **19 49 19.8** | **-0.3** |
| **HLID** | **Hailey** | **126.33** | **25** | *e*PKPdf | | **PKPdf** | **19 49 20.0** | **+1.7** |
| **REDW** | **Red Top Meadow** | **127.91** | **22** | *e*PKPdf | | **PKPdf** | **19 49 23.1** | **+1.7** |
| **NV01** | **Mina Array Sit** | **128.51** | **32** | *e*PKPdf | | **PKPdf** | **19 49 23.8** | **+1.1** |
| **PD31** | **Pinedale Array** | **128.90** | **21** | *e*PKPdf | | **PKPdf** | **19 49 24.6** | **+1.3** |
| **PDAR** | **Pinedale Array** | **128.90** | **21** | PKP | | **PKPdf** | **19 49 24.6** | **+1.3** |
| | comp=Z,1.1nn,0.9s,baz=307,slow=0.7,SNR=6.6 | | | | | | | |
| **PDAR** | **Pinedale Array** | **128.90** | **21** | *e*PKPdf | | **PKPdf** | **19 49 23.3** | **0.0** |
| **ANMO** | **Albuquerque** | **136.89** | **24** | *e*PKIKP | | **PKPdf** | **19 49 40.0** | **+1.5** |
| **ANMO** | **Albuquerque** | **136.89** | **24** | *e*PKPdf | | **PKPdf** | **19 49 40.0** | **+1.5** |
| **TX31** | **Lajitas Ar. Si** | **142.93** | **25** | *e*PKPdf | | **PKPdf** | **19 49 47.1** | **-2.4** |
| TX31 | | | | *e*PKPdf | | **PKiKP** | **19 49 49.6** | **-3.1** |
| **LTX** | **Lajitas** | **142.93** | **25** | *e*PKIKP | | **PKPdf** | **19 49 48.5** | **-1.0** |
| **LTX** | **Lajitas** | **142.93** | **25** | *e*PKPdf | | **PKPdf** | **19 49 48.5** | **-1.0** |
| **TXAR** | **Lajitas Array** | **142.93** | **25** | PKP | | **PKPdf** | **19 49 48.5** | **-1.0** |
| | comp=Z,0.8nn,0.7s,baz=45,slow=0.4,SNR=6.0 | | | | | | | |
| **JCT** | **Junction City** | **143.34** | **19** | *e*PKIKP | | PKPbc | 19 49 47.8 | +0.6 |
| **JCT** | **Junction City** | **143.34** | **19** | *e*PKPdf | | PKPbc | 19 49 47.8 | +0.6 |
| **CPUP** | **Villa Florida** | **144.24** | **229** | PKP | | **PKPdf** | **19 49 51.2** | **-0.5** |
| | comp=Z,1.1nn,0.9s,baz=102,slow=2.8,SNR=19 | | | | | | | |
| **SLBS** | **Sierra La Lagu** | **144.25** | **38** | *e*PKPdf | | **PKPdf** | **19 49 51.5** | **-0.5** |
| **LCO** | **Las Campanas** | **150.99** | **210** | *e*PKPbc | | **PKPbc** | **19 50 10.4** | **+1.5** |
| **PTGA** | **Pitinga** | **153.00** | **277** | *e*PKPbc | | **PKPbc** | **19 50 14.6** | **+1.0** |
| **LPAZ** | **La Paz** | **158.10** | **235** | PKP | | **PKPdf** | **19 50 15.5** | **+1.8** |
| LPAZ | | | | PKPab | | **PKPab** | **19 50 48.6** | **+1.4** |
| | comp=Z,2.1nn,0.8s,baz=158,slow=2.4,SNR=5.2 | | | | | | | |
| **LPAZ** | **La Paz** | **158.10** | **235** | *e*PKIKP | | **PKPdf** | **19 50 15.1** | **+1.4** |
| **LPAZ** | **La Paz** | **158.10** | **235** | *e*PKPdf | | **PKPdf** | **19 50 15.1** | **+1.4** |

**IDC 16 19:35:03.2±331.0, 37.77N×118.07W, h0km, Error ellipse: s-maj=162.0km s-min=93.9km az=160.0, California-Nevada border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **I57US** | **PINON FLAT INF** | **4.36** | **162** | *i* | | 20 02 40.0 | |
| | baz=343,slow=316,SNR=0.7 | | | | | | |
| **I56US** | **NEWPORT INFRAS** | **0.51** | **3** | *i* | | 20 41 23.2 | |
| | baz=185,slow=363,SNR=0.5 | | | | | | |
| **I10CA** | **LAC DU BONNET** | **20.06** | **45** | *i* | | 21 40 40.0 | |
| | baz=236,slow=180,SNR=0.7 | | | | | | |

*JMA **16** 19:45:12.4±0.2, 23.72N×121.77E, h0km, M3.3*
*ISCJB **16** 19:45:13.3±0.4, 23.70N±0.01×121.74E±0.02, h3km±3km, mb3.4/8, MS3.6/1, Error ellipse: s-maj=3.1km s-min=2.0km az=33.7.*
*TAP **16** 19:45:14.5, 23.76N×121.59E, h10km, ML4.0, C*
*BJI **16** 19:45:16.6, 23.80N×121.54E, h14km, ML3.5/5*
*IDC **16** 19:45:25.9±7.2, 23.60N×121.70E, h104km±70km, mb3.2/8, mb1 3.4/9, mb1mx3.1/48, mbtmp3.6/9, ML3.6/1, Error ellipse: s-maj=36.6km s-min=16.6km az=69.0*

**ISC 16 19:45:14.2±1.1, 23.71N±0.02×121.68E±0.03, h5km±7km, n88, σ0.93/121, mb3.4/8, 2C-24D, Taiwan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TEGC** | **Jichi Village** | **0.13** | **269** | *e*P | **Pg** | **19 45 17.4** | **+0.5** |
| | baz=217 | | | | | | |
| TEGC | | | | *e*S | **Sg** | **19 45 19.6** | **+0.8** |
| | baz=217 | | | | | | |
| **ESF** | **Shoufeng Towns** | **0.23** | **314** | *e*P | **Pg** | **19 45 18.6** | **-0.1** |
| | baz=319 | | | | | | |
| **ESL** | **Shilin** | **0.25** | **294** | ⇓*i*P | **Pg** | **19 45 18.2** | **-1.0** |
| | baz=293 | | | | | | |
| ESL | | | | *i* S | **Sg** | **19 45 20.8** | **-1.7** |
| | baz=293 | | | | | | |
| **HWA** | **Hwalien** | **0.27** | **345** | P | **Pg** | **19 45 20.2** | **+0.5** |
| | baz=6.0 | | | | | | |
| HWA | | | | S | **Sb** | **19 45 25.2** | **-1.3** |
| | baz=6.0 | | | | | | |
| **TWD** | **Chiawan** | **0.38** | **348** | ⇓*i*P | **Pg** | **19 45 21.7** | **+0.1** |
| | baz=16 | | | | | | |
| TWD | | | | *i* S | **Sg** | **19 45 27.2** | **+0.7** |
| | baz=16 | | | | | | |
| **EHY** | **Hungye** | **0.39** | **238** | ⇓*i*P | **Pg** | **19 45 21.8** | **0.0** |
| | baz=235 | | | | | | |
| EHY | | | | *e*S | **Sb** | **19 45 29.1** | **-0.8** |
| | baz=235 | | | | | | |
| **TWF1** | **Yuli** | **0.50** | **225** | ⇓*i*P | **Pg** | **19 45 24.7** | **+0.7** |
| | baz=222 | | | | | | |
| TWF1 | | | | *e*S | **Sb** | **19 45 32.6** | **-0.6** |
| | baz=222 | | | | | | |
| **WHF** | **Hehuan Shan** | **0.58** | **318** | ⇓*i*P | **Pg** | **19 45 24.7** | **-0.7** |
| | baz=311 | | | | | | |
| WHF | | | | S | **Sg** | **19 45 31.9** | **-1.1** |
| | baz=311 | | | | | | |
| **CHKT** | **Chengkung** | **0.68** | **206** | ⇑*e*P | **Pg** | **19 45 27.8** | **+0.6** |
| | baz=196 | | | | | | |
| **YUS** | **Yu-Shan** | **0.71** | **252** | ⇓*i*P | **Pg** | **19 45 27.9** | **+0.1** |
| | baz=254 | | | | | | |
| YUS | | | | *e*S | **Sg** | **19 45 37.9** | **+0.8** |
| | baz=254 | | | | | | |
| **ENA** | **Nanau** | **0.71** | **4** | ⇓*i*P | **Pg** | **19 45 28.1** | **+0.1** |
| | baz=22 | | | | | | |
| ENA | | | | *e*S | **Sb** | **19 45 39.6** | **+0.3** |
| | baz=22 | | | | | | |
| **NNS** | **Nan Shan** | **0.78** | **339** | ⇓*i*P | **Pg** | **19 45 29.0** | **-0.2** |
| | baz=338 | | | | | | |
| NNS | | | | *e*S | **Sg** | **19 45 39.5** | **+0.1** |
| | baz=338 | | | | | | |
| **TYC** | **Yuchr** | **0.78** | **284** | ⇓*i*P | **Pg** | **19 45 28.5** | **-0.8** |
| | baz=282 | | | | | | |
| TYC | | | | *e*S | **Sg** | **19 45 37.5** | **-1.9** |
| | baz=282 | | | | | | |
| **ELDTW** | **Lidau** | **0.80** | **230** | ⇓P | **Pg** | **19 45 29.0** | **-0.7** |
| | baz=221 | | | | | | |
| ELDTW | | | | *e*S | **Sb** | **19 45 41.5** | **-0.4** |
| | baz=221 | | | | | | |
| **ALS** | **Alishan** | **0.83** | **256** | ⇓*i*P | **Pg** | **19 45 30.3** | **+0.1** |
| | baz=250 | | | | | | |
| ALS | | | | *e*S | **Sg** | **19 45 41.9** | **+0.8** |
| | baz=250 | | | | | | |
| **TWC** | **Suao** | **0.91** | **10** | *e*P | **Pg** | **19 45 31.7** | **0.0** |
| | baz=17 | | | | | | |
| TWC | | | | *e*S | **Sn** | **19 45 45.4** | **-1.7** |
| | baz=17 | | | | | | |
| **CHN5** | **Tsauling** | **0.93** | **263** | ⇓*i*P | **Pg** | **19 45 32.3** | **+0.2** |
| | baz=249 | | | | | | |
| CHN5 | | | | *e*S | **Sb** | **19 45 45.5** | **0.0** |
| | baz=249 | | | | | | |
| **ENTT** | **Nioudou** | **0.93** | **353** | ⇓P | **Pg** | **19 45 31.7** | **-0.5** |
| | baz=1.0 | | | | | | |
| ENTT | | | | *e*S | **Sb** | **19 45 45.2** | **-0.3** |
| | baz=1.0 | | | | | | |
| **WNT** | **Mingjian** | **0.93** | **280** | *e*P | **Pg** | **19 45 32.4** | **+0.3** |
| | baz=275 | | | | | | |
| WNT | | | | *e*S | **Sb** | **19 45 46.1** | **+0.6** |
| | baz=275 | | | | | | |
| **NSK** | **Sanguang** | **1.00** | **343** | P | **Pg** | **19 45 32.8** | **-0.7** |
| | baz=350 | | | | | | |
| NSK | | | | S | **Sg** | **19 45 46.0** | **-0.7** |
| | baz=350 | | | | | | |
| **TWE** | **Neicheng** | **1.00** | **359** | *e*P | **Pg** | **19 45 32.9** | **-0.7** |
| | baz=13 | | | | | | |
| TWE | | | | *e*S | **Sb** | **19 45 47.6** | **0.0** |
| | baz=13 | | | | | | |
| **STYT** | **Tauyuan** | **1.01** | **238** | ⇓P | **Pg** | **19 45 33.2** | **-0.5** |
| | baz=225 | | | | | | |
| STYT | | | | *e*S | **Sb** | **19 45 47.7** | **-0.1** |
| | baz=225 | | | | | | |
| **TCU** | **Taichung** | **1.02** | **295** | ⇓*i*P | **Pb** | **19 45 34.2** | **-0.1** |
| | baz=294 | | | | | | |
| **WGK** | **Gukeng** | **1.03** | **269** | ⇓P | **Pg** | **19 45 34.0** | **0.0** |
| | baz=262 | | | | | | |
| WGK | | | | *e*S | **Sn** | **19 45 49.2** | **-0.8** |
| | baz=262 | | | | | | |
| **TWQ1** | **Liyutan** | **1.05** | **307** | ⇓P | **Pg** | **19 45 34.3** | **-0.1** |
| | baz=308 | | | | | | |
| TWQ1 | | | | *e*S | **Sb** | **19 45 48.6** | **-0.3** |
| | baz=308 | | | | | | |
| **TWG** | **Pinlang** | **1.05** | **213** | *e*P | **Pg** | **19 45 32.7** | **-1.7** |
| | baz=205 | | | | | | |
| **ILA** | **Ilan** | **1.05** | **3** | *e*P | **Pn** | **19 45 35.3** | **-0.3** |
| | baz=357 | | | | | | |
| **CHN4** | **Tsaushan** | **1.06** | **251** | ⇓*i*P | **Pg** | **19 45 34.8** | **+0.1** |
| | baz=245 | | | | | | |
| CHN4 | | | | *e*S | **Sg** | **19 45 49.0** | **+0.6** |
| | baz=245 | | | | | | |
| **TTN** | **Taitung** | **1.07** | **208** | *e*P | **Pg** | **19 45 33.3** | **-1.6** |
| | baz=199 | | | | | | |
| **WTP** | **Ta-pu** | **1.09** | **245** | ⇓*i*P | **Pg** | **19 45 35.0** | **-0.1** |
| | baz=237 | | | | | | |
| WTP | | | | *e*S | **Sg** | **19 45 49.3** | **+0.1** |
| | baz=237 | | | | | | |
| **NSY** | **Sanyi** | **1.10** | **310** | P | **Pn** | **19 45 35.9** | **-0.4** |
| | baz=310 | | | | | | |
| NSY | | | | *e*S | **Sn** | **19 45 51.2** | **-0.6** |
| | baz=310 | | | | | | |
| **NSTT** | **Nanjuang** | **1.11** | **326** | ⇓*e*P | **Pg** | **19 45 35.0** | **-0.5** |
| | baz=329 | | | | | | |
| NSTT | | | | S | **Sg** | **19 45 48.9** | **-1.0** |
| | baz=329 | | | | | | |
| **CHN2** | **Minshiung** | **1.12** | **261** | *e*P | **Pg** | **19 45 35.9** | **+0.1** |
| | baz=254 | | | | | | |
| CHN2 | | | | *e*S | **Sn** | **19 45 52.5** | **+0.1** |
| | baz=254 | | | | | | |
| **CHY** | **Chiayi** | **1.18** | **260** | *e*P | **Pg** | **19 45 36.2** | **-0.5** |
| | baz=253 | | | | | | |
| CHY | | | | *e*S | **Sn** | **19 45 54.1** | **+0.4** |
| | baz=253 | | | | | | |
| **CHN1** | **Nanshi** | **1.18** | **244** | ⇓*i*P | **Pg** | **19 45 36.8** | **-0.1** |
| | baz=234 | | | | | | |
| CHN1 | | | | *e*S | **Sn** | **19 45 54.4** | **+0.4** |
| | baz=234 | | | | | | |
| **TWK** | **Hsinying** | **1.18** | **248** | ⇓*i*P | **Pg** | **19 45 36.6** | **-0.3** |
| | baz=238 | | | | | | |
| TWK | | | | *e*S | **Sn** | **19 45 54.2** | **+0.3** |
| | baz=238 | | | | | | |
| **SGST** | **Jiashian** | **1.19** | **238** | ⇓P | **Pb** | **19 45 36.7** | **-0.5** |
| | baz=232 | | | | | | |
| SGST | | | | *e*S | **Sn** | **19 45 53.9** | **-0.2** |
| | baz=232 | | | | | | |
| **HSN** | **Hsinchu** | **1.27** | **329** | *e*P | **Pg** | **19 45 38.7** | **+0.1** |
| | baz=335 | | | | | | |
| HSN | | | | *e*S | **Sn** | **19 45 56.3** | **+0.4** |
| | baz=335 | | | | | | |
| **TWA** | **Mucha** | **1.27** | **356** | *e*P | **Pn** | **19 45 37.1** | **-1.5** |
| | baz=3.0 | | | | | | |
| **WTCT** | **Ta-ch'eng** | **1.29** | **277** | *e*P | **Pb** | **19 45 39.0** | **0.0** |
| | baz=273 | | | | | | |
| **ECL** | **Taimali** | **1.30** | **211** | *e*P | **Pn** | **19 45 36.4** | **-2.6** |
| | baz=204 | | | | | | |
| **TWB1** | **Santiao Chiao** | **1.32** | **12** | *e*P | **Pg** | **19 45 39.6** | **0.0** |
| | baz=19 | | | | | | |
| **TAP1** | **Taipei** | **1.33** | **354** | *e*P | **Pg** | **19 45 39.9** | **+0.2** |
| | baz=1.0 | | | | | | |
| **TAP** | **Taipei** | **1.33** | **353** | *e*P | **Pg** | **19 45 40.5** | **+0.7** |
| | baz=1.0 | | | | | | |
| **NCU** | **National Centr** | **1.33** | **340** | *e*P | **Pn** | **19 45 38.6** | **-0.9** |
| | baz=349 | | | | | | |
| NCU | | | | *e*S | **Sn** | **19 45 59.1** | **+1.5** |
| | baz=349 | | | | | | |
| **WSF** | **Szhu** | **1.34** | **267** | *e*P | **Pn** | **19 45 38.7** | **-0.9** |
| | baz=262 | | | | | | |
| **NWF** | **Wu-fen Shan** | **1.36** | **4** | *e*P | **Pb** | **19 45 40.0** | **-0.2** |
| | baz=13 | | | | | | |
| **SSD** | **Sandimen** | **1.36** | **225** | *e*P | **Pn** | **19 45 38.8** | **-1.1** |
| | baz=214 | | | | | | |
| SSD | | | | *e*S | **Sg** | **19 45 59.8** | **+1.7** |
| | baz=214 | | | | | | |
| **CHN3** | **Shinhua** | **1.37** | **243** | *e*P | **Pb** | **19 45 40.3** | **0.0** |
| | baz=234 | | | | | | |
| **CHN8** | **Yiju** | **1.40** | **255** | ⇓*e*P | **Pn** | **19 45 39.9** | **-0.5** |
| | baz=245 | | | | | | |
| CHN8 | | | | *e*S | **Sg** | **19 46 00.2** | **+0.9** |
| | baz=245 | | | | | | |
| **TWS1** | **Kuangyinshan** | **1.41** | **350** | *e*P | **Pb** | **19 45 40.5** | **-0.4** |
| | baz=357 | | | | | | |
| **YOJ** | **Yonaguni jima** | **1.42** | **58** | P | **Pn** | **19 45 39.7** | **-1.0** |
| **TWM1** | **Shoushan** | **1.46** | **233** | *e*P | **Pg** | **19 45 42.5** | **+0.3** |
| | baz=225 | | | | | | |
| **SGLT** | **Jiouru** | **1.47** | **228** | *e*P | **Pb** | **19 45 42.5** | **+0.5** |
| | baz=222 | | | | | | |
| **TAI1** | **Yung-k'ang** | **1.50** | **244** | *e*P | **Pb** | **19 45 42.6** | **+0.2** |
| | baz=235 | | | | | | |
| **EAST** | **Anshuo** | **1.53** | **210** | *e*P | **Pn** | **19 45 40.0** | **-2.2** |
| | baz=204 | | | | | | |
| **TAW** | **Tawu** | **1.53** | **208** | *e*P | **Pn** | **19 45 42.4** | **+0.2** |
| | baz=202 | | | | | | |
| **SCZT** | **Fangliau** | **1.66** | **217** | *e*P | **Pn** | **19 45 43.6** | **-0.3** |
| | baz=208 | | | | | | |
| SCZT | | | | *e*S | **Sb** | **19 46 07.3** | **+1.0** |
| | baz=208 | | | | | | |
| **LAY** | **Lan-yu** | **1.67** | **184** | *e*P | **Pn** | **19 45 41.1** | **-3.0** |
| | baz=178 | | | | | | |
| **TWP** | **Hsiaoliuchiu** | **1.82** | **222** | *e*P | **Pb** | **19 45 48.3** | **+0.2** |
| | baz=213 | | | | | | |
| **HEN** | **Hengchun** | **1.91** | **207** | *e*P | **Pb** | **19 45 49.0** | **-0.5** |
| | baz=190 | | | | | | |
| **WDGT** | **Dungji** | **1.91** | **257** | *e*P | **Pn** | **19 45 46.0** | **-1.4** |
| | baz=249 | | | | | | |
| **TWK1** | **Hengchun** | **1.94** | **205** | *e*P | **Pb** | **19 45 49.8** | **-0.3** |
| | baz=184 | | | | | | |
| **PNG** | **Penghu** | **1.96** | **266** | *e*P | **Pn** | **19 45 46.6** | **-1.5** |
| | baz=258 | | | | | | |
| PNG | | | | *e*S | **Sn** | **19 46 12.2** | **-0.8** |
| | baz=258 | | | | | | |
| **IRIF** | **Iriomote-Funau** | **1.97** | **71** | P | **Pn** | **19 45 48.2** | **0.0** |
| **HATJ** | **Hateruma jima** | **1.97** | **80** | P | **Pn** | **19 45 47.7** | **-0.6** |
| **JKRS** | **Kuro-shima** | **2.19** | **76** | P | **Pn** | **19 45 51.3** | **0.0** |
| **JIJ** | **Ishigaki jima** | **2.34** | **73** | P | **Pn** | **19 45 52.5** | **-0.8** |
| JIJ | | | | S | **Sn** | **19 46 21.7** | **-0.7** |
| **JISG** | **Ishigakijimahi** | **2.55** | **70** | P | **Pn** | **19 45 55.3** | **-0.9** |
| **JTJ** | **Tarama** | **2.91** | **71** | P | **Pn** | **19 46 00.5** | **-0.6** |
| **KNM** | **Kinmen** | **3.05** | **284** | *e*P | **Pn** | **19 46 03.4** | **+0.3** |
| | baz=263 | | | | | | |
| **QZH** | **Quanzhou** | **3.08** | **294** | ⇑*i*Pn | **Pn** | **19 46 01.9** | **-1.5** |
| QZH | | | | Sn | **Sn** | **19 46 37.5** | **-3.1** |
| QZH | | | | smax | smax | | |
| | comp=N,110nm,0.6s | | | | | | |
| QZH | | | | smax | smax | | |
| | comp=E,80nm,0.8s | | | | | | |
| **KSRS** | **Korea Array** | **14.71** | **20** | P | **P** | **19 48 49.4** | **+0.2** |
| | 0.2nn,0.3s,baz=198,slow=10,SNR=7.4 | | | | | | |
| **SONM** | **Songino Array** | **26.98** | **337** | P | **P** | **19 50 58.8** | **+1.9** |
| | 0.4nm,0.6s,baz=146,slow=10,SNR=3.2 | | | | | | |
| **WMQ** | **Urumqi** | **34.31** | **314** | *e*P | **P** | **19 52 02.9** | **+1.2** |
| WMQ | | | | LR | LR | | |
| | comp=N,79nm,13.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,100nn,15.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,75nm,17.9s | | | | | | |
| **MKAR** | **Makanchi Array** | **38.99** | **316** | P | **P** | **19 52 42.1** | **+0.6** |
| | comp=Z,0.6nm,0.7s,baz=112,slow=8.9,SNR=6.5 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **40.89** | **327** | P | **P** | **19 52 58.6** | **+1.5** |
| | comp=Z,0.3nn,0.3s,baz=111,slow=6.6,SNR=2.8 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **42.06** | **86** | T | T | 20 38 01.9 | |
| | baz=283,slow=75,SNR=39 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **42.06** | **86** | T | T | 20 38 02.6 | |
| | baz=283,slow=75,SNR=52 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **42.07** | **86** | T | T | 20 38 06.2 | |
| | baz=283,slow=75,SNR=30 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **42.17** | **88** | T | T | 20 38 12.8 | |
| | baz=284,slow=75,SNR=118 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **42.18** | **88** | T | T | 20 38 13.4 | |
| | baz=284,slow=75,SNR=121 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **42.19** | **88** | T | T | 20 38 14.1 | |
| | baz=284,slow=75,SNR=97 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **42.76** | **320** | P | **P** | **19 53 13.8** | **+1.3** |
| | comp=Z,0.2nn,0.3s,baz=111,slow=9.8,SNR=4.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **45.11** | **163** | P | **P** | **19 53 30.2** | **-1.4** |
| | comp=Z,0.7nn,0.7s,baz=344,slow=8.7,SNR=7.3 | | | | | | |
| **ASAR** | **Alice Springs** | **48.57** | **165** | P | **P** | **19 53 58.6** | **0.0** |
| | comp=Z,0.2nn,0.6s,baz=342,slow=6.7,SNR=5.5 | | | | | | |
| **ILAR** | **Eielson Array** | **69.42** | **27** | P | **P** | **19 56 23.6** | **+0.7** |
| | comp=Z,0.3nn,0.8s,baz=313,slow=7.1,SNR=4.4 | | | | | | |
| **YKA** | **Yellowknife Ar** | **83.22** | **23** | P | **P** | **19 57 40.2** | **-1.2** |
| | comp=Z,0.4nn,0.7s,baz=314,slow=4.8,SNR=9.4 | | | | | | |

*NEIC **16** 19:59:29.8±0.0, 19.14N×66.85W, h32km, MD3.0(RSPR), After RSPR.*

**RSPR 16 19:59:29.8, 19.14N×66.85W, h32km±6km, MD3.0/15, 12C-6D, Puerto Rico region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AGPR** | **Aguadilla, PR** | **0.71** | **200** | ⇑*e*P | Pn | 19 59 41.8 | -1.9 |
| **AGPR** | **Aguadilla, PR** | **0.71** | **200** | ⇑*e*P | Pn | 19 59 41.8 | -1.9 |
| **AGP** | **Aguadilla** | **0.78** | **201** | *e*Pn | Pn | 19 59 41.7 | -2.9 |
| AGP | | | | *e*Sn | Sn | 19 59 50.8 | -4.4 |
| **AOPR** | **Arecibo Observ** | **0.80** | **173** | ⇑*e*P | Pn | 19 59 43.3 | -1.5 |
| **AOPR** | **Arecibo Observ** | **0.80** | **173** | *e*S | Sn | 19 59 53.7 | -1.9 |
| **AOPR** | **Arecibo Observ** | **0.80** | **173** | *e*Pn | Pn | 19 59 43.3 | -1.5 |
| AOPR | | | | *e*Sn | Sn | 19 59 53.7 | -1.9 |
| **IDE** | **Isla Desecheo** | **0.95** | **218** | ⇓*e*P | Pn | 19 59 45.6 | -1.4 |
| **IDE** | **Isla Desecheo

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **ADCV** | **BITLIS_Adilcev** | **0.27** | **308** | P | **Pb** | **20 16 41.7** | **-0.4** |
| ADCV | | | | S | **Sb** | **20 16 47.2** | **+0.3** |
| **VANB** | **Van** | **0.31** | **98** | *e*PG | **Pg** | **20 16 41.2** | **+0.3** |
| VANB | | | | *e*SG | **Sb** | **20 16 46.6** | **-1.1** |
| **VANB** | **Van** | **0.31** | **98** | *e*Pg | **Pg** | **20 16 41.2** | **+0.3** |
| VANB | | | | *e*Sg | **Sb** | **20 16 46.7** | **-1.1** |
| **GEVA** | **Gevas** | **0.33** | **172** | *i* P | **Pg** | **20 16 41.1** | **-0.3** |
| GEVA | | | | *i* S | **Sb** | **20 16 47.4** | **-1.1** |
| **GEVA** | **Gevas** | **0.33** | **172** | P | **Pg** | **20 16 41.1** | **-0.3** |
| GEVA | | | | S | **Sb** | **20 16 47.4** | **-1.1** |
| **TVAN** | **Van** | **0.34** | **109** | *i* P | **Pg** | **20 16 41.2** | **-0.3** |
| TVAN | | | | *i* S | **Sg** | **20 16 46.9** | **+0.9** |
| **TVAN** | **Van** | **0.34** | **109** | P | **Pg** | **20 16 41.2** | **-0.3** |
| TVAN | | | | S | **Sg** | **20 16 46.9** | **+0.9** |
| **VMUR** | **Van-Muradiye** | **0.57** | **52** | *i* P | **Pg** | **20 16 45.6** | **-0.2** |
| VMUR | | | | *i* S | **Sb** | **20 16 54.8** | **-0.6** |
| **VMUR** | **Van-Muradiye** | **0.57** | **52** | P | **Pg** | **20 16 45.6** | **-0.2** |
| VMUR | | | | S | **Sb** | **20 16 54.8** | **-0.6** |
| **TUTA** | **Tutak** | **0.78** | **349** | *i* P | **Pg** | **20 16 49.7** | **0.0** |
| TUTA | | | | *i* S | **Sb** | **20 17 01.0** | **-0.4** |
| **TUTA** | **Tutak** | **0.78** | **349** | P | **Pg** | **20 16 49.7** | **0.0** |
| TUTA | | | | S | **Sb** | **20 17 01.0** | **-0.4** |
| **CLDR** | **Caldiran** | **0.87** | **55** | *e*PG | **Pg** | **20 16 51.1** | **-0.5** |
| CLDR | | | | *e*SG | **Sb** | **20 17 03.7** | **-0.6** |
| **CLDR** | **Caldiran** | **0.87** | **55** | *i* P | **Pg** | **20 16 49.8** | **-1.8** |
| CLDR | | | | *i* S | **Sb** | **20 17 03.6** | **-0.6** |
| **CLDR** | **Caldiran** | **0.87** | **55** | P | **Pg** | **20 16 49.8** | **-1.8** |
| **CLDR** | **Caldiran** | **0.87** | **55** | *e*Pg | **Pg** | **20 16 51.1** | **-0.5** |
| CLDR | | | | *e*Sg | **Sb** | **20 17 03.7** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **0.93** | **360** | *e*PG | **Pg** | **20 16 52.0** | **-0.8** |
| AGRB | | | | *e*SG | **Sb** | **20 17 05.4** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **0.93** | **360** | *e*Pg | **Pg** | **20 16 52.0** | **-0.8** |
| AGRB | | | | *e*Sg | **Sb** | **20 17 05.4** | **-0.6** |
| **EKAR** | **Karacoban** | **0.95** | **310** | *i* P | **Pn** | **20 16 55.8** | **+1.1** |
| EKAR | | | | *i* S | **Sn** | **20 17 11.2** | **+2.6** |
| **HAKT** | **HAKKARI** | **1.22** | **153** | *i* P | **Pn** | **20 16 59.1** | **+0.9** |
| HAKT | | | | *i* S | **Sn** | **20 17 15.9** | **+0.9** |
| **HAKT** | **HAKKARI** | **1.22** | **153** | P | **Pn** | **20 16 59.2** | **+0.9** |
| **SIRT** | **Sirnak** | **1.22** | **201** | *e*PN | **Pg** | **20 16 57.6** | **-0.6** |
| **SIRT** | **Sirnak** | **1.22** | **201** | *e*Pn | **Pg** | **20 16 57.6** | **-0.6** |
| **VRTB** | **Varto-Mus** | **1.31** | **294** | *e*PN | **Pn** | **20 16 59.1** | **-0.4** |
| **VRTB** | **Varto-Mus** | **1.31** | **294** | *e*Pn | **Pn** | **20 16 59.2** | **-0.4** |
| **BNGB** | **Bing¯‖ı** | **1.85** | **282** | *e*PN | **Pn** | **20 17 06.7** | **-0.2** |
| **BINT** | **Bingol** | **1.98** | **278** | *e*Pn | **Pn** | **20 17 06.7** | **-2.0** |

*IDC* ***16*** *20:34:28.7±2.0,21.′66S×170.′89E,h150km±15km, mb4.2/18,mb1 4.3/19,mb1mx4.2/32,mbtmp4.6/19,MS3.5/2, Ms1 3.5/2,ms1mx3.0/33,Error ellipse: s-maj=17.3km s-min=14.7km az=96.0*

*ISCJB* ***16*** *20:34:30.5±0.9,21.′64S±0.′04×170.′73E±0.′05,h173km±7km, mb4.8/60,Error ellipse: s-maj=7.8km s-min=5.9km az=141.4*

*NEIC* ***16*** *20:34:31.1±0.6,21.′63S×170.′82E,h169km±5km,mb5.0/56, Error ellipse: s-maj=6.0km s-min=4.9km az=68.0*

**ISC 16 20:34:30.0**±0.7,**21.′67S**±0.′06×**170.′82E**±0.′06,**h161**km±5km, **n186,** σ1**8**01/196,**mb4.9**/60,**10C-7D,Southeast of Loyalty Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **4.08** | **264** | P | **Pn** | **20 35 32.0** | **+0.3** |
| | 17nm,0.3s,baz=90,slow=16,SNR=69 | | | | | | |
| DZM | | | | S | **Sn** | **20 36 19.2** | **-0.5** |
| | 42nm,0.3s,baz=90,slow=20,SNR=7.6 | | | | | | |
| DZM | | | | LR | LR | 20 36 28.5 | |
| | comp=Z,396nm,18.4s,baz=346,slow=29 | | | | | | |
| **DZM** | **Mont Dzumac** | **4.08** | **264** | *e*Pn | **Pn** | **20 35 32.0** | **+0.3** |
| DZM | | | | *e*Sn | **Sn** | **20 36 17.4** | **-2.3** |
| **NFK** | **Norfolk Island** | **7.79** | **199** | P | **Pn** | **20 36 21.9** | **+1.2** |
| | baz=7.8,SNR=8.5 | | | | | | |
| **MSVF** | **Nonsavu** | **7.86** | **61** | *e*Pn | **Pn** | **20 36 24.8** | **+3.1** |
| **RAO** | **Raoul Island** | **12.67** | **129** | LR | LR | 20 40 20.8 | |
| | comp=Z,226nm,18.2s,baz=218,slow=28 | | | | | | |
| **OUZ** | **Omahuta** | **13.72** | **170** | *e*Pn | **Pn** | **20 37 39.0** | **+1.0** |
| **LHI** | **Lord Howe Isla** | **14.37** | **224** | *e*Pn | **Pn** | **20 37 46.9** | **+0.8** |
| **HNR** | **Honiara** | **16.04** | **318** | *e*Pn | **P** | **20 38 08.8** | **+1.8** |
| | 520nm,1.1s | | | | | | |
| **HIZ** | **Hauiti** | **17.15** | **169** | *e*P | **Pn** | **20 38 21.2** | **+1.2** |
| | 311nm,1.6s | | | | | | |
| **URZ** | **Urewera** | **17.41** | **163** | P | **Pn** | **20 38 24.2** | **+1.1** |
| | 0.4nm,0.3s,baz=339,slow=17,SNR=5.4 | | | | | | |
| **URZ** | **Urewera** | **17.41** | **163** | *e*P | **Pn** | **20 38 24.1** | **+1.0** |
| | 181nm,2.0s | | | | | | |
| **BKZ** | **Black Stump Fm** | **18.11** | **166** | *e*P | **Pn** | **20 38 31.9** | **+0.4** |
| | 37nm,1.0s | | | | | | |
| **EIDS** | **Eidsvold** | **18.47** | **255** | P | **P** | **20 38 33.7** | **0.0** |
| | baz=18,SNR=7.4 | | | | | | |
| **EIDS** | **Eidsvold** | **18.47** | **255** | *e*P | **Pn** | **20 38 36.1** | **+0.3** |
| | 27nm,0.8s | | | | | | |
| **ARMA** | **Armidale** | **19.30** | **239** | P | **P** | **20 38 43.7** | **+0.9** |
| | baz=19,SNR=19 | | | | | | |
| **ARMA** | **Armidale** | **19.30** | **239** | *e*P | **P** | **20 38 45.4** | **-0.2** |
| | 67nm,1.0s | | | | | | |
| **BFZ** | **Birch Farm** | **19.51** | **168** | *e*P | **P** | **20 38 45.1** | **+0.3** |
| | 126nm,1.4s | | | | | | |
| **SNZO** | **South Karori** | **19.86** | **171** | *e*P | **P** | **20 38 49.1** | **+0.5** |
| | 189nm,1.3s | | | | | | |
| **THZ** | **Tophouse** | **20.12** | **175** | *e*P | Pn | 20 38 53.3 | -1.8 |
| | 172nm,1.8s | | | | | | |
| **RMQ** | **Roma** | **20.70** | **252** | P | **P** | **20 38 58.3** | **+0.6** |
| | baz=21,SNR=15 | | | | | | |
| **KHZ** | **Kahutara** | **20.82** | **174** | *e*P | **P** | **20 38 59.6** | **+0.8** |
| | 264nm,1.9s | | | | | | |
| **LTZ** | **Lake Taylor** | **21.09** | **177** | *e*P | **P** | **20 39 02.1** | **+0.3** |
| | 123nm,1.8s | | | | | | |
| **OXZ** | **Oxford** | **21.62** | **178** | *e*P | **P** | **20 39 07.5** | **+0.1** |
| | 24nm,0.8s | | | | | | |
| **FOZ** | **Fox Glacier** | **21.82** | **182** | *e*P | **P** | **20 39 10.1** | **+0.7** |
| | 215nm,1.9s | | | | | | |
| **RPZ** | **Rata Peaks** | **21.99** | **180** | P | **P** | **20 39 11.2** | **0.0** |
| | 17nm,0.8s,baz=39,slow=4.1,SNR=4.4 | | | | | | |
| **MQZ** | **McQueen's Vall** | **22.03** | **176** | *e*P | **P** | **20 39 13.2** | **+1.6** |
| | 292nm,1.9s | | | | | | |
| **LBZ** | **Lake Benmore** | **22.67** | **181** | *e*P | **P** | **20 39 17.7** | **0.0** |
| | 143nm,1.9s | | | | | | |
| **CTA** | **Charters Tower** | **23.00** | **269** | P | **P** | **20 39 22.6** | **+1.6** |
| | 12nm,0.9s,baz=91,slow=12,SNR=12 | | | | | | |
| **CTAO** | **Charters Tower** | **23.00** | **269** | *e*P | **P** | **20 39 22.7** | **+1.6** |
| | 29nm,1.2s | | | | | | |
| **CNB** | **Canberra Magne** | **23.18** | **229** | P | **P** | **20 39 23.8** | **+1.2** |
| | baz=23,SNR=6.1 | | | | | | |
| **YNG** | **Young** | **23.40** | **233** | P | **P** | **20 39 26.0** | **+1.5** |
| | baz=23,SNR=24 | | | | | | |
| **CAN** | **Canberra** | **23.44** | **230** | *e*P | **P** | **20 39 25.6** | **+0.6** |
| | 60nm,1.6s | | | | | | |
| **MLZ** | **Mavora Lakes** | **23.75** | **185** | *e*P | **P** | **20 39 29.4** | **+1.8** |
| | 80nm,1.6s | | | | | | |
| **DCZ** | **Deep Cove** | **23.93** | **186** | *e*P | **P** | **20 39 30.8** | **+1.6** |
| | 64nm,1.4s | | | | | | |
| **WHZ** | **Wether Hill Ro** | **24.28** | **185** | *e*P | **P** | **20 39 33.3** | **+0.9** |
| | 64nm,1.6s | | | | | | |
| **CMSA** | **Cobar Meteorol** | **24.47** | **241** | P | **P** | **20 39 35.0** | **+0.8** |
| | baz=24,SNR=38 | | | | | | |
| **PYZ** | **Puysegur Point** | **24.67** | **187** | *e*P | **P** | **20 39 37.6** | **+1.7** |
| | 125nm,1.3s | | | | | | |
| **QLP** | **Quilpie** | **24.73** | **253** | P | **P** | **20 39 37.5** | **+0.9** |
| | baz=25,SNR=5.8 | | | | | | |
| **MTSU** | **Mount Surprise** | **25.15** | **273** | P | **P** | **20 39 40.9** | **+0.3** |
| | baz=25,SNR=29 | | | | | | |
| **PMG** | **Port Moresby** | **25.80** | **295** | P | **P** | **20 39 46.8** | **+0.4** |
| | 28nm,0.8s,baz=116,slow=7.3,SNR=15 | | | | | | |
| **PMG** | **Port Moresby** | **25.80** | **295** | *e*P | **P** | **20 39 47.4** | **+1.0** |
| | 42nm,1.0s | | | | | | |
| **COEN** | **Coen** | **27.38** | **282** | P | **P** | **20 40 01.0** | **+0.4** |
| | baz=27,SNR=11 | | | | | | |
| **COEN** | **Coen** | **27.38** | **282** | *e*P | **P** | **20 40 02.1** | **+1.5** |
| | 16nm,0.8s | | | | | | |
| **STKA** | **Stephens Creek** | **27.92** | **242** | P | **P** | **20 40 05.5** | **+0.2** |
| | 2.6nm,0.6s,baz=77,slow=10,SNR=6.4 | | | | | | |
| STKA | | | | PcP | **PcP** | **20 43 17.1** | **+0.4** |
| | 2.2nm,0.6s,baz=56,slow=2.1,SNR=3.8 | | | | | | |
| **STKA** | **Stephens Creek** | **27.92** | **242** | P | **P** | **20 40 06.0** | **+0.8** |
| | baz=28,SNR=4.1 | | | | | | |
| **STKA** | **Stephens Creek** | **27.92** | **242** | *e*P | **P** | **20 40 05.9** | **+0.7** |
| | 9.9nm,1.9s | | | | | | |
| STKA | | | | *e*PcP | **PcP** | **20 43 17.9** | **+1.2** |
| **BBOO** | **Buckleboo** | **32.70** | **243** | *e*P | **P** | **20 40 47.5** | **+0.2** |
| | 31nm,1.4s | | | | | | |
| **AS01** | **Alice Springs** | **34.02** | **259** | *e*P | **P** | **20 40 58.4** | **-0.5** |
| AS01 | | | | *e*PcP | **PcP** | **20 43 31.1** | **-2.1** |
| **AS31** | **Alice Springs** | **34.06** | **259** | *e*P | **P** | **20 40 58.3** | **-1.0** |
| | 4.4nm,0.6s | | | | | | |
| **ASAR** | **Alice Springs** | **34.06** | **259** | P | **P** | **20 40 58.9** | **-0.4** |
| | 12nm,0.8s,baz=81,slow=9.3,SNR=149 | | | | | | |
| ASAR | | | | PcP | **PcP** | **20 43 33.5** | **+0.2** |
| | 2.0nm,0.8s,baz=105,slow=3.3,SNR=6.4 | | | | | | |
| **WRAB** | **Tennant Creek** | **34.09** | **266** | *e*P | **P** | **20 40 58.3** | **-1.2** |
| | 9.4nm,0.8s | | | | | | |
| **WR1** | **Warramunga Arr** | **34.09** | **266** | *e*P | **P** | **20 40 58.5** | **-1.0** |
| | 16nm,1.0s | | | | | | |
| WR1 | | | | *e*PcP | **PcP** | **20 43 32.8** | **-0.6** |
| **WRA** | **Warramunga Arr** | **34.09** | **266** | P | **P** | **20 40 58.5** | **-1.0** |
| | 8.6nm,0.7s,baz=101,slow=7.9,SNR=15 | | | | | | |
| WRA | | | | PcP | **PcP** | **20 43 32.8** | **-0.6** |
| | 2.8nm,0.9s,baz=105,slow=2.5,SNR=6.8 | | | | | | |
| **PPTF** | **Pamatai, Papee** | **37.47** | **91** | *e*P | **P** | **20 41 26.6** | **-1.8** |
| | 133nm,1.8s | | | | | | |
| **MTN** | **Manton Dam** | **38.81** | **276** | P | **P** | **20 41 39.3** | **-0.2** |
| | baz=39,SNR=5.8 | | | | | | |
| **MTN** | **Manton Dam** | **38.81** | **276** | *e*P | **P** | **20 41 39.1** | **-0.4** |
| | 15nm,0.8s | | | | | | |
| **WRKA** | **Warakurna** | **39.07** | **257** | P | **P** | **20 41 41.4** | **-0.2** |
| | baz=39,SNR=12 | | | | | | |
| **FORT** | **Forrest** | **39.22** | **248** | *e*P | **P** | **20 41 43.6** | **+0.9** |
| | 629nm,1.4s | | | | | | |
| **KNRA** | **Kununurra** | **40.19** | **271** | P | **P** | **20 41 50.9** | **0.0** |
| | baz=40,SNR=6.7 | | | | | | |
| **FAKI** | **Fak Fak** | **41.84** | **291** | *e*P | **P** | **20 42 04.2** | **-0.3** |
| | 112nm,0.6s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **42.52** | **267** | P | **P** | **20 42 10.6** | **+0.7** |
| | 27nm,0.9s,baz=120,slow=7.4,SNR=57 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **42.52** | **267** | P | **P** | **20 42 10.4** | **+0.5** |
| | baz=42,SNR=25 | | | | | | |
| **SOEI** | **Soe** | **46.18** | **277** | *e*P | **P** | **20 42 38.4** | **-0.8** |
| | 65nm,0.6s | | | | | | |
| **MBWA** | **Marble Bar** | **47.38** | **261** | *e*P | **P** | **20 42 48.2** | **-0.1** |
| | 19nm,0.6s | | | | | | |
| **KLBR** | **Kellerberrin** | **48.06** | **246** | P | **P** | **20 42 53.1** | **-0.3** |
| | baz=48,SNR=18 | | | | | | |
| **MMRI** | **Maumere** | **48.45** | **278** | *e*P | **P** | **20 42 57.4** | **+0.8** |
| | 23nm,0.7s | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **48.47** | **245** | P | **P** | **20 42 56.2** | **-0.3** |
| | 11nm,0.8s,baz=0.0,slow=20,SNR=8.5 | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **48.47** | **245** | P | **P** | **20 42 56.8** | **+0.2** |
| | baz=48,SNR=6.9 | | | | | | |
| NWAO | | | | P | **P** | **20 42 56.8** | **+0.2** |
| | baz=48,SNR=6.9 | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **48.47** | **245** | *e*P | **P** | **20 42 56.4** | **-0.2** |
| | 84nm,1.8s | | | | | | |
| **JAGI** | **Jajag, Banyuwa** | **55.98** | **274** | *e*P | **P** | **20 43 51.6** | **-0.6** |
| | 84nm,1.4s | | | | | | |
| **VNDA** | **Vanda** | **56.07** | **182** | P | **P** | **20 43 51.1** | **-0.7** |
| | 0.6nm,0.6s,baz=354,slow=7.4,SNR=3.7 | | | | | | |
| **VNDA** | **Vanda** | **56.07** | **182** | *e*P | **P** | **20 43 50.8** | **-1.0** |
| **KKM** | **Kota Kinabalu** | **60.17** | **291** | *e*P | **P** | **20 44 22.5** | **+1.1** |
| | 169nm,1.8s | | | | | | |
| **KSM** | **Kuching** | **63.36** | **283** | *e*P | **P** | **20 44 43.5** | **+0.9** |
| | 37nm,0.8s | | | | | | |
| **MJAR** | **Matsushiro Arr** | **65.58** | **332** | P | **P** | **20 44 56.4** | **-0.2** |
| | 4.8nm,0.9s,baz=168,slow=6.1,SNR=7.6 | | | | | | |
| **MAJO** | **Matsushiro** | **65.58** | **332** | *e*P | **P** | **20 44 54.8** | **-1.8** |
| | 80nm,1.8s | | | | | | |
| **MJB9** | **Matsu-Tunnel** | **65.58** | **332** | *e*P | **P** | **20 44 55.0** | **-1.6** |
| | 82nm,1.8s | | | | | | |
| **YHNB** | **Yeheng** | **66.55** | **311** | *e*P | **P** | **20 45 03.3** | **+0.3** |
| | 244nm,1.8s | | | | | | |
| **MYKOM** | **Kota Tinggi** | **69.36** | **281** | *e*P | **P** | **20 45 21.8** | **+1.0** |
| | 141nm,2.0s | | | | | | |
| **KSRS** | **Korea Array** | **71.33** | **325** | P | **P** | **20 45 31.4** | **-0.8** |
| | 1.2nm,0.9s,baz=145,slow=5.2,SNR=5.0 | | | | | | |
| **KSAR** | **Wonju Array Be** | **71.34** | **325** | P | **P** | **20 45 31.4** | **-0.9** |
| **KS01** | **Wonju Array Si** | **71.36** | **325** | *e*P | **P** | **20 45 31.1** | **-1.3** |
| **YSS** | **Yuzh-Sakhalins** | **72.85** | **340** | *e*P | **P** | **20 45 41.2** | **+0.2** |
| | 55nm,1.3s | | | | | | |
| **IPM** | **Ipoh** | **73.03** | **282** | *e*P | **P** | **20 45 42.9** | **0.0** |
| | 71nm,1.5s | | | | | | |
| **KULM** | **Kulim** | **73.70** | **283** | *e*P | **P** | **20 45 47.3** | **+0.5** |
| | 39nm,1.4s | | | | | | |
| **PSI** | **Prapat** | **74.28** | **280** | P | **P** | **20 45 49.4** | **-0.9** |
| | 11nm,0.8s,baz=146,slow=2.8,SNR=6.3 | | | | | | |
| **PSI** | **Prapat** | **74.28** | **280** | *e*P | **P** | **20 45 50.1** | **-0.2** |
| | 21nm,1.0s | | | | | | |
| **GSI** | **Gunungsitoli** | **74.94** | **278** | *e*P | **P** | **20 45 54.8** | **+0.8** |
| | 28nm,0.9s | | | | | | |
| **PETK** | **Petropavlovsk-** | **75.32** | **352** | P | **P** | **20 45 55.6** | **+0.3** |
| | 13nm,0.9s,baz=152,slow=6.6,SNR=5.6 | | | | | | |
| **PETK** | **Petropavlovsk-** | **75.32** | **352** | *e*P | **P** | **20 45 56.4** | **+1.1** |
| **PEA1** | **Petropavlovsk-** | **75.33** | **352** | *e*P | **P** | **20 45 55.6** | **+0.3** |
| **MAW** | **Mawson** | **76.75** | **202** | P | **P** | **20 46 04.0** | **+0.7** |
| | 2.1nm,0.7s,baz=135,slow=8.6,SNR=2.9 | | | | | | |
| **MAW** | **Mawson** | **76.75** | **202** | *e*P | **P** | **20 46 04.2** | **+0.9** |
| | 5.2nm,1.7s | | | | | | |
| **LHMI** | **Lhok Sumawe** | **77.05** | **281** | *e*P | **P** | **20 46 05.8** | **-0.1** |
| | 134nm,1.0s | | | | | | |
| **ENH** | **Enshi** | **78.35** | **309** | *e*P | **P** | **20 46 12.5** | **-0.3** |
| | 24nm,1.1s | | | | | | |
| **BJT** | **Baijiatuau** | **79.73** | **320** | *e*P | **P** | **20 46 20.7** | **+0.6** |
| | 46nm,1.8s | | | | | | |
| **CM01** | **Chiang Mai Arr** | **80.81** | **294** | *e*P | **P** | **20 46 27.5** | **+1.2** |
| **CM31** | **Chiang Mai Arr** | **80.84** | **294** | *e*P | **P** | **20 46 28.4** | **+1.9** |
| **CMAR** | **Chiang Mai Arr** | **80.84** | **294** | P | **P** | **20 46 28.0** | **+1.6** |
| | 3.8nm,0.8s,baz=136,slow=4.3,SNR=21 | | | | | | |
| **CHTO** | **Chiang Mai** | **81.00** | **294** | *e*P | **P** | **20 46 29.1** | **+1.8** |
| | 7.6nm,0.9s | | | | | | |
| **SEY** | **Seymchan** | **85.56** | **352** | P | **P** | **20 46 49.0** | **-0.6** |
| | 8.9nm,0.9s,baz=154,slow=6.9 | | | | | | |
| **SNAA** | **Sanae** | **86.81** | **182** | *e*P | **P** | **20 46 55.2** | **-0.7** |
| SNAA | | | | *e*pP | **pP** | **20 47 32.8** | **-3.3** |
| **KHMM** | **Horse Mountain** | **86.92** | **44** | *e*P | **P** | **20 46 56.7** | **-0.3** |
| | 34nm,1.3s | | | | | | |
| **MWC** | **Mount Wilson** | **87.49** | **52** | *e*pP | pP | 20 47 40.5 | +0.3 |
| **WAKR** | **Walker** | **88.56** | **47** | *e*P | **P** | **20 47 07.0** | **+2.1** |
| | 7.7nm,1.2s | | | | | | |
| **RCWM** | **Renegade Canyo** | **88.60** | **50** | *e*P | **P** | **20 47 05.2** | **+0.2** |
| **NV01** | **Mina Array Sit** | **89.31** | **48** | *e*P | **P** | **20 47 09.0** | **+0.6** |
| NV01 | | | | *e*pP | **pP** | **20 47 48.1** | **-0.7** |
| **ULN** | **Ulaanbaatar** | **89.68** | **323** | *e*P | **P** | **20 47 10.2** | **+0.3** |
| | 15nm,1.3s | | | | | | |
| **KVN** | **Kaiserville** | **89.74** | **47** | *e*P | **P** | **20 47 11.2** | **+0.8** |
| | 3.8nm,1.0s | | | | | | |
| KVN | | | | *e*pP | **pP** | **20 47 51.1** | **+0.2** |
| **SONA0** | **Songino Array** | **90.04** | **323** | *e*P | **P** | **20 47 12.0** | **+0.5** |
| **SONM** | **Songino Array** | **90.04** | **323** | P | **P** | **20 47 12.0** | **+0.5** |
| | 6.3nm,1.0s,baz=145,slow=5.1,SNR=27 | | | | | | |
| **SONA1** | **Songino Array** | **90.04** | **323** | *e*P | **P** | **20 47 11.4** | **-0.1** |
| **LSA** | **Lhasa** | **92.05** | **301** | *e*P | **P** | **20 47 21.6** | **-0.1** |
| | 4.8nm,1.1s | | | | | | |
| **ILAR** | **Eielson Array** | **92.11** | **17** | P | **P** | **20 47 19.0** | **-1.5** |
| | 1.1nm,0.9s,baz=233,slow=5.5,SNR=8.7 | | | | | | |
| **TAPN** | **Taplejung** | **93.92** | **298** | *e*P | **P** | **20 47 30.3** | **+0.1** |
| **ODAN** | **Odare** | **94.00** | **297** | *e*P | **P** | **20 47 30.7** | **+0.2** |
| | 18nm,0.9s | | | | | | |
| **RAMN** | **Ramite** | **94.69** | **297** | *e*P | **P** | **20 47 33.7** | **+0.1** |
| | 5.4nm,0.6s | | | | | | |
| **JIRN** | **Jiri** | **95.29** | **298** | *e*P | **P** | **20 47 36.5** | **0.0** |
| **GUN** | **Gumba** | **95.64** | **298** | *e*P | **P** | **20 47 38.2** | **+0.1** |
| | 9.3nm,0.8s | | | | | | |
| **PKI** | **Pulchoki** | **95.90** | **297** | *e*P | **P** | **20 47 39.1** | **-0.2** |
| | 12nm,1.0s | | | | | | |
| **PKIN** | **Phulchoki** | **95.92** | **297** | *e*P | **P** | **20 47 39.4** | **+0.2** |
| | 6.5nm,0.7s | | | | | | |
| **KKN** | **Kakani** | **96.09** | **297** | *e*P | **P** | **20 47 40.1** | **+0.1** |
| **DMN** | **Daman** | **96.17** | **297** | *e*P | **P** | **20 47 40.6** | **+0.2** |
| | 15nm,0.8s | | | | | | |
| **KOLN** | **Koldanda** | **97.47** | **297** | *e*P | **P** | **20 47 45.6** | **-0.6** |
| | 7.9nm,0.9s | | | | | | |
| **PYUN** | **Piuthan** | **98.09** | **297** | *e*P | **P** | **20 47 48.1** | **-0.9** |
| **YKA** | **Yellowknife Ar** | **102.14** | **27** | P | **Pdif** | **20 48 05.0** | **-0.9** |
| | 0.1nm,0.6s,baz=246,slow=3.3,SNR=3.3 | | | | | | |
| **YKB5** | **Yellowknife Ar** | **102.14** | **27** | *e*Pdif | **Pdif** | **20 48 05.0** | **-0.9** |
| **MK32** | **Makanchi Array** | **104.49** | **315** | *e*Pdif | **Pdif** | **20 48 17.4** | **+0.7** |
| MK32 | | | | *e*PP | **PKiKP** | **20 52 30.0** | **-2.1** |
| MK32 | | | | *e*PKKPbc | **PKKPbc** | **21 04 02.1** | **-1.3** |
| **MKAR** | **Makanchi Array** | **104.49** | **315** | Pdiff | **Pdif** | **20 48 17.4** | **+0.7** |
| | 0.5nm,0.8s,baz=86,slow=5.9,SNR=3.5 | | | | | | |
| MKAR | | | | PP | **PKiKP** | **20 52 30.0** | **-2.1** |
| | 0.6nm,0.9s,baz=92,slow=10,SNR=3.8 | | | | | | |
| MKAR | | | | PKKPbc | **PKKPbc** | **21 04 02.1** | **-1.3** |
| | 0.1nm,0.4s,baz=276,slow=3.2,SNR=4.3 | | | | | | |
| **CPUP** | **Villa Florida** | **113.27** | **133** | PKiKP | **PKiKP** | **20 52 47.2** | **-2.0** |
| | 1.3nm,0.5s,baz=287,slow=3.6,SNR=5.9 | | | | | | |
| **ARA0** | **ARCESS Array S** | **127.78** | **345** | *e*PKPdif | **PKPdf** | **20 53 15.2** | **-0.4** |
| **ARCES** | **ARCESS Array B** | **127.78** | **345** | PKP | **PKPdf** | **20 53 15.3** | **-0.4** |
| | 2.7nm,0.9s,baz=45,slow=1.5,SNR=9.3 | | | | | | |
| **FIA0** | **FINESS Array S** | **133.38** | **338** | *e*PKPdif | **PKPdf** | **20 53 25.5** | **-1.0** |
| FIA0 | | | | *e*SKPbc | **SKPbc** | **20 56 38.7** | **-1.1** |
| **FINES** | **FINESS Array B** | **133.38** | **338** | PKP | **PKPdf** | **20 53 25.5** | **-1.0** |
| | 2.3nm,1.0s,baz=40,slow=2.4,SNR=3.6 | | | | | | |
| FINES | | | | SKPbc | **SKPbc** | **20 56 38.7** | **-1.1** |
| | 4.3nm,0.9s,baz=70,slow=4.6,SNR=4.3 | | | | | | |
| **AKASG** | **Malin Array Be** | **138.31** | **324** | PKP | **PKPdf** | **20 53 34.3** | **-1.7** |
| | 0.3nm,0.4s,baz=42,slow=2.2,SNR=3.8 | | | | | | |
| AKASG | | | | SKPbc | **SKPbc** | **20 56 56.1** | **+0.7** |
| | 0.2nm,0.3s,baz=53,slow=2.0,SNR=4.1 | | | | | | |
| **BR101** | **Keskin Array S** | **139.45** | **306** | *e*PKPpre | PKPpre | 20 53 33.8 | |
| **BRTR** | **Keskin Array B** | **139.45** | **306** | PKhKP | PKPpre | 20 53 33.8 | |
| | 0.9nm,0.9s,baz=90,slow=2.9,SNR=3.9 | | | | | | |
| **MLR** | **Muntele Rosu** | **142.75** | **318** | *i* P | **PKPdf** | **20 53 41.1** | **-3.3** |
| **DOPR** | **Dopca** | **142.87** | **319** | *i* P | **PKPdf** | **20 53 42.2** | **-2.2** |
| **ARCR** | **ARCALIA** | **142.92** | **321** | *i* P | **PKPdf** | **20 53 42.7** | **-1.8** |
| **VOIR** | | **143.33** | **318** | *i* P | **PKPdf** | **20 53 44.2** | **-1.1** |
| **CJR** | **Cluj-Napoca** | **143.56** | **321** | P | PKPbc | 20 53 43.9 | +0.4 |
| **ARR** | **Arges** | **143.62** | **319** | P | PKPbc | 20 53 44.5 | +0.8 |
| **HUMR** | **Humele** | **143.81** | **317** | P | PKPbc | 20 53 44.1 | -0.1 |
| **DRGR** | | **144.03** | **322** | P | PKPbc | 20 53 45.4 | +0.5 |
| **LOT** | **Lotru** | **144.11** | **319** | P | PKPbc | 20 53 45.6 | +0.4 |
| **KECS** | **Kecovo** | **144.27** | **326** | *e*PKP | **PKPdf** | **20 53 46.8** | **0.0** |
| **LANS** | **Liptovska Anna** | **144.37** | **327** | *e*PKP | **PKPdf** | **20 53 47.8** | **+0.8** |
| **DEV** | **Deva** | **144.41** | **320** | *i* P | **PKPdf** | **20 53 46.8** | **-0.3** |
| **OKC** | **Ostrava-Krasne** | **144.56** | **329** | *e*PKP | PKPbc | 20 53 46.4 | +0.1 |
| **MORC** | **Moravsky Berou** | **144.89** | **330** | *i* P | **PKPdf** | **20 53 48.0** | **+0.1** |
| **PSZ** | **Piszkesteto** | **144.93** | **325** | P | **PKPdf** | **20 53 48.3** | **+0.3** |
| **KRLC** | **Kraliky** | **145.04** | **331** | *e*PKP | **PKPdf** | **20 53 48.6** | **+0.5** |
| **DPC** | **Dobruska-Polom** | **145.05** | **331** | *e*PKP | **PKPdf** | **20 53 48.8** | **+0.7** |
| **UPC** | **Upice** | **145.08** | **332** | *e*PKP | **PKPdf** | **20 53 48.7** | **+0.6** |
| **VYHS** | **Vyhne** | **145.11** | **327** | *e*PKP | **PKPab** | **20 53 49.0** | **+0.7** |
| **HERR** | **Herculane** | **145.22** | **319** | *i* P | **PKPab** | **20 53 48.8** | **0.0** |
| **BZS** | **Buzias** | **145.31** | **321** | P | **PKPab** | **20 53 49.1** | **0.0** |
| **VRAC** | **Vranov** | **145.66** | **330** | *i* P | **PKPbc** | **20 53 50.1** | **-0.2** |
| **PVCC** | **Panska Ves** | **145.69** | **333** | *e*PKP | **PKPab** | **20 53 50.6** | **+0.3** |
| **BRG** | **Berggiesshubel** | **145.69** | **334** | *i* PKP | **PKPbc** | **20 53 50.0** | **+0.3** |
| | 22nm,0.9s | | | | | | |
| **BRG** | **Berggiesshubel** | **145.69** | **334** | *i* PKP | **PKPbc** | **20 53 50.0** | **+0.3** |
| | 22nm,0.9s | | | | | | |
| **MDVR** | **Moldovita** | **145.70** | **320** | *i* P | **PKPbc** | **20 53 50.1** | **0.0** |
| **CLL** | **Collm** | **145.73** | **335** | *i* PKPbc | **PKPbc** | **20 53 50.0** | **+0.1** |
| | comp=Z,21nm,0.9s | | | | | | |
| **SMOL** | **Smolenice** | **145.81** | **328** | *e*PKP | **PKPab** | **20 53 51.9** | **+1.0** |
| **VTS** | **Vitosha** | **145.84** | **315** | *i* P | **PKPdf** | **20 53 48.6** | **-1.3** |
| **MODS** | **Modra-Piesok** | **145.97** | **328** | *e*PKP | **PKPbc** | **20 53 50.9** | **+0.1** |
| **GOPC** | **GO Pecny, Ondr** | **146.05** | **332** | *e*PKP | **PKPab** | **20 53 51.8** | **0.0** |
| **PRU** | **Pruhonice** | **146.10** | **332** | *e*PKP | **PKPab** | **20 53 51.5** | **-0.4** |
| **NKC** | **Novy Kostel** | **146.79** | **334** | *e*PKP | **PKPbc** | **20 53 53.8** | **+0.7** |
| **CONA** | **Conrad Observa** | **146.97** | **329** | *i* PKPab | **PKPbc** | **20 53 54.3** | **+0.5** |
| | comp=Z,13nm,1.2s | | | | | | |
| **KHC** | **Kasperske Hory** | **147.16** | **332** | *e*PKP | **PKPdf** | **20 53 48.5** | **-3.2** |
| KHC | | | | *ex* | x | 20 53 54

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **CTA** | **Charters Tower** | **20.76** | **130** | P | | Pn | 20 46 55.0 | -2.1 |
| | 7.4nm,1.1s,baz=309,slow=13,SNR=3.1 | | | | | | | |
| **CTAO** | **Charters Tower** | **20.76** | **130** | *e*P | | Pn | 20 46 54.6 | -2.4 |
| | 21nm,1.2s | | | | | | | |
| **KSM** | **Kuching** | **20.98** | **293** | *e*P | | **P** | **20 46 53.4** | **-0.3** |
| | 14nm,0.8s | | | | | | | |
| **CISI** | **Cisompet, Garu** | **21.58** | **267** | *e*P | | **P** | **20 46 58.4** | **-1.5** |
| | 68nm,1.3s | | | | | | | |
| **FORT** | **Forrest** | **23.68** | **183** | *e*P | | **P** | **20 47 21.1** | **+1.9** |
| | 335nm,0.6s | | | | | | | |
| **BBOO** | **Buckleboo** | **26.36** | **168** | *e*P | | **P** | **20 47 45.1** | **+1.7** |
| | 92nm,2.0s | | | | | | | |
| **STKA** | **Stephens Creek** | **27.16** | **157** | P | | **P** | **20 47 52.8** | **+2.3** |
| | 5.2nm,0.7s,baz=325,slow=11,SNR=14 | | | | | | | |
| **STKA** | **Stephens Creek** | **27.16** | **157** | *e*P | | **P** | **20 47 52.8** | **+2.3** |
| | 1.0nm,0.7s | | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **28.21** | **202** | P | | **P** | **20 48 00.6** | **+0.8** |
| | 8.7nm,1.1s,baz=316,slow=12,SNR=3.2 | | | | | | | |
| **KULM** | **Kulim** | **31.34** | **292** | *e*P | | **P** | **20 48 28.0** | **+0.4** |
| | 66nm,1.8s | | | | | | | |
| **TPUB** | **Ta-pu** | **31.37** | **344** | *e*P | | **P** | **20 48 26.0** | **-1.8** |
| | 217nm,1.8s | | | | | | | |
| **PSI** | **Prapat** | **32.10** | **287** | P | | **P** | **20 48 34.1** | **-0.3** |
| | 7.2nm,0.8s,baz=46,slow=0.9,SNR=5.7 | | | | | | | |
| **YHNB** | **Yeheng** | **32.49** | **346** | *e*P | | **P** | **20 48 36.1** | **-1.6** |
| | 216nm,1.6s | | | | | | | |
| **GSI** | **Gunungsitoli** | **32.97** | **283** | *e*P | | **P** | **20 48 40.1** | **-1.9** |
| | 56nm,1.8s | | | | | | | |
| **JOW** | **Kunigami** | **33.67** | **358** | *e*P | | **P** | **20 48 45.0** | **-2.7** |
| | 104nm,1.3s | | | | | | | |
| **CM01** | **Chiang Mai Arr** | **39.38** | **310** | *e*P | | **P** | **20 49 35.9** | **-0.2** |
| **CM31** | **Chiang Mai Arr** | **39.41** | **310** | *e*P | | **P** | **20 49 35.9** | **-0.5** |
| **CMAR** | **Chiang Mai Arr** | **39.41** | **310** | P | | **P** | **20 49 36.4** | **0.0** |
| | 3.6nm,0.6s,baz=140,slow=7.2,SNR=24 | | | | | | | |
| **CHTO** | **Chiang Mai** | **39.63** | **311** | *e*P | | **P** | **20 49 37.9** | **-0.2** |
| | 8.2nm,0.8s | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **44.08** | **10** | P | | **P** | **20 50 13.4** | **-0.6** |
| | 2.5nm,0.7s,baz=183,slow=8.9,SNR=6.2 | | | | | | | |
| **MAJO** | **Matsushiro** | **44.09** | **10** | *e*P | | **P** | **20 50 13.3** | **-0.7** |
| | 77nm,1.8s | | | | | | | |
| **MJB9** | **Matsu-Tunnel** | **44.09** | **10** | *e*P | | **P** | **20 50 13.4** | **-0.7** |
| | 81nm,1.8s | | | | | | | |
| **KS15** | **Wonju Array Si** | **44.26** | **358** | *e*P | | **P** | **20 50 16.6** | **+1.3** |
| **KSAR** | **Wonju Array Be** | **44.26** | **358** | P | | **P** | **20 50 16.4** | **+1.1** |
| **KSRS** | **Korea Array** | **44.27** | **358** | P | | **P** | **20 50 16.4** | **+1.0** |
| | 1.1nm,0.6s,baz=176,slow=9.2,SNR=4.6 | | | | | | | |
| **BJI** | **Beijing** | **48.43** | **346** | P | | **P** | **20 50 47.3** | **-0.4** |
| BJI | | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.6s | | | | | | | |
| BJI | | | | | pmax | pmax | | |
| | comp=Z,96nm,5.3s | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **50.43** | **342** | *e*P | | **P** | **20 51 06.1** | **+3.1** |
| HHC | | | | S | | **S** | **20 58 05.0** | **+4.0** |
| HHC | | | | sS | | sS | 20 59 14.3 | -4.2 |
| HHC | | | | ScS | | **ScS** | **21 00 35.6** | **+2.4** |
| HHC | | | | SS | | **SS** | **21 01 39.1** | **+1.3** |
| HHC | | | | pmax | | pmax | | |
| | comp=Z,12nm,1.1s | | | | | | | |
| HHC | | | | pmax | | pmax | | |
| | comp=Z,47nm,5.4s | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **51.03** | **2** | P | | **P** | **20 51 07.9** | **+0.7** |
| | 1.5nm,0.5s,baz=171,slow=6.9,SNR=4.6 | | | | | | | |
| **RPZ** | **Rata Peaks** | **51.48** | **142** | *e*P | | **P** | **20 51 10.5** | **-0.3** |
| | 77nm,1.4s | | | | | | | |
| **LSA** | **Lhasa** | **51.91** | **317** | *e*P | | **P** | **20 51 14.0** | **-0.7** |
| | 15nm,1.9s | | | | | | | |
| **BKZ** | **Black Stump Fm** | **52.89** | **135** | *e*P | | **P** | **20 51 24.3** | **+3.1** |
| | 102nm,1.7s | | | | | | | |
| **GTA** | **Gaotai** | **53.78** | **332** | *e*P | | P | 20 51 33.4 | +5.7 |
| GTA | | | | | pP | pP | 20 52 13.6 | +1.0 |
| GTA | | | | | sP | sP | 20 52 32.8 | -1.8 |
| **KLR** | **Kul'dur** | **56.05** | **2** | P | | **P** | **20 51 43.6** | **0.0** |
| | 0.1nm,0.3s,baz=272,slow=1.0,SNR=4.4 | | | | | | | |
| **ULN** | **Ulaanbaatar** | **58.15** | **342** | *e*P | | **P** | **20 51 57.6** | **-1.0** |
| | 6.7nm,1.4s | | | | | | | |
| **SONA0** | **Songino Array** | **58.32** | **342** | *e*P | | **P** | **20 52 00.3** | **+0.5** |
| SONA0 | | | | *e*PcP | | **PcP** | **20 52 49.2** | **+0.7** |
| **SONM** | **Songino Array** | **58.32** | **342** | P | | **P** | **20 52 00.3** | **+0.5** |
| | 0.8nm,0.4s,baz=165,slow=7.3,SNR=17 | | | | | | | |
| SONM | | | | PcP | | **PcP** | **20 52 49.2** | **+0.7** |
| | 0.5nm,0.7s,baz=167,slow=4.7,SNR=2.5 | | | | | | | |
| **SONA1** | **Songino Array** | **58.33** | **342** | *e*P | | **P** | **20 52 00.9** | **+1.1** |
| **PETK** | **Petropavlovsk-** | **64.48** | **18** | *e*P | | **P** | **20 52 42.6** | **+1.9** |
| **MK01** | **Makanchi Array** | **67.98** | **327** | *e*P | | **P** | **20 53 03.5** | **+0.3** |
| **MK31** | **Makanchi Array** | **68.00** | **327** | *e*P | | **P** | **20 53 03.9** | **+0.6** |
| **MK32** | **Makanchi Array** | **68.00** | **327** | *e*P | | **P** | **20 53 04.0** | **+0.7** |
| **MKAR** | **Makanchi Array** | **68.00** | **327** | P | | **P** | **20 53 04.0** | **+0.7** |
| | 4.1nm,0.4s,baz=123,slow=7.9,SNR=120 | | | | | | | |
| **YAK** | **Yakutsk** | **68.84** | **0** | P | | **P** | **20 53 08.9** | **+0.8** |
| | 5.5nm,0.3s,baz=164,slow=2.7,SNR=5.3 | | | | | | | |
| **YAK** | **Yakutsk** | **68.84** | **0** | *e*P | | **P** | **20 53 08.6** | **+0.5** |
| | 13nm,1.0s | | | | | | | |
| **AAK** | **Ala-Archa** | **70.28** | **320** | *e*P | | **P** | **20 53 18.9** | **+1.3** |
| | 6.9nm,1.2s | | | | | | | |
| **SMY** | **Shemya** | **70.49** | **27** | *e*P | | P | 20 53 22.4 | +4.0 |
| | 329nm,1.5s | | | | | | | |
| **ZAA0** | **Zalesovo Array** | **71.41** | **334** | *e*P | | **P** | **20 53 23.9** | **0.0** |
| | 5.7nm,0.7s | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **71.41** | **334** | P | | **P** | **20 53 23.6** | **-0.2** |
| | 5.0nm,0.5s,baz=128,slow=5.6,SNR=26 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **71.41** | **334** | *e*P | | **P** | **20 53 23.9** | **0.0** |
| **ZAA1** | **Zalesovo Array** | **71.41** | **334** | *e*P | | **P** | **20 53 23.6** | **-0.2** |
| **SEY** | **Seymchan** | **71.91** | **11** | P | | **P** | **20 53 28.4** | **+1.8** |
| | 5.1nm,0.6s,baz=214,slow=4.6,SNR=23 | | | | | | | |
| **KURK** | **Kurchatov** | **72.31** | **329** | *e*P | | **P** | **20 53 29.8** | **+0.5** |
| | 8.4nm,0.9s | | | | | | | |
| **MAW** | **Mawson** | **74.77** | **201** | *e*P | | **P** | **20 53 46.8** | **+3.4** |
| | 6.4nm,1.8s | | | | | | | |
| **BRVK** | **Borovoye** | **77.92** | **328** | *e*P | | **P** | **20 54 01.7** | **+0.4** |
| | 5.4nm,0.8s | | | | | | | |
| **TIXI** | **Tiksi** | **78.51** | **360** | *e*P | | **P** | **20 54 04.0** | **-0.1** |
| | 14nm,1.8s | | | | | | | |
| **ARU** | **Arti** | **85.49** | **328** | *e*P | | **P** | **20 54 40.1** | **-0.7** |
| | 6.4nm,0.7s | | | | | | | |
| **ILAR** | **Eielson Array** | **93.55** | **25** | P | | **P** | **20 55 17.4** | **-1.1** |
| | 0.4nm,0.8s,baz=258,slow=4.5,SNR=3.3 | | | | | | | |
| **ARA0** | **ARCESS Array S** | **101.44** | **340** | *e*Pdif | | **Pdif** | **20 55 54.8** | **+0.8** |
| **ARCES** | **ARCESS Array B** | **101.44** | **340** | P | | **Pdif** | **20 55 54.8** | **+0.8** |
| | 2.7nm,1.0s,baz=103,slow=3.9,SNR=4.6 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **128.39** | **281** | PKP | | **PKPdf** | **21 01 09.8** | **+0.3** |
| | 0.5nm,0.7s,baz=84,slow=2.2,SNR=3.6 | | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **128.39** | **281** | *e*PKPdf | | **PKPdf** | **21 01 09.8** | **+0.3** |
| **DBIC** | **Dimbokro** | **134.76** | **272** | PKP | | **PKPdf** | **21 01 23.4** | **+1.8** |
| | 1.7nm,0.7s,baz=90,slow=4.0,SNR=3.5 | | | | | | | |
| **DBIC** | **Dimbokro** | **134.76** | **272** | *e*PKPdf | | **PKPdf** | **21 01 22.9** | **+1.4** |
| **LPAZ** | **La Paz** | **150.97** | **143** | PKPbc | | **PKPbc** | **21 01 58.8** | **+2.3** |
| | 0.6nm,0.4s,baz=207,slow=2.3,SNR=3.6 | | | | | | | |
| **LPAZ** | **La Paz** | **150.97** | **143** | *e*PKPbc | | **PKPbc** | **21 01 58.0** | **+1.6** |

**WEL 16 20:54:34.6±0.3,41°09S×173°11E,h131km±2km,ML3.8/23, 10C-3D,Error ellipse: s-maj=1.9km s-min=1.7km az=0.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **NNZ** | **Nelson** | **0.24** | **122** | ⇑PN | Pn | 20 54 52.6 | -0.1 |
| NNZ | | | | SN | Sn | 20 55 05.7 | -0.7 |
| **QRZ** | **Quartz Range** | **0.51** | **301** | ⇑PN | Pn | 20 54 53.7 | -0.2 |
| QRZ | | | | SN | Sn | 20 55 07.1 | -1.4 |
| **DUWZ** | **D'Urville Isla** | **0.68** | **65** | ⇑PN | Pn | 20 54 55.3 | +0.2 |
| **THZ** | **Tophouse** | **0.69** | **193** | ⇑PN | Pn | 20 54 55.1 | 0.0 |
| THZ | | | | SN | Sn | 20 55 09.9 | -0.9 |
| **TUWZ** | **Tuamarina** | **0.71** | **119** | ⇑PN | Pn | 20 54 55.5 | +0.2 |
| TUWZ | | | | AML | AML | 20 55 10.9 | |
| TUWZ | | | | AML | AML | 20 55 11.5 | |
| **BSWZ** | **Blackbirch Sta** | **0.85** | **138** | PN | Pn | 20 54 56.5 | +0.2 |
| **TCW** | **Tory Channel** | **0.89** | **98** | ⇑PN | Pn | 20 54 57.0 | +0.4 |
| TCW | | | | SN | Sn | 20 55 12.2 | -1.1 |
| **DSZ** | **Denniston Nort** | **1.18** | **236** | PN | Pn | 20 54 59.1 | -0.3 |
| **WEL** | **Wellington** | **1.27** | **99** | PN | Pn | 20 55 00.0 | -0.2 |
| WEL | | | | AML | AML | 20 55 19.0 | |
| WEL | | | | AML | AML | 20 55 20.3 | |
| **KHZ** | **Kahutara** | **1.36** | **167** | ⇑PN | Pn | 20 55 01.2 | 0.0 |
| **KIW** | **Kapiti Island** | **1.38** | **81** | PN | Pn | 20 55 01.4 | -0.1 |
| KIW | | | | AML | AML | 20 55 22.0 | |
| KIW | | | | AML | AML | 20 55 22.2 | |
| **CAW** | **Cannon Point** | **1.48** | **91** | PN | Pn | 20 55 02.2 | -0.3 |
| CAW | | | | AML | AML | 20 55 23.4 | |
| CAW | | | | AML | AML | 20 55 24.6 | |
| **MSWZ** | **Moikau Station** | **1.65** | **102** | PN | Pn | 20 55 04.0 | -0.5 |
| MSWZ | | | | AML | AML | 20 55 27.0 | |
| MSWZ | | | | AML | AML | 20 55 27.3 | |
| **PLWZ** | **Palliser** | **1.69** | **107** | ⇑PN | Pn | 20 55 04.5 | -0.4 |
| PLWZ | | | | AML | AML | 20 55 27.6 | |
| PLWZ | | | | AML | AML | 20 55 27.7 | |
| **PAWZ** | **Paruwai Farm** | **1.77** | **100** | PN | Pn | 20 55 05.3 | -0.6 |
| PAWZ | | | | AML | AML | 20 55 29.1 | |
| PAWZ | | | | AML | AML | 20 55 30.1 | |
| **LTZ** | **Lake Taylor** | **1.80** | **200** | PN | Pn | 20 55 05.9 | -0.4 |
| **MTW** | **Mount Morrison** | **1.81** | **93** | PN | Pn | 20 55 05.7 | -0.7 |
| MTW | | | | AML | AML | 20 55 30.0 | |
| MTW | | | | AML | AML | 20 55 30.0 | |
| **HOWZ** | **Holdsworth Sta** | **1.83** | **85** | PN | Pn | 20 55 06.1 | -0.6 |
| HOWZ | | | | AML | AML | 20 55 30.6 | |
| HOWZ | | | | AML | AML | 20 55 31.1 | |
| **OHWZ** | **Ohakea** | **1.90** | **63** | PN | Pn | 20 55 07.6 | +0.2 |
| **MRZ** | **Mangatainoka R** | **1.92** | **78** | ⇑PN | Pn | 20 55 06.9 | -0.8 |
| MRZ | | | | AML | AML | 20 55 33.1 | |
| MRZ | | | | AML | AML | 20 55 33.2 | |
| **KHEZ** | **Kahui Hut** | **1.92** | **21** | PN | Pn | 20 55 08.7 | +0.8 |
| **WAZ** | **Wanganui** | **1.96** | **48** | PN | Pn | 20 55 09.0 | +0.9 |
| **INZ** | **Inchbonnie** | **2.05** | **217** | ⇓PN | Pn | 20 55 08.7 | -0.6 |
| **TMWZ** | **Te Maipa** | **2.10** | **91** | PN | Pn | 20 55 09.4 | -0.5 |
| TMWZ | | | | AML | AML | 20 55 36.6 | |
| TMWZ | | | | AML | AML | 20 55 37.9 | |
| **TIWZ** | **Tintock** | **2.13** | **82** | AML | AML | 20 55 37.4 | |
| TIWZ | | | | AML | AML | 20 55 37.4 | |
| **POWZ** | **Post Office Ro** | **2.14** | **72** | PN | Pn | 20 55 09.5 | -0.8 |
| POWZ | | | | AML | AML | 20 55 37.5 | |
| **PRWZ** | **Pori Road** | **2.24** | **77** | PN | Pn | 20 55 11.0 | -0.6 |
| PRWZ | | | | AML | AML | 20 55 40.2 | |
| PRWZ | | | | AML | AML | 20 55 41.0 | |
| **VRZ** | **Vera Road** | **2.33** | **33** | PN | Pn | 20 55 13.1 | +0.3 |
| **OXZ** | **Oxford** | **2.37** | **199** | ⇓PN | Pn | 20 55 11.9 | -1.3 |
| **BFZ** | **Birch Farm** | **2.41** | **81** | PN | Pn | 20 55 12.9 | -0.8 |
| BFZ | | | | AML | AML | 20 55 42.8 | |
| BFZ | | | | AML | AML | 20 55 43.1 | |
| **DVHZ** | **Dannevirke** | **2.46** | **72** | PN | Pn | 20 55 13.2 | -1.1 |
| DVHZ | | | | AML | AML | 20 55 44.3 | |
| DVHZ | | | | AML | AML | 20 55 44.6 | |
| **PKVZ** | **Pokaka** | **2.48** | **44** | PN | Pn | 20 55 15.0 | +0.3 |
| **WNVZ** | **Wahianoa** | **2.59** | **48** | PN | Pn | 20 55 16.1 | -0.1 |
| **MOVZ** | **Moawhango** | **2.63** | **51** | PN | Pn | 20 55 15.9 | -0.7 |
| **ANWZ** | **Angora Road** | **2.63** | **77** | PN | Pn | 20 55 16.1 | -0.5 |
| ANWZ | | | | AML | AML | 20 55 47.8 | |
| ANWZ | | | | AML | AML | 20 55 48.5 | |
| **PNHZ** | **Pukenui** | **2.63** | **65** | PN | Pn | 20 55 15.7 | -0.9 |
| PNHZ | | | | AML | AML | 20 55 48.0 | |
| PNHZ | | | | AML | AML | 20 55 50.9 | |
| **MQZ** | **McQueen's Vall** | **2.64** | **187** | ⇑PN | Pn | 20 55 15.0 | -1.5 |
| MQZ | | | | SN | Sn | 20 55 44.0 | -4.9 |
| **WVZ** | **Waitaha Valley** | **2.66** | **221** | PN | Pn | 20 55 15.7 | -1.0 |
| **TUVZ** | **Tukino** | **2.67** | **48** | PN | Pn | 20 55 16.8 | -0.3 |
| **WPHZ** | **Waipukurau** | **2.74** | **69** | PN | Pn | 20 55 17.5 | -0.3 |
| WPHZ | | | | AML | AML | 20 55 51.0 | |
| WPHZ | | | | AML | AML | 20 55 52.1 | |
| **OTVZ** | **Oturere** | **2.75** | **46** | PN | Pn | 20 55 17.7 | -0.4 |
| **PRHZ** | **Porangahau** | **2.81** | **74** | PN | Pn | 20 55 17.7 | -1.1 |
| PRHZ | | | | AML | AML | 20 55 54.6 | |
| **KRHZ** | **Kereru** | **2.88** | **61** | PN | Pn | 20 55 19.0 | -0.7 |
| KRHZ | | | | AML | AML | 20 55 54.3 | |
| KRHZ | | | | AML | AML | 20 55 55.2 | |
| **HIZ** | **Hauiti** | **2.90** | **28** | PN | Pn | 20 55 19.6 | -0.4 |
| **RPZ** | **Rata Peaks** | **3.03** | **209** | PN | Pn | 20 55 20.4 | -1.3 |
| **PXZ** | **Pawanui** | **3.05** | **71** | PN | Pn | 20 55 21.5 | -0.3 |
| PXZ | | | | AML | AML | 20 55 58.7 | |
| **TLZ** | **Tolley Road** | **3.33** | **35** | PN | Pn | 20 55 25.1 | -0.6 |
| **FOZ** | **Fox Glacier** | **3.45** | **224** | ⇓PN | Pn | 20 55 25.6 | -1.5 |
| **LBZ** | **Lake Benmore** | **3.94** | **212** | PN | Pn | 20 55 31.5 | -2.0 |
| **MHGZ** | **Mahia Peninsul** | **4.16** | **64** | PN | Pn | 20 55 34.6 | -1.9 |
| **ODZ** | **Otahua Downs** | **4.35** | **204** | PN | Pn | 20 55 37.4 | -1.5 |
| **JCZ** | **Jackson Bay** | **4.37** | **226** | PN | Pn | 20 55 37.7 | -1.6 |
| **TWGZ** | **Tauwhareparae** | **4.75** | **54** | PN | Pn | 20 55 42.2 | -2.2 |
| TWGZ | | | | AML | AML | 20 56 39.5 | |
| TWGZ | | | | AML | AML | 20 56 40.0 | |

*TEH **16** 21:10:44.1,30˚82N×56˚78E,h6km,ML4.1*
*NEIC **16** 21:10:44.1±0.0,30˚82N×56˚78E,h6km,mb4.4/8, MN4.1(TEH),After TEH.*
*ISCJB **16** 21:10:46.3±0.3,30˚78N±0˚02×56˚77E±0˚04,h10km, mb4.2/18,MS3.9/2,Error ellipse: s-maj=5.0km s-min=3.5km az=0.4*
*IDC **16** 21:10:46.1±1.0,30˚76N×56˚65E,h0km,mb3.9/10, mb1 4.0/14,mb1mx3.8/59,mbtmp3.9/14,ML3.5/4,MS3.1/3, Ms1 3.1/3,ms1mx2.5/45,Error ellipse: s-maj=22.3km s-min=17.8km az=162.0*
*THR **16** 21:10:47.2±1.0,30˚75N×56˚72E,h18km,ML3.8*
*CSEM **16** 21:10:47.8±0.2,30˚76N×56˚76E,h10km,ML4.1,Error ellipse: s-maj=6.2km s-min=4.8km az=92.0*
*DSN **16** 21:10:49.1±0.0,30˚86N×56˚75E,h15km,ML4.3/2,Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

**ISC 16 21:10:46.2±0.5,30.77N±0.03×56.75E±0.03,h10km,n79, σ2s03/83,mb4.0/17,Northern and central Iran**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KHGB** | **Koh Gabri** | **0.46** | **211** | *e*Pg | **Pg** | **21 10 55.7** | **+0.5** |
| **KHGB** | **Koh Gabri** | **0.46** | **211** | *e*Pg | **Pg** | **21 10 55.7** | **+0.5** |
| **TVBK** | **TV Kerman** | **0.78** | **179** | *e*Pg | **Pg** | **21 11 01.2** | **-0.1** |
| **TVBK** | **TV Kerman** | **0.78** | **179** | *e*Pg | **Pg** | **21 11 01.2** | **-0.1** |
| **KRBR** | **Kerman** | **0.79** | **179** | *e*Pg | **Pb** | **21 11 02.5** | **+0.4** |
| KRBR | | | | *e*Sg | **Sb** | **21 11 12.6** | **-0.4** |
| KRBR | | | | AML | AML | 21 11 14.8 | |
| | comp=N,4μm,0.4s | | | | | | |
| KRBR | | | | AML | AML | 21 11 19.8 | |
| | comp=E,3μm,0.2s | | | | | | |
| **KRBR** | **Kerman** | **0.79** | **179** | *e*Pg | **Pb** | **21 11 02.5** | **+0.4** |
| KRBR | | | | *e*Sg | **Sb** | **21 11 12.6** | **-0.4** |
| **NGRK** | **Negar Kerman** | **1.12** | **181** | *e*Pg | **Pn** | **21 11 08.2** | **-0.1** |
| **NGRK** | **Negar Kerman** | **1.12** | **181** | *e*Pg | **Pn** | **21 11 08.2** | **-0.1** |
| **CHMN** | **Cheshme madani** | **1.14** | **143** | *e*Pg | **Pg** | **21 11 08.0** | **0.0** |
| **CHMN** | **Cheshme madani** | **1.14** | **143** | *e*Pg | **Pg** | **21 11 08.0** | **0.0** |
| **IBAF** | **Bafgh** | **1.30** | **309** | *e*AMB | AMB | 21 11 33.6 | |
| | comp=Z,35μm,0.1s | | | | | | |
| IBAF | | | | *e*Pg | **Pn** | **21 11 09.7** | **-0.9** |
| **IMEH** | **Mehriz** | **1.94** | **289** | *e*Pn | **Pb** | **21 11 20.9** | **-0.8** |
| IMEH | | | | *e*AMB | AMB | 21 11 48.4 | |
| | comp=Z,45μm,0.3s | | | | | | |
| **IMEH** | **Mehriz** | **1.94** | **289** | *e*Pn | **Pb** | **21 11 20.9** | **-0.8** |
| **ICHK** | **Chekchek** | **2.48** | **307** | *e*Pn | **Pn** | **21 11 28.7** | **+1.8** |
| ICHK | | | | *e*AMB | AMB | 21 12 12.3 | |
| | comp=Z,13μm,0.3s | | | | | | |
| **ICHK** | **Chekchek** | **2.48** | **307** | *e*Pn | **Pn** | **21 11 28.7** | **+1.8** |
| **IKOO** | **Kooshah** | **2.53** | **49** | *e*Pn | **Pn** | **21 11 29.0** | **+1.4** |
| IKOO | | | | *e*AMB | AMB | 21 12 14.3 | |
| | comp=Z,10μm,0.2s | | | | | | |
| **IKOO** | **Kooshah** | **2.53** | **49** | *e*Pn | **Pn** | **21 11 29.0** | **+1.4** |
| **ITEG** | **Tejag** | **2.72** | **38** | *e*Pn | **Pn** | **21 11 30.8** | **+0.7** |
| ITEG | | | | *e*AMB | AMB | 21 12 18.6 | |
| | comp=Z,5μm,0.3s | | | | | | |
| **ITEG** | **Tejag** | **2.72** | **38** | *e*Pn | **Pn** | **21 11 30.8** | **+0.7** |
| **ISAD** | **Sadrabad** | **2.86** | **294** | *e*Pn | **Pn** | **21 11 33.9** | **+1.8** |
| ISAD | | | | *e*AMB | AMB | 21 12 17.5 | |
| | comp=Z,11μm,0.2s | | | | | | |
| **ISAD** | **Sadrabad** | **2.86** | **294** | *e*Pn | **Pn** | **21 11 33.9** | **+1.8** |
| **IDAH** | **Dahanechah** | **3.30** | **53** | *e*Pn | **Pn** | **21 11 40.5** | **+2.3** |
| IDAH | | | | *e*AMB | AMB | 21 13 00.7 | |
| | comp=Z,2μm,0.3s | | | | | | |
| **IDAH** | **Dahanechah** | **3.30** | **53** | *e*Pn | **Pn** | **21 11 40.5** | **+2.3** |
| **IBND** | **Bandar-abas** | **3.32** | **183** | *e*Pn | **Pb** | **21 11 42.7** | **-2.4** |
| **IPAR** | **Pars** | **3.33** | **255** | *e*Pn | **Pn** | **21 11 41.4** | **+2.8** |
| IPAR | | | | *e*AMB | AMB | 21 12 49.6 | |
| | comp=Z,2μm,0.3s | | | | | | |
| **IPAR** | **Pars** | **3.33** | **255** | *e*Pn | **Pn** | **21 11 41.4** | **+2.8** |
| **ISRV** | **Sarvestan** | **3.44** | **247** | *e*Pn | **Pn** | **21 11 43.0** | **+2.8** |
| ISRV | | | | *e*AMB | AMB | 21 12 51.2 | |
| | comp=Z,4μm,0.4s | | | | | | |
| **ISRV** | **Sarvestan** | **3.44** | **247** | *e*Pn | **Pn** | **21 11 43.0** | **+2.8** |
| **IMON** | **Monand** | **3.46** | **45** | *e*Pn | **Pn** | **21 11 42.6** | **+2.3** |
| IMON | | | | *e*AMB | AMB | 21 11 55.1 | |
| | comp=Z,3μm,0.1s | | | | | | |
| **IMON** | **Monand** | **3.46** | **45** | *e*Pn | **Pn** | **21 11 42.6** | **+2.3** |
| **IRAM** | **Ramesheh** | **3.88** | **287** | *e*Pn | **Pn** | **21 11 47.8** | **+1.7** |
| IRAM | | | | *e*AMB | AMB | 21 12 50.6 | |
| | comp=Z,2μm,0.3s | | | | | | |
| **IRAM** | **Ramesheh** | **3.88** | **287** | *e*Pn | **Pn** | **21 11 47.8** | **+1.7** |
| **NASN** | **Na'in** | **3.92** | **302** | *e*Pn | **Pn** | **21 11 48.8** | **+2.1** |
| NASN | | | | AML | AML | 21 12 54.0 | |
| | comp=N,189nm,0.5s | | | | | | |
| NASN | | | | AML | AML | 21 12 54.5 | |
| | comp=E,130nm,0.4s | | | | | | |
| **NASN** | **Na'in** | **3.92** | **302** | *e*Pn | **Pn** | **21 11 48.8** | **+2.1** |
| **SHRT** | **Shahrakht** | **4.15** | **45** | *e*Pn | **Pn** | **21 11 51.7** | **+2.1** |
| SHRT | | | | *e*Sg | **Sg** | **21 12 57.3** | **-2.1** |
| **SHRT** | **Shahrakht** | **4.15** | **45** | *e*Pn | **Pn** | **21 11 51.7** | **+2.1** |
| SHRT | | | | *e*Sg | **Sg** | **21 12 57.3** | **-2.1** |
| **IZEF** | **Zefreh** | **4.32** | **301** | *e*Pn | **Pn** | **21 11 54.2** | **+2.1** |
| IZEF | | | | *e*AMB | AMB | 21 13 05.1 | |
| | comp=Z,2μm,0.3s | | | | | | |
| **IZEF** | **Zefreh** | **4.32** | **301** | *e*Pn | **Pn** | **21 11 54.2** | **+2.1** |
| **IGAR** | **Gharneh** | **4.33** | **293** | *e*Pn | **Pn** | **21 11 54.9** | **+2.5** |
| IGAR | | | | *e*AMB | AMB | 21 13 03.3 | |
| | comp=Z,2μm,0.3s | | | | | | |
| **BANOM** | **Banah** | **4.85** | **185** | *i* P | **Pn** | **21 12 02.6** | **+3.4** |
| | SNR=19 | | | | | | |
| **BANOM** | **Banah** | **4.85** | **185** | P | **Pn** | **21 12 02.6** | **+3.4** |
| | SNR=19 | | | | | | |
| **ISHM** | **Shahmirzad** | **5.80** | **331** | *e*Pn | **Pn** | **21 12 13.9** | **+1.4** |
| ISHM | | | | *e*AMB | AMB | 21 14 06.5 | |
| | comp=Z,895nm,0.3s | | | | | | |
| **NAZ** | **Nazwa, Dubai** | **5.84** | **190** | *i* P | **Pn** | **21 12 16.8** | **+3.9** |
| | SNR=17 | | | | | | |
| **NAZ** | **Nazwa, Dubai** | **5.84** | **190** | P | **Pn** | **21 12 16.8** | **+3.9** |
| | SNR=17 | | | | | | |
| **HATD** | **Hatta, Dubai** | **5.95** | **185** | *i* P | Pn | 21 12 19.6 | +5.3 |
| | SNR=10 | | | | | | |
| **IPAY** | **Payeh** | **5.96** | **18** | *e*Pn | **Pn** | **21 12 17.3** | **+2.6** |
| IPAY | | | | *e*AMB | AMB | 21 14 06.1 | |
| | comp=Z,407nm,0.4s | | | | | | |
| **IPAY** | **Payeh** | **5.96** | **18** | *e*Pn | **Pn** | **21 12 17.3** | **+2.6** |
| **ASHO** | **Ashiyiah** | **6.09** | **186** | *i* P | **Pn** | **21 12 20.1** | **+3.7** |
| | SNR=30 | | | | | | |
| **ASHO** | **Ashiyiah** | **6.09** | **186** | P | **Pn** | **21 12 20.1** | **+3.7** |
| | SNR=30 | | | | | | |
| **GEYT** | **Alibeck** | **7.23** | **9** | Pn | **Pn** | **21 12 34.3** | **+2.4** |
| | comp=Z,0.7nm,0.3s,baz=192,slow=13,SNR=16 | | | | | | |
| GEYT | | | | Lg | Lg | 21 14 34.0 | |
| | comp=Z,0.2nm,0.3s,baz=188,slow=33,SNR=3.4 | | | | | | |
| GEYT | | | | LR | LR | 21 16 02.3 | |
| | comp=Z,113nm,21.8s,baz=185,slow=44 | | | | | | |
| **WSAR** | **Wadi Sarin** | **7.69** | **167** | Pn | **Pn** | **21 12 40.6** | **+2.4** |
| | comp=Z,0.7nm,0.3s,baz=4.5,slow=9.3,SNR=15 | | | | | | |
| WSAR | | | | Sn | **Sn** | **21 14 06.4** | **+1.0** |
| | comp=Z,0.3nm,0.3s,baz=300,slow=20,SNR=2.4 | | | | | | |
| **RAYN** | **Ar Rayn** | **12.34** | **237** | *e*Pn | **Pn** | **21 13 39.3** | **-2.7** |
| | comp=Z,4.4nm,0.6s | | | | | | |
| RAYN | | | | Sn | **Sn** | **21 15 55.2** | **-4.5** |
| **KIV** | **Kislovodsk** | **17.23** | **324** | Pn | **Pn** | **21 14 47.8** | **+0.8** |
| | comp=Z,1.3nm,0.8s | | | | | | |
| **KIV** | **Kislovodsk** | **17.23** | **324** | Pn | **Pn** | **21 14 47.8** | **+0.8** |
| | comp=Z,1.3nm,0.8s | | | | | | |
| **MMAI** | **Mount Meron Ar** | **18.27** | **283** | P | **P** | **21 15 01.8** | **+1.8** |
| | comp=Z,0.1nm,0.3s,baz=78,slow=16,SNR=4.2 | | | | | | |
| **AAK** | **Ala-Archa** | **18.47** | **45** | Pn | **P** | **21 15 00.4** | **-1.9** |
| | comp=Z,1.5nm,1.0s | | | | | | |
| **AKTO** | **Aktyubinsk** | **19.67** | **2** | P | **Pn** | **21 15 16.1** | **-0.4** |
| | comp=Z,0.2nm,0.3s,baz=223,slow=12,SNR=5.1 | | | | | | |
| AKTO | | | | LR | LR | 21 23 57.4 | |
| | comp=Z,55nm,18.1s,baz=138,slow=40 | | | | | | |
| **CSS** | **Mathiatis** | **20.10** | **288** | P | **P** | **21 15 18.6** | **-1.5** |
| | comp=Z,0.4nm,0.4s | | | | | | |
| **BRTR** | **Keskin Array B** | **20.84** | **302** | P | **P** | **21 15 28.9** | **+0.7** |
| | comp=Z,1.3nm,0.7s,baz=122,slow=14,SNR=7.3 | | | | | | |
| **BRVK** | **Borovoye** | **24.36** | **20** | P | **P** | **21 16 03.2** | **-1.0** |
| | comp=Z,3.6nm,0.8s | | | | | | |
| **BVAR** | **Borovoye Array** | **24.36** | **20** | P | **P** | **21 16 05.7** | **+1.5** |
| | comp=Z,2.0nm,0.8s,baz=202,slow=6.9,SNR=11 | | | | | | |
| **MKAR** | **Makanchi Array** | **25.38** | **44** | P | **P** | **21 16 15.6** | **+2.1** |
| | comp=Z,1.2nm,0.7s,baz=232,slow=9

**ISC 16 21:16:16.9±1.0, 38°68N±0°02×43°07E±0°03, h13km±10km, n19, σ0°82/34, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.26** | **108** | *e*Pg | **Pg** | **21 16 23.2** | **+0.7** |
| VANB | | | | *e*SG | **Sb** | **21 16 28.2** | **+0.3** |
| **VANB** | **Van** | **0.26** | **108** | *e*Pg | **Pg** | **21 16 23.2** | **+0.7** |
| VANB | | | | *e*Sg | **Sb** | **21 16 28.3** | **+0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.30** | **296** | *i* P | **Pg** | **21 16 23.4** | **+0.2** |
| ADCV | | | | *i* S | **Sb** | **21 16 29.0** | **-0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.30** | **296** | P | **Pg** | **21 16 23.4** | **+0.2** |
| ADCV | | | | S | **Sb** | **21 16 29.0** | **-0.2** |
| **TVAN** | **Van** | **0.30** | **119** | *i* P | **Pg** | **21 16 23.2** | **-0.1** |
| TVAN | | | | *i* S | **Sb** | **21 16 29.0** | **-0.2** |
| **TVAN** | **Van** | **0.30** | **119** | P | **Pg** | **21 16 23.2** | **-0.1** |
| **TVAN** | **Van** | **0.30** | **119** | S | **Sb** | **21 16 29.0** | **-0.2** |
| **GEVA** | **Gevas** | **0.36** | **181** | *i* P | **Pg** | **21 16 23.2** | **-1.1** |
| GEVA | | | | *i* S | **Sg** | **21 16 29.1** | **-0.3** |
| **GEVA** | **Gevas** | **0.36** | **181** | P | **Pg** | **21 16 23.2** | **-1.1** |
| GEVA | | | | S | **Sg** | **21 16 29.0** | **-0.3** |
| **VMUR** | **Van-Muradiye** | **0.50** | **51** | *i* P | **Pb** | **21 16 27.5** | **-0.2** |
| VMUR | | | | *i* S | **Sb** | **21 16 36.8** | **+1.9** |
| **VMUR** | **Van-Muradiye** | **0.50** | **51** | P | **Pb** | **21 16 27.5** | **-0.2** |
| VMUR | | | | S | **Sb** | **21 16 36.8** | **+1.9** |
| **TUTA** | **Tutak** | **0.75** | **345** | *i* P | **Pg** | **21 16 31.1** | **-0.4** |
| TUTA | | | | *i* S | **Sb** | **21 16 42.6** | **+0.4** |
| **TUTA** | **Tutak** | **0.75** | **345** | P | **Pg** | **21 16 31.1** | **-0.4** |
| TUTA | | | | S | **Sb** | **21 16 42.6** | **+0.4** |
| **CLDR** | **Caldiran** | **0.81** | **55** | *e*PG | **Pg** | **21 16 31.6** | **-1.0** |
| CLDR | | | | *e*SG | **Sg** | **21 16 41.9** | **-1.3** |
| **CLDR** | **Caldiran** | **0.81** | **55** | *e*Pg | **Pg** | **21 16 31.6** | **-1.0** |
| CLDR | | | | *e*Sg | **Sg** | **21 16 41.9** | **-1.3** |
| **AGRB** | **Hanur-Agry** | **0.90** | **356** | *e*PG | **Pg** | **21 16 33.9** | **-0.4** |
| AGRB | | | | *e*SG | **Sg** | **21 16 46.2** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **0.90** | **356** | *e*Pg | **Pg** | **21 16 33.9** | **-0.4** |
| AGRB | | | | *e*Sg | **Sg** | **21 16 46.2** | **+0.1** |
| **CUKT** | **Cukurca** | **1.49** | **163** | *e*Pn | **Pb** | **21 16 45.5** | **+1.0** |
| **CUKT** | **Cukurca** | **1.49** | **163** | *e*Pn | **Pb** | **21 16 45.5** | **+1.0** |

**MAN 16 21:19:06, 9°84N×122°25E, h31km, mb4.9, ML3.8, MS3.8, 2C-3D, Negros**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GUIM** | **Jordan** | **0.85** | **23** | *e*P | Pb | 21 19 22.6 | +0.4 |
| GUIM | | | | *e*S | Sb | 21 19 35.0 | +1.7 |
| **JAP** | **San Jose, Anti** | **0.95** | **342** | *e*P | Sn | 21 19 34.1 | -1.6 |
| **SNPH** | **Sibulan** | **1.09** | **117** | *i* P | Pn | 21 19 24.2 | -1.0 |
| SNPH | | | | *i* S | Sn | 21 19 36.4 | -3.0 |
| **LLP** | **Lapu-Lapu** | **1.75** | **74** | *i* P | Pn | 21 19 35.4 | +1.1 |
| LLP | | | | *i* S | Sn | 21 19 54.5 | -1.1 |
| **RCP** | **Roxas** | **1.77** | **16** | *e*P | Pb | 21 19 38.8 | +0.9 |
| **PAGZ** | **Pagadian** | **2.27** | **150** | *e*P | Pn | 21 19 42.9 | +1.4 |
| **MSLP** | **Maasin** | **2.59** | **83** | *e*P | Pn | 21 19 47.6 | +1.8 |
| MSLP | | | | *e*S | Sn | 21 20 14.6 | -1.5 |
| **OCLP** | **Ormoc** | **2.61** | **62** | *e*P | Pn | 21 19 47.7 | +1.6 |
| **BUSP** | **Coron** | **2.94** | **317** | *e*P | Pn | 21 19 52.7 | +2.1 |
| BUSP | | | | *e*S | Sn | 21 20 27.1 | +2.1 |
| **PLP** | **Palo** | **2.99** | **64** | *e*P | Pb | 21 19 58.4 | -0.2 |
| PLP | | | | *e*S | Sn | 21 20 20.0 | -6.1 |
| **ENPP** | **El Nido** | **3.09** | **296** | *e*P | Pn | 21 19 54.5 | +1.8 |
| **BESP** | **Borongan** | **3.59** | **61** | *e*P | Pn | 21 19 54.4 | -5.1 |

*CSEM **16** 21:34:08.5±0.5, 50°22N×18°74E, h2km, ML2.3, Error ellipse: s-maj=11.4km s-min=6.3km az=13.0*
*PRU **16** 21:34:09.2, 50°23N×18°73E, h0km*
**WAR 16 21:34:12.3, 50°22N×19°10E, h1km, Mw2.3, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OJC** | **Ojcow** | **0.45** | **90** | *e*Pg | Pg | 21 34 20.9 | -0.1 |
| OJC | | | | *e*Sg | Sb | 21 34 28.9 | -1.4 |
| **OJC** | **Ojcow** | **0.45** | **90** | *e*Pg | Pg | 21 34 20.9 | 0.0 |
| OJC | | | | *e*Sg | Sb | 21 34 28.9 | -1.4 |
| **OJC** | **Ojcow** | **0.45** | **90** | *e*Pg | Pg | 21 34 20.9 | 0.0 |
| OJC | | | | *e*Sg | Sb | 21 34 28.9 | -1.4 |
| **MORC** | **Moravsky Berou** | **1.09** | **247** | *e*Pg | Pg | 21 34 27.0 | -6.3 |
| **LANS** | **Liptovska Anna** | **1.10** | **167** | *e*Pg | Pg | 21 34 31.8 | -1.5 |
| LANS | | | | *e*Sg | Sb | 21 34 48.5 | -0.4 |
| **LANS** | **Liptovska Anna** | **1.10** | **167** | *e*PG | Pg | 21 34 31.8 | -1.5 |
| LANS | | | | *e*SG | Sb | 21 34 48.5 | -0.4 |
| **STHS** | **Stebnicka Huta** | **1.61** | **119** | *e*Pn | Pb | 21 34 42.4 | -0.4 |
| **STHS** | **Stebnicka Huta** | **1.61** | **119** | *e*PN | Pb | 21 34 42.4 | -0.4 |
| STHS | | | | *e*LG | Lg | 21 35 13.0 | |
| **VYHS** | **Vyhne** | **1.73** | **186** | *e*Pg | Pn | 21 34 39.8 | -3.8 |
| VYHS | | | | *e*Sn | Sn | 21 35 00.7 | -5.6 |
| **VYHS** | **Vyhne** | **1.73** | **186** | *e*PG | Pn | 21 34 39.8 | -3.8 |
| VYHS | | | | *e*SN | Sn | 21 35 00.7 | -5.6 |
| **DPC** | **Dobruska-Polom** | **1.78** | **275** | *e*PG | Pn | 21 34 37.5 | -6.8 |
| DPC | | | | *e*SG | Sn | 21 34 58.2 | -9.4 |
| | comp=Z,5.8nm,0.4s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.78** | **275** | Pg | Pn | 21 34 37.5 | -6.8 |
| **VRAC** | **Vranov** | **1.86** | **242** | *e*Sg | Sn | 21 35 02.3 | -7.1 |
| **KSP** | **Ksiaz** | **1.89** | **290** | *e*Pg | Pn | 21 34 40.8 | -5.0 |
| KSP | | | | *e*Sg | Sn | 21 35 03.2 | -7.1 |
| **KSP** | **Ksiaz** | **1.89** | **290** | *e*Pg | Pn | 21 34 40.8 | -5.0 |
| KSP | | | | *e*Sg | Sn | 21 35 03.2 | -7.1 |
| **KSP** | **Ksiaz** | **1.89** | **290** | *e*Pg | Pn | 21 34 40.8 | -5.0 |
| KSP | | | | *e*Sg | Sn | 21 35 03.2 | -7.1 |
| **PRU** | **Pruhonice** | **2.94** | **267** | *e*SG | Sn | 21 35 35.3 | -0.8 |
| **PRU** | **Pruhonice** | **2.94** | **267** | Sg | Sn | 21 35 35.3 | -0.8 |
| **KHC** | **Kasperske Hory** | **3.75** | **255** | *e*SG | Sb | 21 36 00.8 | -4.3 |
| **KHC** | **Kasperske Hory** | **3.75** | **255** | Sg | Sb | 21 36 00.8 | -4.3 |

*IPEC **16** 21:36:16.4±0.2, 49°83N×18°51E, h0km, ML0.9/3, Error ellipse: s-maj=2.1km s-min=1.1km az=161.0*
*CSEM **16** 21:36:17.7±0.3, 49°75N×18°38E, h1km, ML1.6/4, Error ellipse: s-maj=6.1km s-min=3.2km az=23.0*
**PRU 16 21:36:18.0, 49°88N×18°38E, h0km, 1D, Czech and Slovak Republics**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OKC** | **Ostrava-Krasne** | **0.16** | **254** | *i* PG | Pg | 21 36 21.2 | +0.2 |
| OKC | | | | *e*SG | Sg | 21 36 24.3 | +1.3 |
| | comp=Z,23nm,0.3s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **0.16** | **254** | Pg | Pg | 21 36 21.2 | +0.2 |
| OKC | | | | Sg | Sg | 21 36 24.3 | +1.3 |
| | 23nm,0.3s | | | | | | |
| **MORC** | **Moravsky Berou** | **0.55** | **260** | *e*Pg | Pg | 21 36 28.5 | -0.1 |
| | baz=85 | | | | | | |
| MORC | | | | *e*Sg | Sg | 21 36 36.1 | +0.4 |
| | 2.4nm,0.2s,baz=85 | | | | | | |
| **LANS** | **Liptovska Anna** | **1.02** | **135** | *e*Pg | Pg | 21 36 35.9 | -1.6 |
| LANS | | | | *e*Sg | Sb | 21 36 51.9 | -0.5 |
| **LANS** | **Liptovska Anna** | **1.02** | **135** | *e*PG | Pg | 21 36 35.9 | -1.6 |
| LANS | | | | *e*SG | Sb | 21 36 51.9 | -0.5 |
| **VRAC** | **Vranov** | **1.30** | **244** | *e*Pg | Pg | 21 36 41.6 | -1.2 |
| | baz=66 | | | | | | |
| VRAC | | | | *e*Sg | Sg | 21 36 58.8 | -0.8 |
| | 1.3nm,0.2s,baz=66 | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.41** | **290** | *i* PG | Pn | 21 36 43.5 | -1.4 |
| DPC | | | | *e*SG | Sb | 21 37 03.5 | -0.1 |
| **KRUC** | **Moravsky** | **1.53** | **238** | *e*Pg | Pn | 21 36 45.1 | -1.5 |
| | baz=60 | | | | | | |
| KRUC | | | | *e*Sg | Sg | 21 37 05.9 | -1.3 |
| | 1.3nm,0.3s,baz=60 | | | | | | |

*ISCJB **16** 21:49:35.4±0.3, 56°10S±0°07×143°68W±0°10, h10km, mb5.0/31, MS4.9/23, Error ellipse: s-maj=10.6km s-min=7.7km az=14.3*
*IDC **16** 21:49:35.1±0.6, 56°01S×143°62W, h0km, mb4.3/9, mb1 4.5/9, mb1mx4.4/27, mbtmp4.3/9, MS4.8/20, Ms1 4.8/20, ms1mx4.7/27, Error ellipse: s-maj=26.5km s-min=16.0km az=0.0*
*NEIC **16** 21:49:37.1±0.2, 56°01S×143°65W, h10km, mb5.2/26, Error ellipse: s-maj=9.0km s-min=6.1km az=10.0*
*GCMT **16** 21:49:37.1±0.1, 56°36S×143°43W, h19km, MW5.4/108, Moment Tensor Solution. s86,c127; s108,c175; Duration: 1s2 Moment tensor: Scale 10^17 Nm; Mrr=0.12±.03; Mθθ 1.44±.03; Mφφ -1.33±.02; Mrθ 0.20±.05; Mθφ 0.76±.02; Mφ 0.38±.05; Best double couple: M=1.63900×10^17 NP1:φs 211.00000°, δ 88.00000°, λ -165.00000°. NP2:φs 120.00000°, δ 75.00000°, λ -2.00000°. Principal axes: T 1.6840, Plg9.0000°, Azm345.0000°; N -0.0950, Plg75.0000°, Azm218.0000°; P -1.5940, Plg12.0000°, Azm77.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*BJI **16** 21:49:40.4, 56°00S×143°60W, h30km, mB5.4/9, Ms5.5/10, Ms7 5.0/10*
**ISC 16 21:49:36.9±0.4, 55°87S±0°08×143°51W±0°08, h10km, n100, σ1°77/73, mb5.2/31, MS4.8/24, Pacific-Antarctic Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SBA** | **Scott Base** | **27.82** | **200** | *e*P | **P** | **21 55 26.1** | **+0.4** |
| | 72nm,1.6s | | | | | | |
| **VNDA** | **Vanda** | **28.70** | **202** | P | **P** | **21 55 33.7** | **+0.2** |
| | 2.4nm,0.9s,baz=84,slow=7.4,SNR=8.7 | | | | | | |
| VNDA | | | | LR | LR | 22 04 01.7 | |
| | comp=Z,2μm,18.6s,baz=74,slow=30 | | | | | | |
| **VNDA** | **Vanda** | **28.70** | **202** | *e*P | **P** | **21 55 33.9** | **+0.4** |
| | 24nm,1.6s | | | | | | |
| **BFZ** | **Birch Farm** | **30.28** | **283** | *e*P | **P** | **21 55 48.2** | **+0.3** |
| | 241nm,1.9s | | | | | | |
| **RPZ** | **Rata Peaks** | **31.17** | **274** | LR | LR | 22 05 45.5 | |
| | comp=Z,2μm,18.3s,baz=124,slow=31 | | | | | | |
| **URZ** | **Urewera** | **31.53** | **287** | LR | LR | 22 05 41.9 | |
| | comp=Z,2μm,21.6s,baz=150,slow=31 | | | | | | |
| **DCZ** | **Deep Cove** | **32.29** | **268** | *e*P | **P** | **21 56 05.5** | **0.0** |
| | 43nm,1.2s | | | | | | |
| **TBI** | **Tubuai** | **32.77** | **350** | *e*S | **S** | **22 01 21.0** | **-5.6** |
| | 336nm,27.2s | | | | | | |
| TBI | | | | *e*LR | LR | 22 04 38.7 | |
| | 6μm,28.0s,baz=175 | | | | | | |
| **TBI** | **Tubuai** | **32.77** | **350** | *e*T | T | 22 30 47.7 | |
| | 189nm,0.3s | | | | | | |
| **RKT** | **Rikitea** | **33.31** | **14** | *e*LQ | LQ | 22 03 41.7 | |
| | 2μm,30.0s | | | | | | |
| RKT | | | | *e*LR | LR | 22 05 09.1 | |
| | 5μm,28.0s | | | | | | |
| **RKT** | **Rikitea** | **33.31** | **14** | *e*T | T | 22 31 21.9 | |
| | 20nm,0.3s | | | | | | |
| **QSPA** | **South Pole Qui** | **34.29** | **180** | *e*P | **P** | **21 56 22.4** | **-0.6** |
| | 45nm,1.4s | | | | | | |
| **OUZ** | **Omahuta** | **35.67** | **287** | *e*P | **P** | **21 56 35.1** | **+0.1** |
| | 136nm,1.8s | | | | | | |
| **RAR** | **Rarotonga** | **36.67** | **334** | LR | LR | 22 07 20.9 | |
| | comp=Z,2μm,20.1s,baz=130,slow=29 | | | | | | |
| **RPN** | **Rapa Nui** | **37.79** | **55** | LR | LR | 22 08 33.1 | |
| | comp=Z,867nm,19.4s,baz=210,slow=30 | | | | | | |
| **TVO** | **Taravao** | **38.27** | **351** | *e*T | T | 22 37 39.2 | |
| | 5.3nm,0.3s | | | | | | |
| **PAE** | **Paea** | **38.41** | **351** | *e*T | T | 22 37 50.0 | |
| | 10nm,0.3s | | | | | | |
| **PPTF** | **Pamatai, Papee** | **38.48** | **351** | *e*P | **P** | **21 57 00.4** | **+1.4** |
| | 54nm,1.3s | | | | | | |
| **PPT2** | **Papeete2** | **38.48** | **351** | *e*S | **S** | **22 02 50.0** | **-4.4** |
| | 476nm,25.5s | | | | | | |
| PPT2 | | | | *e*LR | LR | 22 07 17.4 | |
| | 6μm,27.2s,baz=182 | | | | | | |
| **PPT2** | **Papeete2** | **38.48** | **351** | *e*T | T | 22 37 52.6 | |
| | 14nm,0.3s | | | | | | |
| **TIAR** | **Tiarei** | **38.50** | **351** | *e*T | T | 22 37 56.5 | |
| | 11nm,0.3s | | | | | | |
| **PPT** | **Papeete** | **38.51** | **351** | LR | LR | 22 08 54.6 | |
| | comp=Z,2μm,19.1s,baz=176,slow=30 | | | | | | |
| **PPT** | **Papeete** | **38.51** | **351** | *e*P | **P** | **21 57 01.0** | **+1.8** |
| **VAH** | **Vaihoa** | **40.67** | **354** | *e*T | T | 22 40 39.5 | |
| | 111nm,0.3s | | | | | | |
| **USHA** | **Ushuaia** | **40.74** | **121** | P | **P** | **21 57 16.5** | **-0.9** |
| | 94nm,1.0s,baz=225,slow=7.1,SNR=2.3 | | | | | | |
| **GO09** | **Cerro Castillo** | **40.81** | **115** | *e*P | **P** | **21 57 18.9** | **+0.9** |
| | 123nm,1.7s | | | | | | |
| **PMOR** | **Pomariorio Ree** | **40.92** | **354** | *e*T | T | 22 40 58.3 | |
| | 17nm,0.3s | | | | | | |
| **CHRN** | **Cochrane** | **43.10** | **110** | *e*P | **P** | **21 57 38.3** | **+1.5** |
| | 5.1nm,0.9s | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **46.97** | **5** | *e*S | **S** | **22 04 56.0** | **-3.2** |
| | 338nm,26.6s | | | | | | |
| TAOE | | | | *e*LQ | LQ | 22 09 07.9 | |
| | 2μm,26.5s | | | | | | |
| TAOE | | | | *e*LR | LR | 22 11 12.2 | |
| | 4μm,27.3s,baz=195 | | | | | | |
| **PLCA** | **Paso Flores** | **48.52** | **104** | P | **P** | **21 58 20.0** | **+0.2** |
| | 4.2nm,0.8s,baz=237,slow=5.5,SNR=5.8 | | | | | | |
| PLCA | | | | LR | LR | 22 13 54.5 | |
| | comp=Z,577nm,19.3s,baz=240,slow=30 | | | | | | |
| **PLCA** | **Paso Flores** | **48.52** | **104** | *e*P | **P** | **21 58 21.1** | **+1.3** |
| | 54nm,1.5s | | | | | | |
| **VNA3** | **Neumayer Olymp** | **49.06** | **162** | P | **P** | **21 58 21.2** | **-2.3** |
| **VNA2** | **Neumayer--Watz** | **49.73** | **163** | P | **P** | **21 58 25.9** | **-2.6** |
| | baz=205,slow=7.6 | | | | | | |
| **SNAA** | **Sanae** | **49.79** | **165** | P | **P** | **21 58 26.4** | **-2.7** |
| **SNAA** | **Sanae** | **49.79** | **165** | *e*P | **P** | **21 58 27.0** | **-2.1** |
| | 99nm,1.7s | | | | | | |
| **VNA1** | **Neumayer--Stat** | **49.81** | **162** | P | **P** | **21 58 26.4** | **-2.8** |
| **DZM** | **Mont Dzumac** | **49.88** | **292** | *e*LR | LR | 22 12 41.0 | |
| | 1μm,23.9s | | | | | | |
| **DZM** | **Mont Dzumac** | **49.88** | **292** | *e*P | **P** | **21 58 30.4** | **0.0** |
| | 110nm,1.9s | | | | | | |
| **ARMA** | **Armidale** | **51.46** | **271** | *e*P | **P** | **21 58 41.8** | **-0.5** |
| | 45nm,1.7s | | | | | | |
| **GO05** | **HualaæØ** | **51.84** | **98** | *e*P | **P** | **21 58 46.4** | **+1.5** |
| | 54nm,1.7s | | | | | | |
| **ROC1** | **El Roble** | **53.85** | **97** | *e*P | **P** | **21 59 00.7** | **+0.6** |
| | 16nm,1.0s | | | | | | |
| **PEL** | **Peldehue** | **53.91** | **97** | *e*P | **P** | **21 59 00.2** | **-0.1** |
| | 21nm,0.9s | | | | | | |
| **TRQA** | **Tornquist** | **55.07** | **108** | *e*P | **P** | **21 59 09.1** | **+0.5** |
| | 94nm,1.9s | | | | | | |
| **HOPE** | **Hope Point** | **55.09** | **137** | *e*P | **P** | **21 59 09.1** | **+0.6** |
| | 138nm,1.4s | | | | | | |
| **MAW** | **Mawson** | **55.29** | **192** | P | **P** | **21 59 08.4** | **-1.3** |
| | 5.3nm,0.8s,baz=149,slow=6.0,SNR=8.3 | | | | | | |
| MAW | | | | LR | LR | 22 20 41.8 | |
| | comp=Z,2μm,18.1s,baz=156,slow=34 | | | | | | |
| **MAW** | **Mawson** | **55.29** | **192** | *e*P | **P** | **21 59 09.1** | **-0.7** |
| | 3.7nm,1.1s | | | | | | |
| **STKA** | **Stephens Creek** | **56.01** | **262** | P | **P** | **21 59 15.4** | **0.0** |
| | 6.0nm,1.1s,baz=177,slow=9.4,SNR=4.4 | | | | | | |
| STKA | | | | LR | LR | 22 19 16.5 | |
| | comp=Z,1μm,19.8s,baz=130,slow=32 | | | | | | |
| **STKA** | **Stephens Creek** | **56.01** | **262** | *e*P | **P** | **21 59 16.4** | **+1.0** |
| | 7.4nm,1.8s | | | | | | |
| **PB01** | **IPOC Station P** | **63.91** | **89** | *e*P | **P** | **22 00 10.5** | **+0.5** |
| | 58nm,2.0s | | | | | | |
| **MNMC** | **Minye Minye** | **65.37** | **88** | *e*P | **P** | **22 00 20.5** | **+0.8** |
| | 60nm,1.3s | | | | | | |
| **CPUP** | **Villa Florida** | **66.54** | **103** | P | **P** | **22 00 26.6** | **-0.2** |
| | 2.6nm,0.8s,baz=231,slow=7.6,SNR=5.8 | | | | | | |
| CPUP | | | | LR | LR | 22 25 10.3 | |
| | comp=Z,783nm,18.9s,baz=221,slow=32 | | | | | | |
| **CPUP** | **Villa Florida** | **66.54** | **103** | *e*P | **P** | **22 00 26.9** | **0.0** |
| **AS01** | **Alice Springs** | **66.62** | **262** | *e*P | **P** | **22 00 26.8** | **-0.6** |
| **ASAR** | **Alice Springs** | **66.65** | **262** | P | **P** | **22 00 26.8** | **-0.8** |
| | 3.4nm,0.8s,baz=140,slow=6.3,SNR=28 | | | | | | |
| ASAR | | | | LR | LR | 22 25 29.7 | |
| | comp=Z,1μm,20.7s,baz=146,slow=32 | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **68.20** | **240** | T | T | 23 15 34.8 | |
| | baz=142,slow=76,SNR=304 | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **68.20** | **240** | T | T | 23 15 35.3 | |
| | baz=142,slow=76,SNR=332 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **68.22** | **240** | T | T | 23 15 37.6 | |
| | baz=142,slow=76,SNR=409 | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **68.25** | **243** | LR | LR | 22 24 44.1 | |
| | comp=Z,653nm,18.2s,slow=31 | | | | | | |
| **LPAZ** | **La Paz** | **68.48** | **87** | P | **P** | **22 00 40.4** | **+0.4** |
| | 4.5nm,0.8s,baz=206,slow=6.9,SNR=11 | | | | | | |
| LPAZ | | | | LR | LR | 22 24 13.5 | |
| | comp=Z,351nm,19.3s,baz=196,slow=30 | | | | | | |
| **LPAZ** | **La Paz** | **68.48** | **87** | *e*P | **P** | **22 00 41.1** | **+1.2** |
| | 40nm,1.3s | | | | | | |
| **WRA** | **Warramunga Arr** | **69.36** | **265** | P | **P** | **22 00 43.6** | **-1.1** |
| | 2.0nm,0.8s,baz=148,slow=5.7,SNR=13 | | | | | | |
| WRA | | | | LR | LR | 22 28 36.6 | |
| | comp=Z,573nm,18.7s,baz=145,slow=34 | | | | | | |
| **PMG** | **Port Moresby** | **70.70** | **282** | LR | LR | 22 27 53.8 | |
| | comp=Z,561nm,20.1s,baz=156,slow=32 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **75.69** | **259** | LR | LR | 22 31 17.4 | |
| | comp=Z,1μm,19.4s,baz=144,slow=33 | | | | | | |
| **OTAV** | **Otavalo** | **76.45** | **69** | *e*P | **P** | **22 01 29.3** | **+2.0** |
| | 24nm,1.7s | | | | | | |
| **SAML** | **Samuel** | **77.22** | **87** | *e*P | **P** | **22 01 31.3** | **+0.3** |
| | 22nm,1.6s | | | | | | |
| **H06S1** | **SOCORRO T** | **79.25** | **31** | T | T | 23 29 04.7 | |
| | SNR=8.0 | | | | | | |
| **H06E1** | **SOCORRO T-PHAS** | **79.30** | **31** | T | T | 23 29 06.9 | |
| | SNR=6.5 | | | | | | |
| **BDFB** | **Brasilia** | **80.25** | **103** | LR | LR | 22 33 26.5 | |
| | comp=Z,572nm,19.4s,baz=20,slow=33 | | | | | | |
| **ROSC** | **El Rosal** | **82.51** | **70** | LR | LR | 22 31 39.6 | |
| | comp=Z,392nm,21.5s,baz=222,slow=31 | | | | | | |
| **TXAR** | **Lajitas Array** | **91.41** | **34** | P | **P** | **22 02 44.4** | **+1.6** |
| | 0.4nm,0.7s,baz=206,slow=9.8,SNR=2.2 | | | | | | |
| TXAR | | | | LR | LR | 22 35 53.1 | |
| | comp=Z,130nm,19.9s,baz=0.0,slow=30 | | | | | | |
| **MNTX** | **Cornudas Mount** | **93.09** | **32** | *e*P | **P** | **22 02 52.1** | **+1.7** |
| | 18nm,1.8s | | | | | | |
| **RCWM** | **Renegade Canyo** | **94.08** | **21** | *e*P | **P** | **22 02 57.1** | **+2.2** |
| **BOSA** | **Boshof** | **95.31** | **170** | LR | LR | 22 41 32.4 | |
| | comp=Z,598nm,19.9s,baz=218,slow=33 | | | | | | |
| **NMTM** | **Middletown** | **96.00** | **16** | *e*P | P | 22 03 08.9 | +5.3 |
| **H10S3** | **ASCENSION HYDR** | **102.81** | **128** | T | T | 23 58 53.8 | |
| | baz=207,slow=74,SNR=11 | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **102.81** | **128** | T | T | 23 58 54.4 | |
| | baz=207,slow=74,SNR=11 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **102.82** | **128** | T | T | 23 58 55.6 | |
| | baz=207,slow=74,SNR=12 | | | | | | |
| **H10N3** | **ASCENSION HYDR** | **103.86** | **128** | T | T | 23 59 56.4 | |
| | baz=206,slow=74,SNR=13 | | | | | | |
| **H10N1** | **ASCENSION HYDR** | **103.87** | **128** | T | T | 23 59 56.9 | |
| | baz=206,slow=74,SNR=13 | | | | | | |
| **H10N2** | **ASCENSION HYDR** | **103.88** | **128** | T | T | 23 59 58.1 | |
| | baz=206,slow=74,SNR=11 | | | | | | |
| **NJ2** | **Nanjing** | **119.99** | **284** | *e*PKP | **PKPdf** | **22 08 27.5** | **+0.5** |
| **YKA** | **Yellowknife Ar** | **120.16** | **15** | PKP | **PKPdf** | **22 08 27.6** | **+1.2** |
| | 0.2nm,0.8s,baz=198,slow=1.8,SNR=2.9 | | | | | | |
| **ILAR** | **Eielson Array** | **120.34** | **358** | PKP | **PKPdf** | **22 08 26.9** | **+0.2** |
| | 1.2nm,0.9s,baz=204,slow=1.1,SNR=7.6 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **120.49** | **258** | PKP | **PKPdf** | **22 08 27.8** | **-0.6** |
| | 0.6nm,0.3s,baz=176,slow=2.5,SNR=2.9 | | | | | | |
| **GYA** | **Guiyang** | **122.51** | **270** | Pdif | **Pdif** | **22 05 03.3** | **+1.2** |
| GYA | | | | PKP | **PKiKP** | **22 08 32.4** | **0.0** |
| GYA | | | | PP | **PP** | **22 10 14.0** | **+4.7** |
| GYA | | | | AMB | AMB | | |
| | comp=Z,140nm,7.8s | | | | | | |
| **KMI** | **Kunming** | **123.68** | **266** | PKP | **PKPdf** | **22 08 37.6** | **+2.9** |
| KMI | | | | LR | LR | | |
| | comp=N,310nm,16.3s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=E,300nm,22.2s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,280nm,18.9s | | | | | | |
| **BJI** | **Beijing** | **127.35** | **288** | PKP | **PKPdf** | **22 08 41.6** | **+0.7** |
| BJI | | | | PP | **PP** | **22 10 41.8** | **+0.3** |
| BJI | | | | LR | LR | | |
| | comp=N,250nm,17.7s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=E,190nm,11.5s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,390nm,35.0s | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **129.62** | **134** | PKP | **PKPdf** | **22 08 45.3** | **-0.7** |
| | 0.4nm,0.7s,baz=184,slow=2.3,SNR=2.9 | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **130.41** | **286** | *e*PKP | **PKPdf** | **22 08 48.3** | **+1.4** |
| **LZH** | **Lanzhou** | **131.31** | **276** | *e*PKP | **PKPdf** | **22 08 46.1** | **-2.7** |
| LZH | | | | sPKP | | 22 09 00.4 | |
| LZH | | | | LR | LR | | |
| | comp=N,130nm,18.9s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=E,160nm,18.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,190nm,19.6s | | | | | | |
| **WMQ** | **Urumqi** | **145.64** | **271** | PKPbc | **PKPab** | **22 09 15.5** | **+0.2** |
| WMQ | | | | LR | LR | | |
| | comp=N,170nm,27.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,120nm,21.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,330nm,26.5s | | | | | | |
| **SUMG** | **Summit** | **146.28** | **32** | *i* P | **PKPab** | **22 09 17.3** | **+0.1** |
| **RAYN** | **Ar Rayn** | **147.02** | **195** | *e*PKPbc | **PKPbc** | **22 09 19.4** | **-0.1** |
| **ESDC** | **Sonseca Array** | **148.90** | **104** | PKPbc | **PKPbc** | **22 09 24.1** | **0.0** |
| | 2.5nm,0.8s,baz=258,slow=2.4,SNR=4.1 | | | | | | |
| **KSH** | **Kashi** | **149.32** | **255** | *e*PKPbc | **PKPbc** | **22 09 23.4** | **-1.9** |
| KSH | | | | PP | **PP** | **22 13 02.5** | **+4.7** |
| KSH | | | | SKKS | | 22 19 51.6 | |
| KSH | | | | LR | LR | | |
| | comp=N,110nm,6.1s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,120nm,5.3s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,190nm,6.0s | | | | | | |
| **MKAR** | **Makanchi Array** | **150.47** | **272** | PKPbc | **PKPbc** | **22 09 26.6** | **-1.1** |
| | 4.7nm,0.9s,baz=113,slow=3.2,SNR=26 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **152.59** | **286** | PKPbc | **PKPbc** | **22 09 31.1** | **-1.2** |
| | 0.9nm,0.8s,baz=169,slow=1.5,SNR=3.6 | | | | | | |
| **BVAR** | **Borovoye Array** | **160.20** | **276** | PKPab | **PKPab** | **22 10 15.0** | **-0.7** |
| | 2.2nm,0.8s,baz=100,slow=4.5,SNR=13 | | | | | | |
| **BRTR** | **Keskin Array B** | **163.74** | **172** | PKP | **PKPdf** | **22 09 39.7** | **+0.2** |
| | 0.9nm,1.1s,baz=230,slow=3.6,SNR=3.0 | | | | | | |
| BRTR | | | | PKPab | **PKPab** | **22 10 30.0** | **-1.6** |
| | 1.2nm,0.9s,baz=193,slow=4.4,SNR=2.9 | | | | | | |
| **AKASG** | **Malin Array Be** | **173.24** | **137** | PKPab | **PKPab** | **22 11 10.8** | **-2.5** |
| | 0.8nm,0.7s,baz=215,slow=3.8,SNR=8.2 | | | | | | |
| AKASG | | | | PP | **PP** | **22 15 02.4** | **-2.9** |
| | 0.1nm,0.3s,baz=213,slow=4.3,SNR=6.1 | | | | | | |

**CASC 16 21:51:59.7±0.9, 13°16N×89°94W, h22km±11km, ML3.7, El Salvador**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SBLS** | **San Blas** | **0.75** | **25** | *e*P | Pb | 21 52 14.0 | -0.2 |
| **MONT** | **Ecomontaæa** | **0.76** | **22** | *e*P | Pb | 21 52 14.0 | -0.4 |
| **RTR** | **El Retiro** | **0.79** | **21** | *i* P | Pb | 21 52 15.1 

**ISC 16 21:59:53.6±1.1, 4°5N±0°1×93°2E±0°2, h22km, n19, σ0s66/13, mb4.1/8, Off west coast of northern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CMAR** | **Chiang Mai Arr** | **14.95** | **22** | Pn | **Pn** | **22 03 24.1** | **+0.4** |
| | 0.2nm,0.3s,baz=219,slow=13,SNR=3.2 | | | | | | |
| **CHTO** | **Chiang Mai** | **15.28** | **21** | Pn | **Pn** | **22 03 28.3** | **+0.3** |
| | 0.2nm,0.4s | | | | | | |
| **COCO** | **West Island** | **17.02** | **168** | Pn | **P** | **22 03 51.5** | **-0.5** |
| | 38nm,0.4s | | | | | | |
| **KSM** | **Kuching** | **17.40** | **100** | Pn | **Pn** | **22 03 54.0** | **-1.1** |
| | 3.1nm,0.8s | | | | | | |
| **KKM** | **Kota Kinabalu** | **23.01** | **85** | P | **P** | **22 04 58.3** | **+0.9** |
| | 1.6nm,0.2s | | | | | | |
| **H08S2** | **Diego Garcia H** | **23.90** | **240** | T | T | 22 29 42.2 | |
| | baz=61,slow=75,SNR=24 | | | | | | |
| **H08S3** | **Diego Garcia H** | **23.90** | **240** | T | T | 22 29 55.4 | |
| | baz=61,slow=75,SNR=56 | | | | | | |
| **H08S1** | **Diego Carcia H** | **23.92** | **240** | T | T | 22 29 43.4 | |
| | baz=61,slow=75,SNR=9.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.13** | **349** | P | **P** | **22 07 52.6** | **+0.2** |
| | 0.1nm,0.5s,baz=168,slow=9.5,SNR=4.0 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **43.90** | **155** | T | T | 22 54 15.9 | |
| | baz=330,slow=76,SNR=15 | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **43.92** | **155** | T | T | 22 54 16.4 | |
| | baz=330,slow=76,SNR=17 | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **43.92** | **155** | T | T | 22 54 18.2 | |
| | baz=330,slow=76,SNR=15 | | | | | | |
| **SONM** | **Songino Array** | **44.61** | **13** | P | **P** | **22 08 03.4** | **-1.0** |
| | 0.3nm,0.9s,baz=206,slow=12,SNR=2.8 | | | | | | |
| **WRAB** | **Tennant Creek** | **47.23** | **122** | *e*P | **P** | **22 08 25.7** | **+0.4** |
| | 1.6nm,0.6s | | | | | | |
| **TLY** | **Talaya** | **47.80** | **9** | P | **P** | **22 08 28.9** | **-0.4** |
| | 3.4nm,1.2s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **49.73** | **354** | P | **P** | **22 08 44.3** | **+0.3** |
| | 0.6nm,0.5s,baz=174,slow=7.2,SNR=4.8 | | | | | | |
| **BVAR** | **Borovoye Array** | **51.84** | **343** | P | **P** | **22 08 59.5** | **-0.5** |
| | 0.2nm,0.5s,baz=139,slow=7.8,SNR=2.5 | | | | | | |
| **YAK** | **Yakutsk** | **63.45** | **18** | P | **P** | **22 10 21.5** | **0.0** |
| | 4.8nm,0.4s | | | | | | |
| **CASY** | **Casey** | **71.76** | **173** | P | **P** | **22 11 14.2** | **+0.5** |

*ISCJB **16** 22:03:38.4±0.4, 1°48N±0°05×124°41E±0°04, h250km, mb3.7/15, Error ellipse: s-maj=7.2km s-min=5.1km az=136.0*
*IDC **16** 22:03:40.6±4.0, 1°31N×124°05E, h268km±42km, mb3.5/15, mb1 3.5/16, mb1mx3.4/41, mbtmp4.0/16, Error ellipse: s-maj=27.3km s-min=11.1km az=81.0*
*DJA **16** 22:03:43.2±0.6, 1°N±6°×12°4E±°, h247km±7km, M4.4/10, mB4.8/1, mb4.3/3, MLv4.4/10, Mw(mB)4.0/1*

**ISC 16 22:03:39.5±0.5, 1°35N±0°06×124°33E±0°05, h250km, n29, σ2s25/42, mb3.8/15, Minahassa Peninsula, Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KMSI** | **Cibinong** | **0.85** | **204** | P | **Pn** | **22 04 18.2** | **+4.5** |
| KMSI | | | | S | **S** | **22 04 45.7** | **+5.0** |
| **MRSI** | **Marisa** | **2.54** | **250** | P | **Pn** | **22 04 30.6** | **+3.5** |
| MRSI | | | | S | **S** | **22 05 07.5** | **+2.7** |
| **LUWI** | **Luwuk** | **2.84** | **213** | P | **Pn** | **22 04 32.1** | **+1.8** |
| LUWI | | | | S | **S** | **22 05 10.1** | **-0.4** |
| **APSI** | **Ampana** | **3.50** | **230** | P | **Pn** | **22 04 39.7** | **+2.2** |
| APSI | | | | S | **S** | **22 05 24.7** | **+1.2** |
| **LBMI** | **Labuha** | **3.74** | **122** | P | **Pn** | **22 04 43.3** | **+3.0** |
| LBMI | | | | S | **S** | **22 05 30.7** | **+2.2** |
| **SANI** | **Sanana** | **3.76** | **154** | P | **Pn** | **22 04 41.7** | **+1.1** |
| SANI | | | | S | **S** | **22 05 26.9** | **-2.2** |
| **MPSI** | **Mapaga** | **4.54** | **257** | P | **Pn** | **22 04 51.8** | **+2.1** |
| MPSI | | | | S | **S** | **22 05 46.3** | **+0.7** |
| **PCI** | **Palu** | **5.02** | **243** | P | **Pn** | **22 04 57.7** | **+2.2** |
| PCI | | | | S | **S** | **22 05 57.5** | **+1.3** |
| **TTSI** | **Tana Toraja** | **6.28** | **226** | P | **Pn** | **22 05 13.5** | **+2.4** |
| TTSI | | | | S | **S** | **22 06 25.2** | **+0.7** |
| **AAI** | **Ambon** | **6.32** | **142** | P | **Pn** | **22 05 15.5** | **+3.8** |
| **SPSI** | **Sidrap Palu** | **6.97** | **221** | P | **Pn** | **22 05 21.6** | **+1.7** |
| **SWI** | **Sorong** | **7.27** | **108** | P | **Pn** | **22 05 27.2** | **+3.6** |
| **FITZ** | **Fitzroy Crossi** | **19.37** | **176** | P | **P** | **22 07 46.6** | **-0.3** |
| | 0.4nm,0.3s,baz=5.4,slow=10,SNR=11 | | | | | | |
| **WRA** | **Warramunga Arr** | **23.33** | **156** | P | **P** | **22 08 25.9** | **+0.2** |
| | 5.3nm,0.3s,baz=333,slow=10,SNR=88 | | | | | | |
| WRA | | | | S | **S** | **22 12 14.2** | **-5.4** |
| | 1.4nm,0.7s,baz=334,slow=17,SNR=5.9 | | | | | | |
| **ASAR** | **Alice Springs** | **26.55** | **160** | P | **P** | **22 08 55.2** | **+0.5** |
| | 1.3nm,0.5s,baz=340,slow=7.6,SNR=23 | | | | | | |
| ASAR | | | | pP | **pP** | **22 09 46.1** | **+2.4** |
| | 0.8nm,0.8s,baz=329,slow=8.9,SNR=3.4 | | | | | | |
| ASAR | | | | PcP | **PcP** | **22 12 12.1** | **-0.4** |
| | 0.6nm,0.5s,baz=345,slow=2.1,SNR=4.6 | | | | | | |
| **STKA** | **Stephens Creek** | **36.88** | **155** | P | **P** | **22 10 24.3** | **-0.1** |
| | 2.8nm,0.8s,baz=316,slow=8.7,SNR=5.1 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **37.30** | **19** | P | **P** | **22 10 27.9** | **+0.1** |
| | 2.3nm,0.6s,baz=193,slow=9.1,SNR=7.2 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **43.20** | **8** | P | **P** | **22 11 17.0** | **+1.0** |
| | 2.2nm,0.5s,baz=198,slow=9.1,SNR=4.2 | | | | | | |
| **KLR** | **Kul'dur** | **48.12** | **7** | P | **P** | **22 11 54.4** | **+0.1** |
| | 0.1nm,0.3s,baz=202,slow=2.5,SNR=5.6 | | | | | | |
| **SONM** | **Songino Array** | **48.84** | **344** | P | **P** | **22 11 59.0** | **-1.0** |
| | 0.7nm,0.7s,baz=156,slow=8.4,SNR=5.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **58.19** | **327** | P | **P** | **22 13 06.7** | **-0.9** |
| | 0.8nm,0.4s,baz=126,slow=7.5,SNR=30 | | | | | | |
| MKAR | | | | PcP | **PcP** | **22 13 55.1** | **-1.0** |
| | 1.0nm,0.7s,baz=142,slow=2.0,SNR=4.7 | | | | | | |
| **PETK** | **Petropavlovsk-** | **58.53** | **23** | P | **P** | **22 13 10.9** | **+1.1** |
| | 3.6nm,0.6s,baz=190,slow=5.6,SNR=5.1 | | | | | | |
| **YAK** | **Yakutsk** | **60.66** | **3** | P | **P** | **22 13 23.3** | **-0.8** |
| | 5.2nm,0.4s,baz=186,slow=0.6,SNR=4.5 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **61.65** | **335** | P | **P** | **22 13 28.9** | **-1.9** |
| | 0.4nm,0.3s,baz=145,slow=4.6,SNR=3.1 | | | | | | |
| **SEY** | **Seymchan** | **64.89** | **14** | P | **P** | **22 13 52.4** | **+0.5** |
| | 1.4nm,0.5s,baz=237,slow=16,SNR=4.1 | | | | | | |
| **BVAR** | **Borovoye Array** | **68.03** | **328** | P | **P** | **22 14 10.5** | **-1.4** |
| | 0.3nm,0.3s,baz=126,slow=7.3,SNR=5.9 | | | | | | |
| **ILAR** | **Eielson Array** | **88.27** | **25** | P | **P** | **22 16 01.2** | **-1.1** |
| | 0.3nm,0.9s,baz=268,slow=4.5,SNR=3.6 | | | | | | |
| **ARCES** | **ARCESS Array B** | **91.83** | **340** | P | **P** | **22 16 16.6** | **-2.2** |
| | 0.9nm,0.7s,baz=70,slow=6.0,SNR=2.6 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **121.32** | **286** | PKP | **PKPdf** | **22 22 02.5** | **-1.4** |
| | 0.2nm,0.5s,baz=78,slow=2.2,SNR=3.9 | | | | | | |

*SKO **16** 22:04:31.6, 40°12N×20°58E, h0km, M2.0, ML2.4*
*CSEM **16** 22:04:32.9±0.2, 40°16N×20°73E, h2km, ML2.4, Error ellipse: s-maj=3.9km s-min=3.2km az=107.0*
*THE **16** 22:04:32.7, 40°16N×20°74E, h0km±1km, ML2.4/7, Error ellipse: s-maj=1.8km s-min=0.5km az=272.0*
*ATH **16** 22:04:32.5, 40°18N×20°72E, h15km±1km, ML2.5/11, Error ellipse: s-maj=1.7km s-min=0.8km az=101.0*

**ISC 16 22:04:32.8±1.1, 40°17N±0°02×20°73E±0°02, h5km±10km, n60, σ0s69/92, Greece-Albania border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PENT** | **Pentalofos** | **0.32** | **84** | P | **Pg** | **22 04 38.3** | **-0.7** |
| **PENT** | **Pentalofos** | **0.32** | **84** | P | **Pg** | **22 04 38.7** | **-0.3** |
| **PENT** | **Pentalofos** | **0.32** | **84** | P | **Pg** | **22 04 38.7** | **-0.3** |
| **NEST** | **Nestorio** | **0.35** | **45** | P | **Pg** | **22 04 39.3** | **-0.4** |
| NEST | | | | S | **Sg** | **22 04 44.8** | **+0.5** |
| NEST | | | | AML | AML | 22 04 46.5 | |
| | comp=E,1884μm,0.3s | | | | | | |
| NEST | | | | AML | AML | 22 04 46.6 | |
| | comp=N,1302μm,0.3s | | | | | | |
| **NEST** | **Nestorio** | **0.35** | **45** | P | **Pg** | **22 04 39.4** | **-0.3** |
| NEST | | | | S | **Sg** | **22 04 44.6** | **+0.3** |
| **NEST** | **Nestorio** | **0.35** | **45** | P | **Pg** | **22 04 39.4** | **-0.3** |
| NEST | | | | S | **Sg** | **22 04 44.6** | **+0.3** |
| **JAN** | **Janina** | **0.52** | **169** | P | **Pg** | **22 04 42.4** | **-0.4** |
| JAN | | | | S | **Sb** | **22 04 50.9** | **-1.3** |
| JAN | | | | AML | AML | 22 04 53.9 | |
| | comp=E,1890μm,0.3s | | | | | | |
| JAN | | | | AML | AML | 22 04 54.7 | |
| | comp=N,1369μm,0.3s | | | | | | |
| **JAN** | **Janina** | **0.52** | **169** | P | **Pg** | **22 04 42.4** | **-0.4** |
| JAN | | | | S | **Sg** | **22 04 50.0** | **+0.5** |
| **JAN** | **Janina** | **0.52** | **169** | P | **Pg** | **22 04 41.6** | **-1.1** |
| JAN | | | | S | **Sg** | **22 04 50.0** | **+0.5** |
| **KPRO** | **Kipourio** | **0.53** | **113** | P | **Pg** | **22 04 43.4** | **+0.3** |
| KPRO | | | | S | **Sb** | **22 04 51.5** | **-1.2** |
| KPRO | | | | AML | AML | 22 04 54.9 | |
| | comp=N,1460μm,0.6s | | | | | | |
| KPRO | | | | AML | AML | 22 04 56.8 | |
| | comp=E,1639μm,0.5s | | | | | | |
| **KPRO** | **Kipourio** | **0.53** | **113** | P | **Pg** | **22 04 43.4** | **+0.3** |
| KPRO | | | | S | **Sb** | **22 04 51.5** | **-1.2** |
| **KPRO** | **Kipourio** | **0.53** | **113** | P | **Pg** | **22 04 42.3** | **-0.8** |
| **SGD** | **Sagiada** | **0.67** | **215** | P | **Pg** | **22 04 46.0** | **+0.4** |
| **SGD** | **Sagiada** | **0.67** | **215** | P | **Pg** | **22 04 45.5** | **-0.1** |
| **SGD** | **Sagiada** | **0.67** | **215** | P | **Pg** | **22 04 45.5** | **-0.1** |
| **KZN** | **Kozani** | **0.81** | **80** | P | **Pg** | **22 04 48.7** | **+0.3** |
| KZN | | | | S | **Sg** | **22 04 59.8** | **+0.8** |
| KZN | | | | AML | AML | 22 05 04.4 | |
| | comp=N,510μm,0.5s | | | | | | |
| KZN | | | | AML | AML | 22 05 04.8 | |
| | comp=E,732μm,0.4s | | | | | | |
| **KZN** | **Kozani** | **0.81** | **80** | P | **Pg** | **22 04 48.7** | **+0.3** |
| KZN | | | | S | **Sg** | **22 04 59.8** | **+0.8** |
| **KZN** | **Kozani** | **0.81** | **80** | P | **Pg** | **22 04 48.0** | **-0.4** |
| KZN | | | | S | **Sg** | **22 04 59.8** | **+0.8** |
| **KEK** | **Kerkira** | **0.84** | **238** | P | **Pg** | **22 04 48.8** | **-0.2** |
| KEK | | | | S | **Sg** | **22 05 00.2** | **+0.3** |
| KEK | | | | AML | AML | 22 05 05.5 | |
| | comp=N,422μm,0.9s | | | | | | |
| KEK | | | | AML | AML | 22 05 05.7 | |
| | comp=E,504μm,0.4s | | | | | | |
| **KEK** | **Kerkira** | **0.84** | **238** | P | **Pg** | **22 04 48.8** | **-0.2** |
| KEK | | | | S | **Sg** | **22 05 00.2** | **+0.3** |
| **KEK** | **Kerkira** | **0.84** | **238** | P | **Pg** | **22 04 48.4** | **-0.6** |
| KEK | | | | S | **Sb** | **22 05 01.8** | **+0.2** |
| **OHR** | **Ohrid** | **0.95** | **3** | *i* Pg | **Pg** | **22 04 48.7** | **-2.3** |
| OHR | | | | *i* Sg | **Sb** | **22 05 04.7** | **0.0** |
| OHR | | | | *e*Lg | Lg | 22 05 05.8 | |
| | comp=E,131nm,0.5s | | | | | | |
| OHR | | | | *e*Lg | Lg | 22 05 08.0 | |
| | comp=N,91nm,0.5s | | | | | | |
| **BIA** | **Bitola** | **0.97** | **28** | P | **Pg** | **22 04 50.5** | **-0.9** |
| BIA | | | | S | **Sb** | **22 05 05.7** | **+0.4** |
| **BIA** | **Bitola** | **0.97** | **28** | P | **Pg** | **22 04 50.5** | **-0.9** |
| BIA | | | | S | **Sb** | **22 05 05.7** | **+0.4** |
| **BIA** | **Bitola** | **0.97** | **28** | *i* Pg | **Pg** | **22 04 50.4** | **-1.0** |
| BIA | | | | *i* Sg | **Sb** | **22 05 05.2** | **-0.1** |
| **DSL** | **Palaion Diasel** | **1.07** | **164** | P | **Pb** | **22 04 53.5** | **-0.3** |
| DSL | | | | S | **Sb** | **22 05 07.9** | **-0.2** |
| DSL | | | | AML | AML | 22 05 15.5 | |
| | comp=N,376μm,0.8s | | | | | | |
| DSL | | | | AML | AML | 22 05 18.5 | |
| | comp=E,405μm,0.7s | | | | | | |
| **DSL** | **Palaion Diasel** | **1.07** | **164** | P | **Pb** | **22 04 53.5** | **-0.3** |
| DSL | | | | S | **Sb** | **22 05 07.9** | **-0.2** |
| **THL** | **Klokotos Trika** | **1.16** | **121** | P | **Pg** | **22 04 54.6** | **-0.5** |
| **THL** | **Klokotos Trika** | **1.16** | **121** | P | **Pg** | **22 04 54.6** | **-0.5** |
| THL | | | | S | **Sn** | **22 05 11.8** | **-0.1** |
| **THL** | **Klokotos Trika** | **1.16** | **121** | P | **Pg** | **22 04 54.5** | **-0.5** |
| THL | | | | S | **Sn** | **22 05 11.8** | **-0.1** |
| **KRUS** | **Krusevo** | **1.27** | **18** | *i* Pg | **Pg** | **22 04 55.2** | **-1.9** |
| KRUS | | | | *i* Sg | **Sb** | **22 05 14.0** | **+0.1** |
| **TIR** | **Tirane** | **1.35** | **331** | P | **Pb** | **22 04 59.3** | **+0.7** |
| TIR | | | | AML | AML | 22 05 26.7 | |
| | comp=N,438μm,0.8s | | | | | | |
| TIR | | | | AML | AML | 22 05 29.5 | |
| | comp=E,442μm,1.2s | | | | | | |
| **TIR** | **Tirane** | **1.35** | **331** | P | **Pb** | **22 04 59.3** | **+0.7** |
| **LIT** | **Litokhoron** | **1.35** | **92** | P | **Pb** | **22 04 59.1** | **+0.5** |
| LIT | | | | S | **Sg** | **22 05 15.5** | **-0.8** |
| LIT | | | | AML | AML | 22 05 21.0 | |
| | comp=E,360μm,0.5s | | | | | | |
| LIT | | | | AML | AML | 22 05 26.1 | |
| | comp=N,340μm,0.5s | | | | | | |
| **LIT** | **Litokhoron** | **1.35** | **92** | P | **Pg** | **22 04 57.8** | **-1.0** |
| LIT | | | | S | **Sg** | **22 05 15.5** | **-0.8** |
| **LIT** | **Litokhoron** | **1.35** | **92** | P | **Pg** | **22 04 57.8** | **-1.0** |
| LIT | | | | S | **Sn** | **22 05 17.8** | **+1.0** |
| **LKD2** | **Lefkada island** | **1.38** | **182** | P | **Pn** | **22 04 58.5** | **-0.2** |
| **LKD2** | **Lefkada island** | **1.38** | **182** | P | **Pn** | **22 04 58.5** | **-0.2** |
| **EVR** | **Evrytania** | **1.50** | **146** | P | **Pb** | **22 05 01.3** | **0.0** |
| EVR | | | | AML | AML | 22 05 33.3 | |
| | comp=E,192μm,0.9s | | | | | | |
| EVR | | | | AML | AML | 22 05 34.0 | |
| | comp=N,225μm,0.6s | | | | | | |
| **EVR** | **Evrytania** | **1.50** | **146** | P | **Pn** | **22 05 00.3** | **-0.2** |
| **EVR** | **Evrytania** | **1.50** | **146** | P | **Pn** | **22 05 00.3** | **-0.2** |
| **GRG** | **Griva** | **1.50** | **58** | P | **Pn** | **22 05 00.7** | **+0.2** |
| GRG | | | | S | **Sg** | **22 05 21.2** | **+0.1** |
| GRG | | | | AML | AML | 22 05 29.9 | |
| | comp=E,123μm,0.6s | | | | | | |
| GRG | | | | AML | AML | 22 05 31.8 | |
| | comp=N,210μm,0.7s | | | | | | |
| **GRG** | **Griva** | **1.50** | **58** | P | **Pn** | **22 05 00.7** | **+0.2** |
| GRG | | | | S | **Sg** | **22 05 21.0** | **-0.1** |
| **GRG** | **Griva** | **1.50** | **58** | P | **Pn** | **22 05 00.0** | **-0.5** |
| GRG | | | | S | **Sg** | **22 05 21.0** | **-0.1** |
| **AGG** | **Agios Georgios** | **1.69** | **132** | P | **Pb** | **22 05 04.6** | **+0.3** |
| AGG | | | | S | **Sg** | **22 05 28.0** | **+1.0** |
| AGG | | | | AML | AML | 22 05 37.4 | |
| | comp=N,550μm,0.5s | | | | | | |
| AGG | | | | AML | AML | 22 05 40.0 | |
| | comp=E,476μm,0.5s | | | | | | |
| **AGG** | **Agios Georgios** | **1.69** | **132** | P | **Pb** | **22 05 04.6** | **+0.3** |
| AGG | | | | S | **Sg** | **22 05 28.0** | **+1.0** |
| **SCTE** | **Santa Cesarea** | **1.73** | **268** | P | **Pn** | **22 05 03.5** | **-0.1** |
| **SCTE** | **Santa Cesarea** | **1.73** | **268** | P | **Pn** | **22 05 03.5** | **-0.1** |
| **VAY** | **Valandovo** | **1.82** | **50** | *e*Pn | **Pn** | **22 05 05.2** | **+0.5** |
| VAY | | | | *i* Sg | **Sg** | **22 05 32.6** | **+1.4** |
| VAY | | | | *e*Lg | Lg | 22 05 36.5 | |
| | comp=E,18nm,0.6s | | | | | | |
| VAY | | | | *e*Lg | Lg | 22 05 37.1 | |
| | comp=N,26nm,0.7s | | | | | | |
| **SKO** | **Skopje** | **1.88** | **16** | *e*Pn | **Pn** | **22 05 06.2** | **+0.5** |
| **KNT** | **Kendrikon** | **1.93** | **58** | P | **Pn** | **22 05 05.2** | **-1.1** |
| **KNT** | **Kendrikon** | **1.93** | **58** | P | **Pn** | **22 05 05.2** | **-1.1** |
| **XOR** | **Xorichti** | **2.06** | **112** | P | **Pn** | **22 05 08.0** | **-0.1** |
| **PLG** | **Polygyros** | **2.09** | **83** | P | **Pn** | **22 05 09.2** | **+0.7** |
| **NEO** | **Neokhori** | **2.11** | **113** | P | **Pn** | **22 05 09.3** | **+0.5** |
| **NVR** | **Nevrokopi** | **2.66** | **63** | P | **Pn** | **22 05 17.3** | **+0.9** |
| **NVR** | **Nevrokopi** | **2.66** | **63** | P | **Pn** | **22 05 17.3** | **+0.9** |
| **BARS** | **Barje** | **2.77** | **17** | *e*P | **Pn** | **22 05 18.4** | **+0.5** |
| **BOVS** | **Bovan** | **3.54** | **12** | *e*P | **Pn** | **22 05 28.1** | **-0.4** |
| **ZAGS** | **Zajecar** | **3.81** | **17** | *e*P | **Pn** | **22 05 32.7** | **+0.5** |

*ISK **16** 22:06:31.9, 37°49N×26°74E, h7km, MD2.7*
*ATH **16** 22:06:31.7, 37°52N×26°90E, h15km±5km, ML1.9/3, Error ellipse: s-maj=5.9km s-min=1.5km az=87.0*
*ISCJB **16** 22:06:32.1±0.5, 37°51N±0°02×26°83E±0°04, h2km±5km, Error ellipse: s-maj=5.3km s-min=3.2km az=144.8*
*CSEM **16** 22:06:32.2±0.2, 37°50N×26°83E, h5km, ML1.9, Error ellipse: s-maj=6.0km s-min=5.0km az=27.0*
*DDA **16** 22:06:32.5, 37°54N×26°88E, h7km, Md2.6*

**ISC 16 22:06:32.0±0.9, 37°52N±0°03×26°89E±0°02, h15km±6km, n34, σ0s96/54, Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SMG** | **Samos** | **0.19** | **347** | P | **Pg** | **22 06 36.2** | **-0.4** |
| SMG | | | | S | **Sg** | **22 06 39.6** | **0.0** |
| SMG | | | | AML | AML | 22 06 39.9 | |
| | comp=N,3035μm,0.2s | | | | | | |
| SMG | | | | AML | AML | 22 06 40.0 | |
| | comp=E,2202μm,0.3s | | | | | | |
| **SMG** | **Samos** | **0.19** | **347** | P | **Pg** | **22 06 36.2** | **-0.4** |
| SMG | | | | S | **Sg** | **22 06 39.6** | **0.0** |
| **GCAM** | **G?zelcaml?** | **0.33** | **57** | *i* P | **Pb** | **22 06 39.6** | **+0.1** |
| GCAM | | | | *i* S | **Sb** | **22 06 45.1** | **+0.6** |
| **GCAM** | **G?zelcaml?** | **0.33** | **57** | P | **Pb** | **22 06 39.6** | **+0.1** |
| GCAM | | | | S | **Sb** | **22 06 45.2** | **+0.6** |
| **DGB** | **˜zmir** | **0.53** | **359** | *i* P | **Pg** | **22 06 42.4** | **-0.1** |
| DGB | | | | *i* S | **Sg** | **22 06 50.0** | **+0.4** |
| **BODT** | **Bodrum** | **0.57** | **144** | *e*PG | **Pb** | **22 06 44.2** | **+0.5** |
| BODT | | | | *e*SG | **Sn** | **22 06 53.5** | **-1.2** |
| **BODT** | **Bodrum** | **0.57** | **144** | *e*Pg | **Pb** | **22 06 44.2** | **+0.5** |
| **BDRM** | **Kayabasi** | **0.64** | **136** | *i* P | **Pb** | **22 06 45.2** | **+0.4** |
| BDRM | | | | *i* S | **Sb** | **22 06 54.8** | **+1.3** |
| **BDRM** | **Kayabasi** | **0.64** | **136** | P | **Pb** | **22 06 45.2** | **+0.4** |
| BDRM | | | | S | **Sb** | **22 06 54.8** | **+1.3** |
| **ZEY** | **˜zmir** | **0.78** | **337** | *i* P | **Pg** | **22 06 47.2** | **0.0** |
| ZEY | | | | *i* S | **Sb** | **22 06 58.0** | **+0.4** |
| **AYDN** | **Tasoluk** | **0.80** | **80** | *i* P | **Pb** | **22 06 48.2** | **+0.6** |
| AYDN | | | | *i* S | **Sb** | **22 06 59.2** | **+0.9** |
| **AYDN** | **Tasoluk** | **0.80** | **80** | P | **Pb** | **22 06 48.2** | **+0.6** |
| AYDN | | | | S | **Sb** | **22 06 59.2** | **+0.9** |
| **URLA** | **Izmir** | **0.87** | **345** | *e*PG | **Pg** | **22 06 49.2** | **+0.3** |
| URLA | | | | *e*SG | **Sn** | **22 07 01.9** | **-0.2** |
| **URLA** | **Izmir** | **0.87** | **345** | *i* P | **Pg** | **22 06 49.2** | **+0.3** |
| URLA | | | | *i* S | **Sn** | **22 07 02.5** | **+0.4** |
| **URLA** | **Izmir** | **0.87** | **345** | P | **Pg** | **22 06 49.2** | **+0.3** |
| URLA | | | | S | **Sn** | **22 07 02.5** | **+0.4** |
| **CHOS** | **Chios island** | **1.09** | **323** | *e*PG | **Pb** | **22 06 52.5** | **-0.1** |
| CHOS | | | | *e*SG | **Sg** | **22 07 07.4** | **+0.1** |
| **CHOS** | **Chios island** | **1.09** | **323** | P | **Pb** | **22 06 52.6** | **0.0** |
| CHOS | | | | S | **Sn** | **22 07 07.6** | **0.0** |
| CHOS | | | | AML | AML | 22 07 13.4 | |
| | comp=N,88μm,0.5s | | | | | | |
| CHOS | | | | AML | AML | 22 07 17.0 | |
| | comp=E,76μm,0.5s | | | | | | |
| **CHOS** | **Chios island** | **1.09** | **323** | P | **Pb** | **22 06 52.6** | **0.0** |
| CHOS | | | | S | **Sn** | **22 07 07.6** | **0.0** |
| **APE** | **Apeiranthos** | **1.18** | **248** | *e*PG | **Pn** | **22 06 52.7** | **-1.2** |
| **APE** | **Apeiranthos** | **1.18** | **248** | P | **Pb** | **22 06 54.0** | **0.0** |
| APE | | | | S | **Sg** | **22 07 10.4** | **+0.4** |
| APE | | | | AML | AML | 22 07 13.1 | |
| | comp=E,51μm,0.2s | | | | | | |
| APE | | | | AML | AML | 22 07 16.4 | |
| | comp=N,46μm,0.2s | | | | | | |
| **APE** | **Apeiranthos** | **1.18** | **248** | *e*Pg | **Pn** | **22 06 52.7** | **-1.2** |
| **APE** | **Apeiranthos** | **1.18** | **248** | P | **Pb** | **22 06 54.0** | **0.0** |
| APE | | | | S | **Sg** | **22 07 10.4** | **+0.4** |
| **TURN** | **Turunc** | **1.51** | **115** | *e*PN | **Pn** | **22 06 58.6** | **+0.1** |
| **TURN** | **Turunc** | **1.51** | **115** | *i* P | **Pn** | **22 06 58.1** | **-0.4** |
| TURN | | | | *i* S | **Sn** | **22 07 12.5** | **-5.4** |
| **TURN** | **Turunc** | **1.51** | **115** | P | **Pn** | **22 06 58.1** | **-0.4** |
| **TURN** | **Turunc** | **1.51** | **115** | *e*Pn | **Pn** | **22 06 58.6** | **+0.1** |
| **DALY** | **Dalyan (Mu˘la** | **1.57** | **116** | *e*PN | **Pg** | **22 07 02.5** | **+0.2** |
| **DALY** | **Dalyan (Mu˘la** | **1.57** | **116** | *e*Pn | **Pg** | **22 07 02.5** | **+0.2** |
| **KULA** | **Kula-Manisa** | **1.71** | **54** | *e*PN | **Pg** | **22 07 04.5** | **-0.5** |
| **KULA** | **Kula-Manisa** | **1.71** | **54** | *e*Pn | **Pg** | **22 07 04.5** | **-0.5** |
| **FETY** | **Fethiye** | **1.96** | **116** | *e*PN | **Pb** | **22 07 07.8** | **+0.3** |
| **FETY** | **Fethiye** | **1.96** | **116** | *e*Pn | **Pb** | **22 07 07.8** | **+0.3** |
| **KARP** | **Karpathos** | **1.98** | **174** | *e*PN | **Pn** | **22 07 06.1** | **+1.0** |
| **KARP** | **Karpathos** | **1.98** | **174** | *e*Pn | **Pn** | **22 07 06.1** | **+1.0** |

*ISCJB **16** 22:06:39.0±1.0, 21°0N±0°1×144°5E±0°3, h300km, mb3.3/11, Error ellipse: s-maj=32.6km s-min=15.1km az=177.3*
*IDC **16** 22:06:39.9±14.0, 20°99N×144°49E, h295km±146km, mb3.2/11, mb1 3.3/11, mb1mx3.0/42, mbtmp3.8/11, Error ellipse: s-maj=41.8km s-min=15.9km az=69.0*

**ISC 16 22:06:40.4±1.2, 21°0N±0°1×144°5E±0°3, h300km, n11, σ0s58/11, mb3.2/11, Mariana Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SONM** | **Songino Array** | **40.65** | **320** | P | **P** | **22 13 51.7** | **-0.3** |
| | 0.2nm,0.4s,baz=130,slow=7.4,SNR=5.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **41.85** | **194** | P | **P** | **22 14 01.9** | **+0.1** |
| | 0.5nm,0.3s,baz=14,slow=8.7,SNR=17 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **42.81** | **275** | P | **P** | **22 14 10.3** | **+0.7** |
| | 0.4nm,0.5s,baz=92,slow=7.3,SNR=3.2 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **42.99** | **207** | P | **P** | **22 14 10.9** | **0.0** |
| | 1.5nm,0.5s,baz=22,slow=13,SNR=6.2 | | | | | | |
| **ASAR** | **Alice Springs** | **45.54** | **194** | P | **P** | **22 14 30.8** | **-0.3** |
| | 0.3nm,0.3s,baz=10,slow=7.0,SNR=5.4 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **55.51** | **322** | P | **P** | **22 15 45.3** | **+0.6** |
| | 0.3nm,0.4s,baz=111,slow=7.8,SNR=4.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **56.06** | **313** | P | **P** | **22 15 48.4** | **-0.4** |
| | 0.6nm,0.5s,baz=85,slow=9.4,SNR=8.4 | | | | | | |
| **BVAR** | **Borovoye Array** | **63.99** | **320** | P | **P** | **22 16 41.8** | **-0.4** |
| | 1.1nm,0.4s,baz=96,slow=7.5,SNR=12 | | | | | | |
| **YKA** | **Yellowknife Ar** | **76.54** | **28** | P | **P** | **22 17 57.6** | **0.0** |
| | 0.1nm,0.3s,baz=290,slow=5.6,SNR=3.2 | | | | | | |
| **ARCES** | **ARCESS Array B** | **79.98** | **342** | P | **P** | **22 18 17.3** | **+1.1** |
| | 2.7nm,0.9s,baz=72,slow=8.7,SNR=5.4 | | | | | | |
| **FINES** | **FINESS Array B** | **84.34** | **335** | P | **P** | **22 18 38.3** | **-0.5** |
| | 0.8nm,0.6s,baz=58,slow=5.2,SNR=8.6 | | | | | | |

**IDC 16 22:07:41.0±3.6, 21°44N×145°65E, h0km, mb3.6/4, mb1 3.8/4, mb1mx3.3/39, mbtmp3.6/4, Error ellipse: s-maj=147.9km s-min=30.0km az=81.0, Mariana Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **42.59** | **196** | P | P | 22 15 38.9 | -0.1 |
| | 0.1nm,0.3s,baz=15,slow=9.2,SNR=3.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **56.56** | **313** | P | P | 22 17 25.6 | +0.1 |
| | 0.1nm,0.4s,baz=87,slow=8.5,SNR=2.0 | | | | | | |
| **BVAR** | **Borovoye Array** | **64.36** | **320** | P | P | 22 18 18.7 | +0.1 |
| | 0.4nm,0.6s,baz=96,slow=6.4,SNR=3.7 | | | | | | |
| **FINES** | **FINESS Array B** | **84.39** | **335** | P | P | 22 20 14.7 | -0.4 |
| | 2.6nm,0.9s,baz=46,slow=4.0,SNR=4.1 | | | | | | |

**MEX 16 22:11:36.

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| | baz=264 | | | | | | |
| SGST | | | | *e*S | Sg | 22 20 07.0 | -0.1 |
| | baz=264 | | | | | | |
| CHN4 | Tsaushan | 0.99 | 280 | *e*P | Pb | 22 19 54.0 | +0.5 |
| | baz=281 | | | | | | |
| CHN4 | | | | *e*S | Sg | 22 20 07.1 | 0.0 |
| | baz=281 | | | | | | |
| WHF | Hehuan Shan | 1.03 | 340 | *e*P | Pb | 22 19 53.7 | -0.8 |
| | baz=352 | | | | | | |
| TYC | Yuchr | 1.03 | 315 | *e*P | Pb | 22 19 53.9 | -0.2 |
| | baz=326 | | | | | | |
| TYC | | | | *e*S | Sg | 22 20 07.5 | -0.8 |
| | baz=326 | | | | | | |
| SSD | Sandimen | 1.04 | 246 | *e*P | Pb | 22 19 54.2 | 0.0 |
| | baz=243 | | | | | | |
| SSD | | | | *e*S | Sb | 22 20 07.8 | +0.3 |
| | baz=243 | | | | | | |
| CHN1 | Nanshi | 1.04 | 271 | *e*P | Pb | 22 19 54.8 | +0.5 |
| | baz=271 | | | | | | |
| CHN1 | | | | *e*S | Sg | 22 20 08.5 | 0.0 |
| | baz=271 | | | | | | |
| TAW | Tawu | 1.07 | 221 | *e*P | Pb | 22 19 55.4 | +0.6 |
| | baz=223 | | | | | | |
| TAW | | | | *e*S | Sb | 22 20 06.5 | -2.1 |
| | baz=223 | | | | | | |
| TWK | Hsinying | 1.08 | 275 | *e*P | Pb | 22 19 55.6 | +0.7 |
| | baz=276 | | | | | | |
| TWK | | | | *e*S | Sg | 22 20 09.6 | -0.2 |
| | baz=276 | | | | | | |
| EAST | Anshuo | 1.08 | 224 | *e*P | Pb | 22 19 54.2 | -0.9 |
| | baz=219 | | | | | | |
| WGK | Gukeng | 1.13 | 297 | *e*P | Pn | 22 19 56.3 | +0.6 |
| | baz=310 | | | | | | |
| WGK | | | | *e*S | Sn | 22 20 11.2 | +0.4 |
| | baz=310 | | | | | | |
| WNT | Mingjian | 1.13 | 308 | *e*P | Pg | 22 19 56.8 | +0.1 |
| | baz=312 | | | | | | |
| WNT | | | | *e*S | Sn | 22 20 11.0 | 0.0 |
| | baz=312 | | | | | | |
| CHN2 | Minshiung | 1.14 | 288 | *e*P | Pg | 22 19 57.0 | +0.1 |
| | baz=278 | | | | | | |
| CHN2 | | | | *e*S | Sn | 22 20 11.8 | +0.6 |
| | baz=278 | | | | | | |
| CHY | Chiayi | 1.18 | 286 | *e*P | Pb | 22 19 56.6 | 0.0 |
| | baz=288 | | | | | | |
| CHY | | | | *e*S | Sn | 22 20 11.8 | -0.3 |
| | baz=288 | | | | | | |
| CHN3 | Shinhua | 1.19 | 266 | *e*S | Sb | 22 20 12.5 | +0.5 |
| | baz=265 | | | | | | |
| SCZT | Fangliau | 1.25 | 230 | *e*P | Pn | 22 19 58.1 | +0.8 |
| | baz=228 | | | | | | |
| SCZT | | | | *e*S | Sb | 22 20 13.9 | +0.3 |
| | baz=228 | | | | | | |
| ENA | Nanau | 1.25 | 4 | *e*P | Pn | 22 19 57.1 | -0.3 |
| | baz=16 | | | | | | |
| ENA | | | | *e*S | Sb | 22 20 12.6 | -1.1 |
| | baz=16 | | | | | | |
| NNS | Nan Shan | 1.29 | 348 | *e*P | Pg | 22 19 59.5 | -0.2 |
| | baz=2.0 | | | | | | |
| TCU | Taichung | 1.32 | 317 | *e*P | Pb | 22 19 59.3 | +0.2 |
| | baz=309 | | | | | | |
| TCU | | | | *e*S | Sn | 22 20 15.7 | +0.1 |
| | baz=309 | | | | | | |
| TAI1 | Yung-k'ang | 1.32 | 264 | *e*S | Sn | 22 20 16.4 | +0.8 |
| | baz=264 | | | | | | |
| CHN8 | Yiju | 1.34 | 278 | *e*P | Pn | 22 19 58.6 | 0.0 |
| | baz=278 | | | | | | |
| CHN8 | | | | *e*S | Sb | 22 20 15.7 | -0.6 |
| | baz=278 | | | | | | |
| WSF | Szhu | 1.40 | 290 | *e*S | Sn | 22 20 16.6 | -0.9 |
| | baz=291 | | | | | | |
| TWQ1 | Liyutan | 1.42 | 325 | *e*P | Pb | 22 20 01.1 | +0.3 |
| | baz=330 | | | | | | |
| TWQ1 | | | | *e*S | Sb | 22 20 18.5 | -0.2 |
| | baz=330 | | | | | | |
| TWC | Suao | 1.44 | 7 | P | Pn | 22 20 00.5 | +0.5 |
| | baz=22 | | | | | | |
| TWC | | | | *e*S | Sn | 22 20 17.7 | -0.8 |
| | baz=22 | | | | | | |
| HEN | Hengchun | 1.44 | 216 | *e*S | Sn | 22 20 17.4 | -1.2 |
| | baz=203 | | | | | | |
| TWK1 | Hengchun | 1.46 | 213 | *e*S | Sn | 22 20 17.2 | -1.7 |
| | baz=199 | | | | | | |
| ENTT | Nioudou | 1.46 | 357 | *e*P | Pn | 22 20 00.4 | 0.0 |
| | baz=353 | | | | | | |
| ENTT | | | | *e*S | Sn | 22 20 18.5 | -0.6 |
| | baz=353 | | | | | | |
| NSY | Sanyi | 1.48 | 327 | *e*P | Pn | 22 20 00.6 | -0.1 |
| | baz=331 | | | | | | |
| NSY | | | | *e*S | Sg | 22 20 21.4 | -1.3 |
| | baz=331 | | | | | | |
| NSK | Sanguang | 1.52 | 350 | *e*P | Pn | 22 20 01.8 | +0.6 |
| | baz=354 | | | | | | |
| NSK | | | | *e*S | Sn | 22 20 19.3 | -1.4 |
| | baz=354 | | | | | | |
| TWE | Neicheng | 1.54 | 0 | *e*P | Pn | 22 20 01.6 | +0.1 |
| | baz=357 | | | | | | |
| TWE | | | | *e*S | Sn | 22 20 21.0 | 0.0 |
| | baz=357 | | | | | | |
| NSTT | Nanjuang | 1.57 | 338 | *e*P | Pn | 22 20 02.4 | +0.6 |
| | baz=342 | | | | | | |
| NSTT | | | | *e*S | Sn | 22 20 21.6 | -0.2 |
| | baz=342 | | | | | | |
| JKRS | Kuro-shima | 2.40 | 63 | P | Pn | 22 20 14.4 | +1.1 |
| JKRS | | | | *e*S | Sn | 22 20 42.6 | +0.3 |
| JIJ | Ishigaki jima | 2.57 | 62 | P | Pn | 22 20 16.0 | +0.4 |
| JIJ | | | | *e*S | Sn | 22 20 46.4 | 0.0 |
| JISG | Ishigakijimahi | 2.81 | 59 | P | Pn | 22 20 19.2 | +0.3 |
| JISG | | | | *e*S | Sn | 22 20 51.2 | -1.1 |
| JTJ | Tarama | 3.15 | 62 | P | Pn | 22 20 24.6 | +1.1 |
| JTJ | | | | S | Sn | 22 21 00.9 | +0.2 |

*IDC **16** 22:20:17.6±1.8, 2°.72S×130°.10E, h0km, mb3.8/3, mb1 3.9/5, mb1mx3.5/42, mbtmp3.8/5, ML3.7/2, MS4.3/5, Ms1 4.3/5, ms1mx3.4/46, Error ellipse: s-maj=109.7km s-min=23.1km az=70.0*

*ISCJB **16** 22:20:19.4±0.7, 2°.84S±0°.08×130°.0E±0°.1, h25km, mb4.4/8, MS4.5/4, Error ellipse: s-maj=21.3km s-min=9.8km az=163.0*

*NEIC **16** 22:20:23.2±0.6, 2°.89S×129°.92E, h35km, mb4.1/6, Error ellipse: s-maj=15.9km s-min=11.2km az=68.0*

**ISC 16 22:20:21.2**±0.7**, 3°.01S**±0°.08×**130°.05E**±0°.10**, h25km, n19, σ2s.74**/16**, mb4.2**/7**, MS4.5**/4**, Seram**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| FAKI | Fak Fak | 2.20 | 88 | Pn | Pb | 22 21 01.4 | +1.0 |
| FITZ | Fitzroy Crossi | 15.61 | 196 | Pn | Pn | 22 24 02.4 | +2.7 |
| | 0.1nm,0.3s,baz=21,slow=8.6,SNR=3.3 | | | | | | |
| WRAB | Tennant Creek | 17.34 | 166 | Pn | Pn | 22 24 23.9 | +2.1 |
| | 1.4nm,0.3s | | | | | | |
| WRA | Warramunga Arr | 17.35 | 166 | P | Pn | 22 24 22.7 | +0.9 |
| | 0.5nm,0.3s,baz=349,slow=11,SNR=14 | | | | | | |
| WRA | | | | S | Sn | 22 27 29.1 | -5.2 |
| | 0.1nm,0.3s,baz=350,slow=23,SNR=2.8 | | | | | | |
| TGY | Tagaytay City | 19.25 | 332 | LR | LR | 22 32 07.9 | |
| | comp=Z,271nm,19.1s,baz=108,slow=37 | | | | | | |
| KSM | Kuching | 20.23 | 282 | P | P | 22 24 55.3 | +0.7 |
| | 2.4nm,0.6s | | | | | | |
| ASAR | Alice Springs | 20.88 | 170 | P | P | 22 25 04.5 | +2.8 |
| | 4.4nm,0.6s,baz=352,slow=11,SNR=54 | | | | | | |
| ASAR | | | | S | S | 22 28 47.8 | -5.6 |
| | 0.1nm,0.3s,baz=350,slow=21,SNR=3.0 | | | | | | |
| STKA | Stephens Creek | 30.71 | 161 | P | P | 22 26 37.0 | +2.8 |
| | 2.4nm,1.0s,baz=331,slow=10,SNR=3.4 | | | | | | |
| COCO | West Island | 34.12 | 253 | P | P | 22 27 04.9 | +0.5 |
| | 61nm,0.5s | | | | | | |
| BJT | Baijiatuau | 44.67 | 345 | P | P | 22 28 31.4 | -0.6 |
| | 1.6nm,0.5s | | | | | | |
| MDJ | Mudanjiang | 47.41 | 360 | P | P | 22 28 52.2 | -1.3 |
| | 2.1nm,0.4s | | | | | | |
| DGAR | Diego Garcia | 57.49 | 263 | P | P | 22 30 08.7 | -0.1 |
| | 15nm,0.5s | | | | | | |
| TLY | Talaya | 58.92 | 341 | P | P | 22 30 18.0 | -0.2 |
| | 1.6nm,0.7s | | | | | | |
| YAK | Yakutsk | 64.86 | 360 | LR | LR | 22 58 14.3 | |
| | comp=Z,289nm,21.9s,baz=94,slow=35 | | | | | | |
| MKAR | Makanchi Array | 64.95 | 326 | P | P | 22 30 58.0 | -0.9 |
| | 0.2nm,0.6s,baz=129,slow=7.9,SNR=3.6 | | | | | | |
| WSAR | Wadi Sarin | 74.20 | 295 | LR | LR | 23 08 36.2 | |
| | comp=Z,265nm,19.9s,slow=39 | | | | | | |
| BRTR | Keskin Array B | 96.84 | 309 | LR | LR | 23 26 23.4 | |
| | comp=Z,94nm,18.2s,baz=129,slow=41 | | | | | | |
| FINES | FINESS Array B | 99.29 | 332 | LR | LR | 23 25 22.5 | |
| | comp=Z,328nm,18.1s,baz=330,slow=39 | | | | | | |
| LKWY | Lake | 112.86 | 42 | *e*PKP | PKiKP | 22 38 54.1 | -2.5 |

*ISCJB **16** 22:23:28.2±0.6, 44°.7N±0°.1×147°.5E±0°.1, h145km±5km, mb3.5/5, Error ellipse: s-maj=20.5km s-min=7.4km az=144.0*

*IDC **16** 22:23:30.9±3.4, 43°.91N×146°.94E, h220km±40km, mb3.2/5, mb1 3.5/6, mb1mx3.0/42, mbtmp3.8/6, Error ellipse: s-maj=86.6km s-min=46.0km az=2.0*

*SKHL **16** 22:23:30.1±0.7, 44°.68N×147°.45E, h136km±2km, mb4.3/3, msh5.3/3*

*JMA **16** 22:23:31.4±0.5, 44°.58N×147°.26E, h135km, M3.5*

**ISC 16 22:23:28.4**±0.9**, 44°.6N**±0°.1×**147°.48E**±0°.09**, h148**km±7km**, n29, σ1s.18**/33**, mb3.6**/5**, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KUR | Kuril'sk | 0.66 | 25 | *i* P | Pn | 22 23 50.4 | +0.1 |
| KUR | | | | AMB | AMB | 22 23 50.9 | |
| | 179nm,0.5s | | | | | | |
| KUR | | | | *e*S | Sn | 22 24 06.1 | -0.9 |
| KUR | | | | A | A | 22 24 11.9 | |
| | 350nm,0.4s | | | | | | |
| KUR | | | | A | A | 22 24 11.9 | |
| | 240nm,0.4s | | | | | | |
| SHO | Shikotan | 0.90 | 211 | *e*P | Pn | 22 23 52.6 | +0.5 |
| SHO | | | | AMB | AMB | 22 23 52.7 | |
| | 145nm,0.4s | | | | | | |
| SHO | | | | *i* S | Sn | 22 24 09.0 | -1.1 |
| SHO | | | | A | A | 22 24 09.8 | |
| | 2μm,0.4s | | | | | | |
| SHO | | | | A | A | 22 24 09.8 | |
| | 2μm,0.4s | | | | | | |
| YUK | Yuzh-Kuril'sk | 1.31 | 243 | *i* P | Pn | 22 23 56.6 | +0.8 |
| YUK | | | | AMB | AMB | 22 23 57.8 | |
| | 150nm,0.5s | | | | | | |
| YUK | | | | *i* S | Sn | 22 24 16.8 | +0.2 |
| YUK | | | | A | A | 22 24 17.5 | |
| | 890nm,0.5s | | | | | | |
| YUK | | | | A | A | 22 24 17.5 | |
| | 424nm,0.5s | | | | | | |
| GRPR | Tuman | 1.39 | 243 | *e*P | Pn | 22 23 57.9 | +1.4 |
| GRPR | | | | *i* S | Sn | 22 24 18.3 | +0.3 |
| GLVR | Golovnino | 1.67 | 238 | *e*P | Pn | 22 24 00.8 | +1.2 |
| GLVR | | | | *i* S | Sn | 22 24 24.4 | +0.9 |
| NEM2 | Nemuro 2 | 1.79 | 225 | P | Pn | 22 24 01.3 | +0.4 |
| NEM2 | | | | *e*S | Sn | 22 24 23.9 | -1.8 |
| JRA | Rausu | 1.83 | 248 | P | Pn | 22 24 01.8 | +0.4 |
| JRA | | | | *e*S | Sn | 22 24 26.0 | -0.6 |
| JNK | Nakash | 2.25 | 243 | P | Pn | 22 24 07.1 | +0.8 |
| JAK | Akkeshi | 2.60 | 232 | P | Pn | 22 24 11.4 | +0.8 |
| JAK | | | | *e*S | Sn | 22 24 41.7 | -1.4 |
| JTKR | Abashiri--Toko | 2.65 | 257 | P | Pn | 22 24 11.3 | +0.1 |
| JTKR | | | | *e*S | Sn | 22 24 42.9 | -1.3 |
| JAR | Ashorobuto | 3.00 | 245 | P | Pn | 22 24 17.0 | +1.4 |
| JMP | Maruseppu | 3.02 | 259 | P | Pn | 22 24 15.9 | 0.0 |
| JOB | Onbets | 3.16 | 238 | P | Pn | 22 24 19.0 | +1.4 |
| JKK2 | Kamakawa 2 | 3.48 | 259 | P | Pn | 22 24 22.4 | +0.6 |
| ASAJ | Asahikawa | 3.54 | 263 | P | Pn | 22 24 23.2 | +0.7 |
| | 5.4nm,0.3s,baz=85,slow=12,SNR=17 | | | | | | |
| JCH | Churui | 3.61 | 237 | P | Pn | 22 24 24.2 | +0.8 |
| JCH | | | | *e*S | Sn | 22 25 04.5 | -1.6 |
| JFR | Furan | 3.83 | 249 | P | Pn | 22 24 27.7 | +1.4 |
| JNBK | Urakawa-nobuka | 4.17 | 237 | P | Pn | 22 24 30.7 | -0.1 |
| H11N2 | WAKE ISLAND Hy | 29.63 | 141 | T | T | 23 00 34.7 | |
| | baz=332,slow=75,SNR=11 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 29.64 | 141 | T | T | 23 00 37.3 | |
| | baz=332,slow=75,SNR=12 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 29.65 | 141 | T | T | 23 00 36.4 | |
| | baz=332,slow=75,SNR=8.9 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 30.61 | 142 | T | T | 23 01 47.1 | |
| | baz=333,slow=76,SNR=25 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 30.62 | 142 | T | T | 23 01 47.0 | |
| | baz=333,slow=76,SNR=16 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 30.63 | 142 | T | T | 23 01 49.6 | |
| | baz=333,slow=76,SNR=14 | | | | | | |
| ILAR | Eielson Array | 40.63 | 37 | P | P | 22 30 54.8 | +1.4 |
| | 0.2nm,0.4s,baz=263,slow=7.2,SNR=4.2 | | | | | | |
| INK | Inuvik | 45.52 | 31 | P | P | 22 31 33.5 | +1.0 |
| | 0.6nm,0.4s,baz=290,slow=6.4,SNR=2.9 | | | | | | |
| YKA | Yellowknife Ar | 54.93 | 34 | P | P | 22 32 45.4 | +2.0 |
| | 0.6nm,0.7s,baz=298,slow=7.0,SNR=5.3 | | | | | | |
| ARCES | ARCESS Array B | 58.50 | 340 | P | P | 22 33 06.9 | -1.5 |
| | 4.8nm,1.0s,baz=62,slow=8.3,SNR=3.7 | | | | | | |
| TXAR | Lajitas Array | 81.96 | 57 | P | P | 22 35 29.7 | -2.2 |
| | 0.5nm,0.7s,baz=298,slow=1.9,SNR=3.3 | | | | | | |

*ISCJB **16** 22:25:20.8±0.4, 67°.72N±0°.02×20°.37E±0°.07, h0km, Error ellipse: s-maj=3.7km s-min=2.8km az=163.2*

*HEL **16** 22:25:21.5±0.2, 67°.84N×19°.98E, h0km, ML1.8, Explosion*

*UPP **16** 22:25:22.2±0.1, 67°.81N×20°.19E, h0km, ML1.9*

*CSEM **16** 22:25:22.5±0.5, 67°.69N×20°.63E, h2km, ML1.8, Error ellipse: s-maj=11.5km s-min=7.8km az=98.0, Mining explosion.*

*NAO **16** 22:25:23.9±1.4, 67°.84N×20°.46E, ML2.3*

*IDC **16** 22:25:24.3±1.1, 67°.82N×20°.71E, h0km, mb1 3.1/3, mb1mx2.8/43, mbtmp3.0/3, ML2.4/3, Error ellipse: s-maj=16.8km s-min=6.9km az=119.0*

*BER **16** 22:25:25.7±3.2, 67°.85N×20°.34E, h0km, ML2.3(NAO), Suspected explosion*

**ISC 16 22:25:22.4**±0.7**, 67°.78N**±0°.02×**20°.34E**±0°.02**, h0km, n55, σ1s.69**/77**, Sweden**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KUA | Kurravaara | 0.18 | 0 | P | Pg | 22 25 25.4 | -0.4 |
| KUA | | | | S | Sg | 22 25 27.3 | -0.8 |
| RATU | Laukkuluspa | 0.29 | 279 | P | Pg | 22 25 26.6 | -1.3 |
| NIKU | Nikkaluokta | 0.50 | 281 | P | Pg | 22 25 30.9 | -1.1 |
| LANU | Lannavaara | 0.68 | 66 | P | Pg | 22 25 35.7 | +0.2 |
| LANU | Lannavaara | 0.68 | 66 | PG | Pg | 22 25 35.7 | +0.2 |
| LANU | | | | SB | Sb | 22 25 46.9 | -0.2 |
| KIF | Kilpisjarvi | 1.24 | 8 | Pg | Pg | 22 25 46.2 | -0.1 |
| KIF | | | | Lg | Lg | 22 26 03.9 | |
| KIF | Kilpisjarvi | 1.24 | 8 | *e*P | Pg | 22 25 46.1 | -0.1 |
| KIF | | | | *e*S | Sg | 22 26 02.4 | +0.1 |
| KIF | Kilpisjarvi | 1.24 | 8 | *e*P | Pg | 22 25 46.1 | -0.1 |
| | SNR=90 | | | | | | |
| KIF | | | | *e*S | Sg | 22 26 02.4 | +0.1 |
| | SNR=90 | | | | | | |
| KIF | | | | Sn | Sn | 22 26 03.9 | -0.5 |
| KIF | Kilpisjarvi | 1.24 | 8 | PN | Pg | 22 25 46.0 | -0.2 |
| | baz=196 | | | | | | |
| KIF | | | | SN | Sn | 22 26 03.9 | -0.5 |
| PAJU | Pajala | 1.31 | 124 | P | Pg | 22 25 47.7 | +0.1 |
| HEF | Hetta | 1.40 | 62 | *e*P | Pg | 22 25 48.8 | -0.4 |
| HEF | Hetta | 1.40 | 62 | Pg | Pg | 22 25 48.4 | -0.8 |
| HEF | Hetta | 1.40 | 62 | *e*P | Pg | 22 25 48.8 | -0.4 |
| | SNR=50 | | | | | | |
| HEF | | | | Sn | Sn | 22 26 08.4 | +0.1 |
| HEF | Hetta | 1.40 | 62 | PG | Pg | 22 25 48.4 | -0.8 |
| | baz=245 | | | | | | |
| HEF | | | | MSG | | 22 26 06.3 | |
| | comp=Z,8.4nm,0.2s | | | | | | |
| HEF | | | | SN | Sn | 22 26 08.4 | +0.1 |
| ERTU | Ertsjaerv | 1.43 | 149 | Pg | Pn | 22 25 49.5 | 0.0 |
| ERTU | Ertsjaerv | 1.43 | 149 | PG | Pn | 22 25 49.5 | 0.0 |
| ERTU | | | | SN | Sn | 22 26 11.8 | +2.8 |
| KTK1 | Kautokeino | 1.64 | 40 | *e*P | Pb | 22 25 53.6 | +0.1 |
| KTK1 | Kautokeino | 1.64 | 40 | *e*P | Pb | 22 25 53.6 | +0.1 |
| | SNR=50 | | | | | | |
| TRO | Tromso | 1.93 | 345 | *e*P | Pg | 22 26 02.4 | +3.0 |
| TRO | | | | *e*S | Sg | 22 26 26.5 | +2.1 |
| STEI | Steigen | 1.94 | 277 | *e*P | Pb | 22 25 58.0 | -0.5 |
| STEI | Steigen | 1.94 | 277 | *e*P | Pb | 22 25 58.0 | -0.5 |
| | SNR=50 | | | | | | |
| KALU | Kalix | 2.27 | 147 | Pg | Pb | 22 26 03.8 | -0.4 |
| KALU | Kalix | 2.27 | 147 | PG | Pb | 22 26 03.8 | -0.4 |
| KALU | | | | SG | Sg | 22 26 36.0 | +0.8 |
| TOF | Tornio | 2.32 | 136 | Pg | Pb | 22 26 03.8 | -1.2 |
| TOF | Tornio | 2.32 | 136 | PG | Pb | 22 26 03.8 | -1.2 |
| TOF | | | | SG | Sg | 22 26 36.7 | -0.1 |
| SGF | Sodankyl | 2.39 | 95 | Pg | Pb | 22 26 05.4 | -0.9 |
| SGF | Sodankyl | 2.39 | 95 | PG | Pb | 22 26 05.4 | -0.9 |
| | baz=281 | | | | | | |
| SGF | | | | SG | Sg | 22 26 38.3 | -0.9 |
| RNF | Rovaniemi | 2.50 | 115 | SG | Sg | 22 26 45.3 | +2.5 |
| ARA0 | ARCESS Array S | 2.59 | 45 | Pn | Pn | 22 26 06.5 | +1.0 |
| | baz=233,slow=14 | | | | | | |
| ARA0 | | | | Lg | Lg | 22 26 43.1 | |
| | baz=230,slow=28 | | | | | | |
| ARA0 | ARCESS Array S | 2.59 | 45 | Pn | Pn | 22 26 06.5 | +1.0 |
| | baz=233,slow=14 | | | | | | |
| ARA0 | | | | Lg | Lg | 22 26 43.1 | |
| | baz=230,slow=28 | | | | | | |
| ARA0 | ARCESS Array S | 2.59 | 45 | Pn | Pn | 22 26 06.5 | +1.0 |
| | SNR=50 | | | | | | |
| ARA0 | | | | Lg | Lg | 22 26 43.1 | |
| | SNR=3.4 | | | | | | |
| ARCES | ARCESS Array B | 2.59 | 45 | Pn | Pn | 22 26 06.6 | +1.1 |
| | comp=Z,1.0nm,0.3s,baz=229,slow=14,SNR=47 | | | | | | |
| ARCES | | | | Lg | Lg | 22 26 41.0 | |
| | comp=Z,3.2nm,0.3s,baz=229,slow=26,SNR=12 | | | | | | |
| ARE0 | ARCESS Array S | 2.59 | 45 | *e*P | Pb | 22 26 07.6 | -2.0 |
| ARE0 | ARCESS Array S | 2.59 | 45 | Pb | Pn | 22 26 06.5 | +1.0 |
| ARE0 | ARCESS Array S | 2.59 | 45 | *e*P | Pb | 22 26 07.6 | -2.0 |
| | SNR=50 | | | | | | |
| ARE0 | | | | Sb | Sb | 22 26 40.9 | -1.0 |
| ARE0 | ARCESS Array S | 2.59 | 45 | PB | Pn | 22 26 06.5 | +1.0 |
| ARE0 | | | | SB | Sb | 22 26 40.9 | -1.0 |
| BURU | Burvik | 3.24 | 172 | Pb | Pb | 22 26 17.9 | -2.7 |
| BURU | Burvik | 3.24 | 172 | PB | Pb | 22 26 18.0 | -2.7 |
| MSF | Maaselka | 3.92 | 115 | Pb | Pb | 22 26 28.3 | -3.9 |
| MSF | Maaselka | 3.92 | 115 | PB | Pb | 22 26 28.3 | -3.9 |
| UMAU | Umeaa | 3.92 | 178 | Pb | Pb | 22 26 29.0 | -3.2 |
| UMAU | Umeaa | 3.92 | 178 | PB | Pb | 22 26 29.0 | -3.2 |
| KU6 | Riekki | 4.16 | 111 | Pb | Pn | 22 26 31.6 | +4.6 |
| KU6 | Riekki | 4.16 | 111 | PB | Pn | 22 26 31.6 | +4.6 |
| | baz=297 | | | | | | |
| KU6 | | | | SG | Sg | 22 27 35.7 | 0.0 |
| APA0 | Apatity Array | 4.83 | 86 | Pn | Pn | 22 26 36.8 | +0.6 |
| | baz=300,slow=18 | | | | | | |
| APA0 | | | | Sn | Sn | 22 27 32.1 | -0.6 |
| | baz=283,slow=37 | | | | | | |
| APA0 | Apatity Array | 4.83 | 86 | Pn | Pn | 22 26 36.8 | +0.6 |
| | baz=300,slow=18 | | | | | | |
| APA0 | | | | Sn | Sn | 22 27 32.1 | -0.6 |
| | baz=283,slow=37 | | | | | | |
| APA0 | Apatity Array | 4.83 | 86 | Pn | Pn | 22 26 36.8 | +0.6 |
| | SNR=50 | | | | | | |
| APA0 | | | | Sn | Sn | 22 27 32.2 | -0.6 |
| | SNR=50 | | | | | | |
| FIA0 | FINESS Array S | 6.82 | 156 | Pn | Pn | 22 27 07.1 | +3.5 |
| | baz=344,slow=14 | | | | | | |
| FIA0 | | | | Sn | Sn | 22 28 21.9 | +0.1 |
| FIA0 | | | | Lg | Lg | 22 28 55.8 | |
| | baz=350,slow=28 | | | | | | |
| FIA0 | FINESS Array S | 6.82 | 156 | Pn | Pn | 22 27 07.1 | +3.5 |
| | baz=344,slow=14 | | | | | | |
| FIA0 | | | | Sn | Sn | 22 28 21.9 | +0.1 |
| FIA0 | | | | Lg | Lg | 22 28 55.8 | |
| | baz=350,slow=28 | | | | | | |
| FIA0 | FINESS Array S | 6.82 | 156 | Lg | Lg | 22 28 55.8 | |
| | SNR=50 | | | | | | |
| FINES | FINESS Array B | 6.82 | 156 | Pn | Pn | 22 27 06.0 | +2.4 |
| | comp=Z,0.1nm,0.3s,baz=347,slow=12,SNR=3.6 | | | | | | |
| FINES | | | | Sn | Sn | 22 28 22.2 | +0.5 |
| | comp=Z,0.1nm,0.3s,baz=341,slow=21,SNR=3.2 | | | | | | |
| FINES | | | | Lg | Lg | 22 28 55.9 | |
| | comp=Z,0.3nm,0.3s,baz=342,slow=26,SNR=6.2 | | | | | | |
| NB2 | NORSAR Subarra | 7.82 | 215 | Pn | Pn | 22 27 19.0 | +1.6 |
| NB2 | NORSAR Subarra | 7.82 | 215 | Pn | Pn | 22 27 19.0 | +1.6 |
| NB2 | NORSAR Subarra | 7.82 | 215 | Pn | Pn | 22 27 19.0 | +1.6 |
| | SNR=50 | | | | | | |
| NOA | NORSAR Array B | 7.82 | 215 | Pn | Pn | 22 27 18.8 | +1.4 |
| | comp=Z,0.1nm,0.3s,baz=29,slow=17,SNR=2.3 | | | | | | |
| NOA | | | | Sn | Sn | 22 28 45.5 | -1.1 |
| | comp=Z,0.1nm,0.3s,baz=31,slow=18,SNR=3.1 | | | | | | |
| NOA | | | | Lg | Lg | 22 29 26.4 | |
| | comp=Z,0.2nm,0.3s,baz=39,slow=21,SNR=3.2 | | | | | | |

*IDC **16** 22:28:02.6±1.1, 10°.51S×124°.61E, h0km, mb3.8/4, mb1 3.9/7, mb1mx3.7/40, mbtmp3.8/7, ML3.6/3, Error ellipse: s-maj=58.1km s-min=22.7km az=71.0*

*ISCJB **16** 22:28:04.6±0.5, 10°.56S±0°.06×124°.86E±0°.10, h33km, mb4.2/7, Error ellipse: s-maj=15.6km s-min=5.4km az=148.5*

*NEIC **16** 22:28:04.4±2.6, 10°.46S×124°.86E, h13km±18km, mb4.0/3, Error ellipse: s-maj=19.5km s-min=6.2km az=52.0*

**ISC 16 22:28:07.0**±0.7**, 10°.53S**±0°.09×**124°.9E**±0°.1**, h35km, n15, σ1s.63**/19**, mb4.1**/7**, Timor region**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SOEI | Soe | 0.97 | 322 | *e*Pb | Pn | 22 28 22.3 | -2.0 |
| MMRI | Maumere | 3.21 | 306 | *e*Pn | Pn | 22 28 53.6 | -1.3 |
| FITZ | Fitzroy Crossi | 7.57 | 174 | Pn | Pn | 22 29 56.1 | +1.2 |
| | 0.5nm,0.3s,baz=355,slow=10,SNR=15 | | | | | | |
| FITZ | | | | Sn | Sn | 22 31 20.3 | +0.9 |
| | 1.6nm,0.3s,baz=310,slow=20,SNR=6.9 | | | | | | |
| WRA | Warramunga Arr | 13.07 | 137 | Pn | Pn | 22 31 10.5 | +0.2 |
| | 0.3nm,0.3s,baz=310,slow=15,SNR=14 | | | | | | |
| WRA | | | | Sn | Sn | 22 33 31.4 | -3.2 |
| | 0.4nm,0.3s,baz=311,slow=23,SNR=9.2 | | | | | | |
| WRAB | Tennant Creek | 13.07 | 137 | *e*Pn | Pn | 22 31 10.7 | +0.4 |
| WRAB | | | | *e*Sn | Sn | 22 33 34.1 | -0.5 |
| ASAR | Alice Springs | 15.65 | 148 | Pn | Pn | 22 31 45.8 | +0.7 |
| | 0.3nm,0.3s,baz=321,slow=12,SNR=27 | | | | | | |
| ASAR | | | | Sn | Sn | 22 34 34.0 | -3.5 |
| | 0.1nm,0.3s,baz=308,slow=18,SNR=6.5 | | | | | | |
| KSM | Kuching | 18.77 | 309 | P | P | 22 32 21.8 | -1.5 |
| | 45nm,1.8s | | | | | | |
| HNR | Honiara | 34.55 | 91 | P | P | 22 34 52.0 | -0.6 |
| | 96nm,0.7s | | | | | | |
| TAU | Tasmania Unive | 37.73 | 153 | P | P | 22 35 20.6 | +1.2 |
| | 1.5nm,0.5s | | | | | | |
| MJAR | Matsushiro Arr | 48.47 | 14 | P | P | 22 36 47.9 | +1.6 |
| | 0.9nm,0.5s,baz=185,slow=9.0,SNR=2.9 | | | | | | |
| LSA | Lhasa | 51.53 | 322 | P | P | 22 37 10.8 | +0.7 |
| | 0.8nm,0.4s | | | | | | |
| SONM | Songino Array | 60.38 | 346 | P | P | 22 38 13.9 | +1.2 |
| | 0.3nm,0.5s,baz=150,slow=6.1,SNR=3.2 | | | | | | |
| MKAR | Makanchi Array | 68.56 | 330 | P | P | 22 39 05.9 | -0.3 |
| | 1.2nm,0.7s,baz=134,slow=7.8,SNR=15 | | | | | | |
| ZALV | Zalesovo Beam | 72.63 | 337 | P | P | 22 39 29.6 | -1.2 |
| | 0.7nm,0.6s,baz=173,slow=5.3,SNR=4.2 | | | | | | |
| TORD | Torodi Ar. Bea | 124.42 | 279 | PKP | PKPdf | 22 47 04.6 | +1.2 |
| | 0.3nm,0.8s,baz=90,slow=0.1,SNR=2.5 | | | | | | |

*ISK **16** 22:41:20.6, 38°.24N×43°.37E, h3km, MD2.6*

*ISCJB **16** 22:41:21.6±0.6, 38°.24N±0°.02×43°.50E±0°.07, h4km±8km, Error ellipse: s-maj=9.2km s-min=4.1km az=173.9*

*CSEM **16** 22:41:21.3±0.4, 38°.24N×43°.39E, h5km, MD2.4, Error ellipse: s-maj=16.4km s-min=5.6km az=87.0*

*DDA **16** 22:41:21.9, 38°.23N×43°.49E, h7km, Md2.4*

**ISC 16 22:41:20.6**±1.3**, 38°.28N**±0°.03×**43°.51E**±0°.06**, h5**km±10km**, n16, σ0s.50**/29**, Turkey**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TVAN | Van | 0.26 | 342 | *i* P | Pg | 22 41 26.5 | +0.7 |
| TVAN | | | | *i* S | Sb | 22 41 32.5 | -0.4 |
| TVAN | Van | 0.26 | 342 | P | Pg | 22 41 26.5 | +0.7 |
| TVAN | | | | S | Sb | 22 41 32.5 | -0.4 |
| VANB | Van | 0.33 | 343 | *e*PG | Pg | 22 41 26.4 | -0.7 |
| VANB | | | | *e*SG | Sg | 22 41 31.2 | -0.2 |
| VANB | Van | 0.33 | 343 | *e*Pg | Pg | 22 41 26.4 | -0.7 |
| VANB | | | | *e*Sg | Sg | 22 41 31.2 | -0.2 |
| GEVA | Gevas | 0.36 | 275 | *i* P | Pg | 22 41 27.9 | +0.3 |
| GEVA | | | | *i* S | Sb | 22 41 35.4 | -0.3 |
| GEVA | Gevas | 0.36 | 275 | P | Pg | 22 41 27.9 | +0.3 |
| VMUR | Van-Muradiye | 0.71 | 4 | *i* P | Pn | 22 41 37.1 | -0.4 |
| VMUR | | | | *i* S | Sn | 22 41 48.7 | -0.3 |
| VMUR | Van-Muradiye | 0.71 | 4 | P | Pn | 22 41 37.2 | -0.4 |
| VMUR | | | | S | Sn | 22 41 48.7 | -0.3 |
| HAKT | HAKKARI | 0.74 | 168 | *i* P | Pg | 22 41 34.7 | -0.1 |
| HAKT | | | | *i* S | Sb | 22 41 46.2 | -0.4 |
| HAKT | HAKKARI | 0.74 | 168 | P | Pg | 22 41 34.7 | -0.1 |
| HAKT | | | | S | Sb | 22 41 46.2 | -0.4 |
| CLDR | Caldiran | 0.92 | 20 | *e*PG | Pn | 22 41 40.7 | +0.2 |
| CLDR | | | | *e*SG | Sn | 22 41 54.9 | +0.7 |
| CLDR | Caldiran | 0.92 | 20 | *e*Pg | Pn | 22 41 40.7 | +0.2 |
| CLDR | | | | *e*Sg | Sn | 22 41 54.9 | +0.7 |
| CUKT | Cukurca | 1.03 | 176 | *e*PG | Pg | 22 41 40.9 | +0.4 |
| CUKT | | | | *e*SG | Sb | 22 41 55.2 | +0.1 |
| CUKT | Cukurca | 1.03 | 176 | *e*Pg | Pg | 22 41 40.9 | +0.4 |
| CUKT | | | | *e*Sg | Sb | 22 41 55.2 | +0.1 |
| AGRB | Hanur-Agry | 1.36 | 343 | *e*PN | Pg | 22 41 47.5 | +0.8 |
| AGRB | Hanur-Agry | 1.36 | 343 | *e*Pn | Pg | 22 41 47.5 | +0.8 |

*ISCJB **16** 23:02:34.0±0.3, 2°.33N±0°.03×98°.92E±0°.04, h150km±3km, mb4.1/16, Error ellipse: s-maj=6.1km s-min=4.3km az=160.8*

*IDC* ***16*** *23:02:34.8±1.0, 2°.26N×98°.95E, h141km±6km, mb3.8/9, mb1 3.9/10, mb1mx3.5/42, mbtmp4.2/10, Error ellipse: s-maj=41.8km s-min=12.0km az=62.0*

*NEIC* ***16*** *23:02:35.3±0.4, 2°.27N×99°.00E, h145km±4km, mb4.4/5, Error ellipse: s-maj=9.2km s-min=6.0km az=80.0*

*DJA* ***16*** *23:02:35.5±0.4, 2°.2N×9°.9E, h139km±4km, M4.0/13, MLv4.0/13*

**ISC 16 23:02:35.2±0.7, 2°.36N±0°.03×98°.90E±0°.04, h143km±6km, n36, σ1°41/53, mb4.2/16, Northern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PSI** | **Prapat** | **0.44** | **3** | P | **Pn** | **23 02 55.6** | **0.0** |
| | 116nm,0.3s,baz=163,slow=7.2,SNR=170 | | | | | | |
| PSI | | | | S | **Sn** | **23 03 10.0** | **-1.1** |
| | 17nm,0.3s,baz=238,slow=8.9,SNR=8.0 | | | | | | |
| **TSI** | **Tuntungan** | **1.18** | **344** | P | **Pn** | **23 03 00.3** | **-0.7** |
| TSI | | | | S | **Sn** | **23 03 22.5** | **+1.9** |
| **KCSI** | **Kotacane, Aceh** | **1.61** | **316** | P | **Pn** | **23 03 06.2** | **+0.7** |
| KCSI | | | | S | **Sn** | **23 03 28.9** | **+0.3** |
| **GSI** | **Gunungsitoli** | **1.69** | **232** | P | **Pn** | **23 03 07.1** | **+0.8** |
| GSI | | | | S | **Sn** | **23 03 31.1** | **+1.0** |
| **GSI** | **Gunungsitoli** | **1.69** | **232** | Pn | **Pn** | **23 03 07.1** | **+0.8** |
| GSI | | | | *e*Sn | **Sn** | **23 03 31.1** | **+1.0** |
| **TPTI** | | **1.94** | **298** | P | **Pn** | **23 03 10.1** | **+1.0** |
| TPTI | | | | S | **Sn** | **23 03 35.1** | **0.0** |
| **PBSI** | **Pulau Batu** | **2.47** | **194** | P | **Pn** | **23 03 15.8** | **+0.1** |
| PBSI | | | | S | **Sn** | **23 03 47.4** | **+0.6** |
| **SNSI** | **Sinabang, Aceh** | **2.57** | **271** | P | **Pn** | **23 03 18.5** | **+1.7** |
| SNSI | | | | S | **Sn** | **23 03 48.2** | **-0.7** |
| **BKNI** | **Bangkinang** | **2.94** | **133** | P | **Pn** | **23 03 22.7** | **+1.2** |
| BKNI | | | | S | **Sn** | **23 03 56.9** | **-0.4** |
| **IPM** | **Ipoh** | **2.99** | **45** | *e*Pn | **Pn** | **23 03 23.2** | **+1.0** |
| IPM | | | | *e*Sn | **Sn** | **23 03 59.2** | **+0.7** |
| **MLSI** | **Meulaboh, Aceh** | **3.13** | **307** | P | **Pn** | **23 03 24.9** | **+0.9** |
| MLSI | | | | S | **Sn** | **23 04 01.0** | **-0.7** |
| **KULM** | **Kulim** | **3.40** | **31** | *e*Pn | **Pn** | **23 03 27.7** | **+0.3** |
| KULM | | | | *e*Sn | **Sn** | **23 04 06.4** | **-1.4** |
| **LHMI** | **Lhok Sumawe** | **3.45** | **326** | P | **Pn** | **23 03 29.5** | **+1.4** |
| LHMI | | | | S | **Sn** | **23 04 09.2** | **+0.1** |
| **PDSI** | **Padang** | **3.60** | **154** | P | **Pn** | **23 03 29.8** | **-0.3** |
| PDSI | | | | S | **Sn** | **23 04 11.7** | **-1.0** |
| **SISI** | **Saibi** | **3.66** | **177** | P | **Pn** | **23 03 29.9** | **-1.0** |
| SISI | | | | S | **Sn** | **23 04 11.8** | **-2.3** |
| **SDSI** | **Sungai Dareh** | **4.13** | **142** | P | **Pn** | **23 03 41.2** | **+4.2** |
| **RGRI** | **Rengat** | **4.36** | **128** | P | **Pn** | **23 03 44.1** | **+4.1** |
| **PPSI** | **Pulau Pagai** | **5.21** | **168** | P | **Pn** | **23 03 55.4** | **+4.1** |
| **CMAR** | **Chiang Mai Arr** | **16.00** | **0** | P | **P** | **23 06 14.9** | **+1.8** |
| | 0.2nm,0.3s,baz=185,slow=12,SNR=6.0 | | | | | | |
| **LSA** | **Lhasa** | **28.17** | **346** | P | **P** | **23 08 15.8** | **+1.0** |
| | 0.9nm,0.5s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **33.27** | **129** | P | **P** | **23 08 58.2** | **-1.1** |
| | 3.8nm,0.6s,baz=317,slow=6.0,SNR=17 | | | | | | |
| **BJT** | **Baijiatuao** | **40.63** | **20** | P | **P** | **23 10 01.9** | **+0.7** |
| | 4.7nm,0.5s | | | | | | |
| **WRA** | **Warramunga Arr** | **41.24** | **124** | P | **P** | **23 10 05.6** | **-0.9** |
| | 3.2nm,0.5s,baz=301,slow=9.1,SNR=30 | | | | | | |
| WRA | | | | PcP | **PcP** | **23 12 01.9** | **-0.9** |
| | 0.5nm,0.6s,baz=312,slow=2.6,SNR=3.2 | | | | | | |
| **WRAB** | **Tennant Creek** | **41.24** | **124** | P | **P** | **23 10 05.2** | **-1.4** |
| | 3.1nm,0.4s | | | | | | |
| **ASAR** | **Alice Springs** | **42.77** | **129** | P | **P** | **23 10 17.4** | **-1.5** |
| | 1.5nm,0.5s,baz=297,slow=7.4,SNR=15 | | | | | | |
| ASAR | | | | PcP | **PcP** | **23 12 07.1** | **-0.8** |
| | 0.3nm,0.5s,baz=312,slow=3.1,SNR=3.1 | | | | | | |
| **KSAR** | **Wonju Array Be** | **43.91** | **34** | P | **P** | **23 10 27.2** | **-0.6** |
| **KSRS** | **Korea Array** | **43.94** | **34** | P | **P** | **23 10 27.2** | **-0.8** |
| | 1.4nm,0.7s,baz=218,slow=7.9,SNR=4.9 | | | | | | |
| **SONM** | **Songino Array** | **45.76** | **7** | P | **P** | **23 10 42.9** | **+0.4** |
| | 1.1nm,0.4s,baz=188,slow=9.4,SNR=11 | | | | | | |
| **MKAR** | **Makanchi Array** | **46.56** | **344** | P | **P** | **23 10 49.0** | **+0.4** |
| | 0.8nm,0.4s,baz=156,slow=8.6,SNR=40 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **52.71** | **350** | P | **P** | **23 11 35.4** | **+0.5** |
| | 1.9nm,0.4s,baz=169,slow=7.0,SNR=16 | | | | | | |
| **STKA** | **Stephens Creek** | **52.89** | **134** | P | **P** | **23 11 35.5** | **-1.2** |
| | 0.5nm,0.3s,baz=300,slow=6.9,SNR=3.0 | | | | | | |
| **KLR** | **Kul'dur** | **54.47** | **26** | P | **P** | **23 11 48.1** | **+0.2** |
| | 0.1nm,0.4s,baz=217,slow=3.7,SNR=4.8 | | | | | | |
| **HNR** | **Honiara** | **61.93** | **102** | P | **P** | **23 12 40.1** | **-0.3** |
| | 103nm,0.8s | | | | | | |
| **TAU** | **Tasmania Unive** | **62.65** | **142** | P | **P** | **23 12 43.5** | **-1.1** |
| | 9.8nm,1.1s | | | | | | |
| **YAK** | **Yakutsk** | **63.85** | **16** | P | **P** | **23 12 51.8** | **-0.4** |
| | 12nm,0.4s | | | | | | |
| **FINES** | **FINESS Array B** | **79.77** | **332** | P | **P** | **23 14 27.4** | **+0.2** |
| | 3.3nm,1.0s,baz=111,slow=10,SNR=5.4 | | | | | | |

*ISCJB* ***16*** *23:10:58.7±0.6, 7°.70N±0°.10×94°.03E±0°.08, h50km, mb4.0/14, Error ellipse: s-maj=16.6km s-min=7.1km az=38.7*

*NEIC* ***16*** *23:11:02.5±2.5, 7°.76N×94°.05E, h69km±23km, mb4.2/1, Error ellipse: s-maj=28.8km s-min=10.8km az=65.0*

*IDC* ***16*** *23:11:02.7±5.7, 7°.78N×94°.03E, h68km±51km, mb3.7/13, mb1 3.8/14, mb1mx3.5/49, mbtmp4.0/14, ML4.1/1, MS2.8/1, Ms1 2.8/1, ms1mx2.6/49, Error ellipse: s-maj=32.5km s-min=15.4km az=55.0*

**ISC 16 23:11:00.6±0.8, 7.7N±0°.1×94°.0E±0°.1, h50km, n27, σ0°83/25, mb4.0/14, Nicobar Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PSI** | **Prapat** | **6.93** | **134** | LR | LR | 23 15 50.8 | |
| | comp=Z,70nm,19.5s,baz=294,slow=41 | | | | | | |
| **KULM** | **Kulim** | **7.06** | **109** | Pn | **Pn** | **23 12 41.6** | **+0.2** |
| KULM | | | | *e*Sn | **Sn** | **23 13 59.7** | **-0.6** |
| **CMAR** | **Chiang Mai Arr** | **11.74** | **24** | P | **Pn** | **23 13 47.2** | **+1.7** |
| | 0.3nm,0.3s,baz=216,slow=13,SNR=6.7 | | | | | | |
| **RAMN** | **Ramite** | **20.39** | **341** | *e*P | **P** | **23 15 34.3** | **+0.7** |
| | 16nm,0.6s | | | | | | |
| **TAPN** | **Taplejung** | **20.43** | **344** | *e*P | **P** | **23 15 33.9** | **-0.2** |
| | 9.7nm,0.6s | | | | | | |
| **JIRN** | **Jiri** | **21.18** | **341** | *e*P | **P** | **23 15 42.4** | **+0.1** |
| **GUN** | **Gumba** | **21.51** | **340** | *e*P | **P** | **23 15 45.7** | **-0.1** |
| | 10nm,0.6s | | | | | | |
| **LSA** | **Lhasa** | **22.05** | **353** | *e*P | **P** | **23 15 50.5** | **-1.2** |
| | 6.9nm,0.7s | | | | | | |
| **KOLN** | **Koldanda** | **22.25** | **335** | *e*P | **P** | **23 15 53.7** | **+0.1** |
| | 5.7nm,0.7s | | | | | | |
| **PYUN** | **Piuthan** | **22.80** | **334** | *e*P | **P** | **23 15 59.7** | **+0.3** |
| **H08S3** | **Diego Garcia H** | **26.27** | **235** | T | T | 23 43 15.8 | |
| | baz=55 | | | | | | |
| **H08S2** | **Diego Garcia H** | **26.28** | **235** | T | T | 23 43 26.3 | |
| | baz=55 | | | | | | |
| **H08S1** | **Diego Garcia H** | **26.29** | **235** | T | T | 23 43 14.4 | |
| | baz=55 | | | | | | |
| **MKAR** | **Makanchi Array** | **40.22** | **348** | P | **P** | **23 18 31.4** | **-0.9** |
| | 0.5nm,0.7s,baz=155,slow=8.8,SNR=4.9 | | | | | | |
| **SONM** | **Songino Array** | **41.38** | **13** | P | **P** | **23 18 41.8** | **-0.1** |
| | 0.9nm,0.7s,baz=196,slow=8.7,SNR=6.4 | | | | | | |
| **GEYT** | **Alibeck** | **44.22** | **318** | P | **P** | **23 19 05.2** | **+0.2** |
| | 3.2nm,0.8s,baz=115,slow=13,SNR=4.6 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **44.68** | **346** | P | **P** | **23 19 07.7** | **-0.7** |
| | 1.2nm,0.2s,baz=168,slow=7.4,SNR=4.6 | | | | | | |
| **KURK** | **Kurchatov** | **44.74** | **346** | P | **P** | **23 19 07.7** | **-1.2** |
| **ZALV** | **Zalesovo Beam** | **46.71** | **353** | P | **P** | **23 19 24.4** | **-0.1** |
| | 1.4nm,0.4s,baz=180,slow=6.6,SNR=8.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **48.30** | **125** | P | **P** | **23 19 36.8** | **-0.5** |
| | 0.8nm,0.7s,baz=305,slow=8.6,SNR=9.5 | | | | | | |
| **ASAR** | **Alice Springs** | **49.94** | **130** | P | **P** | **23 19 49.6** | **-0.2** |
| | 0.8nm,0.6s,baz=306,slow=6.9,SNR=9.3 | | | | | | |
| ASAR | | | | PcP | **PcP** | **23 21 09.9** | **+0.4** |
| | 0.3nm,0.6s,baz=307,slow=3.4,SNR=3.1 | | | | | | |
| **BRTR** | **Keskin Array B** | **62.41** | **311** | P | **P** | **23 21 17.1** | **-1.7** |
| | 0.5nm,0.8s,baz=110,slow=7.6,SNR=2.8 | | | | | | |
| **FINES** | **FINESS Array B** | **72.79** | **332** | P | **P** | **23 22 23.2** | **-0.3** |
| | 2.6nm,0.7s,baz=73,slow=6.4,SNR=7.8 | | | | | | |
| **BOSA** | **Boshof** | **75.34** | **238** | P | **P** | **23 22 41.1** | **+1.8** |
| | 1.3nm,0.7s,baz=102,slow=9.3,SNR=4.1 | | | | | | |
| **ARCES** | **ARCESS Array B** | **75.37** | **340** | P | **P** | **23 22 39.1** | **+0.5** |
| | 3.8nm,1.0s,baz=113,slow=6.9,SNR=3.2 | | | | | | |
| **GERES** | **GERESS Array B** | **77.84** | **318** | P | **P** | **23 22 53.0** | **-0.1** |
| | 0.8nm,0.6s,baz=112,slow=7.5,SNR=3.2 | | | | | | |
| **NOA** | **NORSAR Array B** | **79.80** | **331** | P | **P** | **23 23 03.1** | **-0.3** |
| | 2.1nm,0.8s,baz=93,slow=5.7,SNR=4.2 | | | | | | |

*IDC* ***16*** *23:12:46.6±6.4, 38°.74N×71°.62E, h0km, mb3.8/1, mb1 3.4/3, mb1mx3.2/50, mbtmp3.4/3, ML2.7/2, Error ellipse: s-maj=248.5km s-min=22.5km az=144.0*

*KRNET* ***16*** *23:12:48.1±0.1, 39°.14N×70°.88E, mb3.6*

*ISCJB* ***16*** *23:12:49.3±0.8, 39°.36N±0°.07×70°.98E±0°.06, h10km, mb3.8/1, Error ellipse: s-maj=10.7km s-min=5.3km az=147.9*

*NNC* ***16*** *23:12:51.3±2.3, 39°.50N×71°.09E, h0km, mb3.6, mpv3.2, Error ellipse: s-maj=20.5km s-min=9.7km az=26.0*

**ISC 16 23:12:51.2±1.3, 39°.39N±0°.09×71°.02E±0°.06, h10km, n31, σ0°99/48, 23C-15D, Tajikistan**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SFK** | **Sufi-Kurgan** | **2.01** | **71** | ⇓*i*P | **Pn** | **23 13 25.3** | **-0.2** |
| | baz=66 | | | | | | |
| SFK | | | | ⇓*i*S | **Sn** | **23 13 50.7** | **-0.1** |
| | baz=66 | | | | | | |
| **SFK** | **Sufi-Kurgan** | **2.01** | **71** | ⇑Pg | **Pn** | **23 13 25.9** | **+0.5** |
| | 9.3nm,0.3s | | | | | | |
| SFK | | | | ⇓Lg | Lg | 23 13 54.5 | |
| | 41nm,0.3s | | | | | | |
| **ARSB** | **Arslanbob** | **2.44** | **37** | ⇑*i*P | **Pn** | **23 13 30.6** | **-0.7** |
| | baz=36 | | | | | | |
| ARSB | | | | ⇑*i*S | **Sn** | **23 14 03.7** | **+2.4** |
| | baz=36 | | | | | | |
| **ARK** | **Arkit** | **2.51** | **16** | ⇓*i*P | **Pn** | **23 13 31.9** | **-0.3** |
| | baz=17 | | | | | | |
| ARK | | | | ⇓*i*S | **Sn** | **23 14 04.6** | **+1.7** |
| | baz=17 | | | | | | |
| **TOKL** | **Toktogul** | **2.91** | **28** | ⇑*i*P | **Pn** | **23 13 37.3** | **-0.4** |
| | baz=28 | | | | | | |
| TOKL | | | | ⇑*i*S | **Sn** | **23 14 14.1** | **+1.4** |
| | baz=28 | | | | | | |
| **MNAS** | **Manas** | **3.29** | **19** | ⇓*i*P | **Pn** | **23 13 43.0** | **0.0** |
| | baz=20 | | | | | | |
| MNAS | | | | ⇓*i*S | **Sn** | **23 14 22.8** | **+0.6** |
| | baz=20 | | | | | | |
| **MNAS** | **Manas** | **3.29** | **19** | ⇑Pn | **Pn** | **23 13 43.0** | **0.0** |
| | 3.1nm,0.5s | | | | | | |
| MNAS | | | | ⇓Pg | **Pb** | **23 13 48.7** | **-1.1** |
| | 12nm,0.6s | | | | | | |
| MNAS | | | | ⇑Lg | Lg | 23 14 33.1 | |
| | 24nm,0.7s | | | | | | |
| **AML** | **Almayashu** | **3.41** | **36** | ⇑*i*P | **Pn** | **23 13 44.3** | **-0.5** |
| | baz=35 | | | | | | |
| AML | | | | ⇑*i*S | **Sn** | **23 14 25.8** | **+0.3** |
| | baz=35 | | | | | | |
| **AML** | **Almayashu** | **3.41** | **36** | P | **Pn** | **23 13 45.5** | **+0.7** |
| | SNR=10.0 | | | | | | |
| **KK31** | **Karatay Array** | **3.73** | **354** | ⇓Pn | **Pn** | **23 13 49.6** | **+0.8** |
| | 0.6nm,0.3s,baz=179,slow=13,SNR=67 | | | | | | |
| KK31 | | | | ⇑Pg | **Pb** | **23 13 57.7** | **+0.5** |
| | 4.1nm,0.4s,baz=169,slow=17,SNR=24 | | | | | | |
| KK31 | | | | ⇓Lg | Lg | 23 14 43.6 | |
| | 6.6nm,0.3s,baz=174,slow=28,SNR=7.8 | | | | | | |
| **EKS2** | **Erkin-Say** | **3.88** | **32** | ⇑*i*P | **Pn** | **23 13 50.4** | **-0.6** |
| | baz=31 | | | | | | |
| EKS2 | | | | ⇑*i*S | **Sn** | **23 14 37.1** | **+0.5** |
| | baz=31 | | | | | | |
| **EKS2** | **Erkin-Say** | **3.88** | **32** | P | **Pn** | **23 13 52.0** | **+1.1** |
| | SNR=13 | | | | | | |
| **UCH** | **Uchtor** | **3.88** | **42** | ⇓*i*P | **Pn** | **23 13 51.1** | **-0.2** |
| | baz=41 | | | | | | |
| UCH | | | | ⇓*i*S | **Sn** | **23 14 37.9** | **+0.7** |
| | baz=41 | | | | | | |
| **UCH** | **Uchtor** | **3.88** | **42** | P | **Pn** | **23 13 52.6** | **+1.3** |
| | SNR=20 | | | | | | |
| **AAK** | **Ala-Archa** | **4.17** | **38** | ⇑*i*P | **Pn** | **23 13 54.6** | **-0.5** |
| | baz=37 | | | | | | |
| AAK | | | | ⇑*i*S | **Sn** | **23 14 44.0** | **0.0** |
| | baz=37 | | | | | | |
| **AAK** | **Ala-Archa** | **4.17** | **38** | ⇓Pg | **Pb** | **23 14 04.8** | **-0.1** |
| | 3.6nm,0.5s | | | | | | |
| AAK | | | | ⇑Lg | Lg | 23 14 58.3 | |
| | 21nm,1.1s | | | | | | |
| **AAK** | **Ala-Archa** | **4.17** | **38** | P | **Pn** | **23 13 56.2** | **+1.1** |
| | SNR=6.2 | | | | | | |
| **KZA** | **Kyzart** | **4.19** | **49** | ⇓*i*P | **Pn** | **23 13 55.2** | **-0.3** |
| | baz=47 | | | | | | |
| KZA | | | | ⇓*i*S | **Sn** | **23 14 44.4** | **-0.3** |
| | baz=47 | | | | | | |
| **KZA** | **Kyzart** | **4.19** | **49** | P | **Pn** | **23 13 57.0** | **+1.5** |
| | SNR=7.5 | | | | | | |
| **KBK** | **Karagaybulak** | **4.41** | **41** | ⇑*i*P | **Pn** | **23 13 57.9** | **-0.5** |
| | baz=40 | | | | | | |
| KBK | | | | ⇑*i*S | **Sn** | **23 14 49.9** | **0.0** |
| | baz=40 | | | | | | |
| **KBK** | **Karagaybulak** | **4.41** | **41** | P | **Pn** | **23 14 00.1** | **+1.7** |
| | SNR=20 | | | | | | |
| **CHMS** | **Chumysh** | **4.57** | **37** | ⇑*i*P | **Pn** | **23 14 00.1** | **-0.4** |
| | baz=36 | | | | | | |
| CHMS | | | | ⇑*i*S | **Sn** | **23 14 53.0** | **-0.7** |
| | baz=36 | | | | | | |
| **CHMS** | **Chumysh** | **4.57** | **37** | P | **Pn** | **23 14 01.4** | **+0.9** |
| | SNR=12 | | | | | | |
| **USP** | **Ospenovka** | **4.67** | **33** | ⇑*i*P | **Pn** | **23 14 01.1** | **-0.8** |
| | baz=32 | | | | | | |
| USP | | | | ⇑*i*S | **Sn** | **23 14 55.1** | **-1.1** |
| | baz=32 | | | | | | |
| **USP** | **Ospenovka** | **4.67** | **33** | P | **Pn** | **23 14 02.1** | **+0.2** |
| | SNR=32 | | | | | | |
| **TKM2** | **Tokmak 2** | **4.94** | **43** | ⇑*e*P | **Pn** | **23 14 05.5** | **-0.1** |
| | baz=42 | | | | | | |
| TKM2 | | | | ⇑*i*S | **Sn** | **23 15 02.4** | **-0.5** |
| | baz=42 | | | | | | |
| **TKM2** | **Tokmak 2** | **4.94** | **43** | P | **Pn** | **23 14 06.7** | **+1.1** |
| | SNR=20 | | | | | | |
| **GEYT** | **Alibeck** | **10.20** | **266** | Sn | **Sn** | **23 17 11.6** | **-0.5** |
| | 0.2nm,0.3s,baz=98,slow=19,SNR=3.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **11.07** | **44** | Pn | **Pn** | **23 15 29.6** | **+0.1** |
| | 0.0nm,0.3s,baz=234,slow=13,SNR=3.0 | | | | | | |
| MKAR | | | | Sn | **Sn** | **23 17 29.6** | **-3.7** |
| | 0.0nm,0.3s,baz=242,slow=26,SNR=2.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **17.32** | **28** | P | **P** | **23 16 54.8** | **+0.5** |
| | 0.1nm,0.3s,baz=215,slow=12,SNR=5.0 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **65.84** | **267** | P | **P** | **23 23 37.0** | **-0.1** |
| | 0.5nm,0.5s,baz=52,slow=5.6,SNR=9.8 | | | | | | |

*IDC* ***16*** *23:16:36.5±0.6, 7°.39N×78°.13W, h0km, mb4.0/14, mb1 4.3/18, mb1mx4.2/36, mbtmp4.2/18, ML4.2/4, MS3.6/12, Ms1 3.6/12, ms1mx3.4/41, Error ellipse: s-maj=22.1km s-min=13.9km az=53.0*

*RSNC* ***16*** *23:16:38.0±0.9, 7°.36N×78°.20W, h0km±8km, ML4.1, Mw4.6*

*ISCJB* ***16*** *23:16:40.3±0.5, 7°.36N±0°.03×78°.20W±0°.03, h38km±5km, mb4.2/32, MS3.7/7, Error ellipse: s-maj=5.5km s-min=4.2km az=136.7*

*NEIC* ***16*** *23:16:42.3±0.6, 7°.45N×78°.16W, h36km±5km, mb4.3/20, Error ellipse: s-maj=7.2km s-min=4.2km az=62.0*

*BJI* ***16*** *23:16:44.6, 7°.30N×77°.90W, h35km, mB5.0/1, Ms5.3/3, Ms7 5.0/3*

**ISC 16 23:16:41.5±1.6, 7°.37N±0°.04×78°.18W±0°.04, h30km±11km, n78, σ1°81/86, mb4.3/32, MS3.5/7, 2C-3D, Panama**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **UPD2** | **Meteti** | **1.18** | **8** | ⇑*i*P | **Pn** | **23 17 01.5** | **-0.6** |
| UPD2 | | | | *e*S | **Sb** | **23 17 17.9** | **-0.5** |
| **SOLC** | **Bahia Solano** | **1.37** | **146** | *e*P | **Pn** | **23 17 01.7** | **-2.9** |
| SOLC | | | | *i* | | 23 17 28.9 | |
| | comp=Z,µm,0.4s | | | | | | |
| **CAPC** | **Capurgana** | **1.51** | **33** | *e*P | **Pn** | **23 17 04.9** | **-1.6** |
| CAPC | | | | *e*S | **Sn** | **23 17 25.5** | **+0.4** |
| CAPC | | | | *i* | | 23 17 28.1 | |
| | comp=Z,3µm,0.6s | | | | | | |
| **AZU** | **Azuero** | **2.11** | **282** | ⇓*i*P | **Pn** | **23 17 13.4** | **-1.4** |
| AZU | | | | *e*S | **Sn** | **23 17 38.1** | **-2.1** |
| **PNME** | **Penonome** | **2.40** | **298** | ⇓*i*P | **Pn** | **23 17 17.5** | **-1.2** |
| **BCIP** | **Isla Barro Col** | **2.42** | **318** | *e*P | **Pn** | **23 17 17.5** | **-1.5** |
| BCIP | | | | *e*S | **Sn** | **23 17 48.9** | **+1.1** |
| BCIP | | | | *i* | | 23 17 56.7 | |
| | comp=Z,884nm,0.7s | | | | | | |
| **BCIP** | **Isla Barro Col** | **2.42** | **318** | *e*Pn | **Pn** | **23 17 17.5** | **-1.5** |
| BCIP | | | | *e*Sn | **Sn** | **23 17 48.6** | **+0.9** |
| **BCIP** | **Isla Barro Col** | **2.42** | **318** | ⇓*i*P | **Pn** | **23 17 17.6** | **-1.5** |
| BCIP | | | | *e*S | **Sn** | **23 17 47.1** | **-0.6** |
| **MOTC** | **Monteria, Cord** | **2.86** | **60** | *e*S | **Sn** | **23 18 00.4** | **+1.8** |
| MOTC | | | | *i* | | 23 18 05.2 | |
| | comp=Z,538nm,0.5s | | | | | | |
| **HELC** | **Santa Helena** | **2.88** | **114** | ⇑*i*P | **Pn** | **23 17 24.9** | **-0.8** |
| HELC | | | | *e*S | **Sn** | **23 18 00.5** | **+0.8** |
| **HELC** | **Santa Helena** | **2.88** | **114** | *e*Pn | **Pn** | **23 17 25.0** | **-0.8** |
| **GUYC** | **Guyana, Colomb** | **3.50** | **127** | *e*P | **Pn** | **23 17 33.9** | **-0.5** |
| **ROSC** | **El Rosal** | **4.59** | **123** | Pn | **Pn** | **23 17 50.2** | **+1.0** |
| | comp=Z,6.6nm,0.3s,baz=42,slow=18,SNR=7.4 | | | | | | |
| ROSC | | | | Sn | **Sn** | **23 18 37.8** | **-4.0** |
| | comp=Z,7.6nm,0.3s,baz=25,slow=19,SNR=4.0 | | | | | | |
| **ROSC** | **El Rosal** | **4.59** | **123** | *e*Pn | **Pn** | **23 17 50.9** | **+1.6** |
| ROSC | | | | Sn | **Sn** | **23 18 37.8** | **-4.0** |
| **PRAC** | **Prado** | **4.89** | **138** | *e*Pn | **Pn** | **23 17 54.3** | **+1.1** |
| **RUSC** | **La Rusia** | **5.28** | **106** | *e*Pn | **Pn** | **23 17 59.3** | **+0.5** |
| **OTAV** | **Otavalo** | **7.09** | **182** | *e*Pn | **Pn** | **23 18 24.6** | **+0.9** |
| OTAV | | | | *e*Sn | **Sn** | **23 19 43.9** | **+0.4** |
| **SDV** | **Santo Domingo** | **7.63** | **78** | Pn | **Pn** | **23 18 30.5** | **-0.3** |
| | comp=Z,9.2nm,0.3s,baz=285,slow=11,SNR=97 | | | | | | |
| SDV | | | | Sn | **Sn** | **23 19 56.1** | **-0.3** |
| | comp=Z,19nm,0.3s,baz=318,slow=15,SNR=4.5 | | | | | | |
| SDV | | | | LR | LR | 23 21 57.7 | |
| | comp=Z,593nm,18.6s,baz=261,slow=42 | | | | | | |
| **MTDJ** | **Mount Denham** | **10.81** | **3** | Pn | **Pn** | **23 19 14.9** | **+0.5** |
| **SDDR** | **Presa de Saban** | **13.35** | **29** | *e*Pn | **Pn** | **23 19 49.2** | **+0.1** |
| **PCRV** | **Puerto La Cruz** | **13.68** | **77** | Pn | **Pn** | **23 19 52.1** | **-1.5** |
| | comp=Z,1.3nm,0.3s,baz=298,slow=1.6,SNR=3.6 | | | | | | |
| PCRV | | | | Sn | **Sn** | **23 22 22.0** | **-2.7** |
| | comp=Z,0.3nm,0.3s,baz=304,slow=18,SNR=2.6 | | | | | | |
| PCRV | | | | LR | LR | 23 26 41.4 | |
| | comp=Z,346nm,18.9s,baz=284,slow=44 | | | | | | |
| **SJG** | **San Juan** | **15.86** | **47** | Pn | **Pn** | **23 20 19.5** | **-3.2** |
| | comp=Z,3.4nm,0.3s,baz=214,slow=9.5,SNR=5.7 | | | | | | |
| SJG | | | | LR | LR | 23 26 47.0 | |
| | comp=Z,176nm,20.6s,baz=232,slow=39 | | | | | | |
| **SJG** | **San Juan** | **15.86** | **47** | *e*Pn | **Pn** | **23 20 20.8** | **-1.9** |
| | comp=Z,29nm,0.9s | | | | | | |
| **CMIG** | **Matias Romero** | **18.95** | **302** | LR | LR | 23 28 17.8 | |
| | comp=Z,202nm,18.7s,baz=128,slow=37 | | | | | | |
| **NNA** | **Nana** | **19.27** | **176** | LR | LR | 23 28 37.0 | |
| | comp=Z,64nm,18.0s,baz=360,slow=37 | | | | | | |
| **PTGA** | **Pitinga** | **19.87** | **113** | P | **P** | **23 21 09.0** | **-1.5** |
| | comp=Z,0.6nm,0.3s,baz=274,slow=13,SNR=9.1 | | | | | | |
| PTGA | | | | LR | LR | 23 29 19.7 | |
| | comp=Z,216nm,20.4s,baz=292,slow=38 | | | | | | |
| **PTGA** | **Pitinga** | **19.87** | **113** | *e*P | **P** | **23 21 10.1** | **-0.5** |
| | comp=Z,57nm,1.9s | | | | | | |
| **LPAZ** | **La Paz** | **25.52** | **157** | P | **P** | **23 22 07.6** | **-0.7** |
| | comp=Z,3.4nm,0.8s,baz=342,slow=10,SNR=12 | | | | | | |
| LPAZ | | | | LR | LR | 23 33 15.1 | |
| | comp=Z,107nm,20.2s,baz=12,slow=39 | | | | | | |
| **LPAZ** | **La Paz** | **25.52** | **157** | *e*P | **P** | **23 22 10.9** | **+2.5** |
| | comp=Z,3.6nm,0.8s | | | | | | |
| **LRAL** | **Lakeview Retre** | **26.82** | **343** | *e*P | **P** | **23 22 22.8** | **+3.5** |
| | comp=Z,7.7nm,0.8s | | | | | | |
| **MNMC** | **Minye Minye** | **27.66** | **162** | *e*P | **P** | **23 22 28.1** | **+0.9** |
| | comp=Z,24nm,0.9s | | | | | | |
| **PB11** | **IPOC Station P** | **28.23** | **163** | *e*P | **P** | **23 22 33.5** | **+1.3** |
| | comp=Z,26nm,0.7s | | | | | | |
| **SIV** | **San Ignacio** | **28.74** | **144** | P | **P** | **23 22 35.2** | **-1.4** |
| | comp=Z,2.8nm,0.6s,baz=333,slow=11,SNR=7.8 | | | | | | |
| SIV | | | | LR | LR | 23 33 47.4 | |
| | comp=Z,80nm,18.8s,baz=4.0,slow=36 | | | | | | |
| **OXF** | **Oxford** | **28.93** | **341** | P | **P** | **23 22 37.4** | **-0.6** |
| | comp=Z,2.5nm,0.5s | | | | | | |
| **PB01** | **IPOC Station P** | **29.50** | **163** | *e*P | **P** | **23 22 44.8** | **+1.5** |
| | comp=Z,15nm,1.1s | | | | | | |
| **TXAR** | **Lajitas Array** | **32.45** | **316** | LR | LR | 23 38 00.8 | |
| | comp=Z,84nm,18.1s,baz=0.0,slow=40 | | | | | | |
| **WMOK** | **Wichita Mounta** | **33.19** | **328** | P | **P** | **23 23 15.1** | **-0.6** |
| | comp=Z,1.3nm,0.7s | | | | | | |
| **MNTX** | **Cornudas Mount** | **35.06** | **317** | *e*P | **P** | **23 23 32.0** | **0.0** |
| | comp=Z,4.3nm,1.0s | | | | | | |
| **KSU1** | **Kansas State U** | **35.69** | **335** | P | **P** | **23 23 37.8** | **+0.6** |
| | comp=Z,10nm,0.9s | | | | | | |
| **BDFB** | **Brasilia** | **37.63** | **128** | LR | LR | 23 40 20.6 | |
| | comp=Z,193nm,19.7s,baz=16,slow=38 | | | | | | |
| **ANMO** | **Albuquerque** | **37.79** | **321** | P | **P** | **23 23 56.3** | **+0.8** |
| | comp=Z,1.5nm,0.6s,baz=163,slow=11,SNR=2.7 | | | | | | |
| **ANMO** | **Albuquerque** | **37.79** | **321** | *e*P | **P** | **23 23 55.8** | **+0.3** |
| | comp=Z,1.9nm,0.7s | | | | | | |
| **SDCO** | **Great Sand Dun** | **39.08** | **325** | P | **P** | **23 24 05.8** | **-0.6** |
| | comp=Z,1.0nm,0.6s | | | | | | |
| **CPUP** | **Villa Florida** | **39.14** | **150** | LR | LR | 23 43 47.0 | |
| | comp=Z,51nm,19.8s,baz=42,slow=42 | | | | | | |
| **RSSD** | **Black Hills** | **43.01** | **333** | P | **P** | **23 24 37.0** | **-1.6** |
| | comp=Z,1.3nm,0.8s | | | | | | |
| **PFO** | **Pinyon Flats O** | **43.95** | **312** | LR | LR | 23 45 49.4 | |
| | comp=Z,67nm,18.9s,baz=142,slow=40 | | | | | | |
| **PDAR** | **Pinedale Array** | **44.78** | **327** | P | **P** | **23 24 53.0** | **+0.2** |
| | comp=Z,0.4nm,0.8s,baz=120,slow=10,SNR=2.8 | | | | | | |
| **ULM** | **Lac du Bonnet** | **45.23** | **344** | P | **P** | **23 24 54.7** | **-1.2** |
| | comp=Z,5.2nm,0.9s,baz=140,slow=13,SNR=3.4 | | | | | | |
| **TRQA** | **Tornquist** | **47.65** | **163** | P | **P** | **23 25 15.1** | **0.0** |
| | comp=Z,2.8nm,0.7s | | | | | | |
| **HLID** | **Hailey** | **48.00** | **325** | P | **P** | **23 25 17.7** | **-0.3** |
| | comp=Z,0.4nm,0.5s | | |

*$M_{\theta\theta}$-2.42±.15; $M_{\phi\phi}$1.85±.14; $M_{r\theta}$-1.48±.31; $M_{r\phi}$-4.57±.15; $M_{t}$~0.88±.29; Best double couple: $M_{o}$5.27700×10$^{16}$ NP1:$\phi_s$103.00000°,δ80.00000°,λ-169.00000°. NP2: $\phi_s$11.00000°,δ79.00000°,λ-10.00000°. Principal axes: T 4.7600, Plg1.0000°, Azm237.0000°; N 1.0320, Plg75.0000°, Azm145.0000°; P -5.7950, Plg15.0000°, Azm328.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **16** 23:18:03.5±0.2, 10°.75S×102°.13E, h10km, mb5.2/53 Error ellipse: s-maj=4.9km s-min=4.0km az=206.0*

*BJI **16** 23:18:03.0, 10°.70S×102°.10E, h10km, mb4.9/66, mB5.1/49, Ms4.9/47, Ms7 4.6/44*

*DJA **16** 23:18:05.6±0.5, 11°.5S±2°.×10°.2E±°, h29km±5km, M5.3/75, mb5.4/75, mB5.7/55, MLv5.9/13, Mw(mB)5.3/55, Mwp5.9/1*

**ISC 16 23:18:03.4±0.3, 10°.67S±0°.04×102°.03E±0°.04, h10km, n388, σ1♀98/410, mb5.0/109, MS4.4/40, 21C-8D, Southwest of Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **XMIS** | **Christmas Isla** | **3.57** | **87** | *e*Pn | **Pn** | **23 18 54.9** | **-4.0** |
| **COCO** | **West Island** | **5.31** | **253** | *ce*P | **Pn** | **23 19 21.1** | **-1.8** |
| **COCO** | **West Island** | **5.31** | **253** | *e*Pn | **Pn** | **23 19 20.2** | **-2.6** |
| **KASI** | **Kota Agung** | **5.67** | **26** | P | **Pn** | **23 19 26.9** | **-0.9** |
| KASI | | | | S | **Sn** | **23 20 24.6** | **-8.4** |
| **SKJI** | **Sukabumi** | **5.77** | **51** | P | **Pn** | **23 19 28.5** | **-0.7** |
| SKJI | | | | S | **Sn** | **23 20 35.4** | **-0.1** |
| **LWLI** | **Liwa** | **5.97** | **20** | P | **Pn** | **23 19 31.6** | **-0.4** |
| | 551nm,0.7s,15μm8.0nm | | | | | | |
| LWLI | | | | S | **Sn** | **23 20 37.8** | **-2.8** |
| | 551nm,0.7s,15μm8.0nm | | | | | | |
| **CNJI** | **Cibinong** | **6.04** | **57** | P | **Pn** | **23 19 32.0** | **-1.0** |
| **SBJI** | **Serang** | **6.08** | **42** | P | **Pn** | **23 19 33.6** | **+0.2** |
| | 2μm,1.2s,14μm5.3nm | | | | | | |
| SBJI | | | | S | **Sn** | **23 20 46.2** | **+3.2** |
| | 2μm,1.2s,14μm5.3nm | | | | | | |
| **BLSI** | **Bandar Lampung** | **6.16** | **31** | P | **Pn** | **23 19 35.4** | **+0.9** |
| **DBJI** | **Dramaga** | **6.21** | **49** | P | **Pn** | **23 19 35.6** | **+0.4** |
| DBJI | | | | S | **Sn** | **23 20 46.6** | **-0.7** |
| **MNAI** | **Manna** | **6.34** | **8** | P | **Pn** | **23 19 36.3** | **-0.7** |
| MNAI | | | | S | **Sn** | **23 20 45.8** | **-3.8** |
| **MNAI** | **Manna** | **6.34** | **8** | *e*Pn | **Pn** | **23 19 37.3** | **+0.3** |
| MNAI | | | | *e*Sn | **Sn** | **23 20 50.0** | **+0.5** |
| **CBJI** | **Citeko** | **6.37** | **49** | P | **Pn** | **23 19 36.2** | **-1.2** |
| **KLI** | **Kotabumi** | **6.42** | **26** | P | **Pn** | **23 19 39.7** | **+1.6** |
| | 258nm,0.7s,2.1nm | | | | | | |
| **KLI** | **Kotabumi** | **6.42** | **26** | P | **Pn** | **23 19 38.2** | **+0.1** |
| KLI | | | | pmax | pmax | | |
| | comp=Z,262nm,0.7s | | | | | | |
| **CISI** | **Cisompet, Garu** | **6.50** | **62** | P | **Pn** | **23 19 37.6** | **-1.7** |
| CISI | | | | S | **Sn** | **23 20 53.1** | **-0.5** |
| **CISI** | **Cisompet, Garu** | **6.50** | **62** | *e*Pn | **Pn** | **23 19 37.5** | **-1.7** |
| **JCJI** | **Jatiwangi** | **7.44** | **57** | P | **Pn** | **23 19 50.5** | **-1.6** |
| **MASI** | **Maura Aman, Be** | **7.49** | **2** | P | **Pn** | **23 19 52.7** | **-0.1** |
| MASI | | | | S | **Sn** | **23 21 15.0** | **-2.9** |
| **KPJI** | **Karang Pucung** | **7.58** | **65** | P | **Pn** | **23 19 53.6** | **-0.5** |
| KPJI | | | | S | **Sn** | **23 21 19.9** | **-0.2** |
| **PPSI** | **Pulau Pagai** | **8.11** | **346** | P | **Pn** | **23 19 58.3** | **-3.1** |
| | comp=Z,440nm,1.1s,comp=Z,4μmcomp=Z,3.0nm | | | | | | |
| PPSI | | | | S | **Sn** | **23 21 27.7** | **-5.5** |
| | comp=Z,440nm,1.1s,comp=Z,4μmcomp=Z,3.0nm | | | | | | |
| **UGM** | **Wanagama** | **8.82** | **73** | P | **Pn** | **23 20 09.5** | **-1.6** |
| **UGM** | **Wanagama** | **8.82** | **73** | *e*Pn | **Pn** | **23 20 09.4** | **-1.8** |
| **SMRI** | **Semarang** | **9.06** | **67** | P | **Pn** | **23 20 14.7** | **+0.3** |
| | comp=Z,631nm,0.9s,comp=Z,9μm | | | | | | |
| SMRI | | | | S | **Sn** | **23 21 52.9** | **-3.6** |
| | comp=Z,631nm,0.9s,comp=Z,9μm | | | | | | |
| **SMRI** | **Semarang** | **9.06** | **67** | *e*Pn | **Pn** | **23 20 13.5** | **-0.9** |
| **PCJI** | **Pacitan** | **9.35** | **76** | P | **Pn** | **23 20 16.7** | **-1.7** |
| **PPBI** | **Pangkal Pinang** | **9.39** | **26** | P | **Pn** | **23 20 18.8** | **-0.1** |
| | comp=Z,0.6nm,0.5s,comp=Z,813nm | | | | | | |
| **SDSI** | **Sungai Dareh** | **9.70** | **356** | P | **Pn** | **23 20 23.1** | **0.0** |
| SDSI | | | | S | **Sn** | **23 22 06.7** | **-5.5** |
| **SISI** | **Saibi** | **9.73** | **342** | P | **Pn** | **23 20 20.0** | **-3.6** |
| SISI | | | | S | **Sn** | **23 22 06.6** | **-6.5** |
| **UWJI** | **Ujung Watu** | **9.78** | **65** | P | **Pn** | **23 20 23.6** | **-0.7** |
| **PDSI** | **Padang** | **9.82** | **351** | P | **Pn** | **23 20 21.3** | **-3.6** |
| PDSI | | | | S | **Sn** | **23 22 08.9** | **-6.4** |
| **PWJI** | **Pagerwojo** | **10.00** | **76** | P | **Pn** | **23 20 26.0** | **-1.3** |
| | comp=Z,818nm,1.1s,comp=Z,7μm | | | | | | |
| PWJI | | | | S | Sn | 23 22 08.1 | -12 |
| | comp=Z,818nm,1.1s,comp=Z,7μm | | | | | | |
| **RGRI** | **Rengat** | **10.26** | **2** | P | **Pn** | **23 20 30.8** | **-0.1** |
| RGRI | | | | S | **Sn** | **23 22 22.7** | **-3.4** |
| **TBJI** | **Tambak Boyo** | **10.43** | **69** | P | **Pn** | **23 20 32.4** | **-0.8** |
| **BKNI** | **Bangkinang** | **10.97** | **355** | P | **Pn** | **23 20 40.1** | **-0.5** |
| BKNI | | | | S | **Sn** | **23 22 37.8** | **-5.7** |
| **GRJI** | **Gresik** | **10.98** | **71** | P | **Pn** | **23 20 39.6** | **-1.1** |
| **GMJI** | **Gumukmas** | **11.51** | **79** | P | **Pn** | **23 20 47.0** | **-1.0** |
| **BWJI** | **Bawean** | **11.55** | **66** | P | **Pn** | **23 20 48.2** | **-0.4** |
| **BLJI** | **Banyuglugur** | **11.78** | **77** | P | **Pn** | **23 20 50.1** | **-1.6** |
| **JAGI** | **Jajag, Banyuwa** | **12.15** | **81** | P | **Pn** | **23 20 54.4** | **-2.4** |
| JAGI | | | | S | Sn | 23 22 59.2 | -13 |
| **JAGI** | **Jajag, Banyuwa** | **12.15** | **81** | *e*Pn | **Pn** | **23 20 54.9** | **-1.9** |
| **ABJI** | **Asem Bagus** | **12.38** | **78** | P | **Pn** | **23 20 58.4** | **-1.5** |
| **PBKI** | **Pangkalan Bun** | **12.42** | **51** | P | **Pn** | **23 21 01.0** | **+0.6** |
| MYKOM | **Kota Tinggi** | **12.51** | **8** | ⇑P | Pn | 23 21 08.3 | +6.5 |
| **KGM** | **Kluang** | **12.67** | **6** | ⇓P | Pn | 23 21 09.9 | +6.0 |
| **GSI** | **Gunungsitoli** | **12.70** | **339** | P | **Pn** | **23 21 01.0** | **-3.2** |
| GSI | | | | S | **Sn** | **23 23 17.3** | **-8.5** |
| **GSI** | **Gunungsitoli** | **12.70** | **339** | *e*Pn | **Pn** | **23 21 01.4** | **-2.8** |
| **DNP** | **Denpasar** | **13.14** | **82** | P | **Pn** | **23 21 09.7** | **-0.6** |
| **SRBI** | **Singaraja** | **13.26** | **80** | P | **Pn** | **23 21 10.2** | **-1.7** |
| **PSI** | **Prapat** | **13.74** | **347** | Pn | **Pn** | **23 21 15.1** | **-3.5** |
| | comp=Z,0.8nm,0.3s,baz=110,slow=1.6,SNR=3.6 | | | | | | |
| PSI | | | | Sn | **Sn** | **23 23 45.6** | **-5.8** |
| | comp=Z,1.1nm,0.3s,baz=157,slow=13,SNR=2.8 | | | | | | |
| PSI | | | | LR | LR | 23 27 19.3 | |
| | comp=Z,2μm,18.6s,baz=166,slow=40 | | | | | | |
| **PSI** | **Prapat** | **13.74** | **347** | *e*P | **Pn** | **23 21 16.6** | **-1.9** |
| PSI | | | | | | 23 23 45.6 | |
| **PSI** | **Prapat** | **13.74** | **347** | *e*Pn | **Pn** | **23 21 16.6** | **-1.9** |
| PSI | | | | Sn | **Sn** | **23 23 45.6** | **-5.8** |
| **STKI** | **Sintang** | **14.21** | **42** | P | **Pn** | **23 21 23.1** | **-1.9** |
| **KSM** | **Kuching** | **14.61** | **35** | ⇓P | **Pn** | **23 21 32.8** | **+2.4** |
| **KSM** | **Kuching** | **14.61** | **35** | *e*Pn | **Pn** | **23 21 30.1** | **-0.4** |
| **TPTI** | | **14.66** | **341** | P | **Pn** | **23 21 27.1** | **-4.0** |
| **KCSI** | **Kotacane, Aceh** | **14.72** | **343** | P | **Pn** | **23 21 33.2** | **+1.2** |
| **IPM** | **Ipoh** | **15.09** | **356** | ⇑P | **P** | **23 21 43.8** | **+1.6** |
| **IPM** | **Ipoh** | **15.09** | **356** | *e*Pn | **P** | **23 21 40.0** | **-2.2** |
| | comp=Z,69nm,1.2s | | | | | | |
| **PLAI** | **Plampang** | **15.63** | **85** | P | **Pn** | **23 21 40.3** | **-3.7** |
| **KBKI** | **Kotabaru** | **15.82** | **63** | P | **Pn** | **23 21 45.2** | **-1.3** |
| **MLSI** | **Meulaboh, Aceh** | **15.86** | **339** | P | **Pn** | **23 21 45.2** | **-1.8** |
| **KULM** | **Kulim** | **15.92** | **355** | ⇓P | **P** | **23 21 53.5** | **+2.1** |
| **KULM** | **Kulim** | **15.92** | **355** | *e*Pn | **Pn** | **23 21 46.8** | **-1.0** |
| | comp=Z,97nm,1.0s | | | | | | |
| **KTGM** | **Kuala Trenggan** | **15.93** | **4** | ⇑P | **P** | **23 21 53.9** | **+2.3** |
| **MTKI** | **Muara Teweh, K** | **16.03** | **54** | P | **Pn** | **23 21 47.1** | **-2.1** |
| **SBUM** | **Sibu** | **16.52** | **38** | ⇓P | **Pn** | **23 21 56.7** | **+1.3** |
| **LHMI** | **Lhok Sumawe** | **16.59** | **342** | P | **Pn** | **23 21 56.9** | **+0.6** |
| **LHMI** | **Lhok Sumawe** | **16.59** | **342** | *e*Pn | **P** | **23 21 58.2** | **-0.6** |
| | comp=Z,187nm,0.7s | | | | | | |
| **WBSI** | **Waikabubak, Su** | **17.12** | **88** | P | **Pn** | **23 22 00.4** | **-2.7** |
| **BTM** | **Bintulu** | **17.64** | **39** | ⇓P | **P** | **23 22 11.5** | **+1.1** |
| **SMKI** | **Samarinda** | **18.19** | **57** | P | **P** | **23 22 17.8** | **+1.2** |
| **BASI** | **Baing, Sumba** | **18.25** | **90** | P | **Pn** | **23 22 15.5** | **-1.5** |
| **KAPI** | **Kappang** | **18.43** | **74** | *e*Pn | **P** | **23 22 18.5** | **-0.7** |
| | comp=Z,108nm,1.2s | | | | | | |
| **SPSI** | **Sidrap Palu** | **18.81** | **71** | P | **P** | **23 22 23.3** | **0.0** |
| **BNSI** | **Bone** | **18.96** | **72** | P | **Pn** | **23 22 26.6** | **+0.8** |
| **TTSI** | **Tana Toraja** | **19.21** | **68** | P | **Pn** | **23 22 28.3** | **-0.4** |
| **EDFI** | **Ende, Flores** | **19.47** | **86** | P | **P** | **23 22 28.9** | **-1.9** |
| **MBWA** | **Marble Bar** | **19.94** | **124** | *e*P | **P** | **23 22 35.5** | **-0.2** |
| | comp=Z,105nm,1.1s | | | | | | |
| **MBWA** | **Marble Bar** | **19.94** | **124** | Pn | **P** | **23 22 36.0** | **+0.2** |
| | SNR=5.9 | | | | | | |
| **MBWA** | **Marble Bar** | **19.94** | **124** | P | **P** | **23 22 36.0** | **+0.2** |
| | SNR=5.9 | | | | | | |
| **MMRI** | **Maumere** | **20.02** | **86** | P | **P** | **23 22 37.0** | **+0.3** |
| **MMRI** | **Maumere** | **20.02** | **86** | *e*P | Pn | 23 22 37.6 | -0.8 |
| | comp=Z,749nm,1.6s | | | | | | |
| **PCI** | **Palu** | **20.18** | **62** | P | **P** | **23 22 39.4** | **+1.0** |
| **PCI** | **Palu** | **20.18** | **62** | P | P | 23 22 30.5 | -7.9 |
| PCI | | | | pmax | pmax | | |
| | comp=Z,487nm,1.5s | | | | | | |
| **MPSI** | **Mapaga** | **20.86** | **59** | P | **P** | **23 22 46.7** | **+0.9** |
| **BBSI** | **Bau Bau** | **20.97** | **77** | P | **P** | **23 22 47.9** | **+0.9** |
| **KDI** | **Kendari** | **21.47** | **73** | P | **P** | **23 22 52.3** | **-0.1** |
| **TSM** | **Tawau** | **21.68** | **47** | ⇑P | **P** | **23 22 55.9** | **+1.4** |
| **APSI** | **Ampana** | **21.77** | **65** | P | **P** | **23 22 55.9** | **+0.3** |
| **KKM** | **Kota Kinabalu** | **21.80** | **41** | ⇑P | **P** | **23 22 57.0** | **+1.0** |
| **KKM** | **Kota Kinabalu** | **21.80** | **41** | *e*P | **P** | **23 22 56.6** | **+0.6** |
| | comp=Z,176nm,1.1s | | | | | | |
| **SOEI** | **Soe** | **21.90** | **90** | P | **P** | **23 22 57.3** | **+0.1** |
| **SOEI** | **Soe** | **21.90** | **90** | *e*P | **P** | **23 22 57.5** | **+0.3** |
| | comp=Z,495nm,1.2s | | | | | | |
| **SDKM** | **Sandakan** | **22.15** | **44** | ⇑P | **P** | **23 23 00.4** | **+0.6** |
| **MORW** | **Morawa** | **22.51** | **146** | P | **P** | **23 23 03.3** | **-0.1** |
| | baz=23,SNR=9.4 | | | | | | |
| **MRSI** | **Marisa** | **22.69** | **62** | P | **P** | **23 23 03.4** | **-2.0** |
| **LUWI** | **Luwuk** | **22.72** | **66** | P | **P** | **23 23 04.6** | **-1.2** |
| **LUWI** | **Luwuk** | **22.72** | **66** | *e*P | **P** | **23 23 04.9** | **-0.9** |
| | comp=Z,588nm,1.5s | | | | | | |
| MYLDM | **Lahad Datu** | **22.74** | **47** | ⇑P | **P** | **23 23 07.7** | **+1.8** |
| MYLDM | **Lahad Datu** | **22.74** | **47** | *e*P | **P** | **23 23 08.0** | **+2.1** |
| | comp=Z,475nm,1.2s | | | | | | |
| **KDM** | **Kudat** | **22.86** | **41** | ⇑P | **P** | **23 23 09.3** | **+2.1** |
| **FITZ** | **Fitzroy Crossi** | **24.01** | **111** | P | **P** | **23 23 16.7** | **-2.0** |
| | comp=Z,17nm,1.1s,baz=260,slow=6.3,SNR=12 | | | | | | |
| FITZ | | | | S | **S** | **23 27 37.2** | **+1.3** |
| | comp=Z,1.4nm,0.5s,baz=342,slow=20,SNR=4.1 | | | | | | |
| FITZ | | | | LR | LR | 23 33 27.8 | |
| | comp=Z,398nm,18.1s,baz=292,slow=39 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **24.01** | **111** | P | **P** | **23 23 17.4** | **-1.3** |
| | baz=24,SNR=5.2 | | | | | | |
| **BLDU** | **Ballidu** | **24.08** | **148** | P | **P** | **23 23 19.7** | **+0.5** |
| | baz=24,SNR=6.6 | | | | | | |
| **NAYO** | **Nakonayok** | **24.84** | **358** | P | **P** | **23 23 31.6** | **+5.4** |
| | comp=Z,416nm,1.4s,comp=Z,33μm | | | | | | |
| **SANI** | **Sanana** | **25.28** | **72** | P | **P** | **23 23 27.7** | **-2.6** |
| **NLAI** | **Namlea** | **25.94** | **75** | P | **P** | **23 23 34.7** | **-1.6** |
| **NWAO** | **Narrogin (SRO)** | **26.20** | **150** | P | **P** | **23 23 36.0** | **-2.5** |
| | comp=Z,6.8nm,0.6s,baz=354,slow=18,SNR=12 | | | | | | |
| NWAO | | | | LR | LR | 23 32 25.1 | |
| | comp=Z,1μm,21.2s,baz=182,slow=33 | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **26.20** | **150** | P | **P** | **23 23 36.0** | **-2.5** |
| NWAO | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.6s | | | | | | |
| NWAO | | | | MLR | MLR | | |
| | comp=Z,1μm,21.3s | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **26.20** | **150** | *e*P | **P** | **23 23 36.6** | **-1.8** |
| | comp=Z,22nm,0.6s | | | | | | |
| **KNRA** | **Kununurra** | **26.49** | **104** | P | **P** | **23 23 39.7** | **-1.6** |
| | baz=26 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **26.51** | **157** | T | T | 23 51 05.8 | |
| | baz=336,slow=75,SNR=207 | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **26.52** | **157** | T | T | 23 51 06.4 | |
| | baz=336,slow=75,SNR=248 | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **26.52** | **157** | T | T | 23 51 05.7 | |
| | baz=336,slow=75,SNR=160 | | | | | | |
| **LBMI** | **Labuha** | **27.21** | **70** | P | **P** | **23 23 48.2** | **+0.5** |
| **SGSI** | **Sangihe** | **27.40** | **60** | P | **P** | **23 23 54.2** | **+4.8** |
| **RKGY** | **Rocky Gully** | **27.46** | **153** | P | **P** | **23 23 50.4** | **+0.7** |
| | baz=28 | | | | | | |
| **KMBL** | **Kambalda** | **27.61** | **141** | P | **P** | **23 23 49.5** | **-1.7** |
| | baz=28,SNR=9.2 | | | | | | |
| **TNTI** | **Ternate** | **27.65** | **67** | *e*P | **P** | **23 23 51.8** | **+0.1** |
| | comp=Z,283nm,1.4s | | | | | | |
| **PALK** | **Pallekele** | **27.72** | **309** | LR | LR | 23 32 39.4 | |
| | comp=Z,876nm,21.0s,baz=116,slow=32 | | | | | | |
| **MTN** | **Manton Dam** | **28.57** | **97** | *e*P | **P** | **23 24 01.6** | **+1.7** |
| | comp=Z,49nm,1.2s | | | | | | |
| **NONG** | **Nongkai** | **28.57** | **2** | P | **P** | **23 24 03.7** | **+3.9** |
| | comp=Z,64nm,2.1s,comp=Z,11μm | | | | | | |
| **WRKA** | **Warakurna** | **28.72** | **123** | P | **P** | **23 24 00.2** | **-1.0** |
| | baz=29,SNR=7.6 | | | | | | |
| **SAUI** | **Saumlaki** | **29.00** | **87** | P | P | 23 24 10.3 | +6.5 |
| **CM01** | **Chiang Mai Arr** | **29.07** | **354** | *e*P | **P** | **23 24 06.1** | **+1.9** |
| **CMAR** | **Chiang Mai Arr** | **29.11** | **354** | P | **P** | **23 24 06.3** | **+1.8** |
| | comp=Z,2.6nm,0.9s,baz=187,slow=7.9,SNR=12 | | | | | | |
| CMAR | | | | LR | LR | 23 35 50.2 | |
| | comp=Z,809nm,20.7s,baz=178,slow=37 | | | | | | |
| **H08S2** | **Diego Garcia H** | **29.31** | **273** | T | T | 23 54 59.7 | |
| | baz=99,slow=76,SNR=54 | | | | | | |
| **H08S3** | **Diego Garcia H** | **29.32** | **273** | T | T | 23 55 02.6 | |
| | baz=99,slow=76,SNR=89 | | | | | | |
| **H08S1** | **Diego Carcia H** | **29.33** | **273** | T | T | 23 55 04.9 | |
| | baz=99,slow=76,SNR=24 | | | | | | |
| **DAV** | **Davao City (W)** | **29.33** | **54** | LR | LR | 23 36 27.5 | |
| | comp=Z,453nm,20.8s,baz=236,slow=38 | | | | | | |
| **CHTO** | **Chiang Mai** | **29.46** | **354** | P | **P** | **23 24 12.3** | **+4.6** |
| | comp=Z,57nm,1.1s | | | | | | |
| **CHTO** | **Chiang Mai** | **29.46** | **354** | *e*P | **P** | **23 24 09.8** | **+2.1** |
| CHTO | | | | pmax | pmax | | |
| | comp=Z,14nm,1.1s | | | | | | |
| **CHTO** | **Chiang Mai** | **29.46** | **354** | *e*P | **P** | **23 24 09.8** | **+2.1** |
| | comp=Z,14nm,1.1s | | | | | | |
| **QIZ** | **Qiongzhong** | **30.50** | **15** | P | **P** | **23 24 19.8** | **+2.9** |
| QIZ | | | | S | **S** | **23 29 21.0** | **+2.5** |
| QIZ | | | | sS | **sS** | **23 29 27.8** | **+4.3** |
| QIZ | | | | pmax | pmax | | |
| | comp=Z,40nm,2.2s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=Z,2μm,19.4s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=Z,1μm,17.2s | | | | | | |
| **SWI** | **Sorong** | **30.64** | **73** | P | **P** | **23 24 16.7** | **-1.5** |
| **SWI** | **Sorong** | **30.64** | **73** | P | **P** | **23 24 17.0** | **-1.2** |
| SWI | | | | pmax | pmax | | |
| | comp=Z,40nm,1.0s | | | | | | |
| **TGY** | **Tagaytay City** | **30.94** | **38** | P | **P** | **23 24 21.7** | **+0.7** |
| | comp=Z,127nm,0.3s,baz=225,slow=2.9,SNR=4.1 | | | | | | |
| **FAKI** | **Fak Fak** | **30.95** | **78** | P | **P** | **23 24 19.4** | **-1.7** |
| **FAKI** | **Fak Fak** | **30.95** | **78** | *e*P | **P** | **23 24 19.7** | **-1.4** |
| | comp=Z,42nm,1.1s | | | | | | |
| **FORT** | **Forrest** | **31.37** | **133** | P | **P** | **23 24 24.6** | **+0.1** |
| | baz=32 | | | | | | |
| **FORT** | **Forrest** | **31.37** | **133** | *e*P | **P** | **23 24 23.4** | **-1.1** |
| | comp=Z,2μm,1.8s | | | | | | |
| **WRA** | **Warramunga Arr** | **32.44** | **110** | P | **P** | **23 24 32.4** | **-1.8** |
| | comp=Z,9.8nm,0.8s,baz=283,slow=11,SNR=65 | | | | | | |
| WRA | | | | LR | LR | 23 36 02.2 | |
| | comp=Z,340nm,21.4s,baz=265,slow=34 | | | | | | |
| **WRAB** | **Tennant Creek** | **32.45** | **110** | *de*P | **P** | **23 24 33.1** | **-1.2** |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,15nm,1.0s | | | | | | |
| **WRAB** | **Tennant Creek** | **32.45** | **110** | *e*P | **P** | **23 24 33.0** | **-1.2** |
| | comp=Z,76nm,1.4s | | | | | | |
| **WB2** | **Warramunga Arr** | **32.45** | **110** | *e*P | **P** | **23 24 33.0** | **-1.3** |
| **ASAR** | **Alice Springs** | **32.99** | **117** | P | **P** | **23 24 37.3** | **-1.6** |
| | comp=Z,6.3nm,0.7s,baz=290,slow=8.0,SNR=51 | | | | | | |
| ASAR | | | | LR | LR | 23 37 47.6 | |
| | comp=Z,452nm,20.1s,baz=289,slow=36 | | | | | | |
| **AS31** | **Alice Springs** | **32.99** | **117** | *e*P | **P** | **23 24 37.5** | **-1.4** |
| | comp=Z,12nm,1.3s | | | | | | |
| **AS01** | **Alice Springs** | **33.03** | **117** | *e*P | **P** | **23 24 37.1** | **-2.1** |
| **KMI** | **Kunming** | **35.59** | **1** | P | **P** | **23 25 05.6** | **+4.1** |
| KMI | | | | pP | sP | 23 25 11.0 | +5.1 |
| KMI | | | | sP | pP | 23 25 13.6 | +9.0 |
| KMI | | | | S | **S** | **23 30 42.1** | **+4.3** |
| KMI | | | | SS | **SnSn** | **23 33 03.1** | **+4.6** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,15nm,1.3s | | | | | | |
| KMI | | | | pmax | pmax | | |
| | comp=Z,260nm,5.0s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,620nm,22.2s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,1μm,20.4s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,1μm,16.5s | | | | | | |
| **HYB** | **Hyderabad** | **36.29** | **320** | *i* P | **P** | **23 25 10.0** | **+2.5** |
| **GYA** | **Guiyang** | **37.18** | **7** | ⇑*i*P | **P** | **23 25 16.9** | **+1.9** |
| GYA | | | | PP | **PnPn** | **23 26 45.8** | **+5.5** |
| GYA | | | | PcP | **PcP** | **23 27 37.4** | **+2.3** |
| GYA | | | | S | **S** | **23 31 06.0** | **+4.0** |
| GYA | | | | ScP | **ScP** | **23 31 23.3** | **+0.8** |
| GYA | | | | pmax | pmax | | |
| | comp=Z,20nm,0.8s | | | | | | |
| GYA | | | | pmax | pmax | | |
| | comp=Z,130nm,5.4s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,580nm,17.8s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,550nm,18.0s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,520nm,18.2s | | | | | | |
| **SHL** | **Shillong** | **37.35** | **345** | *e*P | **P** | **23 25 19.5** | **+2.9** |
| **QIS** | **Mount Isa** | **37.42** | **110** | P | **P** | **23 25 15.6** | **-1.5** |
| | baz=37,SNR=6.6 | | | | | | |
| **BBOO** | **Buckleboo** | **38.26** | **130** | P | **P** | **23 25 23.4** | **-0.7** |
| | baz=38 | | | | | | |
| **NACB** | **Ninganchiao** | **39.56** | **29** | P | **P** | **23 25 35.4** | **+0.5** |
| | comp=Z,24nm,0.8s | | | | | | |
| **ODAN** | **Odare** | **39.93** | **339** | *e*P | **P** | **23 25 39.7** | **+1.4** |
| | comp=Z,42nm,0.8s | | | | | | |
| **POO** | **Poona** | **40.19** | **316** | *e*P | **P** | **23 25 36.0** | **-4.3** |
| **TAPN** | **Taplejung** | **40.27** | **340** | *e*P | **P** | **23 25 43.0** | **+1.8** |
| | comp=Z,90nm,0.9s | | | | | | |
| **RAMN** | **Ramite** | **40.29** | **338** | *e*P | **P** | **23 25 43.1** | **+1.8** |
| | comp=Z,73nm,1.0s | | | | | | |
| **COEN** | **Coen** | **40.30** | **99** | P | **P** | **23 25 40.5** | **-0.8** |
| | baz=40,SNR=7.0 | | | | | | |
| **COEN** | **Coen** | **40.30** | **99** | *e*P | **P** | **23 25 40.8** | **-0.5** |
| | comp=Z,35nm,1.0s | | | | | | |
| **JIRN** | **Jiri** | **41.08** | **338** | *e*P | **P** | **23 25 49.5** | **+1.5** |
| | comp=Z,858nm,0.9s | | | | | | |
| **PKI** | **Pulchoki** | **41.29** | **337** | *e*P | **P** | **23 25 50.8** | **+1.2** |
| | comp=Z,66nm,1.2s | | | | | | |
| **PKIN** | **Phulchoki** | **41.30** | **337** | *e*P | **P** | **23 25 50.5** | **+0.8** |
| | comp=Z,54nm,1.1s | | | | | | |
| **ENH** | **Enshi** | **41.34** | **10** | *e*P | **P** | **23 25 50.6** | **+1.0** |
| | comp=Z,17nm,0.8s | | | | | | |
| **CD2** | **Chengdu** | **41.38** | **2** | ⇑*i*P | **P** | **23 25 51.4** | **+1.4** |
| CD2 | | | | pP | sP | 23 25 57.5 | +3.2 |
| CD2 | | | | sP | pP | 23 26 00.3 | +7.2 |
| CD2 | | | | PcP | **PcP** | **23 27 48.1** | **-0.1** |
| CD2 | | | | S | **S** | **23 32 06.8** | **+2.0** |
| CD2 | | | | ScS | **ScS** | **23 35 52.0** | **-2.5** |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,40nm,1.5s | | | | | | |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,190nm,4.8s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,960nm,20.8s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,1μm,20.2s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,1μm,18.0s | | | | | | |
| **GUN** | **Gumba** | **41.42** | **338** | *e*P | **P** | **23 25 52.1** | **+1.4** |
| | comp=Z,109nm,1.0s | | | | | | |
| **DMN** | **Daman** | **41.44** | **337** | *e*P | **P** | **23 25 52.0** | **+1.2** |
| | comp=Z,88nm,1.1s | | | | | | |
| **LSA** | **Lhasa** | **41.49** | **346** | P | **P** | **23 25 53.3** | **+1.9** |
| LSA | | | | pmax | pmax | | |
| | comp=Z,17nm,0.7s | | | | | | |
| **LSA** | **Lhasa** | **41.49** | **346** | *e*P | **P** | **23 25 53.3** | **+1.9** |
| LSA | | | | pmax | pmax | | |
| | comp=Z,33nm,0.9s | | | | | | |
| **LSA** | **Lhasa** | **41.49** | **346** | *e*P | **P** | **23 25 53.3** | **+1.9** |
| | comp=Z,33nm,0.9s | | | | | | |
| **KKN** | **Kakani** | **41.54** | **337** | *e*P | **P** | **23 25 52.8** | **+1.3** |
| | comp=Z,95nm,1.0s | | | | | | |
| **MTSU** | **Mount Surprise** | **41.55** | **105** | P | **P** | **23 25 50.8** | **-0.8** |
| | baz=42,SNR=4.4 | | | | | | |
| **STKA** | **Stephens Creek** | **42.15** | **126** | P | **P** | **23 25 55.0** | **-1.3** |
| | comp=Z,8.8nm,0.9s,baz=300,slow=7.2,SNR=12 | | | | | | |
| STKA | | | | LR | LR | 23 43 17.9 | |
| | comp=Z,1μm,20.1s,baz=284,slow=36 | | | | | | |
| **STKA** | **Stephens Creek** | **42.15** | **126** | P | **P** | **23 25 55.2** | **-1.1** |
| | baz=42,SNR=12 | | | | | | |
| **STKA** | **Stephens Creek** | **42.15** | **126** | *e*P | **P** | **23 25 55.3** | **-1.1** |
| STKA | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.3s | | | | | | |
| **STKA** | **Stephens Creek** | **42.15** | **126** | *e*P | **P** | **23 25 55.3** | **-1.1** |
| | comp=Z,6.6nm,1.3s | | | | | | |
| **KOLN** | **Koldanda** | **42.18** | **335** | *e*P | **P** | **23 25 58.0** | **+1.2** |
| | comp=Z,140nm,0.9s | | | | | | |
| **DANN** | **Dangsing** | **42.63** | **336** | *e*P | **P** | **23 26 01.9** | **+1.4** |
| | comp=Z,6.9nm,1.0s | | | | | | |
| **WHN** | **Wuhan** | **42.66** | **16** | ⇓P | **P** | **23 26 02.3** | **+2.0** |
| WHN | | | | LR | LR | | |
| | comp=Z,1μm,14.6s | | | | | | |
| **PYUN** | **Piuthan** | **42.72** | **335** | *e*P | **P** | **23 26 02.3** | **+1.1** |
| | comp=Z,215nm,1.3s | | | | | | |
| **QLP** | **Quilpie** | **42.78** | **118** | P | **P** | **23 26 01.5** | **0.0** |
| | baz=43,SNR=5.8 | | | | | | |
| **CTA** | **Charters Tower** | **43.54** | **108** | P | **P** | **23 26 06.8** | **-1.0** |
| | baz=44 | | | | | | |
| **CTAO** | **Charters Tower** | **43.54** | **108** | *e*P | **P** | **23 26 07.3** | **-0.5** |
| CTAO | | | | pmax | pmax | | |
| | comp=Z,649nm,2.2s | | | | | | |
| **CTAO** | **Charters Tower** | **43.54** | **108** | *e*P | **P** | **23 26 07.3** | **-0.5** |
| | comp=Z,649nm,2.2s | | | | | | |
| **PMG** | **Port Moresby** | **44.43** | **93** | *ce*P | **P** | **23 26 15.1** | **+0.1** |
| PMG | | | | pmax | pmax | | |
| | comp=Z,133nm,1.3s | | | | | | |
| **PMG** | **Port Mo

HHC LR LR
comp=E,680nm,15.3s
HHC LR LR
comp=Z,340nm,19.5s
**BJT Baijiatuau 52.11 14** *e*P **P 23 27 14.5 +0.7**
BJT pmax pmax
comp=Z,18nm,1.0s
**BJT Baijiatuau 52.11 14** *e*P **P 23 27 14.5 +0.7**
comp=Z,18nm,1.0s
**BJI Beijing 52.13 14** P **P 23 27 14.8 +0.8**
BJI PP **PP 23 29 15.1 +2.6**
BJI pmax pmax
comp=Z,20nm,0.9s
BJI LR LR
comp=Z,510nm,17.1s
BJI LR LR
comp=Z,900nm,16.5s
BJI LR LR
comp=Z,370nm,20.4s
**ABPO Ambohimpanom 53.44 254** *e*P **P 23 27 26.1 +1.7**
ABPO pmax pmax
comp=Z,29nm,1.2s
**ABPO Ambohimpanom 53.44 254** *e*P **P 23 27 26.1 +1.7**
comp=Z,29nm,1.2s
**KSAR Wonju Array Be 53.66 26** P **P 23 27 25.9 +0.6**
**KSAR Wonju Array Be 53.66 26** P **P 23 27 25.9 +0.6**
**KSRS Korea Array 53.68 26** P **P 23 27 25.9 +0.4**
comp=Z,10nm,1.1s,baz=202,slow=8.3,SNR=16
KSRS LR LR 23 51 14.0
comp=Z,94nm,20.1s,baz=229,slow=37
**KS01 Wonju Array Si 53.69 26** *e*P **P 23 27 25.9 +0.3**
**CBIJ Chichi jima 54.10 45** *e*P **P 23 27 28.4 -0.3**
comp=Z,163nm,1.0s
**WSAR Wadi Sarin 54.22 309** P **P 23 27 31.4 +1.7**
comp=Z,5.2nm,0.9s,baz=99,slow=7.4,SNR=5.5
**BIDO Bidbid 54.76 309** P P 23 27 43.0 +9.3
SNR=6.0
**KBL Kabul 54.78 327** *e*P **P 23 27 34.4 +0.6**
KBL pmax pmax
comp=Z,14nm,1.0s
**KBL Kabul 54.78 327** *e*P **P 23 27 34.4 +0.6**
comp=Z,14nm,1.0s
**KSH Kashi 55.50 336** P **P 23 27 37.8 -1.0**
KSH pP pP 23 27 41.9 -0.1
KSH PcP **PcP 23 28 38.0 -0.9**
KSH PP **PP 23 29 43.5 +0.5**
KSH S **S 23 35 19.3 -4.9**
KSH SS **SS 23 39 07.8 -1.6**
KSH pmax pmax
comp=Z,8.0nm,0.6s
KSH LR LR
comp=Z,220nm,5.3s
KSH LR LR
comp=Z,160nm,6.1s
KSH LR LR
comp=Z,270nm,7.4s
**CASY Casey 55.84 176** P **P 23 27 41.1 +0.4**
**SFK Sufi-Kurgan 56.95 334** P **P 23 27 50.2 +0.9**
SFK pmax pmax
comp=Z,260nm,1.1s
**HNR Honiara 56.97 94** P **P 23 27 49.9 +0.2**
HNR pmax pmax
comp=Z,98nm,0.8s
**HNR Honiara 56.97 94** P **P 23 27 49.9 +0.2**
comp=Z,98nm,0.8s
**ASHO Ashiyiah 56.97 309** P P 23 27 58.7 +9.1
SNR=6.6
**UOSS Minazif 57.00 309** *e*P **P 23 27 52.7 +2.9**
comp=Z,7.1nm,0.9s
**PDGK Podgornoye 57.54 341** P **P 23 27 54.4 +1.1**
PDGK pmax pmax
comp=Z,38nm,1.1s
**MJAR Matsushiro Arr 58.00 34** P **P 23 27 54.9 -1.7**
comp=Z,2.0nm,0.7s,baz=218,slow=9.6,SNR=4.0
MJAR LR LR 23 53 37.5
comp=Z,114nm,21.2s,baz=295,slow=37
**CN2 Changchun 58.25 20** *e*P **P 23 27 57.8 -0.3**
CN2 PcP **PcP 23 28 47.8 -1.5**
CN2 *e*S **S 23 35 59.4 -0.8**
CN2 pmax pmax
comp=Z,10.0nm,0.8s
CN2 pmax pmax
comp=Z,200nm,4.0s
CN2 LR LR
comp=Z,300nm,13.0s
CN2 LR LR
comp=Z,500nm,13.0s
CN2 LR LR
comp=Z,300nm,14.0s
**SONM Songino Array 58.38 3** P **P 23 28 00.6 +1.5**
comp=Z,14nm,1.0s,baz=187,slow=5.5,SNR=66
SONM LR LR 23 57 01.8
comp=Z,244nm,18.3s,baz=178,slow=40
**SONA1 Songino Array 58.39 3** *e*P **P 23 27 59.6 +0.4**
**ULN Ulaanbaatar 58.45 4** *e*P **P 23 28 00.9 +1.3**
ULN pmax pmax
comp=Z,17nm,1.0s
**ULN Ulaanbaatar 58.45 4** *e*P **P 23 28 00.9 +1.3**
comp=Z,17nm,1.0s
**ULN Ulaanbaatar 58.45 4** P **P 23 28 01.4 +1.8**
SNR=8.6
**ULN Ulaanbaatar 58.45 4** P **P 23 28 01.4 +1.8**
SNR=8.6
ULN P P 23 28 01.4 +1.8
SNR=8.6
**AAK Ala-Archa 58.74 336** P **P 23 28 02.2 +0.5**
comp=Z,4.8nm,0.9s,baz=130,slow=7.8,SNR=8.7
**AAK Ala-Archa 58.74 336** *e*P **P 23 28 03.1 +1.4**
comp=Z,15nm,1.1s
**MNAS Manas 59.42 335** P **P 23 28 07.3 +0.8**
MNAS pmax pmax
comp=Z,18nm,1.0s
**MK01 Makanchi Array 59.85 344** *e*P **P 23 28 08.9 -0.3**
**MK31 Makanchi Array 59.87 344** *e*P **P 23 28 10.0 +0.6**
**MK31 Makanchi Array 59.87 344** *e*P **P 23 28 10.0 +0.6**
**MKAR Makanchi Array 59.87 344** P **P 23 28 09.6 +0.2**
comp=Z,5.2nm,0.8s,baz=148,slow=7.9,SNR=39
MKAR LR LR 23 57 42.8
comp=Z,253nm,20.6s,baz=160,slow=40
**MKAR Makanchi Array 59.87 344** *i* P **P 23 28 10.0 +0.6**
MKAR pmax pmax
comp=Z,5.0nm,0.8s
**MDJ Mudanjiang 60.43 22** P **P 23 28 15.1 +1.9**
MDJ pP sP 23 28 18.3 +0.7
MDJ sP pP 23 28 19.8 +3.4
MDJ PP **PP 23 30 29.0 +2.4**
MDJ S **S 23 36 32.3 +4.0**
MDJ ScS **ScS 23 38 05.6 +1.5**
MDJ pmax pmax
comp=Z,7.0nm,1.1s
MDJ pmax pmax
comp=Z,130nm,4.8s
MDJ LR LR
comp=Z,230nm,17.9s
MDJ LR LR
comp=Z,310nm,17.0s
MDJ LR LR
comp=Z,290nm,18.4s
**MDJ Mudanjiang 60.43 22** P **P 23 28 13.7 +0.6**
comp=Z,1.5nm,0.6s
**ZAK Zakamensk 60.81 1** *e*P **P 23 28 15.8 0.0**
ZAK pmax pmax
comp=Z,5.0nm,1.3s
**USRK Ussuriysk Ar. 61.01 24** P **P 23 28 17.6 +0.4**
comp=Z,12nm,0.8s,baz=214,slow=5.7,SNR=12
USRK LR LR 23 56 37.9
comp=Z,178nm,18.0s,baz=230,slow=38
**DGZ Jazzator, Alta 61.47 349** *c i*P **P 23 28 21.2 +0.9**
DGZ pmax pmax
comp=Z,7.0nm,0.9s
**HIA Hailar 61.69 13** *e*P **P 23 28 22.1 +0.4**
HIA pmax pmax
comp=Z,10.0nm,1.1s
**HIA Hailar 61.69 13** *e*P **P 23 28 22.1 +0.4**
comp=Z,9.7nm,1.1s
**HVS Khovu-Aksy 61.98 354** *i* P **P 23 28 24.2 +0.5**
HVS pmax pmax
comp=Z,20nm,1.1s
**TLY Talaya 62.11 1** P **P 23 28 25.7 +1.2**
TLY pmax pmax
comp=Z,2.0nm,0.6s
**TLY Talaya 62.11 1** P **P 23 28 25.7 +1.2**
comp=Z,1.6nm,0.6s
**DZM Mont Dzumac 62.45 109** *e*S **S 23 36 48.3 -6.8**
comp=Z,98nm,24.4s
**DZM Mont Dzumac 62.45 109** *e*LR LR 23 47 06.4
comp=Z,365nm,23.4s
**MAW Mawson 62.48 196** P **P 23 28 27.0 +0.3**
comp=Z,5.8nm,1.1s,baz=43,slow=8.0,SNR=2.8
MAW LR LR 23 50 25.9
comp=Z,151nm,20.4s,baz=60,slow=31
**MAW Mawson 62.48 196** P **P 23 28 27.0 +0.3**
**ATD Arta Tunnel 62.81 289** LR LR 23 51 37.9
comp=Z,221nm,19.7s,baz=109,slow=32
**GEYT Alibeck 63.43 322** P **P 23 28 34.0 +0.4**
comp=Z,3.6nm,0.7s,baz=111,slow=8.1,SNR=12
GEYT LR LR 23 55 23.3
comp=Z,568nm,21.1s,baz=130,slow=35
**KURBB Kurchatov Arra 64.39 344** P **P 23 28 39.9 +0.4**
comp=Z,9.3nm,1.0s,baz=167,slow=5.9,SNR=60
**KURK Kurchatov 64.44 344** *ce*P **P 23 28 40.4 +0.5**
KURK pmax pmax
comp=Z,14nm,1.1s
**KURK Kurchatov 64.44 344** *e*P **P 23 28 40.5 +0.5**
comp=Z,32nm,1.0s
**KURK Kurchatov 64.44 344** P **P 23 28 40.9 +1.0**
SNR=14
**RAYN Ar Rayn 64.88 302** *e*P **P 23 28 45.5 +2.1**
comp=Z,22nm,1.6s
**KMBO Kilima Mbogo 65.02 274** P **P 23 28 47.0 +2.3**
comp=Z,1.3nm,0.2s,baz=61,slow=10,SNR=9.4
KMBO LR LR 23 51 29.6
comp=Z,236nm,20.4s,baz=96,slow=31
**KMBO Kilima Mbogo 65.02 274** *i* P **P 23 28 42.9 -1.9**
KMBO pmax pmax
comp=Z,3.0nm,0.3s
**KMBO Kilima Mbogo 65.02 274** *e*P **P 23 28 46.9 +2.1**
**KMBO Kilima Mbogo 65.02 274** pP pP 23 28 48.3 +0.3
SNR=5.2
**ZAA0 Zalesovo Array 66.01 349** *e*P **P 23 28 50.2 +0.2**
**ZALV Zalesovo Beam 66.01 349** P **P 23 28 50.2 +0.2**
comp=Z,7.8nm,0.6s,baz=165,slow=5.3,SNR=37
ZALV LR LR 00 00 41.5
comp=Z,333nm,20.9s,baz=116,slow=39
**ZALV Zalesovo Beam 66.01 349** *e*P **P 23 28 50.0 0.0**
**ZALV Zalesovo Beam 66.01 349** *e*P **P 23 28 50.0 0.0**
**NVS Novosibirsk 67.16 348** *i*P **P 23 28 57.8 +0.5**
NVS *e*S **S 23 37 43.8 -7.8**
NVS pmax pmax
comp=Z,24nm,1.6s
NVS pmax pmax
comp=N,15nm,1.7s
NVS pmax pmax
comp=E,12nm,1.5s
NVS smax smax
comp=E,13nm,2.1s
**YSS Yuzh-Sakhalins 67.90 29** *i* P **P 23 29 01.8 -0.4**
YSS pmax pmax
comp=Z,22nm,0.9s
**YSS Yuzh-Sakhalins 67.90 29** *e*P **P 23 29 02.4 +0.2**
comp=Z,13nm,0.5s
**BOD Bodaibo 68.95 7** *e*P **P 23 29 07.8 -0.7**
BOD pmax pmax
comp=Z,17nm,1.9s
**BVAR Borovoye Array 68.97 340** P **P 23 29 08.9 +0.1**
comp=Z,3.1nm,0.6s,baz=141,slow=7.3,SNR=23
**BRVK Borovoye 69.03 340** *ce*P **P 23 29 09.8 +0.6**
BRVK pmax pmax
comp=Z,6.0nm,0.9s
**BRVK Borovoye 69.03 340** *e*P **P 23 29 09.4 +0.3**
comp=Z,18nm,0.9s
**LSZ Lusaka 71.81 257** *e*P **P 23 29 27.8 +0.7**
LSZ pmax pmax
comp=Z,17nm,1.2s
**LSZ Lusaka 71.81 257** *e*P **P 23 29 27.8 +0.7**
comp=Z,17nm,1.2s
**AKTO Aktyubinsk 71.91 332** P **P 23 29 26.8 0.0**
comp=Z,1.4nm,0.7s,baz=131,slow=5.1,SNR=5.0
**AKT Akhty 71.97 320** *i*P P 23 29 36.9 +9.4
AKT *e* 23 29 38.6
AKT pmax pmax
comp=Z,4.0nm,0.2s
**MAK Makhachkala 72.91 321** *e*P **P 23 29 30.0 -2.9**
MAK *e* 23 32 21.5
MAK *e*S **S 23 38 55.4 -4.2**
MAK *e*SS **SS 23 43 39.8 -0.5**
MAK pmax pmax
comp=Z,255nm,1.2s
MAK MLR MLR
comp=Z,216nm,18.0s
**VNDA Vanda 73.32 169** P **P 23 29 33.3 -1.5**
comp=Z,2.5nm,1.0s,baz=288,slow=5.4,SNR=6.6
VNDA LR LR 23 57 54.7
comp=Z,78nm,18.2s,baz=310,slow=33
**VNDA Vanda 73.32 169** *e*P **P 23 29 33.8 -1.0**
VNDA pmax pmax
comp=Z,6.0nm,0.9s
**VNDA Vanda 73.32 169** *e*P **P 23 29 33.8 -1.0**
comp=Z,5.7nm,0.9s
**BOSA Boshof 73.42 243** P **P 23 29 35.4 -1.1**
comp=Z,2.7nm,0.9s,baz=78,slow=8.2,SNR=3.8
**MARD Mardin 74.58 314** *e*P **P 23 29 43.9 +0.8**
comp=Z,17nm,0.5s
**ZEI Tsey 75.08 320** *e*P **P 23 29 44.1 -1.8**
ZEI pmax pmax
comp=Z,5.0nm,1.0s
**ASF Jabal al Asfar 75.34 307** P **P 23 29 47.9 +0.3**
comp=Z,4.4nm,0.9s,baz=192,slow=1.2,SNR=5.7
**SVE Sverdlovsk 75.42 338** *e*P **P 23 29 48.2 +0.9**
SVE pmax pmax
comp=Z,27nm,1.1s
**NCK Nalchik 75.63 320** *e*P **P 23 29 49.0 +0.2**
NCK pmax pmax
comp=Z,6.0nm,1.1s
**YAK Yakutsk 75.63 13** *e*P **P 23 29 46.9 -1.4**
YAK pmax pmax
comp=Z,22nm,0.9s
YAK pmax pmax
comp=N,7.0nm,1.3s
YAK pmax pmax
comp=E,7.0nm,1.4s
**YAK Yakutsk 75.63 13** *e*P **P 23 29 48.7 +0.3**
comp=E,22nm,0.4s
**ARU Arti 75.92 337** P **P 23 29 49.4 -0.7**
comp=E,0.7nm,0.3s,baz=133,slow=3.0,SNR=4.0
**ARU Arti 75.92 337** *di*P **P 23 29 50.7 +0.6**
ARU 23 32 41.8
ARU S **S 23 39 33.1 +0.4**
ARU SS **SS 23 44 25.6 +0.1**
ARU pmax pmax
comp=Z,7.0nm,1.2s
**ARU Arti 75.92 337** *e*P **P 23 29 50.5 +0.4**
comp=Z,49nm,1.7s
**EIL Elat 75.96 304** P **P 23 29 51.1 +0.1**
comp=Z,7.3nm,1.0s,baz=14,slow=10,SNR=4.0
**NEY Neytrino 76.06 320** *e*P **P 23 29 54.2 +2.7**
NEY pmax pmax
comp=Z,1.0nm,1.4s
**KBZ Khabaz 76.18 320** P **P 23 29 51.6 -0.3**
comp=Z,5.6nm,1.0s,baz=90,slow=4.3,SNR=4.9
KBZ LR LR 00 04 27.0
comp=Z,102nm,21.8s,baz=102,slow=36
**RAO Raoul Island 76.24 118** P **P 23 29 52.3 -0.4**
RAO pmax pmax
comp=Z,226nm,1.0s
**RAO Raoul Island 76.24 118** P **P 23 29 52.2 -0.4**
comp=Z,226nm,1.0s
**KIV Kislovodsk 76.43 320** *e*P **P 23 29 54.4 +0.9**
KIV pmax pmax
comp=Z,6.0nm,1.0s
**MMAI Mount Meron Ar 76.83 308** P **P 23 29 57.5 +1.5**
comp=Z,4.2nm,0.9s,baz=109,slow=3.5,SNR=6.5
**SUR Sutherland 77.00 239** *e*P **P 23 29 58.5 +1.3**
comp=Z,21nm,0.9s
**PETK Petropavlovsk- 79.20 30** LR LR 00 07 55.9
comp=Z,109nm,18.8s,baz=275,slow=38
**QSPA South Pole Qui 79.34 180** *e*P **P 23 30 08.4 -1.0**
comp=Z,42nm,0.8s
**PET Petropavlovsk 79.63 31** *e*P **P 23 30 11.2 +0.3**
PET pmax pmax
comp=Z,30nm,1.0s
**BR131 Keskin Array S 80.67 313** *e*P **P 23 30 18.3 +1.2**
**BRTR Keskin Array B 80.67 313** P **P 23 30 16.9 -0.2**
comp=Z,1.6nm,0.8s,baz=122,slow=7.0,SNR=6.7
BRTR LR LR 00 07 44.4
comp=Z,146nm,19.4s,baz=106,slow=37
**BRTR Keskin Array B 80.67 313** *i* P **P 23 30 18.7 +1.6**
BRTR pmax pmax
comp=Z,3.0nm,0.8s
**TSUM Tsumeb 81.37 252** *e*P **P 23 30 22.7 +1.4**
comp=Z,1.9nm,0.7s
**SEY Seymchan 82.92 21** *e*P **P 23 30 27.8 -0.4**
**TIXI Tiksi 84.07 8** *ce*P **P 23 30 33.6 -0.3**
TIXI pmax pmax
comp=Z,10.0nm,2.5s
**TIXI Tiksi 84.07 8** *e*P **P 23 30 33.0 -0.9**
**SNAA Sanae 84.56 198** P **P 23 30 34.7 -2.0**
**SNAA Sanae 84.56 198** *e*P **P 23 30 38.3 +1.6**
**SNAA Sanae 84.56 198** *e*P **P 23 30 38.3 +1.6**
**KLMR Klimovskoe 86.47 334** *e*P P 23 30 52.3 +6.2
KLMR pmax pmax
comp=Z,23nm,1.5s
**VNA1 Neumayer--Stat 86.57 198** P **P 23 30 43.2 -3.4**
**AKASG Malin Array Be 87.55 323** P **P 23 30 51.2 -0.4**
comp=Z,0.3nm,0.4s,baz=83,slow=5.5,SNR=4.3
**AKASG Malin Array Be 87.55 323** *i* P **P 23 30 51.0 -0.6**
**MLR Muntele Rosu 87.97 317** P **P 23 30 54.1 +0.2**
comp=Z,1.1nm,1.0s,baz=92,slow=6.6,SNR=5.4
**MLR Muntele Rosu 87.97 317** *e*P **P 23 30 54.8 +0.8**
**BUR04 Bucovina Ar. S 89.08 319** *e*P **P 23 31 00.7 +1.6**
**BUR08 Bucovina Ar. S 89.09 319** *e*P **P 23 31 01.1 +1.9**
**FINES FINESS Array B 92.68 332** LR LR 00 15 11.0
comp=Z,192nm,21.9s,baz=112,slow=37
**VRAC Vranov 95.05 319** LR LR 00 15 12.1
comp=Z,44nm,21.9s,baz=159,slow=36
**DPC Dobruska-Polom 95.40 320** *ep*P P 23 31 34.7 +6.4
DPC *ex* x 23 32 08.8
**DPC Dobruska-Polom 95.40 320** *e*P P 23 31 34.7 +6.4
**GERES GERESS Array B 96.85 318** LR LR 00 20 32.7
comp=Z,52nm,19.0s,baz=7.0,slow=39
**CLL Collm 97.63 321** *e*P **P 23 31 35.0 -3.2**
**KEST Kesra 98.31 305** LR LR 00 15 20.8
comp=Z,124nm,19.9s,baz=274,slow=35
**HFS Hagfors 98.34 330** LR LR 00 18 12.6
comp=Z,168nm,20.5s,baz=85,slow=37
**NOA NORSAR Array B 99.65 330** LR LR 00 18 41.5
comp=Z,143nm,20.8s,baz=110,slow=36
**TBI Tubuai 102.37 117** *e*LR LR 00 05 32.9
comp=Z,341nm,24.2s
**PPT2 Papeete2 103.92 111** *e*LR LR 00 06 16.5
comp=Z,208nm,23.2s
**RKT Rikitea 114.89 122** *e*LR LR 00 11 20.6
comp=Z,373nm,25.2s
**TAOE Nuku Hiva Isla 115.16 105** *e*LR LR 00 11 43.4
comp=Z,162nm,25.3s
**YKA Yellowknife Ar 121.95 19** PKP **PKPdf 23 36 56.6 -1.2**
comp=Z,1.6nm,0.9s,baz=311,slow=1.9,SNR=12
YKA PKKPab **PKKPab 23 46 56.1 +0.6**
comp=Z,0.4nm,0.8s,baz=134,slow=3.8,SNR=5.9
**WVOR Wild Horse Val 132.50 41** *e*PKIKP **PKPdf 23 37 19.6 +0.9**
**WVOR Wild Horse Val 132.50 41** *e*PKPdf **PKPdf 23 37 19.6 +0.9**
**MFID Camas Ranch 133.75 38** *e*PKPdf **PKPdf 23 37 22.3 +1.3**
**DUG Dugway, Tooele 137.41 40** *e*PKIKP **PKPdf 23 37 28.8 +0.8**
**DUG Dugway, Tooele 137.41 40** *e*PKPdf **PKPdf 23 37 28.8 +0.8**
**PDAR Pinedale Array 137.82 35** PKP **PKPdf 23 37 26.6 -2.2**
comp=Z,0.7nm,0.8s,baz=236,slow=1.1,SNR=5.4
**ULM Lac du Bonnet 137.86 17** PKP **PKPdf 23 37 28.9 +0.6**
comp=Z,2.3nm,0.8s,baz=292,slow=5.4,SNR=3.1
**O20A White River Ci 140.26 37** *e*PKPdf **PKPdf 23 37 34.0 +0.7**
**BDFB Brasilia 140.46 229** PKP **PKPdf 23 37 34.3 +0.1**
comp=Z,4.1nm,0.9s,baz=38,slow=2.5,SNR=4.6
**ECSD EROS Data Cent 143.31 23** *e*PKPdf PKPbc 23 37 35.9 +0.6
**SDCO Great Sand Dun 143.43 38** *e*PKPdf PKPbc 23 37 37.5 +1.3
**ANMO Albuquerque 144.55 42** PKP **PKPdf 23 37 40.9 -0.2**
comp=Z,8.9nm,0.9s,baz=238,slow=1.0,SNR=23
**ANMO Albuquerque 144.55 42** PKIKP **PKPdf 23 37 40.9 -0.2**
ANMO *e* 23 37 41.1
**ANMO Albuquerque 144.55 42** PKP **PKPdf 23 37 40.9 -0.2**
ANMO *e*PKPdf PKPbc 23 37 41.1 +1.5
**BGNE Belgrade 144.61 27** *e*PKPdf PKPbc 23 37 39.7 +0.3
**121A Cookes Peak, D 144.97 47** *e*PKPdf **PKPdf 23 37 42.6 +0.7**
**GLMI Grayling 145.49 8** *e*PKPdf **PKPab 23 37 42.6 +0.2**
**CBKS Cedar Bluff 145.90 31** *e*PKP2 **PKPbc 23 37 43.8 +0.2**
**CBKS Cedar Bluff 145.90 31** *e*PKPdf **PKPbc 23 37 43.8 +0.2**
**SCIA State Center 146.13 21** *e*PKPdf **PKPbc 23 37 44.4 +0.2**
**JFWS Jewell Farm 146.14 16** *e*PKP2 **PKPdf 23 37 43.7 +0.4**
**JFWS Jewell Farm 146.14 16** *e*PKPdf **PKPdf 23 37 43.7 +0.4**
**MNTX Cornudas Mount 147.14 46** *e*PKPbc **PKPbc 23 37 47.5 0.0**
**KSU1 Kansas State U 147.17 27** *e*PKPdf **PKPdf 23 37 46.2 +1.1**
**AMTX Amarillo 147.63 38** *e*PKPbc **PKPbc 23 37 49.7 +0.8**
**BINY Binghamton 148.55 357** *e*PKPdf **PKPdf 23 37 47.7 +0.3**
BINY *e*PKPbc **PKPbc 23 37 51.3 +0.3**
BINY *e*PKPab **PKPab 23 37 56.7 +2.4**
**HDIL Hopedale 148.60 17** *e*PKPbc **PKPbc 23 37 50.8 -0.3**
**SFIN Lafayette 149.33 14** *e*PKPbc **PKPbc 23 37 52.4 -0.5**
**WMOK Wichita Mounta 149.44 35** *e*PKP2 **PKPbc 23 37 53.6 +0.2**
**WMOK Wichita Mounta 149.44 35** *e*PKPbc **PKPbc 23 37 53.6 +0.2**
**TXAR Lajitas Array 149.66 49** PKP **PKPdf 23 37 50.0 +0.4**
comp=Z,5.0nm,1.2s,baz=211,slow=2.2,SNR=6.5
TXAR PKPbc **PKiKP 23 37 54.8 -0.5**
comp=Z,13nm,0.8s,baz=273,slow=1.7,SNR=64
**TUL1 Leonard 150.12 30** *e*PKPbc **PKPbc 23 37 55.0 0.0**
TUL1 *e*PKPab **PKPab 23 38 01.7 +0.8**
**ACSO Alum Creek Sta 150.23 8** *e*PKPbc **PKPbc 23 37 54.8 -0.3**
**CCM Cathedral Cave 150.25 21** *e*PKIKP **PKPbc 23 37 54.2 -1.1**
**CCM Cathedral Cave 150.25 21** *e*PKPbc **PKPbc 23 37 54.2 -1.1**
**ABTX Abilene, Hawle 150.41 39** *e*PKPbc **PKPbc 23 37 56.3 +0.5**
**LPAZ La Paz 151.50 200** PKPbc **PKPbc 23 37 59.2 -0.4**
comp=Z,6.0nm,1.0s,baz=91,slow=5.0,SNR=13
**WCI Wyandotte Cave 151.56 14** *e*PKIKP **PKPbc 23 37 58.1 -0.3**
**WCI Wyandotte Cave 151.56 14** *e*PKPbc **PKPbc 23 37 58.0 -0.3**
**JCT Junction City 151.71 43** *e*PKIKP **PKPbc 23 37 59.1 +0.1**
**JCT Junction City 151.71 43** *e*PKPbc **PKPbc 23 37 59.1 +0.1**
**WHTX Lake Whitney, 152.18 37** *e*PKPbc **PKPbc 23 38 00.6 +0.6**
**MIAR Mount Ida 152.29 29** *e*PKIKP **PKPbc 23 38 00.5 +0.4**
**MIAR Mount Ida 152.29 29** *e*PKPbc **PKPbc 23 38 00.5 +0.4**

*ISCJB* ***16*** *23:27:27.5±0.7,51°44'N±0'.03×16°21'E±0'.04, h0km, Error ellipse: s-maj=5.1km s-min=3.2km az=17.3*
*WAR* ***16*** *23:27:30.1,51°44'N×16°19'E, h1km, Mw2.4*
*CSEM* ***16*** *23:27:30.0±0.3,51°40'N×16°15'E, h2km, ML3.1/6, Error ellipse: s-maj=5.6km s-min=2.9km az=5.0*
*PRU* ***16*** *23:27:31.1,51°37'N×16°16'E, h0km*

**ISC 16 23:27:28.9±0.9, 51°49'N±0'.04×16°17'E±0'.02, h0km, n31, s0e92/61, 1D, Poland**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KSP** | **Ksiaz** | **0.65** | **173** | *i* Pg | | **Pg** | **23 27 41.3** | **0.0** |
| KSP | | | | *e*Sg | | **Sg** | **23 27 49.2** | **-0.6** |
| **KSP** | **Ksiaz** | **0.65** | **173** | *i*Pg | | **Pg** | **23 27 41.3** | **0.0** |
| KSP | | | | *e*Sg | | **Sg** | **23 27 49.2** | **-0.6** |
| **KSP** | **Ksiaz** | **0.65** | **173** | *i* Pg | | **Pg** | **23 27 41.3** | **0.0** |
| KSP | | | | *e*Sg | | **Sg** | **23 27 49.2** | **-0.6** |
| **UPC** | **Upice** | **0.99** | **186** | *e*PG | | **Pg** | **23 27 47.5** | **-0.3** |
| UPC | | | | *e*SG | | **Sg** | **23 27 59.2** | **-1.4** |
| comp=Z,61nm,0.3s | | | | | | | | |
| **UPC** | **Upice** | **0.99** | **186** | Pg | | **Pg** | **23 27 47.5** | **-0.3** |
| UPC | | | | Sg | | **Sg** | **23 27 59.2** | **-1.4** |
| 61nm,0.3s | | | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.15** | **175** | *e*PG | | **Pg** | **23 27 50.2** | **-0.6** |
| DPC | | | | *e*SG | | **Sg** | **23 28 04.6** | **-1.0** |
| comp=Z,19nm,0.4s | | | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.15** | **175** | Pg | | **Pg** | **23 27 50.2** | **-0.6** |
| DPC | | | | Sg | | **Sg** | **23 28 04.6** | **-1.0** |
| 19nm,0.4s | | | | | | | | |
| **PVCC** | **Panska Ves** | **1.40** | **227** | *e*PG | | **Pb** | **23 27 56.0** | **+0.2** |
| PVCC | | | | *e*SG | | **Sb** | **23 28 14.3** | **+0.1** |
| **PVCC** | **Panska Ves** | **1.40** | **227** | Pg | | **Pb** | **23 27 56.0** | **+0.2** |
| PVCC | | | | Sg | | **Sb** | **23 28 14.3** | **+0.1** |
| **BRG** | **Berggiesshubel** | **1.53** | **247** | PG | | **Pg** | **23 27 58.6** | **+0.4** |
| BRG | | | | SG | | **Sn** | **23 28 19.1** | **+1.0** |
| 29nm,0.4s | | | | | | | | |
| **BRG** | **Berggiesshubel** | **1.53** | **247** | PG | | **Pg** | **23 27 58.6** | **+0.4** |
| BRG | | | | SG | | **Sn** | **23 28 19.1** | **+1.0** |
| 29nm,0.4s | | | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **1.81** | **210** | *e*PG | | **Pb** | **23 28 02.7** | **-0.1** |
| GOPC | | | | *e*SG | | **Sb** | **23 28 25.8** | **-0.2** |
| **GOPC** | **GO Pecny, Ondr** | **1.81** | **210** | Pg | | **Pb** | **23 28 02.7** | **-0.1** |
| GOPC | | | | Sg | | **Sb** | **23 28 25.8** | **-0.2** |
| **PRU** | **Pruhonice** | **1.83** | **215** | *e*PN | | **Pn** | **23 28 01.4** | **-0.1** |
| PRU | | | | *e*PG | | **Pb** | **23 28 02.7** | **-0.4** |
| PRU | | | | *e*SG | | **Sb** | **23 28 26.3** | **-0.2** |
| comp=Z,16nm,0.3s | | | | | | | | |
| **PRU** | **Pruhonice** | **1.83** | **215** | Pn | | **Pn** | **23 28 01.4** | **-0.1** |
| **MORC** | **Moravsky Berou** | **1.93** | **153** | *e*Pn | | **Pn** | **23 28 02.1** | **-0.8** |
| MORC | | | | *e*Sg | | **Sn** | **23 28 27.7** | **-0.1** |
| **CLL** | **Collm** | **1.99** | **266** | *e*Pg | | **Pg** | **23 28 07.0** | **0.0** |
| CLL | | | | *e*Sg | | **Sg** | **23 28 34.0** | **+1.1** |
| comp=Z,13nm,0.4s | | | | | | | | |
| **OKC** | **Ostrava-Krasne** | **2.08** | **142** | *e*SG | | **Sg** | **23 28 34.6** | **-1.0** |
| comp=Z,9.3nm,0.4s | | | | | | | | |
| **OKC** | **Ostrava-Krasne** | **2.08** | **142** | Sg | | **Sg** | **23 28 34.6** | **-1.0** |
| comp=Z,9.3nm,0.4s | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **VRAC** | **Vranov** | **2.20** | **173** | *e*Pn | **Pn** | **23 28 06.5** | **-0.2** |
| VRAC | | | | *e*Sg | **Sb** | **23 28 36.1** | **-1.2** |
| **NKC** | **Novy Kostel** | **2.67** | **243** | *e*PN | **Pn** | **23 28 13.5** | **+0.3** |
| NKC | | | | *e*PG | **Pg** | **23 28 19.5** | **-0.6** |
| NKC | | | | *e*SG | **Sg** | **23 28 54.4** | **-0.3** |
| | comp=Z,21nm,0.3s | | | | | | |
| **NKC** | **Novy Kostel** | **2.67** | **243** | Pn | **Pn** | **23 28 13.5** | **+0.3** |
| **KHC** | **Kasperske Hory** | **2.89** | **216** | *e*PN | **Pn** | **23 28 16.4** | **+0.3** |
| KHC | | | | *e*PG | **Pb** | **23 28 21.5** | **+0.2** |
| KHC | | | | *e*SG | **Sb** | **23 28 58.8** | **+1.7** |
| | comp=Z,5.7nm,0.3s | | | | | | |
| **KHC** | **Kasperske Hory** | **2.89** | **216** | Pn | **Pn** | **23 28 16.4** | **+0.3** |
| KHC | | | | Sg | **Sb** | **23 28 58.8** | **+1.7** |
| | comp=Z,5.7nm,0.3s | | | | | | |
| **LANS** | **Liptovska Anna** | **3.15** | **137** | *e*Pg | **Pg** | **23 28 29.9** | **+0.6** |
| LANS | | | | *e*Sg | **Sb** | **23 29 06.2** | **+1.4** |
| **LANS** | **Liptovska Anna** | **3.15** | **137** | *e*PG | **Pg** | **23 28 29.9** | **+0.6** |
| LANS | | | | *e*SG | **Sb** | **23 29 06.2** | **+1.4** |
| **VYHS** | **Vyhne** | **3.46** | **149** | *e*Pg | **Pg** | **23 28 35.1** | **0.0** |
| VYHS | | | | *e*Sg | **Sb** | **23 29 15.8** | **+2.3** |
| **VYHS** | **Vyhne** | **3.46** | **149** | *e*PG | **Pg** | **23 28 35.1** | **0.0** |
| VYHS | | | | *e*SG | **Sb** | **23 29 15.8** | **+2.3** |
| **BSD** | **Bornholm Skovb** | **3.71** | **349** | *i* P | **Pn** | **23 28 27.0** | **-0.3** |
| BSD | | | | *e*S | **Sn** | **23 29 08.5** | **-3.1** |
| **STHS** | **Stebnicka Huta** | **3.85** | **121** | *e*Pg | **Pg** | **23 28 43.3** | **+0.7** |
| STHS | | | | *e*Sg | **Sg** | **23 29 32.4** | **0.0** |
| **STHS** | **Stebnicka Huta** | **3.85** | **121** | *e*PG | **Pg** | **23 28 43.3** | **+0.7** |
| STHS | | | | *e*SG | **Sg** | **23 29 32.4** | **0.0** |
| STHS | | | | *e*LG | Lg | 23 29 38.1 | |

*LDG* **16** *23:28:20.1±0.1, 42°.73N×13°.63E, h20km, MI3.2/5, Error ellipse: s-maj=2.9km s-min=2.1km az=80.0*
*ISCJB* **16** *23:28:20.5±0.3, 42°.68N±0°.02×13°.64E±0°.03, h27km±2km, Error ellipse: s-maj=3.8km s-min=3.3km az=26.0*
*ROM* **16** *23:28:20.9±0.1, 42°.67N×13°.61E, h19km±1km, MI3.2/30, Error ellipse: s-maj=1.8km s-min=1.2km az=73.0*
*VIE* **16** *23:28:20.5±0.5, 42°.73N×13°.71E, h10km, mb3.0/13, ML3.1/15, Error ellipse: s-maj=8.7km s-min=3.2km az=104.0*
*IASPEI* **16** *23:28:20.9±1.0, 42°.68N±0°.02×13°.61E±0°.03, h20km±1km, Error ellipse: s-maj=4.0km s-min=3.1km az=81.0, GT5 selection from ISC bulletin GT5 identified by Bond˚jr and McLaughlin (2009) selection criteria Bond˚jr and McLaughlin, A new ground truth data set for seismic studies, Seism. Res. Let., 80, 465-472, 2009*
*CSEM* **16** *23:28:21.0±0.1, 42°.66N×13°.64E, h20km, ML3.7/15, Error ellipse: s-maj=2.9km s-min=2.2km az=106.0*

**ISC 16 23:28:20.8**±0.9, **42°.69N**±0°.02×**13°.58E**±0°.02, **h20**km±2km, **n118**, σ1§**72**/155, **6C-2D**, **Central Italy**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TERO** | **Teramo** | **0.06** | **165** | ⇑ *i*Pg | **Pb** | **23 28 24.3** | **-0.3** |
| TERO | | | | Sg | **Sb** | **23 28 26.9** | **-0.2** |
| | 11μm,0.2s | | | | | | |
| **TERO** | **Teramo** | **0.06** | **165** | ⇑ *i*Pg | **Pb** | **23 28 24.3** | **-0.3** |
| TERO | | | | Sg | **Sb** | **23 28 26.9** | **-0.2** |
| | 11μm,0.2s | | | | | | |
| **SMA1** | **SAN MARTINO** | **0.19** | **253** | ⇑ *i*Pg | **Pb** | **23 28 26.1** | **-0.2** |
| SMA1 | | | | Sg | **Sb** | **23 28 30.4** | **+0.2** |
| | 12μm,0.3s | | | | | | |
| **SMA1** | **SAN MARTINO** | **0.19** | **253** | ⇑ *i*Pg | **Pb** | **23 28 26.1** | **-0.2** |
| SMA1 | | | | Sg | **Sb** | **23 28 30.4** | **+0.2** |
| | 12μm,0.3s | | | | | | |
| **CAMP** | **Campotosto** | **0.20** | **221** | ⇑ *i*Pg | **Pb** | **23 28 26.2** | **-0.2** |
| CAMP | | | | Sg | **Sb** | **23 28 30.3** | **0.0** |
| | 3μm,0.3s | | | | | | |
| **CAMP** | **Campotosto** | **0.20** | **221** | ⇑ *i*Pg | **Pb** | **23 28 26.2** | **-0.2** |
| CAMP | | | | Sg | **Sb** | **23 28 30.3** | **0.0** |
| | 3μm,0.3s | | | | | | |
| **OFFI** | **Offida** | **0.26** | **17** | Pg | **Pb** | **23 28 26.9** | **-0.1** |
| | 13μm,0.6s | | | | | | |
| **OFFI** | **Offida** | **0.26** | **17** | Pg | **Pb** | **23 28 26.9** | **-0.1** |
| | 13μm,0.6s | | | | | | |
| **TRTR** | **Tortoreto Alta** | **0.27** | **63** | ⇓ *i*Pg | **Pb** | **23 28 26.9** | **-0.2** |
| TRTR | | | | Sg | **Sb** | **23 28 32.2** | **+0.8** |
| | 6μm,0.2s | | | | | | |
| **TRTR** | **Tortoreto Alta** | **0.27** | **63** | ⇓ *i*Pg | **Pb** | **23 28 26.9** | **-0.2** |
| TRTR | | | | Sg | **Sb** | **23 28 32.2** | **+0.8** |
| | 6μm,0.2s | | | | | | |
| **VCEL** | **Villa Celiera** | **0.35** | **147** | Pg | **Pb** | **23 28 28.1** | **-0.2** |
| VCEL | | | | Sg | **Sb** | **23 28 34.0** | **+0.6** |
| | 2μm,0.1s | | | | | | |
| **VCEL** | **Villa Celiera** | **0.35** | **147** | Pg | **Pb** | **23 28 28.1** | **-0.2** |
| VCEL | | | | Sg | **Sb** | **23 28 34.0** | **+0.6** |
| | 2μm,0.1s | | | | | | |
| **AQU** | **L'Aquila** | **0.36** | **202** | Pg | **Pb** | **23 28 28.5** | **+0.1** |
| | 1μm,0.8s | | | | | | |
| **AQU** | **L'Aquila** | **0.36** | **202** | Pg | **Pb** | **23 28 28.5** | **+0.1** |
| | 1μm,0.8s | | | | | | |
| **NRCA** | **Norcia** | **0.38** | **294** | Pg | **Pb** | **23 28 28.9** | **+0.2** |
| NRCA | | | | Sg | **Sb** | **23 28 35.4** | **+1.3** |
| | 3μm,0.1s | | | | | | |
| **NRCA** | **Norcia** | **0.38** | **294** | Pg | **Pb** | **23 28 28.9** | **+0.2** |
| NRCA | | | | Sg | **Sb** | **23 28 35.4** | **+1.3** |
| | 3μm,0.1s | | | | | | |
| **LNSS** | **Leonessa** | **0.41** | **259** | Pg | **Pb** | **23 28 29.6** | **+0.3** |
| LNSS | | | | Sg | **Sb** | **23 28 36.9** | **+1.8** |
| | 2μm,0.5s | | | | | | |
| **LNSS** | **Leonessa** | **0.41** | **259** | Pg | **Pb** | **23 28 29.6** | **+0.3** |
| LNSS | | | | Sg | **Sb** | **23 28 36.9** | **+1.8** |
| | 2μm,0.5s | | | | | | |
| **FAGN** | **Fagnano** | **0.42** | **180** | Pg | **Pb** | **23 28 29.2** | **-0.2** |
| | 2μm,0.4s | | | | | | |
| **FAGN** | **Fagnano** | **0.42** | **180** | Pg | **Pb** | **23 28 29.2** | **-0.2** |
| | 2μm,0.4s | | | | | | |
| **GUMA** | **Gualdo di Mace** | **0.46** | **34** | Pg | **Pb** | **23 28 29.6** | **-0.6** |
| GUMA | | | | Sg | **Sb** | **23 28 36.6** | **+0.1** |
| | 3μm,0.5s | | | | | | |
| **GUMA** | **Gualdo di Mace** | **0.46** | **34** | Pg | **Pb** | **23 28 29.6** | **-0.6** |
| GUMA | | | | Sg | **Sb** | **23 28 36.6** | **+0.1** |
| | 3μm,0.5s | | | | | | |
| **FDMO** | **Fiordimonte** | **0.51** | **314** | Pg | **Pb** | **23 28 30.8** | **-0.2** |
| FDMO | | | | Sg | **Sb** | **23 28 38.8** | **+0.9** |
| | 736nm,0.2s | | | | | | |
| **FDMO** | **Fiordimonte** | **0.51** | **314** | Pg | **Pb** | **23 28 30.8** | **-0.2** |
| FDMO | | | | Sg | **Sb** | **23 28 38.8** | **+0.9** |
| | 736nm,0.2s | | | | | | |
| **FIAM** | **Fiamignano** | **0.54** | **220** | Pg | **Pb** | **23 28 31.8** | **+0.1** |
| | 919nm,0.8s | | | | | | |
| **FIAM** | **Fiamignano** | **0.54** | **220** | Pg | **Pb** | **23 28 31.8** | **+0.1** |
| | 919nm,0.8s | | | | | | |
| **PTQR** | **Pietraquaria** | **0.68** | **192** | Pg | **Pb** | **23 28 33.7** | **-0.3** |
| **PTQR** | **Pietraquaria** | **0.68** | **192** | Pg | **Pb** | **23 28 33.7** | **-0.3** |
| **INTR** | **Introdacqua** | **0.71** | **160** | Pg | **Pb** | **23 28 33.8** | **-0.8** |
| | 827nm,0.7s | | | | | | |
| **INTR** | **Introdacqua** | **0.71** | **160** | Pg | **Pb** | **23 28 33.8** | **-0.8** |
| | 827nm,0.7s | | | | | | |
| **SNTG** | **Esanatoglia** | **0.74** | **321** | Pg | **Pb** | **23 28 35.1** | **+0.1** |
| | 347nm,0.5s | | | | | | |
| **SNTG** | **Esanatoglia** | **0.74** | **321** | Pg | **Pb** | **23 28 35.1** | **+0.1** |
| | 347nm,0.5s | | | | | | |
| **CESX** | **Cesi** | **0.74** | **265** | Pg | **Pb** | **23 28 35.1** | **+0.1** |
| | 886nm,0.4s | | | | | | |
| **CESX** | **Cesi** | **0.74** | **265** | Pg | **Pb** | **23 28 35.1** | **+0.1** |
| | 886nm,0.4s | | | | | | |
| **CING** | **Cingoli** | **0.75** | **338** | Pg | **Pb** | **23 28 35.0** | **-0.1** |
| CING | | | | Sg | **Sn** | **23 28 46.9** | **-0.1** |
| | 907nm,0.5s | | | | | | |
| **CING** | **Cingoli** | **0.75** | **338** | Pg | **Pb** | **23 28 35.0** | **-0.1** |
| CING | | | | Sg | **Sn** | **23 28 46.9** | **-0.1** |
| | 907nm,0.5s | | | | | | |
| **VVLD** | **Villa Vallelon** | **0.81** | **178** | Pg | **Pb** | **23 28 35.5** | **-0.8** |
| | 606nm,0.7s | | | | | | |
| **VVLD** | **Villa Vallelon** | **0.81** | **178** | Pg | **Pb** | **23 28 35.5** | **-0.8** |
| | 606nm,0.7s | | | | | | |
| **CERT** | **Cerreto** | **0.86** | **211** | Pg | **Pb** | **23 28 37.6** | **+0.6** |
| | 701nm,0.7s | | | | | | |
| **CERT** | **Cerreto** | **0.86** | **211** | Pg | **Pb** | **23 28 37.6** | **+0.6** |
| | 701nm,0.7s | | | | | | |
| **AOI** | **Ancona** | **0.86** | **1** | Pg | **Pn** | **23 28 38.3** | **+0.5** |
| | 1μm,0.6s | | | | | | |
| **AOI** | **Ancona** | **0.86** | **1** | Pg | **Pn** | **23 28 38.3** | **+0.5** |
| | 1μm,0.6s | | | | | | |
| **MTCE** | **Montecelio** | **0.91** | **224** | Pg | **Pb** | **23 28 39.5** | **+1.1** |
| | 467nm,0.5s | | | | | | |
| **MTCE** | **Montecelio** | **0.91** | **224** | Pg | **Pn** | **23 28 39.5** | **+1.1** |
| | 467nm,0.5s | | | | | | |
| **ARVD** | **Arcevia** | **0.94** | **330** | Pg | **Pn** | **23 28 39.1** | **+0.3** |
| | 338nm,0.6s | | | | | | |
| **ARVD** | **Arcevia** | **0.94** | **330** | Pg | **Pn** | **23 28 39.1** | **+0.3** |
| | 338nm,0.6s | | | | | | |
| **SSFR** | **Montelago di S** | **0.95** | **322** | Pg | **Pn** | **23 28 39.1** | **0.0** |
| | 842nm,0.3s | | | | | | |
| **SSFR** | **Montelago di S** | **0.95** | **322** | Pg | **Pn** | **23 28 39.1** | **0.0** |
| | 842nm,0.3s | | | | | | |
| **MURB** | **Monte Urbino** | **0.97** | **307** | Pg | **Pn** | **23 28 40.0** | **+0.7** |
| | 1μm,0.6s | | | | | | |
| **MURB** | **Monte Urbino** | **0.97** | **307** | Pg | **Pn** | **23 28 40.0** | **+0.7** |
| | 1μm,0.6s | | | | | | |
| **FRON** | **Frontone** | **1.04** | **323** | Pg | **Pn** | **23 28 40.9** | **+0.6** |
| | 442nm,0.6s | | | | | | |
| **FRON** | **Frontone** | **1.04** | **323** | Pg | **Pn** | **23 28 40.9** | **+0.6** |
| | 442nm,0.6s | | | | | | |
| **SENI** | **Senigallia** | **1.05** | **346** | Pg | **Pn** | **23 28 41.8** | **+1.5** |
| | 7050μm,66.0s | | | | | | |
| **SENI** | **Senigallia** | **1.05** | **346** | Pg | **Pn** | **23 28 41.8** | **+1.5** |
| | 7050μm,66.0s | | | | | | |
| **PIEI** | **Pieia** | **1.15** | **318** | Pg | **Pb** | **23 28 42.1** | **+0.2** |
| | 244nm,0.3s | | | | | | |
| **PIEI** | **Pieia** | **1.15** | **318** | Pg | **Pb** | **23 28 42.1** | **+0.2** |
| | 244nm,0.3s | | | | | | |
| **SACS** | **San Casciano d** | **1.24** | **278** | Pg | **Pb** | **23 28 45.3** | **+1.7** |
| | 839nm,1.5s | | | | | | |
| **SACS** | **San Casciano d** | **1.24** | **278** | Pg | **Pb** | **23 28 45.3** | **+1.7** |
| | 839nm,1.5s | | | | | | |
| **PARC** | **Parchiule** | **1.38** | **315** | Pg | **Pb** | **23 28 47.8** | **+2.0** |
| | 343nm,0.9s | | | | | | |
| **PARC** | **Parchiule** | **1.38** | **315** | Pg | **Pb** | **23 28 47.8** | **+2.0** |
| | 343nm,0.9s | | | | | | |
| **NVLJ** | **Novalja** | **2.10** | **26** | *e*Pn | **Pn** | **23 28 54.5** | **-0.2** |
| NVLJ | | | | Sn | **Sn** | **23 29 20.6** | **+0.4** |
| **NVLJ** | **Novalja** | **2.10** | **26** | *e*Pn | **Pn** | **23 28 54.5** | **-0.2** |
| **UDBI** | **Udbina** | **2.43** | **40** | *e*Pn | **Pn** | **23 29 00.8** | **+1.5** |
| **UDBI** | **Udbina** | **2.43** | **40** | *e*Pn | **Pn** | **23 29 00.8** | **+1.5** |
| **SKDS** | **Skadanscina** | **2.88** | **6** | *i* Pn | **Pn** | **23 29 05.3** | **-0.2** |
| **SKDS** | **Skadanscina** | **2.88** | **6** | Pn | **Pn** | **23 29 05.3** | **-0.2** |
| **STON** | **Ston** | **3.04** | **85** | *e*Pn | **Pn** | **23 29 08.1** | **+0.4** |
| STON | | | | Sn | **Sn** | **23 29 42.5** | **-0.8** |
| **STON** | **Ston** | **3.04** | **85** | *e*Pn | **Pn** | **23 29 08.0** | **+0.4** |
| STON | | | | Sn | **Sn** | **23 29 42.5** | **-0.8** |
| **BOJS** | **Bojanci** | **3.06** | **23** | *i* Pn | **Pn** | **23 29 08.3** | **+0.3** |
| BOJS | | | | *i* Sn | **Sn** | **23 29 44.4** | **+0.3** |
| **BOJS** | **Bojanci** | **3.06** | **23** | *i* Pn | **Pn** | **23 29 08.3** | **+0.3** |
| BOJS | | | | *i* Sn | **Sn** | **23 29 44.4** | **+0.3** |
| **JAVS** | **Javornik** | **3.23** | **6** | *i* Pn | **Pn** | **23 29 10.3** | **-0.1** |
| JAVS | | | | *i* Sn | **Sn** | **23 29 48.2** | **0.0** |
| **JAVS** | **Javornik** | **3.23** | **6** | *i* Pn | **Pn** | **23 29 10.3** | **-0.1** |
| **OZLJ** | **Ozalj** | **3.23** | **24** | *e*Pn | **Pn** | **23 29 10.6** | **+0.4** |
| OZLJ | | | | Sn | **Sn** | **23 29 48.4** | **+0.3** |
| **OZLJ** | **Ozalj** | **3.23** | **24** | *e*Pn | **Pn** | **23 29 10.6** | **+0.4** |
| OZLJ | | | | Sn | **Sn** | **23 29 48.4** | **+0.3** |
| **GBAS** | **Gorenja Brezov** | **3.31** | **10** | *i* Pn | **Pn** | **23 29 11.7** | **+0.3** |
| **GBAS** | **Gorenja Brezov** | **3.31** | **10** | *i* Pn | **Pn** | **23 29 11.7** | **+0.3** |
| **VOJS** | **Vojsko** | **3.35** | **4** | *i* Pn | **Pn** | **23 29 12.1** | **0.0** |
| **VOJS** | **Vojsko** | **3.35** | **4** | *i* Pn | **Pn** | **23 29 12.1** | **0.0** |
| **PGF** | **Pioggiola** | **3.38** | **269** | *e*P | **Pn** | **23 29 14.6** | **+2.1** |
| **PGF** | **Pioggiola** | **3.38** | **269** | *e*P | **Pn** | **23 29 14.6** | **+2.1** |
| **STAL** | **STALIGIAL** | **3.63** | **350** | Pg | **Pn** | **23 29 15.7** | **-0.1** |
| **STAL** | **STALIGIAL** | **3.63** | **350** | Pg | **Pn** | **23 29 15.7** | **-0.1** |
| **MAGA** | **Magasa** | **3.75** | **327** | Pg | **Pn** | **23 29 18.1** | **+0.6** |
| | 65nm,0.3s | | | | | | |
| **MAGA** | **Magasa** | **3.75** | **327** | Pg | **Pn** | **23 29 18.1** | **+0.6** |
| | 65nm,0.3s | | | | | | |
| **AGOR** | **Agordo** | **3.76** | **344** | Pg | **Pn** | **23 29 17.8** | **+0.2** |
| | 291nm,2.6s | | | | | | |
| **OBKA** | **Obir** | **3.89** | **10** | Pn | **Pn** | **23 29 19.7** | **+0.3** |
| | 5.2nm,0.2s | | | | | | |
| OBKA | | | | Sn | **Sn** | **23 30 05.0** | **+0.5** |
| | 12nm,0.4s | | | | | | |
| **MYKA** | **Terra Mystica** | **3.94** | **1** | Pn | **Pn** | **23 29 21.0** | **+0.8** |
| | 4.3nm,0.2s | | | | | | |
| **PERS** | **Pernice** | **4.10** | **15** | *i* Pn | **Pn** | **23 29 22.5** | **+0.2** |
| **PERS** | **Pernice** | **4.10** | **15** | *i* Pn | **Pn** | **23 29 22.5** | **+0.2** |
| **SOKA** | **Soboth** | **4.12** | **14** | Pn | **Pn** | **23 29 22.9** | **+0.2** |
| | 2.2nm,0.3s | | | | | | |
| **ABTA** | **Abfaltersbach** | **4.13** | **350** | Pn | **Pn** | **23 29 23.8** | **+1.0** |
| | 6.2nm,0.3s,SNR=16 | | | | | | |
| ABTA | | | | Sn | **Sn** | **23 30 12.1** | **+1.6** |
| | 14nm,0.5s | | | | | | |
| **APPI** | **Appiano** | **4.15** | **337** | Pg | **Pn** | **23 29 23.8** | **+0.8** |
| **APPI** | **Appiano** | **4.15** | **337** | Pg | **Pn** | **23 29 23.8** | **+0.8** |
| **ABSI** | **Aberstueckl** | **4.35** | **339** | Pg | **Pn** | **23 29 26.7** | **+0.8** |
| **ABSI** | **Aberstueckl** | **4.35** | **339** | Pg | **Pn** | **23 29 26.7** | **+0.8** |
| **ARSA** | **Arzberg** | **4.77** | **16** | Pn | **Pn** | **23 29 31.3** | **-0.2** |
| | 1.3nm,0.2s | | | | | | |
| **FETA** | **Feichten** | **4.79** | **336** | Pn | **Pn** | **23 29 33.8** | **+2.0** |
| | 2.4nm,0.2s | | | | | | |
| FETA | | | | Sn | **Sn** | **23 30 29.0** | **+2.2** |
| | 2.1nm,0.3s | | | | | | |
| **WATA** | **Walderalm** | **4.86** | **344** | Pn | **Pn** | **23 29 34.8** | **+1.9** |
| | 3.2nm,0.2s,SNR=7.3 | | | | | | |
| **MOTA** | **Moosalm** | **4.98** | **340** | Pn | **Pn** | **23 29 36.5** | **+2.0** |
| | 3.8nm,0.3s,SNR=6.5 | | | | | | |
| **MOA** | **Molln** | **5.19** | **5** | Sn | **Sn** | **23 30 35.8** | **-0.6** |
| | 6.5nm,0.4s | | | | | | |
| **RETA** | **Reutte** | **5.20** | **338** | Pn | **Pn** | **23 29 39.5** | **+2.1** |
| | 4.8nm,0.4s,SNR=5.7 | | | | | | |
| **LMR** | **La Mourre** | **5.23** | **280** | *e*P | **Pn** | **23 29 39.3** | **+1.6** |
| **LMR** | **La Mourre** | **5.23** | **280** | *e*P | **Pn** | **23 29 39.3** | **+1.6** |
| **DAVA** | **Damuels** | **5.30** | **332** | Pn | **Pn** | **23 29 40.7** | **+1.9** |
| | 2.3nm,0.3s | | | | | | |
| DAVA | | | | Sn | **Sn** | **23 30 41.6** | **+2.3** |
| | 14nm,0.6s | | | | | | |
| **MBDF** | **Montbardon** | **5.34** | **295** | *e*P | **Pn** | **23 29 41.6** | **+2.1** |
| **LPG** | **La Plagne** | **5.67** | **302** | *e*Pn | **Pn** | **23 29 41.1** | **-2.9** |
| **LPG** | **La Plagne** | **5.67** | **302** | *e*P | **Pn** | **23 29 45.7** | **+1.7** |
| LPG | | | | *e*Sn | **Sn** | **23 30 41.4** | **-7.2** |
| | 1.3nm,0.2s | | | | | | |
| **LPG** | **La Plagne** | **5.67** | **302** | *e*P | **Pn** | **23 29 45.7** | **+1.7** |
| **LPL** | **La Plagne** | **5.69** | **302** | *e*Pn | **Pn** | **23 29 41.2** | **-3.0** |
| **LPL** | **La Plagne** | **5.69** | **302** | *e*P | **Pn** | **23 29 45.9** | **+1.7** |
| LPL | | | | *e*Sn | **Sn** | **23 30 41.5** | **-7.5** |
| | 1.2nm,0.3s | | | | | | |
| **LPL** | **La Plagne** | **5.69** | **302** | *e*P | **Pn** | **23 29 45.9** | **+1.7** |
| **CABF** | **La Chapelle** | **6.63** | **309** | *e*Pn | **Pn** | **23 29 53.5** | **-3.6** |
| **HINF** | **Hinteralfeld** | **6.99** | **320** | *e*P | **Pn** | **23 30 02.1** | **+0.1** |
| HINF | | | | *e*Sn | **Sn** | **23 31 12.8** | **-8.0** |
| | 7.8nm,0.3s | | | | | | |
| **HINF** | **Hinteralfeld** | **6.99** | **320** | *e*P | **Pn** | **23 30 02.1** | **+0.1** |
| **CDF** | **Champ du Feu** | **7.24** | **324** | *e*P | **Pn** | **23 30 05.3** | **-0.1** |
| CDF | | | | *e*Sn | **Sn** | **23 31 19.1** | **-7.9** |
| | 2.9nm,0.4s | | | | | | |
| **CDF** | **Champ du Feu** | **7.24** | **324** | *e*P | **Pn** | **23 30 05.3** | **-0.1** |
| **HAU** | **Haudompre** | **7.37** | **319** | *e*P | **Pn** | **23 30 07.8** | **+0.7** |
| HAU | | | | *e*Sn | **Sn** | **23 31 22.0** | **-8.0** |
| | 11nm,0.4s | | | | | | |
| **HAU** | **Haudompre** | **7.37** | **319** | *e*P | **Pn** | **23 30 07.8** | **+0.7** |

*IDC* **16** *23:47:29.2±0.9, 34°.93N×23°.48E, h0km, mb4.0/13, mb1 4.0/20, mb1mx3.9/60, mbtmp3.9/20, ML3.5/7, MS4.0/3, Ms1 4.0/3, ms1mx2.9/54, Error ellipse: s-maj=20.9km s-min=14.7km az=5.0*
*CSEM* **16** *23:47:31.4±0.3, 34°.76N×23°.50E, h2km, ML3.6, Error ellipse: s-maj=6.8km s-min=4.3km az=36.0*
*ISCJB* **16** *23:47:31.3±0.8, 34°.66N±0°.03×23°.52E±0°.03, h25km±5km, mb3.9/13, MS4.0/3, Error ellipse: s-maj=5.6km s-min=3.9km az=44.7*
*THE* **16** *23:47:31.7, 34°.86N×23°.52E, h0km±1km, ML3.6/7, Error ellipse: s-maj=2.9km s-min=0.9km az=224.0*
*ATH* **16** *23:47:32.2, 34°.85N×23°.50E, h18km±1km, ML3.5/9, Error ellipse: s-maj=2.3km s-min=1.0km az=32.0*
*HLW* **16** *23:47:32.6, 34°.96N×23°.70E, h33km±25km, Ml4.0*

**ISC 16 23:47:31.9**±1.2, **34°.78N**±0°.04×**23°.57E**±0°.03, **h20**km±6km, **n152**, σ1§**94**/192, **mb4.1**/13, **MS3.8**/3, **Crete**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GVD** | **Gavdhos** | **0.43** | **82** | P | **Pn** | **23 47 43.4** | **+0.4** |
| GVD | | | | AML | AML | 23 47 49.5 | |
| | comp=N,33720μm,0.3s | | | | | | |
| GVD | | | | S | **Sn** | **23 47 49.6** | **-0.7** |
| GVD | | | | AML | AML | 23 47 51.9 | |
| | comp=E,44614μm,0.2s | | | | | | |
| **GVD** | **Gavdhos** | **0.43** | **82** | P | **Pb** | **23 47 40.9** | **0.0** |
| GVD | | | | S | **Sb** | **23 47 48.3** | **+1.4** |
| **GVD** | **Gavdhos** | **0.43** | **82** | P | **Pb** | **23 47 40.9** | **0.0** |
| GVD | | | | S | **Sb** | **23 47 48.3** | **+1.4** |
| **IMMV** | **Iera Moni Meta** | **0.76** | **26** | P | **Pg** | **23 47 45.4** | **-1.5** |
| IMMV | | | | S | **Sb** | **23 47 57.0** | **+0.6** |
| IMMV | comp=E,10837μm,0.5s | | | AML | AML | 23 48 01.4 | |
| IMMV | | | | AML | AML | 23 48 02.9 | |
| | comp=N,8035μm,0.5s | | | | | | |
| **IMMV** | **Iera Moni Meta** | **0.76** | **26** | P | **Pg** | **23 47 45.4** | **-1.5** |
| IMMV | | | | S | **Sb** | **23 47 57.0** | **+0.6** |
| **IMMV** | **Iera Moni Meta** | **0.76** | **26** | P | **Pg** | **23 47 44.7** | **-2.2** |
| IMMV | | | | S | **Sg** | **23 47 56.3** | **-0.8** |
| **VAM** | **Vamos** | **0.81** | **39** | P | **Pb** | **23 47 46.8** | **-0.6** |
| VAM | | | | S | **Sg** | **23 47 58.6** | **-0.1** |
| VAM | | | | AML | AML | 23 48 01.7 | |
| | comp=E,5808μm,0.4s | | | | | | |
| VAM | | | | AML | AML | 23 48 03.4 | |
| | comp=N,6770μm,0.5s | | | | | | |
| **VAM** | **Vamos** | **0.81** | **39** | P | **Pb** | **23 47 46.8** | **-0.6** |
| VAM | | | | S | **Sg** | **23 47 58.6** | **-0.1** |
| **VAM** | **Vamos** | **0.81** | **39** | P | **Pb** | **23 47 46.0** | **-1.4** |
| VAM | | | | S | **Sb** | **23 47 58.5** | **+0.5** |
| **SIVA** | **Sivas** | **1.05** | **76** | P | **Pb** | **23 47 51.3** | **-0.1** |
| SIVA | | | | S | **Sn** | **23 48 07.5** | **+2.0** |
| SIVA | | | | AML | AML | 23 48 22.7 | |
| | comp=E,12279μm,0.9s | | | | | | |
| SIVA | | | | AML | AML | 23 48 23.1 | |
| | comp=N,9865μm,0.7s | | | | | | |
| **SIVA** | **Sivas** | **1.05** | **76** | P | **Pn** | **23 47 51.7** | **+0.2** |
| SIVA | | | | S | **Sn** | **23 48 07.5** | **+2.0** |
| **SIVA** | **Sivas** | **1.05** | **76** | P | **Pn** | **23 47 51.7** | **+0.2** |
| SIVA | | | | S | **Sn** | **23 48 08.4** | **+2.9** |
| **ANKY** | **Antikythira Is** | **1.11** | **349** | P | **Pb** | **23 47 51.7** | **-0.7** |
| ANKY | | | | S | **Sb** | **23 48 06.7** | **+0.3** |
| ANKY | | | | AML | AML | 23 48 17.9 | |
| | comp=N,3154μm,0.8s | | | | | | |
| ANKY | | | | AML | AML | 23 48 21.8 | |
| | comp=E,3040μm,0.8s | | | | | | |
| **ANKY** | **Antikythira Is** | **1.11** | **349** | P | **Pb** | **23 47 51.7** | **-0.7** |
| ANKY | | | | S | **Sb** | **23 48 06.2** | **-0.3** |
| **ANKY** | **Antikythira Is** | **1.11** | **349** | P | **Pb** | **23 47 51.4** | **-1.0** |
| ANKY | | | | S | **Sb** | **23 48 06.2** | **-0.3** |
| **IDI** | **Anoyia** | **1.20** | **64** | P | **Pn** | **23 47 53.4** | **-0.2** |
| | comp=E,6.5nm,0.3s,baz=261,slow=13,SNR=62 | | | | | | |
| IDI | | | | Sn | **Sg** | **23 48 10.6** | **-0.3** |
| | comp=E,45nm,0.3s,baz=315,slow=20,SNR=13 | | | | | | |
| IDI | | | | LR | LR | 23 48 42.8 | |
| | comp=E,138nm,20.5s,baz=220,slow=61 | | | | | | |
| **IDI** | **Anoyia** | **1.20** | **64** | P | **Pg** | **23 47 55.9** | **+0.8** |
| IDI | | | | S | **Sg** | **23 48 12.6** | **+1.7** |
| IDI | | | | AML | AML | 23 48 24.2 | |
| | comp=E,1331μm,0.6s | | | | | | |
| IDI | | | | AML | AML | 23 48 24.4 | |
| | comp=N,1353μm,0.5s | | | | | | |
| **IDI** | **Anoyia** | **1.20** | **64** | P | **Pg** | **23 47 55.9** | **+0.8** |
| IDI | | | | S | **Sg** | **23 48 12.6** | **+1.7** |
| **IDI** | **Anoyia** | **1.20** | **64** | P | **Pb** | **23 47 54.1** | **+0.1** |
| **KYTH** | **Kithira** | **1.54** | **344** | P | **Pg** | **23 48 00.9** | **-0.9** |
| **LAST** | **Lasithi** | **1.61** | **76** | P | **Pb** | **23 48 01.7** | **+0.6** |
| LAST | | | | S | **Sg** | **23 48 24.4** | **+0.3** |
| **LAST** | **Lasithi** | **1.61** | **76** | P | **Pb** | **23 48 01.7** | **+0.6** |
| LAST | | | | S | **Sg** | **23 48 24.4** | **+0.3** |
| **LAST** | **Lasithi** | **1.61** | **76** | P | **Pb** | **23 48 01.2** | **+0.1** |
| LAST | | | | S | **Sg** | **23 48 22.9** | **-1.2** |
| **NPS** | **Neapolis** | **1.75** | **73** | P | **Pg** | **23 48 05.1** | **-0.5** |
| NPS | | | | S | **Sg** | **23 48 29.2** | **+0.9** |
| NPS | | | | AML | AML | 23 48 41.1 | |
| | comp=N,1249μm,1.0s | | | | | | |
| NPS | | | | AML | AML | 23 48 46.6 | |
| | comp=E,1206μm,0.6s | | | | | | |
| **NPS** | **Neapolis** | **1.75** | **73** | P | **Pb** | **23 48 03.1** | **-0.2** |
| NPS | | | | S | **Sg** | **23 48 29.2** | **+0.9** |
| **NPS** | **Neapolis** | **1.75** | **73** | P | **Pb** | **23 48 03.1** | **-0.2** |
| **VLI** | **Veliai** | **2.00** | **345** | P | **Pn** | **23 48 05.8** | **+1.1** |
| VLI | | | | S | **Sn** | **23 48 31.1** | **+1.9** |
| VLI | | | | AML | AML | 23 48 50.5 | |
| | comp=N,782μm,0.8s | | | | | | |
| VLI | | | | AML | AML | 23 48 51.6 | |
| | comp=E,984μm,0.9s | | | | | | |
| **VLI** | **Veliai** | **2.00** | **345** | P | **Pn** | **23 48 05.8** | **+1.1** |
| VLI | | | | S | **Sn** | **23 48 31.1** | **+1.9** |
| **MHLO** | **Agia Marina, M** | **2.02** | **19** | P | **Pb** | **23 48 07.5** | **-0.6** |
| MHLO | | | | S | **Sb** | **23 48 33.1** | **+0.3** |
| MHLO | | | | AML | AML | 23 48 40.5 | |
| | comp=N,4744μm,0.6s | | | | | | |
| MHLO | | | | AML | AML | 23 48 41.5 | |
| | comp=E,3848μm,0.8s | | | | | | |
| **MHLO** | **Agia Marina, M** | **2.02** | **19** | P | **Pb** | **23 48 07.4** | **-0.6** |
| MHLO | | | | S | **Sb** | **23 48 33.1** | **+0.3** |
| **MHLO** | **Agia Marina, M** | **2.02** | **19** | P | **Pn** | **23 48 05.6** | **+0.7** |
| MHLO | | | | S | **Sn** | **23 48 30.9** | **+1.2** |
| **THR6** | **Thira Island,** | **2.17** | **43** | P | **Pb** | **23 48 11.1** | **+0.6** |
| **THR6** | **Thira Island,** | **2.17**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **GOLH** | **Golhisar** | **5.44** | **61** | *i* P | | **Pn** | **23 48 54.9** | **+2.9** |
| GOLH | | | | *i* S | | **Sn** | **23 49 50.1** | **-4.0** |
| **GOLH** | **Golhisar** | **5.44** | **61** | P | | **Pn** | **23 48 54.9** | **+2.9** |
| **ELL** | **Elmali** | **5.52** | **67** | *e*PN | | **Pn** | **23 48 56.0** | **+3.0** |
| **ELL** | **Elmali** | **5.52** | **67** | *e*Pn | | **Pn** | **23 48 56.0** | **+2.9** |
| **KULA** | **Kula-Manisa** | **5.54** | **46** | *e*PN | | **Pn** | **23 48 55.1** | **+1.8** |
| **KULA** | **Kula-Manisa** | **5.54** | **46** | *e*Pn | | **Pn** | **23 48 55.1** | **+1.8** |
| **SWA2** | | **5.75** | **163** | P | | **Pn** | **23 48 57.8** | **+1.7** |
| | baz=164 | | | | | | | |
| SWA2 | | | | AMP | | | 23 50 00.0 | |
| | comp=E,200μm,0.5s,logA/T=5.6,baz=164 | | | | | | | |
| SWA2 | | | | S | | **Sn** | **23 50 00.2** | **-1.2** |
| | baz=164 | | | | | | | |
| **SWA2** | | **5.75** | **163** | P | | **Pn** | **23 48 57.8** | **+1.7** |
| **KORT** | **Korkueli** | **5.94** | **66** | *e*PN | | **Pn** | **23 49 01.7** | **+2.9** |
| **KORT** | **Korkueli** | **5.94** | **66** | *e*Pn | | **Pn** | **23 49 01.7** | **+2.9** |
| **KHAL** | **Karahalli** | **5.96** | **51** | *i* P | | **Pn** | **23 49 02.8** | **+3.6** |
| **KHAL** | **Karahalli** | **5.96** | **51** | P | | **Pn** | **23 49 02.8** | **+3.6** |
| **HFRF** | **Wahat Farafira** | **8.62** | **151** | S | | **Sn** | **23 51 08.5** | **-3.8** |
| | baz=151 | | | | | | | |
| **GLL** | **Jalalah** | **8.63** | **125** | P | | **Pn** | **23 49 36.4** | **+0.7** |
| | baz=126 | | | | | | | |
| **GLL** | **Jalalah** | **8.63** | **125** | P | | **Pn** | **23 49 36.4** | **+0.7** |
| **SUZ** | **Suez** | **9.25** | **120** | P | | **Pn** | **23 49 45.5** | **+1.2** |
| | baz=121 | | | | | | | |
| **SUZ** | **Suez** | **9.25** | **120** | P | | **Pn** | **23 49 45.5** | **+1.2** |
| **RSH** | | **9.35** | **111** | P | | **Pn** | **23 49 45.9** | **+0.3** |
| | baz=112 | | | | | | | |
| **RSH** | | **9.35** | **111** | P | | **Pn** | **23 49 45.9** | **+0.3** |
| **BRTR** | **Keskin Array B** | **9.42** | **55** | Pn | | **Pn** | **23 49 49.1** | **+2.4** |
| | comp=E,0.1nm,0.3s,baz=223,slow=13,SNR=7.3 | | | | | | | |
| **MMAI** | **Mount Meron Ar** | **9.99** | **97** | Pn | | **Pn** | **23 49 55.0** | **+0.6** |
| | comp=E,1.0nm,0.3s,baz=299,slow=12,SNR=13 | | | | | | | |
| MMAI | | | | Sn | | **Sn** | **23 51 42.0** | **-4.0** |
| | comp=E,0.4nm,0.3s,baz=281,slow=23,SNR=3.2 | | | | | | | |
| **GRB** | **Gharib** | **10.19** | **127** | P | | **Pn** | **23 49 58.0** | **+0.8** |
| | baz=128 | | | | | | | |
| **EIL** | **Elat** | **10.90** | **115** | Pn | | **Pn** | **23 50 07.1** | **+0.3** |
| | comp=E,0.8nm,0.3s,baz=218,slow=5.8,SNR=8.5 | | | | | | | |
| EIL | | | | Sn | | **Sn** | **23 52 03.0** | **-5.2** |
| | comp=E,0.2nm,0.3s,baz=52,slow=18,SNR=3.3 | | | | | | | |
| **ASF** | **Jabal al Asfar** | **11.43** | **99** | Pn | | **Pn** | **23 50 13.2** | **-0.9** |
| | comp=E,0.1nm,0.3s,baz=270,slow=20,SNR=2.7 | | | | | | | |
| ASF | | | | Sn | | **Sn** | **23 52 15.9** | **-5.4** |
| | comp=E,0.1nm,0.3s,baz=264,slow=18,SNR=2.0 | | | | | | | |
| **VYHS** | **Vyhne** | **14.15** | **347** | *e*PN | | **P** | **23 50 58.9** | **+0.3** |
| **VRAC** | **Vranov** | **15.41** | **343** | Pn | | **P** | **23 51 11.1** | **-1.4** |
| | comp=E,0.3nm,0.3s,baz=159,slow=8.7,SNR=11 | | | | | | | |
| **OKC** | **Ostrava-Krasne** | **15.57** | **347** | *e*P | | **P** | **23 51 14.7** | **+0.4** |
| **GERES** | **GERESS Array B** | **15.84** | **336** | Pn | | **Pn** | **23 51 11.0** | **-2.8** |
| | comp=E,0.1nm,0.3s,baz=144,slow=13,SNR=2.9 | | | | | | | |
| **KHC** | **Kasperske Hory** | **16.13** | **336** | *e*P | | **P** | **23 51 20.5** | **-0.1** |
| KHC | | | | *ex* | | x | 23 51 27.9 | |
| **AKASG** | **Malin Array Be** | **16.44** | **13** | Pn | | **Pn** | **23 51 21.6** | **+0.4** |
| | comp=E,0.9nm,0.3s,baz=207,slow=9.7,SNR=9.6 | | | | | | | |
| **DPC** | **Dobruska-Polom** | **16.44** | **343** | *e*P | | **P** | **23 51 24.4** | **+0.4** |
| **GOPC** | **GO Pecny, Ondr** | **16.44** | **340** | *e*P | | **P** | **23 51 24.2** | **+0.2** |
| **PRU** | **Pruhonice** | **16.58** | **339** | *e*P | | **P** | **23 51 25.4** | **-0.1** |
| PRU | | | | *ex* | | x | 23 51 31.5 | |
| **UPC** | **Upice** | **16.66** | **343** | *e*P | | **P** | **23 51 27.3** | **+0.9** |
| **KVAR** | **Kislovodsk Arr** | **17.37** | **52** | Pn | | **P** | **23 51 36.0** | **+1.6** |
| | baz=228,slow=9.8,SNR=4.0 | | | | | | | |
| **KBZ** | **Khabaz** | **17.40** | **53** | Pn | | **P** | **23 51 36.1** | **+1.5** |
| | comp=E,0.1nm,0.3s,baz=259,slow=14,SNR=5.8 | | | | | | | |
| **ESDC** | **Sonseca Array** | **22.42** | **291** | P | | **P** | **23 52 28.9** | **-0.5** |
| | comp=E,0.6nm,0.6s,baz=94,slow=10,SNR=4.2 | | | | | | | |
| **HFS** | **Hagfors** | **26.18** | **349** | P | | **P** | **23 53 03.3** | **-1.5** |
| | comp=E,6.0nm,0.8s,baz=160,slow=13,SNR=8.9 | | | | | | | |
| **FINES** | **FINESS Array B** | **26.73** | **3** | P | | **P** | **23 53 08.3** | **-1.5** |
| | comp=E,3.7nm,0.9s,baz=169,slow=8.3,SNR=2.9 | | | | | | | |
| **NOA** | **NORSAR Array B** | **27.46** | **347** | P | | **P** | **23 53 15.2** | **-1.2** |
| | comp=E,1.5nm,0.8s,baz=142,slow=10,SNR=3.2 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **29.25** | **228** | P | | **P** | **23 53 33.3** | **+0.6** |
| | comp=E,0.2nm,0.5s,baz=36,slow=8.2,SNR=3.5 | | | | | | | |
| **AKTO** | **Aktyubinsk** | **29.47** | **47** | LR | | LR | 00 08 08.3 | |
| | comp=E,99nm,18.3s,baz=127,slow=42 | | | | | | | |
| **ARU** | **Arti** | **32.14** | **37** | LR | | LR | 00 07 28.7 | |
| | comp=E,167nm,18.1s,baz=132,slow=37 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **34.83** | **1** | P | | **P** | **23 54 19.4** | **-1.7** |
| | comp=E,2.5nm,0.9s,baz=175,slow=11,SNR=3.5 | | | | | | | |
| **MKAR** | **Makanchi Array** | **45.07** | **56** | P | | **P** | **23 55 47.0** | **+0.5** |
| | comp=E,1.9nm,0.5s,baz=266,slow=7.4,SNR=33 | | | | | | | |
| MKAR | | | | PcP | | **PcP** | **23 57 28.0** | **+0.9** |
| | comp=E,0.7nm,0.7s,baz=286,slow=4.4,SNR=3.4 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **46.21** | **46** | P | | **P** | **23 55 54.6** | **-0.7** |
| | comp=E,1.8nm,0.5s,baz=269,slow=9.2,SNR=10 | | | | | | | |
| **SONM** | **Songino Array** | **60.73** | **50** | P | | **P** | **23 57 42.6** | **+0.4** |
| | comp=E,2.0nm,0.8s,baz=279,slow=8.4,SNR=14 | | | | | | | |
| **BOSA** | **Boshof** | **63.07** | **178** | LR | | LR | 00 25 07.6 | |
| | comp=E,523nm,21.7s,baz=192,slow=36 | | | | | | | |
| **KLR** | **Kul'dur** | **74.91** | **40** | P | | **P** | **23 59 11.7** | **+0.4** |
| | comp=E,0.3nm,0.8s,baz=326,slow=6.7,SNR=7.4 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **77.40** | **342** | P | | **P** | **23 59 25.5** | **+0.4** |
| | comp=E,0.9nm,0.9s,baz=34,slow=5.4,SNR=8.5 | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **78.03** | **44** | P | | **P** | **23 59 29.4** | **+0.3** |
| | comp=E,2.4nm,0.7s,baz=295,slow=4.4,SNR=4.1 | | | | | | | |
| **KSRS** | **Korea Array** | **79.55** | **52** | P | | **P** | **23 59 38.2** | **+0.7** |
| | comp=E,1.4nm,0.6s,baz=310,slow=5.7,SNR=4.0 | | | | | | | |
| **WRA** | **Warramunga Arr** | **117.85** | **96** | PKP | | **PKPdf** | **00 06 17.7** | **+0.3** |
| | comp=E,0.3nm,0.8s,baz=314,slow=1.8,SNR=3.3 | | | | | | | |

**KRNET 16 23:56:33.4±0.1, 39.67N×77.12E, mb2.6, 12C-6D, Southern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **ULHL** | **Ulahol** | **2.66** | **346** | ⇓*i* P | | Pg | 23 57 28.5 | +4.2 |
| | baz=355 | | | | | | | |
| ULHL | | | | ⇓*i* S | | Sb | 23 57 55.8 | +0.6 |
| | baz=355 | | | | | | | |
| **KZA** | **Kyzart** | **2.79** | **330** | ⇑*i* P | | Pg | 23 57 29.5 | +2.6 |
| | baz=334 | | | | | | | |
| KZA | | | | ⇑*i* S | | Sb | 23 57 57.1 | -2.2 |
| | baz=334 | | | | | | | |
| **SFK** | **Sufi-Kurgan** | **2.81** | **278** | ⇑*i* P | | Pn | 23 57 22.0 | +2.3 |
| | baz=278 | | | | | | | |
| SFK | | | | ⇑*i* S | | Sb | 23 57 57.4 | -2.2 |
| | baz=278 | | | | | | | |
| **BOOM** | **Boomskoye usch** | **2.96** | **343** | ⇑*i* P | | Pn | 23 57 23.5 | +1.8 |
| | baz=343 | | | | | | | |
| BOOM | | | | ⇑*i* S | | Sb | 23 58 01.0 | -2.7 |
| | baz=343 | | | | | | | |
| **PRZ** | **Przheval'sk** | **2.97** | **19** | ⇑*i* P | | Pn | 23 57 24.2 | +2.3 |
| | baz=19 | | | | | | | |
| PRZ | | | | ⇑*i* S | | Sn | 23 58 01.0 | +2.6 |
| | baz=19 | | | | | | | |
| **UCH** | **Uchtor** | **3.23** | **323** | ⇑*i* P | | Pg | 23 57 35.5 | +0.2 |
| | baz=324 | | | | | | | |
| UCH | | | | ⇑*i* S | | Sn | 23 58 07.9 | +2.8 |
| | baz=324 | | | | | | | |
| **KBK** | **Karagaybulak** | **3.41** | **332** | ⇓*i* P | | Pg | 23 57 38.1 | -0.5 |
| | baz=335 | | | | | | | |
| KBK | | | | ⇓*i* S | | Sn | 23 58 12.4 | +3.3 |
| | baz=335 | | | | | | | |
| **AML** | **Almayashu** | **3.58** | **314** | ⇑*i* P | | Pg | 23 57 40.3 | -1.6 |
| | baz=313 | | | | | | | |
| AML | | | | ⇑*i* S | | Sn | 23 58 15.9 | +2.3 |
| | baz=313 | | | | | | | |
| **PDGK** | **Podgornoye** | **4.06** | **25** | ⇓*i* P | | Pn | 23 57 39.2 | +2.3 |
| | baz=25 | | | | | | | |
| PDGK | | | | ⇓*i* S | | Sn | 23 58 26.8 | +1.6 |
| | baz=25 | | | | | | | |

**ROM 17 00:02:52.2±0.1, 42.70N×13.67E, h16km, MI2.0/1, Error ellipse: s-maj=1.4km s-min=0.0km az=97.0, Central Italy**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **SMA1** | **SAN MARTINO** | **0.25** | **254** | Pg | | Pb | 00 02 58.2 | -0.3 |
| SMA1 | | | | Sg | | Sb | 00 03 02.3 | -0.4 |
| **NRCA** | **Norcia** | **0.43** | **288** | Pg | | Pg | 00 03 01.0 | +0.1 |
| NRCA | | | | Sg | | Sb | 00 03 07.4 | -0.3 |
| **LNSS** | **Leonessa** | **0.47** | **258** | Pg | | Pg | 00 03 01.7 | 0.0 |
| LNSS | | | | Sg | | Sb | 00 03 08.8 | -0.2 |
| | 375nm,1.7s | | | | | | | |

*CSEM 17 00:03:37.2, 42.68N×13.64E, h19km, ML2.1/2*
**ROM 17 00:03:37.2±0.3, 42.68N×13.64E, h19km±4km, MI2.1/2, Error ellipse: s-maj=3.5km s-min=2.1km az=169.0, Central Italy**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **TERO** | **Teramo** | **0.06** | **202** | Pg | | Pg | 00 03 40.9 | +0.1 |
| TERO | | | | Sg | | Sg | 00 03 43.6 | +0.4 |
| **TERO** | **Teramo** | **0.06** | **202** | Pg | | Pg | 00 03 40.9 | +0.1 |
| TERO | | | | Sg | | Sg | 00 03 43.6 | +0.4 |
| **OFFI** | **Offida** | **0.26** | **8** | Pg | | Pg | 00 03 43.5 | +0.3 |
| | 384nm,0.6s | | | | | | | |
| **OFFI** | **Offida** | **0.26** | **8** | Pg | | Pg | 00 03 43.5 | +0.3 |
| | 384nm,0.6s | | | | | | | |
| **NRCA** | **Norcia** | **0.41** | **292** | Pg | | Pg | 00 03 45.7 | -0.1 |
| NRCA | | | | Sg | | Sb | 00 03 52.0 | 0.0 |
| **NRCA** | **Norcia** | **0.41** | **292** | Pg | | Pg | 00 03 45.7 | -0.1 |
| NRCA | | | | Sg | | Sb | 00 03 52.0 | 0.0 |
| **LNSS** | **Leonessa** | **0.45** | **260** | Pg | | Pg | 00 03 46.2 | -0.2 |
| LNSS | | | | Sg | | Sb | 00 03 53.5 | +0.6 |
| | 375nm,1.7s | | | | | | | |
| **LNSS** | **Leonessa** | **0.45** | **260** | Pg | | Pg | 00 03 46.2 | -0.2 |
| LNSS | | | | Sg | | Sb | 00 03 53.5 | +0.6 |
| | 375nm,1.7s | | | | | | | |

**IDC 17 00:05:08.5±5.2, 9.90S×124.08E, h426km±72km, mb3.0/2, mb1 3.0/5, mb1mx2.7/41, mbtmp3.8/5, Error ellipse: s-maj=127.2km s-min=30.5km az=50.0, Timor region**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **FITZ** | **Fitzroy Crossi** | **8.29** | **170** | P | | P | 00 07 06.3 | -0.6 |
| | 0.7nm,0.3s,baz=13,slow=9.8,SNR=11 | | | | | | | |
| **WRA** | **Warramunga Arr** | **14.06** | **136** | P | | P | 00 08 10.3 | +0.2 |
| | 0.5nm,0.3s,baz=319,slow=11,SNR=19 | | | | | | | |
| **ASAR** | **Alice Springs** | **16.60** | **147** | P | | P | 00 08 38.9 | +1.5 |
| | 0.4nm,0.3s,baz=322,slow=9.1,SNR=17 | | | | | | | |
| **STKA** | **Stephens Creek** | **27.23** | **146** | P | | P | 00 10 15.8 | -0.3 |
| | 0.9nm,0.3s,baz=314,slow=8.0,SNR=5.7 | | | | | | | |
| **MKAR** | **Makanchi Array** | **67.63** | **330** | P | | P | 00 15 21.4 | 0.0 |
| | 0.2nm,0.6s,baz=149,slow=6.3,SNR=3.1 | | | | | | | |

*CSEM 17 00:08:45.3±0.1, 42.68N×13.60E, h22km±1km, ML3.1/10, Error ellipse: s-maj=2.2km s-min=1.9km az=84.0*
**ROM 17 00:08:45.4±0.1, 42.68N×13.60E, h22km±1km, MI2.8/9, Error ellipse: s-maj=1.2km s-min=1.0km az=162.0, Central Italy**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **TERO** | **Teramo** | **0.06** | **179** | Pg | | Pb | 00 08 49.0 | -0.3 |
| TERO | | | | Sg | | Sb | 00 08 51.7 | -0.3 |
| | 985nm,0.3s | | | | | | | |
| **TERO** | **Teramo** | **0.06** | **179** | Pg | | Pb | 00 08 49.0 | -0.3 |
| TERO | | | | Sg | | Sb | 00 08 51.7 | -0.3 |
| | 985nm,0.3s | | | | | | | |
| **SMA1** | **SAN MARTINO** | **0.20** | **257** | Pg | | Pb | 00 08 50.8 | -0.6 |
| SMA1 | | | | Sg | | Sb | 00 08 55.2 | -0.4 |
| | 3μm,0.4s | | | | | | | |
| **SMA1** | **SAN MARTINO** | **0.20** | **257** | Pg | | Pb | 00 08 50.8 | -0.6 |
| SMA1 | | | | Sg | | Sb | 00 08 55.2 | -0.4 |
| | 3μm,0.4s | | | | | | | |
| **OFFI** | **Offida** | **0.26** | **13** | Pg | | Pb | 00 08 51.6 | -0.1 |
| OFFI | | | | Sg | | Sb | 00 08 56.7 | +0.6 |
| | 2μm,0.6s | | | | | | | |
| **OFFI** | **Offida** | **0.26** | **13** | Pg | | Pb | 00 08 51.6 | -0.1 |
| OFFI | | | | Sg | | Sb | 00 08 56.7 | +0.6 |
| | 2μm,0.6s | | | | | | | |
| **TRTR** | **Tortoreto Alta** | **0.26** | **60** | Pg | | Pb | 00 08 51.6 | -0.1 |
| TRTR | | | | Sg | | Sb | 00 08 56.9 | +0.9 |
| | 2μm,0.5s | | | | | | | |
| **TRTR** | **Tortoreto Alta** | **0.26** | **60** | Pg | | Pb | 00 08 51.6 | -0.1 |
| TRTR | | | | Sg | | Sb | 00 08 56.9 | +0.9 |
| | 2μm,0.5s | | | | | | | |
| **VCEL** | **Villa Celiera** | **0.33** | **148** | Pg | | Pb | 00 08 52.8 | +0.1 |
| VCEL | | | | Sg | | Sb | 00 08 58.7 | +1.0 |
| | 1μm,0.2s | | | | | | | |
| **VCEL** | **Villa Celiera** | **0.33** | **148** | Pg | | Pb | 00 08 52.8 | +0.1 |
| VCEL | | | | Sg | | Sb | 00 08 58.7 | +1.0 |
| | 1μm,0.2s | | | | | | | |
| **AQU** | **L'Aquila** | **0.36** | **205** | Pg | | Pb | 00 08 53.2 | +0.2 |
| AQU | | | | Sg | | Sb | 00 08 59.7 | +1.5 |
| | 358nm,0.6s | | | | | | | |
| **AQU** | **L'Aquila** | **0.36** | **205** | Pg | | Pb | 00 08 53.2 | +0.2 |
| AQU | | | | Sg | | Sb | 00 08 59.7 | +1.5 |
| | 358nm,0.6s | | | | | | | |
| **NRCA** | **Norcia** | **0.39** | **294** | Pg | | Pb | 00 08 53.6 | 0.0 |
| NRCA | | | | Sg | | Sb | 00 09 00.1 | +0.9 |
| | 413nm,0.1s | | | | | | | |
| **NRCA** | **Norcia** | **0.39** | **294** | Pg | | Pb | 00 08 53.6 | 0.0 |
| NRCA | | | | Sg | | Sb | 00 09 00.1 | +0.9 |
| | 413nm,0.1s | | | | | | | |
| **FAGN** | **Fagnano** | **0.41** | **182** | Pg | | Pb | 00 08 54.0 | +0.1 |
| FAGN | | | | Sg | | Sb | 00 09 00.6 | +0.9 |
| | 973nm,0.3s | | | | | | | |
| **FAGN** | **Fagnano** | **0.41** | **182** | Pg | | Pb | 00 08 54.0 | +0.1 |
| FAGN | | | | Sg | | Sb | 00 09 00.6 | +0.9 |
| | 973nm,0.3s | | | | | | | |
| **LNSS** | **Leonessa** | **0.42** | **260** | Pg | | Pb | 00 08 54.4 | +0.3 |
| LNSS | | | | Sg | | Sb | 00 09 01.1 | +1.0 |
| | 501nm,0.5s | | | | | | | |
| **LNSS** | **Leonessa** | **0.42** | **260** | Pg | | Pb | 00 08 54.4 | +0.3 |
| LNSS | | | | Sg | | Sb | 00 09 01.1 | +1.0 |
| | 501nm,0.5s | | | | | | | |
| **FDMO** | **Fiordimonte** | **0.52** | **314** | Pg | | Pb | 00 08 55.4 | -0.5 |
| FDMO | | | | Sg | | Sb | 00 09 03.5 | +0.4 |
| | 190nm,0.4s | | | | | | | |
| **FDMO** | **Fiordimonte** | **0.52** | **314** | Pg | | Pb | 00 08 55.4 | -0.5 |
| FDMO | | | | Sg | | Sb | 00 09 03.5 | +0.4 |
| | 190nm,0.4s | | | | | | | |
| **INTR** | **Introdacqua** | **0.70** | **161** | Pg | | Pb | 00 08 58.5 | -0.5 |
| **INTR** | **Introdacqua** | **0.70** | **161** | Pg | | Pb | 00 08 58.5 | -0.5 |
| **CESX** | **Cesi** | **0.76** | **265** | Pg | | Pb | 00 08 59.8 | -0.1 |
| **CESX** | **Cesi** | **0.76** | **265** | Pg | | Pb | 00 08 59.8 | -0.1 |
| **VVLD** | **Villa Vallelon** | **0.81** | **179** | Pg | | Pb | 00 09 00.7 | -0.1 |
| **VVLD** | **Villa Vallelon** | **0.81** | **179** | Pg | | Pb | 00 09 00.7 | -0.1 |
| **NVLJ** | **Novalja** | **2.10** | **26** | *i* Pn | | Pn | 00 09 18.9 | -0.4 |
| NVLJ | | | | Sn | | Sn | 00 09 44.4 | -0.3 |
| **OZLJ** | **Ozalj** | **3.23** | **24** | *i* Pn | | Pn | 00 09 35.3 | +0.5 |
| OZLJ | | | | Sn | | Sn | 00 10 12.3 | -0.2 |
| **OZLJ** | **Ozalj** | **3.23** | **24** | *i* Pn | | Pn | 00 09 35.2 | +0.4 |
| OZLJ | | | | Sn | | Sn | 00 10 12.3 | -0.2 |

*CSEM 17 00:09:43.9, 42.70N×13.64E, h19km, MD1.5/1*
**ROM 17 00:09:43.9±0.4, 42.70N×13.64E, h19km±4km, Md1.5/1, Error ellipse: s-maj=5.4km s-min=3.0km az=41.0, Central Italy**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **TERO** | **Teramo** | **0.08** | **200** | Pg | | Pg | 00 09 47.7 | +0.1 |
| TERO | | | | Sg | | Sg | 00 09 50.4 | +0.3 |
| **TERO** | **Teramo** | **0.08** | **200** | Pg | | Pg | 00 09 47.7 | +0.1 |
| TERO | | | | Sg | | Sg | 00 09 50.4 | +0.3 |
| **SMA1** | **SAN MARTINO** | **0.23** | **254** | Pg | | Pg | 00 09 49.6 | 0.0 |
| SMA1 | | | | Sg | | Sg | 00 09 53.9 | +0.5 |
| **SMA1** | **SAN MARTINO** | **0.23** | **254** | Pg | | Pg | 00 09 49.6 | 0.0 |
| SMA1 | | | | Sg | | Sg | 00 09 53.9 | +0.5 |
| **NRCA** | **Norcia** | **0.41** | **290** | Pg | | Pb | 00 09 52.8 | +0.1 |
| NRCA | | | | Sg | | Sb | 00 09 58.9 | +0.3 |
| **NRCA** | **Norcia** | **0.41** | **290** | Pg | | Pb | 00 09 52.8 | +0.1 |
| NRCA | | | | Sg | | Sb | 00 09 58.9 | +0.3 |
| **FDMO** | **Fiordimonte** | **0.53** | **310** | Pg | | Pb | 00 09 54.0 | -0.6 |
| FDMO | | | | Sg | | Sb | 00 10 02.3 | +0.5 |
| **FDMO** | **Fiordimonte** | **0.53** | **310** | Pg | | Pb | 00 09 54.0 | -0.6 |
| FDMO | | | | Sg | | Sb | 00 10 02.3 | +0.5 |

*IDC 17 00:12:15.9±0.5, 52.60S×26.40E, h0km, mb4.5/18, mb1 4.6/18, mb1mx4.5/36, mbtmp4.5/18, MS3.9/12, Ms1 3.9/12, ms1mx3.7/21, Error ellipse: s-maj=19.3km s-min=13.8km az=49.0*
*ISCJB 17 00:12:16.6±0.3, 52.46S±0.05×26.5E±0.1, h10km, mb4.7/34, MS4.0/13, Error ellipse: s-maj=9.2km s-min=7.1km az=8.8*
*BJI 17 00:12:17.8, 52.66S×26.70E, h14km, mb5.3/2, mB5.5/4, Ms5.2/4, Ms7 5.1/3*
*NEIC 17 00:12:18.0±0.2, 52.51S×26.51E, h10km, mb4.9/24, Error ellipse: s-maj=7.0km s-min=6.0km az=88.0*
**ISC 17 00:12:17.9±0.3, 52.49S±0.07×26.48E±0.08, h10km, n85, σ1932/87, mb4.8/34, MS3.9/13, South of Africa**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **CRZF** | **Crozet Islands** | **17.53** | **80** | *e*Pn | | **P** | **00 16 22.4** | **-0.9** |
| | 109nm,1.2s | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **SUR** | **Sutherland** | **20.52** | **346** | *e*P | | Pn | 00 16 57.1 | -1.4 |
| | 58nm,1.2s | | | | | | | |
| **MAW** | **Mawson** | **23.15** | **145** | P | | **P** | **00 17 22.7** | **-1.2** |
| | 39nm,1.0s,baz=288,slow=9.9,SNR=37 | | | | | | | |
| MAW | | | | LR | | LR | 00 24 35.1 | |
| | comp=Z,174nm,20.4s,baz=248,slow=32 | | | | | | | |
| **MAW** | **Mawson** | **23.15** | **145** | *e*P | | **P** | **00 17 24.7** | **+0.8** |
| | 12nm,0.9s | | | | | | | |
| **SNAA** | **Sanae** | **23.17** | **203** | P | | **P** | **00 17 25.9** | **+1.6** |
| **SNAA** | **Sanae** | **23.17** | **203** | P | | **P** | **00 17 25.4** | **+1.1** |
| | 6.5nm,1.0s,baz=33,slow=11,SNR=12 | | | | | | | |
| SNAA | | | | LR | | LR | 00 24 13.0 | |
| | comp=Z,352nm,21.9s,baz=126,slow=31 | | | | | | | |
| **SNAA** | **Sanae** | **23.17** | **203** | *e*P | | **P** | **00 17 25.1** | **+0.8** |
| | 47nm,1.6s | | | | | | | |
| **BOSA** | **Boshof** | **23.87** | **357** | P | | **P** | **00 17 32.2** | **+0.6** |
| | 10.0nm,0.8s,baz=181,slow=10,SNR=9.7 | | | | | | | |
| **BOSA** | **Boshof** | **23.87** | **357** | *e*P | | **P** | **00 17 32.1** | **+0.6** |
| | 24nm,1.0s | | | | | | | |
| **VNA2** | **Neumayer--Watz** | **23.91** | **207** | P | | **P** | **00 17 32.1** | **+0.7** |
| | baz=58,slow=11 | | | | | | | |
| **VNA1** | **Neumayer--Stat** | **24.00** | **208** | P | | **P** | **00 17 34.3** | **+2.0** |
| **VNA3** | **Neumayer Olymp** | **24.70** | **207** | P | | **P** | **00 17 39.9** | **+1.2** |
| **LBTB** | **Lobatse** | **27.45** | **358** | P | | **P** | **00 18 04.2** | **+0.3** |
| | 6.8nm,0.9s,baz=196,slow=11,SNR=4.7 | | | | | | | |
| LBTB | | | | LR | | LR | 00 27 24.5 | |
| | comp=Z,503nm,18.8s,baz=173,slow=33 | | | | | | | |
| **LBTB** | **Lobatse** | **27.45** | **358** | *e*P | | **P** | **00 18 03.9** | **0.0** |
| LBTB | | | | *e*gP | | **P** | **00 18 04.3** | **+0.3** |
| **TSUM** | **Tsumeb** | **33.94** | **345** | *e*P | | P | 00 19 02.8 | +1.4 |
| | 23nm,0.8s | | | | | | | |
| **HOPE** | **Hope Point** | **36.49** | **241** | *e*P | | **P** | **00 19 23.6** | **+0.8** |
| | 164nm,1.6s | | | | | | | |
| **ABPO** | **Ambohimpanom** | **37.13** | **34** | *e*P | | **P** | **00 19 29.5** | **+0.7** |
| | 25nm,1.4s | | | | | | | |
| **LSZ** | **Lusaka** | **37.15** | **3** | *e*P | | **P** | **00 19 29.3** | **+0.4** |
| | 6.8nm,1.0s | | | | | | | |
| **QSPA** | **South Pole Qui** | **37.73** | **180** | *e*P | | **P** | **00 19 33.3** | **-0.2** |
| | 137nm,1.0s | | | | | | | |
| **MRIV** | **Mauritius Mete** | **40.12** | **49** | *e*P | | **P** | **00 19 52.5** | **-1.3** |
| **VNDA** | **Vanda** | **47.34** | **168** | P | | **P** | **00 20 50.8** | **-0.3** |
| | 1.2nm,0.7s,baz=229,slow=6.7,SNR=6.3 | | | | | | | |
| VNDA | | | | LR | | LR | 00 41 32.0 | |
| | comp=Z,216nm,18.0s,baz=192,slow=37 | | | | | | | |
| **VNDA** | **Vanda** | **47.34** | **168** | *e*P | | **P** | **00 20 52.2** | **+1.0** |
| | 5.7nm,0.8s | | | | | | | |
| **SBA** | **Scott Base** | **47.65** | **169** | *e*P | | **P** | **00 20 55.2** | **+1.7** |
| | 61nm,1.9s | | | | | | | |
| **KMBO** | **Kilima Mbogo** | **51.98** | **14** | P | | P | 00 21 29.3 | +1.9 |
| | 0.4nm,0.3s,baz=213,slow=5.3,SNR=4.2 | | | | | | | |
| KMBO | | | | LR | | LR | 00 42 01.0 | |
| | comp=Z,214nm,19.4s,baz=207,slow=34 | | | | | | | |
| **MSEY** | **Mahe Island** | **53.34** | **37** | *e*P | | **P** | **00 21 36.8** | **-0.5** |
| | 20nm,0.9s | | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **54.73** | **307** | T | | T | 01 21 10.8 | |
| | baz=150,slow=75,SNR=26 | | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **54.74** | **307** | T | | T | 01 21 13.1 | |
| | baz=150,slow=75,SNR=25 | | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **54.74** | **307** | T | | T | 01 21 12.4 | |
| | baz=150,slow=75,SNR=25 | | | | | | | |
| **TRQA** | **Tornquist** | **60.08** | **246** | *e*P | | **P** | **00 22 25.5** | **+0.5** |
| | 63nm,1.9s | | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **61.89** | **111** | T | | T | 01 30 26.8 | |
| | baz=223 | | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **61.90** | **111** | T | | T | 01 30 29.2 | |
| | baz=223 | | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **61.90** | **111** | T | | T | 01 30 26.7 | |
| | baz=223 | | | | | | | |
| **PLCA** | **Paso Flores** | **62.77** | **238** | P | | **P** | **00 22 42.4** | **-0.9** |
| | 4.7nm,1.1s,baz=125,slow=7.2,SNR=3.4 | | | | | | | |
| PLCA | | | | LR | | LR | 00 47 38.7 | |
| | comp=Z,66nm,19.7s,baz=166,slow=34 | | | | | | | |
| **DBIC** | **Dimbokro** | **64.69** | **325** | P | | **P** | **00 22 55.0** | **-0.9** |
| | 5.6nm,0.8s,baz=144,slow=8.5,SNR=9.5 | | | | | | | |
| DBIC | | | | LR | | LR | 00 45 34.6 | |
| | comp=Z,85nm,20.4s,baz=138,slow=31 | | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **65.08** | **112** | P | | **P** | **00 22 57.6** | **-0.8** |
| | 8.8nm,0.8s,baz=250,slow=1.4,SNR=5.2 | | | | | | | |
| **CPUP** | **Villa Florida** | **65.90** | **258** | P | | **P** | **00 23 03.1** | **-0.7** |
| | 2.7nm,0.7s,baz=123,slow=5.5,SNR=8.2 | | | | | | | |
| CPUP | | | | LR | | LR | 00 46 15.0 | |
| | comp=Z,77nm,21.3s,baz=140,slow=31 | | | | | | | |
| **CPUP** | **Villa Florida** | **65.90** | **258** | *e*P | | **P** | **00 23 03.8** | **-0.1** |
| **BDFB** | **Brasilia** | **68.31** | **272** | P | | **P** | **00 23 19.0** | **-0.4** |
| | 4.0nm,0.8s,baz=334,slow=3.6,SNR=5.7 | | | | | | | |
| **BDFB** | **Brasilia** | **68.31** | **272** | *e*P | | **P** | **00 23 20.0** | **+0.6** |
| | 61nm,1.8s | | | | | | | |
| **TOA0** | **Torodi Ar. Sit** | **68.78** | **334** | *e*P | | **P** | **00 23 22.5** | **+0.5** |
| **TORD** | **Torodi Ar. Bea** | **68.78** | **334** | P | | **P** | **00 23

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **TXAR** | **Lajitas Array** | **136.88** | **258** | PKP | **PKPdf** | **00 31 40.2** | **-0.3** | |
| | 0.6nm,0.8s,baz=100,slow=2.7,SNR=4.2 | | | | | | | |
| **ULM** | **Lac du Bonnet** | **144.76** | **290** | PKP | **PKPab** | **00 31 51.9** | **-1.0** | |
| | 4.2nm,0.8s,baz=31,slow=2.7,SNR=6.2 | | | | | | | |
| **ISCO** | **Idaho Springs** | **145.11** | **268** | *e*PKPbc | **PKPdf** | **00 31 55.1** | **-0.2** | |
| **MVCO** | **Mesa Verde** | **145.24** | **262** | *e*PKPbc | **PKPbc** | **00 31 54.7** | **-0.5** | |
| **WUAZ** | **Wupatki** | **145.84** | **257** | *e*PKPab | **PKPab** | **00 31 57.8** | **+0.3** | |
| **PV01** | **Paradox Valley** | **145.88** | **263** | *e*PKPdf | **PKPab** | **00 31 58.2** | **+0.5** | |
| **RSSD** | **Black Hills** | **146.62** | **276** | *e*PKPdf | **PKPbc** | **00 31 57.7** | **-1.5** | |
| **LAO** | **LASA Array** | **149.25** | **278** | *e*PKPdf | **PKPdf** | **00 32 02.5** | **+0.9** | |
| LAO | | | | *e*PKPbc | **PKiKP** | **00 32 06.1** | **-1.0** | |
| **PDAR** | **Pinedale Array** | **149.25** | **269** | PKP | **PKPdf** | **00 32 00.5** | **-1.5** | |
| | 1.4nm,0.9s,baz=103,slow=3.9,SNR=4.8 | | | | | | | |
| PDAR | | | | PKPbc | **pPKPdf** | **00 32 05.0** | **-0.4** | |
| | 2.7nm,0.9s,baz=108,slow=4.8,SNR=13 | | | | | | | |
| **DUG** | **Dugway, Tooele** | **149.74** | **262** | *e*PKPbc | **PKPbc** | **00 32 07.1** | **-0.3** | |
| **SEY** | **Seymchan** | **150.19** | **48** | PKPbc | **PKPbc** | **00 32 08.2** | **+0.6** | |
| | 4.3nm,0.6s,baz=259,slow=4.1,SNR=4.6 | | | | | | | |
| **RLMT** | **Red Lodge** | **150.33** | **274** | *e*PKPdf | **PKPdf** | **00 32 04.6** | **+1.0** | |
| RLMT | | | | *e*PKPbc | **PKiKP** | **00 32 09.0** | **-0.6** | |
| RLMT | | | | *e*PKPab | **PKPab** | **00 32 15.4** | **+0.2** | |
| **EGMT** | **Eagleton** | **152.00** | **279** | *e*PKPbc | **PKPbc** | **00 32 12.3** | **-0.1** | |
| EGMT | | | | *e*PKPab | **PKPab** | **00 32 19.9** | **-2.0** | |
| **HLID** | **Hailey** | **152.66** | **267** | *e*PKPdf | **PKPdf** | **00 32 07.0** | **-0.1** | |
| HLID | | | | *e*PKPbc | **PKiKP** | **00 32 14.3** | **-0.1** | |
| **YKA** | **Yellowknife Ar** | **157.18** | **311** | PKP | **PKPdf** | **00 32 11.2** | **-1.2** | |
| | 0.3nm,0.8s,baz=38,slow=1.3,SNR=4.9 | | | | | | | |
| YKA | | | | PKPab | **pPKPab** | **00 32 43.7** | **-3.0** | |
| | 1.3nm,0.8s,baz=84,slow=4.7,SNR=17 | | | | | | | |
| **ILAR** | **Eielson Array** | **167.22** | **347** | PKPab | **PKPab** | **00 33 27.2** | **-0.1** | |
| | 0.7nm,0.9s,baz=10,slow=4.6,SNR=5.8 | | | | | | | |

**IDC 17 00:43:31.7±1.5, 2°.23N×127°.25E, h0km, mb3.4/4, mb1 3.5/4, mb1mx3.3/32, mbtmp3.4/4, Error ellipse: s-maj=140.9km s-min=20.9km az=70.0, Northern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **23.11** | **163** | P | P | 00 48 37.9 | -1.5 |
| | 0.9nm,0.8s,baz=343,slow=10,SNR=5.1 | | | | | | |
| **ASAR** | **Alice Springs** | **26.54** | **166** | P | P | 00 49 12.3 | +0.9 |
| | 0.2nm,0.7s,baz=342,slow=8.9,SNR=2.7 | | | | | | |
| **SONM** | **Songino Array** | **48.87** | **341** | P | P | 00 52 19.6 | +0.2 |
| | 0.3nm,0.5s,baz=154,slow=7.9,SNR=2.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **59.08** | **326** | P | P | 00 53 33.7 | -0.2 |
| | 0.4nm,0.4s,baz=114,slow=8.1,SNR=14 | | | | | | |

*ISK **17** 01:07:57.7, 38°.46N×42°.89E, h3km, MD2.6*
*CSEM **17** 01:07:58.9±0.2, 38°.44N×42°.96E, h10km, ML2.5, Error ellipse: s-maj=5.2km s-min=4.1km az=148.0*
*DDA **17** 01:07:58.9, 38°.43N×42°.96E, h7km, Ml2.5*
*ISCJB **17** 01:07:59.2±0.6, 38°.43N±0°.03×42°.94E±0°.04, h9km±5km, Error ellipse: s-maj=6.0km s-min=4.7km az=138.2*
**ISC 17 01:07:58.9±0.9, 38°.44N±0°.03×42°.96E±0°.03, h9km±9km, n26, σ0s52/42, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GEVA** | **Gevas** | **0.15** | **147** | *i* P | **Pg** | **01 08 01.9** | **-0.4** |
| GEVA | | | | *i* S | **Sg** | **01 08 04.8** | **+0.2** |
| **GEVA** | **Gevas** | **0.15** | **147** | P | **Pg** | **01 08 01.9** | **-0.4** |
| GEVA | | | | S | **Sg** | **01 08 04.8** | **+0.2** |
| **TVAN** | **Van** | **0.36** | **75** | *i* P | **Pg** | **01 08 06.0** | **-0.1** |
| TVAN | | | | *i* S | **Sb** | **01 08 12.7** | **-1.0** |
| **TVAN** | **Van** | **0.36** | **75** | P | **Pg** | **01 08 06.1** | **-0.1** |
| TVAN | | | | S | **Sb** | **01 08 12.7** | **-1.0** |
| **VANB** | **Van** | **0.38** | **65** | *e*PG | **Pg** | **01 08 06.6** | **+0.2** |
| VANB | | | | *e*SG | **Sb** | **01 08 13.2** | **-0.7** |
| **VANB** | **Van** | **0.38** | **65** | *e*Pg | **Pg** | **01 08 06.6** | **+0.2** |
| VANB | | | | *e*Sg | **Sb** | **01 08 13.2** | **-0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.41** | **334** | *i* P | **Pg** | **01 08 07.4** | **+0.3** |
| ADCV | | | | *i* S | **Sb** | **01 08 14.3** | **-0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.41** | **334** | P | **Pg** | **01 08 07.4** | **+0.3** |
| ADCV | | | | S | **Sb** | **01 08 14.4** | **-0.7** |
| **VMUR** | **Van-Muradiye** | **0.73** | **41** | *i* P | **Pg** | **01 08 12.9** | **-0.2** |
| VMUR | | | | *i* S | **Sb** | **01 08 25.3** | **+1.1** |
| **VMUR** | **Van-Muradiye** | **0.73** | **41** | P | **Pg** | **01 08 12.9** | **-0.2** |
| VMUR | | | | S | **Sb** | **01 08 25.3** | **+1.1** |
| **SRTM** | **Siirt_Merkez** | **0.93** | **242** | *i* P | **Pb** | **01 08 17.2** | **-0.1** |
| SRTM | | | | *i* S | **Sb** | **01 08 29.6** | **-0.1** |
| **SRTM** | **Siirt_Merkez** | **0.93** | **242** | P | **Pb** | **01 08 17.2** | **-0.1** |
| SRTM | | | | S | **Sb** | **01 08 29.6** | **-0.1** |
| **TUTA** | **Tutak** | **0.97** | **353** | *i* P | **Pg** | **01 08 17.4** | **-0.2** |
| **TUTA** | **Tutak** | **0.97** | **353** | P | **Pg** | **01 08 17.4** | **-0.2** |
| **CLDR** | **Caldiran** | **1.03** | **46** | *i* P | **Pg** | **01 08 18.3** | **-0.5** |
| CLDR | | | | *i* S | **Sb** | **01 08 33.5** | **+0.7** |
| **CLDR** | **Caldiran** | **1.03** | **46** | P | **Pg** | **01 08 18.3** | **-0.5** |
| CLDR | | | | S | **Sb** | **01 08 33.5** | **+0.7** |
| **EKAR** | **Karacoban** | **1.07** | **320** | *i* P | **Pb** | **01 08 20.1** | **+0.3** |
| **EKAR** | **Karacoban** | **1.07** | **320** | P | **Pb** | **01 08 20.1** | **+0.3** |
| **AGRB** | **Hanur-Agry** | **1.14** | **1** | *e*PN | **Pg** | **01 08 19.9** | **-0.9** |
| AGRB | | | | *e*SN | **Sb** | **01 08 36.0** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **1.14** | **1** | *e*Pn | **Pg** | **01 08 19.9** | **-0.9** |
| AGRB | | | | *e*Sn | **Sb** | **01 08 36.0** | **+0.1** |
| **CUKT** | **Cukurca** | **1.29** | **156** | *e*PN | **Pg** | **01 08 24.1** | **+0.3** |
| **CUKT** | **Cukurca** | **1.29** | **156** | *e*Pn | **Pg** | **01 08 24.1** | **+0.3** |
| **EATA** | **Eleskirt** | **1.47** | **346** | *i* P | **Pn** | **01 08 26.0** | **+0.1** |
| **EATA** | **Eleskirt** | **1.47** | **346** | P | **Pn** | **01 08 26.0** | **+0.1** |
| **MAZI** | **Mazidag** | **2.21** | **245** | *e*PN | **Pn** | **01 08 36.0** | **+0.1** |
| **MAZI** | **Mazidag** | **2.21** | **245** | *e*Pn | **Pn** | **01 08 36.0** | **+0.1** |

*ISCJB **17** 01:20:52.9±1.3, 51°.42N±0°.05×16°.10E±0°.07, h0km, Error ellipse: s-maj=8.2km s-min=4.6km az=32.9*
*CSEM **17** 01:20:53.2±0.8, 51°.43N×16°.18E, h2km, ML3.1/6, Error ellipse: s-maj=12.1km s-min=6.6km az=16.0*
*PRU **17** 01:20:53.9, 51°.42N×16°.21E, h0km*
*WAR **17** 01:20:54.1, 51°.44N×16°.20E, h1km, Mw2.4*
**ISC 17 01:20:53.6±1.7, 51°.38N±0°.07×16°.23E±0°.04, h0km, n24, σ0s45/43, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KSP** | **Ksiaz** | **0.54** | **176** | *i* Pg | **Pb** | **01 21 05.3** | **-0.6** |
| KSP | | | | *e*Sg | **Sb** | **01 21 13.8** | **-0.3** |
| **KSP** | **Ksiaz** | **0.54** | **176** | *i* Pg | **Pb** | **01 21 05.3** | **-0.6** |
| KSP | | | | *e*Sg | **Sb** | **01 21 13.8** | **-0.3** |
| **KSP** | **Ksiaz** | **0.54** | **176** | *i* Pg | **Pb** | **01 21 05.3** | **-0.6** |
| KSP | | | | *e*Sg | **Sb** | **01 21 13.8** | **-0.3** |
| **UPC** | **Upice** | **0.88** | **189** | *e*PG | **Pb** | **01 21 11.4** | **-0.3** |
| UPC | | | | *e*SG | **Sb** | **01 21 24.1** | **+0.1** |
| | comp=Z,41nm,0.3s | | | | | | |
| **UPC** | **Upice** | **0.88** | **189** | Pg | **Pb** | **01 21 11.4** | **-0.3** |
| UPC | | | | Sg | **Sb** | **01 21 24.1** | **+0.1** |
| | 41nm,0.3s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.03** | **177** | *e*PG | **Pb** | **01 21 14.3** | **0.0** |
| DPC | | | | *e*SG | **Sb** | **01 21 28.9** | **+0.5** |
| | comp=Z,13nm,0.4s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.03** | **177** | Pg | **Pb** | **01 21 14.3** | **0.0** |
| DPC | | | | Sg | **Sb** | **01 21 28.9** | **+0.5** |
| | 13nm,0.4s | | | | | | |
| **PVCC** | **Panska Ves** | **1.35** | **232** | *e*PG | **Pb** | **01 21 20.0** | **+0.3** |
| PVCC | | | | *e*SG | **Sn** | **01 21 38.3** | **0.0** |
| | comp=Z,73nm,0.3s | | | | | | |
| **PVCC** | **Panska Ves** | **1.35** | **232** | Pg | **Pb** | **01 21 20.0** | **+0.3** |
| PVCC | | | | Sg | **Sn** | **01 21 38.3** | **0.0** |
| | 73nm,0.3s | | | | | | |
| **BRG** | **Berggiesshubel** | **1.53** | **252** | PG | **Pb** | **01 21 22.7** | **0.0** |
| BRG | | | | SG | **Sn** | **01 21 43.0** | **+0.4** |
| | 20nm,0.4s | | | | | | |
| **BRG** | **Berggiesshubel** | **1.53** | **252** | PG | **Pb** | **01 21 22.7** | **0.0** |
| BRG | | | | SG | **Sn** | **01 21 43.0** | **+0.4** |
| | 20nm,0.4s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **1.73** | **213** | *e*PN | **Pn** | **01 21 25.3** | **+0.4** |
| GOPC | | | | *e*PG | **Pg** | **01 21 26.7** | **0.0** |
| GOPC | | | | *e*SG | **Sg** | **01 21 49.7** | **+0.6** |
| | comp=Z,9.3nm,0.3s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **1.73** | **213** | Pn | **Pn** | **01 21 25.3** | **+0.4** |
| **PRU** | **Pruhonice** | **1.76** | **218** | *e*PN | **Pn** | **01 21 25.1** | **-0.2** |
| PRU | | | | *e*PG | **Pg** | **01 21 26.8** | **+0.2** |
| PRU | | | | *e*SG | **Sg** | **01 21 50.2** | **+0.3** |
| | comp=Z,14nm,0.4s | | | | | | |
| **PRU** | **Pruhonice** | **1.76** | **218** | Pn | **Pn** | **01 21 25.1** | **-0.2** |
| **OKC** | **Ostrava-Krasne** | **1.97** | **141** | *e*SG | **Sg** | **01 21 56.9** | **+0.2** |
| **OKC** | **Ostrava-Krasne** | **1.97** | **141** | Sg | **Sg** | **01 21 56.9** | **+0.2** |
| **CLL** | **Collm** | **2.02** | **269** | *e*Pg | **Pb** | **01 21 31.0** | **-0.2** |
| CLL | | | | *e*Sg | **Sg** | **01 21 58.0** | **-0.6** |
| **NKC** | **Novy Kostel** | **2.66** | **246** | *e*SG | **Sg** | **01 22 18.2** | **-0.7** |
| | comp=Z,15nm,0.3s | | | | | | |
| **NKC** | **Novy Kostel** | **2.66** | **246** | Sg | **Sg** | **01 22 18.2** | **-0.7** |
| | 15nm,0.3s | | | | | | |
| **KHC** | **Kasperske Hory** | **2.82** | **218** | *e*PN | **Pn** | **01 21 40.3** | **+0.4** |
| KHC | | | | *e*PG | **Pb** | **01 21 45.7** | **+0.9** |
| KHC | | | | *e*SN | **Sn** | **01 22 13.9** | **-0.7** |
| KHC | | | | *e*SG | **Sg** | **01 22 22.8** | **-1.3** |
| **KHC** | **Kasperske Hory** | **2.82** | **218** | Pn | **Pn** | **01 21 40.3** | **+0.4** |
| **LANS** | **Liptovska Anna** | **3.05** | **136** | *e*Sg | **Sg** | **01 22 31.2** | **-0.2** |
| **LANS** | **Liptovska Anna** | **3.05** | **136** | *e*SG | **Sg** | **01 22 31.2** | **-0.2** |

**IDC 17 01:27:10.3±14.0, 52°.81S×25°.96E, h0km, mb3.6/3, mb1 3.8/3, mb1mx3.5/24, mbtmp3.6/3, MS3.2/1, Ms1 3.2/1, ms1mx2.7/25, Error ellipse: s-maj=1163.0km s-min=40.0km az=48.0, South of Africa**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **LBTB** | **Lobatse** | **27.76** | **359** | LR | LR | 01 41 59.9 | |
| | comp=Z,51nm,21.0s,baz=197,slow=32 | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **54.67** | **308** | T | T | 02 36 07.2 | |
| | baz=150 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **54.69** | **308** | T | T | 02 35 59.4 | |
| | baz=150 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **54.69** | **308** | T | T | 02 36 06.9 | |
| | baz=150 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **68.93** | **335** | P | P | 01 38 17.0 | +0.1 |
| | 0.3nm,0.7s,baz=182,slow=7.6,SNR=2.5 | | | | | | |
| **ASAR** | **Alice Springs** | **81.62** | **118** | P | P | 01 39 30.6 | +0.4 |
| | 0.7nm,0.6s,baz=214,slow=4.7,SNR=12 | | | | | | |
| **WRA** | **Warramunga Arr** | **84.87** | **116** | P | P | 01 39 46.4 | -0.6 |
| | 0.3nm,0.6s,baz=214,slow=3.7,SNR=1.6 | | | | | | |

*CSEM **17** 02:03:34.4±0.2, 39°.53N×40°.57E, h2km, MD2.6, Error ellipse: s-maj=4.7km s-min=4.2km az=147.0*
*ISK **17** 02:03:34.5, 39°.52N×40°.46E, h8km, MD2.6*
*DDA **17** 02:03:34.0, 39°.51N×40°.60E, h7km, Ml2.7*
**ISC 17 02:03:34.3±0.9, 39°.52N±0°.03×40°.58E±0°.02, h14km±6km, n31, σ0s58/41, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **YEDI** | **Yedisu-Bingol** | **0.09** | **195** | *e*PG | **Pg** | **02 03 37.5** | **0.0** |
| YEDI | | | | *e*SG | **Sg** | **02 03 39.8** | **+0.2** |
| **YEDI** | **Yedisu-Bingol** | **0.09** | **195** | *e*Pg | **Pg** | **02 03 37.5** | **0.0** |
| YEDI | | | | *e*Sg | **Sg** | **02 03 39.8** | **+0.2** |
| **ECAT** | **Cat-ERZURUM** | **0.32** | **75** | *i* P | **Pg** | **02 03 40.4** | **-0.6** |
| ECAT | | | | *i* S | **Sg** | **02 03 45.0** | **-0.5** |
| **ECAT** | **Cat-ERZURUM** | **0.32** | **75** | P | **Pg** | **02 03 40.4** | **-0.6** |
| ECAT | | | | S | **Sg** | **02 03 45.0** | **-0.5** |
| **KOPT** | **Kop Dagi** | **0.50** | **353** | *i* P | **Pg** | **02 03 44.4** | **+0.2** |
| **KOPT** | **Kop Dagi** | **0.50** | **353** | P | **Pg** | **02 03 44.4** | **+0.2** |
| **BNGB** | **Bing¨¶l** | **0.54** | **171** | *e*PG | **Pg** | **02 03 45.3** | **+0.4** |
| BNGB | | | | *e*SG | **Sb** | **02 03 53.4** | **+0.1** |
| **BINT** | **Bingol** | **0.65** | **186** | *e*Pg | **Pg** | **02 03 45.3** | **-1.8** |
| **ERZN** | **Erzincan** | **0.66** | **276** | *e*PG | **Pg** | **02 03 46.5** | **-0.8** |
| ERZN | | | | *e*SG | **Sg** | **02 03 54.5** | **-1.5** |
| **EUZM** | **Uzumlu** | **0.70** | **285** | *i* P | **Pg** | **02 03 48.0** | **0.0** |
| **EUZM** | **Uzumlu** | **0.70** | **285** | P | **Pg** | **02 03 48.0** | **0.0** |
| **ERZM** | **Erzurum** | **0.72** | **58** | *i* P | **Pg** | **02 03 47.9** | **-0.5** |
| **ERZM** | **Erzurum** | **0.72** | **58** | P | **Pg** | **02 03 47.9** | **-0.5** |
| **TNCL** | **Tunceli-Merkez** | **0.90** | **243** | *i* P | **Pg** | **02 03 51.9** | **+0.1** |
| **TNCL** | **Tunceli-Merkez** | **0.90** | **243** | P | **Pg** | **02 03 51.9** | **+0.1** |
| **BAYT** | **Ayd¨¬ntepe-Bay** | **0.93** | **339** | *e*PG | **Pg** | **02 03 52.3** | **-0.1** |
| BAYT | | | | *e*SG | **Sb** | **02 04 05.2** | **+0.6** |
| **BAYT** | **Ayd¨¬ntepe-Bay** | **0.93** | **339** | *e*Pg | **Pg** | **02 03 52.3** | **-0.1** |
| BAYT | | | | *e*Sg | **Sb** | **02 04 05.3** | **+0.6** |
| **PTK** | **Pertek** | **1.11** | **236** | *e*PG | **Pb** | **02 03 55.1** | **-0.5** |
| PTK | | | | *e*SG | **Sb** | **02 04 09.9** | **-0.1** |
| **PTK** | **Pertek** | **1.11** | **236** | *e*Pg | **Pb** | **02 03 55.1** | **-0.5** |
| PTK | | | | *e*Sg | **Sb** | **02 04 09.9** | **-0.1** |
| **HANI** | **Diyarbakir_Han** | **1.12** | **187** | *i* P | **Pg** | **02 03 56.5** | **+0.6** |
| **HANI** | **Diyarbakir_Han** | **1.12** | **187** | P | **Pg** | **02 03 56.5** | **+0.6** |
| **EKAR** | **Karacoban** | **1.19** | **103** | *i* P | **Pg** | **02 03 57.7** | **+0.5** |
| **EKAR** | **Karacoban** | **1.19** | **103** | P | **Pg** | **02 03 57.7** | **+0.5** |
| **KELT** | **Kelkit** | **1.19** | **302** | *i* P | **Pn** | **02 03 56.9** | **+0.1** |
| **KELT** | **Kelkit** | **1.19** | **302** | P | **Pn** | **02 03 56.9** | **+0.1** |
| **KEMA** | **Kemaliye** | **1.63** | **262** | *i* P | **Pb** | **02 04 05.1** | **+0.8** |
| **KEMA** | **Kemaliye** | **1.63** | **262** | P | **Pb** | **02 04 05.1** | **+0.8** |
| **TUTA** | **Tutak** | **1.74** | **93** | *i* P | **Pb** | **02 04 06.0** | **-0.2** |
| **TUTA** | **Tutak** | **1.74** | **93** | P | **Pb** | **02 04 06.0** | **-0.2** |
| **AGRB** | **Hanur-Agry** | **1.87** | **88** | *e*PN | **Pb** | **02 04 08.9** | **+0.5** |
| **AGRB** | **Hanur-Agry** | **1.87** | **88** | *e*Pn | **Pb** | **02 04 08.9** | **+0.5** |

**TRN 17 02:08:00.6, 10°.16N×62°.41W, h1km, MD4.1, Near coast of Venezuela**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TPP** | **Pointe-a-Pierr** | **0.95** | **81** | *e*P | Pg | 02 08 18.6 | -0.3 |
| **TRN** | **Trinidad (W)** | **1.10** | **64** | *e*P | Pg | 02 08 21.8 | +0.1 |
| TRN | | | | *e*S | Sb | 02 08 38.2 | +0.9 |
| **TBH** | **Brigand Hill** | **1.35** | **76** | *e*P | Pb | 02 08 27.4 | +0.6 |
| **BOT** | **Bacolet** | **1.94** | **59** | *e*P | Pb | 02 08 36.3 | -0.4 |
| BOT | | | | *e*S | Sb | 02 09 00.7 | -0.7 |
| **GRGR** | **Grenville** | **2.09** | **21** | *e*P | Pn | 02 08 37.2 | +0.3 |
| GRGR | | | | *e*S | Sn | 02 09 03.8 | +0.2 |
| **TOSP** | **Speyside** | **2.16** | **58** | *e*P | Pn | 02 08 38.1 | +0.3 |
| TOSP | | | | *e*S | Sn | 02 09 04.8 | -0.4 |
| **SVB** | **Belmont** | **3.29** | **20** | *e*P | Pn | 02 08 53.1 | -0.3 |
| SVB | | | | *e*S | Sn | 02 09 33.9 | +0.7 |
| **SVCV** | **St. Vincent, C** | **3.33** | **22** | *e*P | Pn | 02 08 55.6 | +1.7 |
| SVCV | | | | *e*S | Sn | 02 09 33.4 | -0.8 |
| **MCLT** | **Moule a Chique** | **3.80** | **22** | *e*P | Pn | 02 09 00.8 | +0.3 |
| **MCLT** | **Moule a Chique** | **3.80** | **22** | *e*S | Sn | 02 09 46.2 | +0.2 |

**IDC 17 02:08:08.7±1.8, 7°.83S×129°.96E, h0km, mb3.8/2, mb1 3.6/5, mb1mx3.5/32, mbtmp3.5/5, ML3.4/3, Error ellipse: s-maj=69.5km s-min=26.4km az=72.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **FITZ** | **Fitzroy Crossi** | **11.04** | **202** | Pn | Pn | 02 10 49.1 | +1.0 |
| | 0.2nm,0.3s,baz=180,slow=24,SNR=22 | | | | | | |
| FITZ | | | | Sn | Sn | 02 12 46.5 | -5.8 |
| | 0.1nm,0.3s,baz=180,slow=20,SNR=3.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **12.77** | **161** | Pn | Pn | 02 11 09.8 | -1.9 |
| | 0.3nm,0.3s,baz=342,slow=13,SNR=14 | | | | | | |
| WRA | | | | Sn | Sn | 02 13 25.6 | -9.1 |
| | 0.4nm,0.3s,baz=346,slow=22,SNR=7.0 | | | | | | |
| **ASAR** | **Alice Springs** | **16.20** | **167** | Pn | Pn | 02 11 57.5 | -0.4 |
| | 0.1nm,0.3s,baz=345,slow=9.7,SNR=3.5 | | | | | | |
| ASAR | | | | Sn | Sn | 02 14 52.3 | -6.0 |
| | 0.1nm,0.3s,baz=323,slow=23,SNR=3.2 | | | | | | |
| **STKA** | **Stephens Creek** | **26.27** | **157** | P | P | 02 13 46.3 | +0.4 |
| | 4.5nm,1.1s,baz=326,slow=3.6,SNR=3.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **68.89** | **327** | P | P | 02 19 15.3 | -0.1 |
| | 0.2nm,0.5s,baz=134,slow=7.6,SNR=4.5 | | | | | | |

**IDC 17 02:32:40.8±5.3, 20°.45S×177°.77W, h331km±48km, mb2.8/3, mb1 3.2/4, mb1mx3.0/26, mbtmp3.7/4, Error ellipse: s-maj=34.2km s-min=16.4km az=93.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **URZ** | **Urewera** | **18.29** | **193** | P | P | 02 36 31.1 | -0.6 |
| | 0.8nm,0.3s,baz=14,slow=4.8,SNR=5.6 | | | | | | |
| URZ | | | | S | S | 02 39 44.5 | +1.2 |
| | 0.3nm,0.3s,baz=270,slow=20,SNR=4.8 | | | | | | |
| **ASAR** | **Alice Springs** | **44.73** | **257** | P | P | 02 40 22.6 | +0.1 |
| | 0.7nm,0.8s,baz=97,slow=8.0,SNR=7.9 | | | | | | |
| ASAR | | | | PcP | PcP | 02 41 57.8 | -0.7 |
| | 0.2nm,0.5s,baz=104,slow=3.1,SNR=2.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.82** | **262** | P | P | 02 40 23.2 | 0.0 |
| | 0.2nm,0.3s,baz=96,slow=8.0,SNR=14 | | | | | | |
| **ILAR** | **Eielson Array** | **88.22** | **13** | P | P | 02 44 55.6 | +1.2 |
| | 0.3nm,0.9s,baz=226,slow=4.8,SNR=3.9 | | | | | | |
| **AKASG** | **Malin Array Be** | **143.07** | **331** | PKP | PKPbc | 02 51 33.5 | +0.2 |
| | 0.2nm,0.3s,baz=46,slow=5.3,SNR=6.9 | | | | | | |
| **BRTR** | **Keskin Array B** | **146.96** | **312** | PKPbc | PKPbc | 02 51 43.8 | -1.3 |
| | 0.3nm,0.5s,baz=138,slow=5.7,SNR=4.0 | | | | | | |

**IDC 17 02:38:11.4±3.7, 7°.78S×147°.37E, h155km±45km, mb2.7/2, mb1 2.9/3, mb1mx2.8/30, mbtmp3.2/3, MS3.1/1, Ms1 3.1/1, ms1mx2.6/9, Error ellipse: s-maj=119.8km s-min=30.0km az=131.0, Eastern New Guinea region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PMG** | **Port Moresby** | **1.63** | **187** | P | Pn | 02 38 42.4 | -0.3 |
| | 5.8nm,0.3s,baz=353,slow=7.4,SNR=15 | | | | | | |
| PMG | | | | S | Sn | 02 39 07.0 | +0.3 |
| | 10nm,0.3s,baz=3.8,slow=10,SNR=13 | | | | | | |
| **WRA** | **Warramunga Arr** | **17.48** | **225** | P | P | 02 42 03.0 | -1.8 |
| | 0.1nm,0.3s,baz=51,slow=10,SNR=3.5 | | | | | | |
| **ASAR** | **Alice Springs** | **20.40** | **218** | P | P | 02 42 36.1 | -0.3 |
| | 0.5nm,0.6s,baz=34,slow=12,SNR=8.9 | | | | | | |
| ASAR | | | | LR | LR | 02 51 31.4 | |
| | comp=Z,53nm,20.5s,baz=16,slow=39 | | | | | | |
| **ILAR** | **Eielson Array** | **86.97** | **23** | P | P | 02 50 38.2 | -0.6 |
| | 0.2nm,0.6s,baz=241,slow=5.0,SNR=3.5 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **145.85** | **282** | PKPbc | PKPab | 02 57 34.4 | +0.1 |
| | 0.3nm,0.7s,baz=71,slow=3.2,SNR=4.4 | | | | | | |

*CSEM **17** 02:40:06.9±0.3, 38°.65N×43°.02E, h10km, ML2.6, Error ellipse: s-maj=8.2km s-min=6.2km az=49.0*
*ISCJB **17** 02:40:07.2±0.8, 38°.65N±0°.06×43°.04E±0°.06, h15km, Error ellipse: s-maj=9.4km s-min=5.3km az=29.7*
*DDA **17** 02:40:07.2, 38°.62N×43°.06E, h7km, Ml2.6*
**ISC 17 02:40:06.8±1.1, 38°.65N±0°.04×43°.03E±0°.03, h15km, n18, σ0s40/22, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.28** | **100** | *e*PG | **Pb** | **02 40 13.8** | **+0.1** |
| VANB | | | | *e*SG | **Sb** | **02 40 18.6** | **+0.3** |
| **VANB** | **Van** | **0.28** | **100** | *e*Pg | **Pb** | **02 40 13.8** | **+0.1** |
| VANB | | | | *e*Sg | **Sb** | **02 40 18.6** | **+0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.29** | **304** | *i* P | **Pb** | **02 40 13.8** | **0.0** |
| ADCV | | | | *i* S | **Sb** | **02 40 19.3** | **+0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.29** | **304** | P | **Pb** | **02 40 13.8** | **0.0** |
| ADCV | | | | S | **Sb** | **02 40 19.3** | **+0.7** |
| **TVAN** | **Van** | **0.32** | **111** | *i* P | **Pg** | **02 40 13.7** | **+0.2** |
| **TVAN** | **Van** | **0.32** | **111** | P | **Pg** | **02 40 13.7** | **+0.2** |
| **GEVA** | **Gevas** | **0.33** | **176** | *i* P | **Pg** | **02 40 13.2** | **-0.6** |
| **GEVA** | **Gevas** | **0.33** | **176** | P | **Pg** | **02 40 13.2** | **-0.6** |
| **ERCV** | **ERCIS-VAN** | **0.45** | **33** | *e*PG | **Pg** | **02 40 15.2** | **-0.6** |
| **ERCV** | **ERCIS-VAN** | **0.45** | **33** | *e*Pg | **Pg** | **02 40 15.2** | **-0.6** |
| **VMUR** | **Van-Muradiye** | **0.55** | **51** | *i* P | **Pb** | **02 40 18.2** | **0.0** |
| **VMUR** | **Van-Muradiye** | **0.55** | **51** | P | **Pb** | **02 40 18.2** | **0.0** |
| **TUTA** | **Tutak** | **0.78** | **347** | *i* P | **Pg** | **02 40 21.9** | **-0.1** |
| **TUTA** | **Tutak** | **0.78** | **347** | P | **Pg** | **02 40 21.9** | **-0.1** |
| **CLDR** | **Caldiran** | **0.85** | **54** | *i* P | **Pg** | **02 40 23.0** | **-0.4** |
| **CLDR** | **Caldiran** | **0.85** | **54** | P | **Pg** | **02 40 23.0** | **-0.4** |
| **AGRB** | **Hanur-Agry** | **0.93** | **358** | *e*PG | **Pb** | **02 40 24.6** | **-0.2** |
| **AGRB** | **Hanur-Agry** | **0.93** | **358** | *e*Pg | **Pb** | **02 40 24.6** | **-0.2** |

**IDC 17 02:40:56.0±5.5, 5°.09S×151°.33E, h103km±45km, mb3.0/3, mb1 3.3/4, mb1mx3.1/31, mbtmp3.5/4, MS3.8/1, Ms1 3.8/1, ms1mx2.5/16, Error ellipse: s-maj=132.9km s-min=33.0km az=127.0, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PMG** | **Port Moresby** | **5.96** | **224** | P | Pn | 02 42 20.7 | -1.1 |
| | 1.3nm,0.3s,baz=24,slow=20,SNR=2.9 | | | | | | |
| PMG | | | | S | Sn | 02 43 29.1 | +0.3 |
| | 1.5nm,0.3s,baz=120,slow=20,SNR=3.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **22.17** | **227** | P | P | 02 45 45.1 | +1.3 |
| | 0.4nm,0.5s,baz=56,slow=10,SNR=4.7 | | | | | | |
| **ASAR** | **Alice Springs** | **24.96** | **221** | P | P | 02 46 11.1 | +0.9 |
| | 0.9nm,0.9s,baz=42,slow=10,SNR=6.5 | | | | | | |
| **URZ** | **

**mb1 4.0/5, mb1mx3.7/35, mbtmp3.9/5, ML3.1/2, MS3.3/2, Ms1 3.3/2, ms1mx2.7/43, Error ellipse: s-maj=42.4km s-min=27.5km az=147.0, Tonga Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AFI** | **Afiamalu** | **4.25** | **1** | Pn | Pn | 03 04 58.8 | +0.6 |
| | 2.0nm,0.3s,baz=280,slow=17,SNR=5.1 | | | | | | |
| AFI | | | | Sn | Sn | 03 05 42.0 | -6.7 |
| | 21nm,0.3s,baz=21,slow=18,SNR=8.1 | | | | | | |
| **RAR** | **Rarotonga** | **11.79** | **107** | Pn | Pn | 03 06 41.9 | +0.2 |
| | 0.6nm,0.3s,baz=270,slow=10,SNR=2.6 | | | | | | |
| RAR | | | | LR | LR | 03 10 05.8 | |
| | comp=Z,191nm,21.5s,baz=292,slow=32 | | | | | | |
| **DZM** | **Mont Dzumac** | **20.71** | **256** | eLR | LR | 03 13 57.7 | |
| | 176nm,26.9s | | | | | | |
| **PPT2** | **Papeete2** | **21.23** | **92** | eLR | LR | 03 13 34.6 | |
| | 190nm,24.8s | | | | | | |
| **PPT** | **Papeete** | **21.23** | **92** | LR | LR | 03 14 37.2 | |
| | comp=Z,71nm,19.9s,baz=322,slow=30 | | | | | | |
| **TBI** | **Tubuai** | **21.57** | **108** | eLR | LR | 03 13 46.5 | |
| | 175nm,29.2s | | | | | | |
| **WRA** | **Warramunga Arr** | **50.69** | **259** | P | P | 03 12 53.8 | -0.1 |
| | 1.6nm,0.8s,baz=96,slow=8.2,SNR=19 | | | | | | |
| **ASAR** | **Alice Springs** | **50.69** | **254** | P | P | 03 12 53.9 | 0.0 |
| | 2.7nm,0.7s,baz=89,slow=8.6,SNR=28 | | | | | | |
| **ILAR** | **Eielson Array** | **84.89** | **10** | P | P | 03 16 28.1 | -0.3 |
| | 0.2nm,0.6s,baz=188,slow=4.6,SNR=3.6 | | | | | | |

*LDG **17** 03:04:15.6±0.1, 42.72N×13.61E, h20km, Ml3.2/5, Error ellipse: s-maj=2.7km s-min=2.2km az=88.0*
*ISCJB **17** 03:04:15.9±0.2, 42.70N±0.02×13.63E±0.02, h26km±2km, mb3.4/5, Error ellipse: s-maj=3.1km s-min=2.5km az=37.5*
*PRU **17** 03:04:15.9, 42.82N×13.51E, h2km*
*IDC **17** 03:04:15.8±1.3, 42.92N×13.86E, h0km, mb3.3/5, mb1 3.7/12, mb1mx3.5/53, mbtmp3.6/12, ML3.4/6, Error ellipse: s-maj=27.2km s-min=15.5km az=78.0*
*IASPEI **17** 03:04:16.3±1.0, 42.69N±0.02×13.61E±0.02, h19km±2km, mb3.5/5, Error ellipse: s-maj=3.2km s-min=2.4km az=67.7, GT5 selection from ISC bulletin GT5 identified by Bond¨¡r and McLaughlin (2009) selection criteria Bond¨¡r and McLaughlin, A new ground truth data set for seismic studies, Seism. Res. Let., 80, 465-472, 2009*
*CSEM **17** 03:04:16.6±0.1, 42.68N×13.61E, h20km, ML3.7/20, Ms3.8, Error ellipse: s-maj=2.5km s-min=2.3km az=58.0*
*ROM **17** 03:04:16.2±0.1, 42.68N×13.60E, h19km±1km, Ml3.4/30, Error ellipse: s-maj=1.4km s-min=1.0km az=64.0*
*VIE **17** 03:04:16.1±0.5, 42.74N×13.72E, h10km, mb3.0/14, ML3.1/16, Ms3.8/1, Error ellipse: s-maj=8.3km s-min=3.6km az=107.0*
*BEO **17** 03:04:36.8, 43.56N×15.54E, h0km*

**ISC 17 03:04:16.3±0.7, 42.70N±0.02×13.60E±0.02, h18km±2km, n156, σ1$57/210, mb3.5/5, Central Italy**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TERO** | **Teramo** | **0.07** | **178** | Pg | **Pg** | **03 04 19.7** | **-0.1** |
| TERO | | | | Sg | **Sg** | **03 04 22.3** | **+0.1** |
| | 26µm,0.2s | | | | | | |
| **TERO** | **Teramo** | **0.07** | **178** | Pg | **Pg** | **03 04 19.7** | **-0.1** |
| TERO | | | | Sg | **Sg** | **03 04 22.3** | **+0.1** |
| | 26µm,0.2s | | | | | | |
| **SMA1** | **SAN MARTINO** | **0.21** | **252** | Pg | **Pg** | **03 04 21.5** | **0.0** |
| SMA1 | | | | Sg | **Sg** | **03 04 25.7** | **+0.7** |
| | 14µm,0.3s | | | | | | |
| **SMA1** | **SAN MARTINO** | **0.21** | **252** | Pg | **Pg** | **03 04 21.5** | **0.0** |
| SMA1 | | | | Sg | **Sg** | **03 04 25.7** | **+0.7** |
| | 14µm,0.3s | | | | | | |
| **CAMP** | **Campotosto** | **0.21** | **222** | Pg | **Pg** | **03 04 21.6** | **0.0** |
| CAMP | | | | Sg | **Sb** | **03 04 25.8** | **+0.9** |
| | 6µm,0.5s | | | | | | |
| **CAMP** | **Campotosto** | **0.21** | **222** | Pg | **Pg** | **03 04 21.6** | **0.0** |
| CAMP | | | | Sg | **Sb** | **03 04 25.8** | **+0.9** |
| | 6µm,0.5s | | | | | | |
| **OFFI** | **Offida** | **0.25** | **15** | Pg | **Pg** | **03 04 22.1** | **+0.1** |
| OFFI | | | | Sg | **Sb** | **03 04 27.5** | **+1.4** |
| | 12µm,0.7s | | | | | | |
| **OFFI** | **Offida** | **0.25** | **15** | Pg | **Pg** | **03 04 22.1** | **+0.1** |
| OFFI | | | | Sg | **Sb** | **03 04 27.5** | **+1.4** |
| | 12µm,0.7s | | | | | | |
| **TRTR** | **Tortoreto Alta** | **0.26** | **64** | Pg | **Pg** | **03 04 22.2** | **0.0** |
| TRTR | | | | Sg | **Sb** | **03 04 27.7** | **+1.4** |
| | 13µm,0.4s | | | | | | |
| **TRTR** | **Tortoreto Alta** | **0.26** | **64** | Pg | **Pg** | **03 04 22.2** | **0.0** |
| TRTR | | | | Sg | **Sb** | **03 04 27.7** | **+1.4** |
| | 13µm,0.4s | | | | | | |
| **VCEL** | **Villa Celiera** | **0.35** | **149** | Pg | **Pg** | **03 04 23.5** | **-0.3** |
| VCEL | | | | Sg | **Sb** | **03 04 29.4** | **+0.1** |
| | 7µm,0.5s | | | | | | |
| **VCEL** | **Villa Celiera** | **0.35** | **149** | Pg | **Pg** | **03 04 23.5** | **-0.3** |
| VCEL | | | | Sg | **Sb** | **03 04 29.4** | **+0.1** |
| | 7µm,0.5s | | | | | | |
| **AQU** | **L'Aquila** | **0.37** | **203** | Pg | **Pg** | **03 04 23.8** | **-0.3** |
| **AQU** | **L'Aquila** | **0.37** | **203** | Pg | **Pg** | **03 04 23.8** | **-0.3** |
| **NRCA** | **Norcia** | **0.38** | **291** | Pg | **Pg** | **03 04 24.1** | **-0.3** |
| NRCA | | | | Sg | **Sg** | **03 04 30.3** | **+0.5** |
| | 3µm,0.1s | | | | | | |
| **NRCA** | **Norcia** | **0.38** | **291** | Pg | **Pg** | **03 04 24.1** | **-0.3** |
| NRCA | | | | Sg | **Sg** | **03 04 30.3** | **+0.5** |
| | 3µm,0.1s | | | | | | |
| **LNSS** | **Leonessa** | **0.42** | **258** | Pg | **Pg** | **03 04 25.0** | **-0.1** |
| LNSS | | | | Sg | **Sb** | **03 04 32.1** | **+0.6** |
| | 4µm,0.8s | | | | | | |
| **LNSS** | **Leonessa** | **0.42** | **258** | Pg | **Pg** | **03 04 25.0** | **-0.1** |
| LNSS | | | | Sg | **Sb** | **03 04 32.1** | **+0.6** |
| | 4µm,0.8s | | | | | | |
| **FAGN** | **Fagnano** | **0.43** | **182** | Pg | **Pg** | **03 04 24.7** | **-0.5** |
| FAGN | | | | Sg | **Sb** | **03 04 31.9** | **+0.3** |
| | 6µm,0.3s | | | | | | |
| **FAGN** | **Fagnano** | **0.43** | **182** | Pg | **Pg** | **03 04 24.7** | **-0.5** |
| FAGN | | | | Sg | **Sb** | **03 04 31.9** | **+0.3** |
| | 6µm,0.3s | | | | | | |
| **GUMA** | **Gualdo di Mace** | **0.44** | **34** | Pg | **Pg** | **03 04 24.7** | **-0.7** |
| GUMA | | | | Sg | **Sg** | **03 04 31.8** | **+0.3** |
| | 3µm,0.6s | | | | | | |
| **GUMA** | **Gualdo di Mace** | **0.44** | **34** | Pg | **Pg** | **03 04 24.7** | **-0.7** |
| GUMA | | | | Sg | **Sg** | **03 04 31.8** | **+0.3** |
| | 3µm,0.6s | | | | | | |
| **FDMO** | **Fiordimonte** | **0.51** | **312** | Pg | **Pg** | **03 04 26.0** | **-0.6** |
| FDMO | | | | Sg | **Sb** | **03 04 34.0** | **+0.2** |
| | 923nm,0.2s | | | | | | |
| **FDMO** | **Fiordimonte** | **0.51** | **312** | Pg | **Pg** | **03 04 26.0** | **-0.6** |
| FDMO | | | | Sg | **Sb** | **03 04 34.0** | **+0.2** |
| | 923nm,0.2s | | | | | | |
| **FIAM** | **Fiamignano** | **0.56** | **220** | Pg | **Pg** | **03 04 26.9** | **-0.6** |
| | 2µm,0.7s | | | | | | |
| **FIAM** | **Fiamignano** | **0.56** | **220** | Pg | **Pg** | **03 04 26.9** | **-0.6** |
| | 2µm,0.7s | | | | | | |
| **CESI** | **CESI - Serrava** | **0.60** | **301** | Pg | **Pg** | **03 04 27.7** | **-0.6** |
| CESI | | | | Sg | **Sb** | **03 04 37.2** | **+0.8** |
| | 820nm,0.6s | | | | | | |
| **CESI** | **CESI - Serrava** | **0.60** | **301** | Pg | **Pg** | **03 04 27.7** | **-0.6** |
| CESI | | | | Sg | **Sb** | **03 04 37.2** | **+0.8** |
| | 820nm,0.6s | | | | | | |
| **PTQR** | **Pietraquaria** | **0.69** | **193** | Pg | **Pb** | **03 04 29.3** | **-0.5** |
| **PTQR** | **Pietraquaria** | **0.69** | **193** | Pg | **Pb** | **03 04 29.3** | **-0.5** |
| **INTR** | **Introdacqua** | **0.72** | **162** | Pg | **Pb** | **03 04 29.2** | **-1.2** |
| INTR | | | | Sg | **Sg** | **03 04 40.4** | **+0.3** |
| | 2µm,0.8s | | | | | | |
| **INTR** | **Introdacqua** | **0.72** | **162** | Pg | **Pb** | **03 04 29.2** | **-1.2** |
| INTR | | | | Sg | **Sg** | **03 04 40.4** | **+0.3** |
| | 2µm,0.8s | | | | | | |
| **CAFR** | **Castel Frentan** | **0.72** | **130** | Pg | **Pb** | **03 04 29.5** | **-0.9** |
| **CAFR** | **Castel Frentan** | **0.72** | **130** | Pg | **Pb** | **03 04 29.5** | **-0.9** |
| **SNTG** | **Esanatoglia** | **0.74** | **319** | Pg | **Pb** | **03 04 30.2** | **-0.5** |
| | 598nm,0.3s | | | | | | |
| **SNTG** | **Esanatoglia** | **0.74** | **319** | Pg | **Pb** | **03 04 30.2** | **-0.5** |
| | 598nm,0.3s | | | | | | |
| **CING** | **Cingoli** | **0.74** | **337** | Pg | **Pb** | **03 04 30.4** | **-0.4** |
| | 802nm,0.3s | | | | | | |
| **CING** | **Cingoli** | **0.74** | **337** | Pg | **Pb** | **03 04 30.4** | **-0.4** |
| | 802nm,0.3s | | | | | | |
| **CESX** | **Cesi** | **0.76** | **264** | Pg | **Pb** | **03 04 30.4** | **-0.6** |
| | 888nm,0.5s | | | | | | |
| **CESX** | **Cesi** | **0.76** | **264** | Pg | **Pb** | **03 04 30.4** | **-0.6** |
| | 888nm,0.5s | | | | | | |
| **VVLD** | **Villa Vallelon** | **0.82** | **179** | Pg | **Pb** | **03 04 30.8** | **-1.4** |
| | 1µm,0.5s | | | | | | |
| **VVLD** | **Villa Vallelon** | **0.82** | **179** | Pg | **Pb** | **03 04 30.8** | **-1.4** |
| | 1µm,0.5s | | | | | | |
| **AOI** | **Ancona** | **0.85** | **0** | Pg | **Pn** | **03 04 33.7** | **+0.2** |
| | 933nm,0.7s | | | | | | |
| **AOI** | **Ancona** | **0.85** | **0** | Pg | **Pn** | **03 04 33.7** | **+0.2** |
| | 933nm,0.7s | | | | | | |
| **CERT** | **Cerreto** | **0.88** | **212** | Pg | **Pb** | **03 04 32.5** | **-0.5** |
| | 2µm,0.7s | | | | | | |
| **CERT** | **Cerreto** | **0.88** | **212** | Pg | **Pb** | **03 04 32.5** | **-0.5** |
| | 2µm,0.7s | | | | | | |
| **GUAR** | **Guarcino** | **0.93** | **193** | Pg | **Pg** | **03 04 34.7** | **+0.3** |
| | 494nm,0.5s | | | | | | |
| **GUAR** | **Guarcino** | **0.93** | **193** | Pg | **Pg** | **03 04 34.7** | **+0.3** |
| | 494nm,0.5s | | | | | | |
| **MTCE** | **Montecelio** | **0.93** | **224** | Pg | **Pb** | **03 04 34.1** | **+0.2** |
| | 1µm,0.6s | | | | | | |
| **MTCE** | **Montecelio** | **0.93** | **224** | Pg | **Pb** | **03 04 34.1** | **+0.2** |
| | 1µm,0.6s | | | | | | |
| **ARVD** | **Arcevia** | **0.94** | **329** | Pg | **Pb** | **03 04 33.8** | **-0.3** |
| | 720nm,1.1s | | | | | | |
| **ARVD** | **Arcevia** | **0.94** | **329** | Pg | **Pb** | **03 04 33.8** | **-0.3** |
| | 720nm,1.1s | | | | | | |
| **SSFR** | **Montelago di S** | **0.95** | **321** | Pg | **Pb** | **03 04 34.3** | **-0.1** |
| | 960nm,0.3s | | | | | | |
| **SSFR** | **Montelago di S** | **0.95** | **321** | Pg | **Pb** | **03 04 34.3** | **-0.1** |
| | 960nm,0.3s | | | | | | |
| **MURB** | **Monte Urbino** | **0.97** | **306** | Pg | **Pb** | **03 04 34.5** | **-0.2** |
| | 1µm,0.5s | | | | | | |
| **MURB** | **Monte Urbino** | **0.97** | **306** | Pg | **Pb** | **03 04 34.5** | **-0.2** |
| | 1µm,0.5s | | | | | | |
| **FRON** | **Frontone** | **1.04** | **322** | Pg | **Pb** | **03 04 35.7** | **-0.2** |
| | 690nm,0.7s | | | | | | |
| **FRON** | **Frontone** | **1.04** | **322** | Pg | **Pb** | **03 04 35.7** | **-0.2** |
| | 690nm,0.7s | | | | | | |
| **ATVO** | **AVT- Monte Val** | **1.11** | **308** | Pg | **Pb** | **03 04 37.1** | **0.0** |
| | 656nm,0.9s | | | | | | |
| **ATVO** | **AVT- Monte Val** | **1.11** | **308** | Pg | **Pb** | **03 04 37.1** | **0.0** |
| | 656nm,0.9s | | | | | | |
| **MPAG** | **Monte Paganucc** | **1.12** | **327** | Pg | **Pb** | **03 04 37.6** | **+0.4** |
| | 501nm,0.8s | | | | | | |
| **MPAG** | **Monte Paganucc** | **1.12** | **327** | Pg | **Pb** | **03 04 37.6** | **+0.4** |
| | 501nm,0.8s | | | | | | |
| **PIEI** | **Pieia** | **1.15** | **317** | Pg | **Pb** | **03 04 37.2** | **-0.3** |
| | 260nm,0.4s | | | | | | |
| **PIEI** | **Pieia** | **1.15** | **317** | Pg | **Pb** | **03 04 37.2** | **-0.3** |
| | 260nm,0.4s | | | | | | |
| **FSSB** | **Fossombrone** | **1.16** | **329** | Pg | **Pg** | **03 04 38.7** | **-0.2** |
| | 720nm,0.4s | | | | | | |
| **FSSB** | **Fossombrone** | **1.16** | **329** | Pg | **Pg** | **03 04 38.7** | **-0.2** |
| | 720nm,0.4s | | | | | | |
| **ATMC** | **Monte Cedrone** | **1.28** | **307** | Pg | **Pg** | **03 04 40.9** | **-0.1** |
| | 396nm,0.7s | | | | | | |
| **ATMC** | **Monte Cedrone** | **1.28** | **307** | Pg | **Pg** | **03 04 40.9** | **-0.1** |
| | 396nm,0.7s | | | | | | |
| **MS1** | **Monte Sant'Ang** | **2.00** | **119** | *e*Pn | **Pb** | **03 04 53.4** | **+1.2** |
| **NVLJ** | **Novalja** | **2.08** | **26** | *i* Pn | **Pn** | **03 04 49.0** | **-1.3** |
| NVLJ | | | | Sn | **Sn** | **03 05 15.0** | **-0.8** |
| **NVLJ** | **Novalja** | **2.08** | **26** | *i* Pn | **Pn** | **03 04 49.0** | **-1.3** |
| NVLJ | | | | Sn | **Sn** | **03 05 15.0** | **-0.8** |
| **UDBI** | **Udbina** | **2.41** | **40** | *e*Pn | **Pn** | **03 04 55.9** | **+0.9** |
| UDBI | | | | Sn | **Sn** | **03 05 25.2** | **+1.1** |
| **UDBI** | **Udbina** | **2.41** | **40** | *e*Pn | **Pn** | **03 04 55.9** | **+0.9** |
| UDBI | | | | Sn | **Sn** | **03 05 25.2** | **+1.1** |
| **SKDS** | **Skadanscina** | **2.87** | **6** | *i* Pn | **Pn** | **03 05 00.7** | **-0.5** |
| **SKDS** | **Skadanscina** | **2.87** | **6** | *i* Pn | **Pn** | **03 05 00.7** | **-0.5** |
| **SG1** | **Sgolgore (BA)** | **2.96** | **128** | *e*Pn | **Pn** | **03 05 03.3** | **+0.9** |
| SG1 | | | | Sn | **Sn** | **03 05 38.1** | **+0.7** |
| **STON** | **Ston** | **3.02** | **85** | *e*Pn | **Pn** | **03 05 02.7** | **-0.6** |
| STON | | | | Sn | **Sn** | **03 05 38.2** | **-0.7** |
| **STON** | **Ston** | **3.02** | **85** | *e*Pn | **Pn** | **03 05 02.6** | **-0.6** |
| STON | | | | Sn | **Sn** | **03 05 38.2** | **-0.7** |
| **FASA** | **Fasano** | **3.38** | **123** | *e*Pn | **Pn** | **03 05 08.9** | **+0.8** |
| **PGF** | **Pioggiola** | **3.40** | **269** | *e*P | **Pn** | **03 05 10.3** | **+1.8** |
| **PGF** | **Pioggiola** | **3.40** | **269** | *e*P | **Pn** | **03 05 10.3** | **+1.8** |
| **OBKA** | **Obir** | **3.87** | **10** | Pn | **Pn** | **03 05 15.0** | **0.0** |
| | 6.7nm,0.2s | | | | | | |
| OBKA | | | | Sn | **Sn** | **03 06 00.5** | **+0.4** |
| | 7.6nm,0.2s | | | | | | |
| **MYKA** | **Terra Mystica** | **3.93** | **0** | P | **Pn** | **03 05 16.3** | **+0.4** |
| | 3.6nm,0.2s,SNR=5.8 | | | | | | |
| MYKA | | | | Sn | **Sn** | **03 06 01.9** | **+0.3** |
| | 3.6nm,0.3s | | | | | | |
| **SOKA** | **Soboth** | **4.11** | **14** | Pn | **Pn** | **03 05 18.1** | **-0.2** |
| | 2.1nm,0.2s | | | | | | |
| **ABTA** | **Abfaltersbach** | **4.12** | **350** | Pn | **Pn** | **03 05 18.8** | **+0.3** |
| | 5.0nm,0.2s | | | | | | |
| **BBLS** | **Lazići** | **4.40** | **73** | *e*Pn | **Pn** | **03 05 24.9** | **+2.7** |
| **BBLS** | **Lazići** | **4.40** | **73** | *e*Pn | **Pn** | **03 05 24.9** | **+2.7** |
| **SBF** | **Sospel** | **4.65** | **287** | *e*P | **Pn** | **03 05 26.5** | **+0.8** |
| **SBF** | **Sospel** | **4.65** | **287** | *e*P | **Pn** | **03 05 26.5** | **+0.8** |
| **TEKS** | **Tekeris** | **4.69** | **65** | *e*Pn | **Pn** | **03 05 26.7** | **+0.6** |
| **TEKS** | **Tekeris** | **4.69** | **65** | *e*Pn | **Pn** | **03 05 26.7** | **+0.6** |
| **SJES** | **Sjenica** | **4.71** | **81** | *e*Pn | **Pn** | **03 05 28.8** | **+2.2** |
| SJES | | | | *e*Sg | **Sn** | **03 06 19.1** | **-1.7** |
| **ARSA** | **Arzberg** | **4.75** | **16** | Pn | **Pn** | **03 05 26.7** | **-0.4** |
| | 2.4nm,0.2s,SNR=6.1 | | | | | | |
| **FETA** | **Feichten** | **4.78** | **336** | Pn | **Pn** | **03 05 29.3** | **+1.7** |
| | 1.7nm,0.1s,SNR=9.7 | | | | | | |
| FETA | | | | Sn | **Sn** | **03 06 22.0** | **-0.6** |
| | 3.5nm,0.4s | | | | | | |
| **WATA** | **Walderalm** | **4.86** | **344** | Pn | **Pn** | **03 05 30.3** | **+1.7** |
| | 4.8nm,0.2s,SNR=7.4 | | | | | | |
| **DIVS** | **Divibare** | **4.86** | **71** | *e*Pn | **Pn** | **03 05 28.2** | **-0.4** |
| **DIVS** | **Divibare** | **4.86** | **71** | *e*Pn | **Pn** | **03 05 28.2** | **-0.4** |
| **DAVOX** | **Davos/Dischmat** | **4.87** | **328** | Pn | **Pn** | **03 05 30.1** | **+1.3** |
| | 0.9nm,0.3s,baz=158,slow=18,SNR=21 | | | | | | |
| DAVOX | | | | Sn | **Sn** | **03 06 25.9** | **+1.1** |
| | 1.0nm,0.3s,baz=348,slow=20,SNR=3.5 | | | | | | |
| **IVAS** | **Ivanjica** | **4.87** | **77** | *e*Pn | **Pn** | **03 05 29.8** | **+1.0** |
| IVAS | | | | *e*Sg | **Sn** | **03 06 24.6** | **-0.2** |
| **IVAS** | **Ivanjica** | **4.87** | **77** | *e*Pn | **Pn** | **03 05 29.8** | **+1.0** |
| IVAS | | | | *e*Sg | **Sn** | **03 06 24.6** | **-0.2** |
| **MOTA** | **Moosalm** | **4.97** | **340** | Pn | **Pn** | **03 05 31.9** | **+1.7** |
| | 2.6nm,0.2s,SNR=13 | | | | | | |
| MOTA | | | | Sn | **Sn** | **03 06 29.4** | **+2.1** |
| | 11nm,0.5s | | | | | | |
| **FGSL** | **Fruska Gora** | **5.12** | **59** | *e*Pn | **Pn** | **03 05 31.6** | **-0.4** |
| FGSL | | | | *e*Sg | **Sn** | **03 06 25.9** | **-4.7** |
| **FRGS** | **Fruska Gora** | **5.12** | **59** | *e*Pn | **Pn** | **03 05 31.6** | **-0.4** |
| FRGS | | | | *e*Sg | **Sn** | **03 06 25.9** | **-4.7** |
| **FRF** | **La Foret Royal** | **5.16** | **282** | *e*P | **Pn** | **03 05 33.9** | **+1.2** |
| **FRF** | **La Foret Royal** | **5.16** | **282** | *e*P | **Pn** | **03 05 33.9** | **+1.2** |
| **MOA** | **Molln** | **5.18** | **5** | Pn | **Pn** | **03 05 33.3** | **+0.4** |
| | 3.4nm,0.2s,SNR=11 | | | | | | |
| MOA | | | | Sn | **Sn** | **03 06 32.6** | **+0.5** |
| | 1.6nm,0.2s | | | | | | |
| **TRUS** | **Trudelj** | **5.18** | **71** | *e*Pn | **Pn** | **03 05 34.6** | **+1.6** |
| **TRUS** | **Trudelj** | **5.18** | **71** | *e*Pn | **Pn** | **03 05 34.6** | **+1.6** |
| **RETA** | **Reutte** | **5.20** | **338** | Pn | **Pn** | **03 05 34.9** | **+1.7** |
| | 1.8nm,0.2s,SNR=6.9 | | | | | | |
| RETA | | | | Sn | **Sn** | **03 06 33.7** | **+1.0** |
| | 6.9nm,0.3s | | | | | | |
| **LMR** | **La Mourre** | **5.24** | **279** | *e*P | **Pn** | **03 05 35.4** | **+1.7** |
| **LMR** | **La Mourre** | **5.24** | **279** | *e*P | **Pn** | **03 05 35.4** | **+1.7** |
| **DAVA** | **Damuels** | **5.29** | **331** | Pn | **Pn** | **03 05 36.5** | **+1.9** |
| | 2.2nm,0.3s | | | | | | |
| DAVA | | | | Sn | **Sn** | **03 06 36.6** | **+1.4** |
| | 23nm,0.7s | | | | | | |
| **GRUS** | **Gruza** | **5.33** | **75** | *e*Pn | **Pn** | **03 05 35.8** | **+0.9** |
| GRUS | | | | *e*Sg | **Sn** | **03 06 36.3** | **+0.5** |
| **GRUS** | **Gruza** | **5.33** | **75** | *e*Pn | **Pn** | **03 05 35.8** | **+0.9** |
| GRUS | | | | *e*Sg | **Sn** | **03 06 36.3** | **+0.5** |
| **MBDF** | **Montbardon** | **5.35** | **295** | *e*P | **Pn** | **03 05 36.7** | **+1.3** |
| **MBDF** | **Montbardon** | **5.35** | **295** | *e*P | **Pn** | **03 05 36.7** | **+1.3** |
| **CONA** | **Conrad Observa** | **5.47** | **16** | Pn | **Pn** | **03 05 36.8** | **-0.2** |
| | 3.4nm,0.2s,SNR=15 | | | | | | |
| **SELS** | **Selova** | **5.54** | **82** | *e*Pn | **Pn** | **03 05 38.9** | **+1.0** |
| **SELS** | **Selova** | **5.54** | **82** | *e*Pn | **Pn** | **03 05 38.9** | **+1.0** |
| **LPG** | **La Plagne** | **5.67** | **302** | *e*P | **Pn** | **03 05 41.2** | **+1.3** |
| LPG | | | | *e*Sn | **Sn** | **03 06 36.6** | **-8.1** |
| | 2.0nm,0.3s | | | | | | |
| **LPG** | **La Plagne** | **5.67** | **302** | *e*P | **Pn** | **03 05 41.2** | **+1.3** |
| **LPL** | **La Plagne** | **5.69** | **302** | *e*P | **Pn** | **03 05 41.1** | **+0.9** |
| LPL | | | | *e*Sn | **Sn** | **03 06 36.9** | **-8.2** |
| | 1.8nm,0.3s | | | | | | |
| **LPL** | **La Plagne** | **5.69** | **302** | *e*P | **Pn** | **03 05 41.1** | **+0.9** |
| **ORIF** | **Oris-en-Rattie** | **6.01** | **294** | *e*Pn | **Pn** | **03 05 40.7** | **-3.7** |
| **ORIF** | **Oris-en-Rattie** | **6.01** | **294** | *e*P | **Pn** | **03 05 45.6** | **+1.2** |
| **ORIF** | **Oris-en-Rattie** | **6.01** | **294** | *e*P | **Pn** | **03 05 45.6** | **+1.2** |
| **GERES** | **GERESS Array B** | **6.15** | **1** | Pn | **Pn** | **03 05 45.6** | **-0.7** |
| | 1.2nm,0.3s,baz=178,slow=12,SNR=26 | | | | | | |
| GERES | | | | Sn | **Sn** | **03 06 53.5** | **-2.8** |
| | 0.6nm,0.3s,baz=188,slow=25,SNR=4.1 | | | | | | |
| **ZAGS** | **Zajecar** | **6.40** | **77** | *e*Pn | **Pn** | **03 05 49.9** | **+0.2** |
| **ZAGS** | **Zajecar** | **6.40** | **77** | *e*Pn | **Pn** | **03 05 49.9** | **+0.2** |
| **KHC** | **Kasperske Hory** | **6.44** | **360** | *e*PN | **Pn** | **03 05 49.4** | **-0.8** |
| KHC | | | | *ex* | x | 03 05 58.7 | |
| KHC | | | | *e*PB | **Pb** | **03 06 08.6** | **+0.8** |
| KHC | | | | *e*SN | **Sn** | **03 06 58.7** | **-4.5** |
| **KHC** | **Kasperske Hory** | **6.44** | **360** | Pn | **Pn** | **03 05 49.4** | **-0.8** |
| **CABF** | **La Chapelle** | **6.63** | **309** | *e*Pn | **Pn** | **03 05 49.0** | **-4.0** |
| **CABF** | **La Chapelle** | **6.63** | **309** | *e*P | **Pn** | **03 05 54.3** | **+1.3** |
| **CABF** | **La Chapelle** | **6.63** | **309** | *e*P | **Pn** | **03 05 54.3** | **+1.3** |
| **VYHS** | **Vyhne** | **6.86** | **31** | *e*Pn | **Pn** | **03 05 55.2** | **-0.8** |
| **VYHS** | **Vyhne** | **6.86** | **31** | *e*PN | **Pn** | **03 05 55.2** | **-0.8** |
| **VRAC** | **Vranov** | **6.93** | **16** | Pn | **Pn** | **03 05 56.1** | **-0.9** |
| | 0.6nm,0.3s,baz=206,slow=13,SNR=9.4 | | | | | | |
| **HINF** | **Hinteralfeld** | **6.99** | **319** | *e*P | **Pn** | **03 05 58.3** | **+0.5** |
| HINF | | | | *e*Sn | **Sn** | **03 07 09.0** | **-7.8** |
| | 6.0nm,0.3s | | | | | | |
| **HINF** | **Hinteralfeld** | **6.99** | **319** | *e*P | **Pn** | **03 05 58.3** | **+0.5** |
| **CDF** | **Champ du Feu** | **7.24** | **324** | *e*P | **Pn** | **03 06 01.1** | **-0.1** |
| CDF | | | | *e*Sn | Sn | 03 07 13.9 | -9.0 |
| | 2.2nm,0.3s | | | | | | |
| **CDF** | **Champ du Feu** | **7.24** | **324** | *e*P | **Pn** | **03 06 01.1** | **-0.1** |
| **PRU** | **Pruhonice** | **7.32** | **5** | *e*PN | **Pn** | **03 06 01.5** | **-0.8** |
| PRU | | | | *ex* | x | 03 06 09.6 | |
| **PRU** | **Pruhonice** | **7.32** | **5** | Pn | **Pn** | **03 06 01.5** | **-0.8** |
| **HAU** | **Haudompre** | **7.37** | **319** | *e*P | **Pn** | **03 06 02.8** | **-0.1** |
| HAU | | | | *e*Sn | Sn | 03 07 17.1 | -8.9 |
| | 6.1nm,0.2s | | | | | | |
| **HAU** | **Haudompre** | **7.37** | **319** | *e*P | **Pn** | **03 06 02.8** | **-0.1** |
| **KEST** | **Kesra** | **7.70** | **207** | Pn | Pn | 03 06 13.4 | +5.8 |
| | 0.5nm,0.3s,baz=330,slow=4.1,SNR=6.5 | | | | | | |
| **LOR** | **Lormes** | **8.28** | **307** | *e*P | **Pn** | **03 06 16.1** | **+0.6** |
| **LOR** | **Lormes** | **8.28** | **307** | *e*P | **Pn** | **03 06 16.1** | **+0.6** |
| **IDI** | **Anoyia** | **11.48** | **126** | Pn | **Pn** | **03 07 01.8** | **+2.5** |
| | 0.1nm,0.3s,baz=299,slow=19,SNR=2.3 | | | | | | |
| IDI | | | | Sn | **Sn** | **03 08 59.4** | **-7.7** |
| | 0.1nm,0.3s,baz=232,slow=7.2,SNR=3.0 | | | | | | |
| **NOA** | **NORSAR Array B** | **18.43** | **356** | P | **P** | **03 08 29.9** | **-0.6** |
| | baz=175,slow=14,SNR=2.5 | | | | | | |
| **FINES** | **FINESS Array B** | **20.21** | **17** | P | **P** | **03 08 48.8** | **-1.1** |
| | 0.1nm,0.3s,baz=202,slow=9.3,SNR=5.3 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **46.74** | **50** | P | **P** | **03 12 44.1** | **+0.1** |
| | 0.3nm,0.3s,baz=314,slow=5.0,SNR=2.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **47.55** | **60** | P | **P** | **03 12 50.5** | **-0.1** |
| | 0.5nm,0.8s,baz=292,slow=7.7,SNR=3.8 | | | | | | |
| **SONM** | **Songino Array** | **61.64** | **50** | P | **P** | **03 14 32.8** | **-0.1** |
| | 0.3nm,0.8s,baz=327,slow=7.4,SNR=3.0 | | | | | | |
| **YKA** | **Yellowknife Ar** | **67.25** | **337** | P | **P** | **03 15 10.1** | **+0.9** |
| | 0.1nm,0.8s,baz=40,slow=5.4,SNR=2.9 | | | | | | |
| **ILAR** | **Eielson Array** | **71.78** | **351** | P | **P** | **03 15 38.8** | **+1.6** |
| | 0.2nm,0.8s,baz=14,slow=4.6,SNR=2.8 | | | | | | |

**LJU 17 03:04:23.1, 45.29N×14.62E, h10km, ML1.0, 1D, Northwestern Balkan Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KNDS** | **Knezji Dol** | **0.29** | **324** | *i* Pg | Pg | 03 04 29.1 | 0.0 |
| KNDS | | | | *i* Sg | Sg | 03 04 33.5 | +0.6 |
| | comp=Z,11nm,0.2s | | | | | | |
| **CEY** | **Cerknica** | **0.47** | **343** | *i* Pg | Pg | 03 04 32.5 | +0.2 |
| CEY | | | | *e*Sg | Sb | 03 04 39.6 | -0.9 |
| | comp=Z,4.0nm,0.1s | | | | | | |
| **BOJS** | **Bojanci** | **0.49** | **64** | *i* Sg | Sg | 03 04 39.9 | +0.7 |
| **SKDS** | **Skadanscina** | **0.50** | **301** | *i* Sg | Sg | 03 04 39.9 | +0.5 |
| **VISS** | **Visnje** | **0.53** | **16** | *i* Pg | Pg | 03 04 33.3 | -0.2 |
| VISS | | | | *i* Sg | Sg | 03 04 40.7 | +0.2 |

*RSNC **17** 03:12:22.4±0.8, 5.74N×77.73W, h26km±26km, ML2.7*
*IDC **17** 03:12:31.8±4.4, 5.99N×77.51W, h86km±37km, mb2.9/3, mb1 3.2/5, mb1mx3.1/42, mbtmp3.4/5, Error ellipse: s-maj=50.7km s-min=34.2km az=45.0*

**ISC 17 03:12:22.1±1.1, 5.74N±0.08×77.48W±0.08, h19km, n10, σ1$08/12, mb3.3/3, Near west coast of Colombia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SOLC** | **Bahia Solano** | **0.49** | **9** | *e*P | **Pn** | **03 12 33.3** | **-0.9** |
| SO

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **ASAJ** | **Asahikawa** | **5.41** | **1** | Pn | **Pn** | **03 23 17.4** | **+1.7** |
| | 1.8nm,0.3s,baz=211,slow=9.5,SNR=7.7 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **9.58** | **308** | Pn | Pn | 03 24 18.3 | +5.4 |
| | 0.4nm,0.3s,baz=115,slow=14,SNR=8.7 | | | | | | |
| **KSRS** | **Korea Array** | **11.52** | **268** | Pn | Pn | 03 24 45.1 | +5.6 |
| | 0.2nm,0.3s,baz=78,slow=14,SNR=4.6 | | | | | | |
| KSRS | | | | LR | LR | 03 28 40.5 | |
| | comp=Z,32nm,18.2s,baz=80,slow=34 | | | | | | |
| **KSAR** | **Wonju Array Be** | **11.55** | **268** | Pn | Pn | 03 24 45.1 | +5.1 |
| **SONM** | **Songino Array** | **27.58** | **301** | P | **P** | **03 27 42.1** | **+0.2** |
| | 0.4nm,0.4s,baz=100,slow=7.9,SNR=2.7 | | | | | | |
| SONM | | | | LR | LR | 03 38 01.4 | |
| | comp=Z,67nm,19.7s,baz=118,slow=35 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.36** | **125** | T | T | 03 58 08.8 | |
| | baz=317,slow=75,SNR=158 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.37** | **125** | T | T | 03 58 20.5 | |
| | baz=317,slow=75,SNR=92 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.38** | **125** | T | T | 03 58 12.7 | |
| | baz=317,slow=75,SNR=81 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.14** | **127** | T | T | 03 59 09.4 | |
| | baz=318,slow=76,SNR=52 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.14** | **127** | T | T | 03 59 09.5 | |
| | baz=318,slow=76,SNR=59 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.16** | **127** | T | T | 03 59 10.6 | |
| | baz=318,slow=76,SNR=57 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.42** | **311** | P | **P** | **03 29 41.0** | **+0.1** |
| | 1.6nm,0.4s,baz=89,slow=7.9,SNR=9.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.95** | **301** | P | **P** | **03 30 01.7** | **+0.1** |
| | 1.1nm,0.7s,baz=83,slow=11,SNR=8.8 | | | | | | |
| **KURK** | **Kurchatov** | **45.56** | **307** | *eP* | **P** | **03 30 14.2** | **-0.2** |
| | 28nm,0.7s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **45.64** | **307** | P | **P** | **03 30 15.2** | **+0.3** |
| | 3.5nm,0.6s,baz=82,slow=8.3,SNR=30 | | | | | | |
| **ILAR** | **Eielson Array** | **47.65** | **33** | P | P | 03 30 20.1 | -10 |
| | 0.6nm,0.7s,baz=272,slow=8.7,SNR=11 | | | | | | |
| **BVAR** | **Borovoye Array** | **50.07** | **311** | P | **P** | **03 30 49.4** | **+0.1** |
| | 0.8nm,0.5s,baz=70,slow=7.5,SNR=8.2 | | | | | | |
| **ARU** | **Arti** | **55.66** | **318** | *eP* | **P** | **03 31 30.8** | **+0.3** |
| | 1.2nm,0.4s | | | | | | |
| **WRA** | **Warramunga Arr** | **58.83** | **189** | P | **P** | **03 31 53.8** | **+0.5** |
| | 0.3nm,0.7s,baz=7.0,slow=7.2,SNR=3.4 | | | | | | |
| **YKA** | **Yellowknife Ar** | **61.95** | **31** | P | **P** | **03 32 09.7** | **-4.4** |
| | 0.9nm,0.7s,baz=301,slow=6.8,SNR=13 | | | | | | |
| **FINES** | **FINESS Array B** | **67.72** | **332** | P | **P** | **03 32 52.3** | **+0.6** |
| | 1.5nm,0.8s,baz=104,slow=27,SNR=2.9 | | | | | | |
| **HFS** | **Hagfors** | **72.90** | **336** | P | **P** | **03 33 24.3** | **+0.9** |
| | 2.5nm,1.0s,baz=46,slow=6.6,SNR=3.9 | | | | | | |
| **AKASG** | **Malin Array Be** | **73.48** | **322** | P | **P** | **03 33 27.2** | **+0.2** |
| | 0.5nm,0.4s,baz=48,slow=6.2,SNR=4.5 | | | | | | |
| **BRTR** | **Keskin Array B** | **78.35** | **312** | P | **P** | **03 33 55.7** | **+0.5** |
| | 0.7nm,0.8s,baz=55,slow=5.3,SNR=3.2 | | | | | | |

*SKHL* ***17*** *03:22:49.9±0.1, 44°.03N×147°.57E, h138km±7km, mb4.4/2, msh5.3/2*

*ISCJB* ***17*** *03:22:50.4±1.4, 44°.3N±0°.2×147°.2E±0°.3, h159km±12km, Error ellipse: s-maj=43.5km s-min=8.5km az=137.7*

*JMA* ***17*** *03:22:53.6±0.5, 44°.48N×146°.86E, h132km, M3.9*

**ISC 17 03:22:50.1±2.7, 44°.4N±0°.2×147°.1E±0°.2, h165km±17km, n12, σ1§13/20, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **YUK** | **Yuzh-Kuril'sk** | **0.95** | **247** | *iP* | **Pn** | **03 23 16.2** | **+0.2** |
| YUK | | | | AMB | AMB | 03 23 16.3 | |
| | 113nm,0.5s | | | | | | |
| YUK | | | | *iS* | **Sn** | **03 23 36.0** | **+0.3** |
| YUK | | | | A | A | 03 23 37.2 | |
| | 700nm,0.5s | | | | | | |
| YUK | | | | A | A | 03 23 37.2 | |
| | 890nm,0.5s | | | | | | |
| **LAGR** | **Lagunnoye** | **0.99** | **250** | *iP* | **Pn** | **03 23 16.2** | **-0.1** |
| LAGR | | | | *eS* | **Sn** | **03 23 37.0** | **+0.7** |
| **KUR** | **Kuril'sk** | **1.00** | **34** | *iP* | **Pn** | **03 23 16.3** | **0.0** |
| KUR | | | | AMB | AMB | 03 23 17.3 | |
| | 150nm,0.5s | | | | | | |
| KUR | | | | *iS* | **Sn** | **03 23 36.0** | **-0.5** |
| KUR | | | | A | A | 03 23 36.5 | |
| | 380nm,0.5s | | | | | | |
| KUR | | | | A | A | 03 23 36.5 | |
| | 295nm,0.5s | | | | | | |
| **GRPR** | **Tuman** | **1.03** | **247** | *iP* | **Pn** | **03 23 16.6** | **0.0** |
| GRPR | | | | *iS* | **Sn** | **03 23 37.4** | **+0.6** |
| **GLVR** | **Golovnino** | **1.31** | **240** | *eP* | **Pn** | **03 23 19.6** | **+0.6** |
| GLVR | | | | *iS* | **Sn** | **03 23 42.2** | **+1.0** |
| **NEM2** | **Nemuro 2** | **1.42** | **223** | P | **Pn** | **03 23 20.6** | **+0.5** |
| NEM2 | | | | *eS* | **Sn** | **03 23 41.6** | **-1.5** |
| **JRA** | **Rausu** | **1.48** | **252** | P | **Pn** | **03 23 20.3** | **-0.4** |
| **JNK** | **Nakash** | **1.89** | **245** | P | **Pn** | **03 23 25.4** | **+0.4** |
| **JAK** | **Akkeshi** | **2.23** | **232** | P | **Pn** | **03 23 29.8** | **+1.0** |
| JAK | | | | *eS* | **Sn** | **03 23 57.1** | **-1.6** |
| **JOB** | **Onbets** | **2.79** | **239** | P | **Pn** | **03 23 37.0** | **+1.5** |
| JOB | | | | *eS* | **Sn** | **03 24 09.5** | **-1.2** |
| **JCH** | **Churui** | **3.24** | **238** | P | **Pn** | **03 23 42.3** | **+1.2** |
| JCH | | | | *eS* | **Sn** | **03 24 18.2** | **-2.5** |
| **YSS** | **Yuzh-Sakhalins** | **3.96** | **312** | *erx* | rx | 03 24 04.3 | |

*IDC* ***17*** *03:28:48.9±0.9, 17°.35S×173°.59W, h0km, mb4.0/6, mb1 4.2/8, mb1mx3.8/43, mbtmp4.0/8, ML3.4/2, MS3.3/4, Ms1 3.3/4, ms1mx2.9/33, Error ellipse: s-maj=37.4km s-min=20.4km az=137.0*

*ISCJB* ***17*** *03:28:51.5±0.7, 17°.28S±0°.09×173°.4W±0°.1, h39km, mb4.1/7, MS3.1/3, Error ellipse: s-maj=16.6km s-min=9.9km az=39.9*

*NEIC* ***17*** *03:28:53.5±0.5, 17°.40S×173°.46W, h35km, mb4.2/1, Error ellipse: s-maj=16.0km s-min=11.4km az=148.0*

**ISC 17 03:28:53.6±0.7, 17°.3S±0°.1×173°.4W±0°.1, h39km, n27, σ1§35/14, mb4.1/7, MS3.1/3, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **AFI** | **Afiamalu** | **3.70** | **26** | Pn | **Pn** | **03 29 49.3** | **+1.0** |
| | 4.0nm,0.3s,baz=162,slow=13,SNR=4.0 | | | | | | |
| AFI | | | | Sn | **Sn** | **03 30 28.0** | **-2.7** |
| | 38nm,0.3s,baz=39,slow=20,SNR=9.4 | | | | | | |
| **RAR** | **Rarotonga** | **13.47** | **109** | Pn | **Pn** | **03 32 01.3** | **-0.9** |
| | 1.4nm,0.3s,baz=243,slow=9.0,SNR=4.3 | | | | | | |
| **DZM** | **Mont Dzumac** | **19.55** | **253** | LR | LR | 03 39 20.2 | |
| | comp=Z,176nm,18.4s,baz=41,slow=33 | | | | | | |
| **DZM** | **Mont Dzumac** | **19.55** | **253** | *eLR* | LR | 03 38 25.2 | |
| | 145nm,24.9s | | | | | | |
| **URZ** | **Urewera** | **22.50** | **200** | P | **P** | **03 33 49.3** | **-0.4** |
| | 5.7nm,0.8s,baz=156,slow=20,SNR=3.5 | | | | | | |
| **PAE** | **Paea** | **22.74** | **95** | *eT* | T | 03 57 05.9 | |
| | 2.0nm,0.3s | | | | | | |
| **PPT2** | **Papeete2** | **22.75** | **94** | *eLR* | LR | 03 39 15.4 | |
| | 115nm,24.2s | | | | | | |
| **PPT2** | **Papeete2** | **22.75** | **94** | *eT* | T | 03 57 06.5 | |
| | 3.8nm,0.4s | | | | | | |
| **PPT** | **Papeete** | **22.75** | **94** | LR | LR | 03 40 39.8 | |
| | comp=Z,41nm,19.4s,baz=222,slow=31 | | | | | | |
| **TIAR** | **Tiarei** | **22.97** | **94** | *eT* | T | 03 57 23.0 | |
| | 1.9nm,0.3s | | | | | | |
| **TVO** | **Taravao** | **23.05** | **95** | *eT* | T | 03 57 29.3 | |
| | 1.1nm,0.3s | | | | | | |
| **TBI** | **Tubuai** | **23.25** | **109** | *eLR* | LR | 03 39 19.6 | |
| | 116nm,27.2s | | | | | | |
| **TBI** | **Tubuai** | **23.25** | **109** | *eT* | T | 03 57 47.6 | |
| | 6.2nm,0.3s | | | | | | |
| **PMOR** | **Pomariorio Ree** | **24.62** | **88** | *eT* | T | 03 59 23.3 | |
| | 2.3nm,0.3s | | | | | | |
| **VAH** | **Vaihoa** | **24.84** | **89** | *eT* | T | 03 59 40.6 | |
| | 4.4nm,0.2s | | | | | | |
| **HNR** | **Honiara** | **27.04** | **283** | LR | LR | 03 42 45.7 | |
| | comp=Z,59nm,20.1s,baz=157,slow=31 | | | | | | |
| **RKT** | **Rikitea** | **36.47** | **106** | *eT* | T | 04 14 17.0 | |
| | 2.1nm,0.3s | | | | | | |
| **COEN** | **Coen** | **41.87** | **268** | *eP* | **P** | **03 36 40.1** | **-0.2** |
| | 4.0nm,0.7s | | | | | | |
| **WRA** | **Warramunga Arr** | **49.42** | **258** | P | **P** | **03 37 38.3** | **-1.7** |
| | 0.7nm,0.6s,baz=96,slow=6.6,SNR=9.3 | | | | | | |
| **ASAR** | **Alice Springs** | **49.54** | **253** | P | **P** | **03 37 40.0** | **-0.9** |
| | 9.8nm,0.7s,baz=89,slow=8.5,SNR=138 | | | | | | |
| ASAR | | | | PcP | **PcP** | **03 39 03.4** | **+1.0** |
| | 0.6nm,0.7s,baz=107,slow=3.0,SNR=3.7 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **57.83** | **259** | P | **P** | **03 38 41.9** | **+0.3** |
| | 1.7nm,1.0s,baz=220,slow=15,SNR=3.1 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **70.36** | **320** | LR | LR | 04 06 05.1 | |
| | comp=Z,17nm,21.1s,baz=60,slow=32 | | | | | | |
| **PDAR** | **Pinedale Array** | **83.67** | **42** | P | **P** | **03 41 20.6** | **+2.1** |
| | 0.3nm,0.6s,baz=204,slow=3.3,SNR=4.3 | | | | | | |
| **ILAR** | **Eielson Array** | **84.28** | **11** | P | **P** | **03 41 21.9** | **+1.1** |
| | 0.7nm,1.0s,baz=207,slow=7.9,SNR=3.3 | | | | | | |
| **KMBO** | **Kilima Mbogo** | **144.67** | **242** | PKP | **PKPdf** | **03 48 27.7** | **+0.2** |
| | 0.8nm,0.4s,baz=37,slow=3.8,SNR=6.6 | | | | | | |
| **BRTR** | **Keskin Array B** | **147.57** | **319** | PKPbc | **PKPab** | **03 48 35.9** | **-0.5** |
| | 1.5nm,0.9s,baz=83,slow=2.9,SNR=5.3 | | | | | | |
| **GERES** | **GERESS Array B** | **147.98** | **351** | PKPbc | **PKPab** | **03 48 37.0** | **-0.5** |
| | 0.5nm,0.7s,baz=180,slow=0.3,SNR=4.0 | | | | | | |

*IDC* ***17*** *03:51:09.8±1.0, 52°.31S×26°.44E, h0km, mb3.8/6, mb1 3.9/6, mb1mx3.7/26, mbtmp3.8/6, MS3.1/2, Ms1 3.0/2, ms1mx2.8/23, Error ellipse: s-maj=41.2km s-min=22.6km az=68.0*

*ISCJB* ***17*** *03:51:10.8±0.7, 52°.3S±0°.1×26°.6E±0°.3, h10km, mb3.9/9, MS3.0/2, Error ellipse: s-maj=29.7km s-min=13.8km az=167.6*

*NEIC* ***17*** *03:51:11.8±0.7, 52°.34S×26°.55E, h10km, mb4.2/2, Error ellipse: s-maj=28.4km s-min=14.3km az=77.0*

**ISC 17 03:51:12.3±0.8, 52°.4S±0°.1×26°.6E±0°.3, h10km, n14, σ1§08/11, mb4.0/9, South of Africa**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MAW** | **Mawson** | **23.20** | **145** | P | **P** | **03 56 19.9** | **+1.1** |
| | 2.4nm,0.8s,baz=289,slow=12,SNR=9.5 | | | | | | |
| MAW | | | | LR | LR | 04 05 19.9 | |
| | comp=Z,39nm,18.2s,baz=68,slow=36 | | | | | | |
| **SNAA** | **Sanae** | **23.33** | **203** | P | **P** | **03 56 19.7** | **-0.6** |
| | 0.8nm,0.7s,baz=31,slow=19,SNR=2.3 | | | | | | |
| **SNAA** | **Sanae** | **23.33** | **203** | *eP* | **P** | **03 56 21.0** | **+0.7** |
| **BOSA** | **Boshof** | **23.75** | **357** | P | **P** | **03 56 23.4** | **-1.3** |
| | 3.1nm,0.9s,baz=179,slow=12,SNR=4.4 | | | | | | |
| BOSA | | | | LR | LR | 04 03 50.3 | |
| | comp=Z,62nm,21.6s,baz=188,slow=32 | | | | | | |
| **TSUM** | **Tsumeb** | **33.84** | **345** | *eP* | **P** | **03 57 56.1** | **+1.2** |
| | 1.4nm,0.5s | | | | | | |
| **QSPA** | **South Pole Qui** | **37.86** | **180** | *eP* | **P** | **03 58 28.0** | **-1.0** |
| | 42nm,1.3s | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **54.73** | **307** | T | T | 04 59 56.7 | |
| | baz=150,slow=75,SNR=5.2 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **54.74** | **307** | T | T | 05 00 01.2 | |
| | baz=150,slow=75,SNR=7.4 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **54.74** | **307** | T | T | 05 00 03.2 | |
| | baz=150,slow=75,SNR=6.0 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **68.71** | **334** | P | **P** | **04 02 15.2** | **-0.7** |
| | 0.4nm,0.7s,baz=180,slow=5.4,SNR=4.7 | | | | | | |
| **ASAR** | **Alice Springs** | **81.47** | **118** | P | **P** | **04 03 29.3** | **-0.4** |
| | 1.4nm,0.6s,baz=215,slow=4.7,SNR=21 | | | | | | |
| **WRA** | **Warramunga Arr** | **84.70** | **116** | P | **P** | **04 03 46.0** | **-0.5** |
| | 0.7nm,0.7s,baz=212,slow=3.4,SNR=6.0 | | | | | | |
| **WRAB** | **Tennant Creek** | **84.71** | **116** | *eP* | **P** | **04 03 46.3** | **-0.2** |
| | 0.9nm,0.6s | | | | | | |
| **PDAR** | **Pinedale Array** | **149.35** | **269** | PKPbc | **PKPdf** | **04 10 58.0** | **+1.5** |
| | 0.5nm,0.7s,baz=130,slow=6.0,SNR=4.8 | | | | | | |

*ISCJB* ***17*** *03:55:05.0±0.5, 50°.26N±0°.03×18°.99E±0°.03, h0km, Error ellipse: s-maj=5.2km s-min=2.2km az=18.1*

*CSEM* ***17*** *03:55:05.9±0.3, 50°.28N×19°.01E, h2km, ML2.8/6, Error ellipse: s-maj=7.8km s-min=3.2km az=17.0*

*PRU* ***17*** *03:55:06.7, 50°.25N×19°.02E, h0km*

*WAR* ***17*** *03:55:07.3, 50°.22N×19°.10E, h1km, Mw2.7*

**ISC 17 03:55:06.5±0.8, 50°.18N±0°.04×19°.02E±0°.02, h0km, n40, σ0§67/74, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **OJC** | **Ojcow** | **0.50** | **85** | *ePg* | **Pg** | **03 55 15.9** | **-0.2** |
| OJC | | | | *eSg* | **Sg** | **03 55 22.4** | **-0.2** |
| **OJC** | **Ojcow** | **0.50** | **85** | *ePg* | **Pg** | **03 55 15.9** | **-0.2** |
| OJC | | | | *eSg* | **Sg** | **03 55 22.4** | **-0.2** |
| **OJC** | **Ojcow** | **0.50** | **85** | *ePg* | **Pg** | **03 55 15.9** | **-0.2** |
| OJC | | | | *eSg* | **Sg** | **03 55 22.4** | **-0.2** |
| **RAC** | **Raciborz** | **0.54** | **260** | *eSg* | **Sb** | **03 55 27.5** | **+0.4** |
| **OKC** | **Ostrava-Krasne** | **0.66** | **239** | *ePG* | **Pb** | **03 55 20.3** | **-0.5** |
| OKC | | | | *eSG* | **Sb** | **03 55 29.7** | **-0.8** |
| | comp=Z,30nm,0.4s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **0.66** | **239** | Pg | **Pb** | **03 55 20.3** | **-0.5** |
| OKC | | | | Sg | **Sb** | **03 55 29.7** | **-0.8** |
| | 30nm,0.4s | | | | | | |
| **MORC** | **Moravsky Berou** | **1.03** | **248** | *eSg* | **Sb** | **03 55 42.0** | **+0.6** |
| **LANS** | **Liptovska Anna** | **1.07** | **164** | *ePg* | **Pb** | **03 55 28.0** | **+0.1** |
| LANS | | | | *eSg* | **Sb** | **03 55 42.9** | **+0.4** |
| **LANS** | **Liptovska Anna** | **1.07** | **164** | *ePG* | **Pb** | **03 55 28.0** | **+0.1** |
| LANS | | | | *eSG* | **Sb** | **03 55 42.9** | **+0.4** |
| **NIE** | **Niedzica** | **1.13** | **132** | *ePg* | **Pb** | **03 55 29.0** | **+0.1** |
| NIE | | | | *eSg* | **Sb** | **03 55 44.3** | **+0.2** |
| **NIE** | **Niedzica** | **1.13** | **132** | *ePg* | **Pb** | **03 55 29.0** | **+0.1** |
| NIE | | | | *eSg* | **Sb** | **03 55 44.3** | **+0.2** |
| **NIE** | **Niedzica** | **1.13** | **132** | *ePg* | **Pb** | **03 55 29.0** | **+0.1** |
| NIE | | | | *eSg* | **Sb** | **03 55 44.3** | **+0.2** |
| **KRLC** | **Kraliky** | **1.44** | **267** | *eSG* | **Sn** | **03 55 53.9** | **+0.3** |
| | comp=Z,8.3nm,0.5s | | | | | | |
| **KRLC** | **Kraliky** | **1.44** | **267** | Sg | **Sn** | **03 55 53.9** | **+0.3** |
| | 8.3nm,0.5s | | | | | | |
| **STHS** | **Stebnicka Huta** | **1.63** | **117** | *ePn* | **Pn** | **03 55 36.3** | **-0.2** |
| STHS | | | | *eSn* | **Sb** | **03 55 58.5** | **-0.1** |
| **STHS** | **Stebnicka Huta** | **1.63** | **117** | *ePN* | **Pn** | **03 55 36.3** | **-0.2** |
| STHS | | | | *eSN* | **Sb** | **03 55 58.5** | **-0.1** |
| STHS | | | | *eLG* | Lg | 03 56 04.0 | |
| **VYHS** | **Vyhne** | **1.69** | **184** | *ePg* | **Pn** | **03 55 37.1** | **-0.2** |
| VYHS | | | | *eSn* | **Sb** | **03 56 00.3** | **0.0** |
| **VYHS** | **Vyhne** | **1.69** | **184** | *ePG* | **Pn** | **03 55 37.1** | **-0.2** |
| VYHS | | | | *eSN* | **Sb** | **03 56 00.3** | **0.0** |
| VYHS | | | | *eLG* | Lg | 03 56 02.6 | |
| **DPC** | **Dobruska-Polom** | **1.74** | **277** | *ePG* | **Pn** | **03 55 37.9** | **-0.1** |
| DPC | | | | *eSG* | **Sb** | **03 56 01.5** | **-0.2** |
| | comp=Z,23nm,0.6s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.74** | **277** | Pg | **Pn** | **03 55 37.9** | **-0.1** |
| DPC | | | | Sg | **Sb** | **03 56 01.5** | **-0.2** |
| | 23nm,0.6s | | | | | | |
| **VRAC** | **Vranov** | **1.80** | **242** | *ePn* | **Pn** | **03 55 39.1** | **+0.3** |
| VRAC | | | | *eSg* | **Sg** | **03 56 04.6** | **+0.4** |
| **KSP** | **Ksiaz** | **1.86** | **292** | *ePb* | **Pn** | **03 55 39.3** | **-0.3** |
| KSP | | | | *ePg* | **Pg** | **03 55 41.9** | **-0.2** |
| KSP | | | | *eSg* | **Sg** | **03 56 07.1** | **+0.8** |
| **KSP** | **Ksiaz** | **1.86** | **292** | *ePb* | **Pn** | **03 55 39.3** | **-0.3** |
| **KSP** | **Ksiaz** | **1.86** | **292** | *ePb* | **Pn** | **03 55 39.3** | **-0.3** |
| KSP | | | | *ePg* | **Pg** | **03 55 41.9** | **-0.2** |
| KSP | | | | *eSg* | **Sg** | **03 56 07.1** | **+0.8** |
| **KECS** | **Kecovo** | **1.95** | **150** | *ePn* | **Pn** | **03 55 40.9** | **0.0** |
| **KECS** | **Kecovo** | **1.95** | **150** | *ePN* | **Pn** | **03 55 40.9** | **0.0** |
| KECS | | | | *eLg* | Lg | 03 56 10.1 | |
| **UPC** | **Upice** | **1.95** | **281** | *eSG* | **Sg** | **03 56 10.9** | **+1.7** |
| | comp=Z,14nm,0.5s | | | | | | |
| **UPC** | **Upice** | **1.95** | **281** | Sg | **Sg** | **03 56 10.9** | **+1.7** |
| | 14nm,0.5s | | | | | | |
| **CRVS** | **Cervenica-Dubn** | **2.04** | **128** | *ePn* | **Pb** | **03 55 43.9** | **-0.5** |
| CRVS | | | | *eSn* | **Sn** | **03 56 09.1** | **+0.8** |
| **CRVS** | **Cervenica-Dubn** | **2.04** | **128** | *ePN* | **Pb** | **03 55 43.9** | **-0.5** |
| CRVS | | | | *eSN* | **Sn** | **03 56 09.1** | **+0.8** |
| **PVCC** | **Panska Ves** | **2.87** | **279** | *ePN* | **Pn** | **03 55 53.1** | **-0.4** |
| PVCC | | | | *ePG* | **Pb** | **03 55 58.6** | **+0.1** |
| PVCC | | | | *eSG* | **Sg** | **03 56 38.1** | **-0.6** |
| | comp=Z,19nm,0.8s | | | | | | |
| **PVCC** | **Panska Ves** | **2.87** | **279** | Pn | **Pn** | **03 55 53.1** | **-0.4** |
| **PVCC** | **Panska Ves** | **2.87** | **279** | Pg | **Pb** | **03 55 58.6** | **+0.1** |
| PVCC | | | | Sg | **Sg** | **03 56 38.1** | **-0.6** |
| | 19nm,0.8s | | | | | | |
| **PRU** | **Pruhonice** | **2.89** | **268** | *ePN* | **Pn** | **03 55 52.9** | **-0.8** |
| PRU | | | | *ePG* | **Pb** | **03 55 59.3** | **+0.4** |
| PRU | | | | *eSG* | **Sg** | **03 56 38.2** | **-1.1** |
| **PRU** | **Pruhonice** | **2.89** | **268** | Pn | **Pn** | **03 55 52.9** | **-0.8** |
| **BRG** | **Berggiesshubel** | **3.31** | **284** | PG | **Pg** | **03 56 09.0** | **-1.0** |
| BRG | | | | SG | **Sg** | **03 56 54.8** | **+2.0** |
| | 9.6nm,0.6s | | | | | | |
| **BRG** | **Berggiesshubel** | **3.31** | **284** | PG | **Pg** | **03 56 09.0** | **-1.0** |
| BRG | | | | SG | **Sg** | **03 56 54.8** | **+2.0** |
| | 9.6nm,0.6s | | | | | | |
| **KHC** | **Kasperske Hory** | **3.69** | **256** | *ePN* | **Pn** | **03 56 04.6** | **-0.1** |
| KHC | | | | *ePG* | **Pb** | **03 56 11.6** | **-0.9** |
| KHC | | | | *eSG* | **Sg** | **03 57 05.5** | **+0.6** |
| | comp=Z,7.2nm,0.5s | | | | | | |
| **KHC** | **Kasperske Hory** | **3.69** | **256** | Pn | **Pn** | **03 56 04.6** | **-0.1** |
| KHC | | | | Sg | **Sg** | **03 57 05.5** | **+0.6** |
| | 7.2nm,0.5s | | | | | | |
| **CLL** | **Collm** | **3.98** | **289** | *ePg* | **Pg** | **03 56 22.0** | **-0.8** |
| CLL | | | | *eSg* | **Sg** | **03 57 16.0** | **+1.6** |
| | comp=Z,8.0nm,0.7s | | | | | | |

*IASPEI* ***17*** *03:59:41.8±0.8, 38°.35N±0°.02×26°.53E±0°.02, h14km±4km, Error ellipse: s-maj=3.0km s-min=2.3km az=52.8, GT5 selection from ISC bulletin GT5 identified by Bond¨ir and McLaughlin (2009) selection criteria Bond¨ir and McLaughlin, A new ground truth data set for seismic studies, Seism. Res. Let., 80, 465-472, 2009*

*ATH* ***17*** *03:59:41.5, 38°.38N×26°.52E, h30km±1km, ML2.8/5, Error ellipse: s-maj=2.5km s-min=1.2km az=260.0*

*ISK* ***17*** *03:59:41.8, 38°.37N×26°.53E, h12km, ML2.7*

*DDA* ***17*** *03:59:41.8, 38°.35N×26°.57E, h14km, Md3.0*

*CSEM* ***17*** *03:59:42.0±0.1, 38°.35N×26°.52E, h12km, MD3.0, Error ellipse: s-maj=2.8km s-min=2.3km az=59.0*

*ISCJB* ***17*** *03:59:42.0±0.3, 38°.37N±0°.02×26°.50E±0°.02, h13km±2km, Error ellipse: s-maj=3.3km s-min=2.5km az=158.7*

*THE* ***17*** *03:59:42.3, 38°.34N×26°.54E, h18km±1km, ML2.8/5, Error ellipse: s-maj=1.7km s-min=0.6km az=246.0*

**ISC 17 03:59:41.8±0.8, 38°.35N±0°.01×26°.53E±0°.01, h15km±4km, n95, σ0§60/147, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **URLA** | **Izmir** | **0.05** | **80** | *ePG* | **Pg** | **03 59 44.4** | **-0.2** |
| URLA | | | | *eSG* | **Sg** | **03 59 46.3** | **-0.2** |
| **URLA** | **Izmir** | **0.05** | **80** | *iP* | **Pg** | **03 59 44.5** | **-0.1** |
| URLA | | | | *iS* | **Sg** | **03 59 46.7** | **+0.2** |
| **URLA** | **Izmir** | **0.05** | **80** | *ePg* | **Pg** | **03 59 44.4** | **-0.2** |
| URLA | | | | *eSg* | **Sg** | **03 59 46.3** | **-0.2** |
| **ZEY** | **¯zmir** | **0.11** | **191** | *iP* | **Pb** | **03 59 45.5** | **-0.2** |
| ZEY | | | | *iS* | **Sb** | **03 59 48.6** | **+0.3** |
| **CESE** | **¯e¯me** | **0.18** | **264** | *ePG* | **Pg** | **03 59 46.4** | **+0.3** |
| CESE | | | | *eSG* | **Sg** | **03 59 49.7** | **+0.7** |
| **CESE** | **¯e¯me** | **0.18** | **264** | *ePg* | **Pg** | **03 59 46.4** | **+0.3** |
| CESE | | | | *eSg* | **Sg** | **03 59 49.7** | **+0.7** |
| **KRBN** | **Karaburun** | **0.24** | **4** | *ePG* | **Pg** | **03 59 47.0** | **-0.1** |
| KRBN | | | | *eSG* | **Sg** | **03 59 50.8** | **+0.1** |
| **KRBN** | **Karaburun** | **0.24** | **4** | *ePg* | **Pg** | **03 59 47.0** | **-0.1** |
| KRBN | | | | *eSg* | **Sg** | **03 59 50.8** | **+0.1** |
| **CHOS** | **Chios island** | **0.38** | **276** | *ePG* | **Pg** | **03 59 49.8** | **+0.4** |
| CHOS | | | | *eSG* | **Sb** | **03 59 55.7** | **-0.2** |
| **CHOS** | **Chios island** | **0.38** | **276** | P | **Pb** | **03 59 50.7** | **+0.5** |
| CHOS | | | | S | **Sg** | **03 59 54.6** | **-0.1** |
| CHOS | | | | AML | AML | 03 59 56.8 | |
| | comp=N,1890μm,0.2s | | | | | | |
| CHOS | | | | AML | AML | 03 59 57.6 | |
| | comp=E,2776μm,0.2s | | | | | | |
| **CHOS** | **Chios island** | **0.38** | **276** | *ePg* | **Pg** | **03 59 49.8** | **+0.4** |
| **CHOS** | **Chios island** | **0.38** | **276** | P | **Pb** | **03 59 50.4** | **+0.2** |
| CHOS | | | | S | **Sg** | **03 59 54.6** | **-0.1** |
| CHOS | | | | *eSg* | **Sb** | **03 59 55.7** | **-0.2** |
| **CHOS** | **Chios island** | **0.38** | **276** | P | **Pb** | **03 59 50.4** | **+0.2** |
| CHOS | | | | S | **Sb** | **03 59 55.9** | **0.0** |
| **DGB** | **¯zmir** | **0.41** | **137** | *iP* | **Pg** | **03 59 50.1** | **+0.1** |
| DGB | | | | *iS* | **Sg** | **03 59 56.1** | **+0.6** |
| **CAND** | **Candarli** | **0.64** | **19** | *ePG* | **Pg** | **03 59 54.4** | **+0.1** |
| CAND | | | | *eSG* | **Sb** | **04 00 03.4** | **0.0** |
| **SMG** | **Samos** | **0.69** | **159** | P | **Pn** | **03 59 57.0** | **0.0** |
| SMG | | | | S | **Sg** | **04 00 04.3** | **+0.1** |
| SMG | | | | AML | AML | 04 00 07.6 | |
| | comp=E,6730μm,0.5s | | | | | | |
| SMG | | | | AML | AML | 04 00 07.9 | |
| | comp=N,6516μm,0.5s | | | | | | |
| **SMG** | **Samos** | **0.69** | **159** | P | **Pg** | **03 59 55.2** | **0.0** |
| SMG | | | | S | **Sg** | **04 00 04.3** | **+0.1** |
| **SMG** | **Samos** | **0.69** | **159** | P | **Pg** | **03 59 55.2** | **0.0** |
| SMG | | | | S | **Sb** | **04 00 04.8** | **0.0** |
| **KUSD** | **Kusadasi-Aydin** | **0.77** | **129** | *ePG* | **Pb** | **03 59 57.2** | **+0.2** |
| **KUSD** | **Kusadasi-Aydin** | **0.77** | **129** | *ePg* | **Pb** | **03 59 57.2** | **+0.2** |
| **DKL** | **Dikili** | **0.78** | **22** | *ePG* | **Pg** | **03 59 56.9** | **0.0** |
| DKL | | | | *eSG* | **Sb** | **04 00 07.7** | **+0.3** |
| **DKL** | **Dikili** | **0.78** | **22** | *ePg* | **Pg** | **03 59 56.9** | **0.0** |
| DKL | | | | *eSg* | **Sb** | **04 00 07.7** | **+0.3** |
| **GCAM** | **G?zelcaml?** | **0.85** | **139** | *iP* | **Pb** | **03 59 58.4** | **+0.1** |
| GCAM | | | | *iS* | **Sb** | **04 00 10.1** | **+0.5** |
| **GCAM** | **G?zelcaml?** | **0.85** | **139** | P | **Pb** | **03 59 58.4** | **+0.1** |
| GCAM | | | | S | **Sb** | **04 00 10.1** | **+0.5** |
| **PRK** | **Paraskevi** | **0.92** | **347** | P | **Pb** | **03 59 59.4** | **-0.1** |
| PRK | | | | S | **Sg** | **04 00 12.4** | **+0.8** |
| PRK | | | | AML | AML | 04 00 14.2 | |
| | comp=E,2807μm,0.3s | | | | | | |
| PRK | | | | AML | AML | 04 00 14.2 | |
| | comp=N,2989μm,0.7s | | | | | | |
| **PRK** | **Paraskevi** | **0.92** | **347** | P | **Pb** | **03 59 59.3** | **-0.1** |
| PRK | | | | S | **Sg** | **04 00

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **GADA** | **Gvkgeada** | **1.90** | **345** | *e*PN | **Pn** | **04 00 14.6** | **+0.9** |
| **GADA** | **Gvkgeada** | **1.90** | **345** | *e*Pn | **Pn** | **04 00 14.6** | **+0.9** |
| **LPK** | **Lapseki** | **2.03** | **5** | *e*PN | **Pn** | **04 00 16.4** | **+1.0** |
| **LPK** | **Lapseki** | **2.03** | **5** | *e*Pn | **Pn** | **04 00 16.4** | **+1.0** |
| **GELI** | **Tayfur-Gelibol** | **2.04** | **359** | *e*PN | **Pn** | **04 00 16.7** | **+1.1** |
| **GELI** | **Tayfur-Gelibol** | **2.04** | **359** | *e*Pn | **Pn** | **04 00 16.7** | **+1.1** |
| **SIMA** | **Simav-Kutahya** | **2.05** | **68** | *e*PN | **Pn** | **04 00 17.0** | **+1.1** |
| **SIMA** | **Simav-Kutahya** | **2.05** | **68** | *e*Pn | **Pn** | **04 00 17.0** | **+1.1** |
| **KRBG** | **Karabiga-Canak** | **2.12** | **16** | *e*PN | **Pn** | **04 00 17.6** | **+0.8** |
| **KRBG** | **Karabiga-Canak** | **2.12** | **16** | *e*Pn | **Pn** | **04 00 17.6** | **+0.8** |
| **TURN** | **Turunc** | **2.21** | **131** | *e*PN | **Pn** | **04 00 17.7** | **-0.2** |
| **TURN** | **Turunc** | **2.21** | **131** | *e*Pn | **Pn** | **04 00 17.7** | **-0.2** |
| **VLY** | **Voula,Athens** | **2.21** | **258** | P | **Pn** | **04 00 19.2** | **+1.2** |
| **VLY** | **Voula,Athens** | **2.21** | **258** | P | **Pn** | **04 00 19.2** | **+1.2** |
| **SMTH** | **Samothraki Isl** | **2.25** | **340** | P | **Pn** | **04 00 18.2** | **-0.4** |
| **SMTH** | **Samothraki Isl** | **2.25** | **340** | P | **Pn** | **04 00 18.2** | **-0.4** |
| **DALY** | **Dalyan (Mu¨la** | **2.28** | **132** | *e*PN | **Pn** | **04 00 20.3** | **+1.5** |
| **DALY** | **Dalyan (Mu¨la** | **2.28** | **132** | *e*Pn | **Pn** | **04 00 20.3** | **+1.5** |
| **ALN** | **Alexandroupoli** | **2.57** | **352** | P | **Pn** | **04 00 22.4** | **-0.5** |
| ALN | | | | S | **Sn** | **04 00 52.1** | **-1.7** |
| **ALN** | **Alexandroupoli** | **2.57** | **352** | P | **Pn** | **04 00 22.9** | **0.0** |
| ALN | | | | S | **Sn** | **04 00 52.5** | **-1.4** |
| **ALN** | **Alexandroupoli** | **2.57** | **352** | P | **Pn** | **04 00 22.9** | **0.0** |
| ALN | | | | S | **Sn** | **04 00 52.5** | **-1.4** |
| **RDO** | **Rodhopi** | **2.89** | **345** | P | **Pn** | **04 00 27.3** | **0.0** |
| **RDO** | **Rodhopi** | **2.89** | **345** | P | **Pn** | **04 00 27.6** | **+0.3** |
| **RDO** | **Rodhopi** | **2.89** | **345** | P | **Pn** | **04 00 27.6** | **+0.3** |

*ISCJB* ***17*** *03:59:49.0±0.8, 17.°68N×0.°07×145.°7E±0.°3, h200km, mb3.3/8, Error ellipse: s-maj=35.2km s-min=9.9km az=5.3*
*IDC* ***17*** *03:59:51.8±1.9, 17.°56N×145.°73E, h215km±20km, mb3.2/8, mb1 3.4/9, mb1mx3.2/36, mbtmp3.7/9, Error ellipse: s-maj=27.7km s-min=16.4km az=95.0*

**ISC 17 03:59:50.5±0.9, 17.°68N±0.°09×145.°8E±0.°3, h200km, n10, σ1°54/11, mb3.3/8, Mariana Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GUMO** | **Guam** | **4.15** | **192** | P | **Pn** | **04 00 56.5** | **+2.3** |
| | 9.7nm,0.3s,baz=49,slow=19,SNR=5.2 | | | | | | |
| GUMO | | | | S | **Sn** | **04 01 43.3** | **-1.1** |
| | 11nm,0.3s,baz=180,slow=20,SNR=3.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **39.03** | **197** | P | **P** | **04 06 57.4** | **-0.6** |
| | 0.6nm,0.3s,baz=17,slow=8.9,SNR=5.2 | | | | | | |
| **ASAR** | **Alice Springs** | **42.69** | **196** | P | **P** | **04 07 26.9** | **-1.0** |
| | 0.4nm,0.4s,baz=16,slow=7.0,SNR=10 | | | | | | |
| **SONM** | **Songino Array** | **43.97** | **322** | P | **P** | **04 07 39.6** | **+1.5** |
| | 0.5nm,0.6s,baz=136,slow=7.1,SNR=4.9 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **58.85** | **323** | P | **P** | **04 09 28.4** | **+0.3** |
| | 0.2nm,0.3s,baz=91,slow=7.6,SNR=4.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **59.20** | **314** | P | **P** | **04 09 30.6** | **-0.1** |
| | 0.2nm,0.4s,baz=80,slow=10,SNR=6.0 | | | | | | |
| **ILAR** | **Eielson Array** | **64.54** | **26** | P | **P** | **04 10 06.3** | **+0.5** |
| | 0.7nm,0.4s,baz=247,slow=6.0,SNR=20 | | | | | | |
| **YKA** | **Yellowknife Ar** | **78.86** | **28** | P | **P** | **04 11 31.8** | **+0.5** |
| | 0.1nm,0.3s,baz=288,slow=4.8,SNR=6.8 | | | | | | |
| **FINES** | **FINESS Array B** | **87.83** | **335** | P | **P** | **04 12 15.0** | **-1.9** |
| | 0.7nm,0.5s,baz=90,slow=2.8,SNR=4.0 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **133.13** | **308** | PKP | **PKPdf** | **04 18 41.1** | **-2.2** |
| | 0.4nm,0.9s,baz=284,slow=1.4,SNR=2.6 | | | | | | |

*ISCJB* ***17*** *04:29:29.2±1.4, 36.°92N±0.°05×28.°75E±0.°10, h26km±10km, Error ellipse: s-maj=13.0km s-min=7.6km az=174.9*
*CSEM* ***17*** *04:29:29.2±0.2, 36.°93N×28.°77E, h20km, MD2.6, Error ellipse: s-maj=3.8km s-min=3.1km az=109.0*
*DDA* ***17*** *04:29:29.7, 36.°93N×28.°83E, h7km, Md2.5*
*ISK* ***17*** *04:29:29.4, 36.°89N×28.°82E, h21km, MD2.6*

**ISC 17 04:29:30.1±1.1, 36.°93N±0.°03×28.°85E±0.°05, h15km±12km, n20, σ0°65/29, Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DALY** | **Dalyan (Mu¨la** | **0.19** | **233** | *e*PG | **Pg** | **04 29 34.2** | **-0.4** |
| DALY | | | | *e*SG | **Sg** | **04 29 37.7** | **+0.1** |
| **DALY** | **Dalyan (Mu¨la** | **0.19** | **233** | *i* P | **Pg** | **04 29 33.8** | **-0.8** |
| DALY | | | | *i* S | **Sg** | **04 29 38.2** | **+0.6** |
| **DALY** | **Dalyan (Mu¨la** | **0.19** | **233** | P | **Pg** | **04 29 33.8** | **-0.8** |
| **DALY** | **Dalyan (Mu¨la** | **0.19** | **233** | *e*Pg | **Pg** | **04 29 34.2** | **-0.4** |
| DALY | | | | *e*Sg | **Sg** | **04 29 37.7** | **+0.1** |
| DALY | | | | S | **Sg** | **04 29 38.2** | **+0.6** |
| **TURN** | **Turunc** | **0.20** | **253** | *e*PG | Pg | 04 29 39.6 | +4.8 |
| TURN | | | | *e*SG | Sg | 04 29 46.8 | +8.9 |
| **TURN** | **Turunc** | **0.20** | **253** | *i* P | Pg | 04 29 39.5 | +4.7 |
| TURN | | | | *i* S | Sg | 04 29 47.2 | +9.3 |
| **FETY** | **Fethiye** | **0.35** | **147** | *e*PG | **Pg** | **04 29 37.0** | **-0.3** |
| FETY | | | | *e*SG | **Sg** | **04 29 42.6** | **+0.4** |
| **FETY** | **Fethiye** | **0.35** | **147** | *e*Pg | **Pg** | **04 29 37.0** | **-0.3** |
| FETY | | | | *e*Sg | **Sg** | **04 29 42.6** | **+0.4** |
| FETY | | | | S | **Sb** | **04 29 43.0** | **-0.4** |
| **TAVA** | **DENIZLI_Tavas** | **0.54** | **6** | *i* P | **Pg** | **04 29 40.0** | **-0.7** |
| TAVA | | | | *i* S | **Sg** | **04 29 48.1** | **+0.2** |
| **TAVA** | **DENIZLI_Tavas** | **0.54** | **6** | P | **Pg** | **04 29 40.0** | **-0.7** |
| TAVA | | | | S | **Sg** | **04 29 48.1** | **+0.2** |
| **GLHS** | **Glhisar (BURDU** | **0.57** | **67** | *e*PG | **Pb** | **04 29 41.8** | **0.0** |
| **GLHS** | **Glhisar (BURDU** | **0.57** | **67** | *e*Pg | **Pb** | **04 29 41.8** | **0.0** |
| **GOLH** | **Golhisar** | **0.65** | **62** | *i* P | **Pg** | **04 29 42.6** | **-0.2** |
| GOLH | | | | *i* S | **Sb** | **04 29 53.0** | **+1.0** |
| **GOLH** | **Golhisar** | **0.65** | **62** | P | **Pg** | **04 29 42.6** | **-0.2** |
| GOLH | | | | S | **Sb** | **04 29 53.0** | **+1.0** |
| **ELL** | **Elmali** | **0.87** | **102** | *e*PG | **Pb** | **04 29 47.2** | **+0.2** |
| **ELL** | **Elmali** | **0.87** | **102** | *e*Pg | **Pb** | **04 29 47.2** | **+0.2** |
| **AKAS** | **Kas** | **0.93** | **139** | *e*PG | **Pg** | **04 29 47.4** | **-0.7** |
| **AKAS** | **Kas** | **0.93** | **139** | *e*Pg | **Pg** | **04 29 47.4** | **-0.7** |
| **KORT** | **Korkueli** | **1.21** | **86** | *e*PN | **Pg** | **04 29 52.0** | **-1.4** |
| **KORT** | **Korkueli** | **1.21** | **86** | *e*Pn | **Pg** | **04 29 52.0** | **-1.4** |

**IDC 17 04:34:31.4±6.0, 18.°82S×169.°93E, h270km±39km, mb4.2/4, mb1 4.3/5, mb1mx3.6/25, mbtmp4.8/5, Error ellipse: s-maj=65.8km s-min=49.0km az=18.0, Vanuatu Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DZM** | **Mont Dzumac** | **4.60** | **225** | P | Pn | 04 35 41.2 | -2.0 |
| | 8.7nm,0.3s,baz=60,slow=18,SNR=43 | | | | | | |
| DZM | | | | S | S | 04 36 42.8 | +2.2 |
| | 3.5nm,0.3s,baz=328,slow=19,SNR=2.6 | | | | | | |
| **CTA** | **Charters Tower** | **22.36** | **263** | P | P | 04 39 07.3 | +0.1 |
| | 7.3nm,0.5s,baz=79,slow=10,SNR=11 | | | | | | |
| **STKA** | **Stephens Creek** | **28.62** | **237** | P | P | 04 40 02.5 | -0.7 |
| | 6.7nm,0.5s,baz=67,slow=9.4,SNR=12 | | | | | | |
| **WRA** | **Warramunga Arr** | **33.56** | **262** | P | P | 04 40 46.2 | -0.3 |
| | 3.0nm,0.3s,baz=96,slow=8.4,SNR=65 | | | | | | |
| WRA | | | | PcP | PcP | 04 43 21.7 | +1.3 |
| | 0.5nm,0.5s,baz=94,slow=3.0,SNR=3.6 | | | | | | |
| **ASAR** | **Alice Springs** | **33.87** | **255** | P | P | 04 40 48.9 | -0.3 |
| | 19nm,0.6s,baz=83,slow=9.3,SNR=318 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **167.37** | **245** | PKPab | PKPab | 04 55 12.4 | -0.3 |
| | 0.4nm,0.5s,baz=110,slow=4.7,SNR=5.5 | | | | | | |

*ISCJB* ***17*** *05:00:10.7±0.6, 32.°60N±0.°06×105.°67E±0.°05, h11km, mb3.8/6, MS3.2/2, Error ellipse: s-maj=9.4km s-min=5.2km az=149.6*
*IDC* ***17*** *05:00:11.4±1.5, 32.°82N×106.°06E, h0km, mb3.7/6, mb1 3.9/6, mb1mx3.4/46, mbtmp3.7/6, MS3.3/2, Ms1 3.3/2, ms1mx2.5/54, Error ellipse: s-maj=226.3km s-min=18.5km az=53.0*
*BJI* ***17*** *05:00:14.6, 32.°60N×105.°42E, h11km, ML3.4/13*

**ISC 17 05:00:12.5±0.7, 32.°61N±0.°05×105.°64E±0.°04, h11km, n13, σ1°55/18, mb3.8/6, Sichuan**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CD2** | **Chengdu** | **2.33** | **224** | Pn | **Pn** | **05 00 50.1** | **-0.8** |
| CD2 | | | | Pg | **Pb** | **05 00 53.5** | **-1.1** |
| CD2 | | | | Sn | **Sn** | **05 01 17.8** | **-1.7** |
| CD2 | | | | Sg | **Sb** | **05 01 22.8** | **-0.6** |
| CD2 | | | | smax | smax | | |
| | comp=N,1μm,0.7s | | | | | | |
| CD2 | | | | smax | smax | | |
| | comp=E,780nm,0.9s | | | | | | |
| **XAN** | **Xi'an** | **3.10** | **62** | Pn | **Pb** | **05 01 05.1** | **-2.6** |
| XAN | | | | Pg | **Pg** | **05 01 12.4** | **+0.5** |
| XAN | | | | Sn | **Sn** | **05 01 37.6** | **-0.9** |
| XAN | | | | Sg | **Sg** | **05 01 52.1** | **+0.1** |
| XAN | | | | smax | smax | | |
| | comp=N,160nm,0.8s | | | | | | |
| XAN | | | | smax | smax | | |
| | comp=E,200nm,0.7s | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **LZH** | **Lanzhou** | **3.78** | **337** | *e*Pg | **Pg** | **05 01 25.1** | **+0.2** |
| LZH | | | | Sg | **Sg** | **05 02 11.3** | **-2.6** |
| LZH | | | | smax | smax | | |
| | comp=N,150nm,0.5s | | | | | | |
| LZH | | | | smax | smax | | |
| | comp=E,200nm,0.7s | | | | | | |
| **GTA** | **Gaotai** | **8.27** | **327** | *e*P | **Pn** | **05 02 14.8** | **+2.3** |
| GTA | | | | pP | pP | 05 02 18.9 | |
| GTA | | | | sP | sP | 05 02 22.4 | |
| **WMQ** | **Urumqi** | **17.96** | **314** | *e*P | **Pn** | **05 04 20.3** | **-2.0** |
| **MKAR** | **Makanchi Array** | **22.77** | **315** | P | **P** | **05 05 15.1** | **+0.2** |
| | 0.9nm,0.8s,baz=115,slow=11,SNR=4.0 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **23.57** | **53** | LR | LR | 05 14 51.0 | |
| | comp=Z,73nm,20.1s,baz=60,slow=38 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **26.88** | **320** | P | **P** | **05 05 53.9** | **+0.7** |
| | 0.3nm,0.2s,baz=119,slow=7.6,SNR=3.2 | | | | | | |
| **GNI** | **Garni** | **48.77** | **297** | LR | LR | 05 32 38.6 | |
| | comp=Z,28nm,18.5s,baz=72,slow=40 | | | | | | |
| **FINES** | **FINESS Array B** | **57.06** | **326** | P | **P** | **05 09 59.1** | **+0.8** |
| | 3.3nm,1.1s,baz=83,slow=6.0,SNR=2.8 | | | | | | |
| **AKASG** | **Malin Array Be** | **57.32** | **313** | P | **P** | **05 10 02.7** | **+2.3** |
| | 0.3nm,0.4s,baz=73,slow=8.0,SNR=2.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **59.02** | **148** | P | **P** | **05 10 13.2** | **+0.7** |
| | 2.4nm,0.4s,baz=322,slow=11,SNR=28 | | | | | | |
| **ASAR** | **Alice Springs** | **62.12** | **151** | P | **P** | **05 10 34.0** | **+0.3** |
| | 0.3nm,0.4s,baz=339,slow=6.7,SNR=5.0 | | | | | | |

*ISCJB* ***17*** *05:07:02.7±1.2, 39.°76N±0.°04×142.°30E±0.°09, h23km±7km, mb3.5/3, MS3.2/1, Error ellipse: s-maj=12.3km s-min=5.7km az=10.4*
*JMA* ***17*** *05:07:04.0±0.1, 39.°75N×142.°21E, h25km±1km, M3.7*
*JMA Felt I J1.*
*IDC* ***17*** *05:07:05.3±5.0, 40.°10N×141.°57E, h0km, mb3.7/3, mb1 3.5/5, mb1mx3.3/43, mbtmp3.5/5, ML3.2/2, MS3.2/1, Ms1 3.2/1, ms1mx2.4/48, Error ellipse: s-maj=98.5km s-min=29.1km az=113.0*

**ISC 17 05:07:03.4±1.5, 39.°76N±0.°04×142.°27E±0.°08, h19km±3km, n20, σ1°17/22, mb3.7/3, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JTH** | **Tanohata** | **0.36** | **299** | P | **Pb** | **05 07 11.5** | **+0.2** |
| JTH | | | | S | **Sb** | **05 07 16.6** | **-0.1** |
| **MIYJ** | **Miyakonagasawa** | **0.40** | **242** | P | **Pg** | **05 07 11.7** | **0.0** |
| MIYJ | | | | S | **Sg** | **05 07 16.8** | **-0.5** |
| **JKZ** | **Kuzumaki** | **0.76** | **287** | P | **Pb** | **05 07 17.7** | **-0.4** |
| JKZ | | | | S | **Sb** | **05 07 27.2** | **-0.8** |
| **JOM** | **Ohasama** | **0.81** | **249** | P | **Pb** | **05 07 18.4** | **-0.5** |
| JOM | | | | S | **Sb** | **05 07 28.4** | **-1.1** |
| **OFUJ** | **Ofunato** | **0.83** | **215** | P | **Pb** | **05 07 18.5** | **-0.7** |
| OFUJ | | | | S | **Sb** | **05 07 29.0** | **-0.9** |
| **JANG** | **Nango** | **0.84** | **317** | P | **Pb** | **05 07 18.6** | **-0.9** |
| JANG | | | | *e*S | **Sb** | **05 07 29.5** | **-0.9** |
| **JMK** | **Ichinoseki** | **1.15** | **226** | P | **Pn** | **05 07 24.0** | **-0.5** |
| JMK | | | | S | **Sb** | **05 07 38.0** | **-1.2** |
| **JRG** | **Rokugo** | **1.32** | **254** | P | **Pb** | **05 07 27.4** | **-0.2** |
| JRG | | | | S | **Sb** | **05 07 44.2** | **+0.1** |
| **ASAJ** | **Asahikawa** | **4.36** | **3** | Pn | **Pn** | **05 08 08.1** | **-0.5** |
| | 1.5nm,0.3s,baz=165,slow=20,SNR=4.4 | | | | | | |
| ASAJ | | | | Sn | **Sn** | **05 09 01.2** | **+2.4** |
| | 0.5nm,0.3s,baz=217,slow=20,SNR=1.9 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **4.54** | **226** | Pn | **Pn** | **05 08 14.3** | **+3.2** |
| | 0.8nm,0.3s,baz=36,slow=12,SNR=4.7 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **29.09** | **126** | T | T | 05 43 31.6 | |
| | baz=319,slow=75,SNR=130 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **29.11** | **126** | T | T | 05 43 39.7 | |
| | baz=319,slow=75,SNR=130 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **29.11** | **126** | T | T | 05 43 40.4 | |
| | baz=319,slow=75,SNR=104 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.89** | **128** | T | T | 05 44 37.6 | |
| | baz=320,slow=76,SNR=45 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.89** | **128** | T | T | 05 44 39.0 | |
| | baz=320,slow=76,SNR=32 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.91** | **128** | T | T | 05 44 39.9 | |
| | baz=320,slow=76,SNR=36 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **40.63** | **310** | P | **P** | **05 14 41.9** | **+0.1** |
| | 0.7nm,0.4s,baz=89,slow=8.2,SNR=4.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.30** | **300** | P | **P** | **05 15 03.2** | **-0.6** |
| | 0.4nm,0.5s,baz=89,slow=9.7,SNR=4.6 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **44.90** | **306** | P | **P** | **05 15 15.6** | **-1.0** |
| | 0.4nm,0.4s,baz=80,slow=8.2,SNR=4.9 | | | | | | |
| **AAK** | **Ala-Archa** | **49.83** | **297** | LR | LR | 05 37 48.8 | |
| | comp=Z,22nm,18.8s,baz=324,slow=38 | | | | | | |

*ISCJB* ***17*** *05:23:28.9±0.4, 10.°98S±0.°05×114.°83E±0.°05, h10km, mb4.0/13, Error ellipse: s-maj=8.6km s-min=5.6km az=136.0*
*IDC* ***17*** *05:23:29.6±1.4, 10.°84S×114.°94E, h0km, mb3.9/11, mb1 4.1/11, mb1mx3.8/56, mbtmp4.0/11, Error ellipse: s-maj=59.6km s-min=17.2km az=51.0*
*NEIC* ***17*** *05:23:32.7±1.9, 10.°93S×114.°82E, h20km±14km, mb4.2/7, Error ellipse: s-maj=10.6km s-min=5.2km az=224.0*
*DJA* ***17*** *05:23:37.4±1.0, 11.°5±8.°×11.°5E±.°, h10km, M3.8/8, MLv3.8/8*

**ISC 17 05:23:30.7±0.7, 10.°98S±0.°08×114.°73E±0.°06, h10km, n42, σ1°21/42, mb4.2/13, South of Bali**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JAGI** | **Jajag, Banyuwa** | **2.56** | **347** | P | **Pn** | **05 24 12.7** | **+0.5** |
| **JAGI** | **Jajag, Banyuwa** | **2.56** | **347** | *e*Pn | **Pn** | **05 24 12.6** | **+0.3** |
| JAGI | | | | *e*Sn | **Sn** | **05 24 44.4** | **+1.0** |
| **SRBI** | **Singaraja** | **2.91** | **9** | P | **Pn** | **05 24 19.4** | **+2.3** |
| **GMJI** | **Gumukmas** | **2.97** | **335** | P | **Pn** | **05 24 17.9** | **0.0** |
| **BLJI** | **Banyuglugur** | **3.40** | **341** | P | **Pn** | **05 24 24.5** | **+0.7** |
| **PLAI** | **Plampang** | **3.69** | **55** | P | **Pn** | **05 24 28.1** | **+0.3** |
| PLAI | | | | S | **Sn** | **05 25 07.7** | **-3.6** |
| **KMMI** | **Kalianget** | **3.98** | **349** | P | **Pn** | **05 24 34.0** | **+2.3** |
| **PWJI** | **Pagerwojo** | **4.12** | **315** | P | **Pn** | **05 24 33.9** | **+0.2** |
| PWJI | | | | S | **Sn** | **05 25 19.0** | **-2.9** |
| **UGM** | **Wanagama** | **5.15** | **306** | *e*Pn | **Pn** | **05 24 51.0** | **+3.1** |
| **CISI** | **Cisompet, Garu** | **7.62** | **296** | *e*Pn | **Pn** | **05 25 21.6** | **-0.4** |
| CISI | | | | *e*Sn | **Sn** | **05 26 47.1** | **-1.4** |
| **KAPI** | **Kappang** | **7.74** | **40** | *e*Pn | **Pn** | **05 25 23.4** | **0.0** |
| **MBWA** | **Marble Bar** | **11.21** | **155** | *e*Pn | Pn | 05 26 06.4 | -4.6 |
| **LUWI** | **Luwuk** | **12.70** | **40** | *e*Pn | Pn | 05 26 30.1 | -1.4 |
| **FITZ** | **Fitzroy Crossi** | **12.71** | **125** | Pn | Pn | 05 26 27.6 | -4.1 |
| | 0.4nm,0.3s,baz=312,slow=7.3,SNR=18 | | | | | | |
| FITZ | | | | Sn | Sn | 05 28 38.7 | -15 |
| | 0.8nm,0.3s,baz=196,slow=23,SNR=8.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **20.88** | **118** | P | **P** | **05 28 12.9** | **-0.3** |
| | 1.3nm,0.5s,baz=289,slow=12,SNR=9.1 | | | | | | |
| **WR1** | **Warramunga Arr** | **20.88** | **118** | *e*P | **P** | **05 28 12.9** | **-0.3** |
| | 30nm,1.8s | | | | | | |
| **WRAB** | **Tennant Creek** | **20.88** | **118** | *e*P | **P** | **05 28 13.4** | **+0.1** |
| | 3.2nm,0.6s | | | | | | |
| **WB2** | **Warramunga Arr** | **20.89** | **118** | *e*P | **P** | **05 28 13.7** | **+0.3** |
| | 7.1nm,1.0s | | | | | | |
| **AS31** | **Alice Springs** | **22.20** | **127** | *e*P | **P** | **05 28 27.3** | **-0.1** |
| | 0.8nm,0.7s | | | | | | |
| **ASAR** | **Alice Springs** | **22.20** | **127** | P | **P** | **05 28 27.3** | **-0.1** |
| | 1.0nm,0.6s,baz=301,slow=9.8,SNR=16 | | | | | | |
| **STKA** | **Stephens Creek** | **32.36** | **134** | P | **P** | **05 30 00.1** | **-0.4** |
| | 1.7nm,0.5s,baz=342,slow=7.8,SNR=4.0 | | | | | | |
| **STKA** | **Stephens Creek** | **32.36** | **134** | *e*P | **P** | **05 30 01.4** | **+0.9** |
| | 5.4nm,1.6s | | | | | | |
| **CM31** | **Chiang Mai Arr** | **33.14** | **332** | *e*P | **P** | **05 30 07.7** | **+0.3** |
| **CMAR** | **Chiang Mai Arr** | **33.14** | **332** | P | **P** | **05 30 09.1** | **+1.7** |
| | 1.0nm,0.3s,baz=167,slow=8.6,SNR=5.3 | | | | | | |
| **KS15** | **Wonju Array Si** | **49.72** | **14** | *e*P | **P** | **05 32 22.5** | **-0.6** |
| **KSAR** | **Wonju Array Be** | **49.72** | **14** | P | **P** | **05 32 22.5** | **-0.6** |
| **KSRS** | **Korea Array** | **49.74** | **14** | P | **P** | **05 32 22.5** | **-0.8** |
| | 2.0nm,0.8s,baz=194,slow=8.5,SNR=5.3 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **57.11** | **15** | P | P | 05 33 15.8 | -1.5 |
| | 2.0nm,0.6s,baz=224,slow=6.0,SNR=3.7 | | | | | | |
| **SONA0** | **Songino Array** | **59.02** | **353** | *e*P | **P** | **05 33 30.8** | **0.0** |
| **SONM** | **Songino Array** | **59.02** | **353** | P | **P** | **05 33 30.8** | **0.0** |
| | 1.3nm,0.6s,baz=168,slow=8.9,SNR=8.2 | | | | | | |
| **SONA1** | **Songino Array** | **59.03** | **353** | *e*P | **P** | **05 33 31.1** | **+0.2** |
| **MK01** | **Makanchi Array** | **64.39** | **336** | *e*P | **P** | **05 34 08.2** | **+1.3** |
| **MK31** | **Makanchi Array** | **64.41** | **336** | *e*P | **P** | **05 34 08.3** | **+1.2** |
| **MK32** | **Makanchi Array** | **64.41** | **336** | *e*P | **P** | **05 34 06.9** | **-0.2** |
| **MKAR** | **Makanchi Array** | **64.41** | **336** | P | **P** | **05 34 06.9** | **-0.2** |
| | 0.2nm,0.3s,baz=143,slow=8.6,SNR=4.3 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **68.97** | **336** | P | **P** | **05 34 35.8** | **-0.2** |
| | 0.9nm,0.2s,baz=158,slow=5.3,SNR=5.8 | | | | | | |
| **KURK** | **Kurchatov** | **69.00** | **336** | *e*P | **P** | **05 34 36.4** | **+0.1** |
| | 2.5nm,0.8s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **69.48** | **342** | P | **P** | **05 34 38.4** | **-0.7** |
| | 0.4nm,0.4s,baz=163,slow=5.7,SNR=3.5 | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **ZAA1** | **Zalesovo Array** | **69.48** | **342** | *e*P | **P** | **05 34 38.4** | **-0.7** |
| **BVAR** | **Borovoye Array** | **74.13** | **334** | P | **P** | **05 35 08.1** | **+0.9** |
| | 0.3nm,0.5s,baz=129,slow=4.6,SNR=2.1 | | | | | | |
| **SNAA** | **Sanae** | **87.95** | **196** | *e*P | **P** | **05 36 20.7** | **+0.1** |
| | 22nm,1.9s | | | | | | |
| **YKA** | **Yellowknife Ar** | **117.69** | **23** | PKP | **PKPdf** | **05 42 16.5** | **-0.3** |
| | 0.1nm,0.5s,baz=251,slow=17,SNR=3.0 | | | | | | |

**IDC 17 05:24:20.6±3.0, 16.°01S×171.°86W, h0km, mb3.6/3, mb1 3.8/4, mb1mx3.5/37, mbtmp3.6/4, ML3.0/1, MS3.6/1, Ms1 3.6/1, ms1mx2.6/30, Error ellipse: s-maj=86.5km s-min=24.4km az=118.0, Samoa Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **AFI** | **Afiamalu** | **2.09** | **2** | Pn | Pn | 05 24 56.9 | -0.1 |
| | 5.4nm,0.3s,baz=83,slow=6.6,SNR=8.6 | | | | | | |
| AFI | | | | Sn | Sb | 05 25 25.1 | -0.9 |
| | 52nm,0.3s,baz=354,slow=20,SNR=18 | | | | | | |
| **HNR** | **Honiara** | **28.25** | **280** | LR | LR | 05 40 01.3 | |
| | comp=Z,121nm,18.2s,baz=78,slow=33 | | | | | | |
| **WRA** | **Warramunga Arr** | **51.15** | **257** | P | P | 05 33 25.3 | -0.6 |
| | 0.4nm,0.6s,baz=96,slow=9.3,SNR=3.1 | | | | | | |
| **ASAR** | **Alice Springs** | **51.34** | **252** | P | P | 05 33 27.6 | +0.3 |
| | 1.2nm,0.6s,baz=86,slow=8.4,SNR=11 | | | | | | |
| **ILAR** | **Eielson Array** | **82.76** | **11** | P | P | 05 36 46.0 | -0.1 |
| | 0.4nm,0.8s,baz=220,slow=6.3,SNR=4.5 | | | | | | |

*ISN* ***17*** *05:28:54.7±2.6, 38.°76N×43.°78E, h0km±122km, ML4.0*
*AZER* ***17*** *05:28:54.9±1.0, 38.°94N×42.°85E, h20km±26km, Error ellipse: s-maj=23.4km s-min=5.5km az=67.0*
*DDA* ***17*** *05:28:58.2, 38.°82N×43.°62E, h13km, Ml4.0*
*ISK* ***17*** *05:28:58.2, 38.°82N×43.°54E, h5km, ML3.7*
*NEIC* ***17*** *05:28:58.2±0.0, 38.°81N×43.°56E, h5km, mb4.2/7, ML4.0(ISK), After ISK.*
*TEH* ***17*** *05:28:58.8, 38.°97N×43.°33E, h18km, ML3.7*
*ISCJB* ***17*** *05:28:59.0±0.4, 38.°81N±0.°02×43.°52E±0.°02, h6km±3km, mb4.1/15, MS2.7/1, Error ellipse: s-maj=3.0km s-min=2.4km az=153.7*
*IDC* ***17*** *05:28:59.8±1.3, 39.°03N×43.°34E, h0km, mb3.8/10, mb1 3.8/12, mb1mx3.5/48, mbtmp3.7/12, ML3.0/2, MS2.6/5, Ms1 2.6/5, ms1mx2.3/54, Error ellipse: s-maj=31.2km s-min=10.6km az=157.0*
*CSEM* ***17*** *05:28:59.9±0.1, 38.°83N×43.°54E, h10km, mb4.6/5, Error ellipse: s-maj=4.0km s-min=3.1km az=152.0*

**ISC 17 05:29:00.1±0.9, 38.°82N±0.°02×43.°53E±0.°02, h8km±6km, n195, σ1°74/251, mb4.0/15, 21C-25D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VMUR** | **Van-Muradiye** | **0.17** | **10** | ⇓*i* P | **Pg** | **05 29 02.5** | **-1.2** |
| VMUR | | | | *i* S | **Sg** | **05 29 06.5** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.17** | **10** | P | **Pg** | **05 29 02.5** | **-1.2** |
| VMUR | | | | S | **Sg** | **05 29 06.5** | **+0.3** |
| **ERCV** | **ERCIS-VAN** | **0.25** | **322** | *e*PG | **Pg** | **05 29 04.8** | **-0.3** |
| ERCV | | | | *e*SG | **Sg** | **05 29 09.3** | **+0.8** |
| **ERCV** | **ERCIS-VAN** | **0.25** | **322** | *e*Pg | **Pg** | **05 29 04.8** | **-0.3** |
| ERCV | | | | *e*Sg | **Sg** | **05 29 09.3** | **+0.8** |
| **VANB** | **Van** | **0.25** | **207** | *e*PG | **Pg** | **05 29 05.5** | **+0.3** |
| VANB | | | | *e*SG | **Sb** | **05 29 11.5** | **-0.1** |
| **VANB** | **Van** | **0.25** | **207** | *e*Pg | **Pg** | **05 29 05.5** | **+0.3** |
| VANB | | | | *e*Sg | **Sb** | **05 29 11.5** | **-0.1** |
| **TVAN** | **Van** | **0.31** | **199** | ⇓*i* P | **Pg** | **05 29 05.2** | **-1.1** |
| **TVAN** | **Van** | **0.31** | **199** | P | **Pg** | **05 29 05.2** | **-1.1** |
| **CLDR** | **Caldiran** | **0.44** | **43** | *e*PG | **Pg** | **05 29 07.7** | **-1.0** |
| CLDR | | | | *e*SG | **Sg** |

SNR=67
**SENK Senkaya-Erzuru 1.96 333** *e*PN **Pn 05 29 34.2 +0.3**
**SENK Senkaya-Erzuru 1.96 333** *e*Pn **Pn 05 29 34.2 +0.3**
**ERZM Erzurum 2.00 303** *i* P **Pn 05 29 35.0 +0.6**
**ERZM Erzurum 2.00 303** P **Pn 05 29 35.0 +0.6**
**BTMN Batman 2.01 243** *i* P **Pn 05 29 34.8 +0.4**
**BTMN Batman 2.01 243** P **Pn 05 29 34.8 +0.4**
**ITBZ Tabriz 2.13 105** *e*Pn **Pn 05 29 36.7 +0.5**
ITBZ *e*AMB AMB 05 29 47.0
comp=Z,1μm,0.2s
**ITBZ Tabriz 2.13 105** *e*Pn **Pn 05 29 36.7 +0.5**
**ECAT Cat-ERZURUM 2.14 292** *i* P **Pn 05 29 37.8 +1.5**
**ECAT Cat-ERZURUM 2.14 292** P **Pn 05 29 37.8 +1.5**
**BNGB Bing˜ǁl 2.23 275** *e*PN **Pn 05 29 38.0 +0.5**
**YEDI Yedisu-Bingol 2.41 286** *e*PN **Pn 05 29 40.5 +0.5**
**BGD Bogdanovka 2.44 1** P **Pb 05 29 45.3 +0.9**
**DDEM Demirkent 2.48 327** *i* P **Pb 05 29 45.7 +0.7**
**HANI Diyarbakir_Han 2.49 262** *i* P **Pn 05 29 41.0 0.0**
**HANI Diyarbakir_Han 2.49 262** P **Pn 05 29 41.0 0.0**
**GDB GEDABAY 2.55 41** ⇑P **Pn 05 29 39.5 -2.5**
SNR=7.9
GDB ⇑S **Sn 05 30 14.1 +0.7**
**GDB GEDABAY 2.55 41** P **Pn 05 29 39.5 -2.5**
SNR=7.9
GDB S **Sn 05 30 14.1 +0.7**
**AKH Akhalkalaki 2.58 359** *e*PN **Pn 05 29 43.1 +0.7**
**AKH Akhalkalaki 2.58 359** P **Pb 05 29 47.6 +0.8**
**AKH Akhalkalaki 2.58 359** *e*Pn **Pn 05 29 43.1 +0.7**
**KOPT Kop Dagi 2.64 298** *i* P **Pb 05 29 47.6 -0.2**
**KOPT Kop Dagi 2.64 298** *e*Pn **Pb 05 29 47.5 -0.3**
**KOPT Kop Dagi 2.64 298** *e*Pn **Pb 05 29 47.5 -0.3**
**QZX Qazax, Azerbai 2.64 32** ⇓P **Pn 05 29 39.5 -3.6**
SNR=19
QZX ⇓S **Sn 05 30 14.0 -1.4**
**QZX Qazax, Azerbai 2.64 32** P **Pn 05 29 39.5 -3.6**
SNR=19
QZX S **Sn 05 30 14.0 -1.4**
**MARD Mardin 2.65 236** *i* P **Pn 05 29 42.1 -1.1**
**MARD Mardin 2.65 236** *e*Pn **Pn 05 29 43.3 +0.1**
**MARD Mardin 2.65 236** *e*Pn **Pn 05 29 43.3 +0.1**
**ARTV Artvin 2.66 333** *e*Pn **Pb 05 29 49.4 +1.2**
**DIY Diyarbakir 2.76 251** *e*Pn **Pn 05 29 45.8 +1.1**
**MAZI Mazidag 2.79 242** *e*PN **Pn 05 29 44.9 -0.3**
**MAZI Mazidag 2.79 242** *e*Pn **Pn 05 29 44.9 -0.3**
**IHRS Heris 2.80 99** *e*Pn **Pn 05 29 45.6 +0.2**
IHRS *e*AMB AMB 05 29 53.7
comp=Z,3μm,0.3s
**IHRS Heris 2.80 99** *e*Pn **Pn 05 29 45.6 +0.2**
**DYBB Diyarbakir 2.81 253** *e*PN **Pn 05 29 45.8 +0.5**
**GANJ Ganja 2.82 49** ⇓P **Pn 05 29 43.6 -1.9**
SNR=16
GANJ ⇑S **Sn 05 30 21.6 +1.9**
**GANJ Ganja 2.82 49** P **Pn 05 29 43.6 -1.9**
SNR=16
GANJ S **Sn 05 30 21.6 +1.9**
**BCA Borcka 3.00 331** *e*PN **Pn 05 29 49.0 +1.0**
**BCA Borcka 3.00 331** *e*Pn **Pn 05 29 49.0 +1.0**
**TBLG Delisi 3.05 17** *e*PN **Pn 05 29 49.6 +0.9**
**TBLG Delisi 3.05 17** P **Pb 05 29 53.8 -0.8**
**TBLG Delisi 3.05 17** *e*Pn **Pn 05 29 49.6 +0.9**
**BAYT Ayd¯–ntepe-Bay 3.05 302** *e*PN **Pn 05 29 49.6 +0.7**
**BAYT Ayd¯–ntepe-Bay 3.05 302** *e*Pn **Pn 05 29 49.6 +0.7**
**ERZN Erzincan 3.06 286** *e*PN **Pn 05 29 49.8 +0.9**
**BRDA Brd 3.16 62** ⇑P **Pn 05 29 49.3 -0.9**
SNR=3.1
BRDA ⇑S **Sn 05 30 31.9 +3.7**
**BRDA Brd 3.16 62** P **Pn 05 29 49.3 -0.9**
SNR=3.1
BRDA S **Sn 05 30 31.9 +3.7**
**PTK Pertek 3.23 273** *e*PN **Pn 05 29 52.2 +0.8**
**PTK Pertek 3.23 273** *e*Pn **Pn 05 29 52.2 +0.8**
**DDFL Dedoflistskaro 3.29 36** P **Pb 05 30 00.5 +1.8**
**SVRC Sivrice-ELAZID 3.34 264** *e*PN **Pn 05 29 53.6 +0.8**
**SVRC Sivrice-ELAZID 3.34 264** *e*Pn **Pn 05 29 53.6 +0.8**
**MNGR Mingechevir, A 3.36 53** ⇑P **Pn 05 29 51.3 -1.6**
SNR=4.6
MNGR ⇑S **Sn 05 30 35.4 +2.5**
**MNGR Mingechevir, A 3.36 53** P **Pn 05 29 51.3 -1.6**
SNR=4.6
MNGR S **Sn 05 30 35.4 +2.5**
**EZC Erzincan 3.37 287** *e*Pn **Pn 05 29 49.8 -3.5**
**ZRD Zardab 3.52 64** ⇑P **Pn 05 29 54.5 -0.6**
ZRD ⇑S **Sn 05 30 41.0 +4.0**
**ZRD Zardab 3.52 64** P **Pn 05 29 54.5 -0.6**
ZRD S **Sn 05 30 41.0 +4.0**
**ZKTA Zakatala 3.67 39** ⇑P **Pn 05 29 54.4 -2.9**
SNR=3.4
ZKTA ⇑S **Sn 05 30 40.8 +0.1**
**SEKA Sheki 3.69 49** ⇓P **Pn 05 29 56.2 -1.3**
SNR=4.9
SEKA ⇓S **Sn 05 30 44.2 +3.0**
**SEKA Sheki 3.69 49** P **Pn 05 29 56.2 -1.3**
SNR=4.9
SEKA S **Sn 05 30 44.2 +3.0**
**LRK Lerik 3.76 91** ⇓P **Pn 05 29 59.1 +0.5**
SNR=5.9
LRK ⇓S **Sb 05 30 49.6 -3.1**
**LRK Lerik 3.76 91** P **Pn 05 29 59.1 +0.5**
SNR=5.9
**ONI Oni 3.77 359** P **Pg 05 30 11.6 -0.6**
**GLBA Clilabad 3.81 82** ⇓P **Pn 05 29 59.3 +0.3**
SNR=4.5
GLBA ⇓S **Sb 05 30 50.0 -3.8**
**GLBA Clilabad 3.81 82** P **Pn 05 29 59.3 +0.3**
SNR=4.5
**KDMR Kurdemir 3.91 65** ⇓P **Pn 05 29 59.7 -0.8**
SNR=3.5
KDMR ⇑S **Sn 05 30 50.6 +4.0**
**KDMR Kurdemir 3.91 65** P **Pn 05 29 59.7 -0.8**
SNR=3.5
KDMR S **Sn 05 30 50.6 +4.0**
**SAAT Saatly 3.93 73** ⇓P **Pn 05 30 00.1 -0.6**
SAAT ⇑S **Sn 05 30 51.2 +4.2**
**SAAT Saatly 3.93 73** P **Pn 05 30 00.1 -0.6**
SAAT S **Sn 05 30 51.2 +4.2**
**QBL Gabala 3.93 56** ⇓P **Pn 05 29 59.3 -1.5**
SNR=4.7
QBL ⇓S **Sn 05 30 49.8 +2.6**
**QBL Gabala 3.93 56** P **Pn 05 29 59.3 -1.5**
SNR=4.7
QBL S **Sn 05 30 49.8 +2.6**
**CHVG Ch'k'valeri 4.04 345** P **Pg 05 30 18.5 +1.0**
**IML Ismayilli 4.08 60** ⇓P **Pn 05 30 01.8 -1.1**
IML ⇑S **Sn 05 30 54.1 +3.1**
**IML Ismayilli 4.08 60** P **Pn 05 30 01.8 -1.1**
IML S **Sn 05 30 54.1 +3.1**
**LKRN Lenkeran, Azer 4.10 90** ⇑P **Pn 05 30 03.8 +0.7**
SNR=4.4
LKRN ⇓S **Sb 05 30 57.9 -4.4**
**LKRN Lenkeran, Azer 4.10 90** P **Pn 05 30 03.8 +0.7**
SNR=4.4
**ASTR Astara 4.12 92** ⇓P **Pn 05 30 04.2 +0.8**
SNR=4.0
ASTR ⇓S **Sb 05 30 58.5 -4.4**
**ASTR Astara 4.12 92** P **Pn 05 30 04.2 +0.8**
SNR=4.0
**XNQ Khinaliq 4.25 55** ⇑P **Pn 05 30 03.7 -1.6**
XNQ ⇓S **Sn 05 30 57.5 +2.3**
**XNQ Khinaliq 4.25 55** P **Pn 05 30 03.7 -1.6**
XNQ S **Sn 05 30 57.5 +2.3**
**KBZ Khabaz 4.92 355** LR LR 05 32 31.2
comp=Z,85nm,19.2s,baz=92,slow=45
**KVAR Kislovodsk Arr 5.17 353** LR LR 05 32 09.5
comp=Z,33nm,21.8s,baz=210,slow=38
**BHD Baghdad 5.58 173** *e*Pn Pn 05 30 19.0 -4.5
SNR=3.0
BHD *i* Sn Sn 05 31 19.0 -8.8
SNR=3.0
**RTB Rutbah 6.34 205** *e*Pn **Pn 05 30 31.0 -3.0**
SNR=3.0
RTB *i* Sn **Sn 05 31 40.0 -6.7**
SNR=3.0
**BR101 Keskin Array S 7.73 280** *e*Pn **Pn 05 30 54.0 +0.9**
**BR101 Keskin Array S 7.73 280** *e*Pn **Pn 05 30 54.0 +0.9**
**BRTR Keskin Array B 7.73 280** Pn **Pn 05 30 54.0 +0.9**
comp=Z,0.1nm,0.3s,baz=106,slow=13,SNR=4.2
**MMAI Mount Meron Ar 8.78 231** Pn **Pn 05 31 07.6 +0.2**
comp=Z,0.5nm,0.3s,baz=58,slow=14,SNR=2.8
**GEYT Alibeck 11.48 90** Pn **Pn 05 31 44.0 -0.5**
comp=Z,0.2nm,0.3s,baz=260,slow=8.6,SNR=2.2
**EIL Elat 11.56 220** LR LR 05 36 33.3
comp=Z,54nm,20.7s,baz=62,slow=39
**MLR Muntele Rosu 14.63 303** LR LR 05 39 00.1

comp=Z,11nm,19.2s,baz=39,slow=42
**RAYN Ar Rayn 15.35 173** *e*Pn **Pn 05 32 37.7 +0.6**
comp=Z,2.3nm,0.6s
**RAYN Ar Rayn 15.35 173** *e*Pn **Pn 05 32 37.7 +0.6**
comp=Z,2.3nm,0.6s
**AKTO Aktyubinsk 15.49 37** Pn **Pn 05 32 39.1 +0.2**
comp=Z,0.1nm,0.3s,baz=212,slow=19,SNR=4.2
**AKASG Malin Array Be 15.60 324** Pn **Pn 05 32 40.3 +0.1**
comp=Z,0.1nm,0.3s,baz=132,slow=11,SNR=5.9
**AKBB Malin Array Si 15.60 324** *e*Pn **Pn 05 32 40.3 +0.1**
comp=Z,7.2nm,1.1s
**AKBB Malin Array Si 15.60 324** *e*Pn **Pn 05 32 40.3 +0.1**
comp=Z,7.2nm,1.1s
**BUR04 Bucovina Ar. S 15.96 309** *e*Pn **Pn 05 32 44.4 -0.6**
**BUR04 Bucovina Ar. S 15.96 309** *e*Pn **Pn 05 32 44.4 -0.6**
**CRVS Cervenica-Dubn 18.77 310** *e*P **Pn 05 33 25.4 +5.4**
**ARU Arti 20.24 25** P **P 05 33 35.9 +0.4**
comp=Z,1.5nm,0.3s,baz=239,slow=12,SNR=3.2
ARU LR LR 05 44 10.6
comp=Z,37nm,20.1s,baz=234,slow=45
**ARU Arti 20.24 25** *e*P **P 05 33 36.5 +1.0**
comp=Z,27nm,1.5s
**ARU Arti 20.24 25** *e*P **P 05 33 36.5 +1.0**
comp=Z,27nm,1.5s
**CEL Celeste 21.60 277** *e*P **P 05 33 51.0 +0.5**
comp=Z,61nm,1.1s
**CEL Celeste 21.60 277** *e*P **P 05 33 51.0 +0.5**
comp=Z,61nm,1.1s
**BVAR Borovoye Array 23.29 44** P **P 05 34 08.8 +0.6**
comp=Z,0.6nm,0.8s,baz=216,slow=7.1,SNR=2.3
**GERES GERESS Array B 23.60 305** P **P 05 34 10.2 -1.2**
comp=Z,0.5nm,0.5s,baz=96,slow=10.0,SNR=3.9
**FIA0 FINESS Array S 25.09 340** *e*P **P 05 34 22.8 -2.2**
**FINES FINESS Array B 25.09 340** P **P 05 34 22.8 -2.2**
comp=Z,3.6nm,1.0s,baz=163,slow=12,SNR=2.8
**KURBB Kurchatov Arra 27.26 53** P **P 05 34 46.8 +2.1**
comp=Z,0.8nm,0.5s,baz=261,slow=9.1,SNR=7.4
**KURK Kurchatov 27.34 53** *e*P **P 05 34 46.6 +1.2**
comp=Z,2.5nm,0.8s
**KURK Kurchatov 27.34 53** *e*P **P 05 34 46.6 +1.2**
comp=Z,2.5nm,0.8s
**HFS Hagfors 28.40 328** P **P 05 34 55.2 +0.4**
comp=Z,2.4nm,0.8s,baz=147,slow=16,SNR=3.1
**MK32 Makanchi Array 29.29 62** *e*P **P 05 35 05.5 +2.6**
**MKAR Makanchi Array 29.29 62** P **P 05 35 05.5 +2.6**
comp=Z,0.7nm,0.8s,baz=271,slow=6.8,SNR=4.7
**ZALV Zalesovo Beam 31.73 48** P **P 05 35 26.2 +1.9**
comp=Z,0.5nm,0.4s,baz=269,slow=8.6,SNR=2.5
**ZAA1 Zalesovo Array 31.73 48** *e*P **P 05 35 26.1 +1.9**
**ZAA1 Zalesovo Array 31.73 48** *e*P **P 05 35 26.1 +1.9**
**ESDC Sonseca Array 36.45 287** P **P 05 36 03.7 -1.8**
comp=Z,0.9nm,0.6s,baz=68,slow=8.5,SNR=9.6
**TOA1 Torodi Ar. Sit 44.92 247** *e*P **P 05 37 14.1 -1.5**
**TOA1 Torodi Ar. Sit 44.92 247** *e*P **P 05 37 14.1 -1.5**
**TOA0 Torodi Ar. Sit 44.93 247** *e*P **P 05 37 15.4 -0.2**
comp=Z,4.6nm,1.4s
**TOA0 Torodi Ar. Sit 44.93 247** *e*P **P 05 37 15.4 -0.2**
comp=Z,4.6nm,1.4s
**TORD Torodi Ar. Bea 44.93 247** P **P 05 37 14.1 -1.6**
comp=Z,1.1nm,1.1s,baz=36,slow=5.5,SNR=4.4
**KOWA Kowa 48.24 253** *e*P **P 05 37 40.3 -1.4**
comp=Z,6.8nm,1.4s
**KOWA Kowa 48.24 253** *e*P **P 05 37 40.3 -1.4**
comp=Z,6.8nm,1.4s
**ILULI Ilulissat 55.90 335** *e*P **P 05 38 38.0 +0.1**
comp=Z,76nm,1.4s
**ILULI Ilulissat 55.90 335** *e*P **P 05 38 38.0 +0.1**
comp=Z,76nm,1.4s
**SMY Shemya 79.24 28** *e*P **P 05 41 04.8 -0.8**
comp=Z,132nm,1.0s
**SMY Shemya 79.24 28** *e*P **P 05 41 04.8 -0.8**
comp=Z,132nm,1.0s

*SOME* ***17*** *05:37:49.9, 44˚.55N×81˚.40E, h10km*
**ISC 17 05:37:49.0**±1.7, **44˚.58N**±0˚.07×**81˚.44E**±0˚.08, **h6**km±16km, **n8**, σ0§**78**/16, **3C-2D**, **Northern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DJR** | **Jarkent** | **1.21** | **259** | *e*P | **Pn** | **05 38 12.9** | **+0.4** |
| DJR | 21nm,0.2s | | | *e*S | **Sn** | **05 38 29.4** | **+0.3** |
| **KTMS** | 25nm,0.3s **Ketmen** | **1.38** | **215** | *e*P | **Pg** | **05 38 15.6** | **+0.2** |
| KTMS | 7.5nm,0.1s | | | *e*S | **Sg** | **05 38 34.2** | **+0.9** |
| **KAPS** | 58nm,0.2s **Kapalarasan** | **1.64** | **296** | *e*P | **Pb** | **05 38 19.8** | **+0.2** |
| KAPS | 5.8nm,0.2s | | | *e*S | **Sb** | **05 38 41.3** | **+0.7** |
| **PDGK** | 30nm,0.5s **Podgornoye** | **1.88** | **229** | ⇑Pg | **Pn** | **05 38 22.3** | **+0.5** |
| PDGK | 0.7nm,0.4s | | | ⇓Lg | Lg | 05 38 49.5 | |
| **UZB** | 24nm,0.4s **Uzynbulak** | **2.26** | **231** | *e*P | **Pb** | **05 38 30.8** | **+0.6** |
| UZB | 1.4nm,0.1s | | | *e*S | **Sg** | **05 39 00.1** | **-1.5** |
| **KPKS** | 12nm,0.2s **Kokpek** | **2.28** | **242** | *e*P | **Pb** | **05 38 29.8** | **-0.8** |
| KPKS | 6.0nm,0.1s | | | *e*S | **Sb** | **05 38 58.2** | **-0.7** |
| **MK31** | 90nm,0.5s **Makanchi Array** | **2.29** | **15** | ⇑Pn | **Pn** | **05 38 26.5** | **-0.8** |
| MK31 | 0.1nm,0.1s,baz=202,slow=14,SNR=78 | | | ⇑Pg | **Pb** | **05 38 31.3** | **+0.6** |
| MK31 | 1.4nm,0.2s,baz=192,slow=14,SNR=20 | | | Sn | **Sn** | **05 38 55.7** | **-0.2** |
| MK31 | 0.8nm,0.2s,baz=181,slow=30,SNR=5.3 | | | ⇓Lg | Lg | 05 39 02.0 | |
| **KURS** | 2.1nm,0.2s,baz=193,slow=28,SNR=7.2 **Kuram** | **2.60** | **246** | *e*P | **Pb** | **05 38 35.3** | **-0.7** |
| KURS | | | | *e*S | **Sb** | **05 39 08.0** | **-0.1** |

**MEX 17 05:50:03.1**±0.7, **18˚.21N×100˚.21W, h52**km±18km, **MD3.6, Guerrero**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ARIG** | **Puente Sto Nin** | **0.15** | **298** | *e*P | Pn | 05 50 09.8 | -1.6 |
| ARIG | | | | *e*S | Sn | 05 50 16.1 | -1.3 |
| **MEIG** | **Mezcala** | **0.63** | **117** | *e*P | Pn | 05 50 15.0 | -1.1 |
| MEIG | | | | *e*S | Sn | 05 50 24.6 | -1.0 |
| **PLIG** | **Platanillo** | **0.69** | **75** | *e*P | Pn | 05 50 16.3 | -0.7 |
| PLIG | | | | *e*S | Sn | 05 50 24.3 | -2.8 |
| **CAIG** | **El Cayaco** | **1.16** | **183** | *e*P | Pn | 05 50 20.8 | -2.2 |
| CAIG | | | | *e*S | Sn | 05 50 35.7 | -2.0 |
| **TLIG** | **Tlapa** | **1.69** | **112** | *e*P | Pn | 05 50 29.4 | -1.0 |
| TLIG | | | | *e*S | Sn | 05 50 40.3 | -11 |

*KLM* ***17*** *06:04:52.6, 4˚.29N×123˚.23E, h650km, mb4.8*
*ISCJB* ***17*** *06:04:54.6±0.2, 4˚.22N±0˚.03×122˚.93E±0˚.03, h584km±3km, mb4.6/88, Error ellipse: s-maj=5.5km s-min=3.9km az=140.8*
*NEIC* ***17*** *06:04:55.6±0.3, 4˚.23N×122˚.88E, h580km±4km, mb4.8/55, Error ellipse: s-maj=6.0km s-min=4.4km az=57.0*
*BJI* ***17*** *06:04:55.6, 4˚.20N×122˚.90E, h590km, mb4.5/24, mB4.7/15*
*IDC* ***17*** *06:04:55.5±0.7, 4˚.17N×122˚.94E, h585km±9km, mb3.5/21, mb1 3.6/22, mb1mx3.5/35, mbtmp4.5/22, Error ellipse: s-maj=12.6km s-min=6.5km az=71.0*
*DJA* ***17*** *06:04:55.5±0.2, 4˚.N±3˚×122˚.3E±˚, h566km±3km, M4.6/30, mb4.6/30, mB5.0/14, MLv5.1/13, Mw(mB)4.3/14*
**ISC 17 06:04:55.7**±0.5, **4˚.13N**±0˚.04×**122˚.88E**±0˚.05, **h585**km±5km, **n178**, σ1§**43**/201, **mb4.7**/88, **7C-2D**, **Celebes Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SGSI** | **Sangihe** | **2.68** | **99** | P | **P** | **06 06 09.5** | **-2.4** |
| **KMSI** | **Cibinong** | **3.69** | **163** | P | **P** | **06 06 18.0** | **-0.1** |
| KMSI | | | | S | **S** | **06 07 27.5** | **+2.5** |
| **MRSI** | **Marisa** | **3.74** | **195** | P | **P** | **06 06 17.9** | **-0.5** |
| MRSI | | | | S | **S** | **06 07 24.4** | **-1.2** |
| **DAV** | **Davao City (W)** | **3.97** | **42** | P | **P** | **06 06 20.3** | **+0.4** |
| | 158nm,0.3s,baz=75,slow=1.2,SNR=11 | | | | | | |
| DAV | 70nm,0.3s,baz=266,slow=22,SNR=6.3 | | | S | **S** | **06 07 25.8** | **-2.7** |
| **DAV** | **Davao City (W)** | **3.97** | **42** | *e*P | **P** | **06 06 20.3** | **+0.4** |
| DAV | | | | *e*S | **S** | **06 07 32.4** | **+3.9** |
| **MYLDM** | **Lahad Datu** | **4.49** | **284** | ⇑P | **P** | **06 06 24.8** | **+1.1** |
| **MYLDM** | **Lahad Datu** | **4.49** | **284** | *e*P | **P** | **06 06 24.3** | **+0.6** |
| **MPSI** | **Mapaga** | **4.80** | **218** | P | **P** | **06 06 25.6** | **-0.5** |
| MPSI | | | | S | **S** | **06 07 38.2** | **-1.6** |

**TSM Tawau 5.00 272** ⇑P **P 06 06 27.1 -0.6**
**LUWI Luwuk 5.13 181** P **P 06 06 27.7 -1.1**
105nm,0.7s,7μm1.3nm
LUWI S **S 06 07 39.4 -5.3**
105nm,0.7s,7μm1.3nm
**LUWI Luwuk 5.13 181** *e*P **P 06 06 27.3 -1.5**
LUWI *e*S **S 06 07 42.0 -2.7**
**APSI Ampana 5.15 194** P **P 06 06 28.3 -0.7**
145nm,0.5s,3μm
APSI S **S 06 07 43.8 -1.2**
145nm,0.5s,3μm
**TNTI Ternate 5.58 127** *e*P **P 06 06 31.2 -1.3**
**SDKM Sandakan 5.86 285** ⇑P **P 06 06 33.8 -1.2**
**LBMI Labuha 6.61 136** P **P 06 06 40.8 -0.8**
220nm,0.8s,3μm
LBMI S **S 06 08 05.8 -2.4**
220nm,0.8s,3μm
**KDM Kudat 6.63 295** ⇓P **P 06 06 41.3 -0.4**
**SANI Sanana 6.88 153** P **P 06 06 41.4 -2.6**
77nm,0.6s,2μm
SANI S **S 06 08 05.1 -7.5**
77nm,0.6s,2μm
**KKM Kota Kinabalu 6.91 286** ⇑P **P 06 06 43.8 -0.6**
**KKM Kota Kinabalu 6.91 286** *e*P **P 06 06 43.3 -1.1**
**SGKI Sangatta, Kali 7.01 229** P P 06 06 40.4 -4.9
**SMKI Samarinda 7.26 231** P **P 06 06 49.2 +1.6**
**TTSI Tana Toraja 7.75 203** P **P 06 06 53.6 +1.4**
**NLAI Namlea 8.44 150** P **P 06 07 00.9 +2.0**
**SPSI Sidrap Palu 8.62 201** P **P 06 07 00.5 -0.1**
44nm,0.7s,461nm
**BNSI Bone 8.91 198** P **P 06 07 05.3 +1.8**
109nm,0.9s,858nm
**BTM Bintulu 9.82 265** ⇑P **P 06 07 14.0 +1.5**
**SBUM Sibu 10.77 261** ⇓P **P 06 07 23.7 +1.7**
**SBUM Sibu 10.77 261** *e*P **P 06 07 22.6 +0.6**
**FAKI Fak Fak 11.69 127** P P 06 07 36.7 +5.3
**FAKI Fak Fak 11.69 127** *e*P **P 06 07 31.5 +0.1**
**KSM Kuching 12.83 259** ⇑P **P 06 07 43.5 +0.5**
**KSM Kuching 12.83 259** *e*P **P 06 07 42.9 -0.1**
**EDFI Ende, Flores 12.85 185** P **P 06 07 44.4 +1.2**
**PLAI Plampang 13.84 202** P **P 06 07 53.9 +0.6**
**JAGI Jajag, Banyuwa 15.24 215** P **P 06 08 06.0 -0.8**
**JAGI Jajag, Banyuwa 15.24 215** *e*P **P 06 08 08.0 +1.2**
88nm,0.6s
**GMJI Gumukmas 15.50 217** P **P 06 08 14.7 +5.5**
**PWJI Pagerwojo 16.36 222** P **P 06 08 18.1 +0.9**
**PCJI Pacitan 16.91 224** P **P 06 08 22.5 +0.3**
**UGM Wanagama 17.18 226** P **P 06 08 23.5 -1.1**
**UGM Wanagama 17.18 226** *e*P **P 06 08 25.3 +0.7**
452nm,1.5s
**PPBI Pangkal Pinang 17.86 250** P **P 06 08 31.7 +0.8**
**KPJI Karang Pucung 17.98 231** P **P 06 08 33.8 +1.8**
**GENI Genyem 18.52 111** P **P 06 08 38.6 +1.7**
**MTN Manton Dam 18.75 154** *e*P **P 06 08 39.3 +0.4**
56nm,0.3s
**JAY Jayapura 19.00 110** P **P 06 08 41.9 +0.6**
**CBJI Citeko 19.13 237** P **P 06 08 43.7 +1.3**
**MYKOM Kota Tinggi 19.14 264** *e*P **P 06 08 44.5 +1.9**
21nm,0.7s
**PMBI Palembang 19.41 249** P P 06 08 44.9 0.0
**RGRI Rengat 21.01 258** P P 06 09 12.0 +13
**MNAI Manna 21.62 247** *e*P **P 06 09 05.2 +0.3**
341nm,1.2s
**IPM Ipoh 21.80 272** *e*P **P 06 09 07.3 +0.8**
29nm,1.3s
**BKNI Bangkinang 22.14 261** P **P 06 09 10.1 +0.5**
**KULM Kulim 22.18 274** *e*P **P 06 09 10.0 0.0**
71nm,1.8s
**FITZ Fitzroy Crossi 22.25 173** P **P 06 09 10.7 +0.2**
3.0nm,0.4s,baz=3.9,slow=9.2,SNR=33
**KHON Khomkaen 23.14 303** P **P 06 09 18.7 +0.4**
21nm,0.7s
**PSI Prapat 23.95 268** P **P 06 09 25.5 -0.3**
12nm,0.7s,baz=79,slow=6.5,SNR=15
**PSI Prapat 23.95 268** *e*P **P 06 09 25.9 +0.1**
17nm,0.7s
**PBKT Sadao Pong 24.81 301** P **P 06 09 33.8 +0.7**
18nm,0.6s,1μm
**KCSI Kotacane, Aceh 25.06 269** P **P 06 09 34.4 -1.1**
**MBWA Marble Bar 25.32 187** *e*P **P 06 09 37.7 +0.2**
20nm,1.4s
**GSI Gunungsitoli 25.43 264** P **P 06 09 38.6 -0.1**
**GSI Gunungsitoli 25.43 264** *e*P **P 06 09 37.3 -1.4**
35nm,0.7s
**UTHA Uthaitani 25.70 298** P **P 06 09 41.0 0.0**
12nm,0.6s,152nm
**NANT Nan 26.12 306** P **P 06 09 45.5 +0.8**
14nm,0.7s,504nm
**PHRA Phrae 26.35 305** P **P 06 09 47.8 +1.1**
16nm,1.8s
**WRAB Tennant Creek 26.43 155** *e*P **P 06 09 47.4 0.0**
65nm,0.3s
**WRA Warramunga Arr 26.44 155** P **P 06 09 47.5 0.0**
24nm,0.4s,baz=336,slow=9.7,SNR=105
WRA S **S 06 13 37.8 -3.4**
2.2nm,0.5s,baz=335,slow=16,SNR=2.1
WRA ScP **ScP 06 15 37.9 -0.2**
2.1nm,0.5s,baz=344,slow=3.2,SNR=8.3
**WB2 Warramunga Arr 26.44 155** *e*P **P 06 09 47.6 +0.1**
67nm,0.3s
**COEN Coen 26.98 132** *e*P **P 06 09 51.8 -0.6**
28nm,1.6s
**GYA Guiyang 27.10 327** ⇑*i*P **P 06 09 53.8 +0.5**
GYA sP sP 06 12 35.0 +0.5
GYA PcP **PcP 06 12 55.6 +1.1**
GYA S **S 06 13 53.3 +1.8**
GYA ScP **ScP 06 15 41.0 +0.9**
GYA ScS **ScS 06 19 31.4 -1.4**
GYA pmax pmax
comp=Z,10.0nm,0.8s
**CMAR Chiang Mai Arr 27.40 303** P **P 06 09 56.3 +0.4**
2.8nm,0.4s,baz=123,slow=6.9,SNR=20
**CMMT Chiang Mai 27.57 304** P **P 06 09 57.6 +0.2**
22nm,0.8s
**CHTO Chiang Mai 27.57 304** P **P 06 09 57.7 +0.3**
97nm,0.8s
**CHTO Chiang Mai 27.57 304** *e*P **P 06 09 57.7 +0.3**
16nm,0.9s
**PMG Port Moresby 27.68 119** P **P 06 09 58.3 -0.1**
9.9nm,0.5s,baz=301,slow=5.9,SNR=5.1
**NJ2 Nanjing 28.04 353** *e*P **P 06 10 00.5 -0.7**
NJ2 pmax pmax
comp=Z,15nm,0.6s
**KMI Kunming 28.47 319** P **P 06 10 07.4 +2.0**
KMI pmax pmax
comp=Z,10.0nm,0.9s
**CBIJ Chichi jima 29.36 37** *e*P **P 06 10 11.1 -1.7**
516nm,1.5s
**AS31 Alice Springs 29.64 159** *e*P **P 06 10 16.2 +0.9**
8.0nm,0.7s
**ASAR Alice Springs 29.64 159** P **P 06 10 16.1 +0.8**
14nm,0.3s,baz=340,slow=7.0,SNR=274
ASAR PcP **PcP 06 13 00.9 0.0**
0.9nm,0.4s,baz=346,slow=2.6,SNR=4.4
ASAR S **S 06 14 30.1 -0.7**
5.0nm,0.8s,baz=332,slow=12,SNR=18
ASAR ScP **ScP 06 15 47.9 -0.2**
3.4nm,0.5s,baz=343,slow=3.0,SNR=20
**AS01 Alice Springs 29.66 159** *e*P **P 06 10 16.0 +0.6**
**JNU Nakatsue 29.80 14** *e*P **P 06 10 16.3 -0.3**
11nm,1.1s
**CD2 Chengdu 32.16 328** *e*P **P 06 10 36.9 +0.1**
CD2 pmax pmax
comp=Z,20nm,0.9s
**CTAO Charters Tower 33.26 137** *e*P **P 06 10 47.8 +1.6**
50nm,1.5s
**KSRS Korea Array 33.49 7** P **P 06 10 47.2 -0.6**
1.5nm,0.5s,baz=182,slow=9.6,SNR=4.9
**FORT Forrest 35.06 172** *e*P **P 06 11 02.2 +1.2**
448nm,0.6s
**MAT Matsushiro 35.21 22** P **P 06 11 00.1 -2.1**
**MJAR Matsushiro Arr 35.21 22** P **P 06 11 00.3 -1.9**
3.9nm,0.5s,baz=188,slow=9.2,SNR=10
**LZH Lanzhou 36.33 334** *e*P **P 06 11 12.5 +0.9**
LZH sP sP 06 13 54.6 -2.0
LZH pmax pmax
comp=Z,17nm,1.0s
**NWAO Narrogin (SRO) 37.24 188** *e*P **P 06 11 19.9 +1.0**
39nm,1.5s
**HHC Hu-ho-hao-te 37.95 346** *e*P **P 06 11 24.1 -0.6**
HHC S **S 06 16 36.6 +0.8**
**BBOO Buckleboo 38.80 162** *e*P **P 06 11 32.6 +1.1**
106nm,1.8s
**STKA Stephens Creek 39.99 155** P **P 06 11 42.1 +1.0**
11nm,0.4s,baz=330,slow=8.8,SNR=39

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| STKA | **Stephens Creek** 3.0nm,0.8s | 39.99 | 155 | *e*P | | P | 06 11 42.5 | +1.5 |
| EIDS | **Eidsvold** 14nm,1.0s | 40.11 | 138 | *e*P | | P | 06 11 42.9 | +0.7 |
| USRK | **Ussuriysk Ar.** 3.8nm,0.7s,baz=186,slow=6.3,SNR=6.2 | 40.71 | 10 | P | | P | 06 11 46.3 | -0.3 |
| ODAN | **Odare** 9.0nm,0.3s | 40.74 | 307 | *e*P | | P | 06 11 47.5 | 0.0 |
| GTA | **Gaotai** | 40.88 | 332 | *e*P | | P | 06 11 48.6 | +0.4 |
| GTA | | | | pP | PcP | | 06 13 32.5 | -1.9 |
| GTA | | | | sP | sP | | 06 14 36.4 | +1.0 |
| GTA | comp=Z,11nm,0.5s | | | pmax | pmax | | | |
| RAMN | **Ramite** 44nm,0.8s | 41.41 | 307 | *e*P | | P | 06 11 53.1 | +0.3 |
| JIRN | **Jiri** | 42.06 | 308 | *e*P | | P | 06 11 58.1 | +0.1 |
| GUN | **Gumba** 57nm,0.4s | 42.42 | 308 | *e*P | | P | 06 12 00.8 | 0.0 |
| PKI | **Pulchoki** 12nm,0.5s | 42.64 | 307 | *e*P | | P | 06 12 02.1 | -0.4 |
| PKIN | **Phulchoki** 11nm,0.3s | 42.65 | 307 | *e*P | | P | 06 12 01.9 | -0.6 |
| KKN | **Kakani** 20nm,0.4s | 42.84 | 307 | *e*P | | P | 06 12 03.7 | -0.2 |
| DMN | **Daman** 30nm,0.7s | 42.90 | 307 | *e*P | | P | 06 12 04.3 | -0.1 |
| ASAJ | **Asahikawa** 7.3nm,0.4s,baz=202,slow=8.4,SNR=7.2 | 43.46 | 21 | P | | P | 06 12 07.7 | -0.4 |
| ASAJ | **Asahikawa** 14nm,0.8s | 43.46 | 21 | *e*P | | P | 06 12 07.9 | -0.2 |
| ARMA | **Armidale** 16nm,0.8s | 43.99 | 143 | *e*P | | P | 06 12 15.6 | +3.0 |
| KOLN | **Koldanda** 43nm,0.4s | 44.17 | 306 | *e*P | | P | 06 12 14.5 | +0.3 |
| DANN | **Dangsing** | 44.29 | 307 | *e*P | | P | 06 12 15.3 | +0.1 |
| PYUN | **Piuthan** 68nm,0.5s | 44.80 | 306 | *e*P | | P | 06 12 19.4 | +0.4 |
| SONM | **Songino Array** 1.9nm,0.7s,baz=157,slow=9.2,SNR=14 | 45.80 | 345 | P | | ScP | 06 12 25.9 | -0.2 |
| SONM | 0.8nm,0.6s,baz=163,slow=5.5,SNR=4.6 | | | ScP | | ScP | 06 16 48.4 | -0.7 |
| SONA1 | **Songino Array** | 45.80 | 345 | *e*P | | P | 06 12 26.1 | -0.1 |
| CAN | **Canberra** 28nm,0.6s | 46.27 | 150 | *e*P | | P | 06 12 32.3 | +2.5 |
| DZM | **Mont Dzumac** 33nm,1.3s | 49.93 | 123 | *e*P | | P | 06 12 58.9 | +1.6 |
| WMQ | **Urumqi** | 50.26 | 327 | P | | P | 06 13 00.1 | +0.8 |
| WMQ | | | | pP | pP | | 06 14 47.6 | +0.6 |
| WMQ | | | | sP | sP | | 06 15 49.8 | -1.2 |
| WMQ | comp=Z,20nm,0.7s | | | pmax | pmax | | | |
| WMQ | comp=Z,260nm,6.5s | | | pmax | pmax | | | |
| MK01 | **Makanchi Array** | 55.07 | 327 | *e*P | | P | 06 13 33.2 | -0.2 |
| KSH | **Kashi** | 55.08 | 316 | P | | P | 06 13 35.3 | +1.5 |
| KSH | | | | PcP | PcP | | 06 14 27.4 | +1.2 |
| KSH | | | | pP | pP | | 06 15 29.4 | +4.8 |
| KSH | | | | PP | PP | | 06 15 50.4 | +4.3 |
| KSH | | | | S | S | | 06 20 28.9 | -4.3 |
| KSH | comp=Z,4.0nm,0.6s | | | pmax | pmax | | | |
| KSH | comp=Z,72nm,5.6s | | | pmax | pmax | | | |
| MK31 | **Makanchi Array** | 55.09 | 327 | *e*P | | P | 06 13 33.5 | 0.0 |
| MKAR | **Makanchi Array** 7.9nm,0.3s,baz=123,slow=7.7,SNR=227 | 55.09 | 327 | P | | P | 06 13 33.5 | 0.0 |
| MKAR | 2.6nm,0.6s,baz=136,slow=3.4,SNR=9.2 | | | PcP | | PcP | 06 14 25.4 | -0.5 |
| MKAR | 1.6nm,0.7s,baz=124,slow=5.1,SNR=7.4 | | | ScP | | ScP | 06 17 27.9 | -1.2 |
| PEA0B | **Petropavlovsk-** 216nm,1.9s | 56.59 | 24 | *e*P | | P | 06 13 43.9 | +0.1 |
| PETK | **Petropavlovsk-** 7.7nm,0.9s,baz=201,slow=5.0,SNR=12 | 56.59 | 24 | P | | P | 06 13 43.8 | +0.1 |
| PETK | **Petropavlovsk-** | 56.59 | 24 | *e*P | | P | 06 13 44.0 | +0.2 |
| AAK | **Ala-Archa** 7.4nm,1.4s | 57.52 | 319 | *e*P | | P | 06 13 51.2 | +0.7 |
| KBL | **Kabul** 12nm,0.8s | 58.25 | 308 | *e*P | | P | 06 13 55.0 | -0.7 |
| ZAA0 | **Zalesovo Array** 4.8nm,1.2s | 58.54 | 335 | *e*P | | P | 06 13 56.0 | -1.0 |
| ZALV | **Zalesovo Beam** 2.1nm,0.4s,baz=130,slow=5.2,SNR=14 | 58.54 | 335 | P | | P | 06 13 55.6 | -1.4 |
| ZALV | **Zalesovo Beam** | 58.54 | 335 | *e*P | | P | 06 13 55.9 | -1.0 |
| KURK | **Kurchatov** 16nm,0.6s | 59.38 | 329 | *e*P | | P | 06 14 02.3 | -0.3 |
| WKZ | **Wanaka** 74nm,1.4s | 63.79 | 145 | *e*P | | P | 06 14 32.1 | +0.6 |
| WHZ | **Wether Hill Ro** 83nm,1.7s | 63.84 | 147 | *e*P | | P | 06 14 32.4 | +0.7 |
| LBZ | **Lake Benmore** 48nm,1.4s | 64.21 | 144 | *e*P | | P | 06 14 35.1 | +1.1 |
| RPZ | **Rata Peaks** 120nm,1.8s | 64.33 | 143 | *e*P | | P | 06 14 36.2 | +1.3 |
| THZ | **Tophouse** 155nm,1.7s | 64.41 | 141 | *e*P | | P | 06 14 36.2 | +0.8 |
| LTZ | **Lake Taylor** 142nm,1.7s | 64.56 | 142 | *e*P | | P | 06 14 38.6 | +2.2 |
| BRVK | **Borovoye** 5.2nm,0.8s | 65.00 | 328 | *e*P | | P | 06 14 38.3 | -0.5 |
| SNZO | **South Karori** 468nm,1.6s | 65.33 | 139 | *e*P | | P | 06 14 41.0 | -0.2 |
| BKZ | **Black Stump Fm** 92nm,1.6s | 65.48 | 137 | *e*P | | P | 06 14 43.0 | +0.8 |
| URZ | **Urewera** 159nm,1.5s | 65.49 | 135 | *e*P | | P | 06 14 44.0 | +1.8 |
| GEYT | **Alibeck** 4.4nm,0.8s,baz=108,slow=4.7,SNR=8.5 | 67.66 | 309 | P | | P | 06 14 56.0 | +0.2 |
| ARU | **Arti** 5.2nm,0.7s | 72.57 | 328 | *e*P | | P | 06 15 23.5 | -0.7 |
| RAYN | **Ar Rayn** 8.4nm,1.0s | 76.80 | 293 | *e*P | | P | 06 15 48.0 | -0.7 |
| FALS | **False Pass** 628nm,1.8s | 77.28 | 35 | *e*P | | P | 06 15 52.5 | +1.9 |
| ABPO | **Ambohimpanom** 22nm,1.5s | 77.84 | 250 | *e*P | | P | 06 15 55.9 | +1.4 |
| IMAR | **Indian Mountai** | 83.55 | 24 | *e*P | | P | 06 16 23.3 | +0.5 |
| VNDA | **Vanda** 0.4nm,0.5s,baz=318,slow=5.7,SNR=6.2 | 84.32 | 172 | P | | P | 06 16 27.1 | +0.8 |
| VNDA | **Vanda** 9.3nm,1.5s | 84.32 | 172 | *e*P | | P | 06 16 27.2 | +0.8 |
| BRLK | **Bradley Lake** 249nm,2.0s | 84.56 | 30 | *e*P | | P | 06 16 27.8 | -0.1 |
| BPAW | **Bear Paw Mtn.** 15nm,0.8s | 84.62 | 26 | *e*P | | P | 06 16 28.1 | 0.0 |
| MLY | **Manley** 23nm,1.6s | 84.75 | 25 | *e*P | | P | 06 16 28.9 | 0.0 |
| COLD | **Coldfoot** 11nm,1.0s | 85.03 | 23 | *e*P | | P | 06 16 31.0 | +0.9 |
| MCK | **McKinley** 11nm,0.9s | 85.52 | 26 | *e*P | | P | 06 16 32.2 | -0.3 |
| RND | **Reindeer** 21nm,0.8s | 85.56 | 27 | *e*P | | P | 06 16 31.9 | -0.8 |
| KMBO | **Kilima Mbogo** 2.3nm,0.7s,baz=56,slow=6.8,SNR=7.0 | 85.72 | 269 | P | | P | 06 16 34.8 | 0.0 |
| SML | **Sawmill** 15nm,0.8s | 85.82 | 28 | *e*P | | P | 06 16 33.2 | -0.7 |
| CCB | **Clear Creek Bu** 7.1nm,0.8s | 86.01 | 26 | *e*P | | P | 06 16 33.7 | -1.0 |
| DHY | **Denali Highway** 29nm,1.7s | 86.24 | 27 | *e*P | | P | 06 16 35.7 | -0.4 |
| SCM | **Sheep Creek Mo** 95nm,1.8s | 86.29 | 28 | *e*P | | P | 06 16 35.6 | -0.7 |
| HDA | **Harding Lake** 28nm,1.5s | 86.38 | 26 | *e*P | | P | 06 16 35.9 | -0.7 |
| IL1 | **Eielson Array** | 86.40 | 25 | *e*P | | P | 06 16 35.1 | -1.5 |
| ILAR | **Eielson Array** 0.5nm,0.5s,baz=263,slow=4.8,SNR=18 | 86.40 | 25 | P | | P | 06 16 35.2 | -1.4 |
| ILB | **Eielson Array** | 86.40 | 25 | *e*P | | P | 06 16 35.5 | -1.1 |
| BRTR | **Keskin Array B** 0.8nm,0.8s,baz=116,slow=6.6,SNR=3.5 | 86.81 | 309 | P | | P | 06 16 37.5 | -1.8 |
| KLU | **Klutina** 18nm,0.9s | 86.98 | 29 | *e*P | | P | 06 16 39.4 | -0.1 |
| AKASG | **Malin Array Be** 1.3nm,0.6s,baz=69,slow=4.9,SNR=5.6 | 89.16 | 321 | P | | P | 06 16 47.5 | -2.2 |
| SPA0 | **Spitsbergen Ar** | 89.34 | 349 | *e*P | | P | 06 16 49.3 | -0.8 |
| FIA1 | **FINESS Array S** 48nm,1.4s | 89.66 | 332 | *e*P | | P | 06 16 50.5 | -1.3 |
| FINES | **FINESS Array B** 1.7nm,0.6s,baz=49,slow=6.3,SNR=14 | 89.66 | 332 | P | | P | 06 16 50.3 | -1.6 |
| BUR04 | **Bucovina Ar. S** | 92.14 | 318 | *e*P | | P | 06 17 03.5 | -0.3 |
| O20A | **White River Ci** | 115.73 | 41 | *e*PKPdf | | PKPdf | 06 22 34.1 | +1.0 |
| SMCO | **Snowmass** | 117.06 | 42 | *e*PKPdf | | PKPdf | 06 22 36.1 | +0.2 |
| TOA0 | **Torodi Ar. Sit** | 119.14 | 287 | *e*PKPdf | | PKPdf | 06 22 39.3 | -0.7 |
| TORD | **Torodi Ar. Bea** 1.6nm,0.7s,baz=63,slow=1.6,SNR=5.1 | 119.14 | 287 | PKP | | PKPdf | 06 22 39.4 | -0.6 |
| HGTCO | **Madrid Canyon** | 119.69 | 43 | *e*PKPdf | | PKPdf | 06 22 39.1 | -1.7 |
| TRQA | **Tornquist** | 145.94 | 173 | *e*PKPbc | | PKPbc | 06 23 31.4 | +0.3 |
| GO05 | **HualaæØ** | 146.34 | 158 | *e*PKPbc | | PKPab | 06 23 33.6 | -1.2 |
| GRTK | **Grand Turk** | 151.06 | 28 | *e*PKPbc | | PKPbc | 06 23 42.1 | -2.2 |

*MOS* ***17*** *06:06:08.5±0.9, 18°.07N×67°.36W, h11km, mb5.1/91, Error ellipse: s-maj=5.9km s-min=4.5km az=119.9*

*ISCJB* ***17*** *06:06:10.6±0.3, 18°.03N±0°.02×67°.39W±0°.01, h27km±2km, mb5.0/338, MS5.0/3, Error ellipse: s-maj=3.3km s-min=1.8km az=22.0*

*TRN* ***17*** *06:06:10.1, 17°.76N×67°.28W, h3km*

*BJI* ***17*** *06:06:11.1, 18°.20N×67°.40W, h14km, mB5.6/7, Ms5.4/10, Ms7 5.1/10*

*IDC* ***17*** *06:06:11.7±2.1, 18°.11N×67°.34W, h24km±13km, mb4.6/28, mb1 4.7/31, mb1mx4.7/41, mbtmp4.7/31, ML3.7/3, Error ellipse: s-maj=11.9km s-min=9.5km az=91.0*

*GCMT* ***17*** *06:06:12.1±0.3, 18°.23N×67°.27W, h23km±1km, MW5.2/82, Moment Tensor Solution. s49,c64; s82,c110; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr-3.50±.24; Mθθ4.10±.18; Mϕϕ-0.60±.17; Mrθ-4.55±.37; Mrϕ-1.98±.15; Mθϕ-2.42±.30; Best double couple: M₀6.69200×10¹⁶ NP1:ϕs77.00000°,δ73.00000°,λ-117.00000°. NP2: ϕs317.00000°,δ32.00000°,λ-34.00000°. Principal axes: T 6.3240, Plg23.0000°, Azm188.0000°; N 0.7340, Plg26.0000°, Azm86.0000°; P -7.0600, Plg54.0000°, Azm313.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*RSPR* ***17*** *06:06:12.3, 18°.19N×67°.37W, h14km±2km*

*NEIC* ***17*** *06:06:12.1±0.0, 18°.19N×67°.37W, h14km, mb5.1/287, MD5.1(RSPR), After RSPR.*

*NEIC Felt [V] at Hormigueros; [IV] at Anasco and Camuy; [III] at Lajas, Moca and Ponce. Felt in much of western Puerto Rico. Also felt at Higuey, Dominican Republic.*

**ISC 17 06:06:11.0±0.5, 18°.03N±0°.04×67°.40W±0°.02, h15km±3km, h16km:pP-P,n1172,σ0°.91/1186, mb5.1/338, MS5.0/4, 45C-23D, Mona Passage**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| CRPR | **Cabo Rojo, PR** | 0.28 | 95 | | *e*P | | Pb | 06 06 18.6 | +1.0 |
| CRPR | **Cabo Rojo, PR** | 0.28 | 95 | | *e*P | | Pb | 06 06 18.6 | +1.0 |
| MPR | **Mayaguez** | 0.31 | 54 | | *e*P | | Pg | 06 06 17.0 | -0.5 |
| MPR | **Mayaguez** | 0.31 | 54 | | *e*P | | Pg | 06 06 17.0 | -0.5 |
| LSP | **Las Mesas** | 0.33 | 64 | | *e*P | | Pg | 06 06 17.8 | -0.2 |
| LSP | **Las Mesas** | 0.33 | 64 | | *e*P | | Pg | 06 06 17.8 | -0.2 |
| IDE | **Isla Desecheo** | 0.36 | 349 | | *i*P | | Pg | 06 06 17.3 | -1.1 |
| IDE | **Isla Desecheo** | 0.36 | 349 | | *i*P | | Pg | 06 06 17.3 | -1.1 |
| AGP | **Aguadilla** | 0.45 | 33 | | *e*Pg | | Pg | 06 06 19.3 | -0.7 |
| GBPR | **Guanica, Bosqu** | 0.50 | 96 | | *e*P | | Pb | 06 06 21.5 | +0.1 |
| GBPR | **Guanica, Bosqu** | 0.50 | 96 | | *e*P | | Pb | 06 06 21.5 | +0.1 |
| IMPR | **Mona Island, P** | 0.51 | 275 | | *e*P | | Pb | 06 06 21.7 | +0.1 |
| AGPR | **Aguadilla, PR** | 0.52 | 32 | | *e*P | | Pg | 06 06 19.4 | -1.9 |
| AGPR | **Aguadilla, PR** | 0.52 | 32 | | *e*P | | Pg | 06 06 19.4 | -1.9 |
| AOPR | **Arecibo Observ** | 0.69 | 63 | | *e*P | | Pg | 06 06 22.8 | -1.8 |
| AOPR | **Arecibo Observ** | 0.69 | 63 | | *e*P | | Pg | 06 06 22.8 | -1.8 |
| OBIP | **Obispado Ponce** | 0.76 | 89 | | *e*P | | Pg | 06 06 24.8 | -1.0 |
| OBIP | **Obispado Ponce** | 0.76 | 89 | | *e*P | | Pg | 06 06 24.8 | -1.0 |
| CELP | **Cerrillos** | 0.78 | 87 | | *e*P | | Pg | 06 06 25.1 | -1.2 |
| CELP | **Cerrillos** | 0.78 | 87 | | *e*P | | Pg | 06 06 25.1 | -1.2 |
| ICMP | **Isla Caja de M** | 0.84 | 100 | | *i*P | | Pb | 06 06 27.3 | 0.0 |
| ICMP | **Isla Caja de M** | 0.84 | 100 | | *i*P | | Pb | 06 06 27.3 | 0.0 |
| SJG | **San Juan** 1μm,0.3s,baz=274,slow=13,SNR=496 | 1.19 | 86 | Pg | | | Pn | 06 06 32.3 | -0.8 |
| SJG | 12μm,0.3s,baz=69,slow=17,SNR=44 | | | Lg | | | Lg | 06 06 48.3 | |
| SJG | **San Juan** | 1.19 | 86 | | *e*P | | Pn | 06 06 32.8 | -0.3 |
| SJG | **San Juan** | 1.19 | 86 | | *e*P | | Pn | 06 06 32.8 | -0.3 |
| SJG | | | | | | | | 06 06 48.3 | |
| SJG | **San Juan** | 1.19 | 86 | | *e*P | | Pn | 06 06 31.2 | -1.9 |
| SJG | **San Juan** | 1.19 | 86 | | *e*P | | Pn | 06 06 32.8 | -0.3 |
| SJG | | | | Lg | | | Lg | 06 06 48.3 | |
| HUMP | **Col San Antoni** | 1.48 | 85 | | *i*P | | Pn | 06 06 36.3 | -0.7 |
| HUMP | **Col San Antoni** | 1.48 | 85 | | *i*P | | Pn | 06 06 36.3 | -0.7 |
| CBYP | **Canovanas** | 1.49 | 80 | | *e*P | | Pn | 06 06 36.7 | -0.5 |
| CBYP | **Canovanas** | 1.49 | 80 | | *e*P | | Pn | 06 06 36.7 | -0.5 |
| MTP | **Monte Pirata** | 1.76 | 88 | | *e*P | | Pn | 06 06 41.2 | +0.3 |
| MTP | **Monte Pirata** | 1.76 | 88 | | *e*P | | Pn | 06 06 41.2 | +0.3 |
| DR12 | **Loma Pena Alta** | 2.03 | 292 | | *e*P | | Pn | 06 06 42.9 | -1.8 |
| DR12 | **Loma Pena Alta** | 2.03 | 292 | | *e*P | | Pn | 06 06 42.9 | -1.8 |
| STVI | **Saint Thomas** | 2.35 | 82 | | *e*P | | Pn | 06 06 49.0 | 0.0 |
| STVI | **Saint Thomas** | 2.35 | 82 | | *e*P | | Pn | 06 06 49.0 | 0.0 |
| SDD | **Santo Domingo** | 2.43 | 281 | | *e*Pn | | Pn | 06 06 51.4 | +1.4 |
| TBVI | **Tortola** | 2.67 | 81 | | *i*P | | Pn | 06 06 52.6 | -0.9 |
| TBVI | **Tortola** | 2.67 | 81 | | *e*P | | Pn | 06 06 52.6 | -0.9 |
| BANI | **BANI** | 2.83 | 278 | | *e*Pn | | Pb | 06 07 00.7 | -0.7 |
| BANI | | | | | *e*Sn | | Sg | 06 07 42.8 | +0.6 |
| ABV | **Anegada** | 3.00 | 76 | | *i*P | | Pn | 06 06 57.0 | -0.9 |
| ABVI | **Anegada Island** | 3.00 | 76 | | *e*P | | Pn | 06 06 57.0 | -0.9 |
| SDDR | **Presa de Saban** | 3.81 | 285 | | *e*Pn | | Pn | 06 07 12.4 | +3.2 |
| SABA | **Saba** | 3.98 | 95 | | *i*P | | Pn | 06 07 13.8 | +2.3 |
| SABA | **Saba** | 3.98 | 95 | | *i*P | | Pn | 06 07 13.8 | +2.3 |
| SABA | **Saba** | 3.98 | 95 | | *e*P | | Pn | 06 07 12.9 | +1.4 |
| SABA | **Saba** | 3.98 | 95 | | *e*S | | Sn | 06 07 59.3 | +1.4 |
| SMRT | **St. Maarten** | 4.12 | 89 | | *e*P | | Pn | 06 07 14.4 | +1.0 |
| SMRT | **St. Maarten** | 4.12 | 89 | | *e*P | | Pn | 06 07 14.4 | +1.0 |
| SMRT | **St. Maarten** | 4.12 | 89 | | *e*P | | Pn | 06 07 14.4 | +1.0 |
| SMRT | **St. Maarten** | 4.12 | 89 | | *e*S | | Sn | 06 08 03.5 | +2.2 |
| SEUS | **St. Eustatius** | 4.25 | 97 | | *e*P | | Pn | 06 07 16.8 | +1.7 |
| GRTK | **Grand Turk** | 4.93 | 315 | | *e*Pn | | Pn | 06 07 24.0 | -0.6 |
| LGNH | **LØogne** | 4.97 | 276 | | *e*Pn | | Pn | 06 07 28.4 | +3.3 |
| MLYT | **Lee's Yard** | 5.14 | 104 | | *e*P | | Pn | 06 07 28.7 | +1.2 |
| MLYT | **Lee's Yard** | 5.14 | 104 | | *e*S | | Sn | 06 08 26.4 | -0.2 |
| ANWB | **Willy Bob** | 5.36 | 93 | | *e*Pn | | Pn | 06 07 33.0 | +2.6 |
| ANWB | **Willy Bob** | 5.36 | 93 | | *e*P | | Pn | 06 07 32.8 | +2.3 |
| ANWB | **Willy Bob** | 5.36 | 93 | | *e*S | | Sn | 06 08 34.0 | +2.0 |
| BPA | **Boggy Peak** | 5.38 | 100 | | *e*P | | Pn | 06 07 33.2 | +2.5 |
| BPA | **Boggy Peak** | 5.38 | 100 | | *e*S | | Sn | 06 08 31.9 | -0.5 |
| GDHS | **Morne Mazeau,** | 5.66 | 107 | | *e*Pn | | Pn | 06 07 34.5 | -0.2 |
| GDHS | | | | | *e*Sn | | Sn | 06 08 40.1 | +0.6 |
| TBG | **Guadaloupe-3** | 5.92 | 111 | | *e*P | | Pn | 06 07 38.6 | +0.5 |
| BBL | **Barber's Block** | 6.20 | 113 | | *e*P | | Pn | 06 07 42.4 | +0.3 |
| MDPV | **Dominica, Penn** | 6.20 | 112 | | *e*P | | Pn | 06 07 43.1 | +1.0 |
| MDPV | **Dominica, Penn** | 6.20 | 112 | | *e* | | Sn | 06 08 52.1 | -0.6 |
| MDPV | **Dominica, Penn** | 6.20 | 112 | | *e* | | Sn | 06 08 52.2 | -0.6 |
| MDVC | **Dominica, Viel** | 6.22 | 112 | | *e*P | | Pn | 06 07 42.7 | +0.4 |
| MDVC | **Dominica, Viel** | 6.22 | 112 | | *e* | | Sn | 06 08 49.5 | -3.7 |
| MDVC | **Dominica, Viel** | 6.22 | 112 | | *e* | | Sn | 06 08 49.5 | -3.7 |
| MDMP | **Dominica, Moor** | 6.22 | 112 | | *e*P | | Pn | 06 07 43.4 | +1.0 |
| MDMP | **Dominica, Moor** | 6.22 | 112 | | *e* | | Sn | 06 08 50.3 | -3.0 |
| MDMP | **Dominica, Moor** | 6.22 | 112 | | *e* | | Sn | 06 08 50.3 | -3.0 |
| DEG | **La Desirade** | 6.30 | 105 | | *e*P | | Pn | 06 07 44.7 | +1.3 |
| DBCT | **Belle View Cho** | 6.42 | 114 | | *e*P | | Pn | 06 07 44.5 | -0.6 |
| DSHT | **Scott's Head** | 6.42 | 115 | | *e*P | | Pn | 06 07 46.1 | +1.1 |
| FDF | **Fort de France** | 6.84 | 118 | | *e*P | | Pn | 06 07 50.6 | -0.2 |
| FDF | **Fort de France** | 6.84 | 118 | | *e*Pn | | Pn | 06 07 50.6 | -0.2 |
| FDF | **Fort de France** | 6.84 | 118 | | *e*P | | Pn | 06 07 51.4 | +0.6 |
| FDF | **Fort de France** | 6.84 | 118 | | *e* | | Sn | 06 09 04.8 | -3.6 |
| GTBY | **Guantanamo Bay** | 7.54 | 286 | | *e*Pn | | Pn | 06 08 01.4 | +1.0 |
| MCLT | **Moule a Chique** | 7.55 | 124 | | *e*P | | Pn | 06 08 00.9 | +0.2 |
| MCLT | **Moule a Chique** | 7.55 | 124 | | *e* | | Sn | 06 09 25.3 | -0.7 |
| MCLT | **Moule a Chique** | 7.55 | 124 | | *e* | | Sn | 06 09 26.1 | 0.0 |
| SVB | **Belmont** | 7.58 | 128 | | *e*Pn | | Pn | 06 08 01.1 | +0.1 |
| SVB | **Belmont** | 7.58 | 128 | | *e*P | | Pn | 06 08 00.8 | -0.1 |
| SVB | **Belmont** | 7.58 | 128 | | *e*S | | Sn | 06 09 21.7 | -5.0 |
| FCV | **Fort Charlotte** | 7.66 | 128 | | *e*P | | Pn | 06 08 02.5 | +0.4 |
| SVCV | **St. Vincent, C** | 7.66 | 127 | | *e*P | | Pn | 06 08 02.4 | +0.3 |
| SVCV | **St. Vincent, C** | 7.66 | 127 | | *e* | | Sn | 06 09 26.7 | -1.9 |
| SVCV | **St. Vincent, C** | 7.66 | 127 | | *e* | | Sn | 06 09 27.4 | -1.3 |
| URIC | **Uribia, Colomb** | 7.70 | 216 | | *e*P | | Pn | 06 08 01.7 | -0.9 |
| GRGR | **Grenville** | 8.07 | 136 | | *e*Pn | | Pn | 06 08 08.9 | +1.2 |
| GRGR | **Grenville** | 8.07 | 136 | | *e*P | | Pn | 06 08 08.5 | +0.8 |
| GRGR | **Grenville** | 8.07 | 136 | | *e*S | | Sn | 06 09 34.0 | -4.8 |
| PCRV | **Puerto La Cruz** 8.3nm,0.3s,baz=341,slow=0.5,SNR=29 | 8.25 | 161 | P | | | Pn | 06 08 11.2 | +1.0 |
| PCRV | 2.8nm,0.3s,baz=186,slow=18,SNR=3.0 | | | Sn | | | Sn | 06 09 40.3 | -3.0 |
| BBGH | **Gun Hill** | 8.98 | 122 | | *e*Pn | | Pn | 06 08 22.7 | +2.5 |
| BBGH | **Gun Hill** | 8.98 | 122 | | *e*P | | Pn | 06 08 21.4 | +1.1 |
| BBSP | **Saint Philip** | 9.09 | 121 | | *e* | | Pn | 06 08 24.3 | +2.7 |
| TRN | **Trinidad (W)** | 9.36 | 141 | | *e*P | | Pn | 06 08 25.4 | 0.0 |
| TOSP | **Speyside** | 9.43 | 134 | | *e*P | | Pn | 06 08 27.4 | +1.1 |
| TPP | **Pointe-a-Pierr** | 9.59 | 142 | | *e*P | | Pn | 06 08 28.9 | +0.3 |
| SDV | **Santo Domingo** 7.1nm,0.3s,baz=15,slow=16,SNR=40 | 9.62 | 199 | Pn | | | Pn | 06 08 30.3 | +1.2 |
| SDV | **Santo Domingo** | 9.62 | 199 | | *e*P | | Pn | 06 08 30.7 | +1.6 |
| SDV | **Santo Domingo** | 9.62 | 199 | | *e*Pn | | Pn | 06 08 31.1 | +2.0 |
| MTDJ | **Mount Denham** | 9.64 | 273 | | *e*Pn | | Pn | 06 08 31.5 | +2.2 |
| CODC | **Agust`›n Codaz** | 9.96 | 217 | | *e*P | | Pn | 06 08 31.0 | -2.6 |
| PAMC | **Pamplona, Colo** | 11.81 | 207 | | *e*P | | Pn | 06 09 00.2 | +0.8 |
| MOTC | **Monteria, Cord** | 12.21 | 222 | | *e*P | | Pn | 06 09 03.4 | -1.1 |
| BRRC | **Barranca, Sant** | 12.48 | 210 | | *e*P | | Pn | 06 09 07.6 | -0.5 |
| BARC | **Barichara** | 12.69 | 207 | | *e*P | | Pn | 06 09 11.2 | 0.0 |
| RUSC | **La Rusia** | 13.28 | 205 | | *e*Pn | | Pn | 06 09 19.3 | -0.2 |
| HELC | **Santa Helena** | 14.19 | 215 | | *e*P | | Pn | 06 09 30.8 | -1.1 |
| HELC | **Santa Helena** | 14.19 | 215 | | *e*Pn | | Pn | 06 09 31.6 | -0.2 |
| BBSR | **BB Station** | 14.49 | 9 | | *e*Pn | | Pn | 06 09 33.3 | -2.2 |
| CHIC | **Chingaza** | 14.69 | 206 | | *e*P | | Pn | 06 09 38.0 | -0.8 |
| ROSC | **El Rosal** 1.7nm,0.3s,baz=23,slow=13,SNR=22 | 14.75 | 208 | Pn | | | Pn | 06 09 40.6 | +1.0 |
| ROSC | **El Rosal** | 14.75 | 208 | | *e*P | | Pn | 06 09 40.4 | +0.8 |
| ROSC | **El Rosal** | 14.75 | 208 | | *e*Pn | | Pn | 06 09 41.0 | +1.4 |
| GUYC | **Guyana, Colomb** | 14.93 | 212 | | *e*P | | Pn | 06 09 40.9 | -1.3 |
| PRAC | **Prado** | 16.00 | 208 | | *e*P | | Pn | 06 09 55.8 | +0.1 |
| PRAC | **Prado** 52nm,0.7s | 16.00 | 208 | | *e*Pn | | Pn | 06 09 56.2 | +0.4 |
| HDC | **Heredia** 52nm,0.7s | 18.06 | 246 | | *e*Pn | | P | 06 10 25.4 | +3.4 |
| JTS | **JuntasAbangare** | 18.66 | 248 | | *e*P | | Pn | 06 10 29.9 | +1.0 |
| JTS | comp=Z,72nm,1.0s | | | pmax | pmax | | | | |
| JTS | **JuntasAbangare** comp=Z,72nm,1.0s | 18.66 | 248 | | *e*P | | Pn | 06 10 29.9 | +1.0 |
| CSU | **Charleston Sou** | 18.75 | 325 | | *e*P | | Pn | 06 10 31.2 | +1.4 |
| RGRS | **Roger Stewart** comp=Z,2μm,0.5s | 18.76 | 325 | | *e*P | | Pn | 06 10 31.0 | +1.1 |
| NHSC | **New Hope** comp=Z,176nm,0.8s | 18.90 | 325 | | *e*P | | Pn | 06 10 32.3 | +0.7 |
| TGUH | **Tegucigalpa,Un** comp=Z,31nm,1.0s | 19.50 | 261 | | *e*P | | Pn | 06 10 39.7 | +0.8 |
| CNNC | **Cliffs of the** comp=Z,71nm,0.7s | 19.51 | 334 | | *e*P | | Pn | 06 10 38.3 | -0.7 |
| TIGA | **Tifton** baz=128,SNR=16 | 19.83 | 315 | P | | | Pn | 06 10 42.2 | -0.6 |
| TIGA | **Tifton** comp=Z,55nm,0.8s | 19.83 | 315 | | *e*P | | Pn | 06 10 42.1 | -0.6 |
| CMBC | **Cumbal** | 19.83 | 212 | | *e*P | | Pn | 06 10 46.3 | +2.9 |
| PTGA | **Pitinga** comp=Z,24nm,0.8s,baz=345,slow=12,SNR=54 | 20.03 | 158 | P | | | Pn | 06 10 44.4 | -0.9 |
| PTGA | **Pitinga** comp=Z,41nm,0.8s | 20.03 | 158 | | *e*P | | Pn | 06 10 45.2 | 0.0 |
| JSC | **Jenkinsville** | 20.38 | 325 | | *e*P | | P | 06 10 47.3 | +0.2 |
| JSC | comp=Z,63nm,0.5s | | | pmax | pmax | | | | |
| JSC | **Jenkinsville** comp=Z,63nm,0.5s | 20.38 | 325 | | *e*P | | P | 06 10 47.3 | +0.2 |
| GOGA | **Godfrey** | 21.03 | 320 | | *e*P | | P | 06 10 54.7 | +0.5 |
| GOGA | comp=Z,56nm,0.9s | | | pmax | pmax | | | | |
| GOGA | **Godfrey** comp=Z,56nm,0.9s | 21.03 | 320 | | *e*P | | P | 06 10 54.7 | +0.5 |
| KMSC | **Kings Mountain** baz=140,SNR=17 | 21.07 | 327 | P | | | P | 06 10 54.6 | -0.1 |
| KMSC | **Kings Mountain** comp=Z,72nm,1.0s | 21.07 | 327 | | *e*P | | P | 06 10 54.9 | +0.2 |
| JSRW | **J. Sargeant Re** | 21.64 | 337 | | *e*P | | P | 06 11 01.5 | +0.8 |
| IP05 | **Hopewell Churc** comp=Z,73nm,0.8s | 21.71 | 337 | | *e*P | | P | 06 11 01.1 | -0.4 |
| BG3 | **Lake Jocassee** comp=Z,124nm,1.2s | 21.83 | 324 | | *e*P | | P | 06 11 03.0 | +0.2 |
| IP01 | **Cuckoo** comp=Z,31nm,0.7s | 21.88 | 337 | | *e*P | | P | 06 11 03.3 | 0.0 |
| IP06 | **Yanceyville** comp=Z,57nm,1.0s | 21.89 | 337 | | *e*P | | P | 06 11 03.2 | -0.2 |
| IP07 | **Quail** comp=Z,49nm,0.8s | 21.89 | 337 | | *e*P | | P | 06 11 03.7 | +0.3 |
| SPFD | **Spotsylvania F** comp=Z,98nm,1.2s | 21.90 | 338 | | *e*P | | P | 06 11 04.1 | +0.6 |
| CBN | **Corbin Frederi** comp=Z,221nm,1.5s | 21.91 | 339 | | *e*P | | P | 06 11 04.0 | +0.4 |
| PTRD | **Partlow Road** comp=Z,210nm,1.4s | 21.92 | 338 | | *e*P | | P | 06 11 04.3 | +0.6 |
| SPRD | **Spring Road, M** comp=Z,57nm,0.9s | 21.93 | 337 | | *e*P | | P | 06 11 04.3 | +0.4 |
| CVRD | **Centerville Ro** comp=Z,128nm,1.2s | 21.95 | 338 | | *e*P | | P | 06 11 05.0 | +1.0 |
| IP03 | **Louisa** comp=Z,47nm,0.6s | 21.98 | 337 | | *e*P | | P | 06 11 05.6 | +1.2 |
| IP04 | **Greensprings** comp=Z,37nm,0.7s | 22.07 |

comp=Z,30nm,0.9s
**Z46A Louisville** 24.53 312 P P 06 11 30.9 +0.8
baz=122
**245A Little AP, Sta** 24.63 309 P P 06 11 31.9 +0.9
baz=119
**V48A Smith Brothers** 24.64 320 P P 06 11 31.6 +0.5
baz=130
**HRV Adam Dziewonsk** 24.65 353 eP P 06 11 32.5 +1.5
HRV pmax pmax
comp=Z,47nm,1.1s
**HRV Adam Dziewonsk** 24.65 353 eP P 06 11 32.5 +1.5
comp=Z,47nm,1.1s
**444A Pine Grove** 24.67 305 P P 06 11 32.0 +0.7
baz=115
**544A White Castle** 24.75 303 P P 06 11 33.1 +1.1
baz=113
**Y46A Houston** 24.85 314 P P 06 11 33.1 +0.2
baz=124,SNR=37
**145A Houston Renfro** 24.93 310 P P 06 11 34.4 +0.8
baz=120,SNR=5.4
**PLAL Pickwick Lake** 24.96 317 eP P 06 11 34.4 +0.5
comp=Z,54nm,0.9s
**U48A Cassie Pea, Po** 24.98 321 P P 06 11 34.3 +0.2
baz=132,SNR=13
**344A Westbrook Farm** 24.98 307 P P 06 11 35.2 +1.1
baz=117,SNR=6.3
**X46A Booneville** 25.05 315 P P 06 11 35.5 +0.8
baz=126
**Z45A Winona** 25.16 312 P P 06 11 35.9 +0.2
baz=122
**VBMS Vicksburg** 25.18 309 P P 06 11 37.2 +1.3
baz=118
**VBMS Vicksburg** 25.18 309 eP P 06 11 37.2 +1.3
comp=Z,132nm,1.4s
**BINY Binghamton** 25.18 345 eP P 06 11 37.3 +1.5
comp=Z,32nm,1.0s
**244A Avery, Jackson** 25.22 308 P P 06 11 37.4 +1.2
baz=118,SNR=9.1
**N54A Moraine State** 25.29 337 P P 06 11 38.0 +1.1
baz=151,SNR=8.2
**543A St. Martinvill** 25.29 303 P P 06 11 37.6 +0.6
baz=112
**T48A Bowling Green** 25.30 323 P P 06 11 37.0 +0.1
baz=133,SNR=13
**144A Alexander Plac** 25.31 309 P P 06 11 38.1 +1.1
baz=119
**Y45A Yeager Farm, C** 25.32 313 P P 06 11 38.5 +1.4
baz=123,SNR=25
**U47A Clarksville** 25.39 320 P P 06 11 37.6 -0.1
baz=131,SNR=30
**S48A Wiedeman Farm,** 25.49 324 P P 06 11 39.8 +1.1
baz=135,SNR=38
**WVT Waverly** 25.52 319 P P 06 11 38.6 -0.3
baz=129
**WVT Waverly** 25.52 319 eP P 06 11 38.7 -0.3
WVT pmax pmax
comp=Z,70nm,0.7s
**WVT Waverly** 25.52 319 eP P 06 11 38.7 -0.3
comp=Z,70nm,0.7s
**X45A UM Field Stati** 25.52 314 P P 06 11 39.1 +0.1
baz=124,SNR=23
**OXF Oxford** 25.58 314 P P 06 11 39.4 -0.1
baz=124,SNR=20
**OXF Oxford** 25.58 314 eP P 06 11 39.9 +0.4
OXF pmax pmax
comp=Z,133nm,0.9s
**OXF Oxford** 25.58 314 eP P 06 11 39.9 +0.4
comp=Z,133nm,0.9s
**Z44A Pea Ridge, Bel** 25.64 311 P P 06 11 40.9 +0.8
baz=120,SNR=7.8
**T47A Sharon Grove** 25.64 321 P P 06 11 40.3 +0.3
baz=132,SNR=8.9
**M54A Oil Creek Stat** 25.65 338 P P 06 11 40.9 +0.8
baz=152,SNR=5.6
**243A Waterproof** 25.75 307 P P 06 11 42.3 +1.3
baz=116
**W45A Hickory Valley** 25.80 316 P P 06 11 42.5 +1.0
baz=126,SNR=8.9
**ACCN Adirondack Com** 25.83 349 eP P 06 11 42.2 +0.5
comp=Z,51nm,1.4s
**542A Morse** 25.86 302 P P 06 11 42.4 +0.3
baz=112
**U46A Springville** 25.88 319 P P 06 11 42.4 +0.2
baz=129
**ACSO Alum Creek Sta** 25.90 332 P P 06 11 42.9 +0.6
baz=144,SNR=9.6
**ACSO Alum Creek Sta** 25.90 332 eP P 06 11 42.9 +0.6
comp=Z,114nm,1.4s
**R48A Northridge Ran** 25.92 325 P P 06 11 43.2 +0.6
baz=136,SNR=18
**HNH Hanover** 25.93 352 eP P 06 11 44.2 +1.6
comp=Z,46nm,1.2s
**ALLY Alegheny Colle** 25.95 338 eP P 06 11 44.4 +1.6
comp=Z,95nm,1.0s
**V45A Humboldt** 26.00 317 P P 06 11 43.9 +0.6
baz=127,SNR=6.3
**WCI Wyandotte Cave** 26.03 324 P P 06 11 43.7 +0.1
baz=135
**WCI Wyandotte Cave** 26.03 324 eP P 06 11 43.9 +0.3
WCI pmax pmax
comp=Z,76nm,0.7s
**WCI Wyandotte Cave** 26.03 324 eP P 06 11 43.9 +0.3
comp=Z,76nm,0.7s
**143A Socs Landing,** 26.07 309 P P 06 11 44.8 +0.8
baz=118
**X44A Crenshaw** 26.08 313 P P 06 11 44.4 +0.3
baz=123,SNR=11
**T46A Princeton** 26.15 321 P P 06 11 44.8 +0.1
baz=131,SNR=14
**342A Flagon Creek P** 26.18 305 P P 06 11 46.0 +1.0
baz=114
**MMNY Mt. Morris Dam** 26.19 342 eP P 06 11 45.7 +0.7
**Z43A Armstrong Fami** 26.19 310 P P 06 11 46.1 +1.0
baz=119
**R47A Wooly Knot Far** 26.21 324 P P 06 11 45.0 -0.2
baz=135,SNR=9.9
**W44A Shelby Farms P** 26.21 315 P P 06 11 45.5 +0.3
baz=125
**U45A Rockin P Farm,** 26.24 318 P P 06 11 45.6 +0.1
baz=128,SNR=7.6
**UTMT University of** 26.30 318 eP P 06 11 44.7 -1.4
comp=Z,127nm,0.9s
**Y43A Makayla and Ka** 26.32 312 P P 06 11 47.7 +1.5
baz=121
**142A Monroe** 26.40 308 P P 06 11 48.0 +1.0
baz=117
**S46A Don Dixon Farm** 26.46 322 P P 06 11 47.2 -0.3
baz=132,SNR=17
**NCB Newcomb** 26.49 349 eP P 06 11 48.4 +0.7
comp=Z,36nm,1.0s
**WVL Waterville** 26.52 356 eP P 06 11 49.3 +1.3
comp=Z,55nm,0.9s
**T45A Paducah** 26.59 320 P P 06 11 49.3 +0.7
baz=130
**EMMW East Machias** 26.60 360 eP P 06 11 50.2 +1.6
comp=Z,131nm,1.5s
**X43A Marvell** 26.60 313 P P 06 11 48.9 +0.2
baz=122
**Q47A Bedord North L** 26.61 325 P P 06 11 48.9 +0.2
baz=136,SNR=13
**441A DeRidder** 26.61 303 P P 06 11 48.9 0.0
baz=112
**U44B Burton Farm, H** 26.61 318 P P 06 11 48.6 -0.2
baz=127
**USIN University of** 26.62 322 eP P 06 11 49.0 +0.1
comp=Z,157nm,1.3s
**V44A Blytheville** 26.66 316 P P 06 11 49.6 +0.3
baz=126
**R46A Gibon Southern** 26.70 323 P P 06 11 49.8 +0.1
baz=133
**Z42A Norrel Spur, H** 26.74 309 P P 06 11 50.7 +0.7
baz=118
**341A Kurthwood** 26.82 304 P P 06 11 51.6 +0.8
baz=113
**BLO Bloomington** 26.83 326 eP P 06 11 51.5 +0.7
BLO pmax pmax
comp=Z,54nm,1.4s
**BLO Bloomington** 26.83 326 eP P 06 11 51.5 +0.7
comp=Z,54nm,1.4s
**Y42A Garnett, Star** 26.90 311 P P 06 11 52.2 +0.7
baz=120,SNR=8.5
**241A Mo Tay, Goldon** 26.91 306 P P 06 11 52.5 +1.0
baz=115
**CCAR Cane Creek** 26.92 311 eP P 06 11 52.8 +1.1
comp=Z,67nm,0.8s
**P47A Martinsville** 26.92 326 P P 06 11 51.5 -0.2
baz=137,SNR=6.1
**U44A Portageville** 26.93 318 P P 06 11 52.0 +0.3
baz=127
**S45A Carrier Mills** 26.98 321 P P 06 11 52.3 +0.2
baz=131,SNR=10.0
**PARMO Parma** 27.07 318 eP P 06 11 53.2 +0.3
comp=Z,75nm,0.8s
**SAML Samuel** 27.13 171 eP P 06 11 54.6 +1.0
comp=Z,138nm,1.6s
**X42A Stuttgart** 27.14 312 P P 06 11 53.6 -0.1
baz=121
**Q46A CEJHS Indians,** 27.18 324 P P 06 11 54.6 +0.7
baz=135
**LONY Lake Ozonia** 27.19 349 eP P 06 11 55.1 +1.2
comp=Z,30nm,1.1s
**PKME Peaks-Kenny Pk** 27.20 357 eP P 06 11 54.9 +0.9
comp=Z,40nm,1.5s
**R45A Skylar, Fairfi** 27.20 322 P P 06 11 54.0 -0.1
baz=132,SNR=53
**T44A Benton** 27.22 319 P P 06 11 53.9 -0.4
baz=128
**ATAH Atahualpa** 27.26 204 P P 06 11 57.0 +1.7
comp=Z,11nm,0.8s,baz=24,slow=11,SNR=5.9
**U43A Rector** 27.31 317 P P 06 11 54.7 -0.4
baz=126,SNR=8.3
**Z41A Richland Creek** 27.36 309 P P 06 11 55.4 -0.2
baz=117
**SIUC Southern Illin** 27.39 320 eP P 06 11 56.2 +0.4
comp=Z,75nm,0.7s
**S44A Carbondale** 27.39 320 P P 06 11 55.8 -0.1
baz=130,SNR=27
**OLIL Olney** 27.40 323 eP P 06 11 55.9 0.0
comp=Z,72nm,0.7s
**O47A Sheridan** 27.43 328 P P 06 11 55.9 -0.3
baz=138,SNR=6.4
**W42A Bald Knob** 27.45 313 P P 06 11 56.4 0.0
baz=122
**Y41A Eaglette Beard** 27.52 310 P P 06 11 57.2 +0.2
baz=118
**P46A Rosedale** 27.52 325 P P 06 11 57.5 +0.6
baz=136,SNR=13
**Q45A Warren Harvey,** 27.54 323 P P 06 11 57.1 -0.1
baz=133,SNR=47
**240A Hunter Patters** 27.57 305 P P 06 11 58.1 +0.6
baz=114
**PBMO Poplar Bluff** 27.57 317 eP P 06 11 56.9 -0.5
comp=Z,15nm,0.7s
**R44A Waltonville** 27.65 321 P P 06 11 58.3 +0.1
baz=131,SNR=26
**V42A Cord** 27.65 315 P P 06 11 58.0 -0.1
baz=123,SNR=33
**T43A Greenville** 27.66 318 P P 06 11 58.0 -0.2
baz=127,SNR=16
**140A Cam and Jess,** 27.67 307 P P 06 11 59.1 +0.6
baz=115
**X41A Kaden, Bauxite** 27.75 311 P P 06 11 59.3 +0.2
baz=120,SNR=7.4
**P45A Graceland, Par** 27.75 325 P P 06 11 59.2 +0.2
baz=135,SNR=42
**Z40A Long Farm, Mag** 27.81 308 P P 06 11 59.5 -0.1
baz=116
**S43A Fulton Ridge,** 27.82 319 P P 06 11 59.2 -0.6
baz=128,SNR=17
**LMN Caledonia Moun** 27.83 4 eP P 06 12 00.4 +0.8
comp=Z,65nm,1.3s
**U42A Rexenden** 27.85 316 P P 06 11 59.8 -0.2
baz=124,SNR=25
**AAM Ann Arbor** 27.88 334 P P 06 12 00.2 +0.1
baz=145
**AAM Ann Arbor** 27.88 334 eP P 06 12 00.5 +0.4
AAM pmax pmax
comp=Z,36nm,0.7s
**AAM Ann Arbor** 27.88 334 eP P 06 12 00.5 +0.4
comp=Z,36nm,0.7s
**W41B Gary Mavity, V** 27.90 313 P P 06 12 00.4 0.0
baz=121,SNR=10
**X40A Basin Creek Fa** 27.97 311 P P 06 12 01.3 +0.2
baz=119,SNR=15
**WHAR Wooly Hollow** 27.99 313 eP P 06 12 01.3 +0.1
comp=Z,42nm,1.2s
**SFIN Lafayette** 28.01 327 P P 06 12 01.1 -0.3
baz=137
**SFIN Lafayette** 28.01 327 eP P 06 12 01.6 +0.3
comp=Z,19nm,0.7s
**Q44A Meyer Farm, Va** 28.04 322 P P 06 12 01.6 -0.1
baz=132,SNR=15
**X301 Greenbrier Sit** 28.04 313 eP P 06 12 01.8 +0.1
comp=Z,67nm,1.4s
**Y40A Okolona** 28.07 310 P P 06 12 01.9 0.0
baz=118,SNR=5.6
**T42A Van Buren** 28.15 317 P P 06 12 02.0 -0.6
baz=126,SNR=7.3
**NATX Nacogdoches** 28.16 304 P P 06 12 02.7 -0.1
baz=12
**NATX Nacogdoches** 28.16 304 eP P 06 12 03.2 +0.4
comp=Z,36nm,0.7s
**V41A Mountainview** 28.16 314 P P 06 12 02.5 -0.3
baz=122,SNR=28
**R43A Red Bud** 28.18 320 P P 06 12 02.5 -0.4
baz=129,SNR=15
**P44A Sand Creek, Wi** 28.19 324 P P 06 12 03.2 +0.1
baz=133,SNR=20
**N46A Monticello** 28.20 328 P P 06 12 03.0 0.0
baz=138,SNR=7.6
**O45A Potomac** 28.25 326 P P 06 12 03.5 +0.1
baz=136,SNR=7.2
**FVM French Village** 28.30 319 eP P 06 12 04.3 +0.3
FVM pmax pmax
comp=Z,21nm,0.7s
**FVM French Village** 28.30 319 eP P 06 12 04.3 +0.3
comp=Z,21nm,0.7s
**U41A Viola** 28.30 315 P P 06 12 03.6 -0.4
baz=123,SNR=16
**S42A Caledonia** 28.40 319 P P 06 12 04.1 -0.8
baz=127,SNR=31
**M46A Old House Fiel** 28.40 329 P P 06 12 04.8 0.0
baz=139
**SADO Sadowa** 28.42 342 P P 06 12 05.0 +0.1
comp=Z,4.1nm,0.6s,baz=168,slow=10,SNR=3.6
**Q43A New Douglas** 28.46 322 P P 06 12 05.6 +0.1
baz=131,SNR=6.5
**HKT Hockley** 28.48 300 eP P 06 12 06.3 +0.8
HKT pmax pmax
comp=Z,15nm,1.1s
**HKT Hockley** 28.48 300 eP P 06 12 06.3 +0.8
comp=Z,15nm,1.1s
**W40A Ferguson Farm,** 28.49 312 P P 06 12 06.0 +0.3
baz=120
**W40A Ferguson Farm,** 28.49 312 eP P 06 12 06.8 +1.1
comp=Z,17nm,0.9s
**MIAR Mont Ida** 28.54 310 P P 06 12 05.9 -0.2
baz=118,SNR=9.2
**MIAR Mount Ida** 28.54 310 eP P 06 12 06.2 +0.1
MIAR pmax pmax
comp=Z,10.0nm,0.8s
**MIAR Mount Ida** 28.54 310 eP P 06 12 06.2 +0.1
comp=Z,10nm,0.8s
**PQI Presque Isle** 28.57 359 eP P 06 12 06.8 +0.6
comp=Z,90nm,1.6s
**N45A Kend** 28.57 327 P P 06 12 06.2 -0.2
baz=137,SNR=17
**O44A Mansfield** 28.58 325 P P 06 12 06.4 -0.1
baz=134,SNR=18
**SLM Saint Louis** 28.59 321 eP P 06 12 07.0 +0.5
SLM pmax pmax
comp=Z,28nm,0.6s
**SLM Saint Louis** 28.59 321 eP P 06 12 07.0 +0.5
comp=Z,28nm,0.6s
**T41A Mountain View** 28.59 316 P P 06 12 06.4 -0.2
baz=125,SNR=70
**V40A Witts Springs** 28.63 313 P P 06 12 06.5 -0.5
baz=121,SNR=9.5
**Y39A Lockesburg** 28.63 309 P P 06 12 07.6 +0.6
baz=117,SNR=9.2
**R42A Luebbering** 28.71 319 P P 06 12 07.6 0.0
baz=128,SNR=38
**TRQ Mont Tremblant** 28.73 350 eP P 06 12 08.3 +0.5
**P43A Skaggs, Pawnee** 28.82 323 P P 06 12 08.5 -0.1
baz=132,SNR=19
**M45A Boermakers S** 28.83 328 P P 06 12 08.7 +0.1
baz=138
**138A Matatall Enter** 28.84 306 P P 06 12 09.2 +0.4
baz=113,SNR=5.1
**CCM Cathedral Cave** 28.85 319 P P 06 12 08.5 -0.5
baz=127
**CCM Cathedral Cave** 28.85 319 eP P 06 12 08.4 -0.5
CCM pmax pmax
comp=Z,43nm,0.8s
**CCM Cathedral Cave** 28.85 319 eP P 06 12 08.4 -0.5
comp=Z,43nm,0.8s
**N44A Piper City** 28.86 326 P P 06 12 08.8 -0.1
baz=136,SNR=16
**S41A Jillco Farms,** 28.89 317 P P 06 12 09.0 -0.3
baz=126,SNR=178
**X39A Fountain Ranch** 28.91 310 P P 06 12 09.4 -0.1
baz=118
**U40A Yellville** 28.94 314 P P 06 12 09.5 -0.2
baz=122,SNR=11
**Q42A Golden Eagle** 28.94 321 P P 06 12 09.3 -0.4
baz=129,SNR=27
**W39A Magazine** 29.00 311 P P 06 12 11.0 +0.8
baz=119,SNR=12
**Z38A Mt. Pleasant** 29.01 307 P P 06 12 11.0 +0.7
baz=114
**R41A Rosebud** 29.08 319 P P 06 12 10.4 -0.5
baz=127,SNR=45
**Y38A Idabel** 29.10 308 P P 06 12 11.4 +0.2
baz=116
**O43A Sugar Creek Fa** 29.14 324 P P 06 12 11.4 0.0
baz=133,SNR=14
**T40A Mansfield** 29.15 316 P P 06 12 11.7 +0.1
baz=124,SNR=23
**237A Washetta, Mont** 29.15 304 P P 06 12 12.2 +0.6
baz=112
**V39A Pettigrew** 29.22 313 P P 06 12 12.5 +0.2
baz=120
**M44A Midewin, Midew** 29.24 327 P P 06 12 12.2 -0.1
baz=136,SNR=7.2
**P42A Winchester** 29.26 322 P P 06 12 12.3 -0.2
baz=130,SNR=33
**HDIL Hopedale** 29.32 325 P P 06 12 13.0 +0.1
baz=133,SNR=7.8
**HDIL Hopedale** 29.32 325 eP P 06 12 13.3 +0.4
comp=Z,26nm,0.8s
**137A Heron Place, G** 29.34 305 P P 06 12 13.9 +0.7
baz=112
**U39A Green Forest** 29.39 314 P P 06 12 13.5 -0.1
baz=121,SNR=12
**S40A Lebanon** 29.39 317 P P 06 12 13.3 -0.4
baz=124,SNR=31
**Q41A Truxton** 29.39 320 P P 06 12 13.2 -0.5
baz=128,SNR=11
**W38A Poteau** 29.47 311 P P 06 12 15.0 +0.6
baz=118,SNR=19
**Z37A Pogue Cattle C** 29.47 306 P P 06 12 14.5 +0.1
baz=114,SNR=6.5
**X38A Whitesboro** 29.51 310 P P 06 12 15.1 +0.3
baz=117,SNR=13
**O42A Bath** 29.51 323 P P 06 12 14.6 -0.1
baz=132,SNR=5.5
**N43A Stutzman Famil** 29.52 325 P P 06 12 14.5 -0.2
baz=134,SNR=7.9
**R40A Maddies Statio** 29.64 318 P P 06 12 15.1 -0.8
baz=126,SNR=18
**HHAR Hobbs** 29.65 313 eP P 06 12 16.1 +0.1
comp=Z,24nm,0.9s
**T39A Clever** 29.66 315 P P 06 12 15.9 -0.2
baz=122,SNR=17
**236A Katherine and** 29.73 303 P P 06 12 16.6 -0.1
baz=111
**P41A Barry, Barry** 29.75 321 P P 06 12 16.1 -0.7
baz=130,SNR=21
**L44A Lake County Fo** 29.75 328 P P 06 12 16.9 +0.2
baz=138
**M43A Waltham Townsh** 29.75 326 P P 06 12 16.5 -0.3
baz=135,SNR=15
**336A Riesel** 29.76 302 P P 06 12 17.2 +0.1
baz=109
**V38A Canehill** 29.77 312 P P 06 12 17.1 0.0
baz=119,SNR=12
**Y37A Hugo** 29.79 308 P P 06 12 17.5 +0.2
baz=115,SNR=11
**X37A Clayton** 29.87 309 P P 06 12 18.2 +0.2
baz=116,SNR=14
**X37A Clayton** 29.87 309 eP P 06 12 18.6 +0.6
comp=Z,23nm,0.8s
**136A Ennis** 29.90 304 P P 06 12 18.4 +0.2
baz=112
**N42A Yates City** 29.91 324 P P 06 12 17.9 -0.4
baz=133,SNR=5.5
**O41A Passleys Farm,** 29.92 322 P P 06 12 17.6 -0.8
baz=130,SNR=22
**Q40A Laux Farm, Aux** 29.94 319 P P 06 12 18.2 -0.3
baz=127,SNR=31
**S39A Bolivar** 29.98 316 P P 06 12 18.4 -0.5
baz=124,SNR=13
**U38A Gravette** 30.04 313 P P 06 12 19.0 -0.5
baz=120
**Z36A Blue Ridge** 30.12 306 P P 06 12 20.4 +0.2
baz=113
**R39A Chumby, Stover** 30.15 317 P P 06 12 19.8 -0.6
baz=125,SNR=32
**W37B Quinton** 30.16 310 P P 06 12 20.8 +0.3
baz=117,SNR=25
**W37B Quinton** 30.16 310 eP P 06 12 20.7 +0.2
comp=Z,45nm,0.7s
**435B Jarrell** 30.17 301 P P 06 12 21.0 +0.3
baz=108,SNR=11
**L43A Garden Prairie** 30.17 327 P P 06 12 20.4 -0.1
baz=136,SNR=8.6
**M42A Sheffield** 30.19 325 P P 06 12 20.7 0.0
baz=134
**P40A Paris** 30.25 320 P P 06 12 20.5 -0.8
baz=128,SNR=30
**Y36A Durant** 30.26 307 P P 06 12 21.3 -0.2
baz=114
**T38A Diamond** 30.28 314 P P 06 12 21.3 -0.3
baz=121,SNR=18
**V37A Hulbert** 30.30 311 P P 06 12 21.5 -0.2
baz=118,SNR=29
**S38A Stockton** 30.34 315 P P 06 12 21.6 -0.5
baz=123,SNR=19
**K43A Burlington** 30.35 329 P P 06 12 22.0 -0.1
baz=138,SNR=6.1
**GLMI Grayling** 30.36 335 P P 06 12 23.0 +0.9
baz=146,SNR=6.3
**GLMI Grayling** 30.36 335 eP P 06 12 23.3 +1.1
comp=Z,66nm,0.6s
**WHTX Lake Whitney,** 30.46 303 P P 06 12 23.5 +0.3
baz=110,SNR=12
**WHTX Lake Whitney,** 30.46 303 eP P 06 12 23.8 +0.6
comp=Z,25nm,0.6s
**O40A La Belle** 30.51 321 P P 06 12 22.8 -0.7
baz=129,SNR=17
**L42A Oliver, Polo** 30.53 326 P P 06 12 23.8 +0.1
baz=135,SNR=12
**Q39A Willow Grove F** 30.53 319 P P 06 12 23.0 -0.8
baz=126,SNR=7.9
**U37A Salina** 30.53 312 P P 06 12 23.9 +0.1
baz=119,SNR=16
**LNIG Linares** 30.56 289 eP P 06 12 23.7 -0.6
comp=Z,9.4nm,0.7s
**M41A Milan** 30.57 324 P P 06 12 23.5 -0.6
baz=132,SNR=8.1
**X36A Centrahoma** 30.59 308 P P 06 12 24.3 -0.1
baz=115,SNR=22
**R38A Fenwick Farm,** 30.64 316 P P 06 12 24.5 -0.3
baz=123,SNR=12
**P39B Salisbury** 30.66 319 P P 06 12 24.9 0.0
baz=127,SNR=5.7
**W36A Wetumka** 30.74 309 P P 06 12 25.7 0.0
baz=116
**T37A Cheneyville 18** 30.75 314 P P 06 12 26.0 +0.2
baz=121
**TUL1 Leonard** 30.78 311 P P 06 12 26.1 +0.1
baz=118,SNR=36
**TUL1 Leonard** 30.78 311 eP P 06 12 26.1 +0.1
comp=Z,66nm,0.8s
**V36A Jenks** 30.83 311 P P 06 12 26.4 0.0
baz=117,SNR=47
**V36A Jenks** 30.83 311 eP P 06 12 26.6 +0.2
comp=Z,80nm,0.8s
**N40A Mertquake, Sal** 30.83 323 P P 06 12 25.8 -0.6
baz=130,SNR=15
**Y35A Marietta** 30.84 307 P P 06 12 27.0 +0.5
baz=113,SNR=10
**Q38A Cooks Store, C** 30.89 318 P P 06 12 26.5 -0.5
baz=125,SNR=25
**J43A Natural Harves** 30.89 329 P P 06 12 26.8 -0.1
baz=138,SNR=5.1
**K42A Prairie Point,** 30.91 328 P P 06 12 26.6 -0.4
baz=136,SNR=23
**U36A Oologah** 30.96 312 P P 06 12 27.7 +0.1
baz=118,SNR=12
**X35A Drake** 30.99 308 P P 06 12 27.4 -0.4
baz=114,SNR=11
**X35A Drake** 30.99 308 eP P 06 12 27.3 -0.6
comp=Z,15nm,0.7s

O39A **Kirksville** 31.00 321 P P 06 12 27.4 -0.4
baz=128,SNR=9.3
L41A **Preston** 31.02 325 P P 06 12 27.6 -0.4
baz=134,SNR=12
S37A **Fort Scott** 31.02 315 P P 06 12 28.0 -0.1
baz=122,SNR=9.2
833A **Chaparral WMA,** 31.06 295 P P 06 12 28.7 +0.2
baz=102,SNR=8.6
VLDQ **Val d'Or** 31.11 347 eP P 06 12 30.4 +1.7
comp=Z,27nm,1.2s
M40A **Post Highland** 31.13 324 P P 06 12 28.4 -0.6
baz=131,SNR=6.7
I43A **Langenfeld Bro** 31.14 330 P P 06 12 29.0 -0.1
baz=139,SNR=10
J42A **Columbus** 31.19 329 P P 06 12 29.0 -0.5
baz=137
F46A **Macinaw City C** 31.20 336 P P 06 12 29.4 -0.1
baz=147
P38A **Dawn** 31.22 319 P P 06 12 29.3 -0.5
baz=126,SNR=17
W35A **Tecumseh** 31.23 309 P P 06 12 29.6 -0.4
baz=115,SNR=17
W35A **Tecumseh** 31.23 309 eP P 06 12 29.8 -0.2
comp=Z,32nm,0.6s
NNA **Nana** 31.25 198 P P 06 12 31.5 +1.2
comp=Z,9.6nm,0.7s,baz=6.5,slow=8.6,SNR=5.9
K41A **Shullsburg** 31.29 326 P P 06 12 30.1 -0.3
baz=134,SNR=14
OK021 **N3530 Road, Sp** 31.31 310 eP P 06 12 30.7 0.0
comp=Z,26nm,0.6s
N39A **Derby Farms, D** 31.36 322 P P 06 12 30.5 -0.5
baz=129,SNR=16
Q37A **Longview Farm,** 31.38 317 P P 06 12 30.4 -0.8
baz=124,SNR=18
T36A **Boggs Farm, Ca** 31.39 313 P P 06 12 31.3 0.0
baz=119,SNR=19
OK020 **N3440 Road, Me** 31.40 310 eP P 06 12 31.2 -0.2
comp=Z,30nm,0.6s
L40A **Anamosa** 31.41 325 P P 06 12 31.1 -0.3
baz=132,SNR=12
H43A **Windswept, Lux** 31.41 331 P P 06 12 31.1 -0.3
baz=140
F45A **CMU Biological** 31.42 335 P P 06 12 31.6 0.0
baz=145
V35A **Meyer Ranch, C** 31.47 310 P P 06 12 31.8 -0.2
baz=116,SNR=15
V35A **Meyer Ranch, C** 31.47 310 eP P 06 12 32.1 0.0
comp=Z,39nm,0.6s
JFWS **Jewell Farm** 31.47 327 P P 06 12 31.8 -0.3
baz=135,SNR=27
JFWS **Jewell Farm** 31.47 327 eP P 06 12 31.9 -0.1
JFWS pmax pmax
comp=Z,54nm,0.8s
JFWS **Jewell Farm** 31.47 327 eP P 06 12 31.9 -0.1
comp=Z,54nm,0.8s
O38A **Galt** 31.48 320 P P 06 12 31.9 -0.2
baz=127,SNR=12
I42A **Draeger Farm,** 31.51 330 P P 06 12 32.2 -0.2
baz=138,SNR=12
S36A **Lake Cedric, C** 31.52 314 P P 06 12 32.4 -0.1
baz=121,SNR=44
M39A **Webster** 31.55 323 P P 06 12 32.2 -0.5
baz=130,SNR=20
U35A **Pawnee** 31.66 311 P P 06 12 33.6 -0.2
baz=117,SNR=25
U35A **Pawnee** 31.66 311 eP P 06 12 33.9 0.0
comp=Z,48nm,0.6s
J41A **Loganville** 31.67 328 P P 06 12 33.4 -0.3
baz=136,SNR=9.7
P37A **Lathrop** 31.71 318 P P 06 12 33.6 -0.6
baz=125,SNR=37
N38A **Joes South For** 31.74 321 P P 06 12 33.7 -0.7
baz=128,SNR=10
T35A **Sooner Cattle** 31.76 312 P P 06 12 34.4 -0.3
baz=118,SNR=49
R36A **Gordon, Harris** 31.77 315 P P 06 12 34.3 -0.4
baz=122,SNR=5.4
K40A **Colesburg** 31.79 326 P P 06 12 34.0 -0.8
baz=133,SNR=23
E45A **Wooded Hills,** 31.85 336 P P 06 12 35.6 +0.3
baz=146
L39A **Vinton** 31.88 324 P P 06 12 34.9 -0.7
baz=131,SNR=18
JCT **Junction City** 31.92 299 P P 06 12 36.2 +0.1
baz=105,SNR=9.6
JCT **Junction City** 31.92 299 eP P 06 12 36.8 +0.6
JCT pmax pmax
comp=Z,13nm,0.6s
JCT **Junction City** 31.92 299 eP P 06 12 36.8 +0.6
comp=Z,13nm,0.6s
O37A **Wolven Farm, M** 31.92 319 P P 06 12 35.2 -0.8
baz=126,SNR=5.5
G43A **Wallace** 31.99 332 P P 06 12 36.5 0.0
baz=141
S35A **Otter Creek Ra** 32.00 314 P P 06 12 36.4 -0.3
baz=120,SNR=11
F44A **Big Bay de Noc** 32.02 335 P P 06 12 37.1 +0.2
baz=144
J40A **Soldiers Grove** 32.07 327 P P 06 12 36.8 -0.4
baz=135,SNR=38
Q36A **Arnold C. Orve** 32.08 316 P P 06 12 37.1 -0.4
baz=122
I41A **Arkdale** 32.10 329 P P 06 12 37.0 -0.5
baz=137,SNR=7.5
M38A **Pleasantville** 32.11 322 P P 06 12 36.9 -0.7
baz=129,SNR=14
K39A **Oelwein** 32.20 325 P P 06 12 37.8 -0.7
baz=132,SNR=19
F43A **Flat Rock, Esc** 32.22 334 P P 06 12 38.8 +0.2
baz=143,SNR=5.5
R35A **Emporia Munici** 32.24 315 P P 06 12 38.9 0.0
baz=121
P36A **Good Intent, A** 32.28 318 P P 06 12 38.4 -0.8
baz=124,SNR=11
T34A **McClaskey Farm** 32.29 312 P P 06 12 39.4 0.0
baz=118,SNR=22
G42A **Mountain** 32.31 332 P P 06 12 39.9 +0.6
baz=140,SNR=6.5
N37A **Lee Faris, Mou** 32.31 320 P P 06 12 39.3 -0.1
baz=126,SNR=12
E44A **Grand Marais A** 32.35 336 P P 06 12 39.7 0.0
baz=146
I40A **Norwalk** 32.36 328 P P 06 12 39.3 -0.4
baz=135,SNR=22
H41A **Junction City** 32.41 330 P P 06 12 40.0 -0.2
baz=138
Q35A **Mercer Eighty,** 32.41 316 P P 06 12 39.6 -0.8
baz=122
O36A **Bolckow** 32.41 319 P P 06 12 39.9 -0.5
baz=125,SNR=14
ABTX **Abilene, Hawle** 32.41 303 P P 06 12 40.6 +0.1
baz=108,SNR=22
ABTX **Abilene, Hawle** 32.41 303 eP P 06 12 40.3 -0.1
comp=Z,52nm,1.1s
SCIA **State Center** 32.43 323 P P 06 12 39.9 -0.5
baz=129,SNR=5.3
SCIA **State Center** 32.43 323 eP P 06 12 40.1 -0.4
comp=Z,23nm,0.8s
L38A **Oak Wood Farm,** 32.43 323 P P 06 12 39.7 -0.7
baz=130,SNR=14
WMOK **Wichita Mounta** 32.49 307 P P 06 12 40.6 -0.4
baz=112,SNR=35
WMOK **Wichita Mounta** 32.49 307 eP P 06 12 40.7 -0.4
WMOK pmax pmax
comp=Z,27nm,0.6s
WMOK **Wichita Mounta** 32.49 307 eP P 06 12 40.7 -0.4
comp=Z,27nm,0.6s
J39A **Decorah** 32.53 326 P P 06 12 41.2 -0.1
baz=133,SNR=18
S34A **Willow Spring** 32.56 313 P P 06 12 41.7 +0.1
baz=119
E43A **Lone Tree Farm** 32.58 334 P P 06 12 41.9 +0.2
baz=144
M37A **Trindle Farm,** 32.61 321 P P 06 12 41.6 -0.4
baz=128
G41A **Antigo** 32.63 331 P P 06 12 42.2 0.0
baz=139,SNR=8.4
K38A **Parkersburg** 32.65 324 P P 06 12 41.8 -0.6
baz=131,SNR=24
P35A **Duane Minner,** 32.75 317 P P 06 12 42.2 -1.2
baz=122
H40A **Chili** 32.77 329 P P 06 12 43.2 -0.2
baz=136,SNR=13
I39A **Houston** 32.79 327 P P 06 12 42.9 -0.7
baz=134,SNR=11
N36A **Muff Farm, Cla** 32.80 320 P P 06 12 43.3 -0.4
baz=126,SNR=21
L37A **Phoenix Point,** 32.88 323 P P 06 12 43.9 -0.4
baz=129
KSU1 **Kansas State U** 32.92 316 P P 06 12 44.2 -0.6
baz=121,SNR=7.2
KSU1 **Kansas State U** 32.92 316 eP P 06 12 43.7 -1.1
comp=Z,21nm,0.7s
J38A **Wedel Dairy, R** 32.93 325 P P 06 12 43.9 -1.0
baz=132,SNR=8.7
R34A **Isabella, Hill** 32.94 314 P P 06 12 44.7 -0.3
baz=119,SNR=17
F41A **Three Lakes** 32.99 332 P P 06 12 45.2 -0.1
baz=140,SNR=9.0
E42A **Champion** 33.01 334 P P 06 12 45.3 -0.2
baz=142
Q34A **Chapman** 33.05 315 P P 06 12 45.1 -0.8
baz=120,SNR=8.5
M36A **Felix, Anita** 33.08 321 P P 06 12 45.7 -0.5
baz=126,SNR=20
O35A **Humboldt** 33.09 318 P P 06 12 45.8 -0.4
baz=124
G40A **Rib Lake** 33.15 330 P P 06 12 46.5 -0.2
baz=138,SNR=12
K37A **Belmond** 33.22 324 P P 06 12 46.6 -0.7
baz=130,SNR=9.7
ZAIG **Zacatecas** 33.25 284 eP P 06 12 48.5 +0.4
comp=Z,5.0nm,0.6s
H39A **Augusta** 33.25 328 P P 06 12 47.4 -0.2
baz=135,SNR=27
N35A **Tabor** 33.25 319 P P 06 12 46.8 -0.9
baz=125,SNR=7.7
P34A **Walnut Farm, R** 33.29 316 P P 06 12 46.8 -1.3
baz=122,SNR=8.4
U32A **Winter Ranch,** 33.31 310 P P 06 12 47.9 -0.4
baz=115,SNR=11
I38A **Scanlan Farm,** 33.34 326 P P 06 12 47.7 -0.7
baz=133,SNR=31
L36A **Harm Buss Farm** 33.39 322 P P 06 12 48.5 -0.4
baz=128,SNR=7.2
E41A **Kenton** 33.49 333 P P 06 12 49.4 -0.2
baz=141,SNR=6.1
J37A **Redenius Farm,** 33.52 324 P P 06 12 49.5 -0.4
baz=130,SNR=20
O34A **Beatrice** 33.54 317 P P 06 12 49.5 -0.7
baz=122
F40A **Park Falls** 33.60 331 P P 06 12 50.9 +0.3
baz=138
K36A **Gilmore City** 33.60 323 P P 06 12 50.4 -0.3
baz=128
G39A **Holcombe** 33.63 329 P P 06 12 50.8 -0.1
baz=136,SNR=31
M35A **Neola** 33.63 320 P P 06 12 50.5 -0.5
baz=125,SNR=11
H38A **Maiden Rock** 33.76 327 P P 06 12 51.5 -0.5
baz=134
N34A **Lincoln** 33.78 318 P P 06 12 51.9 -0.3
baz=124,SNR=6.9
D41A **Chassel** 33.78 334 P P 06 12 52.6 +0.4
baz=142,SNR=6.3
G38A **Ridgeland** 33.89 328 P P 06 12 53.1 -0.1
baz=135,SNR=17
E40A **Wakefield** 33.89 332 P P 06 12 53.4 +0.2
baz=139,SNR=12
I37A **Lemond, Waseca** 33.90 325 P P 06 12 52.8 -0.4
baz=132,SNR=13
L35A **Bielow Farm, R** 33.92 321 P P 06 12 53.5 0.0
baz=126
F39A **Loretta** 33.97 330 P P 06 12 53.7 -0.2
baz=137,SNR=16
J36A **Seneca 1, Swea** 33.97 324 P P 06 12 53.2 -0.7
baz=129,SNR=11
H37A **Dierke Farm, C** 34.02 327 P P 06 12 53.9 -0.4
baz=133,SNR=6.8
O33A **Hebron** 34.07 316 P P 06 12 54.2 -0.6
baz=121
K35A **Storm Lake** 34.10 322 P P 06 12 54.6 -0.5
baz=128,SNR=7.8
LPAZ **La Paz** 34.11 181 P P 06 12 57.1 +1.2
comp=Z,1.7nm,0.6s,baz=324,slow=7.3,SNR=2.6
E39A **Mellen** 34.14 331 P P 06 12 55.4 +0.1
baz=138,SNR=15
M34A **Aspy Farms, Fr** 34.20 319 P P 06 12 56.0 +0.1
baz=124
I36A **Fitzsimmons Fa** 34.23 325 P P 06 12 55.9 -0.3
baz=131
L34A **Svendsen Farm,** 34.34 320 P P 06 12 56.3 -0.8
baz=125,SNR=8.4
SIV **San Ignacio** 34.38 169 P P 06 12 57.7 +0.1
comp=Z,4.1nm,0.7s,baz=342,slow=6.4,SNR=13
SPMN **Marine on St.** 34.40 328 P P 06 12 56.8 -0.8
baz=134,SNR=16
SPMN **Marine on St.** 34.40 328 eP P 06 12 57.7 +0.1
comp=Z,26nm,0.8s
F38A **Pierce - Schro** 34.46 329 P P 06 12 58.1 0.0
baz=136,SNR=22
J35A **Milford** 34.48 323 P P 06 12 57.4 -1.0
baz=128,SNR=9.5
H36A **Jessenland, He** 34.55 326 P P 06 12 58.4 -0.5
baz=131,SNR=32
K34A **Le Mars** 34.59 321 P P 06 12 58.4 -0.8
baz=126,SNR=9.3
M33A **Taylor Creek F** 34.62 319 P P 06 12 58.7 -0.9
baz=124,SNR=6.7
F37A **Hinrichs Farm,** 34.66 328 P P 06 12 59.3 -0.6
baz=134,SNR=18
I35A **Creekview Farm** 34.67 324 P P 06 12 59.4 -0.5
baz=129,SNR=23
C40A **Isle Royale Na** 34.70 334 P P 06 13 00.1 0.0
baz=142,SNR=6.4
AMTX **Amarillo** 34.76 306 P P 06 13 00.6 -0.4
baz=110
AMTX **Amarillo** 34.76 306 eP P 06 13 00.8 -0.2
comp=Z,15nm,0.8s
E38A **The Farm, Brul** 34.77 330 P P 06 13 00.6 -0.2
baz=137
J34A **George** 34.87 322 P P 06 13 01.2 -0.4
baz=127,SNR=6.7
G36A **St. Michael** 34.90 327 P P 06 13 01.0 -0.9
baz=132
CBKS **Cedar Bluff** 34.91 313 P P 06 13 01.8 -0.3
baz=117,SNR=12
CBKS **Cedar Bluff** 34.91 313 eP P 06 13 02.0 -0.1
CBKS pmax pmax
comp=Z,49nm,0.6s
CBKS **Cedar Bluff** 34.91 313 eP P 06 13 02.0 -0.1
comp=Z,49nm,0.6s
TXAR **Lajitas Array** 34.93 296 P P 06 13 02.7 +0.2
comp=Z,19nm,0.7s,baz=110,slow=9.8,SNR=111
TX31 **Lajitas Ar. Si** 34.93 296 eP P 06 13 02.6 +0.1
L33A **Hinks** 35.00 320 P P 06 13 02.0 -0.8
baz=124,SNR=6.2
C39A **Grand Marais** 35.04 333 P P 06 13 02.8 -0.3
baz=140,SNR=21
K33A **Hardington** 35.09 321 P P 06 13 03.4 -0.1
baz=125
H35A **Sunnyside Ranc** 35.12 325 P P 06 13 03.0 -0.8
baz=130,SNR=70
BGNE **Belgrade** 35.13 318 P P 06 13 03.6 -0.5
baz=134
BGNE **Belgrade** 35.13 318 eP P 06 13 03.8 -0.2
comp=Z,26nm,0.7s
F36A **Milaca** 35.21 328 P P 06 13 03.7 -0.9
baz=133,SNR=12
I34A **Hadley** 35.27 323 P P 06 13 05.0 -0.2
baz=128,SNR=6.8
G35A **Watkins** 35.28 326 P P 06 13 04.3 -0.9
baz=131,SNR=34
MSTX **Muleshoe** 35.32 304 P P 06 13 05.4 -0.4
baz=108,SNR=20
MSTX **Muleshoe** 35.32 304 eP P 06 13 05.6 -0.3
comp=Z,22nm,0.8s
L32A **Elgin** 35.37 319 P P 06 13 05.4 -0.6
baz=123
C38A **Sawbill Land.** 35.47 332 P P 06 13 05.9 -0.9
baz=138,SNR=7.0
J33A **Davis** 35.48 322 P P 06 13 06.0 -0.9
baz=126,SNR=12
ECSD **EROS Data Cent** 35.52 322 P P 06 13 06.5 -0.8
baz=127,SNR=36
ECSD **EROS Data Cent** 35.52 322 eP P 06 13 06.5 -0.8
E36A **McGregor** 35.53 329 P P 06 13 06.9 -0.4
baz=134,SNR=30
D37A **Cotton** 35.59 330 P P 06 13 07.4 -0.4
baz=136,SNR=8.6
H34A **Spellman Lake,** 35.62 324 P P 06 13 07.5 -0.6
baz=129,SNR=29
K32A **Verdigre** 35.71 320 P P 06 13 07.6 -1.3
baz=124,SNR=12
EYMN **Ely** 35.74 332 P P 06 13 08.6 -0.5
baz=138,SNR=7.4
EYMN **Ely** 35.74 332 eP P 06 13 08.5 -0.5
comp=Z,14nm,0.7s
CLNB **Carlsbad** 35.74 300 eP P 06 13 09.9 +0.5
F35A **Swanville** 35.75 327 P P 06 13 08.2 -1.0
baz=132,SNR=12
I33A **Coleman** 35.81 323 P P 06 13 09.3 -0.6
baz=127,SNR=6.2
C37A **Embarrass** 35.89 331 P P 06 13 10.1 -0.3
baz=137,SNR=5.9
G34A **Benson** 35.91 325 P P 06 13 09.8 -0.7
baz=130,SNR=18
D36A **Goodland** 35.95 330 P P 06 13 10.4 -0.5
baz=135,SNR=12
J32A **Parkston** 36.03 321 P P 06 13 10.7 -1.0
baz=125
F34A **Alexandria** 36.06 326 P P 06 13 11.3 -0.6
baz=131,SNR=30
E35A **Pequot Lakes** 36.13 328 P P 06 13 11.8 -0.7
baz=133,SNR=27
K31A **O'Neill** 36.17 319 P P 06 13 12.2 -0.6
baz=123,SNR=14
H33A **Prehn Over Nor** 36.17 324 P P 06 13 12.6 -0.3
baz=128,SNR=18
I32A **Karley and Nic** 36.19 322 P P 06 13 12.3 -0.7
baz=126
C36A **Pine Crest Far** 36.21 331 P P 06 13 12.7 -0.4
baz=136,SNR=13
D35A **Remer** 36.32 329 P P 06 13 13.2 -0.9
baz=134,SNR=12
G33A **Ortonville** 36.32 325 P P 06 13 13.4 -0.7
baz=129,SNR=40
HPIG 36.34 291 eP P 06 13 14.6 -0.1
comp=Z,8.4nm,0.7s
H32A **Carlson Farm,** 36.45 323 P P 06 13 14.7 -0.7
baz=127,SNR=17
E34A **Wadena** 36.49 327 P P 06 13 14.9 -0.6
baz=132,SNR=18
J31A **Geddes** 36.52 320 P P 06 13 15.0 -0.9
baz=124
F33A **5 Mile Ranch,** 36.65 326 P P 06 13 16.0 -0.8
baz=130,SNR=5.4
C35A **Jirik Farms, M** 36.71 330 P P 06 13 16.7 -0.7
baz=134,SNR=22
SCHQ **Schefferville** 36.74 1 P P 06 13 16.9 -0.6
comp=Z,17nm,0.5s,baz=194,slow=7.1,SNR=32
SCHQ **Schefferville** 36.74 1 eP P 06 13 17.7 +0.1
comp=Z,65nm,1.1s
I31A **Royce, Wessing** 36.82 322 P P 06 13 17.6 -0.8
baz=125
MNTX **Cornudas Mount** 36.86 299 P P 06 13 18.8 -0.1
baz=102,SNR=26
MNTX **Cornudas Mount** 36.86 299 eP P 06 13 18.9 0.0
comp=Z,20nm,1.1s
D34A **Park Rapids** 36.89 328 P P 06 13 17.7 -1.3
baz=132,SNR=32
E33A **Westby DABS, E** 36.92 327 P P 06 13 18.0 -1.2
baz=131,SNR=5.9
G32A **Webster** 36.94 324 P P 06 13 18.9 -0.6
baz=127,SNR=22
KSCO **Kaye Shedlock'** 37.02 312 P P 06 13 19.6 -0.8
baz=114,SNR=9.1
KSCO **Kaye Shedlock'** 37.02 312 eP P 06 13 20.2 -0.1
comp=Z,28nm,0.6s
H31A **Wolsey** 37.04 322 P P 06 13 19.3 -1.0
baz=125,SNR=9.3
B35A **Bob, Littlefor** 37.06 331 P P 06 13 19.5 -0.9
baz=136,SNR=27
F32A **Veblen** 37.12 325 P P 06 13 20.0 -0.8
baz=128,SNR=14
C34A **RKJ Ranch, Bem** 37.13 329 P P 06 13 20.0 -1.0
baz=133,SNR=24
D33A **AnnSam, Waubun** 37.26 328 P P 06 13 21.0 -1.1
baz=131,SNR=34
SUSD **Miller** 37.30 322 P P 06 13 22.2 -0.4
baz=125,SNR=10.0
G31A **Conde** 37.33 323 P P 06 13 22.4 -0.3
baz=126,SNR=5.7
E32A **Braaten, Kindr** 37.54 326 P P 06 13 24.1 -0.4
baz=129
B34A **Aery, Baudette** 37.59 330 P P 06 13 23.9 -1.0
baz=134,SNR=26
T25A **Trinidad** 37.62 308 P P 06 13 25.3 -0.3
baz=110,SNR=5.6
T25A **Trinidad** 37.62 308 eP P 06 13 25.8 +0.3
comp=Z,52nm,1.6s
C33A **Trail** 37.63 328 P P 06 13 25.0 -0.3
baz=132,SNR=8.2
F31A **Hecla** 37.73 324 P P 06 13 25.3 -0.8
baz=127,SNR=46
EPT **El Paso** 37.81 299 eP P 06 13 27.8 +0.7
comp=Z,11nm,0.7s
MHTCO **State Highway** 37.82 308 eP P 06 13 27.6 +0.3
comp=Z,50nm,1.8s
D32A **Dogwood Acres,** 37.86 327 P P 06 13 26.3 -0.9
baz=130,SNR=6.1
B33A **Robert and Kas** 37.89 329 P P 06 13 26.2 -1.2
baz=133,SNR=10
E31A **Nome** 37.96 325 P P 06 13 27.4 -0.6
baz=128,SNR=16
AGMN **Agassiz Nation** 38.04 329 P P 06 13 27.6 -1.1
baz=132,SNR=67
AGMN **Agassiz Nation** 38.04 329 eP P 06 13 27.7 -1.0
comp=Z,68nm,0.7s
D31A **Mcclaflin, Tow** 38.18 326 P P 06 13 29.1 -0.7
baz=129
A33A **Warroad** 38.25 330 P P 06 13 29.6 -0.9
baz=134,SNR=37
B32A **Ashes, Strandq** 38.44 329 P P 06 13 31.2 -0.8
baz=132,SNR=39
BNM **Barren Site** 38.45 302 eP P 06 13 33.2 +0.6
LPM **Los Pinos Moun** 38.49 303 eP P 06 13 33.4 +0.5
ANMO **Albuquerque** 38.52 304 P P 06 13 33.2 0.0
baz=106
ANMO **Albuquerque** 38.52 304 eP P 06 13 33.2 0.0
ANMO pmax pmax
comp=Z,3.0nm,0.8s
ANMO **Albuquerque** 38.52 304 eP P 06 13 33.6 +0.4
comp=Z,12nm,1.0s
BDFB **Brasilia** 38.53 149 P P 06 13 32.8 -0.4
comp=Z,2.3nm,0.8s,baz=135,slow=3.9,SNR=4.0
BDFB **Brasilia** 38.53 149 eP P 06 13 34.0 +0.8
BDFB pmax pmax
comp=Z,40nm,1.4s
BDFB **Brasilia** 38.53 149 eP P 06 13 34.0 +0.8
comp=Z,40nm,1.4s
SDCO **Great Sand Dun** 38.64 308 P P 06 13 34.3 +0.1
baz=110,SNR=34
SDCO **Great Sand Dun** 38.64 308 eP P 06 13 34.5 +0.3
comp=Z,15nm,0.8s
C31A **Landman Farms,** 38.65 327 P P 06 13 33.2 -0.6
baz=130,SNR=146
A32A **Rocking H Ranc** 38.77 329 P P 06 13 33.9 -0.9
baz=132,SNR=12
Q24A **Divide** 38.81 310 P P 06 13 35.1 -0.6
baz=112,SNR=10.0
Q24A **Divide** 38.81 310 eP P 06 13 35.9 +0.2
LAZ **Ladron** 38.92 303 eP P 06 13 37.0 +0.4
B31A **Greenbush Farm** 39.02 328 P P 06 13 36.1 -0.8
baz=130,SNR=30
121A **Cookes Peak, D** 39.02 300 P P 06 13 37.3 -0.1
baz=102
121A **Cookes Peak, D** 39.02 300 eP P 06 13 35.8 -1.6
comp=Z,25nm,1.1s
ULM **Lac du Bonnet** 39.39 311 P P 06 13 38.0 -2.0
comp=Z,29nm,0.7s,baz=131,slow=8.4,SNR=59
ULM PP PP 06 15 12.4 +2.0
comp=Z,5.8nm,0.7s,baz=118,slow=15,SNR=2.9
ULM **Lac du Bonnet** 39.39 331 eP P 06 13 38.7 -1.3
ULM 06 15 12.4
ULM pmax pmax
comp=Z,29nm,0.8s
ULM **Lac du Bonnet** 39.39 331 eP P 06 13 38.7 -1.3
comp=Z,29nm,0.8s
ULM PP PP 06 15 12.4 +2.0
ISCO **Idaho Springs** 39.46 311 P P 06 13 41.2 +0.2
baz=112,SNR=36
ISCO **Idaho Springs** 39.46 311 eP P 06 13 41.3 +0.2
ISCO pmax pmax
comp=Z,20nm,0.7s
ISCO **Idaho Springs** 39.46 311 eP P 06 13 41.3 +0.2
comp=Z,20nm,0.7s
S22A **4UR Ranch, Cre** 39.63 308 P P 06 13 42.1 -0.5
baz=108,SNR=13
S22A **4UR Ranch, Cre** 39.63 308 eP P 06 13 42.8 +0.2
comp=Z,45nm,1.8s
MDND **Maddock** 39.67 326 P P 06 13 42.2 -0.1
baz=127
MDND **Maddock** 39.67 326 eP P 06 13 42.7 +0.3

comp=Z,71nm,0.6s
**PHWY Pilot Hill** 39.94 314 *e*P P 06 13 44.7 -0.3
comp=Z,18nm,0.6s
**SLBS Sierra La Lagu** 40.04 286 *e*P P 06 13 46.9 +1.0
comp=Z,9.8nm,0.8s
**N23A Red Feather La** 40.11 313 P P 06 13 45.9 -0.5
baz=113
**N23A Red Feather La** 40.11 313 *e*P P 06 13 46.1 -0.3
comp=Z,6.6nm,0.8s
**SMCO Snowmass** 40.22 310 *e*P P 06 13 47.9 +0.3
comp=Z,22nm,1.2s
**RSSD Black Hills** 40.24 318 P P 06 13 47.0 -0.5
baz=118
**RSSD Black Hills** 40.24 318 *e*P P 06 13 47.4 0.0
RSSD pmax pmax
comp=Z,17nm,1.4s
**RSSD Black Hills** 40.24 318 *e*P P 06 13 47.4 0.0
comp=Z,16nm,1.4s
**MVCO Mesa Verde** 40.74 306 P P 06 13 51.1 -0.5
baz=106,SNR=9.3
**MVCO Mesa Verde** 40.74 306 *e*P P 06 13 52.1 +0.4
comp=Z,8.0nm,0.8s
**PV01 Paradox Valley** 41.06 308 *e*P P 06 13 55.6 +1.2
**W18A Petrified Fore** 41.17 303 P P 06 13 54.8 -0.4
baz=103
**K22A Casper** 41.21 315 P P 06 13 55.0 -0.4
baz=114,SNR=10
**K22A Casper** 41.21 315 *e*P P 06 13 55.1 -0.4
comp=Z,16nm,0.8s
**RWWY Rawlins** 41.30 313 *e*P P 06 13 55.9 -0.3
comp=Z,34nm,0.9s
**PV04 Paradox Valley** 41.39 308 *e*P P 06 13 57.0 +0.1
**PV05 Paradox Valley** 41.44 308 *e*P P 06 13 58.1 +0.7
**O20A White River Ci** 41.46 311 P P 06 13 57.2 -0.3
baz=110,SNR=8.1
**O20A White River Ci** 41.46 311 *e*P P 06 13 58.0 +0.4
comp=Z,12nm,0.8s
**TUC Tucson** 41.48 299 P P 06 13 57.4 -0.2
baz=99
**PV10 Paradox Valley** 41.49 308 *e*P P 06 13 58.2 +0.4
**PV09 Paradox Valley** 41.59 308 *e*P P 06 13 59.2 +0.5
**DGMT Dagmar** 42.55 324 P P 06 14 06.1 0.0
baz=122,SNR=15
**DGMT Dagmar** 42.55 324 *e*P P 06 14 06.5 +0.4
**WUAZ Wupatki** 42.56 303 P P 06 14 06.1 -0.5
baz=102
**WUAZ Wupatki** 42.56 303 *e*P P 06 14 07.4 +0.8
comp=Z,18nm,1.0s
**P18A Preston Nutter** 42.76 309 *e*P P 06 14 08.4 +0.1
comp=Z,12nm,0.7s
**SRU San Rafael Swe** 42.81 309 *e*P P 06 14 08.7 +0.2
SRU pmax pmax
comp=Z,10.0nm,0.7s
**SRU San Rafael Swe** 42.81 309 *e*P P 06 14 08.7 +0.2
comp=Z,10nm,0.7s
**LAO LASA Array** 42.82 321 P P 06 14 08.0 -0.4
baz=118,SNR=5.7
**LAO LASA Array** 42.82 321 *e*P P 06 14 08.2 -0.2
comp=Z,46nm,1.5s
**P17A Butcher Ranch,** 43.08 309 *e*P P 06 14 11.0 +0.3
comp=Z,11nm,0.7s
**214A Organ Pipe Nat** 43.13 298 P P 06 14 10.8 -0.2
baz=97
**214A Organ Pipe Nat** 43.13 298 *e*P P 06 14 11.5 +0.5
comp=Z,27nm,0.3s
**BW06 Boulder Array** 43.32 314 P P 06 14 11.9 -0.8
baz=111,SNR=14
**BW06 Boulder Array** 43.32 314 *e*P P 06 14 11.9 -0.8
comp=Z,10nm,0.9s
**PD31 Pinedale Array** 43.32 314 *e*P P 06 14 11.9 -0.8
**PDAR Pinedale Array** 43.32 314 P P 06 14 11.8 -0.8
comp=Z,8.7nm,0.7s,baz=111,slow=9.0,SNR=58
PDAR PcP PcP 06 15 58.8 -2.6
comp=Z,2.2nm,0.6s,baz=116,slow=4.4,SNR=5.1
**PDAR Pinedale Array** 43.32 314 *e*P P 06 14 11.3 -1.3
PDAR PcP PcP 06 15 58.8 -2.6
**TMUT Trail Mountain** 43.38 309 *e*P P 06 14 13.6 +0.3
comp=Z,12nm,0.8s
**PKCU Pink Cliffs** 43.73 306 *e*P P 06 14 17.1 +0.9
comp=Z,13nm,1.0s
**MTPU Mount Pierson** 43.78 306 *e*P P 06 14 17.3 +0.7
comp=Z,9.3nm,0.8s
**MSU Marysvale** 43.89 307 *e*P P 06 14 18.0 +0.7
**MSU Marysvale** 43.89 307 *e*P P 06 14 18.0 +0.7
**MPU Maple Canyon** 43.90 309 *e*P P 06 14 18.1 +0.8
comp=Z,11nm,0.9s
**JLU Jordanelle** 43.93 310 *e*P P 06 14 18.0 +0.3
comp=Z,18nm,0.7s
**KNB Kanab** 44.03 305 *e*P P 06 14 19.1 +0.7
KNB pmax pmax
comp=Z,12nm,1.0s
**KNB Kanab** 44.03 305 *e*P P 06 14 19.1 +0.7
comp=Z,12nm,1.0s
**RLMT Red Lodge** 44.03 317 P P 06 14 18.0 -0.4
baz=114,SNR=40
**RLMT Red Lodge** 44.03 317 *e*P P 06 14 18.2 -0.1
comp=Z,25nm,0.6s
**TCUT Toone Canyon** 44.06 311 *e*P P 06 14 19.1 +0.4
comp=Z,30nm,1.1s
**CTU Camp Tracy** 44.18 310 *e*P P 06 14 19.7 +0.2
comp=Z,22nm,0.8s
**NLU North Lily Min** 44.20 309 *e*P P 06 14 20.7 +0.9
comp=Z,44nm,1.9s
**BMUT Black Mountain** 44.20 312 *e*P P 06 14 19.3 -0.5
**LCMT Little Creek M** 44.36 305 *e*P P 06 14 21.1 +0.1
comp=Z,6.6nm,0.9s
**SZCU Shurtz Canyon** 44.37 306 *e*P P 06 14 21.4 +0.2
comp=Z,11nm,1.1s
**AHID Auburn Hatcher** 44.38 313 *e*P P 06 14 20.7 -0.4
comp=Z,23nm,0.7s
**SNOW Snow King Moun** 44.39 314 *e*P P 06 14 22.1 +0.8
comp=Z,52nm,1.4s
**REDW Red Top Meadow** 44.42 314 *e*P P 06 14 21.3 -0.2
comp=Z,29nm,1.1s
**MOOW Moose Ponds** 44.48 315 *e*P P 06 14 22.1 +0.2
comp=Z,21nm,0.8s
**TPAW Teton Pass** 44.53 314 *e*P P 06 14 22.5 0.0
comp=Z,14nm,0.8s
**LKWY Lake** 44.56 316 *e*P P 06 14 23.5 +0.9
LKWY pmax pmax
comp=Z,9.0nm,0.6s
**LKWY Lake** 44.56 316 *e*P P 06 14 23.5 +0.9
comp=Z,9.4nm,0.6s
**CCUT Cedar City** 44.57 305 *e*P P 06 14 23.6 +0.8
comp=Z,7.7nm,0.9s
**WVUT Wellsville** 44.61 311 *e*P P 06 14 22.3 -0.7
**H17A Grant Village** 44.61 316 P P 06 14 22.8 -0.2
baz=112,SNR=6.0
**H17A Grant Village** 44.61 316 *e*P P 06 14 23.3 +0.2
comp=Z,30nm,1.7s
**FXWY Fox Creek** 44.63 315 *e*P P 06 14 23.7 +0.5
comp=Z,19nm,0.8s
**YPP Pitchstone Pla** 44.72 315 *e*P P 06 14 24.2 +0.3
comp=Z,5.0nm,0.7s
**YNR Norris Junctio** 44.80 316 *e*P P 06 14 25.5 +1.0
comp=Z,10nm,0.7s
**YFT Old Faithful** 44.80 316 *e*P P 06 14 25.1 +0.5
comp=Z,8.3nm,0.6s
**DUG Dugway, Tooele** 44.81 309 P P 06 14 24.8 +0.2
baz=106,SNR=16
**DUG Dugway, Tooele** 44.81 309 *e*P P 06 14 24.8 +0.2
DUG pmax pmax
comp=Z,12nm,0.9s
**DUG Dugway, Tooele** 44.81 309 *e*P P 06 14 24.8 +0.2
comp=Z,12nm,0.9s
**SPUT South Promonto** 44.87 311 *e*P P 06 14 24.7 -0.4
comp=Z,17nm,1.1s
**YHH Holmes Hill** 44.94 316 *e*P P 06 14 25.6 -0.1
comp=Z,12nm,0.8s
**GLA Glamis** 44.96 299 P P 06 14 26.3 +0.6
baz=97
**YMR Madison River** 44.97 316 *e*P P 06 14 26.4 +0.6
comp=Z,15nm,0.8s
**NEE2 Needles Airpor** 45.03 301 P P 06 14 26.7 +0.5
baz=99
**YHB Horse Butte** 45.15 316 *e*P P 06 14 27.4 +0.1
comp=Z,36nm,0.7s
**FFC Flin Flon** 45.17 332 *e*P P 06 14 25.7 -1.3
FFC pmax pmax
comp=Z,32nm,0.8s
**FFC Flin Flon** 45.17 332 *e*P P 06 14 25.7 -1.3
comp=Z,32nm,0.8s
**CPUP Villa Florida** 45.17 167 P P 06 14 25.9 -1.3
comp=Z,14nm,0.7s,baz=344,slow=7.2,SNR=41
**CPUP Villa Florida** 45.17 167 *e*P P 06 14 26.0 -1.3
**PSUT Pine Spring** 45.17 307 *e*P P 06 14 28.0 +0.4
comp=Z,16nm,0.9s

**BGU Big Grassy Mou** 45.18 310 *e*P P 06 14 27.5 0.0
comp=Z,23nm,0.9s
**QLMT Earthquake Lak** 45.34 316 *e*P P 06 14 29.8 +1.0
**IRM Iron Mountain** 45.37 300 P P 06 14 29.7 +0.7
baz=98,SNR=7.2
**TPMT Tepee Creek** 45.46 316 *e*P P 06 14 31.2 +1.4
**BC3 Big Chuckawall** 45.56 300 P P 06 14 30.7 +0.2
baz=97
**EGMT Eagleton** 45.57 321 P P 06 14 30.4 0.0
baz=116
**EGMT Eagleton** 45.57 321 *e*P P 06 14 30.5 +0.1
**BOZ Bozeman (W)** 45.75 317 P P 06 14 31.8 -0.2
baz=112
**SHPR Sheep Range** 45.77 304 *e*P P 06 14 33.0 +0.7
comp=Z,32nm,1.7s
**NRS Narsarsuaq** 45.82 15 *e*P P 06 14 31.8 -0.3
NRS pmax pmax
comp=Z,32nm,0.9s
**NRS Narsarsuaq** 45.82 15 *e*P P 06 14 31.8 -0.3
comp=Z,32nm,0.9s
**GMRC Granite Mounta** 45.88 301 P P 06 14 34.0 +0.8
baz=98,SNR=7.2
**MONP2 Monument Peak** 46.27 298 P P 06 14 37.1 +0.7
baz=96,SNR=9.0
**MCMT McKenzie Canyo** 46.28 315 *e*P P 06 14 36.8 +0.5
**DLMT Dillon** 46.30 316 *e*P P 06 14 36.7 +0.5
comp=Z,25nm,0.9s
**HRY Holter Researc** 46.31 318 *e*P P 06 14 36.7 +0.4
**R11A Troy Canyon, C** 46.46 306 P P 06 14 37.9 +0.2
baz=102,SNR=11
**R11A Troy Canyon, C** 46.46 306 *e*P P 06 14 38.7 +1.0
comp=Z,8.3nm,1.0s
**TPNV Topopah Spring** 46.71 304 P P 06 14 40.0 +0.4
baz=100,SNR=13
**TPNV Topopah Spring** 46.71 304 *e*P P 06 14 41.8 +2.2
TPNV pmax pmax
comp=Z,21nm,0.8s
**TPNV Topopah Spring** 46.71 304 *e*P P 06 14 41.8 +2.2
comp=Z,21nm,0.8s
**109C Camp Elliot, M** 46.84 298 P P 06 14 40.7 +0.2
baz=96
**LCO Las Campanas** 46.87 184 *e*P P 06 14 41.0 0.0
comp=Z,10.0nm,0.9s
**GSC Goldstone, Bar** 46.89 302 P P 06 14 40.5 -0.5
baz=98
**GSC Goldstone, Bar** 46.89 302 *e*P P 06 14 39.3 -1.7
GSC pmax pmax
comp=Z,20nm,1.3s
**GSC Goldstone, Bar** 46.89 302 *e*P P 06 14 39.3 -1.7
comp=Z,20nm,1.3s
**HLID Hailey** 46.93 313 P P 06 14 41.5 +0.2
baz=108,SNR=38
**HLID Hailey** 46.93 313 *e*P P 06 14 41.8 +0.5
comp=Z,15nm,0.6s
**MURC Murrieta** 46.99 299 P P 06 14 42.3 +0.5
baz=96
**FURC Furnace Creek,** 47.11 303 P P 06 14 43.1 +0.6
baz=99
**BFSC Mount Baldy Ra** 47.45 300 P P 06 14 45.7 +0.3
baz=96
**MPMC Manual Prospec** 47.55 303 P P 06 14 46.3 0.0
baz=98
**GRAC Grapevine Rang** 47.60 304 P P 06 14 46.9 +0.5
baz=99
**DAC Darwin (Calif)** 47.66 303 *e*P P 06 14 48.3 +1.1
DAC pmax pmax
comp=Z,12nm,1.0s
**DAC Darwin (Calif)** 47.66 303 *e*P P 06 14 48.2 +1.1
comp=Z,12nm,1.0s
**MSO Missoula** 47.70 318 P P 06 14 46.8 -0.3
baz=111
**MSO Missoula** 47.70 318 *e*P P 06 14 46.9 -0.3
comp=Z,19nm,1.5s
**EDW2 Edwards Air Fo** 47.80 301 P P 06 14 49.2 +1.1
baz=97
**MFID Camas Ranch** 47.87 313 *e*P P 06 14 48.3 -0.3
comp=Z,24nm,0.8s
**BMN Battle Mountai** 48.14 308 *e*P P 06 14 50.9 +0.2
BMN pmax pmax
comp=Z,14nm,0.8s
**BMN Battle Mountai** 48.14 308 *e*P P 06 14 50.9 +0.2
comp=Z,14nm,0.8s
**JTMT Jette** 48.25 319 *e*P P 06 14 51.2 -0.2
comp=Z,14nm,1.0s
**NV11 Mina Array Sit** 48.46 306 *e*P P 06 14 54.6 +1.4
comp=Z,1.2nm,0.8s
**ARVC Arvin** 48.51 301 P P 06 14 54.0 +0.5
baz=96
**NV01 Mina Array Sit** 48.57 306 *e*P P 06 14 54.8 +0.7
**VES Vestal, Richgr** 48.80 302 P P 06 14 56.0 +0.3
baz=97
**MLAC Mammoth, Mammo** 48.85 304 P P 06 14 56.4 0.0
baz=99
**RCTC Rector, Farmer** 48.99 303 P P 06 14 57.4 +0.3
baz=97
**MDPB Devils Postpil** 49.05 304 *e*P P 06 14 56.9 -0.9
comp=Z,57nm,1.3s
**BMO Blue Mountains** 49.30 314 *e*P P 06 14 58.6 -0.9
BMO pmax pmax
comp=Z,12nm,0.8s
**BMO Blue Mountains** 49.30 314 *e*P P 06 14 58.6 -0.9
comp=Z,12nm,0.8s
**YERR Yerington** 49.39 306 *e*P P 06 15 00.2 -0.1
comp=Z,9.3nm,0.9s
**WAKR Walker** 49.46 306 *e*P P 06 15 02.5 +1.5
comp=Z,41nm,1.6s
**F10A Beach Ranch, E** 49.57 316 *e*P P 06 15 00.7 -0.8
comp=Z,8.3nm,0.8s
**WVOR Wild Horse Val** 49.62 311 *e*P P 06 15 02.5 +0.5
WVOR pmax pmax
comp=Z,42nm,1.4s
**WVOR Wild Horse Val** 49.62 311 *e*P P 06 15 02.5 +0.5
comp=Z,42nm,1.4s
**J08A Circle Bar Ran** 49.72 312 *e*P P 06 15 02.8 0.0
comp=Z,68nm,1.5s
**PSRM Scobie Ranch** 49.77 302 *e*P P 06 15 03.4 +0.3
**PKLM Kerr Lake** 49.81 302 *e*P P 06 15 03.8 +0.4
**CTM Castle Mountai** 49.82 302 *e*P P 06 15 03.0 -0.7
**PMCM McMillan Canyo** 49.83 302 *e*P P 06 15 04.5 +0.9
**PHAM Harlan Ranch** 49.86 302 *e*P P 06 15 02.5 -1.4
**PHAM Harlan Ranch** 49.86 302 *e*P P 06 15 02.5 -1.4
**PHFM Heflinger Ranc** 49.87 302 *e*P P 06 15 01.8 -2.1
**CMB Columbia Colle** 50.13 305 *e*P P 06 15 07.1 +1.2
CMB pmax pmax
comp=Z,4.0nm,1.0s
**CMB Columbia Colle** 50.13 305 *e*P P 06 15 07.1 +1.2
comp=Z,4.1nm,1.0s
**SFJD Kangerlussuaq** 50.14 8 P P 06 15 03.7 -1.6
comp=Z,19nm,0.7s,baz=195,slow=7.4,SNR=12
**SFJD Kangerlussuaq** 50.14 8 *i* P P 06 15 04.6 -0.8
SFJD pmax pmax
comp=Z,19nm,0.7s
**SFJD Kangerlussuaq** 50.14 8 *i* P P 06 15 04.6 -0.8
comp=Z,19nm,0.7s
**SFJD Kangerlussuaq** 50.14 8 *e*P P 06 15 06.0 +0.7
comp=Z,121nm,1.8s
**NEW Newport** 50.22 318 P P 06 15 05.6 -0.8
baz=109,SNR=28
**NEW Newport** 50.22 318 *e*P P 06 15 05.8 -0.5
NEW pmax pmax
comp=Z,21nm,0.7s
**NEW Newport** 50.22 318 *e*P P 06 15 05.8 -0.5
comp=Z,21nm,0.7s
**PANM San Antonio Re** 50.27 302 *e*P P 06 15 06.1 -0.8
**E09A Wood Farm, Sta** 50.34 316 *e*P P 06 15 07.6 +0.4
comp=Z,22nm,1.4s
**BEKR Beckworth** 50.39 307 *e*P P 06 15 07.9 -0.1
comp=Z,4.6nm,0.9s
**PHSB Hesperia Broad** 50.39 302 *e*P P 06 15 07.7 -0.1
**LRC Lone Oak Road** 50.43 302 *e*P P 06 15 08.8 +0.7
**PCCM Crazy Canyon** 50.51 302 *e*P P 06 15 09.4 +0.7
**G08A Pilot Rock** 50.54 314 *e*P P 06 15 08.3 -0.7
comp=Z,11nm,0.8s
**I07A Izee** 50.62 313 *e*P P 06 15 09.2 -0.4
comp=Z,15nm,0.8s
**PAPM Alder Peak** 50.65 302 *e*P P 06 15 11.7 +1.8
**AFDM Forest Hills D** 50.71 306 *e*P P 06 15 10.6 +0.4
comp=Z,44nm,2.0s
**MOD Modoc Plateau** 50.72 310 *e*P P 06 15 10.3 -0.1
comp=Z,6.9nm,0.9s
**C09A Chrisman Ranch** 50.80 318 *e*P P 06 15 10.1 -0.7
comp=Z,23nm,1.4s
**E08A Dider Farm, El** 50.93 316 *e*P P 06 15 10.9 -0.9
comp=Z,12nm,0.7s
**PEL Peldehue** 50.98 184 *e*P P 06 15 13.4 +1.2
PEL pmax pmax
comp=Z,16nm,0.9s

**PEL Peldehue** 50.98 184 *e*P P 06 15 13.4 +1.2
comp=Z,16nm,0.9s
**HAWA Hanford** 51.22 316 *e*P P 06 15 13.3 -0.7
comp=Z,7.7nm,0.6s
**F07A Phinny Hill Vi** 51.36 315 *e*P P 06 15 14.9 0.0
comp=Z,7.8nm,0.7s
**O03D Paynes Creek** 51.55 307 P P 06 15 15.4 -1.2
baz=99
**B08A Colville Reser** 51.65 318 *e*P P 06 15 17.2 +0.1
comp=Z,13nm,0.8s
**J05D Fort Rock, OR** 51.67 311 P P 06 15 17.0 -0.5
baz=102,SNR=8.5
**G06A Carlson Farm,** 51.68 314 *e*P P 06 15 17.6 +0.2
comp=Z,24nm,1.2s
**M04C Macdoel** 51.82 309 P P 06 15 17.8 -0.9
baz=100
**K04D Chiloquin, OR** 51.91 310 P P 06 15 19.5 +0.2
baz=101
**I05D Terrebonne, OR** 51.96 313 P P 06 15 19.9 +0.3
baz=102
**GDXM Geysers** 52.10 305 *e*P P 06 15 18.4 -2.4
comp=Z,15nm,0.8s
**G05D Wamic, OR** 52.15 314 P P 06 15 20.3 -0.6
baz=103
**WDC Whiskeytown Da** 52.15 308 *e*P P 06 15 19.1 -1.9
WDC pmax pmax
comp=Z,46nm,1.9s
**WDC Whiskeytown Da** 52.15 308 *e*P P 06 15 19.1 -1.9
comp=Z,46nm,1.9s
**ILULI Ilulissat** 52.16 7 *i* P P 06 15 20.3 -0.2
ILULI pmax pmax
comp=Z,38nm,0.9s
**ILULI Ilulissat** 52.16 7 *i* P P 06 15 20.3 -0.2
comp=Z,38nm,0.9s
**ILULI Ilulissat** 52.16 7 *e*P P 06 15 21.1 +0.5
comp=Z,61nm,1.1s
**LTY Liberty** 52.20 316 *e*P P 06 15 20.7 -0.7
comp=Z,13nm,0.6s
**J04D Umpqua Nationa** 52.29 311 P P 06 15 22.0 -0.1
baz=101
**N02D Trinity Center** 52.34 308 P P 06 15 21.3 -1.1
baz=99
**YBH Yreka Blue Hor** 52.46 309 *e*P P 06 15 22.1 -1.2
YBH pmax pmax
comp=Z,6.0nm,0.7s
**YBH Yreka Blue Hor** 52.46 309 *e*P P 06 15 22.1 -1.2
comp=Z,6.1nm,0.7s
**M02C Callahan** 52.51 309 P P 06 15 22.4 -1.4
baz=99,SNR=5.2
**I04A Tendick Farm,** 52.61 312 P P 06 15 23.2 -1.2
baz=101
**H04A Detroit Lake** 52.63 313 *e*P P 06 15 24.3 -0.2
comp=Z,30nm,0.8s
**HUMO Hull Mountain** 52.78 310 *e*P P 06 15 25.3 -0.4
comp=Z,6.6nm,0.9s
**LON Longmire** 52.83 315 *e*P P 06 15 25.2 -0.8
LON pmax pmax
comp=Z,9.0nm,0.8s
**LON Longmire** 52.83 315 *e*P P 06 15 25.2 -0.8
comp=Z,8.8nm,0.8s
**KMRM Mail Ridge** 52.98 307 *e*P P 06 15 26.9 -0.3
comp=Z,94nm,1.7s
**D05A Enumclaw** 53.06 316 *e*P P 06 15 27.0 -0.5
comp=Z,20nm,0.8s
**B06A Marblemount** 53.07 318 *e*P P 06 15 26.6 -1.0
comp=Z,8.8nm,0.6s
**L02D Cave Junction,** 53.18 309 P P 06 15 28.3 -0.3
baz=99
**I03D Drain, OR** 53.26 311 P P 06 15 28.2 -0.8
baz=100
**KRMB Red Mountain** 53.31 309 *e*P P 06 15 29.4 -0.3
comp=Z,23nm,1.3s
**COR Corvallis** 53.39 313 *e*P P 06 15 31.3 +1.3
COR pmax pmax
comp=Z,51nm,1.2s
**COR Corvallis** 53.39 313 *e*P P 06 15 31.3 +1.3
comp=Z,51nm,1.2s
**B05A Bryant** 53.39 317 P P 06 15 27.9 -2.1
baz=105
**G03D McMinnville, O** 53.48 313 P P 06 15 29.7 -1.0
baz=101
**KBO Bosley Butte** 53.65 309 *e*P P 06 15 33.8 +1.6
comp=Z,137nm,1.7s
**KEBM Edson Butte** 53.83 310 *e*P P 06 15 34.4 +1.0
comp=Z,75nm,1.2s
**LLLB Lillooet** 53.89 320 *e*P P 06 15 33.8 +0.1
comp=Z,9.9nm,0.8s
**E03A Lebam** 53.96 315 *e*P P 06 15 33.8 -0.4
comp=Z,26nm,0.9s
**PGC Sidney** 54.36 317 *e*P P 06 15 36.0 -1.1
comp=Z,26nm,1.1s
**PCAS Casmilo, Conde** 54.94 53 *e*P P 06 15 41.7 +0.2
**PTOM Tomar** 54.97 54 *e*P P 06 15 41.7 +0.1
**MESJ Messejana** 54.98 56 *e*P P 06 15 41.8 +0.1
MESJ AMb AMB 06 15 47.1
comp=Z,32nm,1.5s
**MESJ Messejana** 54.98 56 *e*P P 06 15 41.8 +0.1
MESJ pmax pmax
comp=Z,32nm,1.5s
**PMTG Montargil** 55.06 55 *e*P P 06 15 42.7 +0.4
**YKA Yellowknife Ar** 55.07 335 P P 06 15 40.1 -1.8
comp=Z,23nm,0.7s,baz=112,slow=7.5,SNR=237
**YKA Yellowknife Ar** 55.07 335 *i* P P 06 15 40.0 -1.9
YKA pmax pmax
comp=Z,23nm,0.6s
**PBDV Barranco-do-Ve** 55.17 57 *e*P P 06 15 45.6 +2.4
**PBEJ Beja** 55.27 56 *e*P P 06 15 41.4 -2.5
**PVIS Viseu** 55.47 53 *e*P P 06 15 45.3 0.0
**POLO Lamas de Olo** 55.61 52 *e*P P 06 15 46.7 +0.4
**MTE Manteigas** 55.70 53 *e*P P 06 15 47.0 0.0
comp=Z,84nm,1.8s
**MTE Manteigas** 55.70 53 *e*P P 06 15 47.4 +0.4
**PCBR Castelo Branco** 55.70 54 *e*P P 06 15 47.5 +0.6
**PMRV Marv??o** 55.74 54 *e*P P 06 15 47.3 +0.1
**PBAR Barrancos** 55.93 56 *e*P P 06 15 48.7 +0.1
**MVO Moncorvo** 56.16 52 *e*P P 06 15 50.3 0.0
**KULLO Kullorsuaq** 56.84 3 *i* P P 06 15 53.5 -0.9
KULLO pmax pmax
comp=Z,16nm,0.9s
KULLO MLR MLR
comp=Z,1µm,21.0s
**KULLO Kullorsuaq** 56.84 3 *i* P P 06 15 53.5 -0.9
comp=Z,16nm,0.9s
comp=Z,1µm,21.0s
**SUMG Summit** 57.03 10⇓ *i* P P 06 15 56.1 -0.2
SUMG pmax pmax
comp=Z,60nm,1.1s
**SUMG Summit** 57.03 10⇓ *i* P P 06 15 56.1 -0.2
comp=Z,60nm,1.1s
**SUMG Summit** 57.03 10 *e*P P 06 15 56.4 0.0
comp=Z,47nm,1.0s
**PAB San Pablo** 58.10 54 *e*P P 06 16 04.3 +0.3
PAB pmax pmax
comp=Z,18nm,1.0s
**PAB San Pablo** 58.10 54 *e*P P 06 16 04.3 +0.3
comp=Z,18nm,1.0s
**ESDC Sonseca Array** 58.40 54 P P 06 16 05.1 -1.0
comp=Z,17.7nm,0.7s,baz=272,slow=7.1,SNR=73
**ESLA Sonseca Array** 58.40 54 *e*P P 06 16 06.3 +0.2
comp=Z,21nm,0.8s
**ES19 SONSECA Array** 58.45 54 *e*P P 06 16 06.3 -0.2
**PLCA Paso Flores** 58.53 183 P P 06 16 05.6 -1.2
comp=Z,7.7nm,1.0s,baz=37,slow=7.5,SNR=7.2
**PLCA Paso Flores** 58.53 183 *e*P P 06 16 06.7 -0.2
PLCA pmax pmax
comp=Z,38nm,1.5s
**PLCA Paso Flores** 58.53 183 *e*P P 06 16 06.7 -0.2
comp=Z,38nm,1.5s
**TULEG Thule** 58.54 360 *e*P P 06 16 05.5 -0.9
comp=Z,23nm,0.9s
**DLBC Dease Lake** 60.54 328 *e*P P 06 16 20.9 +0.3
comp=Z,15nm,0.8s
**KOWA Kowa** 60.70 83 *e*P P 06 16 21.9 -0.4
comp=Z,53nm,1.4s
**ESK Eskdalemuir** 60.71 36 *e*P P 06 16 22.1 +0.4
ESK pmax pmax
comp=Z,57nm,1.5s
**ESK Eskdalemuir** 60.71 36 *e*P P 06 16 22.1 +0.4
comp=Z,57nm,1.5s
**GRR Gorron** 61.20 44 *e*P P 06 16 24.1 -1.0
GRR pmax pmax
comp=Z,104nm,1.6s
**FLN La Foliniere** 61.48 44 *e*P P 06 16 26.1 -0.9
FLN pmax pmax
comp=Z,48nm,1.2s
**MFF Saint Martin d** 61.55 46 *e*P P 06 16 27.3 -0.2
MFF pmax pmax

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | comp=Z,25nm,0.6s | | | | | | | |
| **LDF** | **La Druitiere** | **61.70** | **44** | *e*P | **P** | **06 16 28.2** | **-0.3** |
| LDF | | | | pmax | pmax | | | |
| | comp=Z,22nm,0.7s | | | | | | | |
| **TIC** | **Toumodi** | **61.73** | **92** | *e*P | **P** | **06 16 29.1** | **-0.2** |
| **EPF** | **Esparros** | **61.74** | **50** | *e*P | **P** | **06 16 30.8** | **+1.8** |
| EPF | | | | pmax | pmax | | | |
| | comp=Z,14nm,0.6s | | | | | | | |
| **LIC** | **Lamto** | **61.85** | **93** | *e*P | **P** | **06 16 30.9** | **+0.8** |
| | comp=Z,103nm,1.4s | | | | | | | |
| **DBIC** | **Dimbokro** | **61.88** | **92** | P | **P** | **06 16 29.5** | **-0.8** |
| | comp=Z,7.8nm,0.5s,baz=282,slow=7.6,SNR=32 | | | | | | | |
| **DBIC** | **Dimbokro** | **61.88** | **92** | *e*P | **P** | **06 16 29.9** | **-0.4** |
| DBIC | | | | pmax | pmax | | | |
| | comp=Z,46nm,1.3s | | | | | | | |
| **DBIC** | **Dimbokro** | **61.88** | **92** | *e*P | **P** | **06 16 29.9** | **-0.4** |
| | comp=Z,46nm,1.3s | | | | | | | |
| **KIC** | **Kosan Boka** | **62.08** | **92** | *e*P | **P** | **06 16 30.8** | **-0.9** |
| | comp=Z,137nm,1.3s | | | | | | | |
| **LFF** | **La Frestale** | **62.08** | **48** | *e*P | **P** | **06 16 30.8** | **-0.4** |
| **CAF** | **Calviac** | **63.02** | **48** | *e*P | **P** | **06 16 37.1** | **-0.4** |
| CAF | | | | pmax | pmax | | | |
| | comp=Z,15nm,0.7s | | | | | | | |
| **TCF** | **Toulx Ste Croi** | **63.16** | **47** | *e*P | **P** | **06 16 37.7** | **-0.7** |
| TCF | | | | pmax | pmax | | | |
| | comp=Z,22nm,0.7s | | | | | | | |
| **BGF** | **Bois d'Agland** | **63.60** | **46** | *e*P | **P** | **06 16 40.5** | **-0.8** |
| BGF | | | | pmax | pmax | | | |
| | comp=Z,44nm,1.0s | | | | | | | |
| **DAG** | **Danmarks Havn** | **63.65** | **11** | *i* P | **P** | **06 16 40.0** | **-1.0** |
| DAG | | | | pmax | pmax | | | |
| | comp=Z,15nm,0.8s | | | | | | | |
| **DAG** | **Danmarks Havn** | **63.65** | **11** | *i* P | **P** | **06 16 40.0** | **-1.0** |
| | comp=Z,15nm,0.8s | | | | | | | |
| **AVF** | **Avril sur Loir** | **63.96** | **46** | *e*P | **P** | **06 16 42.1** | **-1.5** |
| AVF | | | | pmax | pmax | | | |
| | comp=Z,16nm,0.9s | | | | | | | |
| **INK** | **Inuvik** | **64.61** | **338** | *e*P | **P** | **06 16 46.4** | **-1.0** |
| INK | | | | pmax | pmax | | | |
| | comp=Z,14nm,0.8s | | | | | | | |
| **INK** | **Inuvik** | **64.61** | **338** | *e*P | **P** | **06 16 46.4** | **-1.0** |
| | comp=Z,14nm,0.8s | | | | | | | |
| **BAIF** | **Baives** | **64.61** | **43** | *e*P | **P** | **06 16 47.0** | **-0.8** |
| BAIF | | | | pmax | pmax | | | |
| | comp=Z,27nm,1.3s | | | | | | | |
| **HYT** | **Haines Junctio** | **64.73** | **329** | *e*P | **P** | **06 16 49.8** | **+1.2** |
| | comp=Z,44nm,2.0s | | | | | | | |
| **SSB** | **Saint Sauveur** | **64.78** | **48** | *e*P | **P** | **06 16 49.8** | **+0.7** |
| SSB | | | | pmax | pmax | | | |
| | comp=Z,58nm,1.6s | | | | | | | |
| **SSB** | **Saint Sauveur** | **64.78** | **48** | *e*P | **P** | **06 16 49.8** | **+0.7** |
| | comp=Z,58nm,1.6s | | | | | | | |
| **DOU** | **Dourbes** | **64.86** | **43** | P | **P** | **06 16 48.7** | **-0.8** |
| **VIVF** | **Saint-Julien-l** | **64.88** | **48** | *e*P | **P** | **06 16 50.1** | **+0.4** |
| VIVF | | | | pmax | pmax | | | |
| | comp=Z,28nm,1.1s | | | | | | | |
| **CHRN** | **Cochrane** | **65.14** | **184** | *e*P | **P** | **06 16 51.6** | **+0.5** |
| | comp=Z,7.8nm,0.7s | | | | | | | |
| **ORIF** | **Oris-en-Rattie** | **65.73** | **48** | *e*P | P | 06 16 50.1 | -5.2 |
| ORIF | | | | pmax | pmax | | | |
| | comp=Z,65nm,1.8s | | | | | | | |
| **MEM** | **Membach** | **65.78** | **42** | P | **P** | **06 16 54.9** | **-0.5** |
| **WLF** | **Walferdange** | **65.86** | **43** | P | **P** | **06 16 55.9** | **0.0** |
| **WLF** | **Walferdange** | **65.86** | **43** | *e*P | **P** | **06 16 56.2** | **+0.2** |
| WLF | | | | pmax | pmax | | | |
| | comp=Z,55nm,1.5s | | | | | | | |
| **WLF** | **Walferdange** | **65.86** | **43** | *e*P | **P** | **06 16 56.2** | **+0.2** |
| | comp=Z,55nm,1.5s | | | | | | | |
| **DAWY** | **Dawson** | **66.07** | **333** | *e*P | **P** | **06 16 56.8** | **-0.3** |
| | comp=Z,8.6nm,0.6s | | | | | | | |
| **BNI** | **Bardonecchia** | **66.30** | **48** | *e*P | **P** | **06 16 59.9** | **+0.9** |
| BNI | | | | pmax | pmax | | | |
| | comp=Z,45nm,1.6s | | | | | | | |
| **BNI** | **Bardonecchia** | **66.30** | **48** | *e*P | **P** | **06 16 59.9** | **+0.9** |
| | comp=Z,45nm,1.6s | | | | | | | |
| **LPL** | **La Plagne** | **66.32** | **48** | *e*P | **P** | **06 16 59.2** | **-0.1** |
| LPL | | | | pmax | pmax | | | |
| | comp=Z,14nm,0.8s | | | | | | | |
| **LPG** | **La Plagne** | **66.33** | **48** | *e*P | **P** | **06 16 59.4** | **0.0** |
| LPG | | | | pmax | pmax | | | |
| | comp=Z,18nm,1.0s | | | | | | | |
| **HINF** | **Hinteralfeld** | **66.34** | **45** | *e*P | **P** | **06 16 57.8** | **-1.3** |
| HINF | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,0.6s | | | | | | | |
| **TOA0** | **Torodi Ar. Sit** | **66.41** | **83** | *e*P | **P** | **06 16 59.3** | **-0.7** |
| **TORD** | **Torodi Ar. Bea** | **66.41** | **83** | P | **P** | **06 16 58.4** | **-1.6** |
| | comp=Z,5.6nm,0.7s,baz=279,slow=5.5,SNR=32 | | | | | | | |
| **ECH** | **Echery** | **66.54** | **45** | *e*P | **P** | **06 16 59.4** | **-1.0** |
| ECH | | | | pmax | pmax | | | |
| | comp=Z,42nm,1.5s | | | | | | | |
| **ECH** | **Echery** | **66.54** | **45** | *e*P | **P** | **06 16 59.4** | **-1.0** |
| | comp=Z,42nm,1.5s | | | | | | | |
| **SENIN** | **Lac Senin/Sane** | **66.68** | **47** | *e*P | **P** | **06 17 02.1** | **+0.5** |
| | comp=Z,12nm,1.3s | | | | | | | |
| **EGAK** | **Eagle** | **66.92** | **333** | *e*P | **P** | **06 17 02.3** | **-0.2** |
| | comp=Z,20nm,0.8s | | | | | | | |
| **BFO** | **Black Forest** | **67.32** | **45** | *e*P | **P** | **06 17 05.0** | **-0.3** |
| BFO | | | | pmax | pmax | | | |
| | comp=Z,42nm,1.8s | | | | | | | |
| **BFO** | **Black Forest** | **67.32** | **45** | *e*P | **P** | **06 17 05.0** | **-0.3** |
| | comp=Z,42nm,1.8s | | | | | | | |
| **MENT** | **Mentasta** | **67.88** | **331** | *e*P | **P** | **06 17 08.8** | **+0.2** |
| | comp=Z,24nm,0.6s | | | | | | | |
| **TAM** | **Tamanrasset** | **67.89** | **72** | *e*P | **P** | **06 17 10.5** | **+0.9** |
| TAM | | | | pmax | pmax | | | |
| | comp=Z,40nm,1.5s | | | | | | | |
| **TAM** | **Tamanrasset** | **67.89** | **72** | *e*P | **P** | **06 17 10.5** | **+0.9** |
| | comp=Z,40nm,1.5s | | | | | | | |
| **DOT** | **Dot Lake** | **68.08** | **332** | *e*P | **P** | **06 17 09.8** | **-0.1** |
| | comp=Z,110nm,1.5s | | | | | | | |
| **BMRM** | **Bremner River** | **68.20** | **329** | *e*P | **P** | **06 17 10.8** | **+0.2** |
| | comp=Z,22nm,0.7s | | | | | | | |
| **RAGM** | **Ragged Mountai** | **68.22** | **329** | *e*P | **P** | **06 17 11.3** | **+0.5** |
| | comp=Z,60nm,1.3s | | | | | | | |
| **DAVA** | **Damuels** | **68.41** | **46** | *i* P | **P** | **06 17 12.1** | **-0.3** |
| | comp=Z,17nm,0.9s | | | | | | | |
| **PAX** | **Paxson** | **68.68** | **331** | *e*P | **P** | **06 17 13.6** | **-0.1** |
| PAX | | | | pmax | pmax | | | |
| | comp=Z,44nm,1.8s | | | | | | | |
| **PAX** | **Paxson** | **68.68** | **331** | *e*P | **P** | **06 17 13.6** | **-0.1** |
| | comp=Z,44nm,1.8s | | | | | | | |
| **FUORN** | **Ofenpass-Fuorn** | **68.72** | **46** | *e*P | **P** | **06 17 14.3** | **-0.1** |
| | comp=Z,22nm,0.8s | | | | | | | |
| **NBO02** | **NORSAR Array S** | **68.72** | **31** | *e*P | **P** | **06 17 14.0** | **+0.1** |
| **NAO01** | **NORSAR Array S** | **68.73** | **31** | *e*P | **P** | **06 17 14.6** | **+0.6** |
| **EYAK** | **Cordova Ski Ar** | **68.75** | **329** | *e*P | **P** | **06 17 13.1** | **-0.9** |
| | comp=Z,191nm,2.0s | | | | | | | |
| **FYU** | **Fort Yukon** | **68.77** | **335** | *e*P | **P** | **06 17 13.9** | **-0.1** |
| | comp=Z,85nm,1.9s | | | | | | | |
| **KLU** | **Klutina** | **68.85** | **330** | *e*P | **P** | **06 17 14.8** | **0.0** |
| | comp=Z,75nm,1.9s | | | | | | | |
| **NB2** | **NORSAR Subarra** | **68.89** | **31** | P | **P** | **06 17 14.8** | **-0.2** |
| NB2 | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.8s | | | | | | | |
| **NOA** | **NORSAR Array B** | **68.89** | **31** | P | **P** | **06 17 14.2** | **-0.8** |
| | comp=Z,3.6nm,0.8s,baz=270,slow=6.3,SNR=10 | | | | | | | |
| **NB201** | **NORSAR Array S** | **68.93** | **31** | *e*P | **P** | **06 17 16.1** | **+0.9** |
| **VLC** | **Villacollemand** | **69.00** | **49** | *e*P | **P** | **06 17 15.6** | **-0.3** |
| | comp=Z,270nm,1.7s | | | | | | | |
| **RETA** | **Reutte** | **69.00** | **45** | *i* P | **P** | **06 17 15.3** | **-0.6** |
| | comp=Z,14nm,0.9s | | | | | | | |
| **FETA** | **Feichten** | **69.01** | **46** | *e*P | **P** | **06 17 15.8** | **-0.3** |
| | comp=Z,15nm,0.6s | | | | | | | |
| **FID** | **Port Fidalgo** | **69.11** | **329** | *e*P | **P** | **06 17 16.3** | **0.0** |
| | comp=Z,123nm,1.8s | | | | | | | |
| **KEST** | **Kesra** | **69.12** | **58** | P | **P** | **06 17 16.2** | **-0.7** |
| | comp=Z,16nm,0.9s,baz=245,slow=5.9,SNR=12 | | | | | | | |
| **KEST** | **Kesra** | **69.12** | **58** | *e*P | **P** | **06 17 17.5** | **+0.6** |
| | comp=Z,82nm,1.6s | | | | | | | |
| **MOTA** | **Moosalm** | **69.24** | **45** | *e*P | **P** | **06 17 16.8** | **-0.7** |
| | comp=Z,19nm,0.8s | | | | | | | |
| **IL1** | **Eielson Array** | **69.37** | **333** | *e*P | **P** | **06 17 17.0** | **-0.9** |
| **ILAR** | **Eielson Array** | **69.37** | **333** | P | **P** | **06 17 16.1** | **-1.7** |
| | comp=Z,5.5nm,0.5s,baz=100,slow=4.3,SNR=109 | | | | | | | |
| **ILB** | **Eielson Array** | **69.37** | **333** | *e*P | **P** | **06 17 16.4** | **-1.4** |
| **HDA** | **Harding Lake** | **69.39** | **333** | *e*P | **P** | **06 17 17.2** | **-0.7** |
| | comp=Z,28nm,1.5s | | | | | | | |
| **SCM** | **Sheep Creek Mo** | **69.53** | **330** | *e*P | **P** | **06 17 18.4** | **-0.5** |
| SCM | | | | pmax | pmax | | | |
| | comp=Z,14nm,0.8s | | | | | | | |
| **SCM** | **Sheep Creek Mo** | **69.53** | **330** | *e*P | **P** | **06 17 18.4** | **-0.5** |
| | comp=Z,14nm,0.8s | | | | | | | |
| **DHY** | **Denali Highway** | **69.55** | **331** | *e*P | **P** | **06 17 18.5** | **-0.7** |
| | comp=Z,7.0nm,0.9s | | | | | | | |
| **WATA** | **Walderalm** | **69.56** | **45** | *e*P | **P** | **06 17 18.8** | **-0.7** |
| | comp=Z,4.4nm,0.6s | | | | | | | |
| **WTTA** | **Wattenberg** | **69.61** | **46** | *i* P | **P** | **06 17 19.1** | **-0.7** |
| | comp=Z,9.2nm,0.8s | | | | | | | |
| **CCB** | **Clear Creek Bu** | **69.76** | **333** | *e*P | **P** | **06 17 18.9** | **-1.3** |
| | comp=Z,7.1nm,0.8s | | | | | | | |
| **COLA** | **College** | **69.78** | **333** | *e*P | **P** | **06 17 19.4** | **-0.9** |
| COLA | | | | pmax | pmax | | | |
| | comp=Z,23nm,1.3s | | | | | | | |
| **COLA** | **College** | **69.78** | **333** | *e*P | **P** | **06 17 19.4** | **-0.9** |
| | comp=Z,23nm,1.3s | | | | | | | |
| **NKC** | **Novy Kostel** | **69.91** | **42** | *e*P | **P** | **06 17 21.2** | **-0.3** |
| NKC | | | | *e*pP | **sP** | **06 17 27.7** | **-0.6** |
| **NKC** | **Novy Kostel** | **69.91** | **42** | *e*P | **P** | **06 17 21.2** | **-0.3** |
| NKC | | | | *e* | | 06 17 27.7 | | |
| **MDM** | **Murphy Dome** | **69.94** | **333** | *e*P | **P** | **06 17 20.4** | **-1.0** |
| | comp=Z,28nm,1.1s | | | | | | | |
| **SML** | **Sawmill** | **70.00** | **330** | *e*P | **P** | **06 17 21.9** | **0.0** |
| SML | | | | pmax | pmax | | | |
| | comp=Z,15nm,0.8s | | | | | | | |
| **SML** | **Sawmill** | **70.00** | **330** | *e*P | **P** | **06 17 21.9** | **0.0** |
| | comp=Z,15nm,0.8s | | | | | | | |
| **CLL** | **Collm** | **70.18** | **41** | *e*P | **P** | **06 17 23.0** | **-0.1** |
| CLL | | | | *e* | | 06 17 28.0 | | |
| CLL | | | | pmax | pmax | | | |
| | comp=Z,5.0nm,0.8s | | | | | | | |
| **CLL** | **Collm** | **70.18** | **41** | *e*P | **P** | **06 17 23.0** | **-0.1** |
| | comp=Z,5.0nm,0.8s | | | | | | | |
| CLL | | | | *e*pP | **pP** | **06 17 28.0** | **-0.1** |
| **RND** | **Reindeer** | **70.22** | **332** | *e*P | **P** | **06 17 22.7** | **-0.5** |
| RND | | | | pmax | pmax | | | |
| | comp=Z,21nm,0.8s | | | | | | | |
| **RND** | **Reindeer** | **70.22** | **332** | *e*P | **P** | **06 17 22.7** | **-0.5** |
| | comp=Z,21nm,0.8s | | | | | | | |
| **ABTA** | **Abfaltersbach** | **70.25** | **46** | *e*P | **P** | **06 17 22.8** | **-0.9** |
| | comp=Z,12nm,0.9s | | | | | | | |
| **MCK** | **McKinley** | **70.25** | **332** | *e*P | **P** | **06 17 22.8** | **-0.6** |
| MCK | | | | pmax | pmax | | | |
| | comp=Z,11nm,0.9s | | | | | | | |
| **MCK** | **McKinley** | **70.25** | **332** | *e*P | **P** | **06 17 22.8** | **-0.6** |
| | comp=Z,11nm,0.9s | | | | | | | |
| **PMR** | **Palmer** | **70.39** | **330** | *e*P | **P** | **06 17 23.7** | **-0.4** |
| PMR | | | | pmax | pmax | | | |
| | comp=Z,75nm,1.9s | | | | | | | |
| **PMR** | **Palmer** | **70.39** | **330** | *e*P | **P** | **06 17 23.7** | **-0.4** |
| | comp=Z,75nm,1.9s | | | | | | | |
| **KHC** | **Kasperske Hory** | **70.73** | **43** | *e*P | **P** | **06 17 25.9** | **-0.7** |
| KHC | | | | *e*pP | **sP** | **06 17 33.1** | **-0.3** |
| **KHC** | **Kasperske Hory** | **70.73** | **43** | *e*P | **P** | **06 17 26.4** | **-0.2** |
| KHC | | | | pmax | pmax | | | |
| | comp=Z,9.0nm,1.5s | | | | | | | |
| **KHC** | **Kasperske Hory** | **70.73** | **43** | *e*P | **P** | **06 17 26.4** | **-0.2** |
| | comp=Z,9.3nm,1.5s | | | | | | | |
| **COLD** | **Coldfoot** | **70.74** | **336** | *e*P | **P** | **06 17 25.9** | **-0.3** |
| | comp=Z,11nm,1.0s | | | | | | | |
| **BRG** | **Berggiesshubel** | **70.81** | **42** | *e*P | **P** | **06 17 26.9** | **0.0** |
| | comp=Z,7.3nm,0.9s | | | | | | | |
| BRG | | | | *e* | | 06 17 34.7 | | |
| | comp=Z,25nm,1.4s | | | | | | | |
| **BRG** | **Berggiesshubel** | **70.81** | **42** | *e*P | **P** | **06 17 26.9** | **0.0** |
| | comp=Z,7.3nm,0.9s | | | | | | | |
| BRG | | | | *e* | | 06 17 34.7 | | |
| | comp=Z,25nm,1.4s | | | | | | | |
| **BRG** | **Berggiesshubel** | **70.81** | **42** | *e*P | **P** | **06 17 26.9** | **0.0** |
| BRG | | | | *e* | | 06 17 34.7 | | |
| BRG | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,0.9s | | | | | | | |
| **GEC2** | **GERESS Array S** | **70.84** | **44** | *e*P | **P** | **06 17 27.3** | **0.0** |
| GEC2 | | | | pmax | pmax | | | |
| | comp=Z,14nm,1.3s | | | | | | | |
| **GEC2** | **GERESS Array S** | **70.84** | **44** | *e*P | **P** | **06 17 27.3** | **0.0** |
| | comp=Z,14nm,1.3s | | | | | | | |
| **GERES** | **GERESS Array B** | **70.84** | **44** | P | **P** | **06 17 26.1** | **-1.2** |
| | comp=Z,14nm,0.7s,baz=260,slow=6.6,SNR=9.5 | | | | | | | |
| **GEA0** | **GERESS Array S** | **70.84** | **44** | *e*P | **P** | **06 17 26.8** | **-0.5** |
| **TRF** | **Thorofare Moun** | **70.87** | **332** | *e*P | **P** | **06 17 26.7** | **-0.6** |
| | comp=Z,29nm,1.0s | | | | | | | |
| **MLY** | **Manley** | **71.01** | **334** | *e*P | **P** | **06 17 26.9** | **-1.1** |
| | comp=Z,23nm,1.6s | | | | | | | |
| **MYKA** | **Terra Mystica** | **71.03** | **46** | *i* P | **P** | **06 17 28.2** | **-0.3** |
| | comp=Z,9.0nm,0.6s | | | | | | | |
| **KTH** | **Kantishna Hill** | **71.15** | **332** | *e*P | **P** | **06 17 28.0** | **-0.8** |
| | comp=Z,29nm,0.8s | | | | | | | |
| **BPAW** | **Bear Paw Mtn.** | **71.15** | **333** | *e*P | **P** | **06 17 27.7** | **-1.1** |
| | comp=Z,15nm,0.8s | | | | | | | |
| **SUA** | **Susitna One** | **71.17** | **330** | *e*P | **P** | **06 17 28.9** | **-0.1** |
| | comp=Z,87nm,1.9s | | | | | | | |
| **SPA0** | **Spitsbergen Ar** | **71.20** | **13** | *e*P | **P** | **06 17 28.7** | **-0.1** |
| **PVCC** | **Panska Ves** | **71.24** | **42** | *e*P | **P** | **06 17 29.0** | **-0.5** |
| **PVCC** | **Panska Ves** | **71.24** | **42** | *e*P | **P** | **06 17 29.0** | **-0.5** |
| **PRU** | **Pruhonice** | **71.27** | **42** | *e*P | **P** | **06 17 28.1** | **-1.7** |
| PRU | | | | *e*pP | **sP** | **06 17 36.5** | **-0.1** |
| **PRU** | **Pruhonice** | **71.27** | **42** | *e*P | **P** | **06 17 28.1** | **-1.7** |
| PRU | | | | *e* | | 06 17 36.5 | | |
| **MOA** | **Molln** | **71.32** | **45** | *e*P | **P** | **06 17 30.0** | **-0.1** |
| | comp=Z,16nm,1.6s | | | | | | | |
| **BRLK** | **Bradley Lake** | **71.34** | **328** | *e*P | **P** | **06 17 30.2** | **+0.2** |
| | comp=Z,117nm,1.9s | | | | | | | |
| **CNPM** | **China Poot** | **71.53** | **328** | *e*P | **P** | **06 17 31.4** | **+0.3** |
| | comp=Z,158nm,2.0s | | | | | | | |
| **OBKA** | **Obir** | **71.67** | **46** | *e*P | **P** | **06 17 32.4** | **0.0** |
| | comp=Z,11nm,0.7s | | | | | | | |
| **PPLA** | **Purkeypile** | **71.76** | **331** | *e*P | **P** | **06 17 31.8** | **-0.8** |
| | comp=Z,24nm,1.2s | | | | | | | |
| **SPU** | **Mount Spurr** | **71.82** | **329** | *e*P | **P** | **06 17 32.6** | **-0.2** |
| **UPC** | **Upice** | **72.16** | **42** | *e*P | **P** | **06 17 34.6** | **-0.5** |
| UPC | | | | *e*pP | **sP** | **06 17 41.8** | **-0.1** |
| **UPC** | **Upice** | **72.16** | **42** | *e*P | **P** | **06 17 34.6** | **-0.5** |
| UPC | | | | *e* | | 06 17 41.8 | | |
| **IMAR** | **Indian Mountai** | **72.21** | **335** | *e*P | **P** | **06 17 34.3** | **-0.8** |
| **RSO** | **Redoubt South** | **72.22** | **329** | *e*P | **P** | **06 17 35.7** | **+0.2** |
| **ARSA** | **Arzberg** | **72.24** | **45** | *e*P | **P** | **06 17 35.0** | **-0.7** |
| | comp=Z,5.2nm,0.8s | | | | | | | |
| **DPC** | **Dobruska-Polom** | **72.37** | **42** | *e*P | **P** | **06 17 35.8** | **-0.6** |
| DPC | | | | *e*pP | **sP** | **06 17 43.3** | **0.0** |
| **DPC** | **Dobruska-Polom** | **72.37** | **42** | *e*P | **P** | **06 17 35.8** | **-0.6** |
| DPC | | | | *e* | | 06 17 43.3 | | |
| **CONA** | **Conrad Observa** | **72.38** | **44** | *e*P | **P** | **06 17 36.5** | **0.0** |
| | comp=Z,14nm,1.8s | | | | | | | |
| **KDAK** | **Kodiak Island** | **72.39** | **326** | *i* P | **P** | **06 17 36.7** | **+0.4** |
| **KDAK** | **Kodiak Island** | **72.39** | **326** | *e*P | **P** | **06 17 36.3** | **0.0** |
| | comp=Z,44nm,1.3s | | | | | | | |
| **MORC** | **Moravsky Berou** | **73.23** | **42** ⇑ | *i*P | **P** | **06 17 41.2** | **-0.2** |
| **MORC** | **Moravsky Berou** | **73.23** | **42** | *e*P | **P** | **06 17 41.3** | **-0.2** |
| MORC | | | | pmax | pmax | | | |
| | comp=Z,38nm,0.9s | | | | | | | |
| **MORC** | **Moravsky Berou** | **73.23** | **42** | *e*P | **P** | **06 17 41.3** | **-0.2** |
| | comp=Z,38nm,0.9s | | | | | | | |
| **SVW2** | **Sparrevohn** | **73.53** | **330** | *e*P | **P** | **06 17 41.1** | **-1.9** |
| | comp=Z,88nm,2.0s | | | | | | | |
| **OKC** | **Ostrava-Krasne** | **73.61** | **42** | *e*P | **P** | **06 17 43.9** | **+0.2** |
| OKC | | | | *e*pP | **sP** | **06 17 50.2** | **-0.3** |
| **OKC** | **Ostrava-Krasne** | **73.61** | **42** | *e*P | **P** | **06 17 43.9** | **+0.2** |
| OKC | | | | *e* | | 06 17 50.2 | | |
| **VYHS** | **Vyhne** | **74.26** | **44** | *e*P | **P** | **06 17 47.3** | **-0.3** |
| **VYHS** | **Vyhne** | **74.26** | **44** | *e*P | **P** | **06 17 47.3** | **-0.3** |
| **ARCES** | **ARCESS Array B** | **74.28** | **21** | P | **P** | **06 17 46.2** | **-1.0** |
| | comp=Z,8.8nm,0.7s,baz=280,slow=5.2,SNR=32 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **74.28** | **21** | *e*P | **P** | **06 17 46.9** | **-0.3** |
| **ARCES** | **ARCESS Array B** | **74.28** | **21** | *e*P | **P** | **06 17 46.9** | **-0.3** |
| **ARE0** | **ARCESS Array S** | **74.28** | **21** | *e*P | **P** | **06 17 46.6** | **-0.6** |
| **OJC** | **Ojcow** | **74.60** | **42** | *e*P | **P** | **06 17 49.5** | **+0.1** |
| **OJC** | **Ojcow** | **74.60** | **42** | *e*P | **P** | **06 17 49.5** | **+0.1** |
| **OJC** | **Ojcow** | **74.60** | **42** | *e*P | **P** | **06 17 50.1** | **+0.6** |
| | comp=Z,15nm,1.2s | | | | | | | |
| **KECS** | **Kecovo** | **75.34** | **43** | *e*P | **P** | **06 17 54.7** | **+0.9** |
| KECS | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,0.7s | | | | | | | |
| **KECS** | **Kecovo** | **75.34** | **43** | *e*P | **P** | **06 17 54.7** | **+0.9** |
| **CRVS** | **Cervenica-Dubn** | **75.90** | **43** | *e*P | **P** | **06 17 58.4** | **+1.4** |
| **CRVS** | **Cervenica-Dubn** | **75.90** | **43** | *e*P | **P** | **06 17 58.4** | **+1.4** |
| **SUW** | **Suwalki** | **75.96** | **37** | *e*P | **P** | **06 17 58.3** | **+1.1** |
| **SUW** | **Suwalki** | **75.96** | **37** | *e*P | **P** | **06 17 58.3** | **+1.1** |
| **FINES** | **FINESS Array B** | **75.99** | **30** | P | **P** | **06 17 56.6** | **-0.6** |
| | comp=Z,5.4nm,0.7s,baz=256,slow=4.1,SNR=10 | | | | | | | |
| **FIA1** | **FINESS Array S** | **75.99** | **30** | *e*P | **P** | **06 17 57.5** | **+0.3** |
| | comp=Z,89nm,1.9s | | | | | | | |
| **UZH** | **Uzhgorod** | **76.49** | **43** | *c i*P | P | 06 18 08.2 | +7.9 |
| UZH | | | | *i* | | 06 18 12.2 | | |
| UZH | | | | *e* | | 06 18 17.6 | | |
| **KWP** | **Kalwaria Pacla** | **76.55** | **42** | *e*P | **P** | **06 18 01.5** | **+0.8** |
| **KWP** | **Kalwaria Pacla** | **76.55** | **42** | *e*P | **P** | **06 18 01.5** | **+0.8** |
| **TAOE** | **Nuku Hiva Isla** | **76.59** | **256** | *e*LR | LR | 06 41 58.3 | | |
| | comp=Z,255nm,24.7s | | | | | | | |
| **BZS** | **Buzias** | **76.67** | **46** ⇓ | *i*P | **P** | **06 18 01.2** | **-0.2** |
| **BZS** | **Buzias** | **76.67** | **46** ⇓ | *e*P | **P** | **06 18 01.2** | **-0.2** |
| **MDVR** | **Moldovita** | **76.91** | **47** ⇑ | *i*P | **P** | **06 18 01.8** | **-1.1** |
| **DRGR** | | **77.16** | **45** ⇑ | *i*P | **P** | **06 18 03.9** | **-0.4** |
| **DRGR** | | **77.16** | **45** ⇑ | P | **P** | **06 18 03.9** | **-0.4** |
| **HERR** | **Herculane** | **77.38** | **47** ⇑ | *i*P | **P** | **06 18 05.7** | **+0.3** |
| **LOT** | **Lotru** | **78.18** | **46** ⇑ | *i*P | **P** | **06 18 09.5** | **-0.5** |
| **VTS** | **Vitosha** | **78.47** | **49** ⇓ | *i*P | **P** | **06 18 12.3** | **+0.6** |
| **VTS** | **Vitosha** | **78.47** | **49** ⇓ | P | **P** | **06 18 12.3** | **+0.6** |
| **VTS** | **Vitosha** | **78.47** | **49** | *e*P | **P** | **06 18 13.1** | **+1.4** |
| | comp=Z,63nm,2.0s | | | | | | | |
| **BUR08** | **Bucovina Ar. S** | **78.61** | **44** | *e*P | **P** | **06 18 13.1** | **+0.7** |
| **BUR04** | **Bucovina Ar. S** | **78.63** | **44** | *e*P | **P** | **06 18 12.4** | **0.0** |
| **BURAR** | **Bucovina Array** | **78.63** | **44** ⇑ | *i*P | **P** | **06 18 12.9** | **+0.4** |
| **BURAR** | **Bucovina Array** | **78.63** | **44** ⇑ | P | **P** | **06 18 12.9** | **+0.4** |
| **ARR** | **Arges** | **78.79** | **46** ⇑ | *i*P | **P** | **06 18 13.2** | **-0.2** |
| **MLR** | **Muntele Rosu** | **79.65** | **46** ⇑ | *i*P | **P** | **06 18 18.9** | **+0.7** |
| **MLR** | **Muntele Rosu** | **79.65** | **46** | *e*P | **P** | **06 18 18.7** | **+0.6** |
| MLR | | | | pmax | pmax | | | |
| | comp=Z,30nm,0.9s | | | | | | | |
| **MLR** | **Muntele Rosu** | **79.65** | **46** | *e*P | **P** | **06 18 18.7** | **+0.6** |
| | comp=Z,30nm,0.9s | | | | | | | |
| **PLOR** | **Plostina** | **80.03** | **45** ⇓ | *i*P | P | 06 18 25.1 | +5.0 |
| **PLOR** | **Plostina** | **80.03** | **45** ⇓ | P | P | 06 18 25.1 | +5.0 |
| **VRI** | **Vrincioaia** | **80.08** | **45** ⇑ | *i*P | P | 06 18 29.0 | +8.7 |
| **VRI** | **Vrincioaia** | **80.08** | **45** ⇑ | P | P | 06 18 29.1 | +8.8 |
| **AK11** | **Malin Array Si** | **80.32** | **40** | *e*P | **P** | **06 18 21.2** | **-0.3** |
| **AKASG** | **Malin Array Be** | **80.35** | **40** | P | **P** | **06 18 20.8** | **-0.9** |
| | comp=Z,4.5nm,0.8s,baz=287,slow=4.5,SNR=15 | | | | | | | |
| **AKBB** | **Malin Array Si** | **80.35** | **40** | *e*P | **P** | **06 18 21.6** | **0.0** |
| AKBB | | | | pmax | pmax | | | |
| | comp=Z,16nm,1.5s | | | | | | | |
| **AKBB** | **Malin Array Si** | **80.35** | **40** | *e*P | **P** | **06 18 21.6** | **0.0** |
| | comp=Z,16nm,1.5s | | | | | | | |
| **TMCR** | **Tamitsa** | **80.47** | **25** | *e*P | **P** | **06 18 21.8** | **-0.2** |
| TMCR | | | | pmax | pmax | | | |
| | comp=Z,11nm,0.8s | | | | | | | |
| **SORM** | **Soroca** | **80.53** | **43** ⇓ | *i*P | **P** | **06 18 21.8** | **-0.8** |
| **SORM** | **Soroca** | **80.53** | **43** ⇓ | P | **P** | **06 18 21.8** | **-0.8** |
| **CFR** | **Carcaliu** | **81.23** | **45** ⇑ | *i*P | **P** | **06 18 26.1** | **-0.3** |
| **CFR** | **Carcaliu** | **81.23** | **45** ⇑ | P | **P** | **06 18 26.1** | **-0.3** |
| **KLMR** | **Klimovskoe** | **82.38** | **28** | *e*P | **P** | **06 18 30.3** | **-1.8** |
| KLMR | | | | pmax | pmax | | | |
| | comp=Z,37nm,1.5s | | | | | | | |
| **BR231** | **Keskin MP Arra** | **86.17** | **49** | *e*P | **P** | **06 18 53.9** | **+1.9** |
| **BR131** | **Keskin Array S** | **86.83** | **49** | *e*P | **P** | **06 18 55.5** | **+0.2** |
| **BRTR** | **Keskin Array B** | **86.83** | **49** | P | **P** | **06 18 54.7** | **-0.7** |
| | comp=Z,2.2nm,0.8s,baz=280,slow=5.5,SNR=8.7 | | | | | | | |
| **BRTR** | **Keskin Array B** | **86.83** | **49** | *i* P | **P** | **06 18 55.0** | **-0.3** |
| BRTR | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.8s | | | | | | | |
| **PPT2** | **Papeete2** | **88.22** | **251** | *e*LR | LR | 06 47 18.9 | | |
| | comp=Z,307nm,24.0s | | | | | | | |
| **TIXI** | **Tiksi** | **89.86** | **355** | *e*P | **P** | **06 19 08.2** | **-0.6** |
| TIXI | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.8s | | | | | | | |
| **TIXI** | **Tiksi** | **89.86** | **355** | *e*P | **P** | **06 19 08.8** | **0.0** |
| | comp=Z,5.6nm,0.9s | | | | | | | |
| **TBI** | **Tubuai** | **90.03** | **246** | *e*LR | LR | 06 48 13.8 | | |
| | comp=Z,143nm,28.5s | | | | | | | |
| **KBZ** | **Khabaz** | **91.57** | **43** | P | **P** | **06 19 16.9** | **-0.4** |
| | comp=Z,2.5nm,0.8s,baz=9.5,slow=6.1,SNR=4.6 | | | | | | | |
| **KBZ** | **Khabaz** | **91.57** | **43** | P | **P** | **06 19 17.0** | **-0.4** |
| **NEY** | **Neytrino** | **91.67** | **43** | *e*P | **P** | **06 19 16.6** | **-1.5** |
| NEY | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,1.2s | | | | | | | |
| **ARU** | **Arti** | **93.13** | **27** | *d i*P | **P** | **06 19 24.2** | **-0.1** |
| ARU | | | | | | 06 23 05.8 | | |
| ARU | | | | S | **SKSac** | **06 29 56.9** | **-1.0** |
| ARU | | | | pmax | pmax | | | |
| | comp=Z,4.

*Azm189.0000°; N 0.1080, Plg24.0000°, Azm91.0000°; P -1.1670, Plg60.0000°, Azm309.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*RSPR* ***17*** *06:09:09.4, 18°.17N×67°.37W, h17km, 1km*

*NEIC* ***17*** *06:09:09.3±0.0, 18°.17N×67°.37W, h17km, mb5.3/299, MW5.1, MD5.3(RSPR), Moment Tensor Solution. s21 Moment tensor: Scale $10^{16}$Nm; $M_{rr}$-3.29; $M_{\theta\theta}$2.82; $M_{\phi\phi}$0.48; $M_{r\theta}$-4.02; $M_{\theta\phi}$-1.61; $M_{\phi r}$-1.21; Best double couple: $M_0$5.50000×$10^{16}$ NP1:$\phi_s$318.00000°, $\delta$28.00000°, $\lambda$-43.00000°. NP2:$\phi_s$87.00000°, $\delta$72.00000°, $\lambda$-111.00000°. Principal axes: T 5.0100, Plg24.0000°, Azm193.0000°; N 0.8100, Plg20.0000°, Azm94.0000°; P -5.8100, Plg58.0000°, Azm328.0000°; After RSPR.*

*NEIC Felt [V] at Aguada, Anasco, Hormigueros, Las Marias, Mayaguez, Moca, Rincon, San Sebastian and Yauco; [IV] from Aguadilla to Luquillo and from Cabo Rojo to Humacao. Felt throughout Puerto Rico. Felt [III] at Samana and Santo Domingo, Dominican Republic. Also felt at Amina, Barahona, Boca de Yuma, El Palmar, Higuey, La Romana and Otra Banda.*

*TRN* ***17*** *06:09:09.3, 17°.74N×67°.21W, h3km, MD5.7*

**ISC 17 06:09:09.5±0.5, 18°.09N±0°.03×67°.38W±0°.03, h24km±3km, h24km:pP-P, n1288, σ1°07/1316, mb5.3/375, MS4.7/41, 55C-29D, Mona Passage**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MPR** | **Mayaguez** | **0.26** | **62** | ‖*eP* | **Pb** | **06 09 14.4** | **-1.5** |
| **MPR** | **Mayaguez** | **0.26** | **62** | ‖*eP* | **Pb** | **06 09 14.4** | **-1.5** |
| MPR | | | | *eSg* | **Sb** | **06 09 20.0** | **-0.3** |
| **CRPR** | **Cabo Rojo, PR** | **0.27** | **107** | ‖*eP* | **Pb** | **06 09 15.3** | **-0.7** |
| **CRPR** | **Cabo Rojo, PR** | **0.27** | **107** | ‖*eP* | **Pb** | **06 09 15.3** | **-0.7** |
| **LSP** | **Las Mesas** | **0.29** | **73** | ‖*eP* | **Pb** | **06 09 15.3** | **-1.2** |
| **LSP** | **Las Mesas** | **0.29** | **73** | ‖*eP* | **Pb** | **06 09 15.3** | **-1.2** |
| **IDE** | **Isla Desecheo** | **0.31** | **344** | ‖*eP* | **Pb** | **06 09 14.6** | **-2.0** |
| **IDE** | **Isla Desecheo** | **0.31** | **344** | ‖*eP* | **Pb** | **06 09 14.6** | **-2.0** |
| **AGP** | **Aguadilla** | **0.39** | **36** | *ePg* | **Pb** | **06 09 16.8** | **-1.1** |
| **AGPR** | **Aguadilla, PR** | **0.46** | **34** | ‖*eP* | **Pb** | **06 09 16.9** | **-2.1** |
| **AGPR** | **Aguadilla, PR** | **0.46** | **34** | ‖*eP* | **Pb** | **06 09 16.9** | **-2.1** |
| **GBPR** | **Guanica, Bosqu** | **0.49** | **103** | ‖*eP* | **Pb** | **06 09 18.9** | **-0.6** |
| **GBPR** | **Guanica, Bosqu** | **0.49** | **103** | ‖*eP* | **Pb** | **06 09 18.9** | **-0.6** |
| **AOPR** | **Arecibo Observ** | **0.65** | **67** | ‖*eP* | **Pb** | **06 09 20.0** | **-2.3** |
| **AOPR** | **Arecibo Observ** | **0.65** | **67** | ‖*eP* | **Pb** | **06 09 20.0** | **-2.3** |
| **OBIP** | **Obispado Ponce** | **0.74** | **93** | ‖*eP* | **Pb** | **06 09 22.2** | **-1.5** |
| **OBIP** | **Obispado Ponce** | **0.74** | **93** | ‖*eP* | **Pb** | **06 09 22.2** | **-1.5** |
| **CELP** | **Cerrillos** | **0.77** | **91** | ‖*eP* | **Pb** | **06 09 22.2** | **-2.0** |
| **CELP** | **Cerrillos** | **0.77** | **91** | ‖*eP* | **Pb** | **06 09 22.2** | **-2.0** |
| **ICMP** | **Isla Caja de M** | **0.84** | **104** | ‖*eP* | **Pb** | **06 09 24.6** | **-0.9** |
| **ICMP** | **Isla Caja de M** | **0.84** | **104** | ‖*eP* | **Pb** | **06 09 24.6** | **-0.9** |
| **SJG** | **San Juan** | **1.17** | **89** | *Pg* | **Pn** | **06 09 28.4** | **-2.1** |
| | 963nm,0.3s,baz=335,slow=19,SNR=13 | | | | | | |
| SJG | | | | *Lg* | *Lg* | 06 09 45.0 | |
| | 6μm,0.3s,baz=55,slow=18,SNR=19 | | | | | | |
| **SJG** | **San Juan** | **1.17** | **89** | ‖*eP* | **Pn** | **06 09 29.1** | **-1.4** |
| **SJG** | **San Juan** | **1.17** | **89** | ‖*eP* | **Pn** | **06 09 29.1** | **-1.4** |
| SJG | | | | | | 06 09 45.0 | |
| **SJG** | **San Juan** | **1.17** | **89** | *eP* | **Pn** | **06 09 29.6** | **-0.8** |
| **SJG** | **San Juan** | **1.17** | **89** | ‖*eP* | **Pn** | **06 09 29.1** | **-1.4** |
| SJG | | | | *Lg* | *Lg* | 06 09 45.0 | |
| **HUMP** | **Col San Antoni** | **1.46** | **88** | ‖*eP* | **Pn** | **06 09 34.4** | **0.0** |
| **HUMP** | **Col San Antoni** | **1.46** | **88** | ‖*eP* | **Pn** | **06 09 34.4** | **0.0** |
| **CBYP** | **Canovanas** | **1.46** | **83** | ‖*eP* | **Pn** | **06 09 34.0** | **-0.5** |
| **CBYP** | **Canovanas** | **1.46** | **83** | ‖*eP* | **Pn** | **06 09 34.0** | **-0.5** |
| **MTP** | **Monte Pirata** | **1.74** | **89** | ‖*eP* | **Pn** | **06 09 38.4** | **+0.1** |
| **MTP** | **Monte Pirata** | **1.74** | **89** | ‖*eP* | **Pn** | **06 09 38.4** | **+0.1** |
| **CUPR** | **Culebra, Puert** | **2.01** | **83** | ‖*eP* | **Pn** | **06 09 42.5** | **+0.6** |
| **DR12** | **Loma Pena Alta** | **2.02** | **290** | ‖*eP* | **Pn** | **06 09 41.2** | **-1.0** |
| **DR12** | **Loma Pena Alta** | **2.02** | **290** | ‖*eP* | **Pn** | **06 09 41.2** | **-1.0** |
| **STVI** | **Saint Thomas** | **2.32** | **83** | ‖*eP* | **Pn** | **06 09 45.8** | **-0.5** |
| **STVI** | **Saint Thomas** | **2.32** | **83** | ‖*eP* | **Pn** | **06 09 45.8** | **-0.5** |
| **SDD** | **Santo Domingo** | **2.43** | **279** | *ePn* | **Pn** | **06 09 50.0** | **+2.2** |
| **TBVI** | **Tortola** | **2.65** | **83** | ‖*eP* | **Pn** | **06 09 50.0** | **-0.8** |
| **TBVI** | **Tortola** | **2.65** | **83** | ‖*eP* | **Pn** | **06 09 50.0** | **-0.8** |
| **BANI** | **BANI** | **2.84** | **277** | *ePn* | **Pb** | **06 09 57.7** | **-2.0** |
| **ABVI** | **Anegada Island** | **2.96** | **77** | ‖*eP* | **Pn** | **06 09 54.8** | **-0.3** |
| **ABV** | **Anegada** | **2.97** | **77** | ‖*eP* | **Pn** | **06 09 54.8** | **-0.3** |
| **SDDR** | **Presa de Saban** | **3.81** | **284** | *ePn* | **Pb** | **06 10 11.8** | **-4.4** |
| **SABA** | **Saba** | **3.97** | **96** | ‖*eP* | **Pn** | **06 10 10.1** | **+1.1** |
| **SABA** | **Saba** | **3.97** | **96** | ‖*eP* | **Pn** | **06 10 10.1** | **+1.1** |
| SABA | | | | *eS* | **Sn** | **06 10 56.1** | **+1.2** |
| **SABA** | **Saba** | **3.97** | **96** | *eP* | **Pn** | **06 10 11.5** | **+2.5** |
| **SABA** | **Saba** | **3.97** | **96** | *e* | Sn | 06 10 45.8 | -9.0 |
| **SMRT** | **St. Maarten** | **4.10** | **90** | ‖*eP* | **Pn** | **06 10 10.4** | **-0.3** |
| **SMRT** | **St. Maarten** | **4.10** | **90** | ‖*eP* | **Pn** | **06 10 10.4** | **-0.3** |
| SMRT | | | | *eS* | **Sn** | **06 10 58.1** | **+0.1** |
| **SMRT** | **St. Maarten** | **4.10** | **90** | *eP* | **Pn** | **06 10 12.7** | **+1.9** |
| **SEUS** | **St. Eustatius** | **4.24** | **97** | *eP* | **Pn** | **06 10 13.0** | **+0.4** |
| SEUS | | | | *eS* | **Sn** | **06 11 02.1** | **+0.7** |
| **SEUS** | **St. Eustatius** | **4.24** | **97** | *eP* | **Pn** | **06 10 16.3** | **+3.6** |
| **SEUS** | **St. Eustatius** | **4.24** | **97** | *e* | **Sn** | **06 11 02.1** | **+0.7** |
| SEUS | | | | *eS* | **Sb** | **06 11 10.3** | **-3.8** |
| **GRTK** | **Grand Turk** | **4.91** | **315** | *ePn* | **Pn** | **06 10 25.5** | **-0.3** |
| **LGNH** | **LOogne** | **4.98** | **276** | *ePn* | **Pn** | **06 10 26.1** | **+3.2** |
| **MLYT** | **Lee's Yard** | **5.14** | **105** | *eP* | **Pn** | **06 10 26.6** | **+1.5** |
| **MLYT** | **Lee's Yard** | **5.14** | **105** | *eS* | **Sn** | **06 11 21.2** | **-2.5** |
| **MLYT** | **Lee's Yard** | **5.14** | **105** | *eS* | **Sn** | **06 11 27.7** | **+4.0** |
| **ANWB** | **Willy Bob** | **5.35** | **94** | *ePn* | **Pn** | **06 10 31.8** | **+3.9** |
| ANWB | | | | *eS* | **Sn** | **06 11 30.6** | **+1.8** |
| **ANWB** | **Willy Bob** | **5.35** | **94** | *eP* | **Pn** | **06 10 30.3** | **+2.4** |
| **ANWB** | **Willy Bob** | **5.35** | **94** | *eS* | **Sn** | **06 11 26.0** | **-2.8** |
| **BPA** | **Boggy Peak** | **5.37** | **100** | *eP* | **Pn** | **06 10 31.3** | **+3.0** |
| BPA | | | | *eS* | **Sn** | **06 11 30.7** | **+1.2** |
| **BPA** | **Boggy Peak** | **5.37** | **100** | *eP* | **Pn** | **06 10 31.3** | **+3.0** |
| **BPA** | **Boggy Peak** | **5.37** | **100** | *eS* | **Sn** | **06 11 22.1** | **-7.4** |
| **BPA** | **Boggy Peak** | **5.37** | **100** | *eS* | **Sn** | **06 11 28.3** | **-1.2** |
| **GDHS** | **Morne Mazeau,** | **5.67** | **108** | *ePn* | **Pn** | **06 10 33.5** | **+1.1** |
| GDHS | | | | *eS* | **Sn** | **06 11 39.5** | **+2.7** |
| **TBG** | **Guadaloupe-3** | **5.92** | **111** | *eP* | **Pn** | **06 10 39.7** | **+3.9** |
| **BBL** | **Barber's Block** | **6.21** | **113** | *eP* | **Pn** | **06 10 40.4** | **+0.6** |
| **BBL** | **Barber's Block** | **6.21** | **113** | *eP* | **Pn** | **06 10 40.4** | **+0.6** |
| **MDPV** | **Dominica, Penn** | **6.21** | **112** | *eP* | **Pn** | **06 10 42.0** | **+2.2** |
| **MDVC** | **Dominica, Viel** | **6.23** | **112** | *eP* | **Pn** | **06 10 40.5** | **+0.5** |
| **MDMP** | **Dominica, Moor** | **6.23** | **113** | *eP* | **Pn** | **06 10 41.1** | **+1.1** |
| **DEG** | **La Desirade** | **6.30** | **105** | *eP* | **Pn** | **06 10 42.5** | **+1.5** |
| **DEG** | **La Desirade** | **6.30** | **105** | *eP* | **Pn** | **06 10 42.5** | **+1.5** |
| **DBCT** | **Belle View Cho** | **6.43** | **115** | *eP* | **Pn** | **06 10 44.7** | **+1.9** |
| **DBCT** | **Belle View Cho** | **6.43** | **115** | *eP* | **Pn** | **06 10 44.7** | **+1.9** |
| **DLPL** | **La Plaine** | **6.49** | **114** | *eP* | **Pn** | **06 10 44.6** | **+1.0** |
| **DLPL** | **La Plaine** | **6.49** | **114** | *eP* | **Pn** | **06 10 46.9** | **+3.2** |
| **PCM** | **Pelee Case Pet** | **6.76** | **118** | *eP* | **Pn** | **06 10 48.7** | **+1.4** |
| **CXM** | **Morne La Croix** | **6.79** | **118** | *eP* | **Pn** | **06 10 49.4** | **+1.5** |
| **BAMF** | **Morne Balai** | **6.81** | **118** | *eP* | **Pn** | **06 10 46.5** | **-1.6** |
| **FDF** | **Fort de France** | **6.85** | **118** | *eP* | **Pn** | **06 10 48.4** | **-0.2** |
| FDF | | | | *eS* | **Sn** | **06 12 04.2** | **-1.7** |
| **FDF** | **Fort de France** | **6.85** | **118** | *ePn* | **Pn** | **06 10 48.4** | **-0.2** |
| FDF | | | | *eS* | **Sn** | **06 12 04.2** | **-1.7** |
| **FDF** | **Fort de France** | **6.85** | **118** | *eP* | **Pn** | **06 10 48.3** | **-0.2** |
| **FDF** | **Fort de France** | **6.85** | **118** | *eP* | **Pn** | **06 10 50.2** | **+1.6** |
| **FDF** | **Fort de France** | **6.85** | **118** | *eS* | **Sn** | **06 12 00.1** | **-5.8** |
| **BIM** | **Bigot** | **7.02** | **119** | *eP* | Pn | 06 10 45.5 | -5.6 |
| **TRMF** | **Trois Ilets** | **7.03** | **119** | *eP* | **Pn** | **06 10 51.0** | **0.0** |
| **ZAM** | **Aeronautique** | **7.03** | **119** | *eP* | **Pn** | **06 10 51.1** | **0.0** |
| **MVM** | **Montagne Vaucl** | **7.15** | **118** | *eP* | **Pn** | **06 10 54.1** | **+1.4** |
| **SLB** | **Belfond** | **7.43** | **124** | *e* | Pn | 06 11 04.7 | +8.1 |
| **SLB** | **Belfond** | **7.43** | **124** | *e* | Pn | 06 11 04.7 | +8.2 |
| **GTBY** | **Guantanamo Bay** | **7.54** | **285** | *ePn* | **Pn** | **06 10 59.2** | **+1.3** |
| **MCLT** | **Moule a Chique** | **7.57** | **124** | *eP* | **Pn** | **06 10 59.4** | **+0.8** |
| **MCLT** | **Moule a Chique** | **7.57** | **124** | *eP* | **Pn** | **06 10 59.4** | **+0.8** |
| **SVB** | **Belmont** | **7.60** | **128** | *ePn* | **Pn** | **06 10 58.6** | **-0.3** |
| **SVB** | **Belmont** | **7.60** | **128** | *eP* | **Pn** | **06 10 59.2** | **+0.3** |
| **FCV** | **Fort Charlotte** | **7.68** | **129** | *eP* | **Pn** | **06 11 01.2** | **+1.2** |
| **FCV** | **Fort Charlotte** | **7.68** | **129** | *eP* | **Pn** | **06 11 01.2** | **+1.2** |
| **SVCV** | **St. Vincent, C** | **7.68** | **128** | *eP* | **Pn** | **06 11 00.8** | **+0.8** |
| **GRGR** | **Grenville** | **8.10** | **136** | *ePn* | **Pn** | **06 11 06.7** | **+0.9** |
| **GRGR** | **Grenville** | **8.10** | **136** | *eP* | **Pn** | **06 11 06.7** | **+0.9** |
| **PCRV** | **Puerto La Cruz** | **8.30** | **161** | Pn | **Pn** | **06 11 08.8** | **+0.2** |
| | 27nm,0.3s,baz=283,slow=4.4,SNR=12 | | | | | | |
| PCRV | | | | *Sn* | **Sn** | **06 12 39.2** | **-2.5** |
| | 7.2nm,0.3s,baz=90,slow=20,SNR=2.4 | | | | | | |
| PCRV | | | | *LR* | *LR* | 06 14 11.7 | |
| | comp=Z,7μm,21.4s,baz=318,slow=36 | | | | | | |
| **BBGH** | **Gun Hill** | **9.00** | **122** | *ePn* | **Pn** | **06 11 21.4** | **+3.3** |
| **BBGH** | **Gun Hill** | **9.00** | **122** | *e* | **Pn** | **06 11 21.1** | **+3.0** |
| **BBGH** | **Gun Hill** | **9.00** | **122** | *e* | **Pn** | **06 11 21.4** | **+3.3** |
| **TRN** | **Trinidad (W)** | **9.39** | **141** | *eP* | **Pn** | **06 11 25.5** | **+2.0** |
| **TRN** | **Trinidad (W)** | **9.39** | **141** | *eP* | **Pn** | **06 11 25.5** | **+2.0** |
| **TRN** | **Trinidad (W)** | **9.39** | **141** | *eP* | **Pn** | **06 11 25.5** | **+2.0** |
| **TOSP** | **Speyside** | **9.46** | **135** | *eP* | **Pn** | **06 11 23.2** | **-1.1** |
| **TOSP** | **Speyside** | **9.46** | **135** | *eP* | **Pn** | **06 11 23.2** | **-1.1** |
| **TOSP** | **Speyside** | **9.46** | **135** | *eP* | **Pn** | **06 11 27.5** | **+3.2** |
| **TPP** | **Pointe-a-Pierr** | **9.63** | **143** | *eP* | Pn | 06 11 34.1 | +7.4 |
| **TPP** | **Pointe-a-Pierr** | **9.63** | **143** | *eP* | Pn | 06 11 34.1 | +7.4 |
| **TPP** | **Pointe-a-Pierr** | **9.63** | **143** | *eP* | Pn | 06 11 34.1 | +7.4 |
| **MTDJ** | **Mount Denham** | **9.65** | **272** | *ePn* | **Pn** | **06 11 30.1** | **+3.0** |
| **SDV** | **Santo Domingo** | **9.68** | **199** | Pn | **Pn** | **06 11 27.7** | **+0.2** |
| | 9.0nm,0.3s,baz=37,slow=15,SNR=8.7 | | | | | | |
| SDV | | | | *Sn* | **Sn** | **06 13 15.9** | **+0.2** |
| | 6.6nm,0.3s,baz=43,slow=19,SNR=1.9 | | | | | | |
| SDV | | | | *LR* | *LR* | 06 15 37.9 | |
| | comp=Z,5μm,19.9s,baz=8.5,slow=40 | | | | | | |
| **SDV** | **Santo Domingo** | **9.68** | **199** | *eP* | **Pn** | **06 11 29.4** | **+1.9** |
| **SDV** | **Santo Domingo** | **9.68** | **199** | *ePn* | **Pn** | **06 11 29.5** | **+1.9** |
| SDV | | | | *Sn* | **Sn** | **06 13 15.9** | **+0.2** |
| **PAMC** | **Pamplona, Colo** | **11.87** | **207** | *eP* | **Pn** | **06 11 58.5** | **+0.5** |
| **BRRC** | **Barranca, Sant** | **12.54** | **210** | *eP* | **Pn** | **06 12 04.6** | **-2.0** |
| **BARC** | **Barichara** | **12.75** | **207** | *eP* | **Pn** | **06 12 09.6** | **-0.1** |
| **RUSC** | **La Rusia** | **13.34** | **205** | *eP* | **Pn** | **06 12 17.2** | **-0.8** |
| **RUSC** | **La Rusia** | **13.34** | **205** | *ePn* | **Pn** | **06 12 17.4** | **-0.6** |
| **YOPC** | **Yopal, Colombi** | **13.58** | **202** | *eP* | **Pn** | **06 12 21.6** | **+0.6** |
| **HELC** | **Santa Helena** | **14.25** | **215** | *eP* | **Pn** | **06 12 28.5** | **-1.8** |
| **HELC** | **Santa Helena** | **14.25** | **215** | *ePn* | **Pn** | **06 12 29.2** | **-1.1** |
| **BBSR** | **BB Station** | **14.43** | **9** | *ePn* | **Pn** | **06 12 31.6** | **-0.7** |
| **NORC** | **Norcasia** | **14.44** | **211** | *eP* | **Pn** | **06 12 32.0** | **-0.6** |
| **CHIC** | **Chingaza** | **14.75** | **206** | *eP* | **Pn** | **06 12 36.0** | **-1.2** |
| **ROSC** | **El Rosal** | **14.81** | **208** | Pn | **Pn** | **06 12 38.4** | **+0.4** |
| | 4.6nm,0.3s,baz=17,slow=14,SNR=5.5 | | | | | | |
| ROSC | | | | *LR* | *LR* | 06 19 02.6 | |
| | comp=Z,3μm,18.6s,baz=12,slow=40 | | | | | | |
| **ROSC** | **El Rosal** | **14.81** | **208** | *eP* | **Pn** | **06 12 37.8** | **-0.2** |
| **ROSC** | **El Rosal** | **14.81** | **208** | *ePn* | **Pn** | **06 12 39.5** | **+1.5** |
| **GUYC** | **Guyana, Colomb** | **14.99** | **212** | *eP* | Pn | 06 12 32.7 | -7.8 |
| **VILC** | **Villavicencio,** | **15.20** | **205** | *eP* | Pn | 06 12 34.8 | -8.1 |
| **PLMC** | **San Jos˜ del** | **15.73** | **215** | *eP* | **Pn** | **06 12 44.9** | **-4.9** |
| **PRAC** | **Prado** | **16.07** | **208** | *eP* | **Pn** | **06 12 52.5** | **-1.5** |
| **PRAC** | **Prado** | **16.07** | **208** | *ePn* | **Pn** | **06 12 54.4** | **+0.3** |
| | 118nm,0.9s | | | | | | |
| **HDC** | **Heredia** | **18.10** | **246** | *eP* | **P** | **06 13 20.8** | **+0.8** |
| | 66nm,0.8s | | | | | | |
| **JTS** | **JuntasAbangare** | **18.70** | **248** | *eP* | **Pn** | **06 13 28.0** | **+1.0** |
| **JTS** | **JuntasAbangare** | **18.70** | **248** | *eP* | **Pn** | **06 13 27.9** | **+1.0** |
| **CSU** | **Charleston Sou** | **18.71** | **325** | *eP* | **Pn** | **06 13 27.4** | **+0.6** |
| **RGRS** | **Roger Stewart** | **18.72** | **324** | *eP* | **Pn** | **06 13 28.3** | **+1.3** |
| | 4μm,0.7s | | | | | | |
| **NHSC** | **New Hope** | **18.86** | **325** | *eP* | **Pn** | **06 13 28.9** | **+0.3** |
| | 594nm,1.0s | | | | | | |
| **CNNC** | **Cliffs of the** | **19.47** | **333** | *eP* | **Pn** | **06 13 36.5** | **+0.5** |
| | 236nm,1.1s | | | | | | |
| **TGUH** | **Tegucigalpa,Un** | **19.53** | **261** | *eP* | **Pn** | **06 13 37.5** | **+0.7** |
| | 34nm,0.8s | | | | | | |
| **TIGA** | **Tifton** | **19.80** | **315** | P | **P** | **06 13 38.8** | **+0.5** |
| | baz=128 | | | | | | |
| **TIGA** | **Tifton** | **19.80** | **315** | *eP* | **Pn** | **06 13 39.7** | **-0.2** |
| | 112nm,0.9s | | | | | | |
| **CMBC** | **Cumbal** | **19.89** | **212** | *eP* | **Pn** | **06 13 43.1** | **+1.6** |
| **PTGA** | **Pitinga** | **20.07** | **158** | P | **P** | **06 13 42.3** | **+0.9** |
| | 100nm,1.0s,baz=350,slow=12,SNR=19 | | | | | | |
| PTGA | | | | *LR* | *LR* | 06 21 30.1 | |
| | comp=Z,3μm,20.7s,baz=341,slow=37 | | | | | | |
| **PTGA** | **Pitinga** | **20.07** | **158** | *eP* | Pn | 06 13 42.8 | -0.5 |
| | 113nm,0.9s | | | | | | |
| **JSC** | **Jenkinsville** | **20.34** | **325** | *eP* | **P** | **06 13 44.5** | **+0.3** |
| JSC | | | | *pmax* | *pmax* | | |
| | comp=Z,136nm,0.8s | | | | | | |
| **JSC** | **Jenkinsville** | **20.34** | **325** | *eP* | **P** | **06 13 44.5** | **+0.3** |
| | comp=Z,136nm,0.8s | | | | | | |
| **GOGA** | **Godfrey** | **21.00** | **320** | *eP* | **P** | **06 13 50.7** | **-0.6** |
| GOGA | | | | *pmax* | *pmax* | | |
| | comp=Z,276nm,1.3s | | | | | | |
| **GOGA** | **Godfrey** | **21.00** | **320** | *eP* | **P** | **06 13 50.7** | **-0.6** |
| | comp=Z,276nm,1.3s | | | | | | |
| **KMSC** | **Kings Mountain** | **21.03** | **327** | P | **P** | **06 13 52.0** | **+0.3** |
| | baz=140,SNR=9.5 | | | | | | |
| **KMSC** | **Kings Mountain** | **21.03** | **327** | *eP* | **P** | **06 13 51.7** | **+0.1** |
| | comp=Z,183nm,1.3s | | | | | | |
| **SNET** | **Serv Nac Est T** | **21.46** | **261** | *eP* | **P** | **06 13 59.6** | **+3.1** |
| | comp=Z,150nm,1.1s | | | | | | |
| **JSRW** | **J. Sargeant Re** | **21.59** | **337** | *eP* | **P** | **06 13 57.9** | **+0.2** |
| **IP05** | **Hopewell Churc** | **21.67** | **337** | *eP* | **P** | **06 13 58.4** | **0.0** |
| | comp=Z,153nm,0.8s | | | | | | |
| **BG3** | **Lake Jocassee** | **21.79** | **324** | *eP* | **P** | **06 14 01.0** | **+1.2** |
| | comp=Z,168nm,0.9s | | | | | | |
| **IP01** | **Cuckoo** | **21.84** | **337** | *eP* | **P** | **06 14 00.2** | **0.0** |
| | comp=Z,93nm,0.7s | | | | | | |
| **IP06** | **Yanceyville** | **21.84** | **337** | *eP* | **P** | **06 13 59.8** | **-0.6** |
| | comp=Z,106nm,0.9s | | | | | | |
| **IP07** | **Gil** | **21.85** | **337** | *eP* | **P** | **06 14 00.8** | **+0.5** |
| | comp=Z,102nm,0.8s | | | | | | |
| **SPFD** | **Spotsylvania F** | **21.85** | **338** | *eP* | **P** | **06 14 01.2** | **+0.8** |
| | comp=Z,208nm,1.2s | | | | | | |
| **CBN** | **Corbin Frederi** | **21.86** | **338** | *eP* | **P** | **06 14 00.9** | **+0.3** |
| | comp=Z,113nm,0.7s | | | | | | |
| **PTRD** | **Partlow Road** | **21.88** | **338** | *eP* | **P** | **06 14 01.4** | **+0.7** |
| | comp=Z,261nm,1.2s | | | | | | |
| **SPRD** | **Spring Road, M** | **21.88** | **337** | *eP* | **P** | **06 14 02.5** | **+1.7** |
| | comp=Z,183nm,1.0s | | | | | | |
| **CVRD** | **Centerville Ro** | **21.90** | **337** | *eP* | **P** | **06 14 00.5** | **-0.4** |
| | comp=Z,210nm,1.0s | | | | | | |
| **IP03** | **Louisa** | **21.93** | **337** | *eP* | **P** | **06 14 01.2** | **-0.1** |
| | comp=Z,180nm,1.2s | | | | | | |
| **IP04** | **Greensprings** | **22.02** | **337** | *eP* | **P** | **06 14 03.8** | **+1.5** |
| | comp=Z,124nm,1.0s | | | | | | |
| **BRAL** | **Brewton** | **22.07** | **310** | P | **P** | **06 14 03.7** | **+0.8** |
| | baz=122,SNR=29 | | | | | | |
| **BRAL** | **Brewton** | **22.07** | **310** | *eP* | **P** | **06 14 03.6** | **+0.8** |
| | comp=Z,463nm,1.0s | | | | | | |
| **BLA** | **Blacksburg** | **22.23** | **332** | *eP* | **P** | **06 14 05.0** | **+0.4** |
| BLA | | | | *pmax* | *pmax* | | |
| | comp=Z,306nm,1.0s | | | | | | |
| **BLA** | **Blacksburg** | **22.23** | **332** | *eP* | **P** | **06 14 05.0** | **+0.4** |
| | comp=Z,306nm,1.0s | | | | | | |
| **448A** | **Bay Minette** | **22.55** | **308** | P | **P** | **06 14 08.6** | **+0.6** |
| | baz=120 | | | | | | |
| **TKL** | **Tuckaleechee C** | **22.75** | **324** | P | **P** | **06 14 09.6** | **-0.5** |
| | comp=Z,117nm,1.1s,baz=146,slow=11,SNR=13 | | | | | | |
| TKL | | | | *LR* | *LR* | 06 22 39.8 | |
| | comp=Z,1μm,20.4s,baz=140,slow=36 | | | | | | |
| **TKL** | **Tuckaleechee C** | **22.75** | **324** | *eP* | **P** | **06 14 10.8** | **+0.8** |
| TKL | | | | *pmax* | *pmax* | | |
| | comp=Z,137nm,1.0s | | | | | | |
| **TKL** | **Tuckaleechee C** | **22.75** | **324** | *eP* | **P** | **06 14 10.8** | **+0.8** |
| | comp=Z,137nm,1.0s | | | | | | |
| **SDMD** | **Soldier's Deli** | **22.78** | **341** | *eP* | **P** | **06 14 11.5** | **+1.2** |
| | comp=Z,50nm,0.9s | | | | | | |
| **348A** | **Jackson** | **22.82** | **309** | P | **P** | **06 14 11.5** | **+0.6** |
| | baz=121,SNR=8.6 | | | | | | |
| **PSUB** | **Penn St. - Bra** | **22.86** | **344** | *eP* | **P** | **06 14 11.4** | **+0.3** |
| | comp=Z,72nm,1.0s | | | | | | |
| **CPCT** | **Cooper Cave** | **23.03** | **322** | *eP* | **P** | **06 14 13.2** | **+0.2** |
| | comp=Z,149nm,1.2s | | | | | | |
| **248A** | **Dixon Mills** | **23.06** | **311** | P | **P** | **06 14 13.6** | **+0.3** |
| | baz=122,SNR=25 | | | | | | |
| **LRAL** | **Lakeview Retre** | **23.06** | **314** | P | **P** | **06 14 13.7** | **+0.4** |
| | baz=125,SNR=21 | | | | | | |
| **LRAL** | **Lakeview Retre** | **23.06** | **314** | *eP* | **P** | **06 14 13.7** | **+0.4** |
| | comp=Z,154nm,1.2s | | | | | | |
| **447A** | **Lucedale** | **23.08** | **307** | P | **P** | **06 14 14.1** | **+0.5** |
| | baz=118 | | | | | | |
| **MVL** | **Millersville** | **23.17** | **342** | *eP* | **P** | **06 14 15.2** | **+0.9** |
| | comp=Z,119nm,1.4s | | | | | | |
| **347A** | **Saraland** | **23.29** | **309** | P | **P** | **06 14 16.2** | **+0.6** |
| | baz=120,SNR=30 | | | | | | |
| **CPNY** | **Central Park** | **23.32** | **347** | *eP* | **P** | **06 14 16.8** | **+0.9** |
| | comp=Z,92nm,0.5s | | | | | | |
| CPNY | | | | *eS* | **S** | **06 18 26.3** | **-0.8** |
| **BRNJ** | **Basking Ridge** | **23.35** | **346** | *eP* | **P** | **06 14 17.3** | **+1.1** |
| | comp=Z,135nm,0.8s | | | | | | |
| BRNJ | | | | *eS* | **S** | **06 18 26.7** | **-0.9** |
| **LUPA** | **Lehigh Univers** | **23.47** | **345** | *eP* | **P** | **06 14 18.8** | **+1.5** |
| | comp=Z,29nm,1.5s | | | | | | |
| LUPA | | | | *eS* | **S** | **06 18 31.6** | **+2.2** |
| **PAL** | **Palisades** | **23.52** | **348** | *eP* | **P** | **06 14 18.5** | **+0.7** |
| PAL | | | | *pmax* | *pmax* | | |
| | comp=Z,132nm,0.8s | | | | | | |
| **PAL** | **Palisades** | **23.52** | **348** | *eP* | **P** | **06 14 18.5** | **+0.7** |
| | comp=Z,132nm,0.8s | | | | | | |
| **446A** | **Poplarville** | **23.62** | **306** | P | **P** | **06 14 18.8** | **0.0** |
| | baz=117 | | | | | | |
| **YLE** | **Yale** | **23.63** | **350** | *eP* | **P** | **06 14 20.4** | **+1.6** |
| | comp=Z,226nm,1.1s | | | | | | |
| YLE | | | | *eS* | **S** | **06 18 35.2** | **+3.1** |
| **Z48A** | **Northport** | **23.64** | **314** | P | **P** | **06 14 19.2** | **+0.1** |
| | baz=125,SNR=14 | | | | | | |
| **247A** | **Quitman** | **23.67** | **310** | P | **P** | **06 14 19.9** | **+0.6** |
| | baz=121,SNR=25 | | | | | | |
| **CCIG** | **Comitan** | **23.71** | **269** | *eP* | **P** | **06 14 20.3** | **+0.2** |
| | comp=Z,50nm,0.9s | | | | | | |
| **SWET** | **Sewanee** | **23.72** | **320** | *eP* | **P** | **06 14 20.6** | **+0.7** |
| | comp=Z,62nm,1.0s | | | | | | |
| **ODNJ** | **Ogdensburg** | **23.74** | **346** | *eP* | **P** | **06 14 22.3** | **+2.3** |
| | comp=Z,128nm,1.1s | | | | | | |
| **147A** | **Livingston** | **23.75** | **312** | P | **P** | **06 14 20.8** | **+0.7** |
| | baz=123,SNR=23 | | | | | | |
| **N59A** | **State Game Lan** | **23.87** | **344** | P | **P** | **06 14 22.2** | **+1.0** |
| | baz=160,SNR=8.9 | | | | | | |
| **Z47A** | **Carrollton** | **23.89** | **313** | P | **P** | **06 14 22.1** | **+0.6** |
| | baz=124,SNR=12 | | | | | | |
| **X48A** | **Hartselle** | **23.94** | **317** | P | **P** | **06 14 22.2** | **+0.3** |
| | baz=128 | | | | | | |
| **346A** | **Big Creek Wild** | **23.97** | **308** | P | **P** | **06 14 23.2** | **+0.9** |
| | baz=118,SNR=6.2 | | | | | | |
| **BRYW** | **Bryant College** | **24.02** | **352** | *eP* | **P** | **06 14 22.2** | **-0.4** |
| | comp=Z,347nm,2.0s | | | | | | |
| BRYW | | | | *eS* | **S** | **06 18 41.7** | **+3.4** |
| **246A** | **Jackson Lee, B** | **24.03** | **309** | P | **P** | **06 14 24.1** | **+1.3** |
| | baz=120 | | | | | | |
| **MCWV** | **Mont Chateau** | **24.05** | **336** | *eP* | **P** | **06 14 23.7** | **+0.8** |
| | comp=Z,505nm,1.9s | | | | | | |
| **O56A** | **Blue Knob Stat** | **24.12** | **339** | P | **P** | **06 14 25.0** | **+1.4** |
| | baz=153,SNR=7.9 | | | | | | |
| **Y47A** | **UCPARC, Winfie** | **24.14** | **315** | P | **P** | **06 14 24.2** | **+0.4** |
| | baz=126,SNR=20 | | | | | | |
| **SSPA** | **Standing Stone** | **24.22** | **340** | *eP* | **P** | **06 14 25.5** | **+1.0** |
| | comp=Z,382nm,1.7s | | | | | | |
| **146A** | **Union** | **24.29** | **311** | P | **P** | **06 14 26.2** | **+1.0** |
| | baz=121,SNR=17 | | | | | | |
| **445A** | **Amite** | **24.34** | **305** | P | **P** | **06 14 25.3** | **-0.4** |
| | baz=116 | | | | | | |
| **345A** | **Thompson Farm,** | **24.36** | **307** | P | **P** | **06 14 26.7**

baz=111
LBNH **Lisbon** 26.35 353 eP P 06 14 43.9 +0.2
LBNH pmax pmax
comp=Z,85nm,1.4s
LBNH **Lisbon** 26.35 353 eP P 06 14 43.9 +0.2
comp=Z,85nm,1.4s
142A **Monroe** 26.38 308 P P 06 14 45.6 +1.5
baz=117,SNR=13
S46A **Don Dixon Farm** 26.43 322 P P 06 14 44.8 +0.3
baz=132,SNR=25
NCB **Newcomb** 26.44 349 eP P 06 14 47.7 +3.2
comp=Z,69nm,0.8s
WVL **Waterville** 26.47 356 eP P 06 14 46.1 +1.3
comp=Z,64nm,0.8s
GLAT **Glass** 26.50 317 eP P 06 14 46.2 +1.0
comp=Z,290nm,1.2s
T45A **Paducah** 26.56 320 P P 06 14 46.5 +0.9
baz=130
Q47A **Bedord North L** 26.57 325 P P 06 14 46.3 +0.5
baz=136,SNR=5.9
X43A **Marvell** 26.57 313 P P 06 14 46.6 +0.8
baz=122,SNR=5.9
U44B **Burton Farm, H** 26.58 318 P P 06 14 46.2 +0.3
baz=127
USIN **University of** 26.59 322 eP P 06 14 46.2 +0.3
comp=Z,233nm,1.0s
441A **DeRidder** 26.59 303 P P 06 14 46.7 +0.6
baz=112
R46A **Gibon Southern** 26.67 323 P P 06 14 47.1 +0.4
baz=133,SNR=9.3
Z42A **Norrel Spur, H** 26.71 309 P P 06 14 48.1 +1.0
baz=118,SNR=15
BLO **Bloomington** 26.79 326 eP P 06 14 48.7 +0.9
BLO pmax pmax
comp=Z,86nm,1.0s
BLO **Bloomington** 26.79 326 eP P 06 14 48.7 +0.9
comp=Z,86nm,1.0s
GNAR **Gosnell** 26.79 316 eP P 06 14 48.9 +1.1
comp=Z,120nm,0.9s
341A **Kurthwood** 26.80 304 P P 06 14 49.0 +1.1
baz=113
PVMO **Portageville** 26.85 317 eP P 06 14 49.2 +0.9
comp=Z,467nm,1.3s
Y42A **Garnett, Star** 26.87 310 P P 06 14 49.4 +0.8
baz=120,SNR=15
P47A **Martinsville** 26.89 326 P P 06 14 49.3 +0.7
baz=137
241A **Mo Tay, Goldon** 26.89 306 P P 06 14 49.7 +1.0
baz=115,SNR=8.4
U44A **Portageville** 26.89 317 P P 06 14 49.4 +0.7
baz=127
CCAR **Cane Creek** 26.90 311 eP P 06 14 48.8 0.0
comp=Z,134nm,1.0s
S45A **Carrier Mills** 26.94 321 P P 06 14 49.5 +0.4
baz=131,SNR=16
HBAR **Harrisburg** 26.98 315 eP P 06 14 50.6 +1.1
comp=Z,107nm,0.9s
PARMO **Parma** 27.03 318 eP P 06 14 50.7 +0.7
comp=Z,186nm,1.1s
X42A **Stuttgart** 27.12 312 P P 06 14 51.4 +0.7
baz=121
141A **Papa Simpson,** 27.13 307 P P 06 14 52.0 +1.2
baz=116
LONY **Lake Ozonia** 27.13 349 eP P 06 14 50.8 0.0
comp=Z,56nm,1.1s
Q46A **CEJHS Indians,** 27.14 324 P P 06 14 51.5 +0.6
baz=135
R45A **Skylar, Fairfi** 27.17 322 P P 06 14 51.8 +0.6
baz=132,SNR=58
SAML **Samuel** 27.18 171 eP P 06 14 52.2 +0.8
comp=Z,76nm,0.9s
T44A **Benton** 27.19 319 P P 06 14 51.1 -0.2
baz=128,SNR=6.1
U43A **Rector** 27.28 316 P P 06 14 52.4 +0.2
baz=126,SNR=7.9
ATAH **Atahualpa** 27.32 204 P P 06 14 53.9 +0.7
comp=Z,15nm,1.0s,baz=59,slow=8.8,SNR=4.6
ATAH LR LR 06 27 25.4
comp=Z,2µm,21.3s,baz=359,slow=40
Z41A **Richland Creek** 27.34 308 P P 06 14 53.6 +0.8
baz=117
SIUC **Southern Illin** 27.35 320 eP P 06 14 53.6 +0.8
comp=Z,168nm,0.9s
OLIL **Olney** 27.36 323 eP P 06 14 53.3 +0.4
comp=Z,356nm,1.1s
S44A **Carbondale** 27.36 320 P P 06 14 53.7 +0.8
baz=130,SNR=13
O47A **Sheridan** 27.39 328 P P 06 14 53.4 +0.3
baz=138,SNR=5.5
W42A **Bald Knob** 27.42 313 P P 06 14 54.0 +0.6
baz=122
P46A **Rosedale** 27.48 325 P P 06 14 55.0 +1.1
baz=136,SNR=16
Y41A **Eaglette Beard** 27.49 310 P P 06 14 55.2 +1.1
baz=118,SNR=8.8
Q45A **Warren Harvey,** 27.50 323 P P 06 14 54.8 +0.6
baz=133,SNR=44
LVIG **Laguna Verde** 27.50 278 eP P 06 14 56.4 +2.0
comp=Z,18nm,0.8s
PBMO **Poplar Bluff** 27.54 317 eP P 06 14 54.5 0.0
comp=Z,45nm,1.1s
240A **Hunter Patters** 27.55 305 P P 06 14 55.8 +1.1
baz=114
R44A **Waltonville** 27.61 321 P P 06 14 55.4 +0.3
baz=131,SNR=45
V42A **Cord** 27.62 314 P P 06 14 55.3 +0.1
baz=123,SNR=21
T43A **Greenville** 27.63 318 P P 06 14 55.7 +0.4
baz=127,SNR=10
140A **Cam and Jess,** 27.65 307 P P 06 14 56.4 +0.9
baz=115,SNR=7.8
P45A **Graceland, Par** 27.71 325 P P 06 14 56.7 +0.7
baz=135,SNR=27
X41A **Kaden, Bauxite** 27.72 311 P P 06 14 57.1 +0.9
baz=120
UALR **University of** 27.74 312 eP P 06 14 56.4 +0.1
comp=Z,51nm,1.1s
LMN **Caledonia Moun** 27.77 4 eP P 06 14 56.8 +0.3
comp=Z,113nm,1.3s
Z40A **Long Farm, Mag** 27.79 308 P P 06 14 57.8 +1.0
baz=116
S43A **Fulton Ridge,** 27.79 319 P P 06 14 56.5 -0.3
baz=128,SNR=8.0
U42A **Revenden** 27.82 316 P P 06 14 57.2 +0.2
baz=124,SNR=17
AAM **Ann Arbor** 27.83 334 P P 06 14 57.8 +0.7
baz=145,SNR=6.9
AAM **Ann Arbor** 27.83 334 eP P 06 14 57.6 +0.5
AAM pmax pmax
comp=Z,124nm,1.1s
AAM **Ann Arbor** 27.83 334 eP P 06 14 57.6 +0.5
comp=Z,124nm,1.1s
W41B **Gary Mavity, V** 27.87 313 P P 06 14 57.6 +0.1
baz=121,SNR=18
X40A **Basin Creek Fa** 27.95 311 P P 06 14 58.9 +0.7
baz=119,SNR=22
WHAR **Wooly Hollow** 27.96 313 eP P 06 14 58.9 +0.6
comp=Z,66nm,0.9s
SFIN **Lafayette** 27.97 327 P P 06 14 58.6 +0.3
baz=137,SNR=6.6
SFIN **Lafayette** 27.97 327 eP P 06 14 58.8 +0.5
comp=Z,47nm,0.9s
Q44A **Meyer Farm, Va** 28.00 322 P P 06 14 59.3 +0.7
baz=132,SNR=27
X301 **Greenbrier Sit** 28.01 313 eP P 06 14 59.4 +0.6
comp=Z,97nm,1.3s
Y40A **Okolona** 28.04 309 P P 06 15 00.1 +1.0
baz=118,SNR=10.0
T42A **Van Buren** 28.11 317 P P 06 14 59.6 -0.1
baz=126,SNR=7.1
V41A **Mountainview** 28.13 314 P P 06 15 00.1 +0.2
baz=122,SNR=16
NATX **Nacogdoches** 28.14 304 P P 06 15 01.2 +1.2
baz=112,SNR=8.2
NATX **Nacogdoches** 28.14 304 eP P 06 15 01.2 +1.2
comp=Z,210nm,1.5s
R43A **Red Bud** 28.14 320 P P 06 14 59.9 0.0
baz=129
P44A **Sand Creek, Wi** 28.16 324 P P 06 15 00.9 +0.9
baz=133,SNR=12
N46A **Monticello** 28.16 328 P P 06 15 00.9 +0.9
baz=138,SNR=12
O45A **Potomac** 28.21 326 P P 06 15 01.0 +0.5
baz=136
FVM **French Village** 28.26 319 eP P 06 15 01.3 +0.3
FVM pmax pmax
comp=Z,49nm,1.1s
FVM **French Village** 28.26 319 eP P 06 15 01.3 +0.3
comp=Z,49nm,1.1s
U41A **Viola** 28.27 315 P P 06 15 01.4 +0.3
baz=124,SNR=8.4
M46A **Old House Fiel** 28.36 329 P P 06 15 02.5 +0.7
baz=139,SNR=8.6
S42A **Caledonia** 28.36 318 P P 06 15 01.7 -0.2
baz=127,SNR=10
SADO **Sadowa** 28.37 342 P P 06 15 02.4 +0.6
comp=Z,20nm,0.8s,baz=157,slow=8.4,SNR=5.2
SADO LR LR 06 26 53.2
comp=Z,1µm,18.1s,baz=170,slow=38
SADO **Sadowa** 28.37 342 eP P 06 15 02.5 +0.7
comp=Z,30nm,0.9s
Q43A **New Douglas** 28.43 322 P P 06 15 03.0 +0.6
baz=131,SNR=12
HKT **Hockley** 28.46 300 eP P 06 15 03.6 +0.8
HKT pmax pmax
comp=Z,34nm,1.3s
HKT **Hockley** 28.46 300 eP P 06 15 03.6 +0.8
comp=Z,34nm,1.3s
W40A **Ferguson Farm,** 28.46 312 P P 06 15 03.0 +0.2
baz=120
W40A **Ferguson Farm,** 28.46 312 eP P 06 15 03.9 +1.1
comp=Z,44nm,1.0s
MIAR **Mount Ida** 28.51 310 P P 06 15 03.5 +0.3
baz=118,SNR=8.5
MIAR **Mount Ida** 28.51 310 eP P 06 15 04.0 +0.7
MIAR pmax pmax
comp=Z,32nm,1.1s
MIAR **Mount Ida** 28.51 310 eP P 06 15 04.0 +0.7
comp=Z,32nm,1.1s
N45A **Kentland** 28.53 327 P P 06 15 04.0 +0.7
baz=137,SNR=19
O44A **Mansfield** 28.54 325 P P 06 15 04.0 +0.5
baz=134,SNR=18
SLM **Saint Louis** 28.55 320 eP P 06 15 03.7 +0.1
SLM pmax pmax
comp=Z,28nm,0.8s
SLM **Saint Louis** 28.55 320 eP P 06 15 03.7 +0.1
comp=Z,28nm,0.8s
T41A **Mountain View** 28.56 316 P P 06 15 03.8 +0.1
baz=125,SNR=40
V40A **Witts Springs** 28.60 313 P P 06 15 04.3 +0.3
baz=121,SNR=12
Y39A **Lockesburg** 28.61 309 P P 06 15 04.5 +0.4
baz=117,SNR=8.5
R42A **Luebbering** 28.68 319 P P 06 15 04.9 +0.2
baz=128,SNR=25
P43A **Skaggs, Pawnee** 28.79 323 P P 06 15 06.1 +0.5
baz=132,SNR=32
M45A **Boilermakers S** 28.79 328 P P 06 15 06.2 +0.6
baz=138,SNR=8.3
N44A **Piper City** 28.82 326 P P 06 15 06.3 +0.4
baz=136,SNR=22
CCM **Cathedral Cave** 28.82 319 P P 06 15 06.0 +0.1
baz=127
CCM **Cathedral Cave** 28.82 319 eP P 06 15 06.3 +0.3
CCM pmax pmax
comp=Z,77nm,0.9s
CCM **Cathedral Cave** 28.82 319 eP P 06 15 06.2 +0.3
comp=Z,76nm,0.9s
138A **Matatall Enter** 28.82 306 P P 06 15 07.3 +1.3
baz=113,SNR=8.5
S41A **Jillco Farms,** 28.86 317 P P 06 15 06.5 +0.1
baz=125,SNR=63
X39A **Fountain Ranch** 28.89 310 P P 06 15 07.0 +0.4
baz=118,SNR=7.0
Q42A **Golden Eagle** 28.91 321 P P 06 15 06.8 +0.1
baz=129,SNR=16
U40A **Yellville** 28.91 314 P P 06 15 06.9 +0.1
baz=122,SNR=5.3
W39A **Magazine** 28.97 311 P P 06 15 08.4 +1.1
baz=119,SNR=19
Z38A **Mt. Pleasant** 28.99 307 P P 06 15 08.0 +0.6
baz=114,SNR=9.4
R41A **Rosebud** 29.05 319 P P 06 15 08.0 0.0
baz=127,SNR=17
Y38A **Idabel** 29.08 308 P P 06 15 09.0 +0.7
baz=116,SNR=10
O43A **Sugar Creek Fa** 29.10 324 P P 06 15 08.6 +0.2
baz=133,SNR=6.2
T40A **Mansfield** 29.12 316 P P 06 15 08.5 -0.1
baz=124,SNR=25
237A **Washetta, Mont** 29.14 304 P P 06 15 09.7 +0.9
baz=112
V39A **Pettigrew** 29.19 313 P P 06 15 09.9 +0.5
baz=120
M44A **Midewin, Midew** 29.20 327 P P 06 15 09.7 +0.5
baz=136,SNR=19
P42A **Winchester** 29.23 322 P P 06 15 09.6 +0.1
baz=130,SNR=16
PAYG **Puerto Ayora** 29.25 233 eP P 06 15 10.5 +0.6
comp=Z,959nm,1.7s
HDIL **Hopedale** 29.28 324 P P 06 15 10.2 +0.2
baz=134
HDIL **Hopedale** 29.28 324 eP P 06 15 10.5 +0.5
comp=Z,98nm,1.4s
137A **Heron Place, G** 29.32 305 P P 06 15 11.1 +0.6
baz=112,SNR=8.5
U39A **Green Forest** 29.36 314 P P 06 15 11.0 +0.2
baz=121,SNR=14
Q41A **Truxton** 29.36 320 P P 06 15 10.6 -0.1
baz=128,SNR=14
S40A **Lebanon** 29.36 317 P P 06 15 10.8 +0.1
baz=124,SNR=27
W38A **Poteau** 29.44 310 P P 06 15 12.3 +0.8
baz=118,SNR=27
Z37A **Pogue Cattle C** 29.45 306 P P 06 15 12.6 +1.0
baz=114,SNR=11
N43A **Stutzman Famil** 29.48 325 P P 06 15 12.0 +0.3
baz=134,SNR=8.7
O42A **Bath** 29.48 323 P P 06 15 11.9 +0.2
baz=132,SNR=6.5
X38A **Whitesboro** 29.48 309 P P 06 15 12.7 +0.9
baz=117,SNR=8.9
R40A **Maddies Statio** 29.61 318 P P 06 15 12.7 -0.2
baz=126,SNR=11
HHAR **Hobbs** 29.62 313 eP P 06 15 13.3 +0.2
comp=Z,40nm,0.9s
T39A **Clever** 29.62 315 P P 06 15 13.3 +0.2
baz=122,SNR=18
236A **Katherine and** 29.71 303 P P 06 15 13.9 +0.1
baz=111
L44A **Lake County Fo** 29.71 328 P P 06 15 14.3 +0.5
baz=138,SNR=9.1
M43A **Waltham Townsh** 29.71 326 P P 06 15 14.0 +0.2
baz=135,SNR=25
P41A **Barry, Barry** 29.71 321 P P 06 15 13.6 -0.2
baz=130,SNR=8.2
V38A **Canehill** 29.74 312 P P 06 15 14.4 +0.3
baz=119,SNR=14
336A **Riesel** 29.75 302 P P 06 15 14.8 +0.6
baz=109,SNR=6.8
Y37A **Hugo** 29.77 308 P P 06 15 15.6 +1.2
baz=115,SNR=6.7
X37A **Clayton** 29.85 309 P P 06 15 15.6 +0.5
baz=116,SNR=6.9
X37A **Clayton** 29.85 309 eP P 06 15 15.9 +0.8
comp=Z,26nm,0.9s
N42A **Yates City** 29.88 324 P P 06 15 15.4 +0.2
baz=133,SNR=10
136A **Ennis** 29.88 304 P P 06 15 15.8 +0.4
baz=112,SNR=7.2
O41A **Passleys Farm,** 29.89 322 P P 06 15 15.1 -0.3
baz=130,SNR=11
Q40A **Laux Farm, Aux** 29.90 319 P P 06 15 15.6 0.0
baz=127,SNR=20
S39A **Bolivar** 29.95 316 P P 06 15 15.8 -0.2
baz=124,SNR=15
U38A **Gravette** 30.01 313 P P 06 15 16.6 +0.1
baz=120,SNR=18
Z36A **Blue Ridge** 30.10 306 P P 06 15 17.2 -0.2
baz=113
R39A **Chumby, Stover** 30.11 317 P P 06 15 17.3 -0.1
baz=125,SNR=16
L43A **Garden Prairie** 30.13 327 P P 06 15 17.8 +0.3
baz=136,SNR=14
W37B **Quinton** 30.14 310 P P 06 15 18.3 +0.6
baz=117,SNR=14
W37B **Quinton** 30.14 310 eP P 06 15 18.4 +0.7
comp=Z,48nm,0.8s
M42A **Sheffield** 30.15 325 P P 06 15 17.7 0.0
baz=134,SNR=7.5
435B **Jarrell** 30.16 300 P P 06 15 18.7 +0.8
baz=108,SNR=12
P40A **Paris** 30.21 320 P P 06 15 18.1 -0.2
baz=128,SNR=22
Y36A **Durant** 30.24 307 P P 06 15 18.5 0.0
baz=114
T38A **Diamond** 30.25 314 P P 06 15 18.6 -0.1
baz=121,SNR=18
N41A **Harden Midland** 30.26 323 P P 06 15 18.7 +0.1
baz=131,SNR=5.7
V37A **Hulbert** 30.27 311 P P 06 15 18.9 +0.1
baz=118,SNR=27
K43A **Burlington** 30.31 329 P P 06 15 19.2 +0.2
baz=138,SNR=14
S38A **Stockton** 30.31 315 P P 06 15 19.0 -0.1
baz=123,SNR=8.7
GLMI **Grayling** 30.31 335 P P 06 15 19.9 +0.8
baz=146,SNR=8.3
GLMI **Grayling** 30.31 335 eP P 06 15 20.2 +1.2
comp=Z,164nm,0.9s
WHTX **Lake Whitney,** 30.44 303 P P 06 15 20.4 0.0
baz=110,SNR=12
WHTX **Lake Whitney,** 30.44 303 eP P 06 15 21.2 +0.9
comp=Z,32nm,0.8s
O40A **La Belle** 30.48 321 P P 06 15 20.4 -0.2
baz=129,SNR=17
L42A **Oliver, Polo** 30.49 326 P P 06 15 20.8 +0.2
baz=135,SNR=6.6
Q39A **Willow Grove F** 30.50 318 P P 06 15 20.4 -0.4
baz=126,SNR=9.5
U37A **Salina** 30.51 312 P P 06 15 21.0 +0.1
baz=119,SNR=10
M41A **Milan** 30.53 324 P P 06 15 20.8 -0.2
baz=133,SNR=7.1
LNIG **Linares** 30.56 288 eP P 06 15 21.1 -0.5
comp=Z,16nm,0.7s
X36A **Centrahoma** 30.57 308 P P 06 15 21.9 +0.4
baz=115,SNR=19
R38A **Fenwick Farm,** 30.61 316 P P 06 15 21.6 -0.2
baz=124,SNR=14
P39B **Salisbury** 30.62 319 P P 06 15 21.6 -0.3
baz=127
W36A **Wetumka** 30.72 309 P P 06 15 22.8 0.0
baz=116
W36A **Wetumka** 30.72 309 eP P 06 15 23.1 +0.3
comp=Z,37nm,0.9s
T37A **Cheneyville 18** 30.73 314 P P 06 15 22.5 -0.3
baz=121,SNR=10
TUL1 **Leonard** 30.75 311 P P 06 15 23.2 +0.1
baz=118,SNR=51
TUL1 **Leonard** 30.75 311 eP P 06 15 23.6 +0.6
comp=Z,335nm,1.2s
N40A **Mertquake, Sal** 30.79 323 P P 06 15 23.1 -0.2
baz=130,SNR=13
V36A **Jenks** 30.80 311 P P 06 15 24.0 +0.5
baz=117,SNR=74
V36A **Jenks** 30.80 311 eP P 06 15 23.8 +0.3
comp=Z,327nm,1.1s
Y35A **Marietta** 30.81 307 P P 06 15 24.2 +0.6
baz=113,SNR=22
J43A **Natural Harves** 30.85 329 P P 06 15 23.9 +0.1
baz=138,SNR=7.4
Q38A **Cooks Store, C** 30.86 318 P P 06 15 23.7 -0.2
baz=125,SNR=18
K42A **Prairie Point,** 30.87 328 P P 06 15 24.0 0.0
baz=136,SNR=15
U36A **Oologah** 30.94 312 P P 06 15 24.5 -0.2
baz=118,SNR=17
O39A **Kirksville** 30.96 321 P P 06 15 24.6 -0.2
baz=128,SNR=5.7
X35A **Drake** 30.96 307 P P 06 15 24.7 -0.2
baz=114,SNR=6.3
X35A **Drake** 30.96 307 eP P 06 15 25.1 +0.1
comp=Z,39nm,1.0s
L41A **Preston** 30.98 325 P P 06 15 24.9 -0.1
baz=134,SNR=16
S37A **Fort Scott** 30.99 315 P P 06 15 25.1 -0.1
baz=122,SNR=11
833A **Chaparral WMA,** 31.05 295 P P 06 15 25.5 -0.3
baz=102,SNR=13
VLDQ **Val d'Or** 31.05 347 eP P 06 15 27.3 +1.8
comp=Z,17nm,0.7s
M40A **Post Highland** 31.09 323 P P 06 15 25.7 -0.3
baz=131,SNR=9.4
I43A **Langenfeld Bro** 31.10 330 P P 06 15 26.2 +0.2
baz=139,SNR=19
J42A **Columbus** 31.15 328 P P 06 15 26.6 +0.2
baz=137,SNR=8.2
F46A **Macinaw City C** 31.15 336 P P 06 15 26.6 +0.1
baz=147
P38A **Dawn** 31.19 319 P P 06 15 26.8 -0.1
baz=126,SNR=8.5
W35A **Tecumseh** 31.20 309 P P 06 15 26.9 -0.2
baz=115,SNR=26
W35A **Tecumseh** 31.20 309 eP P 06 15 27.2 +0.1
comp=Z,142nm,1.3s
K41A **Shullsburg** 31.25 326 P P 06 15 27.5 +0.2
baz=134,SNR=11
OK021 **N3530 Road, Sp** 31.28 310 eP P 06 15 27.9 +0.1
comp=Z,98nm,1.1s
NNA **Nana** 31.31 198 P P 06 15 28.5 +0.3
comp=Z,25nm,0.6s,baz=0.0,slow=6.1,SNR=3.8
NNA **Nana** 31.31 198 eP P 06 15 28.9 +0.7
NNA pmax pmax
comp=Z,27nm,0.6s
NNA **Nana** 31.31 198 eP P 06 15 28.9 +0.7
comp=Z,27nm,0.6s
N39A **Derby Farms, D** 31.32 322 P P 06 15 27.6 -0.5
baz=129,SNR=9.0
Q37A **Longview Farm,** 31.35 317 P P 06 15 27.8 -0.5
baz=124,SNR=13
T36A **Boggs Farm, Ca** 31.36 313 P P 06 15 28.6 +0.1
baz=119,SNR=14
L40A **Anamosa** 31.37 325 P P 06 15 28.2 -0.2
baz=132,SNR=7.7
H43A **Windswept, Lux** 31.37 331 P P 06 15 28.6 +0.2
baz=140,SNR=8.6
OK020 **N3440 Road, Me** 31.37 310 eP P 06 15 28.7 +0.2
comp=Z,67nm,0.9s
F45A **CMU Biological** 31.38 335 P P 06 15 29.3 +0.9
baz=145,SNR=9.8
JFWS **Jewell Farm** 31.43 327 P P 06 15 29.2 +0.2
baz=135,SNR=24
JFWS **Jewell Farm** 31.43 327 eP P 06 15 29.2 +0.2
JFWS pmax pmax
comp=Z,167nm,1.0s
JFWS **Jewell Farm** 31.43 327 eP P 06 15 29.2 +0.2
comp=Z,167nm,1.0s
V35A **Meyer Ranch, C** 31.44 310 P P 06 15 29.3 +0.2
baz=116,SNR=16
V35A **Meyer Ranch, C** 31.44 310 eP P 06 15 29.4 +0.3
comp=Z,53nm,0.7s
O38A **Galt** 31.44 320 P P 06 15 29.0 -0.2
baz=127,SNR=11
I42A **Draeger Farm,** 31.47 329 P P 06 15 29.5 +0.2
baz=138,SNR=17
S36A **Lake Cedric, C** 31.49 314 P P 06 15 29.6 0.0
baz=121,SNR=25
M39A **Webster** 31.52 323 P P 06 15 29.5 -0.3
baz=130,SNR=16
J41A **Loganville** 31.63 328 P P 06 15 30.9 +0.2
baz=136,SNR=14
U35A **Pawnee** 31.64 311 P P 06 15 30.9 0.0
baz=117,SNR=19
U35A **Pawnee** 31.64 311 eP P 06 15 31.1 +0.2
comp=Z,112nm,1.0s
P37A **Lathrop** 31.68 318 P P 06 15 31.2 0.0
baz=125,SNR=17
N38A **Joes South For** 31.71 321 P P 06 15 31.3 -0.1
baz=128,SNR=9.5
T35A **Sooner Cattle** 31.74 312 P P 06 15 31.8 0.0
baz=118,SNR=34
R36A **Gordon, Harris** 31.74 315 P P 06 15 31.5 -0.3
baz=122,SNR=8.9
H42A **Shiocton** 31.75 331 P P 06 15 32.1 +0.3
baz=139,SNR=7.3
K40A **Colesburg** 31.75 326 P P 06 15 31.8 -0.1
baz=133,SNR=15
E45A **Wooded Hills,** 31.80 336 P P 06 15 32.5 +0.3
baz=146
L39A **Vinton** 31.84 324 P P 06 15 32.5 -0.1
baz=131,SNR=26
O37A **Wolven Farm, M** 31.89 319 P P 06 15 33.0 -0.1
baz=126
JCT **Junction City** 31.90 299 P P 06 15 33.2 -0.2
baz=105,SNR=11
JCT **Junction City** 31.90 299 eP P 06 15 33.7 +0.3
JCT pmax pmax
comp=Z,35nm,1.0s
JCT **Junction City** 31.90 299 eP P 06 15 33.7 +0.3
comp=Z,35nm,1.0s
G43A **Wallace** 31.95 332 P P 06 15 33.9 +0.4
baz=141

S35A **Otter Creek Ra** 31.97 314 P P 06 15 33.9 0.0
baz=120,SNR=19
F44A **Big Bay de Noc** 31.98 335 P P 06 15 34.1 +0.3
baz=144,SNR=7.2
J40A **Soldiers Grove** 32.03 327 P P 06 15 34.3 +0.1
baz=135,SNR=15
Q36A **Arnold C. Orve** 32.05 316 P P 06 15 34.4 -0.1
baz=122
I41A **Arkdale** 32.06 329 P P 06 15 34.7 +0.2
baz=137,SNR=11
M38A **Pleasantville** 32.07 322 P P 06 15 34.5 -0.2
baz=129,SNR=16
K39A **Oelwein** 32.16 325 P P 06 15 35.1 -0.4
baz=132,SNR=25
F43A **Flat Rock, Esc** 32.17 334 P P 06 15 35.7 +0.3
baz=143,SNR=7.2
R35A **Emporia Munici** 32.21 315 P P 06 15 35.9 0.0
baz=121,SNR=5.9
P36A **Good Intent, A** 32.25 317 P P 06 15 35.8 -0.4
baz=124,SNR=7.0
G42A **Mountain** 32.26 332 P P 06 15 35.9 -0.3
baz=140,SNR=11
T34A **McClaskey Farm** 32.26 312 P P 06 15 36.6 +0.2
baz=118,SNR=27
N37A **Lee Faris, Mou** 32.27 320 P P 06 15 36.5 0.0
baz=126,SNR=9.0
E44A **Grand Marais A** 32.31 336 P P 06 15 36.2 -0.4
baz=146
I40A **Norwalk** 32.31 328 P P 06 15 36.8 0.0
baz=135,SNR=15
H41A **Junction City** 32.36 330 P P 06 15 37.1 0.0
baz=138,SNR=13
O36A **Bolckow** 32.38 318 P P 06 15 37.4 0.0
baz=125,SNR=15
Q35A **Mercer Eighty,** 32.38 316 P P 06 15 36.8 -0.6
baz=122,SNR=10.0
SCIA **State Center** 32.39 323 P P 06 15 37.5 +0.1
baz=129,SNR=7.0
SCIA **State Center** 32.39 323 eP P 06 15 37.6 +0.1
comp=Z,78nm,1.1s
L38A **Oak Wood Farm,** 32.39 323 P P 06 15 37.3 -0.1
baz=130,SNR=13
ABTX **Abilene, Hawle** 32.40 303 P P 06 15 37.8 +0.2
baz=109,SNR=49
ABTX **Abilene, Hawle** 32.40 303 eP P 06 15 37.6 0.0
comp=Z,123nm,1.0s
WMOK **Wichita Mounta** 32.47 307 P P 06 15 37.9 -0.3
baz=113,SNR=18
WMOK **Wichita Mounta** 32.47 307 eP P 06 15 38.2 0.0
WMOK pmax pmax
comp=Z,33nm,0.8s
WMOK **Wichita Mounta** 32.47 307 eP P 06 15 38.2 0.0
comp=Z,33nm,0.8s
J39A **Decorah** 32.49 326 P P 06 15 38.1 -0.2
baz=133,SNR=10
S34A **Willow Spring** 32.53 313 P P 06 15 38.7 0.0
baz=119,SNR=8.2
F42A **Maple Grove Fa** 32.53 333 P P 06 15 39.3 +0.7
baz=141
E43A **Lone Tree Farm** 32.54 334 P P 06 15 39.4 +0.8
baz=144
M37A **Trindle Farm,** 32.57 321 P P 06 15 39.1 +0.1
baz=128,SNR=9.2
G41A **Antigo** 32.59 331 P P 06 15 39.4 +0.3
baz=139,SNR=7.8
K38A **Parkersburg** 32.61 324 P P 06 15 39.3 -0.1
baz=131,SNR=26
P35A **Duane Minner,** 32.72 317 P P 06 15 39.7 -0.7
baz=122,SNR=14
H40A **Chili** 32.73 329 P P 06 15 40.6 +0.3
baz=137,SNR=23
I39A **Houston** 32.75 327 P P 06 15 40.5 -0.1
baz=134,SNR=8.1
N36A **Muff Farm, Cla** 32.77 320 P P 06 15 40.6 -0.2
baz=126,SNR=16
L37A **Phoenix Point,** 32.84 322 P P 06 15 41.1 -0.2
baz=129,SNR=6.8
KSU1 **Kansas State U** 32.89 316 P P 06 15 41.2 -0.6
baz=121,SNR=5.4
KSU1 **Kansas State U** 32.89 316 eP P 06 15 41.3 -0.5
comp=Z,36nm,0.8s
J38A **Wedel Dairy, R** 32.90 325 P P 06 15 41.5 -0.4
baz=132,SNR=11
R34A **Isabella, Hill** 32.91 314 P P 06 15 42.0 0.0
baz=119,SNR=25
F41A **Three Lakes** 32.95 332 P P 06 15 42.5 +0.2
baz=140,SNR=11
E42A **Champion** 32.97 334 P P 06 15 42.6 +0.2
baz=142
Q34A **Chapman** 33.02 315 P P 06 15 42.6 -0.3
baz=120,SNR=5.5
M36A **Felix, Anita** 33.05 321 P P 06 15 43.4 +0.2
baz=126,SNR=19
O35A **Humboldt** 33.05 318 P P 06 15 43.1 -0.2
baz=124
G40A **Rib Lake** 33.11 330 P P 06 15 43.8 +0.1
baz=138,SNR=16
K37A **Belmond** 33.18 323 P P 06 15 44.0 -0.3
baz=130,SNR=14
H39A **Augusta** 33.21 328 P P 06 15 44.6 +0.1
baz=135,SNR=27
N35A **Tabor** 33.22 319 P P 06 15 44.3 -0.4
baz=125,SNR=7.2
ZAIG **Zacatecas** 33.25 284 eP P 06 15 46.6 +1.1
comp=Z,15nm,1.2s
P34A **Walnut Farm, R** 33.26 316 P P 06 15 44.8 -0.3
baz=122
U32A **Winter Ranch,** 33.29 310 P P 06 15 45.1 -0.3
baz=115,SNR=9.0
I38A **Seanlan Farm,** 33.30 326 P P 06 15 45.3 -0.1
baz=133,SNR=27
L36A **Harm Buss Farm** 33.36 322 P P 06 15 45.8 -0.1
baz=128,SNR=9.3
E41A **Kenton** 33.45 333 P P 06 15 47.1 +0.5
baz=141,SNR=8.3
J37A **Redenius Farm,** 33.48 324 P P 06 15 47.1 +0.1
baz=130,SNR=26
O34A **Beatrice** 33.51 317 P P 06 15 46.8 -0.5
baz=122
F40A **Park Falls** 33.55 331 P P 06 15 47.8 +0.2
baz=138,SNR=7.1
K36A **Gilmore City** 33.56 323 P P 06 15 47.7 +0.1
baz=128
G39A **Holcombe** 33.59 329 P P 06 15 48.1 +0.3
baz=136,SNR=27
M35A **Neola** 33.60 320 P P 06 15 47.8 -0.2
baz=125,SNR=12
H38A **Maiden Rock** 33.72 327 P P 06 15 49.1 +0.1
baz=134,SNR=12
D41A **Chassel** 33.74 334 P P 06 15 49.8 +0.7
baz=142,SNR=9.8
N34A **Lincoln** 33.74 318 P P 06 15 48.9 -0.4
baz=124,SNR=6.6
G38A **Ridgeland** 33.84 328 P P 06 15 50.0 -0.1
baz=135,SNR=11
E40A **Wakefield** 33.85 332 P P 06 15 50.6 +0.5
baz=139,SNR=18
I37A **Lemond, Waseca** 33.86 325 P P 06 15 50.2 0.0
baz=132,SNR=20
L35A **Bielow Farm, R** 33.89 321 P P 06 15 50.4 -0.1
baz=126
F39A **Loretta** 33.92 330 P P 06 15 51.1 +0.3
baz=137,SNR=17
J36A **Seneca 1, Swea** 33.93 324 P P 06 15 50.7 -0.2
baz=129,SNR=11
H37A **Dierke Farm, C** 33.98 327 P P 06 15 51.4 +0.1
baz=133,SNR=8.7
O33A **Hebron** 34.03 316 P P 06 15 52.2 +0.3
baz=121
K35A **Storm Lake** 34.07 322 P P 06 15 52.1 +0.1
baz=128,SNR=7.0
E39A **Mellen** 34.10 331 P P 06 15 52.7 +0.4
baz=138,SNR=16
M34A **Aspy Farms, Fr** 34.17 319 P P 06 15 53.5 +0.5
baz=124
LPAZ **La Paz** 34.17 181 P P 06 15 53.4 -0.4
comp=Z,4.7nm,0.7s,baz=23,slow=7.7,SNR=7.2
LPAZ LR LR 06 30 53.1
comp=Z,1μm,19.1s,baz=352,slow=38
LPAZ **La Paz** 34.17 181 eP P 06 15 54.2 +0.4
LPAZ pmax pmax
comp=Z,23nm,0.9s
LPAZ **La Paz** 34.17 181 eP P 06 15 54.1 +0.4
comp=Z,23nm,0.9s
I36A **Fitzsimmons Fa** 34.20 325 P P 06 15 52.5 -0.7
baz=131
N33A **J Bar K, Exete** 34.30 317 P P 06 15 53.7 -0.4
baz=122
L34A **Svendsen Farm,** 34.30 320 P P 06 15 53.7 -0.4
baz=125,SNR=7.9
SPMN **Marine on St.** 34.36 327 P P 06 15 54.6 0.0
baz=134,SNR=13
SPMN **Marine on St.** 34.36 327 eP P 06 15 55.2 +0.7
comp=Z,70nm,1.0s
F38A **Pierce - Schro** 34.42 329 P P 06 15 55.3 +0.3
baz=136,SNR=31
SIV **San Ignacio** 34.43 169 P P 06 15 55.6 +0.2
comp=Z,18nm,0.7s,baz=5.0,slow=7.2,SNR=5.7
J35A **Milford** 34.45 323 P P 06 15 55.2 -0.1
baz=128,SNR=6.1
H36A **Jessenland, He** 34.52 326 P P 06 15 56.0 +0.1
baz=131,SNR=15
K34A **Le Mars** 34.55 321 P P 06 15 56.1 -0.2
baz=126,SNR=7.4
M33A **Taylor Creek F** 34.59 319 P P 06 15 56.3 -0.4
baz=124,SNR=14
F37A **Hinrichs Farm,** 34.62 328 P P 06 15 56.5 -0.3
baz=134,SNR=8.4
I35A **Creekview Farm** 34.63 324 P P 06 15 56.9 -0.1
baz=129,SNR=13
C40A **Isle Royale Na** 34.66 334 P P 06 15 57.7 +0.6
baz=142,SNR=18
E38A **The Farm, Brul** 34.73 330 P P 06 15 57.7 0.0
baz=137,SNR=8.7
AMTX **Amarillo** 34.74 306 P P 06 15 57.7 -0.4
baz=110
AMTX **Amarillo** 34.74 306 eP P 06 15 57.9 -0.2
comp=Z,29nm,0.9s
J34A **George** 34.83 322 P P 06 15 58.6 -0.1
baz=127,SNR=13
G36A **St. Michael** 34.86 327 P P 06 15 58.7 -0.2
baz=132,SNR=8.3
CBKS **Cedar Bluff** 34.88 313 P P 06 15 59.4 +0.3
baz=130,SNR=13
CBKS **Cedar Bluff** 34.88 313 eP P 06 15 59.5 +0.3
CBKS pmax pmax
comp=Z,79nm,0.9s
CBKS **Cedar Bluff** 34.88 313 eP P 06 15 59.5 +0.3
comp=Z,79nm,0.9s
TXAR **Lajitas Array** 34.92 295 P P 06 15 58.9 -0.8
comp=Z,19nm,0.6s,baz=110,slow=7.6,SNR=36
TXAR ScP ScP 06 22 15.6 -0.8
comp=Z,1.1nm,0.6s,baz=110,slow=4.9,SNR=5.1
TXAR LR LR 06 33 35.1
comp=Z,738nm,21.1s,baz=0.0,slow=42
TX31 **Lajitas Ar. Si** 34.92 295 eP P 06 16 00.6 +0.8
L33A **Hoskins** 34.97 320 P P 06 15 59.6 -0.3
baz=124,SNR=12
C39A **Grand Marais** 34.99 333 P P 06 16 00.1 +0.1
baz=140,SNR=16
K33A **Hardington** 35.05 321 P P 06 16 00.5 -0.1
baz=125,SNR=7.6
H35A **Sunnyside Ranc** 35.08 325 P P 06 16 00.7 -0.1
baz=130,SNR=17
BGNE **Belgrade** 35.10 318 P P 06 16 00.4 -0.6
baz=122
BGNE **Belgrade** 35.10 318 eP P 06 16 01.0 0.0
comp=Z,45nm,0.7s
E37A **Wrenshall** 35.11 330 P P 06 16 00.8 -0.2
baz=136,SNR=5.8
F36A **Milaca** 35.17 328 P P 06 16 01.2 -0.3
baz=133,SNR=11
G35A **Watkins** 35.24 326 P P 06 16 01.7 -0.4
baz=131,SNR=24
I34A **Hadley** 35.24 323 P P 06 16 01.6 -0.5
baz=128,SNR=8.0
MSTX **Muleshoe** 35.30 304 P P 06 16 02.6 -0.4
baz=108,SNR=24
MSTX **Muleshoe** 35.30 304 eP P 06 16 03.0 0.0
comp=Z,115nm,1.0s
L32A **Elgin** 35.33 319 P P 06 16 02.8 -0.3
baz=123,SNR=7.4
C38A **Sawbill Land.** 35.42 332 P P 06 16 03.4 -0.3
baz=138,SNR=13
J33A **Davis** 35.44 322 P P 06 16 03.7 -0.3
baz=126,SNR=10
ECSD **EROS Data Cent** 35.48 322 P P 06 16 03.9 -0.4
baz=127,SNR=15
ECSD **EROS Data Cent** 35.48 322 eP P 06 16 04.2 -0.1
comp=Z,79nm,1.1s
E36A **Macgregor** 35.49 329 P P 06 16 04.2 -0.1
baz=134,SNR=16
D37A **Cotton** 35.54 330 P P 06 16 05.2 +0.5
baz=136,SNR=21
H34A **Spellman Lake,** 35.58 324 P P 06 16 04.8 -0.3
baz=129,SNR=26
K32A **Verdigre** 35.67 320 P P 06 16 05.3 -0.7
baz=124,SNR=6.7
EYMN **Ely** 35.69 332 P P 06 16 05.6 -0.5
baz=138,SNR=11
EYMN **Ely** 35.69 332 eP P 06 16 06.4 +0.4
comp=Z,40nm,1.0s
F35A **Swanville** 35.71 327 P P 06 16 05.7 -0.5
baz=132,SNR=13
I33A **Coleman** 35.78 323 P P 06 16 07.0 +0.1
baz=127,SNR=6.4
C37A **Embarrass** 35.85 331 P P 06 16 07.0 -0.3
baz=137,SNR=21
G34A **Benson** 35.87 325 P P 06 16 07.5 -0.1
baz=130,SNR=14
D36A **Goodland** 35.91 330 P P 06 16 08.0 +0.1
baz=135,SNR=15
J32A **Parkston** 36.00 321 P P 06 16 07.9 -0.8
baz=125
F34A **Alexandria** 36.02 326 P P 06 16 08.5 -0.4
baz=131,SNR=11
E35A **Pequot Lakes** 36.09 328 P P 06 16 09.2 -0.2
baz=133,SNR=20
H33A **Prehn Over Nor** 36.13 324 P P 06 16 10.0 +0.2
baz=128,SNR=20
K31A **O'Neill** 36.13 319 P P 06 16 09.5 -0.4
baz=123,SNR=21
I32A **Karley and Nic** 36.15 322 P P 06 16 09.9 -0.1
baz=126
C36A **Pine Crest Far** 36.17 331 P P 06 16 10.1 0.0
baz=136,SNR=20
D35A **Remer** 36.27 329 P P 06 16 10.7 -0.3
baz=134,SNR=9.6
G33A **Ortonville** 36.28 325 P P 06 16 10.7 -0.4
baz=129,SNR=31
HPIG **** 36.33 291 eP P 06 16 12.2 +0.2
comp=Z,19nm,1.1s
H32A **Carlson Farm,** 36.42 323 P P 06 16 12.2 -0.1
baz=127,SNR=16
E34A **Wadena** 36.45 327 P P 06 16 12.4 -0.2
baz=132,SNR=15
J31A **Geddes** 36.49 320 P P 06 16 12.5 -0.4
baz=124
F33A **5 Mile Ranch,** 36.61 325 P P 06 16 13.4 -0.4
baz=130,SNR=17
C35A **Jirik Farms, M** 36.67 330 P P 06 16 14.0 -0.4
baz=134,SNR=13
SCHQ **Schefferville** 36.68 1 P P 06 16 13.7 -0.7
comp=Z,34nm,0.5s,baz=192,slow=7.4,SNR=16
SCHQ LR LR 06 31 56.5
comp=Z,812nm,18.2s,baz=207,slow=37
SCHQ **Schefferville** 36.68 1 eP P 06 16 15.0 +0.6
comp=Z,51nm,0.7s
I31A **Royce, Wessing** 36.78 321 P P 06 16 14.8 -0.6
baz=125
MNTX **Cornudas Mount** 36.84 299 P P 06 16 16.2 +0.1
baz=102,SNR=21
MNTX **Cornudas Mount** 36.84 299 eP P 06 16 16.7 +0.6
comp=Z,68nm,1.4s
D34A **Park Rapids** 36.85 328 P P 06 16 15.1 -0.9
baz=132,SNR=16
E33A **Westby DABS, E** 36.88 327 P P 06 16 15.4 -0.8
baz=131
G32A **Webster** 36.91 324 P P 06 16 16.4 0.0
baz=127,SNR=49
KSCO **Kaye Shedlock'** 36.99 312 P P 06 16 17.3 -0.2
baz=114,SNR=8.5
KSCO **Kaye Shedlock'** 36.99 312 eP P 06 16 17.8 +0.4
comp=Z,48nm,1.0s
H31A **Wolsey** 37.01 322 P P 06 16 16.7 -0.6
baz=125,SNR=5.5
B35A **Bob, Littlefor** 37.02 331 P P 06 16 17.0 -0.4
baz=136,SNR=30
MNMC **Minye Minye** 37.05 183 eP P 06 16 17.7 -0.5
comp=Z,54nm,0.8s
F32A **Veblen** 37.08 325 P P 06 16 17.4 -0.5
baz=128,SNR=15
C34A **RKJ Ranch, Bem** 37.09 329 P P 06 16 17.5 -0.5
baz=133,SNR=14
D33A **AnnSam, Waubun** 37.22 327 P P 06 16 18.6 -0.5
baz=131,SNR=13
SUSD **Miller** 37.27 322 P P 06 16 19.0 -0.5
baz=125,SNR=6.3
G31A **Conde** 37.29 323 P P 06 16 19.1 -0.5
baz=126
OGNE **Ogallala** 37.42 315 P P 06 16 20.6 -0.3
baz=117
E32A **Braaten, Kindr** 37.50 326 P P 06 16 21.2 -0.2
baz=129,SNR=5.4
B34A **Aery, Baudette** 37.54 330 P P 06 16 21.3 -0.4
baz=134,SNR=22
C33A **Trail** 37.59 328 P P 06 16 22.1 -0.1
baz=132
T25A **Trinidad** 37.59 308 P P 06 16 22.8 +0.1
baz=110,SNR=11
T25A **Trinidad** 37.59 308 eP P 06 16 23.3 +0.7
comp=Z,47nm,1.3s
PB11 **IPOC Station P** 37.68 184 eP P 06 16 22.1 -1.2
comp=Z,57nm,0.8s
F31A **Hecla** 37.69 324 P P 06 16 22.8 -0.3
baz=127,SNR=40
EPT **El Paso** 37.79 299 eP P 06 16 24.9 +0.6
comp=Z,16nm,0.8s
MHTCO **State Highway** 37.80 308 eP P 06 16 25.2 +0.8
comp=Z,40nm,1.4s
D32A **Dogwood Acres,** 37.82 327 P P 06 16 23.7 -0.4
baz=130,SNR=8.6
B33A **Robert and Kas** 37.85 329 P P 06 16 23.9 -0.5
baz=133,SNR=9.5
E31A **Nome** 37.92 325 P P 06 16 24.8 -0.2
baz=128,SNR=20
AGMN **Agassiz Nation** 38.00 329 P P 06 16 25.1 -0.5
baz=133,SNR=21
AGMN **Agassiz Nation** 38.00 329 eP P 06 16 25.1 -0.5
comp=Z,44nm,0.7s
C32A **Crookston** 38.02 328 P P 06 16 25.5 -0.3
baz=131
D31A **Mcclaflin, Tow** 38.14 326 P P 06 16 26.6 -0.2
baz=129
A33A **Warroad** 38.21 330 P P 06 16 26.7 -0.6
baz=134,SNR=34
B32A **Ashes, Strandq** 38.40 328 P P 06 16 28.3 -0.7
baz=132,SNR=23
BNM **Barren Site** 38.43 302 eP P 06 16 30.8 +1.0
LPM **Los Pinos Moun** 38.48 303 eP P 06 16 31.0 +0.9
ANMO **Albuquerque** 38.50 304 P P 06 16 30.7 +0.4
baz=106
ANMO **Albuquerque** 38.50 304 *d* iP P 06 16 30.5 +0.2
ANMO pmax pmax
comp=Z,28nm,1.0s
ANMO **Albuquerque** 38.50 304 eP P 06 16 30.9 +0.6
comp=Z,27nm,1.0s
BDFB **Brasilia** 38.57 149 P P 06 16 30.7 -0.2
comp=Z,3.5nm,0.6s,baz=85,slow=4.9,SNR=6.0
BDFB LR LR 06 33 26.7
comp=Z,2μm,18.0s,baz=106,slow=38
BDFB **Brasilia** 38.57 149 eP P 06 16 31.9 +1.0
BDFB pmax pmax
comp=Z,37nm,1.1s
BDFB **Brasilia** 38.57 149 eP P 06 16 31.9 +1.0
comp=Z,37nm,1.1s
C31A **Landman Farms,** 38.61 327 P P 06 16 30.4 -0.4
baz=130,SNR=43
SDCO **Great Sand Dun** 38.62 308 P P 06 16 31.3 0.0
baz=110,SNR=25
SDCO **Great Sand Dun** 38.62 308 eP P 06 16 31.9 +0.5
comp=Z,34nm,0.9s
Y22D **IRIS PASSCAL I** 38.65 302 P P 06 16 31.5 0.0
baz=104
Y22D **IRIS PASSCAL I** 38.65 302 eP P 06 16 32.6 +1.1
comp=Z,174nm,1.5s
Y22E **IRIS PASSCAL I** 38.65 302 P P 06 16 31.6 +0.1
baz=104
A32A **Rocking H Ranc** 38.73 329 P P 06 16 31.1 -0.7
baz=132,SNR=17
Q24A **Divide** 38.79 310 P P 06 16 32.8 0.0
baz=112,SNR=8.5
Q24A **Divide** 38.79 310 eP P 06 16 33.0 +0.2
comp=Z,42nm,1.1s
LAZ **Ladron** 38.90 303 eP P 06 16 34.5 +0.8
PB01 **IPOC Station P** 38.95 183 eP P 06 16 32.5 -1.4
comp=Z,80nm,1.1s
B31A **Greenbush Farm** 38.98 328 P P 06 16 33.5 -0.4
baz=130,SNR=24
121A **Cookes Peak, D** 39.01 300 P P 06 16 35.1 +0.5
baz=102,SNR=9.3
121A **Cookes Peak, D** 39.01 300 eP P 06 16 35.1 +0.5
A31A **Linda, St. Vin** 39.08 329 P P 06 16 35.0 +0.3
baz=131
RCBR **Riachuelo** 39.11 125 P P 06 16 35.7 +0.3
comp=Z,12nm,0.9s,baz=322,slow=6.6,SNR=2.9
RCBR LR LR 06 34 14.4
comp=Z,442nm,19.4s,baz=306,slow=38
ULM **Lac du Bonnet** 39.35 331 P P 06 16 35.6 -1.3
comp=Z,41nm,0.9s,baz=128,slow=7.8,SNR=14
ULM LR LR 06 32 56.2
comp=Z,903nm,18.8s,baz=130,slow=36
ULM **Lac du Bonnet** 39.35 331 eP P 06 16 35.7 -1.2
ULM pmax pmax
comp=Z,65nm,1.1s
ULM **Lac du Bonnet** 39.35 331 eP P 06 16 35.7 -1.2
comp=Z,65nm,1.1s
ISCO **Idaho Springs** 39.43 311 P P 06 16 38.5 +0.4
baz=112,SNR=24
ISCO **Idaho Springs** 39.43 311 eP P 06 16 38.6 +0.4
ISCO pmax pmax
comp=Z,36nm,0.9s
ISCO **Idaho Springs** 39.43 311 eP P 06 16 38.6 +0.4
comp=Z,36nm,0.9s
S22A **4UR Ranch, Cre** 39.61 308 P P 06 16 40.1 +0.4
baz=108,SNR=7.9
S22A **4UR Ranch, Cre** 39.61 308 eP P 06 16 40.3 +0.6
comp=Z,17nm,0.9s
MDND **Maddock** 39.63 326 P P 06 16 39.0 -0.4
baz=127
MDND **Maddock** 39.63 326 eP P 06 16 39.4 0.0
comp=Z,141nm,1.0s
PHWY **Pilot Hill** 39.91 314 eP P 06 16 41.9 -0.2
comp=Z,33nm,0.9s
SLBS **Sierra La Lagu** 40.04 285 eP P 06 16 44.1 +0.9
comp=Z,48nm,1.4s
N23A **Red Feather La** 40.08 313 P P 06 16 43.0 -0.5
baz=113
N23A **Red Feather La** 40.08 313 eP P 06 16 43.7 +0.2
comp=Z,16nm,1.0s
SMCO **Snowmass** 40.19 310 eP P 06 16 45.1 +0.5
comp=Z,36nm,1.0s
SMCO *e*S S 06 22 52.0 +1.5
RSSD **Black Hills** 40.21 318 P P 06 16 44.5 +0.1
baz=118
MVCO **Mesa Verde** 40.72 306 P P 06 16 49.1 +0.3
baz=106
MVCO **Mesa Verde** 40.72 306 eP P 06 16 48.6 -0.2
comp=Z,14nm,1.0s
PV01 **Paradox Valley** 41.04 308 eP P 06 16 52.7 +1.2
W18A **Petrified Fore** 41.15 303 P P 06 16 52.8 +0.5
baz=103
W18A **Petrified Fore** 41.15 303 eP P 06 16 52.6 +0.3
comp=Z,16nm,1.0s
K22A **Casper** 41.18 315 P P 06 16 52.4 -0.1
baz=114,SNR=9.9
K22A **Casper** 41.18 315 eP P 06 16 52.5 0.0
comp=Z,34nm,1.0s
HSIG **** 41.19 294 eP P 06 16 52.8 +0.3
comp=Z,13nm,1.1s
RWWY **Rawlins** 41.27 313 eP P 06 16 53.8 +0.5
comp=Z,72nm,1.1s
PV04 **Paradox Valley** 41.37 308 eP P 06 16 54.6 +0.5
PV05 **Paradox Valley** 41.42 307 eP P 06 16 54.9 +0.3
O20A **White River Ci** 41.44 311 P P 06 16 54.9 +0.2
baz=110,SNR=8.8
O20A **White River Ci** 41.44 311 eP P 06 16 55.0 +0.4
comp=Z,57nm,1.4s
PB10 **IPOC Station P** 41.46 184 eP P 06 16 54.3 -0.3
comp=Z,38nm,0.8s
PV10 **Paradox Valley** 41.46 308 eP P 06 16 55.4 +0.5
TUC **Tucson** 41.47 299 P P 06 16 55.5 +0.7
baz=99
TUC **Tucson** 41.47 299 eP P 06 16 56.0 +1.2
TUC pmax pmax
comp=Z,8.0nm,0.9s
TUC **Tucson** 41.47 299 eP P 06 16 56.0 +1.2
comp=Z,7.7nm,0.9s
PV09 **Paradox Valley** 41.57 308 eP P 06 16 56.6 +0.8
DGMT **Dagmar** 42.51 324 P P 06 16 03.6 +0.5
baz=122,SNR=14
DGMT **Dagmar** 42.51 324 eP P 06 17 03.7 +0.6
comp=Z,23nm,1.1s
WUAZ **Wupatki** 42.54 303 P P 06 17 04.9 +1.3

baz=102,SNR=31
**WUAZ Wupatki** 42.54 303 *e*P P 06 17 05.0 +1.3
comp=Z,65nm,1.0s
**P18A Preston Nutter** 42.73 309 *e*P P 06 17 06.0 +0.6
comp=Z,24nm,1.0s
**LAO LASA Array** 42.79 321 P P 06 17 05.4 0.0
baz=119,SNR=7.7
**LAO LASA Array** 42.79 321 *e*P P 06 17 05.7 +0.3
comp=Z,32nm,1.0s
**SRU San Rafael Swe** 42.79 308 *e*P P 06 17 05.9 +0.2
SRU pmax pmax
comp=Z,12nm,0.8s
**SRU San Rafael Swe** 42.79 308 *e*P P 06 17 05.9 +0.2
comp=Z,12nm,0.8s
**P17A Butcher Ranch,** 43.05 309 *e*P P 06 17 08.5 +0.7
comp=Z,31nm,1.0s
**214A Organ Pipe Nat** 43.11 298 P P 06 17 08.7 +0.5
baz=97,SNR=7.4
**214A Organ Pipe Nat** 43.11 298 *e*P P 06 17 08.9 +0.7
**BW06 Boulder Array** 43.29 314 P P 06 17 09.4 -0.3
baz=111,SNR=11
**BW06 Boulder Array** 43.29 314 *e*P P 06 17 09.4 -0.3
comp=Z,39nm,1.4s
**PD31 Pinedale Array** 43.29 314 *e*P P 06 17 09.4 -0.3
**PDAR Pinedale Array** 43.29 314 P P 06 17 09.1 -0.6
comp=Z,8.1nm,0.7s,baz=111,slow=8.1,SNR=15
PDAR PcP PcP 06 18 58.5 -0.1
comp=Z,2.8nm,0.5s,baz=111,slow=4.9,SNR=8.8
PDAR ScP ScP 06 22 48.1 -0.3
comp=Z,3.1nm,1.0s,baz=105,slow=6.1,SNR=5.7
PDAR LR LR 06 37 02.4
comp=Z,1μm,19.4s,baz=122,slow=39
**TMUT Trail Mountain** 43.35 308 *e*P P 06 17 11.2 +0.8
comp=Z,28nm,0.9s
**MTPU Mount Pierson** 43.76 306 *e*P P 06 17 14.7 +1.0
comp=Z,16nm,0.9s
**MSU Marysvale** 43.87 307 *e*P P 06 17 15.6 +1.1
**MSU Marysvale** 43.87 307 *e*P P 06 17 15.6 +1.1
**MPU Maple Canyon** 43.87 309 *e*P P 06 17 14.9 +0.5
comp=Z,28nm,1.1s
**HLJ Hailstone** 43.88 310 *e*P P 06 17 14.7 +0.2
**JLU Jordanelle** 43.91 310 *e*P P 06 17 15.3 +0.5
comp=Z,25nm,0.9s
**RLMT Red Lodge** 44.00 317 P P 06 17 15.6 +0.2
baz=114,SNR=16
**RLMT Red Lodge** 44.00 317 *e*P P 06 17 15.3 -0.1
comp=Z,48nm,1.1s
**KNB Kanab** 44.01 305 *e*P P 06 17 16.4 +0.8
KNB pmax pmax
comp=Z,38nm,1.4s
**KNB Kanab** 44.01 305 *e*P P 06 17 16.4 +0.8
comp=Z,38nm,1.4s
**TCUT Toone Canyon** 44.03 311 *e*P P 06 17 15.1 -0.6
comp=Z,43nm,1.1s
**GMU Granite Mounta** 44.13 310 *e*P P 06 17 16.6 +0.1
**CTU Camp Tracy** 44.15 310 *e*P P 06 17 17.1 +0.5
comp=Z,38nm,0.9s
**BMUT Black Mountain** 44.18 312 *e*P P 06 17 16.6 -0.3
**NLU North Lily Min** 44.18 309 *e*P P 06 17 17.5 +0.6
comp=Z,16nm,1.1s
**MCU Monte Cristo P** 44.21 311 *e*P P 06 17 15.9 -1.4
**LCMT Little Creek M** 44.34 305 *e*P P 06 17 19.3 +1.2
comp=Z,8.1nm,0.9s
**SZCU Shurtz Canyon** 44.35 306 *e*P P 06 17 19.0 +0.7
comp=Z,9.9nm,0.9s
**AHID Auburn Hatcher** 44.35 313 *e*P P 06 17 18.1 -0.1
comp=Z,39nm,1.0s
**SNOW Snow King Moun** 44.36 314 *e*P P 06 17 18.6 +0.3
comp=Z,52nm,1.0s
**REDW Red Top Meadow** 44.39 314 *e*P P 06 17 18.8 +0.2
comp=Z,62nm,1.0s
**MOOW Moose Ponds** 44.45 315 *e*P P 06 17 19.0 -0.1
comp=Z,21nm,0.8s
**TPAW Teton Pass** 44.50 314 *e*P P 06 17 19.4 -0.1
comp=Z,24nm,0.8s
**LKWY Lake** 44.52 316 *e*P P 06 17 20.5 +0.8
LKWY pmax pmax
comp=Z,16nm,0.9s
**LKWY Lake** 44.52 316 *e*P P 06 17 20.5 +0.8
comp=Z,16nm,0.9s
**GCMT Greycliff** 44.53 318 *e*P P 06 17 20.0 +0.5
**CCUT Cedar City** 44.55 305 *e*P P 06 17 21.1 +1.2
comp=Z,18nm,1.1s
**PDMCI Parker Dam,Lak** 44.56 301 P P 06 17 20.8 +1.1
baz=99
**H17A Grant Village** 44.58 316 P P 06 17 20.4 +0.3
baz=112
**H17A Grant Village** 44.58 316 *e*P P 06 17 20.4 +0.3
comp=Z,15nm,1.0s
**WVUT Wellsville** 44.58 311 *e*P P 06 17 19.3 -0.8
**NAIU Northern Antel** 44.59 311 *e*P P 06 17 19.8 -0.3
**FXWY Fox Creek** 44.60 314 *e*P P 06 17 19.9 -0.4
comp=Z,35nm,1.0s
**YPP Pitchstone Pla** 44.68 315 *e*P P 06 17 22.0 +1.0
**YNR Norris Junctio** 44.77 316 *e*P P 06 17 22.0 +0.5
comp=Z,10nm,0.8s
**YFT Old Faithful** 44.77 316 *e*P P 06 17 23.6 +2.0
comp=Z,14nm,0.7s
**Y12C Blythe** 44.79 300 P P 06 17 22.6 +1.0
baz=98
**Y12C Blythe** 44.79 300 *e*P P 06 17 23.0 +1.4
comp=Z,14nm,1.0s
**DUG Dugway, Tooele** 44.79 309 P P 06 17 22.1 +0.4
baz=106,SNR=16
**DUG Dugway, Tooele** 44.79 309 *e*P P 06 17 22.3 +0.6
DUG pmax pmax
comp=Z,22nm,1.0s
**DUG Dugway, Tooele** 44.79 309 *e*P P 06 17 22.3 +0.6
comp=Z,22nm,1.0s
**SPUT South Promonto** 44.84 311 *e*P P 06 17 22.2 0.0
comp=Z,34nm,1.1s
**YHH Holmes Hill** 44.91 316 *e*P P 06 17 23.1 +0.4
comp=Z,26nm,1.0s
**YMR Madison River** 44.94 316 *e*P P 06 17 23.6 +0.7
comp=Z,24nm,0.9s
**GLA Glamis** 44.94 299 P P 06 17 23.9 +1.0
baz=97
**GLA Glamis** 44.94 299 *e*P P 06 17 24.7 +1.8
GLA pmax pmax
comp=Z,65nm,1.8s
**GLA Glamis** 44.94 299 *e*P P 06 17 24.7 +1.8
comp=Z,64nm,1.8s
**MTUT Morton Thiokol** 44.97 311 *e*P P 06 17 22.7 -0.4
**YHB Horse Butte** 45.12 316 *e*P P 06 17 25.5 +1.1
comp=Z,57nm,0.9s
**FFC Flin Flon** 45.12 332 *e*P P 06 17 22.8 -1.1
FFC pmax pmax
comp=Z,32nm,0.8s
**FFC Flin Flon** 45.12 332 *e*P P 06 17 22.8 -1.1
comp=Z,32nm,0.8s
**BGU Big Grassy Mou** 45.15 310 *e*P P 06 17 25.0 +0.4
comp=Z,33nm,0.9s
**PSUT Pine Spring** 45.15 307 *e*P P 06 17 26.4 +1.7
comp=Z,112nm,1.8s
**CPUP Villa Florida** 45.22 167 P P 06 17 23.1 -1.9
comp=Z,16nm,0.8s,baz=352,slow=7.5,SNR=14
CPUP LR LR 06 37 23.6
comp=Z,1μm,18.3s,baz=350,slow=38
**CPUP Villa Florida** 45.22 167 *e*P P 06 17 23.5 -1.4
**CPUP Villa Florida** 45.22 167 *e*P P 06 17 23.5 -1.4
**QLMT Earthquake Lak** 45.31 316 *e*P P 06 17 26.9 +1.1
**IRM Iron Mountain** 45.36 300 P P 06 17 27.4 +1.3
baz=98,SNR=15
**EGMT Eagleton** 45.53 321 P P 06 17 27.8 +0.4
baz=116,SNR=10
**EGMT Eagleton** 45.53 321 *e*P P 06 17 27.5 +0.1
**BC3 Big Chuckawall** 45.54 300 P P 06 17 28.9 +1.2
baz=97
**BOZ Bozeman (W)** 45.72 317 P P 06 17 29.6 +0.6
baz=112,SNR=43
**BOZ Bozeman (W)** 45.72 317 *e*P P 06 17 29.3 +0.3
BOZ pmax pmax
comp=Z,56nm,1.0s
**BOZ Bozeman (W)** 45.72 317 *e*P P 06 17 29.3 +0.3
comp=Z,56nm,1.0s
**SHPR Sheep Range** 45.75 304 *e*P P 06 17 31.1 +1.7
comp=Z,31nm,1.3s
**NRS Narsarsuaq** 45.76 15⇓ *i*P P 06 17 29.9 +1.1
NRS pmax pmax
comp=Z,63nm,1.1s
**NRS Narsarsuaq** 45.76 15⇓ *i*P P 06 17 29.9 +1.1
comp=Z,63nm,1.1s
**NRS Narsarsuaq** 45.76 15 *e*P P 06 17 30.1 +1.3
comp=Z,141nm,1.2s
**GMRC Granite Mounta** 45.87 301 P P 06 17 31.5 +1.2
baz=98,SNR=13
**IKP In-Ko-Pah, Jac** 45.97 298 P P 06 17 31.9 +0.8
baz=96
**LCCM Lewis and Clar** 45.97 317 *e*P P 06 17 31.5 +0.5
**BELC Belle Mtn. Jos** 46.04 300 P P 06 17 30.8 -0.9
baz=97
**MCMT McKenzie Canyo** 46.25 315 *e*P P 06 17 34.0 +0.7
**MONP2 Monument Peak** 46.26 298 P P 06 17 34.8 +1.3
baz=96,SNR=22
**DLMT Dillon** 46.27 316 *e*P P 06 17 34.3 +1.0
comp=Z,52nm,0.9s
**HRY Holter Researc** 46.28 318 *e*P P 06 17 33.4 0.0
**LRM Limekiln Ridge** 46.34 317 *e*P P 06 17 34.8 +0.8
**TPFO Pinon Flats** 46.36 299 P P 06 17 34.3 +0.1
baz=97
**PFO Pinyon Flats O** 46.37 299 P P 06 17 35.1 +0.8
baz=97
**HEC Hector,Ludlow** 46.42 301 P P 06 17 35.3 +0.7
baz=98
**R11A Troy Canyon, C** 46.44 306 P P 06 17 35.6 +0.8
baz=102,SNR=13
**R11A Troy Canyon, C** 46.44 306 *e*P P 06 17 36.0 +1.2
comp=Z,23nm,1.2s
**SHOC Shoshone, Teco** 46.53 303 P P 06 17 36.8 +1.4
baz=99
**TPNV Topopah Spring** 46.69 304 P P 06 17 37.9 +1.2
baz=100,SNR=11
**TPNV Topopah Spring** 46.69 304 *e*P P 06 17 38.2 +1.4
TPNV pmax pmax
comp=Z,22nm,0.8s
**TPNV Topopah Spring** 46.69 304 *e*P P 06 17 38.1 +1.4
comp=Z,22nm,0.8s
**109C Camp Elliot, M** 46.83 298 P P 06 17 38.6 +0.9
baz=96,SNR=5.7
**GSC Goldstone, Bar** 46.87 302 P P 06 17 38.9 +0.7
baz=98,SNR=11
**GSC Goldstone, Bar** 46.87 302 *e*P P 06 17 39.8 +1.6
GSC pmax pmax
comp=Z,37nm,1.3s
**GSC Goldstone, Bar** 46.87 302 *e*P P 06 17 39.8 +1.6
comp=Z,37nm,1.3s
**HLID Hailey** 46.90 313 P P 06 17 39.1 +0.7
baz=108,SNR=33
**HLID Hailey** 46.90 313 *e*P P 06 17 38.7 +0.3
comp=Z,38nm,1.0s
**LCO Las Campanas** 46.93 184 *e*P P 06 17 38.2 -0.6
comp=Z,28nm,0.9s
**MURC Murrieta** 46.98 299 P P 06 17 40.1 +1.2
baz=96,SNR=6.9
**FURC Furnace Creek,** 47.09 303 P P 06 17 41.1 +1.4
baz=99,SNR=8.1
**BFSC Mount Baldy Ra** 47.43 300 P P 06 17 43.3 +0.7
baz=96
**MPMC Manual Prospec** 47.53 303 P P 06 17 44.3 +0.9
baz=98,SNR=8.2
**GRAC Grapevine Rang** 47.58 304 P P 06 17 44.7 +1.2
baz=99,SNR=10
**LRMC Laurel Mtn Rad** 47.61 302 P P 06 17 45.0 +1.0
baz=98
**DAC Darwin (Calif)** 47.65 303 *e*P P 06 17 45.5 +1.2
DAC pmax pmax
comp=Z,48nm,1.4s
**DAC Darwin (Calif)** 47.65 303 *e*P P 06 17 45.5 +1.2
comp=Z,48nm,1.4s
**MSO Missoula** 47.67 318 P P 06 17 44.3 +0.1
baz=111,SNR=9.8
**MSO Missoula** 47.67 318 *e*P P 06 17 44.4 +0.2
comp=Z,16nm,1.0s
**EDW2 Edwards Air Fo** 47.78 301 P P 06 17 46.4 +1.2
baz=97,SNR=16
**MFID Camas Ranch** 47.85 313 *e*P P 06 17 45.5 -0.1
comp=Z,46nm,1.0s
**PASC Pasadena Art C** 47.86 300 *e*P P 06 17 47.1 +1.4
comp=Z,21nm,1.0s
**CIS Catalina Islan** 47.97 299 P P 06 17 47.0 +0.3
baz=95
**BMN Battle Mountai** 48.12 308 *e*P P 06 17 48.3 +0.5
BMN pmax pmax
comp=Z,17nm,0.9s
**BMN Battle Mountai** 48.12 308 *e*P P 06 17 48.3 +0.5
comp=Z,17nm,0.9s
**JTMT Jette** 48.21 319 *e*P P 06 17 48.7 +0.3
comp=Z,34nm,1.0s
**ISA Isabella, Lake** 48.27 302 P P 06 17 49.4 +0.5
baz=97
**OSI Osito Audit: C** 48.35 300 P P 06 17 49.7 +0.1
baz=96
**NV11 Mina Array Sit** 48.44 306 *e*P P 06 17 51.3 +1.0
comp=Z,14nm,1.9s
**ARVC Arvin** 48.49 301 P P 06 17 51.0 +0.3
baz=97,SNR=8.2
**NV01 Mina Array Sit** 48.55 306 *e*P P 06 17 51.9 +0.6
**VES Vestal, Richgr** 48.78 302 P P 06 17 53.9 +1.0
baz=97,SNR=7.6
**BBTS Babate** 48.79 86 P P 06 17 53.2 +0.1
comp=Z,31nm,1.2s,baz=302,slow=7.9,SNR=1.8
BBTS LR LR 06 35 14.9
comp=Z,511nm,19.7s,baz=277,slow=32
**SNCC San Nicolas Is** 48.88 299 P P 06 17 54.3 +0.6
baz=94
**RCTC Rector, Farmer** 48.97 303 P P 06 17 54.8 +0.5
baz=97,SNR=8.5
**SCZ2 Santa Cruz Isl** 49.04 300 P P 06 17 55.2 +0.3
baz=95
**SBC Santa Barbara** 49.15 300 P P 06 17 55.8 +0.2
baz=95
**BMO Blue Mountains** 49.27 314 *e*P P 06 17 56.1 -0.4
BMO pmax pmax
comp=Z,35nm,1.1s
**BMO Blue Mountains** 49.27 314 *e*P P 06 17 56.1 -0.4
comp=Z,35nm,1.1s
**PKM Mcpherson Peak** 49.27 301 P P 06 17 57.0 +0.2
baz=96,SNR=6.0
**YERR Yerington** 49.37 306 *e*P P 06 17 58.5 +1.0
comp=Z,18nm,1.0s
**WAKR Walker** 49.44 305 *e*P P 06 17 59.6 +1.5
comp=Z,27nm,1.1s
**SMMC Simmler** 49.46 301 P P 06 17 57.9 -0.2
baz=96
**F10A Beach Ranch, E** 49.54 316 *e*P P 06 17 58.2 -0.4
comp=Z,21nm,0.9s
**WVOR Wild Horse Val** 49.59 311 *e*P P 06 17 59.2 +0.1
WVOR pmax pmax
comp=Z,38nm,1.1s
**WVOR Wild Horse Val** 49.59 311 *e*P P 06 17 59.2 +0.1
comp=Z,38nm,1.1s
**J08A Circle Bar Ran** 49.69 312 *e*P P 06 17 59.9 +0.1
comp=Z,78nm,1.1s
**PAGB Antelope Grade** 49.71 302 *e*P P 06 18 01.1 +1.2
comp=Z,25nm,1.1s
**SFJD Kangerlussuaq** 50.08 8 P P 06 18 02.2 0.0
comp=Z,55nm,1.0s,baz=202,slow=6.9,SNR=8.7
**SFJD Kangerlussuaq** 50.08 8 *e*P P 06 18 02.9 +0.7
SFJD pmax pmax
comp=Z,60nm,0.9s
**SFJD Kangerlussuaq** 50.08 8 *i*P P 06 18 02.7 +0.5
comp=Z,59nm,1.1s
**SFJD Kangerlussuaq** 50.08 8 *e*P P 06 18 02.9 +0.7
comp=Z,60nm,0.9s
**CMB Columbia Colle** 50.11 305 *e*P P 06 18 03.5 +0.5
CMB pmax pmax
comp=Z,16nm,1.5s
**CMB Columbia Colle** 50.11 305 *e*P P 06 18 03.5 +0.5
comp=Z,16nm,1.5s
**NEW Newport** 50.18 318 P P 06 18 03.0 -0.4
baz=109,SNR=50
**NEW Newport** 50.18 318 *e*P P 06 18 02.8 -0.6
NEW pmax pmax
comp=Z,73nm,1.0s
**NEW Newport** 50.18 318 *e*P P 06 18 02.8 -0.6
comp=Z,73nm,1.0s
**E09A Wood Farm, Sta** 50.30 316 *e*P P 06 18 04.0 -0.3
comp=Z,34nm,1.0s
**BEKR Beckwith** 50.37 307 *e*P P 06 18 05.1 0.0
comp=Z,6.5nm,1.0s
**G08A Pilot Rock** 50.52 314 *e*P P 06 18 05.7 -0.4
comp=Z,40nm,1.3s
**I07A Izee** 50.59 313 *e*P P 06 18 06.7 +0.1
comp=Z,31nm,1.0s
**AFDM Forest Hills D** 50.69 306 *e*P P 06 18 07.9 +0.5
comp=Z,13nm,1.1s
**MOD Modoc Plateau** 50.69 310 *e*P P 06 18 07.1 -0.4
comp=Z,11nm,1.0s
**C09A Chrisman Ranch** 50.77 318 *e*P P 06 18 07.5 -0.3
**SAO San Andreas Ge** 50.79 303 *e*P P 06 18 07.4 -0.7
SAO pmax pmax
comp=Z,11nm,0.8s
**SAO San Andreas Ge** 50.79 303 *e*P P 06 18 07.4 -0.7
comp=Z,11nm,0.8s
**E08A Dider Farm, El** 50.90 316 *e*P P 06 18 08.6 -0.2
comp=Z,15nm,0.8s
**PEL Peldehue** 51.04 184 *e*P P 06 18 09.6 -0.3
PEL pmax pmax
comp=Z,29nm,0.9s
**PEL Peldehue** 51.04 184 *e*P P 06 18 09.6 -0.3
comp=Z,29nm,0.9s
**ORV Oroville** 51.19 306 *e*P P 06 18 11.5 +0.4
ORV pmax pmax
comp=Z,17nm,1.1s
**ORV Oroville** 51.19 306 *e*P P 06 18 11.5 +0.4
comp=Z,17nm,1.1s
**HAWA Hanford** 51.19 315 *e*P P 06 18 10.5 -0.4
comp=Z,32nm,1.0s
**F07A Phinny Hill Vi** 51.33 315 *e*P P 06 18 12.1 +0.1
comp=Z,32nm,1.0s
**O03D Paynes Creek** 51.53 307 P P 06 18 13.7 0.0
baz=99
**B08A Colville Reser** 51.61 318 *e*P P 06 18 13.5 -0.6
comp=Z,44nm,1.0s
**J05D Fort Rock, OR** 51.64 311 P P 06 18 14.5 -0.1
baz=102,SNR=8.6
**G06A Carlson Farm,** 51.65 314 *e*P P 06 18 14.9 +0.4
comp=Z,93nm,1.7s
**M04C Macdoel** 51.80 309 P P 06 18 15.8 +0.1
baz=100
**K04D Chiloquin, OR** 51.89 310 P P 06 18 16.5 +0.1
baz=101,SNR=8.6
**I05D Terrebonne, OR** 51.94 313 P P 06 18 17.1 +0.4
baz=102,SNR=6.9
**ILULI Ilulissat** 52.10 7 *e*P P 06 18 17.5 +0.1
ILULI pmax pmax
comp=Z,81nm,1.0s
**ILULI Ilulissat** 52.10 7 *i*P P 06 18 17.1 -0.3
comp=Z,76nm,1.0s
**ILULI Ilulissat** 52.10 7 *e*P P 06 18 17.5 +0.1
comp=Z,81nm,1.0s
**G05D Wamic, OR** 52.12 314 P P 06 18 18.6 +0.7
baz=103,SNR=6.2
**WDC Whiskeytown Da** 52.13 308 *e*P P 06 18 16.3 -1.7
WDC pmax pmax
comp=Z,27nm,1.4s
**WDC Whiskeytown Da** 52.13 308 *e*P P 06 18 16.3 -1.7
comp=Z,27nm,1.4s
**LTY Liberty** 52.17 316 *e*P P 06 18 18.2 -0.2
comp=Z,28nm,1.0s
**J04D Umpqua Nationa** 52.26 311 P P 06 18 19.5 +0.2
baz=101,SNR=11
**N02D Trinity Center** 52.31 308 P P 06 18 18.7 -0.8
baz=99
**YBH Yreka Blue Hor** 52.43 309 *e*P P 06 18 19.3 -1.1
YBH pmax pmax
comp=Z,11nm,0.9s
**YBH Yreka Blue Hor** 52.43 309 *e*P P 06 18 19.3 -1.1
comp=Z,11nm,0.9s
**M02C Callahan** 52.49 309 P P 06 18 19.9 -0.9
baz=99
**C06D Leavenworth** 52.49 317 P P 06 18 20.2 -0.5
baz=105
**I04A Tendick Farm,** 52.58 312 P P 06 18 21.0 -0.5
baz=101,SNR=16
**H04A Detroit Lake** 52.60 313 *e*P P 06 18 21.9 +0.3
comp=Z,77nm,1.1s
**HUMO Hull Mountain** 52.76 310 *e*P P 06 18 21.7 -1.0
comp=Z,33nm,1.6s
**LON Longmire** 52.80 315 *e*P P 06 18 22.7 -0.3
LON pmax pmax
comp=Z,20nm,0.9s
**LON Longmire** 52.80 315 *e*P P 06 18 22.7 -0.3
comp=Z,20nm,0.9s
**D05A Enumclaw** 53.03 316 *e*P P 06 18 23.9 -0.6
comp=Z,35nm,0.9s
**B06A Marblemount** 53.03 318 *e*P P 06 18 23.6 -0.9
comp=Z,25nm,0.9s
**L02D Cave Junction,** 53.16 309 P P 06 18 24.9 -0.8
baz=99
**I03D Drain, OR** 53.23 311 P P 06 18 25.6 -0.5
baz=100
**B05A Bryant** 53.36 317 P P 06 18 25.8 -1.3
baz=105,SNR=8.9
**COR Corvallis** 53.36 312 *e*P P 06 18 27.3 +0.2
COR pmax pmax
comp=Z,54nm,1.1s
**COR Corvallis** 53.36 312 *e*P P 06 18 27.3 +0.2
comp=Z,54nm,1.1s
**G03D McMinnville, O** 53.46 313 P P 06 18 27.9 +0.1
baz=101
**KEBM Edson Butte** 53.80 310 *e*P P 06 18 31.4 +1.0
comp=Z,71nm,1.0s
**LLLB Lillooet** 53.86 320 *e*P P 06 18 30.5 -0.2
comp=Z,30nm,1.1s
**E03A Lebam** 53.93 315 *e*P P 06 18 30.9 -0.3
comp=Z,59nm,0.9s
**PGC Sidney** 54.33 317 *e*P P 06 18 32.8 -1.2
comp=Z,59nm,1.1s
**MORF Marmelete** 54.56 57 *e*P P 06 18 35.7 -0.3
MORF AMb AMB 06 18 36.6
comp=Z,75nm,1.8s
**MORF Marmelete** 54.56 57 *e*P P 06 18 35.7 -0.3
MORF pmax pmax
comp=Z,75nm,1.8s
**MORF Marmelete** 54.56 57 *e*P P 06 18 35.9 -0.1
**PCAS Casmilo, Conde** 54.89 53 *e*P P 06 18 40.4 +2.0
**PTOM Tomar** 54.92 54 *e*P P 06 18 37.7 -0.9
**MESJ Messejana** 54.93 56 *e*P P 06 18 38.4 -0.2
MESJ AMb AMB 06 18 39.8
comp=Z,48nm,1.6s
**MESJ Messejana** 54.93 56 *e*P P 06 18 38.4 -0.2
MESJ pmax pmax
comp=Z,48nm,1.6s
**PMTG Montargil** 55.02 55 *e*P P 06 18 40.9 +1.6
**YKA Yellowknife Ar** 55.02 335 P P 06 18 37.6 -1.2
comp=Z,51nm,1.0s,baz=114,slow=7.2,SNR=51
YKA LR LR 06 42 17.2
comp=Z,91nm,20.3s,baz=180,slow=36
**YKA Yellowknife Ar** 55.02 335 *i*P P 06 18 37.5 -1.4
YKA pmax pmax
comp=Z,57nm,1.0s
**YKW3 Yellowknife Ar** 55.06 335 *e*P P 06 18 38.0 -1.1
**PBEJ Beja** 55.22 56 *e*P P 06 18 41.8 +1.0
**PGAV Gavieira, Arco** 55.27 51 *e*P P 06 18 42.0 +0.8
**PVAQ Vaqueiros** 55.30 57 *e*P P 06 18 42.7 +1.3
**PVIS Viseu** 55.42 53 *e*P P 06 18 43.1 +0.9
**PESTR Estremoz** 55.50 55 *e*P P 06 18 43.5 +0.7
**POLO Lamas de Olo** 55.56 52 *e*P P 06 18 43.8 +0.5
**PVRL Vila Real** 55.60 52 *e*P P 06 18 44.3 +0.8
**MTE Manteigas** 55.65 53 *e*P P 06 18 44.6 +0.7
**PCBR Castelo Branco** 55.66 54 *e*P P 06 18 44.4 +0.5
**PMRV Marv??o** 55.69 54 *e*P P 06 18 44.5 +0.4
**PBAR Barrancos** 55.88 56 *e*P P 06 18 47.5 +2.0
**MVO Moncorvo** 56.11 52 *e*P P 06 18 47.9 +0.7
**SUMG Summit** 56.97 10 *e*P P 06 18 53.6 +0.4
SUMG pmax pmax
comp=Z,115nm,0.9s
**SUMG Summit** 56.97 10⇓ *i*P P 06 18 53.5 +0.4
comp=Z,132nm,1.0s
**SUMG Summit** 56.97 10 *e*P P 06 18 53.6 +0.4
comp=Z,115nm,0.9s
**MDT Midelt** 57.79 62 P P 06 18 59.9 +0.6
comp=Z,22nm,1.1s,baz=282,slow=7.2,SNR=17
**PAB San Pablo** 58.05 54 *e*P P 06 19 01.2 +0.3
PAB pmax pmax
comp=Z,27nm,1.1s
**PAB San Pablo** 58.05 54 *e*P P 06 19 01.2 +0.3
comp=Z,27nm,1.1s
**ESDC Sonseca Array** 58.35 54 P P 06 19 02.9 -0.1
comp=Z,18nm,0.7s,baz=271,slow=7.1,SNR=33
ESDC LR LR 06 40 57.2
comp=Z,191nm,19.9s,baz=270,slow=33
**ESLA Sonseca Array** 58.35 54 *e*P P 06 19 03.4 +0.3
comp=Z,27nm,0.9s
**ES19 SONSECA Array** 58.40 54 *e*P P 06 19 03.6 +0.3
**TULEG Thule** 58.48 360 *e*P P 06 19 03.1 -0.1
comp=Z,48nm,1.0s
**RES Resolute Bay** 58.55 352 P P 06 19 02.4 -1.3
comp=Z,10nm,0.9s,baz=149,slow=7.5,SNR=11
**PLCA Paso Flores** 58.59 183 P P 06 19 03.4 -1.1
comp=Z,3.5nm,0.7s,baz=38,slow=8.3,SNR=6.4
PLCA LR LR 06 48 32.4
comp=Z,586nm,18.6s,baz=38,slow=40
**PLCA Paso Flores** 58.59 183 *e*P P 06 19 04.3 -0.2
PLCA pmax pmax
comp=Z,29nm,1.0s
**PLCA Paso Flores** 58.59 183 *e*P P 06 19 04.2 -0.2
comp=Z,29nm,1.0s
**SCO Scoresbysund** 59.00 16 *i*P P 06 19 07.6 +0.7
SCO pmax pmax
comp=Z,16nm,1.2s

SCO **Scoresbysund** 59.00 16 *i*P P 06 19 07.6 +0.7
comp=Z,16nm,1.2s
DLBC **Dease Lake** 60.50 328 *e*P P 06 19 18.0 +0.5
comp=Z,51nm,0.9s
KOWA **Kowa** 60.67 83 *e*P P 06 19 18.9 -0.4
comp=Z,58nm,1.3s
GRR **Gorron** 61.14 44 *e*P P 06 19 22.0 0.0
GRR pmax pmax
comp=Z,25nm,0.7s
MFF **Saint Martin d** 61.49 46 *e*P P 06 19 24.7 +0.3
MFF pmax pmax
comp=Z,33nm,0.6s
LDF **La Druitiere** 61.65 44 *e*P P 06 19 25.5 +0.1
LDF pmax pmax
comp=Z,49nm,1.0s
TIC **Toumodi** 61.72 92 *e*P P 06 19 26.0 -0.5
LIC **Lamto** 61.84 93 *e*P P 06 19 26.8 -0.4
comp=Z,94nm,0.9s
DBIC **Dimbokro** 61.87 92 P P 06 19 26.8 -0.7
comp=Z,12nm,0.7s,baz=274,slow=6.4,SNR=13
DBIC LR LR 06 42 46.6
comp=Z,730nm,20.0s,baz=256,slow=33
DBIC **Dimbokro** 61.87 92 *e*P P 06 19 27.1 -0.3
DBIC pmax pmax
comp=Z,200nm,1.9s
DBIC **Dimbokro** 61.87 92 *e*P P 06 19 27.1 -0.3
comp=Z,200nm,1.9s
KIC **Kosan Boka** 62.07 92 *e*P P 06 19 28.7 -0.1
comp=Z,55nm,0.6s
CAF **Calviac** 62.97 48 *e*P P 06 19 34.4 0.0
CAF pmax pmax
comp=Z,24nm,0.8s
TCF **Toulx Ste Croi** 63.10 47 *e*P P 06 19 35.0 -0.3
TCF pmax pmax
comp=Z,39nm,0.8s
WHY **Whitehorse** 63.39 329 *e*P P 06 19 37.0 0.0
comp=Z,45nm,1.8s
DAG **Danmarks Havn** 63.59 11 *i*P P 06 19 37.1 -0.8
DAG pmax pmax
comp=Z,40nm,1.1s
DAG **Danmarks Havn** 63.59 11 *i*P P 06 19 37.1 -0.8
comp=Z,40nm,1.1s
AVF **Avril sur Loir** 63.91 46 *e*P P 06 19 40.0 -0.5
AVF pmax pmax
comp=Z,24nm,0.9s
SSF **Saint Saulge** 64.02 46 *e*P P 06 19 40.8 -0.4
SSF pmax pmax
comp=Z,42nm,1.2s
BAIF **Baives** 64.56 43 *e*P P 06 19 46.3 +1.6
BAIF pmax pmax
comp=Z,53nm,1.8s
INK **Inuvik** 64.56 338 *e*P P 06 19 43.7 -0.7
INK pmax pmax
comp=Z,31nm,0.9s
INK **Inuvik** 64.56 338 *e*P P 06 19 43.7 -0.7
comp=Z,31nm,0.9s
HYT **Haines Junctio** 64.69 329 *e*P P 06 19 47.1 +1.5
comp=Z,30nm,1.2s
DOU **Dourbes** 64.81 43 P P 06 19 46.7 +0.3
VIVF **Saint-Julien-l** 64.83 48 *e*P P 06 19 48.2 +1.6
VIVF pmax pmax
comp=Z,26nm,0.9s
GIVF **Givet** 64.96 43 *e*P P 06 19 47.0 -0.3
GIVF pmax pmax
comp=Z,38nm,0.9s
CHRN **Cochrane** 65.20 184 *e*P P 06 19 48.9 +0.2
comp=Z,18nm,0.9s
HGN **Heimansgroeve** 65.68 42 *e*P P 06 19 51.2 -0.7
MEM **Membach** 65.73 42 P P 06 19 52.4 +0.1
MEM **Membach** 65.73 42 P P 06 19 54.0 +1.7
MEM pmax pmax
comp=Z,36nm,0.9s
CABF **La Chapelle** 65.79 46 *e*P P 06 19 53.7 +0.8
CABF pmax pmax
comp=Z,12nm,0.7s
DAWY **Dawson** 66.02 333 *e*P P 06 19 54.1 0.0
comp=Z,21nm,1.0s
WTSB **Winterswijk** 66.24 41 *e*P P 06 19 55.5 -0.1
LPL **La Plagne** 66.27 48 *e*P P 06 19 56.5 +0.3
LPL pmax pmax
comp=Z,20nm,0.7s
LPG **La Plagne** 66.28 48 *e*P P 06 19 56.8 +0.5
LPG pmax pmax
comp=Z,25nm,0.8s
HINF **Hinteralfeld** 66.29 45 *e*P P 06 19 55.2 -0.8
HINF pmax pmax
comp=Z,16nm,0.8s
TOA0 **Torodi Ar. Sit** 66.38 83 *e*P P 06 19 56.4 -0.7
TORD **Torodi Ar. Bea** 66.38 83 P P 06 19 56.3 -0.8
comp=Z,8.1nm,1.0s,baz=286,slow=6.3,SNR=15
TORD LR LR 06 45 52.5
comp=Z,772nm,20.8s,baz=285,slow=33
ECH **Echery** 66.48 45 *e*P P 06 19 57.1 -0.1
ECH pmax pmax
comp=Z,21nm,0.8s
ECH **Echery** 66.48 45 *e*P P 06 19 57.1 -0.1
comp=Z,21nm,0.8s
CDF **Champ du Feu** 66.56 44 *e*P P 06 19 56.2 -1.6
CDF pmax pmax
comp=Z,18nm,0.8s
SENIN **Lac Senin/Sane** 66.63 47 *e*P P 06 19 57.8 -0.7
comp=Z,20nm,0.9s
EGAK **Eagle** 66.88 333 *e*P P 06 19 59.7 +0.3
comp=Z,60nm,1.0s
BFO **Black Forest** 67.26 45 *i*P P 06 20 03.4 +1.2
SLE **Schleitheim** 67.39 45 P P 06 20 04.6 +1.5
SLE pmax pmax
comp=Z,29nm,0.8s
MUD **Monsted U'grnd** 67.70 36 P P 06 20 06.8 +2.1
MUD pmax pmax
comp=Z,46nm,1.3s
MENT **Mentasta** 67.84 331 *e*P P 06 20 06.2 +0.6
comp=Z,134nm,1.7s
TAM **Tamanrasset** 67.86 72 *e*P P 06 20 07.0 +0.4
TAM pmax pmax
comp=Z,28nm,1.1s
TAM **Tamanrasset** 67.86 72 *e*P P 06 20 07.0 +0.4
comp=Z,28nm,1.1s
DOT **Dot Lake** 68.04 332 *e*P P 06 20 07.3 +0.5
comp=Z,119nm,1.1s
BMRM **Bremner River** 68.16 329 *e*P P 06 20 08.5 +0.8
comp=Z,240nm,1.9s
RAGM **Ragged Mountai** 68.17 329 *e*P P 06 20 08.7 +0.9
comp=Z,56nm,1.2s
DAVA **Damuels** 68.36 46 *e*P P 06 20 09.0 -0.3
comp=Z,23nm,1.0s
DAVOX **Davos/Dischmat** 68.39 46 P P 06 20 09.7 +0.1
comp=Z,8.7nm,0.6s,baz=251,slow=7.8,SNR=11
PAX **Paxson** 68.64 331 *e*P P 06 20 10.6 -0.1
PAX pmax pmax
comp=Z,26nm,1.0s
PAX **Paxson** 68.64 331 *e*P P 06 20 10.6 -0.1
comp=Z,26nm,1.0s
FUORN **Ofenpass-Fuorn** 68.66 46 *e*P P 06 20 11.9 +0.6
comp=Z,38nm,0.8s
EYAK **Cordova Ski Ar** 68.71 329 *e*P P 06 20 11.9 +0.9
comp=Z,43nm,1.3s
FYU **Fort Yukon** 68.72 335 *e*P P 06 20 11.0 0.0
comp=Z,137nm,1.7s
DIV **Divide** 68.73 329 *e*P P 06 20 11.5 +0.3
comp=Z,20nm,0.9s
KLU **Klutina** 68.81 330 *e*P P 06 20 12.1 +0.3
comp=Z,30nm,1.0s
NB2 **NORSAR Subarra** 68.83 31 P P 06 20 30.0 +18
comp=Z,2.6nm,0.8s,baz=269,slow=6.5
NB2 **NORSAR Subarra** 68.83 31 P P 06 20 11.5 -0.3
NB2 pmax pmax
comp=Z,56nm,1.8s
NOA **NORSAR Array B** 68.83 31 P P 06 20 11.8 -0.1
comp=Z,6.3nm,0.9s,baz=270,slow=6.4,SNR=7.0
NOA LR LR 06 46 34.6
comp=Z,495nm,20.4s,baz=270,slow=33
NC303 **NORSAR Array S** 68.91 31 *e*P P 06 20 12.9 +0.6
RETA **Reutte** 68.94 45 *e*P P 06 20 13.0 +0.2
comp=Z,25nm,1.0s
VLC **Villacollemand** 68.94 49 *e*P P 06 20 13.0 +0.1
comp=Z,180nm,1.6s
FETA **Feichten** 68.95 46 *e*P P 06 20 13.5 +0.4
comp=Z,38nm,0.7s
FID **Port Fidalgo** 69.07 329 *e*P P 06 20 13.7 +0.4
comp=Z,51nm,1.3s
KEST **Kesra** 69.08 58 P P 06 20 13.0 -0.9
comp=Z,31nm,1.0s,baz=318,slow=4.1,SNR=8.9
KEST LR LR 06 47 49.6
comp=Z,168nm,20.1s,baz=228,slow=34
KEST **Kesra** 69.08 58 *e*P P 06 20 14.1 +0.2
comp=Z,28nm,0.8s

MOTA **Moosalm** 69.18 45 *e*P P 06 20 14.4 -0.1
comp=Z,30nm,0.7s
IL1 **Eielson Array** 69.32 333 *e*P P 06 20 14.1 -0.7
ILAR **Eielson Array** 69.32 333 P P 06 20 13.5 -1.3
comp=Z,16nm,0.9s,baz=100,slow=4.3,SNR=35
ILAR LR LR 06 51 22.6
comp=Z,1μm,19.5s,baz=99,slow=37
ILB **Eielson Array** 69.32 333 *e*P P 06 20 14.2 -0.5
HDA **Harding Lake** 69.34 333 *e*P P 06 20 14.3 -0.6
comp=Z,19nm,1.7s
SCM **Sheep Creek Mo** 69.48 330 *e*P P 06 20 16.0 0.0
SCM pmax pmax
comp=Z,34nm,1.0s
SCM **Sheep Creek Mo** 69.48 330 *e*P P 06 20 16.0 0.0
comp=Z,34nm,1.0s
DHY **Denali Highway** 69.51 331 *e*P P 06 20 15.8 -0.4
comp=Z,27nm,1.2s
WTTA **Wattenberg** 69.55 46 *e*P P 06 20 17.6 +0.8
comp=Z,19nm,0.8s
CCB **Clear Creek Bu** 69.72 333 *e*P P 06 20 16.4 -0.7
comp=Z,13nm,0.8s
COLA **College** 69.74 333 *e*P P 06 20 16.8 -0.5
COLA pmax pmax
comp=Z,88nm,1.5s
COLA **College** 69.74 333 *e*P P 06 20 16.8 -0.5
comp=Z,88nm,1.5s
NKC **Novy Kostel** 69.85 42 *e*P P 06 20 18.5 +0.1
NKC *e*pP pP 06 20 25.1 -0.9
NKC **Novy Kostel** 69.85 42 *e*P P 06 20 18.5 +0.1
NKC *e* 06 20 25.1
MDM **Murphy Dome** 69.90 333 *e*P P 06 20 17.9 -0.5
comp=Z,51nm,1.1s
SML **Sawmill** 69.96 330 *e*P P 06 20 18.7 -0.1
SML pmax pmax
comp=Z,25nm,0.8s
SML **Sawmill** 69.96 330 *e*P P 06 20 18.7 -0.1
comp=Z,25nm,0.8s
CLL **Collm** 70.13 41⇑ *i*P P 06 20 20.0 0.0
CLL *i* *PP pP 06 20 26.3 -1.3
CLL pmax pmax
comp=Z,18nm,1.3s
CLL **Collm** 70.13 41⇑ *i*P P 06 20 20.0 0.0
comp=Z,18nm,1.3s
CLL *i* pP pP 06 20 26.3 -1.3
CLL *e*S S 06 29 36.0 +6.3
CLL **Collm** 70.13 41 *e*P P 06 20 19.1 -0.9
comp=Z,17nm,1.1s
RND **Reindeer** 70.18 332 *e*P P 06 20 20.3 +0.1
RND pmax pmax
comp=Z,160nm,1.7s
RND **Reindeer** 70.18 332 *e*P P 06 20 20.3 +0.1
comp=Z,160nm,1.7s
ABTA **Abfaltersbach** 70.19 46 *e*P P 06 20 20.5 -0.1
comp=Z,26nm,1.2s
MCK **McKinley** 70.21 332 *e*P P 06 20 20.2 -0.1
MCK pmax pmax
comp=Z,40nm,1.2s
MCK **McKinley** 70.21 332 *e*P P 06 20 20.2 -0.1
comp=Z,40nm,1.2s
WET **Wettzell** 70.22 43 P P 06 20 21.9 +1.3
WET pmax pmax
comp=Z,23nm,0.8s
PMR **Palmer** 70.35 330 *e*P P 06 20 20.8 -0.3
PMR pmax pmax
comp=Z,15nm,0.8s
PMR **Palmer** 70.35 330 *e*P P 06 20 20.8 -0.3
comp=Z,15nm,0.8s
KHC **Kasperske Hory** 70.68 43 *e*P P 06 20 23.0 -0.5
KHC *e*pP pP 06 20 29.7 -1.4
KHC *ex* x 06 20 37.0
KHC AMS AMS 06 58 00.0
comp=Z,600nm,20.4s
KHC **Kasperske Hory** 70.68 43 *e*P P 06 20 23.2 -0.3
KHC pmax pmax
comp=Z,7.0nm,0.9s
KHC **Kasperske Hory** 70.68 43 *e*P P 06 20 23.2 -0.3
comp=Z,6.6nm,0.9s
COLD **Coldfoot** 70.70 336 *e*P P 06 20 23.5 +0.3
comp=Z,20nm,1.0s
KBA **Koelnbreinsper** 70.73 46 *e*P P 06 20 23.8 -0.2
comp=Z,21nm,0.8s
BRG **Berggiesshubel** 70.75 42 *i*P P 06 20 24.1 +0.3
comp=Z,16nm,1.1s
BRG *i* 06 20 30.5
BRG **Berggiesshubel** 70.75 42 *i*P P 06 20 24.1 +0.3
comp=Z,16nm,1.1s
BRG *i* 06 20 30.5
BRG **Berggiesshubel** 70.75 42 *i*P P 06 20 24.1 +0.3
BRG *i* 06 20 30.5
BRG pmax pmax
comp=Z,16nm,1.1s
GEC2 **GERESS Array S** 70.79 44 *e*P P 06 20 24.1 -0.1
GEC2 pmax pmax
comp=Z,7.0nm,0.8s
GEC2 **GERESS Array S** 70.79 44 *e*P P 06 20 24.1 -0.1
comp=Z,7.1nm,0.8s
GERES **GERESS Array B** 70.79 44 P P 06 20 22.7 -1.5
comp=Z,2.6nm,0.9s,baz=289,slow=4.1,SNR=9.1
GERES LR LR 06 49 17.8
comp=Z,205nm,18.6s,baz=278,slow=34
GEA0 **GERESS Array S** 70.79 44 *e*P P 06 20 23.6 -0.6
TRF **Thorofare Moun** 70.82 332 *e*P P 06 20 24.2 0.0
comp=Z,44nm,0.7s
ROBS **Robic** 70.93 46 *e*P P 06 20 24.4 -0.6
MLY **Manley** 70.97 334 *e*P P 06 20 24.3 -0.6
comp=Z,34nm,1.3s
MYKA **Terra Mystica** 70.98 46 *e*P P 06 20 25.1 -0.3
comp=Z,19nm,0.8s
KTH **Kantishna Hill** 71.10 332 *e*P P 06 20 25.5 -0.3
comp=Z,56nm,0.9s
BPAW **Bear Paw Mtn.** 71.11 333 *e*P P 06 20 25.2 -0.5
comp=Z,32nm,0.8s
SUA **Susitna One** 71.12 330 *e*P P 06 20 25.8 -0.2
comp=Z,17nm,0.9s
SPA0 **Spitsbergen Ar** 71.14 13 *e*P P 06 20 26.4 +0.7
PVCC **Panska Ves** 71.18 42 *e*P P 06 20 26.3 -0.1
PVCC *e*pP pP 06 20 33.0 -1.0
PVCC **Panska Ves** 71.18 42 *e*P P 06 20 26.3 -0.1
PVCC *e* 06 20 33.0
PRU **Pruhonice** 71.22 42 *e*P P 06 20 26.5 -0.2
PRU *e*pP pP 06 20 33.2 -1.1
PRU AMS AMS 06 59 50.0
comp=Z,600nm,20.3s
PRU **Pruhonice** 71.22 42 *e*P P 06 20 26.5 -0.2
PRU *e* 06 20 33.2
PRU MLR MLR
comp=Z,600nm,20.3s
MOA **Molln** 71.27 45 *e*P P 06 20 26.8 -0.2
comp=Z,10nm,0.8s
BRLK **Bradley Lake** 71.30 328 *e*P P 06 20 27.0 0.0
comp=Z,183nm,1.9s
JAVS **Javornik** 71.36 47 *e*P P 06 20 27.9 +0.1
CNPM **China Poot** 71.49 328 *e*P P 06 20 28.4 +0.2
comp=Z,282nm,2.0s
OBKA **Obir** 71.62 46 *i*P P 06 20 30.1 +0.8
comp=Z,48nm,1.8s
CEY **Cerknica** 71.63 47 *e*P P 06 20 29.5 +0.2
PPLA **Purkeypile** 71.71 331 *e*P P 06 20 28.9 -0.7
comp=Z,19nm,0.7s
SPU **Mount Spurr** 71.77 329 *e*P P 06 20 29.5 -0.4
UPC **Upice** 72.10 42 *e*P P 06 20 32.2 +0.2
UPC *e*pP pP 06 20 38.7 -0.9
UPC AMS AMS 06 58 40.0
comp=Z,700nm,22.0s
UPC **Upice** 72.10 42 *e*P P 06 20 32.2 +0.2
UPC *e* 06 20 38.7
UPC MLR MLR
comp=Z,700nm,22.0s
IMAR **Indian Mountai** 72.17 335 *e*P P 06 20 31.6 -0.5
RSO **Redoubt South** 72.18 329 *e*P P 06 20 32.2 -0.2
ARSA **Arzberg** 72.19 45 *e*P P 06 20 32.3 -0.3
comp=Z,17nm,1.4s
KSP **Ksiaz** 72.24 41 P P 06 20 34.3 +1.5
KSP pmax pmax
comp=Z,17nm,0.9s
DPC **Dobruska-Polom** 72.31 42 *e*P P 06 20 33.2 -0.1
DPC *e*pP pP 06 20 40.1 -0.9
DPC *ex* x 06 20 47.1
DPC AMS AMS 06 58 40.0
comp=Z,500nm,17.8s
DPC **Dobruska-Polom** 72.31 42 *e*P P 06 20 33.2 -0.1
DPC *e* 06 20 40.1
DPC *e* 06 20 47.1
DPC MLR MLR
comp=Z,500nm,17.8s

CONA **Conrad Observa** 72.32 45 *e*P P 06 20 33.3 -0.2
comp=Z,13nm,1.4s
KDAK **Kodiak Island** 72.35 326 *e*P P 06 20 34.6 +1.3
KDAK pmax pmax
comp=Z,167nm,1.8s
KDAK **Kodiak Island** 72.35 326 *e*P P 06 20 34.6 +1.3
comp=Z,166nm,1.8s
VRAC **Vranov** 72.62 43⇑ *i*P P 06 20 35.3 +0.2
VRAC **Vranov** 72.62 43 ⇑P P 06 20 35.3 +0.2
USHA **Ushuaia** 72.63 181 P P 06 20 34.5 -0.2
comp=Z,24nm,0.8s,baz=0.0,slow=7.1,SNR=2.6
OHAK **Old Harbor** 72.79 325 *e*P P 06 20 36.3 +0.4
comp=Z,198nm,2.0s
MORC **Moravsky Berou** 73.17 42⇑ *i*P P 06 20 38.8 +0.4
MORC **Moravsky Berou** 73.17 42 ⇑P P 06 20 38.9 +0.5
MORC **Moravsky Berou** 73.17 42 *e*P P 06 20 38.9 +0.5
comp=Z,71nm,0.8s
OKC **Ostrava-Krasne** 73.55 42 *e*P P 06 20 41.0 +0.4
OKC *e*pP pP 06 20 47.1 -1.1
OKC *e*PCP PcP 06 20 54.7 -1.8
OKC AMS AMS 06 59 00.0
comp=Z,700nm,18.8s
OKC **Ostrava-Krasne** 73.55 42 *e*P P 06 20 41.0 +0.4
OKC *e* 06 20 47.1
OKC *e* 06 20 54.7
OKC MLR MLR
comp=Z,700nm,18.8s
VYHS **Vyhne** 74.21 44 *e*P P 06 20 44.9 +0.4
VYHS *e* 06 20 51.8
VYHS pmax pmax
comp=Z,12nm,1.3s
VYHS **Vyhne** 74.21 44 *e*P P 06 20 44.9 +0.4
VYHS *e* 06 20 51.8
ARCES **ARCESS Array B** 74.22 21 P P 06 20 43.9 -0.2
comp=Z,6.8nm,0.6s,baz=286,slow=4.1,SNR=18
ARCES LR LR 06 48 27.9
comp=Z,251nm,21.9s,baz=278,slow=32
ARCES **ARCESS Array B** 74.22 21 *e*P P 06 20 44.3 +0.2
ARCES **ARCESS Array B** 74.22 21 *e*P P 06 20 44.2 +0.2
ARE0 **ARCESS Array S** 74.22 21 *e*P P 06 20 44.7 +0.6
comp=Z,67nm,1.4s
OJC **Ojcow** 74.54 42 *e*P P 06 20 46.6 +0.2
OJC **Ojcow** 74.54 42 *e*P P 06 20 46.6 +0.2
OJC **Ojcow** 74.54 42 *e*P P 06 20 46.5 +0.2
comp=Z,20nm,1.1s
BEL **Belsk** 74.88 40 *e*P P 06 20 49.5 +1.2
BEL **Belsk** 74.88 40 *e*P P 06 20 49.5 +1.2
NIE **Niedzica** 75.00 42 *e*P P 06 20 50.5 +1.4
NIE **Niedzica** 75.00 42 *e*P P 06 20 50.5 +1.4
PSZ **Piszkesteto** 75.00 44⇑ *i*P P 06 20 49.8 +0.6
PSZ **Piszkesteto** 75.00 44 *e*P P 06 20 49.9 +0.7
PSZ pmax pmax
comp=Z,17nm,1.0s
PSZ **Piszkesteto** 75.00 44 *e*P P 06 20 49.9 +0.7
comp=Z,17nm,1.0s
OUL **Oulu** 75.14 26 P P 06 20 48.9 -0.6
OUL pmax pmax
comp=Z,43nm,1.0s
KECS **Kecovo** 75.29 43 *e*P P 06 20 49.6 -1.1
KECS *e* 06 20 58.7
KECS pmax pmax
comp=Z,5.0nm,0.8s
KECS **Kecovo** 75.29 43 *e*P P 06 20 49.6 -1.1
KECS *e* 06 20 58.7
CRVS **Cervenica-Dubn** 75.84 43 *e*P P 06 20 55.0 +1.1
CRVS *e* 06 21 01.6
CRVS **Cervenica-Dubn** 75.84 43 *e*P P 06 20 55.0 +1.1
CRVS *e* 06 21 01.6
SUW **Suwalki** 75.90 37 *e*P P 06 20 54.8 +0.7
SUW **Suwalki** 75.90 37 *e*P P 06 20 54.8 +0.7
FINES **FINESS Array B** 75.93 30 P P 06 20 53.5 -0.6
comp=Z,13nm,1.0s,baz=302,slow=3.6,SNR=9.3
FINES LR LR 06 50 58.3
comp=Z,511nm,20.2s,baz=270,slow=33
FIA1 **FINESS Array S** 75.93 30 *e*P P 06 20 54.0 -0.1
comp=Z,23nm,0.9s
TIR **Tirane** 76.26 51⇑ *i*P P 06 21 11.8 +15
TIR **Tirane** 76.26 51 ⇑P P 06 21 11.8 +15
UZH **Uzhgorod** 76.44 43 *e*P P 06 20 55.2 -2.1
UZH *e* 06 21 01.8
UZH *e* 06 21 11.6
KWP **Kalwaria Pacla** 76.50 42 *e*P P 06 20 59.1 +1.5
KWP **Kalwaria Pacla** 76.50 42 *e*P P 06 20 59.1 +1.5
BZS **Buzias** 76.61 46⇑ *i*P P 06 20 58.7 +0.4
BZS **Buzias** 76.61 46 ⇑P P 06 20 58.7 +0.4
DRGR 77.11 45⇓ *i*P P 06 21 01.2 0.0
DRGR 77.11 45 ⇓P P 06 21 01.2 0.0
ISAL **Salakas** 77.24 36 *e*P P 06 20 59.2 -2.4
IZAR **Zarasai** 77.26 35 *e*P P 06 20 59.4 -2.3
SKO **Skopje** 77.28 50 P P 06 21 04.3 +2.1
SKO pmax pmax
comp=Z,4.0nm,0.8s
LVV **L'vov** 77.30 42 *e*P P 06 21 03.1 +1.0
HERR **Herculane** 77.33 47⇑ *i*P P 06 21 01.6 -0.8
IIGN **Ignalina** 77.34 36 *e*P P 06 21 00.1 -2.1
IDID **Didziasalis** 77.64 36 *e*P P 06 21 02.5 -1.4
CJR **Cluj-Napoca** 77.72 45⇑ *i*P P 06 21 11.9 +7.3
CJR **Cluj-Napoca** 77.72 45 ⇑P P 06 21 11.9 +7.3
SRE **Strehaia** 77.92 47⇓ *i*P P 06 21 13.4 +7.7
SRE **Strehaia** 77.92 47 ⇓P P 06 21 13.5 +7.8
JOF **Joensuu** 77.96 28 P P 06 21 06.5 +1.0
JOF pmax pmax
comp=Z,21nm,0.9s
LOT **Lotru** 78.13 46⇓ *i*P P 06 21 06.6 -0.4
ARCR **ARCALIA** 78.14 44⇑ *i*P P 06 21 07.4 +0.6
VTS **Vitosha** 78.41 49⇑ *i*P P 06 21 09.3 +0.6
VTS **Vitosha** 78.41 49 *e*P P 06 21 09.0 +0.3
VTS pmax pmax
comp=Z,11nm,0.9s
VTS **Vitosha** 78.41 49 *e*P P 06 21 09.0 +0.3
comp=Z,11nm,0.9s
BUR08 **Bucovina Ar. S** 78.56 44 *e*P P 06 21 10.3 +1.0
BUR04 **Bucovina Ar. S** 78.57 44 *e*P P 06 21 09.9 +0.5
BURAR **Bucovina Array** 78.58 44⇓ *i*P P 06 21 10.1 +0.7
BURAR **Bucovina Array** 78.58 44 ⇓P P 06 21 10.1 +0.7
ARR **Arges** 78.74 46⇑ *i*P P 06 21 10.8 +0.5
HUMR **Humele** 79.19 47⇑ *i*P P 06 21 13.7 +1.0
MLR **Muntele Rosu** 79.60 46⇑ *i*P P 06 21 16.3 +1.2
MLR **Muntele Rosu** 79.60 46 ⇑P P 06 21 16.3 +1.2
MLR **Muntele Rosu** 79.60 46 *e*P P 06 21 15.7 +0.7
comp=Z,62nm,0.9s
PLOR **Plostina** 79.98 45⇓ *i*P P 06 21 18.4 +1.4
PLOR **Plostina** 79.98 45 ⇓P P 06 21 18.4 +1.4
VRI **Vrincioaia** 80.03 45⇑ *i*P P 06 21 19.3 +2.0
VRI **Vrincioaia** 80.03 45 ⇑P P 06 21 19.3 +2.0
ISR **Istrita** 80.11 46⇑ *i*P P 06 21 17.2 -0.5
ISR **Istrita** 80.11 46 ⇑P P 06 21 17.2 -0.5
AK11 **Malin Array Si** 80.27 40 *e*P P 06 21 17.9 -0.4
AKASG **Malin Array Be** 80.30 40 P P 06 21 17.9 -0.6
comp=Z,4.5nm,0.9s,baz=278,slow=4.4,SNR=13
AKASG LR LR 06 54 20.8
comp=Z,484nm,20.7s,baz=285,slow=34
AKASG **Malin Array Be** 80.30 40 *i*P P 06 21 18.0 -0.6
AKASG pmax pmax
comp=Z,4.0nm,0.8s
AKBB **Malin Array Si** 80.30 40 *e*P P 06 21 18.1 -0.5
AKBB pmax pmax
comp=Z,12nm,1.0s
AKBB **Malin Array Si** 80.30 40 *e*P P 06 21 18.1 -0.5
comp=Z,12nm,1.0s
TMCR **Tamitsa** 80.41 25 *e*P P 06 21 19.2 +0.4
TMCR pmax pmax
comp=Z,20nm,0.6s
SORM **Soroca** 80.47 43⇓ *i*P P 06 21 19.0 -0.5
SORM **Soroca** 80.47 43 ⇓P P 06 21 19.0 -0.5
UNV **Unalaska Valle** 80.83 324 *e*P P 06 21 22.4 +1.0
comp=Z,270nm,1.7s
CFR **Carcaliu** 81.17 45⇑ *i*P P 06 21 23.5 +0.2
CFR **Carcaliu** 81.17 45 ⇑P P 06 21 23.5 +0.2
KLMR **Klimovskoe** 82.31 28 *e*P P 06 21 25.3 -3.7
KLMR pmax pmax
comp=Z,34nm,1.2s
LPSR **Galich'ya Gora** 85.32 36 *e*P P 06 21 44.2 -0.4
LPSR pmax pmax
comp=Z,20nm,1.0s
VSR **Storozhevoye** 86.01 37 *e*P P 06 21 47.5 -0.6
VSR *e**SP sP 06 22 00.0 +1.4
VSR pmax pmax
comp=Z,20nm,1.3s
ANTO **Ankara** 86.12 49 *e*P P 06 21 49.5 +0.6
ANTO pmax pmax
comp=Z,25nm,0.9s
ANTO **Ankara** 86.12 49 *e*P P 06 21 49.5 +0.6

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | comp=Z,25nm,0.9s | | | | | | | |
| **BR131** | **Keskin Array S** | **86.78** | **49** | *e*P | | **P** | **06 21 52.2** | **0.0** |
| **BRTR** | **Keskin Array B** | **86.78** | **49** | P | | **P** | **06 21 51.8** | **-0.5** |
| | comp=Z,5.1nm,1.1s,baz=264,slow=3.5,SNR=7.7 | | | | | | | |
| BRTR | | | | LR | | LR | 07 00 09.1 | |
| | comp=Z,99nm,19.1s,baz=294,slow=35 | | | | | | | |
| **VRH** | **Novokhopyorsk** | **87.48** | **37** | *e*P | | **P** | **06 21 55.2** | **0.0** |
| VRH | | | | pmax | | pmax | | |
| | comp=Z,30nm,1.6s | | | | | | | |
| **PPT** | **Papeete** | **88.24** | **251** | LR | | LR | 06 54 34.1 | |
| | comp=Z,199nm,18.2s,baz=7.5,slow=31 | | | | | | | |
| **TIXI** | **Tiksi** | **89.80** | **355** | *i*P | | **P** | **06 22 05.1** | **-0.7** |
| TIXI | | | | pmax | | pmax | | |
| | comp=Z,1.0nm,1.7s | | | | | | | |
| **TIXI** | **Tiksi** | **89.80** | **355** | *e*P | | **P** | **06 22 06.5** | **+0.7** |
| | comp=Z,9.4nm,0.8s | | | | | | | |
| **KBZ** | **Khabaz** | **91.52** | **43** | P | | **P** | **06 22 15.6** | **+1.3** |
| | comp=Z,4.3nm,1.0s,baz=310,slow=5.1,SNR=3.2 | | | | | | | |
| KBZ | | | | LR | | LR | 07 04 18.4 | |
| | comp=Z,166nm,18.2s,baz=320,slow=36 | | | | | | | |
| **NEY** | **Neytrino** | **91.62** | **43** | *e*P | | **P** | **06 22 14.7** | **-0.4** |
| NEY | | | | pmax | | pmax | | |
| | comp=Z,1.0nm,1.0s | | | | | | | |
| **ZEI** | **Tsey** | **92.60** | **43** | *e*P | | P | 06 22 26.3 | +6.7 |
| ZEI | | | | pmax | | pmax | | |
| | comp=Z,5.0nm,1.3s | | | | | | | |
| **SEY** | **Seymchan** | **93.44** | **343** | *e*P | | **P** | **06 22 21.1** | **-1.7** |
| **PETK** | **Petropavlovsk-** | **99.13** | **334** | LR | | LR | 07 08 28.6 | |
| | comp=Z,237nm,21.7s,baz=39,slow=36 | | | | | | | |
| **KLR** | **Kul'dur** | **110.86** | **347** | PP | | PP | 06 28 12.9 | -4.3 |
| | comp=Z,0.6nm,1.1s,baz=22,slow=8.9,SNR=6.0 | | | | | | | |
| **KSH** | **Kashi** | **113.25** | **30** | PKP | | **PKiKP** | **06 27 42.9** | **-2.8** |
| KSH | | | | sPKP | | | 06 27 56.9 | |
| KSH | | | | PP | | **PP** | **06 28 37.0** | **+2.0** |
| KSH | | | | PKS | | **PKSdf** | **06 31 17.8** | **-4.8** |
| KSH | | | | SKS | | **SKSdf** | **06 34 49.9** | **-6.8** |
| KSH | | | | AMB | | AMB | | |
| | comp=Z,130nm,4.3s | | | | | | | |
| KSH | | | | LR | | LR | | |
| | comp=Z,120nm,4.9s | | | | | | | |
| KSH | | | | LR | | LR | | |
| | comp=Z,150nm,7.7s | | | | | | | |
| KSH | | | | LR | | LR | | |
| | comp=Z,260nm,9.2s | | | | | | | |
| **SONM** | **Songino Array** | **114.14** | **5** | PP | | **PP** | **06 28 38.7** | **-2.1** |
| | comp=Z,1.7nm,1.0s,baz=344,slow=4.9,SNR=5.8 | | | | | | | |
| **WMQ** | **Urumqi** | **114.30** | **20** | PKP | | PKPdf | 06 27 47.8 | +0.3 |
| WMQ | | | | PP | | **PP** | **06 28 47.0** | **+5.0** |
| WMQ | | | | SKKS | | | 06 35 38.8 | |
| WMQ | | | | SS | | **SS** | **06 44 34.5** | **+2.9** |
| WMQ | | | | AMB | | AMB | | |
| | comp=Z,220nm,4.9s | | | | | | | |
| WMQ | | | | LR | | LR | | |
| | comp=Z,260nm,27.5s | | | | | | | |
| WMQ | | | | LR | | LR | | |
| | comp=Z,310nm,22.3s | | | | | | | |
| WMQ | | | | LR | | LR | | |
| | comp=Z,610nm,22.3s | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **121.36** | **1** | *e*PKP | | **PKPdf** | **06 27 58.3** | **-3.0** |
| HHC | | | | PP | | **PP** | **06 29 32.3** | **+1.4** |
| HHC | | | | AMB | | AMB | | |
| | comp=Z,58nm,4.4s | | | | | | | |
| HHC | | | | LR | | LR | | |
| | comp=Z,240nm,11.1s | | | | | | | |
| HHC | | | | LR | | LR | | |
| | comp=Z,170nm,16.0s | | | | | | | |
| HHC | | | | LR | | LR | | |
| | comp=Z,280nm,15.5s | | | | | | | |
| **MAW** | **Mawson** | **121.37** | **160** | PKP | | **PKPdf** | **06 27 57.7** | **-2.4** |
| | comp=Z,1.2nm,0.5s,baz=254,slow=3.1,SNR=12 | | | | | | | |
| **MAW** | **Mawson** | **121.37** | **160** | *e*PKIKP | | **PKPdf** | **06 27 59.2** | **-0.9** |
| **MAW** | **Mawson** | **121.37** | **160** | *e*PKPdf | | **PKPdf** | **06 27 59.2** | **-0.9** |
| **GTA** | **Gaotai** | **121.56** | **12** | *e*PKP | | **PKPdf** | **06 27 59.3** | **-2.4** |
| GTA | | | | PP | | **PP** | **06 29 32.6** | **+0.2** |
| GTA | | | | SKS | | **SKSdf** | **06 35 08.3** | **-4.3** |
| GTA | | | | LR | | LR | | |
| | comp=Z,340nm,20.4s | | | | | | | |
| GTA | | | | LR | | LR | | |
| | comp=Z,260nm,19.5s | | | | | | | |
| GTA | | | | LR | | LR | | |
| | comp=Z,420nm,20.0s | | | | | | | |
| **LZH** | **Lanzhou** | **125.48** | **9** | *e*PKP | | **PKPdf** | **06 28 06.4** | **-3.0** |
| LZH | | | | sPKP | | | 06 28 20.0 | |
| LZH | | | | LR | | LR | | |
| | comp=Z,130nm,17.3s | | | | | | | |
| LZH | | | | LR | | LR | | |
| | comp=Z,150nm,16.8s | | | | | | | |
| LZH | | | | LR | | LR | | |
| | comp=Z,180nm,20.0s | | | | | | | |
| **XAN** | **Xi'an** | **128.04** | **4** | PKP | | **PKPdf** | **06 28 17.5** | **+3.3** |
| XAN | | | | LR | | LR | | |
| | comp=Z,250nm,14.5s | | | | | | | |
| XAN | | | | LR | | LR | | |
| | comp=Z,330nm,17.6s | | | | | | | |
| XAN | | | | LR | | LR | | |
| | comp=Z,490nm,17.4s | | | | | | | |
| **NJ2** | **Nanjing** | **129.79** | **353** | *e*PKP | | **PKPdf** | **06 28 18.0** | **+0.5** |
| **CD2** | **Chengdu** | **130.54** | **10** | *e*PKP | | **PKPdf** | **06 28 18.6** | **-0.4** |
| CD2 | | | | PP | | **PP** | **06 30 35.4** | **+3.4** |
| CD2 | | | | SKKS | | | 06 37 24.0 | |
| CD2 | | | | AMB | | AMB | | |
| | comp=Z,280nm,6.6s | | | | | | | |
| **GYA** | **Guiyang** | **135.34** | **8** | *e*Pdif | | **Pdif** | **06 25 28.0** | **-2.7** |
| GYA | | | | PKP | | **PKPdf** | **06 28 27.8** | **-0.5** |
| GYA | | | | PP | | **PP** | **06 31 06.3** | **+3.5** |
| GYA | | | | AMB | | AMB | | |
| | comp=Z,130nm,8.8s | | | | | | | |
| **KMI** | **Kunming** | **135.99** | **13** | PKP | | **PKPdf** | **06 28 27.6** | **-2.0** |
| **CMAR** | **Chiang Mai Arr** | **141.28** | **21** | PKP | | **PKPdf** | **06 28 36.8** | **-2.3** |
| | comp=Z,1.7nm,0.3s,baz=302,slow=2.0,SNR=3.7 | | | | | | | |
| **QIZ** | **Qiongzhong** | **143.01** | **4** | PKP | | **PKPdf** | **06 28 45.6** | **+3.3** |
| QIZ | | | | PP | | **PP** | **06 31 55.5** | **+5.5** |
| QIZ | | | | SS | | SS | 06 50 33.8 | +7.3 |
| QIZ | | | | AMB | | AMB | | |
| | comp=Z,51nm,16.2s | | | | | | | |
| QIZ | | | | LR | | LR | | |
| | comp=Z,260nm,20.9s | | | | | | | |
| **PMG** | **Port Moresby** | **145.41** | **280** | *e*PKIKP | | **PKPbc** | **06 28 45.9** | **-0.6** |
| **PMG** | **Port Moresby** | **145.41** | **280** | *e*PKPdf | | **PKPbc** | **06 28 45.9** | **-0.6** |
| **CTAO** | **Charters Tower** | **148.18** | **261** | *e*PKP2 | | **PKPbc** | **06 28 52.9** | **-1.4** |
| **CTAO** | **Charters Tower** | **148.18** | **261** | *e*PKPdf | | **PKPbc** | **06 28 52.9** | **-1.4** |
| **COEN** | **Coen** | **150.36** | **273** | *e*PKPbc | | **PKPbc** | **06 28 59.1** | **-0.8** |
| **STKA** | **Stephens Creek** | **150.47** | **237** | PKP | | **PKPdf** | **06 28 54.7** | **+0.4** |
| | comp=Z,7.4nm,0.8s,baz=30,slow=4.6,SNR=5.4 | | | | | | | |
| STKA | | | | PKPab | | **PKPab** | **06 29 06.8** | **+0.6** |
| | comp=Z,8.1nm,0.8s,baz=333,slow=1.7,SNR=6.2 | | | | | | | |
| **STKA** | **Stephens Creek** | **150.47** | **237** | *e*PKIKP | | **PKPbc** | **06 28 58.5** | **-1.2** |
| STKA | | | | | | | 06 29 06.8 | |
| **STKA** | **Stephens Creek** | **150.47** | **237** | *e*PKPbc | | **PKPbc** | **06 28 58.5** | **-1.2** |
| STKA | | | | PKPab | | **PKPab** | **06 29 06.8** | **+0.6** |
| **AS01** | **Alice Springs** | **159.32** | **251** | *e*PKPdf | | **PKPdf** | **06 29 05.2** | **-1.6** |
| **ASAR** | **Alice Springs** | **159.36** | **251** | PKP | | **PKPdf** | **06 29 04.7** | **-2.2** |
| | comp=Z,2.3nm,0.8s,baz=131,slow=1.7,SNR=8.5 | | | | | | | |
| ASAR | | | | PKPab | | **PKPab** | **06 29 43.1** | **-1.3** |
| | comp=Z,4.6nm,0.9s,baz=106,slow=3.9,SNR=6.3 | | | | | | | |
| **WRA** | **Warramunga Arr** | **159.38** | **261** | PKP | | **PKPdf** | **06 29 05.1** | **-1.8** |
| | comp=Z,3.9nm,1.0s,baz=78,slow=1.2,SNR=8.7 | | | | | | | |
| WRA | | | | PKPab | | **PKPab** | **06 29 41.7** | **-2.9** |
| | comp=Z,1.5nm,0.6s,baz=87,slow=4.8,SNR=5.0 | | | | | | | |

*IDC **17** 06:14:14.4±0.8, 17°.85N×67°.48W, h0km, mb3.8/9, mb1 4.1/9, mb1mx3.9/47, mbtmp3.8/9, Error ellipse: s-maj=25.5km s-min=11.6km az=180.0*
*ISCJB **17** 06:14:17.9±0.7, 18°.12N±0°.05×67°.45W±0°.04, h25km±3km, mb3.8/9, Error ellipse: s-maj=9.7km s-min=5.1km az=26.3*
*NEIC **17** 06:14:20.4±0.0, 18°.19N×67°.32W, h7km, MD3.0(RSPR), After RSPR.*
*NEIC Felt at Las Marias.*
*RSPR **17** 06:14:20.4, 18°.19N×67°.32W, h7km±1km, MD3.0/14*

**ISC 17 06:14:19.6±0.8, 18°.17N±0°.04×67°.35W±0°.03, h24km±5km, n53, σ1°03/61, mb3.9/9, 25C-4D, Mona Passage**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **MPR** | **Mayaguez** | **0.20** | **79** | *e*P | | **P** | **Pb** | **06 14 24.8** | **-0.4** |
| **MPR** | **Mayaguez** | **0.20** | **79** | *e*P | | **P** | **Pb** | **06 14 24.8** | **-0.4** |
| **IDE** | **Isla Desecheo** | **0.24** | **330** | *e*Pg | | **P** | **Pb** | **06 14 25.2** | **-0.6** |
| IDE | | | | *e*Sg | | **P** | **Sb** | **06 14 29.9** | **-0.1** |
| **LSP** | **Las Mesas** | **0.25** | **89** | *e*P | | **P** | **Pb** | **06 14 25.7** | **-0.1** |
| **LSP** | **Las Mesas** | **0.25** | **89** | *e*P | | **P** | **Pb** | **06 14 25.7** | **-0.1** |
| **CRPR** | **Cabo Rojo, PR** | **0.28** | **126** | P | | **P** | **Pb** | **06 14 26.0** | **-0.2** |
| **CRPR** | **Cabo Rojo, PR** | **0.28** | **126** | *e*S | | **P** | **Sb** | **06 14 30.3** | **-0.5** |
| **CRPR** | **Cabo Rojo, PR** | **0.28** | **126** | *e*P | | **P** | **Pb** | **06 14 26.0** | **-0.2** |
| | | | | *e*S | | **P** | **Sb** | **06 14 30.3** | **-0.5** |
| **AGP** | **Aguadilla** | **0.30** | **40** | *e*Pg | | **P** | **Pb** | **06 14 27.3** | **+0.6** |
| AGP | | | | *e*Sg | | **P** | **Sb** | **06 14 32.9** | **+1.5** |
| **AGPR** | **Aguadilla, PR** | **0.37** | **37** | *e*P | | **P** | **Pb** | **06 14 27.1** | **-0.5** |
| **AGPR** | **Aguadilla, PR** | **0.37** | **37** | *e*S | | **P** | **Sb** | **06 14 33.0** | **-0.1** |
| **AGPR** | **Aguadilla, PR** | **0.37** | **37** | *e*P | | **P** | **Pb** | **06 14 27.1** | **-0.5** |
| AGPR | | | | *e*S | | **P** | **Sb** | **06 14 33.0** | **-0.1** |
| **GBPR** | **Guanica, Bosqu** | **0.49** | **114** | *e*P | | **P** | **Pb** | **06 14 29.5** | **0.0** |
| **GBPR** | **Guanica, Bosqu** | **0.49** | **114** | *e*S | | **P** | **Sb** | **06 14 36.6** | **+0.4** |
| **GBPR** | **Guanica, Bosqu** | **0.49** | **114** | *e*P | | **P** | **Pb** | **06 14 29.5** | **0.0** |
| GBPR | | | | *e*S | | **P** | **Sb** | **06 14 36.6** | **+0.4** |
| **AOPR** | **Arecibo Observ** | **0.59** | **73** | *e*P | | **P** | **Pb** | **06 14 30.8** | **-0.5** |
| **AOPR** | **Arecibo Observ** | **0.59** | **73** | *e*S | | **P** | **Sb** | **06 14 38.7** | **-0.5** |
| **AOPR** | **Arecibo Observ** | **0.59** | **73** | *e*P | | **P** | **Pb** | **06 14 30.8** | **-0.5** |
| AOPR | | | | *e*S | | **P** | **Sb** | **06 14 38.7** | **-0.5** |
| **OBIP** | **Obispado Ponce** | **0.72** | **100** | *e*P | | **P** | **Pb** | **06 14 32.8** | **-0.6** |
| **OBIP** | **Obispado Ponce** | **0.72** | **100** | *e*P | | **P** | **Pb** | **06 14 32.8** | **-0.6** |
| **CELP** | **Cerrillos** | **0.74** | **97** | *e*P | | **P** | **Pb** | **06 14 32.8** | **-0.9** |
| **CELP** | **Cerrillos** | **0.74** | **97** | *e*P | | **P** | **Pb** | **06 14 32.8** | **-0.9** |
| **ICMP** | **Isla Caja de M** | **0.83** | **110** | *e*P | | **P** | **Pb** | **06 14 35.2** | **-0.1** |
| **ICMP** | **Isla Caja de M** | **0.83** | **110** | *e*P | | **P** | **Pb** | **06 14 35.2** | **-0.1** |
| **SJG** | **San Juan** | **1.14** | **93** | Pg | | **Pn** | **06 14 39.5** | **-0.5** |
| | 85nm,0.3s,baz=301,slow=12,SNR=30 | | | | | | | |
| SJG | | | | Lg | | Lg | 06 14 55.2 | |
| | 719nm,0.3s,baz=65,slow=19,SNR=32 | | | | | | | |
| **SJG** | **San Juan** | **1.14** | **93** | *e*Pn | | **Pn** | **06 14 40.0** | **0.0** |
| SJG | | | | *e*Sn | | **Sb** | **06 14 56.3** | **+1.3** |
| **CBYP** | **Canovanas** | **1.42** | **86** | *e*P | | **Pn** | **06 14 44.4** | **+0.5** |
| **CBYP** | **Canovanas** | **1.42** | **86** | *e*S | | **Sb** | **06 15 03.1** | **0.0** |
| **CBYP** | **Canovanas** | **1.42** | **86** | *e*P | | **Pn** | **06 14 44.4** | **+0.5** |
| CBYP | | | | *e*S | | **Sb** | **06 15 03.1** | **0.0** |
| **HUMP** | **Col San Antoni** | **1.42** | **91** | *e*P | | **Pn** | **06 14 44.9** | **+1.0** |
| **HUMP** | **Col San Antoni** | **1.42** | **91** | *e*S | | **Sb** | **06 15 04.1** | **+0.9** |
| **HUMP** | **Col San Antoni** | **1.42** | **91** | *e*P | | **Pn** | **06 14 44.9** | **+1.0** |
| HUMP | | | | *e*S | | **Sb** | **06 15 04.1** | **+0.9** |
| **MTP** | **Monte Pirata** | **1.71** | **92** | *e*P | | **Pn** | **06 14 49.1** | **+1.3** |
| **MTP** | **Monte Pirata** | **1.71** | **92** | *e*S | | **Sb** | **06 15 11.1** | **-0.2** |
| **MTP** | **Monte Pirata** | **1.71** | **92** | *e*P | | **Pn** | **06 14 49.1** | **+1.3** |
| MTP | | | | *e*S | | **Sb** | **06 15 11.1** | **-0.2** |
| **CUPR** | **Culebra, Puert** | **1.97** | **86** | *e*P | | **Pn** | **06 14 51.4** | **+0.1** |
| **STVI** | **Saint Thomas** | **2.28** | **85** | *e*P | | **Pn** | **06 14 56.5** | **+0.8** |
| **STVI** | **Saint Thomas** | **2.28** | **85** | *e*P | | **Pn** | **06 14 56.5** | **+0.8** |
| **SDD** | **Santo Domingo** | **2.46** | **277** | *e*Pn | | **Pb** | **06 15 02.7** | **-0.3** |
| SDD | | | | *e*Sn | | **Sn** | **06 15 31.8** | **+4.5** |
| **TBVI** | **Tortola** | **2.60** | **84** | *e*P | | **Pn** | **06 15 00.6** | **+0.5** |
| **TBVI** | **Tortola** | **2.60** | **84** | *e*P | | **Pn** | **06 15 00.6** | **+0.5** |
| **SDDR** | **Presa de Saban** | **3.82** | **283** | *e*Pn | | Pn | 06 15 23.2 | +6.2 |
| **SMRT** | **St. Maarten** | **4.06** | **91** | *e*Pn | | Pn | 06 15 25.0 | +4.7 |
| **GRTK** | **Grand Turk** | **4.87** | **314** | *e*Pn | | **Pn** | **06 15 31.6** | **+0.2** |
| **CMIG** | **Matias Romero** | **26.26** | **272** | P | | **P** | **06 19 48.7** | **-4.4** |
| | 1.5nm,0.4s,baz=54,slow=8.7,SNR=4.3 | | | | | | | |
| **LPAZ** | **La Paz** | **34.25** | **181** | P | | P | 06 20 60.0 | -4.5 |
| | 1.9nm,0.9s,baz=16,slow=7.4,SNR=2.4 | | | | | | | |
| **TXAR** | **Lajitas Array** | **34.92** | **295** | P | | **P** | **06 21 10.0** | **+0.3** |
| | 0.7nm,0.7s,baz=110,slow=11,SNR=3.5 | | | | | | | |
| **PDAR** | **Pinedale Array** | **43.26** | **314** | P | | **P** | **06 22 19.6** | **+0.2** |
| | 0.4nm,0.6s,baz=110,slow=11,SNR=2.5 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **54.96** | **335** | P | | **P** | **06 23 48.1** | **-0.3** |
| | 1.1nm,0.6s,baz=112,slow=7.6,SNR=3.9 | | | | | | | |
| **ESDC** | **Sonseca Array** | **58.27** | **54** | P | | **P** | **06 24 12.8** | **+0.4** |
| | 1.5nm,0.8s,baz=275,slow=7.1,SNR=4.1 | | | | | | | |
| **DBIC** | **Dimbokro** | **61.84** | **92** | P | | **P** | **06 24 37.3** | **+0.1** |
| | 1.0nm,0.5s,baz=260,slow=6.1,SNR=3.4 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **66.34** | **83** | P | | **P** | **06 25 06.8** | **+0.1** |
| | 0.3nm,0.6s,baz=272,slow=5.0,SNR=3.7 | | | | | | | |
| **ILAR** | **Eielson Array** | **69.27** | **333** | P | | **P** | **06 25 23.9** | **-0.5** |
| | 0.3nm,0.4s,baz=98,slow=4.8,SNR=5.9 | | | | | | | |

*NIED **17** 06:15:00, 23°.40N×123°.90E, h8km, Mw4.6 Best double couple: M0 1.02000×10^16 NP1:φs93.00000°, δ2.00000°, λ-140.00000°. NP2:φs323.00000°, δ89.00000°, λ-88.00000°.*
*JMA **17** 06:15:31.2±0.2, 23°.38N×123°.86E, h50km±3km, M4.2*
*IDC **17** 06:15:49.5±6.2, 24°.13N×123°.48E, h145km±59km, mb3.3/6, mb1 3.4/7, mb1mx3.1/46, mbtmp3.7/7, MS3.0/2, Ms1 3.1/2, ms1mx2.6/17, Error ellipse: s-maj=43.8km s-min=19.7km az=65.0*

**ISC 17 06:15:31.1±3.2, 23°.3N±0°.1×123°.87E±0°.05, h26km±20km, n24, σ1°52/34, mb3.6/6, Southwestern Ryukyu Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **HATJ** | **Hateruma jima** | **0.72** | **355** | P | | **P** | **Pn** | **06 15 44.6** | **-1.0** |
| HATJ | | | | S | | S | **Sb** | **06 15 54.3** | **-0.3** |
| **JKRS** | **Kuro-shima** | **0.91** | **8** | P | | P | **Pn** | **06 15 47.3** | **-0.9** |
| JKRS | | | | S | | S | **Sn** | **06 15 59.5** | **-0.9** |
| **IRIF** | **Iriomote-Funau** | **1.00** | **353** | P | | P | **Pn** | **06 15 48.8** | **-0.7** |
| IRIF | | | | S | | S | **Sn** | **06 16 01.4** | **-1.4** |
| **JIJ** | **Ishigaki jima** | **1.05** | **14** | P | | P | **Pn** | **06 15 49.3** | **-0.9** |
| JIJ | | | | S | | S | **Sn** | **06 16 01.9** | **-2.1** |
| **JISG** | **Ishigakijimahi** | **1.31** | **18** | P | | P | **Pn** | **06 15 52.8** | **-0.9** |
| JISG | | | | *e*S | | **Sn** | **06 16 08.7** | **-1.6** |
| **YOJ** | **Yonaguni jima** | **1.37** | **325** | P | | P | **Pn** | **06 15 53.6** | **-0.9** |
| YOJ | | | | *e*S | | **Sn** | **06 16 10.0** | **-1.8** |
| **JYNG** | **Yonagunijimaku** | **1.40** | **323** | P | | P | **Pn** | **06 15 54.2** | **-0.7** |
| JYNG | | | | *e*S | | **Sn** | **06 16 10.6** | **-1.9** |
| **JTJ** | **Tarama** | **1.51** | **30** | P | | P | **Pn** | **06 15 56.0** | **-0.4** |
| JTJ | | | | S | | S | **Sn** | **06 16 14.8** | **-0.4** |
| **JIRB** | **Irabujima** | **1.91** | **38** | P | | P | **Pn** | **06 16 01.2** | **-0.7** |
| JIRB | | | | *e*S | | **Sn** | **06 16 23.8** | **-1.2** |
| **JMJ** | **Miyako jima 2** | **1.97** | **41** | P | | P | **Pn** | **06 16 02.1** | **-0.6** |
| JMJ | | | | *e*S | | **Sn** | **06 16 26.1** | **-0.4** |
| **JOGS** | **Gusukube** | **2.00** | **44** | P | | P | **Pn** | **06 16 03.1** | **0.0** |
| JOGS | | | | S | | S | **Sn** | **06 16 27.8** | **+0.5** |
| **JIKM** | **Ikemajima** | **2.02** | **38** | P | | P | **Pn** | **06 16 03.0** | **-0.5** |
| JIKM | | | | S | | S | **Sn** | **06 16 27.9** | **0.0** |
| **JKE** | **Kume jima 2** | **3.99** | **41** | P | | P | **Pn** | **06 16 28.2** | **-2.3** |
| JKE | | | | *e*S | | **Sn** | **06 17 14.1** | **-2.3** |
| **JNTH** | **Nagotoyohara** | **4.93** | **49** | P | | P | **Pn** | **06 16 41.7** | **-1.7** |
| **JMZ** | **Minamidaito 2** | **7.13** | **68** | P | | P | **Pn** | **06 17 10.5** | **-3.2** |
| **KSRS** | **Korea Array** | **14.50** | **13** | P | | P | **Pn** | **06 18 58.4** | **+3.9** |
| | 0.3nm,0.3s,baz=203,slow=12,SNR=3.6 | | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **18.07** | **40** | LR | | LR | 06 26 30.8 | | |
| | comp=Z,39nm,18.7s,baz=50,slow=36 | | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **23.77** | **263** | LR | | LR | 06 30 25.5 | | |
| | comp=Z,33nm,18.8s,baz=60,slow=37 | | | | | | | | |
| **SONM** | **Songino Array** | **28.15** | **335** | P | | **P** | **Pn** | **06 21 20.8** | **-0.4** |
| | 0.9nm,0.8s,baz=153,slow=8.0,SNR=4.6 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **40.66** | **316** | P | | **P** | **Pn** | **06 23 09.3** | **+0.2** |
| | 0.3nm,0.4s,baz=99,slow=9.3,SNR=15 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.30** | **326** | P | | **P** | **Pn** | **06 23 21.2** | **-1.1** |
| | 1.7nm,0.5s,baz=115,slow=6.8,SNR=2.1 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **44.21** | **166** | P | | P | 06 23 51.1 | +13 | |
| | 0.3nm,0.3s,baz=349,slow=8.7,SNR=4.0 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **82.78** | **24** | P | | **P** | **Pn** | **06 27 54.6** | **+2.0** |
| | 0.2nm,0.6s,baz=304,slow=5.3,SNR=5.3 | | | | | | | | |
| **GERES** | **GERESS Array B** | **85.05** | **322** | P | | **P** | **Pn** | **06 28 04.1** | **-0.5** |
| | 0.4nm,0.6s,baz=60,slow=5.8,SNR=2.7 | | | | | | | | |

**JMA 17 06:35:54.0±0.1, 37°.35N×141°.35E, h48km±1km, M3.5, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **JFK** | **Kawauchi** | **0.38** | **273** | P | | P | Pn | 06 36 03.7 | -0.1 |
| JFK | | | | S | | S | Sn | 06 36 10.3 | -0.5 |
| **ONAJ** | **Iwakimizuishiy** | **0.51** | **241** | P | | P | Pn | 06 36 05.1 | -0.2 |
| ONAJ | | | | S | | S | Sn | 06 36 12.9 | -0.4 |
| **JMM** | **Marumori** | **0.68** | **320** | P | | P | Pn | 06 36 07.3 | -0.1 |
| JMM | | | | S | | S | Sn | 06 36 16.9 | -0.2 |
| **JFT** | **Otama** | **0.82** | **282** | P | | P | Pn | 06 36 10.0 | +0.7 |
| JFT | | | | *e*S | | S | Sn | 06 36 21.1 | +0.6 |
| **JHO** | **Hitachi** | **0.97** | **221** | P | | P | Pn | 06 36 10.7 | -0.5 |
| JHO | | | | S | | S | Sn | 06 36 22.5 | -1.4 |
| **JIO** | **Ouri** | **1.10** | **360** | P | | P | Pn | 06 36 12.9 | -0.2 |
| JIO | | | | S | | S | Sn | 06 36 26.2 | -1.0 |
| **JOU** | **Okura** | **1.15** | **332** | P | | P | Pn | 06 36 13.7 | 0.0 |
| **JFY** | **Yanaizu** | **1.31** | **273** | P | | P | Pn | 06 36 16.4 | +0.5 |
| JFY | | | | *e*S | | S | Sn | 06 36 33.1 | +0.8 |
| **JYS** | **Shirataka** | **1.34** | **311** | P | | P | Pn | 06 36 18.8 | +0.5 |
| JYS | | | | *e*S | | S | Sn | 06 36 34.4 | +1.5 |
| **JMK** | **Ichinoseki** | **1.60** | **356** | P | | P | Pn | 06 36 19.9 | 0.0 |
| JMK | | | | *e*S | | S | Sn | 06 36 39.1 | -0.3 |
| **MAT** | **Matsushiro** | **2.64** | **253** | P | | P | Pn | 06 36 35.7 | +1.5 |
| MAT | | | | S | | S | Sn | 06 37 08.9 | +3.9 |

*ISCJB **17** 06:39:34.0±0.7, 18°.04N±0°.05×103°.90W±0°.05, h10km, mb4.0/13, Error ellipse: s-maj=8.3km s-min=5.6km az=30.4*
*IDC **17** 06:39:35.1±2.4, 17°.99N×103°.95W, h0km, mb3.4/4, mb1 3.7/6, mb1mx3.6/36, mbtmp3.4/6, ML3.2/2, Error ellipse: s-maj=52.0km s-min=34.0km az=56.0*
*NEIC **17** 06:39:39.7±0.0, 18°.06N×103°.86W, h16km, mb4.2/16, MD4.0(MEX), After MEX.*
*MEX **17** 06:39:39.7±0.6, 18°.06N×103°.86W, h16km±16km, MD4.0*

**ISC 17 06:39:34.3±0.9, 17°.97N±0°.05×104°.00W±0°.04, h10km, n44, σ2°10/51, mb4.2/13, Near coast of Michoacan**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **MMIG** | **Aquila** | **0.69** | **63** | *e*P | | **P** | **Pg** | **06 39 47.6** | **-0.2** |
| MMIG | | | | *e*S | | **P** | **Pn** | **06 39 53.3** | **+3.0** |
| **MMIG** | **Aquila** | **0.69** | **63** | *e*Pg | | **P** | **Pg** | **06 39 47.6** | **-0.2** |
| MMIG | | | | *e*Pn | | **P** | **Pn** | **06 39 53.3** | **+3.0** |
| **R15V** | | **1.19** | **1** | *e*P | | **P** | **Pb** | **06 39 56.5** | **-0.7** |
| R15V | | | | *e*S | | **Sg** | **06 40 09.7** | **-3.1** |
| **EZ5V** | | **1.55** | **14** | *e*P | | **P** | **Pn** | **06 40 01.9** | **-0.3** |
| EZ5V | | | | *e*S | | **Sn** | **06 40 19.2** | **-3.3** |
| **CJM** | **Chamela** | **1.81** | **327** | *e*P | | **P** | **Pn** | **06 40 07.6** | **+1.9** |
| CJM | | | | *e*S | | **Sn** | **06 40 28.3** | **-0.5** |
| **CJM** | **Chamela** | **1.81** | **327** | *e*Pn | | **P** | **Pn** | **06 40 07.6** | **+1.9** |
| CJM | | | | *e*Sn | | **Sn** | **06 40 28.3** | **-0.5** |
| **ZIIG** | **Zihuatanejo** | **2.44** | **98** | *e*P | | **P** | **Pn** | **06 40 14.1** | **-0.1** |
| ZIIG | | | | *e*S | | **Sn** | **06 40 38.4** | **-5.8** |
| **ZIIG** | **Zihuatanejo** | **2.44** | **98** | *e*Pn | | **P** | **Pn** | **06 40 14.1** | **-0.1** |
| ZIIG | | | | *e*Sn | | **Sn** | **06 40 38.4** | **-5.8** |
| **MOIG** | **Morelia** | **3.15** | **57** | *e*P | | **P** | **Pn** | **06 40 23.9** | **-0.4** |
| MOIG | | | | *e*S | | **Sn** | **06 41 05.0** | **+2.9** |
| **MOIG** | **Morelia** | **3.15** | **57** | *e*Pn | | **P** | **Pn** | **06 40 23.9** | **-0.4** |
| MOIG | | | | *e*Pg | | **P** | **Pg** | **06 40 30.7** | **0.0** |
| MOIG | | | | *e*Sn | | **Sn** | **06 41 05.0** | **+2.9** |
| **ARIG** | **Puente Sto Nin** | **3.48** | **84** | *e*P | | **P** | **Pn** | **06 40 29.1** | **+0.4** |
| ARIG | | | | *e*S | | **Sb** | **06 41 19.4** | **+0.9** |
| **IGIG** | **Irapuato, Guan** | **3.74** | **42** | *e*P | | P | Pn | 06 40 38.7 | +6.3 |
| IGIG | | | | *e*S | | **Sb** | **06 41 24.0** | **-2.2** |
| **UNM** | **Universidad Na** | **4.76** | **73** | *e*Pg | | **Pb** | **06 40 58.4** | **+0.3** |
| **ZAIG** | **Zacatecas** | **4.96** | **15** | *e*Pn | | **Pn** | **06 40 50.4** | **+1.2** |
| ZAIG | | | | *e*Pg | | **Pg** | **06 41 09.2** | **-0.2** |
| **TLIG** | **Tlapa** | **5.19** | **94** | *e*Pg | | Pn | 06 40 59.7 | +7.5 |
| **H06E1** | **SOCORRO T-PHAS** | **6.63** | **278** | T | | T | 06 48 25.7 | |
| | SNR=218 | | | | | | | | |
| **H06S1** | **SOCORRO T** | **6.66** | **278** | T | | T | 06 48 27.5 | |
| | SNR=33 | | | | | | | | |
| **H06N1** | **SOCORRO T-PHAS** | **6.70** | **279** | T | | T | 06 48 28.4 | |
| | SNR=4.1 | | | | | | | | |
| **SLBS** | **Sierra La Lagu** | **7.95** | **317** | *e*Pn | | Pn | 06 41 37.7 | +7.6 | |
| **LNIG** | **Linares** | **8.08** | **31** | *e*Pn | | **Pn** | **06 41 33.1** | **+1.2** |
| **CMIG** | **Matias Romero** | **8.74** | **94** | Pn | | **Pn** | **06 41 42.9** | **+2.0** |
| | 0.3nm,0.3s,baz=287,slow=14,SNR=4.0 | | | | | | | | |
| CMIG | | | | Lg | | Lg | 06 44 02.1 | | |
| | 0.2nm,0.3s,baz=200,slow=14,SNR=3.7 | | | | | | | | |
| **TXAR** | **Lajitas Array** | **11.31** | **1** | Pn | | **Pn** | **06 42 20.3** | **+4.1** | |
| | 0.0nm,0.3s,baz=179,slow=14,SNR=2.5 | | | | | | | | |
| TXAR | | | | Lg | | Lg | 06 45 33.0 | | |
| | 0.0nm,0.3s,baz=173,slow=29,SNR=3.1 

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MMIG | | | | *e*Sg | **Sg** | **07 08 52.1** | **-0.2** |
| **R15V** | | **1.12** | **354** | *e*P | **Pb** | **07 08 55.4** | **-0.5** |
| R15V | | | | *e*S | **Sg** | **07 09 07.5** | **-3.2** |
| **EZ5V** | | **1.44** | **10** | *e*P | **Pn** | **07 09 00.8** | **0.0** |
| EZ5V | | | | *e*S | **Sn** | **07 09 18.6** | **-1.3** |
| **CJM** | **Chamela** | **1.83** | **322** | *e*P | **Pn** | **07 09 06.2** | **+0.3** |
| CJM | | | | *e*S | **Sn** | **07 09 27.3** | **-1.8** |
| **CJM** | **Chamela** | **1.83** | **322** | *e*Pn | **Pn** | **07 09 06.2** | **+0.3** |
| CJM | | | | *e*Sn | **Sn** | **07 09 27.3** | **-1.8** |
| **ZIIG** | **Zihuatanejo** | **2.32** | **101** | *e*P | **Pn** | **07 09 12.9** | **+0.2** |
| ZIIG | | | | *e*S | **Sn** | **07 09 38.3** | **-2.9** |
| **ZIIG** | **Zihuatanejo** | **2.32** | **101** | *e*Pn | **Pn** | **07 09 12.9** | **+0.2** |
| ZIIG | | | | *e*Sn | **Sn** | **07 09 38.3** | **-2.9** |
| **MOIG** | **Morelia** | **3.00** | **57** | *e*P | **Pn** | **07 09 21.6** | **-0.6** |
| MOIG | | | | *e*S | **Sb** | **07 10 06.6** | **+1.7** |
| **MOIG** | **Morelia** | **3.00** | **57** | *e*Pg | **Pb** | **07 09 29.0** | **+0.9** |
| **ZAIG** | **Zacatecas** | **4.85** | **14** | *e*Pn | **Pn** | **07 09 48.7** | **+1.0** |
| ZAIG | | | | *e*Pg | **Pb** | **07 10 02.7** | **+3.0** |
| **SLBS** | **Sierra La Lagu** | **7.99** | **316** | *e*Pn | Pn | 07 10 36.1 | +5.4 |
| **ABTX** | **Abilene, Hawle** 13nm,1.5s | **15.00** | **14** | *e*Pn | **P** | **07 12 12.2** | **+0.2** |
| **NATX** | **Nacogdoches** 20nm,0.8s | **15.98** | **30** | *e*Pn | **P** | **07 12 23.5** | **+0.6** |
| **TUL1** | **Leonard** 22nm,1.6s | **19.17** | **20** | *e*P | **P** | **07 12 57.0** | **-1.1** |
| **W40A** | **Ferguson Farm,** 19nm,1.4s | **19.58** | **27** | *e*P | **P** | **07 13 00.9** | **-1.7** |
| **X301** | **Greenbrier Sit** 9.9nm,0.5s | **19.92** | **29** | *e*P | **P** | **07 13 06.8** | **+0.5** |
| **WHAR** | **Wooly Hollow** 15nm,0.5s | **20.01** | **29** | *e*P | **P** | **07 13 07.3** | **0.0** |
| **LRAL** | **Lakeview Retre** 6.3nm,0.8s | **21.26** | **42** | *e*P | **P** | **07 13 20.5** | **-0.3** |
| **CCM** | **Cathedral Cave** 20nm,1.6s | **22.78** | **26** | *e*P | **P** | **07 13 35.9** | **-1.2** |
| **FVM** | **French Village** 39nm,1.9s | **23.08** | **28** | *e*P | **P** | **07 13 38.6** | **-1.6** |
| **SWET** | **Sewanee** 42nm,1.9s | **23.36** | **39** | *e*P | **P** | **07 13 42.3** | **-0.9** |
| **GOGA** | **Godfrey** 17nm,1.3s | **23.84** | **46** | *e*P | **P** | **07 13 46.1** | **-1.6** |
| **CPCT** | **Cooper Cave** 49nm,2.0s | **24.39** | **41** | *e*P | **P** | **07 13 52.1** | **-0.8** |
| **TKL** | **Tuckaleechee C** 32nm,1.6s | **24.99** | **41** | *e*P | **P** | **07 13 58.0** | **-0.4** |
| **BG3** | **Lake Jocassee** 24nm,0.6s | **25.12** | **44** | *e*P | **P** | **07 13 59.0** | **-0.5** |
| **WCI** | **Wyandotte Cave** 6.4nm,0.9s | **25.29** | **34** | *e*P | **P** | **07 14 01.9** | **+0.9** |
| **ECR** | **Eagle Creek** | **25.73** | **347** | *e*PcP | **PcP** | **07 17 36.0** | **+0.7** |
| **BLO** | **Bloomington** | **25.88** | **32** | *e*P | **P** | **07 14 07.2** | **+0.8** |
| **KMSC** | **Kings Mountain** 35nm,1.7s | **26.27** | **45** | *e*P | **P** | **07 14 09.1** | **-0.9** |
| **INK** | **Inuvik** 14nm,1.8s | **53.61** | **347** | *e*P | **P** | **07 17 57.6** | **+2.2** |

*ISCJB* **17** *07:27:09.7±0.6, 3°.75S±0°.06×128°.91E±0°.04, h100km, mb3.8/4, Error ellipse: s-maj=9.1km s-min=6.0km az=2.3*
*DJA* **17** *07:27:11.1±0.5, 4°.5S±4°×12°.9E±°, h109km±5km, M4.7/9, mb5.1/2, MLv4.5/9*
*IDC* **17** *07:27:16.3±3.8, 4°.04S×129°.37E, h183km±37km, mb3.4/5, mb1 3.5/7, mb1mx3.3/31, mbtmp3.9/7, Error ellipse: s-maj=54.3km s-min=11.0km az=81.0*

**ISC 17 07:27:09.9**±0.8, **3°.82S**±0°.06×**128°.93E**±0°.04, **h100**km, **n18, σ2$50/24, mb4.0/4, Seram**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MSAI** | **Masohi** | **0.47** | **360** | P | **Pn** | **07 27 29.2** | **+3.7** |
| MSAI | | | | S | **Sn** | **07 27 42.0** | **+4.9** |
| **AAI** | **Ambon** | **0.74** | **280** | P | **Pn** | **07 27 30.9** | **+3.2** |
| AAI | | | | S | **Sn** | **07 27 45.5** | **+4.4** |
| **BNDI** | **Bandanaira** | **1.20** | **126** | P | **Pn** | **07 27 34.8** | **+2.2** |
| BNDI | | | | S | **Sn** | **07 27 53.6** | **+3.9** |
| **NLAI** | **Namlea** | **1.91** | **287** | P | **Pn** | **07 27 41.6** | **+0.2** |
| **SANI** | **Sanana** | **3.42** | **301** | P | **Pn** | **07 28 01.8** | **+0.5** |
| SANI | | | | S | **Sn** | **07 28 40.5** | **-0.6** |
| **FAKI** | **Fak Fak** | **3.43** | **75** | P | **Pn** | **07 28 03.1** | **+1.6** |
| **LBMI** | **Labuha** | **3.46** | **336** | P | **Pn** | **07 28 04.5** | **+2.5** |
| **SWI** | **Sorong** | **3.75** | **39** | P | **Pn** | **07 28 07.2** | **+1.5** |
| SWI | | | | S | **Sn** | **07 28 49.9** | **+1.0** |
| **KMPI** | **Kaimana, Papua** | **4.77** | **88** | P | **Pn** | **07 28 20.9** | **+1.4** |
| **RKPI** | **Ransiki, Papua** | **5.72** | **67** | P | **Pn** | **07 28 34.2** | **+1.7** |
| RKPI | | | | S | **Sn** | **07 29 36.4** | **-0.5** |
| **FITZ** | **Fitzroy Crossi** 0.2nm,0.3s,baz=2.8,slow=12,SNR=7.6 | **14.56** | **193** | P | **Pn** | **07 30 32.4** | **+1.3** |
| **WRA** | **Warramunga Arr** 0.7nm,0.3s,baz=343,slow=12,SNR=12 | **16.88** | **162** | P | **Pn** | **07 30 56.7** | **-3.4** |
| WRA | | | | S | Sn | 07 33 56.1 | -12 |
| **ASAR** | **Alice Springs** 3.8nm,0.6s,baz=351,slow=12,SNR=76 | **20.31** | **167** | P | **P** | **07 31 35.9** | **-2.2** |
| ASAR | | | | S | S | 07 35 10.8 | -10 |
| **KSRS** | **Korea Array** 0.9nm,0.6s,baz=348,slow=18,SNR=7.9 | **41.07** | **359** | P | **P** | **07 34 44.3** | **+0.6** |
| **MJAR** | **Matsushiro Arr** 0.7nm,0.4s,baz=175,slow=9.8,SNR=4.0 | **41.07** | **11** | P | **P** | **07 34 42.5** | **-1.3** |
| **USRK** | **Ussuriysk Ar.** 1.0nm,0.3s,baz=184,slow=7.4,SNR=4.2 | **47.88** | **3** | P | **P** | **07 35 37.3** | **-0.5** |
| **MKAR** | **Makanchi Array** 1.3nm,0.4s,baz=187,slow=6.3,SNR=4.3 | **65.00** | **327** | P | **P** | **07 37 38.4** | **-1.0** |
| **TORD** | **Torodi Ar. Bea** 0.3nm,0.6s,baz=66,slow=2.2,SNR=2.1 | **127.09** | **284** | PKP | **PKPdf** | **07 46 01.2** | **-2.3** |

*KRNET* **17** *07:34:30.4±0.1, 41°.87N×72°.36E, h14km, mb2.1*
*NNC* **17** *07:34:30.6±0.7, 41°.86N×72°.32E, h0km, mb2.5, mpv2.1, Error ellipse: s-maj=5.3km s-min=4.0km az=97.0*
*SOME* **17** *07:34:30.4, 41°.83N×72°.32E, h5km*

**ISC 17 07:34:29.1**±1.2, **41°.86N**±0°.03×**72°.33E**±0°.02, **h6**km±11km, **n20, σ0$65/39, 16C-13D, Kyrgyzstan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ARK** | **Arkit** baz=253 | **0.28** | **258** | ⇑*i*P | **Pb** | **07 34 36.1** | **-0.5** |
| ARK | | | | ⇑*i*S | **Sb** | **07 34 40.4** | **-1.2** |
| **MNAS** | **Manas** baz=10.0 | **0.64** | **12** | ⇓*i*P | **Pb** | **07 34 43.3** | **+0.4** |
| MNAS | | | | ⇓*i*S | **Sb** | **07 34 52.4** | **+0.2** |
| **MNAS** | **Manas** 0.3nm,0.1s | **0.64** | **12** | ⇑P | **Pb** | **07 34 43.3** | **+0.4** |
| MNAS | | | | ⇑S | **Sb** | **07 34 52.6** | **+0.4** |
| **ARSB** | **Arslanbob** baz=139 | **0.72** | **137** | ⇓*i*P | **Pg** | **07 34 43.8** | **+0.8** |
| ARSB | | | | ⇓*i*S | **Sb** | **07 34 53.9** | **-0.6** |
| **AML** | **Almayashu** baz=75 | **1.06** | **74** | ⇑*i*P | **Pb** | **07 34 50.3** | **+0.3** |
| AML | | | | ⇑*i*S | **Sb** | **07 35 04.3** | **0.0** |
| **MRKS** | **Merke** 9.6nm,0.0s | **1.11** | **37** | *e*P | **Pn** | **07 34 51.5** | **+0.2** |
| MRKS | | | | *e*S | **Sn** | **07 35 06.8** | **-0.2** |
| **EKS2** | **Erkin-Say** baz=53 | **1.34** | **53** | ⇑*i*P | **Pg** | **07 34 56.0** | **+1.1** |
| EKS2 | | | | ⇑*i*S | **Sn** | **07 35 13.4** | **+0.6** |
| **UCH** | **Uchtor** baz=77 | **1.67** | **76** | ⇑*i*P | **Pg** | **07 35 01.4** | **+0.2** |
| UCH | | | | ⇑*i*S | **Sg** | **07 35 23.1** | **+0.3** |
| **IUG** | **Iuzhnay** 4.5nm,0.2s | **1.74** | **280** | *e*P | **Pg** | **07 35 02.5** | **+0.1** |
| IUG | | | | *e*S | **Sg** | **07 35 25.4** | **+0.5** |
| **AAK** | **Ala-Archa** baz=64 | **1.79** | **63** | ⇑*i*P | **Pb** | **07 35 02.9** | **+0.5** |
| AAK | | | | ⇑*i*S | **Sg** | **07 35 25.9** | **-0.7** |
| **AAK** | **Ala-Archa** 0.7nm,0.5s | **1.79** | **63** | P | **Pg** | **07 35 03.0** | **-0.4** |
| AAK | | | | ⇑S | **Sg** | **07 35 27.7** | **+1.0** |
| **KK31** | **Karatay Array** 0.7nm,0.5s,baz=115,slow=18,SNR=4.5 | **1.83** | **313** | ⇓P | **Pb** | **07 35 03.3** | **+0.2** |
| KK31 | | | | ⇓S | **Sg** | **07 35 27.7** | **-0.3** |
| **SFK** | **Sufi-Kurgan** 1.5nm,0.4s,baz=128,slow=27,SNR=11 | **2.04** | **154** | ⇓*i*P | **Pb** | **07 35 07.5** | **+0.7** |
| SFK | | | | ⇓*i*S | **Sg** | **07 35 34.5** | **-0.3** |
| **CHMS** | **Chumysh** baz=155 | **2.13** | **57** | ⇑*i*P | **Pb** | **07 35 08.0** | **-0.1** |
| CHMS | | | | ⇑*i*S | **Sb** | **07 35 34.8** | **0.0** |
| **USP** | **Ospenovka** baz=57 | **2.14** | **48** | ⇓*i*P | **Pb** | **07 35 08.1** | **-0.2** |
| USP | | | | ⇓*i*S | **Sb** | **07 35 35.1** | **+0.1** |
| **BRLS** | **Borolday** 1.0nm,0.5s | **2.19** | **303** | *e*P | **Pg** | **07 35 10.9** | **-0.1** |
| BRLS | | | | *e*S | **Sg** | **07 35 39.9** | **+0.6** |
| **KZA** | **Kyzart** 6.9nm,0.4s baz=83 | **2.19** | **83** | ⇓*i*P | **Pb** | **07 35 09.2** | **-0.2** |
| KZA | | | | ⇓*i*S | **Sb** | **07 35 37.0** | **+0.1** |
| **TKM2** | **Tokmak 2** 2.3nm,0.9s | **2.65** | **65** | ⇓Pg | **Pg** | **07 35 18.8** | **-1.0** |
| TKM2 | | | | ⇑Lg | Lg | 07 35 53.0 | |
| **DGS** | **Degeres** 1.5nm,0.3s | **2.90** | **60** | *e*P | **Pg** | **07 35 23.1** | **-1.5** |
| DGS | | | | *e*S | **Sg** | **07 36 00.9** | **-1.3** |
| **KST** | **Kastek** 8.1nm,0.7s | **2.94** | **65** | *e*P | **Pg** | **07 35 24.5** | **-1.0** |
| KST | | | | *e*S | **Sg** | **07 36 03.0** | **-0.5** |
| | 1.0nm,0.1s 3.7nm,0.6s | | | | | | |

*ISN* **17** *07:41:58.6±0.6, 35°.36N×46°.84E, h0km±7km, ML3.6*
*AZER* **17** *07:41:59.3±3.3, 34°.35N×46°.60E, h6km, Error ellipse: s-maj=37.8km s-min=24.6km az=86.0*
*TEH* **17** *07:42:03.4, 35°.26N×46°.56E, h6km, ML3.6*
*CSEM* **17** *07:42:05.4±0.3, 35°.18N×46°.43E, h5km, ML3.6, Error ellipse: s-maj=6.7km s-min=5.9km az=71.0*
*ISCJB* **17** *07:42:05.3±0.5, 35°.17N±0°.03×46°.42E±0°.04, h10km, Error ellipse: s-maj=5.1km s-min=4.7km az=2.6*
*THR* **17** *07:42:06.6±0.3, 35°.32N×46°.58E, h15km, ML3.5*

**ISC 17 07:42:03.8**±0.8, **35°.26N**±0°.03×**46°.49E**±0°.04, **h10**km, **n37, σ1$98/45, 4C-4D, Iran-Iraq border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ILIN** | **Lien** | **0.51** | **131** | *e*Pg | **Pb** | **07 42 13.6** | **-1.5** |
| ILIN | | | | *e*AMB | AMB | 07 42 14.6 | |
| ILIN | comp=Z,62μm,0.1s | | | *e*Sg | **Sb** | **07 42 22.5** | **-0.2** |
| **ILIN** | **Lien** | **0.51** | **131** | *e*Pg | **Pb** | **07 42 13.6** | **-1.5** |
| ILIN | | | | *e*Sg | **Sb** | **07 42 22.5** | **-0.2** |
| **IDHR** | **Dehrash** | **0.56** | **189** | *e*Pg | **Pg** | **07 42 15.2** | **+0.4** |
| IDHR | | | | *e*Sg | **Sb** | **07 42 25.0** | **+0.9** |
| IDHR | comp=Z,7μm,0.1s | | | *e*AMB | AMB | 07 42 27.7 | |
| **IDHR** | **Dehrash** | **0.56** | **189** | *e*Pg | **Pg** | **07 42 15.2** | **+0.4** |
| **IVIS** | **Veis** | **0.79** | **158** | *e*Pg | **Pb** | **07 42 18.6** | **-1.1** |
| IVIS | comp=Z,54μm,0.2s | | | *e*AMB | AMB | 07 42 35.2 | |
| **IVIS** | **Veis** | **0.79** | **158** | *e*Pg | **Pb** | **07 42 18.6** | **-1.1** |
| **IGHG** | **Ghaleghazi** | **0.93** | **176** | *e*Pg | **Pb** | **07 42 22.0** | **-0.1** |
| IGHG | | | | *e*Sg | **Sn** | **07 42 36.9** | **+0.3** |
| **IGHG** | **Ghaleghazi** | **0.93** | **176** | *e*Pg | **Pb** | **07 42 22.0** | **-0.1** |
| **IKOM** | **Komasi** | **1.37** | **142** | *e*Pn | **Pg** | **07 42 30.3** | **+0.2** |
| IKOM | comp=N,56μm,0.1s | | | *e*AMB | AMB | 07 42 55.3 | |
| **IKOM** | **Komasi** | **1.37** | **142** | *e*Pn | **Pg** | **07 42 30.3** | **+0.2** |
| **ZNJK** | **Zanjan** | **2.27** | **51** | *e*Pn | **Pb** | **07 42 44.6** | **-0.4** |
| **ZNJK** | **Zanjan** | **2.27** | **51** | *e*Pn | **Pb** | **07 42 44.6** | **-0.4** |
| **BHD** | **Baghdad** SNR=3.0 | **2.64** | **222** | *e*Pn | **Pn** | **07 42 46.5** | **0.0** |
| BHD | SNR=3.0 | | | *e*Sn | **Sn** | **07 43 20.0** | **+1.4** |
| **ITBZ** | **Tabriz** | **2.98** | **355** | *e*Pn | **Pb** | **07 42 54.2** | **-2.9** |
| ITBZ | comp=Z,1μm,0.3s | | | *e*AMB | AMB | 07 43 45.2 | |
| **ITBZ** | **Tabriz** | **2.98** | **355** | *e*Pn | **Pb** | **07 42 54.2** | **-2.9** |
| **ASAO** | **Ashtian** | **2.99** | **103** | *e*Pn | **Pb** | **07 42 54.8** | **-2.5** |
| **ASAO** | **Ashtian** | **2.99** | **103** | *e*Pn | **Pb** | **07 42 54.8** | **-2.5** |
| **IHRS** | **Heris** | **3.09** | **8** | *e*Pn | **Pb** | **07 42 56.2** | **-2.7** |
| IHRS | comp=Z,841nm,0.2s | | | *e*AMB | AMB | 07 43 48.9 | |
| **IHRS** | **Heris** | **3.09** | **8** | *e*Pn | **Pb** | **07 42 56.2** | **-2.7** |
| **ISHB** | **Shabestar** | **3.10** | **347** | *e*Pn | **Pb** | **07 42 57.3** | **-1.9** |
| ISHB | comp=E,5μm,0.3s | | | *e*AMB | AMB | 07 43 47.6 | |
| **KHMZ** | **Khomeyn** | **3.24** | **117** | *e*Pn | **Pb** | **07 42 58.7** | **-2.9** |
| KHMZ | comp=E,112nm,0.5s | | | AML | AML | 07 43 52.5 | |
| **KHMZ** | **Khomeyn** | **3.24** | **117** | *e*Pn | **Pb** | **07 42 58.7** | **-2.9** |
| **SHGR** | **Shooshtar-Gavs** | **3.69** | **148** | *e*Pn | **Pb** | **07 43 05.2** | **-3.8** |
| SHGR | comp=N,80nm,0.6s | | | AML | AML | 07 44 22.7 | |
| **SHGR** | **Shooshtar-Gavs** | **3.69** | **148** | *e*Pn | **Pb** | **07 43 05.2** | **-3.8** |
| **LRK** | **Lerik** SNR=5.4 | **3.69** | **23** | ⇓P | **Pb** | **07 43 07.6** | **-1.6** |
| LRK | | | | ⇑S | **Sg** | **07 44 01.8** | **-0.5** |
| **LRK** | **Lerik** SNR=5.4 | **3.69** | **23** | P | **Pb** | **07 43 07.6** | **-1.6** |
| **GRMI** | **Germi** | **3.72** | **17** | *e*Pn | **Pn** | **07 43 04.5** | **+3.1** |
| **GRMI** | **Germi** | **3.72** | **17** | *e*Pn | **Pn** | **07 43 04.5** | **+3.1** |
| **ASTR** | **Astara** SNR=3.2 | **3.77** | **29** | ⇓P | **Pb** | **07 43 11.2** | **+0.7** |
| ASTR | | | | ⇑S | **Sg** | **07 44 03.8** | **-1.3** |
| **LKRN** | **Lenkeran, Azer** | **3.90** | **27** | ⇑P | **Pb** | **07 43 12.6** | **-0.1** |
| LKRN | | | | ⇓S | **Sg** | **07 44 07.9** | **-1.2** |
| **GLBA** | **Clilabad** SNR=3.9 | **4.26** | **20** | ⇑P | Pb | 07 43 13.5 | -5.2 |
| GLBA | | | | ⇓S | **Sg** | **07 44 17.5** | **-3.0** |
| **GLBA** | **Clilabad** SNR=3.9 | **4.26** | **20** | P | Pb | 07 43 13.5 | -5.2 |
| **IPIR** | **Pirpir** | **4.47** | **124** | *e*Pn | **Pn** | **07 43 14.2** | **+2.3** |
| IPIR | comp=Z,762nm,0.3s | | | *e*AMB | AMB | 07 44 43.4 | |
| **IPIR** | **Pirpir** | **4.47** | **124** | *e*Pn | **Pn** | **07 43 14.2** | **+2.3** |
| **IZEF** | **Zefreh** | **5.39** | **114** | *e*Pn | **Pn** | **07 43 26.8** | **+2.3** |
| IZEF | comp=Z,408nm,0.5s | | | *e*AMB | AMB | 07 45 12.4 | |
| **IZEF** | **Zefreh** | **5.39** | **114** | *e*Pn | **Pn** | **07 43 26.8** | **+2.3** |
| **RTB** | **Rutbah** SNR=3.0 | **5.59** | **248** | *e*Pn | **Pn** | **07 43 28.5** | **+1.5** |
| RTB | SNR=3.0 | | | *e*Sn | **Sn** | **07 44 32.0** | **+0.6** |

*ISK* **17** *07:43:43.7, 38°.70N×43°.24E, h21km, ML2.4*
*CSEM* **17** *07:43:45.6±0.4, 38°.72N×43°.30E, h10km, ML2.6, Error ellipse: s-maj=9.5km s-min=8.5km az=65.0*
*DDA* **17** *07:43:45.9, 38°.68N×43°.29E, h7km, Ml2.6*

**ISC 17 07:43:44.2**±1.5, **38°.63N**±0°.08×**43°.37E**±0°.06, **h31**km±9km, **n14, σ0$42/20, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.04** | **150** | *e*PG | **Pb** | **07 43 49.7** | **+0.1** |
| **VANB** | **Van** | **0.04** | **150** | *e*Pg | **Pb** | **07 43 49.7** | **+0.1** |
| **TVAN** | **Van** | **0.10** | **162** | *i* P | **Pb** | **07 43 49.8** | **-0.2** |
| **TVAN** | **Van** | **0.10** | **162** | P | **Pb** | **07 43 49.8** | **-0.2** |
| **VMUR** | **Van-Muradiye** | **0.40** | **24** | *i* P | **Pb** | **07 43 53.2** | **-0.1** |
| VMUR | | | | *i* S | **Sb** | **07 43 59.8** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.40** | **24** | P | **Pb** | **07 43 53.2** | **-0.1** |
| VMUR | | | | S | **Sb** | **07 43 59.8** | **+0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.53** | **290** | *i* P | **Pb** | **07 43 55.7** | **+0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.53** | **290** | P | **Pb** | **07 43 55.7** | **+0.3** |
| **CLDR** | **Caldiran** | **0.67** | **40** | ePG | **Pb** | **07 43 57.7** | **0.0** |
| CLDR | | | | eSG | **Sn** | **07 44 08.0** | **+0.6** |
| **CLDR** | **Caldiran** | **0.67** | **40** | ePg | **Pb** | **07 43 57.7** | **0.0** |
| CLDR | | | | eSg | **Sn** | **07 44 08.0** | **+0.6** |
| **TUTA** | **Tutak** | **0.89** | **331** | *i* P | **Pn** | **07 44 01.0** | **+0.2** |
| **TUTA** | **Tutak** | **0.89** | **331** | P | **Pn** | **07 44 01.0** | **+0.2** |
| **AGRB** | **Hanur-Agry** | **0.99** | **343** | ePG | **Pn** | **07 44 01.6** | **-0.6** |
| AGRB | | | | eSG | **Sn** | **07 44 14.6** | **-0.7** |
| **AGRB** | **Hanur-Agry** | **0.99** | **343** | ePg | **Pn** | **07 44 01.6** | **-0.6** |
| AGRB | | | | eSg | **Sn** | **07 44 14.6** | **-0.7** |

*IDC* **17** *08:10:04.6±5.3, 28°.29N×54°.66E, h0km, mb3.6/3, mb1 3.7/3, mb1mx3.3/32, mbtmp3.6/3, Error ellipse: s-maj=106.8km s-min=47.4km az=121.0*
*TEH* **17** *08:10:12.2, 28°.96N×53°.28E, h10km, ML3.1*
*ISCJB* **17** *08:10:15.0±0.8, 29°.01N±0°.05×53°.34E±0°.09, h10km, mb3.8/2, Error ellipse: s-maj=11.2km s-min=7.3km az=172.0*
*CSEM* **17** *08:10:15.4±0.5, 29°.04N×53°.37E, h2km, ML3.1, Error ellipse: s-maj=15.8km s-min=11.3km az=86.0*

**ISC 17 08:10:14.8**±1.1, **28°.98N**±0°.05×**53°.43E**±0°.07, **h10**km, **n22, σ1$73/24, Southern Iran**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ISRV** | **Sarvestan** comp=Z,65μm,0.1s | **0.48** | **326** | *e*Pg | **Pg** | **08 10 22.6** | **-1.8** |
| ISRV | | | | *e*AMB | AMB | 08 10 33.4 | |
| **ISRV** | **Sarvestan** | **0.48** | **326** | *e*Pg | **Pg** | **08 10 22.6** | **-1.8** |
| **GHIR** | **Ghir-Karzin** | **0.79** | **209** | *e*Pg | **Pn** | **08 10 31.6** | **-0.6** |
| **IPAR** | **Pars** | **0.92** | **339** | *e*Pg | **Pg** | **08 10 30.2** | **-2.4** |
| IPAR | | | | *e*Sg | **Sg** | **08 10 44.6** | **0.0** |
| IPAR | comp=Z,5μm,0.4s | | | *e*AMB | AMB | 08 10 49.0 | |
| **IPAR** | **Pars** | **0.92** | **339** | *e*Pg | **Pg** | **08 10 30.2** | **-2.4** |
| IPAR | | | | *e*Sg | **Sg** | **08 10 44.6** | **0.0** |
| **AHBU** | **AHRAM** | **1.87** | **267** | *e*Pn | **Pg** | **08 10 51.4** | **+0.7** |
| **IMEH** | **Mehriz** | **2.61** | **23** | *e*Pn | **Pn** | **08 10 59.0** | **+1.7** |
| IMEH | comp=Z,688nm,0.3s | | | *e*AMB | AMB | 08 11 43.5 | |
| **IMEH** | **Mehriz** | **2.61** | **23** | *e*Pn | **Pn** | **08 10 59.0** | **+1.7** |
| **ISAD** | **Sadrabad** | **2.93** | **4** | *e*Pn | **Pn** | **08 11 02.7** | **+0.9** |
| ISAD | comp=Z,777nm,0.3s | | | *e*AMB | AMB | 08 11 57.3 | |
| **ISAD** | **Sadrabad** | **2.93** | **4** | *e*Pn | **Pn** | **08 11 02.7** | **+0.9** |
| **IRAM** | **Ramesheh** comp=N,706nm,0.2s | **2.96** | **342** | *e*AMB | AMB | 08 11 11.4 | |
| IRAM | | | | *e*Pn | **Pn** | **08 11 04.9** | **+2.8** |
| **NGRK** | **Negar Kerman** | **2.96** | **76** | *e*Pn | **Pn** | **08 11 03.3** | **+1.1** |
| **NGRK** | **Negar Kerman** | **2.96** | **76** | *e*Pn | **Pn** | **08 11 03.3** | **+1.1** |
| **IBAF** | **Bafgh** comp=Z,546nm,0.2s | **3.19** | **35** | *e*AMB | AMB | 08 11 15.4 | |
| IBAF | | | | *e*Pn | **Pn** | **08 11 07.1** | **+1.9** |
| **ICHK** | **Chekchek** | **3.36** | **14** | *e*Pn | **Pn** | **08 11 09.0** | **+1.4** |
| ICHK | comp=N,746nm,0.3s | | | *e*AMB | AMB | 08 12 11.1 | |
| **ICHK** | **Chekchek** | **3.36** | **14** | *e*Pn | **Pn** | **08 11 09.0** | **+1.4** |
| **NASN** | **Na'in** | **3.84** | **352** | *e*Pn | **Pn** | **08 11 14.6** | **+0.3** |
| **IZEF** | **Zefreh** | **4.01** | **347** | *e*Pn | **Pn** | **08 11 17.3** | **+0.7** |
| IZEF | comp=Z,235nm,0.3s | | | *e*AMB | AMB | 08 11 33.7 | |
| **IZEF** | **Zefreh** | **4.01** | **347** | *e*Pn | **Pn** | **08 11 17.3** | **+0.7** |
| **BRTR** | **Keskin Array B** comp=Z,0.8nm,0.7s,baz=125,slow=12,SNR=3.2 | **19.50** | **309** | P | **Pn** | **08 14 47.3** | **+3.9** |
| **ARCES** | **ARCESS Array B** comp=Z,1.3nm,0.7s,baz=146,slow=8.8,SNR=7.8 | **43.66** | **346** | P | **P** | **08 18 17.9** | **-1.4** |
| **TORD** | **Torodi Ar. Bea** comp=Z,0.5nm,0.6s,baz=62,slow=7.4,SNR=6.2 | **50.39** | **263** | P | **P** | **08 19 11.4** | **-1.2** |

*ISCJB* **17** *08:18:04.7±1.0, 36°.55N±0°.05×70°.97E±0°.09, h100km, Error ellipse: s-maj=10.7km s-min=6.4km az=149.8*
*NNC* **17** *08:18:05.8±2.5, 36°.77N×70°.38E, h205km±25km, mb2.3, mpv3.4, Error ellipse: s-maj=25.9km s-min=14.2km az=156.0*

**ISC 17 08:18:05.3**±1.6, **36°.50N**±0°.08×**70°.82E**±0°.08, **h100**km, **n8, σ2$61/15, 6C-5D, Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZET** | **Dzherino** 14nm,0.4s | **2.80** | **326** | ⇓P | **Pn** | **08 18 48.8** | **+0.4** |
| DZET | | | | ⇑S | **Sn** | **08 19 22.8** | **+1.3** |
| **SFK** | **Sufi-Kurgan** 1.1nm,0.3s | **4.10** | **30** | ⇓P | **Pn** | **08 19 08.5** | **+2.6** |
| SFK | | | | ⇓S | **Sn** | **08 19 58.9** | **+5.9** |
| **KSH** | **Kashi** 13nm,0.4s | **5.07** | **52** | Pn | **Pn** | **08 19 17.1** | **-1.9** |
| KSH | | | | Sn | **Sn** | **08 20 12.8** | **-3.5** |
| KSH | comp=N,12nm,0.3s | | | smax | smax | | |
| KSH | comp=E,12nm,0.3s | | | smax | smax | | |
| **THN** | **Thein Dam** | **5.72** | **134** | *e*P | **Pn** | **08 19 27.0** | **-0.8** |
| THN | | | | *e*S | **Sn** | **08 20 34.0** | **+1.9** |
| **MNAS** | **Manas** comp=E,2.7nm,0.7s | **6.12** | **12** | ⇑P | **Pn** | **08 19 32.9** | **-0.4** |
| MNAS | | | | ⇑S | **Sn** | **08 20 42.0** | **0.0** |
| **KK31** | **Karatay Array** comp=E,0.9nm,0.3s,baz=171,slow=11 | **6.60** | **358** | ⇑P | **Pn** | **08 19 37.4** | **-2.3** |
| KK31 | comp=E,5.4nm,0.8s,baz=184,slow=21,SNR=2.9 | | | ⇑S | **Sn** | **08 20 50.1** | **-3.4** |
| **AAK** | **Ala-Archa** comp=E,1.7nm,0.3s | **6.76** | **24** | ⇑P | **Pn** | **08 19 42.0** | **+0.1** |
| AAK | | | | ⇓S | **Sn** | **08 20 58.5** | **+1.0** |
| **TKM2** | **Tokmak 2** comp=E,2.4nm,0.6s | **7.40** | **28** | ⇓P | **Pn** | **08 19 49.9** | **-0.8** |

**IDC 17 08:24:19.2**±2.6, **54°.18N**×**86°.42E, h0**km, **mb1 3.0**/2, **mb1mx2.8**/47, **mbtmp3.0**/2, **ML2.6**/2, **Error ellipse: s-maj=20.3km s-min=12.7km az=60.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **I46RU** | **ZALESOVO INFRA** baz=76,slow=338,SNR=13 | **0.97** | **257** | *i* | | 08 29 53.8 | |
| **ZALV** | **Zalesovo Beam** 3.3nm,0.3s,baz=72,slow=16,SNR=23 | **0.97** | **257** | Pg | Pg | 08 24 36.5 | -1.2 |
| ZALV | 3.4nm,0.3s,baz=78,slow=28,SNR=15 | | | Lg | Lg | 08 24 51.8 | |
| **KURBB** | **Kurchatov Arra** 0.1nm,0.3s,baz=54,slow=14,SNR=14 | **6.00** | **237** | Pn | Pn | 08 25 49.2 | +0.1 |
| KURBB | 0.0nm,0.3s,baz=58,slow=36,SNR=5.4 | | | Lg | Lg | 08 27 30.9 | |
| **MKAR** | **Makanchi Array** 0.1nm,0.3s,baz=22,slow=13,SNR=4.7 | **7.84** | **201** | Pn | Pn | 08 26 16.5 | +2.0 |
| MKAR | 0.1nm,0.3s,baz=24,slow=33,SNR=8.6 | | | Lg | Lg | 08 28 26.6 | |

*ISCJB* **17** *08:26:48.3±1.3, 16°.51N±0°.06×100°.04W±0°.05, h22km±9km, mb3.6/5, Error ellipse: s-maj=9.8km s-min=7.0km az=21.4*
*IDC* **17** *08:26:48.8±5.3, 16°.94N×99°.56W, h0km, mb3.7/5, mb1 3.9/6, mb1mx3.6/39, mbtmp3.6/6, ML2.8/1, Error ellipse: s-maj=102.5km s-min=28.7km az=15.0*
*MEX* **17** *08:26:50.7±0.5, 16°.53N×100°.02W, h96km±11km, MD3.9*

**ISC 17 08:26:48.3**±1.0, **16°.57N**±0°.08×**99°.92W**±0°.05, **h21**km±4km, **n18, σ1$91/26, mb3.8/5, Near coast of Guerrero**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CAIG** | **El Cayaco** | **0.58** | **325** | *e*P | **Pb** | **08 26 58.9** | **-1.0** |
| CAIG | | | | *e*S | **Sb** | **08

0.8nm,0.8s,baz=143,slow=11,SNR=6.2
**ULM Lac du Bonnet 33.75 5** P **P 08 33 28.7 +0.3**
1.7nm,0.7s,baz=208,slow=3.5,SNR=3.4
**YKA Yellowknife Ar 47.02 351** P **P 08 35 18.6 +0.7**
0.7nm,0.7s,baz=157,slow=7.3,SNR=5.2
**ILAR Eielson Array 57.55 338** P **P 08 36 38.3 +2.3**
0.3nm,0.8s,baz=123,slow=4.4,SNR=3.4

*NNC **17** 08:37:20.6± 1.5, 54°.61N × 86°.89E, h0km, mb3.2, mpv3.0, Error ellipse: s-maj=20.4km s-min=8.7km az=160.0*
**IDC 17 08:37:23.5± 2.8, 54°.63N × 86°.67E, h0km, mb1 3.3/2, mb1mx3.0/49, mbtmp3.3/2, ML3.0/2, 5C-3D, Error ellipse: s-maj=22.7km s-min=16.0km az=51.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **I46RU** | **ZALESOVO INFRA** | **1.28** | **239** | *i* | | 08 44 16.1 | |
| | baz=57,slow=338,SNR=11 | | | | | | |
| **ZAA0** | **Zalesovo Array** | **1.28** | **239** | ⇓P | Pg | 08 37 45.9 | -2.1 |
| ZAA0 | 0.3nm,0.2s | | | ⇑S | Sb | 08 38 05.4 | -0.1 |
| | 3.5nm,0.9s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **1.28** | **239** | Pg | Pg | 08 37 46.1 | -1.9 |
| ZALV | 3.1nm,0.3s,baz=56,slow=16,SNR=26 | | | Lg | Lg | 08 38 02.4 | |
| | 2.8nm,0.3s,baz=56,slow=26,SNR=7.0 | | | | | | |
| **KURK** | **Kurchatov** | **6.27** | **235** | ⇓Pn | Pn | 08 38 57.4 | +0.2 |
| KURK | 3.4nm,0.8s | | | ⇓Sn | Sn | 08 40 09.6 | +0.2 |
| | 2.5nm,0.9s | | | | | | |
| KURK | | | | ⇑Lg | Lg | 08 40 44.2 | |
| | 15nm,1.3s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **6.38** | **234** | Pn | Pn | 08 38 59.6 | +1.0 |
| | 0.2nm,0.3s,baz=52,slow=14,SNR=23 | | | | | | |
| KURBB | | | | Sn | Sn | 08 40 13.4 | +1.4 |
| | 0.1nm,0.3s,baz=68,slow=38,SNR=5.0 | | | | | | |
| KURBB | | | | Lg | Lg | 08 40 48.6 | |
| | 0.2nm,0.3s,baz=55,slow=33,SNR=11 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **6.38** | **234** | ⇑Pn | Pn | 08 38 57.7 | -0.8 |
| | 3.2nm,0.4s | | | | | | |
| KURBB | | | | Lg | Lg | 08 40 47.0 | |
| | 9.4nm,0.8s | | | | | | |
| **MK31** | **Makanchi Array** | **8.32** | **201** | Pn | Pn | 08 39 24.0 | -1.3 |
| | 0.1nm,0.2s,baz=27,slow=14,SNR=11 | | | | | | |
| MK31 | | | | Sn | Sn | 08 40 58.1 | -1.8 |
| | 0.7nm,0.6s,baz=24,slow=27,SNR=5.1 | | | | | | |
| MK31 | | | | ⇑Lg | Lg | 08 41 47.4 | |
| | 3.4nm,0.9s,baz=25,slow=29,SNR=4.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **8.32** | **201** | Pn | Pn | 08 39 26.1 | +0.8 |
| | 0.3nm,0.3s,baz=24,slow=13,SNR=12 | | | | | | |
| MKAR | | | | Sn | Sn | 08 40 59.1 | -0.8 |
| | 0.2nm,0.3s,baz=33,slow=28,SNR=6.7 | | | | | | |
| MKAR | | | | Lg | Lg | 08 41 49.3 | |
| | 0.1nm,0.3s,baz=24,slow=26,SNR=6.0 | | | | | | |

*ISCJB **17** 08:38:60.0± 0.6, 36°.17N ± 0°.03 × 28°.92E ± 0°.03, h11km ± 4km, Error ellipse: s-maj=5.5km s-min=3.9km az=177.6*
*ISK **17** 08:39:00.3, 36°.23N × 28°.93E, h18km, MD3.3*
*CSEM **17** 08:39:00.1± 0.2, 36°.14N × 28°.96E, h15km, ML3.4, Error ellipse: s-maj=4.0km s-min=3.6km az=176.0*
*DDA **17** 08:39:00.6, 36°.25N × 28°.94E, h7km, Ml3.4*
*ATH **17** 08:39:00.9, 36°.25N × 28°.96E, h37km ± 4km, ML2.6/3, Error ellipse: s-maj=4.3km s-min=1.6km az=133.0*
*HLW **17** 08:39:00.9, 36°.06N × 28°.95E, h33km ± 23km, Ml3.6*
**ISC 17 08:38:59.5± 1.1, 36°.14N ± 0°.03 × 28°.95E ± 0°.02, h12km ± 9km, n81, σ1$01/105, Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **FETY** | **Fethiye** | **0.50** | **12** | PG | **Pg** | **08 39 09.4** | **0.0** |
| FETY | | | | *e*SG | **Sg** | **08 39 16.0** | **-0.2** |
| **FETY** | **Fethiye** | **0.50** | **12** | *i* Pg | **Pg** | **08 39 09.4** | **0.0** |
| FETY | | | | *e*Sg | **Sg** | **08 39 16.0** | **-0.2** |
| **KSL** | **Kastellorizon** | **0.51** | **89** | P | **Pb** | **08 39 11.3** | **+0.9** |
| KSL | | | | AML | AML | 08 39 22.2 | |
| | comp=N,1421μm,0.3s | | | | | | |
| KSL | | | | AML | AML | 08 39 22.6 | |
| | comp=E,2528μm,0.4s | | | | | | |
| KSL | | | | S | **Sn** | **08 39 23.0** | **+1.8** |
| **KSL** | **Kastellorizon** | **0.51** | **89** | P | **Pb** | **08 39 11.3** | **+0.9** |
| **AKAS** | **Kas** | **0.54** | **80** | *e*PG | **Pb** | **08 39 11.7** | **+0.8** |
| AKAS | | | | *e*SG | **Sb** | **08 39 19.8** | **+1.2** |
| **AKAS** | **Kas** | **0.54** | **80** | *i* P | **Pb** | **08 39 11.5** | **+0.6** |
| **AKAS** | **Kas** | **0.54** | **80** | P | **Pb** | **08 39 11.5** | **+0.6** |
| AKAS | | | | *e*Sg | **Sb** | **08 39 19.8** | **+1.2** |
| **ARG** | **Arkhangelos** | **0.67** | **277** | P | **Pn** | **08 39 14.2** | **-0.6** |
| ARG | | | | S | **Sn** | **08 39 25.8** | **+0.7** |
| ARG | | | | AML | AML | 08 39 27.5 | |
| | comp=E,1550μm,0.9s | | | | | | |
| ARG | | | | AML | AML | 08 39 28.6 | |
| | comp=N,670μm,0.4s | | | | | | |
| **ARG** | **Arkhangelos** | **0.67** | **277** | P | **Pn** | **08 39 14.1** | **-0.6** |
| ARG | | | | S | **Sn** | **08 39 25.8** | **+0.7** |
| **DALY** | **Dalyan (Mu˘la** | **0.71** | **341** | *e*PG | **Pg** | **08 39 12.9** | **-0.4** |
| DALY | | | | *e*SG | **Sg** | **08 39 22.4** | **-0.3** |
| **DALY** | **Dalyan (Mu˘la** | **0.71** | **341** | *i* P | **Pg** | **08 39 12.8** | **-0.5** |
| DALY | | | | *i* S | **Sg** | **08 39 22.1** | **-0.7** |
| **DALY** | **Dalyan (Mu˘la** | **0.71** | **341** | *e*Pg | **Pg** | **08 39 12.9** | **-0.5** |
| DALY | | | | S | **Sg** | **08 39 22.1** | **-0.7** |
| **TURN** | **Turunc** | **0.78** | **339** | *e*PG | **Pn** | **08 39 15.9** | **-0.4** |
| TURN | | | | *e*SG | **Sn** | **08 39 27.4** | **-0.5** |
| **TURN** | **Turunc** | **0.78** | **339** | *i* P | **Pn** | **08 39 15.9** | **-0.4** |
| **TURN** | **Turunc** | **0.78** | **339** | P | **Pn** | **08 39 15.9** | **-0.4** |
| TURN | | | | *e*Sg | **Sn** | **08 39 27.4** | **-0.5** |
| **MRSB** | **Marmaris-Mugla** | **0.83** | **314** | *e*PG | **Pg** | **08 39 15.7** | **+0.1** |
| **MRSB** | **Marmaris-Mugla** | **0.83** | **314** | *e*Pg | **Pg** | **08 39 15.7** | **+0.1** |
| **ELL** | **Elmali** | **0.98** | **52** | *e*PG | **Pb** | **08 39 18.9** | **+0.4** |
| ELL | | | | *e*SG | **Sb** | **08 39 32.5** | **+1.1** |
| **ELL** | **Elmali** | **0.98** | **52** | *e*Pg | **Pb** | **08 39 18.9** | **+0.4** |
| ELL | | | | *e*Sg | **Sb** | **08 39 32.5** | **+1.1** |
| **GLHS** | **Glhisar (BURDU** | **1.10** | **23** | *e*PG | **Pb** | **08 39 20.3** | **-0.3** |
| **GLHS** | **Glhisar (BURDU** | **1.10** | **23** | *e*Pg | **Pb** | **08 39 20.3** | **-0.3** |
| **GOLH** | **Golhisar** | **1.20** | **24** | *i* P | **Pn** | **08 39 21.8** | **-0.3** |
| GOLH | | | | *i* S | **Sg** | **08 39 38.5** | **+0.3** |
| **GOLH** | **Golhisar** | **1.20** | **24** | P | **Pn** | **08 39 21.8** | **-0.3** |
| GOLH | | | | S | **Sg** | **08 39 38.5** | **+0.3** |
| **TAVA** | **DENIZLI_Tavas** | **1.32** | **359** | *i* P | **Pn** | **08 39 23.9** | **+0.1** |
| **TAVA** | **DENIZLI_Tavas** | **1.32** | **359** | P | **Pn** | **08 39 23.9** | **+0.1** |
| **KORT** | **Korkueli** | **1.42** | **52** | *e*PN | **Pn** | **08 39 25.3** | **+0.2** |
| **KORT** | **Korkueli** | **1.42** | **52** | *i* P | **Pg** | **08 39 26.7** | **0.0** |
| KORT | | | | *i* S | **Sg** | **08 39 45.3** | **+0.1** |
| **KORT** | **Korkueli** | **1.42** | **52** | *e*Pn | **Pn** | **08 39 25.3** | **+0.2** |
| **KORT** | **Korkueli** | **1.42** | **52** | P | **Pg** | **08 39 26.7** | **0.0** |
| KORT | | | | S | **Sg** | **08 39 45.3** | **+0.1** |
| **BDRM** | **Kayabasi** | **1.52** | **308** | *i* P | **Pg** | **08 39 28.5** | **-0.2** |
| **BDRM** | **Kayabasi** | **1.52** | **308** | P | **Pg** | **08 39 28.5** | **-0.2** |
| **DNZL** | **Cakiroluk** | **1.55** | **3** | *i* P | **Pn** | **08 39 27.5** | **+0.5** |
| **DNZL** | **Cakiroluk** | **1.55** | **3** | P | **Pn** | **08 39 27.5** | **+0.5** |
| **ANTB** | **Antalya** | **1.57** | **61** | *e*PN | **Pb** | **08 39 27.9** | **-0.4** |
| **ANTB** | **Antalya** | **1.57** | **61** | *e*Pn | **Pb** | **08 39 28.0** | **-0.4** |
| **KARP** | **Karpathos** | **1.57** | **248** | *e*PN | **Pb** | **08 39 28.5** | **+0.1** |
| **KARP** | **Karpathos** | **1.57** | **248** | P | **Pb** | **08 39 28.1** | **-0.3** |
| KARP | | | | S | **Sg** | **08 39 50.9** | **+0.9** |
| KARP | | | | AML | AML | 08 39 57.0 | |
| | comp=N,214μm,0.4s | | | | | | |
| KARP | | | | AML | AML | 08 39 59.6 | |
| | comp=E,221μm,0.5s | | | | | | |
| **KARP** | **Karpathos** | **1.57** | **248** | P | **Pb** | **08 39 28.1** | **-0.3** |
| **KARP** | **Karpathos** | **1.57** | **248** | *e*Pn | **Pb** | **08 39 28.5** | **+0.1** |
| KARP | | | | S | **Sg** | **08 39 50.9** | **+0.9** |
| **BODT** | **Bodrum** | **1.61** | **305** | *e*PN | **Pn** | **08 39 27.4** | **-0.2** |
| **BODT** | **Bodrum** | **1.61** | **305** | *e*Pn | **Pn** | **08 39 27.4** | **-0.2** |
| **DENT** | **Denizli** | **1.61** | **2** | *e*PN | **Pn** | **08 39 27.1** | **-0.6** |
| **DENT** | **Denizli** | **1.61** | **2** | *e*Pn | **Pn** | **08 39 27.2** | **-0.6** |
| **AYDN** | **Tasoluk** | **1.74** | **331** | *i* P | **Pb** | **08 39 30.9** | **-0.5** |
| **AYDN** | **Tasoluk** | **1.74** | **331** | P | **Pb** | **08 39 30.9** | **-0.5** |
| **BRDR** | **BURDUR-Merkez** | **1.79** | **30** | *i* P | **Pn** | **08 39 30.9** | **+0.7** |
| **BRDR** | **BURDUR-Merkez** | **1.79** | **30** | P | **Pn** | **08 39 30.9** | **+0.7** |
| **BCK** | **Bucak** | **1.86** | **45** | *e*PN | **Pn** | **08 39 31.6** | **+0.4** |
| **BCK** | **Bucak** | **1.86** | **45** | *e*Pn | **Pn** | **08 39 31.6** | **+0.4** |
| **GCAM** | **G?zelcaml?** | **2.08** | **319** | *e*PN | **Pn** | **08 39 34.2** | **+0.2** |
| **GCAM** | **G?zelcaml?** | **2.08** | **319** | *e*Pn | **Pn** | **08 39 34.2** | **+0.2** |
| **SUTC** | **Sutluce-Ispart** | **2.12** | **50** | *e*PN | **Pn** | **08 39 35.4** | **+0.6** |
| **SUTC** | **Sutluce-Ispart** | **2.12** | **50** | *e*Pn | **Pn** | **08 39 35.4** | **+0.6** |
| **KHAL** | **Karahalli** | **2.27** | **11** | *i* P | **Pn** | **08 39 36.6** | **-0.2** |
| **KHAL** | **Karahalli** | **2.27** | **11** | P | **Pn** | **08 39 36.6** | **-0.2** |
| **SMG** | **Samos** | **2.30** | **313** | P | **Pn** | **08 39 36.5** | **-0.7** |
| SMG | | | | S | **Sn** | **08 40 06.2** | **+0.7** |
| **SMG** | **Samos** | **2.30** | **313** | P | **Pn** | **08 39 36.5** | **-0.7** |
| | | | | S | **Sn** | **08 40 06.2** | **+0.7** |
| **KZIL** | **AFYON_Kizioren** | **2.32** | **24** | *i* P | **Pn** | **08 39 39.5** | **+2.0** |
| **KZIL** | **AFYON_Kizioren** | **2.32** | **24** | P | **Pn** | **08 39 39.5** | **+2.0** |
| **BAGO** | **Egridir - ISPA** | **2.36** | **38** | *i* P | **Pn** | **08 39 38.4** | **+0.3** |
| **KULA** | **Kula-Manisa** | **2.38** | **355** | *e*PN | **Pn** | **08 39 38.1** | **-0.2** |
| **KULA** | **Kula-Manisa** | **2.38** | **355** | *e*Pn | **Pn** | **08 39 38.1** | **-0.2** |
| **ZKR** | **Zakros** | **2.45** | **246** | P | **Pn** | **08 39 41.0** | **+1.7** |
| **ZKR** | **Zakros** | **2.45** | **246** | P | **Pn** | **08 39 41.0** | **+1.7** |
| **SHUT** | **Suhut-Afyon** | **2.72** | **27** | *e*PN | **Pn** | **08 39 43.6** | **+0.5** |
| **SHUT** | **Suhut-Afyon** | **2.72** | **27** | *e*Pn | **Pn** | **08 39 43.6** | **+0.5** |
| **SIMA** | **Simav-Kutahya** | **2.94** | **1** | *e*PN | **Pn** | **08 39 46.2** | **+0.2** |
| **SIMA** | **Simav-Kutahya** | **2.94** | **1** | *e*Pn | **Pn** | **08 39 46.2** | **+0.2** |
| **CHOS** | **Chios island** | **3.22** | **315** | *e*PN | **Pn** | **08 39 50.8** | **+0.9** |
| **CHOS** | **Chios island** | **3.22** | **315** | *e*Pn | **Pn** | **08 39 50.8** | **+0.9** |
| **IDI** | **Anoyia** | **3.41** | **257** | P | **Pn** | **08 39 53.2** | **+0.7** |
| IDI | | | | S | **Sn** | **08 40 33.4** | **+0.5** |
| **IDI** | **Anoyia** | **3.41** | **257** | P | **Pn** | **08 39 53.2** | **+0.7** |
| IDI | | | | S | **Sn** | **08 40 33.4** | **+0.5** |
| **RSH** | | **6.53** | **141** | P | **Pn** | **08 40 34.5** | **-0.8** |
| | baz=140 | | | | | | |
| RSH | | | | S | **Sn** | **08 41 42.3** | **-7.3** |
| | baz=140 | | | | | | |
| **RSH** | | **6.53** | **141** | P | **Pn** | **08 40 34.5** | **-0.8** |
| **HSAF** | **As Saff** | **6.86** | **161** | P | **Pn** | **08 40 38.9** | **-1.0** |
| | baz=160 | | | | | | |
| **HSAF** | **As Saff** | **6.86** | **161** | P | **Pn** | **08 40 38.9** | **-1.0** |
| **SUZ** | **Suez** | **7.08** | **151** | AMP | | 08 42 00.0 | |
| | comp=Z,70μm,0.1s,logA/T=5.7,baz=151 | | | | | | |
| **HNKL** | **Nakhl** | **7.50** | **144** | P | **Pn** | **08 40 47.6** | **-0.9** |
| | baz=143 | | | | | | |
| HNKL | | | | AMP | | 08 42 00.0 | |
| | comp=E,30μm,0.6s,logA/T=4.7,baz=143 | | | | | | |
| **HNKL** | **Nakhl** | **7.50** | **144** | P | **Pn** | **08 40 47.7** | **-0.9** |
| **TR2** | **Tor 2** | **8.72** | **151** | P | **Pn** | **08 41 04.3** | **-1.2** |
| | baz=150 | | | | | | |
| **TR2** | **Tor 2** | **8.72** | **151** | P | **Pn** | **08 41 04.3** | **-1.2** |

*NIED **17** 08:39:00, 24°.50N × 143°.50E, h56km, Mw4.5 Best double couple: M○5.91000 × 10^15 NP1: ϕ○=312.00000°, δ47.00000°, λ7.00000°. NP2: ϕ○=217.00000°, δ85.00000°, λ137.00000°.*
*ISCJB **17** 08:39:14.7± 0.2, 24°.10N ± 0°.03 × 142°.50E ± 0°.05, h33km, mb4.7/101, MS3.0/6, Error ellipse: s-maj=7.0km s-min=4.9km az=0.2*
*MOS **17** 08:39:14.8± 1.0, 24°.16N × 142°.49E, h33km, mb5.0/25, Error ellipse: s-maj=13.0km s-min=7.7km az=82.2*
*IDC **17** 08:39:17.1± 2.4, 24°.13N × 142°.55E, h43km ± 20km, mb4.1/25, mb1 4.2/28, mb1mx4.0/50, mbtmp4.3/28, ML3.8/2, MS3.0/6, Ms1 3.1/6, ms1mx2.9/36, Error ellipse: s-maj=18.0km s-min=12.2km az=101.0*
*NEIC **17** 08:39:18.2± 0.8, 24°.14N × 142°.47E, h49km ± 7km, mb4.8/79, Error ellipse: s-maj=5.2km s-min=3.5km az=114.0*
**ISC 17 08:39:16.6± 0.4, 24°.12N ± 0°.06 × 142°.6E ± 0°.1, h35km, n184, σ0$75/175, mb4.8/100, MS3.1/6, Volcano Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CBIJ** | **Chichi jima** | **2.99** | **353** | *e*Pn | **Pn** | **08 40 04.0** | **+2.4** |
| CBIJ | | | | *e*Sn | **Sn** | **08 40 38.2** | **+2.1** |
| **JCJ** | **Chichijima** | **2.99** | **353** | P | **Pn** | **08 40 03.0** | **+1.4** |
| | baz=274,slow=19 | | | | | | |
| JCJ | | | | S | **Sn** | **08 40 36.5** | **+0.4** |
| | 38nm,0.3s,baz=337,slow=23,SNR=3.8 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **12.95** | **344** | P | **Pn** | **08 42 17.2** | **-0.9** |
| | 0.5nm,0.3s,baz=162,slow=12,SNR=9.3 | | | | | | |
| **KSRS** | **Korea Array** | **18.29** | **320** | P | **Pn** | **08 43 28.2** | **+0.7** |
| | 0.3nm,0.3s,baz=129,slow=11,SNR=7.0 | | | | | | |
| **KS15** | **Wonju Array Si** | **18.30** | **320** | *e*P | **Pn** | **08 43 28.2** | **+0.5** |
| **KSAR** | **Wonju Array Be** | **18.30** | **320** | P | **Pn** | **08 43 28.2** | **+0.5** |
| **KSAR** | **Wonju Array Be** | **18.30** | **320** | P | **Pn** | **08 43 28.2** | **+0.5** |
| **USRK** | **Ussuriysk Ar.** | **21.83** | **339** | P | **P** | **08 44 04.7** | **-1.2** |
| | 5.4nm,0.8s,baz=160,slow=12,SNR=9.2 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **22.95** | **96** | T | T | 09 09 11.8 | |
| | baz=282,slow=74,SNR=20 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **22.95** | **96** | T | T | 09 09 11.8 | |
| | baz=282,slow=74,SNR=16 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **22.97** | **96** | T | T | 09 09 15.0 | |
| | baz=282,SNR=27 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **23.12** | **99** | T | T | 09 09 24.2 | |
| | baz=289,slow=75,SNR=8.7 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **23.12** | **99** | T | T | 09 09 24.2 | |
| | baz=289,slow=75,SNR=5.4 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **23.14** | **99** | T | T | 09 09 24.2 | |
| | baz=289,slow=75,SNR=7.6 | | | | | | |
| **DAV** | **Davao City (W)** | **23.53** | **227** | LR | LR | 08 51 55.1 | |
| | comp=Z,102nm,20.7s,baz=94,slow=32 | | | | | | |
| **KLR** | **Kul'dur** | **26.48** | **344** | P | **P** | **08 44 49.8** | **-0.6** |
| | 0.5nm,0.7s,baz=130,slow=7.8,SNR=18 | | | | | | |
| KLR | | | | LR | LR | 08 55 29.6 | |
| | comp=Z,4.2nm,18.5s,baz=187,slow=37 | | | | | | |
| **PETK** | **Petropavlovsk-** | **31.13** | **18** | LR | LR | 08 56 38.3 | |
| | comp=Z,25nm,20.9s,baz=192,slow=34 | | | | | | |
| **COEN** | **Coen** | **37.85** | **179** | *e*P | **P** | **08 46 31.4** | **+1.3** |
| | 55nm,2.0s | | | | | | |
| **MTN** | **Manton Dam** | **38.41** | **198** | *e*P | **P** | **08 46 34.8** | **-0.1** |
| **YAK** | **Yakutsk** | **38.90** | **350** | P | **P** | **08 46 38.1** | **-0.5** |
| | 8.9nm,0.4s,baz=171,slow=1.4,SNR=5.4 | | | | | | |
| **YAK** | **Yakutsk** | **38.90** | **350** | *e*P | **P** | **08 46 36.9** | **-1.7** |
| YAK | | | | pmax | pmax | | |
| | comp=Z,20nm,1.0s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,7.0nm,1.3s | | | | | | |
| **YAK** | **Yakutsk** | **38.90** | **350** | *e*P | **P** | **08 46 38.1** | **-0.5** |
| | comp=N,18nm,0.8s | | | | | | |
| **SEY** | **Seymchan** | **39.35** | **7** | P | **P** | **08 46 41.4** | **-0.9** |
| | comp=N,0.6nm,0.3s,baz=189,slow=8.2,SNR=4.4 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **40.94** | **271** | P | **P** | **08 46 56.5** | **+0.3** |
| | comp=N,2.3nm,0.6s,baz=62,slow=7.4,SNR=6.6 | | | | | | |
| CMAR | | | | LR | LR | 09 03 57.5 | |
| | comp=N,30nm,19.4s,baz=30,slow=36 | | | | | | |
| **WRAB** | **Tennant Creek** | **44.52** | **191** | *e*P | **P** | **08 47 24.9** | **0.0** |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,17nm,0.5s | | | | | | |
| **WRAB** | **Tennant Creek** | **44.52** | **191** | *e*P | **P** | **08 47 24.9** | **0.0** |
| | comp=Z,17nm,0.5s | | | | | | |
| **WB2** | **Warramunga Arr** | **44.52** | **191** | *e*P | **P** | **08 47 25.0** | **0.0** |
| | comp=Z,14nm,0.7s | | | | | | |
| **WR1** | **Warramunga Arr** | **44.53** | **191** | *e*P | **P** | **08 47 24.5** | **-0.5** |
| | comp=Z,19nm,0.6s | | | | | | |
| **WRA** | **Warramunga Arr** | **44.53** | **191** | P | **P** | **08 47 24.5** | **-0.5** |
| | comp=Z,12nm,0.6s,baz=12,slow=8.4,SNR=125 | | | | | | |
| **PSI** | **Prapat** | **47.17** | **250** | *e*P | **P** | **08 47 47.9** | **+1.7** |
| PSI | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.6s | | | | | | |
| **PSI** | **Prapat** | **47.17** | **250** | *e*P | **P** | **08 47 47.9** | **+1.7** |
| | comp=Z,10nm,0.6s | | | | | | |
| **AS01** | **Alice Springs** | **48.23** | **191** | *e*P | **P** | **08 47 53.8** | **-0.4** |
| **AS31** | **Alice Springs** | **48.24** | **191** | *e*P | **P** | **08 47 54.1** | **-0.1** |
| | comp=Z,2.0nm,0.6s | | | | | | |
| **ASAR** | **Alice Springs** | **48.24** | **191** | P | **P** | **08 47 53.5** | **-0.7** |
| | comp=Z,2.5nm,0.5s,baz=17,slow=12,SNR=58 | | | | | | |
| ASAR | | | | LR | LR | 09 06 41.1 | |
| | comp=Z,40nm,21.4s,baz=32,slow=34 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **51.99** | **321** | *e*P | **P** | **08 48 20.8** | **-1.5** |
| **ZALV** | **Zalesovo Beam** | **51.99** | **321** | P | **P** | **08 48 20.8** | **-1.5** |
| | comp=Z,0.6nm,0.6s,baz=79,slow=7.5,SNR=2.9 | | | | | | |
| **MK01** | **Makanchi Array** | **52.67** | **311** | *e*P | **P** | **08 48 27.5** | **0.0** |
| **MK31** | **Makanchi Array** | **52.68** | **311** | *e*P | **P** | **08 48 27.1** | **-0.5** |
| **MK31** | **Makanchi Array** | **52.68** | **311** | *e*P | **P** | **08 48 27.1** | **-0.5** |
| **MK32** | **Makanchi Array** | **52.68** | **311** | *e*P | **P** | **08 48 26.2** | **-1.4** |
| **MKAR** | **Makanchi Array** | **52.68** | **311** | P | **P** | **08 48 26.2** | **-1.4** |
| | comp=Z,0.3nm,0.5s,baz=88,slow=8.6,SNR=7.5 | | | | | | |
| **STKA** | **Stephens Creek** | **55.69** | **181** | P | **P** | **08 48 48.2** | **-1.2** |
| | comp=Z,3.9nm,0.6s,baz=342,slow=8.3,SNR=12 | | | | | | |
| **STKA** | **Stephens Creek** | **55.69** | **181** | *e*P | **P** | **08 48 49.0** | **-0.5** |
| STKA | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.9s | | | | | | |
| **STKA** | **Stephens Creek** | **55.69** | **181** | *e*P | **P** | **08 48 49.0** | **-0.5** |
| | comp=Z,6.7nm,1.9s | | | | | | |
| **OHAK** | **Old Harbor** | **56.09** | **36** | *e*P | **P** | **08 48 52.0** | **-0.1** |
| | comp=Z,158nm,1.8s | | | | | | |
| **FORT** | **Forrest** | **56.34** | **195** | *e*P | **P** | **08 48 54.8** | **+0.7** |
| | comp=Z,1μm,1.9s | | | | | | |
| **KDAK** | **Kodiak Island** | **56.54** | **36** | P | **P** | **08 48 54.0** | **-1.3** |
| | comp=Z,12nm,0.9s,baz=286,slow=4.4,SNR=8.5 | | | | | | |
| **KDAK** | **Kodiak Island** | **56.54** | **36** | *e*P | **P** | **08 48 55.4** | **+0.1** |
| **KDAK** | **Kodiak Island** | **56.54** | **36** | *e*P | **P** | **08 48 55.4** | **+0.1** |
| **CNPM** | **China Poot** | **57.47** | **34** | *e*P | **P** | **08 49 01.8** | **-0.1** |
| | comp=Z,246nm,2.0s | | | | | | |
| **IMAR** | **Indian Mountai** | **57.54** | **26** | *e*P | **P** | **08 49 03.1** | **+0.8** |
| **PPLA** | **Purkeypile** | **57.55** | **30** | *e*P | **P** | **08 49 03.2** | **+0.7** |
| | comp=Z,59nm,1.8s | | | | | | |
| **BRLK** | **Bradley Lake** | **57.68** | **33** | *e*P | **P** | **08 49 02.4** | **-1.0** |
| | comp=Z,169nm,1.8s | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **SUA** | **Susitna One** | **57.98** | **31** | *e*P | **P** | **08 49 05.8** | **+0.2** |
| | comp=Z,72nm,1.9s | | | | | | |
| **KTH** | **Kantishna Hill** | **58.23** | **29** | *e*P | **P** | **08 49 07.7** | **+0.4** |
| | comp=Z,50nm,2.0s | | | | | | |
| **BPAW** | **Bear Paw Mtn.** | **58.29** | **28** | *e*P | **P** | **08 49 08.4** | **+0.8** |
| | comp=Z,7.3nm,0.9s | | | | | | |
| **TRF** | **Thorofare Moun** | **58.49** | **29** | *e*P | **P** | **08 49 09.4** | **+0.2** |
| | comp=Z,19nm,1.1s | | | | | | |
| **MLY** | **Manley** | **58.56** | **27** | *e*P | **P** | **08 49 10.5** | **+0.9** |
| | comp=Z,8.4nm,1.5s | | | | | | |
| **PMR** | **Palmer** | **58.76** | **31** | *e*P | **P** | **08 49 10.8** | **-0.1** |
| PMR | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.9s | | | | | | |
| **PMR** | **Palmer** | **58.76** | **31** | *e*P | **P** | **08 49 10.8** | **-0.1** |
| | comp=Z,10nm,0.9s | | | | | | |
| **RND** | **Reindeer** | **59.12** | **29** | *e*P | **P** | **08 49 13.3** | **-0.2** |
| RND | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.8s | | | | | | |
| **RND** | **Reindeer** | **59.12** | **29** | *e*P | **P** | **08 49 13.3** | **-0.2** |
| | comp=Z,8.8nm,0.8s | | | | | | |
| **MCK** | **McKinley** | **59.13** | **29** | *e*P | **P** | **08 49 13.4** | **0.0** |
| MCK | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.0s | | | | | | |
| **MCK** | **McKinley** | **59.13** | **29** | *e*P | **P** | **08 49 13.4** | **0.0** |
| | comp=Z,10nm,1.0s | | | | | | |
| **SML** | **Sawmill** | **59.16** | **31** | *e*P | **P** | **08 49 13.9** | **+0.1** |
| SML | | | | pmax | pmax | | |
| | comp=Z,18nm,0.9s | | | | | | |
| **SML** | **Sawmill** | **59.16** | **31** | *e*P | **P** | **08 49 13.9** | **+0.1** |
| | comp=Z,18nm,0.9s | | | | | | |
| **COLD** | **Coldfoot** | **59.20** | **25** | *e*P | **P** | **08 49 15.1** | **+1.3** |
| | comp=Z,5.5nm,0.9s | | | | | | |
| **MDM** | **Murphy Dome** | **59.61** | **27** | *e*P | **P** | **08 49 17.2** | **+0.4** |
| | comp=Z,5.5nm,0.8s | | | | | | |
| **SCM** | **Sheep Creek Mo** | **59.64** | **31** | *e*P | **P** | **08 49 17.4** | **+0.3** |
| SCM | | | | pmax | pmax | | |
| | comp=Z,38nm,1.3s | | | | | | |
| **SCM** | **Sheep Creek Mo** | **59.64** | **31** | *e*P | **P** | **08 49 17.4** | **+0.3** |
| | comp=Z,38nm,1.3s | | | | | | |
| **GLI** | **Glacier Island** | **59.67** | **32** | *e*P | **P** | **08 49 17.7** | **+0.5** |
| **CCB** | **Clear Creek Bu** | **59.74** | **28** | *e*P | **P** | **08 49 17.7** | **+0.1** |
| | comp=Z,20nm,1.8s | | | | | | |
| **DHY** | **Denali Highway** | **59.75** | **30** | *e*P | **P** | **08 49 17.9** | **0.0** |
| | comp=Z,32nm,1.8s | | | | | | |
| **FID** | **Port Fidalgo** | **59.96** | **32** | *e*P | **P** | **08 49 19.2** | **0.0** |
| | comp=Z,76nm,1.6s | | | | | | |
| **HDA** | **Harding Lake** | **60.08** | **28** | *e*P | **P** | **08 49 19.4** | **-0.5** |
| | comp=Z,44nm,1.9s | | | | | | |
| **IL1** | **Eielson Array** | **60.15** | **28** | *e*P | **P** | **08 49 19.8** | **-0.7** |
| **ILAR** | **Eielson Array** | **60.15** | **28** | P | **P** | **08 49 19.6** | **-0.9** |
| | comp=Z,5.1nm,0.8s,baz=257,slow=5.7,SNR=59 | | | | | | |
| **ILB** | **Eielson Array** | **60.15** | **28** | *e*P | **P** | **08 49 19.6** | **-0.8** |
| **KLU** | **Klutina** | **60.28** | **32** | *e*P | **P** | **08 49 22.0** | **+0.5** |
| | comp=Z,8.0nm,0.8s | | | | | | |
| **EYAK** | **Cordova Ski Ar** | **60.31** | **33** | *e*P | **P** | **08 49 22.4** | **+0.9** |
| | comp=Z,102nm,1.7s | | | | | | |
| **DOT** | **Dot Lake** | **61.28** | **29** | *e*P | **P** | **08 49 28.2** | **0.0** |
| | comp=Z,17nm,0.8s | | | | | | |
| **MENT** | **Mentasta** | **61.40** | **30** | *e*P | **P** | **08 49 29.5** | **+0.5** |
| | comp=Z,22nm,1.7s | | | | | | |
| **EGAK** | **Eagle** | **62.60** | **28** | *e*P | **P** | **08 49 37.2** | **+0.3** |
| | comp=Z,5.0nm,0.9s | | | | | | |
| **DAWY** | **Dawson** | **63.36** | **29** | *e*P | **P** | **08 49 42.9** | **+0.7** |
| | comp=Z,23nm,1.8s | | | | | | |
| **INK** | **Inuvik** | **65.58** | **24** | P | **P** | **08 49 56.1** | **-0.3** |
| | comp=Z,3.1nm,0.8s,baz=294,slow=6.4,SNR=19 | | | | | | |
| **INK** | **Inuvik** | **65.58** | **

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | comp=Z,18nm,1.9s | | | | | | | | |
| **SUMG** | **Summit** | **83.56** | **0** | *e*P | | **P** | | **08 51 42.1** | **+0.9** |
| SUMG | | | | pmax | | pmax | | | |
| | comp=Z,29nm,1.7s | | | | | | | | |
| **SUMG** | **Summit** | **83.56** | **0** | *e*P | | **P** | | **08 51 42.1** | **+0.9** |
| | comp=Z,29nm,1.7s | | | | | | | | |
| **R11A** | **Troy Canyon, C** | **84.04** | **51** | *e*P | | **P** | | **08 51 44.5** | **+0.4** |
| | comp=Z,1.4nm,0.8s | | | | | | | | |
| **FFC** | **Flin Flon** | **84.06** | **32** | *e*P | | **P** | | **08 51 44.0** | **+0.4** |
| FFC | | | | pmax | | pmax | | | |
| | comp=Z,7.0nm,0.9s | | | | | | | | |
| **FFC** | **Flin Flon** | **84.06** | **32** | *e*P | | **P** | | **08 51 44.0** | **+0.4** |
| | comp=Z,7.4nm,0.9s | | | | | | | | |
| **YHB** | **Horse Butte** | **84.07** | **43** | *e*P | | **P** | | **08 51 45.3** | **+1.1** |
| | comp=Z,33nm,1.9s | | | | | | | | |
| **YMR** | **Madison River** | **84.25** | **43** | *e*P | | **P** | | **08 51 46.4** | **+1.4** |
| | comp=Z,3.9nm,0.7s | | | | | | | | |
| **YHH** | **Holmes Hill** | **84.27** | **43** | *e*P | | **P** | | **08 51 46.3** | **+1.0** |
| | comp=Z,5.7nm,1.4s | | | | | | | | |
| **MOOW** | **Moose Ponds** | **84.83** | **44** | *e*P | | **P** | | **08 51 48.8** | **+0.8** |
| | comp=Z,6.8nm,1.8s | | | | | | | | |
| **RLMT** | **Red Lodge** | **85.09** | **42** | *e*P | | **P** | | **08 51 50.2** | **+1.0** |
| | comp=Z,3.8nm,0.6s | | | | | | | | |
| **DUG** | **Dugway, Tooele** | **85.13** | **48** | *e*P | | **P** | | **08 51 50.0** | **+0.5** |
| DUG | | | | pmax | | pmax | | | |
| | comp=Z,5.0nm,0.8s | | | | | | | | |
| **DUG** | **Dugway, Tooele** | **85.13** | **48** | *e*P | | **P** | | **08 51 50.0** | **+0.5** |
| | comp=Z,4.7nm,0.8s | | | | | | | | |
| **SHPR** | **Sheep Range** | **85.15** | **52** | *e*P | | **P** | | **08 51 49.8** | **+0.1** |
| | comp=Z,2.6nm,0.9s | | | | | | | | |
| **AKASG** | **Malin Array Be** | **85.23** | **324** | P | | **P** | | **08 51 48.4** | **-1.2** |
| | comp=Z,0.9nm,0.4s,baz=51,slow=5.3,SNR=11 | | | | | | | | |
| **AKBB** | **Malin Array Si** | **85.23** | **324** | *e*P | | **P** | | **08 51 48.4** | **-1.2** |
| AKBB | | | | pmax | | pmax | | | |
| | comp=Z,5.0nm,0.7s | | | | | | | | |
| **AKBB** | **Malin Array Si** | **85.23** | **324** | *e*P | | **P** | | **08 51 48.4** | **-1.2** |
| | comp=Z,4.6nm,0.7s | | | | | | | | |
| **NLU** | **North Lily Min** | **85.74** | **48** | *e*P | | **P** | | **08 51 53.0** | **+0.3** |
| | comp=Z,2.1nm,0.7s | | | | | | | | |
| **PD31** | **Pinedale Array** | **86.06** | **45** | *e*P | | **P** | | **08 51 53.6** | **-0.6** |
| **PDAR** | **Pinedale Array** | **86.06** | **45** | P | | **P** | | **08 51 52.7** | **-1.5** |
| | comp=Z,0.5nm,0.6s,baz=263,slow=3.4,SNR=5.9 | | | | | | | | |
| **PDAR** | **Pinedale Array** | **86.06** | **45** | *e*P | | **P** | | **08 51 53.9** | **-0.3** |
| **MSU** | **Marysvale** | **86.35** | **49** | *e*P | | **P** | | **08 51 56.1** | **+0.4** |
| **MSU** | **Marysvale** | **86.35** | **49** | *e*P | | **P** | | **08 51 56.1** | **+0.4** |
| **NB200** | **NORSAR Array S** | **86.50** | **339** | *e*P | | **P** | | **08 51 54.8** | **-1.0** |
| **NOA** | **NORSAR Array B** | **86.50** | **339** | P | | **P** | | **08 51 54.8** | **-1.0** |
| | comp=Z,1.3nm,0.9s,baz=56,slow=4.4,SNR=3.0 | | | | | | | | |
| NOA | | | | LR | | LR | | 09 31 35.8 | |
| | comp=Z,7.1nm,20.7s,baz=355,slow=36 | | | | | | | | |
| **MTPU** | **Mount Pierson** | **86.56** | **50** | *e*P | | **P** | | **08 51 57.8** | **+0.9** |
| | comp=Z,2.6nm,0.9s | | | | | | | | |
| **KNB** | **Kanab** | **86.59** | **51** | *e*P | | **P** | | **08 51 57.8** | **+0.9** |
| KNB | | | | pmax | | pmax | | | |
| | comp=Z,10.0nm,0.8s | | | | | | | | |
| **KNB** | **Kanab** | **86.59** | **51** | *e*P | | **P** | | **08 51 57.8** | **+0.9** |
| | comp=Z,10nm,0.8s | | | | | | | | |
| **P18A** | **Preston Nutter** | **87.14** | **48** | *e*P | | **P** | | **08 52 00.5** | **+0.9** |
| | comp=Z,15nm,1.8s | | | | | | | | |
| **SRU** | **San Rafael Swe** | **87.20** | **48** | *e*P | | **P** | | **08 52 00.1** | **+0.3** |
| SRU | | | | pmax | | pmax | | | |
| | comp=Z,4.0nm,1.0s | | | | | | | | |
| **SRU** | **San Rafael Swe** | **87.20** | **48** | *e*P | | **P** | | **08 52 00.1** | **+0.3** |
| | comp=Z,4.1nm,1.0s | | | | | | | | |
| **BR101** | **Keskin Array S** | **88.30** | **313** | *e*P | | **P** | | **08 52 04.0** | **-0.9** |
| **BRTR** | **Keskin Array B** | **88.30** | **313** | P | | **P** | | **08 52 04.0** | **-0.9** |
| | comp=Z,1.3nm,0.7s,baz=111,slow=3.3,SNR=6.3 | | | | | | | | |
| **BR231** | **Keskin MP Arra** | **88.81** | **314** | *e*P | | **P** | | **08 52 05.5** | **-1.9** |
| **SDCO** | **Great Sand Dun** | **91.29** | **47** | *e*P | | **P** | | **08 52 19.5** | **+0.3** |
| | comp=Z,8.7nm,1.8s | | | | | | | | |
| **ANMO** | **Albuquerque** | **92.10** | **50** | *e*P | | **P** | | **08 52 23.9** | **+1.0** |
| ANMO | | | | pmax | | pmax | | | |
| | comp=Z,4.0nm,0.9s | | | | | | | | |
| **ANMO** | **Albuquerque** | **92.10** | **50** | *e*P | | **P** | | **08 52 23.9** | **+1.0** |
| | comp=Z,3.7nm,0.9s | | | | | | | | |
| **MHTCO** | **State Highway** | **92.17** | **48** | *e*P | | **P** | | **08 52 23.8** | **+0.7** |
| | comp=Z,25nm,1.9s | | | | | | | | |
| **LTX** | **Lajitas** | **97.07** | **54** | *e*P | | Pdif | | 08 52 46.5 | +0.8 |
| **LTX** | **Lajitas** | **97.07** | **54** | *e*P | | Pdif | | 08 52 46.5 | +0.7 |
| **TXAR** | **Lajitas Array** | **97.07** | **54** | P | | Pdif | | 08 52 46.5 | +0.7 |
| | comp=Z,0.2nm,0.6s,baz=295,slow=3.6,SNR=3.6 | | | | | | | | |
| **PLCA** | **Paso Flores** | **147.72** | **129** | PKPbc | | **PKPbc** | | **08 58 57.5** | **-0.3** |
| | comp=Z,0.8nm,0.5s,baz=280,slow=5.0,SNR=5.1 | | | | | | | | |
| **PLCA** | **Paso Flores** | **147.72** | **129** | *e*PKP2 | | **PKPbc** | | **08 58 57.7** | **-0.1** |
| **PLCA** | **Paso Flores** | **147.72** | **129** | *e*PKPbc | | **PKPbc** | | **08 58 57.7** | **-0.1** |
| **PTGA** | **Pitinga** | **148.09** | **47** | *e*PKPbc | | **PKPbc** | | **08 58 59.4** | **-0.1** |
| **MNMC** | **Minye Minye** | **149.71** | **87** | *e*PKPbc | | **PKPbc** | | **08 59 04.2** | **+0.5** |
| **PB11** | **IPOC Station P** | **149.81** | **88** | *e*PKPbc | | **PKPbc** | | **08 59 03.8** | **-0.1** |
| **LPAZ** | **La Paz** | **150.18** | **81** | PKPbc | | **PKPbc** | | **08 59 05.3** | **-0.1** |
| | comp=Z,4.6nm,0.8s,baz=255,slow=3.5,SNR=12 | | | | | | | | |
| **LPAZ** | **La Paz** | **150.18** | **81** | *e*PKIKP | | **PKPbc** | | **08 59 05.9** | **+0.5** |
| **LPAZ** | **La Paz** | **150.18** | **81** | *e*PKPbc | | **PKPbc** | | **08 59 05.9** | **+0.5** |

*BJI* ***17*** *08:48:17.9, 45˚.45N×147˚.58E, h165km, mb4.3/16, mB4.8/10*
*MOS* ***17*** *08:48:18.7±1.6, 45˚.51N×147˚.50E, h170km, mb4.3/17, Error ellipse: s-maj=10.2km s-min=5.8km az=76.4*
*ISCJB* ***17*** *08:48:19.3±0.3, 45˚.41N±0˚.04×147˚.56E±0˚.05, h176km±3km, mb4.3/61, Error ellipse: s-maj=7.2km s-min=4.1km az=145.0*
*SKHL* ***17*** *08:48:20.6±0.6, 45˚.35N×147˚.55E, h172km±6km, mb4.9/5, msh5.3/3*
*IDC* ***17*** *08:48:21.4±1.9, 45˚.47N×147˚.55E, h184km±17km, mb3.7/19, mb1 3.9/23, mb1mx3.8/41, mbtmp4.3/23, Error ellipse: s-maj=13.4km s-min=10.4km az=135.0*
*NEIC* ***17*** *08:48:21.4±0.7, 45˚.43N×147˚.58E, h180km±6km, mb4.5/38, Error ellipse: s-maj=10.3km s-min=5.6km az=147.0*
*JMA* ***17*** *08:48:22.4±0.6, 44˚.86N×147˚.80E, h180km, M4.2*
**ISC 17 08:48:19.5±0.6, 45˚.39N±0˚.04×147˚.49E±0˚.05, h169km±5km, n200, σ2s08/221, mb4.4/62, 10C-12D, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **KUR** | **Kuril'sk** | **0.31** | **120** | *d* | *i* PN | **Pn** | **08 48 43.4** | **+1.1** |
| KUR | | | | | *i* S | **Sn** | **08 49 00.8** | **+1.1** |
| KUR | | | | | pmax | pmax | | |
| | comp=E,121nm,0.4s | | | | | | | |
| KUR | | | | | pmax | pmax | | |
| | comp=Z,322nm,0.4s | | | | | | | |
| KUR | | | | | pmax | pmax | | |
| | comp=N,45nm,0.2s | | | | | | | |
| KUR | | | | | smax | smax | | |
| | comp=N,679nm,0.6s | | | | | | | |
| KUR | | | | | smax | smax | | |
| | comp=E,401nm,0.5s | | | | | | | |
| **KUR** | **Kuril'sk** | **0.31** | **120** | *i* | P | **Pn** | **08 48 43.4** | **+1.1** |
| KUR | | | | | AMB | AMB | 08 48 45.8 | |
| | comp=E,322nm,0.4s | | | | | | | |
| KUR | | | | | *i* S | **Sn** | **08 49 00.8** | **+1.1** |
| KUR | | | | | A | A | 08 49 01.5 | |
| | comp=E,679nm,0.5s | | | | | | | |
| KUR | | | | | A | A | 08 49 01.5 | |
| | comp=E,401nm,0.5s | | | | | | | |
| **SHO** | **Shikotan** | **1.59** | **198** | | PN | **Pn** | **08 48 50.8** | **-0.6** |
| SHO | | | | | *e*S | **Sn** | **08 49 13.9** | **-2.1** |
| SHO | | | | | pmax | pmax | | |
| | comp=N,677nm,0.4s | | | | | | | |
| SHO | | | | | pmax | pmax | | |
| | comp=E,728nm,0.4s | | | | | | | |
| SHO | | | | | pmax | pmax | | |
| | comp=Z,1μm,0.4s | | | | | | | |
| SHO | | | | | smax | smax | | |
| | comp=E,3μm,0.5s | | | | | | | |
| SHO | | | | | smax | smax | | |
| | comp=N,489nm,0.2s | | | | | | | |
| **SHO** | **Shikotan** | **1.59** | **198** | *i* | P | **Pn** | **08 48 51.5** | **+0.1** |
| SHO | | | | | AMB | AMB | 08 48 52.6 | |
| | comp=N,1μm,0.4s | | | | | | | |
| SHO | | | | | *e*S | **Sn** | **08 49 15.1** | **-0.9** |
| SHO | | | | | A | A | 08 49 15.5 | |
| | comp=N,320nm,0.5s | | | | | | | |
| SHO | | | | | A | A | 08 49 15.5 | |
| | comp=N,500nm,0.5s | | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **1.78** | **221** | *c* | *i* PN | **Pn** | **08 48 55.7** | **+2.3** |
| YUK | | | | | *i* S | **Sn** | **08 49 22.4** | **+2.8** |
| YUK | | | | | pmax | pmax | | |
| | comp=Z,1μm,0.3s | | | | | | | |
| YUK | | | | | pmax | pmax | | |
| | comp=N,187nm,0.2s | | | | | | | |
| YUK | | | | | pmax | pmax | | |
| | comp=E,236nm,0.2s | | | | | | | |
| YUK | | | | | smax | smax | | |
| | comp=N,1.0nm,0.6s | | | | | | | |
| YUK | | | | | smax | smax | | |
| | comp=E,869nm,0.6s | | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **1.78** | **221** | *i* | P | **Pn** | **08 48 55.7** | **+2.3** |
| YUK | | | | | AMB | AMB | 08 48 56.4 | |
| | comp=E,1μm,0.5s | | | | | | | |
| YUK | | | | | *i* S | **Sn** | **08 49 22.4** | **+2.8** |
| YUK | | | | | A | A | 08 49 22.7 | |
| | comp=E,870nm,0.5s | | | | | | | |
| YUK | | | | | A | A | 08 49 22.7 | |
| | comp=E,1μm,0.5s | | | | | | | |
| **LAGR** | **Lagunnoye** | **1.80** | **223** | *e* | PN | **Pn** | **08 48 56.3** | **+2.7** |
| LAGR | | | | | *i* S | **Sn** | **08 49 24.3** | **+4.3** |
| **LAGR** | **Lagunnoye** | **1.80** | **223** | *e* | P | **Pn** | **08 48 56.3** | **+2.7** |
| LAGR | | | | | *i* S | **Sn** | **08 49 24.3** | **+4.3** |
| **GRPR** | **Tuman** | **1.85** | **222** | *i* | PN | **Pn** | **08 48 56.5** | **+2.3** |
| GRPR | | | | | *i* S | **Sn** | **08 49 23.6** | **+2.6** |
| **GRPR** | **Tuman** | **1.85** | **222** | *e* | P | **Pn** | **08 48 56.5** | **+2.3** |
| GRPR | | | | | *i* S | **Sn** | **08 49 23.6** | **+2.6** |
| **GLVR** | **Golovnino** | **2.17** | **221** | *e* | PN | **Pn** | **08 49 00.1** | **+2.4** |
| GLVR | | | | | *e*S | **Sn** | **08 49 31.3** | **+4.1** |
| **GLVR** | **Golovnino** | **2.17** | **221** | *e* | P | **Pn** | **08 49 00.1** | **+2.4** |
| GLVR | | | | | *e*S | **Sn** | **08 49 31.3** | **+4.1** |
| **JRA** | **Rausu** | **2.22** | **230** | | P | **Pn** | **08 49 00.8** | **+2.5** |
| **NEM2** | **Nemuro 2** | **2.38** | **212** | | P | **Pn** | **08 49 00.3** | **+0.2** |
| NEM2 | | | | | *e*S | **Sn** | **08 49 29.5** | **-2.0** |
| **JNK** | **Nakash** | **2.68** | **229** | | P | **Pn** | **08 49 06.1** | **+2.4** |
| **JTKR** | **Abashiri--Toko** | **2.92** | **242** | | P | **Pn** | **08 49 09.7** | **+3.1** |
| JTKR | | | | | *e*S | **Sn** | **08 49 47.4** | **+4.2** |
| **JAK** | **Akkeshi** | **3.12** | **221** | | P | **Pn** | **08 49 09.8** | **+0.7** |
| JAK | | | | | *e*S | **Sn** | **08 49 47.5** | **-0.2** |
| **JAR** | **Ashorobuto** | **3.39** | **233** | | P | **Pn** | **08 49 15.3** | **+2.8** |
| **YSS** | **Yuzh-Sakhalins** | **3.65** | **297** | *e* | PN | **Pn** | **08 49 19.1** | **+3.5** |
| YSS | | | | | *e**SP | | 08 49 53.3 | |
| YSS | | | | | pmax | pmax | | |
| | comp=Z,50nm,0.9s | | | | | | | |
| YSS | | | | | smax | smax | | |
| | comp=N,40nm,0.9s | | | | | | | |
| YSS | | | | | smax | smax | | |
| | comp=E,60nm,1.9s | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **3.65** | **297** | *e* | P | **Pn** | **08 49 19.1** | **+3.5** |
| YSS | | | | | AMB | AMB | 08 49 20.1 | |
| | comp=E,50nm,0.9s | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **3.65** | **297** | *e* | Pn | **Pn** | **08 49 19.9** | **+4.2** |
| **JKK2** | **Kamakawa 2** | **3.71** | **248** | | P | **Pn** | **08 49 20.5** | **+4.0** |
| **ASAJ** | **Asahikawa** | **3.71** | **252** | | P | **Pn** | **08 49 20.7** | **+4.2** |
| | comp=E,5.6nm,0.3s,baz=78,slow=14,SNR=34 | | | | | | | |
| **ASAJ** | **Asahikawa** | **3.71** | **252** | *e* | Pn | Pn | 08 49 21.1 | +4.6 |
| **JWK2** | **Keihoku** | **3.94** | **271** | | P | Pn | 08 49 25.4 | +5.9 |
| **JCH** | **Churui** | **4.07** | **229** | | P | **Pn** | **08 49 22.4** | **+1.3** |
| JCH | | | | | *e*S | **Sn** | **08 50 08.7** | **-0.5** |
| **JFR** | **Furan** | **4.16** | **239** | | P | **Pn** | **08 49 25.8** | **+3.5** |
| JFR | | | | | *e*S | **Sn** | **08 50 14.7** | **+3.4** |
| **ERM** | **Erimo** | **4.61** | **225** | *i* | PN | **Pn** | **08 49 28.9** | **+0.8** |
| **ERM** | **Erimo** | **4.61** | **225** | *e* | P | **Pn** | **08 49 28.9** | **+0.8** |
| **ERM** | **Erimo** | **4.61** | **225** | *e* | Pn | **Pn** | **08 49 30.1** | **+2.0** |
| **JNBK** | **Urakawa-nobuka** | **4.62** | **230** | | P | **Pn** | **08 49 28.8** | **+0.5** |
| **JEW** | **Eniwo** | **5.04** | **242** | | P | **Pn** | **08 49 37.4** | **+3.7** |
| **UGL** | **Uglegorsk** | **5.22** | **317** | *e* | PN | **Pn** | **08 49 34.1** | **-1.9** |
| UGL | | | | | *e*S | **Sn** | **08 50 34.2** | **-1.9** |
| **UGL** | **Uglegorsk** | **5.22** | **317** | *e* | rx | rx | 08 49 34.1 | |
| **JKB** | **Kayabe** | **5.84** | **236** | | P | **Pn** | **08 49 45.0** | **+0.7** |
| JKB | | | | | *e*S | **Sn** | **08 50 49.2** | **-1.6** |
| **JOT** | **Ohata** | **6.17** | **232** | | P | **Pn** | **08 49 48.1** | **-0.4** |
| JOT | | | | | *e*S | **Sn** | **08 50 54.7** | **-3.8** |
| **TYV** | **Tymovskoe** | **6.36** | **331** | *e* | PN | Pn | 08 49 46.1 | -4.9 |
| TYV | | | | | *e*S | **Sn** | **08 50 55.1** | **-8.0** |
| TYV | | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.0s | | | | | | | |
| TYV | | | | | smax | smax | | |
| | comp=E,18nm,1.4s | | | | | | | |
| **TYV** | **Tymovskoe** | **6.36** | **331** | *e* | P | **Pn** | **08 49 53.1** | **+2.1** |
| TYV | | | | | AMB | AMB | 08 49 54.0 | |
| | comp=E,70nm,1.0s | | | | | | | |
| **JANG** | **Nango** | **6.66** | **223** | | P | **Pn** | **08 49 53.3** | **-1.8** |
| JANG | | | | | *e*S | **Sn** | **08 51 03.9** | **-6.3** |
| **SKR** | **Severo-Kuril's** | **7.84** | **44** | *i* | PN | **Pn** | **08 50 09.6** | **-0.9** |
| **JMK** | **Ichinoseki** | **7.94** | **218** | | P | **Pn** | **08 50 08.8** | **-3.1** |
| JMK | | | | | *e*S | **Sn** | **08 51 36.1** | **-4.6** |
| **HABR** | **Khabarovsk** | **9.05** | **294** | *e* | PN | **Pn** | **08 50 24.0** | **-2.6** |
| HABR | | | | | *e*S | **Sn** | **08 52 04.2** | **-3.1** |
| HABR | | | | | MLR | MLR | | |
| | comp=Z,31nm,13.0s | | | | | | | |
| **PEA0B** | **Petropavlovsk-** | **10.20** | **37** | *e* | PN | **Pn** | **08 50 40.9** | **-0.8** |
| **PETK** | **Petropavlovsk-** | **10.20** | **37** | | P | **Pn** | **08 50 40.7** | **-1.0** |
| | comp=Z,2.3nm,0.3s,baz=184,slow=9.3,SNR=13 | | | | | | | |
| **PET** | **Petropavlovsk** | **10.56** | **40** | *e* | PN | **Pn** | **08 50 46.1** | **-0.2** |
| **MJA0** | **Matsu Arr-Jizo** | **11.25** | **222** | *e* | PN | **Pn** | **08 50 54.5** | **-1.1** |
| MJA0 | | | | | pmax | pmax | | |
| | comp=Z,175nm,0.3s | | | | | | | |
| **EKMR** | **Ekimchan** | **12.21** | **314** | *e* | P | **Pn** | **08 51 10.0** | **+2.3** |
| **MDJ** | **Mudanjiang** | **12.70** | **273** | | P | **Pn** | **08 51 13.8** | **-0.2** |
| MDJ | | | | | S | **Sn** | **08 53 26.8** | **-7.9** |
| MDJ | | | | | PcS | **PcS** | **09 00 11.3** | **+0.8** |
| MDJ | | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.6s | | | | | | | |
| MDJ | | | | | pmax | pmax | | |
| | comp=Z,84nm,4.6s | | | | | | | |
| MDJ | | | | | LR | LR | | |
| | comp=Z,160nm,6.5s | | | | | | | |
| MDJ | | | | | LR | LR | | |
| | comp=Z,110nm,8.1s | | | | | | | |
| MDJ | | | | | LR | LR | | |
| | comp=Z,210nm,6.0s | | | | | | | |
| **BMKR** | **Bomnak** | **15.14** | **315** | *e* | P | **P** | **08 51 45.0** | **-0.7** |
| BMKR | | | | | AMB | AMB | 08 51 49.5 | |
| | comp=Z,2.0nm,0.5s | | | | | | | |
| **KROS** | **Kirovskiy** | **15.97** | **312** | *e* | P | **P** | **08 51 56.0** | **+1.1** |
| **SEY** | **Seymchan** | **17.81** | **7** | *e* | P | **Pn** | **08 52 15.7** | **-0.8** |
| | comp=Z,0.7nm,0.3s,baz=195,slow=9.1,SNR=16 | | | | | | | |
| **SEY** | **Seymchan** | **17.81** | **7** | *e* | P | **P** | **08 52 14.3** | **-0.6** |
| **SEY** | **Seymchan** | **17.81** | **7** | *e* | P | **P** | **08 52 14.3** | **-0.6** |
| **YAK** | **Yakutsk** | **19.61** | **335** | | P | **P** | **08 52 34.3** | **-0.1** |
| | comp=Z,0.0nm,0.3s,baz=21,slow=2.7,SNR=9.0 | | | | | | | |
| **YAK** | **Yakutsk** | **19.61** | **335** | *e* | P | **P** | **08 52 33.0** | **-1.4** |
| YAK | | | | | pmax | pmax | | |
| | comp=Z,21nm,0.8s | | | | | | | |
| **YAK** | **Yakutsk** | **19.61** | **335** | *e* | P | **P** | **08 52 33.0** | **-1.4** |
| **YAK** | **Yakutsk** | **19.61** | **335** | *e* | P | **P** | **08 52 34.3** | **-0.1** |
| | comp=Z,31nm,0.7s | | | | | | | |
| **BJI** | **Beijing** | **23.53** | **268** | | P | **P** | **08 53 15.8** | **+1.6** |
| BJI | | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.4s | | | | | | | |
| **NJ2** | **Nanjing** | **25.85** | **249** | *e* | P | **P** | **08 53 35.4** | **+0.1** |
| NJ2 | | | | | pmax | pmax | | |
| | comp=Z,14nm,0.7s | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **26.47** | **273** | *e* | P | **P** | **08 53 43.1** | **+2.2** |
| HHC | | | | | S | **S** | **08 58 03.8** | **+1.7** |
| HHC | | | | | LR | LR | | |
| | comp=Z,190nm,13.5s | | | | | | | |
| HHC | | | | | LR | LR | | |
| | comp=Z,110nm,10.9s | | | | | | | |
| HHC | | | | | LR | LR | | |
| | comp=Z,47nm,13.8s | | | | | | | |
| **TIXI** | **Tiksi** | **27.81** | **347** | *e* | P | **P** | **08 53 50.8** | **-1.5** |
| TIXI | | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.1s | | | | | | | |
| **SONM** | **Songino Array** | **28.10** | **290** | | pP | pP | 08 54 36.4 | +6.0 |
| | comp=Z,1.8nm,0.9s,baz=76,slow=9.4,SNR=6.5 | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **30.20** | **142** | | T | T | 09 25 31.4 | |
| | baz=333,slow=76,SNR=53 | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **30.22** | **142** | | T | T | 09 25 38.2 | |
| | baz=333,slow=76,SNR=44 | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **30.22** | **142** | | T | T | 09 25 32.2 | |
| | baz=333,slow=76,SNR=44 | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **31.20** | **143** | | T | T | 09 26 54.1 | |
| | baz=334,slow=76,SNR=64 | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **31.21** | **143** | | T | T | 09 26 52.8 | |
| | baz=334,slow=76,SNR=54 | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **31.22** | **143** | | T | T | 09 26 56.0 | |
| | baz=334,slow=76,SNR=48 | | | | | | | |
| **IMAR** | **Indian Mountai** | **37.16** | **35** | *e* | P | **P** | **08 55 13.7** | **+0.1** |
| **OHAK** | **Old Harbor** | **37.67** | **50** | *e* | P | **P** | **08 55 17.7** | **-0.2** |
| | comp=Z,128nm,1.5s | | | | | | | |
| **PPLA** | **Purkeypile** | **37.77** | **41** | *e* | P | **P** | **08 55 20.1** | **+1.3** |
| | comp=Z,20nm,1.4s | | | | | | | |
| **KDAK** | **Kodiak Island** | **37.98** | **49** | | P | **P** | **08 55 19.8** | **-0.6** |
| | comp=Z,6.9nm,0.8s,baz=310,slow=2.5,SNR=23 | | | | | | | |
| **KDAK** | **Kodiak Island** | **37.98** | **49** | *i* | P | **P** | **08 55 20.0** | **-0.5** |
| **KDAK** | **Kodiak Island** | **37.98** | **49** | *e* | P | **P** | **08 55 20.0** | **-0.5** |
| **KDAK** | **Kodiak Island** | **37.98** | **49** | *e* | P | **P** | **08 55 19.9** | **-0.5** |
| | comp=Z,75nm,1.6s | | | | | | | |
| **KTH** | **Kantishna Hill** | **38.32** | **39** | *e* | P | **P** | **08 55 24.4** | **+1.0** |
| | comp=Z,14nm,1.4s | | | | | | | |
| **MLY** | **Manley** | **38.38** | **37** | *e* | P | **P** | **08 55 24.8** | **+0.9** |
| | comp=Z,2.9nm,0.9s | | | | | | | |
| **CNPM** | **China Poot** | **38.46** | **46** | *e* | P | **P** | **08 55 25.7** | **+1.2** |
| | comp=Z,112nm,1.7s | | | | | | | |
| **SUA** | **Susitna One** | **38.52** | **43** | *e* | P | **P** | **08 55 25.0** | **-0.1** |
| | comp=Z,67nm,1.9s | | | | | | | |
| **BRLK** | **Bradley Lake** | **38.61** | **46** | *e* | P | **P** | **08 55 25.6** | **-0.2** |
| | comp=Z,109nm,1.8s | | | | | | | |
| **COLD** | **Coldfoot** | **38.65** | **34** | *e* | P | **P** | **08 55 26.0** | **0.0** |
| | comp=Z,5.0nm,1.2s | | | | | | | |
| **MCK** | **McKinley** | **39.20** | **39** | *e* | P | **P** | **08 55 30.7** | **0.0** |
| MCK | | | | | pmax | pmax | | |
| | comp=Z,23nm,1.8s | | | | | | | |
| **MCK** | **McKinley** | **39.20** | **39** | *e* | P | **P** | **08 55 30.7** | **0.0** |
| **MCK** | **McKinley** | **39.20** | **39** | *e* | P | **P** | **08 55 30.7** | **0.0** |
| | comp=Z,23nm,1.8s | | | | | | | |
| **RND** | **Reindeer** | **39.26** | **40** | *e* | P | **P** | **08 55 32.0** | **+0.8** |
| RND | | | | | pmax | pmax | | |
| | comp=Z,35nm,1.9s | | | | | | | |
| **RND** | **Reindeer** | **39.26** | **40** | *e* | P | **P** | **08 55 31.9** | **+0.8** |
| | comp=Z,35nm,1.9s | | | | | | | |
| **MDM** | **Murphy Dome** | **39.45** | **37** | *e* | P | **P** | **08 55 33.4** | **+0.7** |
| | comp=Z,7.1nm,0.9s | | | | | | | |
| **COLA** | **College** | **39.62** | **37** | *e* | P | **P** | **08 55 34.8** | **+0.8** |
| COLA | | | | | pmax | pmax | | |
| | comp=Z,11nm,0.8s | | | | | | | |
| **COLA** | **College** | **39.62** | **37** | *e* | P | **P** | **08 55 34.8** | **+0.8** |
| **COLA** | **College** | **39.62** | **37** | *e* | P | **P** | **08 55 34.8** | **+0.8** |
| | comp=Z,11nm,0.8s | | | | | | | |
| **SML** | **Sawmill** | **39.63** | **42** | *e* | P | **P** | **08 55 35.0** | **+0.7** |
| SML | | | | | pmax | pmax | | |
| | comp=Z,83nm,1.9s | | | | | | | |
| **SML** | **Sawmill** | **39.63** | **42** | *e* | P | **P** | **08 55 35.0** | **+0.7** |
| | comp=Z,83nm,1.9s | | | | | | | |
| **CCB** | **Clear Creek Bu** | **39.65** | **38** | *e* | P | **P** | **08 55 34.4** | **+0.1** |
| | comp=Z,2.2nm,1.2s | | | | | | | |
| **DHY** | **Denali Highway** | **39.95** | **40** | *e* | P | **P** | **08 55 37.1** | **+0.1** |
| | comp=Z,18nm,1.4s | | | | | | | |
| **HDA** | **Harding Lake** | **40.03** | **38** | *e* | P | **P** | **08 55 36.9** | **-0.6** |
| | comp=Z,3.6nm,0.8s | | | | | | | |
| **IL1** | **Eielson Array** | **40.03** | **37** | *e* | P | **P** | **08 55 37.3** | **-0.2** |
| **ILAR** | **Eielson Array** | **40.03** | **37** | P | | **P** | **08 55 37.2** | **-0.3** |
| | comp=Z,2.6nm,0.7s,baz=278,slow=8.7,SNR=35 | | | | | | | |
| **ILAR** | **Eielson Array** | **40.03** | **37** | *e* | P | **P** | **08 55 37.2** | **-0.3** |
| ILAR | | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.9s | | | | | | | |
| **ILB** | **Eielson Array** | **40.03** | **37** | *e* | P | **P** | **08 55 38.1** | **+0.7** |
| **SCM** | **Sheep Creek Mo** | **40.10** | **42** | *e* | P | **P** | **08 55 38.2** | **0.0** |
| SCM | | | | | pmax | pmax | | |
| | comp=Z,14nm,1.2s | | | | | | | |
| **SCM** | **Sheep Creek Mo** | **40.10** | **42** | *e* | P | **P** | **08 55 38.2** | **0.0** |
| | comp=Z,14nm,1.2s | | | | | | | |
| **FYU** | **Fort Yukon** | **40.61** | **35** | *e* | P | **P** | **08 55 43.3** | **+1.1** |
| | comp=Z,39nm,1.8s | | | | | | | |
| **KLU** | **Klutina** | **40.81** | **42** | *e* | P | **P** | **08 55 44.4** | **+0.4** |
| | comp=Z,39nm,1.8s | | | | | | | |
| **KMI** | **Kunming** | **41.13** | **256** | | P | **P** | **08 55 47.9** | **+0.7** |
| KMI | | | | | pmax | pmax | | |
| | comp=Z,15nm,1.1s | | | | | | | |
| **DOT** | **Dot Lake** | **41.37** | **39** | *e* | P | **P** | **08 55 47.2** | **-1.3** |
| | comp=Z,39nm,1.8s | | | | | | | |
| **BMRM** | **Bremner River** | **41.53** | **43** | *e* | P | **P** | **08 55 50.5** | **+0.7** |
| | comp=Z,14nm,1.2s | | | | | | | |
| **RAGM** | **Ragged Mountai** | **41.60** | **44** | *e* | P | **P** | **08 55 51.4** | **+1.0** |
| | comp=Z,103nm,1.8s | | | | | | | |
| **MENT** | **Mentasta** | **41.62** | **40** | *e* | P | **P** | **08 55 51.3** | **+0.7** |
| | comp=Z,17nm,1.5s | | | | | | | |
| **WMQ** | **Urumqi** | **41.74** | **290** | | P | **P** | **08 55 53.3** | **+1.5** |
| WMQ | | | | | pP | pP | 08 56 30.4 | +1.8 |
| WMQ | | | | | sP | sP | 08 56 49.1 | +1.4 |
| WMQ | | | | | pmax | pmax | | |
| | comp=Z,15nm,0.7s | | | | | | | |
| WMQ | | | | | pmax | pmax | | |
| | comp=Z,410nm,8.1s | | | | | | | |
| WMQ | | | | | LR | LR | | |
| | comp=Z,81nm,13.7s | | | | | | | |
| WMQ | | | | | LR | LR | | |
| | comp=Z,64nm,15.7s | | | | | | | |
| WMQ | | | | | LR | LR | | |
| | comp=Z,60nm,19.9s | | | | | | | |
| **EGAK** | **Eagle** | **42.47** | **37** | *e* | P | **P** | **08 55 57.3** | **0.0** |
| | comp=Z,5.5nm,0.6s | | | | | | | |
| **DAWY** | **Dawson** | **43.35** | **38** | *e* | P | **P** | **08 56 04.6** | **+0.1** |
| | comp=Z,17nm,1.9s | | | | | | | |
| **MK31** | **Makanchi Array** | **44.06** | **296** | *e* | P | **P** | **08 56 11.4** | **+1.0** |
| **MK31** | **Makanchi Array** | **44.06** | **296** | *e* | P | **P** | **08 56 11.4** | **+1.0** |
| **MKAR** | **Makanchi Array**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| NC405 | NORSAR Array S | 67.98 | 339 | *e*P | | P | 08 58 59.5 | -0.2 |
| NB201 | NORSAR Array S | 68.14 | 339 | *e*P | | P | 08 59 00.2 | -0.5 |
| NB2 | NORSAR Subarra | 68.17 | 339 | P | | P | 08 59 00.4 | -0.5 |
| | comp=Z,1.7nm,0.5s,baz=32,slow=6.5 | | | | | | | |
| NOA | NORSAR Array B | 68.17 | 339 | P | | P | 08 59 00.2 | -0.8 |
| | comp=Z,2.1nm,0.5s,baz=32,slow=6.6,SNR=12 | | | | | | | |
| NBO02 | NORSAR Array S | 68.25 | 339 | *e*P | | P | 08 59 01.8 | +0.3 |
| DAC | Darwin (Calif) | 68.34 | 60 | *e*P | | P | 08 58 59.9 | -2.7 |
| DAC | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,1.0s | | | | | | | |
| DAC | Darwin (Calif) | 68.34 | 60 | *e*P | | P | 08 58 59.9 | -2.7 |
| | comp=Z,3.4nm,1.0s | | | | | | | |
| PDAR | Pinedale Array | 68.67 | 50 | P | | P | 08 59 05.0 | +0.4 |
| | comp=Z,0.5nm,0.6s,baz=354,slow=0.9,SNR=9.2 | | | | | | | |
| PDAR | Pinedale Array | 68.67 | 50 | *e*P | | P | 08 59 05.5 | +0.8 |
| KBZ | Khabaz | 68.90 | 311 | P | | P | 08 59 07.7 | +2.0 |
| | comp=Z,4.4nm,0.7s,baz=20,slow=7.6,SNR=7.8 | | | | | | | |
| AS01 | Alice Springs | 69.82 | 193 | *e*P | | P | 08 59 13.0 | +1.6 |
| ASAR | Alice Springs | 69.83 | 193 | P | | P | 08 59 12.6 | +1.0 |
| | comp=Z,1.9nm,0.8s,baz=8.4,slow=5.1,SNR=26 | | | | | | | |
| ULM | Lac du Bonnet | 70.05 | 38 | P | | P | 08 59 11.7 | -1.0 |
| | comp=Z,0.9nm,0.4s,baz=338,slow=4.7,SNR=4.5 | | | | | | | |
| AKASG | Malin Array Be | 70.41 | 324 | *e*P | | P | 08 59 14.8 | 0.0 |
| | comp=Z,2.3nm,0.7s,baz=37,slow=6.4,SNR=11 | | | | | | | |
| AKASG | Malin Array Be | 70.41 | 324 | *e*P | | P | 08 59 14.8 | 0.0 |
| AKASG | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,0.7s | | | | | | | |
| BUR08 | Bucovina Ar. S | 74.45 | 324 | *e*P | | P | 08 59 40.0 | +1.0 |
| BUR04 | Bucovina Ar. S | 74.46 | 324 | *e*P | | P | 08 59 40.1 | +1.1 |
| BURAR | Bucovina Array | 74.46 | 324 | ↓*i*P | | P | 08 59 40.2 | +1.2 |
| BURAR | Bucovina Array | 74.46 | 324 | ↓P | | P | 08 59 40.2 | +1.2 |
| CFR | Carcaliu | 75.16 | 320 | ↓*i*P | | P | 08 59 44.6 | +2.1 |
| CFR | Carcaliu | 75.10 | 320 | ↓P | | P | 08 59 44.6 | +2.1 |
| TIRR | Tirgusor | 75.53 | 320 | ↑*i*P | | P | 08 59 44.6 | -0.4 |
| TIRR | Tirgusor | 75.53 | 320 | ↑P | | P | 08 59 44.6 | -0.4 |
| MLR | Muntele Rosu | 75.82 | 322 | ↑*i*P | | P | 08 59 58.8 | +12 |
| MLR | Muntele Rosu | 75.82 | 322 | ↑P | | P | 08 59 58.8 | +12 |
| ISR | Istrita | 75.85 | 321 | ↑*i*P | | P | 08 59 48.5 | +1.6 |
| ISR | Istrita | 75.85 | 321 | ↑P | | P | 08 59 48.5 | +1.6 |
| CJR | Cluj-Napoca | 75.85 | 324 | ↓*i*P | | P | 08 59 46.3 | -0.6 |
| CJR | Cluj-Napoca | 75.85 | 324 | ↓P | | P | 08 59 46.3 | -0.6 |
| CLL | Collm | 75.98 | 333 | *e*P | | P | 08 59 48.0 | +0.6 |
| SCHQ | Schefferville | 76.00 | 20 | P | | P | 08 59 47.4 | -0.1 |
| | comp=Z,3.6nm,0.7s,baz=309,slow=4.4,SNR=5.2 | | | | | | | |
| SCHQ | Schefferville | 76.00 | 20 | *e*P | | P | 08 59 47.8 | +0.3 |
| | comp=Z,101nm,1.8s | | | | | | | |
| DRGR | | 76.16 | 324 | ↓*i*P | | P | 08 59 50.2 | +1.6 |
| DRGR | | 76.16 | 324 | ↓P | | P | 08 59 50.2 | +1.6 |
| VOIR | | 76.25 | 322 | ↓*i*P | | P | 08 59 51.2 | +2.0 |
| VOIR | | 76.25 | 322 | ↓P | | P | 08 59 51.2 | +2.0 |
| ARR | Arges | 76.49 | 322 | ↑*i*P | | P | 08 59 53.3 | +2.8 |
| BRTR | Keskin Array B | 76.59 | 314 | P | | P | 08 59 52.2 | +0.9 |
| | comp=Z,1.6nm,0.7s,baz=97,slow=4.3,SNR=7.6 | | | | | | | |
| BRTR | Keskin Array B | 76.59 | 314 | *e*P | | P | 08 59 53.1 | +1.8 |
| BRTR | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.7s | | | | | | | |
| BR231 | Keskin MP Arra | 76.94 | 314 | *e*P | | P | 08 59 54.1 | +0.8 |
| SCIA | State Center | 77.60 | 42 | *e*P | | P | 08 59 58.4 | +1.7 |
| KHC | Kasperske Hory | 77.65 | 331 | *e*P | | P | 08 59 58.0 | +1.1 |
| KHC | Kasperske Hory | 77.65 | 331 | *e*P | | P | 08 59 58.0 | +1.1 |
| KHC | Kasperske Hory | 77.65 | 331 | *e*P | | P | 08 59 58.0 | +1.1 |
| GERES | GERESS Array B | 77.85 | 331 | P | | P | 08 59 58.2 | +0.1 |
| | comp=Z,0.5nm,0.5s,baz=42,slow=6.1,SNR=4.6 | | | | | | | |
| GERES | GERESS Array B | 77.85 | 331 | *e*P | | P | 08 59 59.8 | +1.7 |
| GERES | GERESS Array B | 77.85 | 331 | *e*P | | P | 08 59 59.8 | +1.7 |
| GEA0 | GERESS Array S | 77.86 | 331 | *e*P | | P | 08 59 58.9 | +0.8 |
| PDG | Podgorica | 81.14 | 324 | ↓*i*P | | P | 09 00 14.7 | -1.1 |
| TRQ | Mont Tremblant | 81.53 | 28 | *e*P | | P | 09 00 17.6 | -0.3 |
| TXAR | Lajitas Array | 81.54 | 57 | P | | P | 09 00 18.8 | +0.4 |
| | comp=Z,0.2nm,0.6s,baz=321,slow=6.9,SNR=3.5 | | | | | | | |
| SNAA | Sanae | 150.08 | 198 | PKP | | PKPbc | 09 07 48.3 | -0.4 |
| VNA2 | Neumayer--Watz | 151.62 | 197 | PKP | | PKPbc | 09 07 53.1 | +0.9 |
| | baz=104,slow=1.1 | | | | | | | |
| VNA3 | Neumayer Olymp | 151.81 | 195 | PKP | | PKPbc | 09 07 53.3 | +0.6 |
| PLCA | Paso Flores | 152.00 | 94 | PKPbc | | PKPbc | 09 07 54.2 | +0.1 |
| | comp=Z,0.9nm,0.5s,baz=268,slow=1.8,SNR=4.9 | | | | | | | |
| PLCA | Paso Flores | 152.00 | 94 | *e*PKPbc | | PKPbc | 09 07 55.0 | +0.8 |
| VNA1 | Neumayer--Stat | 152.02 | 197 | PKP | | PKPbc | 09 07 52.5 | -0.6 |

*NIED* **17** *08:50:00,37.50N×137.40E,h8km,Mw4.0 Best double couple: M₀1.20000×10¹⁵ NP1:φs64.00000°,δ50.00000°, λ135.00000°. NP2:φs187.00000°,δ57.00000°,λ51.00000°.*
*IDC* **17** *08:50:31.6±0.5,37.47N×137.29E,h0km,mb4.1/17, mb1 4.2/22,mb1mx4.1/48,mbtmp4.1/22,ML3.7/4,MS3.0/1, Ms1 3.0/1,ms1mx2.4/35,Error ellipse: s-maj=16.0km s-min=9.4km az=59.0*
*ISCJB* **17** *08:50:33.1±1.0,37.45N±0.02×137.26E±0.03,h15km±6km, mb4.3/55,Error ellipse: s-maj=4.6km s-min=3.4km az=44.3*
*JMA* **17** *08:50:34.0,37.48N×137.36E,h13km±1km,M4.3*
*JMA Felt III J1.*
*NEIC* **17** *08:50:37.5±0.5,37.38N×137.27E,h38km±5km,mb4.6/40, Error ellipse: s-maj=5.8km s-min=5.0km az=181.0*
*NEIC Recorded [3 JMA] in Ishikawa.*

**ISC 17 08:50:34.0**±0.8,**37.46N**±0.03×**137.38E**±0.04,**h13**km±4km, **n107**,σ1§**12**/117,**mb4.5**/55,**3C-5D**,**Near west coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JSZ | Suzu | 0.01 | 228 | ↑P | Pg | 08 50 36.1 | -0.2 |
| JSZ | | | | S | Sg | 08 50 37.8 | -0.1 |
| JHG | Hegura jima | 0.53 | 317 | ↓P | Pg | 08 50 43.9 | -0.6 |
| JHG | | | | S | Sg | 08 50 51.4 | -0.2 |
| JJN | Nakama | 0.72 | 119 | ↓P | Pb | 08 50 48.7 | +0.3 |
| JTT | Ttatey | 0.85 | 182 | ↓P | Pg | 08 50 50.2 | -0.3 |
| JTT | | | | S | Sb | 08 51 02.4 | +0.4 |
| JSD | Sado | 0.91 | 50 | ↑P | Pg | 08 50 50.4 | -1.2 |
| JSD | | | | S | Sg | 08 51 02.9 | -0.6 |
| JIZZ | Izumozaki | 1.06 | 86 | ↑P | Pb | 08 50 53.4 | -0.9 |
| JIZZ | | | | S | Sb | 08 51 08.8 | +0.8 |
| MJB9 | Matsu-Tunnel | 1.13 | 144 | *e*Pn | Pb | 08 50 54.7 | -0.7 |
| MJB9 | | | | *e*Sn | Sb | 08 51 10.7 | +0.8 |
| MAJO | Matsushiro | 1.13 | 144 | *d i*PN | Pb | 08 50 54.2 | -1.2 |
| MAJO | Matsushiro | 1.13 | 144 | *e*Pn | Pb | 08 50 54.6 | -0.8 |
| MAJO | | | | *e*Sn | Sb | 08 51 10.7 | +0.6 |
| MAT | Matsushiro | 1.13 | 144 | P | Pb | 08 50 54.4 | -1.0 |
| MAT | | | | S | Sb | 08 51 10.4 | +0.4 |
| MAT | Matsushiro | 1.13 | 144 | P | Pb | 08 50 54.6 | -0.8 |
| MJAR | Matsushiro Arr | 1.13 | 144 | Pg | Pb | 08 50 55.5 | +0.1 |
| | 175nm,0.3s,baz=325,slow=19,SNR=1145 | | | | | | |
| MJAR | | | | Lg | Lg | 08 51 10.3 | |
| | 174nm,0.3s,baz=326,slow=31,SNR=17 | | | | | | |
| MJAR | Matsushiro Arr | 1.13 | 144 | PN | Pb | 08 50 55.6 | +0.1 |
| MJAR | | | | pmax | pmax | | |
| | comp=Z,175nm,0.3s | | | | | | |
| JNG | Nsakai | 1.20 | 151 | ↓P | Pn | 08 50 55.8 | -0.8 |
| JNG | | | | S | Sb | 08 51 12.5 | +0.4 |
| INU | Inuyama | 2.13 | 188 | *e*Pn | Pn | 08 51 09.0 | -0.2 |
| INU | | | | *e*Sn | Sb | 08 51 39.9 | +1.2 |
| JHJ | Hachijo jima 2 | 4.76 | 155 | Pn | Pn | 08 51 46.2 | +0.8 |
| | comp=Z,7.0nm,0.3s,baz=246,slow=20,SNR=2.9 | | | | | | |
| ERM | Erimo | 6.37 | 43 | *e*Pn | Pn | 08 52 10.7 | +3.2 |
| JNU | Nakatsue | 6.85 | 233 | Pn | Pn | 08 52 14.5 | +0.2 |
| | comp=Z,1.2nm,0.3s,baz=35,slow=4.6,SNR=9.6 | | | | | | |
| JNU | Nakatsue | 6.85 | 233 | *e*Pn | Pn | 08 52 16.7 | +2.5 |
| KSRS | Korea Array | 7.52 | 273 | Pn | Pn | 08 52 24.1 | +0.8 |
| | comp=Z,3.4nm,0.3s,baz=88,slow=14,SNR=15 | | | | | | |
| KSRS | | | | LR | LR | 08 55 09.1 | |
| | comp=Z,119nm,19.0s,baz=95,slow=37 | | | | | | |
| KS01 | Wonju Array Si | 7.54 | 273 | *e*Pn | Pn | 08 52 25.1 | +1.5 |
| KS15 | Wonju Array Si | 7.55 | 273 | *e*Pn | Pn | 08 52 25.9 | +2.1 |
| KSAR | Wonju Array Be | 7.55 | 273 | Pn | Pn | 08 52 24.1 | +0.4 |
| ASAJ | Asahikawa | 7.74 | 29 | Pn | Pn | 08 52 27.6 | +1.3 |
| | comp=Z,0.9nm,0.3s,baz=332,slow=7.2,SNR=7.2 | | | | | | |
| ASAJ | Asahikawa | 7.74 | 29 | *e*Pn | Pn | 08 52 30.6 | +4.3 |
| USRK | Ussuriysk Ar. | 7.87 | 330 | Pn | Pn | 08 52 28.7 | +0.5 |
| | comp=Z,0.4nm,0.3s,baz=146,slow=13,SNR=11 | | | | | | |
| ULN | Ulaanbaatar | 24.46 | 305 | *e*P | P | 08 55 51.9 | -0.8 |
| | comp=Z,14nm,1.4s | | | | | | |
| SONA1 | Songino Array | 24.88 | 305 | *e*P | P | 08 55 57.7 | +1.2 |
| SONA0 | Songino Array | 24.88 | 304 | *e*P | P | 08 55 57.0 | +0.5 |
| SONM | Songino Array | 24.88 | 304 | P | P | 08 55 57.0 | +0.5 |
| | comp=Z,1.5nm,0.8s,baz=96,slow=7.6,SNR=4.9 | | | | | | |
| TIXI | Tiksi | 34.54 | 355 | P | P | 08 57 20.9 | -0.8 |
| | comp=Z,2.8nm,0.6s,baz=138,slow=6.3,SNR=7.4 | | | | | | |
| TIXI | Tiksi | 34.54 | 355 | *e*P | P | 08 57 20.7 | -1.0 |
| | comp=Z,3.8nm,0.9s | | | | | | |
| CM01 | Chiang Mai Array | 38.54 | 251 | *e*P | P | 08 57 56.1 | -0.4 |
| ZAA1 | Zalesovo Array | 39.24 | 312 | *e*P | P | 08 58 00.5 | -1.4 |
| ZALV | Zalesovo Beam | 39.24 | 312 | P | P | 08 58 00.5 | -1.4 |
| | comp=Z,1.1nm,0.7s,baz=81,slow=9.2,SNR=3.7 | | | | | | |
| ZALV | Zalesovo Beam | 39.24 | 312 | *e*P | P | 08 58 01.6 | -0.3 |
| MK32 | Makanchi Array | 41.15 | 301 | *e*P | P | 08 58 15.8 | -2.2 |
| MKAR | Makanchi Array | 41.15 | 301 | P | P | 08 58 15.8 | -2.2 |
| | comp=Z,0.4nm,0.7s,baz=90,slow=11,SNR=3.5 | | | | | | |
| KURK | Kurchatov | 43.12 | 307 | *e*P | P | 08 58 33.2 | -0.7 |
| | comp=Z,4.1nm,0.8s | | | | | | |
| IMAR | Indian Mountai | 47.94 | 31 | *e*P | P | 08 59 13.0 | +1.2 |
| KTH | Kanchana Hill | 49.20 | 34 | *e*P | P | 08 59 22.9 | +1.3 |
| | comp=Z,8.6nm,1.1s | | | | | | |
| MLY | Manley | 49.20 | 32 | *e*P | P | 08 59 22.3 | +0.6 |
| | comp=Z,20nm,1.8s | | | | | | |
| MDM | Murphy Dome | 50.27 | 32 | *e*P | P | 08 59 30.7 | +1.0 |
| | comp=Z,8.9nm,1.3s | | | | | | |
| DHY | Denali Highway | 50.84 | 35 | *e*P | P | 08 59 35.0 | +0.8 |
| | comp=Z,26nm,2.0s | | | | | | |
| IL1 | Eielson Array | 50.86 | 32 | *e*P | P | 08 59 34.1 | -0.1 |
| ILAR | Eielson Array | 50.86 | 32 | P | P | 08 59 33.6 | -0.5 |
| | comp=Z,1.0nm,0.8s,baz=283,slow=6.6,SNR=11 | | | | | | |
| ILB | Eielson Array | 50.86 | 32 | *e*P | P | 08 59 33.6 | -0.5 |
| KLU | Klutina | 51.74 | 36 | *e*P | P | 08 59 42.1 | +1.2 |
| | comp=Z,26nm,1.8s | | | | | | |
| ARU | Arti | 53.89 | 318 | *e*P | P | 08 59 56.6 | -0.1 |
| | comp=Z,5.1nm,0.8s | | | | | | |
| INK | Inuvik | 55.47 | 27 | P | P | 09 00 08.2 | +0.2 |
| | comp=Z,1.1nm,0.5s,baz=300,slow=7.5,SNR=14 | | | | | | |
| INK | Inuvik | 55.47 | 27 | *e*P | P | 09 00 08.2 | +0.2 |
| | comp=Z,17nm,1.9s | | | | | | |
| WRAB | Tennant Creek | 57.16 | 183 | *e*P | P | 09 00 19.8 | -0.8 |
| | comp=Z,15nm,1.6s | | | | | | |
| WB2 | Warramunga Arr | 57.16 | 183 | *e*P | P | 09 00 20.0 | -0.6 |
| | comp=Z,5.9nm,1.2s | | | | | | |
| WR1 | Warramunga Arr | 57.16 | 183 | *e*P | P | 09 00 20.0 | -0.6 |
| | comp=Z,9.2nm,1.3s | | | | | | |
| WRA | Warramunga Arr | 57.16 | 183 | P | P | 09 00 20.0 | -0.6 |
| | comp=Z,2.1nm,0.4s,baz=359,slow=7.6,SNR=48 | | | | | | |
| AS01 | Alice Springs | 60.88 | 184 | *e*P | P | 09 00 46.0 | -0.3 |
| AS31 | Alice Springs | 60.88 | 184 | *e*P | P | 09 00 46.0 | -0.4 |
| | comp=Z,0.9nm,0.8s | | | | | | |
| ASAR | Alice Springs | 60.89 | 184 | P | P | 09 00 46.0 | -0.4 |
| | comp=Z,1.2nm,0.8s,baz=14,slow=12,SNR=17 | | | | | | |
| YKA | Yellowknife Ar | 65.03 | 29 | P | P | 09 01 13.3 | -0.2 |
| | comp=Z,0.2nm,0.4s,baz=293,slow=7.5,SNR=10 | | | | | | |
| FIA1 | FINESS Array S | 66.91 | 331 | *e*P | P | 09 01 25.0 | -0.6 |
| FIA0 | FINESS Array S | 66.91 | 331 | *e*P | P | 09 01 24.2 | -1.4 |
| FINES | FINESS Array B | 66.91 | 331 | P | P | 09 01 24.2 | -1.4 |
| | comp=Z,6.6nm,0.9s,baz=85,slow=6.5,SNR=9.1 | | | | | | |
| SUMG | Summit | 70.22 | 359 | *e*P | P | 09 01 47.2 | +0.5 |
| | comp=Z,32nm,1.7s | | | | | | |
| LTY | Liberty | 70.66 | 45 | *e*P | P | 09 01 50.0 | +0.6 |
| | comp=Z,12nm,1.5s | | | | | | |
| H04A | Detroit Lake | 71.24 | 48 | *e*P | P | 09 01 54.1 | +1.3 |
| | comp=Z,6.7nm,1.3s | | | | | | |
| AKASG | Malin Array Be | 71.96 | 321 | P | P | 09 01 56.0 | -1.0 |
| | comp=Z,2.0nm,0.5s,baz=49,slow=6.6,SNR=11 | | | | | | |
| NC204 | NORSAR Array S | 72.48 | 336 | *e*P | P | 09 01 59.1 | -1.0 |
| NB200 | NORSAR Array S | 72.51 | 336 | *e*P | P | 09 01 59.5 | -0.7 |
| NOA | NORSAR Array B | 72.51 | 336 | P | P | 09 01 59.5 | -0.7 |
| | comp=Z,1.9nm,0.8s,baz=42,slow=6.0,SNR=3.6 | | | | | | |
| YBH | Yreka Blue Hor | 72.60 | 51 | *e*P | P | 09 02 02.7 | +1.5 |
| | comp=Z,6.8nm,1.1s | | | | | | |
| FFC | Flin Flon | 75.05 | 31 | *e*P | P | 09 02 15.4 | +0.3 |
| | comp=Z,8.1nm,1.4s | | | | | | |
| BEKR | Beckworth | 75.13 | 51 | *e*P | P | 09 02 16.9 | +0.7 |
| | comp=Z,5.7nm,0.8s | | | | | | |
| AFDM | Forest Hills D | 75.30 | 52 | *e*P | P | 09 02 18.1 | +1.2 |
| | comp=Z,6.1nm,1.5s | | | | | | |
| MFID | Camas Ranch | 75.69 | 46 | *e*P | P | 09 02 20.4 | +1.2 |
| | comp=Z,24nm,1.9s | | | | | | |
| HRY | Holter Researc | 75.81 | 42 | *e*P | P | 09 02 20.9 | +1.1 |
| PAHR | Pah Rah Range | 75.83 | 51 | *e*P | P | 09 02 21.3 | +1.2 |
| | comp=Z,4.6nm,0.8s | | | | | | |
| PNTR | Pine Nut | 76.07 | 51 | *e*P | P | 09 02 22.7 | +1.1 |
| | comp=Z,4.3nm,0.9s | | | | | | |
| BR101 | Keskin Array S | 76.13 | 309 | *e*P | P | 09 02 20.9 | -0.9 |
| BRTR | Keskin Array B | 76.13 | 309 | P | P | 09 02 20.9 | -0.9 |
| | comp=Z,0.4nm,0.4s,baz=53,slow=13,SNR=3.1 | | | | | | |
| CMB | Columbia Colle | 76.21 | 53 | *e*P | P | 09 02 23.2 | +1.1 |
| | comp=Z,3.0nm,0.7s | | | | | | |
| DLMT | Dillon | 76.27 | 43 | *e*P | P | 09 02 23.7 | +1.1 |
| | comp=Z,12nm,0.8s | | | | | | |
| YERR | Yerington | 76.35 | 51 | *e*P | P | 09 02 24.6 | +1.4 |
| | comp=Z,6.6nm,0.9s | | | | | | |
| WAKR | Walker | 76.52 | 52 | *e*P | P | 09 02 25.5 | +1.4 |
| | comp=Z,4.1nm,0.9s | | | | | | |
| BOZ | Bozeman (W) | 76.64 | 42 | *e*P | P | 09 02 25.4 | +0.8 |
| | comp=Z,4.9nm,0.8s | | | | | | |
| KVN | Kaiserville | 77.02 | 51 | *e*P | P | 09 02 28.3 | +1.3 |
| | comp=Z,7.1nm,0.6s | | | | | | |
| NV01 | Mina Array Sit | 77.27 | 51 | *e*P | P | 09 02 29.8 | +1.4 |
| NV11 | Mina Array Sit | 77.36 | 51 | *e*P | P | 09 02 30.5 | +1.7 |
| | comp=Z,0.2nm,0.8s | | | | | | |
| YHH | Holmes Hill | 77.58 | 43 | *e*P | P | 09 02 31.8 | +1.6 |
| | comp=Z,3.2nm,0.9s | | | | | | |
| RLMT | Red Lodge | 78.21 | 42 | *e*P | P | 09 02 34.7 | +1.2 |
| | comp=Z,9.1nm,1.6s | | | | | | |
| TPAW | Teton Pass | 78.38 | 44 | *e*P | P | 09 02 36.4 | +1.9 |
| | comp=Z,6.3nm,1.3s | | | | | | |
| R11A | Troy Canyon, C | 79.00 | 50 | *e*P | P | 09 02 39.0 | +1.1 |
| | comp=Z,7.8nm,1.5s | | | | | | |
| DUG | Dugway, Tooele | 79.47 | 47 | *e*P | P | 09 02 41.9 | +1.5 |
| | comp=Z,4.0nm,1.0s | | | | | | |
| BW06 | Boulder Array | 79.62 | 44 | *e*P | P | 09 02 41.9 | +0.6 |
| | comp=Z,3.3nm,0.8s | | | | | | |
| PD31 | Pinedale Array | 79.62 | 44 | *e*P | P | 09 02 41.8 | +0.5 |
| PDAR | Pinedale Array | 79.62 | 44 | P | P | 09 02 41.8 | +0.5 |
| | comp=Z,3.0nm,0.7s,baz=269,slow=2.1,SNR=32 | | | | | | |
| PDAR | Pinedale Array | 79.62 | 44 | *e*P | P | 09 02 41.6 | +0.3 |
| NLU | North Lily Min | 80.06 | 47 | *e*P | P | 09 02 44.6 | +0.9 |
| | comp=Z,3.0nm,0.9s | | | | | | |
| GERES | GERESS Array B | 80.61 | 326 | P | P | 09 02 45.1 | -1.2 |
| | comp=Z,0.9nm,0.8s,baz=46,slow=5.8,SNR=4.2 | | | | | | |
| ULM | Lac du Bonnet | 80.87 | 31 | P | P | 09 02 47.0 | -0.6 |
| | comp=Z,3.7nm,0.8s,baz=326,slow=7.1,SNR=6.5 | | | | | | |
| ULM | Lac du Bonnet | 80.87 | 31 | *e*P | P | 09 02 47.0 | -0.6 |
| | comp=Z,19nm,1.8s | | | | | | |
| MTPU | Mount Pierson | 81.24 | 48 | *e*P | P | 09 02 51.7 | +1.4 |
| | comp=Z,3.2nm,0.8s | | | | | | |
| SRU | San Rafael Swe | 81.51 | 47 | *e*P | P | 09 02 52.7 | +1.2 |
| | comp=Z,4.4nm,0.8s | | | | | | |
| PV10 | Paradox Valley | 82.87 | 47 | *e*P | P | 09 03 00.4 | +1.7 |
| LTX | Lajitas | 92.36 | 50 | *e*P | P | 09 03 45.2 | +0.6 |
| TXAR | Lajitas Array | 92.36 | 50 | P | P | 09 03 45.2 | +0.6 |
| | comp=Z,0.6nm,0.6s,baz=282,slow=2.8,SNR=9.8 | | | | | | |
| PTGA | Pitinga | 140.10 | 28 | *e*PKPdf | PKPdf | 09 10 04.5 | +1.5 |
| LPAZ | La Paz | 149.15 | 54 | PKPbc | PKPbc | 09 10 23.5 | +0.2 |
| | comp=Z,2.1nm,0.9s,baz=329,slow=5.6,SNR=3.1 | | | | | | |

*ISK* **17** *08:57:53.4,38.53N×42.89E,h27km,MD2.1,ML2.0*
*ISCJB* **17** *08:57:55.2±1.8,38.54N±0.08×42.98E±0.08,h39km±15km, Error ellipse: s-maj=15.0km s-min=9.0km az=27.8*
*CSEM* **17** *08:57:56.7±0.6,38.70N×43.05E,h10km,MD2.1,Error ellipse: s-maj=13.0km s-min=10.1km az=57.0*
*DDA* **17** *08:57:57.9,38.57N×43.00E,h7km,Ml2.6*

**ISC 17 08:57:55.2**±1.3,**38.58N**±0.05×**43.00E**±0.04,**h28**km±11km, **n14**,σ0§**48**/24,**Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GEVA | Gevas | 0.27 | 170 | *i*P | Pn | 08 58 03.5 | +0.1 |
| GEVA | Gevas | 0.27 | 170 | P | Pn | 08 58 03.5 | +0.1 |
| VANB | Van | 0.30 | 86 | *e*PG | Pb | 08 58 02.6 | 0.0 |
| VANB | | | | *e*SG | Sn | 08 58 09.4 | -0.2 |
| VANB | Van | 0.30 | 86 | *e*Pg | Pb | 08 58 02.7 | 0.0 |
| VANB | | | | *e*Sg | Sn | 08 58 09.4 | -0.2 |
| ADCV | BITLIS_Adilcev | 0.32 | 317 | *i*P | Pn | 08 58 04.3 | +0.1 |
| ADCV | | | | *i*S | Sn | 08 58 09.8 | -0.2 |
| ADCV | BITLIS_Adilcev | 0.32 | 317 | P | Pn | 08 58 04.3 | +0.1 |
| ADCV | | | | S | Sn | 08 58 09.8 | -0.2 |
| TVAN | Van | 0.32 | 98 | *i*P | Pn | 08 58 04.0 | -0.3 |
| TVAN | | | | *i*S | Sn | 08 58 09.0 | -0.3 |
| TVAN | Van | 0.32 | 98 | P | Pn | 08 58 04.0 | -0.3 |
| TVAN | | | | S | Sn | 08 58 09.0 | -0.3 |
| CLDR | Caldiran | 0.91 | 51 | *e*PG | Pn | 08 58 12.2 | -0.2 |
| CLDR | | | | *e*SG | Sn | 08 58 26.0 | +1.3 |
| CLDR | Caldiran | 0.91 | 51 | *e*Pg | Pn | 08 58 12.2 | -0.2 |
| CLDR | | | | *e*Sg | Sn | 08 58 26.0 | +1.3 |
| AGRB | Hanur-Agry | 1.00 | 360 | *e*PG | Pn | 08 58 12.9 | -0.6 |
| AGRB | | | | *e*SG | Sb | 08 58 26.9 | +0.1 |
| AGRB | Hanur-Agry | 1.00 | 360 | *e*Pg | Pn | 08 58 12.9 | -0.6 |
| AGRB | | | | *e*Sg | Sb | 08 58 26.9 | +0.1 |
| TASB | TASBURUN-IGDIR | 1.70 | 34 | *e*PN | Pn | 08 58 22.9 | -0.2 |
| TASB | TASBURUN-IGDIR | 1.70 | 34 | *e*Pn | Pn | 08 58 22.9 | -0.2 |

**IDC 17 09:01:55.0**±3.9,**24.23S×176.58W,h0km,mb4.1/4, mb1 4.3/4,mb1mx3.8/31,mbtmp4.1/4,Error ellipse: s-maj=145.4km s-min=60.6km az=153.0,South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CTA | Charters Tower | 34.60 | 269 | P | P | 09 08 46.7 | +0.7 |
| | 3.3nm,0.6s,baz=110,slow=12,SNR=4.2 | | | | | | |
| STKA | Stephens Creek | 37.51 | 249 | P | P | 09 09 10.6 | -0.2 |
| | 0.7nm,0.5s,baz=88,slow=16,SNR=3.2 | | | | | | |
| ASAR | Alice Springs | 45.06 | 260 | P | P | 09 10 12.8 | -0.3 |
| | 1.7nm,0.4s,baz=99,slow=8.0,SNR=43 | | | | | | |
| WRA | Warramunga Arr | 45.50 | 265 | P | P | 09 10 15.9 | -0.7 |
| | 1.9nm,0.6s,baz=104,slow=8.0,SNR=25 | | | | | | |
| BRTR | Keskin Array B | 150.25 | 309 | PKPbc | PKPbc | 09 21 48.3 | -0.2 |
| | 0.9nm,0.7s,baz=45,slow=0.8,SNR=3.8 | | | | | | |

*NIED* **17** *09:07:00,37.10N×144.30E,h5km,Mw3.8 Best double couple: M₀5.31000×10¹⁴ NP1:φs11.00000°,δ19.00000°, λ-92.00000°. NP2:φs193.00000°,δ71.00000°, λ-89.00000°.*
*IDC* **17** *09:07:34.6±1.0,36.88N×144.64E,h0km,mb3.4/5, mb1 3.7/6,mb1mx3.5/31,mbtmp3.4/6,ML3.3/1,Error ellipse: s-maj=33.9km s-min=22.2km az=116.0*
*ISCJB* **17** *09:07:37.4±0.8,37.09N±0.06×144.35E±0.06,h26km, mb3.6/5,Error ellipse: s-maj=8.7km s-min=6.5km az=175.9*
*JMA* **17** *09:07:40.2±0.3,37.13N×144.27E,h46km,M3.7*

**ISC 17 09:07:38.9**±1.1,**37.08N**±0.08×**144.40E**±0.08,**h26**km,**n16**, σ1§**30**/24,**mb3.6/5**,**Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JIO | Ouri | 2.78 | 301 | *e*S | Sn | 09 08 52.9 | -1.4 |
| JFK | Kawauchi | 2.83 | 277 | P | Pn | 09 08 22.8 | +0.4 |
| JFK | | | | *e*S | Sn | 09 08 54.5 | -1.1 |
| ONAJ | Iwakimizuishiy | 2.88 | 272 | P | Pn | 09 08 23.2 | +0.1 |
| ONAJ | | | | S | Sn | 09 08 56.2 | -0.7 |
| JMK | Ichinoseki | 3.13 | 308 | S | Sn | 09 09 01.6 | -1.4 |
| JFT | Otama | 3.27 | 279 | P | Pn | 09 08 29.8 | +1.4 |
| JFT | | | | S | Sn | 09 09 06.4 | -0.1 |
| JOM | Ohasama | 3.42 | 315 | S | Sn | 09 09 08.0 | -2.1 |
| JAG | Ashikaga | 4.03 | 262 | P | Pn | 09 08 39.6 | +0.8 |
| JAG | | | | S | Sn | 09 09 24.3 | -0.8 |
| JRY | Ryogami san | 4.55 | 258 | P | Pn | 09 08 46.6 | +0.5 |
| JRY | | | | S | Sn | 09 09 36.6 | -1.5 |
| JOD2 | Odawara 2 | 4.66 | 249 | P | Pn | 09 08 48.2 | +0.6 |
| JOD2 | | | | S | Sn | 09 09 39.8 | -1.1 |
| MJAR | Matsushiro Arr | 5.00 | 266 | Pn | Pn | 09 08 53.5 | +1.3 |
| | 1.1nm,0.3s,baz=74,slow=10.0,SNR=13 | | | | | | |
| MJAR | | | | Sn | Sn | 09 09 50.1 | +1.0 |
| | 1.0nm,0.3s,baz=194,slow=22,SNR=5.2 | | | | | | |
| MAT | Matsushiro | 5.00 | 266 | P | Pn | 09 08 54.7 | +2.5 |
| MAT | | | | *e*S | Sn | 09 09 47.5 | -1.6 |
| MKAR | Makanchi Array | 46.11 | 303 | P | P | 09 16 02.2 | +1.4 |
| | 0.5nm,0.8s,baz=81,slow=8.9,SNR=5.5 | | | | | | |
| ILAR | Eielson Array | 48.18 | 32 | P | P | 09 16 16.8 | +0.3 |
| | 0.6nm,1.0s,baz=255,slow=5.7,SNR=4.2 | | | | | | |
| WRA | Warramunga Arr | 57.50 | 191 | P | P | 09 17 24.8 | -1.1 |
| | 0.5nm,0.6s,baz=11,slow=7.3,SNR=6.5 | | | | | | |
| ASAR | Alice Springs | 61.23 | 191 | P | P | 09 17 49.9 | -1.6 |
| | 0.2nm,0.4s,baz=13,slow=5.5,SNR=4.0 | | | | | | |
| YKA | Yellowknife Ar | 62.56 | 31 | P | P | 09 18 00.2 | +0.1 |
| | 0.3nm,1.0s,baz=299,slow=6.3,SNR=2.9 | | | | | | |

*ISCJB* **17** *09:15:17.8±0.8,38.14N±0.04×141.81E±0.09,h52km±7km, mb3.6/5,Error ellipse: s-maj=11.9km s-min=4.9km az=19.6*
*JMA* **17** *09:15:19.6±0.1,38.18N×141.70E,h50km±1km,M3.7*
*JMA Felt I J1.*
*IDC* **17** *09:15:20.8±1.2,38.09N×141.76E,h64km±8km,mb3.3/5

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SIMA | | | | | *e*Sg | **Sg** | **09 23 58.7** | **+0.6** |
| **DST** | **Dursunbey** | **0.56** | **22** | *e*PG | **Pg** | **09 23 52.4** | **-0.3** |
| DST | | | | *e*SG | **Sg** | **09 24 00.0** | **0.0** |
| **DST** | **Dursunbey** | **0.56** | **22** | *e*Pg | **Pg** | **09 23 52.4** | **-0.3** |
| DST | | | | *e*Sg | **Sg** | **09 24 00.0** | **0.0** |
| **MANT** | **Manisa** | **0.62** | **164** | *i* P | **Pg** | **09 23 54.0** | **0.0** |
| **MANT** | **Manisa** | **0.62** | **164** | P | **Pg** | **09 23 54.0** | **0.0** |
| **KULA** | **Kula-Manisa** | **0.63** | **157** | *e*PG | **Pg** | **09 23 53.5** | **-0.5** |
| KULA | | | | *e*SG | **Sg** | **09 24 02.3** | **+0.1** |
| **KULA** | **Kula-Manisa** | **0.63** | **157** | *e*Pg | **Pg** | **09 23 53.5** | **-0.5** |
| KULA | | | | *e*Sg | **Sg** | **09 24 02.3** | **+0.1** |
| **BALB** | **Balikesir** | **0.66** | **327** | *e*PG | **Pg** | **09 23 54.6** | **0.0** |
| BALB | | | | *e*SG | **Sb** | **09 24 04.3** | **-0.4** |
| **BALB** | **Balikesir** | **0.66** | **327** | *e*Pg | **Pg** | **09 23 54.6** | **0.0** |
| BALB | | | | *e*Sg | **Sb** | **09 24 04.3** | **-0.4** |
| **BALY** | **Balya** | **0.86** | **319** | *i* P | **Pg** | **09 23 58.6** | **+0.2** |
| **BALY** | **Balya** | **0.86** | **319** | P | **Pg** | **09 23 58.6** | **+0.2** |
| **GDZ** | **Gediz** | **0.88** | **90** | *i* P | **Pg** | **09 23 58.8** | **-0.1** |
| GDZ | | | | *i* S | **Sg** | **09 24 10.3** | **-0.2** |
| **GDZ** | **Gediz** | **0.88** | **90** | P | **Pg** | **09 23 58.8** | **-0.1** |
| GDZ | | | | S | **Sg** | **09 24 10.3** | **-0.2** |
| **TVSB** | **Tavsanli** | **0.94** | **67** | *e*PG | **Pg** | **09 23 59.7** | **-0.3** |
| **TVSB** | **Tavsanli** | **0.94** | **67** | *e*Pg | **Pg** | **09 23 59.7** | **-0.3** |
| **ORLT** | **Orhaneli** | **1.04** | **24** | *e*PG | **Pg** | **09 24 01.6** | **-0.4** |
| **ORLT** | **Orhaneli** | **1.04** | **24** | *e*Pg | **Pg** | **09 24 01.6** | **-0.4** |
| **KCTX** | **Karacabey (Bur** | **1.17** | **0** | *e*PN | **Pg** | **09 24 04.0** | **-0.4** |
| **KCTX** | **Karacabey (Bur** | **1.17** | **0** | *e*Pn | **Pg** | **09 24 04.0** | **-0.4** |
| **EDC** | **Edincik** | **1.31** | **344** | *e*PN | **Pn** | **09 24 06.4** | **+0.1** |
| **EDC** | **Edincik** | **1.31** | **344** | *e*Pn | **Pn** | **09 24 06.4** | **+0.1** |
| **IGD** | **Bursa** | **1.35** | **29** | *i* P | **Pn** | **09 24 06.5** | **-0.3** |
| **ARMT** | **Armutlu** | **1.53** | **15** | *e*PN | **Pn** | **09 24 09.7** | **+0.4** |
| **ARMT** | **Armutlu** | **1.53** | **15** | *e*Pn | **Pn** | **09 24 09.7** | **+0.4** |
| **BAYC** | **CANAKKALE_Bayr** | **1.54** | **296** | *i* P | **Pb** | **09 24 10.4** | **-0.1** |
| **BAYC** | **CANAKKALE_Bayr** | **1.54** | **296** | P | **Pb** | **09 24 10.4** | **-0.1** |
| **SBT5** | **Esenkoy-Cinarc** | **1.59** | **15** | *e*PN | **Pn** | **09 24 10.5** | **+0.4** |
| **SBT5** | **Esenkoy-Cinarc** | **1.59** | **15** | *e*Pn | **Pn** | **09 24 10.5** | **+0.4** |
| **CAVI** | **Cavuskoy** | **1.60** | **46** | *e*PN | **Pn** | **09 24 10.6** | **+0.3** |
| **CAVI** | **Cavuskoy** | **1.60** | **46** | *e*Pn | **Pn** | **09 24 10.6** | **+0.3** |
| **SBT3** | **Marmara-Eregli** | **1.81** | **351** | *e*PN | **Pn** | **09 24 13.8** | **+0.8** |
| **SBT3** | **Marmara-Eregli** | **1.81** | **351** | *e*Pn | **Pn** | **09 24 13.8** | **+0.8** |
| **GULT** | **Gulveren** | **2.14** | **51** | *e*PN | **Pn** | **09 24 18.3** | **+0.5** |
| **GULT** | **Gulveren** | **2.14** | **51** | *e*Pn | **Pn** | **09 24 18.3** | **+0.5** |

**WEL 17 09:24:49.1±0.8, 36°05S×177°28E, h33km, ML4.0/25, Error ellipse: s-maj=7.9km s-min=5.6km az=90.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HAZ** | **Te Kaha** | **1.75** | **167** | P* | Pn | 09 25 17.7 | +0.6 |
| HAZ | | | | S* | Sn | 09 25 39.1 | +0.9 |
| **RUGZ** | **Raukumara Rang** | **1.94** | **171** | *e*P* | Pn | 09 25 19.4 | -0.4 |
| **PKGZ** | **Pakihiroa** | **1.94** | **161** | *e*PN | Pn | 09 25 19.3 | -0.5 |
| **WMGZ** | **Waiomatatini S** | **1.98** | **153** | *e*Pn | Pn | 09 25 18.9 | -1.4 |
| WMGZ | | | | *e*SN | Sn | 09 25 42.4 | -1.7 |
| **TWGZ** | **Tauwhareparae** | **2.19** | **165** | *e*PN | Pn | 09 25 23.1 | -0.2 |
| TWGZ | | | | SN | Sn | 09 25 48.1 | -1.1 |
| TWGZ | | | | AML | AML | 09 25 51.0 | |
| **URZ** | **Urewera** | **2.21** | **183** | *e*P* | Pn | 09 25 24.0 | +0.6 |
| URZ | | | | S* | Sn | 09 25 48.8 | -0.7 |
| **MWZ** | **Matawai** | **2.29** | **175** | P* | Pn | 09 25 24.7 | +0.2 |
| MWZ | | | | S* | Sn | 09 25 50.8 | -0.8 |
| **CNGZ** | **Carnagh Statio** | **2.54** | **163** | *e*PN | Pn | 09 25 26.3 | -1.6 |
| **RIGZ** | **Rimuhau** | **2.68** | **172** | *e*PN | Pn | 09 25 28.0 | -1.9 |
| RIGZ | | | | AML | AML | 09 25 59.1 | |
| **MHGZ** | **Mahia Peninsul** | **3.13** | **171** | AML | AML | 09 26 04.4 | |
| **BKZ** | **Black Stump Fm** | **3.17** | **191** | *e*P* | Pn | 09 25 35.7 | -1.0 |
| **ARHZ** | **Aropaoanui** | **3.21** | **184** | *e*PN | Pn | 09 25 35.2 | -2.0 |
| **OTVZ** | **Oturere** | **3.36** | **202** | P* | Pn | 09 25 40.1 | +0.7 |
| **MCHZ** | **McNeill Hill** | **3.42** | **188** | AML | AML | 09 26 19.9 | |
| **KWHZ** | **Kaweka Forest** | **3.43** | **191** | *e*P* | Pn | 09 25 39.0 | -1.3 |
| **PXZ** | **Pawanui** | **3.98** | **185** | *e*PN | Pn | 09 25 43.4 | -4.4 |
| PXZ | | | | *e*SN | Sn | 09 26 25.2 | -8.2 |
| **WPHZ** | **Waipukurau** | **4.06** | **189** | AML | AML | 09 26 34.2 | |
| **TSZ** | **Takapari Road** | **4.13** | **194** | *e*PN | Pn | 09 25 46.6 | -3.3 |
| **PRHZ** | **Porangahau** | **4.24** | **187** | *e*PN | Pn | 09 25 46.3 | -5.0 |
| **BFZ** | **Birch Farm** | **4.69** | **190** | *e*PN | Pn | 09 25 52.8 | -4.8 |
| BFZ | | | | *e*SN | Sn | 09 26 43.1 | -7.7 |
| **MRZ** | **Mangatainoka R** | **4.79** | **196** | PN | Pn | 09 25 54.0 | -4.9 |
| MRZ | | | | SN | Sn | 09 26 45.1 | -8.2 |
| **TIWZ** | **Tintock** | **4.84** | **193** | *e*PN | Pn | 09 25 54.9 | -4.8 |
| **HOWZ** | **Holdsworth Sta** | **5.03** | **195** | *e*PN | Pn | 09 25 56.6 | -5.6 |
| **OGWZ** | **Otaki Gorge** | **5.04** | **199** | *e*PN | Pn | 09 25 57.2 | -5.1 |
| **KIW** | **Kapiti Island** | **5.15** | **200** | *e*PN | Pn | 09 25 59.1 | -4.8 |
| **MTW** | **Mount Morrison** | **5.28** | **195** | *e*PN | Pn | 09 25 59.6 | -6.1 |
| **CAW** | **Cannon Point** | **5.33** | **198** | *e*PN | Pn | 09 26 00.7 | -5.7 |
| **MSWZ** | **Moikau Station** | **5.58** | **196** | *e*PN | Pn | 09 26 03.5 | -6.3 |
| **TCW** | **Tory Channel** | **5.66** | **204** | *e*PN | Pn | 09 26 05.6 | -5.3 |
| **PLWZ** | **Palliser** | **5.73** | **195** | *e*PN | Pn | 09 26 05.0 | -6.9 |
| **TUWZ** | **Tuamarina** | **5.97** | **205** | *e*PN | Pn | 09 26 10.1 | -5.0 |
| **KHZ** | **Kahutara** | **6.99** | **203** | *e*PN | Pn | 09 26 23.2 | -5.8 |
| **OXZ** | **Oxford** | **8.31** | **207** | *e*PN | Pn | 09 26 39.9 | -7.3 |

*IDC **17** 09:38:57.9±4.8, 51°.65N×75°.26E, h0km, mb1 2.7/2, mb1mx2.6/32, mbtmp2.7/2, ML2.3/2, Error ellipse: s-maj=65.7km s-min=29.6km az=69.0*

**NNC 17 09:38:56.4±0.9, 51°.85N×75°.56E, h0km, mb3.0, mpv2.6, 6C-4D, Error ellipse: s-maj=39.1km s-min=4.7km az=28.0, Suspected Mining explosion., Eastern Kazakhstan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KURK** | **Kurchatov** | **2.23** | **119** | ⇑Pg | Pb | 09 39 37.1 | -0.5 |
| | 0.8nm,0.3s | | | | | | |
| KURK | | | | ⇑Lg | Lg | 09 40 04.5 | |
| | 5.9nm,0.4s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **2.24** | **122** | ⇓Pg | Pb | 09 39 38.0 | +0.4 |
| | 2.4nm,0.3s | | | | | | |
| KURBB | | | | ⇓Lg | Lg | 09 40 07.1 | |
| | 33nm,0.8s | | | | | | |
| **BVA0** | **Borovoye Array** | **3.38** | **292** | ⇑Pg | Pb | 09 39 57.7 | +0.7 |
| | 3.0nm,1.3s,baz=106,slow=14,SNR=10 | | | | | | |
| BVA0 | | | | ⇓Lg | Lg | 09 40 42.7 | |
| | 6.0nm,0.6s,baz=110,slow=27,SNR=9.2 | | | | | | |
| **BRVK** | **Borovoye** | **3.45** | **293** | ⇑Pg | Pb | 09 39 59.0 | +0.8 |
| | 1.7nm,0.7s | | | | | | |
| BRVK | | | | ⇑Lg | Lg | 09 40 45.5 | |
| | 11nm,0.7s | | | | | | |
| **I46RU** | **ZALESOVO INFRA** | **5.99** | **66** | *i* | | 10 16 50.0 | |
| | baz=249,slow=331,SNR=2.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **5.99** | **66** | Pn | Pn | 09 40 31.0 | +4.8 |
| | 0.2nm,0.3s,baz=260,slow=16,SNR=2.9 | | | | | | |
| **MK31** | **Makanchi Array** | **6.70** | **136** | Pn | Pn | 09 40 37.5 | +1.5 |
| | 0.2nm,0.6s,baz=114,slow=44,SNR=4.1 | | | | | | |
| MK31 | | | | ⇑Sn | Sn | 09 41 53.6 | +0.5 |
| | 0.5nm,0.6s,baz=106,slow=48,SNR=4.2 | | | | | | |
| MK31 | | | | ⇓Lg | Lg | 09 42 30.8 | |
| | 1.2nm,0.5s,baz=318,slow=25,SNR=6.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **6.70** | **136** | Pn | Pn | 09 40 36.8 | +0.8 |
| | 0.1nm,0.3s,baz=309,slow=10,SNR=3.5 | | | | | | |
| MKAR | | | | Sn | Sn | 09 41 54.2 | +1.1 |
| | 0.2nm,0.3s,baz=340,slow=24,SNR=5.0 | | | | | | |
| MKAR | | | | Lg | Lg | 09 42 26.5 | |
| | 0.2nm,0.3s,baz=318,slow=25,SNR=10 | | | | | | |

**MAN 17 09:54:39, 13°.86N×124°.16E, h13km, mb4.2, ML3.1, MS2.8, 2C, Luzon**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PVCP** | **Virac** | **0.26** | **181** | *e*P | Pb | 09 54 46.6 | +1.0 |
| PVCP | | | | *e*S | Sn | 09 54 54.0 | -0.5 |
| **CNP** | **Catarman** | **1.43** | **160** | *e*P | Pn | 09 55 04.1 | -0.5 |
| CNP | | | | *e*S | Sg | 09 55 25.3 | +0.2 |
| **AUQP** | **San Andres** | **1.54** | **250** | *e*P | Pg | 09 55 11.3 | +2.7 |
| **GQP** | **Guinayangan** | **1.67** | **272** | ⇑*e*P | Pn | 09 55 07.8 | -0.2 |
| GQP | | | | *e*S | Sb | 09 55 30.0 | -0.4 |
| **BOAC** | **Boac** | **2.29** | **260** | *e*P | Pb | 09 55 20.9 | +0.8 |
| BOAC | | | | *e*S | Sb | 09 55 47.8 | -0.6 |
| **RCP** | **Roxas** | **2.67** | **211** | ⇑*e*P | Pn | 09 55 22.8 | +1.0 |

*NEIC **17** 10:05:31.9±0.0, 18°.21N×67°.35W, h18km, MD2.9(RSPR), After RSPR.*

**RSPR 17 10:05:31.9, 18°.21N×67°.35W, h18km, MD2.9/11, 22C-15D, Mona Passage**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MPR** | **Mayaguez** | **0.20** | **90** | ⇓*e*P | Pb | 10 05 36.5 | 0.0 |
| MPR | | | | *e*S | Sg | 10 05 40.5 | +0.4 |
| **MPR** | **Mayaguez** | **0.20** | **90** | ⇓*e*P | Pb | 10 05 36.5 | 0.0 |
| **IDE** | **Isla Desecheo** | **0.21** | **325** | ⇓*e*P | Pb | 10 05 36.9 | 0.0 |
| **IDE** | **Isla Desecheo** | **0.21** | **325** | *e*S | Sg | 10 05 41.0 | +0.5 |
| **IDE** | **Isla Desecheo** | **0.21** | **325** | ⇓*i*P | Pb | 10 05 36.8 | -0.1 |
| **IDE** | **Isla Desecheo** | **0.21** | **325** | *e*S | Sg | 10 05 40.5 | 0.0 |
| **IDE** | **Isla Desecheo** | **0.21** | **325** | ⇓*i*P | Pb | 10 05 36.8 | -0.1 |
| IDE | | | | *e*S | Sg | 10 05 40.5 | 0.0 |
| IDE | | | | *e*S | Sb | 10 05 41.0 | +0.8 |
| **LSP** | **Las Mesas** | **0.25** | **98** | ⇑*e*P | Pg | 10 05 37.4 | -0.3 |
| **LSP** | **Las Mesas** | **0.25** | **98** | *e*S | Sb | 10 05 42.0 | +0.4 |
| **LSP** | **Las Mesas** | **0.25** | **98** | ⇑*e*P | Pg | 10 05 37.4 | -0.3 |
| **LSP** | **Las Mesas** | **0.25** | **98** | *e*S | Sg | 10 05 41.4 | -0.2 |
| **LSP** | **Las Mesas** | **0.25** | **98** | ⇑*e*P | Pg | 10 05 37.4 | -0.3 |
| LSP | | | | *e*S | Sg | 10 05 41.4 | -0.2 |
| LSP | | | | *e*S | Sb | 10 05 42.0 | +0.4 |
| **CRPR** | **Cabo Rojo, PR** | **0.30** | **132** | ⇓*e*P | Pg | 10 05 37.6 | -0.9 |
| **CRPR** | **Cabo Rojo, PR** | **0.30** | **132** | *e*S | Sg | 10 05 42.6 | -0.4 |
| **CRPR** | **Cabo Rojo, PR** | **0.30** | **132** | ⇑*e*P | Pg | 10 05 37.9 | -0.6 |
| **CRPR** | **Cabo Rojo, PR** | **0.30** | **132** | *e*S | Sg | 10 05 42.9 | -0.1 |
| **CRPR** | **Cabo Rojo, PR** | **0.30** | **132** | ⇑*e*P | Pg | 10 05 37.9 | -0.6 |
| CRPR | | | | *e*S | Sg | 10 05 42.6 | -0.4 |
| CRPR | | | | *e*S | Sb | 10 05 42.9 | -0.5 |
| **GBPR** | **Guanica, Bosqu** | **0.50** | **118** | ⇑*e*P | Pg | 10 05 41.0 | -1.0 |
| **GBPR** | **Guanica, Bosqu** | **0.50** | **118** | *e*S | Sg | 10 05 48.2 | -0.6 |
| **GBPR** | **Guanica, Bosqu** | **0.50** | **118** | ⇑*e*P | Pg | 10 05 41.2 | -0.8 |
| **GBPR** | **Guanica, Bosqu** | **0.50** | **118** | *e*S | Sg | 10 05 48.2 | -0.6 |
| **GBPR** | **Guanica, Bosqu** | **0.50** | **118** | ⇑*e*P | Pg | 10 05 41.2 | -0.8 |
| GBPR | | | | *e*S | Sg | 10 05 48.2 | -0.6 |
| **AOPR** | **Arecibo Observ** | **0.58** | **77** | ⇑*e*P | Pg | 10 05 42.3 | -1.2 |
| **AOPR** | **Arecibo Observ** | **0.58** | **77** | *e*S | Sg | 10 05 50.9 | -0.3 |
| **AOPR** | **Arecibo Observ** | **0.58** | **77** | ⇓*e*P | Pb | 10 05 42.2 | -1.2 |
| **AOPR** | **Arecibo Observ** | **0.58** | **77** | *e*S | Sg | 10 05 50.1 | -1.1 |
| **AOPR** | **Arecibo Observ** | **0.58** | **77** | ⇓*e*P | Pb | 10 05 42.2 | -1.2 |
| AOPR | | | | *e*S | Sg | 10 05 50.1 | -1.1 |
| AOPR | | | | *e*S | Sb | 10 05 50.9 | -0.4 |
| **OBIP** | **Obispado Ponce** | **0.72** | **103** | ⇑*e*P | Pb | 10 05 44.3 | -1.6 |
| **OBIP** | **Obispado Ponce** | **0.72** | **103** | *e*S | Sb | 10 05 54.1 | -1.4 |
| **OBIP** | **Obispado Ponce** | **0.72** | **103** | ⇓*e*P | Pb | 10 05 44.1 | -1.8 |
| **OBIP** | **Obispado Ponce** | **0.72** | **103** | *e*S | Sb | 10 05 53.9 | -1.6 |
| **OBIP** | **Obispado Ponce** | **0.72** | **103** | ⇑*e*P | Pb | 10 05 44.3 | -1.6 |
| OBIP | | | | *e*S | Sb | 10 05 53.9 | -1.6 |
| OBIP | | | | *e*S | Sg | 10 05 54.1 | -1.6 |
| **CELP** | **Cerrillos** | **0.74** | **100** | ⇑*i*P | Pb | 10 05 44.7 | -1.6 |
| CELP | | | | *e*S | Sb | 10 05 54.6 | -1.5 |
| **CELP** | **Cerrillos** | **0.74** | **100** | ⇓*i*P | Pb | 10 05 44.7 | -1.6 |
| CELP | | | | *e*S | Sb | 10 05 54.2 | -1.9 |
| **CELP** | **Cerrillos** | **0.74** | **100** | ⇑*e*P | Pb | 10 05 44.7 | -1.6 |
| **SJG** | **San Juan** | **1.14** | **95** | ⇑*e*P | Pn | 10 05 51.0 | -1.9 |
| **SJG** | **San Juan** | **1.14** | **95** | ⇓*i*P | Pn | 10 05 49.3 | -3.6 |
| **SJG** | **San Juan** | **1.14** | **95** | *e*S | Sb | 10 06 04.5 | -3.0 |
| **SJG** | **San Juan** | **1.14** | **95** | ⇑*e*P | Pn | 10 05 51.0 | -1.9 |
| SJG | | | | *e*S | Sb | 10 06 04.5 | -3.0 |
| **CBYP** | **Canovanas** | **1.42** | **87** | ⇓*e*P | Pn | 10 05 55.7 | -1.1 |
| **CBYP** | **Canovanas** | **1.42** | **87** | ⇑*e*P | Pn | 10 05 55.5 | -1.3 |
| **CBYP** | **Canovanas** | **1.42** | **87** | *e*S | Sn | 10 06 14.0 | -1.1 |
| **CBYP** | **Canovanas** | **1.42** | **87** | ⇓*e*P | Pn | 10 05 55.7 | -1.1 |
| CBYP | | | | *e*S | Sn | 10 06 14.0 | -1.1 |
| **HUMP** | **Col San Antoni** | **1.43** | **93** | ⇑*e*P | Pn | 10 05 56.1 | -0.7 |
| **HUMP** | **Col San Antoni** | **1.43** | **93** | ⇑*e*P | Pn | 10 05 56.0 | -0.9 |
| **HUMP** | **Col San Antoni** | **1.43** | **93** | *e*S | Sn | 10 06 14.9 | -0.2 |
| **HUMP** | **Col San Antoni** | **1.43** | **93** | ⇑*e*P | Pn | 10 05 56.1 | -0.7 |
| HUMP | | | | *e*S | Sn | 10 06 14.9 | -0.2 |
| **MTP** | **Monte Pirata** | **1.71** | **94** | ⇓*e*P | Pn | 10 06 00.7 | -0.1 |
| **MTP** | **Monte Pirata** | **1.71** | **94** | ⇑*e*P | Pn | 10 06 01.3 | +0.1 |
| **MTP** | **Monte Pirata** | **1.71** | **94** | *e*S | Sn | 10 06 21.5 | -0.6 |
| **MTP** | **Monte Pirata** | **1.71** | **94** | ⇓*e*P | Pn | 10 06 00.7 | -0.1 |
| MTP | | | | *e*S | Sn | 10 06 21.5 | -0.6 |
| **DR12** | **Loma Pena Alta** | **2.01** | **287** | ⇑*e*P | Pn | 10 06 03.6 | -1.4 |
| **DR12** | **Loma Pena Alta** | **2.01** | **287** | ⇑*e*P | Pn | 10 06 03.6 | -1.4 |

**IDC 17 10:08:11.9±2.6, 54°.31N×86°.00E, h0km, mb1 2.9/2, mb1mx2.7/43, mbtmp2.9/2, ML2.6/2, Error ellipse: s-maj=19.4km s-min=11.4km az=52.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **I46RU** | **ZALESOVO INFRA** | **0.78** | **243** | *i* | | 10 12 53.6 | |
| | baz=61,slow=337,SNR=0.9 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **0.78** | **243** | Pg | Pg | 10 08 25.8 | -1.0 |
| | 0.5nm,0.3s,baz=58,slow=16,SNR=5.1 | | | | | | |
| ZALV | | | | Lg | Lg | 10 08 38.1 | |
| | 3.0nm,0.3s,baz=64,slow=30,SNR=29 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **5.87** | **234** | Pn | Pn | 10 09 41.0 | +1.0 |
| | 0.1nm,0.3s,baz=49,slow=14,SNR=5.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **7.89** | **199** | Pn | Pn | 10 10 08.5 | +0.7 |
| | 0.1nm,0.3s,baz=16,slow=12,SNR=5.7 | | | | | | |

*NEIC **17** 10:09:41.8±0.0, 38°.20S×176°.14E, h145km, MG4.0(WEL), After WEL.*

**WEL 17 10:09:41.9±0.2, 38°.21S×176°.14E, h146km±2km, ML3.9/52, 23C-9D, Error ellipse: s-maj=1.2km s-min=1.1km az=90.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TARZ** | **Mount Tarawera** | **0.29** | **95** | PN | Pn | 10 10 02.2 | +0.2 |
| **RRRZ** | **Republican Roa** | **0.32** | **114** | PN | Pn | 10 10 01.9 | -0.1 |
| **PRRZ** | **Plateau Road** | **0.35** | **146** | PN | Pn | 10 10 02.1 | +0.1 |
| **ALRZ** | **Allen Road** | **0.39** | **156** | PN | Pn | 10 10 02.4 | +0.2 |
| **OPRZ** | **Ohinepanea** | **0.49** | **42** | ⇓PN | Pn | 10 10 02.6 | -0.1 |
| **MUGZ** | **Murupara** | **0.56** | **119** | PN | Pn | 10 10 03.3 | +0.2 |
| **MRHZ** | **Matea Rd** | **0.66** | **161** | PN | Pn | 10 10 03.7 | 0.0 |
| MRHZ | | | | SN | Sn | 10 10 19.7 | -0.7 |
| MRHZ | | | | AML | AML | 10 10 20.9 | |
| **TOZ** | **Tahuroa Road** | **0.70** | **313** | ⇓PN | Pn | 10 10 04.2 | +0.3 |
| **URZ** | **Urewera** | **0.76** | **94** | Pn | Pn | 10 10 03.7 | -0.6 |
| URZ | | | | Sn | Sn | 10 10 20.7 | -0.7 |
| **URZ** | **Urewera** | **0.76** | **94** | ⇓PN | Pn | 10 10 03.7 | -0.6 |
| URZ | | | | SN | Sn | 10 10 20.7 | -0.7 |
| URZ | | | | AML | AML | 10 10 21.9 | |
| **RTZ** | **Ruatahuna** | **0.77** | **122** | ⇑PN | Pn | 10 10 04.4 | -0.1 |
| RTZ | | | | SN | Sn | 10 10 21.7 | 0.0 |
| **RITZ** | **Rihia Road** | **0.80** | **196** | PN | Pn | 10 10 05.1 | +0.6 |
| **MTHZ** | **Maungataniwha** | **0.84** | **140** | ⇑PN | Pn | 10 10 05.1 | +0.1 |
| MTHZ | | | | SN | Sn | 10 10 22.4 | -0.2 |
| **KRVZ** | **Karewarewa** | **0.97** | **204** | PN | Pn | 10 10 06.0 | -0.1 |
| **BKZ** | **Black Stump Fm** | **0.99** | **164** | Pn | Pn | 10 10 06.0 | -0.3 |
| BKZ | | | | Sn | Sn | 10 10 23.9 | -1.0 |
| **BKZ** | **Black Stump Fm** | **0.99** | **164** | ⇓PN | Pn | 10 10 06.0 | -0.3 |
| BKZ | | | | SN | Sn | 10 10 24.0 | -0.9 |
| BKZ | | | | AML | AML | 10 10 27.7 | |
| **WTVZ** | **West Tongariro** | **1.00** | **205** | Pn | Pn | 10 10 06.3 | -0.1 |
| **WTVZ** | **West Tongariro** | **1.00** | **205** | ⇑PN | Pn | 10 10 06.3 | -0.1 |
| **TWVZ** | **Taurewa** | **1.02** | **212** | Pn | Pn | 10 10 06.5 | 0.0 |
| **TWVZ** | **Taurewa** | **1.02** | **212** | PN | Pn | 10 10 06.5 | 0.0 |
| **OTVZ** | **Oturere** | **1.02** | **201** | Pn | Pn | 10 10 06.7 | +0.1 |
| **OTVZ** | **Oturere** | **1.02** | **201** | ⇑PN | Pn | 10 10 06.7 | +0.1 |
| **NMHZ** | **Naumai** | **1.03** | **150** | Pn | Pn | 10 10 07.2 | +0.7 |
| **NMHZ** | **Naumai** | **1.03** | **150** | PN | Pn | 10 10 07.2 | +0.6 |
| NMHZ | | | | AML | AML | 10 10 28.5 | |
| NMHZ | | | | AML | AML | 10 10 28.0 | |
| **RAGZ** | **Rawiri** | **1.04** | **106** | AML | AML | 10 10 27.5 | |
| RAGZ | | | | AML | AML | 10 10 28.0 | |
| **NGZ** | **Ngauruhoe** | **1.05** | **204** | PN | Pn | 10 10 07.4 | +0.6 |
| **HIZ** | **Hauiti** | **1.06** | **253** | Pn | Pn | 10 10 07.0 | +0.3 |
| **HIZ** | **Hauiti** | **1.06** | **253** | ⇑PN | Pn | 10 10 07.0 | +0.3 |
| **MWZ** | **Matawai** | **1.10** | **97** | Pn | Pn | 10 10 06.7 | -0.4 |
| **MWZ** | **Matawai** | **1.10** | **97** | PN | Pn | 10 10 06.7 | -0.4 |
| MWZ | | | | AML | AML | 10 10 26.4 | |
| MWZ | | | | AML | AML | 10 10 26.7 | |
| **SNGZ** | **Shannon Statio** | **1.10** | **122** | Pn | Pn | 10 10 07.4 | +0.2 |
| SNGZ | | | | Sn | Sn | 10 10 26.4 | 0.0 |
| **SNGZ** | **Shannon Statio** | **1.10** | **122** | PN | Pn | 10 10 07.4 | +0.2 |
| SNGZ | | | | SN | Sn | 10 10 26.4 | 0.0 |
| SNGZ | | | | AML | AML | 10 10 28.3 | |
| **TUVZ** | **Tukino** | **1.12** | **200** | Pn | Pn | 10 10 07.5 | 0.0 |
| **TUVZ** | **Tukino** | **1.12** | **200** | PN | Pn | 10 10 07.5 | 0.0 |
| **FWVZ** | **Far West T-bar** | **1.14** | **204** | Pn | Pn | 10 10 07.5 | -0.3 |
| **FWVZ** | **Far West T-bar** | **1.14** | **204** | ⇓PN | Pn | 10 10 07.5 | -0.3 |
| **DRZ** | **Dome Shelter** | **1.16** | **203** | PN | Pn | 10 10 08.4 | +0.4 |
| **TRVZ** | **Turoa** | **1.18** | **203** | Pn | Pn | 10 10 07.9 | -0.2 |
| **TRVZ** | **Turoa** | **1.18** | **203** | PN | Pn | 10 10 07.9 | -0.2 |
| **WNVZ** | **Wahianoa** | **1.20** | **201** | Pn | Pn | 10 10 08.0 | -0.2 |
| **WNVZ** | **Wahianoa** | **1.20** | **201** | ⇑PN | Pn | 10 10 08.0 | -0.2 |
| **WHHZ** | **Waihua** | **1.22** | **136** | PN | Pn | 10 10 08.5 | +0.3 |
| WHHZ | | | | SN | Sn | 10 10 28.3 | 0.0 |
| WHHZ | | | | AML | AML | 10 10 31.4 | |
| **KWHZ** | **Kaweka Forest** | **1.23** | **170** | PN | Pn | 10 10 08.3 | -0.1 |
| KWHZ | | | | AML | AML | 10 10 30.7 | |
| KWHZ | | | | AML | AML | 10 10 33.7 | |
| **MOVZ** | **Moawhango** | **1.23** | **194** | Pn | Pn | 10 10 08.0 | -0.5 |
| **MOVZ** | **Moawhango** | **1.23** | **194** | ⇑PN | Pn | 10 10 07.9 | -0.5 |
| **RUGZ** | **Raukumara Rang** | **1.23** | **79** | ⇓PN | Pn | 10 10 07.2 | -1.3 |
| **ARHZ** | **Aropaoanui** | **1.25** | **148** | Pn | Pn | 10 10 08.9 | +0.4 |
| **ARHZ** | **Aropaoanui** | **1.25** | **148** | ⇑PN | Pn | 10 10 08.9 | +0.4 |
| ARHZ | | | | AML | AML | 10 10 29.8 | |
| ARHZ | | | | AML | AML | 10 10 32.8 | |
| **PKVZ** | **Pokaka** | **1.25** | **210** | Pn | Pn | 10 10 08.5 | -0.1 |
| **PKVZ** | **Pokaka** | **1.25** | **210** | PN | Pn | 10 10 08.5 | -0.1 |
| **BHHZ** | **Black Hill Sta** | **1.28** | **183** | Pn | Pn | 10 10 08.4 | -0.5 |
| **BHHZ** | **Black Hill Sta** | **1.28** | **183** | ⇑PN | Pn | 10 10 08.4 | -0.5 |
| BHHZ | | | | AML | AML | 10 10 31.0 | |
| BHHZ | | | | AML | AML | 10 10 33.3 | |
| **MTVZ** | **Mangateitei** | **1.29** | **204** | Pn | Pn | 10 10 08.8 | -0.2 |
| **MTVZ** | **Mangateitei** | **1.29** | **204** | PN | Pn | 10 10 08.8 | -0.2 |
| **MCHZ** | **McNeill Hill** | **1.31** | **161** | Pn | Pn | 10 10 09.6 | +0.5 |
| **MCHZ** | **McNeill Hill** | **1.31** | **161** | ⇑PN | Pn | 10 10 09.6 | +0.5 |
| MCHZ | | | | AML | AML | 10 10 10.7 | |
| MCHZ | | | | AML | AML | 10 10 38.9 | |
| **TKGZ** | **Te Karaka** | **1.36** | **100** | Pn | Pn | 10 10 09.7 | 0.0 |
| **TKGZ** | **Te Karaka** | **1.36** | **100** | PN | Pn | 10 10 09.6 | 0.0 |
| TKGZ | | | | AML | AML | 10 10 32.4 | |
| TKGZ | | | | AML | AML | 10 10 33.8 | |
| **RIGZ** | **Rimuhau** | **1.36** | **112** | PN | Pn | 10 10 09.9 | +0.2 |
| RIGZ | | | | AML | AML | 10 10 31.7 | |
| RIGZ | | | | AML | AML | 10 10 32.8 | |
| **VRZ** | **Vera Road** | **1.42** | **229** | Pn | Pn | 10 10 10.5 | +0.3 |
| **VRZ** | **Vera Road** | **1.42** | **229** | PN | Pn | 10 10 10.5 | +0.3 |
| **KRHZ** | **Kereru** | **1.44** | **173** | ⇑PN | Pn | 10 10 10.2 | -0.3 |
| KRHZ | | | | AML | AML | 10 10 34.1 | |
| KRHZ | | | | AML | AML | 10 10 35.6 | |
| **KNZ** | **Kokohu** | **1.45** | **125** | Pn | Pn | 10 10 10.2 | -0.3 |
| **KNZ** | **Kokohu** | **1.45** | **125** | PN | Pn | 10 10 10.2 | -0.3 |
| KNZ | | | | AML | AML | 10 10 34.9 | |
| KNZ | | | | AML | AML | 10 10 36.7 | |
| **TWGZ** | **Tauwhareparae** | **1.45** | **89** | Pn | Pn | 10 10 10.6 | 0.0 |
| TWGZ | | | | Sn | Sn | 10 10 33.0 | +0.5 |
| **TWGZ** | **Tauwhareparae** | **1.45** | **89** | ⇓PN | Pn | 10 10 10.6 | 0.0 |
| TWGZ | | | | SN | Sn | 10 10 33.0 | +0.5 |
| TWGZ | | | | AML | AML | 10 10 35.6 | |
| **KUZ** | **Kuaotunu** | **1.50** | **347** | Pn | Pn | 10 10 10.9 | -0.2 |
| **KUZ** | **Kuaotunu** | **1.50** | **347** | PN | Pn | 10 10 10.9 | -0.3 |
| **PRGZ** | **Paritu Road** | **1.54** | **118** | Pn | Pn | 10 10 11.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **DUWZ** | **D'Urville Isla** | **3.11 213** | PN | Pn | 10 10 27.4 | -3.1 |
| **TRWZ** | **Traveller** | **3.20 186** | Pn | Pn | 10 10 28.8 | -2.8 |
| **TRWZ** | **Traveller** | **3.20 186** | PN | Pn | 10 10 28.8 | -2.9 |
| TRWZ | | | AML | AML | 10 11 07.9 | |
| TRWZ | | | AML | AML | 10 11 08.1 | |
| **PAWZ** | **Paruwai Farm** | **3.22 190** | Pn | Pn | 10 10 28.7 | -3.2 |
| **PAWZ** | **Paruwai Farm** | **3.22 190** | PN | Pn | 10 10 28.7 | -3.2 |
| PAWZ | | | AML | AML | 10 11 08.4 | |
| PAWZ | | | AML | AML | 10 11 09.1 | |
| **WEL** | **Wellington** | **3.25 199** | Pn | Pn | 10 10 29.3 | -2.9 |
| **WEL** | **Wellington** | **3.25 199** | PN | Pn | 10 10 29.3 | -2.9 |
| WEL | | | AML | AML | 10 11 09.1 | |
| WEL | | | AML | AML | 10 11 09.7 | |
| **MSWZ** | **Moikau Station** | **3.28 192** | Pn | Pn | 10 10 29.4 | -3.2 |
| **MSWZ** | **Moikau Station** | **3.28 192** | PN | Pn | 10 10 29.3 | -3.2 |
| MSWZ | | | AML | AML | 10 11 08.6 | |
| MSWZ | | | AML | AML | 10 11 10.2 | |
| **TCW** | **Tory Channel** | **3.33 205** | Pn | Pn | 10 10 30.2 | -3.0 |
| **TCW** | **Tory Channel** | **3.33 205** | PN | Pn | 10 10 30.2 | -3.0 |
| TCW | | | AML | AML | 10 11 10.4 | |
| TCW | | | AML | AML | 10 11 12.0 | |
| **PLWZ** | **Palliser** | **3.42 191** | Pn | Pn | 10 10 31.1 | -3.5 |
| **PLWZ** | **Palliser** | **3.42 191** | PN | Pn | 10 10 31.1 | -3.5 |
| PLWZ | | | AML | AML | 10 11 12.9 | |
| PLWZ | | | AML | AML | 10 11 13.0 | |
| **TUWZ** | **Tuamarina** | **3.63 207** | Pn | Pn | 10 10 33.8 | -3.4 |
| **TUWZ** | **Tuamarina** | **3.63 207** | PN | Pn | 10 10 33.8 | -3.4 |
| TUWZ | | | AML | AML | 10 11 16.9 | |
| TUWZ | | | AML | AML | 10 11 17.1 | |
| **NNZ** | **Nelson** | **3.68 214** | Pn | Pn | 10 10 34.6 | -3.2 |
| **NNZ** | **Nelson** | **3.68 214** | PN | Pn | 10 10 34.6 | -3.2 |
| **QRZ** | **Quartz Range** | **3.83 226** | Pn | Pn | 10 10 36.2 | -3.5 |
| **QRZ** | **Quartz Range** | **3.83 226** | PN | Pn | 10 10 36.2 | -3.5 |
| **BSWZ** | **Blackbirch Sta** | **3.91 206** | Pn | Pn | 10 10 37.5 | -3.3 |
| **BSWZ** | **Blackbirch Sta** | **3.91 206** | PN | Pn | 10 10 37.5 | -3.3 |
| **THZ** | **Tophouse** | **4.33 214** | Pn | Pn | 10 10 43.2 | -3.2 |
| **THZ** | **Tophouse** | **4.33 214** | PN | Pn | 10 10 43.2 | -3.2 |
| **KHZ** | **Kahutara** | **4.65 205** | Pn | Pn | 10 10 46.7 | -3.8 |
| **KHZ** | **Kahutara** | **4.65 205** ‖ | PN | Pn | 10 10 46.7 | -3.8 |
| KHZ | | | AML | AML | 10 11 40.0 | |
| **DSZ** | **Denniston Nort** | **4.86 222** | Pn | Pn | 10 10 48.5 | -4.8 |
| **DSZ** | **Denniston Nort** | **4.86 222** | PN | Pn | 10 10 48.5 | -4.8 |
| **LTZ** | **Lake Taylor** | **5.44 212** | Pn | Pn | 10 10 56.0 | -5.0 |
| **LTZ** | **Lake Taylor** | **5.44 212** | PN | Pn | 10 10 56.7 | -4.3 |
| **INZ** | **Inchbonnie** | **5.76 217** | PN | Pn | 10 10 59.7 | -5.5 |
| **OXZ** | **Oxford** | **5.99 210** | Pn | Pn | 10 11 02.7 | -5.5 |
| **OXZ** | **Oxford** | **5.99 210** | PN | Pn | 10 11 02.7 | -5.6 |
| **MQZ** | **McQueen's Vall** | **6.09 205** | Pn | Pn | 10 11 04.0 | -5.7 |
| **MQZ** | **McQueen's Vall** | **6.09 205** | PN | Pn | 10 11 04.0 | -5.7 |
| **RPZ** | **Rata Peaks** | **6.71 213** | Pn | Pn | 10 11 13.1 | -4.9 |
| **RPZ** | **Rata Peaks** | **6.71 213** | PN | Pn | 10 11 13.1 | -4.9 |
| **FOZ** | **Fox Glacier** | **7.16 220** | Pn | Pn | 10 11 17.8 | -6.1 |
| **FOZ** | **Fox Glacier** | **7.16 220** | PN | Pn | 10 11 17.8 | -6.1 |
| **ODZ** | **Otahua Downs** | **7.97 209** | Pn | Pn | 10 11 29.6 | -5.2 |
| **ODZ** | **Otahua Downs** | **7.97 209** | PN | Pn | 10 11 29.6 | -5.2 |
| **JCZ** | **Jackson Bay** | **8.07 221** | Pn | Pn | 10 11 31.4 | -4.8 |
| **JCZ** | **Jackson Bay** | **8.07 221** | PN | Pn | 10 11 31.4 | -4.8 |

**MEX 17 10:14:01.6±1.0, 17°.97N×99°.10W, h64km±17km, MD3.8, Guerrero**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MEIG** | **Mezcala** | **0.49** | **265** | *eP* | Pn | 10 14 12.7 | -1.2 |
| MEIG | | | | *eS* | Sn | 10 14 21.3 | -1.6 |
| **PLIG** | **Platanillo** | **0.57** | **318** | *eP* | Pn | 10 14 13.1 | -1.6 |
| PLIG | | | | *eS* | Sn | 10 14 21.8 | -2.5 |
| **TLIG** | **Tlapa** | **0.65** | **128** | *eP* | Pn | 10 14 14.8 | -0.9 |
| TLIG | | | | *eS* | Sn | 10 14 24.5 | -1.5 |
| **ARIG** | **Puente Sto Nin** | **1.22** | **285** | *eP* | Pn | 10 14 21.8 | -0.9 |
| ARIG | | | | *eS* | Sn | 10 14 37.9 | -0.7 |
| **CAIG** | **El Cayaco** | **1.44** | **231** | *eP* | Pn | 10 14 22.8 | -2.8 |
| CAIG | | | | *eP* | Sn | 10 14 41.0 | -2.7 |

*BJI* ***17*** *10:18:17.9, 32°.43S×178°.23W, h15km, mb5.2/17, mB5.6/12, Ms5.3/9, Ms7 5.0/9*

*NEIC* ***17*** *10:18:19.9±2.5, 32°.85S×178°.60W, h20km±15km, mb5.0/31, Error ellipse: s-maj=7.4km s-min=5.9km az=166.0*

*ISCJB* ***17*** *10:18:19.9±0.2, 33°.02S±0°.03×178°.53W±0°.05, h32km, mb5.0/57, MS4.5/24, Error ellipse: s-maj=6.2km s-min=3.1km az=28.5*

*GCMT* ***17*** *10:18:19.9±0.2, 32°.69S×178°.11W, h24km, MW5.1/89, Moment Tensor Solution. s57,c79; s89,c134; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr4.77±.23; Mθθ-0.45±.14; Mφφ-4.33±.14; Mrθ 1.00±.22; Mrφ-1.12±.10; Mθφ3.98±.20; Best double couple: M₀6.23900×10¹⁶ NP1:φs14.00000°, δ66.00000°, λ90.00000°. NP2: φs196.00000°, δ24.00000°, λ91.00000°. Principal axes: T 6.3100, Plg69.0000°, Azm283.0000°; N -0.1470, Plg0.0000°, Azm15.0000°; P -6.1690, Plg21.0000°, Azm105.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*IDC* ***17*** *10:18:20.7±1.9, 32°.62S×178°.62W, h23km±11km, mb4.5/15, mb1 4.7/17, mb1mx4.5/34, mbtmp4.7/17, ML4.9/2, MS4.5/21, Ms1 4.5/21, ms1mx4.3/33 Error ellipse: s-maj=16.4km s-min=13.2km az=169.0*

*MOS* ***17*** *10:18:21.2±1.1, 32°.64S×178°.67W, h36km, mb5.3/30, MS4.7/6, Error ellipse: s-maj=12.0km s-min=10.6km az=63.6*

**ISC 17 10:18:21.2±0.3, 32°.84S±0°.05×178°.44W±0°.06, h32km, n324, σ1§82/329, mb5.1/56, MS4.6/24, 6C-4D, South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **3.60** | **7** | Pn | **Pn** | **10 19 13.5** | **-1.3** |
| | 151nm,0.3s,baz=229,slow=17,SNR=6.8 | | | | | | |
| RAO | | | | Sn | **Sn** | **10 19 51.5** | **-4.8** |
| | 524nm,0.3s,baz=149,slow=18,SNR=6.9 | | | | | | |
| **RAO** | **Raoul Island** | **3.60** | **7** | *e*Pn | **Pn** | **10 19 11.2** | **-3.6** |
| RAO | | | | *e*Sn | **Sn** | **10 19 54.7** | **-1.6** |
| **MXZ** | **Matakaoa Point** | **5.41** | **209** | *e*Pn | **Pn** | **10 19 38.1** | **-1.7** |
| **MXZ** | **Matakaoa Point** | **5.41** | **209** | PN | **Pn** | **10 19 38.0** | **-1.7** |
| MXZ | | | | SN | **Sn** | **10 20 43.0** | **+2.2** |
| **WMGZ** | **Waiomatatini S** | **5.60** | **207** | PN | **Pn** | **10 19 41.2** | **-1.0** |
| **PKGZ** | **Pakihiroa** | **5.79** | **209** | PN | **Pn** | **10 19 43.1** | **-1.7** |
| **HAZ** | **Te Kaha** | **5.80** | **211** | PN | **Pn** | **10 19 43.9** | **-1.1** |
| **PUZ** | **Puketiti** | **5.88** | **206** | PN | **Pn** | **10 19 43.8** | **-2.2** |
| **RUGZ** | **Raukumara Rang** | **6.02** | **211** | PN | **Pn** | **10 19 47.1** | **-1.0** |
| **TWGZ** | **Tauwhareparae** | **6.07** | **208** | PN | **Pn** | **10 19 47.1** | **-1.7** |
| **KUZ** | **Kuaotunu** | **6.19** | **229** | PN | **Pn** | **10 19 52.4** | **+2.1** |
| **CNGZ** | **Carnagh Station** | **6.26** | **205** | PN | **Pn** | **10 19 49.5** | **-1.8** |
| **TKGZ** | **Te Karaka** | **6.35** | **207** | PN | **Pn** | **10 19 50.1** | **-2.4** |
| TKGZ | | | | SN | **Sn** | **10 21 05.9** | **+1.9** |
| **MWZ** | **Matawai** | **6.39** | **210** | PN | **Pn** | **10 19 51.5** | **-1.6** |
| **OPRZ** | **Ohinepanea** | **6.46** | **218** | PN | **Pn** | **10 19 55.3** | **+1.3** |
| **URZ** | **Urewera** | **6.51** | **213** | Pn | **Pn** | **10 19 54.0** | **-0.8** |
| | 14nm,0.3s,baz=281,slow=3.6,SNR=94 | | | | | | |
| URZ | | | | Sn | **Sn** | **10 21 09.4** | **+1.4** |
| | 23nm,0.3s,baz=181,slow=7.5,SNR=7.9 | | | | | | |
| **URZ** | **Urewera** | **6.51** | **213** | *e*Pn | **Pn** | **10 19 54.8** | **+0.1** |
| URZ | | | | *e*Sn | **Sn** | **10 21 08.8** | **+0.9** |
| **URZ** | **Urewera** | **6.51** | **213** | PN | **Pn** | **10 19 52.5** | **-2.2** |
| **RIGZ** | **Rimuhau** | **6.62** | **207** | *e*Pn | **Pn** | **10 19 53.9** | **-2.3** |
| **WCZ** | **Waipu Caves** | **6.72** | **241** | PN | **Pn** | **10 20 01.0** | **+3.4** |
| **PRGZ** | **Paritu Road** | **6.76** | **205** | PN | **Pn** | **10 19 55.4** | **-2.8** |
| **SNGZ** | **Shannon Statio** | **6.85** | **209** | PN | **Pn** | **10 19 59.5** | **+0.1** |
| **MHGZ** | **Mahia Peninsul** | **6.96** | **204** | *e*Pn | **Pn** | **10 19 58.0** | **-3.0** |
| **OUZ** | **Omahuta** | **7.03** | **248** | *e*Pn | **Pn** | **10 20 00.1** | **-1.7** |
| **OUZ** | **Omahuta** | **7.03** | **248** | PN | **Pn** | **10 20 07.0** | **+5.2** |
| **MTHZ** | **Maungataniwha** | **7.12** | **211** | PN | **Pn** | **10 20 03.8** | **+0.7** |
| **WHHZ** | **Waihua** | **7.14** | **208** | PN | **Pn** | **10 20 02.4** | **-1.0** |
| **NMHZ** | **Naumai** | **7.34** | **210** | PN | **Pn** | **10 20 05.8** | **-0.4** |
| **ARHZ** | **Aropaoanui** | **7.40** | **209** | PN | **Pn** | **10 20 07.4** | **+0.4** |
| **BKZ** | **Black Stump Fm** | **7.53** | **212** | *e*Pn | **Pn** | **10 20 06.8** | **-2.0** |
| **BKZ** | **Black Stump Fm** | **7.53** | **212** | PN | **Pn** | **10 20 06.8** | **-2.0** |
| **MCHZ** | **McNeill Hill** | **7.68** | **209** | PN | **Pn** | **10 20 10.2** | **-0.5** |
| **KWHZ** | **Kaweka Forest** | **7.78** | **211** | PN | **Pn** | **10 20 10.3** | **-1.9** |
| **HIZ** | **Hauiti** | **7.86** | **222** | *e*Pn | **Pn** | **10 20 12.2** | **-1.2** |
| **HIZ** | **Hauiti** | **7.86** | **222** | PN | **Pn** | **10 20 15.8** | **+2.5** |
| **KAHZ** | **Kahuranaki** | **7.90** | **207** | PN | **Pn** | **10 20 09.7** | **-4.2** |
| **OTVZ** | **Oturere** | **7.92** | **215** | PN | **Pn** | **10 20 13.7** | **-0.4** |
| **BHHZ** | **Black Hill Sta** | **7.99** | **212** | PN | **Pn** | **10 20 13.8** | **-1.3** |
| **WNVZ** | **Wahianoa** | **8.07** | **215** | PN | **Pn** | **10 20 15.2** | **-1.2** |
| **PNHZ** | **Pukenui** | **8.28** | **210** | PN | **Pn** | **10 20 16.7** | **-2.4** |
| **TSZ** | **Takapari Road** | **8.50** | **210** | PN | **Pn** | **10 20 20.4** | **-1.7** |
| **BFZ** | **Birch Farm** | **8.91** | **207** | *e*Pn | **Pn** | **10 20 25.4** | **-2.3** |
| BFZ | | | | *e*Sn | **Sn** | **10 22 02.9** | **-4.1** |
| **BFZ** | **Birch Farm** | **8.91** | **207** | PN | **Pn** | **10 20 23.3** | **-4.4** |
| **MRZ** | **Mangatainoka R** | **9.16** | **210** | PN | **Pn** | 10 20 26.3 | -4.8 |
| **HOWZ** | **Holdsworth Sta** | **9.39** | **209** | PN | **Pn** | **10 20 30.2** | **-4.0** |
| **OGWZ** | **Otaki Gorge** | **9.46** | **211** | PN | **Pn** | 10 20 29.7 | -5.5 |
| **KIW** | **Kapiti Island** | **9.62** | **212** | PN | **Pn** | **10 20 35.5** | **-1.8** |
| **SNZO** | **South Karori** | **10.07** | **211** | *e*Pn | **Pn** | **10 20 42.4** | **-1.1** |
| SNZO | | | | *e*Sn | **Sn** | **10 22 27.6** | **-7.8** |
| **TUWZ** | **Tuamarina** | **10.51** | **213** | PN | **Pn** | **10 20 46.2** | **-3.3** |
| **CTZ** | **Chatham Island** | **10.97** | **173** | *e*PN | **Pn** | **10 20 52.5** | **-3.4** |
| CTZ | | | | SN | Sn | 10 22 43.3 | -14 |
| **THZ** | **Tophouse** | **11.26** | **215** | *e*Pn | **Pn** | **10 20 59.0** | **-0.9** |
| THZ | | | | *e*Sn | **Sn** | **10 22 59.7** | **-4.8** |
| **KHZ** | **Kahutara** | **11.48** | **211** | PN | **Pn** | **10 20 58.7** | **-4.1** |
| **OXZ** | **Oxford** | **12.87** | **213** | *e*Pn | **Pn** | **10 21 19.4** | **-2.4** |
| OXZ | | | | *e*Sn | Sn | 10 23 34.0 | -10 |
| **OXZ** | **Oxford** | **12.87** | **213** | PN | Pn | 10 21 16.7 | -5.2 |
| **RPZ** | **Rata Peaks** | **13.63** | **214** | Pn | **Pn** | **10 21 28.9** | **-3.3** |
| | 1.6nm,0.3s,baz=17,slow=2.2,SNR=9.3 | | | | | | |
| RPZ | | | | Sn | Sn | 10 23 53.0 | -9.4 |
| | 1.8nm,0.3s,baz=314,slow=22,SNR=7.0 | | | | | | |
| **LBZ** | **Lake Benmore** | **14.54** | **214** | *e*Pn | **Pn** | **10 21 44.6** | **-0.1** |
| LBZ | | | | *e*Sn | **Sn** | **10 24 23.4** | **-1.3** |
| **ODZ** | **Otahua Downs** | **14.84** | **212** | *e*Pn | **Pn** | **10 21 46.7** | **-2.0** |
| **ODZ** | **Otahua Downs** | **14.84** | **212** | PN | **Pn** | **10 21 44.3** | **-4.4** |
| **DZM** | **Mont Dzumac** | **17.16** | **305** | LR | LR | 10 27 52.1 | |
| | comp=Z,7μm,18.7s,baz=136,slow=34 | | | | | | |
| **DZM** | **Mont Dzumac** | **17.16** | **305** | *e*P | **P** | **10 22 21.9** | **+1.8** |
| | 401nm,1.2s | | | | | | |
| DZM | | | | *e*LR | LR | 10 26 09.3 | |
| | 6μm,22.9s | | | | | | |
| **AFI** | **Afiamalu** | **19.80** | **19** | P | **P** | **10 22 49.2** | **+0.1** |
| | 3.1nm,0.3s,baz=30,slow=23,SNR=4.4 | | | | | | |
| **AFI** | **Afiamalu** | **19.80** | **19** | *e*P | **P** | **10 22 49.6** | **+0.5** |
| **AFI** | **Afiamalu** | **19.80** | **19** | *e*P | **P** | **10 22 49.6** | **+0.5** |
| **RAR** | **Rarotonga** | **20.23** | **60** | P | Pn | 10 22 56.0 | +0.3 |
| | 17nm,0.9s,baz=228,slow=9.9,SNR=3.8 | | | | | | |
| RAR | | | | LR | LR | 10 31 32.9 | |
| | comp=Z,761nm,18.1s,baz=230,slow=39 | | | | | | |
| **MGCD** | **Mangrove Creek** | **25.50** | **261** | P | **P** | **10 23 51.0** | **+4.4** |
| | baz=26 | | | | | | |
| **ARMA** | **Armidale** | **25.57** | **267** | P | **P** | **10 23 51.0** | **+3.6** |
| | baz=26,SNR=5.9 | | | | | | |
| **ARMA** | **Armidale** | **25.57** | **267** | *e*P | **P** | **10 23 47.2** | **-0.2** |
| | 28nm,1.0s | | | | | | |
| **CNB** | **Canberra Magne** | **26.73** | **256** | P | **P** | **10 24 01.3** | **+3.4** |
| | baz=27,SNR=4.5 | | | | | | |
| **CAN** | **Canberra** | **27.02** | **256** | P | **P** | **10 23 59.8** | **-0.7** |
| CAN | | | | pmax | pmax | | |
| | comp=Z,45nm,1.5s | | | | | | |
| **CAN** | **Canberra** | **27.02** | **256** | P | **P** | **10 23 59.8** | **-0.7** |
| | comp=Z,45nm,1.5s | | | | | | |
| **TBI** | **Tubuai** | **27.18** | **77** | *e*S | **S** | **10 28 42.9** | **+4.3** |
| | comp=Z,1μm,25.2s | | | | | | |
| TBI | | | | *e*LR | LR | 10 30 46.9 | |
| | comp=Z,1μm,29.2s,baz=238 | | | | | | |
| **TBI** | **Tubuai** | **27.18** | **77** | *e*T | T | 10 51 53.3 | |
| | comp=Z,11nm,0.3s | | | | | | |
| **EIDS** | **Eidsvold** | **27.59** | **278** | P | **P** | **10 24 07.7** | **+2.1** |
| | baz=28,SNR=4.2 | | | | | | |
| **EIDS** | **Eidsvold** | **27.59** | **278** | *e*P | **P** | **10 24 04.6** | **-0.9** |
| | comp=Z,53nm,1.1s | | | | | | |
| **YNG** | **Young** | **27.61** | **258** | P | **P** | **10 24 08.9** | **+3.1** |
| | baz=28,SNR=9.1 | | | | | | |
| **TAU** | **Tasmania Unive** | **28.67** | **240** | *e*P | **P** | **10 24 13.7** | **-1.3** |
| TAU | | | | pmax | pmax | | |
| | comp=Z,57nm,1.2s | | | | | | |
| **TAU** | **Tasmania Unive** | **28.67** | **240** | *e*P | **P** | **10 24 13.7** | **-1.3** |
| | comp=Z,57nm,1.2s | | | | | | |
| **RMQ** | **Roma** | **29.12** | **274** | P | **P** | **10 24 22.5** | **+3.2** |
| | baz=29,SNR=9.4 | | | | | | |
| **PAE** | **Paea** | **30.03** | **67** | *e*T | T | 10 55 22.2 | |
| | comp=Z,3.3nm,0.3s | | | | | | |
| **PPT2** | **Papeete2** | **30.08** | **67** | *e*LQ | LQ | 10 30 31.8 | |
| | comp=Z,736nm,22.8s | | | | | | |
| PPT2 | | | | *e*LR | LR | 10 32 07.0 | |
| | comp=Z,1μm,24.5s,baz=228 | | | | | | |
| **PPT2** | **Papeete2** | **30.08** | **67** | *e*T | T | 10 55 26.2 | |
| | comp=Z,4.6nm,0.3s | | | | | | |
| **PPT** | **Papeete** | **30.09** | **67** | LR | LR | 10 33 21.8 | |
| | comp=Z,592nm,21.8s,baz=239,slow=30 | | | | | | |
| **TVO** | **Taravao** | **30.22** | **67** | *e*T | T | 10 55 35.6 | |
| | comp=Z,1.1nm,0.4s | | | | | | |
| **CMSA** | **Cohar Meteorol** | **30.30** | **263** | P | **P** | **10 24 32.5** | **+2.8** |
| | baz=30,SNR=9.5 | | | | | | |
| **ARPS** | **Mount Arapiles** | **32.69** | **252** | P | **P** | **10 24 52.1** | **+1.5** |
| | baz=33,SNR=7.5 | | | | | | |
| **QLP** | **Quilpie** | **32.90** | **271** | P | **P** | **10 24 54.4** | **+1.9** |
| | baz=33,SNR=15 | | | | | | |
| **VAH** | **Vaihoa** | **32.98** | **65** | *e*T | T | 10 59 01.5 | |
| | comp=Z,8.9nm,0.3s | | | | | | |
| **STKA** | **Stephens Creek** | **33.64** | **261** | P | **P** | **10 24 59.7** | **+0.7** |
| | comp=Z,6.6nm,0.9s,baz=77,slow=11,SNR=6.6 | | | | | | |
| STKA | | | | LR | LR | 10 38 09.1 | |
| | comp=Z,2μm,18.0s,baz=88,slow=35 | | | | | | |
| **STKA** | **Stephens Creek** | **33.64** | **261** | P | **P** | **10 25 01.1** | **+2.2** |
| | baz=34,SNR=4.7 | | | | | | |
| **STKA** | **Stephens Creek** | **33.64** | **261** | *e*P | **P** | **10 24 59.1** | **+0.2** |
| | comp=Z,9.1nm,1.6s | | | | | | |
| **CTA** | **Charters Tower** | **33.90** | **283** | P | **P** | **10 25 02.0** | **+0.6** |
| | comp=Z,35nm,0.9s,baz=113,slow=11,SNR=22 | | | | | | |
| CTA | | | | LR | LR | 10 37 33.4 | |
| | comp=Z,898nm,20.4s,baz=136,slow=34 | | | | | | |
| **CTAO** | **Charters Tower** | **33.90** | **283** | P | **P** | **10 24 59.7** | **-1.7** |
| CTAO | | | | pmax | pmax | | |
| | comp=Z,144nm,1.4s | | | | | | |
| **CTAO** | **Charters Tower** | **33.90** | **283** | P | **P** | **10 24 59.7** | **-1.7** |
| | comp=Z,144nm,1.4s | | | | | | |
| **MTSU** | **Mount Surprise** | **36.47** | **284** | P | **P** | **10 25 25.5** | **+2.1** |
| | baz=36,SNR=11 | | | | | | |
| **BBOO** | **Buckleboo** | **38.01** | **257** | P | **P** | **10 25 36.7** | **+0.3** |
| | baz=38 | | | | | | |
| **BBOO** | **Buckleboo** | **38.01** | **257** | *e*P | **P** | **10 25 36.7** | **+0.3** |
| | comp=Z,11nm,0.8s | | | | | | |
| **QIS** | **Mount Isa** | **39.19** | **277** | P | **P** | **10 25 47.2** | **+0.7** |
| | baz=39,SNR=9.6 | | | | | | |
| **RKT** | **Rikitea** | **39.35** | **87** | *e*LR | LR | 10 36 32.9 | |
| | comp=Z,1μm,27.5s | | | | | | |
| **RKT** | **Rikitea** | **39.35** | **87** | *e*T | T | 11 07 11.6 | |
| | comp=Z,0.7nm,0.3s | | | | | | |
| **PMG** | **Port Moresby** | **39.38** | **298** | *e*P | **P** | **10 25 47.4** | **-0.6** |
| PMG | | | | pmax | pmax | | |
| | comp=Z,90nm,1.0s | | | | | | |
| **PMG** | **Port Moresby** | **39.38** | **298** | *e*P | **P** | **10 25 47.3** | **-0.7** |
| | comp=Z,35nm,0.9s | | | | | | |
| **RABL** | **Rabaul** | **39.59** | **310** | *e*P | **P** | **10 25 48.6** | **-1.2** |
| | comp=Z,70nm,0.8s | | | | | | |
| **COEN** | **Coen** | **39.65** | **289** | *e*P | **P** | **10 25 49.7** | **-0.6** |
| | comp=Z,39nm,0.9s | | | | | | |
| **AS01** | **Alice Springs** | **42.63** | **270** | *e*P | **P** | **10 26 14.8** | **0.0** |
| **TAOE** | **Nuku Hiva Isla** | **42.65** | **65** | *e*S | **S** | **10 32 37.8** | **+1.5** |
| | comp=Z,259nm,24.9s | | | | | | |
| TAOE | | | | *e*LR | LR | 10 37 52.8 | |
| | comp=Z,676nm,27.0s,baz=233 | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **42.65** | **65** | *e*P | **P** | **10 26 12.8** | **-2.2** |
| **AS31** | **Alice Springs** | **42.67** | **270** | *e*P | **P** | **10 26 15.3** | **+0.2** |
| | comp=Z,15nm,0.8s | | | | | | |
| **ASAR** | **Alice Springs** | **42.67** | **270** | P | **P** | **10 26 15.2** | **+0.2** |
| | comp=Z,19nm,0.8s,baz=107,slow=7.5,SNR=122 | | | | | | |
| ASAR | | | | ScP | **ScP** | **10 31 57.0** | **+1.8** |
| | comp=Z,0.8nm,0.8s,baz=117,slow=3.3,SNR=3.5 | | | | | | |
| ASAR | | | | S | **S** | **10 32 35.5** | **-1.0** |
| | comp=Z,4.6nm,0.9s,baz=110,slow=16,SNR=11 | | | | | | |
| ASAR | | | | LR | LR | 10 43 41.5 | |
| | comp=Z,624nm,18.6s,baz=116,slow=36 | | | | | | |
| **ASAR** | **Alice Springs** | **42.67** | **270** | P | **P** | **10 26 15.3** | **+0.2** |
| ASAR | | | | S | **S** | **10 32 35.5** | **-1.0** |
| ASAR | | | | pmax | pmax | | |
| | comp=Z,20nm,0.8s | | | | | | |
| ASAR | | | | smax | smax | | |
| | comp=N,5.0nm,1.0s | | | | | | |
| ASAR | | | | MLR | MLR | | |
| | comp=Z,624nm,18.6s | | | | | | |
| **WB2** | **Warramunga Arr** | **43.87** | **275** | *e*P | **P** | **10 26 24.6** | **-0.1** |
| | comp=Z,165nm,1.4s | | | | | | |
| WB2 | | | | *e*S | **S** | **10 32 58.3** | **+4.2** |
| **WRAB** | **Tennant Creek** | **43.87** | **275** | *c i*P | **P** | **10 26 24.7** | **-0.1** |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,65nm,1.2s | | | | | | |
| **WRAB** | **Tennant Creek** | **43.87** | **275** | *e*P | **P** | **10 26 24.7** | **-0.1** |
| | comp=Z,154nm,1.4s | | | | | | |
| **WRA** | **Warramunga Arr** | **43.88** | **275** | P | **P** | **10 26 24.3** | **-0.6** |
| | comp=Z,31nm,0.7s,baz=116,slow=7.5,SNR=129 | | | | | | |
| WRA | | | | ScP | **ScP** | **10 32 01.8** | **+1.6** |
| | comp=Z,3.2nm,1.2s,baz=118,slow=3.3,SNR=4.5 | | | | | | |
| WRA | | | | S | **S** | **10 32 53.0** | **-1.1** |
| | comp=Z,1.2nm,0.8s,baz=105,slow=14,SNR=5.5 | | | | | | |
| WRA | | | | LR | LR | 10 43 14.2 | |
| | comp=Z,765nm,21.8s,baz=120,slow=34 | | | | | | |
| **FORT** | **Forrest** | **45.11** | **258** | P | **P** | **10 26 34.5** | **-0.1** |
| | baz=45 | | | | | | |
| **SBA** | **Scott Base** | **45.58** | **184** | *e*P | P | 10 26 32.0 | -5.7 |
| SBA | | | | pmax | pmax | | |
| | comp=Z,26nm,1.1s | | | | | | |
| **SBA** | **Scott Base** | **45.58** | **184** | *e*P | P | 10 26 32.0 | -5.7 |
| | comp=Z,26nm,1.1s | | | | | | |
| **VNDA** | **Vanda** | **45.64** | **186** | P | **P** | **10 26 41.0** | **+2.9** |
| | comp=Z,1.6nm,0.8s,baz=359,slow=7.4,SNR=5.1 | | | | | | |
| VNDA | | | | LR | LR | 10 42 47.1 | |
| | comp=Z,429nm,18.7s,baz=11,slow=32 | | | | | | |
| **VNDA** | **Vanda** | **45.64** | **186** | P | **P** | **10 26 41.0** | **+2.9** |
| | comp=Z,10nm,1.3s | | | | | | |
| **WRKA** | **Warakurna** | **46.85** | **265** | P | **P** | **10 26 47.9** | **-0.5** |
| | baz=47,SNR=17 | | | | | | |
| **MTN** | **Manton Dam** | **50.04** | **281** | P | **P** | **10 27 12.7** | **-0.3** |
| | baz=50,SNR=8.1 | | | | | | |
| **MTN** | **Manton Dam** | **50.04** | **281** | *e*P | **P** | **10 27 12.3** | **-0.8** |
| | comp=Z,41nm,0.9s | | | | | | |
| **KNRA** | **Kununurra** | **50.56** | **277** | P | **P** | **10 27 17.2** | **+0.2** |
| | baz=50,SNR=4.5 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **52.03** | **272** | P | **P** | **10 27 27.6** | **-0.3** |
| | comp=Z,17nm,0.8s,baz=132,slow=6.9,SNR=31 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **52.03** | **272** | P | **P** | **10 27 27.7** | **-0.3** |
| | baz=52,SNR=19 | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **53.23** | **251** | LR | LR | 10 49 27.2 | |
| | comp=Z,490nm,18.8s,baz=318,slow=35 | | | | | | |
| **FAKI** | **Fak Fak** | **54.87** | **292** | *e*P | **P** | **10 27 47.3** | **-1.6** |
| | comp=Z,26nm,0.9s | | | | | | |
| **MORW** | **Morawa** | **55.51** | **255** | P | **P** | **10 27 53.3** | **-0.1** |
| | baz=56 | | | | | | |
| **MBWA** | **Marble Bar** | **55.63** | **266** | *e*P | **P** | **10 27 52.9** | **-1.4** |
| | comp=Z,19nm,1.1s | | | | | | |
| **QSPA** | **South Pole Qui** | **57.28** | **180** | *e*P | **P** | **10 28 07.6** | **+2.1** |
| | comp=Z,263nm,1.1s | | | | | | |
| **SOEI** | **Soe** | **57.37** | **280** | *e*P | **P** | **10 28 05.3** | **-1.5** |
| | comp=Z,92nm,1.1s | | | | | | |
| **MIR** | **Mirnyy** | **59.79** | **208** | *e*P | **P** | **10 28 21.5** | **-1.3** |
| MIR | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.8s | | | | | | |
| **KAPI** | **Kappang** | **63.70** | **282** | P | **P** | **10 28 50.0** | **0.0** |
| **MAW** | **Mawson** | **69.90** | **201** | P | **P** | **10 29 30.2** | **+1.6** |
| | comp=Z,16nm,1.1s,baz=112,slow=9.5,SNR=2.9 | | | | | | |
| MAW | | | | LR | LR | 10 58 53.8 | |
| | comp=Z,654nm,20.4s,baz=92,slow=35 | | | | | | |
| **MAW** | **Mawson** | **69.90** | **201** | *e*P | **P** | **10 29 30.5** | **+1.9** |
| MAW | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.1s | | | | | | |
| **MAW** | **Mawson** | **69.90** | **201** | *e*P | **P** | **10 29 30.5** | **+1.9** |
| | comp=Z,4.3nm,1.1s | | | | | | |
| **SNAA** | **Sanae** | **75.73** | **179** | P | **P** | **10 30 04.7** | **+1.5** |
| **SNAA** | **Sanae** | **75.73** | **179** | *e*P | **P** | **10 30 04.2** | **+1.0** |
| SNAA | | | | pmax | pmax | | |
| | comp=Z,45nm,1.3s | | | | | | |
| **SNAA** | **Sanae** | **75.73** | **179** | *e*P | **P** | **10 30 04.2** | **+1.0** |
| | comp=Z,45nm,1.3s | | | | | | |
| **VNA3** | **Neumayer Olymp** | **75.90** | **176** | P | **P** | **10 30 04.8** | **+0.6** |
| **VNA2** | **Neumayer--Watz** | **76.33** | **177** | P | **P** | **10 30 07.6** | **+1.0** |
| | baz=175,slow=4.4 | | | | | | |
| **NVL** | **N'lazarevskaya** | **76.43** | **183** | *e*P | P | 10 30 12.8 | +5.7 |
| NVL | | | | MLR | MLR | | |
| | comp=Z,575nm,20.0s | | | | | | |
| **VNA1** | **Neumayer--Stat** | **76.56** | **177** | P | **P** | **10 30 09.5** | **+1.6** |
| **MJAR** | **Matsushiro Arr** | **80.04** | **326** | P | **P** | **10 30 25.5** | **-1.9** |
| | comp=Z,2.1nm,1.0s,baz=171,slow=4.9,SNR=3.7 | | | | | | |
| MJAR | | | | LR | LR | 11 01 50.5 | |
| | comp=Z,185nm,21.0s,baz=125,slow=33 | | | | | | |
| **MAJO** | **Matsushiro** | **80.04** | **326** | *e*P | **P** | **10 30 23.7** | **-3.8** |
| MAJO | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.0s | | | | | | |
| **PLCA** | **Paso Flores** | **81.12** | **133** | P | **P** | **10 30 35.0** | **+1.5** |

comp=Z,7.1nm,1.1s
**J08A Circle Bar Ran 93.55 39** *e*P P **10 31 35.1 +1.3**
comp=Z,6.1nm,1.1s
**MTPU Mount Pierson 93.64 46** *e*P P **10 31 37.4 +2.6**
comp=Z,16nm,1.6s
**CMAR Chiang Mai Arr 93.86 289** PP PP 10 35 22.9 +1.0
comp=Z,0.5nm,0.3s,baz=140,slow=5.8,SNR=6.4
**TXAR Lajitas Array 94.01 58** P P **10 31 37.4 +1.1**
comp=Z,0.4nm,0.8s,baz=215,slow=10,SNR=3.9
TXAR LR LR 11 06 54.3
comp=Z,193nm,18.9s,baz=0.0,slow=31
**BJI Beijing 94.40 316** P P **10 31 38.8 +1.2**
BJI S S **10 42 53.0 +5.7**
BJI SS SS **10 49 06.8 -3.8**
BJI pmax pmax
comp=Z,6.0nm,1.1s
BJI pmax pmax
comp=Z,140nm,5.1s
BJI LR LR
comp=Z,280nm,20.0s
BJI LR LR
comp=Z,190nm,20.9s
BJI LR LR
comp=Z,180nm,25.7s
**KMI Kunming 94.59 297** P P **10 31 41.3 +2.1**
KMI pmax pmax
comp=Z,12nm,0.6s
**MFID Camas Ranch 95.01 41** *e*P P **10 31 41.3 +0.7**
**ANMO Albuquerque 95.38 52** *e*P P **10 31 38.4 -4.2**
ANMO pmax pmax
comp=Z,1.0nm,1.0s
**HLID Hailey 95.89 41** *e*P P **10 31 45.6 +0.9**
**LPAZ La Paz 97.48 115** LR LR 11 06 24.1
comp=Z,63nm,20.5s,baz=230,slow=30
**PDAR Pinedale Array 98.15 44** P Pdif 10 31 55.4 +0.4
comp=Z,0.5nm,0.8s,baz=201,slow=7.9,SNR=4.6
PDAR LR LR 11 09 07.1
comp=Z,220nm,20.4s,baz=278,slow=31
**SEY Seymchan 98.26 347** LR LR 11 11 18.3
comp=Z,370nm,21.4s,baz=150,slow=32
**CPUP Villa Florida 98.75 129** LR LR 11 10 53.3
comp=Z,178nm,18.6s,baz=226,slow=32
**LZH Lanzhou 99.87 307** *e*P **Pdif 10 32 05.0 +2.2**
LZH pP pP 10 32 08.8 -4.3
LZH sP sP 10 32 12.3 -4.4
LZH pmax pmax
comp=Z,16nm,1.1s
**ILAR Eielson Array 100.38 13** P **Pdif 10 32 04.3 +0.2**
comp=Z,0.9nm,0.9s,baz=215,slow=6.2,SNR=2.8
**SONM Songino Array 104.69 318** PKKPbc PKKPbc 10 48 20.6 +12
comp=Z,0.3nm,0.6s,baz=181,slow=1.6,SNR=3.7
**YKA Yellowknife Ar 107.80 26** PKiKP **PKiKP 10 36 43.7 -0.6**
comp=Z,0.3nm,0.7s,baz=245,slow=1.4,SNR=7.5
YKA PP **PP 10 37 09.0 +2.5**
comp=Z,0.4nm,1.0s,baz=258,slow=7.0,SNR=4.3
YKA PKKPbc **PKKPab 10 48 08.7 -0.7**
comp=Z,0.5nm,0.8s,baz=45,slow=3.3,SNR=6.0
**TIXI Tiksi 110.51 344** *i* PKiKP **PKiKP 10 36 48.0 -1.2**
**WMQ Urumqi 114.43 308** *e*PKP PKPdf 10 36 57.3 -0.3
WMQ LR LR
comp=Z,190nm,18.9s
WMQ LR LR
comp=Z,160nm,17.9s
WMQ LR LR
comp=Z,150nm,20.9s
**DGZ Jazzator, Alta 116.73 314** *i* PKiKP **PKPdf 10 36 59.6 -2.4**
**MK01 Makanchi Array 119.02 309** *e*PKPdf **PKPdf 10 37 05.3 -1.0**
**MK31 Makanchi Array 119.04 309** *i* PKiKP **PKPdf 10 37 05.0 -1.4**
MK31 pmax pmax
comp=Z,7.0nm,1.1s
**MK31 Makanchi Array 119.04 309** *e*PKPdf **PKPdf 10 37 05.6 -0.7**
**MKAR Makanchi Array 119.04 309** PKP **PKPdf 10 37 05.7 -0.7**
comp=Z,2.5nm,0.8s,baz=217,slow=1.5,SNR=17
MKAR PKKPbc **PKKPab 10 47 21.0 0.0**
comp=Z,0.5nm,0.8s,baz=27,slow=3.0,SNR=3.6
**ZALV Zalesovo Beam 119.59 318** PKP **PKPdf 10 37 05.9 -1.2**
comp=Z,1.9nm,0.7s,baz=123,slow=1.4,SNR=8.7
**ZALV Zalesovo Beam 119.59 318** *e*PKPdf **PKPdf 10 37 06.8 -0.4**
**RES Resolute Bay 119.68 18** PKP **PKPdf 10 37 06.1 -0.6**
comp=Z,3.4nm,0.9s,baz=11,slow=4.5,SNR=6.6
**PDGK Podgornoye 119.84 305** PKiKP **PKPdf 10 37 07.2 -1.0**
PDGK pmax pmax
comp=Z,9.0nm,1.1s
**NVS Novosibirsk 120.72 318** *e*PKiKP **PKPdf 10 37 08.8 -0.4**
NVS pmax pmax
comp=Z,17nm,1.7s
NVS pmax pmax
comp=E,9.0nm,1.5s
**KSH Kashi 121.14 299** *e*PKP **PKPdf 10 37 08.8 -2.0**
KSH PP **PP 10 38 44.9 +3.3**
KSH PKS **PKSdf 10 40 43.8 -3.7**
KSH SKPS **SKSdf 10 44 15.8 -4.7**
KSH SKKS **SKKSac 10 45 32.8 -5.5**
KSH SS **SS 10 55 13.8 +0.9**
KSH AMB AMB
comp=E,110nm,4.2s
KSH LR LR
comp=E,100nm,5.1s
KSH LR LR
comp=E,110nm,5.2s
KSH LR LR
comp=E,220nm,5.7s
**TKM2 Tokmak 2 122.43 303** PKiKP **PKPdf 10 37 12.5 -0.8**
TKM2 pmax pmax
comp=Z,9.0nm,1.0s
**TKM2 Tokmak 2 122.43 303** P **PKPdf 10 37 13.8 +0.5**
SNR=7.0
**KURK Kurchatov 122.45 313** *i* PKiKP **PKPdf 10 37 11.4 -1.3**
**KURK Kurchatov 122.45 313** *e*PKPdf **PKPdf 10 37 11.9 -0.8**
**UCH Uchtor 123.01 302** P **PKPdf 10 37 15.5 +0.8**
SNR=10.0
**CHMS Chumysh 123.05 303** P **PKPdf 10 37 14.9 +0.7**
SNR=6.0
**SFK Sufi-Kurgan 123.10 299** PKiKP **PKPdf 10 37 13.8 -0.9**
SFK pmax pmax
comp=Z,13nm,1.1s
**AAK Ala-Archa 123.13 303** PKP **PKPdf 10 37 14.7 +0.1**
comp=Z,2.2nm,0.6s,baz=167,slow=5.9,SNR=6.3
**AAK Ala-Archa 123.13 303** *i* PKiKP **PKPdf 10 37 12.4 -2.2**
**AAK Ala-Archa 123.13 303** *e*PKPdf **PKPdf 10 37 15.4 +0.8**
**AML Almayashu 123.56 302** P **PKPdf 10 37 16.8 +1.1**
SNR=9.6
**EKS2 Erkin-Say 123.65 302** P **PKPdf 10 37 16.6 +1.1**
SNR=5.3
**MNAS Manas 124.51 302** PKiKP **PKPdf 10 37 16.6 -0.6**
MNAS pmax pmax
comp=Z,13nm,1.1s
**KBL Kabul 124.81 292** *e*PKiKP **PKPdf 10 37 18.5 +0.4**
**KBL Kabul 124.81 292** *e*PKPdf **PKPdf 10 37 18.5 +0.4**
**KK31 Karatay Array 126.08 302***c i*PKiKP **PKPdf 10 37 19.8 -0.2**
KK31 pmax pmax
comp=Z,7.0nm,0.7s
**BRVK Borovoye 127.93 315** *e*PKiKP **PKPdf 10 37 23.3 +0.1**
**BRVK Borovoye 127.93 315** *e*PKPdf **PKPdf 10 37 23.3 +0.1**
**KMBO Kilima Mbogo 132.31 232** PKP **PKPdf 10 37 34.5 +1.4**
comp=Z,0.5nm,0.3s,baz=79,slow=3.1,SNR=4.4
KMBO SKPbc **SKPab 10 40 59.8 +1.3**
comp=Z,12nm,1.1s,baz=114,slow=4.3,SNR=22
**SVE Sverdlovsk 133.53 319** *e*PKiKP **PKPdf 10 37 35.2 +1.6**
SVE pmax pmax
comp=Z,15nm,1.1s
**AB31 Akbulak array 134.18 309***c i*PKiKP **PKPdf 10 37 35.4 +0.3**
AB31 pmax pmax
comp=Z,5.0nm,0.9s
**GEYT Alibeck 134.21 293** PKP **PKPdf 10 37 36.4 +0.8**
comp=Z,2.7nm,0.7s,baz=59,slow=3.8,SNR=4.8
GEYT SKPbc **SKPbc 10 41 03.5 +0.8**
comp=Z,2.5nm,0.8s,baz=113,slow=2.3,SNR=3.8
**ARU Arti 134.71 319** PKP **PKPdf 10 37 36.3 +0.4**
comp=Z,2.4nm,0.3s,baz=96,slow=0.9,SNR=7.7
**ARU Arti 134.71 319** *i* PKiKP **PKPdf 10 37 36.3 +0.4**
ARU 10 40 07.6
ARU SS SS 10 57 55.6 -4.4
**ARU Arti 134.71 319** *e*PKPdf **PKPdf 10 37 38.0 +2.2**
**AKTO Aktyubinsk 135.43 311** PKiKP **PKPdf 10 37 36.2 -1.2**
AKTO pmax pmax
comp=Z,8.0nm,1.3s
**ARCES ARCESS Array B 140.88 347** PKhKP PKPpre 10 37 44.0
comp=Z,3.7nm,0.8s,baz=3.3,slow=4.7,SNR=4.8
ARCES PKP **PKPdf 10 37 47.9 +1.0**
comp=Z,5.4nm,0.7s,baz=356,slow=1.6,SNR=4.2
**KLMR Klimovskoe 142.71 330** *e*PKHKP PKPpre 10 37 43.4
KLMR pmax pmax
comp=Z,15nm,0.9s
**MAK Makhachkala 142.77 299** *e*P **Pdif 10 35 11.2 -1.9**
MAK *e* 10 40 58.1
MAK *e*PPP PPP 10 44 06.1
MAK *e*SS SS 10 59 32.2 -3.8
**GNI Garni 144.81 294** *i* PKiKP **PKPab 10 37 52.1 -1.9**
**ZEI Tsey 145.43 299** *i* PKiKP **PKPdf 10 37 55.1 -0.9**
ZEI pmax pmax
comp=Z,9.0nm,0.9s
**VRH Novokhopyorsk 145.52 314** *e*PKiKP **PKPdf 10 37 54.8 -0.8**
VRH pmax pmax
comp=Z,50nm,0.9s
**NCK Nalchik 145.61 300** *i* PKP2 **PKPdf 10 37 53.3 -2.7**
**GOF Gofitskoye 145.87 303**‖ *e*PKP2 **PKPbc 10 37 56.9 -0.2**
GOF pmax pmax
comp=Z,131nm,1.5s
**MOS Moscow 146.10 323** *e*PKP2 **PKPdf 10 37 56.4 0.0**
MOS pmax pmax
comp=Z,300nm,1.3s
MOS pmax pmax
comp=Z,201nm,1.0s
**KBZ Khabaz 146.10 301** PKPbc **PKPdf 10 37 56.9 +0.1**
comp=Z,21nm,1.1s,baz=40,slow=2.5,SNR=9.1
**KIV Kislovodsk 146.23 301**‖ *i* PKP2 **PKPbc 10 37 58.3 0.0**
KIV *e* 10 41 21.5
KIV pmax pmax
comp=Z,24nm,1.3s
**NEY Neytrino 146.26 300** *i* PKP2 **PKPab 10 37 59.4 +0.1**
**LPSR Galich'ya Gora 146.70 318** *e*PKP2 **PKPbc 10 37 58.7 -0.5**
LPSR pmax pmax
comp=Z,150nm,1.4s
**ARTV Artvin 146.95 296** *e*PKPdf **PKPbc 10 38 00.7 +0.1**
**PUL Pulkovo 147.03 333** *i* PKP2 **PKPbc 10 38 00.6 +0.7**
**VSR Storozhevoye 147.04 315** *e*PKP2 **PKPdf 10 37 59.0 +0.8**
VSR pmax pmax
comp=Z,70nm,1.1s
**FIA1 FINESS Array S 147.28 338** *e*PKPdf **PKPbc 10 37 59.6 -1.0**
FIA1 *e*PKPdf **PKPdf 10 38 00.2 +1.9**
**FINES FINESS Array B 147.29 338** PKPbc **PKPbc 10 38 00.7 0.0**
comp=Z,54nm,0.8s,baz=64,slow=4.4,SNR=69
**MARD Mardin 147.76 289** *e*PKPbc **PKPbc 10 38 03.3 +0.4**
**VSU Vasula 149.27 334** *i* PKP2 **PKPbc 10 38 05.8 -0.1**
**ANN Anapa 149.85 304** *i* PKP2 **PKPbc 10 38 07.1 -0.7**
ANN pmax pmax
comp=Z,59nm,0.8s
**NB2 NORSAR Subarra151.09 350** PKP **PKPbc 10 38 10.1 -0.2**
comp=Z,46nm,1.4s,baz=17,slow=2.6
**NB2 NORSAR Array B151.09 350** PKPbc **PKPbc 10 38 10.1 -0.2**
baz=17,slow=2.6
**NOA NORSAR Array B151.09 350** PKPbc **PKPbc 10 38 10.3 +0.1**
comp=Z,12nm,0.7s,baz=14,slow=4.1,SNR=40
**IZAR Zarasai 151.36 330** *e*P **PKPbc 10 38 10.8 -0.2**
IZAR lAmb lAmb 10 38 26.1
comp=Z,42nm,1.1s
**IDID Didziasalis 151.45 329** *e*P **PKPbc 10 38 11.5 +0.3**
IDID lAmb lAmb 10 38 26.3
comp=Z,34nm,1.0s
**MICGM Minsk 151.46 327** *e* **PKPbc 10 38 12.0 +0.7**
**MNK Minsk 151.46 327** *e*PKiKP **PKPbc 10 38 12.0 +0.7**
**ISAL Salakas 151.53 330** *e*P **PKPbc 10 38 11.5 +0.1**
ISAL lAmb lAmb 10 38 26.5
comp=Z,22nm,1.0s
**IIGN Ignalina 151.64 330** *e*P **PKPbc 10 38 11.6 0.0**
IIGN lAmb lAmb 10 38 26.8
comp=Z,40nm,0.9s
**NACGM Naroch 151.70 329** *e* **PKPbc 10 38 11.0 -0.8**
**LIC Lamto 152.82 166** *e*PKiKP **PKPdf 10 38 09.2 +0.8**
comp=Z,35nm,0.9s
**AKASG Malin Array Be 152.96 320** PKPbc **PKPbc 10 38 15.0 +0.2**
comp=Z,17nm,1.0s,baz=51,slow=2.6,SNR=36
**AKASG Malin Array Be 152.96 320** PKiKP **PKPbc 10 38 15.0 +0.2**
AKASG pmax pmax
comp=Z,17nm,1.0s
**AKBB Malin Array Si 152.96 320** *e*PKiKP **PKPbc 10 38 14.9 +0.1**
**AKBB Malin Array Si 152.96 320** *e*PKPbc **PKPbc 10 38 14.9 +0.1**
**AK11 Malin Array Si 153.00 320** *e*PKPbc **PKPbc 10 38 14.8 0.0**
**KIC Kosan Boka 153.01 166** *e*PKiKP **PKPdf 10 38 09.3 +0.6**
comp=Z,36nm,1.2s
**TIC Toumodi 153.23 165** *e*PKiKP **PKPdf 10 38 09.7 +0.6**
**DBIC Dimbokro 153.28 166** PKP **PKPdf 10 38 09.8 +0.7**
comp=Z,2.3nm,0.7s,baz=206,slow=6.8,SNR=8.3
DBIC PKPbc **PKiKP 10 38 17.3 +0.5**
comp=Z,3.2nm,0.6s,baz=146,slow=4.0,SNR=5.5
**BR131 Keskin Array S 153.34 294** *e*PKPbc **PKPbc 10 38 15.9 -0.3**
**BRTR Keskin Array B 153.34 294** PKPbc **PKPbc 10 38 15.9 -0.3**
comp=Z,8.7nm,0.9s,baz=135,slow=3.7,SNR=29
**CSS Mathiatis 153.60 283** *e*PKPbc **PKPbc 10 38 17.4 +0.6**
**SUW Suwalki 153.84 330** *e*PKP **PKPbc 10 38 17.8 +1.2**
**SUW Suwalki 153.84 330** *e*PKiKP **PKPbc 10 38 17.8 +1.2**
**ANTO Ankara 153.98 295** *e*PKiKP **PKPbc 10 38 18.4 +0.9**
**ANTO Ankara 153.98 295** *e*PKPbc **PKPbc 10 38 18.4 +0.9**
**BR231 Keskin MP Arra 154.00 294** *e*PKPbc **PKPbc 10 38 15.7 -1.8**
**VOIR 157.96 312**‖ *i*P PKPab 10 39 06.5 +19
**ARR Arges 158.25 312**‖ *i*P PKPab 10 39 03.7 +15
**DRGR 158.69 317**‖ *i*P **PKPab 10 38 51.2 +0.3**
**KECS Kecovo 158.87 323** *e*PKP2 **PKPab 10 38 52.6 +1.1**
**KECS Kecovo 158.87 323** *e*PKP **PKPab 10 38 52.6 +1.1**
**KSP Ksiaz 159.00 333** *e*PKP **PKPdf 10 38 09.8 -5.7**
**KSP Ksiaz 159.00 333** *e*PKiKP **PKPdf 10 38 09.8 -5.7**
**OKC Ostrava-Krasne 159.02 329** *e*PKPAB **PKPab 10 38 49.9 -2.2**
**OKC Ostrava-Krasne 159.02 329** *e*PKP2 **PKPab 10 38 49.9 -2.2**
**DPC Dobruska-Polom 159.38 332** *e*PKPAB **PKPab 10 38 53.2 -0.5**
DPC *ex* x 10 39 06.7
**DPC Dobruska-Polom 159.38 332** *e*PKP2 **PKPab 10 38 53.2 -0.5**
**VYHS Vyhne 159.67 325** *e*PKP2 **PKPab 10 38 55.0 0.0**
**VYHS Vyhne 159.67 325** *e*PKP **PKPab 10 38 55.0 0.0**
**CLL Collm 159.73 339** *i* PKP2 **PKPab 10 38 54.4 -0.7**
CLL pmax pmax
comp=Z,36nm,1.7s
**CLL Collm 159.73 339** *i* PKPab **PKPab 10 38 54.4 -0.7**
comp=Z,36nm,1.7s
CLL *i* 10 39 07.6
CLL LmV 11 58 00.0
comp=Z,200nm,19.7s
**CLL Collm 159.73 339** *e*PKPab **PKPab 10 38 55.0 -0.1**
**BRG Berggiesshubel 159.81 337** *e*PKP **PKPab 10 38 54.9 -0.6**
comp=Z,12nm,1.1s
BRG *i* 10 39 02.5
comp=Z,22nm,1.2s
**BRG Berggiesshubel 159.81 337** *e*PKP **PKPab 10 38 54.9 -0.6**
comp=Z,12nm,1.1s
BRG *i* 10 39 02.5
comp=Z,22nm,1.2s
**BRG Berggiesshubel 159.81 337** *e*PKP2 **PKPab 10 38 54.9 -0.6**
**HERR Herculane 159.86 313**‖ *i*P PKPab 10 39 09.4 +13
**VRAC Vranov 160.09 330**‖ *i*P **PKPab 10 38 56.8 0.0**
**GOPC GO Pecny, Ondr 160.32 334** *e*PKPAB **PKPab 10 38 57.1 -0.7**
GOPC *ex* x 10 39 10.3
**GOPC GO Pecny, Ondr 160.32 334** *e*PKP2 **PKPab 10 38 57.1 -0.7**
**PRU Pruhonice 160.34 334** *e*PKPAB **PKPab 10 38 57.6 -0.3**
PRU *ex* x 10 39 11.0
**PRU Pruhonice 160.34 334** *e*PKP2 **PKPab 10 38 57.6 -0.3**
**TOA0 Torodi Ar. Sit 160.40 180** *e*PKPdf **PKPdf 10 38 18.2 +0.1**
TOA0 *e*PKPdf **PKPdf 10 38 18.7 +0.5**
**TORD Torodi Ar. Bea 160.40 180** PKP **PKPdf 10 38 18.4 +0.3**
comp=Z,2.5nm,0.9s,baz=237,slow=0.5,SNR=9.0
TORD PKPab **PKPab 10 39 00.7 +1.8**
comp=Z,1.8nm,0.9s,baz=174,slow=4.3,SNR=4.1
**KOWA Kowa 161.04 163** *e*PKPdf **PKPdf 10 38 19.9 +1.1**
**KHC Kasperske Hory 161.41 335** *e*PKPAB **PKPab 10 39 02.6 0.0**
KHC *ex* x 10 39 15.7
**KHC Kasperske Hory 161.41 335** *e*PKP2 **PKPab 10 39 02.6 0.0**
**GERES GERESS Array B 161.60 334** PKP **PKPdf 10 38 17.7 -0.9**
comp=Z,0.6nm,0.6s,baz=348,slow=5.9,SNR=3.6
GERES PKPab **PKPab 10 39 02.3 -1.2**
comp=Z,1.8nm,0.7s,baz=338,slow=4.4,SNR=5.9
**GEA0 GERESS Array S 161.61 334** *e*PKPab **PKPab 10 39 02.8 -0.7**
**FUORN Ofenpass-Fuorn 164.71 337** *e*PKPab **PKPab 10 39 17.4 0.0**
**ESDC Sonseca Array 171.85 32** PKP **PKPdf 10 38 27.6 +1.0**
comp=Z,0.5nm,0.7s,baz=341,slow=3.1,SNR=4.2
**ES19 SONSECA Array 171.86 31** *e*PKPdf **PKPdf 10 38 27.9 +1.3**

*IDC* ***17*** *10:18:44.2±1.3, 15°.46S×166°.80E, h0km, mb4.0/8, mb1 4.2/9, mb1mx3.9/38, mbtmp4.0/9, ML4.5/1, Error ellipse: s-maj=37.0km s-min=23.0km az=124.0*
*ISCJB* ***17*** *10:18:47.0±0.9, 15°.56S±0°.07×166°.7E±0°.2, h28km, mb3.8/7, Error ellipse: s-maj=22.3km s-min=10.1km az=178.1*

**ISC 17 10:18:48.5±1.0, 15°.48S±0°.10×166°.8E±0°.2, h28km, n9, σ0s68/9, mb3.9/6, Vanuatu Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DZM** | **Mont Dzumac** | **6.56** | **183** | Pn | **Pn** | **10 20 23.8** | **+0.5** |
| | 9.2nm,0.3s,baz=321,slow=7.4,SNR=86 | | | | | | |
| DZM | | | | Sn | **Sn** | **10 21 36.8** | **-0.5** |
| | 1.6nm,0.3s,baz=323,slow=20,SNR=2.4 | | | | | | |
| **CTA** | **Charters Tower** | **20.07** | **254** | P | **P** | **10 23 19.9** | **-0.1** |
| | 12nm,0.8s,baz=87,slow=13,SNR=9.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **31.20** | **257** | P | **P** | **10 25 04.6** | **-1.1** |
| | 1.5nm,1.1s,baz=87,slow=8.8,SNR=6.6 | | | | | | |
| **ASAR** | **Alice Springs** | **31.97** | **250** | P | **P** | **10 25 12.8** | **+0.3** |
| | 2.6nm,0.9s,baz=68,slow=10,SNR=19 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **74.83** | **294** | P | **P** | **10 30 27.2** | **+0.3** |
| | 0.7nm,0.4s,baz=112,slow=3.3,SNR=5.4 | | | | | | |
| **SONM** | **Songino Array** | **82.83** | **324** | P | **P** | **10 31 11.2** | **+0.8** |
| | 0.6nm,0.8s,baz=104,slow=9.6,SNR=3.7 | | | | | | |
| **ILAR** | **Eielson Array** | **87.39** | **18** | P | **P** | **10 31 32.5** | **-0.2** |
| | 1.2nm,0.8s,baz=235,slow=5.2,SNR=12 | | | | | | |
| **MKAR** | **Makanchi Array** | **97.42** | **316** | P | Pdif | 10 32 19.9 | +0.2 |
| | 0.3nm,0.7s,baz=104,slow=4.6,SNR=2.9 | | | | | | |
| **YKA** | **Yellowknife Ar** | **98.43** | **27** | P | **P** | **10 32 23.1** | **-0.6** |
| | 0.1nm,0.7s,baz=258,slow=4.6,SNR=4.1 | | | | | | |

*IDC* ***17*** *10:29:26.8±1.4, 1°.13S×127°.38E, h0km, mb3.5/3, mb1 3.6/4, mb1mx3.4/48, mbtmp3.5/4, ML3.5/1, Error ellipse: s-maj=130.9km s-min=22.1km az=70.0*
*DJA* ***17*** *10:29:28.9±0.8, 1°.5S×12°.7E±°, h16km±9km, M4.2/7, mB5.0/2, mb4.6/3, MLv4.0/7, Mw(mB)4.4/2*
*ISCJB* ***17*** *10:29:29.6±0.6, 1°.03S±0°.05×127°.02E±0°.05, h34km, mb3.5/3, Error ellipse: s-maj=7.8km s-min=5.9km az=146.9*

**ISC 17 10:29:31.4±0.9, 1°.02S±0°.06×127°.04E±0°.06, h34km, n11, σ1s73/15, mb3.5/3, Halmahera**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **LBMI** | **Labuha** | **0.60** | **50** | P | **Pn** | **10 29 41.3** | **-2.2** |
| LBMI | | | | S | **Sn** | **10 29 50.9** | **-1.2** |
| **SANI** | **Sanana** | **1.46** | **226** | P | **Pn** | **10 29 52.8** | **-2.7** |
| SANI | | | | S | **Sn** | **10 30 13.8** | **+0.3** |
| **NLAI** | **Namlea** | **2.20** | **178** | P | **Pn** | **10 30 04.3** | **-1.3** |
| NLAI | | | | S | **Sn** | **10 30 30.9** | **-0.8** |
| **AAI** | **Ambon** | **2.89** | **156** | P | **Pn** | **10 30 16.0** | **+0.9** |
| **APSI** | **Ampana** | **5.39** | **271** | P | **Pn** | **10 30 48.8** | **-0.7** |
| | 116nm,0.5s,3μm | | | | | | |
| APSI | | | | S | **Sn** | **10 31 49.8** | **-0.6** |
| | 116nm,0.5s,3μm | | | | | | |
| **FAKI** | **Fak Fak** | **5.54** | **110** | P | **Pn** | **10 30 51.8** | **+0.3** |
| | 20nm,1.0s | | | | | | |
| **SPSI** | **Sidrap Palu** | **7.83** | **248** | P | **Pn** | **10 31 23.4** | **+0.4** |
| **WRA** | **Warramunga Arr** | **20.11** | **160** | P | **P** | **10 34 00.8** | **-1.8** |
| | 0.1nm,0.3s,baz=340,slow=11,SNR=8.1 | | | | | | |
| **ASAR** | **Alice Springs** | **23.47** | **164** | P | **P** | **10 34 36.0** | **-2.3** |
| | 1.0nm,0.7s,baz=346,slow=12,SNR=9.6 | | | | | | |
| **SONM** | **Songino Array** | **51.88** | **342** | P | **P** | **10 38 39.4** | **+2.6** |
| | 0.4nm,0.6s,baz=149,slow=8.7,SNR=3.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **61.64** | **327** | P | **P** | **10 39 47.6** | **+1.7** |
| | 0.2nm,0.3s,baz=116,slow=7.8,SNR=5.2 | | | | | | |

**IDC 17 10:48:14.0±3.2, 34°.81S×179°.59W, h0km, mb4.3/2, mb1 4.5/3, mb1mx3.9/29, mbtmp4.3/3, ML3.9/1, Error ellipse: s-maj=73.1km s-min=46.5km az=122.0, South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **URZ** | **Urewera** | **4.35** | **217** | Pn | Pn | 10 49 21.0 | -0.3 |
| | 6.5nm,0.3s,baz=273,slow=3.1,SNR=35 | | | | | | |
| URZ | | | | Sn | Sn | 10 50 06.9 | -5.8 |
| | 9.5nm,0.3s,baz=214,slow=21,SNR=6.7 | | | | | | |
| **ASAR** | **Alice Springs** | **41.75** | **273** | P | P | 10 56 05.3 | +0.2 |
| | 4.5nm,0.5s,baz=114,slow=7.9,SNR=29 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.14** | **278** | P | P | 10 56 16.0 | -0.4 |
| | 0.6nm,0.5s,baz=119,slow=7.7,SNR=7.7 | | | | | | |
| **FINES** | **FINESS Array B** | **148.74** | **336** | PKPbc | PKPbc | 11 08 01.8 | -0.6 |
| | 3.8nm,1.1s,baz=72,slow=4.5,SNR=4.1 | | | | | | |

*ISCJB* ***17*** *10:49:31.9±0.8, 26°.86S±0°.07×177°.4W±0°.1, h95km, mb4.1/8, Error ellipse: s-maj=17.9km s-min=9.8km az=1.5*
*NEIC* ***17*** *10:49:31.6±2.1, 26°.88S×177°.29W, h82km±18km, mb4.4/2, Error ellipse: s-maj=22.7km s-min=14.6km az=211.0*
*IDC* ***17*** *10:49:32.2±3.8, 26°.80S×177°.34W, h83km±33km, mb3.9/7, mb1 4.1/7, mb1mx3.8/29, mbtmp4.2/7, MS3.6/10, Ms1 3.6/10, ms1mx3.4/26, Error ellipse: s-maj=30.4km s-min=22.7km az=21.0*

**ISC 17 10:49:33.3±0.8, 26°.85S±0°.09×177°.3W±0°.1, h95km, n35, σ1s17/19, mb4.1/8, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **2.45** | **192** | P | Pn | 10 50 09.6 | -1.9 |
| | 398nm,0.3s,baz=265,slow=23,SNR=22 | | | | | | |
| RAO | | | | S | **Sn** | **10 50 41.4** | **+0.4** |
| | 896nm,0.3s,baz=61,slow=23,SNR=13 | | | | | | |
| **RAO** | **Raoul Island** | **2.45** | **192** | *e*Pn | Pn | 10 50 09.1 | -2.5 |
| RAO | | | | *e*Sn | **Sn** | **10 50 40.6** | **-0.3** |
| RAO | | | | S | **Sn** | **10 50 41.4** | **+0.4** |
| **URZ** | **Urewera** | **12.30** | **201** | LR | LR | 10 55 59.0 | |
| | comp=Z,71nm,19.6s,baz=31,slow=31 | | | | | | |
| **DZM** | **Mont Dzumac** | **15.52** | **284** | LR | LR | 10 57 36.0 | |
| | comp=Z,316nm,19.9s,baz=184,slow=31 | | | | | | |
| **DZM** | **Mont Dzumac** | **15.52** | **284** | *e*P | P | 10 53 19.0 | +10 |
| | 2.0nm,0.3s | | | | | | |
| DZM | | | | *e*LR | LR | 10 56 47.2 | |
| | 493nm,28.4s | | | | | | |
| **DZM** | **Mont Dzumac** | **15.52** | **284** | *e*Pn | **Pn** | **10 53 06.6** | **-0.4** |
| | 19nm,0.9s | | | | | | |
| **RAR** | **Rarotonga** | **16.98** | **74** | LR | LR | 11 00 15.6 | |
| | comp=Z,70nm,18.2s,baz=276,slow=38 | | | | | | |
| **RPZ** | **Rata Peaks** | **19.28** | **206** | LR | LR | 11 01 43.2 | |
| | comp=Z,72nm,20.6s,baz=34,slow=38 | | | | | | |
| **TBI** | **Tubuai** | **25.45** | **88** | *e*LR | LR | 11 00 51.8 | |
| | 235nm,33.0s | | | | | | |
| **TBI** | **Tubuai** | **25.45** | **88** | *e*T | T | 11 20 31.3 | |
| | 11nm,0.3s | | | | | | |
| **PAE** | **Paea** | **27.21** | **76** | *e*T | T | 11 22 42.8 | |
| | 3.7nm,0.3s | | | | | | |
| **PPT2** | **Papeete2** | **27.24** | **76** | *e*LR | LR | 11 01 55.5 | |
| | 322nm,27.2s | | | | | | |
| **PPT2** | **Papeete2** | **27.24** | **76** | *e*T | T | 11 22 46.0 | |
| | 3.3nm,0.3s | | | | | | |
| **PPT** | **Papeete** | **27.25** | **76** | LR | LR | 11 04 15.5 | |
| | comp=Z,44nm,18.7s,baz=98,slow=32 | | | | | | |
| **TVO** | **Taravao** | **27.45** | **77** | *e*T | T | 11 23 00.4 | |
| | 1.8nm,0.3s | | | | | | |
| **VAH** | **Vaihoa** | **29.95** | **73** | *e*T | T | 11 26 08.3 | |
| | 4.9nm,0.2s | | | | | | |
| **CTA** | **Charters Tower** | **33.99** | **274** | P | **P** | **10 56 08.5** | **+0.4** |
| | 5.4nm,0.8s,baz=95,slow=9.9,SNR=7.6 | | | | | | |
| **STKA** | **Stephens Creek** | **35.99** | **252** | LR | LR | 11 09 42.1 | |
| | comp=Z,206nm,18.4s,baz=27,slow=34 | | | | | | |
| **PMG** | **Port Moresby** | **37.77** | **291** | LR | LR | 11 09 25.3 | |
| | comp=Z,412nm,21.6s,baz=168,slow=32 | | | | | | |
| **RKT** | **Rikitea** | **38.44** | **94** | *e*T | T | 11 36 45.3 | |
| | 2.1nm,0.3s | | | | | | |
| **ASAR** | **Alice Springs** | **44.01** | **263** | P | **P** | **10 57 31.1** | **-0.6** |
| | 1.3nm,0.3s,baz=95,slow=7.4,SNR=30 | | | | | | |
| ASAR | | | | LR | LR | 11 14 20.9 | |
| | comp=Z,87nm,18.0s,baz=50,slow=34 | | | | | | |
| **WRAB** | **Tennant Creek** | **44.67** | **268** | *e*P | **P** | **10 57 36.0** | **-0.8** |
| | 6.9nm,1.0s | | | | | | |
| **WRA** | **Warramunga Arr** | **44.68** | **268** | P | **P** | **10 57 36.1** | **-0.8** |
| | 4.2nm,0.6s,baz=107,slow=7.6,SNR=32 | | | | | | |
| **VNDA** | **Vanda** | **51.67** | **186** | P | **P** | **10 58 30.1** | **+0.2** |
| | 1.4nm,0.9s,baz=4.1,slow=6.8,SNR=5.5 | | | | | | |
| **KSRS** | **Korea Array** | **82.05** | **319** | P | **P** | **11 01 44.1** | **+1.1** |
| | 0.9nm,0.6s,baz=134,slow=6.7,SNR=5.8 | | | | | | |
| **KSAR** | **Wonju Array Be** | **82.06** | **319** | P | **P** | **11 01 44.1** | **+1.1** |
| **PLCA** | **Paso Flores** | **84.49** | **133** | LR | LR | 11 35 15.8 | |
| | comp=Z,36nm,18.4s,baz=172,slow=32 | | | | | | |
| **TXAR** | **Lajitas Array** | **89.97** | **57** | P | **P** | **11 02 22.6** | **+0.3** |
| | 0.6nm,0.9s,baz=196,slow=12,SNR=5.3 | | | | | | |
| TXAR | | | | LR | LR | 11 36 29.5 | |
| | comp=Z,84nm,19.1s,baz=0.0,slow=31 | | | | | | |
| **PDAR** | **Pinedale Array** | **93.15** | **43** | P | **P** | **11 02 36.2** | **-0.7** |
| | 0.6nm,0.6s,baz=188,slow=4.5,SNR=3.6 | | | | | | |
| **BRVK** | **Borovoye** | **124.30** | **318** | *e*PKPdf | **PKPdf** | **11 08 19.2** | **-1.5** |
| **ARCES** | **ARCESS Array B** | **135.24** | **349** | PKP | **PKPdf** | **11 08 43.0** | **+2.1** |
| | 3.3nm,0.9s,baz=349,slow=1.2,SNR=4.3 |

0.6nm,0.8s,baz=193,slow=3.2,SNR=4.4

*CSEM* ***17*** *10:55:57.9±0.3,38°.89N×43°.58E,h10km,ML2.7,Error ellipse: s-maj=7.9km s-min=5.4km az=103.0*
*DDA* ***17*** *10:55:57.3,38°.90N×43°.65E,h7km,Ml2.7*
*ISK* ***17*** *10:55:57.2,38°.85N×43°.53E,h17km,ML2.5*
*ISCJB* ***17*** *10:55:58.3±0.6,38°.90N±0°.03×43°.58E±0°.05,h13km±5km, Error ellipse: s-maj=6.8km s-min=5.0km az=8.3*
**ISC 17 10:55:58.0±1.0,38°.89N±0°.02×43°.61E±0°.03,h13km±7km, n26,σ0s80/38,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VMUR** | **Van-Muradiye** | **0.11** | **346** | *i* P | **Pg** | **10 56 00.9** | **-0.4** |
| **VMUR** | **Van-Muradiye** | **0.11** | **346** | P | **Pg** | **10 56 00.9** | **-0.4** |
| **ERCV** | **ERCIS-VAN** | **0.25** | **303** | *e*PG | **Pg** | **10 56 02.8** | **-0.6** |
| ERCV | | | | *e*SG | **Sg** | **10 56 06.9** | **-0.2** |
| **ERCV** | **ERCIS-VAN** | **0.25** | **303** | *e*Pg | **Pg** | **10 56 02.8** | **-0.6** |
| ERCV | | | | *e*Sg | **Sg** | **10 56 06.9** | **-0.2** |
| **VANB** | **Van** | **0.34** | **210** | *e*PG | **Pg** | **10 56 05.0** | **+0.2** |
| **VANB** | **Van** | **0.34** | **210** | *e*Pg | **Pg** | **10 56 05.0** | **+0.2** |
| **CLDR** | **Caldiran** | **0.35** | **43** | *e*PG | **Pb** | **10 56 06.2** | **-0.1** |
| CLDR | | | | *e*SG | **Sb** | **10 56 12.7** | **+0.9** |
| **CLDR** | **Caldiran** | **0.35** | **43** | *e*Pg | **Pb** | **10 56 06.2** | **-0.1** |
| CLDR | | | | *e*Sg | **Sb** | **10 56 12.7** | **+0.9** |
| **TVAN** | **Van** | **0.39** | **204** | *i* P | **Pg** | **10 56 05.7** | **-0.1** |
| TVAN | | | | *i* S | **Sb** | **10 56 12.9** | **+0.2** |
| **TVAN** | **Van** | **0.39** | **204** | P | **Pg** | **10 56 05.7** | **-0.1** |
| TVAN | | | | S | **Sb** | **10 56 12.9** | **+0.2** |
| **DYDN** | **Diyadin** | **0.66** | **6** | *i* P | **Pg** | **10 56 10.1** | **-0.8** |
| **DYDN** | **Diyadin** | **0.66** | **6** | P | **Pg** | **10 56 10.1** | **-0.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.69** | **264** | *i* P | **Pg** | **10 56 10.7** | **-0.8** |
| ADCV | | | | *i* S | **Sb** | **10 56 21.9** | **+0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.69** | **264** | P | **Pg** | **10 56 10.7** | **-0.8** |
| ADCV | | | | S | **Sb** | **10 56 21.9** | **+0.4** |
| **GEVA** | **Gevas** | **0.71** | **217** | *i* P | **Pg** | **10 56 09.9** | **-2.0** |
| GEVA | | | | *i* S | **Sb** | **10 56 23.0** | **+0.9** |
| **GEVA** | **Gevas** | **0.71** | **217** | P | **Pg** | **10 56 09.9** | **-2.0** |
| GEVA | | | | S | **Sb** | **10 56 23.0** | **+0.9** |
| **TUTA** | **Tutak** | **0.80** | **310** | *i* P | **Pg** | **10 56 12.1** | **-1.5** |
| **TUTA** | **Tutak** | **0.80** | **310** | P | **Pg** | **10 56 12.1** | **-1.5** |
| **AGRB** | **Hanur-Agry** | **0.84** | **326** | *e*PG | **Pg** | **10 56 13.8** | **-0.4** |
| AGRB | | | | *e*SG | **Sb** | **10 56 26.2** | **+0.4** |
| **AGRB** | **Hanur-Agry** | **0.84** | **326** | *e*Pg | **Pg** | **10 56 13.8** | **-0.4** |
| AGRB | | | | *e*Sg | **Sb** | **10 56 26.2** | **+0.4** |
| **EKAR** | **Karacoban** | **1.26** | **288** | *i* P | **Pn** | **10 56 22.2** | **+0.8** |
| **EKAR** | **Karacoban** | **1.26** | **288** | P | **Pn** | **10 56 22.2** | **+0.8** |
| **HAKT** | **HAKKARI** | **1.33** | **177** | *i* P | **Pn** | **10 56 22.1** | **-0.3** |
| **HAKT** | **HAKKARI** | **1.33** | **177** | P | **Pn** | **10 56 22.1** | **-0.3** |
| **SRTM** | **Siirt_Merkez** | **1.59** | **237** | *i* P | **Pb** | **10 56 27.8** | **+0.5** |
| **SRTM** | **Siirt_Merkez** | **1.59** | **237** | P | **Pb** | **10 56 27.8** | **+0.5** |

*MOS* ***17*** *10:59:47.7±0.7,47°.69N×154°.73E,h122km,mb4.4/1,Error ellipse: s-maj=81.8km s-min=6.6km az=73.4*
*IDC* ***17*** *10:59:50.1±3.6,48°.98N×151°.66E,h165km±33km,mb2.8/5, mb1 3.2/6,mb1mx2.9/53,mbtmp3.3/6,Error ellipse: s-maj=33.3km s-min=20.7km az=145.0*
*KRSC* ***17*** *10:59:51.0±1.1,47°.84N×155°.49E,h131km±30km,ML4.3*
**ISC 17 10:59:48.1±1.2,47°.6N±0°.1×155°.2E±0°.2,h100km,n38, σ1s76/47,mb3.2/4,East of Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SKR** | **Severo-Kuril's** | **3.12** | **11** | *e*PN | **Pn** | **11 00 37.1** | **+1.7** |
| SKR | | | | *e*S | **Sn** | **11 01 11.2** | **-0.6** |
| SKR | | | | pmax | pmax | | |
| | comp=Z,40nm,0.2s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=E,216nm,1.3s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=N,109nm,0.2s | | | | | | |
| **SKR** | **Severo-Kuril's** | **3.12** | **11** | *e*P | **Pn** | **11 00 36.8** | **+1.4** |
| SKR | | | | *e*S | **Sn** | **11 01 11.6** | **-0.2** |
| **KDTR** | **Khodutka, Kamc** | **4.58** | **23** | *e*P | **Pn** | **11 00 57.0** | **+1.9** |
| KDTR | | | | *e*S | **Sn** | **11 01 46.3** | **-0.8** |
| **ASAK** | **Asacha** | **5.07** | **19** | PN | **Pn** | **11 01 04.1** | **+2.3** |
| **ASAK** | **Asacha** | **5.07** | **19** | *e*P | **Pn** | **11 01 04.1** | **+2.3** |
| **MTVR** | **Mutnovka** | **5.23** | **20** | *e*S | **Sn** | **11 02 01.5** | **-1.5** |
| **RUS** | **Russkaya** | **5.26** | **23** | PN | **Pn** | **11 01 05.4** | **+1.1** |
| RUS | | | | S | **Sn** | **11 02 01.5** | **-2.1** |
| **RUS** | **Russkaya** | **5.26** | **23** | *e*P | **Pn** | **11 01 05.4** | **+1.1** |
| RUS | | | | S | **Sn** | **11 02 01.5** | **-2.1** |
| **PETK** | **Petropavlovsk-** | **5.72** | **15** | P | **Pn** | **11 01 11.3** | **+0.8** |
| | comp=N,0.9nm,0.3s,baz=208,slow=11,SNR=13 | | | | | | |
| PETK | | | | S | Sn | 11 02 24.6 | +10 |
| | baz=190,slow=40,SNR=2.5 | | | | | | |
| **PETK** | **Petropavlovsk-** | **5.72** | **15** | PN | **Pn** | **11 01 11.3** | **+0.8** |
| PETK | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.3s | | | | | | |
| **PET** | **Petropavlovsk** | **5.84** | **21** | PN | **Pn** | **11 01 14.2** | **+2.1** |
| **PET** | **Petropavlovsk** | **5.84** | **21** | *e*P | **Pn** | **11 01 14.2** | **+2.1** |
| **DALK** | **Dalny** | **5.87** | **21** | PN | **Pn** | **11 01 14.2** | **+1.7** |
| DALK | | | | S | **Sn** | **11 02 16.1** | **-2.2** |
| **DALK** | **Dalny** | **5.87** | **21** | *e*P | **Pn** | **11 01 14.2** | **+1.7** |
| DALK | | | | *e*S | **Sn** | **11 02 16.1** | **-2.2** |
| **UGLR** | **Uglovaya** | **6.05** | **21** | PN | **Pn** | **11 01 16.8** | **+1.8** |
| **UGLR** | **Uglovaya** | **6.05** | **21** | *e*P | **Pn** | **11 01 16.8** | **+1.8** |
| **AVH** | **Avacha** | **6.08** | **20** | PN | **Pn** | **11 01 17.7** | **+2.3** |
| **AVH** | **Avacha** | **6.08** | **20** | *e*P | **Pn** | **11 01 17.7** | **+2.3** |
| **SDLR** | **Sedlovina** | **6.13** | **21** | PN | **Pn** | **11 01 17.6** | **+1.5** |
| **SDLR** | **Sedlovina** | **6.13** | **21** | *e*P | **Pn** | **11 01 17.6** | **+1.5** |
| **KRX** | **Arik** | **6.15** | **20** | PN | **Pn** | **11 01 19.0** | **+2.6** |
| **KRX** | **Arik** | **6.15** | **20** | *e*P | **Pn** | **11 01 19.0** | **+2.6** |
| **SPN** | **Mys Shipunski** | **6.28** | **27** | PN | **Pn** | **11 01 20.4** | **+2.3** |
| SPN | | | | S | **Sn** | **11 02 26.0** | **-2.4** |
| **SPN** | **Mys Shipunski** | **6.28** | **27** | *e*P | **Pn** | **11 01 20.4** | **+2.3** |
| SPN | | | | *e*S | **Sn** | **11 02 26.0** | **-2.4** |
| **GNL** | **Ganaly** | **6.32** | **15** | PN | **Pn** | **11 01 19.7** | **+0.9** |
| **GNL** | **Ganaly** | **6.32** | **15** | P | **Pn** | **11 01 19.7** | **+0.9** |
| **MKZ** | **Mys Kozlova** | **8.06** | **28** | PN | **Pn** | **11 01 43.1** | **+0.9** |
| **MKZ** | **Mys Kozlova** | **8.06** | **28** | P | **Pn** | **11 01 43.1** | **+0.9** |
| **TUMR** | **Tumrok** | **8.26** | **20** | PN | **Pn** | **11 01 47.0** | **+1.9** |
| **TUMR** | **Tumrok** | **8.26** | **20** | P | **Pn** | **11 01 47.0** | **+1.9** |
| **ILAR** | **Eielson Array** | **34.97** | **39** | P | **P** | **11 06 30.6** | **+0.4** |
| | comp=Z,0.3nm,0.6s,baz=261,slow=5.3,SNR=8.0 | | | | | | |
| **ILAR** | **Eielson Array** | **34.97** | **39** | P | **P** | **11 06 30.6** | **+0.4** |
| **YKA** | **Yellowknife Ar** | **49.36** | **38** | P | **P** | **11 08 26.3** | **-0.5** |
| | comp=Z,0.3nm,0.7s,baz=300,slow=7.2,SNR=4.4 | | | | | | |
| **YKA** | **Yellowknife Ar** | **49.36** | **38** | P | **P** | **11 08 26.3** | **-0.5** |
| **WRA** | **Warramunga Arr** | **69.82** | **201** | P | **P** | **11 10 46.1** | **-1.6** |
| | comp=Z,0.2nm,0.7s,baz=25,slow=7.3,SNR=3.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **69.82** | **201** | P | **P** | **11 10 46.1** | **-1.6** |
| **TXAR** | **Lajitas Array** | **75.81** | **62** | P | **P** | **11 11 24.6** | **+1.3** |
| | comp=Z,0.1nm,0.3s,baz=297,slow=6.0,SNR=2.4 | | | | | | |
| **TXAR** | **Lajitas Array** | **75.81** | **62** | P | **P** | **11 11 24.6** | **+1.3** |

*TIF* ***17*** *11:03:35.5,42°.52N×43°.24E,h17km±1km*
*ISCJB* ***17*** *11:03:35.9±0.4,42°.52N±0°.02×43°.15E±0°.02,h1km±3km, mb3.7/10,MS3.2/1,Error ellipse: s-maj=2.8km s-min=2.2km az=178.9*
*AZER* ***17*** *11:03:35.8±99.0,42°.20N×43°.10E,h6km±2km,Error ellipse: s-maj=64.1km s-min=3.7km az=292.0*
*IDC* ***17*** *11:03:35.5±0.6,42°.51N×43°.05E,h0km,mb3.6/9, mb1 3.8/14,mb1mx3.6/48,mbtmp3.7/14,ML3.1/5,MS3.0/2, Ms1 3.0/2,ms1mx2.4/42,Error ellipse: s-maj=11.6km s-min=7.4km az=79.0*
*MOS* ***17*** *11:03:36.5±1.2,42°.51N×43°.13E,h14km,mb4.2/5,Error ellipse: s-maj=6.5km s-min=4.9km az=70.0*
*DDA* ***17*** *11:03:36.4,42°.38N×43°.25E,h2km,Ml4.0*
*CSEM* ***17*** *11:03:36.3±0.1,42°.49N×43°.17E,h2km,ML3.7,Error ellipse: s-maj=3.6km s-min=2.8km az=111.0*
*ISK* ***17*** *11:03:38.9,42°.29N×43°.28E,h20km,ML3.6*
**ISC 17 11:03:35.5±1.0,42°.46N±0°.01×43°.17E±0°.01,h6km±7km, n158,σ1s77/233,mb3.7/11,19C-23D,Western Caucasus**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ONI** | **Oni** | **0.25** | **57** | P | **Pg** | **11 03 40.2** | **-0.2** |
| ONI | | | | S | **Sg** | **11 03 43.4** | **-0.3** |
| **ONI** | **Oni** | **0.25** | **57** | *e*PG | **Pg** | **11 03 40.2** | **-0.2** |
| **DIGR** | **Digorskoe uzhe** | **0.54** | **34** | ⇓*i*PG | **Pg** | **11 03 45.6** | **-0.3** |
| DIGR | | | | *e*S | **Sg** | **11 03 52.6** | **-0.3** |
| **DIGR** | **Digorskoe uzhe** | **0.54** | **34** | *i* Pg | **Pg** | **11 03 45.6** | **-0.3** |
| DIGR | | | | *e*Sg | **Sg** | **11 03 52.6** | **-0.3** |
| **ZEI** | **Tsey** | **0.64** | **58** | ⇑*i*PG | **Pg** | **11 03 47.5** | **-0.2** |
| ZEI | | | | *e*S | **Sg** | **11 03 55.8** | **-0.2** |
| **CHVG** | **Ch'k'valeri** | **0.84** | **289** | *e*PG | **Pb** | **11 03 53.0** | **+0.5** |
| CHVG | | | | *e*SG | **Sg** | **11 04 03.0** | **+0.4** |
| **CHVG** | **Ch'k'valeri** | **0.84** | **289** | P | **Pb** | **11 03 53.1** | **+0.5** |
| CHVG | | | | S | **Sn** | **11 04 05.7** | **-0.9** |
| **CHVG** | **Ch'k'valeri** | **0.84** | **289** | *e*Pg | **Pb** | **11 03 53.0** | **+0.5** |
| CHVG | | | | *e*Sg | **Sg** | **11 04 03.0** | **+0.4** |
| **NEY** | **Neytrino** | **0.86** | **338** | *d*PG | **Pg** | **11 03 52.1** | **+0.1** |
| NEY | | | | pmax | pmax | | |
| | comp=Z,697nm,0.2s | | | | | | |
| **NEY** | **Neytrino** | **0.86** | **338** | *i* Pg | **Pg** | **11 03 52.1** | **+0.1** |
| | comp=Z,697nm,0.2s | | | | | | |
| **LACR** | **Lac** | **0.91** | **66** | *e*PG | **Pg** | **11 03 52.6** | **-0.4** |
| LACR | | | | *e*S | **Sg** | **11 04 04.2** | **-0.6** |
| **LACR** | **Lac** | **0.91** | **66** | *e*Pg | **Pg** | **11 03 52.6** | **-0.4** |
| LACR | | | | *e*Sg | **Sg** | **11 04 04.2** | **-0.6** |
| **KORR** | **Kora** | **0.92** | **46** | ⇑*i*PG | **Pg** | **11 03 53.3** | **+0.3** |
| KORR | | | | *e*S | **Sb** | **11 04 05.8** | **-0.4** |
| **KORR** | **Kora** | **0.92** | **46** | *i* Pg | **Pg** | **11 03 53.3** | **+0.3** |
| KORR | | | | *e*Sg | **Sb** | **11 04 05.8** | **-0.4** |
| **LSNR** | **Lesken** | **0.95** | **30** | ⇓*i*PG | **Pg** | **11 03 53.8** | **0.0** |
| LSNR | | | | *e*S | **Sb** | **11 04 06.9** | **-0.4** |
| **GUDG** | **Gudauri** | **0.97** | **89** | P | **Pg** | **11 03 54.0** | **-0.1** |
| GUDG | | | | S | **Sg** | **11 04 06.7** | **0.0** |
| **GUDG** | **Gudauri** | **0.97** | **89** | P | **Pb** | **11 03 54.6** | **-0.2** |
| GUDG | | | | S | **Sg** | **11 04 06.8** | **+0.1** |
| **EPOS** | **Posof** | **1.01** | **199** | ⇓*i*P | **Pn** | **11 03 56.1** | **-0.1** |
| EPOS | | | | *i* S | **Sn** | **11 04 11.2** | **+0.4** |
| **EPOS** | **Posof** | **1.01** | **199** | P | **Pn** | **11 03 56.1** | **-0.1** |
| EPOS | | | | S | **Sn** | **11 04 11.2** | **+0.4** |
| **AKH** | **Akhalkalaki** | **1.07** | **167** | *e*PG | **Pb** | **11 03 56.8** | **+0.2** |
| AKH | | | | *e*SG | **Sg** | **11 04 09.8** | **-0.1** |
| **AKH** | **Akhalkalaki** | **1.07** | **167** | P | **Pn** | **11 03 57.0** | **-0.2** |
| AKH | | | | S | **Sn** | **11 04 13.5** | **+1.0** |
| **AKH** | **Akhalkalaki** | **1.07** | **167** | *e*PG | **Pn** | **11 03 57.0** | **-0.2** |
| AKH | | | | *e*S | **Sn** | **11 04 13.0** | **+0.5** |
| **AKH** | **Akhalkalaki** | **1.07** | **167** | P | **Pn** | **11 03 57.0** | **-0.2** |
| AKH | | | | *e*Sg | **Sg** | **11 04 09.8** | **-0.1** |
| AKH | | | | S | **Sn** | **11 04 13.0** | **+0.5** |
| **NCK** | **Nalchik** | **1.09** | **17** | *i* PG | **Pb** | **11 03 56.8** | **+0.1** |
| **NCK** | **Nalchik** | **1.09** | **17** | *i* Pg | **Pb** | **11 03 56.8** | **+0.1** |
| **ARNR** | **Ardon** | **1.09** | **48** | ⇓*i*PG | **Pn** | **11 03 57.2** | **-0.2** |
| ARNR | | | | *e*S | **Sn** | **11 04 13.3** | **+0.5** |
| **ARNR** | **Ardon** | **1.09** | **48** | *i* Pg | **Pn** | **11 03 57.2** | **-0.2** |
| ARNR | | | | *e*Sg | **Sn** | **11 04 13.3** | **+0.5** |
| **STDR** | **Stavd-Durt** | **1.13** | **35** | ⇓*i*PG | **Pn** | **11 03 58.2** | **+0.4** |
| STDR | | | | *i* S | **Sn** | **11 04 14.2** | **+0.6** |
| **STDR** | **Stavd-Durt** | **1.13** | **35** | *i* Pg | **Pn** | **11 03 58.2** | **+0.4** |
| STDR | | | | *i* Sg | **Sn** | **11 04 14.2** | **+0.6** |
| **DUS** | **Dusheti** | **1.20** | **107** | P | **Pn** | **11 04 00.8** | **+2.1** |
| DUS | | | | S | **Sn** | **11 04 19.5** | **+4.2** |
| **BGD** | **Bogdanovka** | **1.23** | **165** | P | **Pn** | **11 03 59.7** | **+0.3** |
| BGD | | | | S | **Sn** | **11 04 17.1** | **+0.7** |
| **BGD** | **Bogdanovka** | **1.23** | **165** | P | **Pn** | **11 03 59.7** | **+0.3** |
| BGD | | | | S | **Sn** | **11 04 17.1** | **+0.7** |
| **VLKR** | **Vladikavkaz** | **1.26** | **61** | ⇓*i*PG | **Pn** | **11 04 00.8** | **+1.2** |
| VLKR | | | | *e*S | **Sn** | **11 04 19.2** | **+2.3** |
| **VLKR** | **Vladikavkaz** | **1.26** | **61** | *i* Pg | **Pn** | **11 04 00.8** | **+1.2** |
| VLKR | | | | *e*Sg | **Sn** | **11 04 19.2** | **+2.3** |
| **KBZ** | **Khabaz** | **1.29** | **351** | Pg | **Pn** | **11 03 59.7** | **-0.2** |
| | comp=Z,34nm,0.3s,baz=176,slow=5.3,SNR=326 | | | | | | |
| KBZ | | | | LR | LR | | |
| | comp=Z,26nm,19.0s,baz=60,slow=27 | | | | | | |
| KBZ | | | | Lg | Lg | 11 04 15.4 | |
| | comp=Z,57nm,0.3s,baz=255,slow=20,SNR=17 | | | | | | |
| **BTKR** | **Batakoyurt** | **1.36** | **47** | ⇑*i*PG | **Pg** | **11 04 03.3** | **+1.7** |
| BTKR | | | | *e*S | **Sn** | **11 04 22.0** | **+2.5** |
| **BTKR** | **Batakoyurt** | **1.36** | **47** | *i* Pg | **Pg** | **11 04 03.3** | **+1.7** |
| BTKR | | | | *e*Sg | **Sn** | **11 04 22.0** | **+2.5** |
| **KBTC** | **Kuba-Taba** | **1.37** | **7** | *e*PG | **Pg** | **11 04 01.8** | **0.0** |
| KBTC | | | | *e*S | **Sn** | **11 04 19.8** | **+0.1** |
| **KBTC** | **Kuba-Taba** | **1.37** | **7** | *e*Pg | **Pg** | **11 04 01.8** | **0.0** |
| KBTC | | | | *e*Sg | **Sn** | **11 04 19.8** | **+0.1** |
| **TBLG** | **Delisi** | **1.38** | **121** | *e*PN | **Pn** | **11 04 01.5** | **+0.3** |
| TBLG | | | | *e*SN | **Sb** | **11 04 17.9** | **-1.5** |
| **TBLG** | **Delisi** | **1.38** | **121** | P | **Pn** | **11 04 00.8** | **-0.3** |
| TBLG | | | | S | **Sb** | **11 04 19.5** | **+0.1** |
| **TBLG** | **Delisi** | **1.38** | **121** | *e*PG | **Pn** | **11 04 00.9** | **-0.3** |
| TBLG | | | | *e*S | **Sb** | **11 04 19.7** | **+0.3** |
| **TBLG** | **Delisi** | **1.38** | **121** | P | **Pn** | **11 04 00.9** | **-0.3** |
| **TBLG** | **Delisi** | **1.38** | **121** | *e*Pn | **Pn** | **11 04 01.5** | **+0.3** |
| TBLG | | | | *e*Sn | **Sb** | **11 04 17.9** | **-1.5** |
| TBLG | | | | S | **Sb** | **11 04 19.5** | **+0.1** |
| **SEAG** | **Tbilisi Sea** | **1.40** | **119** | P | **Pn** | **11 04 00.9** | **-0.6** |
| SEAG | | | | S | **Sb** | **11 04 19.8** | **-0.3** |
| **SEAG** | **Tbilisi Sea** | **1.40** | **119** | P | **Pn** | **11 04 01.5** | **0.0** |
| SEAG | | | | S | **Sn** | **11 04 21.2** | **+0.9** |
| **KZR** | **Kazreti** | **1.42** | **139** | P | **Pn** | **11 04 02.2** | **+0.3** |
| KZR | | | | S | **Sn** | **11 04 21.1** | **+0.2** |
| **KZR** | **Kazreti** | **1.42** | **139** | P | **Pn** | **11 04 02.1** | **+0.2** |
| KZR | | | | S | **Sn** | **11 04 21.1** | **+0.2** |
| **BCA** | **Borcka** | **1.53** | **229** | *e*PN | **Pg** | **11 04 04.9** | **+0.1** |
| **BCA** | **Borcka** | **1.53** | **229** | *e*Pn | **Pg** | **11 04 04.9** | **+0.1** |
| **KVAR** | **Kislovodsk Arr** | **1.54** | **347** | Pg | **Pg** | **11 04 04.7** | **-0.3** |
| | baz=152,slow=6.1,SNR=174 | | | | | | |
| KVAR | | | | Lg | Lg | 11 04 24.3 | |
| | baz=196,slow=12,SNR=24 | | | | | | |
| KVAR | | | | LR | LR | 11 04 27.8 | |
| | comp=Z,95nm,19.8s,baz=202,slow=36 | | | | | | |
| **KIV** | **Kislovodsk** | **1.54** | **347** | *d*PG | **Pb** | **11 04 04.6** | **+0.1** |
| KIV | | | | *e*S | **Sn** | **11 04 22.8** | **-1.1** |
| KIV | | | | pmax | pmax | | |
| | comp=Z,192nm,0.7s | | | | | | |
| KIV | | | | smax | smax | | |
| | comp=N,127nm,0.7s | | | | | | |
| **KIV** | **Kislovodsk** | **1.54** | **347** | *i* Pg | **Pb** | **11 04 04.6** | **+0.1** |
| | comp=N,192nm,0.7s | | | | | | |
| KIV | | | | *e*Sg | **Sn** | **11 04 22.8** | **-1.1** |
| | comp=N,127nm,0.7s | | | | | | |
| **ARTV** | **Artvin** | **1.57** | **217** | ⇓*i*P | **Pg** | **11 04 05.7** | **+0.1** |
| ARTV | | | | *i* S | **Sg** | **11 04 27.8** | **+1.8** |
| **ARTV** | **Artvin** | **1.57** | **217** | P | **Pg** | **11 04 05.7** | **+0.1** |
| ARTV | | | | S | **Sg** | **11 04 27.8** | **+1.8** |
| **BEYR** | **Belyy Ugol+** | **1.58** | **351** | *e*PG | **Pb** | **11 04 05.2** | **+0.1** |
| BEYR | | | | *e*S | **Sb** | **11 04 25.5** | **+0.2** |
| **BEYR** | **Belyy Ugol+** | **1.58** | **351** | *e*Pg | **Pb** | **11 04 05.2** | **+0.1** |
| BEYR | | | | *e*Sg | **Sb** | **11 04 25.5** | **+0.2** |
| **DAGI** | **Agillar** | **1.67** | **215** | ⇓*i*P | **Pg** | **11 04 07.3** | **0.0** |
| DAGI | | | | *i* S | **Sg** | **11 04 30.6** | **+1.6** |
| **TRKR** | **Terskaya** | **1.71** | **42** | *e*PN | **Pg** | **11 04 08.7** | **+0.5** |
| TRKR | | | | *e*S | **Sg** | **11 04 31.8** | **+1.4** |
| **TRKR** | **Terskaya** | **1.71** | **42** | *e*Pn | **Pg** | **11 04 08.7** | **+0.5** |
| TRKR | | | | *e*Sg | **Sg** | **11 04 31.8** | **+1.4** |
| **EAK** | **Akyaka** | **1.80** | **169** | ⇓*i*P | **Pb** | **11 04 09.1** | **+0.2** |
| EAK | | | | *i* S | **Sg** | **11 04 32.8** | **-0.4** |
| **EAK** | **Akyaka** | **1.80** | **169** | P | **Pb** | **11 04 09.1** | **+0.2** |
| EAK | | | | S | **Sg** | **11 04 32.8** | **-0.4** |
| **KARS** | **Kars** | **1.83** | **182** | *e*PN | **Pn** | **11 04 08.1** | **+0.6** |
| **KARS** | **Kars** | **1.83** | **182** | *e*Pn | **Pn** | **11 04 08.1** | **+0.6** |
| **DDEM** | **Demirkent** | **1.89** | **215** | *i* P | **Pg** | **11 04 11.3** | **-0.4** |
| DDEM | | | | *i* S | **Sg** | **11 04 38.5** | **+2.4** |
| **DDEM** | **Demirkent** | **1.89** | **215** | P | **Pg** | **11 04 11.3** | **-0.4** |
| **SENK** | **Senkaya-Erzuru** | **1.99** | **198** | *e*PN | **Pn** | **11 04 10.9** | **+1.1** |
| **SENK** | **Senkaya-Erzuru** | **1.99** | **198** | *e*Pn | **Pn** | **11 04 10.9** | **+1.1** |
| **DIGO** | **Kars** | **2.04** | **176** | *i* P | **Pb** | **11 04 13.5** | **+0.4** |
| DIGO | | | | *i* S | **Sg** | **11 04 42.2** | **+1.0** |
| **DIGO** | **Kars** | **2.04** | **176** | P | **Pb** | **11 04 13.5** | **+0.4** |
| **GROC** | **Groznyy** | **2.07** | **68** | *e*PN | **Pb** | **11 04 14.1** | **+0.6** |
| GROC | | | | *e*S | **Sg** | **11 04 43.8** | **+1.8** |
| GROC | | | | pmax | pmax | | |
| | comp=Z,64nm,0.5s | | | | | | |
| GROC | | | | smax | smax | | |
| | comp=N,752nm,0.7s | | | | | | |
| GROC | | | | smax | smax | | |
| | comp=N,483nm,0.6s | | | | | | |
| **GROC** | **Groznyy** | **2.07** | **68** | *e*Pn | **Pb** | **11 04 14.1** | **+0.6** |
| | comp=N,64nm,0.5s | | | | | | |
| GROC | | | | *e*Sb | **Sg** | **11 04 43.8** | **+1.8** |
| | comp=N,483nm,0.6s | | | | | | |
| **QZX** | **Qazax, Azerbai** | **2.16** | **130** | ⇑P | **Pn** | **11 04 13.5** | **+1.5** |
| SNR=128 | | | | | | | |
| QZX | | | | ⇓S | **Sb** | **11 04 42.3** | **+0.3** |
| **BTLR** | **Botlikh** | **2.27** | **84** | ⇑*i*PN | **Pb** | **11 04 17.9** | **+1.1** |
| BTLR | | | | *e* | | 11 04 49.5 | |
| BTLR | | | | pmax | pmax | | |
| | comp=Z,138nm,0.5s | | | | | | |
| BTLR | | | | smax | smax | | |
| | comp=E,261nm,0.9s | | | | | | |
| BTLR | | | | smax | smax | | |
| | comp=N,250nm,0.8s | | | | | | |
| BTLR | | | | smax | smax | | |
| | comp=E,258nm,0.6s | | | | | | |
| **BTLR** | **Botlikh** | **2.27** | **84** | *i* Pn | **Pb** | **11 04 17.9** | **+1.1** |
| | comp=E,138nm,0.5s | | | | | | |
| BTLR | | | | *e*Sb | **Sg** | **11 04 49.5** | **+1.2** |
| | comp=E,250nm,0.8s | | | | | | |
| **DDFL** | **Dedoflistskaro** | **2.42** | **114** | P | **Pb** | **11 04 19.9** | **+0.5** |
| DDFL | | | | S | **Sg** | **11 04 54.0** | **+0.8** |
| **HOMI** | **Horasan** | **2.59** | **202** | *i* P | **Pb** | **11 04 22.9** | **+0.5** |
| **GNI** | **Garni** | **2.59** | **152** | Pn | **Pb** | **11 04 23.1** | **+0.7** |
| | comp=E,25nm,0.3s,baz=300,slow=6.3,SNR=38 | | | | | | |
| GNI | | | | Lg | Lg | 11 05 00.7 | |
| | comp=E,13nm,0.3s,baz=103,slow=22,SNR=3.2 | | | | | | |
| GNI | | | | LR | LR | 11 05 39.1 | |
| | comp=E,209nm,19.6s,baz=312,slow=46 | | | | | | |
| **GNI** | **Garni** | **2.59** | **152** | *i* PN | **Pb** | **11 04 22.9** | **+0.5** |
| **GNI** | **Garni** | **2.59** | **152** | *i* Pn | **Pb** | **11 04 22.9** | **+0.5** |
| **TASB** | **TASBURUN-IGDIR** | **2.60** | **162** | *e*PN | **Pn** | **11 04 18.5** | **+0.4** |
| **TASB** | **TASBURUN-IGDIR** | **2.60** | **162** | *e*Pn | **Pn** | **11 04 18.5** | **+0.4** |
| **GDB** | **GEDABAY** | **2.60** | **131** | ⇓P | **Pn** | **11 04 20.3** | **+2.1** |
| | SNR=11 | | | | | | |
| GDB | | | | ⇓S | **Sb** | **11 04 53.8** | **-1.1** |
| **GOF** | **Gofitskoye** | **2.60** | **358** | ⇑*e*PN | **Pg** | **11 04 24.2** | **-1.2** |
| GOF | | | | *e*S | **Sg** | **11 05 00.2** | **+1.1** |
| GOF | | | | pmax | pmax | | |
| | comp=Z,53nm,0.6s | | | | | | |
| GOF | | | | smax | smax | | |
| | comp=E,294nm,0.8s | | | | | | |
| GOF | | | | smax | smax | | |
| | comp=N,799nm,0.9s | | | | | | |
| **GOF** | **Gofitskoye** | **2.60** | **358** | *e*Sb | **Sg** | **11 05 00.2** | **+1.1** |
| | comp=N,799nm,0.9s | | | | | | |
| **XNZR** | **Khunzakh** | **2.62** | **87** | *e*PN | **Pg** | **11 04 25.0** | **-0.6** |
| XNZR | | | | *e* | | 11 05 01.7 | |
| **XNZR** | **Khunzakh** | **2.62** | **87** | *e*Sb | **Sg** | **11 05 01.7** | **+2.2** |
| **EATA** | **Eleskirt** | **2.64** | **191** | *i* P | **Pb** | **11 04 23.8** | **+0.5** |
| **EATA** | **Eleskirt** | **2.64** | **191** | P | **Pb** | **11 04 23.8** | **+0.5** |
| **ZKTA** | **Zakatala** | **2.70** | **106** | ⇓P | **Pb** | **11 04 22.3** | **-1.9** |
| | SNR=13 | | | | | | |
| ZKTA | | | | ⇑S | **Sb** | **11 04 57.2** | **-0.3** |
| **ZKTA** | **Zakatala** | **2.70** | **106** | PN | **Pb** | **11 04 22.2** | **-1.9** |
| **ZKTA** | **Zakatala** | **2.70** | **106** | Pn | **Pb** | **11 04 22.2** | **-1.9** |
| **SOC** | **Sochi** | **2.77** | **295** | *e*PN | **Pn** | **11 04 20.3** | **-0.1** |
| SOC | | | | *e* | | 11 04 27.5 | |
| SOC | | | | *e* | | 11 04 54.0 | |
| SOC | | | | *e* | | 11 04 59.7 | |
| SOC | | | | pmax | pmax | | |
| | comp=Z,101nm,0.7s | | | | | | |
| SOC | | | | smax | smax | | |
| | comp=N,68nm,0.5s | | | | | | |
| SOC | | | | smax | smax | | |
| | comp=E,110nm,0.6s | | | | | | |
| **SOC** | **Sochi** | **2.77** | **295** | *e*Pn | **Pn** | **11 04 20.3** | **-0.1** |
| | comp=E,101nm,0.7s | | | | | | |
| SOC | | | | *e*Sn | **Sn** | **11 04 54.0** | **-0.1** |
| SOC | | | | *e*Sb | **Sb** | **11 04 59.7** | **+0.2** |
| | comp=E,68nm,0.5s | | | | | | |
| **GNBR** | **Gunib** | **2.81** | **90** | *e*PN | **Pb** | **11 04 27.3** | **+1.2** |
| GNBR | | | | pmax | pmax | | |
| | comp=Z,94nm,0.4s | | | | | | |
| **ERZM** | **Erzurum** | **2.89** | **209** | *i* P | **Pb** | **11 04 26.8** | **-0.7** |
| **ERZM** | **Erzurum** | **2.89** | **209** | P | **Pb** | **11 04 26.8** | **-0.7** |
| **KTUT** | **Trabzon** | **2.94** | **241** | *e*PN | **Pb** | **11 04 25.9** | **-2.3** |
| **KTUT** | **Trabzon** | **2.94** | **241** | *e*Pn | **Pb** | **11 04 25.9** | **-2.3** |
| **GANJ** | **Ganja** | **2.98** | **126** | ⇓P | **Pb** | **11 04 26.4** | **-2.6** |
| | SNR=14 | | | | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **AAK** | **Ala-Archa** | **23.02** | **79** | *e*P | | **P** | | **11 08 41.7** | **+0.5** |
| AAK | | | | pmax | | pmax | | | | |
| | comp=Z,4.0nm,1.3s | | | | | | | | | |
| **AAK** | **Ala-Archa** | **23.02** | **79** | *e*P | | **P** | | **11 08 41.7** | **+0.5** |
| | comp=Z,4.0nm,1.3s | | | | | | | | | |
| **HFS** | **Hagfors** | **25.22** | **325** | P | | **P** | | **11 09 02.2** | **+0.5** |
| | comp=Z,4.9nm,0.6s,baz=120,slow=13,SNR=15 | | | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **25.46** | **59** | P | | **P** | | **11 09 06.4** | **+2.5** |
| | comp=Z,0.7nm,0.2s,baz=268,slow=11,SNR=5.7 | | | | | | | | | |
| **KURK** | **Kurchatov** | **25.53** | **59** | *e*P | | **P** | | **11 09 05.0** | **+0.4** |
| KURK | | | | pmax | | pmax | | | | |
| | comp=Z,2.0nm,1.1s | | | | | | | | | |
| **MKAR** | **Makanchi Array** | **27.98** | **68** | P | | **P** | | **11 09 27.7** | **+0.9** |
| | comp=Z,0.3nm,0.4s,baz=265,slow=11,SNR=5.4 | | | | | | | | | |
| **ESDC** | **Sonseca Array** | **35.29** | **282** | P | | **P** | | **11 10 30.5** | **-0.6** |
| | comp=Z,0.4nm,0.7s,baz=93,slow=11,SNR=2.9 | | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **46.20** | **243** | P | | **P** | | **11 12 01.6** | **+0.3** |
| | comp=Z,0.7nm,0.7s,baz=45,slow=6.1,SNR=5.2 | | | | | | | | | |
| **KSRS** | **Korea Array** | **62.54** | **63** | LR | | LR | | 11 43 39.8 | | |
| | comp=Z,18nm,20.1s,baz=30,slow=38 | | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **73.88** | **349** | P | | **P** | | **11 15 11.1** | **+0.4** |
| | comp=Z,0.2nm,0.6s,baz=12,slow=6.5,SNR=10 | | | | | | | | | |

**WEL 17 11:10:09.2±0.3, 38.92S×175.33E, h156km±2km, ML3.7/44, 17C-11D, Error ellipse: s-maj=1.5km s-min=1.4km az=90.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WTVZ** | **West Tongariro** | **0.28** | **133** | ⇓PN | Pn | 11 10 30.5 | 0.0 |
| WTVZ | | | | SN | Sn | 11 10 46.3 | -0.6 |
| **KATZ** | **Kakaramea** | **0.29** | **100** | PN | Pn | 11 10 30.7 | +0.2 |
| **KRVZ** | **Karewarewa** | **0.30** | **125** | ⇓PN | Pn | 11 10 30.5 | -0.1 |
| **NGZ** | **Ngauruhoe** | **0.33** | **140** | PN | Pn | 11 10 30.9 | +0.2 |
| **RATZ** | **Rangitukua** | **0.35** | **81** | PN | Pn | 11 10 30.4 | -0.3 |
| **OTVZ** | **Oturere** | **0.35** | **132** | PN | Pn | 11 10 31.2 | +0.4 |
| **PKVZ** | **Pokaka** | **0.36** | **178** | PN | Pn | 11 10 30.6 | -0.1 |
| **FWVZ** | **Far West T-bar** | **0.37** | **152** | ⇑PN | Pn | 11 10 30.9 | -0.1 |
| **WATZ** | **Wairara** | **0.38** | **56** | PN | Pn | 11 10 30.9 | +0.1 |
| **TRVZ** | **Turoa** | **0.41** | **156** | PN | Pn | 11 10 31.1 | 0.0 |
| **RITZ** | **Rihia Road** | **0.42** | **98** | PN | Pn | 11 10 30.9 | 0.0 |
| **TUVZ** | **Tukino** | **0.43** | **144** | PN | Pn | 11 10 31.3 | +0.2 |
| TUVZ | | | | SN | Sn | 11 10 47.2 | -0.7 |
| **WNVZ** | **Wahianoa** | **0.45** | **153** | PN | Pn | 11 10 31.2 | 0.0 |
| WNVZ | | | | SN | Sn | 11 10 47.4 | -0.7 |
| **MTVZ** | **Mangateitei** | **0.47** | **167** | PN | Pn | 11 10 31.0 | -0.2 |
| MTVZ | | | | SN | Sn | 11 10 47.3 | -0.8 |
| **VRZ** | **Vera Road** | **0.49** | **246** | PN | Pn | 11 10 30.9 | -0.2 |
| **HIZ** | **Hauiti** | **0.55** | **318** | ⇓PN | Pn | 11 10 31.2 | -0.3 |
| HIZ | | | | SN | Sn | 11 10 48.2 | -0.2 |
| **KUTZ** | **Kaahu Road** | **0.58** | **42** | ⇓PN | Pn | 11 10 31.7 | 0.0 |
| **MOVZ** | **Moawhango** | **0.58** | **146** | ⇑PN | Pn | 11 10 31.4 | -0.3 |
| **BHHZ** | **Black Hill Sta** | **0.80** | **135** | PN | Pn | 11 10 32.8 | -0.3 |
| BHHZ | | | | AML | AML | 11 10 49.7 | |
| BHHZ | | | | AML | AML | 11 10 49.7 | |
| **WAZ** | **Wanganui** | **0.87** | **198** | ⇑PN | Pn | 11 10 33.6 | +0.1 |
| **ALRZ** | **Allen Road** | **0.87** | **66** | PN | Pn | 11 10 33.0 | -0.6 |
| **BKZ** | **Black Stump Fm** | **0.94** | **105** | ⇓PN | Pn | 11 10 33.1 | -0.3 |
| BKZ | | | | AML | AML | 11 10 52.5 | |
| BKZ | | | | AML | AML | 11 10 53.9 | |
| **KWHZ** | **Kaweka Forest** | **0.99** | **121** | PN | Pn | 11 10 34.5 | +0.1 |
| KWHZ | | | | AML | AML | 11 10 55.5 | |
| KWHZ | | | | AML | AML | 11 10 56.3 | |
| **PREZ** | **Palmer Road** | **1.00** | **245** | PN | Pn | 11 10 34.2 | -0.3 |
| **PKE** | **Pukeiti** | **1.08** | **255** | PN | Pn | 11 10 34.9 | -0.3 |
| **KRHZ** | **Kereru** | **1.08** | **132** | PN | Pn | 11 10 35.4 | +0.1 |
| KRHZ | | | | SN | Sn | 11 10 54.0 | -1.2 |
| KRHZ | | | | AML | AML | 11 10 56.4 | |
| **KHEZ** | **Kahui Hut** | **1.09** | **250** | PN | Pn | 11 10 35.2 | -0.2 |
| **RRRZ** | **Republican Roa** | **1.10** | **58** | PN | Pn | 11 10 35.0 | -0.4 |
| **NMHZ** | **Naumai** | **1.16** | **99** | PN | Pn | 11 10 36.7 | +0.7 |
| NMHZ | | | | AML | AML | 11 10 59.5 | |
| NMHZ | | | | AML | AML | 11 11 00.2 | |
| **MTHZ** | **Maungataniwha** | **1.18** | **87** | PN | Pn | 11 10 35.8 | -0.4 |
| **MCHZ** | **McNeill Hill** | **1.18** | **116** | PN | Pn | 11 10 36.9 | +0.8 |
| MCHZ | | | | AML | AML | 11 10 59.7 | |
| MCHZ | | | | AML | AML | 11 11 00.1 | |
| **PNHZ** | **Pukenui** | **1.20** | **146** | ⇑PN | Pn | 11 10 36.3 | 0.0 |
| PNHZ | | | | AML | AML | 11 10 58.5 | |
| PNHZ | | | | AML | AML | 11 10 59.8 | |
| **NMEZ** | **Namu Road** | **1.23** | **246** | *e*PN | Pn | 11 10 36.3 | -0.2 |
| **TSZ** | **Takapari Road** | **1.23** | **157** | PN | Pn | 11 10 36.5 | -0.1 |
| TSZ | | | | AML | AML | 11 10 58.0 | |
| TSZ | | | | AML | AML | 11 10 58.1 | |
| **OHWZ** | **Ohakea** | **1.28** | **180** | PN | Pn | 11 10 37.3 | +0.4 |
| **RTZ** | **Ruatahuna** | **1.33** | **77** | ⇓PN | Pn | 11 10 37.0 | -0.6 |
| **ARHZ** | **Aropaoanui** | **1.34** | **105** | PN | Pn | 11 10 38.0 | +0.4 |
| ARHZ | | | | AML | AML | 11 11 01.3 | |
| ARHZ | | | | AML | AML | 11 11 01.5 | |
| **WPHZ** | **Waipukurau** | **1.43** | **143** | ⇑PN | Pn | 11 10 38.4 | 0.0 |
| WPHZ | | | | SN | Sn | 11 10 59.5 | -1.5 |
| WPHZ | | | | AML | AML | 11 11 01.6 | |
| **KAHZ** | **Kahuranaki** | **1.48** | **126** | PN | Pn | 11 10 39.4 | +0.4 |
| KAHZ | | | | AML | AML | 11 11 02.4 | |
| KAHZ | | | | AML | AML | 11 11 03.3 | |
| **WHHZ** | **Waihua** | **1.49** | **96** | PN | Pn | 11 10 39.3 | +0.2 |
| WHHZ | | | | AML | AML | 11 11 07.8 | |
| **POWZ** | **Post Office Ro** | **1.50** | **167** | PN | Pn | 11 10 38.7 | -0.5 |
| POWZ | | | | AML | AML | 11 11 01.7 | |
| POWZ | | | | AML | AML | 11 11 08.1 | |
| **DVHZ** | **Dannevirke** | **1.52** | **155** | ⇑PN | Pn | 11 10 38.9 | -0.5 |
| DVHZ | | | | AML | AML | 11 11 00.9 | |
| DVHZ | | | | AML | AML | 11 11 02.5 | |
| **CKHZ** | **Cape Kidnapper** | **1.54** | **119** | PN | Pn | 11 10 40.0 | +0.4 |
| CKHZ | | | | AML | AML | 11 11 05.3 | |
| CKHZ | | | | AML | AML | 11 11 07.4 | |
| **URZ** | **Urewera** | **1.55** | **65** | ⇓PN | Pn | 11 10 38.6 | -1.0 |
| URZ | | | | AML | AML | 11 11 00.5 | |
| URZ | | | | AML | AML | 11 11 01.4 | |
| **SNGZ** | **Shannon Statio** | **1.58** | **85** | ⇓PN | Pn | 11 10 40.0 | 0.0 |
| SNGZ | | | | AML | AML | 11 11 11.7 | |
| SNGZ | | | | AML | AML | 11 11 11.7 | |
| **PXZ** | **Pawanui** | **1.62** | **133** | ⇑PN | Pn | 11 10 40.3 | -0.1 |
| PXZ | | | | AML | AML | 11 11 04.8 | |
| PXZ | | | | AML | AML | 11 11 04.9 | |
| PXZ | | | | AML | AML | 11 11 05.3 | |
| PXZ | | | | AML | AML | 11 11 05.3 | |
| **PRHZ** | **Porangahau** | **1.68** | **143** | PN | Pn | 11 10 40.9 | -0.1 |
| PRHZ | | | | AML | AML | 11 11 05.4 | |
| PRHZ | | | | AML | AML | 11 11 05.5 | |
| **PRWZ** | **Pori Road** | **1.70** | **163** | PN | Pn | 11 10 41.0 | -0.3 |
| PRWZ | | | | AML | AML | 11 11 04.7 | |
| PRWZ | | | | AML | AML | 11 11 06.2 | |
| **MRZ** | **Mangatainoka R** | **1.75** | **174** | ⇑PN | Pn | 11 10 40.9 | -0.8 |
| MRZ | | | | AML | AML | 11 11 04.4 | |
| MRZ | | | | AML | AML | 11 11 04.4 | |
| **ANWZ** | **Angora Road** | **1.77** | **150** | ⇑PN | Pn | 11 10 41.9 | -0.2 |
| ANWZ | | | | AML | AML | 11 11 09.1 | |
| ANWZ | | | | AML | AML | 11 11 11.4 | |
| **MWZ** | **Matawai** | **1.82** | **72** | ⇑PN | Pn | 11 10 41.9 | -0.8 |
| MWZ | | | | AML | AML | 11 11 07.7 | |
| MWZ | | | | AML | AML | 11 11 07.7 | |
| **BFZ** | **Birch Farm** | **1.89** | **158** | PN | Pn | 11 10 42.6 | -0.8 |
| **OGWZ** | **Otaki Gorge** | **1.89** | **184** | ⇑PN | Pn | 11 10 42.7 | -0.7 |
| OGWZ | | | | AML | AML | 11 11 07.5 | |
| OGWZ | | | | AML | AML | 11 11 07.5 | |
| **TIWZ** | **Tintock** | **1.90** | **167** | PN | Pn | 11 10 42.7 | -0.9 |
| TIWZ | | | | AML | AML | 11 11 08.9 | |
| TIWZ | | | | AML | AML | 11 11 09.0 | |
| **RIGZ** | **Rimuhau** | **1.91** | **84** | PN | Pn | 11 10 43.3 | -0.4 |
| RIGZ | | | | AML | AML | 11 11 11.0 | |
| RIGZ | | | | AML | AML | 11 11 11.4 | |
| **KIW** | **Kapiti Island** | **1.96** | **189** | PN | Pn | 11 10 43.0 | -1.2 |
| **HOWZ** | **Holdsworth Sta** | **1.98** | **176** | ⇑PN | Pn | 11 10 43.3 | -1.1 |
| HOWZ | | | | SN | Sn | 11 11 07.8 | -3.8 |
| HOWZ | | | | AML | AML | 11 11 10.2 | |
| **PRGZ** | **Paritu Road** | **1.99** | **91** | PN | Pn | 11 10 44.2 | -0.4 |
| PRGZ | | | | AML | AML | 11 11 13.0 | |
| **MHGZ** | **Mahia Peninsul** | **2.02** | **97** | PN | Pn | 11 10 44.7 | -0.2 |
| MHGZ | | | | AML | AML | 11 11 20.3 | |
| **TKGZ** | **Te Karaka** | **2.03** | **77** | PN | Pn | 11 10 44.7 | -0.2 |
| TKGZ | | | | AML | AML | 11 11 14.0 | |
| TKGZ | | | | AML | AML | 11 11 14.4 | |
| **RUGZ** | **Raukumara Rang** | **2.08** | **63** | PN | Pn | 11 10 44.0 | -1.7 |
| **CPWZ** | **Castlepoint** | **2.09** | **162** | PN | Pn | 11 10 45.4 | -0.3 |
| **DUWZ** | **D'Urville Isla** | **2.17** | **210** | ⇓PN | Pn | 11 10 45.2 | -1.4 |
| **CAW** | **Cannon Point** | **2.19** | **185** | PN | Pn | 11 10 45.6 | -1.2 |
| CAW | | | | AML | AML | 11 11 14.5 | |
| CAW | | | | AML | AML | 11 11 15.1 | |
| **TWGZ** | **Tauwhareparae** | **2.21** | **71** | PN | Pn | 11 10 46.7 | -0.5 |
| TWGZ | | | | AML | AML | 11 11 19.1 | |
| TWGZ | | | | AML | AML | 11 11 20.1 | |
| **TMWZ** | **Te Maipa** | **2.22** | **169** | ⇑PN | Pn | 11 10 46.1 | -1.2 |
| TMWZ | | | | AML | AML | 11 11 18.5 | |
| **MTW** | **Mount Morrison** | **2.23** | **177** | PN | Pn | 11 10 45.9 | -1.5 |
| **HAZ** | **Te Kaha** | **2.25** | **60** | PN | Pn | 11 10 45.9 | -1.7 |
| HAZ | | | | AML | AML | 11 11 13.6 | |
| HAZ | | | | AML | AML | 11 11 20.2 | |
| **CNGZ** | **Carnagh Statio** | **2.29** | **80** | PN | Pn | 11 10 47.4 | -0.6 |
| **PKGZ** | **Pakihiroa** | **2.39** | **65** | PN | Pn | 11 10 48.5 | -0.9 |
| PKGZ | | | | AML | AML | 11 11 20.8 | |
| PKGZ | | | | AML | AML | 11 11 20.9 | |
| **WEL** | **Wellington** | **2.40** | **190** | ⇓PN | Pn | 11 10 47.8 | -1.5 |
| WEL | | | | AML | AML | 11 11 19.5 | |
| WEL | | | | AML | AML | 11 11 19.1 | |
| **TCW** | **Tory Channel** | **2.42** | **199** | ⇑PN | Pn | 11 10 48.1 | -1.5 |
| TCW | | | | AML | AML | 11 11 19.8 | |
| TCW | | | | AML | AML | 11 11 20.8 | |
| **PUZ** | **Puketiti** | **2.45** | **71** | ⇓PN | Pn | 11 10 48.9 | -1.1 |
| PUZ | | | | AML | AML | 11 11 22.3 | |
| **PAWZ** | **Paruwai Farm** | **2.46** | **178** | ⇑PN | Pn | 11 10 48.4 | -1.6 |
| **TRWZ** | **Traveller** | **2.49** | **174** | PN | Pn | 11 10 48.9 | -1.5 |
| TRWZ | | | | AML | AML | 11 10 58.7 | |
| TRWZ | | | | AML | AML | 11 11 21.4 | |
| **MSWZ** | **Moikau Station** | **2.49** | **181** | PN | Pn | 11 10 48.8 | -1.6 |
| MSWZ | | | | AML | AML | 11 10 49.2 | |
| MSWZ | | | | AML | AML | 11 10 49.6 | |
| **BHW** | **Baring Head** | **2.51** | **188** | PN | Pn | 11 10 48.9 | -1.7 |
| **PLWZ** | **Palliser** | **2.64** | **181** | ⇑PN | Pn | 11 10 50.4 | -1.9 |
| PLWZ | | | | AML | AML | 11 11 23.2 | |
| **WMGZ** | **Waiomatatini S** | **2.67** | **67** | PN | Pn | 11 10 51.3 | -1.3 |
| WMGZ | | | | AML | AML | 11 11 26.2 | |
| WMGZ | | | | AML | AML | 11 11 26.3 | |
| **MXZ** | **Matakaoa Point** | **2.71** | **61** | PN | Pn | 11 10 52.4 | -0.8 |
| **TUWZ** | **Tuamarina** | **2.72** | **203** | PN | Pn | 11 10 51.1 | -2.1 |
| TUWZ | | | | AML | AML | 11 11 25.5 | |
| TUWZ | | | | AML | AML | 11 11 25.8 | |
| **NNZ** | **Nelson** | **2.74** | **213** | PN | Pn | 11 10 51.3 | -2.1 |
| **QRZ** | **Quartz Range** | **2.87** | **228** | PN | Pn | 11 10 52.5 | -2.6 |
| **BSWZ** | **Blackbirch Sta** | **3.00** | **201** | PN | Pn | 11 10 54.9 | -1.8 |
| **THZ** | **Tophouse** | **3.39** | **212** | PN | Pn | 11 10 59.2 | -2.5 |
| **KHZ** | **Kahutara** | **3.75** | **201** | ⇑PN | Pn | 11 11 04.0 | -2.2 |
| KHZ | | | | AML | AML | 11 11 47.8 | |
| **DSZ** | **Denniston Nort** | **3.90** | **223** | PN | Pn | 11 11 04.8 | -3.4 |
| **LTZ** | **Lake Taylor** | **4.50** | **210** | PN | Pn | 11 11 12.2 | -3.8 |
| **INZ** | **Inchbonnie** | **4.81** | **217** | PN | Pn | 11 11 16.0 | -4.1 |
| **OXZ** | **Oxford** | **5.05** | **208** | PN | Pn | 11 11 19.1 | -4.2 |
| **CRLZ** | **Canterbury Las** | **5.07** | **203** | PN | Pn | 11 11 17.1 | -6.4 |
| **MQZ** | **McQueen's Vall** | **5.18** | **202** | PN | Pn | 11 11 20.5 | -4.5 |
| **WVZ** | **Waitaha Valley** | **5.41** | **218** | PN | Pn | 11 11 26.3 | -1.7 |
| **RPZ** | **Rata Peaks** | **5.77** | **213** | PN | Pn | 11 11 29.7 | -3.1 |
| **FOZ** | **Fox Glacier** | **6.20** | **220** | PN | Pn | 11 11 35.6 | -2.9 |
| **ODZ** | **Otahua Downs** | **7.04** | **208** | PN | Pn | 11 11 45.4 | -4.3 |
| **TUZ** | **Tuapeka** | **8.19** | **209** | PN | Pn | 11 12 02.0 | -2.9 |

*IDC **17** 11:15:46.0±3.0, 8.89S×113.03E, h0km, mb3.1/3, mb1 3.3/4, mb1mx3.2/44, mbtmp3.2/4, ML3.3/1, MS3.4/1, Ms1 3.4/1, ms1mx2.8/9, Error ellipse: s-maj=173.2km s-min=24.7km az=48.0*
*ISCJB **17** 11:15:58.4±0.6, 8.94S±0.08×113.39E±0.03, h83km±10km, mb2.9/3, Error ellipse: s-maj=12.7km s-min=4.7km az=6.7*
*DJA **17** 11:16:00.3±0.3, 9.5S×11.3E±, h55km±8km, M3.7/13, MLv3.7/13*
**ISC 17 11:15:58.2±1.0, 8.91S±0.08×113.40E±0.04, h86km±10km, n18, σ1.955/28, mb3.0/3, Jawa**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GMJI** | **Gumukmas** | **0.63** | **4** | P | **Pn** | **11 16 13.6** | **-0.1** |
| GMJI | | | | S | **Sn** | **11 16 25.0** | **-0.2** |
| **JAGI** | **Jajag, Banyuwa** | **0.86** | **60** | P | **Pn** | **11 16 16.7** | **+0.6** |
| JAGI | | | | S | **Sn** | **11 16 29.8** | **+0.3** |
| **BLJI** | **Banyuglugur** | **1.17** | **10** | P | **Pn** | **11 16 20.9** | **+1.2** |
| BLJI | | | | S | **Sn** | **11 16 36.2** | **+0.4** |
| **ABJI** | **Asem Bagus** | **1.38** | **37** | P | **Pn** | **11 16 24.0** | **+1.7** |
| ABJI | | | | S | **Sn** | **11 16 40.8** | **+0.4** |
| **PWJI** | **Pagerwojo** | **1.80** | **299** | P | **Pn** | **11 16 28.2** | **+0.5** |
| PWJI | | | | S | **Sn** | **11 16 49.1** | **-1.0** |
| **DNP** | **Denpasar** | **1.81** | **83** | S | **Sn** | **11 16 52.2** | **+1.9** |
| **KMMI** | **Kalianget** | **1.93** | **17** | P | **Pn** | **11 16 30.8** | **+1.4** |
| KMMI | | | | S | **Sn** | **11 16 53.7** | **+0.6** |
| **SRBI** | **Singaraja** | **1.98** | **66** | P | **Pn** | **11 16 30.8** | **+0.8** |
| SRBI | | | | S | **Sn** | **11 16 55.6** | **+1.4** |
| **GRJI** | **Gresik** | **2.18** | **335** | P | **Pn** | **11 16 34.2** | **+1.5** |
| GRJI | | | | S | **Sn** | **11 17 00.4** | **+1.4** |
| **PCJI** | **Pacitan** | **2.30** | **288** | P | **Pn** | **11 16 35.3** | **+0.9** |
| PCJI | | | | S | **Sn** | **11 17 02.4** | **+0.4** |
| **UGM** | **Wanagama** | **3.01** | **289** | P | **Pn** | **11 16 45.4** | **+1.5** |
| UGM | | | | S | **Sn** | **11 17 21.2** | **+2.2** |
| **PLAI** | **Plampang** | **4.33** | **89** | P | **Pn** | **11 17 04.3** | **+2.5** |
| PLAI | | | | S | **Sn** | **11 17 52.0** | **+0.9** |
| **KPJI** | **Karang Pucung** | **4.69** | **289** | P | **Pn** | **11 17 10.1** | **+3.5** |
| **FITZ** | **Fitzroy Crossi** | **15.00** | **129** | Pn | **Pn** | **11 19 23.3** | **-2.4** |
| | 0.1nm,0.3s,baz=303,slow=13,SNR=6.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **23.03** | **121** | P | **P** | **11 20 56.3** | **0.0** |
| | 0.3nm,0.8s,baz=296,slow=11,SNR=3.0 | | | | | | |
| **ASAR** | **Alice Springs** | **24.50** | **129** | P | **P** | **11 21 09.8** | **0.0** |
| | 0.5nm,0.9s,baz=303,slow=8.8,SNR=5.6 | | | | | | |
| **STKA** | **Stephens Creek** | **34.74** | **135** | LR | LR | 11 38 35.6 | |
| | comp=Z,62nm,18.8s,baz=28,slow=39 | | | | | | |
| **MKAR** | **Makanchi Array** | **62.00** | **336** | P | **P** | **11 26 07.1** | **-2.3** |
| | 0.2nm,0.7s,baz=142,slow=7.8,SNR=2.5 | | | | | | |

**IDC 17 11:37:40.0±3.1, 32.79S×178.34W, h0km, mb3.4/2, mb1 3.6/3, mb1mx3.5/20, mbtmp3.4/3, ML3.4/1, Error ellipse: s-maj=72.2km s-min=36.7km az=116.0, South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **URZ** | **Urewera** | **6.59** | **213** | Pn | Pn | 11 39 18.0 | -0.1 |
| | 0.8nm,0.3s,baz=248,slow=2.9,SNR=5.8 | | | | | | |
| URZ | | | | Sn | Sn | 11 40 33.0 | -1.0 |
| | 0.8nm,0.3s,baz=84,slow=23,SNR=6.2 | | | | | | |
| **ASAR** | **Alice Springs** | **42.74** | **270** | P | P | 11 45 39.5 | +0.2 |
| | 0.2nm,0.5s,baz=110,slow=7.5,SNR=6.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.95** | **275** | P | P | 11 45 48.8 | -0.2 |
| | 0.4nm,0.4s,baz=114,slow=7.7,SNR=14 | | | | | | |
| **FINES** | **FINESS Array B** | **147.27** | **338** | PKPbc | PKPbc | 11 57 23.7 | -0.9 |
| | 2.7nm,0.9s,baz=57,slow=5.1,SNR=5.4 | | | | | | |

*NEIC **17** 11:43:19.8±0.0, 18.17N×67.37W, h12km, MD3.0(RSPR), After RSPR.*
*NEIC Felt at Aguadilla, Guanica, Hormigueros, Isabela and Penuelas.*
**RSPR 17 11:43:19.9, 18.17N×67.37W, h12km, MD3.0/7, 16C-9D, Mona Passage**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MPR** | **Mayaguez** | **0.22** | **78** | *e*Pg | Pg | 11 43 24.4 | -0.3 |
| **IDE** | **Isla Desecheo** | **0.24** | **335** | ⇓*e*P | Pg | 11 43 25.0 | -0.1 |
| **IDE** | **Isla Desecheo** | **0.24** | **335** | *e*S | Sg | 11 43 29.0 | +0.5 |
| **IDE** | **Isla Desecheo** | **0.24** | **335** | ⇓*e*P | Pg | 11 43 25.0 | -0.1 |
| IDE | | | | *e*S | Sg | 11 43 29.0 | +0.5 |
| **LSP** | **Las Mesas** | **0.27** | **88** | ⇑*e*P | Pg | 11 43 25.5 | 0.0 |
| **LSP** | **Las Mesas** | **0.27** | **88** | *e*S | Sg | 11 43 30.2 | +0.9 |
| **LSP** | **Las Mesas** | **0.27** | **88** | ⇑*e*P | Pg | 11 43 25.5 | 0.0 |
| **LSP** | **Las Mesas** | **0.27** | **88** | *e*S | Sg | 11 43 30.1 | +0.9 |
| **LSP** | **Las Mesas** | **0.27** | **88** | ⇑*e*P | Pg | 11 43 25.5 | 0.0 |
| LSP | | | | *e*S | Sg | 11 43 30.2 | +0.9 |
| **CRPR** | **Cabo Rojo, PR** | **0.29** | **123** | ⇑*e*P | Pg | 11 43 26.0 | +0.1 |
| **CRPR** | **Cabo Rojo, PR** | **0.29** | **123** | *e*S | Sg | 11 43 30.2 | +0.3 |
| **CRPR** | **Cabo Rojo, PR** | **0.29** | **123** | ⇓*e*P | Pg | 11 43 25.9 | 0.0 |
| **CRPR** | **Cabo Rojo, PR** | **0.29** | **123** | *e*S | Sg | 11 43 30.5 | +0.6 |
| **CRPR** | **Cabo Rojo, PR** | **0.29** | **123** | ⇑*e*P | Pg | 11 43 26.0 | +0.1 |
| CRPR | | | | *e*S | Sg | 11 43 30.2 | +0.3 |
| CRPR | | | | *e*S | Sb | 11 43 30.5 | -1.3 |
| **AGP** | **Aguadilla** | **0.32** | **42** | *e*Pg | Pg | 11 43 26.8 | +0.3 |
| AGP | | | | *e*Sg | Sg | 11 43 31.4 | +0.5 |
| **AOPR** | **Arecibo Observ** | **0.61** | **73** | ⇑*e*P | Pg | 11 43 30.8 | -1.0 |
| **AOPR** | **Arecibo Observ** | **0.61** | **73** | *e*S | Sg | 11 43 39.1 | -0.7 |
| **AOPR** | **Arecibo Observ** | **0.61** | **73** | ⇓*e*P | Pg | 11 43 30.6 | -1.2 |
| **AOPR** | **Arecibo Observ** | **0.61** | **73** | *e*S | Sg | 11 43 38.8 | -1.1 |
| **AOPR** | **Arecibo Observ** | **0.61** | **73** | ⇑*e*P | Pg | 11 43 30.8 | -1.0 |
| AOPR | | | | *e*S | Sg | 11 43 38.8 | -1.1 |
| AOPR | | | | *e*S | Sb | 11 43 39.1 | -1.9 |
| **OBIP** | **Obispado Ponce** | **0.73** | **99** | ⇑*e*P | Pg | 11 43 32.8 | -1.3 |
| **OBIP** | **Obispado Ponce** | **0.73** | **99** | *e*S | Sg | 11 43 43.2 | -0.6 |
| **OBIP** | **Obispado Ponce** | **0.73** | **99** | ⇓*e*P | Pg | 11 43 32.7 | -1.4 |
| **OBIP** | **Obispado Ponce** | **0.73** | **99** | *e*S | Sg | 11 43 42.4 | -1.4 |
| **OBIP** | **Obispado Ponce** | **0.73** | **99** | ⇑*e*P | Pg | 11 43 32.8 | -1.3 |
| OBIP | | | | *e*S | Sg | 11 43 42.4 | -1.4 |
| OBIP | | | | *e*S | Sb | 11 43 43.2 | -1.4 |
| **CELP** | **Cerrillos** | **0.75** | **97** | ⇓*e*P | Pg | 11 43 32.8 | -1.7 |
| CELP | | | | *e*S | Sg | 11 43 42.9 | -1.5 |
| **CELP** | **Cerrillos** | **0.75** | **97** | ⇓*e*P | Pg | 11 43 32.8 | -1.7 |
| **CBYP** | **Canovanas** | **1.44** | **86** | ⇑*e*P | Pn | 11 43 44.8 | -1.0 |
| **CBYP** | **Canovanas** | **1.44** | **86** | *e*S | Sn | 11 44 03.4 | -1.3 |
| **CBYP** | **Canovanas** | **1.44** | **86** | ⇑*e*P | Pn | 11 43 43.5 | -2.3 |
| **CBYP** | **Canovanas** | **1.44** | **86** | *e*S | Sn | 11 44 01.9 | -2.8 |
| **CBYP** | **Canovanas** | **1.44** | **86** | ⇑*e*P | Pn | 11 43 43.5 | -2.3 |
| CBYP | | | | *e*S | Sn | 11 44 01.9 | -2.8 |
| **HUMP** | **Col San Antoni** | **1.44** | **91** | ⇑*e*P | Pn | 11 43 45.3 | -0.5 |
| **HUMP** | **Col San Antoni** | **1.44** | **91** | *e*S | Sn | 11 44 03.8 | -0.8 |
| **HUMP** | **Col San Antoni** | **1.44** | **91** | ⇑*e*P | Pn | 11 43 44.8 | -1.0 |
| **HUMP** | **Col San Antoni** | **1.44** | **91** | ⇑*e*P | Pn | 11 43 45.3 | -0.5 |
| HUMP | | | | *e*Sn | Sn | 11 44 03.1 | -1.5 |
| HUMP | | | | *e*S | Sb | 11 44 03.8 | -1.1 |
| **MTP** | **Monte Pirata** | **1.73** | **92** | ⇑*e*P | Pn | 11 43 49.7 | 0.0 |
| **MTP** | **Monte Pirata** | **1.73** | **92** | ⇓*e*P | Pn | 11 43 49.1 | -0.5 |
| **MTP** | **Monte Pirata** | **1.73** | **92** | ⇓*e*P | Pn | 11 43 49.1 | -0.5 |

*IDC **17** 11:52:09.2±1.1, 55.79S×27.99W, h0km, mb4.0/2, mb1 4.1/2, mb1mx3.7/20, mbtmp4.0/2, Error ellipse: s-maj=83.0km s-min=33.0km az=102.0*
*ISCJB **17** 11:52:23.2±1.9, 56.0S±0.1×27.6W±0.9, h121km, mb3.8/2, Error ellipse: s-maj=70.0km s-min=20.0km az=174.2*
**ISC 17 11:52:24.3±1.2, 55.9S±0.2×27.9W±0.4, h121km, n9, σ0.873/9, South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VNA1** | **Neumayer--Stat** | **17.05** | **158** | P | **Pn** | **11 56 15.6** | **+0.7** |
| **VNA3** | **Neumayer Olymp** | **17.24** | **160** | P | **P** | **11 56 16.0** | **-0.8** |
| **VNA2** | **Neumayer--Watz** | **17.45** | **157** | P | **P** | **11 56 19.1** | **-0.1** |
| | baz=313,slow=13 | | | | | | |
| **SNAA** | **Sanae** | **19.01** | **156** | P | **P** | **11 56 35.6** | **-0.7** |
| **VNDA** | **Vanda** | **46.67** | **183** | P | **P** | **12 00 40.4** | **+0.5** |
| | 1.1nm,0.6s,baz=180,slow=9.1,SNR=9.9 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **73.14** | **30** | P | **P** | **12 03 41.9** | **+0.5** |
| | 0.9nm,0.5s,baz=198,slow=5.6,SNR=6.3 | | | | | | |
| **YKA** | **Yellowknife Ar** | **135.82** | **318** | PKP | **PKPdf** | **12 11 28.2** | **-0.8** |
| | 0.1nm,0.6s,baz=139,slow=1.9,SNR=3.6 | | | | | | |
| **ILAR** | **Eielson Array** | **149.74** | **312** | PKPbc | **PKPbc** | **12 11 58.6** | **+0.3** |
| | 0.5nm,0.7s,baz=128,slow=1.9,SNR=9.2 | | | | | | |
| **SONM** | **Songino Array** | **151.11** | **87** | PKPbc | **PKPbc** | **12 12 01.7** | **-0.6** |
| | 0.2nm,0.4s,baz=242,slow=3.1,SNR=3.6 | | | | | | |

**IDC 17 12:02:15.3±2.3, 6.64S×130.06E, h0km, mb3.4/1, mb1 3.7/4, mb1mx3.3/37, mbtmp3.5/4, ML3.5/3, MS3.1/2, Ms1 3.1/2, ms1mx2.6/21, Error ellipse: s-maj=104.0km s-min=27.7km az=77.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **FITZ** | **Fitzroy Crossi** | **12.18** | **200** | Pn | Pn | 12 05 10.9 | +0.7 |
| | 0.2nm,0.3s,baz=27,slow=12,SNR=16 | | | | | | |
| FITZ | | | | Sn | Sn | 12 07 13.3 | -14 |
| | 0.3nm,0.3s,baz=276,slow=9.2,SNR=4.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **13.86** | **163** | Pn | Pn | 12 05 32.8 | -0.4 |
| | 0.2nm,0.3s,baz=336,slow=14,SNR=19 | | | | | | |
| WRA | | | | Sn | Sn | 12 07 54.7 | -13 |
| | 0.7nm,0.3s,baz=336,slow=23,SNR=14 | | | | | | |
| **ASAR** | **Alice Springs** | **17.33** | **168** | P | Pn | 12 06 18.5 | -0.3 |
| | 0.2nm,0.3s,baz=349,slow=10,SNR=22

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 12nm,0.4s | | | | | | | | |
| **JIRN** | **Jiri** | **9.99** | **316** | *e*P | | **Pn** | **12 17 47.4** | **-0.3** |
| | 9.1nm,0.3s | | | | | | | | |
| **GUN** | **Gumba** | **10.36** | **316** | *e*P | | **Pn** | **12 17 52.1** | **-0.7** |
| | 8.3nm,0.5s | | | | | | | | |
| **PKI** | **Pulchoki** | **10.46** | **313** | *e*P | | **Pn** | **12 17 54.3** | **+0.3** |
| | 5.6nm,0.5s | | | | | | | | |
| **PKIN** | **Phulchoki** | **10.47** | **313** | *e*P | | **Pn** | **12 17 54.3** | **+0.1** |
| | 5.0nm,0.4s | | | | | | | | |
| **KOLN** | **Koldanda** | **11.86** | **309** | *e*P | | **Pn** | **12 18 13.4** | **+0.3** |
| | 9.8nm,0.6s | | | | | | | | |
| **WRA** | **Warramunga Arr** | **56.43** | **133** | P | | **P** | **12 25 03.1** | **-0.1** |
| | 0.3nm,0.9s,baz=320,slow=7.4,SNR=4.2 | | | | | | | | |
| **ASAR** | **Alice Springs** | **58.73** | **137** | P | | **P** | **12 25 18.8** | **-0.6** |
| | 0.2nm,0.7s,baz=313,slow=7.2,SNR=4.9 | | | | | | | | |

*GUC* ***17*** *12:16:50.5±0.6,32°.57S×71°.60W,h38km±3km, ML2.9*
*SJA* ***17*** *12:16:51.2±2.4,32°.49S×71°.76W,h38km, ML2.7,MW3.7*

**ISC 17 12:16:45.2±3.0,32°.47S±0°.07×71°.8W±0°.1,h3km±13km,n13, σ1°56/21,2C-2D,Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID | | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | | h m s | ISC |
| **ROC1** | **El Roble** | **0.80** | **129** | | *e*P | Pn | 12 17 10.4 | +6.8 |
| ROC1 | | | | | *e*S | **Sn** | **12 17 19.7** | **+3.5** |
| **ROCH** | **El Roble** | **0.80** | **129** | | *e*P | Pn | 12 17 10.4 | +6.8 |
| ROCH | | | | | *e*S | **Sn** | **12 17 20.1** | **+4.0** |
| **PEL** | **Peldehue** | **1.12** | **127** | ⇓ | *i*P | **Pn** | **12 17 07.9** | **+0.1** |
| PEL | | | | | *i*S | **Sb** | **12 17 21.3** | **-0.9** |
| PEL | | | | | IAML | | 12 17 25.5 | |
| | comp=E,486nm,0.2s | | | | | | | |
| **RCDM** | **Rinconada Maip** | **1.29** | **142** | | *e*P | **Pg** | **12 17 10.6** | **+0.8** |
| RCDM | | | | | *i*S | **Sb** | **12 17 25.4** | **-1.6** |
| RCDM | | | | | IAML | | 12 17 30.3 | |
| | comp=N,621nm,0.1s | | | | | | | |
| **CLCH** | **Cerro Calan** | **1.38** | **132** | ⇑ | *i*P | **Pg** | **12 17 12.1** | **+0.6** |
| CLCH | | | | | *i*S | **Sb** | **12 17 28.7** | **-0.9** |
| CLCH | | | | | IAML | | 12 17 34.2 | |
| | comp=N,317nm,0.5s | | | | | | | |
| **ANTU** | **Antumapu** | **1.44** | **140** | | *e*P | **Pg** | **12 17 13.2** | **+0.4** |
| ANTU | | | | | *i*S | **Sn** | **12 17 30.4** | **-1.4** |
| ANTU | | | | | IAML | | 12 17 34.7 | |
| | comp=N,428nm,0.4s | | | | | | | |
| **FCH** | **Farellones** | **1.50** | **125** | ⇓ | *i*P | **Pg** | **12 17 14.2** | **+0.3** |
| FCH | | | | | *i*S | **Sn** | **12 17 32.6** | **-0.9** |
| FCH | | | | | IAML | | 12 17 33.6 | |
| | comp=E,514nm,0.2s | | | | | | | |
| **LMEL** | **Las Melosas** | **1.89** | **137** | ⇑ | *i*P | **Pb** | **12 17 20.2** | **-0.2** |
| LMEL | | | | | *i*S | **Sn** | **12 17 42.7** | **-0.3** |
| **AUSP** | **Uspallata** | **2.02** | **84** | | *e*P | **Pg** | **12 17 24.8** | **+0.9** |
| AUSP | | | | | *e*S | **Sg** | **12 17 50.4** | **+0.4** |
| **RTLS** | **Leoncito** | **2.19** | **73** | | *e*P | **Pg** | **12 17 28.0** | **+0.9** |
| RTLS | | | | | *e*S | **Sg** | **12 17 55.7** | **+0.1** |
| RTLS | | | | | IAML | | 12 18 01.3 | |
| | comp=Z,44nm,0.5s | | | | | | | |
| **ARCO** | **CERRO ARCO** | **2.41** | **100** | | *e*P | **Pg** | **12 17 31.4** | **0.0** |
| ARCO | | | | | IAML | | 12 18 09.9 | |
| | comp=Z,35nm,0.3s | | | | | | | |
| **AAGR** | **Agrelo** | **2.54** | **105** | | *i*P | **Pg** | **12 17 32.6** | **-1.2** |
| **AMOG** | **MOGNA** | **3.17** | **62** | | *e*P | **Pb** | **12 17 41.2** | **-1.1** |

*PRU* ***17*** *12:21:36.0,47°.94N×22°.78E,h0km*
*BUC* ***17*** *12:21:38.3±1.0,47°.99N×24°.02E,h6km±5km,MD3.1/3, Error ellipse: s-maj=9.0km s-min=4.3km az=355.0*
*SIGU* ***17*** *12:21:39.5,47°.88N×23°.98E,h6km,mb3.0*
*IDC* ***17*** *12:21:39.4±0.9,47°.88N×23°.90E,h0km,mb3.4/1, mb1 3.7/5,mb1mx3.3/43,mbtmp3.5/5,ML3.3/4,Error ellipse: s-maj=14.1km s-min=9.6km az=11.0*
*CSEM* ***17*** *12:21:40.1±0.2,47°.92N×23°.98E,h2km,MD3.1,Error ellipse: s-maj=5.8km s-min=4.3km az=39.0*
*ISCJB* ***17*** *12:21:40.3±0.3,47°.89N±0°.02×23°.95E±0°.02,h6km±2km, mb3.5/1,Error ellipse: s-maj=2.6km s-min=2.3km az=174.0*

**ISC 17 12:21:39.8±0.9,47°.91N±0°.02×23°.99E±0°.02,h11km±7km, n106,σ1°41/152,47C-6D,Romania**

| Code | Station Name | Δ° | AZ° | Phase ID | | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | | h m s | ISC |
| **RAKU** | **Rahkiv** | **0.16** | **46** | | *i*Pg | **Pg** | **12 21 43.6** | **+0.1** |
| RAKU | | | | | Pgm | | 12 21 43.7 | |
| RAKU | | | | | *i*Sg | **Sg** | **12 21 46.0** | **-0.1** |
| RAKU | | | | | Sgm | | 12 21 46.1 | |
| **BMR** | **Baia Mare** | **0.41** | **234** | ⇑ | *i*P | **Pb** | **12 21 48.5** | **-0.6** |
| **BMR** | **Baia Mare** | **0.41** | **234** | | S | **Sb** | **12 21 54.3** | **-1.0** |
| **BMR** | **Baia Mare** | **0.41** | **234** | ⇑ | *i*P | **Pb** | **12 21 48.5** | **-0.6** |
| BMR | | | | | *i*S | **Sb** | **12 21 54.3** | **-1.0** |
| **BMR** | **Baia Mare** | **0.41** | **234** | ⇑ | *i*P | **Pb** | **12 21 48.5** | **-0.6** |
| BMR | | | | | S | **Sb** | **12 21 54.3** | **-1.0** |
| **NSLU** | **Nyzhne Selyshc** | **0.42** | **48** | | *i*Pg | **Pb** | **12 21 49.2** | **-0.1** |
| NSLU | | | | | Pgm | | 12 21 49.9 | |
| NSLU | | | | | *e*Sg | **Sb** | **12 21 56.1** | **+0.4** |
| NSLU | | | | | Sgm | | 12 21 57.4 | |
| **KORU** | **Korolevo** | **0.62** | **293** | | *i*Pg | **Pb** | **12 21 52.2** | **-0.5** |
| KORU | | | | | Pgm | | 12 21 52.9 | |
| KORU | | | | | *e*Sg | **Sb** | **12 22 01.4** | **-0.1** |
| KORU | | | | | Sgm | | 12 22 03.1 | |
| **MEZ** | **Mezhgor'ye** | **0.68** | **332** | | *e*Pg | **Pb** | **12 21 53.6** | **-0.1** |
| MEZ | | | | | Pgm | | 12 21 54.4 | |
| MEZ | | | | | *e*Sg | **Sb** | **12 22 03.7** | **+0.6** |
| MEZ | | | | | Sgm | | 12 22 04.8 | |
| **TRSU** | **Trosnyk** | **0.72** | **285** | | *e*Pg | **Pb** | **12 21 53.9** | **-0.4** |
| TRSU | | | | | Pgm | | 12 21 54.1 | |
| TRSU | | | | | *e*Sg | **Sb** | **12 22 04.5** | **+0.4** |
| TRSU | | | | | Sgm | | 12 22 05.1 | |
| **BRIU** | **Brid** | **0.78** | **304** | | *e*Pg | **Pb** | **12 21 55.6** | **+0.3** |
| BRIU | | | | | Pgm | | 12 21 57.7 | |
| BRIU | | | | | *e*Sg | **Sb** | **12 22 06.5** | **+0.7** |
| BRIU | | | | | Sgm | | 12 22 08.2 | |
| **KSV** | **Kosov** | **0.83** | **60** | | *e*Pg | **Pb** | **12 21 56.6** | **+0.4** |
| KSV | | | | | Pgm | | 12 21 58.7 | |
| KSV | | | | | *e*Sg | **Sn** | **12 22 09.2** | **-0.4** |
| KSV | | | | | Sgm | | 12 22 11.3 | |
| **ARCR** | **ARCALIA** | **0.86** | **163** | ⇑ | *i*P | **Pb** | **12 21 57.0** | **+0.2** |
| **ARCR** | **ARCALIA** | **0.86** | **163** | ⇑ | *i*P | **Pb** | **12 21 57.0** | **+0.2** |
| ARCR | | | | | *i*S | **Sn** | **12 22 10.4** | **-0.1** |
| **ARCR** | **ARCALIA** | **0.86** | **163** | ⇑ | *i*P | **Pb** | **12 21 57.0** | **+0.2** |
| ARCR | | | | | *i*S | **Sn** | **12 22 10.4** | **-0.1** |
| **STNU** | **Starunia** | **0.87** | **23** | | *e*Pg | **Pn** | **12 21 57.9** | **-0.1** |
| STNU | | | | | *e*Sg | **Sn** | **12 22 10.7** | **+0.1** |
| **BURAR** | **Bucovina Array** | **0.88** | **109** | ⇓ | *i*P | **Pg** | **12 21 56.3** | **-0.5** |
| **BURAR** | **Bucovina Array** | **0.88** | **109** | ⇓ | *i*P | **Pg** | **12 21 56.3** | **-0.5** |
| BURAR | | | | | *i*S | **Sb** | **12 22 09.2** | **+0.2** |
| **BURAR** | **Bucovina Array** | **0.88** | **109** | ⇓ | *i*P | **Pg** | **12 21 56.3** | **-0.5** |
| BURAR | | | | | *i*S | **Sb** | **12 22 09.2** | **+0.2** |
| **BERU** | **Beregovo** | **0.96** | **290** | | *e*Pg | **Pb** | **12 21 58.2** | **-0.2** |
| BERU | | | | | *e*Sg | **Sn** | **12 22 12.5** | **-0.3** |
| **TRPA** | **Tarpa** | **1.00** | **283** | ⇑ | *ex* | **Pb** | **12 21 59.4** | **+0.3** |
| TRPA | | | | | *ex* | **Sb** | **12 22 12.8** | **+0.6** |
| **TRPA** | **Tarpa** | **1.00** | **283** | | *e*Sg | **Sb** | **12 22 12.8** | **+0.6** |
| **MUKU** | **Mukachevo** | **1.02** | **302** | | *e*Pg | **Pn** | **12 22 00.2** | **+0.1** |
| MUKU | | | | | Pgm | | 12 22 00.8 | |
| MUKU | | | | | *e*Sg | **Sn** | **12 22 15.0** | **+0.5** |
| MUKU | | | | | Sgm | | 12 22 16.6 | |
| **MORS** | **Morshin** | **1.22** | **357** | | *e*Pg | **Pg** | **12 22 04.5** | **+1.2** |
| MORS | | | | | *e*Sg | **Sn** | **12 22 22.9** | **+3.5** |
| **CJR** | **Cluj-Napoca** | **1.23** | **193** | ⇑ | *i*P | **Pg** | **12 22 03.3** | **-0.1** |
| **CJR** | **Cluj-Napoca** | **1.23** | **193** | ⇑ | *i*P | **Pg** | **12 22 03.3** | **-0.1** |
| CJR | | | | | *i*S | **Sn** | **12 22 21.6** | **+2.0** |
| **CJR** | **Cluj-Napoca** | **1.23** | **193** | ⇑ | *i*P | **Pg** | **12 22 03.3** | **-0.1** |
| CJR | | | | | *i*S | **Sn** | **12 22 21.6** | **+2.0** |
| **ONO** | **Onokovtsy** | **1.34** | **305** | | *e*Pg | **Pg** | **12 22 05.8** | **+0.3** |
| ONO | | | | | *e*Sg | **Sg** | **12 22 25.4** | **+2.6** |
| **UZH** | **Uzhgorod** | **1.34** | **303** | | *e*Pg | **Pg** | **12 22 06.2** | **+0.6** |
| UZH | | | | | Pgm | | 12 22 08.4 | |
| UZH | | | | | *e*Sg | **Sg** | **12 22 25.7** | **+2.7** |
| UZH | | | | | Sgm | | 12 22 26.6 | |
| **CHRU** | **Chernivtsi** | **1.35** | **73** | | *e*Pn | **Pg** | **12 22 06.3** | **+0.6** |
| CHRU | | | | | Pnm | | 12 22 06.5 | |
| CHRU | | | | | *e*Sn | **Sg** | **12 22 24.8** | **+1.5** |
| CHRU | | | | | Snm | | 12 22 27.0 | |
| **SHIU** | **Shidnytsya** | **1.38** | **343** | | *e*Pn | **Pg** | **12 22 06.5** | **+0.3** |
| SHIU | | | | | Pnm | | 12 22 09.5 | |
| SHIU | | | | | *e*Sn | **Sg** | **12 22 25.7** | **+1.6** |
| SHIU | | | | | Snm | | 12 22 26.5 | |
| **DRGR** | | **1.42** | **218** | ⇑ | *i*P | **Pb** | **12 22 06.3** | **0.0** |
| **DRGR** | | **1.42** | **218** | ⇑ | *i*P | **Pb** | **12 22 06.3** | **0.0** |
| DRGR | | | | | *i*S | **Sg** | **12 22 25.9** | **+0.4** |
| **DRGR** | | **1.42** | **218** | ⇑ | *i*P | **Pb** | **12 22 06.3** | **0.0** |
| DRGR | | | | | *i*S | **Sg** | **12 22 25.9** | **+0.4** |
| **STZU** | **Stuzhytsa** | **1.43** | **321** | | *e*Pn | **Pg** | **12 22 07.5** | **+0.3** |
| STZU | | | | | Pnm | | 12 22 10.1 | |
| STZU | | | | | *e*Sn | **Sg** | **12 22 26.9** | **+1.1** |
| STZU | | | | | Snm | | 12 22 28.5 | |
| **KMPD** | **K-Podol'skiy** | **1.77** | **68** | | *e*Pn | **Pb** | **12 22 12.5** | **+0.2** |
| KMPD | | | | | *e*Sn | **Sg** | **12 22 36.0** | **-0.8** |
| **LVV** | **L'vov** | **1.91** | **1** | | *e*Pn | **Pb** | **12 22 14.6** | **0.0** |
| LVV | | | | | Pnm | | 12 22 16.9 | |
| LVV | | | | | *e*Sn | **Sb** | **12 22 38.8** | **+0.4** |
| LVV | | | | | Snm | | 12 22 41.0 | |
| **KWP** | **Kalwaria Pacla** | **1.92** | **334** | | *e*Pn | **Pb** | **12 22 14.5** | **-0.3** |
| KWP | | | | | *e*Sn | **Sg** | **12 22 40.5** | **-0.9** |
| **KWP** | **Kalwaria Pacla** | **1.92** | **334** | | *e*Pn | **Pb** | **12 22 14.5** | **-0.3** |
| **HORU** | **Horodok** | **2.08** | **50** | | *e*Pn | **Pb** | **12 22 16.9** | **-0.6** |
| HORU | | | | | *e*Sn | **Sb** | **12 22 44.7** | **+1.4** |
| **DEV** | **Deva** | **2.16** | **201** | ⇑ | *i*P | **Pn** | **12 22 17.1** | **+1.3** |
| **DEV** | **Deva** | **2.16** | **201** | ⇑ | *i*P | **Pn** | **12 22 17.1** | **+1.3** |
| DEV | | | | | *i*S | **Sb** | **12 22 45.2** | **-0.6** |
| **DEV** | **Deva** | **2.16** | **201** | ⇑ | *i*P | **Pn** | **12 22 17.1** | **+1.3** |
| DEV | | | | | *i*S | **Sb** | **12 22 45.2** | **-0.6** |
| **DOPR** | **Dopca** | **2.17** | **153** | ⇑ | *i*P | **Pn** | **12 22 17.6** | **+1.7** |
| **DOPR** | **Dopca** | **2.17** | **153** | ⇑ | *i*P | **Pn** | **12 22 17.6** | **+1.7** |
| DOPR | | | | | *i*S | **Sb** | **12 22 45.6** | **-0.4** |
| **DOPR** | **Dopca** | **2.17** | **153** | ⇑ | *i*P | **Pn** | **12 22 17.6** | **+1.7** |
| DOPR | | | | | *i*S | **Sb** | **12 22 45.6** | **-0.4** |
| **SIRR** | **Siria** | **2.29** | **225** | ⇑ | *i*P | **Pn** | **12 22 18.5** | **+1.0** |
| **SIRR** | **Siria** | **2.29** | **225** | ⇑ | *i*P | **Pn** | **12 22 18.5** | **+1.0** |
| **SIRR** | **Siria** | **2.29** | **225** | ⇑ | *i*P | **Pn** | **12 22 18.5** | **+1.0** |
| **TESR** | **Tescani** | **2.29** | **127** | ⇑ | *i*P | **Pn** | **12 22 18.9** | **+1.4** |
| **TESR** | **Tescani** | **2.29** | **127** | ⇑ | *i*P | **Pn** | **12 22 18.9** | **+1.4** |
| **TESR** | **Tescani** | **2.29** | **127** | ⇑ | *i*P | **Pn** | **12 22 18.9** | **+1.4** |
| **NDNU** | **Novodnistrovsk** | **2.36** | **72** | | *e*Pn | **Pb** | **12 22 20.9** | **-1.4** |
| NDNU | | | | | Pnm | | 12 22 23.6 | |
| NDNU | | | | | *e*Sn | **Sb** | **12 22 51.6** | **+0.3** |
| NDNU | | | | | Snm | | 12 22 54.5 | |
| **STHS** | **Stebnicka Huta** | **2.36** | **311** | | *e*Pn | **Pb** | **12 22 21.2** | **-1.2** |
| **STHS** | **Stebnicka Huta** | **2.36** | **311** | | *e*Pn | **Pb** | **12 22 21.2** | **-1.2** |
| **STHS** | **Stebnicka Huta** | **2.36** | **311** | | *e*PN | **Pb** | **12 22 21.2** | **-1.2** |
| STHS | | | | | *e*PG | **Pg** | **12 22 27.9** | **+2.9** |
| STHS | | | | | *e*LG | Lg | 12 23 12.1 | |
| **KECS** | **Kecovo** | **2.41** | **285** | | *e*Pn | **Pn** | **12 22 20.1** | **+0.9** |
| **KECS** | **Kecovo** | **2.41** | **285** | | *e*PN | **Pn** | **12 22 20.1** | **+0.9** |
| KECS | | | | | *e*SG | **Sg** | **12 22 57.2** | **-0.1** |
| KECS | | | | | *e*LG | Lg | 12 23 01.2 | |
| **LOT** | **Lotru** | **2.47** | **184** | ⇑ | *i*P | **Pn** | **12 22 21.8** | **+1.7** |
| **LOT** | **Lotru** | **2.47** | **184** | ⇑ | *i*P | **Pn** | **12 22 21.8** | **+1.7** |
| **LOT** | **Lotru** | **2.47** | **184** | ⇑ | *i*P | **Pn** | **12 22 21.8** | **+1.7** |
| **ARR** | **Arges** | **2.58** | **170** | ⇑ | *i*P | **Pn** | **12 22 23.6** | **+2.0** |
| **ARR** | **Arges** | **2.58** | **170** | ⇑ | *i*P | **Pn** | **12 22 23.6** | **+2.0** |
| ARR | | | | | *i*S | **Sn** | **12 22 55.7** | **+2.6** |
| **ARR** | **Arges** | **2.58** | **170** | ⇑ | *i*P | **Pn** | **12 22 23.6** | **+2.0** |
| ARR | | | | | *i*S | **Sn** | **12 22 55.7** | **+2.6** |
| **PLOR** | **Plostina** | **2.75** | **138** | ⇑ | *i*P | **Pn** | **12 22 26.4** | **+2.5** |
| **PLOR** | **Plostina** | **2.75** | **138** | ⇑ | *i*P | **Pn** | **12 22 26.4** | **+2.5** |
| **PLOR** | **Plostina** | **2.75** | **138** | ⇑ | *i*P | **Pn** | **12 22 26.4** | **+2.5** |
| **PSZ** | **Piszkesteto** | **2.75** | **272** | ⇑ | *i*P | **Pn** | **12 22 24.0** | **0.0** |
| **PSZ** | **Piszkesteto** | **2.75** | **272** | ⇑ | *i*P | **Pn** | **12 22 24.0** | **0.0** |
| **PSZ** | **Piszkesteto** | **2.75** | **272** | ⇑ | *e*S | **Pn** | **12 22 24.0** | **0.0** |
| PSZ | | | | | *ex* | **Sg** | **12 23 09.4** | **+1.2** |
| **PSZ** | **Piszkesteto** | **2.75** | **272** | ⇑ | *i*P | **Pn** | **12 22 24.0** | **0.0** |
| **MLR** | **Muntele Rosu** | **2.77** | **150** | | Pn | **Pn** | **12 22 25.7** | **+1.4** |
| | 0.1nm,0.3s,baz=328,slow=18,SNR=4.5 | | | | | | | |
| MLR | | | | | Lg | Lg | 12 23 13.4 | |
| | 0.1nm,0.3s,baz=276,slow=18,SNR=2.7 | | | | | | | |
| **MLR** | **Muntele Rosu** | **2.77** | **150** | ⇑ | *i*P | **Pn** | **12 22 25.5** | **+1.2** |
| **MLR** | **Muntele Rosu** | **2.77** | **150** | ⇑ | *i*P | **Pn** | **12 22 25.5** | **+1.2** |
| **MLR** | **Muntele Rosu** | **2.77** | **150** | ⇑ | *i*P | **Pn** | **12 22 25.5** | **+1.2** |
| **BZS** | **Buzias** | **2.82** | **216** | ⇑ | *i*P | **Pn** | **12 22 25.2** | **+0.4** |
| **BZS** | **Buzias** | **2.82** | **216** | ⇑ | *i*P | **Pn** | **12 22 25.2** | **+0.4** |
| **BZS** | **Buzias** | **2.82** | **216** | ⇑ | *i*P | **Pn** | **12 22 25.2** | **+0.4** |
| **NIE** | **Niedzica** | **2.87** | **303** | | *e*Pn | **Pb** | **12 22 28.5** | **-2.6** |
| **NIE** | **Niedzica** | **2.87** | **303** | | *e*Pn | **Pb** | **12 22 28.5** | **-2.6** |
| **SORM** | **Soroca** | **2.94** | **84** | ⇓ | *i*P | **Pn** | **12 22 27.0** | **+0.6** |
| **SORM** | **Soroca** | **2.94** | **84** | ⇓ | *i*P | **Pn** | **12 22 27.0** | **+0.6** |
| **SORM** | **Soroca** | **2.94** | **84** | ⇓ | *i*P | **Pn** | **12 22 27.0** | **+0.6** |
| **LANS** | **Liptovska Anna** | **3.25** | **294** | | *e*Pn | **Pn** | **12 22 32.2** | **+1.5** |
| **LANS** | **Liptovska Anna** | **3.25** | **294** | | *e*PN | **Pn** | **12 22 32.2** | **+1.5** |
| LANS | | | | | *e* | | 12 23 13.0 | |
| **VYHS** | **Vyhne** | **3.50** | **281** | | *e*Pn | **Pn** | **12 22 34.4** | **+0.3** |
| **VYHS** | **Vyhne** | **3.50** | **281** | | *e*PN | **Pn** | **12 22 34.4** | **+0.3** |
| VYHS | | | | | *e*LG | Lg | 12 23 36.2 | |
| **MDVR** | **Moldovita** | **3.51** | **208** | ⇑ | *i*P | **Pn** | **12 22 36.4** | **+2.1** |
| **MDVR** | **Moldovita** | **3.51** | **208** | ⇑ | *i*P | **Pn** | **12 22 36.4** | **+2.1** |
| **MDVR** | **Moldovita** | **3.51** | **208** | ⇑ | *i*P | **Pn** | **12 22 36.4** | **+2.1** |
| **KUBS** | **Kucevo** | **3.85** | **206** | | *e*Pn | **Pn** | **12 22 39.1** | **+0.1** |
| **FGSL** | **Fruska Gora** | **3.99** | **228** | | *e*Pn | **Pn** | **12 22 41.9** | **+1.0** |
| **ZAGS** | **Zajecar** | **4.28** | **197** | | *e*Pn | **Pn** | **12 22 49.3** | **+4.4** |
| **AKASG** | **Malin Array Be** | **4.42** | **49** | | Pg | **Pb** | **12 22 58.8** | **+1.4** |
| | 6.5nm,0.3s,baz=234,slow=17,SNR=19 | | | | | | | |
| AKASG | | | | | Sn | **Sn** | **12 23 36.0** | **-2.1** |
| | 2.4nm,0.3s,baz=238,slow=24,SNR=2.9 | | | | | | | |
| AKASG | | | | | Lg | Lg | 12 23 56.6 | |
| | 11nm,0.3s,baz=229,slow=29,SNR=9.3 | | | | | | | |
| **BOVS** | **Bovan** | **4.57** | **201** | | *e*Pn | **Pn** | **12 22 50.0** | **+1.2** |
| **TEKS** | **Tekeris** | **4.57** | **224** | | *e*Pn | **Pn** | **12 22 50.6** | **+1.7** |
| **DIVS** | **Divibare** | **4.72** | **218** | | *e*Pn | **Pn** | **12 22 50.4** | **-0.6** |
| **VRAC** | **Vranov** | **5.10** | **289** | | Pn | **Pn** | **12 22 56.3** | **+0.1** |
| | 0.3nm,0.3s,baz=107,slow=17,SNR=3.9 | | | | | | | |
| VRAC | | | | | Sn | **Sn** | **12 23 55.6** | **+0.6** |
| | 0.9nm,0.3s,baz=143,slow=20,SNR=5.0 | | | | | | | |
| **DPC** | **Dobruska-Polom** | **5.59** | **299** | | *e*PN | **Pn** | **12 23 05.1** | **+2.2** |
| DPC | | | | | *e*SN | **Sn** | **12 24 09.8** | **+2.7** |
| **KSP** | **Ksiaz** | **5.82** | **303** | | *e*Pn | **Pn** | **12 23 07.8** | **+1.9** |
| **KSP** | **Ksiaz** | **5.82** | **303** | | *e*Pn | **Pn** | **12 23 07.8** | **+1.9** |
| **GERES** | **GERESS Array B** | **6.92** | **282** | | Pn | **Pn** | **12 23 21.6** | **+0.5** |
| | 0.4nm,0.3s,baz=92,slow=15,SNR=7.6 | | | | | | | |
| GERES | | | | | Sn | **Sn** | **12 24 40.7** | **+0.9** |
| | 0.2nm,0.3s,baz=92,slow=25,SNR=2.8 | | | | | | | |
| **KHC** | **Kasperske Hory** | **7.02** | **284** | | *e*PN | **Pn** | **12 23 24.0** | **+1.5** |
| KHC | | | | | *e*SN | **Sn** | **12 24 41.6** | **-0.8** |
| **FINES** | **FINESS Array B** | **13.61** | **4** | | Pn | **Pn** | **12 24 48.5** | **-4.1** |
| | 0.1nm,0.3s,baz=183,slow=11,SNR=3.6 | | | | | | | |
| **HFS** | **Hagfors** | **13.63** | **338** | | Pn | **Pn** | **12 24 50.9** | **-1.9** |
| | 0.1nm,0.3s,baz=142,slow=12,SNR=3.0 | | | | | | | |
| **NOA** | **NORSAR Array B** | **15.06** | **336** | | Pn | **Pn** | **12 25 06.9** | **-5.5** |
| | 0.1nm,0.3s,baz=150,slow=12,SNR=3.1 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **21.70** | **1** | | P | **P** | **12 26 30.0** | **-0.4** |
| | 1.3nm,0.7s,baz=186,slow=11,SNR=5.5 | | | | | | | |

*IDC* ***17*** *12:49:49.4±4.4,51°.61N×75°.26E,h0km,mb1 2.8/2, mb1mx2.7/41,mbtmp2.8/2,ML2.2/2,Error ellipse: s-maj=41.0km s-min=25.7km az=91.0*

**NNC 17 12:49:47.1±1.1,52°.03N×75°.69E,h0km,mb3.1,mpv2.7, 6C-2D,Error ellipse: s-maj=47.3km s-min=3.8km az=28.0,Suspected Mining explosion.,Eastern Kazakhstan**

| Code | Station Name | Δ° | AZ° | Phase ID | | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | | h m s | ISC |
| **KURK** | **Kurchatov** | **2.26** | **124** | ⇑ | Pg | Pb | 12 50 27.6 | -1.1 |
| | 1.8nm,0.5s | | | | | | | |
| KURK | | | | ⇑ | Lg | Lg | 12 51 00.6 | |
| | 6.2nm,0.6s | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **2.27** | **127** | ⇓ | Pg | Pb | 12 50 28.6 | -0.3 |
| | 1.8nm,0.3s | | | | | | | |
| KURBB | | | | ⇑ | Lg | Lg | 12 50 59.0 | |
| | 28nm,0.8s | | | | | | | |
| **BVA0** | **Borovoye Array** | **3.39** | **289** | ⇑ | Pg | Pb | 12 50 49.5 | +1.5 |
| | 4.7nm,1.1s,baz=105,slow=13,SNR=5.0 | | | | | | | |
| BVA0 | | | | | Lg | Lg | 12 51 35.8 | |
| | 4.1nm,0.8s,baz=107,slow=26,SNR=4.8 | | | | | | | |
| **BRVK** | **Borovoye** | **3.46** | **289** | ⇑ | Pg | Pb | 12 50 49.8 | +0.7 |
| | 1.4nm,0.5s | | | | | | | |
| BRVK | | | | ⇑ | Lg | Lg | 12 51 36.0 | |
| | 4.4nm,0.7s | | | | | | | |
| **I46RU** | **ZALESOVO INFRA** | **5.84** | **67** | *i* | | | 13 27 50.0 | |
| | baz=249,slow=329,SNR=1.0 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **5.84** | **67** | | Pn | Pn | 12 51 21.7 | +6.9 |
| | 0.3nm,0.3s,baz=258,slow=14,SNR=4.6 | | | | | | | |
| ZALV | | | | | Lg | Lg | 12 53 09.4 | |
| | 0.1nm,0.3s,baz=264,slow=27,SNR=3.7 | | | | | | | |
| **MK31** | **Makanchi Array** | **6.78** | **138** | | Pn | Pn | 12 51 28.5 | +0.7 |
| | 0.2nm,0.4s,baz=308,slow=12,SNR=4.1 | | | | | | | |
| MK31 | | | | ⇓ | Lg | Lg | 12 53 20.6 | |
| | 2.5nm,0.8s,baz=328,slow=28,SNR=4.4 | | | | | | | |
| **MKAR** | **Makanchi Array** | **6.78** | **138** | | Pn | Pn | 12 51 28.1 | +0.3 |
| | 0.1nm,0.3s,baz=311,slow=13,SNR=4.1 | | | | | | | |
| MKAR | | | | | Sn | Sn | 12 52 44.3 | -1.3 |
| | 0.1nm,0.3s,baz=313,slow=21,SNR=3.2 | | | | | | | |
| MKAR | | | | | Lg | Lg | 12 53 17.3 | |
| | 0.2nm,0.3s,baz=322,slow=25,SNR=7.3 | | | | | | | |

*NIED* ***17*** *12:53:00,37°.70N×133°.90E,h480km,Mw4.6 Best double couple: M0 7.94000×10^15 NP1:φ280.00000°, δ51.00000°,λ.11.00000°. NP2:φ183.00000°,δ82.00000°, λ141.00000°.*
*BJI* ***17*** *12:53:20.6,37°.57N×134°.02E,h441km,mb4.6/29, mB4.7/17*
*JMA* ***17*** *12:53:21.4±0.1,37°.66N×133°.87E,h436km±2km,M3.7*
*ISCJB* ***17*** *12:53:21.9±0.2,37°.64N±0°.03×133°.99E±0°.03,h436km, mb3.8/25,Error ellipse: s-maj=3.7km s-min=3.0km az=171.9*
*MOS* ***17*** *12:53:21.5±1.0,37°.67N×133°.95E,h426km,mb4.2/10, Error ellipse: s-maj=11.5km s-min=10.1km az=77.3*
*NEIC* ***17*** *12:53:22.3±0.2,37°.68N×134°.05E,h435km±4km,mb4.3/7, Error ellipse: s-maj=5.4km s-min=5.1km az=175.0*
*IDC* ***17*** *12:53:23.0±0.6,37°.60N×133°.88E,h427km±6km,mb3.3/17, mb1 3.5/22,mb1mx3.4/45,mbtmp4.2/22,Error ellipse: s-maj=9.4km s-min=8.0km az=56.0*

**ISC 17 12:53:23.4±0.4,37°.64N±0°.05×133°.98E±0°.04,h436km, n106,σ1°46/137,mb3.9/25,1D,Sea of Japan**

| Code | Station Name | Δ° | AZ° | Phase ID | | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | | h m s | ISC |
| **JOI** | **OKI** | **1.47** | **204** | | P | **P** | **12 54 18.3** | **-1.7** |
| **JKSM** | **Kasumi** | **2.12** | **165** | | P | **P** | **12 54 22.0** | **-1.4** |
| **JKG** | **Kaga** | **2.32** | **125** | | P | **P** | **12 54 23.6** | **-0.9** |
| JKG | | | | | *e*S | **S** | **12 55 12.7** | **-1.4** |
| **JHG** | **Hegura jima** | **2.34** | **84** | | P | **P** | **12 54 23.8** | **-0.8** |
| **JWT** | **Wachi** | **2.61** | **154** | | P | **P** | **12 54 25.7** | **-0.9** |
| JWT | | | | | S | **S** | **12 55 15.3** | **-2.4** |
| **JSZ** | **Suzu** | **2.69** | **93** | | P | **P** | **12 54 25.9** | **-1.1** |
| JSZ | | | | | *e*S | **S** | **12 55 17.6** | **-1.0** |
| **JHS** | **Saijyo** | **2.72** | **195** | | P | **P** | **12 54 25.6** | **-1.8** |
| JHS | | | | | *e*S | **S** | **12 55 15.6** | **-3.7** |
| **INU** | **Inuyama** | **3.34** | **132** | | *e*P | **P** | **12 54 30.5** | **-1.5** |
| **MJB9** | **Matsu-Tunnel** | **3.55** | **107** | | *e*P | **P** | **12 54 32.7** | **-1.0** |
| **MAJO** | **Matsushiro** | **3.55** | **107** | | *e*P | **P** | **12 54 32.6** | **-1.1** |
| **MAJO** | **Matsushiro** | **3.55** | **107** | | *e*P | **P** | **12 54 32.6** | **-1.1** |
| **MAT** | **Matsushiro** | **3.55** | **107** | | P | **P** | **12 54 32.6** | **-1.1** |
| MAT | | | | | S | **S** | **12 55 30.2** | **-0.7** |
| **MJAR** | **Matsushiro Arr** | **3.55** | **107** | | P | **P** | **12 54 33.1** | **-0.6** |
| | 13nm,0.3s,baz=289,slow=11,SNR=279 | | | | | | | |
| MJAR | | | | | S | **S** | **12 55 30.6** | **-0.4** |
| | 1.6nm,0.3s,baz=297,slow=14,SNR=5.7 | | | | | | | |
| **JIE** | **Ise** | **3.92** | **145** | | P | **P** | **12 54 36.3** | **-0.6** |
| JIE | | | | | S | **S** | **12 55 34.5** | **-2.2** |
| **JRY** | **Ryogami san** | **4.26** | **111** | | P | **P** | **12 54 39.2** | **-0.8** |
| **JWZ** | **Kozaga** | **4.33** | **160** | | P | **P** | **12 54 39.4** | **-1.3** |
| **TTO1**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ZALV | | | | ScP | **ScP** | 13 05 09.6 | +0.7 |
| | comp=Z,1.2nm,0.6s,baz=111,slow=3.6,SNR=7.4 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **37.12** | **312** | *eP* | **P** | 12 59 53.9 | -1.0 |
| ZALV | | | | *eS* | **ScP** | 13 05 09.6 | +0.7 |
| **MK01** | **Makanchi Array** | **38.74** | **300** | *eP* | **P** | 13 00 07.4 | -0.9 |
| **MK31** | **Makanchi Array** | **38.74** | **301** | *eP* | **P** | 13 00 08.1 | -0.2 |
| MK31 | **Makanchi Array** | **38.74** | **301** | *eP* | **P** | 13 00 08.1 | -0.2 |
| **MKAR** | **Makanchi Array** | **38.74** | **301** | P | **P** | 13 00 07.9 | -0.4 |
| | comp=Z,1.3nm,0.5s,baz=86,slow=10,SNR=24 | | | | | | |
| MKAR | | | | ScP | **ScP** | 13 05 16.1 | +0.9 |
| | comp=Z,0.7nm,0.6s,baz=80,slow=7.2,SNR=7.2 | | | | | | |
| **TAPN** | **Taplejung** | **40.01** | **269** | *eP* | **P** | 13 00 18.7 | -0.4 |
| | comp=Z,17nm,0.3s | | | | | | |
| **ODAN** | **Odare** | **40.48** | **269** | *eP* | **P** | 13 00 22.4 | -0.5 |
| | comp=Z,14nm,0.5s | | | | | | |
| **RAMN** | **Ramite** | **41.07** | **269** | *eP* | **P** | 13 00 27.0 | -0.6 |
| | comp=Z,18nm,0.5s | | | | | | |
| **JIRN** | **Jiri** | **41.07** | **270** | *eP* | **P** | 13 00 27.7 | -0.1 |
| | comp=Z,32nm,0.4s | | | | | | |
| **GUN** | **Gumba** | **41.21** | **271** | *eP* | **P** | 13 00 29.1 | +0.2 |
| | comp=Z,42nm,0.4s | | | | | | |
| **PKI** | **Pulchoki** | **41.73** | **271** | *eP* | **P** | 13 00 32.9 | -0.1 |
| | comp=Z,9.4nm,0.5s | | | | | | |
| **KKN** | **Kakani** | **41.74** | **271** | *eP* | **P** | 13 00 32.6 | -0.3 |
| | comp=Z,14nm,0.4s | | | | | | |
| **PKIN** | **Phulchoki** | **41.74** | **271** | *eP* | **P** | 13 00 33.2 | +0.2 |
| | comp=Z,4.3nm,0.3s | | | | | | |
| **DANN** | **Dangsing** | **42.70** | **273** | *eP* | **P** | 13 00 40.8 | +0.2 |
| **KOLN** | **Koldanda** | **43.08** | **272** | *eP* | **P** | 13 00 43.3 | -0.3 |
| | comp=Z,6.6nm,0.3s | | | | | | |
| **PYUN** | **Piuthan** | **43.42** | **273** | *eP* | **P** | 13 00 45.9 | -0.3 |
| | comp=Z,30nm,0.7s | | | | | | |
| **KSH** | **Kashi** | **44.71** | **291** | *eP* | **P** | 13 00 57.9 | +1.9 |
| KSH | | | | pP | pP | 13 02 21.9 | +2.1 |
| KSH | | | | PcP | **PcP** | 13 02 29.9 | +0.4 |
| KSH | | | | PP | **PP** | 13 02 51.1 | +2.8 |
| KSH | | | | sP | sP | 13 03 12.1 | +3.3 |
| KSH | | | | ScP | **ScP** | 13 05 38.8 | -0.6 |
| KSH | | | | S | **S** | 13 07 02.8 | +3.1 |
| KSH | | | | ScS | **ScS** | 13 10 02.8 | -2.1 |
| KSH | | | | SS | **SS** | 13 10 27.8 | -0.7 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,65nm,4.4s | | | | | | |
| **MTN** | **Manton Dam** | **50.28** | **184** | *eP* | **P** | 13 01 37.5 | -0.7 |
| | comp=Z,11nm,0.5s | | | | | | |
| MTN | | | | *eS* | **S** | 13 08 18.8 | +1.5 |
| **ILAR** | **Eielson Array** | **52.15** | **32** | P | **P** | 13 01 52.5 | +1.2 |
| | comp=Z,0.9nm,0.6s,baz=289,slow=8.1,SNR=21 | | | | | | |
| **HDA** | **Harding Lake** | **52.19** | **33** | *eP* | **P** | 13 01 47.3 | -4.2 |
| | comp=Z,31nm,1.2s | | | | | | |
| **INK** | **Inuvik** | **56.52** | **26** | P | **P** | 13 02 23.4 | +1.2 |
| | comp=Z,0.7nm,0.4s,baz=290,slow=7.2,SNR=12 | | | | | | |
| **WB2** | **Warramunga Arr** | **57.27** | **180** | *eP* | **P** | 13 02 27.3 | -0.7 |
| | comp=Z,4.3nm,0.8s | | | | | | |
| **WRA** | **Warramunga Arr** | **57.27** | **180** | P | **P** | 13 02 27.5 | -0.4 |
| | comp=Z,3.4nm,0.4s,baz=355,slow=7.7,SNR=101 | | | | | | |
| WRA | | | | PcP | **PcP** | 13 03 17.1 | +0.7 |
| | comp=Z,0.4nm,0.4s,baz=356,slow=4.6,SNR=4.7 | | | | | | |
| **AS01** | **Alice Springs** | **60.97** | **180** | *eP* | **P** | 13 02 52.7 | -0.2 |
| **AS31** | **Alice Springs** | **60.98** | **180** | *eP* | **P** | 13 02 51.9 | -1.0 |
| | comp=Z,1.6nm,0.5s | | | | | | |
| **ASAR** | **Alice Springs** | **60.98** | **180** | P | **P** | 13 02 53.0 | +0.1 |
| | comp=Z,2.2nm,0.4s,baz=0.5,slow=7.0,SNR=78 | | | | | | |
| **ARCES** | **ARCESS Array B** | **61.27** | **338** | P | **P** | 13 02 54.4 | +0.2 |
| | comp=Z,2.3nm,0.9s,baz=58,slow=6.9,SNR=2.5 | | | | | | |
| **FINES** | **FINESS Array B** | **65.42** | **330** | P | **P** | 13 03 21.5 | +0.3 |
| | comp=Z,3.4nm,1.0s,baz=59,slow=6.8,SNR=9.3 | | | | | | |
| **YKA** | **Yellowknife Ar** | **66.17** | **28** | P | **P** | 13 03 27.1 | +1.2 |
| | comp=Z,0.4nm,0.6s,baz=301,slow=6.8,SNR=10 | | | | | | |
| YKA | | | | PcP | **PcP** | 13 03 53.5 | +1.4 |
| | comp=Z,0.2nm,0.6s,baz=306,slow=4.1,SNR=3.9 | | | | | | |
| **DZM** | **Mont Dzumac** | **66.79** | **147** | P | **P** | 13 03 31.0 | +0.7 |
| | comp=Z,9.8nm,1.0s,baz=321,slow=14,SNR=3.7 | | | | | | |
| **STKA** | **Stephens Creek** | **69.52** | **173** | P | **P** | 13 03 46.9 | +0.2 |
| | comp=Z,1.8nm,0.7s,baz=344,slow=2.8,SNR=5.3 | | | | | | |
| **AKASG** | **Malin Array Be** | **70.08** | **319** | P | **P** | 13 03 48.6 | -1.4 |
| | comp=Z,0.2nm,0.3s,baz=48,slow=6.9,SNR=3.3 | | | | | | |
| **J08A** | **Circle Bar Ran** | **76.03** | **46** | *eP* | **P** | 13 04 27.3 | +2.7 |
| | comp=Z,7.4nm,1.5s | | | | | | |
| **PDAR** | **Pinedale Array** | **81.32** | **42** | P | **P** | 13 04 54.5 | +1.3 |
| | comp=Z,1.1nm,0.8s,baz=240,slow=0.3,SNR=9.6 | | | | | | |
| **PDAR** | **Pinedale Array** | **81.32** | **42** | *eP* | **P** | 13 04 51.4 | -1.8 |
| **ULM** | **Lac du Bonnet** | **82.09** | **30** | P | **P** | 13 04 57.7 | +0.9 |
| | comp=Z,1.2nm,0.4s,baz=297,slow=4.0,SNR=4.7 | | | | | | |
| **PV10** | **Paradox Valley** | **84.67** | **45** | *eP* | **P** | 13 05 13.1 | +2.8 |
| **TXAR** | **Lajitas Array** | **94.28** | **48** | P | **P** | 13 05 57.0 | +1.9 |
| | comp=Z,0.5nm,0.6s,baz=298,slow=2.7,SNR=6.1 | | | | | | |
| **LPAZ** | **La Paz** | **151.14** | **49** | PKPbc | **PKPbc** | 13 12 28.4 | +1.1 |
| | comp=Z,1.2nm,0.6s,baz=9.4,slow=13,SNR=4.2 | | | | | | |

*IDC* ***17*** *12:57:06.9±1.9, 34.32N×141.64E, h0km, mb3.4/3, mb1 3.5/4, mb1mx3.3/44, mbtmp3.3/4, ML3.2/1, MS2.1/1, Ms1 2.1/1, ms1mx1.9/25, Error ellipse: s-maj=37.5km s-min=22.5km az=66.0*

*JMA* ***17*** *12:57:07.0±0.3, 34.38N×141.86E, h16km±1km, M3.0*

*ISCJB* ***17*** *12:57:08.4±1.1, 34.34N±0.05×141.8E±0.1, h27km, mb3.3/3, Error ellipse: s-maj=13.1km s-min=6.7km az=169.4*

**ISC 17 12:57:10.1±1.6, 34.35N±0.06×141.7E±0.1, h27km, n17, σ0.81/15, mb3.4/3, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | h m s | ISC |
| **BSO1** | **Boso 1** | **0.67** | **297** | P | | **Pb** | **12 57 21.8** | **-1.0** |
| **BSO3** | **Boso 3** | **1.08** | **295** | P | | **Pn** | **12 57 28.8** | **-0.4** |
| **BSO4** | **Boso 4** | **1.29** | **300** | P | | **Pn** | **12 57 32.1** | **-0.1** |
| **CHOJ** | **Chosi** | **1.51** | **333** | P | | **Pn** | **12 57 34.5** | **-0.9** |
| CHOJ | | | | *eS* | | **Sn** | **12 57 54.3** | **+0.1** |
| **JHJ2** | **Mitsune** | **2.00** | **232** | P | | **Pn** | **12 57 42.4** | **+0.3** |
| **JHJ** | **Hachijo jima 2** | **2.02** | **233** | Pn | | **Pn** | **12 57 42.1** | **-0.2** |
| | 19nm,0.3s,baz=77,slow=18,SNR=2.4 | | | | | | | |
| JHJ | | | | Sn | | **Sn** | **12 58 05.9** | **-0.8** |
| | 52nm,0.3s,baz=73,slow=19,SNR=9.2 | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **3.59** | **308** | Pn | | **Pn** | **12 58 04.3** | **+0.3** |
| | 2.0nm,0.3s,baz=132,slow=14,SNR=7.5 | | | | | | | |
| MJAR | | | | Sn | | **Sn** | **12 58 47.3** | **+1.8** |
| | 1.5nm,0.3s,baz=86,slow=32,SNR=5.0 | | | | | | | |
| MJAR | | | | LR | | LR | 12 59 41.0 | |
| | comp=Z,24nm,18.8s,baz=135,slow=44 | | | | | | | |
| **MAT** | **Matsushiro** | **3.59** | **308** | P | | **Pn** | **12 58 04.5** | **+0.5** |
| MAT | | | | *eS* | | **Sn** | **12 58 46.4** | **+0.8** |
| **H11N2** | **WAKE ISLAND Hy** | **26.66** | **117** | T | | T | 13 31 21.4 | |
| | baz=312,slow=75 | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **26.66** | **117** | T | | T | 13 31 14.6 | |
| | baz=312,slow=75 | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **26.68** | **117** | T | | T | 13 31 16.0 | |
| | baz=312,slow=75 | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **27.28** | **119** | T | | T | 13 32 10.1 | |
| | baz=315 | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **27.28** | **119** | T | | T | 13 31 51.5 | |
| | baz=315 | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **27.30** | **119** | T | | T | 13 32 09.3 | |
| | baz=315 | | | | | | | |
| **SONM** | **Songino Array** | **29.54** | **308** | P | | **P** | **13 03 12.3** | **-0.1** |
| | 0.2nm,0.5s,baz=107,slow=10,SNR=2.8 | | | | | | | |
| **WRA** | **Warramunga Arr** | **54.45** | **189** | P | | **P** | **13 06 35.5** | **+0.4** |
| | 0.2nm,0.5s,baz=5.5,slow=7.6,SNR=6.4 | | | | | | | |
| **ASAR** | **Alice Springs** | **58.17** | **188** | P | | **P** | **13 07 02.5** | **+0.8** |
| | 0.6nm,1.1s,baz=7.8,slow=7.5,SNR=3.6 | | | | | | | |

**IDC 17 13:05:42.8±2.1, 7.57S×128.88E, h0km, mb3.4/1, mb1 3.4/4, mb1mx3.2/31, mbtmp3.2/4, ML2.9/3, Error ellipse: s-maj=86.1km s-min=28.5km az=75.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | h m s | ISC |
| **FITZ** | **Fitzroy Crossi** | **10.94** | **196** | Pn | | Pn | 13 08 20.0 | -0.6 |
| | 0.1nm,0.3s,baz=15,slow=13,SNR=8.4 | | | | | | | |
| FITZ | | | | Sn | | Sn | 13 10 16.4 | -7.4 |
| | 0.2nm,0.3s,baz=306,slow=19,SNR=4.7 | | | | | | | |
| **WRA** | **Warramunga Arr** | **13.39** | **157** | Pn | | Pn | 13 08 56.3 | +2.0 |
| | 0.0nm,0.3s,baz=337,slow=12,SNR=4.1 | | | | | | | |
| WRA | | | | Sn | | Sn | 13 11 18.0 | -6.0 |
| | 0.1nm,0.3s,baz=348,slow=21,SNR=5.4 | | | | | | | |
| **ASAR** | **Alice Springs** | **16.72** | **164** | Pn | | Pn | 13 09 37.2 | -1.4 |
| | 0.1nm,0.3s,baz=344,slow=10,SNR=8.7 | | | | | | | |
| **MKAR** | **Makanchi Array** | **68.09** | **327** | P | | P | 13 16 44.5 | +0.1 |
| | 0.1nm,0.3s,baz=118,slow=7.8,SNR=5.6 | | | | | | | |

**IDC 17 13:07:08.1±1.5, 10.26S×124.10E, h0km, mb3.7/2, mb1 3.5/5, mb1mx3.4/30, mbtmp3.4/5, ML3.0/3, Error ellipse: s-maj=115.3km s-min=26.0km az=64.0, Timor region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | h m s | ISC |
| **FITZ** | **Fitzroy Crossi** | **7.94** | **169** | Pn | | Pn | 13 09 05.6 | +0.7 |
| | 0.3nm,0.3s,baz=351,slow=12,SNR=7.8 | | | | | | | |
| **WRA** | **Warramunga Arr** | **13.79** | **135** | Pn | | Pn | 13 10 24.2 | -0.9 |
| | 0.1nm,0.3s,baz=306,slow=14,SNR=2.9 | | | | | | | |
| WRA | | | | Sn | | Sn | 13 12 53.6 | -5.6 |
| | 0.1nm,0.3s,baz=310,slow=25,SNR=2.9 | | | | | | | |
| **ASAR** | **Alice Springs** | **16.29** | **146** | Pn | | Pn | 13 10 58.5 | 0.0 |
| | 0.1nm,0.3s,baz=318,slow=12,SNR=5.2 | | | | | | | |
| **MKAR** | **Makanchi Array** | **67.94** | **330** | P | | P | 13 18 09.5 | +0.6 |
| | 0.7nm,0.9s,baz=128,slow=7.7,SNR=4.0 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **72.08** | **337** | P | | P | 13 18 33.4 | -0.6 |
| | 0.2nm,0.4s,baz=126,slow=7.3,SNR=2.9 | | | | | | | |

**MAN 17 13:07:29,16.03N×121.77E, h28km, mb4.2, ML3.1, MS2.8, 1D, Luzon**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | h m s | ISC |
| **BALP** | **Baler** | **0.34** | **213** | *eP* | | Pn | 13 07 39.2 | +1.0 |
| BALP | | | | *eS* | | Sn | 13 07 46.2 | +2.1 |
| **CAUP** | **Cauayan** | **0.91** | **3** | *eP* | | Pn | 13 07 44.9 | -1.0 |
| CAUP | | | | *eS* | | Sn | 13 07 58.5 | +0.4 |
| **APYP** | **Conner** | **1.89** | **345** | *eP* | | Pn | 13 07 58.7 | -0.7 |
| APYP | | | | *eS* | | Sn | 13 08 23.2 | +0.9 |
| **ABRA** | **Dolores** | **1.90** | **328** | *eP* | | Pb | 13 08 03.3 | +0.3 |
| ABRA | | | | *eS* | | Sb | 13 08 29.7 | +3.3 |
| **GQP** | **Guinayangan** | **2.21** | **163** | *eP* | | Pn | 13 08 05.2 | +1.3 |
| GQP | | | | *eS* | | Sn | 13 08 31.6 | +1.3 |

**GUC 17 13:29:32.8±0.5, 36.92S×73.42W, h19km±3km, ML4.0, 1D, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | h m s | ISC |
| **CCSP** | **San Pedro de C** | **0.26** | **72** | *eP* | | Pb | 13 29 37.5 | -1.1 |
| CCSP | | | | *i* S | | Sb | 13 29 42.1 | -0.4 |
| CCSP | | | | IAML | | | 13 29 44.3 | |
| | comp=N,20μm,0.2s | | | | | | | |
| **COCH** | **Cobquecura** | **0.94** | **33** | *i*P | | Pb | 13 29 48.5 | -1.9 |
| COCH | | | | *i* S | | Sb | 13 30 01.3 | -1.2 |
| COCH | | | | IAML | | | 13 30 03.6 | |
| | comp=E,6μm,0.3s | | | | | | | |
| **CCHI** | **Chillan** | **1.12** | **74** | *eP* | | Pn | 13 29 52.0 | -1.5 |
| CCHI | | | | *i* S | | Sb | 13 30 06.2 | -1.5 |
| CCHI | | | | IAML | | | 13 30 18.7 | |
| | comp=N,7μm,0.4s | | | | | | | |
| **TMU** | **Temuco** | **1.92** | **161** | *eP* | | Pn | 13 30 04.6 | +0.1 |
| **GO05** | **HualaæØ** | **2.26** | **33** | *eP* | | Pn | 13 30 07.3 | -1.8 |
| GO05 | | | | *i* S | | Sn | 13 30 35.5 | -1.0 |
| GO05 | | | | IAML | | | 13 30 51.2 | |
| | comp=E,2μm,0.6s | | | | | | | |
| **NICH** | **Los Niches** | **2.61** | **43** | *i* S | | Sn | 13 30 46.1 | +1.0 |

*NIED* ***17*** *13:44:00, 43.90N×141.00E, h240km, Mw3.9 Best double couple: M0 9.29000×10^14 NP1:φ357.00000°, δ10.00000°, λ-31.00000°. NP2:φ118.00000°, δ85.00000°, λ-99.00000°.*

*ISCJB* ***17*** *13:44:33.8±0.2, 43.95N±0.04×140.99E±0.05, h225km±2km, mb3.8/23, Error ellipse: s-maj=7.0km s-min=5.7km az=42.5*

*JMA* ***17*** *13:44:34.2±0.2, 43.89N×140.97E, h226km±2km, M4.0*

*IDC* ***17*** *13:44:34.5±0.5, 44.00N×140.91E, h215km±4km, mb3.6/23, mb1 3.7/30, mb1mx3.6/57, mbtmp4.1/30, Error ellipse: s-maj=9.5km s-min=7.9km az=131.0*

**ISC 17 13:44:34.7±0.5, 43.91N±0.05×140.99E±0.05, h220km±5km, n60, σ0.86/75, mb3.9/23, 7C-7D, Hokkaido region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | h m s | ISC |
| **JHR** | **Hokuryu** | **0.56** | **107** | P | | **Pn** | **13 45 05.1** | **+0.7** |
| JHR | | | | *eS* | | **S** | **13 45 28.4** | **+0.9** |
| **JYG** | **Yagishiri** | **0.60** | **31** | P | | **Pn** | **13 45 04.5** | **0.0** |
| JYG | | | | *eS* | | **S** | **13 45 27.8** | **-0.1** |
| **JSK** | **Shakotan** | **0.67** | **214** | P | | **Pn** | **13 45 04.9** | **0.0** |
| **JSS** | **Shosan** | **0.79** | **52** | P | | **Pn** | **13 45 06.0** | **+0.6** |
| JSS | | | | *eS* | | **S** | **13 45 30.4** | **+1.1** |
| **JEW** | **Eniwo** | **1.12** | **162** | P | | **Pn** | **13 45 07.7** | **+0.2** |
| JEW | | | | *eS* | | **S** | **13 45 33.8** | **+1.0** |
| **ASAJ** | **Asahikawa** | **1.18** | **79** | P | | **Pn** | **13 45 07.8** | **0.0** |
| | 64nm,0.3s,baz=238,slow=11,SNR=1110 | | | | | | | |
| ASAJ | | | | S | | **S** | **13 45 32.9** | **-0.6** |
| | 17nm,0.3s,baz=292,slow=33,SNR=9.2 | | | | | | | |
| **JKK2** | **Kamakawa 2** | **1.27** | **91** | P | | **Pn** | **13 45 08.7** | **+0.2** |
| JKK2 | | | | *eS* | | **S** | **13 45 34.3** | **-0.4** |
| **JFR** | **Furan** | **1.39** | **122** | P | | **Pn** | **13 45 09.1** | **-0.3** |
| JFR | | | | *eS* | | **S** | **13 45 36.4** | **+0.2** |
| **JWK2** | **Keihoku** | **1.55** | **25** | P | | **Pn** | **13 45 11.2** | **+0.6** |
| **JSE** | **Soyaes** | **1.55** | **47** | P | | **Pn** | **13 45 10.6** | **0.0** |
| JSE | | | | *eS* | | **S** | **13 45 38.0** | **-0.6** |
| **JKB** | **Kayabe** | **2.02** | **179** | P | | **Pn** | **13 45 14.6** | **-0.4** |
| **JNBK** | **Urakawa-nobuka** | **2.08** | **141** | P | | **Pn** | **13 45 15.4** | **-0.2** |
| JNBK | | | | *eS* | | **S** | **13 45 47.2** | **-0.1** |
| **JTKR** | **Abashiri--Toko** | **2.11** | **87** | P | | **Pn** | **13 45 16.2** | **+0.4** |
| JTKR | | | | *eS* | | **S** | **13 45 48.1** | **+0.3** |
| **JAR** | **Ashorobuto** | **2.11** | **106** | P | | **Pn** | **13 45 16.2** | **+0.3** |
| JAR | | | | *eS* | | **S** | **13 45 49.4** | **+1.6** |
| **JOSM** | **Okushiri--Mats** | **2.14** | **212** | P | | **Pn** | **13 45 15.8** | **-0.4** |
| **JCH** | **Churui** | **2.17** | **126** | P | | **Pn** | **13 45 15.0** | **-1.4** |
| JCH | | | | *eS* | | **S** | **13 45 45.4** | **-3.4** |
| **JOT** | **Ohata** | **2.53** | **179** | P | | **Pn** | **13 45 19.6** | **-0.7** |
| JOT | | | | *eS* | | **S** | **13 45 56.0** | **+0.4** |
| **JAK** | **Akkeshi** | **2.85** | **107** | P | | **Pn** | **13 45 22.7** | **-1.1** |
| JAK | | | | *eS* | | **S** | **13 45 59.6** | **-2.3** |
| **JRA** | **Rausu** | **2.99** | **88** | P | | **Pn** | **13 45 25.6** | **+0.3** |
| **USRK** | **Ussuriysk Ar.** | **6.49** | **276** | P | | **Pn** | **13 46 07.9** | **-0.6** |
| | 0.7nm,0.3s,baz=91,slow=14,SNR=11 | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **7.66** | **197** | P | | **Pn** | **13 46 23.9** | **+0.2** |
| | 0.9nm,0.3s,baz=15,slow=14,SNR=13 | | | | | | | |
| **KLR** | **Kul'dur** | **8.29** | **313** | P | | **Pn** | **13 46 30.8** | **-0.8** |
| | 0.0nm,0.3s,baz=125,slow=8.2,SNR=4.7 | | | | | | | |
| **JHJ** | **Hachijo jima 2** | **10.82** | **185** | S | | S | 13 48 53.8 | -11 |
| | 12nm,0.3s,baz=246,slow=20,SNR=3.5 | | | | | | | |
| **KSRS** | **Korea Array** | **11.82** | **241** | P | | **Pn** | **13 47 16.6** | **-0.2** |
| | 0.3nm,0.3s,baz=56,slow=12,SNR=11 | | | | | | | |
| **JNU** | **Nakatsue** | **13.35** | **220** | P | | **P** | **13 47 37.4** | **-0.8** |
| | 0.8nm,0.3s,baz=36,slow=4.6,SNR=10 | | | | | | | |
| **PETK** | **Petropavlovsk-** | **14.37** | **44** | P | | **Pn** | **13 47 47.7** | **-0.5** |
| | 0.3nm,0.3s,baz=222,slow=7.5,SNR=6.3 | | | | | | | |
| **MA2** | **Magadan** | **16.78** | **17** | P | | **P** | **13 48 14.7** | **-0.9** |
| | 0.6nm,0.3s,baz=209,slow=13,SNR=5.5 | | | | | | | |
| **YAK** | **Yakutsk** | **19.33** | **344** | P | | **P** | **13 48 40.9** | **-2.3** |
| | 0.0nm,0.3s,baz=184,slow=4.6,SNR=8.5 | | | | | | | |
| **SEY** | **Seymchan** | **20.17** | **15** | P | | **P** | **13 48 50.7** | **-1.4** |
| | 5.7nm,0.5s,baz=199,slow=7.6,SNR=22 | | | | | | | |
| **SONM** | **Songino Array** | **24.27** | **292** | P | | **P** | **13 49 32.3** | **+0.4** |
| | 0.9nm,0.6s,baz=76,slow=8.5,SNR=4.2 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **37.31** | **306** | P | | **P** | **13 51 25.2** | **-0.3** |
| | 2.5nm,0.3s,baz=92,slow=8.8,SNR=13 | | | | | | | |
| ZALV | | | | ScP | | **ScP** | **13 57 05.9** | **+0.3** |
| | 0.7nm,0.6s,baz=90,slow=4.3,SNR=4.2 | | | | | | | |
| **MKAR** | **Makanchi Array** | **40.52** | **295** | P | | **P** | **13 51 52.3** | **+0.1** |
| | 0.9nm,0.4s,baz=82,slow=13,SNR=14 | | | | | | | |
| **KDAK** | **Kodiak Island** | **42.40** | **47** | P | | **P** | **13 52 07.3** | **0.0** |
| | 9.3nm,0.8s,baz=302,slow=0.2,SNR=12 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **43.37** | **248** | P | | **P** | **13 52 16.4** | **+0.9** |
| | 0.9nm,0.5s,baz=35,slow=6.5,SNR=6.3 | | | | | | | |
| **ILAR** | **Eielson Array** | **43.99** | **36** | P | | **P** | **13 52 19.6** | **-0.2** |
| | 2.7nm,0.6s,baz=276,slow=10,SNR=50 | | | | | | | |
| **TAPN** | **Taplejung** | **45.55** | **267** | *eP* | | **P** | **13 52 34.0** | **+1.0** |
| **GUN** | **Gumba** | **46.55** | **269** | *eP* | | **P** | **13 52 41.0** | **+0.1** |
| | 8.4nm,0.4s | | | | | | | |
| **RAMN** | **Ramite** | **46.59** | **267** | *eP* | | **P** | **13 52 40.8** | **-0.2** |
| | 4.7nm,0.4s | | | | | | | |
| **PKI** | **Pulchoki** | **47.09** | **269** | *eP* | | **P** | **13 52 45.0** | **0.0** |
| | 2.3nm,0.3s | | | | | | | |
| **PKIN** | **Phulchoki** | **47.09** | **269** | *eP* | | **P** | **13 52 44.7** | **-0.2** |
| **KOLN** | **Koldanda** | **48.28** | **270** | *eP* | | **P** | **13 52 53.4** | **-0.6** |
| | 2.4nm,0.3s | | | | | | | |
| **INK** | **Inuvik** | **48.49** | **30** | P | | **P** | **13 52 54.9** | **+0.1** |
| | 9.3nm,0.3s,baz=287,slow=6.2,SNR=161 | | | | | | | |
| **PYUN** | **Piuthan** | **48.53** | **271** | *eP* | | **P** | **13 52 55.7** | **-0.2** |
| | 3.2nm,0.2s | | | | | | | |
| **ARCES** | **ARCESS Array B** | **57.48** | **338** | P | | **P** | **13 53 59.6** | **-0.6** |
| | 1.2nm,0.5s,baz=45,slow=8.6,SNR=14 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **58.09** | **32** | P | | **P** | **13 54 04.5** | **0.0** |
| | 1.3nm,0.5s,baz=306,slow=6.5,SNR=40 | | | | | | | |
| YKA | | | | PcP | | **pP** | **13 54 54.3** | **+0.3** |
| | 0.4nm,0.5s,baz=309,slow=3.7,SNR=9.8 | | | | | | | |
| **FINES** | **FINESS Array B** | **62.62** | **331** | P | | **P** | **13 54 34.5** | **-0.7** |
| | 3.4nm,0.5s,baz=49,slow=7.4,SNR=33 | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **63.29** | **196** | P | | **P** | **13 54 40.6** | **+0.5** |
| | 1.3nm,0.7s,baz=347,slow=9.4,SNR=6.3 | | | | | | | |
| **WRA** | **Warramunga Arr** | **63.83** | **187** | P | | **P** | **13 54 43.4** | **-0.2** |
| | 1.0nm,0.4s,baz=6.3,slow=7.2,SNR=41 | | | | | | | |
| **KBZ** | **Khabaz** | **66.28** | **308** | P | | **P** | **13 54 59.4** | **+0.3** |
| | 1.2nm,0.6s,baz=204,slow=10.0,SNR=2.8 | | | | | | | |
| **YBH** | **Yreka Blue Hor** | **66.49** | **54** | P | | **P** | **13 55 01.4** | **+0.7** |
| | 0.5nm,0.6s,baz=5.7,slow=10,SNR=2.9 | | | | | | | |
| **ASAR** | **Alice Springs** | **67.56** | **187** | P | | **P** | **13 55 08.0** | **+0.6** |
| | 0.6nm,0.4s,baz=2.7,slow=7.2,SNR=29 | | | | | | | |
| **NB2** | **NORSAR Subarra** | **67.75** | **336** | P | | **P** | **13 55 07.5** | **-0.6** |
| | comp=Z,1.7nm,0.5s,baz=35,slow=6.9 | | | | | | | |
| **NOA** | **NORSAR Array B** | **67.75** | **336** | P | | **P** | **13 55 07.6** | **-0.6** |
| | comp=Z,0.6nm,0.5s,baz=38,slow=8.1,SNR=12 | | | | | | | |
| **AKASG** | **Malin Array Be** | **68.72** | **321** | P | | **P** | **13 55 13.8** | **-0.4** |
| | comp=Z,1.3nm,0.4s,baz=42,slow=6.5,SNR=9.8 | | | | | | | |
| **ELK** | **Elko** | **71.42** | **51** | P | | **P** | **13 55 33.2** | **+2.0** |
| | comp=Z,0.4nm,0.6s,baz=217,slow=20,SNR=3.1 | | | | | | | |
| **AFI** | **Afiamalu** | **71.86** | **131** | P | | **P** | **13 55 35.5** | **+1.7** |
| | comp=Z,20nm,0.7s,baz=2.6,slow=18,SNR=2.5 | | | | | | | |
| **PDAR** | **Pinedale Array** | **73.12** | **47** | P | | **P** | **13 55 41.8** | **+0.5** |
| | comp=Z,1.8nm,0.5s,baz=248,slow=0.6,SNR=23 | | | | | | | |
| **ULM** | **Lac du Bonnet** | **73.96** | **34** | P | | **P** | **13 55 45.6** | **0.0** |
| | comp=Z,1.5nm,0.5s,baz=326,slow=5.0,SNR=5.8 | | | | | | | |
| **GERES** | **GERESS Array B** | **76.72** | **327** | P | | **P** | **13 56 01.6** | **0.0** |
| | comp=Z,0.3nm,0.4s,baz=44,slow=5.8,SNR=6.4 | | | | | | | |
| **TXAR** | **Lajitas Array** | **86.18** | **52** | P | | **P** | **13 56 52.0** | **+0.7** |
| | comp=Z,0.4nm,0.7s,baz=261,slow=3.6,SNR=6.9 | | | | | | | |

*NIED* ***17*** *13:50:00, 35.90N×140.10E, h68km, Mw3.8 Best double couple: M0 5.86000×10^14 NP1:φ230.00000°, δ33.00000°, λ148.00000°. NP2:φ348.00000°, δ73.00000°, λ61.00000°.*

*IDC* ***17*** *13:50:46.7±1.1, 35.81N×140.36E, h0km, mb3.5/5, mb1 3.7/6, mb1mx3.4/50, mbtmp3.6/6, ML3.3/1, MS4.0/1, Ms1 4.0/1, ms1mx2.7/30, Error ellipse: s-maj=27.3km s-min=19.2km az=71.0*

*ISCJB* ***17*** *13:50:53.4±0.6, 35.88N±0.04×140.20E±0.06, h70km±5km, mb3.5/5, Error ellipse: s-maj=8.5km s-min=6.1km az=159.8*

*JMA* ***17*** *13:50:54.9±0.1, 35.93N×140.14E, h61km±1km, M3.6 Broadband fault plane solution: P waves. NP1: φ±13.00000°, δ89.00000°, λ87.00000°. NP2:φ±267.00000°, δ4.00000°, λ164.00000°. Principal axes: T Plg46.0000°, Azm279.0000°; N Plg3.0000°, Azm13.0000°; P Plg44.0000°, Azm106.0000°;*

*JMA Felt I J1.*

**ISC 17 13:50:54.5±0.9, 35.91N±0.05×140.21E±0.06, h64km±8km, n28, σ1.11/30, mb3.6/5, 7D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | h m s | ISC |
| **JYT** | **Yasato** | **0.32** | **358** | P | | **Pn** | **13 51 05.3** | **+0.1** |
| JYT | | | | S | | **Sn** | **13 51 13.0** | **+0.1** |
| **TOK** | **Tokyo** | **0.42** | **239** | P | | **Pn** | **13 51 07.0** | **+1.0** |
| **JAG** | **Ashikaga** | **0.80** | **311** | P | | **Pn** | **13 51 10.0** | **-0.2** |
| JAG | | | | S | | **Sn** | **13 51 20.9** | **-0.9** |
| **JRY** | **Ryogami san** | **1.06** | **276** | P | | **Pn** | **13 51 13.4** | **-0.2** |
| **JOD2** | **Odawara 2** | **1.11** | **235** | P | | **Pn** | **13 51 13.5** | **-0.7** |
| JOD2 | | | | S | | **Sn** | **13 51 27.0** | **-1.9** |
| **BSO3** | **Boso 3** | **1.13** | **167** | P | | **Pn** | **13 51 14.2** | **0.0** |
| **JKT** | **Katashina** | **1.16** | **318** | P | | **Pn** | **13 51 14.5** | **-0.3** |
| JKT | | | | S | | **Sn** | **13 51 30.0** | **0.0** |
| **JIM2** | **Oshima 3** | **1.34** | **208** | P | | **Pn** | **13 51 15.9** | **-1.4** |
| **BSO1** | **Boso 1** | **1.40** | **153** | P | | **Pn** | **13 51 18.2** | **+0.7** |
| **JYN** | **Shimob** | **1.41** | **254** | P | | **Pn** | **13 51 17.9** | **-0.3** |
| JY

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **TURN** | **Turunc** | **1.34** | **335** | *i* P | | **Pb** | **13 52 34.4** | **-0.6** |
| **TURN** | **Turunc** | **1.34** | **335** | P | | **Pb** | **13 52 34.4** | **-0.6** |
| **TURN** | **Turunc** | **1.34** | **335** | *e*Pn | | **Pb** | **13 52 35.4** | **+0.4** |
| **GLHS** | **Glhisar (BURDU** | **1.50** | **6** | *e*PN | | **Pb** | **13 52 37.8** | **0.0** |
| **GLHS** | **Glhisar (BURDU** | **1.50** | **6** | *e*Pn | | **Pb** | **13 52 37.8** | **0.0** |
| **KORT** | **Korkueli** | **1.58** | **32** | *e*PN | | **Pb** | **13 52 39.4** | **+0.3** |
| **KORT** | **Korkueli** | **1.58** | **32** | *i* P | | **Pn** | **13 52 38.0** | **+1.6** |
| **KORT** | **Korkueli** | **1.58** | **32** | P | | **Pn** | **13 52 38.0** | **+1.6** |
| **KORT** | **Korkueli** | **1.58** | **32** | *e*Pn | | **Pb** | **13 52 39.4** | **+0.3** |
| **GOLH** | **Golhisar** | **1.58** | **7** | *i* P | | **Pn** | **13 52 35.9** | **-0.6** |
| **GOLH** | **Golhisar** | **1.58** | **7** | P | | **Pn** | **13 52 35.9** | **-0.6** |
| **KARP** | **Karpathos** | **1.76** | **267** | P | | **Pb** | **13 52 42.0** | **-0.1** |
| **KARP** | **Karpathos** | **1.76** | **267** | P | | **Pb** | **13 52 42.0** | **-0.1** |
| **TAVA** | **DENIZLI_Tavas** | **1.83** | **350** | *i* P | | **Pb** | **13 52 41.2** | **-2.1** |
| **TAVA** | **DENIZLI_Tavas** | **1.83** | **350** | P | | **Pb** | **13 52 41.2** | **-2.1** |
| **DNZL** | **Cakiroluk** | **2.04** | **354** | *i* P | | **Pb** | **13 52 49.9** | **+3.0** |
| **SUTC** | **Sutluce-Ispart** | **2.26** | **36** | *e*PN | | **Pb** | **13 52 49.8** | **-1.0** |
| **SUTC** | **Sutluce-Ispart** | **2.26** | **36** | *e*Pn | | **Pb** | **13 52 49.8** | **-1.0** |
| **AKMC** | **Akamas** | **2.55** | **104** | P | | **Pn** | **13 52 51.7** | **+2.1** |
| **AKMC** | **Akamas** | **2.55** | **104** | P | | **Pn** | **13 52 51.7** | **+2.1** |
| | baz=304 | | | | | | | |
| **ALFC** | **Alefka** | **2.73** | **100** | P | | **Pn** | **13 52 53.7** | **+1.6** |
| ALFC | | | | S | | **Sn** | **13 53 25.1** | **+1.0** |
| **ALFC** | **Alefka** | **2.73** | **100** | P | | **Pn** | **13 52 53.7** | **+1.6** |
| | baz=299 | | | | | | | |
| ALFC | | | | S | | **Sn** | **13 53 25.1** | **+1.0** |
| **SMG** | **Samos** | **2.85** | **316** | P | | **Pn** | **13 52 53.4** | **-0.3** |
| **NPS** | **Neapolis** | **3.05** | **264** | P | | **Pb** | **13 53 00.2** | **-3.8** |
| NPS | | | | S | | **Sn** | **13 53 33.9** | **+2.1** |
| NPS | | | | AML | AML | | 13 53 37.5 | |
| | comp=N,110μm,0.2s | | | | | | | |
| NPS | | | | AML | AML | | 13 53 42.2 | |
| | comp=E,185μm,0.8s | | | | | | | |
| **NPS** | **Neapolis** | **3.05** | **264** | P | | **Pb** | **13 53 00.2** | **-3.8** |
| NPS | | | | S | | **Sn** | **13 53 33.9** | **+2.1** |
| **SZAC** | **Souni** | **3.06** | **106** | P | | **Pn** | **13 53 00.0** | **+3.4** |
| **SZAC** | **Souni** | **3.06** | **106** | P | | **Pn** | **13 53 00.0** | **+3.4** |
| | baz=303 | | | | | | | |
| **IDI** | **Anoyia** | **3.63** | **265** | P | | **Pn** | **13 53 06.8** | **+2.3** |
| IDI | | | | S | | **Sn** | **13 53 48.1** | **+1.9** |
| IDI | | | | AML | AML | | 13 53 53.1 | |
| | comp=N,52μm,0.4s | | | | | | | |
| IDI | | | | AML | AML | | 13 53 53.4 | |
| | comp=E,83μm,0.3s | | | | | | | |
| **IDI** | **Anoyia** | **3.63** | **265** | P | | **Pn** | **13 53 06.8** | **+2.3** |
| IDI | | | | S | | **Sn** | **13 53 48.1** | **+1.9** |
| **RSH** | | **5.97** | **141** | P | | **Pn** | **13 53 38.7** | **+2.2** |
| | baz=141 | | | | | | | |
| RSH | | | | S | | **Sn** | **13 54 37.6** | **-6.2** |
| | baz=141 | | | | | | | |
| **RSH** | | **5.97** | **141** | P | | **Pn** | **13 53 38.7** | **+2.2** |
| **HHAG** | **Hagoal** | **6.16** | **157** | P | | **Pn** | **13 53 41.3** | **+2.1** |
| | baz=158 | | | | | | | |
| **HHAG** | **Hagoal** | **6.16** | **157** | P | | **Pn** | **13 53 41.3** | **+2.1** |
| **HSAF** | **As Saff** | **6.31** | **162** | P | | **Pn** | **13 53 43.4** | **+1.9** |
| | baz=163 | | | | | | | |
| **HSAF** | **As Saff** | **6.31** | **162** | P | | **Pn** | **13 53 43.3** | **+1.9** |
| **GLL** | **Jalalah** | **6.39** | **161** | P | | **Pn** | **13 53 44.8** | **+2.3** |
| | baz=162 | | | | | | | |
| **GLL** | **Jalalah** | **6.39** | **161** | P | | **Pn** | **13 53 44.8** | **+2.3** |
| **SUZ** | **Suez** | **6.52** | **152** | P | | **Pn** | **13 53 46.0** | **+1.9** |
| | baz=153 | | | | | | | |
| **SUZ** | **Suez** | **6.52** | **152** | P | | **Pn** | **13 53 46.0** | **+1.9** |
| **TR2** | **Tor 2** | **8.16** | **151** | P | | **Pn** | **13 54 08.6** | **+1.9** |
| | baz=152 | | | | | | | |
| **TR2** | **Tor 2** | **8.16** | **151** | P | | **Pn** | **13 54 08.6** | **+1.9** |
| **HFRF** | **Wahat Farafira** | **8.53** | **186** | S | | **Sn** | **13 55 42.8** | **-4.1** |
| | baz=189 | | | | | | | |

**IDC 17 13:55:25.0±3.1, 32.65S×178.47W, h0km, mb3.7/2, mb1 4.0/3, mb1mx3.7/26, mbtmp3.8/3, ML3.7/1, Error ellipse: s-maj=70.9km s-min=46.0km az=120.0, South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **URZ** | **Urewera** | **6.66** | **212** | Pn | Pn | 13 57 03.6 | -0.4 |
| | 1.5nm,0.3s,baz=270,slow=2.3,SNR=12 | | | | | | |
| URZ | | | | Sn | Sn | 13 58 16.2 | -4.4 |
| | 1.7nm,0.3s,baz=330,slow=23,SNR=6.3 | | | | | | |
| **ASAR** | **Alice Springs** | **42.64** | **270** | P | P | 14 03 23.5 | +0.1 |
| | 0.5nm,0.6s,baz=108,slow=7.4,SNR=15 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.83** | **275** | P | P | 14 03 32.8 | -0.3 |
| | 0.7nm,0.5s,baz=114,slow=7.8,SNR=16 | | | | | | |
| **FINES** | **FINESS Array B** | **147.10** | **338** | PKPbc | PKPbc | 14 15 08.4 | -0.8 |
| | 1.9nm,0.8s,baz=39,slow=7.1,SNR=5.3 | | | | | | |

*ISK 17 13:57:04.8, 36.56N×26.61E, h10km, MD2.5*
*ATH 17 13:57:07.5, 36.87N×26.70E, h44km±4km, ML2.5/3, Error ellipse: s-maj=5.3km s-min=1.6km az=138.0*
*DDA 17 13:57:07.2, 36.84N×26.55E, h8km, Ml2.9*
*ISCJB 17 13:57:08.7±0.7, 36.76N±0.04×26.68E±0.05, h47km±12km, Error ellipse: s-maj=7.6km s-min=6.3km az=157.2*
*CSEM 17 13:57:09.0±0.3, 36.76N×26.71E, h40km, ML2.5, Error ellipse: s-maj=10.9km s-min=7.5km az=175.0*
**ISC 17 13:57:08.8±1.4, 36.76N±0.05×26.69E±0.03, h46km±15km, n37, σ1s55/49, Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **NISR** | **Nisiros** | **0.38** | **113** | P | **Pn** | **13 57 18.6** | **+0.2** |
| NISR | | | | S | **Sn** | **13 57 25.6** | **+0.4** |
| NISR | | | | AML | AML | 13 57 26.8 | |
| | comp=E,1457μm,0.3s | | | | | | |
| NISR | | | | AML | AML | 13 57 26.9 | |
| | comp=N,1078μm,0.4s | | | | | | |
| **NISR** | **Nisiros** | **0.38** | **113** | P | **Pn** | **13 57 18.6** | **+0.2** |
| NISR | | | | S | **Sn** | **13 57 25.6** | **+0.4** |
| **BODT** | **Bodrum** | **0.58** | **59** | *e*PG | **Pn** | **13 57 19.8** | **-1.1** |
| BODT | | | | *e*SG | **Sn** | **13 57 30.7** | **+1.2** |
| **BODT** | **Bodrum** | **0.58** | **59** | *e*Pg | **Pn** | **13 57 19.8** | **-1.1** |
| BODT | | | | *e*Sg | **Sn** | **13 57 30.7** | **+1.2** |
| **BDRM** | **Kayabasi** | **0.68** | **63** | *i* P | **Pn** | **13 57 21.7** | **-0.4** |
| **BDRM** | **Kayabasi** | **0.68** | **63** | P | **Pn** | **13 57 21.7** | **-0.4** |
| **SMG** | **Samos** | **0.95** | **7** | P | **Pn** | **13 57 24.6** | **-1.3** |
| SMG | | | | S | **Sn** | **13 57 36.1** | **-2.3** |
| SMG | | | | AML | AML | 13 57 37.4 | |
| | comp=E,668μm,0.2s | | | | | | |
| SMG | | | | AML | AML | 13 57 39.3 | |
| | comp=N,630μm,0.3s | | | | | | |
| **SMG** | **Samos** | **0.95** | **7** | P | **Pn** | **13 57 24.6** | **-1.3** |
| SMG | | | | S | **Sn** | **13 57 36.1** | **-2.3** |
| **APE** | **Apeiranthos** | **0.98** | **289** | *e*PG | **Pn** | **13 57 24.4** | **-1.8** |
| APE | | | | *e*SG | **Sn** | **13 57 38.6** | **-0.4** |
| **APE** | **Apeiranthos** | **0.98** | **289** | P | **Pn** | **13 57 23.7** | **-2.5** |
| APE | | | | S | **Sn** | **13 57 38.3** | **-0.7** |
| APE | | | | AML | AML | 13 57 40.3 | |
| | comp=N,342μm,0.2s | | | | | | |
| APE | | | | AML | AML | 13 57 42.2 | |
| | comp=E,252μm,0.2s | | | | | | |
| **APE** | **Apeiranthos** | **0.98** | **289** | *e*Pg | **Pn** | **13 57 24.5** | **-1.8** |
| APE | | | | S | **Sn** | **13 57 38.3** | **-0.7** |
| **GCAM** | **G?zelcaml?** | **1.03** | **25** | *i* P | **Pn** | **13 57 26.6** | **-0.3** |
| GCAM | | | | *i* S | **Sn** | **13 57 41.2** | **+0.9** |
| **GCAM** | **G?zelcaml?** | **1.03** | **25** | P | **Pn** | **13 57 26.6** | **-0.3** |
| GCAM | | | | S | **Sn** | **13 57 41.2** | **+0.9** |
| **THR8** | **Santorini-Mono** | **1.04** | **250** | P | **Pn** | **13 57 28.1** | **+1.2** |
| **THR8** | **Santorini-Mono** | **1.04** | **250** | P | **Pn** | **13 57 28.1** | **+1.2** |
| **THR3** | **Thira Island,** | **1.09** | **252** | P | **Pn** | **13 57 28.1** | **+0.3** |
| **THR3** | **Thira Island,** | **1.09** | **252** | P | **Pn** | **13 57 28.1** | **+0.3** |
| **THR6** | **Thira Island,** | **1.12** | **249** | P | **Pn** | **13 57 29.1** | **+1.1** |
| **THR6** | **Thira Island,** | **1.12** | **249** | P | **Pn** | **13 57 29.1** | **+1.1** |
| **ARG** | **Arkhangelos** | **1.28** | **115** | P | **Pn** | **13 57 29.9** | **-0.4** |
| **ARG** | **Arkhangelos** | **1.28** | **115** | P | **Pn** | **13 57 29.9** | **-0.4** |
| **DGB** | **˙zmir** | **1.30** | **7** | *i* P | **Pn** | **13 57 30.8** | **+0.3** |
| DGB | | | | *i* S | **Sn** | **13 57 48.4** | **+1.7** |
| **AYDN** | **Tasoluk** | **1.31** | **46** | *i* P | **Pn** | **13 57 32.6** | **+1.9** |
| **AYDN** | **Tasoluk** | **1.31** | **46** | P | **Pn** | **13 57 32.6** | **+1.9** |
| **ZEY** | **˙zmir** | **1.48** | **354** | *i* P | **Pn** | **13 57 33.2** | **+0.1** |
| **TURN** | **Turunc** | **1.54** | **85** | *e*PN | **Pn** | **13 57 30.1** | **-3.7** |
| **TURN** | **Turunc** | **1.54** | **85** | *i* P | **Pn** | **13 57 30.9** | **-2.9** |
| **TURN** | **Turunc** | **1.54** | **85** | *e*Pn | **Pn** | **13 57 30.1** | **-3.7** |
| **TURN** | **Turunc** | **1.54** | **85** | P | **Pn** | **13 57 30.9** | **-2.9** |
| **DALY** | **Dalyan (Mu˘la** | **1.58** | **87** | *e*PN | **Pn** | **13 57 34.8** | **+0.5** |
| **DALY** | **Dalyan (Mu˘la** | **1.58** | **87** | *e*Pn | **Pn** | **13 57 34.8** | **+0.5** |
| **URLA** | **Izmir** | **1.60** | **357** | *e*PN | **Pn** | **13 57 36.6** | **+1.9** |
| **URLA** | **Izmir** | **1.60** | **357** | *e*Pn | **Pn** | **13 57 36.6** | **+1.9** |
| **CHOS** | **Chios island** | **1.70** | **343** | *e*PN | **Pn** | **13 57 37.7** | **+1.6** |
| **CHOS** | **Chios island** | **1.70** | **343** | *e*Pn | **Pn** | **13 57 37.7** | **+1.6** |
| **FETY** | **Fethiye** | **1.93** | **93** | *e*PN | **Pn** | **13 57 39.4** | **+0.2** |
| **FETY** | **Fethiye** | **1.93** | **93** | *e*Pn | **Pn** | **13 57 39.4** | **+0.2** |

**IDC 17 14:04:36.7±8.1, 32.32S×178.63W, h0km, mb3.5/2, mb1 3.8/2, mb1mx3.6/20, mbtmp3.5/2, Error ellipse: s-maj=369.7km s-min=61.3km az=160.0, South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ASAR** | **Alice Springs** | **42.51** | **269** | P | P | 14 12 34.1 | 0.0 |
| | 0.4nm,0.7s,baz=110,slow=7.7,SNR=11 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.67** | **274** | P | P | 14 12 43.2 | -0.3 |
| | 0.7nm,0.6s,baz=115,slow=7.7,SNR=3.3 | | | | | | |
| **FINES** | **FINESS Array B** | **146.74** | **339** | PKPbc | PKPbc | 14 24 19.0 | -0.8 |
| | 3.8nm,1.0s,baz=28,slow=3.3,SNR=3.8 | | | | | | |

*CSEM 17 14:08:40.5±0.2, 37.29N×31.90E, h2km, MD2.7, Error ellipse: s-maj=4.1km s-min=3.8km az=82.0*
*DDA 17 14:08:40.2, 37.28N×31.96E, h7km, Ml2.9*
*ISK 17 14:08:40.1, 37.29N×31.92E, h6km, MD2.7*
**ISC 17 14:08:40.3±1.3, 37.29N±0.03×31.92E±0.03, h5km±12km, n34, σ0s38/45, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KONT** | **Konya--Tatoy** | **0.74** | **28** | *e*PG | **Pg** | **14 08 54.9** | **+0.5** |
| KONT | | | | *e*SG | **Sb** | **14 09 05.9** | **-0.2** |
| **KONT** | **Konya--Tatoy** | **0.74** | **28** | *i* P | **Pb** | **14 08 55.3** | **-0.4** |
| **KONT** | **Konya--Tatoy** | **0.74** | **28** | *e*Pg | **Pg** | **14 08 54.9** | **+0.5** |
| KONT | | | | *e*Sg | **Sb** | **14 09 05.9** | **-0.2** |
| **SUTC** | **Sutluce-Ispart** | **0.76** | **284** | *e*PG | **Pg** | **14 08 54.9** | **+0.1** |
| SUTC | | | | *e*SG | **Sb** | **14 09 05.9** | **-0.8** |
| **SUTC** | **Sutluce-Ispart** | **0.76** | **284** | *e*Pg | **Pg** | **14 08 54.9** | **+0.1** |
| SUTC | | | | *e*Sg | **Sb** | **14 09 05.9** | **-0.8** |
| **DOGA** | **KONYA_Doganhis** | **0.84** | **346** | *i* P | **Pg** | **14 08 56.0** | **-0.3** |
| **DOGA** | **KONYA_Doganhis** | **0.84** | **346** | P | **Pg** | **14 08 56.0** | **-0.3** |
| **LADK** | **Ladik-KONYA** | **0.97** | **21** | *e*PG | **Pg** | **14 08 59.2** | **+0.3** |
| LADK | | | | *e*SG | **Sb** | **14 09 13.1** | **+0.2** |
| **LADK** | **Ladik-KONYA** | **0.97** | **21** | *e*Pg | **Pg** | **14 08 59.2** | **+0.3** |
| LADK | | | | *e*Sg | **Sb** | **14 09 13.1** | **+0.2** |
| **BCK** | **Bucak** | **1.07** | **279** | *e*PG | **Pg** | **14 09 00.9** | **+0.1** |
| **BCK** | **Bucak** | **1.07** | **279** | *e*Pg | **Pg** | **14 09 00.9** | **+0.1** |
| **GAZI** | **Gazipasa** | **1.10** | **163** | *i* P | **Pg** | **14 09 01.2** | **-0.2** |
| GAZI | | | | *i* S | **Sg** | **14 09 15.8** | **+0.1** |
| **GAZI** | **Gazipasa** | **1.10** | **163** | P | **Pg** | **14 09 01.2** | **-0.2** |
| GAZI | | | | S | **Sg** | **14 09 15.8** | **+0.1** |
| **BAGO** | **Egridir - ISPA** | **1.14** | **308** | *i* P | **Pg** | **14 09 02.0** | **0.0** |
| BAGO | | | | *i* S | **Sn** | **14 09 20.0** | **+1.0** |
| **KDHN** | **Kadinhani** | **1.24** | **7** | *i* P | **Pg** | **14 09 03.8** | **-0.2** |
| KDHN | | | | *i* S | **Sn** | **14 09 21.1** | **-0.4** |
| **KDHN** | **Kadinhani** | **1.24** | **7** | P | **Pg** | **14 09 03.8** | **-0.2** |
| KDHN | | | | S | **Sn** | **14 09 21.1** | **-0.4** |
| **TEVE** | **Tevekalti-Mers** | **1.49** | **125** | *e*PN | **Pn** | **14 09 07.9** | **+0.1** |
| **TEVE** | **Tevekalti-Mers** | **1.49** | **125** | *e*Pn | **Pn** | **14 09 07.9** | **+0.1** |
| **CHBY** | **Cihanbeyli** | **1.50** | **30** | *e*PN | **Pn** | **14 09 08.1** | **+0.1** |
| **CHBY** | **Cihanbeyli** | **1.50** | **30** | *e*Pn | **Pn** | **14 09 08.1** | **+0.1** |
| **KIZT** | **Kizilcal** | **1.58** | **359** | *e*PN | **Pn** | **14 09 09.4** | **+0.3** |
| **KIZT** | **Kizilcal** | **1.58** | **359** | *e*Pn | **Pn** | **14 09 09.5** | **+0.3** |
| **KEBE** | **Keben-Mersin** | **1.67** | **120** | *e*PN | **Pn** | **14 09 10.5** | **+0.2** |
| **KEBE** | **Keben-Mersin** | **1.67** | **120** | *e*Pn | **Pn** | **14 09 10.5** | **+0.2** |
| **AKKU** | **Akkuyu-Mersin** | **1.73** | **130** | *e*PN | **Pn** | **14 09 11.5** | **+0.5** |
| **AKKU** | **Akkuyu-Mersin** | **1.73** | **130** | *e*Pn | **Pn** | **14 09 11.5** | **+0.5** |
| **KERG** | **Konya-Eregli** | **1.76** | **85** | *i* P | **Pb** | **14 09 13.0** | **-0.1** |
| **KERG** | **Konya-Eregli** | **1.76** | **85** | P | **Pb** | **14 09 13.0** | **-0.1** |
| **AKAS** | **Kas** | **2.14** | **241** | *e*PN | **Pn** | **14 09 17.3** | **+0.5** |
| **AKAS** | **Kas** | **2.14** | **241** | *e*Pn | **Pn** | **14 09 17.3** | **+0.5** |
| **GULE** | **Gulek** | **2.28** | **89** | *i* P | **Pb** | **14 09 21.7** | **-0.3** |
| **GULE** | **Gulek** | **2.28** | **89** | P | **Pb** | **14 09 21.7** | **-0.3** |
| **FETY** | **Fethiye** | **2.37** | **255** | *e*PN | **Pn** | **14 09 20.4** | **+0.6** |
| **FETY** | **Fethiye** | **2.37** | **255** | *e*Pn | **Pn** | **14 09 20.4** | **+0.6** |

**MEX 17 14:22:28.5±0.8, 18.02N×103.83W, h20km, MD3.5, Near coast of Michoacan**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MMIG** | **Aquila** | **0.54** | **59** | *e*P | Pb | 14 22 37.5 | -1.7 |
| MMIG | | | | *e*S | Sb | 14 22 43.3 | -3.2 |
| **R15V** | | **1.16** | **353** | *e*P | Pn | 14 22 46.4 | -3.3 |
| R15V | | | | *e*S | Sb | 14 22 59.4 | -5.1 |
| **EZ5V** | | **1.47** | **8** | *e*P | Pn | 14 22 53.4 | -0.8 |
| EZ5V | | | | *e*S | Sn | 14 23 09.8 | -3.2 |
| **CJM** | **Chamela** | **1.87** | **322** | *e*P | Pn | 14 22 57.4 | -2.0 |
| CJM | | | | *e*S | Sn | 14 23 10.7 | -12 |

**IDC 17 14:31:12.5±2.2, 26.40N×143.57E, h0km, mb3.5/3, mb1 3.6/4, mb1mx3.2/31, mbtmp3.4/4, ML3.4/1, Error ellipse: s-maj=60.0km s-min=23.0km az=60.0, Bonin Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JCJ** | **Chichijima** | **1.42** | **300** | Pn | Pn | 14 31 39.4 | -0.1 |
| | 12nm,0.3s,baz=275,slow=19,SNR=5.2 | | | | | | |
| JCJ | | | | Sn | Sn | 14 31 59.9 | +0.9 |
| | 90nm,0.3s,baz=273,slow=23,SNR=22 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **11.10** | **337** | Pn | Pn | 14 33 50.1 | -2.3 |
| | 0.3nm,0.3s,baz=158,slow=10,SNR=5.0 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **22.45** | **102** | T | T | 14 58 56.4 | |
| | baz=317,slow=76,SNR=6.0 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **22.45** | **102** | T | T | 14 58 57.5 | |
| | baz=317,slow=76,SNR=6.6 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **22.46** | **102** | T | T | 14 58 56.2 | |
| | baz=317,slow=76,SNR=6.7 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **22.74** | **105** | T | T | 15 00 07.1 | |
| | baz=316 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **22.75** | **105** | T | T | 15 00 08.4 | |
| | baz=316 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **22.76** | **105** | T | T | 15 00 03.9 | |
| | baz=316 | | | | | | |
| **SONM** | **Songino Array** | **36.07** | **316** | P | P | 14 38 16.7 | +0.7 |
| | 0.4nm,0.6s,baz=118,slow=7.7,SNR=3.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **46.93** | **192** | P | P | 14 39 44.7 | -0.4 |
| | 0.3nm,0.6s,baz=9.6,slow=7.9,SNR=4.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **51.87** | **310** | P | P | 14 40 22.7 | +0.1 |
| | 0.5nm,0.5s,baz=94,slow=9.1,SNR=7.2 | | | | | | |

*CSEM 17 14:44:20.6±0.4, 38.75N×43.48E, h10km, ML2.6, Error ellipse: s-maj=8.5km s-min=6.4km az=138.0*
*DDA 17 14:44:20.5, 38.75N×43.48E, h7km, Ml2.6*
*ISK 17 14:44:20.1, 38.73N×43.45E, h15km, MD2.4*
**ISC 17 14:44:20.8±1.2, 38.76N±0.04×43.49E±0.04, h13km±12km, n18, σ0s71/24, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.18** | **205** | *e*PG | **Pg** | **14 44 25.5** | **+0.5** |
| **VANB** | **Van** | **0.18** | **205** | *e*Pg | **Pg** | **14 44 25.5** | **+0.5** |
| **TVAN** | **Van** | **0.24** | **195** | *i* P | **Pg** | **14 44 25.3** | **-0.7** |
| **TVAN** | **Van** | **0.24** | **195** | P | **Pg** | **14 44 25.3** | **-0.7** |
| **VMUR** | **Van-Muradiye** | **0.24** | **16** | *i* P | **Pg** | **14 44 25.9** | **-0.1** |
| **VMUR** | **Van-Muradiye** | **0.24** | **16** | P | **Pg** | **14 44 25.9** | **-0.1** |
| **CLDR** | **Caldiran** | **0.51** | **41** | *e*PG | **Pb** | **14 44 31.4** | **-0.4** |
| CLDR | | | | *e*SG | **Sb** | **14 44 39.6** | **+0.4** |
| **CLDR** | **Caldiran** | **0.51** | **41** | *i* P | **Pg** | **14 44 31.0** | **+0.1** |
| **CLDR** | **Caldiran** | **0.51** | **41** | P | **Pg** | **14 44 31.0** | **+0.1** |
| **CLDR** | **Caldiran** | **0.51** | **41** | *e*Pg | **Pb** | **14 44 31.4** | **-0.4** |
| CLDR | | | | *e*Sg | **Sb** | **14 44 39.7** | **+0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.60** | **275** | *i* P | **Pb** | **14 44 32.6** | **-0.6** |
| ADCV | | | | *i* S | **Sb** | **14 44 43.1** | **+1.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.60** | **275** | P | **Pb** | **14 44 32.7** | **-0.6** |
| ADCV | | | | S | **Sb** | **14 44 43.1** | **+1.4** |
| **TUTA** | **Tutak** | **0.83** | **321** | *i* P | **Pg** | **14 44 36.2** | **-0.7** |
| **TUTA** | **Tutak** | **0.83** | **321** | P | **Pg** | **14 44 36.2** | **-0.7** |
| **AGRB** | **Hanur-Agry** | **0.90** | **335** | *e*PG | **Pg** | **14 44 38.2** | **-0.1** |
| AGRB | | | | *e*SG | **Sb** | **14 44 51.4** | **+0.9** |
| **AGRB** | **Hanur-Agry** | **0.90** | **335** | *e*Pg | **Pg** | **14 44 38.2** | **-0.1** |
| AGRB | | | | *e*Sg | **Sb** | **14 44 51.4** | **+0.9** |
| **EKAR** | **Karacoban** | **1.21** | **295** | *i* P | **Pb** | **14 44 43.2** | **-0.6** |
| **EKAR** | **Karacoban** | **1.21** | **295** | P | **Pb** | **14 44 43.2** | **-0.6** |

**DJA 17 14:58:22.2±1.4, 2.7N±4.4×12.7E±*, h17km±13km, M3.5/4, MLv3.5/4, Northern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SGSI** | **Sangihe** | **2.25** | **317** | P | Pn | 14 58 58.7 | +0.1 |
| SGSI | | | | S | Sn | 14 59 26.8 | +0.8 |
| **LBMI** | **Labuha** | **2.68** | **170** | P | Pn | 14 59 05.8 | +1.2 |
| LBMI | | | | S | Sn | 14 59 37.1 | +0.4 |
| **SANI** | **Sanana** | **4.18** | **195** | P | Pn | 14 59 24.9 | -0.3 |
| SANI | | | | S | Sn | 15 00 14.6 | +0.9 |

*ISCJB 17 15:11:18.3±0.3, 42.92N±0.05×134.28E±0.06, h450km, mb3.3/12, Error ellipse: s-maj=7.1km s-min=5.1km az=44.5*
*IDC 17 15:11:19.7±0.8, 42.97N×134.02E, h444km±10km, mb3.0/12, mb1 3.0/18, mb1mx2.9/40, mbtmp3.7/18, Error ellipse: s-maj=14.5km s-min=11.0km az=85.0*
*JMA 17 15:11:20.7±0.4, 42.76N×134.89E, h518km, M3.8*
**ISC 17 15:11:19.1±0.6, 42.87N±0.07×134.32E±0.07, h450km, n37, σ1s81/41, mb3.3/12, Primorye**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **USRK** | **Ussuriysk Ar.** | **2.15** | **309** | P | **P** | **15 12 19.4** | **-0.9** |
| | 4.4nm,0.3s,baz=118,slow=4.9,SNR=57 | | | | | | |
| **JKB** | **Kayabe** | **5.07** | **99** | P | **P** | **15 12 45.3** | **+1.3** |
| **JOT** | **Ohata** | **5.22** | **104** | P | **P** | **15 12 46.8** | **+1.3** |
| **JHR** | **Hokuryu** | **5.47** | **78** | P | **P** | **15 12 50.8** | **+2.8** |
| **JRG** | **Rokugo** | **5.90** | **124** | P | **P** | **15 12 54.2** | **+1.8** |
| **JWK2** | **Keihoku** | **5.98** | **63** | P | **P** | **15 12 55.5** | **+2.5** |
| **ASAJ** | **Asahikawa** | **6.15** | **76** | P | **P** | **15 12 56.7** | **+1.9** |
| | 4.6nm,0.3s,baz=271,slow=4.8,SNR=43 | | | | | | |
| **JMK** | **Ichinoseki** | **6.53** | **125** | P | **P** | **15 12 59.5** | **+0.6** |
| JMK | | | | *e*S | **S** | **15 14 18.2** | **-2.2** |
| **KLR** | | **6.61** | **345** | P | **P** | **15 12 58.6** | **-0.8** |
| | 0.3nm,0.3s,baz=169,slow=12,SNR=39 | | | | | | |
| **JCH** | **Churui** | **6.66** | **89** | P | **P** | **15 12 59.8** | **-0.4** |
| JCH | | | | *e*S | **S** | **15 14 19.1** | **-3.8** |
| **MJAR** | **Matsushiro Arr** | **7.00** | **153** | P | **P** | **15 13 05.8** | **+1.9** |
| | 0.3nm,0.3s,baz=335,slow=12,SNR=6.8 | | | | | | |
| **JMM** | **Marumori** | **7.03** | **133** | P | **P** | **15 13 04.5** | **+0.4** |
| JMM | | | | *e*S | **S** | **15 14 28.3** | **-1.8** |
| **JTKR** | **Abashiri--Toko** | **7.07** | **78** | P | **P** | **15 13 05.8** | **+1.4** |
| **KSRS** | **Korea Array** | **7.30** | **224** | P | **P** | **15 13 07.7** | **+0.7** |
| | 0.3nm,0.3s,baz=39,slow=11,SNR=9.7 | | | | | | |
| **JWT** | **Wachi** | **7.63** | **173** | P | **P** | **15 13 13.4** | **+2.8** |
| **JHO** | **Hitachi** | **7.89** | **140** | *e*S | **S** | **15 14 43.4** | **-3.6** |
| **JHS** | **Saijyo** | **7.92** | **187** | P | **P** | **15 13 16.2** | **+2.5** |
| **JNY** | **Yasuok** | **7.99** | **159** | P | **P** | **15 13 16.8** | **+2.2** |
| **JYT** | **Yasato** | **8.04** | **144** | *e*S | **S** | **15 14 46.2** | **-3.7** |
| **NEM2** | **Nemuro 2** | **8.37** | **83** | P | **P** | **15 13 19.5** | **+1.1** |
| **JIE** | **Ise** | **8.67** | **167** | P | **P** | **15 13 23.4** | **+1.6** |
| **JKN2** | **Miekihoku** | **8.76** | **169** | P | **P** | **15 13 23.2** | **+0.5** |
| **BSO1** | **Boso 1** | **9.71** | **145** | P | **P** | **15 13 32.7** | **+0.2** |
| **JNU** | **Nakatsue** | **10.11** | **197** | P | **P** | **15 13 38.9** | **+1.4** |
| | 0.6nm,0.3s,baz=106,slow=2.5,SNR=8.1 | | | | | | |
| **SONM** | **Songino Array** | **20.19** | **294** | P | **P** | **15 15 21.2** | **-0.9** |
| | 0.3nm,0.3s,baz=95,slow=9.5,SNR=9.7 | | | | | | |
| **TIXI** | **Tiksi** | **28.98** | **356** | P | **P** | **15 16 39.7** | **-0.3** |
| | 0.4nm,0.2s,baz=14,slow=4.2,SNR=2.7 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **34.00** | **307** | P | **P** | **15 17 21.8** | **-1.6** |
| | 1.0nm,0.4s,baz=81,slow=8.2,SNR=6.7 | | | | | | |
| ZALV | | | | PcP | **PcP** | **15 19 49.4** | **+0.5** |
| | 0.7nm,0.5s,baz=80,slow=1.9,SNR=3.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **36.55** | **295** | P | **P** | **15 17 43.6** | **-1.4** |
| | 1.5nm,0.7s,baz=84,slow=10,SNR=11 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **38.53** | **242** | P | **P** | **15 18 01.0** | **-0.6** |
| | 0.4nm,0.7s,baz=59,slow=7.6,SNR=3.0 | | | | | | |
| **INK** | **Inuvik** | **51.76** | **28** | P | **P** | **15 19 44.1** | **+1.2** |
| | 0.8nm,0.9s,baz=283,slow=6.2,SNR=3.7 | | | | | | |
| **ARCES** | **ARCESS Array B** | **56.55** | **336** | P | **P** | **15 20 16.6** | **-0.3** |
| | 2.9nm,0.8s,baz=46,slow=6.4,SNR=6.7 | | | | | | |
| **

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| CODC | | | *i* | | | 15 40 41.0 | |
| | comp=Z,143nm,0.5s | | | | | | |
| **TOLC** | **Tolima** | **3.15** | **225** | *e*P | **Pn** | **15 39 53.8** | **+1.4** |
| TOLC | | | | *e*S | **Sn** | **15 40 31.6** | **+0.5** |
| **SDV** | **Santo Domingo** | **3.17** | **50** | *e*P | **Pn** | **15 39 53.8** | **+1.2** |
| SDV | | | | *i* | | 15 40 34.2 | |
| | comp=Z,35nm,0.5s | | | | | | |
| **PRAC** | **Prado** | **3.57** | **210** | *e*P | **Pn** | **15 39 57.9** | **+0.4** |
| PRAC | | | | *e*S | **Sn** | **15 40 40.6** | **+0.2** |
| **SJAC** | **San Juan de Ar** | **3.63** | **194** | *e*S | **Sn** | **15 40 42.4** | **+0.6** |
| **YKA** | **Yellowknife Ar** | **63.28** | **340** | P | **P** | **15 49 12.0** | **-1.8** |
| | comp=Z,0.1nm,0.5s,baz=133,slow=7.0,SNR=5.6 | | | | | | |
| **ASAR** | **Alice Springs** | **149.15** | **234** | PKPbc | **PKPbc** | **15 58 32.6** | **-0.2** |
| | comp=Z,0.5nm,0.8s,baz=121,slow=3.6,SNR=7.1 | | | | | | |

**IDC 17 15:51:49.5±2.2, 6°90S×129°44E, h0km, mb3.4/1, mb1 3.5/3, mb1mx3.2/43, mbtmp3.3/3, ML3.3/2, MS3.8/1, Ms1 3.8/1, ms1mx2.6/16, Error ellipse: s-maj=131.1km s-min=32.0km az=68.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **13.81** | **160** | Pn | Pn | 15 55 06.2 | -0.5 |
| | 0.1nm,0.3s,baz=339,slow=13,SNR=8.1 | | | | | | |
| WRA | | | | Sn | Sn | 15 57 26.5 | -15 |
| | 0.6nm,0.3s,baz=340,slow=23,SNR=12 | | | | | | |
| **ASAR** | **Alice Springs** | **17.22** | **166** | P | Pn | 15 55 52.0 | +0.4 |
| | 0.2nm,0.3s,baz=342,slow=11,SNR=25 | | | | | | |
| ASAR | | | | S | Sn | 15 58 49.2 | -15 |
| | 0.1nm,0.3s,baz=344,slow=26,SNR=5.4 | | | | | | |
| **AFI** | **Afiamalu** | **58.12** | **102** | LR | LR | 16 25 08.2 | |
| | comp=Z,69nm,18.0s,baz=115,slow=34 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.83** | **327** | P | P | 16 02 49.6 | 0.0 |
| | 0.1nm,0.4s,baz=126,slow=8.3,SNR=5.2 | | | | | | |

*SJA 17 15:56:21.5±0.8, 30.80S×71.24W, h14km±16km, ML2.6, MW3.5*
*ISCJB 17 15:56:23.6±1.0, 30.83S±0.04×71.2W±0.1, h10km, Error ellipse: s-maj=13.4km s-min=5.5km az=170.6*
**ISC 17 15:56:23.3±1.6, 30.82S±0.05×71.34W±0.10, h10km, n13, σ0§97/17, 2C, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TLL** | **Tololo Astrono** | **0.80** | **36** | *i*P | **Pg** | **15 56 39.4** | **+0.7** |
| TLL | | | | *i*S | **Sb** | **15 56 52.2** | **+1.9** |
| TLL | | | | IAML | | 15 56 53.4 | |
| | comp=E,660nm,0.2s | | | | | | |
| **LSCH** | **La Serena** | **0.91** | **5** | *e*P | **Pg** | **15 56 40.7** | **-0.1** |
| LSCH | | | | *i*S | **Sb** | **15 56 54.4** | **+1.1** |
| **LCO** | **Las Campanas** | **1.88** | **17** | *i*P | **Pn** | **15 56 54.9** | **-0.9** |
| **LCO** | **Las Campanas** | **1.88** | **17** | *i*P | **Pn** | **15 56 54.8** | **-1.1** |
| LCO | | | | *i*S | **Sn** | **15 57 18.8** | **-1.0** |
| **RTLS** | **Leoncito** | **2.01** | **120** | *i*P | **Pn** | **15 56 56.5** | **-1.1** |
| RTLS | | | | IAML | | 15 57 25.2 | |
| | comp=Z,36nm,0.5s | | | | | | |
| **ROC1** | **El Roble** | **2.17** | **173** | *i*P | **Pn** | **15 57 00.3** | **+0.5** |
| **AUSP** | **Uspallata** | **2.18** | **131** | *i*P | **Pn** | **15 56 59.3** | **-0.7** |
| **AMOG** | **MOGNA** | **2.46** | **94** | *i*P | **Pn** | **15 57 02.7** | **-0.8** |
| **RTCV** | **Cerro Valdivia** | **2.62** | **114** | *i*P | **Pn** | **15 57 04.9** | **-0.8** |
| **ASAL** | **Salagasta** | **2.78** | **130** | *i*P | **Pn** | **15 57 07.3** | **-0.7** |
| **AGUA** | **GUANDACOL** | **2.80** | **63** | *i*P | **Pn** | **15 57 07.9** | **-0.5** |
| **VCA** | **Vinchina** | **3.43** | **54** | *i*P | **Pn** | **15 57 16.4** | **-0.6** |
| VCA | | | | *i*S | **Sn** | **15 57 57.1** | **-0.6** |
| VCA | | | | IAML | | 15 58 07.6 | |
| | comp=Z,23nm,0.3s | | | | | | |
| **VCA** | **Vinchina** | **3.43** | **54** | *e*P | **Pn** | **15 57 17.6** | **+0.6** |

**IDC 17 15:58:15.4±2.9, 33.06S×178.27W, h0km, mb3.9/2, mb1 4.1/3, mb1mx3.6/29, mbtmp3.9/3, ML3.6/1, Error ellipse: s-maj=69.5km s-min=35.6km az=119.0, South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **URZ** | **Urewera** | **6.41** | **215** | Pn | Pn | 15 59 48.9 | -2.1 |
| | 1.2nm,0.3s,baz=166,slow=19,SNR=11 | | | | | | |
| URZ | | | | Sn | Sn | 16 01 08.2 | +3.4 |
| | 4.0nm,0.3s,baz=92,slow=22,SNR=10.0 | | | | | | |
| **ASAR** | **Alice Springs** | **42.81** | **270** | P | P | 16 06 15.4 | +0.2 |
| | 0.5nm,0.4s,baz=112,slow=7.9,SNR=22 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.03** | **275** | P | P | 16 06 24.9 | -0.2 |
| | 0.9nm,0.4s,baz=114,slow=7.8,SNR=17 | | | | | | |
| **FINES** | **FINESS Array B** | **147.54** | **338** | PKPbc | PKPbc | 16 18 00.1 | -0.6 |
| | 0.9nm,0.4s,baz=33,slow=4.5,SNR=8.6 | | | | | | |

*CSEM 17 16:08:29.0, 40.07N×35.82E, h7km, MD2.5*
**DDA 17 16:08:29.0, 40.07N×35.82E, h7km, Md2.5, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TOKA** | **Tokat** | **0.56** | **63** | *i*P | Pg | 16 08 40.1 | +0.2 |
| TOKA | | | | *i*S | Sg | 16 08 48.1 | +0.9 |
| **TOKA** | **Tokat** | **0.56** | **63** | P | Pg | 16 08 40.1 | +0.2 |
| TOKA | | | | S | Sg | 16 08 48.1 | +0.8 |
| **CUSAR** | **Sarkisla-SIVAS** | **0.72** | **153** | *i*P | Pb | 16 08 43.8 | -0.2 |
| CUSAR | | | | *i*S | Sb | 16 08 53.7 | -0.4 |
| **CUSAR** | **Sarkisla-SIVAS** | **0.72** | **153** | P | Pb | 16 08 43.8 | -0.2 |
| CUSAR | | | | S | Sb | 16 08 53.7 | -0.5 |
| **SCER** | **sogukcermik** | **1.02** | **101** | *i*P | Pg | 16 08 48.8 | +0.1 |
| **SCER** | **sogukcermik** | **1.02** | **101** | P | Pg | 16 08 48.8 | +0.1 |
| **CDAG** | **Cicekdag** | **1.20** | **249** | *i*P | Pn | 16 08 53.0 | +0.7 |
| CDAG | | | | *i*S | Sn | 16 09 09.8 | +0.9 |
| **CDAG** | **Cicekdag** | **1.20** | **249** | P | Pn | 16 08 53.0 | +0.7 |
| CDAG | | | | S | Sn | 16 09 09.8 | +0.9 |
| **AVNS** | **Nevsehir-Avano** | **1.47** | **211** | *i*P | Pn | 16 08 54.7 | -1.2 |
| **AVNS** | **Nevsehir-Avano** | **1.47** | **211** | P | Pn | 16 08 54.7 | -1.3 |
| **CUKAN** | **kangal_SIVAS** | **1.47** | **120** | *i*P | Pb | 16 08 56.9 | +0.1 |
| CUKAN | | | | *i*S | Sg | 16 09 19.1 | +2.8 |
| **CUKAN** | **kangal_SIVAS** | **1.47** | **120** | P | Pb | 16 08 56.9 | +0.1 |
| CUKAN | | | | S | Sg | 16 09 19.1 | +2.8 |

**IDC 17 16:13:53.5±1.8, 11.66S×165.06E, h0km, mb3.7/3, mb1 4.0/4, mb1mx3.6/23, mbtmp3.7/4, ML3.6/1, MS3.1/1, Ms1 3.1/1, ms1mx2.5/25, Error ellipse: s-maj=51.0km s-min=33.7km az=128.0, Santa Cruz Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DZM** | **Mont Dzumac** | **10.44** | **173** | Pn | Pn | 16 16 24.6 | -0.1 |
| | 0.5nm,0.3s,baz=312,slow=21,SNR=6.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **30.64** | **251** | P | P | 16 20 10.3 | +0.4 |
| | 1.0nm,0.7s,baz=81,slow=9.1,SNR=8.3 | | | | | | |
| **ASAR** | **Alice Springs** | **31.92** | **244** | P | P | 16 20 20.7 | -0.4 |
| | 0.4nm,0.8s,baz=70,slow=9.8,SNR=5.9 | | | | | | |
| ASAR | | | | LR | LR | 16 31 34.7 | |
| | comp=Z,34nm,20.1s,baz=80,slow=33 | | | | | | |
| **ILAR** | **Eielson Array** | **84.30** | **19** | P | P | 16 26 27.0 | 0.0 |
| | 0.5nm,0.6s,baz=230,slow=5.3,SNR=4.4 | | | | | | |

*CSEM 17 16:37:41.1, 39.92N×16.00E, h8km, MD2.0/10*
**ROM 17 16:37:41.1±0.1, 39.92N×16.00E, h8km±1km, Md2.0/10, Ml2.1/8, Error ellipse: s-maj=2.4km s-min=1.3km az=20.0, Southern Italy**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MMN** | **Mormanno** | **0.03** | **197** | Pg | Pg | 16 37 43.3 | +0.7 |
| | 754nm,0.3s | | | | | | |
| **MMN** | **Mormanno** | **0.03** | **197** | Pg | Pg | 16 37 43.3 | +0.7 |
| | 754nm,0.3s | | | | | | |
| **T0711** | **Rotonda (PZ)** | **0.05** | **71** | Pg | Pg | 16 37 43.2 | +0.3 |
| T0711 | | | | Sg | Sg | 16 37 44.5 | +0.3 |
| | 3µm,0.3s | | | | | | |
| **CUC** | **Castrocucco** | **0.16** | **297** | Pg | Pg | 16 37 45.1 | +0.6 |
| CUC | | | | Sg | Sg | 16 37 47.9 | +1.0 |
| | 631nm,0.6s | | | | | | |
| **CUC** | **Castrocucco** | **0.16** | **297** | Pg | Pg | 16 37 45.1 | +0.6 |
| CUC | | | | Sg | Sg | 16 37 47.9 | +1.0 |
| | 631nm,0.6s | | | | | | |
| **SALB** | **San Lorenzo Be** | **0.27** | **99** | Pg | Pg | 16 37 46.9 | +0.4 |
| | 268nm,0.4s | | | | | | |
| **SALB** | **San Lorenzo Be** | **0.27** | **99** | Pg | Pg | 16 37 46.9 | +0.4 |
| | 268nm,0.4s | | | | | | |
| **SIRI** | **Monte Sirino -** | **0.28** | **339** | Pg | Pg | 16 37 47.3 | +0.5 |
| SIRI | | | | Sg | Sb | 16 37 52.6 | -0.8 |
| | 308nm,0.4s | | | | | | |
| **SIRI** | **Monte Sirino -** | **0.28** | **339** | Pg | Pg | 16 37 47.3 | +0.5 |
| SIRI | | | | Sg | Sb | 16 37 52.6 | -0.8 |
| | 308nm,0.4s | | | | | | |
| **SCHR** | **S. Chirico Rap** | **0.28** | **11** | Pg | Pb | 16 37 47.7 | -0.8 |
| | 376nm,1.6s | | | | | | |
| **ORI** | **Oriolo Calabro** | **0.37** | **67** | Pg | Pb | 16 37 49.8 | -0.2 |
| | 306nm,0.5s | | | | | | |
| **ORI** | **Oriolo Calabro** | **0.37** | **67** | Pg | Pb | 16 37 49.8 | -0.2 |
| | 306nm,0.5s | | | | | | |
| **MTSN** | **Montesano sull** | **0.40** | **331** | Pg | Pb | 16 37 49.7 | -0.7 |
| MTSN | | | | Sg | Sb | 16 37 56.3 | -0.4 |
| | 192nm,0.7s | | | | | | |
| **MTSN** | **Montesano sull** | **0.40** | **331** | Pg | Pb | 16 37 49.7 | -0.7 |
| MTSN | | | | Sg | Sb | 16 37 56.3 | -0.4 |
| | 192nm,0.7s | | | | | | |
| **MGR** | **Morigerati** | **0.41** | **302** | Pg | Pg | 16 37 49.3 | +0.2 |
| | 110nm,0.3s | | | | | | |
| **MGR** | **Morigerati** | **0.41** | **302** | Pg | Pg | 16 37 49.3 | +0.2 |
| | 110nm,0.3s | | | | | | |
| **MCEL** | **Monticello** | **0.43** | **339** | Pg | Pg | 16 37 50.2 | +0.6 |
| **MCEL** | **Monticello** | **0.43** | **339** | Pg | Pg | 16 37 50.2 | +0.6 |
| **SLCN** | **Sala Consilina** | **0.55** | **329** | Pg | Pb | 16 37 52.4 | -0.6 |
| | 121nm,0.5s | | | | | | |
| **SLCN** | **Sala Consilina** | **0.55** | **329** | Pg | Pb | 16 37 52.4 | -0.6 |
| | 121nm,0.5s | | | | | | |

*ATH 17 16:38:44.9, 40.66N×23.71E, h21km±1km, ML3.1/14, Error ellipse: s-maj=1.6km s-min=0.8km az=283.0*
*CSEM 17 16:38:45.3±0.1, 40.64N×23.70E, h5km, ML3.1, Error ellipse: s-maj=2.5km s-min=2.1km az=107.0*
*THE 17 16:38:45.3, 40.66N×23.72E, h4km, ML3.0/18, Error ellipse: s-maj=0.9km s-min=0.4km az=300.0*
*IDC 17 16:38:45.2±1.7, 40.48N×23.72E, h0km, mb3.5/3, mb1 3.4/4, mb1mx3.2/33, mbtmp3.4/4, ML2.7/1, Error ellipse: s-maj=51.1km s-min=24.8km az=155.0*
*SOF 17 16:38:46.3, 40.71N×23.72E, h11km, MD3.2*
**ISC 17 16:38:45.7±0.9, 40.66N±0.01×23.71E±0.01, h11km±7km, n157, σ1§40/211, mb3.5/3, 10C-21D, Greece**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SOH** | **Sokhos** | **0.31** | **301** | P | **Pg** | **16 38 52.0** | **0.0** |
| SOH | | | | S | **Sg** | **16 38 56.8** | **+0.5** |
| SOH | | | | AML | AML | 16 38 57.1 | |
| | comp=E,12528µm,0.3s | | | | | | |
| SOH | | | | AML | AML | 16 38 58.1 | |
| | comp=N,9663µm,0.3s | | | | | | |
| **SOH** | **Sokhos** | **0.31** | **301** | P | **Pg** | **16 38 52.0** | **0.0** |
| SOH | | | | S | **Sg** | **16 38 56.6** | **+0.4** |
| **SOH** | **Sokhos** | **0.31** | **301** | P | **Pg** | **16 38 51.8** | **-0.2** |
| SOH | | | | S | **Sg** | **16 38 56.6** | **+0.4** |
| **PLG** | **Polygyros** | **0.35** | **214** | P | **Pg** | **16 38 52.9** | **+0.2** |
| PLG | | | | S | **Sg** | **16 38 57.4** | **0.0** |
| PLG | | | | AML | AML | 16 38 58.0 | |
| | comp=N,5792µm,0.3s | | | | | | |
| PLG | | | | AML | AML | 16 38 58.4 | |
| | comp=E,8088µm,0.2s | | | | | | |
| **PLG** | **Polygyros** | **0.35** | **214** | P | **Pg** | **16 38 52.6** | **-0.2** |
| PLG | | | | S | **Sg** | **16 38 57.4** | **0.0** |
| **PLG** | **Polygyros** | **0.35** | **214** | P | **Pg** | **16 38 52.6** | **-0.2** |
| PLG | | | | S | **Sg** | **16 38 57.6** | **+0.2** |
| **OUR** | **Ouranopolis** | **0.39** | **147** | P | **Pg** | **16 38 53.4** | **0.0** |
| OUR | | | | S | **Sg** | **16 38 58.6** | **0.0** |
| OUR | | | | AML | AML | 16 38 59.0 | |
| | comp=E,13360µm,0.2s | | | | | | |
| OUR | | | | AML | AML | 16 39 01.7 | |
| | comp=N,8917µm,0.4s | | | | | | |
| **OUR** | **Ouranopolis** | **0.39** | **147** | P | **Pg** | **16 38 53.1** | **-0.4** |
| OUR | | | | S | **Sg** | **16 38 58.6** | **0.0** |
| **OUR** | **Ouranopolis** | **0.39** | **147** | P | **Pg** | **16 38 53.1** | **-0.4** |
| OUR | | | | S | **Sg** | **16 38 58.8** | **+0.2** |
| **HORT** | **Hortiatis** | **0.47** | **262** | P | **Pg** | **16 38 54.1** | **-0.8** |
| HORT | | | | S | **Sg** | **16 39 00.8** | **-0.3** |
| HORT | | | | AML | AML | 16 39 02.3 | |
| | comp=E,4640µm,0.1s | | | | | | |
| HORT | | | | AML | AML | 16 39 02.6 | |
| | comp=N,6639µm,0.2s | | | | | | |
| **HORT** | **Hortiatis** | **0.47** | **262** | P | **Pg** | **16 38 54.1** | **-0.8** |
| HORT | | | | S | **Sg** | **16 39 00.8** | **-0.3** |
| **HORT** | **Hortiatis** | **0.47** | **262** | P | **Pg** | **16 38 53.9** | **-1.0** |
| HORT | | | | S | **Sg** | **16 39 01.0** | **-0.1** |
| **THE** | **Thessaloniki** | **0.56** | **267** | P | **Pg** | **16 38 56.6** | **-0.2** |
| THE | | | | S | **Sg** | **16 39 04.4** | **+0.3** |
| THE | | | | AML | AML | 16 39 05.8 | |
| | comp=E,1498µm,0.3s | | | | | | |
| THE | | | | AML | AML | 16 39 06.0 | |
| | comp=N,2549µm,0.3s | | | | | | |
| **THE** | **Thessaloniki** | **0.56** | **267** | P | **Pg** | **16 38 56.2** | **-0.5** |
| THE | | | | S | **Sg** | **16 39 04.3** | **+0.1** |
| **THE** | **Thessaloniki** | **0.56** | **267** | P | **Pg** | **16 38 56.2** | **-0.5** |
| THE | | | | S | **Sg** | **16 39 04.3** | **+0.1** |
| **NVR** | **Nevrokopi** | **0.69** | **10** | P | **Pg** | **16 38 58.6** | **-0.7** |
| NVR | | | | S | **Sg** | **16 39 07.9** | **-0.5** |
| NVR | | | | AML | AML | 16 39 11.8 | |
| | comp=E,1855µm,0.3s | | | | | | |
| NVR | | | | AML | AML | 16 39 12.0 | |
| | comp=N,2862µm,0.2s | | | | | | |
| **NVR** | **Nevrokopi** | **0.69** | **10** | P | **Pg** | **16 38 58.6** | **-0.7** |
| NVR | | | | S | **Sg** | **16 39 08.2** | **-0.2** |
| **NVR** | **Nevrokopi** | **0.69** | **10** | P | **Pg** | **16 38 58.3** | **-0.9** |
| NVR | | | | S | **Sg** | **16 39 08.2** | **-0.2** |
| **KAVA** | **Kavala** | **0.70** | **61** | P | **Pg** | **16 38 59.5** | **+0.3** |
| KAVA | | | | S | **Sg** | **16 39 07.2** | **-1.1** |
| KAVA | | | | AML | AML | 16 39 10.3 | |
| | comp=N,21326µm,0.4s | | | | | | |
| KAVA | | | | AML | AML | 16 39 11.0 | |
| | comp=E,3349µm,0.4s | | | | | | |
| **KAVA** | **Kavala** | **0.70** | **61** | P | **Pg** | **16 38 58.9** | **-0.3** |
| KAVA | | | | S | **Sg** | **16 39 07.9** | **-0.5** |
| **KAVA** | **Kavala** | **0.70** | **61** | P | **Pg** | **16 38 58.9** | **-0.3** |
| KAVA | | | | S | **Sg** | **16 39 07.9** | **-0.5** |
| **PAIG** | **Paliouri** | **0.74** | **182** | P | **Pg** | **16 38 59.7** | **-0.3** |
| PAIG | | | | S | **Sg** | **16 39 09.4** | **-0.2** |
| PAIG | | | | AML | AML | 16 39 11.5 | |
| | comp=E,7228µm,0.7s | | | | | | |
| PAIG | | | | AML | AML | 16 39 14.1 | |
| | comp=N,2982µm,0.4s | | | | | | |
| **PAIG** | **Paliouri** | **0.74** | **182** | P | **Pg** | **16 38 59.2** | **-0.8** |
| PAIG | | | | S | **Sg** | **16 39 09.4** | **-0.2** |
| **PAIG** | **Paliouri** | **0.74** | **182** | P | **Pg** | **16 38 59.2** | **-0.8** |
| PAIG | | | | S | **Sg** | **16 39 09.4** | **-0.2** |
| **KNT** | **Kendrikon** | **0.79** | **309** | P | **Pg** | **16 39 01.0** | **0.0** |
| KNT | | | | S | **Sg** | **16 39 10.6** | **-0.7** |
| KNT | | | | AML | AML | 16 39 13.3 | |
| | comp=E,1651µm,0.3s | | | | | | |
| KNT | | | | AML | AML | 16 39 13.7 | |
| | comp=N,2514µm,0.2s | | | | | | |
| **KNT** | **Kendrikon** | **0.79** | **309** | P | **Pg** | **16 39 01.0** | **0.0** |
| KNT | | | | S | **Sg** | **16 39 10.6** | **-0.7** |
| **KNT** | **Kendrikon** | **0.79** | **309** | P | **Pg** | **16 39 00.2** | **-0.8** |
| KNT | | | | S | **Sb** | **16 39 10.2** | **+0.3** |
| **MMB** | **Musomiste** | **0.93** | **1** | *i*P | **Pg** | **16 39 02.0** | **-1.6** |
| **GRG** | **Griva** | **1.03** | **287** | *i*P | **Pg** | **16 39 04.9** | **-0.7** |
| GRG | | | | AML | AML | 16 39 23.6 | |
| | comp=E,1720µm,0.6s | | | | | | |
| GRG | | | | AML | AML | 16 39 27.1 | |
| | comp=N,1517µm,0.8s | | | | | | |
| **GRG** | **Griva** | **1.03** | **287** | P | **Pg** | **16 39 04.9** | **-0.7** |
| GRG | | | | S | **Sb** | **16 39 19.4** | **+0.1** |
| **GRG** | **Griva** | **1.03** | **287** | P | **Pg** | **16 39 04.6** | **-1.0** |
| GRG | | | | S | **Sb** | **16 39 19.4** | **+0.1** |
| **VAY** | **Valandovo** | **1.08** | **308** | P | **Pg** | **16 39 05.6** | **-1.0** |
| VAY | | | | S | **Sn** | **16 39 21.8** | **-0.1** |
| **VAY** | **Valandovo** | **1.08** | **308** | P | **Pg** | **16 39 05.6** | **-1.0** |
| VAY | | | | S | **Sn** | **16 39 21.8** | **-0.1** |
| **VAY** | **Valandovo** | **1.08** | **308** | *e*Pg | **Pg** | **16 39 05.6** | **-1.0** |
| VAY | | | | *e*Sg | **Sn** | **16 39 22.1** | **+0.2** |
| **LIT** | **Litokhoron** | **1.09** | **239** | P | **Pg** | **16 39 06.3** | **-0.3** |
| LIT | | | | AML | AML | 16 39 23.4 | |
| | comp=E,920µm,0.2s | | | | | | |
| LIT | | | | AML | AML | 16 39 25.3 | |
| | comp=N,828µm,0.2s | | | | | | |
| **LIT** | **Litokhoron** | **1.09** | **239** | P | **Pg** | **16 39 06.3** | **-0.3** |
| LIT | | | | S | **Sn** | **16 39 22.1** | **+0.1** |
| **LIT** | **Litokhoron** | **1.09** | **239** | P | **Pg** | **16 39 05.7** | **-0.9** |
| LIT | | | | S | **Sn** | **16 39 22.1** | **+0.1** |
| **RZN** | **Rozhen** | **1.28** | **36** | *i*P | **Pn** | **16 39 09.0** | **-0.8** |
| **KKB** | **Krupnik** | **1.29** | **339** | *i*P | **Pn** | **16 39 09.7** | **-0.1** |
| **XOR** | **Xorichti** | **1.35** | **197** | P | **Pn** | **16 39 09.1** | **-1.5** |
| **XOR** | **Xorichti** | **1.35** | **197** | P | **Pn** | **16 39 09.8** | **-0.9** |
| XOR | | | | S | **Sn** | **16 39 28.9** | **+0.2** |
| **XOR** | **Xorichti** | **1.35** | **197** | P | **Pn** | **16 39 09.8** | **-0.9** |
| XOR | | | | S | **Sn** | **16 39 28.9** | **+0.2** |
| **LIA** | **Limnos Island** | **1.36** | **124** | P | **Pb** | **16 39 11.4** | **+0.1** |
| **LIA** | **Limnos Island** | **1.36** | **124** | P | **Pb** | **16 39 11.4** | **+0.1** |
| LIA | | | | S | **Sg** | **16 39 29.6** | **-0.1** |
| **LIA** | **Limnos Island** | **1.36** | **124** | P | **Pn** | **16 39 09.2** | **-1.6** |
| LIA | | | | S | **Sg** | **16 39 29.6** | **-0.1** |
| **FYTO** | **Fytoko, Volos** | **1.39** | **205** | P | **Pn** | **16 39 10.1** | **-0.9** |
| FYTO | | | | S | **Sb** | **16 39 28.2** | **-1.2** |
| **FYTO** | **Fytoko, Volos** | **1.39** | **205** | P | **Pn** | **16 39 10.1** | **-0.9** |
| FYTO | | | | S | **Sb** | **16 39 28.2** | **-1.2** |
| **SMTH** | **Samothraki Isl** | **1.40** | **97** | P | **Pb** | **16 39 11.8** | **-0.2** |
| SMTH | | | | AML | AML | 16 39 33.8 | |
| | comp=E,816µm,0.3s | | | | | | |
| SMTH | | | | AML | AML | 16 39 34.1 | |
| | comp=N,555µm,0.3s | | | | | | |
| **SMTH** | **Samothraki Isl** | **1.40** | **97** | P | **Pb** | **16 39 11.8** | **-0.2** |
| SMTH | | | | S | **Sg** | **16 39 30.9** | **0.0** |
| **SMTH** | **Samothraki Isl** | **1.40** | **97** | P | **Pn** | **16 39 10.4** | **-0.9** |
| SMTH | | | | S | **Sg** | **16 39 30.9** | **0.0** |
| **RDO** | **Rodhopi** | **1.47** | **70** | P | **Pn** | **16 39 11.7** | **-0.5** |
| RDO | | | | AML | AML | 16 39 36.8 | |
| | comp=N,1790µm,0.3s | | | | | | |
| RDO | | | | AML | AML | 16 39 38.7 | |
| | comp=E,2013µm,0.3s | | | | | | |
| **RDO** | **Rodhopi** | **1.47** | **70** | P | **Pn** | **16 39 11.9** | **-0.3** |
| RDO | | | | S | **Sb** | **16 39 31.8** | **0.0** |
| **RDO** | **Rodhopi** | **1.47** | **70** | P | **Pn** | **16 39 11.9** | **-0.3** |
| RDO | | | | S | **Sb** | **16 39 31.8** | **0.0** |
| **SKIA** | **Skiathos** | **1.51** | **187** | P | **Pn** | **16 39 11.5** | **-1.2** |
| **SKIA** | **Skiathos** | **1.51** | **187** | P | **Pn** | **16 39 11.5** | **-1.2** |
| **KZN** | **Kozani** | **1.52** | **257** | P | **Pb** | **16 39 13.6** | **-0.4** |
| KZN | | | | AML | AML | 16 39 36.1 | |
| | comp=N,1357µm,1.3s | | | | | | |
| KZN | | | | AML | AML | 16 39 39.1 | |
| | comp=E,1801µm,0.7s | | | | | | |
| **KZN** | **Kozani** | **1.52** | **257** | P | **Pn** | **16 39 12.9** | **-0.1** |
| KZN | | | | S | **Sb** | **16 39 33.9** | **+0.6** |
| **KZN** | **Kozani** | **1.52** | **257** | P | **Pn** | **16 39 12.9** | **-0.1** |
| KZN | | | | S | **Sb** | **16 39 33.9** | **+0.6** |
| **PLD** | **Plovdiv** | **1.62** | **27** | *i*P | **Pb** | **16 39 16.0** | **+0.3** |
| **THL** | **Klokotos Trika** | **1.70** | **230** | P | **Pn** | **16 39 14.8** | **-0.6** |
| **THL** | **Klokotos Trika** | **1.70** | **230** | P | **Pn** | **16 39 15.1** | **-0.3** |
| THL | | | | S | **Sb** | **16 39 38.1** | **-0.3** |
| **THL** | **Klokotos Trika** | **1.70** | **230** | P | **Pn** | **16 39 15.1** | **-0.3** |
| THL | | | | S | **Sb** | **16 39 38.1** | **-0.3** |
| **ALN** | **Alexandroupoli** | **1.79** | **82** | P | **Pn** | **16 39 16.8** | **+0.2** |
| **ALN** | **Alexandroupoli** | **1.79** | **82** | P | **Pn** | **16 39 16.8** | **+0.2** |
| ALN | | | | S | **Sn** | **16 39 40.2** | **+0.8** |
| **ALN** | **Alexandroupoli** | **1.79** | **82** | P | **Pn** | **16 39 15.4** | **-1.2** |
| ALN | | | | S | **Sn** | **16 39 40.2** | **+0.8** |
| **SMIA** | **Simia** | **1.82** | **192** | P | **Pn** | **16 39 16.4** | **-0.7** |
| **SMIA** | **Simia** | **1.82** | **192** | P | **Pn** | **16 39 16.4** | **-0.7** |
| **BIA** | **Bitola** | **1.84** | **282** | *i*Pn | **Pb** | **16 39 20.3** | **+0.8** |
| **PGB** | **Panagyurishte** | **1.92** | **10** | *i*P | **Pb** | **16 39 20.0** | **-0.8** |
| **AGG** | **Agios Georgios** | **1.95** | **213** | P | **Pn** | **16 39 17.8** | **-1.1** |
| **AGG** | **Agios Georgios** | **1.95** | **213** | P | **Pn** | **16 39 18.2** | **-0.7** |
| **AGG** | **Agios Georgios** | **1.95** | **213** | P | **Pn** | **16 39 18.2** | **-0.7** |
| **DIM** | **Dimitrovgrad** | **1.95** | **44** | *i*P | **Pb** | **16 39 22.2** | **+0.9** |
| **VTS** | **Vitosha** | **1.96** | **349** | P | **Pn** | **16 39 18.9** | **-0.2** |
| **VTS** | **Vitosha** | **1.96** | **349** | S | **Sb** | **16 39 45.6** | **-0.6** |
| **VTS** | **Vitosha** | **1.96** | **349** | *i*P | **Pn** | **16 39 19.3** | **+0.2** |
| **VTS** | **Vitosha** | **1.96** | **349** | P | **Pn** | **16 39 19.7** | **+0.6** |
| VTS | | | | S | **Sb** | **16 39 45.7** | **-0.5** |
| **VTS** | **Vitosha** | **1.96** | **349** | P | **Pn** | **16 39 19.7** | **+0.6** |
| VTS | | | | S | **Sb** | **16 39 45.7** | **-0.5** |
| **KRUS** | **Krusevo** | **1.99** | **292** | *i*Pn | **Pn** | **16 39 19.4** | **0.0** |
| **PENT** | **Pentalofos** | **2.02** | **257** | P | **Pn** | **16 39 20.7** | **+0.9** |
| PENT | | | | S | **Sb** | **16 39 47.5** | **-0.1** |
| **PENT** | **Pentalofos** | **2.02** | **257** | P | **Pn** | **16 39 20.7** | **+0.9** |
| PENT | | | | S | **Sb** | **16 39 47.5** | **-0.1** |
| **SKO** | **Skopje** | **2.15** | **308** | *i*Pn | **Pb** | **16 39 25.6** | **+0.9** |
| **EREA** | **Eretria** | **2.25** | **175** | P | **Pn** | **16 39 22.1** | **-0.9** |
| EREA | | | | S | **Sn** | **16 39 50.2** | **-0.5** |
| **EREA** | **Eretria** | **2.25** | **175** | P | **Pn** | **16 39 22.1** | **-0.9** |
| EREA | | | | S | **Sn** | **16 39 50.2** | **-0.5** |
| **OHR** | **Ohrid** | **2.25** | **282** | *i*Pn | **Pg** | **16 39 28.9** | **+0.1** |
| **EVR** | **Evrytania** | **2.28** | **221** | P | **Pn** | **16 39 23.3** | **-0.1** |
| **EVR** | **Evrytania** | **2.28** | **221** | P | **Pn** | **16 39 23.3** | **-0.1** |
| **DSF** | **Desfina** | **2.43** | **202** | P | **Pn** | **16 39 24.5** | **-0.9** |
| **DSF** | **Desfina** | **2.43** | **202** | P | **Pn** | **16 39 24.5** | **-0.9** |
| **VILL** | **Villia** | **2.52** | **187** | P | **Pn** | **16 39 25.8** | **-0.8** |
| **VILL** | **Villia** | **2.52** | **187** | P | **Pn** | **16 39 25.8** | **-0.8** |
| **BARS** | **Barje** | **2.57** | **327** | *e*Pn | **Pn** | **16 39 29.7** | **+2.3** |
| **EFP** | **Efpalio** | **2.63** | **212** | P | **Pn** | **16 39 28.4** | **+0.2** |
| **EFP** | **Efpalio** | **2.63** | **212** | P | **Pn** | **16 39 28.4** | **+0.2** |
| **JMB** | **Yambol** | **2.81** | **49** | *i*P | **Pb** | **16 39 36.2** | **+0.2** |
| **PVL** | **Pavlikeni** | **2.83** | **25** | *i*P | **Pn** | **16 39 29.4** | **-1.4** |
| **PDO** | **Prodromos** | **2.84** | **224** | P | **Pn** | **16 39 33.2** | **+2.2** |
| **PDO** | **Prodromos** | **2.84** | **224** | P | **Pn** | **16 39 33.2** | **+2.2** |
| **DID** | **Didima** | **3.17** | **187** | P | **Pn** | **16 39 34.9** | **-0.8** |
| **DID** | **Didima** | **3.17** | **187** | P | **Pn** | **16 39 34.9** | **-0.8** |
| **ZIMR** | | **3.23** | **22** | *i*P | **Pn** | **16 39 37.9** | **+1.3** |
| **ZIMR** | | **3.23** | **22** | S | **Sg** | **16 40 37.9** | **+4.3** |
| **BOVS** | **Bovan** | **3.32** | **334** | *e

*s-maj=22.0km s-min=14.9km az=105.0*

**ISC 17 16:53:48.8±0.9, 42°02.02N±0.06×143°31.61E±0.06, h66km±6km, n25, σ0951/27, mb3.6/9, 4C-3D, Hokkaido region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JEM** | **Erimo** | **0.12** | **269** | ⇑P | **Pn** | **16 53 58.9** | **+0.3** |
| JEM | | | | *e*S | **Sn** | **16 54 05.6** | **-0.2** |
| **JNBK** | **Urakawa-nobuka** | **0.49** | **302** | ⇓P | **Pn** | **16 54 01.2** | **0.0** |
| JNBK | | | | *e*S | **Sn** | **16 54 10.5** | **+0.2** |
| **JCH** | **Churui** | **0.60** | **3** | ⇓P | **Pn** | **16 54 02.1** | **-0.2** |
| JCH | | | | *e*S | **Sn** | **16 54 11.9** | **-0.3** |
| **JOB** | **Onbets** | **0.96** | **23** | ⇑P | **Pn** | **16 54 07.1** | **+0.4** |
| JOB | | | | *e*S | **Sn** | **16 54 20.7** | **+0.8** |
| **JBT2** | **Biratori 2** | **1.03** | **318** | ⇓P | **Pn** | **16 54 07.8** | **+0.2** |
| JBT2 | | | | *e*S | **Sn** | **16 54 21.3** | **-0.2** |
| **JFR** | **Furan** | **1.26** | **335** | P | **Pn** | **16 54 09.6** | **-0.9** |
| **JAR** | **Ashorobuto** | **1.32** | **15** | ⇑P | **Pn** | **16 54 11.0** | **-0.3** |
| JAR | | | | *e*S | **Sn** | **16 54 27.5** | **-0.6** |
| **JAK** | **Akkeshi** | **1.41** | **46** | ⇑P | **Pn** | **16 54 12.3** | **-0.2** |
| JAK | | | | *e*S | **Sn** | **16 54 29.8** | **-0.5** |
| **ASAJ** | **Asahikawa** | **2.16** | **346** | P | **Pn** | **16 54 23.1** | **+0.6** |
| | 7.7nm,0.3s,baz=204,slow=14,SNR=103 | | | | | | |
| ASAJ | | | | S | **Sn** | **16 54 49.5** | **+1.1** |
| | 14nm,0.3s,baz=94,slow=19,SNR=16 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **6.75** | **218** | P | **Pn** | **16 55 25.4** | **+0.2** |
| | 0.6nm,0.3s,baz=28,slow=14,SNR=13 | | | | | | |
| **SONM** | **Songino Array** | **26.60** | **295** | P | **P** | **16 59 20.5** | **-0.3** |
| | 0.9nm,0.6s,baz=74,slow=8.6,SNR=6.0 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **29.87** | **131** | T | T | 17 31 21.4 | |
| | baz=324,slow=75,SNR=29 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **29.88** | **131** | T | T | 17 31 21.7 | |
| | baz=324,slow=75,SNR=31 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **29.89** | **131** | T | T | 17 31 15.0 | |
| | baz=324,slow=75,SNR=30 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **30.75** | **133** | T | T | 17 32 21.5 | |
| | baz=325,slow=76,SNR=35 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **30.75** | **133** | T | T | 17 32 24.9 | |
| | baz=325,slow=76,SNR=35 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **30.77** | **133** | T | T | 17 32 31.3 | |
| | baz=325,slow=76,SNR=24 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **39.82** | **308** | P | **P** | **17 01 15.2** | **-0.1** |
| | 1.2nm,0.5s,baz=87,slow=9.7,SNR=8.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **42.90** | **298** | P | **P** | **17 01 40.3** | **-0.3** |
| | 0.5nm,0.4s,baz=80,slow=9.5,SNR=6.6 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **44.25** | **304** | P | **P** | **17 01 51.0** | **-0.4** |
| | 1.4nm,0.5s,baz=74,slow=8.9,SNR=11 | | | | | | |
| **ILAR** | **Eielson Array** | **44.54** | **35** | P | **P** | **17 01 54.0** | **+0.6** |
| | 0.5nm,0.8s,baz=270,slow=5.9,SNR=6.4 | | | | | | |
| **INK** | **Inuvik** | **49.30** | **29** | P | **P** | **17 02 31.3** | **+0.8** |
| | 0.4nm,0.5s,baz=272,slow=4.8,SNR=4.4 | | | | | | |
| **YKA** | **Yellowknife Ar** | **58.79** | **32** | P | **P** | **17 03 39.8** | **+0.2** |
| | 0.1nm,0.6s,baz=296,slow=6.1,SNR=3.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **62.20** | **190** | P | **P** | **17 04 03.2** | **-0.2** |
| | 0.4nm,1.1s,baz=6.0,slow=6.7,SNR=3.0 | | | | | | |
| **FINES** | **FINESS Array B** | **65.10** | **332** | P | **P** | **17 04 21.6** | **-0.4** |
| | 1.6nm,0.6s,baz=45,slow=8.1,SNR=12 | | | | | | |

*ISCJB **17** 16:55:25.6±0.4, 40°42.42N±0.02×26°09.60E±0.03, h2km±5km, Error ellipse: s-maj=4.0km s-min=3.0km az=3.2*
*CSEM **17** 16:55:25.8±0.1, 40°42.42N×26°10.60E, h2km, MD2.4, Error ellipse: s-maj=2.2km s-min=1.7km az=96.0*
*ATH **17** 16:55:25.6, 40°42.42N×26°08.60E, h12km±3km, ML1.9/6, Error ellipse: s-maj=3.0km s-min=0.8km az=97.0*
*ISK **17** 16:55:25.2, 40°42.42N×26°11.60E, h9km, MD2.4*
*DDA **17** 16:55:26.5, 40°40.42N×26°19.60E, h7km, Md2.6*

**ISC 17 16:55:25.8±0.9, 40°42.42N±0.02×26°09.60E±0.02, h12km±7km, n37, σ0935/63, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GADA** | **Gvkgeada** | **0.27** | **213** | *e*Pg | **Pg** | **16 55 31.4** | **-0.1** |
| GADA | | | | *e*SG | **Sg** | **16 55 35.8** | **+0.5** |
| **GADA** | **Gvkgeada** | **0.27** | **213** | *e*Pg | **Pg** | **16 55 31.4** | **-0.1** |
| GADA | | | | *e*Sg | **Sg** | **16 55 35.8** | **+0.5** |
| **GELI** | **Tayfur-Gelibol** | **0.29** | **94** | *e*PG | **Pg** | **16 55 31.2** | **-0.6** |
| **GELI** | **Tayfur-Gelibol** | **0.29** | **94** | *e*Pg | **Pg** | **16 55 31.2** | **-0.6** |
| **ENEZ** | **Enez** | **0.32** | **8** | *e*PG | **Pg** | **16 55 32.0** | **-0.3** |
| ENEZ | | | | *e*SG | **Sg** | **16 55 36.9** | **+0.3** |
| **ENEZ** | **Enez** | **0.32** | **8** | *e*Pg | **Pg** | **16 55 32.0** | **-0.3** |
| ENEZ | | | | *e*Sg | **Sg** | **16 55 36.9** | **+0.3** |
| **ERIK** | **Erikli-Kesan** | **0.41** | **52** | *e*PG | **Pg** | **16 55 33.4** | **-0.5** |
| ERIK | | | | *e*SG | **Sg** | **16 55 39.6** | **+0.3** |
| **ERIK** | **Erikli-Kesan** | **0.41** | **52** | *e*Pg | **Pg** | **16 55 33.4** | **-0.5** |
| ERIK | | | | *e*Sg | **Sg** | **16 55 39.6** | **+0.3** |
| **SMTH** | **Samothraki Isl** | **0.43** | **277** | P | **Pg** | **16 55 34.0** | **-0.4** |
| SMTH | | | | AML | AML | 16 55 40.4 | |
| | comp=E,544μm,0.2s | | | | | | |
| SMTH | | | | S | **Sg** | **16 55 40.5** | **+0.3** |
| SMTH | | | | AML | AML | 16 55 41.3 | |
| | comp=N,464μm,0.3s | | | | | | |
| **SMTH** | **Samothraki Isl** | **0.43** | **277** | P | **Pg** | **16 55 34.0** | **-0.4** |
| SMTH | | | | S | **Sg** | **16 55 40.5** | **+0.3** |
| **ALN** | **Alexandroupoli** | **0.48** | **356** | *e*PG | **Pg** | **16 55 34.9** | **-0.3** |
| **ALN** | **Alexandroupoli** | **0.48** | **356** | P | **Pg** | **16 55 35.2** | **-0.1** |
| ALN | | | | S | **Sg** | **16 55 41.5** | **-0.1** |
| ALN | | | | AML | AML | 16 55 42.0 | |
| | comp=N,164μm,0.3s | | | | | | |
| ALN | | | | AML | AML | 16 55 42.2 | |
| | comp=E,149μm,0.2s | | | | | | |
| **ALN** | **Alexandroupoli** | **0.48** | **356** | P | **Pg** | **16 55 35.1** | **-0.1** |
| ALN | | | | S | **Sg** | **16 55 41.5** | **-0.1** |
| **BOZC** | **Bozcaada** | **0.58** | **183** | *e*PG | **Pg** | **16 55 36.9** | **-0.2** |
| **BOZC** | **Bozcaada** | **0.58** | **183** | *e*Pg | **Pg** | **16 55 36.9** | **-0.2** |
| **KESN** | **Edirne-Kesan** | **0.60** | **48** | *i* P | **Pg** | **16 55 37.5** | **-0.2** |
| KESN | | | | *i* S | **Sb** | **16 55 47.2** | **+0.1** |
| **KESN** | **Edirne-Kesan** | **0.60** | **48** | P | **Pg** | **16 55 37.5** | **-0.2** |
| KESN | | | | S | **Sb** | **16 55 47.2** | **+0.1** |
| **EZN** | **Ezine** | **0.62** | **163** | *e*PG | **Pg** | **16 55 37.6** | **-0.3** |
| EZN | | | | *e*SG | **Sb** | **16 55 46.7** | **-0.5** |
| **EZN** | **Ezine** | **0.62** | **163** | *e*Pg | **Pg** | **16 55 37.6** | **-0.3** |
| EZN | | | | *e*Sg | **Sb** | **16 55 46.7** | **-0.5** |
| **BAYC** | **CANAKKALE_Bayr** | **0.76** | **153** | *i* P | **Pg** | **16 55 40.7** | **+0.1** |
| BAYC | | | | *i* S | **Sb** | **16 55 51.0** | **-0.3** |
| **BAYC** | **CANAKKALE_Bayr** | **0.76** | **153** | P | **Pg** | **16 55 40.7** | **+0.1** |
| BAYC | | | | S | **Sb** | **16 55 51.0** | **-0.3** |
| **RDO** | **Rodhopi** | **0.84** | **330** | P | **Pg** | **16 55 41.4** | **-0.7** |
| RDO | | | | S | **Sb** | **16 55 53.8** | **+0.3** |
| RDO | | | | AML | AML | 16 55 57.4 | |
| | comp=N,91μm,0.2s | | | | | | |
| RDO | | | | AML | AML | 16 55 58.6 | |
| | comp=E,84μm,0.2s | | | | | | |
| **RDO** | **Rodhopi** | **0.84** | **330** | P | **Pg** | **16 55 41.3** | **-0.7** |
| RDO | | | | S | **Sb** | **16 55 53.8** | **+0.3** |
| **LIA** | **Limnos Island** | **0.87** | **233** | P | **Pg** | **16 55 42.0** | **-0.6** |
| LIA | | | | S | **Sg** | **16 55 54.0** | **0.0** |
| LIA | | | | AML | AML | 16 55 57.4 | |
| | comp=N,93μm,0.3s | | | | | | |
| LIA | | | | AML | AML | 16 55 59.9 | |
| | comp=E,106μm,0.3s | | | | | | |
| **LIA** | **Limnos Island** | **0.87** | **233** | P | **Pg** | **16 55 42.0** | **-0.6** |
| LIA | | | | S | **Sg** | **16 55 54.0** | **0.0** |
| **KRBG** | **Karabiga-Canak** | **0.92** | **91** | *e*PG | **Pg** | **16 55 43.2** | **-0.4** |
| **KRBG** | **Karabiga-Canak** | **0.92** | **91** | *e*Pg | **Pg** | **16 55 43.2** | **-0.4** |
| **PRK** | **Paraskevi** | **1.18** | **173** | P | **Pb** | **16 55 48.3** | **+0.2** |
| PRK | | | | S | **Sn** | **16 56 04.2** | **+0.2** |
| PRK | | | | AML | AML | 16 56 05.0 | |
| | comp=N,379μm,0.4s | | | | | | |
| PRK | | | | AML | AML | 16 56 07.5 | |
| | comp=E,231μm,0.4s | | | | | | |
| **PRK** | **Paraskevi** | **1.18** | **173** | P | **Pb** | **16 55 48.3** | **+0.2** |
| PRK | | | | S | **Sn** | **16 56 04.2** | **+0.2** |
| **SIGR** | **SIGRI** | **1.22** | **189** | P | **Pn** | **16 55 48.5** | **-0.1** |
| SIGR | | | | S | **Sb** | **16 56 04.7** | **+0.2** |
| SIGR | | | | AML | AML | 16 56 06.6 | |
| | comp=E,252μm,0.6s | | | | | | |
| SIGR | | | | AML | AML | 16 56 10.0 | |
| | comp=N,148μm,0.7s | | | | | | |
| **SIGR** | **SIGRI** | **1.22** | **189** | P | **Pn** | **16 55 48.5** | **-0.1** |
| SIGR | | | | S | **Sb** | **16 56 04.7** | **+0.2** |
| **KAVA** | **Kavala** | **1.33** | **296** | P | **Pn** | **16 55 50.1** | **-0.1** |
| **KAVA** | **Kavala** | **1.33** | **296** | P | **Pn** | **16 55 50.1** | **-0.1** |
| **EDRB** | **Edirne** | **1.51** | **19** | *e*PN | **Pn** | **16 55 53.0** | **+0.4** |
| **EDRB** | **Edirne** | **1.51** | **19** | *e*Pn | **Pn** | **16 55 53.0** | **+0.4** |
| **NVR** | **Nevrokopi** | **1.93** | **299** | P | **Pb** | **16 56 00.7** | **-0.3** |
| NVR | | | | S | **Sb** | **16 56 25.5** | **+0.5** |
| **NVR** | **Nevrokopi** | **1.93** | **299** | P | **Pb** | **16 56 00.6** | **-0.3** |
| NVR | | | | S | **Sb** | **16 56 25.5** | **+0.5** |

*ISN **17** 16:59:25.0±3.2, 32°49N×47°90E, h0km±23km, ML3.3*

*CSEM **17** 16:59:27.7±0.5, 32°20N×48°13E, h10km, ML3.1, Error ellipse: s-maj=14.7km s-min=10.9km az=12.0*

**TEH 17 16:59:28.6, 32°30N×48°19E, h4km, ML3.3, Western Iran**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SHGR** | **Shooshtar-Gavs** | **0.56** | **110** | *e*Pg | Pb | 16 59 41.8 | +0.9 |
| **IKOM** | **Komasi** | **1.96** | **343** | *e*Sg | Sb | 17 00 29.4 | -0.3 |
| IKOM | | | | *e*Pn | Pb | 17 00 04.7 | -0.2 |
| IKOM | | | | *e*AMB | AMB | 17 00 37.4 | |
| | comp=Z,2μm,0.2s | | | | | | |
| **KHMZ** | **Khomeyn** | **2.07** | **46** | *e*Pn | Pn | 17 00 02.9 | -1.4 |
| **NSR** | **Nassriya** | **2.17** | **234** | *e*Pn | Pn | 17 00 02.0 | -3.4 |
| | SNR=3.0 | | | | | | |
| NSR | | | | *i* Sn | Sn | 17 00 27.0 | -5.7 |
| | SNR=3.0 | | | | | | |
| **IPIR** | **Pirpir** | **2.32** | **80** | *e*AMB | AMB | 17 00 41.6 | |
| | comp=Z,2μm,0.2s | | | | | | |
| IPIR | | | | *e*Pn | Pn | 17 00 07.8 | 0.0 |
| **IGHG** | **Ghaleghazi** | **2.44** | **327** | *e*Pn | Pn | 17 00 08.5 | -0.9 |
| IGHG | | | | *e*AMB | AMB | 17 01 09.3 | |
| | comp=Z,1μm,0.1s | | | | | | |
| **IGHG** | **Ghaleghazi** | **2.44** | **327** | *e*Pn | Pn | 17 00 08.5 | -0.9 |
| **IVIS** | **Veis** | **2.49** | **334** | *e*Pn | Pn | 17 00 10.3 | +0.3 |
| IVIS | | | | *e*Sg | Sb | 17 00 46.4 | +1.5 |
| IVIS | | | | *e*AMB | AMB | 17 01 03.6 | |
| | comp=Z,465nm,0.3s | | | | | | |
| **IVIS** | **Veis** | **2.49** | **334** | *e*Pn | Pn | 17 00 10.3 | +0.3 |
| **ASAO** | **Ashtian** | **2.72** | **34** | *e*Pn | Pn | 17 00 12.4 | -0.9 |
| **SNGE** | **Sanandaj** | **2.87** | **346** | *e*Pn | Pn | 17 00 15.4 | 0.0 |
| **IKLH** | **Kolahrood** | **3.03** | **69** | *e*Pn | Pn | 17 00 17.0 | -0.6 |
| IKLH | | | | *e*AMB | AMB | 17 01 01.8 | |
| | comp=Z,937nm,0.2s | | | | | | |
| **QAM** | **Ghamsar** | **3.10** | **61** | *e*Pn | Pn | 17 00 18.5 | 0.0 |
| QAM | | | | *e*AMB | AMB | 17 01 08.3 | |
| | comp=Z,2μm,0.2s | | | | | | |
| **IGAR** | **Gharneh** | **3.27** | **87** | *e*Pn | Pn | 17 00 19.7 | -1.1 |
| IGAR | | | | *e*AMB | AMB | 17 01 09.7 | |
| | comp=Z,734nm,0.2s | | | | | | |
| **IR5** | **Iran Long-Peri** | **3.53** | **34** | *e*Pn | Pn | 17 00 23.7 | -0.6 |
| IR5 | | | | *e*AMB | AMB | 17 00 29.4 | |
| | comp=Z,545nm,0.2s | | | | | | |
| **IR5** | **Iran Long-Peri** | **3.53** | **34** | *e*Pn | Pn | 17 00 23.7 | -0.6 |
| **IZEF** | **Zefreh** | **3.55** | **79** | *e*Pn | Pn | 17 00 24.2 | -0.5 |
| IZEF | | | | *e*AMB | AMB | 17 00 34.2 | |
| | comp=Z,330nm,0.2s | | | | | | |
| **IRAM** | **Ramesheh** | **3.60** | **97** | *e*Pn | Pn | 17 00 24.9 | -0.4 |
| IRAM | | | | *e*AMB | AMB | 17 01 43.1 | |
| | comp=Z,262nm,0.3s | | | | | | |
| **IRAM** | **Ramesheh** | **3.60** | **97** | *e*Pn | Pn | 17 00 24.9 | -0.4 |
| **NASN** | **Na'in** | **3.94** | **81** | *e*Pn | Pn | 17 00 29.0 | -1.1 |
| **IVRN** | **Varamin** | **4.00** | **47** | *e*Pn | Pn | 17 00 30.7 | 0.0 |
| IVRN | | | | *e*AMB | AMB | 17 01 42.5 | |
| | comp=Z,441nm,0.3s | | | | | | |
| **IVRN** | **Varamin** | **4.00** | **47** | *e*Pn | Pn | 17 00 30.7 | 0.0 |
| **IGZV** | **Ghazvin** | **4.41** | **22** | *e*Pn | Pn | 17 00 35.0 | -1.5 |
| IGZV | | | | *e*AMB | AMB | 17 00 55.7 | |
| | comp=Z,216nm,0.2s | | | | | | |
| **IGZV** | **Ghazvin** | **4.41** | **22** | *e*Pn | Pn | 17 00 35.0 | -1.5 |

*DDA **17** 17:12:33.5, 38°71N×43°58E, h24km, MI2.9*
*ISK **17** 17:12:33.8, 38°74N×43°50E, h5km, MD2.7*
*CSEM **17** 17:12:34.8±0.3, 38°72N×43°53E, h10km, MD2.7, Error ellipse: s-maj=7.4km s-min=4.7km az=106.0*
*ISCJB **17** 17:12:35.1±0.5, 38°72N±0.02×43°55E±0.05, h10km±4km, Error ellipse: s-maj=6.6km s-min=3.6km az=19.5*

**ISC 17 17:12:34.5±1.0, 38°72N±0.02×43°53E±0.03, h16km±8km, n41, σ0976/63, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.17** | **221** | *e*PG | **Pb** | **17 12 39.7** | **+0.3** |
| **VANB** | **Van** | **0.17** | **221** | *e*Pg | **Pb** | **17 12 39.7** | **+0.3** |
| **TVAN** | **Van** | **0.22** | **206** | *i* P | **Pg** | **17 12 39.5** | **-0.2** |
| TVAN | | | | *i* S | **Sb** | **17 12 44.3** | **+0.3** |
| **TVAN** | **Van** | **0.22** | **206** | P | **Pg** | **17 12 39.5** | **-0.2** |
| TVAN | | | | S | **Sb** | **17 12 44.3** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.27** | **7** | *i* P | **Pg** | **17 12 40.1** | **-0.4** |
| VMUR | | | | *i* S | **Sb** | **17 12 45.8** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.27** | **7** | P | **Pg** | **17 12 40.1** | **-0.4** |
| VMUR | | | | S | **Sb** | **17 12 45.8** | **+0.3** |
| **CLDR** | **Caldiran** | **0.52** | **36** | *e*PG | **Pb** | **17 12 45.0** | **-0.4** |
| CLDR | | | | *e*SG | **Sb** | **17 12 53.4** | **+0.7** |
| **CLDR** | **Caldiran** | **0.52** | **36** | *i* P | **Pb** | **17 12 45.0** | **-0.4** |
| CLDR | | | | *i* S | **Sb** | **17 12 54.5** | **+1.7** |
| **CLDR** | **Caldiran** | **0.52** | **36** | P | **Pb** | **17 12 45.0** | **-0.4** |
| CLDR | | | | *e*Sg | **Sb** | **17 12 53.4** | **+0.7** |
| CLDR | | | | S | **Sb** | **17 12 54.5** | **+1.7** |
| **GEVA** | **Gevas** | **0.55** | **222** | *i* P | **Pg** | **17 12 45.1** | **-0.4** |
| GEVA | | | | *i* S | **Sb** | **17 12 55.0** | **+1.3** |
| **GEVA** | **Gevas** | **0.55** | **222** | P | **Pg** | **17 12 45.1** | **-0.4** |
| GEVA | | | | S | **Sb** | **17 12 55.0** | **+1.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.64** | **278** | *i* P | **Pg** | **17 12 46.4** | **-0.6** |
| ADCV | | | | *i* S | **Sb** | **17 12 57.2** | **+1.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.64** | **278** | P | **Pg** | **17 12 46.4** | **-0.6** |
| ADCV | | | | S | **Sb** | **17 12 57.2** | **+1.1** |
| **DYDN** | **Diyadin** | **0.83** | **9** | *i* P | **Pg** | **17 12 50.1** | **-0.5** |
| DYDN | | | | *i* S | **Sn** | **17 13 03.2** | **-0.6** |
| **DYDN** | **Diyadin** | **0.83** | **9** | P | **Pg** | **17 12 50.2** | **-0.5** |
| DYDN | | | | S | **Sn** | **17 13 03.2** | **-0.6** |
| **TUTA** | **Tutak** | **0.88** | **321** | *i* P | **Pg** | **17 12 50.4** | **-1.2** |
| TUTA | | | | *i* S | **Sb** | **17 13 03.6** | **+0.5** |
| **TUTA** | **Tutak** | **0.88** | **321** | P | **Pg** | **17 12 50.4** | **-1.2** |
| TUTA | | | | S | **Sb** | **17 13 03.6** | **+0.5** |
| **AGRB** | **Hanur-Agry** | **0.95** | **334** | *e*PG | **Pg** | **17 12 52.6** | **-0.3** |
| AGRB | | | | *e*SG | **Sn** | **17 13 06.4** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **0.95** | **334** | *e*Pg | **Pg** | **17 12 52.6** | **-0.3** |
| AGRB | | | | *e*Sg | **Sn** | **17 13 06.4** | **-0.3** |
| **HAKT** | **HAKKARI** | **1.17** | **173** | *i* P | **Pb** | **17 12 55.5** | **-1.0** |
| **HAKT** | **HAKKARI** | **1.17** | **173** | P | **Pb** | **17 12 55.5** | **-1.0** |
| **EKAR** | **Karacoban** | **1.26** | **295** | *i* S | **Sg** | **17 13 16.3** | **+1.0** |
| **EKAR** | **Karacoban** | **1.26** | **295** | S | **Sg** | **17 13 16.3** | **+1.0** |
| **TASB** | **TASBURUN-IGDIR** | **1.37** | **23** | *e*PN | **Pg** | **17 13 01.0** | **0.0** |
| **TASB** | **TASBURUN-IGDIR** | **1.37** | **23** | *e*Pn | **Pg** | **17 13 01.0** | **0.0** |
| **EATA** | **Eleskirt** | **1.39** | **325** | *i* P | **Pb** | **17 13 00.1** | **-0.3** |
| EATA | | | | *i* S | **Sg** | **17 13 20.5** | **+0.9** |
| **EATA** | **Eleskirt** | **1.39** | **325** | P | **Pb** | **17 13 00.1** | **-0.3** |
| EATA | | | | S | **Sg** | **17 13 20.5** | **+0.9** |
| **CUKT** | **Cukurca** | **1.48** | **178** | *e*PN | **Pg** | **17 12 02.9** | **0.0** |
| **CUKT** | **Cukurca** | **1.48** | **178** | *e*Pn | **Pg** | **17 13 02.9** | **0.0** |
| **SIRT** | **Sirnak** | **1.49** | **216** | *e*PN | **Pg** | **17 13 03.0** | **-0.2** |
| **SIRT** | **Sirnak** | **1.49** | **216** | *e*Pn | **Pg** | **17 13 03.0** | **-0.2** |
| **VRTB** | **Varto-Mus** | **1.68** | **286** | *e*PN | **Pb** | **17 13 04.9** | **-0.1** |
| **VRTB** | **Varto-Mus** | **1.68** | **286** | *e*Pn | **Pb** | **17 13 04.9** | **-0.1** |
| **BTMN** | **Batman** | **1.96** | **246** | *i* P | **Pn** | **17 13 07.1** | **-0.1** |
| BTMN | | | | *i* S | **Sg** | **17 13 36.7** | **-1.0** |
| **BTMN** | **Batman** | **1.96** | **246** | P | **Pn** | **17 13 07.1** | **-0.1** |
| BTMN | | | | S | **Sg** | **17 13 36.7** | **-1.0** |
| **SENK** | **Senkaya-Erzuru** | **2.05** | **334** | *e*PN | **Pb** | **17 13 10.3** | **-1.2** |
| **SENK** | **Senkaya-Erzuru** | **2.05** | **334** | *e*Pn | **Pb** | **17 13 10.3** | **-1.2** |
| **ERZM** | **Erzurum** | **2.05** | **306** | *i* P | **Pb** | **17 13 12.3** | **+0.8** |
| **ERZM** | **Erzurum** | **2.05** | **306** | P | **Pb** | **17 13 12.3** | **+0.8** |
| **BNGB** | **Bing¶ll** | **2.24** | **278** | *e*PN | **Pb** | **17 13 13.5** | **-1.2** |
| **BINT** | **Bingol** | **2.38** | **275** | *e*Pn | **Pn** | **17 13 13.5** | **+0.5** |

*IDC **17** 17:17:27.2±1.8, 9°46S×127°28E, h0km, mb3.5/1, mb1 4.0/3, mb1mx3.5/32, mbtmp3.8/3, ML3.7/2, Error ellipse: s-maj=127.6km s-min=25.7km az=61.0*
*ISCJB **17** 17:18:16.7±0.7, 1°52S±0.05×126°44E±0.05, h29km, mb3.5/1, Error ellipse: s-maj=8.2km s-min=6.3km az=142.3*
*DJA **17** 17:18:17.2±0.7, 2°S±3°×12°6E±°, h28km±6km, M3.7/4, MLv3.7/4*

**ISC 17 17:18:18.1±1.0, 1°63S±0.05×126°50E±0.05, h29km, n7, σ1§42/11, Southern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SANI** | **Sanana** | **0.67** | **231** | P | **Pb** | **17 18 30.6** | **-0.6** |
| SANI | | | | S | **Sn** | **17 18 41.1** | **+0.1** |
| **LBMI** | **Labuha** | **1.40** | **45** | P | **Pn** | **17 18 40.7** | **-0.9** |
| LBMI | | | | S | **Sn** | **17 18 58.5** | **-0.6** |
| **NLAI** | **Namlea** | **1.71** | **160** | P | **Pn** | **17 18 46.3** | **+0.4** |
| NLAI | | | | S | **Sn** | **17 19 08.2** | **+1.4** |
| **KMSI** | **Cibinong** | **3.34** | **311** | P | **Pb** | **17 19 19.4** | **+2.8** |
| **APSI** | **Ampana** | **4.91** | **278** | P | **Pn** | **17 19 29.9** | **0.0** |
| APSI | | | | S | **Sn** | **17 20 23.9** | **-1.8** |
| **WRA** | **Warramunga Arr** | **19.75** | **158** | Sn | **Pn** | **17 22 47.6** | **+0.2** |
| | 1.0nm,0.3s,baz=325,slow=24,SNR=12 | | | | | | |
| **MKAR** | **Makanchi Array** | **61.85** | **327** | P | **P** | **17 28 33.6** | **-1.0** |
| | 0.2nm,0.5s,baz=112,slow=7.7,SNR=5.9 | | | | | | |

**IDC 17 17:23:54.7±4.0, 1°28S×100°71E, h0km, mb3.3/4, mb1 3.5/4, mb1mx3.3/53, mbtmp3.3/4, MS3.2/1, Ms1 3.2/1, ms1mx2.5/19, Error ellipse: s-maj=170.8km s-min=24.4km az=57.0, Southern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **NWAO** | **Narrogin (SRO)** | **35.10** | **155** | LR | LR | 17 42 45.7 | |
| | comp=Z,36nm,21.1s,baz=336,slow=32 | | | | | | |
| **WRA** | **Warramunga Arr** | **37.75** | **122** | P | P | 17 31 12.5 | -0.2 |
| | 0.4nm,0.8s,baz=299,slow=8.9,SNR=5.2 | | | | | | |
| **ASAR** | **Alice Springs** | **39.11** | **127** | P | P | 17 31 24.1 | -0.1 |
| | 0.2nm,0.5s,baz=301,slow=8.2,SNR=5.5 | | | | | | |
| **SONM** | **Songino Array** | **49.17** | **5** | P | P | 17 32 44.6 | +0.1 |
| | 0.3nm,0.3s,baz=189,slow=9.1,SNR=4.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **50.54** | **344** | P | P | 17 32 54.7 | -0.2 |
| | 0.4nm,0.8s,baz=151,slow=8.6,SNR=5.1 | | | | | | |

**IDC 17 17:31:28.9±3.0, 32°78S×178°50W, h0km, mb3.5/2, mb1 3.8/3, mb1mx3.6/26, mbtmp3.6/3, ML3.4/1, Error ellipse: s-maj=69.0km s-min=36.0km az=116.0, South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **URZ** | **Urewera** | **6.53** | **212** | Pn | Pn | 17 33 06.7 | +0.4 |
| | 0.9nm,0.3s,baz=309,slow=13,SNR=6.3 | | | | | | |
| URZ | | | | Sn | Sn | 17 34 20.1 | -1.3 |
| | 2.8nm,0.3s,baz=103,slow=21,SNR=12 | | | | | | |
| **ASAR** | **Alice Springs** | **42.61** | **270** | P | P | 17 39 27.1 | 0.0 |
| | 0.3nm,0.5s,baz=110,slow=7.8,SNR=6.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.82** | **275** | P | P | 17 39 36.9 | 0.0 |
| | 0.6nm,0.5s,baz=115,slow=7.9,SNR=17 | | | | | | |
| **FINES** | **FINESS Array B** | **147.21** | **338** | PKPbc | PKPbc | 17 51 12.4 | -1.0 |
| | 2.5nm,0.9s,baz=38,slow=3.4,SNR=7.7 | | | | | | |

*IDC **17** 17:32:09.9±2.6, 41°00S×72°41W, h0km, mb3.6/3, mb1 3.9/4, mb1mx3.8/20, mbtmp3.6/4, ML4.2/1, MS3.1/3, Ms1 3.1/3, ms1mx2.9/20, Error ellipse: s-maj=65.2km s-min=17.7km az=2.0*
*NEIC **17** 17:32:11.0±0.0, 40°42S×72°30W, h15km, mb4.2/4, ML4.3(GUC), After GUC.*
*NEIC Felt [III] at Lago Ranco and Rio Bueno and [II] at Osorno, Puyehue and San Pablo. Also felt at Valdivia.*
*GUC **17** 17:32:12.7±0.5, 40°43S×72°33W, h4km±2km, ML4.1*

**ISC 17 17:32:12.0±1.7, 40°43S±0.04×72°37W±0.06, h3km±12km, n26, σ2945/31, mb3.7/5, 2C, Central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VLCH** | **Valdivia** | **0.92** | **313** | ⇑*i* P | **Pg** | **17 32 28.9** | **-0.7** |
| VLCH | | | | *i* S | **Sg** | **17 32 42.4** | **+0.9** |
| VLCH | | | | IAML | | 17 32 45.0 | |
| | comp=N,31μm,0.2s | | | | | | |
| **PMCH** | **Puerto Montt** | **1.13** | **200** | *e*P | **Pb** | **17 32 32.9** | **-1.2** |
| PMCH | | | | *i* S | **Sb** | **17 32 48.1** | **-1.1** |
| **PUEL** | **Puelo Alto** | **1.23** | **177** | *i* S | **Sb** | **17 32 50.3** | **-1.8** |
| **PLCA** | **Paso Flores** | **1.42** | **103** | Pg | **Pn** | **17 32 37.1** | **-1.7** |
| | comp=N,158nm,0.3s,baz=298,slow=13,SNR=2323 | | | | | | |
| PLCA | | | | Lg | Lg | 17 32 55.9 | |
| | comp=N,174nm,0.3s,baz=56,slow=15,SNR=13 | | | | | | |
| **PLCA** | **Paso Flores** | **1.42** | **103** | ⇑*i* P | **Pn** | **17 32 36.9** | **-1.9** |
| PLCA | | | | *i* S | **Sb** | **17 32 55.4** | **-2.3** |
| **TMU** | **Temuco** | **1.71** | **354** | *e*P | **Pn** | **17 32 42.3** | **-0.4** |
| TMU | | | | *i* S | **Sn** | **17 33 04.2** | **-0.8** |
| TMU | | | | IAML | | 17 33 09.5 | |
| | comp=N,2μm,0.8s | | | | | | |
| **PSCH** | **Puerto Saavedr** | **1.81** | **334** | *e*P | **Pb** | **17 32 45.5** | **-0.3** |
| PSCH | | | | *i* S | **Sn** | **17 33 06.6** | **-1.0** |
| **GO05** | **HualaæØ** | **5.43** | **4** | *e*Pn | **Pn** | **17 33 34.1** | **+0.2** |
| **CHRN** | **Cochrane** | **6.81** | **181** | *e*Pn | **Pn** | **17 33 56.9** | **+4.1** |
| **PEL** | **Peldehue** | **7.40** | **11** | *e*Pn | **Pn** | **17 34 00.7** | **-0.3** |
| PEL | | | | *e*Sn | **Sn** | **17 35 21.1** | **-4.4** |
| **ROC1** | **El Roble** | **7.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | comp=N,0.1nm,0.3s,baz=42,slow=10,SNR=4.5 | | | | | | | |
| **BDFB** | **Brasilia** | **20.59** | **78** | P | | **P** | **17 46 29.8** | **-1.9** |
| | comp=N,5.9nm,0.4s,baz=32,slow=7.6,SNR=7.0 | | | | | | | |
| **PTGA** | **Pitinga** | **22.25** | **24** | P | | **P** | **17 46 47.8** | **-1.3** |
| | comp=N,2.3nm,0.3s,baz=342,slow=22,SNR=5.9 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **77.28** | **70** | P | | **P** | **17 53 43.4** | **-0.3** |
| | comp=N,0.5nm,0.4s,baz=257,slow=4.6,SNR=8.3 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **91.03** | **341** | P | | **P** | **17 54 53.6** | **+1.3** |
| | comp=N,0.2nm,0.6s,baz=142,slow=4.4,SNR=4.4 | | | | | | | |
| **MKAR** | **Makanchi Array** | **145.49** | **36** | PKPbc | | **PKPab** | **18 01 27.1** | **+0.5** |
| | comp=N,0.5nm,0.6s,baz=336,slow=3.1,SNR=4.7 | | | | | | | |
| MKAR | | | | pPKPbc | | **pPKPdf** | **18 01 58.9** | **+1.6** |
| | comp=N,0.9nm,0.8s,baz=318,slow=1.9,SNR=4.5 | | | | | | | |

*IDC* ***17*** *18:03:08.0±2.0, 17.°56N×145.°91E, h142km±21km, mb3.5/14, mb1 3.7/15, mb1mx3.5/39, mbtmp4.0/15, Error ellipse: s-maj=21.0km s-min=13.7km az=87.0*
*ISCJB* ***17*** *18:03:08.5±0.7, 17.°50N±0.°06×145.°9E±0.°2, h167km, mb3.6/14, Error ellipse: s-maj=23.9km s-min=7.8km az=5.5*

**ISC 17 18:03:09.9±0.8, 17.°47N±0.°08×145.°9E±0.°2, h167km, n23, σ0.°90/18, mb3.6/14, Mariana Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GUMO** | **Guam** | **3.99** | **195** | P | **Pn** | **18 04 10.5** | **0.0** |
| | 5.1nm,0.3s,baz=74,slow=17,SNR=4.5 | | | | | | |
| GUMO | | | | S | **Sn** | **18 04 56.0** | **-1.8** |
| | 42nm,0.3s,baz=6.6,slow=21,SNR=8.0 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **19.78** | **84** | T | T | 18 28 19.1 | |
| | baz=270,slow=74,SNR=14 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **19.79** | **84** | T | T | 18 28 37.4 | |
| | baz=270,slow=74,SNR=9.0 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **19.80** | **84** | T | T | 18 28 17.8 | |
| | baz=270,slow=74,SNR=12 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **20.00** | **80** | T | T | 18 28 40.7 | |
| | baz=266,slow=74,SNR=24 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **20.01** | **80** | T | T | 18 28 44.6 | |
| | baz=266,slow=74,SNR=24 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **20.02** | **80** | T | T | 18 28 44.4 | |
| | baz=266,slow=74,SNR=28 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **20.19** | **342** | P | **P** | **18 07 30.4** | **-1.2** |
| | 2.3nm,0.7s,baz=166,slow=9.9,SNR=9.5 | | | | | | |
| **KSRS** | **Korea Array** | **25.44** | **325** | P | **P** | **18 08 22.9** | **+0.7** |
| | 0.6nm,0.4s,baz=145,slow=9.1,SNR=3.8 | | | | | | |
| **KLR** | **Kul'dur** | **33.70** | **343** | P | **P** | **18 09 34.7** | **-0.4** |
| | 0.1nm,0.6s,baz=156,slow=12,SNR=5.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **38.88** | **198** | P | **P** | **18 10 20.1** | **+0.9** |
| | 1.5nm,1.1s,baz=16,slow=8.6,SNR=6.9 | | | | | | |
| **ASAR** | **Alice Springs** | **42.53** | **196** | P | **P** | **18 10 50.7** | **+1.5** |
| | 0.1nm,0.3s,baz=4.1,slow=6.5,SNR=4.7 | | | | | | |
| **SONM** | **Songino Array** | **44.24** | **322** | P | **P** | **18 11 02.6** | **-0.1** |
| | 0.6nm,0.5s,baz=136,slow=6.6,SNR=4.4 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **44.60** | **279** | P | **P** | **18 11 06.5** | **+0.6** |
| | 2.4nm,0.9s,baz=72,slow=6.7,SNR=10 | | | | | | |
| **YAK** | **Yakutsk** | **45.96** | **349** | P | **P** | **18 11 15.4** | **-0.5** |
| | 4.6nm,0.5s,baz=217,slow=3.6,SNR=4.2 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **59.12** | **323** | P | **P** | **18 12 52.9** | **+0.2** |
| | 0.3nm,0.3s,baz=98,slow=7.2,SNR=2.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **59.47** | **314** | P | **P** | **18 12 55.5** | **+0.3** |
| | 0.2nm,0.5s,baz=86,slow=8.8,SNR=5.3 | | | | | | |
| **ILAR** | **Eielson Array** | **64.65** | **26** | P | **P** | **18 13 29.3** | **-0.2** |
| | 1.0nm,0.7s,baz=252,slow=5.9,SNR=14 | | | | | | |
| **INK** | **Inuvik** | **70.42** | **23** | P | **P** | **18 14 06.2** | **+0.7** |
| | 1.8nm,0.6s,baz=271,slow=5.9,SNR=14 | | | | | | |
| **YKA** | **Yellowknife Ar** | **78.97** | **28** | P | **P** | **18 14 55.6** | **+0.8** |
| | 0.5nm,0.3s,baz=286,slow=5.5,SNR=22 | | | | | | |
| **ARCES** | **ARCESS Array B** | **83.72** | **342** | P | **P** | **18 15 19.4** | **-0.4** |
| | 9.0nm,1.2s,baz=71,slow=5.9,SNR=3.3 | | | | | | |
| **FINES** | **FINESS Array B** | **88.09** | **335** | P | **P** | **18 15 40.1** | **-1.2** |
| | 4.2nm,1.0s,baz=75,slow=5.9,SNR=2.9 | | | | | | |
| **LPAZ** | **La Paz** | **147.42** | **93** | PKPbc | **PKPab** | **18 22 37.4** | **-0.7** |
| | 0.9nm,0.4s,baz=0.0,slow=1.0,SNR=4.6 | | | | | | |

*ISCJB* ***17*** *18:08:02.4±0.4, 44.°70N±0.°05×141.°62E±0.°08, h256km±3km, mb3.1/7, Error ellipse: s-maj=9.8km s-min=7.6km az=161.5*
*JMA* ***17*** *18:08:02.7±0.2, 44.°78N×141.°61E, h257km±2km, M3.5*
*MOS* ***17*** *18:08:02.8±2.1, 44.°79N×141.°36E, h262km, mb4.2/3, Error ellipse: s-maj=21.5km s-min=15.5km az=74.8*
*IDC* ***17*** *18:08:03.3±0.6, 44.°69N×141.°54E, h250km±5km, mb3.0/7, mb1 3.2/10, mb1mx3.1/42, mbtmp3.6/10, Error ellipse: s-maj=15.5km s-min=13.3km az=127.0*

**ISC 17 18:08:03.3±0.7, 44.°68N±0.°06×141.°61E±0.°07, h252km±6km, n28, σ0.°99/38, mb3.3/7, 1D, Hokkaido region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JYG** | **Yagishiri** | **0.28** | **207** | P | **Pn** | **18 08 35.8** | **-0.1** |
| **JSS** | **Shosan** | **0.33** | **148** | P | **Pn** | **18 08 36.5** | **+0.5** |
| **JRR** | **Rishiri** | **0.50** | **336** | P | **Pn** | **18 08 36.4** | **+0.1** |
| **JWK2** | **Keihoku** | **0.67** | **18** | P | **Pn** | **18 08 36.6** | **-0.2** |
| JWK2 | | | | *e*S | **S** | **18 09 02.4** | **-1.0** |
| **JSE** | **Soyaes** | **0.75** | **68** | P | **Pn** | **18 08 37.0** | **-0.2** |
| JSE | | | | *e*S | **S** | **18 09 03.9** | **0.0** |
| **ASAJ** | **Asahikawa** | **0.91** | **128** | P | **Pn** | **18 08 38.3** | **+0.3** |
| | 6.4nm,0.3s,baz=284,slow=10,SNR=34 | | | | | | |
| ASAJ | | | | S | **S** | **18 09 05.8** | **+0.5** |
| | 2.1nm,0.3s,baz=236,slow=7.3,SNR=6.7 | | | | | | |
| **ASAJ** | **Asahikawa** | **0.91** | **128** | P | **Pn** | **18 08 38.3** | **+0.3** |
| ASAJ | | | | *e*S | **S** | **18 09 06.6** | **+0.3** |
| **JHR** | **Hokuryu** | **0.94** | **175** | P | **Pn** | **18 08 38.9** | **+0.7** |
| **JKK2** | **Kamakawa 2** | **1.15** | **134** | P | **Pn** | **18 08 39.9** | **+0.5** |
| JKK2 | | | | *e*S | **S** | **18 09 08.5** | **+0.7** |
| **JTKR** | **Abashiri--Toko** | **1.80** | **112** | P | **Pn** | **18 08 45.0** | **+0.9** |
| JTKR | | | | *e*S | **S** | **18 09 18.0** | **+1.7** |
| **JAR** | **Ashorobuto** | **2.09** | **131** | P | **Pn** | **18 08 47.4** | **+0.7** |
| **YSS** | **Yuzh-Sakhalins** | **2.41** | **19** | *i*PN | **Pn** | **18 08 49.4** | **-0.3** |
| YSS | | | | *e*S | **S** | **18 09 24.6** | **-1.8** |
| YSS | | | | pmax | pmax | | |
| | comp=Z,90nm,0.2s | | | | | | |
| YSS | | | | smax | smax | | |
| | comp=N,180nm,0.9s | | | | | | |
| YSS | | | | smax | smax | | |
| | comp=E,110nm,0.5s | | | | | | |
| **JCH** | **Churui** | **2.43** | **148** | P | **Pn** | **18 08 48.8** | **-1.2** |
| JCH | | | | *e*S | **S** | **18 09 23.9** | **-2.9** |
| **JNBK** | **Urakawa-nobuka** | **2.54** | **160** | P | **Pn** | **18 08 51.4** | **+0.3** |
| JNBK | | | | *e*S | **S** | **18 09 28.0** | **-0.9** |
| **JAK** | **Akkeshi** | **2.80** | **126** | *e*S | **S** | **18 09 32.1** | **-1.5** |
| **YUK** | **Yuzh-Kuril'sk** | **3.12** | **100** | PN | Pn | 18 09 05.1 | +8.0 |
| **NEM2** | **Nemuro 2** | **3.26** | **112** | P | **Pn** | **18 08 58.0** | **-0.7** |
| NEM2 | | | | *e*S | **S** | **18 09 40.0** | **-2.6** |
| **SHO** | **Shikotan** | **3.84** | **100** | *e*PN | **Pn** | **18 09 05.8** | **+0.6** |
| **USRK** | **Ussuriysk Ar.** | **6.90** | **269** | P | **Pn** | **18 09 41.8** | **-0.8** |
| | comp=E,0.9nm,0.3s,baz=82,slow=13,SNR=17 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **8.53** | **199** | P | **Pn** | **18 10 04.3** | **+1.0** |
| | comp=E,0.2nm,0.3s,baz=10.0,slow=14,SNR=4.1 | | | | | | |
| **PETK** | **Petropavlovsk-** | **13.51** | **46** | P | **Pn** | **18 11 05.6** | **+0.4** |
| | comp=E,0.3nm,0.3s,baz=240,slow=11,SNR=11 | | | | | | |
| **SONM** | **Songino Array** | **24.42** | **290** | P | **P** | **18 12 58.6** | **-0.4** |
| | comp=E,2.5nm,0.6s,baz=87,slow=8.5,SNR=18 | | | | | | |
| **MKAR** | **Makanchi Array** | **40.60** | **295** | P | **P** | **18 15 18.4** | **-0.1** |
| | comp=E,0.9nm,0.6s,baz=82,slow=9.2,SNR=9.0 | | | | | | |
| **ILAR** | **Eielson Array** | **43.10** | **36** | P | **P** | **18 15 38.3** | **-0.1** |
| | comp=E,0.3nm,0.7s,baz=278,slow=7.6,SNR=4.0 | | | | | | |
| **YKA** | **Yellowknife Ar** | **57.20** | **32** | P | **P** | **18 17 24.1** | **+0.3** |
| | comp=E,0.1nm,0.6s,baz=306,slow=6.8,SNR=3.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **64.65** | **188** | P | **P** | **18 18 13.9** | **-0.3** |
| | comp=E,0.3nm,0.5s,baz=2.6,slow=7.0,SNR=11 | | | | | | |
| WRA | | | | PcP | **PcP** | **18 18 45.6** | **-0.1** |
| | comp=E,0.2nm,0.5s,baz=357,slow=4.8,SNR=4.8 | | | | | | |
| **ASAR** | **Alice Springs** | **68.38** | **188** | P | **P** | **18 18 38.2** | **+0.5** |
| | comp=E,0.8nm,0.5s,baz=5.6,slow=6.6,SNR=25 | | | | | | |
| **PDAR** | **Pinedale Array** | **72.27** | **47** | P | **P** | **18 19 02.1** | **+0.7** |
| | comp=E,0.3nm,0.6s,baz=315,slow=0.8,SNR=3.7 | | | | | | |

**IDC 17 18:18:19.1±2.3, 7.°81S×130.°19E, h0km, mb3.5/1, mb1 3.5/4, mb1mx3.3/36, mbtmp3.3/4, ML3.2/3, Error ellipse: s-maj=94.5km s-min=28.5km az=77.0, Tanimbar Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **FITZ** | **Fitzroy Crossi** | **11.15** | **203** | Pn | Pn | 18 21 00.2 | +0.3 |
| | 0.1nm,0.3s,baz=21,slow=12,SNR=4.5 | | | | | | |
| FITZ | | | | Sn | Sn | 18 22 58.9 | -6.5 |
| | 0.2nm,0.3s,baz=158,slow=18,SNR=5.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **12.71** | **162** | Pn | Pn | 18 21 20.5 | -0.8 |
| | 0.2nm,0.3s,baz=338,slow=14,SNR=13 | | | | | | |
| WRA | | | | Sn | Sn | 18 23 36.0 | -7.8 |
| | 0.3nm,0.3s,baz=342,slow=23,SNR=6.8 | | | | | | |
| **ASAR** | **Alice Springs** | **16.17** | **168** | Pn | | 18 22 08.4 | +0.5 |
| | 0.1nm,0.3s,baz=344,slow=8.9,SNR=13 | | | | | | |
| ASAR | | | | Sn | Sn | 18 25 01.4 | -6.6 |
| | 0.1nm,0.3s,baz=326,slow=18,SNR=4.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **69.00** | **327** | P | P | 18 29 26.5 | 0.0 |
| | 0.2nm,0.5s,baz=117,slow=7.9,SNR=6.4 | | | | | | |

*SJA* ***17*** *18:26:42.4±0.6, 32.°25S×70.°35W, h98km±8km, ML3.4, MW4.1*
*GUC* ***17*** *18:26:43.0±0.4, 32.°35S×70.°37W, h96km±7km, ML3.5*

**ISC 17 18:26:43.9±2.7, 32.°40S±0.°09×70.°2W±0.°1, h108km±21km, n13, σ1.°46/23, 5C-2D, Chile-Argentina border region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **AUSP** | **Uspallata** | **0.69** | **75** | *i*P | **Pn** | **18 27 02.1** | **-0.2** |
| **PEL** | **Peldehue** | **0.86** | **210** | ⇑*i*P | **Pn** | **18 27 02.0** | **-1.6** |
| PEL | | | | *i*S | **Sn** | **18 27 16.7** | **-1.7** |
| PEL | | | | IAML | | 18 27 17.3 | |
| | comp=E,1μm,0.3s | | | | | | |
| **ROCH** | **El Roble** | **0.91** | **231** | ⇓*i*P | Pn | 18 27 09.9 | +5.6 |
| ROCH | | | | *i*S | **Sn** | **18 27 24.7** | **+5.0** |
| ROCH | | | | IAML | | 18 27 25.4 | |
| | comp=N,3μm,0.1s | | | | | | |
| **FCH** | **Farellones** | **0.93** | **186** | ⇑*i*P | **Pn** | **18 27 04.4** | **-0.2** |
| FCH | | | | *i*S | **Sn** | **18 27 20.8** | **+0.6** |
| FCH | | | | IAML | | 18 27 21.8 | |
| | comp=E,2μm,0.2s | | | | | | |
| **RTLS** | **Leoncito** | **0.96** | **51** | *i*P | **Pn** | **18 27 04.5** | **-0.4** |
| RTLS | | | | IAML | | 18 27 05.1 | |
| | comp=Z,624nm,0.1s | | | | | | |
| RTLS | | | | *i*S | **Sn** | **18 27 20.5** | **-0.1** |
| **CLCH** | **Cerro Calan** | **1.04** | **197** | ⇓*i*P | **Pn** | **18 27 04.7** | **-0.8** |
| CLCH | | | | *i*S | **Sn** | **18 27 21.3** | **-0.5** |
| **FSR** | **Penalolen** | **1.11** | **195** | ⇑*i*P | **Pn** | **18 27 05.6** | **-0.7** |
| FSR | | | | *i*S | **Sn** | **18 27 22.6** | **-0.6** |
| **ANTU** | **Antumapu** | **1.23** | **198** | ⇑*i*P | **Pn** | **18 27 06.7** | **-0.8** |
| ANTU | | | | *i*S | **Sn** | **18 27 24.6** | **-0.8** |
| ANTU | | | | IAML | | 18 27 25.5 | |
| | comp=E,547nm,0.3s | | | | | | |
| **LMEL** | **Las Melosas** | **1.44** | **181** | ⇑*i*P | **Pn** | **18 27 10.5** | **+0.4** |
| LMEL | | | | *i*S | **Sn** | **18 27 31.9** | **+2.0** |
| LMEL | | | | IAML | | 18 27 35.1 | |
| | comp=N,1μm,0.1s | | | | | | |
| **RTCV** | **Cerro Valdivia** | **1.49** | **69** | *i*P | **Pn** | **18 27 10.7** | **+0.2** |
| RTCV | | | | *i*S | **Sn** | **18 27 31.8** | **+1.1** |
| **SJA** | **San Juan** | **1.62** | **58** | *i*P | **Pn** | **18 27 12.1** | **-0.1** |
| SJA | | | | *i*S | **Sn** | **18 27 33.9** | **+0.2** |
| SJA | | | | IAML | | 18 27 36.7 | |
| | comp=Z,325nm,0.6s | | | | | | |
| **RTLL** | **Cerro Villicun** | **1.80** | **54** | *i*P | **Pn** | **18 27 13.6** | **-0.8** |
| RTLL | | | | *i*S | **Sn** | **18 27 37.2** | **-0.3** |
| **AMOG** | **MOGNA** | **2.04** | **45** | *i*P | **Pn** | **18 27 17.1** | **-0.3** |

**IDC 17 18:59:37.2±1.1, 55.°34S×27.°61W, h0km, mb3.8/3, mb1 4.0/3, mb1mx3.7/25, mbtmp3.8/3, MS3.3/1, Ms1 3.2/1, ms1mx2.7/19, Error ellipse: s-maj=49.1km s-min=35.6km az=82.0, South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **BOSA** | **Boshof** | **46.03** | **77** | LR | LR | 19 23 31.7 | |
| | comp=Z,35nm,21.6s,baz=206,slow=31 | | | | | | |
| **VNDA** | **Vanda** | **47.27** | **183** | P | P | 19 08 11.5 | 0.0 |
| | 0.8nm,0.7s,baz=172,slow=8.0,SNR=4.2 | | | | | | |
| **LPAZ** | **La Paz** | **49.77** | **305** | P | P | 19 08 32.1 | 0.0 |
| | 1.0nm,0.6s,baz=183,slow=7.3,SNR=3.8 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **72.56** | **30** | P | P | 19 11 06.1 | +0.1 |
| | 0.7nm,0.7s,baz=201,slow=6.5,SNR=3.8 | | | | | | |
| **YKA** | **Yellowknife Ar** | **135.48** | **319** | PKP | PKPdf | 19 18 56.6 | -1.0 |
| | 0.2nm,0.8s,baz=126,slow=2.5,SNR=2.9 | | | | | | |
| **ILAR** | **Eielson Array** | **149.46** | **313** | PKPbc | PKPbc | 19 19 26.3 | -0.5 |
| | 1.3nm,0.8s,baz=110,slow=2.5,SNR=12 | | | | | | |
| **SONM** | **Songino Array** | **150.92** | **86** | PKPbc | PKPbc | 19 19 30.6 | -0.4 |
| | 0.8nm,0.7s,baz=215,slow=4.6,SNR=5.2 | | | | | | |

*NIED* ***17*** *19:00:00, 39.°60N×143.°80E, h20km, Mw3.8 Best double couple: M₀6.21000×10¹⁴ NP1:φ₀=174.00000°, δ36.00000°, λ61.00000°. NP2:φ₀=28.00000°, δ59.00000°, λ109.00000°.*
*JMA* ***17*** *19:00:27.2±0.2, 39.°62N×143.°78E, h11km±5km, M4.2*
*IDC* ***17*** *19:00:29.7±1.2, 39.°70N×143.°52E, h0km, mb3.7/8, mb1 3.8/11, mb1mx3.6/37, mbtmp3.7/11, ML2.9/3, Error ellipse: s-maj=29.2km s-min=19.3km az=94.0*

**ISC 17 19:00:30.6±3.2, 39.°71N±0.°05×143.°56E±0.°08, h7km±18km, n32, σ1.°18/34, mb3.7/8, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JTH** | **Tanohata** | **1.33** | **280** | P | **Pn** | **19 00 54.3** | **-1.3** |
| JTH | | | | *e*S | **Sg** | **19 01 14.2** | **+0.9** |
| **MIYJ** | **Miyakonagasawa** | **1.35** | **265** | P | **Pn** | **19 00 54.5** | **-1.4** |
| MIYJ | | | | S | **Sg** | **19 01 14.9** | **+0.8** |
| **OFUJ** | **Ofunato** | **1.60** | **247** | P | **Pn** | **19 00 57.6** | **-1.7** |
| **JANG** | **Nango** | **1.71** | **293** | P | **Pn** | **19 00 59.8** | **-1.0** |
| JANG | | | | S | **Sg** | **19 01 24.7** | **-0.7** |
| **JOM** | **Ohasama** | **1.77** | **263** | P | **Pn** | **19 01 01.0** | **-0.7** |
| JOM | | | | S | **Sb** | **19 01 25.9** | **+0.1** |
| **JMK** | **Ichinoseki** | **1.97** | **248** | P | **Pn** | **19 01 03.0** | **-1.4** |
| **JIO** | **Ouri** | **2.13** | **235** | P | **Pn** | **19 01 04.4** | **-2.2** |
| **JTM** | **Tenmabayashi** | **2.19** | **300** | P | **Pn** | **19 01 07.7** | **+0.3** |
| JTM | | | | *e*S | **Sb** | **19 01 37.9** | **0.0** |
| **JRG** | **Rokugo** | **2.29** | **263** | P | **Pn** | **19 01 08.5** | **-0.3** |
| **JAH** | **Hinai** | **2.30** | **283** | P | **Pn** | **19 01 09.0** | **+0.1** |
| JAH | | | | *e*S | **Sb** | **19 01 38.8** | **-2.3** |
| **JYK** | **Kaneyama** | **2.61** | **253** | P | **Pn** | **19 01 12.7** | **-0.5** |
| **JOU** | **Okura** | **2.63** | **240** | P | **Pn** | **19 01 12.1** | **-1.4** |
| **JCH** | **Churui** | **2.90** | **357** | S | **Sn** | **19 01 52.3** | **-0.1** |
| **JAK** | **Akkeshi** | **3.39** | **14** | S | **Sn** | **19 02 02.7** | **-1.7** |
| **ASAJ** | **Asahikawa** | **4.46** | **351** | Pn | **Pn** | **19 01 39.6** | **+1.0** |
| | 0.8nm,0.3s,baz=175,slow=11,SNR=3.4 | | | | | | |
| ASAJ | | | | Sn | **Sn** | **19 02 30.8** | **0.0** |
| | 1.1nm,0.3s,baz=126,slow=19,SNR=3.0 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **5.28** | **235** | Pn | **Pn** | **19 01 49.6** | **-0.2** |
| | 1.2nm,0.3s,baz=38,slow=13,SNR=46 | | | | | | |
| **MAT** | **Matsushiro** | **5.28** | **235** | P | **Pn** | **19 01 49.6** | **-0.3** |
| MAT | | | | *e*S | **Sn** | **19 02 54.2** | **+3.2** |
| **USRK** | **Ussuriysk Ar.** | **9.72** | **301** | Pn | **Pn** | **19 02 51.5** | **+0.8** |
| | 0.2nm,0.3s,baz=103,slow=14,SNR=4.2 | | | | | | |
| **SEY** | **Seymchan** | **23.85** | **10** | P | **P** | **19 05 44.0** | **-0.3** |
| | 2.4nm,0.9s,baz=203,slow=8.6,SNR=3.8 | | | | | | |
| **SONM** | **Songino Array** | **27.82** | **299** | P | **P** | **19 06 20.5** | **0.0** |
| | 1.0nm,0.7s,baz=92,slow=8.5,SNR=5.0 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.26** | **128** | T | T | 19 37 19.0 | |
| | baz=320,slow=75,SNR=26 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.27** | **128** | T | T | 19 37 13.6 | |
| | baz=320,slow=75,SNR=23 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.28** | **128** | T | T | 19 37 31.1 | |
| | baz=320,slow=75,SNR=23 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.09** | **130** | T | T | 19 38 27.9 | |
| | baz=320 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.09** | **130** | T | T | 19 38 37.2 | |
| | baz=320 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.10** | **130** | T | T | 19 38 12.0 | |
| | baz=320 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.42** | **310** | P | **P** | **19 08 17.5** | **0.0** |
| | 0.7nm,0.4s,baz=92,slow=8.2,SNR=3.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.18** | **300** | P | **P** | **19 08 39.9** | **-0.2** |
| | 1.4nm,0.9s,baz=83,slow=10,SNR=7.3 | | | | | | |
| **ILAR** | **Eielson Array** | **46.33** | **34** | P | **P** | **19 08 58.1** | **+1.3** |
| | 0.2nm,0.8s,baz=250,slow=6.3,SNR=2.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **59.97** | **190** | P | **P** | **19 10 36.9** | **-0.7** |
| | 0.7nm,1.0s,baz=8.0,slow=7.0,SNR=3.3 | | | | | | |
| **ASAR** | **Alice Springs** | **63.69** | **190** | P | **P** | **19 11 03.3** | **+0.6** |
| | 0.1nm,0.3s,baz=18,slow=7.0,SNR=3.1 | | | | | | |
| **FINES** | **FINESS Array B** | **67.23** | **332** | P | **P** | **19 11 24.8** | **-0.4** |
| | 1.8nm,0.9s,baz=204,slow=3.0,SNR=4.0 | | | | | | |

*CSEM* ***17*** *19:12:06.1, 40.°66N×23.°71E, h16km, ML1.1/6*

**ATH 17 19:12:06.1, 40.°66N×23.°71E, h16km±6km, ML1.1/6, Error ellipse: s-maj=6.3km s-min=0.9km az=239.0, Greece**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SOH** | **Sokhos** | **0.32** | **302** | P | Pg | 19 12 12.5 | -0.2 |
| SOH | | | | AML | AML | 19 12 17.5 | |
| | comp=N,148μm,0.5s | | | | | | |
| SOH | | | | AML | AML | 19 12 17.8 | |
| | comp=E,82μm,0.2s | | | | | | |
| SOH | | | | S | Sb | 19 12 18.0 | -0.3 |
| **SOH** | **Sokhos** | **0.32** | **302** | P | Pg | 19 12 12.5 | -0.3 |
| SOH | | | | S | Sb | 19 12 18.0 | -0.3 |
| **PLG** | **Polygyros** | **0.34** | **215** | P | Pg | 19 12 13.5 | +0.3 |
| PLG | | | | S | Sg | 19 12 17.6 | -0.5 |
| PLG | | | | AML | AML | 19 12 18.6 | |
| | comp=N,71μm,0.2s | | | | | | |
| PLG | | | | AML | AML | 19 12 19.2 | |
| | comp=E,61μm,0.1s | | | | | | |
| **PLG** | **Polygyros** | **0.34** | **215** | P | Pg | 19 12 13.5 | +0.3 |
| PLG | | | | S | Sg | 19 12 17.6 | -0.5 |
| **OUR** | **Ouranopolis** | **0.38** | **147** | P | Pg | 19 12 13.9 | +0.1 |
| OUR | | | | S | Sb | 19 12 19.8 | -0.3 |
| OUR | | | | AML | AML | 19 12 20.2 | |
| | comp=N,166μm,0.2s | | | | | | |
| OUR | | | | AML | AML | 19 12 20.2 | |
| | comp=E,96μm,0.2s | | | | | | |
| **OUR** | **Ouranopolis** | **0.38** | **147** | P | Pg | 19 12 13.9 | 0.0 |
| OUR | | | | S | Sb | 19 12 19.8 | -0.3 |
| **KAVA** | **Kavala** | **0.70** | **61** | P | Pg | 19 12 19.7 | -0.1 |
| KAVA | | | | S | Sg | 19 12 28.0 | -1.2 |
| KAVA | | | | AML | AML | 19 12 30.1 | |
| | comp=E,22μm,0.1s | | | | | | |
| KAVA | | | | AML | AML | 19 12 31.1 | |
| | comp=N,69μm,0.4s | | | | | | |
| **KAVA** | **Kavala** | **0.70** | **61** | P | Pg | 19 12 19.7 | -0.1 |
| KAVA | | | | S | Sg | 19 12 28.0 | -1.1 |
| **NVR** | **Nevrokopi** | **0.70** | **10** | P | Pb | 19 12 20.1 | 0.0 |
| NVR | | | | S | Sb | 19 12 30.3 | +0.8 |
| NVR | | | | AML | AML | 19 12 32.8 | |
| | comp=N,30μm,0.2s | | | | | | |
| NVR | | | | AML | AML | 19 12 37.0 | |
| | comp=E,16μm,0.3s | | | | | | |
| **NVR** | **Nevrokopi** | **0.70** | **10** | P | Pb | 19 12 20.0 | 0.0 |
| NVR | | | | S | Sb | 19 12 30.3 | +0.8 |
| **PAIG** | **Paliouri** | **0.73** | **182** | P | Pg | 19 12 20.2 | -0.1 |
| PAIG | | | | S | Sb | 19 12 30.0 | 0.0 |
| **PAIG** | **Paliouri** | **0.73** | **182** | P | Pg | 19 12 20.2 | 0.1 |
| PAIG | | | | S | Sb | 19 12 30.0 | -0.1 |
| **KNT** | **Kendrikon** | **0.80** | **310** | P | Pb | 19 12 20.8 | -0.7 |
| KNT | | | | S | Sb | 19 12 31.9 | -0.2 |
| KNT | | | | AML | AML | 19 12 35.4 | |
| | comp=E,16μm,0.1s | | | | | | |
| KNT | | | | AML | AML | 19 12 35.4 | |
| | comp=N,34μm,0.3s | | | | | | |
| **KNT** | **Kendrikon** | **0.80** | **310** | P | Pb | 19 12 20.8 | -0.7 |
| KNT | | | | S | Sb | 19 12 31.9 | -0.2 |
| **RDO** | **Rodhopi** | **1.47** | **70** | P | Pg | 19 12 33.8 | -0.6 |
| **RDO** | **Rodhopi** | **1.47** | **70** | P | Pg | 19 12 33.8 | -0.6 |

*CSEM* ***17*** *19:13:29.7±0.1, 45.°90N×15.°28E, h2km, ML1.8/8, Error ellipse: s-maj=2.4km s-min=2.2km az=91.0*
*VIE* ***17*** *19:13:29.6±0.2, 45.°93N×15.°30E, h6km, ML1.5/3, Error ellipse: s-maj=1.9km s-min=1.3km az=51.0*

**LJU 17 19:13:29.6, 45.°89N×15.°27E, h7km, ML1.3, 5D, Northwestern Balkan Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **LEGS** | **Legarje** | **0.07** | **27** | *i*Pg | Pg | 19 13 31.0 | -0.5 |
| LEGS | | | | *i*Sg | Sg | 19 13 32.1 | -0.7 |
| **LEGS** | **Legarje** | **0.07** | **27** | *i*Pg | Pg | 19 13 31.0 | -0.5 |
| LEGS | | | | *i*Sg | Sg | 19 13 32.1 | -0.7 |
| **CRES** | **Cresnjev** | **0.14** | **115** | ⇓*i*Pg | Pg | 19 13 32.6 | 0.0 |
| CRES | | | | *i*Sg | Sg | 19 13 35.1 | +0.5 |
| | comp=Z,42nm,0.1s | | | | | | |
| **CRES** | **Cresnjev** | **0.14** | **115** | ⇓*i*Pg | Pg | 19 13 32.6 | 0.0 |
| CRES | | | | *i*Sg | Sg | 19 13 35.1 | +0.5 |
| | comp=Z,42nm,0.1s | | | | | | |
| **CESS** | **Cesta pri Krsk** | **0.16** | **57** | *i*Pg | Pg | 19 13 32.8 | -0.1 |
| CESS | | | | *i*Sg | Sg | 19 13 35.4 | +0.3 |
| | comp=Z,44nm,0.1s | | | | | | |
| **CESS** | **Cesta pri Krsk** | **0.16** | **57** | *i*Pg | Pg | 19 13 32.8 | -0.1 |
| CESS | | | | *i*Sg | Sg | 19 13 35.4 | +0.3 |
| | comp=Z,44nm,0.1s | | | | | | |
| **GCIS** | **Gornji Cirnik** | **0.25** | **94** | *i*Pg | Pg | 19 13 34.6 | 0.0 |
| GCIS | | | | *i* | | 19 13 35.1 | |
| GCIS | | | | *i*Sg | Sg | 19 13 39.1 | +1.2 |
| | comp=Z,8.0nm,0.1s | | | | | | |
| **GCIS** | **Gornji Cirnik** | **0.25** | **94** | *i*Pg | Pg | 19 13 34.6 | +0.1 |
| GCIS | | | | *i*Sg | Sg | 19 13 39.1 | +1.2 |
| | comp=Z,8.0nm,0.1s | | | | | | |
| **PDKS** | **Podkum** | **0.26** | **313** | ⇓*i*Pg | Pg | 19 13 34.9 | +0.2 |
| **PDKS** | **Podkum** | **0.26** | **313** | ⇓*i*Pg | Pg | 19 13 34.9 | +0.2 |
| **GOLS

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| KUR | | | | | smax | smax | | |
| | comp=N,2μm,0.2s | | | | | | | |
| KUR | | | | | smax | smax | | |
| | comp=E,2μm,0.2s | | | | | | | |
| **KUR** | **Kuril'sk** | **0.95** | **335** | *i* P | | **Pg** | **19 22 41.6** | **+0.1** |
| KUR | | | | | AMB | AMB | 19 22 42.1 | |
| | comp=E,512nm,0.3s | | | | | | | |
| KUR | | | | *i* S | | **Sg** | **19 22 53.4** | **-0.6** |
| KUR | | | | | A | A | 19 22 54.1 | |
| | comp=E,220nm,0.2s | | | | | | | |
| KUR | | | | | A | A | 19 22 54.1 | |
| | comp=E,250nm,0.2s | | | | | | | |
| **SHO** | **Shikotan** | **1.26** | **247** | *i* PN | | **Pg** | **19 22 47.6** | **+0.2** |
| SHO | | | | *e*S | | **Sn** | **19 23 04.0** | **+0.4** |
| SHO | | | | | pmax | pmax | | |
| | comp=Z,54nm,0.2s | | | | | | | |
| SHO | | | | | smax | smax | | |
| | comp=N,756nm,0.4s | | | | | | | |
| SHO | | | | | smax | smax | | |
| | comp=E,1μm,0.3s | | | | | | | |
| **SHO** | **Shikotan** | **1.26** | **247** | *i* P | | **Pg** | **19 22 47.6** | **+0.2** |
| SHO | | | | | AMB | AMB | 19 22 54.1 | |
| | comp=E,54nm,0.2s | | | | | | | |
| SHO | | | | *e*S | | **Sn** | **19 23 04.0** | **+0.4** |
| SHO | | | | | A | A | 19 23 05.1 | |
| | comp=E,760nm,0.4s | | | | | | | |
| SHO | | | | | A | A | 19 23 05.1 | |
| | comp=E,1μm,0.4s | | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **1.89** | **261** | *e*PN | | **Pn** | **19 22 56.5** | **+1.3** |
| YUK | | | | *i* S | | **Sb** | **19 23 20.6** | **-0.4** |
| YUK | | | | | pmax | pmax | | |
| | comp=Z,186nm,0.2s | | | | | | | |
| YUK | | | | | smax | smax | | |
| | comp=E,604nm,0.4s | | | | | | | |
| YUK | | | | | smax | smax | | |
| | comp=N,395nm,0.2s | | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **1.89** | **261** | *e*P | | **Pn** | **19 22 56.5** | **+1.3** |
| YUK | | | | | AMB | AMB | 19 22 58.0 | |
| | comp=N,200nm,0.3s | | | | | | | |
| YUK | | | | *i* S | | **Sn** | **19 23 19.3** | **+0.4** |
| YUK | | | | | A | A | 19 23 24.8 | |
| | comp=N,605nm,0.4s | | | | | | | |
| YUK | | | | | A | A | 19 23 24.8 | |
| | comp=N,395nm,0.4s | | | | | | | |
| **LAGR** | **Lagunnoye** | **1.93** | **262** | *i* PN | | **Pb** | **19 22 58.2** | **-0.2** |
| LAGR | | | | *i* S | | **Sb** | **19 23 22.8** | **+0.3** |
| **LAGR** | **Lagunnoye** | **1.93** | **262** | *i* P | | **Pb** | **19 22 58.2** | **-0.2** |
| LAGR | | | | *i* S | | **Sb** | **19 23 22.8** | **+0.3** |
| **NEM2** | **Nemuro 2** | **2.19** | **244** | P | | **Pn** | **19 23 00.4** | **+0.9** |
| NEM2 | | | | *e*S | | **Sn** | **19 23 25.7** | **-0.9** |
| **GLVR** | **Golovnino** | **2.20** | **254** | *i* PN | | **Pb** | **19 23 02.7** | **-0.2** |
| GLVR | | | | *i* S | | **Sb** | **19 23 29.1** | **-1.0** |
| **GLVR** | **Golovnino** | **2.20** | **254** | *i* P | | **Pb** | **19 23 02.7** | **-0.2** |
| GLVR | | | | *i* S | | **Sb** | **19 23 29.1** | **-1.0** |
| **JRA** | **Rausu** | **2.43** | **261** | P | | **Pb** | **19 23 05.0** | **-1.8** |
| **JNK** | **Nakash** | **2.80** | **255** | P | | **Pn** | **19 23 09.8** | **+2.0** |
| **JAK** | **Akkeshi** | **3.04** | **244** | P | | **Pn** | **19 23 12.6** | **+1.5** |
| **JAR** | **Ashorobuto** | **3.55** | **254** | P | | **Pn** | **19 23 20.7** | **+2.6** |
| JAR | | | | *e*S | | **Sn** | **19 24 01.8** | **+1.9** |
| **JCH** | **Churui** | **4.09** | **246** | P | | **Pn** | **19 23 27.1** | **+1.5** |
| JCH | | | | *e*S | | **Sn** | **19 24 12.5** | **-0.9** |
| **JKK2** | **Kamakawa 2** | **4.13** | **265** | P | | **Pn** | **19 23 29.1** | **+3.0** |
| **JNBK** | **Urakawa-nobuka** | **4.64** | **245** | P | | **Pn** | **19 23 35.4** | **+2.2** |
| **YSS** | **Yuzh-Sakhalins** | **4.75** | **305** | *e*PN | | **Pn** | **19 23 35.3** | **+0.7** |
| **YSS** | **Yuzh-Sakhalins** | **4.75** | **305** | *e*P | | **Pn** | **19 23 35.3** | **+0.7** |
| **JKB** | **Kayabe** | **5.96** | **248** | *e*S | | **Sn** | **19 24 58.1** | **-1.3** |
| **JOT** | **Ohata** | **6.20** | **244** | P | | **Pn** | **19 23 56.2** | **+1.7** |
| JOT | | | | *e*S | | **Sn** | **19 25 03.1** | **-2.2** |
| **JANG** | **Nango** | **6.50** | **234** | P | | **Pn** | **19 23 59.5** | **+0.8** |
| JANG | | | | *e*S | | **Sn** | **19 25 08.5** | **-4.3** |

*ISCJB* ***17*** *19:22:28.6±1.0, 38.°82N±0.°03×43.°86E±0.°06, h1km±7km, Error ellipse: s-maj=8.6km s-min=5.0km az=12.0*
*CSEM* ***17*** *19:22:28.8±0.3, 38.°83N×43.°82E, h2km, ML2.9, Error ellipse: s-maj=6.6km s-min=3.9km az=106.0*
*DDA* ***17*** *19:22:28.2, 38.°81N×43.°87E, h7km, Ml2.9*
*ISK* ***17*** *19:22:28.5, 38.°85N×43.°75E, h5km, ML2.6*

**ISC 17 19:22:29.1±1.3, 38.°83N±0.°02×43.°83E±0.°04, h1km±11km, n36, σ1°72/51, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VMUR** | **Van-Muradiye** | **0.25** | **309** | *i* P | **Pg** | **19 22 33.6** | **-0.4** |
| VMUR | | | | *i* S | **Sg** | **19 22 38.7** | **+1.3** |
| **VMUR** | **Van-Muradiye** | **0.25** | **309** | P | **Pg** | **19 22 33.6** | **-0.4** |
| VMUR | | | | S | **Sg** | **19 22 38.7** | **+1.3** |
| **CLDR** | **Caldiran** | **0.32** | **13** | *e*PG | **Pb** | **19 22 36.0** | **-1.9** |
| **CLDR** | **Caldiran** | **0.32** | **13** | *i* P | **Pg** | **19 22 35.5** | **+0.2** |
| CLDR | | | | *i* S | **Sb** | **19 22 46.9** | **+3.2** |
| **CLDR** | **Caldiran** | **0.32** | **13** | P | **Pg** | **19 22 35.5** | **+0.2** |
| **CLDR** | **Caldiran** | **0.32** | **13** | *e*Pg | **Pb** | **19 22 36.0** | **-1.9** |
| **VANB** | **Van** | **0.41** | **236** | *e*PG | **Pb** | **19 22 37.6** | **-1.7** |
| VANB | | | | *e*SG | **Sb** | **19 22 45.3** | **-0.9** |
| **VANB** | **Van** | **0.41** | **236** | *e*Pg | **Pb** | **19 22 37.6** | **-1.8** |
| VANB | | | | *e*Sg | **Sb** | **19 22 45.3** | **-0.9** |
| **TVAN** | **Van** | **0.45** | **228** | *i* P | **Pg** | **19 22 36.8** | **-0.9** |
| **TVAN** | **Van** | **0.45** | **228** | P | **Pg** | **19 22 36.8** | **-0.9** |
| **DYDN** | **Diyadin** | **0.72** | **352** | *i* P | **Pg** | **19 22 43.0** | **0.0** |
| DYDN | | | | *i* S | **Sn** | **19 22 55.9** | **-2.7** |
| **DYDN** | **Diyadin** | **0.72** | **352** | P | **Pg** | **19 22 43.0** | **0.0** |
| **GEVA** | **Gevas** | **0.79** | **230** | *i* P | **Pb** | **19 22 44.2** | **-1.7** |
| GEVA | | | | *i* S | **Sn** | **19 23 02.4** | **+2.1** |
| **GEVA** | **Gevas** | **0.79** | **230** | P | **Pb** | **19 22 44.2** | **-1.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.86** | **269** | *i* P | **Pg** | **19 22 45.3** | **-0.3** |
| ADCV | | | | *i* S | **Sb** | **19 22 58.9** | **-0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.86** | **269** | P | **Pg** | **19 22 45.3** | **-0.3** |
| ADCV | | | | S | **Sb** | **19 22 58.8** | **-1.8** |
| **TUTA** | **Tutak** | **0.97** | **306** | *i* P | **Pg** | **19 22 47.0** | **-0.8** |
| **TUTA** | **Tutak** | **0.97** | **306** | P | **Pg** | **19 22 47.0** | **-0.8** |
| **AGRB** | **Hanur-Agry** | **0.99** | **319** | *e*PG | **Pg** | **19 22 47.4** | **-0.7** |
| AGRB | | | | *e*SG | **Sg** | **19 23 01.5** | **+0.6** |
| **AGRB** | **Hanur-Agry** | **0.99** | **319** | *e*Pg | **Pg** | **19 22 47.4** | **-0.7** |
| AGRB | | | | *e*Sg | **Sg** | **19 23 01.5** | **+0.6** |
| **TASB** | **TASBURUN-IGDIR** | **1.20** | **15** | *e*PN | **Pn** | **19 22 52.6** | **-0.6** |
| TASB | | | | *e*SN | **Sn** | **19 23 10.0** | **-0.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.20** | **15** | *e*Pn | **Pn** | **19 22 52.6** | **-0.6** |
| TASB | | | | *e*Sn | **Sn** | **19 23 10.0** | **-0.1** |
| **HAKT** | **HAKKARI** | **1.27** | **184** | *i* P | **Pg** | **19 22 52.0** | **-1.5** |
| HAKT | | | | *i* S | **Sn** | **19 23 18.0** | **+5.7** |
| **HAKT** | **HAKKARI** | **1.27** | **184** | P | **Pg** | **19 22 52.0** | **-1.5** |
| **EKAR** | **Karacoban** | **1.44** | **288** | *i* P | **Pg** | **19 22 56.6** | **-0.1** |
| EKAR | | | | *i* S | **Sg** | **19 23 21.9** | **+6.6** |
| **EKAR** | **Karacoban** | **1.44** | **288** | P | **Pg** | **19 22 56.6** | **-0.1** |
| **CUKT** | **Cukurca** | **1.59** | **186** | *e*PN | **Pg** | **19 22 59.4** | **-0.2** |
| **CUKT** | **Cukurca** | **1.59** | **186** | *e*Pn | **Pg** | **19 22 59.4** | **-0.2** |
| **SIRT** | **Sirnak** | **1.72** | **220** | *e*PN | **Pb** | **19 23 00.5** | **-1.1** |
| **SIRT** | **Sirnak** | **1.72** | **220** | *e*Pn | **Pb** | **19 23 00.5** | **-1.1** |
| **VRTB** | **Varto-Mus** | **1.88** | **281** | *e*PN | **Pn** | **19 23 02.3** | **-0.3** |
| **VRTB** | **Varto-Mus** | **1.88** | **281** | *e*Pn | **Pn** | **19 23 02.3** | **-0.3** |
| **SENK** | **Senkaya-Erzuru** | **2.07** | **327** | *e*PN | **Pn** | **19 23 05.1** | **-0.2** |
| **SENK** | **Senkaya-Erzuru** | **2.07** | **327** | *e*Pn | **Pn** | **19 23 05.1** | **-0.2** |
| **BNGB** | **Bing¶‖** | **2.46** | **275** | *e*PN | **Pn** | **19 23 10.8** | **+0.2** |
| **BINT** | **Bingol** | **2.60** | **272** | *e*Pn | **Pn** | **19 23 10.8** | **-1.8** |

*SJA* ***17*** *19:24:49.9±0.9, 28.°56S×71.°48W, h40km±9km, ML3.5, MW3.9*
*GUC* ***17*** *19:24:53.0±0.5, 28.°55S×71.°04W, h52km±3km, ML3.3*

**ISC 17 19:24:50.8±1.9, 28.°56S±0.°05×71.°22W±0.°07, h8km±12km, n15, σ2°44/26, 2C-1D, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VACH** | **Vallenar** | **0.41** | **92** | ⇓*i*P | **Pn** | **19 25 02.6** | **-0.4** |
| VACH | | | | *i* S | **Sb** | **19 25 09.3** | **+2.7** |
| VACH | | | | IAML | | 19 25 14.5 | |
| | comp=N,4μm,0.1s | | | | | | |
| **LCO** | **Las Campanas** | **0.64** | **135** | *e*P | **Pn** | **19 25 07.0** | **+0.6** |
| LCO | | | | *e*S | **Sn** | **19 25 17.4** | **+0.6** |
| **LCO** | **Las Campanas** | **0.64** | **135** | *e*P | **Pn** | **19 25 06.5** | **+0.1** |
| LCO | | | | *i* S | **Sn** | **19 25 16.9** | **+0.1** |
| LCO | | | | IAML | | 19 25 21.0 | |
| | comp=N,1μm,0.6s | | | | | | |
| **GO03** | **Copiap** | **1.30** | **42** | ⇑*i*P | **Pn** | **19 25 14.9** | **-0.5** |
| GO03 | | | | *i* S | **Sb** | **19 25 31.3** | **-1.1** |
| GO03 | | | | IAML | | 19 25 33.9 | |
| | comp=N,2μm,0.6s | | | | | | |
| **LSCH** | **La Serena** | **1.34** | **181** | *e*P | **Pg** | **19 25 17.2** | **+0.6** |
| LSCH | | | | *i* S | **Sg** | **19 25 35.3** | **+1.3** |
| LSCH | | | | IAML | | 19 25 43.1 | |
| | comp=N,524nm,0.3s | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **TLL** | **Tololo Astrono** | **1.64** | **167** | *e*P | | **Pb** | **19 25 21.6** | **+0.1** |
| TLL | | | | *i* S | | **Sg** | **19 25 43.2** | **-0.4** |
| TLL | | | | IAML | | | 19 25 50.6 | |
| | comp=E,1μm,0.5s | | | | | | | |
| **AGUA** | **GUANDACOL** | **2.56** | **112** | *i* P | | **Pg** | **19 25 38.8** | **-1.1** |
| AGUA | | | | *e*S | | **Sg** | **19 26 16.3** | **+3.2** |
| **VCA** | **Vinchina** | **2.65** | **94** | *e*P | | **Pb** | **19 25 39.8** | **+1.1** |
| VCA | | | | *e*S | | **Sg** | **19 26 16.8** | **+0.6** |
| VCA | | | | IAML | | | 19 26 27.8 | |
| | comp=Z,156nm,0.5s | | | | | | | |
| **VCA** | **Vinchina** | **2.65** | **94** | ⇑*i*P | | **Pb** | **19 25 39.8** | **+1.1** |
| VCA | | | | *i* S | | **Sg** | **19 26 16.7** | **+0.6** |
| VCA | | | | IAML | | | 19 26 22.9 | |
| | comp=N,267nm,0.6s | | | | | | | |
| **AMOG** | **MOGNA** | **3.35** | **136** | *e*P | | **Pb** | **19 25 48.9** | **-1.6** |
| AMOG | | | | *e*S | | **Sg** | **19 26 39.4** | **+1.0** |
| **RTLS** | **Leoncito** | **3.63** | **153** | *i* P | | **Pb** | **19 25 53.0** | **-2.4** |
| RTLS | | | | IAML | | | 19 26 49.1 | |
| | comp=Z,73nm,0.5s | | | | | | | |
| **RTLL** | **Cerro Villicun** | **3.64** | **140** | *e*P | | **Pb** | **19 25 52.2** | **-3.3** |
| **AUSP** | **Uspallata** | **3.98** | **157** | *i* P | | Pn | 19 25 57.4 | +5.1 |
| AUSP | | | | *e*P | | Pn | 19 25 57.7 | +5.3 |
| AUSP | | | | *i* S | | **Sg** | **19 26 55.4** | **-3.2** |
| **RTCV** | **Cerro Valdivia** | **4.02** | **145** | *e*P | | **Pn** | **19 25 57.4** | **+4.6** |
| **CYA** | **Choya** | **4.77** | **90** | *e*P | | **Pn** | **19 26 06.2** | **+3.2** |
| CYA | | | | *e*S | | **Sb** | **19 27 05.7** | **-6.6** |

**IDC 17 19:25:46.7±2.1, 7.°86S×129.°99E, h0km, mb3.6/1, mb1 3.7/4, mb1mx3.3/40, mbtmp3.5/4, ML3.5/3, MS3.3/1, Ms1 3.3/1, ms1mx2.5/25, Error ellipse: s-maj=81.1km s-min=28.0km az=77.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **FITZ** | **Fitzroy Crossi** | **11.03** | **202** | Pn | Pn | 19 28 26.9 | +1.0 |
| | 0.3nm,0.3s,baz=25,slow=9.4,SNR=7.3 | | | | | | |
| FITZ | | | | Sn | Sn | 19 30 23.8 | -6.3 |
| | 0.5nm,0.3s,baz=173,slow=16,SNR=3.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **12.73** | **161** | Pn | Pn | 19 28 48.4 | -0.9 |
| | 0.3nm,0.3s,baz=342,slow=13,SNR=9.4 | | | | | | |
| WRA | | | | Sn | Sn | 19 31 04.3 | -7.5 |
| | 0.6nm,0.3s,baz=338,slow=21,SNR=5.7 | | | | | | |
| **ASAR** | **Alice Springs** | **16.16** | **167** | Pn | Pn | 19 29 35.3 | -0.2 |
| | 0.1nm,0.3s,baz=344,slow=8.6,SNR=9.4 | | | | | | |
| ASAR | | | | Sn | Sn | 19 32 29.0 | -6.5 |
| | 0.1nm,0.3s,baz=355,slow=25,SNR=6.1 | | | | | | |
| **PMG** | **Port Moresby** | **17.04** | **96** | LR | LR | 19 36 52.0 | |
| | comp=Z,97nm,18.9s,baz=342,slow=39 | | | | | | |
| **MKAR** | **Makanchi Array** | **68.93** | **327** | P | P | 19 36 53.7 | 0.0 |
| | 0.3nm,0.5s,baz=126,slow=7.3,SNR=8.3 | | | | | | |

**NNC 17 19:28:00.5±4.7, 37.°37N×75.°00E, h0km, mb3.7, mpv3.3, 6C-1D, Error ellipse: s-maj=48.3km s-min=34.1km az=66.0, Tajikistan-Xinjiang border region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SFK** | **Sufi-Kurgan** | **2.89** | **336** | ⇑P | Pn | 19 28 48.4 | +0.3 |
| | 9.4nm,0.5s | | | | | | |
| SFK | | | | ⇑S | Sn | 19 29 25.7 | +2.1 |
| | 14nm,0.4s | | | | | | |
| **MNAS** | **Manas** | **5.46** | **340** | ⇓Pn | Pn | 19 29 22.4 | -0.9 |
| | 2.6nm,0.5s | | | | | | |
| MNAS | | | | ⇑Sn | Sn | 19 30 27.6 | +0.7 |
| | 3.3nm,1.0s | | | | | | |
| **TKM2** | **Tokmak 2** | **5.56** | **4** | ⇑Pn | Pn | 19 29 26.7 | +1.9 |
| | 2.9nm,0.9s | | | | | | |
| TKM2 | | | | ⇑Sn | Sn | 19 30 29.6 | +0.1 |
| | 2.7nm,0.6s | | | | | | |
| **KK31** | **Karatay Array** | **6.68** | **330** | ⇑Pn | Pn | 19 29 37.9 | -2.0 |
| | 0.6nm,0.3s,baz=133,slow=13,SNR=18 | | | | | | |
| KK31 | | | | Sn | Sn | 19 30 52.9 | -3.8 |
| | 1.4nm,0.6s,baz=145,slow=20,SNR=5.7 | | | | | | |

**IDC 17 19:33:29.6±7.1, 6.°32S×149.°95E, h66km±55km, mb3.2/3, mb1 3.5/4, mb1mx3.2/34, mbtmp3.6/4, ML1.8/1, Error ellipse: s-maj=101.7km s-min=46.5km az=131.0, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PMG** | **Port Moresby** | **4.13** | **222** | P | Pn | 19 34 30.4 | +0.2 |
| | 4.0nm,0.3s,baz=41,slow=11,SNR=26 | | | | | | |
| PMG | | | | S | Sn | 19 35 17.5 | +0.3 |
| | 19nm,0.3s,baz=149,slow=22,SNR=14 | | | | | | |
| **WRA** | **Warramunga Arr** | **20.33** | **227** | P | P | 19 38 00.9 | +0.3 |
| | 1.0nm,0.6s,baz=52,slow=11,SNR=6.9 | | | | | | |
| **ASAR** | **Alice Springs** | **23.14** | **220** | P | P | 19 38 30.5 | 0.0 |
| | 0.5nm,0.8s,baz=56,slow=8.5,SNR=6.2 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **25.44** | **242** | P | P | 19 39 00.5 | -0.1 |
| | 1.4nm,0.8s,baz=57,slow=9.0,SNR=6.3 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **148.00** | **285** | PKPbc | PKPbc | 19 53 08.0 | -0.7 |
| | 0.5nm,0.3s,baz=82,slow=2.4,SNR=9.7 | | | | | | |

*ISK* ***17*** *19:40:21.7, 38.°72N×43.°39E, h5km, ML2.3*
*DDA* ***17*** *19:40:22.9, 38.°67N×43.°27E, h7km, Ml2.6*
*CSEM* ***17*** *19:40:23.1±0.2, 38.°69N×43.°26E, h2km, ML2.3, Error ellipse: s-maj=6.3km s-min=5.0km az=78.0*

**ISC 17 19:40:22.9±1.2, 38.°68N±0.°03×43.°27E±0.°03, h7km±10km, n26, σ0°97/40, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.13** | **133** | *e*PG | **Pg** | **19 40 26.6** | **+0.9** |
| **VANB** | **Van** | **0.13** | **133** | *e*Pg | **Pg** | **19 40 26.6** | **+0.9** |
| **TVAN** | **Van** | **0.19** | **145** | *i* P | **Pg** | **19 40 26.2** | **-0.6** |
| **TVAN** | **Van** | **0.19** | **145** | P | **Pg** | **19 40 26.2** | **-0.6** |
| **VMUR** | **Van-Muradiye** | **0.39** | **38** | *i* P | **Pb** | **19 40 31.4** | **-0.8** |
| VMUR | | | | *i* S | **Sb** | **19 40 40.4** | **+2.0** |
| **VMUR** | **Van-Muradiye** | **0.39** | **38** | P | **Pb** | **19 40 31.4** | **-0.8** |
| VMUR | | | | S | **Sb** | **19 40 40.4** | **+2.0** |
| **GEVA** | **Gevas** | **0.41** | **204** | *i* P | **Pg** | **19 40 29.9** | **-0.9** |
| GEVA | | | | *i* S | **Sb** | **19 40 38.0** | **-0.8** |
| **GEVA** | **Gevas** | **0.41** | **204** | P | **Pg** | **19 40 29.9** | **-0.9** |
| GEVA | | | | S | **Sb** | **19 40 38.0** | **-0.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.44** | **287** | *i* P | **Pg** | **19 40 31.1** | **-0.4** |
| ADCV | | | | *i* S | **Sb** | **19 40 39.2** | **-0.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.44** | **287** | P | **Pg** | **19 40 31.1** | **-0.4** |
| ADCV | | | | S | **Sb** | **19 40 39.2** | **-0.8** |
| **CLDR** | **Caldiran** | **0.68** | **48** | *i* P | **Pb** | **19 40 37.2** | **-0.1** |
| CLDR | | | | *i* S | **Sn** | **19 40 49.1** | **-1.1** |
| **CLDR** | **Caldiran** | **0.68** | **48** | P | **Pb** | **19 40 37.2** | **-0.1** |
| CLDR | | | | S | **Sn** | **19 40 49.1** | **-1.1** |
| **TUTA** | **Tutak** | **0.80** | **334** | *i* P | **Pg** | **19 40 37.8** | **-0.5** |
| TUTA | | | | *i* S | **Sb** | **19 40 49.9** | **-0.4** |
| **TUTA** | **Tutak** | **0.80** | **334** | P | **Pg** | **19 40 37.8** | **-0.5** |
| TUTA | | | | S | **Sb** | **19 40 49.9** | **-0.4** |
| **AGRB** | **Hanur-Agry** | **0.92** | **347** | *e*PG | **Pg** | **19 40 40.2** | **-0.3** |
| AGRB | | | | *e*SG | **Sb** | **19 40 53.8** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **0.92** | **347** | *e*Pg | **Pg** | **19 40 40.2** | **-0.3** |
| AGRB | | | | *e*Sg | **Sb** | **19 40 53.8** | **+0.1** |
| **EKAR** | **Karacoban** | **1.10** | **302** | *i* P | **Pb** | **19 40 44.5** | **+0.2** |
| EKAR | | | | *i* S | **Sn** | **19 41 02.7** | **+2.3** |
| **EKAR** | **Karacoban** | **1.10** | **302** | P | **Pb** | **19 40 44.5** | **+0.2** |
| EKAR | | | | S | **Sn** | **19 41 02.7** | **+2.3** |
| **SIRT** | **Sirnak** | **1.35** | **209** | *e*PN | **Pg** | **19 40 50.0** | **+1.3** |
| **SIRT** | **Sirnak** | **1.35** | **209** | *e*Pn | **Pg** | **19 40 50.0** | **+1.3** |
| **CUKT** | **Cukurca** | **1.46** | **169** | *e*PN | **Pg** | **19 40 51.0** | **+0.2** |
| **CUKT** | **Cukurca** | **1.46** | **169** | *e*Pn | **Pg** | **19 40 51.0** | **+0.2** |
| **VRTB** | **Varto-Mus** | **1.49** | **289** | *e*PN | **Pg** | **19 40 51.9** | **+0.4** |
| **VRTB** | **Varto-Mus** | **1.49** | **289** | *e*Pn | **Pg** | **19 40 51.9** | **+0.4** |
| **TASB** | **TASBURUN-IGDIR** | **1.50** | **30** | *e*PN | **Pn** | **19 40 49.8** | **-0.5** |
| **TASB** | **TASBURUN-IGDIR** | **1.50** | **30** | *e*Pn | **Pn** | **19 40 49.8** | **-0.5** |

*ISK* ***17*** *19:50:10.2, 38.°89N×43.°57E, h2km, ML2.4*
*ISCJB* ***17*** *19:50:11.6±0.5, 38.°91N±0.°03×43.°58E±0.°05, h12km±4km, Error ellipse: s-maj=6.2km s-min=4.7km az=3.4*
*CSEM* ***17*** *19:50:11.2±0.2, 38.°91N×43.°57E, h10km, ML3.1, Error ellipse: s-maj=5.0km s-min=3.9km az=118.0*
*DDA* ***17*** *19:50:11.1, 38.°90N×43.°57E, h15km, Ml3.1*

**ISC 17 19:50:11.1±0.9, 38.°87N±0.°03×43.°60E±0.°03, h10km±6km, n30, σ0°82/49, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VMUR** | **Van-Muradiye** | **0.12** | **349** | *i* P | **Pg** | **19 50 13.8** | **-0.3** |
| VMUR | | | | *i* S | **Sg** | **19 50 16.8** | **+0.6** |
| **VMUR** | **Van-Muradiye** | **0.12** | **349** | P | **Pg** | **19 50 13.8** | **-0.3** |
| VMUR | | | | S | **Sg** | **19 50 16.8** | **+0.6** |
| **ERCV** | **ERCIS-VAN** | **0.25** | **305** | *e*PG | **Pg** | **19 50 15.8** | **-0.5** |
| ERCV | | | | *e*SG | **Sg** | **19 50 19.8** | **0.0** |
| **ERCV** | **ERCIS-VAN** | **0.25** | **305** | *e*Pg | **Pg** | **19 50 15.8** | **-0.5** |
| ERCV | | | | *e*Sg | **Sg** | **19 50 19.8** | **0.0** |
| **VANB** | **Van** | **0.32** | **211** | *e*PG | **Pb** | **19 50 19.0** | **-0.1** |
| **VANB** | **Van** | **0.32** | **211** | *e*Pg | **Pb** | **19 50 19.0** | **-0.1** |
| **CLDR** | **Caldiran** | **0.36** | **42** | *e*PG | **Pg** | **19 50 18.5** | **+0.1** |
| CLDR | | | | *e*SG | **Sb** | **19 50 24.6** | **-1.2** |
| **CLDR** | **Caldiran** | **0.36** | **42** | *i* P | **Pg** | **19 50 18.0** | **-0.4** |
| CLDR | | | | *i* S | **Sb** | **19 50 25.7** | **-0.1** |
| **CLDR** | **Caldiran** | **0.36** | **42** | P | **Pg** | **19 50 18.0** | **-0.4** |
| **CLDR** | **Caldiran** | **0.36** | **42** | *e*Pg | **Pg** | **19 50 18.5** | **+0.1** |
| CLDR | | | | *e*Sg | **Sb** | **19 50 24.6** | **-1.2** |
| CLDR | | | | S | **Sb** | **19 50 25.7** | **-0.1** |
| **TVAN** | **Van** | **0.38** | **204** | *i* P | **Pg** | **19 50 18.9** | **+0.3** |
| TVAN | | | | *i* S | **Sb** | **19 50 26.2** | **+0.2** |
| **TVAN** | **Van** | **0.38** | **204** | P | **Pg** | **19 50 19.0** | **+0.3** |
| TVAN | | | | S | **Sb** | **19 50 26.2** | **+0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.69** | **265** | *i* P | **Pg** | **19 50 23.8** | **-0.6** |
| ADCV | | | | *i* S | **Sb** | **19 50 35.1** | **+0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.69** | **265** | P | **Pg** | **19 50 23.8** | **-0.6** |
| ADCV | | | | S | **Sb** | **19 50 35.1** | **+0.1** |
| **GEVA** | **Gevas** | **0.70** | **217** | *i* P | **Pg** | **19 50 23.8** | **-0.9** |
| GEVA | | | | *i* S | **Sn** | **19 50 37.6** | **-0.8** |
| **GEVA** | **Gevas** | **0.70** | **217** | P | **Pg** | **19 50 23.8** | **-0.9** |
| GEVA | | | | S | **Sn** | **19 50 37.6** | **-0.8** |
| **TUTA** | **Tutak** | **0.81** | **311** | *i* P | **Pg** | **19 50 25.6** | **-1.1** |
| TUTA | | | | *i* S | **Sg** | **19 50 36.8** | **-0.5** |
| **TUTA** | **Tutak** | **0.81** | **311** | P | **Pg** | **19 50 25.6** | **-1.1** |
| TUTA | | | | S | **Sg** | **19 50 36.8** | **-0.5** |
| **AGRB** | **Hanur-Agry** | **0.84** | **326** | *e*PG | **Pg** | **19 50 26.9** | **-0.5** |
| AGRB | | | | *e*SG | **Sb** | **19 50 39.2** | **-0.4** |
| **AGRB** | **Hanur-Agry** | **0.84** | **326** | *e*Pg | **Pg** | **19 50 26.9** | **-0.5** |
| AGRB | | | | *e*Sg | **Sb** | **19 50 39.2** | **-0.4** |
| **TASB** | **TASBURUN-IGDIR** | **1.21** | **24** | *e*PN | **Pg** | **19 50 34.3** | **-0.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.21** | **24** | *e*Pn | **Pg** | **19 50 34.3** | **-0.2** |
| **EKAR** | **Karacoban** | **1.25** | **288** | *i* P | **Pg** | **19 50 35.3** | **0.0** |
| EKAR | | | | *i* S | **Sn** | **19 50 56.0** | **+4.0** |
| **EKAR** | **Karacoban** | **1.25** | **288** | P | **Pg** | **19 50 35.3** | **0.0** |
| **CUKT** | **Cukurca** | **1.62** | **180** | *e*PN | **Pb** | **19 50 41.1** | **-0.2** |
| **CUKT** | **Cukurca** | **1.62** | **180** | *e*Pn | **Pb** | **19 50 41.1** | **-0.2** |
| **SIRT** | **Sirnak** | **1.65** | **214** | *e*PN | **Pb** | **19 50 41.3** | **-0.4** |
| **SIRT** | **Sirnak** | **1.65** | **214** | *e*Pn | **Pb** | **19 50 41.3** | **-0.4** |
| **BNGB** | **Bing¶‖** | **2.28** | **274** | *e*PN | **Pn** | **19 50 50.3** | **+1.3** |
| **BINT** | **Bingol** | **2.43** | **271** | *e*Pn | **Pn** | **19 50 50.3** | **-0.7** |

**MEX 17 19:53:26.7±0.8, 16.°70N×99.°76W, h8km±17km, MD3.7, Near coast of Guerrero**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ACX** | **Acapulco** | **0.20** | **331** | *e*P | Pg | 19 53 27.7 | -3.1 |
| ACX | | | | *e*S | Sg | 19 53 30.6 | -2.8 |
| **CAIG** | **El Cayaco** | **0.60** | **306** | *e*P | Pg | 19 53 37.5 | -0.8 |
| CAIG | | | | *e*S | Sg | 19 53 45.8 | -0.4 |
| **MEIG** | **Mezcala** | **1.23** | **6** | *e*P | Pg | 19 53 45.8 | -4.5 |
| MEIG | | | | *e*S | Sg | 19 54 00.1 | -4.2 |
| **TLIG** | **Tlapa** | **1.43** | **53** | *e*P | Pn | 19 53 49.1 | -4.0 |
| TLIG | | | | *e*S | Sb | 19 54 06.9 | -5.3 |
| **ARIG** | **Puente Sto Nin** | **1.67** | **340** | *e*P | Pn | 19 53 53.1 | -3.3 |
| ARIG | | | | *e*S | Sn | 19 54 14.4 | -3.7 |
| **PLIG** | **Platanillo** | **1.71** | **8** | *e*P | Pn | 19 53 53.2 | -3.6 |
| PLIG | | | | *e*S | Sn | 19 54 14.4 | -4.5 |
| **ZIIG** | **Zihuatanejo** | **1.87** | **299** | *e*P | Pn | 19 53 58.4 | -0.6 |
| ZIIG | | | | *e*S | Sb | 19 54 24.1 | -0.5 |

**MEX 17 20:01:35.6±0.6, 15.°01N×93.°08W, h78km±13km, MD3.7, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PCIG** | | **0.71** | **349** | *e*P | Pn | 20 01 50.0 | -1.1 |
| PCIG | | | | *e*P | Pn | 20 01 50

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DYDN** | **Diyadin** | **0.17** | **354** | *i* P | **Pg** | **20 19 50.7** | **-0.2** |
| DYDN | | | | *i* S | **Sg** | **20 19 53.9** | **+0.2** |
| **DYDN** | **Diyadin** | **0.17** | **354** | P | **Pg** | **20 19 50.7** | **-0.2** |
| DYDN | | | | S | **Sg** | **20 19 53.9** | **+0.2** |
| **CLDR** | **Caldiran** | **0.28** | **146** | *e*PG | **Pg** | **20 19 52.5** | **-0.4** |
| CLDR | | | | *e*SG | **Sg** | **20 19 56.5** | **-0.2** |
| **CLDR** | **Caldiran** | **0.28** | **146** | *i* P | **Pg** | **20 19 52.4** | **-0.4** |
| CLDR | | | | *i* S | **Sg** | **20 19 56.1** | **-0.6** |
| **CLDR** | **Caldiran** | **0.28** | **146** | *e*Pg | **Pg** | **20 19 52.5** | **-0.4** |
| CLDR | | | | S | **Sg** | **20 19 56.1** | **-0.6** |
| **VMUR** | **Van-Muradiye** | **0.40** | **196** | *i* P | **Pg** | **20 19 54.3** | **-0.7** |
| VMUR | | | | *i* S | **Sg** | **20 20 00.7** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.40** | **196** | P | **Pg** | **20 19 54.3** | **-0.7** |
| VMUR | | | | S | **Sg** | **20 20 00.7** | **+0.3** |
| **AGRB** | **Hanur-Agry** | **0.59** | **290** | *e*PG | **Pg** | **20 19 58.6** | **0.0** |
| AGRB | | | | *e*SG | **Sb** | **20 20 07.6** | **-0.5** |
| **AGRB** | **Hanur-Agry** | **0.59** | **290** | *e*Pg | **Pg** | **20 19 58.6** | **0.0** |
| AGRB | | | | *e*Sg | **Sb** | **20 20 07.6** | **-0.5** |
| **TUTA** | **Tutak** | **0.70** | **273** | *i* P | **Pg** | **20 20 00.2** | **-0.4** |
| TUTA | | | | *i* S | **Sb** | **20 20 10.2** | **-0.9** |
| **TUTA** | **Tutak** | **0.70** | **273** | P | **Pg** | **20 20 00.2** | **-0.4** |
| TUTA | | | | S | **Sb** | **20 20 10.2** | **-0.9** |
| **TASB** | **TASBURUN-IGDIR** | **0.73** | **34** | *e*PG | **Pb** | **20 20 02.0** | **+0.1** |
| TASB | | | | *e*SG | **Sb** | **20 20 12.9** | **+0.9** |
| **TASB** | **TASBURUN-IGDIR** | **0.73** | **34** | *e*Pg | **Pb** | **20 20 02.0** | **+0.1** |
| TASB | | | | *e*Sg | **Sb** | **20 20 12.9** | **+0.9** |
| **VANB** | **Van** | **0.82** | **198** | *e*PG | **Pb** | **20 20 03.9** | **+0.5** |
| VANB | | | | *e*SG | **Sn** | **20 20 16.3** | **-0.6** |
| **VANB** | **Van** | **0.82** | **198** | *e*Pg | **Pb** | **20 20 03.9** | **+0.5** |
| VANB | | | | *e*Sg | **Sn** | **20 20 16.3** | **-0.6** |
| **TVAN** | **Van** | **0.88** | **196** | *i* P | **Pn** | **20 20 05.7** | **+0.1** |
| **TVAN** | **Van** | **0.88** | **196** | P | **Pn** | **20 20 05.7** | **+0.1** |
| **EATA** | **Eleskirt** | **1.06** | **298** | *i* P | **Pg** | **20 20 05.2** | **-2.3** |
| EATA | | | | *i* S | **Sb** | **20 20 21.9** | **+0.2** |
| **EATA** | **Eleskirt** | **1.06** | **298** | P | **Pg** | **20 20 05.2** | **-2.3** |
| EATA | | | | S | **Sb** | **20 20 21.9** | **+0.2** |
| **EKAR** | **Karacoban** | **1.28** | **265** | *i* P | **Pb** | **20 20 14.1** | **+2.7** |
| EKAR | | | | *i* S | **Sn** | **20 20 30.6** | **+2.0** |
| **SENK** | **Senkaya-Erzuru** | **1.58** | **319** | *e*PN | **Pb** | **20 20 16.3** | **-0.2** |
| **SENK** | **Senkaya-Erzuru** | **1.58** | **319** | *e*Pn | **Pb** | **20 20 16.3** | **-0.2** |

*ISCJB* ***17*** *20:33:08.9±0.4, 38˚.08N±0˚.03×73˚.60E±0˚.06, h140km, mb3.0/2, Error ellipse: s-maj=7.7km s-min=3.8km az=154.7*

*IDC* ***17*** *20:33:12.3±8.3, 38˚.33N×73˚.24E, h183km±108km, mb3.0/2, mb1 3.0/5, mb1mx2.7/44, mbtmp3.3/5, MS2.8/1, Ms1 2.8/1, ms1mx2.3/17, Error ellipse: s-maj=120.9km s-min=21.2km az=156.0*

*KRNET* ***17*** *20:33:13.6±0.1, 38˚.25N×72˚.54E, mb3.5*

*NNC* ***17*** *20:33:15.2±1.7, 38˚.44N×73˚.37E, h164km±11km, mb2.4, mpv3.5, Error ellipse: s-maj=15.8km s-min=7.8km az=144.0*

**ISC 17 20:33:09.2±0.8, 38˚.10N±0˚.06×73˚.48E±0˚.06, h140km, n25, σ2$^2$48/36, 11C-7D, Tajikistan-Xinjiang border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SFK** | **Sufi-Kurgan** | **1.91** | **1** | ⇑*i*P | **Pn** | **20 33 46.6** | **+3.7** |
| | baz=23 | | | | | | |
| SFK | | | | ⇑*i*S | **Sn** | **20 34 10.6** | **+1.9** |
| | baz=23 | | | | | | |
| **SFK** | **Sufi-Kurgan** | **1.91** | **1** | ⇓P | **Pn** | **20 33 46.8** | **+4.0** |
| | 16nm,0.3s | | | | | | |
| SFK | | | | ⇓S | **Sn** | **20 34 11.5** | **+2.8** |
| | 107nm,0.4s | | | | | | |
| **ARSB** | **Arslanbob** | **3.24** | **353** | ⇓*i*P | **Pn** | **20 34 02.5** | **+3.1** |
| | baz=6.0 | | | | | | |
| ARSB | | | | ⇓*i*S | **Sn** | **20 34 38.6** | **+0.3** |
| | baz=6.0 | | | | | | |
| **DZET** | **Dzherino** | **3.72** | **282** | ⇑P | **Pn** | **20 34 10.0** | **+4.4** |
| | 5.7nm,0.5s | | | | | | |
| DZET | | | | ⇑S | **Sn** | **20 34 53.4** | **+4.1** |
| | 217nm,0.7s | | | | | | |
| **TOKL** | **Toktogul** | **3.86** | **353** | ⇑*i*P | **Pn** | **20 34 10.6** | **+3.2** |
| | baz=4.0 | | | | | | |
| TOKL | | | | ⇑*i*S | **Sn** | **20 34 52.1** | **-0.6** |
| | baz=4.0 | | | | | | |
| **ARK** | **Arkit** | **3.87** | **343** | ⇑*e*P | **Pn** | **20 34 09.6** | **+2.0** |
| | baz=353 | | | | | | |
| ARK | | | | ⇑*i*S | **Sn** | **20 34 49.2** | **-3.7** |
| | baz=353 | | | | | | |
| **MNAS** | **Manas** | **4.45** | **351** | ⇑P | **Pn** | **20 34 18.3** | **+3.2** |
| | 4.7nm,0.4s | | | | | | |
| MNAS | | | | ⇑S | **Sn** | **20 35 06.4** | **0.0** |
| | 21nm,0.6s | | | | | | |
| **AAK** | **Ala-Archa** | **4.60** | **9** | P | **Pn** | **20 34 20.1** | **+3.0** |
| | 0.3nm,0.3s,baz=175,slow=11,SNR=5.0 | | | | | | |
| AAK | | | | S | **Sn** | **20 35 11.0** | **+0.9** |
| | 1.5nm,0.3s,baz=39,slow=6.2,SNR=11 | | | | | | |
| **TKM2** | **Tokmak 2** | **5.08** | **18** | ⇑P | **Pn** | **20 34 25.9** | **+2.3** |
| | 3.7nm,0.5s | | | | | | |
| TKM2 | | | | ⇓S | **Sn** | **20 35 20.6** | **-1.0** |
| | 8.0nm,0.7s | | | | | | |
| **KK31** | **Karatay Array** | **5.49** | **337** | P | **Pn** | **20 34 32.1** | **+3.2** |
| | 3.3nm,0.6s,baz=134,slow=12,SNR=60 | | | | | | |
| KK31 | | | | S | **Sn** | **20 35 30.4** | **-0.6** |
| | 11nm,0.5s,baz=168,slow=24,SNR=31 | | | | | | |
| **MKAR** | **Makanchi Array** | **10.85** | **34** | P | **Pn** | **20 35 40.7** | **+0.2** |
| | 0.0nm,0.3s,baz=212,slow=14,SNR=3.5 | | | | | | |
| **GEYT** | **Alibeck** | **12.12** | **274** | P | **Pn** | **20 35 57.5** | **+0.2** |
| | 0.4nm,0.3s,baz=90,slow=12,SNR=7.2 | | | | | | |
| GEYT | | | | S | **Sn** | **20 38 06.6** | **-4.5** |
| | 0.3nm,0.3s,baz=104,slow=12,SNR=4.1 | | | | | | |
| **PYUN** | **Piuthan** | **12.76** | **139** | *e*P | **Pn** | **20 36 03.6** | **-2.2** |
| | 11nm,0.6s | | | | | | |
| **KOLN** | **Koldanda** | **13.34** | **138** | *e*P | **Pn** | **20 36 11.7** | **-1.6** |
| | 5.2nm,0.5s | | | | | | |
| **GKN** | **Gorkha** | **13.73** | **134** | *e*P | **Pn** | **20 36 17.9** | **-0.4** |
| | 1.7nm,0.3s | | | | | | |
| **KKN** | **Kakani** | **14.26** | **133** | *e*P | **Pn** | **20 36 24.1** | **-0.9** |
| | 30nm,0.5s | | | | | | |
| **DMN** | **Daman** | **14.30** | **134** | *e*P | **Pn** | **20 36 23.9** | **-1.7** |
| | 2.8nm,0.2s | | | | | | |
| **PKIN** | **Phulchoki** | **14.49** | **133** | *e*P | **Pn** | **20 36 26.8** | **-1.2** |
| | 9.9nm,0.5s | | | | | | |
| **PKI** | **Pulchoki** | **14.50** | **133** | *e*P | **Pn** | **20 36 27.5** | **-0.7** |
| **GUN** | **Gumba** | **14.53** | **131** | *e*P | **Pn** | **20 36 28.7** | **+0.2** |
| | 6.6nm,0.4s | | | | | | |
| **AB31** | **Akbulak array** | **14.81** | **323** | ⇓P | **Pn** | **20 36 32.7** | **+1.1** |
| | 0.4nm,0.5s | | | | | | |
| AB31 | | | | ⇓S | **Sn** | **20 39 11.8** | **-3.9** |
| | 1.1nm,0.5s | | | | | | |
| **JIRN** | **Jiri** | **14.90** | **131** | *e*P | **Pn** | **20 36 32.1** | **-1.0** |
| | 57nm,0.4s | | | | | | |
| **KVAR** | **Kislovodsk Arr** | **23.86** | **294** | LR | LR | 20 50 21.4 | |
| | comp=Z,20nm,18.4s,baz=206,slow=44 | | | | | | |
| **WRA** | **Warramunga Arr** | **81.19** | **124** | P | **P** | **20 45 09.2** | **-0.3** |
| | 0.3nm,0.6s,baz=329,slow=5.2,SNR=8.1 | | | | | | |
| **ASAR** | **Alice Springs** | **83.58** | **127** | P | **P** | **20 45 21.5** | **-0.3** |
| | 0.2nm,0.8s,baz=316,slow=5.1,SNR=3.3 | | | | | | |

*CSEM* ***17*** *20:53:19.4, 37˚.24N×22˚.03E, h2km, ML2.3/4*

**ATH 17 20:53:19.4, 37˚.24N×22˚.03E, h2km±1km, ML2.3/4, Error ellipse: s-maj=1.8km s-min=1.0km az=157.0, Southern Greece**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ITM** | **Ithomi** | **0.10** | **234** | P | Pg | 20 53 21.0 | -0.3 |
| ITM | | | | S | Sg | 20 53 23.4 | +0.7 |
| ITM | | | | AML | AML | 20 53 23.8 | |
| | comp=E,8292μm,0.4s | | | | | | |
| ITM | | | | AML | AML | 20 53 24.4 | |
| | comp=N,6616μm,0.3s | | | | | | |
| **ITM** | **Ithomi** | **0.10** | **234** | P | Pg | 20 53 20.8 | -0.6 |
| ITM | | | | S | Sg | 20 53 23.5 | +0.9 |
| ITM | | | | AML | AML | 20 53 23.6 | |
| | comp=E,8292μm,0.4s | | | | | | |
| ITM | | | | AML | AML | 20 53 24.3 | |
| | comp=N,6616μm,0.3s | | | | | | |
| **ITM** | **Ithomi** | **0.10** | **234** | P | Pg | 20 53 20.8 | -0.5 |
| ITM | | | | S | Sg | 20 53 23.5 | +0.9 |
| **MES3** | **Kyparissia** | **0.28** | **272** | P | Pg | 20 53 25.7 | +0.2 |
| MES3 | | | | S | Sg | 20 53 28.7 | +0.2 |
| **MES3** | **Kyparissia** | **0.28** | **272** | P | Pg | 20 53 25.4 | +0.5 |
| MES3 | | | | S | Sg | 20 53 30.1 | +1.6 |
| **MES3** | **Kyparissia** | **0.28** | **272** | P | Pg | 20 53 25.4 | +0.6 |
| MES3 | | | | S | Sg | 20 53 30.1 | +1.6 |
| **VLX** | **Vlachokerasia** | **0.31** | **65** | P | Pg | 20 53 25.2 | -0.1 |
| VLX | | | | S | Sg | 20 53 29.6 | +0.2 |
| VLX | | | | AML | AML | 20 53 31.6 | |
| | comp=E,2433μm,0.3s | | | | | | |
| VLX | | | | AML | AML | 20 53 31.7 | |
| | comp=N,1255μm,0.3s | | | | | | |
| **VLX** | **Vlachokerasia** | **0.31** | **65** | P | Pg | 20 53 25.4 | +0.1 |
| VLX | | | | S | Sg | 20 53 31.1 | +1.7 |
| VLX | | | | AML | AML | 20 53 31.6 | |
| | comp=E,2433μm,0.3s | | | | | | |
| VLX | | | | AML | AML | 20 53 31.7 | |
| | comp=N,1255μm,0.3s | | | | | | |
| **VLX** | **Vlachokerasia** | **0.31** | **65** | P | Pg | 20 53 25.4 | +0.1 |
| VLX | | | | S | Sg | 20 53 31.1 | +1.7 |
| **AMT** | **Artemida-Makis** | **0.39** | **319** | P | Pg | 20 53 26.5 | -0.3 |
| AMT | | | | S | Sg | 20 53 32.0 | +0.2 |
| AMT | | | | AML | AML | 20 53 36.7 | |
| | comp=N,1594μm,0.4s | | | | | | |
| AMT | | | | AML | AML | 20 53 37.5 | |
| | comp=E,1180μm,0.5s | | | | | | |
| **AMT** | **Artemida-Makis** | **0.39** | **319** | P | Pg | 20 53 26.2 | -0.6 |
| AMT | | | | S | Sg | 20 53 32.9 | +1.1 |
| AMT | | | | AML | AML | 20 53 36.7 | |
| | comp=N,1594μm,0.4s | | | | | | |
| AMT | | | | AML | AML | 20 53 37.9 | |
| | comp=E,1177μm,0.3s | | | | | | |
| **AMT** | **Artemida-Makis** | **0.39** | **319** | P | Pg | 20 53 26.2 | -0.6 |
| AMT | | | | S | Sg | 20 53 32.9 | +1.0 |
| **PYL** | **PYLOS** | **0.41** | **214** | P | Pg | 20 53 26.5 | -0.8 |
| **PYL** | **PYLOS** | **0.41** | **214** | P | Pg | 20 53 26.4 | -0.8 |
| PYL | | | | AML | AML | 20 53 35.5 | |
| | comp=N,485μm,0.3s | | | | | | |
| PYL | | | | AML | AML | 20 53 35.7 | |
| | comp=E,519μm,0.4s | | | | | | |
| **PYL** | **PYLOS** | **0.41** | **214** | P | Pg | 20 53 26.5 | -0.8 |
| **MES2** | **Methoni** | **0.49** | **212** | P | Pg | 20 53 28.6 | -0.1 |
| MES2 | | | | S | Sg | 20 53 35.5 | +0.5 |
| MES2 | | | | AML | AML | 20 53 42.0 | |
| | comp=E,938μm,0.5s | | | | | | |
| MES2 | | | | AML | AML | 20 53 45.8 | |
| | comp=N,1022μm,1.1s | | | | | | |
| **MES2** | **Methoni** | **0.49** | **212** | P | Pg | 20 53 29.6 | +0.9 |
| MES2 | | | | S | Sg | 20 53 36.4 | +1.4 |
| **MES2** | **Methoni** | **0.49** | **212** | P | Pg | 20 53 29.6 | +0.9 |
| MES2 | | | | S | Sg | 20 53 36.4 | +1.4 |
| **KLV** | **Kalavryta, Ach** | **0.81** | **7** | P | Pg | 20 53 34.1 | -0.8 |
| **VLI** | **Veliai** | **0.89** | **125** | P | Pg | 20 53 36.5 | 0.0 |
| **VLI** | **Veliai** | **0.89** | **125** | P | Pg | 20 53 36.2 | -0.3 |
| **VLI** | **Veliai** | **0.89** | **125** | P | Pg | 20 53 36.2 | -0.3 |

*ISCJB* ***17*** *20:54:14.4±0.2, 59˚.82S±0˚.05×26˚.44W±0˚.09, h26km, mb5.3/55, MS4.5/20, Error ellipse: s-maj=7.8km s-min=5.3km az=136.4*

*MOS* ***17*** *20:54:16.1±1.0, 59˚.80S×26˚.41W, h67km, mb5.1/27, MS4.1/4, Error ellipse: s-maj=23.0km s-min=10.7km az=101.1*

*IDC* ***17*** *20:54:17.3±2.1, 59˚.84S×26˚.50W, h36km±15km, mb4.7/14, mb1 4.7/14, mb1mx4.6/20, mbtmp4.8/14, MS4.4/18, Ms1 4.4/18, ms1mx4.4/19, Error ellipse: s-maj=17.0km s-min=14.1km az=42.0*

*BJI* ***17*** *20:54:21.5, 59˚.80S×26˚.50W, h63km, mB5.4/16, Ms5.4/10, Ms7 5.2/11*

*GCMT* ***17*** *20:54:24.4±0.2, 60˚.26S×26˚.03W, h34km, MW5.1/87, Moment Tensor Solution. s52,c67; s87,c127; Duration: 0 Moment tensor: Scale 10$^{16}$Nm; Mrr4.09±.23; Mθθ-0.23±.17; Mϕϕ-3.86±.16; Mrθ-2.80±.21; Mθϕ-3.37±.10; Mϕr0.91±.17; Best double couple: Mo5.98800×10$^{16}$ NP1:ϕ240.00000°, δ58.00000°, λ131.00000°. NP2: ϕ2.00000°, δ50.00000°, λ44.00000°. Principal axes: T 6.0560, Plg56.0000°, Azm206.0000°; N -0.1350, Plg34.0000°, Azm35.0000°; P -5.9200, Plg4.0000°, Azm302.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC* ***17*** *20:54:24.4±1.4, 59˚.81S×26˚.56W, h98km±11km, mb5.3/48 Error ellipse: s-maj=6.7km s-min=6.1km az=57.0*

**ISC 17 20:54:15.7±0.3, 59˚.83S±0˚.06×26˚.43W±0˚.06, h26km, n227, σ1$^1$50/234, mb5.3/55, MS4.4/20, South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HOPE** | **Hope Point** | **7.81** | **311** | *e*Pn | Pn | 20 56 16.1 | +8.6 |
| **VNA1** | **Neumayer--Stat** | **13.17** | **153** | P | **Pn** | **20 57 18.6** | **-2.2** |
| **VNA3** | **Neumayer Olymp** | **13.31** | **156** | P | **Pn** | **20 57 20.0** | **-2.7** |
| **VNA2** | **Neumayer--Watz** | **13.57** | **153** | P | **Pn** | **20 57 24.0** | **-2.2** |
| | baz=310,slow=15 | | | | | | |
| **SNAA** | **Sanae** | **15.16** | **151** | P | **Pn** | **20 57 45.4** | **-2.4** |
| **SNAA** | **Sanae** | **15.16** | **151** | Pn | **Pn** | **20 57 45.1** | **-2.7** |
| | 16nm,0.3s,baz=307,slow=13,SNR=58 | | | | | | |
| SNAA | | | | Sn | Sn | 21 00 20.8 | -14 |
| | 0.9nm,0.3s,baz=324,slow=19,SNR=4.4 | | | | | | |
| SNAA | | | | LR | LR | 21 02 47.7 | |
| | comp=Z,1μm,18.4s,baz=305,slow=34 | | | | | | |
| **SNAA** | **Sanae** | **15.16** | **151** | *e*Pn | **Pn** | **20 57 45.3** | **-2.5** |
| | 104nm,0.5s | | | | | | |
| SNAA | | | | *e*Sn | Sn | 21 00 18.6 | -16 |
| **PMSA** | **Palmer Station** | **17.96** | **238** | *e*P | **P** | **20 58 27.1** | **+3.6** |
| | 172nm,1.3s | | | | | | |
| **NVL** | **N'lazarevskaya** | **18.96** | **141** | *e*P | **Pn** | **20 58 35.4** | **+0.1** |
| NVL | | | | *e*S | **Sn** | **21 02 02.5** | **-4.0** |
| NVL | | | | MLR | MLR | | |
| | comp=Z,855nm,17.0s | | | | | | |
| **EFI** | **East Falkland** | **19.42** | **281** | *e*P | **Pn** | **20 58 42.0** | **+1.0** |
| EFI | | | | pmax | pmax | | |
| | comp=Z,112nm,0.8s | | | | | | |
| **EFI** | **East Falkland** | **19.42** | **281** | *e*P | **Pn** | **20 58 42.0** | **+1.0** |
| | comp=Z,112nm,0.8s | | | | | | |
| **USHA** | **Ushuaia** | **22.91** | **264** | P | **P** | **20 59 16.7** | **-0.5** |
| | comp=Z,236nm,0.9s,baz=106,slow=10,SNR=20 | | | | | | |
| USHA | | | | LR | LR | 21 06 28.9 | |
| | comp=Z,5μm,18.9s,baz=92,slow=32 | | | | | | |
| **GO09** | **Cerro Castillo** | **26.84** | **268** | *e*P | **P** | **20 59 52.7** | **-0.9** |
| | comp=Z,26nm,1.2s | | | | | | |
| **CHRN** | **Cochrane** | **29.53** | **274** | *e*P | **P** | **21 00 17.0** | **-0.6** |
| | comp=Z,14nm,1.0s | | | | | | |
| **PLCA** | **Paso Flores** | **33.22** | **285** | P | **P** | **21 00 50.1** | **-0.2** |
| | comp=Z,11nm,0.9s,baz=162,slow=10,SNR=23 | | | | | | |
| PLCA | | | | LR | LR | 21 14 36.4 | |
| | comp=Z,479nm,18.1s,baz=164,slow=37 | | | | | | |
| **PLCA** | **Paso Flores** | **33.22** | **285** | *e*P | **P** | **21 00 50.6** | **+0.3** |
| PLCA | | | | pmax | pmax | | |
| | comp=Z,24nm,1.1s | | | | | | |
| **PLCA** | **Paso Flores** | **33.22** | **285** | *e*P | **P** | **21 00 50.6** | **+0.3** |
| | comp=Z,24nm,1.1s | | | | | | |
| **MAW** | **Mawson** | **36.91** | **140** | P | **P** | **21 01 22.0** | **+0.4** |
| | comp=Z,6.7nm,0.9s,baz=221,slow=8.3,SNR=5.7 | | | | | | |
| MAW | | | | LR | LR | 21 15 33.9 | |
| | comp=Z,729nm,18.2s,baz=242,slow=35 | | | | | | |
| **MAW** | **Mawson** | **36.91** | **140** | *e*P | **P** | **21 01 22.2** | **+0.5** |
| MAW | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.6s | | | | | | |
| **MAW** | **Mawson** | **36.91** | **140** | *e*P | **P** | **21 01 22.1** | **+0.5** |
| | comp=Z,10nm,1.6s | | | | | | |
| **GO05** | **Hualaie0** | **38.42** | **290** | *e*P | **P** | **21 01 35.0** | **+0.2** |
| | comp=Z,94nm,1.5s | | | | | | |
| **PEL** | **Peldehue** | **39.36** | **293** | *e*P | **P** | **21 01 43.1** | **+0.3** |
| PEL | | | | pmax | pmax | | |
| | comp=Z,60nm,0.6s | | | | | | |
| **PEL** | **Peldehue** | **39.36** | **293** | *e*P | **P** | **21 01 43.1** | **+0.3** |
| | comp=Z,60nm,0.6s | | | | | | |
| **ROC1** | **El Roble** | **39.66** | **292** | *e*P | P | 21 01 53.0 | +7.6 |
| | comp=Z,29nm,0.7s | | | | | | |
| **CPUP** | **Villa Florida** | **39.68** | **314** | P | **P** | **21 01 45.5** | **+0.2** |
| | comp=Z,9.5nm,0.5s,baz=147,slow=6.8,SNR=25 | | | | | | |
| CPUP | | | | LR | LR | 21 17 06.2 | |
| | comp=Z,273nm,20.9s,baz=167,slow=34 | | | | | | |
| **CPUP** | **Villa Florida** | **39.68** | **314** | *e*P | **P** | **21 01 45.5** | **+0.2** |
| | comp=Z,12nm,0.8s | | | | | | |
| **SUR** | **Sutherland** | **41.40** | **70** | *e*P | **P** | **21 02 00.5** | **+0.7** |
| | comp=Z,81nm,1.6s | | | | | | |
| **SBA** | **Scott Base** | **42.32** | **184** | *e*P | **P** | **21 02 09.3** | **+2.7** |
| SBA | | | | pmax | pmax | | |
| | comp=Z,20nm,1.3s | | | | | | |
| **SBA** | **Scott Base** | **42.32** | **184** | *e*P | **P** | **21 02 09.3** | **+2.7** |
| | comp=Z,20nm,1.3s | | | | | | |
| **VNDA** | **Vanda** | **42.80** | **183** | P | **P** | **21 02 11.6** | **+1.1** |
| | comp=Z,13nm,0.9s,baz=190,slow=7.2,SNR=33 | | | | | | |
| VNDA | | | | PcP | **PcP** | **21 04 02.6** | **+1.4** |
| | comp=Z,3.4nm,0.8s,baz=220,slow=4.2,SNR=3.5 | | | | | | |
| VNDA | | | | LR | LR | 21 18 47.3 | |
| | comp=Z,313nm,21.4s,baz=174,slow=34 | | | | | | |
| **VNDA** | **Vanda** | **42.80** | **183** | *e*P | **P** | **21 02 11.8** | **+1.3** |
| VNDA | | | | *e* | | 21 04 02.0 | |
| VNDA | | | | *e* | | 21 04 02.5 | |
| **VNDA** | **Vanda** | **42.80** | **183** | *e*P | **P** | **21 02 11.8** | **+1.3** |
| VNDA | | | | *e*PP | **PcP** | **21 04 02.0** | **+0.8** |
| VNDA | | | | *e*PcP | **PcP** | **21 04 02.5** | **+1.4** |
| **LCO** | **Las Campanas** | **42.85** | **296** | *e*P | **P** | **21 02 11.6** | **-0.1** |
| | comp=Z,56nm,1.4s | | | | | | |
| **SHEL** | **Horse Pasture** | **46.34** | **28** | *e*P | **P** | **21 02 39.6** | **+0.2** |
| SHEL | | | | pmax | pmax | | |
| | comp=Z,123nm,1.3s | | | | | | |
| **SHEL** | **Horse Pasture** | **46.34** | **28** | *e*P | **P** | **21 02 39.6** | **+0.2** |
| | comp=Z,123nm,1.3s | | | | | | |
| **BOSA** | **Boshof** | **46.65** | **72** | P | **P** | **21 02 42.0** | **+0.2** |
| | comp=Z,1.9nm,0.6s,baz=195,slow=7.8,SNR=7.9 | | | | | | |
| BOSA | | | | LR | LR | 21 18 21.6 | |
| | comp=Z,291nm,19.8s,baz=204,slow=31 | | | | | | |
| **BOSA** | **Boshof** | **46.65** | **72** | *e*P | **P** | **21 02 41.9** | **+0.1** |
| BOSA | | | | pmax | pmax | | |
| | comp=Z,43nm,2.0s | | | | | | |
| **BOSA** | **Boshof** | **46.65** | **72** | *e*P | **P** | **21 02 41.9** | **+0.1** |
| | comp=Z,43nm,2.0s | | | | | | |
| **BDFB** | **Brasilia** | **46.87** | **331** | P | **P** | **21 02 43.7** | **+0.1** |
| | comp=Z,4.9nm,0.4s,baz=83,slow=11,SNR=12 | | | | | | |
| BDFB | | | | LR | LR | 21 19 41.9 | |
| | comp=Z,474nm,21.8s,baz=280,slow=32 | | | | | | |
| **BDFB** | **Brasilia** | **46.87** | **331** | *e*P | **P** | **21 02 43.5** | **-0.1** |
| | comp=Z,73nm,1.8s | | | | | | |
| **PB10** | **IPOC Station P** | **47.53** | **300** | *e*P | **P** | **21 02 49.3** | **+0.6** |
| | comp=Z,54nm,1.3s | | | | | | |
| **PB04** | **IPOC Station P** | **48.39** | **301** | *e*P | **P** | **21 02 56.7** | **+1.2** |
| | comp=Z,38nm,0.9s | | | | | | |
| **PB01** | **IPOC Station P** | **49.25** | **303** | *e*P | **P** | **21 03 02.5** | **+0.6** |
| | comp=Z,27nm,0.8s | | | | | | |
| **LBTB** | **Lobatse** | **49.84** | **69** | P | **P** | **21 03 06.8** | **+0.2** |
| | comp=Z,3.2nm,0.7s,baz=217,slow=7.6,SNR=7.4 | | | | | | |
| **LBTB** | **Lobatse** | **49.84** | **69** | *e*P | **P** | **21 03 05.2** | **-1.3** |
| **PB11** | **IPOC Station P** | **50.46** | **303** | *e*P | **P** | **21 03 11.6** | **+0.3** |
| | comp=Z,27nm,0.8s | | | | | | |
| **MNMC** | **Minye Minye** | **50.99** | **304** | *e*P | **P** | **21 03 16.3** | **+0.8** |
| | comp=Z,56nm,0.7s | | | | | | |
| **TSUM** | **Tsumeb** | **51.29** | **57** | *e*P | **P** | **21 03 18.8** | **+1.3** |
| **H10S2** | **ASCENSION HYDR** | **51.54** | **15** | T | T | 21 59 12.6 | |
| | baz=188,slow=74,SNR=22 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **51.54** | **15** | T | T | 21 59 12.8 | |
| | baz=188,slow=74,SNR=14 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **51.56** | **15** | T | T | 21 59 13.9 | |
| | baz=188,slow=74,SNR=21 | | | | | | |
| **PAF** | **Port-aux-Franc** | **52.06** | **125** | *e*P | **P** | **21 03 25.5** | **+2.7** |
| **PAF** | **Port-aux-Franc** | **52.06** | **125** | *e*P | **P** | **21 03 25.4** | **+2.7** |
| | comp=Z,568nm,1.8s | | | | | | |
| **LPAZ** | **La Paz** | **52.94** | **307** | P | **P** | **21 03 31.2** | **+0.9** |
| | comp=Z,9.3nm,0.4s,baz=125,slow=7.3,SNR=49 | | | | | | |
| LPAZ | | | | LR | LR | 21 28 02.5 | |
| | comp=Z,180nm,19.7s,baz=164,slow=38 | | | | | | |
| **LPAZ** | **La Paz** | **52.94** | **307** | *e*P | **P** | **21 03 31.0** | **+0.7** |
| **SAML** | **Samuel** | **57.78** | **316** | *e*P | **P** | **21 04 04.0** | **-0.5** |
| **LSZ** | **Lusaka** | **59.45** | **66** | *e*P | **P** | **21 04 17.4** | **+1.1** |
| **LSZ** | **Lusaka** | **59.45** | **66** | *e*P | **P** | **21 04 17.4** | **+1.1** |
| **NNA** | **Nana** | **60.46** | **300** | *e*P | **P** | **21 04 23.1** | **0.0** |
| NNA | | | | pmax | pmax | | |
| | comp=Z,13nm,0.8s | | | | | | |
| **NNA** | **Nana** | **60.46** | **300** | *e*P | **P** | **21 04 23.1** | **0.0** |
| | comp=Z,13nm,0.8s | | | | | | |
| **ABPO** | **Ambohimpanom** | **65.54** | **86** | *e*P | **P** | **21 04 57.1** | **+0.1** |
| ABPO | | | | pmax | pmax | | |
| | comp=Z,31nm,1.6s | | | | | | |
| **ABPO** | **Ambohimpanom** | **65.54** | **86** | *e*P | **P** | **21 04 57.1** | **+0.1** |
| | comp=Z,30nm,1.6s | | | | | | |
| **MCQ** | **Macquarie Isla** | **65.94** | **183** | *e*P | **P** | **21 04 59.6** | **+0.8** |
| **MCQ** | **Macquarie Isla** | **65.94** | **183** | *e*P | **P** | **21 04 59.6** | **+0.8** |
| | comp=Z,422nm,1.8s | | | | | | |
| **DBIC** | **Dimbokro** | **68.47** | **23** | P | **P** | **21 05 15.5** | **+0.1** |
| | comp=Z,2.5nm,0.6s,baz=172,slow=7.6,SNR=5.9 | | | | | | |
| DBIC | | | | LR | LR | 21 28 40.1 | |
| | comp=Z,158nm,20.1s,baz=148,slow=30 | | | | | | |
| **DBIC** | **Dimbokro** | **68.47** | **23** | *e*P | **P** | **21 05 15.9** | **+0.6** |
| DBIC | | | | pmax | pmax | | |
| | comp=Z,28nm,1.6s | | | | | | |
| **DBIC** | **Dimbokro** | **68.47** | **23** | *e*P | **P** | **21 05 15.9** | **+0.6** |
| | comp=Z,28nm,1.6s | | | | | | |
| **DCZ** | **Deep Cove** | **74.47** | **190** | *e*P | **P** | **21 05 51.7** | **+0.5** |
| | comp=Z,42nm,1.3s | | | | | | |
| **MLZ** | **Mavora Lakes** | **74.48** | **191** | *e*P | **P** | **21 05 51.4** | **0.0** |
| | comp=Z,48nm,1.4s | | | | | | |
| **SACV** | **Santiago Islan** | **74.58** | **3** | *e*P | **P** | **21 05 48.8** | **-3.2** |
| | comp=Z,181nm,1.8s | | | | | | |
| **ROSC** | **El Rosal** | **74.63** | **310** | LR | LR | 21 39 22.6 | |
| | comp=Z,178nm,21.7s,baz=146,slow=36 | | | | | | |
| **RUSC** | **La Rusia** | **75.12** | **312** | *e*P | **P** | **21 05 54.3** | **-1.6** |
| | comp=Z,12nm,1.3s | | | | | | |
| **MQZ** | **McQueen's Vall** | **75.63** | **194** | *e*P | **P** | **21 05 58.8** | **+0.8** |
| | comp=Z,128nm,1.5s | | | | | | |
| **CRLZ** | **Canterbury Las** | **75.77** | **194** | *e*P | **P** | **21 05 59.0** | **+0.3** |
| | comp=Z,230nm,1.8s | | | | | | |
| **KMBO** | **Kilima Mbogo** | **76.07** | **67** | LR | LR | 21 36 09.1 | |
| | comp=Z,652nm,20.5s,baz=246,slow=33 | | | | | | |
| **FOZ** | **Fox Glacier** | **76.13** | **192** | *e*P | **P** | **21 06 01.9** | **+1.1** |
| | comp=Z,286nm,1.8s | | | | | | |
| **TOA0** | **Torodi Ar. Sit** | **76.18** | **28** | *e*P | **P** | **21 06 02.0** | **+0.6** |
| | comp=Z,5nm,1.4s | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **76.18** | **28** | P | **P** | **21 06 02.3** | **+1.0** |
| | comp=Z,19nm,0.4s,baz=199,slow=6.3,SNR=399 | | | | | | |
| TORD | | | | LR | LR | 21 34 41.4 | |
| | comp=Z,223nm,19.4s,baz=185,slow=32 | | | | | | |
| **TOA1** | **Torodi

comp=Z,2.6nm,0.9s
**CMSA Cobar Meteorol 88.73 173** P **P** **21 07 07.2 +0.5**
baz=89,SNR=11
**ATD Arta Tunnel 89.79 66** *e*P **P** **21 07 12.4 +0.7**
comp=Z,19nm,1.3s
**PPT2 Papeete2 90.24 233** *e*LR LR 21 35 54.6
comp=Z,173nm,20.8s
**PPT Papeete 90.26 233** LR LR 21 40 22.1
comp=Z,224nm,19.2s,baz=176,slow=31
**WRKA Warakurna 92.92 157** P **P** **21 07 26.1 -0.2**
baz=93,SNR=8.4
**TAOE Nuku Hiva Isla 93.94 245** *e*LR LR 21 37 51.8
comp=Z,373nm,26.6s
**ASAR Alice Springs 95.25 162** P **P** **21 07 36.4 -0.7**
comp=Z,4.9nm,0.7s,baz=183,slow=3.9,SNR=54
ASAR PP **PP** **21 11 26.6 +0.3**
comp=Z,0.9nm,1.0s,baz=171,slow=6.6,SNR=4.1
ASAR PKKP **PKKPbc** **21 24 27.8 +0.5**
comp=Z,0.2nm,0.5s,baz=18,slow=2.3,SNR=5.1
ASAR LR LR 21 49 04.4
comp=Z,570nm,18.4s,baz=181,slow=34
**AS31 Alice Springs 95.25 162** *e*P **P** **21 07 36.7 -0.4**
comp=Z,1.7nm,0.8s
**AS01 Alice Springs 95.26 162** *e*P **P** **21 07 36.0 -1.1**
**DZM Mont Dzumac 97.72 192** *e*LR LR 21 39 27.8
comp=Z,128nm,31.4s
**WRA Warramunga Arr 98.97 162** P **P** **21 07 52.9 -1.0**
comp=Z,1.7nm,0.9s,baz=197,slow=4.6,SNR=7.8
WRA PKiKP **PKiKP** **21 12 23.2 -1.2**
comp=Z,0.4nm,0.8s,baz=225,slow=1.2,SNR=4.5
WRA PKKP **PKKPdf** **21 24 18.6 -0.6**
comp=Z,0.3nm,0.4s,baz=353,slow=2.9,SNR=11
**WR1 Warramunga Arr 98.97 162** *e*P **P** **21 07 52.9 -1.0**
comp=Z,31nm,1.8s
WR1 *e*PKiKP **PKiKP** **21 12 23.2 -1.2**
WR1 *e*PKKPdf **PKKPdf** **21 24 18.6 -0.6**
**FITZ Fitzroy Crossi 99.08 153** LR LR 21 50 11.6
comp=Z,85nm,20.4s,slow=34
**KEST Kesra 99.70 29** LR LR 21 49 30.6
comp=Z,93nm,19.5s,baz=224,slow=33
**AKASG Malin Array Be 119.01 37** PKP **PKPdf** **21 12 59.4 -1.2**
comp=Z,0.7nm,0.5s,baz=225,slow=1.6,SNR=4.2
**AKBB Malin Array Si 119.01 37** *e*PKiKP **PKPdf** **21 12 58.6 -2.0**
**AKBB Malin Array Si 119.01 37** *e*PKPdf **PKPdf** **21 12 58.6 -2.0**
**TMUT Trail Mountain 120.58 296** *e*PKPdf **PKPdf** **21 13 04.4 -0.1**
**PD31 Pinedale Array 122.64 300** *e*PKPdf **PKPdf** **21 13 05.9 -2.4**
**PDAR Pinedale Array 122.64 300** PKP **PKPdf** **21 13 06.7 -1.6**
comp=Z,0.3nm,0.5s,baz=128,slow=4.5,SNR=6.1
**ULM Lac du Bonnet 123.22 314** PKP **PKPdf** **21 13 07.0 -1.8**
comp=Z,1.8nm,0.5s,baz=117,slow=3.3,SNR=4.6
**CM01 Chiang Mai Arr 123.28 112** *e*PKPdf **PKPdf** **21 13 10.3 +0.3**
**CM31 Chiang Mai Arr 123.31 112** *e*PKPdf **PKPdf** **21 13 09.8 -0.2**
**CMAR Chiang Mai Arr 123.31 112** PKP **PKPdf** **21 13 10.1 +0.1**
comp=Z,3.2nm,0.8s,baz=230,slow=3.7,SNR=25
**PYUN Piuthan 123.56 91** *e*P **PKPdf** **21 13 09.2 -1.2**
**KOLN Koldanda 123.59 92** *e*P **PKPdf** **21 13 09.8 -0.7**
comp=Z,23nm,0.8s
**TPAW Teton Pass 123.84 299** *e*PKPdf **PKPdf** **21 13 10.0 -0.6**
**MOOW Moose Ponds 123.95 300** *e*PKPdf **PKPdf** **21 13 10.2 -0.5**
**FXWY Fox Creek 123.99 299** *e*PKPdf **PKPdf** **21 13 10.6 -0.3**
**NB200 NORSAR Array S 124.01 21** *e*PKPdf **PKPdf** **21 13 09.5 -0.5**
**NOA NORSAR Array B 124.01 21** PKP **PKPdf** **21 13 09.5 -0.5**
comp=Z,1.7nm,0.9s,baz=204,slow=2.0,SNR=7.4
**NOA NORSAR Array B 124.01 21** PKiKP **PKPdf** **21 13 09.5 -0.5**
NOA pmax pmax
comp=Z,1.0nm,0.8s
**DANN Dangsing 124.15 92** *e*P **PKPdf** **21 13 11.3 -0.4**
**DMN Daman 124.22 93** *e*P **PKPdf** **21 13 11.3 -0.5**
**PKIN Phulchoki 124.34 94** *e*P **PKPdf** **21 13 12.2 +0.2**
comp=Z,5.0nm,0.5s
**PKI Pulchoki 124.34 94** *e*P **PKPdf** **21 13 11.4 -0.7**
comp=Z,10nm,0.6s
**RAMN Ramite 124.43 95** *e*P **PKPdf** **21 13 12.2 0.0**
comp=Z,27nm,0.5s
**KKN Kakani 124.46 93** *e*P **PKPdf** **21 13 11.6 -0.6**
comp=Z,9.3nm,0.5s
**ODAN Odare 124.76 96** *e*P **PKPdf** **21 13 12.6 -0.2**
comp=Z,16nm,0.7s
**JIRN Jiri 124.81 94** *e*P **PKPdf** **21 13 12.7 -0.4**
comp=Z,164nm,0.5s
**GUN Gumba 124.86 94** *e*P **PKPdf** **21 13 12.8 -0.3**
comp=Z,14nm,0.7s
**TAPN Taplejung 125.32 96** *e*P **PKPdf** **21 13 13.8 -0.2**
comp=Z,4.4nm,0.6s
**FIA0 FINESS Array S 127.53 29** *e*PKiKP **PKPdf** **21 13 16.4 -0.2**
**FIA0 FINESS Array S 127.53 29** *e*PKPdf **PKPdf** **21 13 16.4 -0.2**
**FINES FINESS Array B 127.53 29** PKP **PKPdf** **21 13 16.4 -0.2**
comp=Z,2.9nm,0.5s,baz=191,slow=1.4,SNR=38
**LSA Lhasa 128.97 97** *e*PKiKP **PKPdf** **21 13 21.4 +0.3**
**LSA Lhasa 128.97 97** *e*PKPdf **PKPdf** **21 13 21.4 +0.3**
**KSH Kashi 129.12 77** *e*PKiKP **PKPdf** **21 13 17.0 -3.6**
KSH PP **PP** **21 15 29.9 +0.3**
KSH AMB AMB
comp=Z,56nm,4.4s
KSH LR LR
comp=Z,37nm,4.1s
KSH LR LR
comp=Z,160nm,6.0s
**KLMR Klimovskoe 130.68 36** *e*PKHKP PKPpre 21 13 00.5
KLMR pmax pmax
comp=Z,12nm,1.3s
**AAK Ala-Archa 130.78 73** *i* PKiKP **PKPdf** **21 13 22.0 -1.7**
**AAK Ala-Archa 130.78 73** *e*PKPdf **PKPdf** **21 13 24.0 +0.3**
**KMI Kunming 130.81 112** PKP **PKPdf** **21 13 21.0 -3.4**
**SUMG Summit 132.39 355** *e*PKiKP **PKPdf** **21 13 26.9 +0.8**
**SUMG Summit 132.39 355** *i* P **PKPdf** **21 13 26.9 +0.8**
**SUMG Summit 132.39 355** *i* P **SKPbc** **21 16 49.9 -0.9**
**GYA Guiyang 133.77 115** *e*Pdif **Pdif** **21 10 38.9 +10**
GYA PKP **PKPdf** **21 13 30.0 +0.2**
GYA sPKP 21 13 56.6
GYA PP **PP** **21 16 04.3 +4.9**
GYA AMB AMB
comp=Z,130nm,8.4s
**ARA0 ARCESS Array S 134.30 23** *e*PKPpre PKPpre 21 13 19.1
ARA0 *e*PKPdf **PKPdf** **21 13 28.9 -0.3**
ARA0 *e*SKPbc **SKPbc** **21 16 54.9 -1.9**
**ARCES ARCESS Array B 134.30 23** PKiKP PKPpre 21 13 19.1
comp=Z,1.0nm,0.7s,baz=246,slow=1.8,SNR=4.2
ARCES PKP **PKPdf** **21 13 28.9 -0.3**
comp=Z,2.6nm,0.5s,baz=214,slow=2.4,SNR=30
ARCES SKPbc **SKPbc** **21 16 54.9 -1.9**
comp=Z,2.9nm,1.0s,baz=212,slow=3.2,SNR=4.2
**ARCES ARCESS Array B 134.30 23** PKiKP **PKPdf** **21 13 29.0 -0.3**
ARCES pmax pmax
comp=Z,3.0nm,0.5s
**BRVK Borovoye 136.37 60** *i* PKiKP **PKPdf** **21 13 33.1 -0.5**
**BRVK Borovoye 136.37 60** *e*PKPdf **PKPdf** **21 13 34.1 +0.5**
**DAG Danmarks Havn 136.44 3** *e*PKiKP **PKPdf** **21 13 32.5 -0.6**
DAG pmax pmax
comp=Z,4.0nm,0.7s
**DAG Danmarks Havn 136.44 3** *i* P **PKPdf** **21 13 32.5 -0.6**
comp=Z,3.6nm,0.7s
**MK01 Makanchi Array 137.59 75** *e*PKPpre PKPpre 21 13 26.7
MK01 *e*PKPdf **PKPdf** **21 13 34.5 -1.6**
**MK32 Makanchi Array 137.60 75** *e*PKPpre PKPpre 21 13 26.7
MK32 *e*SKPab **SKiKP** **21 17 11.2 -0.9**
**MKAR Makanchi Array 137.60 75** PKhKP PKPpre 21 13 26.7
comp=Z,0.7nm,0.6s,baz=237,slow=4.3,SNR=9.7
MKAR SKPab **SKiKP** **21 17 11.2 -0.9**
comp=Z,0.4nm,0.6s,baz=251,slow=2.2,SNR=4.1
**WMQ Urumqi 138.15 82** *e*PKP **PKPdf** **21 13 37.3 0.0**
WMQ LR LR
comp=Z,60nm,27.1s
WMQ LR LR
comp=Z,120nm,32.3s
WMQ LR LR
comp=Z,110nm,31.9s
**ENH Enshi 138.31 115** *e*PKPdf **PKPdf** **21 13 38.4 +0.4**
**KURK Kurchatov 138.56 68** *i* PKiKP **PKPdf** **21 13 37.5 -0.2**
**KURK Kurchatov 138.56 68** *e*PKPpre PKPpre 21 13 28.5
KURK *e*PKPdf **PKPdf** **21 13 38.4 +0.7**
**TULEG Thule 138.74 346** *e*PKPdf **PKPdf** **21 13 37.5 +0.2**
**YKA Yellowknife Ar 139.20 315** PKP **PKPdf** **21 13 37.7 -0.8**
comp=Z,1.8nm,0.6s,baz=133,slow=2.4,SNR=26
YKA SKP 21 17 09.6
comp=Z,0.7nm,0.8s,baz=126,slow=2.4,SNR=4.1
**YKW3 Yellowknife Ar 139.24 315** *e*PKPdf **PKPdf** **21 13 38.2 -0.4**
**LZH Lanzhou 140.41 104** *e*PKP **PKPdf** **21 13 38.3 -3.5**
LZH sPKP 21 14 12.3
LZH AMB AMB
comp=Z,160nm,6.1s
LZH LR LR
comp=Z,260nm,14.3s
LZH LR LR
comp=Z,300nm,16.0s
LZH LR LR
comp=Z,390nm,17.7s
**GTA Gaotai 140.99 97** PKP **PKPdf** **21 13 46.0 +3.2**
GTA sPKP 21 14 15.8
**XAN Xi'an 141.19 111** PKP **PKPdf** **21 13 42.8 -0.4**
**RES Resolute Bay 141.52 337** PKhKP PKPpre 21 13 39.0
comp=Z,2.3nm,1.1s,baz=90,slow=4.2,SNR=5.7
**DGZ Jazzator, Alta 142.10 75** *i* PKiKP **PKPdf** **21 13 43.3 -1.1**
**NVS Novosibirsk 143.36 66** *e*PKiKP PKPbc 21 13 44.6 +1.1
NVS pmax pmax
comp=Z,44nm,1.7s
NVS pmax pmax
comp=N,8.0nm,1.4s
NVS pmax pmax
comp=E,9.0nm,1.4s
**ZAA0 Zalesovo Array 143.55 68** *e*PKPpre PKPpre 21 13 42.8
**ZALV Zalesovo Beam 143.55 68** PKhKP PKPpre 21 13 43.1
comp=E,2.8nm,0.4s,baz=223,slow=4.1,SNR=24
**ZALV Zalesovo Beam 143.55 68** *e*PKPpre PKPpre 21 13 42.3
**ZAA1 Zalesovo Array 143.55 68** *e*PKPpre PKPpre 21 13 43.1
**NJ2 Nanjing 143.93 125** *e*PKP **PKPdf** **21 13 47.3 -0.7**
**HVS Khovu-Aksy 146.10 78** *i* PKP2 **PKPab** **21 13 54.7 +1.8**
**TIA Tai'an 146.74 119** PKPbc **PKPbc** **21 13 55.1 +0.6**
**HHC Hu-ho-hao-te 147.89 107** *e*PKPbc **PKPdf** **21 13 50.6 -4.0**
HHC SKS **SKSdf** **21 20 52.8 -8.2**
HHC SKKS **SKKSac** **21 24 16.3 +1.5**
HHC SS **SS** **21 36 29.8 +0.5**
HHC LR LR
comp=E,160nm,13.6s
HHC LR LR
comp=E,200nm,12.3s
HHC LR LR
comp=E,150nm,14.3s
**BJI Beijing 149.44 114** PKPbc **PKPdf** **21 13 55.0 -2.0**
**DAWY Dawson 149.52 307** *e*PKPbc **PKPbc** **21 13 59.9 -1.1**
**MOY Mondy 150.04 82** *e*PKiKP **PKPbc** **21 14 03.7 +0.9**
MOY pmax pmax
comp=Z,41nm,2.8s
**SONA0 Songino Array 150.35 93** *e*PKPdf **PKPdf** **21 13 57.1 -1.3**
SONA0 *e*PKPbc **PKPbc** **21 14 03.7 +0.1**
**SONM Songino Array 150.35 93** PKP **PKPdf** **21 13 57.1 -1.3**
comp=Z,1.4nm,1.0s,baz=294,slow=2.0,SNR=4.5
SONM PKPbc **PKPbc** **21 14 03.7 +0.1**
comp=Z,12nm,0.8s,baz=218,slow=3.0,SNR=58
**SONA1 Songino Array 150.37 93** *e*PKPbc **PKPbc** **21 14 03.7 0.0**
**ZAK Zakamensk 150.41 86** *e*PKiKP **PKPbc** **21 14 01.2 -2.5**
ZAK pmax pmax
comp=Z,21nm,1.1s
**ULN Ulaanbaatar 150.71 93** *e*PKiKP **PKPbc** **21 14 03.9 -0.6**
**ULN Ulaanbaatar 150.71 93** *e*PKPbc **PKPbc** **21 14 03.9 -0.6**
**MENT Mentasta 150.86 303** *e*PKPdf **PKPdf** **21 13 58.7 +0.2**
MENT *e*PKPbc **PKPbc** **21 14 04.3 +0.1**
**KLU Klutina 151.23 300** *e*PKPdf **PKPdf** **21 14 00.2 +0.9**
KLU *e*PKPbc **PKPbc** **21 14 05.2 0.0**
**DOT Dot Lake 151.27 305** *e*PKPdf **PKPdf** **21 13 59.9 +0.7**
DOT *e*PKPbc **PKPbc** **21 14 05.1 -0.1**
**TLY Talaya 151.38 84** PKPbc **PKPbc** **21 14 06.1 +0.3**
comp=Z,3.9nm,0.4s,baz=226,slow=8.0,SNR=5.1
TLY Talaya 151.38 84 *e*PKiKP **PKPbc** **21 14 07.1 +1.3**
TLY pmax pmax
comp=Z,15nm,0.9s
**KSAR Wonju Array Be 152.22 132** PKiKP **PKPbc** **21 14 07.8 -0.3**
**KSAR Wonju Array Be 152.22 132** PKPbc **PKPbc** **21 14 07.8 -0.3**
**KSRS Korea Array 152.25 132** PKPbc **PKPbc** **21 14 07.8 -0.4**
comp=Z,3.9nm,0.9s,baz=196,slow=2.2,SNR=7.0
**KS01 Wonju Array Si 152.26 132** *e*PKPbc **PKPbc** **21 14 06.6 -1.6**
**IL1 Eielson Array 152.81 306** *e*PKPdf **PKPdf** **21 14 00.9 -0.5**
IL1 *e*PKPbc **PKPbc** **21 14 08.0 -0.6**
**ILAR Eielson Array 152.81 306** PKPbc **PKPbc** **21 14 07.9 -0.6**
comp=Z,2.3nm,0.4s,baz=130,slow=1.9,SNR=25
**ILB Eielson Array 152.81 306** *e*PKPdf **PKPdf** **21 14 01.5 +0.1**
ILB *e*PKPbc **PKPbc** **21 14 07.1 -1.5**
**CCB Clear Creek Bu 153.15 306** *e*PKPdf **PKPdf** **21 14 01.8 -0.1**
CCB *e*PKPbc **PKPbc** **21 14 08.4 -0.9**
**RND Reindeer 153.20 303** *e*PKiKP **PKPdf** **21 14 03.5 +1.4**
RND *e* 21 14 09.5
**RND Reindeer 153.20 303** *e*PKPdf **PKPdf** **21 14 03.5 +1.4**
RND *e*PKPbc **PKPbc** **21 14 09.5 -0.1**
**WRH Wood River Hil 153.22 305** *e*PKPbc **PKPbc** **21 14 07.9 -1.5**
**BPAW Bear Paw Mtn. 154.32 303** *e*PKPbc **PKPbc** **21 14 11.1 -0.8**
**MJAR Matsushiro Arr 154.67 150** PKPbc **PKPbc** **21 14 13.6 0.0**
comp=Z,0.9nm,0.5s,baz=176,slow=2.6,SNR=4.2
**COLD Coldfoot 154.73 311** *e*PKPab **PKPab** **21 14 26.8 -1.1**
**CHGN Chignik 154.81 283** *e*PKPdf **PKPdf** **21 14 06.1 +1.6**
CHGN *e*PKPbc **PKPbc** **21 14 11.9 -1.2**
**TIXI Tiksi 164.58 30** PKPab **PKPab** **21 15 11.6 +1.0**
comp=Z,1.0nm,0.3s,baz=330,slow=4.1,SNR=4.2
**PETK Petropavlovsk- 172.88 201** PKPab **PKPab** **21 15 47.7 -0.1**
comp=Z,3.8nm,0.7s,baz=106,slow=8.4,SNR=3.6
**PEA1 Petropavlovsk- 172.89 201** *e*PKPab **PKPab** **21 15 47.7 -0.1**

**IDC 17 21:11:26.1±3.1, 3.54S×127.94E, h377km±36km, mb3.1/4, mb1 3.1/5, mb1mx2.7/38, mbtmp3.8/5, Error ellipse: s-maj=67.5km s-min=12.2km az=72.0, Seram**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **17.46** | **160** | P | P | 21 15 05.3 | -0.7 |
| WRA | 0.3nm,0.3s,baz=338,slow=10,SNR=16 | | | S | S | 21 18 06.2 | -2.0 |
| **ASAR** | **Alice Springs** | **20.82** | **164** | P | P | 21 15 40.1 | +0.3 |
| ASAR | 0.6nm,0.3s,baz=343,slow=9.9,SNR=27 | | | S | S | 21 19 07.9 | +1.0 |
| **STKA** | **Stephens Creek** | **30.98** | **157** | P | P | 21 17 11.7 | +1.7 |
| **JNU** | 0.5nm,0.8s,baz=349,slow=24,SNR=4.3 **Nakatsue** | **36.57** | **4** | P | P | 21 17 57.2 | -0.5 |
| **MKAR** | 1.8nm,0.8s,baz=326,slow=7.3,SNR=2.6 **Makanchi Array** | **64.23** | **327** | P | P | 21 21 22.0 | -0.1 |
| | 4.7nm,0.9s,baz=168,slow=9.3,SNR=2.8 0.4nm,0.5s,baz=116,slow=8.1,SNR=8.4 | | | | | | |

*NIED* ***17*** *21:14:00, 39.60N×142.10E, h74km, Mw3.7 Best double couple: M₀3.41000×10¹⁴ NP1:φ₅121.00000°, δ78.00000°, λ-178.00000°. NP2:φ₅30.00000°, δ88.00000°, λ-12.00000°.*

**JMA 17 21:14:55.7, 39.63N×142.11E, h48km±1km, M3.7, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MIYJ** | **Miyakonagasawa** | **0.23** | **257** | P | Pn | 21 15 04.0 | 0.0 |
| MIYJ | | | | S | Sn | 21 15 09.8 | -0.2 |
| **JTH** | **Tanohata** | **0.36** | **328** | P | Pn | 21 15 05.2 | -0.1 |
| JTH | | | | *e*S | Sn | 21 15 11.8 | -0.3 |
| **OFUJ** | **Ofunato** | **0.65** | **212** | P | Pn | 21 15 08.4 | -0.3 |
| OFUJ | | | | *e*S | Sn | 21 15 17.5 | -0.5 |
| **JOM** | **Ohasama** | **0.65** | **256** | P | Pn | 21 15 08.9 | +0.2 |
| JOM | | | | *e*S | Sn | 21 15 18.3 | +0.2 |
| **JKZ** | **Kuzumaki** | **0.70** | **301** | P | Pn | 21 15 09.5 | +0.1 |
| JKZ | | | | *e*S | Sn | 21 15 19.1 | -0.2 |
| **JANG** | **Nango** | **0.87** | **329** | P | Pn | 21 15 11.3 | -0.4 |
| JANG | | | | *e*S | Sn | 21 15 22.8 | -0.5 |
| **JMK** | **Ichinoseki** | **0.97** | **226** | P | Pn | 21 15 12.8 | -0.1 |
| JMK | | | | *e*S | Sn | 21 15 25.3 | -0.3 |
| **JRG** | **Rokugo** | **1.17** | **259** | P | Pn | 21 15 15.6 | 0.0 |
| **JAH** | **Hinai** | **1.26** | **297** | P | Pn | 21 15 17.2 | +0.3 |
| JAH | | | | *e*S | Sn | 21 15 33.2 | +0.4 |
| **JIO** | **Ouri** | **1.31** | **207** | P | Pn | 21 15 17.4 | -0.2 |
| JIO | | | | *e*S | Sn | 21 15 33.2 | -0.8 |
| **JTM** | **Tenmabayashi** | **1.40** | **326** | P | Pn | 21 15 19.1 | +0.2 |
| JTM | | | | *e*S | Sn | 21 15 36.3 | +0.1 |

*IDC* ***17*** *21:19:30.0±2.0, 23.29N×142.33E, h116km±18km, mb3.5/8, mb1 3.6/10, mb1mx3.4/39, mbtmp4.0/10, Error ellipse: s-maj=34.6km s-min=13.1km az=86.0*

*ISCJB* ***17*** *21:19:31.2±0.8, 23.48N±0.05×142.2E±0.3, h150km, mb3.5/10, Error ellipse: s-maj=34.9km s-min=6.7km az=1.6*

*JMA* ***17*** *21:19:34.6±0.1, 23.74N×142.04E, h181km, M4.5*

**ISC 17 21:19:33.4±0.9, 23.48N±0.08×142.4E±0.3, h150km, n24, σ2.9s26/27, mb3.7/10, Volcano Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JHHJ** | **Haha-jima-NKT** | **3.15** | **356** | P | **Pn** | **21 20 22.3** | **-0.3** |
| JHHJ | | | | *e*S | **Sn** | **21 20 58.9** | **-1.9** |
| **JCJ** | **Chichijima** | **3.61** | **357** | P | **Pn** | **21 20 28.0** | **-0.5** |
| JCJ | 16nm,0.3s,baz=106,slow=23,SNR=7.9 | | | S | **Sn** | **21 21 10.6** | **-0.8** |
| **CBIJ** | **Chichi jima** | **3.61** | **357** | P | **Pn** | **21 20 28.0** | **-0.5** |
| CBIJ | 113nm,0.3s,baz=297,slow=22,SNR=20 | | | *e*S | **Sn** | **21 21 09.6** | **-1.8** |
| **JHJ** | **Hachijo jima 2** | **9.88** | **347** | P | **Pn** | **21 21 50.3** | **-1.5** |
| **BSO1** | 5.3nm,0.3s,baz=288,slow=20,SNR=3.1 **Boso 1** | **11.21** | **354** | P | **Pn** | **21 22 07.6** | **-1.1** |
| **BSO3** | **Boso 3** | **11.41** | **352** | P | **Pn** | **21 22 08.8** | **-2.8** |
| **JOD2** | **Odawara 2** | **12.10** | **347** | P | **Pn** | **21 22 18.3** | **-2.6** |
| **JHU** | **Hanno** | **12.63** | **348** | P | **Pn** | **21 22 23.8** | **-4.0** |
| JHU | | | | S | Sn | 21 24 37.8 | -10 |
| **JRY** | **Ryogami san** | **12.87** | **347** | P | **Pn** | **21 22 27.4** | **-3.4** |
| **JAG** | **Ashikaga** | **13.16** | **349** | P | **Pn** | **21 22 30.6** | **-3.9** |
| JAG | | | | *e*S | Sn | 21 24 48.6 | -11 |
| **JHO** | **Hitachi** | **13.19** | **353** | P | **Pn** | **21 22 31.9** | **-3.0** |
| JHO | | | | *e*S | Sn | 21 24 47.2 | -14 |
| **MJAR** | **Matsushiro Arr** | **13.52** | **345** | P | **Pn** | **21 22 36.1** | **-3.0** |
| **KSRS** | 0.4nm,0.3s,baz=127,slow=13,SNR=7.9 **Korea Array** | **18.68** | **322** | P | **Pn** | **21 23 43.4** | **+1.2** |
| **USRK** | 0.2nm,0.3s,baz=135,slow=12,SNR=7.5 **Ussuriysk Ar.** | **22.38** | **340** | P | **P** | **21 24 23.1** | **+4.0** |
| **KLR** | 1.8nm,0.9s,baz=150,slow=15,SNR=2.9 **Kul'dur** | **27.05** | **345** | P | **P** | **21 25 03.0** | **+1.5** |
| **WRA** | 0.1nm,0.5s,baz=168,slow=15,SNR=3.3 **Warramunga Arr** | **43.87** | **191** | P | **P** | **21 27 23.1** | **-1.9** |
| **ASAR** | 0.8nm,0.5s,baz=8.2,slow=7.9,SNR=22 **Alice Springs** | **47.59** | **191** | P | **P** | **21 27 52.8** | **-1.4** |
| **TIXI** | 0.4nm,0.6s,baz=17,slow=11,SNR=9.6 **Tiksi** | **48.82** | **354** | P | **P** | **21 28 04.2** | **+1.3** |
| **ZALV** | 0.8nm,0.3s,baz=192,slow=1.8,SNR=2.5 **Zalesovo Beam** | **52.39** | **321** | P | **P** | **21 28 30.9** | **+0.9** |
| **MKAR** | 0.9nm,0.3s,baz=111,slow=7.3,SNR=5.4 **Makanchi Array** | **52.99** | **312** | P | **P** | **21 28 35.7** | **+1.1** |
| **STKA** | 0.8nm,0.5s,baz=88,slow=9.5,SNR=17 **Stephens Creek** | **55.05** | **181** | P | **P** | **21 28 48.2** | **-1.3** |
| **YKA** | 1.0nm,0.6s,baz=0.0,slow=10,SNR=2.2 **Yellowknife Ar** | **75.22** | **28** | P | **P** | **21 31 00.7** | **+1.5** |
| **FINES** | 0.1nm,0.3s,baz=293,slow=5.8,SNR=4.9 **FINESS Array B** | **81.28** | **334** | P | **P** | **21 31 32.8** | **+0.3** |
| **LPAZ** | 3.2nm,0.9s,baz=56,slow=5.2,SNR=6.5 **La Paz** | **150.43** | **82** | PKPbc | **PKPbc** | **21 39 10.3** | **+1.6** |
| | 0.4nm,0.5s,baz=297,slow=2.3,SNR=2.6 | | | | | | |

*DDA* ***17*** *21:21:43.9, 35.25N×31.88E, h7km, Ml2.6*

*ISCJB* ***17*** *21:21:44.1±1.6, 35.14N±0.06×31.8E±0.1, h20km, Error ellipse: s-maj=13.3km s-min=6.7km az=148.7*

*NIC* ***17*** *21:21:44.2±0.2, 35.15N×31.74E, h25km, ML3.0*

*CSEM* ***17*** *21:21:44.0±0.9, 35.19N×31.85E, h10km, ML2.6, Error ellipse: s-maj=19.7km s-min=8.5km az=56.0*

**ISC 17 21:21:44.1±2.1, 35.13N±0.07×31.9E±0.1, h20km, n13, σ0.960/20, Cyprus region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PPCY** | **Paphos** | **0.43** | **125** | P | **Pn** | **21 21 54.5** | **-0.7** |
| **PPCY** | **Paphos** | **0.43** | **125** | P | **Pn** | **21 21 54.5** | **-0.7** |
| | baz=297 | | | | | | |
| **ALFC** | **Alefka** | **0.56** | **88** | P | **Pn** | **21 21 56.8** | **-0.3** |
| ALFC | | | | S | **Sn** | **21 22 06.6** | **+0.7** |
| **ALFC** | **Alefka** | **0.56** | **88** | P | **Pn** | **21 21 56.8** | **-0.3** |
| | baz=269 | | | | | | |
| ALFC | | | | S | **Sn** | **21 22 06.6** | **+0.7** |
| **LEF** | **Lefka** | **0.80** | **91** | P | **Pb** | **21 21 59.3** | **-0.1** |
| LEF | | | | S | **Sb** | **21 22 10.4** | **+0.6** |
| **SZAC** | **Souni** | **0.88** | **115** | P | **Pn** | **21 22 01.4** | **0.0** |
| **SZAC** | **Souni** | **0.88** | **115** | P | **Pn** | **21 22 01.4** | **0.0** |
| | baz=292 | | | | | | |
| **GAZI** | **Gazipasa** | **1.15** | **17** | *i* P | **Pn** | **21 22 04.2** | **-0.9** |
| GAZI | | | | *i* S | **Sn** | **21 22 19.2** | **-0.5** |
| **GAZI** | **Gazipasa** | **1.15** | **17** | P | **Pn** | **21 22 04.2** | **-0.9** |
| GAZI | | | | S | **Sb** | **21 22 19.2** | **-0.5** |
| **ERMK** | **Ermenek** | **1.71** | **28** | *i* P | **Pb** | **21 22 14.7** | **-0.3** |
| ERMK | | | | *i* S | **Sb** | **21 22 36.5** | **+0.3** |
| **ERMK** | **Ermenek** | **1.71** | **28** | P | **Pb** | **21 22 14.7** | **-0.3** |
| ERMK | | | | S | **Sb** | **21 22 36.5** | **+0.3** |
| **KEPZ** | **Antalya-Kepez** | **1.78** | **352** | *i* P | **Pn** | **21 22 14.5** | **+0.7** |
| **KEPZ** | **Antalya-Kepez** | **1.78** | **352** | P | **Pn** | **21 22 14.5** | **+0.7** |

*IDC* ***17*** *21:32:15.2±3.1, 5.60N×93.20E, h56km±29km, mb3.5/7, mb1 3.7/10, mb1mx3.5/37, mbtmp3.8/10, ML3.6/3, Error ellipse: s-maj=35.5km s-min=17.3km az=57.0*

**ISC 17 21:32:12.0±0.8, 5.58N±0.1×93.45E±0.1, h24km, n13, σ1.966/11, mb3.8/7, Off west coast of northern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PSI** | **Prapat** | **6.30** | **118** | P | **Pn** | **21 33 46.7** | **+3.0** |
| PSI | 1.0nm,0.3s,baz=345,slow=22,SNR=4.0 | | | S | **Sn** | **21 34 53.0** | **-2.0** |
| **PALK** | 0.7nm,0.3s,baz=12,slow=18,SNR=2.7 **Pallekele** | **12.65** | **277** | P | **Pn** | **21 35 10.7** | **0.0** |
| PALK | 0.2nm,0.3s,baz=113,slow=14,SNR=2.8 | | | S | Sn | 21 37 16.9 | -14 |
| **CMAR** | 0.6nm,0.3s,baz=118,slow=11,SNR=5.1 **Chiang Mai Arr** | **13.71** | **23** | P | **P** | **21 35 31.7** | **-1.8** |
| **H08S3** | 0.1nm,0.3s,baz=225,slow=14,SNR=5.1 **Diego Garcia H** | **24.72** | **238** | T | T | 22 02 52.7 | |
| **H08S2** | baz=59,slow=75,SNR=170 **Diego Garcia H** | **24.73** | **238** | T | T | 22 02 42.0 | |
| **H08S1** | baz=59,slow=75,SNR=77 **Diego Garcia H** | **24.74** | **238** | T | T | 22 02 48.4 | |
| **MKAR** | baz=59,slow=75,SNR=28 **Makanchi Array** | **41.94** | **349** | P | **P** | **21 40 01.2** | **+0.3** |
| **SONM** | 0.2nm,0.5s,baz=164,slow=8.6,SNR=4.8 **Songino Array** | **43.35** | **13** | P | **P** | **21 40 13.3** | **+0.9** |
| **WRA** | 0.3nm,0.9s,baz=187,slow=8.1,SNR=3.8 **Warramunga Arr** | **47.74** | **124** | P | **P** | **21 40 47.1** | **-0.4** |
| **ZALV** | 1.1nm,0.6s,baz=302,slow=9.1,SNR=19 **Zalesovo Beam** | **48.51** | **353** | P | **P** | **21 40 53.9** | **+1.1** |
| **ASAR** | 0.4nm,0.4s,baz=176,slow=6.2,SNR=4.1 **Alice Springs** | **49.23** | **128** | P | **P** | **21 40 58.4** | **-0.6** |
| **NOA** | 0.5nm,0.5s,baz=301,slow=7.6,SNR=9.2 **NORSAR Array B** | **81.15** | **331** | P | **P** | **21 44 25.7** | **+0.3** |
| **VNDA** | 1.5nm,0.9s,baz=119,slow=5.3,SNR=3.4 **Vanda** | **91.07** | **168** | P | **P** | **21 45 12.3** | **-1.7** |
| | 0.9nm,0.8s,baz=275,slow=12,SNR=5.9 | | | | | | |

**IDC 17 21:56:36.3±1.6, 7.01S×129.03E, h0km, mb3.7/2, mb1 3.8/4, mb1mx3.5/27, mbtmp3.7/4, ML3.9/2, Error ellipse: s-maj=108.0km s-min=29.0km az=69.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **13.86** | **159** | P | Pn | 21 59 54.3 | +0.2 |
| WRA | 0.7nm,0.3s,baz=338,slow=13,SNR=20 | | | S | Sn | 22 02 16.5 | -12 |
| **ASAR** | 1.5nm,0.3s,baz=337,slow=23,SNR=9.4 **Alice Springs** | **17.22** | **165** | P | Pn | 22 00 38.4 | 0.0 |
| ASAR | 0.2nm,0.3s,baz=338,slow=9.8,SNR=14 | | | S | Sn | 22 03 38.2 | -12 |
| **SONM** | 0.3nm,0.3s,baz=331,slow=24,SNR=6.8 **Songino Array** | **58.15** | **342** | P | P | 22 06 33.2 | +1.2 |
| **MKAR** | 0.4nm,0.8s,baz=167,slow=6.8,SNR=2.6 **Makanchi Array** | **67.70** | **327** | P | P | 22 07 34.9 | -0.6 |
| | 1.0nm,0.6s,baz=120,slow=7.9,SNR=19 | | | | | | |

*ISCJB* ***17*** *22:06:56.2±0.4, 29.02N±0.06×139.9E±0.1, h424km, mb3.2/9, Error ellipse:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **JIE** | **Ise** | **6.03** | **333** | P | **P** | **22 08 31.4** | **+0.7** |
| **JHU** | **Hanno** | **6.83** | **355** | P | **P** | **22 08 38.1** | **-1.6** |
| **JRY** | **Ryogami san** | **7.02** | **353** | P | **P** | **22 08 40.5** | **-1.3** |
| **JAG** | **Ashikaga** | **7.39** | **357** | P | **P** | **22 08 43.9** | **-1.8** |
| **JHO** | **Hitachi** | **7.58** | **4** | P | **P** | **22 08 47.4** | **-0.4** |
| **MJAR** | **Matsushiro Arr** | **7.64** | **349** | P | **P** | **22 08 49.5** | **+1.0** |
| | 0.4nm,0.3s,baz=161,slow=10.0,SNR=5.6 | | | | | | |
| **JNU** | **Nakatsue** | **8.80** | **300** | P | **P** | **22 08 59.7** | **-1.6** |
| | 0.2nm,0.3s,baz=28,slow=4.0,SNR=2.6 | | | | | | |
| **USRK** | **Uesuriysk Ar.** | **16.43** | **339** | P | **P** | **22 10 24.4** | **+0.4** |
| | 0.7nm,0.3s,baz=142,slow=9.7,SNR=8.0 | | | | | | |
| **KLR** | **Kul'dur** | **21.13** | **345** | P | **P** | **22 11 12.0** | **+1.7** |
| | 0.1nm,0.5s,baz=204,slow=13,SNR=5.7 | | | | | | |
| **SONM** | **Songino Array** | **31.97** | **315** | P | **P** | **22 12 46.3** | **-0.2** |
| | 0.3nm,0.6s,baz=112,slow=6.6,SNR=3.5 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **46.75** | **318** | P | **P** | **22 14 46.3** | **+0.1** |
| | 0.2nm,0.3s,baz=96,slow=5.9,SNR=2.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **47.74** | **308** | P | **P** | **22 14 53.3** | **-0.6** |
| | 0.4nm,0.6s,baz=84,slow=10,SNR=6.3 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **48.86** | **198** | P | **P** | **22 15 01.5** | **-1.1** |
| | 0.9nm,0.8s,baz=5.7,slow=10,SNR=2.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **48.99** | **187** | P | **P** | **22 15 04.5** | **+0.9** |
| | 1.0nm,0.4s,baz=4.1,slow=7.7,SNR=32 | | | | | | |
| **ASAR** | **Alice Springs** | **52.72** | **187** | P | **P** | **22 15 31.8** | **+1.0** |
| | 0.4nm,0.5s,baz=7.6,slow=7.7,SNR=8.3 | | | | | | |
| **ARCES** | **ARCESS Array B** | **71.07** | **340** | P | **P** | **22 17 32.3** | **+1.6** |
| | 2.8nm,1.0s,baz=64,slow=10,SNR=4.9 | | | | | | |
| **FINES** | **FINESS Array B** | **75.35** | **333** | P | **P** | **22 17 56.2** | **+0.8** |
| | 3.8nm,1.1s,baz=66,slow=4.6,SNR=6.1 | | | | | | |

*CSEM* ***17*** *22:21:29.6±0.3, 42.˚53N×43.˚26E, h12km, ML2.0, Error ellipse: s-maj=6.4km s-min=5.1km az=11.0*
*TIF* ***17*** *22:21:29.2, 42.˚50N×43.˚24E, h13km*
*ISCJB* ***17*** *22:21:30.2±0.8, 42.˚52N±0.˚05×43.˚24E±0.˚05, h10km±8km, Error ellipse: s-maj=8.4km s-min=5.5km az=11.1*
*DDA* ***17*** *22:21:30.4, 42.˚37N×43.˚34E, h7km, Ml2.9*

**ISC 17 22:21:29.9±0.9, 42.˚50N±0.˚05×43.˚25E±0.˚03, h14km±8km, n21, σ0°48/36, Western Caucasus**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ONI** | **Oni** | **0.18** | **59** | P | **Pg** | **22 21 34.0** | **-0.1** |
| ONI | | | | S | **Sg** | **22 21 37.1** | **+0.2** |
| **ONI** | **Oni** | **0.18** | **59** | P | **Pg** | **22 21 34.0** | **-0.1** |
| ONI | | | | S | **Sg** | **22 21 37.1** | **+0.2** |
| **CHVG** | **Ch'k'valeri** | **0.89** | **285** | P | **Pg** | **22 21 47.0** | **0.0** |
| CHVG | | | | S | **Sb** | **22 21 59.4** | **+0.6** |
| **CHVG** | **Ch'k'valeri** | **0.89** | **285** | P | **Pg** | **22 21 47.0** | **0.0** |
| CHVG | | | | S | **Sb** | **22 21 59.4** | **+0.6** |
| **GUDG** | **Gudauri** | **0.91** | **92** | P | **Pg** | **22 21 47.3** | **-0.2** |
| GUDG | | | | S | **Sb** | **22 21 59.6** | **-0.1** |
| **GUDG** | **Gudauri** | **0.91** | **92** | P | **Pg** | **22 21 47.3** | **-0.2** |
| **EPOS** | **Posof** | **1.07** | **201** | *i* P | **Pn** | **22 21 51.1** | **+0.5** |
| EPOS | | | | *i* S | **Sb** | **22 22 04.1** | **-0.1** |
| **EPOS** | **Posof** | **1.07** | **201** | P | **Pn** | **22 21 51.1** | **+0.5** |
| EPOS | | | | S | **Sb** | **22 22 04.1** | **-0.1** |
| **AKH** | **Akhalkalaki** | **1.10** | **170** | P | **Pb** | **22 21 50.6** | **-0.3** |
| AKH | | | | S | **Sn** | **22 22 06.5** | **+0.3** |
| **AKH** | **Akhalkalaki** | **1.10** | **170** | P | **Pb** | **22 21 50.6** | **-0.3** |
| AKH | | | | S | **Sn** | **22 22 06.5** | **+0.3** |
| **BGD** | **Bogdanovka** | **1.26** | **168** | P | **Pb** | **22 21 53.5** | **-0.1** |
| BGD | | | | S | **Sb** | **22 22 09.9** | **+0.1** |
| **BGD** | **Bogdanovka** | **1.26** | **168** | P | **Pb** | **22 21 53.5** | **-0.1** |
| BGD | | | | S | **Sg** | **22 22 11.7** | **+1.1** |
| **TBLG** | **Delisi** | **1.35** | **124** | P | **Pb** | **22 21 54.9** | **0.0** |
| TBLG | | | | S | **Sg** | **22 22 13.3** | **0.0** |
| **TBLG** | **Delisi** | **1.35** | **124** | P | **Pn** | **22 21 54.4** | **+0.1** |
| TBLG | | | | S | **Sg** | **22 22 13.1** | **-0.2** |
| **ARTV** | **Artvin** | **1.64** | **217** | *i* P | **Pb** | **22 21 59.6** | **-0.5** |
| **ARTV** | **Artvin** | **1.64** | **217** | P | **Pb** | **22 21 59.6** | **-0.5** |
| **DAGI** | **Agillar** | **1.74** | **216** | *i* P | **Pb** | **22 22 01.8** | **+0.2** |
| **EAK** | **Akyaka** | **1.83** | **171** | *i* P | **Pn** | **22 22 01.5** | **+0.4** |
| EAK | | | | *i* S | **Sb** | **22 22 26.1** | **0.0** |
| **EAK** | **Akyaka** | **1.83** | **171** | P | **Pn** | **22 22 01.5** | **+0.4** |
| EAK | | | | S | **Sb** | **22 22 26.1** | **0.0** |
| **DDEM** | **Demirkent** | **1.96** | **215** | *i* P | **Pn** | **22 22 01.5** | **-1.3** |
| **DDEM** | **Demirkent** | **1.96** | **215** | P | **Pn** | **22 22 01.5** | **-1.3** |

*ISCJB* ***17*** *22:29:46.0±0.9, 10.˚81S±0.˚09×113.˚72E±0.˚10, h10km, mb3.7/6, Error ellipse: s-maj=16.5km s-min=8.9km az=138.5*
*DJA* ***17*** *22:29:49.0±1.0, 11.˚5S±9.˚×11.˚4E±.˚, h13km, M3.7/9, MLv3.7/9*
*IDC* ***17*** *22:29:53.9±1.9, 11.˚16S×114.˚46E, h0km, mb3.3/5, mb1 3.5/6, mb1mx3.4/43, mbtmp3.4/6, ML3.4/1, Error ellipse: s-maj=70.4km s-min=18.8km az=54.0*

**ISC 17 22:29:47.6±1.2, 10.˚8S±0.˚1×113.˚72E±0.˚09, h10km, n15, σ0°91/11, mb3.5/6, South of Jawa**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JAGI** | **Jajag, Banyuwa** | **2.32** | **11** | P | **Pn** | **22 30 25.6** | **-0.3** |
| **GMJI** | **Gumukmas** | **2.49** | **354** | P | **Pn** | **22 30 27.5** | **-0.7** |
| **ABJI** | **Asem Bagus** | **2.99** | **10** | P | **Pn** | **22 30 35.3** | **+0.2** |
| **PWJI** | **Pagerwojo** | **3.31** | **325** | P | **Pn** | **22 30 38.3** | **-1.3** |
| **PCJI** | **Pacitan** | **3.58** | **315** | P | **Pn** | **22 30 43.0** | **-0.2** |
| **KMMI** | **Kalianget** | **3.70** | **4** | P | **Pn** | **22 30 46.1** | **+1.3** |
| **UGM** | **Wanagama** | **4.24** | **312** | P | **Pn** | **22 30 53.3** | **+1.0** |
| **PLAI** | **Plampang** | **4.44** | **65** | P | **Pn** | **22 30 54.9** | **-0.1** |
| **FITZ** | **Fitzroy Crossi** | **13.65** | **124** | Pn | Pn | 22 32 57.3 | -4.1 |
| | 0.2nm,0.3s,baz=297,slow=9.7,SNR=3.7 | | | | | | |
| FITZ | | | | Sn | Sn | 22 35 19.7 | -14 |
| | 0.1nm,0.3s,baz=343,slow=19,SNR=6.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **21.86** | **117** | P | **P** | **22 34 40.0** | **-0.6** |
| | 1.2nm,0.6s,baz=290,slow=11,SNR=13 | | | | | | |
| **ASAR** | **Alice Springs** | **23.12** | **126** | P | **P** | **22 34 53.2** | **-0.9** |
| | 0.2nm,0.3s,baz=304,slow=9.2,SNR=5.2 | | | | | | |
| **STKA** | **Stephens Creek** | **33.23** | **133** | P | **P** | **22 36 25.8** | **+0.8** |
| | 1.4nm,0.7s,baz=286,slow=15,SNR=2.6 | | | | | | |
| **SONM** | **Songino Array** | **58.70** | **354** | P | P | 22 39 56.3 | +11 |
| | 0.2nm,0.6s,baz=168,slow=8.4,SNR=2.2 | | | | | | |
| **ASAJ** | **Asahikawa** | **60.59** | **24** | P | P | 22 40 06.3 | +7.9 |
| | 4.2nm,0.3s,baz=183,slow=18,SNR=5.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **63.81** | **336** | P | P | 22 40 33.0 | +13 |
| | 0.1nm,0.5s,baz=150,slow=6.0,SNR=3.2 | | | | | | |

*DDA* ***17*** *22:30:10.8, 37.˚22N×36.˚95E, h3km, Ml2.9*
*ISK* ***17*** *22:30:10.6, 37.˚23N×36.˚97E, h5km, ML2.4*
*CSEM* ***17*** *22:30:11.3±0.2, 37.˚20N×36.˚96E, h5km, ML2.4, Error ellipse: s-maj=4.2km s-min=3.7km az=179.0*

**ISC 17 22:30:11.0±0.9, 37.˚21N±0.˚02×36.˚96E±0.˚02, h7km±7km, n47, σ0°54/72, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **HCB** | **Kahramanmara¯** | **0.14** | **343** | *i* P | **Pg** | **22 30 13.6** | **-0.4** |
| HCB | | | | *i* S | **Sg** | **22 30 15.5** | **-0.4** |
| **GAZ** | **Gaziantep** | **0.20** | **101** | *e*PG | **Pg** | **22 30 15.0** | **-0.1** |
| GAZ | | | | *e*SG | **Sg** | **22 30 18.7** | **+0.8** |
| **GAZ** | **Gaziantep** | **0.20** | **101** | *e*Pg | **Pg** | **22 30 15.0** | **-0.1** |
| GAZ | | | | *e*Sg | **Sg** | **22 30 18.7** | **+0.8** |
| **KAMA** | **Osmaniye** | **0.23** | **264** | *i* P | **Pg** | **22 30 15.6** | **-0.1** |
| KAMA | | | | *i* S | **Sg** | **22 30 19.2** | **+0.3** |
| **KMRS** | **Kahramanmaras** | **0.30** | **351** | *e*PG | **Pg** | **22 30 16.9** | **0.0** |
| KMRS | | | | *e*SG | **Sg** | **22 30 20.9** | **+0.1** |
| **KMRS** | **Kahramanmaras** | **0.30** | **351** | *e*Pg | **Pg** | **22 30 16.9** | **0.0** |
| KMRS | | | | *e*Sg | **Sg** | **22 30 20.9** | **+0.1** |
| **KUZU** | **Kuzuini** | **0.45** | **168** | *i* P | **Pb** | **22 30 20.9** | **-0.4** |
| KUZU | | | | *i* S | **Sg** | **22 30 26.7** | **+1.2** |
| **KUZU** | **Kuzuini** | **0.45** | **168** | P | **Pb** | **22 30 20.9** | **-0.4** |
| KUZU | | | | S | **Sg** | **22 30 26.7** | **+1.2** |
| **ANDN** | **Andirin** | **0.61** | **307** | *i* P | **Pg** | **22 30 22.3** | **-0.5** |
| ANDN | | | | *i* S | **Sg** | **22 30 30.8** | **0.0** |
| **ANDN** | **Andirin** | **0.61** | **307** | P | **Pg** | **22 30 22.3** | **-0.5** |
| ANDN | | | | S | **Sg** | **22 30 30.8** | **0.0** |
| **KOZT** | **Kozan** | **0.94** | **287** | *e*PG | **Pg** | **22 30 29.3** | **+0.2** |
| KOZT | | | | *e*SG | **Sb** | **22 30 42.5** | **+0.1** |
| **KOZT** | **Kozan** | **0.94** | **287** | *e*Pg | **Pg** | **22 30 29.3** | **+0.2** |
| KOZT | | | | *e*Sg | **Sb** | **22 30 42.5** | **+0.1** |
| **CEYT** | **Ceyhan** | **0.99** | **259** | *e*PG | **Pb** | **22 30 30.3** | **-0.2** |
| **CEYT** | **Ceyhan** | **0.99** | **259** | *e*Pg | **Pb** | **22 30 30.3** | **-0.2** |
| **SAIM** | **ADANA** | **1.03** | **318** | *i* P | **Pb** | **22 30 31.2** | **-0.1** |
| SAIM | | | | *i* S | **Sn** | **22 30 46.4** | **-0.5** |
| **SAIM** | **ADANA** | **1.03** | **318** | P | **Pb** | **22 30 31.2** | **-0.1** |
| SAIM | | | | S | **Sn** | **22 30 46.4** | **-0.5** |
| **TAHT** | **Tahtakopru-Hat** | **1.04** | **217** | *e*PG | **Pg** | **22 30 31.0** | **0.0** |
| **TAHT** | **Tahtakopru-Hat** | **1.04** | **217** | *e*Pg | **Pg** | **22 30 31.0** | **0.0** |
| **ATAB** | **Bozova** | **1.09** | **76** | *i* P | **Pg** | **22 30 31.8** | **-0.2** |
| ATAB | | | | *i* S | **Sb** | **22 30 47.1** | **+0.4** |
| **ATAB** | **Bozova** | **1.09** | **76** | P | **Pg** | **22 30 31.8** | **-0.2** |
| ATAB | | | | S | **Sb** | **22 30 47.2** | **+0.4** |
| **ELBS** | **KAHRAMANMARAS** | **1.12** | **7** | *i* P | **Pn** | **22 30 33.3** | **+0.1** |
| ELBS | | | | *i* S | **Sn** | **22 30 49.2** | **+0.2** |
| **ELBS** | **KAHRAMANMARAS** | **1.12** | **7** | P | **Pn** | **22 30 33.3** | **+0.1** |
| ELBS | | | | S | **Sn** | **22 30 49.2** | **+0.2** |
| **YURE** | **YUREGIR** | **1.13** | **250** | *e*PN | **Pn** | **22 30 33.1** | **-0.2** |
| **YURE** | **YUREGIR** | **1.13** | **250** | *e*Pn | **Pn** | **22 30 33.1** | **-0.2** |
| **SARI** | **SarD1z-Kayseri** | **1.27** | **340** | *e*PN | **Pn** | **22 30 35.0** | **-0.4** |
| **AKCD** | **Akcadag** | **1.32** | **35** | *i* P | **Pg** | **22 30 36.5** | **+0.1** |
| AKCD | | | | *i* S | **Sn** | **22 30 54.2** | **+0.1** |
| **AKCD** | **Akcadag** | **1.32** | **35** | P | **Pg** | **22 30 36.5** | **+0.1** |
| AKCD | | | | S | **Sn** | **22 30 54.2** | **+0.1** |
| **YAYL** | **Yayladag** | **1.36** | **211** | *e*PN | **Pg** | **22 30 37.0** | **0.0** |
| **YAYL** | **Yayladag** | **1.36** | **211** | *e*Pn | **Pg** | **22 30 37.1** | **0.0** |
| **SURC** | **SANLIURFA_SURC** | **1.36** | **104** | *i* P | **Pn** | **22 30 35.0** | **-1.5** |
| SURC | | | | *i* S | **Sb** | **22 30 53.8** | **-0.8** |
| **SURC** | **SANLIURFA_SURC** | **1.36** | **104** | P | **Pn** | **22 30 35.0** | **-1.5** |
| SURC | | | | S | **Sb** | **22 30 53.8** | **-0.8** |
| **DARE** | **Darende-Malaty** | **1.42** | **17** | *e*PN | **Pb** | **22 30 37.7** | **-0.2** |
| **DARE** | **Darende-Malaty** | **1.42** | **17** | *e*Pn | **Pb** | **22 30 37.7** | **-0.2** |
| **KRTS** | **Karatas** | **1.42** | **244** | *e*PN | **Pb** | **22 30 37.9** | **+0.1** |
| **KRTS** | **Karatas** | **1.42** | **244** | *e*Pn | **Pb** | **22 30 37.9** | **+0.1** |
| **URFA** | **Urfa** | **1.50** | **81** | *e*PN | **Pn** | **22 30 38.6** | **+0.1** |
| **URFA** | **Urfa** | **1.50** | **81** | *e*Pn | **Pn** | **22 30 38.6** | **+0.1** |
| **MALT** | **Malatya** | **1.60** | **46** | *e*PN | **Pn** | **22 30 39.5** | **-0.3** |
| **MALT** | **Malatya** | **1.60** | **46** | *e*Pn | **Pn** | **22 30 39.6** | **-0.3** |
| **HEKM** | **Malatya_Hekimh** | **1.84** | **25** | *i* P | **Pg** | **22 30 46.1** | **-0.2** |
| HEKM | | | | *i* S | **Sg** | **22 31 11.8** | **+1.6** |
| **HEKM** | **Malatya_Hekimh** | **1.84** | **25** | P | **Pg** | **22 30 46.1** | **-0.2** |
| HEKM | | | | S | **Sg** | **22 31 11.8** | **+1.6** |
| **BNN** | **Bunyan** | **1.86** | **332** | *e*PN | **Pn** | **22 30 44.0** | **+0.6** |
| **BNN** | **Bunyan** | **1.86** | **332** | *e*Pn | **Pn** | **22 30 44.0** | **+0.6** |
| **SVRC** | **Sivrice-ELAZID** | **2.19** | **57** | *e*PN | **Pn** | **22 30 48.7** | **+0.6** |
| **SVRC** | **Sivrice-ELAZID** | **2.19** | **57** | *e*Pn | **Pn** | **22 30 48.7** | **+0.6** |
| **KEMA** | **Kemaliye** | **2.38** | **30** | *i* P | **Pb** | **22 30 53.9** | **-0.4** |
| KEMA | | | | *i* S | **Sg** | **22 31 27.5** | **0.0** |
| **KEMA** | **Kemaliye** | **2.38** | **30** | P | **Pb** | **22 30 53.9** | **-0.4** |

*ISK* ***17*** *22:39:07.8, 35.˚03N×26.˚20E, h12km, ML3.3*
*IDC* ***17*** *22:39:07.5±1.1, 34.˚80N×26.˚38E, h0km, mb3.7/5, mb1 3.6/9, mb1mx3.5/35, mbtmp3.6/9, ML3.3/4, Error ellipse: s-maj=28.4km s-min=13.8km az=7.0*
*ATH* ***17*** *22:39:10.8, 35.˚27N×26.˚25E, h21km±1km, ML3.3/8, Error ellipse: s-maj=1.9km s-min=0.8km az=166.0*
*THE* ***17*** *22:39:11.5, 35.˚27N×26.˚24E, h0km, ML3.3/12, Error ellipse: s-maj=0.9km s-min=0.6km az=123.0*
*CSEM* ***17*** *22:39:11.4±0.2, 35.˚23N×26.˚27E, h12km, ML3.3, Error ellipse: s-maj=5.1km s-min=2.4km az=167.0*
*ISCJB* ***17*** *22:39:11.1±0.5, 35.˚15N±0.˚05×26.˚31E±0.˚03, h25km±3km, mb3.5/5, Error ellipse: s-maj=7.8km s-min=3.7km az=170.9*

**ISC 17 22:39:11.4±0.8, 35.˚14N±0.˚04×26.˚30E±0.˚02, h23km±4km, n118, σ1°17/153, mb3.6/5, Crete**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ZKR** | **Zakros** | **0.07** | **248** | P | **Pb** | **22 39 14.6** | **-1.0** |
| ZKR | | | | S | **Sb** | **22 39 19.1** | **+0.7** |
| ZKR | | | | AML | AML | 22 39 19.1 | |
| | comp=E,60315µm,0.2s | | | | | | |
| ZKR | | | | AML | AML | 22 39 19.2 | |
| | comp=N,31174µm,0.4s | | | | | | |
| **ZKR** | **Zakros** | **0.07** | **248** | P | **Pb** | **22 39 15.1** | **-0.5** |
| ZKR | | | | S | **Sb** | **22 39 19.1** | **+0.7** |
| **ZKR** | **Zakros** | **0.07** | **248** | P | **Pb** | **22 39 15.1** | **-0.5** |
| ZKR | | | | S | **Sb** | **22 39 19.1** | **+0.7** |
| **NPS** | **Neapolis** | **0.58** | **282** | P | **Pb** | **22 39 22.6** | **-0.3** |
| NPS | | | | S | **Sb** | **22 39 29.5** | **-1.1** |
| NPS | | | | AML | AML | 22 39 31.1 | |
| | comp=E,9201µm,0.3s | | | | | | |
| NPS | | | | AML | AML | 22 39 31.4 | |
| | comp=N,7961µm,0.5s | | | | | | |
| **NPS** | **Neapolis** | **0.58** | **282** | P | **Pb** | **22 39 21.9** | **-0.9** |
| NPS | | | | S | **Sb** | **22 39 29.5** | **-1.1** |
| **NPS** | **Neapolis** | **0.58** | **282** | P | **Pb** | **22 39 21.9** | **-0.9** |
| NPS | | | | S | **Sb** | **22 39 29.9** | **-0.7** |
| **LAST** | **Lasithi** | **0.67** | **272** | P | **Pb** | **22 39 22.8** | **-1.7** |
| LAST | | | | S | **Sb** | **22 39 33.4** | **0.0** |
| LAST | | | | AML | AML | 22 39 37.2 | |
| | comp=N,3335µm,0.7s | | | | | | |
| LAST | | | | AML | AML | 22 39 41.8 | |
| | comp=E,3763µm,0.6s | | | | | | |
| **LAST** | **Lasithi** | **0.67** | **272** | P | **Pb** | **22 39 23.2** | **-1.3** |
| LAST | | | | S | **Sb** | **22 39 33.4** | **0.0** |
| **LAST** | **Lasithi** | **0.67** | **272** | P | **Pb** | **22 39 23.2** | **-1.3** |
| LAST | | | | S | **Sb** | **22 39 33.5** | **0.0** |
| **KARP** | **Karpathos** | **0.81** | **60** | *e*PG | **Pb** | **22 39 26.4** | **-0.5** |
| KARP | | | | *e*SG | **Sn** | **22 39 39.8** | **+1.0** |
| **KARP** | **Karpathos** | **0.81** | **60** | P | **Pb** | **22 39 26.8** | **0.0** |
| KARP | | | | S | **Sb** | **22 39 37.6** | **+0.2** |
| KARP | | | | AML | AML | 22 39 46.8 | |
| | comp=N,6732µm,0.5s | | | | | | |
| KARP | | | | AML | AML | 22 39 47.7 | |
| | comp=E,5142µm,0.6s | | | | | | |
| **KARP** | **Karpathos** | **0.81** | **60** | *e*Pg | **Pb** | **22 39 26.4** | **-0.5** |
| **KARP** | **Karpathos** | **0.81** | **60** | P | **Pb** | **22 39 26.8** | **0.0** |
| KARP | | | | S | **Sb** | **22 39 37.6** | **+0.2** |
| KARP | | | | *e*Sg | **Sn** | **22 39 39.8** | **+1.0** |
| **KARP** | **Karpathos** | **0.81** | **60** | P | **Pb** | **22 39 26.6** | **-0.2** |
| KARP | | | | S | **Sn** | **22 39 39.6** | **+0.8** |
| **IACM** | **Heraklion** | **1.02** | **280** | P | **Pn** | **22 39 30.3** | **0.0** |
| IACM | | | | AML | AML | 22 39 54.7 | |
| | comp=N,13812µm,0.6s | | | | | | |
| IACM | | | | AML | AML | 22 39 59.3 | |
| | comp=E,18777µm,0.7s | | | | | | |
| **IACM** | **Heraklion** | **1.02** | **280** | P | **Pn** | **22 39 30.3** | **0.0** |
| IACM | | | | S | **Sn** | **22 39 45.6** | **+1.7** |
| **IACM** | **Heraklion** | **1.02** | **280** | P | **Pn** | **22 39 30.4** | **+0.1** |
| IACM | | | | S | **Sn** | **22 39 45.6** | **+1.7** |
| **IDI** | **Anoyia** | **1.16** | **278** | Pn | **Pn** | **22 39 31.8** | **-0.6** |
| | comp=E,39nm,0.3s,baz=102,slow=16,SNR=92 | | | | | | |
| IDI | | | | Sn | **Sb** | **22 39 52.8** | **+5.2** |
| | comp=E,64nm,0.3s,baz=61,slow=12,SNR=13 | | | | | | |
| IDI | | | | LR | LR | 22 40 20.3 | |
| | comp=E,132nm,18.1s,baz=98,slow=55 | | | | | | |
| **SIVA** | **Sivas** | **1.23** | **265** | P | **Pn** | **22 39 32.8** | **-0.3** |
| SIVA | | | | S | **Sb** | **22 39 50.1** | **+0.8** |
| SIVA | | | | AML | AML | 22 39 51.9 | |
| | comp=N,3994µm,0.7s | | | | | | |
| SIVA | | | | AML | AML | 22 39 52.2 | |
| | comp=E,4572µm,0.6s | | | | | | |
| **SIVA** | **Sivas** | **1.23** | **265** | P | **Pn** | **22 39 33.3** | **+0.2** |
| SIVA | | | | S | **Sb** | **22 39 50.1** | **+0.8** |
| **SIVA** | **Sivas** | **1.23** | **265** | P | **Pn** | **22 39 33.3** | **+0.2** |
| SIVA | | | | S | **Sb** | **22 39 50.9** | **+1.6** |
| **SANT** | **Santorini** | **1.40** | **331** | P | **Pn** | **22 39 33.9** | **-1.7** |
| **SANT** | **Santorini** | **1.40** | **331** | P | **Pn** | **22 39 35.0** | **-0.6** |
| **SANT** | **Santorini** | **1.40** | **331** | P | **Pn** | **22 39 35.0** | **-0.6** |
| **THR6** | **Thira Island,** | **1.42** | **329** | P | **Pn** | **22 39 35.6** | **-0.1** |
| **THR6** | **Thira Island,** | **1.42** | **329** | P | **Pn** | **22 39 35.6** | **-0.1** |
| **THR6** | **Thira Island,** | **1.42** | **329** | P | **Pn** | **22 39 35.4** | **-0.3** |
| **SAP1** | **Santorini-Akro** | **1.42** | **329** | P | **Pn** | **22 39 35.4** | **-0.4** |
| SAP1 | | | | S | **Sn** | **22 39 53.5** | **-0.2** |
| **SAP1** | **Santorini-Akro** | **1.42** | **329** | P | **Pn** | **22 39 35.4** | **-0.4** |
| SAP1 | | | | S | **Sn** | **22 39 53.5** | **-0.2** |
| **THT1** | **Athinios (Pele** | **1.43** | **331** | P | **Pn** | **22 39 34.9** | **-1.0** |
| **THT1** | **Athinios (Pele** | **1.43** | **331** | P | **Pn** | **22 39 35.3** | **-0.6** |
| **THT1** | **Athinios (Pele** | **1.43** | **331** | P | **Pn** | **22 39 35.3** | **-0.6** |
| **THR3** | **Thira Island,** | **1.46** | **330** | P | **Pn** | **22 39 36.0** | **-0.3** |
| **THR3** | **Thira Island,** | **1.46** | **330** | P | **Pn** | **22 39 36.0** | **-0.3** |
| **THR3** | **Thira Island,** | **1.46** | **330** | P | **Pn** | **22 39 36.0** | **-0.3** |
| **THR7** | **Fira-Santorini** | **1.46** | **331** | P | **Pn** | **22 39 35.7** | **-0.6** |
| **THR7** | **Fira-Santorini** | **1.46** | **331** | P | **Pn** | **22 39 36.2** | **-0.2** |
| **THR7** | **Fira-Santorini** | **1.46** | **331** | P | **Pn** | **22 39 36.2** | **-0.2** |
| **THT2** | **Imerovigli** | **1.47** | **331** | P | **Pn** | **22 39 36.3** | **-0.3** |
| THT2 | | | | S | **Sn** | **22 39 54.7** | **-0.5** |
| **THT2** | **Imerovigli** | **1.47** | **331** | P | **Pn** | **22 39 36.3** | **-0.3** |
| THT2 | | | | S | **Sn** | **22 39 54.7** | **-0.5** |
| **THR2** | **Thira island,** | **1.48** | **332** | P | **Pn** | **22 39 36.1** | **-0.5** |
| **THR2** | **Thira island,** | **1.48** | **332** | P | **Pn** | **22 39 36.4** | **-0.2** |
| **THR2** | **Thira island,** | **1.48** | **332** | P | **Pn** | **22 39 36.4** | **-0.2** |
| **THR5** | **Thira Island,** | **1.49** | **329** | P | **Pn** | **22 39 35.8** | **-0.9** |
| **THR5** | **Thira Island,** | **1.49** | **329** | P | **Pn** | **22 39 36.1** | **-0.6** |
| **THR5** | **Thira Island,** | **1.49** | **329** | P | **Pn** | **22 39 36.1** | **-0.6** |
| **CMBO** | **Columbo, Santo** | **1.51** | **332** | P | **Pn** | **22 39 35.6** | **-1.5** |
| **CMBO** | **Columbo, Santo** | **1.51** | **332** | P | **Pn** | **22 39 35.6** | **-1.5** |
| **NISR** | **Nisiros** | **1.61** | **24** | P | **Pn** | **22 39 37.8** | **-0.7** |
| **NISR** | **Nisiros** | **1.61** | **24** | P | **Pn** | **22 39 38.5** | **+0.1** |
| NISR | | | | S | **Sb** | **22 39 59.6** | **-0.8** |
| **NISR** | **Nisiros** | **1.61** | **24** | P | **Pn** | **22 39 38.5** | **+0.1** |
| NISR | | | | S | **Sb** | **22 39 59.6** | **-0.8** |
| **VAM** | **Vamos** | **1.74** | **279** | P | **Pb** | **22 39 42.1** | **-0.5** |
| VAM | | | | S | **Sn** | **22 40 02.1** | **+0.5** |
| VAM | | | | AML | AML | 22 40 07.1 | |
| | comp=E,780µm,0.4s | | | | | | |
| VAM | | | | AML | AML | 22 40 11.6 | |
| | comp=N,864µm,0.5s | | | | | | |
| **VAM** | **Vamos** | **1.74** | **279** | P | **Pn** | **22 39 41.0** | **+0.8** |
| VAM | | | | S | **Sn** | **22 40 02.1** | **+0.5** |
| **VAM** | **Vamos** | **1.74** | **279** | P | **Pn** | **22 39 41.0** | **+0.8** |
| VAM | | | | S | **Sb** | **22 40 04.4** | **+0.4** |
| **ARG** | **Arkhangelos** | **1.83** | **54** | P | **Pb** | **22 39 43.7** | **-0.5** |
| **ARG** | **Arkhangelos** | **1.83** | **54** | P | **Pb** | **22 39 43.2** | **-1.0** |
| **ARG** | **Arkhangelos** | **1.83** | **54** | P | **Pb** | **22 39 43.2** | **-1.0** |
| **GVD** | **Gavdhos** | **1.84** | **261** | P | **Pb** | **22 39 44.5** | **+0.1** |
| **GVD** | **Gavdhos** | **1.84** | **261** | P | **Pb** | **22 39 44.5** | **+0.1** |
| **IMMV** | **Iera Moni Meta** | **1.92** | **280** | P | **Pn** | **22 39 43.1** | **+0.4** |
| **IMMV** | **Iera Moni Meta** | **1.92** | **280** | P | **Pn** | **22 39 43.6** | **+0.9** |
| IMMV | | | | S | **Sb** | **22 40 08.3** | **-1.0** |
| **IMMV** | **Iera Moni Meta** | **1.92** | **280** | P | **Pn** | **22 39 43.6** | **+0.9** |
| IMMV | | | | S | **Sb** | **22 40 08.3** | **-1.0** |
| **APE** | **Apeiranthos** | **2.02** | **342** | *e*PN | **Pn** | **22 39 43.9** | **-0.2** |
| **APE** | **Apeiranthos** | **2.02** | **342** | P | **Pn** | **22 39 43.4** | **-0.7** |
| APE | | | | S | **Sn** | **22 40 09.9** | **+1.2** |
| APE | | | | AML | AML | 22 40 13.7 | |
| | comp=N,331µm,0.2s | | | | | | |
| APE | | | | AML | AML | 22 40 14.1 | |
| | comp=E,236µm,0.2s | | | | | | |
| **APE** | **Apeiranthos** | **2.02** | **342** | P | **Pn** | **22 39 43.9** | **-0.2** |
| APE | | | | S | **Sn** | **22 40 09.4** | **+0.7** |
| **APE** | **Apeiranthos** | **2.02** | **342** | P | **Pn** | **22 39 43.9** | **-0.2** |
| APE | | | | S | **Sn** | **22 40 09.4** | **+0.7** |
| **BODT** | **Bodrum** | **2.08** | **23** | *e*PN | **Pn** | **22 39 45.4** | **+0.5** |
| **BODT** | **Bodrum** | **2.08** | **23** | *e*Pn | **Pn** | **22 39 45.4** | **+0.5** |
| **DALY** | **Dalyan (Mu¯la** | **2.54** | **48** | *e*PN | **Pn** | **22 39 52.0** | **+0.9** |
| **DALY** | **Dalyan (Mu¯la** | **2.54** | **48** | *e*Pn | **Pn** | **22 39 52.1** | **+0.9** |
| **TURN** | **Turunc** | **2.54** | **47** | *e*PN | **Pn** | **22 39 48.2** | **-3.0** |
| **TURN** | **Turunc** | **2.54** | **47** | *e*Pn | **Pn** | **22 39 48.2** | **-3.0** |
| **SMG** | **Samos** | **2.60** | **9** | P | **Pn** | **22 39 52.2** | **+0.2** |
| **SMG** | **Samos** | **2.60** | **9** | P | **Pn** | **22 39 52.2** | **+0.2** |
| **GCAM** | **G?zelcaml?** | **2.66** | **16** | *e*PN | **Pn** | **22 39 53.8** | **+1.0** |
| **GCAM** | **G?zelcaml?** | **2.66** | **16** | *e*Pn | **Pn** | **22 39 53.8** | **+1.0** |
| **KYTH** | **Kithira** | **2.88** | **294** | P | **Pn** | **22 39 56.5** | **+0.7** |
| **AKAS** | **Kas** | **2.90** | **67** | *e*PN | **Pn** | **22 39 56.5** | **+0.2** |
| **AKAS** | **Kas** | **2.90** | **67** | *e*Pn | **Pn** | **22 39 56.5** | **+0.2** |
| **VLI** | **Veliai** | **3.15** | **301** | P | **Pn** | **22 39 59.0** | **-0.6** |
| **VLI** | **Veliai** | **3.15** | **301** | P | **Pn** | **22 39 59.4** | **-0.2** |
| **VLI** | **Veliai** | **3.15** | **301** | P | **Pn** | **22 39 59.4**

46nm,0.3s,baz=274,slow=23,SNR=2.6
**RAO Raoul Island 7.20 160** *e*P **P 22 44 17.5 +1.7**
**NIUE Niue 10.70 73** P **P 22 44 49.3 -0.4**
baz=10,SNR=3.2
**DZM Mont Dzumac 11.85 270** P **P 22 45 00.1 -1.0**
0.3nm,0.3s,baz=94,slow=18,SNR=3.4
DZM S **S 22 47 06.0 -4.3**
0.1nm,0.3s,baz=98,slow=22,SNR=1.5
**DZM Mont Dzumac 11.85 270** *e*P **P 22 45 03.0 +1.8**
**AFI Afiamalu 12.08 46** *e*P **P 22 45 03.0 -0.5**
**AFI Afiamalu 12.08 46** *e*P **P 22 45 03.0 -0.5**
**OUZ Omahuta 13.60 200** *e*P **P 22 45 20.5 +2.4**
**FUNA Funafuti 13.89 360** *e*P **P 22 45 20.1 -1.3**
**MXZ Matakaoa Point 15.03 183** *e*P **P 22 45 31.1 -0.5**
168nm,1.2s
**WMGZ Waiomatatini S 15.29 182** PN **P 22 45 32.5 -1.4**
WMGZ SN **S 22 48 07.8 -1.1**
**RUGZ Raukumara Rang 15.47 185** PN **P 22 45 34.1 -1.6**
**PUZ Puketiti 15.54 183** PN **P 22 45 34.7 -1.5**
PUZ SN **S 22 48 10.6 -2.6**
**TWGZ Tauwhareparae 15.66 184** PN **P 22 45 36.3 -1.1**
**URZ Urewera 15.81 186** P **P 22 45 37.4 -1.3**
22nm,0.3s,baz=288,slow=1.4,SNR=96
URZ S **S 22 48 13.6 -4.0**
2.4nm,0.3s,baz=198,slow=23,SNR=7.7
**URZ Urewera 15.81 186** *e*P **P 22 45 38.3 -0.4**
253nm,1.0s
**URZ Urewera 15.81 186** PN **P 22 45 36.6 -2.0**
**HIZ Hauiti 16.40 192** *e*P **P 22 45 45.6 +1.5**
142nm,1.2s
**HIZ Hauiti 16.40 192** PN **P 22 45 47.3 +3.3**
**BKZ Black Stump Fm 16.78 187** *e*P **P 22 45 47.2 -0.4**
45nm,1.1s
**OTVZ Oturere 16.89 190** PN **P 22 45 49.0 +0.2**
**BFZ Birch Farm 18.30 187** *e*P **P 22 46 02.0 +0.6**
175nm,1.3s
**MRZ Mangatainoka R 18.37 189** PN **P 22 46 00.4 -1.6**
**QRZ Quartz Range 19.13 196** PN **P 22 46 09.9 +1.0**
**THZ Tophouse 19.93 194** *e*P **P 22 46 17.4 +1.2**
54nm,0.9s
**LHI Lord Howe Isla 20.07 239** *e*P **P 22 46 18.5 +1.0**
70nm,1.0s
**DSZ Denniston Nort 20.18 196** PN **P 22 46 19.3 +0.9**
**KHZ Kahutara 20.42 192** *e*P **P 22 46 22.2 +1.7**
91nm,1.4s
**LTZ Lake Taylor 21.04 194** *e*P **P 22 46 25.9 -0.2**
109nm,1.0s
**OXZ Oxford 21.61 194** *e*P **P 22 46 30.6 -0.6**
99nm,0.8s
**RPZ Rata Peaks 22.21 196** P **P 22 46 35.9 -0.7**
14nm,0.5s,baz=204,slow=1.6,SNR=19
**RPZ Rata Peaks 22.21 196** *e*P **P 22 46 37.9 +1.3**
150nm,1.9s
**FOZ Fox Glacier 22.38 198** *e*P **P 22 46 38.7 +0.7**
100nm,1.0s
**FOZ Fox Glacier 22.38 198** PN **P 22 46 38.2 +0.2**
**LBZ Lake Benmore 23.07 197** *e*P **P 22 46 44.2 +0.1**
47nm,1.1s
**JCZ Jackson Bay 23.18 199** PN **P 22 46 45.5 +0.3**
**ODZ Otahua Downs 23.56 195** *e*P **P 22 46 49.0 +0.5**
48nm,1.4s
**WKZ Wanaka 23.80 198** *e*P **P 22 46 50.9 +0.3**
90nm,1.2s
**MLZ Mavora Lakes 24.55 199** *e*P **P 22 46 58.6 +1.3**
120nm,0.9s
**DCZ Deep Cove 24.94 200** *e*P **P 22 47 02.0 +1.4**
36nm,1.1s
**WHZ Wether Hill Ro 25.08 199** *e*P **P 22 47 03.4 +1.5**
160nm,1.2s
**EIDS Eidsvold 25.87 258** *e*P **P 22 47 10.3 +1.2**
32nm,0.8s
**ARMA Armidale 25.89 246** *e*P **P 22 47 11.7 +2.3**
22nm,0.9s
**CAN Canberra 29.26 237** *e*P **P 22 47 39.8 +1.2**
21nm,1.4s
**CTA Charters Tower 30.79 268** P **P 22 47 52.6 +0.8**
CTA pmax pmax
comp=Z,155nm,1.1s
**CTAO Charters Tower 30.79 268** *e*P **P 22 47 52.8 +1.0**
CTAO pmax pmax
comp=Z,92nm,0.7s
**CTAO Charters Tower 30.79 268** *e*P **P 22 47 52.8 +1.0**
comp=Z,92nm,0.7s
**MTSU Mount Surprise 32.98 271** P **P 22 48 11.1 +0.7**
baz=33,SNR=22
**XMAS Kiritimati 33.36 46** *e*P **P 22 48 12.8 -0.8**
comp=Z,76nm,1.0s
**PMG Port Moresby 33.38 288** *d i*P **P 22 48 13.8 0.0**
PMG pmax pmax
comp=Z,522nm,0.9s
**PMG Port Moresby 33.38 288** *e*P **P 22 48 13.7 0.0**
comp=Z,135nm,0.8s
**STKA Stephens Creek 34.61 246** P **P 22 48 24.4 +0.6**
comp=Z,9.3nm,0.4s,baz=90,slow=9.7,SNR=40
STKA S **S 22 53 10.8 -0.7**
comp=Z,2.3nm,0.8s,baz=166,slow=22,SNR=3.0
**STKA Stephens Creek 34.61 246** P **P 22 48 25.1 +1.3**
baz=35,SNR=29
**STKA Stephens Creek 34.61 246** *e*P **P 22 48 25.1 +1.3**
STKA pmax pmax
comp=Z,5.0nm,0.9s
**STKA Stephens Creek 34.61 246** *e*P **P 22 48 25.1 +1.3**
comp=Z,4.7nm,0.9s
**COEN Coen 35.21 278** P **P 22 48 29.7 +0.8**
baz=35,SNR=4.7
**COEN Coen 35.21 278** *e*P **P 22 48 29.6 +0.7**
comp=Z,39nm,1.1s
**QIS Mount Isa 36.84 265** P **P 22 48 42.2 -0.1**
baz=37,SNR=7.2
**BBOO Buckleboo 39.36 245** P **P 22 49 02.7 +0.2**
baz=40,SNR=31
**BBOO Buckleboo 39.36 245** *e*P **P 22 49 02.9 +0.4**
comp=Z,24nm,0.8s
**JOHN Johnston Islan 40.51 17** *e*P **P 22 49 11.0 -0.7**
**AS01 Alice Springs 41.54 259** *e*P **P 22 49 20.0 +0.1**
AS01 *e*PcP **PcP 22 51 02.1 -0.3**
**AS31 Alice Springs 41.58 259** *e*P **P 22 49 20.4 +0.2**
comp=Z,14nm,0.7s
AS31 *e*S **S 22 54 54.7 +0.7**
**ASAR Alice Springs 41.58 259** P **P 22 49 20.4 +0.2**
comp=Z,49nm,0.7s,baz=98,slow=7.9,SNR=364
ASAR PcP **PcP 22 51 02.4 -0.2**
comp=Z,3.7nm,0.7s,baz=102,slow=3.4,SNR=8.2
ASAR ScP **ScP 22 53 56.9 +1.4**
comp=Z,0.4nm,0.7s,baz=108,slow=5.0,SNR=3.0
ASAR S **S 22 54 51.1 -2.9**
comp=Z,5.4nm,1.0s,baz=94,slow=16,SNR=16
ASAR ScS **ScS 22 58 16.0 +0.9**
comp=Z,1.0nm,0.9s,baz=98,slow=8.0,SNR=5.1
**WB2 Warramunga Arr 41.80 265** *e*P **P 22 49 21.4 -0.6**
WB2 *e*S **S 22 54 56.5 -0.6**
**WRAB Tennant Creek 41.80 265** *d i*P **P 22 49 21.4 -0.6**
WRAB pmax pmax
comp=Z,52nm,1.0s
**WRAB Tennant Creek 41.80 265** *e*P **P 22 49 21.5 -0.5**
comp=Z,59nm,1.0s
**WRA Warramunga Arr 41.81 265** P **P 22 49 21.7 -0.4**
comp=Z,38nm,0.9s,baz=99,slow=7.7,SNR=448
WRA PcP **PcP 22 51 03.8 +0.5**
comp=Z,1.9nm,0.5s,baz=99,slow=3.8,SNR=6.3
WRA ScP **ScP 22 53 56.9 +0.5**
comp=Z,1.1nm,1.0s,baz=112,slow=4.3,SNR=3.3
WRA S **S 22 54 53.9 -3.3**
comp=Z,2.1nm,0.9s,baz=105,slow=19,SNR=4.4
**FORT Forrest 46.15 248** P **P 22 49 55.1 -0.1**
baz=46,SNR=8.1
**FORT Forrest 46.15 248** *e*P **P 22 49 55.0 -0.2**
comp=Z,540nm,0.8s
**MTN Manton Dam 46.65 273** *e*P **P 22 49 58.4 -0.9**
comp=Z,24nm,0.6s
**SOEI Soe 54.03 274** *e*P **P 22 50 53.7 +0.8**
comp=Z,127nm,1.0s
**KLBR Kellerberrin 54.89 246** P **P 22 50 58.3 -0.3**
baz=55,SNR=14
**MBWA Marble Bar 54.93 259** *e*P **P 22 50 58.4 -0.6**
comp=Z,182nm,0.8s
**NWAO Narrogin (SRO) 55.18 245** P **P 22 51 00.4 -0.1**
baz=55,SNR=12
NWAO P **P 22 51 00.4 -0.1**
baz=55,SNR=12
**RKGY Rocky Gully 55.23 243** P **P 22 51 01.2 +0.4**
baz=55,SNR=6.1
**VNDA Vanda 55.71 185** P **P 22 51 05.0 +1.6**
comp=Z,1.4nm,0.8s,baz=11,slow=8.4,SNR=6.2
VNDA PcP **PcP 22 51 54.0 +0.6**
comp=Z,0.9nm,0.6s,baz=11,slow=5.2,SNR=3.4
**BLDU Ballidu 55.90 247** P **P 22 51 05.1 -0.4**
baz=56,SNR=37
**MUN Mundaring 56.15 246** P **P 22 51 06.9 -0.3**
baz=56,SNR=5.9
**LUWI Luwuk 58.82 283** *e*P **P 22 51 25.6 +0.1**
comp=Z,52nm,1.0s
**MPSI Mapaga 62.00 283** P **P 22 51 45.4 -1.0**
comp=Z,33nm,0.8s
**JAGI Jajag, Banyuwa 63.82 271** P **P 22 51 56.3 -1.8**
comp=Z,48nm,0.9s
**KBKI Kotabaru 63.90 278** P **P 22 51 59.1 +0.5**
KBKI pP PcP 22 52 39.6 +12
**KMMI Kalianget 64.50 273** P **P 22 52 01.8 -0.6**
comp=Z,77nm,1.1s
**GMJI Gumukmas 64.55 271** P **P 22 52 01.5 -1.2**
comp=Z,31nm,1.0s
**BLJI Banyuglugur 64.60 272** P **P 22 52 02.3 -0.7**
comp=Z,52nm,0.7s
**GRJI Gresik 65.93 272** P **P 22 52 10.7 -0.6**
comp=Z,109nm,0.9s,comp=Z,893nm
**PWJI Pagerwojo 66.15 271** P **P 22 52 11.9 -0.8**
comp=Z,32nm,1.3s
**TBJI Tambak Boyo 66.55 272** P **P 22 52 13.9 -1.2**
comp=Z,111nm,1.0s
**PCJI Pacitan 66.67 271** P **P 22 52 15.6 -0.3**
comp=Z,106nm,0.9s
**UGM Wanagama 67.38 271** P **P 22 52 19.3 -0.9**
comp=Z,152nm,2.0s
UGM pP PcP 22 53 00.0 +18
comp=Z,152nm,2.0s
**QSPA South Pole Qui 67.58 180** *e*P **P 22 52 21.6 +0.9**
comp=Z,47nm,0.9s
**MJAR Matsushiro Arr 70.35 326** P **P 22 52 37.1 -0.4**
comp=Z,4.6nm,0.8s,baz=158,slow=6.0,SNR=8.9
**MAJO Matsushiro 70.35 326** *e*P **P 22 52 36.3 -1.2**
MAJO pmax pmax
comp=Z,13nm,1.0s
**KSRS Kora Array 76.72 320** P **P 22 53 13.3 -0.2**
comp=Z,4.2nm,0.9s,baz=134,slow=5.4,SNR=8.3
**KS01 Wonju Array Si 76.76 320** *e*P **P 22 53 14.0 +0.3**
**PETK Petropavlovsk- 77.58 347** P **P 22 53 17.7 -0.1**
comp=Z,7.5nm,0.6s,baz=128,slow=6.4,SNR=8.8
**MAW Mawson 78.81 200** P **P 22 53 24.0 -0.2**
comp=Z,2.5nm,0.5s,baz=148,slow=5.3,SNR=9.3
**MAW Mawson 78.81 200** P **P 22 53 25.2 +0.9**
baz=79,SNR=11
**NJ2 Nanjing 79.21 311** *e*P **P 22 53 27.8 +0.8**
NJ2 pmax pmax
comp=Z,13nm,0.6s
**USRK Ussuriysk Ar. 79.21 327** P **P 22 53 27.1 +0.5**
comp=Z,6.5nm,0.8s,baz=72,slow=6.2,SNR=6.8
**MDJ Mudanjiang 80.71 327** P **P 22 53 35.5 +1.0**
MDJ pP pP 22 55 43.1 +0.7
MDJ sP sP 22 56 43.5 -0.4
MDJ S **S 23 02 54.8 +1.8**
MDJ pmax pmax
comp=Z,12nm,1.0s
MDJ pmax pmax
comp=Z,87nm,4.2s
**IPM Ipoh 80.86 279** *e*P **P 22 53 36.0 0.0**
comp=Z,25nm,0.8s
**WHN Wuhan 81.59 308** P **P 22 53 37.8 -1.5**
**PSI Prapat 82.12 276** *e*P **P 22 53 41.1 -1.5**
PSI pmax pmax
comp=Z,12nm,0.9s
**PSI Prapat 82.12 276** *e*P **P 22 53 41.1 -1.5**
comp=Z,12nm,0.9s
**CN2 Changchun 82.35 324** *e*P **P 22 53 42.9 +0.1**
CN2 pmax pmax
comp=Z,10.0nm,1.2s
**EDW2 Edwards Air Fo 82.46 48** P **P 22 53 44.8 +1.1**
baz=236
**CMB Columbia Colle 82.68 44** *e*P **P 22 53 45.4 +0.7**
**CMB Columbia Colle 82.68 44** *e*P **P 22 53 45.4 +0.7**
**AFDM Forest Hills D 82.84 43** *e*P **P 22 53 45.8 +0.3**
comp=Z,5.5nm,1.1s
**KBO Bosley Butte 82.87 39** *e*P **P 22 53 46.1 +0.5**
comp=Z,128nm,1.4s
**KLR Kul'dur 82.97 331** *e*P **P 22 53 46.7 +0.9**
**MDPB Devils Postpil 83.29 45** *e*P **P 22 53 46.0 -2.0**
comp=Z,15nm,1.0s
**SKNT Sakolnakorn 83.40 291** P **P 22 53 49.9 +1.2**
comp=Z,124nm,1.6s
**SKNT Sakolnakorn 83.40 291** P **P 22 53 49.9 +1.2**
comp=Z,124nm,1.6s
**HEC Hector,Ludlow 83.57 48** P **P 22 53 50.3 +1.0**
baz=237
**IRM Iron Mountain 84.04 49** P **P 22 53 52.7 +1.2**
baz=238
**KHON Khomkaen 84.13 290** P **P 22 53 54.2 +1.9**
comp=Z,8.4nm,1.3s
**SYO Syowa Base 84.20 194** *e*X P 22 53 43.4 -8.3
**NV01 Mina Array Sit 84.25 44** *e*P **P 22 53 53.1 +0.4**
**NONG Nongkai 84.59 292** P **P 22 53 50.1 -4.4**
comp=Z,51nm,0.9s,comp=Z,7μm
**ENH Enshi 85.06 305** *e*P **P 22 53 57.0 +0.4**
comp=Z,32nm,1.1s
**GYA Guiyang 85.43 301** *e*P **P 22 53 59.0 +0.5**
GYA pP pP 22 56 10.4 +2.0
GYA PP **PP 22 57 32.3 +3.4**
GYA SKS **SKSac 23 03 25.0 -1.6**
GYA S **S 23 03 40.5 +0.3**
GYA pmax pmax
comp=Z,20nm,1.0s
**BJI Beijing 85.53 317** P **P 22 53 58.8 +0.3**
BJI pmax pmax
comp=Z,7.0nm,1.0s
**SNAA Sanae 86.07 179** P **P 22 53 58.7 -2.0**
**VNA3 Neumayer Olymp 86.30 177** P **P 22 53 58.9 -2.9**
**VNA2 Neumayer--Watz 86.71 178** P **P 22 54 03.2 -0.5**
baz=184,slow=4.0
**I07A Izee 86.75 39** *e*P **P 22 54 04.7 +0.3**
comp=Z,5.4nm,1.1s
**B04A Port Angeles 86.94 34** *e*P **P 22 54 05.6 +0.6**
**J08A Circle Bar Ran 86.94 40** *e*P **P 22 54 04.7 -0.6**
comp=Z,4.3nm,0.9s
**VNA1 Neumayer--Stat 86.95 178** P P 22 53 56.3 -8.5
**XAN Xi'an 87.32 308** P **P 22 54 07.9 +0.7**
XAN pmax pmax
comp=Z,11nm,1.0s
XAN pmax pmax
comp=Z,170nm,5.1s
**SEY Seymchan 87.76 348** *e*P **P 22 54 07.3 -1.2**
**G08A Pilot Rock 87.77 39** *e*P **P 22 54 09.1 0.0**
comp=Z,4.1nm,0.8s
**KMI Kunming 87.98 298** P **P 22 54 12.0 +1.3**
KMI pmax pmax
comp=Z,7.0nm,1.0s
**HAWA Hanford 88.09 37** *e*P **P 22 54 11.4 +1.0**
comp=Z,32nm,2.1s
**MTPU Mount Pierson 88.10 47** *e*P **P 22 54 10.8 -0.3**
comp=Z,13nm,1.6s
**CM01 Chiang Mai Arr 88.35 291** *e*P **P 22 54 13.3 +1.1**
**CMAR Chiang Mai Arr 88.38 291** P **P 22 54 13.4 +1.0**
comp=Z,7.9nm,1.0s,baz=128,slow=3.0,SNR=31
**CMMT Chiang Mai 88.52 291** P **P 22 54 14.3 +1.2**
comp=Z,16nm,1.2s
**CHTO Chiang Mai 88.52 291** P **P 22 54 14.4 +1.3**
**CHTO Chiang Mai 88.52 291** P **P 22 54 14.4 +1.3**
comp=Z,73nm,1.3s
**CHTO Chiang Mai 88.52 291** *e*P **P 22 54 14.3 +1.3**
**CHTO Chiang Mai 88.52 291** *e*P **P 22 54 14.3 +1.3**
**HIA Hailar 88.85 326** *e*P **P 22 54 14.0 +1.0**
HIA pmax pmax
comp=Z,3.0nm,1.0s
**HHC Hu-ho-hao-te 88.93 315** *e*P **P 22 54 15.8 +1.2**
HHC S **S 23 04 13.4 +1.2**
HHC SS **SS 23 10 28.3 +3.4**
HHC pmax pmax
comp=Z,12nm,1.0s
HHC pmax pmax
comp=Z,140nm,4.7s
**CD2 Chengdu 89.72 304** *e*P **P 22 54 19.8 +1.4**
CD2 pP pP 22 56 23.1 -6.7
CD2 PP **PP 22 57 59.8 -2.7**
CD2 S **S 23 04 14.8 -4.8**
CD2 pmax pmax
comp=Z,20nm,1.5s
CD2 pmax pmax
comp=Z,420nm,6.6s
**PLCA Paso Flores 89.74 135** P **P 22 54 19.7 +1.2**
comp=Z,1.4nm,1.0s,baz=269,slow=3.2,SNR=3.2
**SRU San Rafael Swe 89.76 47** *e*P **P 22 54 20.0 +1.4**
SRU pmax pmax
comp=Z,6.0nm,0.9s
**SRU San Rafael Swe 89.76 47** *e*P **P 22 54 20.0 +1.4**
comp=Z,6.0nm,0.9s
**TCUT Toone Canyon 90.17 45** *e*P **P 22 54 22.2 +1.6**
comp=Z,10.0nm,0.9s
**TXAR Lajitas Array 90.30 58** P **P 22 54 21.9 +0.7**
comp=Z,1.0nm,0.8s,baz=224,slow=5.2,SNR=10
**ANMO Albuquerque 90.66 52** *e*P **P 22 54 22.9 0.0**
ANMO pmax pmax
comp=Z,2.0nm,1.0s
**ILAR Eielson Array 90.84 14** P **P 22 54 22.1 -0.6**
comp=Z,0.4nm,0.6s,baz=216,slow=5.1,SNR=9.2
**LZH Lanzhou 91.96 308** *e*P **P 22 54 30.1 +1.3**
LZH sP sP 22 57 39.8 -1.1
LZH pmax pmax
comp=Z,18nm,1.0s
LZH pmax pmax
comp=Z,110nm,4.2s
**PDAR Pinedale Array 92.18 44** P **P 22 54 30.0 +0.2**
comp=Z,0.5nm,0.7s,baz=132,slow=2.2,SNR=4.4
**LKWY Lake 92.52 42** *e*P **P 22 54 32.2 +0.9**
**LKWY Lake 92.52 42** *e*P **P 22 54 32.2 +0.9**
**YAK Yakutsk 93.02 339** *e*P **P 22 54 31.3 -1.4**
YAK pmax pmax
comp=Z,5.0nm,0.9s
**KSCO Kaye Shedlock' 95.19 50** *e*P **P 22 54 43.0 -0.4**
comp=Z,18nm,0.5s
KSCO *e*S **S 23 05 04.3 -2.8**
**SONM Songino Array 95.58 320** P **P 22 54 44.3 -0.6**
comp=Z,0.6nm,0.8s,baz=140,slow=7.2,SNR=5.0
**GTA Gaotai 96.26 310** *e*P **P 22 54 49.4 +1.2**
GTA pP pP 22 57 03.3 +3.0
GTA pmax pmax
comp=Z,3.0nm,1.1s
**ZALV Zalesovo Beam 110.42 321** PKiKP **PKiKP 22 59 46.4 -0.9**
comp=Z,0.5nm,0.4s,baz=134,slow=1.3,SNR=3.2
**MKAR Makanchi Array 110.69 313** PKiKP **PKiKP 22 59 46.9 -1.3**
comp=Z,0.8nm,0.7s,baz=122,slow=1.9,SNR=9.3
**KSH Kashi 113.90 305** *e*PKP **PKiKP 22 59 57.3 +2.6**
KSH PP PP 23 01 10.3 +10
KSH sPKP 23 03 12.8
KSH SKS **SKSdf 23 06 13.3 +3.4**
KSH SKKS **SKKSac 23 06 59.6 +0.8**
KSH AMB AMB
comp=Z,66nm,3.9s
**ARU Arti 125.34 324** *i* PKiKP **PKPdf 23 00 15.5 -0.4**
ARU 23 02 16.5
ARU PPP PPP 23 05 02.9
ARU 23 06 30.1
ARU SS SS 23 18 20.4 -8.4
**ARU Arti 125.34 324** *e*PKPdf **PKPdf 23 00 15.4 -0.5**
**GEYT Alibeck 127.65 301** PKP **PKPdf 23 00 21.3 +0.3**
comp=Z,2.8nm,0.6s,baz=241,slow=1.5,SNR=7.7
**ARCES ARCESS Array B 130.38 348** PKP **PKPdf 23 00 24.9 -0.3**
comp=Z,1.1nm,0.8s,baz=48,slow=1.3,SNR=3.8
ARCES SKPbc **SKPbc 23 02 52.4 -0.2**
comp=Z,3.8nm,0.6s,baz=45,slow=4.0,SNR=14
**MAK Makhachkala 135.25 309** *e*P **Pdif 22 57 41.8 +0.5**
MAK *i* 23 00 36.5
MAK *e* 23 03 23.1
MAK *e*SP SP 23 12 38.6 -5.2
MAK pmax pmax
comp=Z,301nm,1.5s
**FINES FINESS Array B 136.90 341** PKhKP PKPpre 23 00 27.9
comp=Z,7.7nm,1.1s,baz=63,slow=3.7,SNR=5.3
FINES PKP **PKPdf 23 00 38.4 +0.8**
comp=Z,0.7nm,0.3s,baz=44,slow=1.7,SNR=7.5
FINES SKPbc **SKPbc 23 03 13.0 -1.0**
comp=Z,3.5nm,0.8s,baz=50,slow=3.0,SNR=7.0
**NB2 NORSAR Subarra 140.59 351** PKP PKPpre 23 00 38.0
comp=Z,7.5nm,1.4s,baz=17,slow=2.6
**NOA NORSAR Array B 140.59 351** PKhKP PKPpre 23 00 38.5
comp=Z,0.3nm,0.5s,baz=17,slow=4.8,SNR=5.5
**KEMA Kemaliye 142.72 306** *i* P PKPdf **23 00 46.7 -2.2**
**HEKM Malatya_Hekimh 143.22 305** *i* P PKPbc 23 00 49.0 +0.5
**AKCD Akcadag 143.40 304** *i* P PKPbc 23 00 49.1 +0.1
**AKASG Malin Array Be 143.42 328** PKP PKPab 23 00 47.3 -1.0
comp=Z,14nm,0.7s,baz=42,slow=4.4,SNR=28
**AKBB Malin Array Si 143.42 328** *e*PKPbc PKPab 23 00 47.1 -1.2
**AK11 Malin Array Si 143.46 328** *e*PKPbc PKPab 23 00 47.1 -1.3
**SUW Suwalki 143.70 336** *e*PKP PKPbc 23 00 48.9 -0.3
**ELBS KAHRAMANMARAS 143.99 305** *i* P **PKPdf 23 00 51.8 +0.6**
**SORM Soroca 145.46 325** ⇑*i*P **PKPdf 23 00 54.1 +0.9**
**BR131 Keskin Array S 146.16 308** *e*PKPdf **PKPbc 23 00 56.5 -0.6**
**BRTR Keskin Array B 146.16 308** PKPbc **PKPdf 23 00 56.2 +1.3**
comp=Z,3.9nm,0.8s,baz=130,slow=4.9,SNR=16
**BEL Belsk 146.31 336** *e*PKP **PKPbc 23 00 56.8 -0.1**
**LVV L'vov 146.48 331** *e*PKHKP **PKPbc 23 00 56.9 -0.6**
**BR231 Keskin MP Arra 146.75 309** *e*PKPdf **PKPdf 23 00 55.3 -0.5**
BR231 *e*PKPbc **PKPbc 23 00 58.6 -0.1**
**TLCR 146.90 320** ⇓*i*P **PKPbc 23 00 58.2 -0.6**
**KWP Kalwaria Pacla 147.21 331** *e*PKP **PKPbc 23 00 59.1 -0.4**
**KWP Kalwaria Pacla 147.21 331** *e*PKIKP **PKPbc 23 00 59.1 -0.4**
**CFR Carcaliu 147.31 321** ⇓*i*P **PKPbc 23 01 00.1 +0.2**
**CFR Carcaliu 147.31 321** ⇓PKIKP **PKPbc 23 01 00.0 +0.2**
**TESR Tescani 147.37 324** ⇓*i*P **PKPbc 23 00 59.4 -0.6**
**BUR08 Bucovina Ar. S 147.41 327** *e*PKPbc **PKPbc 23 01 00.2 0.0**
**BUR04 Bucovina Ar. S 147.42 327** *e*PKPbc **PKPbc 23 01 00.5 +0.3**
**BURAR Bucovina Array 147.42 327** ⇑*i*P **PKPbc 23 01 01.2 +1.0**
**TIRR Tirgusor 147.54 319** ⇑*i*P **PKPbc 23 00 59.4 -1.0**
**HARR Harsova 147.70 320** ⇓*i*P **PKPab 23 01 07.8 +2.3**
**HARR Harsova 147.70 320** ⇓PKP2 **PKPab 23 01 07.8 +2.3**
**VRI Vrincioaia 147.71 323** ⇑*i*P **PKPbc 23 01 00.5 -0.4**
**VRI Vrincioaia 147.71 323** ⇑PKIKP **PKPbc 23 01 00.5 -0.4**
**OJC Ojcow 147.97 335** *e*PKP **PKPbc 23 01 00.9 -0.5**
**OJC Ojcow 147.97 335** *e*PKIKP **PKPbc 23 01 00.9 -0.5**
**OJC Ojcow 147.97 335** *e*PKPbc **PKPbc 23 01 00.9 -0.5**
**STHS Stebnicka Huta 148.00 332** *e*PKIKP **PKPbc 23 01 01.6 +0.1**
**STHS Stebnicka Huta 148.00 332** *e*PKP **PKPbc 23 01 01.6 +0.1**
**UZH Uzhgorod 148.12 331** *c i*PKIKP **PKPbc 23 01 01.2 -0.6**
UZH *i* 23 01 06.2
**PGOR Pogoanele 148.13 321** ⇑*i*P **PKPab 23 01 08.9 +1.7**
**ARCR ARCALIA 148.21 327** ⇑*i*P PKPab 23 01 18.2 +11
**CRVS Cervenica-Dubn 148.29 332** *e*PKIKP **PKPbc 23 01 02.5 +0.3**
CRVS *e* 23 01 07.7
**CRVS Cervenica-Dubn 148.29 332** *e*PKP **PKPbc 23 01 02.5 +0.3**
CRVS *e* 23 01 07.7
**MLR Muntele Rosu 148.38 323** ⇓*i*P **PKPbc 23 01 02.9 +0.2**
**MLR Muntele Rosu 148.38 323** ⇓PKIKP **PKPbc 23 01 02.9 +0.2**
**MLR Muntele Rosu 148.38 323** *e*PKPbc **PKPbc 23 01 02.6 -0.1**
**DOPR Dopca 148.39 324** ⇑*i*P **PKPbc 23 01 02.7 +0.1**
**NIE Niedzica 148.40 333** *e*PKP **PKPbc 23 01 02.8 +0.3**
**NIE Niedzica 148.40 333** *e*PKIKP **PKPbc 23 01 02.8 +0.3**
**KSP Ksiaz 148.73 339** *e*PKP **PKPbc 23 01 02.9 -0.3**
**KSP Ksiaz 148.73 339** *e*PKIKP **PKPbc 23 01 02.9 -0.3**
**CJR Cluj-Napoca 148.84 327** ⇓*i*P **PKPbc 23 01 03.6 -0.1**
**CJR Cluj-Napoca 148.84 327** ⇓PKIKP **PKPbc 23 01 03.6 -0.1**
**VOIR 148.91 324** ⇑*i*P **PKPbc 23 01 04.5 +0.6**
**VOIR 148.91 324** ⇑PKIKP **PKPbc 23 01 04.5 +0.6**
**OKC Ostrava-Krasne 148.92 336** ⇑*i*P **PKPbc 23 01 03.5 -0.2**
OKC *e*PKPab **PKPab 23 01 10.8 +0.5**
**OKC Ostrava-Krasne 148.92 336** *e*PKIKP **PKPbc 23 01 03.5 -0.2**
OKC *e* 23 01 10.8
**LANS Liptovska Anna 148.95 334** *e*PKIKP **PKPbc 23 01 04.5 +0.6**
LANS *e* 23 01 10.8
**LANS Liptovska Anna 148.95 334** *e*PKP **PKPbc 23 01 04.5 +0.6**
LANS *e* 23 01 10.8
**KECS Kecovo 149.04 332** *e*PKIKP **PKPbc 23 01 04.4 +0.4**
KECS *e* 23 01 10.4
**KECS Kecovo 149.04 332** *e*PKP **PKPbc 23 01 04.4 +0.4**
KECS *e* 23 01 10.4
**UPC Upice 149.11 339** ⇑*e*PKP **PKPbc 23 01 04.0 -0.2**
UPC *e*PKPAB **PKPab 23 01 11.1 0.0**
**UPC Upice 149.11 339** *e*PKIKP **PKPbc 23 01 04.0 -0.2**
UPC *e* 23 01 11.1
**DPC Dobruska-Polom 149.14 338** ⇑*e*PKP **PKPbc 23 01 04.3 0.0**
DPC *e*PKPAB **PKPab 23 01 12.2 +0.9**
**DPC Dobruska-Polom 149.14 338** *e*PKIKP **PKPbc 23 01 04.3 0.0**
DPC *e* 23 01 12.2
**ARR Arges 149.18 324** ⇑*i*P **PKPbc 23 01 05.5 +0.9**
**MORC Moravsky Berou 149.19 337** ⇓*i*P **PKPbc 23 01 04.7 +0.3**
**MORC Moravsky Berou 149.19 337** *e*PKIKP **PKPbc 23 01 04.2 -0.2**
**MORC Moravsky Berou 149.19 337** *e*PKPbc **PKPbc 23 01 04.2 -0.2**
**DRGR 149.23 328** ⇓*i*P **PKPbc 23 01 04.2 -0.5**
**DRGR 149.23 328** ⇓PKIKP **PKPbc 23 01 04.2 -0.5**
**CLL Collm 149.32 343** ⇓*i*PKIKP **PKPbc 23 01 04.3 -0.3**
CLL *i* 23 01 11.5
CLL pmax pmax
comp=Z,34nm,1.0s
CLL pmax pmax
comp=Z,814nm,0.8s
**CLL Collm 149.32 343** ⇓*i*PKPbc **PKPbc 23 01 04.3 -0.3**
comp=Z,34nm,1.0s
CLL ⇑*i*PKPab **PKPab 23 01 11.5 -0.4**
comp=Z,8.0nm,0.8s

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **CLL** | **Collm** | **149.32** | **343** | *e*PKPbc | **PKPbc** | **23 01 04.0** | **-0.5** |
| **BRG** | **Berggiesshubel** comp=Z,23nm,1.0s | **149.44** | **342** | *i* PKP | **PKPbc** | **23 01 04.7** | **-0.2** |
| **BRG** | **Berggiesshubel** comp=Z,23nm,1.0s | **149.44** | **342** | *i* PKP | **PKPbc** | **23 01 04.7** | **-0.2** |
| **PVCC** | **Panska Ves** | **149.56** | **341**↑ | *e*PKP | **PKPbc** | **23 01 05.1** | **-0.1** |
| **PVCC** | **Panska Ves** | **149.56** | **341** | *e*PKIKP | **PKPbc** | **23 01 05.1** | **-0.1** |
| **PSZ** | **Piszkesteto** | **149.72** | **332**↓ | *i*P | **PKPbc** | **23 01 06.1** | **+0.3** |
| **PSZ** | **Piszkesteto** | **149.72** | **332** | ↓PKIKP | **PKPbc** | **23 01 06.1** | **+0.3** |
| **PSZ** | **Piszkesteto** | **149.72** | **332** | *e*PKPbc | **PKPbc** | **23 01 05.7** | **-0.1** |
| **VYHS** | **Vyhne** | **149.72** | **334** | *e*PKIKP | **PKPbc** | **23 01 05.5** | **-0.2** |
| VYHS | | | | *e* | | 23 01 14.1 | |
| **VYHS** | **Vyhne** | **149.72** | **334** | *e*PKP | **PKPbc** | **23 01 05.5** | **-0.2** |
| VYHS | | | | *e* | | 23 01 14.1 | |
| **VRAC** | **Vranov** | **149.93** | **337**↓ | *i*P | **PKPbc** | **23 01 06.0** | **-0.1** |
| **GOPC** | **GO Pecny, Ondr** | **150.03** | **340**↑ | *e*PKP | **PKPbc** | **23 01 06.1** | **-0.3** |
| **PRU** | **Pruhonice** | **150.04** | **340**↑ | *e*PKP | **PKPbc** | **23 01 06.0** | **-0.3** |
| PRU | | | | *e*PKPAB | **PKPab** | **23 01 14.5** | **-0.5** |
| **SIRR** | **Siria** | **150.12** | **328**↓ | *i*P | **PKPbc** | **23 01 06.5** | **-0.2** |
| **NKC** | **Novy Kostel** | **150.44** | **343**↑ | *e*PKP | **PKPbc** | **23 01 07.3** | **0.0** |
| **BZS** | **Buzias** | **150.60** | **327**↓ | *i*P | **PKPbc** | **23 01 07.8** | **0.0** |
| **HERR** | **Herculane** | **150.69** | **325**↑ | *i*P | **PKPbc** | **23 01 06.6** | **-1.4** |
| **KHC** | **Kasperske Hory** | **151.09** | **340**↑ | *e*PKP | **PKPbc** | **23 01 08.3** | **-0.6** |
| KHC | | | | *e*PKPAB | **PKPab** | **23 01 20.1** | **+0.6** |
| KHC | | | | *e*pPKP | **pPKPab** | **23 03 31.3** | **-2.1** |
| **KHC** | **Kasperske Hory** | **151.09** | **340** | *e*PKPbc | **PKPbc** | **23 01 08.5** | **-0.4** |
| **GEC2** | **GERESS Array S** | **151.31** | **340** | *e*PKPbc | **PKPbc** | **23 01 09.6** | **+0.2** |
| **GERES** | **GERESS Array B** comp=Z,3.5nm,0.8s,baz=23,slow=1.7,SNR=20 | **151.31** | **340** | PKPbc | **PKPbc** | **23 01 08.7** | **-0.8** |
| **GEA0** | **GERESS Array S** | **151.31** | **340** | *e*PKPbc | **PKPbc** | **23 01 08.7** | **-0.8** |
| **CONA** | **Conrad Observa** comp=Z,17nm,1.2s | **151.35** | **336** | *i* PKPbc | **PKPbc** | **23 01 09.4** | **-0.1** |
| **MOA** | **Molln** comp=Z,2.2nm,0.6s | **151.98** | **338** | *i* PKPbc | **PKPbc** | **23 01 10.3** | **-0.5** |
| **SOKA** | **Soboth** comp=Z,3.4nm,0.8s | **152.70** | **336** | *e*PKPbc | **PKPbc** | **23 01 11.6** | **-1.0** |
| **WTTA** | **Wattenberg** comp=Z,2.4nm,0.5s | **153.35** | **341** | *i* PKPbc | **PKPbc** | **23 01 13.4** | **-0.6** |
| **MOTA** | **Moosalm** comp=Z,12nm,1.5s | **153.43** | **342** | *e*PKiKP | **PKPbc** | **23 01 14.2** | **0.0** |
| **ABTA** | **Abfaltersbach** comp=Z,2.2nm,0.6s | **153.53** | **339** | *i* PKPbc | **PKPbc** | **23 01 13.6** | **-0.8** |
| **ESDC** | **Sonseca Array** comp=Z,0.4nm,0.6s,baz=331,slow=3.7,SNR=4.0 | **162.66** | **8** | PKPab | **PKPab** | **23 02 09.9** | **+0.1** |
| **TOA0** | **Torodi Ar. Sit** | **170.41** | **195** | *e*PKPdf | **PKPdf** | **23 01 22.4** | **-1.1** |
| TOA0 | | | | *e*PKPab | **PKPab** | **23 02 44.5** | **0.0** |
| **TORD** | **Torodi Ar. Bea** comp=Z,2.0nm,1.1s,baz=63,slow=0.5,SNR=6.6 | **170.41** | **195** | PKP | **PKPdf** | **23 01 22.2** | **-1.3** |
| TORD | | | | PKPab | **PKPab** | **23 02 44.0** | **-0.5** |
| | comp=Z,1.2nm,0.6s,baz=171,slow=3.6,SNR=8.3 | | | | | | |

*KRNET **17** 23:16:48.9±0.1, 41.°93N×80.°70E, mb2.5*
*SOME **17** 23:16:50.7, 41.°78N×80.°35E, h25km*
*NNC **17** 23:16:52.5±3.2, 41.°91N×80.°17E, h23km±12km, mb3.1, mpv2.5, Error ellipse: s-maj=24.3km s-min=11.5km az=134.0*

**ISC 17 23:16:47.3±2.5, 41.°61N±0.°09×80.°43E±0.°07, h10km±13km, n23, σ1°36/45, 16C-7D, Southern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PRZ** | **Przheval'sk** baz=288 | **1.75** | **301** | ↑*i*P | **Pg** | **23 17 20.6** | **-0.1** |
| PRZ | | | | ↑*i*S | **Sg** | **23 17 44.3** | **+0.9** |
| | baz=288 | | | | | | |
| **KTMS** | **Ketmen** 27nm,0.1s | **1.84** | **358** | *e*P | **Pn** | **23 17 20.2** | **+1.2** |
| KTMS | | | | *e*S | **Sn** | **23 17 41.5** | **-0.9** |
| | 37nm,0.3s | | | | | | |
| **PDGK** | **Podgornoye** baz=328 | **1.86** | **338** | ↓*i*P | **Pn** | **23 17 18.8** | **-0.4** |
| PDGK | | | | ↓*i*S | **Sn** | **23 17 40.6** | **-2.2** |
| | baz=328 | | | | | | |
| **PDGK** | **Podgornoye** 0.7nm,0.7s | **1.86** | **338** | ↑Pn | **Pn** | **23 17 17.0** | **-2.2** |
| PDGK | | | | ↓Pg | **Pb** | **23 17 20.2** | **-1.2** |
| | 2.8nm,0.3s | | | | | | |
| PDGK | | | | ↑Lg | Lg | 23 17 41.2 | |
| | 5.1nm,0.3s | | | | | | |
| **UZB** | **Uzynbulak** 7.6nm,0.1s | **1.86** | **326** | *e*P | **Pb** | **23 17 21.9** | **+0.5** |
| UZB | | | | *e*S | **Sb** | **23 17 44.6** | **-0.2** |
| | 34nm,0.3s | | | | | | |
| **SATY** | **Saty** 5.4nm,0.1s | **2.09** | **315** | *e*P | **Pb** | **23 17 25.4** | **+0.1** |
| SATY | | | | *e*S | **Sn** | **23 17 50.1** | **+1.6** |
| | 18nm,0.1s | | | | | | |
| **ZHN** | **Zhinishke** 9.9nm,0.2s | **2.15** | **317** | *e*P | **Pb** | **23 17 25.8** | **-0.5** |
| ZHN | | | | *e*S | **Sn** | **23 17 50.8** | **+0.9** |
| | 40nm,0.3s | | | | | | |
| **KPKS** | **Kokpek** 11nm,0.2s | **2.26** | **326** | *e*P | **Pb** | **23 17 27.6** | **-0.6** |
| KPKS | | | | *e*S | **Sn** | **23 17 54.4** | **+1.6** |
| | 53nm,0.4s | | | | | | |
| **KURS** | **Kuram** 1.0nm,0.3s | **2.51** | **319** | *e*P | **Pb** | **23 17 32.3** | **-0.2** |
| KURS | | | | ↑*e*S | **Sb** | **23 18 02.4** | **-1.1** |
| | 8.3nm,0.3s | | | | | | |
| **DJR** | **Jarkent** 3.1nm,0.2s | **2.77** | **351** | *e*P | **Pb** | **23 17 36.5** | **-0.3** |
| DJR | | | | *e*S | **Sb** | **23 18 09.5** | **-1.2** |
| | 26nm,0.4s | | | | | | |
| **MNBS** | **Baschi** | **2.89** | **330** | *e*P | **Pb** | **23 17 38.7** | **-0.2** |
| MNBS | | | | *e*S | **Sb** | **23 18 13.3** | **-1.0** |
| **MDOK** | **Medeo** | **2.95** | **303** | Pg | **Pb** | **23 17 41.2** | **+1.3** |
| MDOK | | | | Lg | Lg | 23 18 16.2 | |
| **MDOK** | **Medeo** 2.7nm,0.8s | **2.95** | **303** | ↑*i*P | **Pb** | **23 17 39.8** | **-0.2** |
| MDOK | | | | ↓*i*S | **Sb** | **23 18 15.1** | **-1.0** |
| | 6.0nm,0.8s | | | | | | |
| **TNSS** | **Tian-Shan** 4.7nm,0.5s | **2.95** | **300** | *e*P | **Pb** | **23 17 40.5** | **+0.3** |
| TNSS | | | | *e*S | **Sb** | **23 18 16.3** | **-0.1** |
| | 6.3nm,0.6s | | | | | | |
| **ULHL** | **Ulahol** baz=277 | **3.19** | **283** | ↑*i*P | **Pb** | **23 17 43.5** | **-0.5** |
| ULHL | | | | ↑*i*S | **Sb** | **23 18 20.7** | **-2.3** |
| | baz=277 | | | | | | |
| **ARXS** | **Arharly** 1.8nm,0.2s | **3.23** | **325** | *e*P | **Pb** | **23 17 44.6** | **-0.1** |
| ARXS | | | | *e*S | **Sb** | **23 18 23.5** | **-0.6** |
| | 21nm,0.4s | | | | | | |
| **BOOM** | **Boomskoye usch** baz=281 | **3.46** | **286** | ↓*e*P | **Pb** | **23 17 47.0** | **-1.6** |
| BOOM | | | | ↓*i*S | **Sb** | **23 18 28.6** | **-2.1** |
| | baz=281 | | | | | | |
| **KAPS** | **Kapalarasan** 1.1nm,0.2s | **3.76** | **348** | *e*P | **Pb** | **23 17 54.3** | **+0.5** |
| KAPS | | | | *e*S | **Sb** | **23 18 40.0** | **+0.7** |
| | 6.0nm,0.4s | | | | | | |
| **KUU** | **Kurty** 1.2nm,0.5s | **3.78** | **309** | *e*P | **Pb** | **23 17 53.9** | **-0.1** |
| KUU | | | | ↑*i*S | **Sb** | **23 18 39.3** | **-0.5** |
| | 4.9nm,0.3s | | | | | | |
| **DGS** | **Degeres** 1.0nm,1.0s | **3.81** | **297** | *e*P | **Pb** | **23 17 54.9** | **+0.3** |
| DGS | | | | *e*S | **Sb** | **23 18 40.8** | **-0.1** |
| | 3.6nm,0.5s | | | | | | |
| **TKM2** | **Tokmak 2** baz=286 | **3.82** | **292** | ↑*i*P | **Pb** | **23 17 50.8** | **-4.0** |
| TKM2 | | | | ↑*i*S | **Sn** | **23 18 33.7** | **+2.4** |
| | baz=286 | | | | | | |
| **TKM2** | **Tokmak 2** 1.5nm,0.9s | **3.82** | **292** | ↑Pn | **Pn** | **23 17 47.2** | **+0.9** |
| TKM2 | | | | ↑Pg | **Pb** | **23 17 57.7** | **+3.0** |
| | 3.2nm,1.1s | | | | | | |
| TKM2 | | | | ↑Lg | Lg | 23 18 45.2 | |
| | 2.1nm,0.5s | | | | | | |
| **MK31** | **Makanchi Array** 0.2nm,0.3s,baz=202,slow=12,SNR=8.0 | **5.36** | **14** | ↓Pn | **Pn** | **23 18 08.7** | **+1.5** |
| MK31 | | | | ↑Sn | **Sn** | **23 19 08.4** | **-0.5** |
| | 1.0nm,0.7s,baz=198,slow=28,SNR=4.8 | | | | | | |
| MK31 | | | | ↑Lg | Lg | 23 19 34.3 | |
| | 0.4nm,0.5s | | | | | | |

*ISCJB **17** 23:20:14.6±0.3, 39.°34N±0.°02×16.°06E±0.°05, h10km±3km, mb3.7/3, Error ellipse: s-maj=5.9km s-min=2.8km az=170.1*
*CSEM **17** 23:20:15.2±0.1, 39.°34N×16.°10E, h2km, ML3.8/5, Error ellipse: s-maj=4.5km s-min=2.2km az=90.0*
*ROM **17** 23:20:15.2±0.2, 39.°37N×16.°16E, h8km±2km, Ml3.4/28,*

*Error ellipse: s-maj=2.6km s-min=1.2km az=82.0*
*IDC **17** 23:20:20.0±5.5, 39.°46N×16.°20E, h23km±43km, mb3.4/3, mb1 3.4/5, mb1mx3.2/43, mbtmp3.4/5, ML3.0/2, Error ellipse: s-maj=41.9km s-min=16.8km az=104.0*

**ISC 17 23:20:15.7±1.1, 39.°35N±0.°02×16.°14E±0.°03, h7km±8km, n80, σ0°95/97, mb3.8/3, Southern Italy**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CET2** | **Cetraro** | **0.23** | **321** | Pg | **Pg** | **23 20 20.6** | **+0.4** |
| CET2 | | | | Sg | **Sg** | **23 20 24.1** | **+0.8** |
| | 8μm,0.8s | | | | | | |
| **CET2** | **Cetraro** | **0.23** | **321** | Pg | **Pg** | **23 20 20.6** | **+0.4** |
| CET2 | | | | Sg | **Sg** | **23 20 24.1** | **+0.8** |
| | 8μm,0.8s | | | | | | |
| **SERS** | **Sersale** | **0.53** | **126** | Pg | **Pg** | **23 20 25.6** | **-0.3** |
| SERS | | | | Sg | **Sb** | **23 20 33.7** | **-1.6** |
| | 2μm,0.6s | | | | | | |
| **SERS** | **Sersale** | **0.53** | **126** | Pg | **Pg** | **23 20 25.6** | **-0.3** |
| SERS | | | | Sg | **Sb** | **23 20 33.7** | **-1.6** |
| | 2μm,0.6s | | | | | | |
| **PIPA** | **Pietrapaola** 2μm,0.4s | **0.54** | **75** | Pg | **Pg** | **23 20 25.2** | **-0.9** |
| **PIPA** | **Pietrapaola** 2μm,0.4s | **0.54** | **75** | Pg | **Pg** | **23 20 25.2** | **-0.9** |
| **SALB** | **San Lorenzo Be** 501nm,0.6s | **0.55** | **17** | Pg | **Pg** | **23 20 25.9** | **-0.4** |
| **SALB** | **San Lorenzo Be** 501nm,0.6s | **0.55** | **17** | Pg | **Pg** | **23 20 25.9** | **-0.4** |
| **MMN** | **Mormanno** | **0.55** | **348** | Pg | **Pg** | **23 20 26.0** | **-0.3** |
| MMN | | | | Sg | **Sb** | **23 20 33.9** | **-1.9** |
| | 931nm,0.3s | | | | | | |
| **MMN** | **Mormanno** | **0.55** | **348** | Pg | **Pg** | **23 20 26.0** | **-0.3** |
| MMN | | | | Sg | **Sb** | **23 20 33.9** | **-1.9** |
| | 931nm,0.3s | | | | | | |
| **GRI** | **Girifalco** 1μm,0.3s | **0.57** | **157** | Pg | **Pb** | **23 20 27.2** | **-0.8** |
| GRI | | | | Sg | **Sb** | **23 20 36.1** | **-0.3** |
| **GRI** | **Girifalco** 1μm,0.3s | **0.57** | **157** | Pg | **Pb** | **23 20 27.2** | **-0.8** |
| GRI | | | | Sg | **Sb** | **23 20 36.1** | **-0.3** |
| | 1μm,0.3s | | | | | | |
| **T0711** | **Rotonda (PZ)** 2μm,0.5s | **0.59** | **354** | Pg | **Pg** | **23 20 26.6** | **-0.4** |
| **CUC** | **Castrocucco** | **0.69** | **339** | Pg | **Pg** | **23 20 28.3** | **-0.6** |
| CUC | | | | Sg | **Sb** | **23 20 38.1** | **-1.8** |
| | 2μm,0.4s | | | | | | |
| **CUC** | **Castrocucco** | **0.69** | **339** | Pg | **Pg** | **23 20 28.3** | **-0.6** |
| CUC | | | | Sg | **Sb** | **23 20 38.1** | **-1.8** |
| | 2μm,0.4s | | | | | | |
| **ORI** | **Oriolo Calabro** 1μm,0.4s | **0.75** | **18** | Pg | **Pb** | **23 20 30.1** | **-1.0** |
| **ORI** | **Oriolo Calabro** 1μm,0.4s | **0.75** | **18** | Pg | **Pb** | **23 20 30.1** | **-1.0** |
| **JOPP** | **Joppolo** 1μm,0.2s | **0.77** | **195** | Pg | **Pb** | **23 20 31.1** | **-0.3** |
| **JOPP** | **Joppolo** 1μm,0.2s | **0.77** | **195** | Pg | **Pb** | **23 20 31.1** | **-0.3** |
| **SCHR** | **S. Chirico Rap** 376nm,0.7s | **0.85** | **357** | Pg | **Pb** | **23 20 32.0** | **-0.8** |
| **SIRI** | **Monte Sirino -** 1μm,0.4s | **0.86** | **346** | Pg | **Pb** | **23 20 31.9** | **-1.1** |
| **SIRI** | **Monte Sirino -** 1μm,0.4s | **0.86** | **346** | Pg | **Pb** | **23 20 31.9** | **-1.1** |
| **STR3** | **STROMBOLI 3** | **0.90** | **232** | Pg | **Pb** | **23 20 33.3** | **-0.3** |
| **STR3** | **STROMBOLI 3** | **0.90** | **232** | Pg | **Pb** | **23 20 33.3** | **-0.3** |
| **MGR** | **Morigerati** 1μm,0.4s | **0.91** | **330** | Pg | **Pg** | **23 20 32.1** | **-1.0** |
| **MGR** | **Morigerati** 1μm,0.4s | **0.91** | **330** | Pg | **Pg** | **23 20 32.1** | **-1.0** |
| **PLAC** | **Placanica** 881nm,0.6s | **0.93** | **165** | Pg | **Pb** | **23 20 33.9** | **-0.3** |
| **PLAC** | **Placanica** 881nm,0.6s | **0.93** | **165** | Pg | **Pb** | **23 20 33.9** | **-0.3** |
| **BULG** | **Bulgheria - Ca** 2μm,0.6s | **0.94** | **321** | Pg | **Pg** | **23 20 33.3** | **-0.3** |
| **BULG** | **Bulgheria - Ca** 2μm,0.6s | **0.94** | **321** | Pg | **Pg** | **23 20 33.3** | **-0.3** |
| **MTSN** | **Montesano sull** | **0.96** | **342** | Pg | **Pg** | **23 20 33.7** | **-0.5** |
| **MTSN** | **Montesano sull** | **0.96** | **342** | Pg | **Pg** | **23 20 33.7** | **-0.5** |
| **MCEL** | **Monticello** 426nm,0.5s | **1.01** | **345** | Pg | **Pg** | **23 20 34.3** | **-0.7** |
| **MCEL** | **Monticello** 426nm,0.5s | **1.01** | **345** | Pg | **Pg** | **23 20 34.3** | **-0.7** |
| **CEL** | **Celeste** 517nm,0.6s | **1.11** | **190** | Pg | **Pg** | **23 20 36.3** | **-0.6** |
| **CEL** | **Celeste** 517nm,0.6s | **1.11** | **190** | Pg | **Pg** | **23 20 36.3** | **-0.6** |
| **SLCN** | **Sala Consilina** 763nm,0.3s | **1.11** | **340** | Pg | **Pg** | **23 20 36.2** | **-0.8** |
| **SLCN** | **Sala Consilina** 763nm,0.3s | **1.11** | **340** | Pg | **Pg** | **23 20 36.2** | **-0.8** |
| **MSCL** | **Scilla** 1μm,0.8s | **1.15** | **194** | Pg | **Pg** | **23 20 37.0** | **-0.7** |
| **MSCL** | **Scilla** 1μm,0.8s | **1.15** | **194** | Pg | **Pg** | **23 20 37.0** | **-0.7** |
| **CMPR** | **Campora** 589nm,0.5s | **1.16** | **327** | Pg | **Pg** | **23 20 36.8** | **-1.2** |
| **CMPR** | **Campora** 589nm,0.5s | **1.16** | **327** | Pg | **Pg** | **23 20 36.8** | **-1.2** |
| **MSRU** | **Castanea** 1μm,0.6s | **1.19** | **205** | Pg | **Pb** | **23 20 37.6** | **-1.0** |
| **MSRU** | **Castanea** 1μm,0.6s | **1.19** | **205** | Pg | **Pb** | **23 20 37.6** | **-1.0** |
| **GMB** | **Gambarie** 2μm,0.2s | **1.21** | **192** | Pg | **Pb** | **23 20 38.0** | **-0.9** |
| **GMB** | **Gambarie** 2μm,0.2s | **1.21** | **192** | Pg | **Pb** | **23 20 38.0** | **-0.9** |
| **MIGL** | **Miglionico** 2μm,0.8s | **1.27** | **10** | Pg | **Pg** | **23 20 39.7** | **-0.4** |
| **MIGL** | **Miglionico** 2μm,0.8s | **1.27** | **10** | Pg | **Pg** | **23 20 39.7** | **-0.4** |
| **SOI** | **Samo** 233nm,0.4s | **1.28** | **183** | Pg | **Pn** | **23 20 39.0** | **-1.0** |
| **SOI** | **Samo** 233nm,0.4s | **1.28** | **183** | Pg | **Pn** | **23 20 39.0** | **-1.0** |
| **MPNC** | **Port Mandanici** 1μm,0.6s | **1.35** | **207** | Pg | **Pn** | **23 20 39.7** | **-1.3** |
| **MPNC** | **Port Mandanici** 1μm,0.6s | **1.35** | **207** | Pg | **Pn** | **23 20 39.7** | **-1.3** |
| **MPAZ** | **Palizzi** 289nm,0.4s | **1.40** | **184** | Pg | **Pn** | **23 20 41.1** | **-0.6** |
| **MPAZ** | **Palizzi** 289nm,0.4s | **1.40** | **184** | Pg | **Pn** | **23 20 41.1** | **-0.6** |
| **MCSR** | **Castroreale** 746nm,0.3s | **1.46** | **209** | Pg | **Pn** | **23 20 41.5** | **-1.1** |
| **MCSR** | **Castroreale** 746nm,0.3s | **1.46** | **209** | Pg | **Pn** | **23 20 41.5** | **-1.1** |
| **TAR1** | **Taranto** | **1.47** | **36** | *e*Pn | **Pg** | **23 20 43.3** | **-0.5** |
| **MRLC** | **Muro Lucano** | **1.49** | **341** | Pg | **Pg** | **23 20 44.0** | **-0.2** |
| **MRLC** | **Muro Lucano** | **1.49** | **341** | Pg | **Pg** | **23 20 44.0** | **-0.2** |
| **MASS** | **Massafra** | **1.50** | **31** | *e*Pn | **Pg** | **23 20 43.4** | **-0.9** |
| **SG1** | **Sgolgore (BA)** | **1.54** | **15** | *e*Pn | **Pb** | **23 20 44.1** | **-0.6** |
| **MMME** | **Mongiuffi-Meli** 357nm,0.8s | **1.57** | **206** | Pg | **Pn** | **23 20 43.2** | **-0.9** |
| **MMME** | **Mongiuffi-Meli** 357nm,0.8s | **1.57** | **206** | Pg | **Pn** | **23 20 43.2** | **-0.9** |
| **NOCI** | **Noci** | **1.60** | **26** | Pg | **Pb** | **23 20 44.9** | **-0.7** |
| **NOCI** | **Noci** | **1.60** | **26** | Pg | **Pb** | **23 20 44.9** | **-0.7** |
| **CGL1** | **Cegliе Messapi** | **1.66** | **38** | *e*Pn | **Pb** | **23 20 45.6** | **-1.0** |
| **CDT** | **Castel del Mon** | **1.73** | **3** | *e*Pn | **Pb** | **23 20 47.5** | **-0.4** |
| **VAE** | **Valguarnera** 2.3nm,0.3s,baz=90,slow=20,SNR=5.7 | **2.31** | **217** | Pn | **Pb** | **23 20 57.1** | **-0.6** |
| VAE | | | | Sn | **Sg** | **23 21 30.6** | **+0.7** |
| | 5.0nm,0.3s,baz=157,slow=14,SNR=3.8 | | | | | | |
| VAE | | | | Lg | Lg | 23 21 39.2 | |
| | 6.5nm,0.3s,baz=133,slow=19,SNR=6.5 | | | | | | |
| **STON** | **Ston** | **3.71** | **18** | *i* Pn | **Pn** | **23 21 12.8** | **-0.6** |
| STON | | | | Sn | **Sn** | **23 21 57.7** | **+0.3** |
| **STON** | **Ston** | **3.71** | **18** | *i* Pn | **Pn** | **23 21 12.8** | **-0.6** |
| STON | | | | Sn | **Sn** | **23 21 57.6** | **+0.3** |
| **SJES** | **Sjenica** | **4.86** | **35** | *e*Pn | **Pn** | **23 21 30.4** | **+1.1** |
| **UDBI** | **Udbina** | **5.18** | **357** | *e*Pn | **Pn** | **23 21 35.6** | **+1.9** |
| UDBI | | | | Sn | **Sn** | **23 22 33.0** | **-0.7** |
| **UDBI** | **Udbina** | **5.18** | **357** | *e*Pn | **Pn** | **23 21 35.6** | **+1.9** |
| UDBI | | | | Sn | **Sn** | **23 22 33.0** | **-0.7** |
| **IVAS** | **Ivanjica** | **5.19** | **34** | *e*Pn | **Pn** | **23 21 35.6** | **+1.8** |
| **NVLJ** | **Novalja** | **5.29** | **350** | *i* Pn | **Pn** | **23 21 35.1** | **0.0** |
| NVLJ | | | | Sn | **Sn** | **23 22 35.4** | **-1.0** |
| **NVLJ** | **Novalja** | **5.29** | **350** | *i* Pn | **Pn** | **23 21 35.1** | **0.0** |
| NVLJ | | | | Sn | **Sn** | **23 22 35.4** | **-1.0** |
| **GERES** | **GERESS Array B** 0.1nm,0.3s,baz=175,slow=12,SNR=3.6 | **9.65** | **350** | Pn | **Pn** | **23 22 36.5** | **+1.5** |
| **FINES** | **FINESS Array B** 1.9nm,0.7s,baz=183,slow=9.5,SNR=6.4 | **22.95** | **12** | P | **P** | **23 25 22.8** | **+2.5** |
| **MKAR** | **Makanchi Array** 0.4nm,0.5s,baz=284,slow=7.5,SNR=9.7 | **47.60** | **58** | P | **P** | **23 28 52.6** | **+0.5** |
| **SONM** | **Songino Array** 0.5nm,0.8s,baz=300,slow=7.7,SNR=3.6 | **62.33** | **50** | P | **P** | **23 30 40.1** | **+1.3** |

*ISK **17** 23:21:25.7, 37.°20N×36.°21E, h5km, MD2.4, ML2.4*
*CSEM **17** 23:21:26.2±0.2, 37.°22N×36.°24E, h5km, MD2.6, Error ellipse: s-maj=6.0km s-min=4.0km az=67.0*
*DDA **17** 23:21:26.1, 37.°20N×36.°32E, h7km, Md2.6*

**ISC 17 23:21:26.0±1.1, 37.°20N±0.°03×36.°26E±0.°03, h4km±15km, n16, σ0°53/27, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KAMA** | **Osmaniye** | **0.33** | **92** | *i* P | **Pg** | **23 21 32.0** | **-0.4** |
| KAMA | | | | *i* S | **Sg** | **23 21 36.0** | **-0.8** |
| **ANDN** | **Andirin** | **0.39** | **10** | *i* P | **Pg** | **23 21 32.6** | **-0.9** |
| ANDN | | | | *i* S | **Sg** | **23 21 39.5** | **+0.9** |
| **ANDN** | **Andirin** | **0.39** | **10** | P | **Pg** | **23 21 32.6** | **-0.9** |
| ANDN | | | | S | **Sg** | **23 21 39.5** | **+0.9** |
| **KOZT** | **Kozan** | **0.44** | **309** | *e*PG | **Pg** | **23 21 34.3** | **-0.2** |
| KOZT | | | | *e*SG | **Sg** | **23 21 40.6** | **+0.3** |
| **KOZT** | **Kozan** | **0.44** | **309** | *e*Pg | **Pg** | **23 21 34.3** | **-0.2** |
| KOZT | | | | *e*Sg | **Sg** | **23 21 40.6** | **+0.3** |
| **HCB** | **Kahramanmara¯** | **0.54** | **74** | *i* P | **Pg** | **23 21 36.5** | **+0.1** |
| HCB | | | | *i* S | **Sg** | **23 21 43.5** | **+0.1** |
| **KMRS** | **Kahramanmaras** | **0.60** | **59** | *e*PG | **Pg** | **23 21 38.2** | **+0.7** |
| **KMRS** | **Kahramanmaras** | **0.60** | **59** | *e*Pg | **Pg** | **23 21 38.2** | **+0.7** |
| **KUZU** | **Kuzuini** | **0.78** | **123** | *i* P | **Pb** | **23 21 42.1** | **0.0** |
| KUZU | | | | *i* S | **Sg** | **23 21 51.4** | **+0.3** |
| **KUZU** | **Kuzuini** | **0.78** | **123** | P | **Pb** | **23 21 42.2** | **0.0** |
| KUZU | | | | S | **Sg** | **23 21 51.4** | **+0.3** |
| **SAIM** | **ADANA** | **0.79** | **350** | *i* P | **Pg** | **23 21 41.5** | **+0.3** |
| SAIM | | | | *i* S | **Sb** | **23 21 53.1** | **-0.4** |
| **SAIM** | **ADANA** | **0.79** | **350** | P | **Pg** | **23 21 41.5** | **+0.3** |
| **TAHT** | **Tahtakopru-Hat** | **0.82** | **184** | *e*PG | **Pg** | **23 21 42.1** | **+0.3** |
| TAHT | | | | *e*SG | **Sb** | **23 21 53.9** | **-0.4** |
| **TAHT** | **Tahtakopru-Hat** | **0.82** | **184** | *e*Pg | **Pg** | **23 21 42.1** | **+0.3** |
| TAHT | | | | *e*Sg | **Sb** | **23 21 53.9** | **-0.4** |
| **SARI** | **SarD1z-Kayseri** | **1.21** | **6** | *e*PN | **Pb** | **23 21 49.8** | **+0.1** |
| **AKCD** | **Akcadag** | **1.71** | **50** | *i* P | Pg | 23 22 09.4 | +10 |
| AKCD | | | | *i* S | **Sg** | **23 22 21.1** | **0.0** |

*CSEM **17** 23:25:33.8±0.2, 32.°29N×47.°25E, h2km, ML3.4, Error ellipse: s-maj=6.0km s-min=3.8km az=16.0*
*ISN **17** 23:25:33.6±0.7, 32.°30N×47.°24E, h0km±2km, ML3.5*

**TEH 17 23:25:35.3, 32.°30N×47.°25E, h8km, ML3.5, Iran-Iraq border region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SHGR** | **Shooshtar-Gavs** | **1.33** | **98** | *e*Pg | Pn | 23 26 00.0 | -0.2 |
| SHGR | | | | *e*Sg | Sb | 23 26 17.5 | -0.3 |
| **NSR** | **Nassriya** SNR=3.0 | **1.60** | **216** | *e*Pn | Pn | 23 26 02.0 | -1.8 |
| NSR | | | | *i* Sn | Sn | 23 26 22.0 | -2.6 |
| | SNR=3.0 | | | | | | |
| **IKOM** | **Komasi** | **1.88** | **7** | *e*Sg | Sb | 23 26 34.6 | +0.8 |
| IKOM | | | | *e*Pn | Pn | 23 26 07.5 | -0.4 |
| IKOM | | | | *e*AMB | AMB | 23 26 40.2 | |
| | comp=Z,8μm,0.3s | | | | | | |
| **IGHG** | **Ghaleghazi** | **2.10** | **345** | *e*Pn | Pn | 23 26 11.3 | +0.3 |
| IGHG | | | | *e*AMB | AMB | 23 26 53.8 | |
| | comp=Z,6μm,0.4s | | | | | | |
| **IGHG** | **Ghaleghazi** | **2.10** | **345** | *e*Pn | Pn | 23 26 11.3 | +0.3 |
| **IVIS** | **Veis** | **2.24** | **352** | *e*Pn | Pn | 23 26 12.4 | -0.5 |
| IVIS | | | | *e*Sg | Sb | 23 26 44.6 | +0.5 |
| IVIS | | | | *e*AMB | AMB | 23 26 46.2 | |
| | comp=Z,4μm,0.4s | | | | | | |
| **IVIS** | **Veis** | **2.24** | **352** | *e*Pn | Pn | 23 26 12.4 | -0.5 |
| IVIS | | | | *e*Sg | Sb | 23 26 44.6 | +0.5 |
| **BHD** | **Baghdad** SNR=3.0 | **2.60** | **293** | *e*Pn | Pn | 23 26 17.0 | -0.6 |
| BHD | | | | *i* Sn | Sn | 23 26 48.0 | -1.4 |
| | SNR=3.0 | | | | | | |
| **ILIN** | **Lien** | **2.62** | **355** | *e*Pn | Pn | 23 26 18.4 | +0.2 |
| ILIN | | | | *e*AMB | AMB | 23 27 06.0 | |
| | comp=Z,2μm,0.3s | | | | | | |
| **ILIN** | **Lien** | **2.62** | **355** | *e*Pn | Pn | 23 26 18.4 | +0.2 |
| **KHMZ** | **Khomeyn** | **2.69** | **57** | *e*Pn | Pn | 23 26 18.7 | -0.5 |
| **SNGE** | **Sanandaj** | **2.79** | **2** | *e*Pn | Pn | 23 26 20.2 | -0.2 |
| SNGE | | | | *e*Sg | Sg | 23 27 02.5 | -2.3 |
| **IPIR** | **Pirpir** | **3.10** | **82** | *e*Pn | Pn | 23 26 25.0 | +0.1 |
| IPIR | | | | *e*AMB | AMB | 23 27 24.2 | |
| | comp=Z,2μm,0.4s | | | | | | |
| **IPIR** | **Pirpir** | **3.10** | **82** | *e*Pn | Pn | 23 26 25.0 | +0.1 |
| **ASAO** | **Ashtian** | **3.23** | **45** | *e*Pn | Pn | 23 26 25.6 | -1.0 |
| **IKLH** | **Kolahrood** | **3.79** | **73** | *e*Pn | Pn | 23 26 33.9 | -0.4 |
| IKLH | | | | *e*AMB | AMB | 23 27 49.3 | |
| | comp=Z,737nm,0.4s | | | | | | |
| **IKLH** | **Kolahrood** | **3.79** | **73** | *e*Pn | Pn | 23 26 33.9 | -0.4 |
| **QAM** | **Ghamsar** | **3.81** | **66** | *e*Pn | Pn | 23 26 34.8 | +0.3 |
| QAM | | | | *e*AMB | AMB | 23 26 37.8 | |
| | comp=Z,1μm,0.1s | | | | | | |
| **GHVR** | **GHOM** | **4.02** | **56** | *e*Pn | Pn | 23 26 36.8 | -0.5 |
| **IGAR** | **Gharneh** | **4.06** | **87** | *e*Pn | Pn | 23 26 37.4 | -0.6 |
| IGAR | | | | *e*AMB | AMB | 23 27 29.3 | |
| | comp=Z,682nm,0.1s | | | | | | |
| **IZEF** | **Zefreh** | **4.33** | **81** | *e*Pn | Pn | 23 26 41.4 | -0.3 |
| IZEF | | | | *e*AMB | AMB | 23 27 57.5 | |
| | comp=Z,289nm,0.4s | | | | | | |

λ97.00000°. NP2:φ8.13.00000°, δ71.00000°, λ87.00000°.
*ISCJB **18** 00:04:24.9±0.6, 39.77N±0.04×141.88E±0.08, h63km±4km, mb3.5/5, Error ellipse: s-maj=10.4km s-min=6.2km az=8.0*
*JMA **18** 00:04:25.8, 39.76N×141.85E, h58km±1km, M3.5*
*JMA Felt I J1.*
*IDC **18** 00:04:28.0±2.9, 39.88N×141.76E, h70km±28km, mb3.3/5, mb1 3.4/7, mb1mx3.1/42, mbtmp3.5/7, Error ellipse: s-maj=45.0km s-min=24.3km az=143.0*
**ISC 18 00:04:26.1±0.9, 39.75N±0.04×141.81E±0.07, h54km±6km, n24, σ1°41/28, mb3.4/5, 3C-7D, Eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op ISC | h m s | ISC |
| **MIYJ** | **Miyakonagasawa** | **0.17** | **178** | ⇑P | **Pn** | **00 04 35.1** | **+0.4** |
| MIYJ | | | | S | **Sn** | **00 04 41.4** | **+0.5** |
| **JTH** | **Tanohata** | **0.19** | **12** | ⇑P | **Pn** | **00 04 35.0** | **+0.1** |
| JTH | | | | S | **Sn** | **00 04 41.5** | **+0.4** |
| **JKZ** | **Kuzumaki** | **0.44** | **302** | ⇓P | **Pn** | **00 04 37.4** | **+0.4** |
| JKZ | | | | S | **Sn** | **00 04 45.5** | **+0.6** |
| **JOM** | **Ohasama** | **0.49** | **236** | ⇓P | **Pn** | **00 04 37.7** | **+0.2** |
| JOM | | | | S | **Sn** | **00 04 46.4** | **+0.7** |
| **JANG** | **Nango** | **0.66** | **340** | ⇓P | **Pn** | **00 04 39.3** | **-0.3** |
| JANG | | | | S | **Sn** | **00 04 49.3** | **-0.1** |
| **JMK** | **Ichinoseki** | **0.92** | **210** | P | **Pn** | **00 04 42.9** | **0.0** |
| JMK | | | | S | **Sn** | **00 04 55.3** | **+0.1** |
| **JRG** | **Rokugo** | **0.98** | **249** | ⇓P | **Pn** | **00 04 43.8** | **+0.2** |
| JRG | | | | S | **Sn** | **00 04 57.7** | **+1.1** |
| **JAH** | **Hinai** | **1.00** | **296** | ⇓P | **Pn** | **00 04 44.2** | **+0.2** |
| JAH | | | | S | **Sn** | **00 04 58.5** | **+1.3** |
| **JTM** | **Tenmabayashi** | **1.18** | **331** | ⇓P | **Pn** | **00 04 46.2** | **-0.2** |
| JTM | | | | eS | **Sn** | **00 05 01.3** | **-0.1** |
| **JIO** | **Ouri** | **1.34** | **196** | ⇑P | **Pn** | **00 04 48.4** | **-0.1** |
| **JYK** | **Kaneyama** | **1.40** | **234** | ⇓P | **Pn** | **00 04 49.5** | **+0.2** |
| **MJAR** | **Matsushiro Arr** | **4.28** | **223** | P | **Pn** | **00 05 31.6** | **+2.9** |
| | 0.5nm,0.3s,baz=342,slow=13,SNR=6.7 | | | | | | |
| **ASAJ** | **Asahikawa** | **4.40** | **7** | P | **Pn** | **00 05 30.4** | **+0.1** |
| | 0.5nm,0.3s,baz=135,slow=10.0,SNR=2.6 | | | | | | |
| ASAJ | | | | S | **Sn** | **00 06 25.9** | **+5.7** |
| | 1.1nm,0.3s,baz=205,slow=17,SNR=2.8 | | | | | | |
| **SONM** | **Songino Array** | **26.63** | **299** | P | **P** | **00 09 59.3** | **-0.3** |
| | 0.3nm,0.8s,baz=80,slow=9.2,SNR=2.5 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy 29.37** | **125** | | T | T | 00 40 58.8 | |
| | baz=318,slow=76,SNR=53 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy 29.38** | **126** | | T | T | 00 40 58.0 | |
| | baz=318,slow=76,SNR=67 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy 29.39** | **125** | | T | T | 00 41 01.9 | |
| | baz=318,slow=76,SNR=63 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy 30.16** | **127** | | T | T | 00 41 57.1 | |
| | baz=319,slow=76,SNR=17 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy 30.17** | **127** | | T | T | 00 42 04.9 | |
| | baz=319,slow=76,SNR=21 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy 30.18** | **127** | | T | T | 00 42 00.4 | |
| | baz=319,slow=76,SNR=18 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **40.36** | **310** | P | **P** | **00 11 57.7** | **-0.6** |
| | 1.4nm,0.5s,baz=90,slow=7.9,SNR=8.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **42.99** | **300** | P | **P** | **00 12 19.0** | **-0.9** |
| | 0.5nm,0.6s,baz=87,slow=10.0,SNR=11 | | | | | | |
| **ILAR** | **Eielson Array** | **47.05** | **34** | P | **P** | **00 12 51.4** | **-0.5** |
| | 0.4nm,1.0s,baz=270,slow=7.9,SNR=3.3 | | | | | | |
| **FINES** | **FINESS Array B** | **66.57** | **332** | P | **P** | **00 15 09.1** | **-1.0** |
| | 2.1nm,0.9s,baz=13,slow=13,SNR=3.6 | | | | | | |

**IDC 18 00:12:42.0±2.9, 32.79S×178.42W, h0km, mb3.7/2, mb1 4.0/3, mb1mx3.7/24, mbtmp3.8/3, ML3.5/1, Error ellipse: s-maj=68.8km s-min=35.8km az=117.0, South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op ISC | h m s | ISC |
| **URZ** | **Urewera** | **6.56** | **212** | Pn | Pn | 00 14 20.3 | +0.6 |
| | 1.0nm,0.3s,baz=20,slow=12,SNR=5.4 | | | | | | |
| URZ | | | | Sn | Sn | 00 15 33.8 | -1.3 |
| | 1.6nm,0.3s,baz=72,slow=20,SNR=5.9 | | | | | | |
| **ASAR** | **Alice Springs** | **42.68** | **270** | P | P | 00 20 41.0 | +0.3 |
| | 0.3nm,0.3s,baz=106,slow=7.8,SNR=8.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.88** | **275** | P | P | 00 20 50.0 | -0.4 |
| | 0.9nm,0.5s,baz=116,slow=7.5,SNR=17 | | | | | | |
| **FINES** | **FINESS Array B** | **147.24** | **338** | PKPbc | PKPbc | 00 32 25.6 | -0.9 |
| | 2.3nm,0.9s,baz=54,slow=3.6,SNR=8.3 | | | | | | |

*ISCJB **18** 00:13:46.5±0.8, 51.41N±0.04×16.10E±0.04, h0km, Error ellipse: s-maj=5.7km s-min=3.2km az=13.5*
*CSEM **18** 00:13:48.3±0.5, 51.43N×16.07E, h2km, ML2.9/11, Error ellipse: s-maj=7.9km s-min=4.4km az=15.0*
*PRU **18** 00:13:48.7, 51.44N×16.06E, h0km*
*WAR **18** 00:13:48.1, 51.49N×16.09E, h1km, Mw2.3*
*VIE **18** 00:13:52.4±1.0, 51.18N×16.29E, h0km, mb2.5/1, ML2.4/5, Error ellipse: s-maj=11.5km s-min=6.0km az=99.0, Suspected Mining induced.*
**ISC 18 00:13:48.0±1.2, 51.44N±0.06×16.07E±0.03, h0km, n30, σ0°79/55, Poland**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op ISC | h m s | ISC |
| **KSP** | **Ksiaz** | **0.61** | **167** | *e*Pg | **Pg** | **00 14 00.5** | **+0.8** |
| KSP | | | | *e*Sg | **Sb** | **00 14 09.7** | **-1.0** |
| **KSP** | **Ksiaz** | **0.61** | **167** | *e*Pg | **Pg** | **00 14 00.5** | **+0.8** |
| KSP | | | | *e*Sg | **Sb** | **00 14 09.7** | **-1.0** |
| **KSP** | **Ksiaz** | **0.61** | **167** | *e*Pg | **Pg** | **00 14 00.5** | **+0.8** |
| KSP | | | | *e*Sg | **Sb** | **00 14 09.7** | **-1.0** |
| **UPC** | **Upice** | **0.93** | **182** | *e*PG | **Pb** | **00 14 06.6** | **-0.5** |
| UPC | | | | *e*SG | **Sb** | **00 14 19.4** | **-0.6** |
| | comp=Z,36nm,0.3s | | | | | | |
| **UPC** | **Upice** | **0.93** | **182** | Pg | **Pb** | **00 14 06.6** | **-0.5** |
| UPC | | | | Sg | **Sb** | **00 14 19.4** | **-0.6** |
| | 36nm,0.3s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.10** | **172** | *e*PG | **Pg** | **00 14 09.3** | **+0.2** |
| DPC | | | | *e*SG | **Sg** | **00 14 23.9** | **+0.6** |
| | comp=Z,20nm,0.6s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.10** | **172** | Pg | **Pg** | **00 14 09.3** | **+0.2** |
| DPC | | | | Sg | **Sg** | **00 14 23.9** | **+0.6** |
| | 20nm,0.6s | | | | | | |
| **PVCC** | **Panska Ves** | **1.32** | **227** | *e*PG | **Pn** | **00 14 13.8** | **+0.1** |
| PVCC | | | | *e*SG | **Sn** | **00 14 31.8** | **-0.1** |
| | comp=Z,75nm,0.2s | | | | | | |
| **PVCC** | **Panska Ves** | **1.32** | **227** | Pg | **Pn** | **00 14 13.8** | **+0.1** |
| PVCC | | | | Sg | **Sn** | **00 14 31.8** | **-0.1** |
| | 75nm,0.2s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **1.73** | **209** | *e*PG | **Pg** | **00 14 21.3** | **+0.1** |
| GOPC | | | | *e*SG | **Sg** | **00 14 44.0** | **+0.4** |
| | comp=Z,6.8nm,0.3s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **1.73** | **209** | Pg | **Pg** | **00 14 21.3** | **+0.1** |
| GOPC | | | | Sg | **Sg** | **00 14 44.0** | **+0.4** |
| | 6.8nm,0.3s | | | | | | |
| **PRU** | **Pruhonice** | **1.75** | **214** | *e*PG | **Pg** | **00 14 21.9** | **+0.4** |
| PRU | | | | *e*SG | **Sg** | **00 14 44.3** | **+0.1** |
| | comp=Z,12nm,0.3s | | | | | | |
| **PRU** | **Pruhonice** | **1.75** | **214** | Pg | **Pg** | **00 14 21.9** | **+0.4** |
| PRU | | | | Sg | **Sg** | **00 14 44.3** | **+0.1** |
| | 12nm,0.3s | | | | | | |
| **MORC** | **Moravsky Berou** | **1.91** | **150** | *e*Sg | **Sb** | **00 14 48.4** | **+0.3** |
| **CLL** | **Collm** | **1.93** | **267** | *e*Pg | **Pb** | **00 14 24.0** | **-0.1** |
| CLL | | | | *e* | | 00 14 27.0 | |
| CLL | | | | *e*Sg | **Sb** | **00 14 49.0** | **+0.3** |
| | comp=Z,8.0nm,0.3s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **2.08** | **140** | *e*PG | **Pb** | **00 14 27.0** | **+0.4** |
| OKC | | | | *e*SG | **Sb** | **00 14 53.2** | **+0.3** |
| | comp=Z,7.6nm,0.5s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **2.08** | **140** | Pg | **Pb** | **00 14 27.0** | **+0.4** |
| OKC | | | | Sg | **Sb** | **00 14 53.2** | **+0.3** |
| | comp=Z,7.6nm,0.5s | | | | | | |
| **VRAC** | **Vranov** | **2.16** | **171** | *e*Pn | **Pn** | **00 14 25.3** | **0.0** |
| VRAC | | | | *e*Sg | **Sg** | **00 14 56.7** | **-0.6** |
| **NKC** | **Novy Kostel** | **2.60** | **244** | *e*PN | **Pn** | **00 14 31.4** | **+0.1** |
| NKC | | | | *e*PG | **Pg** | **00 14 37.6** | **-0.2** |
| NKC | | | | *e*SG | **Sg** | **00 15 10.9** | **-0.5** |
| | comp=Z,15nm,0.3s | | | | | | |
| **NKC** | **Novy Kostel** | **2.60** | **244** | Pn | **Pn** | **00 14 31.4** | **+0.1** |
| **KHC** | **Kasperske Hory** | **2.81** | **216** | *e*PN | **Pn** | **00 14 34.2** | **-0.1** |
| KHC | | | | *e*PG | **Pb** | **00 14 40.2** | **+1.1** |
| KHC | | | | *e*SN | **Sn** | **00 15 06.5** | **-2.3** |
| KHC | | | | *e*SG | **Sg** | **00 15 18.8** | **+0.5** |
| | comp=Z,5.3nm,0.3s | | | | | | |
| **KHC** | **Kasperske Hory** | **2.81** | **216** | Pn | **Pn** | **00 14 34.2** | **-0.1** |
| **LANS** | **Liptovska Anna** | **3.16** | **135** | *e*Sg | **Sg** | **00 15 29.9** | **+0.4** |
| **LANS** | **Liptovska Anna** | **3.16** | **135** | *e*SG | **Sg** | **00 15 29.9** | **+0.4** |
| **VYHS** | **Vyhne** | **3.44** | **148** | *e*Sg | **Sg** | **00 15 37.1** | **-1.5** |
| **VYHS** | **Vyhne** | **3.44** | **148** | *e*SG | **Sg** | **00 15 37.1** | **-1.5** |
| **CONA** | **Conrad Observa** | **3.52** | **182** | Pn | **Pn** | **00 14 45.7** | **+1.7** |
| | comp=Z,0.4nm,0.2s | | | | | | |
| CONA | | | | Sg | **Sg** | **00 15 40.9** | **0.0** |
| | comp=Z,1.9nm,0.2s | | | | | | |
| **MOA** | **Molln** | **3.78** | **199** | Pn | **Pn** | **00 14 48.5** | **+0.9** |
| | comp=Z,0.3nm,0.1s | | | | | | |
| MOA | | | | Sg | **Sg** | **00 15 51.0** | **+1.6** |
| | comp=Z,1.2nm,0.2s | | | | | | |
| **STHS** | **Stebnicka Huta** | **3.88** | **119** | *e*PG | **Pg** | **00 15 01.0** | **-1.3** |
| STHS | | | | *e*SG | **Sg** | **00 15 54.3** | **+1.8** |
| **ARSA** | **Arzberg** | **4.21** | **185** | Sg | **Sg** | **00 16 02.8** | **-0.3** |
| | comp=Z,1.9nm,0.4s | | | | | | |

*IDC **18** 00:32:18.2±1.9, 32.40S×178.64W, h0km, mb4.2/3, mb1 4.3/4, mb1mx3.9/25, mbtmp4.2/4, ML3.9/1, Error ellipse: s-maj=43.6km s-min=39.7km az=48.0*
*ISCJB **18** 00:32:22.1±1.2, 32.62S±0.06×178.8W±0.2, h33km, mb4.2/5, Error ellipse: s-maj=25.5km s-min=7.7km az=8.8*
*NEIC **18** 00:32:23.2±0.9, 32.42S×178.67W, h35km, mb4.4/2, Error ellipse: s-maj=23.2km s-min=16.3km az=80.0*
**ISC 18 00:32:23.2±1.3, 32.57S±0.09×178.7W±0.2, h33km, n20, σ1°34/25, mb4.1/5, South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op ISC | h m s | ISC |
| **WMGZ** | **Waiomatatini S** | **5.74** | **203** | *e*PN | **Pn** | **00 33 46.8** | **+0.7** |
| **HAZ** | **Te Kaha** | **5.92** | **208** | PN | **Pn** | **00 33 50.4** | **+1.9** |
| HAZ | | | | SN | **Sn** | **00 34 56.3** | **+1.2** |
| **PKGZ** | **Pakihiroa** | **5.92** | **206** | PN | **Pn** | **00 33 49.3** | **+0.6** |
| **PUZ** | **Puketiti** | **6.02** | **203** | PN | **Pn** | **00 33 49.8** | **-0.6** |
| PUZ | | | | SN | **Sn** | **00 34 56.2** | **-1.6** |
| **RUGZ** | **Raukumara Rang** | **6.14** | **208** | PN | **Pn** | **00 33 52.7** | **+1.0** |
| **TWGZ** | **Tauwhareparae** | **6.21** | **205** | PN | **Pn** | **00 33 51.9** | **-0.7** |
| TWGZ | | | | SN | **Sn** | **00 34 58.7** | **-3.9** |
| TWGZ | | | | SN | **Sn** | **00 35 02.6** | **+0.1** |
| **MWZ** | **Matawai** | **6.52** | **207** | PN | **Pn** | **00 33 56.6** | **-0.3** |
| **URZ** | **Urewera** | **6.62** | **210** | Pn | **Pn** | **00 33 59.5** | **+1.3** |
| | 2.3nm,0.3s,baz=27,slow=6.8,SNR=17 | | | | | | |
| URZ | | | | Sn | **Sn** | **00 35 11.7** | **-0.8** |
| | 3.0nm,0.3s,baz=140,slow=17,SNR=8.1 | | | | | | |
| **URZ** | **Urewera** | **6.62** | **210** | PN | **Pn** | **00 33 57.1** | **-1.1** |
| **RIGZ** | **Rimuhau** | **6.76** | **204** | PN | **Pn** | **00 34 00.5** | **+0.3** |
| **NMHZ** | **Naumai** | **7.46** | **208** | PN | **Pn** | **00 34 11.0** | **+1.2** |
| **ARHZ** | **Aropaoanui** | **7.53** | **206** | PN | **Pn** | **00 34 11.3** | **+0.6** |
| **CTA** | **Charters Tower** | **33.62** | **283** | P | **P** | **00 39 02.1** | **+1.4** |
| | 5.6nm,0.9s,baz=108,slow=9.6,SNR=2.8 | | | | | | |
| **ASAR** | **Alice Springs** | **42.44** | **270** | P | **P** | **00 40 14.8** | **-0.3** |
| | 0.9nm,0.5s,baz=108,slow=7.9,SNR=17 | | | | | | |
| **WRAB** | **Tennant Creek** | **43.62** | **275** | *e*P | **P** | **00 40 24.3** | **-0.4** |
| | 2.1nm,0.6s | | | | | | |
| **WRA** | **Warramunga Arr** | **43.63** | **275** | P | **P** | **00 40 24.2** | **-0.6** |
| | 1.8nm,0.5s,baz=115,slow=7.7,SNR=41 | | | | | | |
| **QSPA** | **South Pole Qui** | **57.55** | **180** | P | **P** | **00 42 10.7** | **+1.4** |
| **YSS** | **Yuzh-Sakhalins** | **86.44** | **335** | P | **P** | **00 45 00.3** | **-1.7** |
| | 0.8nm,0.2s | | | | | | |
| **FINES** | **FINESS Array B** | **146.95** | **338** | PKPbc | **PKPbc** | **00 52 00.7** | **-0.9** |
| | 1.4nm,0.5s,baz=45,slow=4.0,SNR=14 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **160.66** | **181** | PKPab | **PKPab** | **00 53 02.6** | **+0.8** |
| | 0.4nm,0.6s,baz=170,slow=4.8,SNR=3.7 | | | | | | |

*ISCJB **18** 00:35:51.7±0.9, 24.11S±0.05×67.12W±0.1, h181km, mb3.2/1, Error ellipse: s-maj=12.8km s-min=7.4km az=172.6*
*SJA **18** 00:35:51.8±0.3, 24.13S×67.02W, h188km±6km, ML2.5, MW3.6*
*IDC **18** 00:35:53.6±3.3, 23.95S×66.93W, h200km±35km, mb3.1/1, mb1 3.3/5, mb1mx3.1/32, mbtmp3.8/5, Error ellipse: s-maj=34.0km s-min=29.0km az=128.0*
**ISC 18 00:35:51.7±1.2, 24.08S±0.07×67.1W±0.1, h181km, n13, σ1°33/16, Chile-Argentina border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op ISC | h m s | ISC |
| **HJA** | **Humahuaca** | **1.76** | **61** | *i* P | **Pn** | **00 36 28.4** | **+1.6** |
| **AZAP** | **Zapla** | **1.84** | **95** | *i* P | **Pn** | **00 36 28.4** | **+1.0** |
| AZAP | | | | IAML | | 00 36 29.1 | |
| | comp=Z,48nm,0.3s | | | | | | |
| AZAP | | | | *i* S | **Sn** | **00 36 55.4** | **+0.4** |
| **FSA** | **Cafayete** | **2.25** | **154** | *i* P | **Pn** | **00 36 32.6** | **+0.8** |
| **YJA** | **Yavi** | **2.38** | **37** | *i* P | **Pn** | **00 36 35.3** | **+1.7** |
| YJA | | | | IAML | | 00 36 37.6 | |
| | comp=Z,9.4nm,0.7s | | | | | | |
| YJA | | | | *i* S | **Sn** | **00 37 07.7** | **+1.6** |
| **ASTB** | **Santa Barbara** | **2.40** | **87** | *i* P | **Pn** | **00 36 34.3** | **+0.7** |
| **ALOL** | **LOMAS DE OLMED** | **2.84** | **85** | *i* P | **Pn** | **00 36 39.2** | **+0.7** |
| **AHML** | **Horco Molle** | **3.12** | **150** | *i* P | **Pn** | **00 36 42.1** | **+0.3** |
| **LPAZ** | **La Paz** | **7.82** | **353** | P | **Pn** | **00 37 45.1** | **+1.9** |
| | comp=Z,0.8nm,0.3s,baz=150,slow=7.8,SNR=9.8 | | | | | | |
| LPAZ | | | | S | **Sn** | **00 39 10.2** | **-1.3** |
| | comp=Z,0.2nm,0.3s,baz=196,slow=17,SNR=3.3 | | | | | | |
| **SIV** | **San Ignacio** | **9.83** | **36** | P | **Pn** | **00 38 07.3** | **-1.8** |
| | comp=Z,0.5nm,0.3s,baz=230,slow=14,SNR=13 | | | | | | |
| **PLCA** | **Paso Flores** | **16.86** | **189** | P | **Pn** | **00 39 37.9** | **+0.7** |
| | comp=Z,0.1nm,0.3s,baz=27,slow=11,SNR=3.3 | | | | | | |
| **BDFB** | **Brasilia** | **19.78** | **68** | P | **P** | **00 40 07.7** | **-0.6** |
| | comp=Z,0.6nm,0.3s,baz=38,slow=11,SNR=13 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **76.66** | **69** | P | **P** | **00 47 21.5** | **-1.6** |
| | comp=Z,0.3nm,0.5s,baz=245,slow=4.9,SNR=4.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **131.52** | **207** | PKP | **PKPdf** | **00 54 43.5** | **-0.1** |
| | comp=Z,0.4nm,1.0s,baz=156,slow=1.9,SNR=5.7 | | | | | | |

**WEL 18 00:50:32.3±0.5, 38.49S×175.84E, h154km±4km, ML3.1/5, 5C, Error ellipse: s-maj=3.7km s-min=3.3km az=90.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op ISC | h m s | ISC |
| **OTVZ** | **Oturere** | **0.68** | **191** | | PN Pn | 00 50 55.5 | +0.2 |
| **TUVZ** | **Tukino** | **0.79** | **190** | ⇑ | PN Pn | 00 50 56.1 | +0.1 |
| **TRVZ** | **Turoa** | **0.84** | **196** | | PN Pn | 00 50 56.5 | 0.0 |
| **BKZ** | **Black Stump Fm** | **0.84** | **143** | ⇑ | PN Pn | 00 50 56.4 | +0.1 |
| **WNVZ** | **Wahianoa** | **0.85** | **192** | ⇑ | PN Pn | 00 50 56.4 | -0.1 |
| **MTHZ** | **Maungataniwha** | **0.86** | **115** | ⇑ | PN Pn | 00 50 56.7 | +0.3 |
| MTHZ | | | | | SN Sn | 00 51 15.0 | +0.1 |
| **MOVZ** | **Moawhango** | **0.92** | **184** | | PN Pn | 00 50 56.5 | -0.4 |
| **NMHZ** | **Naumai** | **0.97** | **129** | | PN Pn | 00 50 58.2 | +0.9 |
| NMHZ | | | | | AML AML | 00 51 20.8 | |
| NMHZ | | | | | AML AML | 00 51 21.2 | |
| **BHHZ** | **Black Hill Sta** | **1.01** | **170** | | PN Pn | 00 50 57.3 | -0.3 |
| **URZ** | **Urewera** | **1.03** | **77** | ⇑ | PN Pn | 00 50 57.4 | -0.2 |
| URZ | | | | | SN Sn | 00 51 16.7 | -0.4 |
| **KWHZ** | **Kaweka Forest** | **1.04** | **154** | | PN Pn | 00 50 58.0 | +0.2 |
| **ARHZ** | **Aropaoanui** | **1.19** | **131** | | PN Pn | 00 50 59.6 | +0.6 |
| ARHZ | | | | | AML AML | 00 51 20.5 | |
| ARHZ | | | | | AML AML | 00 51 20.9 | |
| **KRHZ** | **Kereru** | **1.22** | **160** | | PN Pn | 00 50 59.4 | -0.1 |
| **MWZ** | **Matawai** | **1.34** | **84** | | PN Pn | 00 51 00.6 | +0.1 |
| **PNHZ** | **Pukenui** | **1.45** | **169** | | PN Pn | 00 51 01.2 | -0.4 |
| **RIGZ** | **Rimuhau** | **1.52** | **99** | | PN Pn | 00 51 02.6 | +0.2 |
| RIGZ | | | | | AML AML | 00 51 26.7 | |
| RIGZ | | | | | AML AML | 00 51 28.5 | |
| **KAHZ** | **Kahuranaki** | **1.53** | **148** | | PN Pn | 00 51 02.7 | +0.2 |
| **RUGZ** | **Raukumara Rang** | **1.54** | **71** | | PN Pn | 00 51 01.4 | -1.4 |
| **TSZ** | **Takapari Road** | **1.57** | **176** | | PN Pn | 00 51 02.2 | -0.7 |
| **WPHZ** | **Waipukurau** | **1.64** | **164** | | PN Pn | 00 51 03.1 | -0.5 |
| **TWGZ** | **Tauwhareparae** | **1.72** | **80** | | PN Pn | 00 51 05.1 | +0.6 |
| TWGZ | | | | | AML AML | 00 51 32.7 | |
| TWGZ | | | | | AML AML | 00 51 33.2 | |
| **DVHZ** | **Dannevirke** | **1.82** | **172** | | PN Pn | 00 51 04.5 | -1.2 |
| **ANWZ** | **Angora Road** | **2.03** | **166** | | PN Pn | 00 51 07.0 | -0.9 |
| **PRWZ** | **Pori Road** | **2.06** | **177** | | PN Pn | 00 51 07.1 | -1.2 |
| **MRZ** | **Mangatainoka R** | **2.17** | **185** | | PN Pn | 00 51 07.7 | -2.0 |
| MRZ | | | | | AML AML | 00 51 37.5 | |
| **BFZ** | **Birch Farm** | **2.21** | **172** | | PN Pn | 00 51 08.5 | -1.6 |
| **TIWZ** | **Tintock** | **2.28** | **179** | | PN Pn | 00 51 09.4 | -1.6 |
| **OGWZ** | **Otaki Gorge** | **2.38** | **192** | | PN Pn | 00 51 10.1 | -1.9 |
| **HOWZ** | **Holdsworth Sta** | **2.41** | **186** | | PN Pn | 00 51 10.3 | -2.3 |
| **KIW** | **Kapiti Island** | **2.47** | **197** | | PN Pn | 00 51 10.8 | -2.4 |
| **TCW** | **Tory Channel** | **2.97** | **203** | | PN Pn | 00 51 16.6 | -2.8 |
| **PLWZ** | **Palliser** | **3.10** | **188** | | PN Pn | 00 51 17.7 | -3.4 |
| **TUWZ** | **Tuamarina** | **3.27** | **206** | | PN Pn | 00 51 20.0 | -3.2 |
| **QRZ** | **Quartz Range** | **3.46** | **227** | | PN Pn | 00 51 21.6 | -4.0 |
| **KHZ** | **Kahutara** | **4.29** | **203** | | PN Pn | 00 51 31.8 | -4.5 |

**PGC 18 01:12:35.9±3.2, 50.56N×130.17W, h10km, MLSn2.9/8, Mw3.5/8, 195km west of Pt. Hardy, Bc Vancouver Island, Canada Region, Vancouver Island region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op ISC | h m s | ISC |
| **HOLB** | **Holberg** | **1.30** | **86** | P | Pn | 01 12 57.8 | -2.3 |
| HOLB | | | | S | Sb | 01 13 13.8 | -3.4 |
| **BPBC** | **Brooks Peninsu** | **1.59** | **104** | Pn | Pn | 01 13 01.6 | -2.4 |
| **PHC** | **Port Hardy** | **1.75** | **84** | Pn | Pn | 01 13 04.3 | -1.9 |
| PHC | | | | Sn | Sn | 01 13 25.1 | -3.4 |
| **MAYB** | **Maynard** | **1.92** | **94** | Pn | Pn | 01 13 06.6 | -2.1 |
| **BBB** | **Bella Bella** | **2.08** | **38** | Pn | Pn | 01 13 08.8 | -1.9 |
| BBB | | | | Sn | Sn | 01 13 32.1 | -4.5 |
| **TLCB** | **Telegraph Cove** | **2.13** | **89** | Pn | Pn | 01 13 09.9 | -1.5 |
| TLCB | | | | Sn | Sn | 01 13 35.1 | -2.8 |
| **WOSB** | **Woss** | **2.34** | **98** | Pn | Pn | 01 13 12.8 | -1.6 |
| **NCRB** | **Newcastle Ridg** | **2.63** | **92** | Pn | Pn | 01 13 16.5 | -2.0 |
| **CBB** | **Campbell River** | **3.13** | **98** | Pn | Pn | 01 13 23.9 | -1.3 |
| **BTB** | **Buttle Lake** | **3.19** | **108** | Pn | Pn | 01 13 24.6 | -1.6 |
| **TXB** | **Texada** | **3.79** | **101** | Pn | Pn | 01 13 33.5 | -0.8 |

*NERS **18** 01:27:25.8, 63.91N×146.69E, h14km*
*YARS **18** 01:27:28.0±0.6, 63.95N±0.01×146.53E±0.06, h10km*
**ISC 18 01:27:23.2±0.8, 63.93N±0.03×146.59E±0.03, h10km, n16, σ2°14/33, Eastern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op ISC | h m s | ISC |
| **SUUS** | **Susuman** | **1.36** | **148** | *e*P | **Pg** | **01 27 49.5** | **+0.3** |
| SUUS | | | | *e*Pg | **Pb** | **01 27 50.3** | **+1.6** |
| SUUS | | | | Pgmax | | 01 27 51.4 | |
| | 730nm,0.2s | | | | | | |
| SUUS | | | | *e*Sg | **Sg** | **01 28 08.2** | **+1.4** |
| SUUS | | | | Sgmax | | 01 28 10.1 | |
| | 1μm,0.4s | | | | | | |
| SUUS | | | | Sgmax | | 01 28 10.1 | |
| | 300nm,0.2s | | | | | | |
| **UNR** | **Ust'-Nera** | **1.60** | **295** | *e*P | **Pg** | **01 27 55.9** | **+2.0** |
| UNR | | | | *e*S | **Sg** | **01 28 16.7** | **+2.0** |
| **OCHR** | **Omchak** | **2.35** | **165** | *e*P | **Pb** | **01 28 04.3** | **-1.3** |
| OCHR | | | | *e*Pg | **Pg** | **01 28 08.0** | **-0.1** |
| OCHR | | | | Pgmax | | 01 28 08.9 | |
| | 100nm,0.2s | | | | | | |
| OCHR | | | | *e*Sg | **Sg** | **01 28 38.4** | **-0.1** |
| OCHR | | | | Sgmax | | 01 28 45.6 | |
| | 750nm,0.3s | | | | | | |
| OCHR | | | | Sgmax | | 01 28 45.6 | |
| | 310nm,0.2s | | | | | | |
| **SEY** | **Seymchan** | **2.79** | **108** | *e* | Pn | 01 28 01.7 | -6.2 |
| SEY | | | | *e*P | **Pb** | **01 28 10.7** | **-2.4** |
| SEY | | | | *e*Pg | **Pg** | **01 28 17.2** | **+0.6** |
| SEY | | | | Pgmax | | 01 28 18.0 | |
| | 20nm,0.2s | | | | | | |
| SEY | | | | *e*S | **Sn** | **01 28 43.5** | **+2.0** |
| SEY | | | | *e*Sg | **Sg** | **01 28 51.4** | **-1.3** |
| SEY | | | | Sgmax | | 01 28 55.4 | |
| | 540nm,0.2s | | | | | | |
| SEY | | | | Sgmax | | 01 28 55.4 | |
| | 170nm,0.2s | | | | | | |
| **MOMR** | **Moma** | **2.92** | **332** | *e*P | **Pg** | **01 28 19.6** | **+0.5** |
| MOMR | | | | *e*S | **Sg** | **01 28 57.4** | **+0.6** |
| **TLAR** | **Talaya** | **3.89** | **134** | *e*P | **Pn** | **01 28 25.6** | **+2.6** |
| TLAR | | | | *e*Pg | **Pg** | **01 28 35.9** | **-1.8** |
| TLAR | | | | Pgmax | | 01 28 38.2 | |
| | 10.0nm,0.2s | | | | | | |
| TLAR | | | | Pgmax | | 01 28 38.2 | |
| | 30nm,0.3s | | | | | | |
| TLAR | | | | Pgmax | | 01 28 38.2 | |
| | 60nm,0.4s | | | | | | |
| TLAR | | | | *e*Sg | **Sg** | **01 29 26.4** | **-1.6** |
| TLAR | | | | Sgmax | | 01 29 34.5 | |
| | 100nm,0.3s | | | | | | |
| TLAR | | | | Sgmax | | 01 29 34.5 | |
| | 270nm,0.3s | | | | | | |
| **MGD** | **Magadan 1** | **4.36** | **152** | *e*P | **Pn** | **01 28 32.4** | **+3.0** |
| MGD | | | | *e*Pg | **Pg** | **01 28 44.3** | **-2.3** |
| MGD | | | | Pgmax | | 01 28 46.5 | |
| | 10.0nm,0.2s | | | | | | |
| MGD | | | | Pgmax | | 01 28 46.5 | |
| | 20nm,0.3s | | | | | | |
| MGD | | | | Pgmax | | 01 28 46.5 | |
| | 40nm,0.3s | | | | | | |
| MGD | | | | *e*Sg | **Sg** | **01 29 43.0** | **0.0** |
| MGD | | | | Sgmax | | 01 29 50.6 | |
| | 230nm,0.5s | | | | | | |
| MGD | | | | Sgmax | | 01 29 50.6 | |
| | 150nm,0.6s | | | | | | |
| **OMS** | **Omsukchan** | **4.39** | **105** | *e*Sg | **Sg** | **01 29 42.7** | **-1.4** |
| OMS | | | | Sgmax | | 01 29 46.8 | |
| | 500nm,0.5s | | | | | | |
| **MA2** | **Magadan** | **4.80** | **154** | *e*P | **Pn** | **01 28 37.5** | **+2.1** |
| MA2 | | | | *e*Pg | **Pg** | **01 28 53.4** | **-1.6** |
| MA2 | | | | Pgmax | | 01 28 54.5 | |
| | 10.0nm,0.3s | | | | | | |
| MA2 | | | | *e*S | **Sn** | **01 29 33.1** | **+2.1** |
| MA2 | | | | *e*Sg | **Sg** | **01 29 55.7** | **-1.4** |
| MA2 | | | | Sgmax | | 01 30 01.7 | |
| | 130nm,0.5s | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **BNN** | **Bunyan** | **0.97** | **342** | *e*PG | **Pg** | **02 15 29.3** | **-0.3** |
| **BNN** | **Bunyan** | **0.97** | **342** | *e*Pg | **Pg** | **02 15 29.3** | **-0.3** |
| **KUZU** | **Kuzuini** | **1.33** | **149** | *i* P | **Pg** | **02 15 36.2** | **-0.1** |
| KUZU | | | | *i* S | **Sn** | **02 15 53.9** | **+0.4** |
| **KUZU** | **Kuzuini** | **1.33** | **149** | P | **Pg** | **02 15 36.2** | **-0.1** |
| KUZU | | | | S | **Sn** | **02 15 53.9** | **+0.4** |
| **AKCD** | **Akcadag** | **1.39** | **74** | *i* P | **Pg** | **02 15 37.2** | **-0.3** |
| AKCD | | | | *i* S | **Sn** | **02 15 57.2** | **+2.1** |
| **AKCD** | **Akcadag** | **1.39** | **74** | P | **Pg** | **02 15 37.2** | **-0.3** |
| AKCD | | | | S | **Sn** | **02 15 57.2** | **+2.1** |

**IDC 18 02:25:49.7±1.7, 9.89S×165.32E, h0km, mb3.5/3, mb1 3.9/4, mb1mx3.6/24, mbtmp3.7/4, ML3.8/1, Error ellipse: s-maj=55.0km s-min=30.8km az=128.0, Santa Cruz Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DZM** | **Mont Dzumac** | **12.16** | **175** | Pn | Pn | 02 28 45.5 | +1.1 |
| | 0.6nm,0.3s,baz=142,slow=23,SNR=8.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **31.51** | **248** | P | P | 02 32 13.9 | +0.2 |
| | 0.7nm,0.7s,baz=81,slow=8.9,SNR=8.8 | | | | | | |
| **ASAR** | **Alice Springs** | **32.96** | **241** | P | P | 02 32 26.0 | -0.5 |
| | 0.2nm,0.3s,baz=73,slow=10,SNR=4.2 | | | | | | |
| **ILAR** | **Eielson Array** | **82.55** | **19** | P | P | 02 38 14.2 | 0.0 |
| | 0.3nm,0.7s,baz=228,slow=4.6,SNR=6.4 | | | | | | |

*IDC 18 02:49:53.7±5.0, 37.32N×71.80E, h81km±29km, mb3.6/3, mb1 3.6/9, mb1mx3.2/48, mbtmp3.9/9, Error ellipse: s-maj=55.0km s-min=19.3km az=152.0*
*NNC 18 02:49:56.8±2.1, 37.47N×71.78E, h141km±21km, mb3.2, mpv3.7, Error ellipse: s-maj=19.0km s-min=8.0km az=158.0*

**ISC 18 02:49:55.8±1.6, 37.4N±0.1×71.73E±0.07, h100km, n22, σ1.9/88/30, mb3.9/3, 6C-7D, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DZET** | **Dzherino** | **2.67** | **302** | ⇑P | **Pn** | **02 50 39.4** | **+2.2** |
| | 2.1nm,0.2s | | | | | | |
| DZET | | | | ⇑S | **Sn** | **02 51 13.8** | **+4.7** |
| | 51nm,0.4s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **2.93** | **28** | ⇓P | **Pn** | **02 50 41.9** | **+1.1** |
| | 3.7nm,0.1s | | | | | | |
| SFK | | | | ⇑S | **Sn** | **02 51 18.8** | **+3.4** |
| | 25nm,0.3s | | | | | | |
| **AML** | **Almayashu** | **4.94** | **17** | P | **Pn** | **02 51 08.5** | **+0.6** |
| | SNR=109 | | | | | | |
| **MNAS** | **Manas** | **5.09** | **6** | ⇓P | **Pn** | **02 51 10.5** | **+0.8** |
| | 7.2nm,0.4s | | | | | | |
| MNAS | | | | ⇓S | **Sn** | **02 52 08.9** | **+1.5** |
| | 7.1nm,0.3s | | | | | | |
| **UCH** | **Uchtor** | **5.25** | **23** | P | **Pn** | **02 51 12.6** | **+0.3** |
| | SNR=6.2 | | | | | | |
| **KZA** | **Kyzart** | **5.38** | **29** | P | **Pn** | **02 51 14.4** | **+0.5** |
| | SNR=7.0 | | | | | | |
| **EKS2** | **Erkin-Say** | **5.46** | **16** | P | **Pn** | **02 51 16.1** | **+1.3** |
| | SNR=65 | | | | | | |
| **AAK** | **Ala-Archa** | **5.62** | **21** | P | **Pn** | **02 51 17.9** | **+0.9** |
| | 2.3nm,0.3s,baz=148,slow=5.6,SNR=30 | | | | | | |
| AAK | | | | S | **Sn** | **02 52 19.6** | **-0.7** |
| | 2.1nm,0.3s,baz=317,slow=20,SNR=26 | | | | | | |
| **AAK** | **Ala-Archa** | **5.62** | **21** | ⇓P | **Pn** | **02 51 17.4** | **+0.4** |
| | 2.1nm,0.3s | | | | | | |
| AAK | | | | ⇑S | **Sn** | **02 52 20.0** | **-0.3** |
| | 18nm,0.6s | | | | | | |
| **AAK** | **Ala-Archa** | **5.62** | **21** | P | **Pn** | **02 51 17.6** | **+0.6** |
| | SNR=7.0 | | | | | | |
| **KK31** | **Karatay Array** | **5.75** | **351** | ⇓P | **Pn** | **02 51 20.5** | **+1.9** |
| | 17nm,0.3s,baz=163,slow=10.0,SNR=505 | | | | | | |
| KK31 | | | | ⇑S | **Sn** | **02 52 24.9** | **+1.7** |
| | 8.0nm,0.4s,baz=172,slow=22,SNR=15 | | | | | | |
| **CHMS** | **Chumysh** | **6.03** | **22** | P | **Pn** | **02 51 22.8** | **+0.4** |
| | SNR=5.4 | | | | | | |
| **GEYT** | **Alibeck** | **10.80** | **277** | P | **Pn** | **02 52 25.5** | **-1.9** |
| | 0.5nm,0.3s,baz=108,slow=9.5,SNR=4.8 | | | | | | |
| GEYT | | | | S | **Sn** | **02 54 24.0** | **-2.3** |
| | 0.4nm,0.3s,baz=97,slow=20,SNR=3.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **12.20** | **37** | P | **Pn** | **02 52 45.9** | **-0.1** |
| | 0.1nm,0.3s,baz=225,slow=18,SNR=3.1 | | | | | | |
| **AB31** | **Akbulak array** | **14.58** | **328** | ⇑P | **Pn** | **02 53 16.5** | **-0.5** |
| | 0.5nm,0.4s,baz=134,slow=12,SNR=4.7 | | | | | | |
| AB31 | | | | ⇓S | **Sn** | **02 55 52.8** | **-4.8** |
| | 0.7nm,0.6s,baz=149,slow=23,SNR=4.5 | | | | | | |
| **BVAR** | **Borovoye Array** | **15.63** | **357** | P | **Pn** | **02 53 29.4** | **-0.7** |
| | 1.0nm,0.3s,baz=158,slow=11,SNR=15 | | | | | | |
| **AKTO** | **Aktyubinsk** | **16.29** | **327** | P | **Pn** | **02 53 39.9** | **+1.4** |
| | 0.8nm,0.3s,baz=120,slow=13,SNR=18 | | | | | | |
| **AKTO** | **Aktyubinsk** | **16.29** | **327** | ⇓P | **P** | **02 53 40.7** | **+1.0** |
| | 4.1nm,0.6s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **18.83** | **24** | P | **P** | **02 54 06.5** | **-0.9** |
| | 0.3nm,0.3s,baz=217,slow=12,SNR=4.9 | | | | | | |
| **FINES** | **FINESS Array B** | **37.05** | **325** | P | **P** | **02 56 57.6** | **+1.9** |
| | 7.0nm,1.1s,baz=118,slow=8.7,SNR=8.2 | | | | | | |
| **ARCES** | **ARCESS Array B** | **40.52** | **337** | P | **P** | **02 57 25.5** | **+1.0** |
| | 1.6nm,0.8s,baz=89,slow=5.0,SNR=5.3 | | | | | | |
| **YKA** | **Yellowknife Ar** | **80.29** | **3** | P | **P** | **03 01 54.7** | **-0.5** |
| | 0.2nm,0.6s,baz=350,slow=5.5,SNR=5.0 | | | | | | |

*ISCJB 18 03:02:20.8±1.6, 32.53S±0.06×71.1W±0.1, h87km±17km, Error ellipse: s-maj=21.0km s-min=9.2km az=171.5*
*GUC 18 03:02:21.2±0.3, 32.50S×71.00W, h84km±3km, ML3.1*
*SJA 18 03:02:25.7±0.6, 32.46S×70.55W, h86km±13km, ML2.5, MW3.5*

**ISC 18 03:02:21.2±2.4, 32.53S±0.06×71.1W±0.1, h82km±26km, n15, σ0.30/21, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ROCH** | **El Roble** | **0.45** | **168** | IAML | | 03 02 53.9 | |
| | comp=E,2μm,0.1s | | | | | | |
| **ROC1** | **El Roble** | **0.45** | **169** | *i* P | Pn | 03 02 42.8 | +7.6 |
| ROC1 | | | | *i* S | Sn | 03 02 54.7 | +9.3 |
| **PEL** | **Peldehue** | **0.71** | **149** | *e*P | **Pn** | **03 02 36.7** | **-0.5** |
| PEL | | | | *e*S | **Sn** | **03 02 49.0** | **-0.2** |
| PEL | | | | IAML | | 03 02 49.6 | |
| | comp=N,1μm,0.3s | | | | | | |
| **STL** | **Santa Lucia** | **0.99** | **156** | *e*P | **Pn** | **03 02 40.2** | **-0.1** |
| STL | | | | *i* S | **Sn** | **03 02 54.8** | **+0.2** |
| **CLCH** | **Cerro Calan** | **0.99** | **151** | *e*P | **Pn** | **03 02 40.4** | **-0.1** |
| CLCH | | | | *i* S | **Sn** | **03 02 54.7** | **0.0** |
| **FCH** | **Farellones** | **1.06** | **139** | *e*P | **Pn** | **03 02 41.4** | **-0.1** |
| FCH | | | | *i* S | **Sn** | **03 02 56.9** | **+0.3** |
| **FSR** | **Penalolen** | **1.07** | **152** | *e*P | **Pn** | **03 02 41.7** | **+0.4** |
| FSR | | | | *e*S | **Sn** | **03 02 56.7** | **+0.4** |
| **ANTU** | **Antumapu** | **1.11** | **159** | *e*P | **Pn** | **03 02 41.9** | **+0.1** |
| ANTU | | | | *i* S | **Sn** | **03 02 57.4** | **+0.1** |
| ANTU | | | | IAML | | 03 02 57.7 | |
| | comp=E,483nm,0.2s | | | | | | |
| **AUSP** | **Uspallata** | **1.50** | **79** | *i* P | **Pn** | **03 02 47.1** | **+0.3** |
| **LMEL** | **Las Melosas** | **1.52** | **150** | *e*P | **Pn** | **03 02 47.1** | **0.0** |
| LMEL | | | | *i* S | **Sn** | **03 03 06.6** | **0.0** |
| LMEL | | | | IAML | | 03 03 09.7 | |
| | comp=N,440nm,0.2s | | | | | | |
| **RTLS** | **Leoncito** | **1.71** | **65** | *i* P | **Pn** | **03 02 49.9** | **+0.3** |
| RTLS | | | | IAML | | 03 02 50.6 | |
| | comp=Z,63nm,0.3s | | | | | | |
| **RTCV** | **Cerro Valdivia** | **2.29** | **74** | *i* P | **Pn** | **03 02 57.0** | **-0.1** |
| **TLL** | **Tololo Astrono** | **2.37** | **7** | *e*P | **Pn** | **03 02 58.5** | **0.0** |
| TLL | | | | *i* S | **Sn** | **03 03 26.7** | **-0.1** |
| TLL | | | | IAML | | 03 03 29.6 | |
| | comp=N,126nm,0.6s | | | | | | |
| **AMOG** | **MOGNA** | **2.74** | **55** | *i* P | **Pn** | **03 03 03.3** | **+0.1** |
| **ACAN** | **Cantantal** | **3.33** | **87** | *i* P | **Pn** | **03 03 10.5** | **-0.7** |

**NNC 18 03:08:01.1±6.5, 36.77N×70.74E, h145km±68km, mb2.6, mpv3.5, 6C-5D, Error ellipse: s-maj=65.0km s-min=29.0km az=163.0, Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DZET** | **Dzherino** | **2.53** | **324** | ⇓P | Pn | 03 08 41.6 | -0.8 |
| | 31nm,0.4s | | | | | | |
| DZET | | | | ⇓S | Sn | 03 09 15.3 | +1.0 |
| | 45nm,0.4s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **3.90** | **33** | ⇑P | Pn | 03 08 58.6 | -1.4 |
| | 4.6nm,0.5s | | | | | | |
| SFK | | | | ⇑S | Sn | 03 09 50.2 | +4.5 |
| | 13nm,0.4s | | | | | | |
| **MNAS** | **Manas** | **5.87** | **13** | ⇓P | Pn | 03 09 24.3 | -1.7 |
| | 1.7nm,0.5s | | | | | | |
| MNAS | | | | ⇑S | Sn | 03 10 29.6 | -2.8 |
| | 2.5nm,0.6s | | | | | | |
| **KK31** | **Karatay Array** | **6.33** | **358** | ⇑P | Pn | 03 09 30.6 | -1.4 |
| | 1.4nm,0.3s,baz=178,slow=12,SNR=64 | | | | | | |
| KK31 | | | | ⇓S | Sn | 03 10 41.8 | -1.4 |
| | 0.5nm,0.3s,baz=175,slow=23,SNR=4.3 | | | | | | |
| **AAK** | **Ala-Archa** | **6.53** | **25** | ⇓P | Pn | 03 09 35.1 | +0.2 |
| | 2.2nm,0.5s | | | | | | |
| AAK | | | | ⇑S | Sn | 03 10 47.5 | -0.9 |
| | 5.9nm,1.0s | | | | | | |
| **AB31** | **Akbulak array** | **14.74** | **331** | ⇑P | P | 03 11 23.5 | -1.1 |
| | 0.2nm,0.3s,baz=149,slow=12,SNR=4.3 | | | | | | |

*CSEM 18 03:35:05.9, 37.78N×36.47E, h7km, ML1.9*

**DDA 18 03:35:06.0, 37.78N×36.47E, h7km, Ml1.9, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ANDN** | **Andirin** | **0.22** | **206** | *i* P | Pg | 03 35 10.5 | +0.2 |
| ANDN | | | | *i* S | Sg | 03 35 14.2 | +0.8 |
| **ANDN** | **Andirin** | **0.22** | **206** | P | Pg | 03 35 10.5 | +0.1 |
| ANDN | | | | S | Sg | 03 35 14.2 | +0.8 |
| **SAIM** | **ADANA** | **0.36** | **303** | *i* P | Pg | 03 35 12.9 | -0.2 |
| SAIM | | | | *i* S | Sb | 03 35 19.3 | -1.4 |
| **SAIM** | **ADANA** | **0.36** | **303** | P | Pg | 03 35 12.9 | -0.2 |
| SAIM | | | | S | Sb | 03 35 19.3 | -1.4 |
| **HCB** | **Kahramanmara¯** | **0.56** | **141** | *i* P | Pg | 03 35 16.3 | -0.4 |
| HCB | | | | *i* S | Sg | 03 35 23.6 | -0.4 |
| **KUZU** | **Kuzuini** | **1.12** | **154** | *i* P | Pn | 03 35 28.0 | -0.1 |
| KUZU | | | | *i* S | Sn | 03 35 43.5 | -0.2 |
| **KUZU** | **Kuzuini** | **1.12** | **154** | P | Pn | 03 35 28.0 | 0.0 |
| KUZU | | | | S | Sn | 03 35 43.5 | -0.2 |

*CSEM 18 03:36:49.3±0.3, 38.66N×43.06E, h5km, MD2.3, Error ellipse: s-maj=6.5km s-min=5.4km az=39.0*
*DDA 18 03:37:44.7, 38.64N×43.11E, h2km, Ml2.8*

**ISK 18 03:36:48.6, 38.68N×43.08E, h2km, MD2.3, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.26** | **109** | *e*PG | Pb | 03 36 55.7 | -0.4 |
| VANB | | | | *e*SG | Sb | 03 37 00.9 | -0.2 |
| **VANB** | **Van** | **0.26** | **109** | *e*Pg | Pb | 03 36 55.7 | -0.4 |
| VANB | | | | *e*Sg | Sb | 03 37 00.9 | -0.2 |
| **TVAN** | **Van** | **0.30** | **120** | *i* P | Pg | 03 36 55.6 | +1.2 |
| TVAN | | | | *i* S | Sb | 03 37 01.1 | -1.2 |
| **TVAN** | **Van** | **0.30** | **120** | P | Pg | 03 36 55.6 | +1.2 |
| TVAN | | | | S | Sb | 03 37 01.1 | -1.2 |
| **ADCV** | **BITLIS_Adilcev** | **0.30** | **295** | *i* P | Pb | 03 36 55.9 | -1.0 |
| ADCV | | | | *i* S | Sb | 03 37 01.4 | -1.0 |
| **ADCV** | **BITLIS_Adilcev** | **0.30** | **295** | P | Pb | 03 36 55.9 | -1.0 |
| ADCV | | | | S | Sb | 03 37 01.4 | -1.0 |
| **GEVA** | **Gevas** | **0.36** | **182** | *i* P | Pg | 03 36 55.0 | -0.6 |
| GEVA | | | | *i* S | Sg | 03 37 01.2 | +0.8 |
| **GEVA** | **Gevas** | **0.36** | **182** | P | Pg | 03 36 55.0 | -0.6 |
| GEVA | | | | S | Sg | 03 37 01.2 | +0.8 |
| **VMUR** | **Van-Muradiye** | **0.50** | **51** | *i* P | Pb | 03 36 59.7 | -0.5 |
| VMUR | | | | *i* S | Sb | 03 37 08.8 | +0.9 |
| **VMUR** | **Van-Muradiye** | **0.50** | **51** | P | Pb | 03 36 59.7 | -0.5 |
| VMUR | | | | S | Sb | 03 37 08.9 | +0.9 |
| **TUTA** | **Tutak** | **0.75** | **344** | *i* P | Pb | 03 37 03.9 | -0.6 |
| TUTA | | | | *i* S | Sg | 03 37 14.0 | +1.2 |
| **TUTA** | **Tutak** | **0.75** | **344** | P | Pb | 03 37 03.9 | -0.7 |
| TUTA | | | | S | Sg | 03 37 14.0 | +1.2 |
| **CLDR** | **Caldiran** | **0.81** | **54** | *e*PG | Pb | 03 37 05.0 | -0.5 |
| CLDR | | | | *e*SG | Sb | 03 37 17.0 | +0.1 |
| **CLDR** | **Caldiran** | **0.81** | **54** | *i* P | Pg | 03 37 03.7 | -0.3 |
| CLDR | | | | *i* S | Sb | 03 37 16.4 | -0.5 |
| **CLDR** | **Caldiran** | **0.81** | **54** | P | Pg | 03 37 03.7 | -0.3 |
| **CLDR** | **Caldiran** | **0.81** | **54** | *e*Pg | Pb | 03 37 05.0 | -0.5 |
| CLDR | | | | S | Sb | 03 37 16.4 | -0.5 |
| CLDR | | | | *e*Sg | Sg | 03 37 17.0 | +2.5 |
| **AGRB** | **Hanur-Agry** | **0.90** | **356** | *e*PG | Pb | 03 37 06.8 | -0.3 |
| AGRB | | | | *e*SG | Sb | 03 37 20.0 | +0.5 |
| **AGRB** | **Hanur-Agry** | **0.90** | **356** | *e*Pg | Pb | 03 37 06.8 | -0.3 |
| AGRB | | | | *e*Sg | Sb | 03 37 20.0 | +0.4 |
| **EKAR** | **Karacoban** | **0.98** | **307** | *i* P | Pn | 03 37 09.7 | +0.1 |
| EKAR | | | | *i* S | Sn | 03 37 25.4 | +1.2 |
| **EKAR** | **Karacoban** | **0.98** | **307** | P | Pn | 03 37 09.7 | +0.1 |

*VIE 18 03:49:41.5±0.6, 45.29N×14.61E, h8km, mb1.7/1, ML2.3/4, Error ellipse: s-maj=4.2km s-min=2.1km az=3.0*
*LJU 18 03:49:41.9, 45.32N×14.63E, h10km, ML1.7*
*CSEM 18 03:49:42.2±0.2, 45.31N×14.62E, h2km, ML2.7/10, Error ellipse: s-maj=3.1km s-min=2.1km az=21.0*
*ROM 18 03:49:42.1±0.6, 45.20N×14.60E, h5km, Md2.5/9, Ml2.2/4, Error ellipse: s-maj=10.9km s-min=5.2km az=56.0*

**ISC 18 03:49:42.1±1.1, 45.29N±0.02×14.64E±0.02, h5km±9km, n68, σ0.85/116, 3D, Northwestern Balkan Peninsula**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GBRS** | **Gornja Briga** | **0.27** | **27** | ⇓*i*Pg | **Pg** | **03 49 47.7** | **+0.3** |
| GBRS | | | | *i* Sg | **Sg** | **03 49 51.5** | **+0.5** |
| | 47nm,0.1s | | | | | | |
| **KNDS** | **Knezji Dol** | **0.30** | **323** | ⇓*i*Pg | **Pg** | **03 49 47.5** | **-0.4** |
| KNDS | | | | *i* Sg | **Sg** | **03 49 52.0** | **+0.1** |
| | comp=Z,52nm,0.1s | | | | | | |
| **KNDS** | **Knezji Dol** | **0.30** | **323** | ⇓*i*Pg | **Pg** | **03 49 47.5** | **-0.4** |
| KNDS | | | | *i* Sg | **Sg** | **03 49 52.0** | **+0.1** |
| | comp=Z,52nm,0.1s | | | | | | |
| **CEY** | **Cerknica** | **0.47** | **342** | *i* Pg | **Pg** | **03 49 50.4** | **-0.8** |
| CEY | | | | *i* Sg | **Sg** | **03 49 58.2** | **+0.8** |
| | comp=Z,48nm,0.2s | | | | | | |
| **CEY** | **Cerknica** | **0.47** | **342** | *i* Pg | **Pg** | **03 49 50.4** | **-0.8** |
| CEY | | | | *e*Sg | **Sg** | **03 49 56.8** | **-0.6** |
| **BOJS** | **Bojanci** | **0.48** | **63** | *i* Pg | **Pg** | **03 49 51.5** | **+0.1** |
| BOJS | | | | *i* Sg | **Sg** | **03 49 58.4** | **+0.7** |
| | comp=Z,18nm,0.1s | | | | | | |
| **BOJS** | **Bojanci** | **0.48** | **63** | *i* Pg | **Pg** | **03 49 51.5** | **+0.1** |
| BOJS | | | | *i* Sg | **Sg** | **03 49 58.4** | **+0.7** |
| | comp=Z,18nm,0.1s | | | | | | |
| **SKDS** | **Skadanscina** | **0.51** | **301** | *i* Pg | **Pg** | **03 49 50.9** | **-0.9** |
| SKDS | | | | *i* Sg | **Sg** | **03 49 58.5** | **+0.1** |
| **SKDS** | **Skadanscina** | **0.51** | **301** | *i* Pg | **Pg** | **03 49 50.9** | **-0.9** |
| SKDS | | | | *i* Sg | **Sg** | **03 49 58.5** | **+0.1** |
| **VISS** | **Visnje** | **0.54** | **15** | *i* Pg | **Pg** | **03 49 51.8** | **-0.6** |
| VISS | | | | *i* Sg | **Sg** | **03 49 59.3** | **0.0** |
| **VISS** | **Visnje** | **0.54** | **15** | *i* Pg | **Pg** | **03 49 51.8** | **-0.6** |
| VISS | | | | *i* Sg | **Sg** | **03 49 59.3** | **0.0** |
| **GBAS** | **Gorenja Brezov** | **0.66** | **348** | *i* Pg | **Pg** | **03 49 54.1** | **-0.7** |
| | comp=Z,13nm,0.1s | | | | | | |
| **GBAS** | **Gorenja Brezov** | **0.66** | **348** | *i* Pg | **Pg** | **03 49 54.1** | **-0.7** |
| | comp=Z,13nm,0.1s | | | | | | |
| **OZLJ** | **Ozalj** | **0.67** | **61** | Sg | **Sg** | **03 50 04.5** | **+0.8** |
| **OZLJ** | **Ozalj** | **0.67** | **61** | Sg | **Sg** | **03 50 04.4** | **+0.8** |
| **JAVS** | **Javornik** | **0.73** | **327** | *i* Pg | **Pg** | **03 49 54.8** | **-1.2** |
| **JAVS** | **Javornik** | **0.73** | **327** | *i* Pg | **Pg** | **03 49 54.8** | **-1.2** |
| **TRI** | **Trieste** | **0.74** | **305** | Pg | **Pg** | **03 49 56.6** | **+0.3** |
| TRI | | | | Sg | **Sb** | **03 50 07.4** | **-0.6** |
| **TRI** | **Trieste** | **0.74** | **305** | *e*Pg | **Pg** | **03 49 56.2** | **-0.2** |
| TRI | | | | *e*Sg | **Sb** | **03 50 07.0** | **-1.0** |
| **TRI** | **Trieste** | **0.74** | **305** | Pg | **Pg** | **03 49 56.6** | **+0.3** |
| TRI | | | | *e*Sg | **Sb** | **03 50 07.0** | **-1.0** |
| **NVLJ** | **Novalja** | **0.74** | **167** | *e*Pg | **Pg** | **03 49 56.8** | **+0.5** |
| NVLJ | | | | Sg | **Sn** | **03 50 09.6** | **-1.3** |
| **NVLJ** | **Novalja** | **0.74** | **167** | *e*Pg | **Pg** | **03 49 56.8** | **+0.5** |
| NVLJ | | | | Sg | **Sn** | **03 50 09.6** | **-1.3** |
| **LJU** | **Ljubljana** | **0.76** | **354** | *e*Pg | **Pg** | **03 49 55.5** | **-1.2** |
| LJU | | | | *e*Sg | **Sg** | **03 50 05.5** | **-1.0** |
| **CRES** | **Cresnjev** | **0.79** | **47** | *i* Pg | **Pg** | **03 49 57.3** | **+0.1** |
| **CRES** | **Cresnjev** | **0.79** | **47** | *i* Pg | **Pg** | **03 49 57.3** | **+0.1** |
| CRES | | | | *e*Sg | **Sg** | **03 50 07.9** | **+0.5** |
| **PDKS** | **Podkum** | **0.81** | **18** | *e*Pg | **Pg** | **03 49 57.1** | **-0.6** |
| **PDKS** | **Podkum** | **0.81** | **18** | *e*Pg | **Pg** | **03 49 57.1** | **-0.6** |
| **VNDS** | **Vrh nad Dolski** | **0.81** | **3** | *i* Pg | **Pg** | **03 49 57.4** | **-0.3** |
| **VNDS** | **Vrh nad Dolski** | **0.81** | **3** | *i* Pg | **Pg** | **03 49 57.4** | **-0.3** |
| **LEGS** | **Legarje** | **0.82** | **36** | *e*Pg | **Pg** | **03 49 57.6** | **-0.1** |
| **LEGS** | **Legarje** | **0.82** | **36** | *e*Pg | **Pg** | **03 49 57.6** | **-0.1** |
| **SABO** | **M.te Sabotino** | **1.00** | **314** | Pg | **Pb** | **03 50 01.8** | **-0.2** |
| SABO | | | | Sg | **Sn** | **03 50 16.1** | **-1.4** |
| **SABO** | **M.te Sabotino** | **1.00** | **314** | *e*Pg | **Pg** | **03 49 60.0** | **-1.4** |
| **SABO** | **M.te Sabotino** | **1.00** | **314** | Pg | **Pb** | **03 50 01.8** | **-0.2** |
| SABO | | | | Sg | **Sn** | **03 50 16.1** | **-1.4** |
| **ZAG** | **Zagreb** | **1.09** | **60** | *e*Pg | **Pb** | **03 50 03.4** | **-0.1** |
| ZAG | | | | *e*Sg | **Sb** | **03 50 18.3** | **+0.3** |
| **UDBI** | **Udbina** | **1.10** | **133** | *e*Pg | **Pn** | **03 50 04.2** | **-0.1** |
| UDBI | | | | Sg | **Sn** | **03 50 20.1** | **0.0** |
| **UDBI** | **Udbina** | **1.10** | **133** | *e*Pg | **Pn** | **03 50 04.2** | **-0.1** |
| UDBI | | | | Sg | **Sn** | **03 50 20.0** | **0.0** |
| **GORS** | **Gorjuse** | **1.12** | **337** | *i* Pg | **Pg** | **03 50 03.2** | **-0.4** |
| **GORS** | **Gorjuse** | **1.12** | **337** | *i* Pg | **Pg** | **03 50 03.2** | **-0.4** |
| **DRE** | **Drenchia** | **1.12** | **322** | *e*Pg | **Pg** | **03 50 03.2** | **-0.5** |
| DRE | | | | *e*Sg | **Sb** | **03 50 19.1** | **0.0** |
| **DRE** | **Drenchia** | **1.12** | **322** | *e*Pg | **Pg** | **03 50 03.2** | **-0.5** |
| DRE | | | | *e*Sg | **Sb** | **03 50 19.1** | **0.0** |
| **OBKA** | **Obir** | **1.22** | **357** | Pg | **Pg** | **03 50 05.1** | **-0.4** |
| | comp=Z,3.1nm,0.1s | | | | | | |
| OBKA | | | | Sg | **Sn** | **03 50 22.3** | **-0.7** |
| | comp=Z,21nm,0.3s | | | | | | |
| **VINO** | **Villanova** | **1.35** | **316** | Pg | **Pg** | **03 50 08.1** | **+0.1** |
| VINO | | | | Sg | **Sn** | **03 50 28.5** | **+2.3** |
| **VINO** | **Villanova** | **1.35** | **316** | *e*Pg | **Pg** | **03 50 08.1** | **+0.1** |
| VINO | | | | *e*Sg | **Sn** | **03 50 28.3** | **+2.2** |
| **VINO** | **Villanova** | **1.35** | **316** | Pg | **Pg** | **03 50 08.1** | **+0.1** |
| VINO | | | | *e*Sg | **Sn** | **03 50 28.3** | **+2.2** |
| **PRED** | **Cave del Predi** | **1.38** | **327** | *e*Pg | **Pb** | **03 50 08.0** | **-0.4** |
| PRED | | | | *e*Sg | **Sn** | **03 50 28.1** | **+1.4** |
| **PRED** | **Cave del Predi** | **1.38** | **327** | *e*Pg | **Pb** | **03 50 08.0** | **-0.4** |
| PRED | | | | *e*Sg | **Sn** | **03 50 28.1** | **+1.4** |
| **SOKA** | **Soboth** | **1.42** | **11** | Pg | **Pn** | **03 50 08.5** | **-0.2** |
| | comp=Z,0.1nm,0.1s | | | | | | |
| SOKA | | | | Sg | **Sg** | **03 50 27.8** | **+0.2** |
| | comp=Z,2.5nm,0.3s | | | | | | |
| **PTCC** | **Patocco-Chiusa** | **1.43** | **322** | Pg | **Pg** | **03 50 10.1** | **+0.6** |
| PTCC | | | | Sg | **Sg** | **03 50 30.0** | **+1.9** |
| | comp=Z,29nm,1.0s | | | | | | |
| **PTCC** | **Patocco-Chiusa** | **1.43** | **322** | Pg | **Pg** | **03 50 10.1** | **+0.6** |
| PTCC | | | | Sg | **Sg** | **03 50 30.0** | **+1.9** |
| | comp=Z,29nm,1.0s | | | | | | |
| **GEPF** | **Gemona** | **1.44** | **314** | Pg | **Pg** | **03 50 09.9** | **+0.2** |
| GEPF | | | | Sg | **Sg** | **03 50 30.1** | **+1.8** |
| | comp=Z,31nm,0.5s | | | | | | |
| **GEPF** | **Gemona** | **1.44** | **314** | Pg | **Pg** | **03 50 09.9** | **+0.2** |
| GEPF | | | | Sg | **Sg** | **03 50 30.1** | **+1.8** |
| | comp=Z,31nm,0.5s | | | | | | |
| **ACOM** | **Acomizza, Ital** | **1.48** | **329** | Pg | **Pg** | **03 50 10.8** | **+0.3** |
| ACOM | | | | Sg | **Sg** | **03 50 31.8** | **+2.0** |
| | comp=Z,36nm,0.5s | | | | | | |
| **ACOM** | **Acomizza, Ital** | **1.48** | **329** | *e*Pg | **Pg** | **03 50 10.5** | **0.0** |
| ACOM | | | | *e*Sg | **Sg** | **03 50 31.1** | **+1.3** |
| **ACOM** | **Acomizza, Ital** | **1.48** | **329** | Pg | **Pg** | **03 50 10.8** | **+0.3** |
| ACOM | | | | *e*Sg | **Sg** | **03 50 31.1** | **+1.3** |
| **MYKA** | **Terra Mystica** | **1.51** | **333** | Pg | **Pg** | **03 50 10.6** | **-0.4** |
| | comp=Z,0.6nm,0.1s | | | | | | |
| MYKA | | | | Sg | **Sg** | **03 50 31.9** | **+1.3** |
| | comp=Z,7.7nm,0.3s | | | | | | |
| **STAL** | **STALIGIAL** | **1.66** | **306** | Pg | **Pb** | **03 50 13.2** | **0.0** |
| STAL | | | | Sg | **Sg** | **03 50 36.3** | **+0.9** |
| | comp=Z,31nm,0.3s | | | | | | |
| **STAL** | **STALIGIAL** | **1.66** | **306** | Pg | **Pb** | **03 50 13.2** | **0.0** |
| STAL | | | | Sg | **Sg** | **03 50 36.3** | **+0.9** |
| | comp=Z,31nm,0.3s | | | | | | |
| **POLC** | **Polcenigo** | **1.67** | **297** | Pg | **Pb** | **03 50 12.8** | **-0.5** |
| POLC | | | | Sg | **Sg** | **03 50 36.5** | **+0.8** |
| **POLC** | **Polcenigo** | **1.67** | **297** | *e*Pg | **Pb** | **03 50 12.8** | **-0.5** |
| POLC | | | | *e*Sg | **Sg** | **03 50 36.3** | **+0.6** |
| **POLC** | **Polcenigo** | **1.67** | **297** | Pg | **Pb** | **03 50 12.8** | **-0.5** |
| POLC | | | | Sg | **Sg** | **03 50 36.5** | **+0.8** |
| **CLUD** | **Cludinico** | **1.69** | **314** | *e*Pg | **Pb** | **03 50 13.6** | **-0.2** |
| **CLUD** | **Cludinico** | **1.69** | **314** | *e*Pg | **Pb** | **03 50 13.6** | **-0.2** |
| CLUD | | | | *e*Sg | **Sg** | **03 50 38.0** | **+1.5** |
| **ZOU** | **Zoufplan** | **1.72** | **318** | *e*Pg | **Pb** | **03 50 13.6** | **-0.7** |
| ZOU | | | | *e*Sg | **Sg** | **03 50 38.0** | **+0.7** |
| **FVI** | **Forni Avoltri** | **1.84** | **316** | Pg | **Pg** | **03 50 16.6** | **-0.7** |
| **FVI** | **Forni Avoltri** | **1.84** | **316** | Pg | **Pg** | **03 50 16.6** | **-0.7** |
| **BLY** | **Banja Luka** | **1.89** | **106** | *e*Pn | **Pb** | **03 50 16.3** | **-0.7** |
| **ABTA** | **Abfaltersbach** | **2.08** | **315** | Pg | **Pb** | **03 50 20.8** | **+0.5** |
| | comp=Z,0.5nm,0.2s | | | | | | |
| ABTA | | | | Sg | **Sg** | **03 50 48.8** | **0.0** |
| | comp=Z,7.0nm,0.5s | | | | | | |

*IDC 18 03:52:19.0±1.2, 51.08N×179.09E, h0km, mb3.6/8, mb1 3.9/9, mb1mx3.6/48, mbtmp3.7/9, ML4.2/1, Error ellipse: s-maj=35.6km s-min=19.6km az=157.0*
*ISCJB 18 03:52:23.5±0.8, 50.74N±0.10×179.12E±0.06, h41km, mb3.6/8, Error ellipse: s-maj=14.3km s-min=5.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | comp=Z,78nm,0.4s | | | | | | | |
| AZAP | | | | *i* S | S | 04 11 09.9 | -1.3 | |
| **ASTB** | **Santa Barbara** | **2.78** | **94** | *i* P | Pn | 04 10 41.1 | +0.5 | |
| ASTB | | | | *i* S | S | 04 11 18.8 | -1.8 | |

**IDC 18 04:16:16.2±5.2, 5.75S×147.68E, h214km±51km, mb3.0/2, mb1 3.1/4, mb1mx2.9/28, mbtmp3.4/4, Error ellipse: s-maj=94.1km s-min=44.8km az=129.0, Eastern New Guinea region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **3.67** | **188** | P | Pn | 04 17 15.8 | +1.3 |
| | 0.7nm,0.3s,baz=324,slow=18,SNR=2.1 | | | | | | |
| PMG | | | | S | S | 04 18 00.2 | +0.2 |
| | 2.1nm,0.3s,baz=104,slow=17,SNR=5.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **19.16** | **221** | P | P | 04 20 23.3 | -0.5 |
| | 0.3nm,0.3s,baz=38,slow=11,SNR=30 | | | | | | |
| **ASAR** | **Alice Springs** | **22.21** | **215** | P | P | 04 20 56.0 | +0.7 |
| | 0.5nm,0.7s,baz=51,slow=7.5,SNR=4.4 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **24.78** | **238** | P | P | 04 21 19.0 | +0.4 |
| | 1.3nm,0.4s,baz=51,slow=11,SNR=13 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **145.69** | **285** | PKPbc | PKPdf | 04 35 29.4 | -0.7 |
| | 0.3nm,0.8s,baz=67,slow=4.1,SNR=4.1 | | | | | | |

*ATH **18** 04:30:47.1, 36.42N×28.06E, h26km±4km, ML2.6/3, Error ellipse: s-maj=8.6km s-min=1.6km az=123.0*
*ISCJB **18** 04:30:48.4±0.5, 36.41N±0.02×28.00E±0.03, h7km±4km, Error ellipse: s-maj=4.4km s-min=3.7km az=34.4*
*ISK **18** 04:30:48.2, 36.41N×28.06E, h10km, ML2.6*
*CSEM **18** 04:30:48.6±0.2, 36.40N×28.01E, h10km, ML2.6, Error ellipse: s-maj=5.7km s-min=4.3km az=152.0*
*DDA **18** 04:31:46.4, 36.49N×28.07E, h5km, Ml2.8*
**ISC 18 04:30:48.1±1.0, 36.43N±0.02×28.01E±0.02, h6km±9km, n41, σ1.980/74, Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ARG** | **Arkhangelos** | **0.23** | **156** | P | **Pg** | **04 30 52.9** | **+0.3** |
| ARG | | | | S | **Sg** | **04 30 56.6** | **+1.0** |
| ARG | | | | AML | AML | 04 30 57.4 | |
| | comp=E,6104μm,0.3s | | | | | | |
| ARG | | | | AML | AML | 04 30 58.0 | |
| | comp=N,1279μm,1.3s | | | | | | |
| **ARG** | **Arkhangelos** | **0.23** | **156** | P | **Pg** | **04 30 52.9** | **+0.3** |
| ARG | | | | S | **Sg** | **04 30 56.6** | **+1.0** |
| **MRSB** | **Marmaris-Mugla** | **0.33** | **27** | *e*PG | **Pg** | **04 30 55.3** | **+0.8** |
| MRSB | | | | *e*SG | **Sg** | **04 31 00.4** | **+1.6** |
| **MRSB** | **Marmaris-Mugla** | **0.33** | **27** | *e*Pg | **Pg** | **04 30 55.3** | **+0.8** |
| MRSB | | | | *e*Sg | **Sg** | **04 31 00.4** | **+1.6** |
| **DALY** | **Dalyan (Mu¨la** | **0.65** | **53** | *e*PG | **Pg** | **04 31 00.6** | **0.0** |
| DALY | | | | *e*SG | **Sb** | **04 31 10.1** | **-1.0** |
| **DALY** | **Dalyan (Mu¨la** | **0.65** | **53** | *i* P | **Pg** | **04 31 00.1** | **-0.5** |
| DALY | | | | *i* S | **Sb** | **04 31 10.6** | **-0.6** |
| **DALY** | **Dalyan (Mu¨la** | **0.65** | **53** | P | **Pg** | **04 31 00.1** | **-0.5** |
| **DALY** | **Dalyan (Mu¨la** | **0.65** | **53** | *e*Pg | **Pg** | **04 31 00.6** | **0.0** |
| DALY | | | | *e*Sg | **Sb** | **04 31 10.1** | **-1.0** |
| **TURN** | **Turunc** | **0.65** | **47** | *e*PG | **Pg** | **04 30 56.5** | **-4.1** |
| TURN | | | | *e*SG | **Sg** | **04 31 02.6** | **-6.5** |
| **TURN** | **Turunc** | **0.65** | **47** | *i* P | Pg | 04 30 56.0 | -4.6 |
| TURN | | | | *i* S | **Sg** | **04 31 02.7** | **-6.5** |
| **TURN** | **Turunc** | **0.65** | **47** | *e*Pg | **Pg** | **04 30 56.5** | **-4.1** |
| **BDRM** | **Kayabasi** | **0.78** | **325** | *i* P | **Pb** | **04 31 04.5** | **+0.3** |
| BDRM | | | | *i* S | **Sb** | **04 31 16.3** | **+1.2** |
| **BDRM** | **Kayabasi** | **0.78** | **325** | P | **Pb** | **04 31 04.5** | **+0.3** |
| BDRM | | | | S | **Sb** | **04 31 16.3** | **+1.2** |
| **BODT** | **Bodrum** | **0.85** | **319** | *e*PG | **Pb** | **04 31 05.7** | **+0.4** |
| BODT | | | | *e*SG | **Sb** | **04 31 18.5** | **+1.5** |
| **BODT** | **Bodrum** | **0.85** | **319** | *e*Pg | **Pb** | **04 31 05.7** | **+0.4** |
| BODT | | | | *e*Sg | **Sb** | **04 31 18.5** | **+1.5** |
| **FETY** | **Fethiye** | **0.89** | **76** | *e*PG | **Pb** | **04 31 05.2** | **-0.8** |
| FETY | | | | *e*SG | **Sb** | **04 31 17.5** | **-0.6** |
| **FETY** | **Fethiye** | **0.89** | **76** | P | **Pg** | **04 31 04.2** | **-1.0** |
| **FETY** | **Fethiye** | **0.89** | **76** | *e*Pg | **Pb** | **04 31 05.2** | **-0.8** |
| FETY | | | | *e*Sg | **Sb** | **04 31 17.5** | **-0.6** |
| FETY | | | | S | **Sn** | **04 31 19.6** | **-0.9** |
| **KARP** | **Karpathos** | **1.11** | **218** | *e*PN | **Pn** | **04 31 10.3** | **0.0** |
| KARP | | | | *e*SN | **Sn** | **04 31 25.8** | **-0.2** |
| **KARP** | **Karpathos** | **1.11** | **218** | P | **Pn** | **04 31 10.2** | **0.0** |
| KARP | | | | S | **Sn** | **04 31 26.5** | **+0.5** |
| KARP | | | | AML | AML | 04 31 27.9 | |
| | comp=E,748μm,0.2s | | | | | | |
| KARP | | | | AML | AML | 04 31 29.9 | |
| | comp=N,437μm,0.2s | | | | | | |
| **KARP** | **Karpathos** | **1.11** | **218** | *e*Pn | **Pn** | **04 31 10.3** | **0.0** |
| KARP | | | | *e*Sn | **Sn** | **04 31 25.8** | **-0.2** |
| KARP | | | | S | **Sn** | **04 31 26.5** | **+0.5** |
| **AYDN** | **Tasoluk** | **1.24** | **355** | *i* P | **Pn** | **04 31 11.7** | **-0.3** |
| AYDN | | | | *i* S | **Sb** | **04 31 28.3** | **+0.1** |
| **AYDN** | **Tasoluk** | **1.24** | **355** | P | **Pn** | **04 31 11.7** | **-0.3** |
| AYDN | | | | S | **Sb** | **04 31 28.3** | **+0.1** |
| **TAVA** | **DENIZLI_Tavas** | **1.27** | **35** | *i* P | **Pg** | **04 31 12.6** | **+0.2** |
| TAVA | | | | *i* S | **Sn** | **04 31 33.0** | **+3.2** |
| **TAVA** | **DENIZLI_Tavas** | **1.27** | **35** | P | **Pg** | **04 31 12.6** | **+0.2** |
| TAVA | | | | S | **Sn** | **04 31 33.0** | **+3.2** |
| **AKAS** | **Kas** | **1.30** | **98** | *e*PN | **Pg** | **04 31 12.6** | **-0.5** |
| **AKAS** | **Kas** | **1.30** | **98** | *i* P | **Pg** | **04 31 14.0** | **+0.9** |
| AKAS | | | | *i* S | **Sn** | **04 31 33.4** | **+2.6** |
| **AKAS** | **Kas** | **1.30** | **98** | *e*Pn | **Pg** | **04 31 12.6** | **-0.5** |
| **AKAS** | **Kas** | **1.30** | **98** | P | **Pg** | **04 31 14.0** | **+0.9** |
| AKAS | | | | S | **Sn** | **04 31 33.4** | **+2.6** |
| **GOLH** | **Golhisar** | **1.48** | **56** | *i* P | **Pg** | **04 31 17.5** | **+0.9** |
| GOLH | | | | *i* S | **Sg** | **04 31 40.2** | **+4.4** |
| **GOLH** | **Golhisar** | **1.48** | **56** | P | **Pg** | **04 31 17.5** | **+0.9** |
| **SMG** | **Samos** | **1.59** | **324** | P | **Pn** | **04 31 16.1** | **-0.7** |
| **SMG** | **Samos** | **1.59** | **324** | P | **Pn** | **04 31 16.1** | **-0.7** |
| **KORT** | **Korkueli** | **1.97** | **72** | *i* P | **Pg** | **04 31 25.0** | **-0.8** |
| KORT | | | | *i* S | **Sg** | **04 31 53.1** | **+1.8** |
| **KORT** | **Korkueli** | **1.97** | **72** | P | **Pg** | **04 31 25.0** | **-0.8** |
| **NPS** | **Neapolis** | **2.27** | **240** | P | **Pn** | **04 31 24.7** | **-1.4** |
| NPS | | | | S | **Sn** | **04 31 52.9** | **-1.6** |
| NPS | | | | AML | AML | 04 31 56.3 | |
| | comp=N,127μm,0.4s | | | | | | |
| NPS | | | | AML | AML | 04 32 00.1 | |
| | comp=E,151μm,0.5s | | | | | | |
| **NPS** | **Neapolis** | **2.27** | **240** | P | **Pn** | **04 31 24.7** | **-1.4** |
| NPS | | | | S | **Sn** | **04 31 52.9** | **-1.6** |
| **KHAL** | **Karahalli** | **2.27** | **31** | *i* P | **Pn** | **04 31 27.6** | **+1.3** |
| KHAL | | | | *i* S | **Sn** | **04 31 54.2** | **-0.5** |
| **KHAL** | **Karahalli** | **2.27** | **31** | P | **Pn** | **04 31 27.6** | **+1.3** |
| KHAL | | | | S | **Sn** | **04 31 54.2** | **-0.5** |
| **LAST** | **Lasithi** | **2.41** | **239** | P | **Pn** | **04 31 28.8** | **+0.6** |
| LAST | | | | S | **Sn** | **04 31 56.1** | **-2.1** |
| **LAST** | **Lasithi** | **2.41** | **239** | P | **Pn** | **04 31 28.8** | **+0.6** |
| LAST | | | | S | **Sn** | **04 31 56.1** | **-2.1** |

*IDC **18** 04:32:54.1±4.0, 22.27N×122.64E, h0km, mb3.5/5, mb1 3.6/5, mb1mx3.3/43, mbtmp3.5/5, Error ellipse: s-maj=325.2km s-min=24.6km az=64.0*
*ISCJB **18** 04:33:12.7±0.6, 22.10N±0.03×121.67E±0.05, h141km±3km, mb3.3/5, Error ellipse: s-maj=8.1km s-min=5.5km az=5.3*
*TAP **18** 04:33:12.1, 22.04N×121.73E, h142km, ML4.2, C*
**ISC 18 04:33:11.9±1.1, 22.05N±0.05×121.75E±0.07, h142km±6km, n49, σ0.997/93, mb3.3/5, 8C-15D, Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LAY** | **Lan-yu** | **0.19** | **267** | ⇑P | **Pn** | **04 33 31.3** | **+0.1** |
| | baz=268 | | | | | | |
| LAY | | | | S | **Sn** | **04 33 45.3** | **-0.4** |
| | baz=268 | | | | | | |
| **TSEB** | **Hengchuen, Pin** | **0.81** | **260** | *e*P | **Pn** | **04 33 35.5** | **+1.3** |
| | baz=262 | | | | | | |
| TSEB | | | | *e*S | **Sn** | **04 33 52.4** | **+1.1** |
| | baz=262 | | | | | | |
| **TAW** | **Tawu** | **0.85** | **291** | ⇑*e*P | **Pn** | **04 33 34.8** | **+0.1** |
| | baz=292 | | | | | | |
| TAW | | | | *e*S | **Sn** | **04 33 51.1** | **-0.8** |
| | baz=292 | | | | | | |
| **TWK1** | **Hengchun** | **0.89** | **263** | ⇑P | **Pn** | **04 33 35.8** | **+0.9** |
| | baz=263 | | | | | | |
| TWK1 | | | | *e*S | **Sn** | **04 33 52.6** | **+0.2** |
| | baz=263 | | | | | | |
| **TTN** | **Taitung** | **0.90** | **321** | *e*P | **Pn** | **04 33 36.0** | **+1.0** |
| | baz=318 | | | | | | |
| TTN | | | | *e*S | **Sn** | **04 33 51.8** | **-0.9** |
| | baz=318 | | | | | | |
| **EAST** | **Anshuo** | **0.90** | **292** | ⇑*e*P | **Pn** | **04 33 35.3** | **+0.1** |
| | baz=293 | | | | | | |
| EAST | | | | *e*S | **Sn** | **04 33 52.3** | **-0.5** |
| | baz=293 | | | | | | |
| **ECL** | **Taimali** | **0.92** | **307** | *e*P | **Pn** | **04 33 35.2** | **0.0** |
| | baz=313 | | | | | | |
| ECL | | | | *e*S | **Sn** | **04 33 51.3** | **-1.6** |
| | baz=313 | | | | | | |
| **HEN** | **Hengchun** | **0.94** | **268** | *e*P | **Pn** | **04 33 36.2** | **+0.8** |
| | baz=276 | | | | | | |
| HEN | | | | *e*S | **Sn** | **04 33 53.3** | **0.0** |
| | baz=276 | | | | | | |
| **TWG** | **Pinlang** | **0.99** | **321** | P | **Pn** | **04 33 35.8** | **-0.1** |
| | baz=319 | | | | | | |
| TWG | | | | *e*S | **Sn** | **04 33 52.9** | **-1.3** |
| | baz=319 | | | | | | |
| **SCZT** | **Fangliau** | **1.10** | **287** | *e*P | **Pn** | **04 33 37.1** | **+0.3** |
| | baz=293 | | | | | | |
| SCZT | | | | *e*S | **Sn** | **04 33 54.5** | **-1.3** |
| | baz=293 | | | | | | |
| **SSD** | **Sandimen** | **1.25** | **304** | ⇓*e*P | **Pn** | **04 33 38.8** | **+0.6** |
| | baz=299 | | | | | | |
| SSD | | | | *e*S | **Sn** | **04 33 57.6** | **-0.8** |
| | baz=299 | | | | | | |
| **TWP** | **Hsiaoliuchiu** | **1.32** | **283** | *e*P | **Pn** | **04 33 37.3** | **-1.7** |
| | baz=284 | | | | | | |
| TWP | | | | *e*S | **Sn** | **04 34 02.1** | **+2.5** |
| | baz=284 | | | | | | |
| **ELDTW** | **Lidau** | **1.32** | **329** | *e*P | **Pn** | **04 33 39.8** | **+0.6** |
| | baz=331 | | | | | | |
| ELDTW | | | | *e*S | **Sn** | **04 33 59.7** | **-0.3** |
| | baz=331 | | | | | | |
| **TWF1** | **Yuli** | **1.36** | **342** | ⇑*e*P | **Pn** | **04 33 39.7** | **+0.2** |
| | baz=335 | | | | | | |
| TWF1 | | | | *e*S | **Sn** | **04 34 00.4** | **-0.1** |
| | baz=335 | | | | | | |
| **KAU** | **Kaohsiung** | **1.44** | **291** | *e*P | **Pn** | **04 33 40.4** | **+0.2** |
| | baz=292 | | | | | | |
| KAU | | | | *e*S | **Sn** | **04 34 03.2** | **+1.5** |
| | baz=292 | | | | | | |
| **STYT** | **Tauyuan** | **1.44** | **321** | ⇓P | **Pn** | **04 33 41.0** | **+0.7** |
| | baz=331 | | | | | | |
| STYT | | | | *e*S | **Sn** | **04 34 01.3** | **-0.8** |
| | baz=331 | | | | | | |
| **TWM1** | **Shoushan** | **1.45** | **302** | ⇓*e*P | **Pn** | **04 33 41.8** | **+1.4** |
| | baz=303 | | | | | | |
| TWM1 | | | | *e*S | **Sn** | **04 34 03.2** | **+1.1** |
| | baz=303 | | | | | | |
| **SGST** | **Jiashian** | **1.49** | **314** | *e*P | **Pn** | **04 33 41.5** | **+0.7** |
| | baz=315 | | | | | | |
| SGST | | | | *e*S | **Sn** | **04 34 03.0** | **+0.1** |
| | baz=315 | | | | | | |
| **EHY** | **Hungye** | **1.50** | **345** | ⇓*e*P | **Pn** | **04 33 41.0** | **+0.1** |
| | baz=340 | | | | | | |
| EHY | | | | *e*S | **Sn** | **04 34 02.3** | **-0.9** |
| | baz=340 | | | | | | |
| **WTP** | **Ta-pu** | **1.59** | **319** | ⇓P | **Pn** | **04 33 42.5** | **+0.6** |
| | baz=328 | | | | | | |
| WTP | | | | *e*S | **Sn** | **04 34 04.2** | **-0.6** |
| | baz=328 | | | | | | |
| **CHN1** | **Nanshi** | **1.60** | **315** | *e*P | **Pn** | **04 33 42.6** | **+0.6** |
| | baz=324 | | | | | | |
| CHN1 | | | | *e*S | **Sn** | **04 34 04.5** | **-0.5** |
| | baz=324 | | | | | | |
| **YUS** | **Yu-Shan** | **1.61** | **333** | ⇓*e*P | **Pn** | **04 33 43.8** | **+1.2** |
| | baz=325 | | | | | | |
| YUS | | | | *e*S | **Sn** | **04 34 06.4** | **+0.3** |
| | baz=325 | | | | | | |
| **CHN3** | **Shinhua** | **1.64** | **309** | *e*P | **Pn** | **04 33 44.0** | **+1.6** |
| | baz=310 | | | | | | |
| CHN3 | | | | *e*S | **Sn** | **04 34 06.5** | **+0.7** |
| | baz=310 | | | | | | |
| **CHN4** | **Tsaushan** | **1.68** | **321** | ⇓P | **Pn** | **04 33 43.4** | **+0.5** |
| | baz=329 | | | | | | |
| CHN4 | | | | *e*S | **Sn** | **04 34 05.9** | **-0.7** |
| | baz=329 | | | | | | |
| **TWK** | **Hsinying** | **1.69** | **316** | ⇓*e*P | **Pn** | **04 33 43.4** | **+0.5** |
| | baz=324 | | | | | | |
| TWK | | | | *e*S | **Sn** | **04 34 05.9** | **-0.9** |
| | baz=324 | | | | | | |
| **ALS** | **Alishan** | **1.70** | **329** | ⇓*e*P | **Pn** | **04 33 44.0** | **+0.6** |
| | baz=323 | | | | | | |
| ALS | | | | *e*S | **Sn** | **04 34 05.8** | **-1.7** |
| | baz=323 | | | | | | |
| **TAI1** | **Yung-k'ang** | **1.72** | **305** | *e*P | **Pn** | **04 33 44.2** | **+1.0** |
| | baz=313 | | | | | | |
| TAI1 | | | | *e*S | **Sn** | **04 34 07.2** | **-0.1** |
| | baz=313 | | | | | | |
| **ESL** | **Shilin** | **1.78** | **351** | *e*P | **Pn** | **04 33 44.2** | **+0.2** |
| | baz=347 | | | | | | |
| ESL | | | | *e*S | **Sn** | **04 34 07.5** | **-1.1** |
| | baz=347 | | | | | | |
| **WDT** | **Danda** | **1.79** | **342** | ⇓*e*P | **Pn** | **04 33 45.5** | **+1.0** |
| | baz=347 | | | | | | |
| WDT | | | | *e*S | **Sn** | **04 34 09.3** | **-0.2** |
| | baz=347 | | | | | | |
| **SCLT** | **Jiali** | **1.83** | **308** | ⇓*e*P | **Pn** | **04 33 45.0** | **+0.5** |
| | baz=316 | | | | | | |
| SCLT | | | | *e*S | **Sn** | **04 34 09.7** | **+0.2** |
| | baz=316 | | | | | | |
| **CHN5** | **Tsauling** | **1.83** | **327** | *e*P | **Pn** | **04 33 45.1** | **+0.4** |
| | baz=322 | | | | | | |
| CHN5 | | | | *e*S | **Sn** | **04 34 09.3** | **-0.6** |
| | baz=322 | | | | | | |
| **CHY** | **Chiayi** | **1.90** | **320** | *e*P | **Pn** | **04 33 45.4** | **+0.1** |
| | baz=328 | | | | | | |
| CHY | | | | *e*S | **Sn** | **04 34 10.1** | **-0.8** |
| | baz=328 | | | | | | |
| **CHN8** | **Yiju** | **1.92** | **313** | *e*P | **Pn** | **04 33 45.7** | **+0.1** |
| | baz=314 | | | | | | |
| CHN8 | | | | *e*S | **Sn** | **04 34 10.6** | **-0.9** |
| | baz=314 | | | | | | |
| **SMLT** | **Sun Moon Lake** | **1.99** | **337** | ⇓*e*P | **Pn** | **04 33 47.0** | **+0.4** |
| | baz=330 | | | | | | |
| SMLT | | | | S | **Sn** | **04 34 12.6** | **-0.5** |
| | baz=330 | | | | | | |
| **TYC** | **Yuchr** | **2.02** | **336** | ⇑*e*P | **Pn** | **04 33 47.4** | **+0.5** |
| | baz=330 | | | | | | |
| TYC | | | | *e*S | **Sn** | **04 34 13.0** | **-0.7** |
| | baz=330 | | | | | | |
| **WSF** | **Szhu** | **2.12** | **319** | ⇑*e*P | **Pn** | **04 33 47.6** | **-0.4** |
| | baz=319 | | | | | | |
| WSF | | | | *e*S | **Sn** | **04 34 14.6** | **-1.2** |
| | baz=319 | | | | | | |
| **WHF** | **Hehuan Shan** | **2.14** | **348** | *e*P | **Pn** | **04 33 49.6** | **+1.0** |
| | baz=354 | | | | | | |
| WHF | | | | *e*S | **Sn** | **04 34 17.0** | **+0.2** |
| | baz=354 | | | | | | |
| **WTCT** | **Ta-ch'eng** | **2.26** | **323** | *e*P | **Pn** | **04 33 49.9** | **+0.2** |
| | baz=328 | | | | | | |
| WTCT | | | | *e*S | **Sn** | **04 34 17.8** | **-1.0** |
| | baz=328 | | | | | | |
| **WDGT** | **Dungji** | **2.28** | **302** | ⇓P | **Pn** | **04 33 49.6** | **-0.3** |
| | baz=303 | | | | | | |
| WDGT | | | | *e*S | **Sn** | **04 34 16.3** | **-2.8** |
| | baz=303 | | | | | | |
| **NNS** | **Nan Shan** | **2.41** | **352** | ⇑*e*P | **Pn** | **04 33 52.9** | **+1.3** |
| | baz=352 | | | | | | |
| NNS | | | | *e*S | **Sn** | **04 34 20.6** | **-1.6** |
| | baz=352 | | | | | | |
| **PNG** | **Penghu** | **2.53** | **307** | ⇓*e*P | **Pn** | **04 33 52.5** | **-0.5** |
| | baz=308 | | | | | | |
| PNG | | | | *e*S | **Sn** | **04 34 22.5** | **-2.2** |
| | baz=308 | | | | | | |
| **ENTT** | **Nioudou** | **2.59** | **356** | ⇓*e*P | **Pn** | **04 33 54.7** | **+0.9** |
| | baz=357 | | | | | | |
| ENTT | | | | *e*S | **Sn** | **04 34 25.1** | **-0.9** |
| | baz=357 | | | | | | |
| **NSK** | **Sanguang** | **2.64** | **352** | *e*P | **Pn** | **04 33 56.0** | **+1.5** |
| | baz=353 | | | | | | |
| NSK | | | | *e*S | **Sn** | **04 34 29.0** | **+1.7** |
| | baz=353 | | | | | | |
| **KNM** | **Kinmen** | **3.86** | **308** | *e*P | **Pn** | **04 34 11.1** | **+1.1** |
| | baz=308 | | | | | | |
| KNM | | | | *e*S | **Sn** | **04 34 55.6** | **+0.4** |
| | baz=308 | | | | | | |
| **MKAR** | **Makanchi Array** | **40.24** | **317** | P | **P** | **04 40 35.9** | **+1.1** |
| | 0.4nm,0.6s,baz=106,slow=9.2,SNR=5.6 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.32** | **328** | P | **P** | **04 40 51.4** | **-0.1** |
| | 0.7nm,0.4s,baz=125,slow=7.2,SNR=4.1 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **44.08** | **321** | P | **P** | **04 41 06.6** | **+0.8** |
| | 0.5nm,0.8s,baz=112,slow=7.5,SNR=3.5 | | | | | | |
| **ASAR** | **Alice Springs** | **46.95** | **165** | P | **P** | **04 41 26.8** | **-1.8** |
| | 0.5nm,1.0s,baz=340,slow=7.0,SNR=2.9 | | | | | | |
| **BVAR** | **Borovoye Array** | **49.66** | **322** | P | **P** | **04 41 49.7** | **+0.6** |
| | 0.3nm,0.4s,baz=108,slow=9.3,SNR=3.2 | | | | | | |

*MOS **18** 04:37:31.0±1.4, 49.15N×153.85E, h150km, mb4.0/7, Error ellipse: s-maj=19.9km s-min=7.0km az=64.8*
*KRSC **18** 04:37:32.2±1.8, 48.84N×155.22E, h165km±20km, ML4.3*
*IDC **18** 04:37:34.1±2.2, 49.15N×153.63E, h161km±21km, mb3.2/14, mb1 3.4/16, mb1mx3.3/42, mbtmp3.7/16, Error ellipse: s-maj=20.4km s-min=12.2km az=150.0*
**ISC 18 04:37:31.8±0.7, 49.1N±0.1×154.0E±0.1, h150km, n49, σ2.948/55, mb3.5/15, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SKR** | **Severo-Kuril's** | **2.12** | **40** | *e*PN | **Pn** | **04 38 07.4** | **-0.8** |
| SKR | | | | *e*S | **Sn** | **04 38 36.5** | **+0.1** |
| SKR | | | | pmax | pmax | | |
| | comp=Z,25nm,0.6s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=E,142nm,0.5s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=N,162nm,0.7s | | | | | | |
| **SKR** | **Severo-Kuril's** | **2.12** | **40** | *e*P | **Pn** | **04 38 07.5** | **-0.8** |
| SKR | | | | *e*S | **Sn** | **04 38 35.5** | **-0.9** |
| **KDTR** | **Khodutka, Kamc** | **3.79** | **42** | *e*P | **Pn** | **04 38 27.7** | **-1.5** |
| KDTR | | | | *e*S | **Sn** | **04 39 10.2** | **-3.6** |
| **ASAK** | **Asacha** | **4.15** | **35** | PN | **Pn** | **04 38 34.1** | **+0.2** |
| **ASAK** | **Asacha** | **4.15** | **35** | *e*P | **Pn** | **04 38 34.1** | **+0.2** |
| **MTVR** | **Mutnovka** | **4.33** | **36** | *e*S | **Sn** | **04 39 25.5** | **-1.2** |
| **RUS** | **Russkaya** | **4.43** | **39** | PN | **Pn** | **04 38 36.3** | **-1.2** |
| RUS | | | | S | **Sn** | **04 39 25.1** | **-3.6** |
| **RUS** | **Russkaya** | **4.43** | **39** | *e*P | **Pn** | **04 38 36.3** | **-1.2** |
| RUS | | | | *e*S | **Sn** | **04 39 25.1** | **-3.6** |
| **PETK** | **Petropavlovsk-** | **4.67** | **29** | P | **Pn** | **04 38 42.0** | **+1.2** |
| | comp=N,0.6nm,0.3s,baz=199,slow=11,SNR=7.4 | | | | | | |
| **PETK** | **Petropavlovsk-** | **4.67** | **29** | PN | **Pn** | **04 38 42.0** | **+1.2** |
| PETK | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.3s | | | | | | |
| **PET** | **Petropavlovsk** | **4.93** | **35** | S | **Sn** | **04 39 38.7** | **-2.0** |
| **DALK** | **Dalny** | **4.98** | **35** | PN | **Pn** | **04 38 44.0** | **-0.7** |
| DALK | | | | S | **Sn** | **04 39 37.1** | **-4.6** |
| **DALK** | **Dalny** | **4.98** | **35** | *e*P | **Pn** | **04 38 44.0** | **-0.7** |
| DALK | | | | *e*S | **Sn** | **04 39 37.1** | **-4.6** |
| **UGLR** | **Uglovaya** | **5.14** | **35** | PN | **Pn** | **04 38 48.6** | **+1.5** |
| **UGLR** | **Uglovaya** | **5.14** | **35** | *e*P | **Pn** | **04 38 48.6** | **+1.5** |
| **AVH** | **Avacha** | **5.16** | **34** | *e*S | **Sn** | **04 39 42.3** | **-3.8** |
| **SDLR** | **Sedlovina** | **5.22** | **34** | PN | **Pn** | **04 38 48.4** | **+0.3** |
| SDLR | | | | S | **Sn** | **04 39 44.2** | **-3.5** |
| **SDLR** | **Sedlovina** | **5.22** | **34** | *e*P | **Pn** | **04 38 48.4** | **+0.3** |
| SDLR | | | | *e*S | **Sn** | **04 39 44.2** | **-3.5** |
| **GNL** | **Ganaly** | **5.25** | **27** | PN | **Pn** | **04 38 49.6** | **+1.1** |
| **GNL** | **Ganaly** | **5.25** | **27** | *e*P | **Pn** | **04 38 49.6** | **+1.1** |
| **NLC** | **Nalytchevo** | **5.32** | **37** | *e*S | **Sn** | **04 39 44.4** | **-5.3** |
| **SPN** | **Mys Shipunski** | **5.54** | **41** | PN | **Pn** | **04 38 51.1** | **-1.2** |
| SPN | | | | S | **Sn** | **04 39 48.9** | **-6.3** |
| **SPN** | **Mys Shipunski** | **5.54** | **41** | *e*P | **Pn** | **04 38 51.1** | **-1.2** |
| SPN | | | | *e*S | **Sn** | **04 39 48.9** | **-6.3** |
| **SHO** | **Shikotan** | **7.17** | **226** | PN | **Pn** | **04 39 12.7** | **-1.3** |
| SHO | | | | *e*S | **Sn** | **04 40 29.5** | **-4.7** |
| SHO | | | | smax | smax | | |
| | comp=N,28nm,0.9s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=E,40nm,0.9s | | | | | | |
| **KBTR** | **Krutoberegovo** | **8.94** | **34** | PN | **Pn** | **04 39 35.6** | **-1.8** |
| **KBTR** | **Krutoberegovo** | **8.94** | **34** | *e*P | **Pn** | **04 39 35.6** | **-1.8** |
| **ASAJ** | **Asahikawa** | **9.27** | **242** | P | **Pn** | **04 39 42.9** | **+0.9** |
| | comp=E,0.9nm,0.3s,baz=84,slow=14,SNR=8.1 | | | | | | |
| **KLR** | **Kul'dur** | **14.54** | **279** | P | **P** | **04 40 51.2** | **-1.5** |
| | comp=E,0.0nm,0.3s,baz=86,slow=9.4,SNR=6.5 | | | | | | |
| **KSRS** | **Korea Array** | **22.13** | **248** | P | **P** | **04 42 15.4** | **+0.3** |
| | comp=E,1.3nm,0.7s,baz=45,slow=10,SNR=4.6 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **31.06** | **156** | T | T | 05 15 56.2 | |
| | baz=343,slow=75,SNR=5.6 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **31.07** | **156** | T | T | 05 15 48.8 | |
| | baz=343,slow=75,SNR=9.3 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **31.08** | **156** | T | T | 05 15 43.4 | |
| | baz=343,slow=75,SNR=4.4 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **32.18** | **157** | T | T | 05 17 16.6 | |
| | baz=345,slow=76,SNR=38 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **32.19** | **157** | T | T | 05 17 08.2 | |
| | baz=345,slow=76,SNR=33 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **32.20** | **157** | T | T | 05 17 15.6 | |
| | baz=345,slow=76,SNR=29 | | | | | | |
| **ILAR** | **Eielson Array** | **34.39** | **41** | P | **P** | **04 44 07.2** | **+3.2** |
| | comp=E,0.4nm,0.6s,baz=270,slow=7.0,SNR=7.9 | | | | | | |
| **INK** | **Inuvik** | **39.39** | **34** | P | **P** | **04 44 48.1** | **+1.9** |
| | comp=E,0.8nm,0.5s,baz=296,slow=6.4,SNR=10 | | | | | | |
| **MKAR** | **Makanchi Array** | **46.42** | **296** | P | **P** | **04 45 43.2** | **+0.2** |
| | comp=E,1.0nm,0.7s,baz=68,slow=8.1,SNR=2.9 | | | | | | |
| **KURK** | **Kurchatov** | **46.59** | **302** | P | **P** | **04 45 44.5** | **+0.2** |
| KURK | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.5s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **46.69** | **302** | P | **P** | **04 45 44.5** | **-0.6** |
| | comp=Z,0.9nm,0.5s,baz=31,slow=5.5,SNR=7.2 | | | | | | |
| **RES** | **Resolute Bay** | **48.45** | **19** | P | **P** | **04 45 59.6** | **+1.3** |
| | comp=Z,0.8nm,0.5s,baz=287,slow=5.2,SNR=5.0 | | | | | | |
| **YKA** | **Yellowknife Ar** | **48.72** | **38** | P | **P** | **04 46 02.6** | **+2.1** |
| | comp=Z,0.2nm,0.5s,baz=299,slow=7.0,SNR=4.7 | | | | | | |
| **ARCES** | **ARCESS Array B** | **55.85** | **341** | P | **P** | **04 46 52.3** | **-0.7** |
| | comp=Z,1.2nm,0.8s,baz=36,slow=7.9,SNR=3.5 | | | | | | |
| **FINES** | **FINESS Array B** | **62.19** | **335** | P | **P** | **04 47 35.6** | **-1.0** |
| | comp=Z,5.2nm,1.1s,baz=33,slow=8.0,SNR=12 | | | | | | |
| **PDAR** | **Pinedale Array** | **62.92** | **55** | P | **P** | **04 47 44.1** | **+1.9** |
| | comp=Z,0.3nm,0.8s,baz=282,slow=4.5,SNR=2.9 | | | | | | |
| **NOA** | **NORSAR Array B** | **66.22** | **341** | P | **P** | **04 48 02.8** | **-0.2** |
| | comp=Z,0.4nm,0.7s,baz=29,slow=6.5,SNR=6.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **70.90** | **200** | P | **P** | **04 48 32.5** | **+0.1** |
| | comp=Z,0.5nm,1.0s,baz=15,slow=6.6,SNR=2.8 | | | | | | |
| **TXAR** | **Lajitas Array** | **75.86** | **62** | P | **P** | **04 49 04.1** | **+2.5** |
| | comp=Z,0.3nm,0.5s,baz=294,slow=4.5,SNR=7.2 | | | | | | |
| **BRTR** | **Keskin Array B** | **77.09** | **317** | P | **

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| HKT | Hockley<br>105nm,1.5s | 14.56 | 347 | ePn | P | P | 05 06 34.3 | -0.3 |
| 442A | Mamou<br>baz=178 | 14.94 | 359 | P | P | P | 05 06 40.8 | +2.0 |
| 441A | DeRidder<br>baz=176,SNR=13 | 15.01 | 357 | P | P | P | 05 06 41.7 | +2.1 |
| 446A | Poplarville<br>baz=190 | 15.25 | 9 | P | P | Pn | 05 06 43.9 | +1.5 |
| 341A | Kurthwood<br>baz=176,SNR=13 | 15.58 | 357 | P | P | Pn | 05 06 47.8 | +1.3 |
| 342A | Flagon Creek P<br>baz=179 | 15.60 | 360 | P | P | Pn | 05 06 47.8 | +1.1 |
| 345A | Thompson Farm,<br>baz=187,SNR=8.6 | 15.66 | 7 | P | P | Pn | 05 06 49.8 | +2.5 |
| 448A | Bay Minette<br>baz=195 | 15.68 | 14 | P | P | Pn | 05 06 49.9 | +2.4 |
| 344A | Westbrook Farm<br>baz=184,SNR=6.7 | 15.74 | 5 | P | P | Pn | 05 06 49.6 | +1.3 |
| 435B | Jarrell<br>baz=160,SNR=14 | 15.79 | 343 | P | P | Pn | 05 06 50.1 | +1.1 |
| 347A | Saraland<br>baz=192 | 15.99 | 12 | P | P | Pn | 05 06 52.1 | +0.8 |
| 243A | Waterproof<br>baz=182 | 16.12 | 2 | P | P | Pn | 05 06 54.0 | +1.2 |
| 348A | Jackson<br>baz=194 | 16.13 | 13 | P | P | Pn | 05 06 53.5 | +0.6 |
| NATX | Nacogdoches<br>baz=171 | 16.14 | 353 | P | P | Pn | 05 06 54.0 | +0.9 |
| NATX | Nacogdoches<br>37nm,0.9s | 16.14 | 353 | eP | P | Pn | 05 06 52.8 | -0.2 |
| 336A | Riesel<br>baz=163 | 16.17 | 346 | P | P | Pn | 05 06 54.7 | +1.2 |
| 241A | Mo Tay, Goldon<br>baz=177,SNR=7.4 | 16.26 | 358 | P | P | Pn | 05 06 55.3 | +0.9 |
| JCT | Junction City<br>baz=152,SNR=24 | 16.27 | 336 | P | P | Pn | 05 06 56.3 | +1.6 |
| 240A | Hunter Patters<br>baz=174 | 16.32 | 355 | P | P | Pn | 05 06 56.1 | +0.9 |
| 244A | Avery, Jackson<br>baz=184,SNR=11 | 16.33 | 5 | P | P | Pn | 05 06 55.4 | +0.2 |
| 245A | Little AP, Sta<br>baz=187,SNR=16 | 16.39 | 7 | P | P | Pn | 05 06 56.5 | +0.4 |
| VBMS | Vicksburg<br>baz=185 | 16.52 | 5 | P | P | Pn | 05 06 57.9 | +0.4 |
| 237A | Washetta, Mont<br>baz=167,SNR=7.5 | 16.55 | 349 | P | P | Pn | 05 06 58.1 | +0.2 |
| 247A | Quitman<br>baz=192 | 16.61 | 11 | P | P | Pn | 05 06 58.6 | 0.0 |
| 236A | Katherine and<br>baz=165 | 16.69 | 347 | P | P | Pn | 05 07 00.1 | +0.6 |
| HPIG | 43nm,0.8s | 16.77 | 314 | eP | P | Pn | 05 07 01.8 | +1.0 |
| 142A | Monroe<br>baz=180 | 16.77 | 1 | P | P | Pn | 05 07 00.6 | +0.1 |
| 248A | Dixon Mills<br>baz=194 | 16.82 | 13 | P | P | Pn | 05 07 00.9 | -0.2 |
| 141A | Papa Simpson,<br>baz=177 | 16.84 | 358 | P | P | Pn | 05 07 01.4 | +0.1 |
| WHTX | Lake Whitney,<br>baz=162,SNR=14 | 16.90 | 345 | P | P | Pn | 05 07 01.7 | -0.4 |
| WHTX | Lake Whitney,<br>21nm,0.6s | 16.90 | 345 | eP | P | Pn | 05 07 01.4 | -0.6 |
| 140A | Cam and Jess,<br>baz=175 | 16.91 | 356 | P | P | Pn | 05 07 02.0 | -0.1 |
| 143A | Socs Landing,<br>baz=182,SNR=8.7 | 16.94 | 2 | P | P | Pn | 05 07 01.8 | -0.7 |
| 145A | Houston Renfro<br>baz=187,SNR=5.2 | 16.96 | 7 | P | P | Pn | 05 07 02.0 | -0.7 |
| 139A | Bunkhouse Ranc<br>baz=172 | 17.02 | 354 | P | P | Pn | 05 07 03.8 | +0.4 |
| 138A | Matatall Enter<br>baz=170,SNR=7.2 | 17.08 | 352 | P | P | Pn | 05 07 04.0 | -0.2 |
| 146A | Union<br>baz=190 | 17.10 | 9 | P | P | Pn | 05 07 03.9 | -0.5 |
| 137A | Heron Place, G<br>baz=168 | 17.12 | 350 | P | P | Pn | 05 07 04.2 | -0.5 |
| 136A | Ennis<br>baz=165,SNR=8.9 | 17.15 | 348 | P | P | Pn | 05 07 04.4 | -0.5 |
| TXAR | Lajitas Array<br>1.6nm,0.3s,baz=152,slow=12,SNR=284 | 17.18 | 324 | P | P | Pn | 05 07 06.0 | +0.5 |
| TXAR | 0.0nm,0.3s,baz=147,slow=5.4,SNR=4.8 | | | ScP | ScP | ScP | 05 14 52.5 | +3.8 |
| TX31 | Lajitas Ar. Si | 17.18 | 324 | eP | P | Pn | 05 07 06.7 | +1.2 |
| 147A | Livingston<br>baz=192 | 17.27 | 11 | P | P | Pn | 05 07 05.8 | -0.6 |
| Z41A | Richland Creek<br>baz=177,SNR=8.6 | 17.49 | 358 | P | P | Pn | 05 07 08.1 | -0.8 |
| Z42A | Norrel Spur, H<br>baz=180 | 17.50 | 1 | P | P | Pn | 05 07 08.7 | -0.3 |
| Z40A | Long Farm, Mag<br>baz=176 | 17.51 | 357 | P | P | Pn | 05 07 08.5 | -0.7 |
| TIGA | Tifton<br>baz=208,SNR=6.1 | 17.54 | 25 | P | P | Pn | 05 07 08.5 | -1.1 |
| TIGA | Tifton<br>50nm,0.8s | 17.54 | 25 | eP | P | Pn | 05 07 08.9 | -0.6 |
| Z44A | Pea Ridge, Bel<br>baz=185 | 17.57 | 5 | P | P | Pn | 05 07 09.0 | -1.0 |
| MOTC | Monteria, Cord | 17.58 | 111 | eP | P | P | 05 07 06.9 | -1.1 |
| Z38A | Mt. Pleasant<br>baz=170,SNR=7.4 | 17.66 | 352 | P | P | Pn | 05 07 09.9 | -1.0 |
| Z46A | Louisville<br>baz=190,SNR=12 | 17.67 | 9 | P | P | Pn | 05 07 10.2 | -0.8 |
| Z37A | Pogue Cattle C<br>baz=168,SNR=18 | 17.69 | 351 | P | P | Pn | 05 07 10.2 | -1.1 |
| Z45A | Winona<br>baz=187 | 17.74 | 7 | P | P | Pn | 05 07 10.6 | -1.3 |
| Z47A | Carrollton<br>baz=192,SNR=13 | 17.82 | 11 | P | P | Pn | 05 07 11.6 | -1.3 |
| LRAL | Lakeview Retre<br>baz=196,SNR=12 | 17.89 | 14 | P | P | P | 05 07 12.3 | +1.0 |
| LRAL | Lakeview Retre<br>20nm,0.7s | 17.89 | 14 | eP | P | P | 05 07 12.2 | +1.0 |
| Z36A | Blue Ridge<br>baz=166,SNR=14 | 17.90 | 348 | P | P | P | 05 07 12.2 | +0.9 |
| WLAR | White Oak Lake<br>42nm,0.8s | 17.93 | 358 | eP | P | P | 05 07 12.6 | +1.1 |
| Y42A | Garnett, Star<br>baz=181 | 18.06 | 1 | P | P | P | 05 07 14.1 | +1.1 |
| Z48A | Northport<br>baz=194,SNR=5.2 | 18.10 | 13 | P | P | P | 05 07 14.1 | +0.7 |
| Y41A | Eaglette Beard<br>baz=178,SNR=7.2 | 18.10 | 359 | P | P | P | 05 07 14.7 | +1.2 |
| CCAR | Cane Creek<br>53nm,1.0s | 18.14 | 1 | eP | P | Pn | 05 07 16.8 | +0.2 |
| ABTX | Abilene, Hawle<br>baz=156,SNR=82 | 18.14 | 340 | P | P | Pn | 05 07 15.5 | -1.2 |
| ABTX | Abilene, Hawle<br>96nm,0.8s | 18.14 | 340 | eP | P | P | 05 07 14.9 | +1.0 |
| Y39A | Lockesburg<br>baz=174,SNR=9.3 | 18.24 | 355 | P | P | P | 05 07 15.4 | +0.5 |
| Y45A | Yeager Farm, C<br>baz=188,SNR=6.8 | 18.25 | 7 | P | P | P | 05 07 16.1 | +1.1 |
| Y40A | Okolona<br>baz=176 | 18.26 | 357 | P | P | P | 05 07 16.1 | +1.0 |
| Y38A | Idabel<br>baz=172,SNR=23 | 18.29 | 353 | P | P | P | 05 07 16.2 | +0.7 |
| Y46A | Houston<br>baz=190,SNR=14 | 18.36 | 9 | P | P | P | 05 07 17.1 | +0.9 |
| Y37A | Hugo<br>baz=169,SNR=20 | 18.45 | 351 | P | P | P | 05 07 18.4 | +1.1 |
| Y36A | Durant<br>baz=167,SNR=9.4 | 18.49 | 349 | P | P | P | 05 07 18.8 | +1.2 |
| Y47A | UCPARC, Winfie<br>baz=193,SNR=10 | 18.55 | 12 | P | P | P | 05 07 19.3 | +1.1 |
| Y35A | Marietta<br>baz=165,SNR=27 | 18.64 | 347 | P | P | P | 05 07 20.5 | +1.2 |
| MIAR | Mount Ida<br>baz=175,SNR=17 | 18.80 | 357 | P | P | P | 05 07 21.1 | +0.1 |
| X39A | Fountain Ranch<br>baz=174 | 18.81 | 355 | P | P | P | 05 07 21.4 | +0.4 |
| X44A | Crenshaw<br>baz=186 | 18.81 | 5 | P | P | P | 05 07 21.7 | +0.6 |
| X45A | UM Field Stati<br>baz=188 | 18.82 | 7 | P | P | P | 05 07 21.3 | +0.1 |
| OXF | Oxford<br>baz=188 | 18.90 | 7 | P | P | P | 05 07 22.9 | +0.9 |
| HELC | Santa Helena | 18.91 | 118 | eP | P | P | 05 07 21.6 | -1.2 |
| HELC | Santa Helena<br>15nm,1.1s | 18.91 | 118 | eP | P | P | 05 07 22.3 | -0.5 |
| LPIG | La Paz<br>15nm,0.3s,baz=9.0,slow=3.8,SNR=8.6 | 18.93 | 299 | P | Pn | P | 05 07 25.3 | -0.7 |
| UALR | University of<br>24nm,0.7s | 18.99 | 360 | eP | Pn | P | 05 07 25.3 | -1.3 |
| X37A | Clayton<br>baz=170,SNR=8.7 | 19.02 | 352 | P | P | P | 05 07 24.7 | +1.4 |
| X37A | Clayton<br>33nm,1.0s | 19.02 | 352 | eP | P | P | 05 07 24.1 | +0.7 |
| X38A | Whitesboro | 19.03 | 353 | P | P | P | 05 07 24.7 | +1.2 |
| | baz=172,SNR=15 | | | | | | | |
| X46A | Booneville<br>baz=190 | 19.06 | 9 | P | P | P | 05 07 24.0 | +0.2 |
| X35A | Drake<br>baz=165,SNR=21 | 19.10 | 348 | P | P | P | 05 07 25.1 | +0.8 |
| X35A | Drake<br>23nm,0.6s | 19.10 | 348 | eP | P | P | 05 07 24.6 | +0.4 |
| X47A | Russville<br>baz=192,SNR=7.5 | 19.14 | 11 | P | P | P | 05 07 24.9 | +0.3 |
| X36A | Centrahoma<br>baz=167,SNR=19 | 19.15 | 350 | P | P | P | 05 07 25.5 | +0.7 |
| X48A | Hartselle<br>baz=195 | 19.24 | 13 | P | P | P | 05 07 26.0 | +0.2 |
| W41B | Gary Mavity, V<br>baz=179 | 19.39 | 360 | P | P | P | 05 07 27.8 | +0.5 |
| W38A | Poteau<br>baz=173 | 19.40 | 354 | P | P | P | 05 07 28.2 | +0.8 |
| W40A | Ferguson Farm,<br>baz=177 | 19.42 | 358 | P | P | P | 05 07 28.8 | +1.2 |
| W40A | Ferguson Farm,<br>14nm,0.7s | 19.42 | 358 | eP | P | P | 05 07 28.8 | +1.2 |
| MET | Memphis--Engin<br>68nm,0.6s | 19.45 | 6 | eP | P | P | 05 07 29.7 | +1.8 |
| X301 | Greenbrier Sit<br>41nm,1.8s | 19.46 | 360 | eP | P | Pn | 05 07 30.1 | -2.0 |
| W39A | Magazine<br>baz=175,SNR=7.7 | 19.46 | 356 | P | P | P | 05 07 29.4 | +1.3 |
| X49A | Woodville<br>baz=197,SNR=5.9 | 19.47 | 15 | P | P | P | 05 07 28.7 | +0.5 |
| YOTC | Yotoco, Valle | 19.48 | 125 | eP | P | P | 05 07 28.8 | +0.1 |
| W42A | Bald Knob<br>baz=181 | 19.50 | 2 | P | P | P | 05 07 30.2 | +1.8 |
| WHAR | Wooly Hollow<br>10nm,1.0s | 19.51 | 360 | eP | P | P | 05 07 30.4 | +1.9 |
| GUYC | Guyana, Colomb | 19.54 | 120 | eP | P | P | 05 07 29.9 | +0.2 |
| W45A | Hickory Valley<br>baz=188 | 19.56 | 7 | P | P | P | 05 07 30.3 | +1.1 |
| W37B | Quinton<br>baz=170,SNR=17 | 19.57 | 352 | P | P | P | 05 07 29.2 | -0.1 |
| W37B | Quinton<br>38nm,0.7s | 19.57 | 352 | eP | P | P | 05 07 29.3 | +0.1 |
| W36A | Wetumka<br>baz=168,SNR=7.2 | 19.69 | 350 | P | P | P | 05 07 30.2 | -0.2 |
| W36A | Wetumka<br>14nm,0.7s | 19.69 | 350 | eP | P | P | 05 07 30.3 | -0.2 |
| NORC | Norcasia | 19.79 | 119 | eP | P | P | 05 07 30.9 | -1.0 |
| W35A | Tecumseh<br>baz=166,SNR=17 | 19.81 | 349 | P | P | P | 05 07 31.5 | -0.4 |
| W35A | Tecumseh<br>40nm,0.8s | 19.81 | 349 | eP | P | P | 05 07 31.5 | -0.4 |
| HBAR | Harrisburg<br>36nm,0.8s | 19.82 | 4 | eP | P | P | 05 07 33.9 | +2.0 |
| WMOK | Wichita Mounta<br>baz=160,SNR=23 | 19.85 | 344 | P | P | P | 05 07 32.3 | 0.0 |
| WMOK | Wichita Mounta | 19.85 | 344 | eP | P | P | 05 07 32.5 | +0.2 |
| MNTX | Cornudas Mount<br>baz=140,SNR=70 | 19.94 | 325 | P | P | P | 05 07 34.5 | +1.3 |
| TOLC | Tolima | 19.95 | 122 | eP | P | P | 05 07 34.0 | +0.1 |
| V41A | Mountainview<br>baz=180 | 20.00 | 0 | P | P | P | 05 07 33.2 | -0.7 |
| V40A | Witts Springs<br>baz=178 | 20.03 | 359 | P | P | P | 05 07 34.0 | -0.2 |
| V42A | Cord<br>baz=182 | 20.04 | 2 | P | P | P | 05 07 33.4 | -0.8 |
| V39A | Pettigrew<br>baz=175,SNR=12 | 20.09 | 357 | P | P | P | 05 07 34.6 | -0.3 |
| V38A | Canehill<br>baz=173,SNR=9.9 | 20.17 | 355 | P | P | P | 05 07 35.3 | -0.5 |
| OK020 | N3440 Road, Me<br>28nm,0.6s | 20.19 | 349 | eP | P | P | 05 07 35.2 | -0.6 |
| OK021 | N3530 Road, Sp<br>24nm,0.8s | 20.22 | 349 | eP | P | P | 05 07 35.3 | -0.9 |
| SWET | Sewanee<br>29nm,0.7s | 20.23 | 15 | eP | P | P | 05 07 36.5 | +0.1 |
| SDDR | Presa de Saban | 20.25 | 78 | eP | P | P | 05 07 37.8 | +1.1 |
| V37A | Hulbert<br>baz=171,SNR=15 | 20.27 | 353 | P | P | P | 05 07 35.9 | -0.8 |
| V36A | Jenks<br>baz=169 | 20.28 | 351 | P | P | P | 05 07 36.8 | 0.0 |
| V36A | Jenks<br>12nm,0.9s | 20.28 | 351 | eP | P | P | 05 07 37.1 | +0.3 |
| TUL1 | Leonard<br>baz=170,SNR=5.5 | 20.38 | 352 | P | P | P | 05 07 38.2 | +0.3 |
| TUL1 | Leonard<br>12nm,0.8s | 20.38 | 352 | eP | P | P | 05 07 38.2 | +0.3 |
| V35A | Meyer Ranch, C<br>baz=167,SNR=9.1 | 20.40 | 349 | P | P | P | 05 07 38.4 | +0.2 |
| V35A | Meyer Ranch, C<br>25nm,0.7s | 20.40 | 349 | eP | P | P | 05 07 37.0 | -1.1 |
| CMBC | Cumbal | 20.42 | 135 | eP | Pn | | 05 07 43.9 | -0.6 |
| GIRC | Giron, Santand | 20.52 | 113 | eP | P | P | 05 07 36.3 | -3.4 |
| MSTX | Muleshoe<br>baz=149,SNR=31 | 20.53 | 334 | P | P | P | 05 07 39.7 | +0.1 |
| MSTX | Muleshoe<br>31nm,0.6s | 20.53 | 334 | eP | P | P | 05 07 39.5 | -0.1 |
| V48A | Smith Brothers<br>baz=194,SNR=12 | 20.53 | 13 | P | P | P | 05 07 39.1 | -0.5 |
| HHAR | Hobbs<br>13nm,0.9s | 20.55 | 356 | eP | P | P | 05 07 39.4 | -0.4 |
| U41A | Viola<br>baz=180,SNR=9.1 | 20.56 | 1 | P | P | P | 05 07 40.3 | +0.4 |
| U40A | Yellville<br>baz=178,SNR=8.2 | 20.58 | 359 | P | P | P | 05 07 40.1 | 0.0 |
| U42A | Revenden<br>baz=182,SNR=14 | 20.58 | 2 | P | P | P | 05 07 39.6 | -0.5 |
| CRUC | La Cruz | 20.59 | 132 | eP | P | P | 05 07 37.4 | -3.4 |
| U39A | Green Forest<br>baz=176,SNR=8.9 | 20.63 | 357 | P | P | P | 05 07 40.5 | -0.1 |
| U43A | Rector<br>baz=184 | 20.65 | 4 | P | P | P | 05 07 40.0 | -0.8 |
| U44B | Burton Farm, H<br>baz=187 | 20.71 | 7 | P | P | P | 05 07 40.6 | -0.8 |
| WVT | Waverly<br>baz=191 | 20.72 | 10 | P | P | P | 05 07 40.9 | -0.6 |
| U38A | Gravette<br>baz=174,SNR=10 | 20.74 | 355 | P | P | P | 05 07 41.7 | -0.1 |
| U37A | Salina<br>baz=172,SNR=14 | 20.78 | 353 | P | P | P | 05 07 42.1 | 0.0 |
| U45A | Rockin P Farm,<br>baz=189 | 20.79 | 8 | P | P | P | 05 07 41.8 | -0.5 |
| PRAC | Prado | 20.81 | 123 | eP | P | P | 05 07 43.1 | +0.4 |
| PRAC | Prado<br>37nm,0.7s | 20.81 | 123 | eP | P | P | 05 07 43.4 | +0.7 |
| CPCT | Cooper Cave<br>20nm,0.8s | 20.84 | 18 | eP | P | P | 05 07 43.0 | +0.2 |
| U36A | Oologah<br>baz=170 | 20.84 | 352 | P | P | P | 05 07 42.6 | -0.2 |
| U46A | Springville<br>baz=190 | 20.89 | 9 | P | P | P | 05 07 42.9 | -0.4 |
| AMTX | Amarillo<br>baz=153 | 20.90 | 338 | P | P | P | 05 07 44.1 | +0.5 |
| AMTX | Amarillo<br>83nm,0.6s | 20.90 | 338 | eP | P | P | 05 07 43.8 | +0.2 |
| BG3 | Lake Jocassee<br>13nm,0.8s | 20.94 | 22 | eP | P | P | 05 07 44.9 | +1.0 |
| JSC | Jenkinsville<br>39nm,1.7s | 20.97 | 26 | eP | P | P | 05 07 44.6 | +0.4 |
| U35A | Pawnee<br>baz=167,SNR=11 | 20.97 | 350 | P | P | P | 05 07 43.9 | -0.2 |
| U35A | Pawnee<br>42nm,0.8s | 20.97 | 350 | eP | P | P | 05 07 43.8 | -0.4 |
| PARMO | Parma<br>63nm,0.8s | 20.99 | 6 | eP | P | P | 05 07 45.0 | +0.7 |
| PBMO | Poplar Bluff<br>23nm,1.1s | 21.05 | 4 | eP | P | P | 05 07 43.9 | -1.1 |
| U47A | Clarksville<br>baz=193 | 21.12 | 11 | P | P | P | 05 07 44.6 | -1.0 |
| RUSC | La Rusia | 21.16 | 115 | eP | P | P | 05 07 45.1 | -1.7 |
| RUSC | La Rusia<br>6.0nm,1.3s | 21.16 | 115 | eP | P | P | 05 07 44.9 | -2.0 |
| CHIC | Chingaza | 21.25 | 119 | eP | P | P | 05 07 46.0 | -1.6 |
| T39A | Clever<br>baz=176,SNR=10 | 21.26 | 357 | P | P | P | 05 07 46.0 | -1.1 |
| TKL | Tuckaleechee C<br>11nm,0.7s,baz=190,slow=11,SNR=27 | 21.26 | 19 | P | P | P | 05 07 46.4 | -0.8 |
| TKL | Tuckaleechee C<br>70nm,1.6s | 21.26 | 19 | eP | P | P | 05 07 47.6 | +0.5 |
| T42A | Van Buren<br>baz=182 | 21.27 | 2 | P | P | P | 05 07 45.7 | -1.4 |
| T38A | Diamond<br>baz=174,SNR=7.1 | 21.33 | 355 | P | P | P | 05 07 47.6 | -0.1 |
| U48A | Cassie Pea, Po<br>baz=195,SNR=6.3 | 21.33 | 13 | P | P | P | 05 07 46.9 | -0.9 |
| T40A | Mansfield<br>baz=179,SNR=7.6 | 21.36 | 359 | P | P | P | 05 07 47.2 | -0.9 |
| T43A | Greenville<br>baz=184,SNR=7.9 | 21.36 | 4 | P | P | P | 05 07 46.6 | -1.5 |
| T44A | Benton | 21.43 | 6 | P | P | P | 05 07 48.3 | -0.4 |
| | baz=186 | | | | | | | |
| T37A | Cheneyville 18<br>baz=172,SNR=14 | 21.47 | 354 | P | P | P | 05 07 48.3 | -0.9 |
| T35A | Sooner Cattle<br>baz=168 | 21.47 | 351 | P | P | P | 05 07 48.3 | -0.9 |
| SDD | Santo Domingo<br>60nm,1.0s | 21.50 | 79 | eP | P | P | 05 07 48.1 | -1.6 |
| T36A | Boggs Farm, Ca<br>baz=170,SNR=7.9 | 21.52 | 352 | P | P | P | 05 07 48.8 | -0.8 |
| T46A | Princeton<br>baz=191,SNR=5.2 | 21.60 | 9 | P | P | P | 05 07 50.1 | -0.3 |
| KMSC | Kings Mountain<br>baz=209 | 21.68 | 25 | P | P | P | 05 07 51.2 | -0.1 |
| KMSC | Kings Mountain<br>18nm,1.0s | 21.68 | 25 | eP | P | P | 05 07 52.3 | +1.1 |
| T47A | Sharon Grove<br>baz=193,SNR=13 | 21.68 | 11 | P | P | P | 05 07 50.8 | -0.4 |
| T34A | McClaskey Farm<br>baz=166,SNR=11 | 21.69 | 349 | P | P | P | 05 07 50.5 | -0.8 |
| S41A | Jillco Farms,<br>baz=181,SNR=7.4 | 21.80 | 1 | P | P | P | 05 07 51.1 | -1.3 |
| S40A | Lebanon<br>baz=179,SNR=6.2 | 21.81 | 359 | P | P | P | 05 07 51.6 | -0.8 |
| S43A | Fulton Ridge,<br>baz=185,SNR=7.9 | 21.87 | 5 | P | P | P | 05 07 51.5 | -1.5 |
| SRIG | Santa Rosalia<br>34nm,0.7s | 21.88 | 305 | eP | P | P | 05 07 55.8 | +2.6 |
| S38A | Stockton<br>baz=175,SNR=15 | 21.89 | 356 | P | P | P | 05 07 52.4 | -0.8 |
| 121A | Cookes Peak, D<br>baz=136,SNR=22 | 21.92 | 323 | P | P | P | 05 07 55.9 | +2.2 |
| 121A | Cookes Peak, D<br>50nm,1.0s | 21.92 | 323 | eP | P | P | 05 07 56.0 | +2.2 |
| S39A | Bolivar<br>baz=177,SNR=13 | 21.92 | 358 | P | P | P | 05 07 52.6 | -0.9 |
| T48A | Bowling Green<br>baz=195 | 21.94 | 13 | P | P | P | 05 07 52.9 | -0.8 |
| S42A | Caledonia<br>baz=183,SNR=5.5 | 22.02 | 3 | P | P | P | 05 07 52.8 | -1.6 |
| S44A | Carbondale<br>baz=187,SNR=8.9 | 22.06 | 6 | P | P | P | 05 07 54.7 | -0.1 |
| SIUC | Southern Illin<br>42nm,0.8s | 22.09 | 6 | eP | P | P | 05 07 55.1 | +0.1 |
| S37A | Fort Scott<br>baz=173,SNR=10.0 | 22.09 | 355 | P | P | P | 05 07 54.6 | -0.5 |
| S36A | Lake Cedric, C<br>baz=171,SNR=12 | 22.14 | 353 | P | P | P | 05 07 54.5 | -1.0 |
| SDV | Santo Domingo<br>3.5nm,0.4s,baz=317,slow=4.7,SNR=7.9 | 22.14 | 105 | P | P | P | 05 07 55.1 | -0.9 |
| S35A | Otter Creek Ra<br>baz=169,SNR=9.5 | 22.19 | 351 | P | P | P | 05 07 55.2 | -0.8 |
| S46A | Don Dixon Farm<br>baz=191 | 22.26 | 9 | P | P | P | 05 07 55.6 | -1.0 |
| CCM | Cathedral Cave<br>baz=182 | 22.28 | 2 | P | P | P | 05 07 55.7 | -1.2 |
| S34A | Willow Spring<br>baz=167 | 22.34 | 350 | P | P | P | 05 07 56.3 | -1.0 |
| R38A | Fenwick Farm,<br>baz=175,SNR=8.4 | 22.45 | 357 | P | P | P | 05 07 57.9 | -0.4 |
| BNM | Barren Site | 22.49 | 327 | eP | P | P | 05 08 01.3 | +2.2 |
| R40A | Maddies Statio<br>baz=179,SNR=8.5 | 22.50 | 360 | P | P | P | 05 07 57.8 | -1.0 |
| R41A | Rosebud<br>baz=182,SNR=8.3 | 22.52 | 2 | P | P | P | 05 07 58.0 | -1.0 |
| R42A | Luebbering<br>baz=183 | 22.53 | 3 | P | P | P | 05 07 58.2 | -0.8 |
| R39A | Chumby, Stover<br>baz=177,SNR=5.8 | 22.54 | 358 | P | P | P | 05 07 58.3 | -0.9 |
| USIN | University of<br>24nm,0.8s | 22.54 | 9 | eP | P | P | 05 07 59.2 | +0.1 |
| S48A | Wiedeman Farm,<br>baz=195 | 22.54 | 13 | P | P | P | 05 07 57.8 | -1.4 |
| R43A | Red Bud<br>baz=185,SNR=6.1 | 22.58 | 5 | P | P | P | 05 07 58.8 | -0.7 |
| Y22D | IRIS PASSCAL I<br>24nm,1.0s | 22.59 | 327 | eP | P | P | 05 08 02.2 | +2.4 |
| LPM | Los Pinos Moun | 22.62 | 328 | eP | P | P | 05 08 01.0 | +0.8 |
| R44A | Waltonville<br>baz=187 | 22.63 | 6 | P | P | P | 05 07 59.2 | -0.7 |
| R36A | Gordon, Harris<br>baz=171 | 22.72 | 353 | P | P | P | 05 08 00.5 | -0.3 |
| R45A | Skylar, Fairfi<br>baz=189,SNR=7.9 | 22.77 | 8 | P | P | P | 05 08 00.8 | -0.4 |
| R35A | Emporia Munici<br>baz=170 | 22.80 | 352 | P | P | P | 05 08 01.2 | -0.4 |
| SLM | Saint Louis<br>24nm,0.6s | 22.91 | 4 | eP | P | P | 05 08 02.5 | 0.0 |
| R34A | Isabella, Hill<br>baz=167 | 22.94 | 350 | P | P | P | 05 08 02.8 | -0.1 |
| LAZ | Ladron | 22.95 | 327 | eP | P | P | 05 08 05.8 | +2.6 |
| ANMO | Albuquerque<br>2.7nm,0.6s,baz=335,slow=11,SNR=15 | 23.03 | 329 | P | P | P | 05 08 05.4 | +1.5 |
| ANMO | Albuquerque<br>baz=142 | 23.03 | 329 | P | P | P | 05 08 05.2 | +1.3 |
| WCI | Wyandotte Cave<br>baz=194 | 23.04 | 12 | P | P | P | 05 08 03.2 | -0.5 |
| R47A | Wooly Knot Far<br>baz=194,SNR=5.7 | 23.06 | 12 | P | P | P | 05 08 03.4 | -0.5 |
| Q41A | Truxton<br>baz=182,SNR=7.2 | 23.18 | 2 | P | P | P | 05 08 04.4 | -0.6 |
| Q38A | Cooks Store, C<br>baz=176 | 23.20 | 357 | P | P | P | 05 08 05.1 | 0.0 |
| Q40A | Laux Farm, Aux<br>baz=180 | 23.20 | 0 | P | P | P | 05 08 04.4 | -0.7 |
| Q43A | New Douglas<br>baz=186 | 23.26 | 5 | P | P | P | 05 08 05.5 | -0.2 |
| Q39A | Willow Grove F<br>baz=178 | 23.26 | 359 | P | P | P | 05 08 05.3 | -0.4 |
| Q44A | Meyer Farm, Va<br>baz=187 | 23.28 | 6 | P | P | P | 05 08 05.8 | -0.1 |
| R48A | Northridge Ran<br>baz=195 | 23.29 | 13 | P | P | P | 05 08 05.6 | -0.4 |
| Q35A | Mercer Eighty,<br>baz=170 | 23.31 | 352 | P | P | P | 05 08 05.8 | -0.3 |
| CNNC | Cliffs of the<br>25nm,0.6s | 23.31 | 31 | eP | P | P | 05 08 06.7 | +0.5 |
| Q36A | Arnold C. Orve<br>baz=172 | 23.34 | 354 | P | P | P | 05 08 06.4 | 0.0 |
| Q34A | Chapman<br>baz=168,SNR=8.6 | 23.50 | 351 | P | P | P | 05 08 08.1 | +0.2 |
| TUC | Tucson<br>baz=130 | 23.62 | 318 | P | P | P | 05 08 11.5 | +2.4 |
| KSU1 | Kansas State U<br>baz=169 | 23.63 | 351 | P | P | P | 05 08 08.8 | -0.2 |
| KSU1 | Kansas State U<br>36nm,0.7s | 23.63 | 351 | eP | P | P | 05 08 07.4 | -1.6 |
| Q47A | Bedord North L<br>baz=194 | 23.70 | 11 | P | P | P | 05 08 08.8 | -0.9 |
| P40A | Paris<br>baz=180,SNR=5.4 | 23.74 | 0 | P | P | P | 05 08 08.9 | -1.2 |
| P42A | Winchester<br>baz=184 | 23.85 | 4 | P | P | P | 05 08 11.3 | +0.3 |
| P37A | Lathrop<br>baz=174 | 23.87 | 356 | P | P | P | 05 08 11.6 | +0.4 |
| P44A | Sand Creek, Wi<br>baz=188 | 23.89 | 7 | P | P | P | 05 08 11.1 | -0.2 |
| P41A | Barry, Barry<br>baz=182 | 23.91 | 2 | P | P | P | 05 08 10.5 | -1.0 |
| BLO | Bloomington<br>11nm,0.9s | 23.91 | 11 | eP | P | P | 05 08 11.0 | -0.6 |
| T25A | Trinidad<br>baz=150,SNR=14 | 23.93 | 335 | P | P | P | 05 08 14.1 | +2.0 |
| T25A | Trinidad<br>12nm,0.8s | 23.93 | 335 | eP | P | P | 05 08 14.2 | +2.1 |
| CBKS | Cedar Bluff<br>baz=161 | 23.95 | 345 | P | P | P | 05 08 11.8 | -0.2 |
| CBKS | Cedar Bluff<br>16nm,1.1s | 23.95 | 345 | eP | P | P | 05 08 11.9 | -0.2 |
| P43A | Skaggs, Pawnee<br>baz=186 | 23.97 | 5 | P | P | P | 05 08 11.0 | -1.1 |
| P35A | Duane Minner,<br>baz=170 | 23.97 | 353 | P | P | P | 05 08 12.8 | +0.6 |
| P36A | Good Intent, A<br>baz=172 | 23.97 | 354 | P | P | P | 05 08 12.2 | 0.0 |
| MHTCO | State Highway<br>10nm,0.9s | 24.04 | 335 | eP | P | P | 05 08 15.3 | +2.3 |
| VWCC | Virginia Weste | 24.05 | 25 | eP | P | P | 05 08 12.2 | -0.7 |
| P34A | Walnut Farm, R<br>baz=169,SNR=15 | 24.09 | 351 | P | P | P | 05 08 13.4 | +0.2 |
| O40A | La Belle<br>baz=180 | 24.33 | 1 | P | P | P | 05 08 15.7 | +0.3 |
| O37A | Wolven Farm, M<br>baz=175 | 24.43 | 356 | P | P | P | 05 08 17.1 | +0.8 |
| O36A | Bolckow<br>baz=173 | 24.46 | 355 | P | P | P | 05 08 17.1 | +0.5 |
| O34A | Beatrice<br>baz=169 | 24.70 | 352 | P | P | P | 05 08 18.9 | +0.2 |
| O45A | Potomac | 24.77 | 8 | P | P | P | 05 08 18.9 | -0.5 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | baz=190 | | | | | | | |
| HDIL | **Hopedale** | 24.89 | 5 | P | P | 05 08 20.1 | -0.4 | |
| | baz=186 | | | | | | | |
| SDCO | **Great Sand Dun** | 24.90 | 334 | P | P | 05 08 21.7 | +0.8 | |
| | baz=148,SNR=6.2 | | | | | | | |
| SDCO | **Great Sand Dun** | 24.90 | 334 | *eP* | P | 05 08 22.7 | +1.8 | |
| | 9.1nm,1.3s | | | | | | | |
| W18A | **Petrified Fore** | 24.90 | 324 | *eP* | P | 05 08 22.6 | +1.8 | |
| | 11nm,0.8s | | | | | | | |
| KSCO | **Kaye Shedlock'** | 24.95 | 341 | P | P | 05 08 21.8 | +0.6 | |
| | baz=155 | | | | | | | |
| KSCO | **Kaye Shedlock'** | 24.95 | 341 | *eP* | P | 05 08 22.0 | +0.8 | |
| | 22nm,0.6s | | | | | | | |
| SFIN | **Lafayette** | 24.99 | 9 | P | P | 05 08 20.6 | -0.7 | |
| | baz=191 | | | | | | | |
| O47A | **Sheridan** | 25.01 | 11 | P | P | 05 08 20.5 | -1.0 | |
| | baz=193 | | | | | | | |
| N38A | **Joes South For** | 25.02 | 358 | P | P | 05 08 21.2 | -0.4 | |
| | baz=177 | | | | | | | |
| N39A | **Derby Farms, D** | 25.09 | 360 | P | P | 05 08 22.2 | 0.0 | |
| | baz=179 | | | | | | | |
| N43A | **Stutzman Famil** | 25.29 | 5 | P | P | 05 08 23.5 | -0.5 | |
| | baz=186 | | | | | | | |
| CBYP | **Canovanas** | 25.34 | 80 | *eP* | P | 05 08 22.1 | -2.7 | |
| | 37nm,1.0s | | | | | | | |
| S22A | **4UR Ranch, Cre** | 25.47 | 332 | P | P | 05 08 27.7 | +1.6 | |
| | baz=145,SNR=9.6 | | | | | | | |
| S22A | **4UR Ranch, Cre** | 25.47 | 332 | *eP* | P | 05 08 27.7 | +1.6 | |
| | 6.9nm,0.9s | | | | | | | |
| M40A | **Post Highland** | 25.62 | 1 | P | P | 05 08 26.5 | -0.5 | |
| | baz=181 | | | | | | | |
| M38A | **Pleasantville** | 25.64 | 358 | P | P | 05 08 26.9 | -0.3 | |
| | baz=177 | | | | | | | |
| M37A | **Trindle Farm,** | 25.66 | 357 | P | P | 05 08 27.5 | +0.1 | |
| | baz=175 | | | | | | | |
| M39A | **Webster** | 25.69 | 0 | P | P | 05 08 27.6 | 0.0 | |
| | baz=180 | | | | | | | |
| ACSO | **Alum Creek Sta** | 25.73 | 16 | P | P | 05 08 28.3 | +0.2 | |
| | baz=200 | | | | | | | |
| MVCO | **Mesa Verde** | 25.83 | 329 | P | P | 05 08 31.2 | +1.9 | |
| | baz=141,SNR=5.8 | | | | | | | |
| MVCO | **Mesa Verde** | 25.83 | 329 | *eP* | P | 05 08 31.0 | +1.8 | |
| | 10.0nm,1.1s | | | | | | | |
| 113A | **Mohawk Valley,** | 25.89 | 315 | *eP* | P | 05 08 30.9 | +1.4 | |
| | 8.8nm,0.9s | | | | | | | |
| WUAZ | **Wupatki** | 26.13 | 323 | P | P | 05 08 34.4 | +2.5 | |
| | baz=134,SNR=7.8 | | | | | | | |
| WUAZ | **Wupatki** | 26.13 | 323 | *eP* | P | 05 08 34.4 | +2.5 | |
| | 12nm,0.9s | | | | | | | |
| L42A | **Oliver, Polo** | 26.30 | 4 | P | P | 05 08 33.0 | -0.1 | |
| | baz=185 | | | | | | | |
| L38A | **Oak Wood Farm,** | 26.36 | 359 | P | P | 05 08 34.6 | +1.0 | |
| | baz=178 | | | | | | | |
| ATAH | **Atahualpa** | 26.50 | 148 | P | P | 05 08 37.4 | +1.8 | |
| | 7.6nm,0.7s,baz=240,slow=22,SNR=4.6 | | | | | | | |
| PV01 | **Paradox Valley** | 26.59 | 330 | *eP* | P | 05 08 37.3 | +1.2 | |
| ISCO | **Idaho Springs** | 26.71 | 337 | P | P | 05 08 38.2 | +1.1 | |
| | baz=150 | | | | | | | |
| ISCO | **Idaho Springs** | 26.71 | 337 | *eP* | P | 05 08 38.2 | +1.1 | |
| | 7.8nm,1.5s | | | | | | | |
| SMCO | **Snowmass** | 26.72 | 334 | *eP* | P | 05 08 39.3 | +1.9 | |
| | 4.1nm,1.0s | | | | | | | |
| GLA | **Glamis** | 26.78 | 314 | P | P | 05 08 40.2 | +2.6 | |
| | baz=124,SNR=5.1 | | | | | | | |
| GLA | **Glamis** | 26.78 | 314 | *eP* | P | 05 08 38.9 | +1.4 | |
| | 17nm,0.9s | | | | | | | |
| PV05 | **Paradox Valley** | 26.80 | 329 | *eP* | P | 05 08 38.4 | +0.4 | |
| PV04 | **Paradox Valley** | 26.96 | 330 | *eP* | P | 05 08 40.9 | +1.7 | |
| Y12C | **Blythe** | 26.98 | 316 | P | P | 05 08 41.8 | +2.6 | |
| | baz=126 | | | | | | | |
| Y12C | **Blythe** | 26.98 | 316 | *eP* | P | 05 08 42.1 | +2.8 | |
| | 5.4nm,0.9s | | | | | | | |
| PV10 | **Paradox Valley** | 27.01 | 330 | *eP* | P | 05 08 41.5 | +1.7 | |
| PDMCI | **Parker Dam,Lak** | 27.05 | 317 | P | P | 05 08 42.6 | +2.7 | |
| | baz=127,SNR=7.0 | | | | | | | |
| SWSC | **Sam W. Stewart** | 27.39 | 313 | P | P | 05 08 45.8 | +2.9 | |
| | baz=123 | | | | | | | |
| IKP | **In-Ko-Pah, Jac** | 27.46 | 312 | P | P | 05 08 46.5 | +2.9 | |
| | baz=122 | | | | | | | |
| BC3 | **Big Chuckawall** | 27.55 | 315 | P | P | 05 08 47.3 | +2.8 | |
| | baz=124,SNR=18 | | | | | | | |
| IRM | **Iron Mountain** | 27.63 | 316 | P | P | 05 08 47.8 | +2.7 | |
| | baz=126,SNR=9.5 | | | | | | | |
| N23A | **Red Feather La** | 27.78 | 337 | P | P | 05 08 47.7 | +1.0 | |
| | baz=150 | | | | | | | |
| MONP2 | **Monument Peak** | 27.81 | 312 | P | P | 05 08 49.2 | +2.3 | |
| | baz=122 | | | | | | | |
| O20A | **White River Ci** | 28.06 | 333 | P | P | 05 08 50.8 | +1.8 | |
| | baz=145 | | | | | | | |
| O20A | **White River Ci** | 28.06 | 333 | *eP* | P | 05 08 50.9 | +1.9 | |
| | 9.2nm,1.3s | | | | | | | |
| BELC | **Belle Mtn. Jos** | 28.12 | 315 | P | P | 05 08 52.0 | +2.5 | |
| | baz=124,SNR=8.1 | | | | | | | |
| ECSD | **EROS Data Cent** | 28.19 | 353 | P | P | 05 08 51.1 | +1.3 | |
| | baz=171 | | | | | | | |
| TPFO | **Pinon Flats** | 28.21 | 314 | P | P | 05 08 52.6 | +2.2 | |
| | baz=123 | | | | | | | |
| XPFO | **Pæon Flat** | 28.22 | 314 | *eP* | P | 05 08 52.0 | +1.6 | |
| | 6.5nm,0.9s | | | | | | | |
| PFO | **Pinyon Flats O** | 28.22 | 314 | P | P | 05 08 52.1 | +1.7 | |
| | 4.9nm,0.8s,baz=117,slow=7.1,SNR=6.2 | | | | | | | |
| PFO | **Pinyon Flats O** | 28.22 | 314 | P | P | 05 08 52.3 | +1.8 | |
| | baz=123 | | | | | | | |
| PFO | **Pinyon Flats O** | 28.22 | 314 | *eP* | P | 05 08 52.1 | +1.7 | |
| | 5.7nm,0.9s | | | | | | | |
| LCMT | **Little Creek M** | 28.25 | 323 | *eP* | P | 05 08 53.4 | +2.7 | |
| | 6.0nm,0.9s | | | | | | | |
| 109C | **Camp Elliot, M** | 28.29 | 312 | P | P | 05 08 53.5 | +2.5 | |
| | baz=121 | | | | | | | |
| SRU | **San Rafael Swe** | 28.31 | 329 | *eP* | P | 05 08 53.1 | +1.9 | |
| | 20nm,1.9s | | | | | | | |
| GMRC | **Granite Mounta** | 28.34 | 316 | P | P | 05 08 54.2 | +2.7 | |
| | baz=126,SNR=13 | | | | | | | |
| MTPU | **Mount Pierson** | 28.38 | 325 | *eP* | P | 05 08 55.0 | +2.9 | |
| | 6.8nm,0.8s | | | | | | | |
| SZCU | **Shurtz Canyon** | 28.56 | 324 | *eP* | P | 05 08 56.4 | +2.9 | |
| | 7.2nm,0.9s | | | | | | | |
| P18A | **Preston Nutter** | 28.57 | 330 | *eP* | P | 05 08 55.1 | +1.4 | |
| | 3.0nm,1.0s | | | | | | | |
| CCUT | **Cedar City** | 28.69 | 323 | *eP* | P | 05 08 57.8 | +3.2 | |
| | 8.2nm,0.9s | | | | | | | |
| P17A | **Butcher Ranch,** | 28.69 | 329 | *eP* | P | 05 08 57.2 | +2.6 | |
| | 4.9nm,1.2s | | | | | | | |
| MSU | **Marysvale** | 28.71 | 326 | *eP* | P | 05 08 56.3 | +1.5 | |
| MURC | **Murrieta** | 28.73 | 313 | P | P | 05 08 57.4 | +2.6 | |
| | baz=122 | | | | | | | |
| HEC | **Hector,Ludlow** | 28.82 | 316 | P | P | 05 08 58.2 | +2.5 | |
| | baz=125 | | | | | | | |
| H38A | **Maiden Rock** | 28.88 | 360 | P | P | 05 08 56.5 | +0.6 | |
| | baz=179 | | | | | | | |
| N59A | **State Game Lan** | 28.90 | 26 | P | P | 05 08 56.1 | -0.1 | |
| | baz=214 | | | | | | | |
| TUQ | **Turquoise Moun** | 28.90 | 317 | P | P | 05 08 59.0 | +2.5 | |
| | baz=126,SNR=6.1 | | | | | | | |
| RWWY | **Rawlins** | 28.95 | 336 | *eP* | P | 05 08 58.6 | +1.7 | |
| | 13nm,0.9s | | | | | | | |
| SHPR | **Sheep Range** | 29.08 | 320 | *eP* | P | 05 09 01.1 | +3.0 | |
| | 4.4nm,0.8s | | | | | | | |
| BFSC | **Mount Baldy Ra** | 29.40 | 314 | P | P | 05 09 03.1 | +2.3 | |
| | baz=122 | | | | | | | |
| GSC | **Goldstone, Bar** | 29.41 | 316 | P | P | 05 09 03.2 | +2.3 | |
| | baz=125 | | | | | | | |
| SHOC | **Shoshone, Teco** | 29.41 | 318 | P | P | 05 09 03.1 | +2.3 | |
| | baz=127 | | | | | | | |
| SPMN | **Marine on St.** | 29.43 | 359 | P | P | 05 09 01.9 | +1.1 | |
| | baz=178 | | | | | | | |
| K22A | **Casper** | 29.53 | 338 | P | P | 05 09 02.7 | +0.7 | |
| | baz=151,SNR=6.7 | | | | | | | |
| K22A | **Casper** | 29.53 | 338 | *eP* | P | 05 09 02.6 | +0.7 | |
| | 12nm,0.7s | | | | | | | |
| MPU | **Maple Canyon** | 29.55 | 329 | *eP* | P | 05 09 03.9 | +1.7 | |
| | 12nm,1.7s | | | | | | | |
| CPNY | **Central Park** | 29.60 | 29 | *eP* | P | 05 08 59.9 | -2.5 | |
| | 79nm,1.7s | | | | | | | |
| MWC | **Mount Wilson** | 29.67 | 313 | *eP* | P | 05 09 06.4 | +3.0 | |
| | 11nm,1.0s | | | | | | | |
| EDW2 | **Edwards Air Fo** | 29.98 | 314 | P | P | 05 09 08.1 | +2.3 | |
| | baz=123 | | | | | | | |
| TPNV | **Topopah Spring** | 30.03 | 319 | P | P | 05 09 09.1 | +2.6 | |
| | baz=128,SNR=6.2 | | | | | | | |
| TPNV | **Topopah Spring** | 30.03 | 319 | *eP* | P | 05 09 09.6 | +3.1 | |
| | 12nm,1.4s | | | | | | | |
| RSSD | **Black Hills** | 30.05 | 343 | P | P | 05 09 07.1 | +0.5 | |
| | baz=156 | | | | | | | |
| RSSD | **Black Hills** | 30.05 | 343 | *eP* | P | 05 09 07.2 | +0.7 | |
| | 7.8nm,0.6s | | | | | | | |
| FURC | **Furnace Creek,** | 30.13 | 318 | P | P | 05 09 09.8 | +2.7 | |
| | baz=127 | | | | | | | |
| F39A | **Loretta** | 30.14 | 2 | P | P | 05 09 08.5 | +1.4 | |
| | baz=182 | | | | | | | |
| SNCC | **San Nicolas Is** | 30.23 | 310 | P | P | 05 09 11.1 | +3.0 | |
| | baz=118 | | | | | | | |
| DUG | **Dugway, Tooele** | 30.28 | 328 | P | P | 05 09 11.1 | +2.6 | |
| | baz=138 | | | | | | | |
| TCUT | **Toone Canyon** | 30.29 | 331 | *eP* | P | 05 09 09.5 | +0.7 | |
| | 37nm,1.6s | | | | | | | |
| MPMC | **Manual Prospec** | 30.30 | 317 | P | P | 05 09 11.4 | +2.6 | |
| | baz=125,SNR=16 | | | | | | | |
| DAC | **Darwin (Calif)** | 30.50 | 317 | *eP* | P | 05 09 13.0 | +2.4 | |
| | 5.9nm,0.9s | | | | | | | |
| R11A | **Troy Canyon, C** | 30.52 | 322 | P | P | 05 09 13.3 | +2.6 | |
| | baz=131,SNR=13 | | | | | | | |
| R11A | **Troy Canyon, C** | 30.52 | 322 | *eP* | P | 05 09 13.6 | +2.8 | |
| | 8.1nm,1.1s | | | | | | | |
| ARVC | **Arvin** | 30.69 | 314 | P | P | 05 09 14.8 | +2.7 | |
| | baz=122,SNR=5.9 | | | | | | | |
| ISA | **Isabella, Lake** | 30.73 | 315 | P | P | 05 09 15.3 | +2.7 | |
| | baz=123 | | | | | | | |
| GRAC | **Grapevine Rang** | 30.77 | 318 | P | P | 05 09 16.0 | +3.2 | |
| | baz=127,SNR=8.0 | | | | | | | |
| BW06 | **Boulder Array** | 30.79 | 335 | P | P | 05 09 14.1 | +0.9 | |
| | baz=146 | | | | | | | |
| PD31 | **Pinedale Array** | 30.79 | 335 | *eP* | P | 05 09 13.9 | +0.8 | |
| PDAR | **Pinedale Array** | 30.79 | 335 | P | P | 05 09 13.6 | +0.4 | |
| | 0.8nm,0.4s,baz=128,slow=10,SNR=12 | | | | | | | |
| PDAR | **Pinedale Array** | 30.79 | 335 | *eP* | P | 05 09 13.4 | +0.2 | |
| E34A | **Wadena** | 30.82 | 356 | P | P | 05 09 12.7 | -0.3 | |
| | baz=174 | | | | | | | |
| VES | **Vestal, Richgr** | 31.25 | 315 | P | P | 05 09 20.0 | +3.1 | |
| | baz=123,SNR=11 | | | | | | | |
| PKM | **Mcpherson Peak** | 31.25 | 313 | P | P | 05 09 19.7 | +2.5 | |
| | baz=120 | | | | | | | |
| SMMC | **Simmler** | 31.60 | 313 | P | P | 05 09 23.3 | +3.2 | |
| | baz=121 | | | | | | | |
| RCTC | **Rector, Farmer** | 31.61 | 316 | P | P | 05 09 22.9 | +2.9 | |
| | baz=123,SNR=6.6 | | | | | | | |
| REDW | **Red Top Meadow** | 31.82 | 334 | *eP* | P | 05 09 23.3 | +1.1 | |
| | 14nm,0.6s | | | | | | | |
| SNOW | **Snow King Moun** | 31.86 | 334 | *eP* | P | 05 09 23.8 | +1.3 | |
| | 22nm,0.6s | | | | | | | |
| TPAW | **Teton Pass** | 31.97 | 334 | *eP* | P | 05 09 25.0 | +1.5 | |
| | 20nm,1.4s | | | | | | | |
| PAGB | **Antelope Grade** | 31.99 | 314 | *eP* | P | 05 09 26.7 | +3.3 | |
| | 8.1nm,1.1s | | | | | | | |
| MOOW | **Moose Ponds** | 32.09 | 334 | *eP* | P | 05 09 25.3 | +0.8 | |
| | 2.2nm,0.6s | | | | | | | |
| FXWY | **Fox Creek** | 32.12 | 334 | *eP* | P | 05 09 26.0 | +1.2 | |
| | 15nm,1.8s | | | | | | | |
| NV11 | **Mina Array Sit** | 32.14 | 320 | *eP* | P | 05 09 28.1 | +3.2 | |
| | 1.6nm,1.1s | | | | | | | |
| MDPB | **Devils Postpil** | 32.25 | 318 | *eP* | P | 05 09 29.2 | +3.2 | |
| | 7.0nm,0.8s | | | | | | | |
| IMW | **Indian Meadow** | 32.30 | 334 | *eP* | P | 05 09 27.2 | +0.9 | |
| | 3.4nm,0.6s | | | | | | | |
| H17A | **Grant Village** | 32.56 | 335 | P | P | 05 09 29.1 | +0.6 | |
| | baz=145 | | | | | | | |
| PMPB | **Monarch Peak** | 32.62 | 314 | *eP* | P | 05 09 31.1 | +2.0 | |
| | 15nm,1.1s | | | | | | | |
| MDND | **Maddock** | 32.63 | 351 | *eP* | P | 05 09 28.3 | -0.5 | |
| | 24nm,0.8s | | | | | | | |
| RLMT | **Red Lodge** | 32.66 | 337 | P | P | 05 09 29.9 | +0.5 | |
| | baz=148 | | | | | | | |
| RLMT | **Red Lodge** | 32.66 | 337 | *eP* | P | 05 09 30.1 | +0.7 | |
| | 4.9nm,0.6s | | | | | | | |
| B32A | **Ashes, Strandq** | 32.79 | 355 | P | P | 05 09 29.8 | -0.4 | |
| | baz=172 | | | | | | | |
| BMN | **Battle Mountai** | 32.85 | 324 | *eP* | P | 05 09 33.8 | +2.8 | |
| | 9.4nm,0.8s | | | | | | | |
| YMR | **Madison River** | 32.94 | 335 | *eP* | P | 05 09 33.7 | +1.9 | |
| | 6.0nm,0.9s | | | | | | | |
| WAKR | **Walker** | 32.99 | 319 | *eP* | P | 05 09 35.8 | +3.5 | |
| | 4.4nm,0.8s | | | | | | | |
| YERR | **Yerington** | 33.15 | 320 | *eP* | P | 05 09 36.5 | +2.9 | |
| | 8.7nm,0.7s | | | | | | | |
| CMB | **Columbia Colle** | 33.33 | 317 | *eP* | P | 05 09 37.5 | +2.4 | |
| | 5.3nm,1.0s | | | | | | | |
| PNTR | **Pine Nut** | 33.43 | 320 | *eP* | P | 05 09 39.5 | +3.3 | |
| | 12nm,0.7s | | | | | | | |
| HLID | **Hailey** | 33.59 | 330 | P | P | 05 09 39.0 | +1.6 | |
| | baz=139 | | | | | | | |
| HLID | **Hailey** | 33.59 | 330 | *eP* | P | 05 09 39.0 | +1.6 | |
| | 2.5nm,0.8s | | | | | | | |
| PAHR | **Pah Rah Range** | 33.67 | 321 | *eP* | P | 05 09 40.9 | +2.8 | |
| | 6.1nm,0.9s | | | | | | | |
| MCMT | **McKenzie Canyo** | 33.86 | 333 | *eP* | P | 05 09 41.8 | +2.0 | |
| BOZ | **Bozeman (W)** | 33.97 | 335 | P | P | 05 09 41.7 | +1.1 | |
| | baz=145 | | | | | | | |
| BOZ | **Bozeman (W)** | 33.97 | 335 | *eP* | P | 05 09 42.0 | +1.4 | |
| | 4.9nm,0.8s | | | | | | | |
| DGMT | **Dagmar** | 34.13 | 346 | P | P | 05 09 42.0 | +0.2 | |
| | baz=159 | | | | | | | |
| MFID | **Camas Ranch** | 34.17 | 329 | *eP* | P | 05 09 45.3 | +2.9 | |
| | 2.5nm,0.9s | | | | | | | |
| DLMT | **Dillon** | 34.18 | 334 | *eP* | P | 05 09 43.9 | +1.5 | |
| | 14nm,1.5s | | | | | | | |
| AFDM | **Forest Hills D** | 34.22 | 318 | *eP* | P | 05 09 43.0 | +0.3 | |
| | 2.6nm,0.9s | | | | | | | |
| BEKR | **Beckworth** | 34.37 | 320 | *eP* | P | 05 09 47.2 | +3.1 | |
| | 14nm,1.0s | | | | | | | |
| LRM | **Limekiln Ridge** | 34.49 | 335 | *eP* | P | 05 09 46.6 | +1.4 | |
| ULM | **Lac du Bonnet** | 34.59 | 356 | P | P | 05 09 43.5 | -2.1 | |
| | 3.0nm,0.8s,baz=155,slow=6.6,SNR=5.4 | | | | | | | |
| ULM | | | | pP | pP | 05 10 32.5 | +0.8 | |
| | 1.5nm,0.5s,baz=192,slow=12,SNR=2.7 | | | | | | | |
| ULM | | | | sP | sP | 05 10 57.0 | -0.7 | |
| | 3.3nm,0.9s,baz=164,slow=8.5,SNR=3.5 | | | | | | | |
| HRY | **Holter Researc** | 34.97 | 336 | *eP* | P | 05 09 50.1 | +1.0 | |
| WVOR | **Wild Horse Val** | 34.97 | 325 | *eP* | P | 05 09 51.0 | +1.8 | |
| | 11nm,1.0s | | | | | | | |
| EGMT | **Eagleton** | 35.33 | 340 | P | P | 05 09 52.7 | +0.7 | |
| | baz=150,SNR=8.8 | | | | | | | |
| EGMT | **Eagleton** | 35.33 | 340 | *eP* | P | 05 09 52.8 | +0.7 | |
| | 18nm,0.8s | | | | | | | |
| J08A | **Circle Bar Ran** | 35.51 | 326 | *eP* | P | 05 09 55.7 | +2.0 | |
| | 23nm,0.8s | | | | | | | |
| O03D | **Paynes Creek** | 35.52 | 319 | P | P | 05 09 55.7 | +1.9 | |
| | baz=125 | | | | | | | |
| MOD | **Modoc Plateau** | 35.58 | 323 | *eP* | P | 05 09 56.2 | +1.8 | |
| | 5.4nm,0.8s | | | | | | | |
| BMO | **Blue Mountains** | 35.95 | 329 | *eP* | P | 05 09 58.2 | +0.8 | |
| | 3.4nm,0.9s | | | | | | | |
| M04C | **Macdoel** | 36.41 | 321 | P | P | 05 10 03.5 | +2.1 | |
| | baz=126,SNR=7.8 | | | | | | | |
| I07A | **Izee** | 36.55 | 326 | *eP* | P | 05 10 03.9 | +1.4 | |
| | 6.5nm,0.9s | | | | | | | |
| M02C | **Callahan** | 36.80 | 320 | P | P | 05 10 05.8 | +1.2 | |
| | baz=125 | | | | | | | |
| J05D | **Fort Rock, OR** | 36.98 | 324 | P | P | 05 10 07.9 | +1.7 | |
| | baz=129 | | | | | | | |
| J04D | **Umpqua Nationa** | 37.45 | 323 | P | P | 05 10 11.5 | +1.2 | |
| | baz=128 | | | | | | | |
| L02D | **Cave Junction,** | 37.70 | 321 | P | P | 05 10 14.1 | +2.0 | |
| | baz=125 | | | | | | | |
| I05D | **Terrebonne, OR** | 37.71 | 325 | P | P | 05 10 13.5 | +1.3 | |
| | baz=130 | | | | | | | |
| I04A | **Tendick Farm,** | 37.97 | 324 | P | P | 05 10 15.8 | +1.4 | |
| | baz=128 | | | | | | | |
| G05D | **Wamic, OR** | 38.28 | 326 | P | P | 05 10 18.4 | +1.5 | |
| | baz=131 | | | | | | | |
| NEW | **Newport** | 38.38 | 333 | P | P | 05 10 18.8 | +1.0 | |
| | baz=139 | | | | | | | |
| H04A | **Detroit Lake** | 38.40 | 325 | *eP* | P | 05 10 19.7 | +1.8 | |
| | 29nm,0.7s | | | | | | | |
| I03D | **Drain, OR** | 38.45 | 323 | P | P | 05 10 19.8 | +1.5 | |
| | baz=126,SNR=6.2 | | | | | | | |
| G03D | **McMinnville, O** | 39.32 | 325 | P | P | 05 10 27.0 | +1.5 | |
| | baz=128 | | | | | | | |
| LON | **Longmire** | 39.54 | 328 | *eP* | P | 05 10 29.1 | +1.8 | |
| | 9.1nm,0.8s | | | | | | | |
| LPAZ | **La Paz** | 39.70 | 142 | P | P | 05 10 30.4 | +0.8 | |
| | 8.3nm,0.6s,baz=336,slow=7.1,SNR=35 | | | | | | | |
| LPAZ | **La Paz** | 39.70 | 142 | *eP* | P | 05 10 30.5 | +0.8 | |
| | 9.0nm,0.7s | | | | | | | |
| C06D | **Leavenworth** | 39.88 | 330 | P | P | 05 10 31.6 | +1.5 | |
| | baz=134 | | | | | | | |
| B05A | **Bryant** | 40.70 | 329 | P | P | 05 10 37.7 | +1.0 | |
| | baz=132 | | | | | | | |
| MNMC | **Minye Minye** | 41.16 | 146 | *eP* | P | 05 10 43.6 | +2.5 | |
| | 25nm,0.9s | | | | | | | |
| PB11 | **IPOC Station P** | 41.65 | 147 | *eP* | P | 05 10 46.0 | +1.1 | |
| | 14nm,0.7s | | | | | | | |
| PB01 | **IPOC Station P** | 42.80 | 148 | *eP* | P | 05 10 55.8 | +1.6 | |
| | 8.3nm,0.8s | | | | | | | |
| YKA | **Yellowknife Ar** | 49.33 | 347 | P | P | 05 11 44.1 | -0.2 | |
| | 7.3nm,0.5s,baz=150,slow=7.6,SNR=160 | | | | | | | |
| YKA | | | | pP | pP | 05 12 34.7 | +1.3 | |
| | 1.6nm,0.7s,baz=151,slow=7.4,SNR=5.8 | | | | | | | |
| YKA | | | | sP | sP | 05 12 58.3 | -0.4 | |
| | 1.5nm,0.8s,baz=147,slow=7.6,SNR=2.7 | | | | | | | |
| BDFB | **Brasilia** | 53.63 | 123 | P | P | 05 12 15.0 | -2.0 | |
| | 3.6nm,0.5s,baz=91,slow=7.7,SNR=7.5 | | | | | | | |
| BDFB | **Brasilia** | 53.63 | 123 | *eP* | P | 05 12 16.1 | -0.9 | |
| | 19nm,1.1s | | | | | | | |
| CPUP | **Villa Florida** | 53.82 | 141 | P | P | 05 12 17.4 | -0.6 | |
| | 3.9nm,0.8s,baz=324,slow=7.0,SNR=9.7 | | | | | | | |
| CPUP | **Villa Florida** | 53.82 | 141 | *eP* | P | 05 12 17.3 | -0.8 | |
| INK | **Inuvik** | 58.75 | 343 | P | P | 05 12 51.8 | -0.4 | |
| | 1.4nm,0.6s,baz=118,slow=9.2,SNR=5.3 | | | | | | | |
| INK | | | | pP | pP | 05 13 44.1 | +1.0 | |
| | 2.2nm,0.8s,baz=122,slow=9.0,SNR=4.0 | | | | | | | |
| RES | **Resolute Bay** | 59.01 | 359 | P | P | 05 12 52.8 | -1.0 | |
| | 2.5nm,0.6s,baz=191,slow=8.5 | | | | | | | |
| PLCA | **Paso Flores** | 59.65 | 161 | P | P | 05 12 59.6 | +0.8 | |
| | 3.2nm,0.8s,baz=351,slow=8.9,SNR=8.6 | | | | | | | |
| ILAR | **Eielson Array** | 61.20 | 336 | P | P | 05 13 09.3 | +0.4 | |
| | 0.9nm,0.9s,baz=122,slow=6.3,SNR=7.8 | | | | | | | |
| ARCES | **ARCESS Array B** | 84.60 | 18 | P | P | 05 15 24.5 | -1.4 | |
| | 2.8nm,0.9s,baz=305,slow=4.3,SNR=4.4 | | | | | | | |
| ARCES | | | | pP | pP | 05 16 21.5 | +0.9 | |
| | 1.1nm,0.7s,baz=292,slow=4.8,SNR=1.7 | | | | | | | |
| FINES | **FINESS Array B** | 89.06 | 25 | pP | pP | 05 16 42.7 | 0.0 | |
| | 2.3nm,0.9s,baz=289,slow=4.3,SNR=1.6 | | | | | | | |
| HHC | **Hu-ho-hao-te** | 119.56 | 339 | *eP* | PKPdf | 05 21 41.8 | +0.2 | |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,21nm,0.5s | | | | | | | |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,170nm,5.8s | | | | | | | |
| WMQ | **Urumqi** | 120.77 | 0 | *eP* | PKPdf | 05 21 44.5 | +0.8 | |
| WMQ | | | | pmax | pmax | | | |
| | comp=Z,290nm,5.5s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=N,77nm,14.5s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=E,110nm,17.7s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=Z,39nm,17.7s | | | | | | | |
| KSH | **Kashi** | 123.97 | 11 | *eP* | PKPdf | 05 21 51.5 | +1.4 | |
| KSH | | | | pmax | pmax | | | |
| | comp=Z,88nm,3.7s | | | | | | | |
| ASAR | **Alice Springs** | 136.00 | 252 | PKP | PKPdf | 05 22 13.2 | +0.1 | |
| | comp=Z,0.5nm,0.7s,baz=92,slow=1.1,SNR=6.2 | | | | | | | |
| FITZ | **Fitzroy Crossi** | 143.73 | 261 | PKP | PKPbc | 05 22 26.3 | +0.8 | |
| | comp=Z,5.9nm,0.9s,baz=133,slow=3.9,SNR=11 | | | | | | | |

*IDC* ***18*** *05:16:08.5±9.6, 13.04N×89.19W, h60km±64km, mb3.6/5, mb1 3.8/6, mb1mx3.4/42, mbtmp3.8/6, ML3.0/1, MS3.0/1, Ms1 3.0/1, ms1mx2.4/28, Error ellipse: s-maj=83.2km s-min=51.1km az=139.0*

**ISC 18 05:16:08.2±2.1, 13.1N±0.3×89.2W±0.2, h55km, n8, σ1§41/8, mb3.9/5, El Salvador**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h | m | s ISC |
| CMIG | **Matias Romero** | 6.78 | 307 | P | Pn | 05 | 17 | 44.6 -0.6 |
| | 0.3nm,0.3s,baz=135,slow=8.9,SNR=5.3 | | | | | | | |
| TXAR | **Lajitas Array** | 21.02 | 323 | P | P | 05 | 20 | 49.8 +2.2 |
| | 1.4nm,0.5s,baz=144,slow=10,SNR=37 | | | | | | | |
| TKL | **Tuckaleechee C** | 23.02 | 11 | P | P | 05 | 21 | 09.7 +1.1 |
| | 4.7nm,0.8s,baz=181,slow=11,SNR=5.2 | | | | | | | |
| TKL | | | | LR | LR | 05 | 31 | 08.3 |
| | comp=Z,32nm,18.2s,baz=348,slow=39 | | | | | | | |
| ULM | **Lac du Bonnet** | 37.47 | 353 | P | P | 05 | 23 | 15.5 -0.8 |
| | 1.5nm,0.5s,baz=172,slow=7.4,SNR=5.0 | | | | | | | |
| YKA | **Yellowknife Ar** | 52.57 | 345 | P | P | 05 | 25 | 15.5 -0.5 |
| | 0.9nm,0.7s,baz=148,slow=6.6,SNR=13 | | | | | | | |
| INK | **Inuvik** | 62.10 | 343 | P | P | 05 | 26 | 22.6 -0.5 |
| | 0.6nm,0.7s,baz=158,slow=5.4,SNR=3.0 | | | | | | | |
| WRA | **Warramunga Arr** | 137.78 | 255 | PKP | PKPdf | 05 | 35 | 28.6 +1.2 |
| | 0.2nm,0.5s,baz=86,slow=2.0,SNR=6.1 | | | | | | | |
| CMAR | **Chiang Mai Arr** | 147.66 | 345 | PKPbc | PKPbc | 05 | 35 | 46.5 -1.0 |
| | 0.9nm,0.3s,baz=349,slow=2.8,SNR=5.9 | | | | | | | |

*IDC* ***18*** *05:16:35.7±0.7, 8.68N×122.14E, h0km, mb3.9/13, mb1 4.1/13, mb1mx3.9/49, mbtmp3.9/13, MS3.7/14, Ms1 3.8/14, ms1mx3.5/33, Error ellipse: s-maj=29.8km s-min=14.5km az=54.0*

*ISCJB* ***18*** *05:16:37.1±1.3, 8.76N±0.03×122.28E±0.03, h17km±11km, mb4.4/26, MS3.7/14, Error ellipse: s-maj=5.9km s-min=4.2km az=15.2*

*MAN* ***18*** *05:16:38, 8.85N×122.17E, h32km, mb4.8, ML3.7, MS3.7*
*MAN INTENSITY II - SIPALAY CITY NEGROS OCCIDENTAL.*

*NEIC* ***18*** *05:16:43.3±1.0, 8.62N×122.24E, h60km±10km, mb4.6/10, Error ellipse: s-maj=9.3km s-min=6.5km az=222.0*

*NEIC Felt [II PIVS] at Sipalay.*

*DJA* ***18*** *05:16:45.4±0.7, 8.5N±5×12.2E±, h10km, M4.7/7, mb4.7/7, mB5.9/4, MLv4.4/1, Mw(mB)5.5/4, Mwp7.6/1*

**ISC 18 05:16:39.9±0.8, 8.75N±0.03×122.21E±0.03, h26km±6km, n79, σ1§89/87, mb4.5/26, MS3.8/14, 3C-2D, Mindanao**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h | m | s ISC |
| PAGZ | **Pagadian** | 1.46 | 127 | *eP* | Pn | 05 | 17 | 03.4 -1.2 |
| PAGZ | | | | *eS* | Sn | 05 | 17 | 24.9 +2.1 |
| ZCP | **Zamboanga City** | 1.81 | 184 | ↑*iP* | Pn | 05 | 17 | 09.2 -0.2 |
| ZCP | | | | *i S* | Sn | 05 | 17 | 32.1 +0.7 |
| GUIM | **Jordan** | 1.91 | 11 | *eP* | Pn | 05 | 17 | 09.1 -1.6 |
| GUIM | | | | *eS* | Sn | 05 | 17 | 32.1 -1.8 |
| JAP | **San Jose, Anti** | 2.01 | 353 | ↑*eP* | Pb | 05 | 17 | 22.6 +6.9 |
| JAP | | | | *eS* | Sb | 05 | 18 | 08.7 +28 |
| LLP | **Lapu-Lapu** | 2.33 | 48 | ↑*iP* | Pn | 05 | 17 | 14.5 -2.0 |
| LLP | | | | *eS* | Sn | 05 | 17 | 42.5 -1.9 |
| CTBH | **Cotabato--PC H** | 2.52 | 127 | ↓*iP* | Pn | 05 | 17 | 18.8 -0.3 |
| CTBH | | | | *i S* | Sb | 05 | 17 | 54.0 -1.1 |
| RCP | **Roxas** | 2.85 | 11 | *eP* | Pn | 05 | 17 | 24.0 +0.3 |
| RC

comp=Z,27nm,1.1s,comp=Z,4μm
**PSI Prapat 23.90 257** P **P** 05 21 52.1 +0.2
comp=Z,6.2nm,0.7s,baz=50,slow=7.0,SNR=5.6
PSI LR LR 05 33 55.4
comp=Z,241nm,18.3s,baz=106,slow=44
**PSI Prapat 23.90 257** *e*P **P** 05 21 53.0 +1.1
comp=Z,29nm,1.1s
**ENH Enshi 24.50 333** *e*P **P** 05 21 59.0 +1.7
comp=Z,20nm,1.2s
**CM01 Chiang Mai Arr 24.53 295** *e*P **P** 05 21 58.9 +1.3
**CM31 Chiang Mai Arr 24.56 296** *e*P **P** 05 21 59.3 +1.5
**CMAR Chiang Mai Arr 24.56 296** P **P** 05 21 57.5 -0.3
comp=Z,1.2nm,0.5s,baz=128,slow=7.3,SNR=10.0
CMAR LR LR 05 31 59.8
comp=Z,342nm,18.3s,baz=138,slow=38
**CHTO Chiang Mai 24.68 296** *e*P **P** 05 21 59.4 +0.5
CHTO *e*pP **sP** 05 22 09.8 -0.1
**KCSI Kotacane, Aceh 24.84 259** P **P** 05 22 04.3 +3.9
**JCJ Chichijima 26.28 43** LR LR 05 30 20.7
comp=Z,56nm,21.0s,baz=124,slow=31
**KS15 Wonju Array Si 29.03 9** *e*P **P** 05 22 38.4 +0.6
**KSRS Korea Array 29.05 9** LR LR 05 35 07.7
comp=Z,80nm,19.6s,baz=195,slow=38
**JHJ2 Mitsune 29.20 31** *e*P **P** 05 22 40.4 +1.0
comp=Z,279nm,1.2s
**MBWA Marble Bar 29.82 185** *e*P **P** 05 22 41.5 -3.4
comp=Z,14nm,1.1s
**WRA Warramunga Arr 30.91 157** P **P** 05 22 52.5 -2.1
comp=Z,1.6nm,0.7s,baz=337,slow=9.6,SNR=4.9
**AS31 Alice Springs 34.18 161** *e*P **P** 05 23 23.1 -0.2
comp=Z,4.8nm,1.5s
**ASAR Alice Springs 34.18 161** P **P** 05 23 22.8 -0.5
comp=Z,2.7nm,0.6s,baz=344,slow=7.2,SNR=47
ASAR LR LR 05 39 07.6
comp=Z,60nm,19.9s,baz=330,slow=40
**AS01 Alice Springs 34.20 161** *e*P **P** 05 23 22.1 -1.3
**JIRN Jiri 38.84 304** *e*P **P** 05 24 04.4 +0.9
**GUN Gumba 39.19 304** *e*P **P** 05 24 07.6 +1.2
comp=Z,86nm,1.0s
**PKI Pulchoki 39.45 303** *e*P **P** 05 24 09.1 +0.6
comp=Z,44nm,1.2s
**KKN Kakani 39.63 303** *e*P **P** 05 24 11.0 +1.1
comp=Z,24nm,0.8s
**DMN Daman 39.71 303** *e*P **P** 05 24 11.8 +1.1
comp=Z,39nm,1.1s
**KOLN Koldanda 41.02 303** *e*P **P** 05 24 22.4 +1.0
comp=Z,39nm,0.9s
**SONM Songino Array 41.20 344** P **P** 05 24 22.5 +0.1
comp=Z,0.8nm,0.8s,baz=163,slow=11,SNR=4.2
SONM LR LR 05 43 23.0
comp=Z,165nm,19.4s,baz=126,slow=39
**PYUN Piuthan 41.64 303** *e*P **P** 05 24 27.7 +1.2
comp=Z,86nm,1.0s
**STKA Stephens Creek 44.44 156** P **P** 05 24 48.2 -0.5
comp=Z,5.2nm,0.8s,baz=318,slow=8.4,SNR=5.3
**MKAR Makanchi Array 50.90 325** P **P** 05 25 37.5 -1.3
comp=Z,0.7nm,0.8s,baz=126,slow=9.2,SNR=5.8
MKAR LR LR 05 48 35.1
comp=Z,212nm,18.2s,baz=133,slow=38
**DZM Mont Dzumac 53.09 126** LR LR 05 49 58.0
comp=Z,97nm,19.2s,baz=7.0,slow=38
**ZALV Zalesovo Beam 54.12 334** P **P** 05 26 01.5 -1.0
comp=Z,0.6nm,0.4s,baz=111,slow=8.3,SNR=4.0
ZALV LR LR 05 50 01.4
comp=Z,51nm,18.2s,baz=70,slow=37
**KURK Kurchatov 55.13 328** *e*P **P** 05 26 10.5 +0.7
comp=Z,48nm,1.0s
**BRVK Borovoye 60.77 327** *e*P **P** 05 26 49.7 +0.3
comp=Z,42nm,1.1s
**TIXI Tiksi 62.98 2** *e*P **P** 05 27 02.3 -1.6
comp=Z,9.6nm,1.1s
**GEYT Alibeck 64.28 308** P **P** 05 27 13.9 +0.7
comp=Z,3.5nm,0.8s,baz=106,slow=4.8,SNR=4.1
GEYT LR LR 05 59 31.8
comp=Z,59nm,18.5s,baz=10.0,slow=40
**ARU Arti 68.33 328** *e*P **P** 05 27 38.6 -0.1
comp=Z,11nm,1.0s
**BRTR Keskin Array B 83.39 309** P **P** 05 29 05.5 +0.1
comp=Z,0.6nm,0.9s,baz=103,slow=6.2,SNR=3.0
**ARCES ARCESS Array B 84.22 339** P **P** 05 29 08.6 -0.1
comp=Z,2.0nm,0.9s,baz=91,slow=5.5,SNR=6.2
ARCES LR LR 06 11 20.5
comp=Z,40nm,20.1s,baz=114,slow=39
**AKASG Malin Array Be 85.19 320** P **P** 05 29 14.2 +0.3
comp=Z,0.4nm,0.3s,baz=64,slow=4.2,SNR=3.2
**FINES FINESS Array B 85.31 331** LR LR 06 08 34.9
comp=Z,30nm,18.1s,baz=210,slow=37
**INK Inuvik 87.16 21** P **P** 05 29 25.4 +2.1
comp=Z,0.3nm,0.5s,baz=274,slow=6.3,SNR=3.7
**NOA NORSAR Array B 92.32 333** LR LR 06 16 28.6
comp=Z,63nm,18.7s,baz=60,slow=39
**GERES GERESS Array B 95.39 321** LR LR 06 17 10.6
comp=Z,38nm,19.4s,baz=348,slow=38
**TXAR Lajitas Array 121.82 48** PKP **PKPdf** 05 35 33.0 +0.5
comp=Z,0.2nm,0.6s,baz=298,slow=1.9,SNR=2.8
**PLCA Paso Flores 146.18 162** PKPbc **PKPdf** 05 36 17.0 -0.3
comp=Z,1.4nm,0.8s,baz=289,slow=9.7,SNR=3.6

**IDC 18 05:18:05.3±3.0, 41.71N×127.12E, h0km, mb1 2.6/3, mb1mx2.6/56, mbtmp2.6/3, ML2.1/3, Error ellipse: s-maj=40.8km s-min=15.9km az=108.0, North Korea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KSRS** | **Korea Array** | **4.29** | **171** | Pn | Pn | 05 19 11.1 | -0.8 |
| | 0.4nm,0.3s,baz=353,slow=13,SNR=3.6 | | | | | | |
| KSRS | | | | Pg | Pb | 05 19 24.6 | +3.0 |
| | 1.5nm,0.3s,baz=352,slow=18,SNR=12 | | | | | | |
| KSRS | | | | Lg | Lg | 05 20 22.9 | |
| | 4.4nm,0.3s,baz=350,slow=29,SNR=24 | | | | | | |
| **I45RU** | **USSURIYSK INFR** | **4.35** | **53** | *i* | | 05 42 10.0 | |
| | baz=230,slow=271,SNR=2.3 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **4.35** | **54** | Pn | Pn | 05 19 13.1 | +0.4 |
| | 0.3nm,0.3s,baz=236,slow=15,SNR=8.0 | | | | | | |
| USRK | | | | Pg | Pb | 05 19 23.5 | +0.8 |
| | 0.5nm,0.3s,baz=240,slow=14,SNR=4.1 | | | | | | |
| USRK | | | | Lg | Lg | 05 20 24.6 | |
| | 1.8nm,0.3s,baz=235,slow=30,SNR=6.9 | | | | | | |
| **KLR** | **Kul'dur** | **8.19** | **22** | Pn | Pn | 05 20 05.2 | -0.2 |
| | 0.0nm,0.3s,baz=217,slow=17,SNR=3.7 | | | | | | |

**IDC 18 05:29:27.3±3.0, 32.60S×178.59W, h0km, mb3.6/2, mb1 3.9/3, mb1mx3.6/25, mbtmp3.7/3, ML3.5/1, Error ellipse: s-maj=71.3km s-min=45.7km az=118.0, South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **URZ** | **Urewera** | **6.64** | **211** | Pn | Pn | 05 31 04.8 | -1.4 |
| | 0.9nm,0.3s,baz=249,slow=6.8,SNR=4.4 | | | | | | |
| URZ | | | | Sn | Sn | 05 32 17.2 | -5.4 |
| | 1.9nm,0.3s,baz=6.0,slow=22,SNR=8.7 | | | | | | |
| **ASAR** | **Alice Springs** | **42.54** | **270** | P | P | 05 37 25.1 | +0.2 |
| | 0.2nm,0.3s,baz=104,slow=7.7,SNR=4.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.73** | **275** | P | P | 05 37 34.3 | -0.2 |
| | 0.2nm,0.3s,baz=114,slow=8.0,SNR=10 | | | | | | |
| **FINES** | **FINESS Array B** | **147.02** | **338** | PKPbc | PKPbc | 05 49 10.7 | -0.6 |
| | 2.9nm,0.9s,baz=57,slow=5.1,SNR=5.5 | | | | | | |

*ISK **18** 05:35:53.9, 38.96N×43.47E, h6km, ML2.2*
*ISCJB **18** 05:35:54.8±0.5, 38.97N±0.02×43.55E±0.04, h6km±4km, Error ellipse: s-maj=5.3km s-min=4.0km az=18.0*
*CSEM **18** 05:35:54.3±0.2, 38.96N×43.54E, h5km, ML3.0, Error ellipse: s-maj=4.9km s-min=3.8km az=96.0*
*DDA **18** 05:35:54.0, 38.94N×43.56E, h11km, Ml3.0*
**ISC 18 05:35:54.3±0.8, 38.96N±0.02×43.54E±0.03, h9km±5km, n26, σ0s65/45, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VMUR** | **Van-Muradiye** | **0.04** | **38** | *i* P | | **Pg** | 05 35 55.9 | -0.4 |
| VMUR | | | | *i* S | | **Sg** | 05 35 58.4 | +0.6 |
| **VMUR** | **Van-Muradiye** | **0.04** | **38** | P | | **Pg** | 05 35 55.9 | -0.4 |
| VMUR | | | | S | | **Sg** | 05 35 58.4 | +0.6 |
| **CLDR** | **Caldiran** | **0.34** | **58** | *i* P | | **Pg** | 05 36 00.5 | -0.8 |
| CLDR | | | | *i* S | | **Sg** | 05 36 06.3 | +0.5 |
| **CLDR** | **Caldiran** | **0.34** | **58** | P | | **Pg** | 05 36 00.4 | -0.8 |
| CLDR | | | | S | | **Sg** | 05 36 06.3 | +0.5 |
| **VANB** | **Van** | **0.39** | **198** | *e*PG | | **Pb** | 05 36 03.1 | -0.3 |
| VANB | | | | *e*SG | | **Sb** | 05 36 10.1 | +0.6 |
| **VANB** | **Van** | **0.39** | **198** | *e*Pg | | **Pb** | 05 36 03.1 | -0.3 |
| VANB | | | | *e*Sg | | **Sb** | 05 36 10.1 | +0.6 |
| **TVAN** | **Van** | **0.45** | **194** | *i* P | | **Pg** | 05 36 02.4 | -0.7 |
| TVAN | | | | *i* S | | **Sb** | 05 36 10.1 | -1.2 |
| **TVAN** | **Van** | **0.45** | **194** | P | | **Pg** | 05 36 02.4 | -0.7 |
| TVAN | | | | S | | **Sb** | 05 36 10.1 | -1.2 |
| **DYDN** | **Diyadin** | **0.59** | **11** | *i* P | | **Pb** | 05 36 06.3 | -0.7 |
| DYDN | | | | *i* S | | **Sb** | 05 36 15.2 | -0.4 |
| **DYDN** | **Diyadin** | **0.59** | **11** | P | | **Pb** | 05 36 06.3 | -0.7 |
| DYDN | | | | S | | **Sb** | 05 36 15.2 | -0.4 |
| **ADCV** | **BITLIS_Adilcev** | **0.66** | **257** | *i* P | | **Pg** | 05 36 06.5 | -0.6 |
| ADCV | | | | *i* S | | **Sb** | 05 36 16.8 | -0.6 |
| **ADCV** | **BITLIS_Adilcev** | **0.66** | **257** | P | | **Pg** | 05 36 06.5 | -0.6 |
| ADCV | | | | S | | **Sb** | 05 36 16.8 | -0.6 |
| **TUTA** | **Tutak** | **0.72** | **308** | *i* P | | **Pg** | 05 36 07.5 | -0.7 |
| TUTA | | | | *i* S | | **Sb** | 05 36 19.2 | 0.0 |
| **TUTA** | **Tutak** | **0.72** | **308** | P | | **Pg** | 05 36 07.5 | -0.7 |
| TUTA | | | | S | | **Sb** | 05 36 19.2 | 0.0 |
| **AGRB** | **Hanur-Agry** | **0.75** | **325** | *e*PG | | **Pg** | 05 36 08.2 | -0.6 |
| AGRB | | | | *e*SG | | **Sg** | 05 36 18.5 | -0.1 |
| **AGRB** | **Hanur-Agry** | **0.75** | **325** | *e*Pg | | **Pg** | 05 36 08.2 | -0.6 |
| AGRB | | | | *e*Sg | | **Sg** | 05 36 18.5 | -0.1 |
| **TASB** | **TASBURUN-IGDIR** | **1.15** | **28** | *e*PN | | **Pn** | 05 36 16.9 | +0.2 |
| **TASB** | **TASBURUN-IGDIR** | **1.15** | **28** | *e*Pn | | **Pn** | 05 36 16.9 | +0.2 |
| **EKAR** | **Karacoban** | **1.19** | **285** | *i* P | | **Pn** | 05 36 17.6 | +0.3 |
| EKAR | | | | *i* S | | **Sn** | 05 36 35.7 | +1.9 |
| **EKAR** | **Karacoban** | **1.19** | **285** | P | | **Pn** | 05 36 17.6 | +0.3 |
| **EATA** | **Eleskirt** | **1.21** | **318** | *i* P | | **Pg** | 05 36 17.4 | -0.3 |
| EATA | | | | *i* S | | **Sn** | 05 36 34.7 | +0.2 |
| **EATA** | **Eleskirt** | **1.21** | **318** | P | | **Pg** | 05 36 17.4 | -0.3 |
| EATA | | | | S | | **Sn** | 05 36 34.7 | +0.2 |
| **DIGO** | **Kars** | **1.46** | **355** | *i* P | | **Pg** | 05 36 22.6 | +0.3 |
| **DIGO** | **Kars** | **1.46** | **355** | P | | **Pg** | 05 36 22.6 | +0.3 |
| **CUKT** | **Cukurca** | **1.71** | **178** | *e*PN | | **Pn** | 05 36 25.1 | +0.7 |
| **CUKT** | **Cukurca** | **1.71** | **178** | *e*Pn | | **Pn** | 05 36 25.1 | +0.7 |

**IDC 18 05:37:39.6±2.9, 32.89S×178.46W, h0km, mb3.8/2, mb1 4.0/3, mb1mx3.8/19, mbtmp3.8/3, ML3.5/1, Error ellipse: s-maj=68.5km s-min=35.8km az=117.0, South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **URZ** | **Urewera** | **6.46** | **213** | Pn | Pn | 05 39 15.9 | 0.0 |
| | 1.1nm,0.3s,baz=217,slow=1.2,SNR=7.7 | | | | | | |
| URZ | | | | Sn | Sn | 05 40 30.4 | 0.0 |
| | 2.9nm,0.3s,baz=329,slow=22,SNR=6.1 | | | | | | |
| **ASAR** | **Alice Springs** | **42.65** | **270** | P | P | 05 45 38.2 | +0.2 |
| | 0.6nm,0.5s,baz=109,slow=7.8,SNR=10 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.86** | **275** | P | P | 05 45 47.7 | -0.2 |
| | 1.1nm,0.6s,baz=115,slow=8.0,SNR=20 | | | | | | |
| **FINES** | **FINESS Array B** | **147.32** | **338** | PKPbc | PKPbc | 05 57 23.4 | -0.9 |
| | 3.6nm,0.9s,baz=31,slow=4.4,SNR=8.6 | | | | | | |

**KRNET 18 05:50:58.9±0.1, 39.48N×73.83E, mb2.1, 6C-6D, Tajikistan-Xinjiang border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ARSB** | **Arslanbob** | **1.95** | **341** | ⇓ *i* P | Pb | 05 51 34.7 | -0.7 |
| | baz=341 | | | | | | |
| ARSB | | | | ⇓ *i* S | Sb | 05 52 00.8 | +0.5 |
| | baz=341 | | | | | | |
| **TOKL** | **Toktogul** | **2.56** | **344** | ⇓ *i* P | Pn | 05 51 43.3 | +1.5 |
| | baz=344 | | | | | | |
| TOKL | | | | ⇓ *i* S | Sb | 05 52 15.9 | -1.9 |
| | baz=344 | | | | | | |
| **AML** | **Almayashu** | **2.65** | **358** | ⇑ *i* P | Pb | 05 51 45.9 | -1.5 |
| | baz=7.0 | | | | | | |
| AML | | | | ⇑ *i* S | Sb | 05 52 18.5 | -2.1 |
| | baz=7.0 | | | | | | |
| **ARK** | **Arkit** | **2.71** | **329** | ⇑ *e*P | Pn | 05 51 45.3 | +1.4 |
| | baz=329 | | | | | | |
| ARK | | | | ⇑ *i* S | Sn | 05 52 19.0 | +1.5 |
| | baz=329 | | | | | | |
| **UCH** | **Uchtor** | **2.79** | **11** | ⇓ *e*P | Pb | 05 51 48.8 | -1.1 |
| | baz=20 | | | | | | |
| UCH | | | | ⇓ *i* S | Sb | 05 52 24.8 | 0.0 |
| | baz=20 | | | | | | |
| **MNAS** | **Manas** | **3.16** | **342** | ⇑ *i* P | Pn | 05 51 51.3 | +1.2 |
| | baz=350 | | | | | | |
| MNAS | | | | ⇑ *i* S | Sn | 05 52 28.1 | -0.5 |
| | baz=350 | | | | | | |

*CSEM **18** 05:51:55.4±0.2, 38.63N×43.56E, h10km, ML2.8, Error ellipse: s-maj=6.6km s-min=4.1km az=83.0*
*DDA **18** 05:51:55.3, 38.64N×43.59E, h7km, Ml2.8*
*ISK **18** 05:51:55.7, 38.61N×43.28E, h14km, ML2.2*
*ISCJB **18** 05:51:56.1±0.5, 38.63N±0.02×43.53E±0.05, h12km±4km, Error ellipse: s-maj=6.6km s-min=3.7km az=2.7*
**ISC 18 05:51:55.7±1.0, 38.63N±0.02×43.58E±0.03, h16km±7km, n32, σ0s74/46, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.15** | **257** | *e*PG | | **Pg** | 05 51 59.6 | -0.3 |
| **VANB** | **Van** | **0.15** | **257** | *e*Pg | | **Pg** | 05 51 59.6 | -0.3 |
| **TVAN** | **Van** | **0.17** | **233** | *i* P | | **Pg** | 05 51 59.6 | -0.7 |
| **TVAN** | **Van** | **0.17** | **233** | P | | **Pg** | 05 51 59.6 | -0.7 |
| **VMUR** | **Van-Muradiye** | **0.36** | **359** | *i* P | | **Pg** | 05 52 02.6 | -0.6 |
| VMUR | | | | *i* S | | **Sb** | 05 52 10.1 | +0.7 |
| **VMUR** | **Van-Muradiye** | **0.36** | **359** | P | | **Pg** | 05 52 02.6 | -0.6 |
| **GEVA** | **Gevas** | **0.52** | **232** | *i* P | | **Pg** | 05 52 05.4 | -0.7 |
| GEVA | | | | *i* S | | **Sb** | 05 52 14.7 | +0.8 |
| **GEVA** | **Gevas** | **0.52** | **232** | P | | **Pg** | 05 52 05.4 | -0.7 |
| **CLDR** | **Caldiran** | **0.57** | **27** | *i* P | | **Pg** | 05 52 07.2 | 0.0 |
| CLDR | | | | *i* S | | **Sn** | 05 52 18.1 | -0.6 |
| **CLDR** | **Caldiran** | **0.57** | **27** | P | | **Pg** | 05 52 07.2 | 0.0 |
| **BASK** | **Baskale_VAN** | **0.67** | **150** | *i* P | | **Pg** | 05 52 07.4 | -1.5 |
| BASK | | | | *i* S | | **Sb** | 05 52 18.4 | +0.2 |
| **BASK** | **Baskale_VAN** | **0.67** | **150** | P | | **Pg** | 05 52 07.4 | -1.5 |
| BASK | | | | S | | **Sb** | 05 52 18.4 | +0.2 |
| **ADCV** | **BITLIS_Adilcev** | **0.69** | **285** | *i* P | | **Pg** | 05 52 08.5 | -0.9 |
| **ADCV** | **BITLIS_Adilcev** | **0.69** | **285** | P | | **Pg** | 05 52 08.5 | -0.9 |
| **DYDN** | **Diyadin** | **0.92** | **5** | *i* P | | **Pg** | 05 52 13.2 | -0.4 |
| DYDN | | | | *i* S | | **Sn** | 05 52 26.8 | -0.3 |
| **DYDN** | **Diyadin** | **0.92** | **5** | P | | **Pg** | 05 52 13.2 | -0.4 |
| DYDN | | | | S | | **Sn** | 05 52 26.8 | -0.3 |
| **TUTA** | **Tutak** | **0.97** | **322** | *i* P | | **Pb** | 05 52 13.2 | -1.2 |
| TUTA | | | | *i* S | | **Sb** | 05 52 26.6 | -0.5 |
| **TUTA** | **Tutak** | **0.97** | **322** | P | | **Pb** | 05 52 13.2 | -1.2 |
| TUTA | | | | S | | **Sb** | 05 52 26.6 | -0.5 |
| **AGRB** | **Hanur-Agry** | **1.05** | **334** | *e*PG | | **Pb** | 05 52 15.1 | -0.5 |
| AGRB | | | | *e*SG | | **Sb** | 05 52 29.2 | +0.1 |
| **AGRB** | **Hanur-Agry** | **1.05** | **334** | *e*Pg | | **Pb** | 05 52 15.1 | -0.5 |
| AGRB | | | | *e*Sg | | **Sb** | 05 52 29.3 | +0.1 |
| **HAKT** | **HAKKARI** | **1.08** | **175** | *i* P | | **Pb** | 05 52 15.3 | -0.8 |
| HAKT | | | | *i* S | | **Sn** | 05 52 31.8 | +0.7 |
| **HAKT** | **HAKKARI** | **1.08** | **175** | P | | **Pb** | 05 52 15.3 | -0.8 |
| HAKT | | | | S | | **Sn** | 05 52 31.8 | +0.7 |
| **EKAR** | **Karacoban** | **1.34** | **298** | *i* P | | **Pn** | 05 52 20.2 | +0.2 |
| **EKAR** | **Karacoban** | **1.34** | **298** | P | | **Pn** | 05 52 20.2 | +0.2 |
| **CUKT** | **Cukurca** | **1.38** | **179** | *e*PN | | **Pb** | 05 52 21.3 | 0.0 |
| **CUKT** | **Cukurca** | **1.38** | **179** | *e*Pn | | **Pb** | 05 52 21.3 | 0.0 |
| **TASB** | **TASBURUN-IGDIR** | **1.44** | **20** | *e*PN | | **Pg** | 05 52 23.8 | +0.2 |
| **TASB** | **TASBURUN-IGDIR** | **1.44** | **20** | *e*Pn | | **Pg** | 05 52 23.8 | +0.2 |
| **SRTM** | **Siirt_Merkez** | **1.45** | **244** | *i* P | | **Pg** | 05 52 23.2 | -0.5 |
| SRTM | | | | *i* S | | **Sg** | 05 52 44.9 | +2.2 |
| **SRTM** | **Siirt_Merkez** | **1.45** | **244** | P | | **Pg** | 05 52 23.2 | -0.5 |
| **EATA** | **Eleskirt** | **1.49** | **326** | *i* P | | **Pn** | 05 52 22.6 | +0.4 |
| **EATA** | **Eleskirt** | **1.49** | **326** | P | | **Pn** | 05 52 22.6 | +0.4 |

*CSEM **18** 05:55:43.7±0.3, 38.60N×43.15E, h10km, ML2.7, Error ellipse: s-maj=8.5km s-min=7.2km az=26.0*
*ISCJB **18** 05:55:44.5±0.7, 38.62N±0.04×43.16E±0.05, h12km±8km, Error ellipse: s-maj=6.4km s-min=6.1km az=18.8*
*DDA **18** 05:55:44.0, 38.64N×43.20E, h7km, Ml2.7*
**ISC 18 05:55:43.9±1.0, 38.61N±0.03×43.19E±0.03, h14km±10km, n13, σ0s79/23, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.16** | **94** | *e*PG | | **Pb** | 05 55 48.1 | -0.6 |
| VANB | | | | *e*SG | | **Sb** | 05 55 52.3 | +0.4 |
| **VANB** | **Van** | **0.16** | **94** | *e*Pg | | **Pb** | 05 55 48.1 | -0.6 |
| VANB | | | | *e*Sg | | **Sb** | 05 55 52.3 | +0.4 |
| **TVAN** | **Van** | **0.19** | **114** | *i* P | | **Pg** | 05 55 48.0 | -0.4 |
| TVAN | | | | *i* S | | **Sb** | 05 55 51.9 | -1.0 |
| **TVAN** | **Van** | **0.19** | **114** | P | | **Pg** | 05 55 48.0 | -0.4 |
| TVAN | | | | S | | **Sb** | 05 55 51.9 | -1.0 |
| **GEVA** | **Gevas** | **0.31** | **199** | *i* P | | **Pg** | 05 55 49.9 | -0.5 |
| GEVA | | | | *i* S | | **Sb** | 05 55 56.6 | +0.3 |
| **GEVA** | **Gevas** | **0.31** | **199** | P | | **Pg** | 05 55 49.9 | -0.5 |
| GEVA | | | | S | | **Sb** | 05 55 56.6 | +0.3 |
| **ADCV** | **BITLIS_Adilcev** | **0.41** | **299** | *i* P | | **Pg** | 05 55 51.7 | -0.5 |
| ADCV | | | | *i* S | | **Sg** | 05 55 59.0 | +1.1 |
| **ADCV** | **BITLIS_Adilcev** | **0.41** | **299** | P | | **Pg** | 05 55 51.7 | -0.5 |
| ADCV | | | | S | | **Sg** | 05 55 59.0 | +1.1 |
| **VMUR** | **Van-Muradiye** | **0.49** | **38** | *i* P | | **Pg** | 05 55 53.6 | 0.0 |
| VMUR | | | | *i* S | | **Sb** | 05 56 02.5 | +1.1 |
| **VMUR** | **Van-Muradiye** | **0.49** | **38** | P | | **Pg** | 05 55 53.6 | 0.0 |
| VMUR | | | | S | | **Sb** | 05 56 02.5 | +1.1 |
| **TUTA** | **Tutak** | **0.84** | **340** | *i* P | | **Pg** | 05 55 59.4 | -0.9 |
| **TUTA** | **Tutak** | **0.84** | **340** | P | | **Pg** | 05 55 59.4 | -0.9 |
| **CUKT** | **Cukurca** | **1.40** | **166** | *e*PN | | **Pg** | 05 56 11.7 | +0.9 |

*NIED **18** 06:08:00, 38.70N×142.20E, h44km, Mw4.7 Best double couple: M0 1.33000×10^16 NP1:ϕs192.00000°, δ20.00000°, λ81.00000°. NP2:ϕs22.00000°, δ70.00000°, λ93.00000°.*
*BJI **18** 06:08:53.1, 38.43N×142.55E, h42km, mb4.8/62, mB5.0/40, Ms4.3/37, Ms7 4.1/37*
*MOS **18** 06:08:56.7±1.2, 38.72N×142.19E, h43km, mb4.8/39, Error ellipse: s-maj=7.9km s-min=4.9km az=101.3*
*ISCJB **18** 06:08:56.4±0.4, 38.67N±0.02×142.25E±0.04, h44km±3km, mb4.6/69, MS3.8/27, Error ellipse: s-maj=5.2km s-min=3.3km az=28.3*
*JMA **18** 06:08:57.8±0.1, 38.65N×142.15E, h42km±1km, M4.5*
*JMA Felt II J1.*
*IDC **18** 06:08:58.5±0.5, 38.65N×142.16E, h45km±5km, mb4.2/25, mb1 4.3/31, mb1mx4.3/44, mbtmp4.4/31, ML3.9/6, MS3.6/23, Ms1 3.6/23, ms1mx3.5/37, Error ellipse: s-maj=13.2km s-min=9.3km az=109.0*
*NEIC **18** 06:08:58.2±0.2, 38.66N×142.29E, mb4.8/13, Error ellipse: s-maj=5.9km s-min=4.0km az=120.0*
*NEIC Recorded [2 JMA] in Iwate and Miyagi.*
**ISC 18 06:08:57.9±0.5, 38.65N±0.04×142.27E±0.04, h42km±3km, h42km:pP-P, n234, σ1s48/284, mb4.7/71, MS3.8/27, 16C-13D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **OFUJ** | **Ofunato** | **0.64** | **313** | P | Pn | **06 09 09.6** | **-0.9** |
| OFUJ | | | | *e*S | Sn | **06 09 17.9** | **-1.6** |
| **JIO** | **Ouri** | **0.75** | **255** | P | Pn | **06 09 10.6** | **-1.3** |
| JIO | | | | S | Sn | **06 09 19.4** | **-2.7** |
| **JMK** | **Ichinoseki** | **0.87** | **291** | P | Pn | **06 09 12.7** | **-1.0** |
| JMK | | | | *e*S | Sn | **06 09 23.1** | **-2.1** |
| **JOM** | **Ohasama** | **1.12** | **318** | P | Pn | **06 09 16.6** | **-0.5** |
| JOM | | | | *e*S | Sn | **06 09 30.5** | **-0.8** |
| **JOU** | **Okura** | **1.29** | **258** | P | Pn | **06 09 18.5** | **-0.9** |
| JOU | | | | S | Sn | **06 09 34.1** | **-1.4** |
| **JTH** | **Tanohata** | **1.33** | **346** | P | Pn | **06 09 19.5** | **-0.4** |
| JTH | | | | *e*S | Sn | **06 09 37.8** | **+1.4** |
| **JMM** | **Marumori** | **1.40** | **237** | P | Pn | **06 09 19.7** | **-1.2** |
| JMM | | | | *e*S | Sn | **06 09 36.6** | **-1.5** |
| **JRG** | **Rokugo** | **1.48** | **301** | P | Pn | **06 09 21.4** | **-0.6** |
| **JYK** | **Kaneyama** | **1.52** | **281** | P | Pn | **06 09 21.8** | **-0.7** |
| **JFK** | **Kawauchi** | **1.69** | **221** | P | Pn | **06 09 23.9** | **-1.0** |
| JFK | | | | *e*S | Sn | **06 09 44.4** | **-0.9** |
| **ERM** | **Erimo** | **3.43** | **11** | *e*P | Pn | **06 09 50.9** | **+2.1** |
| ERM | | | | pmax | pmax | | |
| | comp=Z,132nm,1.0s | | | | | | |
| **ERM** | **Erimo** | **3.43** | **11** | *e*Pn | Pn | **06 09 49.6** | **+0.9** |
| ERM | | | | *e*Sn | Sn | **06 10 32.9** | **+4.7** |
| **MJAR** | **Matsushiro Arr** | **3.85** | **238** | P | Pn | **06 09 55.8** | **+1.2** |
| | comp=Z,27nm,0.3s,baz=37,slow=13,SNR=117 | | | | | | |
| MJAR | | | | S | Sn | **06 10 42.1** | **+3.6** |
| | comp=Z,11nm,0.3s,baz=99,slow=14,SNR=6.4 | | | | | | |
| MJAR | | | | LR | LR | 06 11 33.6 | |
| | comp=Z,917nm,18.9s,baz=45,slow=41 | | | | | | |
| **MAJO** | **Matsushiro** | **3.85** | **238** | *i* P | Pn | **06 09 55.5** | **+1.0** |
| **MAJO** | **Matsushiro** | **3.85** | **238** | *e*Pn | Pn | **06 09 55.6** | **+1.0** |
| **MAT** | **Matsushiro** | **3.85** | **238** | P | Pn | **06 09 55.6** | **+1.0** |
| MAT | | | | *e*S | Sn | **06 10 41.3** | **+2.7** |
| **MJB9** | **Matsu-Tunnel** | **3.85** | **238** | *e*Pn | Pn | **06 09 55.5** | **+0.9** |
| **INU** | **Inuyama** | **5.34** | **234** | *e*Pn | Pn | **06 10 16.4** | **+1.4** |
| **ASAJ** | **Asahikawa** | **5.47** | **2** | P | Pn | **06 10 18.5** | **+1.7** |
| | comp=Z,4.1nm,0.3s,baz=198,slow=17,SNR=13 | | | | | | |
| ASAJ | | | | S | Sn | **06 11 19.1** | **+0.7** |
| | comp=Z,4.7nm,0.3s,baz=14,slow=19,SNR=3.8 | | | | | | |
| **ASAJ** | **Asahikawa** | **5.47** | **2** | *e*Pn | Pn | **06 10 18.2** | **+1.4** |
| ASAJ | | | | *e*Sn | Sn | **06 11 20.5** | **+2.1** |
| **JHJ2** | **Mitsune** | **5.87** | **201** | *e*Pn | Pn | **06 10 19.9** | **-2.5** |
| JHJ2 | | | | *e*Sn | Sn | **06 11 32.2** | **+3.8** |
| **JHJ** | **Hachijo jima 2** | **5.87** | **201** | P | Pn | **06 10 22.7** | **+0.4** |
| | comp=Z,30nm,0.3s,baz=18,slow=5.6,SNR=3.5 | | | | | | |
| JHJ | | | | S | Sn | **06 11 25.8** | **-2.6** |
| | comp=Z,41nm,0.3s,baz=37,slow=20,SNR=4.1 | | | | | | |
| **LAGR** | **Lagunnoye** | **6.02** | **25** | *e*P | Pn | **06 10 24.1** | **-0.2** |
| LAGR | | | | *e*S | Sn | **06 11 29.9** | **-1.9** |
| **YUK** | **Yuzh-Kuril'sk** | **6.02** | **26** | *e*P | Pn | **06 10 24.0** | **-0.3** |
| YUK | | | | *e*S | Sn | **06 11 29.9** | **-2.1** |
| YUK | | | | pmax | pmax | | |
| | comp=Z,77nm,0.3s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=E,23nm,0.4s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=N,35nm,0.2s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,295nm,0.3s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=E,771nm,0.6s | | | | | | |
| **SHO** | **Shikotan** | **6.25** | **32** | *e*P | Pn | **06 10 25.6** | **-1.8** |
| SHO | | | | *e*S | Sn | **06 11 32.5** | **-5.0** |
| SHO | | | | smax | smax | | |
| | comp=E,409nm,0.4s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=N,231nm,0.5s | | | | | | |
| **KUR** | **Kuril'sk** | **7.79** | **31** | *e*P | Pn | **06 10 47.0** | **-1.6** |
| KUR | | | | *e*S | Sn | **06 12 10.6** | **-4.8** |

comp=Z,0.6nm,0.3s,baz=80,slow=14,SNR=25
KSRS LR LR 06 15 36.0
comp=Z,351nm,20.3s,baz=78,slow=35
**KS01 Wonju Array Si 11.39 269** *e*Pn **Pn 06 11 40.8 +2.8**
**KS15 Wonju Array Si 11.41 268** *e*Pn **Pn 06 11 41.0 +2.8**
**KSAR Wonju Array Be 11.41 268** P **Pn 06 11 39.3 +1.1**
**KSAR Wonju Array Be 11.41 268** P **Pn 06 11 39.3 +1.1**
**CBIJ Chichi jima 11.52 180** *e*Pn **Pn 06 11 41.4 +1.6**
**KLR Kul'dur 13.00 328** P **Pn 06 11 59.3 -0.5**
comp=Z,0.0nm,0.3s,baz=125,slow=14,SNR=8.4
KLR LR LR 06 16 54.5
comp=Z,46nm,18.5s,baz=148,slow=37
**CN2 Changchun 13.66 297** *e*P **P 06 12 14.9 -1.9**
CN2 pmax pmax
comp=Z,10.0nm,0.7s
CN2 pmax pmax
comp=Z,200nm,4.0s
CN2 LR LR
comp=Z,200nm,12.0s
CN2 LR LR
comp=Z,300nm,12.0s
CN2 LR LR
comp=Z,300nm,15.0s
**DL2 Dalian 16.10 277** P **Pn 06 12 40.9 -0.2**
DL2 *e*S **Sn 06 15 35.5 -3.0**
DL2 pmax pmax
comp=Z,45nm,1.0s
DL2 pmax pmax
comp=Z,180nm,7.1s
DL2 LR LR
comp=Z,320nm,14.2s
DL2 LR LR
comp=Z,360nm,16.1s
DL2 LR LR
comp=Z,370nm,15.1s
**PETK Petropavlovsk- 17.96 31** LR LR 06 20 31.7
comp=Z,60nm,18.6s,baz=217,slow=38
**TIA Tai'an 20.10 271** ⇓P **P 06 13 26.3 -1.6**
TIA pmax pmax
comp=Z,20nm,0.9s
**NJ2 Nanjing 20.17 258** *e*P **P 06 13 28.5 -0.2**
NJ2 pmax pmax
comp=Z,32nm,0.7s
**BJI Beijing 20.21 282** P **P 06 13 27.3 -1.7**
BJI S **S 06 17 11.9 -1.5**
BJI pmax pmax
comp=Z,9.0nm,0.6s
BJI LR LR
comp=Z,110nm,7.2s
BJI LR LR
comp=Z,340nm,15.6s
BJI LR LR
comp=Z,170nm,16.4s
**MA2 Magadan 21.64 12** P **P 06 13 44.4 +0.2**
comp=Z,7.0nm,0.7s,baz=174,slow=6.1,SNR=5.0
**NACB Ninganchiao 22.72 237** *e*P **P 06 13 56.1 -0.1**
comp=Z,41nm,1.1s
**HHC Hu-ho-hao-te 23.65 285** *e*P **P 06 14 04.5 -0.9**
HHC PcP **PcP 06 17 50.3 +1.3**
HHC S **S 06 18 12.3 -4.9**
HHC SS **SnSn 06 19 02.8 +5.8**
HHC pmax pmax
comp=Z,17nm,0.6s
HHC pmax pmax
comp=Z,97nm,5.0s
HHC LR LR
comp=Z,150nm,12.3s
HHC LR LR
comp=Z,500nm,14.8s
HHC LR LR
comp=Z,640nm,17.3s
**YAK Yakutsk 24.66 346** P **P 06 14 13.5 -0.8**
comp=Z,13nm,0.5s,baz=211,slow=2.8,SNR=7.5
**YAK Yakutsk 24.66 346** *e*P **P 06 14 12.9 -1.4**
YAK *e**PP **pP 06 14 27.6 +2.0**
YAK *e* 06 14 53.8
YAK *e*S **S 06 18 30.1 -2.6**
YAK *e* 06 25 07.4
YAK pmax pmax
comp=Z,23nm,1.0s
YAK pmax pmax
comp=N,11nm,1.4s
YAK pmax pmax
comp=E,7.0nm,1.3s
YAK pmax pmax
comp=Z,17nm,0.9s
YAK pmax pmax
comp=N,9.0nm,0.9s
YAK pmax pmax
comp=E,10.0nm,1.3s
YAK smax smax
comp=N,98nm,3.2s
YAK smax smax
comp=E,52nm,3.0s
**YAK Yakutsk 24.66 346** *e*P **P 06 14 13.5 -0.8**
comp=E,29nm,0.9s
**SEY Seymchan 25.08 11** P **P 06 14 18.6 +0.5**
comp=E,12nm,0.8s,baz=198,slow=7.6,SNR=28
**SEY Seymchan 25.08 11** ⇑*i*P **P 06 14 20.0 +1.9**
**BOD Bodaibo 26.55 325** *e*P **P 06 14 30.3 -1.2**
BOD pmax pmax
comp=Z,10.0nm,1.3s
**ULN Ulaanbaatar 27.05 301** ⇓*i*P **P 06 14 35.7 -0.6**
ULN pmax pmax
comp=Z,5.0nm,0.8s
**ULN Ulaanbaatar 27.05 301** *e*P **P 06 14 36.3 0.0**
comp=Z,3.8nm,0.7s
**SONA1 Songino Array 27.48 301** *e*P **P 06 14 39.3 -0.8**
**SONM Songino Array 27.49 301** P **P 06 14 39.3 -0.9**
comp=Z,1.5nm,0.5s,baz=100,slow=8.5,SNR=15
SONM LR LR 06 25 14.0
comp=Z,126nm,18.2s,baz=34,slow=36
**ENH Enshi 28.18 263** *e*P **P 06 14 45.7 -0.6**
comp=Z,30nm,0.6s
**H11N2 WAKE ISLAND Hy 28.45 124** T T 06 45 06.2
baz=316,slow=75,SNR=2034
**H11N1 WAKE ISLAND Hy 28.46 125** T T 06 45 06.6
baz=316,slow=75,SNR=2165
**H11N3 WAKE ISLAND Hy 28.47 124** T T 06 45 07.4
baz=316,slow=75,SNR=1965
**H11S1 WAKE ISLAND Hy 29.22 126** T T 06 46 09.9
baz=318,slow=76,SNR=374
**H11S3 WAKE ISLAND Hy 29.22 127** T T 06 46 08.5
baz=318,slow=76,SNR=587
**H11S2 WAKE ISLAND Hy 29.24 127** T T 06 46 06.7
baz=318,slow=76,SNR=349
**TLY Talaya 29.82 309** P **P 06 14 59.5 -1.2**
comp=Z,3.1nm,0.6s,baz=108,slow=7.8,SNR=3.6
**TLY Talaya 29.82 309** *e*P **P 06 15 01.3 +0.6**
TLY pmax pmax
comp=Z,9.0nm,0.9s
TLY MLR MLR
comp=Z,157nm,15.0s
**ZAK Zakamensk 29.84 306** *e*P **P 06 15 00.3 -0.7**
ZAK *e* 06 16 11.4
ZAK pmax pmax
comp=Z,10.0nm,1.0s
**LZH Lanzhou 30.50 277** *e*P **P 06 15 07.8 +0.7**
LZH pP pP 06 15 17.1 -1.4
LZH sP sP 06 15 24.5 +1.0
LZH PP **PnPn 06 16 09.5 +2.6**
LZH S **S 06 20 04.0 -1.7**
LZH sS sS 06 20 21.5 -3.2
LZH pmax pmax
comp=Z,27nm,0.7s
LZH pmax pmax
comp=Z,200nm,4.3s
LZH LR LR
comp=Z,1μm,16.0s
LZH LR LR
comp=Z,590nm,15.7s
LZH LR LR
comp=Z,1μm,16.3s
**GYA Guiyang 32.18 258** P **P 06 15 21.8 -0.1**
GYA pP pP 06 15 34.3 +0.9
GYA PP **PnPn 06 16 30.0 +1.2**
GYA PcP **PcP 06 18 11.5 +1.5**
GYA S **S 06 20 31.8 -0.2**
GYA sS sS 06 20 51.0 -0.2
GYA SS **SnSn 06 22 25.4 +0.1**
GYA pmax pmax
comp=Z,20nm,0.8s
GYA pmax pmax
comp=Z,120nm,4.9s
GYA LR LR
comp=Z,530nm,17.8s
GYA LR LR
comp=Z,500nm,18.3s
GYA LR LR
comp=Z,480nm,18.2s
**CD2 Chengdu 32.38 268** P **P 06 15 22.4 -1.1**
CD2 pP pP 06 15 32.3 -2.6
CD2 sP sP 06 15 37.5 -2.5
CD2 S **S 06 20 32.0 -2.8**
CD2 pmax pmax
comp=Z,40nm,0.8s
CD2 LR LR
comp=Z,290nm,12.3s
CD2 LR LR
comp=Z,340nm,11.4s
**GTA Gaotai 32.77 285** *e*P **P 06 15 26.8 -0.1**
GTA pP pP 06 15 38.5 +0.1
GTA sP sP 06 15 43.8 +0.4
GTA S **S 06 20 39.3 -1.7**
GTA sS sS 06 20 59.3 -0.8
GTA SS **SnSn 06 22 40.3 +1.1**
GTA pmax pmax
comp=Z,7.0nm,1.0s
GTA pmax pmax
comp=Z,84nm,5.1s
GTA LR LR
comp=Z,150nm,18.7s
GTA LR LR
comp=Z,380nm,17.7s
GTA LR LR
comp=Z,290nm,16.6s
**TIXI Tiksi 33.78 352** P **P 06 15 33.3 -1.8**
comp=Z,2.5nm,0.6s,baz=155,slow=5.8,SNR=8.4
**TIXI Tiksi 33.78 352** *e*P **P 06 15 34.6 -0.6**
TIXI pmax pmax
comp=Z,3.0nm,0.8s
**TIXI Tiksi 33.78 352** *e*P **P 06 15 34.6 -0.6**
comp=Z,2.9nm,0.8s
**QIZ Qiongzhong 34.22 244** P **P 06 15 36.8 -2.8**
QIZ S S 06 20 52.9 -11
**KMI Kunming 35.89 260** P **P 06 15 54.0 -0.2**
KMI pmax pmax
comp=Z,17nm,0.7s
**DGZ Jazzator, Alta 40.02 304** *i*P **P 06 16 29.4 +0.7**
DGZ pmax pmax
comp=Z,17nm,0.7s
**WMQ Urumqi 40.74 295** P **P 06 16 34.8 +0.2**
WMQ pP pP 06 16 45.8 -0.5
WMQ sP sP 06 16 52.8 +1.5
WMQ S **S 06 22 43.4 +1.3**
WMQ pmax pmax
comp=Z,69nm,0.9s
WMQ pmax pmax
comp=Z,230nm,4.9s
WMQ LR LR
comp=Z,110nm,16.9s
WMQ LR LR
comp=Z,160nm,19.7s
WMQ LR LR
comp=Z,160nm,25.5s
**ZAA0 Zalesovo Array 41.35 311** *e*P **P 06 16 39.2 -0.2**
comp=Z,21nm,1.3s
**ZALV Zalesovo Beam 41.35 311** P **P 06 16 39.1 -0.2**
comp=Z,6.7nm,0.5s,baz=89,slow=7.8,SNR=37
ZALV PcP **PcP 06 18 36.9 -0.1**
comp=Z,2.2nm,0.5s,baz=84,slow=3.3,SNR=3.7
ZALV LR LR 06 34 31.2
comp=Z,131nm,19.7s,baz=68,slow=37
**ZALV Zalesovo Beam 41.35 311** *e*P **P 06 16 38.5 -0.8**
ZALV PcP **PcP 06 18 36.9 -0.1**
**NVS Novosibirsk 42.23 312** *e*P **P 06 16 46.5 -0.1**
NVS pmax pmax
comp=Z,8.0nm,0.9s
NVS pmax pmax
comp=E,3.0nm,0.5s
**CMAR Chiang Mai Arr 42.57 254** P **P 06 16 50.7 +0.9**
comp=E,1.8nm,0.3s,baz=59,slow=8.7,SNR=3.5
CMAR LR LR 06 36 33.9
comp=E,28nm,18.4s,baz=74,slow=39
**LSA Lhasa 42.76 274** *e*P **P 06 16 52.4 +0.7**
LSA pmax pmax
comp=Z,6.0nm,0.6s
**LSA Lhasa 42.76 274** *e*P **P 06 16 52.4 +0.7**
comp=Z,6.3nm,0.6s
**MK01 Makanchi Array 43.85 301** *e*P **P 06 16 59.3 -0.5**
**MK31 Makanchi Array 43.85 301** *i*P **P 06 16 59.4 -0.5**
MK31 pmax pmax
comp=Z,9.0nm,0.7s
**MK31 Makanchi Array 43.85 301** *e*P **P 06 16 59.6 -0.2**
**MKAR Makanchi Array 43.85 301** P **P 06 16 59.6 -0.3**
comp=Z,8.0nm,0.7s,baz=85,slow=9.4,SNR=32
MKAR PcP **PcP 06 18 44.8 -0.8**
comp=Z,1.6nm,0.8s,baz=188,slow=2.9,SNR=3.1
MKAR LR LR 06 35 11.4
comp=Z,84nm,20.9s,baz=60,slow=36
**KURK Kurchatov 45.49 307***ce*P **P 06 17 11.8 -0.9**
**KURK Kurchatov 45.49 307** *e*P **P 06 17 12.2 -0.5**
comp=Z,33nm,0.7s
KURK *ep*P **pP 06 17 24.4 -0.1**
KURK PcP **PcP 06 18 50.5 -0.5**
**KURBB Kurchatov Arra 45.56 307** P **P 06 17 12.8 -0.5**
comp=Z,27nm,0.6s,baz=82,slow=8.2,SNR=190
KURBB PcP **PcP 06 18 50.5 -0.8**
comp=Z,1.8nm,0.7s,baz=86,slow=3.7,SNR=4.6
**TAPN Taplejung 46.52 273** *e*P **P 06 17 21.0 -0.6**
comp=Z,12nm,0.4s
**ODAN Odare 47.00 273** *e*P **P 06 17 24.1 -1.2**
comp=Z,25nm,0.7s
**JIRN Jiri 47.56 274** *e*P **P 06 17 29.3 -0.5**
**RAMN Ramite 47.58 273** *e*P **P 06 17 28.3 -1.5**
comp=Z,53nm,0.8s
**GUN Gumba 47.68 275** *e*P **P 06 17 30.0 -0.7**
comp=Z,25nm,0.4s
**ILAR Eielson Array 47.77 33** P **P 06 17 31.9 +1.4**
comp=Z,1.6nm,0.6s,baz=266,slow=6.3,SNR=31
ILAR pP **sP 06 17 45.2 -2.1**
comp=Z,2.7nm,0.8s,baz=276,slow=6.5,SNR=9.9
**ILB Eielson Array 47.77 33** *e*P **P 06 17 30.3 -0.2**
**IL1 Eielson Array 47.77 33** *e*P **P 06 17 29.6 -0.9**
**KKN Kakani 48.21 275** *e*P **P 06 17 34.3 -0.3**
comp=Z,25nm,0.6s
**PKI Pulchoki 48.21 275** *e*P **P 06 17 34.0 -0.8**
comp=Z,6.7nm,0.4s
**PKIN Phulchoki 48.22 275** *e*P **P 06 17 34.0 -0.7**
comp=Z,24nm,0.5s
**DMN Daman 48.43 275** *e*P **P 06 17 35.9 -0.5**
comp=Z,9.8nm,0.4s
**KOLN Koldanda 49.53 276** *e*P **P 06 17 44.2 -0.5**
comp=Z,13nm,0.5s
**PYUN Piuthan 49.85 276** *e*P **P 06 17 46.8 -0.3**
comp=Z,49nm,0.8s
**BVA0 Borovoye Array 50.00 311** *i*P **P 06 17 46.8 -0.9**
BVA0 pmax pmax
comp=Z,5.0nm,0.6s
**BRVK Borovoye 50.05 312***ce*P **P 06 17 47.9 -0.2**
BRVK pmax pmax
comp=Z,16nm,0.7s
**BRVK Borovoye 50.05 312** *e*P **P 06 17 47.6 -0.5**
comp=Z,7.2nm,0.6s
BRVK *ep*P **pP 06 18 00.0 0.0**
BRVK *e*PcP **PcP 06 19 07.7 +0.4**
**AAK Ala-Archa 50.33 297** *i*P **P 06 17 49.4 -1.2**
AAK pmax pmax
comp=Z,2.0nm,0.5s
**AAK Ala-Archa 50.33 297** *e*P **P 06 17 49.9 -0.7**
comp=Z,4.1nm,0.8s
AAK *ep*P **pP 06 18 01.5 -1.0**
**KSH Kashi 50.38 293** P **P 06 17 54.8 +3.9**
KSH pP sP 06 18 06.5 -1.3
KSH PcP **PcP 06 19 12.8 +3.8**
KSH PP **PP 06 19 52.6 +6.1**
KSH S **S 06 25 04.8 +3.6**
KSH ScS **ScS 06 27 38.5 0.0**
KSH SS **SS 06 28 36.4 +1.4**
KSH pmax pmax
comp=Z,4.0nm,0.7s
KSH pmax pmax
comp=Z,73nm,4.0s
KSH LR LR
comp=Z,90nm,4.8s
KSH LR LR
comp=Z,170nm,4.9s
KSH LR LR
comp=Z,110nm,6.4s
**HNR Honiara 50.59 157** LR LR 06 38 20.5
comp=Z,73nm,18.8s,baz=332,slow=35
**MNAS Manas 51.76 298** *i*P **P 06 18 00.7 -0.6**
MNAS pmax pmax
comp=Z,8.0nm,0.6s
**MTN Manton Dam 52.27 194** *e*P **P 06 18 03.7 -1.3**
**INK Inuvik 52.65 28** P **P 06 18 07.3 0.0**
comp=Z,1.9nm,0.9s,baz=297,slow=7.0,SNR=10
**SVE Sverdlovsk 54.39 318** ⇓*i*P **P 06 18 20.3 +0.1**
SVE pmax pmax
comp=Z,17nm,0.8s
**ARU Arti 55.61 318***c i*P **P 06 18 28.7 -0.3**
ARU *PP **pP 06 18 40.1 -1.0**
ARU 06 19 26.9
ARU 06 20 30.7
ARU S **S 06 26 12.6 +1.0**
ARU SS **SS 06 29 57.6 +1.1**
ARU pmax pmax
comp=Z,10.0nm,0.7s
**ARU Arti 55.61 318** *e*P **P 06 18 28.4 -0.6**
comp=Z,15nm,1.0s
**DZET Dzherino 55.77 295** P **P 06 18 29.9 -0.7**
DZET pmax pmax
comp=Z,5.0nm,0.5s
**AB31 Akbulak array 57.42 310** *i*P **P 06 18 41.3 -0.7**
AB31 pmax pmax
comp=Z,3.0nm,0.4s
**FITZ Fitzroy Crossi 58.56 199** LR LR 06 43 24.0
comp=Z,23nm,18.1s,slow=35
**WRAB Tennant Creek 58.74 189** *e*P **P 06 18 50.7 -0.8**
**WRAB Tennant Creek 58.74 189** *e*P **P 06 18 50.7 -0.8**
**WB2 Warramunga Arr 58.75 189** *e*P **P 06 18 51.0 -0.5**
**WRA Warramunga Arr 58.75 189** P **P 06 18 51.2 -0.4**
comp=Z,2.8nm,0.6s,baz=7.0,slow=7.1,SNR=41
WRA pP **pP 06 19 03.6 -0.2**
comp=Z,8.3nm,0.9s,baz=7.1,slow=7.3,SNR=18
WRA LR LR 06 44 21.1
comp=Z,14nm,21.1s,baz=140,slow=36
**TMCR Tamitsa 61.66 331** *e*P **P 06 19 11.0 +0.1**
TMCR pmax pmax
comp=Z,13nm,0.8s
**YKA Yellowknife Ar 62.08 31** P **P 06 19 13.8 0.0**
comp=Z,0.5nm,0.7s,baz=301,slow=6.2,SNR=9.0
YKA pP **pP 06 19 26.7 +0.7**
comp=Z,1.3nm,1.0s,baz=304,slow=6.3,SNR=5.3
**AS01 Alice Springs 62.47 189** *e*P **P 06 19 16.7 -0.1**
**AS31 Alice Springs 62.48 189** *e*P **P 06 19 17.0 +0.1**
**ASAR Alice Springs 62.48 189** P **P 06 19 16.9 0.0**
comp=Z,0.9nm,0.7s,baz=9.9,slow=6.9,SNR=9.7
ASAR pP **pP 06 19 29.1 -0.1**
comp=Z,3.1nm,0.8s,baz=11,slow=6.6,SNR=13
ASAR LR LR 06 45 28.1
comp=Z,39nm,21.6s,baz=26,slow=35
**ARCES ARCESS Array B 62.73 339** P **P 06 19 17.4 -0.7**
comp=Z,1.7nm,0.8s,baz=50,slow=8.8,SNR=12
ARCES LR LR 06 49 47.8
comp=Z,32nm,19.3s,baz=38,slow=39
**KLMR Klimovskoe 62.76 328** *e*P **P 06 19 14.0 -4.4**
KLMR pmax pmax
comp=Z,12nm,1.3s
**GEYT Alibeck 63.65 299** P **P 06 19 24.4 -0.4**
comp=Z,4.3nm,0.7s,baz=11,slow=1.5,SNR=8.6
GEYT LR LR 06 48 35.9
comp=Z,62nm,20.4s,baz=185,slow=37
**DAG Danmarks Havn 64.23 355** *i*P **P 06 19 27.6 -0.2**
DAG pmax pmax
comp=Z,3.0nm,0.6s
**DAG Danmarks Havn 64.23 355** *i*P **P 06 19 27.6 -0.2**
comp=Z,3.4nm,0.6s
**FINES FINESS Array B 67.70 332** P **P 06 19 50.1 -0.3**
comp=Z,9.5nm,0.7s,baz=44,slow=8.5,SNR=26
FINES LR LR 06 51 24.4
comp=Z,81nm,18.1s,baz=28,slow=38
**FINES FINESS Array B 67.70 332** *i*P **P 06 19 50.0 -0.4**
FINES pmax pmax
comp=Z,10.0nm,0.7s
**NEW Newport 68.51 45** *e*P **P 06 19 55.2 -0.6**
**NEW Newport 68.51 45** *e*P **P 06 19 55.1 -0.6**
**SUMG Summit 69.07 0** *i*P **P 06 20 00.2 +0.9**
SUMG pmax pmax
comp=Z,10.0nm,0.8s
**SUMG Summit 69.07 0** *i*P **P 06 20 00.2 +0.9**
comp=Z,10.0nm,0.8s
**SUMG Summit 69.07 0** *e*P **P 06 20 00.1 +0.8**
comp=Z,11nm,0.9s
**GOF Gofitskoye 69.53 312**⇑*e*P **P 06 20 00.4 -1.7**
**STKA Stephens Creek 70.17 181** pP pP 06 20 20.7 +2.3
comp=Z,4.1nm,0.9s,baz=338,slow=12,SNR=3.9
**KIV Kislovodsk 70.36 311** *e*P **P 06 20 07.6 +0.3**
KIV pmax pmax
comp=Z,32nm,1.1s
KIV MLR MLR
comp=Z,46nm,18.0s
**KIV Kislovodsk 70.36 311** *e*P **P 06 20 07.2 -0.2**
comp=Z,21nm,0.8s
**KBZ Khabaz 70.37 311** P **P 06 20 07.8 +0.6**
comp=Z,7.5nm,0.8s,baz=32,slow=3.1,SNR=9.4
KBZ LR LR 06 53 13.9
comp=Z,55nm,18.4s,baz=68,slow=38
**ANN Anapa 72.90 314** *e*P **P 06 20 19.8 -2.6**
ANN *e**PP **pP 06 20 34.4 -0.5**
ANN *e* 06 20 39.4
ANN *e* 06 23 05.2
ANN *e*S **S 06 29 40.9 -4.7**
ANN pmax pmax
comp=Z,130nm,1.5s
**NB2 NORSAR Subarra 72.96 337** P **P 06 20 22.2 -0.4**
comp=Z,2.4nm,0.6s,baz=37,slow=6.2
**NB2 NORSAR Subarra 72.96 337** P **P 06 20 22.1 -0.5**
NB2 pmax pmax
comp=Z,2.0nm,0.6s
**NOA NORSAR Array B 72.96 337** P **P 06 20 22.5 -0.1**
comp=Z,3.3nm,0.7s,baz=38,slow=6.1,SNR=9.7
NOA pP **pP 06 20 36.1 +1.1**
comp=Z,1.4nm,0.6s,baz=39,slow=6.0,SNR=2.9
NOA LR LR 06 55 00.9
comp=Z,76nm,21.7s,baz=45,slow=38
**NOA NORSAR Array B 72.96 337** P **P 06 20 22.5 -0.1**
NOA *PP **pP 06 20 36.2 +1.1**
NOA pmax pmax
comp=Z,4.0nm,0.7s
NOA MLR MLR
comp=Z,76nm,21.7s
**AKASG Malin Array Be 73.44 322** P **P 06 20 25.0 -0.5**
comp=Z,4.6nm,0.5s,baz=46,slow=6.1,SNR=42
AKASG LR LR 06 55 35.2
comp=Z,106nm,18.2s,baz=30,slow=38
**SORM Soroca 75.57 321**⇑*i*P **P 06 20 37.5 -0.4**
**SORM Soroca 75.57 321**⇑P **P 06 20 37.5 -0.4**
**PD31 Pinedale Array 76.06 46** *e*P **P 06 20 42.8 +1.6**
**PDAR Pinedale Array 76.06 46** P **P 06 20 42.7 +1.6**
comp=Z,1.1nm,0.6s,baz=249,slow=1.6,SNR=16
**PDAR Pinedale Array 76.06 46** *e*P **P 06 20 42.3 +1.2**
**BUR08 Bucovina Ar. S 77.45 322** *e*P **P 06 20 49.0 +0.2**
**BUR04 Bucovina Ar. S 77.46 322** *e*P **P 06 20 48.0 -0.8**
**BURAR Bucovina Array 77.46 322**⇓*i*P **P 06 20 49.4 +0.6**
**BURAR Bucovina Array 77.46 322**⇓P **P 06 20 49.4 +0.6**
**TESR Tescani 77.53 320**⇑*i*P **P 06 20 49.3 +0.2**
**SRU San Rafael Swe 77.85 49** *e*P **P 06 20 53.4 +2.2**
**SRU San Rafael Swe 77.85 49** *e*P **P 06 20 53.4 +2.2**
**VRI Vrincioaia 77.93 320**⇑*i*P **P 06 20 51.5 +0.1**
**VRI Vrincioaia 77.93 320**⇑P **P 06 20 51.5 +0.1**
**PLOR Plostina 77.98 320**⇓*i*P P 06 20 45.0 -6.7
**PLOR Plostina 77.98 320**⇓P P 06 20 45.0 -6.7
**STHS Stebnicka Huta 78.03 325** *e*P **P 06 20 52.9 +1.1**
STHS pmax pmax
comp=Z,6.0nm,1.3s
**STHS Stebnicka Huta 78.03 325** *e*P **P 06 20 52.9 +1.1**
**OJC Ojcow 78.08 326** *e*P **P 06 20 51.5 -0.6**
**OJC Ojcow 78.08 326** *e*P **P 06 20 51.5 -0.6**
**UZH Uzhgorod 78.12 324** *e*P **P 06 20 53.1 +0.8**
UZH *e* 06 20 59.1
UZH *e* 06 21 11.1
**BR131 Keskin Array S 78.29 312** *e*P **P 06 20 53.8 +0.2**
**BRTR Keskin Array B 78.29 312** P **P 06 20 53.5 -0.1**
comp=Z,1.7nm,0.4s,baz=109,slow=3.0,SNR=24
BRTR LR LR 07 00 39.1
comp=Z,30nm,18.1s,baz=87,slow=40
**DOPR Dopca 78.53 321**⇑*i*P **P 06 20 56.6 +1.9**
**BR231 Keskin MP Arra 78.71 312** *e*P **P 06 20 54.3 -1.6**
**LANS Liptovska Anna 79.01 326** *e*P **P 06 20 58.4 +1.1**
**LANS Liptovska Anna 79.01 326** *e*P **P 06 20 58.4 +1.1**
**VOIR 79.08 320**⇑*i*P **P 06 20 59.1 +1.4**
**VOIR 79.08 320**⇑P **P 06 20 59.1 +1.4**
**PV10 Paradox Valley 79.21 49** *e*P **P 06 21 01.6 +2.8**
**ARR Arges 79.33 321**⇓*i*P **P 06 21 01.0 +1.9**
**MORC Moravsky Berou 79.37 327**⇑*i*P **P 06 20 59.9 +0.7**
**MORC Moravsky Berou 79.37 327**⇑P **P 06 20 59.9 +0.7**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **MORC** | **Moravsky Berou** | **79.37** | **327** | *e*P | | **P** | **06 20 59.7** | **+0.5** |
| **DPC** | **Dobruska-Polom** | **79.45** | **328** | *e*P | | **P** | **06 21 00.4** | **+0.8** |
| **DPC** | **Dobruska-Polom** | **79.45** | **328** | *e*P | | **P** | **06 21 00.4** | **+0.8** |
| **UPC** | **Upice** | **79.46** | **328** | *e*P | | **P** | **06 21 00.6** | **+1.0** |
| **UPC** | **Upice** | **79.46** | **328** | *e*P | | **P** | **06 21 00.6** | **+1.0** |
| **VYHS** | **Vyhne** | **79.78** | **326** | *e*P | | **P** | **06 21 01.1** | **-0.3** |
| **VYHS** | **Vyhne** | **79.78** | **326** | *e*P | | **P** | **06 21 01.1** | **-0.3** |
| **PVCC** | **Panska Ves** | **80.03** | **329** | *e*P | | **P** | **06 21 03.3** | **+0.6** |
| **PVCC** | **Panska Ves** | **80.03** | **329** | *e*P | | **P** | **06 21 03.3** | **+0.6** |
| **CLL** | **Collm** | **80.03** | **330** | *i* P | | **P** | **06 21 02.7** | **0.0** |
| CLL | | | | | pmax | pmax | | |
| | comp=Z,12nm,0.9s | | | | | | | |
| **CLL** | **Collm** | **80.03** | **330** | *i* P | | **P** | **06 21 02.7** | **0.0** |
| | comp=Z,12nm,0.9s | | | | | | | |
| **CLL** | **Collm** | **80.03** | **330** | *e*P | | **P** | **06 21 01.9** | **-0.8** |
| **VRAC** | **Vranov** | **80.13** | **327** | ⇓*i*P | | **P** | **06 21 04.6** | **+1.3** |
| **VRAC** | **Vranov** | **80.13** | **327** | ⇓P | | **P** | **06 21 04.6** | **+1.3** |
| **GOPC** | **GO Pecny, Ondr** | **80.42** | **329** | *e*P | | **P** | **06 21 05.5** | **+0.7** |
| **GOPC** | **GO Pecny, Ondr** | **80.42** | **329** | *e*P | | **P** | **06 21 05.5** | **+0.7** |
| **PRU** | **Pruhonice** | **80.46** | **329** | *e*P | | **P** | **06 21 05.4** | **+0.4** |
| **PRU** | **Pruhonice** | **80.46** | **329** | *e*P | | **P** | **06 21 05.4** | **+0.4** |
| **BZS** | **Buzias** | **80.63** | **322** | ⇓*i*P | | **P** | **06 21 06.2** | **+0.2** |
| **BZS** | **Buzias** | **80.63** | **322** | ⇓P | | **P** | **06 21 06.2** | **+0.2** |
| **MDVR** | **Moldovita** | **81.19** | **322** | ⇓*i*P | | **P** | **06 21 09.2** | **+0.1** |
| **CONA** | **Conrad Observa** | **81.50** | **327** | *i* P | | **P** | **06 21 11.6** | **+0.9** |
| | comp=Z,5.7nm,0.8s | | | | | | | |
| **KHC** | **Kasperske Hory** | **81.52** | **329** | *e*P | | **P** | **06 21 10.8** | **0.0** |
| **KHC** | **Kasperske Hory** | **81.52** | **329** | *e*P | | **P** | **06 21 11.5** | **+0.7** |
| **KHC** | **Kasperske Hory** | **81.52** | **329** | *e*P | | **P** | **06 21 11.5** | **+0.7** |
| **GERES** | **GERESS Array B** | **81.69** | **329** | P | | **P** | **06 21 11.9** | **+0.2** |
| | comp=Z,1.7nm,0.6s,baz=40,slow=5.4,SNR=12 | | | | | | | |
| GERES | | | | | LR | LR | 07 00 07.0 | |
| | comp=Z,111nm,18.1s,baz=27,slow=38 | | | | | | | |
| **GERES** | **GERESS Array B** | **81.69** | **329** | P | | **P** | **06 21 12.0** | **+0.2** |
| GERES | | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.6s | | | | | | | |
| GERES | | | | | MLR | MLR | | |
| | comp=Z,111nm,18.1s | | | | | | | |
| **GEA0** | **GERESS Array S** | **81.70** | **329** | *e*P | | **P** | **06 21 11.7** | **-0.1** |
| **ARSA** | **Arzberg** | **82.17** | **327** | *i* P | | **P** | **06 21 13.7** | **-0.5** |
| | comp=Z,2.8nm,0.7s | | | | | | | |
| **SOKA** | **Soboth** | **82.83** | **326** | *i* P | | **P** | **06 21 17.9** | **+0.1** |
| | comp=Z,12nm,1.2s | | | | | | | |
| **KBA** | **Koelnbreinsper** | **83.23** | **328** | *i* PcP | | **P** | **06 21 21.1** | **+1.2** |
| | comp=Z,7.7nm,0.9s | | | | | | | |
| **MYKA** | **Terra Mystica** | **83.46** | **327** | *i* P | | **P** | **06 21 20.4** | **-0.6** |
| | comp=Z,3.5nm,0.6s | | | | | | | |
| **ABTA** | **Abfaltersbach** | **83.84** | **328** | *e*P | | **P** | **06 21 22.9** | **-0.1** |
| | comp=Z,3.1nm,0.8s | | | | | | | |
| **MOTA** | **Moosalm** | **83.94** | **329** | *i* P | | **P** | **06 21 23.4** | **-0.2** |
| | comp=Z,7.4nm,1.1s | | | | | | | |
| **RETA** | **Reutte** | **83.97** | **329** | *e*P | | **P** | **06 21 23.9** | **+0.3** |
| | comp=Z,7.7nm,0.9s | | | | | | | |
| **BFO** | **Black Forest** | **84.22** | **331** | *i* P | | **P** | **06 21 25.7** | **+0.9** |
| **FETA** | **Feichten** | **84.36** | **329** | *i* P | | **P** | **06 21 25.7** | **0.0** |
| | comp=Z,4.2nm,0.7s | | | | | | | |
| **DAVA** | **Damuels** | **84.48** | **330** | *i* P | | **P** | **06 21 26.3** | **0.0** |
| | comp=Z,14nm,1.1s | | | | | | | |
| **PPT** | **Papeete** | **84.76** | **117** | LR | | LR | 07 02 20.9 | |
| | comp=Z,26nm,18.6s,baz=18,slow=38 | | | | | | | |
| **FUORN** | **Ofenpass-Fuorn** | **84.87** | **329** | *e*P | | **P** | **06 21 28.7** | **+0.4** |
| **TXAR** | **Lajitas Array** | **88.61** | **53** | P | | **P** | **06 21 48.1** | **+1.4** |
| | comp=Z,0.6nm,0.6s,baz=302,slow=3.4,SNR=9.6 | | | | | | | |
| **ESDC** | **Sonseca Array** | **96.14** | **334** | LR | | LR | 07 10 56.9 | |
| | comp=Z,46nm,18.4s,baz=35,slow=39 | | | | | | | |
| **LPAZ** | **La Paz** | **145.28** | **59** | PKPbc | | **PKPdf** | **06 28 32.8** | **+0.7** |
| | comp=Z,1.1nm,0.5s,baz=321,slow=2.5,SNR=4.9 | | | | | | | |

*ISK* ***18*** *06:46:50.1,38˚.91N×43˚.52E,h2km, ML2.2*
*ISCJB* ***18*** *06:46:51.8±0.6,38˚.94N±0˚.03×43˚.54E±0˚.05,h15km±6km, Error ellipse: s-maj=7.1km s-min=4.5km az=30.0*
*CSEM* ***18*** *06:46:51.4±0.2,38˚.95N×43˚.52E,h10km, ML2.9, Error ellipse: s-maj=5.0km s-min=4.2km az=131.0*
*DDA* ***18*** *06:46:51.4,38˚.91N×43˚.51E,h7km, Ml2.9*

**ISC 18 06:46:51.7±0.9, 38˚.92N±0˚.03×43˚.51E±0˚.03, h7km±7km, n18, σ0s83/34, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VMUR** | **Van-Muradiye** | **0.09** | **35** | *i* P | **Pg** | **06 46 53.5** | **-0.5** |
| VMUR | | | | *i* S | **Sg** | **06 46 56.7** | **+1.1** |
| **VMUR** | **Van-Muradiye** | **0.09** | **35** | P | **Pg** | **06 46 53.5** | **-0.5** |
| VMUR | | | | S | **Sg** | **06 46 56.7** | **+1.1** |
| **VANB** | **Van** | **0.34** | **196** | *e*PG | **Pg** | **06 46 59.0** | **-1.1** |
| VANB | | | | *e*SG | **Sb** | **06 47 05.6** | **-0.1** |
| **VANB** | **Van** | **0.34** | **196** | *e*Pg | **Pb** | **06 46 59.0** | **-1.1** |
| VANB | | | | *e*Sg | **Sb** | **06 47 05.6** | **-0.1** |
| **CLDR** | **Caldiran** | **0.39** | **55** | *e*PG | **Pg** | **06 46 58.8** | **-0.6** |
| CLDR | | | | *e*SG | **Sg** | **06 47 05.0** | **+0.4** |
| **CLDR** | **Caldiran** | **0.39** | **55** | *i* P | **Pg** | **06 46 59.0** | **-0.4** |
| CLDR | | | | *i* S | **Sg** | **06 47 05.5** | **+0.9** |
| **CLDR** | **Caldiran** | **0.39** | **55** | *e*Pg | **Pg** | **06 46 58.8** | **-0.6** |
| **CLDR** | **Caldiran** | **0.39** | **55** | P | **Pg** | **06 46 59.0** | **-0.4** |
| CLDR | | | | *e*Sg | **Sg** | **06 47 05.0** | **+0.4** |
| **TVAN** | **Van** | **0.40** | **192** | *i* P | **Pg** | **06 46 59.4** | **-0.2** |
| TVAN | | | | *i* S | **Sb** | **06 47 07.5** | **-0.1** |
| **TVAN** | **Van** | **0.40** | **192** | P | **Pg** | **06 46 59.3** | **-0.2** |
| TVAN | | | | S | **Sb** | **06 47 07.5** | **-0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.62** | **260** | *i* P | **Pg** | **06 47 03.5** | **-0.3** |
| ADCV | | | | *i* S | **Sb** | **06 47 13.4** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.62** | **260** | P | **Pg** | **06 47 03.5** | **-0.3** |
| ADCV | | | | S | **Sb** | **06 47 13.4** | **-0.6** |
| **TUTA** | **Tutak** | **0.72** | **312** | *i* P | **Pg** | **06 47 04.7** | **-1.0** |
| TUTA | | | | *i* S | **Sg** | **06 47 15.9** | **+0.7** |
| **TUTA** | **Tutak** | **0.72** | **312** | P | **Pg** | **06 47 04.7** | **-1.0** |
| TUTA | | | | S | **Sg** | **06 47 15.9** | **+0.7** |
| **AGRB** | **Hanur-Agry** | **0.77** | **329** | *e*PG | **Pg** | **06 47 05.9** | **-0.6** |
| AGRB | | | | *e*SG | **Sb** | **06 47 18.0** | **-0.2** |
| **AGRB** | **Hanur-Agry** | **0.77** | **329** | *e*Pg | **Pg** | **06 47 05.9** | **-0.6** |
| AGRB | | | | *e*Sg | **Sb** | **06 47 18.0** | **-0.2** |
| **EKAR** | **Karacoban** | **1.17** | **287** | *i* P | **Pn** | **06 47 14.7** | **0.0** |
| EKAR | | | | *i* S | **Sn** | **06 47 33.9** | **+2.9** |
| **EKAR** | **Karacoban** | **1.17** | **287** | P | **Pn** | **06 47 14.7** | **0.0** |

*ISK* ***18*** *06:55:27.6,38˚.72N×43˚.47E,h19km, ML2.2*
*ISCJB* ***18*** *06:55:29.0±0.6,38˚.72N±0˚.03×43˚.52E±0˚.05,h14km±4km, Error ellipse: s-maj=7.1km s-min=4.3km az=28.5*
*CSEM* ***18*** *06:55:28.2±0.3,38˚.72N×43˚.51E,h15km, ML2.2, Error ellipse: s-maj=6.7km s-min=4.9km az=119.0*
*DDA* ***18*** *06:55:28.7,38˚.72N×43˚.49E,h7km, Ml2.8*

**ISC 18 06:55:28.4±1.0, 38˚.72N±0˚.03×43˚.50E±0˚.03, h15km±8km, n20, σ0s54/36, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.15** | **215** | *e*PG | **Pb** | **06 55 33.3** | **+0.2** |
| VANB | | | | *e*SG | **Sb** | **06 55 37.3** | **+1.1** |
| **VANB** | **Van** | **0.15** | **215** | *e*Pg | **Pb** | **06 55 33.3** | **+0.2** |
| VANB | | | | *e*Sg | **Sb** | **06 55 37.3** | **+1.1** |
| **TVAN** | **Van** | **0.21** | **201** | *i* P | **Pg** | **06 55 33.1** | **-0.2** |
| TVAN | | | | *i* S | **Sb** | **06 55 37.8** | **0.0** |
| **TVAN** | **Van** | **0.21** | **201** | P | **Pg** | **06 55 33.1** | **-0.2** |
| TVAN | | | | S | **Sb** | **06 55 37.8** | **0.0** |
| **VMUR** | **Van-Muradiye** | **0.27** | **11** | *i* P | **Pg** | **06 55 34.3** | **0.0** |
| VMUR | | | | *i* S | **Sb** | **06 55 39.9** | **+0.2** |
| **VMUR** | **Van-Muradiye** | **0.27** | **11** | P | **Pg** | **06 55 34.3** | **0.0** |
| VMUR | | | | S | **Sb** | **06 55 39.9** | **+0.2** |
| **ERCV** | **ERCIS-VAN** | **0.32** | **337** | *e*PG | **Pg** | **06 55 34.8** | **-0.4** |
| ERCV | | | | *e*SG | **Sg** | **06 55 40.1** | **+0.3** |
| **ERCV** | **ERCIS-VAN** | **0.32** | **337** | *e*Pg | **Pg** | **06 55 34.8** | **-0.4** |
| ERCV | | | | *e*Sg | **Sg** | **06 55 40.1** | **+0.3** |
| **CLDR** | **Caldiran** | **0.53** | **37** | *e*PG | **Pg** | **06 55 38.9** | **-0.1** |
| CLDR | | | | *e*SG | **Sb** | **06 55 47.2** | **0.0** |
| **CLDR** | **Caldiran** | **0.53** | **37** | *i* P | **Pg** | **06 55 39.2** | **+0.2** |
| CLDR | | | | *i* S | **Sb** | **06 55 48.0** | **+0.8** |
| **CLDR** | **Caldiran** | **0.53** | **37** | *e*Pg | **Pg** | **06 55 38.9** | **-0.1** |
| **CLDR** | **Caldiran** | **0.53** | **37** | P | **Pg** | **06 55 39.2** | **+0.2** |
| CLDR | | | | *e*Sg | **Sb** | **06 55 47.2** | **0.0** |
| CLDR | | | | S | **Sb** | **06 55 48.0** | **+0.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.61** | **278** | *i* P | **Pg** | **06 55 40.1** | **-0.4** |
| ADCV | | | | *i* S | **Sb** | **06 55 50.2** | **+0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.61** | **278** | P | **Pg** | **06 55 40.1** | **-0.4** |
| ADCV | | | | S | **Sb** | **06 55 50.2** | **+0.6** |
| **TUTA** | **Tutak** | **0.86** | **322** | *i* P | **Pg** | **06 55 44.3** | **-0.9** |
| TUTA | | | | *i* S | **Sb** | **06 55 57.2** | **+0.4** |
| **TUTA** | **Tutak** | **0.86** | **322** | P | **Pg** | **06 55 44.3** | **-0.9** |
| TUTA | | | | S | **Sb** | **06 55 57.2** | **+0.4** |
| **HAKT** | **HAKKARI** | **1.17** | **172** | *i* P | **Pn** | **06 55 49.9** | **-0.7** |
| **HAKT** | **HAKKARI** | **1.17** | **172** | P | **Pn** | **06 55 49.8** | **-0.7** |
| **EKAR** | **Karacoban** | **1.24** | **296** | *i* P | **Pg** | **06 55 53.0** | **+0.7** |
| **EKAR** | **Karacoban** | **1.24** | **296** | P | **Pg** | **06 55 53.0** | **+0.7** |

*IDC* ***18*** *07:09:49.1±1.3,35˚.86N×142˚.97E,h0km,mb3.6/5, mb1 3.8/8,mb1mx3.6/64,mbtmp3.7/8,ML3.2/3,MS3.2/3, Ms1 3.2/3,ms1mx2.6/41, Error ellipse: s-maj=30.4km s-min=21.7km az=70.0*
*ISCJB* ***18*** *07:09:51.9±0.8,36˚.05N±0˚.04×142˚.89E±0˚.08,h33km, mb3.6/5,MS3.6/2, Error ellipse: s-maj=9.1km s-min=5.9km az=175.9*
*JMA* ***18*** *07:09:53.6±0.2,36˚.12N×142˚.73E,h91km,M3.2*

**ISC 18 07:09:54.3±1.1, 36˚.07N±0˚.05×142˚.80E±0˚.09, h35km, n26, σ1s64/25, mb3.6/5, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CHOJ** | **Chosi** | **1.62** | **258** | P | **Pn** | **07 10 20.6** | **+0.3** |
| **JHO** | **Hitachi** | **1.88** | **287** | P | **Pn** | **07 10 23.5** | **-0.4** |
| **ONAJ** | **Iwakimizuishiy** | **1.91** | **303** | P | **Pn** | **07 10 23.9** | **-0.5** |
| ONAJ | | | | S | **Sn** | **07 10 46.7** | **-0.6** |
| **JFK** | **Kawauchi** | **2.02** | **311** | P | **Pn** | **07 10 25.3** | **-0.6** |
| JFK | | | | S | **Sn** | **07 10 50.3** | **+0.4** |
| **BSO1** | **Boso 1** | **2.05** | **227** | S | **Sn** | **07 10 51.6** | **+1.7** |
| **JFT** | **Otama** | **2.45** | **307** | P | **Pn** | **07 10 32.0** | **+0.2** |
| JFT | | | | *e*S | **Sn** | **07 10 59.0** | **-1.5** |
| **JAG** | **Ashikaga** | **2.73** | **278** | P | **Pn** | **07 10 35.7** | **+0.1** |
| **JOD2** | **Odawara 2** | **3.12** | **256** | P | **Pn** | **07 10 41.3** | **+0.2** |
| **JMK** | **Ichinoseki** | **3.14** | **337** | P | **Pn** | **07 10 40.1** | **-1.1** |
| JMK | | | | *e*S | **Sn** | **07 11 17.4** | **-0.1** |
| **JRY** | **Ryogami san** | **3.16** | **270** | P | **Pn** | **07 10 41.7** | **+0.2** |
| **MJAR** | **Matsushiro Arr** | **3.74** | **279** | Pn | **Pn** | **07 10 49.8** | **+0.3** |
| | 2.5nm,0.3s,baz=106,slow=8.2,SNR=18 | | | | | | |
| **MAT** | **Matsushiro** | **3.74** | **279** | P | **Pn** | **07 10 50.7** | **+1.2** |
| MAT | | | | *e*S | **Sn** | **07 11 27.0** | **-5.3** |
| **JHJ** | **Hachijo jima 2** | **3.85** | **221** | Pn | **Pn** | **07 10 48.7** | **-2.3** |
| | 22nm,0.3s,baz=73,slow=19,SNR=4.6 | | | | | | |
| JHJ | | | | Sn | **Sn** | **07 11 33.4** | **-1.7** |
| | 39nm,0.3s,baz=85,slow=23,SNR=4.5 | | | | | | |
| **ASAJ** | **Asahikawa** | **8.04** | **359** | Pn | **Pn** | **07 11 46.8** | **-1.8** |
| | 0.9nm,0.3s,baz=186,slow=18,SNR=3.7 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **11.58** | **318** | Pn | Pn | 07 12 39.9 | +2.8 |
| | 0.2nm,0.3s,baz=106,slow=15,SNR=2.9 | | | | | | |
| **KSRS** | **Korea Array** | **12.01** | **281** | LR | LR | 07 17 10.4 | |
| | comp=Z,31nm,20.4s,baz=4.0,slow=36 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **26.70** | **121** | T | T | 07 43 09.1 | |
| | baz=313,slow=75,SNR=4.2 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **26.70** | **121** | T | T | 07 43 02.3 | |
| | baz=313,slow=75,SNR=4.6 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **26.71** | **121** | T | T | 07 43 16.0 | |
| | baz=313,slow=75,SNR=3.7 | | | | | | |
| **SONM** | **Songino Array** | **29.25** | **305** | P | **P** | **07 15 55.3** | **+2.3** |
| | 0.5nm,0.5s,baz=103,slow=8.8,SNR=5.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **45.58** | **303** | P | **P** | **07 18 12.2** | **+1.4** |
| | 0.3nm,0.6s,baz=89,slow=7.7,SNR=3.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **56.28** | **190** | P | **P** | **07 19 29.9** | **-1.5** |
| | 0.7nm,0.6s,baz=9.0,slow=7.1,SNR=4.1 | | | | | | |
| **ASAR** | **Alice Springs** | **60.00** | **189** | P | **P** | **07 19 56.9** | **-0.6** |
| | 0.5nm,0.8s,baz=19,slow=8.8,SNR=3.4 | | | | | | |
| **ARCES** | **ARCESS Array B** | **65.29** | **340** | LR | LR | 07 52 14.2 | |
| | comp=Z,15nm,18.4s,baz=294,slow=39 | | | | | | |
| **ASF** | **Jabal al Asfar** | **82.97** | **305** | LR | LR | 08 03 05.8 | |
| | comp=Z,63nm,21.2s,slow=38 | | | | | | |
| **TXAR** | **Lajitas Array** | **89.82** | **53** | P | **P** | **07 22 49.7** | **0.0** |
| | 0.2nm,0.6s,baz=327,slow=3.4,SNR=4.0 | | | | | | |

**MAN 18 07:15:03, 8˚.25N×126˚.51E, h11km, mb4.3, ML3.1, MS2.9, 1C, Mindanao**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **BIPH** | **Bislig** | **0.16** | **247** | ⇑*i*P | Pb | 07 15 09.6 | +1.6 |
| BIPH | | | | *i* S | Sg | 07 15 14.5 | +5.4 |
| **BUTP** | **Butuan** | **1.13** | **309** | *e*P | Pb | 07 15 23.7 | -0.9 |
| BUTP | | | | *e*S | Sn | 07 15 40.9 | +0.5 |
| **BUKP** | **Musuan** | **1.48** | **256** | *e*P | Pn | 07 15 29.0 | -0.6 |
| BUKP | | | | *e*S | Sb | 07 15 49.6 | +0.3 |
| **SCPH** | **Surigao** | **1.83** | **327** | *e*P | Pn | 07 15 33.3 | -1.1 |
| SCPH | | | | *e*S | Sn | 07 15 57.5 | 0.0 |
| **BESP** | **Borongan** | **3.50** | **343** | *e*P | Pn | 07 15 58.6 | +1.2 |

*ISCJB* ***18*** *07:17:29.3±0.6,49˚.98N±0˚.03×78˚.56E±0˚.08,h0km, Error ellipse: s-maj=7.4km s-min=3.6km az=168.0*
*NNC* ***18*** *07:17:30.8±0.5,50˚.06N×78˚.83E,h0km,mb3.3,mpv3.0, Error ellipse: s-maj=11.7km s-min=2.4km az=69.0, Suspected Mining explosion.*
*IDC* ***18*** *07:17:31.3±0.8,50˚.08N×78˚.83E,h0km,mb1 3.2/3, mb1mx2.9/56,mbtmp3.2/3,ML3.0/3, Error ellipse: s-maj=10.7km s-min=5.8km az=55.0*

**ISC 18 07:17:31.1±0.9, 50˚.04N±0˚.05×78˚.75E±0˚.07, h0km, n18, σ0s65/30, 15C-9D, Eastern Kazakhstan**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KUR07** | **Kurchatov Arra** | **0.56** | **345** | ⇑P | **Pg** | **07 17 41.6** | **-0.2** |
| KUR07 | | | | ⇑S | **Sg** | **07 17 50.0** | **+0.9** |
| **KUR06** | **Kurchatov Arra** | **0.58** | **346** | ⇑P | **Pg** | **07 17 42.0** | **-0.2** |
| KUR06 | | | | ⇑S | **Sg** | **07 17 50.6** | **+0.9** |
| **KUR14** | **Kurchatov Arra** | **0.58** | **350** | ⇓P | **Pg** | **07 17 41.8** | **-0.4** |
| KUR14 | | | | ⇓S | **Sg** | **07 17 50.2** | **+0.5** |
| **KUR15** | **Kurchatov Arra** | **0.59** | **349** | ⇑P | **Pg** | **07 17 42.1** | **-0.3** |
| KUR15 | | | | ⇑S | **Sg** | **07 17 50.6** | **+0.6** |
| **KURBB** | **Kurchatov Arra** | **0.60** | **347** | Pg | **Pg** | **07 17 42.1** | **-0.4** |
| | 6.9nm,0.3s,baz=165,slow=17,SNR=504 | | | | | | |
| KURBB | | | | Lg | Lg | 07 17 50.8 | |
| | 5.3nm,0.3s,baz=159,slow=36,SNR=31 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **0.60** | **347** | ⇑P | **Pg** | **07 17 42.4** | **-0.1** |
| | 48nm,0.3s | | | | | | |
| KURBB | | | | ⇑S | **Sg** | **07 17 51.4** | **+1.1** |
| | 63nm,0.4s | | | | | | |
| **KUR16** | **Kurchatov Arra** | **0.60** | **345** | ⇑P | **Pg** | **07 17 42.6** | **-0.1** |
| KUR16 | | | | ⇓S | **Sg** | **07 17 51.0** | **+0.4** |
| **KUR05** | **Kurchatov Arra** | **0.61** | **348** | ⇑P | **Pg** | **07 17 42.6** | **-0.3** |
| KUR05 | | | | ⇑S | **Sg** | **07 17 51.1** | **+0.2** |
| **KUR17** | **Kurchatov Arra** | **0.61** | **343** | ⇓P | **Pg** | **07 17 42.7** | **-0.2** |
| KUR17 | | | | ⇓S | **Sg** | **07 17 51.5** | **+0.6** |
| **KUR04** | **Kurchatov Arra** | **0.63** | **348** | ⇑P | **Pg** | **07 17 42.9** | **-0.3** |
| KUR04 | | | | ⇑S | **Sg** | **07 17 51.9** | **+0.5** |
| **KURK** | **Kurchatov** | **0.68** | **353** | ⇑P | **Pg** | **07 17 43.7** | **-0.4** |
| | 16nm,0.3s | | | | | | |
| KURK | | | | ⇓S | **Sg** | **07 17 52.8** | **-0.1** |
| | 13nm,0.3s | | | | | | |
| **MK31** | **Makanchi Array** | **4.02** | **143** | ⇑Pn | **Pn** | **07 18 34.6** | **+0.7** |
| | 0.2nm,0.1s,baz=324,slow=14,SNR=25 | | | | | | |
| MK31 | | | | ⇓Lg | Lg | 07 19 37.1 | |
| | 7.2nm,0.5s,baz=329,slow=32,SNR=18 | | | | | | |
| **MKAR** | **Makanchi Array** | **4.02** | **143** | Pn | **Pn** | **07 18 34.0** | **+0.1** |
| | 0.9nm,0.3s,baz=324,slow=11,SNR=78 | | | | | | |
| MKAR | | | | Pg | **Pb** | **07 18 42.2** | **-0.5** |
| | 1.8nm,0.3s,baz=322,slow=15,SNR=31 | | | | | | |
| MKAR | | | | Sn | **Sn** | **07 19 21.8** | **+0.1** |
| | 1.1nm,0.3s,baz=334,slow=18,SNR=3.7 | | | | | | |
| MKAR | | | | Lg | Lg | 07 19 35.5 | |
| | 3.4nm,0.3s,baz=328,slow=27,SNR=12 | | | | | | |
| **I46RU** | **ZALESOVO INFRA** | **5.42** | **41** | *i* | | 07 50 40.0 | |
| | baz=222,slow=349,SNR=3.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **5.42** | **41** | Pn | **Pn** | **07 18 53.4** | **+0.3** |
| | 1.9nm,0.3s,baz=230,slow=14,SNR=17 | | | | | | |
| ZALV | | | | Lg | Lg | 07 20 23.9 | |
| | 0.9nm,0.3s,baz=231,slow=26,SNR=5.8 | | | | | | |
| **BVA0** | **Borovoye Array** | **6.01** | **303** | ⇓Pn | **Pn** | **07 19 02.5** | **+1.3** |
| | 0.4nm,0.3s,baz=97,slow=15,SNR=9.9 | | | | | | |
| BVA0 | | | | ⇓Sn | **Sn** | **07 20 09.7** | **-1.0** |
| | 1.4nm,0.5s,baz=102,slow=26,SNR=4.2 | | | | | | |
| **BVAR** | **Borovoye Array** | **6.01** | **303** | Pn | **Pn** | **07 19 01.1** | **-0.1** |
| | 0.4nm,0.3s,baz=105,slow=14,SNR=7.9 | | | | | | |
| BVAR | | | | Sn | **Sn** | **07 20 09.0** | **-1.7** |
| | 0.7nm,0.3s,baz=112,slow=19,SNR=5.8 | | | | | | |
| BVAR | | | | Lg | Lg | 07 20 47.1 | |
| | 0.4nm,0.3s,baz=122,slow=27,SNR=4.3 | | | | | | |
| **AAK** | **Ala-Archa** | **7.97** | **203** | Lg | Lg | 07 21 44.7 | |
| | 0.3nm,0.3s,baz=67,slow=24,SNR=3.8 | | | | | | |

*ISCJB* ***18*** *07:20:37.9±0.4,36˚.42N±0˚.02×25˚.46E±0˚.04,h5km±2km, Error ellipse: s-maj=5.2km s-min=3.3km az=172.7*
*CSEM* ***18*** *07:20:37.7±0.1,36˚.39N×25˚.48E,h5km, ML3.1, Error ellipse: s-maj=5.2km s-min=3.5km az=85.0*
*ATH* ***18*** *07:20:37.6,36˚.40N×25˚.48E,h7km±1km,ML3.0/13, Error ellipse: s-maj=1.8km s-min=0.8km az=282.0*

*THE* ***18*** *07:20:38.2,36˚.41N×25˚.40E,h2km,ML3.1/6, Error ellipse: s-maj=0.8km s-min=0.2km az=85.0*
*ISK* ***18*** *07:20:38.7,36˚.43N×25˚.58E,h7km, ML2.6*

**ISC 18 07:20:37.8±0.8, 36˚.41N±0˚.02×25˚.48E±0˚.03, h7km±3km, n65, σ0s77/99, Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **THR8** | **Santorini-Mono** | **0.00** | **336** | P | **Pg** | **07 20 38.8** | **-0.2** |
| **THR8** | **Santorini-Mono** | **0.00** | **336** | P | **Pg** | **07 20 38.8** | **-0.2** |
| **SANT** | **Santorini** | **0.04** | **206** | P | **Pg** | **07 20 40.4** | **+1.1** |
| SANT | | | | | AML | AML | 07 20 41.1 | |
| | comp=E,67659μm,0.2s | | | | | | | |
| SANT | | | | | AML | AML | 07 20 41.3 | |
| | comp=N,31109μm,0.2s | | | | | | | |
| SANT | | | | S | **Sg** | **07 20 41.9** | **+1.6** |
| **SANT** | **Santorini** | **0.04** | **206** | P | **Pg** | **07 20 39.7** | **+0.4** |
| SANT | | | | S | **Sg** | **07 20 40.9** | **+0.6** |
| **SANT** | **Santorini** | **0.04** | **206** | P | **Pg** | **07 20 39.7** | **+0.4** |
| SANT | | | | S | **Sg** | **07 20 40.9** | **+0.6** |
| **THR7** | **Fira-Santorini** | **0.04** | **292** | P | **Pg** | **07 20 38.1** | **-1.2** |
| **THR7** | **Fira-Santorini** | **0.04** | **292** | P | **Pg** | **07 20 38.9** | **-0.4** |
| **THR7** | **Fira-Santorini** | **0.04** | **292** | P | **Pg** | **07 20 38.9** | **-0.4** |
| **THT1** | **Athinios (Pele** | **0.04** | **244** | P | **Pg** | **07 20 39.2** | **-0.1** |
| THT1 | | | | S | **Sg** | **07 20 39.5** | **-0.8** |
| THT1 | | | | | AML | AML | 07 20 40.0 | |
| | comp=N,67754μm,0.2s | | | | | | | |
| THT1 | | | | | AML | AML | 07 20 40.1 | |
| **THT1** | **Athinios (Pele** | **0.04** | **244** | P | **Pg** | **07 20 39.1** | **-0.1** |
| **THT1** | **Athinios (Pele** | **0.04** | **244** | P | **Pg** | **07 20 39.1** | **-0.1** |
| THT1 | | | | S | **Sg** | **07 20 39.8** | **-0.5** |
| **THR2** | **Thira island,** | **0.06** | **319** | P | **Pg** | **07 20 38.4** | **-1.0** |
| **THR2** | **Thira island,** | **0.06** | **319** | P | **Pg** | **07 20 38.4** | **-1.0** |
| **THT2** | **Imerovigli** | **0.06** | **302** | P | **Pg** | **07 20 39.2** | **-0.2** |
| THT2 | | | | S | **Sg** | **07 20 40.0** | **-0.6** |
| **THT2** | **Imerovigli** | **0.06** | **302** | P | **Pg** | **07 20 39.2** | **-0.2** |
| THT2 | | | | S | **Sg** | **07 20 40.0** | **-0.6** |
| **THR3** | **Thira Island,** | **0.06** | **273** | P | **Pg** | **07 20 38.3** | **-1.2** |
| **THR3** | **Thira Island,** | **0.06** | **273** | P | **Pg** | **07 20 38.5** | **-1.0** |
| **THR3** | **Thira Island,** | **0.06** | **273** | P | **Pg** | **07 20 38.5** | **-1.0** |
| **SAP1** | **Santorini-Akro** | **0.08** | **235** | P | **Pg** | **07 20 39.9** | **+0.1** |
| SAP1 | | | | | AML | AML | 07 20 41.6 | |
| SAP1 | | | | | AML | AML | 07 20 41.7 | |
| SAP1 | | | | S | **Sg** | **07 20 42.0** | **+0.9** |
| **SAP1** | **Santorini-Akro** | **0.08** | **235** | P | **Pg** | **07 20 39.8** | **0.0** |
| SAP1 | | | | S | **Sg** | **07 20 40.5** | **-0.7** |
| **SAP1** | **Santorini-Akro** | **0.08** | **235** | P | **Pg** | **07 20 39.8** | **0.0** |
| SAP1 | | | | S | **Sg** | **07 20 40.5** | **-0.7** |
| **CMBO** | **Columbo, Santo** | **0.09** | **318** | P | **Pg** | **07 20 39.5** | **-0.4** |
| CMBO | | | | S | **Sg** | **07 20 40.4** | **-1.0** |
| CMBO | | | | | AML | AML | 07 20 40.9 | |
| | comp=N,90194μm,0.4s | | | | | | | |
| CMBO | | | | | AML | AML | 07 20 42.0 | |
| | comp=E,70667μm,0.3s | | | | | | | |
| **CMBO** | **Columbo, Santo** | **0.09** | **318** | P | **Pg** | **07 20 39.6** | **-0.3** |
| CMBO | | | | S | **Sg** | **07 20 40.8** | **-0.5** |
| **CMBO** | **Columbo, Santo** | **0.09** | **318** | P | **Pg** | **07 20 39.6** | **-0.3** |
| CMBO | | | | S | **Sg** | **07 20 40.8** | **-0.5** |
| **THR5** | **Thira Island,** | **0.11** | **276** | P | **Pg** | **07 20 39.1** | **-1.0** |
| **THR5** | **Thira Island,** | **0.11** | **276** | P | **Pg** | **07 20 39.2** | **-1.0** |
| **SAP4** | **Santorini-Oia** | **0.11** | **308** | P | **Pg** | **07 20 39.7** | **-0.4**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MJAR** | **Matsushiro Arr** | **5.64** | **337** | Pn | Pn | 07 35 45.1 | -0.8 |
| | 0.4nm,0.3s,baz=159,slow=12,SNR=5.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **46.99** | **307** | P | P | 07 42 53.8 | +0.1 |
| | 0.5nm,0.9s,baz=73,slow=8.8,SNR=4.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **51.40** | **188** | P | P | 07 43 26.8 | -0.8 |
| | 0.4nm,0.5s,baz=6.1,slow=7.6,SNR=8.3 | | | | | | |
| **ASAR** | **Alice Springs** | **55.13** | **189** | P | P | 07 43 55.5 | +0.4 |
| | 0.2nm,0.7s,baz=13,slow=8.7,SNR=2.9 | | | | | | |

**IDC 18 07:49:06.6±2.4, 7.63°S×130.57°E, h0km, mb3.6/1, mb1 3.5/3, mb1mx3.2/44, mbtmp3.3/3, ML3.3/2, Error ellipse: s-maj=130.7km s-min=33.0km az=70.0, Tanimbar Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **12.77** | **164** | Pn | Pn | 07 52 09.1 | -0.6 |
| | 0.2nm,0.3s,baz=347,slow=13,SNR=11 | | | | | | |
| WRA | | | | Sn | Sn | 07 54 24.9 | -7.9 |
| | 0.4nm,0.3s,baz=345,slow=23,SNR=6.7 | | | | | | |
| **ASAR** | **Alice Springs** | **16.26** | **169** | Pn | Pn | 07 52 57.3 | +0.6 |
| | 0.1nm,0.3s,baz=351,slow=11,SNR=2.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **69.06** | **327** | P | P | 08 00 14.3 | 0.0 |
| | 0.5nm,0.8s,baz=124,slow=7.7,SNR=4.2 | | | | | | |

*ISCJB **18** 07:53:04.2±1.2, 14.87°S±0.08°×167.2E±0.2, h129km, mb3.7/6, Error ellipse: s-maj=29.8km s-min=11.1km az=178.3*

*IDC **18** 07:53:06.2±6.9, 14.91°S×167.27E, h138km±67km, mb3.6/6, mb1 3.8/7, mb1mx3.5/36, mbtmp4.0/7, Error ellipse: s-maj=57.3km s-min=28.3km az=166.0*

**ISC 18 07:53:05.2±1.2, 14.8S±0.1°×167.2E±0.2, h129km, n9, σ1°09/9, mb3.8/5, Vanuatu Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **7.24** | **186** | P | **Pn** | **07 54 49.8** | **+1.3** |
| | 3.2nm,0.3s,baz=89,slow=14,SNR=24 | | | | | | |
| DZM | | | | S | **Sn** | **07 56 07.7** | **-1.5** |
| | baz=143,slow=20,SNR=2.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **31.75** | **256** | P | **P** | **07 59 17.2** | **-0.2** |
| | 0.9nm,0.9s,baz=86,slow=7.8,SNR=4.8 | | | | | | |
| **ASAR** | **Alice Springs** | **32.59** | **249** | P | **P** | **07 59 24.1** | **-0.6** |
| | 1.2nm,0.7s,baz=77,slow=8.5,SNR=8.0 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **39.95** | **259** | P | **P** | **08 00 28.7** | **+1.4** |
| | 1.3nm,0.8s,baz=90,slow=11,SNR=3.0 | | | | | | |
| **ILAR** | **Eielson Array** | **86.64** | **18** | P | **P** | **08 05 33.6** | **-0.2** |
| | 0.6nm,0.8s,baz=222,slow=4.8,SNR=5.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **97.25** | **316** | P | Pdif | 08 06 24.2 | +0.6 |
| | 0.5nm,0.8s,baz=78,slow=9.0,SNR=3.9 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **97.45** | **324** | P | **P** | **08 06 23.5** | **-0.7** |
| | 0.3nm,0.3s,baz=114,slow=3.5,SNR=2.6 | | | | | | |
| **ARCES** | **ARCESS Array B** | **120.34** | **345** | PKP | **PKPdf** | **08 11 40.5** | **-0.2** |
| | 1.5nm,0.7s,baz=66,slow=2.0,SNR=7.6 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **165.85** | **265** | PKP | **PKPdf** | **08 12 56.2** | **+0.5** |
| | 0.4nm,0.8s,baz=82,slow=1.5,SNR=2.2 | | | | | | |

*DDA **18** 07:59:04.5, 38.80°N×43.60°E, h7km, Ml2.7*
*ISK **18** 07:59:04.0, 38.86°N×43.52E, h5km, ML2.1*
*ISCJB **18** 07:59:05.7±0.7, 38.88°N±0.04×43.55E±0.05, h14km±6km, Error ellipse: s-maj=8.0km s-min=4.8km az=41.1*
*CSEM **18** 07:59:05.0±0.3, 38.87°N×43.52E, h10km, ML2.7, Error ellipse: s-maj=8.8km s-min=6.2km az=118.0*

**ISC 18 07:59:05.0±1.0, 38.87N±0.03×43.52E±0.04, h13km±7km, n15, σ0°66/25, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.13** | **19** | *i* P | **Pg** | **07 59 08.1** | **-0.5** |
| VMUR | | | | *i* S | **Sg** | **07 59 11.6** | **+0.6** |
| **VMUR** | **Van-Muradiye** | **0.13** | **19** | P | **Pg** | **07 59 08.1** | **-0.5** |
| VMUR | | | | S | **Sg** | **07 59 11.6** | **+0.6** |
| **VANB** | **Van** | **0.29** | **201** | *e*PG | **Pb** | **07 59 12.2** | **0.0** |
| VANB | | | | *e*SG | **Sb** | **07 59 18.6** | **+1.7** |
| **VANB** | **Van** | **0.29** | **201** | *e*Pg | **Pb** | **07 59 12.2** | **0.0** |
| **CLDR** | **Caldiran** | **0.42** | **48** | *e*PG | **Pg** | **07 59 13.4** | **+0.1** |
| CLDR | | | | *e*SG | **Sb** | **07 59 20.2** | **-0.5** |
| **CLDR** | **Caldiran** | **0.42** | **48** | *i* P | **Pg** | **07 59 13.2** | **-0.2** |
| CLDR | | | | *i* S | **Sb** | **07 59 20.5** | **-0.2** |
| **CLDR** | **Caldiran** | **0.42** | **48** | *e*Pg | **Pg** | **07 59 13.4** | **+0.1** |
| CLDR | | | | *e*Sg | **Sb** | **07 59 20.3** | **-0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.62** | **265** | *i* P | **Pb** | **07 59 17.5** | **-0.4** |
| ADCV | | | | *i* S | **Sn** | **07 59 29.1** | **-0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.62** | **265** | P | **Pb** | **07 59 17.5** | **-0.4** |
| **GEVA** | **Gevas** | **0.66** | **213** | *i* P | **Pg** | **07 59 17.1** | **-0.8** |
| **GEVA** | **Gevas** | **0.66** | **213** | P | **Pg** | **07 59 17.1** | **-0.8** |
| **TUTA** | **Tutak** | **0.77** | **315** | *i* P | **Pb** | **07 59 20.0** | **-0.4** |
| TUTA | | | | *i* S | **Sn** | **07 59 34.0** | **+0.6** |
| **TUTA** | **Tutak** | **0.77** | **315** | P | **Pb** | **07 59 20.0** | **-0.4** |
| **AGRB** | **Hanur-Agry** | **0.82** | **330** | *e*PG | **Pb** | **07 59 20.9** | **-0.3** |
| AGRB | | | | *e*SG | **Sb** | **07 59 33.2** | **+1.0** |
| **AGRB** | **Hanur-Agry** | **0.82** | **330** | *e*Pg | **Pb** | **07 59 20.9** | **-0.3** |
| AGRB | | | | *e*Sg | **Sb** | **07 59 33.3** | **+1.0** |

*SJA **18** 08:00:36.5±0.8, 25.29S×69.85W, h60km, ML3.3, MW3.8*
*GUC **18** 08:00:37.9±0.8, 25.43S×69.67W, h90km±13km, ML3.7*
*ISCJB **18** 08:00:38.9±0.6, 25.42S±0.03×69.8W±0.1, h112km±15km, Error ellipse: s-maj=19.3km s-min=4.4km az=1.4*

**ISC 18 08:00:40.7±1.6, 25.43S±0.05×69.8W±0.1, h85km±35km, n20, σ1°06/30, 3C, Northern Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PB14** | **IPOC Station P** | **0.99** | **324** | *e*P | **Pn** | **08 01 00.2** | **0.0** |
| PB14 | | | | *i* S | **Sn** | **08 01 15.9** | **+1.0** |
| PB14 | | | | IAML | | 08 01 19.0 | |
| | comp=E,1μm,0.2s | | | | | | |
| **ANCH** | **Antofagasta** | **1.84** | **341** | ↑ *i* P | **Pn** | **08 01 10.4** | **-0.2** |
| ANCH | | | | *i* S | **Sn** | **08 01 34.8** | **+1.5** |
| **CDCH** | **Caldera** | **1.89** | **210** | *i* S | **Sn** | **08 01 35.2** | **+0.6** |
| **CPCH** | **Copiapo** | **2.00** | **195** | *e*P | **Pn** | **08 01 11.5** | **-1.2** |
| CPCH | | | | *i* S | **Sn** | **08 01 36.7** | **-0.4** |
| **PB10** | **IPOC Station P** | **2.04** | **339** | *e*P | **Pn** | **08 01 12.9** | **-0.4** |
| PB10 | | | | *i* S | **Sn** | **08 01 37.8** | **-0.3** |
| PB10 | | | | IAML | | 08 01 47.5 | |
| | comp=E,1μm,0.4s | | | | | | |
| **PB06** | **IPOC Station P** | **2.71** | **4** | ↑ *i* P | **Pn** | **08 01 21.6** | **-0.9** |
| PB06 | | | | *i* S | **Sn** | **08 01 54.2** | **-0.3** |
| PB06 | | | | IAML | | 08 02 03.1 | |
| | comp=E,278nm,0.4s | | | | | | |
| **PB04** | **IPOC Station P** | **3.10** | **353** | ↑ *i* P | **Pn** | **08 01 26.3** | **-1.3** |
| PB04 | | | | *i* S | **Sn** | **08 02 03.4** | **-0.4** |
| PB04 | | | | IAML | | 08 02 15.1 | |
| | comp=N,233nm,0.4s | | | | | | |
| **VCA** | **Vinchina** | **3.58** | **158** | *e*P | **Pn** | **08 01 34.9** | **+0.9** |
| VCA | | | | IAML | | 08 01 37.5 | |
| | comp=Z,40nm,0.5s | | | | | | |
| **LCO** | **Las Campanas** | **3.67** | **193** | *e*P | **Pn** | **08 01 35.5** | **+0.1** |
| LCO | | | | *e*S | **Sn** | **08 02 18.5** | **+0.8** |
| **AGUA** | **GUANDACOL** | **4.20** | **165** | *i* P | **Pn** | **08 01 42.7** | **+0.2** |
| AGUA | | | | *e*P | **Pn** | **08 01 43.5** | **+1.0** |
| AGUA | | | | *e*S | **Sn** | **08 02 32.1** | **+1.7** |
| **CYA** | **Choya** | **4.63** | **131** | *e*P | **Pn** | **08 01 48.2** | **-0.2** |
| **TLL** | **Tololo Astrono** | **4.81** | **191** | *e*P | **Pn** | **08 01 49.8** | **-1.1** |
| **AMOG** | **MOGNA** | **5.60** | **169** | *e*P | **Pn** | **08 02 00.6** | **-1.0** |
| **RTLL** | **Cerro Villicun** | **5.99** | **169** | *e*P | **Pn** | **08 02 05.9** | **-0.8** |
| **RTLS** | **Leoncito** | **6.36** | **176** | *e*P | **Pn** | **08 02 12.0** | **-0.1** |
| RTLS | | | | IAML | | 08 02 17.4 | |
| | comp=Z,9.2nm,0.3s | | | | | | |
| **RTCV** | **Cerro Valdivia** | **6.50** | **171** | *e*P | **Pn** | **08 02 13.2** | **-0.5** |
| **AUSP** | **Uspallata** | **6.78** | **177** | *e*P | **Pn** | **08 02 17.2** | **-0.6** |
| **ASAL** | **Salagasta** | **7.18** | **174** | *e*P | **Pn** | **08 02 24.3** | **+1.2** |
| ASAL | | | | *e*S | **Sn** | **08 03 42.4** | **-0.8** |
| **ARCO** | **CERRO ARCO** | **7.42** | **175** | *e*P | **Pn** | **08 02 28.9** | **+2.4** |
| **TCA** | **Tanti** | **7.44** | **144** | *e*P | **Pn** | **08 02 24.6** | **-2.0** |

**IDC 18 08:06:46.3±7.3, 20.27S×179.76E, h0km, mb4.0/2, mb1 4.3/2, mb1mx3.7/24, mbtmp4.0/2, Error ellipse: s-maj=309.0km s-min=63.4km az=146.0, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ASAR** | **Alice Springs** | **42.52** | **257** | P | P | 08 14 42.6 | -1.3 |
| | 0.8nm,0.4s,baz=98,slow=7.1,SNR=11 | | | | | | |
| **WRA** | **Warramunga Arr** | **42.55** | **262** | P | P | 08 14 45.0 | +0.9 |
| | 1.3nm,0.4s,baz=94,slow=8.3,SNR=67 | | | | | | |
| **BRTR** | **Keskin Array B** | **145.12** | **311** | PKPbc | PKPbc | 08 26 24.9 | -0.8 |
| | 0.6nm,0.7s,baz=41,slow=4.6,SNR=3.3 | | | | | | |

*CSEM **18** 08:26:01.7±0.2, 38.21N×26.69E, h2km, ML2.3, Error ellipse: s-maj=5.2km s-min=4.6km az=49.0*
*ISK **18** 08:26:01.3, 38.25N×26.72E, h4km, ML2.3*
*DDA **18** 08:26:01.1, 38.19N×26.70E, h7km, Ml2.9*

**ISC 18 08:26:01.6±0.9, 38.21N±0.02×26.69E±0.02, h8km±7km, n29, σ0°61/49, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ZEY** | **˜zmir** | **0.15** | **282** | *i* P | **Pg** | **08 26 04.6** | **-0.2** |
| ZEY | | | | *i* S | **Sg** | **08 26 07.7** | **+0.7** |
| **URLA** | **Izmir** | **0.17** | **334** | *e*PG | **Pg** | **08 26 05.0** | **-0.2** |
| URLA | | | | *e*SG | **Sg** | **08 26 07.8** | **+0.2** |
| **URLA** | **Izmir** | **0.17** | **334** | *i* P | **Pg** | **08 26 05.0** | **-0.2** |
| URLA | | | | *i* S | **Sg** | **08 26 08.2** | **+0.6** |
| **URLA** | **Izmir** | **0.17** | **334** | P | **Pg** | **08 26 05.0** | **-0.2** |
| URLA | | | | *e*Sg | **Sg** | **08 26 07.8** | **+0.2** |
| URLA | | | | S | **Sg** | **08 26 08.2** | **+0.6** |
| **DGB** | **˜zmir** | **0.22** | **136** | *i* P | **Pg** | **08 26 05.4** | **-0.6** |
| DGB | | | | *i* S | **Sg** | **08 26 08.5** | **-0.6** |
| **CHOS** | **Chios island** | **0.53** | **290** | *e*PG | **Pg** | **08 26 11.8** | **-0.1** |
| CHOS | | | | *e*SG | **Sb** | **08 26 20.8** | **-0.2** |
| **CHOS** | **Chios island** | **0.53** | **290** | *e*Pg | **Pg** | **08 26 11.8** | **-0.1** |
| CHOS | | | | *e*Sg | **Sb** | **08 26 20.8** | **-0.2** |
| **GCAM** | **G?zelcaml?** | **0.67** | **140** | *i* P | **Pg** | **08 26 13.8** | **-0.6** |
| GCAM | | | | *i* S | **Sg** | **08 26 22.9** | **-0.3** |
| **GCAM** | **G?zelcaml?** | **0.67** | **140** | P | **Pg** | **08 26 13.9** | **-0.6** |
| GCAM | | | | S | **Sg** | **08 26 22.9** | **-0.3** |
| **DKL** | **Dikili** | **0.88** | **11** | *e*PG | **Pg** | **08 26 17.6** | **-0.9** |
| **DKL** | **Dikili** | **0.88** | **11** | *e*Pg | **Pg** | **08 26 17.6** | **-0.9** |
| **AKHS** | **Akhisar** | **1.11** | **53** | *i* P | **Pg** | **08 26 22.5** | **-0.4** |
| AKHS | | | | *i* S | **Sb** | **08 26 38.0** | **+0.4** |
| **AKHS** | **Akhisar** | **1.11** | **53** | P | **Pg** | **08 26 22.5** | **-0.4** |
| AKHS | | | | S | **Sb** | **08 26 38.0** | **+0.4** |
| **SIGR** | **SIGRI** | **1.19** | **327** | *e*PN | **Pn** | **08 26 24.8** | **+0.2** |
| **SIGR** | **SIGRI** | **1.19** | **327** | *e*Pn | **Pn** | **08 26 24.8** | **+0.2** |
| **BODT** | **Bodrum** | **1.25** | **156** | *e*PN | **Pg** | **08 26 26.4** | **+0.8** |
| **BODT** | **Bodrum** | **1.25** | **156** | *e*Pn | **Pg** | **08 26 26.4** | **+0.8** |
| **STEP** | **BALIKESIR_Sava** | **1.42** | **34** | *i* P | **Pg** | **08 26 28.9** | **+0.1** |
| STEP | | | | *i* S | **Sg** | **08 26 48.3** | **+1.1** |
| **STEP** | **BALIKESIR_Sava** | **1.42** | **34** | P | **Pg** | **08 26 28.9** | **+0.1** |
| STEP | | | | S | **Sg** | **08 26 48.3** | **+1.1** |
| **APE** | **Apeiranthos** | **1.46** | **219** | *e*PN | **Pg** | **08 26 29.7** | **0.0** |
| **APE** | **Apeiranthos** | **1.46** | **219** | *e*Pn | **Pg** | **08 26 29.7** | **0.0** |
| **MANT** | **Manisa** | **1.50** | **79** | *i* P | **Pb** | **08 26 29.8** | **0.0** |
| MANT | | | | *i* S | **Sb** | **08 26 49.0** | **0.0** |
| **MANT** | **Manisa** | **1.50** | **79** | P | **Pb** | **08 26 29.8** | **0.0** |
| MANT | | | | S | **Sb** | **08 26 49.0** | **0.0** |
| **BAYC** | **CANAKKALE_Bayr** | **1.53** | **356** | *i* P | **Pn** | **08 26 28.5** | **-0.8** |
| BAYC | | | | *i* S | **Sn** | **08 26 48.7** | **-0.7** |
| **BAYC** | **CANAKKALE_Bayr** | **1.53** | **356** | P | **Pn** | **08 26 28.5** | **-0.8** |
| BAYC | | | | S | **Sn** | **08 26 48.7** | **-0.7** |
| **KULA** | **Kula-Manisa** | **1.58** | **78** | *e*PN | **Pn** | **08 26 30.6** | **+0.6** |
| **KULA** | **Kula-Manisa** | **1.58** | **78** | *e*Pn | **Pn** | **08 26 30.6** | **+0.6** |
| **BALY** | **Balya** | **1.69** | **25** | *i* P | **Pg** | **08 26 33.6** | **-0.5** |
| BALY | | | | *i* S | **Sg** | **08 26 57.5** | **+1.4** |
| **BALY** | **Balya** | **1.69** | **25** | P | **Pg** | **08 26 33.6** | **-0.5** |
| BALY | | | | S | **Sg** | **08 26 57.5** | **+1.4** |

*TIR **18** 08:40:09.9±4.1, 40.13N×20.83E, h3km±14km, ML2.8*
*SKO **18** 08:40:13.5, 40.10N×20.65E, h2km, M2.2, ML2.6*
*ATH **18** 08:40:13.9, 40.19N×20.72E, h14km±2km, ML2.7/13, Error ellipse: s-maj=2.7km s-min=0.9km az=348.0*
*ISCJB **18** 08:40:13.6±0.4, 40.20N±0.02×20.66E±0.03, h2km±3km, Error ellipse: s-maj=3.4km s-min=2.6km az=1.0*
*THE **18** 08:40:14.2, 40.16N×20.70E, h0km±2km, ML2.6/10, Error ellipse: s-maj=2.3km s-min=0.6km az=288.0*
*CSEM **18** 08:40:14.0±0.2, 40.18N×20.70E, h2km, ML2.7, Error ellipse: s-maj=3.4km s-min=2.9km az=90.0*

**ISC 18 08:40:14.4±1.0, 40.16N±0.01×20.71E±0.02, h6km±9km, n75, σ0°93/126, Greece-Albania border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PENT** | **Pentalofos** | **0.33** | **83** | P | **Pg** | **08 40 20.1** | **-0.8** |
| PENT | | | | S | **Sg** | **08 40 26.1** | **+0.8** |
| PENT | | | | AML | AML | 08 40 29.1 | |
| | comp=N,5875μm,0.4s | | | | | | |
| PENT | | | | AML | AML | 08 40 29.8 | |
| | comp=E,2284μm,0.4s | | | | | | |
| **PENT** | **Pentalofos** | **0.33** | **83** | P | **Pg** | **08 40 20.3** | **-0.6** |
| PENT | | | | S | **Sg** | **08 40 26.3** | **+1.0** |
| **PENT** | **Pentalofos** | **0.33** | **83** | P | **Pg** | **08 40 20.3** | **-0.6** |
| PENT | | | | S | **Sg** | **08 40 26.3** | **+1.0** |
| **NEST** | **Nestorio** | **0.37** | **45** | P | **Pg** | **08 40 21.3** | **-0.3** |
| NEST | | | | S | **Sg** | **08 40 26.2** | **-0.2** |
| NEST | | | | AML | AML | 08 40 28.4 | |
| | comp=N,2663μm,0.2s | | | | | | |
| NEST | | | | AML | AML | 08 40 28.9 | |
| | comp=E,3161μm,0.3s | | | | | | |
| **NEST** | **Nestorio** | **0.37** | **45** | P | **Pg** | **08 40 21.3** | **-0.3** |
| NEST | | | | S | **Sg** | **08 40 26.2** | **-0.2** |
| **NEST** | **Nestorio** | **0.37** | **45** | P | **Pg** | **08 40 21.0** | **-0.5** |
| NEST | | | | S | **Sg** | **08 40 27.3** | **+0.9** |
| **KBN** | **Korca** | **0.47** | **8** | *i* PG | **Pg** | **08 40 22.6** | **-0.9** |
| KBN | | | | *i* SG | **Sg** | **08 40 30.2** | **+0.6** |
| **KBN** | **Korca** | **0.47** | **8** | *i* Pg | **Pg** | **08 40 22.6** | **-0.9** |
| | SNR=91 | | | | | | |
| KBN | | | | *i* Sg | **Sg** | **08 40 30.2** | **+0.6** |
| | SNR=91 | | | | | | |
| **JAN** | **Janina** | **0.51** | **167** | P | **Pg** | **08 40 23.9** | **-0.3** |
| JAN | | | | S | **Sb** | **08 40 32.2** | **-1.2** |
| JAN | | | | AML | AML | 08 40 33.8 | |
| | comp=N,2601μm,0.4s | | | | | | |
| JAN | | | | AML | AML | 08 40 35.0 | |
| | comp=E,3825μm,0.5s | | | | | | |
| **JAN** | **Janina** | **0.51** | **167** | P | **Pg** | **08 40 23.9** | **-0.3** |
| JAN | | | | S | **Sb** | **08 40 32.6** | **-0.8** |
| **JAN** | **Janina** | **0.51** | **167** | P | **Pg** | **08 40 23.3** | **-0.9** |
| JAN | | | | S | **Sb** | **08 40 32.6** | **-0.8** |
| **KPRO** | **Kipourio** | **0.54** | **112** | P | **Pg** | **08 40 23.1** | **-1.7** |
| KPRO | | | | S | **Sb** | **08 40 33.4** | **-1.0** |
| KPRO | | | | AML | AML | 08 40 36.5 | |
| | comp=N,2424μm,0.6s | | | | | | |
| KPRO | | | | AML | AML | 08 40 38.4 | |
| | comp=E,2390μm,0.6s | | | | | | |
| **KPRO** | **Kipourio** | **0.54** | **112** | P | **Pg** | **08 40 23.8** | **-1.0** |
| KPRO | | | | S | **Sb** | **08 40 33.4** | **-1.0** |
| **KPRO** | **Kipourio** | **0.54** | **112** | P | **Pg** | **08 40 23.8** | **-1.0** |
| KPRO | | | | S | **Sg** | **08 40 32.9** | **+1.0** |
| **SRN** | **Sarande** | **0.61** | **243** | *i* PG | **Pb** | **08 40 26.6** | **-0.8** |
| SRN | | | | *i* SG | **Sb** | **08 40 37.2** | **+1.0** |
| **SRN** | **Sarande** | **0.61** | **243** | *i* Pg | **Pb** | **08 40 26.6** | **-0.8** |
| | SNR=90 | | | | | | |
| SRN | | | | *i* Sg | **Sb** | **08 40 37.2** | **+1.0** |
| | SNR=90 | | | | | | |
| **SGD** | **Sagiada** | **0.65** | **214** | P | **Pb** | **08 40 27.8** | **-0.3** |
| **SGD** | **Sagiada** | **0.65** | **214** | P | **Pg** | **08 40 26.9** | **0.0** |
| **SGD** | **Sagiada** | **0.65** | **214** | P | **Pg** | **08 40 26.9** | **0.0** |
| **FNA** | **Florina** | **0.81** | **39** | P | **Pg** | **08 40 28.5** | **-1.4** |
| FNA | | | | S | **Sg** | **08 40 39.7** | **-0.7** |
| FNA | | | | AML | AML | 08 40 42.9 | |
| | comp=N,1312μm,0.3s | | | | | | |
| FNA | | | | AML | AML | 08 40 43.6 | |
| | comp=E,1416μm,0.2s | | | | | | |
| **FNA** | **Florina** | **0.81** | **39** | P | **Pg** | **08 40 28.7** | **-1.2** |
| FNA | | | | S | **Sg** | **08 40 39.7** | **-0.7** |
| **FNA** | **Florina** | **0.81** | **39** | P | **Pg** | **08 40 28.7** | **-1.2** |
| FNA | | | | S | **Sb** | **08 40 41.9** | **-0.1** |
| **KEK** | **Kerkira** | **0.83** | **238** | P | **Pg** | **08 40 29.4** | **-0.8** |
| KEK | | | | S | **Sn** | **08 40 43.9** | **-1.1** |
| KEK | | | | AML | AML | 08 40 47.2 | |
| | comp=E,579μm,0.3s | | | | | | |
| KEK | | | | AML | AML | 08 40 48.2 | |
| | comp=N,608μm,0.8s | | | | | | |
| **KEK** | **Kerkira** | **0.83** | **238** | P | **Pg** | **08 40 29.8** | **-0.4** |
| KEK | | | | S | **Sb** | **08 40 42.3** | **-0.2** |
| **KEK** | **Kerkira** | **0.83** | **238** | P | **Pg** | **08 40 29.8** | **-0.4** |
| KEK | | | | S | **Sb** | **08 40 42.3** | **-0.2** |
| **KZN** | **Kozani** | **0.83** | **79** | P | **Pg** | **08 40 29.2** | **-1.1** |
| KZN | | | | S | **Sg** | **08 40 41.7** | **+0.7** |
| KZN | | | | AML | AML | 08 40 46.4 | |
| | comp=E,1023μm,0.7s | | | | | | |
| KZN | | | | AML | AML | 08 40 48.5 | |
| | comp=N,672μm,0.5s | | | | | | |
| **KZN** | **Kozani** | **0.83** | **79** | P | **Pg** | **08 40 29.4** | **-0.9** |
| KZN | | | | S | **Sg** | **08 40 41.7** | **+0.7** |
| **KZN** | **Kozani** | **0.83** | **79** | P | **Pg** | **08 40 29.4** | **-0.9** |
| KZN | | | | S | **Sb** | **08 40 43.1** | **+0.5** |
| **OHR** | **Ohrid** | **0.96** | **4** | *i* Pg | **Pg** | **08 40 32.0** | **-0.7** |
| OHR | | | | *i* Sg | **Sb** | **08 40 46.4** | **+0.1** |
| OHR | | | | *e*Lg | Lg | 08 40 47.5 | |
| | comp=N,144nm,0.7s | | | | | | |
| OHR | | | | *e*Lg | Lg | 08 40 48.2 | |
| | comp=E,226nm,0.6s | | | | | | |
| **BIA** | **Bitola** | **0.98** | **28** | P | **Pg** | **08 40 32.2** | **-1.0** |
| BIA | | | | S | **Sb** | **08 40 47.8** | **+0.8** |
| **BIA** | **Bitola** | **0.98** | **28** | P | **Pg** | **08 40 32.2** | **-1.0** |
| BIA | | | | S | **Sb** | **08 40 47.8** | **+0.8** |
| **BIA** | **Bitola** | **0.98** | **28** | *i* Pg | **Pg** | **08 40 32.0** | **-1.2** |
| BIA | | | | *i* Sg | **Sb** | **08 40 47.7** | **+0.6** |
| **DSL** | **Palaion Diasel** | **1.06** | **163** | P | **Pg** | **08 40 34.5** | **-0.3** |
| DSL | | | | S | **Sn** | **08 40 51.2** | **+0.2** |
| DSL | | | | AML | AML | 08 40 57.0 | |
| | comp=N,502μm,0.4s | | | | | | |
| DSL | | | | AML | AML | 08 41 00.1 | |
| | comp=E,753μm,0.5s | | | | | | |
| **DSL** | **Palaion Diasel** | **1.06** | **163** | P | **Pg** | **08 40 34.5** | **-0.3** |
| DSL | | | | S | **Sb** | **08 40 50.1** | **+0.7** |
| **DSL** | **Palaion Diasel** | **1.06** | **163** | P | **Pg** | **08 40 33.8** | **-1.0** |
| DSL | | | | S | **Sb** | **08 40 50.1** | **+0.7** |
| **KTI** | **Kastanea** | **1.10** | **77** | P | **Pg** | **08 40 35.2** | **-0.3** |
| **KTI** | **Kastanea** | **1.10** | **77** | P | **Pg** | **08 40 35.2** | **-0.3** |
| **THL** | **Klokotos Trika** | **1.17** | **120** | P | **Pg** | **08 40 35.6** | **-1.1** |
| THL | | | | S | **Sb** | **08 40 53.1** | **+0.8** |
| THL | | | | AML | AML | 08 40 57.8 | |
| | comp=N,465μm,0.7s | | | | | | |
| THL | | | | AML | AML | 08 40 59.4 | |
| | comp=E,435μm,0.6s | | | | | | |
| **THL** | **Klokotos Trika** | **1.17** | **120** | P | **Pg** | **08 40 35.9** | **-0.8** |
| THL | | | | S | **Sn** | **08 40 53.7** | **+0.3** |
| **THL** | **Klokotos Trika** | **1.17** | **120** | P | **Pg** | **08 40 35.9** | **-0.8** |
| THL | | | | S | **Sn** | **08 40 53.7** | **+0.3** |
| **KRUS** | **Krusevo** | **1.28** | **19** | *i* Pg | **Pg** | **08 40 36.9** | **-2.0** |
| KRUS | | | | *i* Sg | **Sb** | **08 40 55.4** | **-0.2** |
| **LKD2** | **Lefkada island** | **1.37** | **182** | P | **Pb** | **08 40 40.4** | **+0.1** |
| LKD2 | | | | S | **Sn** | **08 40 59.6** | **+1.2** |
| LKD2 | | | | AML | AML | 08 41 11.7 | |
| | comp=E,562μm,1.1s | | | | | | |
| LKD2 | | | | AML | AML | 08 41 11.8 | |
| | comp=N,389μm,0.7s | | | | | | |
| **LKD2** | **Lefkada island** | **1.37** | **182** | P | **Pb** | **08 40 40.4** | **+0.1** |
| LKD2 | | | | S | **Sn** | **08 40 59.6** | **+1.2** |
| **LKD2** | **Lefkada island** | **1.37** | **182** | P | **Pb** | **08 40 41.2** | **+0.9** |
| **LIT** | **Litokhoron** | **1.37** | **92** | P | **Pb** | **08 40 40.4** | **+0.3** |
| LIT | | | | S | **Sn** | **08 40 59.6** | **+1.2** |
| LIT | | | | AML | AML | 08 41 04.6 | |
| | comp=E,402μm,0.8s | | | | | | |
| LIT | | | | AML | AML | 08 41 07.7 | |
| | comp=N,414μm,0.5s | | | | | | |
| **LIT** | **Litokhoron** | **1.37** | **92** | P | **Pb** | **08 40 40.5** | **+0.1** |
| LIT | | | | S | **Sn** | **08 40 59.6** | **+1.2** |
| **LIT** | **Litokhoron** | **1.37** | **92** | P | **Pb** | **08 40 40.5** | **+0.1** |
| LIT | | | | S | **Sn** | **08 40 59.6** | **+1.2** |
| **EVR** | **Evrytania** | **1.50** | **145** | P | **Pn** | **08 40 41.0** | **-0.9** |
| EVR | | | | S | **Sg** | **08 41 02.8** | **+0.1** |
| EVR | | | | AML | AML | 08 41 13.0 | |
| | comp=N,359μm,0.9s | | | | | | |
| EVR | | | | AML | AML | 08 41 16.8 | |
| | comp=E,322μm,0.7s | | | | | | |
| **EVR** | **Evrytania** | **1.50** | **145** | P | **Pn** | **08 40 41.8** | **-0.1** |
| EVR | | | | S | **Sg** | **08 41 02.8** | **+0.1** |
| **EVR** | **Evrytania** | **1.50** | **145** | P | **Pn** | **08 40 41.8** | **-0.1** |
| **GRG** | **Griva** | **1.52** | **58** | P | **Pn** | **08 40 41.7** | **-0.4** |
| **GRG** | **Griva** | **1.52** | **58** | P | **Pn** | **08 40 41.7** | **-0.4** |
| **PHP** | **Peshkopia** | **1.54** | **353** | *i* PN | **Pg** | **08 40 45.4** | **+1.5** |
| PHP | | | | *i* SN | **Sg** | **08 41 07.2** | **+3.4** |
| **PHP** | **Peshkopia** | **1.54** | **353** | *i* Pn | **Pg** | **08 40 45.4** | **+1.5** |
| | SNR=40 | | | | | | |
| **AGG** | **Agios Georgios** | **1.69** | **132** | P | **Pb** | **08 40 45.8** | **-0.1** |
| AGG | | | | S | **Sg** | **08 41 08.9** | **+0.3** |
| AGG | | | | AML | AML | 08 41 19.0 | |
| | comp=N,799μm,0.6s | | | | | | |
| AGG | | | | AML | AML | 08 41 21.1 | |
| | comp=E,710μm,0.5s | | | | | | |
| **AGG** | **Agios Georgios** | **1.69** | **132** | P | **Pn** | **08 40 44.9** | **+0.5** |
| AGG | | | | S | **Sg** | **08 41 08.9** | **+0.3** |
| **AGG** | **Agios Georgios** | **1.69** | **132** | P | **Pn** | **08 40 44.9** | **+0.5** |
| **VAY** | **Valandovo** | **1.83** | **50** | *e*Pn | **Pn** | **08 40 46.7** | **+0.4** |
| VAY | | | | *i* Sg | **Sg** | **08 41 13.9** | **+0.7** |
| VAY | | | | *e*Lg | Lg | 08 41 17.6 | |
| | comp=E,23nm,0.6s | | | | | | |
| VAY | | | | *e*Lg | Lg | 08 41 19.5 | |
| | comp=N,35nm,0.6s | | | | | | |
| **SKO** | **Skopje** | **1.90** | **17** | *e*Pg | **Pb** | **08 40 49.7** | **+0.4** |
| SKO | | | | *e*Sg | **Sg** | **08 41 15.2** | **-0.1** |
| **XOR** | **Xorichti** | **2.07** | **112** | P | **Pn** | **08 40 50.6** | **+0.9** |
| **XOR** | **Xorichti** | **2.07** | **112** | P | **Pn** | **08 40 50.6** | **+0.9** |
| **PLG** | **Polygyros** | **2.11** | **83** | P | **Pn** | **08 40 50.4**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CHOJ** | **Chosi** | **0.19** | **330** | ⇓P | Pn | 09 02 09.8 | -2.1 |
| CHOJ | | | | S | Sn | 09 02 14.5 | -2.6 |
| **KTR** | **Katsuura** | **0.67** | **235** | ⇓P | **Pn** | **09 02 16.7** | **-0.8** |
| KTR | | | | *e*S | **Sn** | **09 02 26.0** | **-0.8** |
| **BSO4** | **Boso 4** | **0.76** | **224** | ⇓P | **Pn** | **09 02 18.1** | **-0.5** |
| **BSO3** | **Boso 3** | **0.83** | **208** | ⇓P | **Pn** | **09 02 18.6** | **-0.9** |
| **BSO1** | **Boso 1** | **0.88** | **180** | ⇑P | **Pn** | **09 02 18.6** | **-1.3** |
| **JYT** | **Yasato** | **0.94** | **318** | ⇓P | **Pn** | **09 02 19.8** | **-1.5** |
| **JAG** | **Ashikaga** | **1.52** | **306** | ⇓P | **Pn** | **09 02 28.1** | **-1.2** |
| **MJAR** | **Matsushiro Arr** | **2.46** | **295** | P | **Pn** | **09 02 42.6** | **+0.5** |
| | 65nm,0.3s,baz=113,slow=12,SNR=789 | | | | | | |
| MJAR | | | | LR | LR | 09 03 49.5 | |
| | comp=Z,12μm,20.0s,baz=115,slow=43 | | | | | | |
| **MAJO** | **Matsushiro** | **2.46** | **295** | *d* *i*P | **Pn** | **09 02 43.1** | **+0.9** |
| **MAJO** | **Matsushiro** | **2.46** | **295** | *e*Pn | **Pn** | **09 02 43.2** | **+1.1** |
| **MAT** | **Matsushiro** | **2.46** | **295** | P | **Pn** | **09 02 42.9** | **+0.7** |
| MAT | | | | *e*S | **Sn** | **09 03 12.7** | **+1.7** |
| **MJB9** | **Matsu-Tunnel** | **2.46** | **295** | *e*Pn | **Pn** | **09 02 43.3** | **+1.1** |
| **JHJ2** | **Mitsune** | **2.60** | **202** | *e*Pn | **Pn** | **09 02 44.5** | **+0.4** |
| **JHJ** | **Hachijo jima 2** | **2.60** | **203** | P | **Pn** | **09 02 43.2** | **-1.0** |
| | 88nm,0.3s,baz=302,slow=22,SNR=32 | | | | | | |
| JHJ | | | | S | **Sn** | **09 03 16.3** | **+1.7** |
| | 640nm,0.3s,baz=67,slow=22,SNR=11 | | | | | | |
| JHJ | | | | LR | LR | 09 03 51.5 | |
| | comp=Z,16nm,18.4s,baz=332,slow=43 | | | | | | |
| **INU** | **Inuyama** | **3.24** | **268** | *e*Pn | **Pn** | **09 02 54.4** | **+1.6** |
| **ERM** | **Erimo** | **6.69** | **14** | *c* *i*P | Pn | 09 03 37.5 | -2.7 |
| **ERM** | **Erimo** | **6.69** | **14** | *e*Pn | Pn | 09 03 37.6 | -2.5 |
| ERM | | | | *e*Sn | Sn | 09 04 50.7 | -4.4 |
| **CBIJ** | **Chichi jima** | **8.48** | **173** | *e*Pn | Pn | 09 04 02.2 | -2.6 |
| CBIJ | | | | S | Sn | 09 05 30.6 | -8.6 |
| **JCJ** | **Chichijima** | **8.48** | **173** | P | Pn | 09 04 02.2 | -2.6 |
| | 42nm,0.3s,baz=308,slow=5.4,SNR=14 | | | | | | |
| JCJ | | | | S | Sn | 09 05 30.6 | -8.6 |
| | 25nm,0.3s,baz=270,slow=20,SNR=4.1 | | | | | | |
| **ASAJ** | **Asahikawa** | **8.66** | **8** | P | Pn | 09 04 04.1 | -3.1 |
| | 8.2nm,0.3s,baz=230,slow=9.6,SNR=57 | | | | | | |
| ASAJ | | | | S | **Sn** | **09 05 39.7** | **-3.8** |
| | 4.1nm,0.3s,baz=107,slow=19,SNR=3.8 | | | | | | |
| ASAJ | | | | LR | LR | 09 08 37.9 | |
| | comp=Z,8.0nm,19.8s,baz=198,slow=45 | | | | | | |
| **JNU** | **Nakatsue** | **8.69** | **257** | P | **Pn** | **09 04 09.7** | **+1.9** |
| | 1.2nm,0.3s,baz=86,slow=10,SNR=11 | | | | | | |
| **JNU** | **Nakatsue** | **8.69** | **257** | *e*Pn | **Pn** | **09 04 06.2** | **-1.6** |
| **YUK** | **Yuzh-Kuril'sk** | **9.28** | **22** | *i*P | Pn | 09 04 12.9 | -2.8 |
| YUK | | | | *e*S | Sn | 09 05 49.7 | -9.0 |
| YUK | | | | pmax | pmax | | |
| | comp=N,57nm,0.3s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=E,65nm,0.3s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=Z,113nm,0.3s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=E,420nm,0.5s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,1μm,0.4s | | | | | | |
| YUK | | | | MLR | MLR | | |
| | comp=N,827nm,24.0s | | | | | | |
| YUK | | | | MLR | MLR | | |
| | comp=Z,1μm,23.0s | | | | | | |
| YUK | | | | MLR | MLR | | |
| | comp=E,837nm,20.0s | | | | | | |
| **SHO** | **Shikotan** | **9.46** | **27** | *e*P | Pn | 09 04 13.9 | -4.3 |
| SHO | | | | *i*S | Sn | 09 05 51.3 | -12 |
| SHO | | | | pmax | pmax | | |
| | comp=Z,94nm,0.7s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=N,41nm,0.4s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=E,42nm,0.5s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=N,390nm,0.4s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=E,577nm,0.4s | | | | | | |
| **KSRS** | **Korea Array** | **10.68** | **284** | P | **Pn** | **09 04 38.7** | **+3.8** |
| | comp=E,0.8nm,0.3s,baz=101,slow=15,SNR=12 | | | | | | |
| KSRS | | | | LR | LR | 09 08 46.5 | |
| | comp=E,5μm,20.5s,baz=104,slow=38 | | | | | | |
| **KSRS** | **Korea Array** | **10.68** | **284** | P | **Pn** | **09 04 38.7** | **+3.8** |
| KSRS | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.3s | | | | | | |
| KSRS | | | | MLR | MLR | | |
| | comp=Z,5μm,20.5s | | | | | | |
| **KS01** | **Wonju Array Si** | **10.71** | **284** | *e*Pn | **Pn** | **09 04 38.8** | **+3.5** |
| **KS15** | **Wonju Array Si** | **10.71** | **284** | *e*Pn | **Pn** | **09 04 38.8** | **+3.5** |
| **KSAR** | **Wonju Array Be** | **10.71** | **284** | P | **Pn** | **09 04 38.7** | **+3.4** |
| **KSAR** | **Wonju Array Be** | **10.71** | **284** | P | **Pn** | **09 04 38.7** | **+3.4** |
| **KUR** | **Kuril'sk** | **11.01** | **26** | P | Pn | 09 04 36.2 | -3.2 |
| KUR | | | | *e*S | Sn | 09 06 30.6 | -11 |
| KUR | | | | pmax | pmax | | |
| | comp=Z,68nm,0.8s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=E,43nm,0.3s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=N,40nm,0.6s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=N,124nm,0.4s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,39nm,0.4s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **11.06** | **324** | P | **Pn** | **09 04 40.8** | **+0.7** |
| | comp=E,0.8nm,0.3s,baz=132,slow=12,SNR=30 | | | | | | |
| USRK | | | | LR | LR | 09 08 47.3 | |
| | comp=E,3μm,18.8s,baz=132,slow=36 | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **11.49** | **6** | ‖*e*P | Pn | 09 04 43.0 | -2.8 |
| YSS | | | | *e*S | Sn | 09 06 42.0 | -11 |
| YSS | | | | pmax | pmax | | |
| | comp=Z,60nm,0.7s | | | | | | |
| YSS | | | | smax | smax | | |
| | comp=E,40nm,2.4s | | | | | | |
| YSS | | | | MLR | MLR | | |
| | comp=Z,2μm,19.0s | | | | | | |
| YSS | | | | MLR | MLR | | |
| | comp=N,2μm,18.0s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **11.49** | **6** | *e*Pn | Pn | 09 04 43.1 | -2.7 |
| **MDJ** | **Mudanjiang** | **12.57** | **320** | P | **Pn** | **09 05 03.8** | **+3.1** |
| MDJ | | | | pP | P | 09 05 09.3 | -2.1 |
| MDJ | | | | sP | | 09 05 13.3 | |
| MDJ | | | | S | **Sn** | **09 07 22.3** | **+3.1** |
| MDJ | | | | sS | S | 09 07 30.4 | -15 |
| MDJ | | | | pmax | pmax | | |
| | comp=N,10.0nm,0.7s | | | | | | |
| MDJ | | | | pmax | pmax | | |
| | comp=N,130nm,6.6s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=N,2μm,17.3s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=N,900nm,17.3s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=N,2μm,18.6s | | | | | | |
| **HABR** | **Khabarovsk** | **13.65** | **343** | *e*P | Pn | 09 05 11.2 | -4.2 |
| HABR | | | | *e*S | **Sn** | **09 07 40.3** | **-5.2** |
| HABR | | | | pmax | pmax | | |
| | comp=Z,45nm,2.0s | | | | | | |
| HABR | | | | MLR | MLR | | |
| | comp=Z,696nm,14.0s | | | | | | |
| **CN2** | **Changchun** | **14.52** | **309** | *e*P | **Pn** | **09 05 26.3** | **-0.8** |
| CN2 | | | | *e*pP | P | 09 05 32.0 | -1.0 |
| CN2 | | | | *e*sP | | 09 05 35.9 | |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.6s | | | | | | |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,200nm,6.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,600nm,10.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,1μm,10.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,1μm,11.0s | | | | | | |
| **SNY** | **Shenyang** | **14.96** | **300** | ⇑P | **Pn** | **09 05 32.4** | **-0.7** |
| SNY | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.6s | | | | | | |
| SNY | | | | LR | LR | | |
| | comp=Z,1μm,15.2s | | | | | | |
| SNY | | | | LR | LR | | |
| | comp=Z,2μm,21.5s | | | | | | |
| SNY | | | | LR | LR | | |
| | comp=Z,3μm,21.9s | | | | | | |
| **KLR** | **Kul'dur** | **15.27** | **336** | P | **Pn** | **09 05 32.9** | **-4.2** |
| | comp=Z,0.0nm,0.3s,baz=134,slow=13,SNR=8.5 | | | | | | |
| **KLR** | **Kul'dur** | **15.27** | **336** | *i*P | **Pn** | **09 05 36.0** | **-1.1** |
| **TYV** | **Tymovskoe** | **15.37** | **4** | *e*P | **Pn** | **09 05 35.0** | **-3.3** |
| TYV | | | | *e*S | Sn | 09 08 16.3 | -11 |
| TYV | | | | pmax | pmax | | |
| | comp=Z,17nm,0.8s | | | | | | |
| TYV | | | | smax | smax | | |
| | comp=E,17nm,1.4s | | | | | | |
| **DL2** | **Dalian** | **15.78** | **288** | ⇑*i*P | **Pn** | **09 05 44.6** | **+0.9** |
| DL2 | | | | S | **Sn** | **09 08 40.1** | **+2.7** |
| DL2 | | | | pmax | pmax | | |
| | comp=E,32nm,0.8s | | | | | | |
| DL2 | | | | pmax | pmax | | |
| | comp=E,500nm,5.2s | | | | | | |
| DL2 | | | | LR | LR | | |
| | comp=E,1μm,14.7s | | | | | | |
| DL2 | | | | LR | LR | | |
| | comp=E,2μm,22.2s | | | | | | |
| DL2 | | | | LR | LR | | |
| | comp=E,4μm,21.8s | | | | | | |
| **NKL** | **Nikolayevsk** | **17.61** | **359** | *e*P | **Pn** | **09 06 04.0** | **-2.6** |
| NKL | | | | *e* | | 09 09 20.0 | |
| NKL | | | | MLR | MLR | | |
| | comp=N,1μm,17.0s | | | | | | |
| NKL | | | | MLR | MLR | | |
| | comp=Z,1μm,17.0s | | | | | | |
| **NJ2** | **Nanjing** | **18.71** | **266** | *e*P | **P** | **09 06 18.8** | **-0.6** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,13nm,0.6s | | | | | | |
| **TIA** | **Tai'an** | **19.34** | **279** | *e*P | **P** | **09 06 23.6** | **-2.7** |
| TIA | | | | pmax | pmax | | |
| | comp=Z,20nm,0.7s | | | | | | |
| **YHNB** | **Yeheng** | **20.09** | **243** | *e*P | **P** | **09 06 33.1** | **-1.5** |
| | comp=Z,288nm,2.0s | | | | | | |
| **BJI** | **Beijing** | **20.09** | **290** | P | **P** | **09 06 32.8** | **-1.7** |
| BJI | | | | S | **S** | **09 10 10.3** | **-7.5** |
| BJI | | | | pmax | pmax | | |
| | comp=Z,17nm,0.9s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,840nm,22.8s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,1μm,24.3s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,2μm,26.6s | | | | | | |
| **NACB** | **Ninganchiao** | **20.23** | **241** | *e*P | **P** | **09 06 34.7** | **-1.4** |
| | comp=Z,36nm,1.1s | | | | | | |
| **YULB** | **Yu-li** | **20.93** | **240** | *e*P | **P** | **09 06 42.0** | **-1.7** |
| | comp=Z,34nm,1.3s | | | | | | |
| **PEA0B** | **Petropavlovsk-** | **21.16** | **29** | *e*P | **P** | **09 06 46.4** | **+0.4** |
| | comp=Z,207nm,1.9s | | | | | | |
| **PETK** | **Petropavlovsk-** | **21.16** | **29** | P | **P** | **09 06 46.9** | **+0.9** |
| | comp=Z,5.1nm,0.7s,baz=229,slow=8.6,SNR=9.6 | | | | | | |
| PETK | | | | LR | LR | 09 14 59.6 | |
| | comp=Z,575nm,21.3s,baz=219,slow=36 | | | | | | |
| **PETK** | **Petropavlovsk-** | **21.16** | **29** | *e*P | **P** | **09 06 46.7** | **+0.8** |
| **TPUB** | **Ta-pu** | **21.46** | **241** | *e*P | **P** | **09 06 48.4** | **-1.0** |
| | comp=Z,118nm,1.6s | | | | | | |
| **PET** | **Petropavlovsk** | **21.48** | **30** | *e*P | **P** | **09 06 52.0** | **+2.7** |
| PET | | | | *e*S | **S** | **09 10 44.8** | **-0.4** |
| PET | | | | pmax | pmax | | |
| | comp=Z,100nm,15.1s | | | | | | |
| PET | | | | MLR | MLR | | |
| | comp=Z,800nm,16.0s | | | | | | |
| **WHN** | **Wuhan** | **22.84** | **265** | ⇓P | **P** | **09 07 02.4** | **-1.7** |
| WHN | | | | S | **S** | **09 11 08.0** | **-2.6** |
| WHN | | | | LR | LR | | |
| | comp=Z,1μm,7.5s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=Z,5μm,14.9s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=Z,7μm,15.7s | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **23.66** | **292** | *e*P | **P** | **09 07 11.8** | **-0.4** |
| HHC | | | | PcP | **PcP** | **09 10 58.0** | **+2.2** |
| HHC | | | | S | **S** | **09 11 21.1** | **-3.0** |
| HHC | | | | SS | **SnSn** | **09 12 09.8** | **+5.9** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,17nm,0.5s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,190nm,5.3s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,590nm,17.3s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,730nm,17.3s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,1μm,22.2s | | | | | | |
| **CLNS** | **Chul'man** | **23.92** | **338** | *e*P | **P** | **09 07 13.3** | **-1.1** |
| CLNS | | | | pmax | pmax | | |
| | comp=Z,21nm,0.8s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=N,12nm,1.0s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=E,5.0nm,0.9s | | | | | | |
| CLNS | | | | MLR | MLR | | |
| | comp=E,445nm,13.0s | | | | | | |
| CLNS | | | | MLR | MLR | | |
| | comp=Z,1μm,16.0s | | | | | | |
| CLNS | | | | MLR | MLR | | |
| | comp=N,765nm,14.0s | | | | | | |
| **MA2** | **Magadan** | **24.89** | **12** | P | **P** | **09 07 23.1** | **-0.1** |
| | comp=N,32nm,0.7s,baz=198,slow=7.6,SNR=17 | | | | | | |
| **MA2** | **Magadan** | **24.89** | **12** | ⇑*i*P | **P** | **09 07 23.4** | **+0.2** |
| **XAN** | **Xi'an** | **26.31** | **276** | P | **P** | **09 07 35.9** | **-0.5** |
| XAN | | | | pP | pP | 09 07 42.4 | -5.2 |
| XAN | | | | sP | sP | 09 07 45.6 | -7.0 |
| XAN | | | | pmax | pmax | | |
| | comp=N,19nm,0.6s | | | | | | |
| XAN | | | | pmax | pmax | | |
| | comp=N,380nm,6.1s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=N,1μm,17.8s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=N,1μm,21.2s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=N,2μm,22.0s | | | | | | |
| **YAK** | **Yakutsk** | **27.46** | **348** | P | **P** | **09 07 45.6** | **-0.8** |
| | comp=N,63nm,0.5s,baz=120,slow=0.8,SNR=21 | | | | | | |
| **YAK** | **Yakutsk** | **27.46** | **348** | *e*P | **P** | **09 07 45.5** | **-0.8** |
| YAK | | | | *e**PP | pP | 09 07 54.1 | -3.4 |
| YAK | | | | *e* | | 09 08 26.5 | |
| YAK | | | | *e*PPP | PPP | 09 08 43.6 | |
| YAK | | | | *e* | | 09 11 01.9 | |
| YAK | | | | *e*S | **S** | **09 12 26.4** | **+2.6** |
| YAK | | | | *e*SS | **SnSn** | **09 13 36.5** | **+0.4** |
| YAK | | | | pmax | pmax | | |
| | comp=Z,54nm,1.0s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,18nm,1.1s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,8.0nm,1.3s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=Z,28nm,1.1s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,32nm,1.6s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,63nm,1.9s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=N,184nm,4.2s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=E,213nm,5.5s | | | | | | |
| YAK | | | | MLR | MLR | | |
| | comp=Z,1μm,22.0s | | | | | | |
| YAK | | | | MLR | MLR | | |
| | comp=N,4μm,21.0s | | | | | | |
| YAK | | | | MLR | MLR | | |
| | comp=E,390nm,20.0s | | | | | | |
| **YAK** | **Yakutsk** | **27.46** | **348** | *e*P | **P** | **09 07 45.9** | **-0.4** |
| | comp=E,88nm,0.6s | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **27.72** | **118** | T | T | 09 36 54.5 | |
| | baz=310,slow=75,SNR=115 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **27.73** | **118** | T | T | 09 36 50.1 | |
| | baz=310,slow=75,SNR=178 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **27.74** | **118** | T | T | 09 36 55.1 | |
| | baz=310,slow=75,SNR=104 | | | | | | |
| **ULN** | **Ulaanbaatar** | **27.93** | **307** | *c**e*P | **P** | **09 07 49.7** | **-1.2** |
| ULN | | | | pmax | pmax | | |
| | comp=Z,11nm,1.0s | | | | | | |
| **ULN** | **Ulaanbaatar** | **27.93** | **307** | *e*P | **P** | **09 07 49.7** | **-1.2** |
| | comp=Z,8.3nm,0.8s | | | | | | |
| **SEY** | **Seymchan** | **28.33** | **11** | P | **P** | **09 07 54.1** | **+0.1** |
| | comp=Z,4.2nm,0.6s,baz=187,slow=7.2,SNR=23 | | | | | | |
| **SEY** | **Seymchan** | **28.33** | **11** | ‖*e*P | **P** | **09 07 54.3** | **+0.3** |
| **SONA1** | **Songino Array** | **28.36** | **306** | *e*P | **P** | **09 07 53.8** | **-0.9** |
| **SONM** | **Songino Array** | **28.36** | **306** | P | **P** | **09 07 53.8** | **-0.9** |
| | comp=Z,9.1nm,0.7s,baz=110,slow=9.1,SNR=28 | | | | | | |
| SONM | | | | LR | LR | 09 19 30.6 | |
| | comp=Z,906nm,19.3s,baz=128,slow=37 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.38** | **120** | T | T | 09 37 36.5 | |
| | baz=312,slow=75,SNR=1081 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.38** | **120** | T | T | 09 37 36.5 | |
| | baz=312,slow=75,SNR=877 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.39** | **120** | T | T | 09 37 40.1 | |
| | baz=312,slow=75,SNR=720 | | | | | | |
| **BOD** | **Bodaibo** | **28.62** | **330** | *e*P | **P** | **09 07 56.1** | **-0.7** |
| BOD | | | | pmax | pmax | | |
| | comp=Z,18nm,1.9s | | | | | | |
| **LZH** | **Lanzhou** | **30.00** | **282** | *e*P | **P** | **09 08 08.5** | **-1.0** |
| LZH | | | | pP | pP | 09 08 15.8 | -4.9 |
| LZH | | | | sP | sP | 09 08 19.8 | -5.9 |
| LZH | | | | PP | **PnPn** | **09 09 08.3** | **+1.2** |
| LZH | | | | S | **S** | **09 13 01.0** | **-3.8** |
| LZH | | | | sS | sS | 09 13 17.5 | -6.1 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,26nm,0.9s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,160nm,6.1s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,1μm,16.2s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,1μm,15.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,1μm,17.4s | | | | | | |
| **GYA** | **Guiyang** | **30.65** | **262** | P | **P** | **09 08 13.9** | **-1.3** |
| GYA | | | | pP | pP | 09 08 23.0 | -3.5 |
| GYA | | | | PP | **PnPn** | **09 09 15.4** | **-0.3** |
| GYA | | | | PcP | **PcP** | **09 11 13.3** | **+0.6** |
| GYA | | | | S | **S** | **09 13 15.8** | **+0.9** |
| GYA | | | | sS | sS | 09 13 27.8 | -6.0 |
| GYA | | | | SS | **SnSn** | **09 14 57.0** | **+2.2** |
| GYA | | | | pmax | pmax | | |
| | comp=Z,20nm,0.8s | | | | | | |
| GYA | | | | pmax | pmax | | |
| | comp=Z,120nm,4.9s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,550nm,17.8s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,520nm,18.0s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,490nm,17.9s | | | | | | |
| **ZAK** | **Zakamensk** | **30.95** | **310** | *e*P | **P** | **09 08 15.9** | **-1.6** |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.2s | | | | | | |
| **TLY** | **Talaya** | **31.07** | **313** | *e*P | **P** | **09 08 18.2** | **-0.3** |
| TLY | | | | *e*S | **S** | **09 13 21.1** | **+0.3** |
| TLY | | | | *e*SS | **ScP** | **09 14 55.8** | **+3.1** |
| TLY | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.9s | | | | | | |
| TLY | | | | MLR | MLR | | |
| | comp=Z,753nm,17.0s | | | | | | |
| **TLY** | **Talaya** | **31.07** | **313** | *e*P | **P** | **09 08 18.0** | **-0.5** |
| | comp=Z,8.2nm,0.9s | | | | | | |
| **CD2** | **Chengdu** | **31.35** | **272** | *e*P | **P** | **09 08 19.6** | **-1.7** |
| CD2 | | | | pP | pP | 09 08 25.0 | -7.6 |
| CD2 | | | | sP | sP | 09 08 30.8 | -6.7 |
| CD2 | | | | S | **S** | **09 13 20.9** | **-4.8** |
| CD2 | | | | SS | **SnSn** | **09 15 19.6** | **+7.9** |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,20nm,0.5s | | | | | | |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,210nm,7.6s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,2μm,15.2s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,3μm,18.0s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,4μm,19.0s | | | | | | |
| **QIZ** | **Qiongzhong** | **32.01** | **247** | P | **P** | **09 08 26.0** | **-1.1** |
| QIZ | | | | S | **S** | **09 13 36.3** | **+0.3** |
| QIZ | | | | pmax | pmax | | |
| | comp=Z,30nm,1.4s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=Z,510nm,25.6s | | | | | | |
| **GTA** | **Gaotai** | **32.70** | **289** | P | **P** | **09 08 32.1** | **-1.0** |
| GTA | | | | pP | pP | 09 08 39.8 | -4.6 |
| GTA | | | | sP | sP | 09 08 42.9 | -6.5 |
| GTA | | | | PcP | **PcP** | **09 11 19.4** | **+1.4** |
| GTA | | | | S | **S** | **09 13 46.4** | **-0.3** |
| GTA | | | | sS | sS | 09 13 59.8 | -5.8 |
| GTA | | | | SS | **SnSn** | **09 15 45.9** | **+1.6** |
| GTA | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.8s | | | | | | |
| GTA | | | | pmax | pmax | | |
| | comp=Z,120nm,5.0s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,550nm,21.0s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,870nm,20.8s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,1μm,21.4s | | | | | | |
| **KMI** | **Kunming** | **34.41** | **263** | P | **P** | **09 08 47.9** | **-0.3** |
| KMI | | | | pP | pP | 09 08 54.3 | -5.3 |
| KMI | | | | sP | sP | 09 08 57.0 | -7.5 |
| KMI | | | | S | **S** | **09 14 14.8** | **+1.1** |
| KMI | | | | sS | sS | 09 14 26.6 | -6.0 |
| KMI | | | | SS | **SnSn** | **09 16 21.8** | **-4.5** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,12nm,0.6s | | | | | | |
| KMI | | | | pmax | pmax | | |
| | comp=Z,95nm,4.6s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,800nm,15.2s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,1μm,15.8s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,1μm,15.1s | | | | | | |
| **BILL** | **Bilibino** | **35.56** | **16** | *e*P | **P** | **09 08 57.3** | **-0.1** |
| BILL | | | | *e* | | 09 10 15.5 | |
| BILL | | | | *e*PPP | PPP | 09 10 31.7 | |
| BILL | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.3s | | | | | | |
| BILL | | | | MLR | MLR | | |
| | comp=Z,681nm,21.0s | | | | | | |
| **TIXI** | **Tiksi** | **36.73** | **354** | P | **P** | **09 09 06.7** | **-0.6** |
| | comp=Z,10nm,0.6s,baz=162,slow=6.9,SNR=22 | | | | | | |
| TIXI | | | | LR | LR | 09 25 14.2 | |
| | comp=Z,508nm,19.9s,baz=189,slow=38 | | | | | | |
| **TIXI** | **Tiksi** | **36.73** | **354** | *c* *i*P | **P** | **09 09 06.8** | **-0.6** |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,15nm,0.9s | | | | | | |
| **TIXI** | **Tiksi** | **36.73** | **354** | *e*P | **P** | **09 09 07.1** | **-0.3** |
| | comp=Z,12nm,0.8s | | | | | | |
| **FAKI** | **Fak Fak** | **39.12** | **194** | *e*P | **P** | **09 09 27.1** | **-0.9** |
| | comp=Z,15nm,0.7s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **40.79** | **257** | P | **P** | **09 09 41.4** | **-0.6** |
| | comp=Z,3.3nm,0.4s,baz=49,slow=7.2,SNR=7.7 | | | | | | |
| CMAR | | | | PcP | **PcP** | **09 11 42.5** | **-0.1** |
| | comp=Z,1.6nm,0.3s,baz=31,slow=2.1,SNR=6.1 | | | | | | |
| CMAR | | | | LR | LR | 09 28 33.2 | |
| | comp=Z,983nm,18.2s,baz=60,slow=39 | | | | | | |
| **DGZ** | **Jazzator, Alta** | **41.00** | **307** | *i*P | **P** | **09 09 44.2** | **+0.7** |
| DGZ | | | | pmax | pmax | | |
| | comp=Z,35nm,0.6s | | | | | | |
| **WMQ** | **Urumqi** | **41.22** | **298** | P | **P** | **09 09 45.5** | **+0.2** |
| WMQ | | | | pP | pP | 09 09 53.6 | -3.3 |
| WMQ | | | | sP | sP | 09 09 59.3 | -2.5 |
| WMQ | | | | S | **S** | **09 15 58.4** | **+2.2** |
| WMQ | | | | ScS | **ScS** | **09 19 47.0** | **+1.0** |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,62nm,0.9s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,800nm,5.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,1μm,18.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,830nm,19.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,2μm,23.5s | | | | | | |
| **ZAA0** | **Zalesovo Array** | **42.68** | **314** | *e*P | **P** | **09 09 56.9** | **-0.1** |
| | comp=Z,14nm,0.7s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.68** | **314** | P | **P** | **09 09 56.5** | **-0.5** |
| | comp=Z,12nm,0.5s,baz=99,slow=7.9,SNR=9.8 | | | | | | |
| ZALV | | | | PcP | **PcP** | **09 11 47.9** | **-0.3** |
| | comp=Z,1.9nm,0.4s,baz=108,slow=4.7,SNR=4.6 | | | | | | |
| ZALV | | | | LR | LR | 09 28 31.8 | |
| | comp=Z,326nm,18.0s,baz=70,slow=37 | | | | | | |
| **NVS** | **Novosibirsk** | **43.63** | **315** | *e*P | **P** | **09 10 04.0** | **-0.6** |
| NVS | | | | pmax | pmax | | |
| | comp=Z,33nm,0.9s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=N,4.0nm,0.9s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=E,25nm,1.0s | | | | | | |
| **BRDH** | **Bariadhala** | **44.55** | **267** | LR | LR | 09 31 57.4 | |
| | comp=E,1μm,18.5s,baz=82,slow=40 | | | | | | |
| **MK01** | **Makanchi Array** | **44.63** | **303** | *e*P | **P** | **09 10 12.5** | **-0.3** |
| **MK31** | **Makanchi Array** | **44.63** | **303** | *i*P | **P** | **09 10 12.3** | **-0.5** |
| MK31 | | | | pmax | pmax | | |
| | comp=Z,26nm,1.1s | | | | | | |

MK31 **Makanchi Array** 44.63 303 *e*P P 09 10 12.8 0.0
MKAR **Makanchi Array** 44.63 303 P P 09 10 12.5 -0.4
comp=Z,7.2nm,0.5s,baz=83,slow=9.9,SNR=109
MKAR LR LR 09 29 35.4
comp=Z,614nm,19.3s,baz=90,slow=37
PMG **Port Moresby** 45.08 171 LR LR 09 28 39.6
comp=Z,70nm,20.2s,baz=6.5,slow=35
CHGN **Chignik** 45.29 43 *e*P P 09 10 18.1 +0.2
comp=Z,129nm,1.0s
KURK **Kurchatov** 46.59 309 *c i*P P 09 10 27.3 -0.9
KURK pmax pmax
comp=Z,110nm,1.0s
KURK **Kurchatov** 46.59 309 *e*P P 09 10 27.6 -0.6
comp=Z,24nm,0.7s
RAMN **Ramite** 46.77 275 *e*P P 09 10 29.4 -0.9
comp=Z,56nm,0.7s
JIRN **Jiri** 46.82 276 *e*P P 09 10 30.2 -0.6
GUN **Gumba** 46.97 277 *e*P P 09 10 31.3 -0.6
comp=Z,67nm,1.0s
PDGK **Podgornoye** 47.18 299 P P 09 10 32.4 -0.7
PDGK pmax pmax
comp=Z,12nm,0.5s
PKI **Pulchoki** 47.49 277 *e*P P 09 10 35.0 -0.9
comp=Z,10nm,0.5s
PKIN **Phulchoki** 47.49 277 *e*P P 09 10 35.2 -0.7
KKN **Kakani** 47.50 277 *e*P P 09 10 35.2 -0.7
comp=Z,18nm,0.7s
DMN **Daman** 47.72 277 *e*P P 09 10 37.0 -0.6
comp=Z,15nm,0.7s
IMAR **Indian Mountai** 48.12 30 *e*P P 09 10 41.0 +1.1
RSO **Redoubt South** 48.30 37 *e*P P 09 10 36.8 -4.8
KDAK **Kodiak Island** 48.45 41 P P 09 10 42.5 0.0
comp=Z,6.2nm,0.7s,baz=278,slow=4.7,SNR=3.9
KDAK **Kodiak Island** 48.45 41 *i*P P 09 10 45.3 +2.8
KOLN **Koldanda** 48.87 278 *e*P P 09 10 45.7 -0.8
comp=Z,23nm,0.8s
PYUN **Piuthan** 49.23 278 *e*P P 09 10 48.6 -0.6
comp=Z,126nm,0.8s
COEN **Coen** 49.27 177 *e*P P 09 10 50.0 +0.8
comp=Z,50nm,1.6s
SUA **Susitna One** 49.27 36 *e*P P 09 10 46.9 -2.0
comp=Z,75nm,1.5s
MLY **Manley** 49.31 31 *e*P P 09 10 50.5 +1.4
comp=Z,8.8nm,1.0s
TKM2 **Tokmak 2** 50.05 299 P P 09 10 55.5 +0.3
TKM2 pmax pmax
comp=Z,11nm,0.5s
RND **Reindeer** 50.12 33 *e*P P 09 10 55.3 0.0
RND pmax pmax
comp=Z,34nm,1.5s
RND **Reindeer** 50.12 33 *e*P P 09 10 55.3 0.0
comp=Z,34nm,1.5s
MDM **Murphy Dome** 50.37 31 *e*P P 09 10 58.8 +1.6
comp=Z,14nm,1.0s
SML **Sawmill** 50.41 36 *e*P P 09 10 58.1 +0.6
SML pmax pmax
comp=Z,94nm,1.9s
SML **Sawmill** 50.41 36 *e*P P 09 10 58.1 +0.6
comp=Z,94nm,1.9s
COLA **College** 50.53 32 *e*P P 09 10 59.9 +1.6
COLA pmax pmax
comp=Z,7.0nm,0.7s
COLA **College** 50.53 32 *e*P P 09 10 59.9 +1.6
comp=Z,7.3nm,0.7s
CCB **Clear Creek Bu** 50.56 32 *e*P P 09 10 59.8 +1.3
comp=Z,24nm,1.8s
KSH **Kashi** 50.71 295 P P 09 11 03.0 +2.8
KSH pP pP 09 11 10.8 -1.2
KSH PcP **PcP** 09 12 19.0 +2.0
KSH PP **PP** 09 13 00.0 +3.7
KSH S S 09 18 15.5 +2.9
KSH ScS **ScS** 09 20 47.1 -0.6
KSH SS **SS** 09 21 48.8 +1.7
KSH pmax pmax
comp=Z,6.0nm,0.9s
KSH pmax pmax
comp=Z,130nm,3.8s
KSH LR LR
comp=Z,150nm,6.1s
KSH LR LR
comp=Z,130nm,5.3s
KSH LR LR
comp=Z,360nm,10.4s
FRU **Bishkek** 50.76 300 *e*P P 09 11 03.0 +2.6
FRU *e* 09 11 19.0
FRU pmax pmax
comp=Z,40nm,2.0s
AAK **Ala-Archa** 50.90 299 LR LR 09 33 46.0
comp=Z,986nm,21.7s,baz=56,slow=37
AAK **Ala-Archa** 50.90 299 *c i*P P 09 11 01.3 -0.4
AAK pmax pmax
comp=Z,7.0nm,1.0s
AAK **Ala-Archa** 50.90 299 *e*P P 09 11 01.4 -0.2
comp=Z,5.5nm,0.8s
HDA **Harding Lake** 50.93 32 *e*P P 09 11 01.7 +0.3
comp=Z,14nm,1.1s
IL1 **Eielson Array** 50.95 32 *e*P P 09 11 01.7 +0.3
ILAR **Eielson Array** 50.95 32 P P 09 11 01.4 0.0
comp=Z,3.0nm,0.6s,baz=264,slow=5.9,SNR=42
ILAR LR LR 09 31 59.4
comp=Z,156nm,21.9s,baz=284,slow=35
ILB **Eielson Array** 50.95 32 *e*P P 09 11 01.8 +0.3
BVA0 **Borovoye Array** 51.33 313 P P 09 11 03.9 -0.6
BVA0 pmax pmax
comp=Z,18nm,1.2s
BVAR **Borovoye Array** 51.33 313 P P 09 11 04.0 -0.5
comp=Z,4.2nm,0.3s,baz=86,slow=8.0,SNR=28
BVAR PcP **PcP** 09 12 19.5 +0.7
comp=Z,1.5nm,0.5s,baz=91,slow=3.0,SNR=2.1
BRVK **Borovoye** 51.39 313 *c i*P P 09 11 04.5 -0.4
BRVK pmax pmax
comp=Z,42nm,0.8s
BRVK **Borovoye** 51.39 313 *e*P P 09 11 04.9 0.0
comp=Z,26nm,1.1s
KLU **Klutina** 51.58 36 *e*P P 09 11 07.6 +1.3
comp=Z,58nm,1.7s
MNAS **Manas** 52.36 300 P P 09 11 12.3 -0.2
MNAS pmax pmax
comp=Z,11nm,0.8s
SFK **Sufi-Kurgan** 52.37 296 P P 09 11 12.3 -0.5
SFK pmax pmax
comp=Z,6.0nm,0.5s
GSI **Gunungsitoli** 52.74 240 *e*P P 09 11 14.2 -1.2
comp=Z,25nm,0.8s
THN **Thein Dam** 53.31 287 *e*P P 09 11 17.0 -2.5
KK31 **Karatay Array** 53.58 301 *i*P P 09 11 21.0 -0.3
KK31 pmax pmax
comp=Z,3.0nm,0.6s
WRAB **Tennant Creek** 55.52 188 *e*P P 09 11 34.9 -0.6
WRAB pmax pmax
comp=Z,13nm,1.0s
WRAB **Tennant Creek** 55.52 188 *e*P P 09 11 34.8 -0.7
comp=Z,48nm,1.4s
WB2 **Warramunga Arr** 55.53 188 *e*P P 09 11 34.8 -0.7
comp=Z,49nm,1.4s
WRA **Warramunga Arr** 55.53 188 P P 09 11 32.6 -3.0
comp=Z,7.7nm,0.7s,baz=5.4,slow=7.5,SNR=34
WRA LR LR 09 34 46.0
comp=Z,180nm,21.8s,baz=355,slow=35
WC3 **Warramunga Arr** 55.54 188 *e*P P 09 11 34.9 -0.7
comp=Z,59nm,1.4s
INK **Inuvik** 55.88 27 *e*P P 09 11 38.2 +0.7
INK pmax pmax
comp=Z,28nm,2.0s
INK **Inuvik** 55.88 27 *e*P P 09 11 38.2 +0.7
comp=Z,28nm,2.0s
SVE **Sverdlovsk** 56.04 319 *e*P P 09 11 38.9 0.0
SVE pmax pmax
comp=Z,19nm,0.8s
SVE MLR MLR
comp=Z,599nm,16.0s
DZET **Dzherino** 56.19 296 P P 09 11 39.8 -0.6
DZET pmax pmax
comp=Z,16nm,0.6s
ARU **Arti** 57.26 319 LR LR 09 37 49.3
comp=Z,192nm,18.4s,baz=70,slow=37
ARU **Arti** 57.26 319 *c i*P P 09 11 47.0 -0.5
ARU 09 12 40.5
ARU 09 13 50.3
ARU S S 09 19 41.6 +1.3
ARU SS **SS** 09 23 26.1 -3.2
ARU pmax pmax
comp=Z,32nm,1.0s
ARU MLR MLR
comp=Z,567nm,17.0s
ARU **Arti** 57.26 319 *e*P P 09 11 47.1 -0.4
comp=Z,24nm,0.7s
HYB **Hyderabad** 57.82 269 *i*P P 09 11 52.0 -0.1
AB31 **Akbulak array** 58.64 311 P P 09 11 56.5 -0.8
AB31 pmax pmax
comp=Z,5.0nm,0.5s
AS01 **Alice Springs** 59.25 188 *e*P P 09 12 01.5 -0.2
AS31 **Alice Springs** 59.26 188 *e*P P 09 12 01.4 -0.4
comp=Z,2.1nm,0.5s
ASAR **Alice Springs** 59.26 188 P P 09 12 00.8 -1.0
comp=Z,1.9nm,0.7s,baz=355,slow=5.8,SNR=27
ASAR LR LR 09 37 02.0
comp=Z,188nm,21.8s,baz=9.5,slow=35
AKTO **Aktyubinsk** 59.42 313 LR LR 09 38 50.9
comp=Z,331nm,19.9s,baz=73,slow=37
MBWA **Marble Bar** 59.88 203 *e*P P 09 12 05.5 -0.6
comp=Z,17nm,0.7s
POO **Poona** 61.08 273 *e*P P 09 12 06.0 -8.6
SPA0 **Spitsbergen Ar** 61.92 349 *e*P P 09 12 20.4 +1.0
KBS **Kingsbay** 62.07 350 *e*P P 09 12 21.3 +1.0
KBS pmax pmax
comp=Z,47nm,1.4s
KBS **Kingsbay** 62.07 350 *e*P P 09 12 21.3 +1.0
comp=Z,47nm,1.4s
DZM **Mont Dzumac** 62.17 153 *e*LR LR 09 31 00.2
comp=Z,446nm,25.1s
GEYT **Alibeck** 64.26 299 P P 09 12 35.0 -0.5
comp=Z,4.6nm,0.8s,baz=354,slow=4.5,SNR=8.8
GEYT LR LR 09 43 25.9
comp=Z,412nm,20.0s,baz=60,slow=39
KLMR **Klimovskoe** 64.84 328 *e*P P 09 12 35.4 -3.4
KLMR pmax pmax
comp=Z,10.0nm,0.9s
ARCES **ARCESS Array B** 65.27 340 P P 09 12 40.9 -0.7
comp=Z,2.6nm,0.5s,baz=56,slow=8.0,SNR=36
ARCES LR LR 09 44 21.9
comp=Z,658nm,21.0s,baz=51,slow=39
ARCES **ARCESS Array B** 65.27 340 *e*P P 09 12 41.6 +0.1
ARCES **ARCESS Array B** 65.27 340 *e*P P 09 12 41.6 +0.1
ARE0 **ARCESS Array S** 65.27 340 *e*P P 09 12 41.6 +0.1
comp=Z,66nm,1.9s
YKA **Yellowknife Ar** 65.28 30 P P 09 12 41.3 -0.4
comp=Z,1.3nm,0.8s,baz=302,slow=6.6,SNR=17
YKA LR LR 09 43 41.4
comp=Z,12nm,19.1s,baz=0.0,slow=38
SGF **Sodankyl** 66.20 337 P P 09 12 51.4 +3.9
MSF **Maaselka** 66.26 335 P P 09 12 49.3 +1.3
MSF pmax pmax
comp=Z,19nm,1.3s
TULEG **Thule** 66.63 7 *e*P P 09 12 49.8 -0.3
comp=Z,31nm,1.7s
STKA **Stephens Creek** 67.06 179 P P 09 12 52.1 -1.2
comp=Z,3.9nm,0.8s,baz=353,slow=6.2,SNR=4.9
STKA LR LR 09 42 58.0
comp=Z,176nm,20.6s,baz=16,slow=37
STKA **Stephens Creek** 67.06 179 *e*P P 09 12 53.2 -0.2
STKA pmax pmax
comp=Z,2.0nm,1.1s
STKA **Stephens Creek** 67.06 179 *e*P P 09 12 53.1 -0.2
comp=Z,2.2nm,1.1s
FORT **Forrest** 67.07 192 *e*P P 09 12 53.3 -0.2
comp=Z,191nm,0.6s
DAG **Danmarks Havn** 67.23 355 *i*P P 09 12 53.6 -0.4
DAG pmax pmax
comp=Z,4.0nm,0.7s
DAG **Danmarks Havn** 67.23 355 *i*P P 09 12 53.6 -0.4
comp=Z,4.1nm,0.7s
BBOO **Buckleboo** 68.14 184 *e*P P 09 12 59.9 -0.3
comp=Z,27nm,1.2s
VRH **Novokhopyorsk** 68.46 318 *e*P P 09 12 59.8 -2.3
VRH pmax pmax
comp=Z,8.0nm,0.5s
MAK **Makhachkala** 69.11 308 *e*P P 09 13 06.6 +0.3
MAK *e* 09 15 39.4
MAK *e*S **S** 09 22 10.1 +1.5
MAK *e*SS **SS** 09 26 35.5 +0.9
MAK MLR MLR
comp=Z,429nm,15.0s
LPSR **Galich'ya Gora** 69.23 320 *e*P P 09 13 05.6 -1.2
LPSR pmax pmax
comp=Z,10.0nm,0.8s
VSR **Storozhevoye** 69.83 319 *e*P P 09 13 09.5 -1.1
VSR pmax pmax
comp=Z,10.0nm,0.5s
FIA1 **FINESS Array S** 69.97 332 *e*P P 09 13 11.0 -0.3
comp=Z,58nm,1.4s
FINES **FINESS Array B** 69.97 332 P P 09 13 10.9 -0.4
comp=Z,9.8nm,0.5s,baz=48,slow=6.5,SNR=74
FINES LR LR 09 46 04.1
comp=Z,397nm,19.1s,baz=32,slow=38
ZEI **Tsey** 71.48 310 *e*P P 09 13 19.1 -2.0
ZEI pmax pmax
comp=Z,6.0nm,0.7s
VSU **Vasula** 71.57 330 *ce*P P 09 13 20.9 -0.1
VSU pmax pmax
comp=Z,107nm,2.5s
KBZ **Khabaz** 71.61 311 P P 09 13 21.6 0.0
comp=Z,12nm,0.8s,baz=41,slow=4.8,SNR=16
KBZ LR LR 09 48 45.9
comp=Z,182nm,20.4s,baz=48,slow=39
KIV **Kislovodsk** 71.62 311 *e*P P 09 13 23.2 +1.4
KIV pmax pmax
comp=Z,26nm,1.0s
UOSS **Minazif** 71.93 288 *e*P P 09 13 23.7 -0.1
comp=Z,7.7nm,1.0s
NEY **Neytrino** 71.97 310 *i*P P 09 13 24.7 +0.7
NEY pmax pmax
comp=Z,2.0nm,0.8s
SUMG **Summit** 72.18 360 *e*P P 09 13 26.2 +1.3
SUMG pmax pmax
comp=Z,17nm,1.0s
SUMG **Summit** 72.18 360 *i*P P 09 13 26.3 +1.3
comp=Z,22nm,1.1s
SUMG **Summit** 72.18 360 *e*P P 09 13 26.2 +1.3
comp=Z,17nm,1.0s
GNI **Garni** 72.32 307 *e*P P 09 13 27.4 +1.3
GNI pmax pmax
comp=Z,19nm,0.9s
GNI **Garni** 72.32 307 *e*P P 09 13 26.3 +0.2
comp=Z,16nm,0.8s
ARTV **Artvin** 73.58 309 *e*P P 09 13 34.3 +0.7
comp=Z,5.7nm,0.8s
BEKR **Beckworth** 74.05 52 *e*P P 09 13 36.6 +0.3
comp=Z,5.0nm,1.0s
HSPM **Sheep** 74.78 55 *e*P P 09 13 44.7 +4.2
CMB **Columbia Colle** 75.03 54 *e*P P 09 13 42.6 +0.7
CMB pmax pmax
comp=Z,5.0nm,1.0s
CMB **Columbia Colle** 75.03 54 *e*P P 09 13 42.6 +0.7
comp=Z,4.6nm,1.0s
KOPT **Kop Dagi** 75.13 309 *e*P P 09 13 43.1 +0.3
comp=Z,7.2nm,0.7s
NC405 **NORSAR Array S** 75.22 337 *e*P P 09 13 42.8 +0.3
NC303 **NORSAR Array S** 75.24 337 *e*P P 09 13 42.6 0.0
AKASG **Malin Array Be** 75.27 322 P P 09 13 41.8 -1.1
comp=Z,8.3nm,0.6s,baz=47,slow=6.0,SNR=35
AKASG LR LR 09 49 46.4
comp=Z,829nm,19.2s,baz=45,slow=38
AKBB **Malin Array Si** 75.27 322 *e*P P 09 13 42.3 -0.6
AKBB pmax pmax
comp=Z,10.0nm,0.8s
AKBB **Malin Array Si** 75.27 322 *e*P P 09 13 42.3 -0.6
comp=Z,9.8nm,0.8s
AK11 **Malin Array Si** 75.31 322 *e*P P 09 13 42.2 -0.9
NC204 **NORSAR Array S** 75.39 338 *e*P P 09 13 43.4 -0.2
WAKR **Walker** 75.39 53 *e*P P 09 13 49.2 +5.0
comp=Z,15nm,1.7s
NB201 **NORSAR Array S** 75.40 337 *e*P P 09 13 43.7 +0.2
NB2 **NORSAR Subarra** 75.43 337 P P 09 13 43.6 -0.2
comp=Z,8.1nm,0.7s,baz=41,slow=5.9
NB2 **NORSAR Subarra** 75.43 337 P P 09 13 43.1 -0.6
NB2 pmax pmax
comp=Z,6.0nm,0.6s
NOA **NORSAR Array B** 75.43 337 P P 09 13 43.1 -0.6
comp=Z,8.4nm,0.7s,baz=43,slow=5.4,SNR=32
NOA LR LR 09 50 03.3
comp=Z,683nm,19.7s,baz=45,slow=38
LRM **Limekiln Ridge** 75.47 44 *e*P P 09 13 45.2 +0.7
NBO02 **NORSAR Array S** 75.53 337 *e*P P 09 13 44.7 +0.3
NC602 **NORSAR Array S** 75.56 337 *e*P P 09 13 43.9 -0.5
NBO00 **NORSAR Array S** 75.57 337 *e*P P 09 13 44.3 -0.2
DLMT **Dillon** 75.65 44 *e*P P 09 13 45.4 -0.1
comp=Z,9.5nm,1.1s
NAO01 **NORSAR Array S** 75.68 337 *e*P P 09 13 45.2 0.0
KVN **Kaiserville** 75.95 52 P P 09 13 48.8 +1.4
KVN pmax pmax
comp=Z,5.0nm,1.1s
BOZ **Bozeman (W)** 76.06 44 *e*P P 09 13 48.6 +0.8
BOZ pmax pmax
comp=Z,9.0nm,1.4s
BOZ **Bozeman (W)** 76.06 44 *e*P P 09 13 48.6 +0.8
comp=Z,9.2nm,1.4s
NV01 **Mina Array Sit** 76.17 53 *e*P P 09 13 49.7 +1.1
YHB **Horse Butte** 76.82 44 *e*P P 09 13 51.0 -1.2
comp=Z,6.0nm,1.1s
SORM **Soroca** 77.33 321 ⇑*i*P P 09 13 54.0 -0.6
SORM **Soroca** 77.33 321 ⇑P P 09 13 54.0 -0.6
IMW **Indian Meadow** 77.48 45 *e*P P 09 13 58.3 +2.3
comp=Z,4.8nm,1.0s
ISA **Isabella, Lake** 77.63 55 *e*P P 09 13 57.7 +1.0
ISA pmax pmax
comp=Z,10.0nm,0.9s
ISA **Isabella, Lake** 77.63 55 *e*P P 09 13 57.7 +1.0
comp=Z,10.0nm,0.9s
RLMT **Red Lodge** 77.67 43 *e*P P 09 13 59.3 +2.3
comp=Z,17nm,1.6s
DUG **Dugway, Tooele** 78.60 49 *e*P P 09 14 03.3 +1.2
DUG pmax pmax
comp=Z,4.0nm,0.9s
DUG **Dugway, Tooele** 78.60 49 *e*P P 09 14 03.3 +1.2
comp=Z,4.3nm,0.9s
BW06 **Boulder Array** 78.97 45 *e*P P 09 14 05.0 +0.8
comp=Z,2.9nm,1.0s
PD31 **Pinedale Array** 78.97 45 *e*P P 09 14 04.7 +0.5
PDAR **Pinedale Array** 78.97 45 P P 09 14 04.6 +0.4
comp=Z,0.8nm,0.5s,baz=281,slow=1.9,SNR=13
PDAR **Pinedale Array** 78.97 45 *e*P P 09 14 04.3 +0.1
KWP **Kalwaria Pacla** 79.14 324 *e*P P 09 14 05.2 +0.5
KWP **Kalwaria Pacla** 79.14 324 *e*P P 09 14 05.2 +0.5
BUR08 **Bucovina Ar. S** 79.26 322 *e*P P 09 14 05.5 0.0
TESR **Tescani** 79.26 320 ⇓*i*P P 09 14 05.5 +0.1
BUR04 **Bucovina Ar. S** 79.27 322 *e*P P 09 14 05.5 -0.1
BURAR **Bucovina Array** 79.27 322 ⇑*i*P P 09 14 05.7 +0.1
BURAR **Bucovina Array** 79.27 322 ⇑P P 09 14 05.7 +0.1
BR131 **Keskin Array S** 79.58 312 *e*P P 09 14 07.3 -0.2
BRTR **Keskin Array B** 79.58 312 P P 09 14 06.5 -0.9
comp=Z,3.8nm,0.8s,baz=101,slow=3.3,SNR=15
BRTR LR LR 09 53 54.4
comp=Z,165nm,20.0s,baz=63,slow=39
VRI **Vrincioaia** 79.64 320 ⇑*i*P P 09 14 08.4 +0.9
VRI **Vrincioaia** 79.64 320 ⇑P P 09 14 08.4 +0.9
STHS **Stebnicka Huta** 79.98 325 *e*P P 09 14 10.5 +1.2
STHS pmax pmax
comp=Z,4.0nm,0.8s
STHS **Stebnicka Huta** 79.98 325 *e*P P 09 14 10.5 +1.2
UZH **Uzhgorod** 80.02 324 *e*P P 09 14 08.7 -0.8
UZH *i* 09 14 19.7
BR231 **Keskin MP Arra** 80.03 312 *e*P P 09 14 07.7 -2.2
OJC **Ojcow** 80.08 326 *e*P P 09 14 10.2 +0.4
OJC **Ojcow** 80.08 326 *e*P P 09 14 10.2 +0.4
OJC **Ojcow** 80.08 326 *e*P P 09 14 09.9 +0.1
comp=Z,7.6nm,0.8s
PFO **Pinyon Flats O** 80.17 56 *e*P P 09 14 11.7 +1.0
PFO pmax pmax
comp=Z,8.0nm,1.0s
PFO **Pinyon Flats O** 80.17 56 *e*P P 09 14 11.7 +1.0
comp=Z,7.5nm,1.0s
XPFO **Piæon Flat** 80.17 56 *e*P P 09 14 11.6 +0.8
comp=Z,8.0nm,1.0s
CRVS **Cervenica-Dubn** 80.23 324 *e*P P 09 14 10.8 +0.1
CRVS **Cervenica-Dubn** 80.23 324 *e*P P 09 14 10.8 +0.1
DOPR **Dopca** 80.27 320 ⇓*i*P P 09 14 12.2 +1.3
MLR **Muntele Rosu** 80.30 320 ⇑*i*P P 09 14 14.0 +2.8
MLR **Muntele Rosu** 80.30 320 ⇑P P 09 14 14.0 +2.8
NIE **Niedzica** 80.42 325 *e*P P 09 14 11.4 -0.3
NIE **Niedzica** 80.42 325 *e*P P 09 14 11.4 -0.3
SRU **San Rafael Swe** 80.67 48 *e*P P 09 14 13.8 +0.4
SRU pmax pmax
comp=Z,6.0nm,0.8s
SRU **San Rafael Swe** 80.67 48 *e*P P 09 14 13.8 +0.4
comp=Z,6.3nm,0.8s
VOIR 80.81 320 ⇓*i*P P 09 14 16.7 +2.8
VOIR 80.81 320 ⇓P P 09 14 16.7 +2.8
RAYN **Ar Rayn** 80.90 292 *e*P P 09 14 14.5 -0.2
comp=Z,6.3nm,0.8s
ULM **Lac du Bonnet** 80.95 33 P P 09 14 13.0 -1.4
comp=Z,1.0nm,0.6s,baz=316,slow=5.2,SNR=2.8
ULM LR LR 09 49 39.5
comp=Z,130nm,21.6s,baz=320,slow=35
ARR **Arges** 81.07 320 ⇑*i*P P 09 14 16.4 +1.1
DRGR 81.08 322 ⇑*i*P P 09 14 16.7 +1.4
DRGR 81.08 322 ⇑P P 09 14 16.7 +1.4
OKC **Ostrava-Krasne** 81.10 327 ⇑AMS AMS 09 54 00.0
comp=Z,600nm,17.1s
KSP **Ksiaz** 81.19 328 *e*P P 09 14 16.0 +0.3
KSP **Ksiaz** 81.19 328 *e*P P 09 14 16.0 +0.3
MORC **Moravsky Berou** 81.42 327 ⇑*i*P P 09 14 17.2 +0.2
MORC **Moravsky Berou** 81.42 327 ⇑P P 09 14 17.2 +0.2
MORC **Moravsky Berou** 81.42 327 *e*P P 09 14 17.0 0.0
comp=Z,23nm,1.0s
DPC **Dobruska-Polom** 81.54 328 ⇑*i*P P 09 14 18.0 +0.4
DPC *es*P **pP** 09 14 33.8 +3.7
DPC **Dobruska-Polom** 81.54 328 ⇑*i*P P 09 14 18.0 +0.4
DPC *e* 09 14 33.8
UPC **Upice** 81.56 328 ⇑*e*P P 09 14 18.1 +0.4
UPC AMS AMS 09 53 30.0
comp=Z,500nm,16.1s
UPC **Upice** 81.56 328 *e*P P 09 14 18.1 +0.4
UPC MLR MLR
comp=Z,500nm,16.1s
PSZ **Piszkesteto** 81.67 324 ⇑*i*P P 09 14 19.5 +1.1
PSZ **Piszkesteto** 81.67 324 ⇑P P 09 14 19.5 +1.1
VYHS **Vyhne** 81.76 325 *e*P P 09 14 18.9 +0.1
VYHS pmax pmax
comp=Z,3.0nm,1.0s
VYHS **Vyhne** 81.76 325 *e*P P 09 14 18.9 +0.1
PV10 **Paradox Valley** 82.03 48 *e*P P 09 14 21.9 +1.2
PVCC **Panska Ves** 82.16 329 ⇑*e*P P 09 14 21.3 +0.5
PVCC **Panska Ves** 82.16 329 *e*P P 09 14 21.3 +0.5
BRG **Berggiesshubel** 82.16 329 *e*P P 09 14 20.6 -0.2
comp=Z,9.1nm,1.0s
BRG *e* 09 14 32.3
comp=Z,5.9nm,0.9s
BRG *e* 09 14 36.6
comp=Z,10nm,1.1s
BRG **Berggiesshubel** 82.16 329 *e*P P 09 14 20.6 -0.2
comp=Z,9.1nm,1.0s
BRG *e* 09 14 32.3
comp=Z,5.9nm,0.9s
BRG *e* 09 14 36.6
comp=Z,10nm,1.1s
BRG **Berggiesshubel** 82.16 329 P P 09 14 21.6 +0.8
BRG pmax pmax
comp=Z,9.0nm,1.3s
VRAC **Vranov** 82.18 327 ⇑*i*P P 09 14 21.6 +0.6
VRAC **Vranov** 82.18 327 ⇑P P 09 14 21.6 +0.6
CLL **Collm** 82.22 330 ⇑*i*P P 09 14 20.6 -0.5
CLL *e* 09 14 32.0
CLL *i* 09 14 35.9
CLL pmax pmax
comp=Z,11nm,0.9s
CLL MLR MLR
comp=Z,400nm,18.5s
CLL **Collm** 82.22 330 ⇑*i*P P 09 14 20.6 -0.5
comp=Z,11nm,0.9s
CLL *ep*P **PcP** 09 14 32.0 +5.6
CLL *i*S **pP** 09 14 35.9 +2.3
CLL LmH 09 53 00.0
comp=Z,300nm,20.2s
CLL LmV 09 54 00.0
comp=Z,400nm,18.5s
CLL **Collm** 82.22 330 *e*P P 09 14 20.4 -0.7
comp=Z,11nm,0.7s
BZS **Buzias** 82.44 322 ⇓*i*P P 09 14 22.2 -0.2
BZS **Buzias** 82.44 322 ⇓P P 09 14 22.2 -0.2
PV01 **Paradox Valley** 82.47 48 *e*P P 09 14 24.1 +1.1
comp=Z,334nm,0.9s
GOPC **GO Pecny, Ondr** 82.52 328 ⇑*e*P P 09 14 22.6 -0.2
GOPC **GO Pecny, Ondr** 82.52 328 ⇑*e*P P 09 14 22.6 -0.2
PRU **Pruhonice** 82.57 328 ⇑*e*P P 09 14 23.1 +0.1
PRU *ep*P **pP** 09 14 34.9 -0.6
PRU AMS AMS 09 54 00.0
comp=Z,400nm,16.7s
PRU **Pruhonice** 82.57 328 *e*P P 09 14 23.1 +0.1
PRU *e* 09 14 34.9
PRU MLR MLR
comp=Z,400nm,16.7s
MDVR **Moldovita** 82.98 321 ⇑*i*P P 09 14 25.2 -0.1
CONA **Conrad Observa** 83.53 326 *e*P P 09 14 28.0 -0.2
comp=Z,12nm,1.3s
KHC **Kasperske Hory** 83.63 328 ⇑*e*P P 09 14 28.5 -0.1

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| KHC | | | | *e*pP | **PcP** | 09 14 37.9 | **+5.2** |
| KHC | | | | *e*x | x | 09 14 46.0 | |
| **KHC** | **Kasperske Hory** | **83.63** | **328** | *e*P | **P** | **09 14 28.5** | **-0.1** |
| KHC | | | | *e* | | 09 14 37.9 | |
| KHC | | | | *e* | | 09 14 46.0 | |
| **KHC** | **Kasperske Hory** | **83.63** | **328** | *e*P | **P** | **09 14 28.0** | **-0.5** |
| | comp=Z,2.0nm,0.9s | | | | | | |
| **GEC2** | **GERESS Array S** | **83.80** | **328** | *e*P | **P** | **09 14 29.4** | **-0.1** |
| GEC2 | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.0s | | | | | | |
| **GEC2** | **GERESS Array S** | **83.80** | **328** | *e*P | **P** | **09 14 29.4** | **-0.1** |
| | comp=Z,6.3nm,1.0s | | | | | | |
| **GERES** | **GERESS Array B** | **83.80** | **328** | P | **P** | **09 14 28.7** | **-0.8** |
| | comp=Z,1.9nm,0.6s,baz=32,slow=5.8,SNR=11 | | | | | | |
| GERES | | | | LR | LR | 09 54 18.7 | |
| | comp=Z,294nm,18.8s,baz=48,slow=37 | | | | | | |
| **GEA0** | **GERESS Array S** | **83.80** | **328** | *e*P | **P** | **09 14 29.1** | **-0.4** |
| **PMOR** | **Pomariorio Ree** | **83.91** | **113** | *e*T | T | 10 46 47.0 | |
| | comp=Z,18nm,0.2s | | | | | | |
| **ARSA** | **Arzberg** | **84.19** | **326** | *e*P | **P** | **09 14 29.4** | **-2.1** |
| | comp=Z,3.1nm,0.8s | | | | | | |
| **PPT** | **Papeete** | **84.28** | **116** | LR | LR | 09 44 57.5 | |
| | comp=Z,264nm,22.0s,baz=330,slow=30 | | | | | | |
| **PPT2** | **Papeete2** | **84.30** | **116** | *e*LR | LR | 09 41 04.1 | |
| | comp=Z,508nm,22.0s,baz=313 | | | | | | |
| **PPT2** | **Papeete2** | **84.30** | **116** | *e*T | T | 10 47 17.5 | |
| | comp=Z,4.0nm,0.3s | | | | | | |
| **MOA** | **Molln** | **84.30** | **327** | *e*PcP | **P** | **09 14 33.0** | **+1.0** |
| | comp=Z,7.8nm,1.2s | | | | | | |
| **PAE** | **Paea** | **84.34** | **116** | *e*T | T | 10 47 19.9 | |
| | comp=Z,0.6nm,0.2s | | | | | | |
| **TIAR** | **Tiarei** | **84.45** | **116** | *e*T | T | 10 47 28.0 | |
| | comp=Z,1.9nm,0.2s | | | | | | |
| **TUC** | **Tucson** | **84.74** | **54** | *e*P | **P** | **09 14 37.3** | **+2.7** |
| TUC | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.9s | | | | | | |
| **TUC** | **Tucson** | **84.74** | **54** | *e*P | **P** | **09 14 37.3** | **+2.7** |
| | comp=Z,4.9nm,0.9s | | | | | | |
| **PERS** | **Pernice** | **84.83** | **326** | *i* P | **P** | **09 14 34.5** | **-0.3** |
| **SOKA** | **Soboth** | **84.84** | **326** | *e*P | **P** | **09 14 34.3** | **-0.5** |
| | comp=Z,11nm,1.0s | | | | | | |
| **KBA** | **Koelnbreinsper** | **85.30** | **327** | *e*PcP | **P** | **09 14 37.3** | **+0.1** |
| | comp=Z,3.5nm,0.6s | | | | | | |
| **ECSD** | **EROS Data Cent** | **85.31** | **38** | *e*P | **P** | **09 14 36.5** | **-0.6** |
| **MEM** | **Membach** | **85.49** | **333** | P | **P** | **09 14 37.6** | **-0.3** |
| | comp=Z,12nm,1.4s | | | | | | |
| **MYKA** | **Terra Mystica** | **85.50** | **327** | *i* P | **P** | **09 14 37.2** | **-0.9** |
| | comp=Z,5.2nm,0.5s | | | | | | |
| **VISS** | **Visnje** | **85.58** | **325** | *i* P | **P** | **09 14 37.8** | **-0.6** |
| **BOJS** | **Bojanci** | **85.62** | **325** | *i* P | **P** | **09 14 38.5** | **-0.1** |
| **WATA** | **Walderalm** | **85.87** | **328** | *i* PcP | **P** | **09 14 40.0** | **0.0** |
| | comp=Z,2.1nm,0.5s | | | | | | |
| **JAVS** | **Javornik** | **85.87** | **326** | *i* P | **P** | **09 14 38.7** | **-1.2** |
| **ABTA** | **Abfaltersbach** | **85.92** | **327** | *i* P | **P** | **09 14 39.7** | **-0.5** |
| | comp=Z,4.7nm,1.0s | | | | | | |
| **RETA** | **Reutte** | **86.10** | **329** | *i* P | **P** | **09 14 40.6** | **-0.4** |
| | comp=Z,5.6nm,0.9s | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **86.16** | **104** | *e*LR | LR | 09 41 43.5 | |
| | comp=Z,542nm,24.7s,baz=309 | | | | | | |
| **BFO** | **Black Forest** | **86.44** | **331** | *i* P | **P** | **09 14 43.4** | **+0.8** |
| **BFO** | **Black Forest** | **86.44** | **331** | *e*P | **P** | **09 14 42.3** | **-0.3** |
| | comp=Z,10nm,1.0s | | | | | | |
| **FETA** | **Feichten** | **86.48** | **328** | *e*PcP | **P** | **09 14 43.4** | **+0.4** |
| | comp=Z,7.1nm,1.0s | | | | | | |
| **SCHQ** | **Schefferville** | **86.87** | **16** | P | **P** | **09 14 43.4** | **-1.2** |
| | comp=Z,4.1nm,0.7s,baz=302,slow=5.7,SNR=4.5 | | | | | | |
| SCHQ | | | | LR | LR | 09 55 51.1 | |
| | comp=Z,141nm,21.3s,baz=3.5,slow=37 | | | | | | |
| **SCHQ** | **Schefferville** | **86.87** | **16** | *e*P | **P** | **09 14 45.0** | **+0.4** |
| | comp=Z,62nm,1.8s | | | | | | |
| **FUORN** | **Ofenpass-Fuorn** | **86.99** | **328** | *e*P | **P** | **09 14 45.7** | **+0.1** |
| | comp=Z,6.6nm,0.6s | | | | | | |
| **ECH** | **Echery** | **86.99** | **331** | *e*P | **P** | **09 14 45.7** | **+0.4** |
| ECH | | | | pmax | pmax | | |
| | comp=Z,42nm,1.9s | | | | | | |
| **ECH** | **Echery** | **86.99** | **331** | *e*P | **P** | **09 14 45.7** | **+0.4** |
| | comp=Z,42nm,1.9s | | | | | | |
| **TBI** | **Tubuai** | **88.07** | **120** | *e*LR | LR | 09 42 53.6 | |
| | comp=Z,569nm,21.8s,baz=314 | | | | | | |
| **TBI** | **Tubuai** | **88.07** | **120** | *e*T | T | 10 51 59.3 | |
| | comp=Z,17nm,0.3s | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **91.31** | **52** | *e*P | **P** | **09 15 07.3** | **+1.2** |
| **TXAR** | **Lajitas Array** | **91.31** | **52** | P | **P** | **09 15 06.3** | **+0.2** |
| | comp=Z,0.4nm,0.7s,baz=306,slow=3.3,SNR=8.2 | | | | | | |
| TXAR | | | | LR | LR | 09 52 46.0 | |
| | comp=Z,220nm,19.8s,baz=0.0,slow=33 | | | | | | |
| **TXAR** | **Lajitas Array** | **91.31** | **52** | P | **P** | **09 15 06.3** | **+0.2** |
| TXAR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.6s | | | | | | |
| **CCAR** | **Cane Creek** | **95.11** | **42** | *e*P | **P** | **09 15 23.2** | **-0.2** |
| | comp=Z,28nm,1.1s | | | | | | |
| **KEST** | **Kesra** | **96.00** | **322** | LR | LR | 10 02 21.3 | |
| | comp=Z,300nm,21.0s,baz=342,slow=38 | | | | | | |
| **ESDC** | **Sonseca Array** | **98.47** | **333** | LR | LR | 10 04 05.5 | |
| | comp=Z,265nm,21.0s,baz=10.0,slow=38 | | | | | | |
| **RKT** | **Rikitea** | **98.51** | **112** | *e*LR | LR | 09 47 37.9 | |
| | comp=Z,566nm,23.2s | | | | | | |
| **TOA0** | **Torodi Ar. Sit** | **118.13** | **314** | *e*PKPdf | **PKPdf** | **09 20 47.2** | **-0.4** |
| **TORD** | **Torodi Ar. Bea** | **118.13** | **314** | PKP | **PKPdf** | **09 20 46.2** | **-1.4** |
| | comp=Z,0.4nm,0.4s,baz=14,slow=2.1,SNR=5.5 | | | | | | |
| **KOWA** | **Kowa** | **120.21** | **320** | *e*PKPdf | **PKPdf** | **09 20 51.2** | **-0.4** |
| **LPAZ** | **La Paz** | **147.74** | **61** | PKPbc | **PKPbc** | **09 21 46.2** | **+0.2** |
| | comp=Z,3.0nm,0.7s,baz=306,slow=2.1,SNR=12 | | | | | | |
| **LPAZ** | **La Paz** | **147.74** | **61** | *e*PKPbc | **PKPbc** | **09 21 45.2** | **-0.7** |
| **MNMC** | **Minye Minye** | **148.47** | **67** | *e*PKPbc | **PKPbc** | **09 21 48.8** | **+1.3** |
| **PB11** | **IPOC Station P** | **148.81** | **68** | *e*PKPbc | **PKPbc** | **09 21 49.6** | **+1.5** |
| **LCO** | **Las Campanas** | **152.51** | **85** | *e*PKPbc | **PKPbc** | **09 21 57.4** | **+0.5** |

*IDC **18** 09:14:59.5±1.7,4.°30S×146.°35E,h0km,mb3.6/3, mb1 3.9/5,mb1mx3.5/39,mbtmp3.7/5,ML3.2/2,Error ellipse: s-maj=58.1km s-min=28.6km az=116.0*

*ISCJB **18** 09:15:02.5±1.5,4.°81S±0.°10×146.°9E±0.°2,h33km,mb3.6/3, Error ellipse: s-maj=31.9km s-min=13.8km az=176.4*

**ISC 18 09:15:03.6±1.5,4.°8S±0.°1×146.°9E±0.°3,h35km,n6,σ1§03/6, mb3.5/3,Eastern New Guinea region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **4.64** | **176** | Pn | | Pn | 09 16 18.7 | +7.4 |
| | 6.6nm,0.3s,baz=0.0,slow=12,SNR=48 | | | | | | | |
| PMG | | | | Sn | | **Sn** | **09 17 03.8** | **-0.1** |
| | 5.0nm,0.3s,baz=291,slow=21,SNR=8.9 | | | | | | | |
| **WRA** | **Warramunga Arr** | **19.42** | **218** | P | | **Pn** | **09 19 28.7** | **+0.3** |
| | 0.3nm,0.3s,baz=39,slow=11,SNR=8.7 | | | | | | | |
| **ASAR** | **Alice Springs** | **22.59** | **212** | P | | **P** | **09 20 01.6** | **+0.4** |
| ASAR | 1.1nm,0.8s,baz=48,slow=9.0,SNR=10 | | | S | | S | 09 23 56.3 | -10 |
| | 0.8nm,0.9s,baz=33,slow=21,SNR=3.8 | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **24.64** | **236** | P | | **P** | **09 20 21.1** | **0.0** |
| | 1.5nm,0.4s,baz=56,slow=11,SNR=8.8 | | | | | | | |
| **ILAR** | **Eielson Array** | **84.39** | **23** | P | | **P** | **09 27 32.7** | **+0.6** |
| | 0.4nm,1.1s,baz=242,slow=3.6,SNR=3.1 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **144.64** | **286** | PKP | | **PKPdf** | **09 34 36.1** | **-1.6** |
| | 0.2nm,0.4s,baz=59,slow=2.8,SNR=3.0 | | | | | | | |

*CSEM **18** 09:19:38.2±0.5,77.°04N×7.°71E,h10km,ML3.2,Error ellipse: s-maj=12.6km s-min=11.5km az=107.0*

*NAO **18** 09:19:41.8±3.2,76.°92N×8.°73E,h6km±15km,ML3.2*

*BER **18** 09:19:43.6±2.4,77.°18N×8.°34E,h14km±15km,MD2.3, ML2.5,ML3.2(NAO)*

**ISC 18 09:19:38.4±1.8,76.°95N±0.°06×7.°34E±0.°05,h29km±17km, n26,σ2§69/42,Svalbard region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **HSPB** | **Hornsund (broa** | **1.86** | **85** | *e*P | | **Pn** | **09 20 09.4** | **+1.2** |
| HSPB | | | | *e*S | | **Sn** | **09 20 28.9** | **-1.7** |
| HSPB | | | | IAML | | | 09 20 30.9 | |
| | comp=Z,76nm,0.2s | | | | | | | |
| **HSPB** | **Hornsund (broa** | **1.86** | **85** | *e*P | | **Pn** | **09 20 09.4** | **+1.2** |
| | SNR=55 | | | | | | | |
| HSPB | | | | *e*S | | **Sn** | **09 20 29.0** | **-1.7** |
| | SNR=55 | | | | | | | |
| HSPB | | | | Lg | | Lg | 09 20 30.3 | |
| **HSP** | **Hornsund** | **1.86** | **84** | Pg | | **Pn** | **09 20 09.2** | **+1.0** |
| HSP | | | | Lg | | Lg | 09 20 30.3 | |
| **BRBA** | **Barentsburg A** | **1.86** | **50** | Pn | | **Pn** | **09 20 09.8** | **+1.5** |
| **KBS** | **Kingsbay** | **2.21** | **24** | Pn | | **Pn** | **09 20 14.5** | **+1.5** |
| KBS | | | | Sn | | **Sn** | **09 20 38.4** | **-0.9** |
| **KBS** | **Kingsbay** | **2.21** | **24** | *e*P | | **Pn** | **09 20 14.3** | **+1.3** |
| KBS | | | | *e*Pg | | **Pb** | **09 20 16.0** | **-1.5** |
| KBS | | | | *e*S | | **Sn** | **09 20 35.2** | **-4.1** |
| KBS | | | | IAML | | | 09 20 42.8 | |
| | comp=Z,50nm,0.3s | | | | | | | |
| **KBS** | **Kingsbay** | **2.21** | **24** | Pn | | **Pn** | **09 20 14.5** | **+1.5** |
| **KBS** | **Kingsbay** | **2.21** | **24** | *e*Pg | | **Pb** | **09 20 16.0** | **-1.5** |
| | SNR=91 | | | | | | | |
| KBS | | | | *e*S | | **Sn** | **09 20 37.2** | **-2.1** |
| | SNR=49 | | | | | | | |
| KBS | | | | Sn | | **Sn** | **09 20 38.4** | **-0.9** |
| **SPA0** | **Spitsbergen Ar** | **2.31** | **53** | Pn | | **Pb** | **09 20 17.2** | **-2.1** |
| | baz=228,slow=12 | | | | | | | |
| SPA0 | | | | Sn | | **Sn** | **09 20 42.6** | **+0.9** |
| | baz=219,slow=18 | | | | | | | |
| **SPA0** | **Spitsbergen Ar** | **2.31** | **53** | *e*P | | **Pb** | **09 20 17.1** | **-2.1** |
| SPA0 | | | | *e*Sg | | **Sn** | **09 20 42.7** | **+0.9** |
| SPA0 | | | | IAML | | | 09 20 45.1 | |
| | comp=Z,100nm,0.3s | | | | | | | |
| **SPA0** | **Spitsbergen Ar** | **2.31** | **53** | *e*P | | **Pb** | **09 20 17.1** | **-2.1** |
| | SNR=55 | | | | | | | |
| SPA0 | | | | *e*Sg | | **Sn** | **09 20 42.7** | **+0.9** |
| | SNR=91 | | | | | | | |
| **HOPEN** | **Hopen** | **4.09** | **88** | Pn | | **Pn** | **09 20 40.8** | **+1.9** |
| HOPEN | | | | Sn | | **Sn** | **09 21 23.8** | **-1.7** |
| **HOPEN** | **Hopen** | **4.09** | **88** | *e*P | | **Pn** | **09 20 40.7** | **+1.9** |
| HOPEN | | | | *e*S | | **Sn** | **09 21 23.9** | **-1.7** |
| HOPEN | | | | IAML | | | 09 21 27.6 | |
| | comp=Z,21nm,0.3s | | | | | | | |
| **HOPEN** | **Hopen** | **4.09** | **88** | *e*P | | **Pn** | **09 20 40.7** | **+1.9** |
| | SNR=53 | | | | | | | |
| HOPEN | | | | *e*S | | **Sn** | **09 21 23.9** | **-1.7** |
| | SNR=53 | | | | | | | |
| **DAG** | **Danmarks Havn** | **5.90** | **281** | *i* P | | **Pn** | **09 21 06.3** | **+2.6** |
| DAG | | | | *e*S | | **Sn** | **09 22 05.1** | **-5.1** |
| **HAMF** | **Hammerfest** | **7.77** | **136** | *e*P | | **Pn** | **09 21 31.1** | **+1.7** |
| **HAMF** | **Hammerfest** | **7.77** | **136** | *e*P | | **Pn** | **09 21 31.1** | **+1.7** |
| | SNR=51 | | | | | | | |
| **ARA0** | **ARCESS Array S** | **9.05** | **136** | Pn | | **Pn** | **09 21 48.0** | **+1.1** |
| | baz=334,slow=11 | | | | | | | |
| ARA0 | | | | Sn | | **Sn** | **09 23 21.2** | **-6.4** |
| | baz=333,slow=18 | | | | | | | |
| **ARA0** | **ARCESS Array S** | **9.05** | **136** | Pn | | **Pn** | **09 21 48.0** | **+1.1** |
| | baz=334,slow=11 | | | | | | | |
| ARA0 | | | | Sn | | **Sn** | **09 23 21.2** | **-6.4** |
| | baz=333,slow=18 | | | | | | | |
| **ARA0** | **ARCESS Array S** | **9.05** | **136** | Pn | | **Pn** | **09 21 48.0** | **+1.1** |
| | SNR=7.8 | | | | | | | |
| **LOF** | **Lofoten** | **9.05** | **165** | *e*P | | **Pn** | **09 21 50.6** | **+3.7** |
| **LOF** | **Lofoten** | **9.05** | **165** | *e*P | | **Pn** | **09 21 50.6** | **+3.7** |
| | SNR=51 | | | | | | | |
| **SUMG** | **Summit** | **12.49** | **273** | *i* P | | **Pn** | **09 22 37.8** | **+3.5** |
| | SNR=46 | | | | | | | |
| **FIA0** | **FINESS Array S** | **16.78** | **148** | P | | **Pn** | **09 23 34.0** | **+3.2** |
| | baz=335,slow=22 | | | | | | | |
| **FIA0** | **FINESS Array S** | **16.78** | **148** | P | | **Pn** | **09 23 34.0** | **+3.2** |
| | baz=335,slow=22 | | | | | | | |
| **FIA0** | **FINESS Array S** | **16.78** | **148** | P | | **Pn** | **09 23 34.0** | **+3.2** |

*ISCJB **18** 09:53:00.3±0.6,26.°9N±0.°1×140.°5E±0.°2,h500km, mb3.5/17,Error ellipse: s-maj=19.8km s-min=12.8km az=155.0*

*IDC **18** 09:53:00.7±0.6,26.°94N×140.°36E,h483km±8km,mb3.2/17, mb1 3.2/19,mb1mx3.0/53,mbtmp3.9/19,Error ellipse: s-maj=24.0km s-min=14.0km az=77.0*

**ISC 18 09:53:01.7±0.9,26.°9N±0.°1×140.°4E±0.°2,h500km,n21, σ0§77/15,mb3.6/17,Bonin Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **JCJ** | **Chichijima** | **1.62** | **84** | P | | **P** | **09 54 04.0** | **-1.1** |
| | 44nm,0.3s,baz=321,slow=22,SNR=28 | | | | | | | |
| JCJ | | | | S | | S | 09 54 52.5 | -4.1 |
| | 21nm,0.3s,baz=305,slow=24,SNR=8.1 | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **9.75** | **350** | P | | **P** | **09 55 15.4** | **-0.9** |
| | 0.4nm,0.3s,baz=168,slow=11,SNR=4.4 | | | | | | | |
| **KSRS** | **Korea Array** | **14.85** | **318** | P | | P | 09 56 13.4 | +3.3 |
| | 0.7nm,0.3s,baz=144,slow=8.9,SNR=22 | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **18.50** | **341** | P | | **P** | **09 56 47.5** | **+1.0** |
| | 0.2nm,0.3s,baz=173,slow=13,SNR=2.7 | | | | | | | |
| **SONM** | **Songino Array** | **33.72** | **317** | P | | P | 09 59 01.4 | +0.6 |
| | 0.7nm,0.5s,baz=119,slow=6.6,SNR=4.2 | | | | | | | |
| **WRA** | **Warramunga Arr** | **46.97** | **188** | P | | **P** | **10 00 47.4** | **+0.3** |
| | 0.4nm,0.5s,baz=4.5,slow=7.6,SNR=5.3 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **48.55** | **319** | P | | **P** | **10 00 58.1** | **-0.4** |
| | 0.4nm,0.4s,baz=91,slow=8.6,SNR=3.1 | | | | | | | |
| **MKAR** | **Makanchi Array** | **49.33** | **310** | P | | P | 10 01 04.8 | +0.3 |
| | 0.4nm,0.4s,baz=94,slow=7.5,SNR=10 | | | | | | | |
| **ASAR** | **Alice Springs** | **50.70** | **188** | P | | **P** | **10 01 15.1** | **+0.3** |
| | 0.2nm,0.7s,baz=359,slow=5.0,SNR=5.2 | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **51.99** | **315** | P | | P | 10 01 23.8 | 0.0 |
| | 1.0nm,0.3s,baz=92,slow=8.0,SNR=11 | | | | | | | |
| **BVAR** | **Borovoye Array** | **57.06** | **317** | P | | P | 10 01 59.7 | +0.2 |
| | 2.4nm,0.5s,baz=92,slow=7.5,SNR=19 | | | | | | | |
| **ILAR** | **Eielson Array** | **58.62** | **29** | P | | **P** | **10 02 10.6** | **+0.7** |
| | 0.3nm,1.0s,baz=255,slow=7.1,SNR=2.9 | | | | | | | |
| **ARU** | **Arti** | **63.55** | **322** | P | | **P** | **10 02 42.8** | **+0.4** |
| | 1.9nm,0.3s,baz=90,slow=3.0,SNR=4.9 | | | | | | | |
| **AKTO** | **Aktyubinsk** | **65.02** | **316** | P | | **P** | **10 02 51.4** | **-0.5** |
| | 1.3nm,0.5s,baz=78,slow=18,SNR=4.5 | | | | | | | |
| **SPITS** | **Spitsbergen Ar** | **70.24** | **350** | P | | **P** | **10 03 24.5** | **+1.1** |
| | 6.0nm,1.0s,baz=90,slow=8.6,SNR=5.0 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **73.15** | **341** | P | | **P** | **10 03 41.4** | **+0.8** |
| | 2.6nm,0.9s,baz=61,slow=7.4,SNR=4.4 | | | | | | | |
| **KBZ** | **Khabaz** | **76.93** | **312** | P | | P | 10 04 02.7 | +0.6 |
| | 1.9nm,0.8s,baz=101,slow=5.2,SNR=3.0 | | | | | | | |
| **FINES** | **FINESS Array B** | **77.37** | **333** | P | | **P** | **10 04 04.3** | **+0.1** |
| | 1.7nm,0.3s,baz=64,slow=4.3,SNR=28 | | | | | | | |
| **AKASG** | **Malin Array Be** | **81.78** | **323** | P | | **P** | **10 04 27.3** | **-0.4** |
| | 0.7nm,0.4s,baz=52,slow=5.2,SNR=7.4 | | | | | | | |
| **HFS** | **Hagfors** | **82.92** | **336** | P | | **P** | **10 04 32.6** | **-0.7** |
| | 0.7nm,0.5s,baz=90,slow=3.3,SNR=4.9 | | | | | | | |
| **NOA** | **NORSAR Array B** | **83.15** | **338** | P | | **P** | **10 04 33.9** | **-0.6** |
| | 0.6nm,0.3s,baz=54,slow=6.5,SNR=4.8 | | | | | | | |

**DJA 18 10:14:43.4±0.6,10.°S±4.°×11.°9E±.°,h12km±3km,M3.7/8, MLv3.7/8,Sumbawa region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **WBSI** | **Waikabubak, Su** | **0.52** | **54** | P | | Pb | 10 14 55.0 | +0.4 |
| WBSI | | | | S | | Sb | 10 15 01.8 | -0.3 |
| **BASI** | **Baing, Sumba** | **1.61** | **100** | P | | Pn | 10 15 10.4 | -1.3 |
| BASI | | | | S | | Sb | 10 15 33.3 | -0.2 |
| **PLAI** | **Plampang** | **1.61** | **314** | P | | Pn | 10 15 11.8 | +0.1 |
| PLAI | | | | S | | Sn | 10 15 31.6 | -0.9 |
| **EDFI** | **Ende, Flores** | **2.95** | **66** | P | | Pn | 10 15 31.1 | +0.9 |
| EDFI | | | | S | | Sn | 10 16 04.4 | -1.2 |
| **BSSI** | **Bau Bau, Buton** | **4.08** | **22** | P | | Pn | 10 15 45.5 | -0.1 |
| **SRBI** | **Singaraja** | **4.14** | **296** | P | | Pn | 10 15 45.8 | -0.7 |

**SJA 18 10:15:52.8±0.5,26.°45S×64.°65W,h130km±11km,ML3.4, MW4.2,Tucuman Province**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **AHML** | **Horco Molle** | **0.70** | **241** | *i* P | | Pn | 10 16 13.8 | +0.6 |
| **FSA** | **Cafayete** | **1.24** | **285** | *i* P | | Pn | 10 16 19.2 | +0.9 |
| **SLA** | **San Lorenzo** | **1.88** | **336** | *i* P | | Pn | 10 16 26.9 | +1.3 |
| SLA | | | | *i* S | | Sn | 10 16 51.6 | +1.0 |
| SLA | | | | IAML | | | 10 16 58.8 | |
| | comp=Z,222nm,0.5s | | | | | | | |
| **AZAP** | **Zapla** | **2.24** | **350** | *i* P | | Pn | 10 16 31.1 | +1.0 |
| **ASTB** | **Santa Barbara** | **2.49** | **4** | *i* P | | Pn | 10 16 34.5 | +1.4 |
| **ALOL** | **LOMAS DE OLMED** | **2.69** | **13** | *i* P | | Pn | 10 16 36.2 | +0.7 |
| **YJA** | **Yavi** | **4.32** | **349** | *i* P | | Pn | 10 16 59.0 | +1.7 |

*ISCJB **18** 10:21:19.2±0.4,50.°09N±0.°03×18.°39E±0.°02,h0km,Error ellipse: s-maj=4.1km s-min=2.1km az=17.2*

*IPEC **18** 10:21:20.7±0.2,50.°06N×18.°45E,h0km±2km,ML2.3/3, Error ellipse: s-maj=2.0km s-min=1.1km az=160.0*

*CSEM **18** 10:21:20.3±0.2,50.°09N×18.°40E,h2km,ML3.2/11,Error ellipse: s-maj=5.4km s-min=2.6km az=15.0*

*VIE **18** 10:21:24.3±1.0,49.°80N×18.°28E,h0km,mb2.0/3,ML2.8/5, Error ellipse: s-maj=9.7km s-min=6.6km az=166.0, Suspected Mining induced.*

**ISC 18 10:21:20.5±0.7,50.°07N±0.°03×18.°41E±0.°02,h0km,n53, σ0§99/98,7C-8D,Poland**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **RAC** | **Raciborz** | **0.14** | **276** | *e*Pg | | **Pg** | **10 21 25.0** | **+1.8** |
| RAC | | | | *e*Sg | | **Sg** | **10 21 28.2** | **+3.3** |
| **OKC** | **Ostrava-Krasne** | **0.29** | **216** | ⇑*i*PG | | **Pg** | **10 21 27.0** | **+1.0** |
| OKC | | | | *e*SG | | **Sg** | **10 21 30.8** | **+1.1** |
| | comp=Z,198nm,0.4s | | | | | | | |
| **OKC** | **Ostrava-Krasne** | **0.29** | **216** | Pg | | **Pg** | **10 21 27.0** | **+1.0** |
| OKC | | | | Sg | | **Sg** | **10 21 30.8** | **+1.1** |
| | 198nm,0.4s | | | | | | | |
| **MORC** | **Moravsky Berou** | **0.63** | **243** | ⇑*i*P | | **Pg** | **10 21 33.4** | **+0.8** |
| MORC | | | | S | | **Sb** | **10 21 42.6** | **-1.3** |
| **MORC** | **Moravsky Berou** | **0.63** | **243** | *e*Pg | | **Pg** | **10 21 33.2** | **+0.6** |
| MORC | | | | *e*Sg | | **Sg** | **10 21 41.0** | **+0.2** |
| | 41nm,0.2s | | | | | | | |
| MORC | | | | S | | **Sb** | **10 21 42.6** | **-1.3** |
| **OJC** | **Ojcow** | **0.91** | **80** | *e*Pg | | **Pg** | **10 21 37.7** | **-0.2** |
| OJC | | | | *e*Sg | | **Sg** | **10 21 49.8** | **+0.1** |
| **OJC** | **Ojcow** | **0.91** | **80** | *e*Pg | | **Pg** | **10 21 37.7** | **-0.2** |
| OJC | | | | *e*Sg | | **Sg** | **10 21 49.8** | **+0.1** |
| **OJC** | **Ojcow** | **0.91** | **80** | *e*Pg | | **Pg** | **10 21 37.7** | **-0.2** |
| OJC | | | | *e*Sg | | **Sg** | **10 21 49.8** | **+0.1** |
| **KRLC** | **Kraliky** | **1.05** | **271** | *e*PG | | **Pg** | **10 21 40.4** | **-0.2** |
| KRLC | | | | *e*SG | | **Sg** | **10 21 53.8** | **-0.4** |
| | comp=Z,17nm,0.3s | | | | | | | |
| **KRLC** | **Kraliky** | **1.05** | **271** | Pg | | **Pg** | **10 21 40.4** | **-0.2** |
| KRLC | | | | Sg | | **Sg** | **10 21 53.8** | **-0.4** |
| | 17nm,0.3s | | | | | | | |
| **LANS** | **Liptovska Anna** | **1.15** | **143** | *e*Pg | | **Pg** | **10 21 42.7** | **+0.2** |
| LANS | | | | *e*Sg | | **Sb** | **10 21 59.0** | **+0.2** |
| **LANS** | **Liptovska Anna** | **1.15** | **143** | *e*PG | | **Pg** | **10 21 42.7** | **+0.2** |
| LANS | | | | *e*SG | | **Sb** | **10 21 59.0** | **+0.2** |
| **DPC** | **Dobruska-Polom** | **1.37** | **283** | *e*PG | | **Pg** | **10 21 46.7** | **-0.1** |
| DPC | | | | *e*SG | | **Sb** | **10 22 04.9** | **-0.2** |
| | comp=Z,83nm,0.3s | | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.37** | **283** | Pg | | **Pg** | **10 21 46.7** | **-0.1** |
| DPC | | | | Sg | | **Sb** | **10 22 04.9** | **-0.2** |
| | 83nm,0.3s | | | | | | | |
| **NIE** | **Niedzica** | **1.39** | **117** | *e*Pg | | **Pb** | **10 21 47.6** | **+0.2** |
| NIE | | | | *e*Sg | | **Sn** | **10 22 07.1** | **+0.8** |
| **NIE** | **Niedzica** | **1.39** | **117** | *e*Pg | | **Pb** | **10 21 47.6** | **+0.2** |
| NIE | | | | *e*Sg | | **Sn** | **10 22 07.1** | **+0.8** |
| **NIE** | **Niedzica** | **1.39** | **117** | *e*Pg | | **Pb** | **10 21 47.6** | **+0.2** |
| NIE | | | | *e*Sg | | **Sn** | **10 22 07.1** | **+0.8** |
| **VRAC** | **Vranov** | **1.40** | **238** | ⇓*i*P | | **Pn** | **10 21 47.2** | **-0.2** |
| **VRAC** | **Vranov** | **1.40** | **238** | ⇓*i*P | | **Pn** | **10 21 47.2** | **-0.2** |
| VRAC | | | | *e*Sg | | **Sg** | **10 22 05.5** | **-0.1** |
| | 58nm,0.3s | | | | | | | |
| VRAC | | | | S | | **Sb** | **10 22 05.8** | **-0.2** |
| **KSP** | **Ksiaz** | **1.56** | **301** | *e*Pg | | **Pn** | **10 21 49.1** | **-0.4** |
| KSP | | | | *e*Sg | | **Sg** | **10 22 11.3** | **+0.8** |
| **KSP** | **Ksiaz** | **1.56** | **301** | *e*Pg | | **Pn** | **10 21 49.1** | **-0.4** |
| KSP | | | | *e*Sg | | **Sg** | **10 22 11.3** | **+0.8** |
| **KSP** | **Ksiaz** | **1.56** | **301** | *e*Pg | | **Pn** | **10 21 49.1** | **-0.4** |
| KSP | | | | *e*Sg | | **Sg** | **10 22 11.3** | **+0.8** |
| **UPC** | **Upice** | **1.60** | **287** | ⇑*e*PG | | **Pn** | **10 21 50.2** | **+0.1** |
| UPC | | | | *e*SG | | **Sg** | **10 22 12.1** | **+0.3** |
| | comp=Z,22nm,0.3s | | | | | | | |
| **UPC** | **Upice** | **1.60** | **287** | Pg | | **Pn** | **10 21 50.2** | **+0.1** |
| UPC | | | | Sg | | **Sg** | **10 22 12.1** | **+0.3** |
| | 22nm,0.3s | | | | | | | |
| **VYHS** | **Vyhne** | **1.60** | **170** | *e*Pg | | **Pn** | **10 21 49.8** | **-0.3** |
| VYHS | | | | *e*Sg | | **Sn** | **10 22 11.5** | **0.0** |
| **VYHS** | **Vyhne** | **1.60** | **170** | *e*PG | | **Pn** | **10 21 49.8** | **-0.3** |
| VYHS | | | | *e*SG | | **Sn** | **10 22 11.5** | **0.0** |
| VYHS | | | | *e*LG | | Lg | 10 22 24.3 | |
| **KRUC** | **Moravsky** | **1.65** | **233** | *e*Pn | | **Pn** | **10 21 51.2** | **+0.4** |
| KRUC | | | | *e*Sg | | **Sb** | **10 22 13.0** | **-0.2** |
| | 24nm,0.2s | | | | | | | |
| **STHS** | **Stebnicka Huta** | **1.95** | **108** | *e*Pn | | **Pg** | **10 21 58.0** | **+0.1** |
| STHS | | | | *e*Sg | | **Sg** | **10 22 25.5** | **+2.3** |
| **STHS** | **Stebnicka Huta** | **1.95** | **108** | *e*PN | | **Pg** | **10 21 58.0** | **+0.1** |
| STHS | | | | *e*SG | | **Sg** | **10 22 25.5** | **+2.3** |
| STHS | | | | *e*LG | | Lg | 10 22 32.7 | |
| **KECS** | **Kecovo** | **2.09** | **139** | *e*Pn | | **Pn** | **10 21 56.5** | **-0.3** |
| KECS | | | | *e*Sn | | **Sn** | **10 22 20.8** | **-2.7** |
| **KECS** | **Kecovo** | **2.09** | **139** | *e*PN | | **Pn** | **10 21 56.5** | **-0.3** |
| KECS | | | | *e*SN | | **Sn** | **10 22 20.8** | **-2.7** |
| KECS | | | | *e*LG | | Lg | 10 22 28.9 | |
| **CRVS** | **Cervenica-Dubn** | **2.31** | **119** | *e*Pn | | **Pb** | **10 22 02.7** | **-0.3**

comp=Z,138nm,0.3s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **ARCO** | **CERRO ARCO** | **3.19** | **141** | *i* P | **Pb** | **10** | **29** | **33.3 -2.5** |

**SJA 18 10:41:09.0±0.5, 33.52S×68.80W, h18km±2km, ML1.9, MW3.6, Mendoza Province**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **AVIZ** | **Vizcacheras** | **0.24** | **78** | *i* P | | Pb | 10 41 15.0 | +0.3 |
| **ARCO** | **CERRO ARCO** | **0.69** | **350** | *i* P | | Pg | 10 41 22.8 | +0.2 |
| ARCO | | | | *i* S | | Sn | 10 41 33.2 | -1.1 |
| ARCO | | | | IAML | | | 10 41 34.9 | |

comp=Z,82nm,0.1s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **ASAL** | **Salagasta** | **0.93** | **358** | *i* P | | Pg | 10 41 27.0 | -0.1 |
| **AUSP** | **Uspallata** | **1.39** | **339** | *i* P | | Pg | 10 41 35.7 | -0.1 |
| AUSP | | | | *i* S | | Sg | 10 41 55.6 | +1.6 |
| **RTLS** | **Leoncito** | **1.77** | **346** | *i* P | | Pb | 10 41 42.0 | +0.9 |
| RTLS | | | | *i* S | | Sg | 10 42 05.6 | -0.5 |
| RTLS | | | | IAML | | | 10 42 07.9 | |

comp=Z,7.8nm,0.6s

**MEX 18 10:41:33.3±1.1, 16.98N×100.25W, h46km±12km, MD3.9, Near coast of Guerrero**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **CAIG** | **El Cayaco** | **0.07** | **343** | *eP* | | Pn | 10 41 39.1 | -1.4 |
| CAIG | | | | *eS* | | Sn | 10 41 43.7 | -1.9 |
| **MEIG** | **Mezcala** | **1.11** | **32** | *eP* | | Pn | 10 41 49.5 | -3.0 |
| MEIG | | | | *eS* | | Sn | 10 42 02.2 | -4.6 |
| **ZIIG** | **Zihuatanejo** | **1.32** | **298** | *eP* | | Pn | 10 41 53.1 | -2.2 |
| ZIIG | | | | *eS* | | Sn | 10 42 10.4 | -1.3 |
| **PLIG** | **Platanillo** | **1.57** | **27** | *eP* | | Pn | 10 41 56.5 | -2.3 |
| PLIG | | | | *eS* | | Sn | 10 42 16.5 | -1.6 |
| **TLIG** | **Tlapa** | **1.71** | **70** | *eP* | | Pn | 10 42 01.1 | +0.4 |
| TLIG | | | | *eS* | | Sn | 10 42 11.3 | -10 |
| **YAIG** | **Yautepec** | **2.18** | **31** | *eP* | | Pn | 10 42 05.1 | -2.2 |
| YAIG | | | | *eS* | | Sn | 10 42 34.1 | +1.0 |

*CSEM **18** 10:50:06.3±0.3, 30.39N×57.50E, h20km, ML3.8, Error ellipse: s-maj=9.9km s-min=8.4km az=109.0*

**TEH 18 10:50:04.6, 30.53N×57.41E, h10km, ML3.8, Northern and central Iran**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **CHMN** | **Cheshme madani** | **0.68** | **171** | *e*Pg | | Pb | 10 50 18.5 | -0.3 |
| **CHMN** | **Cheshme madani** | **0.68** | **171** | *e*Pg | | Pb | 10 50 18.5 | -0.3 |
| **TVBK** | **TV Kerman** | **0.78** | **226** | *e*Pg | | Pn | 10 50 21.5 | -0.5 |
| **TVBK** | **TV Kerman** | **0.78** | **226** | *e*Pg | | Pn | 10 50 21.5 | -0.5 |
| **KHGB** | **Koh Gabri** | **0.82** | **259** | *e*Pg | | Pb | 10 50 21.3 | +0.2 |
| **NGRK** | **Negar Kerman** | **1.06** | **214** | *e*Pg | | Pn | 10 50 26.4 | +0.5 |
| **NGRK** | **Negar Kerman** | **1.06** | **214** | *e*Pg | | Pn | 10 50 26.4 | +0.5 |
| **IBAF** | **Bafgh** | **1.90** | **304** | *e*Pn | | Pb | 10 50 39.8 | +0.3 |
| IBAF | | | | *e*AMB | AMB | | 10 50 41.3 | |

comp=Z,12μm,0.2s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| IBAF | | | | *e*Sg | | Sg | 10 51 07.4 | +1.7 |
| **IBAF** | **Bafgh** | **1.90** | **304** | *e*Pn | | Pb | 10 50 39.8 | +0.3 |
| IBAF | | | | *e*Sg | | Sg | 10 51 07.4 | +1.7 |
| **IKOO** | **Kooshah** | **2.33** | **35** | *e*Pn | | Pn | 10 50 43.9 | +0.7 |
| IKOO | | | | *e*AMB | AMB | | 10 51 19.9 | |

comp=Z,20μm,0.2s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **IKOO** | **Kooshah** | **2.33** | **35** | *e*Pn | | Pn | 10 50 43.9 | +0.7 |
| **IMEH** | **Mehriz** | **2.55** | **290** | *e*Pn | | Pb | 10 50 49.2 | -1.4 |
| IMEH | | | | *e*AMB | AMB | | 10 51 25.9 | |

comp=Z,2μm,0.3s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **IMEH** | **Mehriz** | **2.55** | **290** | *e*Pn | | Pb | 10 50 49.2 | -1.4 |
| **ITEG** | **Tejag** | **2.62** | **25** | *e*Pn | | Pn | 10 50 48.8 | +1.7 |
| ITEG | | | | *e*AMB | AMB | | 10 51 32.0 | |

comp=Z,7μm,0.2s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **ITEG** | **Tejag** | **2.62** | **25** | *e*Pn | | Pn | 10 50 48.8 | +1.7 |
| **IDAH** | **Dahanechah** | **3.04** | **43** | *e*Pn | | Pb | 10 50 56.8 | -2.1 |
| IDAH | | | | *e*AMB | AMB | | 10 51 47.4 | |

comp=E,5μm,0.2s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **ZHSF** | **Zahedan** | **3.06** | **107** | *e*Pn | | Pn | 10 50 52.0 | -1.2 |
| **ICHK** | **Chekchek** | **3.08** | **304** | *e*Pn | | Pb | 10 50 57.2 | -2.5 |
| ICHK | | | | *e*AMB | AMB | | 10 51 53.8 | |

comp=Z,2μm,0.2s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **ICHK** | **Chekchek** | **3.08** | **304** | *e*Pn | | Pb | 10 50 57.2 | -2.5 |
| **IMON** | **Monand** | **3.27** | **35** | *e*Pn | | Pn | 10 50 59.3 | +3.1 |
| IMON | | | | *e*AMB | AMB | | 10 51 59.8 | |

comp=E,12μm,0.2s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **IMON** | **Monand** | **3.27** | **35** | *e*Pn | | Pn | 10 50 59.3 | +3.1 |
| **BNDS** | **Bandar-Abbas** | **3.31** | **199** | *e*Pn | | Pn | 10 50 54.5 | -2.1 |
| BNDS | | | | *e*Sg | | Sb | 10 51 40.8 | -3.0 |
| **ISAD** | **Sadrabad** | **3.48** | **294** | *e*Pn | | Pb | 10 51 03.0 | -3.4 |
| ISAD | | | | *e*AMB | AMB | | 10 52 04.2 | |

comp=N,1μm,0.3s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **ISAD** | **Sadrabad** | **3.48** | **294** | *e*Pn | | Pb | 10 51 03.0 | -3.4 |
| **ISRV** | **Sarvestan** | **3.90** | **254** | *e*AMB | AMB | | 10 52 23.8 | |

comp=Z,775nm,0.4s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **GHIR** | **Ghir-Karzin** | **4.46** | **241** | *e*Pn | | Pn | 10 51 11.3 | -1.2 |
| **IRAM** | **Rameshеh** | **4.49** | **288** | *e*AMB | AMB | | 10 52 30.2 | |

comp=Z,198nm,0.3s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **NASN** | **Na'in** | **4.53** | **301** | *e*P | | Pn | 10 51 14.6 | +1.1 |

*ISK **18** 11:15:09.6, 38.77N×43.50E, h5km, ML3.0*
*CSEM **18** 11:15:10.5±0.2, 38.77N×43.55E, h2km, ML3.0, Error ellipse: s-maj=4.9km s-min=3.5km az=93.0*
*DDA **18** 11:15:10.2, 38.76N×43.55E, h20km, Ml3.2*
*ISCJB **18** 11:15:11.3±0.4, 38.77N±0.02×43.54E±0.04, h9km±3km, Error ellipse: s-maj=4.8km s-min=3.1km az=11.1*

**ISC 18 11:15:11.4±0.8, 38.77N±0.02×43.52E±0.02, h16km±6km, n68, σ1s26/92, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.20** | **211** | PG | | **Pg** | **11 15 16.2** | **-0.1** |
| VANB | | | | *e*SG | | **Sg** | **11 15 21.1** | **+1.5** |
| **VANB** | **Van** | **0.20** | **211** | *i* Pg | | **Pg** | **11 15 16.2** | **-0.1** |
| **VMUR** | **Van-Muradiye** | **0.22** | **10** | *i* P | | **Pg** | **11 15 15.4** | **-1.3** |
| VMUR | | | | *i* S | | **Sg** | **11 15 20.9** | **+0.6** |
| **VMUR** | **Van-Muradiye** | **0.22** | **10** | P | | **Pg** | **11 15 15.4** | **-1.3** |
| VMUR | | | | S | | **Sg** | **11 15 20.9** | **+0.6** |
| **TVAN** | **Van** | **0.26** | **201** | *i* P | | **Pg** | **11 15 16.1** | **-1.1** |
| TVAN | | | | *i* S | | **Sb** | **11 15 21.6** | **-0.5** |
| **TVAN** | **Van** | **0.26** | **201** | P | | **Pg** | **11 15 16.1** | **-1.1** |
| TVAN | | | | S | | **Sb** | **11 15 21.6** | **-0.5** |
| **ERCV** | **ERCIS-VAN** | **0.29** | **330** | PG | | **Pg** | **11 15 16.3** | **-1.5** |
| ERCV | | | | *e*SG | | **Sg** | **11 15 21.3** | **-0.8** |
| **ERCV** | **ERCIS-VAN** | **0.29** | **330** | *i* Pg | | **Pg** | **11 15 16.3** | **-1.5** |
| ERCV | | | | *e*Sg | | **Sg** | **11 15 21.3** | **-0.8** |
| **CLDR** | **Caldiran** | **0.48** | **39** | PG | | **Pb** | **11 15 20.4** | **-1.3** |
| CLDR | | | | *e*SG | | **Sb** | **11 15 28.3** | **-0.4** |
| **CLDR** | **Caldiran** | **0.48** | **39** | *i* P | | **Pg** | **11 15 19.9** | **-1.3** |
| CLDR | | | | *i* S | | **Sb** | **11 15 29.1** | **+0.4** |
| **CLDR** | **Caldiran** | **0.48** | **39** | P | | **Pg** | **11 15 20.0** | **-1.3** |
| **CLDR** | **Caldiran** | **0.48** | **39** | *i* Pg | | **Pb** | **11 15 20.4** | **-1.3** |
| CLDR | | | | *e*Sg | | **Sb** | **11 15 28.3** | **-0.4** |
| CLDR | | | | S | | **Sb** | **11 15 29.1** | **+0.4** |
| **GEVA** | **Gevas** | **0.58** | **219** | *i* P | | **Pg** | **11 15 21.2** | **-1.8** |
| GEVA | | | | *i* S | | **Sb** | **11 15 31.5** | **+0.1** |
| **GEVA** | **Gevas** | **0.58** | **219** | P | | **Pg** | **11 15 21.2** | **-1.8** |
| GEVA | | | | S | | **Sb** | **11 15 31.5** | **+0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.62** | **274** | *i* P | | **Pg** | **11 15 22.6** | **-1.2** |
| ADCV | | | | *i* S | | **Sb** | **11 15 32.8** | **+0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.62** | **274** | P | | **Pg** | **11 15 22.6** | **-1.2** |
| ADCV | | | | S | | **Sb** | **11 15 32.8** | **+0.2** |
| **DYDN** | **Diyadin** | **0.78** | **10** | *i* P | | **Pg** | **11 15 25.7** | **-1.1** |
| DYDN | | | | *i* S | | **Sb** | **11 15 37.7** | **+0.4** |
| **DYDN** | **Diyadin** | **0.78** | **10** | P | | **Pg** | **11 15 25.7** | **-1.1** |
| DYDN | | | | S | | **Sb** | **11 15 37.7** | **+0.4** |
| **BASK** | **Baskale_VAN** | **0.81** | **152** | *i* P | | **Pg** | **11 15 25.3** | **-2.0** |
| BASK | | | | *i* S | | **Sb** | **11 15 39.0** | **+1.0** |
| **BASK** | **Baskale_VAN** | **0.81** | **152** | P | | **Pg** | **11 15 25.3** | **-2.0** |
| BASK | | | | S | | **Sb** | **11 15 39.0** | **+1.0** |
| **TUTA** | **Tutak** | **0.84** | **319** | *i* P | | **Pg** | **11 15 25.9** | **-1.9** |
| TUTA | | | | *i* S | | **Sg** | **11 15 38.4** | **-0.6** |
| **TUTA** | **Tutak** | **0.84** | **319** | P | | **Pg** | **11 15 25.9** | **-1.9** |
| TUTA | | | | S | | **Sg** | **11 15 38.3** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **0.90** | **333** | *e*PG | | **Pg** | **11 15 27.0** | **-2.0** |
| **AGRB** | **Hanur-Agry** | **0.90** | **333** | *e*Pg | | **Pg** | **11 15 27.0** | **-2.0** |
| **HAKT** | **HAKKARI** | **1.22** | **173** | *i* P | | **Pg** | **11 15 32.4** | **-2.6** |
| **HAKT** | **HAKKARI** | **1.22** | **173** | P | | **Pg** | **11 15 32.4** | **-2.6** |
| **EKAR** | **Karacoban** | **1.23** | **294** | *i* P | | **Pg** | **11 15 33.8** | **-1.5** |
| **EKAR** | **Karacoban** | **1.23** | **294** | P | | **Pg** | **11 15 33.8** | **-1.5** |
| **YOVA** | **Hakkari_Y˙˙˙kse** | **1.33** | **153** | *i* P | | **Pg** | **11 15 34.8** | **-2.3** |
| YOVA | | | | *i* S | | **Sn** | **11 15 57.0** | **+4.1** |
| **YOVA** | **Hakkari_Y˙˙˙kse** | **1.33** | **153** | P | | **Pg** | **11 15 34.8** | **-2.3** |
| **TASB** | **TASBURUN-IGDIR** | **1.33** | **24** | *e*PN | | **Pg** | **11 15 36.2** | **-1.0** |
| **TASB** | **TASBURUN-IGDIR** | **1.33** | **24** | *e*Pn | | **Pg** | **11 15 36.2** | **-1.0** |
| **EATA** | **Eleskirt** | **1.35** | **324** | *i* P | | **Pn** | **11 15 35.2** | **-0.7** |
| **EATA** | **Eleskirt** | **1.35** | **324** | P | | **Pn** | **11 15 35.2** | **-0.7** |
| **SRTM** | **Siirt_Merkez** | **1.48** | **239** | *i* P | | **Pb** | **11 15 38.3** | **-0.2** |
| **SRTM** | **Siirt_Merkez** | **1.48** | **239** | P | | **Pb** | **11 15 38.3** | **-0.2** |
| **CUKT** | **Cukurca** | **1.52** | **177** | *e*PN | | **Pb** | **11 15 38.9** | **-0.4** |
| **CUKT** | **Cukurca** | **1.52** | **177** | *i* P | | **Pn** | **11 15 38.4** | **+0.3** |
| **CUKT** | **Cukurca** | **1.52** | **177** | P | | **Pn** | **11 15 38.4** | **+0.3** |
| **CUKT** | **Cukurca** | **1.52** | **177** | *e*Pn | | **Pb** | **11 15 38.9** | **-0.4** |
| **SIRT** | **Sirnak** | **1.53** | **214** | *e*PN | | **Pb** | **11 15 38.9** | **-0.5** |
| **SIRT** | **Sirnak** | **1.53** | **214** | *e*Pn | | **Pb** | **11 15 38.9** | **-0.5** |
| **DIGO** | **Kars** | **1.65** | **356** | *i* P | | **Pb** | **11 15 41.5** | **0.0** |
| **DIGO** | **Kars** | **1.65** | **356** | P | | **Pb** | **11 15 41.5** | **0.0** |
| **VRTB** | **Varto-Mus** | **1.66** | **284** | *e*PN | | **Pn** | **11 15 40.9** | **+0.9** |
| **VRTB** | **Varto-Mus** | **1.66** | **284** | *e*Pn | | **Pn** | **11 15 40.9** | **+0.9** |
| **HOMI** | **Horasan** | **1.79** | **316** | *i* P | | **Pb** | **11 15 43.9** | **0.0** |
| **BNGL** | **BINGOL** | **1.86** | **276** | *i* P | | **Pb** | **11 15 45.4** | **+0.2** |
| **KARS** | **Kars** | **1.89** | **350** | *e*PN | | **Pn** | **11 15 44.1** | **+1.0** |
| **KARS** | **Kars** | **1.89** | **350** | *e*Pn | | **Pn** | **11 15 44.1** | **+1.0** |
| **EAK** | **Akyaka** | **1.92** | **2** | *i* P | | **Pg** | **11 15 47.5** | **-0.7** |
| **EAK** | **Akyaka** | **1.92** | **2** | P | | **Pg** | **11 15 47.5** | **-0.7** |
| **BTMN** | **Batman** | **1.98** | **244** | *i* P | | **Pb** | **11 15 46.4** | **-0.6** |
| BTMN | | | | *i* S | | **Sg** | **11 16 13.3** | **-1.7** |
| **BTMN** | **Batman** | **1.98** | **244** | P | | **Pb** | **11 15 46.4** | **-0.6** |
| BTMN | | | | S | | **Sg** | **11 16 13.3** | **-1.7** |
| **SENK** | **Senkaya-Erzuru** | **2.00** | **334** | *e*PN | | **Pn** | **11 15 45.9** | **+1.1** |
| **SENK** | **Senkaya-Erzuru** | **2.00** | **334** | *e*Pn | | **Pn** | **11 15 45.9** | **+1.1** |
| **ERZM** | **Erzurum** | **2.02** | **305** | *i* P | | **Pb** | **11 15 47.7** | **-0.2** |
| **ERZM** | **Erzurum** | **2.02** | **305** | P | | **Pb** | **11 15 47.7** | **-0.2** |
| **ECAT** | **Cat-ERZURUM** | **2.15** | **294** | *i* P | | **Pb** | **11 15 49.8** | **-0.3** |
| **ECAT** | **Cat-ERZURUM** | **2.15** | **294** | P | | **Pb** | **11 15 49.8** | **-0.3** |
| **BNGB** | **Bing˙̈l** | **2.23** | **277** | *e*PN | | **Pn** | **11 15 49.2** | **+1.4** |
| **BINT** | **Bingol** | **2.37** | **274** | *e*Pn | | **Pn** | **11 15 49.2** | **-0.6** |
| **YEDI** | **Yedisu-Bingol** | **2.41** | **287** | *e*PN | | **Pn** | **11 15 51.6** | **+1.3** |
| **YEDI** | **Yedisu-Bingol** | **2.41** | **287** | *e*Pn | | **Pn** | **11 15 51.6** | **+1.3** |
| **DIY** | **Diyarbakir** | **2.73** | **252** | *e*Pn | | **Pn** | **11 15 56.8** | **+2.1** |
| **MAZI** | **Mazidag** | **2.75** | **243** | *e*PN | | **Pn** | **11 15 56.5** | **+1.5** |
| **MAZI** | **Mazidag** | **2.75** | **243** | *e*Pn | | **Pn** | **11 15 56.5** | **+1.5** |
| **DYBB** | **Diyarbakir** | **2.78** | **254** | *e*PN | | **Pn** | **11 15 56.8** | **+1.5** |

*IDC **18** 11:18:10.2±1.7, 41.01N×140.06E, h166km±18km, mb2.9/4, mb1 3.0/6, mb1mx2.8/44, mbtmp3.3/6, Error ellipse: s-maj=29.0km s-min=19.6km az=154.0*
*ISCJB **18** 11:18:15.2±0.5, 41.78N±0.04×139.91E±0.07, h184km±4km, mb3.2/4, Error ellipse: s-maj=9.1km s-min=6.6km az=1.6*
*JMA **18** 11:18:16.6±0.1, 41.79N×139.89E, h176km±1km, M2.6*

**ISC 18 11:18:15.9±0.9, 41.77N±0.05×139.90E±0.06, h181km±6km, n24, σ0s60/34, mb3.2/4, Hokkaido region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **JOSM** | **Okushiri--Mats** | **0.45** | **314** | P | | **Pn** | **11 18 40.5** | **0.0** |
| JOSM | | | | *e*S | | **Sn** | **11 18 58.6** | **-1.0** |
| **JSR** | **Shiriuchi** | **0.46** | **122** | P | | **Pn** | **11 18 41.0** | **+0.4** |
| JSR | | | | *e*S | | **Sn** | **11 18 59.7** | **+0.1** |
| **JYM2** | **Yakumo 2** | **0.49** | **45** | P | | **Pn** | **11 18 41.1** | **+0.4** |
| JYM2 | | | | *e*S | | **Sn** | **11 19 00.3** | **+0.3** |
| **JKB** | **Kayabe** | **0.85** | **82** | P | | **Pn** | **11 18 43.0** | **+0.4** |
| **JSH** | **Shimam** | **0.88** | **7** | P | | **Pn** | **11 18 43.1** | **+0.3** |
| JSH | | | | *e*S | | **Sn** | **11 19 03.2** | **-0.6** |
| **JOT** | **Ohata** | **0.94** | **114** | P | | **Pn** | **11 18 43.6** | **+0.3** |
| **JNB** | **Noboribetsu** | **1.09** | **50** | P | | **Pn** | **11 18 44.5** | **+0.1** |
| **JIW** | **Iwasaki** | **1.18** | **176** | P | | **Pn** | **11 18 45.9** | **+0.7** |
| **JTM** | **Tenmabayashi** | **1.32** | **138** | P | | **Pn** | **11 18 46.9** | **+0.6** |
| JTM | | | | *e*S | | **Sn** | **11 19 09.9** | **+0.2** |
| **JEW** | **Eniwo** | **1.57** | **47** | P | | **Pn** | **11 18 49.5** | **+1.0** |
| **JSK** | **Shakotan** | **1.64** | **15** | P | | **Pn** | **11 18 50.4** | **+0.4** |
| **JAH** | **Hinai** | **1.68** | **160** | P | | **Pn** | **11 18 50.5** | **+0.8** |
| JAH | | | | *e*S | | **Sn** | **11 19 16.0** | **+0.2** |
| **JANG** | **Nango** | **1.85** | **138** | P | | **Pn** | **11 18 51.4** | **-0.1** |
| JANG | | | | *e*S | | **Sn** | **11 19 18.1** | **-1.0** |
| **JNBK** | **Urakawa-nobuka** | **2.18** | **76** | P | | **Pn** | **11 18 55.2** | **+0.2** |
| JNBK | | | | *e*S | | **Sn** | **11 19 25.3** | **-0.1** |
| **JHR** | **Hokuryu** | **2.38** | **34** | P | | **Pn** | **11 18 58.3** | **+1.1** |
| **JFR** | **Furan** | **2.43** | **54** | P | | **Pn** | **11 18 58.2** | **+0.4** |
| JFR | | | | *e*S | | **Sn** | **11 19 29.8** | **-0.6** |
| **JOM** | **Ohasama** | **2.53** | **155** | P | | **Pn** | **11 18 59.2** | **+0.2** |
| JOM | | | | *e*S | | **Sn** | **11 19 31.8** | **-0.7** |
| **ASAJ** | **Asahikawa** | **3.07** | **39** | P | | **Pn** | **11 19 05.7** | **+0.4** |

baz=216,slow=11

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| ASAJ | | | | S | | **Sn** | **11 19 43.4** | **-0.6** |

0.5nm,0.3s,baz=119,slow=19,SNR=3.8

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **MJAR** | **Matsushiro Arr** | **5.39** | **195** | P | | Pn | 11 19 19.9 | -15 |

0.2nm,0.3s,baz=8.2,slow=11,SNR=3.9

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **USRK** | **Ussuriysk Ar.** | **6.29** | **295** | P | | **Pn** | **11 19 47.2** | **+0.6** |

0.3nm,0.3s,baz=92,slow=14,SNR=4.2

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **ZALV** | **Zalesovo Beam** | **37.96** | **308** | P | | **P** | **11 25 15.7** | **-0.1** |

0.3nm,0.4s,baz=98,slow=9.7,SNR=2.9

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **MKAR** | **Makanchi Array** | **40.76** | **297** | P | | **P** | **11 25 38.6** | **-0.4** |

0.5nm,0.7s,baz=87,slow=7.7,SNR=4.6

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **ILAR** | **Eielson Array** | **46.19** | **35** | P | | **P** | **11 26 23.0** | **+0.9** |

0.7nm,0.9s,baz=285,slow=8.8,SNR=6.2

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **YKA** | **Yellowknife Ar** | **60.33** | **31** | P | | **P** | **11 28 04.3** | **-0.8** |

0.1nm,0.4s,baz=301,slow=6.5,SNR=3.5

**MAN 18 11:26:48, 13.59N×120.26E, h33km, mb3.5, ML2.2, MS1.6, 1C, Mindoro**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **LUBP** | **Lubang** | **0.14** | **356** | *e*P | | Pb | 11 26 56.1 | +2.0 |
| LUBP | | | | *e*S | | Sb | 11 27 00.9 | +2.6 |
| **PGP** | **Puerto Galera** | **0.68** | **97** | *i* P | | Pb | 11 27 02.7 | +1.1 |
| PGP | | | | *i* S | | Sn | 11 27 12.7 | +1.9 |
| **SJMP** | **San Jose** | **1.40** | **143** | *e*P | | Pn | 11 27 12.4 | +1.1 |
| SJMP | | | | *e*S | | Sn | 11 27 29.6 | +1.0 |

*NEIC **18** 11:41:39.3±0.0, 69.71N×142.52W, h20km, ML2.8(AEIC), After AEIC.*

**PGC 18 11:41:36.0±15.0, 69.42N×142.77W, h1km, ML2.8/1, 232km east of Prudhoe Bay, Ak Northern Alaska, Northern Alaska**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **BM3** | **Burnt Mountain** | **2.12** | **200** | P | | Pn | 11 42 10.9 | -1.7 |
| **PS01** | **TAPS Pump Stn** | **2.19** | **295** | P | | Pg | 11 42 18.3 | +0.3 |
| PS01 | | | | S | | Sg | 11 42 45.4 | -0.9 |
| **PS04** | **TAPS Pump Stn4** | **2.58** | **250** | P | | Pb | 11 42 21.7 | -1.4 |
| PS04 | | | | S | | Sn | 11 42 51.5 | +0.6 |
| **FYU** | **Fort Yukon** | **3.01** | **199** | P | | Pn | 11 42 23.5 | -1.3 |
| **COLD** | **Coldfoot** | **3.53** | **235** | Pn | | Pn | 11 42 31.2 | -0.6 |
| COLD | | | | Sn | | Sn | 11 43 11.7 | -2.4 |
| **COLD** | **Coldfoot** | **3.53** | **235** | P | | Pn | 11 42 31.5 | -0.3 |
| COLD | | | | S | | Sn | 11 43 12.8 | -1.3 |
| **INK** | **Inuvik** | **3.53** | **104** | Pn | | Pn | 11 42 32.6 | +0.7 |
| INK | | | | Sn | | Sn | 11 43 14.7 | +0.4 |
| **INK** | **Inuvik** | **3.53** | **104** | *e*Sn | | Sn | 11 43 15.1 | +0.9 |
| **PS06** | **TAPS Pump Stn6** | **4.46** | **220** | P | | Pn | 11 42 43.5 | -1.0 |
| **EGAK** | **Eagle** | **4.71** | **172** | *e*Pn | | Pn | 11 42 46.6 | -1.4 |
| **IL1** | **Eielson Array** | **4.94** | **201** | *e*Pn | | Pn | 11 42 50.1 | -1.0 |
| **ILB** | **Eielson Array** | **4.94** | **201** | *e*Pn | | Pn | 11 42 50.5 | -0.7 |
| ILB | | | | *e*Sn | | Sn | 11 43 45.9 | -2.9 |
| **MDM** | **Murphy Dome** | **4.96** | **208** | P | | Pn | 11 42 49.7 | -1.8 |
| **COLA** | **College** | **4.97** | **206** | P | | Pn | 11 42 50.9 | -0.7 |
| **CCB** | **Clear Creek Bu** | **5.18** | **205** | P | | Pn | 11 42 53.5 | -1.0 |
| **MLY** | **Manley** | **5.38** | **219** | P | | Pn | 11 42 56.6 | -0.7 |
| **IM3** | **Indian Mountai** | **5.42** | **236** | P | | Pn | 11 42 56.8 | -0.9 |
| **IMAR** | **Indian Mountai** | **5.42** | **236** | *e*Pn | | Pn | 11 42 56.9 | -0.8 |
| **DAWY** | **Dawson** | **5.54** | **164** | Pn | | Pn | 11 42 57.9 | -1.7 |
| DAWY | | | | Sn | | Sn | 11 44 00.3 | -3.5 |
| **DAWY** | **Dawson** | **5.54** | **164** | P | | Pn | 11 42 58.0 | -1.5 |
| **DOT** | **Dot Lake** | **5.82** | **186** | Pn | | Pn | 11 43 01.5 | -1.8 |
| DOT | | | | Sn | | Sn | 11 44 06.3 | -4.3 |
| **MCK** | **McKinley** | **6.21** | **206** | P | | Pn | 11 43 08.3 | -0.5 |
| **BPAW** | **Bear Paw Mtn.** | **6.25** | **215** | *e*Pn | | Pn | 11 43 08.5 | -0.7 |
| BPAW | | | | *e*Sn | | Sn | 11 44 17.6 | -3.5 |
| **BCA3** | **Beaver Creek A** | **6.39** | **176** | P | | Pn | 11 43 09.9 | -1.3 |
| **RND** | **Reindeer** | **6.51** | **205** | P | | Pn | 11 43 09.2 | -3.6 |
| **MENT** | **Mentasta** | **6.52** | **184** | *e*Pn | | Pn | 11 43 11.7 | -1.2 |
| MENT | | | | *e*Sn | | Sn | 11 44 24.2 | -3.7 |
| **PAX** | **Paxson** | **6.57** | **191** | *e*Sn | | Sn | 11 44 25.6 | -3.5 |
| **DHY** | **Denali Highway** | **6.63** | **198** | *e*Sn | | Sn | 11 44 29.3 | -1.5 |
| **PPLA** | **Purkeypile** | **7.57** | **215** | *e*Pn | | Pn | 11 43 26.6 | -0.8 |
| **YUK2** | **White River** | **7.71** | **173** | Pn | | Pn | 11 43 27.8 | -1.5 |
| **YUK3** | **Moose Creek** | **7.74** | **172** | Pn | | Pn | 11 43 28.5 | -1.3 |
| **TTA** | **Tatalina** | **8.41** | **226** | *e*Pn | | Pn | 11 43 41.4 | +2.5 |
| **HYT** | **Haines Junctio** | **8.91** | **163** | Pn | | Pn | 11 43 44.0 | -1.7 |
| **HYT** | **Haines Junctio** | **8.91** | **163** | *e*Pn | | Pn | 11 43 46.0 | +0.2 |
| **YUK7** | **Dusty Glacier** | **9.13** | **165** | Pn | | Pn | 11 43 49.0 | 0.0 |
| **KUKN** | **Kugluktuk,NWT** | **10.19** | **86** | Pn | | Pn | 11 43 59.7 | -3.4 |
| KUKN | | | | Sn | | Sn | 11 45 48.0 | -10 |
| **YKW3** | **Yellowknife Ar** | **13.25** | **107** | Pn | | Pn | 11 44 42.5 | -2.4 |
| **YKW1** | **Yellowknife Ar** | **13.33** | **108** | Pn | | Pn | 11 44 43.2 | -2.7 |
| **RES** | **Resolute Bay** | **15.25** | **49** | Pn | | Pn | 11 45 12.5 | +0.5 |

*ISK **18** 11:41:49.2, 37.13N×37.28E, h5km, MD2.2, ML2.3*
*ISCJB **18** 11:41:51.4±0.6, 37.13N±0.03×37.22E±0.04, h4km±6km, Error ellipse: s-maj=5.6km s-min=4.8km az=153.4*
*CSEM **18** 11:41:51.3±0.3, 37.14N×37.24E, h5km, MD2.2, Error ellipse: s-maj=7.6km s-min=6.5km az=150.0*
*DDA **18** 11:41:51.6, 37.19N×37.19E, h7km, Ml2.5*

**ISC 18 11:41:49.8±1.3, 37.13N±0.03×37.24E±0.03, h2km±10km, n25, σ0s92/41, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **GAZ** | **Gaziantep** | **0.05** | **336** | *e*PG | | **Pg** | **11 41 50.9** | **-0.1** |
| **HCB** | **Kahramanmara˜** | **0.34** | **310** | *i* P | | **Pg** | **11 41 57.1** | **+0.7** |
| HCB | | | | *i* S | | **Sb** | **11 42 02.8** | **-1.8** |
| **KUZU** | **Kuzuini** | **0.37** | **200** | *i* P | | **Pn** | **11 42 00.3** | **-2.0** |
| KUZU | | | | *i* S | | **Sb** | **11 42 06.7** | **+1.2** |
| **KUZU** | **Kuzuini** | **0.37** | **200** | P | | **Pn** | **11 42 00.3** | **-2.0** |
| KUZU | | | | S | | **Sb** | **11 42 06.7** | **+1.2** |
| **KAMA** | **Osmaniye** | **0.46** | **278** | *i* P | | **Pb** | **11 41 60.0** | **-0.7** |
| KAMA | | | | *i* S | | **Sg** | **11 42 05.9** | **+1.2** |
| **KMRS** | **Kahramanmaras** | **0.47** | **325** | *e*PG | | **Pb** | **11 41 59.8** | **-1.0** |
| KMRS | | | | *e*SG | | **Sb** | **11 42 07.4** | **-0.8** |
| **KMRS** | **Kahramanmaras** | **0.47** | **325** | *e*Pg | | **Pb** | **11 41 59.8** | **-1.0** |
| KMRS | | | | *e*Sg | | **Sb** | **11 42 07.4** | **-0.8** |
| **ANDN** | **Andirin** | **0.84** | **303** | *i* P | | **Pn** | **11 42 08.8** | **0.0** |
| ANDN | | | | *i* S | | **Sn** | **11 42 22.0** | **+0.1** |
| **ANDN** | **Andirin** | **0.84** | **303** | P | | **Pn** | **11 42 08.8** | **0.0** |
| ANDN | | | | S | | **Sn** | **11 42 22.0** | **+0.1** |
| **ATAB** | **Bozova** | **0.91** | **67** | *i* P | | **Pn** | **11 42 09.4** | **-0.3** |
| ATAB | | | | *i* S | | **Sn** | **11 42 24.0** | **+0.6** |
| **ATAB** | **Bozova** | **0.91** | **67** | P | | **Pn** | **11 42 09.4** | **-0.3** |
| ATAB | | | | S | | **Sn** | **

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **WHF** | **Hehuan Shan** | **1.26** | **242** | *e*P | **Pg** | **11** | **53** | **58.1 -0.4** |
| | baz=238 | | | | | | | |
| WHF | | | | *e*S | **Sg** | **11** | **54** | **14.7 -0.1** |
| | baz=238 | | | | | | | |
| **TWT** | **Tachien** | **1.29** | **248** | *e*P | **Pb** | **11** | **53** | **59.1 0.0** |
| | baz=245 | | | | | | | |
| TWT | | | | *e*S | **Sb** | **11** | **54** | **16.1 +0.1** |
| | baz=245 | | | | | | | |
| **ESL** | **Shilin** | **1.33** | **226** | P | **Pb** | **11** | **54** | **00.1 +0.3** |
| | baz=220 | | | | | | | |
| ESL | | | | S | **Sg** | **11** | **54** | **17.1 -0.1** |
| | baz=220 | | | | | | | |
| **NSTT** | **Nanjuang** | **1.35** | **265** | *e*P | **Pn** | **11** | **54** | **00.0 +0.1** |
| | baz=265 | | | | | | | |
| NSTT | | | | *e*S | **Sg** | **11** | **54** | **17.6 -0.1** |
| | baz=265 | | | | | | | |
| **HSN** | **Hsinchu** | **1.37** | **273** | *e*P | **Pn** | **11** | **53** | **59.6 -0.6** |
| | baz=275 | | | | | | | |
| HSN | | | | *e*S | **Sg** | **11** | **54** | **17.2 -1.3** |
| | baz=275 | | | | | | | |
| **HATJ** | **Hateruma jima** | **1.39** | **119** | *e*S | **Sg** | **11** | **54** | **17.1 -1.9** |
| **JKRS** | **Kuro-shima** | **1.48** | **110** | P | **Pb** | **11** | **54** | **02.4 0.0** |
| JKRS | | | | *e*S | **Sb** | **11** | **54** | **21.8 +0.2** |
| **JIJ** | **Ishigaki jima** | **1.56** | **104** | P | **Pn** | **11** | **54** | **03.2 +0.4** |
| JIJ | | | | *e*S | **Sn** | **11** | **54** | **22.5 -1.0** |
| **WDT** | **Danda** | **1.58** | **231** | *e*P | **Pb** | **11** | **54** | **04.4 +0.2** |
| | baz=227 | | | | | | | |
| WDT | | | | *e*S | **Sn** | **11** | **54** | **23.9 -0.4** |
| | baz=227 | | | | | | | |
| **NSY** | **Sanyi** | **1.60** | **258** | *e*P | **Pn** | **11** | **54** | **02.7 -0.6** |
| | baz=257 | | | | | | | |
| NSY | | | | *e*S | **Sn** | **11** | **54** | **22.9 -1.5** |
| | baz=257 | | | | | | | |
| **TWQ1** | **Liyutan** | **1.60** | **256** | *e*P | **Pb** | **11** | **54** | **04.4 -0.1** |
| | baz=255 | | | | | | | |
| TWQ1 | | | | *e*S | **Sn** | **11** | **54** | **22.9 -1.6** |
| | baz=255 | | | | | | | |
| **EHY** | **Hungye** | **1.63** | **221** | *e*P | **Pn** | **11** | **54** | **04.1 +0.4** |
| | baz=216 | | | | | | | |
| EHY | | | | *e*S | **Sn** | **11** | **54** | **25.3 +0.2** |
| | baz=216 | | | | | | | |
| **JISG** | **Ishigakijimahi** | **1.67** | **95** | P | **Pb** | **11** | **54** | **05.8 +0.2** |
| **SMLT** | **Sun Moon Lake** | **1.68** | **239** | *e*P | **Pb** | **11** | **54** | **05.8 0.0** |
| | baz=236 | | | | | | | |
| SMLT | | | | *e*S | **Sn** | **11** | **54** | **24.6 -1.9** |
| | baz=236 | | | | | | | |
| **TYC** | **Yuchr** | **1.70** | **241** | *e*P | **Pb** | **11** | **54** | **05.8 -0.3** |
| | baz=238 | | | | | | | |
| TYC | | | | *e*S | **Sn** | **11** | **54** | **26.7 -0.2** |
| | baz=238 | | | | | | | |
| **TWF1** | **Yuli** | **1.76** | **218** | *e*P | **Pn** | **11** | **54** | **05.8 +0.2** |
| | baz=213 | | | | | | | |
| TWF1 | | | | *e*S | **Sn** | **11** | **54** | **28.7 +0.3** |
| | baz=213 | | | | | | | |
| **WNT** | **Mingjian** | **1.85** | **242** | *e*P | **Pn** | **11** | **54** | **07.8 +1.0** |
| | baz=240 | | | | | | | |
| WNT | | | | *e*S | **Sn** | **11** | **54** | **30.5 -0.1** |
| | baz=240 | | | | | | | |
| **YUS** | **Yu-Shan** | **1.88** | **228** | *e*P | **Pn** | **11** | **54** | **07.9 +0.4** |
| | baz=224 | | | | | | | |
| YUS | | | | *e*S | **Sn** | **11** | **54** | **31.5 -0.4** |
| | baz=224 | | | | | | | |
| **ALS** | **Alishan** | **1.96** | **231** | *e*P | **Pn** | **11** | **54** | **09.3 +0.7** |
| | baz=228 | | | | | | | |
| ALS | | | | *e*S | **Sn** | **11** | **54** | **33.5 -0.3** |
| | baz=228 | | | | | | | |
| **CHN5** | **Tsauling** | **2.00** | **235** | *e*P | **Pn** | **11** | **54** | **09.7 +0.8** |
| | baz=232 | | | | | | | |
| CHN5 | | | | *e*S | **Sn** | **11** | **54** | **34.6 +0.1** |
| | baz=232 | | | | | | | |
| **ELDTW** | **Lidau** | **2.05** | **221** | *e*P | **Pn** | **11** | **54** | **10.3 +0.7** |
| | baz=217 | | | | | | | |
| ELDTW | | | | *e*S | **Sn** | **11** | **54** | **35.3 -0.4** |
| | baz=217 | | | | | | | |
| **CHN4** | **Tsaushan** | **2.22** | **231** | *e*P | **Pn** | **11** | **54** | **12.2 +0.5** |
| | baz=228 | | | | | | | |
| CHN4 | | | | *e*S | **Sn** | **11** | **54** | **38.8 -0.8** |
| | baz=228 | | | | | | | |
| **STYT** | **Tauyuan** | **2.23** | **225** | *e*P | **Pn** | **11** | **54** | **12.5 +0.5** |
| | baz=221 | | | | | | | |
| STYT | | | | *e*S | **Sn** | **11** | **54** | **40.5 +0.5** |
| | baz=221 | | | | | | | |
| **SGST** | **Jiashian** | **2.40** | **227** | *e*P | **Pn** | **11** | **54** | **14.8 +0.4** |
| | baz=223 | | | | | | | |
| SGST | | | | *e*S | **Sn** | **11** | **54** | **44.6 +0.4** |
| | baz=223 | | | | | | | |
| **EAST** | **Anshuo** | **2.79** | **213** | *e*P | **Pn** | **11** | **54** | **21.1 +1.4** |
| | baz=209 | | | | | | | |
| EAST | | | | *e*S | **Sn** | **11** | **54** | **54.2 +0.3** |
| | baz=209 | | | | | | | |

*ISCJB **18** 11:58:56.2±0.4, 24°.70N±0°.02×122°.42E±0°.02, h7km±3km, Error ellipse: s-maj=3.8km s-min=2.3km az=12.3*
*JMA **18** 11:58:56.7, 24°.68N×122°.38E, h32km±3km, M2.6*
*TAP **18** 11:58:56.7, 24°.69N×122°.28E, h2km, ML3.3, D*
**ISC 18 11:58:56.0±1.1, 24°.67N±0°.03×122°.40E±0°.02, h12km±9km, n42, σ0°69/83, Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TWB1** | **Santiao Chiao** | **0.50** | **312** | *i* P | **Pb** | **11 59 06.1** | **-0.7** |
| | baz=320 | | | | | | |
| TWB1 | | | | *i* S | **Sg** | **11 59 11.9** | **-0.6** |
| | baz=320 | | | | | | |
| **TWC** | **Suao** | **0.51** | **263** | *i* P | **Pg** | **11 59 05.8** | **-0.1** |
| | baz=257 | | | | | | |
| TWC | | | | S | **Sg** | **11 59 12.6** | **-0.1** |
| | baz=257 | | | | | | |
| **JYNG** | **Yonagunijimaku** | **0.54** | **114** | P | **Pb** | **11 59 07.9** | **+0.5** |
| JYNG | | | | S | **Sg** | **11 59 15.3** | **+1.6** |
| **YOJ** | **Yonaguni jima** | **0.59** | **111** | P | **Pb** | **11 59 08.7** | **+0.4** |
| YOJ | | | | S | **Sg** | **11 59 16.7** | **+1.4** |
| **ILA** | **Ilan** | **0.60** | **279** | P | **Pb** | **11 59 08.0** | **-0.4** |
| | baz=278 | | | | | | |
| ILA | | | | *e*S | **Sb** | **11 59 16.1** | **-0.9** |
| | baz=278 | | | | | | |
| **ENA** | **Nanau** | **0.65** | **248** | *e*P | **Pb** | **11 59 08.8** | **-0.5** |
| | baz=241 | | | | | | |
| ENA | | | | S | **Sb** | **11 59 17.6** | **-0.7** |
| | baz=241 | | | | | | |
| **TWE** | **Neicheng** | **0.67** | **274** | *i* P | **Pb** | **11 59 08.9** | **-0.7** |
| | baz=272 | | | | | | |
| TWE | | | | S | **Sb** | **11 59 18.5** | **-0.4** |
| | baz=272 | | | | | | |
| **NWF** | **Wu-fen Shan** | **0.69** | **305** | *i* P | **Pb** | **11 59 10.6** | **+0.6** |
| | baz=309 | | | | | | |
| NWF | | | | *i* S | **Sb** | **11 59 20.3** | **+0.8** |
| | baz=309 | | | | | | |
| **ENTT** | **Nioudou** | **0.76** | **268** | P | **Pb** | **11 59 10.6** | **-0.6** |
| | baz=265 | | | | | | |
| ENTT | | | | S | **Sb** | **11 59 22.5** | **+0.9** |
| | baz=265 | | | | | | |
| **TWA** | **Mucha** | **0.80** | **293** | *e*P | **Pn** | **11 59 12.7** | **-0.5** |
| | baz=294 | | | | | | |
| TWA | | | | S | **Sb** | **11 59 22.9** | **+0.1** |
| | baz=294 | | | | | | |
| **TAP** | **Taipei** | **0.89** | **294** | P | **Pb** | **11 59 13.6** | **+0.2** |
| | baz=296 | | | | | | |
| TAP | | | | S | **Sb** | **11 59 25.7** | **+0.4** |
| | baz=296 | | | | | | |
| **TWD** | **Chiawan** | **0.94** | **231** | *e*P | **Pb** | **11 59 14.4** | **+0.1** |
| | baz=225 | | | | | | |
| TWD | | | | *e*S | **Sn** | **11 59 28.5** | **0.0** |
| | baz=225 | | | | | | |
| **TWY** | **Chenhua** | **0.94** | **310** | P | **Pb** | **11 59 14.4** | **+0.1** |
| | baz=313 | | | | | | |
| TWY | | | | *i* S | **Sb** | **11 59 26.9** | **+0.1** |
| | baz=313 | | | | | | |
| **NSK** | **Sanguang** | **0.95** | **270** | P | **Pb** | **11 59 14.1** | **-0.4** |
| | baz=268 | | | | | | |
| NSK | | | | *e*S | **Sb** | **11 59 27.7** | **+0.6** |
| | baz=268 | | | | | | |
| **NNS** | **Nan Shan** | **0.96** | **256** | *e*P | **Pb** | **11 59 14.4** | **-0.3** |
| | baz=252 | | | | | | |
| NNS | | | | *e*S | **Sb** | **11 59 27.9** | **+0.4** |
| | baz=252 | | | | | | |
| **TWS1** | **Kuangyinshan** | **0.99** | **296** | *e*P | **Pn** | **11 59 15.4** | **-0.3** |
| | baz=297 | | | | | | |
| TWS1 | | | | *e*S | **Sb** | **11 59 28.8** | **+0.6** |
| | baz=297 | | | | | | |
| **PCYT** | **Pengchaiyu** | **1.00** | **343** | *e*P | **Pb** | **11 59 15.6** | **+0.3** |
| | baz=348 | | | | | | |
| PCYT | | | | *e*S | **Sb** | **11 59 28.4** | **0.0** |
| | baz=348 | | | | | | |
| **NCU** | **National Centr** | **1.14** | **285** | *e*P | **Pn** | **11 59 18.1** | **+0.2** |
| | baz=285 | | | | | | |
| NCU | | | | *e*S | **Sb** | **11 59 32.8** | **+0.3** |
| | baz=285 | | | | | | |
| **WHF** | **Hehuan Shan** | **1.16** | **243** | *e*P | **Pb** | **11 59 18.3** | **0.0** |
| | baz=239 | | | | | | |
| WHF | | | | S | **Sb** | **11 59 33.8** | **+0.3** |
| | baz=239 | | | | | | |
| **TWT** | **Tachien** | **1.19** | **250** | P | **Pn** | **11 59 19.6** | **+0.9** |
| | baz=246 | | | | | | |
| TWT | | | | *e*S | **Sn** | **11 59 35.2** | **+0.3** |
| | baz=246 | | | | | | |
| **ESL** | **Shilin** | **1.23** | **226** | *e*P | **Pn** | **11 59 20.4** | **+1.4** |
| | baz=221 | | | | | | |
| ESL | | | | *e*S | **Sn** | **11 59 36.6** | **+1.0** |
| | baz=221 | | | | | | |
| **IRIF** | **Iriomote-Funau** | **1.26** | **105** | P | **Pn** | **11 59 18.5** | **-0.9** |
| IRIF | | | | S | **Sb** | **11 59 35.0** | **-0.8** |
| **NSTT** | **Nanjuang** | **1.27** | **268** | *e*P | **Pg** | **11 59 21.2** | **+0.7** |
| | baz=266 | | | | | | |
| NSTT | | | | *e*S | **Sn** | **11 59 37.3** | **+0.5** |
| | baz=266 | | | | | | |
| **HATJ** | **Hateruma jima** | **1.42** | **115** | *e*S | **Sn** | **11 59 40.5** | **+0.2** |
| **WDT** | **Danda** | **1.48** | **232** | *e*P | **Pg** | **11 59 24.4** | **+0.1** |
| | baz=228 | | | | | | |
| WDT | | | | *e*S | **Sg** | **11 59 43.3** | **-0.2** |
| | baz=228 | | | | | | |
| **NSY** | **Sanyi** | **1.52** | **261** | *e*P | **Pn** | **11 59 23.5** | **+0.5** |
| | baz=258 | | | | | | |
| NSY | | | | *e*S | **Sg** | **11 59 44.0** | **-0.8** |
| | baz=258 | | | | | | |
| **TWQ1** | **Liyutan** | **1.52** | **258** | *e*P | **Pg** | **11 59 24.5** | **-0.7** |
| | baz=255 | | | | | | |
| TWQ1 | | | | *e*S | **Sb** | **11 59 43.3** | **-0.1** |
| | baz=255 | | | | | | |
| **EHY** | **Hungye** | **1.52** | **221** | *e*P | **Pg** | **11 59 25.3** | **+0.1** |
| | baz=216 | | | | | | |
| EHY | | | | *e*S | **Sg** | **11 59 44.7** | **-0.4** |
| | baz=216 | | | | | | |
| **JKRS** | **Kuro-shima** | **1.53** | **106** | P | **Pn** | **11 59 22.9** | **-0.2** |
| JKRS | | | | *e*S | **Sn** | **11 59 42.3** | **-0.6** |
| **SMLT** | **Sun Moon Lake** | **1.58** | **240** | *e*P | **Pg** | **11 59 26.0** | **-0.3** |
| | baz=237 | | | | | | |
| SMLT | | | | *e*S | **Sg** | **11 59 46.4** | **-0.4** |
| | baz=237 | | | | | | |
| **TYC** | **Yuchr** | **1.60** | **242** | *e*P | **Pb** | **11 59 25.7** | **+0.1** |
| | baz=238 | | | | | | |
| TYC | | | | S | **Sb** | **11 59 45.8** | **0.0** |
| | baz=238 | | | | | | |
| **JIJ** | **Ishigaki jima** | **1.61** | **101** | P | **Pn** | **11 59 23.8** | **-0.5** |
| JIJ | | | | *e*S | **Sn** | **11 59 43.2** | **-1.9** |
| **TWF1** | **Yuli** | **1.66** | **218** | *e*P | **Pb** | **11 59 26.5** | **0.0** |
| | baz=213 | | | | | | |
| TWF1 | | | | *e*S | **Sg** | **11 59 48.5** | **-0.9** |
| | baz=213 | | | | | | |
| **YUS** | **Yu-Shan** | **1.77** | **229** | *e*P | **Pb** | **11 59 28.3** | **-0.4** |
| | baz=225 | | | | | | |
| YUS | | | | *e*S | **Sb** | **11 59 51.2** | **0.0** |
| | baz=225 | | | | | | |
| **ALS** | **Alishan** | **1.86** | **232** | *e*P | **Pg** | **11 59 31.7** | **0.0** |
| | baz=228 | | | | | | |
| ALS | | | | *e*S | **Sb** | **11 59 53.5** | **0.0** |
| | baz=228 | | | | | | |
| **CHN5** | **Tsauling** | **1.90** | **236** | *e*P | **Pg** | **11 59 31.8** | **-0.7** |
| | baz=233 | | | | | | |
| CHN5 | | | | *e*S | **Sb** | **11 59 54.9** | **+0.4** |
| | baz=233 | | | | | | |
| **ELDTW** | **Lidau** | **1.95** | **221** | *e*P | **Pb** | **11 59 31.1** | **-0.4** |
| | baz=217 | | | | | | |
| ELDTW | | | | *e*S | **Sb** | **11 59 56.0** | **+0.3** |
| | baz=217 | | | | | | |
| **CHN4** | **Tsaushan** | **2.11** | **232** | *e*P | **Pb** | **11 59 34.1** | **-0.2** |
| | baz=229 | | | | | | |
| CHN4 | | | | *e*S | **Sn** | **11 59 58.7** | **+1.3** |
| | baz=229 | | | | | | |
| **STYT** | **Tauyuan** | **2.13** | **225** | *e*P | **Pn** | **11 59 32.6** | **+1.2** |
| | baz=222 | | | | | | |
| STYT | | | | *e*S | **Sb** | **12 00 00.2** | **-0.8** |
| | baz=222 | | | | | | |
| **WTP** | **Ta-pu** | **2.17** | **229** | *e*P | **Pb** | **11 59 35.3** | **+0.1** |
| | baz=226 | | | | | | |
| WTP | | | | *e*S | **Sb** | **12 00 01.4** | **-0.6** |
| | baz=226 | | | | | | |
| **CHN1** | **Nanshi** | **2.27** | **230** | *e*P | **Pb** | **11 59 35.5** | **-1.4** |
| | baz=226 | | | | | | |
| CHN1 | | | | *e*S | **Sb** | **12 00 03.6** | **-1.2** |
| | baz=226 | | | | | | |
| **SGST** | **Jiashian** | **2.30** | **227** | *e*P | **Pb** | **11 59 36.0** | **-1.4** |
| | baz=223 | | | | | | |
| SGST | | | | *e*S | **Sn** | **12 00 03.2** | **+1.2** |
| | baz=223 | | | | | | |

**TIF 18 11:59:36.8, 42°.53N×43°.24E, h14km, Western Caucasus**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ONI** | **Oni** | **0.17** | **67** | P | Pg | 11 59 41.3 | +0.3 |
| ONI | | | | S | Sb | 11 59 44.5 | -0.5 |

*ISK **18** 12:00:17.7, 38°.81N×43°.27E, h5km, ML2.3*
*CSEM **18** 12:00:19.6±0.2, 38°.82N×43°.30E, h2km, ML2.3, Error ellipse: s-maj=4.7km s-min=4.2km az=103.0*
*DDA **18** 12:00:19.6, 38°.82N×43°.28E, h7km, Ml2.5*
**ISC 18 12:00:20.0±1.0, 38°.83N±0°.03×43°.30E±0°.02, h12km±9km, n30, σ0°77/51, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.24** | **164** | *e*PG | **Pg** | **12 00 25.3** | **+0.1** |
| **VANB** | **Van** | **0.24** | **164** | *e*Pg | **Pg** | **12 00 25.3** | **+0.1** |
| **VMUR** | **Van-Muradiye** | **0.26** | **53** | *i* P | **Pg** | **12 00 25.0** | **-0.6** |
| VMUR | | | | *i* S | **Sb** | **12 00 30.7** | **-0.7** |
| **VMUR** | **Van-Muradiye** | **0.26** | **53** | P | **Pg** | **12 00 25.0** | **-0.6** |
| VMUR | | | | S | **Sb** | **12 00 30.7** | **-0.7** |
| **TVAN** | **Van** | **0.31** | **165** | *i* P | **Pg** | **12 00 25.4** | **-1.1** |
| TVAN | | | | *i* S | **Sg** | **12 00 31.2** | **+0.4** |
| **TVAN** | **Van** | **0.31** | **165** | P | **Pg** | **12 00 25.4** | **-1.1** |
| TVAN | | | | S | **Sg** | **12 00 31.2** | **+0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.45** | **267** | *i* P | **Pg** | **12 00 28.0** | **-1.0** |
| ADCV | | | | *i* S | **Sb** | **12 00 36.3** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.45** | **267** | P | **Pg** | **12 00 28.0** | **-1.0** |
| ADCV | | | | S | **Sb** | **12 00 36.3** | **-0.6** |
| **GEVA** | **Gevas** | **0.55** | **200** | *i* P | **Pg** | **12 00 29.6** | **-1.3** |
| GEVA | | | | *i* S | **Sg** | **12 00 38.7** | **+0.5** |
| **GEVA** | **Gevas** | **0.55** | **200** | P | **Pg** | **12 00 29.6** | **-1.3** |
| GEVA | | | | S | **Sg** | **12 00 38.7** | **+0.5** |
| **CLDR** | **Caldiran** | **0.57** | **57** | *e*PG | **Pg** | **12 00 30.7** | **-0.6** |
| CLDR | | | | *e*SG | **Sb** | **12 00 40.0** | **-0.3** |
| **CLDR** | **Caldiran** | **0.57** | **57** | *i* P | **Pg** | **12 00 30.5** | **-0.7** |
| CLDR | | | | *i* S | **Sb** | **12 00 40.2** | **-0.1** |
| **CLDR** | **Caldiran** | **0.57** | **57** | P | **Pg** | **12 00 30.5** | **-0.7** |
| **CLDR** | **Caldiran** | **0.57** | **57** | *e*Pg | **Pg** | **12 00 30.7** | **-0.6** |
| CLDR | | | | *e*Sg | **Sb** | **12 00 40.0** | **-0.3** |
| **TUTA** | **Tutak** | **0.69** | **326** | *i* P | **Pg** | **12 00 32.2** | **-1.2** |
| TUTA | | | | *i* S | **Sb** | **12 00 43.2** | **-0.5** |
| **TUTA** | **Tutak** | **0.69** | **326** | P | **Pg** | **12 00 32.2** | **-1.2** |
| TUTA | | | | S | **Sb** | **12 00 43.2** | **-0.5** |
| **AGRB** | **Hanur-Agry** | **0.78** | **342** | *e*PG | **Pg** | **12 00 34.0** | **-1.3** |
| AGRB | | | | *e*SG | **Sb** | **12 00 46.4** | **0.0** |
| **AGRB** | **Hanur-Agry** | **0.78** | **342** | *e*Pg | **Pg** | **12 00 34.0** | **-1.2** |
| AGRB | | | | *e*Sg | **Sb** | **12 00 46.4** | **0.0** |
| **EKAR** | **Karacoban** | **1.05** | **294** | *i* P | **Pg** | **12 00 40.1** | **-0.3** |
| EKAR | | | | *i* S | **Sb** | **12 00 54.7** | **+0.5** |
| **EKAR** | **Karacoban** | **1.05** | **294** | P | **Pg** | **12 00 40.1** | **-0.3** |
| EKAR | | | | S | **Sb** | **12 00 54.7** | **+0.5** |
| **EATA** | **Eleskirt** | **1.21** | **329** | *i* P | **Pg** | **12 00 42.0** | **-1.3** |
| EATA | | | | *i* S | **Sn** | **12 01 00.1** | **+0.6** |
| **EATA** | **Eleskirt** | **1.21** | **329** | P | **Pg** | **12 00 42.0** | **-1.3** |
| EATA | | | | S | **Sn** | **12 01 00.1** | **+0.6** |
| **SRTM** | **Siirt_Merkez** | **1.37** | **233** | *i* P | **Pn** | **12 00 45.2** | **+0.1** |
| SRTM | | | | *i* S | **Sg** | **12 01 05.5** | **+1.3** |
| **SRTM** | **Siirt_Merkez** | **1.37** | **233** | P | **Pn** | **12 00 45.2** | **+0.1** |
| SRTM | | | | S | **Sg** | **12 01 05.5** | **+1.3** |
| **SIRT** | **Sirnak** | **1.49** | **207** | *e*PN | **Pn** | **12 00 46.4** | **-0.4** |
| **SIRT** | **Sirnak** | **1.49** | **207** | *e*Pn | **Pn** | **12 00 46.4** | **-0.4** |
| **DIGO** | **Kars** | **1.58** | **2** | *i* P | **Pg** | **12 00 50.5** | **+0.1** |
| **DIGO** | **Kars** | **1.58** | **2** | P | **Pg** | **12 00 50.5** | **+0.1** |
| **ERZM** | **Erzurum** | **1.85** | **306** | *i* P | **Pb** | **12 00 54.3** | **+0.4** |
| **ERZM** | **Erzurum** | **1.85** | **306** | P | **Pb** | **12 00 54.3** | **+0.4** |

*ATH **18** 12:09:19.4, 36°.38N×27°.48E, h40km±5km, ML2.5/3, Error ellipse: s-maj=6.4km s-min=1.1km az=116.0*
*ISK **18** 12:09:19.4, 36°.29N×27°.63E, h30km, MD2.7*

*CSEM **18** 12:09:20.2±0.2, 36°.34N×27°.55E, h30km, MD2.7, Error ellipse: s-maj=5.8km s-min=4.3km az=133.0*
**ISC 18 12:09:20.4±1.1, 36°.34N±0°.03×27°.58E±0°.03, h33km±12km, n30, σ0°94/48, Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DATC** | **Datca-Mugla** | **0.42** | **9** | *e*PG | **Pn** | **12 09 30.1** | **-0.1** |
| DATC | | | | *e*SG | **Sn** | **12 09 37.7** | **+0.9** |
| **DATC** | **Datca-Mugla** | **0.42** | **9** | *e*Pg | **Pn** | **12 09 30.1** | **-0.1** |
| DATC | | | | *e*Sg | **Sn** | **12 09 37.7** | **+0.9** |
| **ARG** | **Arkhangelos** | **0.46** | **106** | P | **Pn** | **12 09 31.4** | **+0.7** |
| ARG | | | | S | **Sn** | **12 09 39.8** | **+2.0** |
| ARG | | | | AML | AML | 12 09 42.0 | |
| | comp=E,1861μm,0.3s | | | | | | |
| ARG | | | | AML | AML | 12 09 42.1 | |
| | comp=N,906μm,0.1s | | | | | | |
| **ARG** | **Arkhangelos** | **0.46** | **106** | P | **Pn** | **12 09 31.4** | **+0.7** |
| ARG | | | | S | **Sn** | **12 09 39.8** | **+2.0** |
| **MRSB** | **Marmaris-Mugla** | **0.62** | **53** | *e*PG | **Pn** | **12 09 32.4** | **-0.6** |
| MRSB | | | | *e*SG | **Sn** | **12 09 41.7** | **-0.1** |
| **MRSB** | **Marmaris-Mugla** | **0.62** | **53** | *e*Pg | **Pn** | **12 09 32.4** | **-0.6** |
| MRSB | | | | *e*Sg | **Sn** | **12 09 41.7** | **-0.1** |
| **BODT** | **Bodrum** | **0.75** | **344** | *e*PG | **Pb** | **12 09 34.9** | **-0.2** |
| BODT | | | | *e*SG | **Sn** | **12 09 46.5** | **+1.6** |
| **BODT** | **Bodrum** | **0.75** | **344** | *e*Pg | **Pb** | **12 09 34.9** | **-0.2** |
| BODT | | | | *e*Sg | **Sn** | **12 09 46.5** | **+1.6** |
| **KARP** | **Karpathos** | **0.86** | **203** | *e*PG | **Pn** | **12 09 35.5** | **-0.7** |
| KARP | | | | *e*SG | **Sn** | **12 09 46.9** | **-0.8** |
| **KARP** | **Karpathos** | **0.86** | **203** | P | **Pb** | **12 09 36.2** | **-0.7** |
| KARP | | | | S | **Sb** | **12 09 49.8** | **+1.6** |
| KARP | | | | AML | AML | 12 09 50.6 | |
| | comp=N,922μm,0.1s | | | | | | |
| KARP | | | | AML | AML | 12 09 50.8 | |
| | comp=E,1126μm,0.2s | | | | | | |
| **KARP** | **Karpathos** | **0.86** | **203** | *e*Pg | **Pn** | **12 09 35.5** | **-0.7** |
| **KARP** | **Karpathos** | **0.86** | **203** | P | **Pb** | **12 09 36.2** | **-0.7** |
| KARP | | | | *e*Sg | **Sn** | **12 09 46.9** | **-0.8** |
| KARP | | | | S | **Sb** | **12 09 49.8** | **+1.6** |
| **DALY** | **Dalyan (Mu¨la** | **0.99** | **61** | *e*PG | **Pb** | **12 09 37.4** | **-1.6** |
| **DALY** | **Dalyan (Mu¨la** | **0.99** | **61** | *e*Pg | **Pb** | **12 09 37.4** | **-1.6** |
| **FETY** | **Fethiye** | **1.25** | **76** | *e*PN | **Pn** | **12 09 40.7** | **-0.9** |
| **FETY** | **Fethiye** | **1.25** | **76** | *e*Pn | **Pn** | **12 09 40.7** | **-0.9** |
| **SMG** | **Samos** | **1.49** | **337** | P | **Pn** | **12 09 43.7** | **-1.1** |
| SMG | | | | S | **Sn** | **12 10 03.0** | **-0.1** |
| **SMG** | **Samos** | **1.49** | **337** | P | **Pn** | **12 09 43.7** | **-1.1** |
| SMG | | | | S | **Sn** | **12 10 03.0** | **-0.1** |
| **ZKR** | **Zakros** | **1.65** | **222** | P | **Pn** | **12 09 47.8** | **+0.8** |
| ZKR | | | | S | **Sn** | **12 10 07.0** | **-0.2** |
| ZKR | | | | AML | AML | 12 10 11.5 | |
| | comp=N,42μm,0.4s | | | | | | |
| ZKR | | | | AML | AML | 12 10 13.2 | |
| | comp=E,102μm,0.5s | | | | | | |
| **ZKR** | **Zakros** | **1.65** | **222** | P | **Pn** | **12 09 47.8** | **+0.8** |
| ZKR | | | | S | **Sn** | **12 10 06.9** | **-0.2** |
| **SANT** | **Santorini** | **1.71** | **272** | P | **Pn** | **12 09 47.9** | **0.0** |
| **SANT** | **Santorini** | **1.71** | **272** | P | **Pn** | **12 09 47.9** | **0.0** |
| **THR3** | **Thira Island,** | **1.76** | **273** | P | **Pn** | **12 09 49.1** | **+0.6** |
| **THR3** | **Thira Island,** | **1.76** | **273** | P | **Pn** | **12 09 49.1** | **+0.6** |
| **THR6** | **Thira Island,** | **1.76** | **271** | P | **Pn** | **12 09 47.6** | **-0.8** |
| **THR6** | **Thira Island,** | **1.76** | **271** | P | **Pn** | **12 09 47.7** | **-0.8** |
| **APE** | **Apeiranthos** | **1.80** | **294** | *e*PN | **Pn** | **12 09 49.2** | **+0.1** |
| **APE** | **Apeiranthos** | **1.80** | **294** | *e*Pn | **Pn** | **12 09 49.2** | **+0.1** |
| **NPS** | **Neapolis** | **1.93** | **237** | P | **Pn** | **12 09 50.0** | **-0.8** |
| NPS | | | | S | **Sn** | **12 10 13.9** | **0.0** |
| **NPS** | **Neapolis** | **1.93** | **237** | P | **Pn** | **12 09 50.0** | **-0.8** |
| NPS | | | | S | **Sn** | **12 10 13.9** | **0.0** |

*ISCJB **18** 12:10:13.0±0.8, 38°.67N±0°.04×144°.75E±0°.06, h43km, mb3.6/3, Error ellipse: s-maj=6.9km s-min=4.8km az=32.8*
*JMA **18** 12:10:14.9±0.2, 38°.54N×144°.60E, h48km, M3.6*
*IDC **18** 12:10:16.9±2.1, 37°.58N×144°.68E, h0km, mb3.5/3, mb1 3.7/4, mb1mx3.4/32, mbtmp3.5/4, ML3.5/1, Error ellipse: s-maj=49.0km s-min=29.6km az=54.0*
**ISC 18 12:10:15.0±1.4, 38°.66N±0°.06×144°.75E±0°.08, h43km, n23, σ1°60/29, mb3.6/3, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OFUJ** | **Ofunato** | **2.44** | **281** | P | **Pn** | **12 10 52.3** | **-0.1** |
| OFUJ | | | | *e*S | **Sn** | **12 11 20.3** | **-0.7** |
| **MIYJ** | **Miyakonagasawa** | **2.46** | **293** | *e*S | **Sn** | **12 11 20.8** | **-0.6** |
| **JMK** | **Ichinoseki** | **2.78** | **277** | P | **Pn** | **12 10 57.2** | **+0.3** |
| JMK | | | | *e*S | **Sn** | **12 11 28.8** | **-0.4** |
| **JOM** | **Ohasama** | **2.81** | **288** | *e*S | **Sn** | **12 11 30.0** | **-0.1** |
| **JOU** | **Okura** | **3.22** | **266** | *e*S | **Sn** | **12 11 38.3** | **-1.9** |
| **JRG** | **Rokugo** | **3.29** | **284** | *e*S | **Sn** | **12 11 42.4** | **+0.5** |
| **JTM** | **Tenmabayashi** | **3.55** | **308** | P | **Pn** | **12 11 07.7** | **+0.2** |
| JTM | | | | *e*S | **Sn** | **12 11 47.7** | **-0.5** |
| **JFT** | **Otama** | **3.67** | **253** | *e*S | **Sn** | **12 11 49.4** | **-1.8** |
| **JOT** | **Ohata** | **3.93** | **315** | *e*S | **Sn** | **12 11 57.3** | **-0.4** |
| **JCH** | **Churui** | **4.09** | **345** | P | **Pn** | **12 11 14.8** | **-0.1** |
| JCH | | | | *e*S | **Sn** | **12 11 59.7** | **-1.8** |
| **NEM2** | **Nemuro 2** | **4.76** | **9** | P | **Pn** | **12 11 22.3** | **-1.8** |
| NEM2 | | | | *e*S | **Sn** | **12 12 14.4** | **-3.5** |
| **JOSM** | **Okushiri--Mats** | **5.28** | **312** | P | **Pn** | **12 11 33.3** | **+2.0** |
| **JTKR** | **Abashiri--Toko** | **5.34** | **353** | P | **Pn** | **12 11 32.1** | **0.0** |
| JTKR | | | | *e*S | **Sn** | **12 12 30.8** | **-1.5** |
| **JRY** | **Ryogami san** | **5.36** | **242** | P | **Pn** | **12 11 31.5** | **-0.9** |
| JRY | | | | *e*S | **Sn** | **12 12 28.2** | **-4.7** |
| **JHR** | **Hokuryu** | **5.57** | **337** | P | **Pn** | **12 11 37.5** | **+2.3** |
| JHR | | | | *e*S | **Sn** | **12 12 39.5** | **+1.6** |
| **MJAR** | **Matsushiro Arr** | **5.61** | **250** | Pn | **Pn** | **12 11 36.5** | **+0.6** |
| | 1.8nm,0.3s,baz=61,slow=12,SNR=11 | | | | | | |
| MJAR | | | | Sn | **Sn** | **12 12 39.4** | **+0.3** |
| | 0.1nm,0.3s,baz=87,slow=25,SNR=2.3 | | | | | | |
| **MAT** | **Matsushiro** | **5.61** | **250** | P | **Pn** | **12 11 36.6** | **+0.7** |
| MAT | | | | *e*S | **Sn** | **12 12 39.5** | **+0.4** |
| **H11N2** | **WAKE ISLAND Hy** | **26.89** | **128** | T | T | 12 43 42.9 | |
| | baz=320,slow=75 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **26.90** | **128** | T | T | 12 43 48.1 | |
| | baz=320,slow=75 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **26.91** | **128** | T | T | 12 43 42.3 | |
| | baz=320,slow=75 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.80**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 3.5nm,0.6s | | | | | | | | |
| **AML** | **Almayashu** | **2.20** | **66** | ⇑ | *i* | P | **Pn** | **12 23 46.0** | **+1.3** |
| | baz=67 | | | | | | | | |
| AML | | | | | ⇑ | *i* | S | **Sb** | **12 24 15.0** | **-0.3** |
| | baz=67 | | | | | | | | |
| **MRKS** | **Merke** | **2.22** | **48** | | *e* | P | **Pb** | **12 23 47.4** | **-0.8** |
| MRKS | | | | | | *e* | S | **Sb** | **12 24 16.5** | **+0.8** |
| | 6.7nm,0.3s | | | | | | | | |
| **SFK** | **Sufi-Kurgan** | **2.30** | **123** | ⇓ | *e* | P | **Pn** | **12 23 45.4** | **-0.5** |
| | baz=120 | | | | | | | | |
| SFK | | | | | ⇓ | *i* | S | **Sb** | **12 24 18.2** | **+0.3** |
| | baz=120 | | | | | | | | |
| **SFK** | **Sufi-Kurgan** | **2.30** | **123** | ⇑ | Pn | | **Pn** | **12 23 47.5** | **+1.6** |
| | 0.4nm,0.3s | | | | | | | | |
| SFK | | | | | ⇓ | Lg | Lg | 12 24 18.2 | |
| | 1.9nm,0.3s | | | | | | | | |
| **EKS2** | **Erkin-Say** | **2.50** | **56** | ⇑ | *e* | P | **Pb** | **12 23 51.3** | **-1.7** |
| | baz=56 | | | | | | | | |
| EKS2 | | | | | ⇑ | *i* | S | **Sb** | **12 24 22.9** | **-0.7** |
| | baz=56 | | | | | | | | |
| **UCH** | **Uchtor** | **2.81** | **69** | ⇑ | *i* | P | **Pn** | **12 23 55.2** | **+2.1** |
| | baz=69 | | | | | | | | |
| UCH | | | | | ⇑ | *i* | S | **Sb** | **12 24 30.8** | **-2.0** |
| | baz=69 | | | | | | | | |
| **AAK** | **Ala-Archa** | **2.95** | **61** | ⇑ | *e* | P | **Pn** | **12 23 57.4** | **+2.6** |
| | baz=62 | | | | | | | | |
| AAK | | | | | ⇑ | *i* | S | **Sb** | **12 24 33.9** | **-2.7** |
| | baz=62 | | | | | | | | |
| **AAK** | **Ala-Archa** | **2.95** | **61** | ⇓ | Pn | | **Pb** | **12 24 00.1** | **-0.6** |
| | 1.5nm,0.4s | | | | | | | | |
| AAK | | | | | ⇓ | Lg | Lg | 12 24 38.3 | |
| | 1.6nm,0.6s | | | | | | | | |
| **KBK** | **Karagaybulak** | **3.26** | **64** | ⇑ | *e* | P | **Pn** | **12 24 01.5** | **+2.4** |
| | baz=64 | | | | | | | | |
| KBK | | | | | ⇑ | *i* | S | **Sb** | **12 24 42.4** | **-3.2** |
| | baz=64 | | | | | | | | |
| **KZA** | **Kyzart** | **3.29** | **75** | ⇑ | *i* | P | **Pn** | **12 24 02.4** | **+2.6** |
| | baz=75 | | | | | | | | |
| KZA | | | | | ⇑ | *i* | S | **Sb** | **12 24 44.2** | **-2.6** |
| | baz=75 | | | | | | | | |
| **DGS** | **Degeres** | **4.06** | **60** | | *e* | P | **Pb** | **12 24 19.9** | **+0.3** |
| | 2.3nm,0.5s | | | | | | | | |
| DGS | | | | | *e* | S | **Sb** | **12 25 12.5** | **+4.0** |
| | 2.2nm,0.3s | | | | | | | | |

*IDC* ***18*** *12:28:07.5±3.0, 36°.30N×71°.24E, h88km±25km, mb3.7/16, mb1 3.8/21, mb1mx3.6/49, mbtmp4.1/21, Error ellipse: s-maj=21.7km s-min=14.5km az=163.0*

*MOS* ***18*** *12:28:09.4±1.3, 36°.44N×71°.44E, h115km, mb4.2/10, Error ellipse: s-maj=9.7km s-min=5.3km az=87.0*

*ISCJB* ***18*** *12:28:09.4±0.2, 36°.46N±0°.02×71°.46E±0°.03, h114km, mb4.3/35, Error ellipse: s-maj=3.8km s-min=3.1km az=164.7*

*BJI* ***18*** *12:28:10.0, 36°.40N×71°.60E, h116km, mb4.6/17, mB4.8/13*

*NEIC* ***18*** *12:28:10.5±0.8, 36°.38N×71°.58E, h116km±7km, mb4.7/16, Error ellipse: s-maj=10.9km s-min=6.6km az=136.0*

*NNC* ***18*** *12:28:14.2±2.6, 36°.84N×70°.98E, h147km±25km, mb3.8, mpv4.8, Error ellipse: s-maj=26.7km s-min=12.2km az=163.0*

**ISC 18 12:28:09.7±0.4, 36°.38N±0°.04×71°.49E±0°.04, h114km, n149, σ2s16/169, mb4.3/35, 10C-14D, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **CEP** | **Cherat** | **2.58** | **172** | ⇓ | P | **Pn** | **12 28 54.8** | **+4.4** |
| CEP | | | | | S | **Sn** | **12 29 28.0** | **+6.4** |
| **KBL** | **Kabul** | **2.71** | **228** | *e* | PN | **Pn** | **12 28 53.8** | **+1.6** |
| KBL | | | | *e* | | | 12 29 26.2 | |
| **KBL** | **Kabul** | **2.71** | **228** | *e* | Pn | **Pn** | **12 28 53.8** | **+1.6** |
| KBL | | | | *e* | Sn | **Sn** | **12 29 26.2** | **+1.3** |
| **CHCP** | **Chirah Chowk** | **3.08** | **151** | | P | Pn | 12 29 02.2 | +5.2 |
| **DZET** | **Dzherino** | **3.21** | **320** | ⇓ | P | **Pn** | **12 28 56.3** | **-2.4** |
| | 291nm,0.5s | | | | | | | |
| DZET | | | | ⇓ | S | **Sn** | **12 29 29.6** | **-6.9** |
| | 1μm,0.5s | | | | | | | |
| **DZET** | **Dzherino** | **3.21** | **320** | | PN | **Pn** | **12 28 56.3** | **-2.4** |
| DZET | | | | | pmax | pmax | | |
| | comp=Z,291nm,0.5s | | | | | | | |
| **THW** | **Thamme Wali** | **3.58** | **177** | ⇓ | P | **Pn** | **12 29 07.1** | **+3.5** |
| **SFK** | **Sufi-Kurgan** | **3.96** | **23** | ⇑ | P | **Pn** | **12 29 11.4** | **+2.6** |
| | comp=Z,156nm,0.5s | | | | | | | |
| SFK | | | | ⇓ | S | **Sn** | **12 29 56.5** | **+2.1** |
| | comp=Z,46nm,0.2s | | | | | | | |
| **SFK** | **Sufi-Kurgan** | **3.96** | **23** | *i* | PN | **Pn** | **12 29 11.3** | **+2.6** |
| SFK | | | | | pmax | pmax | | |
| | comp=Z,156nm,0.4s | | | | | | | |
| **SARP** | **Sargodha** | **4.56** | **167** | | P | **Pn** | **12 29 19.5** | **+2.9** |
| **KSH** | **Kashi** | **4.73** | **47** | | P | **Pn** | **12 29 17.3** | **-1.7** |
| KSH | | | | | S | **Sn** | **12 30 05.5** | **-7.3** |
| KSH | | | | | smax | smax | | |
| | comp=Z,1μm,0.7s | | | | | | | |
| KSH | | | | | smax | smax | | |
| | comp=Z,600nm,0.3s | | | | | | | |
| **THN** | **Thein Dam** | **5.27** | **137** | *e* | P | **Pn** | **12 29 28.8** | **+2.7** |
| THN | | | | *e* | S | **Sn** | **12 30 24.4** | **-1.2** |
| **AML** | **Almayashu** | **5.99** | **16** | | P | **Pn** | **12 29 36.7** | **+0.4** |
| | SNR=157 | | | | | | | |
| **MNAS** | **Manas** | **6.15** | **7** | ⇓ | P | **Pn** | **12 29 37.9** | **-0.2** |
| | comp=Z,80nm,0.7s | | | | | | | |
| MNAS | | | | ⇓ | S | **Sn** | **12 30 43.2** | **-4.0** |
| | comp=Z,171nm,0.6s | | | | | | | |
| **MNAS** | **Manas** | **6.15** | **7** | *i* | PN | **Pn** | **12 29 37.9** | **-0.2** |
| MNAS | | | | | pmax | pmax | | |
| | comp=Z,80nm,0.7s | | | | | | | |
| **UCH** | **Uchtor** | **6.29** | **21** | | P | **Pn** | **12 29 40.9** | **+0.6** |
| | SNR=82 | | | | | | | |
| **KZA** | **Kyzart** | **6.39** | **26** | | P | **Pn** | **12 29 42.4** | **+0.7** |
| | SNR=6.9 | | | | | | | |
| **BHK** | **Bhakra** | **6.43** | **139** | *e* | P | **Pn** | **12 29 44.0** | **+2.1** |
| **EKS2** | **Erkin-Say** | **6.52** | **15** | | P | **Pn** | **12 29 43.6** | **+0.5** |
| | SNR=41 | | | | | | | |
| **AAK** | **Ala-Archa** | **6.67** | **19** | | P | **Pn** | **12 29 46.0** | **+0.9** |
| | comp=Z,24nm,0.3s,baz=178,slow=6.8,SNR=378 | | | | | | | |
| AAK | | | | | S | **Sn** | **12 30 56.4** | **-3.3** |
| | comp=Z,9.2nm,0.3s,baz=342,slow=18,SNR=16 | | | | | | | |
| **AAK** | **Ala-Archa** | **6.67** | **19** | ⇓ | P | **Pn** | **12 29 46.1** | **+1.0** |
| | comp=Z,52nm,0.5s | | | | | | | |
| AAK | | | | ⇓ | S | **Sn** | **12 30 57.3** | **-2.4** |
| | comp=Z,113nm,0.7s | | | | | | | |
| **AAK** | **Ala-Archa** | **6.67** | **19** | *i* | PN | **Pn** | **12 29 45.7** | **+0.5** |
| AAK | | | | | pmax | pmax | | |
| | comp=Z,52nm,0.5s | | | | | | | |
| **AAK** | **Ala-Archa** | **6.67** | **19** | | P | **Pn** | **12 29 46.1** | **+0.9** |
| | SNR=130 | | | | | | | |
| **AAK** | **Ala-Archa** | **6.67** | **19** | *e* | Pn | **Pn** | **12 29 46.1** | **+1.0** |
| AAK | | | | *e* | Sn | **Sn** | **12 31 00.3** | **+0.6** |
| **SDNR** | **Sundarnagar** | **6.67** | **135** | *e* | P | **Pn** | **12 29 48.0** | **+2.9** |
| SDNR | | | | *e* | S | **Sn** | **12 30 57.0** | **-2.7** |
| **KK31** | **Karatay Array** | **6.75** | **354** | ⇓ | P | **Pn** | **12 29 45.1** | **-1.1** |
| | comp=Z,16nm,0.2s,baz=181,slow=13,SNR=556 | | | | | | | |
| KK31 | | | | ⇑ | S | **Sn** | **12 30 55.4** | **-6.3** |
| | comp=Z,13nm,0.3s,baz=185,slow=24,SNR=5.2 | | | | | | | |
| **KK31** | **Karatay Array** | **6.75** | **354** | *i* | PN | **Pn** | **12 29 45.1** | **-1.1** |
| KK31 | | | | | pmax | pmax | | |
| | comp=Z,17nm,0.2s | | | | | | | |
| **KBK** | **Karagaybulak** | **6.81** | **22** | | P | **Pn** | **12 29 48.7** | **+1.5** |
| | SNR=22 | | | | | | | |
| **FRU** | **Bishkek** | **6.88** | **20** | *e* | PN | **Pn** | **12 29 49.5** | **+1.6** |
| FRU | | | | | pmax | pmax | | |
| | comp=Z,50nm,1.0s | | | | | | | |
| **ULHL** | **Ulahol** | **6.92** | **31** | | P | **Pn** | **12 29 50.0** | **+1.4** |
| | SNR=10 | | | | | | | |
| **CHMS** | **Chumysh** | **7.07** | **20** | | P | **Pn** | **12 29 51.0** | **+0.5** |
| | SNR=63 | | | | | | | |
| **USP** | **Ospenovka** | **7.26** | **18** | | P | **Pn** | **12 29 53.3** | **+0.3** |
| | SNR=31 | | | | | | | |
| **TKM2** | **Tokmak 2** | **7.26** | **25** | ⇓ | P | **Pn** | **12 29 53.0** | **-0.2** |
| | comp=Z,26nm,0.5s | | | | | | | |
| TKM2 | | | | ⇑ | S | **Sn** | **12 31 13.4** | **-0.7** |
| | comp=Z,42nm,1.2s | | | | | | | |
| **TKM2** | **Tokmak 2** | **7.26** | **25** | *i* | PN | **Pn** | **12 29 54.0** | **+0.8** |
| TKM2 | | | | | pmax | pmax | | |
| | comp=Z,26nm,0.5s | | | | | | | |
| **TKM2** | **Tokmak 2** | **7.26** | **25** | | P | **Pn** | **12 29 54.1** | **+0.9** |
| | SNR=34 | | | | | | | |
| **MDOK** | **Medeo** | **8.01** | **31** | ⇑ | P | **Pn** | **12 30 04.6** | **+1.2** |
| **JOSI** | **Joshimath** | **8.90** | **128** | *e* | P | **Pn** | **12 30 17.0** | **+1.5** |
| JOSI | | | | *e* | S | **Sn** | **12 31 48.6** | **-5.5** |
| JOSI | | | | | AML | AML | 12 31 56.1 | |
| | comp=N,324nm,0.6s | | | | | | | |
| JOSI | | | | | AML | AML | 12 31 59.5 | |
| | comp=E,385nm,0.4s | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **KHET** | **Khetri** | **9.05** | **155** | *e* | P | **Pn** | **12 30 18.1** | **+0.7** |
| KHET | | | | *e* | S | **Sn** | **12 31 53.7** | **-4.0** |
| **PDGK** | **Podgornoye** | **9.27** | **39** | ⇑ | P | **Pn** | **12 30 20.3** | **-0.1** |
| | comp=E,11nm,1.0s | | | | | | | |
| **PDGK** | **Podgornoye** | **9.27** | **39** | *i* | P | **Pn** | **12 30 20.2** | **-0.1** |
| PDGK | | | | | pmax | pmax | | |
| | comp=Z,11nm,0.9s | | | | | | | |
| **SONA** | **Sohna** | **9.39** | **148** | *e* | S | **Sn** | **12 32 01.3** | **-4.3** |
| **JASL** | **Jaisalmer** | **9.44** | **183** | *e* | P | **Pn** | **12 30 20.9** | **-1.8** |
| JASL | | | | *e* | S | **Sn** | **12 32 00.9** | **-6.2** |
| **GEYT** | **Alibeck** | **10.78** | **282** | | P | Pn | 12 30 35.4 | -5.4 |
| | comp=Z,2.3nm,0.3s,baz=115,slow=11,SNR=14 | | | | | | | |
| GEYT | | | | | S | Sn | 12 32 28.1 | -11 |
| | comp=Z,5.4nm,0.3s,baz=97,slow=12,SNR=11 | | | | | | | |
| **PYUN** | **Piuthan** | **12.76** | **127** | *e* | P | **Pn** | **12 31 07.5** | **+0.3** |
| | comp=Z,42nm,0.5s | | | | | | | |
| PYUN | | | | *e* | S | **Sn** | **12 33 21.5** | **-6.2** |
| **MK01** | **Makanchi Array** | **13.15** | **35** | *e* | Pn | **Pn** | **12 31 12.2** | **+0.2** |
| **MK31** | **Makanchi Array** | **13.16** | **34** | ⇓ | P | **Pn** | **12 31 11.4** | **-0.7** |
| | comp=Z,2.2nm,0.7s,baz=242,slow=5.0,SNR=3.7 | | | | | | | |
| **MK31** | **Makanchi Array** | **13.16** | **34** | *e* | P | **Pn** | **12 31 11.8** | **-0.3** |
| **MK31** | **Makanchi Array** | **13.16** | **34** | *e* | Pn | **Pn** | **12 31 11.8** | **-0.3** |
| **MKAR** | **Makanchi Array** | **13.16** | **34** | | P | **Pn** | **12 31 12.7** | **+0.6** |
| | comp=Z,0.2nm,0.3s,baz=224,slow=15,SNR=13 | | | | | | | |
| **KOLN** | **Koldanda** | **13.38** | **127** | *e* | P | **Pn** | **12 31 15.5** | **+0.3** |
| | comp=Z,20nm,0.5s | | | | | | | |
| KOLN | | | | *e* | S | **Sn** | **12 33 37.0** | **-5.7** |
| **GKN** | **Gorkha** | **13.91** | **123** | *e* | P | **Pn** | **12 31 23.2** | **+1.1** |
| | comp=Z,0.9nm,0.2s | | | | | | | |
| **WMQ** | **Urumqi** | **14.45** | **54** | *e* | P | **Pn** | **12 31 29.0** | **+0.3** |
| WMQ | | | | | pmax | pmax | | |
| | comp=Z,13nm,0.7s | | | | | | | |
| WMQ | | | | | pmax | pmax | | |
| | comp=Z,280nm,4.7s | | | | | | | |
| WMQ | | | | | LR | LR | | |
| | comp=Z,33nm,14.3s | | | | | | | |
| WMQ | | | | | LR | LR | | |
| | comp=Z,45nm,19.9s | | | | | | | |
| WMQ | | | | | LR | LR | | |
| | comp=Z,92nm,17.1s | | | | | | | |
| **DMN** | **Daman** | **14.48** | **123** | *e* | P | **Pn** | **12 31 30.8** | **+1.4** |
| | comp=Z,22nm,0.5s | | | | | | | |
| **KKN** | **Kakani** | **14.48** | **122** | *e* | P | **Pn** | **12 31 30.7** | **+1.3** |
| **PKIN** | **Phulchoki** | **14.70** | **123** | *e* | P | **Pn** | **12 31 33.7** | **+1.5** |
| | comp=Z,20nm,0.4s | | | | | | | |
| **PKI** | **Pulchoki** | **14.71** | **123** | *e* | P | **Pn** | **12 31 33.6** | **+1.2** |
| **GUN** | **Gumba** | **14.82** | **121** | *e* | P | **Pn** | **12 31 35.0** | **+1.2** |
| | comp=Z,19nm,0.5s | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **15.11** | **17** | | P | **Pn** | **12 31 33.9** | **-3.1** |
| | comp=Z,0.2nm,0.3s,baz=208,slow=10,SNR=4.6 | | | | | | | |
| **JIRN** | **Jiri** | **15.19** | **121** | *e* | P | **Pn** | **12 31 39.1** | **+0.6** |
| JIRN | | | | *e* | S | **Sn** | **12 34 20.7** | **-6.0** |
| **KURK** | **Kurchatov** | **15.22** | **17** | *c* | *i* | P | **Pn** | **12 31 40.5** | **-0.1** |
| KURK | | | | | | pmax | pmax | | |
| | comp=Z,35nm,1.0s | | | | | | | | |
| **KURK** | **Kurchatov** | **15.22** | **17** | *e* | Pn | **Pn** | **12 31 38.3** | **0.0** |
| | comp=Z,8.9nm,0.8s | | | | | | | | |
| **AB31** | **Akbulak array** | **15.38** | **330** | ⇑ | P | **Pn** | **12 31 36.7** | **-3.6** |
| | comp=Z,9.8nm,0.6s | | | | | | | | |
| **AB31** | **Akbulak array** | **15.38** | **330** | | P | **Pn** | **12 31 36.6** | **-3.7** |
| AB31 | | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.6s | | | | | | | | |
| **RAMN** | **Ramite** | **15.92** | **122** | *e* | P | **P** | **12 31 49.3** | **+0.4** |
| | comp=Z,14nm,0.3s | | | | | | | | |
| **TAPN** | **Taplejung** | **16.44** | **119** | *e* | P | **P** | **12 31 56.8** | **+2.1** |
| | comp=Z,46nm,0.6s | | | | | | | | |
| **ODAN** | **Odare** | **16.52** | **121** | *e* | P | **P** | **12 31 57.3** | **+1.8** |
| | comp=Z,25nm,0.5s | | | | | | | | |
| **BVAR** | **Borovoye Array** | **16.66** | **358** | | P | **Pn** | **12 31 54.7** | **-1.4** |
| | comp=Z,1.0nm,0.3s,baz=163,slow=7.7,SNR=24 | | | | | | | | |
| **BRVK** | **Borovoye** | **16.70** | **357** | *c* | *e* | P | **P** | **12 31 57.5** | **+0.5** |
| BRVK | | | | | | pmax | pmax | | |
| | comp=Z,35nm,1.2s | | | | | | | | |
| **BRVK** | **Borovoye** | **16.70** | **357** | *e* | Pn | **Pn** | **12 31 56.7** | **+0.1** |
| | comp=Z,9.1nm,0.6s | | | | | | | | |
| **AKTO** | **Aktyubinsk** | **17.08** | **330** | | P | **P** | **12 31 59.5** | **-1.7** |
| | comp=Z,0.9nm,0.3s,baz=142,slow=12,SNR=20 | | | | | | | | |
| **AKTO** | **Aktyubinsk** | **17.08** | **330** | ⇑ | P | **P** | **12 31 59.5** | **-1.7** |
| | comp=Z,10nm,0.7s | | | | | | | | |
| **AKTO** | **Aktyubinsk** | **17.08** | **330** | *i* | P | **P** | **12 31 59.5** | **-1.7** |
| AKTO | | | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.6s | | | | | | | | |
| **DGZ** | **Jazzator, Alta** | **17.64** | **36** | *i* | P | **P** | **12 32 08.2** | **+0.6** |
| DGZ | | | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.5s | | | | | | | | |
| **ZAA0** | **Zalesovo Array** | **19.86** | **24** | ⇓ | P | **P** | **12 32 31.6** | **+0.1** |
| | comp=Z,0.9nm,0.7s | | | | | | | | |
| **ZAA0** | **Zalesovo Array** | **19.86** | **24** | *e* | P | **P** | **12 32 32.3** | **+0.7** |
| | comp=Z,6.5nm,0.6s | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **19.86** | **24** | | P | **P** | **12 32 32.1** | **+0.6** |
| | comp=Z,6.7nm,0.6s,baz=219,slow=10,SNR=36 | | | | | | | | |
| **NVS** | **Novosibirsk** | **20.16** | **20** | *i* | P | **P** | **12 32 34.9** | **+0.2** |
| **GNI** | **Garni** | **21.30** | **288** | | P | **P** | **12 32 46.0** | **-1.3** |
| | comp=Z,5.7nm,0.5s,baz=172,slow=11,SNR=5.1 | | | | | | | | |
| **GNI** | **Garni** | **21.30** | **288** | *c* | *e* | P | **P** | **12 32 50.0** | **+2.6** |
| GNI | | | | | | pmax | pmax | | |
| | comp=Z,61nm,1.2s | | | | | | | | |
| **GNI** | **Garni** | **21.30** | **288** | *e* | P | **P** | **12 32 49.8** | **+2.5** |
| | comp=Z,32nm,1.4s | | | | | | | | |
| **SVE** | **Sverdlovsk** | **21.72** | **344** | *e* | P | **P** | **12 32 51.3** | **-0.1** |
| **ARU** | **Arti** | **21.87** | **341** | | P | **P** | **12 32 52.7** | **-0.4** |
| | comp=Z,5.3nm,0.8s,baz=125,slow=3.7,SNR=8.9 | | | | | | | | |
| **ARU** | **Arti** | **21.87** | **341** | *d* | *i* | P | **P** | **12 32 54.4** | **+1.3** |
| ARU | | | | | | | | 12 33 23.9 | |
| ARU | | | | | S | **S** | | **12 36 49.4** | **+1.9** |
| ARU | | | | | pmax | pmax | | | |
| | comp=Z,16nm,1.2s | | | | | | | | |
| **ARU** | **Arti** | **21.87** | **341** | *e* | P | **P** | **12 32 54.8** | **+1.8** |
| | comp=Z,14nm,1.1s | | | | | | | | |
| **ZEI** | **Tsey** | **22.14** | **295** | *e* | P | **P** | **12 32 55.9** | **-0.4** |
| ZEI | | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.6s | | | | | | | | |
| **NCK** | **Nalchik** | **22.47** | **297** | *i* | P | **P** | **12 32 59.7** | **+0.3** |
| NCK | | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.9s | | | | | | | | |
| **GTA** | **Gaotai** | **22.52** | **74** | *e* | P | **P** | **12 33 00.5** | **+0.4** |
| GTA | | | | | pP | pP | | 12 33 25.8 | +4.0 |
| GTA | | | | | sP | sP | | 12 33 40.6 | +4.6 |
| GTA | | | | | S | **S** | | **12 36 57.6** | **-1.3** |
| GTA | | | | | pmax | pmax | | | |
| | comp=Z,44nm,5.4s | | | | | | | | |
| GTA | | | | | LR | LR | | | |
| | comp=Z,93nm,11.9s | | | | | | | | |
| GTA | | | | | LR | LR | | | |
| | comp=Z,71nm,13.8s | | | | | | | | |
| GTA | | | | | LR | LR | | | |
| | comp=Z,140nm,12.4s | | | | | | | | |
| **KBZ** | **Khabaz** | **23.00** | **297** | | P | **P** | **12 33 04.0** | **-0.5** |
| | comp=Z,3.2nm,0.9s,baz=121,slow=12,SNR=3.7 | | | | | | | | |
| **KIV** | **Kislovodsk** | **23.19** | **298** | *e* | P | **P** | **12 33 07.3** | **+0.8** |
| KIV | | | | | pmax | pmax | | | |
| | comp=Z,8.0nm,1.1s | | | | | | | | |
| **RAYN** | **Ar Rayn** | **25.81** | **247** | *e* | P | **P** | **12 33 31.6** | **+1.2** |
| | comp=Z,3.3nm,0.6s | | | | | | | | |
| **LZH** | **Lanzhou** | **26.04** | **81** | *e* | P | **P** | **12 33 32.6** | **+0.2** |
| LZH | | | | | pP | pP | | 12 33 56.4 | -0.7 |
| LZH | | | | | sP | sP | | 12 34 11.9 | +1.5 |
| LZH | | | | | pmax | pmax | | | |
| | comp=Z,19nm,1.0s | | | | | | | | |
| **CD2** | **Chengdu** | **27.34** | **92** | *e* | P | **P** | **12 33 43.4** | **-0.6** |
| CD2 | | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.8s | | | | | | | | |
| **SONM** | **Songino Array** | **28.08** | **55** | | P | **P** | **12 33 53.4** | **+2.9** |
| | comp=Z,0.1nm,0.3s,baz=267,slow=9.1,SNR=3.7 | | | | | | | | |
| **KMI** | **Kunming** | **28.99** | **104** | | P | **P** | **12 34 00.3** | **+1.4** |
| KMI | | | | | pmax | pmax | | | |
| | comp=Z,11nm,0.5s | | | | | | | | |
| **BRTR** | **Keskin Array B** | **29.84** | **288** | | P | **P** | **12 34 06.8** | **+0.5** |
| | comp=Z,0.7nm,0.8s,baz=87,slow=9.9,SNR=3.7 | | | | | | | | |
| **CM31** | **Chiang Mai Arr** | **30.05** | **119** | *e* | PcP | **PcP** | **12 37 07.9** | **+0.5** |
| **HHC** | **Hu-ho-hao-te** | **31.44** | **69** | *e* | P | **P** | **12 34 21.3** | **+1.1** |
| HHC | | | | | pmax | pmax | | | |
| | comp=Z,19nm,0.5s | | | | | | | | |
| HHC | | | | | pmax | pmax | | | |
| | comp=Z,130nm,5.3s | | | | | | | | |
| **BOLV** | **Bolvadin** | **32.04** | **287** | *e* | P | **P** | **12 34 27.0** | **+1.4** |
| | comp=Z,45nm,0.4s | | | | | | | | |
| **AKASG** | **Malin Array Be** | **33.33** | **309** | | P | **P** | **12 34 36.7** | **+0.2** |
| | comp=Z,1.3nm,0.5s,baz=80,slow=7.1,SNR=9.7 | | | | | | | | |
| **AKASG** | **Malin Array Be** | **33.33** | **309** | *i* | P | **P** | **12 34 37.2** | **+0.8** |
| AKASG | | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,0.7s | | | | | | | | |
| **AKBB** | **Malin Array Si** | **33.33** | **309** | *e* | P | **P** | **12 34 37.3** | **+0.8** |
| AKBB | | | | | pmax | pmax | | | |
| | comp=Z,36nm,1.8s | | | | | | | | |
| **AKBB** | **Malin Array Si** | **33.33** | **309** | *e* | P | **P** | **12 34 37.3** | **+0.8** |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | comp=Z,36nm,1.8s | | | | | | | | |
| **AK11** | **Malin Array Si** | **33.36** | **309** | *e* | P | **P** | **12 34 38.3** | **+1.6** |
| **BUR04** | **Bucovina Ar. S** | **35.68** | **303** | *e* | P | **P** | **12 34 58.1** | **+1.2** |
| **BUR08** | **Bucovina Ar. S** | **35.69** | **303** | *e* | P | **P** | **12 34 59.0** | **+2.0** |
| **FIA1** | **FINESS Array S** | **37.80** | **326** | *e* | P | **P** | **12 35 15.3** | **+0.8** |
| | comp=Z,86nm,1.9s | | | | | | | | |
| **FINES** | **FINESS Array B** | **37.80** | **326** | | P | **P** | **12 35 14.6** | **0.0** |
| | comp=Z,5.9nm,0.9s,baz=124,slow=8.6,SNR=10 | | | | | | | | |
| **FINES** | **FINESS Array B** | **37.80** | **326** | *i* | P | **P** | **12 35 15.3** | **+0.8** |
| FINES | | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,0.9s | | | | | | | | |
| **NJ2** | **Nanjing** | **39.10** | **82** | *e* | P | **P** | **12 35 25.1** | **-0.7** |
| NJ2 | | | | | pmax | pmax | | | |
| | comp=Z,19nm,0.6s | | | | | | | | |
| **MORC** | **Moravsky Berou** | **40.75** | **307** | *e* | P | **P** | **12 35 41.0** | **+1.7** |
| MORC | | | | | pmax | pmax | | | |
| | comp=Z,14nm,0.9s | | | | | | | | |
| **MORC** | **Moravsky Berou** | **40.75** | **307** | *e* | P | **P** | **12 35 41.0** | **+1.7** |
| | comp=Z,1.4nm,0.9s | | | | | | | | |
| **ARCES** | **ARCESS Array B** | **41.40** | **338** | | P | **P** | **12 35 45.0** | **+0.7** |
| | comp=Z,3.2nm,0.7s,baz=112,slow=7.9,SNR=20 | | | | | | | | |
| **ARCES** | **ARCESS Array B** | **41.40** | **338** | *e* | P | **P** | **12 35 45.6** | **+1.3** |
| **ARCES** | **ARCESS Array B** | **41.40** | **338** | *e* | P | **P** | **12 35 45.6** | **+1.3** |
| **ARE0** | **ARCESS Array S** | **41.40** | **338** | *e* | P | **P** | **12 35 45.7** | **+1.4** |
| | comp=Z,37nm,1.6s | | | | | | | | |
| **DPC** | **Dobruska-Polom** | **41.52** | **308** | *e* | P | **P** | **12 35 47.4** | **+1.8** |
| **DPC** | **Dobruska-Polom** | **41.52** | **308** | *e* | P | **P** | **12 35 47.4** | **+1.8** |
| **CLL** | **Collm** | **43.57** | **309** | *e* | P | **P** | **12 36 01.0** | **-1.1** |
| **CLL** | **Collm** | **43.57** | **309** | *e* | P | **P** | **12 36 01.0** | **-1.1** |
| **MDJ** | **Mudanjiang** | **44.12** | **61** | | P | **P** | **12 36 05.8** | **-0.8** |
| MDJ | | | | | pmax | pmax | | | |
| | comp=Z,9.0nm,1.4s | | | | | | | | |
| MDJ | | | | | pmax | pmax | | | |
| | comp=Z,45nm,3.5s | | | | | | | | |
| **NC405** | **NORSAR Array S** | **44.48** | **323** | *e* | P | **P** | **12 36 10.0** | **+0.8** |
| **NC303** | **NORSAR Array S** | **44.65** | **323** | *e* | P | **P** | **12 36 11.4** | **+0.8** |
| **NB201** | **NORSAR Array S** | **44.67** | **323** | *e* | P | **P** | **12 36 11.7** | **+0.9** |
| **NB2** | **NORSAR Subarra** | **44.71** | **323** | | P | **P** | **12 36 11.3** | **+0.2** |
| | comp=Z,2.0nm,0.5s,baz=98,slow=7.9 | | | | | | | | |
| **NB2** | **NORSAR Subarra** | **44.71** | **323** | | P | **P** | **12 36 11.7** | **+0.6** |
| NB2 | | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.5s | | | | | | | | |
| **NOA** | **NORSAR Array B** | **44.71** | **323** | | P | **P** | **12 36 11.2** | **+0.2** |
| | comp=Z,2.1nm,0.5s,baz=97,slow=7.8,SNR=9.2 | | | | | | | | |
| **NBO02** | **NORSAR Array S** | **44.88** | **323** | *e* | P | **P** | **12 36 13.1** | **+0.6** |
| **NBO00** | **NORSAR Array S** | **44.92** | **323** | *e* | P | **P** | **12 36 13.1** | **+0.4** |
| **NC204** | **NORSAR Array S** | **44.95** | **323** | *e* | P | **P** | **12 36 13.0** | **-0.1** |
| **TOA0** | **Torodi Ar. Sit** | **66.11** | **269** | *e* | P | **P** | **12 38 43.4** | **-1.6** |
| | comp=Z,13nm,1.8s | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **66.11** | **269** | | P | **P** | **12 38 43.5** | **-1.4** |
| | comp=Z,1.0nm,0.4s,baz=50,slow=6.5,SNR=15 | | | | | | | | |
| **IMAR** | **Indian Mountai** | **72.17** | **18** | *e* | P | **P** | **12 39 22.3** | **+0.8** |
| **INK** | **Inuvik** | **73.96** | **9** | | P | **P** | **12 39 33.5** | **+1.4** |
| | comp=Z,0.9nm,0.8s,baz=348,slow=8.3,SNR=5.4 | | | | | | | | |
| **INK** | **Inuvik** | **73.96** | **9** | *e* | P | **P** | **12 39 34.3** | **+2.3** |
| INK | | | | *e* | | | 12 39 47.3 | | |
| **INK** | **Inuvik** | **73.96** | **9** | *e* | P | **P** | **12 39 34.3** | **+2.3** |
| INK | | | | *e* | PcP | **PcP** | **12 39 47.3** | **+0.5** |
| **ILAR** | **Eielson Array** | **74.78** | **16** | | P | **P** | **12 39 37.2** | **+0.3** |
| | comp=Z,0.5nm,1.0s,baz=321,slow=5.4,SNR=4.0 | | | | | | | | |
| **LBTB** | **Lobatse** | **74.86** | **222** | *e* | P | **P** | **12 39 39.6** | **+1.7** |
| **LBTB** | **Lobatse** | **74.86** | **222** | *e* | P | **P** | **12 39 39.6** | **+1.7** |
| **RND** | **Reindeer** | **75.49** | **18** | *e* | P | **P** | **12 39 39.5** | **-1.6** |
| RND | | | | | pmax | pmax | | | |
| | comp=Z,58nm,2.0s | | | | | | | | |
| **RND** | **Reindeer** | **75.49** | **18** | *e* | P | **P** | **12 39 39.5** | **-1.6** |
| | comp=Z,58nm,2.0s | | | | | | | | |
| **DHY** | **Denali Highway** | **76.13** | **17** | *e* | P | **P** | **12 39 41.5** | **-3.3** |
| | comp=Z,17nm,0.8s | | | | | | | | |
| **BOSA** | **Boshof** | **77.91** | **220** | | P | **P** | **12 39 54.1** | **-1.0** |
| | comp=Z,3.2nm,0.8s,baz=37,slow=4.9,SNR=4.7 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **81.34** | **3** | | P | **P** | **12 40 14.4** | **+1.3** |
| | comp=Z,0.8nm,0.7s,baz=350,slow=5.6,SNR=15 | | | | | | | | |
| **WRAB** | **Tennant Creek** | **81.60** | **122** | *e* | P | **P** | **12 40 15.6** | **+0.5** |
| WRAB | | | | | pmax | pmax | | | |
| | comp=Z,12nm,0.8s | | | | | | | | |
| **WRAB** | **Tennant Creek** | **81.60** | **122** | *e* | P | **P** | **12 40 15.6**

*s-maj=30.9km s-min=22.0km az=176.0*

**ISC 18 13:03:36.0**±1.1,**7°40N**±0.05×**126°30E**±0.08,**h10**km,**n8,** σ1**8**84/12,**mb3.4**/3,**2C,Mindanao**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DAV** | **Davao City (W)** | **0.78** | **245** | Pg | **Pb** | **13 03 51.0** | **-0.8** |
| | 38nm,0.3s,baz=47,slow=2.2,SNR=10 | | | | | | |
| **BIPH** | **Bislig** | **0.78** | **5** | *i* P | **Pn** | **13 03 51.6** | **-1.5** |
| BIPH | | | | *i* S | **Sn** | **13 04 02.9** | **-2.0** |
| **DMPH** | **Davao City--Mi** | **0.84** | **248** | *i* P | **Pg** | **13 03 51.0** | **-1.2** |
| DMPH | | | | *i* S | **Sn** | **13 04 07.4** | **+1.0** |
| **BUKP** | **Musuan** | **1.31** | **291** | *e*P | **Pb** | **13 03 59.6** | **-1.3** |
| BUKP | | | | *e*S | **Sg** | **13 04 18.9** | **+0.5** |
| **BUTP** | **Butuan** | **1.70** | **337** | *e*P | **Pg** | **13 04 08.3** | **-0.3** |
| BUTP | | | | *e*S | **Sg** | **13 04 34.5** | **+3.8** |
| **WRA** | **Warramunga Arr** | **28.30** | **164** | P | **P** | **13 09 30.4** | **+0.4** |
| | 0.3nm,0.7s,baz=346,slow=11,SNR=3.1 | | | | | | |
| **ASAR** | **Alice Springs** | **31.76** | **167** | P | **P** | **13 10 02.5** | **+1.9** |
| | 0.4nm,0.8s,baz=341,slow=7.0,SNR=7.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **54.33** | **324** | P | **P** | **13 13 03.8** | **+0.9** |
| | 0.7nm,0.9s,baz=117,slow=8.1,SNR=3.0 | | | | | | |

*ISK **18** 13:37:14.1,38°62N×43°22E,h19km,ML2.1*
*CSEM **18** 13:37:15.4±0.2,38°63N×43°22E,h2km,ML2.1,Error ellipse: s-maj=5.7km s-min=4.6km az=58.0*
*DDA **18** 13:37:15.4,38°63N×43°22E,h7km,Ml2.7*

**ISC 18 13:37:15.9**±1.0,**38°63N**±0.02×**43°19E**±0.03,**h7**km±8km, **n24,** σ1**9**47/45,**Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.16** | **101** | *e*PG | **Pg** | **13 37 19.1** | **-0.1** |
| VANB | | | | *e*SG | **Sg** | **13 37 23.0** | **+1.5** |
| **VANB** | **Van** | **0.16** | **101** | *e*Pg | **Pg** | **13 37 19.1** | **-0.1** |
| VANB | | | | *e*Sg | **Sg** | **13 37 23.0** | **+1.5** |
| **TVAN** | **Van** | **0.19** | **120** | *i* P | **Pg** | **13 37 19.1** | **-0.8** |
| TVAN | | | | *i* S | **Sg** | **13 37 23.4** | **+0.8** |
| **TVAN** | **Van** | **0.19** | **120** | P | **Pg** | **13 37 19.1** | **-0.8** |
| TVAN | | | | S | **Sg** | **13 37 23.4** | **+0.8** |
| **GEVA** | **Gevas** | **0.33** | **199** | *i* P | **Pg** | **13 37 21.3** | **-1.2** |
| GEVA | | | | *i* S | **Sb** | **13 37 28.3** | **-1.4** |
| **GEVA** | **Gevas** | **0.33** | **199** | P | **Pg** | **13 37 21.3** | **-1.2** |
| GEVA | | | | S | **Sb** | **13 37 28.3** | **-1.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.41** | **297** | *i* P | **Pg** | **13 37 23.2** | **-0.8** |
| ADCV | | | | *i* S | **Sb** | **13 37 30.9** | **-1.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.41** | **297** | P | **Pg** | **13 37 23.2** | **-0.8** |
| ADCV | | | | S | **Sb** | **13 37 30.9** | **-1.2** |
| **VMUR** | **Van-Muradiye** | **0.47** | **39** | *i* P | **Pg** | **13 37 24.5** | **-0.6** |
| VMUR | | | | *i* S | **Sb** | **13 37 33.5** | **-0.3** |
| **VMUR** | **Van-Muradiye** | **0.47** | **39** | P | **Pg** | **13 37 24.5** | **-0.6** |
| VMUR | | | | S | **Sb** | **13 37 33.5** | **-0.3** |
| **CLDR** | **Caldiran** | **0.77** | **47** | *e*PG | **Pg** | **13 37 29.2** | **-1.5** |
| CLDR | | | | *e*SG | **Sg** | **13 37 40.2** | **-0.5** |
| **CLDR** | **Caldiran** | **0.77** | **47** | *e*Pg | **Pg** | **13 37 29.2** | **-1.5** |
| CLDR | | | | *e*Sg | **Sg** | **13 37 40.2** | **-0.5** |
| **TUTA** | **Tutak** | **0.83** | **339** | *i* P | **Pg** | **13 37 30.8** | **-1.2** |
| TUTA | | | | *i* S | **Sb** | **13 37 43.7** | **-0.6** |
| **TUTA** | **Tutak** | **0.83** | **339** | P | **Pg** | **13 37 30.8** | **-1.2** |
| TUTA | | | | S | **Sb** | **13 37 43.7** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **0.96** | **351** | *e*PG | **Pg** | **13 37 33.2** | **-1.2** |
| AGRB | | | | *e*SG | **Sb** | **13 37 47.2** | **-0.8** |
| **AGRB** | **Hanur-Agry** | **0.96** | **351** | *e*Pg | **Pg** | **13 37 33.3** | **-1.2** |
| AGRB | | | | *e*Sg | **Sb** | **13 37 47.2** | **-0.8** |
| **EKAR** | **Karacoban** | **1.08** | **306** | *i* P | **Pn** | **13 37 37.2** | **-0.5** |
| EKAR | | | | *i* S | **Sn** | **13 37 60.0** | **+6.9** |
| **EKAR** | **Karacoban** | **1.08** | **306** | P | **Pn** | **13 37 37.2** | **-0.5** |
| **HAKT** | **HAKKARI** | **1.14** | **159** | *i* P | **Pg** | **13 37 36.5** | **-1.3** |
| HAKT | | | | *i* S | **Sn** | **13 37 56.1** | **+1.6** |
| **HAKT** | **HAKKARI** | **1.14** | **159** | P | **Pg** | **13 37 36.5** | **-1.3** |
| **EATA** | **Eleskirt** | **1.35** | **336** | *i* P | **Pn** | **13 37 40.9** | **-0.6** |
| EATA | | | | *i* S | **Sn** | **13 38 00.5** | **+0.7** |
| **EATA** | **Eleskirt** | **1.35** | **336** | P | **Pn** | **13 37 40.9** | **-0.6** |
| EATA | | | | S | **Sn** | **13 38 00.5** | **+0.7** |
| **BTMN** | **Batman** | **1.68** | **245** | *i* P | **Pg** | **13 37 47.7** | **-0.5** |
| BTMN | | | | *i* S | **Sg** | **13 38 10.9** | **+0.9** |
| **BTMN** | **Batman** | **1.68** | **245** | P | **Pg** | **13 37 47.7** | **-0.5** |

*UPA **18** 13:47:02.3,6°79N×82°48W,h16km,MW4.7*
*IDC **18** 13:47:03.5±0.8,6°90N×82°40W,h0km,mb4.0/12, mb1 4.2/18,mb1mx4.1/38,mbtmp4.1/18,ML4.0/4,MS3.7/17, Ms1 3.7/17,ms1mx3.5/31,Error ellipse: s-maj=26.2km s-min=13.4km az=42.0*
*ISCJB **18** 13:47:03.4±0.3,7°09N±0.04×82°30W±0.02,h10km, mb4.5/103,MS3.7/13,Error ellipse: s-maj=5.4km s-min=3.0km az=21.2*
*CASC **18** 13:47:04.0±1.8,6°85N×82°43W,h30km±32km,MD4.1, mb4.6(NEIC)*
*NEIC **18** 13:47:05.3±0.3,7°06N×82°27W,h10km,mb4.6/93,Error ellipse: s-maj=9.4km s-min=4.7km az=215.0*
*BJI **18** 13:47:06.2,7°40N×82°10W,h10km,mB5.3/3,Ms5.1/2, Ms7 4.8/2*

**ISC 18 13:47:05.5**±0.5,**7°04N**±0.06×**82°33W**±0.04,**h10**km,**n466,** σ1**9**29/471,**mb4.5**/103,**MS3.6**/13,**5C-2D,South of Panama**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TBS2** | | **1.77** | **350** | *e*P | **Pn** | **13 47 35.3** | **-1.2** |
| **BRU2** | **Volcan** | **1.78** | **349** | *i* P | **Pn** | **13 47 34.7** | **-1.8** |
| BRU2 | | | | *e*S | **Sn** | **13 47 59.9** | **+0.6** |
| **ACR** | **Cerro Adams** | **1.81** | **333** | *e*P | **Pn** | **13 47 33.9** | **-2.8** |
| **AZU** | **Azuero** | **2.18** | **70** | *i* P | **Pn** | **13 47 40.0** | **-1.8** |
| AZU | | | | *e*S | **Sn** | **13 48 06.8** | **-2.0** |
| **PNME** | **Penonome** | **2.46** | **54** | *e*P | **Pn** | **13 47 44.5** | **-1.2** |
| PNME | | | | *e*S | **Sn** | **13 48 16.6** | **+0.9** |
| **QCR1** | **Quepos** | **2.99** | **323** | *i* P | **Pn** | **13 47 50.7** | **-2.3** |
| **PINA** | **Piqa, Costa Ab** | **3.15** | **45** | *e*P | **Pn** | **13 47 54.2** | **-1.0** |
| **LCR2** | **La Lucha 2** | **3.15** | **329** | *i* P | **Pn** | **13 47 53.9** | **-1.6** |
| LCR2 | | | | *e*S | **Sn** | **13 48 32.8** | **-0.6** |
| **BCIP** | **Isla Barro Col** | **3.25** | **49** | *e*Pn | **Pn** | **13 47 55.4** | **-1.2** |
| **BCIP** | **Isla Barro Col** | **3.25** | **49** | *e*P | **Pn** | **13 47 56.6** | **-0.1** |
| BCIP | | | | *e*S | **Sn** | **13 48 37.5** | **+2.1** |
| **VTR0** | **Volcan Turrial** | **3.28** | **335** | *e*P | **Pn** | **13 47 56.9** | **-0.5** |
| **CVTR** | **Volcan Turrial** | **3.28** | **335** | *i* P | **Pn** | **13 47 56.2** | **-1.3** |
| CVTR | | | | *e*S | **Sn** | **13 48 39.7** | **+3.0** |
| **FLAM** | **Flamenco Islan** | **3.34** | **56** | *e*P | **Pn** | **13 47 57.7** | **-0.1** |
| FLAM | | | | *e*S | **Sn** | **13 48 38.3** | **+0.8** |
| **UPA** | **Univ. de Panam** | **3.38** | **55** | *i* P | **Pn** | **13 47 58.0** | **-0.4** |
| UPA | | | | *e*S | **Sn** | **13 48 39.1** | **+0.5** |
| **HDC** | **Heredia** | **3.43** | **329** | *e*Pn | **Pn** | **13 47 58.4** | **-0.9** |
| **HDC** | **Heredia** | **3.43** | **329** | *i* P | **Pn** | **13 47 58.5** | **-0.7** |
| HDC | | | | *e*S | **Sn** | **13 48 39.1** | **-1.0** |
| **CGA2** | **Cerro Gallo 2** | **3.63** | **325** | *e*P | **Pn** | **13 48 00.1** | **-1.9** |
| **ARE1** | **Arenal 1** | **4.14** | **325** | *e*P | **Pn** | **13 48 08.5** | **-0.4** |
| **PLVR** | **Palo Verde** | **4.44** | **318** | *e*P | **Pn** | **13 48 11.6** | **-1.6** |
| PLVR | | | | *e*S | **Sn** | **13 49 02.9** | **-2.2** |
| **UPD2** | **Meteti** | **4.54** | **70** | *e*P | Pb | 13 48 19.9 | -5.3 |
| UPD2 | | | | *e*S | **Sn** | **13 49 08.5** | **+1.4** |
| **HELC** | **Santa Helena** | **6.81** | **97** | *e*P | **Pn** | **13 48 45.1** | **-0.8** |
| **HELC** | **Santa Helena** | **6.81** | **97** | *e*Pn | **Pn** | **13 48 45.7** | **-0.3** |
| **MOTC** | **Monteria, Cord** | **6.83** | **75** | *e*P | **Pn** | **13 48 45.5** | **-0.3** |
| **GUYC** | **Guyana, Colomb** | **7.13** | **104** | *e*P | **Pn** | **13 48 50.8** | **+0.4** |
| **OTAV** | **Otavalo** | **7.79** | **150** | *e*Pn | **Pn** | **13 48 57.1** | **-2.3** |
| **PRAC** | **Prado** | **8.12** | **114** | *e*P | **Pn** | **13 49 03.2** | **-0.4** |
| **PRAC** | **Prado** | **8.12** | **114** | *e*Pn | **Pn** | **13 49 03.9** | **+0.4** |
| **ROSC** | **El Rosal** | **8.26** | **105** | Pn | **Pn** | **13 49 06.2** | **+0.2** |
| | 0.9nm,0.3s,baz=53,slow=20,SNR=2.2 | | | | | | |
| **VILC** | **Villavicencio,** | **9.08** | **108** | *e*P | **Pn** | **13 49 19.8** | **+3.0** |
| **BARC** | **Barichara** | **9.10** | **92** | *e*P | **Pn** | **13 49 13.8** | **-3.5** |
| **RUSC** | **La Rusia** | **9.26** | **97** | *e*Pn | **Pn** | **13 49 20.1** | **+0.4** |
| **PAMC** | **Pamplona, Colo** | **9.56** | **88** | *e*P | **Pn** | **13 49 19.6** | **-4.2** |
| **SDV** | **Santo Domingo** | **11.73** | **80** | Pn | **Pn** | **13 49 54.1** | **+0.8** |
| | 0.4nm,0.3s,baz=346,slow=8.3,SNR=2.8 | | | | | | |
| SDV | | | | Sn | **Sn** | **13 51 59.3** | **-5.3** |
| | 1.2nm,0.3s,baz=288,slow=20,SNR=6.3 | | | | | | |
| **ATAH** | **Atahualpa** | **14.62** | **164** | Pn | **Pn** | **13 50 31.0** | **-1.9** |
| | 0.4nm,0.3s,baz=78,slow=14,SNR=2.9 | | | | | | |
| ATAH | | | | LR | LR | 13 55 28.7 | |
| | comp=Z,490nm,18.2s,baz=347,slow=35 | | | | | | |
| **CMIG** | **Matias Romero** | **15.81** | **310** | Pn | **Pn** | **13 50 48.5** | **+0.1** |
| | 1.0nm,0.3s,baz=125,slow=9.4,SNR=9.7 | | | | | | |
| CMIG | | | | LR | LR | 13 56 27.1 | |
| | comp=Z,283nm,20.4s,baz=129,slow=36 | | | | | | |
| **PCRV** | **Puerto La Cruz** | **17.77** | **79** | P | **Pn** | **13 51 13.5** | **+0.2** |
| | 0.3nm,0.3s,baz=270,slow=8.1,SNR=2.9 | | | | | | |
| PCRV | | | | LR | LR | 13 59 19.0 | |
| | comp=Z,420nm,20.3s,baz=266,slow=41 | | | | | | |
| **TLIG** | **Tlapa** | **18.98** | **305** | *e*P | **Pn** | **13 51 29.4** | **+1.2** |
| | 30nm,1.2s | | | | | | |
| **SJG** | **San Juan** | **19.23** | **54** | P | **Pn** | **13 51 31.3** | **+0.3** |
| | 0.7nm,0.3s,baz=282,slow=6.3,SNR=3.9 | | | | | | |
| SJG | | | | LR | LR | 13 57 26.0 | |
| | comp=Z,235nm,21.9s,baz=243,slow=32 | | | | | | |
| **NNA** | **Nana** | **19.67** | **164** | LR | LR | 13 58 51.5 | |
| | comp=Z,66nm,19.5s,baz=326,slow=36 | | | | | | |
| **PTGA** | **Pitinga** | **23.61** | **108** | P | **P** | **13 52 18.3** | **+1.3** |
| | 3.2nm,0.6s,baz=306,slow=14,SNR=4.5 | | | | | | |
| PTGA | | | | LR | LR | 14 01 21.8 | |
| | comp=Z,107nm,20.0s,baz=280,slow=36 | | | | | | |
| **PTGA** | **Pitinga** | **23.61** | **108** | *e*P | **P** | **13 52 19.9** | **+3.0** |
| | 11nm,1.2s | | | | | | |
| **LNIG** | **Linares** | **24.17** | **319** | *e*P | **P** | **13 52 23.0** | **+0.8** |
| | 25nm,1.3s | | | | | | |
| **BRAL** | **Brewton** | **24.41** | **350** | P | **P** | **13 52 25.2** | **+0.9** |
| | baz=168 | | | | | | |
| **446A** | **Poplarville** | **24.53** | **345** | P | **P** | **13 52 26.4** | **+1.0** |
| | baz=163 | | | | | | |
| **348A** | **Jackson** | **24.80** | **349** | P | **P** | **13 52 29.5** | **+1.7** |
| | baz=167 | | | | | | |
| **347A** | **Saraland** | **24.93** | **347** | P | **P** | **13 52 31.3** | **+2.4** |
| | baz=165,SNR=5.7 | | | | | | |
| **ZAIG** | **Zacatecas** | **24.98** | **311** | *e*P | **P** | **13 52 32.1** | **+2.1** |
| | 8.2nm,1.1s | | | | | | |
| **346A** | **Big Creek Wild** | **25.13** | **346** | P | **P** | **13 52 32.0** | **+1.2** |
| | baz=163 | | | | | | |
| **248A** | **Dixon Mills** | **25.43** | **349** | P | **P** | **13 52 34.6** | **+1.0** |
| | baz=167,SNR=6.2 | | | | | | |
| **344A** | **Westbrook Farm** | **25.53** | **343** | P | **P** | **13 52 35.6** | **+1.2** |
| | baz=160 | | | | | | |
| **247A** | **Quitman** | **25.57** | **348** | P | **P** | **13 52 35.8** | **+1.1** |
| | baz=165 | | | | | | |
| **245A** | **Little AP, Sta** | **25.85** | **345** | P | **P** | **13 52 38.1** | **+0.8** |
| | baz=162 | | | | | | |
| **342A** | **Flagon Creek P** | **25.95** | **340** | P | **P** | **13 52 40.6** | **+2.3** |
| | baz=157 | | | | | | |
| **244A** | **Avery, Jackson** | **26.07** | **344** | P | **P** | **13 52 42.2** | **+2.9** |
| | baz=161 | | | | | | |
| **HKT** | **Hockley** | **26.09** | **333** | *e*P | **P** | **13 52 39.5** | **+0.1** |
| | 32nm,1.6s | | | | | | |
| **147A** | **Livingston** | **26.10** | **349** | P | **P** | **13 52 41.8** | **+2.2** |
| | baz=166 | | | | | | |
| **341A** | **Kurthwood** | **26.21** | **339** | P | **P** | **13 52 41.1** | **+0.5** |
| | baz=155 | | | | | | |
| **146A** | **Union** | **26.23** | **347** | P | **P** | **13 52 42.7** | **+1.9** |
| | baz=165 | | | | | | |
| **LRAL** | **Lakeview Retre** | **26.23** | **351** | P | **P** | **13 52 41.4** | **+0.6** |
| | baz=169 | | | | | | |
| **LRAL** | **Lakeview Retre** | **26.23** | **351** | *e*P | **P** | **13 52 40.3** | **-0.4** |
| | 27nm,1.3s | | | | | | |
| **GOGA** | **Godfrey** | **26.27** | **358** | *e*P | **P** | **13 52 41.0** | **0.0** |
| | 10nm,1.1s | | | | | | |
| **145A** | **Huston Renfro** | **26.40** | **345** | P | **P** | **13 52 43.3** | **+1.0** |
| | baz=163 | | | | | | |
| **Z47A** | **Carrollton** | **26.57** | **349** | P | **P** | **13 52 43.3** | **-0.5** |
| | baz=167 | | | | | | |
| **833A** | **Chaparral WMA,** | **26.62** | **325** | P | **P** | **13 52 44.5** | **+0.1** |
| | baz=140 | | | | | | |
| **Z48A** | **Northport** | **26.65** | **350** | P | **P** | **13 52 43.8** | **-0.8** |
| | baz=168,SNR=7.7 | | | | | | |
| **Z46A** | **Louisville** | **26.74** | **348** | P | **P** | **13 52 47.7** | **+2.3** |
| | baz=165 | | | | | | |
| **241A** | **Mo Tay, Goldon** | **26.75** | **340** | P | **P** | **13 52 47.0** | **+1.6** |
| | baz=156 | | | | | | |
| **HODGE** | **Hodges** | **27.06** | **0** | *e*P | **P** | **13 52 47.8** | **-0.5** |
| | 32nm,1.6s | | | | | | |
| **LPAZ** | **La Paz** | **27.11** | **149** | P | **P** | **13 52 47.7** | **-1.8** |
| | 0.5nm,0.5s,baz=31,slow=16,SNR=2.9 | | | | | | |
| **Y47A** | **UCPARC, Winfie** | **27.22** | **350** | P | **P** | **13 52 49.7** | **0.0** |
| | baz=168 | | | | | | |
| **141A** | **Papa Simpson,** | **27.27** | **340** | P | **P** | **13 52 49.7** | **-0.5** |
| | baz=156 | | | | | | |
| **Y46A** | **Houston** | **27.39** | **348** | P | **P** | **13 52 51.0** | **-0.1** |
| | baz=166 | | | | | | |
| **Y45A** | **Yeager Farm, C** | **27.52** | **347** | P | **P** | **13 52 52.3** | **-0.1** |
| | baz=164 | | | | | | |
| **X49A** | **Woodville** | **27.59** | **353** | P | **P** | **13 52 52.2** | **-0.8** |
| | baz=171 | | | | | | |
| **435B** | **Jarrell** | **27.61** | **331** | P | **P** | **13 52 53.2** | **-0.1** |
| | baz=146 | | | | | | |
| **X48A** | **Hartselle** | **27.63** | **352** | P | **P** | **13 52 52.3** | **-1.1** |
| | baz=170 | | | | | | |
| **X47A** | **Russelville** | **27.82** | **350** | P | **P** | **13 52 54.4** | **-0.6** |
| | baz=168 | | | | | | |
| **237A** | **Washetta, Mont** | **27.84** | **335** | P | **P** | **13 52 55.1** | **-0.2** |
| | baz=150 | | | | | | |
| **X46A** | **Booneville** | **27.99** | **349** | P | **P** | **13 52 55.9** | **-0.7** |
| | baz=167 | | | | | | |
| **X45A** | **UH Field Stati** | **28.02** | **348** | P | **P** | **13 52 56.5** | **-0.4** |
| | baz=165 | | | | | | |
| **Z40A** | **Long Farm, Mag** | **28.04** | **340** | P | **P** | **13 52 56.6** | **-0.4** |
| | baz=156 | | | | | | |
| **SWET** | **Sewanee** | **28.24** | **354** | *e*P | **P** | **13 52 57.6** | **-1.2** |
| | 41nm,1.7s | | | | | | |
| **137A** | **Heron Place, G** | **28.33** | **336** | P | **P** | **13 52 59.7** | **0.0** |
| | baz=151 | | | | | | |
| **JCT** | **Junction City** | **28.50** | **327** | P | **P** | **13 53 01.4** | **+0.1** |
| | baz=141 | | | | | | |
| **JCT** | **Junction City** | **28.50** | **327** | *e*P | **P** | **13 53 00.8** | **-0.5** |
| | 11nm,1.2s | | | | | | |
| **TKL** | **Tuckaleechee C** | **28.52** | **358** | LR | LR | 14 04 47.5 | |
| | comp=Z,127nm,18.1s,baz=204,slow=37 | | | | | | |
| **136A** | **Ennis** | **28.55** | **334** | P | **P** | **13 53 01.4** | **-0.3** |
| | baz=149 | | | | | | |
| **WHTX** | **Lake Whitney,** | **28.55** | **332** | P | **P** | **13 53 01.4** | **-0.2** |
| | baz=147 | | | | | | |
| **Z38A** | **Mt. Pleasant** | **28.61** | **337** | P | **P** | **13 53 01.6** | **-0.5** |
| | baz=153 | | | | | | |
| **W45A** | **Hickory Valley** | **28.69** | **348** | P | **P** | **13 53 02.2** | **-0.6** |
| | baz=166 | | | | | | |
| **V48A** | **Smith Brothers** | **28.86** | **352** | P | **P** | **13 53 04.2** | **-0.1** |
| | baz=171,SNR=11 | | | | | | |
| **MNMC** | **Minye Minye** | **28.88** | **154** | *e*P | **P** | **13 53 08.7** | **+3.8** |
| | 10nm,1.0s | | | | | | |
| **Y39A** | **Lockesburg** | **28.89** | **339** | P | **P** | **13 53 04.5** | **-0.2** |
| | baz=155 | | | | | | |
| **X40A** | **Basin Creek Fa** | **28.98** | **342** | P | **P** | **13 53 04.2** | **-1.2** |
| | baz=158 | | | | | | |
| **UALR** | **University of** | **29.11** | **343** | *e*P | **P** | **13 53 04.8** | **-1.7** |
| | 17nm,1.2s | | | | | | |
| **Y38A** | **Idabel** | **29.11** | **338** | P | **P** | **13 53 07.1** | **+0.5** |
| | baz=154 | | | | | | |
| **Z36A** | **Blue Ridge** | **29.20** | **335** | P | **P** | **13 53 06.8** | **-0.5** |
| | baz=150 | | | | | | |
| **V45A** | **Humboldt** | **29.21** | **349** | P | **P** | **13 53 06.8** | **-0.6** |
| | baz=166 | | | | | | |
| **MIAR** | **Mount Ida** | **29.27** | **341** | P | **P** | **13 53 07.5** | **-0.5** |
| | baz=157 | | | | | | |
| **MIAR** | **Mount Ida** | **29.27** | **341** | *e*P | **P** | **13 53 06.8** | **-1.2** |
| | 6.0nm,0.9s | | | | | | |
| **WVT** | **Waverly** | **29.39** | **351** | P | **P** | **13 53 08.1** | **-1.0** |
| | baz=169 | | | | | | |
| **WVT** | **Waverly** | **29.39** | **351** | *e*P | **P** | **13 53 07.2** | **-1.9** |
| | 37nm,1.6s | | | | | | |
| **X39A** | **Fountain Ranch** | **29.42** | **340** | P | **P** | **13 53 09.0** | **-0.3** |
| | baz=156 | | | | | | |
| **W41B** | **Gary Mavity, V** | **29.45** | **343** | P | **P** | **13 53 09.1** | **-0.4** |
| | baz=160 | | | | | | |
| **Y37A** | **Hugo** | **29.49** | **337** | P | **P** | **13 53 09.6** | **-0.4** |
| | baz=152 | | | | | | |
| **X301** | **Greenbrier Sit** | **29.55** | **343** | *e*P | **P** | **13 53 09.3** | **-1.2** |
| | 17nm,1.1s | | | | | | |
| **WHAR** | **Wooly Hollow** | **29.57** | **343** | *e*P | **P** | **13 53 09.0** | **-1.6** |
| | 9.8nm,0.7s | | | | | | |
| **U46A** | **Springville** | **29.67** | **350** | P | **P** | **13 53 10.9** | **-0.7** |
| | baz=168 | | | | | | |
| **W40A** | **Ferguson Farm,** | **29.71** | **342** | P | **P** | **13 53 11.7** | **-0.2** |
| | baz=158 | | | | | | |
| **U45A** | **Rockin P Farm,** | **29.76** | **350** | P | **P** | **13 53 11.7** | **-0.6** |
| | baz=167 | | | | | | |
| **V42A** | **Cord** | **29.81** | **345** | P | **P** | **13 53 11.9** | **-0.8** |
| | baz=162 | | | | | | |
| **X38A** | **Whitesboro** | **29.81** | **339** | P | **P** | **13 53 12.5** | **-0.4** |
| | baz=154 | | | | | | |
| **U44B** | **Burton Farm, H** | **29.86** | **349** | P | **P** | **13 53 12.7** | **-0.5** |
| | baz=166 | | | | | | |
| **TXAR** | **Lajitas Array** | **29.93** | **320** | P | **P** | **13 53 14.7** | **+0.6** |
| | 1.2nm,0.9s,baz=142,slow=9.3,SNR=8.7 | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **29.93** | **320** | *e*P | **P** | **13 53 14.3** | **+0.3** |
| **W39A** | **Magazine** | **29.94** | **341** | P | **P** | **13 53 13.6** | **-0.3** |
| | baz=157,SNR=5.7 | | | | | | |
| **X37A** | **Clayton** | **29.94** | **338** | P | **P** | **13 53 13.6** | **-0.4** |
| | baz=153 | | | | | | |
| **V41A** | **Mountainview** | **30.00** | **344** | P | **P** | **13 53 13.2** | **-1.3** |
| | baz=160,SNR=7.2 | | | | | | |
| **Y35A** | **Marietta** | **30.00** | **335** | P | **P** | **13 53 14.9** | **+0.5** |
| | baz=150,SNR=9.1 | | | | | | |
| **U43A** | **Rector** | **30.11** | **347** | P | **P** | **13 53 15.3** | **-0.2** |
| | baz=164 | | | | | | |
| **ABTX** | **Abilene, Hawle** | **30.12** | **330** | P | **P** | **13 53 15.9** | **+0.3** |
| | baz=144 | | | | | | |
| **V40A** | **Witts Springs** | **30.20** | **343** | P | **P** | **13 53 15.8** | **-0.6** |
| | baz=159 | | | | | | |
| **U42A** | **Revenden** | **30.29** | **346** | P | **P** | **13 53 16.3** | **-0.7** |
| | baz=162,SNR=5.1 | | | | | | |
| **T46A** | **Princeton** | **30.29** | **351** | P | **P** | **13 53 16.6** | **-0.5** |
| | baz=169,SNR=9.7 | | | | | | |
| **X36A** | **Centrahoma** | **30.30** | **337** | P | **P** | **13 53 16.5** | **-0.6** |
| | baz=152 | | | | | | |
| **T45A** | **Paducah** | **30.39** | **350** | P | **P** | **13 53 17.2** | **-0.7** |
| | baz=168 | | | | | | |
| **X35A** | **Drake** | **30.40** | **336** | P | **P** | **13 53 17.9** | **-0.1** |
| | baz=150 | | | | | | |
| **U41A** | **Viola** | **30.46** | **345** | P | **P** | **13 53 17.8** | **-0.7** |
| | baz=161 | | | | | | |
| **V39A** | **Pettigrew** | **30.48** | **342** | P | **P** | **13 53 18.4** | **-0.4** |
| | baz=157 | | | | | | |
| **S48A** | **Wiedeman Farm,** | **30.67** | **354** | P | **P** | **13 53 19.4** | **-1.0** |
| | baz=173 | | | | | | |
| **U40A** | **Yellville** | **30.73** | **343** | P | **P** | **13 53 20.2** | **-0.7** |
| | baz=159,SNR=5.7 | | | | | | |
| **W36A** | **Wetumka** | **30.75** | **337** | P | **P** | **13 53 20.9** | **-0.2** |
| | baz=152 | | | | | | |
| **V38A** | **Canehill** | **30.75** | **341** | P | **P** | **13 53 20.5** | **-0.6** |
| | baz=156 | | | | | | |
| **T43A** | **Greenville** | **30.77** | **348** | P | **P** | **13 53 20.3** | **-0.9** |
| | baz=164 | | | | | | |
| **S46A** | **Don Dixon Farm** | **30.90** | **352** | P | **P** | **13 53 21.7** | **-0.6** |
| | baz=170 | | | | | | |
| **T42A** | **Van Buren** | **30.90** | **346** | P | **P** | **13 53 21.2** | **-1.2** |
| | baz=163,SNR=7.0 | | | | | | |
| **U39A** | **Green Forest** | **30.94** | **342** | P | **P** | **13 53 22.0** | **-0.7** |
| | baz=158 | | | | | | |
| **HHAR** | **Hobbs** | **30.98** | **342** | *e*P | **P** | **13 53 22.4** | **-0.8** |
| | 9.3nm,1.3s | | | | | | |
| **W35A** | **Tecumseh** | **31.01** | **336** | P | **P** | **13 53 22.8** | **-0.6** |
| | baz=151 | | | | | | |
| **V37A** | **Hulbert** | **31.02** | **340** | P | **P** | **13 53 23.1** | **-0.3** |
| | baz=155 | | | | | | |
| **T41A** | **Mountain View** | **31.08** | **345** | P | **P** | **13 53 23.3** | **-0.7** |
| | baz=162 | | | | | | |
| **S44A** | **Carbondale** | **31.16** | **349** | P | **P** | **13 53 23.9** | **-0.7** |
| | baz=167 | | | | | | |
| **USIN** | **University of** | **31.17** | **352** | *e*P | **P** | **13 53 23.6** | **-1.1** |
| | 73nm,1.4s | | | | | | |
| **S43A** | **Fulton Ridge,** | **31.20** | **348** | P | **P** | **13 53 24.1** | **-0.9** |
| | baz=165 | | | | | | |
| **V36A** | **Jenks** | **31.22** | **338** | P | **P** | **13 53 25.0** | **-0.2** |
| | baz=153 | | | | | | |
| **V36A** | **Jenks** | **31.22** | **338** | *e*P | **P** | **13 53 24.0** | **-1.2** |
| | 10nm,0.9s | | | | | | |
| **WCI** | **Wyandotte Cave** | **31.26** | **354** | P | **P** | **13 53 24.9** | **-0.6** |
| | baz=172 | | | | | | |
| **WCI** | **Wyandotte Cave** | **31.26** | **354** | *e*P | **P** | **13 53 24.3** | **-1.2** |
| | 47nm,1.4s | | | | | | |
| **U38A** | **Gravette** | **31.27** | **341** | P | **P** | **13 53 25.0** | **-0.7** |
| | baz=156 | | | | | | |
| **TUL1** | **Leonard** | **31.27** | **339** | P | **P** | **13 53 25.3** | **-0.4** |
| | baz=154 | | | | | | |
| **R47A** | **Wooly Knot Far** | **31.35** | **354** | P | **P** | **13 53 25.5** | **-0.8** |
| | baz=172,SNR=7.1 | | | | | | |
| **T40A** | **Mansfield** | **31.38** | **344** | P | **P** | **13 53 26.1** | **-0.6** |
| | baz=160 | | | | | | |
| **R46A** | **Gibon Southern** | **31.39** | **352** | P | **P** | **13 53 25.8** | **-0.9** |
| | baz=170 | | | | | | |
| **WMOK** | **Wichita Mounta** | **31.46** | **333** | P | **P** | **13 53 26.2** | **-1.2** |
| | baz=147 | | | | | | |
| **U37A** | **Salina** | **31.48** | **340** | P | **P** | **13 53 26.6** | **-0.9** |
| | baz=155 | | | | | | |
| **T39A** | **Clever** | **31.50** | **343** | P | **P** | **13 53 27.1** | **-0.6** |
| | baz=159 | | | | | | |
| **V35A** | **Meyer Ranch, C** | **31.53** | **337** | P | **P** | **13 53 27.6** | **-0.4** |
| | baz=152 | | | | | | |
| **S42A** | **Caledonia** | **31.54** | **347** | P | **P** | **13 53 27.0** | **-1.1** |
| | baz=164 | | | | | | |
| **R45A** | **Skylar, Fairfi** | **31.58** | **351** | P | **P** | **13 53 27.6** | **-0.8** |
| | baz=169,SNR=7.1 | | | | | | |
| **S41A** | **Jillco Farms,** | **31.59** | **346** | P | **P** | **13 53 27.7** | **-0.8** |
| | baz=162 | | | | | | |
| **R44A** | **Waltonville** | **31.67** | **350** | P | **P** | **13 53 28.6** | **-0.5** |
| | baz=167 | | | | | | |
| **FVM** | **French Village** | **31.67** | **348** | *e*P | **P** | **13 53 28.3** | **-0.8** |
| | 48nm,1.8s | | | | | | |
| **LPIG** | **La Paz** | **31.74** | **305** | LR | LR | 14 03 53.8 | |
| | comp=Z,118nm,18.5s,baz=137,slow=32 | | | | | | |
| **T38A** | **Diamond** | **31.79** | **342** | P | **P** | **13 53 29.4** | **-0.8** |
| | baz=157 | | | | | | |
| **S40A** | **Lebanon** | **31.80** | **345** | P | **P** | **13 53 29.6** | **-0.7** |
| | baz=160 | | | | | | |
| **R43A** | **Red Bud** | **31.85** | **349** | P | **P** | **13 53 30.1** | **-0.6** |
| | baz=166,SNR=5.5 | | | | | | |
| **CCM** | **Cathedral Cave** | **31.92** | **347** | P | **P** | **13 53 30.3** | **-1.1** |
| | baz=163 | | | | | | |
| **CCM** | **Cathedral Cave** | **31.92** | **347** | *e*P | **P** | **13 53 29.8** | **-1.5** |
| | 10nm,0.8s | | | | | | |
| **Q47A** | **Bedord North L** | **31.97** | **354** | P | **P** | **13 53 31.1** | **-0.7

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| S34A | Willow Spring baz=153 | 33.34 | 338 | P | P | 13 | 53 | 43.5 | -0.4 |
| R36A | Gordon, Harris baz=156 | 33.35 | 341 | P | P | 13 | 53 | 43.2 | -0.7 |
| Q38A | Cooks Store, C baz=159 | 33.37 | 344 | P | P | 13 | 53 | 43.5 | -0.6 |
| O45A | Potomac baz=170 | 33.42 | 352 | P | P | 13 | 53 | 43.1 | -1.3 |
| O44A | Mansfield baz=169 | 33.43 | 351 | P | P | 13 | 53 | 43.8 | -0.8 |
| P40A | Paris baz=162 | 33.51 | 346 | P | P | 13 | 53 | 43.9 | -1.4 |
| Q37A | Longview Farm, baz=158 | 33.53 | 343 | P | P | 13 | 53 | 44.8 | -0.7 |
| R35A | Emporia Munici baz=154 | 33.58 | 340 | P | P | 13 | 53 | 45.3 | -0.6 |
| P39B | Salisbury baz=161,SNR=11 | 33.64 | 345 | P | P | 13 | 53 | 45.4 | -1.0 |
| O43A | Sugar Creek Fa baz=167 | 33.69 | 350 | P | P | 13 | 53 | 45.8 | -1.1 |
| O42A | Bath baz=166 | 33.74 | 349 | P | P | 13 | 53 | 46.2 | -1.0 |
| O41A | Passleys Farm, baz=165,SNR=5.7 | 33.82 | 348 | P | P | 13 | 53 | 46.6 | -1.4 |
| N54A | Moraine State baz=184 | 33.85 | 3 | P | P | 13 | 53 | 47.0 | -1.2 |
| Q36A | Arnold C. Orve baz=156 | 33.92 | 341 | P | P | 13 | 53 | 48.1 | -0.7 |
| R34A | Isabella, Hill baz=153 | 33.93 | 339 | P | P | 13 | 53 | 48.1 | -0.9 |
| HDIL | Hopedale baz=168 | 33.95 | 350 | P | P | 13 | 53 | 47.9 | -1.2 |
| HDIL | Hopedale 106nm,1.8s | 33.95 | 350 | eP | P | 13 | 53 | 46.5 | -2.6 |
| N45A | Kentland baz=171 | 33.98 | 353 | P | P | 13 | 53 | 48.0 | -1.4 |
| Q35A | Mercer Eighty, baz=155 | 34.01 | 341 | P | P | 13 | 53 | 48.9 | -0.8 |
| N44A | Piper City baz=170 | 34.01 | 352 | P | P | 13 | 53 | 48.9 | -0.7 |
| O40A | La Belle baz=163 | 34.03 | 347 | P | P | 13 | 53 | 49.6 | -0.3 |
| Q34A | Chapman baz=154 | 34.37 | 340 | P | P | 13 | 53 | 52.1 | -0.7 |
| KSU1 | Kansas State U baz=154 | 34.42 | 340 | P | P | 13 | 53 | 52.3 | -0.9 |
| KSU1 | Kansas State U 28nm,1.3s | 34.42 | 340 | eP | P | 13 | 53 | 50.6 | -2.6 |
| P36A | Good Intent, A baz=157 | 34.44 | 342 | P | P | 13 | 53 | 52.7 | -0.7 |
| P35A | Duane Minner, baz=156 | 34.61 | 341 | P | P | 13 | 53 | 54.6 | -0.2 |
| 121A | Cookes Peak, D baz=132,SNR=11 | 34.69 | 320 | P | P | 13 | 53 | 58.3 | +2.5 |
| 121A | Cookes Peak, D 28nm,1.4s | 34.69 | 320 | eP | P | 13 | 53 | 57.4 | +1.5 |
| N40A | Mertquake, Sal baz=164 | 34.70 | 348 | P | P | 13 | 53 | 54.7 | -0.9 |
| M43A | Waltham Townsh baz=168 | 34.76 | 351 | P | P | 13 | 53 | 55.4 | -0.7 |
| P34A | Walnut Farm, R baz=154 | 34.90 | 340 | P | P | 13 | 53 | 56.9 | -0.4 |
| N39A | Derby Farms, D baz=162 | 34.90 | 346 | P | P | 13 | 53 | 56.4 | -0.9 |
| M41A | Milan baz=166 | 34.97 | 349 | P | P | 13 | 53 | 56.4 | -1.4 |
| N38A | Joes South For baz=161 | 34.99 | 346 | P | P | 13 | 53 | 57.4 | -0.8 |
| BNM | Barren Site | 35.09 | 324 | eP | P | 13 | 53 | 58.4 | -1.0 |
| M40A | Post Highland baz=164 | 35.19 | 348 | P | P | 13 | 53 | 58.3 | -1.5 |
| N37A | Lee Faris, Mou baz=159 | 35.21 | 344 | P | P | 13 | 53 | 58.6 | -1.5 |
| L44A | Lake County Fo baz=170 | 35.34 | 353 | P | P | 13 | 54 | 00.4 | -0.7 |
| M39A | Webster baz=163 | 35.40 | 347 | P | P | 13 | 54 | 00.3 | -1.3 |
| O34A | Beatrice baz=155 | 35.42 | 341 | P | P | 13 | 54 | 01.1 | -0.8 |
| L42A | Oliver, Polo baz=167 | 35.42 | 351 | P | P | 13 | 54 | 01.2 | -0.6 |
| ANMO | Albuquerque 3.4nm,0.9s,baz=316,slow=7.9,SNR=12 | 35.55 | 325 | P | P | 13 | 54 | 04.8 | +1.5 |
| ANMO | Albuquerque baz=136 | 35.55 | 325 | P | P | 13 | 54 | 04.3 | +1.0 |
| ANMO | Albuquerque 8.8nm,1.3s | 35.55 | 325 | eP | P | 13 | 54 | 04.1 | +0.8 |
| LAZ | Ladron | 35.57 | 323 | eP | P | 13 | 54 | 03.3 | -0.1 |
| M38A | Pleasantville baz=161 | 35.58 | 346 | P | P | 13 | 54 | 01.9 | -1.2 |
| O33A | Hebron baz=153 | 35.63 | 340 | P | P | 13 | 54 | 02.8 | -0.8 |
| L41A | Preston baz=166 | 35.64 | 350 | P | P | 13 | 54 | 02.4 | -1.3 |
| L40A | Anamosa baz=165,SNR=5.5 | 35.76 | 349 | P | P | 13 | 54 | 03.3 | -1.4 |
| L39A | Vinton baz=164 | 35.98 | 348 | P | P | 13 | 54 | 05.4 | -1.1 |
| T25A | Trinidad baz=141 | 36.08 | 329 | P | P | 13 | 54 | 07.7 | -0.1 |
| T25A | Trinidad 7.4nm,0.9s | 36.08 | 329 | eP | P | 13 | 54 | 08.0 | +0.2 |
| K41A | Shullsburg baz=166 | 36.12 | 350 | P | P | 13 | 54 | 06.7 | -1.0 |
| K42A | Prairie Point, baz=168 | 36.13 | 351 | P | P | 13 | 54 | 07.1 | -0.7 |
| L38A | Oak Wood Farm, baz=162 | 36.21 | 347 | P | P | 13 | 54 | 07.4 | -1.1 |
| MHTCO | State Highway 12nm,1.3s | 36.22 | 329 | eP | P | 13 | 54 | 09.1 | +0.2 |
| K40A | Colesburg baz=165 | 36.36 | 349 | P | P | 13 | 54 | 08.8 | -1.0 |
| L37A | Phoenix Point, baz=161 | 36.38 | 346 | P | P | 13 | 54 | 08.9 | -1.1 |
| JFWS | Jewell Farm baz=167 | 36.41 | 350 | P | P | 13 | 54 | 08.7 | -1.6 |
| K39A | Oelwein baz=164 | 36.51 | 348 | P | P | 13 | 54 | 09.5 | -1.6 |
| TUC | Tucson baz=127 | 36.51 | 317 | P | P | 13 | 54 | 12.7 | +1.3 |
| TUC | Tucson 8.0nm,0.9s | 36.51 | 317 | eP | P | 13 | 54 | 12.5 | +1.1 |
| M34A | Aspy Farms, Fr baz=156 | 36.59 | 342 | P | P | 13 | 54 | 10.6 | -1.2 |
| L36A | Harm Buss Farm baz=159 | 36.59 | 345 | P | P | 13 | 54 | 10.9 | -0.9 |
| J43A | Natural Harves baz=170 | 36.59 | 353 | P | P | 13 | 54 | 10.2 | -1.6 |
| J42A | Columbus baz=169 | 36.63 | 352 | P | P | 13 | 54 | 11.1 | -1.0 |
| K38A | Parkersburg baz=162 | 36.65 | 347 | P | P | 13 | 54 | 10.9 | -1.4 |
| J41A | Loganville baz=167 | 36.81 | 351 | P | P | 13 | 54 | 12.0 | -1.6 |
| L35A | Bielow Farm, R baz=158 | 36.84 | 344 | P | P | 13 | 54 | 12.6 | -1.4 |
| K37A | Belmond baz=161 | 36.96 | 346 | P | P | 13 | 54 | 13.5 | -1.4 |
| J40A | Soldiers Grove baz=166 | 36.96 | 350 | P | P | 13 | 54 | 13.0 | -1.9 |
| K36A | Gilmore City baz=160 | 37.04 | 345 | P | P | 13 | 54 | 14.7 | -0.9 |
| I43A | Langenfeld Bro baz=170 | 37.05 | 353 | P | P | 13 | 54 | 14.3 | -1.5 |
| J39A | Decorah baz=164 | 37.08 | 349 | P | P | 13 | 54 | 13.3 | -2.7 |
| SDCO | Great Sand Dun baz=140,SNR=8.5 | 37.10 | 329 | P | P | 13 | 54 | 17.2 | +0.6 |
| SDCO | Great Sand Dun 5.0nm,1.0s | 37.10 | 329 | eP | P | 13 | 54 | 17.1 | +0.5 |
| I42A | Draeger Farm, baz=169 | 37.16 | 352 | P | P | 13 | 54 | 15.3 | -1.3 |
| I40A | Norwalk baz=166 | 37.42 | 350 | P | P | 13 | 54 | 17.4 | -1.5 |
| I41A | Arkdale baz=168 | 37.46 | 351 | P | P | 13 | 54 | 17.7 | -1.5 |
| K34A | Le Mars baz=157 | 37.53 | 343 | P | P | 13 | 54 | 18.2 | -1.6 |
| I39A | Houston baz=165,SNR=5.9 | 37.55 | 349 | P | P | 13 | 54 | 18.0 | -1.9 |
| H43A | Windswept, Lux baz=171 | 37.59 | 354 | P | P | 13 | 54 | 18.8 | -1.5 |
| W18A | Petrified Fore baz=132,SNR=29 | 37.62 | 322 | P | P | 13 | 54 | 23.2 | +2.3 |
| W18A | Petrified Fore 70nm,1.3s | 37.62 | 322 | eP | P | 13 | 54 | 22.6 | +1.7 |
| J36A | Seneca 1, Swea baz=160,SNR=10 | 37.66 | 346 | P | P | 13 | 54 | 19.3 | -1.5 |
| S22A | 4UR Ranch, Cre baz=138 | 37.80 | 328 | P | P | 13 | 54 | 23.2 | +0.7 |
| S22A | 4UR Ranch, Cre 7.7nm,1.4s | 37.80 | 328 | eP | P | 13 | 54 | 23.3 | +0.7 |
| Q24A | Divide baz=141 | 37.86 | 330 | P | P | 13 | 54 | 23.3 | +0.2 |
| Q24A | Divide 8.8nm,1.1s | 37.86 | 330 | eP | P | 13 | 54 | 22.9 | -0.1 |
| I38A | Scanlan Farm, baz=164 | 37.88 | 348 | P | P | 13 | 54 | 21.3 | -1.4 |
| OGNE | Ogallala baz=147 | 38.06 | 336 | P | P | 13 | 54 | 25.0 | +0.5 |
| K32A | Verdigre baz=154 | 38.07 | 341 | P | P | 13 | 54 | 23.4 | -1.0 |
| H40A | Chili baz=167 | 38.09 | 351 | P | P | 13 | 54 | 23.2 | -1.3 |
| K31A | O'Neill baz=153 | 38.30 | 340 | P | P | 13 | 54 | 25.8 | -0.5 |
| H39A | Augusta baz=166 | 38.30 | 350 | P | P | 13 | 54 | 24.8 | -1.5 |
| I35A | Creekview Farm baz=159 | 38.31 | 345 | P | P | 13 | 54 | 25.4 | -1.0 |
| MVCO | Mesa Verde baz=135,SNR=12 | 38.32 | 325 | P | P | 13 | 54 | 28.1 | +1.2 |
| MVCO | Mesa Verde 27nm,1.3s | 38.32 | 325 | eP | P | 13 | 54 | 27.4 | +0.5 |
| G42A | Mountain baz=170 | 38.43 | 353 | P | P | 13 | 54 | 25.8 | -1.6 |
| H38A | Maiden Rock baz=164 | 38.48 | 349 | P | P | 13 | 54 | 26.1 | -1.7 |
| ECSD | EROS Data Cent baz=157 | 38.64 | 343 | P | P | 13 | 54 | 27.7 | -1.4 |
| ECSD | EROS Data Cent 9.5nm,1.2s | 38.64 | 343 | eP | P | 13 | 54 | 27.0 | -2.2 |
| J32A | Parkston baz=155 | 38.67 | 342 | P | P | 13 | 54 | 28.2 | -1.2 |
| G40A | Rib Lake baz=167 | 38.69 | 351 | P | P | 13 | 54 | 28.2 | -1.4 |
| ISCO | Idaho Springs baz=141 | 38.74 | 331 | P | P | 13 | 54 | 29.7 | -0.7 |
| ISCO | Idaho Springs 2.6nm,0.8s | 38.74 | 331 | eP | P | 13 | 54 | 28.9 | -1.5 |
| H36A | Jessenland, He baz=161 | 38.74 | 347 | P | P | 13 | 54 | 28.4 | -1.6 |
| G39A | Holcombe baz=166,SNR=7.3 | 38.87 | 350 | P | P | 13 | 54 | 29.4 | -1.6 |
| G38A | Ridgeland baz=165,SNR=6.5 | 38.88 | 349 | P | P | 13 | 54 | 29.2 | -1.9 |
| WUAZ | Wupatki baz=130,SNR=15 | 38.89 | 321 | P | P | 13 | 54 | 33.4 | +1.8 |
| WUAZ | Wupatki 20nm,1.1s | 38.89 | 321 | eP | P | 13 | 54 | 33.0 | +1.4 |
| SMCO | Snowmass 7.4nm,1.3s | 38.94 | 329 | eP | P | 13 | 54 | 31.7 | -0.6 |
| F41A | Three Lakes baz=169 | 39.00 | 352 | P | P | 13 | 54 | 30.9 | -1.3 |
| H35A | Sunnyside Ranc baz=160,SNR=6.4 | 39.07 | 346 | P | P | 13 | 54 | 30.8 | -1.9 |
| SPMN | Marine on St. baz=163,SNR=6.7 | 39.12 | 348 | P | P | 13 | 54 | 31.3 | -1.8 |
| SPMN | Marine on St. 18nm,0.9s | 39.12 | 348 | eP | P | 13 | 54 | 30.4 | -2.7 |
| PV05 | Paradox Valley | 39.27 | 326 | eP | P | 13 | 54 | 35.4 | +0.6 |
| H34A | Spellman Lake, baz=159 | 39.27 | 345 | P | P | 13 | 54 | 33.0 | -1.5 |
| F40A | Park Falls baz=168 | 39.32 | 351 | P | P | 13 | 54 | 33.0 | -1.8 |
| PV04 | Paradox Valley | 39.39 | 326 | eP | P | 13 | 54 | 36.3 | +0.6 |
| F39A | Loretta baz=166 | 39.44 | 351 | P | P | 13 | 54 | 34.1 | -1.8 |
| PV10 | Paradox Valley | 39.45 | 326 | eP | P | 13 | 54 | 36.2 | -0.1 |
| H33A | Prehn Over Nor baz=157,SNR=6.8 | 39.55 | 344 | P | P | 13 | 54 | 35.1 | -1.7 |
| H32A | Carlson Farm, baz=156,SNR=9.7 | 39.58 | 343 | P | P | 13 | 54 | 35.4 | -1.7 |
| F38A | Pierce - Schro baz=165,SNR=5.5 | 39.65 | 350 | P | P | 13 | 54 | 35.8 | -1.8 |
| GLA | Glamis baz=124 | 39.72 | 315 | P | P | 13 | 54 | 38.7 | +0.3 |
| GLA | Glamis 22nm,1.5s | 39.72 | 315 | eP | P | 13 | 54 | 39.2 | +0.8 |
| N23A | Red Feather La baz=142 | 39.75 | 332 | P | P | 13 | 54 | 38.4 | -0.5 |
| G34A | Benson baz=159 | 39.78 | 345 | P | P | 13 | 54 | 36.9 | -1.7 |
| E40A | Wakefield baz=168 | 39.80 | 352 | P | P | 13 | 54 | 37.7 | -1.1 |
| E39A | Mellen baz=167 | 39.83 | 351 | P | P | 13 | 54 | 37.6 | -1.4 |
| F36A | Milaca baz=162,SNR=6.7 | 39.87 | 348 | P | P | 13 | 54 | 37.2 | -2.2 |
| Y12C | Blythe baz=124 | 39.90 | 316 | P | P | 13 | 54 | 41.1 | +1.3 |
| Y12C | Blythe 16nm,1.5s | 39.90 | 316 | eP | P | 13 | 54 | 41.5 | +1.7 |
| PDMCI | Parker Dam,Lak baz=126 | 39.96 | 317 | P | P | 13 | 54 | 40.8 | +0.6 |
| F35A | Swanville baz=161 | 40.10 | 347 | P | P | 13 | 54 | 39.4 | -1.9 |
| F34A | Alexandria baz=160 | 40.20 | 346 | P | P | 13 | 54 | 40.7 | -1.5 |
| D41A | Chassel baz=170 | 40.23 | 353 | P | P | 13 | 54 | 41.8 | -0.6 |
| G32A | Webster baz=156 | 40.29 | 343 | P | P | 13 | 54 | 41.6 | -1.3 |
| E36A | McGregor baz=163 | 40.44 | 348 | P | P | 13 | 54 | 42.4 | -1.8 |
| F33A | 5 Mile Ranch, baz=158,SNR=7.7 | 40.50 | 345 | P | P | 13 | 54 | 42.7 | -1.9 |
| IRM | Iron Mountain baz=124 | 40.55 | 316 | P | P | 13 | 54 | 48.4 | +3.1 |
| PKCU | Pink Cliffs 52nm,1.6s | 40.71 | 322 | eP | P | 13 | 54 | 47.7 | +0.8 |
| SRU | San Rafael Swe 14nm,1.1s | 40.79 | 326 | eP | P | 13 | 54 | 47.5 | +0.1 |
| D37A | Cotton baz=164,SNR=5.7 | 40.90 | 349 | P | P | 13 | 54 | 46.3 | -1.6 |
| LCMT | Little Creek M 15nm,1.5s | 41.01 | 321 | eP | P | 13 | 54 | 51.4 | +2.2 |
| Q16A | Castle Valley 19nm,1.5s | 41.02 | 325 | eP | P | 13 | 54 | 50.8 | +1.5 |
| MTPU | Mount Pierson 17nm,1.6s | 41.03 | 323 | eP | P | 13 | 54 | 50.6 | +1.0 |
| LDFC | Landfair 14nm,1.1s | 41.05 | 317 | eP | P | 13 | 54 | 50.5 | +0.9 |
| F31A | Hecla baz=156 | 41.05 | 343 | P | P | 13 | 54 | 47.5 | -1.7 |
| BELC | Belle Mtn. Jos baz=123 | 41.06 | 315 | P | P | 13 | 54 | 51.1 | +1.5 |
| D36A | Goodland baz=163 | 41.06 | 349 | P | P | 13 | 54 | 47.2 | -2.0 |
| CPUP | Villa Florida comp=Z,140nm,18.2s,baz=319,slow=39 | 41.10 | 145 | LR | LR | 14 | 13 | 26.6 | |
| D35A | Remer baz=162 | 41.15 | 348 | P | P | 13 | 54 | 47.7 | -2.3 |
| P17A | Butcher Ranch, 8.6nm,1.1s | 41.16 | 326 | eP | P | 13 | 54 | 50.3 | -0.2 |
| TPFO | Pinon Flats baz=122 | 41.16 | 315 | P | P | 13 | 54 | 51.9 | +1.4 |
| PFO | Pinyon Flats O 1.9nm,0.9s,baz=133,slow=6.7,SNR=2.6 | 41.17 | 315 | P | P | 13 | 54 | 50.6 | +0.1 |
| PFO | Pinyon Flats O baz=122 | 41.17 | 315 | P | P | 13 | 54 | 51.9 | +1.4 |
| GMRC | Granite Mounta baz=124 | 41.26 | 317 | P | P | 13 | 54 | 53.1 | +1.9 |
| SZCU | Shurtz Canyon 14nm,1.4s | 41.28 | 322 | eP | P | 13 | 54 | 52.1 | +0.6 |
| TMUT | Trail Mountain 11nm,1.4s | 41.30 | 325 | eP | P | 13 | 54 | 53.0 | +1.2 |
| MSU | Marysvale | 41.33 | 324 | eP | P | 13 | 54 | 53.2 | +1.3 |
| K22A | Casper baz=142 | 41.40 | 333 | P | P | 13 | 54 | 51.9 | -0.4 |
| D34A | Park Rapids baz=160 | 41.40 | 347 | P | P | 13 | 54 | 50.4 | -1.6 |
| C37A | Embarrass baz=165 | 41.41 | 350 | P | P | 13 | 54 | 50.7 | -1.4 |
| CCUT | Cedar City 8.5nm,1.3s | 41.42 | 322 | eP | P | 13 | 54 | 53.5 | +0.9 |
| RSSD | Black Hills baz=146 | 41.53 | 336 | P | P | 13 | 54 | 52.9 | -0.6 |
| RSSD | Black Hills 6.6nm,1.0s | 41.53 | 336 | eP | P | 13 | 54 | 53.3 | -0.1 |
| C36A | Pine Crest Far baz=164,SNR=5.3 | 41.55 | 349 | P | P | 13 | 54 | 51.8 | -1.5 |
| E31A | Nome baz=156 | 41.59 | 344 | P | P | 13 | 54 | 51.8 | -1.8 |
| D33A | AnnSam, Waubun baz=160 | 41.60 | 346 | P | P | 13 | 54 | 52.0 | -1.7 |
| C35A | Jirik Farms, M baz=162 | 41.72 | 348 | P | P | 13 | 54 | 52.5 | -2.1 |
| C34A | RKJ Ranch, Bem baz=161 | 41.87 | 347 | P | P | 13 | 54 | 53.8 | -2.1 |
| MPU | Maple Canyon 14nm,1.2s | 42.04 | 326 | eP | P | 13 | 54 | 57.8 | +0.2 |
| NLU | North Lily Min 13nm,1.6s | 42.24 | 325 | eP | P | 13 | 55 | 00.2 | +0.8 |
| SHOC | Shoshone, Teco baz=125 | 42.30 | 318 | P | P | 13 | 55 | 01.9 | +2.3 |
| GSC | Goldstone, Bar baz=124,SNR=8.4 | 42.33 | 317 | P | P | 13 | 55 | 02.1 | +2.2 |
| GSC | Goldstone, Bar 14nm,1.3s | 42.33 | 317 | eP | P | 13 | 55 | 01.3 | +1.4 |
| JLU | Jordanelle 8.7nm,1.3s | 42.34 | 327 | eP | P | 13 | 55 | 00.5 | +0.4 |
| CTU | Camp Tracy 14nm,1.4s | 42.57 | 326 | eP | P | 13 | 55 | 02.7 | +0.8 |
| B34A | Aery, Baudette baz=162,SNR=7.1 | 42.61 | 348 | P | P | 13 | 55 | 00.1 | -1.7 |
| TCUT | Toone Canyon 42nm,1.6s | 42.68 | 327 | eP | P | 13 | 55 | 03.4 | +0.5 |
| C31A | Landman Farms, baz=157,SNR=6.1 | 42.68 | 345 | P | P | 13 | 55 | 00.9 | -1.6 |
| AGMN | Agassiz Nation baz=160 | 42.69 | 347 | P | P | 13 | 55 | 01.0 | -1.5 |
| AGMN | Agassiz Nation 39nm,1.7s | 42.69 | 347 | eP | P | 13 | 54 | 59.9 | -2.7 |
| DUG | Dugway, Tooele baz=132,SNR=10 | 42.82 | 325 | P | P | 13 | 55 | 04.9 | +0.9 |
| DUG | Dugway, Tooele 12nm,1.3s | 42.82 | 325 | eP | P | 13 | 55 | 04.7 | +0.7 |
| TPNV | Topopah Spring baz=126 | 42.89 | 319 | P | P | 13 | 55 | 04.7 | +0.1 |
| PD31 | Pinedale Array | 42.92 | 330 | eP | P | 13 | 55 | 04.0 | -0.8 |
| PDAR | Pinedale Array 1.2nm,0.8s,baz=132,slow=8.8,SNR=11 | 42.92 | 330 | P | P | 13 | 55 | 04.2 | -0.7 |
| PDAR | comp=Z,74nm,18.2s,baz=133,slow=42 | | | LR | LR | 14 | 16 | 49.5 | |
| PDAR | Pinedale Array | 42.92 | 330 | eP | P | 13 | 55 | 02.4 | -2.4 |
| BW06 | Boulder Array baz=138 | 42.92 | 330 | P | P | 13 | 55 | 04.6 | -0.2 |
| BW06 | Boulder Array 6.8nm,1.3s | 42.92 | 330 | eP | P | 13 | 55 | 03.6 | -1.2 |
| B32A | Ashes, Strandq baz=159,SNR=8.1 | 42.94 | 346 | P | P | 13 | 55 | 03.1 | -1.5 |
| FURC | Furnace Creek, baz=124,SNR=8.4 | 43.02 | 318 | P | P | 13 | 55 | 07.2 | +1.9 |
| A33A | Warroad baz=161,SNR=9.1 | 43.19 | 347 | P | P | 13 | 55 | 05.1 | -1.5 |
| MPMC | Manual Prospec baz=123,SNR=5.3 | 43.21 | 317 | P | P | 13 | 55 | 08.0 | +0.8 |
| B31A | Greenbush Farm baz=158 | 43.24 | 345 | P | P | 13 | 55 | 06.3 | -0.7 |
| MDND | Maddock baz=154 | 43.25 | 343 | P | P | 13 | 55 | 06.5 | -0.6 |
| MDND | Maddock 55nm,1.1s | 43.25 | 343 | eP | P | 13 | 55 | 06.0 | -1.1 |
| R11A | Troy Canyon, C baz=128,SNR=6.2 | 43.29 | 321 | P | P | 13 | 55 | 08.9 | +1.0 |
| R11A | Troy Canyon, C 7.1nm,1.4s | 43.29 | 321 | eP | P | 13 | 55 | 08.6 | +0.7 |
| SPUT | South Promonto 23nm,1.5s | 43.38 | 327 | eP | P | 13 | 55 | 08.4 | 0.0 |
| A32A | Rocking H Ranc baz=159,SNR=5.3 | 43.42 | 346 | P | P | 13 | 55 | 06.7 | -1.8 |
| BGU | Big Grassy Mou 15nm,1.2s | 43.44 | 326 | eP | P | 13 | 55 | 09.4 | +0.5 |
| VES | Vestal, Richgr baz=122 | 44.18 | 316 | P | P | 13 | 55 | 16.6 | +1.8 |
| MOOW | Moose Ponds 7.4nm,1.6s | 44.23 | 330 | eP | P | 13 | 55 | 14.1 | -1.3 |
| FXWY | Fox Creek 12nm,1.6s | 44.29 | 330 | eP | P | 13 | 55 | 16.2 | +0.3 |
| IMW | Indian Meadow 6.8nm,1.4s | 44.44 | 330 | eP | P | 13 | 55 | 17.3 | +0.2 |
| LAO | LASA Array baz=145 | 44.52 | 337 | P | P | 13 | 55 | 17.9 | +0.5 |
| ULM | Lac du Bonnet 16nm,1.1s,baz=159,slow=7.2,SNR=14 | 44.54 | 348 | P | P | 13 | 55 | 14.7 | -2.7 |
| ULM | Lac du Bonnet 20nm,1.0s | 44.54 | 348 | eP | P | 13 | 55 | 14.9 | -2.5 |
| RLMT | Red Lodge baz=140 | 44.57 | 333 | P | P | 13 | 55 | 17.6 | -0.4 |
| RLMT | Red Lodge 7.9nm,1.1s | 44.57 | 333 | eP | P | 13 | 55 | 15.7 | -2.3 |
| NV11 | Mina Array Sit 0.4nm,1.3s | 44.98 | 319 | eP | P | 13 | 55 | 22.5 | +1.2 |
| NV01 | Mina Array Sit | 45.07 | 319 | eP | P | 13 | 55 | 22.8 | +0.6 |
| DGMT | Dagmar baz=149 | 45.26 | 340 | P | P | 13 | 55 | 22.9 | -0.4 |
| DGMT | Dagmar 12nm,0.8s | 45.26 | 340 | eP | P | 13 | 55 | 22.8 | -0.5 |
| BMN | Battle Mountai 17nm,1.1s | 45.56 | 322 | eP | P | 13 | 55 | 25.7 | -0.2 |
| WAKR | Walker 5.3nm,1.0s | 45.85 | 319 | eP | P | 13 | 55 | 28.3 | 0.0 |
| HLID | Hailey baz=133,SNR=6.5 | 45.98 | 328 | P | P | 13 | 55 | 29.0 | -0.2 |
| HLID | Hailey 4.3nm,0.9s | 45.98 | 328 | eP | P | 13 | 55 | 29.0 | -0.2 |
| MCMT | McKenzie Canyo | 46.05 | 330 | eP | P | 13 | 55 | 30.2 | +0.3 |
| PNTR | Pine Nut 10nm,1.3s | 46.28 | 319 | eP | P | 13 | 55 | 32.3 | +0.6 |
| DLMT | Dillon 8.1nm,1.3s | 46.31 | 331 | eP | P | 13 | 55 | 32.5 | +0.8 |
| PAHR | Pah Rah Range 6.4nm,1.2s | 46.48 | 320 | eP | P | 13 | 55 | 32.1 | -1.1 |
| MFID | Camas Ranch 14nm,1.5s | 46.65 | 326 | eP | P | 13 | 55 | 34.0 | -0.4 |
| WVOR | Wild Horse Val 32nm,1.4s | 47.62 | 324 | eP | P | 13 | 55 | 42.1 | 0.0 |
| ORV | Oroville 5.1nm,0.8s | 47.77 | 319 | eP | P | 13 | 55 | 42.0 | -1.1 |
| MSO | Missoula baz=136 | 48.02 | 331 | P | P | 13 | 55 | 45.6 | +0.6 |
| J08A | Circle Bar Ran 23nm,1.8s | 48.09 | 325 | eP | P | 13 | 55 | 45.4 | -0.2 |
| O03D | Paynes Creek baz=122 | 48.36 | 319 | P | P | 13 | 55 | 48.7 | +1.0 |
| BMO | Blue Mountains 3.7nm,1.0s | 48.39 | 327 | eP | P | 13 | 55 | 46.5 | -1.4 |
| PLCA | Paso Flores 2.9nm,1.0s,baz=320,slow=6.7,SNR=4.0 | 48.76 | 168 | P | P | 13 | 55 | 49.1 | -1.5 |
| M04C | Macdoel baz=124 | 49.19 | 321 | P | P | 13 | 55 | 55.0 | +0.9 |
| E09A | Wood Farm, Sta 23nm,1.4s | 49.92 | 328 | eP | P | 13 | 55 | 58.9 | -0.5 |
| FFC | Flin Flon 7.7nm,1.2s | 50.10 | 345 | eP | P | 13 | 55 | 59.6 | -1.1 |
| NEW | Newport baz=133 | 50.56 | 330 | P | P | 13 | 56 | 03.9 | -0.5 |
| NEW | Newport 6.6nm,1.4s | 50.56 | 330 | eP | P | 13 | 56 | 02.6 | -1.7 |
| I04A | Tendick Farm, baz=124 | 50.66 | 323 | P | P | 13 | 56 | 05.3 | +0.1 |
| G05D | Wamic, OR baz=126 | 50.86 | 325 | P | P | 13 | 56 | 06.9 | +0.2 |
| LLLB | Lillooet 33nm,1.7s | 54.45 | 330 | eP | P | 13 | 56 | 32.9 | -0.3 |
| YKA | Yellowknife Ar 4.0nm,0.9s,baz=139,slow=6.7,SNR=41 | 60.17 | 343 | P | P | 13 | 57 | 12.4 | -0.9 |
| INK | Inuvik 2.7nm,0.9s,baz=107,slow=5.2,SNR=5.7 | 69.86 | 342 | P | P | 13 | 58 | 16.5 | +0.3 |
| INK | Inuvik 16nm,1.4s | 69.86 | 342 | eP | P | 13 | 58 | 15.9 | -0.3 |
| IL1 | Eielson Array | 72.98 | 336 | eP | P | 13 | 58 | 34.1 | -1.0 |
| ILAR | Eielson Array 1.4nm,0.9s,baz=129,slow=4.7,SNR=9.2 | 72.98 | 336 | P | P | 13 | 58 | 34.6 | -0.5 |
| ILAR | comp=Z,38nm,18.3s,baz=140,slow=39 | | | LR | LR | 14 | 34 | 25.9 | |
| ESDC | Sonseca Array 0.4nm,0.5s,baz=254,slow=5.0,SNR=4.1 | 76.60 | 51 | P | P | 13 | 58 | 57.3 | +0.6 |
| ESDC | comp=Z,29nm,21.0s,baz=320,slow=31 | | | LR | LR | 14 | 26 | 39.5 | |
| ES19 | SONSECA Array | 76.65 | 51 | eP | P | 13 | 58 | 55.1 | -1.9 |
| DBIC | Dimbokro comp=Z,29nm,21.6s,baz=251,slow=33 | 76.83 | 85 | LR | LR | 14 | 29 | 44.1 | |
| FALS | False Pass 633nm,1.2s | 79.15 | 324 | eP | P | 13 | 59 | 08.0 | -2.5 |
| RAR | Rarotonga comp=Z,92nm,21.0s,baz=118,slow=30 | 80.93 | 247 | LR | LR | 14 | 26 | 46.9 | |
| TORD | Torodi Ar. Bea 0.4nm,0.8s,baz=289,slow=4.4,SNR=2.2 | 82.64 | 78 | P | P | 13 | 59 | 28.9 | -1.0 |
| TORD | comp=Z,23nm,21.9s,baz=310,slow=34 | | | LR | LR | 14 | 33 | 49.6 | |
| GAMB | Gambell 35nm,0.9s | 83.46 | 333 | eP | P | 13 | 59 | 30.6 | -2.5 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| ARCES | **ARCESS Array B** | **89.60** | **20** | LR | LR | 14 34 28.5 | | |
| | comp=Z,26nm,21.1s,baz=298,slow=32 | | | | | | | |
| FINES | **FINESS Array B** | **92.52** | **27** | LR | LR | 14 37 54.9 | | |
| | comp=Z,37nm,19.9s,baz=356,slow=33 | | | | | | | |
| WMQ | **Urumqi** | **128.58** | **9** | *e*PKP | **PKPdf** | **14 06 14.0** | **+0.6** | |
| WMQ | | | | LR | LR | | | |
| | comp=N,85nm,16.5s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=E,60nm,14.9s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=Z,48nm,18.1s | | | | | | | |
| KSH | **Kashi** | **129.51** | **22** | *e*PKP | **PKPdf** | **14 06 17.3** | **+2.0** | |
| KSH | | | | PP | **PP** | **14 08 29.4** | **+5.5** | |
| KSH | | | | SKS | **SKSdf** | **14 13 28.8** | **+1.3** | |
| KSH | | | | SKKS | **SKKSac** | **14 15 21.3** | **-1.2** | |
| KSH | | | | SS | **SS** | **14 25 46.6** | **+0.9** | |
| KSH | | | | AMB | AMB | | | |
| | comp=Z,57nm,4.1s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=N,54nm,4.6s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=E,37nm,3.4s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=Z,140nm,5.0s | | | | | | | |
| HHC | **Hu-ho-hao-te** | **130.66** | **346** | *e*PKP | **PKPdf** | **14 06 19.4** | **+1.9** | |
| NJ2 | **Nanjing** | **136.19** | **334** | *e*PKP | **PKPdf** | **14 06 28.0** | **+0.1** | |
| ASAR | **Alice Springs** | **141.50** | **241** | PKhKP | PKPpre | 14 06 30.4 | | |
| | 0.3nm,0.7s,baz=121,slow=3.7,SNR=5.0 | | | | | | | |
| WRA | **Warramunga Arr** | **142.21** | **246** | PKhKP | PKPpre | 14 06 34.2 | | |
| | 0.5nm,0.9s,baz=111,slow=2.1,SNR=5.0 | | | | | | | |
| CMAR | **Chiang Mai Arr** | **154.64** | **357** | PKPab | **PKPab** | **14 07 24.1** | **+1.9** | |
| | 1.0nm,0.8s,baz=354,slow=5.1,SNR=5.8 | | | | | | | |

*ISCJB **18** 13:51:45.1±0.5,5°.60N±0°.07×127°.57E±0°.08,h53km, mb4.1/15, MS3.5/2, Error ellipse: s-maj=13.5km s-min=5.9km az=142.1*

*IDC **18** 13:51:50.9±2.4,5°.58N×127°.27E, h94km±22km, mb3.7/14, mb1 3.8/15, mb1mx3.6/52, mbtmp4.1/15, MS3.6/2, Ms1 3.6/2, ms1mx2.7/30, Error ellipse: s-maj=24.9km s-min=11.4km az=72.0*

**ISC 18 13:51:46.4±0.7,5°.61N±0°.08×127°.59E±0°.10, h53km, n23, σ1°.94/27, mb4.1/15, 3C, Philippine Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DAV | **Davao City (W)** | **2.47** | **306** | P | **Pn** | **13 52 26.1** | **+1.9** |
| | 86nm,0.3s,baz=119,slow=0.6,SNR=20 | | | | | | |
| DAV | | | | S | **Sn** | **13 52 57.8** | **+4.6** |
| | 68nm,0.3s,baz=257,slow=20,SNR=6.0 | | | | | | |
| DMPH | **Davao City--Mi** | **2.53** | **305** | ⇑*i*P | Pn | 13 52 31.8 | +6.7 |
| DMPH | | | | *i* S | **Sn** | **13 52 58.7** | **+3.8** |
| BIPH | **Bislig** | **2.83** | **335** | ⇑*e*P | **Pn** | **13 52 30.6** | **+1.4** |
| BIPH | | | | *e*S | **Sn** | **13 52 59.3** | **-2.9** |
| KCP | **Kidapawan** | **2.85** | **299** | ⇑*e*P | **Pn** | **13 52 29.3** | **-0.2** |
| KCP | | | | *i* S | **Sn** | **13 53 02.0** | **-0.6** |
| BUKP | **Musuan** | **3.37** | **312** | *e*P | **Pn** | **13 52 37.0** | **+0.3** |
| BUKP | | | | *e*S | **Sn** | **13 53 15.4** | **-0.1** |
| BUTP | **Butuan** | **3.87** | **330** | *e*P | Pn | 13 52 47.8 | +4.4 |
| BUTP | | | | *e*S | **Sn** | **13 53 29.9** | **+2.2** |
| FITZ | **Fitzroy Crossi** | **23.64** | **185** | P | **P** | **13 56 53.0** | **0.0** |
| | 1.4nm,0.5s,baz=13,slow=9.2,SNR=13 | | | | | | |
| PMG | **Port Moresby** | **24.55** | **127** | LR | LR | 14 08 14.8 | |
| | comp=Z,80nm,19.5s,baz=54,slow=40 | | | | | | |
| JCJ | **Chichijima** | **25.50** | **31** | P | **P** | **13 57 11.5** | **+1.6** |
| | 60nm,0.5s,baz=286,slow=21,SNR=5.1 | | | | | | |
| WRA | **Warramunga Arr** | **26.24** | **166** | P | **P** | **13 57 17.8** | **+1.0** |
| | 0.9nm,0.6s,baz=343,slow=10,SNR=14 | | | | | | |
| ASAR | **Alice Springs** | **29.74** | **168** | P | **P** | **13 57 49.4** | **+1.4** |
| | 0.5nm,0.5s,baz=344,slow=6.8,SNR=23 | | | | | | |
| ASAR | | | | PcP | **PcP** | **14 00 50.9** | **-0.2** |
| | 0.3nm,0.4s,baz=351,slow=2.3,SNR=8.0 | | | | | | |
| CMAR | **Chiang Mai Arr** | **30.72** | **297** | P | **P** | **13 57 54.7** | **-2.0** |
| | 0.6nm,0.7s,baz=120,slow=6.1,SNR=5.1 | | | | | | |
| STKA | **Stephens Creek** | **39.60** | **161** | P | **P** | **13 59 13.8** | **+1.0** |
| | 3.5nm,0.8s,baz=335,slow=6.2,SNR=6.0 | | | | | | |
| STKA | | | | LR | LR | 14 19 53.9 | |
| | comp=Z,123nm,18.1s,baz=44,slow=42 | | | | | | |
| SONM | **Songino Array** | **45.82** | **340** | P | **P** | **14 00 03.3** | **+0.1** |
| | 0.4nm,0.4s,baz=158,slow=7.9,SNR=5.4 | | | | | | |
| PETK | **Petropavlovsk-** | **53.38** | **22** | P | **P** | **14 01 03.5** | **+3.0** |
| | 1.2nm,0.5s,baz=258,slow=1.7,SNR=6.7 | | | | | | |
| MKAR | **Makanchi Array** | **56.53** | **324** | P | **P** | **14 01 22.6** | **-0.8** |
| | 2.9nm,0.5s,baz=123,slow=8.1,SNR=28 | | | | | | |
| ZALV | **Zalesovo Beam** | **59.33** | **332** | P | **P** | **14 01 41.4** | **-1.4** |
| | 1.1nm,0.4s,baz=127,slow=6.6,SNR=5.6 | | | | | | |
| AAK | **Ala-Archa** | **59.57** | **317** | P | **P** | **14 01 43.7** | **-1.2** |
| | 1.2nm,0.5s,baz=162,slow=8.0,SNR=4.4 | | | | | | |
| BVAR | **Borovoye Array** | **66.23** | **326** | P | **P** | **14 02 28.1** | **-0.7** |
| | 4.1nm,0.5s,baz=80,slow=4.5,SNR=22 | | | | | | |
| ILAR | **Eielson Array** | **83.05** | **25** | P | **P** | **14 04 05.5** | **-0.6** |
| | 0.7nm,0.6s,baz=255,slow=5.5,SNR=9.9 | | | | | | |
| ARCES | **ARCESS Array B** | **88.99** | **340** | P | **P** | **14 04 33.1** | **-2.1** |
| | 0.6nm,0.5s,baz=79,slow=6.3,SNR=5.5 | | | | | | |
| BRTR | **Keskin Array B** | **89.49** | **310** | P | **P** | **14 04 38.0** | **-0.4** |
| | 0.2nm,0.4s,baz=149,slow=15,SNR=4.7 | | | | | | |
| TORD | **Torodi Ar. Bea** | **123.12** | **290** | PKP | **PKPdf** | **14 10 35.6** | **-2.6** |
| | 0.3nm,0.5s,baz=16,slow=2.1,SNR=2.6 | | | | | | |

**IDC 18 13:54:13.3±2.9,7°.45N×93°.57E, h0km, mb3.6/4, mb1 3.7/5, mb1mx3.3/54, mbtmp3.5/5, ML3.4/1, Error ellipse: s-maj=95.0km s-min=24.2km az=69.0, Nicobar Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CMAR | **Chiang Mai Arr** | **12.13** | **25** | Pn | Pn | 13 57 09.1 | +1.6 |
| | 0.1nm,0.3s,baz=214,slow=13,SNR=4.6 | | | | | | |
| H08S3 | **Diego Garcia H** | **25.82** | **235** | T | T | 14 26 30.4 | |
| | baz=58,slow=74 | | | | | | |
| H08S2 | **Diego Garcia H** | **25.82** | **235** | T | T | 14 26 41.4 | |
| | baz=58,slow=74 | | | | | | |
| H08S1 | **Diego Carcia H** | **25.84** | **235** | T | T | 14 26 22.2 | |
| | baz=58 | | | | | | |
| SONM | **Songino Array** | **41.70** | **13** | P | P | 14 02 02.7 | -1.3 |
| | 0.5nm,0.7s,baz=212,slow=8.1,SNR=4.3 | | | | | | |
| ZALV | **Zalesovo Beam** | **46.91** | **353** | P | P | 14 02 45.9 | +0.4 |
| | 0.9nm,0.4s,baz=167,slow=8.0,SNR=4.5 | | | | | | |
| WRA | **Warramunga Arr** | **48.48** | **125** | P | P | 14 02 57.9 | -0.3 |
| | 0.3nm,0.6s,baz=304,slow=8.9,SNR=4.0 | | | | | | |
| ASAR | **Alice Springs** | **50.08** | **129** | P | P | 14 03 10.6 | +0.2 |
| | 0.4nm,0.6s,baz=302,slow=7.8,SNR=11 | | | | | | |

*JMA **18** 13:59:42.9±0.2,34°.39N×138°.68E, h228km±2km, M3.1*

*IDC **18** 13:59:44.6±0.6,34°.51N×138°.74E, h230km±6km, mb3.2/7, mb1 3.2/11, mb1mx3.0/44, mbtmp3.7/11, Error ellipse: s-maj=33.8km s-min=8.6km az=68.0*

*ISCJB **18** 13:59:45.4±0.5,34°.38N±0°.05×138°.56E±0°.08, h200km, mb3.4/7, Error ellipse: s-maj=9.2km s-min=7.5km az=9.3*

**ISC 18 13:59:44.0±0.8,34°.46N±0°.06×138°.51E±0°.07, h200km, n29, σ2°.65/33, mb3.5/7, Near south coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JIZS | **Izushimoda** | **0.40** | **49** | P | **Pn** | **14 00 13.1** | **+2.4** |
| TK04 | **Tokai 4** | **0.53** | **262** | P | **Pn** | **14 00 14.4** | **+3.4** |
| JIM2 | **Oshima 3** | **0.80** | **71** | P | **Pn** | **14 00 14.3** | **+1.8** |
| TK02 | **Tokai 2** | **0.81** | **231** | P | **Pn** | **14 00 15.3** | **+3.0** |
| JOD2 | **Odawara 2** | **0.93** | **30** | P | **Pn** | **14 00 15.5** | **+2.2** |
| JYN | **Shimob** | **1.04** | **1** | P | **Pn** | **14 00 16.8** | **+2.8** |
| JIE | **Ise** | **1.49** | **268** | P | **Pn** | **14 00 20.3** | **+2.7** |
| JRY | **Ryogami san** | **1.59** | **11** | P | **Pn** | **14 00 21.3** | **+2.8** |
| JRY | | | | *e*S | **Sn** | **14 00 49.5** | **+4.0** |
| TTO1 | **TONANKAI O.B.S** | **1.66** | **240** | P | **Pn** | **14 00 21.4** | **+2.6** |
| JHJ | **Hachijo jima 2** | **1.70** | **141** | P | **Pn** | **14 00 20.8** | **+1.2** |
| | 50nm,0.3s,baz=338,slow=21,SNR=22 | | | | | | |
| JHJ | | | | S | **Sn** | **14 00 52.3** | **+5.1** |
| | 13nm,0.3s,baz=107,slow=19,SNR=3.3 | | | | | | |
| JHJ2 | **Mitsune** | **1.73** | **141** | P | **Pn** | **14 00 20.4** | **+0.6** |
| BSO1 | **Boso 1** | **2.04** | **84** | P | **Pn** | **14 00 22.4** | **+0.1** |
| MJAR | **Matsushiro Arr** | **2.10** | **353** | P | **Pn** | **14 00 24.9** | **+1.4** |
| | 1.4nm,0.3s,baz=172,slow=11,SNR=18 | | | | | | |
| MJAR | | | | S | **Sn** | **14 00 59.1** | **+4.7** |
| | 0.7nm,0.3s,baz=172,slow=17,SNR=3.5 | | | | | | |
| MAT | **Matsushiro** | **2.10** | **353** | P | **Pn** | **14 00 25.7** | **+2.3** |
| MAT | | | | *e*S | **Sn** | **14 00 58.6** | **+4.2** |
| MAT | **Matsushiro** | **2.10** | **353** | P | **Pn** | **14 00 25.8** | **+2.3** |
| JAG | **Ashikaga** | **2.11** | **21** | P | **Pn** | **14 00 24.9** | **+1.3** |
| JWY | **Kouya** | **2.43** | **265** | P | **Pn** | **14 00 29.5** | **+2.4** |
| JWZ | **Kozaga** | **2.50** | **249** | P | **Pn** | **14 00 29.6** | **+1.7** |
| JWT | **Wachi** | **2.69** | **289** | P | **Pn** | **14 00 32.5** | **+2.6** |
| KSRS | **Korea Array** | **9.09** | **292** | P | **Pn** | **14 01 53.3** | **+2.0** |
| | 0.1nm,0.3s,baz=102,slow=13,SNR=3.9 | | | | | | |
| USRK | **Ussuriysk Ar.** | **10.96** | **335** | P | **Pn** | **14 02 16.1** | **+0.7** |
| | 0.3nm,0.3s,baz=152,slow=11,SNR=7.8 | | | | | | |
| KLR | **Kul'dur** | **15.59** | **343** | P | **P** | **14 03 11.2** | **-1.9** |
| | 0.1nm,0.3s,baz=157,slow=11,SNR=7.9 | | | | | | |
| SONM | **Songino Array** | **27.41** | **309** | P | **P** | **14 05 11.1** | **+0.1** |
| | 1.0nm,0.8s,baz=120,slow=8.6,SNR=5.9 | | | | | | |
| ZALV | **Zalesovo Beam** | **41.97** | **315** | P | **P** | **14 07 12.7** | **-2.4** |
| | 0.4nm,0.3s,baz=101,slow=7.3,SNR=3.5 | | | | | | |
| MKAR | **Makanchi Array** | **43.54** | **304** | P | **P** | **14 07 26.8** | **-1.0** |
| | 0.7nm,0.4s,baz=85,slow=10,SNR=28 | | | | | | |
| BVAR | **Borovoye Array** | **50.59** | **313** | P | **P** | **14 08 20.8** | **-1.3** |
| | 0.4nm,0.5s,baz=106,slow=11,SNR=3.4 | | | | | | |
| ARCES | **ARCESS Array B** | **65.57** | **339** | P | **P** | **14 10 03.6** | **-2.1** |
| | 0.8nm,0.6s,baz=58,slow=12,SNR=3.4 | | | | | | |
| FINES | **FINESS Array B** | **69.98** | **332** | P | **P** | **14 10 30.9** | **-2.4** |
| | 2.2nm,0.8s,baz=60,slow=7.5,SNR=5.9 | | | | | | |
| NOA | **NORSAR Array B** | **75.62** | **336** | P | **P** | **14 11 04.4** | **-2.1** |
| | 0.4nm,0.5s,baz=59,slow=14,SNR=2.7 | | | | | | |

*IDC **18** 14:00:15.5±1.1,33°.64S×177°.94W, h0km, mb4.5/3, mb1 4.7/3, mb1mx4.0/23, mbtmp4.5/3, MS3.3/1, Ms1 3.3/1, ms1mx2.8/21, Error ellipse: s-maj=64.0km s-min=32.0km az=1.0*

**NEIC 18 14:00:16.9±0.8,33°.71S×177°.91W, h10km, mb4.5/1, Error ellipse: s-maj=44.1km s-min=19.6km az=187.0, South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TBI | **Tubuai** | **26.96** | **75** | *e*LR | LR | 14 12 48.5 | |
| | 56nm,30.5s | | | | | | |
| EIDS | **Eidsvold** | **28.15** | **279** | *e*P | P | 14 06 10.5 | +1.1 |
| PPT2 | **Papeete2** | **30.03** | **65** | *e*LR | LR | 14 14 06.1 | |
| | 54nm,24.0s | | | | | | |
| CTA | **Charters Tower** | **34.54** | **284** | P | P | 14 07 05.7 | 0.0 |
| | 6.9nm,0.7s,baz=110,slow=9.9,SNR=14 | | | | | | |
| CTAO | **Charters Tower** | **34.54** | **284** | *e*P | P | 14 07 05.8 | +0.1 |
| | 30nm,0.6s | | | | | | |
| ASAR | **Alice Springs** | **43.11** | **270** | P | P | 14 08 17.7 | +0.2 |
| | 3.3nm,0.6s,baz=108,slow=7.4,SNR=80 | | | | | | |
| ASAR | | | | PcP | PcP | 14 10 07.9 | +0.5 |
| | 0.2nm,0.5s,baz=117,slow=4.1,SNR=2.5 | | | | | | |
| ASAR | | | | LR | LR | 14 25 04.4 | |
| | comp=Z,33nm,19.8s,baz=142,slow=35 | | | | | | |
| WRAB | **Tennant Creek** | **44.39** | **275** | *e*P | P | 14 08 27.0 | -0.9 |
| | 5.5nm,0.7s | | | | | | |
| WRA | **Warramunga Arr** | **44.39** | **275** | P | P | 14 08 27.1 | -0.8 |
| | 5.5nm,0.7s,baz=115,slow=7.7,SNR=31 | | | | | | |
| MKAR | **Makanchi Array** | **119.92** | **309** | PKP | PKPdf | 14 19 07.8 | +0.6 |
| | 0.4nm,0.6s,baz=203,slow=4.2,SNR=4.1 | | | | | | |
| BVAR | **Borovoye Array** | **128.79** | **314** | PKP | PKPdf | 14 19 25.6 | +1.6 |
| | 0.8nm,0.5s,baz=169,slow=1.6,SNR=4.9 | | | | | | |
| FINES | **FINESS Array B** | **148.25** | **338** | PKPbc | PKPbc | 14 20 02.1 | -0.3 |
| | 7.4nm,0.8s,baz=48,slow=4.0,SNR=23 | | | | | | |
| NB2 | **NORSAR Subarra** | **152.02** | **351** | PKP | PKPbc | 14 20 12.3 | +0.7 |
| | comp=Z,1.3nm,0.8s,baz=16,slow=2.6 | | | | | | |
| NOA | **NORSAR Array B** | **152.02** | **351** | PKPbc | PKPbc | 14 20 11.9 | +0.3 |
| | comp=Z,0.7nm,0.8s,baz=15,slow=4.6,SNR=4.5 | | | | | | |
| AKASG | **Malin Array Be** | **153.90** | **319** | PKPbc | PKPbc | 14 20 13.8 | -2.2 |
| | comp=Z,0.4nm,0.3s,baz=194,slow=2.8,SNR=9.3 | | | | | | |
| BRTR | **Keskin Array B** | **154.09** | **293** | PKPbc | PKPbc | 14 20 17.1 | 0.0 |
| | comp=Z,1.3nm,0.6s,baz=145,slow=4.8,SNR=7.4 | | | | | | |
| TORD | **Torodi Ar. Bea** | **159.53** | **179** | PKPab | PKPab | 14 20 54.2 | 0.0 |
| | comp=Z,0.3nm,0.5s,baz=151,slow=3.4,SNR=3.6 | | | | | | |

*NEIC **18** 14:00:18.2±0.0,37°.99S×176°.60E, h142km, MG4.2(WEL), After WEL.*

**WEL 18 14:00:18.4±0.2,37°.99S×176°.60E, h140km±2km, ML4.2/56, 43C-8D, Error ellipse: s-maj=1.3km s-min=1.1km az=0.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| OPRZ | **Ohinepanea** | **0.15** | **345** | Pn | Pn | 14 00 37.1 | -0.3 |
| OPRZ | | | | Sn | Sn | 14 00 51.6 | 0.0 |
| OPRZ | **Ohinepanea** | **0.15** | **345** | ⇑PN | Pn | 14 00 37.1 | -0.3 |
| OPRZ | | | | SN | Sn | 14 00 51.6 | 0.0 |
| TARZ | **Mount Tarawera** | **0.26** | **197** | Pn | Pn | 14 00 38.0 | +0.2 |
| TARZ | **Mount Tarawera** | **0.26** | **197** | ⇑PN | Pn | 14 00 38.0 | +0.2 |
| RRRZ | **Republican Roa** | **0.36** | **191** | Pn | Pn | 14 00 38.0 | 0.0 |
| RRRZ | **Republican Roa** | **0.36** | **191** | ⇑PN | Pn | 14 00 38.0 | 0.0 |
| TGRZ | **Tauranga** | **0.37** | **314** | Pn | Pn | 14 00 38.0 | 0.0 |
| TGRZ | | | | Sn | Sn | 14 00 53.5 | +0.6 |
| TGRZ | **Tauranga** | **0.37** | **314** | ⇑PN | Pn | 14 00 38.0 | 0.0 |
| TGRZ | | | | SN | Sn | 14 00 53.4 | +0.6 |
| HSRZ | **Hossack Road** | **0.43** | **221** | Pn | Pn | 14 00 38.6 | +0.3 |
| HRRZ | **Handcock Road** | **0.47** | **212** | Pn | Pn | 14 00 38.7 | +0.2 |
| HRRZ | **Handcock Road** | **0.47** | **212** | ⇑PN | Pn | 14 00 38.7 | +0.2 |
| URZ | **Urewera** | **0.48** | **124** | Pn | Pn | 14 00 37.7 | -0.8 |
| URZ | **Urewera** | **0.48** | **124** | PN | Pn | 14 00 37.7 | -0.8 |
| URZ | | | | SN | Sn | 14 00 52.9 | -0.8 |
| URZ | | | | AML | AML | 14 00 54.3 | |
| MUGZ | **Murupara** | **0.51** | **165** | ⇑PN | Pn | 14 00 38.4 | -0.2 |
| PRRZ | **Plateau Road** | **0.54** | **198** | Pn | Pn | 14 00 38.8 | 0.0 |
| PRRZ | **Plateau Road** | **0.54** | **198** | PN | Pn | 14 00 38.8 | 0.0 |
| ALRZ | **Allen Road** | **0.61** | **199** | Pn | Pn | 14 00 39.3 | 0.0 |
| ALRZ | **Allen Road** | **0.61** | **199** | PN | Pn | 14 00 39.3 | 0.0 |
| WPRZ | **Whakapapatarin** | **0.63** | **213** | Pn | Pn | 14 00 39.7 | +0.3 |
| WPRZ | **Whakapapatarin** | **0.63** | **213** | ⇑PN | Pn | 14 00 39.7 | +0.3 |
| RTZ | **Ruatahuna** | **0.69** | **155** | PN | Pn | 14 00 39.4 | -0.4 |
| MWZ | **Matawai** | **0.81** | **116** | Pn | Pn | 14 00 40.3 | -0.3 |
| MWZ | **Matawai** | **0.81** | **116** | ⇑PN | Pn | 14 00 40.3 | -0.3 |
| MWZ | | | | SN | Sn | 14 00 57.3 | -0.3 |
| MWZ | | | | AML | AML | 14 00 59.2 | |
| RAGZ | **Rawiri** | **0.82** | **129** | Pn | Pn | 14 00 40.9 | +0.1 |
| RAGZ | **Rawiri** | **0.82** | **129** | PN | Pn | 14 00 40.9 | +0.1 |
| RAGZ | | | | AML | AML | 14 00 58.6 | |
| RAGZ | | | | AML | AML | 14 01 01.8 | |
| RUGZ | **Raukumara Rang** | **0.85** | **89** | PN | Pn | 14 00 39.8 | -1.3 |
| MRHZ | **Matea Rd** | **0.86** | **190** | PN | Pn | 14 00 41.1 | 0.0 |
| MRHZ | | | | AML | AML | 14 00 59.1 | |
| MRHZ | | | | AML | AML | 14 00 59.5 | |
| MTHZ | **Maungataniwha** | **0.88** | **168** | ⇑PN | Pn | 14 00 41.2 | 0.0 |
| TLZ | **Tolley Road** | **0.91** | **248** | Pn | Pn | 14 00 41.8 | +0.4 |
| TLZ | **Tolley Road** | **0.91** | **248** | PN | Pn | 14 00 41.8 | +0.4 |
| TOZ | **Tahuroa Road** | **0.91** | **286** | Pn | Pn | 14 00 41.3 | -0.1 |
| TOZ | | | | Sn | Sn | 14 00 59.7 | +0.9 |
| TOZ | **Tahuroa Road** | **0.91** | **286** | PN | Pn | 14 00 41.3 | -0.1 |
| TOZ | | | | SN | Sn | 14 00 59.7 | +0.9 |
| HAZ | **Te Kaha** | **0.96** | **76** | ⇓PN | Pn | 14 00 40.8 | -1.1 |
| HAZ | | | | SN | Sn | 14 00 58.1 | -1.6 |
| HAZ | | | | AML | AML | 14 00 58.6 | |
| HAZ | | | | AML | AML | 14 00 58.7 | |
| HAZ | | | | AML | AML | 14 00 58.8 | |
| SNGZ | **Shannon Statio** | **0.98** | **144** | Pn | Pn | 14 00 42.4 | +0.3 |
| SNGZ | **Shannon Statio** | **0.98** | **144** | PN | Pn | 14 00 42.4 | +0.3 |
| SNGZ | | | | AML | AML | 14 01 01.6 | |
| SNGZ | | | | AML | AML | 14 01 02.2 | |
| WATZ | **Wairara** | **0.99** | **223** | Pn | Pn | 14 00 42.4 | +0.3 |
| WATZ | **Wairara** | **0.99** | **223** | PN | Pn | 14 00 42.4 | +0.3 |
| TKGZ | **Te Karaka** | **1.08** | **115** | Pn | Pn | 14 00 43.1 | +0.2 |
| TKGZ | **Te Karaka** | **1.08** | **115** | ⇓PN | Pn | 14 00 43.1 | +0.2 |
| TKGZ | | | | AML | AML | 14 01 01.7 | |
| TKGZ | | | | AML | AML | 14 01 05.6 | |
| RATZ | **Rangitukua** | **1.09** | **216** | Pn | Pn | 14 00 43.3 | +0.2 |
| RATZ | **Rangitukua** | **1.09** | **216** | ⇑PN | Pn | 14 00 43.3 | +0.2 |
| TWGZ | **Tauwhareparae** | **1.10** | **100** | Pn | Pn | 14 00 43.3 | +0.1 |
| TWGZ | **Tauwhareparae** | **1.10** | **100** | PN | Pn | 14 00 43.3 | +0.1 |
| TWGZ | | | | AML | AML | 14 01 04.6 | |
| TWGZ | | | | AML | AML | 14 01 06.9 | |
| NMHZ | **Naumai** | **1.12** | **172** | Pn | Pn | 14 00 44.0 | +0.6 |
| NMHZ | **Naumai** | **1.12** | **172** | ⇑PN | Pn | 14 00 44.0 | +0.6 |
| NMHZ | | | | AML | AML | 14 01 06.0 | |
| NMHZ | | | | AML | AML | 14 01 10.6 | |
| RITZ | **Rihia Road** | **1.15** | **210** | Pn | Pn | 14 00 44.0 | +0.4 |
| RITZ | **Rihia Road** | **1.15** | **210** | PN | Pn | 14 00 44.0 | +0.4 |
| RIGZ | **Rimuhau** | **1.16** | **129** | ⇑PN | Pn | 14 00 44.0 | +0.3 |
| RIGZ | | | | AML | AML | 14 01 03.9 | |
| RIGZ | | | | AML | AML | 14 01 05.4 | |
| PKGZ | **Pakihiroa** | **1.17** | **86** | PN | Pn | 14 00 43.5 | -0.4 |
| PKGZ | | | | AML | AML | 14 01 02.7 | |
| PKGZ | | | | AML | AML | 14 01 04.4 | |
| BKZ | **Black Stump Fm** | **1.18** | **184** | Pn | Pn | 14 00 43.6 | -0.4 |
| BKZ | **Black Stump Fm** | **1.18** | **184** | ⇓PN | Pn | 14 00 43.6 | -0.4 |
| BKZ | | | | AML | AML | 14 01 04.5 | |
| BKZ | | | | AML | AML | 14 01 04.7 | |
| WHHZ | **Waihua** | **1.20** | **156** | ⇑PN | Pn | 14 00 44.4 | +0.3 |
| WHHZ | | | | AML | AML | 14 01 07.1 | |
| WHHZ | | | | AML | AML | 14 01 07.6 | |
| KATZ | **Kakaramea** | **1.22** | **216** | Pn | Pn | 14 00 44.4 | 0.0 |
| KATZ | **Kakaramea** | **1.22** | **216** | ⇑PN | Pn | 14 00 44.4 | 0.0 |
| PUZ | **Puketiti** | **1.31** | **94** | Pn | Pn | 14 00 44.5 | -0.7 |
| PUZ | **Puketiti** | **1.31** | **94** | PN | Pn | 14 00 44.5 | -0.7 |
| PUZ | | | | AML | AML | 14 01 05.0 | |
| PUZ | | | | AML | AML | 14 01 05.9 | |
| ARHZ | **Aropaoanui** | **1.31** | **167** | Pn | Pn | 14 00 45.5 | +0.3 |
| ARHZ | **Aropaoanui** | **1.31** | **167** | ⇑PN | Pn | 14 00 45.5 | +0.3 |
| ARHZ | | | | AML | AML | 14 01 08.0 | |
| ARHZ | | | | AML | AML | 14 01 09.6 | |
| KNZ | **Kokohu** | **1.33** | **141** | Pn | Pn | 14 00 45.3 | -0.1 |
| KNZ | **Kokohu** | **1.33** | **141** | PN | Pn | 14 00 45.3 | -0.1 |
| KNZ | | | | AML | AML | 14 01 07.3 | |
| KNZ | | | | AML | AML | 14 01 07.5 | |
| KRVZ | **Karewarewa** | **1.34** | **214** | Pn | Pn | 14 00 45.5 | -0.1 |
| KRVZ | **Karewarewa** | **1.34** | **214** | ⇑PN | Pn | 14 00 45.5 | -0.1 |
| CNGZ | **Carnagh Statio** | **1.36** | **112** | Pn | Pn | 14 00 46.2 | +0.6 |
| CNGZ | **Carnagh Statio** | **1.36** | **112** | ⇑PN | Pn | 14 00 46.2 | +0.5 |
| CNGZ | | | | AML | AML | 14 01 08.7 | |
| CNGZ | | | | AML | AML | 14 01 09.2 | |
| PRGZ | **Paritu Road** | **1.37** | **133** | Pn | Pn | 14 00 45.9 | 0.0 |
| PRGZ | **Paritu Road** | **1.37** | **133** | PN | Pn | 14 00 45.9 | 0.0 |
| PRGZ | | | | AML | AML | 14 01 07.9 | |
| PRGZ | | | | AML | AML | 14 01 12.8 | |
| WTVZ | **West Tongariro** | **1.38** | **215** | Pn | Pn | 14 00 45.9 | -0.1 |
| WTVZ | **West Tongariro** | **1.38** | **215** | ⇑PN | Pn | 14 00 45.9 | -0.1 |
| OTVZ | **Oturere** | **1.39** | **212** | Pn | Pn | 14 00 45.9 | -0.3 |
| OTVZ | **Oturere** | **1.39** | **212** | PN | Pn | 14 00 46.3 | +0.2 |
| MXZ | **Matakaoa Point** | **1.42** | **73** | Pn | Pn | 14 00 45.9 | -0.4 |
| MXZ | **Matakaoa Point** | **1.42** | **73** | PN | Pn | 14 00 45.9 | -0.4 |
| MXZ | | | | AML | AML | 14 01 08.6 | |
| MXZ | | | | AML | AML | 14 01 09.3 | |
| TWVZ | **Taurewa** | **1.42** | **220** | Pn | Pn | 14 00 46.2 | -0.2 |
| TWVZ | **Taurewa** | **1.42** | **220** | PN | Pn | 14 00 46.2 | -0.2 |
| NGZ | **Ngauruhoe** | **1.42** | **213** | Pn | Pn | 14 00 46.6 | +0.1 |
| NGZ | **Ngauruhoe** | **1.42** | **213** | PN | Pn | 14 00 46.6 | +0.1 |
| KWHZ | **Kaweka Forest** | **1.44** | **186** | ⇑PN | Pn | 14 00 46.6 | -0.1 |
| KWHZ | | | | AML | AML | 14 01 09.5 | |
| KWHZ | | | | AML | AML | 14 01 11.0 | |
| WMGZ | **Waiomatatini S** | **1.44** | **84** | Pn | Pn | 14 00 46.1 | -0.4 |
| WMGZ | **Waiomatatini S** | **1.44** | **84** | PN | Pn | 14 00 46.1 | -0.4 |
| WMGZ | | | | AML | AML | 14 01 08.4 | |
| WMGZ | | | | AML | AML | 14 01 09.0 | |
| MCHZ | **McNeill Hill** | **1.46** | **177** | Pn | Pn | 14 00 47.0 | +0.3 |
| MCHZ | **McNeill Hill** | **1.46** | **177** | ⇑PN | Pn | 14 00 47.0 | +0.3 |
| MCHZ | | | | AML | AML | 14 01 19.8 | |
| MCHZ | | | | AML | AML | 14 01 22.3 | |
| HIZ | **Hauiti** | **1.47** | **249** | Pn | Pn | 14 00 47.2 | +0.3 |
| HIZ | | | | Sn | Sn | 14 01 16.0 | +1.4 |
| HIZ | **Hauiti** | **1.47** | **249** | ⇓PN | Pn | 14 00 47.2 | +0.3 |
| TUVZ | **Tukino** | **1.48** | **210** | Pn | Pn | 14 00 47.1 | 0.0 |
| TUVZ | **Tukino** | **1.48** | **210** | ⇑PN | Pn | 14 00 47.1 | 0.0 |
| FWVZ | **Far West T-bar** | **1.51** | **213** | Pn | Pn | 14 00 47.2 | -0.4 |
| FWVZ | **Far West T-bar** | **1.51** | **213** | ⇑PN | Pn | 14 00 47.2 | -0.4 |
| WHVZ | **Whangaehu Hut** | **1.52** | **211** | Pn | Pn | 14 00 47.4 | -0.3 |
| WHVZ | **Whangaehu Hut** | **1.52** | **211** | PN | Pn | 14 00 47.4 | -0.3 |
| DRZ | **Dome Shelter** | **1.52** | **212** | Pn | Pn | 14 00 47.7 | -0.1 |
| DRZ | **Dome Shelter** | **1.52** | **212** | ⇓PN | Pn | 14 00 47.7 | -0.1 |
| TRVZ | **Turoa** | **1.55** | **212** | Pn | Pn | 14 00 47.6 | -0.3 |
| TRVZ | **Turoa** | **1.55** | **212** | PN | Pn | 14 00 47.6 | -0.3 |
| MHGZ | **Mahia Peninsul** | **1.55** | **139** | Pn | Pn | 14 00 47.9 | +0.2 |
| MHGZ | **Mahia Peninsul** | **1.55** | **139** | ⇑PN | Pn | 14 00 47.9 | +0.2 |
| MHGZ | | | | AML | AML | 14 01 10.7 | |
| MHGZ | | | | AML | AML | 14 01 10.8 | |
| WNVZ | **Wahianoa** | **1.55** | **210** | Pn | Pn | 14 00 47.7 | -0.3 |
| WNVZ | **Wahianoa** | **1.55** | **210** | ⇑PN | Pn | 14 00 47.7 | -0.3 |
| BHHZ | **Black Hill Sta** | **1.56** | **196** | Pn | Pn | 14 00 47.4 | -0.5 |
| BHHZ | | | | Sn | Sn | 14 01 09.5 | -1.0 |
| BHHZ | **Black Hill Sta** | **1.56** | **196** | ⇑PN | Pn | 14 00 47.3 | -0.5 |
| BHHZ | | | | SN | Sn | 14 01 

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| OGWZ | | | | AML | AML | 14 01 41.0 | | |
| OGWZ | | | | AML | AML | 14 01 41.6 | | |
| **KIW** | **Kapiti Island** | **3.15 204** | Pn | Pn | Pn | 14 01 04.5 | -2.8 | |
| **KIW** | **Kapiti Island** | **3.15 204** | PN | Pn | Pn | 14 01 04.5 | -2.8 | |
| KIW | | | | AML | AML | 14 01 42.2 | | |
| KIW | | | | AML | AML | 14 01 43.3 | | |
| **TMWZ** | **Te Maipa** | **3.16 190** | Pn | Pn | Pn | 14 01 05.0 | -2.5 | |
| **TMWZ** | **Te Maipa** | **3.16 190** | ⇑PN | Pn | Pn | 14 01 05.0 | -2.5 | |
| TMWZ | | | | AML | AML | 14 01 43.5 | | |
| TMWZ | | | | AML | AML | 14 01 44.7 | | |
| **MTW** | **Mount Morrison** | **3.28 195** | Pn | Pn | Pn | 14 01 06.0 | -3.0 | |
| **MTW** | **Mount Morrison** | **3.28 195** | ⇑PN | Pn | Pn | 14 01 06.0 | -3.0 | |
| MTW | | | | AML | AML | 14 01 45.1 | | |
| MTW | | | | AML | AML | 14 01 45.4 | | |
| **CAW** | **Cannon Point** | **3.33 200** | Pn | Pn | Pn | 14 01 06.7 | -3.0 | |
| **CAW** | **Cannon Point** | **3.33 200** | ⇑PN | Pn | Pn | 14 01 06.7 | -3.0 | |
| CAW | | | | AML | AML | 14 01 46.8 | | |
| CAW | | | | AML | AML | 14 01 49.5 | | |
| **TRWZ** | **Traveller** | **3.48 191** | Pn | Pn | Pn | 14 01 08.6 | -3.0 | |
| **TRWZ** | **Traveller** | **3.48 191** | PN | Pn | Pn | 14 01 08.6 | -3.0 | |
| TRWZ | | | | AML | AML | 14 01 50.0 | | |
| TRWZ | | | | AML | AML | 14 01 51.3 | | |
| **DUWZ** | **D'Urville Isla** | **3.50 216** | PN | Pn | Pn | 14 01 08.7 | -3.1 | |
| **PAWZ** | **Paruwai Farm** | **3.51 195** | Pn | Pn | Pn | 14 01 08.7 | -3.2 | |
| **PAWZ** | **Paruwai Farm** | **3.51 195** | ⇑PN | Pn | Pn | 14 01 08.7 | -3.2 | |
| PAWZ | | | | AML | AML | 14 01 50.3 | | |
| PAWZ | | | | AML | AML | 14 01 50.6 | | |
| **MSWZ** | **Moikau Station** | **3.58 197** | Pn | Pn | Pn | 14 01 09.4 | -3.4 | |
| **MSWZ** | **Moikau Station** | **3.58 197** | ⇑PN | Pn | Pn | 14 01 09.4 | -3.4 | |
| MSWZ | | | | AML | AML | 14 01 51.3 | | |
| MSWZ | | | | AML | AML | 14 01 56.2 | | |
| **WEL** | **Wellington** | **3.58 203** | Pn | Pn | Pn | 14 01 09.6 | -3.3 | |
| **WEL** | **Wellington** | **3.58 203** | PN | Pn | Pn | 14 01 09.6 | -3.3 | |
| WEL | | | | AML | AML | 14 01 10.8 | | |
| WEL | | | | AML | AML | 14 01 11.1 | | |
| WEL | | | | AML | AML | 14 01 53.6 | | |
| WEL | | | | AML | AML | 14 01 54.3 | | |
| **BHW** | **Baring Head** | **3.67 201** | Pn | Pn | Pn | 14 01 10.5 | -3.5 | |
| **BHW** | **Baring Head** | **3.67 201** | PN | Pn | Pn | 14 01 10.5 | -3.5 | |
| BHW | | | | AML | AML | 14 01 53.8 | | |
| BHW | | | | AML | AML | 14 01 55.1 | | |
| **TCW** | **Tory Channel** | **3.69 208** | Pn | Pn | Pn | 14 01 10.8 | -3.4 | |
| **TCW** | **Tory Channel** | **3.69 208** | PN | Pn | Pn | 14 01 10.8 | -3.5 | |
| TCW | | | | AML | AML | 14 01 55.2 | | |
| TCW | | | | AML | AML | 14 01 55.2 | | |
| **PLWZ** | **Palliser** | **3.73 196** | Pn | Pn | Pn | 14 01 11.2 | -3.6 | |
| **PLWZ** | **Palliser** | **3.73 196** | ⇑PN | Pn | Pn | 14 01 11.2 | -3.6 | |
| PLWZ | | | | AML | AML | 14 01 55.1 | | |
| PLWZ | | | | AML | AML | 14 01 57.6 | | |
| **TUWZ** | **Tuamarina** | **4.00 210** | Pn | Pn | Pn | 14 01 14.7 | -3.7 | |
| **TUWZ** | **Tuamarina** | **4.00 210** | PN | Pn | Pn | 14 01 14.7 | -3.7 | |
| TUWZ | | | | AML | AML | 14 02 01.7 | | |
| TUWZ | | | | AML | AML | 14 02 01.9 | | |
| **NNZ** | **Nelson** | **4.07 217** | Pn | Pn | Pn | 14 01 15.9 | -3.4 | |
| **NNZ** | **Nelson** | **4.07 217** | PN | Pn | Pn | 14 01 15.9 | -3.4 | |
| **QRZ** | **Quartz Range** | **4.24 227** | Pn | Pn | Pn | 14 01 18.1 | -3.5 | |
| **QRZ** | **Quartz Range** | **4.24 227** | PN | Pn | Pn | 14 01 18.1 | -3.5 | |
| **BSWZ** | **Blackbirch Sta** | **4.27 209** | Pn | Pn | Pn | 14 01 18.4 | -3.6 | |
| **BSWZ** | **Blackbirch Sta** | **4.27 209** | PN | Pn | Pn | 14 01 18.4 | -3.6 | |
| BSWZ | | | | AML | AML | 14 02 08.8 | | |
| BSWZ | | | | AML | AML | 14 02 09.8 | | |
| **THZ** | **Tophouse** | **4.72 216** | Pn | Pn | Pn | 14 01 24.3 | -3.6 | |
| **THZ** | **Tophouse** | **4.72 216** | PN | Pn | Pn | 14 01 24.3 | -3.6 | |
| **KHZ** | **Kahutara** | **5.01 207** | Pn | Pn | Pn | 14 01 27.4 | -4.3 | |
| **KHZ** | **Kahutara** | **5.01 207** | PN | Pn | Pn | 14 01 27.4 | -4.3 | |
| KHZ | | | | AML | AML | 14 02 24.6 | | |
| KHZ | | | | AML | AML | 14 02 24.7 | | |
| KHZ | | | | AML | AML | 14 02 26.4 | | |
| KHZ | | | | AML | AML | 14 02 27.1 | | |
| **DSZ** | **Denniston Nort** | **5.26 223** | Pn | Pn | Pn | 14 01 30.9 | -4.3 | |
| **DSZ** | **Denniston Nort** | **5.26 223** | PN | Pn | Pn | 14 01 30.9 | -4.3 | |
| **LTZ** | **Lake Taylor** | **5.82 213** | Pn | Pn | Pn | 14 01 37.7 | -4.8 | |
| **LTZ** | **Lake Taylor** | **5.82 213** | PN | Pn | Pn | 14 01 37.7 | -4.8 | |
| **INZ** | **Inchbonnie** | **6.16 218** | PN | Pn | Pn | 14 01 41.7 | -5.3 | |
| **CRLZ** | **Canterbury Las** | **6.34 207** | Pn | Pn | Pn | 14 01 44.2 | -5.4 | |
| **CRLZ** | **Canterbury Las** | **6.34 207** | PN | Pn | Pn | 14 01 44.2 | -5.4 | |
| **OXZ** | **Oxford** | **6.36 212** | Pn | Pn | Pn | 14 01 44.1 | -5.6 | |
| **OXZ** | **Oxford** | **6.36 212** | PN | Pn | Pn | 14 01 44.1 | -5.6 | |
| **MQZ** | **McQueen's Vall** | **6.45 206** | Pn | Pn | Pn | 14 01 44.8 | -6.1 | |
| **MQZ** | **McQueen's Vall** | **6.45 206** | PN | Pn | Pn | 14 01 44.8 | -6.1 | |
| **WVZ** | **Waitaha Valley** | **6.76 219** | PN | Pn | Pn | 14 01 51.9 | -3.3 | |
| **RPZ** | **Rata Peaks** | **7.10 215** | Pn | Pn | Pn | 14 01 55.1 | -4.6 | |
| **RPZ** | **Rata Peaks** | **7.10 215** | PN | Pn | Pn | 14 01 55.1 | -4.6 | |
| **FOZ** | **Fox Glacier** | **7.56 221** | Pn | Pn | Pn | 14 02 01.6 | -4.3 | |
| **FOZ** | **Fox Glacier** | **7.56 221** | PN | Pn | Pn | 14 02 01.6 | -4.3 | |
| **CTZ** | **Chatham Island** | **7.70 140** | Pn | Pn | Pn | 14 02 10.8 | +3.0 | |
| **CTZ** | **Chatham Island** | **7.70 140** | PN | Pn | Pn | 14 02 10.8 | +3.0 | |
| **ODZ** | **Otahua Downs** | **8.35 210** | PN | Pn | Pn | 14 02 10.9 | -5.4 | |
| **JCZ** | **Jackson Bay** | **8.47 222** | PN | Pn | Pn | 14 02 13.2 | -5.0 | |

*ISCJB **18** 14:24:09.7±0.3,36°.42N×0°.02×25°.40E±0°.03,h2km±3km, Error ellipse: s-maj=4.1km s-min=2.8km az=162.5*
*CSEM **18** 14:24:09.8±0.1,36°.42N×25°.41E,h0km±1km,ML2.5,Error ellipse: s-maj=2.9km s-min=2.0km az=98.0*
*ATH **18** 14:24:09.2,36°.43N×25°.42E,h6km±1km,ML2.5/10,Error ellipse: s-maj=1.4km s-min=0.7km az=93.0*
*THE **18** 14:24:09.2,36°.43N×25°.43E,h6km,ML2.7/7,Error ellipse: s-maj=1.0km s-min=0.4km az=264.0*

**ISC 18 14:24:09.0±0.8,36°.43N±0°.02×25°.42E±0°.02,h7km±3km, n87,σ0s39/124,Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **THT2** | **Imerovigli** | **0.00** | **298** | P | **Pg** | **14 24 10.3** | **0.0** |
| THT2 | | | | S | **Sg** | **14 24 11.2** | **+0.1** |
| **THT2** | **Imerovigli** | **0.00** | **298** | P | **Pg** | **14 24 10.3** | **0.0** |
| THT2 | | | | S | **Sg** | **14 24 11.2** | **+0.1** |
| **THR7** | **Fira-Santorini** | **0.01** | **162** | P | **Pg** | **14 24 10.6** | **+0.2** |
| **THR7** | **Fira-Santorini** | **0.01** | **162** | P | **Pg** | **14 24 10.5** | **+0.2** |
| **THR7** | **Fira-Santorini** | **0.01** | **162** | P | **Pg** | **14 24 10.4** | **+0.1** |
| **THR7** | **Fira-Santorini** | **0.01** | **162** | P | **Pg** | **14 24 10.4** | **+0.1** |
| **THR2** | **Thira island,** | **0.02** | **37** | P | **Pg** | **14 24 10.5** | **+0.2** |
| **THR2** | **Thira island,** | **0.02** | **37** | P | **Pg** | **14 24 10.7** | **+0.4** |
| **THR2** | **Thira island,** | **0.02** | **37** | P | **Pg** | **14 24 10.7** | **+0.4** |
| **THR2** | **Thira island,** | **0.02** | **37** | P | **Pg** | **14 24 10.4** | **+0.2** |
| **SAP2K** | **Karterados** | **0.03** | **143** | P | **Pg** | **14 24 10.9** | **+0.6** |
| SAP2K | | | | S | **Sg** | **14 24 11.8** | **+0.5** |
| SAP2K | | | | AML | AML | 14 24 14.1 | |
| | comp=N,92131μm,0.2s | | | | | | |
| SAP2K | | | | AML | AML | 14 24 14.5 | |
| | comp=E,56324μm,0.3s | | | | | | |
| **SAP2K** | **Karterados** | **0.03** | **143** | P | **Pg** | **14 24 10.8** | **+0.4** |
| SAP2K | | | | S | **Sg** | **14 24 12.0** | **+0.7** |
| SAP2K | | | | AML | AML | 14 24 12.1 | |
| SAP2K | | | | AML | AML | 14 24 12.2 | |
| | comp=E,95107μm,0.2s | | | | | | |
| **SAP2K** | **Karterados** | **0.03** | **143** | P | **Pg** | **14 24 10.6** | **+0.3** |
| SAP2K | | | | S | **Sg** | **14 24 11.7** | **+0.5** |
| **THR3** | **Thira Island,** | **0.03** | **216** | P | **Pg** | **14 24 10.2** | **-0.1** |
| **THR3** | **Thira Island,** | **0.03** | **216** | P | **Pg** | **14 24 10.2** | **-0.1** |
| **THR3** | **Thira Island,** | **0.03** | **216** | P | **Pg** | **14 24 10.3** | **0.0** |
| **THR3** | **Thira Island,** | **0.03** | **216** | P | **Pg** | **14 24 10.3** | **0.0** |
| **CMBO** | **Columbo, Santo** | **0.04** | **338** | P | **Pg** | **14 24 10.5** | **+0.1** |
| CMBO | | | | S | **Sg** | **14 24 11.2** | **-0.3** |
| CMBO | | | | AML | AML | 14 24 12.0 | |
| | comp=E,72093μm,0.2s | | | | | | |
| CMBO | | | | AML | AML | 14 24 12.1 | |
| | comp=N,63745μm,0.1s | | | | | | |
| **CMBO** | **Columbo, Santo** | **0.04** | **338** | P | **Pg** | **14 24 10.6** | **+0.1** |
| CMBO | | | | S | **Sg** | **14 24 11.7** | **+0.2** |
| CMBO | | | | AML | AML | 14 24 12.0 | |
| | comp=E,71180μm,0.2s | | | | | | |
| CMBO | | | | AML | AML | 14 24 12.1 | |
| | comp=N,62663μm,0.1s | | | | | | |
| **CMBO** | **Columbo, Santo** | **0.04** | **338** | P | **Pg** | **14 24 10.6** | **+0.1** |
| CMBO | | | | S | **Sg** | **14 24 11.6** | **+0.2** |
| **CMBO** | **Columbo, Santo** | **0.04** | **338** | P | **Pg** | **14 24 10.6** | **+0.1** |
| CMBO | | | | S | **Sg** | **14 24 11.6** | **+0.2** |
| **THT1** | **Athinios (Pele** | **0.05** | **174** | P | **Pg** | **14 24 10.5** | **0.0** |
| THT1 | | | | S | **Sg** | **14 24 10.8** | **-0.8** |
| THT1 | | | | AML | AML | 14 24 11.6 | |
| | comp=N,6651μm,0.2s | | | | | | |
| THT1 | | | | AML | AML | 14 24 11.7 | |
| | comp=E,6926μm,0.2s | | | | | | |
| **THT1** | **Athinios (Pele** | **0.05** | **174** | P | **Pg** | **14 24 10.4** | **-0.1** |
| THT1 | | | | S | **Sg** | **14 24 11.1** | **-0.5** |
| THT1 | | | | AML | AML | 14 24 11.6 | |
| | comp=N,6651μm,0.2s | | | | | | |
| THT1 | | | | AML | AML | 14 24 11.7 | |
| | comp=E,6926μm,0.2s | | | | | | |
| **THT1** | **Athinios (Pele** | **0.05** | **174** | P | **Pg** | **14 24 10.5** | **0.0** |
| THT1 | | | | S | **Sg** | **14 24 11.4** | **-0.2** |
| **THT1** | **Athinios (Pele** | **0.05** | **174** | P | **Pg** | **14 24 10.5** | **0.0** |
| THT1 | | | | S | **Sg** | **14 24 11.4** | **-0.2** |
| **THR8** | **Santorini-Mono** | **0.05** | **121** | P | **Pg** | **14 24 10.3** | **-0.2** |
| **THR8** | **Santorini-Mono** | **0.05** | **121** | P | **Pg** | **14 24 10.1** | **-0.5** |
| **THR8** | **Santorini-Mono** | **0.05** | **121** | P | **Pg** | **14 24 10.4** | **-0.2** |
| **THR8** | **Santorini-Mono** | **0.05** | **121** | P | **Pg** | **14 24 10.4** | **-0.2** |
| **THR5** | **Thira Island,** | **0.06** | **254** | P | **Pg** | **14 24 10.2** | **-0.5** |
| **THR5** | **Thira Island,** | **0.06** | **254** | P | **Pg** | **14 24 10.5** | **-0.2** |
| **THR5** | **Thira Island,** | **0.06** | **254** | P | **Pg** | **14 24 10.5** | **-0.2** |
| **SANT** | **Santorini** | **0.07** | **156** | P | **Pg** | **14 24 11.5** | **+0.6** |
| SANT | | | | AML | AML | 14 24 12.6 | |
| | comp=N,7266μm,0.3s | | | | | | |
| SANT | | | | S | **Sg** | **14 24 12.7** | **+0.5** |
| SANT | | | | AML | AML | 14 24 12.7 | |
| | comp=E,16725μm,0.2s | | | | | | |
| **SANT** | **Santorini** | **0.07** | **156** | P | **Pg** | **14 24 11.2** | **+0.4** |
| SANT | | | | S | **Sg** | **14 24 12.5** | **+0.4** |
| SANT | | | | AML | AML | 14 24 12.6 | |
| | comp=N,7266μm,0.3s | | | | | | |
| SANT | | | | AML | AML | 14 24 12.7 | |
| | comp=E,16725μm,0.2s | | | | | | |
| **SANT** | **Santorini** | **0.07** | **156** | P | **Pg** | **14 24 11.1** | **+0.3** |
| SANT | | | | S | **Sg** | **14 24 12.5** | **+0.4** |
| **SANT** | **Santorini** | **0.07** | **156** | P | **Pg** | **14 24 11.1** | **+0.3** |
| SANT | | | | S | **Sg** | **14 24 12.5** | **+0.4** |
| **SAP1** | **Santorini-Akro** | **0.08** | **196** | P | **Pg** | **14 24 11.4** | **+0.5** |
| SAP1 | | | | S | **Sg** | **14 24 12.7** | **+0.4** |
| SAP1 | | | | AML | AML | 14 24 13.4 | |
| | comp=E,34284μm,0.6s | | | | | | |
| SAP1 | | | | AML | AML | 14 24 13.6 | |
| | comp=N,24701μm,0.4s | | | | | | |
| **SAP1** | **Santorini-Akro** | **0.08** | **196** | P | **Pg** | **14 24 11.5** | **+0.5** |
| SAP1 | | | | S | **Sg** | **14 24 12.9** | **+0.6** |
| SAP1 | | | | AML | AML | 14 24 13.4 | |
| | comp=E,34284μm,0.6s | | | | | | |
| SAP1 | | | | AML | AML | 14 24 13.6 | |
| | comp=N,24701μm,0.4s | | | | | | |
| **SAP1** | **Santorini-Akro** | **0.08** | **196** | P | **Pg** | **14 24 11.3** | **+0.4** |
| SAP1 | | | | S | **Sg** | **14 24 12.9** | **+0.6** |
| **SAP1** | **Santorini-Akro** | **0.08** | **196** | P | **Pg** | **14 24 11.3** | **+0.4** |
| SAP1 | | | | S | **Sg** | **14 24 12.9** | **+0.6** |
| **THR6** | **Thira Island,** | **0.08** | **195** | P | **Pg** | **14 24 11.6** | **+0.6** |
| **THR6** | **Thira Island,** | **0.08** | **195** | P | **Pg** | **14 24 11.4** | **+0.4** |
| **THR6** | **Thira Island,** | **0.08** | **195** | P | **Pg** | **14 24 11.4** | **+0.4** |
| **THR9** | **Santorini-Faro** | **0.09** | **215** | P | **Pg** | **14 24 11.2** | **+0.1** |
| **THR9** | **Santorini-Faro** | **0.09** | **215** | P | **Pg** | **14 24 11.3** | **+0.1** |
| **THR9** | **Santorini-Faro** | **0.09** | **215** | P | **Pg** | **14 24 11.3** | **+0.1** |
| **APE** | **Apeiranthos** | **0.64** | **8** | P | **Pg** | **14 24 21.5** | **+0.2** |
| APE | | | | S | **Sg** | **14 24 30.9** | **+1.2** |
| APE | | | | AML | AML | 14 24 33.5 | |
| | comp=E,532μm,0.3s | | | | | | |
| APE | | | | AML | AML | 14 24 33.8 | |
| | comp=N,734μm,0.2s | | | | | | |
| **APE** | **Apeiranthos** | **0.64** | **8** | P | **Pg** | **14 24 20.9** | **-0.5** |
| APE | | | | S | **Sg** | **14 24 30.7** | **+1.0** |
| APE | | | | AML | AML | 14 24 33.6 | |
| | comp=E,532μm,0.3s | | | | | | |
| APE | | | | AML | AML | 14 24 33.8 | |
| | comp=N,734μm,0.2s | | | | | | |
| **APE** | **Apeiranthos** | **0.64** | **8** | P | **Pg** | **14 24 21.3** | **-0.1** |
| APE | | | | S | **Sb** | **14 24 31.3** | **-0.5** |
| **APE** | **Apeiranthos** | **0.64** | **8** | P | **Pg** | **14 24 21.3** | **-0.1** |
| APE | | | | S | **Sb** | **14 24 31.3** | **-0.5** |
| **MHLO** | **Agia Marina, M** | **0.86** | **288** | P | **Pb** | **14 24 26.4** | **0.0** |
| MHLO | | | | S | **Sb** | **14 24 38.3** | **+0.2** |
| MHLO | | | | AML | AML | 14 24 42.5 | |
| | comp=E,921μm,0.4s | | | | | | |
| MHLO | | | | AML | AML | 14 24 42.7 | |
| | comp=N,767μm,0.6s | | | | | | |
| **MHLO** | **Agia Marina, M** | **0.86** | **288** | P | **Pg** | **14 24 25.2** | **-0.4** |
| **MHLO** | **Agia Marina, M** | **0.86** | **288** | P | **Pg** | **14 24 25.2** | **-0.4** |
| **MHLA** | **Plaka, Milos I** | **0.86** | **291** | P | **Pg** | **14 24 25.8** | **+0.2** |
| MHLA | | | | S | **Sg** | **14 24 37.3** | **+0.4** |
| **MHLA** | **Plaka, Milos I** | **0.86** | **291** | P | **Pb** | **14 24 26.4** | **0.0** |
| **MHLA** | **Plaka, Milos I** | **0.86** | **291** | P | **Pb** | **14 24 26.4** | **0.0** |
| **SERI** | **Serifos** | **1.05** | **314** | P | **Pb** | **14 24 29.8** | **+0.3** |
| SERI | | | | S | **Sb** | **14 24 43.4** | **0.0** |
| SERI | | | | AML | AML | 14 24 45.2 | |
| | comp=E,257μm,0.3s | | | | | | |
| SERI | | | | AML | AML | 14 24 45.2 | |
| | comp=N,298μm,0.3s | | | | | | |
| **SERI** | **Serifos** | **1.05** | **314** | P | **Pb** | **14 24 29.5** | **0.0** |
| SERI | | | | S | **Sb** | **14 24 43.8** | **+0.3** |
| SERI | | | | AML | AML | 14 24 45.2 | |
| | comp=E,257μm,0.3s | | | | | | |
| SERI | | | | AML | AML | 14 24 45.2 | |
| | comp=N,298μm,0.3s | | | | | | |
| **SERI** | **Serifos** | **1.05** | **314** | P | **Pb** | **14 24 29.5** | **0.0** |
| SERI | | | | S | **Sb** | **14 24 43.8** | **+0.3** |
| **NPS** | **Neapolis** | **1.18** | **172** | P | **Pg** | **14 24 30.6** | **-1.1** |
| **IDI** | **Anoyia** | **1.22** | **201** | P | **Pb** | **14 24 32.6** | **+0.1** |
| IDI | | | | S | **Sn** | **14 24 49.5** | **0.0** |
| IDI | | | | AML | AML | 14 24 55.2 | |
| | comp=E,78μm,0.4s | | | | | | |
| IDI | | | | AML | AML | 14 24 55.4 | |
| | comp=N,82μm,0.7s | | | | | | |
| **IDI** | **Anoyia** | **1.22** | **201** | P | **Pb** | **14 24 32.6** | **+0.1** |
| IDI | | | | AML | AML | 14 24 50.2 | |
| | comp=E,101μm,0.6s | | | | | | |
| IDI | | | | AML | AML | 14 24 55.4 | |
| | comp=N,82μm,0.7s | | | | | | |
| **IDI** | **Anoyia** | **1.22** | **201** | P | **Pb** | **14 24 32.6** | **+0.1** |
| **LAST** | **Lasithi** | **1.27** | **178** | P | **Pn** | **14 24 32.2** | **-1.1** |
| LAST | | | | S | **Sb** | **14 24 50.1** | **+0.2** |
| LAST | | | | AML | AML | 14 24 57.9 | |
| | comp=E,143μm,1.1s | | | | | | |
| LAST | | | | AML | AML | 14 25 03.2 | |
| | comp=N,124μm,0.6s | | | | | | |
| **LAST** | **Lasithi** | **1.27** | **178** | P | **Pg** | **14 24 34.1** | **+0.7** |
| **LAST** | **Lasithi** | **1.27** | **178** | P | **Pg** | **14 24 34.1** | **+0.7** |
| **VAM** | **Vamos** | **1.43** | **224** | P | **Pg** | **14 24 36.7** | **+0.3** |
| VAM | | | | S | **Sg** | **14 24 55.0** | **+0.1** |
| **VAM** | **Vamos** | **1.43** | **224** | P | **Pg** | **14 24 36.7** | **+0.3** |
| VAM | | | | S | **Sg** | **14 24 55.0** | **+0.1** |
| **ZKR** | **Zakros** | **1.47** | **154** | P | **Pn** | **14 24 35.4** | **-0.5** |
| ZKR | | | | S | **Sn** | **14 24 55.4** | **0.0** |
| **ZKR** | **Zakros** | **1.47** | **154** | P | **Pn** | **14 24 35.6** | **-0.3** |
| **ZKR** | **Zakros** | **1.47** | **154** | P | **Pn** | **14 24 35.6** | **-0.3** |
| **SIVA** | **Sivas** | **1.50** | **200** | P | **Pg** | **14 24 37.7** | **-0.1** |
| **SIVA** | **Sivas** | **1.50** | **200** | P | **Pg** | **14 24 37.7** | **-0.1** |
| **IMMV** | **Iera Moni Meta** | **1.52** | **231** | P | **Pn** | **14 24 36.7** | **0.0** |
| **IMMV** | **Iera Moni Meta** | **1.52** | **231** | P | **Pn** | **14 24 36.7** | **0.0** |
| **SMG** | **Samos** | **1.70** | **41** | P | **Pg** | **14 24 41.4** | **-0.3** |
| **SMG** | **Samos** | **1.70** | **41** | P | **Pg** | **14 24 41.3** | **-0.3** |
| **KARY** | **Karystos** | **1.78** | **334** | P | **Pb** | **14 24 42.0** | **0.0** |
| KARY | | | | S | **Sg** | **14 25 06.9** | **+0.7** |
| KARY | | | | AML | AML | 14 25 07.9 | |
| | comp=E,66μm,0.2s | | | | | | |
| KARY | | | | AML | AML | 14 25 08.4 | |
| | comp=N,78μm,0.3s | | | | | | |
| **KARY** | **Karystos** | **1.78** | **334** | P | **Pb** | **14 24 42.0** | **0.0** |
| KARY | | | | S | **Sg** | **14 25 06.9** | **+0.7** |
| **VLY** | **Voula,Athens** | **1.92** | **318** | P | **Pb** | **14 24 44.6** | **+0.1** |
| VLY | | | | AML | AML | 14 25 10.9 | |
| | comp=E,103μm,0.6s | | | | | | |
| VLY | | | | AML | AML | 14 25 11.8 | |
| | comp=N,116μm,0.5s | | | | | | |
| **VLY** | **Voula,Athens** | **1.92** | **318** | P | **Pb** | **14 24 44.6** | **+0.1** |
| **KYTH** | **Kithira** | **1.93** | **266** | P | **Pb** | **14 24 43.9** | **-0.7** |
| **KYTH** | **Kithira** | **1.93** | **266** | P | **Pb** | **14 24 43.8** | **-0.7** |
| **ATHU** | **Athens Univers** | **2.01** | **320** | P | **Pb** | **14 24 46.4** | **+0.4** |
| **ATHU** | **Athens Univers** | **2.01** | **320** | P | **Pb** | **14 24 46.4** | **+0.4** |
| **CHOS** | **Chios island** | **2.01** | **14** | P | **Pb** | **14 24 46.1** | **+0.1** |
| **CHOS** | **Chios island** | **2.01** | **14** | P | **Pb** | **14 24 46.1** | **+0.1** |

*NIED **18** 14:50:00,38°.60N×144°.60E,h11km,Mw3.5 Best double couple: M0 2.36000×10^14 NP1:φs6.00000°,δ26.00000°, λ-63.00000°. NP2:φs157.00000°,δ67.00000°, λ-102.00000°.*
*IDC **18** 14:50:47.5±1.0,38°.50N×144°.88E,h0km,mb3.4/7, mb1 3.7/11,mb1mx3.5/62,mbtmpg3.6/11,ML3.7/3,MS2.5/1, Ms1 2.5/1,ms1mx2.2/23,Error ellipse: s-maj=28.9km s-min=18.6km az=113.0*
*ISCJB **18** 14:50:50.5±0.6,38°.60N±0°.04×144°.74E±0°.06,h35km, mb3.4/7,Error ellipse: s-maj=7.3km s-min=5.6km az=43.5*
*JMA **18** 14:50:51.3±0.3,38°.57N×144°.64E,h43km,M3.5*
**ISC 18 14:50:52.6±0.9,38°.62N±0°.06×144°.71E±0°.08,h35km,n29,σ2s14/36,mb3.5/7,Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **OFUJ** | **Ofunato** | **2.42** | **282** | P | **Pn** | **14 51 29.3** | **-0.3** |
| **MIYJ** | **Miyakonagasawa** | **2.44** | **294** | P | **Pn** | **14 51 29.5** | **-0.4** |
| **JTH** | **Tanohata** | **2.57** | **302** | P | **Pn** | **14 51 31.4** | **-0.3** |
| JTH | | | | *e*S | **Sn** | **14 52 01.6** | **-0.2** |
| **JMK** | **Ichinoseki** | **2.75** | **278** | P | **Pn** | **14 51 34.1** | **0.0** |
| **JOM** | **Ohasama** | **2.79** | **289** | P | **Pn** | **14 51 34.7** | **-0.1** |
| JOM | | | | *e*S | **Sn** | **14 52 07.2** | **0.0** |
| **JANG** | **Nango** | **3.03** | **306** | P | **Pn** | **14 51 37.3** | **-0.7** |
| **JYK** | **Kaneyama** | **3.41** | **276** | P | **Pn** | **14 51 43.8** | **+0.5** |
| **JFT** | **Otama** | **3.62** | **254** | P | **Pn** | **14 51 46.1** | **-0.1** |
| JFT | | | | S | **Sn** | **14 52 26.9** | **-0.8** |
| **JCH** | **Churui** | **4.12** | **346** | P | **Pn** | **14 51 51.7** | **-1.3** |
| JCH | | | | *e*S | **Sn** | **14 52 36.4** | **-3.5** |
| **JKB** | **Kayabe** | **4.31** | **320** | P | **Pn** | **14 51 57.2** | **+1.6** |
| **NEM2** | **Nemuro 2** | **4.80** | **9** | *e*S | **Sn** | **14 52 51.0** | **-5.7** |
| **JRY** | **Ryogami san** | **5.31** | **242** | P | **Pn** | **14 52 08.4** | **-1.0** |
| JRY | | | | *e*S | **Sn** | **14 53 06.2** | **-3.1** |
| **JTKR** | **Abashiri--Toko** | **5.38** | **354** | P | **Pn** | **14 52 09.2** | **-1.1** |
| JTKR | | | | *e*S | **Sn** | **14 53 07.7** | **-3.2** |
| **MJAR** | **Matsushiro Arr** 3.4nm,0.3s,baz=52,slow=10,SNR=45 | **5.56** | **250** | Pn | **Pn** | **14 52 12.1** | **-0.7** |
| MJAR | baz=64,slow=25,SNR=2.4 | | | Sn | **Sn** | **14 53 20.4** | **+4.8** |
| MJAR | comp=Z,46nm,21.8s,baz=145,slow=40 | | | LR | LR | 14 54 30.7 | |
| **MAT** | **Matsushiro** | **5.56** | **250** | P | **Pn** | **14 52 13.7** | **+0.8** |
| MAT | | | | *e*S | **Sn** | **14 53 18.2** | **+2.6** |
| **JHR** | **Hokuryu** | **5.59** | **337** | P | **Pn** | **14 52 14.7** | **+1.5** |
| **ASAJ** | **Asahikawa** 1.0nm,0.3s,baz=190,slow=17,SNR=18 | **5.72** | **345** | Pn | **Pn** | **14 52 16.1** | **+1.1** |
| ASAJ | 1.7nm,0.3s,baz=81,slow=31,SNR=6.6 | | | Sn | **Sn** | **14 53 18.5** | **-0.8** |
| **JHJ** | **Hachijo jima 2** 8.6nm,0.3s,baz=267,slow=17,SNR=2.9 | **6.79** | **218** | Pn | **Pn** | **14 52 28.4** | **-1.3** |
| JHJ | 3.3nm,0.3s,baz=233,slow=20,SNR=2.7 | | | Sn | **Sn** | **14 53 40.2** | **-5.5** |
| **USRK** | **Ussuriysk Ar.** 0.2nm,0.3s,baz=106,slow=16,SNR=3.6 | **11.06** | **304** | Pn | **Pn** | **14 53 30.4** | **+2.3** |
| **SEY** | **Seymchan** 0.8nm,0.5s,baz=135,slow=8.8,SNR=4.6 | **24.79** | **8** | P | **P** | **14 56 12.4** | **+1.6** |
| **H11N2** | **WAKE ISLAND Hy** baz=324 | **26.89** | **128** | T | T | 15 24 24.8 | |
| **H11N1** | **WAKE ISLAND Hy** baz=324 | **26.90** | **128** | T | T | 15 24 25.5 | |
| **H11N3** | **WAKE ISLAND Hy** baz=324 | **26.91** | **128** | T | T | 15 24 23.4 | |
| **ZALV** | **Zalesovo Beam** 0.4nm,0.4s,baz=83,slow=8.4,SNR=2.6 | **42.81** | **311** | P | **P** | **14 58 47.3** | **+0.6** |
| **ILAR** | **Eielson Array** 0.8nm,1.1s,baz=250,slow=7.2,SNR=3.9 | **46.75** | **33** | P | **P** | **14 59 18.0** | **0.0** |
| **WRA** | **Warramunga Arr** 0.6nm,0.7s,baz=8.1,slow=6.8,SNR=3.5 | **59.06** | **191** | P | **P** | **15 00 48.5** | **-0.7** |
| **YKA** | **Yellowknife Ar** 0.1nm,0.6s,baz=299,slow=6.6,SNR=2.8 | **61.11** | **31** | P | **P** | **15 01 02.4** | **-0.4** |
| **ASAR** | **Alice Springs** 0.3nm,0.9s,baz=3.0,slow=6.2,SNR=3.6 | **62.78** | **191** | P | **P** | **15 01 14.6** | **+0.1** |
| **TXAR** | **Lajitas Array** 0.1nm,0.6s,baz=336,slow=2.0,SNR=2.6 | **87.08** | **54** | P | **P** | **15 03 35.9** | **+0.9** |

*JMA **18** 14:52:35.1±0.5,21°.59N×121°.56E,h40km,M3.5*
*TAP **18** 14:52:36.0,21°.66N×121°.43E,h89km,ML3.7,D*
**ISC 18 14:52:36.8±2.1,21°.67N±0°.09×121°.44E±0°.04,h87km±11km, n46,σ0s69/91,1C,Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **LAY** | **Lan-yu** baz=17 | **0.38** | **16** | P | **Pn** | **14 52 50.0** | **-0.4** |
| LAY | | | | S | **Sn** | **14 53 01.2** | **+0.8** |
| **TSEB** | **Hengchuen, Pin** baz=294 | **0.55** | **295** | P | **Pn** | **14 52 51.9** | **+0.3** |
| TSEB | | | | S | **Sn** | **14 53 03.6** | **+1.0** |
| **TWK1** | **Hengchun** baz=296 | **0.65** | **295** | *i* P | **Pn** | **14 52 52.2** | **-0.3** |
| TWK1 | | | | *i* S | **Sn** | **14 53 04.0** | **-0.1** |
| **HEN** | **Hengchun** baz=298 | **0.73** | **297** | P | **Pn** | **14 52 53.4** | **+0.1** |
| HEN | | | | S | **Sn** | **14 53 05.8** | **+0.2** |
| **TAW** | **Tawu** baz=324 | **0.85** | **324** | P | **Pn** | **14 52 53.8** | **-0.8** |
| TAW | | | | *e*S | **Sn** | **14 53 08.0** | **+0.2** |
| **EAST** | **Anshuo** baz=323 | **0.90** | **323** | ⇑*i* P | **Pn** | **14 52 54.5** | **-0.6** |
| EAST | | | | *i* S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | baz=326 | | | | | | | | |
| CHN8 | | | | | *e*S | | **Sn** | **14 53 33.2** | **-0.6** |
| | baz=326 | | | | | | | | |
| **CHN5** | **Tsauling** | **2.04** | **340** | *e*P | | | **Pn** | **14 53 09.9** | **+0.3** |
| | baz=340 | | | | | | | | |
| CHN5 | | | | | *e*S | | **Sn** | **14 53 34.8** | **+0.3** |
| | baz=340 | | | | | | | | |
| **CHY** | **Chiayi** | **2.05** | **333** | *e*P | | | **Pn** | **14 53 09.6** | **+0.1** |
| | baz=333 | | | | | | | | |
| CHY | | | | | *e*S | | **Sn** | **14 53 34.1** | **-0.3** |
| | baz=333 | | | | | | | | |
| **CHN2** | **Minshiung** | **2.06** | **335** | *e*P | | | **Pn** | **14 53 09.7** | **+0.1** |
| | baz=334 | | | | | | | | |
| CHN2 | | | | | *e*S | | **Sn** | **14 53 34.9** | **+0.2** |
| | baz=334 | | | | | | | | |
| **ESL** | **Shilin** | **2.14** | **360** | *e*P | | | **Pn** | **14 53 11.4** | **+0.7** |
| ESL | | | | | *e*S | | **Sn** | **14 53 35.8** | **-0.7** |
| **WGK** | **Gukeng** | **2.17** | **338** | *e*P | | | **Pn** | **14 53 11.2** | **+0.1** |
| | baz=338 | | | | | | | | |
| WGK | | | | | *e*S | | **Sn** | **14 53 37.7** | **+0.4** |
| | baz=338 | | | | | | | | |
| **SMLT** | **Sun Moon Lake** | **2.26** | **347** | *e*P | | | **Pn** | **14 53 13.6** | **+1.2** |
| | baz=347 | | | | | | | | |
| SMLT | | | | | *e*S | | **Sn** | **14 53 40.5** | **+0.8** |
| | baz=347 | | | | | | | | |
| **WSF** | **Szhu** | **2.26** | **330** | *e*P | | | **Pn** | **14 53 11.7** | **-0.6** |
| | baz=330 | | | | | | | | |
| WSF | | | | | *e*S | | **Sn** | **14 53 38.7** | **-0.8** |
| | baz=330 | | | | | | | | |
| **TYC** | **Yuchr** | **2.29** | **347** | *e*P | | | **Pn** | **14 53 13.3** | **+0.6** |
| | baz=347 | | | | | | | | |
| TYC | | | | | *e*S | | **Sn** | **14 53 40.5** | **+0.4** |
| | baz=347 | | | | | | | | |
| **WHF** | **Hehuan Shan** | **2.47** | **356** | *e*P | | | **Pn** | **14 53 15.2** | **-0.4** |
| | baz=356 | | | | | | | | |
| WHF | | | | | *e*S | | **Sn** | **14 53 44.7** | **-0.5** |
| | baz=356 | | | | | | | | |
| **PNG** | **Penghu** | **2.57** | **318** | *e*P | | | **Pn** | **14 53 15.8** | **-0.6** |
| | baz=317 | | | | | | | | |
| PNG | | | | | *e*S | | **Sn** | **14 53 45.8** | **-1.1** |
| | baz=317 | | | | | | | | |
| **TWT** | **Tachien** | **2.58** | **355** | *e*P | | | **Pn** | **14 53 16.3** | **-0.5** |
| | baz=354 | | | | | | | | |
| TWT | | | | | *e*S | | **Sn** | **14 53 47.8** | **+0.3** |
| | baz=354 | | | | | | | | |
| **TWQ1** | **Liyutan** | **2.74** | **347** | *e*P | | | **Pn** | **14 53 18.8** | **0.0** |
| | baz=347 | | | | | | | | |
| TWQ1 | | | | | *e*S | | **Sn** | **14 53 50.9** | **-0.1** |
| | baz=347 | | | | | | | | |
| **ENA** | **Nanau** | **2.76** | **6** | *e*P | | | **Pn** | **14 53 19.7** | **+0.7** |
| | baz=6.0 | | | | | | | | |
| ENA | | | | | *e*S | | **Sn** | **14 53 52.3** | **+0.8** |
| | baz=6.0 | | | | | | | | |
| **ENTT** | **Nioudou** | **2.96** | **2** | *e*P | | | **Pn** | **14 53 21.4** | **-0.3** |
| | baz=2.0 | | | | | | | | |
| ENTT | | | | | *e*S | | **Sn** | **14 53 56.3** | **-0.1** |
| | baz=2.0 | | | | | | | | |
| **TWE** | **Neicheng** | **3.05** | **4** | *e*P | | | **Pn** | **14 53 24.2** | **+1.3** |
| | baz=4.0 | | | | | | | | |
| TWE | | | | | *e*S | | **Sn** | **14 53 55.7** | **-2.7** |
| | baz=4.0 | | | | | | | | |
| **IRIF** | **Iriomote-Funau** | **3.39** | **38** | P | | | **Pn** | **14 53 27.5** | **0.0** |
| IRIF | | | | | S | | **Sn** | **14 54 08.2** | **+1.5** |
| **JKRS** | **Kuro-shima** | **3.49** | **42** | P | | | **Pn** | **14 53 29.0** | **+0.2** |
| JKRS | | | | | *e*S | | **Sn** | **14 54 09.1** | **+0.1** |
| **JIJ** | **Ishigaki jima** | **3.66** | **42** | P | | | **Pn** | **14 53 30.8** | **-0.4** |
| JIJ | | | | | *e*S | | **Sn** | **14 54 11.9** | **-1.4** |
| **KNM** | **Kinmen** | **3.89** | **315** | *e*P | | | **Pn** | **14 53 34.9** | **+0.6** |
| | baz=313 | | | | | | | | |
| KNM | | | | | *e*S | | **Sn** | **14 54 19.2** | **+0.3** |
| | baz=313 | | | | | | | | |
| **JISG** | **Ishigakijimahi** | **3.93** | **42** | P | | | **Pn** | **14 53 34.8** | **0.0** |
| JISG | | | | | *e*S | | **Sn** | **14 54 19.9** | **+0.1** |
| **JTJ** | **Tarama** | **4.22** | **45** | *e*S | | | **Sn** | **14 54 26.3** | **-0.5** |

*ISCJB **18** 14:59:51.0±0.8, 38°.53N×0°.04×43°.71E±0°.05, h3km±8km, Error ellipse: s-maj=6.6km s-min=6.2km az=21.8*
*CSEM **18** 14:59:50.8±0.3, 38°.50N×43°.69E, h2km, ML2.5, Error ellipse: s-maj=6.0km s-min=4.8km az=101.0*
*ISK **18** 14:59:50.6, 38°.51N×43°.68E, h6km, ML2.5*
*DDA **18** 14:59:52.0, 38°.47N×43°.60E, h7km, Ml3.1*

**ISC 18 14:59:51.5±1.1, 38°.53N±0°.02×43°.70E±0°.03, h7km±9km, n30, σ1°§41/48, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h | m s | ISC |
| **TVAN** | **Van** | **0.23** | **270** | *i* P | | **Pg** | **14** | **59 55.0** | **-1.2** |
| TVAN | | | | *i* S | | **Sg** | **15** | **00 02.6** | **+3.2** |
| **TVAN** | **Van** | **0.23** | **270** | P | | **Pg** | **14** | **59 55.0** | **-1.2** |
| TVAN | | | | S | | **Sg** | **15** | **00 02.6** | **+3.2** |
| **VANB** | **Van** | **0.25** | **285** | *e*PG | | **Pg** | **14** | **59 54.9** | **-1.7** |
| VANB | | | | *e*SG | | **Sg** | **14** | **59 59.2** | **-0.8** |
| **VANB** | **Van** | **0.25** | **285** | *e*Pg | | **Pg** | **14** | **59 54.9** | **-1.7** |
| VANB | | | | *e*Sg | | **Sg** | **14** | **59 59.2** | **-0.8** |
| **VMUR** | **Van-Muradiye** | **0.47** | **348** | *i* P | | **Pb** | **15** | **00 01.5** | **-0.8** |
| VMUR | | | | *i* S | | **Sb** | **15** | **00 11.5** | **+2.0** |
| **VMUR** | **Van-Muradiye** | **0.47** | **348** | P | | **Pb** | **15** | **00 01.5** | **-0.8** |
| VMUR | | | | S | | **Sb** | **15** | **00 11.5** | **+2.0** |
| **BASK** | **Baskale_VAN** | **0.53** | **153** | *i* P | | **Pg** | **15** | **00 00.9** | **-0.9** |
| BASK | | | | *i* S | | **Sb** | **15** | **00 11.7** | **+0.5** |
| **BASK** | **Baskale_VAN** | **0.53** | **153** | P | | **Pg** | **15** | **00 00.9** | **-0.9** |
| BASK | | | | S | | **Sb** | **15** | **00 11.7** | **+0.5** |
| **GEVA** | **Gevas** | **0.55** | **247** | *i* P | | **Pg** | **15** | **00 00.9** | **-1.3** |
| GEVA | | | | *i* S | | **Sb** | **15** | **00 11.3** | **-0.3** |
| **GEVA** | **Gevas** | **0.55** | **247** | P | | **Pg** | **15** | **00 00.9** | **-1.3** |
| GEVA | | | | S | | **Sb** | **15** | **00 11.4** | **-0.3** |
| **CLDR** | **Caldiran** | **0.64** | **15** | *e*PG | | **Pg** | **15** | **00 03.8** | **-0.1** |
| CLDR | | | | *e*SG | | **Sb** | **15** | **00 13.3** | **-1.0** |
| **CLDR** | **Caldiran** | **0.64** | **15** | *i* P | | **Pb** | **15** | **00 04.4** | **-0.7** |
| CLDR | | | | *i* S | | **Sn** | **15** | **00 17.4** | **-0.3** |
| **CLDR** | **Caldiran** | **0.64** | **15** | *e*Pg | | **Pg** | **15** | **00 03.8** | **-0.1** |
| **CLDR** | **Caldiran** | **0.64** | **15** | P | | **Pb** | **15** | **00 04.4** | **-0.7** |
| CLDR | | | | *e*Sg | | **Sb** | **15** | **00 13.3** | **-1.0** |
| CLDR | | | | S | | **Sn** | **15** | **00 17.4** | **-0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.81** | **290** | *i* P | | **Pg** | **15** | **00 08.2** | **-1.0** |
| ADCV | | | | *i* S | | **Sb** | **15** | **00 18.9** | **-0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.81** | **290** | P | | **Pg** | **15** | **00 06.2** | **-1.0** |
| ADCV | | | | S | | **Sb** | **15** | **00 18.9** | **-0.4** |
| **TUTA** | **Tutak** | **1.11** | **322** | *i* P | | **Pg** | **15** | **00 12.2** | **-0.7** |
| **TUTA** | **Tutak** | **1.11** | **322** | P | | **Pg** | **15** | **00 12.2** | **-0.7** |
| **AGRB** | **Hanur-Agry** | **1.18** | **332** | *e*PN | | **Pg** | **15** | **00 13.8** | **-0.5** |
| **AGRB** | **Hanur-Agry** | **1.18** | **332** | *e*Pn | | **Pg** | **15** | **00 13.8** | **-0.5** |
| **CUKT** | **Cukurca** | **1.28** | **183** | *e*PN | | **Pn** | **15** | **00 15.3** | **-0.6** |
| **CUKT** | **Cukurca** | **1.28** | **183** | *e*Pn | | **Pn** | **15** | **00 15.3** | **-0.6** |
| **SIRT** | **Sirnak** | **1.43** | **225** | *e*PN | | **Pn** | **15** | **00 17.5** | **-0.4** |
| **SIRT** | **Sirnak** | **1.43** | **225** | *e*Pn | | **Pn** | **15** | **00 17.5** | **-0.4** |
| **EKAR** | **Karacoban** | **1.47** | **300** | *i* P | | **Pg** | **15** | **00 19.4** | **-0.3** |
| **EKAR** | **Karacoban** | **1.47** | **300** | P | | **Pg** | **15** | **00 19.5** | **-0.3** |
| **SRTM** | **Siirt_Merkez** | **1.50** | **250** | *i* P | | **Pg** | **15** | **00 20.1** | **-0.2** |
| SRTM | | | | *i* S | | **Sg** | **15** | **00 43.8** | **+4.1** |
| **SRTM** | **Siirt_Merkez** | **1.50** | **250** | P | | **Pg** | **15** | **00 20.1** | **-0.2** |
| SRTM | | | | S | | **Sg** | **15** | **00 43.8** | **+4.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.51** | **16** | *e*PN | | **Pn** | **15** | **00 19.1** | **0.0** |
| **TASB** | **TASBURUN-IGDIR** | **1.51** | **16** | *e*Pn | | **Pn** | **15** | **00 19.1** | **0.0** |

**ROM 18 15:00:12.0±0.4, 36°.20N×12°.77E, h25km±11km, Ml3.4/16, Error ellipse: s-maj=12.6km s-min=5.4km az=50.0, Central Mediterranean Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h | m s | ISC |
| **PTMD** | **Pantelleria Cu** | **0.85** | **313** | Pn | | Pb | 15 | 00 28.1 | -0.1 |
| PTMD | | | | Sn | | Sn | 15 | 00 40.3 | +0.1 |
| **MMGO** | **Monte Magaggia** | **1.47** | **7** | Pn | | Pn | 15 | 00 36.8 | -0.1 |
| | 112nm,0.4s | | | | | | | | |
| **WDD** | **Wied Dalam** | **1.47** | **104** | Pn | | Pb | 15 | 00 38.6 | -0.1 |
| | 779nm,1.0s | | | | | | | | |
| **CRJA** | **Costa Raja** | **1.61** | **7** | Pn | | Pn | 15 | 00 39.5 | +0.7 |
| **RAFF** | **Raffo Rosso** | **1.64** | **51** | Pn | | Pn | 15 | 00 39.8 | +0.6 |
| **MTGR** | **Montagna Grand** | **1.69** | **360** | Pn | | Pn | 15 | 00 40.5 | +0.5 |
| | 241nm,0.3s | | | | | | | | |
| **CORL** | **Corleone** | **1.74** | **14** | Pn | | Pn | 15 | 00 41.6 | +0.9 |
| | 665nm,0.8s | | | | | | | | |
| **HMDC** | **Modica** | **1.79** | **64** | Pn | | Pn | 15 | 00 41.5 | +0.2 |
| HMDC | | | | Sn | | Sn | 15 | 01 03.9 | +0.6 |
| **HVZN** | **Vizzini** | **1.84** | **58** | Pn | | Pn | 15 | 00 42.1 | 0.0 |
| | 447nm,0.6s | | | | | | | | |
| **MEU** | **Monte Lauro** | **1.96** | **62** | Pn | | Pn | 15 | 00 43.2 | -0.5 |
| | 183nm,0.2s | | | | | | | | |
| **HLNI** | **Lentini** | **2.04** | **55** | Pn | | Pn | 15 | 00 44.8 | +0.1 |
| HLNI | | | | Sn | | Sn | 15 | 01 09.9 | +0.5 |
| | 323nm,0.3s | | | | | | | | |
| **HAVL** | **Avola** | **2.04** | **68** | Pn | | Pn | 15 | 00 44.6 | -0.2 |
| **GIB** | **Gibilmanna** | **2.05** | **29** | Pn | | Pn | 15 | 00 46.6 | +1.7 |
| | 248nm,0.6s | | | | | | | | |
| **SSY** | **Sortino** | **2.08** | **62** | Pn | | Pn | 15 | 00 45.7 | +0.3 |
| SSY | | | | Sn | | Sn | 15 | 01 11.7 | +1.2 |
| | 189nm,0.3s | | | | | | | | |
| **GALF** | **Gagliano Caste** | **2.09** | **43** | Pn | | Pb | 15 | 00 47.6 | -1.6 |
| | 219nm,0.4s | | | | | | | | |
| **PLLN** | **Pollina** | **2.10** | **31** | Pn | | Pb | 15 | 00 47.9 | -1.5 |
| **HCRL** | **Carlentini** | **2.12** | **59** | Pn | | Pn | 15 | 00 46.0 | +0.2 |
| HCRL | | | | Sn | | Sn | 15 | 01 11.8 | +0.5 |
| | 230nm,0.6s | | | | | | | | |
| **HAGA** | **Augusta** | **2.20** | **60** | Pn | | Pn | 15 | 00 47.2 | +0.2 |
| **MNO** | **Monte Soro** | **2.32** | **41** | Pn | | Pn | 15 | 00 50.7 | +2.0 |
| | 226nm,0.3s | | | | | | | | |
| **MUCR** | **Ucria** | **2.49** | **42** | Pn | | Pn | 15 | 00 52.7 | +1.6 |
| | 189nm,0.3s | | | | | | | | |
| **NOV** | **Novara** | **2.63** | **45** | Pn | | Pn | 15 | 00 54.3 | +1.4 |
| **MMME** | **Mongiuffi-Meli** | **2.64** | **48** | Pn | | Pn | 15 | 00 54.3 | +1.3 |
| | 61nm,0.5s | | | | | | | | |
| **MCSR** | **Castroreale** | **2.72** | **46** | Pn | | Pn | 15 | 00 55.1 | +0.9 |
| | 188nm,0.3s | | | | | | | | |
| **MPNC** | **Port Mandanici** | **2.83** | **46** | Pn | | Pn | 15 | 00 57.0 | +1.3 |
| | 216nm,0.5s | | | | | | | | |
| **MSRU** | **Castanea** | **3.00** | **46** | Pn | | Pn | 15 | 00 59.3 | +1.3 |
| | 19nm,0.4s | | | | | | | | |
| **MPAZ** | **Palizzi** | **3.13** | **55** | Pn | | Pn | 15 | 01 00.9 | +1.2 |
| | 56nm,0.3s | | | | | | | | |
| **MSCL** | **Scilla** | **3.15** | **49** | Pn | | Pn | 15 | 01 01.7 | +1.6 |
| | 88nm,0.6s | | | | | | | | |
| **SOI** | **Samo** | **3.22** | **54** | Pn | | Pn | 15 | 01 01.8 | +0.8 |
| **PLAC** | **Placanica** | **3.69** | **51** | Pn | | Pn | 15 | 01 08.8 | +1.4 |
| | 163nm,0.5s | | | | | | | | |

*TUN **18** 15:00:58.3, 36°.18N×12°.90E, h2km, MD4.6*
*PDG **18** 15:00:59.7±0.5, 36°.06N×12°.77E, h4km±1km, ML4.5/14, Error ellipse: s-maj=1.5km s-min=1.2km az=90.0*
*ROM **18** 15:01:01.8±0.4, 35°.98N×12°.65E, h32km, Ml4.5/40, Error ellipse: s-maj=6.1km s-min=2.3km az=23.0*
*IDC **18** 15:01:01.1±0.5, 36°.20N×12°.71E, h0km, mb4.2/27, mb1 4.2/35, mb1mx4.2/54, mbtmp4.2/35, ML4.0/8, MS3.7/36, Ms1 3.7/36, ms1mx3.6/66, Error ellipse: s-maj=12.8km s-min=10.6km az=137.0*
*MOS **18** 15:01:01.2±1.5, 36°.14N×12°.85E, h14km, mb4.5/31, Error ellipse: s-maj=5.7km s-min=3.3km az=76.8*
*LDG **18** 15:01:01.3±0.3, 36°.02N×12°.97E, h2km, Ml4.3/8, Error ellipse: s-maj=8.1km s-min=5.4km az=175.0*
*BJI **18** 15:01:01.8, 35°.81N×12°.80E, h20km, mb4.7/18, mB5.1/10, Ms4.8/8, Ms7 4.6/8*
*NEIC **18** 15:01:02.6±2.0, 36°.14N×12°.77E, h7km±13km, mb4.7/18, Error ellipse: s-maj=5.9km s-min=4.4km az=176.0*
*NEIC Felt [II] at Mosta, Malta. Also felt at San Giljan and San Pawl il-Bahar.*
*CSEM **18** 15:01:02.4±0.1, 36°.09N×12°.76E, h13km, mb4.5/15, Mw4.7, Error ellipse: s-maj=4.1km s-min=2.3km az=162.0*
*CRAAG **18** 15:01:03.0, 36°.02N×12°.98E, Mw4.7*
*GCMT **18** 15:01:04.3±0.4, 36°.10N×12°.68E, h12km, MW4.7/67, Moment Tensor Solution. s12,c13; s67,c95; Duration: 0 Moment tensor: Scale 10^16 Nm; Mrr-0.36±.06; Mθθ0.03±.06; Mϕϕ0.33±.07; Mrθ0.13±.17; Mrϕ-1.32±.04; Mθϕ-0.11±.19; Best double couple: Mo1.33600×10^16 NP1:ϕs93.00000°, δ88.00000°, λ175.00000°. NP2: ϕs183.00000°, δ85.00000°, λ2.00000°. Principal axes: T 1.5250, Plg5.0000°, Azm48.0000°; N -0.3790, Plg85.0000°, Azm245.0000°; P -1.1470, Plg2.0000°, Azm138.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

**ISC 18 15:01:04.9±1.0, 36°.18N±0°.04×12°.78E±0°.03, h25km±7km, n601, σ1°§77/651, mb4.5/65, MS3.8/30, 57C-27D, Central Mediterranean Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h | m s | ISC |
| **PTMD** | **Pantelleria Cu** | **0.88** | **314** | Pn | | **Pb** | **15** | **01 20.0** | **-1.5** |
| PTMD | | | | Sn | | **Sb** | **15** | **01 32.8** | **0.0** |
| **PTMD** | **Pantelleria Cu** | **0.88** | **314** | Pn | | **Pb** | **15** | **01 20.0** | **-1.5** |
| PTMD | | | | Sn | | **Sb** | **15** | **01 32.8** | **0.0** |
| **FAVR** | **Favara** | **1.30** | **33** | Pn | | **Pn** | **15** | **01 27.9** | **+0.4** |
| | 14µm,1.1s | | | | | | | | |
| **FAVR** | **Favara** | **1.30** | **33** | Pn | | **Pn** | **15** | **01 27.9** | **+0.4** |
| | 14µm,1.1s | | | | | | | | |
| **FAVR** | **Favara** | **1.30** | **33** | P | | **Pn** | **15** | **01 28.0** | **+0.4** |
| **WDD** | **Wied Dalam** | **1.46** | **103** | Pn | | **Pn** | **15** | **01 27.6** | **-2.1** |
| WDD | | | | Sn | | **Sn** | **15** | **01 46.1** | **-1.8** |
| | 22µm,0.7s | | | | | | | | |
| **WDD** | **Wied Dalam** | **1.46** | **103** | Pn | | **Pn** | **15** | **01 27.6** | **-2.1** |
| **WDD** | **Wied Dalam** | **1.46** | **103** | *e*Pg | | **Pb** | **15** | **01 31.3** | **-0.1** |
| WDD | | | | Sn | | **Sn** | **15** | **01 46.1** | **-1.8** |
| | 22µm,0.7s | | | | | | | | |
| **WDD** | **Wied Dalam** | **1.46** | **103** | *e*Pn | | **Pn** | **15** | **01 27.5** | **-2.1** |
| WDD | | | | *e*Pg | | **Pb** | **15** | **01 31.3** | **-0.1** |
| WDD | | | | *e*Sn | | **Sn** | **15** | **01 46.4** | **-1.5** |
| **MMGO** | **Monte Magaggia** | **1.49** | **6** | Pn | | **Pn** | **15** | **01 28.8** | **-1.3** |
| **MMGO** | **Monte Magaggia** | **1.49** | **6** | Pn | | **Pn** | **15** | **01 28.8** | **-1.3** |
| **MMGO** | **Monte Magaggia** | **1.49** | **6** | P | | **Pn** | **15** | **01 28.6** | **-1.5** |
| **BKLT** | **Bekalta** | **1.55** | **249** | *i* P | | **Pn** | **15** | **01 28.1** | **-2.8** |
| **MCT** | **Mte Cammarata** | **1.60** | **25** | Pn | | **Pn** | **15** | **01 32.5** | **+0.7** |
| | 15µm,1.7s | | | | | | | | |
| **MCT** | **Mte Cammarata** | **1.60** | **25** | Pn | | **Pn** | **15** | **01 32.5** | **+0.7** |
| | 15µm,1.7s | | | | | | | | |
| **CRJA** | **Costa Raja** | **1.63** | **6** | Pn | | **Pn** | **15** | **01 31.6** | **-0.5** |
| **CRJA** | **Costa Raja** | **1.63** | **6** | Pn | | **Pn** | **15** | **01 31.6** | **-0.5** |
| **CORL** | **Corleone** | **1.76** | **14** | ⇑*i*Pn | | **Pn** | **15** | **01 33.5** | **-0.4** |
| | 3µm,0.6s | | | | | | | | |
| **CORL** | **Corleone** | **1.76** | **14** | ⇑*i*Pn | | **Pn** | **15** | **01 33.5** | **-0.4** |
| | 3µm,0.6s | | | | | | | | |
| **MBZ** | **Menzel Bouzelf** | **1.77** | **287** | *i* P | | **Pn** | **15** | **01 31.1** | **-2.9** |
| **MBZ** | **Menzel Bouzelf** | **1.77** | **287** | ⇓*i*P | | **Pn** | **15** | **01 31.0** | **-2.9** |
| **RESU** | **Resuttano** | **1.79** | **35** | ⇑*i*Pn | | **Pn** | **15** | **01 35.3** | **+1.0** |
| | 3µm,0.7s | | | | | | | | |
| **RESU** | **Resuttano** | **1.79** | **35** | ⇑*i*Pn | | **Pn** | **15** | **01 35.3** | **+1.0** |
| | 3µm,0.7s | | | | | | | | |
| **HMDC** | **Modica** | **1.79** | **64** | Pn | | **Pn** | **15** | **01 32.9** | **-1.4** |
| HMDC | | | | Sn | | **Sn** | **15** | **01 56.5** | **+0.2** |
| | 6µm,0.3s | | | | | | | | |
| **HMDC** | **Modica** | **1.79** | **64** | Pn | | **Pn** | **15** | **01 32.9** | **-1.4** |
| HMDC | | | | Sn | | **Sn** | **15** | **01 56.5** | **+0.2** |
| | 6µm,0.3s | | | | | | | | |
| **VAE** | **Valguarnera** | **1.84** | **45** | Pn | | **Pn** | **15** | **01 35.2** | **+0.1** |
| | 92nm,0.3s,baz=100,slow=1.7,SNR=26 | | | | | | | | |
| VAE | | | | | | Sn | **Sn** | **15** | **01 58.5** | **+0.9** |
| | 255nm,0.3s,baz=216,slow=19,SNR=8.3 | | | | | | | | |
| **HANT** | **Hania** | **1.99** | **261** | *i* P | | **Pn** | **15** | **01 34.1** | **-2.8** |
| **CAGR** | **Agira** | **2.00** | **43** | Pn | | **Pn** | **15** | **01 37.6** | **+0.5** |
| | 4µm,0.6s | | | | | | | | |
| **CAGR** | **Agira** | **2.00** | **43** | Pn | | **Pn** | **15** | **01 37.6** | **+0.5** |
| | 4µm,0.6s | | | | | | | | |
| **SOLUN** | **Solunto** | **2.00** | **17** | Pn | | **Pn** | **15** | **01 36.7** | **-0.5** |
| | 2µm,0.9s | | | | | | | | |
| **SOLUN** | **Solunto** | **2.00** | **17** | Pn | | **Pn** | **15** | **01 36.7** | **-0.5** |
| | 2µm,0.9s | | | | | | | | |
| **MPG** | **Monte Pellegri** | **2.03** | **13** | Pn | | **Pn** | **15** | **01 37.3** | **-0.3** |
| **MPG** | **Monte Pellegri** | **2.03** | **13** | Pn | | **Pn** | **15** | **01 37.3** | **-0.3** |
| **HAVL** | **Avola** | **2.04** | **67** | Pn | | **Pn** | **15** | **01 36.3** | **-1.5** |
| | 10µm,0.8s | | | | | | | | |
| **HAVL** | **Avola** | **2.04** | **67** | Pn | | **Pn** | **15** | **01 36.3** | **-1.5** |
| | 10µm,0.8s | | | | | | | | |
| **GIB** | **Gibilmanna** | **2.06** | **29** | ⇑*i*Pn | | **Pn** | **15** | **01 38.5** | **+0.4** |
| | 12µm,1.0s | | | | | | | | |
| **GIB** | **Gibilmanna** | **2.06** | **29** | ⇑*i*Pn | | **Pn** | **15** | **01 38.5** | **+0.4** |
| | 12µm,1.0s | | | | | | | | |
| **ECNV** | **Catenanuova** | **2.10** | **47** | Pn | | **Pn** | **15** | **01 38.7** | **+0.2** |
| | 8µm,0.9s | | | | | | | | |
| **ECNV** | **Catenanuova** | **2.10** | **47** | Pn | | **Pn** | **15** | **01 38.7** | **+0.2** |
| | 8µm,0.9s | | | | | | | | |
| **PLLN** | **Pollina** | **2.11** | **31** | Pn | | **Pn** | **15** | **01 39.2** | **+0.4** |
| | 3µm,0.6s | | | | | | | | |
| **PLLN** | **Pollina** | **2.11** | **31** | Pn | | **Pn** | **15** | **01 39.2** | **+0.4** |
| | 3µm,0.6s | | | | | | | | |
| **ZGN** | **Zaghouan** | **2.17** | **276** | *i* P | | **Pn** | **15** | **01 37.3** | **-2.3** |
| **ZGN** | **Zaghouan** | **2.17** | **276** | *i* P | | **Pn** | **15** | **01 37.2** | **-2.3** |
| **HAGA** | **Augusta** | **2.21** | **59** | ⇑*i*Pn | | **Pn** | **15** | **01 38.8** | **-1.2** |
| | 7µm,0.9s | | | | | | | | |
| **HAGA** | **Augusta** | **2.21** | **59** | ⇑*i*Pn | | **Pn** | **15** | **01 38.8** | **-1.2** |
| | 7µm,0.9s | | | | | | | | |
| **AGST** | **Augusta-Monte** | **2.24** | **61** | Pn | | **Pn** | **15** | **01 39.8** | **-0.7** |
| **AGST** | **Augusta-Monte** | **2.24** | **61** | Pn | | **Pn** | **15** | **01 39.8** | **-0.7** |
| **BTHT** | **Jabal bu Thady** | **2.28** | **243** | *i* P | | **Pn** | **15** | **01 38.2** | **-2.8** |
| **ESLN** | **Serra La Nave** | **2.32** | **49** | Pn | | **Pn** | **15** | **01 42.0** | **+0.3** |
| | 7µm,0.4s | | | | | | | | |
| **ESLN** | **Serra La Nave** | **2.32** | **49** | Pn | | **Pn** | **15** | **01 42.0** | **+0.3** |
| | 7µm,0.4s | | | | | | | | |
| **MNO** | **Monte Soro** | **2.33** | **41** | ⇑*i*Pn | | **Pn** | **15** | **01 42.7** | **+0.9** |
| | 980nm,0.3s | | | | | | | | |
| **MNO** | **Monte Soro** | **2.33** | **41** | ⇑*i*Pn | | **Pn** | **15** | **01 42.7** | **+0.9** |
| | 980nm,0.3s | | | | | | | | |
| **MSFR** | **San Fratello** | **2.35** | **38** | ⇑*i*Pn | | **Pn** | **15** | **01 43.1** | **+1.1** |
| | 4µm,1.4s | | | | | | | | |
| **MSFR** | **San Fratello** | **2.35** | **38** | ⇑*i*Pn | | **Pn** | **15** | **01 43.1** | **+1.1** |
| | 4µm,1.4s | | | | | | | | |
| **KCHT** | **Kechabta** | **2.46** | **293** | *i* P | | **Pn** | **15** | **01 41.0** | **-2.5** |
| **KCHT** | **Kechabta** | **2.46** | **293** | *i* P | | **Pn** | **15** | **01 41.0** | **-2.5** |
| **MUCR** | **Ucria** | **2.50** | **41** | Pn | | **Pn** | **15** | **01 44.6** | **+0.4** |
| | 3µm,0.4s | | | | | | | | |
| **MUCR** | **Ucria** | **2.50** | **41** | Pn | | **Pn** | **15** | **01 44.6** | **+0.4** |
| | 3µm,0.4s | | | | | | | | |
| **USI** | **Ustica** | **2.54** | **7** | Pn | | **Pn** | **15** | **01 43.7** | **-0.9** |
| | 3µm,0.6s | | | | | | | | |
| **USI** | **Ustica** | **2.54** | **7** | Pn | | **Pn** | **15** | **01 43.7** | **-0.9** |
| | 3µm,0.6s | | | | | | | | |
| **NOV** | **Novara** | **2.64** | **45** | ⇑*i*Pn | | **Pn** | **15** | **01 46.1** | **+0.1** |
| | 2µm,0.3s | | | | | | | | |
| **NOV** | **Novara** | **2.64** | **45** | ⇑*i*Pn | | **Pn** | **15** | **01 46.1** | **+0.1** |
| | 2µm,0.3s | | | | | | | | |
| **MMME** | **Mongiuffi-Meli** | **2.65** | **48** | ⇑*i*Pn | | **Pn** | **15** | **01 46.1** | **0.0** |
| MMME | | | | | | Sn | **Sn** | **15** | **02 19.1** | **+1.7** |
| **MMME** | **Mongiuffi-Meli** | **2.65** | **48** | ⇑*i*Pn | | **Pn** | **15** | **01 46.1** | **0.0** |
| MMME | | | | | | Sn | **Sn** | **15** | **02 19.1** | **+1.7** |
| **MCSR** | **Castroreale** | **2.73** | **46** | ⇑*i*Pn | | **Pn** | **15** | **01 47.1** | **-0.1** |
| MCSR | | | | | | Sn | **Sn** | **15** | **02 21.0** | **+1.5** |
| **MCSR** | **Castroreale** | **2.73** | **46** | ⇑*i*Pn | | **Pn** | **15** | **01 47.1** | **-0.1** |
| MCSR | | | | | | Sn | **Sn** | **15** | **02 21.0** | **+1.5** |
| **IFIL** | **Filicudi I Eol** | **2.77** | **30** | Pn | | **Pn** | **15** | **01 47.2** | **-0.6** |
| | 2266µm,57.0s | | | | | | | | |
| **IFIL** | **Filicudi I Eol** | **2.77** | **30** | Pn | | **Pn** | **15** | **01 47.2** | **-0.6** |
| | 2266µm,57.0s | | | | | | | | |
| **VPL** | **Vulcano Piano** | **2.81** | **38** | Pn | | **Pn** | **15** | **01 48.1** | **-0.2** |
| | 11µm,1.2s | | | | | | | | |
| **VPL** | **Vulcano Piano** | **2.81** | **38** | Pn | | **Pn** | **15** | **01 48.1** | **-0.2** |
| | 11µm,1.2s | | | | | | | | |
| **KEST** | **Kesra** | **2.82** | **262** | Pn | | **Pn** | **15** | **01 47.3** | **-1.2** |
| | 19nm,0.3s,baz=197,slow=9.6,SNR=14 | | | | | | | | |
| KEST | | | | | | Sn | **Sn** | **15** | **02 20.9** | **-0.8** |
| | 38nm,0.3s,baz=72,slow=20,SNR=7.3 | | | | | | | | |
| KEST | | | | | | LR | LR | 15 | 02 38.5 | |
| | comp=Z,1µm,20.9s,baz=20,slow=35 | | | | | | | | |
| **MPNC** | **Port Mandanici** | **2.84** | **46** | ⇑*i*Pn | | **Pn** | **15** | **01 49.0** | **+0.3** |
| | 2µm,0.5s | | | | | | | | |
| **MPNC** | **Port Mandanici** | **2.84** | **46** | ⇑*i*Pn | | **Pn** | **15** | **01 49.0** | **+0.3** |
| | 2µm,0.5s | | | | | | | | |
| **MILZ** | **Milazzo** | **2.86** | **42** | Pn | | **Pn** | **15** | **01 48.9** | **-0.1** |
| | 1µm,0.6s | | | | | | | | |
| **MILZ** | **Milazzo** | **2.86** | **42** | Pn | | **Pn** | **15** | **01 48.9** | **-0.1** |
| | 1µm,0.6s | | | | | | | | |
| **KRIT** | **Krib** | **3.00** | **274** | *i* P | | **Pn** | **15** | **01 48.8** | **-2.1** |
| **KRIT** | **Krib** | **3.00** | **274** | *i* P | | **Pn** | **15** | **01 48.8** | **-2.1** |
| **MSRU** | **Castanea** | **3.01** | **46** | ⇑*i*Pn | | **Pn** | **15** | **01 51.5** | **+0.4** |
| | 2µm,0.4s | | | | | | | | |
| **MSRU** | **Castanea** | **3.01** | **46** | ⇑*i*Pn | | **Pn** | **15** | **01 51.5** | **+0.4** |
| | 2µm,0.4s | | | | | | | | |
| **TAMR** | **Tamra** | **3.08** | **287** | *i* P | | **Pn** | **15** | **01 49.8** | **-2.1** |
| **MPAZ** | **Palizzi** | **3.13** | **55** | Pn | | **Pn** | **15** | **01 52.2** | **-0.5** |
| | 814nm,0.3s | | | | | | | | |
| **MPAZ** | **Palizzi** | **3.13** | **55** | Pn | | **Pn** | **15** | **01 52.2** | **-0.5** |
| | 814nm,0.3s | | | | | | | | |
| **GMB** | **Gambarie** | **3.14** | **50** | ⇑*i*Pn | | **Pn** | **15** | **01 53

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| RLS | Riolos of Patr | 7.19 | 72 | P | | Pn | 15 02 47.0 | -1.5 |
| DSL | Palaion Diasel | 7.23 | 63 | P | | Pn | 15 02 47.3 | -1.7 |
| PYL | PYLOS | 7.25 | 82 | P | | Pn | 15 02 47.8 | -1.5 |
| JAN | Janina | 7.26 | 59 | P | | Pn | 15 02 47.6 | -1.9 |
| AMT | Artemida-Makis | 7.29 | 77 | P | | Pn | 15 02 48.8 | -1.0 |
| DRO | Drossia | 7.36 | 73 | P | | Pn | 15 02 49.9 | -0.9 |
| PVO | Paravola | 7.38 | 68 | P | | Pn | 15 02 50.4 | -0.6 |
| ITM | Ithomi | 7.42 | 80 | P | | Pn | 15 02 50.9 | -0.7 |
| TIR | Tirane | 7.57 | 45 | ⇑ | *i*Pn | Pn | 15 02 52.1 | -1.5 |
| TIR | Tirane | 7.57 | 45 | ⇑ | P | Pn | 15 02 52.1 | -1.5 |
| TIR | Tirane | 7.57 | 45 | P | | Pn | 15 02 52.1 | -1.5 |
| EFP | Efpalio | 7.61 | 70 | P | | Pn | 15 02 52.8 | -1.4 |
| ULC | Ulcinj | 7.66 | 39 | ⇑ | *i*Pn | Pn | 15 02 54.2 | -0.7 |
| ULC | | | | | eSn | Sn | 15 04 22.8 | +1.5 |
| ULC | Ulcinj | 7.66 | 39 | ⇑ | iPn | Pn | 15 02 54.2 | -0.7 |
| ULC | | | | | eSn | Sn | 15 04 22.3 | +1.5 |
| HCY | Herceg Novi | 7.67 | 34 | ⇓ | *i*Pn | Pn | 15 02 54.8 | -0.2 |
| HCY | | | | | eSn | Sn | 15 04 22.0 | +1.0 |
| HCY | Herceg Novi | 7.67 | 34 | ⇓ | *i*Pn | Pn | 15 02 54.8 | -0.2 |
| HCY | | | | | eSn | Sn | 15 04 22.0 | +1.0 |
| EVR | Evrytania | 7.68 | 66 | P | | Pn | 15 02 54.8 | -0.4 |
| PENT | Pentalofos | 7.71 | 56 | P | | Pn | 15 02 54.8 | -0.9 |
| KLV | Kalavryta, Ach | 7.72 | 73 | P | | Pn | 15 02 55.0 | -0.7 |
| SERG | Sergoula | 7.73 | 70 | P | | Pn | 15 02 54.7 | -1.1 |
| BUM | Brajici-Budva | 7.74 | 36 | ⇑ | *i*Pn | Pn | 15 02 55.4 | -0.6 |
| BUM | | | | | eSn | Sn | 15 04 24.4 | +1.6 |
| BUM | Brajici-Budva | 7.74 | 36 | ⇑ | *i*Pn | Pn | 15 02 55.4 | -0.6 |
| BUM | | | | | eSn | Sn | 15 04 24.4 | +1.6 |
| KPRO | Kipourio | 7.75 | 58 | P | | Pn | 15 02 55.2 | -1.0 |
| NEST | Nestorio | 7.76 | 54 | P | | Pn | 15 02 56.5 | +0.2 |
| KALE | Kalithea | 7.78 | 71 | P | | Pn | 15 02 55.9 | -0.8 |
| DRME | Dracevica, Mon | 7.79 | 38 | ePn | | Pn | 15 02 56.6 | -0.1 |
| DRME | | | | | eSn | Sn | 15 04 24.9 | +0.8 |
| DRME | Dracevica, Mon | 7.79 | 38 | ePn | | Pn | 15 02 56.6 | -0.1 |
| DRME | | | | | eSn | Sn | 15 04 24.9 | +0.8 |
| VLX | Vlachokerasia | 7.80 | 78 | P | | Pn | 15 02 56.6 | -0.3 |
| GUR | Goura | 7.85 | 74 | P | | Pn | 15 02 57.3 | -0.3 |
| CEME | Cevo | 7.94 | 35 | ⇑ | *i*Pn | Pn | 15 02 58.4 | -0.4 |
| CEME | | | | | eSn | Sn | 15 04 29.1 | +1.3 |
| CEME | Cevo | 7.94 | 35 | ⇑ | *i*Pn | Pn | 15 02 58.4 | -0.4 |
| CEME | | | | | eSn | Sn | 15 04 29.1 | +1.3 |
| PDG | Podgorica | 8.01 | 37 | ⇑ | *i*P | Pn | 15 02 59.2 | -0.4 |
| PDG | Podgorica | 8.01 | 37 | ⇓ | *i*P | Pn | 15 02 59.6 | 0.0 |
| PDG | Podgorica | 8.01 | 37 | ⇓ | *i*Pn | Pn | 15 02 59.3 | -0.4 |
| PDG | Podgorica | 8.01 | 37 | ⇓ | *i*P | Pn | 15 02 59.6 | 0.0 |
| PDG | | | | | eSn | Sn | 15 04 30.8 | +1.4 |
| TTG | Podgorica | 8.01 | 37 | ⇓ | *i*Pn | Pn | 15 02 59.3 | -0.4 |
| TTG | | | | | eSn | Sn | 15 04 30.8 | +1.4 |
| THL | Klokotos Trika | 8.05 | 62 | P | | Pn | 15 02 59.0 | -1.2 |
| BRY | Bratogost | 8.05 | 32 | ⇓ | *i*Pn | Pn | 15 03 00.5 | +0.1 |
| BRY | | | | | eSn | Sn | 15 04 31.4 | +0.7 |
| BRY | Bratogost | 8.05 | 32 | P | | Pn | 15 03 02.3 | +1.9 |
| BRY | Bratogost | 8.05 | 32 | ⇓ | *i*Pn | Pn | 15 03 00.5 | +0.1 |
| BRY | Bratogost | 8.05 | 32 | P | | Pn | 15 03 02.3 | +1.9 |
| BRY | | | | | eSn | Sn | 15 04 31.4 | +0.7 |
| DSF | Desfina | 8.09 | 71 | P | | Pn | 15 02 59.6 | -1.2 |
| AGG | Agios Georgios | 8.10 | 67 | eP | | Pn | 15 02 59.9 | -1.0 |
| AGG | Agios Georgios | 8.10 | 67 | eP | | Pn | 15 02 59.9 | -1.0 |
| AGG | Agios Georgios | 8.10 | 67 | ePn | | Pn | 15 02 59.9 | -1.0 |
| AGG | Agios Georgios | 8.10 | 67 | P | | Pn | 15 03 00.7 | -0.2 |
| THAL | Thalero | 8.11 | 74 | P | | Pn | 15 03 01.1 | 0.0 |
| NKME | Niksic | 8.13 | 34 | ⇑ | *i*Pn | Pn | 15 03 01.3 | 0.0 |
| NKME | | | | | eSn | Sn | 15 04 33.5 | +1.1 |
| NKME | Niksic | 8.13 | 34 | ⇑ | *i*Pn | Pn | 15 03 01.3 | 0.0 |
| NKME | | | | | eSn | Sn | 15 04 33.5 | +1.1 |
| FNA | Florina | 8.16 | 53 | P | | Pn | 15 02 59.8 | -2.0 |
| FNA | | | | | pmax | pmax | | |
| | comp=Z,30nm,0.8s | | | | | | | |
| FNA | Florina | 8.16 | 53 | P | | Pn | 15 02 59.8 | -2.0 |
| | comp=Z,30nm,0.8s | | | | | | | |
| FNA | Florina | 8.16 | 53 | P | | Pn | 15 03 00.7 | -1.1 |
| NKY | Niksic | 8.18 | 34 | ⇓ | *i*Pn | Pn | 15 03 01.9 | -0.2 |
| NKY | | | | | eSn | Sn | 15 04 34.1 | +0.3 |
| NKY | Niksic | 8.18 | 34 | ⇓ | *i*Pn | Pn | 15 03 01.9 | -0.2 |
| NKY | | | | | eSn | Sn | 15 04 34.1 | +0.3 |
| KZN | Kozani | 8.19 | 57 | P | | Pn | 15 03 00.7 | -1.5 |
| VLI | Veliai | 8.21 | 83 | P | | Pn | 15 03 02.4 | 0.0 |
| LTK | Loutraki | 8.35 | 74 | P | | Pn | 15 03 03.2 | -1.2 |
| KOME | Kolasin | 8.45 | 36 | ePn | | Pn | 15 03 05.8 | 0.0 |
| KOME | | | | | eSn | Sn | 15 04 41.3 | +0.8 |
| KOME | Kolasin | 8.45 | 36 | ePn | | Pn | 15 03 05.8 | 0.0 |
| KOME | | | | | eSn | Sn | 15 04 41.3 | +0.8 |
| UPM | Unac-Piva | 8.46 | 32 | ePn | | Pn | 15 03 06.6 | +0.7 |
| UPM | | | | | eSn | Sn | 15 04 41.4 | +0.8 |
| UPM | Unac-Piva | 8.46 | 32 | ePn | | Pn | 15 03 06.6 | +0.7 |
| UPM | | | | | eSn | Sn | 15 04 41.4 | +0.8 |
| PVY | Plav | 8.48 | 39 | ⇑ | *i*Pn | Pn | 15 03 06.6 | +0.4 |
| PVY | | | | | eSn | Sn | 15 04 41.9 | +0.7 |
| DID | Didima | 8.49 | 78 | P | | Pn | 15 03 05.4 | -0.9 |
| LIT | Litokhoron | 8.60 | 60 | P | | Pn | 15 03 06.0 | -1.7 |
| LIT | | | | | pmax | pmax | | |
| | comp=Z,33nm,0.8s | | | | | | | |
| LIT | Litokhoron | 8.60 | 60 | P | | Pn | 15 03 06.0 | -1.7 |
| | comp=Z,33nm,0.8s | | | | | | | |
| LIT | Litokhoron | 8.60 | 60 | P | | Pn | 15 03 06.2 | -1.5 |
| LMR | La Mourre | 8.62 | 328 | ePn | | Pn | 15 03 08.0 | 0.0 |
| LMR | | | | | eSn | Sn | 15 04 39.2 | -5.2 |
| LMR | La Mourre | 8.62 | 328 | eP | | Pn | 15 03 08.0 | 0.0 |
| LMR | | | | *e* | | | 15 04 39.2 | |
| LMR | La Mourre | 8.62 | 328 | ePn | | Pn | 15 03 08.0 | 0.0 |
| LMR | La Mourre | 8.62 | 328 | ePn | | Pn | 15 03 08.0 | 0.0 |
| LMR | | | | | eSn | Sn | 15 04 39.2 | -5.2 |
| VILL | Villia | 8.64 | 74 | P | | Pn | 15 03 07.7 | -0.7 |
| BEY | Berane | 8.65 | 37 | ⇓ | *i*Pn | Pn | 15 03 09.1 | +0.5 |
| BEY | | | | | eSn | Sn | 15 04 46.1 | +0.8 |
| IVA | Berane | 8.65 | 37 | ⇓ | *i*Pn | Pn | 15 03 09.1 | +0.5 |
| IVA | | | | | eSn | Sn | 15 04 46.1 | +0.8 |
| SBF | Sospel | 8.70 | 334 | ePn | | Pn | 15 03 09.8 | +0.6 |
| SBF | | | | | eSn | Sn | 15 04 45.5 | -0.9 |
| | comp=Z,66nm,0.6s | | | | | | | |
| SBF | Sospel | 8.70 | 334 | eP | | Pn | 15 03 09.8 | +0.6 |
| SBF | | | | *e* | | | 15 04 45.5 | |
| SBF | Sospel | 8.70 | 334 | ePn | | Pn | 15 03 09.8 | +0.6 |
| SBF | | | | | eSn | Sn | 15 04 45.5 | -0.9 |
| | comp=Z,33nm,0.6s | | | | | | | |
| SBF | Sospel | 8.70 | 334 | ePn | | Pn | 15 03 09.8 | +0.6 |
| SBF | | | | | eSn | Sn | 15 04 45.5 | -0.9 |
| FRF | La Foret Royal | 8.75 | 329 | ePn | | Pn | 15 03 09.8 | 0.0 |
| FRF | | | | | eSn | Sn | 15 04 44.9 | -2.6 |
| | comp=Z,9.1nm,0.5s | | | | | | | |
| FRF | La Foret Royal | 8.75 | 329 | eP | | Pn | 15 03 09.8 | 0.0 |
| FRF | | | | *e* | | | 15 04 44.9 | |
| FRF | La Foret Royal | 8.75 | 329 | ePn | | Pn | 15 03 09.8 | 0.0 |
| FRF | La Foret Royal | 8.75 | 329 | ePn | | Pn | 15 03 09.8 | 0.0 |
| FRF | | | | | eSn | Sn | 15 04 44.9 | -2.6 |
| SAOF | Saorge | 8.76 | 334 | P | | Pn | 15 03 10.4 | +0.4 |
| SAOF | Saorge | 8.76 | 334 | P | | Pn | 15 03 10.4 | +0.4 |
| PLE | Pljevlja | 8.77 | 33 | ⇑ | *i*Pn | Pn | 15 03 11.3 | +1.1 |
| PLE | | | | | eSn | Sn | 15 04 49.0 | +0.8 |
| PLE | Pljevlja | 8.77 | 33 | P | | Pn | 15 03 12.8 | +2.6 |
| PLE | Pljevlja | 8.77 | 33 | ⇑ | *i*Pn | Pn | 15 03 11.3 | +1.1 |
| PLE | | | | | eSn | Sn | 15 04 49.0 | +0.8 |
| XOR | Xorichti | 8.84 | 66 | P | | Pn | 15 03 09.3 | -1.8 |
| GRG | Griva | 8.92 | 55 | P | | Pn | 15 03 09.9 | -2.3 |
| GRG | | | | | pmax | pmax | | |
| | comp=Z,30nm,0.8s | | | | | | | |
| GRG | Griva | 8.92 | 55 | P | | Pn | 15 03 09.9 | -2.3 |
| | comp=Z,30nm,0.8s | | | | | | | |
| GRG | Griva | 8.92 | 55 | P | | Pn | 15 03 09.4 | -2.8 |
| VLY | Voula,Athens | 8.97 | 76 | P | | Pn | 15 03 11.7 | -1.2 |
| THE | Thessaloniki | 9.15 | 58 | P | | Pn | 15 03 12.4 | -2.9 |
| THE | | | | | pmax | pmax | | |
| | comp=Z,18nm,1.1s | | | | | | | |
| THE | Thessaloniki | 9.15 | 58 | P | | Pn | 15 03 12.4 | -2.9 |
| | comp=Z,18nm,1.1s | | | | | | | |
| BLY | Banja Luka | 9.19 | 20 | ePn | | Pn | 15 03 17.9 | +2.0 |
| BLY | Banja Luka | 9.19 | 20 | ePn | | Pn | 15 03 17.9 | +2.0 |
| HORT | Hortiatis | 9.23 | 58 | P | | Pn | 15 03 14.4 | -2.0 |
| KNT | Kendrikon | 9.35 | 55 | P | | Pn | 15 03 14.7 | -3.3 |
| KNT | | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.8s | | | | | | | |
| KNT | Kendrikon | 9.35 | 55 | P | | Pn | 15 03 15.2 | -2.8 |
| KNT | Kendrikon | 9.35 | 55 | P | | Pn | 15 03 15.2 | -2.8 |
| PLG | Polygyros | 9.38 | 60 | P | | Pn | 15 03 15.0 | -3.4 |
| PAIG | Paliouri | 9.38 | 63 | P | | Pn | 15 03 15.4 | -3.0 |
| PAIG | | | | | pmax | pmax | | |
| | comp=Z,24nm,0.6s | | | | | | | |
| PAIG | Paliouri | 9.38 | 63 | P | | Pn | 15 03 15.4 | -3.0 |
| | comp=Z,24nm,0.6s | | | | | | | |
| PAIG | Paliouri | 9.38 | 63 | P | | Pn | 15 03 15.6 | -2.8 |
| BOJS | Bojanci | 9.50 | 11 | *i* | Pn | Pn | 15 03 22.9 | +2.8 |
| SMRF | Simiane la Rot | 9.54 | 327 | ePn | | Pn | 15 03 19.7 | -1.0 |
| SMRF | Simiane la Rot | 9.54 | 327 | ePn | | Pn | 15 03 19.7 | -1.0 |
| SMRF | Simiane la Rot | 9.54 | 327 | ePn | | Pn | 15 03 19.7 | -1.0 |
| MBDF | Montbardon | 9.68 | 334 | ePn | | Pn | 15 03 24.7 | +1.9 |
| MBDF | | | | | eSn | Sn | 15 05 09.1 | -1.7 |
| | comp=Z,38nm,0.6s | | | | | | | |
| MBDF | Montbardon | 9.68 | 334 | eP | | Pn | 15 03 24.7 | +1.9 |
| MBDF | | | | *e* | | | 15 05 09.1 | |
| MBDF | Montbardon | 9.68 | 334 | ePn | | Pn | 15 03 24.7 | +1.9 |
| MBDF | Montbardon | 9.68 | 334 | ePn | | Pn | 15 03 24.7 | +1.9 |
| MBDF | | | | | eSn | Sn | 15 05 09.1 | -1.7 |
| VISS | Visnje | 9.74 | 9 | *i* | Pn | Pn | 15 03 27.1 | +3.8 |
| JAVS | Javornik | 9.75 | 5 | *i* | Pn | Pn | 15 03 27.4 | +3.7 |
| IDI | Anoyia | 9.89 | 92 | *i* | Pn | Pn | 15 03 24.7 | -0.8 |
| | comp=Z,3.1nm,0.3s,baz=227,slow=12,SNR=11 | | | | | | | |
| IDI | | | | | Sn | Sn | 15 05 07.5 | -8.3 |
| | comp=Z,4.5nm,0.3s,baz=301,slow=18,SNR=9.4 | | | | | | | |
| IDI | Anoyia | 9.89 | 92 | P | | Pn | 15 03 24.9 | -0.6 |
| BNI | Bardonecchia | 10.00 | 334 | eP | | Pn | 15 03 29.7 | +2.7 |
| BNI | Bardonecchia | 10.00 | 334 | ePn | | Pn | 15 03 29.7 | +2.7 |
| ORIF | Oris-en-Rattie | 10.18 | 331 | ePn | | Pn | 15 03 31.0 | +1.5 |
| ORIF | | | | | eSn | Sn | 15 05 19.5 | -3.4 |
| ORIF | Oris-en-Rattie | 10.18 | 331 | eP | | Pn | 15 03 31.0 | +1.5 |
| ORIF | | | | *e* | | | 15 05 19.5 | |
| ORIF | Oris-en-Rattie | 10.18 | 331 | ePn | | Pn | 15 03 31.0 | +1.5 |
| ORIF | Oris-en-Rattie | 10.18 | 331 | ePn | | Pn | 15 03 31.0 | +1.5 |
| ORIF | | | | | eSn | Sn | 15 05 19.5 | -3.4 |
| APE | Apeiranthos | 10.29 | 81 | P | | Pn | 15 03 28.7 | -2.3 |
| APE | | | | | pmax | pmax | | |
| | comp=Z,34nm,1.9s | | | | | | | |
| APE | Apeiranthos | 10.29 | 81 | P | | Pn | 15 03 28.7 | -2.3 |
| | comp=Z,34nm,1.9s | | | | | | | |
| VTS | Vitosha | 10.30 | 48 | ⇑ | *i*P | Pn | 15 03 30.3 | -0.9 |
| VTS | Vitosha | 10.30 | 48 | S | | Sn | 15 05 22.0 | -3.9 |
| VTS | Vitosha | 10.30 | 48 | ⇑ | P | Pn | 15 03 30.3 | -0.9 |
| VTS | Vitosha | 10.30 | 48 | ePn | | Pn | 15 03 29.7 | -1.5 |
| VTS | Vitosha | 10.30 | 48 | P | | Pn | 15 03 30.3 | -0.9 |
| VTS | Vitosha | 10.30 | 48 | ePn | | Pn | 15 03 29.7 | -1.5 |
| LPG | La Plagne | 10.36 | 336 | ePn | | Pn | 15 03 32.7 | +0.5 |
| LPG | La Plagne | 10.36 | 336 | eP | | Pn | 15 03 38.5 | +6.3 |
| LPG | | | | | eSn | Sn | 15 05 24.5 | -3.1 |
| | comp=Z,5.1nm,0.5s | | | | | | | |
| LPG | La Plagne | 10.36 | 336 | eP | | Pn | 15 03 32.7 | +0.5 |
| LPG | | | | *e* | | | 15 05 24.5 | |
| LPG | La Plagne | 10.36 | 336 | ePn | | Pn | 15 03 32.7 | +0.5 |
| LPG | La Plagne | 10.36 | 336 | ePn | | Pn | 15 03 32.7 | +0.5 |
| LPG | | | | | eSn | Sn | 15 05 24.5 | -3.1 |
| LAST | Lasithi | 10.38 | 92 | P | | Pn | 15 03 32.0 | -0.3 |
| LPL | La Plagne | 10.39 | 336 | eP | | Pn | 15 03 37.6 | +5.2 |
| LPL | La Plagne | 10.39 | 336 | eP | | Pn | 15 03 37.6 | +5.2 |
| LPL | La Plagne | 10.39 | 336 | eP | | Pn | 15 03 37.6 | +5.2 |
| OBKA | Obir | 10.41 | 7 | ePn | | Pn | 15 03 36.1 | +3.5 |
| | comp=Z,33nm,1.8s | | | | | | | |
| LASF | Ste Croix | 10.43 | 322 | ePn | | Pn | 15 03 32.1 | -0.7 |
| LASF | Ste Croix | 10.43 | 322 | ePn | | Pn | 15 03 32.1 | -0.7 |
| LASF | Ste Croix | 10.43 | 322 | ePn | | Pn | 15 03 32.1 | -0.7 |
| MYKA | Terra Mystica | 10.46 | 3 | ePn | | Pn | 15 03 37.1 | +3.8 |
| | comp=Z,23nm,1.8s | | | | | | | |
| ABTA | Abfaltersbach | 10.56 | 359 | ePn | | Pn | 15 03 38.4 | +3.7 |
| | comp=Z,10.0nm,0.9s,SNR=6.0 | | | | | | | |
| PERS | Pernice | 10.59 | 9 | *i* | Pn | Pn | 15 03 37.5 | +2.3 |
| FUORN | Ofenpass-Fuorn | 10.60 | 351 | ePn | | Pn | 15 03 41.6 | +6.2 |
| TUE | Stuetta | 10.60 | 347 | ePn | | Pn | 15 03 39.5 | +4.1 |
| SOKA | Soboth | 10.62 | 8 | ePn | | Pn | 15 03 38.4 | +2.8 |
| | comp=Z,16nm,1.2s | | | | | | | |
| DAVOX | Davos/Dischmat | 10.81 | 349 | Pn | | Pn | 15 03 44.8 | +6.5 |
| | comp=Z,3.1nm,0.3s,baz=173,slow=17,SNR=18 | | | | | | | |
| DAVOX | | | | | LR | LR | 15 08 08.9 | |
| | comp=Z,604nm,18.1s,baz=180,slow=40 | | | | | | | |
| MTLF | Montolieu | 10.82 | 315 | ePn | | Pn | 15 03 37.0 | -1.2 |
| MTLF | | | | | eSn | Sn | 15 05 33.6 | -4.8 |
| MTLF | Montolieu | 10.82 | 315 | eP | | Pn | 15 03 37.0 | -1.2 |
| MTLF | | | | *e* | | | 15 05 33.6 | |
| MTLF | Montolieu | 10.82 | 315 | ePn | | Pn | 15 03 37.0 | -1.2 |
| MTLF | Montolieu | 10.82 | 315 | ePn | | Pn | 15 03 37.0 | -1.2 |
| MTLF | | | | | eSn | Sn | 15 05 33.6 | -4.8 |
| KBA | Koelnbreinsper | 10.90 | 2 | P | | Pn | 15 03 44.1 | +4.7 |
| KBA | | | | | pmax | pmax | | |
| | comp=Z,14nm,1.2s | | | | | | | |
| KBA | Koelnbreinsper | 10.90 | 2 | ePn | | Pn | 15 03 43.7 | +4.3 |
| | comp=Z,9.6nm,1.1s | | | | | | | |
| FETA | Feichten | 10.94 | 353 | ePn | | Pn | 15 03 45.5 | +5.5 |
| | comp=Z,18nm,1.2s | | | | | | | |
| SENIN | Lac Senin/Sane | 10.97 | 340 | ePn | | Pn | 15 03 45.0 | +4.6 |
| ZKR | Zakros | 10.99 | 92 | P | | Pn | 15 03 41.1 | +0.6 |
| MOTA | Moosalm | 11.23 | 354 | ePn | | Pn | 15 03 48.7 | +4.8 |
| | comp=Z,7.1nm,0.6s | | | | | | | |
| ARSA | Arzberg | 11.25 | 10 | ePn | | Pn | 15 03 46.0 | +1.9 |
| | comp=Z,17nm,2.0s | | | | | | | |
| DAVA | Damuels | 11.31 | 350 | ePn | | Pn | 15 03 50.9 | +5.9 |
| | comp=Z,11nm,0.8s | | | | | | | |
| RETA | Reutte | 11.40 | 353 | ePn | | Pn | 15 03 51.4 | +5.2 |
| | comp=Z,6.0nm,0.6s | | | | | | | |
| ALN | Alexandroupoli | 11.41 | 62 | P | | Pn | 15 03 42.7 | -3.5 |
| ALN | | | | | pmax | pmax | | |
| | comp=Z,18nm,1.6s | | | | | | | |
| BZS | Buzias | 11.55 | 33 | ⇓ | *i*P | Pn | 15 03 48.4 | +0.2 |
| BZS | Buzias | 11.55 | 33 | ⇓ | P | Pn | 15 03 48.4 | +0.2 |
| BZS | Buzias | 11.55 | 33 | P | | Pn | 15 03 48.4 | +0.2 |
| CABF | La Chapelle | 11.56 | 336 | ePn | | Pn | 15 03 49.0 | +0.6 |
| CABF | | | | | eSn | Sn | 15 05 53.0 | -3.7 |
| | comp=Z,12nm,0.6s | | | | | | | |
| CABF | La Chapelle | 11.56 | 336 | eP | | Pn | 15 03 49.0 | +0.6 |
| CABF | | | | *e* | | | 15 05 53.0 | |
| CABF | La Chapelle | 11.56 | 336 | ePn | | Pn | 15 03 49.0 | +0.6 |
| CABF | La Chapelle | 11.56 | 336 | ePn | | Pn | 15 03 49.0 | +0.6 |
| CABF | | | | | eSn | Sn | 15 05 53.0 | -3.7 |
| MOA | Molln | 11.71 | 5 | ePn | | Pn | 15 03 53.4 | +3.0 |
| | comp=Z,16nm,1.1s,SNR=7.3 | | | | | | | |
| EPF | Esparros | 11.78 | 309 | ePn | | Pn | 15 03 50.1 | -1.2 |
| EPF | Esparros | 11.78 | 309 | eP | | Pn | 15 03 50.1 | -1.2 |
| EPF | Esparros | 11.78 | 309 | ePn | | Pn | 15 03 50.1 | -1.2 |
| EPF | Esparros | 11.78 | 309 | ePn | | Pn | 15 03 50.1 | -1.2 |
| SOP | Sopron | 11.83 | 13 | P | | Pn | 15 03 55.3 | +3.3 |
| SOP | | | | | pmax | pmax | | |
| | comp=Z,13nm,1.0s | | | | | | | |
| CAF | Calviac | 11.94 | 320 | ePn | | Pn | 15 03 53.0 | -0.5 |
| CAF | Calviac | 11.94 | 320 | eP | | Pn | 15 03 53.0 | -0.5 |
| CAF | Calviac | 11.94 | 320 | ePn | | Pn | 15 03 53.0 | -0.5 |
| CAF | Calviac | 11.94 | 320 | ePn | | Pn | 15 03 53.0 | -0.5 |
| CONA | Conrad Observa | 11.96 | 10 | ePn | | Pn | 15 03 56.5 | +2.6 |
| | comp=Z,17nm,1.3s | | | | | | | |
| HINF | Hinteralfeld | 12.43 | 341 | ePn | | Pn | 15 03 59.4 | -0.8 |
| HINF | Hinteralfeld | 12.43 | 341 | eP | | Pn | 15 03 59.4 | -0.8 |
| HINF | Hinteralfeld | 12.43 | 341 | ePn | | Pn | 15 03 59.4 | -0.8 |
| HINF | Hinteralfeld | 12.43 | 341 | ePn | | Pn | 15 03 59.4 | -0.8 |
| LOT | Lotru | 12.44 | 39 | ⇓ | *i*P | Pn | 15 03 59.0 | -1.4 |
| BFO | Black Forest | 12.58 | 346 | ePn | | Pn | 15 04 03.0 | +0.8 |
| BFO | Black Forest | 12.58 | 346 | eP | | Pn | 15 04 03.0 | +0.8 |
| BFO | Black Forest | 12.58 | 346 | ePn | | Pn | 15 04 03.0 | +0.8 |
| GEA0 | GERESS Array S | 12.67 | 3 | ePn | | Pn | 15 04 07.5 | +4.0 |
| GERES | GERESS Array B | 12.68 | 3 | Pn | | Pn | 15 04 05.9 | +2.3 |
| | comp=Z,0.1nm,0.3s,baz=170,slow=12,SNR=3.6 | | | | | | | |
| GERES | | | | | LR | LR | 15 09 41.0 | |
| | comp=Z,373nm,18.7s,baz=199,slow=41 | | | | | | | |
| ECH | Echery | 12.72 | 343 | P | | Pn | 15 04 05.0 | +0.8 |
| ECH | Echery | 12.72 | 343 | P | | Pn | 15 04 05.0 | +0.8 |
| ECH | Echery | 12.72 | 343 | Pn | | Pn | 15 04 05.0 | +0.8 |
| ARR | Arges | 12.83 | 41 | ⇓ | *i*P | Pn | 15 04 05.8 | +0.1 |
| CDF | Champ du Feu | 12.88 | 343 | eP | | Pn | 15 04 08.9 | +2.5 |
| CDF | Champ du Feu | 12.88 | 343 | eP | | Pn | 15 04 08.9 | +2.5 |
| CDF | Champ du Feu | 12.88 | 343 | eP | | Pn | 15 04 08.9 | +2.5 |
| SSF | Saint Saulge | 12.88 | 330 | ePn | | Pn | 15 04 05.2 | -1.2 |
| SSF | Saint Saulge | 12.88 | 330 | eP | | Pn | 15 04 05.2 | -1.2 |
| SSF | Saint Saulge | 12.88 | 330 | ePn | | Pn | 15 04 05.2 | -1.2 |
| SSF | Saint Saulge | 12.88 | 330 | ePn | | Pn | 15 04 05.2 | -1.2 |
| LOR | Lormes | 12.92 | 332 | ePn | | Pn | 15 04 05.2 | -1.6 |
| LOR | Lormes | 12.92 | 332 | eP | | Pn | 15 04 05.2 | -1.6 |
| LOR | Lormes | 12.92 | 332 | ePn | | Pn | 15 04 05.2 | -1.6 |
| LOR | Lormes | 12.92 | 332 | ePn | | Pn | 15 04 05.2 | -1.6 |
| KHC | Kasperske Hory | 12.96 | 2 | eP | | Pn | 15 04 10.2 | +2.8 |
| KHC | | | | *ex* | | x | 15 04 13.1 | |
| KHC | | | | | AMS | AMS | 15 09 20.0 | |
| | comp=Z,500nm,16.1s | | | | | | | |
| KHC | Kasperske Hory | 12.96 | 2 | eP | | Pn | 15 04 10.2 | +2.8 |
| KHC | | | | | MLR | MLR | | |
| | comp=Z,500nm,16.1s | | | | | | | |
| KHC | Kasperske Hory | 12.96 | 2 | ePn | | Pn | 15 04 10.2 | +2.8 |
| WET | Wettzell | 12.96 | 0 | P | | Pn | 15 04 10.0 | +2.6 |
| WET | | | | | pmax | pmax | | |
| | comp=Z,15nm,1.4s | | | | | | | |
| VYHS | Vyhne | 13.09 | 18 | eP | | Pn | 15 04 13.2 | +4.0 |
| VYHS | Vyhne | 13.09 | 18 | ePN | | Pn | 15 04 13.2 | +4.0 |
| VYHS | | | | *e* | | | 15 04 19.5 | |
| VOIR | | 13.10 | 41 | ⇓ | *i*P | Pn | 15 04 08.8 | -0.6 |
| VOIR | | 13.10 | 41 | P | | Pn | 15 04 08.9 | -0.5 |
| VOIR | | | | pmax | | pmax | | |
| | comp=Z,14nm,1.1s | | | | | | | |
| VOIR | | 13.10 | 41 | P | | Pn | 15 04 08.9 | -0.5 |
| | comp=Z,14nm,1.1s | | | | | | | |
| VRAC | Vranov | 13.41 | 11 | Pn | | P | 15 04 18.7 | -4.1 |
| | comp=Z,0.2nm,0.3s,baz=196,slow=15,SNR=3.0 | | | | | | | |
| VRAC | | | | | LR | LR | 15 09 23.4 | |
| | comp=Z,389nm,18.2s,baz=200,slow=38 | | | | | | | |
| VRAC | Vranov | 13.41 | 11 | ⇓ | *i*P | Pn | 15 04 15.6 | +2.0 |
| VRAC | Vranov | 13.41 | 11 | ⇓ | P | Pn | 15 04 15.6 | +2.0 |
| VRAC | Vranov | 13.41 | 11 | P | | Pn | 15 04 15.6 | +2.0 |
| KECS | Kecovo | 13.54 | 22 | eP | | P | 15 04 25.8 | +1.6 |
| KECS | Kecovo | 13.54 | 22 | *e* | | P | 15 04 25.8 | +1.6 |
| MLR | Muntele Rosu | 13.62 | 43 | Pn | | Pn | 15 04 16.2 | -0.3 |
| | comp=Z,0.1nm,0.3s,baz=135,slow=12,SNR=5.7 | | | | | | | |
| MLR | | | | | LR | LR | 15 10 42.2 | |
| | comp=Z,139nm,18.3s,baz=228,slow=43 | | | | | | | |
| MLR | Muntele Rosu | 13.62 | 43 | ⇑ | *i*P | Pn | 15 04 16.6 | +0.1 |
| MLR | Muntele Rosu | 13.62 | 43 | eP | | Pn | 15 04 17.4 | +0.9 |
| MLR | Muntele Rosu | 13.62 | 43 | eP | | Pn | 15 04 17.4 | +0.9 |
| MLR | Muntele Rosu | 13.62 | 43 | ePn | | Pn | 15 04 17.4 | +0.9 |
| ES19 | SONSECA Array | 13.62 | 290 | ePn | | Pn | 15 04 19.3 | +2.7 |
| ESDC | Sonseca Array | 13.67 | 290 | Pn | | Pn | 15 04 18.9 | +1.8 |
| | comp=Z,0.7nm,0.3s,baz=96,slow=14,SNR=12 | | | | | | | |
| ESDC | | | | | LR | LR | 15 09 34.8 | |
| | comp=Z,285nm,18.3s,baz=95,slow=38 | | | | | | | |
| GOPC | GO Pecny, Ondr | 13.81 | 5 | eP | | Pn | 15 04 21.7 | +2.8 |
| GOPC | | | | *ex* | | x | 15 04 28.7 | |
| GOPC | | | | | AMS | AMS | 15 10 20.0 | |
| | comp=Z,700nm,17.2s | | | | | | | |
| GOPC | GO Pecny, Ondr | 13.81 | 5 | eP | | Pn | 15 04 21.7 | +2.8 |
| GOPC | | | | | MLR | MLR | | |
| | comp=Z,700nm,17.2s | | | | | | | |
| GOPC | GO Pecny, Ondr | 13.81 | 5 | eP | | Pn | 15 04 21.7 | +2.8 |
| | comp=Z,700nm,17.2s | | | | | | | |
| LANS | Liptovska Anna | 13.86 | 19 | eP | | P | 15 04 26.7 | -1.1 |
| LANS | Liptovska Anna | 13.86 | 19 | ePN | | P | 15 04 26.7 | -1.1 |
| PRU | Pruhonice | 13.86 | 5 | eP | | Pn | 15 04 22.7 | +3.0 |
| PRU | | | | *ex* | | x | 15 04 31.2 | |
| PRU | | | | | AMS | AMS | 15 10 20.0 | |
| | comp=Z,700nm,17.0s | | | | | | | |
| PRU | Pruhonice | 13.86 | 5 | eP | | Pn | 15 04 22.7 | +3.0 |
| PRU | | | | | MLR | MLR | | |
| | comp=Z,700nm,17.0s | | | | | | | |
| MORC | Moravsky Berou | 14.03 | 13 | ⇓ | *i*P | Pn | 15 04 25.7 | +3.7 |
| MORC | Moravsky Berou | 14.03 | 13 | eP | | Pn | 15 04 23.7 | +1.7 |
| MORC | Moravsky Berou | 14.03 | 13 | ePn | | Pn | 15 04 23.6 | +1.6 |
| MORC | Moravsky Berou | 14.03 | 13 | ⇓ | *i*P | Pn | 15 04 25.7 | +3.7 |
| MORC | Moravsky Berou | 14.03 | 13 | ePn | | Pn | 15 04 23.7 | +1.7 |
| NKC | Novy Kostel | 14.05 | 359 | AMS | | AMS | 15 11 10.0 | |
| | comp=Z,1µm,10.6s | | | | | | | |
| OKC | Ostrava-Krasne | 14.20 | 14 | eP | | P | 15 04 30.7 | -0.8 |
| OKC | | | | | AMS | AMS | 15 12 20.0 | |
| | comp=Z,500nm,12.3s | | | | | | | |
| OKC | Ostrava-Krasne | 14.20 | 14 | eP | | P | 15 04 30.7 | -0.8 |
| OKC | | | | | MLR | MLR | | |
| | comp=Z,500nm,12.3s | | | | | | | |
| OKC | Ostrava-Krasne | 14.20 | 14 | eP | | P | 15 04 30.7 | -0.8 |
| | comp=Z,500nm,12.3s | | | | | | | |
| P

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| MVO | **Moncorvo** | **16.24** | **294** | A | A | 15 10 55.3 | | |
| | comp=Z,273nm,20.0s | | | | | | | |
| PMRV | **Marv??o** | **16.27** | **288** | A | A | 15 11 34.9 | | |
| | comp=Z,362nm,18.0s | | | | | | | |
| PCBR | **Castelo Branco** | **16.37** | **289** | *e*P | **P** | **15 04 58.5** | **+2.8** | |
| PESTR | **Estremoz** | **16.38** | **286** | A | A | 15 10 39.5 | | |
| | comp=Z,211nm,20.0s | | | | | | | |
| PVAQ | **Vaqueiros** | **16.46** | **280** | *e*P | **P** | **15 04 56.6** | **-0.1** | |
| PVAQ | | | | A | A | 15 11 55.7 | | |
| | comp=Z,180nm,18.0s | | | | | | | |
| MTE | **Manteigas** | **16.50** | **291** | A | A | 15 11 46.1 | | |
| | comp=Z,387nm,16.0s | | | | | | | |
| PBEJ | **Beja** | **16.57** | **283** | *e*P | **P** | **15 04 58.6** | **+0.7** | |
| SORM | **Soroca** | **16.58** | **39** | ⇑P | **Pn** | **15 04 56.6** | **+1.1** | |
| SORM | **Soroca** | **16.58** | **39** | P | **Pn** | **15 04 56.6** | **+1.1** | |
| PCVE | **Castro Verde** | **16.71** | **281** | *e*P | **P** | **15 04 59.7** | **+0.2** | |
| CSS | **Mathiatis** | **16.77** | **88** | *e*Pn | **Pn** | **15 04 57.8** | **-0.3** | |
| | comp=Z,16nm,1.5s | | | | | | | |
| CSS | **Mathiatis** | **16.77** | **88** | *e*Pn | **Pn** | **15 04 57.8** | **-0.3** | |
| | comp=Z,16nm,1.5s | | | | | | | |
| BR131 | **Keskin Array S** | **16.83** | **72** | *e*Pn | **Pn** | **15 04 59.3** | **+0.4** | |
| BR131 | **Keskin Array S** | **16.83** | **72** | *e*Pn | **Pn** | **15 04 59.3** | **+0.4** | |
| BRTR | **Keskin Array B** | **16.83** | **72** | Pn | **Pn** | **15 04 59.5** | **+0.6** | |
| | comp=Z,0.1nm,0.3s,baz=254,slow=8.9,SNR=14 | | | | | | | |
| BRTR | | | | LR | LR | 15 13 28.5 | | |
| | comp=Z,191nm,18.0s,baz=256,slow=44 | | | | | | | |
| POLO | **Lamas de Olo** | **16.85** | **294** | *e*P | **P** | **15 05 03.7** | **+2.7** | |
| PMTG | **Montargil** | **16.88** | **286** | *e*P | **P** | **15 05 05.2** | **+3.9** | |
| PCAS | **Casmilo, Conde** | **17.18** | **289** | *e*P | **P** | **15 05 07.7** | **+3.1** | |
| PGAV | **Gavieira, Arco** | **17.32** | **296** | A | A | 15 11 50.4 | | |
| | comp=Z,274nm,22.0s | | | | | | | |
| AKASG | **Malin Array Be** | **18.73** | **34** | P | **P** | **15 05 20.8** | **-0.9** | |
| | comp=Z,0.7nm,0.3s,baz=228,slow=9.7,SNR=16 | | | | | | | |
| AKBB | **Malin Array Si** | **18.73** | **34** | *e*P | **Pn** | **15 05 22.6** | **+0.4** | |
| AKBB | | | | pmax | pmax | | | |
| | comp=Z,9.0nm,1.0s | | | | | | | |
| AKBB | **Malin Array Si** | **18.73** | **34** | *e*P | **Pn** | **15 05 22.6** | **+0.4** | |
| | comp=Z,8.6nm,1.0s | | | | | | | |
| AKBB | **Malin Array Si** | **18.73** | **34** | *e*P | **Pn** | **15 05 22.6** | **+0.4** | |
| | comp=Z,8.6nm,1.0s | | | | | | | |
| MMAI | **Mount Meron Ar** | **18.89** | **93** | P | **Pn** | **15 05 24.4** | **+0.1** | |
| | comp=Z,1.9nm,0.3s,baz=268,slow=12,SNR=6.0 | | | | | | | |
| MMAI | | | | LR | LR | 15 14 05.4 | | |
| | comp=Z,82nm,21.9s,baz=320,slow=41 | | | | | | | |
| SUW | **Suwalki** | **19.25** | **19** | *e*P | **P** | **15 05 26.9** | **-0.3** | |
| SUW | **Suwalki** | **19.25** | **19** | *e*P | **P** | **15 05 26.9** | **-0.3** | |
| SUW | **Suwalki** | **19.25** | **19** | *e*P | **P** | **15 05 26.9** | **-0.3** | |
| EIL | **Elat** | **19.69** | **103** | P | **Pn** | **15 05 33.6** | **-0.2** | |
| | comp=Z,0.6nm,0.3s,baz=308,slow=12,SNR=4.1 | | | | | | | |
| EIL | | | | LR | LR | 15 14 51.0 | | |
| | comp=Z,91nm,21.1s,baz=322,slow=42 | | | | | | | |
| ASF | **Jabal al Asfar** | **20.34** | **94** | P | Pn | 15 05 41.0 | -0.5 | |
| | comp=Z,4.7nm,1.2s,baz=258,slow=9.3,SNR=2.5 | | | | | | | |
| ASF | | | | LR | LR | 15 16 23.4 | | |
| | comp=Z,64nm,19.5s,baz=228,slow=45 | | | | | | | |
| ANN | **Anapa** | **20.58** | **58** | *e*P | **P** | **15 05 36.8** | **-5.0** | |
| ANN | | | | *e**PP | Pn | 15 05 39.2 | -4.9 | |
| ANN | | | | *e*S | **S** | **15 09 26.6** | **-4.0** | |
| ANN | | | | pmax | pmax | | | |
| | comp=Z,71nm,1.2s | | | | | | | |
| IIGN | **Ignalina** | **21.27** | **21** | *e*P | **P** | **15 05 47.3** | **-1.9** | |
| IIGN | | | | IAmb | IAmb | 15 05 51.0 | | |
| | comp=Z,14nm,1.2s | | | | | | | |
| IDID | **Didziasalis** | **21.40** | **22** | *e*P | **P** | **15 05 48.5** | **-2.0** | |
| IDID | | | | IAmb | IAmb | 15 05 51.0 | | |
| | comp=Z,6.1nm,0.7s | | | | | | | |
| ISAL | **Salakas** | **21.43** | **21** | *e*P | **P** | **15 05 49.5** | **-1.4** | |
| ISAL | | | | IAmb | IAmb | 15 05 53.6 | | |
| | comp=Z,7.2nm,1.0s | | | | | | | |
| IZAR | **Zarasai** | **21.62** | **21** | *e*P | **P** | **15 05 51.8** | **-1.2** | |
| IZAR | | | | IAmb | IAmb | 15 05 53.1 | | |
| | comp=Z,12nm,1.1s | | | | | | | |
| SOC | **Sochi** | **21.89** | **62** | *e*P | P | 15 05 46.7 | -9.3 | |
| SOC | | | | *e*PPP | PPP | 15 06 32.7 | | |
| SOC | | | | *e*S | **S** | **15 09 48.1** | **-8.5** | |
| SOC | | | | MLR | MLR | | | |
| | comp=Z,205nm,13.0s | | | | | | | |
| EKA | **Eskdalemuir Ar** | **22.05** | **335** | P | **P** | **15 05 58.9** | **+1.4** | |
| | comp=Z,6.4nm,0.8s,baz=157,slow=11,SNR=11 | | | | | | | |
| ARTV | **Artvin** | **23.24** | **69** | *e*P | **P** | **15 06 09.8** | **-0.7** | |
| | comp=Z,15nm,1.3s | | | | | | | |
| HFS | **Hagfors** | **23.98** | **1** | P | **P** | **15 06 16.1** | **-1.1** | |
| | comp=Z,13nm,0.8s,baz=177,slow=13,SNR=13 | | | | | | | |
| HFS | | | | LR | LR | 15 16 29.4 | | |
| | comp=Z,187nm,18.4s,baz=190,slow=39 | | | | | | | |
| NEY | **Neytrino** | **24.01** | **64** | *i* P | **P** | **15 06 16.2** | **-1.6** | |
| NEY | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.8s | | | | | | | |
| KIV | **Kislovodsk** | **24.08** | **62** | *e*P | **P** | **15 06 16.1** | **-2.3** | |
| KIV | | | | *e*S | **S** | **15 10 34.7** | **+0.3** | |
| KIV | | | | pmax | pmax | | | |
| | comp=Z,28nm,1.1s | | | | | | | |
| KIV | **Kislovodsk** | **24.08** | **62** | *e*P | **P** | **15 06 19.2** | **+0.8** | |
| | comp=Z,32nm,1.2s | | | | | | | |
| KVAR | **Kislovodsk Arr** | **24.08** | **62** | P | **P** | **15 06 17.4** | **-1.1** | |
| | comp=Z,27nm,1.1s,baz=252,slow=20,SNR=5.3 | | | | | | | |
| VSR | **Storozhevoye** | **24.11** | **43** | *e*P | **P** | **15 06 17.5** | **-1.0** | |
| VSR | | | | pmax | pmax | | | |
| | comp=Z,20nm,1.0s | | | | | | | |
| KBZ | **Khabaz** | **24.20** | **63** | P | **P** | **15 06 21.6** | **+2.3** | |
| | comp=Z,10nm,1.1s,baz=266,slow=11,SNR=6.3 | | | | | | | |
| KBZ | | | | LR | LR | 15 17 48.3 | | |
| | comp=Z,120nm,21.8s,baz=244,slow=42 | | | | | | | |
| ONI | **Oni** | **24.47** | **65** | P | **P** | **15 06 23.0** | **+1.0** | |
| ONI | **Oni** | **24.47** | **65** | *e*P | **P** | **15 06 23.0** | **+1.0** | |
| GOF | **Gofitskoye** | **24.51** | **59**⇑ | *e*P | **P** | **15 06 23.3** | **+1.1** | |
| GOF | | | | pmax | pmax | | | |
| | comp=Z,51nm,0.9s | | | | | | | |
| NC602 | **NORSAR Array S** | **24.59** | **359** | *e*P | **P** | **15 06 23.2** | **+0.5** | |
| NCK | **Nalchik** | **24.67** | **63** | *i* P | **P** | **15 06 20.4** | **-3.3** | |
| NCK | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.4s | | | | | | | |
| LPSR | **Galich'ya Gora** | **24.67** | **40** | *e*P | **P** | **15 06 22.6** | **-1.0** | |
| LPSR | | | | pmax | pmax | | | |
| | comp=Z,30nm,1.0s | | | | | | | |
| ZEI | **Tsey** | **24.82** | **65** | *e*P | **P** | **15 06 25.3** | **0.0** | |
| ZEI | | | | pmax | pmax | | | |
| | comp=Z,24nm,1.9s | | | | | | | |
| NB2 | **NORSAR Subarra** | **24.90** | **358** | P | **P** | **15 06 25.9** | **+0.3** | |
| | comp=Z,6.9nm,0.8s,baz=173,slow=10 | | | | | | | |
| NB2 | **NORSAR Subarra** | **24.90** | **358** | P | **P** | **15 06 25.9** | **+0.3** | |
| | comp=Z,6.9nm,0.8s,SNR=3.8 | | | | | | | |
| NOA | **NORSAR Array B** | **24.90** | **358** | P | **P** | **15 06 25.3** | **-0.3** | |
| | comp=Z,2.7nm,0.8s,baz=173,slow=9.5,SNR=13 | | | | | | | |
| NC405 | **NORSAR Array S** | **24.96** | **359** | *e*P | **P** | **15 06 27.7** | **+1.5** | |
| TOA0 | **Torodi Ar. Sit** | **25.01** | **206** | *e*P | **P** | **15 06 27.6** | **+0.7** | |
| | comp=Z,18nm,1.4s | | | | | | | |
| TORD | **Torodi Ar. Bea** | **25.01** | **206** | P | **P** | **15 06 26.6** | **-0.3** | |
| | comp=Z,3.8nm,0.6s,baz=20,slow=8.7,SNR=19 | | | | | | | |
| TORD | | | | LR | LR | 15 17 28.0 | | |
| | comp=Z,479nm,18.8s,baz=20,slow=40 | | | | | | | |
| GNI | **Garni** | **25.37** | **71** | P | **P** | **15 06 31.1** | **+0.8** | |
| | comp=Z,4.4nm,0.5s,baz=214,slow=4.5,SNR=6.2 | | | | | | | |
| GNI | | | | LR | LR | 15 17 32.4 | | |
| | comp=Z,184nm,21.1s,baz=274,slow=39 | | | | | | | |
| GNI | **Garni** | **25.37** | **71** | *i* P | **P** | **15 06 27.1** | **-3.1** | |
| GNI | | | | pmax | pmax | | | |
| | comp=Z,84nm,1.4s | | | | | | | |
| GNI | **Garni** | **25.37** | **71** | *e*P | **P** | **15 06 31.7** | **+1.5** | |
| | comp=Z,54nm,1.3s | | | | | | | |
| VRH | **Novokhopyorsk** | **25.54** | **45** | *e*P | **P** | **15 06 31.4** | **-0.1** | |
| VRH | | | | pmax | pmax | | | |
| | comp=Z,40nm,1.6s | | | | | | | |
| GROC | **Groznyy** | **26.24** | **64** | P | **P** | **15 06 35.4** | **-2.5** | |
| GROC | | | | pmax | pmax | | | |
| | comp=Z,67nm,1.8s | | | | | | | |
| KOWA | **Kowa** | **26.31** | **219** | *e*P | **P** | **15 06 40.8** | **+2.1** | |
| | comp=Z,33nm,1.6s | | | | | | | |
| FINES | **FINESS Array B** | **26.65** | **14** | P | **P** | **15 06 40.1** | **-1.2** | |
| | comp=Z,1.8nm,0.4s,baz=206,slow=9.1,SNR=14 | | | | | | | |
| FINES | | | | LR | LR | 15 18 51.5 | | |
| | comp=Z,106nm,18.2s,baz=208,slow=40 | | | | | | | |
| KLMR | **Klimovskoe** | **29.98** | **26** | *e*P | P | 15 07 03.9 | -7.2 | |
| KLMR | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,1.4s | | | | | | | |
| DBIC | **Dimbokro** | **33.52** | **213** | P | **P** | **15 07 42.5** | **-0.1** | |
| | comp=Z,6.6nm,1.1s,baz=20,slow=13,SNR=4.5 | | | | | | | |
| DBIC | | | | LR | LR | 15 20 42.6 | | |
| | comp=Z,253nm,19.3s,baz=10,slow=35 | | | | | | | |
| DBIC | **Dimbokro** | **33.52** | **213** | *e*P | **P** | **15 07 44.0** | **+1.4** | |
| DBIC | | | | pmax | pmax | | | |
| | comp=Z,31nm,1.6s | | | | | | | |
| DBIC | **Dimbokro** | **33.52** | **213** | *e*P | **P** | **15 07 44.0** | **+1.4** | |
| | comp=Z,31nm,1.6s | | | | | | | |
| TIC | **Toumodi** | **33.61** | **213** | *e*P | **P** | **15 07 46.0** | **+2.6** | |
| KIC | **Kosan Boka** | **33.74** | **213** | *e*P | **P** | **15 07 46.0** | **+1.4** | |
| | comp=Z,41nm,1.3s | | | | | | | |
| LIC | **Lamto** | **33.99** | **213** | *e*P | **P** | **15 07 48.2** | **+1.5** | |
| | comp=Z,57nm,1.5s | | | | | | | |
| LIC | **Lamto** | **33.99** | **213** | *e*P | **P** | **15 07 47.6** | **+0.9** | |
| | comp=Z,8.7nm,0.6s,baz=17 | | | | | | | |
| LIC | **Lamto** | **33.99** | **213** | *e*P | **P** | **15 07 47.6** | **+0.9** | |
| | comp=Z,8.7nm,0.6s | | | | | | | |
| ARCES | **ARCESS Array B** | **34.13** | **8** | P | **P** | **15 07 46.7** | **-0.7** | |
| | comp=Z,3.9nm,0.7s,baz=192,slow=8.3,SNR=22 | | | | | | | |
| AKTO | **Aktyubinsk** | **35.30** | **52** | P | **P** | **15 07 57.3** | **-0.4** | |
| | comp=Z,2.6nm,0.8s,baz=257,slow=8.1,SNR=7.0 | | | | | | | |
| GEYT | **Alibeck** | **35.96** | **73** | P | **P** | **15 08 04.5** | **+0.9** | |
| | comp=Z,0.9nm,0.5s,baz=269,slow=8.6,SNR=3.3 | | | | | | | |
| GEYT | | | | LR | LR | 15 27 14.7 | | |
| | comp=Z,50nm,18.3s,baz=80,slow=44 | | | | | | | |
| ARU | **Arti** | **36.67** | **42** | P | **P** | **15 08 08.9** | **-0.5** | |
| | comp=Z,1.7nm,0.3s,baz=260,slow=6.7,SNR=9.8 | | | | | | | |
| ARU | **Arti** | **36.67** | **42** | *d i*P | **P** | **15 08 07.3** | **-2.0** | |
| ARU | | | | | | 15 09 29.8 | | |
| ARU | | | | S | **S** | **15 13 52.9** | **+2.0** | |
| ARU | | | | SS | **SnSn** | **15 16 24.6** | **+2.8** | |
| ARU | | | | pmax | pmax | | | |
| | comp=Z,21nm,1.7s | | | | | | | |
| ARU | **Arti** | **36.67** | **42** | *e*P | **P** | **15 08 08.7** | **-0.7** | |
| | comp=Z,22nm,1.4s | | | | | | | |
| SVE | **Sverdlovsk** | **37.87** | **42**⇑ | *i*P | **P** | **15 08 20.3** | **+0.7** | |
| SVE | | | | pmax | pmax | | | |
| | comp=Z,19nm,1.1s | | | | | | | |
| SPITS | **Spitsbergen Ar** | **42.13** | **1** | P | **P** | **15 08 56.2** | **+1.5** | |
| | comp=Z,9.1nm,1.1s,baz=181,slow=6.6,SNR=5.0 | | | | | | | |
| BRVK | **Borovoye** | **43.04** | **48** | *i* P | **P** | **15 09 02.0** | **-0.3** | |
| BRVK | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,1.0s | | | | | | | |
| BRVK | **Borovoye** | **43.04** | **48** | *e*P | **P** | **15 09 02.2** | **-0.1** | |
| | comp=Z,6.9nm,0.8s | | | | | | | |
| KMBO | **Kilima Mbogo** | **43.55** | **143** | P | **P** | **15 09 07.8** | **+0.7** | |
| | comp=Z,0.7nm,0.2s,baz=331,slow=7.9,SNR=6.6 | | | | | | | |
| KMBO | | | | LR | LR | 15 29 11.4 | | |
| | comp=Z,263nm,18.6s,baz=280,slow=39 | | | | | | | |
| SUMG | **Summit** | **44.52** | **340** | *i* P | **P** | **15 09 18.6** | **+4.2** | |
| SUMG | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,1.0s | | | | | | | |
| SUMG | **Summit** | **44.52** | **340** | *i* P | **P** | **15 09 18.6** | **+4.2** | |
| | comp=Z,7.3nm,1.0s | | | | | | | |
| KURK | **Kurchatov** | **48.38** | **51** | *i* P | **P** | **15 09 42.2** | **-2.4** | |
| KURK | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,2.0s | | | | | | | |
| KURK | **Kurchatov** | **48.38** | **51** | *e*P | **P** | **15 09 44.5** | **-0.1** | |
| | comp=Z,5.5nm,1.1s | | | | | | | |
| KSH | **Kashi** | **49.10** | **66** | P | **P** | **15 09 51.6** | **+1.1** | |
| KSH | | | | pP | pP | 15 09 57.8 | -0.3 | |
| KSH | | | | PcP | **PcP** | **15 11 17.6** | **+3.8** | |
| KSH | | | | PP | **PP** | **15 11 44.8** | **+0.8** | |
| KSH | | | | S | **S** | **15 16 51.4** | **-2.7** | |
| KSH | | | | ScS | **ScS** | **15 19 40.8** | **-0.3** | |
| KSH | | | | SS | **SS** | **15 20 16.6** | **-8.5** | |
| KSH | | | | pmax | pmax | | | |
| | comp=Z,15nm,1.5s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=Z,86nm,5.3s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=Z,69nm,5.5s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=Z,130nm,5.8s | | | | | | | |
| NVS | **Novosibirsk** | **50.51** | **45** | *e*P | **P** | **15 10 01.8** | **+1.1** | |
| NVS | **Novosibirsk** | **50.51** | **45** | *e*P | **P** | **15 10 01.8** | **+1.1** | |
| MK31 | **Makanchi Array** | **51.57** | **55** | *e*P | **P** | **15 10 08.6** | **-0.3** | |
| MK31 | **Makanchi Array** | **51.57** | **55** | *e*P | **P** | **15 10 08.6** | **-0.3** | |
| MK31 | **Makanchi Array** | **51.57** | **55** | *e*P | **P** | **15 10 08.6** | **-0.3** | |
| MKAR | **Makanchi Array** | **51.57** | **55** | P | **P** | **15 10 08.7** | **-0.2** | |
| | comp=Z,1.8nm,0.7s,baz=282,slow=6.7,SNR=16 | | | | | | | |
| MKAR | | | | LR | LR | 15 36 38.5 | | |
| | comp=Z,69nm,18.6s,baz=260,slow=41 | | | | | | | |
| ZAA0 | **Zalesovo Array** | **51.57** | **46** | *e*P | **P** | **15 10 09.0** | **+0.3** | |
| | comp=Z,13nm,1.6s | | | | | | | |
| ZAA0 | **Zalesovo Array** | **51.57** | **46** | *e*P | **P** | **15 10 09.0** | **+0.3** | |
| | comp=Z,13nm,1.6s | | | | | | | |
| ZALV | **Zalesovo Beam** | **51.57** | **46** | P | **P** | **15 10 08.5** | **-0.3** | |
| | comp=Z,1.6nm,0.7s,baz=272,slow=7.0,SNR=8.0 | | | | | | | |
| ZALV | | | | LR | LR | 15 34 19.9 | | |
| | comp=Z,99nm,18.7s,baz=250,slow=39 | | | | | | | |
| ZALV | **Zalesovo Beam** | **51.57** | **46** | *e*P | **P** | **15 10 08.3** | **-0.5** | |
| MK01 | **Makanchi Array** | **51.58** | **55** | *e*P | **P** | **15 10 08.5** | **-0.5** | |
| MK01 | **Makanchi Array** | **51.58** | **55** | *e*P | **P** | **15 10 08.5** | **-0.5** | |
| SCHQ | **Schefferville** | **55.68** | **316** | LR | LR | 15 33 09.4 | | |
| | comp=Z,53nm,18.4s,baz=36,slow=35 | | | | | | | |
| WMQ | **Urumqi** | **56.09** | **57** | P | **P** | **15 10 44.6** | **+2.6** | |
| WMQ | | | | pP | pP | 15 10 50.5 | +0.7 | |
| WMQ | | | | sP | sP | 15 10 53.3 | +0.5 | |
| WMQ | | | | pmax | pmax | | | |
| | comp=Z,15nm,0.7s | | | | | | | |
| WMQ | | | | pmax | pmax | | | |
| | comp=Z,120nm,3.7s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=Z,130nm,21.7s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=Z,150nm,35.5s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=Z,110nm,17.7s | | | | | | | |
| LBTB | **Lobatse** | **62.06** | **167** | P | **P** | **15 11 23.3** | **-0.1** | |
| | comp=Z,2.9nm,0.7s,baz=333,slow=6.8,SNR=3.6 | | | | | | | |
| LBTB | **Lobatse** | **62.06** | **167** | P | **P** | **15 11 23.3** | **-0.1** | |
| LBTB | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.5s | | | | | | | |
| LBTB | **Lobatse** | **62.06** | **167** | P | **P** | **15 11 23.3** | **-0.1** | |
| | comp=Z,2.0nm,0.5s | | | | | | | |
| TLY | **Talaya** | **63.11** | **44** | LR | LR | 15 41 45.5 | | |
| | comp=Z,128nm,19.0s,baz=322,slow=39 | | | | | | | |
| TIXI | **Tiksi** | **63.59** | **19** | P | **P** | **15 11 33.1** | **+0.1** | |
| | comp=Z,0.3nm,0.2s,baz=327,slow=6.8,SNR=3.8 | | | | | | | |
| TIXI | **Tiksi** | **63.59** | **19** | P | **P** | **15 11 33.1** | **+0.1** | |
| TIXI | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.3s | | | | | | | |
| TIXI | **Tiksi** | **63.59** | **19** | P | **P** | **15 11 33.1** | **+0.1** | |
| | comp=Z,1.0nm,0.3s | | | | | | | |
| BOSA | **Boshof** | **65.51** | **168** | P | **P** | **15 11 46.1** | **-0.1** | |
| | comp=Z,2.4nm,0.7s,baz=333,slow=6.8,SNR=4.0 | | | | | | | |
| BOSA | | | | LR | LR | 15 41 31.7 | | |
| | comp=Z,175nm,19.1s,baz=351,slow=37 | | | | | | | |
| BOD | **Bodaibo** | **65.66** | **35** | *e*P | **P** | **15 11 46.3** | **-0.4** | |
| BOD | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,1.9s | | | | | | | |
| BOD | **Bodaibo** | **65.66** | **35** | *e*P | **P** | **15 11 46.3** | **-0.4** | |
| | comp=Z,10.0nm,1.9s | | | | | | | |
| GTA | **Gaotai** | **66.17** | **58** | *e*P | **P** | **15 11 51.8** | **+1.2** | |
| GTA | | | | pP | sP | 15 12 00.4 | -1.0 | |
| GTA | | | | sP | pP | 15 12 04.6 | +6.2 | |
| GTA | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,1.0s | | | | | | | |
| SONA1 | **Songino Array** | **66.43** | **47** | *e*P | **P** | **15 11 51.9** | **-0.1** | |
| SONA1 | **Songino Array** | **66.43** | **47** | *e*P | **P** | **15 11 51.9** | **-0.1** | |
| SONM | **Songino Array** | **66.43** | **47** | P | **P** | **15 11 51.2** | **-0.9** | |
| | comp=Z,1.9nm,0.8s,baz=288,slow=7.0,SNR=9.6 | | | | | | | |
| SONM | | | | LR | LR | 15 44 08.8 | | |
| | comp=Z,134nm,18.9s,baz=356,slow=39 | | | | | | | |
| PALK | **Pallekele** | **67.94** | **97** | *i* P | **P** | **15 11 59.9** | **-2.1** | |
| PALK | **Pallekele** | **67.94** | **97** | *i* P | **P** | **15 11 59.9** | **-2.1** | |
| BRDH | **Bariadhala** | **68.31** | **77** | LR | LR | 15 46 47.9 | | |
| | comp=Z,45nm,18.9s,baz=312,slow=40 | | | | | | | |
| INK | **Inuvik** | **72.82** | **348** | P | **P** | **15 12 31.0** | **+0.1** | |
| | comp=Z,1.2nm,0.9s,baz=1.9,slow=9.6,SNR=3.8 | | | | | | | |
| INK | **Inuvik** | **72.82** | **348** | P | **P** | **15 12 31.0** | **+0.1** | |
| INK | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.9s | | | | | | | |
| INK | **Inuvik** | **72.82** | **348** | P | **P** | **15 12 31.0** | **+0.1** | |
| | comp=Z,1.0nm,0.9s | | | | | | | |
| YKA | **Yellowknife Ar** | **72.99** | **337** | P | **P** | **15 12 32.7** | **+0.7** | |
| | comp=Z,2.0nm,1.0s,baz=41,slow=5.8,SNR=11 | | | | | | | |
| YKA | | | | LR | LR | 15 43 25.7 | | |
| | comp=Z,7.6nm,18.5s,baz=0.0,slow=35 | | | | | | | |
| HHC | **Hu-ho-hao-te** | **73.19** | **52** | *e*P | **P** | **15 12 35.3** | **+1.5** | |
| HHC | | | | PP | **PP** | **15 15 19.9** | **+3.4** | |
| HHC | | | | S | **S** | **15 21 59.9** | **-0.5** | |
| HHC | | | | SS | **SS** | **15 26 43.1** | **+1.8** | |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,22nm,0.6s | | | | | | | |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,200nm,5.3s | | | | | | | |
| HHC | | | | LR | LR | | | |
| | comp=Z,200nm,16.0s | | | | | | | |
| HHC | | | | LR | LR | | | |
| | comp=Z,260nm,12.3s | | | | | | | |
| HHC | | | | LR | LR | | | |
| | comp=Z,240nm,12.3s | | | | | | | |
| ULM | **Lac du Bonnet** | **73.47** | **321** | P | **P** | **15 12 36.9** | **+1.8** | |
| | comp=Z,2.8nm,1.0s,baz=63,slow=8.2,SNR=4.4 | | | | | | | |
| ULM | | | | LR | LR | 15 41 25.3 | | |
| | comp=Z,37nm,21.5s,baz=32,slow=33 | | | | | | | |
| BILL | **Bilibino** | **74.20** | **10** | *e*P | **P** | **15 12 37.5** | **-1.6** | |
| BILL | | | | *e* | | 15 12 51.8 | | |
| BILL | | | | *e*PPP | PPP | 15 17 09.0 | | |
| BILL | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,1.1s | | | | | | | |
| BILL | | | | MLR | MLR | | | |
| | comp=Z,129nm,18.0s | | | | | | | |
| BILL | **Bilibino** | **74.20** | **10** | *e*P | **P** | **15 12 37.5** | **-1.6** | |
| | comp=Z,2.0nm,1.1s | | | | | | | |
| BILL | **Bilibino** | **74.20** | **10** | *e*PcP | **PcP** | **15 12 51.8** | **-2.1** | |
| KMI | **Kunming** | **75.60** | **69** | P | **P** | **15 12 48.8** | **+0.6** | |
| KMI | | | | pmax | pmax | | | |
| | comp=Z,15nm,0.5s | | | | | | | |
| CMAR | **Chiang Mai Arr** | **76.33** | **77** | P | **P** | **15 12 53.2** | **+1.1** | |
| | comp=Z,0.7nm,0.7s,baz=301,slow=6.0,SNR=6.8 | | | | | | | |
| CN2 | **Changchun** | **79.66** | **43** | *e*P | **P** | **15 13 14.3** | **+4.1** | |
| CN2 | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.6s | | | | | | | |
| NJ2 | **Nanjing** | **83.10** | **55** | *e*P | **P** | **15 13 30.0** | **+1.3** | |
| NJ2 | | | | pmax | pmax | | | |
| | comp=Z,19nm,0.6s | | | | | | | |
| PHWY | **Pilot Hill** | **84.37** | **318** | *e*P | **P** | **15 13 36.7** | **+1.3** | |
| | comp=Z,12nm,1.3s | | | | | | | |
| PHWY | **Pilot Hill** | **84.37** | **318** | *e*P | **P** | **15 13 36.7** | **+1.3** | |
| | comp=Z,12nm,1.3s | | | | | | | |
| NEW | **Newport** | **84.81** | **329** | LR | LR | 15 49 47.9 | | |
| | comp=Z,92nm,20.8s,baz=36,slow=34 | | | | | | | |
| ROSC | **El Rosal** | **84.83** | **272** | LR | LR | 15 54 24.2 | | |
| | comp=Z,23nm,18.3s,baz=78,slow=38 | | | | | | | |
| KSRS | **Korea Array** | **85.28** | **46** | LR | LR | 15 57 36.8 | | |
| | comp=Z,36nm,18.2s,baz=347,slow=40 | | | | | | | |
| MOOW | **Moose Ponds** | **85.34** | **323** | *e*P | P | 15 13 45.2 | +5.0 | |
| | comp=Z,4.2nm,1.1s | | | | | | | |
| BW06 | **Boulder Array** | **85.47** | **321** | *e*P | **P** | **15 13 44.9** | **+4.0** | |
| | comp=Z,5.6nm,1.3s | | | | | | | |
| PD31 | **Pinedale Array** | **85.47** | **321** | *e*P | **P** | **15 13 45.1** | **+4.2** | |
| PDAR | **Pinedale Array** | **85.47** | **321** | P | **P** | **15 13 40.4** | **-0.4** | |
| | comp=Z,2.3nm,1.1s,baz=47,slow=6.6,SNR=2.6 | | | | | | | |
| PDAR | | | | LR | LR | 15 50 44.8 | | |
| | comp=Z,52nm,19.0s,baz=64,slow=35 | | | | | | | |
| PDAR | **Pinedale Array** | **85.47** | **321** | *e*P | **P** | **15 13 44.5** | **+3.7** | |
| PETK | **Petropavlovsk-** | **86.00** | **20** | LR | LR | 15 57 53.2 | | |
| | comp=Z,52nm,19.2s,baz=339,slow=40 | | | | | | | |
| MHTCO | **State Highway** | **86.85** | **315** | *e*P | **P** | **15 13 50.4** | **+2.7** | |
| | comp=Z,12nm,1.0s | | | | | | | |
| SDCO | **Great Sand Dun** | **86.88** | **316** | *e*P | **P** | **15 13 49.3** | **+1.3** | |
| | comp=Z,4.1nm,1.0s | | | | | | | |
| SDCO | **Great Sand Dun** | **86.88** | **316** | *e*P | **P** | **15 13 49.3** | **+1.3** | |
| | comp=Z,4.1nm,1.0s | | | | | | | |
| CPUP | **Villa Florida** | **90.70** | **238** | LR | LR | 15 55 43.0 | | |
| | comp=Z,172nm,19.0s,baz=54,slow=36 | | | | | | | |
| TXAR | **Lajitas Array** | **91.61** | **309** | P | **P** | **15 14 09.4** | **-0.7** | |
| | comp=Z,0.4nm,1.0s,baz=49,slow=4.1,SNR=2.3 | | | | | | | |
| TXAR | | | | LR | LR | 15 52 52.2 | | |
| | comp=Z,28nm,21.7s,baz=0.0,slow=34 | | | | | | | |
| LPAZ | **La Paz** | **92.35** | **252** | LR | LR | 15 56 36.5 | | |
| | comp=Z,45nm,19.0s,baz=41,slow=36 | | | | | | | |
| PMCM | **McMillan Canyo** | **96.23** | **323** | *e*P | **P** | **15 14 33.3** | **+2.1** | |
| ASAR | **Alice Springs** | **128.18** | **93** | PKP | **PKPdf** | **15 20 08.8** | **-0.5** | |
| | comp=Z,0.6nm,1.2s,baz=281,slow=1.2,SNR=2.6 | | | | | | | |

---

*TIR* ***18*** *15:13:27.0±4.6, 40.10N×20.85E, h2km±11km, ML3.2*
*IDC* ***18*** *15:13:27.9±5.3, 39.84N×19.93E, h0km, mb3.6/7, mb1 3.7/8, mb1mx3.5/31, mbtmp3.6/8, ML3.3/1, Error ellipse: s-maj=105.0km s-min=17.4km az=42.0*
*SKO* ***18*** *15:13:28.9, 40.06N×20.60E, h9km, M2.4, ML2.9*
*ATH* ***18*** *15:13:30.9, 40.20N×20.70E, h12km±1km, ML3.1/20, Error ellipse: s-maj=1.2km s-min=0.7km az=42.0*
*THE* ***18*** *15:13:31.5, 40.18N×20.72E, h0km±2km, ML3.0/6, Error ellipse: s-maj=2.5km s-min=0.7km az=260.0*
*PDG* ***18*** *15:13:32.8±0.8, 40.23N×20.80E, h7km±1km, ML3.3/12, Error ellipse: s-maj=0.9km s-min=1.5km az=0.0*
*CSEM* ***18*** *15:13:32.4±0.1, 40.15N×20.75E, h2km, ML3.0, Error ellipse: s-maj=3.2km s-min=2.1km az=67.0*

**ISC 18 15:13:31.2±1.0, 40.19N±0.01×20.71E±0.01, h4km±8km, n211,σ1ı90/281, mb3.6/6, 23C-18D, Greece-Albania border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h | m s | ISC |
| PENT | **Pentalofos** | **0.33** | **88** | P | **Pg** | **15 13 37.6** | | **0.0** |
| PENT | | | | S | **Sb** | **15 13 43.7** | | **-1.7** |
| PENT | | | | AML | AML | 15 13 46.8 | | |
| | comp=E,7188μm,0.6s | | | | | | | |
| PENT | | | | AML | AML | 15 13 47.0 | | |
| | comp=N,15154μm,0.6s | | | | | | | |
| PENT | **Pentalofos** | **0.33** | **88** | P | **P

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| KEK | | | | | S | Sn | 15 14 00.2 | -2.5 | |
| **OHR** | **Ohrid** | **0.93** | **4** | *i* Pg | Pn | 15 13 49.3 | -1.8 | | |
| OHR | | | | *i* Sg | Sn | 15 14 02.6 | -2.2 | | |
| OHR | | | | *e*Lg | Lg | 15 14 04.5 | | | |
| | comp=E,547nm,0.6s | | | | | | | | |
| OHR | | | | *e*Lg | Lg | 15 14 04.8 | | | |
| | comp=N,374nm,0.7s | | | | | | | | |
| **BIA** | **Bitola** | **0.96** | **29** | P | Pb | 15 13 49.2 | -1.2 | | |
| **BIA** | **Bitola** | **0.96** | **29** | P | Pb | 15 13 49.2 | -1.2 | | |
| **BIA** | **Bitola** | **0.96** | **29** | *i* Pg | Pb | 15 13 49.2 | -1.2 | | |
| BIA | | | | *e*Sg | Sn | 15 14 05.6 | 0.0 | | |
| **DSL** | **Palaion Diasel** | **1.09** | **164** | P | Pb | 15 13 50.3 | -2.4 | | |
| DSL | | | | AML | AML | 15 14 14.3 | | | |
| | comp=N,1603μm,0.5s | | | | | | | | |
| DSL | | | | AML | AML | 15 14 17.4 | | | |
| | comp=E,1782μm,0.5s | | | | | | | | |
| **DSL** | **Palaion Diasel** | **1.09** | **164** | P | Pb | 15 13 51.1 | -1.6 | | |
| **DSL** | **Palaion Diasel** | **1.09** | **164** | P | Pb | 15 13 51.1 | -1.6 | | |
| **KTI** | **Kastanea** | **1.10** | **79** | P | Pb | 15 13 51.5 | -1.3 | | |
| **KTI** | **Kastanea** | **1.10** | **79** | P | Pb | 15 13 51.5 | -1.3 | | |
| **THL** | **Klokotos Trika** | **1.18** | **121** | P | Pg | 15 13 54.6 | +0.8 | | |
| THL | | | | S | Sn | 15 14 09.4 | -1.6 | | |
| THL | | | | AML | AML | 15 14 15.4 | | | |
| | comp=N,1167μm,0.9s | | | | | | | | |
| THL | | | | AML | AML | 15 14 16.7 | | | |
| | comp=E,1209μm,0.5s | | | | | | | | |
| **THL** | **Klokotos Trika** | **1.18** | **121** | P | Pg | 15 13 54.6 | +0.8 | | |
| THL | | | | S | Sn | 15 14 09.4 | -1.6 | | |
| **KRUS** | **Krusevo** | **1.25** | **19** | *i* Pg | Pn | 15 13 54.0 | -1.5 | | |
| KRUS | | | | *i* Sg | Sg | 15 14 12.8 | +1.4 | | |
| **TIR** | **Tirane** | **1.33** | **331** | *i* PN | Pg | 15 13 58.9 | +2.3 | | |
| TIR | | | | *i* SN | Sg | 15 14 20.2 | +6.4 | | |
| **TIR** | **Tirane** | **1.33** | **331** | S | Sg | 15 14 23.8 | +10 | | |
| **TIR** | **Tirane** | **1.33** | **331** | P | Pn | 15 13 54.5 | -2.0 | | |
| TIR | | | | S | Sg | 15 14 12.9 | -0.9 | | |
| TIR | | | | AML | AML | 15 14 24.8 | | | |
| | comp=E,1000μm,0.7s | | | | | | | | |
| TIR | | | | AML | AML | 15 14 25.6 | | | |
| | comp=N,1577μm,0.8s | | | | | | | | |
| **TIR** | **Tirane** | **1.33** | **331** | P | Pn | 15 13 54.5 | -2.0 | | |
| **TIR** | **Tirane** | **1.33** | **331** | *i* Pn | Pg | 15 13 58.9 | +2.3 | | |
| | SNR=40 | | | | | | | | |
| TIR | | | | S | Sg | 15 14 12.9 | -0.9 | | |
| TIR | | | | *i* Sn | Sg | 15 14 20.2 | +6.4 | | |
| | SNR=40 | | | | | | | | |
| **LIT** | **Litokhoron** | **1.37** | **93** | P | Pn | 15 13 55.8 | -1.3 | | |
| **LIT** | **Litokhoron** | **1.37** | **93** | P | Pg | 15 13 57.5 | +0.1 | | |
| **LIT** | **Litokhoron** | **1.37** | **93** | P | Pg | 15 13 57.5 | +0.1 | | |
| **LKD2** | **Lefkada island** | **1.40** | **182** | P | Pb | 15 13 57.4 | -0.4 | | |
| LKD2 | | | | AML | AML | 15 14 25.3 | | | |
| | comp=N,947μm,0.5s | | | | | | | | |
| LKD2 | | | | AML | AML | 15 14 28.9 | | | |
| | comp=E,1005μm,0.7s | | | | | | | | |
| **LKD2** | **Lefkada island** | **1.40** | **182** | P | Pg | 15 13 58.1 | +0.2 | | |
| **LKD2** | **Lefkada island** | **1.40** | **182** | P | Pg | 15 13 58.1 | +0.2 | | |
| **GRG** | **Griva** | **1.50** | **59** | P | Pb | 15 13 59.1 | -0.6 | | |
| **GRG** | **Griva** | **1.50** | **59** | P | Pb | 15 13 59.1 | -0.6 | | |
| GRG | | | | S | Sg | 15 14 20.1 | +0.6 | | |
| **GRG** | **Griva** | **1.50** | **59** | P | Pb | 15 13 59.0 | -0.6 | | |
| GRG | | | | S | Sg | 15 14 20.1 | +0.6 | | |
| **PHP** | **Peshkopia** | **1.51** | **352** | *i* PN | Pg | 15 14 01.7 | +1.5 | | |
| PHP | | | | *i* SN | Sg | 15 14 25.6 | +5.7 | | |
| **PHP** | **Peshkopia** | **1.51** | **352** | *i* Pn | Pg | 15 14 01.7 | +1.5 | | |
| | SNR=40 | | | | | | | | |
| PHP | | | | *i* Sn | Sg | 15 14 25.5 | +5.7 | | |
| | SNR=40 | | | | | | | | |
| **EVR** | **Evrytania** | **1.53** | **146** | P | Pb | 15 13 58.8 | -1.3 | | |
| EVR | | | | AML | AML | 15 14 30.3 | | | |
| | comp=N,856μm,0.8s | | | | | | | | |
| EVR | | | | AML | AML | 15 14 32.2 | | | |
| | comp=E,764μm,0.8s | | | | | | | | |
| **EVR** | **Evrytania** | **1.53** | **146** | P | Pb | 15 13 59.0 | -1.1 | | |
| **EVR** | **Evrytania** | **1.53** | **146** | P | Pb | 15 13 59.0 | -1.1 | | |
| **PDO** | **Prodromos** | **1.63** | **167** | P | Pg | 15 13 01.9 | -0.5 | | |
| PDO | | | | AML | AML | 15 14 35.9 | | | |
| | comp=N,931μm,0.5s | | | | | | | | |
| PDO | | | | AML | AML | 15 14 36.4 | | | |
| | comp=E,914μm,0.6s | | | | | | | | |
| **PDO** | **Prodromos** | **1.63** | **167** | P | Pb | 15 14 01.2 | -0.6 | | |
| **PDO** | **Prodromos** | **1.63** | **167** | P | Pb | 15 14 01.2 | -0.6 | | |
| **PVO** | **Paravola** | **1.69** | **158** | P | Pb | 15 14 02.3 | -0.5 | | |
| PVO | | | | AML | AML | 15 14 38.1 | | | |
| | comp=N,815μm,0.7s | | | | | | | | |
| PVO | | | | AML | AML | 15 14 40.9 | | | |
| | comp=E,864μm,1.0s | | | | | | | | |
| **PVO** | **Paravola** | **1.69** | **158** | P | Pb | 15 14 02.3 | -0.5 | | |
| **AGG** | **Agios Georgios** | **1.71** | **132** | P | Pg | 15 14 03.4 | -0.6 | | |
| AGG | | | | S | Sg | 15 14 26.3 | +0.2 | | |
| AGG | | | | AML | AML | 15 14 34.3 | | | |
| | comp=E,1556μm,0.5s | | | | | | | | |
| AGG | | | | AML | AML | 15 14 35.1 | | | |
| | comp=N,1899μm,0.7s | | | | | | | | |
| **AGG** | **Agios Georgios** | **1.71** | **132** | P | Pb | 15 14 02.4 | -0.8 | | |
| AGG | | | | S | Sg | 15 14 26.3 | +0.2 | | |
| **AGG** | **Agios Georgios** | **1.71** | **132** | P | Pb | 15 14 02.4 | -0.8 | | |
| **SCTE** | **Santa Cesarea** | **1.72** | **267** | P | Pb | 15 14 01.7 | -1.7 | | |
| SCTE | | | | S | Sg | 15 14 26.5 | 0.0 | | |
| SCTE | | | | AML | AML | 15 14 32.6 | | | |
| | comp=N,178μm,0.4s | | | | | | | | |
| SCTE | | | | AML | AML | 15 14 34.5 | | | |
| | comp=E,303μm,0.6s | | | | | | | | |
| **SCTE** | **Santa Cesarea** | **1.72** | **267** | P | Pb | 15 14 01.7 | -1.7 | | |
| SCTE | | | | S | Sg | 15 14 26.5 | 0.0 | | |
| **VAY** | **Valandovo** | **1.81** | **51** | P | Pb | 15 14 03.5 | -1.4 | | |
| **VAY** | **Valandovo** | **1.81** | **51** | P | Pb | 15 14 03.5 | -1.4 | | |
| **VAY** | **Valandovo** | **1.81** | **51** | *i* Pg | Pb | 15 14 03.4 | -1.6 | | |
| VAY | | | | *e*Sg | Sg | 15 14 31.1 | +1.7 | | |
| VAY | | | | *e*Lg | Lg | 15 14 33.6 | | | |
| | comp=N,99nm,0.6s | | | | | | | | |
| VAY | | | | *e*Lg | Lg | 15 14 35.4 | | | |
| | comp=E,67nm,0.6s | | | | | | | | |
| **SKO** | **Skopje** | **1.87** | **17** | *e*Pg | Pg | 15 14 05.7 | -1.3 | | |
| SKO | | | | *i* Sg | Sg | 15 14 30.9 | -0.3 | | |
| SKO | | | | *e*Lg | Lg | 15 14 34.1 | | | |
| | comp=E,26nm,0.7s | | | | | | | | |
| SKO | | | | *e*Lg | Lg | 15 14 35.8 | | | |
| | comp=N,17nm,0.5s | | | | | | | | |
| **HORT** | **Hortiatis** | **1.87** | **77** | P | Pb | 15 14 05.5 | -0.4 | | |
| **HORT** | **Hortiatis** | **1.87** | **77** | P | Pb | 15 14 05.6 | -0.4 | | |
| **HORT** | **Hortiatis** | **1.87** | **77** | P | Pn | 15 14 03.5 | -0.6 | | |
| **FYTO** | **Fytoko, Volos** | **1.89** | **114** | P | Pb | 15 14 05.2 | -1.0 | | |
| FYTO | | | | AML | AML | 15 14 38.5 | | | |
| | comp=N,470μm,0.7s | | | | | | | | |
| FYTO | | | | AML | AML | 15 14 41.8 | | | |
| | comp=E,293μm,0.9s | | | | | | | | |
| **FYTO** | **Fytoko, Volos** | **1.89** | **114** | P | Pb | 15 14 05.2 | -1.0 | | |
| **KNT** | **Kendrikon** | **1.93** | **59** | P | Pn | 15 14 04.3 | -0.5 | | |
| **KNT** | **Kendrikon** | **1.93** | **59** | P | Pn | 15 14 04.6 | -0.2 | | |
| **KNT** | **Kendrikon** | **1.93** | **59** | P | Pn | 15 14 04.6 | -0.2 | | |
| **PUK** | **Puka** | **1.96** | **342** | *i* PN | Pg | 15 14 08.1 | -0.6 | | |
| PUK | | | | *i* SN | Sg | 15 14 37.8 | +3.8 | | |
| **PUK** | **Puka** | **1.96** | **342** | *i* Pn | Pg | 15 14 08.1 | -0.6 | | |
| | SNR=40 | | | | | | | | |
| PUK | | | | *i* Sn | Sg | 15 14 37.8 | +3.8 | | |
| | SNR=40 | | | | | | | | |
| **EFP** | **Efpalio** | **1.99** | **152** | P | Pb | 15 14 08.1 | +0.2 | | |
| EFP | | | | S | Sb | 15 14 33.5 | +0.5 | | |
| **VLS** | **Valsamata** | **2.01** | **183** | P | Pb | 15 14 06.2 | -2.0 | | |
| VLS | | | | AML | AML | 15 14 41.2 | | | |
| | comp=E,611μm,0.6s | | | | | | | | |
| VLS | | | | AML | AML | 15 14 44.6 | | | |
| | comp=N,576μm,0.5s | | | | | | | | |
| **VLS** | **Valsamata** | **2.01** | **183** | P | Pb | 15 14 06.8 | -1.5 | | |
| **VLS** | **Valsamata** | **2.01** | **183** | P | Pb | 15 14 06.8 | -1.5 | | |
| **AXS** | **Araxos** | **2.05** | **165** | P | Pb | 15 14 06.9 | -2.1 | | |
| **AXS** | **Araxos** | **2.05** | **165** | P | Pb | 15 14 06.9 | -2.1 | | |
| **SERG** | **Sergoula** | **2.06** | **149** | P | Pb | 15 14 08.3 | -0.8 | | |
| **SERG** | **Sergoula** | **2.06** | **149** | P | Pb | 15 14 08.3 | -0.8 | | |
| **XOR** | **Xorichti** | **2.08** | **112** | P | Pn | 15 14 06.3 | -0.6 | | |
| **XOR** | **Xorichti** | **2.08** | **112** | P | Pn | 15 14 07.0 | +0.1 | | |
| **XOR** | **Xorichti** | **2.08** | **112** | P | Pn | 15 14 07.0 | +0.1 | | |
| **ULC** | **Ulcinj** | **2.09** | **329** | *i* Pn | Pb | 15 14 09.3 | -0.4 | | |
| ULC | | | | *e*Sn | Sg | 15 14 38.1 | -0.3 | | |
| **ULC** | **Ulcinj** | **2.09** | **329** | *i* Pn | Pb | 15 14 09.3 | -0.4 | | |
| ULC | | | | *e*Sn | Sg | 15 14 38.1 | -0.3 | | |
| **PLG** | **Polygyros** | **2.10** | **84** | P | Pn | 15 14 07.4 | +0.2 | | |
| **PLG** | **Polygyros** | **2.10** | **84** | P | Pn | 15 14 07.4 | +0.2 | | |
| **TRIZ** | **Trizonia** | **2.10** | **149** | P | Pb | 15 14 09.3 | -0.6 | | |
| **TRIZ** | **Trizonia** | **2.10** | **149** | P | Pb | 15 14 09.3 | -0.6 | | |
| **KALE** | **Kalithea** | **2.11** | **148** | P | Pb | 15 14 09.2 | -0.8 | | |
| **KALE** | **Kalithea** | **2.11** | **148** | P | Pb | 15 14 09.2 | -0.8 | | |
| **SOH** | **Sokhos** | **2.12** | **72** | P | Pb | 15 14 08.3 | -1.7 | | |
| **SOH** | **Sokhos** | **2.12** | **72** | P | Pb | 15 14 08.4 | -1.7 | | |
| **NEO** | **Neokhori** | **2.13** | **114** | P | Pb | 15 14 10.3 | 0.0 | | |
| NEO | | | | AML | AML | 15 14 48.5 | | | |
| | comp=E,536μm,0.8s | | | | | | | | |
| NEO | | | | AML | AML | 15 14 48.9 | | | |
| | comp=N,544μm,0.5s | | | | | | | | |
| **NEO** | **Neokhori** | **2.13** | **114** | P | Pb | 15 14 10.3 | 0.0 | | |
| **LAKA** | **Lakka** | **2.18** | **153** | P | Pb | 15 14 09.7 | -1.5 | | |
| **LAKA** | **Lakka** | **2.18** | **153** | P | Pb | 15 14 09.7 | -1.5 | | |
| **RLS** | **Riolos of Patr** | **2.21** | **164** | P | Pb | 15 14 09.2 | -2.4 | | |
| **RLS** | **Riolos of Patr** | **2.21** | **164** | P | Pb | 15 14 09.2 | -2.4 | | |
| **PAIG** | **Paliouri** | **2.29** | **96** | P | Pn | 15 14 09.9 | +0.1 | | |
| **PAIG** | **Paliouri** | **2.29** | **96** | P | Pn | 15 14 09.9 | +0.1 | | |
| **DRME** | **Dracevica, Mon** | **2.31** | **331** | ⫴*i* Pn | Pb | 15 14 11.8 | -1.6 | | |
| DRME | | | | *e*Sn | Sg | 15 14 43.3 | -2.0 | | |
| **DRME** | **Dracevica, Mon** | **2.31** | **331** | ⫴*i* Pn | Pb | 15 14 11.8 | -1.6 | | |
| DRME | | | | *e*Sn | Sg | 15 14 43.3 | -2.0 | | |
| **SKIA** | **Skiathos** | **2.36** | **115** | P | Pn | 15 14 11.1 | +0.4 | | |
| **SKIA** | **Skiathos** | **2.36** | **115** | P | Pn | 15 14 11.1 | +0.4 | | |
| **DRO** | **Drossia** | **2.36** | **160** | P | Pn | 15 14 11.2 | +0.5 | | |
| **DRO** | **Drossia** | **2.36** | **160** | P | Pn | 15 14 11.2 | +0.5 | | |
| **KLV** | **Kalavryta, Ach** | **2.42** | **152** | P | Pb | 15 14 13.8 | -1.4 | | |
| **KLV** | **Kalavryta, Ach** | **2.42** | **152** | P | Pb | 15 14 13.8 | -1.4 | | |
| **KKB** | **Krupnik** | **2.46** | **46** | *e*P | Pn | 15 14 12.7 | +0.6 | | |
| **PVY** | **Plav** | **2.47** | **347** | ⫴*i* Pn | Pb | 15 14 15.1 | -1.2 | | |
| PVY | | | | *e*Sn | Sb | 15 14 46.1 | -1.0 | | |
| **PVY** | **Plav** | **2.47** | **347** | ⫴*i* Pn | Pb | 15 14 15.1 | -1.2 | | |
| PVY | | | | *e*Sn | Sb | 15 14 46.1 | -1.0 | | |
| **PDG** | **Podgorica** | **2.50** | **334** | ⇑*i* P | Pb | 15 14 14.7 | -1.9 | | |
| **PDG** | **Podgorica** | **2.50** | **334** | ⇑*i* P | Pb | 15 14 14.7 | -1.9 | | |
| PDG | | | | *e*Sn | Sb | 15 14 48.1 | +0.5 | | |
| PDG | | | | S | Sg | 15 14 51.4 | 0.0 | | |
| **TTG** | **Podgorica** | **2.50** | **334** | ⇑*i* Pn | Pb | 15 14 14.5 | -2.1 | | |
| TTG | | | | *e*Sn | Sb | 15 14 48.1 | +0.5 | | |
| **BUM** | **Brajici-Budva** | **2.52** | **328** | ⫴*i* Pn | Pb | 15 14 14.3 | -2.7 | | |
| BUM | | | | *e*Sn | Sb | 15 14 48.4 | +0.1 | | |
| **BUM** | **Brajici-Budva** | **2.52** | **328** | ⫴*i* Pn | Pb | 15 14 14.3 | -2.7 | | |
| BUM | | | | *e*Sn | Sb | 15 14 48.4 | +0.1 | | |
| **PROD** | **Prodromos** | **2.57** | **138** | P | Pn | 15 14 14.7 | +1.1 | | |
| **PROD** | **Prodromos** | **2.57** | **138** | P | Pn | 15 14 14.7 | +1.1 | | |
| **GUR** | **Goura** | **2.58** | **150** | P | Pb | 15 14 15.4 | -2.7 | | |
| **GUR** | **Goura** | **2.58** | **150** | P | Pb | 15 14 15.4 | -2.7 | | |
| **NVR** | **Nevrokopi** | **2.66** | **63** | P | Pb | 15 14 16.2 | -3.2 | | |
| **NVR** | **Nevrokopi** | **2.66** | **63** | P | Pb | 15 14 16.2 | -3.2 | | |
| **MMB** | **Musomiste** | **2.68** | **58** | *e*P | Pn | 15 14 15.1 | -0.1 | | |
| **CEME** | **Cevo** | **2.72** | **331** | ⫴*i* Pn | Pb | 15 14 17.1 | -3.3 | | |
| CEME | | | | *e*Sn | Sb | 15 14 53.4 | -0.7 | | |
| **CEME** | **Cevo** | **2.72** | **331** | ⫴*i* Pn | Pb | 15 14 17.1 | -3.3 | | |
| CEME | | | | *e*Sn | Sb | 15 14 53.4 | -0.7 | | |
| **BEY** | **Berane** | **2.75** | **347** | ⇑*i* Pn | Pb | 15 14 18.9 | -2.1 | | |
| BEY | | | | *e*Sn | Sb | 15 14 53.0 | -2.1 | | |
| **IVA** | **Berane** | **2.75** | **347** | ⇑*i* Pn | Pb | 15 14 18.9 | -2.1 | | |
| IVA | | | | *e*Sn | Sb | 15 14 53.0 | -2.1 | | |
| **AMT** | **Artemida-Makis** | **2.76** | **163** | P | Pn | 15 14 16.9 | +0.6 | | |
| **AMT** | **Artemida-Makis** | **2.76** | **163** | P | Pn | 15 14 16.9 | +0.6 | | |
| **LTK** | **Loutraki** | **2.78** | **140** | P | Pb | 15 14 19.4 | -2.1 | | |
| **LTK** | **Loutraki** | **2.78** | **140** | P | Pb | 15 14 19.4 | -2.1 | | |
| **VIL2** | **Platees** | **2.80** | **134** | P | Pb | 15 14 18.9 | -2.9 | | |
| **HCY** | **Herceg Novi** | **2.81** | **324** | ⇑*i* Pn | Pb | 15 14 19.5 | -2.4 | | |
| HCY | | | | *e*Sn | Sb | 15 14 55.4 | -1.2 | | |
| **HCY** | **Herceg Novi** | **2.81** | **324** | ⇑*i* Pn | Pb | 15 14 19.5 | -2.4 | | |
| HCY | | | | *e*Sn | Sb | 15 14 55.4 | -1.2 | | |
| **KOME** | **Kolasin** | **2.81** | **342** | ⇑*i* Pn | Pb | 15 14 19.4 | -2.6 | | |
| KOME | | | | *e*Sn | Sb | 15 14 56.1 | -0.7 | | |
| **KOME** | **Kolasin** | **2.81** | **342** | ⇑*i* Pn | Pb | 15 14 19.4 | -2.6 | | |
| KOME | | | | *e*Sn | Sb | 15 14 56.1 | -0.7 | | |
| **VILL** | **Villia** | **2.86** | **134** | P | Pn | 15 14 18.9 | +1.3 | | |
| **NKME** | **Niksic** | **2.90** | **333** | ⇑*i* Pn | Pb | 15 14 19.9 | -3.5 | | |
| NKME | | | | *e*Sn | Sb | 15 14 56.9 | -2.3 | | |
| **NKME** | **Niksic** | **2.90** | **333** | ⇑*i* Pn | Pb | 15 14 19.9 | -3.5 | | |
| NKME | | | | *e*Sn | Sb | 15 14 56.9 | -2.3 | | |
| **NKY** | **Niksic** | **2.92** | **334** | ⇑*i* Pn | Pb | 15 14 21.1 | -2.8 | | |
| NKY | | | | *e*Sn | Sb | 15 14 57.3 | -2.8 | | |
| **NKY** | **Niksic** | **2.92** | **334** | ⇑*i* Pn | Pb | 15 14 21.1 | -2.8 | | |
| NKY | | | | *e*Sn | Sb | 15 14 57.3 | -2.8 | | |
| **VTS** | **Vitosha** | **3.05** | **37** | ⫴*i* P | Pb | 15 14 22.0 | -4.2 | | |
| **VTS** | **Vitosha** | **3.05** | **37** | ⫴*i* P | Pb | 15 14 21.9 | -4.2 | | |
| **VTS** | **Vitosha** | **3.05** | **37** | ⫴*i* P | Pb | 15 14 22.0 | -4.2 | | |
| **SJES** | **Sjenica** | **3.12** | **350** | *e*Pn | Pb | 15 14 24.9 | -2.4 | | |
| **BRY** | **Bratogost** | **3.16** | **330** | ⇑*i* Pn | Pb | 15 14 24.5 | -3.6 | | |
| BRY | | | | *e*Sn | Sb | 15 15 03.5 | -3.5 | | |
| **BRY** | **Bratogost** | **3.16** | **330** | ⇑*i* Pn | Pb | 15 14 24.5 | -3.6 | | |
| BRY | | | | *e*Sn | Sb | 15 15 03.5 | -3.5 | | |
| **ATHU** | **Athens Univers** | **3.26** | **132** | P | Pb | 15 14 25.6 | -4.0 | | |
| **ATHU** | **Athens Univers** | **3.26** | **132** | P | Pb | 15 14 25.6 | -4.0 | | |
| **UPM** | **Unac-Piva** | **3.30** | **336** | *e*Pn | Pb | 15 14 26.1 | -4.4 | | |
| UPM | | | | *e*Sn | Sb | 15 15 06.5 | -4.6 | | |
| **UPM** | **Unac-Piva** | **3.30** | **336** | *e*Pn | Pb | 15 14 26.1 | -4.4 | | |
| UPM | | | | *e*Sn | Sb | 15 15 06.5 | -4.6 | | |
| **DID** | **Didima** | **3.33** | **143** | P | Pn | 15 14 24.8 | +0.8 | | |
| **DID** | **Didima** | **3.33** | **143** | P | Pn | 15 14 24.8 | +0.8 | | |
| **VLY** | **Voula,Athens** | **3.35** | **133** | P | Pn | 15 14 25.4 | +1.1 | | |
| **VLY** | **Voula,Athens** | **3.35** | **133** | P | Pn | 15 14 25.4 | +1.1 | | |
| **PYL** | **PYLOS** | **3.38** | **166** | P | Pn | 15 14 25.9 | +1.2 | | |
| **PYL** | **PYLOS** | **3.38** | **166** | P | Pn | 15 14 26.0 | +1.2 | | |
| **RZN** | **Rozhen** | **3.39** | **62** | *e*P | Pn | 15 14 25.6 | +0.6 | | |
| **IVAS** | **Ivanjica** | **3.41** | **353** | *e*Pn | Pb | 15 14 28.1 | -4.2 | | |
| **STON** | **Ston** | **3.51** | **321** | *e*Pn | Pn | 15 14 27.2 | +0.7 | | |
| STON | | | | Sn | Sn | 15 15 10.4 | +2.0 | | |
| **STON** | **Ston** | **3.51** | **321** | *e*Pn | Pn | 15 14 27.1 | +0.7 | | |
| STON | | | | Sn | Sn | 15 15 10.3 | +2.0 | | |
| **BOVS** | **Bovan** | **3.53** | **12** | *e*Pn | Pn | 15 14 27.3 | +0.6 | | |
| **KARY** | **Karystos** | **3.61** | **125** | P | Pn | 15 14 28.3 | +0.4 | | |
| **KARY** | **Karystos** | **3.61** | **125** | P | Pn | 15 14 28.3 | +0.4 | | |
| **GRUS** | **Gruza** | **3.70** | **0** | *e*Pn | Pn | 15 14 31.5 | +2.4 | | |
| **ZAGS** | **Zajecar** | **3.80** | **17** | *e*Pn | Pn | 15 14 31.4 | +0.9 | | |
| **VLI** | **Veliai** | **3.88** | **152** | P | Pn | 15 14 32.6 | +1.0 | | |
| **VLI** | **Veliai** | **3.88** | **152** | P | Pn | 15 14 32.6 | +1.0 | | |
| **DIVS** | **Divibare** | **3.95** | **352** | *e*Pn | Pn | 15 14 31.6 | -1.0 | | |
| **TRUS** | **Trudelj** | **4.04** | **357** | *e*Pn | Pn | 15 14 35.5 | +1.7 | | |
| **KUBS** | **Kucevo** | **4.28** | **9** | *e*Pn | Pn | 15 14 37.9 | +0.7 | | |
| **TEKS** | **Tekeris** | **4.45** | **349** | *e*Pn | Pn | 15 14 41.3 | +1.9 | | |
| **MDVR** | **Moldovita** | **4.65** | **9** | ⫴*i* P | Pn | 15 14 45.8 | +3.5 | | |
| **MDVR** | **Moldovita** | **4.65** | **9** | ⫴*i* P | Pn | 15 14 45.8 | +3.5 | | |
| **FGSL** | **Fruska Gora** | **5.01** | **353** | *e*Pn | Pn | 15 14 49.2 | +2.0 | | |
| **BZS** | **Buzias** | **5.47** | **7** | ⇑*i* P | Pn | 15 14 55.8 | +2.4 | | |
| **BZS** | **Buzias** | **5.47** | **7** | ⇑*i* P | Pn | 15 14 55.8 | +2.4 | | |
| **UDBI** | **Udbina** | **5.68** | **321** | *i* Pn | Pn | 15 14 58.2 | +1.9 | | |
| UDBI | | | | Sn | Sn | 15 16 02.5 | +0.5 | | |
| **UDBI** | **Udbina** | **5.68** | **321** | *i* Pn | Pn | 15 14 58.2 | +1.9 | | |
| **ARR** | **Arges** | **5.93** | **28** | ⇑*i* P | Pn | 15 15 02.8 | +3.0 | | |
| **ARR** | **Arges** | **5.93** | **28** | ⇑*i* P | Pn | 15 15 02.8 | +3.0 | | |
| **VOIR** | | **6.14** | **30** | ⇑*i* P | Pn | 15 15 04.7 | +2.0 | | |
| **VOIR** | | **6.14** | **30** | ⇑*i* P | Pn | 15 15 04.7 | +2.0 | | |
| **NVLJ** | **Novalja** | **6.15** | **317** | *e*Pn | Pn | 15 15 03.1 | +0.3 | | |
| **NVLJ** | **Novalja** | **6.15** | **317** | *e*Pn | Pn | 15 15 03.0 | +0.3 | | |
| **MLR** | **Muntele Rosu** | **6.55** | **34** | ⇑*i* P | Pn | 15 15 12.6 | +4.2 | | |
| **MLR** | **Muntele Rosu** | **6.55** | **34** | ⇑*i* P | Pn | 15 15 12.6 | +4.2 | | |
| **PLOR** | **Plostina** | **7.14** | **36** | ⫴*i* P | Pn | 15 15 19.3 | +2.9 | | |
| **PLOR** | **Plostina** | **7.14** | **36** | ⫴*i* P | Pn | 15 15 19.3 | +2.9 | | |
| **VRI** | **Vrincioaia** | **7.19** | **36** | ⫴*i* P | Pn | 15 15 19.8 | +2.8 | | |
| **VRI** | **Vrincioaia** | **7.19** | **36** | ⫴*i* P | Pn | 15 15 19.8 | +2.8 | | |
| **GERES** | **GERESS Array B** | **9.99** | **332** | Pn | Pn | 15 15 54.6 | -1.0 | | |
| | comp=N,0.1nm,0.3s,baz=163,slow=14,SNR=2.7 | | | | | | | | |
| GERES | | | | Sn | Sn | 15 17 47.0 | -1.2 | | |
| | comp=N,0.2nm,0.3s,baz=158,slow=21,SNR=3.5 | | | | | | | | |
| **SET** | **Setif** | **12.68** | **257** | P | Pn | 15 16 34.0 | +1.6 | | |
| **HFS** | **Hagfors** | **20.45** | **350** | P | Pn | 15 18 09.2 | -2.3 | | |
| | comp=N,4.2nm,0.9s,baz=163,slow=11,SNR=3.9 | | | | | | | | |
| **FINES** | **FINESS Array B** | **21.54** | **7** | P | P | 15 18 21.2 | +0.1 | | |
| | comp=N,4.3nm,0.9s,baz=170,slow=11,SNR=4.5 | | | | | | | | |
| **NOA** | **NORSAR Array B** | **21.69** | **347** | P | P | 15 18 22.4 | -0.4 | | |
| | comp=N,1.5nm,0.8s,baz=156,slow=10,SNR=3.2 | | | | | | | | |
| **ARCES** | **ARCESS Array B** | **29.52** | **3** | P | P | 15 19 35.0 | -1.3 | | |
| | comp=N,2.4nm,1.0s,baz=197,slow=11,SNR=3.0 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **44.15** | **60** | P | P | 15 21 43.9 | +3.1 | | |
| | comp=N,0.4nm,0.6s,baz=287,slow=7.5,SNR=6.2 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **44.26** | **50** | P | P | 15 21 44.3 | +2.7 | | |
| | comp=N,0.4nm,0.4s,baz=282,slow=8.1,SNR=2.5 | | | | | | | | |
| **SONM** | **Songino Array** | **59.08** | **52** | P | P | 15 23 35.8 | +3.2 | | |
| | comp=N,0.3nm,0.7s,baz=302,slow=8.3,SNR=3.8 | | | | | | | | |

*IDC **18** 15:25:59.1±1.7, 36°.33S×72°.49W, h0km, mb3.5/4, mb1 3.8/6, mb1mx3.7/20, mbtmp3.6/6, ML3.8/2, Error ellipse: s-maj=44.9km s-min=29.1km az=83.0*
*ISCJB **18** 15:26:04.9±0.7, 36°.52S±0°.05×72°.60W±0°.09, h76km±5km, mb3.5/3, Error ellipse: s-maj=12.9km s-min=8.0km az=24.3*
*NEIC **18** 15:26:06.6±1.4, 36°.42S×72°.34W, h63km±15km, MG4.1(GUC), Error ellipse: s-maj=26.1km s-min=11.8km az=91.0*
*NEIC Felt [IV] at Chillan, Quirihue and San Nicolas; [II] at Cauquenes, Tome and Yumbel; [II] at Concepcion.*
*GUC **18** 15:26:06.0±0.4, 36°.54S×72°.59W, h71km±2km, ML4.1*

**ISC 18 15:26:06.0±0.9, 36°.49S±0°.06×72°.60W±0°.07, h69km±8km, n19, σ1§17/21, mb3.7/3, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|---|
| **COCH** | **Cobquecura** | **0.39** | **337** | *e*P | | **Pn** | | **15 26 18.2** | **+0.6** |
| COCH | | | | *e*S | | **Sn** | | **15 26 27.1** | **+0.9** |
| COCH | | | | IAML | | | | 15 26 28.0 | |
| | comp=N,11μm,0.5s | | | | | | | | |
| **CCHI** | **Chillan** | **0.44** | **105** | *e*P | | **Pn** | | **15 26 18.1** | **0.0** |
| CCHI | | | | *e*S | | **Sn** | | **15 26 26.9** | **-0.1** |
| CCHI | | | | IAML | | | | 15 26 27.7 | |
| | comp=E,25μm,0.3s | | | | | | | | |
| **CCSP** | **San Pedro de C** | **0.54** | **229** | *e*P | | **Pn** | | **15 26 18.7** | **-0.3** |
| CCSP | | | | *e*S | | **Sn** | | **15 26 28.2** | **-0.5** |
| CCSP | | | | IAML | | | | 15 26 29.3 | |
| | comp=N,29μm,0.3s | | | | | | | | |
| **GO05** | **HualaæØ** | **1.57** | **20** | *e*P | | **Pn** | | **15 26 32.5** | **+0.5** |
| GO05 | | | | *e*S | | **Sn** | | **15 26 52.2** | **+0.7** |
| GO05 | | | | IAML | | | | 15 26 56.5 | |
| | comp=N,2μm,0.2s | | | | | | | | |
| **NICH** | **Los Niches** | **1.86** | **37** | *e*P | | **Pn** | | **15 26 36.1** | **+0.5** |
| NICH | | | | *e*S | | **Sn** | | **15 26 58.9** | **+0.7** |
| **LMEL** | **Las Melosas** | **3.29** | **37** | *e*P | | **Pn** | | **15 26 56.2** | **+0.9** |
| **ANTU** | **Antumapu** | **3.33** | **30** | *e*P | | **Pn** | | **15 26 56.2** | **+0.5** |
| **PEL** | **Peldehue** | **3.69** | **26** | *e*P | | **Pn** | | **15 27 00.9** | **+0.3** |
| **PLCA** | **Paso Flores** | **4.53** | **160** | Pn | | **Pn** | | **15 27 12.6** | **+0.5** |
| | comp=N,0.6nm,0.3s,baz=357,slow=12,SNR=21 | | | | | | | | |
| PLCA | | | | Sn | | Sn | | 15 28 14.0 | +10 |
| | comp=N,1.6nm,0.3s,baz=302,slow=19,SNR=3.3 | | | | | | | | |
| **LCO** | **Las Campanas** | **7.63** | **13** | *e*Pn | | **Pn** | | **15 27 54.1** | **-0.6** |
| | comp=N,8.6nm,0.4s | | | | | | | | |
| LCO | | | | *e*Sn | | **Sn** | | **15 29 16.5** | **-3.3** |
| **CPUP** | **Villa Florida** | **16.49** | **56** | Pn | | **Pn** | | **15 29 51.3** | **-1.6** |
| | comp=N,0.2nm,0.3s,baz=230,slow=11,SNR=4.5 | | | | | | | | |
| **LPAZ** | **La Paz** | **20.51** | **12** | P | | **P** | | **15 30 38.1** | **-1.2** |
| | comp=N,0.5nm,0.6s,baz=193,slow=14,SNR=2.0 | | | | | | | | |
| **SIV** | **San Ignacio** | **22.85** | **30** | P | | **P** | | **15 31 03.0** | **-0.7** |
| | comp=N,2.9nm,0.9s,baz=217,slow=14,SNR=10 | | | | | | | | |
| **TXAR** | **Lajitas Array** | **

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| YUK | | | | smax | smax | | | |
| | comp=N,248nm,0.4s | | | | | | | |
| YUK | | | | smax | smax | | | |
| | comp=E,682nm,0.5s | | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **3.90** | **256** | *e*P | **Pn** | **15 34 54.1** | **+2.2** |
| YUK | | | | AMB | AMB | 15 34 55.0 | | |
| | comp=E,90nm,0.3s | | | | | | | |
| YUK | | | | AMB | AMB | 15 34 55.0 | | |
| | comp=E,110nm,0.3s | | | | | | | |
| YUK | | | | AMB | AMB | 15 34 55.0 | | |
| | comp=E,162nm,0.3s | | | | | | | |
| YUK | | | | *e*S | **Sn** | **15 35 37.7** | **+1.3** |
| YUK | | | | A | A | 15 35 44.2 | | |
| | comp=E,250nm,0.4s | | | | | | | |
| YUK | | | | A | A | 15 35 44.2 | | |
| | comp=E,680nm,0.4s | | | | | | | |
| **LAGR** | **Lagunnoye** | **3.94** | **257** | *e*PN | **Pn** | **15 34 55.3** | **+2.8** |
| LAGR | | | | *e*S | **Sn** | **15 35 39.9** | **+2.4** |
| **LAGR** | **Lagunnoye** | **3.94** | **257** | *e*P | **Pn** | **15 34 55.3** | **+2.8** |
| LAGR | | | | *e*S | **Sn** | **15 35 39.9** | **+2.4** |
| **GRPR** | **Tuman** | **3.97** | **256** | *e*PN | **Pn** | **15 34 54.9** | **+2.0** |
| GRPR | | | | S | **Sn** | **15 35 39.1** | **+0.9** |
| **GRPR** | **Tuman** | **3.97** | **256** | *e*P | **Pn** | **15 34 54.9** | **+2.0** |
| GRPR | | | | *e*S | **Sn** | **15 35 39.1** | **+0.9** |
| **NEM2** | **Nemuro 2** | **4.22** | **248** | P | **Pn** | **15 34 57.7** | **+1.4** |
| NEM2 | | | | *e*S | **Sn** | **15 35 44.0** | **-0.4** |
| **GLVR** | **Golovnino** | **4.23** | **254** | *e*PN | **Pn** | **15 34 58.5** | **+2.1** |
| GLVR | | | | *e*S | **Sn** | **15 35 45.4** | **+0.9** |
| **GLVR** | **Golovnino** | **4.23** | **254** | *e*P | **Pn** | **15 34 58.5** | **+2.1** |
| GLVR | | | | *e*S | **Sn** | **15 35 45.4** | **+0.9** |
| **JRA** | **Rausu** | **4.44** | **257** | P | **Pn** | **15 35 02.4** | **+3.1** |
| **JNK** | **Nakash** | **4.83** | **254** | P | **Pn** | **15 35 06.9** | **+2.3** |
| JNK | | | | *e*S | **Sn** | **15 35 59.7** | **+0.4** |
| **JAK** | **Akkeshi** | **5.07** | **248** | P | **Pn** | **15 35 09.2** | **+1.2** |
| JAK | | | | *e*S | **Sn** | **15 36 05.7** | **+0.3** |
| **JTKR** | **Abashiri--Toko** | **5.27** | **261** | P | **Pn** | **15 35 13.9** | **+3.2** |
| **JAR** | **Ashorobuto** | **5.58** | **254** | P | **Pn** | **15 35 17.7** | **+2.8** |
| JAR | | | | *e*S | **Sn** | **15 36 20.2** | **+2.5** |
| **JMP** | **Maruseppu** | **5.65** | **262** | P | **Pn** | **15 35 19.3** | **+3.3** |
| **JOB** | **Onbets** | **5.69** | **250** | P | **Pn** | **15 35 18.5** | **+2.1** |
| JOB | | | | *e*S | **Sn** | **15 36 20.9** | **+0.5** |
| **HRK** | **Horoka** | **5.96** | **257** | *e*P | **Pn** | **15 35 23.7** | **+3.5** |
| **JKK2** | **Kamakawa 2** | **6.11** | **262** | P | **Pn** | **15 35 25.7** | **+3.4** |
| **YSS** | **Yuzh-Sakhalins** | **6.12** | **291⇑** | *e*PN | Pn | 15 35 33.4 | +11 |
| YSS | | | | pmax | pmax | | | |
| | comp=Z,30nm,0.8s | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **6.12** | **291** | *e*P | **Pn** | **15 35 24.4** | **+2.0** |
| YSS | | | | AMB | AMB | 15 35 34.4 | | |
| | comp=Z,30nm,0.8s | | | | | | | |
| **JCH** | **Churui** | **6.12** | **249** | P | **Pn** | **15 35 23.9** | **+1.5** |
| JCH | | | | *e*S | **Sn** | **15 36 31.9** | **+0.7** |
| **JKA** | **Kamikawa-asahi** | **6.16** | **264** | *e*P | **Pn** | **15 35 26.6** | **+3.7** |
| **ASAJ** | **Asahikawa** | **6.16** | **264** | P | **Pn** | **15 35 26.6** | **+3.6** |
| | comp=Z,3.2nm,0.3s,baz=292,slow=30,SNR=26 | | | | | | | |
| **ASAJ** | **Asahikawa** | **6.16** | **264** | P | **Pn** | **15 35 26.5** | **+3.6** |
| **MYR** | **Moyori** | **6.32** | **247** | *e*P | **Pn** | **15 35 27.2** | **+2.0** |
| MYR | | | | *e*S | **Sn** | **15 36 35.1** | **-1.0** |
| **JFR** | **Furan** | **6.43** | **256** | P | **Pn** | **15 35 30.3** | **+3.7** |
| **JWK2** | **Keihoku** | **6.52** | **275** | P | Pn | 15 35 32.8 | +4.9 |
| **JEM** | **Erimo** | **6.54** | **245** | P | **Pn** | **15 35 31.4** | **+3.2** |
| **JAB** | **Ashibetsu** | **6.58** | **259** | P | **Pn** | **15 35 33.1** | **+4.5** |
| **JNBK** | **Urakawa-nobuka** | **6.68** | **248** | P | **Pn** | **15 35 31.2** | **+1.2** |
| JNBK | | | | *e*S | **Sn** | **15 36 44.4** | **-0.4** |
| **JBT2** | **Biratori 2** | **6.72** | **253** | P | **Pn** | **15 35 32.5** | **+1.8** |
| JBT2 | | | | *e*S | **Sn** | **15 36 49.1** | **+3.1** |
| **JEW** | **Eniwo** | **7.33** | **256** | P | **Pn** | **15 35 42.1** | **+3.2** |
| **JNB** | **Noboribetsu** | **7.75** | **254** | P | **Pn** | **15 35 47.5** | **+2.8** |
| JNB | | | | *e*S | **Sn** | **15 37 09.7** | **-1.5** |
| **JKB** | **Kayabe** | **8.00** | **250** | P | **Pn** | **15 35 49.5** | **+1.4** |
| JKB | | | | *e*S | **Sn** | **15 37 13.3** | **-4.0** |
| **JYM2** | **Yakumo 2** | **8.34** | **253** | P | **Pn** | **15 35 54.2** | **+1.3** |
| **JANG** | **Nango** | **8.48** | **240** | P | **Pn** | **15 35 54.5** | **-0.4** |
| JANG | | | | *e*S | **Sn** | **15 37 23.9** | **-5.4** |
| **JTM** | **Tenmabayashi** | **8.53** | **243** | P | **Pn** | **15 35 56.3** | **+0.9** |
| JTM | | | | *e*S | **Sn** | **15 37 25.5** | **-4.8** |
| **JTH** | **Tanohata** | **8.54** | **236** | *e*S | **Sn** | **15 37 24.4** | **-6.4** |
| **PETK** | **Petropavlovsk-** | **9.12** | **26** | P | **Pn** | **15 36 03.4** | **-0.2** |
| | comp=Z,0.4nm,0.3s,baz=187,slow=9.4,SNR=15 | | | | | | | |
| PETK | | | | LR | LR | 15 39 24.3 | | |
| | comp=Z,90nm,18.9s,baz=240,slow=37 | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **12.96** | **233** | P | **Pn** | **15 36 57.3** | **+1.2** |
| | comp=Z,0.3nm,0.3s,baz=30,slow=13,SNR=4.7 | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **13.65** | **273** | P | **Pn** | **15 37 06.5** | **+1.0** |
| | comp=Z,0.3nm,0.3s,baz=84,slow=16,SNR=6.2 | | | | | | | |
| USRK | | | | LR | LR | 15 42 22.9 | | |
| | comp=Z,112nm,20.2s,baz=11,slow=37 | | | | | | | |
| **KLR** | **Kul'dur** | **13.82** | **294** | P | **P** | **15 37 11.5** | **-4.1** |
| | comp=Z,0.0nm,0.3s,baz=109,slow=15,SNR=8.7 | | | | | | | |
| KLR | | | | LR | LR | 15 42 49.7 | | |
| | comp=Z,16nm,19.0s,baz=98,slow=39 | | | | | | | |
| **EKMR** | **Ekimchan** | **14.32** | **310** | *e*P | **Pn** | **15 37 15.9** | **+1.3** |
| EKMR | | | | AMB | AMB | 15 37 27.8 | | |
| | comp=Z,11nm,1.0s | | | | | | | |
| **BMKR** | **Bomnak** | **17.22** | **312** | *e*P | **P** | **15 37 52.5** | **-0.9** |
| BMKR | | | | AMB | AMB | 15 37 57.0 | | |
| | comp=Z,4.0nm,0.8s | | | | | | | |
| **ZEA** | **Zeya** | **17.72** | **308** | *e*P | **Pn** | **15 37 55.0** | **-3.3** |
| ZEA | | | | AMB | AMB | 15 38 01.5 | | |
| | comp=Z,18nm,1.0s | | | | | | | |
| **SEY** | **Seymchan** | **17.91** | **2** | P | **P** | **15 37 59.3** | **-1.6** |
| | comp=Z,0.1nm,0.3s,baz=205,slow=17,SNR=3.1 | | | | | | | |
| **KROS** | **Kirovskiy** | **18.12** | **310** | *e*P | **P** | **15 38 05.0** | **+1.7** |
| KROS | | | | AMB | AMB | 15 38 05.2 | | |
| | comp=Z,3.0nm,0.5s | | | | | | | |
| **KSRS** | **Korea Array** | **18.98** | **254** | P | **Pn** | **15 38 14.6** | **+0.9** |
| | comp=Z,0.2nm,0.3s,baz=60,slow=11,SNR=11 | | | | | | | |
| KSRS | | | | LR | LR | 15 45 43.6 | | |
| | comp=Z,69nm,18.0s,baz=354,slow=37 | | | | | | | |
| **YAK** | **Yakutsk** | **21.06** | **331** | P | **P** | **15 38 32.4** | **-2.7** |
| | comp=Z,6.8nm,0.4s,baz=206,slow=1.3,SNR=9.8 | | | | | | | |
| **YAK** | **Yakutsk** | **21.06** | **331** | *e*P | **P** | **15 38 33.8** | **-1.4** |
| YAK | | | | pmax | pmax | | | |
| | comp=Z,20nm,1.1s | | | | | | | |
| YAK | | | | pmax | pmax | | | |
| | comp=N,11nm,1.4s | | | | | | | |
| YAK | | | | pmax | pmax | | | |
| | comp=E,10.0nm,1.6s | | | | | | | |
| **YAK** | **Yakutsk** | **21.06** | **331** | *e*P | **P** | **15 38 33.8** | **-1.4** |
| **BILL** | **Bilibino** | **24.35** | **14** | *e*P | **P** | **15 39 10.4** | **+1.7** |
| BILL | | | | *e* | | 15 39 44.3 | | |
| BILL | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,1.0s | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.46** | **147** | T | T | 16 11 24.1 | | |
| | baz=337 | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.47** | **148** | T | T | 16 11 25.2 | | |
| | baz=337,slow=74 | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.48** | **147** | T | T | 16 11 25.5 | | |
| | baz=337,slow=74 | | | | | | | |
| **TIXI** | **Tiksi** | **28.72** | **346** | P | **P** | **15 39 45.9** | **-2.0** |
| | comp=Z,1.0nm,0.3s,baz=133,slow=6.9,SNR=8.3 | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.50** | **149** | T | T | 16 12 42.9 | | |
| | baz=337,slow=76 | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.51** | **149** | T | T | 16 12 44.9 | | |
| | baz=337,slow=76 | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.52** | **149** | T | T | 16 12 45.7 | | |
| | baz=337,slow=76 | | | | | | | |
| **SONM** | **Songino Array** | **30.61** | **291** | P | **P** | **15 40 05.2** | **0.0** |
| | comp=Z,0.8nm,0.6s,baz=78,slow=7.7,SNR=4.3 | | | | | | | |
| **TLY** | **Talaya** | **31.75** | **299** | LR | LR | 15 54 09.5 | | |
| | comp=Z,70nm,18.8s,baz=1.5,slow=38 | | | | | | | |
| **KDAK** | **Kodiak Island** | **36.25** | **49** | LR | LR | 15 53 01.8 | | |
| | comp=Z,173nm,22.0s,baz=120,slow=32 | | | | | | | |
| **ILAR** | **Eielson Array** | **38.73** | **37** | P | **P** | **15 41 14.8** | **0.0** |
| | comp=Z,0.5nm,0.6s,baz=265,slow=7.8,SNR=5.0 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.48** | **307** | P | **P** | **15 41 44.8** | **-1.1** |
| | comp=Z,0.4nm,0.4s,baz=62,slow=9.9,SNR=2.6 | | | | | | | |
| ZALV | | | | PcP | **PcP** | **15 43 38.9** | **+0.7** |
| | comp=Z,1.2nm,0.6s,baz=90,slow=1.7,SNR=5.9 | | | | | | | |
| ZALV | | | | LR | LR | 16 00 29.3 | | |
| | comp=Z,64nm,18.3s,baz=70,slow=38 | | | | | | | |
| **INK** | **Inuvik** | **43.81** | **31** | P | **P** | **15 41 55.6** | **-0.8** |
| | comp=Z,1.2nm,0.8s,baz=308,slow=5.6,SNR=5.9 | | | | | | | |
| **MKAR** | **Makanchi Array** | **46.49** | **298** | P | **P** | **15 42 17.3** | **-0.8** |
| | comp=Z,1.6nm,0.7s,baz=74,slow=7.9,SNR=16 | | | | | | | |
| MKAR | | | | PcP | **PcP** | **15 43 51.3** | **-0.8** |
| | comp=Z,0.6nm,0.5s,baz=70,slow=1.7,SNR=5.6 | | | | | | | |
| MKAR | | | | LR | LR | 16 02 46.6 | | |
| | comp=Z,82nm,19.5s,baz=50,slow=37 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **50.62** | **256** | P | **P** | **15 42 51.8** | **+1.7** |
| | comp=Z,1.0nm,0.8s,baz=40,slow=8.1,SNR=8.4 | | | | | | | |
| CMAR | | | | LR | LR | 16 07 04.5 | | |
| | comp=Z,22nm,18.2s,baz=95,slow=39 | | | | | | | |
| **TAPN** | **Taplejung** | **52.80** | **273** | *e*P | **P** | **15 43 07.8** | **+1.1** |
| | comp=Z,16nm,0.9s | | | | | | | |
| **RES** | **Resolute Bay** | **52.87** | **18** | P | **P** | **15 43 05.8** | **-0.3** |
| | comp=Z,2.2nm,0.8s,baz=326,slow=7.3,SNR=4.1 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **53.10** | **35** | P | **P** | **15 43 08.5** | **+0.5** |
| | comp=Z,0.5nm,0.7s,baz=298,slow=6.7,SNR=6.3 | | | | | | | |
| **AAK** | **Ala-Archa** | **53.33** | **296** | P | **P** | **15 43 10.8** | **+0.5** |
| | comp=Z,2.7nm,0.8s,baz=132,slow=5.1,SNR=9.3 | | | | | | | |
| **GUN** | **Gumba** | **53.76** | **275** | *e*P | **P** | **15 43 14.8** | **+1.0** |
| | comp=Z,15nm,0.6s | | | | | | | |
| **RAMN** | **Ramite** | **53.83** | **273** | *e*P | **P** | **15 43 15.1** | **+0.9** |
| | comp=Z,21nm,0.6s | | | | | | | |
| **KKN** | **Kakani** | **54.25** | **275** | *e*P | **P** | **15 43 18.6** | **+1.4** |
| **PKI** | **Pulchoki** | **54.30** | **275** | *e*P | **P** | **15 43 18.4** | **+0.7** |
| | comp=Z,7.5nm,0.7s | | | | | | | |
| **PKIN** | **Phulchoki** | **54.30** | **275** | *e*P | **P** | **15 43 18.6** | **+1.0** |
| **DMN** | **Daman** | **54.49** | **275** | *e*P | **P** | **15 43 20.2** | **+1.2** |
| **KOLN** | **Koldanda** | **55.45** | **276** | *e*P | **P** | **15 43 27.0** | **+1.1** |
| **PYUN** | **Piuthan** | **55.68** | **277** | *e*P | **P** | **15 43 28.9** | **+1.4** |
| | comp=Z,8.3nm,0.5s | | | | | | | |
| **ARCES** | **ARCESS Array B** | **58.98** | **341** | P | **P** | **15 43 48.8** | **-1.1** |
| | comp=Z,1.1nm,0.8s,baz=36,slow=8.1,SNR=3.2 | | | | | | | |
| **SUMG** | **Summit** | **62.46** | **3** | *i* P | **P** | **15 44 14.2** | **+0.1** |
| SUMG | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,0.7s | | | | | | | |
| **SUMG** | **Summit** | **62.46** | **3** | *i* P | **P** | **15 44 14.2** | **+0.1** |
| | comp=Z,7.1nm,0.7s | | | | | | | |
| **FINES** | **FINESS Array B** | **64.96** | **334** | P | **P** | **15 44 28.3** | **-1.8** |
| | comp=Z,2.2nm,0.7s,baz=34,slow=8.4,SNR=8.4 | | | | | | | |
| **GEYT** | **Alibeck** | **66.26** | **300** | P | **P** | **15 44 39.5** | **+0.4** |
| | comp=Z,3.9nm,0.8s,baz=354,slow=3.0,SNR=11 | | | | | | | |
| **WRA** | **Warramunga Arr** | **66.48** | **197** | P | **P** | **15 44 42.9** | **+2.5** |
| | comp=Z,1.7nm,0.8s,baz=16,slow=6.8,SNR=11 | | | | | | | |
| **PDAR** | **Pinedale Array** | **66.87** | **52** | P | **P** | **15 44 44.8** | **+1.7** |
| | comp=Z,0.4nm,0.7s,baz=307,slow=3.0,SNR=4.0 | | | | | | | |
| **NB2** | **NORSAR Subarra** | **69.36** | **340** | P | **P** | **15 44 57.1** | **-1.0** |
| | comp=Z,1.1nm,0.6s,baz=29,slow=6.2 | | | | | | | |
| **NOA** | **NORSAR Array B** | **69.36** | **340** | P | **P** | **15 44 57.2** | **-0.9** |
| | comp=Z,1.5nm,0.6s,baz=29,slow=6.5,SNR=5.4 | | | | | | | |
| **ASAR** | **Alice Springs** | **70.19** | **197** | P | **P** | **15 45 07.0** | **+3.5** |
| | comp=Z,1.3nm,0.8s,baz=12,slow=5.7,SNR=14 | | | | | | | |
| **KBZ** | **Khabaz** | **71.01** | **313** | P | **P** | **15 45 08.4** | **0.0** |
| | comp=Z,7.2nm,0.9s,baz=63,slow=4.4,SNR=10 | | | | | | | |
| KBZ | | | | LR | LR | 16 20 02.8 | | |
| | comp=Z,80nm,18.8s,baz=36,slow=39 | | | | | | | |
| **ZEI** | **Tsey** | **71.15** | **312** | *e*P | **P** | **15 45 07.9** | **-1.7** |
| ZEI | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.8s | | | | | | | |
| **ZEI** | **Tsey** | **71.15** | **312** | *e*P | **P** | **15 45 07.9** | **-1.7** |
| **AKASG** | **Malin Array Be** | **72.15** | **325** | P | **P** | **15 45 13.8** | **-1.4** |
| | comp=Z,1.5nm,0.6s,baz=34,slow=6.2,SNR=8.0 | | | | | | | |
| **SORM** | **Soroca** | **74.52** | **324⇑** | *i*P | **P** | **15 45 28.3** | **-0.9** |
| **SORM** | **Soroca** | **74.52** | **324⇑** | P | **P** | **15 45 28.3** | **-0.9** |
| **BURAR** | **Bucovina Array** | **76.21** | **326⇑** | *i*P | **P** | **15 45 38.3** | **-0.8** |
| **BURAR** | **Bucovina Array** | **76.21** | **326⇑** | P | **P** | **15 45 38.3** | **-0.8** |
| **TESR** | **Tescani** | **76.51** | **324⇑** | *i*P | **P** | **15 45 40.3** | **-0.4** |
| **DPC** | **Dobruska-Polom** | **77.18** | **332** | *e*P | **P** | **15 45 44.1** | **-0.3** |
| **DPC** | **Dobruska-Polom** | **77.18** | **332** | *e*P | **P** | **15 45 44.1** | **-0.3** |
| **MORC** | **Moravsky Berou** | **77.26** | **331⇑** | *i*P | **P** | **15 45 44.8** | **-0.1** |
| **MORC** | **Moravsky Berou** | **77.26** | **331⇑** | P | **P** | **15 45 44.8** | **-0.1** |
| **MLR** | **Muntele Rosu** | **77.62** | **324⇑** | *i*P | **P** | **15 45 46.9** | **-0.2** |
| **MLR** | **Muntele Rosu** | **77.62** | **324⇑** | P | **P** | **15 45 46.9** | **-0.2** |
| **VRAC** | **Vranov** | **77.98** | **332⇑** | *i*P | **P** | **15 45 49.1** | **+0.2** |
| **VRAC** | **Vranov** | **77.98** | **332⇑** | P | **P** | **15 45 49.1** | **+0.2** |
| **VOIR** | | **78.03** | **324⇑** | *i*P | **P** | **15 45 49.6** | **+0.2** |
| **VOIR** | | **78.03** | **324⇑** | P | **P** | **15 45 49.6** | **+0.2** |
| **ARR** | **Arges** | **78.26** | **325⇑** | P | **P** | **15 45 51.8** | **+1.2** |
| **BRTR** | **Keskin Array B** | **78.64** | **316** | P | **P** | **15 45 53.2** | **+0.3** |
| | comp=Z,1.3nm,0.8s,baz=74,slow=5.8,SNR=7.1 | | | | | | | |
| **KHC** | **Kasperske Hory** | **79.13** | **333** | *e*P | **P** | **15 45 55.2** | **-0.1** |
| KHC | | | | *ex* | x | 15 46 05.5 | | |
| **KHC** | **Kasperske Hory** | **79.13** | **333** | *e*P | **P** | **15 45 55.2** | **-0.1** |
| KHC | | | | *e* | | 15 46 05.5 | | |
| **KHC** | **Kasperske Hory** | **79.13** | **333** | *e*P | **P** | **15 45 55.2** | **-0.1** |
| **BZS** | **Buzias** | **79.27** | **327⇓** | *i*P | **P** | **15 45 55.2** | **-0.8** |
| **BZS** | **Buzias** | **79.27** | **327⇓** | P | **P** | **15 45 55.2** | **-0.8** |
| **GERES** | **GERESS Array B** | **79.34** | **333** | P | **P** | **15 45 56.1** | **-0.3** |
| | comp=Z,1.3nm,0.6s,baz=28,slow=6.0,SNR=9.3 | | | | | | | |
| GERES | | | | LR | LR | 16 24 43.9 | | |
| | comp=Z,31nm,18.4s,baz=282,slow=39 | | | | | | | |
| **CONA** | **Conrad Observa** | **79.42** | **331** | *i* P | **P** | **15 45 57.0** | **+0.1** |
| | comp=Z,4.1nm,0.8s | | | | | | | |
| **TXAR** | **Lajitas Array** | **79.54** | **59** | P | **P** | **15 45 59.8** | **+1.9** |
| | comp=Z,0.4nm,0.7s,baz=307,slow=5.2,SNR=6.2 | | | | | | | |
| **KBA** | **Koelnbreinsper** | **81.00** | **332** | *i* P | **P** | **15 46 06.4** | **+0.8** |
| | comp=Z,9.1nm,0.8s | | | | | | | |
| **VTS** | **Vitosha** | **81.13** | **324⇑** | *i*P | **P** | **15 46 06.1** | **-0.2** |
| **WATA** | **Walderalm** | **81.34** | **333** | *i* P | **P** | **15 46 07.9** | **+0.6** |
| | comp=Z,6.5nm,1.0s | | | | | | | |
| **MOTA** | **Moosalm** | **81.48** | **334** | *e*P | **P** | **15 46 08.5** | **+0.4** |
| | comp=Z,5.3nm,1.0s | | | | | | | |
| **KEST** | **Kesra** | **92.45** | **330** | LR | LR | 16 31 42.5 | | |
| | comp=Z,29nm,21.2s,baz=250,slow=38 | | | | | | | |

*DJA* ***18*** *15:44:20.8±0.3,0°S±2°×10°0E±°, h10km,M4.0/10, MLv4.0/10*
*ISCJB* ***18*** *15:44:22.1±0.5, 0°44S±0°04×99°93E±0°04, h48km±7km, mb3.7/7, Error ellipse: s-maj=7.9km s-min=6.0km az=143.4*
*IDC* ***18*** *15:44:25.8±4.0, 0°42S×100°29E, h66km±34km, mb3.4/7, mb1 3.5/8, mb1mx3.2/51, mbtmp3.7/8, ML3.5/1, MS2.5/1, Ms1 2.5/1, ms1mx2.3/28, Error ellipse: s-maj=49.7km s-min=16.5km az=53.0*

**ISC 18 15:44:21.5±1.3, 0.58S±0.04×99.94E±0.04, h33km±7km, n20, σ1.962/29, mb3.6/7, Southern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **PDSI** | **Padang** | **0.62** | **123** | P | P | **Pn** | **15 44 33.9** | **0.0** |
| PDSI | | | | Pg | Pn | **Sn** | **15 44 33.8** | **-0.1** |
| PDSI | | | | S | S | **Sn** | **15 44 43.7** | **+0.9** |
| PDSI | | | | Sg | Sg | **Sn** | **15 44 43.7** | **+0.9** |
| **SISI** | **Saibi** | **1.13** | **229** | P | P | **Pb** | **15 44 42.1** | **-0.5** |
| SISI | | | | S | S | **Sb** | **15 44 59.7** | **+2.7** |
| **BKNI** | **Bangkinang** | **1.42** | **51** | P | P | **Pn** | **15 44 46.0** | **+1.0** |
| BKNI | | | | S | S | **Sb** | **15 45 06.1** | **+0.9** |
| **SDSI** | **Sungai Dareh** | **1.53** | **103** | P | P | **Pb** | **15 44 48.7** | **-0.6** |
| **PBSI** | **Pulau Batu** | **1.74** | **287** | P | P | **Pn** | **15 44 48.9** | **-0.5** |
| PBSI | | | | S | S | **Sn** | **15 45 09.7** | **-0.8** |
| **PPSI** | **Pulau Pagai** | **2.17** | **178** | P | P | **Pb** | **15 44 58.5** | **-1.7** |
| PPSI | | | | S | S | **Sb** | **15 45 27.6** | **+0.9** |
| **GSI** | **Gunungsitoli** | **3.02** | **308** | P | P | **Pn** | **15 45 06.9** | **-0.1** |
| **MASI** | **Maura Aman, Be** | **3.43** | **138** | P | P | **Pb** | **15 45 18.7** | **-2.9** |
| **PSI** | **Prapat** | **3.51** | **343** | P | P | **Pn** | **15 45 16.7** | **+2.9** |
| | 4.2nm,0.3s,baz=170,slow=14,SNR=5.3 | | | | | | | |
| PSI | | | | S | S | **Sn** | **15 45 52.0** | **-2.3** |
| | 2.7nm,0.3s,baz=153,slow=16,SNR=6.9 | | | | | | | |
| PSI | | | | LR | LR | 15 46 52.5 | | |
| | comp=Z,63nm,19.1s,baz=68,slow=43 | | | | | | | |
| **KCSI** | **Kotacane, Aceh** | **4.61** | **332** | P | P | **Pn** | **15 45 29.9** | **+0.9** |
| **MNAI** | **Manna** | **4.81** | **141** | P | P | **Pn** | **15 45 36.2** | **+4.4** |
| **WRA** | **Warramunga Arr** | **38.77** | **122** | P | P | **P** | **15 51 41.9** | **-1.4** |
| | 0.3nm,0.5s,baz=303,slow=9.1,SNR=5.6 | | | | | | | |
| **ASAR** | **Alice Springs** | **40.14** | **127** | P | P | **P** | **15 51 53.9** | **-0.8** |
| | 0.2nm,0.3s,baz=301,slow=7.9,SNR=16 | | | | | | | |
| ASAR | | | | PcP | **PcP** | | **15 53 58.5** | **-0.3** |
| | 0.2nm,0.6s,baz=314,slow=2.8,SNR=2.9 | | | | | | | |
| **SONM** | **Songino Array** | **48.54** | **6** | P | P | **P** | **15 53 01.0** | **-0.6** |
| | 0.3nm,0.5s,baz=186,slow=7.0,SNR=3.7 | | | | | | | |
| **MKAR** | **Makanchi Array** | **49.65** | **344** | P | P | **P** | **15 53 10.1** | **+0.1** |
| | 0.5nm,0.3s,baz=163,slow=8.2,SNR=14 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **55.77** | **349** | P | P | **P** | **15 53 55.4** | **+0.3** |
| | 1.1nm,0.5s,baz=182,slow=7.6,SNR=5.9 | | | | | | | |
| **BRTR** | **Keskin Array B** | **72.33** | **312** | P | P | **P** | **15 55 45.0** | **+0.6** |
| | 0.2nm,0.5s,baz=100,slow=6.6,SNR=2.8 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **85.12** | **340** | P | P | **P** | **15 56 54.2** | **+0.3** |
| | 1.1nm,0.8s,baz=101,slow=4.7,SNR=9.8 | | | | | | | |
| **TXAR** | **Lajitas Array** | **143.60** | **36** | PKP | | **PKPdf** | **16 03 52.6** | **-1.3** |
| | 0.2nm,0.6s,baz=349,slow=0.9,SNR=3.5 | | | | | | | |
| **CPUP** | **Villa Florida** | **145.41** | **218** | PKPbc | | **PKPab** | **16 03 58.4** | **+1.3** |
| | 0.9nm,0.6s,baz=144,slow=1.8,SNR=3.6 | | | | | | | |

*IDC* ***18*** *15:48:30.7±1.1, 10°07S×160°69E, h0km, mb4.0/9, mb1 4.2/10, mb1mx3.9/39, mbtmp4.0/10, ML3.7/1, MS3.2/7, Ms1 3.2/7, ms1mx2.9/31, Error ellipse: s-maj=24.1km s-min=22.4km az=131.0*
*ISCJB* ***18*** *15:48:35.0±0.7, 10°05S±0°07×160°63E±0°09, h37km, mb3.9/12, MS3.2/5, Error ellipse: s-maj=12.5km s-min=10.5km az=165.3*
*NEIC* ***18*** *15:48:38.9±1.8, 9°93S×160°45E, h51km±13km, mb4.1/3, Error ellipse: s-maj=25.0km s-min=9.2km az=114.0*

**ISC 18 15:48:36.8±0.9, 10.0S±0.1×160.6E±0.1, h37km, n29, σ0.990/20, mb4.0/12, MS3.1/5, Bougainville-Solomon Islands region**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **HNR** | **Honiara** | **0.86** | **313** | *i* P | P | **Pn** | **15 48 52.0** | **-0.3** |
| HNR | | | | *i* S | S | **Sn** | **15 49 03.0** | **-0.7** |
| **HNR** | **Honiara** | **0.86** | **313** | Pn | P | **Pn** | **15 48 52.5** | **+0.2** |
| | 136nm,0.3s,baz=172,slow=11,SNR=89 | | | | | | | |
| HNR | | | | LR | LR | 15 48 56.1 | | |
| | comp=Z,104nm,19.7s,baz=62,slow=26 | | | | | | | |
| HNR | | | | Sn | **Sn** | **15 49 05.2** | **+1.5** |
| | 1µm,0.3s,baz=180,slow=20,SNR=31 | | | | | | | |
| **DZM** | **Mont Dzumac** | **13.24** | **156** | LR | LR | 15 56 28.0 | | |
| | comp=Z,99nm,18.3s,baz=36,slow=36 | | | | | | | |
| **PMG** | **Port Moresby** | **13.24** | **272** | LR | LR | 15 56 23.9 | | |
| | comp=Z,94nm,20.4s,baz=98,slow=35 | | | | | | | |
| **CTA** | **Charters Tower** | **17.06** | **232** | P | **P** | **15 52 33.4** | **-0.7** |
| | 0.2nm,0.3s,baz=58,slow=14,SNR=4.5 | | | | | | | |
| **CTAO** | **Charters Tower** | **17.06** | **232** | *e*Pn | **P** | **15 52 33.4** | **-0.7** |
| **EIDS** | **Eidsvold** | **17.73** | **209** | *e*P | **P** | **15 52 43.4** | **+2.0** |
| **WRAB** | **Tennant Creek** | **27.15** | **246** | *e*P | **P** | **15 54 16.7** | **-0.1** |
| | 4.5nm,1.0s | | | | | | | |
| **WRA** | **Warramunga Arr** | **27.16** | **246** | P | **P** | **15 54 16.7** | **-0.2** |
| | 2.5nm,0.7s,baz=74,slow=9.9,SNR=10 | | | | | | | |
| **STKA** | **Stephens Creek** | **27.96** | **216** | LR | LR | 16 05 41.5 | | |
| | comp=Z,53nm,19.0s,baz=26,slow=37 | | | | | | | |
| **ASAR** | **Alice Springs** | **28.84** | **239** | P | **P** | **15 54 30.8** | **-1.1** |
| | 0.4nm,0.7s,baz=63,slow=10,SNR=9.1 | | | | | | | |
| ASAR | | | | LR | LR | 16 05 47.8 | | |
| | comp=Z,44nm,18.9s,baz=56,slow=36 | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.97** | **12** | T | T | 16 23 18.8 | | |
| | baz=194 | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.97** | **12** | T | T | 16 23 18.8 | | |
| | baz=194 | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.99** | **12** | T | T | 16 23 20.0 | | |
| | baz=194 | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **30.20** | **12** | T | T | 16 24 51.9 | | |
| | baz=193,slow=76 | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **30.20** | **12** | T | T | 16 24 53.0 | | |
| | baz=193,slow=76 | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **30.21** | **12** | T | T | 16 24 53.7 | | |
| | baz=193,slow=76 | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **34.78** | **253** | LR | LR | 16 08 51.7 | | |
| | comp=Z,34nm,20.5s,slow=35 | | | | | | | |
| **KSRS** | **Korea Array** | **56.27** | **329** | P | **P** | **15 58 13.9** | **+0.3** |
| | 1.7nm,0.9s,baz=144,slow=8.3,SNR=4.0 | | | | | | | |
| KSRS | | | | LR | LR | 16 22 48.3 | | |
| | comp=Z,12nm,18.5s,baz=135,slow=36 | | | | | | | |
| **KSAR** | **Wonju Array Be** | **56.28** | **329** | P | **P** | **15 58 13.9** | **+0.2** |
| **CMAR** | **Chiang Mai Arr** | **67.06** | **295** | P | **P** | **15 59 27.6** | **+0.8** |
| | 0.6nm,0.5s,baz=126,slow=5.0,SNR=4.4 | | | | | | | |
| **SONM** | **Songino Array** | **74.90** | **326** | P | **P** | **16 00 13.4** | **-0.6** |
| | 0.6nm,0.6s,baz=138,slow=5.9,SNR=5.0 | | | | | | | |
| **MCK** | **McKinley** | **82.88** | **20** | *e*P | **P** | **16 00 57.9** | **+0.7** |
| | 1.7nm,0.9s | | | | | | | |
| **COLA** | **College** | **83.97** | **20** | *e*P | **P** | **16 01 02.9** | **+0.2** |
| | 2.5nm,0.6s

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **ASAK** | **Asacha** | **3.57** | **12** | *e*P | Pn | 16 09 34.1 | +4.0 |
| **RUS** | **Russkaya** | **3.72** | **17** | *e*P | Pn | 16 09 36.1 | +4.0 |
| **KRMR** | **Karymshinskiy** | **4.04** | **12** | *e*P | Pn | 16 09 41.1 | +4.6 |
| **DALK** | **Dalny** | **4.34** | **17** | *e*P | Pn | 16 09 44.9 | +4.4 |
| DALK | | | | *e*S | Sn | 16 10 35.7 | +5.3 |
| **UGLR** | **Uglovaya** | **4.52** | **16** | P | Pn | 16 09 47.6 | +4.4 |
| **AVH** | **Avacha** | **4.56** | **16** | *e*P | Pn | 16 09 48.6 | +4.9 |
| **SDLR** | **Sedlovina** | **4.60** | **17** | *e*P | Pn | 16 09 48.2 | +4.0 |
| **SPN** | **Mys Shipunski** | **4.70** | **25** | *e*P | Pn | 16 09 50.0 | +4.5 |

*BJI* ***18*** *16:23:58.8, 6.4′44N× 123.°72E, h603km, mb4.5/17, mB4.7/15*
*MAN* ***18*** *16:23:59, 6.°71N× 123.°63E, h600km, mb4.9, ML3.8, MS3.8*
*ISCJB* ***18*** *16:24:00.4± 0.3, 6.°79N± 0.°04× 123.°76E± 0.°06, h608km± 5km, mb4.1/38, Error ellipse: s-maj=9.8km s-min=5.3km az=160.6*
*IDC* ***18*** *16:24:01.6± 0.9, 6.′77N× 123.′69E, h605km± 12km, mb3.3/23, mb1 3.4/23, mb1mx3.3/43, mbtmp4.3/23, Error ellipse: s-maj=15.2km s-min=7.1km az=73.0*
*NEIC* ***18*** *16:24:01.1± 0.7, 6.′74N× 123.′80E, h603km± 10km, mb4.8/9, Error ellipse: s-maj=20.5km s-min=7.7km az=51.0*
*DJA* ***18*** *16:24:02.7± 0.5, 7.°7′N× 12.°4′E± °, h584km± 8km, M4.4/15, mb4.6/15, mB4.8/10, MLv4.7/6, Mw(mB)4.1/10*

**ISC 18 16:24:01.5**±0.6,**6.72N**±0.05×**123.73E**±0.09,**h608**km±8km, **n73**,σ1°**40**/89,**mb4.1**/37,**1D**,**Mindanao**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CTBH** | **Cotabato--PC H** | **0.72** | **46** | ⇓*i*P | **P** | **16 25 11.5** | **-1.5** |
| **DAV** | **Davao City (W)** | **1.87** | **79** | P | **P** | **16 25 14.7** | **-1.3** |
| | 62nm,0.3s,baz=68,slow=4.4,SNR=5.8 | | | | | | |
| **SGSI** | **Sangihe** | **3.51** | **149** | P | **P** | **16 25 23.1** | **-1.3** |
| **LLP** | **Lapu-Lapu** | **3.58** | **4** | *e*P | **P** | **16 25 22.5** | **-2.3** |
| **MYLDM** | **Lahad Datu** | **5.42** | **254** | *e*P | **P** | **16 25 39.4** | **+1.1** |
| **KMSI** | **Cibinong** | **6.11** | **178** | P | **P** | **16 25 44.2** | **+0.1** |
| **MRSI** | **Marisa** | **6.45** | **196** | P | **P** | **16 25 46.8** | **-0.2** |
| MRSI | | | | S | **S** | **16 27 11.3** | **-2.0** |
| **TNTI** | **Ternate** | **6.94** | **148** | *e*P | **P** | **16 25 50.5** | **-0.8** |
| **MPSI** | **Mapaga** | **7.40** | **211** | P | **P** | **16 25 54.3** | **-1.3** |
| **KKM** | **Kota Kinabalu** | **7.50** | **265** | *e*P | **P** | **16 25 55.4** | **-1.1** |
| **LUWI** | **Luwuk** | **7.77** | **187** | P | **P** | **16 25 58.6** | **-0.4** |
| LUWI | | | | S | **S** | **16 27 33.3** | **-1.9** |
| **LUWI** | **Luwuk** | **7.77** | **187** | *e*P | **P** | **16 25 57.8** | **-1.2** |
| **TGY** | **Tagaytay City** | **7.83** | **340** | P | **P** | **16 25 58.2** | **-1.3** |
| | 47nm,0.3s,baz=149,slow=2.5,SNR=9.5 | | | | | | |
| **APSI** | **Ampana** | **7.86** | **195** | P | **P** | **16 26 00.1** | **+0.3** |
| **LBMI** | **Labuha** | **8.22** | **153** | P | **P** | **16 26 02.6** | **-0.7** |
| **SANI** | **Sanana** | **9.00** | **165** | P | **P** | **16 26 08.1** | **-2.6** |
| **NLAI** | **Namlea** | **10.45** | **161** | P | **P** | **16 26 26.0** | **+1.1** |
| | 125nm,0.7s,1μm | | | | | | |
| **SWI** | **Sorong** | **10.64** | **135** | P | **P** | **16 26 27.0** | **+0.1** |
| | 78nm,0.6s | | | | | | |
| **AAI** | **Ambon** | **11.26** | **157** | P | **P** | **16 26 33.6** | **+0.6** |
| | 138nm,0.7s,2μm | | | | | | |
| **MSAI** | **Masohi** | **11.27** | **152** | P | **P** | **16 26 34.3** | **+1.2** |
| | 56nm,0.7s | | | | | | |
| **MTKI** | **Muara Teweh, K** | **11.64** | **229** | P | **P** | **16 26 38.1** | **+1.3** |
| | 91nm,0.5s,2μm | | | | | | |
| **FAKI** | **Fak Fak** | **12.81** | **138** | P | **P** | **16 26 48.4** | **0.0** |
| | 194nm,0.8s,2μm | | | | | | |
| **FAKI** | **Fak Fak** | **12.81** | **138** | *e*P | **P** | **16 26 48.6** | **+0.2** |
| **SAUI** | **Saumlaki** | **16.45** | **153** | P | **P** | **16 27 23.4** | **+0.8** |
| **SAUI** | **Saumlaki** | **16.45** | **153** | *e*P | **P** | **16 27 19.8** | **-2.8** |
| | 70nm,0.8s | | | | | | |
| **PLAI** | **Plampang** | **16.55** | **201** | P | **P** | **16 27 25.3** | **+1.8** |
| **TPUB** | **Ta-pu** | **16.75** | **350** | *e*P | **P** | **16 27 25.2** | **-0.1** |
| | 50nm,0.6s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **24.74** | **176** | P | **P** | **16 28 37.1** | **+0.1** |
| | 1.5nm,0.3s,baz=3.5,slow=7.3,SNR=36 | | | | | | |
| FITZ | | | | PcP | **PcP** | **16 31 52.6** | **+0.3** |
| | 1.1nm,0.5s,baz=319,slow=5.3,SNR=3.6 | | | | | | |
| FITZ | | | | S | **S** | **16 32 16.5** | **-1.5** |
| | 1.6nm,0.7s,baz=0.0,slow=20,SNR=3.1 | | | | | | |
| **NJ2** | **Nanjing** | **25.61** | **350** | *e*P | **P** | **16 28 43.8** | **-0.7** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,15nm,0.5s | | | | | | |
| **CM01** | **Chiang Mai Arr** | **26.78** | **298** | *e*P | **P** | **16 28 55.8** | **+0.7** |
| **CM31** | **Chiang Mai Arr** | **26.81** | **298** | *e*P | **P** | **16 28 56.1** | **+0.8** |
| **CMAR** | **Chiang Mai Arr** | **26.81** | **298** | P | **P** | **16 28 56.2** | **+1.0** |
| | 2.8nm,0.6s,baz=109,slow=7.1,SNR=26 | | | | | | |
| **CHTO** | **Chiang Mai** | **26.95** | **299** | *e*P | **P** | **16 28 57.3** | **+0.8** |
| | 6.0nm,0.6s | | | | | | |
| **KMI** | **Kunming** | **27.16** | **315** | P | **P** | **16 28 59.5** | **+1.0** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,18nm,0.5s | | | | | | |
| **WRAB** | **Tennant Creek** | **28.48** | **159** | *e*P | **P** | **16 29 09.7** | **0.0** |
| | 22nm,0.3s | | | | | | |
| **WRA** | **Warramunga Arr** | **28.48** | **159** | P | **P** | **16 29 09.7** | **-0.1** |
| | 12nm,0.5s,baz=336,slow=10,SNR=182 | | | | | | |
| WRA | | | | PcP | **PcP** | **16 32 01.5** | **+0.2** |
| | 1.1nm,0.5s,baz=343,slow=3.1,SNR=7.2 | | | | | | |
| WRA | | | | S | **S** | **16 33 13.4** | **-2.9** |
| | 3.8nm,0.7s,baz=334,slow=16,SNR=12 | | | | | | |
| **WB2** | **Warramunga Arr** | **28.49** | **159** | *e*P | **P** | **16 29 09.9** | **+0.1** |
| | 20nm,0.6s | | | | | | |
| **XAN** | **Xi'an** | **30.44** | **335** | P | **P** | **16 29 26.6** | **+0.1** |
| XAN | | | | pP | pP | 16 29 30.4 | -93 |
| XAN | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.5s | | | | | | |
| **AS31** | **Alice Springs** | **31.80** | **162** | *e*P | **P** | **16 29 39.0** | **+0.8** |
| | 15nm,0.3s | | | | | | |
| **ASAR** | **Alice Springs** | **31.80** | **162** | P | **P** | **16 29 39.1** | **+0.9** |
| | 11nm,0.3s,baz=340,slow=7.4,SNR=687 | | | | | | |
| ASAR | | | | PcP | **PcP** | **16 32 10.7** | **+0.5** |
| | 1.9nm,0.5s,baz=347,slow=2.6,SNR=15 | | | | | | |
| ASAR | | | | S | **S** | **16 34 06.7** | **-0.5** |
| | 8.7nm,0.7s,baz=351,slow=24,SNR=35 | | | | | | |
| **AS01** | **Alice Springs** | **31.81** | **162** | *e*P | **P** | **16 29 38.9** | **+0.6** |
| **MJAR** | **Matsushiro Arr** | **32.50** | **22** | P | **P** | **16 29 42.9** | **-1.0** |
| | 1.6nm,0.6s,baz=193,slow=9.5,SNR=6.4 | | | | | | |
| **LZH** | **Lanzhou** | **34.44** | **331** | *e*P | **P** | **16 30 03.3** | **+3.0** |
| LZH | | | | pP | pP | 16 31 41.3 | +1.7 |
| LZH | | | | sP | sP | 16 32 52.4 | +2.8 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,16nm,1.0s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,86nm,4.2s | | | | | | |
| **CTA** | **Charters Tower** | **34.66** | **141** | P | **P** | **16 30 03.2** | **+1.0** |
| | 5.1nm,0.6s,baz=314,slow=9.0,SNR=11 | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **35.68** | **344** | *e*P | **P** | **16 30 12.3** | **+1.9** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,12nm,0.5s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,65nm,5.4s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **38.02** | **10** | P | **P** | **16 30 30.6** | **+1.2** |
| | 2.2nm,0.7s,baz=194,slow=5.5,SNR=4.3 | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **39.91** | **189** | P | **P** | **16 30 45.3** | **+0.6** |
| | 5.3nm,0.6s,baz=262,slow=8.1,SNR=6.0 | | | | | | |
| **ASAJ** | **Asahikawa** | **40.75** | **21** | P | **P** | **16 30 51.4** | **+0.3** |
| | 2.1nm,0.3s,baz=248,slow=7.7,SNR=13 | | | | | | |
| **STKA** | **Stephens Creek** | **42.00** | **157** | P | **P** | **16 31 02.4** | **+1.2** |
| | 2.7nm,0.5s,baz=340,slow=7.0,SNR=14 | | | | | | |
| **KLR** | **Kul'dur** | **42.90** | **8** | P | **P** | **16 31 07.5** | **-0.4** |
| | 0.2nm,0.5s,baz=178,slow=11,SNR=6.9 | | | | | | |
| **SONM** | **Songino Array** | **43.55** | **343** | P | **P** | **16 31 13.4** | **+0.2** |
| | 1.2nm,1.0s,baz=153,slow=9.1,SNR=5.9 | | | | | | |
| SONM | | | | PcP | **PcP** | **16 32 46.8** | **-0.1** |
| | 0.9nm,0.8s,baz=158,slow=2.0,SNR=5.4 | | | | | | |
| **WMQ** | **Urumqi** | **48.58** | **325** | P | **P** | **16 31 52.8** | **+1.7** |
| WMQ | | | | pP | pP | 16 33 42.1 | +1.4 |
| WMQ | | | | sP | sP | 16 34 44.6 | -3.0 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,15nm,0.9s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,230nm,4.5s | | | | | | |
| **DZM** | **Mont Dzumac** | **50.70** | **126** | P | **P** | **16 32 08.6** | **+1.6** |
| | 6.5nm,0.9s,baz=287,slow=14,SNR=2.0 | | | | | | |
| **MK01** | **Makanchi Array** | **53.39** | **325** | *e*P | **P** | **16 32 26.3** | **+0.6** |
| MK01 | | | | *e*PcP | **PcP** | **16 33 22.7** | **-0.2** |
| **MK31** | **Makanchi Array** | **53.41** | **326** | *e*P | **P** | **16 32 26.4** | **+0.5** |
| **MKAR** | **Makanchi Array** | **53.41** | **326** | P | **P** | **16 32 26.6** | **+0.7** |
| | 3.9nm,0.5s,baz=121,slow=7.9,SNR=95 | | | | | | |
| MKAR | | | | PcP | **PcP** | **16 33 22.8** | **-0.2** |
| | 1.6nm,0.6s,baz=116,slow=4.2,SNR=8.5 | | | | | | |
| **KSH** | **Kashi** | **53.83** | **315** | *e*P | **P** | **16 32 30.3** | **+1.3** |
| KSH | | | | PcP | **PcP** | **16 33 25.6** | **+0.7** |
| KSH | | | | pP | pP | 16 34 19.0 | -3.3 |
| KSH | | | | PP | **PP** | **16 34 43.6** | **+4.1** |
| KSH | | | | S | **S** | **16 39 17.3** | **-2.2** |
| KSH | | | | ScS | **ScS** | **16 41 10.5** | **-5.1** |
| KSH | | | | SS | **SS** | **16 43 12.4** | **-0.8** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.3s | | | | | | |
| KSH | | | | | pmax | pmax | |
| | comp=Z,94nm,4.9s | | | | | | |
| **PETK** | **Petropavlovsk-** | **53.89** | **25** | P | **P** | **16 32 29.9** | **+0.9** |
| | 3.3nm,0.6s,baz=197,slow=2.5,SNR=9.6 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **56.59** | **334** | P | **P** | **16 32 47.2** | **-0.5** |
| | 0.9nm,0.5s,baz=132,slow=8.2,SNR=5.4 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **56.59** | **334** | *e*P | **P** | **16 32 46.9** | **-0.8** |
| **KURK** | **Kurchatov** | **57.63** | **328** | *e*P | **P** | **16 32 55.1** | **+0.3** |
| | 9.9nm,0.6s | | | | | | |
| **TIXI** | **Tiksi** | **64.94** | **2** | *e*P | **P** | **16 33 41.6** | **-0.4** |
| | 4.7nm,0.5s | | | | | | |
| **GEYT** | **Alibeck** | **66.70** | **308** | P | **P** | **16 33 54.8** | **+1.1** |
| | 1.9nm,0.8s,baz=150,slow=6.2,SNR=3.8 | | | | | | |
| **RAYN** | **Ar Rayn** | **76.57** | **293** | *e*P | **P** | **16 34 51.1** | **0.0** |
| | 3.7nm,0.8s | | | | | | |
| **ILAR** | **Eielson Array** | **83.71** | **26** | P | **P** | **16 35 26.4** | **-0.9** |
| | 0.4nm,0.5s,baz=240,slow=5.3,SNR=12 | | | | | | |
| **BRTR** | **Keskin Array B** | **85.82** | **309** | P | **P** | **16 35 37.2** | **-1.0** |
| | 0.9nm,0.7s,baz=118,slow=4.6,SNR=5.0 | | | | | | |
| **ARCES** | **ARCESS Array B** | **86.62** | **340** | P | **P** | **16 35 40.5** | **-0.7** |
| | 1.3nm,0.7s,baz=76,slow=6.4,SNR=7.6 | | | | | | |
| **VNDA** | **Vanda** | **86.76** | **172** | P | **P** | **16 35 42.6** | **+0.9** |
| | 1.2nm,0.5s,baz=325,slow=5.8,SNR=6.9 | | | | | | |
| **AKASG** | **Malin Array Be** | **87.70** | **321** | P | **P** | **16 35 45.2** | **-1.4** |
| | 0.4nm,0.5s,baz=68,slow=5.6,SNR=2.9 | | | | | | |
| **FINES** | **FINESS Array B** | **87.80** | **332** | P | **P** | **16 35 45.8** | **-1.1** |
| | 2.1nm,0.7s,baz=72,slow=6.2,SNR=8.6 | | | | | | |
| **YKA** | **Yellowknife Ar** | **98.00** | **24** | P | Pdif | 16 36 33.2 | -0.2 |
| | 0.2nm,0.8s,baz=302,slow=3.6,SNR=3.4 | | | | | | |
| YKA | | | | PKKP | **PKKPbc** | **16 53 02.8** | **-3.8** |
| | 0.2nm,0.6s,baz=125,slow=3.0,SNR=4.4 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **119.13** | **289** | PKP | **PKPdf** | **16 41 42.7** | **-0.7** |
| | 0.5nm,0.6s,baz=75,slow=1.2,SNR=6.3 | | | | | | |
| **PLCA** | **Paso Flores** | **143.81** | **161** | PKP | **PKPdf** | **16 42 29.1** | **+0.1** |
| | 5.4nm,0.8s,baz=244,slow=3.2,SNR=16 | | | | | | |

*ATH* ***18*** *16:43:05.7, 38.°86N× 26.°30E, h28km± 1km, ML2.4/6, Error ellipse: s-maj=2.2km s-min=0.9km az=263.0*
*ISCJB* ***18*** *16:43:06.0± 0.4, 38.°85N± 0.°02× 26.°30E± 0.°03, h6km± 3km, Error ellipse: s-maj=3.6km s-min=2.5km az=163.1*
*DDA* ***18*** *16:43:05.9, 38.°85N× 26.°36E, h7km, Ml3.0*
*ISK* ***18*** *16:43:05.9, 38.°85N× 26.°34E, h6km, ML2.6*
*CSEM* ***18*** *16:43:06.4± 0.1, 38.°84N× 26.°30E, h10km± 1km, ML2.4, Error ellipse: s-maj=2.5km s-min=1.8km az=75.0*
*THE* ***18*** *16:43:06.8, 38.°86N× 26.°30E, h10km± 1km, ML2.4/5, Error ellipse: s-maj=1.7km s-min=0.6km az=266.0*

**ISC 18 16:43:06.0**±0.9,**38.84N**±0.01×**26.29E**±0.02,**h12**km±8km, **n95**,σ0°**50**/138,**Aegean Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PRK** | **Paraskevi** | **0.40** | **358** | P | **Pg** | **16 43 14.4** | **+0.3** |
| PRK | | | | S | **Sg** | **16 43 19.9** | **+0.4** |
| PRK | | | | AML | AML | 16 43 23.7 | |
| | comp=E,1143μm,0.5s | | | | | | |
| PRK | | | | AML | AML | 16 43 25.2 | |
| | comp=N,1151μm,0.3s | | | | | | |
| **PRK** | **Paraskevi** | **0.40** | **358** | P | **Pg** | **16 43 14.4** | **+0.3** |
| PRK | | | | S | **Sg** | **16 43 19.9** | **+0.4** |
| **PRK** | **Paraskevi** | **0.40** | **358** | P | **Pg** | **16 43 14.3** | **+0.3** |
| PRK | | | | S | **Sb** | **16 43 20.3** | **-0.9** |
| **CAND** | **Candarli** | **0.41** | **74** | *e*PG | **Pg** | **16 43 13.8** | **-0.4** |
| CAND | | | | *e*SG | **Sg** | **16 43 19.4** | **-0.3** |
| **CHOS** | **Chios island** | **0.49** | **202** | *e*PG | **Pb** | **16 43 16.4** | **-0.2** |
| **CHOS** | **Chios island** | **0.49** | **202** | P | **Pb** | **16 43 16.8** | **+0.1** |
| CHOS | | | | S | **Sb** | **16 43 23.8** | **0.0** |
| CHOS | | | | AML | AML | 16 43 29.1 | |
| | comp=E,1868μm,0.2s | | | | | | |
| CHOS | | | | AML | AML | 16 43 29.6 | |
| | comp=N,1099μm,0.2s | | | | | | |
| **CHOS** | **Chios island** | **0.49** | **202** | *e*Pg | **Pb** | **16 43 16.4** | **-0.2** |
| CHOS | | | | S | **Sb** | **16 43 23.8** | **0.0** |
| **CHOS** | **Chios island** | **0.49** | **202** | P | **Pb** | **16 43 16.5** | **-0.2** |
| CHOS | | | | S | **Sb** | **16 43 24.6** | **+0.8** |
| **SIGR** | **SIGRI** | **0.50** | **317** | *e*PG | **Pb** | **16 43 16.7** | **0.0** |
| SIGR | | | | *e*SG | **Sb** | **16 43 24.2** | **+0.2** |
| **SIGR** | **SIGRI** | **0.50** | **317** | P | **Pb** | **16 43 16.4** | **-0.3** |
| SIGR | | | | S | **Sb** | **16 43 23.2** | **-0.8** |
| SIGR | | | | AML | AML | 16 43 24.6 | |
| | comp=E,931μm,0.3s | | | | | | |
| SIGR | | | | AML | AML | 16 43 28.2 | |
| | comp=N,1070μm,0.2s | | | | | | |
| **SIGR** | **SIGRI** | **0.50** | **317** | P | **Pb** | **16 43 16.5** | **-0.3** |
| SIGR | | | | S | **Sb** | **16 43 23.2** | **-0.8** |
| SIGR | | | | *e*Sg | **Sb** | **16 43 24.2** | **+0.2** |
| **SIGR** | **SIGRI** | **0.50** | **317** | P | **Pb** | **16 43 16.3** | **-0.5** |
| SIGR | | | | S | **Sb** | **16 43 23.6** | **-0.4** |
| **CESE** | **˜e˜me** | **0.51** | **179** | *e*PG | **Pg** | **16 43 16.5** | **+0.4** |
| **CESE** | **˜e˜me** | **0.51** | **179** | *e*Pg | **Pg** | **16 43 16.5** | **+0.4** |
| **DKL** | **Dikili** | **0.53** | **64** | *e*PG | **Pg** | **16 43 15.9** | **-0.5** |
| DKL | | | | *e*SG | **Sg** | **16 43 23.2** | **-0.2** |
| **DKL** | **Dikili** | **0.53** | **64** | *e*Pg | **Pg** | **16 43 15.9** | **-0.5** |
| DKL | | | | *e*Sg | **Sg** | **16 43 23.2** | **-0.2** |
| **URLA** | **Izmir** | **0.54** | **154** | *e*PG | **Pg** | **16 43 16.3** | **-0.2** |
| URLA | | | | *e*SG | **Sg** | **16 43 24.1** | **+0.4** |
| **URLA** | **Izmir** | **0.54** | **154** | *i* P | **Pg** | **16 43 16.3** | **-0.2** |
| URLA | | | | *i* S | **Sg** | **16 43 24.1** | **+0.4** |
| **URLA** | **Izmir** | **0.54** | **154** | P | **Pg** | **16 43 16.3** | **-0.2** |
| URLA | | | | S | **Sg** | **16 43 24.1** | **+0.4** |
| **ZEY** | **˜zmir** | **0.62** | **165** | *i* P | **Pg** | **16 43 18.2** | **0.0** |
| ZEY | | | | *i* S | **Sg** | **16 43 26.8** | **+0.3** |
| **DGB** | **˜zmir** | **0.92** | **149** | *i* P | **Pn** | **16 43 24.9** | **+0.2** |
| DGB | | | | *i* S | **Sb** | **16 43 35.9** | **0.0** |
| **BAYC** | **CANAKKALE_Bayr** | **0.92** | **12** | *i* P | **Pg** | **16 43 23.5** | **-0.3** |
| BAYC | | | | *i* S | **Sb** | **16 43 36.6** | **+0.5** |
| **BAYC** | **CANAKKALE_Bayr** | **0.92** | **12** | P | **Pg** | **16 43 23.5** | **-0.3** |
| BAYC | | | | S | **Sb** | **16 43 36.6** | **+0.5** |
| **EZN** | **Ezine** | **0.98** | **1** | *e*PG | **Pg** | **16 43 24.8** | **-0.2** |
| **EZN** | **Ezine** | **0.98** | **1** | *e*Pg | **Pg** | **16 43 24.8** | **-0.2** |
| **BOZC** | **Bozcaada** | **1.01** | **350** | *e*PG | **Pn** | **16 43 26.0** | **-0.1** |
| **BOZC** | **Bozcaada** | **1.01** | **350** | *i* P | **Pb** | **16 43 25.8** | **+0.2** |
| BOZC | | | | *i* S | **Sb** | **16 43 39.5** | **+0.7** |
| **BOZC** | **Bozcaada** | **1.01** | **350** | *e*Pg | **Pn** | **16 43 26.0** | **-0.1** |
| **AKHS** | **Akhisar** | **1.19** | **88** | *i* P | **Pb** | **16 43 28.4** | **-0.1** |
| AKHS | | | | *i* S | **Sn** | **16 43 44.5** | **0.0** |
| **AKHS** | **Akhisar** | **1.19** | **88** | P | **Pb** | **16 43 28.4** | **-0.1** |
| AKHS | | | | S | **Sn** | **16 43 44.5** | **0.0** |
| **SMG** | **Samos** | **1.21** | **159** | P | **Pn** | **16 43 28.5** | **-0.3** |
| SMG | | | | S | **Sn** | **16 43 45.6** | **+0.5** |
| SMG | | | | AML | AML | 16 43 46.5 | |
| | comp=E,461μm,0.4s | | | | | | |
| SMG | | | | AML | AML | 16 43 47.4 | |
| | comp=N,407μm,0.3s | | | | | | |
| **SMG** | **Samos** | **1.21** | **159** | P | **Pn** | **16 43 29.0** | **+0.2** |
| SMG | | | | S | **Sn** | **16 43 45.6** | **+0.5** |
| **SMG** | **Samos** | **1.21** | **159** | P | **Pn** | **16 43 29.0** | **+0.2** |
| SMG | | | | S | **Sn** | **16 43 45.8** | **+0.7** |
| **STEP** | **BALIKESIR_Sava** | **1.23** | **64** | *i* P | **Pn** | **16 43 28.5** | **-0.6** |
| STEP | | | | *i* S | **Sb** | **16 43 44.9** | **-0.2** |
| **STEP** | **BALIKESIR_Sava** | **1.23** | **64** | P | **Pn** | **16 43 28.5** | **-0.6** |
| STEP | | | | S | **Sb** | **16 43 44.9** | **-0.2** |
| **GCAM** | **G?zelcaml?** | **1.36** | **147** | *e*PN | **Pg** | **16 43 32.3** | **+0.1** |
| **GCAM** | **G?zelcaml?** | **1.36** | **147** | *i* P | **Pg** | **16 43 32.0** | **-0.2** |
| GCAM | | | | *i* S | **Sg** | **16 43 49.5** | **-0.3** |
| **GCAM** | **G?zelcaml?** | **1.36** | **147** | P | **Pg** | **16 43 32.0** | **-0.2** |
| **GCAM** | **G?zelcaml?** | **1.36** | **147** | *e*Pn | **Pg** | **16 43 32.3** | **+0.1** |
| GCAM | | | | S | **Sg** | **16 43 49.5** | **-0.3** |
| **LIA** | **Limnos Island** | **1.36** | **321** | P | **Pn** | **16 43 30.7** | **-0.1** |
| LIA | | | | S | **Sb** | **16 43 48.9** | **+0.2** |
| LIA | | | | AML | AML | 16 43 52.5 | |
| | comp=E,213μm,0.3s | | | | | | |
| LIA | | | | AML | AML | 16 43 55.3 | |
| | comp=N,214μm,0.6s | | | | | | |
| **LIA** | **Limnos Island** | **1.36** | **321** | P | **Pb** | **16 43 31.6** | **+0.2** |
| LIA | | | | S | **Sb** | **16 43 48.9** | **+0.2** |
| **LIA** | **Limnos Island** | **1.36** | **321** | P | **Pb** | **16 43 31.6** | **+0.2** |
| LIA | | | | S | **Sb** | **16 43 48.8** | **+0.1** |
| **SKY** | **Skiros Island** | **1.36** | **272** | P | **Pn** | **16 43 30.7** | **-0.1** |
| **SKY** | **Skiros Island** | **1.36** | **272** | P | **Pn** | **16 43 30.7** | **-0.1** |
| **BALY** | **Balya** | **1.36** | **49** | *i* P | **Pn** | **16 43 31.0** | **+0.1** |
| BALY | | | | *i* S | **Sn** | **16 43 49.1** | **+0.2** |
| **BALY** | **Balya** | **1.36** | **49** | P | **Pn** | **16 43 31.0** | **+0.1** |
| BALY | | | | S | **Sn** | **16 43 49.1** | **+0.2** |
| **GADA** | **Gvkgeada** | **1.38** | **347** | *e*PN | **Pn** | **16 43 31.3** | **+0.2** |
| **GADA** | **Gvkgeada** | **1.38** | **347** | *e*Pn | **Pn** | **16 43 31.3** | **+0.2** |
| **BALB** | **Balikesir** | **1.47** | **57** | *e*PN | **Pb** | **16 43 33.0** | **-0.2** |
| **BALB** | **Balikesir** | **1.47** | **57** | *e*Pn | **Pb** | **16 43 33.0** | **-0.2** |
| **GELI** | **Tayfur-Gelibol** | **1.56** | **5** | *e*PN | **Pb** | **16 43 34.9** | **+0.1** |
| **GELI** | **Tayfur-Gelibol** | **1.56** | **5** | *e*Pn | **Pb** | **16 43 34.9** | **+0.1** |
| **LPK** | **Lapseki** | **1.57** | **13** | *e*PN | **Pb** | **16 43 34.8** | **-0.2** |
| **LPK** | **Lapseki** | **1.57** | **13** | *e*Pn | **Pb** | **16 43 34.8** | **-0.2** |
| **KARY** | **Karystos** | **1.67** | **242** | P | **Pn** | **16 43 34.8** | **-0.2** |
| KARY | | | | AML | AML | 16 43 55.5 | |
| | comp=E,53μm,0.3s | | | | | | |
| KARY | | | | AML | AML | 16 43 56.0 | |
| | comp=N,58μm,0.2s | | | | | | |
| **KARY** | **Karystos** | **1.67** | **242** | P | **Pn** | **16 43 34.8** | **-0.2** |
| **KNL** | **Bal˜–kesir** | **1.71** | **33** | *i* P | **Pb** | **16 43 37.4** | **0.0** |
| KNL | | | | *i* S | **Sb** | **16 43 59.3** | **+0.3** |
| **AYDN** | **Tasoluk** | **1.72** | **133** | *i* P | **Pn** | **16 43 36.6** | **+0.8** |
| AYDN | | | | *i* S | **Sn** | **16 43 57.1** | **-0.5** |
| **AYDN** | **Tasoluk** | **1.72** | **133** | P | **Pn** | **16 43 36.6** | **+0.8** |
| AYDN | | | | S | **Sn** | **16 43 57.2** | **-0.5** |
| **SMTH** | **Samothraki Isl** | **1.73** | **340** | P | **Pn** | **16 43 36.4** | **+0.5** |
| **SMTH** | **Samothraki Isl** | **1.73** | **340** | P | **Pn** | **16 43 36.4** | **+0.5** |
| **SMTH** | **Samothraki Isl** | **1.73** | **340** | P | **Pn** | **16 43 36.1** | **+0.2** |
| **KRBG** | **Karabiga-Canak** | **1.73** | **26** | *e*PN | **Pb** | **16 43 36.9** | **-0.9** |
| **KRBG** | **Karabiga-Canak** | **1.73** | **26** | *e*Pn | **Pb** | **16 43 36.9** | **-0.9** |
| **MANT** | **Manisa** | **1.81** | **101** | *i* P | **Pn** | **16 43 37.4** | **+0.2** |
| MANT | | | | *i* S | **Sb** | **16 44 02.4** | **+0.6** |
| **MANT** | **Manisa** | **1.81** | **101** | P | **Pn** | **16 43 37.4** | **+0.2** |
| MANT | | | | S | **Sb** | **16 44 02.4** | **+0.6** |
| **ERIK** | **Erikli-Kesan** | **1.83** | **5** | *e*PN | **Pn** | **16 43 37.9** | **+0.6** |
| **ERIK** | **Erikli-Kesan** | **1.83** | **5** | *e*Pn | **Pn** | **16 43 37.9** | **+0.6** |
| **APE** | **Apeiranthos** | **1.87** | **199** | *e*PN | **Pb** | **16 43 39.4** | **-0.7** |
| **APE** | **Apeiranthos** | **1.87** | **199** | P | **Pn** | **16 43 37.2** | **-0.6** |
| **APE** | **Apeiranthos** | **1.87** | **199** | P | **Pn** | **16 43 37.5** | **-0.4** |
| **APE** | **Apeiranthos** | **1.87** | **199** | *e*Pn | **Pb** | **16 43 39.4** | **-0.7** |
| **APE** | **Apeiranthos** | **1.87** | **199** | P | **Pb** | **16 43 37.5** | **-0.4** |
| **KULA** | **Kula-Manisa** | **1.88** | **99** | *e*PN | **Pn** | **16 43 38.8** | **+0.7** |
| **KULA** | **Kula-Manisa** | **1.88** | **99** | *e*Pn | **Pn** | **16 43 38.8** | **+0.7** |
| **ENEZ** | **Enez** | **1.89** | **357** | *e*PN | **Pb** | **16 43 39.6** | **-0.9** |
| **ENEZ** | **Enez** | **1.89** | **357** | *e*Pn | **Pb** | **16 43 39.6** | **-0.9** |
| **DEMI** | **Demirci** | **1.90** | **83** | *i* P | **Pb** | **16 43 39.8** | **-0.9** |
| DEMI | | | | *i* S | **Sb** | **16 44 04.6** | **+0.2** |
| **DEMI** | **Demirci** | **1.90** | **83** | P | **Pb** | **16 43 39.8** | **-0.9** |
| DEMI | | | | S | **Sb** | **16 44 04.6** | **+0.2** |
| **EDC** | **Edincik** | **1.93** | **38** | *e*PN | **Pn** | **16 43 39.8** | **+1.1** |
| **EDC** | **Edincik** | **1.93** | **38** | *e*Pn | **Pn** | **16 43 39.8** | **+1.1** |
| **RKY** | **Sarkoy-Tekirda** | **1.96** | **20** | *e*PN | **Pn** | **16 43 40.3** | **+1.1** |
| **RKY** | **Sarkoy-Tekirda** | **1.96** | **20** | *e*Pn | **Pn** | **16 43 40.3** | **+1.1** |
| **ALN** | **Alexandroupoli** | **2.06** | **355** | *e*PN | **Pb** | **16 43 42.0** | **-1.3** |
| **ALN** | **Alexandroupoli** | **2.06** | **355** | P | **Pn** | **16 43 41.3** | **+0.8** |
| **ALN** | **Alexandroupoli** | **2.06** | **355** | P | **Pn** | **16 43 40.8** | **+0.4** |
| **ALN** | **Alexandroupoli** | **2.06** | **355** | *e*Pn | **Pb** | **16 43 42.0** | **-1.3** |
| **ALN** | **Alexandroupoli** | **2.06** | **355** | P | **Pn** | **16 43 40.8** | **+0.4** |
| **KCTX** | **Karacabey (Bur** | **2.14** | **48** | *e*PN | **Pn** | **16 43 42.3** | **+0.8** |
| **KCTX** | **Karacabey (Bur** | **2.14** | **48** | *e*Pn | **Pn** | **16 43 42.3** | **+0.8** |
| **RDO** | **Rodhopi** | **2.37** | **346** | P | **Pn** | **16 43 44.9** | **+0.2** |
| **RDO** | **Rodhopi** | **2.37** | **346** | P | **Pn** | **16 43 44.9** | **+0.2** |
| **RDO** | **Rodhopi** | **2.37** | **346** | P | **Pn** | **16 43 44.8** | **+0.1** |
| **KAVA** | **Kavala** | **2.55** | **328** | P | **Pn** | **16 43 47.5** | **+0.4** |
| **KAVA** | **Kavala**

| | | | | | | |
|---|---|---|---|---|---|---|
| HELC | | | *i* | | | 16 52 22.9 |
| | comp=Z,277nm,0.5s | | | | | |
| **VILC** | **Villavicencio,** | **2.76 193** | *e*P | **Pn** | **16 51 44.4** | **-0.3** |
| VILC | | | *e*S | **Sn** | **16 52 18.7** | **-0.6** |
| VILC | | | *i* | | 16 52 23.1 | |
| | comp=Z,86nm,0.2s | | | | | |
| **GUYC** | **Guyana, Colomb** | **2.79 235** | *e*P | **Pn** | **16 51 45.7** | **+0.4** |
| GUYC | | | *i* | | 16 52 29.2 | |
| | comp=Z,429nm,0.5s | | | | | |
| **DBBC** | **Dabeiba** | **3.10 274** | *e*P | **Pn** | **16 51 49.7** | **+0.8** |
| **TOLC** | **Tolima** | **3.14 225** | *e*P | **Pn** | **16 51 50.5** | **+0.8** |
| **SDV** | **Santo Domingo** | **3.18 50** | P | **Pn** | **16 51 50.8** | **+0.8** |
| | comp=Z,35nm,0.3s,baz=204,slow=3.3,SNR=144 | | | | | |
| SDV | | | S | **Sn** | **16 52 27.6** | **-1.1** |
| | comp=Z,16nm,0.3s,baz=236,slow=22,SNR=13 | | | | | |
| **PRAC** | **Prado** | **3.57 210** | *e*P | **Pn** | **16 51 54.6** | **-0.2** |
| **PLMC** | **San Jos˜¹ del** | **3.70 239** | *e*P | **Pn** | **16 51 57.3** | **+0.7** |
| **TXAR** | **Lajitas Array** | **36.48 312** | P | **P** | **16 57 51.1** | **+0.6** |
| | comp=Z,0.2nm,0.4s,baz=125,slow=9.8,SNR=5.9 | | | | | |
| **ULM** | **Lac du Bonnet** | **47.29 340** | P | **P** | **16 59 17.4** | **-0.4** |
| | comp=Z,1.6nm,0.4s,baz=153,slow=8.5,SNR=7.9 | | | | | |
| **PDAR** | **Pinedale Array** | **48.09 324** | P | **P** | **16 59 25.1** | **+0.7** |
| | comp=Z,0.2nm,0.5s,baz=106,slow=6.7,SNR=4.0 | | | | | |
| **YKA** | **Yellowknife Ar** | **63.27 340** | P | **P** | **17 01 11.9** | **0.0** |
| | comp=Z,1.1nm,0.5s,baz=133,slow=6.6,SNR=40 | | | | | |
| **INK** | **Inuvik** | **73.03 340** | P | **P** | **17 02 12.8** | **+0.2** |
| | comp=Z,1.1nm,0.9s,baz=105,slow=4.2,SNR=4.4 | | | | | |
| **MKAR** | **Makanchi Array** | **122.31 20** | PKP | **PKPdf** | **17 09 36.1** | **-0.8** |
| | comp=Z,0.5nm,0.8s,baz=282,slow=2.9,SNR=4.1 | | | | | |
| **ASAR** | **Alice Springs** | **149.14 234** | PKPbc | **PKPbc** | **17 10 30.1** | **-1.0** |
| | comp=Z,0.7nm,0.5s,baz=116,slow=3.6,SNR=28 | | | | | |
| ASAR | | | pPKPbc | **pPKPbc** | **17 11 11.0** | **-0.6** |
| | comp=Z,0.3nm,0.9s,baz=110,slow=3.8,SNR=1.8 | | | | | |
| **WRA** | **Warramunga Arr** | **150.36 241** | PKPbc | **PKPbc** | **17 10 33.4** | **-0.7** |
| | comp=Z,0.9nm,0.4s,baz=108,slow=2.7,SNR=32 | | | | | |
| WRA | | | pPKPbc | **pPKPbc** | **17 11 14.9** | **+0.2** |
| | comp=Z,0.6nm,1.0s,baz=100,slow=6.1,SNR=2.1 | | | | | |
| **CMAR** | **Chiang Mai Arr** | **153.68 17** | PKPbc | **PKPbc** | **17 10 41.2** | **-0.4** |
| | comp=Z,0.5nm,0.6s,baz=310,slow=3.2,SNR=3.8 | | | | | |

**JMA 18 17:19:23.6,37˚21N×140˚91E,h8km,M0.4,Eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ONAJ** | **Iwakimizuishiy** | **0.14** | **220** | *e*S | Sg | 17 19 28.8 | +0.1 |
| **JFK** | **Kawauchi** | **0.16** | **350** | P | Pg | 17 19 27.2 | +0.2 |
| JFK | | | | *e*S | Sg | 17 19 29.7 | +0.4 |
| **JFT** | **Otama** | **0.55** | **304** | *e*S | Sg | 17 19 42.4 | +0.9 |
| **JMM** | **Marumori** | **0.66** | **352** | P | Pg | 17 19 36.2 | -0.2 |
| JMM | | | | *e*S | Sg | 17 19 45.2 | +0.2 |

*NIED* ***18*** *17:20:00,36˚80N×140˚60E,h5km,Mw4.1 Best double couple: M₀1.67000×10¹⁵ NP1:ϕs344.00000°,δ19.00000°, λ-130.00000°. NP2:ϕs205.00000°,δ76.00000°, λ-78.00000°*

*ISCJB* ***18*** *17:20:21.5±0.7,36˚81N±0˚03×140˚72E±0˚05,h20km±4km, mb3.8/18,MS3.1/5,Error ellipse: s-maj=7.6km s-min=5.0km az=30.5*

*JMA* ***18*** *17:20:22.4,36˚84N×140˚59E,h7km±1km,M4.2 Broadband fault plane solution: P waves. NP1: ϕs200.00000°,δ65.00000°,λ-82.00000°. NP2:ϕs1.00000°, δ27.00000°,λ-107.00000°. Principal axes: T Plg19.0000°, Azm284.0000°; N Plg8.0000°, Azm17.0000°; P Plg69.0000°, Azm127.0000°;*

*JMA Felt II J1.*

*IDC* ***18*** *17:20:28.1±2.1,36˚73N×140˚45E,h60km±19km,mb3.6/18, mb1 3.8/21,mb1mx3.7/44,mbtmp3.9/21,MS3.2/7, Ms1 3.2/7,ms1mx2.9/40 Error ellipse: s-maj=18.0km s-min=12.9km az=91.0*

**ISC 18 17:20:22.2±1.1,36˚83N±0˚03×140˚58E±0˚04,h13km±7km, n42,σ1s20/40,mb4.0/18,MS3.1/5,8C,Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JHO** | **Hitachi** | **0.22** | **182** | ⇑P | **Pg** | **17 20 27.0** | **0.0** |
| **ONAJ** | **Iwakimizuishiy** | **0.32** | **33** | ⇑P | **Pg** | **17 20 28.5** | **-0.3** |
| **JSB** | **Shiboa** | **0.55** | **285** | ⇑P | **Pb** | **17 20 33.7** | **0.0** |
| **JFK** | **Kawauchi** | **0.58** | **24** | ⇑P | **Pg** | **17 20 33.1** | **-0.5** |
| JFK | | | | S | **Sg** | **17 20 41.1** | **-0.3** |
| **JYT** | **Yasato** | **0.68** | **207** | ⇑P | **Pb** | **17 20 35.4** | **-0.5** |
| **JFT** | **Otama** | **0.71** | **344** | ⇑P | **Pb** | **17 20 35.9** | **-0.6** |
| JFT | | | | S | **Sg** | **17 20 45.5** | **+0.1** |
| **JFY** | **Yanaizu** | **0.90** | **310** | ⇑P | **Pg** | **17 20 39.3** | **-0.4** |
| JFY | | | | S | **Sg** | **17 20 51.3** | **-0.2** |
| **JAG** | **Ashikaga** | **0.99** | **246** | ⇑P | **Pg** | **17 20 40.7** | **-0.6** |
| **MJAR** | **Matsushiro Arr** | **1.93** | **262** | P | **Pb** | **17 20 55.7** | **-1.5** |
| | 50nm,0.3s,baz=83,slow=16,SNR=760 | | | | | | |
| MJAR | | | | S | **Sb** | **17 21 21.2** | **0.0** |
| | 43nm,0.3s,baz=79,slow=25,SNR=12 | | | | | | |
| MJAR | | | | LR | LR | 17 21 59.1 | |
| | comp=Z,371nm,18.3s,baz=85,slow=51 | | | | | | |
| **MAT** | **Matsushiro** | **1.93** | **262** | P | **Pb** | **17 20 56.2** | **-1.0** |
| MAT | | | | S | **Sb** | **17 21 22.4** | **+1.2** |
| **JHJ** | **Hachijo jima 2** | **3.76** | **190** | P | **Pn** | **17 21 21.4** | **+1.5** |
| | 17nm,0.3s,baz=114,slow=22,SNR=6.5 | | | | | | |
| **ASAJ** | **Asahikawa** | **7.44** | **11** | P | **Pn** | **17 22 10.5** | **+0.1** |
| | 3.4nm,0.3s,baz=234,slow=13,SNR=22 | | | | | | |
| ASAJ | | | | S | **Sn** | **17 23 36.4** | **+1.7** |
| | 1.0nm,0.3s,baz=219,slow=32,SNR=5.8 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **9.84** | **321** | P | Pn | 17 22 48.4 | +5.0 |
| | 0.2nm,0.3s,baz=132,slow=11,SNR=7.8 | | | | | | |
| USRK | | | | LR | LR | 17 26 17.8 | |
| | comp=Z,115nm,18.5s,baz=134,slow=36 | | | | | | |
| **KSRS** | **Korea Array** | **10.12** | **277** | P | **Pn** | **17 22 51.4** | **+4.1** |
| | 0.1nm,0.3s,baz=93,slow=14,SNR=9.5 | | | | | | |
| KSRS | | | | LR | LR | 17 26 30.1 | |
| | comp=Z,90nm,21.8s,baz=94,slow=36 | | | | | | |
| **KLR** | **Kul'dur** | **13.96** | **335** | P | **P** | **17 23 44.9** | **-2.8** |
| | 0.0nm,0.3s,baz=131,slow=15,SNR=7.0 | | | | | | |
| **MA2** | **Magadan** | **23.69** | **13** | LR | LR | 17 35 57.9 | |
| | comp=Z,33nm,19.1s,baz=162,slow=39 | | | | | | |
| **SEY** | **Seymchan** | **27.12** | **12** | P | **P** | **17 26 06.0** | **+1.4** |
| | 1.2nm,0.8s,baz=148,slow=12,SNR=4.0 | | | | | | |
| **SONM** | **Songino Array** | **27.34** | **305** | P | **P** | **17 26 07.2** | **+0.2** |
| | 1.7nm,0.8s,baz=106,slow=9.0,SNR=11 | | | | | | |
| SONM | | | | LR | LR | 17 37 03.2 | |
| | comp=Z,43nm,18.2s,baz=220,slow=36 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.63** | **119** | T | T | 17 56 04.7 | |
| | baz=313,slow=75,SNR=283 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.63** | **119** | T | T | 17 56 05.7 | |
| | baz=313,slow=75,SNR=404 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.64** | **119** | T | T | 17 56 06.5 | |
| | baz=313,slow=75,SNR=220 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.32** | **121** | T | T | 17 56 56.0 | |
| | baz=314,slow=76,SNR=890 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.32** | **121** | T | T | 17 56 55.3 | |
| | baz=314,slow=76,SNR=615 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.33** | **121** | T | T | 17 56 57.9 | |
| | baz=314,slow=76,SNR=499 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **40.80** | **255** | P | **P** | **17 28 02.5** | **-1.0** |
| | 0.2nm,0.6s,baz=46,slow=6.8,SNR=3.2 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.56** | **313** | P | **P** | **17 28 10.1** | **+0.8** |
| | 0.6nm,0.4s,baz=84,slow=5.7,SNR=4.8 | | | | | | |
| ZALV | | | | PcP | **PcP** | **17 30 06.2** | **-0.3** |
| | 0.4nm,0.4s,baz=79,slow=3.1,SNR=3.6 | | | | | | |
| ZALV | | | | LR | LR | 17 47 26.7 | |
| | comp=Z,12nm,20.4s,baz=70,slow=39 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.66** | **302** | P | **P** | **17 28 25.5** | **-1.1** |
| | 0.7nm,0.8s,baz=98,slow=8.7,SNR=5.0 | | | | | | |
| MKAR | | | | LR | LR | 17 46 48.1 | |
| | comp=Z,37nm,20.3s,baz=59,slow=36 | | | | | | |
| **AAK** | **Ala-Archa** | **50.00** | **298** | LR | LR | 17 51 40.6 | |
| | comp=Z,69nm,18.8s,baz=81,slow=38 | | | | | | |
| **ILAR** | **Eielson Array** | **50.02** | **32** | P | **P** | **17 29 16.8** | **+0.7** |
| | 1.7nm,1.0s,baz=271,slow=5.6,SNR=11 | | | | | | |
| **INK** | **Inuvik** | **54.87** | **27** | P | **P** | **17 29 52.4** | **+0.5** |
| | 1.2nm,0.7s,baz=306,slow=6.7,SNR=4.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **56.77** | **187** | P | **P** | **17 30 05.6** | **-0.5** |
| | 3.6nm,0.8s,baz=4.8,slow=7.4,SNR=48 | | | | | | |
| **ASAR** | **Alice Springs** | **60.50** | **187** | P | **P** | **17 30 31.2** | **-0.8** |
| | 1.6nm,0.8s,baz=9.4,slow=6.1,SNR=17 | | | | | | |
| **GEYT** | **Alibeck** | **63.35** | **299** | P | **P** | **17 30 49.9** | **-1.3** |
| | 0.6nm,0.5s,baz=59,slow=3.7,SNR=2.8 | | | | | | |
| **ARCES** | **ARCESS Array B** | **63.95** | **339** | P | **P** | **17 30 54.3** | **-0.3** |
| | 0.9nm,0.8s,baz=55,slow=10,SNR=4.0 | | | | | | |
| **YKA** | **Yellowknife Ar** | **64.32** | **30** | P | **P** | **17 30 56.4** | **-0.6** |
| | 0.5nm,0.8s,baz=337,slow=3.4,SNR=3.7 | | | | | | |
| **STKA** | **Stephens Creek** | **68.36** | **179** | P | **P** | **17 31 21.4** | **-1.8** |
| | 1.5nm,0.8s,baz=321,slow=7.0,SNR=3.7 | | | | | | |
| **FINES** | **FINESS Array B** | **68.68** | **332** | P | **P** | **17 31 24.1** | **-0.9** |
| | 1.8nm,0.9s,baz=69,slow=7.6,SNR=3.3 | | | | | | |
| **AKASG** | **Malin Array Be** | **74.05** | **322** | P | **P** | **17 31 58.3** | **+0.7** |
| | 0.5nm,0.6s,baz=48,slow=6.1,SNR=3.5 | | | | | | |
| **NOA** | **NORSAR Array B** | **74.11** | **337** | P | **P** | **17 31 58.0** | **+0.1** |
| | 1.0nm,0.7s,baz=29,slow=4.1,SNR=3.0 | | | | | | |
| **PDAR** | **Pinedale Array** | **78.28** | **45** | P | **P** | **17 32 22.8** | **+0.5** |
| | 0.9nm,0.7s,baz=264,slow=3.0,SNR=9.0 | | | | | | |
| **TXAR** | **Lajitas Array** | **90.77** | **52** | P | **P** | **17 33 26.9** | **+1.4** |
| | 1.6nm,0.8s,baz=293,slow=3.1,SNR=17 | | | | | | |
| **LPAZ** | **La Paz** | **147.37** | **59** | PKPbc | **PKPbc** | **17 40 06.3** | **-0.6** |
| | 2.2nm,0.8s,baz=343,slow=3.0,SNR=9.5 | | | | | | |

**WEL 18 17:24:08.5±0.5,37˚71S×176˚08E,h206km±3km,ML3.8/41, 10C-2D,Error ellipse: s-maj=4.2km s-min=4.2km az=0.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MUGZ** | **Murupara** | **0.94** | **145** | PN | Pn | 17 24 38.7 | +0.2 |
| MUGZ | | | | SN | S | 17 25 02.0 | +0.2 |
| **URZ** | **Urewera** | **0.98** | **124** | ⇑PN | Pn | 17 24 38.9 | +0.2 |
| URZ | | | | SN | S | 17 25 01.9 | -0.3 |
| URZ | | | | AML | AML | 17 25 02.8 | |
| **RTZ** | **Ruatahuna** | **1.15** | **142** | PN | Pn | 17 24 40.2 | +0.1 |
| **MTHZ** | **Maungataniwha** | **1.29** | **153** | PN | Pn | 17 24 41.1 | 0.0 |
| **RUGZ** | **Raukumara Rang** | **1.29** | **102** | PN | Pn | 17 24 40.5 | -0.6 |
| **MWZ** | **Matawai** | **1.30** | **119** | PN | Pn | 17 24 41.2 | 0.0 |
| MWZ | | | | AML | AML | 17 25 08.6 | |
| MWZ | | | | AML | AML | 17 25 08.8 | |
| **RAGZ** | **Rawiri** | **1.31** | **127** | PN | Pn | 17 24 41.6 | +0.3 |
| RAGZ | | | | AML | AML | 17 25 08.5 | |
| RAGZ | | | | AML | AML | 17 25 09.5 | |
| **HAZ** | **Te Kaha** | **1.35** | **92** | ⇑PN | Pn | 17 24 41.4 | -0.1 |
| HAZ | | | | SN | S | 17 25 06.5 | -0.3 |
| HAZ | | | | AML | AML | 17 25 08.1 | |
| HAZ | | | | AML | AML | 17 25 09.0 | |
| HAZ | | | | AML | AML | 17 25 09.2 | |
| **TWVZ** | **Taurewa** | **1.45** | **200** | PN | Pn | 17 24 42.8 | +0.3 |
| **WTVZ** | **West Tongariro** | **1.46** | **195** | PN | Pn | 17 24 42.7 | +0.2 |
| **SNGZ** | **Shannon Statio** | **1.46** | **138** | ⇑PN | Pn | 17 24 42.7 | +0.3 |
| SNGZ | | | | AML | AML | 17 25 10.3 | |
| SNGZ | | | | AML | AML | 17 25 10.6 | |
| **OTVZ** | **Oturere** | **1.49** | **193** | ⇑PN | Pn | 17 24 43.2 | +0.3 |
| **BKZ** | **Black Stump Fm** | **1.49** | **168** | ⇑PN | Pn | 17 24 42.4 | -0.3 |
| BKZ | | | | AML | AML | 17 25 08.1 | |
| BKZ | | | | AML | AML | 17 25 08.2 | |
| **NMHZ** | **Naumai** | **1.50** | **158** | PN | Pn | 17 24 43.4 | +0.6 |
| NMHZ | | | | AML | AML | 17 25 12.0 | |
| NMHZ | | | | AML | AML | 17 25 12.4 | |
| **TWGZ** | **Tauwhareparae** | **1.57** | **108** | PN | Pn | 17 24 43.9 | +0.5 |
| TWGZ | | | | AML | AML | 17 25 14.2 | |
| TWGZ | | | | AML | AML | 17 25 16.0 | |
| **PKGZ** | **Pakihiroa** | **1.59** | **97** | PN | Pn | 17 24 44.1 | +0.5 |
| PKGZ | | | | AML | AML | 17 25 12.9 | |
| PKGZ | | | | AML | AML | 17 25 13.0 | |
| **TUVZ** | **Tukino** | **1.59** | **192** | PN | Pn | 17 24 43.8 | 0.0 |
| **WHHZ** | **Waihua** | **1.64** | **147** | ⇑PN | Pn | 17 24 44.1 | +0.1 |
| WHHZ | | | | AML | AML | 17 25 14.8 | |
| WHHZ | | | | AML | AML | 17 25 15.0 | |
| **RIGZ** | **Rimuhau** | **1.66** | **127** | ⇑PN | Pn | 17 24 44.4 | +0.2 |
| RIGZ | | | | AML | AML | 17 25 13.4 | |
| RIGZ | | | | AML | AML | 17 25 13.6 | |
| **WNVZ** | **Wahianoa** | **1.66** | **193** | PN | Pn | 17 24 44.1 | -0.3 |
| **ARHZ** | **Aropaoanui** | **1.71** | **155** | ⇑PN | Pn | 17 24 44.7 | +0.1 |
| ARHZ | | | | AML | AML | 17 25 14.0 | |
| ARHZ | | | | AML | AML | 17 25 14.8 | |
| **MOVZ** | **Moawhango** | **1.71** | **189** | PN | Pn | 17 24 44.1 | -0.6 |
| **KWHZ** | **Kaweka Forest** | **1.73** | **171** | PN | Pn | 17 24 44.7 | -0.2 |
| KWHZ | | | | AML | AML | 17 25 14.3 | |
| KWHZ | | | | AML | AML | 17 25 14.4 | |
| **PUZ** | **Puketiti** | **1.76** | **103** | PN | Pn | 17 24 44.9 | -0.2 |
| **BHHZ** | **Black Hill Sta** | **1.78** | **180** | PN | Pn | 17 24 44.6 | -0.7 |
| BHHZ | | | | AML | AML | 17 25 16.1 | |
| BHHZ | | | | AML | AML | 17 25 16.4 | |
| **MCHZ** | **McNeill Hill** | **1.80** | **165** | ⇑PN | Pn | 17 24 45.5 | +0.1 |
| MCHZ | | | | AML | AML | 17 25 15.9 | |
| MCHZ | | | | AML | AML | 17 25 16.8 | |
| **KNZ** | **Kokohu** | **1.81** | **137** | PN | Pn | 17 24 45.2 | -0.4 |
| **CNGZ** | **Carnagh Statio** | **1.85** | **115** | PN | Pn | 17 24 46.4 | +0.4 |
| CNGZ | | | | AML | AML | 17 25 16.3 | |
| **WMGZ** | **Waiomatatini S** | **1.85** | **94** | PN | Pn | 17 24 46.2 | +0.2 |
| WMGZ | | | | AML | AML | 17 25 16.6 | |
| WMGZ | | | | AML | AML | 17 25 17.6 | |
| **PRGZ** | **Paritu Road** | **1.86** | **131** | PN | Pn | 17 24 45.1 | -0.5 |
| PRGZ | | | | AML | AML | 17 25 17.6 | |
| PRGZ | | | | AML | AML | 17 25 20.8 | |
| **KRHZ** | **Kereru** | **1.94** | **173** | PN | Pn | 17 24 46.2 | -0.7 |
| KRHZ | | | | AML | AML | 17 25 17.3 | |
| KRHZ | | | | AML | AML | 17 25 17.3 | |
| **MHGZ** | **Mahia Peninsul** | **2.03** | **136** | PN | Pn | 17 24 47.4 | -0.4 |
| **CKHZ** | **Cape Kidnapper** | **2.10** | **158** | PN | Pn | 17 24 47.8 | -0.6 |
| CKHZ | | | | AML | AML | 17 25 20.1 | |
| CKHZ | | | | AML | AML | 17 25 22.7 | |
| **KAHZ** | **Kahuranaki** | **2.17** | **164** | PN | Pn | 17 24 48.5 | -0.8 |
| KAHZ | | | | AML | AML | 17 25 21.1 | |
| KAHZ | | | | AML | AML | 17 25 23.3 | |
| **PNHZ** | **Pukenui** | **2.20** | **178** | PN | Pn | 17 24 48.3 | -1.3 |
| PNHZ | | | | AML | AML | 17 25 20.7 | |
| PNHZ | | | | AML | AML | 17 25 25.1 | |
| **WAZ** | **Wanganui** | **2.21** | **202** | PN | Pn | 17 24 49.1 | -0.6 |
| **TSZ** | **Takapari Road** | **2.35** | **182** | ⇑PN | Pn | 17 24 49.7 | -1.4 |
| TSZ | | | | AML | AML | 17 25 23.0 | |
| TSZ | | | | AML | AML | 17 25 24.7 | |
| **WPHZ** | **Waipukurau** | **2.37** | **173** | PN | Pn | 17 24 50.3 | -1.0 |
| **PXZ** | **Pawanui** | **2.40** | **166** | PN | Pn | 17 24 50.1 | -1.5 |
| PXZ | | | | AML | AML | 17 25 24.1 | |
| PXZ | | | | AML | AML | 17 25 24.5 | |
| **OHWZ** | **Ohakea** | **2.56** | **193** | PN | Pn | 17 24 52.4 | -1.1 |
| **DVHZ** | **Dannevirke** | **2.59** | **179** | PN | Pn | 17 24 51.9 | -1.9 |
| DVHZ | | | | SN | S | 17 25 24.5 | -4.2 |
| DVHZ | | | | AML | AML | 17 25 27.7 | |
| **PRHZ** | **Porangahau** | **2.59** | **171** | PN | Pn | 17 24 52.2 | -1.5 |
| PRHZ | | | | AML | AML | 17 25 27.5 | |
| **POWZ** | **Post Office Ro** | **2.69** | **185** | PN | Pn | 17 24 52.7 | -2.1 |
| POWZ | | | | AML | AML | 17 25 30.3 | |
| POWZ | | | | AML | AML | 17 25 30.5 | |
| **ANWZ** | **Angora Road** | **2.76** | **174** | PN | Pn | 17 24 53.8 | -1.9 |
| ANWZ | | | | SN | S | 17 25 28.0 | -3.8 |
| ANWZ | | | | AML | AML | 17 25 33.7 | |
| **PRWZ** | **Pori Road** | **2.84** | **182** | PN | Pn | 17 24 54.8 | -1.8 |
| PRWZ | | | | AML | AML | 17 25 30.2 | |
| PRWZ | | | | AML | AML | 17 25 35.1 | |
| **MRZ** | **Mangatainoka R** | **2.97** | **187** | ⇓PN | Pn | 17 24 55.4 | -2.7 |
| MRZ | | | | SN | S | 17 25 31.3 | -5.3 |
| MRZ | | | | AML | AML | 17 25 33.1 | |
| **TIWZ** | **Tintock** | **3.07** | **183** | PN | Pn | 17 24 56.7 | -2.5 |
| TIWZ | | | | SN | S | 17 25 33.6 | -5.0 |
| TIWZ | | | | AML | AML | 17 25 33.9 | |
| **OGWZ** | **Otaki Gorge** | **3.18** | **193** | ⇓PN | Pn | 17 24 57.9 | -2.6 |
| OGWZ | | | | AML | AML | 17 25 36.2 | |
| OGWZ | | | | AML | AML | 17 25 37.5 | |
| **HOWZ** | **Holdsworth Sta** | **3.21** | **188** | PN | Pn | 17 24 57.9 | -3.1 |
| HOWZ | | | | AML | AML | 17 25 36.7 | |
| HOWZ | | | | AML | AML | 17 25 37.5 | |
| **KIW** | **Kapiti Island** | **3.28** | **196** | PN | Pn | 17 24 58.6 | -3.1 |
| KIW | | | | AML | AML | 17 25 39.6 | |
| **TMWZ** | **Te Maipa** | **3.40** | **182** | PN | Pn | 17 24 59.1 | -3.0 |
| TMWZ | | | | AML | AML | 17 25 42.5 | |
| **MTW** | **Mount Morrison** | **3.47** | **187** | PN | Pn | 17 25 00.4 | -3.7 |
| MTW | | | | AML | AML | 17 25 43.2 | |
| **CAW** | **Cannon Point** | **3.48** | **193** | PN | Pn | 17 25 00.9 | -3.2 |
| CAW | | | | AML | AML | 17 25 43.2 | |
| CAW | | | | AML | AML | 17 25 44.5 | |
| **DUWZ** | **D'Urville Isla** | **3.51** | **208** | PN | Pn | 17 25 01.5 | -3.1 |
| **TRWZ** | **Traveller** | **3.70** | **185** | PN | Pn | 17 25 03.3 | -3.5 |
| **PAWZ** | **Paruwai Farm** | **3.70** | **188** | PN | Pn | 17 25 03.5 | -3.4 |
| **WEL** | **Wellington** | **3.71** | **195** | AML | AML | 17 25 47.8 | |
| WEL | | | | AML | AML | 17 25 49.5 | |
| **MSWZ** | **Moikau Station** | **3.76** | **190** | PN | Pn | 17 25 03.6 | -3.9 |
| MSWZ | | | | SN | S | 17 25 46.7 | -6.7 |
| MSWZ | | | | AML | AML | 17 25 48.5 | |
| **TCW** | **Tory Channel** | **3.77** | **201** | PN | Pn | 17 25 04.3 | -3.2 |
| TCW | | | | AML | AML | 17 25 50.4 | |
| TCW | | | | AML | AML | 17 25 50.6 | |
| **PLWZ** | **Palliser** | **3.91** | **189** | PN | Pn | 17 25 05.2 | -4.1 |
| **TUWZ** | **Tuamarina** | **4.07** | **203** | PN | Pn | 17 25 07.7 | -3.6 |
| TUWZ | | | | AML | AML | 17 25 55.2 | |
| **NNZ** | **Nelson** | **4.08** | **210** | PN | Pn | 17 25 07.7 | -3.7 |
| **QRZ** | **Quartz Range** | **4.16** | **220** | PN | Pn | 17 25 08.5 | -3.9 |
| **BSWZ** | **Blackbirch Sta** | **4.35** | **202** | PN | Pn | 17 25 11.1 | -3.7 |
| **THZ** | **Tophouse** | **4.73** | **210** | PN | Pn | 17 25 15.1 | -4.6 |
| **KHZ** | **Kahutara** | **5.09** | **202** | PN | Pn | 17 25 20.2 | -3.9 |
| **INZ** | **Inchbonnie** | **6.14** | **214** | PN | Pn | 17 25 32.9 | -4.7 |
| **OXZ** | **Oxford** | **6.40** | **208** | PN | Pn | 17 25 35.0 | -6.0 |
| **MQZ** | **McQueen's Vall** | **6.53** | **202** | PN | Pn | 17 25 36.6 | -6.0 |

**SJA 18 17:33:40.6±0.6,28˚19S×67˚51W,h144km±4km,ML2.7, MW3.7,La Rioja Province**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VCA** | **Vinchina** | **0.82** | **228** | *i* P | Pn | 17 34 04.0 | +0.5 |
| VCA | | | | *i* S | Sn | 17 34 21.4 | +0.5 |
| VCA | | | | IAML | | 17 34 24.3 | |
| | comp=Z,684nm,0.9s | | | | | | |
| **CYA** | **Choya** | **1.53** | **100** | *i* P | Pn | 17 34 11.1 | +1.0 |
| CYA | | | | *i* S | Sn | 17 34 32.8 | +0.3 |
| CYA | | | | IAML | | 17 34 33.6 | |
| | comp=Z,21nm,0.7s | | | | | | |
| **AHML** | **Horco Molle** | **2.39** | **55** | *i* P | Pn | 17 34 20.9 | +0.8 |
| **FSA** | **Cafayete** | **2.48** | **34** | *i* P | Pn | 17 34 22.6 | +1.2 |
| FSA | | | | IAML | | 17 34 23.9 | |
| | comp=Z,13nm,0.3s | | | | | | |
| **AMOG** | **MOGNA** | **2.87** | **197** | *i* P | Pn | 17 34 26.9 | +0.7 |
| **RTCV** | **Cerro Valdivia** | **3.77** | **193** | *i* P | Pn | 17 34 38.6 | +0.9 |
| RTCV | | | | *i* S | Sn | 17 35 22.1 | +0.1 |
| **RTLS** | **Leoncito** | **3.92** | **203** | *i* P | Pn | 17 34 41.1 | +1.2 |
| RTLS | | | | IAML | | 17 35 29.9 | |
| | comp=Z,9.7nm,0.5s | | | | | | |

*ISCJB* ***18*** *17:48:42.3±0.3,36˚45N±0˚03×71˚19E±0˚04,h250km, mb3.7/16,Error ellipse: s-maj=5.0km s-min=3.2km az=152.8*

*IDC* ***18*** *17:48:42.6±2.2,36˚34N×71˚12E,h233km±22km,mb3.4/16, mb1 3.5/22,mb1mx3.3/53,mbtmp4.0/22,Error ellipse: s-maj=14.1km s-min=10.8km az=20.0*

*NNC* ***18*** *17:48:47.2±2.4,36˚86N×71˚09E,h216km±20km,mb3.2, mpv4.5,Error ellipse: s-maj=25.6km s-min=12.3km az=158.0*

**ISC 18 17:48:43.0±0.4,36˚42N±0˚05×71˚28E±0˚05,h250km,n69, σ2s71/82,mb3.6/16,10C-7D,Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CEP** | **Cherat** | **2.64** | **169** | P | **Pn** | **17 49 31.7** | **-0.2** |
| CEP | | | | S | **S** | **17 50 08.0** | **-2.5** |
| **DZET** | **Dzherino** | **3.08** | **321** | ⇑P | **Pn** | **17 49 33.9** | **-2.5** |
| | 154nm,0.3s | | | | | | |
| DZET | | | | ⇓S | **S** | **17 50 10.7** | **-8.1** |
| | 1µm,0.4s | | | | | | |
| **CHCP** | **Chirah Chowk** | **3.20** | **149** | ⇑P | **Pn** | **17 49 38.4** | **+0.6** |
| **THW** | **Thamme Wali** | **3.63** | **174** | P | **Pn** | **17 49 42.6** | **-0.1** |
| **SFK** | **Sufi-Kurgan** | **3.99** | **25** | ⇑P | **Pn** | **17 49 45.8** | **-1.1** |
| | 31nm,0.2s | | | | | | |
| SFK | | | | ⇑S | **S** | **17 50 32.4** | **-5.3** |
| | 125nm,0.4s | | | | | | |
| **SARP** | **Sargodha** | **4.63** | **165** | P | **Pn** | **17 49 54.1** | **-0.3** |
| **THN** | **Thein Dam** | **5.41** | **136** | *e*P | **Pn** | **17 50 03.0** | **-0.8** |
| THN | | | | *e*S | **S** | **17 51 00.4** | **-7.9** |
| **AML** | **Almayashu** | **6.00** | **17** | P | **Pn** | **17 50 10.5** | **-1.0** |
| | SNR=322 | | | | | | |
| **MNAS** | **Manas** | **6.13** | **9** | ⇑P | **Pn** | **17 50 11.8** | **-1.0** |
| | 29nm,0.4s | | | | | | |
| MNAS | | | | ⇑S | **S** | **17 51 18.9** | **-5.9** |
| | 215nm,0.9s | | | | | | |
| **UCH** | **Uchtor** | **6.32** | **22** | P | **Pn** | **17 50 14.8** | **-0.7** |
| | SNR=137 | | | | | | |
| **KZA** | **Kyzart** | **6.44** | **27** | P | **Pn** | **17 50 15.8** | **-1.1** |
| | SNR=19 | | | | | | |
| **EKS2** | **Erkin-Say** | **6.53** | **16** | P | **Pn** | **17 50 17.4** | **-0.4** |
| | SNR=41 | | | | | | |
| **BHK** | **Bhakra** | **6.56** | **138** | *e*S | S | 17 51 25.0 | -10 |
| **AAK** | **Ala-Archa** | **6.69** | **21** | P | **Pn** | **17 50 19.7** | **-0.1** |
| | 20nm,0.3s,baz=178,slow=6.4,SNR=251 | | | | | | |
| AAK | | | | S | **S** | **17 51 33.7** | **-3.8** |
| | 2.2nm,0.3s,baz=42,slow=22,SNR=9.0 | | | | | | |
| **AAK** | **Ala-Archa** | **6.69** | **21** | ⇑P | **Pn** | **17 50 19.6** | **-0.3** |
| | 19nm,0.3s | | | | | | |
| AAK | | | | ⇓S | **S** | **17 51 34.2** | **-3.2** |
| | 23nm,0.6s | | | | | | |
| **AAK** | **Ala-Archa** | **6.69** | **21** | P | **Pn** | **17 50 19.8** | **-0.1** |
| | SNR=74 | | | | | | |
| **KK31** | **Karatay Array** | **6.70** | **355** | ⇓P | **Pn** | **17 50 18.4** | **-1.5** |
| | 3.7nm,0.3s,baz=185,slow=12,SNR=228 | | | | | | |
| KK31 | | | | ⇓S | **S** | **17 51 30.4** | **-7.1** |
| | 32nm,0.3s,baz=181,slow=22,SNR=18 | | | | | | |
| **SDNR** | **Sundarnagar** | **6.81** | **134** | *e*P | **Pn** | **17 50 21.5** | **+0.1** |
| SDNR | | | | *e*S | S | 17 51 31.0 | -9.3 |
| **KBK** | **Karagaybulak** | **6.84** | **23** | P | **Pn** | **17 50 21.7** | **-0.1** |
| | SNR=32 

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | comp=E,0.7nm,0.3s,baz=61,slow=7.5,SNR=11 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **19.90** | **24** | P | | **P** | 17 52 57.6 | **+1.9** | |
| | comp=E,1.1nm,0.3s,baz=222,slow=9.4,SNR=7.1 | | | | | | | | |
| **GNI** | **Garni** | **21.13** | **288** | P | | **P** | 17 53 12.0 | **+3.0** | |
| | comp=E,4.9nm,0.7s,baz=30,slow=9.9,SNR=5.1 | | | | | | | | |
| **ARU** | **Arti** | **21.78** | **341** | P | | **P** | 17 53 16.2 | **+1.5** | |
| | comp=E,3.1nm,0.6s,baz=124,slow=4.9,SNR=6.5 | | | | | | | | |
| **SONM** | **Songino Array** | **28.20** | **55** | P | | **P** | 17 54 15.8 | **+3.1** | |
| | comp=E,0.9nm,0.8s,baz=250,slow=9.1,SNR=5.9 | | | | | | | | |
| **BRTR** | **Keskin Array B** | **29.67** | **288** | P | | **P** | 17 54 27.1 | **+1.3** | |
| | comp=E,1.1nm,0.7s,baz=104,slow=9.7,SNR=7.6 | | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **30.22** | **119** | P | | **P** | 17 54 33.0 | **+2.4** | |
| | comp=E,1.2nm,0.8s,baz=305,slow=9.0,SNR=11 | | | | | | | | |
| **AKASG** | **Malin Array Be** | **33.17** | **309** | P | | **P** | 17 54 56.7 | **+0.7** | |
| | comp=E,1.9nm,0.6s,baz=80,slow=7.3,SNR=14 | | | | | | | | |
| **FINES** | **FINESS Array B** | **37.68** | **326** | P | | **P** | 17 55 35.4 | **+1.3** | |
| | comp=E,5.3nm,0.6s,baz=124,slow=10,SNR=25 | | | | | | | | |
| **ARCES** | **ARCESS Array B** | **41.31** | **338** | P | | **P** | 17 56 05.4 | **+1.5** | |
| | comp=E,3.7nm,0.7s,baz=115,slow=8.6,SNR=32 | | | | | | | | |
| **NB2** | **NORSAR Subarra** | **44.58** | **323** | P | | **P** | 17 56 31.1 | **+0.9** | |
| | comp=Z,1.3nm,0.5s,baz=98,slow=7.9 | | | | | | | | |
| **NOA** | **NORSAR Array B** | **44.58** | **323** | P | | **P** | 17 56 30.9 | **+0.7** | |
| | comp=Z,0.9nm,0.3s,baz=105,slow=7.1,SNR=9.9 | | | | | | | | |
| **KMBO** | **Kilima Mbogo** | **48.94** | **228** | P | | **P** | 17 57 06.3 | **+1.7** | |
| | comp=Z,0.6nm,0.3s,baz=30,slow=10,SNR=3.9 | | | | | | | | |
| **ESDC** | **Sonseca Array** | **57.70** | **298** | P | | **P** | 17 58 07.8 | **+0.1** | |
| | comp=Z,0.8nm,0.7s,baz=67,slow=8.8,SNR=5.7 | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **65.94** | **269** | P | | **P** | 17 59 02.2 | **-0.6** | |
| | comp=Z,2.1nm,0.5s,baz=50,slow=5.9,SNR=18 | | | | | | | | |
| **BOSA** | **Boshof** | **77.83** | **220** | P | | **P** | 18 00 14.0 | **+1.0** | |
| | comp=Z,1.9nm,0.9s,baz=7.1,slow=8.1,SNR=3.2 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **81.32** | **3** | P | | **P** | 18 00 33.2 | **+2.1** | |
| | comp=Z,0.3nm,0.5s,baz=349,slow=5.4,SNR=9.8 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **81.76** | **122** | P | | **P** | 18 00 35.3 | **+1.2** | |
| | comp=Z,0.3nm,0.3s,baz=325,slow=5.0,SNR=13 | | | | | | | | |
| **ASAR** | **Alice Springs** | **84.02** | **125** | P | | **P** | 18 00 47.5 | **+1.8** | |
| | comp=Z,0.3nm,0.5s,baz=313,slow=4.9,SNR=10 | | | | | | | | |
| **PLCA** | **Paso Flores** | **150.01** | **250** | PKPbc | | **PKPbc** | 18 08 02.3 | **-1.5** | |
| | comp=Z,1.8nm,0.7s,baz=50,slow=5.3,SNR=4.5 | | | | | | | | |

*IDC* ***18*** *17:50:35.4±0.9, 34.89S×72.60W, h0km, mb4.0/7, mb1 4.2/9, mb1mx4.0/28, mbtmp4.0/9, ML4.2/2, MS3.6/4, Ms1 3.6/4, ms1mx3.2/25, Error ellipse: s-maj=38.3km s-min=16.3km az=80.0*

*ISCJB* ***18*** *17:50:36.8±1.4, 34.88S±0.04×72.81W±0.09, h20km±10km, mb4.0/8, MS3.7/4, Error ellipse: s-maj=12.2km s-min=5.7km az=12.9*

*GUC* ***18*** *17:50:38.6±0.6, 34.89S×72.76W, h27km±5km, ML4.0*

*NEIC* ***18*** *17:50:40.3±0.7, 34.85S×72.83W, h35km, mb4.4/2, Error ellipse: s-maj=18.7km s-min=10.0km az=88.0*

**ISC 18 17:50:35.0±3.2, 34°89S±0.04×72°80W±0.08, h0km±20km, n26, σ0°96/26, mb4.2/8, MS3.8/4, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **GO05** | **HualaæØ** | **0.73** | **100** | *e*P | | **Pb** | **17 50 50.9** | **+0.3** |
| GO05 | | | | *e*S | | **Sb** | **17 51 00.1** | **-0.9** |
| GO05 | | | | IAML | | | 17 51 01.6 | |
| | comp=N,29µm,0.3s | | | | | | | |
| **CHPI** | **Pichilemu** | **0.83** | **53** | *e*P | | **Pb** | **17 50 52.4** | **+0.1** |
| CHPI | | | | *e*S | | **Sb** | **17 51 03.3** | **-0.6** |
| CHPI | | | | IAML | | | 17 51 05.7 | |
| | comp=E,7µm,0.3s | | | | | | | |
| **COCH** | **Cobquecura** | **1.24** | **179** | *e*P | | **Pn** | **17 50 59.4** | **-0.2** |
| COCH | | | | *e*S | | **Sb** | **17 51 15.3** | **-0.4** |
| COCH | | | | IAML | | | 17 51 21.7 | |
| | comp=E,2µm,0.4s | | | | | | | |
| **NICH** | **Los Niches** | **1.30** | **95** | *e*P | | **Pb** | **17 51 00.1** | **-0.2** |
| NICH | | | | *e*S | | **Sg** | **17 51 16.1** | **-0.6** |
| **CCHI** | **Chillan** | **1.81** | **161** | *e*P | | **Pn** | **17 51 08.4** | **+1.0** |
| CCHI | | | | *e*S | | **Sn** | **17 51 31.0** | **0.0** |
| CCHI | | | | IAML | | | 17 51 38.3 | |
| | comp=E,6µm,0.4s | | | | | | | |
| **LMEL** | **Las Melosas** | **2.39** | **65** | *e*P | | **Pn** | **17 51 16.8** | **+1.3** |
| **CLCH** | **Cerro Calan** | **2.40** | **52** | *e*P | | **Pn** | **17 51 16.3** | **+0.7** |
| **PEL** | **Peldehue** | **2.48** | **46** | *e*P | | **Pn** | **17 51 17.4** | **+0.7** |
| **PLCA** | **Paso Flores** | **6.10** | **164** | Pn | | **Pn** | **17 52 08.1** | **+1.6** |
| | comp=E,1.9nm,0.3s,baz=354,slow=11,SNR=68 | | | | | | | |
| PLCA | | | | Lg | | Lg | 17 53 46.3 | |
| | comp=E,0.9nm,0.3s,baz=274,slow=19,SNR=2.7 | | | | | | | |
| **LCO** | **Las Campanas** | **6.13** | **18** | *e*Pn | | **Pn** | **17 52 06.0** | **-1.1** |
| | comp=E,8.2nm,0.4s | | | | | | | |
| **TRQA** | **Tornquist** | **9.27** | **113** | *e*Pn | | **Pn** | **17 52 52.3** | **+2.3** |
| | comp=E,9.3nm,0.8s | | | | | | | |
| **CPUP** | **Villa Florida** | **15.80** | **62** | Pn | | **P** | **17 54 22.4** | **-0.5** |
| | comp=E,0.1nm,0.3s,baz=258,slow=9.3,SNR=2.6 | | | | | | | |
| **LPAZ** | **La Paz** | **18.99** | **14** | P | | **Pn** | **17 54 59.9** | **+0.5** |
| | comp=E,0.2nm,0.3s,baz=192,slow=7.9,SNR=9.7 | | | | | | | |
| **USHA** | **Ushuaia** | **20.17** | **173** | P | | Pn | 17 55 12.6 | 0.0 |
| | comp=E,29nm,0.8s,baz=18,slow=3.2,SNR=3.6 | | | | | | | |
| **SIV** | **San Ignacio** | **21.56** | **32** | P | | **P** | **17 55 25.4** | **-0.7** |
| | comp=E,2.9nm,0.7s,baz=234,slow=1.3,SNR=9.0 | | | | | | | |
| **NNA** | **Nana** | **23.09** | **350** | P | | P | 17 55 34.8 | -7.7 |
| | comp=E,4.7nm,0.4s | | | | | | | |
| **SAML** | **Samuel** | **27.28** | **21** | *e*P | | **P** | **17 56 21.2** | **0.0** |
| | comp=E,3.0nm,0.3s | | | | | | | |
| **RPN** | **Rapa Nui** | **32.12** | **274** | LR | | LR | 18 06 30.7 | |
| | comp=E,47nm,19.2s,baz=160,slow=30 | | | | | | | |
| **SNAA** | **Sanae** | **51.00** | **158** | P | | **P** | **17 59 38.1** | **-0.1** |
| | comp=E,3.2nm,1.1s,baz=307,slow=5.7,SNR=3.0 | | | | | | | |
| **TXAR** | **Lajitas Array** | **70.21** | **332** | P | | **P** | **18 01 51.1** | **+1.4** |
| | comp=E,0.6nm,0.6s,baz=155,slow=9.0,SNR=11 | | | | | | | |
| **BOSA** | **Boshof** | **80.21** | **118** | P | | **P** | **18 02 47.0** | **-0.7** |
| | comp=E,2.7nm,0.8s,baz=247,slow=7.9,SNR=4.8 | | | | | | | |
| BOSA | | | | LR | | LR | 18 33 52.6 | |
| | comp=E,47nm,19.6s,baz=204,slow=32 | | | | | | | |
| **LBTB** | **Lobatse** | **82.50** | **115** | LR | | LR | 18 36 30.0 | |
| | comp=E,27nm,18.0s,baz=181,slow=33 | | | | | | | |
| **PDAR** | **Pinedale Array** | **84.28** | **334** | P | | **P** | **18 03 09.0** | **+0.4** |
| | comp=E,0.2nm,0.6s,baz=106,slow=3.0,SNR=2.3 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **85.10** | **70** | P | | **P** | **18 03 12.7** | **-0.4** |
| | comp=E,1.0nm,0.8s,baz=266,slow=4.0,SNR=6.9 | | | | | | | |
| **LSZ** | **Lusaka** | **90.12** | **109** | LR | | LR | 18 40 20.6 | |
| | comp=E,59nm,21.5s,baz=176,slow=33 | | | | | | | |
| **WRA** | **Warramunga Arr** | **119.68** | **210** | PKP | | **PKPdf** | **18 09 26.3** | **-1.2** |
| | comp=E,0.5nm,0.8s,baz=168,slow=1.8,SNR=5.9 | | | | | | | |

*NEIC* ***18*** *17:54:13.5±2.5, 30.58S×177.36W, h35km, mb4.0/1, Error ellipse: s-maj=49.4km s-min=21.8km az=110.0*

*IDC* ***18*** *17:54:17.1±5.4, 30.27S×177.40W, h65km±37km, mb3.9/4, mb1 4.0/4, mb1mx3.5/30, mbtmp4.2/4, Error ellipse: s-maj=57.9km s-min=33.0km az=138.0*

**ISC 18 17:54:17.6±1.7, 28°2S±0.2×178.4W±0.2, h35km, n10, σ2°35/10, mb4.2/5, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **1.13** | **157** | P | | **Pn** | **17 54 36.8** | **-0.1** |
| | 53nm,0.3s,baz=60,slow=20,SNR=5.6 | | | | | | | |
| RAO | | | | S | | **Sn** | **17 54 51.5** | **+0.2** |
| | 266nm,0.3s,baz=323,slow=21,SNR=9.3 | | | | | | | |
| **ARMA** | **Armidale** | **26.18** | **258** | P | | **P** | **17 59 46.0** | **-3.1** |
| **EIDS** | **Eidsvold** | **27.34** | **269** | P | | **P** | **17 59 56.5** | **-3.0** |
| **CTA** | **Charters Tower** | **33.15** | **276** | P | | P | 18 00 58.1 | +7.3 |
| | 2.0nm,0.5s,baz=100,slow=9.3,SNR=6.0 | | | | | | | |
| **STKA** | **Stephens Creek** | **34.68** | **254** | P | | **P** | **18 01 03.8** | **-0.3** |
| | 2.4nm,0.5s,baz=103,slow=13,SNR=10 | | | | | | | |
| **ASAR** | **Alice Springs** | **42.91** | **265** | P | | **P** | **18 02 14.8** | **+1.7** |
| | 0.6nm,0.4s,baz=106,slow=7.3,SNR=42 | | | | | | | |
| **WRAB** | **Tennant Creek** | **43.69** | **270** | *e*P | | **P** | **18 02 21.3** | **+1.9** |
| | 0.8nm,0.3s | | | | | | | |
| **WRA** | **Warramunga Arr** | **43.69** | **270** | P | | **P** | **18 02 22.9** | **+3.4** |
| | 1.5nm,0.3s,baz=110,slow=8.1,SNR=22 | | | | | | | |
| **FINES** | **FINESS Array B** | **142.96** | **341** | PKPbc | | **PKPdf** | **18 13 47.4** | **+0.5** |
| | 5.9nm,1.0s,baz=22,slow=6.2,SNR=7.1 | | | | | | | |
| **AKASG** | **Malin Array Be** | **149.32** | **325** | PKPbc | | **PKPbc** | **18 14 01.1** | **-1.3** |
| | 0.2nm,0.3s,baz=48,slow=3.3,SNR=4.0 | | | | | | | |

**ROM 18 17:57:47.9±0.1, 35.98N×12.64E, h38km, MI3.5/29, Error ellipse: s-maj=0.0km s-min=0.0km az=180.0, Central Mediterranean Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **FAVR** | **Favara** | **1.53** | **33** | Pn | | Pn | 17 58 14.3 | +1.7 |
| | 316nm,0.4s | | | | | | | |
| **WDD** | **Wied Dalam** | **1.54** | **95** | Pn | | Pn | 17 58 13.8 | +1.0 |
| WDD | | | | Sn | | Sn | 17 58 31.8 | +0.3 |
| | 871nm,0.6s | | | | | | | |
| **MMGO** | **Monte Magaggia** | **1.70** | **9** | Pn | | Pn | 17 58 14.4 | -0.6 |
| | 61nm,0.3s | | | | | | | |
| **CRJA** | **Costa Raja** | **1.84** | **9** | Pn | | Pn | 17 58 17.1 | +0.1 |
| | 193nm,0.5s | | | | | | | |
| **RAFF** | **Raffo Rosso** | **1.86** | **48** | Pn | | Pn | 17 58 17.7 | +0.5 |
| RAFF | | | | Sn | | Sn | 17 58 38.5 | -1.0 |
| | 308nm,0.6s | | | | | | | |
| **MTGR** | **Montagna Grand** | **1.91** | **3** | Pn | | Pn | 17 58 17.9 | -0.1 |
| | 18nm,0.3s | | | | | | | |
| **CORL** | **Corleone** | **1.98** | **15** | Pn | | Pn | 17 58 19.4 | +0.5 |
| | 215nm,0.7s | | | | | | | |
| **HMDC** | **Modica** | **1.98** | **60** | Pn | | Pn | 17 58 19.1 | +0.1 |
| HMDC | | | | Sn | | Sn | 17 58 41.8 | -0.8 |
| | 323nm,0.3s | | | | | | | |
| **HVZN** | **Vizzini** | **2.06** | **54** | Pn | | Pn | 17 58 19.8 | -0.2 |
| HVZN | | | | Sn | | Sn | 17 58 43.5 | -0.9 |
| | 524nm,0.5s | | | | | | | |
| **MEU** | **Monte Lauro** | **2.16** | **58** | Pn | | Pn | 17 58 20.7 | -0.7 |
| | 236nm,0.2s | | | | | | | |
| **SOLUN** | **Solunto** | **2.22** | **19** | Pn | | Pn | 17 58 22.6 | +0.4 |
| SOLUN | | | | Sn | | Sn | 17 58 48.1 | -0.3 |
| | 97nm,0.8s | | | | | | | |
| **HAVL** | **Avola** | **2.23** | **63** | Pn | | Pn | 17 58 22.1 | -0.2 |
| HAVL | | | | Sn | | Sn | 17 58 48.2 | -0.5 |
| | 255nm,0.2s | | | | | | | |
| **HLNI** | **Lentini** | **2.26** | **52** | Pn | | Pn | 17 58 22.7 | +0.1 |
| | 256nm,0.2s | | | | | | | |
| **SSY** | **Sortino** | **2.28** | **59** | Pn | | Pn | 17 58 23.6 | +0.5 |
| SSY | | | | Sn | | Sn | 17 58 50.0 | 0.0 |
| | 481nm,0.4s | | | | | | | |
| **GIB** | **Gibilmanna** | **2.29** | **29** | Pn | | Pn | 17 58 24.4 | +1.2 |
| | 482nm,1.0s | | | | | | | |
| **ECNV** | **Catenanuova** | **2.32** | **45** | Pn | | Pn | 17 58 25.5 | +2.0 |
| **GALF** | **Gagliano Caste** | **2.32** | **41** | Pn | | Pn | 17 58 25.2 | +1.6 |
| | 120nm,0.5s | | | | | | | |
| **HCRL** | **Carlentini** | **2.32** | **55** | Pn | | Pn | 17 58 23.5 | -0.1 |
| | 601nm,0.5s | | | | | | | |
| **PLLN** | **Pollina** | **2.34** | **31** | Pn | | Pn | 17 58 25.7 | +1.8 |
| | 403nm,1.4s | | | | | | | |
| **HAGA** | **Augusta** | **2.41** | **57** | Pn | | Pn | 17 58 25.1 | +0.4 |
| | 223nm,0.6s | | | | | | | |
| **AGST** | **Augusta-Monte** | **2.44** | **58** | Pn | | Pn | 17 58 25.7 | +0.5 |
| | 45µm,15.0s | | | | | | | |
| **ESLN** | **Serra La Nave** | **2.54** | **47** | Pn | | Pn | 17 58 27.9 | +1.2 |
| | 483nm,0.8s | | | | | | | |
| **MNO** | **Monte Soro** | **2.55** | **40** | Pn | | Pn | 17 58 28.4 | +1.5 |
| | 284nm,1.1s | | | | | | | |
| **MSFR** | **San Fratello** | **2.58** | **37** | Pn | | Pn | 17 58 28.8 | +1.7 |
| | 684nm,2.5s | | | | | | | |
| **MUCR** | **Ucria** | **2.73** | **40** | Pn | | Pn | 17 58 30.5 | +1.3 |
| | 147nm,0.6s | | | | | | | |
| **NOV** | **Novara** | **2.86** | **44** | Pn | | Pn | 17 58 32.0 | +1.0 |
| NOV | | | | Sn | | Sn | 17 59 04.6 | +0.4 |
| | 64nm,0.4s | | | | | | | |
| **MMME** | **Mongiuffi-Meli** | **2.86** | **46** | Pn | | Pn | 17 58 31.9 | +0.8 |
| | 96nm,0.7s | | | | | | | |
| **MCSR** | **Castroreale** | **2.95** | **44** | Pn | | Pn | 17 58 32.9 | +0.6 |
| | 216nm,0.4s | | | | | | | |
| **MPNC** | **Port Mandanici** | **3.06** | **44** | Pn | | Pn | 17 58 34.7 | +1.0 |
| | 128nm,0.5s | | | | | | | |
| **MSRU** | **Castanea** | **3.23** | **44** | Pn | | Pn | 17 58 37.2 | +1.1 |
| | 119nm,0.4s | | | | | | | |
| **MPAZ** | **Palizzi** | **3.34** | **53** | Pn | | Pn | 17 58 38.5 | +0.9 |
| | 47nm,0.6s | | | | | | | |
| **GMB** | **Gambarie** | **3.36** | **49** | Pn | | Pn | 17 58 39.1 | +1.2 |
| | 228nm,0.6s | | | | | | | |
| **MSCL** | **Scilla** | **3.38** | **47** | Pn | | Pn | 17 58 39.3 | +1.2 |
| | 150nm,0.8s | | | | | | | |
| **SOI** | **Samo** | **3.44** | **52** | Pn | | Pn | 17 58 39.7 | +0.8 |
| | 104nm,1.5s | | | | | | | |
| **CEL** | **Celeste** | **3.46** | **48** | Pn | | Pn | 17 58 40.6 | +1.4 |
| | 55nm,0.7s | | | | | | | |
| **PLAC** | **Placanica** | **3.91** | **50** | Pn | | Pn | 17 58 46.4 | +1.0 |
| | 48nm,0.4s | | | | | | | |

*ISCJB* ***18*** *18:00:47.0±0.6, 24.65N±0.02×122.38E±0.02, h10km±4km, Error ellipse: s-maj=3.9km s-min=2.8km az=20.1*

*TAP* ***18*** *18:00:46.2, 24.69N×122.40E, h14km±1km, ML3.2, D*

*JMA* ***18*** *18:00:47.3±0.1, 24.64N×122.36E, h12km±4km, M2.0*

**ISC 18 18:00:46.7±1.0, 24°67N±0.03×122°39E±0.02, h13km±9km, n36, σ0°52/70, Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **TWC** | **Suao** | **0.49** | **263** | P | | **Pg** | **18 00 56.2** | **-0.2** |
| | baz=260 | | | | | | | |
| TWC | | | | S | | **Sb** | **18 01 04.7** | **+0.3** |
| | baz=260 | | | | | | | |
| **TWB1** | **Santiao Chiao** | **0.50** | **313** | P | | **Pg** | **18 00 56.4** | **-0.1** |
| | baz=310 | | | | | | | |
| TWB1 | | | | *i* S | | **Sg** | **18 01 02.2** | **-0.8** |
| | baz=310 | | | | | | | |
| **JYNG** | **Yonagunijimaku** | **0.55** | **113** | P | | **Pb** | **18 00 58.4** | **+0.2** |
| JYNG | | | | S | | **Sb** | **18 01 06.0** | **-0.1** |
| **ILA** | **Ilan** | **0.59** | **280** | *e*P | | **Pb** | **18 00 58.7** | **-0.2** |
| | baz=277 | | | | | | | |
| ILA | | | | *e*S | | **Sb** | **18 01 07.6** | **+0.5** |
| | baz=277 | | | | | | | |
| **YOJ** | **Yonaguni jima** | **0.60** | **110** | P | | **Pb** | **18 00 59.2** | **+0.1** |
| YOJ | | | | S | | **Sb** | **18 01 08.1** | **+0.5** |
| **ENA** | **Nanau** | **0.64** | **248** | *e*P | | **Pg** | **18 00 59.1** | **+0.1** |
| | baz=246 | | | | | | | |
| ENA | | | | *e*S | | **Sb** | **18 01 08.8** | **+0.4** |
| | baz=246 | | | | | | | |
| **TWE** | **Neicheng** | **0.66** | **275** | *i* P | | **Pg** | **18 00 59.3** | **-0.1** |
| | baz=272 | | | | | | | |
| TWE | | | | S | | **Sb** | **18 01 09.6** | **+0.6** |
| | baz=272 | | | | | | | |
| **NWF** | **Wu-fen Shan** | **0.68** | **306** | *i* P | | **Pb** | **18 01 00.9** | **+0.4** |
| | baz=304 | | | | | | | |
| NWF | | | | *i* S | | **Sb** | **18 01 10.3** | **+0.4** |
| | baz=304 | | | | | | | |
| **ENTT** | **Nioudou** | **0.75** | **268** | P | | **Pg** | **18 01 01.3** | **+0.1** |
| | baz=266 | | | | | | | |
| ENTT | | | | *e*S | | **Sb** | **18 01 12.7** | **+0.9** |
| | baz=266 | | | | | | | |
| **TWA** | **Mucha** | **0.79** | **293** | *e*P | | **Pb** | **18 01 02.9** | **+0.6** |
| | baz=291 | | | | | | | |
| TWA | | | | S | | **Sb** | **18 01 13.8** | **+0.8** |
| | baz=291 | | | | | | | |
| **TAP1** | **Taipei** | **0.87** | **295** | *e*P | | **Pb** | **18 01 03.8** | **+0.2** |
| | baz=293 | | | | | | | |
| TAP1 | | | | S | | **Sb** | **18 01 15.7** | **+0.5** |
| | baz=293 | | | | | | | |
| **TAP** | **Taipei** | **0.88** | **295** | *e*P | | **Pg** | **18 01 03.6** | **-0.1** |
| | baz=293 | | | | | | | |
| TAP | | | | S | | **Sb** | **18 01 16.0** | **+0.4** |
| | baz=293 | | | | | | | |
| **TWD** | **Chiawan** | **0.93** | **231** | *e*P | | **Pb** | **18 01 04.9** | **+0.3** |
| | baz=230 | | | | | | | |
| TWD | | | | S | | **Sn** | **18 01 17.8** | **-0.9** |
| | baz=230 | | | | | | | |
| **NSK** | **Sanguang** | **0.94** | **271** | P | | **Pg** | **18 01 04.8** | **0.0** |
| | baz=269 | | | | | | | |
| NSK | | | | S | | **Sg** | **18 01 16.9** | **-0.1** |
| | baz=269 | | | | | | | |
| **TWY** | **Chenhua** | **0.94** | **310** | *e*P | | **Pb** | **18 01 04.4** | **-0.4** |
| | baz=308 | | | | | | | |
| TWY | | | | S | | **Sb** | **18 01 17.4** | **+0.2** |
| | baz=308 | | | | | | | |
| **NNS** | **Nan Shan** | **0.95** | **256** | *e*P | | **Pg** | **18 01 04.9** | **-0.2** |
| | baz=255 | | | | | | | |
| NNS | | | | *e*S | | **Sb** | **18 01 17.9** | **+0.3** |
| | baz=255 | | | | | | | |
| **TWS1** | **Kuangyinshan** | **0.98** | **296** | *e*P | | **Pg** | **18 01 05.7** | **+0.2** |
| | baz=294 | | | | | | | |
| TWS1 | | | | *e*S | | **Sg** | **18 01 18.8** | **+0.4** |
| | baz=294 | | | | | | | |
| **PCYT** | **Pengchaiyu** | **1.00** | **343** | *e*P | | **Pb** | **18 01 05.2** | **-0.6** |
| | baz=342 | | | | | | | |
| PCYT | | | | *e*S | | **Sb** | **18 01 18.6** | **-0.3** |
| | baz=342 | | | | | | | |
| **WHF** | **Hehuan Shan** | **1.15** | **243** | *e*P | | **Pg** | **18 01 08.8** | **0.0** |
| | baz=242 | | | | | | | |
| WHF | | | | *e*S | | **Sn** | **18 01 25.1** | **+0.4** |
| | baz=242 | | | | | | | |
| **TWT** | **Tachien** | **1.18** | **250** | *e*P | | **Pg** | **18 01 09.2** | **-0.1** |
| | baz=248 | | | | | | | |
| TWT | | | | *e*S | | **Sn** | **18 01 25.5** | **+0.4** |
| | baz=248 | | | | | | | |
| **ESL** | **Shilin** | **1.22** | **226** | *e*P | | **Pn** | **18 01 09.1** | **-0.3** |
| | baz=225 | | | | | | | |
| ESL | | | | *e*S | | **Sg** | **18 01 26.1** | **+0.2** |
| | baz=225 | | | | | | | |
| **NSTT** | **Nanjuang** | **1.26** | **269** | *e*P | | **Pg** | **18 01 11.6** | **+0.7** |
| | baz=267 | | | | | | | |
| NSTT | | | | *e*S | | **Sg** | **18 01 27.7** | **+0.3** |
| | baz=267 | | | | | | | |
| **IRIF** | **Iriomote-Funau** | **1.27** | **105** | P | | **Pg** | **18 01 11.2** | **+0.1** |
| IRIF | | | | *e*S | | **Sg** | **18 01 27.7** | **+0.1** |
| **TWQ1** | **Liyutan** | **1.50** | **258** | *e*P | | **Pn** | **18 01 13.6** | **+0.2** |
| | baz=257 | | | | | | | |
| TWQ1 | | | | *e*S | | **Sn** | **18 01 32.7** | **-0.3** |
| | baz=257 | | | | | | | |
| **EHY** | **Hungye** | **1.51** | **220** | *e*P | | **Pn** | **18 01 13.3** | **-0.2** |
| | baz=219 | | | | | | | |
| EHY | | | | *e*S | | **Sb** | **18 01 34.0** | **+0.2** |
| | baz=219 | | | | | | | |
| **TYC** | **Yuchr** | **1.59** | **242** | *e*P | | **Pn** | **18 01 13.5** | **-1.0** |
| | baz=240 | | | | | | | |
| TYC | | | | *e*S | | **Sn** | **18 01 34.8** | **-0.1** |
| | baz=240 | | | | | | | |
| **JIJ** | **Ishigaki jima** | **1.63** | **100** | P | | **Pb** | **18 01 16.3** | **-0.3** |
| **TWF1** | **Yuli** | **1.65** | **217** | *e*P | | **Pn** | **18 01 14.6** | **-0.8** |
| | baz=217 | | | | | | | |
| TWF1 | | | | *e*S | | **Sb** | **18 01 37.0** | **-0.6** |
| | baz=217 | | | | | | | |
| **JISG** | **Ishigakijimahi** | **1.75** | **92** | P | | **Pg** | **18 01 20.8** | **+0.5** |
| **ALS** | **Alishan** | **1.85** | **232** | *e*P | | **Pn** | **18 01 17.8** | **-0.6** |
| | baz=231 | | | | | | | |
| ALS | | | | *e*S | | **Sn** | **18 01 41.2** | **-0.7** |
| | baz=231 | | | | | | | |
| **CHN5** | **Tsauling** | **1.89** | **236** | *e*P | | **Pb** | **18 01 20.5** | **-0.6** |
| | baz=235 | | | | | | | |
| CHN5 | | | | *e*S | | **Sn** | **18 01 41.6** | **-1.0** |
| | baz=235 | | | | | | | |
| **ELDTW** | **Lidau** | **1.93** | **221** | *e*P | | **Pn** | **18 01 19.9** | **+0.5** |
| | baz=220 | | | | | | | |
| ELDTW | | | | *e*S | | **Sn** | **18 01 43.9** | **+0.2** |
| | baz=220 | | | | | | | |
| **CHN4** | **Tsaushan** | **2.10** | **232** | *e*P | | **Pn** | **18 01 21.1** | **-0.5** |
| | baz=231 | | | | | | | |
| CHN4 | | | | *e*S | | **Sn** | **18 01 47.7** | **+0.1** |
| | baz=231 | | | | | | | |
| **STYT** | **Tauyuan** | **2.11** | **225** | *e*P | | **Pn** | **18 01 22.6** | **+0.8** |
| | baz=224 | | | | | | | |
| STYT | | | | *e*S | | **Sn** | **18 01 46.4** | **-1.6** |
| | baz=224 | | | | | | | |
| **WTP** | **Ta-pu** | **2.15** | **229** | *e*P | | **Pn** | **18 01 23.7** | **+1.3** |
| | baz=228 | | | | | | | |
| WTP | | | | *e*S | | **Sn** | **18 01 49.2** | **+0.2** |
| | baz=228 | | | | | | | |
| **CHN1** | **Nanshi** | **2.25** | **229** | *e*P | | **Pn** | **18 01 23.7** | **-0.1** |
| | baz=228 | | | | | | | |
| CHN1 | | | | *e*S | | **Sn** | **18 01 51.9** | **+0.5** |
| | baz=228 | | | | | | | |

*ISCJB* ***18*** *18:07:05.3±0.7, 28.59S±0.03×20.56E±0.03, h9km±4km, mb4.3/19, MS3.8/9, Error ellipse: s-maj=4.9km s-min=4.0km az=159.7*

*PRE* ***18*** *18:07:05.7±2.0, 28.47S×20.49E, h5km, ML5.0*

*NEIC* ***18*** *18:07:06.5±0.4, 28.64S×20.41E, h5km, mb4.7/6, MW4.3, ML5.0(PRE), Error ellipse: s-maj=10.5km s-min=8.3km az=111.0, Moment Tensor Solution. s6 Moment tensor: Scale $10^{15}$Nm; $M_{rr}$-1.06; $M_{\theta\theta}$-1.17; $M_{\phi\phi}$2.23; $M_{r\theta}$1.24; $M_{\theta\phi}$3.43; $M_{\phi r}$-0.17; Best double couple: $M_o$4.10000×$10^{15}$ NP1:$\phi_s$254.00000°, δ78.00000°, λ-21.00000°. NP2: $\phi_s$349.00000°, δ70.00000°, λ-167.00000°. Principal axes: T 4.4000, Plg6.0000°, Azm303.0000°; N -0.6200, Plg66.0000°, Azm45.0000°; P -3.7800, Plg23.0000°, Azm210.0000°;*

*NEIC Felt at Augrabies, Keimoes and Upington.*

*IDC* ***18*** *18:07:06.6±0.7, 28.50S×20.28E, h0km, mb4.1/11, mb1 4.2/13, mb1mx4.1/29, mbtmp4.1/13, ML3.8/2, MS3.8/11, Ms1 3.8/11, ms1mx3.4/36 Error ellipse: s-maj=21.3km s-min=18.4km az=163.0*

*NAM* ***18*** *18:07:09.7±3.2, 28.62S×20.53E, h31km±79km, MD3.2*

**ISC 18 18:07:06.3±1.1, 28°52S±0.04×20°49E±0.03, h5km±7km, n59, σ2°51/77, mb4.4/18, MS3.7/9, South Africa**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **AUGR** | **Augrabies** | **0.16** | **240** | *e*P | | **Pg** | **18 07 09.6** | **+0.1** |
| AUGR | | | | *e*S | | **Sg** | **18 07 11.2** | **-0.4** |
| AUGR | | | | AML | | AML | 18 07 12.0 | |
| | comp=Z,45µm,0.1s | | | | | | | |
| **UPI** | **Upington** | **0.69** | **77** | *e*P | | **Pg** | **18 07 20.2** | **+0.6** |
| UPI | | | | *e*S | | **Sg** | **18 07 28.4** | **0.0** |
| UPI | | | | AML | | AML | 18 07 36.7 | |
| | comp=Z,6µm,0.7s | | | | | | | |
| **UPI** | **Upington** | **0.69** | **77** | *i* P | | **Pn** | **18 07 23.1** | **+0.3** |
| UPI | | | | *i* S | | **Sn** | **18 07 33.3** | **-0.6** |
| **ARMS** | **Ukamas** | **0.81** | **305** | *i* P | | **Pb** | **18 07 23.1** | **+0.1** |
| ARMS | | | | *i* S | | **Sg** | **18 07 27.3** | **-5.3** |
| ARMS | | | | *e*P | | Pn | 18 07 34.3 | +10 |
| **KOMG** | **Komaggas** | **2.92** | **243** | *e*P | | **Pn** | **18 07 54.0** | **+0.5** |
| KOMG | | | | *e*S | | **Sn** | **18 08 29.2** | **+0.1** |
| KOMG | | | | AML | | AML | 18 08 32.2 | |
| | comp=Z,6µm,0.4s | | | | | | | |
| **KOMG** | **Komaggas** | **2.92** | **243** | *i* P | | **Pn** | **18 07 53.6** | **+0.1** |
| KOMG | | | | *i* S | | **Sn** | **18 08 23.9** | **-5.2** |
| **CVNA** | **Calvinia** | **3.02** | **192** | *e*P | | **Pn** | **18 07 53.9** | **-1.1** |
| CVNA | | | | *e*S | | **Sn** | **18 08 31.1** | **-0.6** |
| CVNA | | | | AML | | AML | 18 08 41.4 | |
| | comp=Z,3µm,0.4s | | | | | | | |
| **CVNA** | **Calvinia** | **3.02** | **192** | P | | **Pn** | **18 07 52.1** | **-2.9** |
| **SUR** | **Sutherland** | **3.86** | **176** | *e*Pn | | **Pn** | **18 08 04.6** | **-2.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MSNA | | | | *e*S | | **Sn** | 18 11 29.0 | **-8.6** |
| MSNA | | | | AML | AML | | 18 12 49.2 | |
| | comp=Z,169nm,0.7s | | | | | | | |
| **MSNA** | **Messina** | **10.58** | **57** | P | | **Pn** | **18 09 40.4** | **+1.7** |
| **MATP** | **Matopo** | **10.86** | **44** | Pn | | **Pn** | **18 09 45.0** | **+2.3** |
| | baz=194,slow=14 | | | | | | | |
| **LSZ** | **Lusaka** | **14.98** | **30** | Pn | | **Pn** | **18 10 37.8** | **-1.1** |
| | comp=Z,0.8nm,0.3s,baz=213,slow=12,SNR=18 | | | | | | | |
| LSZ | | | | Sn | | **Sn** | **18 13 18.3** | **-7.2** |
| | comp=Z,1.0nm,0.3s,baz=142,slow=22,SNR=6.8 | | | | | | | |
| LSZ | | | | Lg | Lg | | 18 14 59.2 | |
| | comp=Z,0.4nm,0.3s,baz=310,slow=21,SNR=6.7 | | | | | | | |
| LSZ | | | | LR | LR | | 18 16 29.6 | |
| | comp=Z,573nm,19.1s,baz=206,slow=37 | | | | | | | |
| **LSZ** | **Lusaka** | **14.98** | **30** | *e*Pn | | **Pn** | **18 10 38.5** | **-0.4** |
| | comp=Z,13nm,0.7s | | | | | | | |
| LSZ | | | | Sn | | **Sn** | **18 13 18.3** | **-7.2** |
| **ABPO** | **Ambohimpanom** | **26.18** | **75** | *e*P | | **P** | **18 12 40.8** | **-1.4** |
| | comp=Z,48nm,1.7s | | | | | | | |
| **KMBO** | **Kilima Mbogo** | **31.60** | **33** | P | | **P** | **18 13 34.4** | **+3.9** |
| | comp=Z,0.5nm,0.3s,baz=183,slow=9.5,SNR=3.8 | | | | | | | |
| KMBO | | | | LR | LR | | 18 26 36.2 | |
| | comp=Z,306nm,18.5s,baz=100,slow=37 | | | | | | | |
| **KIC** | **Kosan Boka** | **42.36** | **321** | *e*P | | **P** | **18 15 02.3** | **+0.6** |
| | comp=Z,52nm,1.7s | | | | | | | |
| **LIC** | **Lamto** | **42.41** | **321** | *e*P | | **P** | **18 15 02.7** | **+0.6** |
| | comp=Z,32nm,0.9s | | | | | | | |
| **DBIC** | **Dimbokro** | **42.68** | **321** | P | | **P** | **18 15 03.2** | **-1.1** |
| | comp=Z,6.3nm,0.8s,baz=137,slow=12,SNR=8.3 | | | | | | | |
| **TIC** | **Toumodi** | **42.75** | **321** | *e*P | | **P** | **18 15 05.7** | **+0.8** |
| **SNAA** | **Sanae** | **45.07** | **190** | P | | **P** | **18 15 24.5** | **+1.5** |
| | comp=Z,3.2nm,0.8s,baz=28,slow=9.4,SNR=5.3 | | | | | | | |
| **TOA0** | **Torodi Ar. Sit** | **45.24** | **334** | *e*P | | **P** | **18 15 24.3** | **-0.5** |
| | comp=Z,10nm,1.2s | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **45.24** | **334** | P | | **P** | **18 15 25.4** | **+0.6** |
| | comp=Z,5.5nm,1.1s,baz=165,slow=7.9,SNR=18 | | | | | | | |
| **KOWA** | **Kowa** | **48.90** | **328** | *e*P | | **P** | **18 15 52.5** | **-0.9** |
| | comp=Z,6.1nm,0.8s | | | | | | | |
| **TAM** | **Tamanrasset** | **53.01** | **343** | *e*P | | **P** | **18 16 25.3** | **+0.8** |
| | comp=Z,5.7nm,1.1s | | | | | | | |
| **QSPA** | **South Pole Qui** | **61.69** | **180** | *e*P | | **P** | **18 17 25.6** | **+0.3** |
| | comp=Z,9.1nm,1.2s | | | | | | | |
| **CPUP** | **Villa Florida** | **67.91** | **251** | P | | **P** | **18 18 05.6** | **-0.7** |
| | comp=Z,1.4nm,0.8s,baz=34,slow=20,SNR=2.8 | | | | | | | |
| CPUP | | | | LR | LR | | 18 43 46.8 | |
| | comp=Z,32nm,18.3s,baz=136,slow=32 | | | | | | | |
| **BRTR** | **Keskin Array B** | **68.99** | **11** | P | | **P** | **18 18 14.8** | **+2.0** |
| | comp=Z,0.9nm,0.8s,baz=155,slow=9.1,SNR=4.1 | | | | | | | |
| **ESDC** | **Sonseca Array** | **71.56** | **340** | P | | **P** | **18 18 29.2** | **+0.8** |
| | comp=Z,2.5nm,0.9s,baz=160,slow=6.0,SNR=8.7 | | | | | | | |
| **ES19** | **SONSECA Array** | **71.57** | **340** | *e*P | | **P** | **18 18 29.1** | **+0.6** |
| **VNDA** | **Vanda** | **71.70** | **172** | LR | | LR | 18 48 23.7 | |
| | comp=Z,63nm,19.2s,baz=218,slow=34 | | | | | | | |
| **KBZ** | **Khabaz** | **74.77** | **17** | LR | | LR | 18 52 54.6 | |
| | comp=Z,35nm,18.0s,baz=216,slow=37 | | | | | | | |
| **GEYT** | **Alibeck** | **74.90** | **30** | P | | **P** | **18 18 50.5** | **+2.3** |
| | comp=Z,1.5nm,0.9s,baz=256,slow=6.0,SNR=4.8 | | | | | | | |
| GEYT | | | | LR | | LR | 18 53 44.3 | |
| | comp=Z,139nm,18.6s,baz=245,slow=37 | | | | | | | |
| **AKASG** | **Malin Array Be** | **79.25** | **6** | P | | **P** | **18 19 13.4** | **+1.2** |
| | comp=Z,0.6nm,0.5s,baz=190,slow=5.2,SNR=7.1 | | | | | | | |
| AKASG | | | | LR | | LR | 18 55 24.7 | |
| | comp=Z,20nm,18.6s,baz=280,slow=37 | | | | | | | |
| **LPAZ** | **La Paz** | **81.22** | **256** | P | | **P** | **18 19 23.8** | **-0.8** |
| | comp=Z,0.9nm,0.8s,baz=149,slow=5.9,SNR=3.6 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **88.98** | **68** | P | | **P** | **18 20 03.0** | **+0.4** |
| | comp=Z,0.3nm,0.4s,baz=231,slow=5.7,SNR=3.1 | | | | | | | |
| CMAR | | | | LR | | LR | 18 56 38.1 | |
| | comp=Z,23nm,18.1s,baz=160,slow=33 | | | | | | | |
| **NOA** | **NORSAR Array B** | **89.55** | **356** | LR | | LR | 19 02 47.2 | |
| | comp=Z,18nm,18.9s,baz=245,slow=37 | | | | | | | |
| **ASAR** | **Alice Springs** | **97.53** | **122** | P | | Pdif | 18 20 45.2 | +3.1 |
| | comp=Z,0.3nm,0.8s,baz=209,slow=5.3,SNR=3.5 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **99.08** | **33** | LR | | LR | 19 09 20.3 | |
| | comp=Z,45nm,18.9s,baz=250,slow=38 | | | | | | | |
| **TXAR** | **Lajitas Array** | **131.52** | **285** | PKP | | **PKPdf** | **18 26 22.1** | **+1.5** |
| | comp=Z,0.3nm,0.7s,baz=131,slow=4.2,SNR=4.3 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **135.24** | **332** | PKP | | **PKPdf** | **18 26 26.5** | **+0.2** |
| | comp=Z,1.2nm,1.0s,baz=48,slow=2.0,SNR=7.2 | | | | | | | |
| **PDAR** | **Pinedale Array** | **137.59** | **303** | PKP | | **PKPdf** | **18 26 32.2** | **+0.5** |
| | comp=Z,0.8nm,0.8s,baz=79,slow=3.2,SNR=4.8 | | | | | | | |
| **ILAR** | **Eielson Array** | **142.86** | **351** | PKhKP | | PKPpre | 18 26 37.0 | |
| | comp=Z,1.7nm,1.0s,baz=337,slow=3.7,SNR=8.2 | | | | | | | |
| ILAR | | | | PKP | | **PKPdf** | **18 26 41.1** | **+0.9** |
| | comp=Z,0.4nm,0.7s,baz=330,slow=3.2,SNR=4.2 | | | | | | | |

*ISK **18** 18:27:30.6,38.76N×43.37E,h3km, ML2.1*
*ISCJB **18** 18:27:31.9±0.5,38.75N±0.03×43.38E±0.05,h13km±5km, Error ellipse: s-maj=7.2km s-min=4.7km az=29.6*
*DDA **18** 18:27:31.9,38.74N×43.38E, h7km, Ml2.5*
*CSEM **18** 18:27:31.9±0.2,38.76N×43.37E, h5km, ML2.5, Error ellipse: s-maj=5.6km s-min=4.7km az=111.0*

**ISC 18 18:27:31.2±1.6, 38.71N±0.04×43.43E±0.04, h25km±10km, n19, σ0 59/30, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.12** | **194** | *e*PG | | **Pb** | **Pb** | **18 27 36.4** | **+0.2** |
| **VANB** | **Van** | **0.12** | **194** | *e*Pg | | **Pb** | **Pb** | **18 27 36.4** | **+0.2** |
| **TVAN** | **Van** | **0.18** | **185** | *i* P | | **Pb** | **Pb** | **18 27 36.5** | **-0.4** |
| TVAN | | | | *i* S | | **Sb** | **Sb** | **18 27 40.7** | **0.0** |
| **TVAN** | **Van** | **0.18** | **185** | P | | **Pb** | **Pb** | **18 27 36.5** | **-0.4** |
| TVAN | | | | S | | **Sb** | **Sb** | **18 27 40.7** | **0.0** |
| **VMUR** | **Van-Muradiye** | **0.30** | **22** | *i* P | | **Pb** | **Pb** | **18 27 37.8** | **-0.6** |
| VMUR | | | | *i* S | | **Sb** | **Sb** | **18 27 43.5** | **+0.2** |
| **VMUR** | **Van-Muradiye** | **0.30** | **22** | P | | **Pb** | **Pb** | **18 27 37.8** | **-0.6** |
| VMUR | | | | S | | **Sb** | **Sb** | **18 27 43.5** | **+0.2** |
| **GEVA** | **Gevas** | **0.49** | **216** | *i* P | | **Pb** | **Pb** | **18 27 40.9** | **-0.5** |
| **GEVA** | **Gevas** | **0.49** | **216** | P | | **Pb** | **Pb** | **18 27 40.9** | **-0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.56** | **280** | *i* P | | **Pb** | **Pb** | **18 27 42.3** | **-0.2** |
| ADCV | | | | *i* S | | **Sb** | **Sb** | **18 27 50.1** | **-0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.56** | **280** | P | | **Pb** | **Pb** | **18 27 42.3** | **-0.2** |
| ADCV | | | | S | | **Sb** | **Sb** | **18 27 50.1** | **-0.1** |
| **CLDR** | **Caldiran** | **0.58** | **41** | *e*PG | | **Pb** | **Pb** | **18 27 42.6** | **-0.3** |
| CLDR | | | | *e*SG | | **Sb** | **Sb** | **18 27 51.4** | **+0.6** |
| **CLDR** | **Caldiran** | **0.58** | **41** | *i* P | | **Pb** | **Pb** | **18 27 42.6** | **-0.3** |
| CLDR | | | | *i* S | | **Sb** | **Sb** | **18 27 51.9** | **+1.1** |
| **CLDR** | **Caldiran** | **0.58** | **41** | P | | **Pb** | **Pb** | **18 27 42.6** | **-0.3** |
| CLDR | | | | *e*Sg | | **Sb** | **Sb** | **18 27 51.4** | **+0.6** |
| **TUTA** | **Tutak** | **0.84** | **325** | *i* P | | **Pb** | **Pb** | **18 27 46.4** | **-0.9** |
| **TUTA** | **Tutak** | **0.84** | **325** | P | | **Pb** | **Pb** | **18 27 46.4** | **-0.9** |
| **AGRB** | **Hanur-Agry** | **0.93** | **339** | *e*PG | | **Pb** | **Pb** | **18 27 48.1** | **-0.7** |
| AGRB | | | | *e*SG | | **Sb** | **Sb** | **18 28 00.8** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **0.93** | **339** | *e*Pg | | **Pb** | **Pb** | **18 27 48.1** | **-0.7** |
| AGRB | | | | *e*Sg | | **Sb** | **Sb** | **18 28 00.9** | **+0.1** |
| **EKAR** | **Karacoban** | **1.19** | **298** | *i* P | | **Pb** | **Pb** | **18 27 54.4** | **+1.1** |
| **EKAR** | **Karacoban** | **1.19** | **298** | P | | **Pb** | **Pb** | **18 27 54.4** | **+1.1** |

*IDC **18** 18:40:32.2±2.9, 17.19S×69.05W, h180km±13km, mb3.7/3, mb1 3.7/5, mb1mx3.3/28, mbtmp4.1/5, Error ellipse: s-maj=53.1km s-min=24.2km az=17.0*

**ISC 18 18:40:27.4±1.7, 17.7S±0.2×69.3W±0.1, h153km, n6, σ1 96/8, mb4.1/3, Peru-Bolivia border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **LPAZ** | **La Paz** | **1.77** | **39** | P | | **Pn** | **Pb** | **18 41 03.0** | **+2.3** |
| | 30nm,0.3s,baz=218,slow=6.8,SNR=988 | | | | | | | | |
| LPAZ | | | | S | | **Sn** | **Sn** | **18 41 26.0** | **-0.2** |
| | 4.6nm,0.3s,baz=91,slow=18,SNR=4.7 | | | | | | | | |
| **SIV** | **San Ignacio** | **8.04** | **79** | P | | **Pn** | **Pb** | **18 42 23.9** | **+2.5** |
| | 0.9nm,0.3s,baz=276,slow=11,SNR=8.9 | | | | | | | | |
| SIV | | | | S | | **Sn** | **Sn** | **18 43 49.2** | **-1.9** |
| | 0.5nm,0.3s,baz=325,slow=18,SNR=9.3 | | | | | | | | |
| **PTGA** | **Pitinga** | **19.17** | **30** | P | | **P** | **P** | **18 44 37.5** | **-1.8** |
| | 1.1nm,0.3s,baz=196,slow=16,SNR=6.8 | | | | | | | | |
| **DBIC** | **Dimbokro** | **68.04** | **75** | P | | **P** | **P** | **18 51 10.2** | **-0.6** |
| | 3.0nm,0.5s,baz=226,slow=8.0,SNR=11 | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **76.44** | **71** | P | | **P** | **P** | **18 52 00.5** | **-0.3** |
| | 2.6nm,0.6s,baz=256,slow=5.5,SNR=18 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **87.48** | **341** | P | | **P** | **P** | **18 52 57.0** | **-0.2** |
| | 0.3nm,0.5s,baz=134,slow=5.0,SNR=11 | | | | | | | | |

**IDC 18 18:52:06.0±2.3, 6.70S×129.68E, h0km, mb3.6/1, mb1 3.7/4, mb1mx3.4/29, mbtmp3.5/4, ML3.8/3, Error ellipse: s-maj=105.8km s-min=28.3km az=77.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **11.99** | **199** | Pn | | Pn | Pn | 18 54 59.4 | +1.0 |
| | 0.6nm,0.3s,baz=39,slow=12,SNR=6.9 | | | | | | | | |
| FITZ | | | | Sn | | Sn | | 18 56 58.1 | -15 |
| | 0.6nm,0.3s,baz=86,slow=15,SNR=5.9 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **13.92** | **161** | Pn | | Pn | | 18 55 23.7 | -1.0 |
| | 0.4nm,0.3s,baz=333,slow=14,SNR=33 | | | | | | | | |
| WRA | | | | Sn | | Sn | | 18 57 45.9 | -14 |
| | 0.5nm,0.3s,baz=338,slow=22,SNR=9.5 | | | | | | | | |
| **ASAR** | **Alice Springs** | **17.35** | **167** | Pn | | Pn | | 18 56 09.6 | -0.2 |
| | 0.2nm,0.3s,baz=339,slow=8.6,SNR=17 | | | | | | | | |
| ASAR | | | | Sn | | Sn | | 18 59 08.6 | -15 |
| | 0.1nm,0.3s,baz=345,slow=25,SNR=4.5 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **67.80** | **327** | P | | P | | 19 03 05.9 | 0.0 |
| | 0.3nm,0.5s,baz=117,slow=8.1,SNR=6.7 | | | | | | | | |

*IDC **18** 18:56:53.9±2.2, 8.03S×116.26E, h0km, mb3.5/5, mb1 3.6/5, mb1mx3.4/42, mbtmp3.5/5, Error ellipse: s-maj=111.5km s-min=13.6km az=47.0*
*ISCJB **18** 18:57:23.7±0.7, 7.79S±0.1×117.65E±0.09, h300km, mb3.2/4, Error ellipse: s-maj=18.2km s-min=9.9km az=29.2*
*DJA **18** 18:57:25.9±1.2, 8°S±84°×11°8E±°, h287km±22km, M3.2/7, mb3.5/1, MLv3.1/7*

**ISC 18 18:57:25.3±0.9, 7.9S±0.2×117.57E±0.10, h300km, n11, σ2 8/01/15, mb3.2/4, Bali Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **PLAI** | **Plampang** | **0.91** | **167** | P | | Pn | | **18 58 04.6** | **-0.7** |
| PLAI | | | | Pg | | Pn | | **18 58 04.6** | **-0.7** |
| PLAI | | | | Sg | | **S** | | **18 58 34.4** | **-2.6** |
| PLAI | | | | S | | **S** | | **18 58 34.5** | **-2.6** |
| **WBSI** | **Waikabubak, Su** | **2.47** | **133** | P | | Pn | | **18 58 15.8** | **-0.3** |
| WBSI | | | | S | | **S** | | **18 58 54.2** | **-2.4** |
| **JAGI** | **Jajag, Banyuwa** | **3.42** | **261** | P | | Pn | | **18 58 24.6** | **-0.8** |
| **GMJI** | **Gumukmas** | **4.10** | **265** | P | | Pn | | **18 58 32.4** | **-0.2** |
| **PWJI** | **Pagerwojo** | **5.71** | **269** | P | | Pn | | **18 58 51.6** | **+0.4** |
| **PCJI** | **Pacitan** | **6.33** | **267** | P | | Pn | | **18 58 59.0** | **+0.4** |
| **WRA** | **Warramunga Arr** | **20.16** | **128** | P | | P | | **19 01 40.5** | **+2.6** |
| | 0.4nm,0.5s,baz=303,slow=12,SNR=7.1 | | | | | | | | |
| WRA | | | | S | | S | | 19 05 37.5 | +31 |
| | 0.2nm,0.7s,baz=293,slow=20,SNR=3.1 | | | | | | | | |
| **ASAR** | **Alice Springs** | **22.13** | **137** | P | | P | | **19 02 01.0** | **+4.4** |
| | 0.7nm,0.3s,baz=310,slow=9.6,SNR=17 | | | | | | | | |
| **SONM** | **Songino Array** | **56.40** | **351** | P | | P | | **19 06 36.2** | **+0.1** |
| | 0.2nm,0.6s,baz=180,slow=7.1,SNR=3.7 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **62.88** | **334** | P | | P | | **19 07 19.8** | **-0.1** |
| | 0.2nm,0.5s,baz=150,slow=6.8,SNR=3.8 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **67.56** | **340** | P | | P | | **19 07 48.4** | **-1.1** |
| | 0.5nm,0.6s,baz=142,slow=7.3,SNR=2.1 | | | | | | | | |

*ISCJB **18** 19:02:29.9±0.9, 35.78S±0.04×73.55W±0.09, h10km, mb3.6/4, MS3.4/2, Error ellipse: s-maj=10.4km s-min=5.5km az=177.5*
*GUC **18** 19:02:32.4±0.4, 35.84S×73.55W, h46km±7km, ML3.8*
*IDC **18** 19:02:38.8±5.5, 35.89S×72.58W, h33km±45km, mb3.4/4, mb1 3.6/6, mb1mx3.5/28, mbtmp3.6/6, ML3.6/2, MS3.7/4, Ms1 3.7/4, ms1mx3.3/12, Error ellipse: s-maj=44.5km s-min=26.1km az=76.0*

**ISC 18 19:02:33.5±1.0, 35.93S±0.05×73.35W±0.09, h10km, n19, σ2 8/49/20, mb3.6/4, Off coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **COCH** | **Cobquecura** | **0.49** | **114** | *e*P | | **Pb** | **Pb** | **19 02 45.6** | **+1.3** |
| COCH | | | | *e*S | | **Sb** | **Sb** | **19 02 55.5** | **+3.9** |
| COCH | | | | IAML | | | | 19 02 57.2 | |
| | comp=N,5μm,0.8s | | | | | | | | |
| **CCSP** | **San Pedro de C** | **0.93** | **168** | *e*P | | **Pg** | **Pg** | **19 02 51.1** | **-0.4** |
| CCSP | | | | *e*S | | **Sg** | **Sg** | **19 03 04.8** | **+1.2** |
| CCSP | | | | IAML | | | | 19 03 09.0 | |
| | comp=N,5μm,0.6s | | | | | | | | |
| **CCHI** | **Chillan** | **1.22** | **123** | *e*P | | **Pb** | **Pb** | **19 02 56.1** | **-0.7** |
| CCHI | | | | *e*S | | **Sb** | **Sb** | **19 03 13.6** | **+1.0** |
| CCHI | | | | IAML | | | | 19 03 24.3 | |
| | comp=E,3μm,1.1s | | | | | | | | |
| **GO05** | **HualaæØ** | **1.48** | **52** | *e*P | | **Pn** | **Pn** | **19 02 57.8** | **-2.5** |
| GO05 | | | | *e*S | | **Sn** | **Sn** | **19 03 17.1** | **-2.5** |
| GO05 | | | | IAML | | | | 19 03 27.6 | |
| | comp=N,2μm,0.4s | | | | | | | | |
| **CHPI** | **Pichilemu** | **1.89** | **36** | *e*P | | Pn | | 19 03 02.6 | -3.3 |
| **PLCA** | **Paso Flores** | **5.27** | **156** | Pn | | **Pn** | **Pn** | **19 03 53.1** | **+0.6** |
| | comp=N,0.5nm,0.3s,baz=348,slow=10,SNR=16 | | | | | | | | |
| PLCA | | | | Lg | | Lg | | 19 05 21.3 | |
| | comp=N,1.2nm,0.3s,baz=279,slow=21,SNR=3.6 | | | | | | | | |
| **ACAN** | **Cantantal** | **6.28** | **56** | *i* P | | **Pn** | **Pn** | **19 04 06.2** | **0.0** |
| **AGUA** | **GUANDACOL** | **7.62** | **34** | *e*P | | **Pn** | **Pn** | **19 04 22.9** | **-1.8** |
| AGUA | | | | *e*S | | **Sb** | **Sb** | **19 06 22.8** | **+6.1** |
| **VCA** | **Vinchina** | **8.39** | **33** | *e*P | | **Pn** | **Pn** | **19 04 33.3** | **-2.0** |
| VCA | | | | IAML | | | | 19 05 08.2 | |
| | comp=Z,16nm,0.9s | | | | | | | | |
| VCA | | | | *e*S | | Sb | | 19 06 37.4 | -1.5 |
| **TCA** | **Tanti** | **8.62** | **60** | *i* P | | **Pn** | **Pn** | **19 04 36.3** | **-2.1** |
| TCA | | | | IAML | | | | 19 04 45.0 | |
| | comp=Z,13nm,0.6s | | | | | | | | |
| **CPUP** | **Villa Florida** | **16.70** | **59** | LR | | LR | | 19 13 13.3 | |
| | comp=Z,137nm,18.1s,baz=234,slow=39 | | | | | | | | |
| **USHA** | **Ushuaia** | **19.20** | **171** | LR | | LR | | 19 14 01.8 | |
| | comp=Z,1μm,18.5s,baz=264,slow=36 | | | | | | | | |
| **LPAZ** | **La Paz** | **20.11** | **15** | P | | **P** | | **19 07 09.5** | **+1.3** |
| | comp=Z,0.1nm,0.3s,baz=193,slow=6.9,SNR=6.4 | | | | | | | | |
| **SIV** | **San Ignacio** | **22.68** | **32** | P | | **P** | | **19 07 33.3** | **-1.9** |
| | comp=Z,0.8nm,0.4s,baz=222,slow=12,SNR=3.6 | | | | | | | | |
| SIV | | | | LR | | LR | | 19 18 21.8 | |
| | comp=Z,294nm,18.2s,baz=197,slow=42 | | | | | | | | |
| **NNA** | **Nana** | **24.05** | **352** | LR | | LR | | 19 15 31.1 | |
| | comp=Z,56nm,19.2s,baz=175,slow=32 | | | | | | | | |
| **TXAR** | **Lajitas Array** | **70.92** | **332** | P | | **P** | | **19 13 54.3** | **+3.3** |
| | comp=Z,0.2nm,0.6s,baz=147,slow=7.2,SNR=2.2 | | | | | | | | |
| **DBIC** | **Dimbokro** | **76.81** | **72** | P | | **P** | | **19 14 24.7** | **-1.1** |
| | comp=Z,1.2nm,0.6s,baz=220,slow=7.9,SNR=3.2 | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **85.87** | **71** | P | | **P** | | **19 15 11.6** | **-2.2** |
| | comp=Z,0.3nm,0.8s,baz=234,slow=5.0,SNR=3.0 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **156.43** | **33** | PKPab | | **PKPab** | | **19 22 55.6** | **-0.9** |
| | comp=Z,0.7nm,0.6s,baz=298,slow=3.2,SNR=4.4 | | | | | | | | |

*ISCJB **18** 19:05:32.0±0.7, 23.86N±0.08×94.32E±0.07, h96km, mb3.5/8, Error ellipse: s-maj=13.3km s-min=6.2km az=32.6*
*IDC **18** 19:05:35.7±3.6, 24.27N×95.36E, h90km±36km, mb3.3/8, mb1 3.4/9, mb1mx3.1/58, mbtmp3.6/9, Error ellipse: s-maj=35.6km s-min=14.6km az=59.0*

**ISC 18 19:05:34.1±0.9, 23.92N±0.08×94.38E±0.07, h96km, n19, σ2 5/04/22, mb3.6/8, Myanmar-India border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **IMP** | **Imphal** | **0.99** | **337** | *e*P | | **Pn** | **Pn** | **19 05 53.9** | **-0.2** |
| IMP | | | | *ex* | | **Sn** | **Sn** | **19 06 10.4** | **+1.2** |
| **SHL** | **Shillong** | **2.80** | **306** | *ex* | | **Sn** | **Sn** | **19 06 50.0** | **-0.3** |
| SHL | | | | *e*S | | **Sn** | **Sn** | **19 06 50.0** | **-0.3** |
| **TEZP** | **TEZPUR** | **3.04** | **332** | *e*P | | **Pn** | **Pn** | **19 06 18.9** | **-1.4** |
| TEZP | | | | *e*S | | **Sn** | **Sn** | **19 06 51.4** | **-4.4** |
| **ITAN** | **ITANAGAR** | **3.26** | **350** | AML | | AML | AML | 19 07 21.5 | |
| | comp=E,116nm,0.3s | | | | | | | | |
| ITAN | | | | AML | | AML | AML | 19 07 22.5 | |
| | comp=N,181nm,0.3s | | | | | | | | |
| **GUWA** | **GUWAHATI** | **3.32** | **313** | *e*P | | **Pn** | **Pn** | **19 06 23.1** | **-0.9** |
| GUWA | | | | AML | | AML | AML | 19 07 02.1 | |
| | comp=E,816nm,0.1s | | | | | | | | |
| **ZIRO** | **ZIRO** | **3.62** | **353** | *e*P | | **Pn** | **Pn** | **19 06 26.8** | **-1.4** |
| ZIRO | | | | AML | | AML | AML | 19 07 14.0 | |
| | comp=E,378nm,0.5s | | | | | | | | |
| ZIRO | | | | AML | | AML | AML | 19 07 14.7 | |
| | comp=N,310nm,0.8s | | | | | | | | |
| **LKP** | **Lekhapani** | **3.65** | **21** | *e*P | | **Pn** | **Pn** | **19 06 28.5** | **+0.1** |
| LKP | | | | AML | | AML | AML | 19 07 18.3 | |
| | comp=E,80nm,0.3s | | | | | | | | |
| LKP | | | | AML | | AML | AML | 19 07 19.8 | |
| | comp=N,111nm,0.6s | | | | | | | | |
| **TURI** | **Tura** | **4.02** | **295** | *e*P | | **Pn** | **Pn** | **19 06 34.3** | **+0.9** |
| TURI | | | | *e*S | | **Sn** | **Sn** | **19 07 17.8** | **-1.7** |
| TURI | | | | AML | | AML | AML | 19 07 23.1 | |
| | comp=E,349nm,0.1s | | | | | | | | |
| TURI | | | | AML | | AML | AML | 19 07 23.6 | |
| | comp=N,270nm,0.1s | | | | | | | | |
| **DHUB** | **DHUBRI** | **4.49** | **299** | *e*P | | **Pn** | **Pn** | **19 06 39.6** | **-0.2** |
| DHUB | | | | *e*S | | **Sn** | **Sn** | **19 07 27.1** | **-3.8** |
| **GTK** | **Tadong** | **6.21** | **304** | *e*P | | Pn | Pn | 19 07 01.9 | -1.4 |
| GTK | | | | *e*S | | **Sn** | **Sn** | **19 08 10.8** | **-2.2** |
| GTK | | | | AML | | AML | AML | 19 08 18.8 | |
| | comp=E,31nm,0.2s | | | | | | | | |
| GTK | | | | AML | | AML | AML | 19 08 19.0 | |
| | comp=N,30nm,0.3s | | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **6.91** | **141** | P | | **Pn** | **Pn** | **19 07 10.9** | **-1.8** |
| | comp=N,0.3nm,0.3s,baz=320,slow=14,SNR=14 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **24.80** | **340** | P | | **P** | **P** | **19 10 49.9** | **+2.9** |
| | comp=N,1.9nm,0.5s,baz=150,slow=9.1,SNR=37 | | | | | | | | |
| **SONM** | **Songino Array** | **25.71** | **19** | P | | **P** | **P** | **19 10 53.1** | **-2.3** |
| | comp=N,0.2nm,0.6s,baz=198,slow=9.1,SNR=2.2 | | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **29.36** | **339** | P | | **P** | **P** | **19 11 29.6** | **+1.8** |
| | comp=N,0.5nm,0.5s,baz=145,slow=9.3,SNR=6.1 | | | | | | | | |
| **BVAR** | **Borovoye Array** | **34.27** | **334** | P | | **P** | **P** | **19 12 13.2** | **+2.4** |
| | comp=N,0.2nm,0.3s,baz=145,slow=13,SNR=4.2 | | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **39.59** | **61** | P | | P | P | 19 12 49.8 | -6.3 |
| | comp=N,1.2nm,0.3s,baz=288,slow=9.1,SNR=13 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **58.46** | **135** | P | | **P** | **P** | **19 15 20.6** | **+0.4** |
| | comp=N,0.6nm,0.9s,baz=326,slow=7.5,SNR=4.1 | | | | | | | | |
| **ARCES** | **ARCESS Array B** | **60.43** | **338** | P | | **P** | **P** | **19 15 35.1** | **+1.9** |
| | comp=N,0.6nm,0.7s,baz=90,slow=8.1,SNR=3.3 | | | | | | | | |
| **ASAR** | **Alice Springs** | **60.91** | **138** | P | | **P** | **P** | **19 15 36.5** | **-0.5** |
| | comp=N,0.3nm,0.6s,baz=322,slow=7.0,SNR=8.7 | | | | | | | | |

*IDC **18** 19:18:45.6±0.8, 16.90S×174.36E, h0km, mb4.1/9, mb1 4.4/10, mb1mx4.1/30, mbtmp4.2/10, ML3.7/1, MS3.7/17, Ms1 3.8/17, ms1mx3.6/31, Error ellipse: s-maj=35.6km s-min=18.4km az=143.0*
*ISCJB **18** 19:18:46.7±0.7, 17.1S±0.1×174.4E±0.1, h18km, mb4.0/13, MS3.7/14, Error ellipse: s-maj=23.3km s-min=12.9km az=143.5*
*NEIC **18** 19:18:46.9±0.6, 16.95S×174.40E, h10km, mb3.8/2, Error ellipse: s-maj=22.1km s-min=12.3km az=143.0*
*GCMT **18** 19:18:48.0±0.3, 17.01S×174.51E, h24km±1km, MW5.0/80, Moment Tensor Solution. s37,c47; s80,c107; Duration: 0 Moment tensor: Scale 10^16 Nm; Mrr-0.49±.16; Mθθ-0.24±.14; Mφφ 0.73±.13; Mrθ 0.17±.19; Mθφ 3.37±.10; Mφr 0.18±.15; Best double couple: M0 3.41200×10^16 NP1: φs 356.00000°, δ87.00000°, λ178.00000°. Principal axes: T 3.6670, Plg3.0000°, Azm311.0000°; N -0.5090, Plg87.0000°, Azm128.0000°; P -3.1580, Plg0.0000°, Azm221.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

**ISC 18 19:18:48.4±0.7, 17.0S±0.2×174.4E±0.2, h18km, n33, σ1 9/98/20, mb4.2/13, MS3.8/14, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **9.04** | **235** | Pn | | **Pn** | **Pn** | **19 20 58.2** | **-0.1** |
| | 0.9nm,0.3s,baz=72,slow=16,SNR=10 | | | | | | | | |
| DZM | | | | LR | | LR | | 19 24 04.6 | |
| | comp=Z,1μm,21.0s,baz=68,slow=35 | | | | | | | | |
| **DZM** | **Mont Dzumac** | **9.04** | **235** | *e*Pn | | **Pn** | **Pn** | **19 20 58.8** | **+0.5** |
| | 260nm,1.5s | | | | | | | | |
| DZM | | | | *e*LQ | | LQ | | 19 22 45.6 | |
| | 1μm,27.8s | | | | | | | | |
| DZM | | | | *e*LR | | LR | | 19 23 10.0 | |
| | 2μm,26.1s | | | | | | | | |
| **AFI** | **Afiamalu** | **13.65** | **79** | LR | | LR | | 19 26 06.2 | |
| | comp=Z,367nm,20.5s,baz=202,slow=32 | | | | | | | | |
| **RAO** | **Raoul Island** | **14.04** | **151** | LR | | LR | | 19 26 16.1 | |
| | comp=Z,929nm,19.3s,baz=343,slow=32 | | | | | | | | |
| **URZ** | **Urewera** | **21.28** | **174** | P | | **P** | | **19 23 34.0** | **+0.2** |
| | 0.7s,baz=66,slow=1.1,SNR=6.8 | | | | | | | | |
| **EIDS** | **Eidsvold** | **23.27** | **245** | P | | **P** | | **19 23 49.1** | **-6.0** |
| | 2.5nm,0.8s | | | | | | | | |
| **ARMA** | **Armidale** | **24.70** | **233** | P | | P | | 19 24 15.8 | +7.0 |
| **CTA** | **Charters Tower** | **26.87** | **259** | P | | **P** | | **19 24 31

**ISC 18 19:31:04.5±1.6,6°20N±0°.08×127°.1E±0°.1, h93km±13km, n21,σ1°22/27, mb3.8/13, 1C-1D, Philippine Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DAV** | **Davao City (W)** | **1.74** | **300** | P | **Pn** | **19 31 33.7** | **+0.3** |
| | 446nm,0.3s,baz=94,slow=1.1,SNR=45 | | | | | | |
| DAV | | | | S | **Sn** | **19 31 57.8** | **+2.3** |
| | 100nm,0.3s,baz=221,slow=20,SNR=4.1 | | | | | | |
| **DMPH** | **Davao City--Mi** | **1.81** | **299⇑** | *eP* | **Pn** | **19 31 33.9** | **-0.5** |
| DMPH | | | | *eS* | **Sn** | **19 31 57.2** | **+0.1** |
| **BIPH** | **Bislig** | **2.10** | **340⇓** | *eP* | **Pn** | **19 31 37.6** | **-0.6** |
| BIPH | | | | *i* S | **Sn** | **19 32 00.8** | **-3.1** |
| **BUKP** | **Musuan** | **2.62** | **310** | *eP* | **Pn** | **19 31 45.0** | **-0.1** |
| BUKP | | | | *eS* | **Sn** | **19 32 16.8** | **+0.5** |
| **CTBH** | **Cotabato--PC H** | **3.01** | **290** | *eP* | **Pn** | **19 31 49.4** | **-0.8** |
| CTBH | | | | *i* S | **Sn** | **19 32 24.5** | **-1.0** |
| **BUTP** | **Butuan** | **3.11** | **332** | *eP* | **Pn** | **19 31 54.1** | **+2.5** |
| BUTP | | | | *eS* | Sn | 19 32 34.9 | +6.9 |
| **PAGZ** | **Pagadian** | **4.04** | **294** | *eP* | **Pn** | **19 32 03.9** | **-0.2** |
| **FITZ** | **Fitzroy Crossi** | **24.19** | **183** | P | **P** | **19 36 12.1** | **-0.3** |
| | 1.1nm,0.4s,baz=2.7,slow=10,SNR=14 | | | | | | |
| **WRA** | **Warramunga Arr** | **26.94** | **165** | P | **P** | **19 36 39.5** | **+2.2** |
| | 0.7nm,0.5s,baz=347,slow=10,SNR=14 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **30.02** | **296** | P | **P** | **19 37 05.2** | **+0.4** |
| | 0.3nm,0.6s,baz=121,slow=8.5,SNR=3.5 | | | | | | |
| **ASAR** | **Alice Springs** | **30.42** | **168** | P | **P** | **19 37 07.2** | **-1.0** |
| | 0.2nm,0.4s,baz=339,slow=6.7,SNR=8.9 | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **40.03** | **193** | P | **P** | **19 38 31.1** | **+0.7** |
| | 4.5nm,0.4s,baz=261,slow=7.3,SNR=12 | | | | | | |
| **STKA** | **Stephens Creek** | **40.31** | **161** | P | **P** | **19 38 33.4** | **+0.6** |
| | 0.6nm,0.4s,baz=345,slow=8.5,SNR=6.1 | | | | | | |
| **SONM** | **Songino Array** | **45.10** | **340** | P | **P** | **19 39 11.8** | **+0.3** |
| | 0.2nm,0.3s,baz=149,slow=8.2,SNR=3.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **55.76** | **324** | P | **P** | **19 40 32.6** | **+0.9** |
| | 3.9nm,0.4s,baz=119,slow=7.8,SNR=111 | | | | | | |
| MKAR | | | | PcP | **PcP** | **19 41 29.8** | **-0.1** |
| | 0.6nm,0.6s,baz=121,slow=3.7,SNR=3.8 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **58.57** | **332** | P | **P** | **19 40 51.7** | **+0.3** |
| | 1.3nm,0.3s,baz=124,slow=6.7,SNR=8.6 | | | | | | |
| **GEYT** | **Alibeck** | **69.65** | **308** | P | **P** | **19 42 03.6** | **-0.6** |
| | 1.4nm,0.8s,baz=92,slow=11,SNR=3.9 | | | | | | |
| **ARCES** | **ARCESS Array B** | **88.27** | **340** | P | **P** | **19 43 45.4** | **+0.2** |
| | 1.2nm,0.8s,baz=91,slow=5.4,SNR=2.8 | | | | | | |
| **BRTR** | **Keskin Array B** | **88.74** | **310** | P | **P** | **19 43 47.6** | **-0.6** |
| | 0.4nm,0.6s,baz=121,slow=5.2,SNR=3.1 | | | | | | |
| **FINES** | **FINESS Array B** | **89.84** | **332** | P | **P** | **19 43 52.7** | **+0.1** |
| | 3.8nm,1.0s,baz=70,slow=4.5,SNR=3.1 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **122.47** | **290** | PKP | **PKPdf** | **19 49 48.7** | **-1.4** |
| | 0.5nm,0.7s,baz=47,slow=1.8,SNR=4.0 | | | | | | |

*TAP **18** 19:34:46.9,24°.72N×122°.40E, h9km, ML3.8, D*
*JMA **18** 19:34:48.0,24°.66N×122°.39E, h33km±3km, M3.2*
*IDC **18** 19:35:10.8±19.0,24°.50N×122°.70E, h211km±227km, mb2.9/4,mb1 3.0/5,mb1mx2.7/37,mbtmp3.5/5,ML3.0/1, Error ellipse: s-maj=161.3km s-min=17.3km az=60.0*

**ISC 18 19:34:46.8±1.2,24°.71N±0°.03×122°.42E±0°.02, h5km±9km, n65,σ1°22/111, mb3.4/4, 2C-3D, Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TWB1** | **Santiao Chiao** | **0.49** | **307** | *i* P | **Pb** | **19 34 57.1** | **-0.9** |
| | baz=307 | | | | | | |
| TWB1 | | | | *e*S | **Sg** | **19 35 03.0** | **+0.2** |
| | baz=307 | | | | | | |
| **TWC** | **Suao** | **0.53** | **259⇑** | *i* P | **Pg** | **19 34 56.9** | **-0.1** |
| | baz=267 | | | | | | |
| TWC | | | | *i* S | **Sb** | **19 35 05.3** | **-1.2** |
| | baz=267 | | | | | | |
| **JYNG** | **Yonagunijimaku** | **0.54** | **118** | P | **Pb** | **19 34 59.0** | **+0.1** |
| JYNG | | | | S | **Sb** | **19 35 06.5** | **-0.5** |
| **YOJ** | **Yonaguni jima** | **0.59** | **114** | P | **Pb** | **19 34 59.8** | **+0.1** |
| YOJ | | | | *e*S | **Sb** | **19 35 07.9** | **-0.5** |
| **ILA** | **Ilan** | **0.61** | **275** | P | **Pb** | **19 34 59.0** | **-1.1** |
| | baz=263 | | | | | | |
| ILA | | | | *i* S | **Sb** | **19 35 09.3** | **+0.3** |
| | baz=263 | | | | | | |
| **ENA** | **Nanau** | **0.68** | **246** | *i* P | **Pg** | **19 34 59.7** | **-0.2** |
| | baz=243 | | | | | | |
| ENA | | | | *i* S | **Sb** | **19 35 09.7** | **-1.3** |
| | baz=243 | | | | | | |
| **NWF** | **Wu-fen Shan** | **0.68** | **302⇓** | *i* P | **Pn** | **19 35 01.6** | **-1.7** |
| | baz=301 | | | | | | |
| NWF | | | | *i* S | **Sb** | **19 35 09.7** | **-1.5** |
| | baz=301 | | | | | | |
| **TWE** | **Neicheng** | **0.69** | **271⇑** | *i* P | **Pg** | **19 34 60.0** | **-0.1** |
| | baz=260 | | | | | | |
| TWE | | | | *i* S | **Sb** | **19 35 09.7** | **-1.4** |
| | baz=260 | | | | | | |
| **ENTT** | **Nioudou** | **0.78** | **265** | *i* P | **Pg** | **19 35 01.8** | **-0.1** |
| | baz=263 | | | | | | |
| ENTT | | | | *i* S | **Sb** | **19 35 12.9** | **-1.0** |
| | baz=263 | | | | | | |
| **TWA** | **Mucha** | **0.81** | **290** | P | **Pb** | **19 35 03.4** | **0.0** |
| | baz=288 | | | | | | |
| TWA | | | | S | **Sb** | **19 35 14.3** | **-0.3** |
| | baz=288 | | | | | | |
| **TAP1** | **Taipei** | **0.88** | **292** | P | **Pn** | **19 35 04.8** | **-1.1** |
| | baz=290 | | | | | | |
| TAP1 | | | | S | **Sb** | **19 35 16.5** | **-0.1** |
| | baz=290 | | | | | | |
| **TAP** | **Taipei** | **0.89** | **292** | P | **Pn** | **19 35 04.8** | **-1.3** |
| | baz=290 | | | | | | |
| TAP | | | | S | **Sb** | **19 35 16.7** | **-0.4** |
| | baz=290 | | | | | | |
| **TWY** | **Chenhua** | **0.93** | **307** | P | **Pn** | **19 35 05.4** | **-1.3** |
| | baz=306 | | | | | | |
| TWY | | | | S | **Sn** | **19 35 18.2** | **-2.3** |
| | baz=306 | | | | | | |
| **NSK** | **Sanguang** | **0.97** | **268** | P | **Pg** | **19 35 05.2** | **-0.2** |
| | baz=266 | | | | | | |
| NSK | | | | S | **Sg** | **19 35 17.4** | **-0.6** |
| | baz=266 | | | | | | |
| **PCYT** | **Pengchaiyu** | **0.97** | **341** | *e*P | **Pn** | **19 35 07.3** | **+0.1** |
| | baz=342 | | | | | | |
| **TWD** | **Chiawan** | **0.98** | **230⇓** | *i* P | **Pg** | **19 35 05.5** | **-0.1** |
| | baz=237 | | | | | | |
| TWD | | | | *e*S | **Sn** | **19 35 22.5** | **+1.0** |
| | baz=237 | | | | | | |
| **NNS** | **Nan Shan** | **0.99** | **255** | P | **Pg** | **19 35 05.6** | **-0.3** |
| | baz=252 | | | | | | |
| NNS | | | | S | **Sb** | **19 35 19.7** | **-0.3** |
| | baz=252 | | | | | | |
| **TWS1** | **Kuangyinshan** | **0.99** | **293** | P | **Pn** | **19 35 06.7** | **-0.8** |
| | baz=292 | | | | | | |
| TWS1 | | | | S | **Sb** | **19 35 19.6** | **-0.3** |
| | baz=292 | | | | | | |
| **HWA** | **Hwalien** | **1.04** | **226** | *e*P | **Pg** | **19 35 06.5** | **-0.3** |
| | baz=233 | | | | | | |
| **NCU** | **National Centr** | **1.15** | **283** | P | **Pn** | **19 35 09.2** | **-0.5** |
| | baz=281 | | | | | | |
| NCU | | | | S | **Sn** | **19 35 24.8** | **-1.0** |
| | baz=281 | | | | | | |
| **WHF** | **Hehuan Shan** | **1.19** | **242** | P | **Pg** | **19 35 09.4** | **-0.4** |
| | baz=239 | | | | | | |
| WHF | | | | S | **Sn** | **19 35 25.9** | **-1.6** |
| | baz=239 | | | | | | |
| **TWT** | **Tachien** | **1.22** | **248** | P | **Pg** | **19 35 10.6** | **+0.3** |
| | baz=237 | | | | | | |
| TWT | | | | S | **Sn** | **19 35 27.0** | **-0.8** |
| | baz=237 | | | | | | |
| **IRIF** | **Iriomote-Funau** | **1.25** | **107** | P | **Pn** | **19 35 09.6** | **-1.4** |
| **ESL** | **Shilin** | **1.27** | **226** | P | **Pb** | **19 35 11.0** | **-0.3** |
| | baz=222 | | | | | | |
| ESL | | | | S | **Sn** | **19 35 28.4** | **-0.3** |
| | baz=222 | | | | | | |
| **NSTT** | **Nanjuang** | **1.29** | **267** | *e*P | **Pg** | **19 35 11.6** | **-0.1** |
| | baz=264 | | | | | | |
| NSTT | | | | S | **Sn** | **19 35 29.4** | **+0.1** |
| | baz=264 | | | | | | |
| **HSN** | **Hsinchu** | **1.32** | **274** | *e*P | **Pn** | **19 35 11.2** | **-0.8** |
| | baz=273 | | | | | | |
| HSN | | | | *e*S | **Sg** | **19 35 30.8** | **+1.4** |
| | baz=273 | | | | | | |
| **HATJ** | **Hateruma jima** | **1.42** | **117** | P | **Pn** | **19 35 12.6** | **-0.8** |
| **JKRS** | **Kuro-shima** | **1.52** | **108** | P | **Pn** | **19 35 13.9** | **-0.9** |
| JKRS | | | | S | **Sn** | **19 35 33.4** | **-1.6** |
| **NSY** | **Sanyi** | **1.54** | **259** | *e*P | **Pg** | **19 35 17.4** | **+1.0** |
| | baz=256 | | | | | | |
| NSY | | | | *e*S | **Sg** | **19 35 37.6** | **+1.3** |
| | baz=256 | | | | | | |
| **TWQ1** | **Liyutan** | **1.54** | **257** | *e*P | **Pg** | **19 35 16.7** | **+0.3** |
| | baz=269 | | | | | | |
| TWQ1 | | | | *e*S | **Sg** | **19 35 39.6** | **+3.1** |
| | baz=269 | | | | | | |
| **EHY** | **Hungye** | **1.56** | **220** | P | **Pn** | **19 35 15.2** | **-0.2** |
| | baz=216 | | | | | | |
| EHY | | | | S | **Sn** | **19 35 35.2** | **-0.8** |
| | baz=216 | | | | | | |
| **JIJ** | **Ishigaki jima** | **1.61** | **102** | P | **Pn** | **19 35 14.7** | **-1.2** |
| JIJ | | | | *e*S | **Sn** | **19 35 36.5** | **-0.6** |
| **SMLT** | **Sun Moon Lake** | **1.61** | **240** | *e*P | **Pg** | **19 35 17.2** | **-0.6** |
| | baz=243 | | | | | | |
| SMLT | | | | *e*S | **Sg** | **19 35 40.6** | **+1.9** |
| | baz=243 | | | | | | |
| **TYC** | **Yuchr** | **1.64** | **241⇓** | *e*P | **Pg** | **19 35 18.1** | **-0.1** |
| | baz=238 | | | | | | |
| TYC | | | | *e*S | **Sg** | **19 35 40.1** | **+0.6** |
| | baz=238 | | | | | | |
| **TCU** | **Taichung** | **1.69** | **251** | *e*P | **Pg** | **19 35 18.6** | **-0.5** |
| | baz=246 | | | | | | |
| **TWF1** | **Yuli** | **1.70** | **217** | P | **Pn** | **19 35 17.3** | **+0.1** |
| | baz=213 | | | | | | |
| TWF1 | | | | S | **Sb** | **19 35 40.1** | **-0.2** |
| | baz=213 | | | | | | |
| **JISG** | **Ishigakijimahi** | **1.73** | **94** | P | **Pn** | **19 35 16.5** | **-1.0** |
| **WNT** | **Mingjian** | **1.79** | **243** | *e*P | **Pg** | **19 35 20.7** | **-0.4** |
| | baz=219 | | | | | | |
| WNT | | | | *e*S | **Sg** | **19 35 45.8** | **+1.5** |
| | baz=219 | | | | | | |
| **YUS** | **Yu-Shan** | **1.81** | **228** | *e*P | **Pb** | **19 35 20.4** | **-0.4** |
| | baz=207 | | | | | | |
| YUS | | | | *e*S | **Sb** | **19 35 43.0** | **-1.0** |
| | baz=207 | | | | | | |
| **ALS** | **Alishan** | **1.90** | **231** | *e*P | **Pb** | **19 35 21.6** | **-0.6** |
| | baz=211 | | | | | | |
| ALS | | | | *e*S | **Sg** | **19 35 48.9** | **+1.0** |
| | baz=211 | | | | | | |
| **CHN5** | **Tsauling** | **1.94** | **236** | *e*P | **Pb** | **19 35 22.5** | **-0.2** |
| | baz=214 | | | | | | |
| CHN5 | | | | *e*S | **Sg** | **19 35 49.8** | **+0.6** |
| | baz=214 | | | | | | |
| **WGK** | **Gukeng** | **1.98** | **239** | *e*P | **Pb** | **19 35 22.6** | **-0.7** |
| | baz=217 | | | | | | |
| WGK | | | | *e*S | **Sg** | **19 35 50.3** | **-0.2** |
| | baz=217 | | | | | | |
| **ELDTW** | **Lidau** | **1.98** | **221** | *e*P | **Pn** | **19 35 21.4** | **+0.1** |
| | baz=203 | | | | | | |
| ELDTW | | | | *e*S | **Sn** | **19 35 46.7** | **+0.1** |
| | baz=203 | | | | | | |
| **JTJ** | **Tarama** | **2.08** | **91** | P | **Pn** | **19 35 22.5** | **+0.1** |
| **CHN2** | **Minshiung** | **2.13** | **237** | *e*P | **Pb** | **19 35 26.2** | **+0.2** |
| | baz=217 | | | | | | |
| **CHN4** | **Tsaushan** | **2.15** | **231** | *e*P | **Pb** | **19 35 25.6** | **-0.6** |
| | baz=210 | | | | | | |
| CHN4 | | | | *e*S | **Sb** | **19 35 53.6** | **+0.3** |
| | baz=210 | | | | | | |
| **STYT** | **Tauyuan** | **2.16** | **225** | *e*P | **Pb** | **19 35 24.9** | **-1.7** |
| | baz=206 | | | | | | |
| STYT | | | | *e*S | **Sb** | **19 35 53.5** | **-0.3** |
| | baz=206 | | | | | | |
| **WTP** | **Ta-pu** | **2.20** | **229** | *e*P | **Pb** | **19 35 25.7** | **-1.5** |
| | baz=207 | | | | | | |
| WTP | | | | *e*S | **Sb** | **19 35 55.7** | **+0.8** |
| | baz=207 | | | | | | |
| **TWG** | **Pinlang** | **2.25** | **214** | *e*P | **Pb** | **19 35 26.2** | **-1.8** |
| | baz=209 | | | | | | |
| TWG | | | | *e*S | **Sn** | **19 35 52.0** | **-1.0** |
| | baz=209 | | | | | | |
| **WSF** | **Szhu** | **2.27** | **242** | *e*S | **Sb** | **19 35 56.0** | **-0.8** |
| | baz=238 | | | | | | |
| **TWK** | **Hsinying** | **2.28** | **231** | *e*P | **Pb** | **19 35 27.2** | **-1.3** |
| | baz=211 | | | | | | |
| TWK | | | | *e*S | **Sb** | **19 35 55.6** | **-1.4** |
| | baz=211 | | | | | | |
| **CHN1** | **Nanshi** | **2.30** | **229** | *e*P | **Pb** | **19 35 27.6** | **-1.4** |
| | baz=208 | | | | | | |
| CHN1 | | | | *e*S | **Sg** | **19 35 58.8** | **-2.0** |
| | baz=208 | | | | | | |
| **SGST** | **Jiashian** | **2.33** | **226** | *e*P | **Pb** | **19 35 27.8** | **-1.7** |
| | baz=206 | | | | | | |
| SGST | | | | *e*S | **Sb** | **19 35 58.1** | **-0.6** |
| | baz=206 | | | | | | |
| **CHN8** | **Yiju** | **2.43** | **237** | *e*S | **Sb** | **19 36 02.0** | **+0.6** |
| | baz=214 | | | | | | |
| **ECL** | **Taimali** | **2.50** | **213** | *e*P | **Pn** | **19 35 29.6** | **+1.4** |
| | baz=208 | | | | | | |
| ECL | | | | *e*S | **Sn** | **19 35 59.2** | **+0.2** |
| | baz=208 | | | | | | |
| **SCLT** | **Jiali** | **2.55** | **234** | *e*S | **Sb** | **19 36 02.6** | **-2.1** |
| | baz=211 | | | | | | |
| **SSD** | **Sandimen** | **2.55** | **220** | *e*P | **Pn** | **19 35 30.2** | **+1.3** |
| | baz=205 | | | | | | |
| SSD | | | | *e*S | **Sb** | **19 36 02.8** | **-2.1** |
| | baz=205 | | | | | | |
| **TWM1** | **Shoushan** | **2.62** | **225** | *e*P | **Pb** | **19 35 31.7** | **-2.7** |
| | baz=220 | | | | | | |
| **EAST** | **Anshuo** | **2.73** | **212** | P | **Pn** | **19 35 33.0** | **+1.6** |
| | baz=196 | | | | | | |
| EAST | | | | *e*S | **Sn** | **19 36 05.8** | **+1.0** |
| | baz=196 | | | | | | |
| **SCZT** | **Fangliau** | **2.85** | **216** | *e*P | **Pb** | **19 35 36.2** | **-2.1** |
| | baz=197 | | | | | | |
| SCZT | | | | *e*S | **Sb** | **19 36 10.4** | **-3.1** |
| | baz=197 | | | | | | |
| **KSRS** | **Korea Array** | **13.55** | **19** | P | P | 19 38 16.4 | +7.4 |
| | 0.1nm,0.3s,baz=199,slow=12,SNR=4.8 | | | | | | |
| **SONM** | **Songino Array** | **26.34** | **335** | P | **P** | **19 40 29.5** | **+5.6** |
| | 0.5nm,0.9s,baz=141,slow=9.3,SNR=2.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **38.76** | **315** | P | P | 19 42 17.8 | +5.5 |
| | 0.6nm,0.9s,baz=107,slow=11,SNR=2.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **45.87** | **164** | P | **P** | **19 43 09.7** | **-0.7** |
| | 0.5nm,0.8s,baz=346,slow=8.9,SNR=4.1 | | | | | | |
| **ASAR** | **Alice Springs** | **49.36** | **166** | P | **P** | **19 43 37.4** | **-0.1** |
| | 0.3nm,0.5s,baz=342,slow=8.9,SNR=5.9 | | | | | | |

*IDC **18** 19:50:05.7±2.3,36°.73N×141°.43E, h0km, mb3.4/4, mb1 3.5/5,mb1mx3.3/40,mbtmp3.4/5,ML3.0/1,MS3.6/3, Ms1 3.6/3,ms1mx2.8/32, Error ellipse: s-maj=62.3km s-min=27.2km az=62.0*
*ISCJB **18** 19:50:07.9±1.6,36°.69N±0°.05×141°.3E±0°.1, h25km±7km, mb3.3/4,MS3.6/3, Error ellipse: s-maj=14.6km s-min=7.0km az=18.6*
*JMA **18** 19:50:08.8±0.1,36°.72N×141°.25E, h32km±1km, M3.4*
*JMA Felt I J1.*

**ISC 18 19:50:07.5±2.3, 36°.72N±0°.05×141°.33E±0°.09, h13km±12km, n21,σ0°89/19, mb3.4/4, MS3.8/3, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ONAJ** | **Iwakimizuishiy** | **0.57** | **312** | P | **Pb** | **19 50 19.4** | **0.0** |
| ONAJ | | | | S | **Sb** | **19 50 27.2** | **-0.3** |
| **JHO** | **Hitachi** | **0.62** | **260** | P | **Pg** | **19 50 19.7** | **+0.1** |
| JHO | | | | S | **Sg** | **19 50 27.9** | **+0.1** |
| **JFK** | **Kawauchi** | **0.74** | **331** | P | **Pb** | **19 50 22.2** | **-0.1** |
| JFK | | | | S | **Sb** | **19 50 32.1** | **-0.3** |
| **JYT** | **Yasato** | **1.03** | **242** | P | **Pb** | **19 50 26.1** | **-1.2** |
| JYT | | | | S | **Sb** | **19 50 39.2** | **-1.5** |
| **JFT** | **Otama** | **1.12** | **316** | P | **Pn** | **19 50 28.5** | **-0.5** |
| **JMM** | **Marumori** | **1.22** | **340** | P | **Pn** | **19 50 29.7** | **-0.6** |
| JMM | | | | S | **Sb** | **19 50 45.4** | **-0.8** |
| **MJAR** | **Matsushiro Arr** | **2.51** | **267** | Pn | **Pn** | **19 50 48.8** | **+0.7** |
| | 2.7nm,0.3s,baz=98,slow=11,SNR=40 | | | | | | |
| MJAR | | | | Sn | **Sb** | **19 51 25.0** | **+1.6** |
| | 9.3nm,0.3s,baz=76,slow=17,SNR=10 | | | | | | |
| **MAT** | **Matsushiro** | **2.52** | **267** | P | **Pn** | **19 50 48.8** | **+0.7** |
| MAT | | | | S | **Sn** | **19 51 17.3** | **-1.4** |
| **SONM** | **Songino Array** | **27.91** | **304** | P | **P** | **19 55 58.0** | **+0.7** |
| | 0.3nm,0.8s,baz=108,slow=9.3,SNR=2.3 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.05** | **120** | T | T | 20 25 24.0 | |
| | baz=313,slow=75,SNR=339 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.05** | **120** | T | T | 20 25 24.6 | |
| | baz=313,slow=75,SNR=302 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.07** | **120** | T | T | 20 25 25.4 | |
| | baz=313,slow=75,SNR=197 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.75** | **122** | T | T | 20 26 14.3 | |
| | baz=315,slow=76,SNR=102 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.75** | **122** | T | T | 20 26 15.7 | |
| | baz=315,slow=76,SNR=147 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.76** | **122** | T | T | 20 26 16.3 | |
| | baz=315,slow=76,SNR=119 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.08** | **313** | P | **P** | **19 57 59.5** | **+0.7** |
| | 0.4nm,0.5s,baz=108,slow=7.7,SNR=2.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.23** | **302** | P | **P** | **19 58 16.7** | **+0.3** |
| | 0.3nm,0.7s,baz=93,slow=7.8,SNR=3.3 | | | | | | |
| **KDAK** | **Kodiak Island** | **47.38** | **42** | LR | LR | 20 19 33.8 | |
| | comp=Z,139nm,21.2s,baz=357,slow=37 | | | | | | |
| **HNR** | **Honiara** | **49.13** | **155** | LR | LR | 20 18 33.7 | |
| | comp=Z,29nm,19.4s,baz=2.5,slow=35 | | | | | | |
| **WRA** | **Warramunga Arr** | **56.74** | **188** | P | **P** | **19 59 51.4** | **+0.4** |
| | 0.4nm,0.6s,baz=5.7,slow=7.4,SNR=9.8 | | | | | | |
| **AKASG** | **Malin Array Be** | **74.50** | **322** | LR | LR | 20 36 06.4 | |
| | comp=Z,45nm,19.7s,baz=55,slow=37 | | | | | | |

*IDC **18** 20:08:28.9±0.5,5°.81S×148°.37E, h109km±4km, mb4.1/20, mb1 4.3/22,mb1mx4.1/44,mbtmp4.5/22,MS3.3/5, Ms1 3.3/5,ms1mx2.9/27, Error ellipse: s-maj=12.8km s-min=6.8km az=95.0*
*ISCJB **18** 20:08:29.1±0.9,5°.75S±0°.04×148°.33E±0°.06, h125km±9km, mb4.5/33, Error ellipse: s-maj=10.7km s-min=6.4km az=19.6*
*BJI **18** 20:08:29.6,6°.08S×148°.23E, h166km, mb4.4/20, mB4.9/15*
*NEIC **18** 20:08:30.9±0.9,5°.84S×148°.40E, h132km±8km, mb4.7/8, Error ellipse: s-maj=9.7km s-min=6.5km az=113.0*

**ISC 18 20:08:29.0±0.5,5°.68S±0°.05×148°.29E±0°.07, h116km±4km, h117km:pP-P, n85,σ1°87/101, mb4.6/32, 1C, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **3.87** | **197** | P | **Pn** | **20 09 26.8** | **-0.1** |
| | 46nm,0.3s,baz=11,slow=5.5,SNR=45 | | | | | | |
| PMG | | | | S | **Sn** | **20 10 08.7** | **-2.9** |
| | 142nm,0.3s,baz=171,slow=21,SNR=17 | | | | | | |
| **RABL** | **Rabaul** | **4.13** | **69** | *e*Pn | **Pn** | **20 09 31.6** | **+1.3** |
| **COEN** | **Coen** | **9.65** | **211** | P | **Pn** | **20 10 45.2** | **+0.3** |
| | baz=8.7,SNR=22 | | | | | | |
| **COEN** | **Coen** | **9.65** | **211** | *e*Pn | **Pn** | **20 10 45.0** | **0.0** |
| COEN | | | | *e*Sn | Sn | 20 12 12.9 | -19 |
| **HNR** | **Honiara** | **12.14** | **109** | P | **P** | **20 11 26.3** | **+0.4** |
| | 17nm,0.3s,baz=350,slow=2.2,SNR=5.3 | | | | | | |
| **MTSU** | **Mount Surprise** | **12.98** | **197** | P | **Pn** | **20 11 30.4** | **+1.2** |
| | baz=12,SNR=4.0 | | | | | | |
| **CTA** | **Charters Tower** | **14.46** | **188** | P | **P** | **20 11 51.3** | **-0.5** |
| | 1.1nm,0.3s,baz=2.0,slow=13,SNR=8.5 | | | | | | |
| **QIS** | **Mount Isa** | **17.03** | **209** | P | **Pn** | **20 12 20.9** | **+0.7** |
| | baz=16,SNR=26 | | | | | | |
| **KDU** | **Kakadu** | **17.09** | **245** | P | **Pn** | **20 12 22.1** | **+1.0** |
| | baz=16,SNR=13 | | | | | | |
| **MTN** | **Manton Dam** | **18.36** | **246** | P | **Pn** | **20 12 36.2** | **-0.1** |
| | baz=18,SNR=84 | | | | | | |
| **MTN** | **Manton Dam** | **18.36** | **246** | *e*P | **Pn** | **20 12 36.6** | **+0.3** |
| | 45nm,0.9s | | | | | | |
| **GUMO** | **Guam** | **19.44** | **350** | LR | LR | 20 19 22.2 | |
| | comp=Z,53nm,21.3s,baz=115,slow=33 | | | | | | |
| **WRAB** | **Tennant Creek** | **19.61** | **222** | *e*P | **Pn** | **20 12 49.7** | **-1.2** |
| | 67nm,0.6s | | | | | | |
| **WB2** | **Warramunga Arr** | **19.62** | **222** | *e*P | **P** | **20 12 48.5** | **-0.1** |
| **WRA** | **Warramunga Arr** | **19.63** | **222** | P | **P** | **20 12 49.8** | **+1.1** |
| | 4.0nm,0.3s,baz=50,slow=11,SNR=194 | | | | | | |
| WRA | | | | S | **S** | **20 16 20.7** | **-3.3** |
| | 0.4nm,0.3s,baz=48,slow=23,SNR=14 | | | | | | |
| WRA | | | | LR | LR | 20 21 18.6 | |
| | comp=Z,163nm,18.6s,baz=40,slow=39 | | | | | | |
| **EIDS** | **Eidsvold** | **19.77** | **173** | P | **P** | **20 12 50.7** | **+0.7** |
| | baz=19,SNR=8.2 | | | | | | |
| **EIDS** | **Eidsvold** | **19.77** | **173** | *e*P | **P** | **20 12 48.5** | **-1.5** |
| | 21nm,0.8s | | | | | | |
| **RMQ** | **Roma** | **20.70** | **179** | P | **P** | **20 13 01.1** | **+1.0** |
| | baz=20,SNR=6.8 | | | | | | |
| **QLP** | **Quilpie** | **21.15** | **190** | P | **P** | **20 13 05.5** | **+0.6** |
| | baz=20,SNR=11 | | | | | | |
| **KNRA** | **Kununurra** | **21.59** | **241** | P | **P** | **20 13 10.7** | **+0.9** |
| | baz=21,SNR=21 | | | | | | |
| **AS01** | **Alice Springs** | **22.60** | **216** | *e*P | **P** | **20 13 20.7** | **+0.6** |
| **AS31** | **Alice Springs** | **22.62** | **216** | *e*P | **P** | **20 13 21.2** | **+0.9** |
| | 18nm,0.6s | | | | | | |
| **ASAR** | **Alice Springs** | **22.63** | **216** | P | **P** | **20 13 21.4** | **+0.9** |
| | 57nm,0.7s,baz=52,slow=8.8,SNR=793 | | | | | | |
| ASAR | | | | pP | **pP** | **20 13 42.9** | **+0.2** |
| | 10nm,0.7s,baz=49,slow=11,SNR=2.5 | | | | | | |
| ASAR | | | | S | **S** | **20 17 21.4** | **+1.6** |
| | 19nm,1.0s,baz=31,slow=21,SNR=24 | | | | | | |
| **DZM** | **Mont Dzumac** | **23.95** | **135** | P | **P** | **20 13 32.9** | **+0.1** |
| | 5.9nm,0.5s,baz=309,slow=14,SNR=11 | | | | | | |
| DZM | | | | S | **S** | **20 17 40.8** | **-0.5** |
| | 4.1nm,0.5s,baz=36,slow=22,SNR=7.0 | | | | | | |
| **ARMA** | **Armidale** | **24.81** | **173** | P | **P** | **20 13 41.0** | **+0.5** |
| | baz=24,SNR=25 | | | | | | |
| **ARMA** | **Armidale** | **24.81** | **173** | *e*P | **P** | **20 13 39.3** | **-1.2** |
| | 46nm,1.3s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **25.33** | **239** | P | **P** | **20 13 46.6** | **+1.3** |
| | 54nm,0.7s,baz=53,slow=9.4,SNR=136 | | | | | | |
| FITZ | | | | S | **S** | **20 18 10.4** | **+7.2** |
| | 12nm,1.1s,baz=285,slow=20,SNR=5.3 | | | | | | |
| FITZ | | | | LR | LR | 20 24 12.2 | |
| | comp=Z,130nm,18.1s,baz=89,slow=37 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **25.33** | **239** | P | **P** | **20 13 46.6** | **+1.3** |
| | baz=25,SNR=82 | | | | | | |
| **CMSA** | **Cobar Meteorol** | **25.84** | **185** | P | **P** | **20 13 49.5** | **-0.3** |
| | baz=25,SNR=17 | | | | | | |
| **STKA** | **Stephens Creek** | **26.81** | **193** | P | **P** | **20 13 58.2** | **-0.3** |
| | 14nm,0.8s,baz=19,slow=11,SNR=17 | | | | | | |
| STKA | | | | LR | LR | 20 23 55.0 | |
| | comp=Z,40nm,18.2s,baz=24,slow=35 | | | | | | |
| **STKA** | **Stephens Creek** | **26.81** | **193** | P | **P** | **20 13 58.2** | **-0.3** |
| | baz=26,SNR=24 | | | | | | |
| **STKA** | **Stephens Creek** | **26.81** | **193** | *e*P | **P** | **20 13 56.7** | **-1.8** |
| | 3.3nm,0.8s | | | | | | |
| **WRKA** | **Warakurna** | **27.17** | **223** | P | **P** | **20 14 02.5** | **+0.7** |
| | baz=26,SNR=23 | | | | | | |
| **YNG** | **Young** | **28.48** | **180** | P | **P** | **20 14 13.8** | **+0.5** |
| | baz=28,SNR=7.3 | | | | | | |
| **BBOO** | **Buckleboo** | **29.31** | **201** | P | **P** | **20 14 20.6** | **-0.1** |
| | baz=28,SNR=9.4 | | | | | | |
| **FORT** | **Forrest** | **31.39** | **215** | P | **P** | **20 14 39.7** | **+0.7** |
| | baz=30,SNR=12 | | | | | | |
| **FORT** | **Forrest** | **31.39** | **215** | *e*P | **P** | **20 14 36.3** | **-2.8** |
| | 296nm,0.8s | | | | | | |
| **ARPS** | **Mount Arapiles** | **31.51** | **190** | P | **P** | **20 14 40.2** | **+0.2** |
| | baz=31,SNR=4.6 | | | | | | |
| **TOO** | **Toolangi** | **31.85** | **184** | P | **P** | **20 14 43.7** | **+0.7** |
| | baz=31,SNR=6.7 | | | | | | |
| **JCJ** | **Chichijima** | **33.11** | **350** | LR | LR | 20 26 43.7 | |
| | comp=Z,7nm,19.6s,baz=350,slow=33 | | | | | | |
| **MEEK** | **Meekatharra** | **35.15** | **230** | P | **P** | **20 15 13.0** | **+1.2** |
| | baz=34 | | | | | | |
| **KMBL** | **Kambalda** | **35.58** | **221** | P

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| MDJ | | | | pmax | pmax | | |
| | comp=Z,110nm,4.5s | | | | | | |
| **KMI** | **Kunming** | **53.83** | **307** | P | **P** | **20 17 38.5** | **-2.0** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,11nm,0.7s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **54.24** | **297** | P | **P** | **20 17 43.8** | **+0.5** |
| | 0.3nm,0.5s,baz=122,slow=5.3,SNR=3.1 | | | | | | |
| **KLR** | **Kul'dur** | **56.55** | **347** | P | **P** | **20 18 02.1** | **+2.8** |
| | 0.4nm,0.8s,baz=205,slow=2.8,SNR=9.6 | | | | | | |
| KLR | | | | pP | **pP** | **20 18 26.9** | **-0.3** |
| | 0.3nm,0.9s,baz=136,slow=6.5,SNR=3.1 | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **57.24** | **327** | *e*P | **P** | **20 18 04.3** | **-0.2** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,17nm,0.5s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,110nm,5.4s | | | | | | |
| **LZH** | **Lanzhou** | **58.81** | **318** | *e*P | **P** | **20 18 14.5** | **-1.1** |
| LZH | | | | sP | PcP | 20 19 12.9 | +8.9 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,19nm,1.0s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,120nm,4.6s | | | | | | |
| **PETK** | **Petropavlovsk-** | **59.10** | **7** | P | **P** | **20 18 20.1** | **+3.0** |
| | 13nm,0.9s,baz=170,slow=7.2,SNR=9.8 | | | | | | |
| **SONM** | **Songino Array** | **64.75** | **330** | P | **P** | **20 18 57.5** | **+2.3** |
| | 1.7nm,1.0s,baz=148,slow=4.9,SNR=8.9 | | | | | | |
| SONM | | | | pP | **pP** | **20 19 23.7** | **-0.1** |
| | 5.1nm,1.2s,baz=142,slow=6.0,SNR=7.2 | | | | | | |
| **VNDA** | **Vanda** | **72.16** | **177** | P | **P** | **20 19 41.0** | **+0.3** |
| | 3.1nm,0.9s,baz=342,slow=7.0,SNR=8.3 | | | | | | |
| **WMQ** | **Urumqi** | **73.39** | **319** | P | **P** | **20 19 46.0** | **-2.6** |
| WMQ | | | | pP | sP | 20 20 29.5 | -0.8 |
| WMQ | | | | sP | pP | 20 20 51.0 | +33 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.7s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,400nm,5.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,66nm,13.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,69nm,30.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,87nm,25.5s | | | | | | |
| **MKAR** | **Makanchi Array** | **78.07** | **320** | P | **P** | **20 20 15.8** | **+0.7** |
| | 0.8nm,0.6s,baz=100,slow=8.4,SNR=18 | | | | | | |
| MKAR | | | | pP | **pP** | **20 20 43.4** | **-1.2** |
| | 0.7nm,0.7s,baz=118,slow=5.5,SNR=3.7 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **79.43** | **327** | P | **P** | **20 20 22.2** | **-0.1** |
| | 1.0nm,0.5s,baz=102,slow=6.5,SNR=5.3 | | | | | | |
| ZALV | | | | pP | **pP** | **20 20 50.2** | **-1.6** |
| | 1.1nm,0.6s,baz=112,slow=5.4,SNR=2.5 | | | | | | |
| **KSH** | **Kashi** | **80.12** | **312** | *e*P | P | 20 20 32.1 | +5.5 |
| KSH | | | | pP | sP | 20 21 14.9 | +6.3 |
| KSH | | | | PP | PP | 20 23 41.8 | +11 |
| KSH | | | | S | **S** | **20 30 25.3** | **+3.3** |
| KSH | | | | SKS | **SKSac** | **20 30 29.4** | **-4.3** |
| **KSH** | **Kashi** | **80.12** | **312** | SS | SS | 20 35 49.4 | +14 |
| KSH | | | | LR | LR | | |
| | comp=N,210nm,8.9s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,140nm,5.5s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,180nm,5.2s | | | | | | |
| **KURK** | **Kurchatov** | **81.72** | **323** | P | **P** | **20 20 35.0** | **+0.4** |
| KURK | | | | pP | **pP** | **20 21 04.1** | **-0.2** |
| **KURBB** | **Kurchatov Arra** | **81.75** | **323** | P | **P** | **20 20 35.0** | **+0.3** |
| | comp=Z,0.4nm,0.2s,baz=110,slow=4.4,SNR=5.5 | | | | | | |
| KURBB | | | | pP | **pP** | **20 21 04.1** | **-0.3** |
| | comp=Z,0.3nm,0.3s,baz=100,slow=4.4,SNR=1.4 | | | | | | |
| **QSPA** | **South Pole Qui** | **84.29** | **180** | *e*P | **P** | **20 20 45.9** | **-1.9** |
| **ILAR** | **Eielson Array** | **84.68** | **23** | P | **P** | **20 20 50.0** | **+0.4** |
| | comp=Z,6.6nm,0.6s,baz=251,slow=5.0,SNR=84 | | | | | | |
| ILAR | | | | pP | **pP** | **20 21 18.1** | **-1.3** |
| | comp=Z,1.4nm,0.8s,baz=250,slow=6.0,SNR=3.3 | | | | | | |
| **BVAR** | **Borovoye Array** | **87.27** | **324** | P | **P** | **20 21 02.4** | **-0.1** |
| | comp=Z,0.9nm,0.6s,baz=119,slow=7.1,SNR=8.0 | | | | | | |
| **INK** | **Inuvik** | **90.89** | **21** | P | **P** | **20 21 19.7** | **+0.6** |
| | comp=Z,1.3nm,0.9s,baz=263,slow=4.7,SNR=3.1 | | | | | | |
| **SYO** | **Syowa Base** | **91.34** | **200**⇓ | *e*PcP | **PcP** | **20 21 25.0** | **+2.8** |
| **YKA** | **Yellowknife Ar** | **98.29** | **28** | P | Pdif | 20 21 54.1 | +1.0 |
| | comp=Z,0.7nm,0.8s,baz=276,slow=4.9,SNR=7.7 | | | | | | |
| **PLCA** | **Paso Flores** | **121.68** | **146** | PKP | **PKPdf** | **20 27 07.6** | **-2.1** |
| | comp=Z,1.6nm,0.7s,baz=230,slow=3.7,SNR=5.4 | | | | | | |
| **LPAZ** | **La Paz** | **137.87** | **122** | PKP | **PKPdf** | **20 27 40.2** | **-1.4** |
| | comp=Z,1.2nm,0.8s,baz=283,slow=2.8,SNR=4.0 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **146.25** | **285** | PKPbc | **PKPbc** | **20 27 56.6** | **-0.5** |
| | comp=Z,2.7nm,0.9s,baz=50,slow=2.9,SNR=14 | | | | | | |
| **PTGA** | **Pitinga** | **151.07** | **102** | PKPbc | **PKPbc** | **20 28 09.4** | **-0.2** |
| | comp=Z,8.7nm,0.8s,baz=264,slow=5.3,SNR=13 | | | | | | |

*IDC* ***18*** *20:14:06.7±1.0,6°.17N×82°.76W, h0km, mb3.9/8, mb1 4.1/11, mb1mx3.9/39, mbtmp4.0/11, ML2.4/2, MS3.8/20, Ms1 3.8/20, ms1mx3.7/28, Error ellipse: s-maj=33.0km s-min=17.7km az=50.0*

*ISCJB* ***18*** *20:14:07.0±0.5,6°.12N±0°.03×82°.64W±0°.03, h14km, mb4.0/10, MS3.7/15, Error ellipse: s-maj=5.8km s-min=3.8km az=40.9*

*GCMT* ***18*** *20:14:08.1±0.3,6°.03N×82°.54W, h26km±1km, MW5.0/87, Moment Tensor Solution. s24,c27; s87,c118; Duration: 0 Moment tensor: Scale 10^16Nm; Mrr-0.01±.14; Mθθ-0.40±.11; Mφφ0.40±.14; Mrθ0.07±.19; Mφφ3.25±.10; Mθr0.48±.22; Best double couple: M0 3.31100×10^16 NP1:φ356.00000°,δ88.00000°,λ172.00000°. NP2: φ87.00000°,δ82.00000°,λ2.00000°. Principal axes: T 3.3300, Plg7.0000°, Azm311.0000°; N -0.0390, Plg82.0000°, Azm165.0000°; P -3.2910, Plg5.0000°, Azm42.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*CASC* ***18*** *20:14:08.1±1.8,6°.15N×82°.62W, h12km±35km, MD4.4, mb4.6(NEIC)*

*NEIC* ***18*** *20:14:08.1±0.6,6°.18N×82°.75W, h10km, mb4.6/4, Error ellipse: s-maj=14.9km s-min=10.0km az=217.0*

**ISC 18 20:14:08.9±0.7,6°.13N±0°.07×82°.62W±0°.06, h14km, n57, σ1°§44/53, mb4.1/10, MS3.7/15, 1C-1D, South of Panama**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **MAPC** | **Malpelo** | **2.34** | **154** | *e*P | | Pn | 20 14 39.5 | -7.6 |
| **TBS2** | | **2.64** | **359** | *e*S | | **Sn** | **20 15 23.7** | **+0.4** |
| **BRU2** | **Volcan** | **2.65** | **359** | *e*P | | **Pn** | **20 14 50.1** | **-1.2** |
| BRU2 | | | | *e*S | | **Sn** | **20 15 22.6** | **-0.7** |
| **AZU** | **Azuero** | **2.85** | **55** | ⇓*i*P | | **Pn** | **20 14 52.4** | **-1.7** |
| AZU | | | | *e*S | | **Sn** | **20 15 26.7** | **-1.5** |
| **DRK0** | **Durika** | **3.17** | **349** | *e*P | | **Pn** | **20 14 57.7** | **-0.9** |
| **QCR1** | **Quepos** | **3.61** | **335** | *e*P | | **Pn** | **20 15 02.7** | **-1.8** |
| **LCR2** | **La Lucha 2** | **3.84** | **339** | ⇑*i*P | | **Pn** | **20 15 06.0** | **-1.8** |
| LCR2 | | | | *e*S | | **Sn** | **20 15 53.5** | **+0.6** |
| **ZANG** | **Zanguenga, Cho** | **3.92** | **44** | *e*P | | **Pn** | **20 15 08.4** | **-0.3** |
| ZANG | | | | *e*S | | **Sn** | **20 15 55.6** | **+1.1** |
| **VTR0** | **Volcan Turrial** | **4.02** | **344** | *e*P | | **Pn** | **20 15 10.9** | **+0.4** |
| **CVTR** | **Volcan Turrial** | **4.02** | **344** | *e*P | | **Pn** | **20 15 10.3** | **-0.2** |
| CVTR | | | | *e*S | | **Sn** | **20 15 59.2** | **+1.5** |
| **SJS** | **Escuela Geolog** | **4.04** | **340** | *e*P | | **Pn** | **20 15 10.1** | **-0.4** |
| SJS | | | | *e*S | | **Sn** | **20 15 59.0** | **+1.3** |
| **BCIP** | **Isla Barro Col** | **4.09** | **42** | *e*Pn | | **Pn** | **20 15 10.5** | **-0.5** |
| **BCIP** | **Isla Barro Col** | **4.09** | **42** | *e*P | | **Pn** | **20 15 11.0** | **0.0** |
| BCIP | | | | *e*S | | **Sn** | **20 15 58.4** | **-0.2** |
| **HDC** | **Heredia** | **4.12** | **339** | *i*P | | **Pn** | **20 15 10.7** | **-0.9** |
| HDC | | | | *e*S | | **Sn** | **20 15 59.0** | **-0.6** |
| **UPA** | **Univ. de Panam** | **4.17** | **47** | *e*P | | **Pn** | **20 15 12.5** | **+0.3** |
| UPA | | | | *e*S | | **Sn** | **20 16 01.6** | **+0.9** |
| **CGA2** | **Cerro Gallo 2** | **4.27** | **335** | *e*P | | **Pn** | **20 15 12.6** | **-1.1** |
| **JTS** | **JuntasAbangare** | **4.73** | **331** | *e*Pn | | **Pn** | **20 15 15.8** | **-4.1** |
| JTS | | | | *e*Sn | | **Sn** | **20 16 14.0** | **-0.6** |
| **ARE1** | **Arenal 1** | **4.78** | **334** | *e*P | | **Pn** | **20 15 20.4** | **-0.1** |
| ARE1 | | | | *e*S | | **Sn** | **20 16 20.8** | **+5.1** |
| **PLVR** | **Palo Verde** | **4.98** | **327** | *e*P | | **Pn** | **20 15 22.6** | **-0.9** |
| PLVR | | | | *e*S | | **Sn** | **20 16 21.8** | **+0.7** |
| **GUYC** | **Guyana, Colomb** | **7.25** | **97** | *e*P | | **Pn** | **20 15 55.7** | **+0.8** |
| **MOTC** | **Monteria, Cord** | **7.38** | **69** | *e*P | | **Pn** | **20 15 58.0** | **+1.7** |
| **TOLC** | **Tolima** | **7.43** | **102** | *e*P | | **Pn** | **20 15 57.5** | **+0.2** |
| **PRAC** | **Prado** | **8.07** | **107** | *e*P | | **Pn** | **20 16 06.8** | **+1.0** |
| **ROSC** | **El Rosal** | **8.36** | **98** | Pn | | **Pn** | **20 16 11.3** | **+1.1** |
| | 0.6nm,0.3s,baz=175,slow=10,SNR=2.9 | | | | | | | |
| ROSC | | | | LR | | LR | 20 18 53.9 | |
| | comp=Z,472nm,18.1s,baz=292,slow=34 | | | | | | | |
| **SDV** | **Santo Domingo** | **12.20** | **76** | Pn | | **Pn** | **20 17 04.3** | **+1.7** |
| | 0.3nm,0.3s,baz=280,slow=9.7,SNR=6.3 | | | | | | | |
| SDV | | | | LR | | LR | 20 21 47.7 | |
| | comp=Z,436nm,19.3s,baz=230,slow=37 | | | | | | | |
| **SDV** | **Santo Domingo** | **12.20** | **76** | *e*Pn | | **Pn** | **20 17 04.5** | **+2.0** |
| **ATAH** | **Atahualpa** | **13.84** | **162** | LR | | LR | 20 22 08.8 | |
| | comp=Z,1μm,21.1s,baz=338,slow=35 | | | | | | | |
| **CMIG** | **Matias Romero** | **16.20** | **313** | Pn | | **P** | **20 18 01.5** | **+2.1** |
| | 0.7nm,0.3s,baz=126,slow=8.9,SNR=7.5 | | | | | | | |
| CMIG | | | | LR | | LR | 20 23 20.4 | |
| | comp=Z,388nm,20.2s,baz=145,slow=34 | | | | | | | |
| **PCRV** | **Puerto La Cruz** | **18.25** | **76** | LR | | LR | 20 26 12.3 | |
| | comp=Z,328nm,21.3s,baz=263,slow=39 | | | | | | | |
| **NNA** | **Nana** | **18.90** | **162** | P | | **P** | **20 18 29.4** | **+0.1** |
| | 0.7nm,0.3s,baz=329,slow=11,SNR=4.8 | | | | | | | |
| NNA | | | | LR | | LR | 20 25 01.9 | |
| | comp=Z,169nm,21.2s,baz=314,slow=34 | | | | | | | |
| **NNA** | **Nana** | **18.90** | **162** | P | | **P** | **20 18 29.4** | **+0.1** |
| | 6.7nm,0.9s | | | | | | | |
| **SJG** | **San Juan** | **20.00** | **52** | P | | **Pn** | **20 18 42.6** | **-0.5** |
| | 11nm,0.8s,baz=259,slow=11,SNR=3.1 | | | | | | | |
| SJG | | | | LR | | LR | 20 25 35.7 | |
| | comp=Z,213nm,21.3s,baz=262,slow=34 | | | | | | | |
| **PTGA** | **Pitinga** | **23.62** | **106** | LR | | LR | 20 28 32.8 | |
| | comp=Z,427nm,18.6s,baz=280,slow=36 | | | | | | | |
| **LPAZ** | **La Paz** | **26.49** | **147** | P | | **P** | **20 19 48.0** | **+1.3** |
| | 2.3nm,1.1s,baz=291,slow=4.0,SNR=5.8 | | | | | | | |
| LPAZ | | | | LR | | LR | 20 31 14.0 | |
| | comp=Z,711nm,19.9s,baz=312,slow=39 | | | | | | | |
| **TKL** | **Tuckaleechee C** | **29.40** | **358** | LR | | LR | 20 32 06.1 | |
| | comp=Z,151nm,18.2s,baz=180,slow=37 | | | | | | | |
| **TXAR** | **Lajitas Array** | **30.45** | **322** | P | | **P** | **20 20 21.0** | **-0.4** |
| | 0.4nm,0.8s,baz=148,slow=7.5,SNR=3.6 | | | | | | | |
| TXAR | | | | LR | | LR | 20 33 09.9 | |
| | comp=Z,94nm,18.9s,baz=0.0,slow=38 | | | | | | | |
| **121A** | **Cookes Peak, D** | **35.21** | **321** | *e*P | | **P** | **20 21 01.2** | **-1.9** |
| | 11nm,1.0s | | | | | | | |
| **W18A** | **Petrified Fore** | **38.16** | **323** | *e*P | | **P** | **20 21 29.1** | **+1.0** |
| | 13nm,1.2s | | | | | | | |
| **MVCO** | **Mesa Verde** | **38.91** | **326** | *e*P | | **P** | **20 21 35.6** | **+1.1** |
| | 19nm,1.6s | | | | | | | |
| **CPUP** | **Villa Florida** | **40.54** | **144** | LR | | LR | 20 39 28.8 | |
| | comp=Z,161nm,21.9s,baz=328,slow=37 | | | | | | | |
| **PDAR** | **Pinedale Array** | **43.56** | **331** | LR | | LR | 20 42 28.0 | |
| | comp=Z,141nm,18.4s,baz=145,slow=39 | | | | | | | |
| **ULM** | **Lac du Bonnet** | **45.35** | **348** | P | | **P** | **20 22 24.5** | **-2.1** |
| | 2.5nm,0.6s,baz=158,slow=8.2,SNR=8.2 | | | | | | | |
| ULM | | | | LR | | LR | 20 41 58.3 | |
| | comp=Z,59nm,19.8s,baz=104,slow=37 | | | | | | | |
| **SCHQ** | **Schefferville** | **50.20** | **12** | LR | | LR | 20 49 03.1 | |
| | comp=Z,29nm,18.1s,baz=154,slow=42 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **60.95** | **344** | P | | **P** | **20 24 20.8** | **-0.5** |
| | 0.6nm,0.7s,baz=139,slow=6.6,SNR=14 | | | | | | | |
| YKA | | | | LR | | LR | 20 53 09.1 | |
| | comp=Z,4.8nm,18.7s,baz=180,slow=38 | | | | | | | |
| **PPT** | **Papeete** | **70.15** | **249** | LR | | LR | 20 47 45.2 | |
| | comp=Z,112nm,18.6s,baz=18,slow=29 | | | | | | | |
| **PPT2** | **Papeete2** | **70.16** | **249** | *e*LR | | LR | 20 46 36.7 | |
| | 91nm,23.5s | | | | | | | |
| **INK** | **Inuvik** | **70.63** | **342** | P | | **P** | **20 25 23.6** | **0.0** |
| | 2.5nm,0.9s,baz=129,slow=5.7,SNR=7.2 | | | | | | | |
| **TBI** | **Tubuai** | **71.48** | **243** | *e*LR | | LR | 20 47 11.4 | |
| | 160nm,33.2s | | | | | | | |
| **ILAR** | **Eielson Array** | **73.68** | **336** | P | | **P** | **20 25 42.2** | **+0.2** |
| | 0.4nm,0.7s,baz=120,slow=4.7,SNR=4.0 | | | | | | | |
| ILAR | | | | LR | | LR | 21 02 07.0 | |
| | comp=Z,67nm,18.6s,baz=124,slow=39 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **83.11** | **78** | P | | **P** | **20 26 35.8** | **+0.8** |
| | 0.8nm,1.1s,baz=289,slow=5.2,SNR=2.8 | | | | | | | |
| TORD | | | | LR | | LR | 21 03 37.5 | |
| | comp=Z,38nm,20.8s,baz=185,slow=36 | | | | | | | |
| **GERES** | **GERESS Array B** | **89.58** | **41** | LR | | LR | 21 00 33.2 | |
| | comp=Z,42nm,20.4s,baz=262,slow=31 | | | | | | | |
| **FINES** | **FINESS Array B** | **93.45** | **27** | LR | | LR | 21 10 53.0 | |
| | comp=Z,25nm,18.6s,baz=221,slow=36 | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **107.44** | **291** | T | | T | 22 28 31.1 | |
| | baz=77,slow=75,SNR=8.1 | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **107.44** | **291** | T | | T | 22 28 30.7 | |
| | baz=77,slow=75,SNR=7.0 | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **107.45** | **291** | T | | T | 22 28 31.8 | |
| | baz=77,slow=75,SNR=6.6 | | | | | | | |
| **ASAR** | **Alice Springs** | **140.80** | **240** | PKP | | **PKPdf** | **20 33 38.6** | **-0.8** |
| | 0.9nm,1.0s,baz=93,slow=1.9,SNR=3.0 | | | | | | | |
| **WRA** | **Warramunga Arr** | **141.58** | **246** | PKP | | **PKPdf** | **20 33 38.8** | **-2.0** |
| | 1.0nm,1.0s,baz=78,slow=2.3,SNR=3.8 | | | | | | | |

**IDC 18 20:15:36.2±33.0,16°.87S×172°.98E, h0km, mb4.0/4, mb1 4.1/4, mb1mx3.6/41, mbtmp4.0/4, MS3.8/3, Ms1 3.8/3, ms1mx2.9/32, Error ellipse: s-maj=581.6km s-min=122.6km az=77.0, Vanuatu Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **STKA** | **Stephens Creek** | **32.12** | **236** | P | | P | 20 22 04.0 | -1.4 |
| | 0.6nm,0.6s,baz=56,slow=11,SNR=3.0 | | | | | | | |
| **WRA** | **Warramunga Arr** | **36.74** | **259** | P | | P | 20 22 45.4 | -0.3 |
| | 0.4nm,0.3s,baz=88,slow=8.2,SNR=27 | | | | | | | |
| **ASAR** | **Alice Springs** | **37.19** | **253** | P | | P | 20 22 48.9 | -0.6 |
| | 3.5nm,0.4s,baz=80,slow=8.8,SNR=50 | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **45.08** | **261** | P | | P | 20 23 56.0 | +1.6 |
| | 1.4nm,0.9s,baz=79,slow=5.6,SNR=7.0 | | | | | | | |
| **JHJ** | **Hachijo jima 2** | **58.96** | **328** | LR | | LR | 20 49 24.2 | |
| | comp=Z,131nm,19.2s,baz=185,slow=34 | | | | | | | |
| **TLY** | **Talaya** | **90.88** | **324** | LR | | LR | 21 07 35.0 | |
| | comp=Z,38nm,20.6s,baz=328,slow=34 | | | | | | | |
| **TXAR** | **Lajitas Array** | **92.51** | **60** | LR | | LR | 21 04 16.9 | |
| | comp=Z,30nm,19.5s,baz=0.0,slow=32 | | | | | | | |

*ISCJB* ***18*** *20:21:58.2±0.7,14°.8N±0°.1×54°.7E±0°.1, h10km, mb4.0/16, MS3.1/10, Error ellipse: s-maj=15.0km s-min=13.9km az=154.6*

*IDC* ***18*** *20:21:58.5±1.0,14°.81N×54°.78E, h0km, mb3.8/13, mb1 3.9/14, mb1mx3.7/58, mbtmp3.8/14, ML2.9/1, MS3.3/12, Ms1 3.3/12, ms1mx3.0/48, Error ellipse: s-maj=24.1km s-min=18.7km az=28.0*

*CSEM* ***18*** *20:21:59.6, 14°.78N×54°.66E, h10km, mb4.2/1*

*NEIC* ***18*** *20:21:59.6±0.8, 14°.78N×54°.66E, h10km, mb4.2/1, Error ellipse: s-maj=16.9km s-min=15.0km az=167.0*

**ISC 18 20:22:00.1±0.8,14°.8N±0°.1×54°.69E±0°.1, h10km, n32, σ1°§78/21, mb3.9/16, MS3.2/10, Owen Fracture Zone region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **WSAR** | **Wadi Sarin** | **9.18** | **23** | Pn | | **Pn** | **20 24 13.2** | **+0.5** |
| | 0.1nm,0.3s,baz=249,slow=14,SNR=3.0 | | | | | | | |
| WSAR | | | | LR | | LR | 20 27 34.0 | |
| | comp=Z,242nm,20.8s,baz=173,slow=37 | | | | | | | |
| **ATD** | **Arta Tunnel** | **11.98** | **256** | LR | | LR | 20 28 18.2 | |
| | comp=Z,278nm,20.2s,baz=99,slow=32 | | | | | | | |
| **RAYN** | **Ar Rayn** | **12.26** | **316** | *e*Pn | | **Pn** | **20 24 52.7** | **-2.3** |
| | 6.2nm,0.6s | | | | | | | |
| **RAYN** | **Ar Rayn** | **12.26** | **316** | *e*Pn | | **Pn** | **20 24 52.6** | **-2.3** |
| | 6.2nm,0.6s | | | | | | | |
| **GEYT** | **Alibeck** | **23.23** | **7** | P | | **P** | **20 27 07.7** | **+0.2** |
| | 2.4nm,0.7s,baz=214,slow=10,SNR=11 | | | | | | | |
| GEYT | | | | LR | | LR | 20 37 52.9 | |
| | comp=Z,114nm,20.3s,baz=85,slow=41 | | | | | | | |
| **KMBO** | **Kilima Mbogo** | **23.42** | **229** | P | | **P** | **20 27 12.7** | **+2.8** |
| | 0.5nm,0.4s,baz=50,slow=12,SNR=3.7 | | | | | | | |
| KMBO | | | | LR | | LR | 20 36 01.2 | |
| | comp=Z,84nm,18.2s,baz=102,slow=36 | | | | | | | |
| **KMBO** | **Kilima Mbogo** | **23.42** | **229** | *e*P | | **P** | **20 27 07.8** | **-2.1** |
| | 1.1nm,0.2s | | | | | | | |
| **KMBO** | **Kilima Mbogo** | **23.42** | **229** | *e*P | | **P** | **20 27 07.8** | **-2.1** |
| | 1.1nm,0.2s | | | | | | | |
| **EIL** | **Elat** | **23.45** | **312** | LR | | LR | 20 36 27.9 | |
| | comp=Z,39nm,21.7s,baz=36,slow=37 | | | | | | | |
| **MMAI** | **Mount Meron Ar** | **25.21** | **319** | P | | **P** | **20 27 29.1** | **+2.9** |
| | 2.3nm,0.7s,baz=138,slow=13,SNR=3.9 | | | | | | | |
| MMAI | | | | LR | | LR | 20 38 43.8 | |
| | comp=Z,39nm,18.3s,baz=5.0,slow=40 | | | | | | | |
| **H08N2** | **Diego Garcia H** | **26.50** | **141** | T | | T | 20 55 33.7 | |
| | baz=323,slow=76,SNR=45 | | | | | | | |
| **H08N3** | **Diego Garcia H** | **26.51** | **141** | T | | T | 20 55 34.8 | |
| | baz=323,slow=76,SNR=47 | | | | | | | |
| **H08N1** | **Diego Carcia H** | **26.52** | **141** | T | | T | 20 55 35.4 | |
| | baz=323,slow=76,SNR=42 | | | | | | | |
| **PALK** | **Pallekele** | **26.59** | **104** | LR | | LR | 20 36 04.4 | |
| | comp=Z,55nm,18.4s,baz=296,slow=32 | | | | | | | |
| **GNI** | **Garni** | **26.70** | **343** | LR | | LR | 20 40 17.5 | |
| | comp=Z,87nm,19.3s,baz=129,slow=41 | | | | | | | |
| **BRTR** | **Keskin Array B** | **30.93** | **327** | LR | | LR | 20 42 15.9 | |
| | comp=Z,51nm,18.7s,baz=102,slow=39 | | | | | | | |
| **MKAR** | **Makanchi Array** | **39.34** | **30** | P | | **P** | **20 29 28.6** | **-1.0** |
| | 0.9nm,0.6s,baz=211,slow=9.0,SNR=11 | | | | | | | |
| MKAR | | | | LR | | LR | 20 46 34.5 | |
| | comp=Z,62nm,20.6s,baz=188,slow=38 | | | | | | | |
| **BVAR** | **Borovoye Array** | **40.11** | **15** | P | | **P** | **20 29 34.6** | **-1.3** |
| | 0.6nm,0.7s,baz=190,slow=7.4,SNR=5.8 | | | | | | | |
| **AKASG** | **Malin Array Be** | **41.30** | **336** | P | | **P** | **20 29 47.3** | **+1.7** |
| | 0.7nm,0.6s,baz=147,slow=7.1,SNR=4.3 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **42.48** | **79** | P | | **P** | **20 29 56.8** | **+0.9** |
| | 1.3nm,0.8s,baz=278,slow=9.9,SNR=7.0 | | | | | | | |
| CMAR | | | | LR | | LR | 20 46 44.4 | |
| | comp=Z,9.6nm,20.1s,baz=300,slow=35 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **45.63** | **25** | P | | **P** | **20 30 18.3** | **-2.2** |
| | 0.9nm,0.7s,baz=227,slow=7.9,SNR=4.1 | | | | | | | |
| ZALV | | | | LR | | LR | 20 50 29.1 | |
| | comp=Z,20nm,18.2s,baz=245,slow=38 | | | | | | | |
| **FINES** | **FINESS Array B** | **50.90** | **343** | P | | **P** | **20 31 02.3** | **+1.2** |
| | 5.2nm,1.0s,baz=187,slow=3.1,SNR=6.0 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **51.35** | **275** | P | | **P** | **20 31 07.3** | **+1.9** |
| | 0.4nm,1.0s,baz=93,slow=7.2,SNR=2.3 | | | | | | | |
| **SONM** | **Songino Array** | **53.73** | **41** | P | | **P** | **20 31 23.6** | **+0.9** |
| | 0.9nm,1.0s,baz=245,slow=6.4,SNR=4.1 | | | | | | | |
| **ESDC** | **Sonseca Array** | **56.64** | **308** | P | | **P** | **20 31 42.8** | **-0.9** |
| | 0.4nm,0.5s,baz=83,slow=6.8,SNR=4.1 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **57.67** | **348** | P | | **P** | **20 31 49.3** | **-1.1** |
| | 1.3nm,0.5s,baz=152,slow=5.5,SNR=14 | | | | | | | |
| **TGY** | **Tagaytay City** | **63.93** | **81** | P | | **P** | **20 32 33.9** | **-0.1** |
| | 243nm,0.5s,baz=234,slow=12,SNR=4.6 | | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **74.95** | **133** | T | | T | 21 55 17.9 | |
| | baz=301,slow=75,SNR=9.9 | | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **74.96** | **133** | T | | T | 21 55 21.0 | |
| | baz=301,slow=75,SNR=10 | | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **74.97** | **133** | T | | T | 21 55 25.3 | |
| | baz=301,slow=75,SNR=11 | | | | | | | |
| **WRA** | **Warramunga Arr** | **85.56** | **112** | P | | **P** | **20 34 38.1** | **-1.1** |
| | 0.8nm,0.8s,baz=306,slow=4.1,SNR=4.2 | | | | | | | |
| **ASAR** | **Alice Springs** | **86.30** | **116** | P | | **P** | **20 34 41.8** | **-1.0** |
| | 1.0nm,0.7s,baz=292,slow=4.5,SNR=14 | | | | | | | |

*IDC* ***18*** *20:25:34.9±2.6,2°.40S×140°.51E, h0km, mb3.7/4, mb1 4.0/5, mb1mx3.5/36, mbtmp3.8/5, ML3.9/1, MS3.4/3, Ms1 3.4/3, ms1mx2.7/38, Error ellipse: s-maj=92.0km s-min=23.0km az=94.0*

**ISC 18 20:25:41.0±2.9,2°.6S±0°.1×139°.8E±0°.7, h24km, n15, σ2°§36/7, mb3.8/3, Near north coast of Irian Jaya**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **9.94** | **133** | | | LR | 20 32 51.6 | |
| | comp=Z,88nm,19.3s,baz=67,slow=46 | | | | | | | |
| **WRA** | **Warramunga Arr** | **18.06** | **197** | P | | **P** | **20 29 52.3** | **+1.5** |
| | 0.4nm,0.3s,baz=22,slow=12,SNR=9.8 | | | | | | | |
| WRA | | | | S | | **Sn** | **20 33 08.2** | **-3.2** |
| | 0.0nm,0.3s,baz=16,slow=21,SNR=3.9 | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **20.77** | **221** | P | | **P** | **20 30 22.3** | **+1.9** |
| | 2.0nm,0.7s,baz=27,slow=11,SNR=3.0 | | | | | | | |
| **ASAR** | **Alice Springs** | **21.72** | **195** | P | | **P** | **20 30 32.4** | **+1.8** |
| | 1.8nm,0.5s,baz=26,slow=10,SNR=34 | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **33.73** | **51** | T | | T | 21 07 23.3 | |
| | baz=231,slow=75,SNR=11 | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **33.74** | **51** | T | | T | 21 07 25.0 | |
| | baz=231,slow=75,SNR=8.4 | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **33.75** | **51** | T | | T | 21 07 24.6 | |
| | baz=231,slow=75,SNR=9.3 | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **34.60** | **49** | T | | T | 21 08 28.5 | |
| | baz=233,slow=75,SNR=11 | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **34.62** | **49** | T | | T | 21 08 32.7 | |
| | baz=233,slow=75,SNR=16 | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **34.62** | **49** | T | | T | 21 08 34.2 | |
| | baz=233,slow=75,SNR=8.0 | | | | | | | |
| **MKAR** | **Makanchi Array** | **70.39** | **322** | P | | **P** | **20 36 53.1** | **0.0** |
| | 0.8nm,0.8s,baz=101,slow=7.7,SNR=7.0 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **72.41** | **329** | P | | **P** | **20 37 03.5** | **-1.6** |
| | 0.3nm,0.3s,baz=125,slow=7.2,SNR=3.2 | | | | | | | |
| **TIXI** | **Tiksi** | **74.46** | **356** | LR | | LR | 21 08 10.6 | |
| | comp=Z,51nm,20.0s,baz=263,slow=34 | | | | | | | |
| **ATD** | **Arta Tunnel** | **97.36** | **281** | LR | | LR | 21 23 23.2 | |
| | comp=Z,22nm,20.1s,slow=35 | | | | | | | |
| **DBIC** | **Dimbokro** | **144.59** | **278** | PKPbc | | **PKPab** | **20 45 14.9** | **-0.4** |
| | 1.9nm,0.8s,baz=27,slow=2.3,SNR=3.7 | | | | | | | |

*NIED* ***18*** *20:36:00, 37°.50N×137°.20E, h5km, Mw3.8 Best double

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| RTLL | | | | *i* S | Sn | 20 45 23.4 | -1.1 |
| **AUSP** | **Uspallata** | **0.71** | **226** | *i* P | Pn | 20 45 20.3 | -0.1 |
| **AMOG** | **MOGNA** | **0.82** | **18** | *i* P | Pn | 20 45 22.0 | +0.3 |
| **ACAN** | **Cantantal** | **1.47** | **112** | *i* P | Pb | 20 45 32.6 | +0.4 |

**SJA 18 20:58:36.3±0.4, 31°.86S × 69°.32W, h108km±4km, ML2.0, MW3.6, San Juan Province**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RTLS** | **Leoncito** | **0.07** | **19** | *i* P | Pn | 20 58 52.7 | +1.1 |
| RTLS | | | | *i* S | Sn | 20 59 04.7 | +1.5 |
| RTLS | | | | IAML | | 20 59 05.0 | |
| | comp=Z,42nm,0.2s | | | | | | |
| **AUSP** | **Uspallata** | **0.37** | **189** | *i* P | Pn | 20 58 53.5 | +0.9 |
| **RTCV** | **Cerro Valdivia** | **0.67** | **90** | *i* P | Pn | 20 58 55.0 | +0.7 |
| **AMOG** | **MOGNA** | **1.16** | **38** | *i* P | Pn | 20 58 60.0 | +0.8 |

*IDC **18** 21:04:05.2±2.3, 8°.10S × 106°.72E, h0km, mb3.8/7, mb1 4.0/7, mb1mx3.7/37, mbtmp3.8/7, MS2.7/1, Ms1 2.7/1, ms1mx2.3/49, Error ellipse: s-maj=110.7km s-min=16.6km az=53.0*

*ISCJB **18** 21:04:13.5±0.7, 8°.20S±0°.06 × 107°.21E±0°.06, h46km, mb3.7/6, MS2.5/1, Error ellipse: s-maj=10.7km s-min=5.7km az=37.6*

*DJA **18** 21:04:13.6±0.8, 8°.5S × 10°.7E±°, h13km±5km, M4.7/12, mb5.2/1, MLv4.5/12*

**ISC 18 21:04:14.0±0.9, 8°.09S±0°.10 × 107°.24E±0°.06, h46km, n19, σ2s22/23, mb3.6/6, Jawa**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CISI** | **Cisompet, Garu** | **0.78** | **47** | P | **Pn** | **21 04 29.6** | **+0.9** |
| CISI | | | | S | **Sn** | **21 04 40.0** | **+0.6** |
| **CNJI** | **Cibinong** | **0.79** | **352** | P | **Pn** | **21 04 29.9** | **+1.2** |
| **SKJI** | **Sukabumi** | **1.27** | **328** | P | **Pn** | **21 04 36.8** | **+1.4** |
| SKJI | | | | S | **Sn** | **21 04 52.3** | **+1.0** |
| **DBJI** | **Dramaga** | **1.60** | **342** | P | **Pn** | **21 04 42.2** | **+2.3** |
| **KPJI** | **Karang Pucung** | **1.84** | **66** | P | **Pn** | **21 04 44.9** | **+1.9** |
| **SBJI** | **Serang** | **2.25** | **331** | P | **Pn** | **21 04 51.4** | **+2.7** |
| **UGM** | **Wanagama** | **3.26** | **87** | P | **Pn** | **21 05 04.5** | **+1.9** |
| **SMRI** | **Semarang** | **3.34** | **72** | P | **Pn** | **21 05 06.6** | **+2.9** |
| **PCJI** | **Pacitan** | **3.90** | **92** | P | **Pn** | **21 05 13.6** | **+2.2** |
| **LWLI** | **Liwa** | **4.39** | **314** | P | **Pn** | **21 05 20.1** | **+1.8** |
| **PWJI** | **Pagerwojo** | **4.52** | **89** | P | **Pn** | **21 05 21.4** | **+1.5** |
| **MNAI** | **Manna** | **5.65** | **311** | P | **Pn** | **21 05 36.7** | **+1.3** |
| **FITZ** | **Fitzroy Crossi** | **20.48** | **121** | P | **P** | **21 08 50.0** | **+1.9** |
| | 7.3nm,0.7s,baz=288,slow=7.1,SNR=23 | | | | | | |
| FITZ | | | | S | **S** | **21 12 29.4** | **-5.4** |
| | 1.0nm,0.5s,baz=18,slow=20,SNR=4.3 | | | | | | |
| FITZ | | | | LR | LR | 21 16 31.4 | |
| | comp=Z,23nm,21.9s,baz=18,slow=36 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **27.62** | **343** | P | **P** | **21 09 53.6** | **-3.7** |
| | 0.5nm,0.6s,baz=182,slow=9.2,SNR=5.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **28.76** | **117** | P | **P** | **21 10 08.1** | **+0.5** |
| | 1.3nm,0.6s,baz=291,slow=10,SNR=19 | | | | | | |
| WRA | | | | PcP | **PcP** | **21 13 16.7** | **-0.3** |
| | 0.4nm,0.6s,baz=303,slow=2.1,SNR=4.6 | | | | | | |
| **ASAR** | **Alice Springs** | **29.87** | **124** | P | **P** | **21 10 17.4** | **-0.1** |
| | 0.7nm,0.6s,baz=300,slow=8.6,SNR=12 | | | | | | |
| **STKA** | **Stephens Creek** | **39.74** | **131** | P | **P** | **21 11 43.9** | **+1.5** |
| | 6.5nm,0.6s,baz=305,slow=7.1,SNR=27 | | | | | | |
| **SONM** | **Songino Array** | **55.69** | **359** | P | **P** | **21 13 44.3** | **-1.4** |
| | 0.2nm,0.5s,baz=181,slow=8.6,SNR=2.7 | | | | | | |
| SONM | | | | PcP | **PcP** | **21 14 43.8** | **-0.9** |
| | 0.3nm,0.7s,baz=173,slow=5.1,SNR=8.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **58.99** | **340** | P | P | 21 14 03.5 | -5.3 |
| | 0.4nm,0.8s,baz=140,slow=9.8,SNR=3.0 | | | | | | |

*IDC **18** 21:19:35.1±4.8, 35°.63N × 70°.80E, h74km±32km, mb3.6/7, mb1 3.5/13, mb1mx3.2/57, mbtmp3.8/13, MS3.4/2, Ms1 3.4/2, ms1mx2.5/52, Error ellipse: s-maj=52.4km s-min=23.7km az=150.0*

*ISCJB **18** 21:19:38.0±0.5, 36°.00N±0°.05 × 70°.60E±0°.07, h110km, mb3.6/6, Error ellipse: s-maj=9.1km s-min=5.4km az=144.9*

*NNC **18** 21:19:44.2±3.0, 36°.47N × 70°.40E, h147km±28km, mb3.0, mpv3.8, Error ellipse: s-maj=28.1km s-min=14.3km az=168.0*

**ISC 18 21:19:39.5±0.8, 36°.04N±0°.07 × 70°.56E±0°.07, h110km, n29, σ2s35/34, mb3.6/6, 6C-6D, Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZET** | **Dzherino** | **3.08** | **334** | ⇓P | **Pn** | **21 20 26.1** | **-0.6** |
| | 8.8nm,0.2s | | | | | | |
| DZET | | | | ⇑S | **Sn** | **21 21 01.2** | **-1.9** |
| | 46nm,0.4s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **4.59** | **30** | ⇑P | **Pn** | **21 20 48.5** | **+1.5** |
| | 13nm,0.3s | | | | | | |
| SFK | | | | ⇓S | **Sn** | **21 21 39.6** | **+0.1** |
| | 17nm,0.3s | | | | | | |
| **MNAS** | **Manas** | **6.61** | **13** | ⇓P | **Pn** | **21 21 14.0** | **-0.2** |
| | 1.9nm,0.4s | | | | | | |
| MNAS | | | | ⇑S | **Sn** | **21 22 25.2** | **-2.9** |
| | 17nm,0.6s | | | | | | |
| **KK31** | **Karatay Array** | **7.05** | **360** | P | **Pn** | **21 21 19.1** | **-1.0** |
| | 2.2nm,0.3s,baz=178,slow=13,SNR=52 | | | | | | |
| KK31 | | | | ⇑S | **Sn** | **21 22 34.8** | **-3.8** |
| | 3.3nm,0.3s,baz=181,slow=22,SNR=5.4 | | | | | | |
| **AAK** | **Ala-Archa** | **7.25** | **24** | P | **Pn** | **21 21 23.1** | **+0.1** |
| | 1.2nm,0.3s,baz=190,slow=4.4,SNR=18 | | | | | | |
| AAK | | | | S | **Sn** | **21 22 40.6** | **-3.3** |
| | 1.8nm,0.3s,baz=128,slow=19,SNR=13 | | | | | | |
| **AAK** | **Ala-Archa** | **7.25** | **24** | ⇑P | **Pn** | **21 21 23.2** | **+0.2** |
| | 1.7nm,0.3s | | | | | | |
| AAK | | | | ⇑S | **Sn** | **21 22 40.1** | **-3.7** |
| | 11nm,0.6s | | | | | | |
| **GEYT** | **Alibeck** | **10.13** | **284** | P | **Pn** | **21 22 01.9** | **+0.1** |
| | 0.4nm,0.3s,baz=115,slow=10,SNR=6.1 | | | | | | |
| GEYT | | | | S | **Sn** | **21 23 48.8** | **-4.7** |
| | 0.7nm,0.3s,baz=123,slow=24,SNR=5.8 | | | | | | |
| **PYUN** | **Piuthan** | **13.18** | **123** | *e*P | **Pn** | **21 22 38.5** | **-4.1** |
| | 7.6nm,0.6s | | | | | | |
| PYUN | | | | *e*S | Sn | 21 24 57.6 | -10 |
| **KOLN** | **Koldanda** | **13.80** | **123** | *e*P | **Pn** | **21 22 47.7** | **-3.0** |
| | 4.8nm,0.6s | | | | | | |
| **MKAR** | **Makanchi Array** | **13.87** | **36** | P | **Pn** | **21 22 52.5** | **+1.3** |
| | 0.1nm,0.3s,baz=220,slow=15,SNR=3.3 | | | | | | |
| **KKN** | **Kakani** | **14.95** | **119** | *e*P | **Pn** | **21 23 03.3** | **-2.1** |
| | 5.0nm,0.5s | | | | | | |
| **PKIN** | **Phulchoki** | **15.16** | **120** | *e*P | **Pn** | **21 23 06.4** | **-1.7** |
| | 6.5nm,0.5s | | | | | | |
| **PKI** | **Pulchoki** | **15.18** | **120** | *e*P | **Pn** | **21 23 06.4** | **-1.9** |
| | 4.9nm,0.5s | | | | | | |
| **GUN** | **Gumba** | **15.31** | **118** | *e*P | **Pn** | **21 23 08.8** | **-1.2** |
| | 3.9nm,0.3s | | | | | | |
| **AB31** | **Akbulak array** | **15.32** | **333** | ⇓P | **Pn** | **21 23 08.4** | **-1.2** |
| | 2.9nm,0.3s | | | | | | |
| AB31 | | | | ⇓S | Sn | 21 25 46.1 | -13 |
| | 1.3nm,0.5s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **15.67** | **19** | P | **Pn** | **21 23 13.7** | **-0.3** |
| | 0.1nm,0.3s,baz=207,slow=12,SNR=3.6 | | | | | | |
| **JIRN** | **Jiri** | **15.68** | **118** | *e*P | **Pn** | **21 23 13.3** | **-1.4** |
| **TAPN** | **Taplejung** | **16.96** | **116** | *e*P | **P** | **21 23 30.8** | **+0.3** |
| | 5.1nm,0.4s | | | | | | |
| **BVAR** | **Borovoye Array** | **16.98** | **360** | P | **P** | **21 23 32.0** | **+1.8** |
| | 0.2nm,0.3s,baz=167,slow=11,SNR=4.5 | | | | | | |
| **AKTO** | **Aktyubinsk** | **17.00** | **332** | P | **P** | **21 23 32.2** | **+1.6** |
| | 0.2nm,0.3s,baz=144,slow=14,SNR=7.3 | | | | | | |
| AKTO | | | | LR | LR | 21 30 15.4 | |
| | comp=Z,66nm,19.6s,baz=358,slow=37 | | | | | | |
| **AKTO** | **Aktyubinsk** | **17.00** | **332** | ⇓P | **P** | **21 23 31.3** | **+0.8** |
| | 1.5nm,0.6s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **20.48** | **25** | P | Pn | 21 24 09.6 | -1.9 |
| | 3.1nm,0.4s,baz=223,slow=11,SNR=15 | | | | | | |
| **ARU** | **Arti** | **21.95** | **342** | P | **P** | **21 24 27.3** | **+3.2** |
| | 1.0nm,0.5s,baz=252,slow=6.4,SNR=4.2 | | | | | | |
| **FINES** | **FINESS Array B** | **37.66** | **327** | P | **P** | **21 26 47.3** | **+3.6** |
| | 6.7nm,1.0s,baz=126,slow=9.7,SNR=4.4 | | | | | | |
| **ARCES** | **ARCESS Array B** | **41.43** | **338** | P | **P** | **21 27 18.1** | **+3.3** |
| | 0.9nm,0.6s,baz=108,slow=7.8,SNR=7.2 | | | | | | |
| **NOA** | **NORSAR Array B** | **44.53** | **323** | P | **P** | **21 27 42.2** | **+2.3** |
| | 0.2nm,0.4s,baz=104,slow=8.2,SNR=3.2 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **53.45** | **68** | LR | LR | 21 52 56.5 | |
| | comp=Z,59nm,19.0s,baz=160,slow=37 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **65.35** | **269** | P | **P** | **21 30 10.8** | **+0.5** |
| | 0.2nm,0.5s,baz=46,slow=6.5,SNR=5.6 | | | | | | |
| **INK** | **Inuvik** | **74.41** | **9** | P | **P** | **21 31 06.7** | **+1.8** |
| | 1.0nm,0.6s,baz=1.1,slow=5.4,SNR=4.9 | | | | | | |

*NDI **18** 21:35:23.6±2.3, 28°.06N × 88°.24E, h15km±12km, ML3.7*

*IDC **18** 21:35:24.3±4.3, 27°.63N × 87°.95E, h46km±43km, mb3.5/12, mb1 3.6/15, mb1mx3.3/70, mbtmp3.7/15, ML3.7/2, MS3.6/1, Ms1 3.6/1, ms1mx2.4/38, Error ellipse: s-maj=32.9km s-min=12.7km az=62.0*

*ISCJB **18** 21:35:25.2±0.4, 27°.79N±0°.07 × 88°.19E±0°.03, h77km±7km, mb3.7/12, Error ellipse: s-maj=12.0km s-min=3.5km az=13.5*

*DMN **18** 21:35:26.8±0.0, 27°.73N × 88°.16E, h60km, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

**ISC 18 21:35:25.5±0.8, 27°.86N±0°.07 × 88°.21E±0°.03, h57km±11km, n41, σ1s50/59, mb3.8/12, Sikkim**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GTK** | **Tadong** | **0.65** | **147** | *e*P | **Pn** | **21 35 40.2** | **+1.1** |
| GTK | | | | *e*S | **Sn** | **21 35 50.4** | **+1.5** |
| GTK | | | | AML | AML | 21 35 51.0 | |
| | comp=E,4μm,0.1s | | | | | | |
| GTK | | | | AML | AML | 21 35 51.2 | |
| | comp=N,3μm,0.1s | | | | | | |
| **TAPN** | **Taplejung** | **0.67** | **221** | *e*Pg | **Pn** | **21 35 40.8** | **+1.3** |
| TAPN | | | | *e*Sg | **Sn** | **21 35 50.4** | **+0.7** |
| **ODAN** | **Odare** | **1.23** | **216** | *e*Pg | **Pn** | **21 35 47.6** | **+0.8** |
| ODAN | | | | *e*Sg | **Sn** | **21 36 02.7** | **+0.1** |
| | comp=N,4μm,0.2s | | | | | | |
| **RAMN** | **Ramite** | **1.69** | **238** | *e*Pg | **Pn** | **21 35 53.3** | **+0.3** |
| RAMN | | | | *e*Sg | **Sn** | **21 36 13.2** | **-0.5** |
| | comp=N,1μm,0.5s | | | | | | |
| **JIRN** | **Jiri** | **1.80** | **264** | *e*Pg | **Pn** | **21 35 56.1** | **+1.6** |
| **GUN** | **Gumba** | **2.06** | **272** | *e*Pg | **Pn** | **21 35 59.8** | **+1.7** |
| GUN | | | | *e*Sg | **Sn** | **21 36 23.9** | **+1.1** |
| | comp=N,604nm,0.3s | | | | | | |
| **DHUB** | **DHUBRI** | **2.43** | **139** | *e*P | **Pn** | **21 36 03.8** | **+1.0** |
| DHUB | | | | AML | AML | 21 36 35.1 | |
| | comp=N,612nm,0.3s | | | | | | |
| DHUB | | | | AML | AML | 21 36 35.3 | |
| | comp=E,837nm,0.1s | | | | | | |
| **PKI** | **Pulchoki** | **2.50** | **264** | *e*Pg | **Pn** | **21 36 05.1** | **+1.1** |
| PKI | | | | *e*Sg | **Sn** | **21 36 32.9** | **-0.6** |
| | comp=E,611nm,0.3s | | | | | | |
| **PKIN** | **Phulchoki** | **2.51** | **264** | *e*Pg | **Pn** | **21 36 05.1** | **+1.0** |
| PKIN | | | | *e*Sg | **Sn** | **21 36 33.1** | **-0.5** |
| | comp=E,624nm,0.2s | | | | | | |
| **KKN** | **Kakani** | **2.59** | **269** | *e*Pg | **Pn** | **21 36 06.6** | **+1.4** |
| KKN | | | | *e*Sg | **Sn** | **21 36 35.9** | **+0.3** |
| | comp=E,386nm,0.2s | | | | | | |
| **DMN** | **Daman** | **2.76** | **265** | *e*Pg | **Pn** | **21 36 08.5** | **+1.0** |
| DMN | | | | *e*Sg | **Sn** | **21 36 38.9** | **-0.9** |
| | comp=E,204nm,0.2s | | | | | | |
| **GKN** | **Gorkha** | **3.16** | **273** | *e*Pn | **Pn** | **21 36 14.3** | **+1.4** |
| GKN | | | | *e*Sn | **Sn** | **21 36 48.8** | **-0.7** |
| **GUWA** | **GUWAHATI** | **3.52** | **117** | *e*P | **Pn** | **21 36 18.9** | **+1.1** |
| GUWA | | | | *e*S | **Sn** | **21 36 58.8** | **+0.5** |
| GUWA | | | | AML | AML | 21 37 02.1 | |
| | comp=E,326nm,0.1s | | | | | | |
| **DANN** | **Dangsing** | **3.96** | **278** | *e*Pn | **Pn** | **21 36 23.9** | **-0.1** |
| DANN | | | | *e*Sn | **Sn** | **21 37 06.6** | **-2.7** |
| **SHL** | **Shillong** | **4.00** | **124** | *e*PN | **Pn** | **21 36 26.0** | **+1.5** |
| SHL | | | | AML | AML | 21 37 11.8 | |
| | comp=N,175nm,0.2s | | | | | | |
| SHL | | | | *ex* | x | 21 37 12.0 | |
| SHL | | | | AML | AML | 21 37 12.4 | |
| | comp=E,199nm,0.3s | | | | | | |
| **KOLN** | **Koldanda** | **4.08** | **270** | *e*Pn | **Pn** | **21 36 25.9** | **+0.3** |
| KOLN | | | | *e*Sn | **Sn** | **21 37 10.1** | **-2.1** |
| | comp=E,181nm,0.2s | | | | | | |
| **TEZP** | **TEZPUR** | **4.27** | **106** | *e*P | **Pn** | **21 36 28.2** | **+0.2** |
| TEZP | | | | *e*S | **Sn** | **21 37 14.1** | **-2.5** |
| **PYUN** | **Piuthan** | **4.62** | **274** | *e*Pn | **Pn** | **21 36 32.5** | **-0.5** |
| PYUN | | | | *e*Sn | **Sn** | **21 37 22.6** | **-2.8** |
| | comp=E,207nm,0.3s | | | | | | |
| **ZIRO** | **ZIRO** | **5.02** | **93** | *e*P | **Pn** | **21 36 38.9** | **+0.5** |
| ZIRO | | | | *e*S | **Sn** | **21 37 33.2** | **-1.9** |
| **MOKO** | **MOKOCHONG** | **5.83** | **104** | *e*P | **Pn** | **21 36 48.7** | **-0.8** |
| MOKO | | | | *e*S | **Sn** | **21 37 51.3** | **-3.8** |
| MOKO | | | | AML | AML | 21 37 56.5 | |
| | comp=E,164nm,0.4s | | | | | | |
| MOKO | | | | AML | AML | 21 37 57.5 | |
| | comp=N,162nm,0.5s | | | | | | |
| **IMP** | **Imphal** | **5.97** | **119** | *e*P | **Pn** | **21 36 52.9** | **+1.6** |
| IMP | | | | *e*S | **Sn** | **21 37 58.4** | **0.0** |
| IMP | | | | AML | AML | 21 38 01.6 | |
| | comp=E,43nm,0.4s | | | | | | |
| IMP | | | | AML | AML | 21 38 02.1 | |
| | comp=N,36nm,0.5s | | | | | | |
| **SMLA** | **Simla** | **10.15** | **291** | *e*P | **Pn** | **21 37 46.7** | **-1.9** |
| **THN** | **Thein Dam** | **11.73** | **296** | *e*P | **Pn** | **21 38 08.0** | **-2.0** |
| THN | | | | *e*S | Sn | 21 40 10.0 | -9.4 |
| **CMAR** | **Chiang Mai Arr** | **13.60** | **131** | P | **Pn** | **21 38 34.1** | **-1.6** |
| | baz=317,slow=14,SNR=2.9 | | | | | | |
| **THW** | **Thamme Wali** | **15.04** | **293** | P | Pn | **21 38 51.2** | **-3.4** |
| **CEP** | **Cherat** | **15.20** | **297** | P | Pn | **21 38 54.1** | **-2.7** |
| CEP | | | | S | Sn | 21 41 31.0 | -13 |
| **AAK** | **Ala-Archa** | **18.48** | **326** | P | **Pn** | **21 39 38.8** | **+1.3** |
| | comp=N,0.1nm,0.3s,baz=209,slow=3.2,SNR=5.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **19.46** | **348** | P | **Pn** | **21 39 48.7** | **-0.5** |
| | comp=N,0.6nm,0.3s,baz=174,slow=9.8,SNR=32 | | | | | | |
| MKAR | | | | S | **Sn** | **21 43 29.2** | **+2.4** |
| | comp=N,0.2nm,0.3s,baz=167,slow=15,SNR=11 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **23.89** | **345** | P | **P** | **21 40 35.1** | **+1.3** |
| | comp=N,2.4nm,0.6s,baz=165,slow=8.9,SNR=21 | | | | | | |
| **SONM** | **Songino Array** | **24.46** | **31** | P | **P** | **21 40 41.7** | **+2.5** |
| | comp=N,0.4nm,0.7s,baz=225,slow=10,SNR=3.9 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **26.18** | **355** | P | **P** | **21 40 56.0** | **+1.5** |
| | comp=N,0.9nm,0.3s,baz=178,slow=8.9,SNR=7.4 | | | | | | |
| **BVAR** | **Borovoye Array** | **28.40** | **337** | P | **P** | **21 41 15.4** | **+1.0** |
| | comp=N,0.3nm,0.3s,baz=137,slow=9.5,SNR=5.7 | | | | | | |
| **EIL** | **Elat** | **46.37** | **286** | LR | LR | 22 04 35.4 | |
| | comp=N,65nm,20.8s,baz=244,slow=38 | | | | | | |
| **AKASG** | **Malin Array Be** | **49.54** | **314** | P | **P** | **21 44 10.1** | **-0.4** |
| | comp=N,0.3nm,0.4s,baz=83,slow=7.6,SNR=3.2 | | | | | | |
| **FINES** | **FINESS Array B** | **52.66** | **328** | P | **P** | **21 44 33.3** | **-0.4** |
| | comp=N,3.1nm,0.8s,baz=126,slow=9.7,SNR=4.7 | | | | | | |
| **ARCES** | **ARCESS Array B** | **54.69** | **337** | P | **P** | **21 44 49.1** | **+0.7** |
| | comp=N,2.3nm,1.0s,baz=105,slow=7.6,SNR=13 | | | | | | |
| **HFS** | **Hagfors** | **58.61** | **326** | P | **P** | **21 45 16.3** | **-0.1** |
| | comp=N,0.8nm,0.4s,baz=83,slow=15,SNR=3.2 | | | | | | |
| **GERES** | **GERESS Array B** | **59.65** | **312** | P | **P** | **21 45 24.3** | **+0.4** |
| | comp=N,0.4nm,0.6s,baz=178,slow=6.7,SNR=3.8 | | | | | | |
| **NOA** | **NORSAR Array B** | **59.79** | **327** | P | **P** | **21 45 24.7** | **+0.1** |
| | comp=N,0.8nm,0.9s,baz=90,slow=5.2,SNR=2.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **65.19** | **132** | P | **P** | **21 46 01.5** | **+0.4** |
| | comp=N,0.3nm,0.5s,baz=325,slow=6.6,SNR=3.1 | | | | | | |
| **ASAR** | **Alice Springs** | **67.58** | **135** | P | **P** | **21 46 16.3** | **0.0** |
| | comp=N,0.3nm,0.4s,baz=314,slow=6.2,SNR=5.4 | | | | | | |

*IDC **18** 21:41:46.3±0.7, 15°.74N × 147°.32E, h0km, mb4.0/19, mb1 4.1/19, mb1mx3.9/58, mbtmp4.0/19, MS3.1/2, Ms1 3.2/2, ms1mx2.6/41, Error ellipse: s-maj=25.7km s-min=15.5km az=87.0*

*ISCJB **18** 21:41:49.4±0.5, 15°.76N±0°.06 × 147°.44E±0°.08, h38km, mb4.3/33, MS3.2/2, Error ellipse: s-maj=11.4km s-min=9.3km az=176.4*

*NEIC **18** 21:41:51.4±2.0, 15°.78N × 147°.39E, h37km±17km, mb4.7/15, Error ellipse: s-maj=11.8km s-min=9.3km az=98.0*

**ISC 18 21:41:51.2±0.6, 15°.68N±0°.10 × 147°.4E±0°.1, h38km, n63, σ1s38/53, mb4.4/33, Mariana Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SARN** | **Sarigan** | **1.82** | **304** | *e*Pn | **Pn** | **21 42 21.4** | **+1.4** |
| **PATS** | **Pohnpei** | **13.88** | **128** | *e*Pn | Pn | 21 44 59.4 | -6.0 |
| PATS | | | | *e*Sn | Sn | 21 47 21.1 | -17 |
| **H11S3** | **WAKE ISLAND Hy** | **18.69** | **79** | T | T | 22 05 19.6 | |
| | baz=302,slow=74,SNR=23 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **18.70** | **79** | T | T | 22 06 17.0 | |
| | SNR=172 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **18.71** | **79** | T | T | 22 05 19.8 | |
| | baz=266,slow=74,SNR=15 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **19.04** | **75** | T | T | 22 05 42.5 | |
| | baz=260,slow=75,SNR=12 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **19.05** | **75** | T | T | 22 05 43.1 | |
| | baz=260,slow=75,SNR=5.8 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **19.06** | **75** | T | T | 22 05 43.9 | |
| | baz=260,slow=75,SNR=14 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **22.31** | **340** | P | **P** | **21 46 44.8** | **-0.7** |
| | 1.9nm,0.7s,baz=168,slow=9.6,SNR=8.1 | | | | | | |
| **MAJO** | **Matsushiro** | **22.32** | **340** | *e*P | **P** | **21 46 41.4** | **-4.1** |
| | 28nm,1.5s | | | | | | |
| **MJB9** | **Matsu-Tunnel** | **22.32** | **340** | *e*P | **P** | **21 46 41.4** | **-4.1** |
| | 70nm,1.9s | | | | | | |
| **NACB** | **Ninganchiao** | **25.61** | **293** | *e*P | **P** | **21 47 14.6** | **-2.6** |
| | 49nm,1.3s | | | | | | |
| **YHNB** | **Yeheng** | **25.93** | **294** | *e*P | **P** | **21 47 18.9** | **-1.3** |
| | 222nm,1.7s | | | | | | |
| **KSRS** | **Korea Array** | **27.68** | **325** | P | **P** | **21 47 35.5** | **-0.1** |
| | 0.6nm,0.4s,baz=140,slow=8.0,SNR=4.3 | | | | | | |
| **KS15** | **Wonju Array Si** | **27.69** | **325** | *e*P | **P** | **21 47 35.5** | **-0.2** |
| **KSAR** | **Wonju Array Be** | **27.69** | **325** | P | **P** | **21 47 35.5** | **-0.2** |
| **ASAJ** | **Asahikawa** | **28.63** | **353** | P | **P** | **21 47 45.9** | **+1.9** |
| | 6.5nm,0.7s,baz=82,slow=7.1,SNR=4.4 | | | | | | |
| **ASAJ** | **Asahikawa** | **28.63** | **353** | *e*P | **P** | **21 47 42.1** | **-1.9** |
| | 21nm,1.3s | | | | | | |
| **MYLDM** | **Lahad Datu** | **30.19** | **253** | *e*P | **P** | **21 47 55.5** | **-2.7** |
| | 15nm,1.2s | | | | | | |
| **KLR** | **Kul'dur** | **35.80** | **342** | P | **P** | **21 48 46.7** | **-0.1** |
| | 0.3nm,0.6s,baz=135,slow=6.8,SNR=12 | | | | | | |
| **WR1** | **Warramunga Arr** | **37.64** | **200** | *e*P | **P** | **21 49 03.0** | **+0.3** |
| | 30nm,1.9s | | | | | | |
| **WRA** | **Warramunga Arr** | **37.64** | **200** | P | **P** | **21 49 03.0** | **+0.3** |
| | 0.5nm,0.3s,baz=11,slow=14,SNR=9.6 | | | | | | |
| **PETK** | **Petropavlovsk-** | **38.22** | **10** | LR | LR | 22 04 52.3 | |
| | comp=Z,25nm,19.5s,baz=165,slow=36 | | | | | | |
| **AS31** | **Alice Springs** | **41.26** | **199** | *e*P | **P** | **21 49 34.9** | **+2.0** |
| | 1.1nm,1.2s | | | | | | |
| **ASAR** | **Alice Springs** | **41.26** | **199** | P | **P** | **21 49 34.9** | **+2.0** |
| | 0.3nm,0.6s,baz=27,slow=7.5,SNR=4.2 | | | | | | |
| **CHTO** | **Chiang Mai** | **46.23** | **281** | *e*P | **P** | **21 50 13.7** | **+0.7** |
| | 12nm,1.6s | | | | | | |
| **CM31** | **Chiang Mai Arr** | **46.26** | **281** | *e*P | **P** | **21 50 14.2** | **+0.9** |
| **CMAR** | **Chiang Mai Arr** | **46.26** | **281** | P | **P** | **21 50 14.2** | **+0.9** |
| | 1.5nm,0.8s,baz=79,slow=6.3,SNR=9.8 | | | | | | |
| **SONA0** | **Songino Array** | **46.48** | **322** | *e*P | **P** | **21 50 14.4** | **-0.3** |
| **SONM** | **Songino Array** | **46.48** | **322** | P | **P** | **21 50 14.4** | **-0.3** |
| | 1.2nm,0.6s,baz=133,slow=8.8,SNR=11 | | | | | | |
| **SONA1** | **Songino Array** | **46.48** | **322** | *e*P | **P** | **21 50 14.3** | **-0.4** |
| **STKA** | **Stephens Creek** | **47.61** | **187** | P | **P** | **21 50 23.7** | **+0.3** |
| | 1.0nm,0.5s,baz=8.7,slow=13,SNR=4.4 | | | | | | |
| **STKA** | **Stephens Creek** | **47.61** | **187** | *e*P | **P** | **21 50 21.7** | **-1.7** |
| | 5.7nm,1.8s | | | | | | |
| **LSA** | **Lhasa** | **53.23** | **295** | *e*P | **P** | **21 51 06.2** | **-0.5** |
| | 2.5nm,0.9s | | | | | | |
| **STCH** | **Steam Cracks** | **54.77** | **77** | *e*P | **P** | **21 51 15.5** | **-2.1** |
| | 238nm,1.3s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **61.36** | **323** | P | **P** | **21 52 03.0** | **-0.1** |
| | 0.4nm,0.3s,baz=108,slow=13,SNR=3.6 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **61.36** | **323** | *e*P | **P** | **21 52 03.0** | **-0.1** |
| **MK01** | **Makanchi Array** | **61.68** | **315** | *e*P | **P** | **21 52 06.1** | **+0.7** |
| **MK31** | **Makanchi Array** | **61.69** | **315** | *e*P | **P** | **21 52 05.7** | **+0.1** |
| **MK32** | **Makanchi Array** | **61.69** | **315** | *e*P | **P** | **21 52 06.2** | **+0.7** |
| **MKAR** | **Makanchi Array** | **61.69** | **315** | P | **P** | **21 52 06.2** | **+0.7** |
| | 1.0nm,0.7s,baz=86,slow=8.8,SNR=9.5 | | | | | | |
| **KURK** | **Kurchatov** | **64.57** | **319** | *e*P | **P** | **21 52 23.5** | **-1.0** |
| | 5.5nm,0.8s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **64.61** | **319** | P | **P** | **21 52 25.0** | **+0.2** |
| | 9.3nm,0.7s,baz=98,slow=6.7,SNR=62 | | | | | | |
| **SCM** | **Sheep Creek Mo** | **64.70** | **28** | *e*P | **P** | **21 52 24.4** | **-0.8** |
| | 214nm,1.8s | | | | | | |
| **DHY** | **Denali Highway** | **65.00** | **27** | *e*P | **P** | **21 52 25.3** | **-2.0** |
| | 27nm,0.8s | | | | | | |
| **IL1** | **Eielson Array** | **65.66** | **25** | *e*P | **P** | **21 52 30.6** | **-0.7** |
| **ILAR** | **Eielson Array** | **65.66** | **25** | P | **P** | **21 52 31.1** | **-0.1** |
| | 0.5nm,0.7s,baz=246,slow=6.6,SNR=5.8 | | | | | | |
| **ILB** | **Eielson Array** | **65.66** | **25** | *e*P | **P** | **21 52 31.1** | **-0.1** |
| **BVAR** | **Borovoye Array** | **69.80** | **321** | P | **P** | **21 52 58.0** | **+0.4** |
| | 2.5nm,0.7s,baz=97,slow=7.5,SNR=19 | | | | | | |
| **BRVK** | **Borovoye** | **69.86** | **321** | *e*P | **P** | **21 52 58.4** | **+0.4** |
| | 3.0nm,0.8s | | | | | | |
| **INK** | **Inuvik** | **71.52** | **23** | P | **P** | **21 53 08.5** | **+0.7** |
| | 0.7nm,0.6s,baz=290,slow=8.8,SNR=3.8 | | | | | | |
| **INK** | **Inuvik** | **71.52** | **23** | *e*P | **P** | **21 53 08.5** | **+0.7** |
| | 30nm,2.0s | | | | | | |
| **ARU** | **Arti** | **76.43** | **325** | P | **P** | **21 53 36.9** | **+0.2** |
| | 3.1nm,0.6s,baz=81,slow=5.1,SNR=8.4 | | | | | | |
| **ARU** | **Arti** | **76.43** | **325** | *e*P | **P** | **21 53 38.5** | **+1.8** |
| | 3.4nm,0.7s | | | | | | |
| **YKA** | **Yellowknife Ar** | **79.90** | **28** | P | **P** | **21 53 56.8** | **+1.0** |
| | 0.3nm,0.7s,baz=284,slow=5.0,SNR=4.5 | | | | | | |
| **YKB5** | **Yellowknife Ar** | **79.90** | **28** | *e*P | **P** | **21 53 56.8** | **+1.0** |
| **ARA0** | **ARCESS Array S** | **85.83** | **343** | *e*P | **P** | **21 54 27.4** | **+

comp=E,18μm,0.2s
VAY eLg Lg 21 56 30.1
comp=N,12μm,0.2s
**KNT Kendrikon 0.20 132** P **Pg** **21 56 29.6 +0.1**
KNT S **Sg** **21 56 32.1 -0.3**
KNT AML AML 21 56 33.0
comp=N,92039μm,0.3s
KNT AML AML 21 56 33.6
comp=E,20036μm,0.3s
**KNT Kendrikon 0.20 132** P **Pg** **21 56 29.6 +0.1**
KNT S **Sg** **21 56 32.5 +0.1**
**KNT Kendrikon 0.20 132** P **Pg** **21 56 29.6 +0.1**
KNT S **Sg** **21 56 32.5 +0.1**
**GRG Griva 0.41 215** P **Pg** **21 56 33.4 +0.1**
GRG S **Sg** **21 56 38.7 0.0**
GRG AML AML 21 56 39.3
comp=N,11680μm,0.3s
GRG AML AML 21 56 39.8
comp=E,10129μm,0.2s
**GRG Griva 0.41 215** P **Pg** **21 56 33.2 -0.1**
GRG S **Sg** **21 56 38.7 0.0**
**GRG Griva 0.41 215** P **Pg** **21 56 33.2 -0.1**
GRG S **Sg** **21 56 39.4 +0.7**
**SOH Sokhos 0.68 134** P **Pb** **21 56 38.4 -0.6**
SOH S **Sb** **21 56 47.4 -0.9**
SOH AML AML 21 56 49.8
comp=N,6383μm,0.4s
SOH AML AML 21 56 50.6
comp=E,6121μm,0.4s
**SOH Sokhos 0.68 134** P **Pg** **21 56 38.1 -0.3**
SOH S **Sb** **21 56 47.4 -0.9**
**SOH Sokhos 0.68 134** P **Pg** **21 56 38.1 -0.3**
SOH S **Sb** **21 56 47.4 -0.9**
**THE Thessaloniki 0.69 163** P **Pb** **21 56 38.7 -0.4**
THE AML AML 21 56 48.9
comp=E,1484μm,0.4s
THE S **Sb** **21 56 49.2 +0.7**
THE AML AML 21 56 51.8
comp=N,964μm,0.3s
**THE Thessaloniki 0.69 163** P **Pg** **21 56 38.4 -0.1**
THE S **Sb** **21 56 48.5 0.0**
**THE Thessaloniki 0.69 163** P **Pg** **21 56 38.4 -0.1**
THE S **Sb** **21 56 48.5 0.0**
**HORT Hortiatis 0.76 157** P **Pb** **21 56 40.3 0.0**
HORT S **Sb** **21 56 51.0 +0.5**
HORT AML AML 21 56 51.6
comp=N,1347μm,0.6s
HORT AML AML 21 56 53.4
comp=E,1273μm,0.2s
**HORT Hortiatis 0.76 157** P **Pb** **21 56 39.7 -0.6**
HORT S **Sb** **21 56 50.4 -0.2**
**HORT Hortiatis 0.76 157** P **Pb** **21 56 39.7 -0.6**
HORT S **Sb** **21 56 50.4 -0.2**
**NVR Nevrokopi 0.87 86** P **Pb** **21 56 41.8 -0.5**
NVR S **Sb** **21 56 53.7 -0.2**
NVR AML AML 21 56 57.1
comp=E,1456μm,0.4s
NVR AML AML 21 56 57.2
comp=N,1150μm,0.4s
**NVR Nevrokopi 0.87 86** P **Pg** **21 56 41.5 -0.5**
NVR S **Sb** **21 56 53.6 -0.3**
**NVR Nevrokopi 0.87 86** P **Pg** **21 56 41.5 -0.5**
NVR S **Sb** **21 56 53.6 -0.3**
**PLG Polygyros 1.07 148** P **Pb** **21 56 45.4 -0.3**
PLG S **Sb** **21 56 59.5 -0.2**
PLG AML AML 21 57 03.2
comp=E,944μm,0.2s
PLG AML AML 21 57 04.5
comp=N,1096μm,0.3s
**PLG Polygyros 1.07 148** P **Pb** **21 56 45.4 -0.3**
PLG S **Sb** **21 56 59.5 -0.2**
**PLG Polygyros 1.07 148** P **Pg** **21 56 45.3 -0.6**
PLG S **Sn** **21 57 00.0 -0.1**
**BIA Bitola 1.08 256** ⇓ *i*Pg **Pg** **21 56 45.7 -0.3**
BIA *i* Sg **Sb** **21 57 01.3 +1.4**
**KRUS Krusevo 1.10 274** ⇑ *i*Pg **Pg** **21 56 45.4 -1.0**
KRUS *i* Sg **Sg** **21 56 59.8 -0.9**
**FNA Florina 1.13 244** P **Pg** **21 56 45.7 -1.2**
FNA S **Sn** **21 57 03.5 +1.3**
FNA AML AML 21 57 08.3
comp=N,947μm,0.4s
FNA AML AML 21 57 09.0
comp=E,761μm,0.3s
**FNA Florina 1.13 244** P **Pg** **21 56 46.0 -0.9**
FNA S **Sn** **21 57 03.5 +1.3**
**FNA Florina 1.13 244** P **Pg** **21 56 46.0 -0.9**
**SKO Skopje 1.17 306** P **Pg** **21 56 46.8 -0.9**
SKO S **Sb** **21 57 03.2 +0.8**
**SKO Skopje 1.17 306** P **Pg** **21 56 46.8 -0.9**
SKO S **Sb** **21 57 03.2 +0.8**
**SKO Skopje 1.17 306** *i* Pg **Pg** **21 56 47.4 -0.2**
SKO *e*Sg **Sg** **21 57 02.5 -0.3**
**LIT Litokhoron 1.20 188** P **Pg** **21 56 46.4 -1.9**
LIT S **Sb** **21 57 03.7 +0.4**
LIT AML AML 21 57 07.5
comp=E,390μm,0.3s
LIT AML AML 21 57 08.6
comp=N,325μm,0.3s
**LIT Litokhoron 1.20 188** P **Pg** **21 56 47.0 -1.3**
LIT S **Sb** **21 57 03.7 +0.4**
**LIT Litokhoron 1.20 188** P **Pg** **21 56 47.0 -1.3**
**KZN Kozani 1.21 216** P **Pg** **21 56 47.1 -1.4**
KZN S **Sg** **21 57 03.8 -0.5**
KZN AML AML 21 57 09.3
comp=E,894μm,0.5s
KZN AML AML 21 57 13.7
comp=N,528μm,0.5s
**KZN Kozani 1.21 216** P **Pg** **21 56 47.9 -0.6**
KZN S **Sg** **21 57 03.8 -0.5**
**KZN Kozani 1.21 216** P **Pg** **21 56 47.9 -0.6**
**VTS Vitosha 1.35 16** *e*Pn **Pb** **21 56 50.5 0.0**
VTS *e*Sg **Sg** **21 57 07.0 -1.8**
**VTS Vitosha 1.35 16** ⇑ *i*P **Pb** **21 56 50.6 0.0**
VTS S **Sn** **21 57 09.4 +1.4**
**VTS Vitosha 1.35 16** P **Pn** **21 56 50.2 +0.2**
**VTS Vitosha 1.35 16** *e*Pn **Pb** **21 56 50.5 0.0**
VTS *e*Sg **Sg** **21 57 07.0 -1.8**
VTS S **Sn** **21 57 08.7 +0.7**
**VTS Vitosha 1.35 16** P **Pn** **21 56 50.2 +0.2**
VTS S **Sn** **21 57 08.7 +0.7**
**OUR Ouranopolis 1.36 134** P **Pb** **21 56 50.5 -0.1**
OUR S **Sn** **21 57 09.7 +1.8**
OUR AML AML 21 57 11.9
comp=N,2029μm,0.6s
OUR AML AML 21 57 13.1
comp=E,1318μm,0.4s
**OUR Ouranopolis 1.36 134** P **Pb** **21 56 50.4 -0.1**
OUR S **Sn** **21 57 09.7 +1.8**
**OUR Ouranopolis 1.36 134** P **Pb** **21 56 50.4 -0.1**
**KAVA Kavala 1.40 102** P **Pb** **21 56 50.9 -0.3**
KAVA S **Sn** **21 57 10.2 +1.4**
KAVA AML AML 21 57 12.3
comp=N,2073μm,0.4s
KAVA AML AML 21 57 12.3
comp=E,948μm,0.6s
**KAVA Kavala 1.40 102** P **Pn** **21 56 50.8 +0.3**
KAVA S **Sn** **21 57 10.2 +1.4**
**KAVA Kavala 1.40 102** P **Pn** **21 56 50.8 +0.3**
**OHR Ohrid 1.45 263** *i* Pn **Pn** **21 56 51.5 +0.3**
OHR *i* Sg **Sg** **21 57 13.1 +1.2**
OHR *e*Lg Lg 21 57 14.4
comp=N,84nm,0.8s
OHR *e*Lg Lg 21 57 14.5
comp=E,53nm,0.4s
**NEST Nestorio 1.53 236** P **Pn** **21 56 53.4 +0.9**
NEST S **Sn** **21 57 12.6 +0.3**
NEST AML AML 21 57 23.5
comp=N,408μm,0.8s
NEST AML AML 21 57 26.7
comp=E,350μm,0.5s
**NEST Nestorio 1.53 236** P **Pn** **21 56 53.3 +0.9**
NEST S **Sn** **21 57 12.6 +0.3**
**NEST Nestorio 1.53 236** P **Pn** **21 56 53.3 +0.9**
**PAIG Paliouri 1.55 151** P **Pn** **21 56 52.3 -0.3**
PAIG AML AML 21 57 19.5
comp=N,634μm,0.6s
PAIG AML AML 21 57 22.7
comp=E,580μm,0.5s
**PAIG Paliouri 1.55 151** P **Pn** **21 56 52.9 +0.3**
**PAIG Paliouri 1.55 151** P **Pn** **21 56 52.9 +0.3**
**PENT Pentalofos 1.62 228** P **Pn** **21 56 54.2 +0.6**
PENT S **Sg** **21 57 17.0 -0.2**
PENT AML AML 21 57 24.2
comp=N,354μm,0.7s
PENT AML AML 21 57 25.8
comp=E,276μm,0.8s
**PENT Pentalofos 1.62 228** P **Pn** **21 56 54.2 +0.6**
PENT S **Sg** **21 57 17.0 -0.2**
**PENT Pentalofos 1.62 228** P **Pn** **21 56 54.2 +0.6**
**BARS Barje 1.66 337** *e*Pn **Pn** **21 56 54.2 +0.1**
BARS *e*Sg **Sb** **21 57 17.7 +1.1**
**BARS Barje 1.66 337** *e*Pn **Pn** **21 56 54.2 +0.1**
BARS *e*Sg **Sb** **21 57 17.7 +1.1**
**KPRO Kipourio 1.68 218** P **Pb** **21 56 56.2 +0.2**
KPRO AML AML 21 57 29.2
comp=E,260μm,0.6s
KPRO AML AML 21 57 33.1
comp=N,292μm,1.1s
**KPRO Kipourio 1.68 218** P **Pn** **21 56 55.6 +1.1**
**KPRO Kipourio 1.68 218** P **Pn** **21 56 55.6 +1.1**
**PLD Plovdiv 1.70 61** *e*Pn **Pn** **21 56 54.6 -0.1**
PLD *e*Sg **Sn** **21 57 17.0 +0.7**
**PLD Plovdiv 1.70 61** *e*Pn **Pn** **21 56 54.6 -0.1**
PLD *e*Sg **Sn** **21 57 17.0 +0.7**
**THL Klokotos Trika 1.81 197** P **Pn** **21 56 56.1 0.0**
THL AML AML 21 57 26.0
comp=N,119μm,0.7s
THL AML AML 21 57 28.1
comp=E,237μm,0.7s
**THL Klokotos Trika 1.81 197** P **Pn** **21 56 56.6 +0.5**
**THL Klokotos Trika 1.81 197** P **Pn** **21 56 56.6 +0.5**
**FYTO Fytoko, Volos 1.89 175** P **Pn** **21 56 55.9 -1.4**
**FYTO Fytoko, Volos 1.89 175** P **Pn** **21 56 55.9 -1.4**
**XOR Xorichti 1.96 169** P **Pn** **21 56 57.2 -1.0**
XOR AML AML 21 57 29.8
comp=N,194μm,0.6s
XOR AML AML 21 57 30.9
comp=E,154μm,0.6s
**XOR Xorichti 1.96 169** P **Pn** **21 56 57.8 -0.4**
**XOR Xorichti 1.96 169** P **Pn** **21 56 57.8 -0.4**
**ZAPS Zavoj 1.98 358** *e*Pn **Pn** **21 56 59.2 +0.6**
ZAPS *e*Sg **Sb** **21 57 27.1 +1.3**
**NEO Neokhori 2.02 169** P **Pn** **21 56 58.3 -0.8**
**NEO Neokhori 2.02 169** P **Pn** **21 56 58.3 -0.8**
**RDO Rodhopi 2.14 93** P **Pn** **21 57 00.7 0.0**
RDO S **Sn** **21 57 27.3 +0.1**
RDO AML AML 21 57 36.8
comp=E,546μm,0.5s
RDO AML AML 21 57 37.1
comp=N,436μm,0.5s
**RDO Rodhopi 2.14 93** P **Pn** **21 57 01.1 +0.4**
RDO S **Sn** **21 57 27.3 +0.1**
**RDO Rodhopi 2.14 93** P **Pn** **21 57 01.1 +0.4**
**TIR Tirane 2.14 272** *e*Pn **Pn** **21 57 02.3 +1.6**
**TIR Tirane 2.14 272** *e*Pn **Pn** **21 57 02.3 +1.6**
**SKIA Skiathos 2.20 164** P **Pn** **21 57 00.9 -0.6**
**SKIA Skiathos 2.20 164** P **Pn** **21 57 00.9 -0.6**
**SELS Selova 2.26 329** *e*Pn **Pn** **21 57 01.7 -0.7**
SELS *e*Sg **Sg** **21 57 37.2 -0.5**
**AGG Agios Georgios 2.29 187** P **Pn** **21 57 01.9 -0.8**
AGG AML AML 21 57 42.8
comp=E,273μm,1.3s
AGG AML AML 21 57 43.2
comp=N,191μm,0.8s
**AGG Agios Georgios 2.29 187** P **Pn** **21 57 03.0 +0.3**
**AGG Agios Georgios 2.29 187** P **Pn** **21 57 03.0 +0.3**
**SMTH Samothraki Isl 2.29 110** P **Pn** **21 57 01.3 -1.5**
SMTH S **Sn** **21 57 32.4 +1.4**
SMTH AML AML 21 57 46.8
comp=E,91μm,0.5s
SMTH AML AML 21 57 48.2
comp=N,127μm,0.6s
**SMTH Samothraki Isl 2.29 110** P **Pn** **21 57 02.5 -0.3**
SMTH S **Sn** **21 57 32.4 +1.4**
**SMTH Samothraki Isl 2.29 110** P **Pn** **21 57 02.5 -0.3**
**LIA Limnos Island 2.34 126** P **Pn** **21 57 02.9 -0.6**
LIA S **Sn** **21 57 32.6 +0.4**
LIA AML AML 21 57 47.0
comp=E,375μm,0.5s
LIA AML AML 21 57 50.9
comp=N,307μm,0.8s
**LIA Limnos Island 2.34 126** P **Pn** **21 57 03.5 0.0**
LIA S **Sn** **21 57 32.6 +0.4**
**LIA Limnos Island 2.34 126** P **Pn** **21 57 03.5 0.0**
**SMIA Simia 2.44 171** P **Pb** **21 57 07.2 -1.8**
**SMIA Simia 2.44 171** P **Pb** **21 57 07.2 -1.8**
**BOVS Bovan 2.46 343** *e*Pn **Pn** **21 57 05.7 +0.7**
BOVS *e*Sg **Sg** **21 57 41.9 -2.2**
**BOVS Bovan 2.46 343** *e*Pn **Pn** **21 57 05.7 +0.7**
BOVS *e*Sg **Sg** **21 57 41.9 -2.2**
**EVR Evrytania 2.47 196** P **Pn** **21 57 07.5 +2.2**
EVR AML AML 21 57 53.0
comp=N,85μm,0.7s
EVR AML AML 21 57 54.8
comp=E,111μm,0.7s
**EVR Evrytania 2.47 196** P **Pn** **21 57 07.5 +2.2**
**DSL Palaion Diasel 2.48 210** P **Pn** **21 57 06.4 +1.0**
DSL AML AML 21 57 43.9
comp=E,146μm,0.4s
DSL AML AML 21 57 47.1
comp=N,146μm,0.5s
**DSL Palaion Diasel 2.48 210** P **Pn** **21 57 06.4 +1.0**
**DSL Palaion Diasel 2.48 210** P **Pn** **21 57 06.8 +1.3**
**SGD Sagiada 2.52 229** P **Pb** **21 57 08.7 -1.7**
**SGD Sagiada 2.52 229** P **Pb** **21 57 08.7 -1.7**
**ZAGS Zajecar 2.54 352** *e*Pn **Pn** **21 57 06.6 +0.4**
ZAGS *e*Sg **Sg** **21 57 45.7 -1.2**
**ZAGS Zajecar 2.54 352** *e*Pn **Pn** **21 57 06.6 +0.4**
ZAGS *e*Sg **Sg** **21 57 45.7 -1.2**
**ALN Alexandroupoli 2.56 98** P **Pn** **21 57 06.9 +0.5**
ALN S **Sn** **21 57 37.3 -0.1**
ALN AML AML 21 57 54.4
comp=E,157μm,0.7s
ALN AML AML 21 57 57.5
comp=N,152μm,0.8s
**ALN Alexandroupoli 2.56 98** P **Pn** **21 57 06.9 +0.5**
ALN S **Sn** **21 57 37.3 -0.1**
**ALN Alexandroupoli 2.56 98** P **Pn** **21 57 07.0 +0.6**
**KEK Kerkira 2.72 236** P **Pb** **21 57 11.8 -2.0**
**KEK Kerkira 2.72 236** P **Pb** **21 57 11.8 -2.0**
**PDG Podgorica 2.82 295** *e*Pn **Pn** **21 57 10.9 +0.9**
**PDG Podgorica 2.82 295** *e*Pn **Pn** **21 57 10.9 +0.9**
**DSF Desfina 2.88 183** P **Pn** **21 57 11.4 +0.4**
**DSF Desfina 2.88 183** P **Pn** **21 57 11.4 +0.4**
**SERG Sergoula 2.92 190** P **Pn** **21 57 12.2 +0.7**
**SERG Sergoula 2.92 190** P **Pn** **21 57 12.1 +0.7**
**EFP Efpalio 2.93 192** P **Pn** **21 57 12.3 +0.9**
**EFP Efpalio 2.93 192** P **Pn** **21 57 12.4 +0.9**
**KALE Kalithea 2.93 189** P **Pn** **21 57 14.1 +2.5**
**KALE Kalithea 2.93 189** P **Pn** **21 57 14.1 +2.5**
**PDO Prodromos 2.93 204** P **Pn** **21 57 13.8 +2.2**
**PDO Prodromos 2.93 204** P **Pn** **21 57 13.8 +2.2**
**LKD2 Lefkada island 2.95 213** P **Pb** **21 57 15.2 -2.5**
**LKD2 Lefkada island 2.95 213** P **Pb** **21 57 15.2 -2.5**
**TRIZ Trizonia 2.96 190** P **Pn** **21 57 13.3 +1.3**
**TRIZ Trizonia 2.96 190** P **Pn** **21 57 13.3 +1.3**
**IVAS Ivanjica 2.96 321** *e*Pn **Pn** **21 57 11.5 -0.6**
**IVAS Ivanjica 2.96 321** *e*Pn **Pn** **21 57 11.5 -0.6**
**GRUS Gruza 2.98 331** *e*Pn **Pn** **21 57 11.9 -0.4**
GRUS *e*Sg **Sg** **21 58 00.8 -0.2**
**GRUS Gruza 2.98 331** *e*Pn **Pn** **21 57 11.9 -0.4**
GRUS *e*Sg **Sg** **21 58 00.8 -0.2**
**ZIMR 3.08 39** S **Sb** **21 57 54.8 -2.4**
**VIL2 Platees 3.11 172** P **Pn** **21 57 16.2 +2.1**
**VILL Villia 3.16 171** P **Pn** **21 57 16.2 +1.4**
**KUBS Kucevo 3.21 347** *e*Pn **Pn** **21 57 15.5 +0.1**
KUBS *e*Sn **Sn** **21 57 54.7 +1.1**
**KUBS Kucevo 3.21 347** *e*Pn **Pn** **21 57 15.5 +0.1**
KUBS *e*Sn **Sn** **21 57 54.7 +1.1**
**LTK Loutraki 3.27 176** P **Pn** **21 57 16.4 +0.1**
**LTK Loutraki 3.27 176** P **Pn** **21 57 16.4 +0.1**
**KLV Kalavryta, Ach 3.27 188** P **Pn** **21 57 17.1 +0.8**
**KLV Kalavryta, Ach 3.27 188** P **Pn** **21 57 17.1 +0.8**
**KLV Kalavryta, Ach 3.27 188** P **Pn** **21 57 18.0 +1.7**
**GUR Goura 3.36 185** P **Pn** **21 57 20.0 +2.4**
**GUR Goura 3.36 185** P **Pn** **21 57 20.0 +2.4**
**RLS Riolos of Patr 3.37 197** P **Pn** **21 57 20.8 +3.2**
**RLS Riolos of Patr 3.37 197** P **Pn** **21 57 20.8 +3.2**
**TRUS Trudelj 3.38 331** *e*Pn **Pn** **21 57 17.5 -0.3**
**TRUS Trudelj 3.38 331** *e*Pn **Pn** **21 57 17.5 -0.3**
**DRO Drossia 3.42 193** P **Pn** **21 57 20.8 +2.4**
**DRO Drossia 3.42 193** P **Pn** **21 57 20.8 +2.4**
**DIVS Divibare 3.44 325** *e*Pn **Pn** **21 57 18.7 0.0**
DIVS *e*Sg **Sg** **21 58 15.1 -0.7**
**DIVS Divibare 3.44 325** *e*Pn **Pn** **21 57 18.7 0.0**
**KARY Karystos 3.52 157** P **Pn** **21 57 18.7 -1.0**
**KARY Karystos 3.52 157** P **Pn** **21 57 18.7 -1.0**
**VLY Voula,Athens 3.54 166** P **Pn** **21 57 22.8 +2.9**
**VLY Voula,Athens 3.54 166** P **Pn** **21 57 22.8 +2.9**
**TREB Trebinje 3.54 295** *e*Pn **Pn** **21 57 20.9 +0.9**
**TREB Trebinje 3.54 295** *e*Pn **Pn** **21 57 20.9 +0.9**
**MDVR Moldovita 3.56 349** ⇓ *i*P **Pn** **21 57 20.8 +0.5**
**MDVR Moldovita 3.56 349** ⇓ *i*P **Pn** **21 57 20.8 +0.5**
**TRIP Tripoli 3.77 185** P **Pn** **21 57 26.6 +3.3**
**TRIP Tripoli 3.77 185** P **Pn** **21 57 26.6 +3.3**
**DID Didima 3.80 174** P **Pn** **21 57 24.1 +0.5**
**DID Didima 3.80 174** P **Pn** **21 57 24.6 +1.0**
**DID Didima 3.80 174** P **Pn** **21 57 24.6 +1.0**
**AMT Artemida-Makis 3.83 192** P **Pn** **21 57 23.9 -0.1**
**AMT Artemida-Makis 3.83 192** P **Pn** **21 57 23.9 -0.1**
**KRND KRANIDI 3.92 175** P **Pn** **21 57 24.6 -0.6**
**KRND KRANIDI 3.92 175** P **Pn** **21 57 24.6 -0.6**
**BZS Buzias 4.39 350** ⇓ *i*P **Pn** **21 57 31.3 -0.4**
**BZS Buzias 4.39 350** ⇓ *i*P **Pn** **21 57 31.3 -0.4**
**FGSL Fruska Gora 4.40 332** *e*Pn **Pn** **21 57 30.9 -0.9**
**FRGS Fruska Gora 4.41 332** *e*Pn **Pn** **21 57 30.9 -1.0**
**PYL PYLOS 4.45 190** P **Pn** **21 57 33.5 +1.0**
**PYL PYLOS 4.45 190** P **Pn** **21 57 33.5 +1.0**
**VOIR 4.48 22** ⇓ *i*P **Pn** **21 57 34.7 +1.7**
**VOIR 4.48 22** ⇓ *i*P **Pn** **21 57 34.7 +1.7**
**VLI Veliai 4.57 178** P **Pn** **21 57 34.6 +0.5**
**VLI Veliai 4.57 178** P **Pn** **21 57 34.6 +0.5**
**ICOR Ion Corvin 4.70 51** ⇓ *i*P **Pn** **21 57 39.6 +3.8**
**ICOR Ion Corvin 4.70 51** ⇓ *i*P **Pn** **21 57 39.6 +3.8**
**ISR Istrita 4.74 35** ⇓ *i*P **Pn** **21 57 39.7 +3.2**
**ISR Istrita 4.74 35** ⇓ *i*P **Pn** **21 57 39.7 +3.2**
**MLR Muntele Rosu 4.81 28** ⇓ *i*P **Pn** **21 57 40.3 +2.7**
**MLR Muntele Rosu 4.81 28** ⇓ *i*P **Pn** **21 57 40.3 +2.7**
**DOPR Dopca 5.06 22** ⇓ *i*P **Pn** **21 57 42.4 +1.5**
**DOPR Dopca 5.06 22** ⇓ *i*P **Pn** **21 57 42.4 +1.5**
**VRI Vrincioaia 5.42 31** ⇓ *i*P **Pn** **21 57 49.2 +3.3**
**DRGR 5.50 0** ⇑ *i*P **Pn** **21 57 48.7 +1.8**
**DRGR 5.50 0** ⇑ *i*P **Pn** **21 57 48.7 +1.8**
**CFR Carcaliu 5.55 44** ⇓ *i*P **Pn** **21 57 49.8 +2.3**
**CFR Carcaliu 5.55 44** ⇓ *i*P **Pn** **21 57 49.8 +2.3**

*ISCJB* ***18*** *21:59:07.0±0.6, 4.°92S±0.°05×152.°30E±0.°09, h55km, mb4.4/18, MS3.4/1, Error ellipse: s-maj=13.7km s-min=6.2km az=21.3*
*NEIC* ***18*** *21:59:08.7±1.1, 4.°90S×152.°24E, h58km±10km, mb5.0/10, Error ellipse: s-maj=14.8km s-min=7.7km az=114.0*
*IDC* ***18*** *21:59:08.4±2.6, 4.°88S×152.°33E, h52km±22km, mb3.8/8, mb1 4.0/9, mb1mx3.7/32, mbtmp4.1/9, ML1.9/1, MS3.1/2, Ms1 3.1/2, ms1mx2.6/27, Error ellipse: s-maj=29.2km s-min=13.5km az=130.0*

**ISC 18 21:59:08.2±0.7, 4.°86S±0.°07×152.°3E±0.°1, h55km, n32, σ1.°20/34, mb4.2/18, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RABL** | **Rabaul** | **0.68** | **348** | *e*Pn | **Pn** | **21 59 23.4** | **+1.4** |
| RABL | | | | *e*Sn | **Sn** | **21 59 33.1** | **+1.1** |
| **PMG** | **Port Moresby** | **6.82** | **228** | P | **Pn** | **22 00 47.2** | **+1.6** |
| | 1.5nm,0.3s,baz=56,slow=11,SNR=4.4 | | | | | | |
| PMG | | | | S | **Sn** | **22 02 03.1** | **+1.2** |
| | 1.6nm,0.3s,baz=168,slow=14,SNR=4.0 | | | | | | |
| **HNR** | **Honiara** | **8.84** | **121** | LR | LR | 22 05 00.2 | |
| | comp=Z,56nm,18.8s,baz=326,slow=40 | | | | | | |
| **DZM** | **Mont Dzumac** | **21.91** | **143** | P | **P** | **22 03 57.6** | **+0.6** |
| | 5.3nm,0.6s,baz=170,slow=4.7,SNR=6.4 | | | | | | |
| **DZM** | **Mont Dzumac** | **21.91** | **143** | *e*P | **P** | **22 03 57.6** | **+0.6** |
| | 41nm,1.5s | | | | | | |
| **WRAB** | **Tennant Creek** | **23.02** | **228** | *e*P | **P** | **22 04 08.0** | **-0.8** |
| | 5.2nm,1.0s | | | | | | |
| **WB2** | **Warramunga Arr** | **23.03** | **228** | *e*P | **P** | **22 04 08.2** | **-0.6** |
| **WR1** | **Warramunga Arr** | **23.04** | **228** | *e*P | **P** | **22 04 08.3** | **-0.6** |
| | 26nm,1.8s | | | | | | |
| WR1 | | | | *e*S | **S** | **22 08 17.6** | **+1.8** |
| **WRA** | **Warramunga Arr** | **23.04** | **228** | P | **P** | **22 04 08.3** | **-0.6** |
| | 2.2nm,0.5s,baz=53,slow=10,SNR=35 | | | | | | |
| WRA | | | | S | **S** | **22 08 17.6** | **+1.8** |
| | 0.5nm,0.9s,baz=41,slow=16,SNR=3.7 | | | | | | |
| **AS01** | **Alice Springs** | **25.74** | **222** | *e*P | **P** | **22 04 33.0** | **-0.8** |
| **AS31** | **Alice Springs** | **25.77** | **222** | *e*P | **P** | **22 04 35.4** | **+1.3** |
| | 1.6nm,1.0s | | | | | | |
| **ASAR** | **Alice Springs** | **25.77** | **222** | P | **P** | **22 04 35.4** | **+1.3** |
| | 1.5nm,0.5s,baz=57,slow=9.0,SNR=14 | | | | | | |
| **WAKE** | **Wake Island** | **27.84** | **30** | *e*P | **P** | **22 04 51.4** | **-1.3** |
| | 371nm,1.7s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **29.20** | **241** | P | **P** | **22 05 03.9** | **-0.9** |
| | 1.9nm,0.6s,baz=56,slow=8.4,SNR=8.5 | | | | | | |
| **BBOO** | **Buckleboo** | **31.68** | **207** | *e*P | **P** | **22 05 25.4** | **-1.2** |
| | 40nm,1.7s | | | | | | |
| **MBWA** | **Marble Bar** | **35.51** | **240** | *e*P | **P** | **22 05 58.0** | **-2.1** |
| | 36nm,1.6s | | | | | | |
| **JOW** | **Kunigami** | **39.16** | **325** | *e*P | **P** | **22 06 30.6** | **-0.2** |
| | 146nm,1.9s | | | | | | |
| **RPZ** | **Rata Peaks** | **42.08** | **160** | LR | LR | 22 22 55.8 | |
| | comp=Z,45nm,20.1s,baz=328,slow=34 | | | | | | |
| **KSM** | **Kuching** | **42.43** | **277** | *e*P | **P** | **22 06 55.6** | **-2.4** |
| | 68nm,1.8s | | | | | | |
| **MJB9** | **Matsu-Tunnel** | **43.25** | **343** | *e*P | **P** | **22 07 04.2** | **-0.1** |
| | 28nm,1.5s | | | | | | |
| **KS15** | **Wonju Array Si** | **47.84** | **334** | *e*P | **P** | **22 07 40.8** | **+0.3** |
| **PSI** | **Prapat** | **53.88** | **277** | *e*P | **P** | **22 08 25.5** | **-1.0** |
| | 42nm,2.0s | | | | | | |
| **MK32** | **Makanchi Array** | **80.05** | **319** | *e*P | **P** | **22 11 13.3** | **+1.3** |
| **MKAR** | **Makanchi Array** | **80.05** | **319** | P | **P** | **22 11 13.3** | **+1.3** |
| | 0.7nm,0.6s,baz=94,slow=7.4,SNR=8.4 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **80.93** | **326** | P | **P** | **22 11 18.1** | **+1.5** |
| | 1.4nm,0.6s,baz=118,slow=4.5,SNR=7.2 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **80.93** | **326** | *e*P | **P** | **22 11 18.1** | **+1.5** |
| **ILAR** | **Eielson Array** | **82.40** | **22** | P | **P** | **22 11 23.7** | **-0.4** |
| | 1.2nm,0.7s,baz=241,slow=5.7,SNR=12 | | | | | | |
| **ILB** | **Eielson Array** | **82.40** | **22** | *e*P | **P** | **22 11 23.7** | **-0.4** |
| **YKA** | **Yellowknife Ar** | **95.71** | **28** | P | **P** | **22 12 28.7** | **+0.9** |
| | 0.2nm,0.6s,baz=274,slow=5.1,SNR=4.9 | | | | | | |
| **YKB5** | **Yellowknife Ar** | **95.71** | **28** | *e*P | **P** | **22 12 28.7** | **+0.9** |
| **TORD** | **Torodi Ar. Bea** | **149.86** | **288** | PKPbc | **PKPbc** | **22 18 53.2** | **-0.1** |
| | 1.0nm,0.5s,baz=33,slow=2.7,SNR=12 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **149.86** | **288** | *e*PKPbc | **PKPbc** | **22 18 53.2** | **-0.1** |

**JMA 18 22:19:44.9±0.1, 36.°34N×140.°96E, h43km±1km, M3.2, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JHO** | **Hitachi** | **0.41** | **311** | P | Pn | 22 19 54.5 | -0.2 |
| JHO | | | | S | Sn | 22 20 01.1 | -0.5 |
| **JYT** | **Yasato** | **0.63** | **260** | P | Pn | 22 19 57.5 | +0.1 |
| JYT | | | | S | Sn | 22 20 05.8 | -0.6 |
| **ONAJ** | **Iwakimizuishiy** | **0.77** | **350** | P | Pn | 22 19 59.1 | -0.3 |
| ONAJ | | | | S | Sn | 22 20 08.6 | -1.4 |
| **JFK** | **Kawauchi** | **1.03** | **356** | P | Pn | 22 20 02.4 | -0.5 |
| JFK | | | | S | Sn | 22 20 14.7 | -1.4 |
| **MAT** | **Matsushiro** | **2.23** | **276** | P | Pn | 22 20 21.3 | +1.9 |
| MAT | | | | *e*S | Sn | 22 20 48.4 | +2.7 |

*BJI* ***18*** *22:28:23.0, 8.°50S×129.°00E, h15km, mb4.4/10, mB4.8/6, Ms4.5/2, Ms7 4.3/2*
*IDC* ***18*** *22:28:25.4±0.5, 8.°26S×128.°69E, h0km, mb4.5/12, mb1 4.5/14, mb1mx4.3/37, mbtmp4.5/14, ML3.8/2, MS3.2/5, Ms1 3.3/5, ms1mx3.0/20, Error ellipse: s-maj=21.1km s-min=14.1km az=71.0*
*ISCJB* ***18*** *22:28:26.8±0.2, 8.°64S±0.°03×128.°59E±0.°04, h33km, mb4.7/36, MS3.4/3, Error ellipse: s-maj=6.1km s-min=3.4km az=157.1*
*NEIC* ***18*** *22:28:30.4±0.2, 8.°36S×128.°59E, h35km, mb4.8/30, Error ellipse: s-maj=10.6km s-min=6.0km az=60.0*
*DJA* ***18*** *22:28:31.6±0.5, 8.°5S±4.°12°9E±.°1, h138km±17km, M4.7/7, mb4.7/6, mB4.9/3, MLv4.7/7, Mw(mB)4.2/3*

**ISC 18 22:28:30.1±0.3, 8.°53S±0.°05×128.°68E±0.°06, h35km, n108, σ1.°98/110, mb4.8/36, MS3.4/3, Timor Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SAUI** | **Saumlaki** | **2.65** | **78** | P | **Pn** | **22 29 10.6** | **+0.2** |
| SAUI | | | | S | **Sn** | **22 29 43.2** | **+1.9** |
| **BNDI** | **Bandanaira** | **4.16** | **17** | P | **Pn** | **22 29 31.4** | **+0.3** |
| **SOEI** | **Soe** | **4.52** | **254** | P | Pn | 22 29 39.9 | +3.7 |
| **AAI** | **Ambon** | **4.83** | **354** | P | **Pn** | **22 29 41.1** | **+0.7** |
| **MTN** | **Manton Dam** | **4.92** | **151** | *e*Pn | **Pn** | **22 29 43.8** | **+2.2** |

MTN eSn Sn 22 30 38.4 +1.1
MSAI Masohi 5.15 3 P Pn 22 29 51.7 +6.9
NLAI Namlea 5.48 343 P Pn 22 29 51.9 +2.6
FAKI Fak Fak 6.61 33 P Pn 22 30 02.2 -2.6
EDFI Ende, Flores 6.91 268 P Pn 22 30 15.2 +6.2
SANI Sanana 6.97 337 P Pn 22 30 13.1 +3.4
LBMI Labuha 7.92 351 P Pn 22 30 28.0 +5.1
FITZ Fitzroy Crossi 9.96 197 Pn Pn 22 30 51.4 +0.6
4.9nm,0.3s,baz=28,slow=11,SNR=110
FITZ Sn Sn 22 32 39.2 -2.3
8.4nm,0.3s,baz=107,slow=7.3,SNR=8.8
FITZ LR LR 22 35 42.3
comp=Z,132nm,20.1s,baz=20,slow=43
WRAB Tennant Creek 12.60 155 ePn Pn 22 31 24.4 -2.5
WRAB eSn Sn 22 33 31.9 -14
WR1 Warramunga Arr 12.60 155 ePn Pn 22 31 24.5 -2.5
WR1 eSn Sn 22 33 39.3 -6.9
WRA Warramunga Arr 12.60 155 Pn Pn 22 31 24.5 -2.5
5.9nm,0.3s,baz=317,slow=14,SNR=211
WRA Sn Sn 22 33 39.3 -6.9
5.3nm,0.3s,baz=340,slow=21,SNR=8.1
WB2 Warramunga Arr 12.61 155 ePn Pn 22 31 24.0 -3.0
WB2 eSn Sn 22 33 43.0 -3.3
COEN Coen 15.21 112 ePn Pn 22 31 57.7 -4.7
16nm,0.8s
MBWA Marble Bar 15.24 214 ePn Pn 22 32 01.9 -0.8
29nm,1.2s
AS31 Alice Springs 15.86 162 ePn Pn 22 32 08.0 -2.9
11nm,0.9s
AS31 eSn Sn 22 35 01.2 -4.5
ASAR Alice Springs 15.86 162 Pn Pn 22 32 08.4 -2.5
2.4nm,0.3s,baz=333,slow=9.6,SNR=148
ASAR Sn Sn 22 35 01.2 -4.5
2.1nm,0.3s,baz=322,slow=18,SNR=5.6
ASAR LR LR 22 37 40.5
comp=Z,51nm,21.1s,baz=340,slow=34
AS01 Alice Springs 15.88 162 ePn Pn 22 32 08.1 -2.9
PMG Port Moresby 18.28 94 P Pn 22 32 42.4 +1.3
1.1nm,0.3s,baz=306,slow=1.5,SNR=4.8
PMG Port Moresby 18.28 94 ePn Pn 22 32 45.2 +4.1
27nm,1.1s
SBUM Sibu 19.70 303 ePn Pn 22 33 05.0 +6.7
21nm,0.8s
CTA Charters Tower 20.52 126 P Pn 22 33 09.7 +1.8
6.3nm,0.6s,baz=298,slow=11,SNR=7.7
CTAO Charters Tower 20.52 126 eP P 22 33 05.3 -0.2
25nm,1.3s
KSM Kuching 20.83 298 eP Pn 22 33 11.3 -0.2
18nm,0.9s
FORT Forrest 22.15 181 eP P 22 33 26.0 +3.1
382nm,0.8s
XMIS Christmas Isla 22.79 263 eP P 22 33 27.4 -2.5
50nm,1.0s
BBOO Buckleboo 25.11 165 eP P 22 33 54.7 +3.0
46nm,1.5s
STKA Stephens Creek 26.15 154 P P 22 34 02.3 +1.1
4.7nm,0.6s,baz=333,slow=10,SNR=14
STKA Stephens Creek 26.15 154 eP P 22 34 02.9 +1.7
2.1nm,0.6s
NWAO Narrogin (SRO) 26.49 202 P P 22 34 06.8 +2.6
8.2nm,0.8s,baz=265,slow=8.7,SNR=11
NWAO Narrogin (SRO) 26.49 202 eP P 22 34 05.2 +1.0
68nm,1.6s
KULM Kulim 31.14 295 eP P 22 34 45.4 -0.4
83nm,1.9s
PSI Prapat 31.73 290 P P 22 34 51.4 +0.3
7.5nm,0.6s,baz=130,slow=5.0,SNR=8.2
PSI Prapat 31.73 290 eP P 22 34 49.8 -1.4
12nm,0.8s
CAN Canberra 32.51 148 eP P 22 35 01.5 +3.8
35nm,1.4s
LHI Lord Howe Isla 36.36 133 eP P 22 35 31.9 +0.9
68nm,1.3s
DZM Mont Dzumac 38.71 115 P P 22 35 52.8 +1.6
5.2nm,0.9s,baz=336,slow=10.0,SNR=3.5
DZM Mont Dzumac 38.71 115 eP P 22 35 52.8 +1.6
79nm,2.0s
CM31 Chiang Mai Arr 39.75 313 eP P 22 35 58.5 -1.2
CM31 ePcP PcP 22 38 06.0 +0.1
CMAR Chiang Mai Arr 39.75 313 P P 22 35 58.5 -1.2
2.5nm,0.7s,baz=148,slow=7.3,SNR=11
CMAR PcP PcP 22 38 06.0 +0.1
1.3nm,0.7s,baz=167,slow=2.5,SNR=5.5
CMAR LR LR 22 55 13.8
comp=Z,49nm,18.3s,baz=135,slow=41
CHTO Chiang Mai 39.98 313 eP P 22 36 01.1 -0.5
28nm,1.8s
XAN Xi'an 46.30 337 P P 22 36 50.3 -2.2
XAN pP pP 22 36 56.8 -6.1
XAN pmax pmax
comp=Z,10.0nm,0.9s
RPZ Rata Peaks 50.86 141 eP P 22 37 28.4 +0.9
40nm,1.4s
OXZ Oxford 51.28 140 eP P 22 37 30.8 +0.1
93nm,1.9s
LSA Lhasa 52.42 318 eP P 22 37 36.9 -3.0
6.5nm,1.0s
BKZ Black Stump Fm 52.48 133 eP P 22 37 40.3 +0.5
44nm,1.5s
ODAN Odare 53.29 313 eP P 22 37 44.9 -1.2
21nm,0.7s
TAPN Taplejung 53.35 313 eP P 22 37 45.3 -1.3
31nm,0.9s
ASAJ Asahikawa 53.89 12 P P 22 37 48.3 -1.6
5.3nm,0.7s,baz=180,slow=13,SNR=2.9
ASAJ Asahikawa 53.89 12 eP P 22 37 48.3 -1.6
37nm,1.5s
RAMN Ramite 53.92 312 eP P 22 37 49.8 -0.9
49nm,0.7s
JIRN Jiri 54.62 313 eP P 22 37 54.8 -1.2
24nm,0.7s
GTA Gaotai 54.70 333 eP P 22 37 55.4 -0.6
GTA pP pP 22 37 59.0 -7.6
GTA sP sP 22 38 01.4 -9.3
GTA pmax pmax
comp=Z,3.0nm,0.9s
GUN Gumba 54.99 313 eP P 22 37 57.6 -1.0
31nm,0.6s
PKI Pulchoki 55.14 312 eP P 22 37 58.3 -1.4
9.6nm,0.6s
PKIN Phulchoki 55.16 312 eP P 22 37 58.5 -1.2
11nm,0.6s
KKN Kakani 55.36 312 eP P 22 38 00.0 -1.1
21nm,0.9s
DMN Daman 55.39 312 eP P 22 38 00.0 -1.4
21nm,0.8s
GKN Gorkha 55.95 312 eP P 22 38 04.1 -1.2
0.4nm,0.3s
KOLN Koldanda 56.59 311 eP P 22 38 09.0 -0.9
33nm,0.8s
PYUN Piuthan 57.22 311 eP P 22 38 13.4 -1.0
45nm,0.8s
KLR Kul'dur 57.58 2 P P 22 38 14.9 -1.3
0.1nm,0.4s,baz=192,slow=9.3,SNR=2.9
ULN Ulaanbaatar 59.32 343 eP P 22 38 25.8 -2.8
11nm,1.6s
SONA0 Songino Array 59.48 343 eP P 22 38 28.8 -0.9
SONM Songino Array 59.48 343 P P 22 38 28.8 -0.9
1.3nm,0.7s,baz=164,slow=7.6,SNR=10
SONA1 Songino Array 59.49 343 eP P 22 38 30.1 +0.3
PETK Petropavlovsk- 66.18 19 P P 22 39 12.4 -1.6
2.6nm,0.8s,baz=163,slow=4.6,SNR=5.1
PETK LR LR 23 06 40.0
comp=Z,14nm,20.7s,baz=109,slow=35
PETK Petropavlovsk- 66.18 19 eP P 22 39 13.1 -0.9
PEA1 Petropavlovsk- 66.18 19 eP P 22 39 12.4 -1.6
KSH Kashi 68.27 319 eP P 22 39 32.9 +5.2
KSH pP pP 22 39 37.5 -1.1
KSH PcP PcP 22 39 58.9 +5.6
KSH pP PP 22 42 05.9 +7.1
KSH S S 22 48 31.3 +5.0
KSH ScS ScS 22 49 28.9 +4.1
KSH Kashi 68.27 319 SS SS 22 52 57.5 +7.4
KSH pmax pmax
comp=Z,4.0nm,0.4s
KSH pmax pmax
comp=Z,48nm,2.8s
KSH LR LR
comp=N,94nm,5.4s
KSH LR LR
comp=E,88nm,5.8s
KSH LR LR
comp=Z,160nm,4.8s
MK01 Makanchi Array 68.77 328 eP P 22 39 30.1 -0.5
MK31 Makanchi Array 68.79 328 eP P 22 39 30.3 -0.4
MK32 Makanchi Array 68.79 328 eP P 22 39 30.2 -0.5
MKAR Makanchi Array 68.79 328 P P 22 39 30.2 -0.5
comp=Z,1.7nm,0.4s,baz=114,slow=7.8,SNR=48
KBL Kabul 70.75 311 eP P 22 39 42.3 -1.0
comp=Z,11nm,1.8s
VNDA Vanda 71.10 173 LR LR 23 10 25.6
comp=Z,33nm,18.5s,baz=310,slow=35
ZAA0 Zalesovo Array 72.38 335 eP P 22 39 50.9 -1.4
comp=Z,6.1nm,1.0s
ZALV Zalesovo Beam 72.38 335 P P 22 39 50.9 -1.5
comp=Z,6.7nm,1.0s,baz=124,slow=4.7,SNR=15
ZALV Zalesovo Beam 72.38 335 eP P 22 39 50.4 -1.9
ZAA1 Zalesovo Array 72.38 335 eP P 22 39 50.9 -1.5
KURK Kurchatov 73.14 329 eP P 22 39 56.3 -0.7
comp=Z,22nm,1.4s
SEY Seymchan 73.54 11 P P 22 39 58.6 -0.5
comp=Z,3.4nm,0.5s,baz=202,slow=5.4,SNR=14
BRVK Borovoye 78.73 328 eP P 22 40 28.3 -0.5
comp=Z,5.8nm,0.4s
TIXI Tiksi 80.01 0 eP P 22 40 34.2 -1.1
comp=Z,5.2nm,0.3s
ARU Arti 86.31 328 eP P 22 41 07.6 -0.7
comp=Z,7.0nm,1.2s
RAYN Ar Rayn 87.17 294 eP P 22 41 13.7 +0.5
comp=Z,11nm,1.7s
OHAK Old Harbor 90.69 32 eP P 22 41 30.1 +1.1
comp=Z,83nm,0.7s
ILAR Eielson Array 95.28 25 P P 22 41 48.3 -1.7
comp=Z,1.8nm,1.1s,baz=252,slow=5.1,SNR=6.1
ILB Eielson Array 95.28 25 eP P 22 41 48.3 -1.7
ARA0 ARCESS Array S 102.54 339 ePdif Pdif 22 42 20.8 -1.7
ARA0 ePKiKP PKiKP 22 46 44.1 +0.6
ARCES ARCESS Array B 102.54 339 P Pdif 22 42 20.8 -1.7
comp=Z,1.4nm,1.0s,baz=72,slow=5.8,SNR=3.1
ARCES PKiKP PKiKP 22 46 44.1 +0.6
comp=Z,1.7nm,1.0s,baz=116,slow=2.8,SNR=5.3
YKA Yellowknife Ar 109.69 26 PKiKP PKiKP 22 46 57.8 +0.9
comp=Z,0.1nm,0.5s,baz=296,slow=1.7,SNR=4.7
YKB5 Yellowknife Ar 109.69 26 ePKiKP PKiKP 22 46 57.8 +0.9
GERES GERESS Array B 112.73 320 PKiKP PKiKP 22 47 03.6 +0.3
comp=Z,0.2nm,0.5s,baz=48,slow=2.9,SNR=4.4
TOA0 Torodi Ar. Sit 127.80 280 ePKPdf PKPdf 22 47 34.7 +1.7
TORD Torodi Ar. Bea 127.80 280 PKP PKPdf 22 47 34.4 +1.4
comp=Z,1.0nm,0.6s,baz=60,slow=1.7,SNR=11
TOA1 Torodi Ar. Sit 127.80 280 ePKPdf PKPdf 22 47 34.4 +1.4
PLCA Paso Flores 127.88 162 PKP PKPdf 22 47 33.8 +1.1
comp=Z,2.8nm,1.1s,baz=56,slow=3.7,SNR=2.8
DBIC Dimbokro 133.92 271 PKP PKPdf 22 47 47.2 +2.5
comp=Z,2.0nm,0.7s,baz=280,slow=2.6,SNR=4.2
TKL Tuckaleechee C 139.93 43 PKP PKPdf 22 47 54.8 -0.4
comp=Z,5.7nm,0.9s,baz=222,slow=7.1,SNR=3.5
CPUP Villa Florida 144.86 171 PKPbc PKPdf 22 48 04.8 +0.5
comp=Z,2.9nm,0.6s,baz=175,slow=4.1,SNR=12
CPUP Villa Florida 144.86 171 ePKPbc PKPdf 22 48 05.7 +1.4
LPAZ La Paz 150.26 146 PKPbc PKPbc 22 48 21.4 +2.1
comp=Z,2.2nm,0.5s,baz=108,slow=0.7,SNR=11
LPAZ La Paz 150.26 146 ePKPbc PKPbc 22 48 21.7 +2.4

*JMA **18** 22:35:22.6±0.2, 23°.95N×122°.66E, h26km±4km, M3.1*
*TAP **18** 22:35:22.7, 24°.03N×122°.69E, h8km±1km, ML3.3, D*
*ISCJB **18** 22:35:23.3±0.5, 23°.94N±0°.03×122°.73E±0°.02, h21km±4km,*
*Error ellipse: s-maj=5.4km s-min=2.4km az=172.0*

**ISC 18 22:35:22.3±1.2, 23°.95N±0°.04×122°.68E±0°.02, h16km±9km, n38, σ0s69/66, Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| JYNG | Yonagunijimaku | 0.55 | 26 | P | | Pb | 22 35 33.6 | 0.0 |
| JYNG | | | | S | | Sb | 22 35 41.0 | -0.3 |
| YOJ | Yonaguni jima | 0.59 | 30 | P | | Pb | 22 35 34.3 | +0.1 |
| YOJ | | | | eS | | Sb | 22 35 42.4 | 0.0 |
| ENA | Nanau | 0.98 | 299 | eP | | Pn | 22 35 41.5 | 0.0 |
| ENA | baz=294 | | | eS | | Sn | 22 35 55.5 | +0.4 |
| TWD | baz=294 Chiawan | 1.00 | 277 | eP | | Pb | 22 35 40.6 | -0.7 |
| TWD | baz=272 | | | eS | | Sn | 22 35 55.9 | +0.3 |
| TWC | baz=272 Suao | 1.00 | 311 | *i* P | | Pn | 22 35 41.4 | -0.3 |
| TWC | baz=307 | | | *i* S | | Sn | 22 35 55.2 | -0.4 |
| IRIF | baz=307 Iriomote-Funau | 1.03 | 68 | P | | Pb | 22 35 41.2 | -0.6 |
| IRIF | | | | eS | | Sg | 22 35 55.8 | +0.1 |
| HATJ | Hateruma jima | 1.03 | 84 | P | | Pb | 22 35 41.8 | 0.0 |
| HATJ | | | | S | | Sb | 22 35 55.4 | +0.3 |
| TWE | Neicheng | 1.20 | 310 | eP | | Pg | 22 35 46.1 | +0.6 |
| TWE | baz=306 | | | eS | | Sg | 22 36 02.7 | +1.5 |
| TWB1 | baz=306 Santiao Chiao | 1.23 | 329 | P | | Pb | 22 35 45.1 | 0.0 |
| TWB1 | baz=327 | | | S | | Sn | 22 36 00.7 | -0.4 |
| ENTT | baz=327 Nioudou | 1.23 | 304 | eP | | Pg | 22 35 45.9 | -0.1 |
| ENTT | baz=300 | | | eS | | Sg | 22 36 03.9 | +1.9 |
| JKRS | baz=300 Kuro-shima | 1.24 | 77 | P | | Pn | 22 35 45.2 | +0.1 |
| JKRS | | | | S | | Sn | 22 36 01.8 | +0.3 |
| NNS | Nan Shan | 1.29 | 292 | eP | | Pg | 22 35 46.8 | -0.4 |
| NNS | baz=288 | | | eS | | Sg | 22 36 04.4 | +0.4 |
| WHF | baz=288 Hehuan Shan | 1.31 | 279 | eP | | Pn | 22 35 45.7 | -0.7 |
| WHF | baz=274 | | | eS | | Sn | 22 36 04.0 | +0.2 |
| EHY | baz=274 Hungye | 1.32 | 251 | eP | | Pb | 22 35 47.1 | +0.3 |
| NWF | baz=247 Wu-fen Shan | 1.38 | 324 | P | | Pb | 22 35 48.0 | +0.1 |
| NWF | baz=321 | | | eS | | Sg | 22 36 05.9 | -1.1 |
| JIJ | baz=321 Ishigaki jima | 1.39 | 73 | P | | Pn | 22 35 46.7 | -0.4 |
| JIJ | | | | S | | Sn | 22 36 04.7 | -0.5 |
| TWF1 | Yuli | 1.41 | 245 | eP | | Pn | 22 35 46.6 | -0.7 |
| NSK | baz=241 Sanguang | 1.41 | 301 | eP | | Pb | 22 35 47.7 | -0.6 |
| NSK | baz=297 | | | eS | | Sg | 22 36 07.5 | -0.2 |
| TWT | baz=297 Tachien | 1.41 | 283 | eP | | Pg | 22 35 49.1 | -0.4 |
| TWT | baz=278 | | | eS | | Sg | 22 36 07.9 | 0.0 |
| TWA | baz=278 Mucha | 1.43 | 316 | eS | | Sg | 22 36 08.6 | +0.1 |
| JISG | baz=313 Ishigakijimahi | 1.61 | 67 | P | | Pn | 22 35 49.5 | -0.6 |
| JISG | | | | S | | Sn | 22 36 09.4 | -1.2 |
| SMLT | Sun Moon Lake | 1.63 | 268 | eS | | Sn | 22 36 11.2 | -0.1 |
| YUS | baz=264 Yu-Shan | 1.65 | 254 | eP | | Pn | 22 35 50.9 | -0.2 |
| TYC | baz=251 Yuchr | 1.67 | 269 | eP | | Pb | 22 35 53.0 | +0.3 |
| TYC | baz=265 | | | eS | | Sg | 22 36 15.4 | -0.8 |
| NSTT | baz=265 Nanjuang | 1.68 | 294 | eP | | Pb | 22 35 52.9 | +0.1 |
| ELDTW | baz=291 Lidau | 1.71 | 244 | eP | | Pn | 22 35 51.8 | +0.3 |
| ALS | baz=241 Alishan | 1.78 | 256 | eP | | Pn | 22 35 52.8 | +0.1 |
| ALS | baz=253 | | | eS | | Sn | 22 36 14.8 | -0.3 |
| TWQ1 | baz=253 Liyutan | 1.79 | 283 | eP | | Pb | 22 35 54.6 | -0.1 |
| CHN5 | baz=280 Tsauling | 1.87 | 259 | eP | | Pb | 22 35 55.9 | -0.3 |
| CHN5 | baz=256 | | | eS | | Sb | 22 36 19.5 | +0.1 |
| STYT | baz=256 Tauyuan | 1.94 | 246 | eP | | Pb | 22 35 57.2 | -0.1 |
| JTJ | baz=243 Tarama | 1.96 | 69 | P | | Pn | 22 35 55.6 | +0.6 |
| JTJ | | | | eS | | Sn | 22 36 19.7 | +0.4 |
| CHN4 | Tsaushan | 2.01 | 253 | eP | | Pb | 22 35 58.0 | -0.5 |
| CHN4 | baz=250 | | | eS | | Sb | 22 36 23.3 | 0.0 |
| WTP | baz=250 Ta-pu | 2.02 | 250 | eP | | Pb | 22 35 57.6 | -1.2 |
| WTP | baz=247 | | | eS | | Sb | 22 36 22.9 | -0.9 |
| SGST | baz=247 Jiashian | 2.11 | 246 | eP | | Pb | 22 35 59.3 | -1.0 |
| SGST | baz=243 | | | eS | | Sb | 22 36 26.1 | -0.2 |
| CHN1 | baz=243 Nanshi | 2.12 | 249 | eP | | Pn | 22 35 58.7 | +1.6 |
| CHN1 | baz=246 | | | eS | | Sn | 22 36 25.0 | +1.8 |
| TWK | baz=246 Hsinying | 2.13 | 252 | eP | | Pb | 22 35 59.3 | -1.2 |
| TWK | baz=249 | | | eS | | Sn | 22 36 24.7 | +1.3 |
| JIRB | baz=249 Irabujima | 2.43 | 68 | P | | Pn | 22 36 02.2 | +0.8 |
| JIRB | | | | eS | | Sn | 22 36 31.0 | +0.2 |
| SCZT | Fangliau | 2.47 | 231 | eS | | Sn | 22 36 32.9 | +1.2 |
| | baz=228 | | | | | | | |

*IDC **18** 22:42:18.3±1.0, 46°.03N×154°.63E, h0km, mb3.7/12,*
*mb1 3.9/14, mb1mx3.7/40, mbtmp3.7/14, ML2.7/2, MS2.8/4,*
*Ms1 2.8/4, ms1mx2.6/28, Error ellipse: s-maj=25.1km*
*s-min=19.5km az=157.0*
*ISCJB **18** 22:42:19.9±0.9, 46°.2N±0°.1×154°.6E±0°.1, h19km, mb3.7/12,*
*MS3.3/1, Error ellipse: s-maj=22.3km s-min=11.1km*
*az=153.2*

**ISC 18 22:42:21.7±1.0, 46°.2N±0°.2×154°.7E±0°.1, h19km, n25,**
**σ1s22/17, mb3.6/12, East of Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| PETK | Petropavlovsk- | 7.23 | 15 | Pn | | Pn | 22 44 04.9 | -1.3 |
| PETK | 0.5nm,0.3s,baz=188,slow=9.9,SNR=11 | | | LR | | LR | 22 48 01.8 | |
| ASAJ | comp=Z,24nm,18.6s,baz=145,slow=47 Asahikawa | 8.79 | 261 | Pn | | Pn | 22 44 28.7 | +1.1 |
| MA2 | 0.7nm,0.3s,baz=59,slow=18,SNR=3.9 Magadan | 13.64 | 352 | LR | | LR | 22 51 53.7 | |
| USRK | comp=Z,31nm,18.3s,baz=194,slow=42 Ussuriysk Ar. | 16.11 | 271 | Pn | | Pn | 22 46 05.6 | -1.4 |
| USRK | 0.4nm,0.3s,baz=65,slow=11,SNR=4.7 | | | LR | | LR | 22 51 34.4 | |
| H11N2 | comp=Z,33nm,21.9s,baz=20,slow=35 WAKE ISLAND Hy 28.21 | 155 | | T | | T | 23 17 45.1 | |
| H11N1 | baz=342,slow=76,SNR=5.5 WAKE ISLAND Hy 28.22 | 155 | | T | | T | 23 17 45.0 | |
| H11N3 | baz=342,slow=76,SNR=7.3 WAKE ISLAND Hy 28.23 | 155 | | T | | T | 23 17 48.2 | |
| H11S1 | baz=342,slow=76,SNR=6.6 WAKE ISLAND Hy 29.31 | 156 | | T | | T | 23 19 00.1 | |
| H11S3 | baz=343,slow=76,SNR=9.7 WAKE ISLAND Hy 29.32 | 156 | | T | | T | 23 19 05.6 | |
| H11S2 | baz=343,slow=76,SNR=8.2 WAKE ISLAND Hy 29.33 | 156 | | T | | T | 23 19 06.2 | |
| ILAR | baz=343,slow=76,SNR=6.6 Eielson Array | 36.34 | 38 | P | | P | 22 49 24.4 | +0.4 |
| INK | 0.8nm,0.9s,baz=254,slow=8.4,SNR=5.2 Inuvik | 41.57 | 32 | P | | P | 22 50 07.3 | -0.3 |
| ZALV | 1.3nm,0.8s,baz=287,slow=4.8,SNR=6.5 Zalesovo Beam | 43.84 | 307 | P | | P | 22 50 25.5 | -0.7 |
| MKAR | 0.5nm,0.4s,baz=80,slow=6.4,SNR=2.8 Makanchi Array | 48.18 | 299 | P | | P | 22 51 00.0 | -0.6 |
| KURBB | 0.3nm,0.5s,baz=69,slow=6.4,SNR=6.3 Kurchatov Arra | 48.69 | 305 | P | | P | 22 51 03.0 | -1.4 |
| YKA | baz=71,slow=8.6 Yellowknife Ar | 50.75 | 37 | P | | P | 22 51 20.5 | +0.6 |
| BVAR | 0.4nm,0.7s,baz=301,slow=8.0,SNR=4.0 Borovoye Array | 52.07 | 310 | P | | P | 22 51 29.5 | -0.5 |
| ARCES | 0.4nm,0.4s,baz=60,slow=6.9,SNR=12 ARCESS Array B | 58.77 | 341 | P | | P | 22 52 17.7 | -0.2 |
| FINES | 1.8nm,0.9s,baz=32,slow=8.6,SNR=3.2 FINESS Array B | 65.03 | 336 | P | | P | 22 53 01.6 | +1.5 |
| WRA | 3.7nm,1.0s,baz=44,slow=8.2,SNR=7.7 Warramunga Arr | 68.32 | 201 | P | | P | 22 53 20.6 | -0.9 |
| NOA | 0.2nm,0.5s,baz=20,slow=6.8,SNR=3.5 NORSAR Array B | 69.13 | 342 | P | | P | 22 53 28.2 | +1.9 |
| AKASG | 1.2nm,1.0s,baz=30,slow=6.1,SNR=2.8 Malin Array Be | 72.64 | 327 | P | | P | 22 53 49.2 | +1.6 |
| TXAR | 0.2nm,0.3s,baz=34,slow=6.7,SNR=3.0 Lajitas Array | 76.83 | 61 | P | | P | 22 54 12.8 | +0.3 |
| GERES | 0.4nm,0.7s,baz=316,slow=3.5,SNR=6.5 GERESS Array B | 79.46 | 335 | LR | | LR | 23 33 16.9 | |
| TORD | comp=Z,14nm,18.3s,baz=16,slow=38 Torodi Ar. Bea | 116.15 | 330 | PKP | | PKPdf | 23 01 02.3 | -1.7 |
| | 0.5nm,0.9s,baz=315,slow=0.8,SNR=3.6 | | | | | | | |

**MEX 18 22:42:43.8±0.7, 13°.83N×91°.71W, h22km±29km, MD3.6,**
**Near coast of Guatemala**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| PCIG | | 2.37 | 322 | eP | | Pn | 22 43 19.3 | -2.0 |
| PCIG | | | | eS | | Sn | 22 43 46.3 | -3.5 |
| TGIG | | 3.23 | 335 | eP | | Pn | 22 43 31.6 | -1.7 |
| TGIG | | | | eS | | Sn | 22 44 07.6 | -3.6 |

*ISK **18** 22:49:46.7, 38°.11N×40°.16E, h10km, MD2.6*
*CSEM **18** 22:49:47.0±0.2, 38°.12N×40°.19E, h2km, ML2.8, Error*
*ellipse: s-maj=5.3km s-min=4.7km az=46.0*
*DDA **18** 22:49:47.1, 38°.12N×40°.13E, h7km, Ml2.8*

**ISC 18 22:49:47.2±1.1, 38°.11N±0°.02×40°.16E±0°.02, h9km±9km,**
**n37, σ0s52/46, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| DYBB | Diyarbakir | 0.16 | 186 | ePG | | Pg | 22 49 50.7 | +0.1 |
| DIYA | Diyarbakir | 0.19 | 189 | *i* P | | Pg | 22 49 51.5 | +0.3 |
| DIYA | Diyarbakir | 0.19 | 189 | P | | Pg | 22 49 51.5 | +0.3 |
| DIY | Diyarbakir | 0.22 | 166 | ePg | | Pg | 22 49 50.7 | -1.0 |
| HANI | Diyarbakir_Han | 0.36 | 32 | *i* P | | Pg | 22 49 54.1 | -0.2 |
| HANI | Diyarbakir_Han | 0.36 | 32 | P | | Pg | 22 49 54.1 | -0.2 |
| MAZI | Mazidag | 0.69 | 161 | ePG | | Pg | 22 50 00.5 | 0.0 |
| MAZI | Mazidag | 0.69 | 161 | ePg | | Pg | 22 50 00.5 | 0.0 |
| SVRC | Sivrice-ELAZID | 0.72 | 292 | ePG | | Pg | 22 50 01.1 | -0.1 |
| SVRC | | | | eSG | | Sb | 22 50 11.7 | -0.5 |
| SVRC | Sivrice-ELAZID | 0.72 | 292 | ePg | | Pg | 22 50 01.1 | -0.1 |
| SVRC | | | | eSg | | Sb | 22 50 11.7 | -0.5 |
| BINT | Bingol | 0.81 | 19 | ePg | | Pn | 22 50 05.8 | +0.9 |
| BTMN | Batman | 0.90 | 104 | *i* P | | Pb | 22 50 04.8 | -0.3 |
| BTMN | | | | *i* S | | Sn | 22 50 20.9 | +1.5 |
| BTMN | Batman | 0.90 | 104 | P | | Pb | 22 50 04.8 | -0.3 |
| MARD | Mardin | 0.93 | 148 | *i* P | | Pg | 22 50 05.2 | +0.1 |
| MARD | | | | *i* S | | Sn | 22 50 19.6 | -0.6 |
| BNGB | Bing¶ll | 0.97 | 25 | ePG | | Pb | 22 50 05.8 | -0.4 |
| PTK | Pertek | 0.99 | 323 | ePG | | Pg | 22 50 06.1 | -0.1 |
| PTK | Pertek | 0.99 | 323 | ePg | | Pg | 22 50 06.1 | -0.1 |
| TNCL | Tunceli-Merkez | 1.11 | 334 | *i* P | | Pb | 22 50 08.7 | 0.0 |
| TNCL | | | | *i* S | | Sn | 22 50 26.0 | +1.3 |
| TNCL | Tunceli-Merkez | 1.11 | 334 | P | | Pb | 22 50 08.7 | 0.0 |
| URFA | Urfa | 1.25 | 238 | ePN | | Pn | 22 50 10.9 | -0.1 |
| URFA | Urfa | 1.25 | 238 | ePn | | Pn | 22 50 10.9 | -0.1 |
| YEDI | Yedisu-Bingol | 1.36 | 13 | ePN | | Pb | 22 50 12.8 | -0.1 |
| YEDI | Yedisu-Bingol | 1.36 | 13 | ePn | | Pb | 22 50 12.8 | -0.1 |
| MALT | Malatya | 1.38 | 279 | ePN | | Pn | 22 50 12.5 | -0.2 |
| MALT | Malatya | 1.38 | 279 | ePn | | Pn | 22 50 12.5 | -0.2 |
| VRTB | Varto-Mus | 1.46 | 44 | ePN | | Pn | 22 50 13.7 | -0.2 |
| VRTB | Varto-Mus | 1.46 | 44 | ePn | | Pn | 22 50 13.7 | -0.2 |
| ECAT | Cat-ERZURUM | 1.62 | 23 | *i* P | | Pg | 22 50 17.7 | -0.6 |
| ECAT | Cat-ERZURUM | 1.62 | 23 | P | | Pg | 22 50 17.7 | -0.6 |
| SURC | SANLIURFA_SURC | 1.74 | 226 | *i* P | | Pg | 22 50 20.3 | -0.2 |
| SURC | | | | *i* S | | Sg | 22 50 43.3 | +0.2 |
| SURC | SANLIURFA_SURC | 1.74 | 226 | P | | Pg | 22 50 20.3 | -0.2 |
| SURC | | | | S | | Sg | 22 50 43.3 | +0.2 |
| KEMA | Kemaliye | 1.74 | 312 | *i* P | | Pb | 22 50 18.5 | -0.9 |
| KEMA | Kemaliye | 1.74 | 312 | P | | Pb | 22 50 18.5 | -0.9 |
| AKCD | Akcadag | 1.77 | 277 | *i* P | | Pb | 22 50 19.7 | -0.2 |
| AKCD | | | | *i* S | | Sg | 22 50 44.8 | +0.6 |
| AKCD | Akcadag | 1.77 | 277 | P | | Pb | 22 50 19.7 | -0.2 |
| AKCD | | | | S | | Sg | 22 50 44.8 | +0.6 |
| SIRT | Sirnak | 1.91 | 108 | ePN | | Pn | 22 50 19.9 | 0.0 |
| SIRT | Sirnak | 1.91 | 108 | ePn | | Pn | 22 50 19.9 | 0.0 |

**IDC 18 23:49:04.4±1.9, 12°.88S×174°.13E, h0km, mb3.8/6,**
**mb1 4.1/6, mb1mx3.8/32, mbtmp3.7/6, MS3.2/10,**
**Ms1 3.3/10, ms1mx3.1/29, Error ellipse: s-maj=125.4km**
**s-min=23.5km az=149.0, North of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| DZM | Mont Dzumac | 11.72 | 218 | LR | | LR | 23 55 32.6 | |
| HNR | comp=Z,128nm,20.5s,baz=155,slow=33 Honiara | 14.33 | 282 | LR | | LR | 23 57 36.4 | |
| | comp=Z,160nm,19.3s,baz=122,slow=36 | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **URZ** | **Urewera** | **25.42** | **175** | LR | LR | 00 02 42.6 | |
| | comp=Z,52nm,18.8s,baz=38,slow=32 | | | | | | |
| **RAR** | **Rarotonga** | **26.26** | **112** | LR | LR | 00 03 23.1 | |
| | comp=Z,54nm,22.0s,baz=282,slow=33 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **32.02** | **347** | T | T | 00 29 53.1 | |
| | baz=163,slow=76 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **32.02** | **347** | T | T | 00 29 54.2 | |
| | baz=163 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **32.03** | **347** | T | T | 00 29 51.4 | |
| | baz=163,slow=76 | | | | | | |
| **WRA** | **Warramunga Arr** | **38.74** | **254** | P | P | 23 56 30.3 | -0.5 |
| | 0.6nm,0.9s,baz=86,slow=9.1,SNR=4.4 | | | | | | |
| **GUMO** | **Guam** | **39.15** | **311** | LR | LR | 00 13 32.9 | |
| | comp=Z,30nm,18.0s,baz=174,slow=38 | | | | | | |
| **ASAR** | **Alice Springs** | **39.55** | **248** | P | P | 23 56 37.8 | +0.2 |
| | 2.3nm,1.0s,baz=78,slow=8.5,SNR=11 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **59.69** | **327** | LR | LR | 00 21 50.7 | |
| | comp=Z,12nm,21.1s,baz=75,slow=33 | | | | | | |
| **VNDA** | **Vanda** | **64.95** | **183** | LR | LR | 00 23 02.2 | |
| | comp=Z,34nm,21.5s,baz=358,slow=31 | | | | | | |
| **KSRS** | **Korea Array** | **66.23** | **321** | LR | LR | 00 28 47.6 | |
| | comp=Z,15nm,18.2s,baz=106,slow=36 | | | | | | |
| **PETK** | **Petropavlovsk-** | **67.22** | **349** | LR | LR | 00 24 52.2 | |
| | comp=Z,26nm,20.6s,baz=103,slow=32 | | | | | | |
| **ILAR** | **Eielson Array** | **82.83** | **16** | P | P | 00 01 30.4 | +0.1 |
| | 1.5nm,0.9s,baz=230,slow=5.4,SNR=6.1 | | | | | | |
| **SONM** | **Songino Array** | **85.11** | **321** | LR | LR | 00 35 28.6 | |
| | comp=Z,14nm,21.0s,baz=230,slow=33 | | | | | | |
| **PDAR** | **Pinedale Array** | **88.85** | **46** | P | P | 00 02 00.2 | -0.7 |
| | 0.5nm,0.8s,baz=247,slow=4.7,SNR=3.5 | | | | | | |
| **TXAR** | **Lajitas Array** | **89.56** | **60** | P | P | 00 02 04.8 | +0.4 |
| | 0.2nm,0.6s,baz=235,slow=6.2,SNR=3.5 | | | | | | |
| **YKA** | **Yellowknife Ar** | **92.90** | **26** | P | P | 00 02 19.2 | +0.2 |
| | 0.2nm,0.8s,baz=253,slow=4.2,SNR=3.4 | | | | | | |

*NIED **18** 23:58:00, 35˚.30N×135˚.80E, h5km, Mw3.6 Best double couple: M₀2.53000×10¹⁴ NP1:φs334.00000˚, δ72.00000˚, λ14.00000˚. NP2:φs239.00000˚, δ77.00000˚, λ161.00000˚.*
*ISCJB **18** 23:58:51.3±0.6, 35˚.34N±0˚.05×135˚.75E±0˚.05, h10km, mb3.5/2, Error ellipse: s-maj=7.6km s-min=4.9km az=142.2*
*JMA **18** 23:58:51.2, 35˚.35N×135˚.78E, h8km±1km, M3.6*
*JMA Felt II J1.*
*IDC **18** 23:58:52.2±1.4, 35˚.21N×135˚.81E, h0km, mb3.5/2, mb1 3.4/5, mb1mx3.2/44, mbtmp3.3/5, ML3.0/3, MS2.5/1, Ms1 2.5/1, ms1mx2.0/30, Error ellipse: s-maj=24.0km s-min=22.0km az=174.0*

**ISC 18 23:58:52.0±0.8, 35˚.35N±0˚.04×135˚.80E±0˚.04, h10km, n10, σ1s44/15, 2C-2D, Western Honshu**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **JFM** | **Mihama** | **0.23** | **41** | ⇑P | | **Pg** | **23 58 56.2** | **-0.6** |
| JFM | | | | | S | **Sg** | **23 58 59.6** | **-0.4** |
| **JWT** | **Wachi** | **0.33** | **258** | ⇓P | | **Pg** | **23 58 57.4** | **-1.1** |
| JWT | | | | | S | **Sg** | **23 59 01.5** | **-1.5** |
| **JKY** | **Yasaka** | **0.63** | **296** | ⇓P | | **Pg** | **23 59 03.2** | **-1.0** |
| **JHE** | **Heguri** | **0.70** | **187** | ⇑P | | **Pg** | **23 59 04.8** | **-0.7** |
| JHE | | | | | S | **Sg** | **23 59 13.8** | **-0.9** |
| **MAT** | **Matsushiro** | **2.29** | **58** | P | | **Pn** | **23 59 30.8** | **+1.0** |
| MAT | | | | | *e*S | **Sg** | **00 00 04.0** | **-1.5** |
| **MJAR** | **Matsushiro Arr** | **2.29** | **58** | Pn | | **Pb** | **23 59 31.6** | **-1.8** |
| | 7.7nm,0.3s,baz=235,slow=17,SNR=17 | | | | | | | |
| MJAR | | | | | Sn | **Sg** | **00 00 04.3** | **-1.3** |
| | 8.2nm,0.3s,baz=232,slow=35,SNR=12 | | | | | | | |
| **JNU** | **Nakatsue** | **4.64** | **243** | Pn | | **Pn** | **00 00 02.1** | **-0.1** |
| | 0.6nm,0.3s,baz=88,slow=5.3,SNR=4.0 | | | | | | | |
| **KSRS** | **Korea Array** | **6.69** | **291** | Pn | | **Pn** | **00 00 31.1** | **+0.9** |
| | 0.3nm,0.3s,baz=107,slow=14,SNR=4.5 | | | | | | | |
| KSRS | | | | | LR | LR | 00 03 08.4 | |
| | comp=Z,38nm,20.4s,baz=126,slow=38 | | | | | | | |
| **SONM** | **Songino Array** | **25.11** | **309** | P | | **P** | **00 04 19.6** | **+2.5** |
| | 1.5nm,0.9s,baz=113,slow=9.6,SNR=8.3 | | | | | | | |
| **WRA** | **Warramunga Arr** | **55.01** | **182** | P | | **P** | **00 08 25.4** | **+1.8** |
| | 0.3nm,0.8s,baz=359,slow=7.6,SNR=3.3 | | | | | | | |

**KRSC 19 00:25:21.6±0.9, 55˚.61N×162˚.41E, h40km±23km, ML3.8, Near east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **KBTR** | **Krutoberegovo** | **0.64** | **21** | *e*P | | Pn | 00 25 35.1 | +0.8 |
| KBTR | | | | | *e*S | Sn | 00 25 44.5 | +1.2 |
| **KBG** | **Krutoberegovo** | **0.67** | **14** | *e*P | | Pn | 00 25 35.0 | +0.4 |
| KBG | | | | | *e*S | Sn | 00 25 44.2 | +0.3 |
| **ZLN** | **Zelenaya** | **0.99** | **295** | *e*P | | Pn | 00 25 40.2 | +1.1 |
| **CIRR** | **Tsirk** | **1.06** | **299** | *e*P | | Pn | 00 25 41.1 | +1.0 |
| **LGNR** | **Loginova** | **1.08** | **297** | *e*P | | Pn | 00 25 41.6 | +1.1 |
| **SMKR** | **Semkarok** | **1.11** | **332** | *e*P | | Pn | 00 25 41.3 | +0.6 |
| SMKR | | | | | *e*S | Sn | 00 25 55.9 | +1.1 |
| **BZMR** | **Bezymyannaya** | **1.13** | **287** | *e*P | | Pn | 00 25 42.1 | +1.0 |
| **BZWR** | **Bezymyannyi-We** | **1.14** | **289** | *e*P | | Pn | 00 25 42.2 | +1.0 |
| **BDR** | **Baidarnaya** | **1.17** | **325** | *e*P | | Pn | 00 25 42.6 | +1.0 |
| BDR | | | | | *e*S | Sn | 00 25 58.1 | +1.7 |
| **KRSR** | **Krestovskiy** | **1.20** | **301** | *e*P | | Pn | 00 25 42.4 | +0.4 |
| **KLY** | **Klyuchi** | **1.21** | **306** | *e*P | | Pn | 00 25 41.5 | -0.5 |
| KLY | | | | | *e*S | Sn | 00 25 56.0 | -1.2 |
| **KIRR** | **Kirishev** | **1.22** | **287** | *e*P | | Pn | 00 25 43.5 | +1.3 |
| KIRR | | | | | *e*S | Sn | 00 26 00.0 | +2.4 |
| **KMNR** | **Kamenistaya** | **1.24** | **278** | *e*P | | Pn | 00 25 44.6 | +2.1 |
| KMNR | | | | | *e*S | Sn | 00 26 01.1 | +3.1 |
| **SRKR** | **Sorokina** | **1.25** | **327** | *e*P | | Pn | 00 25 43.7 | +1.0 |
| SRKR | | | | | *e*S | Sn | 00 26 00.4 | +2.0 |
| **KPT** | **Kopyto** | **1.28** | **287** | *e*P | | Pn | 00 25 44.7 | +1.6 |
| **TUMR** | **Tumrok** | **1.33** | **257** | *e*P | | Pn | 00 25 46.1 | +2.3 |
| TUMR | | | | | *e*S | Sn | 00 26 03.6 | +3.3 |
| **KOZ** | **Kozyrevsk** | **1.50** | **288** | *e*P | | Pn | 00 25 48.4 | +2.4 |
| KOZ | | | | | *e*S | Sn | 00 26 07.5 | +3.2 |
| **BKI** | **Bering** | **2.07** | **100** | *e*P | | Pn | 00 25 57.4 | +3.6 |
| BKI | | | | | *e*S | Sn | 00 26 22.5 | +4.1 |
| **ESO** | **Esso** | **2.12** | **280** | P | | Pn | 00 25 56.1 | +1.6 |
| **KII** | **Karymskiy** | **2.33** | **229** | *e*P | | Pn | 00 26 00.4 | +3.0 |
| **SPN** | **Mys Shipunski** | **2.88** | **210** | *e*P | | Pn | 00 26 07.3 | +2.4 |
| SPN | | | | | *e*S | Sn | 00 26 39.2 | +0.9 |
| **NLC** | **Nalytchevo** | **3.03** | **217** | *e*P | | Pn | 00 26 10.0 | +3.0 |
| NLC | | | | | *e*S | Sn | 00 26 44.2 | +2.2 |
| **SDLR** | **Sedlovina** | **3.11** | **223** | *e*P | | Pn | 00 26 11.4 | +3.1 |
| **KRER** | **Koryakskii** | **3.15** | **224** | *e*P | | Pn | 00 26 12.5 | +3.7 |
| **AVH** | **Avacha** | **3.18** | **224** | *e*P | | Pn | 00 26 15.3 | +6.2 |
| **UGLR** | **Uglovaya** | **3.19** | **222** | *e*P | | Pn | 00 26 13.2 | +3.9 |
| **GNL** | **Ganaly** | **3.23** | **235** | *e*P | | Pn | 00 26 12.9 | +3.1 |
| **DALK** | **Dalny** | **3.36** | **221** | *e*P | | Pn | 00 26 15.3 | +3.9 |
| DALK | | | | | *e*S | Sn | 00 26 52.8 | +2.8 |
| **PET** | **Petropavlovsk** | **3.40** | **222** | *e*S | | Sn | 00 26 54.6 | +3.5 |
| **KRMR** | **Karymshinskiy** | **3.75** | **224** | *e*P | | Pn | 00 26 21.8 | +4.9 |
| KRMR | | | | | *e*S | Sn | 00 27 05.3 | +5.6 |
| **ASAK** | **Asacha** | **4.19** | **221** | *e*P | | Pn | 00 26 26.7 | +3.7 |

*AZER **19** 00:32:12.7±0.9, 38˚.86N×43˚.07E, h11km, Error ellipse: s-maj=6.5km s-min=5.7km az=123.0*
*ISN **19** 00:32:12.4±0.3, 38˚.55N×43˚.69E, h0km, ML3.6*
*ISK **19** 00:32:16.5, 38˚.98N×43˚.58E, h5km, ML3.2*
*DDA **19** 00:32:16.6, 38˚.92N×43˚.57E, h7km, Ml3.5*
*CSEM **19** 00:32:17.2±0.1, 38˚.93N×43˚.61E, h2km, ML3.5, Error ellipse: s-maj=3.8km s-min=2.9km az=148.0*
*IASPEI **19** 00:32:17.3±1.0, 38˚.94N±0˚.03×43˚.57E±0˚.02, h6km±5km, Error ellipse: s-maj=3.9km s-min=3.6km az=3.4, GT5 selection from ISC bulletin GT5 identified by Bond˜ır and McLaughlin (2009) selection criteria Bond˜ır and McLaughlin, A new ground truth data set for seismic studies, Seism. Res. Let., 80, 465-472, 2009*

**ISC 19 00:32:17.2±1.0, 38˚.92N±0˚.02×43˚.58E±0˚.02, h3km±8km, n127, σ1s46/163, 16C-12D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.07** | **353** | *i*P | | **Pg** | **00 32 18.5** | **-0.2** |
| VMUR | | | | | *i*S | **Sg** | **00 32 20.6** | **+0.9** |
| **VMUR** | **Van-Muradiye** | **0.07** | **353** | P | | **Pg** | **00 32 18.5** | **-0.2** |
| VMUR | | | | | S | **Sg** | **00 32 20.6** | **+0.9** |
| **ERCV** | **ERCIS-VAN** | **0.21** | **297** | *e*PG | | **Pg** | **00 32 21.2** | **-0.2** |
| **ERCV** | **ERCIS-VAN** | **0.21** | **297** | *e*Pg | | **Pg** | **00 32 21.2** | **-0.2** |
| **CLDR** | **Caldiran** | **0.34** | **50** | *e*PG | | **Pg** | **00 32 23.8** | **0.0** |
| CLDR | | | | | *e*SG | **Sg** | **00 32 29.2** | **+0.9** |
| **CLDR** | **Caldiran** | **0.34** | **50** | *i*P | | **Pg** | **00 32 23.5** | **-0.4** |
| CLDR | | | | | *i*S | **Sb** | **00 32 30.1** | **-2.0** |
| **CLDR** | **Caldiran** | **0.34** | **50** | P | | **Pg** | **00 32 23.5** | **-0.4** |
| **CLDR** | **Caldiran** | **0.34** | **50** | *e*Pg | | **Pg** | **00 32 23.8** | **0.0** |
| CLDR | | | | | *e*Sg | **Sg** | **00 32 29.2** | **+0.9** |
| CLDR | | | | | S | **Sb** | **00 32 30.1** | **-2.0** |
| **TVAN** | **Van** | **0.42** | **199** | *i*P | | **Pg** | **00 32 25.5** | **+0.2** |
| TVAN | | | | | *i*S | **Sb** | **00 32 34.5** | **+0.3** |
| **TVAN** | **Van** | **0.42** | **199** | P | | **Pg** | **00 32 25.5** | **+0.2** |
| **DYDN** | **Diyadin** | **0.62** | **8** | *i*P | | **Pg** | **00 32 28.4** | **-0.8** |
| DYDN | | | | | *i*S | **Sg** | **00 32 38.7** | **+1.3** |
| **DYDN** | **Diyadin** | **0.62** | **8** | P | | **Pg** | **00 32 28.4** | **-0.8** |
| DYDN | | | | | S | **Sg** | **00 32 38.7** | **+1.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.68** | **260** | *i*P | | **Pg** | **00 32 29.7** | **-0.6** |
| ADCV | | | | | *i*S | **Sb** | **00 32 40.6** | **-1.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.68** | **260** | P | | **Pg** | **00 32 29.7** | **-0.6** |
| ADCV | | | | | S | **Sb** | **00 32 40.6** | **-1.1** |
| **GEVA** | **Gevas** | **0.74** | **214** | *i*P | | **Pg** | **00 32 30.4** | **-0.9** |
| **GEVA** | **Gevas** | **0.74** | **214** | P | | **Pg** | **00 32 30.4** | **-0.9** |
| **TUTA** | **Tutak** | **0.76** | **309** | *i*P | | **Pg** | **00 32 30.6** | **-1.3** |
| TUTA | | | | | *i*S | **Sg** | **00 32 42.5** | **+0.7** |
| **AGRB** | **Hanur-Agry** | **0.80** | **325** | *e*PG | | **Pg** | **00 32 32.1** | **-0.4** |
| AGRB | | | | | *e*SG | **Sg** | **00 32 43.5** | **+0.7** |
| **AGRB** | **Hanur-Agry** | **0.80** | **325** | *e*Pg | | **Pg** | **00 32 32.1** | **-0.4** |
| AGRB | | | | | *e*Sg | **Sg** | **00 32 43.5** | **+0.7** |
| **BASK** | **Baskale_VAN** | **0.93** | **159** | *i*P | | **Pg** | **00 32 34.9** | **-0.2** |
| BASK | | | | | *i*S | **Sn** | **00 32 51.5** | **+0.1** |
| **BASK** | **Baskale_VAN** | **0.93** | **159** | P | | **Pg** | **00 32 34.9** | **-0.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.17** | **25** | *e*PN | | **Pg** | **00 32 38.8** | **-0.9** |
| **TASB** | **TASBURUN-IGDIR** | **1.17** | **25** | *e*Pn | | **Pg** | **00 32 38.8** | **-0.9** |
| **EKAR** | **Karacoban** | **1.23** | **286** | *i*P | | **Pg** | **00 32 39.8** | **-0.9** |
| **EKAR** | **Karacoban** | **1.23** | **286** | P | | **Pg** | **00 32 39.8** | **-0.9** |
| **EATA** | **Eleskirt** | **1.26** | **318** | *i*P | | **Pg** | **00 32 40.0** | **-1.4** |
| EATA | | | | | *i*S | **Sn** | **00 32 59.4** | **-0.4** |
| **EATA** | **Eleskirt** | **1.26** | **318** | P | | **Pg** | **00 32 40.0** | **-1.4** |
| EATA | | | | | S | **Sn** | **00 32 59.4** | **-0.4** |
| **HYR** | **Heyderabad** | **1.27** | **51** | ⇑P | | **Pg** | **00 32 40.6** | **-0.9** |
| | SNR=87 | | | | | | | |
| HYR | | | | | ⇓S | **Sn** | **00 33 03.6** | **+4.1** |
| **HYR** | **Heyderabad** | **1.27** | **51** | P | | **Pg** | **00 32 40.6** | **-0.9** |
| | SNR=87 | | | | | | | |
| **HAKT** | **HAKKARI** | **1.37** | **176** | *i*P | | **Pn** | **00 32 41.8** | **-1.7** |
| **HAKT** | **HAKKARI** | **1.37** | **176** | P | | **Pn** | **00 32 41.8** | **-1.7** |
| **YOVA** | **Hakkari_Y˜...kse** | **1.45** | **157** | *i*P | | **Pn** | **00 32 43.9** | **-0.6** |
| **YOVA** | **Hakkari_Y˜...kse** | **1.45** | **157** | P | | **Pn** | **00 32 43.9** | **-0.6** |
| **DIGO** | **Kars** | **1.50** | **354** | *i*P | | **Pn** | **00 32 45.2** | **-0.1** |
| **DIGO** | **Kars** | **1.50** | **354** | P | | **Pn** | **00 32 45.2** | **-0.1** |
| **NAX** | **Nakhchivan** | **1.51** | **80** | ⇑P | | **Pg** | **00 32 46.0** | **-0.2** |
| | SNR=52 | | | | | | | |
| NAX | | | | | ⇓S | **Sg** | **00 33 10.2** | **+4.4** |
| **NAX** | **Nakhchivan** | **1.51** | **80** | P | | **Pg** | **00 32 46.0** | **-0.2** |
| | SNR=52 | | | | | | | |
| **SRTM** | **Siirt_Merkez** | **1.60** | **235** | *i*P | | **Pb** | **00 32 46.7** | **-0.8** |
| **SRTM** | **Siirt_Merkez** | **1.60** | **235** | P | | **Pb** | **00 32 46.7** | **-0.8** |
| **SBZ** | **Shahbuz** | **1.60** | **72** | ⇓P | | **Pn** | **00 32 46.7** | **+0.1** |
| | SNR=37 | | | | | | | |
| SBZ | | | | | ⇑S | **Sg** | **00 33 12.7** | **+4.0** |
| **SBZ** | **Shahbuz** | **1.60** | **72** | P | | **Pn** | **00 32 46.7** | **+0.1** |
| | SNR=37 | | | | | | | |
| **VRTB** | **Varto-Mus** | **1.67** | **279** | *e*PN | | **Pn** | **00 32 47.6** | **0.0** |
| **VRTB** | **Varto-Mus** | **1.67** | **279** | *i*P | | **Pb** | **00 32 47.8** | **-1.0** |
| **VRTB** | **Varto-Mus** | **1.67** | **279** | *e*Pn | | **Pn** | **00 32 47.6** | **0.0** |
| **VRTB** | **Varto-Mus** | **1.67** | **279** | P | | **Pb** | **00 32 47.8** | **-1.0** |
| **CUKT** | **Cukurca** | **1.67** | **179** | *e*PN | | **Pg** | **00 32 49.0** | **-0.3** |
| **CUKT** | **Cukurca** | **1.67** | **179** | *i*P | | **Pb** | **00 32 47.8** | **-1.0** |
| **CUKT** | **Cukurca** | **1.67** | **179** | P | | **Pb** | **00 32 47.8** | **-1.0** |
| **CUKT** | **Cukurca** | **1.67** | **179** | *e*Pn | | **Pg** | **00 32 49.0** | **-0.3** |
| **SIRT** | **Sirnak** | **1.68** | **213** | *e*PN | | **Pg** | **00 32 48.8** | **-0.6** |
| **SIRT** | **Sirnak** | **1.68** | **213** | *e*Pn | | **Pg** | **00 32 48.8** | **-0.6** |
| **SIRN** | **S˜¨rnak** | **1.70** | **213** | *i*P | | **Pb** | **00 32 48.8** | **-0.4** |
| **SIRN** | **S˜¨rnak** | **1.70** | **213** | P | | **Pb** | **00 32 48.8** | **-0.4** |
| **HOMI** | **Horasan** | **1.71** | **311** | *i*P | | **Pb** | **00 32 48.7** | **-0.9** |
| **KARS** | **Kars** | **1.75** | **347** | *e*PN | | **Pn** | **00 32 48.1** | **-0.5** |
| **KARS** | **Kars** | **1.75** | **347** | *e*Pn | | **Pn** | **00 32 48.1** | **-0.5** |
| **EAK** | **Akyaka** | **1.76** | **1** | *i*P | | **Pg** | **00 32 51.6** | **+0.6** |
| **EAK** | **Akyaka** | **1.76** | **1** | P | | **Pg** | **00 32 51.6** | **+0.6** |
| **ORD** | **Ordubad** | **1.88** | **89** | P | | **Pb** | **00 32 51.3** | **-1.0** |
| | SNR=134 | | | | | | | |
| **SENK** | **Senkaya-Erzuru** | **1.89** | **330** | *e*PN | | **Pn** | **00 32 50.5** | **-0.1** |
| **SENK** | **Senkaya-Erzuru** | **1.89** | **330** | *e*Pn | | **Pn** | **00 32 50.5** | **-0.1** |
| **BNGL** | **BINGOL** | **1.90** | **272** | *i*P | | **Pb** | **00 32 52.3** | **-0.3** |
| **ERZM** | **Erzurum** | **1.98** | **300** | *i*P | | **Pb** | **00 32 53.0** | **-1.0** |
| **ERZM** | **Erzurum** | **1.98** | **300** | P | | **Pb** | **00 32 53.0** | **-1.0** |
| **BTMN** | **Batman** | **2.09** | **241** | *i*P | | **Pb** | **00 32 54.1** | **-1.7** |
| **BTMN** | **Batman** | **2.09** | **241** | P | | **Pb** | **00 32 54.1** | **-1.7** |
| **ECAT** | **Cat-ERZURUM** | **2.14** | **289** | *i*P | | **Pb** | **00 32 55.3** | **-1.4** |
| **ECAT** | **Cat-ERZURUM** | **2.14** | **289** | P | | **Pb** | **00 32 55.3** | **-1.4** |
| **BNGB** | **Bing¶ll** | **2.26** | **273** | *e*PN | | **Pn** | **00 32 56.4** | **+0.7** |
| **BGD** | **Bogdanovka** | **2.34** | **0** | P | | **Pg** | **00 33 01.6** | **-0.4** |
| **BINT** | **Bingol** | **2.41** | **270** | *e*Pn | | **Pn** | **00 32 56.4** | **-1.4** |
| **YEDI** | **Yedisu-Bingol** | **2.42** | **283** | *e*PN | | **Pn** | **00 32 58.4** | **+0.6** |
| **YEDI** | **Yedisu-Bingol** | **2.42** | **283** | *e*Pn | | **Pn** | **00 32 58.4** | **+0.6** |
| **DDEM** | **Demirkent** | **2.42** | **325** | *i*P | | **Pb** | **00 33 01.4** | **0.0** |
| **GDB** | **GEDABAY** | **2.45** | **42** | ⇑P | | **Pn** | **00 32 57.4** | **-1.0** |
| | SNR=27 | | | | | | | |
| GDB | | | | | ⇓S | **Sb** | **00 33 32.0** | **-0.8** |
| **GDB** | **GEDABAY** | **2.45** | **42** | P | | **Pn** | **00 32 57.4** | **-1.0** |
| | SNR=27 | | | | | | | |
| GDB | | | | | S | **Sb** | **00 33 32.0** | **-0.8** |
| **AKH** | **Akhalkalaki** | **2.48** | **358** | *e*PN | | **Pn** | **00 32 59.0** | **+0.2** |
| **AKH** | **Akhalkalaki** | **2.48** | **358** | P | | **Pg** | **00 33 04.5** | **-0.4** |
| **AKH** | **Akhalkalaki** | **2.48** | **358** | *e*Pn | | **Pn** | **00 32 59.0** | **+0.2** |
| **DAGI** | **Agillar** | **2.50** | **330** | *i*P | | **Pb** | **00 33 03.3** | **+0.4** |
| **QZX** | **Qazax, Azerbai** | **2.54** | **32** | ⇑P | | **Pn** | **00 32 57.6** | **-1.8** |
| | SNR=7.2 | | | | | | | |
| QZX | | | | | ⇓S | **Sn** | **00 33 32.4** | **+1.6** |
| **QZX** | **Qazax, Azerbai** | **2.54** | **32** | P | | **Pn** | **00 32 57.6** | **-1.8** |
| | SNR=7.2 | | | | | | | |
| QZX | | | | | S | **Sn** | **00 33 32.4** | **+1.6** |
| **HANI** | **Diyarbakir_Han** | **2.54** | **259** | *i*P | | **Pn** | **00 33 00.6** | **+1.1** |
| **HANI** | **Diyarbakir_Han** | **2.54** | **259** | P | | **Pn** | **00 33 00.6** | **+1.1** |
| **KOPT** | **Kop Dagi** | **2.62** | **296** | *i*P | | **Pb** | **00 33 05.8** | **+0.7** |
| **GANJ** | **Ganja** | **2.72** | **50** | ⇓P | | **Pn** | **00 33 01.3** | **-0.6** |
| | SNR=29 | | | | | | | |
| GANJ | | | | | ⇑S | **Sb** | **00 33 39.1** | **-1.3** |
| **GANJ** | **Ganja** | **2.72** | **50** | P | | **Pn** | **00 33 01.3** | **-0.6** |
| | SNR=29 | | | | | | | |
| GANJ | | | | | S | **Sb** | **00 33 39.1** | **-1.3** |
| **DIY** | **Diyarbakir** | **2.83** | **250** | *e*Pn | | **Pn** | **00 33 05.4** | **+2.0** |
| **MAZI** | **Mazidag** | **2.87** | **240** | *e*PN | | **Pn** | **00 33 05.6** | **+1.6** |
| **MAZI** | **Mazidag** | **2.87** | **240** | *e*Pn | | **Pn** | **00 33 05.6** | **+1.6** |
| **DYBB** | **Diyarbakir** | **2.87** | **251** | *e*PN | | **Pn** | **00 33 05.4** | **+1.4** |
| **BCA** | **Borcka** | **2.93** | **330** | *e*PN | | **Pn** | **00 33 05.3** | **+0.5** |
| **BCA** | **Borcka** | **2.93** | **330** | *e*Pn | | **Pn** | **00 33 05.3** | **+0.5** |
| **TBLG** | **Delisi** | **2.94** | **17** | *e*PN | | **Pn** | **00 33 05.4** | **+0.5** |
| **TBLG** | **Delisi** | **2.94** | **17** | P | | **Pb** | **00 33 05.4** | **+0.5** |
| **TBLG** | **Delisi** | **2.94** | **17** | *e*Pn | | **Pn** | **00 33 05.4** | **+0.5** |
| **BAYT** | **Ayd˜¨ntepe-Bay** | **3.03** | **300** | *e*PN | | **Pn** | **00 33 07.0** | **+0.7** |
| **BAYT** | **Ayd˜¨ntepe-Bay** | **3.03** | **300** | *e*Pn | | **Pn** | **00 33 07.1** | **+0.7** |
| **ERZN** | **Erzincan** | **3.07** | **284** | *e*PN | | **Pn** | **00 33 07.7** | **+1.0** |
| **BRDA** | **Brd** | **3.08** | **63** | ⇑P | | **Pn** | **00 33 06.6** | **-0.2** |
| BRDA | | | | | ⇓S | **Sb** | **00 33 48.6** | **-2.2** |
| **BRDA** | **Brd** | **3.08** | **63** | P | | **Pn** | **00 33 06.6** | **-0.2** |
| **MNGR** | **Mingechevir, A** | **3.27** | **54** | ⇑P | | **Pn** | **00 33 08.8** | **-0.5** |
| | SNR=3.1 | | | | | | | |
| MNGR | | | | | ⇑S | **Sb** | **00 33 52.7** | **-3.4** |
| **MNGR** | **Mingechevir, A** | **3.27** | **54** | P | | **Pn** | **00 33 08.8** | **-0.5** |
| | SNR=3.1 | | | | | | | |
| MNGR | | | | | S | **Sb** | **00 33 52.7** | **-3.4** |
| **PTK** | **Pertek** | **3.27** | **271** | *e*PN | | **Pn** | **00 33 10.9** | **+1.3** |
| **PTK** | **Pertek** | **3.27** | **271** | *e*Pn | | **Pn** | **00 33 10.9** | **+1.3** |
| **EZC** | **Erzincan** | **3.38** | **285** | *e*Pn | | **Pn** | **00 33 07.7** | **-3.4** |
| **SVRC** | **Sivrice-ELAZID** | **3.39** | **262** | *e*PN | | **Pn** | **00 33 12.5** | **+1.2** |
| **SVRC** | **Sivrice-ELAZID** | **3.39** | **262** | *e*Pn | | **Pn** | **00 33 12.5** | **+1.2** |
| **ZRD** | **Zardab** | **3.45** | **66** | ⇑P | | **Pn** | **00 33 11.6** | **-0.2** |
| ZRD | | | | | ⇑S | **Sb** | **00 33 57.6** | **-3.6** |
| **ZRD** | **Zardab** | **3.45** | **66** | P | | **Pn** | **00 33 11.6** | **-0.2** |
| **ZKTA** | **Zakatala** | **3.57** | **40** | ⇑P | | **Pn** | **00 33 12.4** | **-1.2** |
| | SNR=4.0 | | | | | | | |
| ZKTA | | | | | ⇑S | **Sn** | **00 33 59.0** | **+2.7** |
| **SEKA** | **Sheki** | **3.59** | **49** | ⇓P | | **Pn** | **00 33 13.9** | **0.0** |
| | SNR=3.5 | | | | | | | |
| SEKA | | | | | ⇓S | **Sb** | **00 34 01.8** | **-3.7** |
| **SEKA** | **Sheki** | **3.59** | **49** | P | | **Pn** | **00 33 13.9** | **0.0** |
| | SNR=3.5 | | | | | | | |
| **GUDG** | **Gudauri** | **3.60** | **11** | P | | **Pg** | **00 33 25.1** | **-1.2** |
| **ONI** | **Oni** | **3.66** | **359** | P | | **Pb** | **00 33 23.1** | **+0.4** |
| **LRK** | **Lerik** | **3.73** | **93** | ⇓P | | **Pn** | **00 33 15.5** | **-0.4** |
| | SNR=6.0 | | | | | | | |
| LRK | | | | | ⇓S | **Sb** | **00 34 04.6** | **-4.9** |
| **LRK** | **Lerik** | **3.73** | **93** | P | | **Pn** | **00 33 15.5** | **-0.4** |
| | SNR=6.0 | | | | | | | |
| **GLBA** | **Clilabad** | **3.76** | **84** | ⇑P | | **Pn** | **00 33 16.0** | **-0.1** |
| | SNR=3.7 | | | | | | | |
| GLBA | | | | | ⇓S | **Sb** | **00 34 05.5** | **-4.7** |
| **GLBA** | **Clilabad** | **3.76** | **84** | P | | **Pn** | **00 33 16.0** | **-0.1** |
| | SNR=3.7 | | | | | | | |
| **QBL** | **Gabala** | **3.84** | **57** | ⇑P | | **Pn** | **00 33 16.8** | **-0.5** |
| | SNR=5.4 | | | | | | | |
| QBL | | | | | ⇑S | **Sn** | **00 34 07.0** | **+3.9** |
| **QBL** | **Gabala** | **3.84** | **57** | P | | **Pn** | **00 33 16.8** | **-0.5** |
| | SNR=5.4 | | | | | | | |
| QBL | | | | | S | **Sn** | **00 34 07.0** | **+3.9** |
| **ILIC** | **ilic-Erzincan** | **3.93** | **279** | *e*PN | | **Pn** | **00 33 20.3** | **+1.7** |
| **ILIC** | **ilic-Erzincan** | **3.93** | **279** | *e*Pn | | **Pn** | **00 33 20.3** | **+1.7** |
| **URFA** | **Urfa** | **4.03** | **250** | *e*PN | | **Pn** | **00 33 22.5** | **+2.6** |
| **URFA** | **Urfa** | **4.03** | **250** | *e*Pn | | **Pn** | **00 33 22.5** | **+2.6** |
| **MALT** | **Malatya** | **4.08** | **263** | *e*PN | | **Pn** | **00 33 22.4** | **+1.7** |
| **MALT** | **Malatya** | **4.08** | **263** | *e*Pn | | **Pn** | **00 33 22.4** | **+1.7** |

*KRSC **19** 01:07:51.7±1.5, 52˚.50N×159˚.96E, h47km±18km, ML4.1*
*MOS **19** 01:07:52.2±0.7, 52˚.38N×159˚.92E, h46km, mb4.6/3, Error ellipse: s-maj=11.0km s-min=4.5km az=97.1*
*ISCJB **19** 01:07:53.8±0.6, 52˚.51N±0˚.04×159˚.84E±0˚.07, h56km±7km, mb3.7/7, MS2.5/1, Error ellipse: s-maj=8.4km s-min=4.0km az=43.0*
*IDC **19** 01:07:56.8±3.4, 52˚.50N×159˚.44E, h84km±17km, mb3.4/7, mb1 3.6/7, mb1mx3.3/43, mbtmp3.7/7, MS2.7/1, Ms1 2.7/1, ms1mx2.3/28, Error ellipse: s-maj=63.7km s-min=25.7km az=8.0*

**ISC 19 01:07:53.0±1.1, 52˚.49N±0˚.05×159˚.91E±0˚.04, h46km±10km, n83, σ1s60/107, mb3.6/7, 2D, Off east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **SPN** | **Mys Shipunski** | **0.61** | **7** | PN | | **Pn** | **01 08 05.8** | **+0.4** |
| SPN | | | | | S | **Sn** | **01 08 14.3** | **0.0** |
| **SPN** | **Mys Shipunski** | **0.61** | **7** | *e*P | | **Pn** | **01 08 05.8** | **+0.4** |
| SPN | | | | | *e*S | **Sn** | **01 08 14.3** | **0.0** |
| **NLC** | **Nalytchevo** | **0.76** | **334** | PN | | **Pn** | **01 08 07.6** | **+0.2** |
| NLC | | | | | S | **Sn** | **01 08 18.0** | **+0.2** |
| **NLC** | **Nalytchevo** | **0.76** | **334** | *e*P | | **Pn** | **01 08 07.6** | **+0.2** |
| NLC | | | | | *e*S | **Sn** | **01 08 18.0** | **+0.2** |
| **RUS** | **Russkaya** | **0.85** | **266** | PN | | **Pn** | **01 08 09.1** | **+0.5** |
| RUS | | | | | S | **Sn** | **01 08 20.7** | **+0.7** |
| **RUS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **USRK** | **Ussuriysk Ar.** | **20.23 257** | LR | LR | 01 21 53.3 | | |
| | comp=N,24nm,20.0s,baz=163,slow=42 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy 33.15 168** | | T | T | 01 50 13.7 | | |
| | baz=352,slow=76,SNR=30 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy 33.16 168** | | T | T | 01 50 20.0 | | |
| | baz=352,slow=76,SNR=29 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy 33.17 168** | | T | T | 01 50 20.3 | | |
| | baz=352,slow=76,SNR=41 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy 34.33 169** | | T | T | 01 51 42.1 | | |
| | baz=352,slow=76,SNR=10.0 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy 34.34 169** | | T | T | 01 51 45.4 | | |
| | baz=352,slow=76,SNR=20 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy 34.35 169** | | T | T | 01 51 44.5 | | |
| | baz=352,slow=76,SNR=6.5 | | | | | | |
| **YKA** | **Yellowknife Ar** | **43.68 42** | P | **P** | **01 15 53.8 +0.9** | | |
| | comp=N,0.1nm,0.7s,baz=295,slow=8.0,SNR=3.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **48.31 296** | P | **P** | **01 16 27.0 -2.5** | | |
| | comp=N,0.3nm,0.5s,baz=58,slow=6.3,SNR=6.3 | | | | | | |
| **ARCES** | **ARCESS Array B** | **53.82 342** | P | **P** | **01 17 08.9 -1.6** | | |
| | comp=N,1.9nm,0.9s,baz=42,slow=9.6,SNR=4.8 | | | | | | |
| **FINES** | **FINESS Array B** | **60.63 337** | P | **P** | **01 17 56.9 -1.7** | | |
| | comp=N,6.7nm,1.2s,baz=22,slow=7.7,SNR=3.7 | | | | | | |
| **NOA** | **NORSAR Array B** | **64.09 344** | P | **P** | **01 18 21.0 -0.7** | | |
| | comp=N,4.8nm,1.1s,baz=14,slow=5.6,SNR=5.4 | | | | | | |
| **TXAR** | **Lajitas Array** | **70.98 67** | P | **P** | **01 19 07.6 +1.7** | | |
| | comp=N,0.3nm,0.7s,baz=296,slow=4.3,SNR=4.1 | | | | | | |
| **GERES** | **GERESS Array B** | **75.03 338** | P | **P** | **01 19 28.7 -0.8** | | |
| | comp=N,0.4nm,0.6s,baz=29,slow=2.2,SNR=3.1 | | | | | | |

*ISCJB* ***19*** *01:20:01.5±1.5, 33˚01S±0˚07×177˚19W±0˚2, h33km,*
*mb4.5/3, Error ellipse: s-maj=29.7km s-min=6.9km*
*az=12.6.*
*IDC* ***19*** *01:20:02.7±1.4, 32˚52S×178˚37W, h0km, mb4.6/3,*
*mb1 4.7/4, mb1mx4.1/32, mbtmp4.6/4, ML4.5/1, MS3.3/1,*
*Ms1 3.3/1, ms1mx2.8/27, Error ellipse: s-maj=39.2km*
*s-min=32.5km az=151.0*

**ISC 19 01:20:07.5±1.5, 32˚95S±0˚09×178˚5W±0˚2, h33km, n20, σ1§43/23, mb4.6/3, South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **3.71** | **7** | Pn | Pn | 01 20 56.4 | -6.1 |
| | 45nm,0.3s,baz=103,slow=18,SNR=3.7 | | | | | | |
| RAO | | | | Sn | Sn | 01 21 35.2 | -10 |
| | 93nm,0.3s,baz=120,slow=20,SNR=2.9 | | | | | | |
| **WMGZ** | **Waiomatatini S** | **5.49** | **207** | *e*PN | **Pn** | **01 21 26.9** | **0.0** |
| **PKGZ** | **Pakihiroa** | **5.68** | **209** | *e*PN | **Pn** | **01 21 27.2** | **-2.5** |
| **HAZ** | **Te Kaha** | **5.70** | **212** | *e*PN | **Pn** | **01 21 28.8** | **-1.0** |
| HAZ | | | | *e*SN | **Sn** | **01 22 36.1** | **+2.1** |
| **PUZ** | **Puketiti** | **5.77** | **207** | *e*PN | **Pn** | **01 21 29.7** | **-1.1** |
| PUZ | | | | *e*SN | **Sn** | **01 22 36.0** | **+0.1** |
| **RUGZ** | **Raukumara Rang** | **5.92** | **211** | *e*PN | **Pn** | **01 21 31.5** | **-1.4** |
| **TWGZ** | **Tauwhareparae** | **5.97** | **208** | *e*PN | **Pn** | **01 21 32.0** | **-1.6** |
| TWGZ | | | | *e*SN | **Sn** | **01 22 41.4** | **+0.5** |
| **URZ** | **Urewera** | **6.41** | **213** | Pn | **Pn** | **01 21 39.3** | **-0.3** |
| | 5.9nm,0.3s,baz=330,slow=1.1,SNR=26 | | | | | | |
| URZ | | | | Sn | **Sn** | **01 22 50.7** | **-0.9** |
| | 8.8nm,0.3s,baz=175,slow=23,SNR=14 | | | | | | |
| **URZ** | **Urewera** | **6.41** | **213** | *e*PN | **Pn** | **01 21 37.6** | **-2.0** |
| URZ | | | | *e*SN | **Sn** | **01 22 50.5** | **-1.2** |
| **RIGZ** | **Rimuhau** | **6.51** | **207** | *e*PN | **Pn** | **01 21 40.0** | **-1.1** |
| **RPZ** | **Rata Peaks** | **13.53** | **214** | Pn | **Pn** | **01 23 17.9** | **+0.9** |
| | 1.3nm,0.3s,baz=90,slow=5.1,SNR=5.4 | | | | | | |
| RPZ | | | | Sn | Sn | 01 25 34.6 | -12 |
| | 1.6nm,0.3s,baz=239,slow=4.0,SNR=9.5 | | | | | | |
| **DZM** | **Mont Dzumac** | **17.21** | **305** | P | **Pn** | **01 24 05.2** | **-0.3** |
| | 0.3nm,0.3s,baz=128,slow=19,SNR=2.4 | | | | | | |
| **RAR** | **Rarotonga** | **20.29** | **60** | LR | LR | 01 31 13.2 | |
| | comp=Z,86nm,19.1s,baz=258,slow=34 | | | | | | |
| **CTA** | **Charters Tower** | **33.91** | **283** | P | **P** | **01 26 49.0** | **+1.4** |
| | 4.8nm,0.4s,baz=106,slow=10,SNR=8.8 | | | | | | |
| **ASAR** | **Alice Springs** | **42.65** | **270** | P | **P** | **01 28 01.3** | **+0.1** |
| | 2.6nm,0.6s,baz=108,slow=7.6,SNR=27 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.87** | **275** | P | **P** | **01 28 10.6** | **-0.4** |
| | 4.1nm,0.4s,baz=115,slow=7.7,SNR=28 | | | | | | |
| **FINES** | **FINESS Array B** | **147.38** | **338** | PKPbc | **PKPbc** | **01 39 45.6** | **-1.4** |
| | 4.9nm,0.6s,baz=40,slow=4.5,SNR=37 | | | | | | |
| **AKASG** | **Malin Array Be** | **153.03** | **319** | PKPbc | **PKPbc** | **01 40 00.1** | **-0.9** |
| | 0.1nm,0.3s,baz=59,slow=2.2,SNR=4.6 | | | | | | |
| **BRTR** | **Keskin Array B** | **153.37** | **294** | PKPbc | **PKPbc** | **01 40 01.8** | **-0.6** |
| | 1.2nm,0.9s,baz=139,slow=3.4,SNR=5.6 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **160.29** | **180** | PKPab | **PKPab** | **01 40 47.6** | **+3.1** |
| | 0.3nm,0.5s,baz=174,slow=3.7,SNR=3.8 | | | | | | |

*ISCJB* ***19*** *01:22:48.9±0.5, 36˚52N±0˚02×27˚53E±0˚02, h12km±4km,*
*Error ellipse: s-maj=3.5km s-min=3.0km az=158.5*
*ATH* ***19*** *01:22:48.2, 36˚53N×27˚60E, h29km, ML2.9/7, Error*
*ellipse: s-maj=1.6km s-min=0.9km az=75.0*
*ISK* ***19*** *01:22:48.2, 36˚52N×27˚58E, h16km, ML2.8*
*DDA* ***19*** *01:22:48.5, 36˚51N×27˚56E, h24km, Ml3.2*
*CSEM* ***19*** *01:22:49.0±0.1, 36˚53N×27˚54E, h10km, ML2.9, Error*
*ellipse: s-maj=3.7km s-min=3.4km az=159.0*

**ISC 19 01:22:48.7±1.0, 36˚53N±0˚02×27˚55E±0˚02, h9km±9km, n90, σ1§13/119, Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **NISR** | **Nisiros** | **0.35** | **284** | P | **Pg** | **01 22 56.3** | **+0.7** |
| NISR | | | | S | **Sb** | **01 23 03.4** | **+0.6** |
| NISR | | | | AML | AML | 01 23 06.0 | |
| | comp=N,2933μm,0.4s | | | | | | |
| NISR | | | | AML | AML | 01 23 07.7 | |
| | comp=E,6195μm,0.3s | | | | | | |
| **NISR** | **Nisiros** | **0.35** | **284** | P | **Pg** | **01 22 56.3** | **+0.7** |
| **BDRM** | **Kayabasi** | **0.55** | **351** | *i* P | **Pb** | **01 23 00.1** | **-0.4** |
| BDRM | | | | *i* S | **Sb** | **01 23 08.9** | **+0.4** |
| **BDRM** | **Kayabasi** | **0.55** | **351** | P | **Pb** | **01 23 00.1** | **-0.4** |
| BDRM | | | | S | **Sb** | **01 23 08.9** | **+0.4** |
| **ARG** | **Arkhangelos** | **0.56** | **123** | P | **Pg** | **01 23 00.0** | **+0.5** |
| ARG | | | | S | **Sg** | **01 23 07.0** | **+0.2** |
| ARG | | | | AML | AML | 01 23 09.4 | |
| | comp=E,3154μm,0.3s | | | | | | |
| ARG | | | | AML | AML | 01 23 09.5 | |
| | comp=N,3294μm,0.3s | | | | | | |
| **ARG** | **Arkhangelos** | **0.56** | **123** | P | **Pg** | **01 23 00.0** | **+0.5** |
| ARG | | | | S | **Sg** | **01 23 07.0** | **+0.2** |
| **BODT** | **Bodrum** | **0.57** | **340** | *e*PG | **Pg** | **01 23 00.0** | **+0.2** |
| BODT | | | | *e*SG | **Sb** | **01 23 09.0** | **-0.2** |
| **BODT** | **Bodrum** | **0.57** | **340** | *e*Pg | **Pg** | **01 23 00.0** | **+0.2** |
| BODT | | | | *e*Sg | **Sg** | **01 23 09.0** | **-0.2** |
| **TURN** | **Turunc** | **0.92** | **67** | *e*PG | Pg | 01 22 60.0 | -6.3 |
| TURN | | | | *e*SG | Sg | 01 23 09.5 | -8.7 |
| **TURN** | **Turunc** | **0.92** | **67** | *i* P | Pg | 01 23 00.7 | -5.7 |
| TURN | | | | *i* S | **Sg** | **01 23 09.9** | **-8.3** |
| **DALY** | **Dalyan (Mu˘la** | **0.93** | **72** | *e*PG | **Pg** | **01 23 06.5** | **-0.1** |
| DALY | | | | *e*SG | **Sb** | **01 23 19.7** | **+0.1** |
| **DALY** | **Dalyan (Mu˘la** | **0.93** | **72** | *i* P | **Pg** | **01 23 06.6** | **-0.1** |
| DALY | | | | *i* S | **Sg** | **01 23 19.5** | **+0.7** |
| **DALY** | **Dalyan (Mu˘la** | **0.93** | **72** | P | **Pg** | **01 23 06.6** | **-0.1** |
| DALY | | | | S | **Sg** | **01 23 19.5** | **+0.7** |
| **KARP** | **Karpathos** | **1.03** | **198** | *e*PG | **Pg** | **01 23 08.6** | **+0.2** |
| **KARP** | **Karpathos** | **1.03** | **198** | P | **Pg** | **01 23 08.1** | **-0.3** |
| KARP | | | | S | **Sb** | **01 23 22.4** | **+0.1** |
| KARP | | | | AML | AML | 01 23 23.2 | |
| | comp=E,2376μm,0.2s | | | | | | |
| KARP | | | | AML | AML | 01 23 23.4 | |
| | comp=N,2068μm,0.2s | | | | | | |
| **KARP** | **Karpathos** | **1.03** | **198** | P | **Pg** | **01 23 08.1** | **-0.3** |
| **KARP** | **Karpathos** | **1.03** | **198** | *e*Pg | **Pg** | **01 23 08.6** | **+0.2** |
| KARP | | | | S | **Sb** | **01 23 22.4** | **+0.1** |
| **AYDN** | **Tasoluk** | **1.16** | **13** | *i* P | **Pb** | **01 23 10.5** | **-0.6** |
| AYDN | | | | *i* S | **Sn** | **01 23 27.6** | **+0.2** |
| **GCAM** | **G?zelcaml?** | **1.20** | **348** | *e*PN | **Pg** | **01 23 12.2** | **+0.4** |
| **GCAM** | **G?zelcaml?** | **1.20** | **348** | *i* P | **Pn** | **01 23 11.7** | **0.0** |
| GCAM | | | | *i* S | **Sn** | **01 23 30.8** | **+2.6** |
| **GCAM** | **G?zelcaml?** | **1.20** | **348** | P | **Pn** | **01 23 11.7** | **0.0** |
| **GCAM** | **G?zelcaml?** | **1.20** | **348** | *e*Pn | **Pg** | **01 23 12.2** | **+0.4** |
| GCAM | | | | S | **Sn** | **01 23 30.8** | **+2.6** |
| **FETY** | **Fethiye** | **1.24** | **84** | *e*PN | **Pn** | **01 23 11.1** | **-1.2** |
| **FETY** | **Fethiye** | **1.24** | **84** | *e*Pn | **Pn** | **01 23 11.1** | **-1.2** |
| **FETY** | **Fethiye** | **1.24** | **84** | P | **Pn** | **01 23 12.0** | **-0.3** |
| FETY | | | | S | **Sn** | **01 23 30.0** | **+0.8** |
| **SMG** | **Samos** | **1.31** | **334** | P | **Pn** | **01 23 11.9** | **-1.4** |
| SMG | | | | S | **Sg** | **01 23 31.7** | **+0.7** |
| SMG | | | | AML | AML | 01 23 35.9 | |
| | comp=E,1260μm,0.7s | | | | | | |
| SMG | | | | AML | AML | 01 23 36.5 | |
| | comp=N,911μm,0.3s | | | | | | |
| **SMG** | **Samos** | **1.31** | **334** | P | **Pn** | **01 23 11.9** | **-1.4** |
| SMG | | | | S | **Sg** | **01 23 31.7** | **+0.7** |
| **TAVA** | **DENIZLI_Tavas** | **1.44** | **49** | *i* P | **Pn** | **01 23 15.5** | **+0.3** |
| TAVA | | | | *i* S | **Sg** | **01 23 35.8** | **+0.8** |
| **TAVA** | **DENIZLI_Tavas** | **1.44** | **49** | P | **Pn** | **01 23 15.5** | **+0.3** |
| TAVA | | | | S | **Sg** | **01 23 35.8** | **+0.8** |
| **DGB** | **˘zmir** | **1.61** | **341** | *i* P | **Pn** | **01 23 16.7** | **-0.8** |
| **DNZL** | **Cakiroluk** | **1.67** | **45** | *i* P | **Pn** | **01 23 18.8** | **+0.4** |
| **DNZL** | **Cakiroluk** | **1.67** | **45** | P | **Pn** | **01 23 18.8** | **+0.4** |
| **AKAS** | **Kas** | **1.68** | **99** | *e*PN | **Pn** | **01 23 17.4** | **-1.1** |
| **AKAS** | **Kas** | **1.68** | **99** | *i* P | **Pb** | **01 23 20.4** | **+0.4** |
| **AKAS** | **Kas** | **1.68** | **99** | *e*Pn | **Pn** | **01 23 17.4** | **-1.1** |
| **AKAS** | **Kas** | **1.68** | **99** | P | **Pb** | **01 23 20.4** | **+0.4** |
| **GLHS** | **Gihisar (BURDU** | **1.69** | **67** | *e*PN | **Pn** | **01 23 17.1** | **-1.4** |
| **GLHS** | **Gihisar (BURDU** | **1.69** | **67** | *e*Pn | **Pn** | **01 23 17.1** | **-1.4** |
| **SANT** | **Santorini** | **1.69** | **265** | P | **Pb** | **01 23 19.5** | **-0.6** |
| **SANT** | **Santorini** | **1.69** | **265** | P | **Pb** | **01 23 19.5** | **-0.6** |
| **APE** | **Apeiranthos** | **1.71** | **289** | *e*PN | **Pn** | **01 23 18.5** | **-0.3** |
| **APE** | **Apeiranthos** | **1.71** | **289** | P | **Pn** | **01 23 17.5** | **-1.3** |
| APE | | | | S | **Sn** | **01 23 40.1** | **-0.7** |
| **APE** | **Apeiranthos** | **1.71** | **289** | P | **Pn** | **01 23 17.5** | **-1.3** |
| **APE** | **Apeiranthos** | **1.71** | **289** | *e*Pn | **Pn** | **01 23 18.5** | **-0.3** |
| APE | | | | S | **Sn** | **01 23 40.1** | **-0.7** |
| **CMBO** | **Columbo, Santo** | **1.73** | **269** | P | **Pb** | **01 23 20.7** | **0.0** |
| **CMBO** | **Columbo, Santo** | **1.73** | **269** | P | **Pb** | **01 23 20.7** | **0.0** |
| **THR3** | **Thira Island,** | **1.74** | **267** | P | **Pb** | **01 23 20.7** | **-0.1** |
| **THR3** | **Thira Island,** | **1.74** | **267** | P | **Pb** | **01 23 20.7** | **-0.1** |
| **THR6** | **Thira Island,** | **1.74** | **265** | P | **Pn** | **01 23 19.0** | **-0.2** |
| **THR6** | **Thira Island,** | **1.74** | **265** | P | **Pn** | **01 23 19.0** | **-0.2** |
| **GOLH** | **Golhisar** | **1.76** | **66** | *i* P | **Pb** | **01 23 22.1** | **+0.8** |
| **GOLH** | **Golhisar** | **1.76** | **66** | P | **Pb** | **01 23 22.1** | **+0.8** |
| **ZKR** | **Zakros** | **1.78** | **218** | P | **Pn** | **01 23 19.9** | **+0.2** |
| ZKR | | | | S | **Sn** | **01 23 42.9** | **+0.5** |
| ZKR | | | | AML | AML | 01 23 48.4 | |
| | comp=N,131μm,0.7s | | | | | | |
| ZKR | | | | AML | AML | 01 23 52.1 | |
| | comp=E,210μm,0.5s | | | | | | |
| **ZKR** | **Zakros** | **1.78** | **218** | P | **Pn** | **01 23 19.9** | **+0.2** |
| ZKR | | | | S | **Sn** | **01 23 42.9** | **+0.5** |
| **ZEY** | **˘zmir** | **1.90** | **334** | *i* P | **Pn** | **01 23 20.7** | **-0.7** |
| **URLA** | **Izmir** | **1.98** | **338** | *e*PN | **Pn** | **01 23 21.9** | **-0.7** |
| **URLA** | **Izmir** | **1.98** | **338** | *i* P | **Pn** | **01 23 22.0** | **-0.5** |
| **URLA** | **Izmir** | **1.98** | **338** | *e*Pn | **Pn** | **01 23 21.9** | **-0.7** |
| **NPS** | **Neapolis** | **2.02** | **232** | P | **Pn** | **01 23 22.3** | **-0.7** |
| NPS | | | | S | **Sn** | **01 23 46.8** | **-1.5** |
| NPS | | | | AML | AML | 01 23 55.6 | |
| | comp=E,190μm,0.5s | | | | | | |
| NPS | | | | AML | AML | 01 23 58.4 | |
| | comp=N,158μm,0.5s | | | | | | |
| **NPS** | **Neapolis** | **2.02** | **232** | P | **Pn** | **01 23 22.3** | **-0.7** |
| NPS | | | | S | **Sn** | **01 23 46.8** | **-1.5** |
| **LAST** | **Lasithi** | **2.16** | **232** | P | **Pn** | **01 23 25.6** | **+0.5** |
| **LAST** | **Lasithi** | **2.16** | **232** | P | **Pn** | **01 23 25.6** | **+0.5** |
| **CHOS** | **Chios island** | **2.21** | **328** | P | **Pn** | **01 23 24.4** | **-1.3** |
| CHOS | | | | S | **Sn** | **01 23 52.2** | **-0.9** |
| **CHOS** | **Chios island** | **2.21** | **328** | P | **Pn** | **01 23 24.4** | **-1.3** |
| CHOS | | | | S | **Sn** | **01 23 52.2** | **-0.9** |
| **BRDR** | **BURDUR-Merkez** | **2.32** | **59** | *i* P | **Pn** | **01 23 29.2** | **+1.9** |
| **BRDR** | **BURDUR-Merkez** | **2.32** | **59** | P | **Pn** | **01 23 29.2** | **+1.9** |
| **KHAL** | **Karahalli** | **2.40** | **39** | *i* P | **Pn** | **01 23 28.3** | **-0.1** |
| **KHAL** | **Karahalli** | **2.40** | **39** | P | **Pn** | **01 23 28.3** | **-0.1** |
| **IDI** | **Anoyia** | **2.49** | **241** | P | **Pn** | **01 23 31.0** | **+1.5** |
| IDI | | | | S | **Sn** | **01 23 59.9** | **-0.1** |
| **IDI** | **Anoyia** | **2.49** | **241** | P | **Pn** | **01 23 31.0** | **+1.5** |
| IDI | | | | S | **Sn** | **01 23 59.9** | **-0.1** |
| **SERI** | **Serifos** | **2.54** | **285** | P | **Pn** | **01 23 29.1** | **-1.1** |
| **SERI** | **Serifos** | **2.54** | **285** | P | **Pn** | **01 23 29.1** | **-1.1** |
| **SIVA** | **Sivas** | **2.69** | **237** | P | **Pn** | **01 23 33.5** | **+1.3** |
| **SIVA** | **Sivas** | **2.69** | **237** | P | **Pn** | **01 23 33.5** | **+1.3** |
| **PRK** | **Paraskevi** | **2.90** | **340** | P | **Pn** | **01 23 34.5** | **-0.6** |
| PRK | | | | AML | AML | 01 24 27.8 | |
| | comp=E,147μm,0.9s | | | | | | |
| PRK | | | | AML | AML | 01 24 30.2 | |
| | comp=N,174μm,0.9s | | | | | | |
| **PRK** | **Paraskevi** | **2.90** | **340** | P | **Pn** | **01 23 34.5** | **-0.6** |
| **KARY** | **Karystos** | **2.90** | **302** | P | **Pn** | **01 23 34.7** | **-0.4** |
| **KARY** | **Karystos** | **2.90** | **302** | P | **Pn** | **01 23 34.7** | **-0.4** |
| **SIGR** | **SIGRI** | **3.00** | **334** | P | **Pn** | **01 23 35.8** | **-0.7** |
| **SIGR** | **SIGRI** | **3.00** | **334** | P | **Pn** | **01 23 35.8** | **-0.7** |
| **VLY** | **Voula,Athens** | **3.28** | **295** | P | **Pn** | **01 23 40.7** | **+0.4** |
| **VLY** | **Voula,Athens** | **3.28** | **295** | P | **Pn** | **01 23 40.7** | **+0.4** |
| **LIA** | **Limnos Island** | **3.85** | **332** | P | **Pn** | **01 23 47.5** | **-0.6** |
| **LIA** | **Limnos Island** | **3.85** | **332** | P | **Pn** | **01 23 47.5** | **-0.6** |
| **SMTH** | **Samothraki Isl** | **4.25** | **339** | P | **Pn** | **01 23 53.1** | **-0.5** |
| **SMTH** | **Samothraki Isl** | **4.25** | **339** | P | **Pn** | **01 23 53.1** | **-0.5** |
| **ALN** | **Alexandroupoli** | **4.52** | **345** | P | **Pn** | **01 23 57.2** | **-0.2** |
| **ALN** | **Alexandroupoli** | **4.52** | **345** | P | **Pn** | **01 23 57.2** | **-0.2** |
| **NVR** | **Nevrokopi** | **5.61** | **330** | P | **Pn** | **01 24 12.1** | **-0.3** |
| **NVR** | **Nevrokopi** | **5.61** | **330** | P | **Pn** | **01 24 12.1** | **-0.3** |

*GCMT* ***19*** *01:23:23.8±0.1, 1˚14S×119˚56E, h12km, MW5.7/125,*
*Moment Tensor Solution. s109,c207; s125,c325;*
*Duration: 1§6 Moment tensor: Scale 10^17 Nm;*
*Mrr2.17±.03; Mθθ-0.26±.02; Mϕϕ-1.91±.03; Mrθ-1.74±.08;*
*Mθϕ-1.19±.02; Mϕr-2.25±.10; Best double couple:*
*Mo3.69400×10^17 NP1:ϕs216.00000°, δ70.00000°,*
*λ97.00000°. NP2:ϕs17.00000°, δ21.00000°, λ72.00000°.*
*Principal axes: T 3.5400, Plg64.0000°, Azm136.0000°; N*
*0.3110, Plg6.0000°, Azm34.0000°; P -3.8480, Plg25.0000°,*
*Azm301.0000°; nsta1 refers to body waves, cutoff=40s.*
*nsta2 refers to surface/mantle waves, cutoff=50s.*
*NEIC* ***19*** *01:23:23.8±0.1, 1˚27S×119˚64E, h10km, mb5.6/99, ME5.3,*
*MS5.2/107, MW5.5, MW5.7, MW5.7 Error ellipse:*
*s-maj=4.3km s-min=3.2km az=53.0, Moment Tensor*
*Solution. s37 Moment tensor: Scale 10^17 Nm; Mrr1.31;*
*Mθθ-0.13; Mϕϕ-1.18; Mrθ-0.65; Mθϕ-0.44; Mϕr-1.48; Best*
*double couple: Mo2.10000×10^17 NP1:ϕs203.00000°,*
*δ70.00000°, λ92.00000°. NP2:ϕs17.00000°, δ20.00000°,*
*λ84.00000°. Principal axes: T 2.0800, Plg65.0000°,*
*Azm116.0000°; N 0.0300, Plg2.0000°, Azm22.0000°; P*
*-2.1100, Plg25.0000°, Azm291.0000°; Broadband fault*
*plane solution: P waves. NP1:ϕs35.00000°, δ12.00000°,*
*λ90.00000°. NP2:ϕs215.00000°, δ78.00000°, λ90.00000°.*
*Principal axes: T Plg57.0000°, Azm125.0000°; N*
*Plg0.0000°, Azm0.0000°; P Plg35.0000°, Azm310.0000°;*
*Depth from synthetics of broadband displacement*
*seismograms. Energy computed from BB mechanism.*
*NEIC Felt [IV] at Palu.*
*BJI* ***19*** *01:23:24.0, 1˚30S×119˚60E, h10km, mb5.1/72, mB5.7/76,*
*Ms5.2/90, Ms7 5.0/85*
*NEIC* ***19*** *01:23:24.0±0.0, 1˚31S×119˚69E, h11km, Moment Tensor*
*Solution. s17 Moment tensor: Scale 10^17 Nm; Mrr2.14;*
*Mθθ-0.41; Mϕϕ-1.73; Mrθ-2.61; Mθϕ-0.56; Mϕr-2.48; Best*
*double couple: Mo4.10000×10^17 NP1:ϕs222.00000°,*
*δ76.00000°, λ99.00000°. NP2:ϕs9.00000°, δ17.00000°,*
*λ58.00000°. Principal axes: T 4.3500, Plg58.0000°,*
*Azm144.0000°; N -0.4600, Plg8.0000°, Azm40.0000°; P*
*-3.8900, Plg30.0000°, Azm304.0000°;*
*KLM* ***19*** *01:23:25.6, 1˚23S×119˚67E, h10km, mb5.6*
*IDC* ***19*** *01:23:25.0±1.9, 1˚24S×119˚66E, h19km±11km, mb4.8/35,*
*mb1 4.9/36, mb1mx4.8/43, mbtmp4.9/36, ML4.6/1, MS4.9/37,*
*Ms1 4.9/37, ms1mx4.8/49, Error ellipse: s-maj=12.7km*
*s-min=8.4km az=59.0*
*MOS* ***19*** *01:23:25.7±1.0, 1˚18S×119˚69E, h33km, mb5.6/62,*
*MS4.9/26, Error ellipse: s-maj=8.7km s-min=4.5km*
*az=120.2*
*DJA* ***19*** *01:23:25.4±0.2, 1˚S±2˚×11˚9E±˚, h10km, M5.6/25,*
*mb5.7/24, mB6.0/25, MLv5.9/18, Mw(mB)5.6/25, Mwp5.7/8*
*ISCJB* ***19*** *01:23:25.2±0.5, 1˚28S±0˚02×119˚62E±0˚02, h29km±3km,*
*mb5.4/192, MS5.1/175, Error ellipse: s-maj=3.1km*
*s-min=2.5km az=135.6*
*NEIC* ***19*** *01:23:42.0±0.0, 1˚37S×119˚75E, h10km, Moment Tensor*
*Solution. s42 Moment tensor: Scale 10^17 Nm; Mrr2.66;*
*Mθθ-0.41; Mϕϕ-2.25; Mrθ-2.88; Mθϕ-0.68; Mϕr-2.47; Best*
*double couple: Mo4.50000×10^17 NP1:ϕs223.00000°,*
*δ74.00000°, λ102.00000°. NP2:ϕs5.00000°, δ20.00000°,*
*λ54.00000°. Principal axes: T 4.8600, Plg59.0000°,*
*Azm150.0000°; N -0.6100, Plg12.0000°, Azm39.0000°; P*
*-4.2400, Plg28.0000°, Azm303.0000°;*

**ISC 19 01:23:27.1±0.4, 1˚21S±0˚02×119˚69E±0˚03, h32km±2km, n721, σ2§04/796, mb5.5/202, MS5.1/177, 34C-39D, Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MPSI** | **Mapaga** | **1.55** | **8** | P | **Pn** | **01 23 52.5** | **0.0** |
| MPSI | | | | S | **Sb** | **01 24 13.9** | **-0.7** |
| **TTSI** | **Tana Toraja** | **1.83** | **176** | P | **Pn** | **01 23 57.5** | **+1.2** |
| TTSI | | | | S | **Sb** | **01 24 24.9** | **+2.5** |
| **APSI** | **Ampana** | **1.98** | **81** | P | **Pb** | **01 24 01.1** | **-1.4** |
| APSI | | | | S | **Sb** | **01 24 32.3** | **+5.6** |
| **SGKI** | **Sangatta, Kali** | **2.20** | **288** | P | **Pb** | **01 24 06.6** | **+0.4** |
| **SMKI** | **Samarinda** | **2.60** | **287** | P | **Pn** | **01 24 05.5** | **-1.4** |
| SMKI | | | | S | **Sn** | **01 24 31.4** | **-6.1** |
| **SPSI** | **Sidrap Palu** | **2.74** | **178** | P | **Pn** | **01 24 10.0** | **+1.2** |
| **BKB** | **Balikpapan** | **2.80** | **269** | P | **Pn** | **01 24 07.9** | **-1.8** |
| **MRSI** | **Marisa** | **2.80** | **53** | P | **Pn** | **01 24 09.7** | **-0.1** |
| MRSI | | | | S | **Sb** | **01 24 48.1** | **-2.4** |
| **LUWI** | **Luwuk** | **3.08** | **87** | P | **Pn** | **01 24 16.6** | **+3.0** |
| LUWI | | | | S | **Sb** | **01 24 56.6** | **-2.1** |
| **LUWI** | **Luwuk** | **3.08** | **87** | *e*Pn | **Pn** | **01 24 16.6** | **+3.0** |
| LUWI | | | | *e*Sn | **Sn** | **01 24 52.3** | **+2.9** |
| **BNSI** | **Bone** | **3.19** | **173** | P | **Pn** | **01 24 17.2** | **+2.0** |
| BNSI | | | | S | **Sb** | **01 25 09.9** | **+8.2** |
| **KAPI** | **Kappang** | **3.78** | **179** | P | **Pn** | **01 24 24.4** | **+1.2** |
| | SNR=810 | | | | | | |
| **KAPI** | **Kappang** | **3.78** | **179** | P | **Pn** | **01 24 24.4** | **+1.2** |
| | SNR=810 | | | | | | |
| **KBKI** | **Kotabaru** | **4.09** | **239** | P | **Pn** | **01 24 24.5** | **-3.0** |
| **KMSI** | **Cibinong** | **4.64** | **68** | P | **Pn** | **01 24 39.7** | **+4.7** |
| **MTKI** | **Muara Teweh, K** | **4.80** | **273** | P | **Pn** | **01 24 35.5** | **-1.8** |
| **BSSI** | **Bau Bau, Buton** | **4.96** | **171** | P | **Pn** | **01 24 42.1** | **+2.6** |
| **BBSI** | **Bau Bau** | **5.13** | **146** | P | **Pn** | **01 24 43.6** | **+1.9** |
| **SANI** | **Sanana** | **6.35** | **98** | P | **Pn** | **01 24 59.5** | **+1.0** |
| **MYLDM** | **Lahad Datu** | **6.46** | **349** | ⇓P | **Pn** | **01 25 02.4** | **+2.3** |
| **MYLDM** | **Lahad Datu** | **6.46** | **349** | *e*Pn | **Pn** | **01 25 00.3** | **+0.2** |
| MYLDM | | | | *e*Sn | **Sn** | **01 26 15.3** | **+2.5** |
| **SDKM** | **Sandakan** | **7.25** | **340** | ⇑P | **Pn** | **01 25 11.5** | **+0.5** |
| **SGSI** | **Sangihe** | **7.59** | **50** | P | Pb | 01 25 29.0 | -9.2 |
| **NLAI** | **Namlea** | **7.67** | **105** | P | **Pn** | **01 25 20.8** | **+4.1** |
| **EDFI** | **Ende, Flores** | **7.75** | **165** | P | **Pn** | **01 25 18.5** | **+0.6** |
| **MMRI** | **Maumere** | **7.80** | **161** | P | **Pn** | **01 25 20.4** | **+1.9** |
| **MMRI** | **Maumere** | **7.80** | **161** | *e*Pn | **Pn** | **01 25 19.7** | **+1.2** |
| **PLAI** | **Plampang** | **7.80** | **194** | P | **Pn** | **01 25 19.4** | **+0.9** |
| **LBMI** | **Labuha** | **7.83** | **86** | P | **Pn** | **01 25 20.5** | **+1.6** |
| **TNTI** | **Ternate** | **7.92** | **76** | *e*Pn | **Pn** | **01 25 23.8** | **+3.6** |
| TNTI | | | | *e*Sn | **Sn** | **01 26 47.8** | **-1.0** |
| **BTM** | **Bintulu** | **7.93** | **304** | ⇑P | **Pn** | **01 25 20.6** | **+0.4** |
| **KKM** | **Kota Kinabalu** | **8.00** | **334** | ⇑P | **Pn** | **01 25 22.1** | **+0.8** |
| **KKM** | **Kota Kinabalu** | **8.00** | **334** | *e*Pn | **Pn** | **01 25 20.8** | **-0.5** |
| KKM | | | | *e*Sn | **Sn** | **01 26 42.4** | **-8.4** |
| **KMMI** | **Kalianget** | **8.14** | **224** | P | **Pn** | **01 25 22.5** | **-0.6** |
| **PBKI** | **Pangkalan Bun** | **8.15** | **259** | P | **Pn** | **01 25 21.3** | **-2.1** |
| **SRBI** | **Singaraja** | **8.16** | **213** | P | **Pn** | **01 25 22.8** | **-0.6** |
| **SBUM** | **Sibu** | **8.31** | **296** | *e*Pn | **Pn** | **01 25 23.7** | **-1.8** |
| SBUM | | | | *e*Sn | Sn | 01 26 45.1 | -13 |
| **STKI** | **Sintang** | **8.31** | **279** | P | **Pn** | **01 25 23.5** | **-2.0** |
| **WBSI** | **Waikabubak, Su** | **8.38** | **182** | P | **Pn** | **01 25 25.6** | **-0.9** |
| **ABJI** | **Asem Bagus** | **8.51** | **220** | P | **Pn** | **01 25 30.3** | **+2.1** |
| **KDM** | **Kudat** | **8.56** | **341** | ⇑P | **Pn** | **01 25 30.5** | **+1.5** |
| **AAI** | **Ambon** | **8.84** | **106** | P | Pn | 01 25 38.8 | +6.0 |
| **BLJI** | **Banyuglugur** | **8.89** | **223** | P | **Pn** | **01 25 34.4** | **+0.9** |
| **BASI** | **Baing, Sumba** | **8.99** | **174** | P | **Pn** | **01 25 37.1** | **+2.3** |
| **JA

comp=Z,137nm,1.0s,comp=Z,3μm
**GIRL Giralia 21.95 194** P **P** **01 28 17.1 -1.1**
baz=22,SNR=7.1
**GSI Gunungsitoli 22.26 276** P **P** **01 28 22.3 +0.6**
**GSI Gunungsitoli 22.26 276** *e*P **P** **01 28 19.9 -1.7**
comp=Z,497nm,1.6s
GSI LR LR
comp=Z,6μm,20.0s
**QIZ Qiongzhong 22.32 335** P **P** **01 28 24.5 +2.2**
QIZ S Sn 01 32 33.6 -5.5
QIZ LR LR
comp=Z,3μm,19.4s
QIZ LR LR
comp=Z,3μm,14.3s
QIZ LR LR
comp=Z,5μm,18.3s
**KCSI Kotacane, Aceh 22.41 282** P **P** **01 28 22.3 -1.0**
**TPTI 22.94 281** P **P** **01 28 27.8 -1.1**
**SRAK Srakaew 23.12 311** P **P** **01 28 26.4 -4.3**
comp=Z,161nm,0.9s,comp=Z,2μm
**PKDT Phuket 23.14 293** P **P** **01 28 30.8 -0.1**
comp=Z,162nm,1.9s,comp=Z,8μm
**SURT Suratani 23.14 296** P **P** **01 28 31.0 +0.1**
comp=Z,97nm,0.8s,comp=Z,2μm
**WRAB Tennant Creek 23.49 143***c i*P **P** **01 28 33.9 -0.5**
WRAB pmax pmax
comp=Z,2μm,1.2s
**WRAB Tennant Creek 23.49 143** *e*P **P** **01 28 33.8 -0.5**
comp=Z,432nm,0.8s
**WRA Warramunga Arr 23.49 143** P **P** **01 28 33.2 -1.1**
comp=Z,212nm,0.8s,baz=319,slow=11,SNR=82
WRA S **S** **01 32 48.2 +2.1**
comp=Z,4.6nm,1.0s,baz=319,slow=18,SNR=2.5
WRA ScP **ScP** **01 35 56.5 +0.7**
comp=Z,7.4nm,1.1s,baz=312,slow=3.8,SNR=7.0
WRA LR LR 01 39 01.8
comp=Z,6μm,19.0s,baz=315,slow=40
**WRA Warramunga Arr 23.49 143** P **P** **01 28 33.2 -1.1**
WRA S **S** **01 32 48.2 +2.1**
WRA pmax pmax
comp=Z,325nm,0.9s
WRA smax smax
comp=N,5.0nm,1.0s
WRA MLR MLR
comp=Z,6μm,19.0s
**WB2 Warramunga Arr 23.50 143** *e*P **P** **01 28 33.9 -0.5**
**WC3 Warramunga Arr 23.52 143** *e*P **P** **01 28 34.2 -0.5**
comp=Z,443nm,0.8s
**LHMI Lhok Sumawe 23.60 286** P P 01 28 46.0 +11
**LHMI Lhok Sumawe 23.60 286** *e*P **P** **01 28 34.4 -1.1**
comp=Z,423nm,1.1s
**SKNT Sakolnakorn 23.80 320** P **P** **01 28 37.2 -0.1**
comp=Z,168nm,1.8s,comp=Z,8μm
**NAYO Nakonayok 23.86 311** P **P** **01 28 37.5 -0.3**
comp=Z,260nm,1.4s
**MLSI Meulaboh, Aceh 23.90 283** P **P** **01 28 38.1 -0.2**
**TWG Pinlang 23.92 3** *e*P **P** **01 28 39.5 +1.2**
comp=Z,2μm,1.8s
**KHON Khomkaen 24.11 317** P **P** **01 28 41.6 +1.4**
comp=Z,27nm,1.5s,comp=Z,747nm
**PHET Kaeng Krachan 24.36 306** P **P** **01 28 43.7 +1.2**
comp=Z,19nm,0.9s,comp=Z,288nm
**TPUB Ta-pu 24.38 2** *e*P **P** **01 28 44.8 +2.1**
comp=Z,174nm,1.0s
TPUB *e*PcP **PcP** **01 32 18.1 -3.5**
**CHAI Chaiyaphum 24.40 315** P **P** **01 28 43.2 +0.4**
comp=Z,49nm,1.4s,comp=Z,730nm
**YULB Yu-li 24.50 4** *e*P **P** **01 28 46.0 +2.3**
comp=Z,64nm,0.7s
**SSLB Suanglung 24.88 3** *e*P **P** **01 28 48.7 +1.6**
comp=Z,181nm,1.3s
SSLB LR LR
comp=Z,4μm,21.0s
**GZH Guangzhou 24.93 346** P **P** **01 28 53.8 +6.2**
GZH pmax pmax
comp=Z,4μm,5.7s
**WRKA Warakurna 25.10 161** P **P** **01 28 48.4 -0.8**
baz=25,SNR=4.0
**NONG Nongkai 25.14 320** P **P** **01 28 52.0 +2.4**
comp=Z,162nm,1.4s,comp=Z,14μm
**COCO West Island 25.16 243** *e*P **P** **01 28 49.8 +0.1**
COCO pmax pmax
comp=Z,413nm,1.2s
**COCO West Island 25.16 243** *e*P **P** **01 28 49.8 +0.1**
comp=Z,413nm,1.2s
**COCO West Island 25.16 243** P **P** **01 28 55.9 +6.2**
SNR=5.8
**NACB Ningchiao 25.30 4** *e*P **P** **01 28 52.6 +1.7**
comp=Z,81nm,0.9s
NACB LR LR
comp=Z,3μm,20.0s
**PBKT Sadao Pong 25.57 314** P **P** **01 28 53.4 0.0**
comp=Z,85nm,3.0s,comp=Z,3μm
**SRDT SRDT 25.57 308** P **P** **01 28 56.7 +3.2**
comp=Z,639nm,1.7s,comp=Z,8μm
**YHNB Yeheng 25.78 4** *e*P **P** **01 28 57.9 +2.6**
comp=Z,103nm,0.9s
YHNB LR LR
comp=Z,2μm,20.0s
**QZH Quanzhou 26.02 358**⇑*i*P **P** **01 29 02.8 +5.4**
QZH S **S** **01 33 30.4 +4.1**
QZH pmax pmax
comp=Z,2μm,3.8s
QZH LR LR
comp=Z,2μm,14.5s
QZH LR LR
comp=Z,2μm,18.1s
QZH LR LR
comp=Z,2μm,19.9s
**UTHA Uthaitani 26.04 311** P **P** **01 28 59.4 +1.6**
comp=Z,9.2nm,0.9s,comp=Z,162nm
**TATO Taipei 26.09 4** *e*P **P** **01 29 00.1 +2.1**
comp=Z,431nm,1.1s
**ASAR Alice Springs 26.23 149** P **P** **01 28 59.0 -0.4**
comp=Z,24nm,0.8s,baz=327,slow=8.6,SNR=109
ASAR PcP **PcP** **01 32 25.4 -0.4**
comp=Z,4.7nm,0.6s,baz=320,slow=2.0,SNR=4.9
ASAR ScP **ScP** **01 36 04.7 +1.3**
comp=Z,4.6nm,1.1s,baz=346,slow=2.4,SNR=5.5
ASAR ScS **ScS** **01 39 52.4 -1.3**
comp=Z,1.1nm,1.0s,baz=294,slow=5.0,SNR=6.6
ASAR LR LR 01 40 34.2
comp=Z,5μm,20.0s,baz=328,slow=39
**ASAR Alice Springs 26.23 149** P **P** **01 28 59.1 -0.4**
ASAR 01 32 25.5
ASAR 01 39 52.4
ASAR pmax pmax
comp=Z,27nm,0.9s
ASAR MLR MLR
comp=Z,5μm,20.0s
**AS01 Alice Springs 26.25 149** *e*P **P** **01 28 59.1 -0.6**
AS01 *e*PcP **PcP** **01 32 25.1 -0.8**
**COEN Coen 26.45 120** P **P** **01 29 01.8 +0.3**
baz=26,SNR=19
**COEN Coen 26.45 120** *e*P **P** **01 29 01.8 +0.3**
comp=Z,175nm,1.5s
**QIS Mount Isa 27.35 136** P **P** **01 29 09.0 -0.6**
baz=27,SNR=11
**PHRA Phrae 27.39 317** P **P** **01 29 11.4 +1.5**
comp=Z,12nm,0.9s,comp=Z,23μm
**MANU Manus Island 27.67 92** *e*P **P** **01 29 13.6 +1.0**
comp=Z,371nm,1.3s
**MORW Morawa 27.92 187** P **P** **01 29 13.7 -0.8**
baz=28,SNR=18
**CM01 Chiang Mai Arr 28.22 315** *e*P **P** **01 29 17.2 -0.1**
CM01 *e*PcP **PcP** **01 32 29.8 -0.8**
**CM31 Chiang Mai Arr 28.26 315** *e*P **P** **01 29 18.1 +0.5**
**CMAR Chiang Mai Arr 28.26 315** P **P** **01 29 17.7 0.0**
comp=Z,7.9nm,0.7s,baz=140,slow=7.3,SNR=27
CMAR PcP **PcP** **01 32 31.0 +0.3**
comp=Z,4.6nm,0.6s,baz=148,slow=2.3,SNR=6.1
CMAR LR LR 01 43 60.0
comp=Z,5μm,18.1s,baz=180,slow=44
**CHTO Chiang Mai 28.50 315** P **P** **01 29 20.1 +0.3**
comp=Z,297nm,1.3s,comp=Z,8μm
**CHTO Chiang Mai 28.50 315** *e*P **P** **01 29 20.1 +0.3**
CHTO pmax pmax
comp=Z,20nm,0.9s
**CHTO Chiang Mai 28.50 315** *e*P **P** **01 29 20.1 +0.3**
comp=Z,20nm,0.9s
**CHTO Chiang Mai 28.50 315** P **P** **01 29 20.4 +0.6**
SNR=7.7
CHTO P **P** **01 29 20.4 +0.6**
SNR=7.7
**CHTO Chiang Mai 28.50 315** P **P** **01 29 20.4 +0.6**
SNR=7.7
**PMG Port Moresby 28.51 108** P **P** **01 29 20.8 +0.8**
comp=Z,124nm,1.0s,baz=319,slow=6.4,SNR=29
**PMG Port Moresby 28.51 108***c i*P **P** **01 29 21.0 +1.0**
**PMG Port Moresby 28.51 108** *e*P **P** **01 29 21.4 +1.4**
comp=Z,407nm,1.4s
**GUMO Guam 28.97 59** LR LR 01 39 44.0
comp=Z,1μm,20.8s,baz=233,slow=34
**JOW Kunigami 29.08 16** PFAKE 01 29 40.0 +15
JOW LR LR
comp=Z,3μm,21.0s
**BLDU Ballidu 29.38 185** P **P** **01 29 26.6 -0.9**
baz=29,SNR=60
**MTSU Mount Surprise 29.45 126** P **P** **01 29 28.7 +0.4**
baz=30,SNR=16
**PBA Port Blair 29.68 296** *e*P P 01 29 30.0 -0.3
**KMBL Kambalda 30.06 176** P **P** **01 29 32.6 -1.0**
baz=30,SNR=19
**DGPR DIGLIPUR 30.15 299** *e*P **P** **01 29 32.7 -1.8**
**GYA Guiyang 30.25 336**⇓*i*P **P** **01 29 35.1 -0.2**
GYA PP **PnPn** **01 30 38.4 +4.6**
GYA PcP **PcP** **01 32 38.6 +2.8**
GYA S **S** **01 34 33.0 -0.2**
GYA SS **ScP** **01 36 18.3 +2.4**
GYA ScS **ScS** **01 40 14.8 +2.8**
GYA pmax pmax
comp=Z,30nm,1.0s
GYA pmax pmax
comp=Z,650nm,11.2s
GYA LR LR
comp=Z,2μm,22.0s
GYA LR LR
comp=Z,2μm,22.9s
GYA LR LR
comp=Z,3μm,22.0s
**KLBR Kellerberrin 30.27 183** P **P** **01 29 34.8 -0.6**
baz=30,SNR=37
**FORT Forrest 30.46 166** P **P** **01 29 36.7 -0.3**
baz=30,SNR=9.5
**FORT Forrest 30.46 166** *e*P **P** **01 29 36.2 -0.8**
comp=Z,447nm,0.8s
FORT LR LR
comp=Z,38μm,18.0s
**MUN Mundaring 30.78 186** P **P** **01 29 38.9 -0.9**
baz=31,SNR=11
**KMI Kunming 30.90 329** P **P** **01 29 43.0 +1.7**
KMI pP pP 01 29 45.9 -4.7
KMI sP sP 01 29 47.5 -7.0
KMI PP **PnPn** **01 30 45.9 +3.4**
KMI S **S** **01 34 46.9 +3.2**
KMI sS pS 01 34 53.6 -0.7
KMI pmax pmax
comp=Z,27nm,1.2s
KMI pmax pmax
comp=Z,840nm,4.6s
KMI LR LR
comp=Z,2μm,19.6s
KMI LR LR
comp=Z,3μm,16.5s
KMI LR LR
comp=Z,2μm,14.3s
**ANA2 Anatahan 31.05 55** *e*P **P** **01 29 41.0 -1.4**
**SARN Sarigan 31.29 54** *e*P **P** **01 29 44.8 +0.2**
**NWAO Narrogin (SRO) 31.63 184** P **P** **01 29 47.0 -0.4**
comp=Z,142nm,0.6s,baz=236,slow=9.1,SNR=113
NWAO LR LR 01 42 02.2
comp=Z,1μm,21.8s,baz=266,slow=35
**NWAO Narrogin (SRO) 31.63 184** P **P** **01 29 47.0 -0.4**
baz=32,SNR=77
NWAO P **P** **01 29 47.0 -0.4**
baz=32,SNR=77
**NWAO Narrogin (SRO) 31.63 184** *e*P **P** **01 29 46.9 -0.4**
NWAO pmax pmax
comp=Z,580nm,1.3s
**NWAO Narrogin (SRO) 31.63 184** *e*P **P** **01 29 46.9 -0.4**
comp=Z,582nm,1.4s
**NWAO Narrogin (SRO) 31.63 184** P **P** **01 29 47.4 +0.1**
SNR=11
**NWAO Narrogin (SRO) 31.63 184** P **P** **01 29 47.4 +0.1**
SNR=11
**WHN Wuhan 31.99 351**⇑P **P** **01 29 53.3 +2.8**
WHN S **S** **01 35 06.8 +6.8**
WHN pmax pmax
comp=Z,2μm,2.6s
WHN LR LR
comp=Z,4μm,15.2s
WHN LR LR
comp=Z,3μm,16.8s
WHN LR LR
comp=Z,7μm,19.3s
**CTA Charters Tower 32.04 128** P **P** **01 29 51.2 +0.1**
comp=Z,36nm,1.0s,baz=303,slow=10,SNR=14
**CTAO Charters Tower 32.04 128** *e*P **P** **01 29 52.0 +0.9**
CTAO pmax pmax
comp=Z,220nm,1.5s
**CTAO Charters Tower 32.04 128** *e*P **P** **01 29 52.0 +0.9**
comp=Z,224nm,1.5s
CTAO *e*PP **PP** **01 31 04.2 +0.3**
CTAO LR LR
comp=Z,3μm,19.0s
**SSE Sheshan 32.16 2**⇓P P 01 29 57.1 +5.1
SSE pP pP 01 30 01.3 0.0
SSE sP sP 01 30 04.3 -0.9
SSE S S 01 35 12.8 +10
SSE sS sS 01 35 19.5 +1.4
SSE pmax pmax
comp=Z,52nm,1.2s
SSE pmax pmax
comp=Z,720nm,5.8s
SSE LR LR
comp=Z,1μm,18.7s
SSE LR LR
comp=Z,430nm,18.6s
SSE LR LR
comp=Z,1μm,20.6s
**RABL Rabaul 32.56 96** *e*P **P** **01 29 57.5 +1.6**
comp=Z,361nm,1.1s
RABL LR LR
comp=Z,2μm,18.0s
**ENH Enshi 32.79 344** *e*P **P** **01 29 58.5 +0.9**
comp=Z,135nm,1.2s
ENH LR LR
comp=Z,2μm,22.0s
**NJ2 Nanjing 33.09 359** *e*P P 01 30 05.5 +5.4
NJ2 pP sP 01 30 14.1 +0.8
NJ2 S **S** **01 35 21.6 +4.4**
NJ2 pmax pmax
comp=Z,84nm,1.1s
NJ2 pmax pmax
comp=Z,1μm,4.3s
NJ2 LR LR
comp=Z,2μm,16.5s
NJ2 LR LR
comp=Z,2μm,13.8s
NJ2 LR LR
comp=Z,4μm,21.1s
**RKGY Rocky Gully 33.32 184** P **P** **01 30 03.1 +0.9**
baz=33,SNR=48
**H01W3 Cape Leeuwin H 33.90 188** P **P** **01 30 08.2 +1.3**
baz=22,slow=7.2,SNR=4.4
**H01W1 Cape Leeuwin H 33.91 188** P **P** **01 30 08.1 +1.2**
baz=22,slow=7.2,SNR=5.2
**H01W2 Cape Leeuwin H 33.91 188** P **P** **01 30 08.4 +1.4**
baz=22,slow=7.2,SNR=6.9
**QLP Quilpie 34.54 139** P **P** **01 30 13.4 +0.6**
baz=35,SNR=31
**BBOO Buckleboo 35.00 156** P **P** **01 30 16.0 -0.7**
baz=35,SNR=21
**BBOO Buckleboo 35.00 156** *e*P **P** **01 30 16.0 -0.7**
comp=Z,55nm,0.9s
BBOO LR LR
comp=Z,7μm,18.0s
**CD2 Chengdu 35.36 336**⇓*i*P **P** **01 30 20.3 +0.4**
CD2 pP pP 01 30 30.8 +1.5
CD2 sP sP 01 30 36.6 +3.4
CD2 PP **PP** **01 31 41.1 +0.5**
CD2 S **S** **01 35 55.3 +2.9**
CD2 pmax pmax
comp=Z,60nm,1.0s
CD2 pmax pmax
comp=Z,1μm,5.7s
CD2 LR LR
comp=Z,3μm,17.6s
CD2 LR LR
comp=Z,2μm,19.9s
CD2 LR LR
comp=Z,2μm,19.0s
**CBIJ Chichi jima 35.51 36** *e*P **P** **01 30 21.5 +0.3**
comp=Z,251nm,0.9s
**JCJ Chichijima 35.51 36** P **P** **01 30 22.6 +1.4**
comp=Z,134nm,0.8s,baz=303,slow=14,SNR=3.9
**JNU Nakatsue 35.74 16** P **P** **01 30 22.3 -0.8**
comp=Z,6.9nm,0.9s,baz=170,slow=9.4,SNR=3.2
**BRDH Bariadhala 36.21 313** P **P** **01 30 27.8 +0.5**
comp=Z,50nm,0.3s,baz=119,slow=9.0,SNR=7.1
BRDH LR LR 01 48 37.4
comp=Z,2μm,18.2s,baz=135,slow=42
**XAN Xi'an 36.50 345** P **P** **01 30 29.5 -0.1**
XAN pP pP 01 30 35.1 -3.9
XAN PcP **PcP** **01 32 58.8 +5.7**
XAN PcS **PcS** **01 36 47.3 +6.3**
XAN pmax pmax
comp=Z,41nm,1.4s
XAN pmax pmax
comp=Z,910nm,5.5s
XAN LR LR
comp=Z,2μm,16.6s
XAN LR LR
comp=Z,1μm,18.9s
XAN LR LR
comp=Z,4μm,16.6s
**STKA Stephens Creek 36.85 148** P **P** **01 30 31.9 -0.7**
comp=Z,72nm,0.8s,baz=317,slow=8.9,SNR=110
STKA LR LR 01 47 55.0
comp=Z,5μm,18.8s,baz=314,slow=40
**STKA Stephens Creek 36.85 148** P **P** **01 30 32.6 0.0**
baz=37,SNR=68
**STKA Stephens Creek 36.85 148** *e*P **P** **01 30 32.3 -0.3**
STKA pmax pmax
comp=Z,19nm,0.9s
**STKA Stephens Creek 36.85 148** *e*P **P** **01 30 32.3 -0.3**
comp=Z,18nm,0.9s
STKA *e*PP **PP** **01 31 51.4 -5.5**
**TIA Tai'an 37.31 357** *e*P **P** **01 30 38.8 +2.4**
TIA PP **PP** **01 32 01.3 -0.6**
TIA S **S** **01 36 26.4 +4.4**
TIA pmax pmax
comp=Z,50nm,2.4s
TIA pmax pmax
comp=Z,2μm,4.7s
TIA LR LR
comp=Z,1μm,17.5s
TIA LR LR
comp=Z,1μm,18.0s
TIA LR LR
comp=Z,2μm,9.4s
**RMQ Roma 37.58 134** P **P** **01 30 39.5 +0.6**
baz=38,SNR=7.6
**SHL Shillong 37.84 317** *e*P **P** **01 30 41.2 -0.1**
SHL AMB AMB 01 30 45.9
comp=Z,230nm,1.7s
SHL *ex* x 01 36 38.0
**TJN Taejon 38.07 10***ce*P **P** **01 30 46.5 +3.7**
**EIDS Eidsvold 38.64 131** *e*P **P** **01 30 47.3 -0.6**
comp=Z,61nm,1.7s
EIDS LR LR
comp=Z,3μm,18.0s
**CMSA Cobar Meteorol 38.90 143** P **P** **01 30 50.3 +0.3**
baz=39,SNR=62
**KS15 Wonju Array Si 39.20 10** *e*P **P** **01 30 53.2 +0.8**
**KSAR Wonju Array Be 39.20 10** P **P** **01 30 52.8 +0.5**
KSAR 01 36 49.7
**KSAR Wonju Array Be 39.20 10** P **P** **01 30 52.8 +0.5**
KSAR ScP **S** **01 36 49.6 -0.9**
**KSRS Korea Array 39.22 10** P **P** **01 30 52.8 +0.3**
comp=Z,1.4nm,0.5s,baz=186,slow=12,SNR=8.5
KSRS ScP **S** **01 36 49.6 -1.2**
comp=Z,2.3nm,0.8s,baz=184,slow=3.7,SNR=6.3
KSRS LR LR 01 46 49.9
comp=Z,1μm,22.0s,baz=192,slow=36
**KS01 Wonju Array Si 39.24 10** *e*P **P** **01 30 54.0 +1.4**
**TIY Taiyuan 39.31 351** *e*P **P** **01 30 56.1 +2.8**
TIY S **S** **01 36 52.8 +0.5**
TIY SS **SS** **01 39 42.5 -4.3**
TIY pmax pmax
comp=Z,1μm,5.8s
TIY LR LR
comp=Z,1μm,13.9s
TIY LR LR
comp=Z,690nm,14.6s
TIY LR LR
comp=Z,2μm,15.9s
**PALK Pallekele 39.80 283** P **P** **01 30 57.6 -0.2**
comp=Z,5.3nm,0.6s,baz=112,slow=2.9,SNR=3.4
PALK LR LR 01 46 30.2
comp=Z,1μm,21.4s,baz=116,slow=35
**PALK Pallekele 39.80 283** P **P** **01 30 57.1 -0.7**
**PALK Pallekele 39.80 283** P **P** **01 30 57.1 -0.7**
**LZH Lanzhou 39.94 340** *e*P **P** **01 31 00.3 +1.6**
LZH pP pP 01 31 04.3 -3.9
LZH sP sP 01 31 07.4 -4.6
LZH PP **PnPn** **01 32 38.0 +3.6**
LZH ScP **ScP** **01 36 52.5 +1.8**
LZH S **S** **01 37 04.3 +2.2**
LZH sS pS 01 37 12.3 -0.6
LZH pmax pmax
comp=Z,120nm,1.5s
LZH pmax pmax
comp=Z,500nm,4.9s
LZH LR LR
comp=Z,1μm,14.0s
LZH LR LR
comp=Z,2μm,15.2s
LZH LR LR
comp=Z,2μm,15.9s
**DL2 Dalian 39.96 2**⇓*i*P **P** **01 30 59.8 +1.2**
DL2 PP **PP** **01 32 32.0 +1.1**
DL2 S **S** **01 37 04.3 +2.4**
DL2 pmax pmax
comp=Z,66nm,1.0s
DL2 pmax pmax
comp=Z,980nm,5.9s
DL2 LR LR
comp=Z,1μm,16.7s
DL2 LR LR
comp=Z,990nm,15.7s
DL2 LR LR
comp=Z,2μm,20.0s
**CHLP Challavanipeta 40.14 301** *e*P **P** **01 31 00.5 +0.1**
CHLP IAmb IAmb 01 31 05.4
comp=Z,51nm,1.1s
CHLP *e*S **S** **01 37 07.2 +1.9**
CHLP IVMs_BB IVMs_BB 01 44 15.3
comp=Z,854nm,34.4s
**VIS Vishakhapatnam 40.45 299** *e*P **P** **01 31 03.2 +0.2**
VIS AMB AMB 01 31 06.8
comp=Z,82nm,6.7s
**HNR Honiara 40.86 103** *e*P **P** **01 31 07.0 +0.5**
**HNR Honiara 40.86 103** P **P** **01 31 06.7 +0.2**
comp=Z,288nm,0.9s,baz=222,slow=5.6,SNR=11
**HNR Honiara 40.86 103** *e*P **P** **01 31 07.8 +1.3**
HNR pmax pmax
comp=Z,410nm,1.0s
**HNR Honiara 40.86 103** *e*P **P** **01 31 07.2 +0.7**
comp=Z,415nm,1.0s
HNR *e*PP **PnPn** **01 32 44.4 -1.0**
**ARPS Mount Arapiles 40.88 152** P **P** **01 31 06.7 +0.4**
baz=41,SNR=28
**LSA Lhasa 41.08 321** P **P** **01 31 10.3 +1.6**
LSA pmax pmax
comp=Z,32nm,1.0s
**LSA Lhasa 41.08 321** *e*P **P** **01 31 10.2 +1.6**
LSA pmax pmax
comp=Z,155nm,1.8s
LSA MLR MLR
comp=Z,1μm,20.0s
**LSA Lhasa 41.08 321** *e*P **P** **01 31 10.2 +1.6**
comp=Z,155nm,1.8s
LSA LR LR
comp=Z,1μm,20.0s
**BJT Baijiatuan 41.16 356** *e*P **P** **01 31 10.1 +1.6**
BJT pmax pmax
comp=Z,82nm,0.9s
**BJT Baijiatuau 41.16 356** *e*P **P** **01 31 10.1 +1.6**
comp=Z,82nm,0.9s
**BJI Beijing 41.18 356** P **P** **01 31 10.0 +1.3**
BJI PP **PP** **01 32 45.0 +0.8**
BJI S **S** **01 37 20.3 +0.3**
BJI pmax pmax
comp=Z,25nm,1.0s
BJI pmax pmax
comp=Z,2μm,5.7s
BJI LR LR
comp=Z,2μm,15.2s

BJI LR LR
comp=Z,560nm,22.5s
BJI LR LR
comp=Z,1μm,25.2s
**BOK Bokaro 41.19 309** *e*P **P 01 31 10.2 +1.2**
**MAJO Matsushiro 41.32 23** ⇑ *i*P **P 01 31 08.6 -1.3**
MAJO pmax pmax
comp=Z,56nm,1.5s
**MAJO Matsushiro 41.32 23** *e*P **P 01 31 08.6 -1.3**
comp=Z,67nm,1.4s
**MJAR Matsushiro Arr 41.32 23** P **P 01 31 08.0 -2.0**
comp=Z,8.5nm,0.9s,baz=192,slow=8.4,SNR=16
MJAR ScP **ScP 01 36 56.7 +0.8**
comp=Z,3.7nm,1.0s,baz=190,slow=4.9,SNR=5.6
**MJAR Matsushiro Arr 41.32 23** P **P 01 31 08.0 -2.0**
MJAR pmax pmax
comp=Z,10.0nm,0.9s
**MJB9 Matsu-Tunnel 41.32 23** *e*P **P 01 31 08.7 -1.3**
comp=Z,62nm,1.4s
**MDRS Chennai 41.62 291** *e*P **P 01 31 12.8 +0.1**
**PVM Polavaram 41.76 298** *e*P **P 01 31 13.8 0.0**
PVM IAmb IAmb 01 31 18.2
comp=Z,605nm,3.1s
PVM *e*S **S 01 37 31.7 +2.4**
PVM IVMs_BB IVMs_BB 01 45 15.5
comp=Z,911nm,39.8s
**ODAN Odare 41.80 314** *e*P **P 01 31 14.8 +0.5**
**TAPN Taplejung 41.87 315** *e*P **P 01 31 15.5 +0.6**
comp=Z,274nm,0.9s
**ARMA Armidale 41.97 137** P **P 01 31 15.2 -0.3**
baz=42,SNR=7.3
**ARMA Armidale 41.97 137** *e*P **P 01 31 17.0 +1.5**
comp=Z,188nm,1.6s
ARMA *e*PP **PP 01 32 53.2 +0.2**
ARMA LR LR
comp=Z,4μm,18.0s
**SKHT Srikalahasti 42.31 292** *e*P **P 01 31 18.2 -0.1**
SKHT IAmb IAmb 01 31 22.7
comp=Z,95nm,1.7s
SKHT *e*S **S 01 37 39.3 +1.7**
SKHT IVMs_BB IVMs_BB 01 49 26.6
comp=Z,1μm,18.6s
**RAMN Ramite 42.42 314** *e*P **P 01 31 20.0 +0.6**
comp=Z,299nm,1.1s
**YNG Young 42.46 144** P **P 01 31 20.3 +1.0**
baz=42,SNR=21
**HHC Hu-ho-hao-te 42.51 351** *e*P **P 01 31 22.9 +3.2**
HHC PP **PP 01 33 04.9 +6.2**
HHC S **S 01 37 46.3 +6.3**
HHC SS **SS 01 40 51.0 +0.5**
HHC pmax pmax
comp=Z,10.0nm,0.6s
HHC pmax pmax
comp=Z,980nm,5.6s
HHC LR LR
comp=Z,2μm,21.0s
HHC LR LR
comp=Z,1μm,18.5s
HHC LR LR
comp=Z,3μm,21.0s
**BTO Baotou 42.54 349** *e*P **P 01 31 18.9 -1.1**
**ADKI Addanki 42.74 295** *e*P **P 01 31 21.9 +0.1**
ADKI IAmb IAmb 01 31 26.2
comp=Z,211nm,2.1s
ADKI *e*S **S 01 37 45.6 +1.8**
ADKI IVMs_BB IVMs_BB 01 50 04.8
comp=Z,838nm,20.6s
**SNY Shenyang 42.98 4** ⇑ P **P 01 31 23.3 -0.1**
SNY PP **PP 01 33 05.6 +2.0**
SNY S **S 01 37 49.0 +2.4**
SNY pmax pmax
comp=Z,33nm,1.8s
SNY pmax pmax
comp=Z,1μm,4.9s
SNY LR LR
comp=Z,1μm,20.4s
SNY LR LR
comp=Z,640nm,15.1s
SNY LR LR
comp=Z,2μm,18.6s
**JIRN Jiri 43.13 314** *e*P **P 01 31 25.7 +0.4**
**TOO Toolangi 43.28 150** P **P 01 31 26.0 +0.1**
baz=43,SNR=5.2
**GUN Gumba 43.50 314** *e*P **P 01 31 28.7 +0.4**
comp=Z,306nm,0.9s
**CAN Canberra 43.53 144** *e*P **P 01 31 28.2 +0.2**
CAN pmax pmax
comp=Z,100nm,1.0s
**CAN Canberra 43.53 144** *e*P **P 01 31 28.2 +0.2**
comp=Z,103nm,1.0s
CAN *e*PP PP 01 32 57.5 -12
CAN LR LR
comp=Z,3μm,20.0s
**NJS Nagarjunasagar 43.58 296** *e*P **P 01 31 28.0 -0.6**
NJS IAmb IAmb 01 31 32.4
comp=Z,940nm,3.3s
NJS *e*S **S 01 37 57.5 +1.4**
NJS IVMs_BB IVMs_BB 01 46 34.5
comp=Z,781nm,32.4s
**PKI Pulchoki 43.64 314** *e*P **P 01 31 29.4 0.0**
comp=Z,165nm,1.2s
**PKIN Phulchoki 43.66 314** *e*P **P 01 31 29.3 -0.1**
**TRD Trivandrum 43.67 284** *e*P **P 01 31 28.2 -1.2**
**CNB Canberra Magne 43.74 144** P **P 01 31 29.9 +0.2**
baz=44,SNR=4.8
**SRLM Srisailam 43.80 295** *e*P **P 01 31 29.7 -0.8**
SRLM IAmb IAmb 01 31 34.1
comp=Z,1μm,3.4s
SRLM *e*S **S 01 38 00.8 +1.3**
SRLM IVMs_BB IVMs_BB 01 46 58.2
comp=Z,760nm,27.5s
**KKN Kakani 43.86 314** *e*P **P 01 31 31.1 +0.1**
**DMN Daman 43.89 313** *e*P **P 01 31 31.4 +0.2**
comp=Z,80nm,0.7s
**GTA Gaotai 44.35 338** ⇓ P **P 01 31 35.8 +1.2**
GTA pP pP 01 31 40.4 -3.7
GTA sP sP 01 31 42.8 -5.2
GTA PP **PP 01 33 19.5 +1.1**
GTA ScP **ScP 01 37 08.9 +0.7**
GTA S **S 01 38 09.8 +2.8**
GTA sS pS 01 38 16.4 -1.7
GTA SS **SS 01 41 19.8 -6.8**
GTA ScS **ScS 01 41 31.9 +1.1**
GTA pmax pmax
comp=Z,26nm,1.2s
GTA pmax pmax
comp=Z,1μm,5.9s
GTA LR LR
comp=Z,930nm,17.6s
GTA LR LR
comp=Z,2μm,18.5s
GTA LR LR
comp=Z,1μm,19.0s
**RPR Rampur 44.42 299** *e*P **P 01 31 34.8 -0.5**
RPR IAmb IAmb 01 31 45.4
comp=Z,27nm,0.7s
RPR *e*S **S 01 38 10.4 +2.1**
RPR IVMs_BB IVMs_BB 01 48 46.1
comp=Z,796nm,22.7s
**GKN Gorkha 44.45 314** *e*P **P 01 31 35.8 +0.2**
**HYB Hyderabad 44.55 296** *i*P **P 01 31 36.0 -0.5**
**HYB Hyderabad 44.55 296** *e*P **P 01 31 35.7 -0.8**
**HYBB Hyderabad (bro 44.55 296** *e*P **P 01 31 35.7 -0.8**
HYBB IAmb IAmb 01 31 40.1
comp=Z,368nm,2.3s
HYBB *e*S **S 01 38 12.6 +2.2**
HYBB IVMs_BB IVMs_BB 01 47 23.7
comp=Z,719nm,27.3s
**URV Uravakonda 44.94 293** *e*P **P 01 31 38.7 -0.9**
URV IAmb IAmb 01 31 44.7
comp=Z,828nm,3.3s
URV *e*S **S 01 38 17.9 +1.8**
URV IVMs_BB IVMs_BB 01 52 14.4
comp=Z,1μm,18.5s
**KOLN Koldanda 45.08 313** *e*P **P 01 31 40.9 +0.2**
**CN2 Changchun 45.11 6** *e*P **P 01 31 40.5 +0.1**
CN2 *e*PP **PP 01 33 26.9 +0.6**
CN2 *e*S **S 01 38 20.9 +3.3**
CN2 *e*SS **ScS 01 41 31.3 -3.8**
CN2 pmax pmax
comp=Z,200nm,6.0s
CN2 LR LR
comp=Z,500nm,18.0s
CN2 LR LR
comp=Z,600nm,18.0s
CN2 LR LR
comp=Z,1μm,19.0s
**DANN Dangsing 45.28 313** *e*P **P 01 31 43.1 +0.7**
**NGP Nagpur 45.53 302** *e*P **P 01 31 44.1 0.0**
NGP *e*S **S 01 38 27.4 +3.1**
**JBP Jabalpur 45.60 305** ⇓ *e*P **P 01 31 44.8 +0.1**
JBP *e*S **S 01 38 28.6 +3.2**
**PYUN Piuthan 45.71 312** *e*P **P 01 31 46.1 +0.4**
comp=Z,236nm,0.9s
**MDJ Mudanjiang 46.47 10** P **P 01 31 51.8 +0.6**
MDJ PcP **PcP 01 33 26.6 +1.2**
MDJ PP **PP 01 33 39.8 -1.0**
MDJ ScP **ScP 01 37 22.6 +5.9**
MDJ S **S 01 38 39.1 +1.9**
MDJ ScS **ScS 01 41 46.8 +2.9**
MDJ pmax pmax
comp=Z,57nm,1.4s
MDJ pmax pmax
comp=Z,400nm,4.1s
MDJ LR LR
comp=Z,980nm,19.0s
MDJ LR LR
comp=Z,340nm,13.3s
MDJ LR LR
comp=Z,1μm,20.9s
**MDJ Mudanjiang 46.47 10** *e*P **P 01 31 52.5 +1.4**
comp=Z,74nm,0.9s
MDJ LR LR
comp=Z,2μm,22.0s
**KLRI Killari 46.53 296** *e*P **P 01 31 51.2 -0.9**
KLRI IAmb IAmb 01 31 56.5
comp=Z,104nm,1.3s
KLRI *e*S **S 01 38 41.0 +2.1**
KLRI IVMs_BB IVMs_BB 01 47 21.5
comp=Z,1μm,34.1s
**USRK Ussuriysk Ar. 46.53 12** P **P 01 31 51.1 -0.5**
comp=Z,7.8nm,0.6s,baz=198,slow=7.8,SNR=16
**DGAR Diego Garcia 47.48 261** *e*P **P 01 31 58.6 -0.9**
DGAR pmax pmax
comp=Z,900nm,1.8s
**DGAR Diego Garcia 47.48 261** *e*P **P 01 31 58.6 -0.9**
comp=Z,900nm,1.8s
**BHPL Bhopal 47.76 303** *e*P **P 01 31 59.5 -2.1**
**GOA Goa 48.27 292** *e*P **P 01 32 04.4 -1.3**
**TAU Tasmania Unive 48.31 153** *e*P **P 01 32 06.7 +1.2**
TAU pmax pmax
comp=Z,192nm,1.7s
TAU MLR MLR
comp=Z,5μm,20.0s
**TAU Tasmania Unive 48.31 153** *e*P **P 01 32 06.7 +1.2**
comp=Z,192nm,1.7s
TAU LR LR
comp=Z,5μm,20.0s
**POO Poona 49.14 296** *e*P **P 01 32 11.9 -0.5**
**ASAJ Asahikawa 49.55 22** P **P 01 32 14.3 -0.7**
comp=Z,8.6nm,0.8s,baz=286,slow=11,SNR=5.3
**ASAJ Asahikawa 49.55 22** *e*P **P 01 32 14.8 -0.2**
comp=Z,19nm,0.8s
**DZM Mont Dzumac 49.96 118** P **P 01 32 19.6 +1.0**
comp=Z,12nm,0.8s,baz=309,slow=7.8,SNR=8.5
**DZM Mont Dzumac 49.96 118** *e*P **P 01 32 16.5 -2.1**
comp=Z,145nm,1.5s
DZM *e*S **S 01 39 27.9 +0.4**
comp=Z,2μm,34.2s
DZM *e*LR LR 01 46 44.4
comp=Z,3μm,25.4s
**DZM Mont Dzumac 49.96 118** *e*P **P 01 32 19.7 +1.0**
comp=Z,251nm,1.8s
**ULN Ulaanbaatar 50.11 349** *d i*P **P 01 32 20.4 +1.1**
ULN pmax pmax
comp=Z,136nm,1.7s
**ULN Ulaanbaatar 50.11 349** *e*P **P 01 32 20.5 +1.1**
comp=Z,83nm,1.1s
ULN *e*PcP **PcP 01 33 32.1 -6.6**
ULN LR LR
comp=Z,2μm,21.0s
**ULN Ulaanbaatar 50.11 349** P **P 01 32 20.2 +0.8**
SNR=45
ULN P **P 01 32 20.2 +0.8**
SNR=45
**ULN Ulaanbaatar 50.11 349** P **P 01 32 20.2 +0.8**
SNR=45
**SONM Songino Array 50.21 348** P **P 01 32 21.1 +1.0**
comp=Z,21nm,0.8s,baz=167,slow=7.2,SNR=46
SONM LR LR 01 55 59.2
comp=Z,1μm,18.2s,baz=164,slow=39
**SONA1 Songino Array 50.22 348** *e*P **P 01 32 21.2 +1.1**
**HIA Hailar 50.28 0** *e*P **P 01 32 21.3 +0.8**
HIA pmax pmax
comp=Z,46nm,1.4s
HIA MLR MLR
comp=Z,1μm,19.0s
**HIA Hailar 50.28 0** *e*P **P 01 32 21.3 +0.8**
comp=Z,46nm,1.4s
HIA LR LR
comp=Z,1μm,19.0s
**DDI Dehra Dun 50.54 312** *e*P **P 01 32 21.9 -1.0**
**YUK Yuzh-Kuril'sk 50.76 24** *e*P **P 01 32 20.2 -3.9**
YUK *i* 01 34 17.1
YUK *e*S **S 01 39 34.4 -3.2**
YUK *e*SSS SSS 01 44 36.8
**HABR Khabarovsk 51.25 13** *e*P **P 01 32 25.3 -2.4**
HABR *e**PP **pP 01 32 35.3 -2.1**
HABR *e**SP **sP 01 32 39.4 -1.8**
HABR *e* 01 33 39.7
HABR *e* 01 34 22.1
HABR *e*PPP PPP 01 35 22.0
HABR *e*S **S 01 39 42.5 -1.8**
HABR *e**SS **sS 01 39 59.3 -1.0**
HABR *e* 01 42 12.8
HABR *e*SS **SS 01 43 19.2 -1.1**
HABR *e*SSS SSS 01 44 56.1
HABR pmax pmax
comp=E,44nm,1.9s
HABR pmax pmax
comp=N,33nm,1.9s
HABR pmax pmax
comp=Z,68nm,1.9s
HABR MLR MLR
comp=Z,665nm,19.0s
**KLR Kul'dur 51.31 10** P **P 01 32 27.4 -0.8**
comp=Z,0.4nm,0.8s,baz=215,slow=3.2,SNR=14
**KLR Kul'dur 51.31 10** *c i*P **P 01 32 27.6 -0.6**
**SMLA Simla 51.61 312** *e*P **P 01 32 30.7 -0.1**
SMLA AMB AMB 01 32 35.1
comp=Z,224nm,2.0s
**YSS Yuzh-Sakhalins 52.06 20** *e*P P 01 32 26.1 -7.7
YSS MLR MLR
comp=Z,560nm,16.0s
**DHRM DHARAMSHALA 52.81 313** *e*P **P 01 32 40.0 0.0**
DHRM AMB AMB 01 32 44.2
comp=Z,201nm,3.1s
**WMQ Urumqi 53.19 331** P **P 01 32 43.9 +1.6**
WMQ PcP **PcP 01 33 52.3 +2.2**
WMQ PP **PP 01 34 47.4 +4.7**
WMQ ScP **ScP 01 37 46.9 +1.3**
WMQ S **S 01 40 12.5 +1.3**
WMQ pmax pmax
comp=Z,91nm,1.1s
WMQ LR LR
comp=Z,3μm,14.5s
WMQ LR LR
comp=Z,3μm,17.3s
WMQ LR LR
comp=Z,2μm,31.7s
**ZAK Zakamensk 53.28 347** *e*P **P 01 32 42.8 -0.2**
ZAK pmax pmax
comp=Z,25nm,1.6s
**THN Thein Dam 53.33 313** *e*P **P 01 32 41.4 -2.1**
**BHJ Bhuj 54.39 300** *e*P **P 01 32 50.5 -0.9**
**TLY Talaya 54.42 348** *e*P **P 01 32 53.2 +2.0**
TLY *e*S **S 01 40 21.4 -6.2**
TLY *e* 01 42 30.4
TLY pmax pmax
comp=Z,81nm,1.8s
TLY MLR MLR
comp=Z,871nm,19.0s
**TLY Talaya 54.42 348** *e*P **P 01 32 52.9 +1.7**
comp=Z,86nm,1.5s
TLY LR LR
comp=Z,900nm,20.0s
**TLY Talaya 54.42 348** P **P 01 32 53.6 +2.4**
SNR=8.7
TLY P **P 01 32 53.6 +2.4**
SNR=8.7
**TLY Talaya 54.42 348** P **P 01 32 53.6 +2.4**
SNR=8.7
**IRK Irkutsk 54.83 348** *e*P **P 01 32 57.4 +3.3**
IRK pmax pmax
comp=Z,214nm,3.6s
**MOY Mondy 55.02 346** *e*P **P 01 32 57.5 +1.9**
MOY pmax pmax
comp=Z,207nm,2.3s
**HVS Khovu-Aksy 56.64 341** ⇓ *i*P **P 01 33 08.4 +1.2**
HVS pmax pmax
comp=Z,85nm,1.1s
**KSH Kashi 56.93 320** P **P 01 33 10.4 +0.8**
KSH sP pP 01 33 20.1 +0.7
KSH PcP **PcP 01 34 05.0 +0.3**
KSH PP **PP 01 35 19.8 +3.4**
KSH ScP **ScP 01 38 02.4 +0.2**
KSH S **S 01 41 01.1 -0.6**
KSH ScS **ScS 01 42 53.5 -3.4**
KSH SS **SS 01 44 52.3 +1.7**
KSH pmax pmax
comp=Z,17nm,1.0s
KSH pmax pmax
comp=Z,670nm,3.3s
KSH LR LR
comp=Z,600nm,10.4s
KSH LR LR
comp=Z,800nm,8.8s
KSH LR LR
comp=Z,550nm,9.6s
**NKL Nikolayevsk 56.94 15** *e*P **P 01 33 09.0 -0.2**
NKL *e*S **S 01 41 02.0 +1.0**
NKL pmax pmax
comp=Z,30nm,1.0s
NKL pmax pmax
comp=Z,500nm,5.0s
NKL MLR MLR
comp=N,700nm,17.0s
NKL MLR MLR
comp=E,500nm,17.0s
NKL MLR MLR
comp=Z,1μm,17.0s
**PDGK Podgornoye 57.12 326** *i*P **P 01 33 10.0 -0.9**
PDGK pmax pmax
comp=Z,79nm,1.4s
**ZSN Zaisan 57.21 333** *i*P **P 01 33 10.5 -0.8**
comp=Z,37nm,1.2s
ZSN *e*S **S 01 41 06.1 +1.3**
ZSN LRM MLR 01 59 58.9
comp=Z,183nm,17.4s
**UZB Uzynbulak 57.27 325** *i*P **P 01 33 09.3 -2.6**
comp=Z,196nm,1.9s
UZB *e*S **S 01 41 04.0 -2.1**
UZB LRM MLR 02 00 23.3
comp=Z,257nm,16.0s
**DGZ Jazzator, Alta 57.79 336** *i*P **P 01 33 16.5 +1.0**
DGZ pmax pmax
comp=Z,23nm,1.0s
**MK01 Makanchi Array 57.95 330** *e*P **P 01 33 16.7 +0.2**
**MK31 Makanchi Array 57.97 331** *i*P **P 01 33 17.0 +0.4**
MK31 pmax pmax
comp=Z,37nm,0.8s
**MK31 Makanchi Array 57.97 331** *e*P **P 01 33 17.7 +1.1**
**MKAR Makanchi Array 57.97 331** P **P 01 33 17.2 +0.6**
comp=Z,11nm,0.8s,baz=136,slow=6.8,SNR=39
MKAR LR LR 02 01 34.7
comp=Z,775nm,20.1s,baz=126,slow=40
**MKAR Makanchi Array 57.97 331** *e*P **P 01 33 17.7 +1.1**
comp=Z,173nm,0.8s
MKAR *e*PP PP 01 35 15.4 -10
**CLNS Chul'man 58.02 3** *e*P **P 01 33 18.4 +1.6**
CLNS pmax pmax
comp=Z,28nm,0.9s
CLNS pmax pmax
comp=N,19nm,0.9s
CLNS pmax pmax
comp=E,16nm,0.9s
**AAA Alma-Ata 58.52 324** *e*P **P 01 33 22.6 +2.0**
AAA *e*S **S 01 41 20.1 -2.2**
AAA pmax pmax
comp=Z,2μm,4.9s
AAA smax smax
comp=E,2μm,10.7s
**TDK Taldyqorghan 58.79 327** *e*P **P 01 33 20.3 -2.0**
comp=E,386nm,1.6s
TDK *e*S **S 01 41 23.8 -1.8**
**SFK Sufi-Kurgan 58.80 320** *i*P **P 01 33 22.3 -0.5**
SFK pmax pmax
comp=Z,51nm,1.4s
**KZA Kyzart 58.84 322** P **P 01 33 23.4 +0.1**
SNR=16
**BOD Bodaibo 59.02 356** *e*P **P 01 33 23.7 0.0**
BOD pmax pmax
comp=Z,99nm,2.1s
**TKM2 Tokmak 2 59.12 323** P **P 01 33 25.8 +0.8**
SNR=16
**KBL Kabul 59.24 312** *e*P **P 01 33 25.5 -0.4**
**KBL Kabul 59.24 312** *e*P **P 01 33 25.5 -0.4**
comp=Z,56nm,0.9s
KBL LR LR
comp=Z,2μm,22.0s
**KUU Kurty 59.27 325** *e*P **P 01 33 23.7 -2.0**
comp=Z,273nm,1.7s
KUU *e*S **S 01 41 30.2 -1.7**
KUU LRM MLR 02 02 29.4
comp=Z,164nm,19.8s
**KBK Karagaybulak 59.36 323** P **P 01 33 27.7 +1.1**
SNR=28
**UCH Uchtor 59.38 322** P **P 01 33 28.1 +1.0**
SNR=11
**MSVF Nonsavu 59.59 110** *e*P **P 01 33 30.4 +2.0**
MSVF pmax pmax
comp=Z,169nm,1.6s
**MSVF Nonsavu 59.59 110** *e*P **P 01 33 30.4 +2.0**
comp=Z,169nm,1.6s
**AAK Ala-Archa 59.62 323** P **P 01 33 28.9 +0.6**
comp=Z,15nm,1.0s,baz=138,slow=5.0,SNR=15
AAK LR LR 02 02 44.1
comp=Z,1μm,21.9s,baz=106,slow=40
**AAK Ala-Archa 59.62 323** *i*P **P 01 33 29.2 +0.8**
AAK pmax pmax
comp=Z,92nm,2.7s
**AAK Ala-Archa 59.62 323** P **P 01 33 29.4 +1.0**
SNR=15
**AAK Ala-Archa 59.62 323** *e*P **P 01 33 29.3 +1.0**
comp=Z,34nm,1.1s
**AAK Ala-Archa 59.62 323** P **P 01 33 30.2 +1.8**
SNR=10
AAK P **P 01 33 30.2 +1.8**
SNR=10
**AAK Ala-Archa 59.62 323** P **P 01 33 30.2 +1.8**
SNR=10
**FRU Bishkek 59.66 323** *e*P **P 01 33 29.0 +0.5**
FRU *e* 01 34 11.0
FRU *e*S **S 01 41 40.0 +3.0**
FRU *e* 01 43 17.0
FRU pmax pmax
comp=Z,240nm,2.2s
**CHMS Chumysh 59.67 323** P **P 01 33 29.4 +0.9**
SNR=6.8
**AML Almayashu 59.83 322** P **P 01 33 31.4 +1.3**
SNR=19
**USP Ospenovka 59.98 323** P **P 01 33 31.6 +1.0**
SNR=11
**EKS2 Erkin-Say 60.07 322** P **P 01 33 32.4 +0.9**
SNR=13
**OUZ Omahuta 60.37 130** PFAKE 01 33 50.0 +17
OUZ LR LR
comp=Z,2μm,20.0s
**DCZ Deep Cove 60.62 143** *e*P **P 01 33 34.4 -0.5**
comp=Z,35nm,1.2s
DCZ LR LR
comp=Z,2μm,21.0s
**MNAS Manas 60.76 322** *i*P **P 01 33 36.6 +0.4**
MNAS pmax pmax
comp=Z,84nm,1.6s
**BTLS Baital 61.27 325** *i*P **P 01 33 37.2 -2.1**
comp=Z,115nm,1.6s
BTLS *e*S **S 01 41 55.8 -1.7**
**WHZ Wether Hill Ro 61.32 144** *e*P **P 01 33 39.5 -0.2**
comp=Z,61nm,1.3s
WHZ LR LR
comp=Z,2μm,18.0s
**DZET Dzherino 61.32 316** P **P 01 33 39.4 -0.6**
DZET pmax pmax
comp=Z,122nm,2.1s
**WKZ Wanaka 61.41 142** PFAKE 01 33 50.0 +10

WKZ LR LR
comp=Z,3µm,19.0s
**SEM Semipalatinsk 61.45 332** *i* P **P 01 33 38.3 -2.4**
comp=Z,162nm,1.6s
SEM *e*S **S 01 41 57.1 -2.9**
SEM LRM MLR 02 02 07.6
comp=Z,352nm,16.0s
**DZA Taraz 61.71 321** *e*P **P 01 33 40.2 -2.2**
DZA *e*S **S 01 42 01.4 -1.8**
**LBZ Lake Benmore 61.92 141** *e*P **P 01 33 43.3 -0.5**
comp=Z,76nm,1.5s
LBZ LR LR
comp=Z,2µm,20.0s
**MCQ Macquarie Isla 62.06 155** *e*P **P 01 33 43.7 -0.7**
MCQ pmax pmax
comp=Z,63nm,0.9s
MCQ MLR MLR
comp=Z,2µm,18.0s
**MCQ Macquarie Isla 62.06 155** *e*P **P 01 33 43.7 -0.7**
comp=Z,63nm,0.9s
MCQ LR LR
comp=Z,2µm,18.0s
**ZAA0 Zalesovo Array 62.10 338** *e*P **P 01 33 45.3 +0.5**
comp=Z,68nm,1.1s
**ZALV Zalesovo Beam 62.10 338** P **P 01 33 44.7 -0.1**
comp=Z,21nm,0.9s,baz=138,slow=4.7,SNR=39
ZALV LR LR 02 01 56.5
comp=Z,749nm,20.3s,baz=76,slow=37
ZALV PKP2ab 02 03 06.8
comp=Z,0.9nm,0.7s,baz=329,slow=5.2,SNR=4.1
**ZALV Zalesovo Beam 62.10 338** *e*P **P 01 33 44.4 -0.4**
**IUG luzhnay 62.15 320** *e*P **P 01 33 43.2 -2.2**
comp=Z,193nm,1.2s
IUG *e*S **S 01 42 07.0 -1.8**
**RPZ Rata Peaks 62.15 140** *e*P **P 01 33 45.9 +0.5**
comp=Z,118nm,1.0s
RPZ LR LR
comp=Z,3µm,20.0s
**KK31 Karatay Array 62.33 321** *i* P **P 01 33 46.7 +0.1**
KK31 pmax pmax
comp=Z,11nm,0.7s
**KKAR Karatay Array 62.33 321** *e*P **P 01 33 46.5 -0.1**
KKAR pmax pmax
comp=Z,95nm,0.8s
**KKAR Karatay Array 62.33 321** *e*P **P 01 33 46.5 -0.1**
comp=Z,95nm,0.8s
**KURBB Kurchatov Arra 62.40 332** P **P 01 33 47.1 +0.3**
comp=Z,11nm,0.7s,baz=133,slow=6.3,SNR=67
KURBB PKP2ab 02 03 09.1
comp=Z,0.7nm,1.0s,baz=304,slow=3.4,SNR=4.2
**KURK Kurchatov 62.42 332***d i*P **P 01 33 47.2 +0.2**
KURK pmax pmax
comp=Z,354nm,1.7s
**KURK Kurchatov 62.42 332** *e*P **P 01 33 47.5 +0.5**
comp=Z,86nm,1.0s
KURK *e*S **S 01 42 15.4 +3.6**
KURK P'P'ab **P'P'ab 02 03 09.1 +1.8**
KURK LR LR
comp=Z,900nm,18.0s
**KURK Kurchatov 62.42 332** P **P 01 33 48.3 +1.3**
SNR=28
KURK P **P 01 33 48.3 +1.3**
SNR=28
**KURK Kurchatov 62.42 332** P **P 01 33 48.3 +1.3**
SNR=28
**THZ Tophouse 62.49 138** *e*P **P 01 33 48.4 +0.7**
comp=Z,226nm,1.9s
THZ LR LR
comp=Z,3µm,22.0s
**ODZ Otahua Downs 62.53 142** *e*P **P 01 33 47.0 -0.8**
comp=Z,97nm,1.9s
ODZ LR LR
comp=Z,2µm,20.0s
**HIZ Hauiti 62.54 133** PFAKE 01 34 00.0 +12
HIZ LR LR
comp=Z,2µm,20.0s
**OXZ Oxford 62.61 139** PFAKE 01 34 00.0 +12
OXZ LR LR
comp=Z,3µm,20.0s
**PETK Petropavlovsk- 62.73 25** P **P 01 33 48.3 -0.7**
comp=Z,2.0nm,0.4s,baz=208,slow=2.8,SNR=3.2
PETK LR LR 01 59 24.5
comp=Z,207nm,21.6s,baz=211,slow=34
**PET Petropavlovsk 63.07 25** *e*P **P 01 33 54.0 +2.8**
PET *e*S **S 01 42 21.3 +1.5**
PET MLR MLR
comp=Z,800nm,15.0s
**MQZ McQueen's Vall 63.18 140** *e*P **P 01 33 53.1 +1.0**
comp=Z,100nm,1.7s
MQZ LR LR
comp=Z,2µm,22.0s
**KHZ Kahutara 63.20 138** PFAKE 01 34 00.0 +7.7
KHZ LR LR
comp=Z,3µm,21.0s
**NVS Novosibirsk 63.38 337**↓ *i* P **P 01 33 53.6 +0.3**
NVS *e*S **S 01 42 23.3 -0.3**
NVS pmax pmax
comp=Z,30nm,0.7s
NVS pmax pmax
comp=N,14nm,0.8s
NVS pmax pmax
comp=E,11nm,0.7s
NVS smax smax
comp=N,1.0nm,0.5s
NVS smax smax
comp=E,16nm,1.2s
**SNZO South Karori 63.53 136** *e*P **P 01 33 54.6 +0.1**
comp=E,180nm,1.4s
SNZO LR LR
comp=Z,2µm,20.0s
**YAK Yakutsk 63.53 5** *e*P **P 01 33 53.2 -0.9**
YAK *e**PP **pP 01 34 03.4 -0.6**
YAK *e* 01 34 34.6
YAK *e* 01 36 15.0
YAK *e*S **S 01 42 26.0 +0.8**
YAK *e**SS **sS 01 42 44.1 +2.6**
YAK *e* 01 43 42.1
YAK pmax pmax
comp=Z,35nm,0.9s
YAK pmax pmax
comp=E,3.0nm,1.0s
YAK pmax pmax
comp=N,8.0nm,1.1s
YAK pmax pmax
comp=Z,364nm,5.9s
YAK pmax pmax
comp=N,270nm,6.7s
YAK pmax pmax
comp=E,215nm,6.2s
YAK smax smax
comp=E,229nm,2.3s
YAK smax smax
comp=N,146nm,2.3s
YAK MLR MLR
comp=Z,583nm,19.0s
YAK MLR MLR
comp=E,264nm,22.0s
**YAK Yakutsk 63.53 5** *e*P **P 01 33 53.9 -0.2**
comp=E,82nm,0.8s
YAK *e*PP **PP 01 36 13.1 -1.1**
**BKZ Black Stump Fm 63.97 134** *e*P **P 01 33 57.7 +0.1**
comp=E,61nm,1.2s
BKZ LR LR
comp=Z,2µm,20.0s
**URZ Urewera 64.10 132** *e*P **P 01 33 57.5 -0.9**
comp=Z,47nm,1.2s
URZ LR LR
comp=Z,2µm,19.0s
**WSAR Wadi Sarin 64.11 297** P **P 01 33 57.5 -1.2**
comp=Z,5.3nm,1.0s,baz=19,slow=10.0,SNR=4.5
WSAR LR LR 02 01 58.4
comp=Z,1µm,21.0s,baz=144,slow=36
**MSEY Mahe Island 64.20 265** PFAKE 01 34 10.0 +10
MSEY LR LR
comp=Z,2µm,20.0s
**BFZ Birch Farm 64.36 135** *e*P **P 01 33 59.0 -1.0**
comp=Z,70nm,1.1s
BFZ LR LR
comp=Z,4µm,19.0s
**BIDO Bidbid 64.62 297** P **P 01 34 05.2 +3.2**
SNR=5.0
BIDO P **P 01 34 05.2 +3.2**
SNR=5.0
**BIDO Bidbid 64.62 297** P **P 01 34 05.2 +3.2**
SNR=5.0
**MA2 Magadan 65.31 17** *i* P **P 01 34 06.2 +0.4**
**UOSS Minazif 66.65 298** PFAKE 01 34 30.0 +15
UOSS LR LR
comp=Z,500nm,19.0s
**HATD Hatta, Dubai 66.69 298** *i* P **P 01 34 14.6 -0.8**
SNR=5.7
**HATD Hatta, Dubai 66.69 298** *i* P **P 01 34 14.6 -0.8**
SNR=5.7
**ASHO Ashiyiah 66.72 297** P **P 01 34 14.5 -1.2**
**ASHO Ashiyiah 66.72 297** P **P 01 34 14.5 -1.2**
**FAQ Al Fraqa, Dubai 67.15 297** P P 01 34 25.0 +6.6
SNR=222
**BVA0 Borovoye Array 67.85 330** P **P 01 34 22.0 -0.2**
BVA0 pmax pmax
comp=Z,119nm,2.2s
**BVAR Borovoye Array 67.85 330** LR LR 02 08 07.4
comp=Z,985nm,19.1s,baz=136,slow=40
**BRVK Borovoye 67.92 330***d i*P **P 01 34 22.3 -0.3**
BRVK pmax pmax
comp=Z,137nm,1.7s
**BRVK Borovoye 67.92 330** *e*P **P 01 34 23.2 +0.6**
comp=Z,58nm,1.2s
BRVK LR LR
comp=Z,1µm,22.0s
**BRVK Borovoye 67.92 330** P **P 01 34 23.4 +0.7**
SNR=23
BRVK P **P 01 34 23.4 +0.7**
SNR=23
**BRVK Borovoye 67.92 330** P **P 01 34 23.4 +0.7**
SNR=23
**SEY Seymchan 68.52 15**↓ *i* P **P 01 34 25.8 -0.3**
**GEYT Alibeck 68.69 312** P **P 01 34 27.8 0.0**
comp=Z,17nm,1.0s,baz=116,slow=6.8,SNR=18
GEYT LR LR 02 08 45.5
comp=Z,836nm,21.9s,baz=100,slow=40
**AFI Afiamalu 68.88 104** P **P 01 34 29.9 +0.5**
comp=Z,39nm,0.9s,baz=224,slow=13,SNR=3.6
**AFI Afiamalu 68.88 104** P **P 01 34 29.9 +0.5**
AFI pmax pmax
comp=Z,43nm,1.0s
**AB31 Akbulak array 71.69 323** *i* P **P 01 34 45.6 -0.3**
AB31 pmax pmax
comp=Z,13nm,0.6s
**ABKAR Akbulak array 71.69 323** *e*P **P 01 34 46.1 +0.2**
comp=Z,138nm,0.8s
ABKAR *e*PP **PP 01 37 25.0 -0.3**
**TIXI Tiksi 72.98 3***c i*P **P 01 34 51.9 -1.2**
TIXI pmax pmax
comp=Z,114nm,2.5s
**TIXI Tiksi 72.98 3** *e*P **P 01 34 51.5 -1.6**
comp=Z,62nm,1.0s
TIXI LR LR
comp=Z,1µm,19.0s
**OPO Ambohidratompo 73.04 251** LR LR 02 02 22.3
comp=Z,599nm,21.3s,baz=78,slow=32
**AKTO Aktyubinsk 73.31 324** LR LR 02 10 10.0
comp=Z,636nm,21.3s,baz=116,slow=38
**AKTO Aktyubinsk 73.31 324** *i* P **P 01 34 54.8 -0.7**
AKTO pmax pmax
comp=Z,71nm,1.7s
**CRZF Crozet Islands 73.97 222** *e*P **P 01 34 58.9 -0.6**
comp=Z,38nm,1.0s
**SVE Sverdlovsk 74.63 331**↓ *e*P **P 01 35 03.6 +0.5**
SVE *e* 01 37 52.4
SVE *e*S **S 01 44 37.3 +0.7**
SVE *e* 01 45 12.5
SVE pmax pmax
comp=Z,101nm,1.4s
**ARU Arti 75.48 330** LR LR 02 11 05.5
comp=Z,507nm,21.3s,baz=114,slow=38
**ARU Arti 75.48 330***c i*P **P 01 35 08.1 0.0**
ARU 01 35 21.0
ARU 01 37 55.8
ARU PPP PPP 01 39 40.9
ARU S **S 01 44 48.0 +1.9**
ARU 01 45 14.6
ARU SS **SS 01 49 39.1 +1.9**
ARU pmax pmax
comp=Z,73nm,1.7s
**ARU Arti 75.48 330** *e*P **P 01 35 08.0 0.0**
comp=Z,59nm,1.2s
**RAYN Ar Rayn 76.01 294** *e*P **P 01 35 11.0 -0.9**
comp=Z,42nm,1.3s
RAYN *e*PP **PP 01 37 56.5 -6.3**
RAYN LR LR
comp=Z,2µm,19.0s
**DAMY Dhamar 76.09 285** *e*P **P 01 35 12.1 -0.6**
comp=Z,150nm,1.8s
DAMY LR LR
comp=Z,800nm,19.0s
**BILL Bilibino 76.17 16**↓ *i* P **P 01 35 10.8 -0.9**
BILL *e* 01 35 23.7
BILL *e* 01 38 01.8
BILL *e*SS SS 01 49 42.7 -4.5
BILL pmax pmax
comp=Z,17nm,2.2s
BILL MLR MLR
comp=Z,533nm,19.0s
**MAW Mawson 76.76 199** P **P 01 35 13.0 -2.0**
comp=Z,43nm,1.0s,baz=61,slow=7.8,SNR=25
MAW LR LR 02 04 19.0
comp=Z,495nm,21.8s,baz=58,slow=32
**MAW Mawson 76.76 199** P **P 01 35 14.4 -0.7**
baz=77,SNR=11
**MAW Mawson 76.76 199** *e*P **P 01 35 14.6 -0.5**
MAW *e* 01 38 12.6
MAW pmax pmax
comp=Z,21nm,1.2s
**MAW Mawson 76.76 199** *e*P **P 01 35 14.6 -0.5**
comp=Z,21nm,1.2s
MAW *e*PP **PP 01 38 12.6 +4.6**
**ATD Arta Tunnel 77.36 282** LR LR 02 08 24.7
comp=Z,431nm,20.2s,baz=84,slow=35
**MNGR Mingechevir, A 77.69 312** P **P 01 35 20.3 -0.5**
**SEKA Sheki 77.70 313** P **P 01 35 20.0 -1.0**
**MAK Makhachkala 77.86 314** *e*P **P 01 35 19.3 -2.5**
MAK *e* 01 38 16.5
MAK *e*S **S 01 45 09.9 -2.8**
MAK pmax pmax
comp=Z,397nm,1.3s
**ZKTA Zakatala 78.21 313** P **P 01 35 23.2 -0.6**
**GANJ Ganja 78.22 312** P **P 01 35 23.3 -0.6**
**DDFL Dedoflistskaro 78.54 313** P **P 01 35 28.0 +2.3**
**NAX Nakhchivan 78.56 310** P **P 01 35 25.1 -0.7**
**GROC Groznyy 79.14 314** *e*P **P 01 35 28.6 -0.2**
GROC *e* 01 35 36.8
GROC pmax pmax
comp=Z,51nm,1.4s
**GNI Garni 79.31 311** *i* P **P 01 35 31.4 +1.3**
SNR=6.4
**GNI Garni 79.31 311** *i* P **P 01 35 31.4 +1.3**
SNR=6.4
**GNI Garni 79.31 311** *i* P **P 01 35 31.1 +1.0**
GNI pmax pmax
comp=Z,131nm,2.1s
**GNI Garni 79.31 311** *e*P **P 01 35 31.5 +1.4**
comp=Z,55nm,1.3s
GNI LR LR
comp=Z,500nm,20.0s
**VNDA Vanda 79.53 171** P **P 01 35 30.1 -0.2**
comp=Z,10nm,0.8s,baz=305,slow=6.0,SNR=20
VNDA LR LR 02 11 33.0
comp=Z,2µm,18.4s,baz=328,slow=36
**VNDA Vanda 79.53 171** *e*P **P 01 35 30.3 0.0**
VNDA *e* 01 38 27.7
VNDA pmax pmax
comp=Z,22nm,1.0s
**VNDA Vanda 79.53 171** *e*P **P 01 35 30.3 0.0**
comp=Z,22nm,1.0s
VNDA *e*PP **PP 01 38 27.7 -3.3**
**TBLG Delisi 79.61 313** P **P 01 35 31.5 0.0**
**TBLG Delisi 79.61 313** *e*P **P 01 35 31.5 0.0**
**GUDG Gudauri 79.94 313** P **P 01 35 37.5 +4.0**
**BGD Bogdanovka 80.37 312** P **P 01 35 37.3 +1.4**
**ZEI Tsey 80.42 314** *e*P **P 01 35 35.3 -0.8**
ZEI *e*S **S 01 45 41.3 +0.9**
ZEI pmax pmax
comp=Z,13nm,0.8s
**AKH Akhalkalaki 80.47 312** P **P 01 35 37.5 +1.2**
**AKH Akhalkalaki 80.47 312**↓ *i* P **P 01 35 37.4 +1.1**
**AKH Akhalkalaki 80.47 312** *e*P **P 01 35 37.5 +1.2**
**SBA Scott Base 80.52 171** PFAKE 01 35 50.0 +14
SBA LR LR
comp=Z,1µm,20.0s
**ONI Oni 80.71 313** P **P 01 35 38.9 +1.4**
**ONI Oni 80.71 313** *e*P **P 01 35 38.8 +1.4**
**NCK Nalchik 80.77 314**↓ *e*P **P 01 35 38.7 +1.0**
NCK pmax pmax
comp=Z,10.0nm,1.2s
**KBZ Khabaz 81.31 314** P **P 01 35 40.3 -0.2**
comp=Z,5.1nm,0.9s,baz=95,slow=8.7,SNR=7.6
KBZ LR LR 02 16 58.9
comp=Z,436nm,21.7s,baz=98,slow=40
**FURI Furi 81.31 279** *e*P **P 01 35 42.7 +1.2**
comp=Z,122nm,2.0s
FURI *e*PP **PP 01 38 40.7 -6.9**
FURI LR LR
comp=Z,700nm,18.0s
**NEY Neytrino 81.35 314** *i* P **P 01 35 40.3 -0.7**
NEY pmax pmax
comp=Z,20nm,2.0s
**GOF Gofitskoye 81.44 316**↑ *e*P **P 01 35 43.1 +1.9**
GOF *e*S **S 01 45 56.9 +6.4**
GOF pmax pmax
comp=Z,30nm,1.1s
**KIV Kislovodsk 81.50 315** *i* P **P 01 35 42.2 +0.6**
SNR=7.8
**KIV Kislovodsk 81.50 315** *i* P **P 01 35 42.2 +0.6**
SNR=7.8
**KIV Kislovodsk 81.50 315** *e*P **P 01 35 42.4 +0.8**
KIV *e* 01 38 49.1
KIV *e*S **S 01 45 52.2 +0.8**
KIV pmax pmax
comp=Z,9.0nm,1.0s
KIV MLR MLR
comp=Z,524nm,19.0s
**KIV Kislovodsk 81.50 315** *e*P **P 01 35 42.4 +0.8**
comp=Z,94nm,1.9s
KIV LR LR
comp=Z,600nm,22.0s
**ARTV Artvin 81.60 312** *e*P **P 01 35 43.4 +1.0**
comp=Z,34nm,1.4s
ARTV LR LR
comp=Z,300nm,22.0s
**CHVG Ch'k'valeri 81.73 313** P **P 01 35 43.7 +1.0**
**MARD Mardin 81.92 308** *e*P **P 01 35 44.0 0.0**
comp=Z,217nm,2.0s
**KMBO Kilima Mbogo 82.42 269** P **P 01 35 48.6 +1.3**
comp=Z,3.1nm,0.8s,baz=41,slow=7.5,SNR=7.5
KMBO LR LR 02 11 39.1
comp=Z,638nm,19.1s,baz=96,slow=35
**KMBO Kilima Mbogo 82.42 269** *e*P **P 01 35 48.4 +1.1**
KMBO pmax pmax
comp=Z,11nm,1.0s
**KMBO Kilima Mbogo 82.42 269** *e*P **P 01 35 48.4 +1.1**
comp=Z,11nm,1.0s
**KMBO Kilima Mbogo 82.42 269** P **P 01 35 49.7 +2.4**
SNR=7.3
KMBO P **P 01 35 49.7 +2.4**
SNR=7.3
**KMBO Kilima Mbogo 82.42 269** P **P 01 35 49.7 +2.4**
SNR=7.3
**KOPT Kop Dagi 82.50 310** *e*P **P 01 35 48.0 +0.7**
comp=Z,74nm,1.4s
**VRH Novokhopyorsk 83.41 322** *e*P **P 01 35 51.3 0.0**
**SOC Sochi 83.57 314***d i*P **P 01 35 52.5 +0.2**
SOC *e* 01 39 02.4
SOC *i*S **S 01 46 10.9 -1.4**
SOC *e*SS **SS 01 51 37.5 -1.5**
SOC pmax pmax
comp=Z,26nm,0.8s
**VSR Storozhevoye 85.00 321** *e*P **P 01 35 58.4 -1.0**
**VORR Voronezh 85.04 322** P **P 01 35 59.0 -0.6**
VORR pmax pmax
comp=Z,250nm,1.0s
**SYO Syowa Base 85.32 201**↓ *i* P **P 01 35 59.0 -1.6**
**SYO Syowa Base 85.32 201**↓ *i* PcP **P 01 36 01.0 +0.4**
**LPSR Galich'ya Gora 85.34 323** *e*P **P 01 36 00.8 -0.3**
**ANN Anapa 85.35 315** *e*P **P 01 36 00.5 -0.8**
ANN *e**PP **sP 01 36 13.5 -1.7**
ANN *e*S **S 01 46 21.7 -8.3**
ANN pmax pmax
comp=Z,264nm,3.0s
**TOKA Tokat 85.60 310** *e*P **P 01 36 03.8 +1.0**
comp=Z,151nm,1.7s
TOKA LR LR
comp=Z,800nm,21.0s
**EIL Elat 86.02 300** LR LR 02 21 25.0
comp=Z,206nm,18.5s,baz=96,slow=40
**KLMR Klimovskoe 86.26 331** *e*P **P 01 36 04.3 -1.1**
KLMR pmax pmax
comp=Z,121nm,1.2s
**MOS Moscow 86.52 326** *e*P **P 01 36 07.0 +0.2**
MOS *e* 01 39 23.4
MOS *e*S **S 01 46 37.8 -3.2**
MOS *e*PS **PnS 01 47 42.8 +0.3**
MOS pmax pmax
comp=Z,115nm,1.4s
MOS pmax pmax
comp=Z,600nm,2.5s
**TMCR Tamitsa 87.44 334** *e*P **P 01 36 10.7 -0.4**
TMCR pmax pmax
comp=Z,9.0nm,0.6s
**CSS Mathiatis 87.70 305** *e*P **P 01 36 14.5 +1.4**
comp=Z,14nm,1.1s
CSS LR LR
comp=Z,200nm,20.0s
**SIM Simferopol' 87.71 315***de*P **P 01 36 14.9 +2.0**
SIM *e*S S 01 46 40.3 -13
SIM pmax pmax
comp=Z,38nm,0.9s
SIM MLR MLR
comp=Z,480nm,19.0s
**BR131 Keskin Array S 87.73 310** *e*P **P 01 36 13.8 +0.5**
**BRTR Keskin Array B 87.73 310** P **P 01 36 12.4 -0.9**
comp=Z,24nm,0.9s,baz=119,slow=4.5,SNR=53
**ILGA Ilgaz 87.75 311** *e*P **P 01 36 14.6 +1.1**
comp=Z,34nm,1.1s
ILGA LR LR
comp=Z,1µm,22.0s
**ANTO Ankara 88.38 310** *e*P **P 01 36 16.7 +0.4**
ANTO pmax pmax
comp=Z,50nm,1.2s
ANTO MLR MLR
comp=Z,500nm,21.0s
**ANTO Ankara 88.38 310** *e*P **P 01 36 16.7 +0.4**
comp=Z,50nm,1.2s
ANTO LR LR
comp=Z,500nm,21.0s
**ANTO Ankara 88.38 310** P **P 01 36 18.2 +1.9**
SNR=6.8
**ANTO Ankara 88.38 310** P **P 01 36 18.2 +1.9**
SNR=6.8
**BR231 Keskin MP Arra 88.40 310** *e*P **P 01 36 16.8 +0.4**
**QSPA South Pole Qui 88.73 180** *e*P **P 01 36 16.9 -0.5**
comp=Z,45nm,0.9s
QSPA *e*PP **PP 01 39 43.5 -2.7**
QSPA LR LR
comp=Z,1µm,20.0s
**APA Apatity 89.69 337**↓ *i* P P 01 36 27.1 +5.4
APA pmax pmax
comp=Z,14nm,1.0s
APA MLR MLR
comp=Z,1µm,27.0s
**IMAR Indian Mountai 89.69 24** *e*P **P 01 36 22.6 +0.8**
**BOLV Bolvadin 89.77 309** *e*P **P 01 36 23.4 +0.5**
comp=Z,255nm,1.9s
**TBI Tubuai 90.30 113** *e*PP PP 01 39 56.0 -3.9
comp=Z,143nm,27.8s
TBI *e*SKSac **SKSac 01 46 49.9 -5.1**
comp=Z,753nm,27.1s
TBI *e*S **S 01 47 15.2 -3.0**
comp=Z,429nm,28.2s
TBI *e*SS **SS 01 53 20.2 +1.7**
comp=Z,523nm,27.8s
**TBI Tubuai 90.30 113** *e*LR LR 02 05 15.6
comp=Z,770nm,35.8s
**PPT Papeete 90.33 107** LR LR 02 16 53.4
comp=Z,143nm,19.6s,baz=266,slow=36
**PPT2 Papeete2 90.33 107** *e*PP PP 01 39 49.4 -11
comp=Z,177nm,25.5s
PPT2 *e*SKSac **SKSac 01 46 48.5 -7.0**
comp=Z,533nm,24.8s
PPT2 *e*SS **SS 01 53 19.8 +0.5**
comp=Z,986nm,27.2s
PPT2 *e*LQ LQ 02 01 34.4
comp=Z,618nm,27.2s
PPT2 *e*LR LR 02 05 15.7
comp=Z,3µm,37.8s
**BPAW Bear Paw Mtn. 90.78 26** *e*P **P 01 36 26.7 -0.3**
comp=Z,65nm,2.0s
**LSZ Lusaka 91.14 255** P **P 01 36 30.2 +0.4**
comp=Z,0.9nm,0.6s,baz=90,slow=9.1,SNR=2.8

**LSZ Lusaka 91.14 255 P P 01 36 30.2 +0.4**
LSZ LR LR
comp=Z,1μm,21.0s
**COLD Coldfoot 91.15 23 eP P 01 36 27.6 -0.9**
comp=Z,24nm,1.7s
**AKASG Malin Array Be 91.23 321 P P 01 36 28.4 -0.8**
comp=Z,4.6nm,0.9s,baz=77,slow=4.9,SNR=27
AKASG PKKP **PKKPdf 01 53 51.0 +0.7**
comp=Z,0.3nm,0.4s,baz=271,slow=2.7,SNR=5.7
AKASG LR LR 02 24 26.7
comp=Z,523nm,20.3s,baz=80,slow=40
**AKBB Malin Array Si 91.23 321 eP P 01 36 28.6 -0.6**
AKBB pmax pmax
comp=Z,8.0nm,0.9s
AKBB MLR MLR
comp=Z,1μm,22.0s
**AKBB Malin Array Si 91.23 321 eP P 01 36 28.6 -0.6**
comp=Z,7.8nm,0.9s
AKBB ePP PP 01 39 57.5 -9.0
AKBB LR LR
comp=Z,1μm,22.0s
**AK11 Malin Array Si 91.26 320 eP P 01 36 28.9 -0.4**
**KIS Kishinev 91.48 317 e PP 01 40 08.0 -0.5**
KIS eL L 02 09 12.0
KIS LRM MLR 02 25 52.0
comp=Z,700nm,20.0s
**MANT Manisa 91.64 308** PFAKE 01 36 40.0 +8.3
MANT LR LR
comp=Z,2μm,22.0s
**RND Reindeer 91.73 27 eP P 01 36 29.5 -1.9**
RND pmax pmax
comp=Z,43nm,1.6s
**RND Reindeer 91.73 27 eP P 01 36 29.4 -1.9**
comp=Z,43nm,1.6s
**TIRR Tirgusor 91.76 314 ⇓iP P 01 36 31.3 -0.5**
**TIRR Tirgusor 91.76 314 ⇓P P 01 36 31.3 -0.5**
**TIRR Tirgusor 91.76 314 eP P 01 36 32.2 +0.4**
comp=Z,44nm,1.7s
TIRR ePP **PP 01 40 05.2 -5.6**
TIRR LR LR
comp=Z,400nm,18.0s
**SORM Soroca 91.79 318 ⇑iP P 01 36 32.1 +0.2**
**SORM Soroca 91.79 318 ⇑P P 01 36 32.1 +0.2**
**CFR Carcaliu 91.95 315 ⇑iP P 01 36 31.8 -0.9**
**CFR Carcaliu 91.95 315 ⇑P P 01 36 31.8 -0.9**
**SML Sawmill 92.00 28 eP P 01 36 31.3 -1.3**
SML pmax pmax
comp=Z,208nm,2.0s
**SML Sawmill 92.00 28 eP P 01 36 31.3 -1.3**
comp=Z,208nm,2.0s
**KEV Kevo 92.06 340** PFAKE 01 36 40.0 +7.3
KEV LR LR
comp=Z,500nm,19.0s
**ILAR Eielson Array 92.55 25 P P 01 36 35.5 +0.5**
comp=Z,0.6nm,0.9s,baz=267,slow=6.5,SNR=5.8
ILAR PKKPbc **PKKPdf 01 53 47.5 -0.8**
comp=Z,1.7nm,0.9s,baz=89,slow=1.7,SNR=12
ILAR LR LR 02 17 39.5
comp=Z,112nm,21.2s,baz=284,slow=35
**ARCES ARCESS Array B 92.60 339 P P 01 36 34.5 -0.7**
comp=Z,2.9nm,0.9s,baz=90,slow=7.3,SNR=7.3
**ARCES ARCESS Array B 92.60 339 eP P 01 36 34.4 -0.8**
**ARE0 ARCESS Array S 92.60 339** PFAKE 01 36 50.0 +15
ARE0 LR LR
comp=Z,600nm,19.0s
**IDID Didziasalis 92.68 325 eP P 01 36 35.9 +0.1**
IDID IAmb IAmb 01 36 46.1
comp=Z,14nm,1.2s
**KARP Karpathos 92.76 305** PFAKE 01 36 50.0 +13
KARP LR LR
comp=Z,400nm,22.0s
**FIA1 FINESS Array S 92.79 331 eP P 01 36 37.4 +1.2**
**FINES FINESS Array B 92.79 331 P P 01 36 36.4 +0.2**
comp=Z,5.9nm,1.0s,baz=72,slow=6.2,SNR=5.1
FINES LR LR 02 21 13.1
comp=Z,473nm,20.9s,baz=96,slow=37
**FINES FINESS Array B 92.79 331 P P 01 36 36.4 +0.2**
FINES pmax pmax
comp=Z,3.0nm,0.7s
FINES MLR MLR
comp=Z,473nm,20.9s
**VRI Vrincioaia 92.93 316 ⇓iP P 01 36 37.8 +0.5**
**VRI Vrincioaia 92.93 316 ⇓P P 01 36 37.9 +0.6**
**IZAR Zarasai 92.94 326 eP P 01 36 37.1 +0.1**
IZAR IAmb IAmb 01 36 46.2
comp=Z,8.4nm,0.8s
**IIGN Ignalina 92.97 325 eP P 01 36 37.2 0.0**
IIGN IAmb IAmb 01 36 47.4
comp=Z,12nm,1.1s
**TESR Tescani 92.97 316 ⇑iP P 01 36 37.0 -0.4**
**PLOR Plostina 92.99 316 ⇓iP P 01 36 37.0 -0.6**
**PLOR Plostina 92.99 316 ⇓P P 01 36 37.0 -0.6**
**ISAL Salakas 93.02 325 eP P 01 36 37.4 +0.1**
ISAL IAmb IAmb 01 36 40.6
comp=Z,20nm,1.4s
**BOSA Boshof 93.33 241** LR LR 02 13 29.7
comp=Z,1μm,20.7s,baz=86,slow=32
**MLR Muntele Rosu 93.49 315 ⇑iP P 01 36 40.2 +0.2**
**MLR Muntele Rosu 93.49 315 ⇑P P 01 36 40.2 +0.2**
**MLR Muntele Rosu 93.49 315 eP P 01 36 40.2 +0.2**
comp=Z,31nm,1.3s
MLR ePP **PP 01 40 18.6 -6.1**
MLR LR LR
comp=Z,700nm,21.0s
**DOPR Dopca 93.86 316 ⇓iP P 01 36 41.2 -0.4**
**BURAR Bucovina Array 93.91 317 ⇑iP P 01 36 42.8 +0.9**
**BURAR Bucovina Array 93.91 317 ⇑P P 01 36 42.8 +0.9**
**BUR04 Bucovina Ar. S 93.92 317 eP P 01 36 42.1 +0.3**
**BUR08 Bucovina Ar. S 93.92 317 eP P 01 36 42.5 +0.6**
**VOIR 94.12 315 ⇓iP P 01 36 42.1 -0.8**
**VOIR 94.12 315 ⇓P P 01 36 42.1 -0.8**
**KBS Kingsbay 94.56 349** PFAKE 01 37 00.0 +16
KBS LR LR
comp=Z,1μm,20.0s
**IDI Anoyia 94.62 305** LR LR 02 25 58.9
comp=Z,422nm,21.8s,baz=86,slow=40
**NVL N'lazarevskaya 94.69 198 eP P 01 36 44.9 +0.1**
**CJR Cluj-Napoca 95.06 317 ⇑iP P 01 36 47.6 +0.5**
**CJR Cluj-Napoca 95.06 317 ⇑P P 01 36 47.6 +0.5**
**VTS Vitosha 95.60 313 ⇓iP P 01 36 49.4 -0.4**
**VTS Vitosha 95.60 313 ⇓P P 01 36 49.4 -0.4**
**VTS Vitosha 95.60 313** PFAKE 01 37 00.0 +10
VTS LR LR
comp=Z,400nm,22.0s
**DRGR 95.67 317 ⇑iP P 01 36 50.7 +0.8**
**DRGR 95.67 317 ⇑P P 01 36 50.7 +0.8**
**UZH Uzhgorod 95.81 319 eP P 01 36 48.8 -1.5**
UZH e 01 36 58.6
**HERR Herculane 96.02 315 ⇑iP P 01 36 50.5 -0.9**
**CRVS Cervenica-Dubn 96.33 319 eP P 01 36 55.2 +2.4**
**CRVS Cervenica-Dubn 96.33 319 ePDIFF P 01 36 55.2 +2.4**
**STHS Stebnicka Huta 96.42 319 eP P 01 36 56.6 +3.4**
**STHS Stebnicka Huta 96.42 319 ePDIFF P 01 36 56.6 +3.4**
**AGG Agios Georgios 96.49 309** PFAKE 01 37 10.0 +16
AGG LR LR
comp=Z,1μm,19.0s
**BZS Buzias 96.52 316 ⇑iP P 01 36 52.6 -1.1**
**BZS Buzias 96.52 316 ⇑P P 01 36 52.6 -1.1**
**INK Inuvik 97.29 21** PKKPbc PKKPbc 01 53 31.7 -6.4
comp=Z,1.3nm,0.9s,baz=135,slow=2.9,SNR=5.3
**INK Inuvik 97.29 21 eP P 01 36 55.9 -0.7**
INK pmax pmax
comp=Z,11nm,1.3s
**INK Inuvik 97.29 21 eP P 01 36 55.9 -0.7**
comp=Z,11nm,1.3s
INK PKKPbc **PKKPbc 01 53 31.7 -6.3**
**VYHS Vyhne 98.10 319 eP** Pdif 01 37 01.8 +1.0
**VYHS Vyhne 98.10 319 ePDIFF** Pdif 01 37 01.8 +1.0
**TIR Tirane 98.18 311** PFAKE 01 37 10.0 +8.7
TIR LR LR
comp=Z,500nm,21.0s
**OKC Ostrava-Krasne 98.37 320 ePP PP** 01 41 05.0 +3.0
OKC *e*SKS **SKSac 01 47 42.1 +4.5**
OKC *e*SP **SP 01 49 54.4 +2.5**
OKC AMS AMS 02 25 00.0
comp=Z,600nm,19.8s
**SNAA Sanae 98.64 196 eP P 01 37 02.3 -0.5**
SNAA pmax pmax
comp=Z,18nm,1.1s
SNAA MLR MLR
comp=Z,800nm,19.0s
**SNAA Sanae 98.64 196 eP P 01 37 02.3 -0.5**
comp=Z,18nm,1.1s
SNAA *e*PP **PP 01 40 57.5 -5.9**
SNAA LR LR
comp=Z,800nm,19.0s
**MORC Moravsky Berou 98.77 320** PFAKE 01 37 20.0 +16
MORC LR LR
comp=Z,3μm,20.0s
**VRAC Vranov 99.45 320** LR LR 02 27 11.6
comp=Z,748nm,21.9s,baz=72,slow=38
**DPC Dobruska-Polom 99.45 321 ePP PP** 01 41 17.8 +7.5
DPC *e*SKS **SKSac 01 47 42.3 -0.8**
DPC *e*PS **PS 01 50 10.6 +2.4**
DPC AMS AMS 02 26 00.0
comp=Z,900nm,17.8s
**UPC Upice 99.62 321 ePP PP** 01 41 18.8 +7.2
UPC *e*SKS **SKSac 01 47 47.4 +3.5**
UPC *e*PS **PS 01 50 15.8 +5.8**
UPC AMS AMS 02 26 10.0
comp=Z,900nm,20.9s
**TAOE Nuku Hiva Isla 99.85 99 eLR** LR 02 09 27.0
comp=Z,542nm,22.7s
**NB2 NORSAR Subarra 99.94 332 P Pdif 01 37 09.8 +1.1**
comp=Z,13nm,1.4s,baz=76,slow=4.4
**NB2 NORSAR Subarra 99.94 332 P Pdif 01 37 09.8 +1.1**
baz=76,slow=4.4
**NOA NORSAR Array B 99.94 332 P Pdif 01 37 08.8 +0.1**
comp=Z,2.0nm,0.9s,baz=74,slow=4.6,SNR=3.7
**GOPC GO Pecny, Ondr 100.50 321 e**SKS **SKSac 01 47 50.1 +1.9**
GOPC *e*PS PS 01 50 20.3 +0.8
GOPC AMS AMS 02 25 50.0
comp=Z,700nm,21.3s
**PVCC Panska Ves 100.53 321** AMS AMS 02 29 20.0
comp=Z,800nm,21.8s
**PRU Pruhonice 100.64 321 ePP PP** 01 41 24.7 +5.4
PRU *e*SKS 01 47 48.7
PRU *e*PS **PS 01 50 21.6 +0.7**
PRU AMS AMS 02 26 10.0
comp=Z,800nm,17.7s
**PRA Prague 100.70 321 e**SKS **SKSac 01 47 48.0 -1.1**
PRA AMS AMS 02 26 20.0
comp=Z,800nm,24.6s
**BRG Berggiesshubel 100.85 322 e**(P) **Pdif 01 37 15.1 +2.1**
comp=Z,7.1nm,1.4s
BRG *e* 01 40 40.9
comp=Z,9.5nm,1.4s
BRG *e* 01 45 27.0
BRG *e* 01 47 28.0
BRG *i* 01 47 51.0
BRG *e* 01 50 29.0
BRG *e* 01 56 06.0
BRG *e* 01 56 17.0
**BRG Berggiesshubel 100.85 322 e**(P) **Pdif 01 37 15.1 +2.1**
comp=Z,7.1nm,1.4s
BRG *e* 01 40 40.9
comp=Z,9.5nm,1.4s
BRG *e* 01 45 27.0
BRG *e* 01 47 28.0
BRG *i* 01 47 51.0
BRG *e* 01 50 29.0
BRG *e* 01 56 06.0
BRG *e* 01 56 17.0
**DAG Danmarks Havn 101.10 351 eP Pdif 01 37 12.1 -1.4**
DAG pmax pmax
comp=Z,8.0nm,1.1s
**DAG Danmarks Havn 101.10 351 i P Pdif 01 37 12.1 -1.4**
comp=Z,8.0nm,1.1s
**CLL Collm 101.34 322 ePP PP** 01 41 18.0 -6.5
CLL *e*PPPP 01 45 18.0
CLL *e*SKSac **SKSac 01 47 50.0 -2.1**
CLL *e*Sdif **Sdif 01 48 49.0 -3.8**
CLL *e*PS **PS 01 50 24.0 -4.2**
CLL *e*PPS PPS 01 51 18.0
CLL *e*SS **SS 01 55 48.0 -5.4**
CLL *e*SSS SSS 01 59 36.0
CLL *e* 02 01 48.0
CLL *e*SSSS 02 03 06.0
**CUC Castrocucco 101.40 310** PFAKE 01 37 30.0 +14
CUC LR LR
comp=Z,400nm,18.0s
**GEC2 GERESS Array S 101.40 320** PFAKE 01 37 30.0 +14
GEC2 LR LR
comp=Z,700nm,20.0s
**GERES GERESS Array B 101.40 320 P Pdif 01 37 15.2 -0.3**
comp=Z,0.3nm,0.7s,baz=105,slow=3.4,SNR=4.2
GERES PP **PP 01 41 31.8 +6.6**
comp=Z,0.7nm,0.8s,baz=87,slow=7.0,SNR=3.7
**GERES GERESS Array B 101.40 320 P Pdif 01 37 15.3 -0.3**
GERES 01 41 31.8
GERES pmax pmax
comp=Z,1.0nm,0.8s
GERES pmax pmax
comp=Z,1.0nm,0.8s
**KHC Kasperske Hory 101.43 320 ePP PP** 01 41 28.0 +2.7
KHC *e*SKS 01 47 53.0
KHC *ep*P **SP 01 50 28.8 +4.0**
KHC AMS AMS 02 27 30.0
comp=Z,900nm,18.3s
**KHC Kasperske Hory 101.43 320** PFAKE 01 37 30.0 +14
KHC LR LR
comp=Z,400nm,21.0s
**CEL Celeste 101.58 309** PFAKE 01 37 30.0 +13
CEL LR LR
comp=Z,300nm,20.0s
**NKC Novy Kostel 101.91 321 e**SKS **SKSac 01 47 53.8 -1.2**
NKC *e*PS PS 01 50 32.6 -1.9
NKC AMS AMS 02 30 00.0
comp=Z,700nm,17.7s
**TRI Trieste 101.96 316** PFAKE 01 37 30.0 +12
TRI LR LR
comp=Z,600nm,20.0s
**WDD Wied Dalam 102.99 306** PFAKE 01 37 30.0 +7.2
WDD LR LR
comp=Z,700nm,22.0s
**RKT Rikitea 103.60 114 e**SKSac **SKSac 01 47 57.4 -6.6**
comp=Z,481nm,27.2s
**RKT Rikitea 103.60 114 e**PS PS 01 50 52.8 -0.5
comp=Z,716nm,27.8s
RKT *e*SS SS 01 56 26.7 +0.4
comp=Z,547nm,27.2s
**RKT Rikitea 103.60 114 e**LR LR 02 11 18.7
comp=Z,680nm,30.8s
**FUORN Ofenpass-Fuorn 104.15 318** PFAKE 01 37 40.0 +12
FUORN LR LR
comp=Z,800nm,22.0s
**SENIN Lac Senin/Sane 106.20 318** PFAKE 01 42 00.0
SENIN LR LR
comp=Z,700nm,20.0s
**YKA Yellowknife Ar 106.83 23** Pdiff **Pdif 01 37 40.9 +1.7**
comp=Z,0.7nm,1.1s,baz=312,slow=5.7,SNR=3.6
YKA PKiKP **PKiKP 01 41 48.2 -0.9**
comp=Z,0.4nm,0.5s,baz=312,slow=1.9,SNR=14
YKA PKKPbc **PKKPbc 01 53 06.6 -3.3**
comp=Z,0.7nm,0.9s,baz=102,slow=1.4,SNR=7.0
**KEST Kesra 107.16 307** PFAKE 01 42 00.0
KEST LR LR
comp=Z,1μm,21.0s
**I07A Izee 112.55 42** PFAKE 01 42 10.0
I07A LR LR
comp=Z,600nm,20.0s
**TAM Tamanrasset 112.70 294** PFAKE 01 42 10.0
TAM LR LR
comp=Z,500nm,22.0s
**NV01 Mina Array Sit 115.41 48 e**PKPdf **PKPdf 01 42 06.6 +0.1**
**EGMT Eagleton 116.87 35 e**PKPdf **PKPdf 01 42 08.1 -0.7**
**TOC2 Torodi Ar. Sit 117.49 284** PFAKE 01 42 20.0 +9.2
TOC2 LR LR
comp=Z,500nm,19.0s
**TOC3 Torodi Ar. Sit 117.49 284** PFAKE 01 42 20.0 +9.2
TOC3 LR LR
comp=Z,500nm,19.0s
**TOB2 Torodi Ar. Sit 117.50 284** PFAKE 01 42 20.0 +9.2
TOB2 LR LR
comp=Z,500nm,20.0s
**TOC1 Torodi Ar. Sit 117.50 284** PFAKE 01 42 20.0 +9.2
TOC1 LR LR
comp=Z,500nm,19.0s
**TOB3 Torodi Ar. Sit 117.50 284** PFAKE 01 42 20.0 +9.2
TOB3 LR LR
comp=Z,500nm,22.0s
**TOC4 Torodi Ar. Sit 117.51 284** PFAKE 01 42 20.0 +9.2
TOC4 LR LR
comp=Z,500nm,21.0s
**TOA0 Torodi Ar. Sit 117.51 284 e**PKPdf **PKPdf 01 42 09.5 -1.3**
TOA0 LR LR
comp=Z,500nm,19.0s
**TORD Torodi Ar. Bea 117.51 284** PKP **PKPdf 01 42 09.1 -1.7**
comp=Z,2.8nm,0.9s,baz=52,slow=2.7,SNR=14
**TOA1 Torodi Ar. Sit 117.52 284** PFAKE 01 42 20.0 +9.2
TOA1 LR LR
comp=Z,500nm,20.0s
**TOB4 Torodi Ar. Sit 117.53 284** PFAKE 01 42 20.0 +9.2
TOB4 LR LR
comp=Z,500nm,21.0s
**TOB5 Torodi Ar. Sit 117.53 284** PFAKE 01 42 20.0 +9.2
TOB5 LR LR
comp=Z,500nm,20.0s
**TOC7 Torodi Ar. Sit 117.53 284** PFAKE 01 42 20.0 +9.2
TOC7 LR LR
comp=Z,500nm,20.0s
**TOC5 Torodi Ar. Sit 117.53 284** PFAKE 01 42 20.0 +9.2
TOC5 LR LR
comp=Z,600nm,21.0s
**TOC6 Torodi Ar. Sit 117.54 284** PFAKE 01 42 20.0 +9.1
TOC6 LR LR
comp=Z,500nm,21.0s
**GCMT Greycliff 118.07 37 e**PKPdf **PKPdf 01 42 11.6 +0.3**
**REDW Red Top Meadow 118.54 40 e**PKPdf **PKPdf 01 42 13.0 +0.7**
**PSUT Pine Spring 118.61 46** PFAKE 01 42 20.0 +7.4
PSUT LR LR
comp=Z,2μm,19.0s
**PDAR Pinedale Array 119.66 40** PKP **PKPdf 01 42 13.6 -0.9**
comp=Z,0.4nm,0.7s,baz=281,slow=1.8,SNR=2.6
PDAR PKKPbc **PKKPbc 01 52 25.1 -1.3**
comp=Z,3.1nm,1.0s,baz=106,slow=4.8,SNR=15
**DGMT Dagmar 119.68 32** PFAKE 01 42 30.0 +16
DGMT LR LR
comp=Z,4μm,22.0s
**MESJ Messejana 119.95 314 e**PP PP 01 43 37.9 -1.0
**RTC Rabat Centre 120.42 309** PFAKE 01 42 30.0 +14
RTC LR LR
comp=Z,3μm,21.0s
**MORF Marmelete 120.48 313 e**PP PP 01 43 41.7 -0.9
**O20A White River Ci 121.80 42 e**PKPdf **PKPdf 01 42 18.7 0.0**
**PV10 Paradox Valley 122.09 44 e**PKPdf **PKPdf 01 42 19.9 +0.6**
**RSSD Black Hills 122.34 36 e**PKIKP **PKPdf 01 42 17.6 -2.0**
**RSSD Black Hills 122.34 36 e**PKPdf **PKPdf 01 42 17.6 -2.0**
**PV01 Paradox Valley 122.53 44 e**PKPdf **PKPdf 01 42 20.1 -0.1**
**ULM Lac du Bonnet 122.56 26** PKP **PKPdf 01 42 18.3 -1.3**
comp=Z,1.3nm,0.6s,baz=288,slow=1.5,SNR=4.7
ULM PKKPab **PKKPab 01 52 12.6 -1.8**
comp=Z,2.6nm,0.9s,baz=123,slow=2.0,SNR=4.5
**KOWA Kowa 122.86 286 e**PKPdf **PKPdf 01 42 20.6 -0.5**
KOWA LR LR
comp=Z,700nm,19.0s
**SMCO Snowmass 123.12 42 e**PKPdf **PKPdf 01 42 21.6 0.0**
**KIC Kosan Boka 124.35 277 e**PKIKP **PKPdf 01 42 22.3 -1.7**
comp=Z,20nm,1.1s
**DBIC Dimbokro 124.45 277** PKP **PKPdf 01 42 22.8 -1.4**
comp=Z,7.7nm,1.1s,baz=347,slow=4.8,SNR=4.1
**TIC Toumodi 124.61 277 e**PKIKP **PKPdf 01 42 22.8 -1.7**
**LIC Lamto 124.64 277 e**PKIKP **PKPdf 01 42 22.8 -1.8**
comp=Z,53nm,1.3s
**MHTCO State Highway 125.71 44** PFAKE 01 42 40.0 +14
MHTCO LR LR
comp=Z,600nm,21.0s
**SCHQ Schefferville 126.29 5** PKP **PKPdf 01 42 25.7 -0.9**
comp=Z,2.8nm,0.5s,baz=75,slow=18,SNR=3.9
**MNTX Cornudas Mount 127.79 50 e**PKPdf **PKPdf 01 42 31.0 +0.9**
**KSU1 Kansas State U 129.80 37 e**PKPdf **PKPdf 01 42 33.7 0.0**
**SCIA State Center 129.83 32 e**PKPdf **PKPdf 01 42 33.8 +0.1**
**TXAR Lajitas Array 130.16 52** PKhKP PKPpre 01 42 29.4
comp=Z,0.3nm,0.8s,baz=259,slow=1.8,SNR=3.6
TXAR PKP **PKiKP 01 42 35.4 -0.3**
comp=Z,0.5nm,0.8s,baz=281,slow=2.0,SNR=4.0
TXAR SKPbc **SKPbc 01 45 55.9 +0.3**
comp=Z,2.2nm,1.1s,baz=282,slow=2.4,SNR=5.5
**CHRN Cochrane 130.55 169** PFAKE 01 42 50.0 +15
CHRN LR LR
comp=Z,100nm,22.0s
**OK021 N3530 Road, Sp 131.90 41** PFAKE 01 42 50.0 +12
OK021 LR LR
comp=Z,500nm,22.0s
**MIAR Mount Ida 134.58 39 e**PKIKP **PKPdf 01 42 42.9 0.0**
**MIAR Mount Ida 134.58 39 e**PKPdf **PKPdf 01 42 42.9 0.0**
**OLIL Olney 134.81 31** PFAKE 01 43 00.0 +17
OLIL LR LR
comp=Z,500nm,19.0s
**SIUC Southern Illin 134.98 33** PFAKE 01 43 00.0 +16
SIUC LR LR
comp=Z,400nm,18.0s
**ALLY Alegheny Colle 135.95 21** PFAKE 01 43 00.0 +15
ALLY LR LR
comp=Z,900nm,22.0s
**WVT Waverly 136.90 33 e**PKIKP **PKPdf 01 42 48.0 +0.8**
**WVT Waverly 136.90 33 e**PKPdf **PKPdf 01 42 48.0 +0.8**
**PLCA Paso Flores 137.22 169** PKP **PKPdf 01 42 47.7 -0.1**
comp=Z,2.0nm,0.9s,baz=198,slow=3.2,SNR=3.4
**YLE Yale 138.48 14** PFAKE 01 43 00.0 +10
YLE LR LR
comp=Z,400nm,20.0s
**TKL Tuckaleechee C 139.38 30 e**PKHKP PKPpre 01 42 41.8
TKL *e* 01 42 52.2
**TKL Tuckaleechee C 139.38 30 e**PKPpre PKPpre 01 42 41.8
TKL *e*PKPdf **PKPdf 01 42 52.2 +0.5**
**LRAL Lakeview Retre 139.62 36 e**PKPpre PKPpre 01 42 41.0
**CVRD Centerville Ro 139.95 22** PFAKE 01 43 00.0 +7.3
CVRD LR LR
comp=Z,500nm,18.0s
**SPRD Spring Road, M 139.96 22** PFAKE 01 43 00.0 +7.3
SPRD LR LR
comp=Z,500nm,19.0s
**PTRD Partlow Road 139.97 21** PFAKE 01 43 00.0 +7.3
PTRD LR LR
comp=Z,500nm,21.0s
**PEL Peldehue 144.45 165 e**PKIKP PKPbc 01 42 59.7 +0.3
**PEL Peldehue 144.45 165 e**PKPdf PKPbc 01 42 59.6 +0.2
**LCO Las Campanas 148.34 162 e**PKPbc **PKPbc 01 43 11.6 +0.3**
**CPUP Villa Florida 152.47 186** PKP **PKPdf 01 43 13.4 -0.6**
comp=Z,5.0nm,1.1s,baz=89,slow=2.7,SNR=5.3
CPUP PKPbc **PKPbc 01 43 20.8 -0.2**
comp=Z,7.7nm,0.7s,baz=166,slow=3.0,SNR=14
**RCBR Riachuelo 154.65 254** PFAKE 01 43 30.0 +3.9
RCBR LR LR
comp=Z,600nm,20.0s
**PB01 IPOC Station P 156.13 158 e**PKPdf **PKPdf 01 43 20.0 +0.5**
PB01 *e*PKPab **PKPab 01 43 45.9 -0.9**
**MNMC Minye Minye 157.82 156 e**PKPdf **PKPdf 01 43 20.3 -1.6**
MNMC *e*PKPab **PKPab 01 43 55.5 +1.2**
**LPAZ La Paz 160.97 156** PKP **PKPdf 01 43 25.9 -0.2**
comp=Z,1.9nm,0.8s,baz=277,slow=1.7,SNR=9.4
LPAZ PKPab **PKPab 01 44 08.8 +0.3**
comp=Z,14nm,0.9s,baz=188,slow=3.7,SNR=17
**LPAZ La Paz 160.97 156 e**PKPdf **PKPdf 01 43 26.5 +0.5**
LPAZ *e*PKPab **PKPab 01 44 09.3 +0.8**
**FLOC Florencia 164.65 88 eP** PKPpre 01 43 25.4
**PRAC Prado 165.22 80 eP** PKPpre 01 43 24.0
**BRRC Barranca, Sant 165.41 66 eP** PKPpre 01 43 24.7
**ROSC El Rosal 165.55 75** PKP **PKPdf 01 43 30.1 -0.1**
comp=Z,2.2nm,0.4s,baz=307,slow=16,SNR=5.5
**ROSC El Rosal 165.55 75 eP** PKPpre 01 43 22.7
**BARC Barichara 166.09 67 eP** PKPpre 01 43 28.0
**CHIC Chingaza 166.17 76 eP** PKPpre 01 43 26.7
**RUSC La Rusia 166.43 70 e**PKPdf **PKPdf 01 43 29.8 -1.2**
**PTGA Pitinga 178.04 190 e**PKPdf **PKPdf 01 43 33.9 -1.7**
PTGA *e*PKPab PKPab 01 45 22.4

*OBM **19** 01:35:33.5±0.1, 52.°18N×98.°65E, h2km, Ml3.6/1, Error ellipse: s-maj=2.5km s-min=1.0km az=178.0*
*IDC **19** 01:35:35.2±2.7, 52.°35N×99.°22E, h0km, mb3.5/1, mb1 3.5/4, mb1mx3.2/39, mbtmp3.4/4, ML2.3/3, Error ellipse: s-maj=63.1km s-min=15.6km az=18.0*
*MOS **19** 01:35:39.2±1.7, 52.°04N×98.°59E, h14km, mb4.4/1, Error ellipse: s-maj=20.4km s-min=13.1km az=177.3*

**ISC 19 01:35:39.1±0.8, 52.°00N±0.°05×98.°59E±0.°03, h10km, n38, σ4.9 37/54, 2D, Tuva-Buryatia-Mongolia border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ORL** | **Orlik** | **0.92** | **54** | ⇓*i*PG | **Pg** | **01 35 52.9** | **-3.9** |
| ORL | | | | pmax | pmax | | |
| | comp=Z,604nm,0.2s | | | | | | |
| **MOY** | **Mondy** | **1.53** | **102** | ⇓*i*P* | **Pn** | **01 36 03.6** | **-2.9** |
| MOY | | | | *e* | | 01 36 22.4 | |
| MOY | | | | pmax | pmax | | |
| | comp=Z,119nm,0.3s | | | | | | |
| MOY | | | | smax | smax | | |
| | comp=N,2μm,0.8s | | | | | | |
| **HTG** | **Hatgal** | **1.84** | **147** | *e*Pg | **Pn** | **01 36 10.1** | **-0.7** |
| HTG | | | | *e*Sg | **Sn** | **01 36 34.1** | **-0.1** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **ARS** | **Arshan** | **2.37** | **91** | *e*PN | **Pn** | **01 36 17.6** | **-0.5** |
| ARS | | | | *e* | | 01 36 48.3 | |
| ARS | | | | pmax | pmax | | |
| | comp=Z,197nm,0.2s | | | | | | |
| ARS | | | | smax | smax | | |
| | comp=E,2μm,0.8s | | | | | | |
| **TLY** | **Talaya** | **3.15** | **94** | *e*PN | **Pn** | **01 36 32.1** | **+3.4** |
| TLY | | | | *e* | | 01 37 10.7 | |
| TLY | | | | pmax | pmax | | |
| | comp=Z,39nm,0.4s | | | | | | |
| **TSC** | **Tosontsengel** | **3.25** | **184** | *e*Pg | **Pb** | **01 36 37.7** | **+0.9** |
| TSC | | | | *e*Sg | **Sb** | **01 37 19.1** | **+2.7** |
| **ZAK** | **Zakamensk** | **3.37** | **117** | *e*PN | **Pb** | **01 36 36.0** | **-2.9** |
| ZAK | | | | *e* | | 01 37 19.8 | |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,37nm,0.6s | | | | | | |
| ZAK | | | | smax | smax | | |
| | comp=E,338nm,0.7s | | | | | | |
| **IRK** | **Irkutsk** | **3.51** | **84** | *e*PN | **Pn** | **01 36 37.5** | **+3.9** |
| IRK | | | | *e* | | 01 37 20.4 | |
| IRK | | | | pmax | pmax | | |
| | comp=Z,162nm,0.2s | | | | | | |
| IRK | | | | smax | smax | | |
| | comp=E,776nm,0.4s | | | | | | |
| **BLGM** | **Bulgan** | **4.51** | **134** | *e*Pg | **Pb** | **01 37 00.1** | **+1.8** |
| BLGM | | | | *e*Sg | **Sg** | **01 38 00.0** | **-3.7** |
| **ULG** | **Ulaangom** | **4.61** | **246** | *e*Pg | **Pb** | **01 36 59.1** | **-0.8** |
| ULG | | | | *e*Sg | **Sg** | **01 38 02.0** | **-4.9** |
| **TRG** | **Tyrgan** | **4.81** | **78** | *e*PN | **Pn** | **01 36 51.2** | **-0.3** |
| TRG | | | | *e* | | 01 37 59.8 | |
| TRG | | | | pmax | pmax | | |
| | comp=Z,29nm,0.3s | | | | | | |
| TRG | | | | smax | smax | | |
| | comp=N,174nm,0.7s | | | | | | |
| **TTS** | **Tsetserleg** | **4.89** | **157** | *e*Pg | **Pb** | **01 37 05.1** | **+0.2** |
| TTS | | | | *e*Sg | **Sb** | **01 38 09.6** | **+5.8** |
| **OGRR** | **Ongureny** | **5.70** | **70** | *e*PN | **Pb** | **01 37 19.7** | **+1.2** |
| OGRR | | | | *e* | | 01 38 26.7 | |
| OGRR | | | | pmax | pmax | | |
| | comp=Z,36nm,0.5s | | | | | | |
| OGRR | | | | smax | smax | | |
| | comp=N,173nm,1.0s | | | | | | |
| **HBD** | **Hovd** | **6.00** | **231** | *e*Sg | **Sb** | **01 38 41.7** | **+6.1** |
| **BYO** | **Bayan-Olgiy** | **6.29** | **244** | *e*Pg | **Pb** | **01 37 29.8** | **+1.0** |
| BYO | | | | *e*Sg | **Sg** | **01 38 54.7** | **-6.3** |
| **SONB5** | **Songino Array** | **6.51** | **127** | *e*Pg | **Pb** | **01 37 33.6** | **+1.1** |
| SONB5 | | | | *e*Sg | **Sg** | **01 39 00.3** | **-7.8** |
| **SONB4** | **Songino Array** | **6.52** | **127** | *e*Pg | **Pb** | **01 37 34.0** | **+1.4** |
| SONB4 | | | | *e*Sg | **Sg** | **01 39 00.8** | **-7.6** |
| **SONB1** | **Songino Array** | **6.53** | **126** | *e*Pg | **Pb** | **01 37 33.9** | **+1.2** |
| SONB1 | | | | *e*Sg | **Sg** | **01 39 00.8** | **-7.6** |
| **SONA2** | **Songino Array** | **6.53** | **126** | *e*Pg | **Pb** | **01 37 34.0** | **+1.2** |
| SONA2 | | | | *e*Sg | **Sg** | **01 39 00.7** | **-7.9** |
| | comp=N,124nm,0.8s | | | | | | |
| **SONA1** | **Songino Array** | **6.54** | **126** | *e*Pg | **Pb** | **01 37 33.8** | **+0.9** |
| SONA1 | | | | *e*Sg | **Sg** | **01 39 00.9** | **-7.9** |
| **SONA3** | **Songino Array** | **6.54** | **126** | *e*Pg | **Pb** | **01 37 33.8** | **+0.9** |
| SONA3 | | | | *e*Sg | **Sg** | **01 39 01.0** | **-7.8** |
| **SONA0** | **Songino Array** | **6.54** | **127** | *e*Pg | **Pb** | **01 37 33.9** | **+1.0** |
| SONA0 | | | | *e*Sg | **Sb** | **01 38 59.8** | **+8.6** |
| **SONM** | **Songino Array** | **6.54** | **127** | Pn | **Pn** | **01 37 12.9** | **-2.5** |
| | comp=N,0.1nm,0.3s,baz=311,slow=14,SNR=2.8 | | | | | | |
| SONM | | | | Pg | **Pb** | **01 37 32.9** | **0.0** |
| | comp=N,1.5nm,0.3s,baz=314,slow=16,SNR=22 | | | | | | |
| SONM | | | | Lg | Lg | 01 38 59.4 | |
| | comp=N,7.0nm,0.3s,baz=321,slow=29,SNR=12 | | | | | | |
| **SONA4** | **Songino Array** | **6.54** | **127** | *e*Pg | **Pb** | **01 37 33.9** | **+1.0** |
| SONA4 | | | | *e*Sg | **Sg** | **01 39 01.3** | **-7.6** |
| **SONB2** | **Songino Ar. Si** | **6.55** | **126** | *e*Pg | **Pb** | **01 37 33.9** | **+0.9** |
| SONB2 | | | | *e*Sg | **Sg** | **01 39 01.1** | **-7.9** |
| | comp=N,173nm,0.9s | | | | | | |
| **SONB3** | **Songino Array** | **6.55** | **127** | *e*Pg | **Pb** | **01 37 33.8** | **+0.7** |
| SONB3 | | | | *e*Sg | **Sb** | **01 39 00.2** | **+8.7** |
| **ALFM** | | **6.63** | **124** | *e*Pg | **Pb** | **01 37 35.6** | **+1.1** |
| ALFM | | | | *e*Sg | **Sb** | **01 39 01.2** | **+7.4** |
| | comp=N,110nm,0.8s | | | | | | |
| **ARTM** | | **6.92** | **123** | *e*Pg | **Pb** | **01 37 40.4** | **+0.9** |
| ARTM | | | | *e*Sg | Sb | 01 39 11.5 | +9.3 |
| **SEMM** | | **7.02** | **126** | *e*Pg | **Pb** | **01 37 43.0** | **+1.9** |
| SEMM | | | | *e*Sg | Sb | 01 39 14.2 | +9.3 |
| **SYVR** | **Suvo** | **7.11** | **72** | *e*PN | **Pb** | **01 37 42.0** | **-0.5** |
| SYVR | | | | *e* | | 01 39 12.0 | |
| SYVR | | | | pmax | pmax | | |
| | comp=Z,23nm,1.4s | | | | | | |
| SYVR | | | | smax | smax | | |
| | comp=N,61nm,2.2s | | | | | | |
| **UGDM** | | **7.18** | **124** | *e*Pg | **Pb** | **01 37 46.3** | **+2.5** |
| UGDM | | | | *e*Sg | Sb | 01 39 19.8 | +10 |
| **NIZ** | **Nizh Angarsk** | **7.49** | **55** | *e*P | **Pn** | **01 37 29.7** | **+1.4** |
| NIZ | | | | pmax | pmax | | |
| | comp=Z,24nm,1.5s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **8.54** | **289** | Lg | Lg | 01 39 57.0 | |
| | comp=Z,0.4nm,0.3s,baz=99,slow=28,SNR=4.7 | | | | | | |
| **DZBM** | | **9.10** | **152** | *e*Sg | Sn | 01 40 22.0 | +49 |
| **MKAR** | **Makanchi Array** | **11.82** | **250** | Pn | **Pn** | **01 38 31.5** | **+3.9** |
| | comp=Z,0.0nm,0.3s,baz=57,slow=15,SNR=2.3 | | | | | | |
| MKAR | | | | Lg | Lg | 01 41 55.3 | |
| | comp=Z,0.1nm,0.3s,baz=68,slow=30,SNR=3.5 | | | | | | |
| **KURK** | **Kurchatov** | **12.55** | **272** | P | **Pn** | **01 38 40.5** | **+3.0** |
| **KURBB** | **Kurchatov Arra** | **12.63** | **272** | Pn | **Pn** | **01 38 40.5** | **+2.0** |
| | comp=Z,0.0nm,0.3s,baz=74,slow=15,SNR=2.0 | | | | | | |
| KURBB | | | | Lg | Lg | 01 42 18.7 | |
| | comp=Z,0.0nm,0.3s,baz=76,slow=32,SNR=4.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **78.14** | **146** | P | **P** | **01 47 36.2** | **-2.0** |
| | comp=Z,0.4nm,0.8s,baz=340,slow=5.8,SNR=3.2 | | | | | | |

**DJA 19 01:38:25.4±0.6, 1°S±4°×11°9E±°, h10km, M3.8/7, MLv3.8/7, Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MPSI** | **Mapaga** | **1.45** | **18** | P | Pn | 01 38 51.3 | -0.3 |
| **TTSI** | **Tana Toraja** | **2.01** | **170** | P | Pn | 01 38 57.3 | -2.2 |
| **APSI** | **Ampana** | **2.19** | **86** | P | Pn | 01 39 00.8 | -1.1 |
| APSI | | | | S | Sn | 01 39 30.2 | +0.1 |
| **MRSI** | **Marisa** | **2.91** | **59** | P | Pn | 01 39 12.1 | +0.3 |
| **SPSI** | **Sidrap Palu** | **2.91** | **174** | P | Pn | 01 39 11.6 | -0.2 |
| SPSI | | | | S | Sn | 01 39 47.9 | +1.0 |
| **LUWI** | **Luwuk** | **3.31** | **90** | P | Pb | 01 39 23.5 | -0.8 |
| **BNSI** | **Bone** | **3.39** | **169** | P | Pn | 01 39 20.6 | +2.2 |

**JMA 19 01:38:42.0±0.2, 37.44N×142.66E, h18km±4km, M3.7, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JFK** | **Kawauchi** | **1.42** | **268** | P | Pn | 01 39 07.2 | +0.2 |
| JFK | | | | *e*S | Sn | 01 39 25.4 | +0.1 |
| **JIO** | **Ouri** | **1.45** | **315** | P | Pn | 01 39 07.6 | +0.3 |
| JIO | | | | *e*S | Sn | 01 39 26.0 | +0.2 |
| **ONAJ** | **Iwakimizuishiy** | **1.52** | **258** | P | Pn | 01 39 08.9 | +0.5 |
| **JMM** | **Marumori** | **1.54** | **287** | P | Pn | 01 39 08.5 | -0.1 |
| JMM | | | | *e*S | Sn | 01 39 28.6 | +0.5 |
| **JOU** | **Okura** | **1.83** | **301** | P | Pn | 01 39 13.7 | +1.1 |
| JOU | | | | *e*S | Sb | 01 39 36.9 | -0.6 |
| **JFT** | **Otama** | **1.85** | **273** | P | Pb | 01 39 14.4 | -0.9 |
| JFT | | | | *e*S | Sb | 01 39 37.8 | -0.3 |
| **JMK** | **Ichinoseki** | **1.89** | **324** | P | Pn | 01 39 14.4 | +1.1 |
| JMK | | | | *e*S | Sn | 01 39 37.9 | +1.2 |
| **JOM** | **Ohasama** | **2.30** | **333** | P | Pn | 01 39 19.8 | +0.8 |
| **JYK** | **Kaneyama** | **2.34** | **310** | P | Pn | 01 39 21.2 | +1.7 |
| JYK | | | | *e*S | Sb | 01 39 50.2 | -1.9 |

*ISK **19** 01:49:04.5, 40.49N×35.24E, h6km, MD2.6*
*ISCJB **19** 01:49:05.5±0.5, 40.47N±0.03×35.24E±0.04, h7km±5km, Error ellipse: s-maj=5.9km s-min=3.8km az=38.5*
*CSEM **19** 01:49:05.5±0.2, 40.48N×35.23E, h10km, ML2.6, Error ellipse: s-maj=5.2km s-min=3.7km az=125.0*
*DDA **19** 01:49:05.6, 40.45N×35.24E, h7km, Ml2.6*
**ISC 19 01:49:05.5±1.0, 40.48N±0.02×35.23E±0.02, h8km±10km, n30, σ0.956/46, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **COAL** | **Corum-Alaca** | **0.29** | **220** | *i* P | **Pg** | **01 49 11.2** | **-0.2** |
| COAL | | | | *i* S | **Sg** | **01 49 15.5** | **+0.2** |
| **COAL** | **Corum-Alaca** | **0.29** | **220** | P | **Pg** | **01 49 11.2** | **-0.2** |
| COAL | | | | S | **Sg** | **01 49 15.5** | **+0.2** |
| **CTAK** | **Corum_Osmancik** | **0.37** | **296** | *i* P | **Pg** | **01 49 13.6** | **+0.7** |
| CTAK | | | | *i* S | **Sb** | **01 49 19.6** | **-1.0** |
| **CTAK** | **Corum_Osmancik** | **0.37** | **296** | P | **Pg** | **01 49 13.6** | **+0.7** |
| CTAK | | | | S | **Sb** | **01 49 19.5** | **-1.0** |
| **HAVZ** | **Havza** | **0.70** | **32** | *i* P | **Pb** | **01 49 19.6** | **-0.3** |
| HAVZ | | | | *i* S | **Sb** | **01 49 30.1** | **+0.5** |
| **HAVZ** | **Havza** | **0.70** | **32** | P | **Pb** | **01 49 19.6** | **-0.3** |
| HAVZ | | | | S | **Sb** | **01 49 30.1** | **+0.5** |
| **YOZ** | **Yozgat** | **0.84** | **175** | *e*PG | **Pg** | **01 49 21.3** | **-0.4** |
| **YOZ** | **Yozgat** | **0.84** | **175** | *e*Pg | **Pg** | **01 49 21.3** | **-0.4** |
| **KVT** | **Kavak** | **0.86** | **46** | *e*PG | **Pg** | **01 49 21.2** | **-0.8** |
| KVT | | | | *e*SG | **Sg** | **01 49 33.6** | **+0.4** |
| **KVT** | **Kavak** | **0.86** | **46** | *e*Pg | **Pg** | **01 49 21.2** | **-0.8** |
| KVT | | | | *e*Sg | **Sg** | **01 49 33.6** | **+0.4** |
| **TOKA** | **Tokat** | **0.96** | **99** | *i* P | **Pg** | **01 49 24.2** | **+0.2** |
| TOKA | | | | *i* S | **Sb** | **01 49 37.7** | **+0.4** |
| **TOKA** | **Tokat** | **0.96** | **99** | P | **Pg** | **01 49 24.2** | **+0.2** |
| TOKA | | | | S | **Sb** | **01 49 37.7** | **+0.4** |
| **CDAG** | **Cicekdag** | **1.08** | **218** | *i* P | **Pg** | **01 49 25.5** | **-0.7** |
| CDAG | | | | *i* S | **Sg** | **01 49 39.7** | **-0.6** |
| **CDAG** | **Cicekdag** | **1.08** | **218** | P | **Pg** | **01 49 25.5** | **-0.7** |
| CDAG | | | | S | **Sg** | **01 49 39.7** | **-0.6** |
| **SAMS** | **Samsun-Alacam** | **1.14** | **39** | *i* P | **Pb** | **01 49 27.6** | **+0.2** |
| SAMS | | | | *i* S | **Sn** | **01 49 44.1** | **+0.7** |
| **SAMS** | **Samsun-Alacam** | **1.14** | **39** | P | **Pb** | **01 49 27.6** | **+0.2** |
| SAMS | | | | S | **Sn** | **01 49 44.1** | **+0.7** |
| **DIKM** | **Dikmen** | **1.17** | **1** | *e*PN | **Pg** | **01 49 27.0** | **-0.9** |
| DIKM | | | | *e*SN | **Sb** | **01 49 43.6** | **+0.5** |
| **DIKM** | **Dikmen** | **1.17** | **1** | *e*Pn | **Pg** | **01 49 27.0** | **-0.9** |
| DIKM | | | | *e*Sn | **Sb** | **01 49 43.6** | **+0.5** |
| **ERBA** | **Erbaa** | **1.18** | **80** | *i* P | **Pg** | **01 49 27.0** | **-1.1** |
| **ERBA** | **Erbaa** | **1.18** | **80** | P | **Pg** | **01 49 27.0** | **-1.1** |
| **CUSAR** | **Sarkisla-SIVAS** | **1.32** | **143** | *i* P | **Pn** | **01 49 30.2** | **-0.1** |
| **CUSAR** | **Sarkisla-SIVAS** | **1.32** | **143** | P | **Pn** | **01 49 30.2** | **-0.1** |
| **SVSK** | **Karacayir** | **1.47** | **112** | *e*PN | **Pn** | **01 49 32.0** | **-0.1** |
| **SVSK** | **Karacayir** | **1.47** | **112** | *e*Pn | **Pn** | **01 49 32.0** | **-0.1** |
| **SNOP** | **Sinop** | **1.54** | **359** | *e*PN | **Pn** | **01 49 32.9** | **-0.2** |
| **SNOP** | **Sinop** | **1.54** | **359** | *e*Pn | **Pn** | **01 49 32.9** | **-0.2** |
| **KAMT** | **Kaman** | **1.61** | **227** | *e*PN | **Pn** | **01 49 34.4** | **+0.1** |
| **KAMT** | **Kaman** | **1.61** | **227** | *e*Pn | **Pn** | **01 49 34.4** | **+0.1** |
| **AVNS** | **Nevsehir-Avano** | **1.70** | **190** | *i* P | **Pb** | **01 49 37.4** | **+0.4** |
| **AVNS** | **Nevsehir-Avano** | **1.70** | **190** | P | **Pb** | **01 49 37.4** | **+0.4** |

*DSN **19** 01:52:53.8±0.0, 30.01N×59.57E, h5km, ML4.8/2, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*
*IDC **19** 01:52:54.3±0.9, 29.92N×59.54E, h0km, mb4.0/18, mb1 4.1/25, mb1mx4.0/64, mbtmp4.0/25, ML3.5/6, MS4.3/3, Ms1 4.3/3, ms1mx3.4/45, Error ellipse: s-maj=19.4km s-min=13.0km az=155.0*
*THR **19** 01:52:55.8±0.5, 30.04N×59.47E, h14km±6km, ML4.5*
*MOS **19** 01:52:55.0±0.9, 30.02N×59.54E, h13km, mb4.3/12, Error ellipse: s-maj=12.9km s-min=9.0km az=87.9*
*NEIC **19** 01:52:55.8±0.0, 30.04N×59.47E, h14km, mb3.9/5, ML4.5(THR), MN4.6(TEH), After THR.*
*TEH **19** 01:52:56.8, 30.16N×59.41E, h17km, ML4.6*
*OMAN **19** 01:52:56.4, 30.15N×59.42E, h15km, Error ellipse: s-maj=1.0km s-min=1.0km az=1.0*
*CSEM **19** 01:52:56.5±0.2, 29.96N×59.58E, h15km, mb3.9/12, Error ellipse: s-maj=5.4km s-min=4.4km az=133.0*
**ISC 19 01:52:54.4±1.9, 29.98N±0.04×59.49E±0.03, h0km±13km, n149, σ1$37/148, mb4.0/19, MS4.3/3, Southern Iran**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ZHSF** | **Zahedan** | **1.17** | **108** | *e*Pg | **Pb** | **01 53 18.6** | **+1.0** |
| ZHSF | | | | *e*Sg | **Sn** | **01 53 34.9** | **-0.1** |
| ZHSF | | | | AML | AML | 01 53 39.6 | |
| | comp=N,8μm,0.4s | | | | | | |
| **ZHSF** | **Zahedan** | **1.17** | **108** | *e*Pg | **Pb** | **01 53 18.6** | **+1.0** |
| ZHSF | | | | Sg | **Sb** | **01 53 34.0** | **+0.5** |
| **ZHSF** | **Zahedan** | **1.17** | **108** | Pg | **Pn** | **01 53 18.0** | **-0.2** |
| ZHSF | | | | Sg | **Sb** | **01 53 34.0** | **+0.5** |
| **CHMN** | **Cheshme madani** | **1.70** | **267** | *e*Pn | **Pn** | **01 53 24.7** | **-1.0** |
| **CHMN** | **Cheshme madani** | **1.70** | **267** | *e*Pn | **Pn** | **01 53 24.7** | **-1.0** |
| **KRBR** | **Kerman** | **2.37** | **271** | *e*Pn | **Pb** | **01 53 36.5** | **-1.7** |
| KRBR | | | | *e*Sg | **Sg** | **01 54 09.6** | **-1.1** |
| KRBR | | | | AML | AML | 01 54 12.6 | |
| | comp=E,2μm,0.3s | | | | | | |
| KRBR | | | | AML | AML | 01 54 14.6 | |
| | comp=N,3μm,0.3s | | | | | | |
| **KRBR** | **Kerman** | **2.37** | **271** | Pn | **Pn** | **01 53 36.0** | **+1.1** |
| **KRBR** | **Kerman** | **2.37** | **271** | Pn | **Pn** | **01 53 36.0** | **+1.1** |
| KRBR | | | | Sg | **Sb** | **01 54 09.0** | **+0.9** |
| **TVBK** | **TV Kerman** | **2.37** | **271** | *e*Pn | **Pb** | **01 53 38.5** | **+0.3** |
| **TVBK** | **TV Kerman** | **2.37** | **271** | *e*Pn | **Pb** | **01 53 38.5** | **+0.3** |
| **NGRK** | **Negar Kerman** | **2.42** | **263** | *e*Pn | **Pn** | **01 53 37.1** | **+1.4** |
| **NGRK** | **Negar Kerman** | **2.42** | **263** | *e*Pn | **Pn** | **01 53 37.1** | **+1.4** |
| **IKOO** | **Kooshah** | **2.48** | **350** | *e*Pn | **Pn** | **01 53 36.6** | **+0.3** |
| IKOO | | | | *e*AMB | AMB | 01 54 17.2 | |
| | comp=Z,47μm,0.1s | | | | | | |
| **IKOO** | **Kooshah** | **2.48** | **350** | *e*Pn | **Pn** | **01 53 36.6** | **+0.3** |
| **IKOO** | **Kooshah** | **2.48** | **350** | Pn | **Pn** | **01 53 36.6** | **+0.3** |
| **KHGB** | **Koh Gabri** | **2.64** | **279** | *e*Pn | **Pn** | **01 53 39.9** | **+1.4** |
| **IDAH** | **Dahanechah** | **2.77** | **7** | *e*Pn | **Pn** | **01 53 41.4** | **+1.0** |
| IDAH | | | | *e*AMB | AMB | 01 53 50.3 | |
| | comp=Z,10μm,0.1s | | | | | | |
| **IDAH** | **Dahanechah** | **2.77** | **7** | Pn | **Pn** | **01 53 41.3** | **+0.9** |
| **IDAH** | **Dahanechah** | **2.77** | **7** | Pn | **Pn** | **01 53 41.3** | **+0.9** |
| **ITEG** | **Tejag** | **2.98** | **348** | *e*Pn | **Pn** | **01 53 43.7** | **+0.5** |
| ITEG | | | | *e*Sg | **Sg** | **01 54 29.3** | **-1.0** |
| ITEG | | | | *e*AMB | AMB | 01 54 41.2 | |
| | comp=Z,25μm,0.2s | | | | | | |
| **ITEG** | **Tejag** | **2.98** | **348** | Pn | **Pn** | **01 53 43.7** | **+0.5** |
| ITEG | | | | Sg | **Sg** | **01 54 29.3** | **-1.0** |
| **IMON** | **Monand** | **3.21** | **3** | *e*Pn | **Pn** | **01 53 47.3** | **+0.9** |
| IMON | | | | *e*AMB | AMB | 01 54 02.9 | |
| | comp=Z,9μm,0.1s | | | | | | |
| **IMON** | **Monand** | **3.21** | **3** | *e*Pn | **Pn** | **01 53 47.3** | **+0.9** |
| **IMON** | **Monand** | **3.21** | **3** | Pn | **Pn** | **01 53 47.2** | **+0.9** |
| **IBND** | **Bandar-abas** | **3.61** | **227** | *e*Pn | **Pn** | **01 53 55.6** | **+3.9** |
| IBND | | | | *e*AMB | AMB | 01 55 09.3 | |
| | comp=Z,16μm,0.4s | | | | | | |
| **IBND** | **Bandar-abas** | **3.61** | **227** | Pn | **Pn** | **01 53 55.5** | **+3.9** |
| **IBND** | **Bandar-abas** | **3.61** | **227** | Pn | **Pn** | **01 53 55.5** | **+3.9** |
| **SHRT** | **Shahrakht** | **3.72** | **10** | *e*Pn | **Pn** | **01 53 54.1** | **+0.9** |
| **SHRT** | **Shahrakht** | **3.72** | **10** | *e*Pn | **Pn** | **01 53 54.1** | **+0.9** |
| **SHRT** | **Shahrakht** | **3.72** | **10** | Pn | **Pn** | **01 53 54.0** | **+0.8** |
| **IBAF** | **Bafgh** | **3.74** | **296** | *e*Pn | **Pn** | **01 53 55.0** | **+1.3** |
| IBAF | | | | *e*AMB | AMB | 01 55 05.1 | |
| | comp=Z,20μm,0.3s | | | | | | |
| **IBAF** | **Bafgh** | **3.74** | **296** | Pn | **Pn** | **01 53 54.9** | **+1.3** |
| **IBAF** | **Bafgh** | **3.74** | **296** | Pn | **Pn** | **01 53 54.9** | **+1.3** |
| **IMEH** | **Mehriz** | **4.43** | **290** | *e*Pn | **Pn** | **01 54 04.2** | **+1.0** |
| IMEH | | | | *e*AMB | AMB | 01 55 21.4 | |
| | comp=Z,11μm,0.4s | | | | | | |
| **IMEH** | **Mehriz** | **4.43** | **290** | *e*Pn | **Pn** | **01 54 04.2** | **+1.0** |
| **IMEH** | **Mehriz** | **4.43** | **290** | Pn | **Pn** | **01 54 04.2** | **+1.0** |
| **SHME** | **Shamm** | **4.91** | **218** | Pn | **Pn** | **01 54 11.0** | **+1.5** |
| | SNR=9.4 | | | | | | |
| **ICHK** | **Chekchek** | **4.91** | **299** | *e*Pn | **Pn** | **01 54 11.1** | **+1.3** |
| ICHK | | | | *e*AMB | AMB | 01 55 39.8 | |
| | comp=Z,7μm,0.3s | | | | | | |
| **ICHK** | **Chekchek** | **4.91** | **299** | *e*Pn | **Pn** | **01 54 11.1** | **+1.3** |
| **ICHK** | **Chekchek** | **4.91** | **299** | Pn | **Pn** | **01 54 11.1** | **+1.3** |
| **BANOM** | **Banah** | **4.93** | **216** | *i* P | **Pn** | **01 54 10.4** | **+0.7** |
| | SNR=22 | | | | | | |
| **BANOM** | **Banah** | **4.93** | **216** | Pn | **Pn** | **01 54 10.7** | **+0.9** |
| | SNR=42 | | | | | | |
| **BANOM** | **Banah** | **4.93** | **216** | Pn | **Pn** | **01 54 10.7** | **+0.9** |
| | SNR=42 | | | | | | |
| **BANOM** | **Banah** | **4.93** | **216** | P | **Pn** | **01 54 10.7** | **+0.9** |
| | SNR=42 | | | | | | |
| **ISAD** | **Sadrabad** | **5.35** | **293** | *e*Pn | **Pn** | **01 54 17.2** | **+1.4** |
| ISAD | | | | *e*AMB | AMB | 01 56 01.7 | |
| | comp=Z,4μm,0.4s | | | | | | |
| **ISAD** | **Sadrabad** | **5.35** | **293** | Pn | **Pn** | **01 54 17.1** | **+1.3** |
| **ISAD** | **Sadrabad** | **5.35** | **293** | Pn | **Pn** | **01 54 17.1** | **+1.3** |
| **IPAR** | **Pars** | **5.60** | **270** | *e*Pn | **Pn** | **01 54 22.0** | **+2.8** |
| IPAR | | | | *e*AMB | AMB | 01 56 23.2 | |
| | comp=Z,2μm,0.4s | | | | | | |
| **IPAR** | **Pars** | **5.60** | **270** | *e*Pn | **Pn** | **01 54 22.0** | **+2.8** |
| **IPAR** | **Pars** | **5.60** | **270** | Pn | **Pn** | **01 54 22.0** | **+2.8** |
| **GHIR** | **Ghir-Karzin** | **5.94** | **255** | *e*Pn | **Pn** | **01 54 25.4** | **+1.6** |
| **GHIR** | **Ghir-Karzin** | **5.94** | **255** | Pn | **Pn** | **01 54 25.0** | **+1.3** |
| **GHIR** | **Ghir-Karzin** | **5.94** | **255** | Pn | **Pn** | **01 54 25.0** | **+1.3** |
| **HATD** | **Hatta, Dubai** | **5.94** | **211** | P | **Pn** | **01 54 22.2** | **-1.5** |
| **HATD** | **Hatta, Dubai** | **5.94** | **211** | P | **Pn** | **01 54 22.2** | **-1.5** |
| **NAZ** | **Nazwa, Dubai** | **6.02** | **215** | P | **Pn** | **01 54 24.9** | **+0.1** |
| **NAZ** | **Nazwa, Dubai** | **6.02** | **215** | P | **Pn** | **01 54 24.9** | **+0.1** |
| **ASHO** | **Ashiyiah** | **6.09** | **211** | *i* P | **Pn** | **01 54 26.2** | **+0.4** |
| | SNR=28 | | | | | | |
| **ASHO** | **Ashiyiah** | **6.09** | **211** | P | **Pn** | **01 54 26.2** | **+0.4** |
| | SNR=28 | | | | | | |
| **ASHO** | **Ashiyiah** | **6.09** | **211** | Pn | **Pn** | **01 54 27.7** | **+1.9** |
| | SNR=29 | | | | | | |
| **ASHO** | **Ashiyiah** | **6.09** | **211** | Pn | **Pn** | **01 54 27.7** | **+1.9** |
| | SNR=29 | | | | | | |
| **ASHO** | **Ashiyiah** | **6.09** | **211** | P | **Pn** | **01 54 27.7** | **+1.9** |
| | SNR=29 | | | | | | |
| **IMYA** | **Miami** | **6.37** | **4** | *e*Pn | **Pn** | **01 54 30.9** | **+1.2** |
| IMYA | | | | *e*AMB | AMB | 01 56 46.2 | |
| | comp=Z,2μm,0.7s | | | | | | |
| **IMYA** | **Miami** | **6.37** | **4** | Pn | **Pn** | **01 54 30.8** | **+1.1** |
| **IMYA** | **Miami** | **6.37** | **4** | Pn | **Pn** | **01 54 30.8** | **+1.1** |
| **NASN** | **Na'in** | **6.37** | **298** | *e*Pn | **Pn** | **01 54 31.0** | **+1.1** |
| **NASN** | **Na'in** | **6.37** | **298** | *e*Pn | **Pn** | **01 54 31.0** | **+1.1** |
| **NASN** | **Na'in** | **6.37** | **298** | Pn | **Pn** | **01 54 30.0** | **+0.1** |
| **IRAM** | **Ramesheh** | **6.38** | **288** | *e*Pn | **Pn** | **01 54 32.6** | **+2.7** |
| IRAM | | | | *e*AMB | AMB | 01 56 26.8 | |
| | comp=Z,1μm,0.6s | | | | | | |
| **IRAM** | **Ramesheh** | **6.38** | **288** | *e*Pn | **Pn** | **01 54 32.6** | **+2.7** |
| **IRAM** | **Ramesheh** | **6.38** | **288** | Pn | **Pn** | **01 54 32.6** | **+2.7** |
| **SHRO** | **Shahrood** | **6.67** | **335** | *e*P | **Pn** | **01 54 35.1** | **+1.2** |
| **SHRO** | **Shahrood** | **6.67** | **335** | *e*P | **Pn** | **01 54 35.1** | **+1.2** |
| **WSAR** | **Wadi Sarin** | **6.75** | **187** | Pn | **Pn** | **01 54 33.2** | **-1.6** |
| | comp=Z,2.9nm,0.3s,baz=8.6,slow=7.5,SNR=28 | | | | | | |
| WSAR | | | | Sn | **Sn** | **01 55 47.2** | **-5.3** |
| | comp=Z,3.9nm,0.3s,baz=60,slow=20,SNR=4.1 | | | | | | |
| **IZEF** | **Zefreh** | **6.78** | **297** | *e*Pn | **Pn** | **01 54 36.8** | **+1.3** |
| IZEF | | | | *e*AMB | AMB | 01 56 55.0 | |
| | comp=Z,1μm,0.4s | | | | | | |
| **IZEF** | **Zefreh** | **6.78** | **297** | Pn | **Pn** | **01 54 36.7** | **+1.3** |
| **IZEF** | **Zefreh** | **6.78** | **297** | Pn | **Pn** | **01 54 36.7** | **+1.3** |
| **IANJ** | **Anjilo** | **7.22** | **321** | *e*Pn | **Pn** | **01 54 43.0** | **+1.6** |
| IANJ | | | | *e*AMB | AMB | 01 57 09.6 | |
| | comp=Z,2μm,0.6s | | | | | | |
| **IANJ** | **Anjilo** | **7.22** | **321** | Pn | **Pn** | **01 54 43.0** | **+1.6** |
| **IANJ** | **Anjilo** | **7.22** | **321** | Pn | **Pn** | **01 54 43.0** | **+1.6** |
| **GEYT** | **Alibeck** | **8.02** | **352** | Pn | **Pn** | **01 54 53.6** | **+1.5** |
| | comp=Z,1.2nm,0.3s,baz=183,slow=18,SNR=15 | | | | | | |
| GEYT | | | | Lg | Lg | 01 57 05.5 | |
| | comp=Z,0.1nm,0.3s,baz=179,slow=32,SNR=2.3 | | | | | | |
| **MRVT** | **Maraveh tapeh** | **8.17** | **341** | *e*P | **Pn** | **01 54 55.6** | **+1.2** |
| **MRVT** | **Maraveh tapeh** | **8.17** | **341** | *e*P | **Pn** | **01 54 55.6** | **+1.2** |
| **MRVT** | **Maraveh tapeh** | **8.17** | **341** | P | **Pn** | **01 54 55.0** | **+0.7** |
| **RAYN** | **Ar Rayn** | **14.05** | **246** | *e*Pn | Pn | 01 56 09.6 | -5.3 |
| | comp=Z,9.9nm,0.6s | | | | | | |
| RAYN | | | | *e*S | Sn | 01 58 39.5 | -12 |
| **GNI** | **Garni** | **15.76** | **314** | Pn | **P** | **01 56 42.1** | **+0.1** |
| | comp=Z,0.2nm,0.3s,baz=93,slow=2.1,SNR=9.9 | | | | | | |
| **GNI** | **Garni** | **15.76** | **314** | *e*P | **Pn** | **01 56 36.8** | **-1.1** |
| GNI | | | | pmax | pmax | | |
| | comp=Z,117nm,1.0s | | | | | | |
| **GNI** | **Garni** | **15.76** | **314** | *e*Pn | **Pn** | **01 56 36.8** | **-1.1** |
| | comp=Z,117nm,1.0s | | | | | | |
| **GNI** | **Garni** | **15.76** | **314** | *e*Pn | **Pn** | **01 56 36.8** | **-1.1** |
| | comp=Z,117nm,1.0s | | | | | | |
| **KKAR** | **Karatay Array** | **15.79** | **31** | *e*P | **Pn** | **01 56 36.9** | **-1.3** |
| KKAR | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.8s | | | | | | |
| **KKAR** | **Karatay Array** | **15.79** | **31** | *e*Pn | **Pn** | **01 56 36.9** | **-1.3** |
| | comp=Z,5.9nm,0.8s | | | | | | |
| **KKAR** | **Karatay Array** | **15.79** | **31** | *e*Pn | **Pn** | **01 56 36.9** | **-1.3** |
| | comp=Z,5.9nm,0.8s | | | | | | |
| **AAK** | **Ala-Archa** | **17.45** | **40** | P | **P** | **01 56 59.9** | **-0.9** |
| | comp=Z,0.2nm,0.3s,baz=186,slow=10,SNR=12 | | | | | | |
| **AAK** | **Ala-Archa** | **17.45** | **40** | *e*P | **Pn** | **01 56 58.7** | **-0.7** |
| AAK | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.0s |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| KSRS | Korea Array | 56.30 | 63 | P | P | 02 02 36.6 | -0.4 |
| | comp=Z,3.2nm,0.8s,baz=279,slow=7.5,SNR=6.6 | | | | | | |
| DBIC | Dimbokro | 64.50 | 263 | LR | LR | 02 34 23.9 | |
| | comp=Z,305nm,18.9s,baz=65,slow=39 | | | | | | |
| ILAR | Eielson Array | 83.34 | 11 | LR | LR | 02 46 15.5 | |
| | comp=Z,125nm,20.7s,baz=316,slow=38 | | | | | | |
| YKA | Yellowknife Ar | 87.73 | 357 | P | P | 02 05 44.6 | -0.3 |
| | comp=Z,0.4nm,0.8s,baz=356,slow=4.7,SNR=7.6 | | | | | | |

*BJI* ***19*** *02:00:23.9, 8˚.13S×128˚.78E, h166km, mb4.6/36, mB5.1/14*
*ISCJB* ***19*** *02:00:28.5±0.2, 7˚.46S±0˚.04×127˚.99E±0˚.04, h142km, mb4.5/31, Error ellipse: s-maj=6.1km s-min=4.3km az=143.9*
*NEIC* ***19*** *02:00:31.7±0.7, 7˚.48S×128˚.15E, h162km±8km, mb4.6/19, Error ellipse: s-maj=9.0km s-min=5.6km az=54.0*
*IDC* ***19*** *02:00:33.0±3.3, 7˚.46S×128˚.03E, h171km±30km, mb4.0/8, mb1 4.2/9, mb1mx3.8/35, mbtmp4.6/9, Error ellipse: s-maj=28.0km s-min=10.2km az=53.0*
*DJA* ***19*** *02:00:32.2±0.3, 8˚S±3˚×12˚E±˚, h179km±9km, M4.8/15, mb4.8/9, mB5.2/6, MLv4.9/15, Mw(mB)4.6/6*

**ISC 19 02:00:30.3±0.4, 7˚.50S±0˚.05×128˚.10E±0˚.05, h142km, n95, σ2s 04/94, mb4.5/31, 1C, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SAUI** | **Saumlaki** | **3.21** | **99** | P | **Pn** | **02 01 21.5** | **+1.4** |
| SAUI | | | | S | **Sn** | **02 02 00.6** | **+2.0** |
| **BNDI** | **Bandanaira** | **3.46** | **31** | P | **Pn** | **02 01 27.1** | **+3.8** |
| **AAI** | **Ambon** | **3.79** | **1** | P | Pn | 02 01 32.0 | +4.4 |
| **MSAI** | **Masohi** | **4.21** | **11** | P | **Pn** | **02 01 37.1** | **+4.0** |
| **NLAI** | **Namlea** | **4.35** | **347** | P | Pn | 02 01 40.6 | +5.6 |
| NLAI | | | | S | Sn | 02 02 37.2 | +12 |
| **SOEI** | **Soe** | **4.40** | **239** | P | Pn | 02 01 39.0 | +3.3 |
| SOEI | | | | S | **Sn** | **02 02 29.4** | **+2.8** |
| **SOEI** | **Soe** | **4.40** | **239** | *e*Pn | Pn | 02 01 39.2 | +3.4 |
| SOEI | | | | *e*S | **Sn** | **02 02 31.0** | **+4.4** |
| **SANI** | **Sanana** | **5.81** | **339** | P | Pn | 02 01 58.5 | +4.1 |
| | 67nm,0.9s | | | | | | |
| **BBSI** | **Bau Bau** | **5.84** | **290** | P | Pn | 02 01 59.0 | +4.1 |
| | 19nm,0.8s | | | | | | |
| **MMRI** | **Maumere** | **5.91** | **259** | P | Pn | 02 01 59.3 | +3.5 |
| | 327nm,0.9s | | | | | | |
| **MMRI** | **Maumere** | **5.91** | **259** | *e*Pn | Pn | 02 01 59.2 | +3.5 |
| | 198nm,0.8s | | | | | | |
| **MTN** | **Manton Dam** | **6.09** | **151** | *e*Pn | **Pn** | **02 02 00.2** | **+2.0** |
| **FAKI** | **Fak Fak** | **6.15** | **42** | P | **Pn** | **02 01 59.7** | **+0.7** |
| | 82nm,0.8s,3µm | | | | | | |
| **FAKI** | **Fak Fak** | **6.15** | **42** | *e*Pn | **Pn** | **02 01 59.2** | **+0.3** |
| | 66nm,0.3s | | | | | | |
| FAKI | | | | *e*S | **Sn** | **02 03 06.4** | **-1.9** |
| **EDFI** | **Ende, Flores** | **6.46** | **258** | P | Pn | 02 02 06.8 | +3.6 |
| | 165nm,1.0s,1µm | | | | | | |
| **KMPI** | **Kaimana, Papua** | **6.76** | **56** | P | **Pn** | **02 02 09.5** | **+2.4** |
| | 660nm,0.7s,14µm | | | | | | |
| **LBMI** | **Labuha** | **6.84** | **355** | P | Pn | 02 02 13.8 | +5.5 |
| | 114nm,0.9s,2µm0.3nm | | | | | | |
| **SWI** | **Sorong** | **7.31** | **26** | P | **Pn** | **02 02 15.7** | **+1.2** |
| | 111nm,0.7s,2µm | | | | | | |
| **WBSI** | **Waikabubak, Su** | **8.87** | **255** | P | Pn | 02 02 39.0 | +3.6 |
| **PLAI** | **Plampang** | **10.30** | **262** | P | Pn | 02 02 59.1 | +4.6 |
| **FITZ** | **Fitzroy Crossi** | **10.81** | **193** | P | **Pn** | **02 02 59.9** | **-1.3** |
| | 4.7nm,0.3s,baz=15,slow=9.4,SNR=95 | | | | | | |
| FITZ | | | | S | **Sn** | **02 04 53.3** | **-7.3** |
| | 8.1nm,0.3s,baz=98,slow=16,SNR=7.5 | | | | | | |
| **WRAB** | **Tennant Creek** | **13.77** | **154** | *e*Pn | **Pn** | **02 03 39.4** | **-0.3** |
| WRAB | | | | *e*S | Sn | 02 06 03.7 | -8.3 |
| **WRA** | **Warramunga Arr** | **13.77** | **155** | P | **Pn** | **02 03 37.7** | **-2.1** |
| | 6.7nm,0.3s,baz=331,slow=14,SNR=225 | | | | | | |
| WRA | | | | S | Sn | 02 06 00.8 | -11 |
| | 8.2nm,0.3s,baz=325,slow=24,SNR=12 | | | | | | |
| **WB2** | **Warramunga Ar** | **13.78** | **155** | *e*Pn | **Pn** | **02 03 38.6** | **-1.1** |
| **MBWA** | **Marble Bar** | **15.80** | **210** | *e*Pn | **P** | **02 04 05.4** | **-0.6** |
| | 24nm,1.1s | | | | | | |
| MBWA | | | | *e*S | Sn | 02 06 46.3 | -15 |
| **MYLDM** | **Lahad Datu** | **15.82** | **322** | *e*Pn | **P** | **02 04 09.7** | **+3.5** |
| | 61nm,1.1s | | | | | | |
| **COEN** | **Coen** | **16.14** | **115** | *e*Pn | **Pn** | **02 04 09.7** | **+0.4** |
| | 38nm,0.8s | | | | | | |
| COEN | | | | *e*S | Sn | 02 06 56.7 | -12 |
| **AS31** | **Alice Springs** | **17.01** | **162** | *e*P | **Pn** | **02 04 21.2** | **+1.3** |
| | 18nm,0.8s | | | | | | |
| **ASAR** | **Alice Springs** | **17.01** | **162** | P | **Pn** | **02 04 21.0** | **+1.1** |
| | 3.9nm,0.3s,baz=343,slow=11,SNR=419 | | | | | | |
| ASAR | | | | pP | **pP** | **02 04 48.2** | **+4.1** |
| | 2.6nm,0.3s,baz=332,slow=12,SNR=4.6 | | | | | | |
| ASAR | | | | S | S | 02 07 12.3 | -17 |
| | 0.4nm,0.3s,baz=341,slow=14,SNR=3.4 | | | | | | |
| **AS01** | **Alice Springs** | **17.03** | **161** | *e*P | **Pn** | **02 04 21.4** | **+1.4** |
| **KKM** | **Kota Kinabalu** | **17.93** | **318** | *e*P | **Pn** | **02 04 31.5** | **+0.5** |
| | 39nm,0.9s | | | | | | |
| **PMG** | **Port Moresby** | **18.95** | **97** | P | **Pn** | **02 04 45.7** | **+2.8** |
| | 4.0nm,0.3s,baz=276,slow=8.7,SNR=34 | | | | | | |
| **KSM** | **Kuching** | **19.86** | **296** | *e*P | **Pn** | **02 04 50.8** | **-2.7** |
| | 76nm,0.8s | | | | | | |
| **CTA** | **Charters Tower** | **21.59** | **127** | P | **P** | **02 05 09.9** | **+0.9** |
| | 9.3nm,0.8s,baz=296,slow=14,SNR=6.6 | | | | | | |
| CTA | | | | S | **S** | **02 08 59.7** | **+0.2** |
| | 6.0nm,0.6s,baz=228,slow=17,SNR=3.8 | | | | | | |
| **CTAO** | **Charters Tower** | **21.59** | **127** | *e*P | **P** | **02 05 09.7** | **+0.6** |
| | 34nm,0.8s | | | | | | |
| **TGY** | **Tagaytay City** | **22.61** | **342** | P | **P** | **02 05 20.1** | **+0.8** |
| | 154nm,0.3s,baz=165,slow=6.1,SNR=6.2 | | | | | | |
| **FORT** | **Forrest** | **23.16** | **180** | *e*P | **P** | **02 05 24.8** | **+0.5** |
| | 252nm,0.7s | | | | | | |
| **STKA** | **Stephens Creek** | **27.32** | **154** | P | **P** | **02 06 02.7** | **+0.8** |
| | 3.3nm,0.5s,baz=328,slow=11,SNR=12 | | | | | | |
| STKA | | | | pP | **pP** | **02 06 37.7** | **+5.7** |
| | 17nm,0.8s,baz=327,slow=9.0,SNR=13 | | | | | | |
| **STKA** | **Stephens Creek** | **27.32** | **154** | *e*P | **P** | **02 06 01.8** | **-0.1** |
| | 7.4nm,1.1s | | | | | | |
| STKA | | | | pP | **pP** | **02 06 37.7** | **+5.7** |
| **KULM** | **Kulim** | **30.19** | **294** | *e*P | **P** | **02 06 27.5** | **0.0** |
| | 4.2nm,0.7s | | | | | | |
| **PSI** | **Prapat** | **30.85** | **288** | P | **P** | **02 06 31.7** | **-1.8** |
| | 17nm,0.7s,baz=102,slow=8.0,SNR=13 | | | | | | |
| **PSI** | **Prapat** | **30.85** | **288** | *e*P | **P** | **02 06 32.1** | **-1.4** |
| **YHNB** | **Yeheng** | **32.64** | **349** | *e*P | **P** | **02 06 47.5** | **-1.4** |
| **CHAI** | **Chaiyaphum** | **34.77** | **312** | P | **P** | **02 07 08.4** | **+1.0** |
| | 8.8nm,0.7s | | | | | | |
| **UTHA** | **Uthaitani** | **36.48** | **309** | P | **P** | **02 07 23.3** | **+1.3** |
| | 5.6nm,0.9s | | | | | | |
| **PHRA** | **Phrae** | **37.73** | **314** | P | **P** | **02 07 35.2** | **+2.7** |
| | 17nm,2.0s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **38.63** | **312** | P | **P** | **02 07 40.4** | **+0.3** |
| | 5.3nm,0.7s,baz=137,slow=6.7,SNR=13 | | | | | | |
| **CHTO** | **Chiang Mai** | **38.86** | **313** | *e*P | **P** | **02 07 42.3** | **+0.3** |
| | 6.3nm,0.6s | | | | | | |
| **NJ2** | **Nanjing** | **40.31** | **348** | *e*P | **P** | **02 07 53.4** | **-0.3** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,21nm,0.9s | | | | | | |
| **KMI** | **Kunming** | **40.76** | **324** | P | **P** | **02 07 59.4** | **+1.6** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,20nm,0.9s | | | | | | |
| **KSAR** | **Wonju Array Be** | **44.71** | **360** | P | **P** | **02 08 27.7** | **-1.5** |
| **KSRS** | **Korea Array** | **44.72** | **360** | P | **P** | **02 08 27.7** | **-1.6** |
| | 1.5nm,0.6s,baz=179,slow=12,SNR=6.1 | | | | | | |
| **CD2** | **Chengdu** | **44.75** | **330** | *e*P | P | 02 08 19.3 | -10 |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.0s | | | | | | |
| **XAN** | **Xi'an** | **45.13** | **337** | P | **P** | **02 08 31.3** | **-1.4** |
| XAN | | | | pmax | pmax | | |
| | comp=Z,17nm,0.8s | | | | | | |
| **LZH** | **Lanzhou** | **48.99** | **334** | *e*P | **P** | **02 09 03.0** | **+0.3** |
| LZH | | | | pP | sP | 02 09 42.1 | -8.9 |
| LZH | | | | sP | pP | 02 09 58.3 | +23 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,31nm,1.3s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,150nm,4.9s | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **50.46** | **344** | *e*P | **P** | **02 09 15.3** | **+1.6** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,16nm,0.5s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,230nm,5.5s | | | | | | |
| **CN2** | **Changchun** | **51.12** | **358** | *e*P | **P** | **02 09 17.5** | **-0.9** |
| **LSA** | **Lhasa** | **51.28** | **318** | *e*P | **P** | **02 09 20.7** | **+0.2** |
| | comp=Z,11nm,0.5s | | | | | | |
| **ODAN** | **Odare** | **52.18** | **312** | *e*P | **P** | **02 09 25.6** | **-1.3** |
| | comp=Z,23nm,0.5s | | | | | | |
| **TAPN** | **Taplejung** | **52.23** | **313** | *e*P | **P** | **02 09 26.1** | **-1.3** |
| **RAMN** | **Ramite** | **52.81** | **312** | *e*P | **P** | **02 09 30.8** | **-0.8** |
| | comp=Z,69nm,0.6s | | | | | | |
| **JIRN** | **Jiri** | **53.51** | **313** | *e*P | **P** | **02 09 35.7** | **-1.2** |
| **GTA** | **Gaotai** | **53.52** | **333** | *e*P | **P** | **02 09 36.5** | **0.0** |
| GTA | | | | pP | pP | 02 10 16.0 | +6.6 |
| GTA | | | | sP | PcP | 02 10 35.9 | -5.6 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.0s | | | | | | |
| **GUN** | **Gumba** | **53.88** | **313** | *e*P | **P** | **02 09 38.2** | **-1.3** |
| | comp=Z,44nm,0.7s | | | | | | |
| **PKI** | **Pulchoki** | **54.03** | **312** | *e*P | **P** | **02 09 39.0** | **-1.6** |
| | comp=Z,18nm,0.6s | | | | | | |
| **PKIN** | **Phulchoki** | **54.05** | **312** | *e*P | **P** | **02 09 39.1** | **-1.5** |
| | comp=Z,13nm,0.6s | | | | | | |
| **KKN** | **Kakani** | **54.25** | **312** | *e*P | **P** | **02 09 40.9** | **-1.2** |
| **DMN** | **Daman** | **54.28** | **312** | *e*P | **P** | **02 09 41.2** | **-1.1** |
| **GKN** | **Gorkha** | **54.84** | **312** | *e*P | **P** | **02 09 45.0** | **-1.3** |
| **KOLN** | **Koldanda** | **55.48** | **311** | *e*P | **P** | **02 09 49.8** | **-1.1** |
| | comp=Z,31nm,0.7s | | | | | | |
| **DANN** | **Dangsing** | **55.68** | **312** | *e*P | **P** | **02 09 50.7** | **-1.7** |
| **PYUN** | **Piuthan** | **56.12** | **311** | *e*P | **P** | **02 09 54.3** | **-1.1** |
| **ULN** | **Ulaanbaatar** | **58.18** | **343** | *e*P | **P** | **02 10 09.2** | **-0.3** |
| | comp=Z,3.1nm,0.7s | | | | | | |
| **SONM** | **Songino Array** | **58.34** | **343** | P | **P** | **02 10 10.1** | **-0.4** |
| | comp=Z,3.7nm,0.8s,baz=170,slow=6.5,SNR=18 | | | | | | |
| **SONA1** | **Songino Array** | **58.35** | **343** | *e*P | **P** | **02 10 09.9** | **-0.8** |
| **WMQ** | **Urumqi** | **62.80** | **328** | P | **P** | **02 10 40.6** | **-0.2** |
| WMQ | | | | pP | PcP | 02 11 19.3 | +1.3 |
| WMQ | | | | sP | sP | 02 11 35.9 | +5.7 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,23nm,1.1s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,470nm,10.9s | | | | | | |
| **KSH** | **Kashi** | **67.12** | **318** | P | **P** | **02 11 08.5** | **-0.5** |
| KSH | | | | PcP | **PcP** | **02 11 36.5** | **+0.5** |
| KSH | | | | pP | sP | 02 11 50.4 | -8.3 |
| KSH | | | | PP | **PP** | **02 13 44.1** | **+5.3** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.8s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,130nm,5.1s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,92nm,3.5s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,79nm,4.5s | | | | | | |
| **MK01** | **Makanchi Array** | **67.60** | **328** | *e*P | **P** | **02 11 10.7** | **-1.0** |
| **MK31** | **Makanchi Array** | **67.62** | **328** | *e*P | **P** | **02 11 11.0** | **-0.8** |
| **MKAR** | **Makanchi Array** | **67.62** | **328** | P | **P** | **02 11 10.7** | **-1.1** |
| | comp=Z,4.4nm,0.6s,baz=121,slow=8.0,SNR=66 | | | | | | |
| MKAR | | | | PcP | **PcP** | **02 11 35.5** | **-2.3** |
| | comp=Z,1.5nm,0.7s,baz=126,slow=4.9,SNR=4.9 | | | | | | |
| **KBL** | **Kabul** | **69.65** | **311** | *e*P | **P** | **02 11 24.2** | **-0.7** |
| **AAK** | **Ala-Archa** | **69.72** | **321** | *e*P | **P** | **02 11 24.9** | **-0.2** |
| | comp=Z,3.0nm,0.9s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **71.21** | **335** | P | **P** | **02 11 32.1** | **-1.5** |
| | comp=Z,4.3nm,0.5s,baz=131,slow=5.7,SNR=20 | | | | | | |
| **KURK** | **Kurchatov** | **71.97** | **329** | *e*P | **P** | **02 11 36.9** | **-1.4** |
| **BRVK** | **Borovoye** | **77.56** | **328** | *e*P | **P** | **02 12 09.3** | **-1.1** |
| | comp=Z,10nm,0.8s | | | | | | |
| **TIXI** | **Tiksi** | **78.99** | **0** | *e*P | **P** | **02 12 15.6** | **-2.3** |
| | comp=Z,3.5nm,0.5s | | | | | | |
| **ABKAR** | **Akbulak array** | **81.73** | **322** | *e*P | **P** | **02 12 31.1** | **-1.9** |
| | comp=Z,1.0nm,0.6s | | | | | | |
| **SYO** | **Syowa Base** | **82.51** | **201⇑** | *e*P | **P** | **02 12 34.4** | **-2.3** |
| **ARU** | **Arti** | **85.14** | **329** | *e*P | **P** | **02 12 48.0** | **-2.3** |
| | comp=Z,2.3nm,0.4s | | | | | | |
| **RAYN** | **Ar Rayn** | **86.22** | **294** | *e*P | **P** | **02 12 55.0** | **-1.4** |
| **PDAR** | **Pinedale Array** | **118.58** | **45** | PKP | **PKPdf** | **02 19 00.8** | **-1.1** |
| | comp=Z,0.5nm,0.7s,baz=172,slow=1.0,SNR=5.8 | | | | | | |
| **TXAR** | **Lajitas Array** | **126.80** | **59** | PKP | **PKPdf** | **02 19 17.6** | **-0.3** |
| | comp=Z,0.4nm,0.7s,baz=200,slow=1.3,SNR=5.1 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **127.05** | **281** | PKP | **PKPdf** | **02 19 17.1** | **-1.5** |
| | comp=Z,1.0nm,0.6s,baz=42,slow=1.5,SNR=11 | | | | | | |
| **CPUP** | **Villa Florida** | **145.96** | **171** | PKPbc | **PKPdf** | **02 19 53.0** | **-0.2** |
| | comp=Z,1.7nm,0.7s,baz=145,slow=2.0,SNR=4.8 | | | | | | |
| **LPAZ** | **La Paz** | **151.42** | **146** | PKPbc | **PKPbc** | **02 20 08.8** | **-0.3** |
| | comp=Z,1.7nm,0.8s,baz=241,slow=3.7,SNR=4.6 | | | | | | |

*SJA* ***19*** *02:02:03.0±0.5, 28˚.12S×71˚.46W, h35km, ML3.4, MW3.2*
*GUC* ***19*** *02:02:05.0±0.5, 28˚.32S×71˚.26W, h44km±2km, ML3.5*

**ISC 19 02:02:03.8±2.1, 28˚.35S±0˚.06×71˚.4W±0˚.1, h29km, n13, σ2s 70/19, 3D, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **LCO** | **Las Campanas** | **0.93** | **135⇓** | *i*P | **Pb** | **02 02 21.4** | **-0.1** |
| LCO | | | | *i*S | **Sn** | **02 02 32.7** | **-0.9** |
| LCO | | | | IAML | | 02 02 33.2 | |
| | comp=N,2µm,0.4s | | | | | | |
| **GO03** | **Copiap** | **1.31** | **55⇓** | *i*P | **Pb** | **02 02 26.0** | **-1.8** |
| GO03 | | | | *e*S | **Sb** | **02 02 41.3** | **-2.9** |
| GO03 | | | | IAML | | 02 02 45.1 | |
| | comp=E,2µm,0.2s | | | | | | |
| **LSCH** | **La Serena** | **1.56** | **174** | *e*P | **Pb** | **02 02 32.4** | **+0.4** |
| LSCH | | | | *e*S | **Sb** | **02 02 52.9** | **+1.6** |
| **TLL** | **Tololo Astrono** | **1.89** | **163⇓** | *i*P | **Pb** | **02 02 37.3** | **-0.5** |
| TLL | | | | *i*S | **Sb** | **02 03 01.1** | **-0.1** |
| TLL | | | | IAML | | 02 03 05.9 | |
| | comp=E,1µm,0.5s | | | | | | |
| **AGUA** | **GUANDACOL** | **2.82** | **114** | *e*P | **Pb** | **02 02 52.0** | **-1.6** |
| AGUA | | | | *e*S | **Sb** | **02 03 27.5** | **-0.3** |
| **VCA** | **Vinchina** | **2.87** | **98** | *e*P | **Pb** | **02 02 52.5** | **-2.0** |
| VCA | | | | *e*S | **Sb** | **02 03 32.2** | **+2.9** |
| VCA | | | | IAML | | 02 03 38.2 | |
| | comp=Z,160nm,0.3s | | | | | | |
| **AMOG** | **MOGNA** | **3.64** | **136** | *e*P | **Pb** | **02 03 02.9** | **-4.6** |
| **RTLL** | **Cerro Villicun** | **3.93** | **140** | *e*P | Pb | 02 03 06.6 | -5.8 |
| **AUSP** | **Uspallata** | **4.25** | **156** | *e*P | **Pb** | **02 03 14.1** | **-3.9** |
| AUSP | | | | *e*S | **Sb** | **02 04 03.5** | **-5.4** |
| **CYA** | **Choya** | **4.97** | **92** | *e*P | **Pn** | **02 03 18.7** | **+2.2** |
| CYA | | | | IAML | | 02 03 21.6 | |
| | comp=Z,86nm,0.4s | | | | | | |
| CYA | | | | *e*S | **Sn** | **02 04 15.6** | **+2.6** |
| **FSA** | **Cafayete** | **5.35** | **67** | *e*P | Pb | 02 03 28.8 | -7.9 |
| FSA | | | | IAML | | 02 03 50.7 | |
| | comp=Z,3.7nm,0.6s | | | | | | |
| **AHML** | **Horco Molle** | **5.64** | **75** | *e*P | Pn | 02 03 29.3 | +3.5 |
| **TCA** | **Tanti** | **6.65** | **118** | *e*P | **Pn** | **02 03 41.6** | **+2.0** |
| TCA | | | | *e*S | **Sn** | **02 04 57.1** | **+2.6** |

**IDC 19 02:22:50.7±15.0, 6˚.73S×129˚.62E, h108km±164km, mb3.2/2, mb1 3.6/5, mb1mx3.3/32, mbtmp3.8/5, ML3.9/3, Error ellipse: s-maj=123.3km s-min=59.3km az=36.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **FITZ** | **Fitzroy Crossi** | **11.95** | **199** | P | Pn | 02 25 37.4 | -0.1 |
| | 0.2nm,0.3s,baz=13,slow=15,SNR=18 | | | | | | |
| FITZ | | | | S | Sn | 02 27 40.2 | -8.8 |
| | 0.9nm,0.3s,baz=111,slow=18,SNR=8.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **13.91** | **161** | P | Pn | 02 26 01.8 | -1.5 |
| | 0.7nm,0.3s,baz=340,slow=12,SNR=36 | | | | | | |
| WRA | | | | S | Sn | 02 28 30.0 | -6.6 |
| | 0.8nm,0.3s,baz=336,slow=23,SNR=6.1 | | | | | | |
| **ASAR** | **Alice Springs** | **17.33** | **167** | P | Pn | 02 26 46.8 | +0.8 |
| | 0.9nm,0.3s,baz=344,slow=9.5,SNR=71 | | | | | | |
| ASAR | | | | S | Sn | 02 29 51.6 | -7.6 |
| | 0.2nm,0.3s,baz=348,slow=24,SNR=4.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.80** | **327** | P | P | 02 33 37.0 | 0.0 |
| | 0.3nm,0.4s,baz=116,slow=8.9,SNR=10 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **72.09** | **329** | P | P | 02 34 03.3 | +0.1 |
| | 0.6nm,0.4s,baz=116,slow=6.5,SNR=7.1 | | | | | | |

*DDA* ***19*** *02:35:04.0, 38˚.70N×43˚.75E, h7km, Ml2.0*
*ISCJB* ***19*** *02:35:08.3±0.8, 39˚.03N±0˚.04×43˚.76E±0˚.07, h13km±7km, Error ellipse: s-maj=9.8km s-min=6.9km az=13.3*
*CSEM* ***19*** *02:35:08.3±0.4, 39˚.01N×43˚.76E, h8km, MD2.6, Error ellipse: s-maj=11.3km s-min=7.8km az=112.0*
*ISK* ***19*** *02:35:08.0, 39˚.00N×43˚.73E, h16km, MD2.6*

**ISC 19 02:35:08.8±1.0, 38˚.97N±0˚.03×43˚.68E±0˚.04, h10km±6km, n21, σ1s 37/26, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VMUR** | **Van-Muradiye** | **0.09** | **282** | *i*P | **Pg** | **02 35 10.5** | **-0.9** |
| VMUR | | | | *i*S | **Sg** | **02 35 14.6** | **+1.3** |
| **VMUR** | **Van-Muradiye** | **0.09** | **282** | P | **Pg** | **02 35 10.5** | **-0.9** |
| VMUR | | | | S | **Sg** | **02 35 14.6** | **+1.3** |
| **CLDR** | **Calderan** | **0.25** | **47** | *e*PG | **Pg** | **02 35 13.1** | **-0.9** |
| **CLDR** | **Calderan** | **0.25** | **47** | *i*P | **Pg** | **02 35 12.9** | **-1.1** |
| **CLDR** | **Calderan** | **0.25** | **47** | P | **Pg** | **02 35 12.9** | **-1.1** |
| **CLDR** | **Calderan** | **0.25** | **47** | *e*Pg | **Pg** | **02 35 13.1** | **-0.9** |
| **VANB** | **Van** | **0.44** | **211** | *e*PG | **Pb** | **02 35 19.2** | **+0.6** |
| VANB | | | | *e*SG | **Sb** | **02 35 27.5** | **+2.1** |
| **VANB** | **Van** | **0.44** | **211** | *e*Pg | **Pb** | **02 35 19.3** | **+0.6** |
| VANB | | | | *e*Sg | **Sb** | **02 35 27.5** | **+2.1** |
| **TVAN** | **Van** | **0.49** | **206** | *i*P | Pg | 02 35 09.7 | -8.7 |
| **ADCV** | **BITLIS_Adilcev** | **0.76** | **258** | *i*P | **Pg** | **02 35 20.7** | **-2.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.76** | **258** | P | **Pg** | **02 35 20.7** | **-2.8** |
| **AGRB** | **Hanur-Agry** | **0.81** | **319** | *e*PG | **Pg** | **02 35 24.1** | **-0.3** |
| AGRB | | | | *e*SG | **Sb** | **02 35 36.1** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **0.81** | **319** | *e*Pg | **Pg** | **02 35 24.1** | **-0.3** |
| AGRB | | | | *e*Sg | **Sb** | **02 35 36.1** | **+0.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.10** | **23** | *e*PG | **Pb** | **02 35 28.8** | **-1.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.10** | **23** | *e*Pg | **Pb** | **02 35 28.8** | **-1.2** |
| **EATA** | **Eleskirt** | **1.28** | **314** | *i*P | **Pb** | **02 35 32.9** | **-0.3** |
| **EATA** | **Eleskirt** | **1.28** | **314** | P | **Pb** | **02 35 32.9** | **-0.3** |
| **DIGO** | **Kars** | **1.46** | **351** | *i*P | **Pg** | **02 35 38.0** | **+1.2** |
| **DIGO** | **Kars** | **1.46** | **351** | P | **Pg** | **02 35 38.0** | **+1.2** |
| **CUKT** | **Cukurca** | **1.72** | **182** | *e*PN | **Pn** | **02 35 38.5** | **-0.4** |
| **CUKT** | **Cukurca** | **1.72** | **182** | *e*Pn | **Pn** | **02 35 38.5** | **-0.4** |

*ISK* ***19*** *02:38:21.6, 38˚.73N×43˚.48E, h5km, ML2.6*
*CSEM* ***19*** *02:38:22.5±0.2, 38˚.71N×43˚.54E, h5km, ML2.6, Error ellipse: s-maj=5.7km s-min=3.4km az=88.0*
*DDA* ***19*** *02:38:22.6, 38˚.69N×43˚.50E, h7km, Ml2.7*
*ISCJB* ***19*** *02:38:23.1±0.5, 38˚.71N±0˚.02×43˚.50E±0˚.05, h9km±4km, Error ellipse: s-maj=6.5km s-min=3.6km az=9.8*

**ISC 19 02:38:23.0±0.8, 38˚.72N±0˚.02×43˚.52E±0˚.03, h16km±6km, n51, σ0s 83/64, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.16** | **221** | *e*Pg | **Pg** | **02 38 27.4** | **+0.1** |
| **VANB** | **Van** | **0.16** | **221** | *e*Pg | **Pg** | **02 38 27.4** | **+0.1** |
| **TVAN** | **Van** | **0.21** | **206** | *i*P | **Pg** | **02 38 27.4** | **-0.7** |
| TVAN | | | | *i*S | **Sg** | **02 38 32.0** | **+0.5** |
| **TVAN** | **Van** | **0.21** | **206** | P | **Pg** | **02 38 27.4** | **-0.7** |
| TVAN | | | | S | **Sg** | **02 38 32.0** | **+0.5** |
| **VMUR** | **Van-Muradiye** | **0.28** | **8** | *i*P | **Pg** | **02 38 28.3** | **-0.8** |
| VMUR | | | | *i*S | **Sb** | **02 38 34.5** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.28** | **8** | P | **Pg** | **02 38 28.3** | **-0.8** |
| VMUR | | | | S | **Sb** | **02 38 34.5** | **+0.3** |
| **ERCV** | **ERCIS-VAN** | **0.34** | **335** | *e*PG | **Pg** | **02 38 28.8** | **-1.4** |
| ERCV | | | | *e*SG | **Sg** | **02 38 34.8** | **-0.2** |
| **ERCV** | **ERCIS-VAN** | **0.34** | **335** | *e*Pg | **Pg** | **02 38 28.8** | **-1.4** |
| ERCV | | | | *e*Sg | **Sg** | **02 38 34.8** | **-0.2** |
| **CLDR** | **Caldiran** | **0.53** | **36** | *e*PG | **Pg** | **02 38 32.7** | **-0.8** |
| CLDR | | | | *e*SG | **Sb** | **02 38 42.2** | **+0.8** |
| **CLDR** | **Caldiran** | **0.53** | **36** | *i*P | **Pg** | **02 38 32.7** | **-0.8** |
| CLDR | | | | *i*S | **Sb** | **02 38 42.9** | **+1.4** |
| **CLDR** | **Caldiran** | **0.53** | **36** | P | **Pg** | **02 38 32.7** | **-0.8** |
| CLDR | | | | S | **Sb** | **02 38 42.8** | **+1.4** |
| **GEVA** | **Gevas** | **0.54** | **222** | *i*P | **Pg** | **02 38 32.7** | **-1.1** |
| **GEVA** | **Gevas** | **0.54** | **222** | P | **Pg** | **02 38 32.7** | **-1.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.63** | **279** | *i*P | **Pg** | **02 38 34.5** | **-1.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.63** | **279** | P | **Pg** | **02 38 34.5** | **-1.0** |
| **BASK** | **Baskale_VAN** | **0.76** | **150** | *i*P | **Pb** | **02 38 36.6** | **-1.3** |
| **BASK** | **Baskale_VAN** | **0.76** | **150** | P | **Pb** | **02 38 36.7** | **-1.3** |
| **DYDN** | **Diyadin** | **0.84** | **9** | *i*P | **Pb** | **02 38 38.7** | **-0.6** |
| DYDN | | | | *i*S | **Sn** | **02 38 52.3** | **-0.1** |
| **DYDN** | **Diyadin** | **0.84** | **9** | P | **Pb** | **02 38 38.7** | **-0.6** |
| DYDN | | | | S | **Sn** | **02 38 52.3** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **0.95** | **334** | *e*PG | **Pb** | **02 38 39.8** | **-1.4** |
| AGRB | | | | *e*SG | **Sg** | **02 38 54.1** | **0.0** |
| **AGRB** | **Hanur-Agry** | **0.95** | **334** | *e*Pg | **Pb** | **02 38 39.8** | **-1.4** |
| AGRB | | | | *e*Sg | **Sg** | **02 38 54.1** | **0.0** |
| **HAKT** | **HAKKARI** | **1.16** | **173** | *i*P | **Pn** | **02 38 43.6** | **-1.2** |
| **HAKT** | **HAKKARI** | **1.16** | **173** | P | **Pn** | **02 38 43.6** | **-1.2** |
| **EKAR** | **Karacoban** | **1.26** | **296** | *i*P | **Pg** | **02 38 47.0** | **-0.3** |
| **EKAR** | **Karacoban** | **1.26** | **296** | P | **Pg** | **02 38 47.0** | **-0.3** |
| **YOVA** | **Hakkari_Y˙˙...kse** | **1.28** | **152** | *i*P | **Pn** | **02 38 46.5** | **+0.1** |
| **YOVA** | **Hakkari_Y˙˙...kse** | **1.28** | **152** | P |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| SENK | Senkaya-Erzuru | 2.02 335 | *e*Pn | Pb | 03 06 23.9 | -0.9 |
| BNGB | Bing¶ll | 2.20 277 | *e*PN | Pb | 03 06 26.9 | -0.9 |
| BINT | Bingol | 2.34 274 | *e*Pn | Pn | 03 06 26.9 | +0.4 |
| YEDI | Yedisu-Bingol | 2.39 288 | *e*PN | Pb | 03 06 29.9 | -1.2 |
| YEDI | Yedisu-Bingol | 2.39 288 | *e*Pn | Pb | 03 06 29.9 | -1.2 |

**IDC 19 03:19:40.6±12.0, 6.84S×129.47E, h105km±135km, mb3.4/1, mb1 3.6/4, mb1mx3.1/44, mbtmp3.8/4, ML3.9/3, Error ellipse: s-maj=81.0km s-min=58.5km az=26.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **11.80** | **198** | P | Pn | 03 22 27.2 | +1.5 |
| | 0.6nm,0.3s,baz=31,slow=11,SNR=27 | | | | | | |
| FITZ | | | | S | Sn | 03 24 32.7 | -2.8 |
| **WRA** | **Warramunga Arr** | **13.86** | **161** | P | Pn | 03 22 50.9 | -1.7 |
| | 0.5nm,0.3s,baz=343,slow=13,SNR=16 | | | | | | |
| WRA | | | | S | Sn | 03 25 12.8 | -13 |
| | 1.2nm,0.3s,baz=335,slow=23,SNR=13 | | | | | | |
| **ASAR** | **Alice Springs** | **17.27** | **166** | P | Pn | 03 23 36.6 | +1.3 |
| | 0.4nm,0.3s,baz=349,slow=11,SNR=18 | | | | | | |
| ASAR | | | | S | Sn | 03 26 37.6 | -10 |
| | 0.2nm,0.3s,baz=355,slow=31,SNR=4.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.80** | **327** | P | P | 03 30 27.2 | -0.1 |
| | 0.3nm,0.4s,baz=114,slow=7.9,SNR=8.7 | | | | | | |

**IDC 19 03:31:24.9±3.3, 3.15S×135.10E, h0km, mb3.8/2, mb1 4.1/3, mb1mx3.5/38, mbtmp3.9/3, ML3.5/1, MS3.3/3, Ms1 3.3/3, ms1mx2.8/37, Error ellipse: s-maj=152.9km s-min=30.0km az=79.0, Irian Jaya region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **13.50** | **118** | LR | LR | 03 40 34.8 | |
| | comp=Z,52nm,19.6s,baz=122,slow=41 | | | | | | |
| **WRA** | **Warramunga Arr** | **16.71** | **183** | Pn | Pn | 03 35 18.7 | -1.9 |
| | 0.2nm,0.3s,baz=1.2,slow=13,SNR=23 | | | | | | |
| WRA | | | | Sn | Sn | 03 38 22.1 | -4.9 |
| | 0.5nm,0.3s,baz=8.3,slow=21,SNR=7.0 | | | | | | |
| WRA | | | | LR | LR | 03 42 27.9 | |
| | comp=Z,168nm,18.6s,baz=330,slow=40 | | | | | | |
| **ASAR** | **Alice Springs** | **20.43** | **183** | P | P | 03 36 04.8 | +0.8 |
| | 3.5nm,0.6s,baz=14,slow=11,SNR=34 | | | | | | |
| ASAR | | | | LR | LR | 03 44 44.9 | |
| | comp=Z,129nm,18.1s,baz=18,slow=39 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.97** | **324** | P | P | 03 42 25.8 | 0.0 |
| | 0.5nm,0.6s,baz=116,slow=8.4,SNR=5.4 | | | | | | |

**JMA 19 03:33:11.4±0.3, 36.71N×142.28E, h7km, M3.1, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ONAJ** | **Iwakimizuishiy** | **1.25** | **289** | P | Pn | 03 33 35.0 | -0.4 |
| **JFK** | **Kawauchi** | **1.30** | **301** | P | Pn | 03 33 35.7 | -0.3 |
| **JHO** | **Hitachi** | **1.38** | **266** | P | Pn | 03 33 36.9 | -0.2 |
| **CHOJ** | **Chosi** | **1.53** | **229** | P | Pn | 03 33 39.4 | +0.3 |
| **JMM** | **Marumori** | **1.66** | **315** | P | Pn | 03 33 40.8 | -0.1 |
| **JFT** | **Otama** | **1.75** | **298** | P | Pb | 03 33 43.3 | -0.6 |
| **JIO** | **Ouri** | **1.89** | **337** | P | Pn | 03 33 44.4 | +0.3 |
| **JOU** | **Okura** | **2.09** | **323** | P | Pb | 03 33 48.6 | -1.1 |
| **JAG** | **Ashikaga** | **2.29** | **264** | P | Pn | 03 33 50.6 | +1.0 |
| **JMK** | **Ichinoseki** | **2.39** | **340** | P | Pn | 03 33 51.9 | +0.9 |
| **JYK** | **Kaneyama** | **2.68** | **326** | P | Pn | 03 33 56.1 | +1.2 |
| **JRY** | **Ryogami san** | **2.81** | **257** | P | Pn | 03 33 57.6 | +0.8 |
| **JOM** | **Ohasama** | **2.87** | **345** | P | Pn | 03 33 58.3 | +0.8 |
| **MAT** | **Matsushiro** | **3.28** | **268** | P | Pn | 03 34 05.6 | +2.4 |
| **SONM** | **Songino Array** | **28.54** | **304** | P | P | 03 39 09.3 | +1.6 |
| | 0.3nm,0.8s,baz=104,slow=9.8,SNR=2.7 | | | | | | |

*ISCJB **19** 03:33:40.8±1.1, 36.76N±0.07×140.6E±0.1, h10km, mb3.7/1, Error ellipse: s-maj=14.4km s-min=6.8km az=36.0*
*IDC **19** 03:33:41.9±6.9, 37.96N×140.04E, h82km±53km, mb3.1/2, mb1 3.4/3, mb1mx3.0/48, mbtmp3.4/3, ML3.5/1, MS2.6/2, Ms1 2.6/2, ms1mx2.4/14, Error ellipse: s-maj=60.1km s-min=26.7km az=66.0*
*JMA **19** 03:33:42.0, 36.82N×140.54E, h6km±1km, M3.4 Broadband fault plane solution: P waves. NP1: φs=174.00000°, δ73.00000°, λ-91.00000°. NP2: φs=357.00000°, δ17.00000°, λ-87.00000°. Principal axes: T Plg28.0000°, Azm265.0000°; N Plg1.0000°, Azm175.0000°; P Plg62.0000°, Azm83.0000°;*
*JMA Felt I J1.*

**ISC 19 03:33:42.0±1.2, 36.80N±0.09×140.59E±0.08, h10km, n7, σ0§37/7, 2C, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ONAJ** | **Iwakimizuishiy** | **0.35** | **29** | ⇑P | **Pg** | **03 33 49.1** | **+0.1** |
| **JSB** | **Shiboa** | **0.56** | **288** | ⇑P | **Pg** | **03 33 52.6** | **-0.3** |
| **JFK** | **Kawauchi** | **0.61** | **22** | P | **Pg** | **03 33 53.6** | **-0.3** |
| **JYT** | **Yasato** | **0.65** | **209** | *e*S | **Sg** | **03 34 03.0** | **0.0** |
| **MJAR** | **Matsushiro Arr** | **1.93** | **263** | P | **Pn** | **03 34 15.3** | **+0.5** |
| | 19nm,0.3s,baz=58,slow=16,SNR=48 | | | | | | |
| MJAR | | | | S | **Sn** | **03 34 39.3** | **+0.2** |
| | 48nm,0.3s,baz=62,slow=15,SNR=20 | | | | | | |
| MJAR | | | | LR | LR | 03 35 14.0 | |
| | comp=Z,73nm,19.0s,baz=75,slow=45 | | | | | | |
| **KSRS** | **Korea Array** | **10.13** | **278** | LR | LR | 03 40 02.8 | |
| | comp=Z,51nm,18.3s,baz=34,slow=40 | | | | | | |
| **WRA** | **Warramunga Arr** | **56.74** | **187** | P | **P** | **03 43 25.7** | **-0.3** |
| | 0.3nm,0.4s,baz=1.7,slow=7.4,SNR=7.5 | | | | | | |

*ISCJB **19** 03:42:06.2±0.6, 0.75S±0.04×121.83E±0.07, h10km, mb3.4/4, Error ellipse: s-maj=10.5km s-min=5.9km az=13.5*
*DJA **19** 03:42:06.5±0.4, 1°S±3°×12°2E±°, h10km, M3.5/6, MLv3.5/6*
*IDC **19** 03:42:06.5±1.4, 0.38S×122.50E, h0km, mb3.4/4, mb1 3.6/4, mb1mx3.3/44, mbtmp3.4/4, Error ellipse: s-maj=171.1km s-min=22.1km az=65.0*

**ISC 19 03:42:07.1±0.8, 0.73S±0.05×121.83E±0.07, h10km, n12, σ1§22/13, mb3.5/4, Minahassa Peninsula, Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **APSI** | **Ampana** | **0.26** | **224** | P | **Pg** | **03 42 11.1** | **-1.3** |
| **LUWI** | **Luwuk** | **0.99** | **108** | P | **Pb** | **03 42 25.4** | **-1.0** |
| **MRSI** | **Marisa** | **1.20** | **5** | P | **Pn** | **03 42 27.7** | **-2.3** |
| MRSI | | | | S | **Sb** | **03 42 45.1** | **-0.5** |
| **MPSI** | **Mapaga** | **2.20** | **299** | P | **Pn** | **03 42 45.1** | **+1.3** |
| **KMSI** | **Cibinong** | **2.51** | **59** | P | **Pg** | **03 42 56.4** | **+1.1** |
| **TTSI** | **Tana Toraja** | **3.06** | **221** | P | **Pn** | **03 42 55.5** | **0.0** |
| **SPSI** | **Sidrap Palu** | **3.82** | **213** | P | **Pn** | **03 43 07.3** | **+1.3** |
| **BNSI** | **Bone** | **4.04** | **205** | S | **Sn** | **03 43 55.7** | **-0.7** |
| **WRA** | **Warramunga Arr** | **22.69** | **148** | P | **P** | **03 47 09.0** | **-0.1** |
| | 1.1nm,0.8s,baz=336,slow=9.4,SNR=6.3 | | | | | | |
| **ASAR** | **Alice Springs** | **25.64** | **154** | P | **P** | **03 47 38.0** | **+0.8** |
| | 0.1nm,0.3s,baz=344,slow=15,SNR=3.9 | | | | | | |
| **SONM** | **Songino Array** | **50.20** | **347** | P | **P** | **03 51 04.0** | **+0.7** |
| | 0.6nm,0.8s,baz=166,slow=8.5,SNR=4.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **58.62** | **329** | P | **P** | **03 52 05.1** | **+0.6** |
| | 0.7nm,0.9s,baz=130,slow=7.2,SNR=4.2 | | | | | | |

**IDC 19 03:50:04.8±9.4, 49.19S×124.20E, h0km, mb3.4/2, mb1 3.6/2, mb1mx3.3/27, mbtmp3.4/2, MS3.1/1, Ms1 3.0/1, ms1mx2.6/11, Error ellipse: s-maj=658.6km s-min=70.6km az=97.0, Western Indian-Antarctic Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **H01W1** | **Cape Leeuwin H** | **16.09** | **329** | T | T | 04 10 10.2 | |
| | baz=156,slow=74,SNR=22 | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **16.10** | **329** | T | T | 04 10 10.2 | |
| | baz=156,slow=74,SNR=21 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **16.11** | **329** | T | T | 04 10 08.1 | |
| | baz=156,slow=74,SNR=21 | | | | | | |
| **ASAR** | **Alice Springs** | **26.60** | **20** | P | P | 03 55 44.9 | +0.2 |
| | 0.5nm,0.7s,baz=189,slow=9.3,SNR=5.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **30.30** | **19** | P | P | 03 56 17.5 | -0.2 |
| | 0.2nm,0.7s,baz=197,slow=8.3,SNR=3.0 | | | | | | |
| **MAW** | **Mawson** | **35.14** | **216** | LR | LR | 04 09 27.8 | |
| | comp=Z,27nm,18.1s,baz=240,slow=33 | | | | | | |
| **YKA** | **Yellowknife Ar** | **145.71** | **45** | PKPbc | PKPdf | 04 09 43.4 | -0.4 |
| | 0.8nm,0.9s,baz=267,slow=2.9,SNR=8.3 | | | | | | |

*CSEM **19** 03:51:43.8±0.1, 40.15N×41.04E, h5km, ML2.5, Error ellipse: s-maj=3.4km s-min=2.7km az=1.0*
*ISCJB **19** 03:51:44.4±0.4, 40.13N±0.04×41.01E±0.04, h9km, Error ellipse: s-maj=5.2km s-min=4.2km az=163.4*
*DDA **19** 03:51:44.0, 40.12N×41.00E, h7km, ML2.5*
*ISK **19** 03:51:44.1, 40.19N×41.02E, h8km, ML2.3*

**ISC 19 03:51:44.1±0.9, 40.14N±0.03×41.01E±0.02, h9km, n32, σ0§43/37, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ERZM** | **Erzurum** | **0.36** | **131** | *i*P | **Pg** | **03 51 51.6** | **+0.4** |
| **ERZM** | **Erzurum** | **0.36** | **131** | P | **Pg** | **03 51 51.6** | **+0.4** |
| **KOPT** | **Kop Dagi** | **0.41** | **253** | *i*P | **Pg** | **03 51 53.2** | **+0.9** |
| **KOPT** | **Kop Dagi** | **0.41** | **253** | P | **Pg** | **03 51 53.2** | **+0.9** |
| **ECAT** | **Cat-ERZURUM** | **0.53** | **183** | *i*P | **Pg** | **03 51 54.4** | **-0.1** |
| **ECAT** | **Cat-ERZURUM** | **0.53** | **183** | P | **Pg** | **03 51 54.4** | **-0.1** |
| **HOMI** | **Horasan** | **0.69** | **98** | *i*P | **Pg** | **03 51 57.6** | **+0.1** |
| **BAYT** | **Ayd¨–ntepe-Bay** | **0.71** | **291** | *e*PG | **Pg** | **03 51 58.0** | **+0.2** |
| BAYT | | | | *e*SG | **Sb** | **03 52 08.2** | **-0.6** |
| **BAYT** | **Ayd¨–ntepe-Bay** | **0.71** | **291** | *e*Pg | **Pg** | **03 51 58.1** | **+0.2** |
| BAYT | | | | *e*Sg | **Sb** | **03 52 08.2** | **-0.6** |
| **VRTB** | **Varto-Mus** | **1.04** | **161** | *e*PN | **Pn** | **03 52 05.2** | **+0.3** |
| **VRTB** | **Varto-Mus** | **1.04** | **161** | *e*Pn | **Pn** | **03 52 05.2** | **+0.3** |
| **EUZM** | **Uzumlu** | **1.10** | **247** | *i*P | **Pg** | **03 52 04.4** | **-0.8** |
| **EUZM** | **Uzumlu** | **1.10** | **247** | P | **Pg** | **03 52 04.4** | **-0.8** |
| **SENK** | **Senkaya-Erzuru** | **1.10** | **67** | *e*PN | **Pg** | **03 52 05.3** | **0.0** |
| **SENK** | **Senkaya-Erzuru** | **1.10** | **67** | *e*Pn | **Pg** | **03 52 05.3** | **0.0** |
| **DAGI** | **Agillar** | **1.16** | **36** | *i*P | **Pb** | **03 52 06.4** | **0.0** |
| DAGI | | | | *i*S | **Sn** | **03 52 22.8** | **+0.2** |
| **EATA** | **Eleskirt** | **1.17** | **103** | *i*P | **Pg** | **03 52 06.4** | **-0.1** |
| **EATA** | **Eleskirt** | **1.17** | **103** | P | **Pg** | **03 52 06.4** | **-0.1** |
| **EKAR** | **Karacoban** | **1.20** | **137** | *i*P | **Pb** | **03 52 07.2** | **+0.1** |
| **EKAR** | **Karacoban** | **1.20** | **137** | P | **Pb** | **03 52 07.2** | **+0.1** |
| **ARTV** | **Artvin** | **1.25** | **33** | *i*P | **Pn** | **03 52 07.9** | **-0.1** |
| **ARTV** | **Artvin** | **1.25** | **33** | P | **Pn** | **03 52 07.9** | **-0.1** |
| **KELT** | **Kelkit** | **1.35** | **271** | *i*P | **Pn** | **03 52 09.7** | **+0.4** |
| **KELT** | **Kelkit** | **1.35** | **271** | P | **Pn** | **03 52 09.6** | **+0.4** |
| **BCA** | **Borcka** | **1.38** | **19** | *e*PN | **Pn** | **03 52 09.5** | **-0.1** |
| BCA | | | | *e*SN | **Sn** | **03 52 28.1** | **+0.1** |
| **BCA** | **Borcka** | **1.38** | **19** | *e*Pn | **Pn** | **03 52 09.5** | **-0.1** |
| BCA | | | | *e*Sn | **Sn** | **03 52 28.1** | **+0.1** |
| **TNCL** | **Tunceli-Merkez** | **1.53** | **228** | *i*P | **Pn** | **03 52 12.0** | **+0.3** |
| **TNCL** | **Tunceli-Merkez** | **1.53** | **228** | P | **Pn** | **03 52 12.0** | **+0.3** |
| **PTK** | **Pertek** | **1.77** | **226** | *e*PN | **Pb** | **03 52 16.3** | **-0.4** |
| **PTK** | **Pertek** | **1.77** | **226** | *e*Pn | **Pb** | **03 52 16.3** | **-0.4** |
| **ESPY** | **Espiye-Giresun** | **1.91** | **295** | *e*PN | **Pn** | **03 52 17.5** | **+0.7** |
| **ESPY** | **Espiye-Giresun** | **1.91** | **295** | *e*Pn | **Pn** | **03 52 17.5** | **+0.7** |

*NIED **19** 03:55:00, 38.30N×142.00E, h35km, Mw4.1 Best double couple: M₀1.58000×10¹⁵ NP1:φs143.00000°, δ22.00000°, λ-5.00000°. NP2:φs237.00000°, δ88.00000°, λ-112.00000°.*
*BJI **19** 03:55:06.7, 38.21N×142.89E, h44km, mb4.5/22, mB5.0/13, Ms4.5/4, Ms7 4.1/4*
*ISCJB **19** 03:55:11.4±0.8, 38.34N±0.03×142.10E±0.06, h37km±6km, mb4.3/29, MS3.4/3, Error ellipse: s-maj=8.0km s-min=5.1km az=10.3*
*JMA **19** 03:55:12.2±0.1, 38.37N×142.03E, h32km±1km, M4.2*
*JMA Felt II J1.*
*NEIC **19** 03:55:13.0±0.8, 38.35N×142.12E, h36km±7km, mb4.6/5, Error ellipse: s-maj=10.7km s-min=6.3km az=116.0*
*NEIC Recorded [2 JMA] in Iwate and Miyagi.*
*IDC **19** 03:55:13.0±0.7, 38.31N×141.96E, h33km±4km, mb3.9/18, mb1 4.0/21, mb1mx3.9/38, mbtmp4.1/21, ML4.2/2, MS3.1/5, Ms1 3.1/5, ms1mx2.8/37, Error ellipse: s-maj=16.5km s-min=13.7km az=92.0*

**ISC 19 03:55:12.3±0.7, 38.36N±0.04×142.10E±0.05, h30km, 4km, n68, σ1§69/82, mb4.4/29, MS3.4/3, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JIO** | **Ouri** | **0.60** | **279** | P | **Pb** | **03 55 23.3** | **-1.0** |
| JIO | | | | S | **Sb** | **03 55 30.7** | **-1.8** |
| **JMK** | **Ichinoseki** | **0.91** | **311** | P | **Pn** | **03 55 28.2** | **-0.9** |
| JMK | | | | S | **Sn** | **03 55 39.4** | **-1.8** |
| **JOU** | **Okura** | **1.13** | **271** | P | **Pn** | **03 55 31.5** | **-0.7** |
| JOU | | | | S | **Sn** | **03 55 45.2** | **-1.5** |
| **JMM** | **Marumori** | **1.14** | **245** | P | **Pn** | **03 55 30.7** | **-1.6** |
| JMM | | | | S | **Sn** | **03 55 44.6** | **-2.4** |
| **JOM** | **Ohasama** | **1.28** | **331** | P | **Pn** | **03 55 33.8** | **-0.4** |
| JOM | | | | S | **Sn** | **03 55 49.8** | **-0.5** |
| **JFK** | **Kawauchi** | **1.39** | **225** | P | **Pn** | **03 55 33.7** | **-2.0** |
| JFK | | | | S | **Sn** | **03 55 49.6** | **-3.5** |
| **JYK** | **Kaneyama** | **1.47** | **293** | P | **Pn** | **03 55 36.5** | **-0.4** |
| JYK | | | | *e*S | **Sn** | **03 55 54.4** | **-0.7** |
| **JRG** | **Rokugo** | **1.54** | **313** | P | **Pn** | **03 55 37.8** | **0.0** |
| JRG | | | | *e*S | **Sn** | **03 55 56.5** | **-0.4** |
| **JYS** | **Shirataka** | **1.61** | **266** | P | **Pn** | **03 55 38.2** | **-0.5** |
| JYS | | | | S | **Sb** | **03 55 58.4** | **-2.9** |
| **JFT** | **Otama** | **1.63** | **239** | P | **Pn** | **03 55 38.6** | **-0.4** |
| JFT | | | | *e*S | **Sn** | **03 55 58.0** | **-1.0** |
| **MJAR** | **Matsushiro Arr** | **3.59** | **241** | Pn | **Pn** | **03 56 07.3** | **+1.3** |
| | 2.6nm,0.3s,baz=61,slow=10.0,SNR=14 | | | | | | |
| **MAJO** | **Matsushiro** | **3.59** | **241** | *e*Pn | **Pn** | **03 56 07.2** | **+1.2** |
| **MAT** | **Matsushiro** | **3.59** | **241** | P | **Pn** | **03 56 06.5** | **+0.5** |
| MAT | | | | *e*S | **Sn** | **03 56 49.9** | **+2.5** |
| **MJB9** | **Matsu-Tunnel** | **3.59** | **241** | *e*Pn | **Pn** | **03 56 07.6** | **+1.6** |
| **ERM** | **Erimo** | **3.74** | **12** | *e*Pn | **Pn** | **03 56 05.7** | **-2.3** |
| ERM | | | | *e*S | **Sb** | **03 56 57.3** | **-5.2** |
| **INU** | **Inuyama** | **5.07** | **235** | *e*Pn | **Pn** | **03 56 27.2** | **+0.9** |
| **JHJ2** | **Mitsune** | **5.56** | **200** | Pn | **Pn** | **03 56 31.3** | **-1.7** |
| JHJ2 | | | | *e*S | Sn | 03 57 16.4 | -19 |
| **JHJ** | **Hachijo jima 2** | **5.56** | **201** | Pn | **Pn** | **03 56 34.0** | **+1.0** |
| | 15nm,0.3s,baz=149,slow=22,SNR=5.3 | | | | | | |
| **ASAJ** | **Asahikawa** | **5.76** | **4** | Pn | **Pn** | **03 56 37.3** | **+1.5** |
| | 6.0nm,0.3s,baz=219,slow=9.2,SNR=22 | | | | | | |
| **ASAJ** | **Asahikawa** | **5.76** | **4** | *e*Pn | **Pn** | **03 56 36.8** | **+1.0** |
| ASAJ | | | | *e*S | Sn | 03 57 49.4 | +8.5 |
| **USRK** | **Ussuriysk Ar.** | **9.59** | **311** | Pn | **Pn** | **03 57 29.3** | **+1.1** |
| | 0.6nm,0.3s,baz=122,slow=14,SNR=5.5 | | | | | | |
| **KSRS** | **Korea Array** | **11.24** | **270** | LR | LR | 04 01 49.1 | |
| | comp=Z,55nm,19.3s,baz=90,slow=36 | | | | | | |
| **KLR** | **Kul'dur** | **13.17** | **329** | LR | LR | 04 03 26.2 | |
| | comp=Z,12nm,18.6s,baz=341,slow=38 | | | | | | |
| **CN2** | **Changchun** | **13.68** | **299** | *e*P | **Pn** | **03 58 25.3** | **+1.1** |
| **NJ2** | **Nanjing** | **19.99** | **259** | *e*P | **Pn** | **03 59 43.0** | **-1.2** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.5s | | | | | | |
| **MA2** | **Magadan** | **21.95** | **12** | P | **P** | **04 00 03.5** | **+0.3** |
| | 8.6nm,0.5s,baz=214,slow=8.7,SNR=7.2 | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **23.60** | **286** | *e*P | **P** | **04 00 20.4** | **-0.3** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,21nm,0.5s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,120nm,5.5s | | | | | | |
| **YAK** | **Yakutsk** | **24.91** | **346** | P | **P** | **04 00 31.9** | **-0.5** |
| | 17nm,0.3s,baz=126,slow=1.4,SNR=4.5 | | | | | | |
| **SEY** | **Seymchan** | **25.39** | **11** | P | **P** | **04 00 38.7** | **+2.0** |
| | 2.2nm,0.5s,baz=193,slow=6.1,SNR=14 | | | | | | |
| **SONA1** | **Songino Array** | **27.52** | **302** | *e*P | **P** | **04 00 55.8** | **-0.6** |
| **SONM** | **Songino Array** | **27.52** | **302** | P | **P** | **04 00 56.7** | **+0.3** |
| | 0.5nm,0.3s,baz=109,slow=9.0,SNR=8.5 | | | | | | |
| SONM | | | | LR | LR | 04 12 34.9 | |
| | comp=Z,73nm,19.1s,baz=76,slow=38 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy 28.39** | **124** | | T | T | 04 31 11.0 | |
| | baz=316,slow=76,SNR=1091 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy 28.40** | **124** | | T | T | 04 31 10.5 | |
| | baz=316,slow=76,SNR=1280 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy 28.41** | **124** | | T | T | 04 31 13.4 | |
| | baz=316,slow=76,SNR=1358 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy 29.16** | **126** | | T | T | 04 32 35.7 | |
| | baz=318,slow=76,SNR=350 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy 29.16** | **126** | | T | T | 04 32 36.1 | |
| | baz=318,slow=76,SNR=288 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy 29.17** | **126** | | T | T | 04 32 37.2 | |
| | baz=318,slow=76,SNR=237 | | | | | | |
| **LZH** | **Lanzhou** | **30.41** | **278** | *e*P | **P** | **04 01 23.3** | **+1.2** |
| LZH | | | | pP | pP | 04 01 32.1 | +1.3 |
| LZH | | | | sP | sP | 04 01 39.1 | +4.7 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,17nm,0.8s | | | | | | |
| **KMI** | **Kunming** | **35.71** | **260** | P | **P** | **04 02 08.3** | **-0.3** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,13nm,0.6s | | | | | | |
| **WMQ** | **Urumqi** | **40.74** | **296** | P | **P** | **04 02 51.0** | **+0.4** |
| WMQ | | | | pP | sP | 04 03 03.5 | +0.6 |
| WMQ | | | | sP | pP | 04 03 10.3 | +11 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,31nm,0.9s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,210nm,3.9s | | | | | | |
| **ZAA0** | **Zalesovo Array** | **41.44** | **311** | *e*P | **P** | **04 02 55.5** | **-0.5** |
| | 4.4nm,0.4s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.44** | **311** | P | **P** | **04 02 55.9** | **-0.1** |
| | 4.1nm,0.4s,baz=83,slow=8.1,SNR=15 | | | | | | |
| **MK01** | **Makanchi Array** | **43.89** | **301** | *e*P | **P** | **04 03 15.8** | **-0.2** |
| **MK31** | **Makanchi Array** | **43.89** | **301** | *e*P | **P** | **04 03 15.9** | **-0.1** |
| **MKAR** | **Makanchi Array** | **43.89** | **301** | P | **P** | **04 03 15.7** | **-0.4** |
| | 2.8nm,0.7s,baz=83,slow=12,SNR=23 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.89** | **301** | *e*P | **P** | **04 03 15.9** | **-0.1** |
| **KURK** | **Kurchatov** | **45.55** | **307** | *e*P | **P** | **04 03 28.7** | **-0.5** |
| | 12nm,0.8s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **45.63** | **307** | P | **P** | **04 03 29.4** | **-0.4** |
| | 12nm,0.7s,baz=82,slow=8.1,SNR=88 | | | | | | |
| **KDAK** | **Kodiak Island** | **45.75** | **43** | LR | LR | 04 24 15.8 | |
| | comp=Z,38nm,19.2s,baz=30,slow=38 | | | | | | |
| **ILAR** | **Eielson Array** | **48.09** | **33** | P | **P** | **04 03 49.6** | **+0.8** |
| | 0.6nm,0.7s,baz=270,slow=6.6,SNR=6.8 | | | | | | |
| ILAR | | | | pP | **sP** | **04 04 00.3** | **-1.0** |
| | 1.1nm,0.7s,baz=267,slow=6.2,SNR=7.9 | | | | | | |
| **BVAR** | **Borovoye Array** | **50.09** | **312** | P | **P** | **04 04 03.9** | **-0.5** |
| | 1.1nm,0.5s,baz=67,slow=8.8,SNR=8.9 | | | | | | |
| BVAR | | | | PcP | **PcP** | **04 05 23.7** | **+0.1** |
| | 0.5nm,0.4s,baz=62,slow=3.4,SNR=2.9 | | | | | | |
| **AAK** | **Ala-Archa** | **50.35** | **298** | *e*P | **P** | **04 04 06.6** | **0.0** |
| **KSH** | **Kashi** | **50.37** | **293** | P | **P** | **04 04 09.5** | **+2.7** |
| KSH | | | | pP | sP | 04 04 22.9 | +3.5 |
| KSH | | | | PcP | **PcP** | **04 05 25.4** | **+0.3** |
| KSH | | | | PP | **PP** | **04 06 08.1** | **+5.8** |
| KSH | | | | S | **S** | **04 11 20.3** | **+2.2** |
| KSH | | | | ScS | **ScS** | **04 13 50.3** | **-5.6** |
| KSH | | | | SS | **SS** | **04 14 53.4** | **+1.7** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,100nm,5.3s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,91nm,5.1s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,88nm,4.6s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,120nm,4.7s | | | | | | |
| **ABKAR** | **Akbulak array** | **57.51** | **310** | *e*P | **P** | **04 04 58.0** | **-0.7** |
| | 21nm,0.6s | | | | | | |
| **WRAB** | **Tennant Creek** | **58.44** | **189** | *e*P | **P** | **04 05 04.1** | **-1.2** |
| | 1.6nm,0.7s | | | | | | |
| **WRA** | **Warramunga Arr** | **58.45** | **189** | P | **P** | **04 05 04.6** | **-0.9** |
| | 2.4nm,0.7s,baz=6.1,slow=7.1,SNR=29 | | | | | | |
| **ASAR** | **Alice Springs** | **62.18** | **189** | P | **P** | **04 05 30.6** | **-0.3** |
| | 1.7nm,0.7s,baz=10,slow=6.5,SNR=18 | | | | | | |
| **YKA** | **Yellowknife Ar** | **62.39** | **31** | P | **P** | **04 05 32.4** | **+0.5** |
| | 0.2nm,0.5s,baz=302,slow=5.9,SNR=3.6 | | | | | | |
| YKA | | | | pP | **pP** | **04 05 43.2** | **+2.1** |
| | 0.4nm,0.8s,baz=305,slow=6.7,SNR=5.6 | | | | | | |
| **ARCES** | **ARCESS Array B** | **62.95** | **339** | P | **P** | **04 05 35.6** | **0.0** |
| | 1.8nm,0.8s,baz=50,slow=6.5,SNR=3.6 | | | | | | |
| **FINES** | **FINESS Array B** | **67.90** | **332** | P | **P** | **04 06 07.5** | **-0.2** |
| | 2.9nm,0.7s,baz=38,slow=13,SNR=8.4 | | | | | | |
| FINES | | | | LR | LR | 04 37 27.0 | |
| | comp=Z,29nm,18.3s,baz=22,slow=37 | | | | | | |
| **NB2** | **NORSAR Subarra** | **73.17** | **337** | P | **P** | **04 06 39.7** | **-0.2** |
| | comp=Z,1.1nm,0.7s,baz=36,slow=6.2 | | | | | | |
| **NOA** | **NORSAR Array B** | **73.17** | **337** | P | **P** | **04 06 40.0** | **+0.1** |
| | comp=Z,1.9nm,0.8s,baz=37,slow=6.0,SNR=4.7 | | | | | | |
| **AKASG** | **Malin Array Be** | **73.58** | **322** | P | **P** | **04 06 41.9** | **-0.5** |
| | comp=Z,1.7nm,0.4s,baz=44,slow=6.5,SNR=16 | | | | | | |
| AKASG | | | | pP | **pP** | **04 06 51.7** | **-0.1** |
| | comp=Z,2.1nm,0.6s,baz=46,slow=6.1,SNR=8.3 | | | | | | |
| **PDAR** | **Pinedale Array** | **76.35** | **46** | P | **P** | **04 06 59.6** | **+0.8** |
| | comp=Z,0.3nm,0.6s,baz=354,slow=1.5,SNR=5.3 | | | | | | |
| PDAR | | | | pP | **PcP** | **04 07 10.2** | **-0.5** |
| | comp=Z,1.8nm,0.6s,baz=276,slow=1.7,SNR=18 | | | | | | |
| **LCMT** | **Little Creek M** | **77.80** | **52** | *e*P | **P** | **04 07 02.7** | **-4.4** |
| | comp=Z,3.0nm,0.5s | | | | | | |
| **BRTR** | **Keskin Array B** | **78.38** | **312** | P | **P** | **04 07 10.1** | **0.0** |
| | comp=Z,0.3nm,0.4s,baz=100,slow=4.3,SNR=7.4 | | | | | | |
| **KHC** | **Kasperske Hory** | **81.70** | **329** | *e*P | **P** | **04 07 28.3** | **+0.5** |
| **TXAR** | **Lajitas Array** | **88.88** | **53** | P | **P** | **04 08 04.9** | **+0.8** |
| | comp=Z,0.1nm,0.6s,baz=299,slow=1.9,SNR=3.2 | | | | | | |
| TXAR | | | | pP | **pP** | **04 08 15.8** | **+2.2** |
| | comp=Z,0.3nm,0.5s,baz=300,slow=3.2,SNR=4.5 | | | | | | |

*NIED **19** 04:10:00, 38.30N×144.50E, h5km, Mw4.0 Best double couple: M₀9.78000×10¹⁴ NP1:φs27.00000°, δ20.00000°, λ-87.00000°. NP2:φs204.00000°, δ70.00000°, λ-91.00000°.*
*IDC **19** 04:10:40.3±0.9, 38.03N×144.98E, h0km, mb3.7/7, mb1 4.0/9, mb1mx3.7/44, mbtmp3.7/9, ML3.2

**TXAR Lajitas Array 87.29 54 P P 04 23 29.0 +0.1**
0.1nm,0.5s,baz=256,slow=3.6,SNR=3.8

*NIED* ***19*** *04:13:00,43.˙60N×147.˙90E,h89km,Mw4.6 Best double couple: M₀9.12000×10¹⁵ NP1:φs142.00000°,δ42.00000°, λ-17.00000°. NP2:φs245.00000°,δ79.00000°, λ-131.00000°.*
*MOS* ***19*** *04:13:45.4±0.9,43.˙89N×147.˙97E,h73km,mb4.9/54, Error ellipse: s-maj=7.4km s-min=4.9km az=114.3*
*MOS Felt (III-IV) at Malokuril'skoye, Shikotan; (II) at Yuzhno-Kuril'sk.*
*NEIC* ***19*** *04:13:47.0±0.6,43.˙83N×147.˙90E,h73km±5km,mb4.8/46, Error ellipse: s-maj=7.4km s-min=4.3km az=154.0*
*NEIC Recorded [2 JMA] ineastern Hokkaido.*
*IDC* ***19*** *04:13:46.7±2.0,43.˙82N×147.˙94E,h72km±18km,mb4.2/22, mb1 4.4/29,mb1mx4.3/45,mbtmp4.5/29,MS3.1/8, Ms1 3.1/8,ms1mx2.9/29,Error ellipse: s-maj=15.8km s-min=11.6km az=149.0*
*ISCJB* ***19*** *04:13:46.2±0.5,43.˙86N±0.˙03×147.˙90E±0.˙04,h79km±3km, mb4.6/108,Error ellipse: s-maj=6.1km s-min=3.9km az=145.9*
*SKHL* ***19*** *04:13:46.8±0.4,43.˙81N×147.˙99E,h92km±3km,mb5.6/8, msh6.1/8*
*SKHL Felt (III-IV) at Malokurilskoe,(II) at Yushno-Kurilsk.*
*JMA* ***19*** *04:13:46.8±0.2,43.˙61N×147.˙92E,h53km,M4.7*
*JMA Felt II J1.*
*BJI* ***19*** *04:13:47.0,43.˙88N×147.˙72E,h73km,mb4.7/38,mB5.0/23, Ms4.6/9,Ms7 4.4/8*

**ISC 19 04:13:45.9±0.7, 43.˙88N±0.˙05×147.˙97E±0.˙05, h65km±5km, n342,σ1§66/376, mb4.7/116, 18C-17D, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **SHO** | **Shikotan** | **0.83** | **270** | *d* | iPN | | **Pn** | **04 14 02.7** | **+0.7** |
| SHO | | | | *i* | S | | **Sn** | **04 14 14.9** | **+1.1** |
| SHO | | | | | pmax | pmax | | | |
| | comp=N,1μm,0.3s | | | | | | | | |
| SHO | | | | | pmax | pmax | | | |
| | comp=Z,10μm,0.3s | | | | | | | | |
| SHO | | | | | pmax | pmax | | | |
| | comp=E,3μm,0.2s | | | | | | | | |
| SHO | | | | | smax | smax | | | |
| | comp=N,134μm,0.4s | | | | | | | | |
| SHO | | | | | smax | smax | | | |
| | comp=E,121μm,0.4s | | | | | | | | |
| **SHO** | **Shikotan** | **0.83** | **270** | *i* | P | | **Pn** | **04 14 02.7** | **+0.7** |
| SHO | | | | | AMB | AMB | | 04 14 04.5 | |
| | comp=E,10μm,0.3s | | | | | | | | |
| SHO | | | | *i* | S | | **Sn** | **04 14 14.9** | **+1.1** |
| SHO | | | | | A | A | | 04 14 16.1 | |
| | comp=E,13μm,0.4s | | | | | | | | |
| SHO | | | | | A | A | | 04 14 16.1 | |
| | comp=E,12μm,0.4s | | | | | | | | |
| **KUR** | **Kuril'sk** | **1.36** | **357** | *c* | iPN | | **Pn** | **04 14 11.0** | **+2.2** |
| KUR | | | | *i* | S | | **Sn** | **04 14 28.9** | **+2.9** |
| KUR | | | | | pmax | pmax | | | |
| | comp=E,1μm,0.3s | | | | | | | | |
| KUR | | | | | pmax | pmax | | | |
| | comp=Z,4μm,0.3s | | | | | | | | |
| KUR | | | | | pmax | pmax | | | |
| | comp=N,2μm,0.2s | | | | | | | | |
| KUR | | | | | smax | smax | | | |
| | comp=N,21μm,0.2s | | | | | | | | |
| KUR | | | | | smax | smax | | | |
| | comp=E,12μm,0.2s | | | | | | | | |
| **KUR** | **Kuril'sk** | **1.36** | **357** | *i* | P | | **Pn** | **04 14 11.0** | **+2.2** |
| KUR | | | | | AMB | AMB | | 04 14 12.6 | |
| | comp=E,2μm,0.3s | | | | | | | | |
| KUR | | | | | AMB | AMB | | 04 14 12.6 | |
| | comp=E,1μm,0.3s | | | | | | | | |
| KUR | | | | | AMB | AMB | | 04 14 12.6 | |
| | comp=E,4μm,0.3s | | | | | | | | |
| KUR | | | | *i* | S | | **Sn** | **04 14 28.9** | **+2.9** |
| KUR | | | | | A | A | | 04 14 30.7 | |
| | comp=E,21μm,0.2s | | | | | | | | |
| KUR | | | | | A | A | | 04 14 30.7 | |
| | comp=E,12μm,0.2s | | | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **1.53** | **277** | *d* | iPN | | **Pn** | **04 14 11.9** | **+0.8** |
| YUK | | | | *i* | S | | **Sn** | **04 14 31.0** | **+0.8** |
| YUK | | | | | pmax | pmax | | | |
| | comp=Z,10μm,0.2s | | | | | | | | |
| YUK | | | | | pmax | pmax | | | |
| | comp=N,1μm,0.1s | | | | | | | | |
| YUK | | | | | pmax | pmax | | | |
| | comp=E,3μm,0.1s | | | | | | | | |
| YUK | | | | | smax | smax | | | |
| | comp=E,14μm,0.4s | | | | | | | | |
| YUK | | | | | smax | smax | | | |
| | comp=N,7μm,0.3s | | | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **1.53** | **277** | *i* | P | | **Pn** | **04 14 11.9** | **+0.8** |
| YUK | | | | | AMB | AMB | | 04 14 13.7 | |
| | comp=N,1μm,0.2s | | | | | | | | |
| YUK | | | | | AMB | AMB | | 04 14 13.7 | |
| | comp=N,3μm,0.2s | | | | | | | | |
| YUK | | | | | AMB | AMB | | 04 14 13.7 | |
| | comp=N,10μm,0.2s | | | | | | | | |
| YUK | | | | *i* | S | | **Sn** | **04 14 31.0** | **+0.8** |
| YUK | | | | | A | A | | 04 14 35.0 | |
| | comp=N,7μm,0.4s | | | | | | | | |
| YUK | | | | | A | A | | 04 14 35.0 | |
| | comp=N,14μm,0.4s | | | | | | | | |
| **LAGR** | **Lagunnoye** | **1.59** | **277** | *c* | iPN | | **Pn** | **04 14 13.0** | **+1.1** |
| LAGR | | | | *i* | S | | **Sn** | **04 14 32.5** | **+1.0** |
| **LAGR** | **Lagunnoye** | **1.59** | **277** | *i* | P | | **Pn** | **04 14 13.0** | **+1.1** |
| LAGR | | | | *i* | S | | **Sn** | **04 14 32.5** | **+1.0** |
| **GRPR** | **Tuman** | **1.59** | **275** | *d* | iPN | | **Pn** | **04 14 12.9** | **+0.9** |
| GRPR | | | | *i* | S | | **Sn** | **04 14 32.2** | **+0.5** |
| **GRPR** | **Tuman** | **1.59** | **275** | *i* | P | | **Pn** | **04 14 12.9** | **+0.9** |
| GRPR | | | | *i* | S | | **Sn** | **04 14 32.2** | **+0.5** |
| **NEM2** | **Nemuro 2** | **1.70** | **253** | | P | | **Pn** | **04 14 13.4** | **0.0** |
| NEM2 | | | | | eS | | **Sn** | **04 14 32.9** | **-1.2** |
| **GLVR** | **Golovnino** | **1.78** | **266** | *d* | iPN | | **Pn** | **04 14 15.5** | **+1.0** |
| GLVR | | | | *i* | S | | **Sn** | **04 14 37.2** | **+1.1** |
| **GLVR** | **Golovnino** | **1.78** | **266** | *i* | P | | **Pn** | **04 14 15.5** | **+1.0** |
| GLVR | | | | *i* | S | | **Sn** | **04 14 37.2** | **+1.1** |
| **JRA** | **Rausu** | **2.06** | **273** | | P | | **Pn** | **04 14 19.7** | **+1.4** |
| JRA | | | | | eS | | **Sn** | **04 14 44.4** | **+1.5** |
| **JNK** | **Nakash** | **2.38** | **264** | | P | | **Pn** | **04 14 23.2** | **+0.6** |
| **JAK** | **Akkeshi** | **2.54** | **251** | | P | | **Pn** | **04 14 24.7** | **-0.1** |
| JAK | | | | | eS | | **Sn** | **04 14 52.7** | **-1.9** |
| **JTKR** | **Abashiri--Toko** | **2.94** | **273** | | P | | **Pn** | **04 14 31.8** | **+1.6** |
| **JAR** | **Ashorobuto** | **3.11** | **261** | | P | | **Pn** | **04 14 33.6** | **+1.1** |
| JAR | | | | | eS | | **Sn** | **04 15 08.5** | **0.0** |
| **JOB** | **Onbets** | **3.17** | **254** | | P | | **Pn** | **04 14 33.8** | **+0.5** |
| JOB | | | | | eS | | **Sn** | **04 15 08.9** | **-1.0** |
| **JMP** | **Maruseppu** | **3.33** | **274** | | P | | **Pn** | **04 14 37.5** | **+1.9** |
| **HRK** | **Horoka** | **3.54** | **265** | *e* | P | | **Pn** | **04 14 40.4** | **+1.9** |
| HRK | | | | | eS | | **Sn** | **04 15 20.8** | **+1.7** |
| **JCH** | **Churui** | **3.60** | **251** | | P | | **Pn** | **04 14 39.0** | **-0.2** |
| JCH | | | | | eS | | **Sn** | **04 15 17.6** | **-2.8** |
| **JKK2** | **Kamakawa 2** | **3.78** | **272** | | P | | **Pn** | **04 14 43.9** | **+2.2** |
| **JKA** | **Kamikawa-asahi** | **3.88** | **275** | *e* | P | | **Pn** | **04 14 45.7** | **+2.6** |
| **ASAJ** | **Asahikawa** | **3.89** | **275** | | P | | **Pn** | **04 14 45.6** | **+2.5** |
| | comp=N,40nm,0.3s,baz=84,slow=15,SNR=69 | | | | | | | | |
| **ASAJ** | **Asahikawa** | **3.89** | **275** | *e* | Pn | | **Pn** | **04 14 45.7** | **+2.5** |
| ASAJ | | | | | eS | | Sn | 04 15 38.4 | +11 |
| **JFR** | **Furan** | **3.98** | **262** | | P | | **Pn** | **04 14 46.1** | **+1.7** |
| JFR | | | | | eS | | **Sn** | **04 15 29.8** | **0.0** |
| **ERM** | **Erimo** | **4.00** | **244** | *ce* | PN | | **Pn** | **04 14 46.6** | **+1.9** |
| ERM | | | | | pmax | pmax | | | |
| | comp=Z,57nm,0.6s | | | | | | | | |
| **ERM** | **Erimo** | **4.00** | **244** | *e* | P | | **Pn** | **04 14 46.6** | **+1.9** |
| **ERM** | **Erimo** | **4.00** | **244** | *e* | Pn | | **Pn** | **04 14 46.5** | **+1.9** |
| ERM | | | | | eS | | **Sn** | **04 15 28.6** | **-1.6** |
| **JSE** | **Soyaes** | **4.01** | **288** | | P | | **Pn** | **04 14 47.1** | **+2.3** |
| **JNBK** | **Urakawa-nobuka** | **4.14** | **249** | | P | | **Pn** | **04 14 46.6** | **-0.1** |
| JNBK | | | | | eS | | **Sn** | **04 15 30.5** | **-3.3** |
| **JHR** | **Hokuryu** | **4.52** | **270** | | P | | **Pn** | **04 14 54.7** | **+2.8** |
| **JWK2** | **Keihoku** | **4.57** | **290** | | P | | **Pn** | **04 14 56.2** | **+3.7** |
| **JYG** | **Yagishiri** | **4.74** | **279** | | P | | **Pn** | **04 14 57.4** | **+2.6** |
| **YSS** | **Yuzh-Sakhalins** | **4.79** | **312** | *i* | iPN | | **Pn** | **04 14 58.2** | **+2.7** |
| YSS | | | | *i* | S | | **Sn** | **04 15 50.2** | **+0.6** |
| YSS | | | | | pmax | pmax | | | |
| | comp=N,110nm,0.3s | | | | | | | | |
| YSS | | | | | pmax | pmax | | | |
| | comp=Z,220nm,0.3s | | | | | | | | |
| YSS | | | | | pmax | pmax | | | |
| | comp=E,100nm,0.4s | | | | | | | | |
| YSS | | | | | smax | smax | | | |
| | comp=E,300nm,0.6s | | | | | | | | |
| YSS | | | | | MLR | MLR | | | |
| | comp=Z,200nm,17.0s | | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **4.79** | **312** | *i* | P | | **Pn** | **04 14 58.5** | **+3.0** |
| YSS | | | | | AMB | AMB | | 04 14 58.7 | |
| | comp=Z,110nm,0.3s | | | | | | | | |
| YSS | | | | | AMB | AMB | | 04 14 58.7 | |
| | comp=Z,100nm,0.3s | | | | | | | | |
| YSS | | | | | AMB | AMB | | 04 14 58.7 | |
| | comp=Z,220nm,0.3s | | | | | | | | |
| YSS | | | | | eS | | **Sn** | **04 15 50.2** | **+0.6** |
| YSS | | | | | A | A | | 04 15 51.7 | |
| | comp=Z,300nm,0.6s | | | | | | | | |
| YSS | | | | | AMS | AMS | | 04 16 57.0 | |
| | comp=Z,200nm,17.0s | | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **4.79** | **312** | *e* | Pn | | **Pn** | **04 14 58.1** | **+2.7** |
| YSS | | | | | eS | | **Sn** | **04 15 51.0** | **+1.3** |
| **JEW** | **Eniwo** | **4.87** | **260** | | P | | **Pn** | **04 14 58.2** | **+1.6** |
| **UGL** | **Uglegorsk** | **6.61** | **324** | *e* | PN | | **Pn** | **04 15 20.8** | **+0.5** |
| UGL | | | | | eS | | **Sn** | **04 16 36.5** | **+2.3** |
| **UGL** | **Uglegorsk** | **6.61** | **324** | *e* | P | | **Pn** | **04 15 23.3** | **+3.0** |
| UGL | | | | | eS | | **Sn** | **04 16 35.9** | **+1.7** |
| UGL | | | | | A | A | | 04 16 45.0 | |
| | comp=Z,179nm,0.5s | | | | | | | | |
| UGL | | | | | A | A | | 04 16 45.0 | |
| | comp=Z,164nm,0.5s | | | | | | | | |
| **TYV** | **Tymovskoe** | **7.86** | **335** | *e* | PN | | Pn | 04 15 29.5 | -8.0 |
| TYV | | | | | pmax | pmax | | | |
| | comp=Z,25nm,0.9s | | | | | | | | |
| **TYV** | **Tymovskoe** | **7.86** | **335** | *e* | P | | Pn | 04 15 29.5 | -8.0 |
| TYV | | | | | AMB | AMB | | 04 15 42.0 | |
| | comp=Z,25nm,0.9s | | | | | | | | |
| TYV | | | | | eS | | Sn | 04 16 47.2 | -18 |
| TYV | | | | | A | A | | 04 16 51.5 | |
| | comp=Z,14nm,1.0s | | | | | | | | |
| **TEY** | **Ternei** | **8.22** | **282** | *e* | P | | **Pn** | **04 15 44.0** | **+1.7** |
| TEY | | | | | AMB | AMB | | 04 15 47.0 | |
| | comp=Z,21nm,0.7s | | | | | | | | |
| **SKR** | **Severo-Kuril's** | **8.77** | **36** | *e* | PN | | **Pn** | **04 15 49.4** | **-0.4** |
| SKR | | | | | pmax | pmax | | | |
| | comp=Z,184nm,0.6s | | | | | | | | |
| SKR | | | | | MLR | MLR | | | |
| | comp=Z,400nm,12.0s | | | | | | | | |
| **SKR** | **Severo-Kuril's** | **8.77** | **36** | *i* | P | | **Pn** | **04 15 49.5** | **-0.4** |
| SKR | | | | | AMB | AMB | | 04 15 51.8 | |
| | comp=Z,149nm,0.5s | | | | | | | | |
| SKR | | | | *i* | S | | **Sn** | **04 17 24.5** | **-2.6** |
| SKR | | | | | A | A | | 04 17 29.0 | |
| | comp=Z,175nm,0.5s | | | | | | | | |
| SKR | | | | | A | A | | 04 17 29.0 | |
| | comp=Z,134nm,0.5s | | | | | | | | |
| **HABR** | **Khabarovsk** | **10.07** | **302** | *e* | PN | | **Pn** | **04 16 08.0** | **+0.4** |
| HABR | | | | | eS | | **Sn** | **04 18 01.1** | **+2.2** |
| HABR | | | | | pmax | pmax | | | |
| | comp=N,7.0nm,1.0s | | | | | | | | |
| HABR | | | | | pmax | pmax | | | |
| | comp=E,15nm,1.0s | | | | | | | | |
| HABR | | | | | pmax | pmax | | | |
| | comp=Z,20nm,1.0s | | | | | | | | |
| HABR | | | | | MLR | MLR | | | |
| | comp=Z,72nm,14.0s | | | | | | | | |
| **GRNR** | **Gornyy** | **10.43** | **315** | *e* | P | | **Pn** | **04 16 17.0** | **+4.4** |
| **MAJO** | **Matsushiro** | **10.46** | **229** | *i* | PN | | **Pn** | **04 16 11.4** | **-1.6** |
| **MAJO** | **Matsushiro** | **10.46** | **229** | *e* | Pn | | **Pn** | **04 16 10.9** | **-2.1** |
| MAJO | | | | | eS | | **Sn** | **04 18 12.5** | **+4.0** |
| **MAT** | **Matsushiro** | **10.46** | **229** | | P | | **Pn** | **04 16 11.3** | **-1.7** |
| MAT | | | | | eS | | **Sn** | **04 18 03.2** | **-5.3** |
| **MJAR** | **Matsushiro Arr** | **10.46** | **229** | | P | | **Pn** | **04 16 11.7** | **-1.3** |
| | comp=Z,3.6nm,0.3s,baz=29,slow=13,SNR=44 | | | | | | | | |
| **MJB9** | **Matsu-Tunnel** | **10.46** | **229** | *e* | Pn | | **Pn** | **04 16 08.6** | **-4.4** |
| **NKL** | **Nikolayevsk** | **10.46** | **335** | *e* | PN | | **Pn** | **04 16 15.0** | **+2.1** |
| NKL | | | | | MLR | MLR | | | |
| | comp=Z,400nm,15.0s | | | | | | | | |
| **NKL** | **Nikolayevsk** | **10.46** | **335** | *e* | P | | **Pn** | **04 16 15.0** | **+2.1** |
| NKL | | | | | AMS | AMS | | 04 21 48.0 | |
| | comp=Z,400nm,15.0s | | | | | | | | |
| **PEA0B** | **Petropavlovsk-** | **11.26** | **31** | *e* | Pn | | **Pn** | **04 16 23.9** | **+0.1** |
| **PETK** | **Petropavlovsk-** | **11.26** | **31** | | P | | **Pn** | **04 16 23.4** | **-0.4** |
| | comp=Z,2.7nm,0.3s,baz=216,slow=12,SNR=39 | | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **11.51** | **277** | | P | | **Pn** | **04 16 28.1** | **+0.7** |
| | comp=Z,1.1nm,0.3s,baz=90,slow=14,SNR=22 | | | | | | | | |
| USRK | | | | | LR | LR | | 04 21 30.1 | |
| | comp=Z,67nm,18.2s,baz=54,slow=40 | | | | | | | | |
| **PET** | **Petropavlovsk** | **11.56** | **34** | *e* | PN | | **Pn** | **04 16 24.9** | **-3.1** |
| PET | | | | | MLR | MLR | | | |
| | comp=Z,300nm,9.0s | | | | | | | | |
| **PET** | **Petropavlovsk** | **11.56** | **34** | *e* | P | | **Pn** | **04 16 24.9** | **-3.1** |
| PET | | | | | eS | | **Sn** | **04 18 27.5** | **-7.8** |
| PET | | | | | AMS | AMS | | 04 20 32.9 | |
| | comp=Z,290nm,8.0s | | | | | | | | |
| **KLR** | **Kul'dur** | **12.38** | **301** | | P | | **Pn** | **04 16 41.2** | **+2.1** |
| | comp=Z,0.0nm,0.3s,baz=105,slow=14,SNR=6.4 | | | | | | | | |
| KLR | | | | | LR | LR | | 04 21 25.7 | |
| | comp=Z,12nm,18.4s,baz=65,slow=37 | | | | | | | | |
| **KLR** | **Kul'dur** | **12.38** | **301** | *i* | iPN | | **Pn** | **04 16 41.0** | **+1.9** |
| **KLR** | **Kul'dur** | **12.38** | **301** | *e* | P | | **Pn** | **04 16 41.0** | **+1.9** |
| **MDJ** | **Mudanjiang** | **13.20** | **280** | *e* | P | | **Pn** | **04 16 50.6** | **+0.2** |
| **MDJ** | **Mudanjiang** | **13.20** | **280** | *e* | Pn | | **Pn** | **04 16 50.5** | **+0.2** |
| **EKMR** | **Ekimchan** | **13.54** | **318** | *e* | P | | **Pn** | **04 16 55.0** | **+0.2** |
| EKMR | | | | | AMB | AMB | | 04 17 10.9 | |
| | comp=Z,13nm,1.0s | | | | | | | | |
| **MA2** | **Magadan** | **15.81** | **5** | | P | | **Pn** | **04 17 25.0** | **+0.7** |
| | comp=Z,1.2nm,0.3s,baz=190,slow=6.7,SNR=9.3 | | | | | | | | |
| **MA2** | **Magadan** | **15.81** | **5** | *d* | iP | | **Pn** | **04 17 24.2** | **-0.1** |
| **MA2** | **Magadan** | **15.81** | **5** | *e* | P | | **Pn** | **04 17 24.2** | **-0.1** |
| **BMKR** | **Bomnak** | **16.47** | **318** | *e* | P | | **Pn** | **04 17 32.0** | **-0.6** |
| BMKR | | | | | AMB | AMB | | 04 17 35.8 | |
| | comp=Z,20nm,0.5s | | | | | | | | |
| **KSRS** | **Korea Array** | **16.49** | **254** | | P | | **Pn** | **04 17 32.0** | **-1.0** |
| | comp=Z,0.2nm,0.3s,baz=61,slow=12,SNR=14 | | | | | | | | |
| KSRS | | | | | LR | LR | | 04 23 04.1 | |
| | comp=Z,59nm,19.6s,baz=55,slow=34 | | | | | | | | |
| **KSRS** | **Korea Array** | **16.49** | **254** | | P | | **Pn** | **04 17 32.0** | **-1.0** |
| **KSRS** | **Korea Array** | **16.49** | **254** | *e* | P | | **Pn** | **04 17 32.0** | **-1.0** |
| **KSAR** | **Wonju Array Be** | **16.52** | **254** | | P | | **Pn** | **04 17 32.0** | **-1.4** |
| **KSAR** | **Wonju Array Be** | **16.52** | **254** | | P | | **Pn** | **04 17 31.9** | **-1.4** |
| **ZEA** | **Zeya** | **16.78** | **313** | *e* | P | | **Pn** | **04 17 34.5** | **-2.0** |
| ZEA | | | | | AMB | AMB | | 04 17 39.0 | |
| | comp=Z,37nm,1.0s | | | | | | | | |
| **KROS** | **Kirovskiy** | **17.26** | **315** | *e* | P | | **Pn** | **04 17 39.5** | **-2.8** |
| KROS | | | | | AMB | AMB | | 04 17 46.1 | |
| | comp=Z,3.0nm,0.5s | | | | | | | | |
| **JCJ** | **Chichijima** | **17.39** | **198** | | LR | LR | | 04 23 15.0 | |
| | comp=Z,86nm,20.2s,baz=308,slow=33 | | | | | | | | |
| **SEY** | **Seymchan** | **19.26** | **6** | | P | | **Pn** | **04 18 04.7** | **-0.1** |
| | comp=Z,1.1nm,0.3s,baz=196,slow=12,SNR=10.0 | | | | | | | | |
| **SEY** | **Seymchan** | **19.26** | **6** | *i* | iP | | **P** | **04 18 04.1** | **-0.7** |
| **CLNS** | **Chul'man** | **19.50** | **320** | *e* | P | | **P** | **04 18 06.7** | **-0.8** |
| CLNS | | | | | pmax | pmax | | | |
| | comp=Z,17nm,0.9s | | | | | | | | |
| CLNS | | | | | pmax | pmax | | | |
| | comp=N,5.0nm,0.7s | | | | | | | | |
| CLNS | | | | | pmax | pmax | | | |
| | comp=E,12nm,0.9s | | | | | | | | |
| **DL2** | **Dalian** | **20.34** | **265** | | P | | **P** | **04 18 17.3** | **+0.5** |
| DL2 | | | | | pmax | pmax | | | |
| | comp=E,54nm,0.9s | | | | | | | | |
| **YAK** | **Yakutsk** | **21.12** | **336** | *e* | P | | **P** | **04 18 21.3** | **-3.6** |
| YAK | | | | | eS | | **S** | **04 22 07.1** | **-9.0** |
| YAK | | | | | eSS | | Sn | 04 22 30.4 | +4.3 |
| YAK | | | | | *e* | | | 04 22 33.8 | |
| YAK | | | | | pmax | pmax | | | |
| | comp=E,14nm,1.0s | | | | | | | | |
| YAK | | | | | pmax | pmax | | | |
| | comp=Z,81nm,0.9s | | | | | | | | |
| YAK | | | | | pmax | pmax | | | |
| | comp=N,10.0nm,1.0s | | | | | | | | |
| YAK | | | | | smax | smax | | | |
| | comp=E,33nm,1.1s | | | | | | | | |
| YAK | | | | | smax | smax | | | |
| | comp=N,25nm,1.4s | | | | | | | | |
| YAK | | | | | MLR | MLR | | | |
| | comp=Z,102nm,18.0s | | | | | | | | |
| **BJI** | **Beijing** | **23.87** | **272** | | P | | **P** | **04 18 53.1** | **-0.2** |
| BJI | | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,0.7s | | | | | | | | |
| **BJT** | **Baijiatuan** | **23.89** | **272** | *e* | P | | **P** | **04 18 53.9** | **+0.5** |
| BJT | | | | | pmax | pmax | | | |
| | comp=Z,15nm,0.9s | | | | | | | | |
| **BJT** | **Baijiatuan** | **23.89** | **272** | *e* | P | | **P** | **04 18 53.2** | **-0.2** |
| **BJT** | **Baijiatuan** | **23.89** | **272** | *e* | P | | **P** | **04 18 53.9** | **+0.5** |
| | comp=Z,15nm,0.9s | | | | | | | | |
| **BOD** | **Bodaibo** | **25.25** | **316** | *e* | P | | **P** | **04 19 02.3** | **-3.3** |
| BOD | | | | | pmax | pmax | | | |
| | comp=Z,16nm,0.9s | | | | | | | | |
| **NJ2** | **Nanjing** | **25.68** | **252** | *e* | P | | **P** | **04 19 10.0** | **+0.3** |
| NJ2 | | | | | pmax | pmax | | | |
| | comp=Z,16nm,0.6s | | | | | | | | |
| **BILL** | **Bilibino** | **26.07** | **16** | *e* | iP | | **P** | **04 19 13.0** | **0.0** |
| BILL | | | | *e* | | | | 04 19 51.6 | |
| BILL | | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,0.5s | | | | | | | | |
| BILL | | | | | MLR | MLR | | | |
| | comp=Z,103nm,19.0s | | | | | | | | |
| **BILL** | **Bilibino** | **26.07** | **16** | *e* | P | | **P** | **04 19 13.0** | **0.0** |
| **HHC** | **Hu-ho-hao-te** | **26.93** | **276** | *e* | P | | **P** | **04 19 22.9** | **+1.8** |
| HHC | | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,0.5s | | | | | | | | |
| HHC | | | | | pmax | pmax | | | |
| | comp=Z,55nm,5.7s | | | | | | | | |
| **ULN** | **Ulaanbaatar** | **28.53** | **293** | *d* | iP | | **P** | **04 19 36.1** | **+0.8** |
| ULN | | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,0.9s | | | | | | | | |
| **ULN** | **Ulaanbaatar** | **28.53** | **293** | *e* | P | | **P** | **04 19 36.1** | **+0.8** |
| **ULN** | **Ulaanbaatar** | **28.53** | **293** | *e* | P | | **P** | **04 19 34.9** | **-0.4** |
| | comp=Z,5.6nm,0.8s | | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.81** | **141** | | T | | T | 04 50 29.7 | |
| | baz=331,slow=75,SNR=2942 | | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.83** | **141** | | T | | T | 04 50 30.6 | |
| | baz=331,slow=75,SNR=1853 | | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.83** | **141** | | T | | T | 04 50 41.2 | |
| | baz=331,slow=75,SNR=2441 | | | | | | | | |
| **SONA1** | **Songino Array** | **28.96** | **293** | *e* | P | | **P** | **04 19 39.5** | **+0.3** |
| **SONM** | **Songino Array** | **28.97** | **293** | | P | | **P** | **04 19 39.8** | **+0.5** |
| | comp=Z,4.1nm,0.8s,baz=78,slow=8.8,SNR=20 | | | | | | | | |
| SONM | | | | | LR | | LR | 04 32 39.7 | |
| | comp=Z,74nm,19.7s,baz=274,slow=39 | | | | | | | | |
| **TIXI** | **Tiksi** | **29.36** | **348** | | P | | **P** | **04 19 39.1** | **-3.1** |
| | comp=Z,5.9nm,0.5s,baz=141,slow=7.4,SNR=12 | | | | | | | | |
| **TIXI** | **Tiksi** | **29.36** | **348** | *i* | iP | | **P** | **04 19 39.1** | **-3.1** |
| TIXI | | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,0.5s | | | | | | | | |
| **TIXI** | **Tiksi** | **29.36** | **348** | *e* | P | | **P** | **04 19 39.1** | **-3.1** |
| | comp=Z,6.6nm,0.5s | | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.80** | **142** | | T | | T | 04 51 41.6 | |
| | baz=332,slow=76,SNR=71 | | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.80** | **142** | | T | | T | 04 51 44.4 | |
| | baz=332,slow=76,SNR=166 | | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.81** | **142** | | T | | T | 04 51 42.8 | |
| | baz=332,slow=76,SNR=2422 | | | | | | | | |
| **GUMO** | **Guam** | **30.30** | **186** | | LR | | LR | 04 30 45.0 | |
| | comp=Z,19nm,19.8s,baz=98,slow=34 | | | | | | | | |
| **XAN** | **Xi'an** | **31.66** | **265** | | P | | P | 04 20 13.8 | +11 |
| XAN | | | | | pP | | sP | 04 20 29.9 | +3.4 |
| XAN | | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.9s | | | | | | | | |
| XAN | | | | | pmax | pmax | | | |
| | comp=Z,110nm,5.5s | | | | | | | | |
| **LZH** | **Lanzhou** | **34.36** | **272** | *e* | P | | **P** | **04 20 28.3** | **+1.6** |
| LZH | | | | | pP | | pP | 04 20 46.0 | +3.4 |
| LZH | | | | | sP | | sP | 04 20 55.3 | +5.1 |
| LZH | | | | | pmax | pmax | | | |
| | comp=Z,17nm,0.9s | | | | | | | | |
| **GTA** | **Gaotai** | **35.86** | **280** | *e* | P | | P | 04 20 48.8 | +9.3 |
| GTA | | | | | pP | | sP | 04 21 07.1 | +4.0 |
| GTA | | | | | sP | | pP | 04 21 15.3 | +20 |
| GTA | | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,1.1s | | | | | | | | |
| **IMAR** | **Indian Mountai** | **38.20** | **34** | *e* | P | | **P** | **04 20 59.8** | **+1.0** |
| **KDAK** | **Kodiak Island** | **38.72** | **48** | | P | | **P** | **04 21 03.4** | **+0.1** |
| | comp=Z,12nm,0.9s,baz=307,slow=5.1,SNR=6.1 | | | | | | | | |
| **KDAK** | **Kodiak Island** | **38.72** | **48** | *i* | P | | **P** | **04 21 03.7** | **+0.4** |
| **BPAW** | **Bear Paw Mtn.** | **39.26** | **37** | *e* | P | | **P** | **04 21 09.0** | **+1.2** |
| | comp=Z,11nm,1.0s | | | | | | | | |
| **KTH** | **Kantishna Hill** | **39.28** | **38** | *e* | P | | **P** | **04 21 09.2** | **+1.1** |
| | comp=Z,21nm,0.9s | | | | | | | | |
| **MLY** | **Manley** | **39.39** | **36** | *e* | P | | **P** | **04 21 10.9** | **+2.0** |
| | comp=Z,9.6nm,0.9s | | | | | | | | |
| **COLD** | **Coldfoot** | **39.73** | **32** | *e* | P | | **P** | **04 21 13.0** | **+1.5** |
| | comp=Z,9.9nm,0.8s | | | | | | | | |
| **MDM** | **Murphy Dome** | **40.45** | **36** | *e* | P | | **P** | **04 21 19.5** | **+1.8** |
| | comp=Z,13nm,0.8s | | | | | | | | |
| **SML** | **Sawmill** | **40.53** | **41** | *e* | P | | **P** | **04 21 21.5** | **+3.2** |
| SML | | | | | pmax | pmax | | | |
| | comp=Z,33nm,0.8s | | | | | | | | |
| **SML** | **Sawmill** | **40.53** | **41** | *e* | P | | **P** | **04 21 21.5** | **+3.2** |
| | comp=Z,33nm,0.8s | | | | | | | | |
| **COLA** | **College** | **40.62** | **36** | *e* | P | | **P** | **04 21 20.0** | **+1.1** |
| COLA | | | | | pmax | pmax | | | |
| | comp=Z,27nm,0.7s | | | | | | | | |
| **COLA** | **College** | **40.62** | **36** | *e* | P | | **P** | **04 21 20.0** | **+1.1** |
| **COLA** | **College** | **40.62** | **36** | *e* | P | | **P** | **04 21 20.0** | **+1.1** |
| | comp=Z,27nm,0.7s | | | | | | | | |
| **CCB** | **Clear Creek Bu** | **40.64** | **37** | *e* | P | | **P** | **04 21 20.8** | **+1.6** |
| | comp=Z,12nm,1.2s | | | | | | | | |
| **DGZ** | **Jazzator, Alta** | **40.87** | **300** | | iP | | **P** | **04 21 22.4** | **+1.0** |
| DGZ | | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,1.0s | | | | | | | | |
| **DHY** | **Denali Highway** | **40.90** | **39** | *e* | P | | **P** | **04 21 22.7** | **+1.3** |
| | comp=Z,81nm,2.0s | | | | | | | | |
| **IL1** | **Eielson Array** | **41.03** | **36** | *e* | P | | **P** | **04 21 22.4** | **+0.1** |
| **ILAR** | **Eielson Array** | **41.03** | **36** | | P | | **P** | **04 21 23.2** | **+0.8** |
| | comp=Z,4.7nm,0.7s,baz=258,slow=8.2,SNR=21 | | | | | | | | |
| **ILB** | **Eielson Array** | **41.03** | **36** | *e* | P | | **P** | **04 21 23.2** | **+0.8** |
| **KMI** | **Kunming** | **41.12** | **258** | | P | | **P** | **04 21 23.9** | **0.0** |
| KMI | | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,0.7s | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.40** | **307** | | P | | **P** | **04 21 25.1** | **-0.4** |
| | comp=Z,3nm,0.5s,baz=69,slow=8.5,SNR=7.1 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.40** | **307** | *e* | P | | **P** | **04 21 25.2** | **-0.3** |
| **ZALV** | **Zalesovo Beam** | **41.40** | **307** | *e* | P | | **P** | **04 21 25.2** | **-0.3** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| AAK | Ala-Archa | 51.84 | 296 | eP | P | 04 22 47.8 | +0.3 | |
| AAK | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.5s | | | | | | | |
| AAK | Ala-Archa | 51.84 | 296 | eP | P | 04 22 47.8 | +0.3 | |
| AAK | Ala-Archa | 51.84 | 296 | eP | P | 04 22 47.8 | +0.3 | |
| | comp=Z,1.9nm,0.5s | | | | | | | |
| KSH | Kashi | 52.37 | 292 | P | P | 04 22 56.0 | +4.6 | |
| KSH | | | | pP | sP | 04 23 15.6 | 0.0 | |
| KSH | | | | PcP | PcP | 04 24 05.8 | +4.2 | |
| KSH | | | | PP | PP | 04 24 57.4 | +7.0 | |
| KSH | | | | S | S | 04 30 14.5 | +2.2 | |
| KSH | | | | ScS | ScS | 04 32 33.3 | -2.0 | |
| KSH | | | | SS | SS | 04 33 52.3 | +1.9 | |
| KSH | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.7s | | | | | | | |
| KSH | | | | pmax | pmax | | | |
| | comp=Z,25nm,3.1s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=Z,88nm,4.3s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=Z,110nm,4.0s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=Z,140nm,5.2s | | | | | | | |
| MNAS | Manas | 53.20 | 297 | P | P | 04 22 58.5 | +1.0 | |
| MNAS | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,1.3s | | | | | | | |
| SVE | Sverdlovsk | 53.46 | 317 | eP | P | 04 22 58.8 | -0.2 | |
| SVE | Sverdlovsk | 53.46 | 317 | eP | P | 04 22 58.8 | -0.2 | |
| SFK | Sufi-Kurgan | 53.77 | 293 | P | P | 04 23 02.6 | +0.8 | |
| SFK | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,0.8s | | | | | | | |
| KK31 | Karatay Array | 54.18 | 298 | *i* P | P | 04 23 04.1 | -0.4 | |
| KK31 | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,0.5s | | | | | | | |
| KKAR | Karatay Array | 54.18 | 298 | eP | P | 04 23 04.7 | +0.2 | |
| KKAR | | | | pmax | pmax | | | |
| | comp=Z,34nm,0.6s | | | | | | | |
| KKAR | Karatay Array | 54.18 | 298 | eP | P | 04 23 04.7 | +0.2 | |
| | comp=Z,34nm,0.6s | | | | | | | |
| ARU | Arti | 54.66 | 317 | *d i* P | P | 04 23 07.4 | -0.3 | |
| ARU | | | | | | 04 25 08.6 | | |
| ARU | | | | S | S | 04 30 42.8 | +0.2 | |
| ARU | | | | SS | SS | 04 34 20.6 | -4.9 | |
| ARU | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.6s | | | | | | | |
| ARU | Arti | 54.66 | 317 | eP | P | 04 23 07.4 | -0.3 | |
| ARU | Arti | 54.66 | 317 | eP | P | 04 23 07.5 | -0.2 | |
| | comp=Z,24nm,0.5s | | | | | | | |
| RES | Resolute Bay | 54.67 | 17 | P | P | 04 23 08.0 | +0.4 | |
| | comp=Z,35nm,0.7s,baz=314,slow=7.9,SNR=105 | | | | | | | |
| RES | Resolute Bay | 54.67 | 17 | P | P | 04 23 08.0 | +0.4 | |
| RES | | | | pmax | pmax | | | |
| | comp=Z,35nm,0.7s | | | | | | | |
| RES | Resolute Bay | 54.67 | 17 | eP | P | 04 23 08.0 | +0.4 | |
| YKA | Yellowknife Ar | 55.36 | 34 | P | P | 04 23 13.5 | +0.8 | |
| | comp=Z,3.1nm,0.6s,baz=300,slow=7.2,SNR=39 | | | | | | | |
| AB31 | Akbulak array | 57.45 | 309 | *i* P | P | 04 23 27.7 | 0.0 | |
| AB31 | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,0.4s | | | | | | | |
| ABKAR | Akbulak array | 57.45 | 309 | eP | P | 04 23 27.7 | 0.0 | |
| | comp=Z,93nm,0.4s | | | | | | | |
| DZET | Dzherino | 57.49 | 295 | P | P | 04 23 28.1 | -0.3 | |
| DZET | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,0.6s | | | | | | | |
| TULEG | Thule | 57.60 | 10 | eP | P | 04 23 27.8 | -0.6 | |
| | comp=Z,22nm,0.8s | | | | | | | |
| AKTO | Aktyubinsk | 57.90 | 311 | *i* P | P | 04 23 30.7 | -0.2 | |
| AKTO | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,0.7s | | | | | | | |
| KEV | Kevo | 58.80 | 340 | eP | P | 04 23 36.4 | -0.5 | |
| KEV | | | | pmax | pmax | | | |
| | comp=Z,60nm,1.8s | | | | | | | |
| KEV | Kevo | 58.80 | 340 | eP | P | 04 23 36.4 | -0.5 | |
| | comp=Z,60nm,1.8s | | | | | | | |
| TMCR | Tamitsa | 59.15 | 331 | eP | P | 04 23 35.3 | -4.0 | |
| TMCR | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.6s | | | | | | | |
| DAG | Danmarks Havn | 59.33 | 356 | *i* P | P | 04 23 39.5 | -0.9 | |
| DAG | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,0.8s | | | | | | | |
| DAG | Danmarks Havn | 59.33 | 356 | *i* P | P | 04 23 39.5 | -0.9 | |
| | comp=Z,7.3nm,0.8s | | | | | | | |
| ARCES | ARCESS Array B | 59.33 | 340 | P | P | 04 23 40.4 | -0.2 | |
| | comp=Z,4.0nm,0.4s,baz=46,slow=7.4,SNR=103 | | | | | | | |
| KLMR | Klimovskoe | 60.65 | 328 | eP | P | 04 23 48.7 | -0.9 | |
| KLMR | | | | pmax | pmax | | | |
| | comp=Z,14nm,1.5s | | | | | | | |
| SUMG | Summit | 63.76 | 2 | eP | P | 04 24 11.4 | +0.6 | |
| SUMG | | | | pmax | pmax | | | |
| | comp=Z,22nm,0.7s | | | | | | | |
| SUMG | Summit | 63.76 | 2 | *i* P | P | 04 24 11.1 | +0.3 | |
| | comp=Z,22nm,0.7s | | | | | | | |
| SUMG | Summit | 63.76 | 2 | eP | P | 04 24 11.4 | +0.6 | |
| | comp=Z,22nm,0.7s | | | | | | | |
| WRAB | Tennant Creek | 64.71 | 194 | eP | P | 04 24 18.7 | +1.5 | |
| WRAB | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,1.3s | | | | | | | |
| WRAB | Tennant Creek | 64.71 | 194 | eP | P | 04 24 18.6 | +1.5 | |
| | comp=Z,4.4nm,1.3s | | | | | | | |
| WRA | Warramunga Arr | 64.72 | 194 | P | P | 04 24 16.1 | -1.1 | |
| | comp=Z,0.6nm,0.5s,baz=13,slow=6.7,SNR=7.9 | | | | | | | |
| WRA | | | | pP | pP | 04 24 38.0 | +3.5 | |
| | comp=Z,8.3nm,0.8s,baz=9.7,slow=6.7,SNR=20 | | | | | | | |
| GEYT | Alibeck | 64.90 | 299 | P | P | 04 24 18.7 | +0.3 | |
| | comp=Z,2.9nm,0.6s,baz=343,slow=4.6,SNR=4.7 | | | | | | | |
| GEYT | | | | LR | LR | 04 54 59.7 | | |
| | comp=Z,30nm,18.7s,baz=0.0,slow=38 | | | | | | | |
| FIA1 | FINESS Array S | 65.03 | 333 | eP | P | 04 24 18.3 | -0.5 | |
| FINES | FINESS Array B | 65.03 | 333 | P | P | 04 24 18.2 | -0.6 | |
| | comp=Z,25nm,0.6s,baz=45,slow=7.3,SNR=97 | | | | | | | |
| FFC | Flin Flon | 65.24 | 37 | eP | P | 04 24 20.9 | +0.6 | |
| FFC | | | | pmax | pmax | | | |
| | comp=Z,9.0nm,0.8s | | | | | | | |
| FFC | Flin Flon | 65.24 | 37 | eP | P | 04 24 20.9 | +0.6 | |
| FFC | Flin Flon | 65.24 | 37 | eP | P | 04 24 20.9 | +0.6 | |
| | comp=Z,9.4nm,0.8s | | | | | | | |
| SCO | Scoresbysund | 65.72 | 356 | *i* P | P | 04 24 23.8 | +0.8 | |
| SCO | Scoresbysund | 65.72 | 356 | *i* P | P | 04 24 23.8 | +0.8 | |
| VRH | Novokhopyorsk | 65.82 | 319 | eP | P | 04 24 23.6 | -0.4 | |
| VRH | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.6s | | | | | | | |
| LPSR | Galich'ya Gora | 66.21 | 321 | eP | P | 04 24 25.7 | -0.8 | |
| LPSR | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.7s | | | | | | | |
| BOZ | Bozeman (W) | 66.41 | 49 | eP | P | 04 24 29.0 | +0.9 | |
| BOZ | | | | pmax | pmax | | | |
| | comp=Z,11nm,1.4s | | | | | | | |
| BOZ | Bozeman (W) | 66.41 | 49 | eP | P | 04 24 29.0 | +0.9 | |
| BOZ | Bozeman (W) | 66.41 | 49 | eP | P | 04 24 29.0 | +0.9 | |
| | comp=Z,11nm,1.4s | | | | | | | |
| KVN | Kaiserville | 66.75 | 58 | P | P | 04 24 31.7 | +1.3 | |
| KVN | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,0.8s | | | | | | | |
| NV01 | Mina Array Sit | 67.00 | 58 | eP | P | 04 24 32.9 | +0.7 | |
| VSR | Storozhevoye | 67.02 | 320 | eP | P | 04 24 31.5 | -0.2 | |
| VSR | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.5s | | | | | | | |
| YHH | Holmes Hill | 67.35 | 49 | eP | P | 04 24 38.4 | +4.0 | |
| | comp=Z,5.5nm,1.4s | | | | | | | |
| MOOW | Moose Ponds | 68.07 | 50 | eP | P | 04 24 43.9 | +5.1 | |
| | comp=Z,2.9nm,1.0s | | | | | | | |
| ASAR | Alice Springs | 68.44 | 194 | P | P | 04 24 40.7 | -0.2 | |
| | comp=Z,0.6nm,0.6s,baz=11,slow=5.8,SNR=6.6 | | | | | | | |
| ASAR | | | | pP | PcP | 04 25 02.8 | -2.9 | |
| | comp=Z,6.3nm,0.8s,baz=13,slow=6.3,SNR=24 | | | | | | | |
| R11A | Troy Canyon, C | 68.72 | 57 | eP | P | 04 24 43.8 | +0.9 | |
| | comp=Z,2.2nm,0.9s | | | | | | | |
| GOF | Gofitskoye | 69.19 | 313 | eP | P | 04 24 46.2 | +0.8 | |
| GOF | | | | pmax | pmax | | | |
| | comp=Z,38nm,1.1s | | | | | | | |
| IZAR | Zarasai | 69.23 | 329 | eP | P | 04 24 45.7 | +0.3 | |
| IZAR | | | | IAmb | IAmb | 04 24 46.5 | | |
| | comp=Z,6.1nm,0.7s | | | | | | | |
| IDID | Didziasalis | 69.37 | 329 | eP | P | 04 24 46.7 | +0.4 | |
| IDID | | | | IAmb | IAmb | 04 24 47.7 | | |
| | comp=Z,6.8nm,0.8s | | | | | | | |
| PDAR | Pinedale Array | 69.37 | 50 | P | P | 04 24 47.4 | +0.5 | |
| | comp=Z,0.5nm,0.5s,baz=242,slow=1.5,SNR=7.5 | | | | | | | |
| ISAL | Salakas | 69.41 | 329 | eP | P | 04 24 46.9 | +0.4 | |
| ISAL | | | | IAmb | IAmb | 04 24 48.0 | | |
| | comp=Z,10nm,0.8s | | | | | | | |
| NC303 | NORSAR Array S | 69.50 | 339 | eP | P | 04 24 47.0 | 0.0 | |
| NC405 | NORSAR Array S | 69.51 | 339 | eP | P | 04 24 47.2 | +0.1 | |
| IIGN | Ignalina | 69.54 | 329 | eP | P | 04 24 47.6 | +0.2 | |
| IIGN | | | | IAmb | IAmb | 04 24 48.8 | | |
| | comp=Z,9.1nm,0.8s | | | | | | | |
| NC204 | NORSAR Array S | 69.61 | 340 | eP | P | 04 24 47.3 | -0.5 | |
| NB201 | NORSAR Array S | 69.67 | 339 | eP | P | 04 24 48.2 | 0.0 | |
| NB2 | NORSAR Subarra | 69.70 | 339 | P | P | 04 24 48.1 | -0.2 | |
| | comp=Z,15nm,0.6s,baz=31,slow=6.5 | | | | | | | |
| NB2 | NORSAR Subarra | 69.70 | 339 | P | P | 04 24 48.1 | -0.2 | |
| NB2 | | | | pmax | pmax | | | |
| | comp=Z,13nm,0.6s | | | | | | | |
| NB2 | NORSAR Subarra | 69.70 | 339 | P | P | 04 24 48.1 | -0.2 | |
| | baz=31,slow=6.5 | | | | | | | |
| NOA | NORSAR Array B | 69.70 | 339 | P | P | 04 24 48.3 | 0.0 | |
| | comp=Z,16nm,0.7s,baz=32,slow=6.6,SNR=86 | | | | | | | |
| JLU | Jordanelle | 69.72 | 53 | eP | P | 04 24 47.6 | -1.4 | |
| | comp=Z,17nm,1.9s | | | | | | | |
| NBO02 | NORSAR Array S | 69.78 | 339 | eP | P | 04 24 48.7 | -0.1 | |
| NAO01 | NORSAR Array S | 69.95 | 339 | eP | P | 04 24 49.8 | 0.0 | |
| KIV | Kislovodsk | 70.12 | 312 | eP | P | 04 24 52.7 | +1.4 | |
| KIV | | | | pmax | pmax | | | |
| | comp=Z,22nm,1.0s | | | | | | | |
| KIV | Kislovodsk | 70.12 | 312 | eP | P | 04 24 52.2 | +0.9 | |
| KIV | Kislovodsk | 70.12 | 312 | eP | P | 04 24 52.5 | +1.2 | |
| | comp=Z,19nm,0.9s | | | | | | | |
| KBZ | Khabaz | 70.16 | 312 | P | P | 04 24 52.6 | +1.2 | |
| | comp=Z,5.9nm,0.7s,baz=85,slow=3.7,SNR=15 | | | | | | | |
| ZEI | Tsey | 70.24 | 311 | eP | P | 04 24 51.2 | -1.0 | |
| ZEI | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,0.6s | | | | | | | |
| ZEI | Tsey | 70.24 | 311 | eP | P | 04 24 51.2 | -1.0 | |
| LCMT | Little Creek M | 71.00 | 57 | eP | P | 04 24 58.1 | +1.3 | |
| | comp=Z,3.7nm,1.2s | | | | | | | |
| ULM | Lac du Bonnet | 71.04 | 38 | P | P | 04 24 56.3 | -0.3 | |
| | comp=Z,1.4nm,0.5s,baz=302,slow=6.3,SNR=4.7 | | | | | | | |
| ULM | Lac du Bonnet | 71.04 | 38 | P | P | 04 24 56.3 | -0.3 | |
| ULM | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.7s | | | | | | | |
| SRU | San Rafael Swe | 71.23 | 54 | eP | P | 04 24 57.6 | -0.6 | |
| SRU | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,1.0s | | | | | | | |
| SRU | San Rafael Swe | 71.23 | 54 | eP | P | 04 24 57.6 | -0.6 | |
| | comp=Z,7.0nm,1.0s | | | | | | | |
| AKH | Akhalkalaki | 71.39 | 310 | *i* P | P | 04 24 58.5 | -0.6 | |
| AKASG | Malin Array Be | 71.83 | 324 | P | P | 04 25 01.1 | -0.3 | |
| | comp=Z,6.7nm,0.6s,baz=39,slow=6.3,SNR=44 | | | | | | | |
| AKBB | Malin Array Si | 71.83 | 324 | eP | P | 04 25 01.1 | -0.2 | |
| AKBB | | | | pmax | pmax | | | |
| | comp=Z,8.0nm,0.6s | | | | | | | |
| AKBB | Malin Array Si | 71.83 | 324 | eP | P | 04 25 01.1 | -0.2 | |
| | comp=Z,7.8nm,0.6s | | | | | | | |
| AK11 | Malin Array Si | 71.87 | 324 | eP | P | 04 25 01.4 | -0.1 | |
| PV10 | Paradox Valley | 72.58 | 53 | eP | P | 04 25 08.0 | +1.5 | |
| X16A | Lo Mia Camp, P | 73.81 | 58 | eP | P | 04 25 14.8 | +1.1 | |
| | comp=Z,3.7nm,0.9s | | | | | | | |
| SORM | Soroca | 74.13 | 323 | *i* P | P | 04 25 14.3 | -0.7 | |
| MILM | Milestii Mici | 74.85 | 322 | *i* P | P | 04 25 19.3 | +0.1 | |
| KWP | Kalwaria Pacla | 75.33 | 327 | eP | P | 04 25 22.4 | +0.5 | |
| KWP | Kalwaria Pacla | 75.33 | 327 | eP | P | 04 25 22.4 | +0.5 | |
| BUR08 | Bucovina Ar. S | 75.87 | 324 | eP | P | 04 25 25.8 | +0.6 | |
| BUR04 | Bucovina Ar. S | 75.88 | 324 | eP | P | 04 25 24.6 | -0.6 | |
| BURAR | Bucovina Array | 75.88 | 324 | *i* P | P | 04 25 25.5 | +0.2 | |
| BURAR | Bucovina Array | 75.88 | 324 | P | P | 04 25 25.4 | +0.2 | |
| OJC | Ojcow | 75.98 | 329 | eP | P | 04 25 25.7 | 0.0 | |
| OJC | Ojcow | 75.98 | 329 | eP | P | 04 25 26.2 | +0.5 | |
| OJC | | | | pmax | pmax | | | |
| | comp=Z,22nm,1.4s | | | | | | | |
| OJC | Ojcow | 75.98 | 329 | eP | P | 04 25 26.2 | +0.5 | |
| OJC | Ojcow | 75.98 | 329 | eP | P | 04 25 26.2 | +0.5 | |
| | comp=Z,22nm,1.4s | | | | | | | |
| TESR | Tescani | 76.12 | 323 | *i* P | P | 04 25 26.7 | +0.2 | |
| NIE | Niedzica | 76.44 | 328 | eP | P | 04 25 29.3 | +1.0 | |
| NIE | Niedzica | 76.44 | 328 | eP | P | 04 25 29.3 | +1.0 | |
| CFR | Carcaliu | 76.48 | 321 | *i* P | P | 04 25 28.9 | +0.4 | |
| CFR | Carcaliu | 76.48 | 321 | P | P | 04 25 28.9 | +0.4 | |
| VRI | Vrincioaia | 76.58 | 322 | *i* P | P | 04 25 29.3 | +0.1 | |
| VRI | Vrincioaia | 76.58 | 322 | P | P | 04 25 30.6 | +1.4 | |
| KSP | Ksiaz | 76.75 | 331 | eP | P | 04 25 30.3 | +0.3 | |
| KSP | Ksiaz | 76.75 | 331 | eP | P | 04 25 30.3 | +0.3 | |
| TIRR | Tirgusor | 76.90 | 320 | *i* P | P | 04 25 30.5 | -0.4 | |
| LANS | Liptovska Anna | 76.98 | 328 | eP | P | 04 25 32.6 | +1.3 | |
| LANS | Liptovska Anna | 76.98 | 328 | eP | P | 04 25 32.6 | +1.3 | |
| KECS | Kecovo | 77.12 | 327 | eP | P | 04 25 33.1 | +1.0 | |
| KECS | | | | pmax | pmax | | | |
| | comp=Z,15nm,2.4s | | | | | | | |
| KECS | Kecovo | 77.12 | 327 | eP | P | 04 25 33.1 | +1.0 | |
| UPC | Upice | 77.12 | 331 | eP | P | 04 25 32.8 | +0.7 | |
| UPC | Upice | 77.12 | 331 | eP | P | 04 25 32.8 | +0.7 | |
| DPC | Dobruska-Polom | 77.15 | 331 | eP | P | 04 25 33.0 | +0.7 | |
| DPC | | | | ex | x | 04 25 35.8 | | |
| DPC | | | | ePCP | PcP | 04 25 44.0 | +1.1 | |
| DPC | Dobruska-Polom | 77.15 | 331 | eP | P | 04 25 33.0 | +0.7 | |
| DPC | | | | *e* | | 04 25 44.0 | | |
| MORC | Moravsky Berou | 77.18 | 330 | *i* P | P | 04 25 33.6 | +1.1 | |
| MORC | Moravsky Berou | 77.18 | 330 | eP | P | 04 25 32.9 | +0.4 | |
| MORC | | | | pmax | pmax | | | |
| | comp=Z,58nm,1.3s | | | | | | | |
| MORC | Moravsky Berou | 77.18 | 330 | eP | P | 04 25 32.9 | +0.4 | |
| | comp=Z,58nm,1.3s | | | | | | | |
| KRLC | Kraliky | 77.21 | 330 | eP | P | 04 25 32.9 | +0.2 | |
| KRLC | Kraliky | 77.21 | 330 | eP | P | 04 25 32.9 | +0.2 | |
| MLR | Muntele Rosu | 77.22 | 322 | *i* P | P | 04 25 33.0 | +0.1 | |
| CLL | Collm | 77.47 | 333 | eP | P | 04 25 34.0 | -0.1 | |
| CLL | | | | pmax | pmax | | | |
| | comp=Z,9.0nm,0.6s | | | | | | | |
| CLL | Collm | 77.47 | 333 | *i* P | P | 04 25 33.9 | -0.1 | |
| | comp=Z,10.0nm,0.6s | | | | | | | |
| CLL | | | | *i* P(2) | | 04 25 36.0 | | |
| | comp=Z,9.0nm,0.7s | | | | | | | |
| CLL | | | | ePcP | PcP | 04 25 45.0 | +0.8 | |
| CLL | Collm | 77.47 | 333 | eP | P | 04 25 34.0 | -0.1 | |
| CLL | Collm | 77.47 | 333 | eP | P | 04 25 34.0 | -0.1 | |
| | comp=Z,9.4nm,0.6s | | | | | | | |
| DRGR | | 77.58 | 325 | *i* P | P | 04 25 35.0 | +0.2 | |
| DRGR | | 77.58 | 325 | P | P | 04 25 35.0 | +0.2 | |
| VOIR | | 77.66 | 323 | *i* P | P | 04 25 36.4 | +1.1 | |
| VOIR | | 77.66 | 323 | P | P | 04 25 36.4 | +1.1 | |
| VYHS | Vyhne | 77.75 | 328 | eP | P | 04 25 35.9 | +0.2 | |
| VYHS | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,1.5s | | | | | | | |
| VYHS | Vyhne | 77.75 | 328 | eP | P | 04 25 35.9 | +0.2 | |
| PSZ | Piszkesteto | 77.81 | 327 | *i* P | P | 04 25 37.9 | +1.8 | |
| PSZ | Piszkesteto | 77.81 | 327 | eP | P | 04 25 37.3 | +1.2 | |
| PSZ | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,0.7s | | | | | | | |
| PSZ | Piszkesteto | 77.81 | 327 | eP | P | 04 25 37.3 | +1.2 | |
| | comp=Z,6.0nm,0.7s | | | | | | | |
| BR131 | Keskin Array S | 77.89 | 314 | eP | P | 04 25 40.2 | +3.5 | |
| BRTR | Keskin Array B | 77.89 | 314 | P | P | 04 25 36.9 | +0.2 | |
| | comp=Z,1.9nm,0.6s,baz=58,slow=5.5,SNR=5.3 | | | | | | | |
| VRAC | Vranov | 77.92 | 330 | *i* P | P | 04 25 37.1 | +0.5 | |
| VRAC | Vranov | 77.92 | 330 | P | P | 04 25 37.1 | +0.5 | |
| GOPC | GO Pecny, Ondr | 78.05 | 331 | eP | P | 04 25 37.0 | -0.3 | |
| GOPC | | | | ex | x | 04 25 40.9 | | |
| GOPC | GO Pecny, Ondr | 78.05 | 331 | eP | P | 04 25 37.0 | -0.3 | |
| GOPC | | | | *e* | | 04 25 40.9 | | |
| PRU | Pruhonice | 78.08 | 331 | eP | P | 04 25 37.9 | +0.5 | |
| PRU | | | | ex | x | 04 25 40.4 | | |
| PRU | Pruhonice | 78.08 | 331 | eP | P | 04 25 37.9 | +0.5 | |
| PRU | | | | *e* | | 04 25 40.4 | | |
| PRU | Pruhonice | 78.08 | 331 | eP | P | 04 25 37.9 | +0.5 | |
| BR231 | Keskin MP Arra | 78.25 | 315 | eP | P | 04 25 37.9 | -0.8 | |
| NKC | Novy Kostel | 78.58 | 333 | eP | P | 04 25 42.7 | +2.5 | |
| NKC | Novy Kostel | 78.58 | 333 | eP | P | 04 25 42.7 | +2.5 | |
| BZS | Buzias | 78.98 | 325 | *i* P | P | 04 25 42.5 | 0.0 | |
| KHC | Kasperske Hory | 79.14 | 331 | eP | P | 04 25 43.7 | +0.4 | |
| KHC | | | | ex | x | 04 25 46.3 | | |
| KHC | | | | ePCP | PcP | 04 25 52.4 | +0.9 | |
| KHC | Kasperske Hory | 79.14 | 331 | eP | P | 04 25 43.7 | +0.4 | |
| KHC | | | | *e* | | 04 25 52.4 | | |
| KHC | Kasperske Hory | 79.14 | 331 | eP | P | 04 25 43.7 | +0.4 | |
| KHC | Kasperske Hory | 79.14 | 331 | eP | P | 04 25 43.9 | +0.6 | |
| | comp=Z,2.9nm,0.7s | | | | | | | |
| GERES | GERESS Array B | 79.34 | 331 | P | P | 04 25 44.3 | -0.1 | |
| | comp=Z,1.9nm,0.6s,baz=36,slow=5.8,SNR=18 | | | | | | | |
| CONA | Conrad Observa | 79.34 | 329 | eP | P | 04 25 45.4 | +0.9 | |
| | comp=Z,4.6nm,0.7s | | | | | | | |
| GEA0 | GERESS Array S | 79.34 | 331 | eP | P | 04 25 44.2 | -0.3 | |
| WET | Wettzell | 79.36 | 332 | P | P | 04 25 47.9 | +3.4 | |
| WET | | | | pmax | pmax | | | |
| | comp=Z,18nm,1.6s | | | | | | | |
| MOA | Molln | 79.98 | 330 | eP | P | 04 25 48.3 | +0.4 | |
| | comp=Z,4.0nm,0.7s | | | | | | | |
| ARSA | Arzberg | 80.03 | 329 | ePcP | P | 04 25 51.0 | +2.8 | |
| | comp=Z,3.1nm,0.8s | | | | | | | |
| MEM | Membach | 80.25 | 337 | P | P | 04 25 51.9 | +2.7 | |
| BCLA | Clavier | 80.62 | 337 | P | P | 04 25 53.2 | +2.0 | |
| SOKA | Soboth | 80.69 | 329 | eP | P | 04 25 52.4 | +0.6 | |
| | comp=Z,7.9nm,1.0s | | | | | | | |
| VTS | Vitosha | 80.72 | 322 | *i* P | P | 04 25 52.7 | +0.6 | |
| VTS | Vitosha | 80.72 | 322 | eP | P | 04 25 55.8 | +3.7 | |
| VTS | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,1.1s | | | | | | | |
| VTS | Vitosha | 80.72 | 322 | eP | P | 04 25 55.8 | +3.7 | |
| | comp=Z,7.1nm,1.1s | | | | | | | |
| KBA | Koelnbreinsper | 80.97 | 330 | eP | P | 04 25 55.0 | +1.6 | |
| | comp=Z,10nm,1.0s | | | | | | | |
| WATA | Walderalm | 81.36 | 332 | eP | P | 04 25 55.9 | +0.4 | |
| | comp=Z,5.5nm,0.5s | | | | | | | |
| WTTA | Wattenberg | 81.41 | 332 | eP | P | 04 25 56.3 | +0.6 | |
| | comp=Z,6.3nm,0.4s | | | | | | | |
| MOTA | Moosalm | 81.52 | 332 | eP | P | 04 25 56.4 | +0.2 | |
| | comp=Z,16nm,1.0s | | | | | | | |
| FETA | Feichten | 81.93 | 332 | ePcP | P | 04 26 00.1 | +1.7 | |
| | comp=Z,4.6nm,1.1s | | | | | | | |
| DAVA | Damuels | 81.98 | 333 | *i* PcP | P | 04 26 00.9 | +2.2 | |
| | comp=Z,3.8nm,0.6s | | | | | | | |
| TX31 | Lajitas Ar. Si | 82.08 | 57 | eP | P | 04 26 00.1 | +0.7 | |
| TXAR | Lajitas Array | 82.08 | 57 | P | P | 04 25 59.9 | +0.4 | |
| | comp=Z,2.1nm,0.8s,baz=294,slow=4.0,SNR=26 | | | | | | | |
| FUORN | Ofenpass-Fuorn | 82.43 | 332 | eP | P | 04 26 01.7 | +0.5 | |
| | comp=Z,7.5nm,0.9s | | | | | | | |
| MIAR | Mount Ida | 83.94 | 47 | eP | P | 04 26 09.1 | +0.2 | |
| MIAR | | | | pmax | pmax | | | |
| | comp=Z,9.0nm,1.3s | | | | | | | |
| MIAR | Mount Ida | 83.94 | 47 | eP | P | 04 26 09.1 | +0.2 | |
| | comp=Z,8.9nm,1.3s | | | | | | | |
| ESDC | Sonseca Array | 93.06 | 339 | P | P | 04 26 52.1 | -0.3 | |
| | comp=Z,0.1nm,0.3s,baz=25,slow=3.8,SNR=3.4 | | | | | | | |
| SNAA | Sanae | 148.75 | 197 | P | PKPbc | 04 33 24.4 | -0.2 | |
| VNA2 | Neumayer--Watz | 150.27 | 196 | P | PKPbc | 04 33 28.5 | +0.2 | |
| | baz=124,slow=1.2 | | | | | | | |
| VNA3 | Neumayer Olymp | 150.45 | 194 | P | PKPbc | 04 33 27.6 | -1.1 | |
| VNA1 | Neumayer--Stat | 150.67 | 196 | P | PKPbc | 04 33 27.2 | -2.0 | |
| PLCA | Paso Flores | 151.51 | 97 | PKPbc | PKPbc | 04 33 32.6 | +0.4 | |
| | comp=Z,2.8nm,0.8s,baz=275,slow=4.1,SNR=9.1 | | | | | | | |

**IDC 19 04:19:38.0±7.8, 15°.31S×177°.56W, h0km, mb4.1/3, mb1 4.4/3, mb1mx3.8/26, mbtmp4.1/3, Error ellipse: s-maj=345.4km s-min=37.2km az=140.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 45.96 | 257 | P | P | P | 04 28 02.6 | -0.7 |
| | 0.3nm,0.4s,baz=92,slow=6.5,SNR=3.5 | | | | | | | |
| ASAR | Alice Springs | 46.33 | 252 | P | P | P | 04 28 06.5 | +0.3 |
| | 8.3nm,0.5s,baz=84,slow=8.3,SNR=93 | | | | | | | |
| ILAR | Eielson Array | 83.18 | 13 | P | P | P | 04 32 05.8 | +0.1 |
| | 0.3nm,0.5s,baz=219,slow=5.8,SNR=4.4 | | | | | | | |

*IDC 19 04:41:01.4±2.0, 38°.21S×75°.61W, h0km, mb3.9/4, mb1 4.1/5, mb1mx3.9/21, mbtmp3.8/5, ML3.5/1, MS3.0/3, Ms1 3.0/3, ms1mx2.8/15, Error ellipse: s-maj=62.1km s-min=26.4km az=44.0*

*ISCJB 19 04:41:06.4±1.1, 37°.81S±0°.06×75°.0W±0°.1, h33km, mb3.9/4, MS2.7/1, Error ellipse: s-maj=13.5km s-min=8.4km az=164.0*

*GUC 19 04:41:07.3±0.5, 37°.86S×74°.92W, h34km±5km, ML3.6*

**ISC 19 04:41:08.4±1.2, 37°.82S±0°.07×75°.0W±0°.1, h35km, n13, σ2.23/12, mb3.8/4, Off coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| PSCH | Puerto Saavedr | 1.63 | 128 | eP | Pn | Pn | 04 41 32.5 | -2.1 |
| PSCH | | | | *i* S | Sn | Sn | 04 41 52.1 | -2.1 |
| CCSP | San Pedro de C | 1.82 | 58 | IAML | | | 04 42 03.9 | |
| | comp=N,790nm,0.5s | | | | | | | |
| TMU | Temuco | 2.13 | 116 | eP | Pn | Pn | 04 41 40.7 | -0.7 |
| TMU | | | | IAML | | | 04 42 10.3 | |
| | comp=N,361nm,0.6s | | | | | | | |
| COCH | Cobquecura | 2.46 | 48 | eP | Pn | Pn | 04 41 45.3 | -0.8 |
| COCH | | | | IAML | | | 04 42 18.3 | |
| | comp=N,222nm,0.7s | | | | | | | |
| CCHI | Chillan | 2.66 | 64 | IAML | | | 04 42 30.1 | |
| | comp=N,531nm,0.6s | | | | | | | |
| GO05 | HualaæØ | 3.76 | 43 | eP | Pn | Pn | 04 42 02.9 | -1.0 |
| GO05 | | | | *i* S | Sn | Sn | 04 42 46.0 | -1.0 |
| PLCA | Paso Flores | 4.54 | 131 | Pn | Pn | Pn | 04 42 13.6 | -1.1 |
| | comp=N,0.5nm,0.3s,baz=320,slow=11,SNR=18 | | | | | | | |
| PLCA | | | | Sn | Sn | Sn | 04 43 10.6 | +4.4 |
| | comp=N,5.8nm,0.3s,baz=46,slow=19,SNR=7.3 | | | | | | | |
| PLCA | | | | LR | LR | LR | 04 44 01.1 | |
| | comp=N,205nm,18.5s,baz=323,slow=39 | | | | | | | |
| CPUP | Villa Florida | 18.84 | 58 | LR | LR | LR | 04 52 14.8 | |
| | comp=N,58nm,18.1s,baz=232,slow=35 | | | | | | | |
| LPAZ | La Paz | 22.30 | 18 | P | P | P | 04 46 06.8 | +3.5 |
| | comp=N,3.5nm,0.9s,baz=180,slow=8.2,SNR=7.0 | | | | | | | |
| NNA | Nana | 25.77 | 356 | LR | LR | LR | 04 53 55.2 | |
| | comp=N,21nm,19.6s,baz=216,slow=30 | | | | | | | |
| TXAR | Lajitas Array | 71.98 | 334 | P | P | P | 04 52 28.1 | -0.3 |
| | comp=N,0.9nm,0.8s,baz=154,slow=9.6,SNR=9.0 | | | | | | | |
| PDAR | Pinedale Array | 86.13 | 335 | P | P | P | 04 53 44.9 | -0.8 |
| | comp=N,1.6nm,1.1s,baz=147,slow=3.9,SNR=5.1 | | | | | | | |
| TORD | Torodi Ar. Bea | 87.76 | 72 | P | P | P | 04 53 54.1 | +0.1 |
| | comp=N,0.4nm,0.8s,baz=243,slow=3.3,SNR=3.6 | | | | | | | |

*ISCJB 19 05:00:20.5±0.6, 51°.57N±0°.03×16°.03E±0°.03, h0km, Error ellipse: s-maj=4.2km s-min=2.8km az=14.7*

*CSEM 19 05:00:21.9±0.3, 51°.59N×15°.99E, h2km, ML3.0/9, Error ellipse: s-maj=5.0km s-min=3.8

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PRU | | | | Sg | Sb | 05 01 20.5 | -0.4 |
| | 16nm,0.3s | | | | | | |
| CLL | **Collm** | 1.90 | 261 | *e*Pn | Pn | 05 00 55.0 | +0.1 |
| CLL | | | | *i* Pg | Pg | 05 00 57.5 | -0.2 |
| CLL | | | | *i* | | 05 01 01.8 | |
| CLL | | | | *e*Sg | Sg | 05 01 23.0 | +0.7 |
| | comp=Z,15nm,0.8s | | | | | | |
| MORC | **Moravsky Berou** | 2.11 | 152 | *e*Pn | Pn | 05 00 57.6 | -0.2 |
| MORC | | | | *e*Sg | Sb | 05 01 27.4 | +0.3 |
| OKC | **Ostrava-Krasne** | 2.26 | 142 | *e*PG | Pb | 05 01 03.4 | +0.5 |
| OKC | | | | *e*SG | Sg | 05 01 33.0 | -0.9 |
| | comp=Z,17nm,0.5s | | | | | | |
| OKC | **Ostrava-Krasne** | 2.26 | 142 | Pg | Pb | 05 01 03.4 | +0.5 |
| OKC | | | | Sg | Sg | 05 01 33.0 | -0.9 |
| | comp=Z,17nm,0.5s | | | | | | |
| VRAC | **Vranov** | 2.37 | 171 | *e*Pn | Pn | 05 01 01.7 | +0.4 |
| VRAC | | | | *e*Sg | Sg | 05 01 36.3 | -0.9 |
| NKC | **Novy Kostel** | 2.65 | 239 | *e*PN | Pn | 05 01 05.9 | +0.7 |
| NKC | | | | *e*PG | Pg | 05 01 12.0 | 0.0 |
| NKC | | | | *e*SG | Sg | 05 01 46.6 | +0.2 |
| NKC | **Novy Kostel** | 2.65 | 239 | Pn | Pn | 05 01 05.9 | +0.7 |
| NKC | **Novy Kostel** | 2.65 | 239 | Pg | Pg | 05 01 12.0 | 0.0 |
| NKC | | | | Sg | Sg | 05 01 46.6 | +0.2 |
| OJC | **Ojcow** | 2.79 | 119 | *e*Pg | Pg | 05 01 16.5 | +1.8 |
| OJC | | | | *e*Sg | Sg | 05 01 51.1 | +0.2 |
| OJC | **Ojcow** | 2.79 | 119 | *e*Pg | Pg | 05 01 16.5 | +1.8 |
| OJC | | | | *e*Sg | Sg | 05 01 51.1 | +0.2 |
| OJC | **Ojcow** | 2.79 | 119 | *e*Pg | Pg | 05 01 16.5 | +1.8 |
| OJC | | | | *e*Sg | Sg | 05 01 51.1 | +0.2 |
| KHC | **Kasperske Hory** | 2.95 | 213 | *e*PN | Pn | 05 01 09.5 | +0.1 |
| KHC | | | | *e*PG | Pb | 05 01 15.3 | +0.6 |
| KHC | | | | *e*SN | Sn | 05 01 44.6 | -0.9 |
| KHC | | | | *e*SG | Sg | 05 01 55.2 | -0.8 |
| | comp=Z,5.4nm,0.4s | | | | | | |
| KHC | **Kasperske Hory** | 2.95 | 213 | Pn | Pn | 05 01 09.5 | +0.1 |
| LANS | **Liptovska Anna** | 3.34 | 137 | *e*Sg | Sg | 05 02 06.2 | -2.2 |
| LANS | **Liptovska Anna** | 3.34 | 137 | *e*SG | Sg | 05 02 06.2 | -2.2 |
| BSD | **Bornholm Skovb** | 3.54 | 350 | *i* P | Pn | 05 01 18.0 | +0.6 |
| BSD | | | | *i* S | Sn | 05 01 57.5 | -2.4 |
| BSD | **Bornholm Skovb** | 3.54 | 350 | *i* P | Pn | 05 01 18.0 | +0.6 |
| | SNR=49 | | | | | | |
| BSD | | | | *i* S | Sn | 05 01 57.5 | -2.4 |
| | SNR=49 | | | | | | |
| CONA | **Conrad Observa** | 3.72 | 181 | Pn | Pn | 05 01 20.4 | +0.5 |
| | comp=Z,0.3nm,0.1s | | | | | | |
| CONA | | | | Sg | Sg | 05 02 20.6 | 0.0 |
| | comp=Z,2.9nm,0.4s | | | | | | |
| MOA | **Molln** | 3.96 | 197 | Pn | Pn | 05 01 23.6 | +0.4 |
| | comp=Z,2.0nm,0.3s | | | | | | |
| MOA | | | | Sg | Sg | 05 02 29.8 | +1.5 |
| | comp=Z,1.7nm,0.3s | | | | | | |
| STHS | **Stebnicka Huta** | 4.02 | 122 | *e*Pg | Pg | 05 01 38.1 | -0.1 |
| STHS | | | | *e*Sg | Sg | 05 02 30.5 | +0.2 |
| STHS | **Stebnicka Huta** | 4.02 | 122 | *e*PG | Pg | 05 01 38.1 | -0.1 |
| STHS | | | | *e*SG | Sg | 05 02 30.5 | +0.2 |
| STHS | | | | *e*LG | Lg | 05 02 46.2 | |
| KBA | **Koelnbreinsper** | 4.88 | 202 | Pn | Pn | 05 01 37.2 | +1.1 |
| | comp=Z,0.6nm,0.2s | | | | | | |

**TRN 19 05:04:20.6, 10.84N×61.75W, h44km, MD3.7, 1D, Trinidad**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TCE** | **Chacachacare** | 0.14 | 183 | *e*P | Pn | 05 04 28.7 | +0.8 |
| TCE | | | | *e*S | Sn | 05 04 32.7 | -0.4 |
| **TRN** | **Trinidad (W)** | 0.39 | 119 | ⇓ *i* P | Pn | 05 04 30.4 | +0.4 |
| TRN | | | | *e*S | Sn | 05 04 37.6 | +0.8 |
| **TPP** | **Pointe-a-Pierr** | 0.59 | 151 | *e*P | Pn | 05 04 32.4 | -0.3 |
| TPP | | | | *e*S | Sn | 05 04 42.0 | +0.6 |
| **TBH** | **Brigand Hill** | 0.76 | 118 | *e*P | Pn | 05 04 35.0 | +0.1 |
| TBH | | | | *e*S | Sn | 05 04 45.9 | +0.7 |
| **BOT** | **Bacolet** | 1.06 | 72 | *e*P | Pn | 05 04 39.4 | +0.4 |
| BOT | | | | *e*S | Sn | 05 04 53.3 | +0.7 |
| **TOSP** | **Speyside** | 1.27 | 69 | *e*P | Pn | 05 04 41.0 | -0.9 |
| TOSP | | | | *e*S | Sn | 05 04 57.2 | -0.6 |
| **GRGR** | **Grenville** | 1.29 | 4 | *e*P | Pn | 05 04 41.5 | -0.6 |
| GRGR | | | | *e*S | Sn | 05 04 58.6 | +0.4 |
| **SVB** | **Belmont** | 2.47 | 11 | *e*P | Pn | 05 04 58.5 | +0.1 |
| SVB | | | | *e*S | Sn | 05 05 27.3 | 0.0 |
| **SVCV** | **St. Vincent, C** | 2.49 | 14 | *e*P | Pn | 05 04 60.0 | +1.3 |
| SVCV | | | | *e*S | Sn | 05 05 27.1 | -0.7 |
| **SVV** | **Soufriere Volc** | 2.52 | 12 | *e*P | Pn | 05 04 59.9 | +0.9 |
| **MCLT** | **Moule a Chique** | 2.96 | 15 | *e*P | Pn | 05 05 06.3 | +1.2 |
| **SLB** | **Belfond** | 3.05 | 13 | *e*P | Pn | 05 05 06.8 | +0.4 |
| **SLTA** | **Morne Tabac** | 3.09 | 13 | *e*P | Pn | 05 05 06.6 | -0.3 |

*ISCJB **19** 05:20:08.7±0.5, 39.10N±0.03×29.07E±0.04, h6km±6km, Error ellipse: s-maj=5.7km s-min=4.1km az=141.2*
*ISK **19** 05:20:08.0, 39.09N×29.11E, h6km, ML2.3*
*DDA **19** 05:20:08.7, 39.10N×29.07E, h7km, Ml2.6*
*CSEM **19** 05:20:08.8±0.1, 39.10N×29.07E, h8km, ML2.3, Error ellipse: s-maj=2.9km s-min=2.0km az=126.0*

**ISC 19 05:20:08.8±0.9, 39.10N±0.03×29.07E±0.02, h8km±7km, n29, σ0843/43, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SIMA** | **Simav-Kutahya** | 0.07 | 254 | *e*PG | Pg | 05 20 10.8 | -0.1 |
| **SIMA** | **Simav-Kutahya** | 0.07 | 254 | *e*Pg | Pg | 05 20 10.8 | -0.1 |
| **DEMI** | **Demirci** | 0.28 | 258 | *i* P | Pg | 05 20 14.7 | +0.2 |
| DEMI | | | | *i* S | Sg | 05 20 18.6 | +0.3 |
| **DEMI** | **Demirci** | 0.28 | 258 | P | Pg | 05 20 14.7 | +0.2 |
| DEMI | | | | S | Sg | 05 20 18.6 | +0.3 |
| **GDZ** | **Gediz** | 0.32 | 93 | *i* P | Pg | 05 20 15.6 | +0.4 |
| GDZ | | | | *i* S | Sg | 05 20 20.2 | +0.8 |
| **GDZ** | **Gediz** | 0.32 | 93 | P | Pg | 05 20 15.6 | +0.4 |
| GDZ | | | | S | Sg | 05 20 20.2 | +0.8 |
| **TVSB** | **Tavsanli** | 0.46 | 41 | *e*PG | Pg | 05 20 17.4 | -0.4 |
| TVSB | | | | *e*SG | Sg | 05 20 23.6 | -0.2 |
| **TVSB** | **Tavsanli** | 0.46 | 41 | *e*Pg | Pg | 05 20 17.4 | -0.4 |
| TVSB | | | | *e*Sg | Sg | 05 20 23.6 | -0.2 |
| **KULA** | **Kula-Manisa** | 0.67 | 209 | *e*PG | Pg | 05 20 21.7 | -0.1 |
| KULA | | | | *e*SG | Sg | 05 20 30.6 | +0.1 |
| **KULA** | **Kula-Manisa** | 0.67 | 209 | *e*Pg | Pg | 05 20 21.7 | -0.1 |
| KULA | | | | *e*Sg | Sg | 05 20 30.6 | +0.1 |
| **MANT** | **Manisa** | 0.73 | 213 | *i* P | Pg | 05 20 22.9 | -0.1 |
| MANT | | | | *i* S | Sg | 05 20 32.5 | 0.0 |
| **MANT** | **Manisa** | 0.73 | 213 | P | Pg | 05 20 22.9 | -0.1 |
| MANT | | | | S | Sg | 05 20 32.5 | 0.0 |
| **KHAL** | **Karahalli** | 0.80 | 156 | *i* P | Pb | 05 20 25.1 | 0.0 |
| KHAL | | | | *i* S | Sb | 05 20 35.7 | -0.5 |
| **KHAL** | **Karahalli** | 0.80 | 156 | P | Pb | 05 20 25.1 | 0.0 |
| KHAL | | | | S | Sb | 05 20 35.7 | -0.5 |
| **AKHS** | **Akhisar** | 1.01 | 257 | *i* P | Pg | 05 20 28.2 | 0.0 |
| **AKHS** | **Akhisar** | 1.01 | 257 | P | Pg | 05 20 28.2 | 0.0 |
| **IGD** | **Bursa** | 1.16 | 5 | *i* P | Pg | 05 20 30.5 | -0.7 |
| **CAVI** | **Cavuskoy** | 1.25 | 28 | *e*PN | Pn | 05 20 32.2 | -0.4 |
| **CAVI** | **Cavuskoy** | 1.25 | 28 | *e*Pn | Pn | 05 20 32.2 | -0.4 |
| **MDNY** | **Mudanya-Bursa** | 1.27 | 354 | *e*PN | Pg | 05 20 33.1 | -0.1 |
| MDNY | | | | *e*SN | Sn | 05 20 51.3 | +1.1 |
| **MDNY** | **Mudanya-Bursa** | 1.27 | 354 | *e*Pn | Pg | 05 20 33.1 | -0.1 |
| MDNY | | | | *e*Sn | Sn | 05 20 51.3 | +1.1 |
| **SHUT** | **Suhut-Afyon** | 1.28 | 115 | *e*PN | Pn | 05 20 32.4 | -0.7 |
| **SHUT** | **Suhut-Afyon** | 1.28 | 115 | *e*Pn | Pn | 05 20 32.4 | -0.7 |
| **KCTX** | **Karacabey (Bur** | 1.28 | 335 | *e*PN | Pg | 05 20 33.4 | -0.1 |
| **KCTX** | **Karacabey (Bur** | 1.28 | 335 | *e*Pn | Pg | 05 20 33.4 | -0.1 |
| **BORA** | **Eskisehir** | 1.32 | 54 | *i* P | Pg | 05 20 34.2 | 0.0 |
| **BORA** | **Eskisehir** | 1.32 | 54 | P | Pg | 05 20 34.2 | 0.0 |
| **ADVT** | **Abdulvahap** | 1.42 | 21 | *e*PN | Pn | 05 20 35.0 | +0.1 |
| **ADVT** | **Abdulvahap** | 1.42 | 21 | *e*Pn | Pn | 05 20 35.1 | +0.1 |

*SJA **19** 05:24:45.8±0.8, 23.59S×67.05W, h226km±8km, ML3.6, MW4.6*
*BJI **19** 05:24:48.8, 23.70S×66.80W, h185km, mB5.1/2*
*ISCJB **19** 05:24:49.0±0.2, 23.63S±0.03×66.90W±0.03, h200km±2km, mb4.3/44, Error ellipse: s-maj=5.8km s-min=3.6km az=137.0*
*NEIC **19** 05:24:49.1±0.6, 23.66S×66.65W, h185km±5km, mb4.5/38, Error ellipse: s-maj=9.6km s-min=7.2km az=62.0*
*NEIC Felt at Salta.*
*IDC **19** 05:24:50.8±2.2, 23.56S×66.63W, h199km±19km, mb3.8/10, mb1 3.9/15, mb1mx3.8/30, mbtmp4.3/15, Error ellipse: s-maj=22.5km s-min=12.3km az=41.0*
*GUC **19** 05:24:51.9±0.5, 23.52S×67.45W, h235km±16km, ML4.9*

**ISC 19 05:24:49.8±0.6, 23.68S±0.04×66.94W±0.04, h196km±6km, n325, σ1829/346, mb4.3/44, 9C, Jujuy Province**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HJA** | **Humahuaca** | 1.48 | 72 | *i* P | Pn | 05 25 23.4 | 0.0 |
| **SLA** | **San Lorenzo** | 1.68 | 129 | *i* P | Pn | 05 25 25.9 | +1.0 |
| SLA | | | | IAML | | 05 25 27.6 | |
| | comp=Z,1μm,0.6s | | | | | | |
| SLA | | | | *i* S | S | 05 25 54.1 | +1.9 |
| **AZAP** | **Zapla** | 1.80 | 108 | *i* P | Pn | 05 25 26.2 | 0.0 |
| **YJA** | **Yavi** | 1.99 | 42 | *i* P | Pn | 05 25 28.2 | -0.3 |
| YJA | | | | IAML | | 05 25 29.7 | |
| | comp=Z,85nm,0.2s | | | | | | |
| YJA | | | | *i* S | S | 05 25 59.2 | +0.8 |
| **ASTB** | **Santa Barbara** | 2.30 | 97 | *i* P | Pn | 05 25 31.1 | -0.3 |
| **FSA** | **Cafayete** | 2.58 | 160 | *i* P | Pn | 05 25 34.4 | -0.1 |
| FSA | | | | IAML | | 05 25 38.9 | |
| | comp=Z,60nm,0.4s | | | | | | |
| FSA | | | | *i* S | S | 05 26 10.5 | +1.1 |
| **PB06** | **IPOC Station P** | 2.60 | 291 | ⇑ *i* P | Pn | 05 25 35.9 | +1.1 |
| PB06 | | | | *i* S | S | 05 26 09.5 | -0.3 |
| PB06 | | | | IAML | | 05 26 11.5 | |
| | comp=N,2μm,0.5s | | | | | | |
| **ALOL** | **LOMAS DE OLMED** | 2.72 | 93 | *i* P | Pn | 05 25 35.3 | -0.6 |
| **PB09** | **IPOC Station P** | 2.83 | 311 | ⇑ *i* P | Pn | 05 25 38.7 | +1.3 |
| PB09 | | | | *i* S | S | 05 26 15.0 | +0.4 |
| PB09 | | | | IAML | | 05 26 17.8 | |
| | comp=N,4μm,0.4s | | | | | | |
| **PB04** | **IPOC Station P** | 3.24 | 294 | *e*Pn | Pn | 05 25 42.9 | +0.6 |
| PB04 | | | | *e*Sn | S | 05 26 22.5 | -0.8 |
| **PB04** | **IPOC Station P** | 3.24 | 294 | ⇑ *i* P | Pn | 05 25 42.9 | +0.6 |
| PB04 | | | | *i* S | S | 05 26 22.1 | -1.2 |
| PB04 | | | | IAML | | 05 26 24.1 | |
| | comp=N,1μm,0.5s | | | | | | |
| **PB14** | **IPOC Station P** | 3.30 | 253 | ⇑ *i* P | Pn | 05 25 43.6 | +0.4 |
| PB14 | | | | *i* S | S | 05 26 23.6 | -1.2 |
| PB14 | | | | IAML | | 05 26 30.2 | |
| | comp=N,633nm,0.4s | | | | | | |
| **PB10** | **IPOC Station P** | 3.32 | 272 | *e*Pn | Pn | 05 25 43.8 | +0.8 |
| PB10 | | | | *e*Sn | S | 05 26 23.4 | -1.2 |
| **PB10** | **IPOC Station P** | 3.32 | 272 | *i* P | Pn | 05 25 43.7 | +0.6 |
| **PB10** | **IPOC Station P** | 3.32 | 272 | ⇑ *i* P | Pn | 05 25 43.9 | +0.8 |
| PB10 | | | | *i* S | S | 05 26 23.1 | -1.5 |
| PB10 | | | | IAML | | 05 26 26.6 | |
| | comp=N,2μm,0.3s | | | | | | |
| **PB07** | **IPOC Station P** | 3.34 | 305 | ⇑ *i* P | Pn | 05 25 44.0 | +0.5 |
| PB07 | | | | *i* S | S | 05 26 23.8 | -1.6 |
| PB07 | | | | IAML | | 05 26 24.4 | |
| | comp=N,4μm,0.5s | | | | | | |
| **AHML** | **Horco Molle** | 3.42 | 155 | *i* P | Pn | 05 25 43.7 | -0.6 |
| AHML | | | | IAML | | 05 25 45.1 | |
| | comp=Z,90nm,0.5s | | | | | | |
| AHML | | | | *i* S | S | 05 26 26.6 | -0.5 |
| **PB01** | **IPOC Station P** | 3.52 | 318 | *e*Pn | Pn | 05 25 45.8 | +0.1 |
| PB01 | | | | *e*Sn | S | 05 26 28.4 | -1.0 |
| **PB01** | **IPOC Station P** | 3.52 | 318 | ⇑ *i* P | Pn | 05 25 45.9 | +0.1 |
| PB01 | | | | *i* S | S | 05 26 27.8 | -1.6 |
| **PB02** | **IPOC Station P** | 3.60 | 310 | ⇑ *i* P | Pn | 05 25 46.6 | 0.0 |
| PB02 | | | | *i* S | S | 05 26 28.7 | -2.4 |
| **PB08** | **IPOC Station P** | 4.07 | 329 | ⇑ *i* P | Pn | 05 25 53.6 | +0.8 |
| PB08 | | | | *i* S | S | 05 26 41.3 | -0.9 |
| **PB11** | **IPOC Station P** | 4.64 | 327 | *e*Pn | Pn | 05 25 58.9 | -0.8 |
| PB11 | | | | *e*Sn | S | 05 26 50.5 | -4.3 |
| **CYA** | **Choya** | 4.85 | 168 | *i* P | Pn | 05 26 01.1 | -1.2 |
| **MNMC** | **Minye Minye** | 5.16 | 331 | *e*Pn | Pn | 05 26 06.2 | -0.3 |
| MNMC | | | | *e*Sn | S | 05 27 03.9 | -2.8 |
| **LCO** | **Las Campanas** | 6.29 | 212 | *e*Pn | Pn | 05 26 19.3 | -1.7 |
| LCO | | | | *e*Sn | S | 05 27 25.2 | -8.0 |
| **LPAZ** | **La Paz** | 7.44 | 351 | P | Pn | 05 26 36.4 | 0.0 |
| | comp=Z,3.1nm,0.3s,baz=126,slow=3.7,SNR=57 | | | | | | |
| **LPAZ** | **La Paz** | 7.44 | 351 | *e*Pn | Pn | 05 26 36.4 | 0.0 |
| LPAZ | | | | *e*Sn | S | 05 27 59.1 | -1.8 |
| **CPUP** | **Villa Florida** | 9.11 | 109 | P | Pn | 05 26 55.4 | -2.2 |
| | comp=Z,0.1nm,0.3s,baz=284,slow=11,SNR=15 | | | | | | |
| **CPUP** | **Villa Florida** | 9.11 | 109 | *e*Pn | Pn | 05 26 54.9 | -2.7 |
| **SIV** | **San Ignacio** | 9.43 | 37 | P | Pn | 05 26 59.2 | -2.7 |
| | comp=Z,1.3nm,0.3s,baz=225,slow=10,SNR=18 | | | | | | |
| **ROC1** | **El Roble** | 9.93 | 200 | *e*Pn | Pn | 05 27 02.5 | -5.9 |
| **PEL** | **Peldehue** | 9.99 | 198 | *e*Pn | Pn | 05 27 08.9 | -0.1 |
| **TRQA** | **Tornquist** | 14.95 | 165 | *e*Pn | P | 05 28 11.4 | -1.0 |
| **NNA** | **Nana** | 14.96 | 319 | P | P | 05 28 14.9 | +2.2 |
| | comp=Z,0.8nm,0.3s,baz=159,slow=17,SNR=4.9 | | | | | | |
| **SAML** | **Samuel** | 15.08 | 14 | *e*Pn | Pn | 05 28 12.1 | -1.2 |
| | comp=Z,13nm,0.6s | | | | | | |
| **ATAH** | **Atahualpa** | 19.79 | 324 | P | P | 05 29 08.4 | +2.7 |
| | comp=Z,0.7nm,0.3s,baz=286,slow=7.8,SNR=4.4 | | | | | | |
| **PTGA** | **Pitinga** | 23.79 | 18 | P | P | 05 29 43.5 | -1.4 |
| | comp=Z,3.3nm,0.8s,baz=211,slow=11,SNR=4.7 | | | | | | |
| **PTGA** | **Pitinga** | 23.79 | 18 | *e*P | P | 05 29 43.6 | -1.3 |
| | comp=Z,5.8nm,1.0s | | | | | | |
| **RUSC** | **La Lisia** | 30.00 | 348 | *e*P | P | 05 30 40.5 | -0.3 |
| | comp=Z,2.3nm,0.7s | | | | | | |
| **HELC** | **Santa Helena** | 30.85 | 343 | *e*P | P | 05 30 46.6 | -1.6 |
| | comp=Z,12nm,0.5s | | | | | | |
| **RCBR** | **Riachuelo** | 34.74 | 64 | P | P | 05 31 20.4 | -1.3 |
| | comp=Z,8.4nm,1.0s,baz=227,slow=11,SNR=5.9 | | | | | | |
| **CELP** | **Cerrillos** | 41.50 | 1 | *e*P | P | 05 32 16.9 | -1.0 |
| **ZAIG** | **Zacatecas** | 57.71 | 321 | *e*P | P | 05 34 23.2 | +2.6 |
| | comp=Z,5.5nm,0.8s | | | | | | |
| **BRAL** | **Brewton** | 57.84 | 340 | P | P | 05 34 21.0 | 0.0 |
| | baz=158 | | | | | | |
| **447A** | **Lucedale** | 58.03 | 338 | P | P | 05 34 22.4 | +0.1 |
| | baz=156 | | | | | | |
| **446A** | **Poplarville** | 58.27 | 337 | P | P | 05 34 24.2 | +0.3 |
| | baz=156 | | | | | | |
| **347A** | **Saraland** | 58.54 | 338 | P | P | 05 34 25.9 | 0.0 |
| | baz=156 | | | | | | |
| **346A** | **Big Creek Wild** | 58.85 | 337 | P | P | 05 34 27.9 | 0.0 |
| | baz=156 | | | | | | |
| **248A** | **Dixon Mills** | 58.91 | 339 | P | P | 05 34 28.2 | -0.2 |
| | baz=158 | | | | | | |
| **344A** | **Westbrook Farm** | 59.36 | 336 | P | P | 05 34 31.9 | +0.4 |
| | baz=154 | | | | | | |
| **LRAL** | **Lakeview Retre** | 59.55 | 340 | P | P | 05 34 32.3 | -0.4 |
| | baz=158 | | | | | | |
| **LRAL** | **Lakeview Retre** | 59.55 | 340 | *e*P | P | 05 34 32.5 | -0.2 |
| | comp=Z,37nm,1.8s | | | | | | |
| **245A** | **Little AP, Sta** | 59.59 | 337 | P | P | 05 34 33.1 | +0.1 |
| | baz=155 | | | | | | |
| **SNAA** | **Sanae** | 59.63 | 161 | P | P | 05 34 33.9 | +0.9 |
| | comp=Z,2.8nm,0.9s,baz=292,slow=8.6,SNR=8.5 | | | | | | |
| **SNAA** | **Sanae** | 59.63 | 161 | *e*P | P | 05 34 33.7 | +0.7 |
| | comp=Z,11nm,1.4s | | | | | | |
| **244A** | **Avery, Jackson** | 59.88 | 337 | P | P | 05 34 35.2 | +0.2 |
| | baz=155 | | | | | | |
| **342A** | **Flagon Creek P** | 59.90 | 335 | P | P | 05 34 36.5 | +1.4 |
| | baz=153 | | | | | | |
| **Z47A** | **Carrollton** | 60.04 | 340 | P | P | 05 34 35.7 | -0.4 |
| | baz=157 | | | | | | |
| **Z48A** | **Northport** | 60.04 | 340 | P | P | 05 34 35.6 | -0.4 |
| | baz=158 | | | | | | |
| **145A** | **Houston Renfro** | 60.12 | 338 | P | P | 05 34 36.8 | +0.2 |
| | baz=155 | | | | | | |
| **833A** | **Chaparral WMA,** | 60.42 | 327 | P | P | 05 34 39.9 | +1.1 |
| | baz=145,SNR=10 | | | | | | |
| **Y47A** | **UCPARC, Winfie** | 60.62 | 340 | P | P | 05 34 39.7 | -0.3 |
| | baz=158 | | | | | | |
| **241A** | **Mo Tay, Goldon** | 60.70 | 335 | P | P | 05 34 41.6 | +1.1 |
| | baz=152 | | | | | | |
| **X49A** | **Woodville** | 60.73 | 342 | P | P | 05 34 40.3 | -0.4 |
| | baz=159 | | | | | | |
| **Z45A** | **Winona** | 60.73 | 338 | P | P | 05 34 40.8 | +0.1 |
| | baz=156 | | | | | | |
| **X48A** | **Hartselle** | 60.88 | 341 | P | P | 05 34 41.6 | -0.2 |
| | baz=159 | | | | | | |
| **Y45A** | **Yeager Farm, C** | 61.13 | 339 | P | P | 05 34 43.5 | +0.1 |
| | baz=156 | | | | | | |
| **SWET** | **Sewanee** | 61.28 | 342 | *e*P | P | 05 34 44.4 | 0.0 |
| | comp=Z,9.3nm,0.8s | | | | | | |
| **X45A** | **UM Field Stati** | 61.59 | 339 | P | P | 05 34 46.3 | -0.2 |
| | baz=156 | | | | | | |
| **435B** | **Jarrell** | 61.61 | 330 | P | P | 05 34 47.0 | +0.3 |
| | baz=148 | | | | | | |
| **OXF** | **Oxford** | 61.68 | 339 | P | P | 05 34 46.8 | -0.3 |
| | baz=156 | | | | | | |
| **Z41A** | **Richland Creek** | 61.75 | 335 | P | P | 05 34 48.1 | +0.5 |
| | baz=153 | | | | | | |
| **237A** | **Washetta, Mont** | 61.86 | 332 | P | P | 05 34 49.4 | +1.1 |
| | baz=150 | | | | | | |
| **Z40A** | **Long Farm, Mag** | 61.98 | 335 | P | P | 05 34 49.4 | +0.3 |
| | baz=152 | | | | | | |
| **V48A** | **Smith Brothers** | 62.02 | 342 | P | P | 05 34 49.0 | -0.4 |
| | baz=159 | | | | | | |
| **X43A** | **Marvell** | 62.18 | 338 | P | P | 05 34 50.7 | +0.3 |
| | baz=155 | | | | | | |
| **Y41A** | **Eaglette Beard** | 62.23 | 336 | P | P | 05 34 51.3 | +0.5 |
| | baz=153 | | | | | | |
| **WLAR** | **White Oak Lake** | 62.25 | 335 | *e*P | P | 05 34 52.5 | +1.6 |
| | comp=Z,18nm,0.7s | | | | | | |
| **JCT** | **Junction City** | 62.40 | 328 | P | P | 05 34 52.8 | +0.8 |
| | baz=146,SNR=7.6 | | | | | | |
| **JCT** | **Junction City** | 62.40 | 328 | *e*P | P | 05 34 52.8 | +0.8 |
| | comp=Z,9.3nm,0.8s | | | | | | |
| **WHTX** | **Lake Whitney,** | 62.57 | 331 | P | P | 05 34 54.0 | +0.9 |
| | baz=148 | | | | | | |
| **136A** | **Ennis** | 62.58 | 332 | P | P | 05 34 53.9 | +0.8 |
| | baz=149 | | | | | | |
| **Y40A** | **Okolona** | 62.60 | 335 | P | P | 05 34 53.8 | +0.5 |
| | baz=153 | | | | | | |
| **U48A** | **Cassie Pea, Po** | 62.66 | 342 | P | P | 05 34 53.0 | -0.6 |
| | baz=160 | | | | | | |
| **WVT** | **Waverly** | 62.68 | 341 | P | P | 05 34 53.1 | -0.6 |
| | baz=158 | | | | | | |
| **WVT** | **Waverly** | 62.68 | 341 | *e*P | P | 05 34 53.0 | -0.7 |
| | comp=Z,13nm,0.8s | | | | | | |
| **U47A** | **Clarksville** | 62.81 | 342 | P | P | 05 34 54.0 | -0.6 |
| | baz=159,SNR=5.4 | | | | | | |
| **Z37A** | **Pogue Cattle C** | 62.82 | 333 | P | P | 05 34 55.2 | +0.5 |
| | baz=150 | | | | | | |
| **Y39A** | **Lockesburg** | 62.85 | 335 | P | P | 05 34 55.5 | +0.6 |
| | baz=152 | | | | | | |
| **U46A** | **Springville** | 62.99 | 341 | P | P | 05 34 55.2 | -0.5 |
| | baz=158 | | | | | | |
| **Y38A** | **Idabel** | 63.09 | 334 | P | P | 05 34 56.9 | +0.4 |
| | baz=151 | | | | | | |
| **U45A** | **Rockin P Farm,** | 63.16 | 340 | P | P | 05 34 56.5 | -0.4 |
| | baz=157 | | | | | | |
| **MIAR** | **Mount Ida** | 63.19 | 336 | P | P | 05 34 57.4 | +0.3 |
| | baz=152 | | | | | | |
| **MIAR** | **Mount Ida** | 63.19 | 336 | *e*P | P | 05 34 57.4 | +0.3 |
| | comp=Z,17nm,1.4s | | | | | | |
| **Z36A** | **Blue Ridge** | 63.22 | 332 | P | P | 05 34 58.0 | +0.7 |
| | baz=150 | | | | | | |
| **W41B** | **Gary Mavity, V** | 63.26 | 337 | P | P | 05 34 57.5 | 0.0 |
| | baz=154 | | | | | | |
| **T47A** | **Sharon Grove** | 63.27 | 342 | P | P | 05 34 57.1 | -0.4 |
| | baz=159 | | | | | | |
| **X39A** | **Fountain Ranch** | 63.36 | 335 | P | P | 05 34 59.0 | +0.7 |
| | baz=152 | | | | | | |
| **LTX** | **Lajitas** | 63.45 | 324 | *e*P | P | 05 34 60.0 | +0.9 |
| **TX31** | **Lajitas Ar. Si** | 63.45 | 324 | *e*P | P | 05 34 60.0 | +0.9 |
| **TXAR** | **Lajitas Array** | 63.45 | 324 | P | P | 05 34 60.0 | +0.9 |
| | comp=Z,0.8nm,0.4s,baz=148,slow=7.3,SNR=21 | | | | | | |
| **Y37A** | **Hugo** | 63.50 | 334 | P | P | 05 35 00.2 | +1.1 |
| | baz=150,SNR=5.3 | | | | | | |
| **T46A** | **Princeton** | 63.54 | 341 | P | P | 05 34 59.2 | -0.1 |
| | baz=158 | | | | | | |
| **W40A** | **Ferguson Farm,** | 63.57 | 336 | P | P | 05 35 00.0 | +0.4 |
| | baz=153 | | | | | | |
| **S48A** | **Wiedeman Farm,** | 63.60 | 343 | P | P | 05 34 59.1 | -0.7 |
| | baz=160 | | | | | | |
| **V41A** | **Mountainview** | 63.77 | 337 | P | P | 05 35 00.6 | -0.3 |
| | baz=154 | | | | | | |
| **X38A** | **Whitesboro** | 63.78 | 335 | P | P | 05 35 02.0 | +1.0 |
| | baz=151 | | | | | | |
| **W39A** | **Magazine** | 63.84 | 336 | P | P | 05 35 02.2 | +0.8 |
| | baz=152 | | | | | | |
| **X37A** | **Clayton** | 63.93 | 334 | P | P | 05 35 02.6 | +0.7 |
| | baz=151 | | | | | | |
| **U42A** | **Revenden** | 63.97 | 338 | P | P | 05 35 02.4 | +0.3 |
| | baz=155 | | | | | | |
| **W38A** | **Poteau** | 64.01 | 335 | P | P | 05 35 03.2 | +0.7 |
| | baz=152 | | | | | | |
| **V40A** | **Witts Springs** | 64.03 | 337 | P | P | 05 35 02.5 | -0.1 |
| | baz=153 | | | | | | |
| **PBMO** | **Poplar Bluff** | 64.08 | 339 | *e*P | P | 05 35 03.0 | +0.1 |
| | comp=Z,17nm,1.0s | | | | | | |
| **U41A** | **Viola** | 64.19 | 338 | P | P | 05 35 03.5 | -0.2 |
| | baz=154 | | | | | | |
| **WCI** | **Wyandotte Cave** | 64.20 | 343 | P | P | 05 35 03.0 | -0.6 |
| | baz=160 | | | | | | |
| **X36A** | **Centrahoma** | 64.31 | 333 | P | P | 05 35 04.5 | +0.1 |
| | baz=150 | | | | | | |
| **T43A** | **Greenville** | 64.32 | 339 | P | P | 05 35 04.2 | -0.2 |
| | baz=156,SNR=13 | | | | | | |
| **V39A** | **Pettigrew** | 64.36 | 336 | P | P | 05 35 05.1 | +0.3 |
| | baz=153,SNR=8.5 | | | | | | |
| **X35A** | **Drake** | 64.42 | 333 | P | P | 05 35 05.2 | +0.1 |
| | baz=149 | | | | | | |
| **W37B** | **Quinton** | 64.43 | 334 | *e*P | P | 05 35 06.3 | +1.1 |
| | comp=Z,14nm,0.7s | | | | | | |
| **T42A** | **Van Buren** | 64.53 | 339 | P | P | 05 35 05.7 | -0.1 |
| | baz=155 | | | | | | |
| **U40A** | **Yellville** | 64.53 | 337 | P | P | 05 35 05.8 | 0.0 |
| | baz=154 | | | | | | |
| **S44A** | **Carbondale** | 64.55 | 341 | P | P | 05 35 05.7 | -0.2 |
| | baz=157 | | | | | | |
| **V38A** | **Canehill** | 64.67 | 336 | P | P | 05 35 06.9 | +0.2 |
| | baz=152,SNR=7.0 | | | | | | |
| **S43A** | **Fulton Ridge,** | 64.70 | 340 | P | P | 05 35 06.6 | -0.2 |
| | baz=156 | | | | | | |
| **W36A** | **Wetumka** | 64.75 | 334 | P | P | 05 35 07.3 | 0.0 |
| | baz=150 | | | | | | |
| **T41A** | **Mountain View** | 64.77 | 338 | P | P | 05 35 07.0 | -0.4 |
| | baz=155 | | | | | | |
| **U39A** | **Green Forest** | 64.78 | 337 | P | P | 05 35 07.4 | -0.1 |
| | baz=153,SNR=6.6 | | | | | | |
| **R45A** | **Skylar, Fairfi** | 64.82 | 342 | P | P | 05 35 06.8 | -0.8 |
| | baz=158 | | | | | | |
| **HHAR** | **Hobbs** | 64.86 | 336 | *e*P | P | 05 35 08.9 | +0.9 |
| | comp=Z,4.4nm,0.6s | | | | | | |
| **V37A** | **Hulbert** | 64.97 | 335 | P | P | 05 35 09.0 | +0.4 |
| | baz=151 | | | | | | |
| **W35A** | **Tecumseh** | 65.03 | 333 | P | P | 05 35 09.4 | +0.3 

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| P43A | Skaggs, Pawnee baz=157 | 66.43 | 341 | P | P | 05 35 16.9 | -0.9 |
| O45A | Potomac baz=159 | 66.48 | 343 | P | P | 05 35 17.7 | -0.5 |
| S37A | Fort Scott baz=152 | 66.50 | 336 | P | P | 05 35 18.9 | +0.5 |
| R38A | Fenwick Farm, baz=153,SNR=9.4 | 66.54 | 337 | P | P | 05 35 18.8 | +0.2 |
| Q40A | Laux Farm, Aux baz=155 | 66.64 | 339 | P | P | 05 35 19.2 | -0.1 |
| MSTX | Muleshoe baz=144 | 66.69 | 328 | P | P | 05 35 21.0 | +1.2 |
| MSTX | Muleshoe comp=Z,16nm,0.9s | 66.69 | 328 | *e*P | P | 05 35 20.7 | +0.8 |
| S36A | Lake Cedric, C baz=151 | 66.75 | 336 | P | P | 05 35 20.3 | +0.3 |
| P41A | Barry, Barry baz=156 | 66.93 | 340 | P | P | 05 35 20.5 | -0.6 |
| Q39A | Willow Grove F baz=154 | 66.99 | 338 | P | P | 05 35 21.4 | -0.1 |
| S35A | Otter Creek Ra baz=151 | 67.00 | 335 | P | P | 05 35 21.9 | +0.3 |
| P40A | Paris baz=155 | 67.11 | 339 | P | P | 05 35 22.1 | -0.2 |
| Q38A | Cooks Store, C baz=153,SNR=5.8 | 67.13 | 338 | P | P | 05 35 22.6 | +0.3 |
| R36A | Gordon, Harris baz=151 | 67.25 | 336 | P | P | 05 35 23.4 | +0.2 |
| P39B | Salisbury baz=154,SNR=6.4 | 67.31 | 339 | P | P | 05 35 23.3 | -0.2 |
| Q37A | Longview Farm, baz=152,SNR=6.9 | 67.35 | 337 | P | P | 05 35 23.8 | +0.1 |
| N43A | Stutzman Famil baz=158 | 67.53 | 342 | P | P | 05 35 24.4 | -0.4 |
| O40A | La Belle baz=155 | 67.59 | 340 | P | P | 05 35 24.8 | -0.4 |
| DBIC | Dimbokro comp=Z,1.6nm,0.4s,baz=218,slow=7.5,SNR=9.4 | 67.65 | 72 | P | P | 05 35 24.6 | -1.6 |
| DBIC | Dimbokro comp=Z,17nm,1.5s | 67.65 | 72 | *e*P | P | 05 35 24.6 | -1.6 |
| P38A | Dawn baz=154,SNR=13 | 67.69 | 338 | P | P | 05 35 25.9 | +0.1 |
| R34A | Isabella, Hill baz=150 | 67.90 | 335 | P | P | 05 35 27.6 | +0.4 |
| Q35A | Mercer Eighty, baz=151 | 67.92 | 336 | P | P | 05 35 27.3 | 0.0 |
| M43A | Waltham Townsh baz=158 | 67.93 | 342 | P | P | 05 35 26.9 | -0.4 |
| O39A | Kirksville baz=154 | 67.93 | 339 | P | P | 05 35 27.0 | -0.3 |
| P37A | Lathrop baz=153 | 67.95 | 337 | P | P | 05 35 27.3 | -0.2 |
| 319A | Douglas comp=Z,9.7nm,0.6s | 68.11 | 322 | *e*P | P | 05 35 30.2 | +1.4 |
| O38A | Galt baz=154 | 68.12 | 338 | P | P | 05 35 28.3 | -0.2 |
| 121A | Cookes Peak, D baz=140 | 68.15 | 323 | P | P | 05 35 31.0 | +1.8 |
| N40A | Mertquake, Sal baz=156 | 68.19 | 340 | P | P | 05 35 28.5 | -0.5 |
| P36A | Good Intent, A baz=152 | 68.28 | 337 | P | P | 05 35 29.3 | -0.3 |
| Q34A | Chapman baz=150 | 68.31 | 335 | P | P | 05 35 29.7 | -0.1 |
| M41A | Milan baz=156 | 68.33 | 341 | P | P | 05 35 29.1 | -0.7 |
| O37A | Wolven Farm, M baz=153 | 68.39 | 338 | P | P | 05 35 30.2 | 0.0 |
| N39A | Derby Farms, D baz=155 | 68.48 | 339 | P | P | 05 35 30.3 | -0.5 |
| L43A | Garden Prairie baz=158 | 68.56 | 343 | P | P | 05 35 30.7 | -0.5 |
| N38A | Joes South For baz=154 | 68.64 | 339 | P | P | 05 35 31.4 | -0.4 |
| O36A | Bolckow baz=152 | 68.65 | 337 | P | P | 05 35 31.6 | -0.2 |
| M40A | Post Highland baz=156 | 68.65 | 340 | P | P | 05 35 31.6 | -0.1 |
| P34A | Walnut Farm, R baz=150 | 68.82 | 336 | P | P | 05 35 33.3 | +0.5 |
| N37A | Lee Faris, Mou baz=153 | 68.94 | 338 | P | P | 05 35 33.8 | +0.2 |
| L40A | Anamosa baz=156 | 69.16 | 341 | P | P | 05 35 34.7 | -0.2 |
| M38A | Pleasantville baz=154 | 69.19 | 339 | P | P | 05 35 35.1 | 0.0 |
| N36A | Muff Farm, Cla baz=152 | 69.25 | 338 | P | P | 05 35 35.7 | +0.2 |
| ANMO | Albuquerque baz=141 | 69.31 | 326 | P | P | 05 35 38.1 | +1.8 |
| ANMO | Albuquerque comp=Z,5.0nm,0.8s | 69.31 | 326 | *e*P | P | 05 35 38.0 | +1.8 |
| O34A | Beatrice baz=151 | 69.32 | 336 | P | P | 05 35 36.5 | +0.6 |
| CBKS | Cedar Bluff baz=148 | 69.34 | 333 | P | P | 05 35 37.3 | +1.2 |
| CBKS | Cedar Bluff | 69.34 | 333 | *e*P | P | 05 35 37.6 | +1.4 |
| M37A | Trindle Farm, baz=153 | 69.46 | 339 | P | P | 05 35 37.0 | +0.2 |
| N35A | Tabor baz=152 | 69.53 | 337 | P | P | 05 35 37.6 | +0.3 |
| O33A | Hebron baz=150 | 69.56 | 335 | P | P | 05 35 37.9 | +0.5 |
| J43A | Natural Harves baz=159 | 69.59 | 343 | P | P | 05 35 37.1 | -0.4 |
| TUC | Tucson baz=137 | 69.66 | 321 | P | P | 05 35 40.4 | +2.0 |
| TUC | Tucson comp=Z,3.3nm,0.9s | 69.66 | 321 | *e*P | P | 05 35 40.4 | +2.0 |
| M36A | Felix, Anita baz=153 | 69.76 | 338 | P | P | 05 35 38.6 | 0.0 |
| N34A | Lincoln baz=151 | 69.82 | 336 | P | P | 05 35 38.9 | -0.1 |
| K39A | Oelwein baz=156 | 69.95 | 341 | P | P | 05 35 39.6 | -0.1 |
| T25A | Trinidad baz=144 | 70.04 | 329 | P | P | 05 35 41.6 | +0.9 |
| T25A | Trinidad comp=Z,5.8nm,1.3s | 70.04 | 329 | *e*P | P | 05 35 42.4 | +1.7 |
| MHTCO | State Highway comp=Z,7.6nm,0.9s | 70.16 | 329 | *e*P | P | 05 35 42.1 | +0.7 |
| J40A | Soldiers Grove baz=157 | 70.24 | 342 | P | P | 05 35 41.5 | +0.1 |
| L36A | Harm Buss Farm baz=153 | 70.29 | 338 | P | P | 05 35 42.1 | +0.3 |
| M34A | Aspy Farms, Fr baz=151 | 70.43 | 337 | P | P | 05 35 43.1 | +0.4 |
| J39A | Decorah baz=156 | 70.47 | 341 | P | P | 05 35 42.5 | -0.3 |
| K37A | Belmond baz=154 | 70.55 | 339 | P | P | 05 35 43.4 | 0.0 |
| 214A | Organ Pipe Nat baz=136 | 70.59 | 320 | P | P | 05 35 46.0 | +2.0 |
| L35A | Bielow Farm, R baz=152 | 70.60 | 338 | P | P | 05 35 43.7 | 0.0 |
| K36A | Gilmore City baz=153 | 70.70 | 339 | P | P | 05 35 44.4 | +0.1 |
| M33A | Taylor Creek F baz=150 | 70.72 | 336 | P | P | 05 35 44.3 | -0.1 |
| L34A | Svendsen Farm, baz=151 | 70.77 | 337 | P | P | 05 35 44.6 | -0.1 |
| BGNE | Belgrade baz=150 | 70.93 | 336 | P | P | 05 35 46.3 | +0.6 |
| SDCO | Great Sand Dun baz=143 | 71.04 | 329 | P | P | 05 35 48.4 | +1.5 |
| SDCO | Great Sand Dun | 71.04 | 329 | *e*P | P | 05 35 48.6 | +1.7 |
| W18A | Petrified Fore baz=139 | 71.17 | 324 | P | P | 05 35 49.4 | +1.9 |
| J36A | Seneca 1, Swea baz=153 | 71.28 | 339 | P | P | 05 35 47.8 | +0.1 |
| L32A | Elgin baz=150 | 71.39 | 336 | P | P | 05 35 48.7 | +0.2 |
| K33A | Hardington baz=151 | 71.55 | 337 | P | P | 05 35 49.8 | +0.4 |
| X16A | Lo Mia Camp, P comp=Z,5.1nm,1.1s | 71.58 | 322 | *e*P | P | 05 35 52.1 | +2.1 |
| S22A | 4UR Ranch, Cre baz=142 | 71.69 | 328 | P | P | 05 35 52.0 | +1.3 |
| Q24A | Divide baz=143 | 71.85 | 330 | P | P | 05 35 53.2 | +1.6 |
| MVCO | Mesa Verde baz=140 | 72.11 | 326 | P | P | 05 35 54.8 | +1.7 |
| MVCO | Mesa Verde | 72.11 | 326 | *e*P | P | 05 35 55.1 | +1.9 |
| J33A | Davis baz=151 | 72.16 | 337 | P | P | 05 35 53.3 | +0.3 |
| K31A | O'Neill baz=149 | 72.21 | 336 | P | P | 05 35 54.2 | +0.8 |
| H36A | Jessenland, He baz=154 | 72.27 | 340 | P | P | 05 35 53.9 | +0.3 |
| WUAZ | Wupatki baz=138 | 72.36 | 323 | P | P | 05 35 56.7 | +2.1 |
| WUAZ | Wupatki | 72.36 | 323 | *e*P | P | 05 35 57.1 | +2.5 |
| ECSD | EROS Data Cent baz=151 | 72.40 | 338 | P | P | 05 35 54.6 | +0.2 |
| ECSD | EROS Data Cent | 72.40 | 338 | *e*P | P | 05 35 54.7 | +0.2 |
| J32A | Parkston baz=150 | 72.52 | 337 | P | P | 05 35 55.7 | +0.6 |
| H35A | Sunnyside Ranc baz=153 | 72.66 | 340 | P | P | 05 35 56.2 | +0.2 |
| ISCO | Idaho Springs baz=143 | 72.73 | 330 | P | P | 05 35 58.2 | +1.3 |
| Y12C | Blythe baz=135 | 72.88 | 320 | P | P | 05 35 59.6 | +2.2 |
| SMCO | Snowmass comp=Z,5.6nm,1.0s | 72.88 | 328 | *e*P | P | 05 35 57.6 | -0.3 |
| PV10 | Paradox Valley | 73.27 | 327 | *e*P | P | 05 36 01.5 | +1.5 |
| H33A | Prehn Over Nor baz=151 | 73.28 | 338 | P | P | 05 35 60.0 | +0.4 |
| F36A | Milaca baz=154 | 73.30 | 341 | P | P | 05 35 59.7 | 0.0 |
| BC3 | Big Chuckawall baz=134 | 73.36 | 319 | P | P | 05 36 02.7 | +2.2 |
| H32A | Carlson Farm, baz=151 | 73.36 | 338 | P | P | 05 36 00.5 | +0.4 |
| MONP2 | Monument Peak baz=133 | 73.42 | 318 | P | P | 05 36 03.1 | +2.1 |
| IRM | Iron Mountain baz=134 | 73.53 | 320 | P | P | 05 36 03.5 | +2.2 |
| N23A | Red Feather La baz=143 | 73.76 | 330 | P | P | 05 36 04.4 | +1.6 |
| E36A | McGregor baz=155 | 73.82 | 341 | P | P | 05 36 02.8 | +0.1 |
| PFO | Pinyon Flats O baz=133 | 73.94 | 319 | P | P | 05 36 06.2 | +2.4 |
| F33A | 5 Mile Ranch, baz=152 | 74.15 | 339 | P | P | 05 36 05.1 | +0.5 |
| E35A | Pequot Lakes baz=154 | 74.20 | 341 | P | P | 05 36 05.3 | +0.5 |
| O20A | White River Ci baz=141 | 74.24 | 328 | P | P | 05 36 07.3 | +1.8 |
| O20A | White River Ci comp=Z,5.7nm,0.8s | 74.24 | 328 | *e*P | P | 05 36 07.6 | +2.1 |
| GMRC | Granite Mounta baz=134 | 74.27 | 320 | P | P | 05 36 08.0 | +2.3 |
| SRU | San Rafael Swe comp=Z,5.3nm,0.6s | 74.58 | 326 | *e*P | P | 05 36 09.1 | +1.6 |
| MTPU | Mount Pierson comp=Z,9.1nm,1.9s | 74.65 | 324 | *e*P | P | 05 36 10.3 | +2.1 |
| C36A | Pine Crest Far baz=155 | 74.83 | 342 | P | P | 05 36 08.7 | +0.2 |
| F31A | Hecla baz=150 | 74.83 | 338 | P | P | 05 36 09.1 | +0.6 |
| P18A | Preston Nutter comp=Z,4.3nm,0.6s | 74.83 | 327 | *e*P | P | 05 36 11.3 | +2.2 |
| TUQ | Turquoise Moun baz=134 | 74.88 | 320 | P | P | 05 36 11.2 | +2.0 |
| MSU | Marysvale | 75.00 | 325 | *e*P | P | 05 36 12.1 | +2.2 |
| GSC | Goldstone, Bar baz=134 | 75.31 | 320 | P | P | 05 36 13.8 | +2.2 |
| K22A | Casper baz=143 | 75.42 | 331 | P | P | 05 36 14.4 | +2.2 |
| RSSD | Black Hills baz=145 | 75.54 | 333 | P | P | 05 36 14.8 | +1.9 |
| B35A | Bob, Littlefor baz=155 | 75.62 | 342 | P | P | 05 36 13.5 | +0.5 |
| EDW2 | Edwards Air Fo baz=132 | 75.73 | 319 | P | P | 05 36 15.9 | +1.9 |
| B34A | Aery, Baudette baz=154 | 76.00 | 341 | P | P | 05 36 15.4 | +0.3 |
| TPNV | Topopah Spring baz=134 | 76.12 | 321 | P | P | 05 36 18.7 | +2.4 |
| TPNV | Topopah Spring | 76.12 | 321 | *e*P | P | 05 36 18.9 | +2.6 |
| FURC | Furnace Creek, baz=134 | 76.14 | 321 | P | P | 05 36 18.8 | +2.6 |
| C31A | Landman Farms, baz=151 | 76.34 | 339 | P | P | 05 36 18.0 | +0.9 |
| TOA0 | Torodi Ar. Sit comp=Z,11nm,1.2s | 76.41 | 69 | *e*P | P | 05 36 16.9 | -1.2 |
| TOA1 | Torodi Ar. Sit | 76.41 | 69 | *e*P | P | 05 36 16.8 | -1.3 |
| TORD | Torodi Ar. Bea comp=Z,3.6nm,0.6s,baz=258,slow=5.7,SNR=69 | 76.41 | 69 | P | P | 05 36 16.8 | -1.3 |
| TORD | comp=Z,1.8nm,0.8s,baz=250,slow=5.5,SNR=3.7 | | | pP | pP | 05 37 07.4 | +2.3 |
| DAC | Darwin (Calif) comp=Z,9.2nm,1.4s | 76.44 | 320 | *e*P | P | 05 36 20.3 | +2.1 |
| B32A | Ashes, Strandq baz=152 | 76.49 | 340 | P | P | 05 36 18.5 | +0.6 |
| ISA | Isabella, Lake baz=132 | 76.55 | 319 | P | P | 05 36 20.7 | +2.1 |
| DUG | Dugway, Tooele baz=137 | 76.57 | 326 | P | P | 05 36 20.9 | +2.2 |
| A33A | Warroad baz=153 | 76.62 | 341 | P | P | 05 36 19.2 | +0.6 |
| R11A | Troy Canyon, C baz=135 | 76.73 | 323 | P | P | 05 36 21.6 | +1.9 |
| PD31 | Pinedale Array | 76.90 | 329 | *e*P | P | 05 36 21.3 | +0.7 |
| PDAR | Pinedale Array comp=Z,0.7nm,0.7s,baz=139,slow=7.3,SNR=9.0 | 76.90 | 329 | P | P | 05 36 21.3 | +0.7 |
| MDND | Maddock baz=149 | 77.01 | 338 | P | P | 05 36 21.8 | +1.0 |
| ULM | Lac du Bonnet comp=Z,3.7nm,0.6s,baz=148,slow=5.5,SNR=14 | 77.94 | 341 | P | P | 05 36 26.1 | +0.2 |
| LAO | LASA Array baz=144 | 78.53 | 334 | P | P | 05 36 30.7 | +1.4 |
| RLMT | Red Lodge baz=141 | 78.59 | 331 | P | P | 05 36 31.5 | +1.7 |
| KVN | Kaiserville comp=Z,2.9nm,1.0s | 78.63 | 322 | *e*P | P | 05 36 31.8 | +1.6 |
| YMR | Madison River comp=Z,4.3nm,0.8s | 79.01 | 330 | *e*P | P | 05 36 34.8 | +2.6 |
| DGMT | Dagmar baz=145 | 79.19 | 336 | P | P | 05 36 34.3 | +1.5 |
| PNTR | Pine Nut comp=Z,6.3nm,0.9s | 79.51 | 321 | *e*P | P | 05 36 37.8 | +2.7 |
| PAHR | Pah Rah Range comp=Z,3.7nm,0.9s | 79.80 | 322 | *e*P | P | 05 36 38.8 | +2.3 |
| HLID | Hailey baz=136 | 79.85 | 327 | P | P | 05 36 38.9 | +2.2 |
| MCMT | McKenzie Canyo | 80.02 | 329 | *e*P | P | 05 36 39.9 | +2.3 |
| BOZ | Bozeman (W) baz=139 | 80.02 | 330 | P | P | 05 36 39.3 | +1.8 |
| BOSA | Boshof comp=Z,2.6nm,0.7s,baz=284,slow=4.9,SNR=5.4 | 80.83 | 117 | P | P | 05 36 42.2 | -0.1 |
| EGMT | Eagleton baz=141 | 81.05 | 332 | P | P | 05 36 43.9 | +1.0 |
| MSO | Missoula baz=137 | 82.01 | 330 | P | P | 05 36 49.7 | +1.8 |
| YKA | Yellowknife Ar comp=Z,3.9nm,0.5s,baz=135,slow=4.6,SNR=34 | 93.84 | 340 | P | P | 05 37 44.6 | +0.3 |
| ZAA1 | Zalesovo Array | 143.08 | 28 | *e*PKPdf | PKPdf | 05 43 58.0 | -2.0 |
| ZALV | Zalesovo Beam comp=Z,0.5nm,0.4s,baz=317,slow=5.9,SNR=3.2 | 143.09 | 28 | PKP | PKPdf | 05 43 58.0 | -2.0 |
| KSH | Kashi | 144.97 | 54 | PKP | PKPdf | 05 44 07.9 | +4.0 |
| KSH | | | | pPKP | pPKPdf | 05 44 49.4 | -5.4 |
| KSH | | | | PP | PP | 05 47 30.6 | +6.4 |
| KSH | comp=Z,66nm,3.5s | | | AMB | AMB | | |
| KSH | comp=Z,220nm,8.2s | | | LR | LR | | |
| MK32 | Makanchi Array | 146.24 | 39 | *e*PKPdf | PKPbc | 05 44 06.4 | -0.8 |
| MKAR | Makanchi Array comp=Z,1.4nm,0.6s,baz=310,slow=3.2,SNR=12 | 146.24 | 39 | PKPbc | PKPbc | 05 44 06.4 | -0.8 |
| WMQ | Urumqi | 151.07 | 40 | *e*PKPbc | PKPdf | 05 44 10.5 | -3.2 |
| HHC | Hu-ho-hao-te | 162.83 | 4 | *e*PKP | PKPdf | 05 44 30.1 | +1.4 |
| NJ2 | Nanjing | 170.21 | 330 | *e*PKP | PKPdf | 05 44 30.8 | -3.7 |
| KMI | Kunming | 170.49 | 79 | PKP | PKPdf | 05 44 35.3 | +0.2 |
| KMI | | | | sPKP | | 05 45 37.4 | |
| KMI | | | | SKKS | | 05 56 12.8 | |
| KMI | comp=Z,320nm,26.1s | | | LR | LR | | |

*BJI* ***19*** *05:32:14.5,28˚.96S×175˚.96W,h23km,mb5.6/53, mB6.0/56,Ms5.5/53,Ms7 5.2/53*

*ISCJB* ***19*** *05:32:14.7±0.1,29˚.21S±0˚.03×176˚.86W±0˚.03,h10km, mb5.4/184,MS5.3/188,Error ellipse: s-maj=4.7km s-min=2.5km az=43.3*

*NEIC* ***19*** *05:32:15.0±0.0,28˚.54S×176˚.32W,h15km,Moment Tensor Solution. s17 Moment tensor: Scale 10¹⁷Nm; Mrr3.33; Mθθ0.86; Mϕϕ-4.20; Mrθ0.91; Mθϕ-0.73; Mϕr-0.24; Best double couple: M₀4.00000×10¹⁷ NP1:φs170.00000°, δ49.00000°,λ.64.00000°. NP2:φs26.00000°,δ47.00000°, λ116.00000°. Principal axes: T 3.6600, Plg70.0000°, Azm10.0000°; N 0.6400, Plg19.0000°, Azm187.0000°; P -4.3000, Plg0.0000°, Azm277.0000°;*

*IDC* ***19*** *05:32:15.5±0.4,28˚.75S×176˚.81W,h0km,mb5.2/22, mb1 5.2/22,mb1mx5.1/33,mbtmp5.1/22,MS5.1/19, Ms1 5.1/19,ms1mx5.1/22 Error ellipse: s-maj=17.0km s-min=14.3km az=138.0*

*NEIC* ***19*** *05:32:16.4±0.1,29˚.07S×176˚.86W,h10km,mb5.4/153, ME5.2,MS5.4/139,MW5.5,MW5.7, Error ellipse: s-maj=5.3km s-min=2.9km az=136.0,Moment Tensor Solution. s54 Moment tensor: Scale 10¹⁷Nm; Mrr1.90; Mθθ0.02; Mϕϕ-1.92; Mrθ0.24; Mθϕ-0.63; Mϕr0.56; Best double couple: M₀2.10000×10¹⁷ NP1:φs194.00000°, δ37.00000°,λ.87.00000°. NP2:φs19.00000°,δ53.00000°, λ.93.00000°. Principal axes: T 1.9900, Plg81.0000°, Azm301.0000°; N 0.2000, Plg2.0000°, Azm197.0000°; P -2.1900, Plg8.0000°, Azm107.0000°; Depth from synthetics of broadband displacement seismograms. Energy computed from CMT mechanism.*

*GCMT* ***19*** *05:32:16.4±0.1,28˚.81S×176˚.48W,h14km,MW5.7/134, Moment Tensor Solution. s122,c227; s134,c362; Duration: 1ŝ6 Moment tensor: Scale 10¹⁷Nm; Mrr3.03±.03; Mθθ0.05±.03; Mϕϕ-3.09±.03; Mrθ0.43±.06; Mθϕ-0.65±.02; Mϕr1.78±.07; Best double couple: M₀3.62100×10¹⁷ NP1:φs13.00000°,δ60.00000°, λ91.00000°. NP2:φs190.00000°,δ30.00000°,λ88.00000°. Principal axes: T 3.5290, Plg75.0000°, Azm286.0000°; N 0.1780, Plg1.0000°, Azm192.0000°; P -3.7140, Plg15.0000°, Azm101.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

*MOS* ***19*** *05:32:18.4±1.0,28˚.79S×176˚.90W,h26km,mb5.5/48, MS5.3/38 Error ellipse: s-maj=9.0km s-min=7.6km az=75.4*

**ISC 19 05:32:17.6±0.4,29˚.24S±0˚.04×176˚.57W±0˚.04,h23km±2km, h23km:pP-P,n847,σ1ŝ94/780,mb5.4/185,MS5.4/187, 50C-9D,Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| RAO | Raoul Island 4µm,0.3s,baz=158,slow=1.5,SNR=108 | 1.18 | 269 | Pn | | Pn | Pn | 05 32 38.4 | -0.2 |
| RAO | Raoul Island | 1.18 | 269 | *e*P | | Pn | Pn | 05 32 38.5 | -0.2 |
| RAO | | | | *e* | | | | 05 32 48.1 | |
| RAO | Raoul Island | 1.18 | 269 | *e*Pn | | Pn | Pn | 05 32 38.5 | -0.2 |
| RAO | | | | *e*Sn | | Sn | Sn | 05 32 48.0 | -6.0 |
| MXZ | Matakaoa Point | 9.34 | 206 | *e*Pn | | Pn | Pn | 05 34 34.1 | +3.3 |
| MXZ | | | | *e*Sn | | Sn | Sn | 05 36 28.8 | +14 |
| WMGZ | Waiomatatini S | 9.52 | 205 | *e*PN | | Pn | Pn | 05 34 32.0 | -1.4 |
| WMGZ | | | | *e*SN | | Sn | Sn | 05 36 20.5 | +0.8 |
| PKGZ | Pakihiroa | 9.71 | 206 | *e*PN | | Pn | Pn | 05 34 34.4 | -1.6 |
| HAZ | Te Kaha | 9.71 | 208 | *e*PN | | Pn | Pn | 05 34 34.2 | -1.7 |
| PUZ | Puketiti | 9.81 | 205 | *e*PN | | Pn | Pn | 05 34 35.2 | -2.0 |
| PUZ | | | | *e*SN | | Sn | Sn | 05 36 27.0 | +0.4 |
| RUGZ | Raukumara Rang | 9.94 | 207 | *e*PN | | Pn | Pn | 05 34 38.2 | -0.8 |
| OUZ | Omahuta | 10.24 | 232 | *e*Pn | | Pn | | 05 34 49.1 | +6.0 |
| OUZ | Omahuta | 10.24 | 232 | *e*PN | | Pn | | 05 34 49.4 | +6.2 |
| MWZ | Matawai | 10.31 | 207 | *e*PN | | Pn | Pn | 05 34 41.7 | -2.5 |
| URZ | Urewera 3.8nm,0.3s,baz=94,slow=1.0,SNR=14 | 10.42 | 209 | Pn | | Pn | Pn | 05 34 42.7 | -2.9 |
| URZ | Urewera | 10.42 | 209 | *e*Pn | | Pn | Pn | 05 34 46.5 | +0.9 |
| URZ | | | | *e*Sn | | Sn | | 05 36 51.7 | +10 |
| URZ | Urewera | 10.42 | 209 | *e*PN | | Pn | Pn | 05 34 42.5 | -3.1 |
| URZ | | | | *e*SN | | Sn | Sn | 05 36 42.6 | +1.0 |
| BKZ | Black Stump Fm | 11.44 | 208 | *e*Pn | | Pn | Pn | 05 35 00.4 | +0.8 |
| BKZ | | | | *e*Sn | | Sn | Sn | 05 37 13.2 | +6.4 |
| HIZ | Hauiti | 11.67 | 215 | *e*Pn | | Pn | Pn | 05 35 05.3 | +2.6 |
| PXZ | Pawanui | 12.04 | 205 | *e*SN | | Sn | Sn | 05 37 17.4 | -3.9 |
| MSVF | Nonsavu | 12.47 | 336 | *e*P | | Pn | Pn | 05 35 11.1 | -2.7 |
| MSVF | Nonsavu | 12.47 | 336 | *e*Pn | | Pn | Pn | 05 35 11.1 | -2.7 |
| BFZ | Birch Farm | 12.84 | 205 | *e*Pn | | Pn | Pn | 05 35 18.2 | -0.5 |
| BFZ | | | | *e*Sn | | Sn | Sn | 05 37 44.6 | +3.7 |
| BFZ | Birch Farm | 12.84 | 205 | *e*PN | | Pn | Pn | 05 35 14.1 | -4.6 |
| BFZ | | | | *e*SN | | Sn | Sn | 05 37 36.0 | -4.9 |
| MRZ | Mangatainoka R | 13.08 | 207 | *e*PN | | Pn | Pn | 05 35 15.7 | -6.3 |
| MRZ | | | | *e*SN | | Sn | Sn | 05 37 40.4 | -6.3 |
| KIW | Kapiti Island | 13.52 | 209 | *e*PN | | Pn | Pn | 05 35 24.0 | -4.0 |
| SNZO | South Karori | 13.98 | 208 | *e*Pn | | Pn | Pn | 05 35 33.0 | -1.3 |
| QRZ | Quartz Range | 14.59 | 215 | *e*PN | | Pn | Pn | 05 35 42.9 | +0.3 |
| THZ | Tophouse 124nm,0.6s | 15.14 | 212 | *e*Pn | | Pn | Pn | 05 35 47.9 | -2.2 |
| THZ | | | | *e*Sn | | Sn | Sn | 05 38 30.9 | -6.1 |
| THZ | Tophouse | 15.14 | 212 | *e*PN | | Pn | Pn | 05 35 43.5 | -6.5 |
| THZ | | | | *e*SN | | Sn | Sn | 05 38 28.3 | -8.7 |
| KHZ | Kahutara 196nm,0.8s | 15.39 | 209 | *e*Pn | | Pn | Pn | 05 35 54.3 | +1.1 |
| KHZ | | | | *e*Sn | | Sn | Sn | 05 38 38.8 | -4.1 |
| KHZ | Kahutara | 15.39 | 209 | *e*SN | | Sn | Sn | 05 38 32.4 | -10 |
| AFI | Afiamalu 6.1nm,0.3s,baz=329,slow=9.9,SNR=4.8 | 15.89 | 17 | Pn | | Pn | Pn | 05 35 51.3 | -8.7 |
| AFI | comp=Z,3µm,19.4s,baz=194,slow=40 | | | LR | | LR | LR | 05 42 34.9 | |
| AFI | Afiamalu | 15.89 | 17 | *e*Pn | | Pn | Pn | 05 35 48.9 | -11 |
| LTZ | Lake Taylor 74nm,0.9s | 16.23 | 211 | *e*Pn | | Pn | Pn | 05 36 04.9 | +0.7 |
| LTZ | | | | *e*Sn | | Sn | Sn | 05 38 59.0 | -4.5 |
| CRLZ | Canterbury Las 105nm,1.2s | 16.72 | 208 | *e*Pn | | Pn | Pn | 05 36 08.7 | -1.6 |
| OXZ | Oxford 212nm,0.7s | 16.77 | 210 | *e*Pn | | Pn | Pn | 05 36 07.7 | -3.2 |
| OXZ | Oxford | 16.77 | 210 | *e*PN | | Pn | Pn | 05 36 05.7 | -5.3 |
| MQZ | McQueen's Vall 62nm,0.8s | 16.82 | 208 | *e*Pn | | Pn | Pn | 05 36 09.4 | -2.1 |
| MQZ | | | | *e*Sn | | Sn | Sn | 05 39 07.2 | -10 |
| MQZ | McQueen's Vall | 16.82 | 208 | *e*SN | | Sn | Sn | 05 39 04.0 | -14 |
| DZM | Mont Dzumac comp=Z,27µm,18.4s,baz=123,slow=33 | 16.89 | 291 | LR | | LR | LR | 05 41 26.0 | |
| DZM | Mont Dzumac 384nm,1.1s | 16.89 | 291 | *e*P | | P | P | 05 36 16.4 | +1.9 |
| DZM | | | | *e*LR | | LR | LR | 05 40 12.5 | |
| DZM | Mont Dzumac 285nm,1.2s | 16.89 | 291 | *e*P | | Pn | Pn | 05 36 13.5 | +0.9 |
| RAR | Rarotonga 2.4nm,0.3s,baz=201,slow=4.1,SNR=5.7 | 17.16 | 66 | Pn | | Pn | Pn | 05 36 10.6 | -5.4 |
| RAR | comp=Z,6µm,21.8s,baz=246,slow=30 | | | LR | | LR | LR | 05 40 57.1 | |
| RAR | Rarotonga 120nm,0.9s | 17.16 | 66 | *e*Pn | | Pn | Pn | 05 36 09.9 | -6.0 |
| WVZ | Waitaha Valley | 17.17 | 213 | *e*PN | | Pn | Pn | 05 36 13.2 | -2.7 |
| RPZ | Rata Peaks 8.2nm,0.3s,baz=319,slow=2.8,SNR=16 | 17.51 | 211 | Pn | | Pn | Pn | 05 36 19.6 | -0.7 |
| RPZ | comp=Z,11µm,18.8s,baz=36,slow=39 | | | LR | | LR | LR | 05 43 52.5 | |
| RPZ | Rata Peaks 120nm,0.6s | 17.51 | 211 | *e*P | | Pn | Pn | 05 36 19.6 | -0.7 |
| RPZ | Rata Peaks | 17.51 | 211 | *e*PN | | Pn | Pn | 05 36 17.6 | -2.6 |
| FOZ | Fox Glacier 78nm,1.0s | 17.95 | 214 | *e*P | | Pn | Pn | 05 36 23.4 | -2.2 |
| LBZ | Lake Benmore 61nm,1.1s | 18.43 | 211 | *e*P | | P | P | 05 36 30.0 | -1.4 |
| ODZ | Otahua Downs 121nm,0.9s | 18.74 | 209 | *e*P | | Pn | Pn | 05 36 35.1 | -0.2 |
| JCZ | Jackson Bay | 18.86 | 214 | *e*P* | | P | P | 05 36 30.7 | -5.4 |
| WKZ | Wanaka 63nm,1.0s | 19.30 | 212 | *e*P | | P | P | 05 36 39.9 | -1.0 |
| MLZ | Mavora Lakes 36nm,0.7s | 20.13 | 213 | *e*P | | P | P | 05 36 49.7 | -0.2 |
| DCZ | Deep Cove 31nm,0.9s | 20.67 | 214 | *e*P | | P | P | 05 36 56.5 | +0.7 |
| FUNA | Funafuti | 20.98 | 348 | PFAKE | | | | 05 37 10.0 | +8.0 |
| FUNA | comp=Z,7µm,19.0s | | | LR | | LR | LR | | |
| LHI | Lord Howe Isla baz=20,SNR=7.5 | 21.14 | 258 | P | | P | P | 05 37 02.8 | +1.9 |
| LHI | Lord Howe Isla comp=Z,485nm,0.9s | 21.14 | 258 | *e*P | | P | P | 05 37 03.5 | +2.5 |
| APZ | The Paps | 21.30 | 210 | *e*P* | | P | P | 05 37 02.6 | 0.0 |
| TBI | Tubuai comp=Z,18nm,0.3s | 24.97 | 83 | *e*T | | T | T | 06 03 11.1 | |
| PAE | Paea comp=Z,5.2nm,0.9s | 27.24 | 71 | *e*P | | P | P | 05 37 56.5 | -3.6 |
| PAE | Paea comp=Z,10nm,0.3s | 27.24 | 71 | *e*T | | T | T | 06 05 51.9 | |
| PPT2 | Papeete2 comp=Z,57nm,1.4s | 27.28 | 71 | *e*P | | P | P | 05 37 57.2 | -3.4 |
| PPT2 | comp=Z,11µm,24.8s | | | *e*LQ | | LQ | LQ | 05 43 18.9 | |
| PPT2 | comp=Z,15µm,29.0s,baz=240 | | | *e*LR | | LR | LR | 05 44 42.3 | |
| PPT2 | Papeete2 | 27.28 | 71 | *e*T | | T | T | 06 05 55.8 | |

comp=Z,7,4nm,0.3s
**PPT Papeete 27.29 71** LR LR 05 45 51.3
comp=Z,3µm,20.4s,baz=246,slow=30
**TVO Taravao 27.45 72** *eT* T 06 06 08.6
comp=Z,1.3nm,0.3s
**ARMA Armidale 27.57 260** P **P**
baz=27,SNR=20
**ARMA Armidale 27.57 260** *eP* **P 05 38 01.8 -1.4**
comp=Z,40nm,0.8s
**MGCD Mangrove Creek 27.86 254** P **P 05 38 05.8 +0.3**
baz=27,SNR=5.5
**EIDS Eidsvold 28.95 270** P **P 05 38 15.1 -0.3**
baz=28,SNR=12
**EIDS Eidsvold 28.95 270** *eP* **P 05 38 14.9 -0.4**
comp=Z,44nm,1.0s
**CNB Canberra Magne 29.34 249** P **P 05 38 18.8 0.0**
baz=29,SNR=24
**HNR Honiara 29.54 307** *eP* **P 05 38 18.0 -2.6**
**HNR Honiara 29.54 307** P **P 05 38 18.3 -2.3**
comp=Z,161nm,0.7s,baz=205,slow=4.2,SNR=9.7
HNR LR LR 05 48 18.2
comp=Z,3µm,19.8s,baz=146,slow=33
**HNR Honiara 29.54 307** *eP* **P 05 38 18.5 -2.2**
comp=Z,225nm,0.9s
HNR LR LR
comp=Z,3µm,21.0s
**MILA Mila 29.62 246** P **P 05 38 21.5 +0.2**
baz=29,SNR=5.9
**CAN Canberra 29.64 249** *eP* **P 05 38 22.7 +1.3**
CAN pmax pmax
comp=Z,80nm,0.9s
CAN MLR MLR
comp=Z,6µm,20.0s
**CAN Canberra 29.64 249** *eP* **P 05 38 22.7 +1.3**
comp=Z,80nm,0.9s
CAN LR LR
comp=Z,6µm,20.0s
**PMOR Pomariorio Ree 30.00 68** *eT* T 06 09 16.4
comp=Z,2.2nm,0.3s
**VAH Vaihoa 30.09 69** *eT* T 06 09 23.9
comp=Z,21nm,0.2s
**RMQ Roma 30.71 267** P **P 05 38 31.3 +0.3**
baz=30,SNR=15
**MOO Moorlands 31.95 236** P **P 05 38 42.4 +0.7**
baz=31,SNR=4.5
**TAU Tasmania Unive 31.96 235** *eP* **P 05 38 44.2 +2.5**
TAU pmax pmax
comp=Z,89nm,0.9s
TAU MLR MLR
comp=Z,5µm,19.0s
**TAU Tasmania Unive 31.96 235** *eP* **P 05 38 44.2 +2.5**
comp=Z,89nm,0.9s
TAU LR LR
comp=Z,5µm,19.0s
**TARA Tarawa 32.04 340** PFAKE 05 38 50.0 +7.4
TARA LR LR
comp=Z,335nm,19.0s
**CMSA Cobar Meteorol 32.53 256** P **P 05 38 47.4 +0.5**
baz=32,SNR=56
**TOO Toolangi 32.57 245** P **P 05 38 47.3 +0.1**
baz=32,SNR=16
**QLP Quilpie 34.63 265** P **P 05 39 05.0 -0.3**
baz=34,SNR=26
**CTA Charters Tower 34.87 277** P **P 05 39 07.5 +0.1**
comp=Z,62nm,1.0s,baz=99,slow=12,SNR=31
**CTAO Charters Tower 34.87 277** *eP* **P 05 39 05.6 -1.8**
CTAO pmax pmax
comp=Z,72nm,0.9s
CTAO MLR MLR
comp=Z,20µm,20.0s
**CTAO Charters Tower 34.87 277** *eP* **P 05 39 05.6 -1.8**
comp=Z,72nm,0.9s
CTAO LR LR
comp=Z,20µm,20.0s
**ARPS Mount Arapiles 35.46 247** P **P 05 39 12.4 +0.1**
baz=35,SNR=8.1
**STKA Stephens Creek 35.96 255** P **P 05 39 17.7 +1.0**
comp=Z,50nm,0.8s,baz=94,slow=8.9,SNR=78
STKA LR LR 05 52 53.6
comp=Z,5µm,18.4s,baz=87,slow=34
**STKA Stephens Creek 35.96 255** P **P 05 39 16.8 +0.1**
baz=35,SNR=50
**STKA Stephens Creek 35.96 255** *eP* **P 05 39 17.7 +1.0**
STKA pmax pmax
comp=Z,10.0nm,0.8s
**STKA Stephens Creek 35.96 255** *eP* **P 05 39 17.7 +1.0**
comp=Z,10nm,0.8s
**XMAS Kiritimati 36.10 34** PFAKE 05 39 30.0 +12
XMAS LR LR
comp=Z,5.0nm,19.0s
**MTSU Mount Surprise 37.33 278** P **P 05 39 28.5 +0.1**
baz=37,SNR=20
**RKT Rikitea 37.68 91** *eS* **S 05 45 12.7 -7.6**
comp=Z,803nm,29.6s
RKT *e*LR LR 05 49 29.2
comp=Z,9µm,30.8s
**RKT Rikitea 37.68 91** *eT* T 06 19 11.0
comp=Z,2.4nm,0.3s
**RABL Rabaul 38.71 304** *eP* **P 05 39 36.5 -3.6**
comp=Z,229nm,0.4s
**PMG Port Moresby 39.27 293** LR LR 05 53 48.0
comp=Z,7µm,19.9s,baz=126,slow=33
**PMG Port Moresby 39.27 293** *i* P **P 05 39 43.0 -1.8**
PMG pmax pmax
comp=Z,64nm,0.9s
**PMG Port Moresby 39.27 293** PFAKE 05 39 50.0 +5.2
PMG LR LR
comp=Z,6µm,20.0s
**TAOE Nuku Hiva Isla 39.71 67** *eS* **S 05 45 42.4 -8.8**
comp=Z,980nm,25.9s
TAOE *e*LR LR 05 50 25.4
comp=Z,6µm,28.6s,baz=243
**COEN Coen 40.18 283** P **P 05 39 51.6 -0.8**
baz=40,SNR=17
**COEN Coen 40.18 283** *eP* **P 05 39 51.2 -1.2**
comp=Z,43nm,0.9s
**BBOO Buckleboo 40.49 253** P **P 05 39 54.4 -0.4**
baz=40,SNR=26
**BBOO Buckleboo 40.49 253** *eP* **P 05 39 54.7 -0.1**
comp=Z,66nm,0.9s
**QIS Mount Isa 40.49 272** P **P 05 39 55.1 +0.2**
baz=40,SNR=7.9
**PTCN Pitcairn Islan 41.36 96** PFAKE 05 40 20.0 +18
PTCN LR LR
comp=Z,4µm,21.0s
**MANU Manus Island 43.67 302** *eP* **P 05 40 20.6 -0.3**
comp=Z,259nm,0.8s
**AS01 Alice Springs 44.39 265** *eP* **P 05 40 25.0 -1.6**
**AS31 Alice Springs 44.43 265** *eP* **P 05 40 26.0 -1.0**
comp=Z,24nm,1.1s
**ASAR Alice Springs 44.43 265** P **P 05 40 25.5 -1.5**
comp=Z,53nm,0.9s,baz=114,slow=7.8,SNR=225
ASAR PcP **PP 05 42 10.8 +0.1**
comp=Z,6.6nm,0.7s,baz=122,slow=4.0,SNR=5.0
ASAR LR LR 05 58 19.3
comp=Z,13µm,18.8s,baz=107,slow=35
**WB2 Warramunga Arr 45.30 270** *eP* **P 05 40 29.8 -4.2**
**WRAB Tennant Creek 45.31 270** *ceP* **P 05 40 32.6 -1.4**
WRAB pmax pmax
comp=Z,96nm,0.9s
**WRAB Tennant Creek 45.31 270** *eP* **P 05 40 29.5 -4.5**
comp=Z,91nm,0.9s
WRAB *e*PcP **PcP 05 42 09.2 -4.4**
WRAB LR LR
comp=Z,4µm,19.0s
**WR1 Warramunga Arr 45.31 270** *eP* **P 05 40 29.8 -4.3**
comp=Z,110nm,0.9s
**WRA Warramunga Arr 45.31 270** P **P 05 40 29.8 -4.3**
comp=Z,72nm,0.8s,baz=108,slow=7.9,SNR=78
WRA PcP **PcP 05 42 14.6 +1.0**
comp=Z,31nm,0.9s,baz=109,slow=3.5,SNR=9.3
WRA LR LR 05 58 23.5
comp=Z,4µm,18.8s,baz=115,slow=35
**FORT Forrest 47.55 254** P **P 05 40 49.3 -2.2**
baz=47,SNR=7.3
**FORT Forrest 47.55 254** *eP* **P 05 40 48.5 -3.0**
comp=Z,755nm,0.9s
**WRKA Warakurna 48.87 261** P **P 05 40 59.4 -2.4**
baz=48,SNR=94
**SBA Scott Base 49.29 185** *eP* P 05 41 10.9 +6.7
SBA pmax pmax
comp=Z,69nm,0.9s
SBA MLR MLR
comp=Z,2µm,19.0s
**SBA Scott Base 49.29 185** *eP* P 05 41 10.9 +6.7
comp=Z,69nm,0.9s
SBA LR LR
comp=Z,2µm,19.0s
**VNDA Vanda 49.38 186** P P 05 41 10.8 +6.0
comp=Z,6.9nm,1.1s,baz=14,slow=8.3,SNR=9.5
VNDA LR LR 05 58 35.6
comp=Z,1µm,20.7s,baz=18,slow=32
**VNDA Vanda 49.38 186** *eP* P 05 41 10.6 +5.8
**VNDA Vanda 49.38 186** *eP* P 05 41 10.6 +5.7
**KDU Kakadu 49.96 278** P **P 05 41 09.3 -0.8**
baz=49,SNR=4.0
**WAKE Wake Island 50.88 339** PFAKE 05 41 30.0 +13
WAKE LR LR
comp=Z,5µm,19.0s
**MTN Manton Dam 51.05 277** *eP* **P 05 41 16.9 -1.5**
MTN *e*PcP **PcP 05 42 35.1 +0.9**
**KNRA Kununurra 51.88 273** P **P 05 41 23.0 -1.5**
baz=51,SNR=7.8
**KMBL Kambalda 52.56 251** P **P 05 41 28.5 -1.0**
baz=52,SNR=13
**POHA Pohakuloa 52.77 25** PFAKE 05 41 40.0 +8.7
POHA LR LR
comp=Z,4µm,20.0s
**KIP Kipapa 53.45 22** *ceP* **P 05 41 35.8 -0.2**
KIP pmax pmax
comp=Z,479nm,1.0s
**RKGY Rocky Gully 55.75 246** P **P 05 41 51.1 -1.7**
baz=55,SNR=8.9
**KLBR Kellerberrin 55.91 250** P **P 05 41 52.4 -1.5**
baz=55,SNR=27
**NWAO Narrogin (SRO) 55.97 248** P **P 05 41 53.4 -0.9**
baz=55,SNR=4.4
NWAO P **P 05 41 53.4 -0.9**
baz=55,SNR=4.4
**NWAO Narrogin (SRO) 55.97 248** *eP* **P 05 41 53.1 -1.3**
NWAO pmax pmax
comp=Z,36nm,1.1s
NWAO MLR MLR
comp=Z,2µm,19.0s
**NWAO Narrogin (SRO) 55.97 248** *eP* **P 05 41 53.1 -1.3**
comp=Z,36nm,1.1s
NWAO LR LR
comp=Z,2µm,19.0s
**GUMO Guam 56.56 313** PFAKE 05 42 10.0 +11
GUMO LR LR
comp=Z,3µm,19.0s
**BLDU Ballidu 57.04 251** P **P 05 42 00.8 -1.2**
baz=56,SNR=9.5
**MUN Mundaring 57.06 249** P **P 05 42 00.9 -1.3**
baz=56,SNR=5.8
**MIDW Midway 57.13 359** PFAKE 05 42 10.0 +7.6
MIDW LR LR
comp=Z,3µm,19.0s
**MBWA Marble Bar 57.60 262** *eP* **P 05 42 04.4 -1.6**
comp=Z,98nm,0.9s
MBWA LR LR
comp=Z,8µm,20.0s
**MORW Morawa 58.06 252** P **P 05 42 08.7 -0.5**
baz=57,SNR=5.2
**SOEI Soe 58.44 277** P **P 05 42 16.8 +4.7**
**SOEI Soe 58.44 277** *eP* **P 05 42 12.3 +0.2**
comp=Z,191nm,1.2s
**RPN Rapa Nui 58.55 106** LR LR 06 03 39.8
comp=Z,1µm,19.0s,baz=220,slow=32
**QSPA South Pole Qui 60.87 180** *eP* **P 05 42 29.9 +1.8**
comp=Z,281nm,0.9s
QSPA LR LR
comp=Z,3µm,20.0s
**GIRL Giralia 61.78 259** P **P 05 42 34.2 -0.6**
baz=61,SNR=4.0
**MIR Mirnyy 63.72 207** ⇑ *iP* **P 05 42 51.0 +4.0**
MIR *e*S S 05 51 31.0 +11
MIR *e* 05 52 44.0
MIR pmax pmax
comp=Z,16nm,1.0s
MIR smax smax
comp=N,2µm,9.0s
MIR MLR MLR
comp=Z,2µm,16.0s
**LUWI Luwuk 64.09 284** *eP* **P 05 42 48.4 -1.9**
comp=Z,52nm,0.9s
**PLAI Plampang 64.52 274** P **P 05 42 53.2 +0.1**
**KAPI Kappang 64.64 279** *eP* **P 05 42 53.2 -0.6**
comp=Z,41nm,1.3s
KAPI LR LR
comp=Z,2µm,20.0s
**APSI Ampana 65.11 284** P **P 05 42 57.5 +0.6**
**DAV Davao City (W) 66.29 293** PFAKE 05 43 20.0 +16
DAV LR LR
comp=Z,686nm,21.0s
**JAGI Jajag, Banyuwa 67.85 273** *eP* **P 05 43 14.0 -0.5**
comp=Z,125nm,1.0s
**JCJ Chichijima 68.55 321** LR LR 06 09 27.1
comp=Z,670nm,19.6s,baz=104,slow=33
**PWJI Pagerwojo 70.11 272** P **P 05 43 28.9 +0.4**
**PCJI Pacitan 70.58 271** P **P 05 43 31.6 +0.2**
**PMSA Palmer Station 72.81 156** PFAKE 05 44 00.0 +16
PMSA LR LR
comp=Z,1µm,20.0s
**KPJI Karang Pucung 72.94 271** P **P 05 43 45.8 +0.2**
**KKM Kota Kinabalu 73.39 287** PFAKE 05 44 00.0 +12
KKM LR LR
comp=Z,832nm,19.0s
**MAW Mawson 73.83 200** P **P 05 43 54.3 +4.4**
comp=Z,28nm,1.0s,baz=146,slow=8.8,SNR=13
MAW LR LR 06 16 23.4
comp=Z,3µm,18.6s,baz=112,slow=36
**MAW Mawson 73.83 200** P **P 05 43 50.6 +0.7**
baz=73,SNR=12
**SBUM Sibu 74.89 282** *eP* **P 05 43 56.6 -0.5**
comp=Z,24nm,1.0s
**KSM Kuching 76.04 280** *eP* **P 05 44 03.1 -0.5**
comp=Z,32nm,0.9s
KSM LR LR
comp=Z,2µm,19.0s
**INU Inuyama 77.72 323** *eP* **P 05 44 11.5 -1.0**
comp=Z,59nm,1.1s
**MJAR Matsushiro Arr 78.01 324** P **P 05 44 12.2 -2.0**
comp=Z,23nm,0.9s,baz=161,slow=5.2,SNR=27
MJAR LR LR 06 13 03.0
comp=Z,535nm,21.8s,baz=145,slow=32
**MAJO Matsushiro 78.01 324** *c iP* **P 05 44 12.4 -1.8**
MAJO pmax pmax
comp=Z,41nm,1.1s
**MAJO Matsushiro 78.01 324** *eP* **P 05 44 12.2 -2.0**
comp=Z,47nm,1.0s
MAJO LR LR
comp=Z,837nm,20.0s
**MAT Matsushiro 78.01 324** P **P 05 44 12.2 -2.0**
MAT S **S 05 54 06.2 -0.4**
**MJB9 Matsu-Tunnel 78.02 324** *eP* **P 05 44 12.7 -1.5**
comp=Z,50nm,1.1s
**SYO Syowa Base 78.52 193** ‖ *iP* **P 05 44 18.4 +1.8**
**SYO Syowa Base 78.52 193** *eSH* S 05 54 22.0 +11
**SNAA Sanae 79.27 178** P **P 05 44 23.8 +3.0**
**SNAA Sanae 79.27 178** *c iP* **P 05 44 23.4 +2.6**
**SNAA Sanae 79.27 178** *eP* **P 05 44 23.7 +2.9**
comp=Z,149nm,1.8s
**VNA3 Neumayer Olymp 79.37 176** P **P 05 44 23.7 +2.5**
**JNU Nakatsue 79.53 317** P **P 05 44 21.6 -1.0**
comp=Z,40nm,0.9s,baz=25,slow=2.5,SNR=15
**JNU Nakatsue 79.53 317** *eP* **P 05 44 21.5 -1.1**
comp=Z,35nm,0.8s
**VNA2 Neumayer--Watz 79.82 176** P **P 05 44 26.8 +3.0**
baz=164,slow=5.0
**ERM Erimo 80.05 331** *d iP* **P 05 44 25.2 +0.1**
ERM pmax pmax
comp=Z,38nm,1.1s
**ERM Erimo 80.05 331** PFAKE 05 44 40.0 +15
ERM LR LR
comp=Z,2µm,20.0s
**VNA1 Neumayer--Stat 80.05 176** P **P 05 44 27.9 +3.1**
**NVL N'lazarevskaya 80.10 183** *eP* **P 05 44 28.7 +3.5**
NVL *e* 05 47 32.3
NVL *eS* **S 05 54 30.7 +2.8**
**YHNB Yeheng 80.16 305** PFAKE 05 44 40.0 +14
YHNB LR LR
comp=Z,2µm,20.0s
**TATO Taipei 80.27 306** PFAKE 05 44 40.0 +13
TATO LR LR
comp=Z,2µm,19.0s
**YUK Yuzh-Kuril'sk 80.62 334** *eP* **P 05 44 23.7 -4.4**
YUK *e* 05 47 27.6
YUK *e*PPP PPP 05 49 18.4
YUK *eS* **S 05 54 26.6 -7.2**
**KUR Kuril'sk 80.88 335** *eP* **P 05 44 28.0 -1.5**
KUR *eS* **S 05 54 42.4 +5.9**
KUR MLR MLR
comp=Z,1µm,16.0s
KUR MLR MLR
comp=N,1µm,12.0s
**COCO West Island 81.22 261** PFAKE 05 44 40.0 +7.9
COCO LR LR
comp=Z,3µm,19.0s
**PAF Port-aux-Franc 81.82 217** PFAKE 05 44 50.0 +15
PAF LR LR
comp=Z,3µm,19.0s
**ASAJ Asahikawa 82.00 332** P **P 05 44 35.9 +0.4**
comp=Z,27nm,0.7s,baz=216,slow=6.6,SNR=15
**ASAJ Asahikawa 82.00 332** *eP* **P 05 44 36.3 +0.8**
comp=Z,46nm,1.0s
**PLCA Paso Flores 82.38 133** P **P 05 44 42.3 +4.3**
comp=Z,8.6nm,0.9s,baz=244,slow=4.4,SNR=7.0
PLCA LR LR 06 12 37.6
comp=Z,660nm,21.5s,baz=286,slow=29
**PLCA Paso Flores 82.38 133** *eP* **P 05 44 41.7 +3.7**
PLCA pmax pmax
comp=Z,28nm,1.3s
**PLCA Paso Flores 82.38 133** *eP* **P 05 44 41.7 +3.7**
comp=Z,28nm,1.3s
**EFI East Falkland 83.08 147** PFAKE 05 44 50.0 +8.7
EFI LR LR
comp=Z,2µm,20.0s
**SKR Severo-Kuril's 83.16 343** *eP* P 05 44 51.2 +10
SKR *e* 05 56 05.5
SKR MLR MLR
comp=Z,2µm,19.0s
SKR MLR MLR
comp=Z,1µm,18.0s
**SRIG Santa Rosalia 83.40 54** *eP* **P 05 44 45.1 +1.9**
comp=Z,50nm,1.1s
**PAGB Antelope Grade 83.58 43** *eP* **P 05 44 45.5 +1.5**
comp=Z,114nm,1.8s
**TJN Taejon 83.87 318** *ceP* **P 05 44 45.1 -0.3**
**MWC Mount Wilson 83.90 45** *eP* **P 05 44 47.3 +1.4**
MWC pmax pmax
comp=Z,31nm,1.4s
**MWC Mount Wilson 83.90 45** *eP* **P 05 44 47.3 +1.4**
comp=Z,31nm,1.4s
**ARVC Arvin 84.03 44** P **P 05 44 46.9 +0.6**
baz=228
**MURC Murrieta 84.03 46** P **P 05 44 46.9 +0.5**
baz=229,SNR=8.6
**MONP2 Monument Peak 84.07 47** P **P 05 44 47.7 +0.9**
baz=230,SNR=10
**IKP In-Ko-Pah, Jac 84.11 48** P **P 05 44 46.9 0.0**
baz=230
**BFSC Mount Baldy Ra 84.16 45** P **P 05 44 47.7 +0.6**
baz=229,SNR=5.3
**YSS Yuzh-Sakhalins 84.26 333** ⇑ *eP* **P 05 44 47.2 +0.1**
YSS *e**PP **pP 05 44 55.6 +1.0**
YSS *e* 05 44 57.9
YSS *eS* **S 05 55 12.3 +1.4**
YSS *e*SSS SSS 06 03 59.0
YSS pmax pmax
comp=Z,90nm,0.9s
YSS pmax pmax
comp=Z,420nm,11.0s
YSS MLR MLR
comp=Z,810nm,17.0s
**YSS Yuzh-Sakhalins 84.26 333** *eP* **P 05 44 47.7 +0.6**
comp=Z,74nm,0.8s
YSS LR LR
comp=Z,785nm,21.0s
**KSRS Korea Array 84.28 319** P **P 05 44 47.4 -0.1**
comp=Z,13nm,0.9s,baz=141,slow=5.3,SNR=24
**SSE Sheshan 84.29 310** *eP* **P 05 44 47.0 -0.7**
SSE S **S 05 55 12.1 +0.1**
SSE pmax pmax
comp=Z,44nm,0.7s
SSE pmax pmax
comp=Z,590nm,6.6s
SSE LR LR
comp=Z,510nm,22.2s
SSE LR LR
comp=Z,830nm,22.3s
SSE LR LR
comp=Z,1µm,22.1s
**KS15 Wonju Array Si 84.30 319** *eP* **P 05 44 46.2 -1.3**
**KSAR Wonju Array Be 84.30 319** P **P 05 44 47.4 -0.1**
**KSAR Wonju Array Be 84.30 319** P **P 05 44 47.4 -0.1**
**KS01 Wonju Array Si 84.31 319** *eP* **P 05 44 46.9 -0.7**
**VES Vestal, Richgr 84.35 44** P **P 05 44 48.8 +0.9**
baz=228,SNR=10
**EDW2 Edwards Air Fo 84.38 45** P **P 05 44 49.0 +0.9**
baz=229,SNR=7.7
**SWSC Sam W. Stewart 84.50 47** P **P 05 44 50.1 +1.4**
baz=230,SNR=6.5
**PFO Pinyon Flats O 84.51 47** P **P 05 44 50.3 +1.4**
comp=Z,11nm,1.0s,baz=280,slow=3.0,SNR=8.1
**PFO Pinyon Flats O 84.51 47** P **P 05 44 50.1 +1.2**
baz=230,SNR=6.9
**PFO Pinyon Flats O 84.51 47** *eP* **P 05 44 50.3 +1.4**
PFO pmax pmax
comp=Z,18nm,1.0s
PFO MLR MLR
comp=Z,2µm,19.0s
**PFO Pinyon Flats O 84.51 47** *eP* **P 05 44 50.3 +1.4**
comp=Z,18nm,1.0s
PFO LR LR
comp=Z,2µm,19.0s
**XPFO Piæon Flat 84.51 47** *eP* **P 05 44 50.3 +1.4**
comp=Z,19nm,1.0s
**ISA Isabella, Lake 84.60 44** P **P 05 44 50.5 +1.3**
baz=228,SNR=7.4
**ISA Isabella, Lake 84.60 44** *eP* **P 05 44 51.1 +1.9**
ISA pmax pmax
comp=Z,25nm,1.1s
**ISA Isabella, Lake 84.60 44** *eP* **P 05 44 51.1 +1.9**
comp=Z,24nm,1.1s
**PET Petropavlovsk 84.72 345** *eP* **P 05 44 48.9 -0.3**
PET *eS* **S 05 55 15.7 +0.5**
PET *e*PS **PnS 05 56 11.9 -0.1**
PET pmax pmax
comp=Z,700nm,12.3s
PET MLR MLR
comp=Z,1µm,21.0s
PET MLR MLR
comp=Z,2µm,17.0s
**PET Petropavlovsk 84.72 345** PFAKE 05 45 00.0 +11
PET LR LR
comp=Z,2µm,20.0s
**LRMC Laurel Mtn Rad 84.96 45** P **P 05 44 52.2 +1.0**
baz=229,SNR=9.5
**PEA0B Petropavlovsk- 85.01 345** *eP* **P 05 44 50.4 -0.4**
comp=Z,47nm,0.8s
**PETK Petropavlovsk- 85.01 345** P **P 05 44 49.6 -1.2**
comp=Z,36nm,0.8s,baz=123,slow=7.0,SNR=20
**PETK Petropavlovsk- 85.01 345** *eP* **P 05 44 49.3 -1.5**
**PETK Petropavlovsk- 85.01 345** *eP* **P 05 44 49.2 -1.5**
**PEA1 Petropavlovsk- 85.02 345** *eP* **P 05 44 49.6 -1.2**
**INCN Inchon 85.05 318** PFAKE 05 45 00.0 +8.6
INCN LR LR
comp=Z,736nm,19.0s
**BELC Belle Mtn. Jos 85.05 47** P **P 05 44 53.0 +1.4**
baz=230,SNR=11
**CMB Columbia Colle 85.07 41** *eP* **P 05 44 52.3 +0.7**
CMB pmax pmax
comp=Z,28nm,1.2s
**CMB Columbia Colle 85.07 41** *eP* **P 05 44 52.3 +0.7**
comp=Z,28nm,1.2s
**BC3 Big Chuckawall 85.18 47** P **P 05 44 53.3 +1.0**
baz=230,SNR=15
**GLA Glamis 85.20 48** P **P 05 44 53.7 +1.4**
baz=231,SNR=13
**GLA Glamis 85.20 48** *eP* **P 05 44 54.2 +1.9**
GLA pmax pmax
comp=Z,34nm,1.2s
**GLA Glamis 85.20 48** *eP* **P 05 44 54.2 +1.9**
comp=Z,34nm,1.2s
**AFDM Forest Hills D 85.36 40** *eP* **P 05 44 54.2 +1.3**
comp=Z,34nm,1.5s
**HEC Hector,Ludlow 85.37 46** P **P 05 44 54.0 +0.8**
baz=230,SNR=12
**GSC Goldstone, Bar 85.39 45** P **P 05 44 53.9 +0.7**
baz=229,SNR=14
**GSC Goldstone, Bar 85.39 45** *eP* **P 05 44 54.8 +1.6**
GSC pmax pmax
comp=Z,52nm,1.4s
**GSC Goldstone, Bar 85.39 45** *eP* **P 05 44 54.8 +1.6**
comp=Z,52nm,1.4s
**MPMC Manual Prospec 85.46 44** P **P 05 44 54.5 +0.8**
baz=229,SNR=18
**ORV Oroville 85.49 39** *eP* **P 05 44 55.0 +1.5**
ORV pmax pmax
comp=Z,34nm,1.5s

ORV Oroville 85.49 39 eP P 05 44 55.0 +1.5
comp=Z,34nm,1.5s
DAC Darwin (Calif) 85.54 44 eP P 05 44 55.4 +1.3
DAC pmax pmax
comp=Z,24nm,1.3s
DAC Darwin (Calif) 85.54 44 eP P 05 44 55.4 +1.3
comp=Z,24nm,1.3s
IPM Ipoh 85.56 278 eP P 05 44 54.2 -0.3
comp=Z,23nm,0.7s
MDPB Devils Postpil 85.56 42 eP P 05 44 55.8 +1.6
comp=Z,16nm,1.1s
QIZ Qiongzhong 85.63 294 P P 05 44 54.6 -0.1
QIZ sP sP 05 45 04.0 -1.0
QIZ PP PP 05 48 17.4 +3.4
QIZ S S 05 55 27.9 +2.0
QIZ SS SS 06 01 07.5 +4.8
QIZ pmax pmax
comp=Z,910nm,6.5s
QIZ LR LR
comp=Z,830nm,42.3s
WDC Whiskeytown Da 85.64 38 eP P 05 44 55.7 +1.5
WDC pmax pmax
comp=Z,35nm,1.1s
WDC Whiskeytown Da 85.64 38 eP P 05 44 55.7 +1.5
comp=Z,35nm,1.1s
TIN Tinemaha, Big 85.67 43 P P 05 44 55.5 +0.9
baz=228
IRM Iron Mountain 85.69 47 P P 05 44 55.9 +1.1
baz=230,SNR=20
MLAC Mammoth, Mammo 85.70 42 P P 05 44 55.1 +0.1
baz=228
113A Mohawk Valley, 85.71 49 eP P 05 44 56.8 +2.0
comp=Z,23nm,1.4s
GMRC Granite Mounta 85.77 46 P P 05 44 56.4 +1.2
baz=230,SNR=7.0
N02D Trinity Center 85.82 38 P P 05 44 55.9 +0.6
baz=225
Y12C Blythe 85.84 48 P P 05 44 56.5 +1.2
baz=231,SNR=7.1
Y12C Blythe 85.84 48 eP P 05 44 57.5 +2.2
comp=Z,26nm,1.3s
O03D Paynes Creek 85.84 39 P P 05 44 56.0 +0.7
baz=226,SNR=9.7
214A Organ Pipe Nat 85.84 50 P P 05 44 56.3 +0.8
baz=232
214A Organ Pipe Nat 85.84 50 eP P 05 44 57.2 +1.7
comp=Z,153nm,1.5s
WAKR Walker 85.94 41 eP P 05 44 57.8 +1.8
comp=Z,63nm,1.6s
TUQ Turquoise Moun 86.02 46 P P 05 44 57.0 +0.6
baz=230,SNR=12
M02C Callahan 86.04 37 P P 05 44 57.0 +0.6
baz=225
SHOC Shoshone, Teco 86.10 45 P P 05 44 57.5 +0.8
baz=230,SNR=14
FURC Furnace Creek, 86.11 44 P P 05 44 57.4 +0.7
baz=229,SNR=6.0
GRAC Grapevine Rang 86.15 44 P P 05 44 58.2 +1.2
baz=229
L02D Cave Junction, 86.19 37 P P 05 44 58.3 +1.4
baz=225
PNTR Pine Nut 86.24 41 eP P 05 44 58.7 +1.1
comp=Z,60nm,1.3s
KULM Kulim 86.28 278 PFAKE 05 45 10.0 +12
KULM LR LR
comp=Z,2μm,19.0s
LDFC Landfair 86.30 46 eP P 05 44 59.4 +1.6
comp=Z,59nm,1.1s
BEKR Beckworth 86.34 40 eP P 05 44 58.7 +0.8
comp=Z,27nm,1.3s
PEL Peldehue 86.35 126 eP P 05 45 01.2 +3.0
PEL pmax pmax
comp=Z,46nm,1.1s
PEL Peldehue 86.35 126 eP P 05 45 01.2 +3.0
comp=Z,46nm,1.1s
YBH Yreka Blue Hor 86.36 37 P P 05 44 59.3 +1.4
comp=Z,4.2nm,1.0s,baz=129,slow=9.8,SNR=4.5
YBH Yreka Blue Hor 86.36 37 eP P 05 44 59.0 +1.1
YBH pmax pmax
comp=Z,23nm,1.2s
YBH Yreka Blue Hor 86.36 37 eP P 05 44 59.0 +1.1
comp=Z,23nm,1.2s
YERR Yerington 86.38 41 eP P 05 44 59.5 +1.3
comp=Z,20nm,1.2s
NEE2 Needles Airpor 86.42 47 P P 05 44 59.6 +1.4
baz=231
PAYG Puerto Ayora 86.43 89 PFAKE 05 45 10.0 +11
PAYG LR LR
comp=Z,1μm,19.0s
PDMCI Parker Dam,Lak 86.43 47 P P 05 44 59.1 +0.8
baz=231,SNR=5.8
NJ2 Nanjing 86.45 310 eP P 05 44 58.8 +0.4
NJ2 pP pP 05 45 05.9 -0.1
NJ2 S S 05 55 34.4 +1.2
NJ2 pmax pmax
comp=Z,32nm,0.7s
NJ2 pmax pmax
comp=Z,1μm,7.1s
NJ2 LR LR
comp=Z,710nm,22.8s
NJ2 LR LR
comp=Z,770nm,17.4s
NJ2 LR LR
comp=Z,1μm,20.6s
NV01 Mina Array Sit 86.55 42 eP P 05 44 59.1 0.0
PSI Prapat 86.56 275 P P 05 44 58.2 -1.4
comp=Z,17nm,0.9s,baz=118,slow=6.8,SNR=9.5
PSI Prapat 86.56 275 eP P 05 44 58.2 -1.4
PSI pmax pmax
comp=Z,21nm,1.0s
PSI Prapat 86.56 275 eP P 05 44 58.2 -1.4
comp=Z,21nm,1.0s
NV11 Mina Array Sit 86.64 42 eP P 05 45 00.3 +0.9
comp=Z,2.2nm,1.2s
PAHR Pah Rah Range 86.78 40 eP P 05 45 01.3 +1.2
comp=Z,16nm,1.2s
TPNV Topopah Spring 86.80 44 P P 05 45 00.9 +0.6
baz=230,SNR=15
TPNV Topopah Spring 86.80 44 eP P 05 45 01.6 +1.3
TPNV Topopah Spring 86.80 44 eP P 05 45 01.6 +1.3
HUMO Hull Mountain 86.85 37 eP P 05 45 02.0 +1.8
comp=Z,46nm,1.5s
M04C Macdoel 86.86 38 P P 05 45 04.8 +4.4
baz=226
USRK Ussuriysk Ar. 86.89 326 P P 05 44 59.9 -0.4
comp=Z,14nm,0.7s,baz=152,slow=2.7,SNR=17
USRK LR LR 06 20 31.2
comp=Z,577nm,19.9s,baz=130,slow=34
Y14A Wickenburg 86.94 48 eP P 05 45 02.6 +1.7
comp=Z,84nm,1.0s
GSI Gunungsitoli 87.01 273 eP P 05 45 02.2 +0.6
comp=Z,40nm,0.8s
KVN Kaiserville 87.08 42 eP P 05 45 02.4 +0.8
KVN pmax pmax
comp=Z,17nm,1.0s
KVN Kaiserville 87.08 42 eP P 05 45 02.4 +0.8
comp=Z,17nm,1.0s
W13A Hualapai Mount 87.09 47 eP P 05 45 03.6 +1.8
comp=Z,15nm,1.0s
SHPR Sheep Range 87.18 45 eP P 05 45 03.7 +1.6
comp=Z,26nm,1.4s
TUC Tucson 87.42 51 P P 05 45 04.3 +1.0
baz=233
TUC Tucson 87.42 51 eP P 05 45 05.5 +2.2
TUC pmax pmax
comp=Z,38nm,1.3s
TUC MLR MLR
comp=Z,1μm,19.0s
TUC Tucson 87.42 51 eP P 05 45 05.5 +2.2
comp=Z,38nm,1.3s
TUC LR LR
comp=Z,1μm,19.0s
I03D Drain, OR 87.42 36 P P 05 45 03.7 +0.9
baz=225
TYV Tymovskoe 87.50 336 eP P 05 45 01.8 -1.3
TYV eS S 05 55 37.2 -5.4
TYV pmax pmax
comp=Z,600nm,4.3s
TYV pmax pmax
comp=Z,18nm,1.0s
TYV smax smax
comp=N,13nm,1.5s
TYV MLR MLR
comp=Z,2μm,16.0s
J04D Umpqua Nationa 87.73 37 P P 05 45 04.6 -0.1
baz=226
MOD Modoc Plateau 87.77 38 eP P 05 45 05.4 +0.6
comp=Z,63nm,1.9s
319A Douglas 87.89 52 eP P 05 45 07.2 +1.6
comp=Z,27nm,1.1s
HPIG 87.92 58 eP P 05 45 07.3 +1.4
comp=Z,24nm,1.4s
I04A Tendick Farm, 87.97 36 P P 05 45 04.8 -0.8
baz=225
R11A Troy Canyon, C 88.11 43 P P 05 45 07.3 +0.7
baz=230,SNR=7.4
R11A Troy Canyon, C 88.11 43 eP P 05 45 07.8 +1.2
comp=Z,11nm,1.4s
J05D Fort Rock, OR 88.22 37 P P 05 45 07.8 +0.8
baz=226
X16A Lo Mia Camp, P 88.25 49 eP P 05 45 09.0 +1.7
comp=Z,24nm,1.0s
TRTT Trang 88.36 280 P P 05 45 10.9 +2.8
comp=Z,36nm,0.9s
MDJ Mudanjiang 88.39 325 P P 05 45 06.6 -0.9
MDJ pP pP 05 45 12.8 -2.2
MDJ sP sP 05 45 15.8 -1.9
MDJ PP PP 05 48 35.3 -0.5
MDJ S S 05 55 54.3 +3.0
MDJ sS sS 05 56 03.6 -0.3
MDJ pmax pmax
comp=Z,24nm,1.1s
MDJ pmax pmax
comp=Z,700nm,7.6s
MDJ LR LR
comp=Z,440nm,15.4s
MDJ LR LR
comp=Z,560nm,18.7s
MDJ LR LR
comp=Z,920nm,17.6s
MDJ Mudanjiang 88.39 325 eP P 05 45 08.0 +0.6
comp=Z,43nm,1.0s
MDJ LR LR
comp=Z,957nm,20.0s
BMN Battle Mountai 88.50 41 eP P 05 45 09.4 +1.1
BMN pmax pmax
comp=Z,11nm,1.0s
BMN Battle Mountai 88.50 41 eP P 05 45 09.4 +1.1
comp=Z,11nm,1.0s
CHBT CHBT 88.55 285 P P 05 45 13.9 +5.0
comp=Z,324nm,0.8s
LCO Las Campanas 88.56 123 PFAKE 05 45 20.0 +11
LCO LR LR
comp=Z,1μm,20.0s
HABR Khabarovsk 88.65 330 ceP P 05 45 07.0 -1.6
HABR e*PP pP 05 45 17.5 +1.4
HABR e 05 48 34.2
HABR eS SKSac 05 55 32.4 -3.7
HABR e*SS S 05 55 50.8 -2.8
HABR eSSS SSS 06 05 14.0
HABR MLR MLR
comp=Z,894nm,18.0s
WHN Wuhan 88.65 306 ⇑P P 05 45 09.8 +0.7
WHN S S 05 55 43.0 -11
WHN LR LR
comp=Z,3μm,21.4s
WHN LR LR
comp=Z,2μm,14.4s
WHN LR LR
comp=Z,3μm,21.0s
LCMT Little Creek M 88.69 46 eP P 05 45 10.7 +1.4
I05D Terrebonne, OR 88.90 36 P P 05 45 10.4 +0.4
baz=226
U15A North Rim 88.93 47 eP P 05 45 12.4 +1.7
comp=Z,57nm,1.5s
DL2 Dalian 88.95 317 ⇑iP P 05 45 10.1 -0.2
DL2 SKS SKSac 05 55 38.4 0.0
DL2 S S 05 55 58.3 +1.4
DL2 pmax pmax
comp=Z,63nm,0.9s
DL2 pmax pmax
comp=Z,800nm,7.5s
DL2 LR LR
comp=Z,370nm,20.4s
DL2 LR LR
comp=Z,830nm,19.8s
DL2 LR LR
comp=Z,910nm,20.0s
CCUT Cedar City 88.96 45 eP P 05 45 12.7 +2.0
comp=Z,22nm,1.2s
WUAZ Wupatki 88.97 48 P P 05 45 11.2 +0.5
baz=233
WUAZ Wupatki 88.97 48 eP P 05 45 12.5 +1.8
WUAZ LR LR
comp=Z,1μm,20.0s
WVOR Wild Horse Val 89.04 39 eP P 05 45 11.7 +0.9
WVOR MLR MLR
comp=Z,3μm,19.0s
WVOR Wild Horse Val 89.04 39 eP P 05 45 11.7 +0.9
WVOR LR LR
comp=Z,3μm,19.0s
SZCU Shurtz Canyon 89.16 45 eP P 05 45 13.8 +2.2
comp=Z,33nm,1.5s
SKNT Sakolnakorn 89.30 290 P P 05 45 14.6 +2.2
comp=Z,72nm,1.2s
X18A Snowflake 89.30 49 eP P 05 45 14.0 +1.7
comp=Z,13nm,0.9s
E03A Lebam 89.35 33 eP P 05 45 12.8 +0.9
comp=Z,77nm,1.2s
TRQA Tornquist 89.36 134 PFAKE 05 45 30.0 +17
TRQA LR LR
comp=Z,1μm,20.0s
G05D Wamic, OR 89.54 35 P P 05 45 14.0 +1.1
baz=226
PKCU Pink Cliffs 89.55 46 eP P 05 45 16.3 +2.8
comp=Z,96nm,1.7s
121A Cookes Peak, D 89.59 52 P P 05 45 14.2 +0.5
baz=235
121A Cookes Peak, D 89.59 52 eP P 05 45 16.0 +2.3
comp=Z,47nm,1.6s
I07A Izee 89.68 37 eP P 05 45 14.7 +0.9
comp=Z,27nm,1.4s
SNY Shenyang 89.70 320 ⇑P P 05 45 12.0 -1.7
SNY SS SS 06 02 05.6 +4.1
SNY pmax pmax
comp=Z,28nm,1.2s
SNY pmax pmax
comp=Z,660nm,8.1s
SNY LR LR
comp=Z,380nm,14.5s
SNY LR LR
comp=Z,720nm,18.6s
SNY LR LR
comp=Z,820nm,17.6s
J08A Circle Bar Ran 89.75 38 eP P 05 45 15.3 +1.3
comp=Z,19nm,1.2s
W18A Petrified Fore 89.80 49 P P 05 45 15.0 +0.4
baz=234
W18A Petrified Fore 89.80 49 eP P 05 45 16.3 +1.7
comp=Z,38nm,1.4s
G06A Carlson Farm, 89.88 36 eP P 05 45 15.6 +1.1
comp=Z,77nm,1.6s
KHON Khomkaen 89.94 289 P P 05 45 17.7 +2.3
comp=Z,23nm,1.0s
HOPE Hope Point 89.97 158 PFAKE 05 45 30.0 +15
HOPE LR LR
comp=Z,988nm,19.0s
CN2 Changchun 89.98 322 eP P 05 45 14.0 -1.0
CN2 epP pP 05 45 23.4 +0.9
CN2 ePP PP 05 48 50.6 +2.1
CN2 eS S 05 56 03.9 -2.4
CN2 pmax pmax
comp=Z,30nm,1.2s
CN2 pmax pmax
comp=Z,200nm,7.0s
CN2 LR LR
comp=Z,400nm,18.0s
CN2 LR LR
comp=Z,400nm,18.0s
CN2 LR LR
comp=Z,500nm,19.0s
MTPU Mount Pierson 89.99 45 eP P 05 45 17.8 +2.1
comp=Z,68nm,1.9s
EPT El Paso 90.05 53 eP P 05 45 17.8 +2.0
comp=Z,20nm,1.1s
NKL Nikolayevsk 90.08 336 eP P 05 45 15.0 -0.1
NKL e 05 45 24.5
NKL e 05 55 44.0
NKL e 05 56 06.0
NKL pmax pmax
comp=N,20nm,1.0s
NKL pmax pmax
comp=Z,90nm,1.0s
NKL pmax pmax
comp=Z,800nm,8.0s
TIA Tai'an 90.10 312 ⇑P P 05 45 16.3 +0.5
TIA PP PP 05 48 48.6 -1.1
TIA S S 05 56 12.0 +4.2
TIA pmax pmax
comp=Z,90nm,1.1s
TIA pmax pmax
comp=Z,1μm,6.9s
TIA LR LR
comp=Z,760nm,21.8s
TIA LR LR
comp=Z,480nm,23.0s
TIA LR LR
comp=Z,2μm,33.3s
NAYO Nakonayok 90.18 286 P P 05 45 18.3 +1.8
comp=Z,33nm,0.7s,comp=Z,2μm
MSU Marysvale 90.29 45 eP P 05 45 19.2 +2.3
MSU Marysvale 90.29 45 eP P 05 45 19.2 +2.3
LON Longmire 90.35 34 eP P 05 45 17.6 +0.9
LON pmax pmax
comp=Z,16nm,1.3s
LON Longmire 90.35 34 eP P 05 45 17.6 +0.9
comp=Z,16nm,1.3s
CHAI Chaiyaphum 90.41 288 P P 05 45 18.7 +1.1
comp=Z,16nm,0.8s,comp=Z,142nm
NONG Nongkai 90.54 290 P P 05 45 19.6 +1.4
comp=Z,75nm,0.9s
D05A Enumclaw 90.57 34 eP P 05 45 18.6 +0.9
comp=Z,69nm,1.3s
KLR Kul'dur 90.67 329 ciP P 05 45 17.8 -0.3
F07A Phinny Hill Vi 90.70 36 eP P 05 45 19.6 +1.4
comp=Z,29nm,1.4s
LTX Lajitas 90.72 57 eP P 05 45 20.4 +1.5
LTX Lajitas 90.72 57 eP P 05 45 20.4 +1.5
TX31 Lajitas Ar. Si 90.72 57 eP P 05 45 20.4 +1.4
TXAR Lajitas Array 90.72 57 P P 05 45 20.4 +1.5
comp=Z,3.7nm,0.9s,baz=207,slow=5.3,SNR=22
TXAR PKKPbc PKKPbc 06 02 48.3 +3.2
comp=Z,0.7nm,0.9s,baz=96,slow=3.3,SNR=4.3
G08A Pilot Rock 90.79 37 eP P 05 45 19.7 +0.8
comp=Z,34nm,1.3s
MNTX Cornudas Mount 90.80 54 P P 05 45 19.5 +0.3
baz=236
MNTX Cornudas Mount 90.80 54 eP P 05 45 20.2 +1.1
MNTX LR LR
comp=Z,987nm,20.0s
DUG Dugway, Tooele 90.94 43 P P 05 45 21.1 +1.4
baz=232
DUG Dugway, Tooele 90.94 43 eP P 05 45 20.6 +0.9
DUG MLR MLR
comp=Z,2μm,19.0s
DUG Dugway, Tooele 90.94 43 eP P 05 45 20.6 +0.9
DUG LR LR
comp=Z,2μm,19.0s
LAZ Ladron 91.11 51 eP P 05 45 22.6 +1.9
Q16A Castle Valley 91.16 45 eP P 05 45 22.3 +1.4
comp=Z,11nm,1.2s
MFID Camas Ranch 91.23 39 eP P 05 45 22.0 +1.0
NLU North Lily Min 91.24 44 eP P 05 45 22.8 +1.6
comp=Z,13nm,1.3s
HAWA Hanford 91.24 36 eP P 05 45 22.1 +1.3
HAWA LR LR
comp=Z,2μm,20.0s
BGU Big Grassy Mou 91.26 43 eP P 05 45 22.4 +1.1
comp=Z,12nm,1.4s
LTY Liberty 91.26 34 eP P 05 45 21.5 +0.5
comp=Z,61nm,1.9s
B05A Bryant 91.27 33 P P 05 45 21.5 +0.7
baz=226
A04D Lummi Island 91.31 32 P P 05 45 22.0 +1.0
baz=225
BNM Barren Site 91.31 51 eP P 05 45 22.4 +0.7
TMUT Trail Mountain 91.36 45 eP P 05 45 23.6 +1.6
comp=Z,22nm,1.2s
BMO Blue Mountains 91.37 38 eP P 05 45 22.4 +0.8
BMO MLR MLR
comp=Z,1μm,20.0s
BMO Blue Mountains 91.37 38 eP P 05 45 22.4 +0.8
BMO LR LR
comp=Z,1μm,20.0s
MPU Maple Canyon 91.54 44 eP P 05 45 24.1 +1.4
comp=Z,14nm,1.4s
PBKT Sadao Pong 91.59 288 P P 05 45 29.8 +6.7
comp=Z,45nm,1.1s
SRU San Rafael Swe 91.68 45 eP P 05 45 24.2 +1.0
SRU pmax pmax
comp=Z,21nm,1.2s
SRU San Rafael Swe 91.68 45 eP P 05 45 24.2 +1.0
comp=Z,20nm,1.2s
P17A Butcher Ranch, 91.76 45 eP P 05 45 24.1 +0.5
comp=Z,27nm,1.6s
MVCO Mesa Verde 91.84 48 P P 05 45 24.5 +0.4
baz=234
MVCO Mesa Verde 91.84 48 eP P 05 45 25.5 +1.4
comp=Z,6.8nm,1.1s
MVCO LR LR
comp=Z,2μm,19.0s
SPUT South Promonto 91.84 43 eP P 05 45 24.6 +0.7
comp=Z,16nm,1.1s
ANMO Albuquerque 91.88 51 P P 05 45 24.6 +0.3
baz=236
ANMO Albuquerque 91.88 51 ceP P 05 45 24.7 +0.3
ANMO pmax pmax
comp=Z,7.0nm,1.0s
ANMO Albuquerque 91.88 51 eP P 05 45 25.5 +1.2
comp=Z,21nm,1.3s
ANMO LR LR
comp=Z,1μm,19.0s
CTU Camp Tracy 91.88 44 eP P 05 45 25.2 +1.0
comp=Z,11nm,1.2s
PV05 Paradox Valley 91.96 47 eP P 05 45 25.9 +1.2
ENH Enshi 91.98 304 eP P 05 45 24.1 -0.6
comp=Z,90nm,0.9s
ENH LR LR
comp=Z,853nm,22.0s
JLU Jordanelle 92.01 44 eP P 05 45 26.1 +1.3
comp=Z,5.2nm,0.9s
E09A Wood Farm, Sta 92.03 36 eP P 05 45 25.4 +1.0
comp=Z,39nm,1.4s
GYA Guiyang 92.06 299 eP P 05 45 24.3 -0.9
GYA pP sP 05 45 34.6 -0.9
GYA PP PP 05 49 08.0 +2.5
GYA SKS SKSac 05 55 54.3 -2.9
GYA S S 05 56 23.3 -3.1
GYA pmax pmax
comp=Z,20nm,1.0s
GYA pmax pmax
comp=Z,130nm,6.7s
HLID Hailey 92.12 40 P P 05 45 26.1 +0.9
baz=231
HLID Hailey 92.12 40 eP P 05 45 26.1 +0.9
HLID LR LR
comp=Z,2μm,20.0s
F10A Beach Ranch, E 92.15 37 eP P 05 45 25.7 +0.5
comp=Z,14nm,0.8s
P18A Preston Nutter 92.16 45 eP P 05 45 26.4 +0.7
comp=Z,8.9nm,0.6s
PV10 Paradox Valley 92.17 47 eP P 05 45 26.6 +1.0
PV09 Paradox Valley 92.19 46 eP P 05 45 27.1 +1.3
PV01 Paradox Valley 92.33 47 eP P 05 45 27.2 +0.9
TCUT Toone Canyon 92.35 43 eP P 05 45 28.0 +1.6
comp=Z,79nm,1.8s
UTHA Uthaitani 92.36 286 P P 05 45 31.8 +5.1
comp=Z,4.7nm,0.8s
MA2 Magadan 92.51 344 P P 05 45 25.6 -0.7
comp=Z,12nm,0.8s,baz=128,slow=3.6,SNR=6.0
MA2 Magadan 92.51 344 ceP P 05 45 25.2 -1.1
NNA Nana 92.53 105 PFAKE 05 45 40.0 +12
NNA LR LR
comp=Z,399nm,20.0s
B08A Colville Reser 92.67 34 eP P 05 45 27.9 +0.4
comp=Z,3.7nm,0.8s
C09A Chrisman Ranch 92.82 35 eP P 05 45 28.6 +0.6
comp=Z,37nm,1.8s
BJT Baijiatuau 92.97 315 eP P 05 45 29.0 0.0
BJT pmax pmax
comp=Z,25nm,0.8s
BJT MLR MLR
comp=Z,839nm,20.0s
BJT Baijiatuau 92.97 315 eP P 05 45 29.0 0.0
comp=Z,25nm,0.8s
BJT LR LR
comp=Z,839nm,20.0s
BJI Beijing 92.98 315 P P 05 45 29.1 +0.1
BJI PP PP 05 49 08.6 -3.7

BJI S **S** **05 56 35.5 +1.9**
BJI pmax pmax
comp=Z,21nm,1.0s
BJI pmax pmax
comp=Z,540nm,4.8s
BJI LR LR
comp=Z,670nm,21.7s
BJI LR LR
comp=Z,440nm,16.7s
BJI LR LR
comp=Z,940nm,48.5s
**S22A 4UR Ranch, Cre** 93.23 48 P **P** **05 45 31.2 +0.6**
baz=235
**S22A 4UR Ranch, Cre** 93.23 48 *e*P **P** **05 45 32.0 +1.4**
comp=Z,8.3nm,1.1s
**833A Chaparral WMA,** 93.34 59 P **P** **05 45 30.7 -0.2**
baz=239
**AHID Auburn Hatcher** 93.53 42 *e*P **P** **05 45 33.1 +1.4**
comp=Z,28nm,1.3s
AHID LR LR
comp=Z,307nm,20.0s
**O20A White River Ci** 93.70 46 P **P** **05 45 32.8 +0.2**
baz=235
**NEW Newport** 93.71 35 PFAKE 05 45 40.0 +7.8
NEW LR LR
comp=Z,3μm,19.0s
**MCMT McKenzie Canyo** 93.79 40 *e*P **P** **05 45 33.8 +0.9**
**MSTX Muleshoe** 93.88 53 P **P** **05 45 33.7 +0.2**
baz=237
**MSTX Muleshoe** 93.88 53 *e*P **P** **05 45 34.5 +1.1**
comp=Z,22nm,1.1s
**SMCO Snowmass** 93.95 47 *e*P **P** **05 45 35.4 +1.3**
comp=Z,10nm,1.1s
**TIY Taiyuan** 94.03 311 *e*P **P** **05 45 35.4 +1.4**
TIY S **S** **05 56 41.8 -1.4**
TIY pmax pmax
comp=Z,390nm,8.5s
TIY LR LR
comp=Z,360nm,12.4s
TIY LR LR
comp=Z,380nm,13.9s
TIY LR LR
comp=Z,880nm,18.7s
**REDW Red Top Meadow** 94.03 42 *e*P **P** **05 45 34.3 +0.2**
comp=Z,21nm,1.3s
**TPAW Teton Pass** 94.05 42 *e*P **P** **05 45 35.0 +0.8**
comp=Z,15nm,1.3s
**KVTX Kingsville** 94.08 61 PFAKE 05 45 50.0 +16
KVTX LR LR
comp=Z,1μm,20.0s
**SDCO Great Sand Dun** 94.10 49 P **P** **05 45 34.8 +0.2**
baz=236
**SDCO Great Sand Dun** 94.10 49 *e*P **P** **05 45 34.9 +0.3**
SDCO LR LR
comp=Z,674nm,20.0s
**FXWY Fox Creek** 94.10 41 *e*P **P** **05 45 35.7 +1.3**
comp=Z,10nm,1.2s
**SNOW Snow King Moun** 94.15 42 *e*P **P** **05 45 35.7 +1.0**
comp=Z,19nm,1.0s
**JCT Junction City** 94.16 57 P **P** **05 45 34.5 -0.2**
baz=239
**JCT Junction City** 94.16 57 *e*P **P** **05 45 35.5 +0.8**
JCT MLR MLR
comp=Z,1μm,19.0s
**JCT Junction City** 94.16 57 *e*P **P** **05 45 35.5 +0.8**
JCT LR LR
comp=Z,1μm,19.0s
**CMAR Chiang Mai Arr** 94.20 289 P **P** **05 45 36.5 +1.3**
comp=Z,1.7nm,0.3s,baz=143,slow=3.5,SNR=12
CMAR LR LR 06 26 59.5
comp=Z,330nm,20.8s,baz=115,slow=35
**DLMT Dillon** 94.26 39 *e*P **P** **05 45 36.3 +1.3**
comp=Z,13nm,1.2s
**IMW Indian Meadow** 94.31 41 *e*P **P** **05 45 36.5 +1.1**
comp=Z,9.8nm,1.0s
**MOOW Moose Ponds** 94.33 42 *e*P **P** **05 45 36.4 +1.0**
comp=Z,24nm,1.8s
**CHTO Chiang Mai** 94.37 289 P **P** **05 45 39.8 +3.9**
**CHTO Chiang Mai** 94.37 289 *e*P **P** **05 45 37.3 +1.4**
CHTO pmax pmax
comp=Z,13nm,1.0s
CHTO MLR MLR
comp=Z,1μm,19.0s
**CHTO Chiang Mai** 94.37 289 *e*P **P** **05 45 37.2 +1.4**
comp=Z,13nm,1.0s
CHTO LR LR
comp=Z,1μm,19.0s
**XAN Xi'an** 94.41 307 P **P** **05 45 36.3 +0.5**
XAN pP sP 05 45 45.8 -0.3
XAN SKS **SKSac** **05 56 12.4 +2.7**
XAN S **ScS** **05 56 51.8 +3.9**
XAN pmax pmax
comp=Z,24nm,1.3s
XAN pmax pmax
comp=Z,540nm,7.5s
XAN LR LR
comp=Z,770nm,21.2s
XAN LR LR
comp=Z,2μm,20.4s
**KMI Kunming** 94.42 296 P **P** **05 45 34.6 -1.7**
KMI pP pP 05 45 44.4 +0.5
KMI sP sP 05 45 48.3 +1.8
KMI PP **PP** **05 49 26.3 +2.1**
KMI SKS **SKSac** **05 56 09.3 -1.2**
KMI S **S** **05 56 44.1 -3.4**
KMI SS **SS** **06 03 14.6 +4.2**
KMI pmax pmax
comp=Z,15nm,1.3s
KMI pmax pmax
comp=Z,390nm,6.4s
KMI LR LR
comp=Z,310nm,19.0s
KMI LR LR
comp=Z,660nm,20.4s
KMI LR LR
comp=Z,580nm,20.4s
**BW06 Boulder Array** 94.44 43 P **P** **05 45 35.7 -0.3**
baz=234
**BW06 Boulder Array** 94.44 43 *e*P **P** **05 45 36.5 +0.5**
comp=Z,5.2nm,0.9s
BW06 LR LR
comp=Z,2μm,19.0s
**PD31 Pinedale Array** 94.44 43 *e*P **P** **05 45 36.5 +0.5**
**PDAR Pinedale Array** 94.44 43 P **P** **05 45 36.0 0.0**
comp=Z,1.6nm,0.9s,baz=224,slow=4.1,SNR=10
PDAR PKKPbc **PKKPdf** **06 02 37.3 +0.9**
comp=Z,1.3nm,0.7s,baz=68,slow=4.6,SNR=11
**PDAR Pinedale Array** 94.44 43 *e*P **P** **05 45 35.8 -0.1**
**T25A Trinidad** 94.48 50 P **P** **05 45 36.0 -0.3**
baz=237
**QLMT Earthquake Lak** 94.59 40 *e*P **P** **05 45 38.1 +1.5**
**YPP Pitchstone Pla** 94.61 41 *e*P **P** **05 45 39.0 +2.2**
comp=Z,20nm,1.6s
**YHB Horse Butte** 94.67 41 *e*P **P** **05 45 38.7 +1.7**
comp=Z,16nm,1.3s
**TRF Thorofare Moun** 94.70 12 *e*P **P** **05 45 38.2 +1.6**
comp=Z,18nm,0.8s
**YMR Madison River** 94.75 41 *e*P **P** **05 45 39.2 +1.8**
comp=Z,65nm,2.0s
**H17A Grant Village** 94.81 41 *e*P **P** **05 45 37.5 -0.2**
comp=Z,7.2nm,1.0s
**YHH Holmes Hill** 94.89 41 *e*P **P** **05 45 39.6 +1.5**
comp=Z,21nm,1.5s
**BOZ Bozeman (W)** 94.94 40 P **P** **05 45 38.8 +0.7**
baz=233
**BOZ Bozeman (W)** 94.94 40 *e*P **P** **05 45 39.0 +0.9**
BOZ MLR MLR
comp=Z,2μm,19.0s
**BOZ Bozeman (W)** 94.94 40 *e*P **P** **05 45 39.0 +0.9**
BOZ LR LR
comp=Z,2μm,19.0s
**LKWY Lake** 95.02 41 *e*P **P** **05 45 41.0 +2.4**
LKWY pmax pmax
comp=Z,8.0nm,1.0s
LKWY MLR MLR
comp=Z,5μm,19.0s
**LKWY Lake** 95.02 41 *e*P **P** **05 45 41.0 +2.4**
comp=Z,7.7nm,1.0s
LKWY LR LR
comp=Z,5μm,19.0s
**SEY Seymchan** 95.14 346 P **P** **05 45 37.8 -0.6**
comp=Z,17nm,0.9s,baz=139,slow=5.8,SNR=22
**SEY Seymchan** 95.14 346‖ *e*P **P** **05 45 37.9 -0.4**
**ISCO Idaho Springs** 95.17 47 PFAKE 05 45 50.0 +11
ISCO LR LR
comp=Z,1μm,20.0s
**RWWY Rawlins** 95.23 45 *e*P **P** **05 45 40.3 +0.6**
comp=Z,12nm,1.1s
**RLMT Red Lodge** 96.00 41 PFAKE 05 45 50.0 +7.0
RLMT LR LR
comp=Z,2μm,19.0s
**PBA Port Blair** 96.19 280 *e*P P 05 45 42.4 -1.9
PBA AMS AMS 06 34 34.3
comp=Z,1μm,11.9s
**K22A Casper** 96.20 44 P **P** **05 45 43.0 -0.9**
baz=236
**K22A Casper** 96.20 44 *e*P **P** **05 45 44.9 +0.9**
comp=Z,7.2nm,0.9s
**CCB Clear Creek Bu** 96.24 12 *e*P **P** **05 45 42.7 -0.6**
comp=Z,13nm,1.2s
**HHC Hu-ho-hao-te** 96.33 314 *e*P **P** **05 45 43.6 -0.9**
HHC sP sP 05 45 57.4 +2.6
HHC PP **PP** **05 49 41.4 +2.8**
HHC SKS **SKSac** **05 56 18.8 -0.9**
HHC S **S** **05 57 00.8 -2.3**
HHC SS **SS** **06 03 36.9 +0.1**
HHC pmax pmax
comp=Z,13nm,0.5s
HHC pmax pmax
comp=Z,240nm,5.5s
HHC LR LR
comp=Z,380nm,18.5s
HHC LR LR
comp=Z,600nm,21.0s
HHC LR LR
comp=Z,790nm,23.4s
**JTS JuntasAbangare** 96.35 82 PFAKE 05 46 00.0 +15
JTS LR LR
comp=Z,1μm,19.0s
**COLA College** 96.44 12 *e*P **P** **05 45 43.4 -0.8**
COLA pmax pmax
comp=Z,6.0nm,0.9s
COLA MLR MLR
comp=Z,1μm,20.0s
**COLA College** 96.44 12 *e*P **P** **05 45 43.4 -0.8**
comp=Z,6.5nm,0.9s
COLA LR LR
comp=Z,1μm,20.0s
**MDM Murphy Dome** 96.45 12 *e*P **P** **05 45 43.9 -0.5**
comp=Z,21nm,1.3s
**HIA Hailar** 96.51 324 *i* P **P** **05 45 45.8 +0.8**
HIA pmax pmax
comp=Z,2.0nm,0.9s
**HIA Hailar** 96.51 324 PFAKE 05 46 00.0 +15
HIA LR LR
comp=Z,1μm,19.0s
**IL1 Eielson Array** 96.53 12 *e*P **P** **05 45 44.0 -0.6**
**ILAR Eielson Array** 96.53 12 P **P** **05 45 43.7 -0.9**
comp=Z,2.3nm,0.8s,baz=221,slow=5.3,SNR=28
**ILB Eielson Array** 96.53 12 *e*P **P** **05 45 44.0 -0.7**
**IMAR Indian Mountai** 96.53 9 *e*P **P** **05 45 44.4 -0.3**
**CD2 Chengdu** 96.53 302 *e*P **P** **05 45 46.6 +1.0**
CD2 pP pP 05 45 54.0 +0.8
CD2 sP sP 05 45 58.0 +2.2
CD2 SS SS 06 03 35.8 -4.1
CD2 pmax pmax
comp=Z,40nm,1.0s
CD2 pmax pmax
comp=Z,530nm,7.1s
CD2 LR LR
comp=Z,920nm,21.8s
CD2 LR LR
comp=Z,1μm,19.0s
CD2 LR LR
comp=Z,1μm,22.8s
**DGPR DIGLIPUR** 96.75 281 *e*P **P** **05 45 44.3 -2.5**
DGPR AMS AMS 06 41 18.9
comp=Z,997nm,18.5s
**WMOK Wichita Mounta** 97.09 54 PFAKE 05 46 00.0 +12
WMOK LR LR
comp=Z,607nm,20.0s
**OTAV Otavalo** 97.21 94 PFAKE 05 46 00.0 +10
OTAV LR LR
comp=Z,490nm,19.0s
**EGMT Eagleton** 97.42 38 PFAKE 05 46 00.0 +11
EGMT LR LR
comp=Z,3μm,19.0s
**LPAZ La Paz** 97.47 113 LR LR 06 24 09.3
comp=Z,190nm,18.3s,baz=238,slow=32
**EGAK Eagle** 97.69 15 PFAKE 05 46 00.0 +10
EGAK LR LR
comp=Z,976nm,20.0s
**BILL Bilibino** 97.83 354 *i* P **P** **05 45 50.1 -0.3**
BILL pmax pmax
comp=Z,2.0nm,0.9s
**OGNE Ogallala** 98.09 48 PFAKE 05 46 00.0 +7.5
OGNE LR LR
comp=Z,1μm,19.0s
**CBKS Cedar Bluff** 98.50 50 PFAKE 05 46 10.0 +16
CBKS LR LR
comp=Z,1μm,19.0s
**RSSD Black Hills** 98.52 44 P Pdif 05 45 55.2 +0.7
baz=238
**RSSD Black Hills** 98.52 44 *e*P Pdif 05 45 55.3 +0.8
RSSD pmax pmax
comp=Z,19nm,1.3s
**RSSD Black Hills** 98.52 44 *e*P Pdif 05 45 55.3 +0.9
comp=Z,19nm,1.3s
**NATX Nacogdoches** 98.61 59 PFAKE 05 46 10.0 +15
NATX LR LR
comp=Z,1μm,19.0s
**LAO LASA Array** 98.63 41 PFAKE 05 46 10.0 +15
LAO LR LR
comp=Z,1μm,19.0s
**LZH Lanzhou** 99.03 306 *e*P **Pdif** **05 45 57.8 +0.9**
LZH pP sP 05 46 08.4 +1.2
LZH sP pP 05 46 13.5 +9.0
LZH PP **PP** **05 50 02.0 +2.5**
LZH S **S** **05 57 29.3 +2.7**
LZH sS sS 05 57 39.4 +0.2
LZH SS **SS** **06 04 20.3 +5.1**
LZH pmax pmax
comp=Z,36nm,1.0s
LZH pmax pmax
comp=Z,220nm,6.8s
LZH LR LR
comp=Z,1μm,18.3s
LZH LR LR
comp=Z,1μm,19.8s
LZH LR LR
comp=Z,1μm,20.2s
**BCIP Isla Barro Col** 100.26 85 PFAKE 05 46 20.0 +17
BCIP LR LR
comp=Z,684nm,21.0s
**YAK Yakutsk** 100.66 337 *i* P **Pdif** **05 46 03.3 +0.1**
YAK pmax pmax
comp=Z,9.0nm,0.8s
**YAK Yakutsk** 100.66 337 PFAKE 05 46 10.0 +6.8
YAK LR LR
comp=Z,905nm,19.0s
**MIAR Mount Ida** 100.74 56 PFAKE 05 46 20.0 +16
MIAR LR LR
comp=Z,908nm,21.0s
**DGMT Dagmar** 100.75 40 PFAKE 05 46 20.0 +16
DGMT LR LR
comp=Z,1μm,19.0s
**KSU1 Kansas State U** 100.76 51 PFAKE 05 46 20.0 +16
KSU1 LR LR
comp=Z,898nm,19.0s
**ULN Ulaanbaatar** 102.75 318 PFAKE 05 46 20.0 +6.9
ULN LR LR
comp=Z,591nm,19.0s
**ECSD EROS Data Cent** 102.96 47 PFAKE 05 46 30.0 +16
ECSD LR LR
comp=Z,1μm,19.0s
**SHL Shillong** 103.29 292 *e*P **Pdif** **05 46 16.8 +0.7**
SHL AMS AMS 06 38 53.6
comp=Z,422nm,15.6s
**YKA Yellowknife Ar** 103.87 25 Pdiff **Pdif** **05 46 17.3 -0.2**
comp=Z,0.6nm,1.0s,baz=226,slow=4.5,SNR=4.0
YKA PKKPbc **PKKPbc** **06 02 10.8 +1.0**
comp=Z,0.8nm,0.8s,baz=40,slow=2.9,SNR=6.3
**BRAL Brewton** 104.12 62 PFAKE 05 46 30.0 +11
BRAL LR LR
comp=Z,745nm,19.0s
**SCIA State Center** 104.35 50 PFAKE 05 46 30.0 +10
SCIA LR LR
comp=Z,850nm,20.0s
**DGAR Diego Garcia** 104.36 253 PFAKE 05 46 30.0 +9.1
DGAR LR LR
comp=Z,2μm,20.0s
**FFC Flin Flon** 105.14 35 PFAKE 05 50 50.0
FFC LR LR
comp=Z,999nm,19.0s
**AGMN Agassiz Nation** 105.52 43 PFAKE 05 50 50.0
AGMN LR LR
comp=Z,2μm,19.0s
**SAML Samuel** 105.53 110 PFAKE 05 50 50.0
SAML LR LR
comp=Z,1μm,21.0s
**LSA Lhasa** 105.65 295 PFAKE 05 50 50.0
LSA LR LR
comp=Z,427nm,20.0s
**MTDJ Mount Denham** 106.35 78 PFAKE 05 50 50.0
MTDJ LR LR
comp=Z,912nm,20.0s
**HDIL Hopedale** 106.44 53 PFAKE 05 50 50.0
HDIL LR LR
comp=Z,990nm,19.0s
**TLY Talaya** 106.49 320 PFAKE 05 50 50.0
TLY LR LR
comp=Z,701nm,21.0s
**JFWS Jewell Farm** 106.77 50 PFAKE 05 50 50.0
JFWS LR LR
comp=Z,875nm,19.0s
**BOK Bokaro** 107.46 288 *ex* **Pdif** **05 46 29.1 -5.3**
**TIXI Tiksi** 107.48 344 PFAKE 05 50 50.0
TIXI LR LR
comp=Z,576nm,20.0s
**GOGA Godfrey** 107.81 61 PFAKE 05 51 00.0
GOGA LR LR
comp=Z,945nm,19.0s
**EYMN Ely** 108.02 45 PFAKE 05 51 00.0
EYMN LR LR
comp=Z,2μm,19.0s
**SDV Santo Domingo** 108.16 90 PFAKE 05 51 00.0
SDV LR LR
comp=Z,477nm,19.0s
**GTBY Guantanamo Bay** 109.15 77 PFAKE 05 51 00.0
GTBY LR LR
comp=Z,503nm,19.0s
**NHSC New Hope** 110.23 63 PFAKE 05 51 00.0
NHSC LR LR
comp=Z,764nm,19.0s
**ACSO Alum Creek Sta** 110.76 55 PFAKE 05 51 00.0
ACSO LR LR
comp=Z,1μm,19.0s
**HYB Hyderabad** 111.03 279 *e*P **PKiKP** **05 50 48.4 -1.4**
**AAM Ann Arbor** 111.03 53 PFAKE 05 51 00.0
AAM LR LR
comp=Z,786nm,21.0s
**GLMI Grayling** 111.26 50 PFAKE 05 51 00.0
GLMI LR LR
comp=Z,1μm,19.0s
**BLA Blacksburg** 111.55 59 PFAKE 05 51 00.0
BLA LR LR
comp=Z,1μm,19.0s
**SDDR Presa de Saban** 112.03 80 PFAKE 05 51 00.0
SDDR LR LR
comp=Z,960nm,22.0s
**JBP Jabalpur** 112.16 285 *e*P **PKiKP** **05 50 52.4 +0.7**
**PTGA Pitinga** 112.66 104 PFAKE 05 51 10.0
PTGA LR LR
comp=Z,38μm,22.0s
**CNNC Cliffs of the** 112.77 61 PFAKE 05 51 10.0
CNNC LR LR
comp=Z,521nm,20.0s
**GRTK Grand Turk** 113.19 78 PFAKE 05 51 10.0
GRTK LR LR
comp=Z,725nm,19.0s
**WMQ Urumqi** 113.48 308 PKP **PKiKP** **05 50 50.4 -3.3**
WMQ PP **PP** **05 51 46.9 +1.1**
WMQ AMB AMB
comp=Z,450nm,4.5s
WMQ LR LR
comp=Z,880nm,19.5s
WMQ LR LR
comp=Z,900nm,16.9s
WMQ LR LR
comp=Z,1μm,25.9s
**CBN Corbin Frederi** 114.16 58 PFAKE 05 51 10.0 +15
CBN LR LR
comp=Z,896nm,19.0s
**GOA Goa** 114.31 275 *e*P PKPdf 05 50 55.2 -0.8
**BHPL Bhopal** 114.35 284 *e*P PKPdf 05 50 53.3 -2.7
**POO Poona** 115.56 278 *e*P **PKPdf** **05 50 57.0 -1.4**
**ABPO Ambohimpanom** 116.07 227 PFAKE 05 51 10.0 +10
ABPO LR LR
comp=Z,638nm,19.0s
**SJG San Juan** 116.11 83 PFAKE 05 51 10.0 +11
SJG LR LR
comp=Z,650nm,19.0s
**BINY Binghamton** 116.39 55 PFAKE 05 51 10.0 +11
BINY LR LR
comp=Z,1μm,19.0s
**SUR Sutherland** 116.53 196 PFAKE 05 51 10.0 +10
SUR LR LR
comp=Z,3μm,19.0s
**SMLA Simla** 117.38 292 *e*P **PKPdf** **05 51 01.7 +0.2**
**GRGR Grenville** 117.49 91 PFAKE 05 51 20.0 +18
GRGR LR LR
comp=Z,995nm,21.0s
**MK01 Makanchi Array** 117.96 310 *e*PKPdf **PKPdf** **05 51 01.0 -1.2**
**MK31 Makanchi Array** 117.98 310 PKIKP **PKPdf** **05 51 00.6 -1.6**
MK31 pmax pmax
comp=Z,11nm,0.9s
**MK31 Makanchi Array** 117.98 310 *e*PKPdf **PKPdf** **05 51 01.7 -0.5**
**MK32 Makanchi Array** 117.98 310 *e*PKPdf **PKPdf** **05 51 01.3 -1.0**
**MKAR Makanchi Array** 117.98 310 PKP **PKPdf** **05 51 01.3 -1.0**
comp=Z,9.0nm,0.8s,baz=70,slow=2.5,SNR=40
**ZAA0 Zalesovo Array** 117.99 319 *e*PKPdf **PKPdf** **05 51 01.6 -0.4**
**ZALV Zalesovo Beam** 117.99 319 PKP **PKPdf** **05 51 01.1 -0.9**
comp=Z,4.6nm,0.8s,baz=171,slow=1.7,SNR=19
**ZALV Zalesovo Beam** 117.99 319 *e*PKIKP **PKPdf** **05 51 00.6 -1.4**
**ZALV Zalesovo Beam** 117.99 319 *e*PKPdf **PKPdf** **05 51 00.6 -1.4**
**ZAA1 Zalesovo Array** 117.99 319 *e*PKPdf **PKPdf** **05 51 01.1 -0.9**
**LONY Lake Ozonia** 118.02 52 PFAKE 05 51 20.0 +18
LONY LR LR
comp=Z,1μm,19.0s
**DHRM DHARAMSHALA** 118.44 293 *e*P **PKPdf** **05 51 03.9 0.0**
**BOSA Boshof** 118.81 202 PKP **PKPdf** **05 51 07.2 +2.5**
comp=Z,6.4nm,1.1s,baz=280,slow=1.8,SNR=3.2
**THN Thein Dam** 118.96 293 *e*P **PKPdf** **05 51 03.7 -0.8**
**FDF Fort de France** 119.06 89 PFAKE 05 51 20.0 +15
FDF LR LR
comp=Z,545nm,19.0s
**NVS Novosibirsk** 119.07 319⇑ *i*PKIKP **PKPdf** **05 51 03.9 -0.1**
NVS pmax pmax
comp=Z,15nm,1.0s
NVS pmax pmax
comp=N,2.0nm,0.5s
NVS pmax pmax
comp=E,2.0nm,0.4s
**ANWB Willy Bob** 119.73 85 PFAKE 05 51 20.0 +14
ANWB LR LR
comp=Z,468nm,21.0s
**MSEY Mahe Island** 119.76 245 PFAKE 05 51 20.0 +13
MSEY LR LR
comp=Z,1μm,19.0s
**KSH Kashi** 120.72 301 *e*PKP **PKPdf** **05 51 04.9 -3.0**
KSH sPKP 05 51 19.9
KSH PP **PP** **05 52 40.8 +4.4**
KSH SKS **SKSdf** **05 58 11.4 -7.2**
KSH SKKS **SKKSac** **05 59 28.8 -5.6**
KSH SS **SS** **06 09 09.4 +3.3**
KSH LR LR
comp=Z,340nm,6.1s
**KURK Kurchatov** 121.14 314*c* *i*PKIKP **PKPdf** **05 51 07.8 -0.3**
KURK pmax pmax
comp=Z,104nm,1.2s
**KURK Kurchatov** 121.14 314 *e*PKPdf **PKPdf** **05 51 07.1 -1.0**
KURK *e*PKPdf **PKiKP** **05 51 07.5 -0.8**
KURK LR LR
comp=Z,964nm,20.0s
**KURBB Kurchatov Arra** 121.18 314 PKP **PKPdf** **05 51 07.1 -1.1**
comp=Z,12nm,0.8s,baz=105,slow=1.9,SNR=5.4
**PKME Peaks-Kenny Pk** 121.83 53 PFAKE 05 51 20.0 +10
PKME LR LR
comp=Z,822nm,19.0s
**TULEG Thule** 122.33 15 *e*PKPdf **PKPdf** **05 51 08.9 -0.8**
**AAK Ala-Archa** 122.50 304 *i* PKIKP **PKPdf** **05 51 10.3 -0.9**
**AAK Ala-Archa** 122.50 304 *e*PKPdf **PKPdf** **05 51 11.7 +0.5**
AAK LR LR
comp=Z,695nm,20.0s
**KBL Kabul** 124.90 294 *e*PKIKP **PKPdf** **05 51 16.4 +0.2**
**KBL Kabul** 124.90 294 *e*PKPdf **PKPdf** **05 51 16.4 +0.2**
**KK31 Karatay Array** 125.46 304 *i* PKIKP **PKPdf** **05 51 16.2 -0.5**
KK31 pmax pmax

comp=Z,18nm,0.8s
**KKAR Karatay Array 125.46 304** *e*PKIKP **PKPdf** 05 51 16.4 -0.3
**KKAR Karatay Array 125.46 304** *e*PKIKP **PKPdf** 05 51 16.4 -0.3
**BVA0 Borovoye Array 126.43 316** *i* PKIKP **PKPdf** 05 51 17.3 -0.9
BVA0 pmax pmax
comp=Z,24nm,1.0s
**BVAR Borovoye Array 126.43 316** PKP **PKPdf** 05 51 17.8 -0.4
comp=Z,14nm,0.8s,baz=95,slow=1.7,SNR=64
**BRVK Borovoye 126.50 316***c i*PKIKP **PKPdf** 05 51 18.4 +0.1
BRVK pmax pmax
comp=Z,72nm,1.2s
**BRVK Borovoye 126.50 316** *e*PKPdf **PKPdf** 05 51 18.2 -0.2
BRVK LR LR
comp=Z,401nm,19.0s
**RCBR Riachuelo 128.58 126** PFAKE 05 51 40.0 +16
RCBR LR LR
comp=Z,1µm,21.0s
**LSZ Lusaka 129.70 212** PKP **PKPdf** 05 51 28.9 +3.1
comp=Z,1.7nm,0.3s,baz=83,slow=3.5,SNR=6.3
**LSZ Lusaka 129.70 212** PKIKP **PKPdf** 05 51 28.9 +3.1
LSZ MLR MLR
comp=Z,1µm,19.0s
**LSZ Lusaka 129.70 212** PKP **PKPdf** 05 51 28.9 +3.1
LSZ LR LR
comp=Z,1µm,19.0s
**KBS Kingsbay 130.08 358** PFAKE 05 51 40.0 +15
KBS LR LR
comp=Z,480nm,19.0s
**SFJD Kangerlussuaq 130.43 25** PFAKE 05 51 40.0 +15
SFJD LR LR
comp=Z,1µm,19.0s
**SMDO Samad 130.94 276** pPKPdf **PKPdf** 05 51 33.4 +5.6
**DAG Danmarks Havn 131.25 7** *e*PKIKP **PKPdf** 05 51 25.9 -0.8
DAG pmax pmax
comp=Z,2.0nm,0.8s
**DAG Danmarks Havn 131.25 7** *i* P **PKPdf** 05 51 25.9 -0.8
comp=Z,2.3nm,0.8s
**ARU Arti 132.97 321** *i* PKIKP **PKPdf** 05 51 31.3 +0.8
ARU 05 53 53.9
ARU SS SS 06 11 27.3 -10
ARU MLR MLR
comp=Z,831nm,22.0s
**ARU Arti 132.97 321** *e*PKPdf **PKPdf** 05 51 30.7 +0.2
ARU LR LR
comp=Z,748nm,20.0s
**AB31 Akbulak array 133.08 312** PKIKP **PKPdf** 05 51 30.1 -0.9
AB31 pmax pmax
comp=Z,7.0nm,1.0s
**ABKAR Akbulak array 133.08 312** *e*PKPdf **PKPdf** 05 51 31.8 +0.8
**UOSS Minazif 133.14 278** *e*PKPdf **PKPdf** 05 51 31.2 -0.7
**ASHO Ashiyiah 133.19 277** P **PKPdf** 05 51 32.9 +0.9
**ASHO Ashiyiah 133.19 277** PKiKP **PKPdf** 05 51 32.9 +0.9
**GEYT Alibeck 134.18 296** PKhKP PKPpre 05 51 30.7
comp=Z,6.7nm,0.9s,baz=222,slow=2.0,SNR=3.7
GEYT PKP **PKiKP** 05 51 34.6 -0.2
comp=Z,7.0nm,0.7s,baz=228,slow=1.7,SNR=8.8
**SHEL Horse Pasture 134.20 168** PFAKE 05 51 50.0 +16
SHEL LR LR
comp=Z,485nm,19.0s
**AKTO Aktyubinsk 134.22 313** PKIKP **PKPdf** 05 51 32.2 -0.9
AKTO pmax pmax
comp=Z,13nm,0.9s
**KMBO Kilima Mbogo 135.76 233** PKP **PKPdf** 05 51 39.7 +2.2
comp=Z,6.9nm,0.9s,baz=49,slow=3.1,SNR=9.0
**KMBO Kilima Mbogo 135.76 233** *e*PKPdf **PKPdf** 05 51 40.1 +2.6
KMBO LR LR
comp=Z,916nm,20.0s
**LVZ Lovozero 137.11 343** PFAKE 05 51 50.0 +12
LVZ LR LR
comp=Z,514nm,20.0s
**KEV Kevo 137.25 348** PFAKE 05 51 50.0 +12
KEV LR LR
comp=Z,691nm,20.0s
**ARA0 ARCESS Array S 137.71 349** *e*PKPdf **PKPdf** 05 51 39.2 +0.1
**ARCES ARCESS Array B 137.71 349** PKP **PKPdf** 05 51 39.2 +0.1
comp=Z,4.8nm,0.7s,baz=336,slow=2.7,SNR=5.2
**ASCN Ascension 139.26 152** PFAKE 05 52 00.0 +16
ASCN LR LR
comp=Z,787nm,19.0s
**KLMR Klimovskoe 140.31 333** *e*PKHKP PKPpre 05 51 36.1
KLMR pmax pmax
comp=Z,28nm,1.5s
**RAYN Ar Rayn 142.03 271** *e*PKPpre PKPpre 05 51 44.4
RAYN LR LR
comp=Z,1µm,21.0s
**MAK Makhachkala 142.27 303** *e*P **Pdif** 05 49 05.6 -3.1
MAK *e* 05 54 50.7
MAK *e*SS SS 06 13 29.0 +0.3
**DDFL Dedoflistskaro 143.46 301** P **PKPdf** 05 51 49.5 -0.9
**VRH Novokhopyorsk 144.03 318** *e*PKIKP **PKPdf** 05 51 53.0 +2.1
VRH pmax pmax
comp=Z,10.0nm,0.9s
**MOS Moscow 144.06 327** *e*PKHKP PKPpre 05 51 44.6
**DUS Dusheti 144.43 302** P **PKPdf** 05 51 58.2 +6.2
**DUS Dusheti 144.43 302** *e*PKIKP **PKPdf** 05 51 58.2 +6.2
**TBLG Delisi 144.45 302** P **PKPab** 05 51 49.9 -0.4
**TBLG Delisi 144.45 302** *e*PKIKP **PKPab** 05 51 49.9 -0.4
**FIA1 FINESS Array S 144.46 341** *e*PKPdf **PKPab** 05 51 49.2 -0.5
**FIA0 FINESS Array S 144.46 341** *e*PKIKP **PKPab** 05 51 49.1 -0.6
**FIA0 FINESS Array S 144.46 341** *e*PKPdf **PKPab** 05 51 49.1 -0.6
**FINES FINESS Array B 144.46 341** PKP **PKPab** 05 51 49.1 -0.6
comp=Z,18nm,0.7s,baz=47,slow=3.9,SNR=34
**GUDG Gudauri 144.55 303** P PKPbc 05 51 51.7 +0.5
**GNI Garni 144.62 299** *e*PKIKP **PKPdf** 05 51 52.3 -0.3
GNI MLR MLR
comp=Z,631nm,20.0s
**GNI Garni 144.62 299** *e*PKPdf **PKPdf** 05 51 52.2 -0.3
GNI LR LR
comp=Z,631nm,20.0s
**OBN Obninsk 144.91 327** PFAKE 05 52 00.0 +7.7
OBN LR LR
comp=Z,721nm,20.0s
**ZEI Tsey 144.92 304** *i* PKIKP **PKPab** 05 51 50.6 -1.6
ZEI pmax pmax
comp=Z,24nm,0.8s
**LPSR Galich'ya Gora 144.99 322** *e*PKIKP **PKPbc** 05 51 50.6 -1.3
LPSR pmax pmax
comp=Z,30nm,0.9s
**GOF Gofitskoye 145.09 308**↑ *e*PKIKP **PKPdf** 05 51 53.0 0.0
GOF pmax pmax
comp=Z,55nm,0.9s
**ONI Oni 145.28 304** P **PKPdf** 05 51 53.3 -0.2
**ONI Oni 145.28 304** *e*PKIKP **PKPdf** 05 51 53.3 -0.2
**BGD Bogdanovka 145.36 301** P **PKPab** 05 51 54.2 +0.3
**AKH Akhalkalaki 145.42 301** P **PKPab** 05 51 54.8 +0.6
**AKH Akhalkalaki 145.42 301**↑ *i*P **PKPab** 05 51 55.0 +0.9
**AKH Akhalkalaki 145.42 301** *e*PKIKP **PKPab** 05 51 54.7 +0.6
**KBZ Khabaz 145.47 306** PKPbc **PKPab** 05 51 53.9 -0.1
comp=Z,14nm,0.8s,baz=151,slow=1.1,SNR=14
**VSR Storozhevoye 145.49 320** *e*PKIKP **PKPdf** 05 51 52.2 -1.2
VSR pmax pmax
comp=Z,70nm,0.8s
**KIV Kislovodsk 145.57 306** *i* PKIKP **PKPdf** 05 51 53.4 -0.6
KIV pmax pmax
comp=Z,44nm,1.0s
**KIV Kislovodsk 145.57 306** *e*PKPbc **PKPab** 05 51 54.5 +0.1
KIV LR LR
comp=Z,657nm,20.0s
**NEY Neytrino 145.69 305***c i*PKIKP **PKPab** 05 51 55.2 +0.2
**ARTV Artvin 146.62 301** *e*PKPdf **PKPab** 05 51 58.1 -0.6
**VSU Vasula 146.65 338***c i*PKP2 **PKPbc** 05 51 56.3 -0.5
**NC303 NORSAR Array S 147.58 353** *e*PKPbc **PKPbc** 05 51 58.8 -0.6
**NC204 NORSAR Array S 147.59 353** *e*PKPdf **PKPbc** 05 51 58.6 -0.8
**NC405 NORSAR Array S 147.65 352** *e*PKPbc **PKPbc** 05 51 59.2 -0.4
**SOC Sochi 147.75 306** *e*PKIKP **PKPdf** 05 51 56.8 -0.7
SOC *i* 05 52 01.3
SOC *e* 05 55 23.6
SOC *e*PPP PPP 05 58 40.5
SOC pmax pmax
comp=Z,12nm,0.5s
SOC pmax pmax
comp=Z,21nm,0.7s
SOC MLR MLR
comp=Z,810nm,19.0s
**NB201 NORSAR Array S 147.76 353** *e*PKPbc **PKPbc** 05 52 00.5 +0.6
**NB2 NORSAR Subarra147.77 353** PKP **PKPbc** 05 51 59.1 -0.8
comp=Z,19nm,0.8s,baz=9.3,slow=2.9
**NB200 NORSAR Array S 147.77 353** *e*PKPbc **PKPbc** 05 51 59.3 -0.7
**NOA NORSAR Array B 147.77 353** PKPbc **PKPbc** 05 51 59.3 -0.7
comp=Z,12nm,0.7s,baz=14,slow=4.5,SNR=38
**NBO02 NORSAR Array S 147.80 353** *e*PKPbc **PKPbc** 05 51 59.5 -0.5
**NBO00 NORSAR Array S 147.83 353** *e*PKPbc **PKPbc** 05 51 59.9 -0.1
**KOPT Kop Dagi 147.87 300** *e*PKPbc **PKPab** 05 52 03.0 -0.8
**MARD Mardin 147.91 294** *e*PKPbc **PKPbc** 05 52 02.2 +0.9

**NAO01 NORSAR Array S 148.00 353** *e*PKPdf **PKPbc** 05 51 60.0 -0.5
NAO01 *e*PKPbc **pPKPdf** 05 52 05.4 +0.2
**NC602 NORSAR Array S 148.03 352** *e*PKPbc **PKPbc** 05 52 00.0 -0.6
**IZAR Zarasai 148.90 335** *e*P **PKPbc** 05 52 02.6 -0.3
IZAR IAmb IAmb 05 52 15.3
comp=Z,46nm,0.9s
**ANN Anapa 148.99 309** *e*PKHKP PKPpre 05 51 58.3
ANN *i* 05 52 03.3
ANN *e* 05 55 33.2
ANN pmax pmax
comp=Z,68nm,0.6s
ANN MLR MLR
comp=Z,530nm,21.0s
**ISAL Salakas 149.08 335** *e*P **PKPbc** 05 52 02.9 -0.5
ISAL IAmb IAmb 05 52 17.9
comp=Z,25nm,1.0s
**MICGM Minsk 149.18 332**↓ *e*PKHKP **PKPbc** 05 52 03.0 -0.7
MICGM PKHKPM 05 52 04.0
comp=Z,0.1nm,1.0s
MICGM *e*PKP2 **sPKPbc** 05 52 15.0 +0.9
MICGM *e*PP **PP** 05 55 36.0 +0.8
MICGM *e*SKSP 06 06 06.0
MICGM eLR LR 06 51 20.0
**MNK Minsk 149.18 332**↓ *e*PKP2 **PKPbc** 05 52 03.0 -0.7
MNK *e* 05 55 36.0
**IIGN Ignalina 149.21 334** *e*P **PKPbc** 05 52 03.3 -0.5
IIGN IAmb IAmb 05 52 18.2
comp=Z,44nm,0.9s
**KONO Kongsberg 149.30 354***c i*PKIKP **PKPdf** 05 51 59.2 -0.3
KONO pmax pmax
comp=Z,369nm,1.2s
**KONO Kongsberg 149.30 354** *e*PKPbc **PKPbc** 05 52 03.5 -0.3
KONO *e*PKPab **pPKPdf** 05 52 07.7 +0.4
**NACGM Naroch 149.33 333** *e*P **PKPbc** 05 52 03.0 -1.1
NACGM PM 05 52 17.0
comp=Z,0.5nm,1.0s
NACGM eLQ LQ 06 50 06.0
NACGM eLR LR 06 58 12.0
**AKASG Malin Array Be 151.10 325** PKP **PKPdf** 05 52 02.4 -0.2
comp=Z,0.5nm,0.5s,baz=60,slow=2.2,SNR=5.1
AKASG PKPbc **PKPbc** 05 52 08.0 -0.4
comp=Z,55nm,0.8s,baz=47,slow=2.7,SNR=153
**AKBB Malin Array Si 151.10 325** *e*PKIKP **PKPbc** 05 52 07.9 -0.6
AKBB *e* 05 52 16.2
**AKBB Malin Array Si 151.10 325** *e*PKPbc **PKPbc** 05 52 07.9 -0.6
AKBB *e*PKPab **PKPab** 05 52 16.2 +0.1
**AK11 Malin Array Si 151.14 325** *e*PKPbc **PKPbc** 05 52 07.8 -0.7
**SIM Simferopol' 151.15 311***c i*PKIKP **PKPbc** 05 52 09.4 +0.6
SIM pmax pmax
comp=Z,66nm,0.8s
SIM pmax pmax
comp=Z,480nm,17.0s
**SACV Santiago Islan 151.30 114** PFAKE 05 52 20.0 +2.0
SACV LR LR
comp=Z,419nm,19.0s
**SUW Suwalki 151.37 335** *e*PKP **PKPbc** 05 52 08.9 -0.1
**SUW Suwalki 151.37 335** *e*PKIKP **PKPbc** 05 52 08.9 -0.1
**ILGA Ilgaz 152.71 304** *e*PKPbc **PKPbc** 05 52 13.7 +1.0
ILGA *e*PKPab **PKPab** 05 52 23.9 +0.3
**SORM Soroca 153.09 321**↑ *i*P **PKPbc** 05 52 12.8 -0.2
**SORM Soroca 153.09 321**↑ *i*PKIKP **PKPbc** 05 52 12.8 -0.2
**BR101 Keskin Array S 153.10 301** *e*PKPbc **PKPbc** 05 52 13.5 -0.1
**BR131 Keskin Array S 153.10 301** *e*PKPbc **PKPbc** 05 52 12.3 -1.3
BR131 *e*PKPab **sPKPbc** 05 52 23.9 -0.1
**BRTR Keskin Array B 153.10 301** PKPbc **PKPbc** 05 52 13.5 -0.1
comp=Z,15nm,0.7s,baz=144,slow=4.3,SNR=43
**KIS Kishinev 153.47 319** *e*PKP **PKPdf** 05 52 09.0 +2.7
**KIS Kishinev 153.47 319** *e*PsP **PKPab** 05 52 25.0 -1.3
**KIS Kishinev 153.47 319** *e*PP PP 05 56 00.0 -0.2
**KIS Kishinev 153.47 319** *e*PKKP 06 01 16.0
KIS *e*SKSP 06 06 05.0
**KIS Kishinev 153.47 319** *e*PS 06 09 06.0
KIS LRM MLR 07 03 04.0
comp=Z,600nm,22.0s
**KIS Kishinev 153.47 319** *e*PKIKP **PKPdf** 05 52 09.0 +2.7
KIS *e* 05 56 00.0
KIS *e*PS 06 09 06.0
**EKA Eskdalemuir Ar 153.50 8** PKPbc **PKPbc** 05 52 14.2 +0.5
comp=Z,2.1nm,0.7s,baz=297,slow=2.2,SNR=6.0
**ESK Eskdalemuir 153.50 9** PFAKE 05 52 20.0 -6.1
ESK LR LR
comp=Z,970nm,20.0s
**ANTO Ankara 153.70 302** *e*PKIKP **PKPbc** 05 52 15.4 +0.6
ANTO *e* 05 52 24.8
ANTO MLR MLR
comp=Z,550nm,19.0s
**ANTO Ankara 153.70 302** *e*PKPbc **PKPbc** 05 52 15.4 +0.6
ANTO *e*PKPab **sPKPbc** 05 52 24.8 -0.4
ANTO LR LR
comp=Z,550nm,19.0s
**BR231 Keskin MP Arra 153.72 302** *e*PKPbc **PKPbc** 05 52 13.7 -1.2
BR231 *e*PKPab **sPKPbc** 05 52 25.9 +0.6
**BEL Belsk 153.99 335** *e*PKP **PKPbc** 05 52 14.6 -0.3
**BEL Belsk 153.99 335** *e*PKIKP **PKPbc** 05 52 14.6 -0.3
**CSS Mathiatis 154.09 290** *e*PKPbc **PKPbc** 05 52 16.4 +0.7
CSS LR LR
comp=Z,294nm,20.0s
**LVV L'vov 154.18 328***c i*PKIKP **PKPdf** 05 52 06.4 -0.8
LVV *i* 05 56 04.0
**TLCR 154.42 315**↑ *i*P **PKPbc** 05 52 16.9 +0.9
**TLCR 154.42 315**↑ *i*PKIKP **PKPbc** 05 52 16.9 +0.9
**CFR Carcaliu 154.84 316**↓ *i*P **PKPbc** 05 52 17.3 +0.4
**CFR Carcaliu 154.84 316**↓ *i*PKIKP **PKPbc** 05 52 17.3 +0.4
**KWP Kalwaria Pacla 154.91 330** *e*PKP **PKPab** 05 52 31.1 -1.2
**KWP Kalwaria Pacla 154.91 330** *e*PKP2 **PKPab** 05 52 31.1 -1.2
**KWP Kalwaria Pacla 154.91 330** *e*PKPbc **PKPbc** 05 52 18.4 +1.5
KWP *e*PKPab **PKPab** 05 52 31.8 -0.5
**TESR Tescani 154.98 320**↑ *i*P PKPdf 05 52 18.1 +10
**BUR08 Bucovina Ar. S 155.07 323** *e*PKPbc PKPdf 05 52 17.6 +9.0
BUR08 *e*PKPab **PKPab** 05 52 32.3 -0.9
**BUR04 Bucovina Ar. S 155.08 323** *e*PKPbc PKPdf 05 52 18.1 +9.4
BUR04 *e*PKPab **PKPab** 05 52 32.4 -0.9
**BURAR Bucovina Array 155.08 323**↑ *i*P PKPdf 05 52 19.0 +10
**BURAR Bucovina Array 155.08 323**↑↑ PKIKP PKPdf 05 52 19.0 +10
**VRI Vrincioaia 155.30 319**↑ *i*P PKPdf 05 52 18.8 +10
**VRI Vrincioaia 155.30 319**↑↑ PKIKP PKPdf 05 52 18.8 +10
**PLOR Plostina 155.36 319**↓ *i*P **PKPab** 05 52 32.0 -2.4
**PLOR Plostina 155.36 319**↓↓ PKP2 **PKPab** 05 52 32.0 -2.4
**BOLV Bolvadin 155.37 300** *e*PKPab **PKPab** 05 52 34.6 -0.2
**OJC Ojcow 155.66 334** *e*PKP **PKPdf** 05 52 08.0 -1.2
**OJC Ojcow 155.66 334** *e*PKIKP **PKPdf** 05 52 08.0 -1.2
**OJC Ojcow 155.66 334** *e*PKPab **PKPab** 05 52 34.7 -0.8
**STHS Stebnicka Huta 155.70 331** *e*PKP2 **PKPab** 05 52 33.6 -2.1
**STHS Stebnicka Huta 155.70 331** *e*PKP **PKPab** 05 52 33.6 -2.1
STHS *e* 05 52 45.0
**LIC Lamto 155.75 159** *e*PKIKP **PKPdf** 05 52 12.0 +1.5
comp=Z,51nm,1.5s
**UZH Uzhgorod 155.82 328** *e*PKIKP **PKPdf** 05 52 12.3 +2.8
UZH *e* 05 52 16.5
UZH *e* 05 52 24.3
**ARCR ARCALIA 155.87 323**↑ *i*P PKPab 05 52 25.6 -11
**MLR Muntele Rosu 155.97 319**↑ *i*P PKPdf 05 52 20.2 +10
**MLR Muntele Rosu 155.97 319**↑↑ PKIKP PKPdf 05 52 20.2 +10
**KIC Kosan Boka 155.97 160** *e*PKIKP **PKPdf** 05 52 12.1 +1.3
comp=Z,29nm,1.0s
**CRVS Cervenica-Dubn 156.00 330** *e*PKP2 **PKPab** 05 52 36.5 -0.5
**CRVS Cervenica-Dubn 156.00 330** *e*PKP **PKPab** 05 52 36.5 -0.5
**DOPR Dopca 156.01 320**↑ *i*P **PKPab** 05 52 30.2 -7.0
**NIE Niedzica 156.09 332** *e*PKP **PKPdf** 05 52 13.7 +3.8
**NIE Niedzica 156.09 332** *e*PKIKP **PKPdf** 05 52 13.7 +3.8
**TIC Toumodi 156.15 159** *e*PKIKP **PKPdf** 05 52 12.6 +1.6
**CWF Charnwood Fore 156.26 7** *e*PKPab **PKPab** 05 52 37.1 -0.8
**PRD Provadia 156.27 312** *e*P **PKPab** 05 52 38.0 -0.3
**KSP Ksiaz 156.35 339** *e*PKPdf PKPdf 05 52 25.3 +15
KSP *e*PKPab **PKPab** 05 52 37.8 -0.6
**KSP Ksiaz 156.35 339** *e*PKP2 **PKPab** 05 52 37.8 -0.6
**VOIR 156.51 319**↑ *i*P PKPab 05 52 30.6 -8.8
**VOIR 156.51 319**↑↑ PKP2 PKPab 05 52 30.6 -8.8
**OKC Ostrava-Krasne 156.59 336** *e*PKPAB **PKPab** 05 52 38.6 -0.8
OKC AMS AMS 07 04 20.0
comp=Z,800nm,20.7s
**OKC Ostrava-Krasne 156.59 336** *e*PKP2 **PKPab** 05 52 38.6 -0.8
OKC MLR MLR
comp=Z,800nm,20.7s
**LANS Liptovska Anna 156.64 333** *e*PKP2 **PKPab** 05 52 39.4 -0.4
**LANS Liptovska Anna 156.64 333** *e*PKP **PKPab** 05 52 39.4 -0.4
**UPC Upice 156.73 339** *e*PKPAB **PKPab** 05 52 39.8 -0.2
UPC *ex* x 05 52 49.4
**UPC Upice 156.73 339** *e*PKP2 **PKPab** 05 52 39.8 -0.2
**KECS Kecovo 156.74 330** *e*PKP2 **PKPab** 05 52 38.6 -1.5
**KECS Kecovo 156.74 330** *e*PKP **PKPab** 05 52 38.6 -1.5
KECS *e* 05 52 49.3

**DPC Dobruska-Polom 156.77 339** *e*PKPAB **PKPab** 05 52 40.0 -0.3
DPC *ex* x 05 52 49.6
DPC AMS AMS 07 16 10.0
comp=Z,500nm,18.8s
**DPC Dobruska-Polom 156.77 339** *e*PKP2 **PKPab** 05 52 40.0 -0.3
DPC MLR MLR
comp=Z,500nm,18.8s
**CLL Collm 156.82 345** *e*PKIKP **PKPdf** 05 52 12.0 +1.3
CLL *e* 05 52 23.0
CLL MLR MLR
comp=Z,700nm,19.0s
**CLL Collm 156.82 345** *e*PKPdf **PKPdf** 05 52 12.0 +1.3
CLL *e*Pdif **sPKPdf** 05 52 23.0 +1.9
CLL *i* PKPab **PKPab** 05 52 40.4 +0.1
comp=Z,28nm,0.9s
CLL *e* 05 52 52.0
CLL *e*PP **PP** 05 56 17.0 -1.1
comp=Z,300nm,18.5s
CLL *e*SKSdf **SKSdf** 05 59 17.0 +1.8
CLL *e*PPP PPP 05 59 48.0
CLL *e* 06 00 41.0
CLL *e*PSKS 06 06 37.0
CLL *e*(SKKSdf) 06 07 42.0
CLL *e*PPS PPS 06 09 30.0
CLL *e* 06 11 06.0
CLL *e*SS SS 06 15 54.0 -15
CLL *e* 06 18 06.0
CLL *e* 06 20 36.0
CLL *e*SSS SSS 06 21 48.0
CLL *e*PSSrev 06 25 12.0
CLL LmV 07 12 00.0
comp=Z,700nm,19.0s
**KRLC Kraliky 156.86 338** *e*PKPAB **PKPab** 05 52 39.8 -0.9
KRLC *ex* x 05 52 49.6
**KRLC Kraliky 156.86 338** *e*PKP2 **PKPab** 05 52 39.8 -0.9
**DRGR 156.91 325**↑ *i*P PKPdf 05 52 22.5 +11
**DRGR 156.91 325**↑↑ PKIKP PKPdf 05 52 22.5 +11
**BRG Berggiesshubel 156.99 343** PKP **PKPdf** 05 52 17.6 +6.6
comp=Z,28nm,1.8s
BRG *e* 05 52 40.5
comp=Z,21nm,1.0s
BRG *e* 05 52 51.6
comp=Z,715nm,18.0s
comp=N,654nm,14.7s
comp=E,302nm,14.7s
**BRG Berggiesshubel 156.99 343** PKP **PKPdf** 05 52 17.6 +6.6
comp=E,28nm,1.8s
BRG *e* 05 52 40.5
comp=E,21nm,1.0s
BRG *e* 05 52 51.6
comp=Z,715nm,18.0s
comp=N,654nm,14.7s
comp=E,302nm,14.7s
**PVCC Panska Ves 157.13 342** *e*PKPAB **PKPab** 05 52 41.6 -0.1
PVCC *ex* x 05 52 53.7
PVCC AMS AMS 07 01 20.0
comp=E,600nm,17.2s
**PVCC Panska Ves 157.13 342** *e*PKP2 **PKPab** 05 52 41.6 -0.1
PVCC MLR MLR
comp=Z,600nm,17.2s
**LOT Lotru 157.22 321**↑↑ *i*P **PKPab** 05 52 42.3 -0.2
**VYHS Vyhne 157.42 333** *e*PKP2 **PKPab** 05 52 42.5 -0.6
**VYHS Vyhne 157.42 333** *e*PKP **PKPab** 05 52 42.5 -0.6
VYHS *e* 05 52 52.6
**PSZ Piszkesteto 157.42 330** PFAKE 05 52 20.0 +8.3
PSZ LR LR
comp=Z,720nm,19.0s
**PVL Pavlikeni 157.57 314** *e*P **PKPab** 05 52 44.0 +0.1
**VRAC Vranov 157.58 337**↑↑ *i*P **PKPab** 05 52 43.1 -0.6
**VRAC Vranov 157.58 337**↑↑ PKP2 **PKPab** 05 52 43.1 -0.6
**GOPC GO Pecny, Ondr 157.62 340** *e*PKPAB **PKPab** 05 52 43.5 -0.4
GOPC *ex* x 05 52 53.2
GOPC AMS AMS 07 02 20.0
comp=Z,800nm,21.8s
**GOPC GO Pecny, Ondr 157.62 340** *e*PKP2 **PKPab** 05 52 43.5 -0.4
GOPC MLR MLR
comp=Z,800nm,21.8s
**PRU Pruhonice 157.63 341** *e*PKPAB **PKPab** 05 52 42.5 -1.4
PRU *ex* x 05 52 55.2
PRU *e*SS SS 06 16 14.3 -3.4
PRU AMS AMS 07 01 20.0
comp=Z,900nm,22.2s
**PRU Pruhonice 157.63 341** *e*PKP2 **PKPab** 05 52 42.5 -1.4
PRU *e*SS SS 06 16 14.3 -3.4
PRU MLR MLR
comp=Z,900nm,22.2s
**NKC Novy Kostel 157.95 344** *e*PKPAB **PKPab** 05 52 44.7 -0.6
NKC *ex* x 05 52 55.4
**NKC Novy Kostel 157.95 344** *e*PKP2 **PKPab** 05 52 44.7 -0.6
**SMOL Smolenice 157.95 335** *e*PKP2 **PKPab** 05 52 45.6 +0.2
**SMOL Smolenice 157.95 335** *e*PKP **PKPab** 05 52 45.6 +0.2
**BZS Buzias 158.27 324**↑ *i*P **PKPab** 05 52 45.8 -1.0
**BZS Buzias 158.27 324**↑↑ PKP2 **PKPab** 05 52 45.8 -1.0
**HERR Herculane 158.32 321**↑ *i*P **PKPab** 05 52 41.4 -5.7
**MPEP Malo Peshtene 158.48 316** *e*P **PKPab** 05 52 48.0 +0.1
**KHC Kasperske Hory 158.67 341** *e*PKPAB **PKPab** 05 52 48.2 -0.3
KHC AMS AMS 07 13 50.0
comp=Z,800nm,17.5s
**KHC Kasperske Hory 158.67 341** *e*PKIKP **PKPdf** 05 52 14.0 +0.9
KHC *e* 05 52 48.3
**KHC Kasperske Hory 158.67 341** *e*PKPdf **PKPdf** 05 52 14.0 +0.9
KHC *e*PKPab **PKPab** 05 52 48.2 -0.3
**GEC2 GERESS Array S 158.90 341** *e*PKP2 **PKPab** 05 52 49.2 -0.3
**GEC2 GERESS Array S 158.90 341** *e*PKPab **PKPab** 05 52 49.2 -0.3
**GERES GERESS Array B 158.90 341** PKP **PKPdf** 05 52 14.4 +0.9
comp=Z,0.2nm,0.3s,baz=327,slow=1.6,SNR=3.1
GERES PKPab **PKPab** 05 52 49.2 -0.3
comp=Z,5.4nm,0.9s,baz=35,slow=4.9,SNR=12
**GEA0 GERESS Array S 158.90 341** *e*PKPab **PKPab** 05 52 48.9 -0.6
**CONA Conrad Observa 159.01 336** *e*PKPab **PKPab** 05 52 49.8 -0.2
comp=Z,26nm,1.4s
**KARP Karpathos 159.02 294** *e*PKPab **PKPab** 05 52 50.2 -0.4
**VTS Vitosha 159.23 315**↑↑ *i*P **PKPab** 05 52 52.3 +0.9
**VTS Vitosha 159.23 315** *e*PKIKP **PKPdf** 05 52 13.8 -0.4
**VTS Vitosha 159.23 315** *e*P **PKPab** 05 52 51.0 -0.4
**VTS Vitosha 159.23 315** *e*PKPdf **PKPdf** 05 52 13.8 -0.4
VTS *e*PKPab **PKPab** 05 52 51.3 0.0
**WLF Walferdange 159.50 355** PFAKE 05 52 30.0 +16
WLF LR LR
comp=Z,994nm,20.0s
**MOA Molln 159.61 339** *e*PKPab **PKPab** 05 52 52.0 -0.6
comp=Z,16nm,1.6s
**ARSA Arzberg 159.71 336** *e*PKPab **PKPab** 05 52 52.3 -0.7
comp=Z,5.6nm,0.7s
**DIVS Divibare 160.15 323** *e*PKPab **PKPab** 05 52 54.2 -1.0
**SANT Santorini 160.19 297** PFAKE 05 52 30.0 +15
SANT LR LR
comp=Z,557nm,19.0s
**SOKA Soboth 160.37 336** *e*PKPab **PKPab** 05 52 55.0 -1.0
comp=Z,11nm,1.0s
**BFO Black Forest 160.56 350** *e*PKP2 **PKPab** 05 52 56.6 -0.1
BFO MLR MLR
comp=Z,680nm,21.0s
**BFO Black Forest 160.56 350** *e*PKPab **PKPab** 05 52 56.6 -0.1
BFO LR LR
comp=Z,680nm,21.0s
**KBA Koelnbreinsper 160.59 339** *e*PKPab **PKPab** 05 52 58.0 +0.9
comp=Z,10nm,0.9s
**OBKA Obir 160.69 336** *e*PKPab **PKPab** 05 52 56.7 -0.7
comp=Z,9.1nm,0.9s
**ECH Echery 160.83 352** PFAKE 05 52 30.0 +14
ECH LR LR
comp=Z,762nm,20.0s
**WATA Walderalm 160.85 343** *e*PKPab **PKPab** 05 52 57.8 -0.4
comp=Z,21nm,1.1s
**MYKA Terra Mystica 160.89 338** *e*PKPab **PKPab** 05 52 58.4 +0.2
comp=Z,14nm,0.7s
**WTTA Wattenberg 160.90 343** *e*PKPab **PKPab** 05 52 59.3 +0.9
comp=Z,16nm,1.0s
**RETA Reutte 160.91 345** *e*PKPab **PKPab** 05 52 57.6 -0.7
comp=Z,17nm,1.2s
**MOTA Moosalm 160.96 344** *e*pPKPab **PKPab** 05 53 00.1 +1.4
comp=Z,29nm,1.2s
**ABTA Abfaltersbach 161.13 340** *e*PKPab **PKPab** 05 52 58.7 -0.6
comp=Z,30nm,1.1s
**DAVA Damuels 161.29 346** *e*PKPab **PKPab** 05 52 58.7 -1.4
comp=Z,14nm,0.8s
**AGG Agios Georgios 161.59 307** *e*PKP2 **PKPab** 05 52 59.2 -2.4
**AGG Agios Georgios 161.59 307** *e*PKPab **PKPab** 05 52 59.2 -2.4
**PDG Podgorica 161.66 320**↑↑ *i*P **PKPab** 05 52 59.4 -2.3
**DAVOX Davos/Dischmat 161.78 346** PKPab **PKPab** 05 53 01.0 -1.2
comp=Z,6.0nm,0.6s,baz=169,slow=4.9,SNR=6.7
**FUORN Ofenpass-Fuorn 161.84 345** *e*PKPab **PKPab** 05 53 02.1 -0.5
**TIR Tirane 161.98 316** PFAKE 05 52 30.0 +13

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TIR | | | | | LR | LR | | | |
| | comp=Z,2µm,20.0s | | | | | | | | |
| **TUE** | **Stuetta** | **162.18** | **347** | *e*PKPdf | **PKPdf** | **05 52 19.1** | **+1.8** |
| TUE | | | | LR | LR | | |
| | comp=Z,1µm,19.0s | | | | | | |
| **SENIN** | **Lac Senin/Sane** | **162.64** | **351** | *e*PKPab | **PKPab** | **05 53 05.8** | **-0.3** |
| **KOWA** | **Kowa** | **163.79** | **153** | *e*PKPdf | **PKPdf** | **05 52 20.6** | **+1.1** |
| **TOA0** | **Torodi Ar. Sit** | **163.91** | **174** | *e*PKPdf | **PKPdf** | **05 52 20.3** | **+0.7** |
| TOA0 | | | | *e*PKPdf | **PKPdf** | **05 52 21.1** | **+1.5** |
| TOA0 | | | | *e*PKPab | **PKPab** | **05 53 14.9** | **+2.9** |
| TOA0 | | | | *e*PKPab | **PKPab** | **05 53 15.1** | **+3.0** |
| **TORD** | **Torodi Ar. Bea** | **163.91** | **174** | PKP | **PKPdf** | **05 52 20.5** | **+0.9** |
| | comp=Z,3.1nm,0.8s,baz=321,slow=0.9,SNR=7.7 | | | | | | |
| TORD | | | | PKPab | **PKPab** | **05 53 15.0** | **+2.9** |
| | comp=Z,8.7nm,0.9s,baz=182,slow=4.1,SNR=9.6 | | | | | | |
| TORD | | | | PP | **PP** | **05 57 03.0** | **+6.7** |
| | comp=Z,1.3nm,0.8s,baz=165,slow=4.5,SNR=4.0 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **163.91** | **174** | *e*PKPdf | **PKPdf** | **05 52 20.5** | **+0.9** |
| TOA1 | | | | *e*PKPab | **PKPab** | **05 53 15.0** | **+2.9** |
| **SSB** | **Saint Sauveur** | **163.96** | **357** | PFAKE | | 05 52 30.0 | +11 |
| SSB | | | | LR | LR | | |
| | comp=Z,951nm,20.0s | | | | | | |
| **BNI** | **Bardonecchia** | **164.01** | **352** | PFAKE | | 05 52 30.0 | +11 |
| BNI | | | | LR | LR | | |
| | comp=Z,1µm,20.0s | | | | | | |
| **VLC** | **Villacollemand** | **164.11** | **341** | PFAKE | | 05 52 30.0 | +11 |
| VLC | | | | LR | LR | | |
| | comp=Z,828nm,20.0s | | | | | | |
| **AQU** | **L'Aquila** | **164.63** | **331** | PFAKE | | 05 52 30.0 | +10 |
| AQU | | | | LR | LR | | |
| | comp=Z,1µm,22.0s | | | | | | |
| **CUC** | **Castrocucco** | **165.22** | **320** | PFAKE | | 05 52 30.0 | +10 |
| CUC | | | | LR | LR | | |
| | comp=Z,651nm,20.0s | | | | | | |
| **MTE** | **Manteigas** | **165.69** | **36** | PFAKE | | 05 52 30.0 | +9.5 |
| MTE | | | | LR | LR | | |
| | comp=Z,1µm,19.0s | | | | | | |
| **CEL** | **Celeste** | **166.28** | **314** | PFAKE | | 05 52 30.0 | +8.9 |
| CEL | | | | LR | LR | | |
| | comp=Z,805nm,21.0s | | | | | | |
| **PAB** | **San Pablo** | **167.88** | **30** | PFAKE | | 05 52 30.0 | +7.8 |
| PAB | | | | LR | LR | | |
| | comp=Z,938nm,19.0s | | | | | | |
| **ESDC** | **Sonseca Array** | **167.94** | **28** | PKP | **PKPdf** | **05 52 23.3** | **+1.0** |
| | comp=Z,1.0nm,0.8s,baz=340,slow=2.2,SNR=5.5 | | | | | | |
| ESDC | | | | PKPab | **PKPab** | **05 53 29.3** | **-0.1** |
| | comp=Z,1.7nm,0.7s,baz=320,slow=4.2,SNR=8.5 | | | | | | |
| **ES19** | **SONSECA Array** | **167.94** | **28** | *e*PKPdf | **PKPdf** | **05 52 23.2** | **+1.0** |
| ES19 | | | | *e*PKPab | **PKPab** | **05 53 29.2** | **-0.3** |
| **WDD** | **Wied Dalam** | **168.56** | **308** | PFAKE | | 05 52 30.0 | +7.3 |
| WDD | | | | LR | LR | | |
| | comp=Z,828nm,20.0s | | | | | | |
| **VSL** | **Villasalto** | **168.65** | **336** | PFAKE | | 05 52 30.0 | +7.3 |
| VSL | | | | LR | LR | | |
| | comp=Z,1µm,19.0s | | | | | | |
| **RTC** | **Rabat Centre** | **170.03** | **59** | PFAKE | | 05 52 40.0 | +16 |
| RTC | | | | LR | LR | | |
| | comp=Z,4µm,21.0s | | | | | | |
| **TAM** | **Tamanrasset** | **173.31** | **197** | *e*PKIKP | **PKPdf** | **05 52 27.9** | **+2.1** |
| TAM | | | | MLR | MLR | | |
| | comp=Z,895nm,19.0s | | | | | | |
| **TAM** | **Tamanrasset** | **173.31** | **197** | *e*PKPdf | **PKPdf** | **05 52 27.9** | **+2.1** |
| TAM | | | | *e*PKPab | **pPKPab** | **05 53 57.8** | **-3.5** |
| TAM | | | | LR | LR | | |
| | comp=Z,895nm,19.0s | | | | | | |

**DJA 19 05:34:08.4±1.6, 0°N±10°×12°1E±°, h19km±23km, M3.6/4, MLv3.6/4, Minahassa Peninsula, Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MPSI** | **Mapaga** | **0.92** | **262** | P | Pb | 05 34 25.9 | +0.1 |
| MPSI | | | | S | Sn | 05 34 38.9 | -0.2 |
| **MRSI** | **Marisa** | **1.13** | **90** | P | Pn | 05 34 28.9 | -0.3 |
| MRSI | | | | S | Sg | 05 34 45.0 | -0.2 |
| **APSI** | **Ampana** | **1.61** | **149** | P | Pn | 05 34 35.7 | -0.1 |
| APSI | | | | S | Sb | 05 34 57.2 | -0.2 |
| **LUWI** | **Luwuk** | **2.47** | **127** | P | Pn | 05 34 47.1 | -0.6 |
| LUWI | | | | S | Sn | 05 35 18.2 | +0.9 |

*ISCJB **19** 05:37:57.8±0.7, 12°.20S±0°.05×77°.05W±0°.07, h67km±5km, mb4.5/24, Error ellipse: s-maj=12.9km s-min=5.6km az=153.5*

*NEIC **19** 05:37:58.5±0.3, 12°.20S×77°.09W, mb4.7/21, Error ellipse: s-maj=9.7km s-min=4.7km az=56.0*

*NEIC Felt [IV] at Barranca, Chosica, Huacho, Imperial, Lima, Mala, Ricardo Palma, San Luis and San Vicente de Canete and [III] at Chilca. Also felt at Chancay, Chicla, Huaral, La Oroya, Matucana, Nuevo Imperial, Paramonga, Santa Maria and Vegueta.*

*IDC **19** 05:37:58.6±0.7, 12°.04S×77°.10W, h54km±4km, mb4.1/14, mb1 4.3/16, mb1mx4.1/38, mbtmp4.4/16, MS3.8/3, Ms1 3.9/3, ms1mx3.4/24, Error ellipse: s-maj=16.1km s-min=10.4km az=22.0*

*BJI **19** 05:38:00.5, 12°.10S×76°.90W, h67km, mB5.5/2, Ms5.6/3, Ms7 5.3/4*

**ISC 19 05:37:58.0±0.5, 12°21S±0°.06×77°09W±0°.08, h55km±4km, h55km:pP-P, n84, σ1s47/95, mb4.7/24, Near coast of Peru**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **NNA** | **Nana** | **0.33** | **47** | P | **Pn** | **05 38 09.0** | **+1.1** |
| | 5µm,0.3s,baz=285,slow=8.9 | | | | | | |
| NNA | | | | S | **Sn** | **05 38 16.9** | **+1.8** |
| | 7µm,0.3s,baz=85,slow=4.6,SNR=40 | | | | | | |
| **NNA** | **Nana** | **0.33** | **47** | *e*Pn | **Pn** | **05 38 09.3** | **+1.3** |
| NNA | | | | *e*Sn | **Sn** | **05 38 17.1** | **+2.0** |
| **ATAH** | **Atahualpa** | **5.21** | **346** | P | **Pn** | **05 39 15.1** | **+1.3** |
| | 22nm,0.3s,baz=164,slow=4.3,SNR=56 | | | | | | |
| **ARE** | **Arequipa** | **6.88** | **129** | *e*P | **Pn** | **05 39 41.0** | **+4.5** |
| **LPAZ** | **La Paz** | **9.58** | **116** | P | **Pn** | **05 40 17.0** | **+3.1** |
| | 0.5nm,0.3s,baz=297,slow=11,SNR=16 | | | | | | |
| LPAZ | | | | LR | LR | 05 44 33.4 | |
| | comp=Z,422nm,19.2s,baz=294,slow=41 | | | | | | |
| **LPAZ** | **La Paz** | **9.58** | **116** | *e*Pn | **Pn** | **05 40 16.8** | **+2.9** |
| **MNMC** | **Minye Minye** | **9.97** | **135** | *e*Pn | **Pn** | **05 40 19.9** | **+1.0** |
| MNMC | | | | *e*Sn | **Sn** | **05 42 07.3** | **-2.1** |
| **PB11** | **IPOC Station P** | **10.36** | **137** | *e*Pn | **Pn** | **05 40 24.0** | **-0.1** |
| PB11 | | | | *e*Sn | **Sn** | **05 42 16.0** | **-2.9** |
| **PB01** | **IPOC Station P** | **11.41** | **141** | *e*Pn | **Pn** | **05 40 38.4** | **+0.1** |
| PB01 | | | | *e*Sn | **Sn** | **05 42 39.0** | **-5.4** |
| **PB04** | **IPOC Station P** | **12.05** | **148** | *e*Pn | P | 05 40 53.1 | -5.3 |
| **PB10** | **IPOC Station P** | **12.84** | **152** | *e*Pn | **Pn** | **05 40 57.8** | **-0.1** |
| PB10 | | | | *e*Sn | **Sn** | **05 43 18.2** | **-1.0** |
| **CMBC** | **Cumbal** | **13.09** | **357** | *e*P | **Pn** | **05 41 02.5** | **+0.8** |
| **CRUC** | **La Cruz** | **13.69** | **1** | *e*P | **Pn** | **05 41 11.1** | **+1.3** |
| **FLOC** | **Florencia** | **13.78** | **6** | *e*P | **Pn** | **05 41 07.1** | **-3.6** |
| **SAML** | **Samuel** | **14.05** | **78** | *e*Pn | **Pn** | **05 41 13.2** | **-1.1** |
| **SJAC** | **San Juan de Ar** | **15.70** | **12** | *e*P | **Pn** | **05 41 35.0** | **-0.8** |
| **PRAC** | **Prado** | **15.97** | **8** | *e*Pn | **Pn** | **05 41 38.9** | **-0.4** |
| | 30nm,0.8s | | | | | | |
| **SIV** | **San Ignacio** | **15.98** | **105** | P | **Pn** | **05 41 40.3** | **+0.9** |
| | 0.5nm,0.3s,baz=288,slow=12,SNR=4.7 | | | | | | |
| **VILC** | **Villavicencio,** | **16.57** | **12** | *e*P | **Pn** | **05 41 47.0** | **+0.1** |
| **CVER** | **Cruz Verde, Cu** | **16.89** | **10** | *e*P | **Pn** | **05 41 50.3** | **-0.9** |
| **ROSC** | **El Rosal** | **17.16** | **9** | LR | LR | 05 49 48.6 | |
| | comp=Z,213nm,18.6s,baz=196,slow=42 | | | | | | |
| **ROSC** | **El Rosal** | **17.16** | **9** | *e*Pn | **P** | **05 41 58.0** | **+2.5** |
| | 25nm,1.0s | | | | | | |
| **PAYG** | **Puerto Ayora** | **17.40** | **310** | *e*Pn | **P** | **05 41 59.9** | **+2.2** |
| | 32nm,1.0s | | | | | | |
| **GUYC** | **Guyana, Colomb** | **17.41** | **6** | *e*P | **P** | **05 41 59.0** | **+0.7** |
| **CTAU** | **Tausa, Cundina** | **17.57** | **10** | *e*P | **Pn** | **05 41 59.6** | **0.0** |
| **HELC** | **Santa Helena** | **18.35** | **5** | *e*P | **Pn** | **05 42 09.7** | **+0.7** |
| | 16nm,0.7s | | | | | | |
| **RUSC** | **La Rusia** | **18.42** | **13** | *e*P | **P** | **05 42 08.9** | **-0.6** |
| **RUSC** | **La Rusia** | **18.42** | **13** | *e*P | **Pn** | **05 42 10.5** | **+0.5** |
| | 38nm,1.4s | | | | | | |
| **GIRC** | **Giron, Santand** | **19.55** | **12** | *e*P | **P** | **05 42 20.2** | **-1.3** |
| **PAMC** | **Pamplona, Colo** | **19.91** | **13** | *e*P | **P** | **05 42 24.9** | **-0.8** |
| **PTGA** | **Pitinga** | **20.46** | **57** | P | **P** | **05 42 32.1** | **+0.8** |
| | 38nm,0.6s,baz=230,slow=11,SNR=45 | | | | | | |
| **PTGA** | **Pitinga** | **20.46** | **57** | *e*P | **P** | **05 42 31.7** | **+0.4** |
| | 37nm,0.8s | | | | | | |
| **OCAC** | **Ocana** | **20.66** | **11** | *e*P | **P** | **05 42 32.2** | **-1.3** |
| **SDV** | **Santo Domingo** | **21.92** | **17** | P | **P** | **05 42 46.6** | **-0.5** |
| | 10nm,0.4s,baz=163,slow=8.3,SNR=21 | | | | | | |
| **SDV** | **Santo Domingo** | **21.92** | **17** | *e*P | **P** | **05 42 47.1** | **0.0** |
| | 20nm,0.9s | | | | | | |
| **CPUP** | **Villa Florida** | **23.30** | **130** | P | **P** | **05 43 02.5** | **+1.4** |
| | 4.0nm,0.9s,baz=302,slow=9.7,SNR=9.6 | | | | | | |
| **CPUP** | **Villa Florida** | **23.30** | **130** | *e*P | **P** | **05 43 02.7** | **+1.5** |
| | 4.7nm,0.8s | | | | | | |
| **PLCA** | **Paso Flores** | **28.99** | **170** | P | **P** | **05 43 54.4** | **+1.9** |
| | 3.2nm,1.0s,baz=10,slow=13,SNR=4.6 | | | | | | |
| PLCA | | | | *e*P | **P** | **05 44 09.5** | **+3.0** |
| | 7.8nm,0.9s,baz=1.4,slow=12,SNR=11 | | | | | | |
| **PLCA** | **Paso Flores** | **28.99** | **170** | *e*P | **P** | **05 43 54.4** | **+1.9** |
| | 19nm,1.1s | | | | | | |
| **SVB** | **Belmont** | **29.80** | **32** | *e*P | **P** | **05 43 59.7** | **-0.1** |
| | 305nm,1.9s | | | | | | |
| **CELP** | **Cerrillos** | **31.83** | **19** | *e*P | **P** | **05 44 14.9** | **-2.9** |
| **CMIG** | **Matias Romero** | **34.01** | **329** | P | **P** | **05 44 37.4** | **+0.6** |
| | 4.4nm,0.7s,baz=148,slow=6.0,SNR=3.6 | | | | | | |
| **RCBR** | **Riachuelo** | **41.13** | **85** | LR | LR | 06 03 25.9 | |
| | comp=Z,273nm,19.0s,baz=300,slow=37 | | | | | | |
| **WLAR** | **White Oak Lake** | **48.13** | **342** | *e*P | **P** | **05 46 34.0** | **+1.5** |
| | 23nm,1.0s | | | | | | |
| **LTX** | **Lajitas** | **48.62** | **329** | *e*P | **P** | **05 46 36.5** | **-0.1** |
| LTX | | | | *e*pP | **pP** | **05 46 52.2** | **+1.0** |
| **TXAR** | **Lajitas Array** | **48.62** | **329** | P | **P** | **05 46 36.5** | **-0.1** |
| | 2.4nm,0.7s,baz=149,slow=8.9,SNR=14 | | | | | | |
| TXAR | | | | pP | **pP** | **05 46 52.2** | **+1.0** |
| | 0.8nm,0.5s,baz=153,slow=8.1,SNR=1.7 | | | | | | |
| **MIAR** | **Mount Ida** | **49.07** | **342** | *e*P | **P** | **05 46 39.9** | **+0.1** |
| **WHAR** | **Wooly Hollow** | **49.39** | **344** | *e*P | **P** | **05 46 42.1** | **-0.1** |
| | 17nm,1.2s | | | | | | |
| **X37A** | **Clayton** | **49.68** | **340** | *e*P | **P** | **05 46 44.9** | **+0.5** |
| | 62nm,1.9s | | | | | | |
| **IP06** | **Yanceyville** | **49.89** | **359** | *e*P | **P** | **05 46 45.9** | **0.0** |
| | 10nm,0.8s | | | | | | |
| IP06 | | | | *e*pP | **pP** | **05 46 60.0** | **-0.6** |
| **W37B** | **Quinton** | **50.20** | **340** | *e*P | **P** | **05 46 48.4** | **+0.1** |
| W37B | | | | *e*pP | **pP** | **05 47 02.1** | **-1.0** |
| **TUL1** | **Leonard** | **51.02** | **340** | *e*P | **P** | **05 46 54.2** | **-0.4** |
| TUL1 | | | | *e*pP | **pP** | **05 47 08.4** | **-0.8** |
| **PD31** | **Pinedale Array** | **62.28** | **333** | *e*P | **P** | **05 48 14.1** | **-0.5** |
| **PDAR** | **Pinedale Array** | **62.28** | **333** | P | **P** | **05 48 13.8** | **-0.8** |
| | 1.2nm,0.8s,baz=116,slow=7.1,SNR=5.2 | | | | | | |
| **MDPB** | **Devils Postpil** | **63.31** | **324** | *e*P | **P** | **05 48 22.3** | **+0.6** |
| | 7.4nm,1.1s | | | | | | |
| **ULM** | **Lac du Bonnet** | **64.34** | **347** | P | **P** | **05 48 26.8** | **-1.0** |
| | 2.1nm,0.4s,baz=155,slow=6.6,SNR=7.9 | | | | | | |
| ULM | | | | pP | **pP** | **05 48 42.3** | **-0.7** |
| | 4.1nm,0.7s,baz=157,slow=5.8,SNR=5.3 | | | | | | |
| **PAHR** | **Pah Rah Range** | **64.90** | **325** | *e*P | **P** | **05 48 32.6** | **+0.7** |
| | 6.6nm,0.9s | | | | | | |
| **BEKR** | **Beckworth** | **65.56** | **325** | *e*P | **P** | **05 48 36.9** | **+0.6** |
| BEKR | | | | *e*pP | **pP** | **05 48 50.3** | **-1.1** |
| **ORV** | **Oroville** | **66.01** | **324** | *e*P | **P** | **05 48 39.9** | **+1.1** |
| | 8.7nm,0.9s | | | | | | |
| **DBIC** | **Dimbokro** | **74.21** | **79** | P | **P** | **05 49 30.3** | **+0.7** |
| | 4.5nm,0.6s,baz=234,slow=5.7,SNR=16 | | | | | | |
| **DBIC** | **Dimbokro** | **74.21** | **79** | *e*P | **P** | **05 49 30.3** | **+0.7** |
| | 5.7nm,0.6s | | | | | | |
| **KOWA** | **Kowa** | **77.09** | **72** | *e*P | **P** | **05 49 47.1** | **+1.1** |
| | 8.5nm,0.8s | | | | | | |
| **YKA** | **Yellowknife Ar** | **79.99** | **343** | P | **P** | **05 50 00.2** | **-0.7** |
| | 0.9nm,0.7s,baz=142,slow=5.9,SNR=19 | | | | | | |
| YKA | | | | pP | **pP** | **05 50 15.7** | **-0.9** |
| | 0.8nm,0.5s,baz=142,slow=5.4,SNR=3.6 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **82.08** | **75** | *e*P | **P** | **05 50 14.1** | **+0.9** |
| TOA1 | | | | *e*pP | **pP** | **05 50 29.6** | **+0.7** |
| **TOA0** | **Torodi Ar. Sit** | **82.08** | **75** | *e*P | **P** | **05 50 14.0** | **+0.8** |
| | 12nm,0.8s | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **82.08** | **75** | P | **P** | **05 50 14.1** | **+0.9** |
| | 8.4nm,0.7s,baz=257,slow=4.9,SNR=49 | | | | | | |
| TORD | | | | pP | **pP** | **05 50 29.6** | **+0.7** |
| | 3.9nm,0.8s,baz=255,slow=4.5,SNR=7.4 | | | | | | |
| **ESDC** | **Sonseca Array** | **85.11** | **48** | P | **P** | **05 50 29.4** | **+1.1** |
| | 0.5nm,0.6s,baz=252,slow=6.4,SNR=5.1 | | | | | | |
| **SUMG** | **Summit** | **88.30** | **11** | *i* P | **P** | **05 50 43.4** | **-0.1** |
| | 4.6nm,0.7s | | | | | | |
| SUMG | | | | *i* | | 05 50 59.5 | |
| **INK** | **Inuvik** | **89.66** | **342** | P | **P** | **05 50 49.4** | **-0.1** |
| | 2.6nm,1.0s,baz=121,slow=2.6,SNR=4.6 | | | | | | |
| INK | | | | pP | **pP** | **05 51 05.0** | **-0.4** |
| | 6.3nm,1.0s,baz=130,slow=5.2,SNR=6.0 | | | | | | |
| **INK** | **Inuvik** | **89.66** | **342** | *e*P | **P** | **05 50 50.7** | **+1.2** |
| | 14nm,1.2s | | | | | | |
| **ILAR** | **Eielson Array** | **92.59** | **336** | P | **P** | **05 51 03.0** | **-0.1** |
| | 0.8nm,0.8s,baz=151,slow=2.1,SNR=5.8 | | | | | | |
| ILAR | | | | pP | **pP** | **05 51 18.2** | **-0.9** |
| | 1.1nm,0.9s,baz=177,slow=4.0,SNR=2.9 | | | | | | |
| **ILB** | **Eielson Array** | **92.59** | **336** | *e*P | **P** | **05 51 03.1** | **-0.1** |
| **H11S2** | **WAKE ISLAND Hyl** | **18.42** | **284** | T | T | 08 05 39.1 | |
| | baz=94,slow=74,SNR=232 | | | | | | |
| **H11S1** | **WAKE ISLAND Hyl** | **18.43** | **285** | T | T | 08 05 36.6 | |
| | baz=94,slow=74,SNR=150 | | | | | | |
| **H11S3** | **WAKE ISLAND Hyl** | **18.44** | **284** | T | T | 08 05 34.6 | |
| | baz=94,slow=74,SNR=292 | | | | | | |
| **WR1** | **Warramunga Arr** | **135.52** | **224** | *e*PKPdf | **PKPdf** | **05 57 13.2** | **+0.3** |
| **WRA** | **Warramunga Arr** | **135.52** | **224** | PKP | **PKPdf** | **05 57 13.2** | **+0.3** |
| | 2.6nm,0.6s,baz=132,slow=2.0,SNR=9.6 | | | | | | |
| **KSH** | **Kashi** | **143.84** | **36** | *e*PKP | PKPab | 05 57 23.8 | -0.9 |
| KSH | | | | pPKP | sPKPdf | 05 57 51.5 | +1.5 |
| KSH | | | | PP | **PP** | **06 00 41.3** | **+0.7** |
| KSH | | | | AMB | AMB | | |
| | comp=Z,120nm,3.6s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,290nm,5.2s | | | | | | |
| **SONA0** | **Songino Array** | **144.37** | **356** | *e*PKPdf | PKPbc | 05 57 27.4 | +0.7 |
| **SONM** | **Songino Array** | **144.37** | **356** | PKP | PKPbc | 05 57 27.4 | +0.7 |
| | 1.2nm,0.5s,baz=330,slow=4.0,SNR=5.5 | | | | | | |
| **WMQ** | **Urumqi** | **145.88** | **20** | *e*PKPbc | **PKPdf** | **05 57 28.0** | **-2.9** |
| WMQ | | | | LR | LR | | |
| | comp=N,320nm,17.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,400nm,19.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,310nm,21.1s | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **150.48** | **347** | *e*PKPbc | **PKPbc** | **05 57 42.6** | **-1.3** |
| **NJ2** | **Nanjing** | **155.40** | **326** | *e*PKP | **PKPdf** | **05 57 44.8** | **-1.0** |
| **KMI** | **Kunming** | **167.16** | **1** | PKP | **PKPdf** | **05 57 57.0** | **-1.7** |

**IDC 19 05:38:21.4±2.0, 17°.55S×173°.09W, h0km, mb4.2/5, mb1 4.5/5, mb1mx4.0/39, mbtmp4.2/5, Error ellipse: s-maj=118.2km s-min=26.1km az=148.0, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **STKA** | **Stephens Creek** | **43.26** | **242** | P | P | 05 46 24.0 | -0.8 |
| | 2.0nm,0.6s,baz=81,slow=11,SNR=3.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **49.67** | **258** | P | P | 05 47 15.4 | -0.1 |
| | 3.9nm,0.5s,baz=97,slow=6.1,SNR=28 | | | | | | |
| **ASAR** | **Alice Springs** | **49.76** | **254** | P | P | 05 47 16.1 | 0.0 |
| | 9.7nm,0.7s,baz=92,slow=8.4,SNR=21 | | | | | | |
| **TXAR** | **Lajitas Array** | **81.56** | **56** | P | P | 05 50 41.7 | +0.2 |
| | 0.8nm,1.0s,baz=212,slow=4.4,SNR=3.8 | | | | | | |
| **ILAR** | **Eielson Array** | **84.49** | **11** | P | P | 05 50 54.9 | -0.8 |
| | 0.8nm,0.8s,baz=224,slow=5.4,SNR=4.4 | | | | | | |
| **BRTR** | **Keskin Array B** | **147.99** | **319** | PKPbc | PKPbc | 05 58 09.5 | +0.2 |
| | 1.5nm,0.8s,baz=50,slow=2.3,SNR=2.7 | | | | | | |

**IDC 19 05:42:28.3±2.9, 28°.38S×177°.10W, h0km, mb4.0/2, mb1 4.3/2, mb1mx3.7/31, mbtmp4.0/2, Error ellipse: s-maj=78.8km s-min=26.1km az=119.0, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **1.13** | **219** | Pn | Pn | 05 42 51.8 | +0.4 |
| | 212nm,0.3s,baz=19,slow=18,SNR=3.3 | | | | | | |
| RAO | | | | Sn | Sn | 05 43 07.7 | +0.1 |
| | 742nm,0.3s,baz=98,slow=22,SNR=5.7 | | | | | | |
| **ASAR** | **Alice Springs** | **44.05** | **264** | P | P | 05 50 37.9 | -0.3 |
| | 1.0nm,0.5s,baz=105,slow=7.2,SNR=6.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.85** | **270** | P | P | 05 50 44.7 | 0.0 |
| | 2.0nm,0.8s,baz=108,slow=8.1,SNR=5.7 | | | | | | |
| **AKASG** | **Malin Array Be** | **150.13** | **326** | PKPbc | PKPbc | 06 02 20.2 | -0.5 |
| | 2.0nm,0.8s,baz=45,slow=2.9,SNR=9.5 | | | | | | |

*IDC **19** 05:48:21.1±0.9, 28°.81S×176°.64W, h0km, mb4.2/5, mb1 4.5/6, mb1mx4.1/30, mbtmp4.2/6, ML4.5/1, MS4.3/2, Ms1 4.3/2, ms1mx3.7/22, Error ellipse: s-maj=46.7km s-min=17.0km az=155.0*

*NEIC **19** 05:48:22.9±0.3, 29°.12S×176°.68W, h10km, mb4.8/37, Error ellipse: s-maj=12.8km s-min=6.9km az=147.0*

*ISCJB **19** 05:48:25.8±0.3, 29°.11S±0°.08×176°.69W±0°.06, h36km, mb4.8/41, MS4.3/2, Error ellipse: s-maj=12.5km s-min=6.2km az=151.1*

**ISC 19 05:48:26.6±0.5, 29°.11S±0°.09×176°.57W±0°.07, h36km, n75, σ1s32/74, mb4.9/41, 1C, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **1.19** | **263** | Pn | **Pn** | **05 48 46.4** | **-0.3** |
| | 821nm,0.3s,baz=68,slow=3.8,SNR=24 | | | | | | |
| RAO | | | | Sn | **Sn** | **05 49 02.9** | **+1.3** |
| | 4µm,0.3s,baz=258,slow=22,SNR=18 | | | | | | |
| **RAO** | **Raoul Island** | **1.19** | **263** | *e*Pn | **Pn** | **05 48 46.2** | **-0.4** |
| RAO | | | | *e*Sn | **Sn** | **05 48 59.8** | **-1.7** |
| **MSVF** | **Nonsavu** | **12.36** | **335** | *e*Pn | **Pn** | **05 51 21.4** | **+1.4** |
| **DZM** | **Mont Dzumac** | **16.84** | **291** | *e*P | **P** | **05 52 24.6** | **+3.1** |
| | 117nm,1.9s | | | | | | |
| DZM | | | | *e*LR | LR | 05 56 31.4 | |
| | 2µm,23.4s | | | | | | |
| **OXZ** | **Oxford** | **16.88** | **210** | *e*Pn | **Pn** | **05 52 17.7** | **-2.2** |
| | 26nm,0.4s | | | | | | |
| OXZ | | | | *e*Sn | **Sn** | **05 55 28.7** | **+2.4** |
| **RAR** | **Rarotonga** | **17.11** | **66** | *e*Pn | **Pn** | **05 52 23.2** | **+0.3** |
| | 68nm,1.1s | | | | | | |
| **RPZ** | **Rata Peaks** | **17.62** | **211** | P | **P** | **05 52 29.7** | **-0.2** |
| | 1.6nm,0.3s,baz=28,slow=6.1,SNR=3.5 | | | | | | |
| **PPT2** | **Papeete2** | **27.24** | **71** | *e*LR | LR | 06 00 50.6 | |
| | 677nm,22.2s | | | | | | |
| **PPT** | **Papeete** | **27.25** | **71** | LR | LR | 06 04 21.3 | |
| | comp=Z,414nm,18.9s,baz=236,slow=35 | | | | | | |
| **STKA** | **Stephens Creek** | **36.00** | **255** | P | **P** | **05 55 25.4** | **+1.2** |
| | 1.6nm,0.6s,baz=105,slow=11,SNR=5.7 | | | | | | |
| STKA | | | | LR | LR | 06 07 28.6 | |
| | comp=Z,738nm,18.2s,baz=60,slow=32 | | | | | | |
| **STKA** | **Stephens Creek** | **36.00** | **255** | *e*P | **P** | **05 55 25.4** | **+1.2** |
| | 1.3nm,1.1s | | | | | | |
| **RKT** | **Rikitea** | **37.68** | **91** | *e*LR | LR | 06 05 32.8 | |
| | 425nm,24.2s | | | | | | |
| **BBOO** | **Buckleboo** | **40.53** | **252** | *e*P | **P** | **05 56 02.8** | **+0.5** |
| | 8.4nm,0.9s | | | | | | |
| **ASAR** | **Alice Springs** | **44.44** | **265** | P | **P** | **05 56 33.3** | **-1.0** |
| | 1.3nm,0.5s,baz=99,slow=6.7,SNR=24 | | | | | | |
| **WB2** | **Warramunga Arr** | **45.31** | **270** | *e*P | **P** | **05 56 39.9** | **-1.3** |
| | 7.4nm,0.8s | | | | | | |
| **WRAB** | **Tennant Creek** | **45.31** | **270** | *e*P | **P** | **05 56 38.6** | **-2.6** |
| | 1.9nm,0.6s | | | | | | |
| **WR1** | **Warramunga Arr** | **45.32** | **270** | *e*P | **P** | **05 56 40.0** | **-1.3** |
| | 48nm,1.8s | | | | | | |
| **WRA** | **Warramunga Arr** | **45.32** | **270** | P | **P** | **05 56 40.0** | **-1.3** |
| | 1.9nm,0.5s,baz=109,slow=7.8,SNR=25 | | | | | | |
| **QSPA** | **South Pole Qui** | **60.99** | **180** | *e*P | **P** | **05 58 38.9** | **+2.8** |
| | 21nm,1.3s | | | | | | |
| **SYO** | **Syowa Base** | **78.64** | **193↑** | *e*P | **P** | **06 00 24.0** | **-0.3** |
| **SNAA** | **Sanae** | **79.40** | **178** | *e*P | **P** | **06 00 26.7** | **-1.8** |
| | 6.1nm,1.1s | | | | | | |
| **CMB** | **Columbia Colle** | **84.98** | **41** | *e*P | **P** | **06 00 58.6** | **+0.5** |
| | 46nm,1.1s | | | | | | |
| **AFDM** | **Forest Hills D** | **85.27** | **40** | *e*P | **P** | **06 01 00.1** | **+0.6** |
| | 7.5nm,1.3s | | | | | | |
| **GSC** | **Goldstone, Bar** | **85.30** | **45** | *e*P | **P** | **06 01 00.8** | **+1.0** |
| | 11nm,1.1s | | | | | | |
| **DAC** | **Darwin (Calif)** | **85.45** | **44** | *e*P | **P** | **06 01 00.0** | **-0.7** |
| | 4.6nm,0.9s | | | | | | |
| **113A** | **Mohawk Valley,** | **85.63** | **49** | *e*P | **P** | **06 01 02.5** | **+1.2** |
| | 9.5nm,1.4s | | | | | | |
| **WAKR** | **Walker** | **85.84** | **41** | *e*P | **P** | **06 01 04.1** | **+1.5** |
| | 21nm,1.5s | | | | | | |
| **PNTR** | **Pine Nut** | **86.14** | **41** | *e*P | **P** | **06 01 04.5** | **+0.4** |
| | 12nm,1.2s | | | | | | |
| **LDFC** | **Landfair** | **86.22** | **46** | *e*P | **P** | **06 01 06.4** | **+2.0** |
| | 16nm,1.1s | | | | | | |
| **YERR** | **Yerington** | **86.28** | **41** | *e*P | **P** | **06 01 05.3** | **+0.5** |
| | 5.5nm,1.1s | | | | | | |
| **NV01** | **Mina Array Sit** | **86.45** | **42** | *e*P | **P** | **06 01 04.3** | **-1.4** |
| **NV11** | **Mina Array Sit** | **86.54** | **42** | *e*P | **P** | **06 01 07.3** | **+1.3** |
| | 0.5nm,1.1s | | | | | | |
| **PAHR** | **Pah Rah Range** | **86.69** | **40** | *e*P | **P** | **06 01 07.8** | **+1.1** |
| | 8.0nm,1.3s | | | | | | |
| **TPNV** | **Topopah Spring** | **86.71** | **44** | *e*P | **P** | **06 01 08.0** | **+1.1** |
| **KVN** | **Kaiserville** | **86.98** | **42** | *e*P | **P** | **06 01 08.6** | **+0.4** |
| | 3.7nm,1.0s | | | | | | |
| **W13A** | **Hualapai Mount** | **87.01** | **47** | *e*P | **P** | **06 01 09.4** | **+0.9** |
| | 4.1nm,1.1s | | | | | | |
| **SHPR** | **Sheep Range** | **87.09** | **45** | *e*P | **P** | **06 01 09.9** | **+1.2** |
| | 8.3nm,1.4s | | | | | | |
| **TUC** | **Tucson** | **87.34** | **51** | *e*P | **P** | **06 01 11.3** | **+1.4** |
| | 9.7nm,1.1s | | | | | | |
| **X16A** | **Lo Mia Camp, P** | **88.17** | **49** | *e*P | **P** | **06 01 15.7** | **+1.7** |
| | 4.3nm,1.0s | | | | | | |
| **LCMT** | **Little Creek M** | **88.61** | **46** | *e*P | **P** | **06 01 17.2** | **+1.2** |
| | 4.1nm,1.2s | | | | | | |
| **U15A** | **North Rim** | **88.85** | **47** | *e*P | **P** | **06

comp=N,7.3nm,0.2s
**LBWR Ladybower, Pea 0.79 282** *e*P Pg 05 50 23.0 -0.2
LBWR *e*S Sg 05 50 33.9 +0.5
LBWR AML AML 05 50 38.0
comp=E,6.2nm,0.1s
LBWR AML AML 05 50 38.3
comp=N,6.1nm,0.2s
**LBWR Ladybower, Pea 0.79 282** *e*P Pg 05 50 23.0 -0.2
LBWR *e*S Sg 05 50 33.9 +0.5
comp=N,6.1nm,0.2s
**LHO Holmfirth 0.90 290** *e*P Pg 05 50 24.9 -0.4
**LHO Holmfirth 0.90 290** *e*P Pg 05 50 24.9 -0.5
**HPK Haverah Park 1.00 316** *e*P Pg 05 50 26.9 -0.5
HPK *e*S Sb 05 50 41.5 +0.3
HPK AML AML 05 50 44.0
comp=N,28nm,0.3s
HPK AML AML 05 50 44.8
comp=E,21nm,0.2s
**HPK Haverah Park 1.00 316** *e*P Pg 05 50 26.9 -0.4
HPK *e*S Sb 05 50 41.5 +0.3
comp=E,21nm,0.2s
**HLM1 Long Mynd 1.65 245** *e*P Pb 05 50 38.6 -0.3
HLM1 *e*S Sn 05 50 59.1 +0.1
HLM1 AML AML 05 51 01.9
comp=N,5.2nm,0.4s
HLM1 AML AML 05 51 03.4
comp=E,4.2nm,0.3s
**HLM1 Long Mynd 1.65 245** *e*P Pb 05 50 38.6 -0.2
HLM1 *e*S Sn 05 50 59.1 +0.1
comp=E,4.2nm,0.3s

*CSEM* ***19*** *05:51:14.8±0.5, 49.˚86N×18.˚53E, h1km, Error ellipse: s-maj=17.4km s-min=4.2km az=26.0*
**PRU 19 05:51:16.5, 49.˚73N×18.˚42E, h0km, 1D, Czech and Slovak Republics**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OKC** | **Ostrava-Krasne** | **0.21** | **301** | *i*PG | Pg | 05 51 19.8 | -0.7 |
| OKC | | | | *e*SG | Sg | 05 51 23.9 | +0.8 |
| comp=Z,7.3nm,0.3s | | | | | | | |
| **OKC** | **Ostrava-Krasne** | **0.21** | **301** | Pg | Pg | 05 51 19.8 | -0.7 |
| OKC | | | | Sg | Sg | 05 51 23.9 | +0.8 |
| 7.3nm,0.3s | | | | | | | |
| **MORC** | **Moravsky Berou** | **0.57** | **275** | *e*Pg | Pg | 05 51 27.3 | -0.1 |
| MORC | | | | *e*Sg | Sg | 05 51 34.3 | -0.5 |
| **LANS** | **Liptovska Anna** | **0.90** | **130** | *e*Pg | Pg | 05 51 32.6 | -1.1 |
| LANS | | | | *e*Sg | Sg | 05 51 45.8 | +0.5 |
| **LANS** | **Liptovska Anna** | **0.90** | **130** | *e*PG | Pg | 05 51 32.6 | -1.1 |
| LANS | | | | *e*SG | Sg | 05 51 45.8 | +0.5 |
| **DPC** | **Dobruska-Polom** | **1.49** | **295** | *e*PG | Pn | 05 51 43.6 | -1.0 |
| DPC | | | | *e*SG | Sg | 05 52 04.3 | 0.0 |
| **DPC** | **Dobruska-Polom** | **1.49** | **295** | Pg | Pn | 05 51 43.6 | -1.0 |
| DPC | | | | Sg | Sg | 05 52 04.3 | 0.0 |

*IDC* ***19*** *05:51:26.1±1.0, 28.˚84S×176.˚64W, h0km, mb4.1/4, mb1 4.4/5, mb1mx4.0/32, mbtmp4.2/5, ML4.7/1, MS4.4/1, Ms1 4.4/1, ms1mx3.6/19, Error ellipse: s-maj=48.1km s-min=19.9km az=156.0*
*NEIC* ***19*** *05:51:27.7±0.7, 28.˚85S×176.˚66W, h10km, mb4.5/2, Error ellipse: s-maj=20.8km s-min=14.3km az=153.0*
*ISCJB* ***19*** *05:51:28.7±1.3, 28.˚8S±0.˚2×176.˚5W±0.˚1, h36km, mb4.2/6, MS4.4/1, Error ellipse: s-maj=27.0km s-min=15.4km az=169.2*
**ISC 19 05:51:31.8±0.9, 28.˚9S±0.˚2×176.˚7W±0.˚1, h36km, n17, σ1§04/16, mb4.2/6, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **1.16** | **252** | Pn | **Pn** | **05 51 51.6** | **+0.1** |
| 857nm,0.3s,baz=91,slow=8.4,SNR=4.6 | | | | | | | |
| RAO | | | | Sn | **Sn** | **05 52 07.6** | **+1.6** |
| 3µm,0.3s,baz=68,slow=20,SNR=7.8 | | | | | | | |
| **RPZ** | **Rata Peaks** | **17.76** | **210** | P | **Pn** | **05 55 35.0** | **-1.1** |
| 2.4nm,0.3s,baz=2.3,slow=6.6,SNR=6.5 | | | | | | | |
| **STKA** | **Stephens Creek** | **35.98** | **255** | P | **P** | **05 58 29.8** | **+0.6** |
| 1.7nm,0.5s,baz=99,slow=12,SNR=3.2 | | | | | | | |
| **PMG** | **Port Moresby** | **39.07** | **292** | LR | LR | 06 11 11.3 | |
| comp=Z,548nm,18.9s,baz=100,slow=30 | | | | | | | |
| **BBOO** | **Buckleboo** | **40.52** | **252** | *e*P | **P** | **05 59 06.6** | **-0.9** |
| 1.9nm,0.4s | | | | | | | |
| **ASAR** | **Alice Springs** | **44.38** | **265** | P | **P** | **05 59 37.9** | **-1.1** |
| 1.2nm,0.5s,baz=105,slow=7.4,SNR=7.4 | | | | | | | |
| **WRAB** | **Tennant Creek** | **45.23** | **270** | *e*P | **P** | **05 59 45.6** | **-0.2** |
| 7.9nm,0.8s | | | | | | | |
| **WRA** | **Warramunga Arr** | **45.24** | **270** | P | **P** | **05 59 45.2** | **-0.7** |
| 1.2nm,0.4s,baz=109,slow=7.8,SNR=5.4 | | | | | | | |
| **QSPA** | **South Pole Qui** | **61.20** | **180** | *e*P | **P** | **06 01 43.8** | **+1.0** |
| **PMSA** | **Palmer Station** | **73.14** | **156** | *e*P | P | 06 02 50.9 | -7.3 |
| **TXAR** | **Lajitas Array** | **90.60** | **57** | P | **P** | **06 04 32.3** | **+1.7** |
| 1.0nm,1.0s,baz=194,slow=4.8,SNR=4.6 | | | | | | | |
| **MKAR** | **Makanchi Array** | **117.71** | **310** | PKP | **PKPdf** | **06 10 12.8** | **-1.1** |
| 0.4nm,0.8s,baz=48,slow=1.8,SNR=3.6 | | | | | | | |
| **KURK** | **Kurchatov** | **120.86** | **314** | PKP | **PKPdf** | **06 10 19.0** | **-0.8** |
| **KURBB** | **Kurchatov Arra** | **120.90** | **314** | PKP | **PKPdf** | **06 10 19.0** | **-0.9** |
| 0.7nm,0.7s,baz=111,slow=4.1,SNR=5.0 | | | | | | | |
| **AKASG** | **Malin Array Be** | **150.78** | **325** | PKPbc | **PKPbc** | **06 11 19.3** | **-0.6** |
| 1.7nm,0.6s,baz=45,slow=2.9,SNR=7.5 | | | | | | | |
| **BRTR** | **Keskin Array B** | **152.87** | **301** | PKPbc | **PKPbc** | **06 11 25.4** | **+0.2** |
| 0.8nm,0.8s,baz=158,slow=3.2,SNR=4.0 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **164.24** | **174** | PKPab | **PKPab** | **06 12 25.2** | **-0.6** |
| 1.3nm,1.0s,baz=178,slow=2.6,SNR=4.7 | | | | | | | |

**IDC 19 06:23:05.7±1.3, 28.˚18S×177.˚33W, h0km, mb4.2/3, mb1 4.4/3, mb1mx3.9/20, mbtmp4.2/3, Error ellipse: s-maj=38.5km s-min=22.4km az=112.0, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **1.19** | **206** | Pn | Pn | 06 23 29.5 | -0.2 |
| 367nm,0.3s,baz=27,slow=11,SNR=6.6 | | | | | | | |
| RAO | | | | Sn | Sn | 06 23 46.2 | -0.4 |
| 1µm,0.3s,baz=89,slow=22,SNR=9.1 | | | | | | | |
| **STKA** | **Stephens Creek** | **35.60** | **254** | P | P | 06 30 05.3 | +0.1 |
| 3.6nm,0.9s,baz=98,slow=7.1,SNR=5.0 | | | | | | | |
| **ASAR** | **Alice Springs** | **43.86** | **264** | P | P | 06 31 13.9 | -0.2 |
| 1.8nm,0.5s,baz=99,slow=7.3,SNR=20 | | | | | | | |
| **WRA** | **Warramunga Arr** | **44.65** | **270** | P | P | 06 31 20.9 | +0.5 |
| 3.3nm,0.8s,baz=108,slow=7.8,SNR=14 | | | | | | | |
| **MKAR** | **Makanchi Array** | **116.78** | **311** | PKP | PKPdf | 06 41 50.7 | -1.2 |
| 0.3nm,0.7s,baz=110,slow=2.1,SNR=3.6 | | | | | | | |
| **BVAR** | **Borovoye Array** | **125.21** | **317** | PKP | PKPdf | 06 42 07.5 | -0.4 |
| 0.8nm,0.8s,baz=180,slow=0.7,SNR=5.1 | | | | | | | |
| **FINES** | **FINESS Array B** | **143.25** | **341** | PKP | PKPbc | 06 42 38.8 | +0.6 |
| 4.1nm,1.0s,baz=48,slow=2.1,SNR=3.0 | | | | | | | |
| **AKASG** | **Malin Array Be** | **149.85** | **326** | PKPbc | PKPbc | 06 42 57.1 | -0.4 |
| 1.6nm,0.6s,baz=47,slow=2.8,SNR=9.7 | | | | | | | |
| **BRTR** | **Keskin Array B** | **151.98** | **302** | PKPbc | PKPbc | 06 43 02.6 | -0.5 |
| 0.8nm,0.7s,baz=106,slow=3.1,SNR=3.4 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **165.02** | **176** | PKPab | PKPab | 06 44 10.1 | +1.2 |
| 1.0nm,0.9s,baz=187,slow=3.2,SNR=4.0 | | | | | | | |

**DJA 19 06:27:01.0±1.0, 11.˚5S±7.˚×11.˚8E±.˚, h10km, M3.5/6, MLv3.5/6, South of Sumbawa**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WBSI** | **Waikabubak, Su** | **1.81** | **39** | P | Pn | 06 27 32.2 | -0.2 |
| WBSI | | | | S | Sn | 06 27 55.2 | -0.3 |
| **PLAI** | **Plampang** | **2.26** | **349** | P | Pn | 06 27 38.5 | 0.0 |
| PLAI | | | | S | Sn | 06 28 07.2 | +0.7 |
| **SRBI** | **Singaraja** | **4.19** | **315** | P | Pn | 06 28 04.5 | -0.6 |

*CSEM* ***19*** *06:41:11.7±0.5, 51.˚47N×16.˚14E, h1km, ML2.8/7, Error ellipse: s-maj=8.2km s-min=4.1km az=17.0*
*PRU* ***19*** *06:41:11.4, 51.˚50N×16.˚14E, h0km*
**WAR 19 06:41:12.0, 51.˚49N×16.˚09E, h1km, Mw2.2, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KSP** | **Ksiaz** | **0.66** | **169** | *e*Pg | Pg | 06 41 24.4 | -0.2 |
| KSP | | | | *e*Sg | Sg | 06 41 33.2 | +0.1 |
| **KSP** | **Ksiaz** | **0.66** | **169** | *e*Pg | Pg | 06 41 24.4 | -0.2 |
| KSP | | | | *e*Sg | Sg | 06 41 33.2 | +0.1 |
| **KSP** | **Ksiaz** | **0.66** | **169** | *e*Pg | Pg | 06 41 24.4 | -0.2 |
| KSP | | | | *e*Sg | Sg | 06 41 33.2 | +0.1 |
| **UPC** | **Upice** | **0.98** | **183** | *e*PG | Pg | 06 41 31.0 | +0.2 |
| UPC | | | | *e*SG | Sg | 06 41 43.6 | +0.1 |
| comp=Z,25nm,0.3s | | | | | | | |
| **UPC** | **Upice** | **0.98** | **183** | Pg | Pg | 06 41 31.0 | +0.2 |
| UPC | | | | Sg | Sg | 06 41 43.6 | +0.1 |
| 25nm,0.3s | | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.15** | **173** | *e*PG | Pg | 06 41 33.4 | -0.6 |
| DPC | | | | *e*SG | Sg | 06 41 48.3 | -0.5 |
| comp=Z,10nm,0.4s | | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.15** | **173** | Pg | Pg | 06 41 33.4 | -0.6 |
| DPC | | | | Sg | Sg | 06 41 48.3 | -0.5 |
| 10nm,0.4s | | | | | | | |
| **PVCC** | **Panska Ves** | **1.36** | **226** | *e*PG | Pg | 06 41 37.9 | -0.1 |
| PVCC | | | | *e*SG | Sn | 06 41 56.7 | 0.0 |
| comp=Z,23nm,0.2s | | | | | | | |
| **PVCC** | **Panska Ves** | **1.36** | **226** | Pg | Pg | 06 41 37.9 | -0.1 |
| PVCC | | | | Sg | Sn | 06 41 56.7 | 0.0 |
| 23nm,0.2s | | | | | | | |
| **KRLC** | **Kraliky** | **1.48** | **162** | *e*PG | Pn | 06 41 39.6 | -0.2 |
| KRLC | | | | *e*SG | Sg | 06 41 58.2 | -1.3 |
| comp=Z,2.0nm,0.4s | | | | | | | |
| **KRLC** | **Kraliky** | **1.48** | **162** | Pg | Pn | 06 41 39.6 | -0.2 |
| KRLC | | | | Sg | Sg | 06 41 58.2 | -1.3 |
| 2.0nm,0.4s | | | | | | | |
| **BRG** | **Berggiesshubel** | **1.48** | **246** | PG | Pb | 06 41 40.2 | -0.1 |
| BRG | | | | SG | | 06 42 59.9 | |
| 12nm,0.4s | | | | | | | |
| **BRG** | **Berggiesshubel** | **1.48** | **246** | PG | Pb | 06 41 40.2 | -0.1 |
| BRG | | | | SG | | 06 42 59.9 | |
| 12nm,0.4s | | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **1.78** | **208** | *e*PG | Pb | 06 41 45.0 | -0.4 |
| GOPC | | | | *e*SG | Sb | 06 42 08.3 | +0.1 |
| comp=Z,3.6nm,0.3s | | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **1.78** | **208** | Pg | Pb | 06 41 45.0 | -0.4 |
| GOPC | | | | Sg | Sb | 06 42 08.3 | +0.1 |
| 3.6nm,0.3s | | | | | | | |
| **PRU** | **Pruhonice** | **1.79** | **214** | *e*PG | Pb | 06 41 45.4 | -0.2 |
| **PRU** | **Pruhonice** | **1.79** | **214** | Pg | Pb | 06 41 45.4 | -0.2 |
| **CLL** | **Collm** | **1.94** | **266** | *e*Pg | Pn | 06 41 47.0 | +0.9 |
| CLL | | | | *e*Sg | Sb | 06 42 13.0 | +0.2 |
| comp=Z,6.0nm,0.8s | | | | | | | |
| **MORC** | **Moravsky Berou** | **1.95** | **151** | *e*Pn | Pn | 06 41 45.5 | -0.7 |
| MORC | | | | *e*Sg | Sb | 06 42 12.4 | -0.6 |
| **OKC** | **Ostrava-Krasne** | **2.11** | **141** | *e*SG | Sb | 06 42 17.1 | -0.5 |
| comp=Z,6.7nm,0.3s | | | | | | | |
| **OKC** | **Ostrava-Krasne** | **2.11** | **141** | Sg | Sb | 06 42 17.1 | -0.5 |
| comp=Z,6.7nm,0.3s | | | | | | | |
| **NKC** | **Novy Kostel** | **2.63** | **243** | *e*PG | Pg | 06 42 03.1 | +0.8 |
| NKC | | | | *e*SG | Sg | 06 42 36.9 | +0.6 |
| comp=Z,6.7nm,0.3s | | | | | | | |
| **NKC** | **Novy Kostel** | **2.63** | **243** | Pg | Pg | 06 42 03.1 | +0.8 |
| NKC | | | | Sg | Sg | 06 42 36.9 | +0.6 |
| comp=Z,6.7nm,0.3s | | | | | | | |
| **KHC** | **Kasperske Hory** | **2.86** | **215** | *e*PG | Pb | 06 42 04.2 | +0.4 |
| KHC | | | | *e*SG | Sg | 06 42 42.7 | -1.0 |

**DJA 19 06:49:29.9±0.6, 10.˚5S±4.˚×11.˚8E±.˚, h10km±4km, M4.0/9, mb4.2/1, MLv3.9/9, Sumbawa region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PLAI** | **Plampang** | **0.91** | **328** | Pg | Pg | 06 49 47.6 | +0.2 |
| PLAI | | | | S | Sg | 06 49 58.9 | -0.4 |
| **WBSI** | **Waikabubak, Su** | **1.11** | **92** | P | Pb | 06 49 50.4 | -0.8 |
| WBSI | | | | S | Sg | 06 50 05.5 | -0.1 |
| **DNP** | **Denpasar** | **3.16** | **287** | S | Sn | 06 50 58.3 | +0.8 |
| **SRBI** | **Singaraja** | **3.38** | **296** | P | Pn | 06 50 23.0 | +0.3 |
| **EDFI** | **Ende, Flores** | **3.48** | **76** | P | Pn | 06 50 24.3 | 0.0 |
| **JAGI** | **Jajag, Banyuwa** | **4.22** | **285** | P | Pn | 06 50 34.1 | -0.2 |
| **GMJI** | **Gumukmas** | **4.95** | **285** | P | Pn | 06 50 44.1 | -0.2 |
| **PWJI** | **Pagerwojo** | **6.58** | **283** | P | Pn | 06 51 06.8 | 0.0 |

*NIED* ***19*** *07:01:00, 35.˚60N×141.˚10E, h41km, Mw4.7 Best double couple: M₀1.46000×10¹⁶ NP1:φ₀218.00000°, δ31.00000°, λ161.00000°. NP2:φ₀324.00000°, δ80.00000°, λ60.00000°.*
*MOS* ***19*** *07:01:45.3±1.1, 35.˚46N×141.˚08E, h33km, mb4.7/41, Error ellipse: s-maj=9.7km s-min=6.0km az=107.0*
*BJI* ***19*** *07:01:46.0, 35.˚34N×140.˚95E, h44km, mb4.6/37, mB5.0/16, Ms4.2/15, Ms7 4.1/14*
*JMA* ***19*** *07:01:46.6±0.1, 35.˚56N×141.˚05E, h36km±1km, M4.6*
*JMA Felt III J1.*
*ISCJB* ***19*** *07:01:46.2±0.5, 35.˚46N±0.˚02×141.˚01E±0.˚04, h38km±4km, mb4.5/90, MS3.9/17, Error ellipse: s-maj=5.0km s-min=3.9km az=17.3*
*IDC* ***19*** *07:01:47.8±1.7, 35.˚45N×141.˚01E, h40km±15km, mb4.2/28, mb1 4.3/32, mb1mx4.3/44, mbtmp4.4/32, ML3.1/3, MS3.8/14, Ms1 3.9/14, ms1mx3.5/57, Error ellipse: s-maj=14.8km s-min=8.4km az=95.0*
*NEIC* ***19*** *07:01:47.5±0.2, 35.˚48N×141.˚02E, h35km, mb4.6/41, Error ellipse: s-maj=5.0km s-min=4.4km az=127.0*
*NEIC Recorded [3 JMA] in Chiba.*
**ISC 19 07:01:45.4±0.6, 35.˚45N±0.˚04×141.˚15E±0.˚04, h23km±4km, n215, σ1§70/225, mb4.5/90, MS4.0/18, 13C-6D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CHOJ** | **Chosi** | **0.35** | **317** | *i*P | **Pb** | **07 01 53.4** | **+0.4** |
| CHOJ | | | | *e*S | **Sb** | **07 01 58.0** | **-0.2** |
| **KTR** | **Katsuura** | **0.75** | **247** | P | **Pn** | **07 02 00.4** | **-0.1** |
| **JCN** | **Nagara** | **0.78** | **268** | *i*P | **Pn** | **07 02 00.8** | **-0.1** |
| **BSO1** | **Boso 1** | **0.80** | **190** | *i*P | **Pn** | **07 02 01.8** | **+1.0** |
| **BSO4** | **Boso 4** | **0.81** | **236** | *i*P | **Pn** | **07 02 01.6** | **+0.4** |
| **BSO3** | **Boso 3** | **0.83** | **219** | *i*P | **Pn** | **07 02 02.0** | **+0.6** |
| **JYT** | **Yasato** | **1.10** | **315** | *i*P | **Pn** | **07 02 03.8** | **-1.6** |
| **JHJ2** | **Mitsune** | **2.58** | **206** | *e*Pn | **Pn** | **07 02 26.1** | **+0.4** |
| JHJ2 | | | | *e*Sn | **Sn** | **07 02 54.9** | **-1.4** |
| **JHJ** | **Hachijo jima 2** | **2.58** | **206** | P | **Pn** | **07 02 26.4** | **+0.7** |
| 271nm,0.3s,baz=319,slow=23,SNR=37 | | | | | | | |
| JHJ | | | | S | **Sn** | **07 02 56.2** | **-0.3** |
| 200nm,0.3s,baz=248,slow=21,SNR=5.9 | | | | | | | |
| JHJ | | | | LR | LR | 07 03 39.1 | |
| comp=Z,27nm,19.3s,baz=222,slow=44 | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **2.62** | **295** | P | **Pn** | **07 02 26.9** | **+0.6** |
| 34nm,0.3s,baz=134,slow=9.8,SNR=83 | | | | | | | |
| MJAR | | | | S | **Sb** | **07 03 04.4** | **+0.9** |
| 38nm,0.3s,baz=134,slow=14,SNR=5.2 | | | | | | | |
| **MAJO** | **Matsushiro** | **2.62** | **295** | *e*P | **Pn** | **07 02 27.1** | **+0.7** |
| **MAJO** | **Matsushiro** | **2.62** | **295** | *e*Pn | **Pn** | **07 02 27.2** | **+0.9** |
| **MAT** | **Matsushiro** | **2.62** | **295** | P | **Pn** | **07 02 27.4** | **+1.0** |
| MAT | | | | *e*S | **Sn** | **07 02 55.3** | **-2.2** |
| **MJB9** | **Matsu-Tunnel** | **2.63** | **296** | *e*Pn | **Pn** | **07 02 27.1** | **+0.7** |
| **INU** | **Inuyama** | **3.38** | **270** | *e*Pn | **Pn** | **07 02 37.8** | **+1.1** |
| **ERM** | **Erimo** | **6.74** | **13** | *d*/P | **Pn** | **07 03 20.6** | **-2.3** |
| **ERM** | **Erimo** | **6.74** | **13** | *e*Pn | **Pn** | **07 03 21.2** | **-1.7** |
| ERM | | | | *e*Sn | **Sn** | **07 04 41.0** | **+2.1** |
| **CBIJ** | **Chichi jima** | **8.37** | **174** | *e*Pn | **Pn** | **07 03 44.7** | **-0.6** |
| CBIJ | | | | *e*Sn | **Sn** | **07 05 14.6** | **-4.5** |
| **JCJ** | **Chichijima** | **8.37** | **174** | P | **Pn** | **07 03 45.0** | **-0.3** |
| 66nm,0.3s,baz=95,slow=24,SNR=25 | | | | | | | |
| JCJ | | | | S | **Sn** | **07 05 13.3** | **-5.8** |
| baz=30,slow=20 | | | | | | | |
| **ASAJ** | **Asahikawa** | **8.73** | **7** | P | **Pn** | **07 03 48.4** | **-1.8** |
| 5.8nm,0.3s,baz=225,slow=13,SNR=17 | | | | | | | |
| ASAJ | | | | S | **Sn** | **07 05 24.4** | **-3.4** |
| 0.7nm,0.3s,baz=165,slow=20,SNR=5.2 | | | | | | | |
| **ASAJ** | **Asahikawa** | **8.73** | **7** | *e*Pn | **Pn** | **07 03 48.3** | **-1.8** |
| ASAJ | | | | *e*Sn | **Sn** | **07 05 28.1** | **+0.3** |
| **JNU** | **Nakatsue** | **8.81** | **258** | P | **Pn** | **07 03 53.4** | **+2.1** |
| 1.7nm,0.3s,baz=86,slow=4.1,SNR=7.4 | | | | | | | |
| **JNU** | **Nakatsue** | **8.81** | **258** | *e*Pn | **Pn** | **07 03 52.7** | **+1.3** |
| **YUK** | **Yuzh-Kuril'sk** | **9.31** | **21** | *e*P | **Pn** | **07 03 55.0** | **-3.1** |
| YUK | | | | pmax | pmax | | |
| comp=E,76nm,0.3s | | | | | | | |
| YUK | | | | pmax | pmax | | |
| comp=Z,105nm,0.3s | | | | | | | |
| YUK | | | | pmax | pmax | | |
| comp=N,69nm,0.4s | | | | | | | |
| YUK | | | | MLR | MLR | | |
| comp=Z,1µm,16.0s | | | | | | | |
| **SHO** | **Shikotan** | **9.48** | **26** | P | **Pn** | **07 03 56.3** | **-4.1** |
| **KSRS** | **Korea Array** | **10.84** | **285** | P | **Pn** | **07 04 22.6** | **+3.5** |
| comp=Z,0.5nm,0.3s,baz=96,slow=13,SNR=4.5 | | | | | | | |
| KSRS | | | | LR | LR | 07 08 32.2 | |
| comp=Z,884nm,20.9s,baz=96,slow=38 | | | | | | | |
| **KS15** | **Wonju Array Si** | **10.87** | **284** | *e*Pn | **Pn** | **07 04 18.5** | **-1.0** |
| KS15 | | | | *e*Sn | **Sn** | **07 06 18.5** | **-1.9** |
| **KUR** | **Kuril'sk** | **11.03** | **26** | P | **Pn** | **07 04 23.4** | **+1.8** |
| KUR | | | | S | **Sn** | **07 06 18.2** | **-6.0** |
| **USRK** | **Ussuriysk Ar.** | **11.22** | **324** | P | **Pn** | **07 04 24.7** | **+0.4** |
| comp=Z,0.3nm,0.3s,baz=142,slow=13,SNR=10 | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **11.56** | **5** | *e*P | Pn | 07 04 23.3 | -5.6 |
| YSS | | | | MLR | MLR | | |
| comp=Z,610nm,19.0s | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **11.56** | **5** | *e*Pn | **Pn** | **07 04 26.9** | **-1.9** |
| **KLR** | **Kul'dur** | **15.41** | **336** | P | **Pn** | **07 05 20.8** | **-0.4** |
| comp=Z,0.1nm,0.3s,baz=154,slow=9.8,SNR=6.6 | | | | | | | |
| KLR | | | | LR | LR | 07 10 07.6 | |
| comp=Z,22nm,19.7s,baz=150,slow=32 | | | | | | | |
| **TYV** | **Tymovskoe** | **15.45** | **4** | *e*P | **Pn** | **07 05 20.8** | **-0.9** |
| TYV | | | | *e*S | **Sn** | **07 08 05.0** | **-7.0** |
| TYV | | | | pmax | pmax | | |
| comp=Z,14nm,0.8s | | | | | | | |
| TYV | | | | smax | smax | | |
| comp=E,13nm,1.3s | | | | | | | |
| **NJ2** | **Nanjing** | **18.84** | **266** | *e*P | **P** | **07 06 03.1** | **-0.5** |
| NJ2 | | | | pmax | pmax | | |
| comp=E,14nm,0.5s | | | | | | | |
| **HIA** | **Hailar** | **20.90** | **318** | *i* P | Pn | 07 06 27.9 | -0.7 |
| HIA | | | | pmax | pmax | | |
| comp=Z,3.0nm,0.9s | | | | | | | |
| **PETK** | **Petropavlovsk-** | **21.17** | **28** | P | **P** | **07 06 29.7** | **+0.9** |
| comp=Z,14nm,0.9s,baz=210,slow=8.6,SNR=9.9 | | | | | | | |
| PETK | | | | LR | LR | 07 14 39.6 | |
| comp=Z,233nm,21.9s,baz=233,slow=36 | | | | | | | |
| **PEA1** | **Petropavlovsk-** | **21.18** | **28** | *e*P | **P** | **07 06 29.7** | **+0.8** |
| **GUMO** | **Guam** | **22.02** | **170** | LR | LR | 07 15 37.6 | |
| comp=Z,57nm,18.3s,baz=7.5,slow=38 | | | | | | | |
| **CLNS** | **Chul'man** | **24.06** | **338** | *e*P | **P** | **07 06 55.4** | **-3.3** |
| CLNS | | | | pmax | pmax | | |
| comp=Z,14nm,0.9s | | | | | | | |
| CLNS | | | | pmax | pmax | | |
| comp=N,6.0nm,0.9s | | | | | | | |
| CLNS | | | | pmax | pmax | | |
| comp=E,7.0nm,1.1s | | | | | | | |
| **MA2** | **Magadan** | **24.95** | **12** | P | **P** | **07 07 07.3** | **+0.7** |
| comp=E,21nm,0.7s,baz=196,slow=8.6,SNR=17 | | | | | | | |
| **MA2** | **Magadan** | **24.95** | **12** | *ce*P | **P** | **07 07 07.8** | **+1.1** |
| **XAN** | **Xi'an** | **26.46** | **276** | P | **P** | **07 07 27.3** | **+6.6** |
| XAN | | | | pP | sP | 07 07 39.0 | +8.4 |
| XAN | | | | sP | pP | 07 07 44.9 | +17 |
| XAN | | | | S | **S** | **07 11 59.1** | **+5.8** |
| XAN | | | | SS | SnSn | 07 13 14.8 | +20 |
| **ENH** | **Enshi** | **27.03** | **268** | *e*P | **P** | **07 07 25.7** | **-0.1** |
| comp=E,27nm,0.7s | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **27.56** | **118** | T | T | 07 36 33.9 | |
| baz=310,slow=75,SNR=178 | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **27.57** | **118** | T | T | 07 36 36.8 | |
| baz=310,slow=75,SNR=243 | | | | | | | |
| **YAK** | **Yakutsk** | **27.57** | **348** | P | **P** | **07 07 30.6** | **+0.3** |
| comp=E,15nm,0.4s,baz=196,slow=4.0,SNR=3.5 | | | | | | | |
| **YAK** | **Yakutsk** | **27.57** | **348** | *e*P | **P** | **07 07 28.9** | **-1.4** |
| YAK | | | | *e**PP | **pP** | **07 07 34.1** | **-3.2** |
| YAK | | | | *e*S | **S** | **07 12 10.8** | **+0.7** |
| YAK | | | | *e**SS | **sS** | **07 12 24.2** | **+2.6** |
| YAK | | | | *e*SS | **SnSn** | **07 13 22.2** | **+0.6** |
| YAK | | | | *e* | | 07 18 15.0 | |
| YAK | | | | pmax | pmax | | |
| comp=Z,11nm,1.0s | | | | | | | |
| YAK | | | | pmax | pmax | | |
| comp=N,2.0nm,1.1s | | | | | | | |
| YAK | | | | pmax | pmax | | |
| comp=E,2.0nm,0.9s | | | | | | | |
| YAK | | | | smax | smax | | |
| comp=N,83nm,3.8s | | | | | | | |
| YAK | | | | smax | smax | | |
| comp=E,52nm,3.7s | | | | | | | |
| YAK | | | | MLR | MLR | | |
| comp=Z,412nm,19.0s | | | | | | | |
| YAK | | | | MLR | MLR | | |
| comp=E,182nm,19.0s | | | | | | | |
| **YAK** | **Yakutsk** | **27.57** | **348** | *e*P | **P** | **07 07 30.5** | **+0.3** |
| comp=E,85nm,1.5s | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **27.58** | **118** | T | T | 07 36 34.8 | |
| baz=310,slow=75,SNR=214 | | | | | | | |
| **ULN** | **Ulaanbaatar** | **28.10** | **307** | *ce*P | **P** | **07 07 35.7** | **+0.3** |
| ULN | | | | pmax | pmax | | |
| comp=Z,8.0nm,1.7s | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.21** | **120** | T | T | 07 37 29.1 | |
| baz=312,slow=75,SNR=1376 | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.21** | **120** | T | T | 07 37 21.9 | |
| baz=312,slow=75,SNR=992 | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.23** | **120** | T | T | 07 37 23.1 | |
| baz=312,slow=75,SNR=845 | | | | | | | |
| **SEY** | **Seymchan** | **28.39** | **11** | P | **P** | **07 07 38.4** | **+0.8** |
| comp=Z,4.4nm,0.7s,baz=199,slow=7.4,SNR=17 | | | | | | | |
| **SEY** | **Seymchan** | **28.39** | **11** | *e*P | **P** | **07 07 38.5** | **+0.9** |
| **SONA1** | **Songino Array** | **28.52** | **306** | *e*P | **P** | **07 07 38.8** | **-0.4** |
| **SONA0** | **Songino Array** | **28.52** | **306** | *e*P | **P** | **07 07 38.4** | **-0.8** |
| **SONM** | **Songino Array** | **28.52** | **306** | P | **P** | **07 07 38.4** | **-0.8** |
| comp=Z,1.8nm,0.6s,baz=107,slow=8.5,SNR=17 | | | | | | | |
| **BOD** | **Bodaibo** | **28.77** | **330** | *e*P | **P** | **07 07 36.9** | **-4.2** |
| BOD | | | | pmax | pmax | | |
| comp=Z,8.0nm,1.2s | | | | | | | |
| **LZH** | **Lanzhou** | **30.16** | **282** | *e*P | **P** | **07 07 53.0** | **-0.9** |
| LZH | | | | pP | sP | 07 08 03.8 | +0.1 |
| LZH | | | | sP | pP | 07 08 09.8 | +9.0 |
| LZH | | | | pmax | pmax | | |
| comp=Z,19nm,0.9s | | | | | | | |
| **ZAK** | **Zakamensk** | **31.11** | **310** | *e*P | P | 07 07 52.4 | -10 |
| ZAK | | | | pmax | pmax | | |
| comp=Z,4.0nm,1.5s | | | | | | | |
| **TLY** | **Talaya** | **31.23** | **313** | LR | LR | 07 19 49.6 | |
| comp=Z,141nm,18.6s,baz=282,slow=35 | | | | | | | |
| **CD2** | **Chengdu** | **31.50** | **273** | *e*P | **P** | **07 08 07.8** | **+2.2** |
| CD2 | | | | pP | sP | 07 08 18.5 | +3.1 |
| CD2 | | | | sP | pP | 07 08 26.3 | +14 |
| CD2 | | | | pmax | pmax | | |
| comp=Z,20nm,0.8s | | | | | | | |
| CD2 | | | | LR | LR | | |
| comp=Z,700nm,16.1s | | | | | | | |
| CD2 | | | | LR | LR | | |
| comp=Z,940nm,19.0s | | | | | | | |
| CD2 | | | | LR | LR | | |
| comp=Z,1µm,19.0s | | | | | | | |
| **DAV** | **Davao City (W)** | **31.66** | **211** | LR | LR | 07 20 26.8 | |
| comp=Z,133nm,20.6s,baz=36,slow=35 | | | | | | | |
| **QIZ** | **Qiongz

comp=Z,4.9nm,0.5s,baz=97,slow=6.6,SNR=18
**ZALV Zalesovo Beam 42.84 314** *e*P **P 07 09 41.2 -0.2**
**ZALV Zalesovo Beam 42.84 314** *e*P **P 07 09 41.2 -0.2**
**NVS Novosibirsk 43.79 315** ⇑ *i*P **P 07 09 49.1 0.0**
NVS pmax pmax
comp=E,5.0nm,0.5s
NVS pmax pmax
comp=Z,7.0nm,0.5s
NVS pmax pmax
comp=N,2.0nm,0.6s
**BRDH Bariadhala 44.68 267** LR LR 07 31 43.1
comp=N,389nm,18.6s,baz=92,slow=40
**MK01 Makanchi Array 44.79 303** *e*P **P 07 09 56.4 -0.8**
**MK31 Makanchi Array 44.80 303** *e*P **P 07 09 56.7 -0.6**
**MK31 Makanchi Array 44.80 303** *e*P **P 07 09 56.7 -0.6**
**MK32 Makanchi Array 44.80 303** *e*P **P 07 09 56.5 -0.8**
**MKAR Makanchi Array 44.80 303** P **P 07 09 56.5 -0.8**
comp=N,2.7nm,0.6s,baz=86,slow=9.6,SNR=16
**MKAR Makanchi Array 44.80 303** *e*P **P 07 09 56.7 -0.6**
MKAR pmax pmax
comp=Z,57nm,0.9s
**MKAR Makanchi Array 44.80 303** *e*P **P 07 09 56.7 -0.6**
comp=Z,57nm,0.9s
**TAPN Taplejung 45.86 275** *e*P **P 07 10 04.9 -1.4**
comp=Z,9.1nm,0.4s
**ODAN Odare 46.32 275** *e*P **P 07 10 06.8 -3.0**
comp=Z,12nm,0.7s
**KURK Kurchatov 46.76 309** *ce*P **P 07 10 09.0 -3.6**
KURK pmax pmax
comp=Z,4.0nm,0.7s
**KURK Kurchatov 46.76 309** *e*P **P 07 10 11.8 -0.9**
comp=Z,25nm,0.9s
**RAMN Ramite 46.92 275** *e*P **P 07 10 13.0 -1.6**
comp=Z,37nm,0.7s
**JIRN Jiri 46.97 277** *e*P **P 07 10 14.1 -1.0**
**GUN Gumba 47.12 277** *e*P **P 07 10 15.2 -1.0**
**PDGK Podgornoye 47.34 299** P **P 07 10 18.2 +0.7**
PDGK pmax pmax
comp=Z,25nm,1.5s
**PKI Pulchoki 47.64 277** *e*P **P 07 10 19.0 -1.2**
**PKIN Phulchoki 47.64 277** *e*P **P 07 10 18.7 -1.5**
comp=Z,7.1nm,0.5s
**KKN Kakani 47.65 277** *e*P **P 07 10 19.3 -0.9**
**DMN Daman 47.87 277** *e*P **P 07 10 21.1 -0.8**
comp=Z,33nm,1.2s
**HNR Honiara 48.04 155** LR LR 07 33 07.4
comp=Z,59nm,18.9s,baz=324,slow=39
**KDAK Kodiak Island 48.43 41** *ce*P **P 07 10 26.6 +1.1**
**DANN Dangsing 48.66 279** *e*P **P 07 10 28.2 +0.1**
**MTN Manton Dam 48.95 193** *e*P **P 07 10 30.1 +0.2**
comp=Z,17nm,0.8s
**KOLN Koldanda 49.02 278** *e*P **P 07 10 29.4 -1.4**
**COEN Coen 49.17 177** *e*P **P 07 10 32.9 +1.3**
comp=Z,11nm,0.8s
**MLY Manley 49.31 31** *e*P **P 07 10 34.3 +2.1**
comp=Z,14nm,1.0s
**PYUN Piuthan 49.38 279** *e*P **P 07 10 33.0 -0.5**
**MDM Murphy Dome 50.37 31** *e*P **P 07 10 41.8 +1.5**
comp=Z,18nm,0.8s
**COLA College 50.53 32** P **P 07 10 41.5 +0.1**
COLA pmax pmax
comp=Z,27nm,2.4s
**KSH Kashi 50.87 295** P **P 07 10 48.1 +3.5**
KSH pP sP 07 11 01.1 +6.5
KSH PcP **PcP 07 12 04.1 +3.1**
KSH PP **PP 07 12 45.1 +4.3**
KSH S **S 07 18 00.6 +0.9**
KSH ScS **ScS 07 20 30.8 -3.2**
KSH SS **SS 07 21 32.8 -1.4**
KSH pmax pmax
comp=Z,9.0nm,1.1s
KSH pmax pmax
comp=Z,130nm,3.1s
**ILAR Eielson Array 50.95 32** P **P 07 10 45.4 +0.7**
comp=Z,6.5nm,0.7s,baz=264,slow=5.9,SNR=82
ILAR LR LR 07 33 24.8
comp=Z,83nm,20.2s,baz=320,slow=37
**ILB Eielson Array 50.95 32** *e*P **P 07 10 45.2 +0.6**
**IL1 Eielson Array 50.95 32** *e*P **P 07 10 45.1 +0.5**
**AAK Ala-Archa 51.07 299** P **P 07 10 45.3 -0.8**
comp=Z,1.9nm,0.5s,baz=78,slow=9.3,SNR=2.8
AAK LR LR 07 31 50.9
comp=Z,195nm,18.7s,baz=308,slow=35
**AAK Ala-Archa 51.07 299** *i* P **P 07 10 46.2 +0.1**
AAK pmax pmax
comp=Z,2.0nm,0.8s
**BRVK Borovoye 51.55 313** *e*P **P 07 10 49.6 +0.3**
BRVK pmax pmax
comp=Z,18nm,1.2s
**BRVK Borovoye 51.55 313** *e*P **P 07 10 49.8 +0.5**
comp=Z,7.4nm,0.8s
**MNAS Manas 52.52 300** P **P 07 10 56.9 0.0**
MNAS pmax pmax
comp=Z,7.0nm,2.0s
**FITZ Fitzroy Crossi 55.25 198** P **P 07 11 17.0 +0.3**
comp=Z,4.5nm,0.5s,baz=31,slow=5.2,SNR=14
**WRAB Tennant Creek 55.45 188** *ce*P **P 07 11 18.4 +0.2**
WRAB pmax pmax
comp=Z,72nm,1.2s
**WRAB Tennant Creek 55.45 188** *e*P **P 07 11 17.9 -0.3**
comp=Z,19nm,0.8s
**WB2 Warramunga Arr 55.46 188** *e*P **P 07 11 18.2 -0.1**
**WR1 Warramunga Arr 55.46 188** *e*P **P 07 11 18.2 -0.1**
comp=Z,18nm,0.8s
**WRA Warramunga Arr 55.46 188** P **P 07 11 18.2 -0.1**
comp=Z,16nm,0.7s,baz=5.7,slow=7.7,SNR=158
WRA LR LR 07 34 52.5
comp=Z,65nm,18.3s,baz=55,slow=36
**INK Inuvik 55.90 27** *e*P **P 07 11 22.2 +1.4**
INK pmax pmax
comp=Z,6.0nm,0.8s
**INK Inuvik 55.90 27** *e*P **P 07 11 22.1 +1.4**
comp=Z,5.6nm,0.8s
**ARU Arti 57.41 319** *c i*P **P 07 11 30.4 -1.4**
ARU S **S 07 19 25.1 -2.1**
ARU pmax pmax
comp=Z,8.0nm,1.2s
**HYB Hyderabad 57.96 269** *i* P **P 07 11 35.0 -1.3**
**ABKAR Akbulak array 58.80 311** *e*P **P 07 11 41.1 -0.6**
comp=Z,41nm,0.6s
**AS01 Alice Springs 59.18 188** *e*P **P 07 11 44.4 -0.1**
**AS31 Alice Springs 59.19 188** *e*P **P 07 11 45.7 +1.2**
comp=Z,2.3nm,0.8s
**ASAR Alice Springs 59.19 188** P **P 07 11 44.6 +0.1**
comp=Z,4.7nm,1.1s,baz=6.9,slow=7.1,SNR=26
**SPITS Spitsbergen Ar 62.04 349** LR LR 07 39 09.0
comp=Z,184nm,20.7s,baz=190,slow=36
**GEYT Alibeck 64.42 300** P **P 07 12 19.6 -0.2**
comp=Z,1.3nm,0.6s,baz=311,slow=6.6,SNR=2.7
**YKA Yellowknife Ar 65.29 30** P **P 07 12 25.4 +0.4**
comp=Z,2.3nm,0.8s,baz=300,slow=6.5,SNR=30
**YKB5 Yellowknife Ar 65.29 30** *e*P **P 07 12 24.8 -0.1**
**ARA0 ARCESS Array S 65.41 340** *e*P **P 07 12 25.4 -0.2**
**ARCES ARCESS Array B 65.41 340** P **P 07 12 25.5 -0.2**
comp=Z,1.0nm,0.5s,baz=60,slow=9.9,SNR=13
**AFI Afiamalu 66.29 129** LR LR 07 34 08.4
comp=Z,62nm,21.7s,baz=94,slow=29
**AFI Afiamalu 66.29 129** *e*P **P 07 12 33.0 +0.9**
AFI pmax pmax
comp=Z,62nm,1.2s
**AFI Afiamalu 66.29 129** *e*P **P 07 12 33.0 +0.9**
comp=Z,62nm,1.2s
**STKA Stephens Creek 66.97 180** P **P 07 12 36.2 +0.1**
comp=Z,3.6nm,0.9s,baz=325,slow=8.2,SNR=4.1
**DAG Danmarks Havn 67.33 355** *i* P **P 07 12 37.4 -0.5**
DAG pmax pmax
comp=Z,2.0nm,0.7s
**DAG Danmarks Havn 67.33 355** *i* P **P 07 12 37.4 -0.5**
comp=Z,1.6nm,0.7s
**OBN Obninsk 69.24 324** ⇑ *e*P **P 07 12 51.1 +1.0**
OBN *e* 07 13 13.8
OBN *e* 07 15 18.5
OBN pmax pmax
comp=Z,4.0nm,0.9s
OBN MLR MLR
comp=Z,184nm,17.0s
**VSR Storozhevoye 69.99 319** *i* P **P 07 12 55.4 +0.6**
VSR pmax pmax
comp=Z,5.0nm,0.8s
**FIA0 FINESS Array S 70.12 332** *e*P **P 07 12 55.0 -0.4**
**FIA0 FINESS Array S 70.12 332** *e*P **P 07 12 55.0 -0.4**
**FINES FINESS Array B 70.12 332** P **P 07 12 55.0 -0.4**
comp=Z,2.1nm,0.4s,baz=57,slow=6.5,SNR=20
**NCK Nalchik 71.47 310** *i* P **P 07 13 04.8 +0.8**
**NWAO Narrogin (SRO) 71.62 201** P **P 07 13 04.8 0.0**
comp=Z,5.9nm,0.9s,baz=22,slow=5.4,SNR=4.4
**KBZ Khabaz 71.78 311** P **P 07 13 05.8 0.0**
comp=Z,3.9nm,0.8s,baz=56,slow=1.8,SNR=6.0
**KIV Kislovodsk 71.79 311** *e*P **P 07 13 05.2 -0.8**
KIV pmax pmax
comp=Z,9.0nm,1.0s
**SUMG Summit 72.27 360** *i* P **P 07 13 09.8 +1.0**
SUMG pmax pmax
comp=Z,3.0nm,0.7s
**SUMG Summit 72.27 360** *i* P **P 07 13 09.8 +1.0**
comp=Z,3.4nm,0.7s
**BEKR Beckworth 73.99 52** *e*P **P 07 13 20.2 +1.0**
comp=Z,4.1nm,0.8s
**PAHR Pah Rah Range 74.70 52** *e*P **P 07 13 24.5 +1.1**
comp=Z,4.1nm,1.1s
**FFC Flin Flon 75.15 32** *e*P **P 07 13 26.5 +1.0**
FFC pmax pmax
comp=Z,30nm,1.9s
**FFC Flin Flon 75.15 32** *e*P **P 07 13 26.4 +1.0**
comp=Z,30nm,1.9s
**AKASG Malin Array Be 75.42 322** P **P 07 13 26.5 -0.6**
comp=Z,2.4nm,0.5s,baz=47,slow=5.8,SNR=20
**AKBB Malin Array Si 75.42 322** *e*P **P 07 13 26.5 -0.6**
AKBB pmax pmax
comp=Z,18nm,1.6s
**AKBB Malin Array Si 75.42 322** *e*P **P 07 13 26.5 -0.6**
comp=Z,18nm,1.6s
**LRM Limekiln Ridge 75.43 44** *e*P **P 07 13 29.3 +1.7**
**NB2 NORSAR Subarra 75.56 337** P **P 07 13 27.6 -0.2**
comp=Z,1nm,0.8s,baz=41,slow=5.9
**NB200 NORSAR Array S 75.56 337** *e*P **P 07 13 27.3 -0.5**
**NOA NORSAR Array B 75.56 337** P **P 07 13 27.3 -0.5**
comp=Z,1.9nm,0.6s,baz=43,slow=5.5,SNR=8.4
NOA LR LR 07 50 05.6
comp=Z,77nm,20.1s,baz=10.0,slow=38
**DLMT Dillon 75.62 44** *e*P **P 07 13 30.0 +1.5**
comp=Z,4.2nm,0.8s
**KVN Kaiserville 75.89 52** *e*P **P 07 13 32.0 +1.7**
KVN pmax pmax
comp=Z,4.0nm,1.0s
**KVN Kaiserville 75.89 52** *e*P **P 07 13 32.0 +1.7**
comp=Z,4.3nm,1.0s
**NV01 Mina Array Sit 76.11 53** *e*P **P 07 13 32.3 +0.7**
**H17A Grant Village 77.35 44** *e*P **P 07 13 38.6 +0.1**
comp=Z,6.2nm,1.0s
**IMW Indian Meadow 77.44 45** *e*P **P 07 13 41.6 +2.5**
comp=Z,2.9nm,0.9s
**FXWY Fox Creek 77.55 45** *e*P **P 07 13 39.7 +0.1**
comp=Z,9.2nm,1.7s
**TPAW Teton Pass 77.68 45** *e*P **P 07 13 41.9 +1.4**
comp=Z,19nm,2.0s
**R11A Troy Canyon, C 77.91 52** *e*P **P 07 13 42.6 +0.9**
comp=Z,4.6nm,1.2s
**TCUT Toone Canyon 78.85 47** *e*P **P 07 13 48.9 +2.0**
comp=Z,7.2nm,1.0s
**BW06 Boulder Array 78.93 45** *e*P **P 07 13 48.4 +1.1**
comp=Z,11nm,1.8s
**PD31 Pinedale Array 78.93 45** *e*P **P 07 13 48.6 +1.3**
**PDAR Pinedale Array 78.93 45** P **P 07 13 47.9 +0.6**
comp=Z,5.4nm,0.6s,baz=258,slow=2.3,SNR=17
**PDAR Pinedale Array 78.93 45** *e*P **P 07 13 47.7 +0.4**
**NLU North Lily Min 79.15 49** *e*P **P 07 13 48.9 +0.3**
comp=Z,3.2nm,1.0s
**MPU Maple Canyon 79.39 48** *e*P **P 07 13 51.8 +2.0**
comp=Z,3.4nm,1.0s
**BR101 Keskin Array S 79.74 312** *e*P **P 07 13 51.3 -0.4**
**BRTR Keskin Array B 79.74 312** P **P 07 13 51.3 -0.4**
comp=Z,1.1nm,0.8s,baz=142,slow=4.9,SNR=6.7
**BR231 Keskin MP Arra 80.20 312** *e*P **P 07 13 55.5 +1.4**
**LCMT Little Creek M 80.20 51** *e*P **P 07 13 56.3 +2.1**
comp=Z,5.0nm,1.0s
**P17A Butcher Ranch, 80.26 48** *e*P **P 07 13 56.7 +2.1**
comp=Z,4.7nm,0.9s
**P18A Preston Nutter 80.47 48** *e*P **P 07 13 57.1 +1.3**
comp=Z,4.7nm,0.9s
**SRU San Rafael Swe 80.62 48** *e*P **P 07 13 58.2 +1.7**
SRU pmax pmax
comp=Z,6.0nm,0.9s
**SRU San Rafael Swe 80.62 48** *e*P **P 07 13 58.2 +1.7**
comp=Z,5.5nm,0.9s
**ULM Lac du Bonnet 80.94 33** P **P 07 13 57.8 +0.1**
comp=Z,1.9nm,0.8s,baz=272,slow=5.3,SNR=3.2
**Y12C Blythe 81.32 55** *e*P **P 07 14 00.6 +0.5**
comp=Z,7.0nm,1.2s
**GLA Glamis 81.53 55** *e*P **P 07 14 03.3 +2.1**
GLA pmax pmax
comp=Z,6.0nm,0.9s
**GLA Glamis 81.53 55** *e*P **P 07 14 03.3 +2.1**
comp=Z,5.8nm,0.9s
**N23A Red Feather La 82.20 45** *e*P **P 07 14 03.8 -1.2**
comp=Z,5.8nm,0.9s
**CLL Collm 82.36 330** *e*P **P 07 14 08.0 +2.8**
CLL *e* 07 14 15.0
**CLL Collm 82.36 330** *e*P **P 07 14 08.0 +2.8**
CLL *ep*P **sP 07 14 15.0 -0.5**
CLL *e* 07 14 25.0
**113A Mohawk Valley, 82.41 55** *e*P **P 07 14 07.0 +1.2**
comp=Z,3.7nm,1.0s
**X16A Lo Mia Camp, P 82.94 53** *e*P **P 07 14 11.0 +2.2**
comp=Z,5.2nm,1.3s
**KHC Kasperske Hory 83.78 328** *e*P **P 07 14 15.2 +2.6**
**KHC Kasperske Hory 83.78 328** *e*P **P 07 14 15.2 +2.6**
**GERES GERESS Array B 83.94 328** P **P 07 14 13.0 -0.6**
comp=Z,0.3nm,0.4s,baz=44,slow=5.9,SNR=4.2
**GERES GERESS Array B 83.94 328** P **P 07 14 13.0 -0.6**
**ANMO Albuquerque 85.77 50** *ce*P **P 07 14 24.1 +0.9**
ANMO pmax pmax
comp=Z,9.0nm,2.5s
**ANMO Albuquerque 85.77 50** *e*P **P 07 14 25.3 +2.1**
comp=Z,2.8nm,1.0s
**LTX Lajitas 91.26 52** *e*P **P 07 14 50.1 +0.9**
**LTX Lajitas 91.26 52** *e*P **P 07 14 50.1 +0.9**
**TX31 Lajitas Ar. Si 91.26 52** *e*P **P 07 14 49.6 +0.4**
**TXAR Lajitas Array 91.26 52** P **P 07 14 50.1 +0.9**
comp=Z,0.8nm,0.8s,baz=293,slow=2.7,SNR=8.4
**TOA1 Torodi Ar. Sit 118.28 314** *e*PKPdf **PKPdf 07 20 30.5 -0.8**
**TORD Torodi Ar. Bea 118.29 314** PKP **PKPdf 07 20 30.5 -0.8**
comp=Z,0.3nm,0.5s,baz=13,slow=1.3,SNR=5.8
**LPAZ La Paz 147.66 61** PKPbc **PKPbc 07 21 29.1 -0.1**
comp=Z,2.9nm,0.9s,baz=348,slow=4.6,SNR=9.2
**LPAZ La Paz 147.66 61** *e*PKPbc **PKPbc 07 21 30.1 +0.9**

*TIR* ***19*** *07:03:01.5±0.3, 40.45N×20.46E, h53km±3km, ML2.5*
*CSEM* ***19*** *07:03:02.9±0.1, 40.18N×20.74E, h15km, ML1.9, Error ellipse: s-maj=3.1km s-min=2.1km az=126.0*
*ATH* ***19*** *07:03:03.0, 40.18N×20.72E, h19km±3km, ML1.9/3, Error ellipse: s-maj=3.3km s-min=1.2km az=89.0*
*ISCJB* ***19*** *07:03:03.2±0.6, 40.17N±0.03×20.71E±0.05, h13km±5km, Error ellipse: s-maj=6.5km s-min=4.7km az=25.6*
*THE* ***19*** *07:03:03.3, 40.17N×20.74E, h18km, ML1.9/5, Error ellipse: s-maj=1.2km s-min=0.5km az=96.0*

**ISC 19 07:03:03.0±1.1, 40.18N±0.02×20.75E±0.03, h19km±2km, n32, σ0s56/47, Greece-Albania border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PENT** | **Pentalofos** | **0.30** | **87** | P | **Pg** | **07 03 09.1** | **-0.5** |
| PENT | | | | S | **Sb** | **07 03 14.8** | **+0.4** |
| PENT | | | | AML | AML | 07 03 18.4 | |
| | comp=N,584μm,0.6s | | | | | | |
| PENT | | | | AML | AML | 07 03 20.9 | |
| | comp=E,286μm,0.4s | | | | | | |
| **PENT** | **Pentalofos** | **0.30** | **87** | P | **Pg** | **07 03 09.6** | **-0.1** |
| PENT | | | | S | **Sb** | **07 03 14.7** | **+0.4** |
| **PENT** | **Pentalofos** | **0.30** | **87** | P | **Pg** | **07 03 09.6** | **-0.1** |
| PENT | | | | S | **Sb** | **07 03 14.7** | **+0.4** |
| **NEST** | **Nestorio** | **0.33** | **44** | P | **Pg** | **07 03 10.2** | **0.0** |
| NEST | | | | S | **Sn** | **07 03 17.5** | **-1.8** |
| NEST | | | | AML | AML | 07 03 17.8 | |
| | comp=N,365μm,0.1s | | | | | | |
| NEST | | | | AML | AML | 07 03 18.0 | |
| | comp=E,410μm,0.3s | | | | | | |
| **NEST** | **Nestorio** | **0.33** | **44** | P | **Pg** | **07 03 10.2** | **0.0** |
| NEST | | | | S | **Sb** | **07 03 16.2** | **+0.9** |
| **NEST** | **Nestorio** | **0.33** | **44** | P | **Pg** | **07 03 10.2** | **0.0** |
| NEST | | | | S | **Sb** | **07 03 16.2** | **+0.9** |
| **KBN** | **Korca** | **0.44** | **3** | *i* PG | **Pg** | **07 03 11.8** | **-0.4** |
| KBN | | | | *i* SG | **Sb** | **07 03 19.4** | **+0.6** |
| **KBN** | **Korca** | **0.44** | **3** | *i* Pg | **Pg** | **07 03 11.8** | **-0.4** |
| | SNR=140 | | | | | | |
| KBN | | | | *i* Sg | **Sb** | **07 03 19.4** | **+0.6** |
| | SNR=140 | | | | | | |
| **KPRO** | **Kipourio** | **0.52** | **115** | P | **Pb** | **07 03 13.0** | **-0.6** |
| **KPRO** | **Kipourio** | **0.52** | **115** | P | **Pb** | **07 03 13.2** | **-0.4** |
| KPRO | | | | S | **Sb** | **07 03 21.6** | **+0.8** |
| **KPRO** | **Kipourio** | **0.52** | **115** | P | **Pb** | **07 03 13.2** | **-0.4** |
| KPRO | | | | S | **Sb** | **07 03 21.6** | **+0.8** |
| **JAN** | **Janina** | **0.53** | **172** | P | **Pg** | **07 03 13.9** | **+0.2** |
| JAN | | | | S | **Sb** | **07 03 22.1** | **+1.1** |
| JAN | | | | AML | AML | 07 03 22.6 | |
| | comp=E,513μm,0.3s | | | | | | |
| JAN | | | | AML | AML | 07 03 25.6 | |
| | comp=N,338μm,0.3s | | | | | | |
| **JAN** | **Janina** | **0.53** | **172** | P | **Pb** | **07 03 13.5** | **-0.2** |
| JAN | | | | S | **Sb** | **07 03 21.4** | **+0.5** |
| **JAN** | **Janina** | **0.53** | **172** | P | **Pb** | **07 03 13.5** | **-0.2** |
| JAN | | | | S | **Sb** | **07 03 21.4** | **+0.5** |
| **SRN** | **Sarande** | **0.65** | **243** | *i* PG | **Pg** | **07 03 16.1** | **+0.2** |
| **SRN** | **Sarande** | **0.65** | **243** | *i* Pg | **Pg** | **07 03 16.1** | **+0.2** |
| | SNR=108 | | | | | | |
| **SGD** | **Sagiada** | **0.69** | **215** | P | **Pb** | **07 03 16.2** | **-0.3** |
| **SGD** | **Sagiada** | **0.69** | **215** | P | **Pb** | **07 03 16.2** | **-0.3** |
| **FNA** | **Florina** | **0.77** | **38** | P | **Pb** | **07 03 17.5** | **-0.4** |
| **FNA** | **Florina** | **0.77** | **38** | P | **Pb** | **07 03 17.9** | **0.0** |
| FNA | | | | S | **Sg** | **07 03 29.2** | **+0.8** |
| **FNA** | **Florina** | **0.77** | **38** | P | **Pb** | **07 03 17.9** | **0.0** |
| FNA | | | | S | **Sg** | **07 03 29.2** | **+0.8** |
| **KZN** | **Kozani** | **0.79** | **80** | P | **Pg** | **07 03 18.7** | **+0.2** |
| **KZN** | **Kozani** | **0.79** | **80** | P | **Pg** | **07 03 18.7** | **+0.2** |
| **KZN** | **Kozani** | **0.79** | **80** | P | **Pg** | **07 03 18.6** | **+0.1** |
| **KEK** | **Kerkira** | **0.87** | **238** | P | **Pb** | **07 03 19.0** | **-0.5** |
| **KEK** | **Kerkira** | **0.87** | **238** | P | **Pb** | **07 03 19.0** | **-0.5** |
| **DSL** | **Palaion Diasel** | **1.08** | **166** | P | **Pn** | **07 03 23.3** | **+0.1** |
| **DSL** | **Palaion Diasel** | **1.08** | **166** | P | **Pn** | **07 03 23.3** | **+0.1** |
| **THL** | **Klokotos Trika** | **1.15** | **122** | P | **Pb** | **07 03 24.4** | **+0.1** |
| **THL** | **Klokotos Trika** | **1.15** | **122** | P | **Pb** | **07 03 24.4** | **+0.1** |
| **AGG** | **Agios Georgios** | **1.68** | **133** | P | **Pg** | **07 03 34.8** | **-0.6** |
| **AGG** | **Agios Georgios** | **1.68** | **133** | P | **Pg** | **07 03 34.8** | **-0.6** |

*ISCJB* ***19*** *07:06:29.9±0.6, 15.03S±0.09×72.35W±0.07, h114km, mb3.7/6, Error ellipse: s-maj=15.7km s-min=5.8km az=33.9*
*IDC* ***19*** *07:06:32.0±1.9, 15.04S×72.27W, h118km±17km, mb3.7/6, mb1 3.8/11, mb1mx3.6/31, mbtmp4.1/11, MS3.4/2, Ms1 3.4/2, ms1mx3.0/34, Error ellipse: s-maj=21.4km s-min=14.9km az=42.0*

**ISC 19 07:06:31.5±0.8, 15.05S±0.1×72.31W±0.09, h114km, n13, σ0s93/14, mb3.9/6, Central Peru**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **LPAZ** | **La Paz** | **4.22** | **108** | P | **Pn** | **07 07 34.9** | **+0.4** |
| | 5.2nm,0.3s,baz=286,slow=9.7,SNR=114 | | | | | | |
| LPAZ | | | | S | **Sn** | **07 08 23.8** | **+0.6** |
| | baz=253,slow=12,SNR=2.2 | | | | | | |
| **NNA** | **Nana** | **5.33** | **304** | P | **Pn** | **07 07 49.3** | **+0.4** |
| | 38nm,0.3s,baz=130,slow=11,SNR=110 | | | | | | |
| NNA | | | | S | **Sn** | **07 08 48.2** | **-0.9** |
| | 28nm,0.3s,baz=215,slow=19,SNR=9.8 | | | | | | |
| **ATAH** | **Atahualpa** | **9.83** | **322** | S | **Sn** | **07 10 37.9** | **-1.1** |
| | 0.5nm,0.3s,baz=72,slow=20,SNR=3.0 | | | | | | |
| ATAH | | | | LR | LR | 07 13 33.2 | |
| | comp=Z,200nm,18.2s,baz=90,slow=43 | | | | | | |
| **SIV** | **San Ignacio** | **10.88** | **97** | P | **Pn** | **07 09 02.8** | **-1.2** |
| | 0.6nm,0.3s,baz=286,slow=13,SNR=20 | | | | | | |
| **CPUP** | **Villa Florida** | **17.97** | **131** | P | **P** | **07 10 32.2** | **-0.8** |
| | 0.1nm,0.3s,baz=307,slow=7.9,SNR=6.6 | | | | | | |
| **PTGA** | **Pitinga** | **18.70** | **42** | P | **P** | **07 10 41.0** | **-0.1** |
| | 0.6nm,0.3s,baz=227,slow=14,SNR=5.1 | | | | | | |
| **ROSC** | **El Rosal** | **19.81** | **354** | LR | LR | 07 20 07.6 | |
| | comp=Z,103nm,19.5s,baz=84,slow=41 | | | | | | |
| **SDV** | **Santo Domingo** | **23.79** | **4** | P | **P** | **07 11 35.4** | **+1.4** |
| | 4.9nm,0.8s,baz=172,slow=7.9,SNR=5.9 | | | | | | |
| **PLCA** | **Paso Flores** | **25.69** | **177** | P | **P** | **07 11 50.7** | **-0.3** |
| | 3.8nm,1.0s,baz=18,slow=13,SNR=5.6 | | | | | | |
| **SNAA** | **Sanae** | **69.44** | **162** | P | **P** | **07 17 27.3** | **+0.3** |
| | 0.6nm,0.5s,baz=276,slow=10,SNR=4.9 | | | | | | |
| **DBIC** | **Dimbokro** | **70.22** | **77** | P | **P** | **07 17 33.1** | **+0.4** |
| | 1.2nm,0.4s,baz=214,slow=6.8,SNR=4.9 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **78.39** | **73** | P | **P** | **07 18 19.0** | **-1.1** |
| | 1.3nm,0.5s,baz=266,slow=4.9,SNR=15 | | | | | | |
| **YKA** | **Yellowknife Ar** | **84.02** | **342** | P | **P** | **07 18 49.8** | **+1.0** |
| | 0.2nm,0.6s,baz=134,slow=4.9,SNR=5.8 | | | | | | |

**JMA 19 07:07:17.8±0.2, 38.28N×144.58E, h48km, M3.7, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MIYJ** | **Miyakonagasawa** | **2.51** | **302** | P | Pn | 07 07 57.4 | +1.3 |
| MIYJ | | | | *e*S | Sn | 07 08 26.7 | +1.2 |
| **JIO** | **Ouri** | **2.55** | **275** | P | Pn | 07 07 58.0 | +1.4 |
| JIO | | | | *e*S | Sn | 07 08 27.6 | +1.3 |
| **JMK** | **Ichinoseki** | **2.72** | **285** | P | Pn | 07 08 00.6 | +1.7 |
| JMK | | | | *e*S | Sn | 07 08 32.4 | +1.9 |
| **JOM** | **Ohasama** | **2.83** | **296** | P | Pn | 07 08 02.2 | +1.7 |
| JOM | | | | *e*S | Sn | 07 08 35.0 | +1.7 |
| **JANG** | **Nango** | **3.17** | **312** | P | Pn | 07 08 05.8 | +0.7 |
| JANG | | | | *e*S | Sn | 07 08 42.6 | +1.0 |
| **JYK** | **Kaneyama** | **3.37** | **282** | P | Pn | 07 08 10.2 | +2.3 |
| JYK | | | | *e*S | Sn | 07 08 48.9 | +2.3 |
| **JFT** | **Otama** | **3.44** | **259** | P | Pn | 07 08 11.2 | +2.3 |
| JFT | | | | *e*S | Sn | 07 08 50.5 | +2.1 |
| **JOT** | **Ohata** | **4.12** | **320** | P | Pn | 07 08 19.6 | +1.4 |
| JOT | | | | *e*S | Sn | 07 09 05.1 | 0.0 |
| **JCH** | **Churui** | **4.43** | **348** | P | Pn | 07 08 22.7 | +0.3 |
| JCH | | | | *e*S | Sn | 07 09 10.9 | -1.7 |
| **JKB** | **Kayabe** | **4.51** | **324** | P | Pn | 07 08 25.8 | +2.2 |
| **BSO1** | **Boso 1** | **4.64** | **220** | *e*S | Sn | 07 09 17.7 | +0.6 |
| **JRY** | **Ryogami san** | **5.07** | **245** | P | Pn | 07 08 32.6 | +1.4 |
| JRY | | | | *e*S | Sn | 07 09 27.0 | -1.5 |
| **NEM2** | **Nemuro 2** | **5.16** | **9** | P | Pn | 07 08 30.7 | -1.7 |
| NEM2 | | | | *e*S | Sn | 07 09 24.4 | -6.1 |
| **JOD2** | **Odawara 2** | **5.34** | **237** | P | Pn | 07 08 36.4 | +1.5 |
| JOD2 | | | | *e*S | Sn | 07 09 33.0 | -2.1 |
| **JOSM** | **Okushiri--Mats** | **5.45** | **316** | P | Pn | 07 08 39.6 | +3.2 |
| **JTKR** | **Abashiri--Toko** | **5.71** | **355** | P | Pn | 07 08 39.3 | -0.6 |
| JTKR | | | | *e*S | Sn | 07 09 41.3 | -2.8 |
| **JHR** | **Hokuryu** | **5.87** | **339** | P | Pn | 07 08 44.5 | +2.3 |
| JHR | | | | *e*S | Sn | 07 09 49.8 | +1.7 |

**NNC 19 07:07:28.1±3.9, 36.64N×69.95E, h0km, mb3.6, mpv3.2, 7C-5D, Error ellipse: s-maj=29.9km s-min=15.8km az=10.0, Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DZET** | **Dzherino** | **2.34** | **338** | ⇓ Pn | Pn | 07 08 08.2 | +0.3 |
| | 5.6nm,0.3s | | | | | | |
| DZET | | | | ⇑ Sn | Sn | 07 08 38.7 | +1.3 |
| | 12nm,0.5s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **4.38** | **39** | ⇑ Pn | Pn | 07 08 36.8 | +0.8 |
| | 3.6nm,0.8s | | | | | | |
| SFK | | | | ⇓ Sn | Sn | 07 09 30.4 | +2.6 |
| | 12nm,0.8s | | | | | | |
| **MNAS** | **Manas** | **6.16** | **18** | ⇑ Pn | Pn | 07 08 59.9 | -0.6 |
| | 1.1nm,0.5s | | | | | | |
| MNAS | | | | ⇑ Sn | Sn | 07 10 13.0 | +1.3 |
| | 4.3nm,0.6s | | | | | | |
| **KK31** | **Karatay Array** | **6.47** | **4** | ⇓ Pn | Pn | 07 09 03.4 | -1.2 |
| | 1.3nm,0.5s,baz=185,slow=14,SNR=12 | | | | | | |
| KK31 | | | | ⇑ Sn | Sn | 07 10 19.7 | +0.6 |
| | 0.8nm,0.5s,baz=190,slow=23,SNR=4.4 | | | | | | |
| **AAK** | **Ala-Archa** | **6.94** | **29** | ⇑ Pn | Pn | 07 09 10.5 | -0.6 |
| | 3.4nm,1.1s | | | | | | |
| AAK | | | | ⇓ Sn | Sn | 07 10 32.6 | +1.8 |
| | 4.0nm,0.6s | | | | | | |
| **TKM2** | **Tokmak 2** | **7.63** | **33** | ⇓ Pn | Pn | 07 09 19.6 | -1.0 |
| | 0.2nm,0.4s | | | | | | |
| TKM2 | | | | ⇑ Sn | Sn | 07 10 44.0 | -4.0 |
| | 2.9nm,0.5s | | | | | | |

**IDC 19 07:14:59.4±1.5, 3.72N×128.10E, h0km, mb3.4/4, mb1 3.6/4, mb1mx3.3/57, mbtmp3.4/4, Error ellipse: s-maj=128.8km s-min=21.1km az=71.0, North of Halmahera**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **24.30** | **166** | P | P | 07 20 18.9 | +0.1 |
| | 1.3nm,0.8s,baz=346,slow=10,SNR=9.2 | | | | | | |
| **ASAR** | **Alice Springs** | **27.80** | **169** | P | P | 07 20 50.4 | -0.1 |
| | 0.2nm,0.5s,baz=357,slow=8.4,SNR=3.3 | | | | | | |
| **SONM** | **Songino Array** | **47.76** | **340** | P | P | 07 23 38.2 | -0.3 |

0.4nm,0.9s,baz=162,slow=10.0,SNR=2.9
**MKAR Makanchi Array 58.35 325** P P 07 24 56.6 +0.1
0.2nm,0.4s,baz=123,slow=7.1,SNR=3.3

*IDC* ***19*** *07:23:34.4±1.0,28.75S×176.35W,h0km,mb4.1/6, mb1 4.3/7,mb1mx4.1/28,mbtmp4.1/7,ML3.8/1,MS3.4/2, Ms1 3.4/2,ms1mx3.0/27,Error ellipse: s-maj=41.3km s-min=23.6km az=154.0*
*NEIC* ***19*** *07:23:35.5±0.7,28.76S×176.18W,h10km,mb4.3/2,Error ellipse: s-maj=25.4km s-min=13.9km az=145.0*
*ISCJB* ***19*** *07:23:37.2±0.9,29.28S±0.09×176.1W±0.1, h36km, mb4.1/8,MS3.6/1,Error ellipse: s-maj=14.6km s-min=11.0km az=141.0*

**ISC 19 07:23:39.6±0.8,29.1S±0.1×176.1W±0.1,h36km,n17, σ1§35/18,mb4.2/8,Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **1.58** | **264** | Pn | **Pn** | **07 24 06.7** | **+1.8** |
| | 124nm,0.3s,baz=317,slow=23,SNR=11 | | | | | | |
| RAO | | | | Sn | **Sn** | **07 24 24.4** | **+0.3** |
| | 232nm,0.3s,baz=128,slow=19,SNR=7.8 | | | | | | |
| **URZ** | **Urewera** | **10.74** | **210** | Pn | **Pn** | **07 26 12.4** | **+1.6** |
| | 0.6nm,0.3s,baz=264,slow=6.0,SNR=6.3 | | | | | | |
| URZ | | | | Sn | **Sn** | **07 28 07.1** | **-2.6** |
| | 3.1nm,0.3s,baz=342,slow=23,SNR=12 | | | | | | |
| **RAR** | **Rarotonga** | **16.74** | **66** | LR | LR | 07 33 25.5 | |
| | comp=Z,62nm,18.8s,baz=252,slow=35 | | | | | | |
| **STKA** | **Stephens Creek** | **36.38** | **255** | P | **P** | **07 30 41.0** | **+0.5** |
| | 1.6nm,0.7s,baz=107,slow=12,SNR=2.9 | | | | | | |
| **BBOO** | **Buckleboo** | **40.91** | **252** | *eP* | **P** | **07 31 18.2** | **-0.3** |
| | 3.4nm,0.6s | | | | | | |
| **ASAR** | **Alice Springs** | **44.83** | **265** | P | **P** | **07 31 48.8** | **-1.6** |
| | 4.1nm,0.8s,baz=105,slow=8.0,SNR=30 | | | | | | |
| ASAR | | | | LR | LR | 07 50 49.7 | |
| | comp=Z,70nm,18.9s,baz=104,slow=37 | | | | | | |
| **WRAB** | **Tennant Creek** | **45.70** | **270** | *eP* | **P** | **07 31 55.9** | **-1.4** |
| | 2.8nm,0.8s | | | | | | |
| **WRA** | **Warramunga Arr** | **45.70** | **270** | P | **P** | **07 31 55.5** | **-1.8** |
| | 2.5nm,0.7s,baz=109,slow=7.9,SNR=25 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **54.01** | **268** | P | **P** | **07 32 59.4** | **-1.1** |
| | 1.7nm,0.7s,baz=143,slow=6.6,SNR=6.3 | | | | | | |
| **TXAR** | **Lajitas Array** | **90.31** | **56** | P | **P** | **07 36 38.0** | **+1.0** |
| | 0.9nm,1.0s,baz=205,slow=5.0,SNR=5.7 | | | | | | |
| **ILAR** | **Eielson Array** | **96.29** | **12** | P | **P** | **07 37 02.9** | **-0.7** |
| | 0.3nm,0.7s,baz=217,slow=5.5,SNR=6.3 | | | | | | |
| **ARCES** | **ARCESS Array B** | **137.64** | **349** | PKP | **PKPdf** | **07 42 58.3** | **-0.6** |
| | 1.6nm,0.7s,baz=18,slow=1.5,SNR=7.4 | | | | | | |
| **FINES** | **FINESS Array B** | **144.44** | **342** | PKP | **PKPab** | **07 43 09.4** | **-0.1** |
| | 3.0nm,0.6s,baz=75,slow=2.2,SNR=7.0 | | | | | | |
| **NB2** | **NORSAR Subarra** | **147.67** | **353** | PKP | **PKPbc** | **07 43 20.0** | **+0.4** |
| | comp=Z,25nm,1.7s,baz=17,slow=2.6 | | | | | | |
| **NOA** | **NORSAR Array B** | **147.67** | **353** | PKPbc | **PKPbc** | **07 43 19.4** | **-0.2** |
| | comp=Z,2.7nm,0.8s,baz=14,slow=4.6,SNR=5.2 | | | | | | |
| **AKASG** | **Malin Array Be** | **151.19** | **326** | PKPbc | **PKPbc** | **07 43 27.4** | **-1.2** |
| | comp=Z,3.3nm,0.7s,baz=46,slow=2.8,SNR=14 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **164.01** | **172** | PKPab | **PKPab** | **07 44 34.1** | **+1.5** |
| | comp=Z,1.6nm,0.7s,baz=179,slow=4.1,SNR=11 | | | | | | |

*ISCJB* ***19*** *07:24:13.9±0.7,30.94S±0.03×69.20W±0.05,h117km±7km, Error ellipse: s-maj=6.6km s-min=4.9km az=1.7*
*SJA* ***19*** *07:24:14.4±0.9,30.98S×69.07W,h117km±4km,ML2.9, MW3.0*
*GUC* ***19*** *07:24:14.0±0.6,30.88S×69.35W,h117km±15km,ML3.0*

**ISC 19 07:24:14.2±1.4,30.94S±0.03×69.19W±0.04, h117km±10km,n18,σ1§03/31,1C-2D,Chile-Argentina border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **AMOG** | **MOGNA** | **0.60** | **90** | *eP* | **Pn** | **07 24 32.8** | **+0.2** |
| AMOG | | | | *eS* | **Sn** | **07 24 46.1** | **-0.4** |
| **RTLL** | **Cerro Villicun** | **0.73** | **122** | *eP* | **Pn** | **07 24 33.3** | **-0.2** |
| RTLL | | | | *eS* | **Sn** | **07 24 47.4** | **-0.7** |
| **SJA** | **San Juan** | **0.80** | **137** | *eP* | **Pn** | **07 24 34.4** | **+0.3** |
| SJA | | | | *eS* | **Sn** | **07 24 48.6** | **-0.6** |
| SJA | | | | IAML | | 07 24 51.0 | |
| | comp=Z,326nm,0.1s | | | | | | |
| **RTCV** | **Cerro Valdivia** | **1.07** | **149** | *eP* | **Pn** | **07 24 37.1** | **+0.3** |
| RTCV | | | | *eS* | **Sn** | **07 24 53.6** | **-0.3** |
| **AUSP** | **Uspallata** | **1.29** | **187** | *eP* | **Pn** | **07 24 40.0** | **+0.6** |
| AUSP | | | | *eS* | **Sn** | **07 25 00.2** | **+1.7** |
| **AGUA** | **GUANDACOL** | **1.57** | **23** | *eP* | **Pn** | **07 24 43.3** | **+0.9** |
| AGUA | | | | *eS* | **Sn** | **07 25 05.2** | **+1.3** |
| **TLL** | **Tololo Astrono** | **1.59** | **299** | *eP* | **Pn** | **07 24 42.1** | **-0.6** |
| TLL | | | | *i* S | **Sn** | **07 25 03.0** | **-1.4** |
| TLL | | | | IAML | | 07 25 05.8 | |
| | comp=N,209nm,0.3s | | | | | | |
| **ACAN** | **Cantantal** | **2.17** | **128** | *eP* | **Pn** | **07 24 50.2** | **+0.5** |
| ACAN | | | | *eS* | **Sn** | **07 25 15.4** | **-1.4** |
| **LCO** | **Las Campanas** | **2.33** | **325** | ⇓*iP* | **Pn** | **07 24 51.4** | **-0.6** |
| LCO | | | | *i* S | **Sn** | **07 25 19.4** | **-1.4** |
| LCO | | | | IAML | | 07 25 21.4 | |
| | comp=E,92nm,0.3s | | | | | | |
| **VCA** | **Vinchina** | **2.36** | **22** | *eP* | **Pn** | **07 24 53.4** | **+1.1** |
| VCA | | | | *eS* | **Sn** | **07 25 22.4** | **+1.0** |
| VCA | | | | IAML | | 07 25 28.2 | |
| | comp=Z,87nm,0.2s | | | | | | |
| **VCA** | **Vinchina** | **2.36** | **22** | ⇑*iP* | **Pn** | **07 24 53.4** | **+1.1** |
| VCA | | | | *i* S | **Sn** | **07 25 22.4** | **+1.0** |
| VCA | | | | IAML | | 07 25 27.7 | |
| | comp=E,134nm,0.4s | | | | | | |
| **PEL** | **Peldehue** | **2.54** | **210** | *eP* | **Pn** | **07 24 54.3** | **-0.1** |
| PEL | | | | *i* S | **Sn** | **07 25 24.7** | **-0.6** |
| PEL | | | | IAML | | 07 25 29.9 | |
| | comp=E,33nm,0.5s | | | | | | |
| **ROCH** | **El Roble** | **2.55** | **217** | IAML | | 07 25 34.1 | |
| | comp=E,74nm,0.6s | | | | | | |
| **FCH** | **Farellones** | **2.56** | **201** | ⇓*iP* | **Pn** | **07 24 56.2** | **+1.3** |
| FCH | | | | IAML | | 07 25 32.2 | |
| | comp=E,52nm,0.1s | | | | | | |
| **CLCH** | **Cerro Calan** | **2.70** | **205** | *eP* | **Pn** | **07 24 57.0** | **+0.4** |
| CLCH | | | | *i* S | **Sn** | **07 25 30.0** | **+0.9** |
| **LMEL** | **Las Melosas** | **3.02** | **196** | *eP* | **Pn** | **07 25 01.4** | **+0.6** |
| LMEL | | | | IAML | | 07 25 44.1 | |
| | comp=N,32nm,0.1s | | | | | | |
| **CYA** | **Choya** | **3.86** | **51** | *eP* | **Pn** | **07 25 11.6** | **-0.3** |
| CYA | | | | IAML | | 07 25 11.8 | |
| | comp=Z,9.4nm,0.2s | | | | | | |
| **TCA** | **Tanti** | **3.96** | **97** | *eP* | **Pn** | **07 25 13.3** | **0.0** |
| TCA | | | | IAML | | 07 25 13.9 | |
| | comp=Z,18nm,0.4s | | | | | | |
| TCA | | | | *eS* | **Sn** | **07 25 56.5** | **-2.6** |

**IDC 19 07:27:09.4±2.9,28.40S×177.14W,h0km,mb3.6/2, mb1 3.9/2,mb1mx3.6/26,mbtmp3.6/2,Error ellipse: s-maj=75.7km s-min=25.5km az=117.0,Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **1.09** | **218** | Pn | Pn | 07 27 32.2 | +0.2 |
| | 199nm,0.3s,baz=78,slow=11,SNR=10 | | | | | | |
| RAO | | | | Sn | Sn | 07 27 48.4 | +0.5 |
| | 1µm,0.3s,baz=84,slow=21,SNR=17 | | | | | | |
| **ASAR** | **Alice Springs** | **44.01** | **264** | P | P | 07 35 18.8 | -0.2 |
| | 0.5nm,0.5s,baz=101,slow=7.1,SNR=7.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.82** | **270** | P | P | 07 35 25.4 | -0.1 |
| | 0.4nm,0.4s,baz=108,slow=8.0,SNR=8.8 | | | | | | |
| **AKASG** | **Malin Array Be** | **150.12** | **325** | PKPbc | PKPbc | 07 47 01.4 | -0.4 |
| | 0.9nm,0.7s,baz=50,slow=2.6,SNR=4.3 | | | | | | |

*IDC* ***19*** *07:28:54.6±0.6,43.61N×39.98E,h0km,mb3.6/8, mb1 3.7/17,mb1mx3.6/45,mbtmp3.6/17,ML3.6/9,MS3.8/1, Ms1 3.8/1,ms1mx2.6/46,Error ellipse: s-maj=12.2km s-min=6.2km az=176.0*
*ISCJB* ***19*** *07:28:55.8±0.6,43.81N±0.03×39.84E±0.02,h18km±6km, mb3.6/11,MS3.6/1,Error ellipse: s-maj=4.6km s-min=2.8km az=10.6*
*CSEM* ***19*** *07:28:55.8±0.1,43.79N×39.93E,h5km,mb3.9/7,Error ellipse: s-maj=4.6km s-min=3.1km az=8.0*
*MOS* ***19*** *07:28:55.1±1.4,43.66N×39.81E,h11km,mb4.1/6,Error ellipse: s-maj=6.6km s-min=5.2km az=129.6*
*MOS Felt (III-IV) at Sochi.*
*NEIC* ***19*** *07:28:56.7±0.4,43.81N×39.93E,h10km,mb4.4/6,Error ellipse: s-maj=6.7km s-min=5.8km az=4.0*

**ISC 19 07:28:56.7±0.9,43.76N±0.03×39.90E±0.03,h10km±7km, n153,σ1§67/184,mb3.7/12,15C-6D,Western Caucasus**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SOC** | **Sochi** | **0.23** | **217** | *i* PG | **Pg** | **07 29 01.9** | **+0.5** |
| SOC | | | | *eS* | **Sg** | **07 29 06.0** | **+1.5** |
| **SOC** | **Sochi** | **0.23** | **217** | *i* P | **Pg** | **07 29 01.9** | **+0.5** |
| SOC | | | | *eS* | **Sg** | **07 29 06.0** | **+1.5** |
| **SOC** | **Sochi** | **0.23** | **217** | *i* P | **Pg** | **07 29 01.9** | **+0.5** |
| SOC | | | | *eS* | **Sg** | **07 29 06.0** | **+1.5** |
| **CHVG** | **Ch'k'valeri** | **1.91** | **122** | P | **Pb** | **07 29 29.4** | **-2.3** |
| CHVG | | | | S | **Sn** | **07 29 52.2** | **-1.2** |
| **CHVG** | **Ch'k'valeri** | **1.91** | **122** | P | **Pb** | **07 29 29.4** | **-2.3** |
| CHVG | | | | S | **Sn** | **07 29 52.2** | **-1.2** |
| **ERBR** | **Yeremizino-Bor** | **1.99** | **12** | ⇓*e*PN | **Pb** | **07 29 32.3** | **-0.8** |
| ERBR | | | | *eS* | **Sb** | **07 29 59.0** | **+1.0** |
| **ERBR** | **Yeremizino-Bor** | **1.99** | **12** | *eS* | **Sb** | **07 29 59.0** | **+1.0** |
| **KIV** | **Kislovodsk** | **2.02** | **84** | *e*PN | **Pn** | **07 29 30.4** | **-0.7** |
| **KIV** | **Kislovodsk** | **2.02** | **84** | *e*Pn | **Pn** | **07 29 30.4** | **-0.7** |
| KIV | | | | *e*Sn | **Sn** | **07 29 57.1** | **+0.6** |
| **KIV** | **Kislovodsk** | **2.02** | **84** | *e*Pn | **Pn** | **07 29 30.4** | **-0.7** |
| KIV | | | | *e*Sn | **Sn** | **07 29 57.1** | **+0.6** |
| **KVAR** | **Kislovodsk Arr** | **2.03** | **84** | Pn | **Pn** | **07 29 31.1** | **0.0** |
| | baz=241,slow=12,SNR=35 | | | | | | |
| KVAR | | | | Lg | Lg | 07 29 58.0 | |
| | baz=170,slow=6.1,SNR=11 | | | | | | |
| **ANN** | **Anapa** | **2.05** | **301** | *i* PN | **Pg** | **07 29 34.4** | **-1.7** |
| ANN | | | | *eS* | **Sg** | **07 30 03.8** | **+1.1** |
| **ANN** | **Anapa** | **2.05** | **301** | *i* P | **Pg** | **07 29 34.4** | **-1.7** |
| **ANN** | **Anapa** | **2.05** | **301** | *i* P | **Pg** | **07 29 34.4** | **-1.7** |
| ANN | | | | *eS* | **Sg** | **07 30 03.8** | **+0.3** |
| **NEY** | **Neytrino** | **2.12** | **103** | *d* PN | **Pn** | **07 29 31.7** | **-0.7** |
| **NEY** | **Neytrino** | **2.12** | **103** | *i* Pn | **Pn** | **07 29 31.7** | **-0.7** |
| **BEYR** | **Belyy Ugol+** | **2.12** | **82** | *e*PN | **Pn** | **07 29 30.9** | **-1.5** |
| BEYR | | | | *eS* | **Sn** | **07 29 57.6** | **-1.2** |
| **BEYR** | **Belyy Ugol+** | **2.12** | **82** | *e*Pn | **Pn** | **07 29 30.9** | **-1.5** |
| BEYR | | | | *e*Sn | **Sn** | **07 29 57.6** | **-1.2** |
| **KBZ** | **Khabaz** | **2.17** | **90** | Pn | **Pn** | **07 29 33.6** | **+0.7** |
| | 5.3nm,0.3s,baz=273,slow=10,SNR=40 | | | | | | |
| KBZ | | | | Sn | **Sn** | **07 30 01.2** | **+1.3** |
| | 16nm,0.3s,baz=187,slow=15,SNR=6.1 | | | | | | |
| **KBTC** | **Kuba-Taba** | **2.54** | **88** | *e*PN | **Pn** | **07 29 37.1** | **-1.0** |
| KBTC | | | | *eS* | **Sn** | **07 30 08.0** | **-1.1** |
| **KBTC** | **Kuba-Taba** | **2.54** | **88** | *e*Pn | **Pn** | **07 29 37.1** | **-1.0** |
| KBTC | | | | *e*Sn | **Sn** | **07 30 08.0** | **-1.1** |
| **GOF** | **Gofitskoye** | **2.60** | **59** | ⇑*e*PN | **Pb** | **07 29 43.2** | **-0.2** |
| GOF | | | | *eS* | **Sn** | **07 30 14.1** | **+3.7** |
| GOF | | | | pmax | pmax | | |
| | comp=Z,123nm,0.7s | | | | | | |
| GOF | | | | smax | smax | | |
| | comp=E,199nm,0.7s | | | | | | |
| GOF | | | | smax | smax | | |
| | comp=N,281nm,0.8s | | | | | | |
| **NCK** | **Nalchik** | **2.69** | **94** | *i* PN | **Pn** | **07 29 38.0** | **-2.2** |
| **NCK** | **Nalchik** | **2.69** | **94** | *i* Pn | **Pn** | **07 29 38.0** | **-2.2** |
| **ONI** | **Oni** | **2.85** | **113** | P | **Pn** | **07 29 42.0** | **-0.4** |
| ONI | | | | S | **Sn** | **07 30 17.1** | **+0.3** |
| **ONI** | **Oni** | **2.85** | **113** | *e*PN | **Pn** | **07 29 42.0** | **-0.4** |
| ONI | | | | *eS* | **Sn** | **07 30 17.1** | **+0.3** |
| **ONI** | **Oni** | **2.85** | **113** | P | **Pn** | **07 29 42.0** | **-0.4** |
| ONI | | | | S | **Sn** | **07 30 17.1** | **+0.3** |
| **ARTV** | **Artvin** | **2.98** | **149** | *e*Pn | **Pn** | **07 29 44.2** | **-0.1** |
| ARTV | | | | *e*Sn | **Sn** | **07 30 17.1** | **-3.2** |
| **ARTV** | **Artvin** | **2.98** | **149** | *e*Pn | **Pn** | **07 29 44.2** | **-0.1** |
| ARTV | | | | *e*Sn | **Sn** | **07 30 17.1** | **-3.2** |
| **ZEI** | **Tsey** | **3.08** | **107** | *e*PN | **Pn** | **07 29 45.1** | **-0.6** |
| ZEI | | | | pmax | pmax | | |
| | comp=Z,21nm,0.6s | | | | | | |
| **ZEI** | **Tsey** | **3.08** | **107** | *e*Pn | **Pn** | **07 29 45.1** | **-0.6** |
| | comp=Z,21nm,0.6s | | | | | | |
| **AKH** | **Akhalkalaki** | **3.54** | **130** | P | **Pn** | **07 29 51.8** | **-0.3** |
| **AKH** | **Akhalkalaki** | **3.54** | **130** | *e*PN | **Pn** | **07 29 51.7** | **-0.3** |
| **AKH** | **Akhalkalaki** | **3.54** | **130** | P | **Pn** | **07 29 51.8** | **-0.3** |
| **SUDU** | **Sudak** | **3.69** | **289** | *e*PN | **Pn** | **07 29 54.0** | **+0.1** |
| SUDU | | | | *eS* | **Sn** | **07 30 38.0** | **+0.5** |
| **SUDU** | **Sudak** | **3.69** | **289** | *e*Pn | **Pn** | **07 29 54.0** | **+0.1** |
| SUDU | | | | *e*Sn | **Sn** | **07 30 38.0** | **+0.5** |
| **BGD** | **Bogdanovka** | **3.70** | **131** | P | **Pn** | **07 29 53.7** | **-0.5** |
| **BGD** | **Bogdanovka** | **3.70** | **131** | P | **Pn** | **07 29 53.7** | **-0.5** |
| **KOPT** | **Kop Dagi** | **3.77** | **173** | *e*Pn | **Pn** | **07 29 55.5** | **+0.3** |
| **SEV** | **Sevastopol'** | **4.55** | **282** | *e*PN | **Pn** | **07 30 05.0** | **-0.7** |
| **SEV** | **Sevastopol'** | **4.55** | **282** | *e*Pn | **Pn** | **07 30 05.0** | **-0.7** |
| **GNI** | **Garni** | **5.10** | **133** | Pn | Pb | 07 30 20.8 | -5.5 |
| | comp=Z,0.5nm,0.3s,baz=322,slow=19,SNR=2.2 | | | | | | |
| GNI | | | | Lg | Lg | 07 31 38.6 | |
| | baz=23,slow=24,SNR=1.6 | | | | | | |
| **GNI** | **Garni** | **5.10** | **133** | *i* PN | **Pn** | **07 30 09.8** | **-3.7** |
| **BR101** | **Keskin Array S** | **6.18** | **231** | *e*Pn | **Pn** | **07 30 28.6** | **+0.4** |
| **BR101** | **Keskin Array S** | **6.18** | **231** | *e*Pn | **Pn** | **07 30 28.6** | **+0.4** |
| BR101 | | | | *e*Sn | **Sn** | **07 31 39.2** | **+0.1** |
| **BR131** | **Keskin Array S** | **6.18** | **231** | *e*Pn | **Pn** | **07 30 29.0** | **+0.7** |
| BR131 | | | | *e*Sn | **Sn** | **07 31 40.8** | **+1.8** |
| **BR131** | **Keskin Array S** | **6.18** | **231** | *e*Pn | **Pn** | **07 30 29.0** | **+0.7** |
| BR131 | | | | *e*Sn | **Sn** | **07 31 40.8** | **+1.8** |
| **BRTR** | **Keskin Array B** | **6.18** | **231** | Pn | **Pn** | **07 30 28.6** | **+0.4** |
| | comp=Z,0.7nm,0.3s,baz=40,slow=10,SNR=20 | | | | | | |
| BRTR | | | | Sn | **Sn** | **07 31 39.2** | **+0.1** |
| | comp=Z,0.4nm,0.3s,baz=44,slow=22,SNR=6.0 | | | | | | |
| **MARD** | **Mardin** | **6.48** | **174** | *e*Pn | **Pn** | **07 30 33.2** | **+0.9** |
| **MARD** | **Mardin** | **6.48** | **174** | *e*Pn | **Pn** | **07 30 33.2** | **+0.9** |
| **BR231** | **Keskin MP Arra** | **6.61** | **236** | *e*Pn | **Pn** | **07 30 29.4** | **-4.7** |
| **VSR** | **Storozhevoye** | **7.47** | **356** | *e*P | **Pn** | **07 30 46.5** | **+0.7** |
| VSR | | | | *e*S | **Sn** | **07 32 10.3** | **-0.2** |
| VSR | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.5s | | | | | | |
| VSR | | | | smax | smax | | |
| | comp=E,20nm,0.6s | | | | | | |
| **VSR** | **Storozhevoye** | **7.47** | **356** | *e*P | **Pn** | **07 30 46.5** | **+0.7** |
| | comp=E,10.0nm,0.5s | | | | | | |
| VSR | | | | *e*S | **Sn** | **07 32 10.3** | **-0.2** |
| **VRH** | **Novokhopyorsk** | **7.54** | **9** | *e*P | **Pn** | **07 30 46.8** | **+0.1** |
| VRH | | | | *e*S | **Sn** | **07 32 09.6** | **-2.7** |
| VRH | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.4s | | | | | | |
| **VRH** | **Novokhopyorsk** | **7.54** | **9** | *e*P | **Pn** | **07 30 46.8** | **+0.1** |
| | comp=Z,10.0nm,0.4s | | | | | | |
| VRH | | | | *e*S | **Sn** | **07 32 09.6** | **-2.7** |
| **TIRR** | **Tirgusor** | **8.30** | **279** | ⇑*i*P | **Pn** | **07 30 57.0** | **-0.1** |
| **TIRR** | **Tirgusor** | **8.30** | **279** | ⇑P | **Pn** | **07 30 57.0** | **-0.1** |
| **TIRR** | **Tirgusor** | **8.30** | **279** | *e*Pn | **Pn** | **07 30 56.0** | **-1.1** |
| **TIRR** | **Tirgusor** | **8.30** | **279** | P | **Pn** | **07 30 57.0** | **-0.1** |
| **TIRR** | **Tirgusor** | **8.30** | **279** | *e*Pn | **Pn** | **07 30 56.0** | **-1.1** |
| TIRR | | | | *e*Sn | **Sn** | **07 32 25.9** | **-4.9** |
| **CFR** | **Carcaliu** | **8.53** | **284** | ⇑*i*P | **Pn** | **07 30 58.7** | **-1.6** |
| **CFR** | **Carcaliu** | **8.53** | **284** | ⇑P | **Pn** | **07 30 58.7** | **-1.6** |
| **CFR** | **Carcaliu** | **8.53** | **284** | P | **Pn** | **07 30 58.7** | **-1.6** |
| **LPSR** | **Galich'ya Gora** | **8.87** | **356** | *e*P | **Pn** | **07 31 05.3** | **+0.4** |
| LPSR | | | | *e*S | **Sn** | **07 32 41.6** | **-3.2** |
| LPSR | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.9s | | | | | | |
| LPSR | | | | smax | smax | | |
| | comp=N,10.0nm,0.7s | | | | | | |
| **LPSR** | **Galich'ya Gora** | **8.87** | **356** | *e*P | **Pn** | **07 31 05.3** | **+0.4** |
| | comp=N,10.0nm,0.9s | | | | | | |
| LPSR | | | | *e*S | **Sn** | **07 32 41.6** | **-3.2** |
| | comp=N,10.0nm,0.7s | | | | | | |
| **VRI** | **Vrincioaia** | **9.60** | **287** | ⇑*i*P | **Pn** | **07 31 13.5** | **-1.5** |
| **VRI** | **Vrincioaia** | **9.60** | **287** | ⇑P | **Pn** | **07 31 13.5** | **-1.5** |
| **VRI** | **Vrincioaia** | **9.60** | **287** | P | **Pn** | **07 31 13.5** | **-1.5** |
| **PLOR** | **Plostina** | **9.65** | **287** | ⇑*i*P | **Pn** | **07 31 15.0** | **-0.7** |
| **PLOR** | **Plostina** | **9.65** | **287** | ⇑P | **Pn** | **07 31 15.0** | **-0.7** |
| **PLOR** | **Plostina** | **9.65** | **287** | P | **Pn** | **07 31 15.0** | **-0.7** |
| **TESR** | **Tescani** | **9.76** | **291** | ⇑*i*P | **Pn** | **07 31 15.9** | **-1.3** |
| **TESR** | **Tescani** | **9.76** | **291** | ⇑*i*P | **Pn** | **07 31 15.9** | **-1.3** |
| **AKASG** | **Malin Array Be** | **10.04** | **317** | Pn | **Pn** | **07 31 20.4** | **-0.5** |
| | comp=N,1.6nm,0.3s,baz=122,slow=11,SNR=5.1 | | | | | | |
| AKASG | | | | Sn | **Sn** | **07 33 10.0** | **-3.5** |
| | comp=N,1.2nm,0.3s,baz=125,slow=24,SNR=3.5 | | | | | | |
| **AKBB** | **Malin Array Si** | **10.04** | **317** | *e*P | **Pn** | **07 31 20.3** | **-0.6** |
| AKBB | | | | *e* | | 07 33 09.6 | |
| **AKBB** | **Malin Array Si** | **10.04** | **317** | *e*P | **Pn** | **07 31 20.3** | **-0.6** |
| **AKBB** | **Malin Array Si** | **10.04** | **317** | *e*Pn | **Pn** | **07 31 20.3** | **-0.6** |
| AKBB | | | | *e*Sn | **Sn** | **07 33 09.6** | **-3.9** |
| **AK11** | **Malin Array Si** | **10.05** | **317** | *e*Pn | **Pn** | **07 31 20.7** | **-0.4** |
| **AK11** | **Malin Array Si** | **10.05** | **317** | *e*Pn | **Pn** | **07 31 20.7** | **-0.4** |
| **MLR** | **Muntele Rosu** | **10.10** | **285** | Pn | **Pn** | **07 31 21.9** | **-0.1** |
| | comp=N,0.1nm,0.3s,baz=62,slow=2.7,SNR=7.1 | | | | | | |
| MLR | | | | Sn | **Sn** | **07 33 15.0** | **-0.3** |
| | comp=N,0.1nm,0.3s,baz=143,slow=20,SNR=2.7 | | | | | | |
| **MLR** | **Muntele Rosu** | **10.10** | **285** | ⇓*i*P | **Pn** | **07 31 22.0** | **0.0** |
| **VOIR** | | **10.73** | **284** | ⇑*i*P | **Pn** | **07 31 29.0** | **-1.5** |
| **VOIR** | | **10.73** | **284** | ⇑P | **Pn** | **07 31 29.0** | **-1.5** |
| **VOIR** | | **10.73** | **284** | P | **Pn** | **07 31 29.0** | **-1.5** |
| **AKAS** | **Kas** | **10.90** | **230** | *e*Pn | **Pn** | **07 31 34.1** | **+1.2** |
| **AKAS** | **Kas** | **10.90** | **230** | *e*Pn | **Pn** | **07 31 34.1** | **+1.2** |
| **BURAR** | **Bucovina Array** | **10.97** | **296** | ⇓*i*P | **Pn** | **07 31 32.0** | **-1.8** |
| **BURAR** | **Bucovina Array** | **10.97** | **296** | ⇓P | **Pn** | **07 31 32.0** | **-1.8** |
| **BURAR** | **Bucovina Array** | **10.97** | **296** | ⇓*i*P | **Pn** | **07 31 32.0** | **-1.8** |
| **BUR04** | **Bucovina Ar. S** | **10.97** | **296** | *e*Pn | **Pn** | **07 31 31.9** | **-2.0** |
| **BUR04** | **Bucovina Ar. S** | **10.97** | **296** | *e*Pn | **Pn** | **07 31 31.9** | **-2.0** |
| **BUR08** | **Bucovina Ar. S** | **10.99** | **296** | *e*Pn | **Pn** | **07 31 32.1** | **-2.0** |
| BUR08 | | | | *e*Sn | **Sn** | **07 33 37.2** | **+0.2** |
| **BUR08** | **Bucovina Ar. S** | **10.99** | **296** | *e*Pn | **Pn** | **07 31 32.1** | **-2.0** |
| BUR08 | | | | *e*Sn | **Sn** | **07 33 37.2** | **+0.2** |
| **OBN** | **Obninsk** | **11.56** | **350** | ⇑*e*P | **Pn** | **07 31 44.5** | **+2.7** |
| OBN | | | | *eS* | **Sn** | **07 33 59.6** | **+8.7** |
| OBN | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.4s | | | | | | |
| OBN | | | | MLR | MLR | | |
| | comp=Z,157nm,17.0s | | | | | | |
| **CRVS** | **Cervenica-Dubn** | **13.73** | **298** | *e*P | Pn | 07 32 02.8 | -8.6 |
| **CRVS** | **Cervenica-Dubn** | **13.73** | **298** | *e*PN | Pn | 07 32 02.8 | -8.6 |
| **AKTK** | **Aktyubinsk** | **14.01** | **55** | *e*P | **Pn** | **07 32 12.0** | **-3.2** |
| **AKTO** | **Aktyubinsk** | **14.01** | **55** | Pn | **Pn** | **07 32 12.0** | **-3.2** |
| | comp=Z,0.3nm,0.3s,baz=259,slow=15,SNR=3.9 | | | | | | |
| **ABKAR** | **Akbulak array** | **14.84** | **61** | *e*Pn | **Pn** | **07 32 26.1** | **-0.4** |
| **ABKAR** | **Akbulak array** | **14.84** | **61** | *e*Pn | **Pn** | **07 32 26.1** | **-0.4** |
| **GEYT** | **Alibeck** | **14.96** | **107** | Pn | **Pn** | **07 32 26.4** | **-1.8** |
| | comp=Z,0.2nm,0.3s,baz=274,slow=23,SNR=2.2 | | | | | | |
| **BLY** | **Banja Luka** | **16.30** | **281** | *e*Pn | **P** | **07 32 46.2** | **-2.5** |
| | comp=Z,64nm,1.6s | | | | | | |
| **BLY** | **Banja Luka** | **16.30** | **281** | *e*Pn | **P** | **07 32 46.2** | **-2.5** |
| | comp=Z,64nm,1.6s | | | | | | |
| **KLNR** | **Kaliningrad** | **16.77** | **317** | *i* P | **P** | **07 32 54.8** | **+1.0** |
| **KLNR** | **Kaliningrad** | **16.77** | **317** | *i* P | **P** | **07 32 54.8** | **+1.0** |
| **VSU** | **Vasula** | **16.83** | **336** | *e*P | **P** | **07 32 55.1** | **+0.7** |
| VSU | | | | pmax | pmax | | |
| | comp=Z,110nm,1.8s | | | | | | |
| **VSU** | **Vasula** | **16.83** | **336** | *e*P | **P** | **07 32 55.1** | **+0.7** |
| | comp=Z,110nm,1.8s | | | | | | |
| **KLMR** | **Klimovskoe** | **17.12** | **359** | *e*P | Pn | 07 32 48.0 | -7.9 |
| KLMR | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| **ARU** | **Arti** | **17.36** | **37** | *c* *i*P | **P** | **07 33 00.6** | **+0.3** |
| ARU | | | | S | **Sn** | **07 36 16.8** | **+4.8** |
| ARU | | | | pmax | pmax | | |
| | comp=Z,9.0nm,2.5s | | | | | | |
| **ARU** | **Arti** | **17.36** | **37** | *i* P | **P** | **07 33 00.6** | **+0.3** |
| | comp=Z,9.0nm,2.5s | | | | | | |
| **CUC** | **Castrocucco** | **18.31** | **266** | *e*Pn | **P** | **07 33 11.9** | **+0.9** |
| | comp=Z,39nm,1.3s | | | | | | |
| **CUC** | **Castrocucco** | **18.31** | **266** | *e*Pn | **P** | **07 33 11.9** | **+0.9** |
| | comp=Z,39nm,1.3s | | | | | | |
| **TRI** | **Trieste** | **18.65** | **285** | *e*P | **Pn** | **07 33 13.7** | **-1.2** |
| TRI | | | | pmax | pmax | | |
| | comp=Z,191nm,1.9s | | | | | | |
| **TRI** | **Trieste** | **18.65** | **285** | *e*P | **Pn** | **07 33 13.7** | **-1.2** |
| | comp=Z,191nm,1.9s | | | | | | |
| **TRI** | **Trieste** | **18.65** | **285** | *e*P | **Pn** | **07 33 13.7** | **-1.2** |
| | comp=Z,191nm,1.9s | | | | | | |
| **GERES** | **GERESS Array B** | **18.76** | **295** | P | **Pn** | **07 33 16.9** | **+0.6** |
| | comp=Z,0.1nm,0.3s,baz=103,slow=11,SNR=5.3 | | | | | | |
| **FIA0** | **FINESS Array S** | **19.52** | **340** | *e*P | **P** | **07 33 23.4** | **-0.6** |
| **FIA0** | **FINESS Array S** | **19.52** | **340** | *e*P | **P** | **07 33 23.4** | **-0.6** |
| **FIA0** | **FINESS Array S** | **19.52** | **340** | *e*P | **P** | **07 33 23.4** | **-0.6** |
| **FIA1** | **FINESS Array S** | **19.52** | **340** | *e*P | **P** | **07 33 23.6** | **-0.4** |
| | comp=Z,48nm,1.5s | | | | | | |
| **FIA1** | **FINESS Array S** | **19.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| STKA | Stephens Creek<br>2.6nm,0.6s,baz=57,slow=7.6,SNR=9.8 | 28.22 | 238 | P | P | 07 46 20.4 | +0.2 |
| WRA | Warramunga Arr<br>1.6nm,0.4s,baz=84,slow=6.9,SNR=48 | 33.22 | 263 | P | P | 07 47 03.0 | -1.2 |
| ASAR | Alice Springs<br>12nm,0.5s,baz=82,slow=8.9,SNR=213 | 33.51 | 256 | P | P | 07 47 06.2 | -0.4 |
| PETK | Petropavlovsk-<br>3.3nm,0.6s,baz=127,slow=6.9,SNR=3.8 | 72.63 | 353 | P | P | 07 51 51.3 | +0.9 |
| SONM | Songino Array<br>0.9nm,0.7s,baz=135,slow=5.0,SNR=5.4 | 87.31 | 323 | P | P | 07 53 09.0 | 0.0 |
| ILAR | Eielson Array<br>0.5nm,0.6s,baz=237,slow=5.1,SNR=6.4 | 89.98 | 17 | P | P | 07 53 20.2 | -0.8 |
| ARCES | ARCESS Array B<br>1.9nm,0.8s,baz=67,slow=2.6,SNR=8.9 | 125.01 | 345 | PKP | PKPdf | 07 59 19.8 | -0.4 |
| GERES | GERESS Array B<br>0.6nm,0.5s,baz=38,slow=6.8,SNR=5.9 | 144.52 | 332 | PKP | PKPab | 07 59 55.9 | -0.3 |

*IDC* ***19*** *07:42:04.3±0.9,28°.71S×176°.68W,h0km,mb3.9/5, mb1 4.1/5,mb1mx3.8/29,mbtmp3.9/5,MS3.5/7,Ms1 3.5/7, ms1mx3.2/25,Error ellipse: s-maj=50.5km s-min=18.9km az=153.0*

*NEIC* ***19*** *07:42:05.7±0.6,28°.98S×176°.64W,h10km,mb4.5/1,Error ellipse: s-maj=20.4km s-min=14.5km az=139.0*

**ISC 19 07:42:09.8±0.7,29°.1S±0°.1×176°.6W±0°.1,h36km,n31, σ1°18/26,mb4.1/8,MS3.6/4,Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| RAO | Raoul Island | 1.15 | 263 | Pn | | Pn | 07 42 29.7 | +0.4 |
| | 628nm,0.3s,baz=72,slow=20,SNR=15 | | | | | | | |
| RAO | | | | Sn | | Sn | 07 42 45.7 | +1.9 |
| | 1um,0.3s,baz=75,slow=20,SNR=17 | | | | | | | |
| URZ | Urewera | 10.51 | 208 | Pn | | Pn | 07 44 36.1 | -1.7 |
| | 0.4nm,0.3s,baz=76,slow=4.4,SNR=2.5 | | | | | | | |
| URZ | | | | Sn | | Sn | 07 46 33.6 | -0.7 |
| | 0.9nm,0.3s,baz=143,slow=22,SNR=6.6 | | | | | | | |
| URZ | | | | LR | | LR | 07 47 50.9 | |
| | comp=Z,138nm,19.9s,baz=9.5,slow=32 | | | | | | | |
| DZM | Mont Dzumac | 16.81 | 291 | LR | | LR | 07 51 26.1 | |
| | comp=Z,406nm,18.7s,baz=156,slow=34 | | | | | | | |
| DZM | Mont Dzumac | 16.81 | 291 | eLR | | LR | 07 50 13.5 | |
| | 339nm,23.4s | | | | | | | |
| RAR | Rarotonga | 17.14 | 66 | LR | | LR | 07 50 15.9 | |
| | comp=Z,52nm,21.0s,baz=254,slow=29 | | | | | | | |
| TBI | Tubuai | 24.99 | 83 | eLR | | LR | 07 53 36.1 | |
| | 141nm,25.0s | | | | | | | |
| PPT2 | Papeete2 | 27.27 | 71 | eLR | | LR | 07 54 37.8 | |
| | 86nm,22.2s | | | | | | | |
| PPT | Papeete | 27.28 | 71 | LR | | LR | 07 56 20.3 | |
| | comp=Z,33nm,19.8s,baz=250,slow=32 | | | | | | | |
| STKA | Stephens Creek | 35.96 | 255 | P | | P | 07 49 07.5 | +0.3 |
| | 1.0nm,0.7s,baz=68,slow=5.7,SNR=3.8 | | | | | | | |
| STKA | | | | LR | | LR | 08 02 36.7 | |
| | comp=Z,100nm,18.0s,baz=47,slow=34 | | | | | | | |
| ASAR | Alice Springs | 44.41 | 265 | P | | P | 07 50 15.8 | -1.4 |
| | 0.8nm,0.6s,baz=96,slow=7.6,SNR=7.7 | | | | | | | |
| ASAR | | | | LR | | LR | 08 08 09.8 | |
| | comp=Z,171nm,18.1s,baz=145,slow=35 | | | | | | | |
| WRAB | Tennant Creek<br>5.8nm,1.0s | 45.27 | 270 | eP | | P | 07 50 22.9 | -1.2 |
| WRA | Warramunga Arr<br>1.7nm,0.7s,baz=109,slow=7.8,SNR=9.2 | 45.28 | 270 | P | | P | 07 50 22.8 | -1.3 |
| WRA | | | | LR | | LR | 08 08 41.0 | |
| | comp=Z,59nm,18.3s,baz=320,slow=35 | | | | | | | |
| QSPA | South Pole Qui | 60.99 | 180 | eP | | P | 07 52 22.4 | +3.1 |
| MJAR | Matsushiro Arr<br>3.1nm,0.8s,baz=159,slow=5.4,SNR=5.7 | 77.89 | 324 | P | | P | 07 54 09.3 | +5.6 |
| KSRS | Korea Array<br>1.6nm,1.1s,baz=126,slow=5.6,SNR=2.8 | 84.17 | 319 | P | | P | 07 54 36.8 | -0.4 |
| KSAR | Wonju Array Be | 84.18 | 319 | P | | P | 07 54 36.8 | -0.5 |
| PETK | Petropavlovsk-<br>5.5nm,1.0s,baz=114,slow=6.5,SNR=3.2 | 84.88 | 345 | P | | P | 07 54 41.8 | +1.4 |
| TXAR | Lajitas Array<br>0.4nm,0.8s,baz=199,slow=5.9,SNR=4.1 | 90.67 | 57 | P | | P | 07 55 08.7 | -0.3 |
| MKAR | Makanchi Array<br>0.7nm,0.9s,baz=112,slow=3.5,SNR=3.6 | 117.87 | 310 | PKP | | PKPdf | 08 00 51.3 | -0.9 |
| ZALV | Zalesovo Beam<br>0.4nm,0.4s,baz=90,slow=4.3,SNR=2.6 | 117.88 | 319 | PKP | | PKPdf | 08 00 50.9 | -1.0 |
| KURK | Kurchatov | 121.03 | 314 | PKP | | PKPdf | 08 00 57.3 | -0.8 |
| KURBB | Kurchatov Arra<br>0.6nm,0.7s,baz=99,slow=1.8,SNR=6.2 | 121.07 | 314 | PKP | | PKPdf | 08 00 57.3 | -0.9 |
| BVAR | Borovoye Array<br>0.5nm,0.6s,baz=134,slow=4.2,SNR=3.5 | 126.32 | 316 | PKP | | PKPdf | 08 01 08.0 | -0.2 |
| FINES | FINESS Array B<br>2.7nm,0.9s,baz=101,slow=1.9,SNR=4.4 | 144.34 | 341 | PKP | | PKPab | 08 01 39.0 | -0.3 |
| NB2 | NORSAR Subarra<br>comp=Z,11nm,1.2s,baz=10,slow=3.2 | 147.65 | 353 | PKP | | PKPbc | 08 01 48.9 | -0.9 |
| AKASG | Malin Array Be<br>comp=Z,4.0nm,0.7s,baz=39,slow=3.1,SNR=25 | 150.98 | 325 | PKPbc | | PKPbc | 08 01 57.5 | -0.8 |
| ASF | Jabal al Asfar<br>comp=Z,2.6nm,0.8s,baz=207,slow=2.3,SNR=3.0 | 151.08 | 285 | PKPbc | | PKPbc | 08 01 59.2 | -0.2 |
| MMAI | Mount Meron Ar<br>comp=Z,1.7nm,0.4s,baz=156,slow=3.9,SNR=2.5 | 152.36 | 286 | PKPbc | | PKPbc | 08 02 02.4 | +0.1 |
| EIL | Elat<br>comp=Z,3.2nm,0.6s,baz=100,slow=6.1,SNR=3.0 | 152.54 | 279 | PKPbc | | PKPbc | 08 02 03.4 | +0.7 |
| BRTR | Keskin Array B<br>comp=Z,0.5nm,0.6s,baz=104,slow=4.6,SNR=2.8 | 153.01 | 301 | PKPbc | | PKPbc | 08 02 03.2 | -0.3 |
| TORD | Torodi Ar. Bea<br>comp=Z,1.1nm,0.8s,baz=191,slow=3.7,SNR=5.4 | 164.03 | 174 | PKPab | | PKPab | 08 03 04.2 | +1.4 |

**IDC 19 07:43:17.3±2.5,53°.91N×86°.61E,h0km,mb1 2.6/2, mb1mx2.6/56,mbtmp2.6/2,ML2.5/2,Error ellipse: s-maj=21.5km s-min=12.5km az=64.0,Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| I46RU | ZALESOVO INFRA<br>baz=90,slow=354,SNR=1.1 | 1.06 | 273 | *i* | | | 07 49 46.7 | |
| ZALV | Zalesovo Beam<br>1.1nm,0.3s,baz=90,slow=16,SNR=14 | 1.06 | 273 | Pg | | Pg | 07 43 37.1 | -0.4 |
| ZALV | | | | Lg | | Lg | 07 43 52.3 | |
| | 1.3nm,0.3s,baz=94,slow=30,SNR=11 | | | | | | | |
| KURBB | Kurchatov Arra<br>0.1nm,0.3s,baz=54,slow=15,SNR=2.7 | 5.95 | 240 | Pn | | Pn | 07 44 47.3 | +0.7 |
| MKAR | Makanchi Array<br>0.2nm,0.3s,baz=24,slow=14,SNR=11 | 7.64 | 203 | Pn | | Pn | 07 45 11.0 | +1.2 |

*IDC* ***19*** *07:46:15.4±0.9,57°.21N×150°.73W,h0km,mb4.2/15, mb1 4.3/18,mb1mx4.0/58,mbtmp4.1/18,ML3.9/3,MS3.5/1, Ms1 3.5/1,ms1mx2.6/34,Error ellipse: s-maj=19.9km s-min=14.1km az=3.0*

*ISCJB* ***19*** *07:46:19.7±0.4,57°.32N±0°.03×150°.67W±0°.03,h42km±5km, mb4.0/18,MS3.6/1,Error ellipse: s-maj=5.6km s-min=2.9km az=171.1*

*NEIC* ***19*** *07:46:23.1±0.0,57°.27N×150°.65W,h10km,ML4.0(AEIC), After AEIC.*

*NEIC Felt at Kodiak.*

**ISC 19 07:46:21.3±0.8,57°.31N±0°.06×150°.72W±0°.04,h37km±1km, n109,σ1°9.06/120,mb4.2/18,Gulf of Alaska**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| KDAK | Kodiak Island<br>128nm,0.3s,baz=98,slow=6.7,SNR=4824 | 1.11 | 296 | Pn | | Pn | 07 46 40.1 | -0.1 |
| KDAK | | | | LR | | LR | 07 46 43.8 | |
| | comp=Z,196nm,20.3s,baz=104,slow=25 | | | | | | | |
| KDAK | | | | Sn | | Sn | 07 46 54.2 | -0.1 |
| | 783nm,0.3s,baz=107,slow=19,SNR=141 | | | | | | | |
| KDAK | Kodiak Island | 1.11 | 296 | P | | Pn | 07 46 40.5 | +0.2 |
| KDAK | | | | S | | Sn | 07 46 54.1 | -0.1 |
| OHAK | Old Harbor | 1.40 | 268 | P | | Pn | 07 46 43.6 | -0.6 |
| OHAK | | | | S | | Sn | 07 47 00.3 | -1.0 |
| FOPK | Fourpeaked Vol | 2.06 | 316 | P | | Pn | 07 46 53.8 | +0.4 |
| FOSS | Fourpeaked Sta | 2.18 | 315 | P | | Pn | 07 46 55.5 | +0.6 |
| CNPM | China Poot | 2.24 | 353 | P | | Pn | 07 46 55.9 | +0.1 |
| CNPM | | | | S | | Sn | 07 47 21.9 | -0.4 |
| CDD | Cape Douglas | 2.25 | 318 | P | | Pn | 07 46 56.6 | +0.8 |
| FONW | Fourpeaked Sta | 2.29 | 313 | P | | Pn | 07 46 55.8 | -0.6 |
| KAPH | Katmai Pasha | 2.33 | 305 | P | | Pn | 07 46 57.9 | +0.9 |
| KAPH | | | | S | | Sn | 07 47 24.4 | +0.1 |
| KAWH | Katmai | 2.43 | 298 | P | | Pn | 07 46 59.5 | +1.1 |
| KARR | Katmai Rainbow | 2.44 | 301 | P | | Pn | 07 46 59.9 | +1.4 |
| BRLK | Bradley Lake | 2.47 | 358 | P | | Pn | 07 46 58.5 | -0.4 |
| AUI | Augustine Isla | 2.48 | 326 | P | | Pn | 07 46 59.9 | +0.8 |
| AUI | | | | S | | Sn | 07 47 28.6 | +0.5 |
| AUE | Augustine Isla | 2.49 | 327 | P | | Pn | 07 47 00.2 | +1.1 |
| AUW | Augustine West | 2.53 | 326 | P | | Pn | 07 47 00.6 | +0.9 |
| KCG | Knife Ck. Glac | 2.55 | 295 | P | | Pn | 07 47 01.1 | +1.0 |
| KCG | | | | S | | Sn | 07 47 30.5 | +0.6 |
| KAHC | Katmai Hardscr | 2.65 | 302 | P | | Pn | 07 47 02.3 | +0.8 |
| KELA | Mount Kelaz | 2.91 | 295 | P | | Pn | 07 47 05.9 | +0.8 |
| ILS | Iliamna Low So | 2.93 | 336 | P | | Pn | 07 47 05.5 | +0.2 |
| IVE | Iliamna Volcan | 2.97 | 337 | P | | Pn | 07 47 05.9 | 0.0 |
| PLK3 | Peulik 3 | 3.02 | 280 | P | | Pn | 07 47 07.2 | +0.7 |
| PLK4 | Peulik 4 | 3.06 | 278 | P | | Pn | 07 47 07.8 | +0.6 |
| MID | Middleton Isla | 3.14 | 46 | P | | Pn | 07 47 07.1 | -1.0 |
| PLK1 | Peulik 1 | 3.21 | 281 | P | | Pn | 07 47 09.3 | +0.2 |
| RED | Redoubt Volcan | 3.30 | 342 | P | | Pn | 07 47 09.6 | -0.7 |
| RDWB | Redoubt West | 3.38 | 342 | P | | Pn | 07 47 10.6 | -0.8 |
| RDWB | | | | S | | Sn | 07 47 49.2 | -1.1 |
| DFR | Drift River | 3.45 | 344 | P | | Pn | 07 47 11.9 | -0.5 |
| DFR | | | | S | | Sn | 07 47 50.9 | -1.1 |
| ANNE | Aniakchak Nort | 4.02 | 267 | P | | Pn | 07 47 20.2 | -0.1 |
| ANPK | Aniakchak Peak | 4.07 | 267 | P | | Pn | 07 47 20.8 | -0.2 |
| ANNW | Aniakchak Nort | 4.10 | 268 | P | | Pn | 07 47 21.4 | 0.0 |
| EYAK | Cordova Ski Ar | 4.15 | 36 | P | | Pn | 07 47 21.8 | -0.1 |
| ANPB | Aniakchak Plen | 4.16 | 266 | P | | Pn | 07 47 22.2 | +0.1 |
| KAIM | Kayak Island | 4.22 | 49 | P | | Pn | 07 47 23.3 | +0.5 |
| STLK | Strandline Lak | 4.24 | 353 | P | | Pn | 07 47 23.4 | +0.1 |
| KNK | Knik Glacier | 4.28 | 15 | P | | Pn | 07 47 23.4 | -0.4 |
| VMT | TAPS TI Valdez | 4.40 | 29 | P | | Pn | 07 47 25.6 | +0.2 |
| RAGM | Ragged Mountai | 4.41 | 43 | P | | Pn | 07 47 25.7 | +0.2 |
| VLZ | Valdez | 4.45 | 29 | P | | Pn | 07 47 26.2 | +0.2 |
| HMT | Hamilton | 4.53 | 45 | P | | Pn | 07 47 27.3 | +0.1 |
| SVW2 | Sparrevohn | 4.55 | 329 | P | | Pn | 07 47 27.1 | -0.4 |
| SUCK | Suckling Hills | 4.56 | 50 | P | | Pn | 07 47 28.0 | +0.4 |
| GHO | Glory Hole Cre | 4.57 | 11 | P | | Pn | 07 47 28.2 | +0.4 |
| NICHA | Nichawak Mount | 4.58 | 47 | P | | Pn | 07 47 28.1 | +0.2 |
| DIV | Divide | 4.60 | 31 | P | | Pn | 07 47 28.2 | 0.0 |
| BERG | Berg Lake | 4.78 | 47 | P | | Pn | 07 47 30.6 | -0.1 |
| BMRM | Bremner River | 4.84 | 38 | P | | Pn | 07 47 31.6 | +0.1 |
| SCM | Sheep Creek Mo | 4.86 | 19 | P | | Pn | 07 47 32.3 | +0.6 |
| KLU | Klutina | 4.86 | 28 | P | | Pn | 07 47 32.1 | +0.2 |
| GRIN | Grindle Hills | 4.87 | 49 | P | | Pn | 07 47 32.4 | +0.5 |
| KHIT | Khitrov Hills | 4.99 | 48 | P | | Pn | 07 47 33.6 | 0.0 |
| KULT | Kultieth River | 5.10 | 51 | P | | Pn | 07 47 35.1 | 0.0 |
| WAX | Waxell Ridge | 5.16 | 49 | P | | Pn | 07 47 36.0 | +0.1 |
| ISLE | Juniper Island | 5.45 | 49 | P | | Pn | 07 47 40.2 | +0.2 |
| PS11 | TAPS Pump St11 | 5.47 | 27 | P | | Pn | 07 47 40.9 | +0.8 |
| BAGL | Bagley Icefiel | 5.50 | 51 | P | | Pn | 07 47 40.8 | +0.4 |
| PPLA | Purkeypile<br>29nm,0.7s | 5.66 | 353 | ePn | | Pn | 07 47 41.6 | -1.1 |
| CHX | Chaix Hills | 5.72 | 57 | P | | Pn | 07 47 43.9 | +0.3 |
| RKAV | Rock Avalanche | 5.72 | 54 | P | | Pn | 07 47 44.4 | +0.7 |
| SDPT | Sand Point | 5.77 | 254 | P | | Pn | 07 47 43.7 | -0.5 |
| PCA | Pinnacle | 6.13 | 58 | P | | Pn | 07 47 49.5 | +0.3 |
| TT01 | Tatalina | 6.21 | 337 | P | | Pn | 07 47 49.4 | -0.9 |
| BCPM | Bancas Point | 6.37 | 61 | P | | Pn | 07 47 52.9 | +0.5 |
| PNL | Peninsula | 6.39 | 64 | P | | Pn | 07 47 53.0 | +0.2 |
| YUK2 | White River | 6.73 | 44 | P | | Pn | 07 47 58.6 | +1.1 |
| DT1 | Dutton Round H | 6.81 | 256 | P | | Pn | 07 47 58.3 | -0.2 |
| BPAW | Bear Paw Mtn.<br>2.5nm,0.3s | 6.82 | 359 | ePn | | Pn | 07 47 58.6 | 0.0 |
| BPAW | | | | eSn | | Sn | 07 49 15.6 | +0.8 |
| YUK3 | Moose Creek | 6.87 | 45 | P | | Pn | 07 48 00.6 | +1.1 |
| BVCY | Beaver Creek | 7.13 | 40 | P | | Pn | 07 48 03.9 | +1.0 |
| DOT | Dot Lake | 7.16 | 25 | ePn | | Pn | 07 47 56.2 | -7.1 |
| DOT | | | | eSn | | Sn | 07 49 23.4 | +0.2 |
| YUK7 | Dusty Glacier | 7.27 | 58 | P | | Pn | 07 48 05.9 | +0.9 |
| BCA3 | Beaver Creek A | 7.29 | 34 | P | | Pn | 07 48 04.8 | -0.3 |
| HYT | Haines Junctio | 7.67 | 57 | P | | Pn | 07 48 11.2 | +0.9 |
| ILAR | Eielson Array<br>1.1nm,0.3s,baz=192,slow=22,SNR=15 | 7.72 | 12 | Pn | | Pn | 07 48 05.7 | -5.2 |
| ILAR | | | | Sn | | Sn | 07 49 30.8 | -6.0 |
| | 4.8nm,0.3s,baz=202,slow=20,SNR=13 | | | | | | | |
| COLA | College<br>16nm,0.8s | 7.72 | 9 | ePn | | Pn | 07 48 08.2 | -2.7 |
| COLA | | | | eSn | | Sn | 07 49 32.6 | -4.3 |
| ISLZ | Isanotski Laza | 7.72 | 256 | P | | Pn | 07 48 10.5 | -0.6 |
| PLBC | Pleasant Camp | 7.85 | 68 | P | | Pn | 07 48 13.3 | +0.6 |
| SKAG | Skagway<br>94nm,0.4s | 8.37 | 69 | ePn | | Pn | 07 48 20.5 | +0.7 |
| SKAG | | | | eSn | | Sn | 07 49 50.1 | -2.8 |
| BESE | Bessie Mountai | 8.54 | 75 | P | | Pn | 07 48 22.5 | +0.3 |
| DAWY | Dawson | 8.75 | 35 | P | | Pn | 07 48 25.4 | +0.2 |
| JIS | Juneau Island | 8.78 | 77 | P | | Pn | 07 48 25.5 | 0.0 |
| EGAK | Eagle<br>6.1nm,0.6s | 8.80 | 28 | ePn | | Pn | 07 48 26.2 | +0.5 |
| EGAK | | | | eSn | | Sn | 07 50 07.0 | +3.5 |
| IM3 | Indian Mountai | 8.82 | 352 | P | | Pn | 07 48 25.3 | -0.8 |
| WHY | Whitehorse | 8.84 | 61 | P | | Pn | 07 48 26.8 | +0.5 |
| DLBC | Dease Lake<br>20nm,1.0s | 11.07 | 75 | ePn | | Pn | 07 48 57.8 | +0.9 |
| DLBC | | | | eSn | | Sn | 07 51 01.9 | +2.6 |
| INK | Inuvik<br>0.6nm,0.3s,baz=237,slow=14,SNR=41 | 13.48 | 28 | Pn | | Pn | 07 49 30.2 | +0.6 |
| YKA | Yellowknife Ar<br>0.4nm,0.3s,baz=268,slow=11,SNR=55 | 16.59 | | P | | Pn | 07 50 36.3 | +0.2 |
| YKA | | | | PcP | | PcP | 07 55 01.8 | -0.6 |
| | 0.0nm,0.3s,baz=268,slow=1.3,SNR=3.8 | | | | | | | |
| SEY | Seymchan<br>1.8nm,0.4s,baz=78,slow=6.9,SNR=14 | 28.06 | 305 | P | | P | 07 52 07.9 | -0.7 |
| PETK | Petropavlovsk-<br>3.1nm,0.7s,baz=68,slow=13,SNR=2.6 | 29.14 | 284 | P | | P | 07 52 18.3 | 0.0 |
| PDAR | Pinedale Array<br>0.1nm,0.4s,baz=304,slow=5.3,SNR=1.9 | 29.64 | 101 | P | | P | 07 52 24.0 | +0.8 |
| YAK | Yakutsk<br>22nm,0.5s,baz=338,slow=0.9,SNR=5.5 | 38.10 | 311 | P | | P | 07 53 35.7 | -0.2 |
| TXAR | Lajitas Array<br>0.5nm,1.0s,baz=321,slow=7.0,SNR=2.8 | 42.93 | 110 | P | | P | 07 54 14.8 | -1.5 |
| KLR | Kul'dur<br>0.2nm,0.7s,baz=51,slow=7.4,SNR=7.4 | 44.67 | 294 | P | | P | 07 54 29.9 | -0.1 |
| USRK | Ussuriysk Ar.<br>2.2nm,0.7s,baz=86,slow=5.9,SNR=3.8 | 47.98 | 289 | P | | P | 07 54 55.6 | -0.3 |
| H11S1 | WAKE ISLAND Hy<br>baz=29,SNR=3.0 | 49.89 | 237 | T | | T | 08 49 05.3 | |
| H11S2 | WAKE ISLAND Hy<br>baz=29 | 49.91 | 237 | T | | T | 08 49 05.5 | |
| H11S3 | WAKE ISLAND Hy<br>baz=29 | 49.91 | 237 | T | | T | 08 49 06.7 | |
| KSRS | Korea Array<br>comp=Z,48nm,20.4s,baz=328,slow=35 | 55.00 | 286 | LR | | LR | 08 18 31.9 | |
| SONM | Songino Array<br>4.7nm,0.8s,baz=43,slow=6.7,SNR=22 | 57.37 | 309 | P | | P | 07 56 06.6 | +1.0 |
| ZALV | Zalesovo Beam<br>1.9nm,0.5s,baz=22,slow=6.9,SNR=10 | 60.27 | 326 | P | | P | 07 56 25.4 | +0.1 |
| FINES | FINESS Array B<br>1.2nm,0.5s,baz=0.0,slow=9.5,SNR=7.6 | 61.56 | 2 | P | | P | 07 56 34.0 | +0.1 |
| KURK | Kurchatov | 64.94 | 328 | P | | P | 07 56 57.0 | +0.5 |
| BVAR | Borovoye Array<br>1.4nm,0.7s,baz=32,slow=8.7,SNR=6.7 | 65.02 | 334 | P | | P | 07 56 56.5 | -0.5 |
| KURBB | Kurchatov Arra<br>0.7nm,0.6s,baz=28,slow=5.8,SNR=8.7 | 65.05 | 328 | P | | P | 07 56 57.0 | -0.2 |
| MKAR | Makanchi Array<br>1.2nm,0.6s,baz=36,slow=6.6,SNR=20 | 67.33 | 323 | P | | P | 07 57 11.4 | -0.3 |
| AKTO | Aktyubinsk<br>0.9nm,0.5s,baz=54,slow=8.2,SNR=2.8 | 70.04 | 341 | P | | P | 07 57 28.8 | 0.0 |
| AKASG | Malin Array Be<br>1.3nm,0.5s,baz=4.9,slow=6.2,SNR=8.7 | 72.36 | 0 | P | | P | 07 57 42.2 | -0.5 |
| ESDC | Sonseca Array<br>0.8nm,0.6s,baz=340,slow=4.7,SNR=4.4 | 79.41 | 25 | P | | P | 07 58 23.9 | +0.7 |
| GEYT | Alibeck<br>1.0nm,0.4s,baz=342,slow=7.7,SNR=3.5 | 82.06 | 337 | P | | P | 07 58 38.1 | +0.7 |
| CMAR | Chiang Mai Arr<br>1.6nm,0.4s,baz=31,slow=4.4,SNR=6.7 | 85.11 | 297 | P | | P | 07 58 53.3 | +0.1 |

*ISK* ***19*** *07:48:05.6,37°.94N×28°.95E,h6km,ML2.4*
*DDA* ***19*** *07:48:05.6,37°.94N×28°.97E,h7km,Ml2.8*
*CSEM* ***19*** *07:48:06.0±0.1,37°.94N×28°.93E,h8km,ML2.4,Error ellipse: s-maj=3.0km s-min=2.0km az=80.0*

**ISC 19 07:48:05.7±1.0,37°.93N±0°.02×28°.95E±0°.03,h18km±3km, n24,σ0°51/44,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| DENT | Denizli | 0.19 | 159 | ePG | | Pb | 07 48 10.4 | 0.0 |
| DENT | | | | eSG | | Sb | 07 48 13.2 | -0.2 |
| DENT | Denizli | 0.19 | 159 | ePg | | Pb | 07 48 10.4 | 0.0 |
| DENT | | | | eSg | | Sb | 07 48 13.2 | -0.2 |
| DNZL | Cakiroluk | 0.26 | 162 | *i* P | | Pb | 07 48 11.5 | -0.2 |
| DNZL | | | | *i* S | | Sb | 07 48 15.0 | -0.8 |
| DNZL | Cakiroluk | 0.26 | 162 | P | | Pb | 07 48 11.5 | -0.2 |
| DNZL | | | | S | | Sb | 07 48 15.0 | -0.8 |
| TAVA | DENIZLI_Tavas | 0.47 | 183 | *i* P | | Pg | 07 48 15.1 | -0.2 |
| TAVA | | | | *i* S | | Sg | 07 48 21.6 | -0.1 |
| TAVA | DENIZLI_Tavas | 0.47 | 183 | P | | Pg | 07 48 15.1 | -0.2 |
| TAVA | | | | S | | Sg | 07 48 21.5 | -0.1 |
| KHL | Karahalli | 0.60 | 49 | ePG | | Pg | 07 48 17.8 | +0.1 |
| KHL | | | | eSG | | Sg | 07 48 26.5 | +0.8 |
| KHL | Karahalli | 0.60 | 49 | ePg | | Pg | 07 48 17.8 | +0.1 |
| KHL | | | | eSg | | Sg | 07 48 26.5 | +0.8 |
| KHAL | Karahalli | 0.61 | 44 | *i* P | | Pb | 07 48 17.3 | -0.6 |
| KHAL | | | | *i* S | | Sg | 07 48 26.0 | -0.2 |
| KHAL | Karahalli | 0.61 | 44 | P | | Pb | 07 48 17.3 | -0.6 |
| KHAL | | | | S | | Sg | 07 48 26.0 | -0.2 |
| KULA | Kula-Manisa | 0.62 | 339 | ePG | | Pg | 07 48 18.0 | -0.1 |
| KULA | | | | eSG | | Sg | 07 48 27.0 | +0.5 |
| KULA | Kula-Manisa | 0.62 | 339 | ePg | | Pg | 07 48 18.0 | -0.1 |
| KULA | | | | eSg | | Sg | 07 48 27.0 | +0.5 |
| MANT | Manisa | 0.64 | 331 | *i* P | | Pg | 07 48 18.5 | +0.1 |
| MANT | | | | *i* S | | Sg | 07 48 26.9 | -0.1 |
| MANT | Manisa | 0.64 | 331 | P | | Pg | 07 48 18.5 | +0.1 |
| MANT | | | | S | | Sg | 07 48 26.9 | -0.1 |
| GOLH | Golhisar | 0.85 | 145 | *i* P | | Pn | 07 48 23.0 | +0.1 |
| GOLH | | | | *i* S | | Sn | 07 48 36.5 | +1.6 |
| GOLH | Golhisar | 0.85 | 145 | P | | Pn | 07 48 23.0 | +0.1 |
| GOLH | | | | S | | Sn | 07 48 36.5 | +1.6 |
| AYDN | Tasoluk | 0.89 | 253 | *i* P | | Pn | 07 48 23.1 | -0.2 |
| AYDN | | | | *i* S | | Sb | 07 48 34.0 | -0.1 |
| AYDN | Tasoluk | 0.89 | 253 | P | | Pn | 07 48 23.1 | -0.2 |
| AYDN | | | | S | | Sb | 07 48 34.0 | -0.1 |
| GLHS | Glhisar (BURDU | 0.89 | 150 | ePG | | Pn | 07 48 23.3 | -0.1 |
| GLHS | | | | eSG | | Sn | 07 48 36.2 | +0.3 |
| GLHS | Glhisar (BURDU | 0.89 | 150 | ePg | | Pn | 07 48 23.3 | -0.1 |
| GLHS | | | | eSg | | Sn | 07 48 36.2 | +0.3 |
| SIMA | Simav-Kutahya | 1.15 | 1 | ePN | | Pg | 07 48 28.0 | 0.0 |
| SIMA | Simav-Kutahya | 1.15 | 1 | ePn | | Pg | 07 48 28.0 | 0.0 |
| SHUT | Suhut-Afyon | 1.41 | 63 | ePN | | Pg | 07 48 32.4 | -0.5 |
| SHUT | Suhut-Afyon | 1.41 | 63 | ePn | | Pg | 07 48 32.4 | -0.5 |

*SOME* ***19*** *08:02:36.2,44°.23N×83°.63E,h5km*

**ISC 19 08:02:36.6±2.3,44°.27N±0°.10×83°.58E±0°.10,h10km,n6, σ2°27/11,2C-1D,Northern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| KTMS | Ketmen<br>17nm,0.2s | 2.48 | 252 | eP | | Pb | 08 03 22.5 | +1.2 |
| KTMS | | | | eS | | Sg | 08 03 55.3 | -0.9 |
| | 34nm,0.2s | | | | | | | |
| MK31 | Makanchi Array<br>0.1nm,0.3s,baz=158,slow=15,SNR=134 | 2.68 | 341 | Pn | | Pb | 08 03 22.9 | -1.7 |
| MK31 | | | | Pg | | Pg | 08 03 26.5 | -1.4 |
| | 2.3nm,0.3s,baz=158,slow=17,SNR=7.0 | | | | | | | |
| MK31 | | | | Lg | | Lg | 08 04 00.5 | |
| | 6.9nm,0.6s,baz=153,slow=26,SNR=12 | | | | | | | |
| DJR | Jarkent<br>25nm,0.3s | 2.72 | 273 | eP | | Pb | 08 03 26.6 | +1.3 |
| DJR | | | | eS | | Sb | 08 04 02.2 | +3.3 |
| | 27nm,0.4s | | | | | | | |
| PDGK | Podgornoye<br>6.5nm,0.9s | 3.11 | 254 | ⇑Pn | | Pb | 08 03 29.1 | -2.9 |
| PDGK | | | | ⇑Lg | | Lg | 08 04 12.7 | |
| | 14nm,0.5s | | | | | | | |
| KAPS | Kapalarasan<br>4.3nm,0.6s | 3.17 | 290 | ⇓*i* P | | Pb | 08 03 35.3 | +2.3 |
| KAPS | | | | eS | | Sg | 08 04 17.0 | -1.4 |
| | 7.0nm,0.5s | | | | | | | |
| ZSN | Zaisan<br>1.4nm,0.2s | 3.30 | 15 | eP | | Pb | 08 03 37.5 | +2.2 |
| ZSN | | | | eS | | Sg | 08 04 21.6 | -1.0 |
| | 3.8nm,0.4s | | | | | | | |

*NEIC* ***19*** *08:12:42.0±0.0,51°.03N×130°.65W,h10km,mb4.0/40, Mw4.5(OTT),MW4.5(OTT),After OTT.*

*PGC* ***19*** *08:12:42.8±3.4,51°.03N×130°.65W,h10km,mb4.0,ML3.9, MLSn3.9/32,Mw4.5/32,Mw4.5/32,214km Wsw of Bella Bella, Bc Haida Gwaii Region*

*IDC* ***19*** *08:12:46.8±1.2,51°.14N×130°.05W,h0km,mb3.5/4, mb1 3.8/10,mb1mx3.6/37,mbtmp3.6/10,ML3.4/6,MS3.5/17, Ms1 3.6/17,ms1mx3.4/32,Error ellipse: s-maj=16.1km s-min=12.4km az=77.0*

**ISC 19 08:12:46.1±2.4,51°.10N±0°.05×130°.03W±0°.06,h1km±15km, n195,σ1°71/186,mb4.0/10,MS3.5/11,Queen Charlotte Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| HOLB | Holberg | 1.29 | 110 | Pn | | Pn | 08 13 09.4 | -1.8 |
| HOLB | | | | Sn | | Sg | 08 13 26.8 | -0.6 |
| BBB | Bella Bella<br>22nm,0.3s,baz=249,slow=8.4,SNR=139 | 1.61 | 47 | Pn | | Pn | 08 13 14.2 | -1.5 |
| BBB | | | | Sn | | Sn | 08 13 37.1 | +0.1 |
| | 159nm,0.3s,baz=240,slow=17,SNR=12 | | | | | | | |
| BBB | Bella Bella | 1.61 | 47 | Pn | | Pn | 08 13 14.0 | -1.6 |
| BBB | | | | Sn | | Sn | 08 13 37.2 | +0.2 |
| PHC | Port Hardy | 1.69 | 103 | Pn | | Pn | 08 13 15.1 | -1.6 |
| PHC | | | | Sn | | Sn | 08 13 37.7 | -1.3 |
| BPBC | Brooks Peninsu | 1.72 | 123 | Pn | | Pn | 08 13 14.7 | -2.6 |
| BNB | Barry Inlet | 1.82 | 325 | Pn | | Pn | 08 13 10.6 | -8.0 |
| BNB | | | | Sn | | Sn | 08 13 30.2 | -12 |
| MAYB | Maynard | 1.94 | 110 | Pn | | Pn | 08 13 19.0 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **BLBC** | **Blue River** | **6.79** | **78** | Pn | **Pn** | **08 14 28.4** | **+1.3** |
| **FMW** | **Mount Fremont** | **6.90** | **124** | Pn | **Pn** | **08 14 29.5** | **+1.0** |
| **LON** | **Longmire** | **6.95** | **126** | Pn | **Pn** | **08 14 29.8** | **+0.7** |
| **LON** | **Longmire** | **6.95** | **126** | *e*Pn | **Pn** | **08 14 30.3** | **+1.3** |
| LON | | | | *e*Sn | **Sn** | **08 15 47.9** | **-0.8** |
| **FL2** | **Flat Top 2** | **7.07** | **131** | *e*Pn | **Pn** | **08 14 32.5** | **+1.7** |
| **LVP** | **Lakeview Peak** | **7.13** | **132** | *e*Pn | **Pn** | **08 14 33.5** | **+1.8** |
| **DOWB** | **Downie Slide** | **7.23** | **82** | P | **Pn** | **08 14 34.5** | **+1.7** |
| **LTY** | **Liberty** | **7.24** | **118** | Pn | **Pn** | **08 14 34.2** | **+1.2** |
| **LTY** | **Liberty** | **7.24** | **118** | *e*Pn | **Pn** | **08 14 34.9** | **+1.9** |
| **MNB** | **Mounoet Dainar** | **7.33** | **77** | P | **Pn** | **08 14 36.7** | **+2.3** |
| **DLBC** | **Dease Lake** | **7.35** | **360** | P | **Pn** | **08 14 33.5** | **-1.1** |
| **DLBC** | **Dease Lake** | **7.35** | **360** | *e*Pn | **Pn** | **08 14 30.7** | **-3.9** |
| DLBC | | | | *e*Sn | **Sn** | **08 15 57.3** | **-1.3** |
| **B08A** | **Colville Reser** | **7.45** | **107** | P | **Pn** | **08 14 36.7** | **+0.7** |
| **B08A** | **Colville Reser** | **7.45** | **107** | *e*Pn | **Pn** | **08 14 36.8** | **+0.9** |
| **TDH** | **Tom, Dick, Har** | **8.00** | **133** | *e*Pn | **Pn** | **08 14 45.9** | **+2.3** |
| **H04A** | **Detroit Lake** | **8.30** | **138** | *e*Pn | **Pn** | **08 14 49.3** | **+1.6** |
| H04A | | | | *e*Sn | **Sn** | **08 16 22.1** | **+0.1** |
| **C09A** | **Chrisman Ranch** | **8.34** | **109** | *e*Pn | **Pn** | **08 14 49.7** | **+1.6** |
| **HAWA** | **Hanford** | **8.38** | **120** | *e*Pn | **Pn** | **08 14 50.5** | **+1.8** |
| **F07A** | **Phinny Hill Vi** | **8.49** | **124** | *e*Pn | **Pn** | **08 14 54.9** | **+4.8** |
| **G06A** | **Carlson Farm,** | **8.59** | **129** | *e*Pn | **Pn** | **08 14 53.2** | **+1.6** |
| **NEW** | **Newport** | **8.84** | **104** | Pn | **Pn** | **08 14 56.1** | **+1.2** |
| | 0.1nm,0.3s,baz=315,slow=10.0,SNR=1.9 | | | | | | |
| NEW | | | | Lg | Lg | 08 17 26.3 | |
| | 0.1nm,0.3s,baz=261,slow=15,SNR=2.7 | | | | | | |
| NEW | | | | LR | LR | 08 18 22.3 | |
| | comp=Z,640nm,19.1s,baz=298,slow=38 | | | | | | |
| **NEW** | **Newport** | **8.84** | **104** | *e*Pn | **Pn** | **08 14 56.2** | **+1.3** |
| **SKAG** | **Skagway** | **8.90** | **342** | *e*Pn | **Pn** | **08 14 56.3** | **+0.6** |
| **E09A** | **Wood Farm, Sta** | **9.08** | **116** | *e*Pn | **Pn** | **08 14 58.9** | **+0.6** |
| **F10A** | **Beach Ranch, E** | **9.91** | **116** | *e*Pn | **Pn** | **08 15 10.5** | **+0.7** |
| **I07A** | **Izee** | **9.98** | **131** | *e*Pn | **Pn** | **08 15 12.8** | **+2.1** |
| **BMO** | **Blue Mountains** | **10.57** | **121** | *e*Pn | **Pn** | **08 15 20.0** | **+1.3** |
| **YBH** | **Yreka Blue Hor** | **10.64** | **149** | Pn | **Pn** | **08 15 23.0** | **+3.3** |
| | 0.0nm,0.3s,baz=330,slow=12,SNR=5.5 | | | | | | |
| YBH | | | | LR | LR | 08 18 52.8 | |
| | comp=Z,203nm,19.2s,baz=338,slow=34 | | | | | | |
| **J08A** | **Circle Bar Ran** | **11.02** | **130** | *e*Pn | **Pn** | **08 15 26.4** | **+1.5** |
| **MOD** | **Modoc Plateau** | **11.37** | **140** | *e*Pn | **Pn** | **08 15 27.8** | **-2.0** |
| **MFID** | **Camas Ranch** | **12.32** | **123** | *e*Pn | **Pn** | **08 15 45.7** | **+3.0** |
| **HLID** | **Hailey** | **12.98** | **119** | *e*Pn | **Pn** | **08 15 54.3** | **+2.5** |
| **MCMT** | **McKenzie Canyo** | **13.10** | **112** | *e*Pn | **Pn** | **08 15 55.6** | **+2.2** |
| **BEKR** | **Beckworth** | **13.11** | **145** | *e*Pn | **Pn** | **08 15 57.1** | **+3.5** |
| **GSGM** | **Seigler Mounta** | **13.28** | **154** | *e*Pn | **Pn** | **08 15 56.1** | **+0.5** |
| **PAHR** | **Pah Rah Range** | **13.61** | **143** | *e*Pn | **Pn** | **08 16 03.0** | **+2.7** |
| PAHR | | | | *e*Sn | Sn | 08 18 12.2 | -20 |
| **BMN** | **Battle Mountai** | **13.90** | **135** | *e*Pn | **Pn** | **08 16 04.7** | **+0.4** |
| **YHB** | **Horse Butte** | **14.11** | **109** | *e*Pn | **Pn** | **08 16 10.9** | **+3.6** |
| YHB | | | | *e*Sn | Sn | 08 18 28.9 | -16 |
| **YKA** | **Yellowknife Ar** | **14.15** | **30** | Pn | **Pn** | **08 16 04.9** | **-2.6** |
| | 0.2nm,0.3s,baz=223,slow=12,SNR=23 | | | | | | |
| YKA | | | | Lg | Lg | 08 20 05.6 | |
| | baz=222,slow=28,SNR=2.6 | | | | | | |
| YKA | | | | LR | LR | 08 21 46.0 | |
| | comp=Z,18nm,19.9s,baz=180,slow=38 | | | | | | |
| **YMR** | **Madison River** | **14.30** | **109** | *e*Pn | **Pn** | **08 16 11.4** | **+1.6** |
| YMR | | | | *e*Sn | **Sn** | **08 18 46.5** | **-2.5** |
| **YHH** | **Holmes Hill** | **14.30** | **109** | *e*Pn | **Pn** | **08 16 12.2** | **+2.3** |
| YHH | | | | *e*Sn | Sn | 08 18 41.0 | -8.2 |
| **GCMT** | **Greycliff** | **14.50** | **104** | *e*Pn | **Pn** | **08 16 16.1** | **+3.6** |
| GCMT | | | | *e*Sn | Sn | 08 18 36.9 | -17 |
| **YPP** | **Pitchstone Pla** | **14.62** | **110** | *e*Pn | **Pn** | **08 16 15.3** | **+1.1** |
| **KVN** | **Kaiserville** | **14.68** | **141** | *e*Pn | **Pn** | **08 16 16.9** | **+2.0** |
| **H17A** | **Grant Village** | **14.68** | **110** | *e*Pn | **Pn** | **08 16 13.3** | **-1.7** |
| **KDAK** | **Kodiak Island** | **14.68** | **306** | LR | LR | 08 20 11.8 | |
| | comp=Z,852nm,19.4s,baz=140,slow=30 | | | | | | |
| **IMW** | **Indian Meadow** | **14.75** | **112** | *e*Pn | **Pn** | **08 16 19.5** | **+3.5** |
| **FXWY** | **Fox Creek** | **14.85** | **113** | *e*Pn | **Pn** | **08 16 20.3** | **+2.9** |
| **MOOW** | **Moose Ponds** | **14.95** | **112** | *e*Pn | **Pn** | **08 16 21.5** | **+2.8** |
| | 11nm,0.9s | | | | | | |
| **TPAW** | **Teton Pass** | **14.99** | **113** | *e*Pn | **P** | **08 16 23.5** | **-1.5** |
| | 14nm,0.9s | | | | | | |
| **RLMT** | **Red Lodge** | **15.08** | **105** | *e*Pn | **Pn** | **08 16 23.4** | **+3.1** |
| | 17nm,1.3s | | | | | | |
| **SNOW** | **Snow King Moun** | **15.12** | **113** | *e*Pn | **P** | **08 16 25.7** | **-0.6** |
| | 12nm,0.9s | | | | | | |
| **REDW** | **Red Top Meadow** | **15.12** | **113** | *e*Pn | **Pn** | **08 16 24.1** | **+3.1** |
| | 24nm,1.2s | | | | | | |
| **NV01** | **Mina Array Sit** | **15.13** | **142** | *e*Pn | **Pn** | **08 16 23.1** | **+1.9** |
| **DHY** | **Denali Highway** | **15.19** | **329** | *e*Pn | **Pn** | **08 16 22.2** | **+0.6** |
| | 43nm,1.5s | | | | | | |
| **NV11** | **Mina Array Sit** | **15.19** | **142** | *e*Pn | **Pn** | **08 16 20.2** | **-1.6** |
| | 0.6nm,1.3s | | | | | | |
| **AHID** | **Auburn Hatcher** | **15.35** | **116** | *e*Pn | **Pn** | **08 16 25.3** | **+1.3** |
| | 7.6nm,0.9s | | | | | | |
| **BGU** | **Big Grassy Mou** | **15.55** | **124** | *e*Pn | **Pn** | **08 16 28.0** | **+1.4** |
| | 7.2nm,1.3s | | | | | | |
| **SPUT** | **South Promonto** | **15.58** | **122** | *e*Pn | **Pn** | **08 16 29.5** | **+2.5** |
| | 18nm,1.7s | | | | | | |
| **DUG** | **Dugway, Tooele** | **16.20** | **126** | *e*Pn | **P** | **08 16 37.6** | **-0.7** |
| | 10.0nm,1.1s | | | | | | |
| **BW06** | **Boulder Array** | **16.24** | **113** | *e*P | **Pn** | **08 16 37.4** | **+1.8** |
| | 22nm,1.5s | | | | | | |
| **PD31** | **Pinedale Array** | **16.24** | **113** | *e*Pn | **P** | **08 16 38.1** | **-0.7** |
| **PDAR** | **Pinedale Array** | **16.24** | **113** | Pn | **P** | **08 16 38.5** | **-0.3** |
| | 0.1nm,0.3s,baz=304,slow=9.7,SNR=32 | | | | | | |
| PDAR | | | | LR | LR | 08 22 51.1 | |
| | comp=Z,220nm,20.6s,baz=342,slow=37 | | | | | | |
| **PDAR** | **Pinedale Array** | **16.24** | **113** | *e*Pn | **Pn** | **08 16 37.8** | **+2.3** |
| **TCUT** | **Toone Canyon** | **16.28** | **121** | *e*Pn | **Pn** | **08 16 37.9** | **+1.8** |
| | 6.4nm,0.7s | | | | | | |
| **ILAR** | **Eielson Array** | **16.28** | **334** | Pn | **P** | **08 16 36.6** | **-2.3** |
| | 0.1nm,0.3s,baz=143,slow=10,SNR=12 | | | | | | |
| ILAR | | | | LR | LR | 08 21 51.0 | |
| | comp=Z,179nm,20.6s,baz=141,slow=34 | | | | | | |
| **ILB** | **Eielson Array** | **16.28** | **334** | *e*Pn | **P** | **08 16 37.7** | **-1.2** |
| **R11A** | **Troy Canyon, C** | **16.33** | **136** | *e*Pn | **Pn** | **08 16 37.7** | **+1.0** |
| | 5.3nm,1.3s | | | | | | |
| **KTH** | **Kantishna Hill** | **16.71** | **326** | *e*Pn | **P** | **08 16 41.7** | **-1.9** |
| | 52nm,1.4s | | | | | | |
| **NLU** | **North Lily Min** | **16.76** | **125** | *e*Pn | **Pn** | **08 16 43.4** | **+1.2** |
| | 7.8nm,1.2s | | | | | | |
| **BPAW** | **Bear Paw Mtn.** | **17.08** | **328** | *e*Pn | **P** | **08 16 46.1** | **-1.6** |
| | 28nm,1.5s | | | | | | |
| **TPNV** | **Topopah Spring** | **17.23** | **140** | *e*Pn | **P** | **08 16 50.0** | **+0.3** |
| | 42nm,1.8s | | | | | | |
| **INK** | **Inuvik** | **17.34** | **356** | P | **P** | **08 16 51.5** | **+0.9** |
| | 0.0nm,0.3s,baz=157,slow=11,SNR=4.8 | | | | | | |
| INK | | | | LR | LR | 08 23 12.5 | |
| | comp=Z,123nm,18.1s,baz=125,slow=36 | | | | | | |
| **VPEM** | **Volcano Peak E** | **17.51** | **145** | *e*Pn | **Pn** | **08 16 49.2** | **-2.3** |
| **MSU** | **Marysvale** | **17.80** | **128** | *e*Pn | **P** | **08 16 56.8** | **+0.7** |
| **P17A** | **Butcher Ranch,** | **17.81** | **123** | *e*P | **P** | **08 16 57.8** | **+1.7** |
| | 4.1nm,0.9s | | | | | | |
| P17A | | | | *e*Sn | **Sn** | **08 20 14.4** | **+0.2** |
| **P18A** | **Preston Nutter** | **17.96** | **122** | *e*Pn | **P** | **08 16 59.3** | **+1.3** |
| | 18nm,1.7s | | | | | | |
| P18A | | | | *e*Sn | Sn | 08 20 08.6 | -10 |
| **CCUT** | **Cedar City** | **17.99** | **132** | *e*Pn | **P** | **08 16 59.0** | **+0.8** |
| | 4.5nm,1.2s | | | | | | |
| **Q16A** | **Castle Valley** | **18.00** | **125** | *e*Pn | **P** | **08 17 00.4** | **+2.2** |
| | 3.4nm,0.9s | | | | | | |
| **SHPR** | **Sheep Range** | **18.06** | **138** | *e*Pn | **P** | **08 16 59.6** | **+0.8** |
| | 9.9nm,1.5s | | | | | | |
| **SZCU** | **Shurtz Canyon** | **18.08** | **132** | *e*Pn | **P** | **08 17 00.1** | **+0.9** |
| | 9.2nm,1.4s | | | | | | |
| **K22A** | **Casper** | **18.09** | **109** | *e*P | **Pn** | **08 16 59.6** | **+0.8** |
| | 28nm,1.6s | | | | | | |
| **MTPU** | **Mount Pierson** | **18.16** | **129** | *e*Pn | **P** | **08 17 01.6** | **+1.4** |
| | 7.3nm,1.3s | | | | | | |
| **SRU** | **San Rafael Swe** | **18.19** | **124** | *e*Pn | **P** | **08 17 01.4** | **+1.1** |
| | 4.7nm,0.9s | | | | | | |
| SRU | | | | *e*Sn | **Sn** | **08 20 22.4** | **-1.1** |
| **RWWY** | **Rawlins** | **18.27** | **112** | *e*P | **P** | **08 17 02.5** | **+1.2** |
| | 13nm,1.4s | | | | | | |
| **LCMT** | **Little Creek M** | **18.48** | **133** | *e*P | **Pn** | **08 17 05.3** | **+1.7** |
| | 6.3nm,1.1s | | | | | | |
| **O20A** | **White River Ci** | **18.70** | **117** | *e*P | **Pn** | **08 17 08.2** | **+2.0** |
| | 9.5nm,1.0s | | | | | | |
| **IMAR** | **Indian Mountai** | **19.19** | **330** | *e*P | **Pn** | **08 17 10.1** | **-1.7** |
| **LDFC** | **Landfair** | **19.31** | **140** | *e*P | **Pn** | **08 17 14.9** | **+1.3** |
| | 14nm,1.2s | | | | | | |
| **U15A** | **North Rim** | **19.40** | **132** | *e*P | **Pn** | **08 17 16.1** | **+1.4** |
| | 4.7nm,0.9s | | | | | | |
| **PV10** | **Paradox Valley** | **19.51** | **123** | *e*P | **Pn** | **08 17 16.8** | **+0.6** |
| **PHWY** | **Pilot Hill** | **19.54** | **111** | *e*P | **Pn** | **08 17 16.6** | **+0.1** |
| | 21nm,1.5s | | | | | | |
| **W13A** | **Hualapai Mount** | **19.80** | **138** | *e*P | **P** | **08 17 18.6** | **+0.6** |
| | 15nm,1.8s | | | | | | |
| **PV01** | **Paradox Valley** | **19.94** | **122** | *e*P | **P** | **08 17 20.2** | **+0.6** |
| **SMCO** | **Snowmass** | **20.07** | **118** | *e*P | Pn | 08 17 22.6 | -0.3 |
| | 17nm,1.8s | | | | | | |
| **ISCO** | **Idaho Springs** | **20.42** | **114** | *e*P | Pn | 08 17 28.1 | +1.2 |
| **Y12C** | **Blythe** | **20.70** | **141** | *e*P | Pn | 08 17 29.2 | -0.7 |
| | 10nm,1.3s | | | | | | |
| **S22A** | **4UR Ranch, Cre** | **21.16** | **120** | *e*P | **P** | **08 17 34.4** | **+1.5** |
| | 16nm,1.7s | | | | | | |
| **Y14A** | **Wickenburg** | **21.16** | **138** | *e*P | **P** | **08 17 34.0** | **+1.3** |
| | 24nm,1.1s | | | | | | |
| **X16A** | **Lo Mia Camp, P** | **21.45** | **134** | *e*P | **P** | **08 17 37.4** | **+1.6** |
| | 6.5nm,0.9s | | | | | | |
| **ULM** | **Lac du Bonnet** | **21.55** | **79** | P | **P** | **08 17 38.3** | **+1.7** |
| | 1.6nm,0.8s,baz=299,slow=13,SNR=2.4 | | | | | | |
| ULM | | | | LR | LR | 08 27 07.3 | |
| | comp=Z,141nm,19.2s,baz=236,slow=40 | | | | | | |
| **SDCO** | **Great Sand Dun** | **21.89** | **118** | *e*P | **P** | **08 17 41.7** | **+0.9** |
| **X18A** | **Snowflake** | **22.05** | **131** | *e*P | **P** | **08 17 44.2** | **+1.9** |
| | 33nm,1.9s | | | | | | |
| **ANMO** | **Albuquerque** | **23.46** | **124** | P | **P** | **08 17 57.4** | **+0.2** |
| | 1.5nm,0.9s,baz=146,slow=9.4,SNR=5.7 | | | | | | |
| **ANMO** | **Albuquerque** | **23.46** | **124** | *e*P | **P** | **08 17 57.2** | **0.0** |
| | 4.8nm,1.3s | | | | | | |
| **RES** | **Resolute Bay** | **27.71** | **19** | LR | LR | 08 30 37.1 | |
| | comp=Z,55nm,18.4s,baz=250,slow=39 | | | | | | |
| **TXAR** | **Lajitas Array** | **29.35** | **128** | P | **P** | **08 18 50.4** | **-0.2** |
| | 0.5nm,0.9s,baz=327,slow=6.5,SNR=3.8 | | | | | | |
| TXAR | | | | LR | LR | 08 31 25.4 | |
| | comp=Z,113nm,20.8s,baz=0.0,slow=38 | | | | | | |
| **WHAR** | **Wooly Hollow** | **31.32** | **106** | *e*P | **P** | **08 19 11.7** | **+3.9** |
| | 62nm,1.9s | | | | | | |
| **SCHQ** | **Schefferville** | **37.10** | **59** | LR | LR | 08 33 48.9 | |
| | comp=Z,100nm,20.5s,baz=340,slow=34 | | | | | | |
| **PETK** | **Petropavlovsk-** | **42.69** | **302** | LR | LR | 08 38 01.8 | |
| | comp=Z,60nm,18.1s,baz=71,slow=36 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **58.03** | **262** | T | T | 09 25 05.9 | |
| | baz=41,slow=76,SNR=146 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **58.04** | **262** | T | T | 09 25 05.8 | |
| | baz=41,slow=76,SNR=174 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **58.05** | **262** | T | T | 09 25 19.9 | |
| | baz=41,slow=76,SNR=136 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **59.07** | **261** | T | T | 09 26 25.7 | |
| | baz=46,slow=74,SNR=25 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **59.08** | **261** | T | T | 09 26 32.4 | |
| | baz=46,slow=74,SNR=12 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **59.09** | **261** | T | T | 09 26 23.6 | |
| | baz=46,slow=74,SNR=12 | | | | | | |
| **NOA** | **NORSAR Array B** | **63.97** | **20** | LR | LR | 08 51 25.3 | |
| | comp=Z,41nm,18.8s,baz=245,slow=36 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **71.32** | **339** | LR | LR | 09 00 01.7 | |
| | comp=Z,30nm,19.6s,baz=68,slow=40 | | | | | | |
| **ARU** | **Arti** | **72.60** | **355** | LR | LR | 08 56 53.1 | |
| | comp=Z,36nm,20.4s,baz=346,slow=36 | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **73.85** | **316** | *e*P | **P** | **08 24 22.5** | **+0.1** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,14nm,0.6s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,67nm,5.1s | | | | | | |
| **AKASG** | **Malin Array Be** | **77.05** | **13** | LR | LR | 08 57 56.4 | |
| | comp=Z,36nm,20.1s,baz=315,slow=35 | | | | | | |
| **MKAR** | **Makanchi Array** | **78.58** | **338** | P | **P** | **08 24 50.1** | **+1.0** |
| | comp=Z,0.6nm,0.7s,baz=34,slow=5.4,SNR=3.9 | | | | | | |
| **AKTO** | **Aktyubinsk** | **78.61** | **355** | LR | LR | 08 59 54.7 | |
| | comp=Z,17nm,19.4s,slow=36 | | | | | | |
| **WMQ** | **Urumqi** | **79.94** | **333** | *e*P | **P** | **08 24 58.6** | **+1.9** |
| **CMAR** | **Chiang Mai Arr** | **98.55** | **314** | LR | LR | 09 11 21.0 | |
| | comp=Z,11nm,20.9s,baz=100,slow=36 | | | | | | |

**TRN 19 08:17:18.4, 17°.92N × 59°.87W, h41 km, MD3.9, Leeward Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **ANWB** | **Willy Bob** | **1.84** | **263** | *e*P | | Pn | 08 17 48.4 | +0.8 |
| ANWB | | | | *e*S | | Sn | 08 18 11.9 | +2.2 |
| **DEG** | **La Desirade** | **1.96** | **216** | *e*P | | Pn | 08 17 50.4 | +1.2 |
| DEG | | | | *e*S | | Sn | 08 18 14.5 | +1.8 |
| **BPA** | **Boggy Peak** | **2.09** | **246** | *e*P | | Pn | 08 17 52.2 | +1.3 |
| BPA | | | | *e*S | | Sn | 08 18 16.9 | +1.2 |
| **SEG** | **Port Louis** | **2.17** | **226** | *e*P | | Pn | 08 17 54.1 | +2.0 |
| **SSG** | **Sans Toucher** | **2.51** | **224** | *e*P | | Pn | 08 17 59.4 | +2.5 |
| **MLYT** | **Lee's Yard** | **2.52** | **242** | *e*P | | Pn | 08 17 59.4 | +2.6 |
| MLYT | | | | *e*S | | Sn | 08 18 27.9 | +1.6 |
| **MLG** | **Mont-d'or** | **2.55** | **224** | *e*P | | Pn | 08 17 59.6 | +2.3 |
| **TBG** | **Guadaloupe-3** | **2.67** | **220** | *e*P | | Pn | 08 18 01.4 | +2.5 |
| TBG | | | | *e*S | | Sn | 08 18 31.0 | +1.0 |
| **MDPV** | **Dominica, Penn** | **2.72** | **213** | *e*P | | Pn | 08 18 01.1 | +1.4 |
| MDPV | | | | *e*S | | Sn | 08 18 32.4 | +1.1 |
| **MDVC** | **Dominica, Viel** | **2.73** | **213** | *e*P | | Pn | 08 18 01.7 | +2.1 |
| MDVC | | | | *e*S | | Sn | 08 18 33.6 | +2.2 |
| **MDMP** | **Dominica, Moor** | **2.74** | **213** | *e*P | | Pn | 08 18 02.1 | +2.1 |
| MDMP | | | | *e*S | | Sn | 08 18 33.9 | +2.0 |
| **BBL** | **Barber's Block** | **2.83** | **213** | *e*P | | Pn | 08 18 03.1 | +2.0 |
| BBL | | | | *e*S | | Sn | 08 18 36.0 | +2.0 |
| **MDN** | **Morne-Daniel** | **2.97** | **210** | *e*P | | Pn | 08 18 04.6 | +1.6 |
| MDN | | | | *e*S | | Sn | 08 18 39.3 | +1.9 |
| **BAMF** | **Morne Balai** | **3.32** | **202** | *e*P | | Pn | 08 18 09.4 | +1.5 |
| **CXM** | **Morne La Croix** | **3.33** | **202** | *e*P | | Pn | 08 18 09.9 | +1.8 |
| CXM | | | | *e*S | | Sn | 08 18 47.7 | +1.1 |
| **PCM** | **Pelee Case Pet** | **3.34** | **203** | *e*P | | Pn | 08 18 09.7 | +1.5 |
| **PCM** | **Pelee Case Pet** | **3.34** | **203** | *e*P | | Pn | 08 18 09.8 | +1.6 |
| **PML** | **Morne Lenard** | **3.37** | **202** | *e*P | | Pn | 08 18 10.2 | +1.7 |
| **FDF** | **Fort de France** | **3.40** | **201** | *e*P | | Pn | 08 18 10.8 | +1.9 |
| FDF | | | | *e*S | | Sn | 08 18 49.1 | +1.0 |
| **MVM** | **Montagne Vaucl** | **3.49** | **197** | *e*P | | Pn | 08 18 11.8 | +1.6 |
| **ZAM** | **Aeronautique** | **3.51** | **199** | *e*P | | Pn | 08 18 12.0 | +1.5 |
| **TRMF** | **Trois Ilets** | **3.55** | **199** | *e*P | | Pn | 08 18 12.5 | +1.5 |

*NEIC **19** 08:32:23.0±0.0, 19°.52N × 68°.38W, h60 km, MD3.7(RSPR), After RSPR.*

**RSPR 19 08:32:23.0, 19°.52N × 68°.38W, h60 km ± 11 km, MD3.7/16, 15C-8D, North Atlantic Ocean**

| Code | Station Name | Δ° | AZ° | Phase ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **IDE** | **Isla Desecheo** | **1.42** | **143** | ⇑*e*P | | Pn | 08 32 45.9 | -0.7 |
| **IDE** | **Isla Desecheo** | **1.42** | **143** | *e*S | | Sn | 08 33 03.3 | -1.0 |
| **IDE** | **Isla Desecheo** | **1.42** | **143** | ⇓*e*P | | Pn | 08 32 45.9 | -0.7 |
| IDE | | | | *e*S | | Sn | 08 33 03.3 | -1.0 |
| **MPR** | **Mayaguez** | **1.76** | **138** | ⇓*e*P | | Pn | 08 32 49.8 | -1.3 |
| **MPR** | **Mayaguez** | **1.76** | **138** | *e*S | | Sn | 08 33 11.8 | -0.7 |
| **MPR** | **Mayaguez** | **1.76** | **138** | ⇓*e*P | | Pn | 08 32 49.8 | -1.3 |
| MPR | | | | *e*S | | Sn | 08 33 11.8 | -0.7 |
| **LSP** | **Las Mesas** | **1.82** | **137** | ⇑*e*P | | Pn | 08 32 50.8 | -1.2 |
| **LSP** | **Las Mesas** | **1.82** | **137** | *e*S | | Sn | 08 33 13.5 | -0.5 |
| **LSP** | **Las Mesas** | **1.82** | **137** | ⇓*e*P | | Pn | 08 32 50.8 | -1.2 |
| LSP | | | | *e*S | | Sn | 08 33 13.5 | -0.5 |
| **AOPR** | **Arecibo Observ** | **1.94** | **127** | ⇑*e*P | | Pn | 08 32 52.8 | -0.8 |
| **AOPR** | **Arecibo Observ** | **1.94** | **127** | ⇓*e*P | | Pn | 08 32 53.0 | -0.6 |
| AOPR | | | | *e*S | | Sn | 08 33 16.4 | -0.5 |
| **AOPR** | **Arecibo Observ** | **1.94** | **127** | ⇓*e*P | | Pn | 08 32 53.0 | -0.6 |
| **CELP** | **Cerrillos** | **2.23** | **130** | ⇑*e*P | | Pn | 08 32 55.7 | -2.0 |
| CELP | | | | *e*S | | Sn | 08 33 23.2 | -0.9 |
| **CELP** | **Cerrillos** | **2.23** | **130** | ⇓*e*P | | Pn | 08 32 55.7 | -2.0 |
| **OBIP** | **Obispado Ponce** | **2.24** | **131** | ⇑*e*P | | Pn | 08 32 57.0 | -0.7 |
| **OBIP** | **Obispado Ponce** | **2.24** | **131** | *e*S | | Sn | 08 33 23.4 | -0.8 |
| **OBIP** | **Obispado Ponce** | **2.24** | **131** | ⇓*e*P | | Pn | 08 32 57.0 | -0.7 |
| OBIP | | | | *e*S | | Sn | 08 33 23.4 | -0.8 |
| **ICMP** | **Isla Caja de M** | **2.40** | **132** | ⇓*e*P | | Pn | 08 32 56.3 | -3.6 |
| **ICMP** | **Isla Caja de M** | **2.40** | **132** | *e*S | | Sn | 08 33 23.9 | -4.2 |
| **ICMP** | **Isla Caja de M** | **2.40** | **132** | ⇓*e*P | | Pn | 08 32 56.3 | -3.6 |
| ICMP | | | | *e*S | | Sn | 08 33 23.9 | -4.2 |
| **CBYP** | **Canovanas** | **2.70** | **117** | ⇓*e*P | | Pn | 08 33 03.2 | -0.8 |
| CBYP | | | | *e*S | | Sn | 08 33 35.5 | 0.0 |
| **CBYP** | **Canovanas** | **2.70** | **117** | ⇑*e*P | | Pn | 08 33 03.6 | -0.4 |
| **CBYP** | **Canovanas** | **2.70** | **117** | ⇓*e*P | | Pn | 08 33 03.2 | -0.8 |
| CBYP | | | | *e*S | | Sn | 08 33 35.2 | -0.3 |
| **SDDR** | **Presa de Saban** | **2.79** | **259** | *e*Pn | | Pn | 08 33 06.7 | +1.4 |
| SDDR | | | | *e*Sn | | Sn | 08 33 43.1 | +5.2 |
| **CUPR** | **Culebra, Puert** | **3.17** | **112** | ⇓*e*P | | Pn | 08 33 10.0 | -0.5 |
| **STVI** | **Saint Thomas** | **3.45** | **109** | ⇑*e*P | | Pn | 08 33 13.8 | -0.4 |
| **STVI** | **Saint Thomas** | **3.45** | **109** | *e*S | | Sn | 08 33 53.4 | -0.5 |
| **STVI** | **Saint Thomas** | **3.45** | **109** | ⇓*e*P | | Pn | 08 33 13.8 | -0.4 |
| STVI | | | | *e*S | | Sn | 08 33 53.4 | -0.5 |
| **TBVI** | **Tortola** | **3.73** | **107** | ⇓*e*P | | Pn | 08 33 18.1 | 0.0 |
| TBVI | | | | *e*S | | Sn | 08 34 00.5 | -0.3 |
| **TBVI** | **Tortola** | **3.73** | **107** | ⇓*e*P | | Pn | 08 33 18.1 | 0.0 |

**IDC 19 08:45:54.5±2.1, 54°.21N × 86°.00E, h0 km, mb1 3.1/3, mb1mx2.9/55, mbtmp3.1/3, ML3.0/3, Error ellipse: s-maj=15.9km s-min=9.4km az=59.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **I46RU** | **ZALESOVO INFRA** | **0.75** | **250** | *i* | | | 08 51 00.0 | |
| | baz=69,slow=353,SNR=34 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **0.75** | **250** | Pg | Pg | Pg | 08 46 07.9 | -0.9 |
| | 1.9nm,0.3s,baz=72,slow=17,SNR=13 | | | | | | | |
| ZALV | | | | Lg | Lg | 08 46 19.5 | | |
| | 5.6nm,0.3s,baz=66,slow=28,SNR=11 | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **5.81** | **235** | Pn | Pn | 08 47 22.7 | +0.8 | |
| | 0.2nm,0.3s,baz=50,slow=13,SNR=15 | | | | | | | |
| KURBB | | | | Sn | Sn | 08 48 29.4 | +0.2 | |
| | baz=179,slow=18,SNR=2.3 | | | | | | | |
| KURBB | | | | Lg | Lg | 08 48 59.5 | | |
| | 0.0nm,0.3s,baz=54,slow=35,SNR=3.1 | | | | | | | |
| **MKAR** | **Makanchi Array** | **7.79** | **199** | Pn | Pn | 08 47 49.5 | +0.4 | |
| | 0.3nm,0.3s,baz=19,slow=13,SNR=12 | | | | | | | |
| MKAR | | | | Sn | Sn | 08 49 17.6 | -0.4 | |
| | 0.1nm,0.3s,baz=279,slow=40,SNR=3.0 | | | | | | | |
| MKAR | | | | Lg | Lg | 08 50 02.9 | | |
| | 0.1nm,0.3s,baz=35,slow=30,SNR=2.7 | | | | | | | |
| **BVAR** | **Borovoye Array** | **9.36** | **269** | Pn | Pn | 08 48 11.0 | +0.5 | |
| | 0.2nm,0.3s,baz=64,slow=15,SNR=3.0 | | | | | | | |
| BVAR | | | | Sn | Sn | 08 49 51.1 | -5.3 | |
| | 0.2nm,0.3s,baz=68,slow=26,SNR=3.7 | | | | | | | |

*CSEM **19** 08:52:11.2±0.2, 50°.31N × 8°.07E, h10 km, ML2.5/10, Error ellipse: s-maj=3.3km s-min=2.5km az=42.0*
*BGR **19** 08:52:11.1±0.3, 50°.34N × 8°.11E, h10 km, ML1.7/4, Error ellipse: s-maj=5.6km s-min=3.3km az=178.0*
*BNS **19** 08:52:11.5±0.9, 50°.32N × 8°.09E, h3 km ± 12 km, ML1.8*
*LDG **19** 08:52:11.7±0.1, 50°.34N × 8°.06E, h3 km, Md2.6/1, Ml2.6/10, Error ellipse: s-maj=1.2km s-min=0.9km az=58.0*
*STR **19** 08:52:13.3±0.5, 50°.24N × 8°.01E, h10 km, Ml2.0, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

**ISC 19 08:52:11.4±0.8, 50°.32N ± 0°.02 × 8°.05E ± 0°.02, h13 km ± 5 km, n93, σ0°.88/156, 7C-2D, Germany**

| Code | Station Name | Δ° | AZ° | Phase ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **FACH** | **Fachingen** | **0.05** | **313** | ⇑*i*P* | | Pg | **08 52 13.6** | **-0.2** |
| FACH | | | | S* | | Sg | **08 52 14.9** | **-0.7** |
| **FACH** | **Fachingen** | **0.05** | **313** | Pb | | Pg | **08 52 13.6** | **-0.2** |
| FACH | | | | Sb | | Sg | **08 52 14.9** | **-0.7** |
| **KOE** | **Koeppel** | **0.23** | **297** | ⇑*i*Pg | | Pg | **08 52 16.7** | **+0.4** |
| KOE | | | | *e*Sg | | Sg | **08 52 20.1** | **+0.4** |
| | 240nm,0.4s | | | | | | | |
| **KOE** | **Koeppel** | **0.23** | **297** | Pg | | Pg | **08 52 16.7** | **+0.4** |
| KOE | | | | Sg | | Sg | **08 52 20.1** | **+0.4** |
| | 240nm,0.4s | | | | | | | |
| **TNS** | **Taunus Mts** | **0.27** | **111** | ⇓P* | | Pg | **08 52 17.0** | **-0.1** |
| TNS | | | | S* | | Sg | **

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CDF | | | | *e*Sg | **Sg** | **08 53 14.3** | **-0.6** |
| | 2.8nm,0.3s | | | | | | | |
| **BFO** | **Black Forest** | **2.00** | **175** | S | **Sn** | **08 53 06.8** | **-3.0** |
| BFO | | | | *e*Sg | **Sb** | **08 53 14.4** | **+2.0** |
| **BFO** | **Black Forest** | **2.00** | **175** | S | **Sn** | **08 53 06.8** | **-3.0** |
| BFO | | | | Sg | **Sb** | **08 53 14.4** | **+2.0** |
| **GIVF** | **Givet** | **2.09** | **265** | *e*Pn | **Pn** | **08 52 45.6** | **-0.5** |
| GIVF | | | | *e*Sg | **Sg** | **08 53 18.2** | **-0.2** |
| | 8.7nm,0.3s | | | | | | | |
| **GIVF** | **Givet** | **2.09** | **265** | *e*Pn | **Pn** | **08 52 45.6** | **-0.5** |
| GIVF | | | | *e*Sg | **Sg** | **08 53 18.2** | **-0.2** |
| | 4.3nm,0.3s | | | | | | | |
| **GRA1** | **Grafenberg Arr** | **2.14** | **106** | Sg | **Sb** | **08 53 18.3** | **+1.8** |
| **GRF** | **Grafenberg Arr** | **2.14** | **106** | *e*Sg | **Sb** | **08 53 18.3** | **+1.8** |
| **PAGF** | **Fort de Pagny** | **2.33** | **222** | *e*Pg | **Pg** | **08 52 55.3** | **-0.7** |
| PAGF | | | | *e*Sg | **Sg** | **08 53 25.2** | **-1.0** |
| | 1.1nm,0.3s | | | | | | | |
| **PAGF** | **Fort de Pagny** | **2.33** | **222** | *e*Pg | **Pg** | **08 52 55.3** | **-0.7** |
| PAGF | | | | *e*Sg | **Sg** | **08 53 25.2** | **-1.0** |
| | 0.6nm,0.3s | | | | | | | |
| **BAIF** | **Baives** | **2.49** | **265** | *e*Pn | **Pn** | **08 52 51.6** | **+0.1** |
| BAIF | | | | *e*Sg | **Sg** | **08 53 30.1** | **-1.1** |
| | 3.9nm,0.2s | | | | | | | |
| **BAIF** | **Baives** | **2.49** | **265** | *e*Pn | **Pn** | **08 52 51.6** | **+0.1** |
| BAIF | | | | *e*Sg | **Sg** | **08 53 30.1** | **-1.1** |
| | 2.0nm,0.2s | | | | | | | |
| **MOF** | **Molkenrain** | **2.54** | **194** | Pg | **Pg** | **08 52 59.3** | **-0.8** |
| MOF | | | | Sg | **Sg** | **08 53 33.0** | **-0.1** |
| **MOF** | **Molkenrain** | **2.54** | **194** | Pg | **Pg** | **08 52 59.3** | **-0.8** |
| MOF | | | | Sg | **Sg** | **08 53 33.0** | **-0.1** |
| **HAU** | **Haudompre** | **2.57** | **206** | *e*Pn | **Pn** | **08 52 53.0** | **+0.2** |
| HAU | | | | *e*Sg | **Sg** | **08 53 33.1** | **-0.9** |
| | 3.8nm,0.2s | | | | | | | |
| **HAU** | **Haudompre** | **2.57** | **206** | *e*Pn | **Pn** | **08 52 53.0** | **+0.2** |
| HAU | | | | *e*Sg | **Sg** | **08 53 33.1** | **-0.9** |
| | 1.9nm,0.2s | | | | | | | |
| **HINF** | **Hinteralfeld** | **2.63** | **198** | *e*Pn | **Pn** | **08 52 53.3** | **-0.3** |
| HINF | | | | *e*Sg | **Sg** | **08 53 34.4** | **-1.3** |
| | 5.6nm,0.3s | | | | | | | |
| **HINF** | **Hinteralfeld** | **2.63** | **198** | *e*Pn | **Pn** | **08 52 53.3** | **-0.3** |
| HINF | | | | *e*Sg | **Sg** | **08 53 34.4** | **-1.3** |
| | 2.8nm,0.3s | | | | | | | |
| **MEZF** | **Maizieres J'vi** | **2.67** | **228** | *e*Pn | **Pn** | **08 52 53.4** | **-0.8** |
| MEZF | | | | *e*Sg | **Sg** | **08 53 36.0** | **-1.3** |
| | 6.1nm,0.3s | | | | | | | |
| **MEZF** | **Maizieres J'vi** | **2.67** | **228** | *e*Pn | **Pn** | **08 52 53.4** | **-0.8** |
| MEZF | | | | *e*Sg | **Sg** | **08 53 36.0** | **-1.3** |
| | 3.0nm,0.3s | | | | | | | |
| **SFTF** | **Sexfontaines** | **2.90** | **224** | *e*P | **Pn** | **08 52 59.8** | **+2.6** |
| **SFTF** | **Sexfontaines** | **2.90** | **224** | *e*Pg | **Pg** | **08 53 05.6** | **-1.2** |
| SFTF | | | | *e*Sg | **Sg** | **08 53 43.5** | **-0.8** |
| | 6.4nm,0.4s | | | | | | | |
| **SFTF** | **Sexfontaines** | **2.90** | **224** | *e*P | **Pn** | **08 52 59.8** | **+2.6** |
| **SFTF** | **Sexfontaines** | **2.90** | **224** | *e*Pg | **Pg** | **08 53 05.6** | **-1.2** |
| SFTF | | | | *e*Sg | **Sg** | **08 53 43.5** | **-0.8** |
| | 3.2nm,0.4s | | | | | | | |
| **LOR** | **Lormes** | **4.12** | **224** | *e*Pn | **Pn** | **08 53 13.8** | **-0.3** |
| **LOR** | **Lormes** | **4.12** | **224** | *e*Pg | **Pg** | **08 53 28.3** | **-2.0** |
| **LOR** | **Lormes** | **4.12** | **224** | *e*Pn | **Pn** | **08 53 13.8** | **-0.3** |
| **LOR** | **Lormes** | **4.12** | **224** | *e*Pg | **Pg** | **08 53 28.3** | **-2.0** |

**MEX 19 08:55:55.6**±0.4,**16°04'N**×**96°42'W**,**h20**km±192km,**MD3.8, Oaxaca**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VHO** | **Vista Hermosa** | **1.07** | **344** | *e*P | Pb | 08 56 12.3 | -3.3 |
| VHO | | | | *e*S | Sb | 08 56 25.4 | -3.9 |
| **PNIG** | **Pinotepa** | **1.68** | **282** | *e*P | Pn | 08 56 20.9 | -3.0 |
| PNIG | | | | *e*S | Sn | 08 56 40.6 | -4.2 |
| **TLIG** | **Tlapa** | **2.55** | **307** | *e*P | Pn | 08 56 33.7 | -2.3 |

*NEIC **19** 09:12:39.0±0.3,29°.14S×176°.74W,h10km,mb4.7/15, Error ellipse: s-maj=10.6km s-min=6.9km az=136.0*
*ISCJB **19** 09:12:40.4±0.4,29°.37S±0°.05×176°.90W±0°.08,h31km, mb4.4/21,MS4.3/17,Error ellipse: s-maj=11.5km s-min=4.9km az=25.3*
*IDC **19** 09:12:46.0±2.1,29°.06S×176°.96W,h56km±17km,mb4.0/12, mb1 4.2/12,mb1mx4.1/19,mbtmp4.2/12,MS4.3/19, Ms1 4.3/19,ms1mx4.1/37,Error ellipse: s-maj=28.2km s-min=21.4km az=2.0*

**ISC 19 09:12:42.3**±0.5,**29°39S**±0°.06×**176°82W**±0°.08,**h31**km,**n96,** σ**2s37/87,mb4.5/21,MS4.3/17,1D,Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **0.97** | **278** | P | **Pb** | **09 13 02.8** | **+2.2** |
| | 957nm,0.3s,baz=66,slow=11,SNR=32 | | | | | | |
| RAO | | | | S | Sn | 09 13 19.0 | +6.5 |
| | 2μm,0.3s,baz=253,slow=19,SNR=14 | | | | | | |
| **HAZ** | **Te Kaha** | **9.48** | **207** | *e*PN | **Pn** | **09 14 55.4** | **-1.3** |
| HAZ | | | | *e*SN | **Sn** | **09 16 48.8** | **+6.6** |
| **MWZ** | **Matawai** | **10.08** | **206** | *e*SN | **Sn** | **09 17 02.4** | **+5.4** |
| **URZ** | **Urewera** | **10.19** | **208** | P | **Pn** | **09 15 03.2** | **-3.1** |
| | 0.2nm,0.3s,baz=135,slow=5.7,SNR=3.8 | | | | | | |
| URZ | | | | S | **Sn** | **09 17 03.5** | **+4.0** |
| | 1.6nm,0.3s,baz=209,slow=19,SNR=9.4 | | | | | | |
| **MSVF** | **Nonsavu** | **12.52** | **337** | *e*Pn | **Pn** | **09 15 39.2** | **+0.7** |
| **BFZ** | **Birch Farm** | **12.61** | **205** | *e*Pn | **Pn** | **09 15 42.4** | **+2.8** |
| **BFZ** | **Birch Farm** | **12.61** | **205** | *e*SN | **Sn** | **09 17 58.3** | **-0.4** |
| **MRZ** | **Mangatainoka R** | **12.85** | **207** | *e*PN | **Pn** | **09 15 38.7** | **-4.1** |
| MRZ | | | | *e*SN | **Sn** | **09 18 01.7** | **-3.0** |
| **TCW** | **Tory Channel** | **13.85** | **209** | *e*SN | **Sn** | **09 18 28.2** | **-0.8** |
| **THZ** | **Tophouse** | **14.90** | **211** | *e*Pn | **P** | **09 16 15.9** | **-0.2** |
| THZ | | | | *e*Sn | **Sn** | **09 18 56.5** | **+1.8** |
| **THZ** | **Tophouse** | **14.90** | **211** | *e*PN | **Pn** | **09 16 10.0** | **-0.7** |
| THZ | | | | *e*SN | **Sn** | **09 18 50.0** | **-4.7** |
| **KHZ** | **Kahutara** | **15.15** | **208** | *e*PN | **P** | **09 16 17.6** | **-1.2** |
| | 24nm,0.5s | | | | | | |
| **KHZ** | **Kahutara** | **15.15** | **208** | *e*PN | **Pn** | **09 16 09.4** | **-4.7** |
| **AFI** | **Afiamalu** | **16.09** | **18** | P | Pn | 09 16 13.5 | -13 |
| | 1.7nm,0.3s,baz=157,slow=13,SNR=3.1 | | | | | | |
| AFI | | | | S | Sn | 09 18 56.4 | -28 |
| | 1.2nm,0.3s,baz=49,slow=20,SNR=2.7 | | | | | | |
| **INZ** | **Inchbonnie** | **16.32** | **212** | *e*PN | **Pn** | **09 16 26.9** | **-2.3** |
| **CRLZ** | **Canterbury Las** | **16.49** | **208** | *e*Pn | **P** | **09 16 34.0** | **+0.4** |
| | 62nm,1.2s | | | | | | |
| **OXZ** | **Oxford** | **16.53** | **210** | *e*Pn | **Pn** | **09 16 32.9** | **+1.1** |
| | 31nm,0.5s | | | | | | |
| **OXZ** | **Oxford** | **16.53** | **210** | *e*PN | **Pn** | **09 16 26.0** | **-5.9** |
| **MQZ** | **McQueen's Vall** | **16.59** | **208** | *e*SN | **Sn** | **09 19 26.9** | **-8.7** |
| **DZM** | **Mont Dzumac** | **16.74** | **292** | P | **P** | **09 16 38.8** | **+2.1** |
| | 0.6nm,0.3s,baz=108,slow=13,SNR=6.0 | | | | | | |
| DZM | | | | LR | LR | 09 21 59.2 | |
| | comp=Z,3μm,18.1s,baz=92,slow=34 | | | | | | |
| **DZM** | **Mont Dzumac** | **16.74** | **292** | *e*P | **P** | **09 16 38.7** | **+2.0** |
| | 70nm,1.6s | | | | | | |
| DZM | | | | *e*LR | LR | 09 19 51.0 | |
| | 3μm,23.1s | | | | | | |
| **DZM** | **Mont Dzumac** | **16.74** | **292** | *e*Pn | **P** | **09 16 36.5** | **-0.2** |
| | 94nm,1.8s | | | | | | |
| **RPZ** | **Rata Peaks** | **17.27** | **211** | P | **P** | **09 16 43.0** | **+0.6** |
| | 1.2nm,0.3s,baz=31,slow=4.9,SNR=10 | | | | | | |
| RPZ | | | | S | **Sn** | **09 19 45.7** | **-6.6** |
| | 0.9nm,0.3s,baz=141,slow=23,SNR=6.2 | | | | | | |
| RPZ | | | | LR | LR | 09 24 14.0 | |
| | comp=Z,1μm,18.6s,baz=26,slow=39 | | | | | | |
| **RPZ** | **Rata Peaks** | **17.27** | **211** | *e*Pn | **P** | **09 16 43.0** | **+0.6** |
| RPZ | | | | *e*Pn | **Pn** | **09 16 43.7** | **+2.6** |
| RPZ | | | | *e*Sn | **Sn** | **09 19 45.8** | **-6.6** |
| RPZ | | | | *e* | | 09 24 14.0 | |
| **RAR** | **Rarotonga** | **17.41** | **66** | P | Pn | 09 16 32.4 | -11 |
| | 1.1nm,0.3s,baz=239,slow=12,SNR=3.4 | | | | | | |
| RAR | | | | LR | LR | 09 23 55.6 | |
| | comp=Z,539nm,18.1s,baz=252,slow=38 | | | | | | |
| **ODZ** | **Otahua Downs** | **18.51** | **209** | *e*P | **P** | **09 16 54.5** | **-1.5** |
| | 75nm,1.9s | | | | | | |
| **JCZ** | **Jackson Bay** | **18.61** | **214** | *e*P* | **P** | **09 16 57.6** | **+0.4** |
| **TBI** | **Tubuai** | **25.20** | **83** | *e*LR | LR | 09 24 09.3 | |
| | 1μm,27.8s,baz=252 | | | | | | |
| **TBI** | **Tubuai** | **25.20** | **83** | *e*T | T | 09 43 06.3 | |
| | 8.8nm,0.4s | | | | | | |
| **PAE** | **Paea** | **27.49** | **71** | *e*T | T | 09 46 03.8 | |
| | 4.7nm,0.3s | | | | | | |
| **PPT2** | **Papeete2** | **27.53** | **71** | *e*LR | LR | 09 25 08.9 | |
| | 1μm,26.8s,baz=239 | | | | | | |
| **PPT2** | **Papeete2** | **27.53** | **71** | *e*T | T | 09 46 07.3 | |
| | 3.0nm,0.3s | | | | | | |
| **PPT** | **Papeete** | **27.54** | **71** | LR | LR | 09 26 23.9 | |
| | comp=Z,399nm,21.0s,baz=212,slow=30 | | | | | | |
| **TVO** | **Taravao** | **27.70** | **72** | *e*T | T | 09 46 18.9 | |
| | 0.6nm,0.3s | | | | | | |
| **HNR** | **Honiara** | **29.46** | **308** | LR | LR | 09 28 40.4 | |
| | comp=Z,294nm,19.8s,baz=155,slow=33 | | | | | | |
| **VAH** | **Vaihoa** | **30.35** | **69** | *e*T | T | 09 49 39.0 | |
| | 7.5nm,0.3s | | | | | | |
| **STKA** | **Stephens Creek** | **35.72** | **255** | P | **P** | **09 19 38.2** | **0.0** |
| | 3.3nm,0.8s,baz=100,slow=13,SNR=7.0 | | | | | | |
| STKA | | | | LR | LR | 09 33 26.7 | |
| | comp=Z,1μm,18.0s,baz=76,slow=35 | | | | | | |
| **STKA** | **Stephens Creek** | **35.72** | **255** | *e*P | **P** | **09 19 39.2** | **+1.0** |
| | 1.4nm,0.9s | | | | | | |
| **RKT** | **Rikitea** | **37.89** | **91** | *e*LR | LR | 09 30 10.0 | |
| | 721nm,25.5s | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **39.96** | **67** | *e*LR | LR | 09 30 50.6 | |
| | 652nm,26.5s | | | | | | |
| **AS01** | **Alice Springs** | **44.16** | **265** | *e*P | **P** | **09 20 48.2** | **-0.3** |
| **AS31** | **Alice Springs** | **44.20** | **265** | *e*P | **P** | **09 20 49.2** | **+0.4** |
| | 1.6nm,0.4s | | | | | | |
| **ASAR** | **Alice Springs** | **44.20** | **265** | P | **P** | **09 20 47.6** | **-1.1** |
| | 3.3nm,0.6s,baz=96,slow=7.1,SNR=41 | | | | | | |
| ASAR | | | | LR | LR | 09 38 52.2 | |
| | comp=Z,1μm,18.4s,baz=110,slow=36 | | | | | | |
| **WB2** | **Warramunga Arr** | **45.09** | **271** | *e*P | **P** | **09 20 55.9** | **0.0** |
| | 12nm,1.1s | | | | | | |
| **WRAB** | **Tennant Creek** | **45.10** | **271** | *e*P | **P** | **09 20 55.8** | **-0.1** |
| | 12nm,1.0s | | | | | | |
| **WR1** | **Warramunga Arr** | **45.10** | **271** | *e*P | **P** | **09 20 54.9** | **-1.0** |
| | 7.8nm,0.8s | | | | | | |
| WR1 | | | | *e*PcP | **PcP** | **09 22 37.2** | **+0.9** |
| WR1 | | | | *e* | | 09 39 05.1 | |
| **WRA** | **Warramunga Arr** | **45.10** | **271** | P | **P** | **09 20 54.9** | **-1.1** |
| | 6.4nm,0.8s,baz=109,slow=7.7,SNR=28 | | | | | | |
| WRA | | | | PcP | **PcP** | **09 22 37.2** | **+0.9** |
| | 2.1nm,0.8s,baz=107,slow=3.2,SNR=5.4 | | | | | | |
| WRA | | | | LR | LR | 09 39 05.1 | |
| | comp=Z,494nm,18.0s,baz=110,slow=35 | | | | | | |
| **VNDA** | **Vanda** | **49.20** | **186** | LR | LR | 09 38 56.4 | |
| | comp=Z,172nm,20.5s,baz=20,slow=32 | | | | | | |
| **VNDA** | **Vanda** | **49.20** | **186** | *e*P | **P** | **09 21 29.8** | **+2.7** |
| **NWAO** | **Narrogin (SRO)** | **55.72** | **248** | *e*P | **P** | **09 22 14.2** | **-1.9** |
| | 46nm,0.9s | | | | | | |
| **MAW** | **Mawson** | **73.61** | **200** | LR | LR | 09 57 13.2 | |
| | comp=Z,310nm,18.0s,baz=75,slow=36 | | | | | | |
| **USHA** | **Ushuaia** | **76.17** | **146** | LR | LR | 09 48 49.9 | |
| | comp=Z,701nm,20.3s,baz=212,slow=28 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **78.01** | **324** | P | **P** | **09 24 36.0** | **-1.7** |
| | 0.7nm,0.5s,baz=166,slow=6.4,SNR=2.9 | | | | | | |
| **SYO** | **Syowa Base** | **78.33** | **193** | *e*PcP | **PcP** | **09 24 49.0** | **+0.7** |
| **PLCA** | **Paso Flores** | **82.44** | **133** | P | **P** | **09 25 03.7** | **+1.8** |
| | 1.1nm,0.8s,baz=276,slow=9.2,SNR=4.2 | | | | | | |
| PLCA | | | | LR | LR | 09 52 35.4 | |
| | comp=Z,107nm,22.0s,baz=322,slow=29 | | | | | | |
| **LPIG** | **La Paz** | **83.13** | **58** | LR | LR | 09 59 10.4 | |
| | comp=Z,199nm,18.7s,baz=195,slow=34 | | | | | | |
| **KSRS** | **Korea Array** | **84.25** | **319** | P | **P** | **09 25 09.8** | **-1.1** |
| | 0.9nm,0.6s,baz=135,slow=4.2,SNR=3.4 | | | | | | |
| **KSAR** | **Wonju Array Be** | **84.27** | **319** | P | **P** | **09 25 09.8** | **-1.2** |
| **PETK** | **Petropavlovsk-** | **85.10** | **345** | P | **P** | **09 25 14.2** | **-0.5** |
| | 3.8nm,0.6s,baz=120,slow=6.5,SNR=3.6 | | | | | | |
| **PEA1** | **Petropavlovsk-** | **85.10** | **345** | *e*P | **P** | **09 25 14.2** | **-0.6** |
| **NV01** | **Mina Array Sit** | **86.80** | **42** | *e*P | **P** | **09 25 22.6** | **-1.3** |
| **USRK** | **Ussuriysk Ar.** | **86.89** | **326** | P | **P** | **09 25 23.1** | **-0.7** |
| | 1.8nm,0.7s,baz=215,slow=4.2,SNR=4.8 | | | | | | |
| **TUC** | **Tucson** | **87.68** | **51** | *e*P | **P** | **09 25 28.0** | **-0.1** |
| | 12nm,1.5s | | | | | | |
| **X16A** | **Lo Mia Camp, P** | **88.51** | **49** | *e*P | **P** | **09 25 32.0** | **-0.1** |
| | 2.9nm,0.9s | | | | | | |
| **U15A** | **North Rim** | **89.19** | **47** | *e*P | **P** | **09 25 34.9** | **-0.5** |
| | 4.1nm,0.9s | | | | | | |
| **KDAK** | **Kodiak Island** | **89.19** | **13** | LR | LR | 10 03 38.2 | |
| | comp=Z,259nm,18.4s,baz=221,slow=34 | | | | | | |
| **KLR** | **Kul'dur** | **90.69** | **329** | LR | LR | 10 01 05.6 | |
| | comp=Z,11nm,20.8s,baz=167,slow=32 | | | | | | |
| **LTX** | **Lajitas** | **90.98** | **57** | *e*P | **P** | **09 25 42.8** | **-0.8** |
| LTX | | | | *e* | | 10 02 10.8 | |
| **TX31** | **Lajitas Ar. Si** | **90.98** | **57** | *e*P | **P** | **09 25 42.7** | **-1.0** |
| **TXAR** | **Lajitas Array** | **90.98** | **57** | P | **P** | **09 25 42.8** | **-0.8** |
| | 1.0nm,0.9s,baz=210,slow=7.2,SNR=5.8 | | | | | | |
| TXAR | | | | LR | LR | 10 02 10.9 | |
| | comp=Z,67nm,18.0s,baz=0.0,slow=33 | | | | | | |
| **G08A** | **Pilot Rock** | **91.03** | **37** | *e*P | **P** | **09 25 43.2** | **-0.3** |
| | 7.1nm,1.3s | | | | | | |
| **MA2** | **Magadan** | **92.60** | **344** | LR | LR | 10 03 00.8 | |
| | comp=Z,36nm,19.4s,baz=151,slow=33 | | | | | | |
| **NNA** | **Nana** | **92.70** | **105** | LR | LR | 09 58 41.1 | |
| | comp=Z,101nm,19.7s,baz=221,slow=30 | | | | | | |
| **PD31** | **Pinedale Array** | **94.70** | **43** | *e*P | **P** | **09 25 58.9** | **-1.7** |
| **PDAR** | **Pinedale Array** | **94.70** | **43** | P | **P** | **09 25 58.9** | **-1.7** |
| | 0.5nm,0.9s,baz=237,slow=5.0,SNR=3.7 | | | | | | |
| PDAR | | | | LR | LR | 10 05 33.6 | |
| | comp=Z,159nm,18.1s,baz=254,slow=34 | | | | | | |
| **ILAR** | **Eielson Array** | **96.72** | **12** | P | **P** | **09 26 07.2** | **-1.9** |
| | 0.2nm,0.7s,baz=217,slow=5.4,SNR=4.2 | | | | | | |
| **ILB** | **Eielson Array** | **96.72** | **12** | *e*P | **P** | **09 26 07.2** | **-1.9** |
| **LPAZ** | **La Paz** | **97.61** | **113** | P | **P** | **09 26 16.4** | **+1.3** |
| | 0.8nm,0.5s,baz=304,slow=3.6,SNR=2.9 | | | | | | |
| LPAZ | | | | LR | LR | 10 04 17.5 | |
| | comp=Z,48nm,18.2s,baz=246,slow=32 | | | | | | |
| **LPAZ** | **La Paz** | **97.61** | **113** | *e*P | **P** | **09 26 15.9** | **+0.8** |
| **MK32** | **Makanchi Array** | **117.91** | **310** | *e*PKPdf | **PKPdf** | **09 31 25.5** | **-0.1** |
| **MKAR** | **Makanchi Array** | **117.91** | **310** | PKP | **PKPdf** | **09 31 25.5** | **-0.1** |
| | 0.4nm,0.6s,baz=231,slow=3.9,SNR=4.3 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **117.96** | **319** | PKP | **PKPdf** | **09 31 26.7** | **+1.3** |
| | 0.3nm,0.3s,baz=250,slow=2.9,SNR=2.3 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **117.96** | **319** | *e*PKPdf | **PKPdf** | **09 31 26.7** | **+1.3** |
| **FIA0** | **FINESS Array S** | **144.54** | **341** | *e*PKPdf | **PKPab** | **09 32 13.1** | **-0.3** |
| **FINES** | **FINESS Array B** | **144.54** | **341** | PKP | **PKPab** | **09 32 13.1** | **-0.3** |
| | 3.7nm,0.8s,baz=72,slow=6.0,SNR=7.8 | | | | | | |
| **KBZ** | **Khabaz** | **145.38** | **305** | PKPbc | **PKPbc** | **09 32 17.4** | **+0.5** |
| | 6.1nm,1.2s,baz=63,slow=6.8,SNR=3.5 | | | | | | |
| **NB2** | **NORSAR Subarra** | **147.90** | **353** | PKP | **PKPbc** | **09 32 23.1** | **-0.6** |
| | comp=Z,3.8nm,1.0s,baz=16,slow=3.2 | | | | | | |
| **NB200** | **NORSAR Array S** | **147.90** | **353** | *e*PKPbc | **PKPbc** | **09 32 23.2** | **-0.6** |
| **NOA** | **NORSAR Array B** | **147.90** | **353** | PKPbc | **PKPbc** | **09 32 23.2** | **-0.6** |
| | comp=Z,2.3nm,0.7s,baz=16,slow=4.7,SNR=6.8 | | | | | | |
| **AKASG** | **Malin Array Be** | **151.10** | **325** | PKPbc | **PKPbc** | **09 32 31.8** | **-0.1** |
| | comp=Z,27nm,0.6s,baz=46,slow=2.9,SNR=12 | | | | | | |
| **AKBB** | **Malin Array Si** | **151.10** | **325** | *e*PKPdf | **PKPdf** | **09 32 26.4** | **+0.4** |
| **MMAI** | **Mount Meron Ar** | **152.26** | **286** | PKPbc | **PKPbc** | **09 32 35.9** | **+0.6** |
| | comp=Z,4.4nm,0.6s,baz=31,slow=6.7,SNR=2.5 | | | | | | |
| **BR101** | **Keskin Array S** | **153.00** | **301** | *e*PKPbc | **PKPbc** | **09 32 36.1** | **-0.7** |
| **BRTR** | **Keskin Array B** | **153.00** | **301** | PKPbc | **PKPbc** | **09 32 36.1** | **-0.7** |
| | comp=Z,1.5nm,0.8s,baz=159,slow=3.7,SNR=4.9 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **163.78** | **175** | PKP | **PKPdf** | **09 32 43.4** | **+0.5** |
| | comp=Z,0.4nm,0.8s,baz=140,slow=1.0,SNR=2.7 | | | | | | |
| TORD | | | | PKPab | **PKPab** | **09 33 37.0** | **+2.0** |
| | comp=Z,1.1nm,0.8s,baz=173,slow=3.8,SNR=5.9 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **163.78** | **175** | *e*PKPdf | **PKPdf** | **09 32 43.4** | **+0.5** |
| TOA1 | | | | *e*PKPab | **PKPab** | **09 33 37.0** | **+2.0** |

*IDC **19** 09:23:20.3±0.8,29°.28S×178°.41W,h0km,mb4.0/3, mb1 4.1/3,mb1mx3.8/32,mbtmp4.0/3,Error ellipse: s-maj=53.6km s-min=13.6km az=179.0*
*ISCJB **19** 09:23:21.4±0.9,29°.19S±0°.09×178°.4W±0°.1,h10km, mb4.1/5,Error ellipse: s-maj=15.4km s-min=12.1km az=35.5*

**ISC 19 09:23:21.8**±0.9,**29°1S**±0°.1×**178°4W**±0°.1,**h10**km,**n12,** σ**1s00/11,mb4.1/5,Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **0.41** | **113** | Pn | **Pn** | **09 23 33.6** | **-0.2** |
| | 325nm,0.3s,baz=80,slow=10,SNR=14 | | | | | | |
| **URZ** | **Urewera** | **9.89** | **201** | Sn | **Sn** | **09 27 35.8** | **+0.8** |
| | 0.4nm,0.3s,baz=54,slow=19,SNR=4.6 | | | | | | |
| **CTA** | **Charters Tower** | **33.30** | **278** | P | P | 09 30 03.0 | +3.1 |
| | 2.7nm,0.6s,baz=90,slow=14,SNR=3.1 | | | | | | |
| **STKA** | **Stephens Creek** | **34.49** | **255** | P | P | 09 30 13.7 | +3.5 |
| | 2.4nm,1.0s,baz=119,slow=13,SNR=2.5 | | | | | | |
| **ASAR** | **Alice Springs** | **42.89** | **266** | P | **P** | **09 31 20.0** | **-0.7** |
| | 0.7nm,0.5s,baz=102,slow=6.5,SNR=15 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.76** | **271** | P | **P** | **09 31 26.5** | **-1.3** |
| | 1.1nm,0.7s,baz=108,slow=7.7,SNR=10 | | | | | | |
| WRA | | | | PcP | **PcP** | **09 33 16.1** | **+1.5** |
| | 0.8nm,1.0s,baz=117,slow=3.6,SNR=3.6 | | | | | | |
| **PETK** | **Petropavlovsk-** | **84.48** | **346** | P | **P** | **09 35 55.3** | **+0.9** |
| | 3.1nm,0.7s,baz=116,slow=6.6,SNR=5.0 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **119.96** | **314** | PKP | **PKPdf** | **09 42 12.2** | **-0.1** |
| | 1.0nm,0.8s,baz=95,slow=1.5,SNR=5.7 | | | | | | |
| **BVAR** | **Borovoye Array** | **125.25** | **316** | PKP | **PKPdf** | **09 42 22.6** | **+0.3** |
| | 2.3nm,1.0s,baz=90,slow=4.4,SNR=5.8 | | | | | | |
| **AKASG** | **Malin Array Be** | **150.07** | **324** | PKPbc | **PKPbc** | **09 43 12.1** | **-0.3** |
| | 6.1nm,0.8s,baz=45,slow=2.9,SNR=11 | | | | | | |
| **BRTR** | **Keskin Array B** | **151.69** | **301** | PKPbc | **PKPbc** | **09 43 17.1** | **+0.3** |
| | 1.0nm,0.7s,baz=132,slow=3.8,SNR=4.4 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **164.13** | **180** | PKPab | **PKPab** | **09 44 18.1** | **-1.3** |
| | 0.5nm,0.9s,baz=203,slow=2.7,SNR=3.6 | | | | | | |

**IDC 19 09:32:27.8**±2.1,**4°42N**×**123°66E,h0**km,**mb3.6**/4, **mb1 3.7**/4,**mb1mx3.4**/58,**mbtmp3.6**/4,**Error ellipse: s-maj=318.4km s-min=21.7km az=64.0,Celebes Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **26.39** | **157** | P | P | 09 38 06.7 | +0.5 |
| | 0.4nm,0.3s,baz=337,slow=9.5,SNR=12 | | | | | | |
| **ASAR** | **Alice Springs** | **29.65** | **161** | P | P | 09 38 34.6 | -0.7 |
| | 0.2nm,0.3s,baz=335,slow=7.8,SNR=5.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **55.27** | **326** | P | P | 09 42 03.4 | +0.4 |
| | 0.4nm,0.4s,baz=125,slow=8.0,SNR=8.6 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **59.53** | **328** | P | P | 09 42 32.4 | -0.6 |
| | 0.3nm,0.3s,baz=117,slow=6.2,SNR=4.2 | | | | | | |

*ISK **19** 09:37:20.9,37°.93N×28°.92E,h5km,ML3.1*
*DDA **19** 09:37:21.7,37°.94N×28°.94E,h7km,Ml3.7*
*CSEM **19** 09:37:22.0±0.1,37°.94N×28°.94E,h2km,ML3.1,Error ellipse: s-maj=2.3km s-min=1.8km az=81.0*

**ISC 19 09:37:21.7**±1.1,**37°95N**±0°.01×**28°92E**±0°.02,**h2**km±10km, **n83,** σ**0s79/**115,**Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DENT** | **Denizli** | **0.22** | **155** | *e*PG | **Pg** | **09 37 25.6** | **-0.3** |
| DENT | | | | *e*SG | **Sg** | **09 37 29.1** | **+0.4** |
| **DENT** | **Denizli** | **0.22** | **155** | *e*Pg | **Pg** | **09 37 25.6** | **-0.3** |
| DENT | | | | *e*Sg | **Sg** | **09 37 29.1** | **+0.4** |
| **DNZL** | **Cakiroluk** | **0.28** | **159** | *i* P | **Pg** | **09 37 27.4** | **+0.3** |
| DNZL | | | | *i* S | **Sg** | **09 37 31.0** | **+0.2** |
| **DNZL** | **Cakiroluk** | **0.28** | **159** | P | **Pg** | **09 37 27.4** | **+0.3** |
| DNZL | | | | S | **Sg** | **09 37 31.0** | **+0.2** |
| **TAVA** | **DENIZLI_Tavas** | **0.48** | **181** | *i* P | **Pg** | **09 37 30.9** | **-0.1** |
| TAVA | | | | *i* S | **Sg** | **09 37 37.7** | **+0.4** |
| **TAVA** | **DENIZLI_Tavas** | **0.48** | **181** | P | **Pg** | **09 37 30.9** | **-0.1** |
| TAVA | | | | S | **Sg** | **09 37 37.7** | **+0.4** |
| **KULA** | **Kula-Manisa** | **0.60** | **340** | *e*PG | **Pb** | **09 37 34.4** | **-0.6** |
| **KULA** | **Kula-Manisa** | **0.60** | **340** | *e*Pg | **Pb** | **09 37 34.4** | **-0.6** |
| **KHL** | **Karahalli** | **0.60** | **52** | *e*PG | **Pg** | **09 37 33.2** | **-0.1** |
| **KHL** | **Karahalli** | **0.60** | **52** | *e*Pg | **Pg** | **09 37 33.2** | **-0.1** |
| **MANT** | **Manisa** | **0.61** | **332** | *i* P | **Pg** | **09 37 34.2** | **+0.8** |
| MANT | | | | *i* S | **Sb** | **09 37 43.6** | **-0.8** |
| **MANT** | **Manisa** | **0.61** | **332** | P | **Pg** | **09 37 34.2** | **+0.8** |
| MANT | | | | S | **Sb** | **09 37 43.6** | **-0.8** |
| **KHAL** | **Karahalli** | **0.62** | **47** | *i* P | **Pg** | **09 37 33.3** | **-0.2** |
| KHAL | | | | *i* S | **Sg** | **09 37 41.8** | **+0.2** |
| **KHAL** | **Karahalli** | **0.62** | **47** | P | **Pg** | **09 37 33.3** | **-0.2** |
| KHAL | | | | S | **Sg** | **09 37 41.8** | **+0.2** |
| **AYDN** | **Tasoluk** | **0.87** | **251** | *i* P | **Pg** | **09 37 38.9** | **+0.4** |
| AYDN | | | | *i* S | **Sb** | **09 37 51.5** | **-0.3** |
| **AYDN** | **Tasoluk** | **0.87** | **251** | P | **Pg** | **09 37 38.9** | **+0.4** |
| AYDN | | | | S | **Sb** | **09 37 51.5** | **-0.3** |
| **GOLH** | **Golhisar** | **0.88** | **144** | *i* P | **Pg** | **09 37 38.4** | **-0.1** |
| GOLH | | | | *i* S | **Sb** | **09 37 52.0** | **+0.1** |
| **GOLH** | **Golhisar** | **0.88** | **144** | P | **Pg** | **09 37 38.4** | **-0.1** |
| GOLH | | | | S | **Sb** | **09 37 

*T 3.7140, Plg72.0000°, Azm286.0000°; N -0.1930, Plg5.0000°, Azm29.0000°; P -3.5210, Plg18.0000°, Azm121.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*ISCJB **19** 09:45:48.9±0.2,29°.00S±0°.04×176°.98W±0°.06, h33km, mb4.8/50, MS4.0/11 Error ellipse: s-maj=9.0km s-min=4.5km az=32.8*

**ISC 19 09:45:50.5±0.3, 28°.96S±0°.06×176°.70W±0°.06, h36km, n156, σ1°§44/158, mb4.9/51, MS3.9/11, 2C-1D, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **1.10** | **254** | Pn | **Pn** | **09 46 09.8** | **+0.4** |
| | 540nm,0.3s,baz=121,slow=6.5,SNR=24 | | | | | | |
| RAO | | | | Sn | **Sn** | **09 46 26.3** | **+2.9** |
| | 3µm,0.3s,baz=240,slow=20,SNR=16 | | | | | | |
| **RAO** | **Raoul Island** | **1.10** | **254** | *e*Pn | **Pn** | **09 46 09.8** | **+0.4** |
| RAO | | | | *e*Pn | Pn | 09 46 10.3 | +0.9 |
| RAO | | | | *e*Sn | **Sn** | **09 46 26.3** | **+2.9** |
| **HAZ** | **Te Kaha** | **9.91** | **206** | *e*PN | Pn | 09 48 05.2 | -5.2 |
| HAZ | | | | SN | **Sn** | **09 49 60.0** | **-0.3** |
| **TWGZ** | **Tauwhareparae** | **10.21** | **204** | SN | **Sn** | **09 50 05.3** | **-2.4** |
| **OUZ** | **Omahuta** | **10.33** | **230** | *e*Pn | Pn | 09 48 24.9 | +8.9 |
| **OUZ** | **Omahuta** | **10.33** | **230** | *e*PN | Pn | 09 48 23.0 | +7.0 |
| **TKGZ** | **Te Karaka** | **10.49** | **204** | *e*SN | **Sn** | **09 50 09.1** | **-5.3** |
| **URZ** | **Urewera** | **10.61** | **207** | Pn | **Pn** | **09 48 17.7** | **-2.2** |
| | 1.1nm,0.3s,baz=45,slow=4.3,SNR=4.4 | | | | | | |
| URZ | | | | Sn | **Sn** | **09 50 14.1** | **-3.4** |
| | 1.8nm,0.3s,baz=147,slow=17,SNR=5.9 | | | | | | |
| **MSVF** | **Nonsavu** | **12.16** | **336** | *e*Pn | **Pn** | **09 48 41.0** | **-0.3** |
| **MRZ** | **Mangatainoka R** | **13.28** | **206** | *e*PN | Pn | 09 48 48.8 | -7.6 |
| MRZ | | | | *e*SN | Sn | 09 51 11.0 | -12 |
| **KHZ** | **Kahutara** | **15.58** | **208** | *e*Pn | **P** | **09 49 31.7** | **+0.5** |
| | 191nm,2.0s | | | | | | |
| **DZM** | **Mont Dzumac** | **16.68** | **290** | Pn | **P** | **09 49 45.0** | **+1.4** |
| | 0.6nm,0.3s,baz=83,slow=18,SNR=6.0 | | | | | | |
| DZM | | | | LR | LR | 09 54 55.4 | |
| | comp=Z,1µm,18.7s,baz=98,slow=33 | | | | | | |
| **DZM** | **Mont Dzumac** | **16.68** | **290** | *e*P | **Pn** | **09 49 38.4** | **-3.1** |
| | 124nm,1.4s | | | | | | |
| DZM | | | | *e*LR | LR | 09 53 22.5 | |
| | 2µm,25.8s | | | | | | |
| **DZM** | **Mont Dzumac** | **16.68** | **290** | *e*Pn | **P** | **09 49 44.4** | **+0.8** |
| | 50nm,1.1s | | | | | | |
| **OXZ** | **Oxford** | **16.96** | **209** | *e*Pn | **P** | **09 49 45.9** | **-0.5** |
| | 35nm,0.6s | | | | | | |
| **MQZ** | **McQueen's Vall** | **17.01** | **207** | *e*SN | Sn | 09 52 37.0 | -16 |
| **RAR** | **Rarotonga** | **17.15** | **67** | P | **Pn** | **09 49 41.2** | **-6.2** |
| | 1.4nm,0.3s,baz=170,slow=19,SNR=2.7 | | | | | | |
| RAR | | | | S | Sn | 09 52 34.0 | -23 |
| | 0.8nm,0.3s,baz=112,slow=18,SNR=3.4 | | | | | | |
| RAR | | | | LR | LR | 09 54 37.1 | |
| | comp=Z,286nm,19.3s,baz=262,slow=31 | | | | | | |
| **RAR** | **Rarotonga** | **17.15** | **67** | *e*P | **Pn** | **09 49 47.1** | **-0.2** |
| | 59nm,1.0s | | | | | | |
| RAR | | | | *e*Sn | Sn | 09 52 36.6 | -20 |
| **RPZ** | **Rata Peaks** | **17.70** | **210** | P | **Pn** | **09 49 52.5** | **-1.5** |
| | 2.0nm,0.3s,baz=58,slow=2.2,SNR=10 | | | | | | |
| RPZ | | | | S | Sn | 09 52 52.9 | -17 |
| | 0.3nm,0.3s,baz=284,slow=19,SNR=3.5 | | | | | | |
| **RPZ** | **Rata Peaks** | **17.70** | **210** | *e*Pn | **Pn** | **09 49 52.5** | **-1.5** |
| RPZ | | | | *e*Pn | **P** | **09 49 54.5** | **-0.1** |
| RPZ | | | | *e*Sn | Sn | 09 52 52.9 | -17 |
| **ODZ** | **Otahua Downs** | **18.93** | **209** | *e*P | **Pn** | **09 50 09.3** | **+0.3** |
| | 30nm,1.3s | | | | | | |
| **JCZ** | **Jackson Bay** | **19.03** | **214** | *e*P* | **P** | **09 50 05.1** | **-4.2** |
| **LHI** | **Lord Howe Isla** | **21.09** | **257** | *e*P | **P** | **09 50 34.3** | **+2.6** |
| | 120nm,1.0s | | | | | | |
| **TBI** | **Tubuai** | **25.05** | **83** | *e*LQ | LQ | 09 55 54.1 | |
| | 656nm,27.8s | | | | | | |
| TBI | | | | *e*LR | LR | 09 57 14.3 | |
| | 612nm,29.5s,baz=257 | | | | | | |
| **TBI** | **Tubuai** | **25.05** | **83** | *e*T | T | 10 17 50.9 | |
| | 10.0nm,0.4s | | | | | | |
| **PAE** | **Paea** | **27.26** | **72** | *e*T | T | 10 20 08.2 | |
| | 5.3nm,0.3s | | | | | | |
| **PPT2** | **Papeete2** | **27.30** | **71** | *e*LQ | LQ | 09 56 46.9 | |
| | 686nm,25.0s | | | | | | |
| PPT2 | | | | *e*LR | LR | 09 58 27.3 | |
| | 507nm,24.8s,baz=238 | | | | | | |
| **PPT2** | **Papeete2** | **27.30** | **71** | *e*T | T | 10 20 10.4 | |
| | 4.0nm,0.4s | | | | | | |
| **PPT** | **Papeete** | **27.31** | **71** | LR | LR | 09 59 09.4 | |
| | comp=Z,224nm,21.8s,baz=244,slow=30 | | | | | | |
| **HNR** | **Honiara** | **29.28** | **307** | LR | LR | 10 02 50.7 | |
| | comp=Z,275nm,18.0s,baz=148,slow=35 | | | | | | |
| **VAH** | **Vaihoa** | **30.10** | **69** | *e*T | T | 10 23 34.2 | |
| | 6.2nm,0.3s | | | | | | |
| **STKA** | **Stephens Creek** | **35.93** | **255** | P | **P** | **09 52 48.2** | **+0.8** |
| | 3.6nm,0.5s,baz=82,slow=9.4,SNR=10.0 | | | | | | |
| STKA | | | | LR | LR | 10 06 15.1 | |
| | comp=Z,327nm,18.6s,baz=59,slow=34 | | | | | | |
| **STKA** | **Stephens Creek** | **35.93** | **255** | *e*P | **P** | **09 52 48.3** | **+0.8** |
| | 2.1nm,1.0s | | | | | | |
| **RKT** | **Rikitea** | **37.80** | **91** | *e*LR | LR | 10 03 16.3 | |
| | 325nm,25.8s | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **39.70** | **67** | *e*LR | LR | 10 04 08.1 | |
| | 259nm,23.0s | | | | | | |
| **AS01** | **Alice Springs** | **44.30** | **265** | *e*P | **P** | **09 53 55.8** | **-1.2** |
| **AS31** | **Alice Springs** | **44.34** | **265** | *e*P | **P** | **09 53 56.5** | **-0.9** |
| | 4.1nm,1.0s | | | | | | |
| **ASAR** | **Alice Springs** | **44.34** | **265** | P | **P** | **09 53 56.4** | **-1.0** |
| | 4.4nm,0.5s,baz=105,slow=7.5,SNR=62 | | | | | | |
| ASAR | | | | PcP | **PcP** | **09 55 41.2** | **+0.1** |
| | 2.0nm,0.9s,baz=108,slow=3.8,SNR=5.6 | | | | | | |
| ASAR | | | | LR | LR | 10 11 49.4 | |
| | comp=Z,672nm,19.0s,baz=106,slow=35 | | | | | | |
| **WB2** | **Warramunga Arr** | **45.19** | **270** | *e*P | **P** | **09 54 02.4** | **-1.7** |
| WB2 | | | | *e*P | **P** | **09 54 03.0** | **-1.1** |
| **WRAB** | **Tennant Creek** | **45.19** | **270** | *e*P | **P** | **09 54 02.7** | **-1.5** |
| | 21nm,1.1s | | | | | | |
| **WR1** | **Warramunga Arr** | **45.20** | **270** | *e*P | **P** | **09 54 02.9** | **-1.4** |
| | 18nm,0.9s | | | | | | |
| WR1 | | | | *e*PcP | **PcP** | **09 55 44.6** | **+0.6** |
| **WRA** | **Warramunga Arr** | **45.20** | **270** | P | **P** | **09 54 02.9** | **-1.4** |
| | 11nm,0.8s,baz=108,slow=8.0,SNR=78 | | | | | | |
| WRA | | | | PcP | **PcP** | **09 55 44.6** | **+0.6** |
| | 6.9nm,1.0s,baz=113,slow=3.5,SNR=11 | | | | | | |
| WRA | | | | LR | LR | 10 11 43.5 | |
| | comp=Z,204nm,19.4s,baz=110,slow=34 | | | | | | |
| **VNDA** | **Vanda** | **49.64** | **186** | P | **P** | **09 54 40.8** | **+2.9** |
| | 1.6nm,1.0s,baz=20,slow=10,SNR=2.9 | | | | | | |
| VNDA | | | | LR | LR | 10 13 16.2 | |
| | comp=Z,72nm,19.3s,baz=16,slow=33 | | | | | | |
| **MBWA** | **Marble Bar** | **57.52** | **262** | *e*P | **P** | **09 55 34.7** | **-1.8** |
| | 20nm,1.0s | | | | | | |
| MBWA | | | | *e*pP | **pP** | **09 55 45.1** | **-2.3** |
| **SOEI** | **Soe** | **58.29** | **277** | *e*pP | pP | 09 55 51.0 | -2.1 |
| **QSPA** | **South Pole Qui** | **61.15** | **180** | *e*P | **P** | **09 56 03.2** | **+2.1** |
| | 34nm,1.3s | | | | | | |
| **MAW** | **Mawson** | **74.05** | **200** | P | **P** | **09 57 24.3** | **+2.1** |
| | 12nm,1.1s,baz=121,slow=7.7,SNR=4.6 | | | | | | |
| MAW | | | | LR | LR | 10 30 04.2 | |
| | comp=Z,155nm,18.4s,baz=53,slow=36 | | | | | | |
| **MAW** | **Mawson** | **74.05** | **200** | *e*P | **P** | **09 57 24.2** | **+2.0** |
| | 8.2nm,1.4s | | | | | | |
| **MJAR** | **Matsushiro Arr** | **77.72** | **324** | P | **P** | **09 57 42.4** | **-1.2** |
| | 5.2nm,0.9s,baz=167,slow=6.0,SNR=7.8 | | | | | | |
| MJAR | | | | LR | LR | 10 27 45.4 | |
| | comp=Z,35nm,21.1s,baz=95,slow=32 | | | | | | |
| **SYO** | **Syowa Base** | **78.77** | **193**↑ | *e*pP | **P** | **09 57 52.8** | **+3.9** |
| **SNAA** | **Sanae** | **79.56** | **178** | P | **P** | **09 57 53.1** | **-0.2** |
| **SNAA** | **Sanae** | **79.56** | **178** | *e*P | **P** | **09 57 54.0** | **+0.6** |
| | 6.3nm,1.0s | | | | | | |
| **VNA3** | **Neumayer Olymp** | **79.66** | **176** | P | **P** | **09 57 53.6** | **-0.2** |
| **VNA2** | **Neumayer--Watz** | **80.11** | **176** | P | **P** | **09 57 56.5** | **+0.2** |
| | baz=179,slow=5.8 | | | | | | |
| **VNA1** | **Neumayer--Stat** | **80.33** | **176** | P | **P** | **09 57 53.7** | **-3.7** |
| **PLCA** | **Paso Flores** | **82.66** | **133** | P | **P** | **09 58 11.6** | **+1.1** |
| | 2.0nm,0.9s,baz=268,slow=1.7,SNR=5.0 | | | | | | |
| **PLCA** | **Paso Flores** | **82.66** | **133** | *e*P | **P** | **09 58 11.6** | **+1.1** |
| PLCA | | | | *e*pP | **pP** | **09 58 21.4** | **-0.3** |
| **KSRS** | **Korea Array** | **83.99** | **319** | P | **P** | **09 58 16.9** | **-0.1** |
| | 3.0nm,1.0s,baz=140,slow=6.2,SNR=7.8 | | | | | | |
| **KS15** | **Wonju Array Si** | **84.01** | **319** | *e*P | **P** | **09 58 16.9** | **-0.2** |
| **KSAR** | **Wonju Array Be** | **84.01** | **319** | P | **P** | **09 58 16.9** | **-0.2** |
| **KS01** | **Wonju Array Si** | **84.03** | **319** | *e*P | **P** | **09 58 16.9** | **-0.2** |
| **PETK** | **Petropavlovsk-** | **84.71** | **345** | P | **P** | **09 58 20.0** | **-0.2** |
| | 7.3nm,0.7s,baz=114,slow=6.6,SNR=7.3 | | | | | | |
| PETK | | | | LR | LR | 10 32 03.3 | |
| | comp=Z,54nm,18.7s,baz=140,slow=33 | | | | | | |
| **PEA1** | **Petropavlovsk-** | **84.71** | **345** | *e*P | **P** | **09 58 20.0** | **-0.3** |
| **CMB** | **Columbia Colle** | **84.93** | **41** | *e*P | **P** | **09 58 22.3** | **+0.5** |
| CMB | | | | *e*pP | **pP** | **09 58 32.7** | **-0.4** |
| **WSHM** | **Spangler Hills** | **85.04** | **45** | *e*P | **P** | **09 58 25.6** | **+3.2** |
| **GLA** | **Glamis** | **85.09** | **48** | *e*P | **P** | **09 58 23.8** | **+1.1** |
| | 9.3nm,1.0s | | | | | | |
| **GSC** | **Goldstone, Bar** | **85.27** | **45** | *e*P | **P** | **09 58 24.1** | **+0.5** |
| GSC | | | | *e*pP | **pP** | **09 58 34.8** | **-0.1** |
| **DAC** | **Darwin (Calif)** | **85.42** | **44** | *e*P | **P** | **09 58 27.2** | **+2.7** |
| | 9.4nm,1.3s | | | | | | |
| **MDPB** | **Devils Postpil** | **85.43** | **42** | *e*P | **P** | **09 58 25.4** | **+0.9** |
| | 7.6nm,1.1s | | | | | | |
| **WDC** | **Westown Da** | **85.48** | **38** | *e*P | **P** | **09 58 25.4** | **+1.0** |
| | 20nm,1.2s | | | | | | |
| **113A** | **Mohawk Valley,** | **85.61** | **49** | *e*P | **P** | **09 58 26.9** | **+1.6** |
| 113A | | | | *e*pP | **pP** | **09 58 36.6** | **0.0** |
| **WAKR** | **Walker** | **85.80** | **41** | *e*P | **P** | **09 58 27.8** | **+1.5** |
| WAKR | | | | *e*pP | **pP** | **09 58 37.5** | **-0.1** |
| **PNTR** | **Pine Nut** | **86.10** | **41** | *e*P | **P** | **09 58 28.7** | **+0.9** |
| | 15nm,1.2s | | | | | | |
| **LDFC** | **Landfair** | **86.19** | **46** | *e*pP | pP | 09 58 40.2 | +0.7 |
| **YERR** | **Yerington** | **86.24** | **41** | *e*P | **P** | **09 58 28.7** | **+0.2** |
| | 8.4nm,1.1s | | | | | | |
| **NV01** | **Mina Array Sit** | **86.41** | **42** | *e*P | **P** | **09 58 29.1** | **-0.2** |
| **NV11** | **Mina Array Sit** | **86.50** | **42** | *e*P | **P** | **09 58 30.3** | **+0.6** |
| | 0.6nm,1.1s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **86.59** | **326** | P | **P** | **09 58 30.4** | **+0.6** |
| | 2.9nm,0.7s,baz=114,slow=3.3,SNR=5.0 | | | | | | |
| **PAHR** | **Pah Rah Range** | **86.64** | **41** | *e*P | **P** | **09 58 30.3** | **-0.1** |
| | 12nm,1.3s | | | | | | |
| **Y14A** | **Wickenburg** | **86.84** | **48** | *e*P | **P** | **09 58 32.5** | **+1.2** |
| | 35nm,1.1s | | | | | | |
| **KVN** | **Kaiserville** | **86.94** | **42** | *e*P | **P** | **09 58 32.0** | **+0.1** |
| | 8.3nm,1.1s | | | | | | |
| **W13A** | **Hualapai Mount** | **86.98** | **47** | *e*P | **P** | **09 58 33.5** | **+1.2** |
| W13A | | | | *e*pP | **pP** | **09 58 43.4** | **-0.2** |
| **SHPR** | **Sheep Range** | **87.07** | **45** | *e*P | **P** | **09 58 33.8** | **+1.3** |
| | 9.4nm,1.2s | | | | | | |
| **TUC** | **Tucson** | **87.33** | **51** | *e*P | **P** | **09 58 35.4** | **+1.6** |
| | 16nm,1.4s | | | | | | |
| **X16A** | **Lo Mia Camp, P** | **88.15** | **49** | *e*P | **P** | **09 58 39.4** | **+1.6** |
| | 8.2nm,1.1s | | | | | | |
| **BMN** | **Battle Mountai** | **88.36** | **41** | *e*P | **P** | **09 58 39.2** | **+0.6** |
| | 7.7nm,1.0s | | | | | | |
| **LCMT** | **Little Creek M** | **88.58** | **46** | *e*P | **P** | **09 58 41.1** | **+1.4** |
| | 4.7nm,1.0s | | | | | | |
| **U15A** | **North Rim** | **88.82** | **47** | *e*P | **P** | **09 58 42.1** | **+1.0** |
| | 19nm,1.3s | | | | | | |
| **CCUT** | **Cedar City** | **88.84** | **45** | *e*P | **P** | **09 58 42.2** | **+1.2** |
| CCUT | | | | *e*pP | **pP** | **09 58 52.4** | **-0.1** |
| **X18A** | **Snowflake** | **89.21** | **49** | *e*P | **P** | **09 58 43.9** | **+1.1** |
| X18A | | | | *e*pP | **pP** | **09 58 54.7** | **+0.5** |
| **SWFL** | **Southwest Flan** | **89.59** | **34** | *e*P | **P** | **09 58 45.3** | **+1.0** |
| **J08A** | **Circle Bar Ran** | **89.59** | **38** | *e*P | **P** | **09 58 44.9** | **+0.6** |
| J08A | | | | *e*pP | **pP** | **09 58 56.0** | **+0.3** |
| **TRQA** | **Tornquist** | **89.64** | **134** | *e*pP | pP | 09 58 55.2 | -1.0 |
| **MTPU** | **Mount Pierson** | **89.88** | **45** | *e*P | **P** | **09 58 47.4** | **+1.3** |
| | 8.8nm,1.2s | | | | | | |
| **KLR** | **Kul'dur** | **90.37** | **329** | P | **P** | **09 58 47.5** | **0.0** |
| | 0.2nm,0.8s,baz=338,slow=2.5,SNR=6.5 | | | | | | |
| **G08A** | **Pilot Rock** | **90.63** | **37** | *e*P | **P** | **09 58 49.6** | **+0.6** |
| | 14nm,1.4s | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **90.66** | **57** | *e*P | **P** | **09 58 49.9** | **+0.3** |
| TX31 | | | | *e*P | **PcP** | **09 58 50.2** | **-0.4** |
| **LTX** | **Lajitas** | **90.66** | **57** | *e*P | **P** | **09 58 50.2** | **+0.7** |
| **TXAR** | **Lajitas Array** | **90.66** | **57** | P | **P** | **09 58 50.2** | **+0.7** |
| | 2.9nm,1.1s,baz=218,slow=5.9,SNR=10 | | | | | | |
| TXAR | | | | LR | LR | 10 34 14.7 | |
| | comp=Z,37nm,18.1s,baz=0.0,slow=32 | | | | | | |
| **LAZ** | **Ladron** | **91.02** | **51** | *e*P | **P** | **09 58 52.2** | **+1.0** |
| LAZ | | | | *e*pP | **pP** | **09 59 02.9** | **+0.2** |
| **MFID** | **Camas Ranch** | **91.09** | **40** | *e*P | **P** | **09 58 51.8** | **+0.5** |
| MFID | | | | *e*pP | **pP** | **09 59 02.2** | **-0.5** |
| **SRU** | **San Rafael Swe** | **91.56** | **45** | *e*P | **P** | **09 58 54.4** | **+0.8** |
| | 11nm,1.3s | | | | | | |
| **P17A** | **Butcher Ranch,** | **91.64** | **45** | *e*pP | pP | 09 59 05.8 | +0.4 |
| **ANMO** | **Albuquerque** | **91.79** | **51** | *e*P | **P** | **09 58 55.2** | **+0.4** |
| | 5.0nm,1.1s | | | | | | |
| **E09A** | **Wood Farm, Sta** | **91.87** | **36** | *e*P | **P** | **09 58 55.3** | **+0.7** |
| | 8.8nm,1.2s | | | | | | |
| E09A | | | | *e*pP | **pP** | **09 59 05.2** | **-0.8** |
| **JLU** | **Jordanelle** | **91.89** | **44** | *e*pP | pP | 09 59 06.0 | -0.6 |
| **F10A** | **Beach Ranch, E** | **91.99** | **37** | *e*P | **P** | **09 58 55.2** | **-0.2** |
| | 7.4nm,1.0s | | | | | | |
| F10A | | | | *e*pP | **pP** | **09 59 08.7** | **+1.9** |
| **P18A** | **Preston Nutter** | **92.04** | **45** | *e*pP | pP | 09 59 07.1 | -0.3 |
| **TCUT** | **Toone Canyon** | **92.22** | **43** | *e*P | **P** | **09 58 57.0** | **+0.2** |
| | 25nm,1.5s | | | | | | |
| TCUT | | | | *e*pP | **pP** | **09 59 08.4** | **+0.3** |
| **PV01** | **Paradox Valley** | **92.22** | **47** | *e*pP | pP | 09 59 06.8 | -1.4 |
| **S22A** | **4UR Ranch, Cre** | **93.13** | **48** | *e*pP | pP | 09 59 11.4 | -1.1 |
| **AHID** | **Auburn Hatcher** | **93.40** | **42** | *e*P | **P** | **09 59 02.9** | **+0.8** |
| | 13nm,1.3s | | | | | | |
| **REDW** | **Red Top Meadow** | **93.90** | **42** | *e*P | **P** | **09 59 05.0** | **+0.6** |
| | 12nm,1.3s | | | | | | |
| **FXWY** | **Fox Creek** | **93.96** | **42** | *e*P | **P** | **09 59 05.8** | **+1.1** |
| | 8.0nm,1.4s | | | | | | |
| **SNOW** | **Snow King Moun** | **94.02** | **42** | *e*P | **P** | **09 59 05.6** | **+0.6** |
| | 10.0nm,1.3s | | | | | | |
| **IMW** | **Indian Meadow** | **94.17** | **41** | *e*P | **P** | **09 59 06.1** | **+0.4** |
| | 6.7nm,1.3s | | | | | | |
| **PD31** | **Pinedale Array** | **94.31** | **43** | *e*P | **P** | **09 59 06.3** | **0.0** |
| **PDAR** | **Pinedale Array** | **94.31** | **43** | P | **P** | **09 59 06.3** | **0.0** |
| | 0.7nm,0.9s,baz=191,slow=2.4,SNR=5.0 | | | | | | |
| **YMR** | **Madison River** | **94.62** | **41** | *e*P | **P** | **09 59 08.6** | **+1.0** |
| | 20nm,1.8s | | | | | | |
| **SEY** | **Seymchan** | **94.84** | **346** | P | **P** | **09 59 07.7** | **-0.2** |
| | 3.1nm,0.9s,baz=166,slow=6.8,SNR=4.3 | | | | | | |
| **ILAR** | **Eielson Array** | **96.27** | **12** | P | **P** | **09 59 13.8** | **-0.7** |
| | 0.6nm,0.8s,baz=229,slow=5.0,SNR=4.9 | | | | | | |
| **ILB** | **Eielson Array** | **96.27** | **12** | *e*P | P | **09 59 13.8** | **-0.7** |
| **LPAZ** | **La Paz** | **97.69** | **113** | LR | LR | 10 34 56.4 | |
| | comp=Z,25nm,19.8s,baz=246,slow=30 | | | | | | |
| **MK01** | **Makanchi Array** | **117.69** | **310** | *e*PKPdf | **PKPdf** | **10 04 31.6** | **-0.9** |
| **MK32** | **Makanchi Array** | **117.70** | **310** | *e*PKPdf | **PKPdf** | **10 04 31.7** | **-0.9** |
| **MKAR** | **Makanchi Array** | **117.70** | **310** | PKP | **PKPdf** | **10 04 31.7** | **-0.9** |
| | 1.7nm,0.9s,baz=57,slow=4.5,SNR=9.8 | | | | | | |
| **KURK** | **Kurchatov** | **120.86** | **314** | *e*PKPdf | **PKPdf** | **10 04 37.7** | **-0.8** |
| **KURBB** | **Kurchatov Arra** | **120.90** | **314** | PKP | **PKPdf** | **10 04 37.7** | **-0.9** |
| | 2.4nm,0.9s,baz=105,slow=1.9,SNR=20 | | | | | | |
| **KKAR** | **Karatay Array** | **125.21** | **304** | *e*PKPdf | **PKPdf** | **10 04 46.7** | **-0.4** |
| **BVAR** | **Borovoye Array** | **126.15** | **316** | PKP | **PKPdf** | **10 04 48.3** | **-0.3** |
| | 1.1nm,0.4s,baz=105,slow=3.4,SNR=11 | | | | | | |
| **BRVK** | **Borovoye** | **126.22** | **316** | *e*PKPdf | **PKPdf** | **10 04 48.9** | **+0.2** |
| **AKTO** | **Aktyubinsk** | **133.95** | **314** | PKP | **PKPdf** | **10 05 04.4** | **+1.0** |
| | 2.1nm,0.7s,baz=354,slow=1.5,SNR=7.4 | | | | | | |
| **GEYT** | **Alibeck** | **133.96** | **296** | PKP | **PKPdf** | **10 05 06.0** | **+2.1** |
| | 1.8nm,0.5s,baz=35,slow=5.3,SNR=2.7 | | | | | | |
| **ARA0** | **ARCESS Array S** | **137.41** | **349** | *e*PKPdf | **PKPdf** | **10 05 10.9** | **+1.6** |
| **ARCES** | **ARCESS Array B** | **137.41** | **349** | PKP | **PKPdf** | **10 05 10.9** | **+1.6** |
| | 1.2nm,0.6s,baz=48,slow=1.8,SNR=6.4 | | | | | | |
| **FIA0** | **FINESS Array S** | **144.13** | **341** | *e*PKPdf | **PKPab** | **10 05 18.5** | **-0.9** |
| **FINES** | **FINESS Array B** | **144.16** | **341** | PKhKP | PKPpre | 10 05 18.5 | |
| | 4.3nm,0.8s,baz=29,slow=4.4,SNR=11 | | | | | | |
| **KBZ** | **Khabaz** | **145.21** | **306** | PKPbc | **PKPbc** | **10 05 22.2** | **-1.6** |
| | 2.8nm,0.9s,baz=135,slow=1.4,SNR=3.6 | | | | | | |
| **ARTV** | **Artvin** | **146.37** | **302** | *e*PKPdf | **PKPab** | **10 05 28.4** | **-0.3** |
| **NB2** | **NORSAR Subarra** | **147.48** | **353** | PKP | **PKPdf** | **10 05 28.7** | **+1.2** |
| | comp=Z,7.2nm,1.0s,baz=11,slow=4.4 | | | | | | |
| **NB200** | **NORSAR Array S** | **147.48** | **353** | *e*PKPdf | **PKPbc** | **10 05 29.2** | **-0.8** |
| **NOA** | **NORSAR Array B** | **147.48** | **353** | PKPbc | **PKPbc** | **10 05 29.2** | **-0.8** |
| | comp=Z,3.6nm,0.8s,baz=15,slow=4.9,SNR=7.5 | | | | | | |
| **MARD** | **Mardin** | **147.69** | **295** | *e*PKPdf | **PKPdf** | **10 05 28.9** | **+0.3** |
| **AKASG** | **Malin Array Be** | **150.80** | **325** | PKPbc | **PKPbc** | **10 05 38.0** | **-0.6** |
| | comp=Z,9.1nm,0.8s,baz=46,slow=2.9,SNR=30 | | | | | | |
| **AKBB** | **Malin Array Si** | **150.80** | **325** | *e*PKPbc | **PKPbc** | **10 05 38.2** | **-0.4** |
| **AK11** | **Malin Array Si** | **150.84** | **325** | *e*PKPbc | **PKPbc** | **10 05 38.3** | **-0.5** |
| **SORM** | **Soroca** | **152.80** | **322**↓ | *i*P | **PKPbc** | **10 05 43.9** | **+0.6** |
| **BR101** | **Keskin Array S** | **152.86** | **301** | *e*PKPbc | **PKPbc** | **10 05 43.6** | **-0.3** |
| **BR131** | **Keskin Array S** | **152.86** | **301** | *e*PKPbc | **PKPbc** | **10 05 43.8** | **-0.2** |
| **BRTR** | **Keskin Array B** | **152.86** | **301** | PKPbc | **PKPbc** | **10 05 43.6** | **-0.3** |
| | comp=Z,3.2nm,1.0s,baz=126,slow=3.2,SNR=10 | | | | | | |
| **BR231** | **Keskin MP Arra** | **153.47** | **302** | *e*PKPbc | **PKPbc** | **10 05 44.4** | **-0.8** |
| **BUR08** | **Bucovina Ar. S** | **154.78** | **324** | *e*PKPdf | **PKPdf** | **10 05 40.0** | **+0.9** |
| **BURAR** | **Bucovina Array** | **154.79** | **324**↓ | *i*P | **PKPbc** | **10 05 45.3** | **-2.5** |
| **GERES** | **GERESS Array B** | **158.59** | **341** | PKPab | **PKPab** | **10 06 18.4** | **-0.8** |
| | comp=Z,0.2nm,0.3s,baz=40,slow=5.2,SNR=2.4 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **164.20** | **174** | PKP | **PKPdf** | **10 05 51.3** | **+0.6** |
| | comp=Z,0.7nm,0.9s,baz=198,slow=1.4,SNR=3.5 | | | | | | |
| TORD | | | | PKPab | **PKPab** | **10 06 44.8** | **+0.5** |
| | comp=Z,1.6nm,0.9s,baz=174,slow=2.4,SNR=5.4 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **164.21** | **174** | *e*PKPdf | **PKPdf** | **10 05 51.3** | **+0.6** |
| TOA1 | | | | *e*PKPab | **PKPab** | **10 06 44.8** | **+0.5** |

*IDC **19** 09:47:02.6±1.6, 35°.06S×73°.56W, h0km, mb3.9/4, mb1 3.9/6, mb1mx3.9/28, mbtmp3.8/6, ML3.7/2, Error ellipse: s-maj=44.5km s-min=36.1km az=62.0*
*ISCJB **19** 09:47:06.0±2.1, 34°.81S±0°.04×73°.48W±0°.06, h27km±17km, mb3.8/4, Error ellipse: s-maj=9.4km s-min=5.8km az=24.8*
*GUC **19** 09:47:05.7±0.6, 34°.65S×73°.55W, h27km±6km, ML4.0*

**ISC 19 09:47:04.2±1.9, 34°.97S±0°.05×73°.46W±0°.07, h10km±11km, n22, σ1°§58/29, mb3.9/4, 3C-2D, Off coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GO05** | **HualaæØ** | **1.26** | **92**↑ | *i*P | **Pg** | **09 47 28.9** | **+0.6** |
| GO05 | | | | *i* S | **Sg** | **09 47 46.1** | **+1.3** |
| GO05 | | | | IAML | | 09 47 46.7 | |
| | comp=N,2µm,0.2s | | | | | | |
| **COCH** | **Cobquecura** | **1.29** | **155**↑ | *i*P | **Pg** | **09 47 30.4** | **+1.5** |
| COCH | | | | *i* S | **Sn** | **09 47 47.4** | **+1.9** |
| **CHPI** | **Pichilemu** | **1.33** | **65** | *e*P | **Pn** | **09 47 27.0** | **-1.8** |
| CHPI | | | | *e*S | **Sn** | **09 47 44.2** | **-2.3** |
| **NICH** | **Los Niches** | **1.83** | **92** | *e*P | **Pb** | **09 47 37.6** | **-0.2** |
| NICH | | | | *i* S | **Sb** | **09 48 01.9** | **+1.2** |
| NICH | | | | IAML | | 09 48 03.9 | |
| | comp=N,3µm,0.4s | | | | | | |
| **CCSP** | **San Pedro de C** | **1.90** | **171** | *i* S | **Sg** | **09 48 01.5** | **-3.7** |
| CCSP | | | | IAML | | 09 48 02.6 | |
| | comp=N,1µm,0.6s | | | | | | |
| **CCHI** | **Chillan** | **1.98** | **146** | *e*P | **Pg** | **09 47 41.3** | **-1.0** |
| CCHI | | | | *i* S | **Sg** | **09 48 08.4** | **+0.4** |
| CCHI | | | | IAML | | 09 48 09.2 | |
| | comp=N,2µm,0.6s | | | | | | |
| **ANTU** | **Antumapu** | **2.73** | **60** | *e*S | **Sn** | **09 48 19.1** | **-1.9** |
| **STL** | **Santa Lucia** | **2.79** | **58** | *e*S | **Sn** | **09 48 20.5** | **-2.2** |
| **ROCH** | **El Roble** | **2.85** | **46** | *e*P | **Pb** | **09 47 55.2** | **0.0** |
| ROCH | | | | *i* S | **Sn** | **09 48 27.1** | **+2.9** |
| **CLCH** | **Cerro Calan** | **2.89** | **58** | *e*P | **Pn** | **09 47 49.6** | **-0.7** |
| CLCH | | | | *i* S | **Sn** | **09 48 22.7** | **-2.4** |
| CLCH | | | | IAML | | 09 48 24.1 | |
| | comp=E,421nm,0.5s | | | | | | |
| **LMEL** | **Las Melosas** | **2.92** | **68**↓ | *i*P | **Pn** | **09 47 51.1** | **+0.3** |
| LMEL | | | | *i* S | **Sn** | **09 48 25.5** | **-0.4** |
| LMEL | | | | IAML | | 09 48 27.7 | |
| | comp=N,628nm,0.2s | | | | | | |
| **PEL** | **Peldehue** | **2.94** | **53** | IAML | | 09 48 27.4 | |
| | comp=N,274nm,0.4s | | | | | | |
| **FCH** | **Farellones** | **3.10** | **59**↑ | *i*P | **Pn** | **09 47 52.7** | **-0.7** |
| FCH | | | | *e*S | **Sn** | **09 48 28.8** | **-1.8** |
| FCH | | | | IAML | | 09 48 29.3 | |
| | comp=N,526nm,0.3s | | | | | | |
| **PLCA** | **Paso Flores** | **6.20** | **159** | Pn | Pn | 09 48 40.1 | +4.3 |
| | comp=N,0.8nm,0.3s,baz=341,slow=12,SNR=31 | | | | | | |
| **CPUP** | **Villa Florida** | **16.32** | **63** | Pn | **P** | **09 50 56.7** | **+0.4** |
| | comp=N,0.1nm,0.3s,baz=231,slow=14,SNR=2.5 | | | | | | |
| **LPAZ** | **La Paz** | **19.20** | **16** | P | **Pn** | **09 51 29.5** | **-0.3** |
| | comp=N,0.1nm,0.3s,baz=201,slow=8.6,SNR=4.3 | | | | | | |
| **SIV** | **San Ignacio** | **21.92** | **34** | P | **P** | **09 51 58.7** | **+1.0** |
| | comp=N,2.4nm,0.8s,baz=225,slow

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 7.0nm,0.7s,baz=93,slow=9.1,SNR=15 | | | | | | | | |
| STKA | | | | | LR | LR | 10 17 15.6 | | |
| | comp=Z,167nm,19.9s,baz=33,slow=33 | | | | | | | | |
| **STKA** | **Stephens Creek** | **35.89** | **255** | *e*P | **P** | | **10 04 39.6** | **+1.3** | |
| | 1.4nm,0.8s | | | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **39.77** | **67** | *e*LR | LR | | 10 15 58.8 | | |
| | 115nm,22.1s | | | | | | | | |
| **AS01** | **Alice Springs** | **44.30** | **265** | *e*P | **P** | | **10 05 46.9** | **-1.2** | |
| **AS31** | **Alice Springs** | **44.34** | **265** | *e*P | **P** | | **10 05 46.9** | **-1.6** | |
| | 4.2nm,1.2s | | | | | | | | |
| **ASAR** | **Alice Springs** | **44.34** | **265** | P | **P** | | **10 05 47.8** | **-0.7** | |
| | 6.5nm,0.9s,baz=99,slow=7.2,SNR=63 | | | | | | | | |
| ASAR | | | | PcP | **PP** | | **10 07 30.9** | **-1.2** | |
| | 1.6nm,0.8s,baz=104,slow=4.7,SNR=4.5 | | | | | | | | |
| ASAR | | | | LR | LR | | 10 23 40.2 | | |
| | comp=Z,304nm,19.2s,baz=102,slow=35 | | | | | | | | |
| **WB2** | **Warramunga Arr** | **45.21** | **270** | *e*P | **P** | | **10 05 54.7** | **-0.7** | |
| | 12nm,1.0s | | | | | | | | |
| **WRAB** | **Tennant Creek** | **45.21** | **270** | *e*P | **P** | | **10 05 54.7** | **-0.7** | |
| | 8.9nm,0.9s | | | | | | | | |
| **WR1** | **Warramunga Arr** | **45.22** | **270** | *e*P | **P** | | **10 05 54.7** | **-0.8** | |
| | 15nm,1.0s | | | | | | | | |
| WR1 | | | | *e*PcP | **PcP** | | **10 07 36.2** | **+0.9** | |
| **WRA** | **Warramunga Arr** | **45.22** | **270** | P | **P** | | **10 05 54.7** | **-0.8** | |
| | 8.5nm,0.9s,baz=108,slow=7.7,SNR=30 | | | | | | | | |
| WRA | | | | PcP | **PcP** | | **10 07 36.2** | **+0.9** | |
| | 4.6nm,0.9s,baz=111,slow=3.6,SNR=9.7 | | | | | | | | |
| **VNDA** | **Vanda** | **49.43** | **186** | P | P | | 10 06 33.0 | +5.6 | |
| | 1.9nm,1.1s,baz=22,slow=7.3,SNR=2.9 | | | | | | | | |
| **VNDA** | **Vanda** | **49.43** | **186** | *e*P | **P** | | **10 06 30.4** | **+3.0** | |
| **QSPA** | **South Pole Qui** | **60.93** | **180** | *e*P | **P** | | **10 07 55.0** | **+4.3** | |
| | 17nm,0.9s | | | | | | | | |
| **MAW** | **Mawson** | **73.85** | **200** | P | **P** | | **10 09 16.0** | **+3.8** | |
| | 3.4nm,0.6s,baz=131,slow=7.7,SNR=5.0 | | | | | | | | |
| **MAW** | **Mawson** | **73.85** | **200** | *e*P | **P** | | **10 09 15.3** | **+3.2** | |
| | 15nm,1.9s | | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **77.91** | **324** | P | **P** | | **10 09 33.4** | **-2.2** | |
| | 3.8nm,1.0s,baz=158,slow=5.7,SNR=4.9 | | | | | | | | |
| **SYO** | **Syowa Base** | **78.56** | **193**⇑ | *e*P | **P** | | **10 09 40.4** | **+1.6** | |
| **PLCA** | **Paso Flores** | **82.50** | **133** | P | **P** | | **10 10 03.6** | **+3.0** | |
| | 1.8nm,0.7s,baz=285,slow=5.6,SNR=3.6 | | | | | | | | |
| **PLCA** | **Paso Flores** | **82.50** | **133** | *e*P | **P** | | **10 10 03.6** | **+3.0** | |
| | 28nm,1.6s | | | | | | | | |
| **KSRS** | **Korea Array** | **84.17** | **319** | P | **P** | | **10 10 07.5** | **-1.4** | |
| | 2.7nm,1.0s,baz=151,slow=5.6,SNR=6.2 | | | | | | | | |
| **KS15** | **Wonju Array Si** | **84.19** | **319** | *e*P | **P** | | **10 10 07.5** | **-1.5** | |
| **KSAR** | **Wonju Array Be** | **84.19** | **319** | P | **P** | | **10 10 07.5** | **-1.5** | |
| **KS01** | **Wonju Array Si** | **84.20** | **319** | *e*P | **P** | | **10 10 07.5** | **-1.6** | |
| **PETK** | **Petropavlovsk-** | **84.92** | **345** | P | **P** | | **10 10 11.5** | **-0.9** | |
| | 2.1nm,0.5s,baz=111,slow=7.9,SNR=3.6 | | | | | | | | |
| **PEA1** | **Petropavlovsk-** | **84.93** | **345** | *e*P | **P** | | **10 10 11.5** | **-1.0** | |
| **CMB** | **Columbia Colle** | **85.09** | **41** | *e*P | **P** | | **10 10 13.9** | **+0.2** | |
| | 6.1nm,1.3s | | | | | | | | |
| **MDPB** | **Devils Postpil** | **85.58** | **42** | *e*P | **P** | | **10 10 14.9** | **-1.5** | |
| | 5.1nm,1.0s | | | | | | | | |
| **WAKR** | **Walker** | **85.95** | **41** | *e*P | **P** | | **10 10 18.3** | **+0.2** | |
| | 9.5nm,1.3s | | | | | | | | |
| WAKR | | | | *e*pP | **pP** | | **10 10 29.2** | **0.0** | |
| **NV01** | **Mina Array Sit** | **86.56** | **42** | *e*P | **P** | | **10 10 21.5** | **+0.3** | |
| **Y14A** | **Wickenburg** | **86.97** | **48** | *e*P | **P** | | **10 10 23.5** | **+0.4** | |
| Y14A | | | | *e*pP | **pP** | | **10 10 33.2** | **-1.0** | |
| **W13A** | **Hualapai Mount** | **87.12** | **47** | *e*P | **P** | | **10 10 23.8** | **-0.2** | |
| | 5.5nm,1.3s | | | | | | | | |
| **SHPR** | **Sheep Range** | **87.21** | **45** | *e*P | **P** | | **10 10 24.9** | **+0.6** | |
| | 3.9nm,1.2s | | | | | | | | |
| **TUC** | **Tucson** | **87.45** | **51** | *e*P | **P** | | **10 10 27.1** | **+1.6** | |
| TUC | | | | *e*pP | **pP** | | **10 10 37.4** | **+0.8** | |
| **U15A** | **North Rim** | **88.96** | **47** | *e*P | **P** | | **10 10 33.6** | **+0.8** | |
| | 4.1nm,0.9s | | | | | | | | |
| **CCUT** | **Cedar City** | **88.98** | **45** | *e*P | **P** | | **10 10 33.4** | **+0.6** | |
| | 9.5nm,1.8s | | | | | | | | |
| **KLR** | **Kul'dur** | **90.57** | **329** | P | **P** | | **10 10 39.2** | **-0.4** | |
| | 0.1nm,0.7s,baz=165,slow=3.2,SNR=6.4 | | | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **90.76** | **57** | *e*P | **P** | | **10 10 41.5** | **+0.3** | |
| TX31 | | | | *e*pP | **pP** | | **10 10 51.8** | **-0.5** | |
| **TXAR** | **Lajitas Array** | **90.76** | **57** | P | **P** | | **10 10 41.0** | **-0.1** | |
| | 1.2nm,1.1s,baz=224,slow=5.2,SNR=7.9 | | | | | | | | |
| **LTX** | **Lajitas** | **90.76** | **57** | *e*P | **P** | | **10 10 41.0** | **-0.1** | |
| **G08A** | **Pilot Rock** | **90.79** | **37** | *e*P | **P** | | **10 10 41.2** | **+0.2** | |
| | 4.8nm,1.1s | | | | | | | | |
| **ILAR** | **Eielson Array** | **96.48** | **12** | P | **P** | | **10 11 04.1** | **-2.4** | |
| | 0.3nm,0.8s,baz=231,slow=6.9,SNR=3.4 | | | | | | | | |
| **ILB** | **Eielson Array** | **96.48** | **12** | *e*P | **P** | | **10 11 04.1** | **-2.4** | |
| **MK32** | **Makanchi Array** | **117.86** | **310** | *e*PKPdf | **PKPdf** | | **10 16 22.5** | **-1.5** | |
| **MKAR** | **Makanchi Array** | **117.86** | **310** | PKP | **PKPdf** | | **10 16 22.5** | **-1.5** | |
| | 1.8nm,0.9s,baz=51,slow=2.3,SNR=8.4 | | | | | | | | |
| **BVAR** | **Borovoye Array** | **126.32** | **316** | PKP | **PKPdf** | | **10 16 39.8** | **-0.2** | |
| | 2.7nm,1.0s,baz=79,slow=3.2,SNR=10 | | | | | | | | |
| **AKTO** | **Aktyubinsk** | **134.11** | **313** | PKP | **PKPdf** | | **10 16 55.5** | **+0.7** | |
| | 1.4nm,0.7s,baz=139,slow=1.5,SNR=5.9 | | | | | | | | |
| **FIA0** | **FINESS Array S** | **144.37** | **341** | *e*P | **PKPab** | | **10 17 06.1** | **-5.2** | |
| **FINES** | **FINESS Array B** | **144.37** | **341** | PKhKP | PKPpre | | 10 17 06.1 | | |
| | 4.3nm,0.8s,baz=70,slow=4.6,SNR=2.3 | | | | | | | | |
| **NB2** | **NORSAR Subarra** | **147.70** | **353** | PKP | **PKPdf** | | **10 17 20.8** | **+1.9** | |
| | comp=Z,3.8nm,0.8s,baz=10,slow=3.2 | | | | | | | | |
| **NB200** | **NORSAR Array S** | **147.70** | **353** | *e*PKPbc | **PKPdf** | | **10 17 21.2** | **+2.3** | |
| **NOA** | **NORSAR Array B** | **147.70** | **353** | PKPbc | **PKPdf** | | **10 17 21.2** | **+2.3** | |
| | comp=Z,3.4nm,0.8s,baz=16,slow=3.1,SNR=6.3 | | | | | | | | |
| **AKASG** | **Malin Array Be** | **150.99** | **325** | PKPbc | **PKPbc** | | **10 17 29.4** | **-0.8** | |
| | comp=Z,6.4nm,0.9s,baz=47,slow=2.7,SNR=25 | | | | | | | | |
| **AKBB** | **Malin Array Si** | **150.99** | **325** | *e*PKPbc | **PKPbc** | | **10 17 29.8** | **-0.4** | |
| **BR101** | **Keskin Array S** | **152.99** | **301** | *e*PKPbc | **PKPbc** | | **10 17 34.8** | **-0.5** | |
| **BRTR** | **Keskin Array B** | **152.99** | **301** | PKPbc | **PKPbc** | | **10 17 34.8** | **-0.5** | |
| | comp=Z,1.8nm,0.8s,baz=117,slow=4.3,SNR=5.8 | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **163.98** | **174** | PKPab | **PKPab** | | **10 18 36.2** | **+1.8** | |
| | comp=Z,1.1nm,0.8s,baz=182,slow=2.9,SNR=5.0 | | | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **163.99** | **174** | *e*PKPab | **PKPab** | | **10 18 36.2** | **+1.8** | |

**GUC 19 10:02:27.5±0.6, 23°80'S×67°35'W, h222km±17km, ML4.0, 1C-2D, Chile-Argentina border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **PB06** | **IPOC Station P** | **2.32** | **298** | ⇑ | *i* | P | Pn | 10 03 12.0 | +0.8 |
| PB06 | | | | | *i* | S | S | 10 03 45.9 | +0.8 |
| PB06 | | | | | IAML | | | 10 03 47.1 | |
| | comp=N,297nm,0.1s | | | | | | | | |
| **PB10** | **IPOC Station P** | **2.96** | **275** | ⇓ | *i* | P | Pn | 10 03 18.5 | +0.7 |
| PB10 | | | | | *e* | S | S | 10 03 58.1 | +1.0 |
| PB10 | | | | | IAML | | | 10 04 00.1 | |
| | comp=E,207nm,0.3s | | | | | | | | |
| **PB04** | **IPOC Station P** | **2.97** | **299** | | *e* | P | Pn | 10 03 19.6 | +1.5 |
| PB04 | | | | | *e* | S | S | 10 03 58.5 | +0.8 |
| PB04 | | | | | IAML | | | 10 04 01.2 | |
| | comp=E,131nm,0.2s | | | | | | | | |
| **PB07** | **IPOC Station P** | **3.13** | **311** | ⇓ | *i* | P | Pn | 10 03 21.2 | +1.2 |
| PB07 | | | | | *e* | S | S | 10 04 01.9 | +0.9 |
| PB07 | | | | | IAML | | | 10 04 02.7 | |
| | comp=E,256nm,0.3s | | | | | | | | |
| **PB01** | **IPOC Station P** | **3.39** | **324** | | *e* | P | Pn | 10 03 24.1 | +1.1 |
| PB01 | | | | | *e* | S | S | 10 04 07.5 | +1.2 |
| PB01 | | | | | IAML | | | 10 04 08.9 | |
| | comp=E,65nm,0.2s | | | | | | | | |
| **PB02** | **IPOC Station P** | **3.42** | **316** | | *e* | P | Pn | 10 03 24.6 | +1.3 |
| PB02 | | | | | *e* | S | S | 10 04 07.7 | +0.8 |
| PB02 | | | | | IAML | | | 10 04 09.3 | |
| | comp=E,128nm,0.3s | | | | | | | | |

*ISCJB **19** 10:03:59.7±1.2, 38°.01N±0°.06×38°.07E±0°.09, h9km, Error ellipse: s-maj=11.5km s-min=6.8km az=145.4*
*CSEM **19** 10:03:59.8±0.8, 38°.01N×38°.08E, h5km, MD2.3, Error ellipse: s-maj=21.2km s-min=10.7km az=59.0*
*ISK **19** 10:04:03.0, 38°.04N×38°.51E, h4km, MD2.3*
*DDA **19** 10:04:04.7, 38°.19N×37°.99E, h7km, Md2.5*

**ISC 19 10:04:00.0±1.2, 38°06N±0°.05×38°11E±0°.06, h9km, n13, σ0s40/16, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **AKCD** | **Akcadag** | **0.28** | **328** | *i* | P | | **Pb** | **10 04 07.5** | **+0.1** |
| AKCD | | | | *i* | S | | **Sg** | **10 04 09.9** | **+0.3** |
| **AKCD** | **Akcadag** | **0.28** | **328** | | P | | **Pb** | **10 04 07.5** | **+0.1** |
| AKCD | | | | | S | | **Sg** | **10 04 09.9** | **+0.3** |
| **MALT** | **Malatya** | **0.36** | **44** | *e* | PG | | **Pb** | **10 04 09.2** | **+0.6** |
| MALT | | | | *e* | SG | | **Sb** | **10 04 13.7** | **-0.7** |
| **MALT** | **Malatya** | **0.36** | **44** | *e* | Pg | | **Pb** | **10 04 09.2** | **+0.6** |
| MALT | | | | *e* | Sg | | **Sb** | **10 04 13.7** | **-0.7** |
| **HEKM** | **Malatya_Hekimh** | **0.83** | **352** | *i* | P | | **Pg** | **10 04 16.0** | **-0.1** |
| **HEKM** | **Malatya_Hekimh** | **0.83** | **352** | | P | | **Pg** | **10 04 16.0** | **-0.1** |
| **URFA** | **Urfa** | **0.83** | **137** | *e* | PG | | **Pg** | **10 04 15.9** | **-0.2** |
| **URFA** | **Urfa** | **0.83** | **137** | *e* | Pg | | **Pg** | **10 04 15.9** | **-0.2** |
| **GAZ** | **Gaziantep** | **1.14** | **219** | *e* | PN | | Pn | 10 04 29.3 | +7.1 |
| **PTK** | **Pertek** | **1.31** | **50** | *e* | PN | | **Pn** | **10 04 24.5** | **-0.1** |
| **PTK** | **Pertek** | **1.31** | **50** | *e* | Pn | | **Pn** | **10 04 24.5** | **-0.1** |
| **MAZI** | **Mazidag** | **1.94** | **107** | *e* | PN | | **Pn** | **10 04 33.4** | **+0.1** |
| **MAZI** | **Mazidag** | **1.94** | **107** | *e* | Pn | | **Pn** | **10 04 33.4** | **+0.1** |

*DDA **19** 10:06:14.5, 39°.09N×37°.30E, h7km, Ml1.9*
*ISCJB **19** 10:06:15.8±0.5, 39°.07N±0°.03×37°.32E±0°.04, h10km, Error ellipse: s-maj=4.9km s-min=4.7km az=175.9*
*ISK **19** 10:06:15.3, 39°.03N×37°.31E, h5km, MD2.9*
*CSEM **19** 10:06:15.5±0.2, 39°.06N×37°.32E, h2km, ML1.9, Error ellipse: s-maj=6.3km s-min=5.5km az=36.0*

**ISC 19 10:06:15.0±0.9, 39°06N±0°.03×37°31E±0°.02, h10km, n35, σ0s76/41, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **CUKAN** | **kangal_SIVAS** | **0.29** | **26** | *i* | P | | **Pg** | **10 06 20.6** | **-0.3** |
| **CUKAN** | **kangal_SIVAS** | **0.29** | **26** | | P | | **Pg** | **10 06 20.6** | **-0.3** |
| **CUGUR** | **Gurin_S¨VAS** | **0.33** | **185** | *i* | P | | **Pg** | **10 06 21.8** | **+0.1** |
| CUGUR | | | | *i* | S | | **Sb** | **10 06 28.2** | **-0.3** |
| **CUGUR** | **Gurin_S¨VAS** | **0.33** | **185** | | P | | **Pg** | **10 06 21.8** | **+0.1** |
| CUGUR | | | | | S | | **Sb** | **10 06 28.2** | **-0.3** |
| **CUALT** | **Altinyayla-SIV** | **0.48** | **297** | *i* | P | | **Pg** | **10 06 23.4** | **-1.0** |
| **CUALT** | **Altinyayla-SIV** | **0.48** | **297** | | P | | **Pg** | **10 06 23.4** | **-1.0** |
| **DARE** | **Darende-Malaty** | **0.50** | **164** | *e* | PG | | **Pb** | **10 06 25.8** | **-0.2** |
| DARE | | | | *e* | SG | | **Sb** | **10 06 33.3** | **-0.1** |
| **DARE** | **Darende-Malaty** | **0.50** | **164** | *e* | Pg | | **Pb** | **10 06 25.8** | **-0.2** |
| DARE | | | | *e* | Sg | | **Sb** | **10 06 33.3** | **-0.1** |
| **HEKM** | **Malatya_Hekimh** | **0.54** | **109** | *i* | P | | **Pg** | **10 06 25.4** | **-0.1** |
| HEKM | | | | *i* | S | | **Sb** | **10 06 33.8** | **-0.8** |
| **HEKM** | **Malatya_Hekimh** | **0.54** | **109** | | P | | **Pg** | **10 06 25.4** | **-0.1** |
| HEKM | | | | | S | | **Sb** | **10 06 33.8** | **-0.8** |
| **SVSK** | **Karacayir** | **0.89** | **345** | *e* | PG | | **Pn** | **10 06 34.1** | **+0.5** |
| **SVSK** | **Karacayir** | **0.89** | **345** | *e* | Pg | | **Pn** | **10 06 34.1** | **+0.5** |
| **AKCD** | **Akcadag** | **0.90** | **147** | *i* | P | | **Pg** | **10 06 32.0** | **-0.3** |
| **AKCD** | **Akcadag** | **0.90** | **147** | | P | | **Pg** | **10 06 32.0** | **-0.3** |
| **KEMA** | **Kemaliye** | **0.95** | **77** | *i* | P | | **Pg** | **10 06 32.3** | **-1.0** |
| **KEMA** | **Kemaliye** | **0.95** | **77** | | P | | **Pg** | **10 06 32.3** | **-1.0** |
| **SARI** | **SarD1z-Kayseri** | **0.95** | **227** | *e* | PG | | **Pn** | **10 06 34.2** | **-0.3** |
| **ILIC** | **ilic-Erzincan** | **1.06** | **68** | *e* | PG | | **Pn** | **10 06 36.8** | **+0.8** |
| **ILIC** | **ilic-Erzincan** | **1.06** | **68** | *e* | Pg | | **Pn** | **10 06 36.8** | **+0.8** |
| **MALT** | **Malatya** | **1.15** | **130** | *e* | PN | | **Pn** | **10 06 38.0** | **+0.8** |
| **MALT** | **Malatya** | **1.15** | **130** | *e* | Pn | | **Pn** | **10 06 38.0** | **+0.8** |
| **BNN** | **Bunyan** | **1.16** | **260** | *e* | PN | | **Pn** | **10 06 38.6** | **+1.2** |
| **BNN** | **Bunyan** | **1.16** | **260** | *e* | Pn | | **Pn** | **10 06 38.6** | **+1.2** |
| **KMRS** | **Kahramanmaras** | **1.58** | **192** | *e* | PN | | **Pg** | **10 06 45.1** | **-0.2** |
| **KMRS** | **Kahramanmaras** | **1.58** | **192** | *e* | Pn | | **Pg** | **10 06 45.1** | **-0.2** |
| **PTK** | **Pertek** | **1.64** | **95** | *e* | PN | | **Pg** | **10 06 46.1** | **-0.3** |
| **PTK** | **Pertek** | **1.64** | **95** | *e* | Pn | | **Pg** | **10 06 46.1** | **-0.3** |
| **YOZ** | **Yozgat** | **1.65** | **291** | *e* | PN | | **Pg** | **10 06 46.7** | **+0.1** |
| **YOZ** | **Yozgat** | **1.65** | **291** | *e* | Pn | | **Pg** | **10 06 46.7** | **+0.1** |
| **SVRC** | **Sivrice-ELAZID** | **1.71** | **113** | *e* | PN | | **Pg** | **10 06 47.1** | **-0.6** |
| **SVRC** | **Sivrice-ELAZID** | **1.71** | **113** | *e* | Pn | | **Pg** | **10 06 47.1** | **-0.6** |
| **EZC** | **Erzincan** | **1.73** | **66** | *e* | Pn | | **Pg** | **10 06 51.0** | **+2.8** |
| **ERZN** | **Erzincan** | **1.95** | **73** | *e* | PN | | **Pg** | **10 06 51.0** | **-1.4** |
| **KOZT** | **Kozan** | **1.96** | **217** | *e* | PN | | **Pb** | **10 06 50.6** | **-0.1** |
| **KOZT** | **Kozan** | **1.96** | **217** | *e* | Pn | | **Pb** | **10 06 50.6** | **-0.1** |

**IDC 19 10:17:25.2±1.9, 28°45S×177°82W, h0km, mb3.6/2, mb1 3.8/2, mb1mx3.6/17, mbtmp3.6/2, MS3.2/4, Ms1 3.2/4, ms1mx2.9/22, Error ellipse: s-maj=34.1km s-min=20.0km az=69.0, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **0.81** | **186** | | Pn | | Pn | 10 17 43.4 | -0.5 |
| | 156nm,0.3s,baz=10,slow=23,SNR=9.2 | | | | | | | | |
| RAO | | | | | Sn | | Sn | 10 17 58.4 | +1.8 |
| | 278nm,0.3s,baz=20,slow=23,SNR=5.2 | | | | | | | | |
| **URZ** | **Urewera** | **10.66** | **202** | | Sn | | Sn | 10 21 43.9 | -16 |
| | 0.5nm,0.3s,baz=204,slow=20,SNR=4.6 | | | | | | | | |
| **RAR** | **Rarotonga** | **17.88** | **70** | | LR | | LR | 10 28 06.9 | |
| | comp=Z,65nm,19.2s,baz=266,slow=36 | | | | | | | | |
| **PPT** | **Papeete** | **28.09** | **73** | | LR | | LR | 10 32 41.5 | |
| | comp=Z,40nm,18.1s,baz=350,slow=33 | | | | | | | | |
| **STKA** | **Stephens Creek** | **35.12** | **254** | | LR | | LR | 10 36 59.2 | |
| | comp=Z,31nm,21.8s,baz=32,slow=33 | | | | | | | | |
| **ASAR** | **Alice Springs** | **43.41** | **265** | | P | | P | 10 25 28.9 | -1.1 |
| | 0.7nm,0.9s,baz=101,slow=6.9,SNR=6.8 | | | | | | | | |
| ASAR | | | | | LR | | LR | 10 42 09.3 | |
| | comp=Z,59nm,18.7s,baz=98,slow=34 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **44.22** | **270** | | P | | P | 10 25 36.4 | -0.1 |
| | 0.3nm,0.3s,baz=107,slow=8.0,SNR=7.8 | | | | | | | | |
| **BRTR** | **Keskin Array B** | **151.76** | **302** | | PKPbc | | PKPbc | 10 37 23.3 | +1.2 |
| | 0.8nm,0.6s,baz=119,slow=3.1,SNR=4.2 | | | | | | | | |

*MAN **19** 10:45:11, 7°.79N×127°.38E, h32km, mb5.1, ML4.1, MS4.3*
*IDC **19** 10:45:18.4±3.1, 7°.85N×126°.90E, h74km±27km, mb3.7/15, mb1 3.9/15, mb1mx3.7/56, mbtmp4.1/15, MS3.1/4, Ms1 3.1/4, ms1mx2.8/38, Error ellipse: s-maj=37.8km s-min=11.5km az=72.0*

**ISC 19 10:45:12.9±2.0, 8°06N±0°.04×127°19E±0°.09, h27km±13km, n32, σ2s01/41, mb4.1/16, MS2.9/4, 2C-1D, Philippine Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **BIPH** | **Bislig** | **0.83** | **279** | ⇑ | *i* | P | **Pb** | **10 45 47.9** | **-0.9** |
| BIPH | | | | | *i* | S | **Sb** | **10 45 38.2** | **-1.4** |
| **MATI** | **Mati** | **1.44** | **220** | | *e* | P | **Pn** | **10 45 34.6** | **-2.6** |
| MATI | | | | | *e* | S | **Sn** | **10 45 51.7** | **-3.5** |
| **BUTP** | **Butuan** | **1.80** | **300** | | *e* | P | **Pb** | **10 45 44.5** | **-0.7** |
| BUTP | | | | | *e* | S | **Sb** | **10 46 09.7** | **+2.4** |
| **DAV** | **Davao City (W)** | **1.88** | **239** | | P | | **Pn** | **10 45 43.8** | **+0.6** |
| | 123nm,0.3s,baz=60,slow=3.3,SNR=25 | | | | | | | | |
| DAV | | | | | S | | **Sb** | **10 46 09.2** | **-0.3** |
| | 56nm,0.3s,baz=260,slow=22,SNR=16 | | | | | | | | |
| **DMPH** | **Davao City--Mi** | **1.93** | **240** | ⇑ | *e* | P | **Pb** | **10 45 50.1** | **+2.7** |
| DMPH | | | | | *e* | S | **Sb** | **10 46 15.2** | **+4.1** |
| **BUKP** | **Musuan** | **2.12** | **265** | | *e* | P | **Pn** | **10 45 47.8** | **+1.3** |
| BUKP | | | | | *e* | S | **Sb** | **10 46 16.6** | **+0.1** |
| **KCP** | **Kidapawan** | **2.33** | **244** | ⇓ | *e* | P | **Pn** | **10 45 49.3** | **-0.1** |
| KCP | | | | | *i* | S | **Sn** | **10 46 17.8** | **+0.5** |
| **SCPH** | **Surigao** | **2.40** | **316** | | *e* | P | **Pb** | **10 45 53.5** | **-2.0** |
| SCPH | | | | | *e* | S | **Sn** | **10 46 14.7** | **-4.2** |
| **CTBH** | **Cotabato--PC H** | **3.04** | **254** | | *e* | P | **Pn** | **10 45 59.5** | **+0.4** |
| CTBH | | | | | *i* | S | **Sn** | **10 46 36.6** | **+2.1** |
| **MSLP** | **Maasin** | **3.09** | **312** | | *e* | P | **Pb** | **10 46 06.0** | **-1.2** |
| MSLP | | | | | *e* | S | **Sb** | **10 46 48.9** | **+4.4** |
| **PAGZ** | **Pagadian** | **3.78** | **267** | | *e* | P | **Pn** | **10 46 09.3** | **0.0** |
| PAGZ | | | | | *e* | S | **Sb** | **10 46 59.5** | **-4.8** |
| **JCJ** | **Chichijima** | **23.68** | **35** | | LR | | LR | 10 58 45.9 | |
| | comp=Z,91nm,19.9s,baz=324,slow=34 | | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **26.04** | **183** | | P | | **P** | **10 50 42.7** | **-1.2** |
| | 8.4nm,0.6s,baz=5.5,slow=9.1,SNR=24 | | | | | | | | |
| **PSI** | **Prapat** | **28.61** | **261** | | LR | | LR | 11 02 56.2 | |
| | comp=Z,22nm,20.4s,baz=359,slow=37 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **28.70** | **166** | | P | | **P** | **10 51 06.6** | **-1.3** |
| | 0.5nm,0.5s,baz=338,slow=9.2,SNR=13 | | | | | | | | |
| **KSRS** | **Korea Array** | **29.27** | **1** | | LR | | LR | 11 04 06.4 | |
| | comp=Z,36nm,19.4s,baz=180,slow=38 | | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **29.33** | **293** | | LR | | LR | 11 02 13.7 | |
| | comp=Z,21nm,20.7s,baz=120,slow=35 | | | | | | | | |
| **ASAR** | **Alice Springs** | **32.20** | **168** | | P | | **P** | **10 51 37.7** | **-1.1** |
| | 0.5nm,0.3s,baz=345,slow=7.4,SNR=17 | | | | | | | | |
| ASAR | | | | | PcP | | **PcP** | **10 54 27.6** | **+0.2** |
| | 0.5nm,0.4s,baz=352,slow=2.6,SNR=6.0 | | | | | | | | |
| **KLR** | **Kul'dur** | **41.22** | **5** | | P | | **P** | **10 52 58.5** | **+3.3** |
| | 0.1nm,0.4s,baz=181,slow=6.7,SNR=5.4 | | | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **41.84** | **193** | | P | | **P** | **10 53 00.1** | **-0.4** |
| | 6.9nm,0.6s,baz=258,slow=11,SNR=6.5 | | | | | | | | |
| **STKA** | **Stephens Creek** | **42.03** | **162** | | P | | **P** | **10 53 01.8** | **-0.3** |
| | 1.8nm,0.8s,baz=2.6,slow=5.4,SNR=6.4 | | | | | | | | |
| **SONM** | **Songino Array** | **43.40** | **340** | | P | | **P** | **10 53 14.0** | **+0.8** |
| | 0.2nm,0.4s,baz=133,slow=8.1,SNR=2.6 | | | | | | | | |
| SONM | | | | | PcP | | **PcP** | **10 55 00.5** | **-0.9** |
| | 0.4nm,0.7s,baz=141,slow=5.5,SNR=2.2 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **54.33** | **323** | | P | | **P** | **10 54 37.5** | **+0.4** |
| | 1.2nm,0.6s,baz=114,slow=7.7,SNR=17 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **56.99** | **332** | | P | | **P** | **10 54 55.6** | **-0.3** |
| | 0.8nm,0.4s,baz=123,slow=5.5,SNR=5.9 | | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **58.40** | **326** | | P | | **P** | **10 55 06.1** | **+0.2** |
| | 2.0nm,0.7s,baz=126,slow=6.0,SNR=11 | | | | | | | | |
| **BVAR** | **Borovoye Array** | **63.99** | **326** | | P | | **P** | **10 55 44.2** | **+0.4** |
| | 1.1nm,0.7s,baz=120,slow=7.4,SNR=6.1 | | | | | | | | |
| **ILAR** | **Eielson Array** | **81.03** | **26** | | P | | **P** | **10 57 27.3** | **+2.3** |
| | 0.5nm,0.8s,baz=263,slow=4.8,SNR=5.1 | | | | | | | | |
| **ARCES** | **ARCESS Array B** | **86.57** | **340** | | P | | **P** | **10 57 53.0** | **-0.3** |
| | 1.4nm,0.7s,baz=79,slow=7.9,SNR=6.7 | | | | | | | | |
| **BRTR** | **Keskin Array B** | **87.63** | **310** | | P | | **P** | **10 57 58.4** | **-0.8** |
| | 0.4nm,0.5s,baz=131,slow=5.9,SNR=3.3 | | | | | | | | |
| **FINES** | **FINESS Array B** | **88.26** | **332** | | P | | **P** | **10 58 01.5** | **0.0** |
| | 6.6nm,1.1s,baz=73,slow=6.4,SNR=8.4 | | | | | | | | |
| **AKASG** | **Malin Array Be** | **88.84** | **321** | | P | | **P** | **10 58 04.1** | **-0.5** |
| | 0.3nm,0.3s,baz=68,slow=4.3,SNR=5.0 | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **121.92** | **291** | | PKP | | **PKPdf** | **11 04 05.0** | **-0.7** |
| | 0.3nm,0.4s,baz=63,slow=2.3,SNR=4.2 | | | | | | | | |

*ISCJB **19** 10:58:21.0±0.3, 24°.53N±0°.02×121°.81E±0°.02, h67km±4km, Error ellipse: s-maj=3.8km s-min=2.3km az=149.2*
*JMA **19** 10:58:20.0±0.1, 24°.49N×121°.76E, h68km±2km, M3.3*
*TAP **19** 10:58:21.4, 24°.53N×121°.76E, h64km, ML3.7, B*

**ISC 19 10:58:21.7±1.2, 24°52N±0°.03×121°81E±0°.02, h63km±6km, n57, σ0s62/113, 2D, Taiwan**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **TWC** | **Suao** | **0.09** | **23** | ⇓ | *i* | P | **Pn** | **10 58 31.1** | **0.0** |
| | baz=52 | | | | | | | | |
| TWC | | | | | *i* | S | **Sn** | **10 58 38.6** | **+0.8** |
| | baz=52 | | | | | | | | |
| **ENA** | **Nanau** | **0.11** | **213** | | P | | **Pn** | **10 58 30.8** | **-0.3** |
| | baz=183 | | | | | | | | |
| ENA | | | | | *e* | S | **Sn** | **10 58 38.5** | **+0.5** |
| | baz=183 | | | | | | | | |
| **TWE** | **Neicheng** | **0.24** | **327** | ⇓ | *i* | P | **Pn** | **10 58 31.8** | **+0.1** |
| | baz=340 | | | | | | | | |
| TWE | | | | | *e* | S | **Sn** | **10 58 39.3** | **+0.4** |
| | baz=340 | | | | | | | | |
| **ILA** | **Ilan** | **0.25** | **347** | | *i* | P | **Pn** | **10 58 32.3** | **+0.6** |
| ILA | | | | | *i* | S | **Sn** | **10 58 40.6** | **+1.6** |
| **ENTT** | **Nioudou** | **0.25** | **298** | | *i* | P | **Pn** | **10 58 31.6** | **-0.2** |
| | baz=301 | | | | | | | | |
| ENTT | | | | | *e* | S | **Sn** | **10 58 38.8** | **-0.3** |
| | baz=301 | | | | | | | | |
| **NNS** | **Nan Shan** | **0.41** | **258** | | *i* | P | **Pn** | **10 58 32.8** | **-0.3** |
| | baz=254 | | | | | | | | |
| NNS | | | | | *i* | S | **Sn** | **10 58 40.9** | **-0.5** |
| | baz=254 | | | | | | | | |
| **NSK** | **Sanguang** | **0.44** | **290** | | P | | **Pn** | **10 58 32.9** | **-0.5** |
| | baz=291 | | | | | | | | |
| NSK | | | | | S | | **Sn** | **10 58 40.8** | **-1.0** |
| | baz=291 | | | | | | | | |
| **TWD** | **Chiawan** | **0.48** | **204** | | P | | **Pn** | **10 58 32.7** | **-1.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | baz=222 | | | | | | | | |
| CHN4 | | | | | *e*S | | **Sn** | 10 59 08.2 | **+0.3** |
| | baz=222 | | | | | | | | |
| **STYT** | **Tauyuan** | **1.66** | **216** | | *e*P | | **Pn** | 10 58 49.8 | **+1.0** |
| | baz=213 | | | | | | | | |
| STYT | | | | | *e*S | | **Sn** | 10 59 09.2 | **+0.1** |
| | baz=213 | | | | | | | | |
| **WTP** | **Ta-pu** | **1.68** | **221** | | *e*P | | **Pn** | 10 58 49.3 | **+0.4** |
| | baz=218 | | | | | | | | |
| WTP | | | | | *e*S | | **Sn** | 10 59 09.8 | **+0.3** |
| | baz=218 | | | | | | | | |
| **WSF** | **Szhu** | **1.70** | **239** | | *e*P | | **Pn** | 10 58 48.6 | **-0.5** |
| | baz=237 | | | | | | | | |
| WSF | | | | | *e*S | | **Sn** | 10 59 09.5 | **-0.3** |
| | baz=237 | | | | | | | | |
| **TWK** | **Hsinying** | **1.74** | **224** | | *e*P | | **Pn** | 10 58 49.4 | **-0.3** |
| | baz=222 | | | | | | | | |
| TWK | | | | | *e*S | | **Sn** | 10 59 11.0 | **0.0** |
| | baz=222 | | | | | | | | |
| **IRIF** | **Iriomote-Funau** | **1.76** | **96** | | P | | **Pn** | 10 58 49.0 | **-0.9** |
| IRIF | | | | | S | | **Sn** | 10 59 11.1 | **-0.3** |
| **CHN1** | **Nanshi** | **1.77** | **222** | | *e*P | | **Pn** | 10 58 50.1 | **-0.1** |
| | baz=219 | | | | | | | | |
| CHN1 | | | | | *e*S | | **Sn** | 10 59 12.1 | **+0.3** |
| | baz=219 | | | | | | | | |
| **SGST** | **Jiashian** | **1.82** | **218** | | *e*P | | **Pn** | 10 58 51.5 | **+0.7** |
| | baz=216 | | | | | | | | |
| SGST | | | | | *e*S | | **Sn** | 10 59 13.2 | **+0.3** |
| | baz=216 | | | | | | | | |
| **HATJ** | **Hateruma jima** | **1.88** | **104** | | P | | **Pn** | 10 58 51.3 | **-0.3** |
| HATJ | | | | | S | | **Sn** | 10 59 13.5 | **-0.7** |
| **JKRS** | **Kuro-shima** | **2.03** | **98** | | P | | **Pn** | 10 58 53.0 | **-0.5** |
| JKRS | | | | | *e*S | | **Sn** | 10 59 18.1 | **+0.3** |
| **ECL** | **Taimali** | **2.07** | **202** | | *e*P | | **Pn** | 10 58 55.3 | **+1.1** |
| | baz=200 | | | | | | | | |
| **SSD** | **Sandimen** | **2.07** | **212** | | *e*P | | **Pn** | 10 58 55.0 | **+0.8** |
| | baz=209 | | | | | | | | |
| SSD | | | | | *e*S | | **Sn** | 10 59 20.0 | **+1.0** |
| | baz=209 | | | | | | | | |
| **JIJ** | **Ishigaki jima** | **2.13** | **94** | | P | | **Pn** | 10 58 54.1 | **-0.9** |
| JIJ | | | | | S | | **Sn** | 10 59 19.7 | **-0.7** |
| **JISG** | **Ishigakijimahi** | **2.28** | **88** | | P | | **Pn** | 10 58 56.2 | **-0.8** |
| JISG | | | | | *e*S | | **Sn** | 10 59 23.3 | **-0.7** |
| **EAST** | **Anshuo** | **2.31** | **203** | | *e*P | | **Pn** | 10 58 58.5 | **+1.0** |
| | baz=201 | | | | | | | | |
| EAST | | | | | *e*S | | **Sn** | 10 59 23.9 | **-0.8** |
| | baz=201 | | | | | | | | |
| **JTJ** | **Tarama** | **2.64** | **87** | | P | | **Pn** | 10 59 01.9 | **+0.1** |
| JTJ | | | | | S | | **Sn** | 10 59 33.5 | **+0.8** |
| **JIRB** | **Irabujima** | **3.08** | **84** | | P | | **Pn** | 10 59 08.3 | **+0.5** |
| JIRB | | | | | *e*S | | **Sn** | 10 59 43.7 | **+0.3** |
| **KNM** | **Kinmen** | **3.08** | **269** | | *e*P | | **Pn** | 10 59 08.3 | **+0.4** |
| | baz=267 | | | | | | | | |
| KNM | | | | | *e*S | | **Sn** | 10 59 42.1 | **-1.4** |
| | baz=267 | | | | | | | | |

**ROM 19 11:00:26.0±0.5, 42.84N×11.18E, h10km±2km, Md1.8/3, Ml1.4/3, Error ellipse: s-maj=6.5km s-min=1.5km az=45.0, Central Italy**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ARCI** | **Arcidosso** | **0.22** | **87** | Pg | Pg | 11 00 31.6 | +1.0 |
| ARCI | | | | Sg | Sg | 11 00 34.8 | +1.0 |
| | 182nm,1.9s | | | | | | |
| **TRIF** | **Trifonti** | **0.34** | **324** | Pg | Pg | 11 00 33.2 | +0.4 |
| TRIF | | | | Sg | Sb | 11 00 38.5 | -1.1 |
| | 57nm,0.5s | | | | | | |
| **FROS** | **Frosini** | **0.37** | **358** | Pg | Pb | 11 00 34.2 | -0.5 |
| FROS | | | | Sg | Sb | 11 00 39.7 | -0.8 |
| | 139nm,1.5s | | | | | | |

*MOS* ***19*** *11:09:46.4±2.3, 48.51N×157.44E, h18km, mb4.2/1, Error ellipse: s-maj=84.6km s-min=9.4km az=86.8*

**KRSC 19 11:09:46.4±1.2, 48.51N×157.44E, h18km±27km, ML4.0, East of Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SKR** | **Severo-Kuril's** | **2.34** | **339** | PN | Pn | 11 10 25.6 | +1.7 |
| SKR | | | | S | Sb | 11 10 54.8 | -1.7 |
| **SKR** | **Severo-Kuril's** | **2.34** | **339** | *e*P | Pn | 11 10 25.6 | +1.7 |
| SKR | | | | *e*S | Sb | 11 10 54.8 | -1.7 |
| **KDTR** | **Khodutka, Kamc** | **3.33** | **7** | *e*P | Pn | 11 10 40.8 | +3.3 |
| KDTR | | | | *e*S | Sn | 11 11 19.2 | +2.7 |
| **ASAK** | **Asacha** | **3.89** | **4** | PN | Pb | 11 10 50.7 | -3.8 |
| **ASAK** | **Asacha** | **3.89** | **4** | P | Pb | 11 10 50.7 | -3.8 |
| **RUS** | **Russkaya** | **3.99** | **10** | PN | Pn | 11 10 50.1 | +3.5 |
| RUS | | | | S | Sn | 11 11 37.4 | +4.6 |
| **RUS** | **Russkaya** | **3.99** | **10** | *e*P | Pn | 11 10 50.1 | +3.5 |
| RUS | | | | S | Sn | 11 11 37.4 | +4.6 |
| **MTVR** | **Mutnovka** | **4.01** | **7** | PN | Pn | 11 10 50.8 | +3.8 |
| MTVR | | | | S | Sn | 11 11 38.4 | +4.9 |
| **MTVR** | **Mutnovka** | **4.01** | **7** | *e*P | Pn | 11 10 50.8 | +3.8 |
| MTVR | | | | *e*S | Sn | 11 11 38.4 | +4.9 |
| **PET** | **Petropavlovsk** | **4.58** | **9** | S | Sn | 11 11 53.4 | +5.9 |
| **DALK** | **Dalny** | **4.60** | **10** | PN | Pn | 11 10 59.3 | +4.3 |
| DALK | | | | S | Sn | 11 11 52.9 | +4.9 |
| **DALK** | **Dalny** | **4.60** | **10** | *e*P | Pn | 11 10 59.3 | +4.3 |
| DALK | | | | *e*S | Sn | 11 11 52.9 | +4.9 |
| **UGLR** | **Uglovaya** | **4.79** | **10** | PN | Pn | 11 11 01.6 | +3.9 |
| **UGLR** | **Uglovaya** | **4.79** | **10** | *e*P | Pn | 11 11 01.6 | +3.9 |
| **AVH** | **Avacha** | **4.83** | **9** | PN | Pn | 11 11 02.9 | +4.6 |
| **AVH** | **Avacha** | **4.83** | **9** | *e*P | Pn | 11 11 02.9 | +4.6 |
| **SDLR** | **Sedlovina** | **4.86** | **10** | PN | Pn | 11 11 03.3 | +4.6 |
| **SDLR** | **Sedlovina** | **4.86** | **10** | P | Pn | 11 11 03.3 | +4.6 |
| **GNL** | **Ganaly** | **5.20** | **3** | PN | Pn | 11 11 07.3 | +3.9 |
| **GNL** | **Ganaly** | **5.20** | **3** | *e*P | Pn | 11 11 07.3 | +3.9 |

*ISCJB* ***19*** *11:12:49.5±1.2, 55.94S±0.04×27.74W±0.08, h103km±10km, mb5.3/71, Error ellipse: s-maj=8.2km s-min=5.0km az=145.0*

*BJI* ***19*** *11:12:50.6, 56.00S×27.60W, h98km, mB5.4/17*

*MOS* ***19*** *11:12:51.7±1.2, 56.08S×27.77W, h113km, mb5.4/9, Error ellipse: s-maj=19.7km s-min=10.1km az=100.7*

*IDC* ***19*** *11:12:52.5±0.9, 56.03S×27.75W, h116km±6km, mb4.8/22, mb1 4.9/23, mb1mx4.8/28, mbtmp5.2/23, MS4.2/19, Ms1 4.2/19, ms1mx4.2/22, Error ellipse: s-maj=12.9km s-min=7.5km az=52.0*

*NEIC* ***19*** *11:12:52.2±0.9, 56.00S×27.73W, h113km±7km, mb5.4/53, MW5.4, Error ellipse: s-maj=5.5km s-min=4.4km az=63.0, Moment Tensor Solution. s9 Moment tensor: Scale 10¹⁷ Nm; Mrr0.30; Mθθ0.37; Mϕϕ -0.68; Mrθ -1.24; Mθϕ0.46; Mϕr0.75; Best double couple: M₀1.60000×10¹⁷ NP1: ϕs199.00000°, δ25.00000°, λ165.00000°. NP2: ϕs303.00000°, δ84.00000°, λ66.00000°. Principal axes: T 1.5900, Plg46.0000°, Azm188.0000°; N 0.0600, Plg24.0000°, Azm305.0000°; P -1.6600, Plg34.0000°, Azm53.0000°;*

*GCMT* ***19*** *11:12:52.2±0.1, 56.00S×27.45W, h100km±1km, MW5.5/121, Moment Tensor Solution. s115,c197; s121,c221; Duration: 1s3 Moment tensor: Scale 10¹⁷ Nm; Mrr0.27±.03; Mθθ0.62±.03; Mϕϕ -0.88±.03; Mrθ -1.71±.02; Mθϕ0.84±.03; Mϕr0.54±.02; Best double couple: M₀2.12500×10¹⁷ NP1:ϕs293.00000°, δ86.00000°, λ58.00000°. NP2:ϕs196.00000°, δ32.00000°, λ172.00000°. Principal axes: T 2.1860, Plg40.0000°, Azm173.0000°; N -0.1210, Plg32.0000°, Azm295.0000°; P -2.0650, Plg33.0000°, Azm49.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

**ISC 19 11:12:50.6±0.4, 56.05S±0.05×27.90W±0.05, h101km±3km, h101km:pP-P, n396, σ1s46/467, mb5.3/68, 4C-3D, South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HOPE** | **Hope Point** | **5.23** | **286** | *e*Pn | **Pn** | 11 14 07.6 | **+1.3** |
| HOPE | | | | *e*Sn | **Sn** | 11 15 03.1 | **-2.1** |
| **VNA1** | **Neumayer--Stat** | **16.95** | **157** | P | **P** | 11 16 41.3 | **0.0** |
| **VNA3** | **Neumayer Olymp** | **17.12** | **160** | P | **P** | 11 16 43.5 | **+0.2** |
| **VNA2** | **Neumayer--Watz** | **17.34** | **157** | P | **P** | 11 16 45.6 | **-0.1** |
| | baz=319,slow=12 | | | | | | |
| **EFI** | **East Falkland** | **18.24** | **271** | *e*P | **Pn** | 11 16 58.3 | **+1.6** |
| EFI | | | | pmax | pmax | | |
| | comp=Z,28nm,1.0s | | | | | | |
| **EFI** | **East Falkland** | **18.24** | **271** | *e*P | **Pn** | 11 16 59.0 | **+2.3** |
| | comp=Z,108nm,1.1s | | | | | | |
| **SNAA** | **Sanae** | **18.90** | **156** | P | **Pn** | 11 17 03.7 | **-0.8** |
| **SNAA** | **Sanae** | **18.90** | **156** | P | **P** | 11 17 03.4 | **+0.6** |
| | comp=Z,83nm,0.3s,baz=306,slow=9.8,SNR=3730 | | | | | | |
| SNAA | | | | S | **S** | 11 20 29.4 | **-2.5** |
| | comp=Z,0.2nm,0.3s,baz=243,slow=11,SNR=1.8 | | | | | | |
| SNAA | | | | PcP | **PcP** | 11 21 24.8 | **+0.6** |
| | comp=Z,0.6nm,0.3s,baz=191,slow=5.2,SNR=2.8 | | | | | | |
| SNAA | | | | LR | LR | 11 23 17.5 | |
| | comp=Z,684nm,18.4s,baz=322,slow=33 | | | | | | |
| SNAA | | | | ScP | **ScP** | 11 24 49.1 | **-1.3** |
| | comp=Z,0.9nm,0.3s,baz=324,slow=3.2,SNR=20 | | | | | | |
| **SNAA** | **Sanae** | **18.90** | **156** | *c iP* | **P** | 11 17 03.3 | **+0.5** |
| **SNAA** | **Sanae** | **18.90** | **156** | *e*P | **P** | 11 17 03.5 | **+0.6** |
| | comp=Z,467nm,0.8s | | | | | | |
| SNAA | | | | S | **S** | 11 20 29.4 | **-2.5** |
| SNAA | | | | PcP | **PcP** | 11 21 24.8 | **+0.6** |
| **PMSA** | **Palmer Station** | **19.60** | **229** | *e*P | **Pn** | 11 17 13.7 | **+1.1** |
| | comp=Z,285nm,0.7s | | | | | | |
| **TRIS** | **Tristan da Cun** | **21.71** | **36** | *e*P | **P** | 11 17 33.8 | **+0.6** |
| **NVL** | **N'lazarevskaya** | **22.48** | **146** | *e*P | **P** | 11 17 40.9 | **-0.1** |
| NVL | | | | *e* | | 11 18 05.4 | |
| NVL | | | | *e*S | **S** | 11 21 39.6 | **-0.5** |
| NVL | | | | *e*SS | **SnSn** | 11 22 16.4 | **-2.8** |
| **USHA** | **Ushuaia** | **22.80** | **256** | P | **P** | 11 17 45.8 | **+1.4** |
| | comp=Z,114nm,0.7s,baz=77,slow=9.5,SNR=15 | | | | | | |
| USHA | | | | PcP | **PcP** | 11 21 32.8 | **+1.0** |
| | comp=Z,34nm,0.8s,baz=153,slow=4.5,SNR=3.1 | | | | | | |
| USHA | | | | ScP | **ScP** | 11 24 58.5 | **-1.4** |
| | comp=Z,44nm,0.6s,baz=105,slow=5.6,SNR=7.9 | | | | | | |
| **GO09** | **Cerro Castillo** | **26.40** | **262** | *e*P | **P** | 11 18 17.6 | **+0.4** |
| | comp=Z,96nm,1.0s | | | | | | |
| **TRQA** | **Tornquist** | **28.96** | **294** | *e*P | **P** | 11 18 41.3 | **+1.2** |
| | comp=Z,31nm,1.1s | | | | | | |
| **PLCA** | **Paso Flores** | **31.61** | **281** | P | **P** | 11 19 03.3 | **-0.2** |
| | comp=Z,4.9nm,0.9s,baz=158,slow=9.2,SNR=9.7 | | | | | | |
| PLCA | | | | PcP | **PcP** | 11 21 53.7 | **+0.4** |
| | comp=Z,8.0nm,0.8s,baz=134,slow=4.4,SNR=6.0 | | | | | | |
| PLCA | | | | ScP | **ScP** | 11 25 24.2 | **-2.7** |
| | comp=Z,8.8nm,0.9s,baz=170,slow=3.9,SNR=11 | | | | | | |
| PLCA | | | | LR | LR | 11 31 31.9 | |
| | comp=Z,722nm,20.6s,baz=150,slow=35 | | | | | | |
| **PLCA** | **Paso Flores** | **31.61** | **281** | *e*P | **P** | 11 19 06.3 | **+2.7** |
| **PLCA** | **Paso Flores** | **31.61** | **281** | *e*P | **P** | 11 19 03.4 | **-0.2** |
| | comp=Z,33nm,1.5s | | | | | | |
| PLCA | | | | *e*PcP | **PcP** | 11 21 53.7 | **+0.4** |
| **SYO** | **Syowa Base** | **31.84** | **141** | *i*P | **P** | 11 19 03.6 | **-1.5** |
| **SYO** | **Syowa Base** | **31.84** | **141** | *i*pP | pP | 11 19 27.2 | -0.6 |
| **SYO** | **Syowa Base** | **31.84** | **141** | *e*SH | **S** | 11 24 05.0 | **-2.7** |
| **SYO** | **Syowa Base** | **31.84** | **141** | *i*ScP | **ScP** | 11 25 24.2 | **-2.9** |
| **QSPA** | **South Pole Qui** | **34.20** | **180** | *e*P | **P** | 11 19 27.9 | **+2.0** |
| | comp=Z,471nm,1.3s | | | | | | |
| **TCA** | **Tanti** | **35.58** | **299** | *e*P | **P** | 11 19 38.5 | **+0.4** |
| **CPUP** | **Villa Florida** | **36.51** | **312** | P | **P** | 11 19 47.0 | **+1.0** |
| | comp=Z,22nm,1.0s,baz=153,slow=7.2,SNR=38 | | | | | | |
| CPUP | | | | PcP | **PcP** | 11 22 07.8 | **+0.4** |
| | comp=Z,4.9nm,0.6s,baz=122,slow=2.0,SNR=3.1 | | | | | | |
| CPUP | | | | ScP | **ScP** | 11 25 42.2 | **-2.2** |
| | comp=Z,15nm,0.9s,baz=130,slow=5.2,SNR=14 | | | | | | |
| CPUP | | | | LR | LR | 11 35 08.4 | |
| | comp=Z,174nm,18.0s,baz=155,slow=36 | | | | | | |
| **CPUP** | **Villa Florida** | **36.51** | **312** | *e*P | **P** | 11 19 46.6 | **+0.6** |
| CPUP | | | | PcP | **PcP** | 11 22 07.8 | **+0.4** |
| **CPUP** | **Villa Florida** | **36.51** | **312** | *e*P | **P** | 11 19 46.0 | **0.0** |
| **ASAL** | **Salagasta** | **36.72** | **292** | *e*P | **P** | 11 19 48.3 | **+0.5** |
| **PEL** | **Peldehue** | **37.26** | **290** | *e*P | **P** | 11 19 52.7 | **+0.4** |
| PEL | | | | pmax | pmax | | |
| | comp=Z,66nm,1.1s | | | | | | |
| **PEL** | **Peldehue** | **37.26** | **290** | *e*P | **P** | 11 19 52.7 | **+0.4** |
| | comp=Z,66nm,1.1s | | | | | | |
| **AUSP** | **Uspallata** | **37.30** | **292** | *e*P | **P** | 11 19 53.7 | **+0.8** |
| **AMOG** | **MOGNA** | **37.86** | **294** | *e*P | **P** | 11 19 57.8 | **+0.4** |
| **MAW** | **Mawson** | **40.38** | **144** | P | **P** | 11 20 18.7 | **+0.8** |
| | comp=Z,52nm,0.7s,baz=235,slow=7.9,SNR=52 | | | | | | |
| MAW | | | | ScP | **ScP** | 11 25 57.5 | **-1.0** |
| | comp=Z,24nm,1.0s,baz=271,slow=5.6,SNR=7.9 | | | | | | |
| MAW | | | | LR | LR | 11 34 35.1 | |
| | comp=Z,180nm,21.2s,baz=250,slow=32 | | | | | | |
| **MAW** | **Mawson** | **40.38** | **144** | *e*P | **P** | 11 20 18.7 | **+0.8** |
| MAW | | | | pmax | pmax | | |
| | comp=Z,14nm,0.8s | | | | | | |
| **MAW** | **Mawson** | **40.38** | **144** | *e*P | **P** | 11 20 18.7 | **+0.8** |
| | comp=Z,14nm,0.8s | | | | | | |
| MAW | | | | ScP | **ScP** | 11 25 57.5 | **-1.0** |
| **LCO** | **Las Campanas** | **40.54** | **294** | *e*P | **P** | 11 20 20.4 | **+0.5** |
| | comp=Z,28nm,1.0s | | | | | | |
| **SUR** | **Sutherland** | **41.03** | **76** | *e*P | **P** | 11 20 24.3 | **+0.5** |
| | comp=Z,160nm,1.7s | | | | | | |
| **ALOL** | **LOMAS DE OLMED** | **41.61** | **306** | *e*P | **P** | 11 20 28.6 | **+0.1** |
| **ASTB** | **Santa Barbara** | **41.71** | **305** | *e*P | **P** | 11 20 29.8 | **+0.4** |
| **SHEL** | **Horse Pasture** | **43.45** | **32** | *i* P | **P** | 11 20 44.6 | **+1.2** |
| **SHEL** | **Horse Pasture** | **43.45** | **32** | *e*P | **P** | 11 20 44.2 | **+0.8** |
| | comp=Z,352nm,1.1s | | | | | | |
| **PB10** | **IPOC Station P** | **44.99** | **298** | *e*P | **P** | 11 20 56.4 | **+0.7** |
| | comp=Z,24nm,0.9s | | | | | | |
| **PB04** | **IPOC Station P** | **45.79** | **300** | *e*P | **P** | 11 21 03.1 | **+1.0** |
| | comp=Z,179nm,1.3s | | | | | | |
| **SBA** | **Scott Base** | **46.05** | **184** | *e*P | **P** | 11 21 05.8 | **+2.5** |
| SBA | | | | pmax | pmax | | |
| | comp=Z,309nm,1.4s | | | | | | |
| **SBA** | **Scott Base** | **46.05** | **184** | *e*P | **P** | 11 21 05.8 | **+2.5** |
| | comp=Z,309nm,1.4s | | | | | | |
| **BOSA** | **Boshof** | **46.36** | **76** | P | **P** | 11 21 05.2 | **-1.2** |
| | comp=Z,20nm,0.9s,baz=213,slow=5.9,SNR=21 | | | | | | |
| BOSA | | | | ScP | **ScP** | 11 26 22.5 | **-1.1** |
| | comp=Z,6.3nm,0.9s,baz=266,slow=6.2,SNR=3.3 | | | | | | |
| BOSA | | | | LR | LR | 11 37 29.8 | |
| | comp=Z,939nm,19.2s,baz=214,slow=32 | | | | | | |
| **BOSA** | **Boshof** | **46.36** | **76** | *e*P | **P** | 11 21 05.2 | **-1.2** |
| BOSA | | | | *e*P | **P** | 11 21 05.4 | **-1.1** |
| BOSA | | | | *e* | | 11 37 29.8 | |
| **VNDA** | **Vanda** | **46.55** | **183** | P | **P** | 11 21 09.2 | **+2.0** |
| | comp=Z,90nm,0.6s,baz=187,slow=6.9,SNR=337 | | | | | | |
| VNDA | | | | ScP | **ScP** | 11 26 21.9 | **-1.6** |
| | comp=Z,5.6nm,0.8s,baz=192,slow=4.1,SNR=4.6 | | | | | | |
| VNDA | | | | LR | LR | 11 39 35.7 | |
| | comp=Z,162nm,21.3s,baz=174,slow=34 | | | | | | |
| **VNDA** | **Vanda** | **46.55** | **183** | *e*P | **P** | 11 21 09.4 | **+2.2** |
| VNDA | | | | pmax | pmax | | |
| | comp=Z,504nm,1.6s | | | | | | |
| **VNDA** | **Vanda** | **46.55** | **183** | *e*P | **P** | 11 21 09.4 | **+2.2** |
| | comp=Z,504nm,1.6s | | | | | | |
| **PB01** | **IPOC Station P** | **46.57** | **301** | *e*P | **P** | 11 21 09.4 | **+1.3** |
| | comp=Z,88nm,0.8s | | | | | | |
| PB01 | | | | *e*pP | **pP** | 11 21 31.9 | **-0.1** |
| **SIV** | **San Ignacio** | **47.29** | **314** | P | **P** | 11 21 13.8 | **+0.1** |
| | comp=Z,5.1nm,0.7s,baz=163,slow=8.4,SNR=9.3 | | | | | | |
| SIV | | | | PcP | **PcP** | 11 22 43.7 | **+0.5** |
| | comp=Z,10.0nm,0.8s,baz=203,slow=6.5,SNR=5.2 | | | | | | |
| SIV | | | | ScP | **ScP** | 11 26 25.7 | **-1.8** |
| | comp=Z,19nm,0.9s,baz=153,slow=4.9,SNR=15 | | | | | | |
| SIV | | | | LR | LR | 11 40 59.0 | |
| | comp=Z,207nm,19.2s,baz=180,slow=36 | | | | | | |
| **PB11** | **IPOC Station P** | **47.75** | **302** | *e*P | **P** | 11 21 18.5 | **+1.1** |
| | comp=Z,80nm,0.9s | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **48.12** | **18** | T | T | 12 13 39.9 | |
| | baz=190,slow=75,SNR=14 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **48.12** | **18** | T | T | 12 13 35.1 | |
| | baz=190,slow=75,SNR=20 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **48.14** | **18** | T | T | 12 13 23.2 | |
| | baz=190,slow=75,SNR=25 | | | | | | |
| **MNMC** | **Minye Minye** | **48.26** | **303** | *e*P | **P** | 11 21 23.0 | **+1.5** |
| | comp=Z,89nm,0.7s | | | | | | |
| MNMC | | | | *e*pP | **pP** | 11 21 45.3 | **-0.2** |
| **H10N1** | **ASCENSION HYDR** | **49.24** | **18** | T | T | 12 14 54.8 | |
| | baz=189,slow=75,SNR=18 | | | | | | |
| **H10N3** | **ASCENSION HYDR** | **49.24** | **18** | T | T | 12 14 56.9 | |
| | baz=189,slow=75,SNR=35 | | | | | | |
| **H10N2** | **ASCENSION HYDR** | **49.26** | **18** | T | T | 12 14 56.0 | |
| | baz=189,slow=75,SNR=18 | | | | | | |
| **MIR** | **Mirnyy** | **49.96** | **153** | *i* P | **P** | 11 21 35.0 | **+1.5** |
| MIR | | | | pmax | pmax | | |
| | comp=Z,16nm,1.3s | | | | | | |
| **LPAZ** | **La Paz** | **50.05** | **306** | P | **P** | 11 21 37.0 | **+1.5** |
| | comp=Z,29nm,0.6s,baz=141,slow=4.8,SNR=47 | | | | | | |
| LPAZ | | | | pP | **pP** | 11 21 59.0 | **-0.6** |
| | comp=Z,32nm,0.8s,baz=130,slow=8.7,SNR=6.1 | | | | | | |
| LPAZ | | | | ScP | **ScP** | 11 26 38.3 | **-1.7** |
| | comp=Z,7.6nm,0.9s,baz=150,slow=4.7,SNR=5.1 | | | | | | |
| LPAZ | | | | S | **S** | 11 28 37.2 | **-2.2** |
| | comp=Z,1.5nm,0.8s,baz=13,slow=14,SNR=3.9 | | | | | | |
| LPAZ | | | | LR | LR | 11 43 17.6 | |
| | comp=Z,162nm,20.8s,baz=156,slow=36 | | | | | | |
| **LPAZ** | **La Paz** | **50.05** | **306** | *e*P | **P** | 11 21 36.9 | **+1.3** |
| **LPAZ** | **La Paz** | **50.05** | **306** | *e*P | **P** | 11 21 36.8 | **+1.3** |
| LPAZ | | | | *e* | **P** | 11 21 37.0 | **+1.5** |
| LPAZ | | | | *e*pP | **pP** | 11 21 59.0 | **-0.6** |
| LPAZ | | | | S | **S** | 11 28 37.2 | **-2.2** |
| **RCBR** | **Riachuelo** | **50.49** | **350** | P | **P** | 11 21 38.3 | **+0.2** |
| | comp=Z,8.4nm,0.8s,baz=162,slow=6.4,SNR=2.9 | | | | | | |
| **SAML** | **Samuel** | **54.52** | **316** | *e*P | **P** | 11 22 08.4 | **+0.6** |
| SAML | | | | *e*pP | **pP** | 11 22 30.0 | **-2.3** |
| **NNA** | **Nana** | **57.90** | **299** | P | **P** | 11 22 33.0 | **+1.0** |
| | comp=Z,16nm,0.5s,baz=167,slow=7.8,SNR=5.3 | | | | | | |
| **NNA** | **Nana** | **57.90** | **299** | *i* P | **P** | 11 22 33.5 | **+1.6** |
| **NNA** | **Nana** | **57.90** | **299** | *e*P | **P** | 11 22 32.9 | **+1.0** |
| | comp=Z,65nm,1.1s | | | | | | |
| **LSZ** | **Lusaka** | **58.75** | **70** | *e*P | **P** | 11 22 37.0 | **-0.9** |
| LSZ | | | | pmax | pmax | | |
| | comp=Z,54nm,1.1s | | | | | | |
| **LSZ** | **Lusaka** | **58.75** | **70** | *e*P | **P** | 11 22 37.0 | **-0.9** |
| | comp=Z,54nm,1.1s | | | | | | |
| **PTGA** | **Pitinga** | **60.93** | **323** | P | **P** | 11 22 52.9 | **+0.2** |
| | comp=Z,2.9nm,0.5s,baz=162,slow=4.5,SNR=11 | | | | | | |
| PTGA | | | | PcP | **PcP** | 11 23 36.4 | **+1.3** |
| | comp=Z,11nm,0.8s,baz=186,slow=7.8,SNR=7.1 | | | | | | |
| PTGA | | | | ScP | **ScP** | 11 27 25.1 | **-1.8** |
| | comp=Z,3.5nm,0.8s,baz=161,slow=10,SNR=3.6 | | | | | | |
| PTGA | | | | LR | LR | 11 50 10.3 | |
| | comp=Z,164nm,18.2s,baz=164,slow=37 | | | | | | |
| **PTGA** | **Pitinga** | **60.93** | **323** | *e*P | **P** | 11 22 52.9 | **+0.2** |
| | comp=Z,12nm,0.8s | | | | | | |
| PTGA | | | | PcP | **PcP** | 11 23 36.4 | **+1.3** |
| **ATAH** | **Atahualpa** | **62.85** | **301** | P | **P** | 11 23 08.6 | **+2.5** |
| | comp=Z,25nm,0.7s,baz=158,slow=6.7,SNR=21 | | | | | | |
| ATAH | | | | PcP | **PcP** | 11 23 43.6 | **+0.1** |
| | comp=Z,34nm,1.1s,baz=90,slow=1.0,SNR=8.6 | | | | | | |
| **RPN** | **Rapa Nui** | **63.26** | **261** | LR | LR | 11 47 18.6 | |
| | comp=Z,180nm,18.1s,baz=134,slow=33 | | | | | | |
| **LIC** | **Lamto** | **64.87** | **25** | *e*P | **P** | 11 23 17.4 | **-1.3** |
| | comp=Z,251nm,1.3s | | | | | | |
| **KIC** | **Kosan Boka** | **65.07** | **26** | *e*P | **P** | 11 23 18.7 | **-1.3** |
| | comp=Z,299nm,1.4s | | | | | | |
| **TIC** | **Toumodi** | **65.27** | **25** | *e*P | **P** | 11 23 20.0 | **-1.4** |
| **DBIC** | **Dimbokro** | **65.34** | **25** | P | **P** | 11 23 21.2 | **-0.5** |
| | comp=Z,37nm,0.9s,baz=171,slow=7.7,SNR=40 | | | | | | |
| DBIC | | | | LR | LR | 11 44 38.7 | |
| | comp=Z,295nm,20.2s,baz=178,slow=29 | | | | | | |
| **DBIC** | **Dimbokro** | **65.34** | **25** | *e*P | **P** | 11 23 21.2 | **-0.5** |
| DBIC | | | | pmax | pmax | | |
| | comp=Z,44nm,0.9s | | | | | | |
| **DBIC** | **Dimbokro** | **65.34** | **25** | *e*P | **P** | 11 23 21.2 | **-0.5** |
| | comp=Z,44nm,0.9s | | | | | | |
| **ABPO** | **Ambohimpanom** | **66.15** | **89** | *i* P | **P** | 11 23 29.2 | **+1.9** |
| **FLOC** | **Florencia** | **69.25** | **308** | *e*P | **P** | 11 23 44.5 | **-2.0** |
| **OTAV** | **Otavalo** | **69.33** | **304** | *e*P | **P** | 11 23 46.3 | **-1.2** |
| | comp=Z,30nm,1.0s | | | | | | |
| **CMBC** | **Cumbal** | **69.66** | **305** | *e*P | **P** | 11 23 52.1 | **+2.6** |
| **MCQ** | **Macquarie Isla** | **69.67** | **184** | *e*P | **P** | 11 23 49.5 | **+1.0** |
| **MCQ** | **Macquarie Isla** | **69.67** | **184** | *e*P | **P** | 11 23 49.5 | **+1.0** |
| | comp=Z,1μm,1.3s | | | | | | |
| **PRAC** | **Prado** | **70.81** | **309** | *e*P | **P** | 11 23 56.1 | **0.0** |
| **PRAC** | **Prado** | **70.81** | **309** | *e*P | **P** | 11 23 56.4 | **+0.3** |
| | comp=Z,47nm,0.9s | | | | | | |
| **CHIC** | **Chingaza** | **71.14** | **311** | *e*P | **P** | 11 23 56.5 | **-2.0** |
| **ROSC** | **El Rosal** | **71.58** | **310** | P | **P** | 11 24 01.2 | **+0.1** |
| | comp=Z,4.9nm,0.4s,baz=126,slow=19,SNR=3.8 | | | | | | |
| ROSC | | | | LR | LR | 11 55 44.6 | |
| | comp=Z,113nm,21.9s,baz=114,slow=36 | | | | | | |
| **ROSC** | **El Rosal** | **71.58** | **310** | *e*P | **P** | 11 24 01.2 | **+0.1** |
| | comp=Z,32nm,1.3s | | | | | | |
| **YOTC** | **Yotoco, Valle** | **71.69** | **308** | *e*P | **P** | 11 24 00.6 | **-0.8** |
| **RUSC** | **La Rusia** | **72.00** | **312** | *e*P | **P** | 11 24 02.5 | **-1.2** |
| **RUSC** | **La Rusia** | **72.00** | **312** | *e*P | **P** | 11 24 03.5 | **-0.3** |
| | comp=Z,43nm,1.4s | | | | | | |
| **GUYC** | **Guyana, Colomb** | **72.38** | **310** | *e*P | **P** | 11 24 04.1 | **-1.9** |
| **PLMC** | **San Jos`` del** | **72.48** | **309** | *e*P | **P** | 11 24 04.7 | **-1.4** |
| **BARC** | **Barichara** | **72.68** | **312** | *e*P | **P** | 11 24 04.7 | **-2.8** |
| **PCRV** | **Puerto La Cruz** | **72.70** | **322** | P | **P** | 11 24 06.9 | **-0.4** |
| | comp=Z,39nm,0.9s,baz=170,slow=4.2,SNR=11 | | | | | | |
| **KOWA** | **Kowa** | **73.09** | **24** | *e*P | **P** | 11 24 09.6 | **+0.1** |
| | comp=Z,48nm,1.0s | | | | | | |
| **PAMC** | **Pamplona, Colo** | **73.15** | **313** | *e*P | **P** | 11 24 08.8 | **-1.7** |
| **TOA0** | **Torodi Ar. Sit** | **73.26** | **30** | *e*P | **P** | 11 24 10.0 | **-0.5** |
| **TORD** | **Torodi Ar. Bea** | **73.26** | **30** | P | **P** | 11 24 10.3 | **-0.2** |
| | comp=Z,72nm,0.8s,baz=197,slow=6.4,SNR=350 | | | | | | |
| TORD | | | | LR | LR | 11 50 38.6 | |
| | comp=Z,256nm,19.3s,baz=185,slow=31 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **73.26** | **30** | *e*P | **P** | 11 24 10.3 | **-0.3** |
| TOA1 | | | | *e* | | 11 50 38.6 | |
| **BRRC** | **Barranca, Sant** | **73.36** | **312** | *e*P | P | 11 24 04.7 | -6.5 |
| **SDV** | **Santo Domingo** | **73.73** | **316** | P | **P** | 11 24 14.1 | **+0.5** |
| | comp=Z,21nm,0.9s

comp=Z,44nm,0.9s
**TBI Tubuai 86.77 232** *e*S S 11 36 06.9 +15
comp=Z,203nm,26.8s
**TBI Tubuai 86.77 232** *e*LQ LQ 11 49 24.2
comp=Z,410nm,31.2s
TBI *e*LR LR 11 53 08.5
comp=Z,974nm,32.2s
**OUZ Omahuta 87.25 197** *e*P **P 11 25 26.1 +0.7**
comp=Z,89nm,1.2s
**BBOO Buckleboo 90.44 167** *e*P **P 11 25 40.5 0.0**
comp=Z,35nm,0.8s
**MDT Midelt 90.72 19** P **P 11 25 43.9 +2.3**
comp=Z,12nm,0.8s,baz=174,slow=3.1,SNR=20
**FORT Forrest 91.11 159** *e*P **P 11 25 44.0 +0.3**
comp=Z,516nm,0.8s
**CMIG Matias Romero 91.83 298** P **P 11 25 47.6 +0.6**
comp=Z,14nm,0.8s,baz=115,slow=2.1,SNR=15
**PPT2 Papeete2 91.85 234** *e*PS PS 11 38 11.9 +10
comp=Z,360nm,34.2s
**PPT2 Papeete2 91.85 234** *e*LQ LQ 11 51 35.1
comp=Z,350nm,24.0s
PPT2 *e*LR LR 11 55 30.0
comp=Z,1μm,33.0s
**PPT Papeete 91.87 234** LR LR 11 58 25.7
comp=Z,73nm,20.7s,baz=158,slow=30
**STKA Stephens Creek 91.96 171** P **P 11 25 47.7 +0.2**
comp=Z,20nm,0.8s,baz=169,slow=7.6,SNR=30
STKA LR LR 12 03 37.9
comp=Z,114nm,21.4s,baz=190,slow=33
**STKA Stephens Creek 91.96 171** *e*P **P 11 25 48.0 +0.4**
**STKA Stephens Creek 91.96 171** *e*P **P 11 25 48.1 +0.6**
comp=Z,3.6nm,0.8s
**TLIG Tlapa 94.08 296** *e*P **P 11 25 58.9 +1.5**
comp=Z,15nm,0.8s
**TAOE Nuku Hiva Isla 94.78 247** *e*LR LR 11 56 52.4
comp=Z,412nm,34.5s
**KEST Kesra 96.77 30** LR LR 12 03 04.4
comp=Z,297nm,20.3s,baz=178,slow=31
**ESDC Sonseca Array 97.51 18** P Pdif 11 26 13.3 +0.8
comp=Z,0.7nm,0.5s,baz=189,slow=5.9,SNR=7.0
ESDC LR LR 12 05 57.3
comp=Z,126nm,19.0s,baz=185,slow=33
**ASAR Alice Springs 99.11 163** P **Pdif 11 26 19.7 -0.5**
comp=Z,17nm,0.7s,baz=186,slow=4.1,SNR=125
ASAR PP **PP 11 30 19.6 -3.1**
comp=Z,16nm,1.0s,baz=190,slow=6.2,SNR=13
ASAR PKKPbc **PKKPbc 11 42 40.5 -1.9**
comp=Z,0.3nm,0.4s,baz=15,slow=2.0,SNR=6.8
ASAR LR LR 12 09 51.4
comp=Z,145nm,18.1s,baz=194,slow=34
**AS31 Alice Springs 99.11 163** *e*P **Pdif 11 26 19.8 -0.4**
comp=Z,6.6nm,0.6s
AS31 *e*PP **PP 11 30 20.0 -2.7**
**AS01 Alice Springs 99.11 163** *e*P **Pdif 11 26 19.5 -0.7**
**DZM Mont Dzumac 101.24 194** *e*LR LR 11 59 45.9
comp=Z,719nm,33.4s
**WR1 Warramunga Arr 102.82 163** *e*Pdif **Pdif 11 26 36.1 -0.6**
WR1 *e*PP **PP 11 30 43.8 -7.0**
**WRA Warramunga Arr 102.82 163** P **Pdif 11 26 36.1 -0.6**
comp=Z,4.4nm,0.6s,baz=195,slow=4.2,SNR=47
WRA PP **PP 11 30 43.8 -7.0**
comp=Z,2.8nm,0.7s,baz=191,slow=5.9,SNR=6.3
WRA PKKP **PKKPbc 11 42 34.0 +2.2**
comp=Z,0.5nm,0.3s,baz=358,slow=2.9,SNR=24
**WB2 Warramunga Arr 102.83 163** *e*Pdif **Pdif 11 26 36.5 -0.3**
**FITZ Fitzroy Crossi 102.83 154** P **Pdif 11 26 38.5 +1.8**
comp=Z,2.3nm,0.7s,baz=90,slow=20
FITZ PP **PP 11 30 52.8 +2.0**
comp=Z,5.3nm,1.1s,baz=196,slow=7.6,SNR=3.8
**WRAB Tennant Creek 102.83 163** *e*P **Pdif 11 26 36.1 -0.7**
**CTA Charters Tower 104.00 174** Pdiff **Pdif 11 26 41.7 -0.3**
comp=Z,2.5nm,0.7s,baz=104,slow=4.2,SNR=2.7
**LTX Lajitas 106.44 298** *e*P **Pdif 11 26 52.8 +0.2**
**LTX Lajitas 106.44 298** *e*Pdif **Pdif 11 26 52.8 +0.2**
LTX *e*PKiKP **PKiKP 11 31 02.6 -0.4**
LTX *e* 11 34 27.3
**TXAR Lajitas Array 106.44 298** Pdiff **Pdif 11 26 52.8 +0.2**
comp=Z,0.5nm,0.9s,baz=139,slow=8.4,SNR=2.7
TXAR PKiKP **PKiKP 11 31 02.6 -0.4**
comp=Z,0.5nm,0.9s,baz=151,slow=2.8,SNR=3.9
TXAR SKP 11 34 27.3
comp=Z,1.0nm,0.9s,baz=149,slow=2.0,SNR=5.6
**BR101 Keskin Array S 108.71 46** *e*PP PP 11 31 29.6 -5.7
**BRTR Keskin Array B 108.71 46** PP PP 11 31 29.6 -5.7
comp=Z,1.1nm,0.9s,baz=170,slow=7.5,SNR=4.5
**GERES GERESS Array B 110.14 28** PP PP 11 31 30.3 -15
comp=Z,1.8nm,0.9s,baz=199,slow=7.0,SNR=6.1
GERES PKKPbc **PKKPbc 11 42 10.3 -0.3**
comp=Z,0.8nm,0.7s,baz=343,slow=4.2,SNR=3.7
**GOPC GO Pecny, Ondr 111.41 28** AMS AMS 12 11 40.0
comp=Z,400nm,23.5s
**CLL Collm 112.23 26** *e*PKiKP **PKiKP 11 31 14.0 +1.0**
**CLL Collm 112.23 26** *e*PKiKP **PKiKP 11 31 14.0 +1.0**
CLL *e*PP **PP 11 32 00.0 -0.3**
CLL *e*PS **PS 11 41 30.0 -3.8**
CLL *e*pPS 11 41 55.0
CLL *e*PKKPdf **PKKPdf 11 42 23.0 -0.6**
CLL *e*PPS PPS 11 42 37.0
CLL *e*SS SS 11 47 36.0 +4.7
**SCHQ Schefferville 115.00 336** PKP **PKPdf 11 31 18.9 +0.6**
comp=Z,1.8nm,0.6s,baz=229,slow=9.3,SNR=3.6
**NEY Neytrino 115.42 50** *i* PKiKP **PKPdf 11 31 21.0 +1.4**
**Y12C Blythe 115.48 293** *e*PKPdf **PKPdf 11 31 20.5 +0.7**
**KIV Kislovodsk 115.97 49** *i* PKiKP **PKPdf 11 31 23.0 +2.4**
KIV pmax pmax
comp=Z,7.0nm,1.1s
KIV MLR MLR
comp=Z,103nm,21.0s
**NCK Nalchik 115.99 50** *i* PKiKP **PKPdf 11 31 22.6 +2.1**
**W13A Hualapai Mount 116.21 294** *e*PKPdf **PKPdf 11 31 22.2 +0.7**
**PV10 Paradox Valley 116.35 300** *e*PKPdf **PKPdf 11 31 21.4 -0.4**
**O20A White River Ci 117.34 302** *e*PKPdf **PKPdf 11 31 23.6 +0.1**
**MTPU Mount Pierson 117.64 298** *e*PKPdf **PKPdf 11 31 25.4 +1.1**
**SRU San Rafael Swe 117.65 299** *e*PKiKP **PKPdf 11 31 24.0 -0.1**
**SRU San Rafael Swe 117.65 299** *e*PKPdf **PKPdf 11 31 24.0 -0.1**
**SZCU Shurtz Canyon 117.74 297** *e*PKPdf **PKPdf 11 31 24.9 +0.5**
**CCUT Cedar City 117.85 296** *e*PKPdf **PKPdf 11 31 25.3 +0.7**
**P18A Preston Nutter 117.91 300** *e*PKPdf **PKPdf 11 31 24.8 +0.1**
**SHPR Sheep Range 117.95 294** *e*PKPdf **PKPdf 11 31 25.5 +0.7**
**MSU Marysvale 118.00 298** *e*PKiKP **PKPdf 11 31 26.0 +1.1**
**MSU Marysvale 118.00 298** *e*PKPdf **PKPdf 11 31 26.0 +1.1**
**RWWY Rawlins 118.07 303** *e*PKPdf **PKPdf 11 31 24.8 -0.1**
**TMUT Trail Mountain 118.13 299** *e*PKPdf **PKPdf 11 31 25.5 +0.3**
**RSSD Black Hills 118.52 307** *e*PKiKP **PKPdf 11 31 25.3 -0.4**
**RSSD Black Hills 118.52 307** *e*PKPdf **PKPdf 11 31 25.3 -0.4**
**TPNV Topopah Spring 118.85 294** *e*PKiKP **PKPdf 11 31 27.4 +0.9**
**TPNV Topopah Spring 118.85 294** *e*PKPdf **PKPdf 11 31 27.4 +0.9**
**MPU Maple Canyon 118.89 299** *e*PKPdf **PKPdf 11 31 26.9 +0.4**
**ISA Isabella, Lake 119.02 291** *e*PKiKP **PKPdf 11 31 27.9 +1.2**
**ISA Isabella, Lake 119.02 293** *e*PKPdf **PKPdf 11 31 27.9 +1.2**
**DAC Darwin (Calif) 119.03 292** *e*PKiKP **PKPdf 11 31 27.2 +0.3**
**DAC Darwin (Calif) 119.03 292** *e*PKPdf **PKPdf 11 31 27.2 +0.3**
**KONO Kongsberg 119.15 21** *i* PKiKP **PKPdf 11 31 28.1 +2.1**
**JLU Jordanelle 119.25 300** *e*PKPdf **PKPdf 11 31 27.9 +0.7**
**DUG Dugway, Tooele 119.61 299** *e*PKiKP **PKPdf 11 31 28.6 +0.8**
**DUG Dugway, Tooele 119.61 299** *e*PKPdf **PKPdf 11 31 28.6 +0.8**
**TCUT Toone Canyon 119.63 300** *e*PKPdf **PKPdf 11 31 28.5 +0.6**
**ULM Lac du Bonnet 119.97 317** PKP **PKPdf 11 31 26.7 -1.2**
comp=Z,4.6nm,0.6s,baz=146,slow=3.0,SNR=12
ULM SKP 11 34 51.0
comp=Z,4.9nm,0.9s,baz=104,slow=1.2,SNR=5.8
**PD31 Pinedale Array 120.01 303** *e*PKPdf **PKPdf 11 31 27.8 -0.8**
**PDAR Pinedale Array 120.01 303** PKP **PKPdf 11 31 27.8 -0.8**
comp=Z,0.8nm,0.6s,baz=133,slow=4.6,SNR=8.7
PDAR SKP 11 34 51.6
comp=Z,1.4nm,0.7s,baz=123,slow=3.9,SNR=5.7
PDAR PKKPab **PKKPab 11 41 37.4 +0.3**
comp=Z,0.6nm,0.8s,baz=38,slow=2.6,SNR=4.3
**PDAR Pinedale Array 120.01 303** *e*PKPdf **PKPdf 11 31 27.4 -1.2**
**BGU Big Grassy Mou 120.27 299** *e*PKPdf **PKPdf 11 31 29.5 +0.5**
**SPUT South Promonto 120.28 300** *e*PKPdf **PKPdf 11 31 29.4 +0.4**
**NB2 NORSAR Subarra 120.75 21** PKKP 11 41 32.6
comp=Z,4.3nm,1.1s,baz=24,slow=3.7
**NB200 NORSAR Array S 120.75 21** *e*PKPdf **PKPdf 11 31 27.6 -1.5**
**NOA NORSAR Array B 120.75 21** PKP **PKPdf 11 31 27.6 -1.5**
comp=Z,1.0nm,0.7s,baz=194,slow=3.8,SNR=3.2
NOA pPKP **pPKPdf 11 31 54.8 -2.2**
comp=Z,1.9nm,0.8s,baz=97,slow=0.9,SNR=3.5
NOA PKKPbc **PKKPab 11 41 32.4 +0.4**
comp=Z,1.7nm,0.8s,baz=27,slow=3.0,SNR=4.6
**MDPB Devils Postpil 120.83 292** *e*PKPdf **PKPdf 11 31 31.4 +1.0**
**NV11 Mina Array Sit 120.96 294** *e*PKPdf **PKPdf 11 31 31.4 +0.9**
**NV01 Mina Array Sit 121.03 294** *e*PKPdf **PKPdf 11 31 31.4 +0.7**
**REDW Red Top Meadow 121.07 302** *e*PKPdf **PKPdf 11 31 30.8 +0.2**
**TPAW Teton Pass 121.22 302** *e*PKPdf **PKPdf 11 31 31.5 +0.5**

**MOOW Moose Ponds 121.32 303** *e*PKPdf **PKPdf 11 31 31.4 +0.3**
**FXWY Fox Creek 121.36 302** *e*PKPdf **PKPdf 11 31 31.6 +0.4**
**KVN Kaiserville 121.39 294** *e*PKiKP **PKPdf 11 31 32.1 +0.8**
**KVN Kaiserville 121.39 294** *e*PKPdf **PKPdf 11 31 32.1 +0.8**
**IMW Indian Meadow 121.52 303** *e*PKPdf **PKPdf 11 31 32.2 +0.6**
**RLMT Red Lodge 121.67 305** *e*PKPdf **PKPdf 11 31 31.9 +0.2**
**CMB Columbia Colle 121.81 292** *e*PKiKP **PKPdf 11 31 33.0 +1.1**
**CMB Columbia Colle 121.81 292** *e*PKPdf **PKPdf 11 31 33.0 +1.1**
**YFT Old Faithful 121.89 303** *e*PKPdf **PKPdf 11 31 33.7 +1.6**
**YERR Yerington 121.93 293** *e*PKPdf **PKPdf 11 31 33.7 +1.3**
**BMN Battle Mountai 121.98 296** *e*PKiKP **PKPdf 11 31 33.2 +0.8**
**BMN Battle Mountai 121.98 296** *e*PKPdf **PKPdf 11 31 33.2 +0.8**
**YMR Madison River 122.11 303** *e*PKPdf **PKPdf 11 31 33.6 +1.1**
**YHH Holmes Hill 122.15 303** *e*PKPdf **PKPdf 11 31 33.6 +0.9**
**OBN Obninsk 122.59 38**⇑ *e*PKiKP **PKPdf 11 31 33.8 +1.0**
OBN *e* 11 32 01.1
OBN *e* 11 33 10.4
OBN *e*PPP PPP 11 35 50.7
OBN *e* 11 38 32.1
OBN pmax pmax
comp=Z,3.0nm,0.8s
**AFDM Forest Hills D 122.80 292** *e*PKPdf **PKPdf 11 31 34.6 +0.8**
**HLID Hailey 122.93 300** *e*PKPdf **PKPdf 11 31 34.6 +0.5**
**BEKR Beckworth 123.16 293** *e*PKPdf **PKPdf 11 31 35.6 +0.9**
**DLMT Dillon 123.40 303** *e*PKPdf **PKPdf 11 31 36.0 +1.1**
**MFID Camas Ranch 123.51 299** *e*PKPdf **PKPdf 11 31 36.0 +0.8**
**ORV Oroville 123.52 292** *e*PKiKP **PKPdf 11 31 35.9 +0.7**
**ORV Oroville 123.52 292** *e*PKPdf **PKPdf 11 31 35.9 +0.7**
**LRM Limekiln Ridge 123.67 303** *e*PKPdf **PKPdf 11 31 36.6 +1.0**
**HRY Holter Researc 124.04 304** *e*PKPdf **PKPdf 11 31 37.0 +0.9**
**EGMT Eagleton 124.07 307** *e*PKPdf **PKPdf 11 31 36.5 +0.5**
**WVOR Wild Horse Val 124.18 297** *e*PKiKP **PKPdf 11 31 37.5 +1.0**
**WVOR Wild Horse Val 124.18 297** *e*PKPdf **PKPdf 11 31 37.5 +1.0**
**FIA0 FINESS Array S 124.57 28** *e*PKiKP **PKPdf 11 31 35.4 -1.0**
**FIA0 FINESS Array S 124.57 28** *e*PKPdf **PKPdf 11 31 35.4 -1.0**
**FINES FINESS Array B 124.57 28** PKP **PKPdf 11 31 35.4 -1.0**
comp=Z,3.3nm,0.6s,baz=143,slow=2.7,SNR=17
FINES pPKP **pPKPdf 11 32 01.2 -2.9**
comp=Z,4.2nm,0.6s,baz=100,slow=2.1,SNR=3.4
FINES SKP 11 35 00.3
comp=Z,7.5nm,1.0s,baz=72,slow=2.4,SNR=4.0
**MOD Modoc Plateau 124.64 295** *e*PKPdf **PKPdf 11 31 38.3 +0.9**
**J08A Circle Bar Ran 124.78 297** *e*PKPdf **PKPdf 11 31 38.6 +1.1**
**WDC Whiskeytown Da 124.82 292** *e*PKiKP **PKPdf 11 31 37.9 +0.3**
**WDC Whiskeytown Da 124.82 292** *e*PKPdf **PKPdf 11 31 37.9 +0.3**
**MSO Missoula 125.11 303** *e*PKPdf **PKPdf 11 31 38.6 +0.5**
**BMO Blue Mountains 125.29 299** *e*PKiKP **PKPdf 11 31 39.0 +0.5**
**BMO Blue Mountains 125.29 299** *e*PKPdf **PKPdf 11 31 39.0 +0.5**
**CM01 Chiang Mai Arr 125.42 111** *e*PKPdf **PKPdf 11 31 38.4 -1.0**
**CMAR Chiang Mai Arr 125.44 111** PKP **PKPdf 11 31 39.6 +0.1**
comp=Z,4.4nm,0.7s,baz=233,slow=3.8,SNR=14
CMAR SKP 11 35 05.0
comp=Z,1.2nm,0.5s,baz=224,slow=3.5,SNR=4.5
**I07A Izee 125.82 297** *e*PKPdf **PKPdf 11 31 40.2 +0.7**
**JTMT Jette 125.94 304** *e*PKPdf **PKPdf 11 31 39.4 -0.3**
**F10A Beach Ranch, E 126.06 300** *e*PKPdf **PKPdf 11 31 39.8 -0.2**
**G08A Pilot Rock 126.42 299** *e*PKPdf **PKPdf 11 31 41.4 +0.8**
**HUMO Hull Mountain 126.50 294** *e*PKPdf **PKPdf 11 31 41.7 +1.0**
**E09A Wood Farm, Sta 126.89 300** *e*PKPdf **PKPdf 11 31 41.8 +0.5**
**G06A Carlson Farm, 127.21 298** *e*PKPdf **PKPdf 11 31 43.5 +1.4**
**HAWA Hanford 127.48 299** *e*PKPdf **PKPdf 11 31 43.7 +1.2**
**NEW Newport 127.65 302** PKP **PKPdf 11 31 42.4 -0.4**
comp=Z,1.6nm,0.6s,baz=97,slow=8.1,SNR=3.5
**AKTO Aktyubinsk 127.65 54** PKP **PKPdf 11 31 42.6 -0.1**
comp=Z,6.3nm,0.9s,baz=178,slow=2.3,SNR=8.0
AKTO pPKP **pPKPdf 11 32 07.8 -2.6**
comp=Z,9.3nm,1.2s,baz=148,slow=1.5,SNR=3.8
AKTO SKPbc SKPbc 11 34 54.5
comp=Z,1.4nm,0.5s,baz=250,slow=4.8,SNR=5.7
**ABKAR Akbulak array 127.70 56** *e*PKPdf **PKPdf 11 31 42.7 -0.1**
**KLMR Klimovskoe 128.05 35** *e*PKiKP **PKPdf 11 31 41.6 -1.5**
KLMR pmax pmax
comp=Z,11nm,1.1s
**SUMG Summit 128.55 356** *i* PKiKP **PKPdf 11 31 44.6 +0.4**
**SUMG Summit 128.55 356** *i* P **PKPdf 11 31 44.6 +0.4**
SUMG *i* 11 34 53.0
**KKAR Karatay Array 128.59 68** *e*PKiKP **PKPdf 11 31 44.4 -0.3**
**KKAR Karatay Array 128.59 68** *e*PKPdf **PKPdf 11 31 44.4 -0.3**
**LTY Liberty 128.65 299** *e*PKPdf **PKPdf 11 31 45.0 +0.2**
**B08A Colville Reser 128.77 301** *e*PKPdf **PKPdf 11 31 45.1 +0.2**
**LON Longmire 128.85 298** *e*PKiKP **PKPdf 11 31 45.6 +0.4**
**LON Longmire 128.85 298** *e*PKPdf **PKPdf 11 31 45.6 +0.4**
**KSH Kashi 128.95 75** *e*PKP **PKPdf 11 31 47.3 +1.6**
KSH sPKP 11 32 24.4
KSH PP **PP 11 33 58.5 +3.6**
KSH PKS **PKSdf 11 35 22.8 +0.5**
KSH SKS **SKSdf 11 38 47.8 0.0**
KSH SKKS **SKKSac 11 40 40.3 -1.1**
**D05A Enumclaw 129.25 299** *e*PKPdf **PKPdf 11 31 46.2 +0.4**
**B06A Marblemount 129.91 300** *e*PKPdf **PKPdf 11 31 48.0 +1.0**
**AAK Ala-Archa 130.36 71** *i* PKiKP **PKPdf 11 31 49.4 +1.1**
**AAK Ala-Archa 130.36 71** *e*PKPdf **PKPdf 11 31 50.3 +2.0**
**ARA0 ARCESS Array S 131.09 22** *e*PKPdf **PKPdf 11 31 48.5 -0.1**
**ARCES ARCESS Array B 131.09 22** PKP **PKPdf 11 31 48.5 -0.1**
comp=Z,8.9nm,0.9s,baz=186,slow=1.7,SNR=16
ARCES pPKP **pPKPdf 11 32 13.8 -2.6**
comp=Z,10nm,0.9s,baz=202,slow=0.7,SNR=6.7
ARCES SKPbc **SKPbc 11 35 00.6 -3.2**
comp=Z,2.4nm,0.6s,baz=222,slow=1.6,SNR=5.7
**QIZ Qiongzhong 131.39 122** PKP **PKPdf 11 31 50.8 0.0**
QIZ PP **PP 11 34 11.5 +1.3**
QIZ SS SS 11 51 39.3 +4.2
QIZ LR LR
comp=Z,93nm,29.6s
**ARU Arti 132.00 48** PKP **PKPdf 11 31 51.2 +0.5**
comp=Z,1.2nm,0.3s,baz=66,slow=2.5,SNR=5.3
ARU pPKP **pPKPdf 11 32 16.5 -2.0**
comp=Z,2.5nm,0.5s,baz=74,slow=1.9,SNR=2.5
ARU SKPbc **SKPbc 11 35 05.0 -2.4**
comp=Z,3.4nm,0.6s,baz=281,slow=3.6,SNR=5.2
**ARU Arti 132.00 48** *i* PKiKP **PKPdf 11 31 51.5 +0.8**
ARU 11 34 13.9
ARU SS SS 11 51 48.6 +5.9
**DAG Danmarks Havn 132.69 3** *i* PKiKP **PKPdf 11 31 49.7 -1.8**
DAG pmax pmax
comp=Z,7.0nm,1.1s
**DAG Danmarks Havn 132.69 3** *i* P **PKPdf 11 31 49.7 -1.8**
comp=Z,7.2nm,1.1s
DAG *i* 11 35 05.6
**KMI Kunming 132.90 110** PKP **PKPdf 11 31 57.6 +3.8**
**TULEG Thule 134.87 347** *e*PKPdf **PKPdf 11 31 55.1 -0.5**
**BRVK Borovoye 135.09 58** *i* PKiKP **PKPdf 11 31 56.4 -0.2**
**BRVK Borovoye 135.09 58** *e*PKPdf **PKPdf 11 31 58.1 +1.4**
**YKA Yellowknife Ar 135.91 318** PKP **PKPdf 11 31 58.0 +0.2**
comp=Z,10.0nm,0.7s,baz=127,slow=2.3,SNR=50
YKA PP **PP 11 34 38.7 -0.2**
comp=Z,0.5nm,0.8s,baz=127,slow=2.8,SNR=4.3
YKA SKPbc **SKPbc 11 35 17.9 -2.1**
comp=Z,7.7nm,0.9s,baz=128,slow=2.3,SNR=15
**YKB5 Yellowknife Ar 135.91 318** *e*PP PP 11 34 38.7 -0.2
**YKW3 Yellowknife Ar 135.95 318** *e*PKPdf **PKPdf 11 31 57.4 -0.5**
**GYA Guiyang 136.03 113** *e*Pdif **Pdif 11 29 04.0 -0.3**
GYA PKP **PKiKP 11 32 00.8 -0.3**
GYA sPKP 11 32 37.6
GYA PP **PP 11 34 44.4 +4.3**
GYA AMB AMB
comp=Z,130nm,7.9s
**SPITS Spitsbergen Ar 136.65 12** PKP **PKPdf 11 31 57.3 -1.6**
comp=Z,9.5nm,1.0s,baz=300,slow=5.8,SNR=4.5
SPITS pPKP **pPKPdf 11 32 24.8 -1.9**
comp=Z,13nm,1.0s,baz=286,slow=5.2,SNR=3.3
**MK31 Makanchi Array 137.27 72** *e*PKiKP **PKPdf 11 32 00.2 -0.8**
**MK31 Makanchi Array 137.27 72** *e*PKPdf **PKPdf 11 32 00.1 -0.8**
**MK32 Makanchi Array 137.27 72** *e*PKPdf **PKPdf 11 31 59.9 -1.0**
**MKAR Makanchi Array 137.27 72** PKhKP PKPpre 11 31 49.0
comp=Z,0.4nm,0.7s,baz=243,slow=3.4,SNR=3.9
MKAR PKP **PKPdf 11 31 59.9 -1.0**
comp=Z,0.9nm,0.6s,baz=252,slow=4.7,SNR=7.3
MKAR SKPbc **SKPbc 11 35 22.1 -2.6**
comp=Z,14nm,1.1s,baz=255,slow=2.4,SNR=15
**MKAR Makanchi Array 137.27 72** PKP **PKPdf 11 31 59.9 -1.0**
MKAR *e*PKPdf **PKiKP 11 32 00.1 -2.7**
**RES Resolute Bay 137.71 339** PKP **PKPdf 11 32 01.1 +0.3**
comp=Z,7.2nm,0.9s,baz=212,slow=4.8,SNR=9.5
RES SKPbc **SKPbc 11 35 23.7 -1.3**
comp=Z,9.9nm,1.0s,baz=128,slow=5.0,SNR=6.8
**KURK Kurchatov 137.77 65** *i* PKiKP **PKPdf 11 32 02.8 +1.1**
KURK pmax pmax
comp=Z,2.0nm,1.0s
**CD2 Chengdu 138.04 106** *e*PKP **PKPdf 11 32 03.1 +0.2**
CD2 PP **PP 11 34 58.1 +5.5**
CD2 SKS **SKSdf 11 39 05.8 +1.7**
CD2 SKKS **SKKSac 11 41 30.3 -6.4**
CD2 SS **SS 11 52 54.3 -1.2**
CD2 AMB AMB
comp=Z,230nm,10.4s
CD2 LR LR
comp=Z,230nm,11.4s
CD2 LR LR
comp=Z,270nm,13.3s
**WMQ Urumqi 138.30 79** PKP **PKPdf 11 32 03.4 +0.4**
WMQ PP **PP 11 34 53.4 -0.9**
WMQ AMB AMB
comp=Z,230nm,4.3s
WMQ LR LR
comp=Z,360nm,30.9s
WMQ LR LR
comp=Z,230nm,38.7s
WMQ LR LR
comp=Z,240nm,29.1s
**DGZ Jazzator, Alta 141.76 71** *i* PKiKP **PKPdf 11 32 11.5 +2.3**
**LZH Lanzhou 142.00 101** *e*PKP **PKPdf 11 32 11.1 +1.0**
LZH sPKP 11 32 46.1
LZH SKKS 11 41 55.5
LZH SS **SS 11 53 42.4 +0.3**
LZH AMB AMB
comp=Z,200nm,5.1s
LZH LR LR
comp=Z,260nm,15.2s
LZH LR LR
comp=Z,290nm,16.2s
LZH LR LR
comp=Z,330nm,18.0s
**GTA Gaotai 142.12 94** *e*P **PKPdf 11 32 08.0 -2.2**
GTA pP PKiKP 11 32 11.4 -1.8
GTA sP pPKPdf 11 32 13.8 -24
GTA pmax pmax
comp=Z,5.0nm,1.1s
**GTA Gaotai 142.12 94** *e*PKP **PKPdf 11 32 13.4 +3.2**
GTA sPKP 11 32 50.3
GTA PP **PP 11 35 24.6 +6.9**
GTA SKS **SKSdf 11 39 11.9 +1.4**
GTA SKKS **SKKSac 11 42 02.5 +2.0**
GTA SS **SS 11 53 48.6 +5.1**
GTA AMB AMB
comp=Z,75nm,6.7s
GTA LR LR
comp=Z,210nm,18.7s
GTA LR LR
comp=Z,78nm,20.6s
GTA LR LR
comp=Z,200nm,20.9s
**NVS Novosibirsk 142.40 62**⇑ *i* PKiKP **PKPdf 11 32 06.5 -3.4**
NVS *i* 11 35 18.8
NVS pmax pmax
comp=N,10.0nm,0.8s
NVS pmax pmax
comp=Z,16nm,0.8s
NVS pmax pmax
comp=E,3.0nm,0.5s
**ZAA0 Zalesovo Array 142.73 64** *e*PKPpre PKPpre 11 32 06.5
**ZALV Zalesovo Beam 142.73 64** PKhKP PKPpre 11 32 06.3
comp=E,1.6nm,0.4s,baz=237,slow=3.6,SNR=9.7
ZALV PKP **PKPdf 11 32 11.7 +1.2**
comp=E,9.5nm,0.7s,baz=248,slow=3.6,SNR=22
ZALV PP **PP 11 35 20.0 -1.2**
comp=E,2.4nm,1.0s,baz=248,slow=6.2,SNR=4.0
ZALV SKPbc **SKPbc 11 35 36.5 -2.5**
comp=E,6.8nm,0.8s,baz=241,slow=2.3,SNR=9.9
**ZALV Zalesovo Beam 142.73 64** *e*PKPpre PKPpre 11 32 05.8
ZALV PKP **PKPdf 11 32 11.7 +1.2**
ZALV PP **PP 11 35 20.0 -1.2**
**ZAA1 Zalesovo Array 142.73 64** *e*PKPpre PKPpre 11 32 06.3
ZAA1 *e*PKPdf **PKPdf 11 32 11.7 +1.1**
ZAA1 *e*PP **PP 11 35 20.0 -1.2**
**XAN Xi'an 143.22 108** PKP **PKPdf 11 32 11.0 -1.2**
XAN sPKP 11 32 48.8
XAN PKS **PKSdf 11 35 49.8 +1.9**
XAN SKS **SKSdf 11 39 06.4 -5.9**
XAN AMB AMB
comp=E,130nm,9.8s
XAN LR LR
comp=E,110nm,12.1s
XAN LR LR
comp=E,690nm,20.4s
**WHY Whitehorse 143.24 308** *e*PKPpre PKPpre 11 32 08.9
**HYT Haines Junctio 144.47 307** *e*PKPdf **PKPdf 11 32 13.6 0.0**
**INK Inuvik 145.55 321** PKPbc **PKPab 11 32 16.0 +0.2**
comp=E,36nm,0.6s,baz=89,slow=3.0,SNR=254
INK SKP 11 35 39.0
comp=E,7.3nm,0.9s,baz=93,slow=2.6,SNR=2.4
**INK Inuvik 145.55 321** *e*PKiKP **PKPdf 11 32 14.8 -0.2**
**INK Inuvik 145.55 321** *e*PKPdf **PKPdf 11 32 14.8 -0.2**
**HVS Khovu-Aksy 145.90 73** *i* PKP2 **PKPbc 11 32 17.5 +0.3**
**DAWY Dawson 146.50 312** *e*PKPdf **PKPbc 11 32 18.5 0.0**
**NJ2 Nanjing 146.68 122** *e*PKPbc **PKPdf 11 32 17.0 -1.1**
**EGAK Eagle 147.44 313** *e*PKPdf **PKPbc 11 32 21.1 +0.1**
**BMRM Bremner River 147.74 305** *e*PKPdf **PKPbc 11 32 22.8 +0.8**
**MENT Mentasta 147.98 309** *e*PKPdf **PKPbc 11 32 22.9 +0.3**
**DOT Dot Lake 148.34 310** *e*PKPbc **PKPbc 11 32 24.2 +0.7**
**KLU Klutina 148.51 306** *e*PKPbc **PKPbc 11 32 25.0 +1.0**
**BTO Baotou 148.62 102** *e*PKPbc **PKPdf 11 32 20.1 -1.1**
**TIA Tai'an 149.17 115** PKPbc **PKPbc 11 32 26.3 -0.1**
**SCM Sheep Creek Mo 149.26 306** *e*PKP2 **PKPbc 11 32 26.9 +1.0**
**SCM Sheep Creek Mo 149.26 306** *e*PKPbc **PKPbc 11 32 26.9 +1.0**
**FYU Fort Yukon 149.51 316** *e*PKPbc **PKPbc 11 32 27.3 +1.1**
**DHY Denali Highway 149.62 308** *e*PKPbc **PKPbc 11 32 27.7 +0.9**
**HHC Hu-ho-hao-te 149.63 103** *e*PKPbc **PKPdf 11 32 23.4 +0.6**
**SML Sawmill 149.71 306** *e*PKP2 **PKPbc 11 32 27.6 +0.6**
**SML Sawmill 149.71 306** *e*PKPbc **PKPbc 11 32 27.6 +0.6**
**HDA Harding Lake 149.76 311** *e*PKPbc **PKPbc 11 32 27.1 +0.1**
**ILAR Eielson Array 149.82 312** PKP **PKPdf 11 32 19.6 -2.6**
comp=E,2.3nm,0.8s,baz=323,slow=1.1,SNR=24
ILAR PKPbc **PKPbc 11 32 27.2 +0.1**
comp=E,56nm,0.8s,baz=136,slow=2.6,SNR=242
**ILB Eielson Array 149.82 312** *e*PKPbc **PKPbc 11 32 27.1 +0.1**
**PMR Palmer 150.01 305** *e*PKiKP **PKPbc 11 32 28.0 +0.4**
**PMR Palmer 150.01 305** *e*PKPbc **PKPbc 11 32 28.0 +0.4**
**MOY Mondy 150.12 77** *e*PKiKP **PKPbc 11 32 29.0 +0.6**
MOY pmax pmax
comp=Z,23nm,1.8s
**RC01 Rabbit Creek A 150.15 304** *e*PKPbc **PKPbc 11 32 28.7 +0.7**
**CCB Clear Creek Bu 150.18 311** *e*PKPbc **PKPbc 11 32 27.8 -0.1**
**CBIJ Chichi jima 150.19 162** *e*PKPbc **PKPbc 11 32 28.2 -0.9**
**JCJ Chichijima 150.19 162** PKPbc **PKPbc 11 32 28.6 -0.6**
comp=Z,82nm,0.6s,baz=259,slow=22,SNR=7.6
**COLA College 150.24 312** *e*PKiKP **PKPbc 11 32 28.2 +0.1**
**COLA College 150.24 312** *e*PKPbc **PKPbc 11 32 28.2 +0.1**
**BRLK Bradley Lake 150.29 301** *e*PKPbc **PKPbc 11 32 29.2 +0.8**
**RND Reindeer 150.35 309** *e*PKiKP **PKPbc 11 32 29.2 +0.7**
**RND Reindeer 150.35 309** *e*PKPbc **PKPbc 11 32 29.2 +0.7**
**KDAK Kodiak Island 150.46 297** *i* PKiKP **PKPbc 11 32 29.2 +0.4**
**KDAK Kodiak Island 150.46 297** *e*PKPbc **PKPbc 11 32 29.5 +0.7**
**MCK McKinley 150.46 309** *e*PKiKP **PKPbc 11 32 29.2 +0.5**
**MCK McKinley 150.46 309** *e*PKPbc **PKPbc 11 32 29.1 +0.5**
**OHAK Old Harbor 150.61 295** *e*PKPbc **PKPbc 11 32 29.8 +0.6**
**SUA Susitna One 150.72 304** *e*PKPbc **PKPbc 11 32 30.2 +0.7**
**ZAK Zakamensk 150.74 80** *e*PKiKP **PKPbc 11 32 28.8 -1.1**
ZAK pmax pmax
comp=Z,15nm,1.2s
**TRF Thorofare Moun 150.99 309** *e*PKPbc **PKPbc 11 32 30.8 +0.7**
**SONA0 Songino Array 151.13 87** *e*PKPdf **PKPdf 11 32 24.8 -0.1**
SONA0 *e*PKPbc **PKPbc 11 32 31.1 +0.2**
**SONM Songino Array 151.13 87** PKP **PKPdf 11 32 24.8 -0.1**
comp=Z,1.1nm,0.8s,baz=195,slow=3.1,SNR=11
SONM PKPbc **PKPbc 11 32 31.1 +0.2**
comp=Z,12nm,0.5s,baz=222,slow=3.6,SNR=58
**SONA1 Songino Array 151.14 87** *e*PKPdf **PKPbc 11 32 24.3

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **PPLA** | **Purkeypile** | **151.72** | **307** | *e*PKPbc | **PKPbc** | **11 32 31.0** | **-0.8** |
| **JNU** | **Nakatsue** | **152.76** | **138** | PKPbc | **PKPbc** | **11 32 34.2** | **-0.8** |
| | comp=Z,6.6nm,0.7s,baz=196,slow=5.5,SNR=6.3 | | | | | | |
| **JNU** | **Nakatsue** | **152.76** | **138** | *e*PKPbc | **PKPbc** | **11 32 34.0** | **-1.0** |
| **KSAR** | **Wonju Array Be** | **155.28** | **129** | PKIKP | PKPdf | 11 32 42.9 | +12 |
| KSAR | | | | | | 11 32 57.1 | |
| **KSAR** | **Wonju Array Be** | **155.28** | **129** | PKPbc | PKPdf | 11 32 42.9 | +12 |
| KSAR | | | | PKPab | **PKPab** | **11 32 57.1** | **+0.3** |
| **KSRS** | **Korea Array** | **155.31** | **129** | PKPbc | PKPdf | 11 32 42.9 | +12 |
| | comp=Z,1.0nm,0.5s,baz=243,slow=2.2,SNR=5.6 | | | | | | |
| KSRS | | | | PKPab | **PKPab** | **11 32 57.1** | **+0.2** |
| | comp=Z,4.7nm,0.8s,baz=219,slow=4.2,SNR=8.9 | | | | | | |
| **MAT** | **Matsushiro** | **158.33** | **148** | *e*PKP | **PKPdf** | **11 32 34.1** | **-1.0** |
| **MJAR** | **Matsushiro Arr** | **158.33** | **148** | PKP | **PKPdf** | **11 32 34.6** | **-0.5** |
| | comp=Z,2.0nm,0.9s,baz=207,slow=1.4,SNR=4.8 | | | | | | |
| MJAR | | | | PKPab | **PKPab** | **11 33 10.0** | **+0.1** |
| | comp=Z,7.2nm,0.9s,baz=183,slow=4.9,SNR=10 | | | | | | |
| **BOD** | **Bodaibo** | **159.32** | **69** | *e*PKIKP | **PKPdf** | **11 32 39.7** | **+4.2** |
| **MDJ** | **Mudanjiang** | **161.73** | **119** | PKP | **PKPdf** | **11 32 38.3** | **-0.3** |
| **BILL** | **Bilibino** | **166.31** | **337** | *de*PKIKP | **PKPdf** | **11 32 37.9** | **-4.1** |
| BILL | | | | *e* | | 11 33 17.9 | |
| BILL | | | | *e* | | 11 37 33.0 | |
| BILL | | | | *e*SS | SS | 11 58 11.1 | +6.5 |
| BILL | | | | pmax | pmax | | |
| | comp=Z,1.0nm,3.2s | | | | | | |
| **PETK** | **Petropavlovsk-** | **175.60** | **230** | PKP | **PKPdf** | **11 32 46.5** | **-0.8** |
| | comp=Z,6.4nm,0.8s,baz=132,slow=2.2,SNR=4.2 | | | | | | |
| PETK | | | | PKPab | **PKPab** | **11 34 25.2** | **-0.5** |
| | comp=Z,10nm,0.8s,baz=99,slow=6.4,SNR=6.0 | | | | | | |
| **PEA1** | **Petropavlovsk-** | **175.61** | **230** | *e*PKPdf | **PKPdf** | **11 32 46.5** | **-0.8** |
| PEA1 | | | | *e*PKPab | **PKPab** | **11 34 25.2** | **-0.5** |

**IDC 19 11:12:51.3±1.4, 29.06S×178.45W, h0km, mb3.4/2, mb1 3.6/2, mb1mx3.5/29, mbtmp3.4/2, Error ellipse: s-maj=93.1km s-min=17.9km az=15.0, Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **0.50** | **113** | Pn | Pn | 11 13 05.6 | -0.1 |
| | 119nm,0.3s,baz=92,slow=10.0,SNR=5.4 | | | | | | |
| RAO | | | | Sn | Sn | 11 13 21.0 | +5.9 |
| | 354nm,0.3s,baz=233,slow=18,SNR=5.2 | | | | | | |
| **ASAR** | **Alice Springs** | **42.81** | **266** | P | P | 11 20 50.5 | -0.6 |
| | 0.2nm,0.5s,baz=95,slow=6.9,SNR=7.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.67** | **271** | P | P | 11 20 57.4 | -0.7 |
| | 0.2nm,0.3s,baz=108,slow=6.2,SNR=6.4 | | | | | | |
| **AKASG** | **Malin Array Be** | **150.00** | **324** | PKPbc | PKPbc | 11 32 44.2 | +0.8 |
| | 0.2nm,0.3s,baz=38,slow=3.6,SNR=3.5 | | | | | | |

*JMA **19** 11:19:46.8±0.2, 36.35N×142.27E, h31km, M2.8*
*ISCJB **19** 11:19:47.4±2.1, 36.37N±0.06×142.2E±0.2, h19km, mb3.3/2, MS3.2/2, Error ellipse: s-maj=23.4km s-min=6.2km az=14.8*
*IDC **19** 11:19:49.3±13.0, 36.51N×141.93E, h0km, mb3.4/2, mb1 3.3/3, mb1mx3.1/62, mbtmp3.3/3, ML2.9/1, MS2.8/3, Ms1 2.8/3, ms1mx2.6/23, Error ellipse: s-maj=237.3km s-min=76.8km az=143.0*
**ISC 19 11:19:49.8±2.4, 36.39N±0.07×142.1E±0.2, h19km, n14, σ1§07/13, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CHOJ** | **Chosi** | **1.19** | **235** | P | **Pn** | **11 20 09.8** | **-1.6** |
| CHOJ | | | | *e*S | **Sb** | **11 20 26.7** | **0.0** |
| **JHO** | **Hitachi** | **1.22** | **281** | P | **Pn** | **11 20 10.7** | **-1.1** |
| **ONAJ** | **Iwakimizuishiy** | **1.24** | **306** | P | **Pn** | **11 20 11.1** | **-1.0** |
| **JMM** | **Marumori** | **1.79** | **326** | P | **Pn** | **11 20 18.6** | **-1.1** |
| **BSO1** | **Boso 1** | **1.94** | **207** | *e*S | **Sn** | **11 20 44.2** | **-0.6** |
| **BSO3** | **Boso 3** | **2.02** | **219** | S | **Sn** | **11 20 47.0** | **-0.2** |
| **JAG** | **Ashikaga** | **2.10** | **272** | P | **Pn** | **11 20 23.6** | **-0.4** |
| **JIO** | **Ouri** | **2.14** | **345** | *e*S | **Sn** | **11 20 49.3** | **-1.2** |
| **JRY** | **Ryogami san** | **2.58** | **263** | P | **Pn** | **11 20 29.8** | **-0.8** |
| **MJAR** | **Matsushiro Arr** | **3.11** | **274** | Pn | **Pn** | **11 20 37.8** | **0.0** |
| | 1.7nm,0.3s,baz=93,slow=9.7,SNR=13 | | | | | | |
| MJAR | | | | LR | LR | 11 21 57.1 | |
| | comp=Z,29nm,18.9s,baz=175,slow=43 | | | | | | |
| **SONM** | **Songino Array** | **28.58** | **305** | P | **P** | **11 25 45.2** | **+0.5** |
| | 0.3nm,0.6s,baz=99,slow=9.1,SNR=2.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.90** | **303** | P | **P** | **11 28 04.7** | **+1.6** |
| | 0.3nm,0.5s,baz=80,slow=8.6,SNR=4.0 | | | | | | |
| **PMG** | **Port Moresby** | **45.80** | **173** | LR | LR | 11 52 03.1 | |
| | comp=Z,16nm,19.1s,baz=358,slow=42 | | | | | | |
| **HNR** | **Honiara** | **48.59** | **156** | LR | LR | 11 51 22.2 | |
| | comp=Z,35nm,18.1s,baz=354,slow=39 | | | | | | |

*ISCJB **19** 11:31:59.2±0.6, 50.37N±0.04×18.82E±0.03, h0km, Error ellipse: s-maj=6.2km s-min=2.7km az=16.4*
*CSEM **19** 11:31:59.9±0.4, 50.40N×18.83E, h2km, ML2.7/5, Error ellipse: s-maj=9.7km s-min=4.2km az=14.0*
*PRU **19** 11:32:00.9, 50.36N×18.83E, h0km*
*WAR **19** 11:32:01.0, 50.36N×18.93E, h1km, Mw2.5*
**ISC 19 11:32:00.9±0.8, 50.26N±0.04×18.84E±0.02, h0km, n36, σ1§13/64, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **OJC** | **Ojcow** | **0.62** | **94** | *e*Pg | **Pg** | **11 32 11.9** | **-0.8** |
| OJC | | | | *e*Sg | **Sg** | **11 32 20.2** | **-0.4** |
| **OJC** | **Ojcow** | **0.62** | **94** | *e*Pg | **Pg** | **11 32 11.9** | **-0.8** |
| OJC | | | | *e*Sg | **Sg** | **11 32 20.2** | **-0.4** |
| **OJC** | **Ojcow** | **0.62** | **94** | *e*Pg | **Pg** | **11 32 11.9** | **-0.8** |
| OJC | | | | *e*Sg | **Sg** | **11 32 20.2** | **-0.4** |
| **OKC** | **Ostrava-Krasne** | **0.62** | **227** | *e*PG | **Pb** | **11 32 15.0** | **+0.5** |
| OKC | | | | *e*SG | **Sb** | **11 32 24.7** | **+1.0** |
| | comp=Z,15nm,0.3s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **0.62** | **227** | Pg | **Pb** | **11 32 15.0** | **+0.5** |
| OKC | | | | Sg | **Sb** | **11 32 24.7** | **+1.0** |
| | 15nm,0.3s | | | | | | |
| **MORC** | **Moravsky Berou** | **0.97** | **240** | *e*Pg | **Pb** | **11 32 20.3** | **-0.3** |
| MORC | | | | *e*Sg | **Sb** | **11 32 34.8** | **+0.9** |
| **LANS** | **Liptovska Anna** | **1.18** | **160** | *e*Pg | **Pn** | **11 32 24.7** | **0.0** |
| LANS | | | | *e*Sg | **Sn** | **11 32 41.6** | **0.0** |
| **LANS** | **Liptovska Anna** | **1.18** | **160** | *e*PG | **Pn** | **11 32 24.7** | **0.0** |
| LANS | | | | *e*SG | **Sn** | **11 32 41.6** | **0.0** |
| **NIE** | **Niedzica** | **1.27** | **131** | *e*Pg | **Pn** | **11 32 25.9** | **0.0** |
| NIE | | | | *e*Sg | **Sn** | **11 32 44.0** | **+0.4** |
| **NIE** | **Niedzica** | **1.27** | **131** | *e*Pg | **Pn** | **11 32 25.9** | **0.0** |
| NIE | | | | *e*Sg | **Sn** | **11 32 44.0** | **+0.4** |
| **NIE** | **Niedzica** | **1.27** | **131** | *e*Pg | **Pn** | **11 32 25.9** | **0.0** |
| NIE | | | | *e*Sg | **Sn** | **11 32 44.0** | **+0.4** |
| **KRLC** | **Kraliky** | **1.34** | **263** | *e*PG | **Pg** | **11 32 25.8** | **-0.7** |
| KRLC | | | | *e*SG | **Sb** | **11 32 44.1** | **-0.5** |
| | comp=Z,5.4nm,0.2s | | | | | | |
| **KRLC** | **Kraliky** | **1.34** | **263** | Pg | **Pg** | **11 32 25.8** | **-0.7** |
| KRLC | | | | Sg | **Sb** | **11 32 44.1** | **-0.5** |
| | 5.4nm,0.2s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.62** | **274** | *e*PG | **Pn** | **11 32 30.3** | **-0.4** |
| DPC | | | | *e*SG | **Sg** | **11 32 53.0** | **+0.2** |
| | comp=Z,7.2nm,0.4s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.62** | **274** | Pg | **Pn** | **11 32 30.3** | **-0.4** |
| DPC | | | | Sg | **Sg** | **11 32 53.0** | **+0.2** |
| | 7.2nm,0.4s | | | | | | |
| **KSP** | **Ksiaz** | **1.73** | **291** | *e*Pg | **Pb** | **11 32 32.6** | **-0.9** |
| KSP | | | | *e*Sg | **Sg** | **11 32 56.5** | **+0.2** |
| **KSP** | **Ksiaz** | **1.73** | **291** | *e*Pg | **Pb** | **11 32 32.6** | **-0.9** |
| KSP | | | | *e*Sg | **Sg** | **11 32 56.5** | **+0.2** |
| **KSP** | **Ksiaz** | **1.73** | **291** | *e*Pg | **Pb** | **11 32 32.6** | **-0.9** |
| KSP | | | | *e*Sg | **Sg** | **11 32 56.5** | **+0.2** |
| **VRAC** | **Vranov** | **1.74** | **238** | *e*Pn | **Pn** | **11 32 32.7** | **+0.3** |
| VRAC | | | | *e*Sg | **Sg** | **11 32 57.9** | **+1.1** |
| **VYHS** | **Vyhne** | **1.77** | **180** | *e*Pg | **Pn** | **11 32 33.2** | **+0.4** |
| VYHS | | | | *e*Sn | **Sn** | **11 32 56.0** | **0.0** |
| **VYHS** | **Vyhne** | **1.77** | **180** | *e*PG | **Pn** | **11 32 33.2** | **+0.4** |
| VYHS | | | | *e*SN | **Sn** | **11 32 56.0** | **0.0** |
| VYHS | | | | eLG | Lg | 11 33 00.7 | |
| **STHS** | **Stebnicka Huta** | **1.77** | **118** | *e*Pn | **Pb** | **11 32 34.5** | **+0.3** |
| **STHS** | **Stebnicka Huta** | **1.77** | **118** | *e*PN | **Pb** | **11 32 34.5** | **+0.3** |
| STHS | | | | eLG | Lg | 11 33 13.0 | |
| **UPC** | **Upice** | **1.83** | **279** | *e*PG | **Pn** | **11 32 33.5** | **-0.1** |
| UPC | | | | *e*SG | **Sg** | **11 32 59.7** | **+0.1** |
| | comp=Z,4.3nm,0.2s | | | | | | |
| **UPC** | **Upice** | **1.83** | **279** | Pg | **Pn** | **11 32 33.5** | **-0.1** |
| UPC | | | | Sg | **Sg** | **11 32 59.7** | **+0.1** |
| | 4.3nm,0.2s | | | | | | |
| **CRVS** | **Cervenica-Dubn** | **2.18** | **128** | *e*Pn | **Pb** | **11 32 42.0** | **+0.8** |
| **CRVS** | **Cervenica-Dubn** | **2.18** | **128** | *e*PN | **Pb** | **11 32 42.0** | **+0.8** |
| **GOPC** | **GO Pecny, Ondr** | **2.63** | **264** | *e*PN | **Pn** | **11 32 43.6** | **-1.1** |
| GOPC | | | | *e*PG | **Pb** | **11 32 47.9** | **-1.1** |
| GOPC | | | | *e*SG | **Sg** | **11 33 24.0** | **-1.5** |
| **GOPC** | **GO Pecny, Ondr** | **2.63** | **264** | Pn | **Pn** | **11 32 43.6** | **-1.1** |
| **GOPC** | **GO Pecny, Ondr** | **2.63** | **264** | Pg | **Pb** | **11 32 47.9** | **-1.1** |
| GOPC | | | | Sg | **Sg** | **11 33 24.0** | **-1.5** |
| **PRU** | **Pruhonice** | **2.78** | **266** | *e*SG | **Sg** | **11 33 29.1** | **-1.1** |
| **PRU** | **Pruhonice** | **2.78** | **266** | Sg | **Sg** | **11 33 29.1** | **-1.1** |
| **BRG** | **Berggiesshubel** | **3.18** | **283** | *e*(PKP) | **Sn** | **11 33 35.7** | **+4.9** |
| | 9.8nm,1.4s | | | | | | |
| **BRG** | **Berggiesshubel** | **3.18** | **283** | *e*(PKP) | **Sn** | **11 33 35.7** | **+4.9** |
| | 9.8nm,1.4s | | | | | | |
| **KHC** | **Kasperske Hory** | **3.60** | **254** | *e*PN | **Pn** | **11 32 58.3** | **+0.4** |
| KHC | | | | *e*PG | **Pg** | **11 33 08.3** | **-1.5** |
| KHC | | | | *ex* | x | 11 33 53.3 | |
| KHC | | | | *e*SG | **Sg** | **11 33 54.9** | **-1.6** |
| | comp=Z,4.3nm,0.4s | | | | | | |
| **KHC** | **Kasperske Hory** | **3.60** | **254** | Pn | **Pn** | **11 32 58.3** | **+0.4** |

*ISCJB **19** 11:36:16.7±0.9, 16.0S±0.1×74.5W±0.1, h49km, mb3.4/4, MS3.5/1, Error ellipse: s-maj=20.5km s-min=8.9km az=135.3*
*IDC **19** 11:36:19.9±2.3, 15.93S×74.47W, h65km±21km, mb3.2/5, mb1 3.6/8, mb1mx3.5/29, mbtmp3.7/8, MS3.7/1, Ms1 3.7/1, ms1mx3.0/8, Error ellipse: s-maj=28.9km s-min=14.4km az=47.0*
**ISC 19 11:36:18.1±1.0, 16.0S±0.1×74.6W±0.1, h49km, n12, σ1§10/12, mb3.4/4, Near coast of Peru**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **NNA** | **Nana** | **4.60** | **331** | P | **Pn** | **11 37 26.2** | **+1.0** |
| | 15nm,0.3s,baz=131,slow=10.0,SNR=15 | | | | | | |
| NNA | | | | S | **Sn** | **11 38 18.2** | **+0.8** |
| | 12nm,0.3s,baz=238,slow=19,SNR=2.5 | | | | | | |
| **LPAZ** | **La Paz** | **6.17** | **93** | P | **Pn** | **11 37 49.3** | **+2.0** |
| | 1.8nm,0.3s,baz=303,slow=7.1,SNR=19 | | | | | | |
| **SIV** | **San Ignacio** | **12.96** | **92** | P | **Pn** | **11 39 20.0** | **+0.3** |
| | 0.2nm,0.3s,baz=280,slow=6.0,SNR=2.8 | | | | | | |
| **PTGA** | **Pitinga** | **20.93** | **45** | P | **P** | **11 40 55.4** | **-1.5** |
| | 3.2nm,0.5s,baz=232,slow=13,SNR=4.1 | | | | | | |
| **PLCA** | **Paso Flores** | **24.85** | **173** | P | **P** | **11 41 36.9** | **+0.7** |
| | 1.6nm,1.0s,baz=17,slow=11,SNR=2.6 | | | | | | |
| **SDV** | **Santo Domingo** | **25.06** | **9** | LR | LR | 11 52 45.6 | |
| | comp=Z,163nm,20.4s,baz=72,slow=40 | | | | | | |
| **TXAR** | **Lajitas Array** | **53.15** | **328** | P | **P** | **11 45 31.2** | **-0.1** |
| | 0.2nm,0.7s,baz=147,slow=8.6,SNR=2.7 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **80.75** | **73** | P | **P** | **11 48 26.1** | **-0.9** |
| | 0.5nm,0.6s,baz=253,slow=6.2,SNR=3.0 | | | | | | |
| **YKA** | **Yellowknife Ar** | **84.34** | **343** | P | **P** | **11 48 43.8** | **-0.7** |
| | 0.1nm,0.6s,baz=59,slow=5.2,SNR=4.1 | | | | | | |
| **ASAR** | **Alice Springs** | **131.73** | **216** | PKP | **PKPdf** | **11 55 25.9** | **-0.7** |
| | 0.1nm,0.6s,baz=116,slow=1.9,SNR=3.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **134.35** | **219** | PKP | **PKPdf** | **11 55 31.9** | **+0.3** |
| | 0.4nm,0.9s,baz=126,slow=1.9,SNR=7.8 | | | | | | |
| **SONM** | **Songino Array** | **148.28** | **359** | PKPbc | **PKPbc** | **11 55 58.4** | **-0.7** |
| | 0.3nm,0.5s,baz=345,slow=1.3,SNR=3.0 | | | | | | |

**IDC 19 12:12:13.3±59.0, 20.06S×177.09W, h0km, mb3.7/3, mb1 3.9/3, mb1mx3.6/21, mbtmp3.7/3, Error ellipse: s-maj=1092.0km s-min=156.9km az=83.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **STKA** | **Stephens Creek** | **38.75** | **244** | P | P | 12 19 39.0 | -0.6 |
| | 1.0nm,0.9s,baz=99,slow=13,SNR=3.1 | | | | | | |
| **ASAR** | **Alice Springs** | **45.45** | **256** | P | P | 12 20 34.4 | -0.2 |
| | 0.6nm,0.5s,baz=99,slow=7.3,SNR=10 | | | | | | |
| **WRA** | **Warramunga Arr** | **45.51** | **261** | P | P | 12 20 35.3 | +0.3 |
| | 0.4nm,0.3s,baz=94,slow=8.1,SNR=35 | | | | | | |

*IDC **19** 12:31:27.9±1.4, 1.32N×126.13E, h0km, mb3.8/4, mb1 3.9/5, mb1mx3.6/41, mbtmp3.8/5, ML3.4/1, Error ellipse: s-maj=106.6km s-min=21.1km az=67.0*
*ISCJB **19** 12:31:33.0±0.9, 1.40N±0.06×126.56E±0.10, h47km, mb3.8/4, Error ellipse: s-maj=14.2km s-min=8.5km az=164.1*
*DJA **19** 12:31:34.3±2.0, 1.5°N±5°×12°6E±°, h14km±16km, M4.0/7, mB4.8/1, MLv4.0/7, Mw(mB)4.1/1*
**ISC 19 12:31:34.7±0.9, 1.43N±0.07×126.42E±0.09, h47km, n11, σ2§04/13, mb3.9/4, Northern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **LBMI** | **Labuha** | **2.32** | **152** | P | **Pn** | **12 32 13.5** | **+3.1** |
| **SGSI** | **Sangihe** | **2.41** | **338** | P | **Pn** | **12 32 12.5** | **+0.8** |
| SGSI | | | | S | **Sn** | **12 32 42.1** | **+2.1** |
| **KMSI** | **Cibinong** | **2.59** | **251** | P | **Pn** | **12 32 15.5** | **+1.4** |
| **LUWI** | **Luwuk** | **4.40** | **236** | P | **Pn** | **12 32 40.6** | **+1.6** |
| **MRSI** | **Marisa** | **4.58** | **258** | P | **Pn** | **12 32 43.4** | **+1.9** |
| **APSI** | **Ampana** | **5.31** | **244** | P | **Pn** | **12 32 53.2** | **+1.7** |
| **FITZ** | **Fitzroy Crossi** | **19.43** | **182** | P | **P** | **12 35 53.7** | **-3.5** |
| | 0.1nm,0.3s,baz=345,slow=12,SNR=3.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **22.62** | **160** | P | **P** | **12 36 30.4** | **-1.3** |
| | 1.6nm,0.4s,baz=339,slow=11,SNR=50 | | | | | | |
| **ASAR** | **Alice Springs** | **25.99** | **164** | P | **P** | **12 37 02.8** | **-0.5** |
| | 0.6nm,0.4s,baz=348,slow=11,SNR=20 | | | | | | |
| ASAR | | | | PcP | **PcP** | **12 40 29.9** | **-1.0** |
| | 0.7nm,0.9s,baz=344,slow=2.2,SNR=4.7 | | | | | | |
| **STKA** | **Stephens Creek** | **36.12** | **158** | P | **P** | **12 38 32.7** | **+0.4** |
| | 1.3nm,0.7s,baz=350,slow=11,SNR=4.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **59.27** | **326** | P | **P** | **12 41 31.1** | **-0.5** |
| | 0.4nm,0.4s,baz=116,slow=8.4,SNR=15 | | | | | | |

*IDC **19** 12:32:55.3±3.6, 1.42S×100.08E, h0km, mb3.7/4, mb1 3.8/4, mb1mx3.5/44, mbtmp3.7/4, MS2.7/1, Ms1 2.7/1, ms1mx2.3/40, Error ellipse: s-maj=149.2km s-min=27.1km az=55.0*
*DJA **19** 12:32:58.9±0.4, 2°S±3°×9°9E±°, h20km±4km, M3.8/10, MLv3.8/10*
*ISCJB **19** 12:32:59.3±0.6, 1.53S±0.05×99.39E±0.04, h41km±8km, mb3.8/4, Error ellipse: s-maj=9.7km s-min=6.3km az=31.2*
**ISC 19 12:32:57.8±1.2, 1.53S±0.05×99.52E±0.04, h24km±10km, n24, σ1§76/19, mb3.8/4, Southern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SISI** | **Saibi** | **0.48** | **295** | P | **Pb** | **12 33 06.8** | **-0.9** |
| SISI | | | | S | **Sb** | **12 33 14.9** | **+0.5** |
| **PDSI** | **Padang** | **1.12** | **57** | P | **Pb** | **12 33 18.6** | **0.0** |
| PDSI | | | | S | **Sn** | **12 33 34.7** | **+2.0** |
| **PPSI** | **Pulau Pagai** | **1.32** | **158** | P | **Pb** | **12 33 23.4** | **+1.5** |
| PPSI | | | | S | **Sb** | **12 33 38.4** | **0.0** |
| **PBSI** | **Pulau Batu** | **1.92** | **320** | P | **Pb** | **12 33 31.6** | **-0.6** |
| PBSI | | | | S | **Sn** | **12 33 50.3** | **-2.1** |
| **SDSI** | **Sungai Dareh** | **1.99** | **73** | P | **Pb** | **12 33 33.3** | **-0.1** |
| SDSI | | | | S | **Sb** | **12 33 59.8** | **+1.9** |
| **BKNI** | **Bangkinang** | **2.38** | **39** | P | **Pb** | **12 33 39.4** | **-0.7** |
| **RGRI** | **Rengat** | **3.04** | **67** | P | **Pb** | **12 33 47.9** | **-3.4** |
| **MASI** | **Maura Aman, Be** | **3.15** | **121** | P | **Pb** | **12 33 50.7** | **-2.5** |
| **GSI** | **Gunungsitoli** | **3.42** | **325** | P | **Pn** | **12 33 51.1** | **+1.4** |
| **PSI** | **Prapat** | **4.34** | **352** | LR | LR | 12 35 55.7 | |
| | comp=Z,90nm,18.7s,baz=92,slow=42 | | | | | | |
| **SNSI** | **Sinabang, Aceh** | **5.05** | **321** | P | Pn | 12 34 18.7 | +6.6 |
| **TPTI** | | **5.30** | **334** | P | Pb | 12 34 43.0 | +13 |
| **KCSI** | **Kotacane, Aceh** | **5.31** | **341** | P | Pb | 12 34 49.0 | +19 |
| **H08S2** | **Diego Garcia H** | **27.61** | **256** | T | T | 13 06 34.1 | |
| | baz=78 | | | | | | |
| **H08S3** | **Diego Garcia H** | **27.61** | **256** | T | T | 13 06 32.9 | |
| | baz=78,SNR=7.9 | | | | | | |
| **H08S1** | **Diego Carcia H** | **27.63** | **256** | T | T | 13 06 43.7 | |
| | baz=78 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **35.87** | **159** | T | T | 13 17 44.7 | |
| | baz=335,slow=76,SNR=5.5 | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **35.88** | **159** | T | T | 13 17 44.9 | |
| | baz=335,slow=76,SNR=5.0 | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **35.89** | **159** | T | T | 13 17 43.3 | |
| | baz=335,slow=76,SNR=4.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **38.64** | **121** | P | **P** | **12 40 17.2** | **-2.5** |
| | 0.3nm,0.5s,baz=303,slow=9.1,SNR=4.1 | | | | | | |
| **SONM** | **Songino Array** | **49.53** | **6** | P | **P** | **12 41 47.3** | **+0.6** |
| | 0.4nm,0.7s,baz=185,slow=9.3,SNR=3.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **50.45** | **345** | P | **P** | **12 41 55.0** | **+1.4** |
| | 1.3nm,0.7s,baz=146,slow=7.5,SNR=7.3 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **56.62** | **350** | P | **P** | **12 42 39.6** | **+1.0** |
| | 1.6nm,0.7s,baz=164,slow=7.7,SNR=6.9 | | | | | | |
| **TXAR** | **Lajitas Array** | **144.61** | **36** | PKP | **PKPdf** | **12 52 32.7** | **-0.6** |
| | 0.3nm,0.3s,baz=0.0,slow=2.3,SNR=3.8 | | | | | | |

**IDC 19 12:34:10.7±3.9, 2.29N×97.31E, h0km, mb3.3/4, mb1 3.4/4, mb1mx3.3/45, mbtmp3.3/4, Error ellipse: s-maj=155.3km s-min=23.6km az=60.0, Northern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **42.52** | **123** | P | P | 12 42 08.7 | +0.4 |
| | 0.4nm,0.8s,baz=297,slow=8.9,SNR=3.3 | | | | | | |
| **ASAR** | **Alice Springs** | **43.97** | **128** | P | P | 12 42 19.4 | -0.6 |
| | 0.1nm,0.5s,baz=296,slow=7.4,SNR=4.1 | | | | | | |
| **SONM** | **Songino Array** | **46.05** | **8** | P | P | 12 42 35.6 | -0.7 |
| | 0.2nm,0.7s,baz=202,slow=6.8,SNR=2.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **46.22** | **346** | P | P | 12 42 37.9 | +0.4 |
| | 0.3nm,0.4s,baz=160,slow=7.8,SNR=2.1 | | | | | | |

**IDC 19 12:48:05.0±2.8, 4.80S×152.12E, h0km, mb3.6/2, mb1 3.9/2, mb1mx3.4/22, mbtmp3.6/2, Error ellipse: s-maj=235.5km s-min=33.0km az=124.0, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ASAR** | **Alice Springs** | **25.70** | **221** | P | P | 12 53 37.0 | 0.0 |
| | 0.3nm,0.6s,baz=56,slow=9.4,SNR=7.4 | | | | | | |
| **ILAR** | **Eielson Array** | **82.42** | **22** | P | P | 13 00 28.9 | +0.1 |
| | 1.0nm,0.7s,baz=243,slow=5.6,SNR=11 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **149.66** | **288** | PKPbc | PKPbc | 13 07 57.2 | -0.5 |
| | 0.5nm,1.0s,baz=62,slow=3.4,SNR=3.2 | | | | | | |

**IDC 19 12:49:44.8±2.2, 6.09S×130.10E, h0km, mb3.3/1, mb1 3.7/4, mb1mx3.5/25, mbtmp3.5/4, ML3.8/3, Error ellipse: s-maj=96.7km s-min=27.6km az=77.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **FITZ** | **Fitzroy Crossi** | **12.71** | **200** | Pn | Pn | 12 52 48.1 | +1.1 |
| | 0.3nm,0.3s,baz=18,slow=13,SNR=23 | | | | | | |
| FITZ | | | | Sn | Sn | 12 54 56.7 | -13 |
| | 0.6nm,0.3s,baz=290,slow=21,SNR=8.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **14.38** | **164** | Pn | Pn | 12 53 09.4 | -0.4 |
| | 0.6nm,0.3s,baz=345,slow=13,SNR=19 | | | | | | |
| WRA | | | | Sn | Sn | 12 55 39.1 | -11 |
| | 0.4nm,0.3s,baz=332,slow=23,SNR=6.1 | | | | | | |
| **ASAR** | **Alice Springs** | **17.86** | **169** | P | Pn | 12 53 54.3 | -0.6 |
| | 0.2nm,0.3s,baz=341,slow=9.4,SNR=17 | | | | | | |
| ASAR | | | | S | Sn | 12 57 05.2 | -9.5 |
| | 0.1nm,0.3s,baz=355,slow=28,SNR=4.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.52** | **327** | P | P | 13 00 42.9 | 0.0 |
| | 0.2nm,0.6s,baz=127,slow=6.6,SNR=3.3 | | | | | | |

**IDC 19 13:10:08.4±2.5, 3.78N×127.04E, h0km, mb3.4/4, mb1 3.6/4, mb1mx3.3/46, mbtmp3.4/4, MS3.0/2, Ms1 3.0/2, ms1mx2.5/31, Error ellipse: s-maj=246.3km s-min=24.2km az=65.0, Talaud Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **24.64** | **163** | P | P | 13 15 28.9 | -2.0 |
| | 0.5nm,0.6s,baz=341,slow=10,SNR=5.5 | | | | | | |
| **ASAR** | **Alice Springs** | **28.09** | **167** | P | P | 13 16 03.9 | +1.8 |
| | 0.3nm,0.9s,baz=346,slow=12,SNR=5.2 | | | | | | |
| **KSRS** | **Korea Array** | **33.52** | **1** | LR | LR | 13 30 32.9 | |
| | comp=Z,13nm,21.5s,baz=205,slow=36 | | | | | | |
| **STKA** | **Stephens Creek** | **38.07** | **160** | P | P | 13 17 28.9 | 0.0 |
| | 1.0nm,0.8s,baz=342,slow=9.6,SNR=2.6 | | | | | | |
| **TLY** | **Talaya** | **51.58** | **342** | LR | LR | 13 41 08.3 | |
| | comp=Z,28nm,18.5s,baz=338,slow=36 | | | | | | |
| **MKAR** | **Makanchi Array** | **57.69** | **325** | P | P | 13 20 00.8 | -0.1 |
| | 0.2nm,0.4s,baz=122,slow=7.6,SNR=4.1 | | | | | | |

*NIED **19** 13:11:00, 39.60N×143.40E, h29km, Mw3.5 Best double couple: Mo1.72000×10^14 NP1:φ§124.00000°, δ63.00000°, λ20.00000°. NP2:φ§25.00000°, δ73.00000°, λ152.00000°.*
*IDC **19** 13:11:59.9±2.8, 39.81N×143.19E, h0km, mb3.5/4, mb1 3.5/5, mb1mx3.3/47, mbtmp3.4/5, ML3.1/1, Error ellipse: s-maj=72.3km s-min=28.3km az=69.0*
*JMA **19** 13:11:59.7±0.2, 39.57N×143.39E, h25km±4km, M3.5*
**ISC 19 13:11:58.4±2.3, 39.73N±0.06×143.31E±0.08, h0km±14km, n18, σ1§24/25, mb3.4/4, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JTH** | **Tanohata** | **1.13** | **281** | P | **Pn** | **13 12 21.7** | **+0.3** |
| JTH | | | | *e*S | **Sn** | **13 12 37.5** | **-0.2** |
| **MIYJ** | **Miyakonagasawa** | **1.16** | **263** | P | **Pg** | **13 12 21.3** | **+0.7** |
| MIYJ | | | | *

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CUKAN** | **kangal_SIVAS** | **0.29** | **21** | *i* P | **Pg** | **13 16 38.0** | **+0.1** |
| CUKAN | | | | *i* S | **Sg** | **13 16 42.3** | **+0.7** |
| **CUKAN** | **kangal_SIVAS** | **0.29** | **21** | P | **Pg** | **13 16 38.0** | **+0.1** |
| CUKAN | | | | S | **Sg** | **13 16 42.3** | **+0.7** |
| **CUGUR** | **Gurin_S˙VAS** | **0.33** | **189** | *i* P | **Pg** | **13 16 39.3** | **+0.6** |
| CUGUR | | | | *i* S | **Sb** | **13 16 46.4** | **-0.7** |
| **CUGUR** | **Gurin_S˙VAS** | **0.33** | **189** | P | **Pg** | **13 16 39.3** | **+0.6** |
| CUGUR | | | | S | **Sb** | **13 16 46.4** | **-0.7** |
| **DARE** | **Darende-Malaty** | **0.49** | **166** | *e*PG | **Pb** | **13 16 43.3** | **-0.6** |
| DARE | | | | *e*SG | **Sb** | **13 16 50.4** | **-1.3** |
| **DARE** | **Darende-Malaty** | **0.49** | **166** | *e*Pg | **Pb** | **13 16 43.3** | **-0.6** |
| DARE | | | | *e*Sg | **Sb** | **13 16 50.4** | **-1.3** |
| **CUALT** | **Altinyayla-SIV** | **0.50** | **297** | *i* P | **Pg** | **13 16 42.0** | **0.0** |
| CUALT | | | | *i* S | **Sb** | **13 16 51.1** | **-1.1** |
| **CUALT** | **Altinyayla-SIV** | **0.50** | **297** | P | **Pg** | **13 16 42.0** | **0.0** |
| CUALT | | | | S | **Sb** | **13 16 51.1** | **-1.1** |
| **HEKM** | **Malatya_Hekimh** | **0.51** | **109** | *i* P | **Pg** | **13 16 42.9** | **+0.7** |
| HEKM | | | | *i* S | **Sb** | **13 16 52.5** | **0.0** |
| **HEKM** | **Malatya_Hekimh** | **0.51** | **109** | P | **Pg** | **13 16 42.9** | **+0.7** |
| **AKCD** | **Akcadag** | **0.88** | **148** | *i* P | **Pb** | **13 16 50.7** | **+0.1** |
| AKCD | | | | *i* S | **Sb** | **13 17 03.6** | **+0.7** |
| **AKCD** | **Akcadag** | **0.88** | **148** | P | **Pb** | **13 16 50.7** | **+0.1** |
| AKCD | | | | S | **Sb** | **13 17 03.7** | **+0.7** |
| **SVSK** | **Karacayir** | **0.91** | **343** | *e*PG | **Pn** | **13 16 52.4** | **0.0** |
| **SVSK** | **Karacayir** | **0.91** | **343** | *e*Pg | **Pn** | **13 16 52.4** | **0.0** |
| **KEMA** | **Kemaliye** | **0.93** | **76** | *i* P | **Pg** | **13 16 49.8** | **-0.4** |
| KEMA | | | | *i* S | **Sg** | **13 17 01.8** | **-0.4** |
| **KEMA** | **Kemaliye** | **0.93** | **76** | P | **Pg** | **13 16 49.8** | **-0.4** |
| KEMA | | | | S | **Sg** | **13 17 01.8** | **-0.4** |
| **ILIC** | **ilic-Erzincan** | **1.04** | **67** | *e*PG | **Pb** | **13 16 53.6** | **+0.3** |
| **ILIC** | **ilic-Erzincan** | **1.04** | **67** | *e*Pg | **Pb** | **13 16 53.7** | **+0.3** |
| **MALT** | **Malatya** | **1.13** | **130** | *e*PG | **Pb** | **13 16 54.9** | **+0.1** |
| **MALT** | **Malatya** | **1.13** | **130** | *e*Pg | **Pb** | **13 16 54.9** | **+0.1** |
| **PTK** | **Pertek** | **1.61** | **95** | *e*PN | **Pg** | **13 17 03.3** | **0.0** |
| **PTK** | **Pertek** | **1.61** | **95** | *e*Pn | **Pg** | **13 17 03.3** | **0.0** |
| **YOZ** | **Yozgat** | **1.67** | **291** | *e*PN | **Pg** | **13 17 05.6** | **+1.1** |
| **YOZ** | **Yozgat** | **1.67** | **291** | *e*Pn | **Pg** | **13 17 05.6** | **+1.1** |

*MOS **19** 13:23:58.9±1.2, 43˚.48N×147˚.31E, h51km, mb4.2/1, Error ellipse: s-maj=32.3km s-min=15.3km az=131.2*
*JMA **19** 13:23:58.7±0.2, 43˚.34N×147˚.25E, h36km, M3.7*
*SKHL **19** 13:23:59.3±0.8, 43˚.42N×147˚.35E, h54km±1km, mb4.6/2*
**ISC 19 13:23:55.1**±2.1, **43˚.41N**±0˚.07×**147˚.40E**±0˚.07, **h12**km±12km, **n26**,σ1§**14**/45, **3D**, **Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SHO** | **Shikotan** | **0.61** | **318** | *d* iPN | **Pn** | **13 24 10.6** | **+1.0** |
| SHO | | | | *i* S | **Sn** | **13 24 19.5** | **+0.1** |
| SHO | | | | pmax | pmax | | |
| | comp=Z,610nm,0.4s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=E,204nm,0.2s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=N,235nm,0.3s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=E,1μm,0.3s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=N,2μm,0.6s | | | | | | |
| **SHO** | **Shikotan** | **0.61** | **318** | *i* P | **Pn** | **13 24 10.6** | **+1.0** |
| SHO | | | | AMB | AMB | 13 24 11.2 | |
| | comp=N,610nm,0.4s | | | | | | |
| SHO | | | | *i* S | **Sn** | **13 24 19.5** | **+0.1** |
| SHO | | | | A | A | 13 24 20.0 | |
| | comp=N,1μm,0.3s | | | | | | |
| SHO | | | | A | A | 13 24 20.0 | |
| | comp=N,2μm,0.3s | | | | | | |
| **NEM2** | **Nemuro 2** | **1.21** | **268** | P | **Pb** | **13 24 18.1** | **+0.3** |
| NEM2 | | | | *e*S | **Sb** | **13 24 32.6** | **-0.7** |
| **YUK** | **Yuzh-Kuril'sk** | **1.27** | **300** | *d* iPN | **Pg** | **13 24 19.2** | **-0.4** |
| YUK | | | | *i* S | **Sb** | **13 24 34.6** | **-0.7** |
| YUK | | | | pmax | pmax | | |
| | comp=E,74nm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=Z,175nm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=N,51nm,0.1s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,433nm,0.2s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,1μm,0.5s | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **1.27** | **300** | *i* P | **Pg** | **13 24 19.2** | **-0.4** |
| YUK | | | | AMB | AMB | 13 24 23.9 | |
| | comp=N,51nm,0.3s | | | | | | |
| YUK | | | | AMB | AMB | 13 24 23.9 | |
| | comp=N,74nm,0.3s | | | | | | |
| YUK | | | | AMB | AMB | 13 24 23.9 | |
| | comp=N,176nm,0.3s | | | | | | |
| YUK | | | | *i* S | **Sb** | **13 24 34.6** | **-0.7** |
| YUK | | | | A | A | 13 24 35.7 | |
| | comp=N,433nm,0.3s | | | | | | |
| YUK | | | | A | A | 13 24 35.7 | |
| | comp=N,1μm,0.3s | | | | | | |
| **GRPR** | **Tuman** | **1.31** | **297** | *e*PN | **Pg** | **13 24 20.2** | **-0.1** |
| GRPR | | | | *i* S | **Sb** | **13 24 35.1** | **-1.3** |
| **GRPR** | **Tuman** | **1.31** | **297** | *i* P | **Pg** | **13 24 20.2** | **-0.1** |
| GRPR | | | | *i* S | **Sb** | **13 24 35.1** | **-1.3** |
| **LAGR** | **Lagunnoye** | **1.33** | **299** | *e*PN | **Pg** | **13 24 20.4** | **-0.3** |
| LAGR | | | | *i* S | **Sb** | **13 24 36.0** | **-1.0** |
| **LAGR** | **Lagunnoye** | **1.33** | **299** | *e*P | **Pg** | **13 24 20.2** | **-0.5** |
| LAGR | | | | *i* S | **Sb** | **13 24 36.0** | **-1.0** |
| **GLVR** | **Golovnino** | **1.40** | **284** | *d* iPN | **Pb** | **13 24 21.4** | **+0.2** |
| GLVR | | | | *i* S | **Sn** | **13 24 38.7** | **-0.1** |
| **GLVR** | **Golovnino** | **1.40** | **284** | *i* P | **Pb** | **13 24 21.4** | **+0.2** |
| GLVR | | | | *i* S | **Sn** | **13 24 38.7** | **-0.1** |
| **JRA** | **Rausu** | **1.73** | **288** | P | **Pb** | **13 24 26.1** | **-0.7** |
| JRA | | | | *e*S | **Sn** | **13 24 45.9** | **-1.0** |
| **KUR** | **Kuril'sk** | **1.85** | **10** | PN | **Pb** | **13 24 28.2** | **-0.6** |
| KUR | | | | *e*S | **Sn** | **13 24 49.1** | **-0.8** |
| KUR | | | | smax | smax | | |
| | comp=N,200nm,0.1s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,154nm,0.2s | | | | | | |
| **KUR** | **Kuril'sk** | **1.85** | **10** | *e*P | **Pb** | **13 24 28.2** | **-0.6** |
| KUR | | | | *e*S | **Sn** | **13 24 49.1** | **-0.8** |
| KUR | | | | A | A | 13 24 50.6 | |
| | comp=E,200nm,0.2s | | | | | | |
| KUR | | | | A | A | 13 24 50.6 | |
| | comp=E,154nm,0.2s | | | | | | |
| **JNK** | **Nakash** | **1.96** | **276** | P | **Pn** | **13 24 28.7** | **+0.7** |
| JNK | | | | *e*S | **Sn** | **13 24 51.1** | **-1.4** |
| **JAK** | **Akkeshi** | **2.02** | **259** | P | **Pn** | **13 24 29.6** | **+0.7** |
| JAK | | | | *e*S | **Sn** | **13 24 52.9** | **-1.1** |
| **JTKR** | **Abashiri--Toko** | **2.59** | **284** | P | **Pn** | **13 24 38.6** | **+1.9** |
| JTKR | | | | *e*S | **Sn** | **13 25 08.5** | **+0.4** |
| **JAR** | **Ashorobuto** | **2.65** | **269** | P | **Pn** | **13 24 38.9** | **+1.3** |
| JAR | | | | *e*S | **Sn** | **13 25 09.2** | **-0.4** |
| **JOB** | **Onbets** | **2.66** | **260** | P | **Pn** | **13 24 38.7** | **+1.1** |
| JOB | | | | *e*S | **Sn** | **13 25 08.6** | **-1.1** |
| **JCH** | **Churui** | **3.06** | **256** | *e*S | **Sn** | **13 25 18.9** | **-0.9** |
| **HRK** | **Horoka** | **3.11** | **272** | *e*P | **Pn** | **13 24 46.3** | **+2.4** |
| **JKK2** | **Kamakawa 2** | **3.41** | **279** | P | **Pn** | **13 24 50.2** | **+2.2** |
| **JNBK** | **Urakawa-nobuka** | **3.60** | **253** | P | **Pn** | **13 24 51.8** | **+1.2** |
| **JBT2** | **Biratori 2** | **3.74** | **262** | P | **Pn** | **13 24 54.0** | **+1.4** |
| **YSS** | **Yuzh-Sakhalins** | **4.83** | **319** | *e*PN | **Pn** | **13 25 10.0** | **+2.5** |
| **YSS** | **Yuzh-Sakhalins** | **4.83** | **319** | *e*P | **Pn** | **13 25 10.0** | **+2.5** |

*IDC **19** 13:36:59.3±4.4, 4˚.96S×151˚.07E, h117km±38km, mb3.6/5, mb1 3.8/6, mb1mx3.3/38, mbtmp4.0/6, Error ellipse: s-maj=33.9km s-min=23.4km az=160.0*
*ISCJB **19** 13:37:01.6±1.3, 5˚.0S±0˚.2×151˚.0E±0˚.2, h155km, mb3.7/5, Error ellipse: s-maj=30.4km s-min=19.0km az=146.7*
**ISC 19 13:37:03.3**±1.1, **5˚.1S**±0˚.2×**151˚.1E**±0˚.2, **h155**km, **n8**, σ0§**84**/9, **mb3.7/5**, **New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PMG** | **Port Moresby** | **5.74** | **222** | P | **Pn** | **13 38 26.1** | **-0.5** |
| | 6.2nm,0.3s,baz=50,slow=5.1,SNR=20 | | | | | | |
| **WRA** | **Warramunga Arr** | **21.93** | **226** | P | **P** | **13 41 44.6** | **0.0** |
| | 1.0nm,0.5s,baz=50,slow=10,SNR=18 | | | | | | |
| WRA | | | | PcP | **PcP** | **13 45 38.9** | **+1.2** |
| | 0.7nm,0.7s,baz=46,slow=2.2,SNR=7.0 | | | | | | |
| **DZM** | **Mont Dzumac** | **22.48** | **140** | P | **P** | **13 41 49.6** | **-0.4** |
| | 2.9nm,0.6s,baz=319,slow=1.1,SNR=5.0 | | | | | | |
| **ASAR** | **Alice Springs** | **24.75** | **220** | P | **P** | **13 42 11.1** | **+0.4** |
| | 2.0nm,0.8s,baz=56,slow=8.4,SNR=23 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **27.98** | **240** | P | **P** | **13 42 39.8** | **+0.1** |
| | 1.7nm,0.4s,baz=54,slow=7.6,SNR=19 | | | | | | |
| **ILAR** | **Eielson Array** | **83.13** | **22** | P | **P** | **13 49 10.6** | **-0.9** |
| | 0.6nm,0.7s,baz=248,slow=5.1,SNR=10 | | | | | | |
| **PTGA** | **Pitinga** | **148.47** | **100** | PKPbc | **PKPbc** | **13 56 34.0** | **+1.1** |
| | 1.8nm,0.5s,baz=207,slow=6.8,SNR=5.9 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **148.75** | **287** | PKPbc | **PKPbc** | **13 56 33.6** | **+0.1** |
| | 0.5nm,0.5s,baz=90,slow=2.5,SNR=4.7 | | | | | | |

*JMA **19** 13:52:54.6±0.4, 21˚.82N×121˚.37E, h42km, M3.8*
*TAP **19** 13:52:55.9, 21˚.88N×121˚.43E, h23km, ML3.7, C*
**ISC 19 13:52:56.1**±1.5, **21˚.89N**±0˚.05×**121˚.50E**±0˚.03, **h21**km±2km, **n45**,σ1§**41**/74, **1D**, **Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **LAY** | **Lan-yu** | **0.15** | **18** | *i* P | **Pb** | **13 53 01.6** | **-0.5** |
| | baz=43 | | | | | | |
| LAY | | | | *i* S | **Sb** | **13 53 05.6** | **-0.6** |
| | baz=43 | | | | | | |
| **TSEB** | **Hengchuen, Pin** | **0.56** | **271** | S | **Sn** | **13 53 15.9** | **-1.5** |
| | baz=273 | | | | | | |
| **TWK1** | **Hengchun** | **0.65** | **275** | P | **Pb** | **13 53 07.7** | **-1.1** |
| | baz=288 | | | | | | |
| TWK1 | | | | *e*S | **Sb** | **13 53 16.0** | **-1.4** |
| | baz=288 | | | | | | |
| **HEN** | **Hengchun** | **0.71** | **279** | *e*P | **Pb** | **13 53 09.1** | **-0.7** |
| | baz=290 | | | | | | |
| HEN | | | | *e*S | **Sb** | **13 53 17.1** | **-2.1** |
| | baz=290 | | | | | | |
| **TAW** | **Tawu** | **0.73** | **310** | *e*P | **Pb** | **13 53 09.0** | **-1.0** |
| | baz=314 | | | | | | |
| TAW | | | | S | **Sb** | **13 53 18.1** | **-1.5** |
| | baz=314 | | | | | | |
| **EAST** | **Anshuo** | **0.78** | **309** | ⇓ *i* P | **Pb** | **13 53 09.8** | **-1.1** |
| | baz=325 | | | | | | |
| EAST | | | | *i* S | **Sb** | **13 53 19.4** | **-1.6** |
| | baz=325 | | | | | | |
| **ECL** | **Taimali** | **0.86** | **324** | *i* P | **Pb** | **13 53 10.9** | **-1.5** |
| | baz=329 | | | | | | |
| ECL | | | | *e*S | **Sb** | **13 53 21.9** | **-1.6** |
| | baz=329 | | | | | | |
| **SCZT** | **Fangliau** | **0.94** | **301** | P | **Pb** | **13 53 12.7** | **-1.1** |
| | baz=310 | | | | | | |
| **TWG** | **Pinlang** | **1.00** | **337** | *i* P | **Pb** | **13 53 13.3** | **-1.5** |
| | baz=329 | | | | | | |
| TWG | | | | *e*S | **Sb** | **13 53 26.4** | **-1.1** |
| | baz=329 | | | | | | |
| **TWP** | **Hsiaoliuchiu** | **1.15** | **293** | *e*P | **Pb** | **13 53 18.5** | **+1.3** |
| | baz=296 | | | | | | |
| **SSD** | **Sandimen** | **1.17** | **317** | *e*P | **Pn** | **13 53 16.4** | **-0.8** |
| | baz=326 | | | | | | |
| **SGLT** | **Jiouru** | **1.25** | **312** | *e*S | **Sn** | **13 53 37.3** | **+2.8** |
| | baz=322 | | | | | | |
| **TWM1** | **Shoushan** | **1.36** | **313** | *e*P | **Pb** | **13 53 22.2** | **+1.3** |
| | baz=323 | | | | | | |
| **ELDTW** | **Lidau** | **1.36** | **341** | *e*P | **Pn** | **13 53 18.5** | **-1.5** |
| | baz=344 | | | | | | |
| **STYT** | **Tauyuan** | **1.44** | **332** | *e*P | **Pn** | **13 53 20.6** | **-0.5** |
| | baz=341 | | | | | | |
| **SGST** | **Jiashian** | **1.46** | **325** | *e*P | **Pb** | **13 53 22.6** | **+0.1** |
| | baz=327 | | | | | | |
| SGST | | | | *e*S | **Sb** | **13 53 41.6** | **+1.0** |
| | baz=327 | | | | | | |
| **TWF1** | **Yuli** | **1.47** | **353** | *e*P | **Pn** | **13 53 20.9** | **-0.4** |
| | baz=3.0 | | | | | | |
| **CHN1** | **Nanshi** | **1.57** | **325** | *e*P | **Pb** | **13 53 24.2** | **-0.2** |
| | baz=327 | | | | | | |
| CHN1 | | | | *e*S | **Sb** | **13 53 44.8** | **+1.0** |
| | baz=327 | | | | | | |
| **WTP** | **Ta-pu** | **1.58** | **329** | *e*P | **Pb** | **13 53 24.3** | **-0.3** |
| | baz=331 | | | | | | |
| WTP | | | | *e*S | **Sb** | **13 53 44.7** | **+0.6** |
| | baz=331 | | | | | | |
| **CHN3** | **Shinhua** | **1.58** | **319** | *e*P | **Pb** | **13 53 24.7** | **+0.2** |
| | baz=320 | | | | | | |
| CHN3 | | | | *e*S | **Sb** | **13 53 48.2** | **+4.2** |
| | baz=320 | | | | | | |
| **EHY** | **Hungye** | **1.61** | **354** | *e*P | **Pb** | **13 53 24.3** | **-0.9** |
| | baz=2.0 | | | | | | |
| **TWK** | **Hsinying** | **1.66** | **326** | P | **Pb** | **13 53 25.2** | **-0.7** |
| | baz=328 | | | | | | |
| TWK | | | | *e*S | **Sb** | **13 53 46.1** | **-0.2** |
| | baz=328 | | | | | | |
| **YUS** | **Yu-Shan** | **1.67** | **342** | *e*P | **Pn** | **13 53 24.9** | **+0.3** |
| | baz=344 | | | | | | |
| YUS | | | | *e*S | **Sb** | **13 53 46.7** | **-0.4** |
| | baz=344 | | | | | | |
| **CHN4** | **Tsaushan** | **1.68** | **330** | *e*P | **Pb** | **13 53 25.7** | **-0.5** |
| | baz=332 | | | | | | |
| CHN4 | | | | *e*S | **Sb** | **13 53 49.1** | **+2.3** |
| | baz=332 | | | | | | |
| **ALS** | **Alishan** | **1.73** | **338** | *e*P | **Pn** | **13 53 25.5** | **+0.3** |
| | baz=340 | | | | | | |
| ALS | | | | *e*S | **Sb** | **13 53 48.7** | **-0.1** |
| | baz=340 | | | | | | |
| **CHN5** | **Tsauling** | **1.86** | **336** | *e*P | **Pb** | **13 53 28.5** | **-0.9** |
| | baz=345 | | | | | | |
| CHN5 | | | | *e*S | **Sb** | **13 53 52.9** | **+0.6** |
| | baz=345 | | | | | | |
| **CHN2** | **Minshiung** | **1.89** | **330** | *e*S | **Sb** | **13 53 52.8** | **-0.2** |
| | baz=331 | | | | | | |
| **ESL** | **Shilin** | **1.91** | **358** | *e*P | **Pb** | **13 53 28.7** | **-1.6** |
| | baz=8.0 | | | | | | |
| **WGK** | **Gukeng** | **1.98** | **334** | *e*S | **Sb** | **13 53 54.2** | **-1.5** |
| | baz=336 | | | | | | |
| **SMLT** | **Sun Moon Lake** | **2.06** | **345** | *e*P | **Pb** | **13 53 31.4** | **-1.4** |
| | baz=345 | | | | | | |
| SMLT | | | | *e*S | **Sb** | **13 53 57.6** | **-0.3** |
| | baz=345 | | | | | | |
| **TYC** | **Yuchr** | **2.09** | **344** | *e*P | **Pb** | **13 53 31.7** | **-1.5** |
| | baz=345 | | | | | | |
| TYC | | | | *e*S | **Sb** | **13 53 57.4** | **-1.4** |
| | baz=345 | | | | | | |
| **WNT** | **Mingjian** | **2.11** | **339** | *e*S | **Sb** | **13 53 59.5** | **0.0** |
| | baz=340 | | | | | | |
| **WHF** | **Hehuan Shan** | **2.25** | **355** | *e*P | **Pn** | **13 53 33.5** | **+1.0** |
| | baz=355 | | | | | | |
| WHF | | | | *e*S | **Sn** | **13 54 01.1** | **+1.2** |
| | baz=355 | | | | | | |
| **TWQ1** | **Liyutan** | **2.53** | **345** | P | **Pn** | **13 53 37.9** | **+1.9** |
| | baz=345 | | | | | | |
| TWQ1 | | | | *e*S | **Sb** | **13 54 08.8** | **-2.8** |
| | baz=345 | | | | | | |
| **NNS** | **Nan Shan** | **2.54** | **357** | *e*P | **Pb** | **13 53 39.1** | **-1.9** |
| | baz=357 | | | | | | |
| NNS | | | | *e*S | **Sn** | **13 54 08.6** | **+2.0** |
| | baz=357 | | | | | | |
| **ENTT** | **Nioudou** | **2.74** | **1** | *e*P | **Pn** | **13 53 40.5** | **+1.7** |
| | baz=354 | | | | | | |
| **NSK** | **Sanguang** | **2.77** | **357** | *e*P | **Pn** | **13 53 41.4** | **+2.0** |
| | baz=357 | | | | | | |
| NSK | | | | *e*S | **Sn** | **13 54 14.4** | **+2.1** |
| | baz=357 | | | | | | |
| **TWE** | **Neicheng** | **2.82** | **3** | *e*P | **Pn** | **13 53 41.8** | **+1.8** |
| | baz=353 | | | | | | |
| TWE | | | | *e*S | **Sb** | **13 54 16.7** | **-3.1** |
| | baz=353 | | | | | | |
| **JYNG** | **Yonagunijimaku** | **2.87** | **27** | *e*S | **Sn** | **13 54 16.1** | **+1.5** |
| **IRIF** | **Iriomote-Funau** | **3.18** | **40** | P | **Pn** | **13 53 45.9** | **+1.0** |
| IRIF | | | | S | **Sn** | **13 54 23.2** | **+0.9** |
| **JKRS** | **Kuro-shima** | **3.29** | **44** | P | **Pn** | **13 53 47.2** | **+0.9** |
| JKRS | | | | S | **Sn** | **13 54 24.5** | **-0.3** |
| **JIJ** | **Ishigaki jima** | **3.46** | **44** | P | **Pn** | **13 53 49.7** | **+1.0** |
| JIJ | | | | S | **Sn** | **13 54 28.7** | **-0.4** |
| **JISG** | **Ishigakijimahi** | **3.73** | **43** | P | **Pn** | **13 53 53.7** | **+1.3** |
| JISG | | | | S | **Sn** | **13 54 36.0** | **+0.3** |
| **JTJ** | **Tarama** | **4.02** | **46** | P | **Pn** | **13 53 57.9** | **+1.5** |
| JTJ | | | | S | **Sn** | **13 54 43.1** | **+0.2** |
| **JIRB** | **Irabujima** | **4.46** | **48** | P | **Pn** | **13 54 03.7** | **+1.1** |
| JIRB | | | | *e*S | **Sn** | **13 54 54.2** | **+0.3** |

*NIED **19** 14:40:00, 36˚.70N×140˚.70E, h5km, Mw4.0 Best double couple: Mo1.11000×10^15 NP1:φs327.00000°, δ29.00000°, λ-98.00000°. NP2:φs156.00000°, δ62.00000°, λ-86.00000°.*
*ISCJB **19** 14:40:04.4±0.7, 36˚.72N±0˚.03×140˚.74E±0˚.05, h13km±3km, mb4.1/22, MS2.7/1, Error ellipse: s-maj=6.7km s-min=3.9km az=27.0*
*IDC **19** 14:40:04.2±0.6, 36˚.74N×140˚.59E, h0km, mb4.1/17, mb1 4.2/19, mb1mx4.1/35, mbtmp4.1/19, ML3.8/2, MS2.9/2, Ms1 2.9/2, ms1mx2.6/34, Error ellipse: s-maj=17.5km s-min=13.2km az=105.0*
*JMA **19** 14:40:05.3, 36˚.74N×140˚.63E, h4km±1km, M3.9*

*Broadband fault plane solution: P waves. NP1: φs343.00000°, δ53.00000°, λ-79.00000°. NP2: φs145.00000°, δ39.00000°, λ-104.00000°. Principal axes: T Plg7.0000°, Azm65.0000°; N Plg8.0000°, Azm156.0000°; P Plg79.0000°, Azm296.0000°;*
*JMA Felt III J1.*
*NEIC **19** 14:40:08.8±2.8, 36˚.75N×140˚.64E, h31km±19km, mb4.7/5 Error ellipse: s-maj=12.8km s-min=7.8km az=127.0*
*NEIC Recorded [3 JMA] in Ibaraki.*
**ISC 19 14:40:05.4**±1.1, **36˚.73N**±0˚.03×**140˚.67E**±0˚.05, **h7**km±6km, **n47**,σ1§**16**/50, **mb4.1**/22, **5C-1D**, **Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JHO** | **Hitachi** | **0.15** | **214** | ⇑P | **Pg** | **14 40 08.2** | **-0.2** |
| JHO | | | | S | **Sg** | **14 40 10.3** | **-0.1** |
| **ONAJ** | **Iwakimizuishiy** | **0.38** | **15** | ⇑P | **Pg** | **14 40 12.9** | **0.0** |
| ONAJ | | | | *e*S | **Sg** | **14 40 18.7** | **+0.8** |
| **JYT** | **Yasato** | **0.63** | **217** | ⇑P | **Pg** | **14 40 17.1** | **-0.5** |
| JYT | | | | S | **Sg** | **14 40 26.1** | **+0.3** |
| **JSB** | **Shiboa** | **0.65** | **292** | ⇑P | **Pg** | **14 40 17.8** | **0.0** |
| JSB | | | | S | **Sg** | **14 40 26.3** | **0.0** |
| **JFK** | **Kawauchi** | **0.65** | **14** | ⇑P | **Pg** | **14 40 17.8** | **-0.2** |
| JFK | | | | S | **Sg** | **14 40 26.7** | **+0.2** |
| **JFT** | **Otama** | **0.83** | **341** | ⇓P | **Pg** | **14 40 20.9** | **-0.4** |
| JFT | | | | S | **Sg** | **14 40 32.0** | **-0.1** |
| **MJAR** | **Matsushiro Arr** | **1.99** | **265** | Pn | **Pn** | **14 40 39.5** | **0.0** |
| | 63nm,0.3s,baz=88,slow=14,SNR=226 | | | | | | |
| MJAR | | | | Sn | **Sn** | **14 41 04.8** | **+0.1** |
| | 77nm,0.3s,baz=133,slow=8.8,SNR=26 | | | | | | |
| MJAR | | | | LR | LR | 14 41 38.7 | |
| | comp=Z,423nm,18.2s,baz=100,slow=50 | | | | | | |
| **MAJO** | **Matsushiro** | **1.99** | **265** | *e*Pn | **Pn** | **14 40 39.8** | **+0.3** |
| **MAT** | **Matsushiro** | **1.99** | **265** | P | **Pn** | **14 40 39.5** | **0.0** |
| MAT | | | | S | **Sb** | **14 41 05.9** | **-1.1** |
| **JHJ** | **Hachijo jima 2** | **3.68** | **192** | Pn | **Pn** | **14 41 03.6** | **+1.0** |
| | 12nm,0.3s,baz=240,slow=20,SNR=4.4 | | | | | | |
| JHJ | | | | Sn | **Sn** | **14 41 48.0** | **+1.7** |
| | 17nm,0.3s,baz=90,slow=20,SNR=3.6 | | | | | | |
| **ERM** | **Erimo** | **5.62** | **19** | *e*Pn | **Pn** | **14 41 29.9** | **+0.7** |
| **ASAJ** | **Asahikawa** | **7.52** | **11** | Pn | **Pn** | **14 41 55.3** | **-0.1** |
| | 1.9nm,0.3s,baz=224,slow=11,SNR=19 | | | | | | |
| **KSRS** | **Korea Array** | **10.21** | **278** | Pn | **Pn** | **14 42 36.2** | **+3.9** |
| | 0.2nm,0.3s,baz=87,slow=14,SNR=5.9 | | | | | | |
| KSRS | | | | LR | LR | 14 46 11.3 | |
| | comp=Z,78nm,19.8s,baz=96,slow=36 | | | | | | |
| **KSAR** | **Wonju Array Be** | **10.24** | **278** | Pn | **Pn** | **14 42 36.2** | **+3.5** |
| **KLR** | **Kul'dur** | **14.08** | **335** | Pn | **Pn** | **14 43 25.3** | **+0.1** |
| | 0.0nm,0.3s,baz=117,slow=11,SNR=3.6 | | | | | | |
| **PETK** | **Petropavlovsk-** | **20.25** | **31** | LR | LR | 14 52 04.7 | |
| | comp=Z,31nm,19.4s,baz=241,slow=36 | | | | | | |
| **MA2** | **Magadan** | **23.78** | **13** | P | **P** | **14 45 18.4** | **+0.1** |
| | 5.5nm,0.6s,baz=200,slow=14,SNR=6.9 | | | | | | |
| **YAK** | **Yakutsk** | **26.24** | **348** | P | **P** | **14 45 40.9** | **+0.2** |
| | 3.2nm,0.4s,baz=214,slow=3.4,SNR=3.9 | | | | | | |
| **YAK** | **Yakutsk** | **26.24** | **348** | *e*P | **P** | **14 45 40.2** | **-0.5** |
| | 4.9nm,0.5s | | | | | | |
| **SEY** | **Seymchan** | **27.20** | **12** | P | **P** | **14 45 49.7** | **+0.2** |
| | 2.4nm,0.7s,baz=212,slow=13,SNR=9.3 | | | | | | |
| **SONM** | **Songino Array** | **27.46** | **305** | P | **P** | **14 45 50.7** | **-1.5** |
| | 2.2nm,0.7s,baz=106,slow=9.2,SNR=20 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.51** | **119** | T | T | 15 15 45.3 | |
| | baz=312,slow=75,SNR=558 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.52** | **119** | T | T | 15 15 45.9 | |
| | baz=312,slow=75,SNR=383 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.53** | **119** | T | T | 15 15 46.6 | |
| | baz=312,slow=75,SNR=474 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.20** | **121** | T | T | 15 16 34.1 | |
| | baz=314,slow=76,SNR=750 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.20** | **121** | T | T | 15 16 34.3 | |
| | baz=314,slow=76,SNR=528 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.22** | **121** | T | T | 15 16 37.8 | |
| | baz=314,slow=76,SNR=558 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.68** | **313** | P | **P** | **14 47 54.0** | **-0.4** |
| | 2.8nm,0.6s,baz=95,slow=5.9,SNR=13 | | | | | | |
| ZALV | | | | PcP | **PcP** | **14 49 50.2** | **-0.8** |
| | 0.9nm,0.5s,baz=66,slow=4.1,SNR=4.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.77** | **302** | P | **P** | **14 48 11.4** | **-0.1** |
| | 1.4nm,0.7s,baz=93,slow=9.3,SNR=16 | | | | | | |
| **KURK** | **Kurchatov** | **45.65** | **308** | *e*P | **P** | **14 48 25.0** | **-1.4** |
| | 35nm,0.7s | | | | | | |
| **ILAR** | **Eielson Array** | **50.07** | **32** | P | **P** | **14 49 00.6** | **+0.1** |
| | 0.7nm,1.0s,baz=269,slow=5.7,SNR=5.7 | | | | | | |
| **INK** | **Inuvik** | **54.93** | **27** | P | **P** | **14 49 36.9** | **+0.5** |
| | 0.6nm,0.5s,baz=302,slow=6.6,SNR=7.7 | | | | | | |
| **WRAB** | **Tennant Creek** | **56.67** | **187** | *e*P | **P** | **14 49 49.3** | **-0.2** |
| | 4.0nm,1.0s | | | | | | |
| **WRA** | **Warramunga Arr** | **56.68** | **187** | P | **P** | **14 49 48.7** | **-0.8** |
| | 1.9nm,0.7s,baz=4.3,slow=7.4,SNR=30 | | | | | | |
| **ABKAR** | **Akbulak array** | **57.68** | **310** | *e*P | **P** | **14 49 55.0** | **-1.4** |
| | 2.3nm,0.7s | | | | | | |
| **ASAR** | **Alice Springs** | **60.41** | **187** | P | **P** | **14 50 15.2** | **-0.3** |
| | 1.1nm,0.7s,baz=9.6,slow=5.7,SNR=13 | | | | | | |
| **MBWA** | **Marble Bar** | **60.88** | **202** | *e*P | **P** | **14 50 18.2** | **-0.5** |
| | 19nm,0.8s | | | | | | |
| **ARCES** | **ARCESS Array B** | **64.07** | **339** | P | **P** | **14 50 39.1** | **-0.4** |
| | 3.7nm,0.9s,baz=60,slow=7.4,SNR=3.4 | | | | | | |
| **YKA** | **Yellowknife Ar** | **64.37** | **30** | P | **P** | **14 50 41.6** | **+0.1** |
| | 0.3nm,0.6s,baz=304,slow=6.5,SNR=8.7 | | | | | | |
| **FINES** | **FINESS Array B** | **68.80** | **332** | P | **P** | **14 51 08.8** | **-1.1** |
| | 3.3nm,0.8s,baz=93,slow=8.4,SNR=3.9 | | | | | | |
| **AKASG** | **Malin Array Be** | **74.17** | **322** | P | **P** | **14 51 41.3** | **-1.2** |
| | 1.0nm,0.5s,baz=52,slow=5.6,SNR=7.0 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **HAKT** | **HAKKARI** | **1.45** | **180** | *i* P | | **Pn** | **14 55 18.1** | **-1.5** |
| HAKT | | | | *i* S | | **Sn** | **14 55 41.2** | **+2.0** |
| **HAKT** | **HAKKARI** | **1.45** | **180** | P | | **Pn** | **14 55 18.1** | **-1.5** |
| HAKT | | | | S | | **Sn** | **14 55 41.2** | **+2.0** |

*ISK **19** 15:00:54.9, 38.70N × 35.72E, h5km, MD2.4*
*CSEM **19** 15:00:55.9 ± 0.2, 38.70N × 35.78E, h2km, MD2.4, Error ellipse: s-maj=5.5km s-min=4.6km az=108.0*
*DDA **19** 15:00:55.5, 38.73N × 35.68E, h7km, Ml2.5*
**ISC 19 15:00:56.0** ± 0.9, **38.73N** ± 0.02 × **35.71E** ± 0.03, **h9**km ± 7km, **n28**, σ 0.77/42, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BNN** | **Bunyan** | **0.16** | **41** | *e*PG | **Pg** | **15 00 59.1** | **-0.5** |
| BNN | | | | *e*SG | **Sg** | **15 01 02.7** | **+0.5** |
| **BNN** | **Bunyan** | **0.16** | **41** | *e*Pg | **Pg** | **15 00 59.1** | **-0.5** |
| BNN | | | | *e*Sg | **Sg** | **15 01 02.7** | **+0.5** |
| **SARI** | **SarD1z-Kayseri** | **0.64** | **120** | *e*PG | **Pg** | **15 01 08.2** | **-0.3** |
| **AVNS** | **Nevsehir-Avano** | **0.68** | **277** | *i* P | **Pg** | **15 01 09.1** | **-0.1** |
| AVNS | | | | *i* S | **Sb** | **15 01 20.7** | **+1.1** |
| **AVNS** | **Nevsehir-Avano** | **0.68** | **277** | P | **Pg** | **15 01 09.1** | **-0.1** |
| AVNS | | | | S | **Sb** | **15 01 20.7** | **+1.1** |
| **YAHY** | **KAYSERI_Yahyal** | **0.69** | **203** | *i* P | **Pg** | **15 01 08.3** | **-1.1** |
| YAHY | | | | *i* S | **Sb** | **15 01 19.2** | **-0.7** |
| **CUSAR** | **Sarkisla-SIVAS** | **0.80** | **31** | *i* P | **Pg** | **15 01 10.6** | **-1.0** |
| CUSAR | | | | *i* S | **Sb** | **15 01 23.1** | **-0.1** |
| **YOZ** | **Yozgat** | **0.96** | **342** | *e*PG | **Pb** | **15 01 15.1** | **+0.2** |
| YOZ | | | | *e*SG | **Sn** | **15 01 29.7** | **+0.1** |
| **YOZ** | **Yozgat** | **0.96** | **342** | *e*Pg | **Pb** | **15 01 15.1** | **+0.2** |
| YOZ | | | | *e*Sg | **Sn** | **15 01 29.7** | **+0.1** |
| **CUALT** | **Altinyayla-SIV** | **0.98** | **56** | *i* P | **Pg** | **15 01 14.1** | **-0.8** |
| CUALT | | | | *i* S | **Sn** | **15 01 30.0** | **-0.2** |
| **CUALT** | **Altinyayla-SIV** | **0.98** | **56** | S | **Sn** | **15 01 30.0** | **-0.2** |
| **KOZT** | **Kozan** | **1.25** | **176** | *e*PN | **Pn** | **15 01 19.4** | **-0.2** |
| **KOZT** | **Kozan** | **1.25** | **176** | *e*Pn | **Pn** | **15 01 19.4** | **-0.2** |
| **AKO** | **Adana** | **1.28** | **189** | *i* P | **Pn** | **15 01 18.9** | **-1.2** |
| AKO | | | | *i* S | **Sn** | **15 01 37.9** | **+0.5** |
| **DARE** | **Darende-Malaty** | **1.40** | **96** | *e*PN | **Pb** | **15 01 22.5** | **+0.2** |
| **DARE** | **Darende-Malaty** | **1.40** | **96** | *e*Pn | **Pb** | **15 01 22.5** | **+0.2** |
| **KMRS** | **Kahramanmaras** | **1.54** | **142** | *e*PN | **Pb** | **15 01 24.3** | **-0.4** |
| **KMRS** | **Kahramanmaras** | **1.54** | **142** | *e*Pn | **Pb** | **15 01 24.3** | **-0.4** |
| **SVSK** | **Karacayir** | **1.55** | **40** | *e*PN | **Pb** | **15 01 25.0** | **+0.1** |
| **SVSK** | **Karacayir** | **1.55** | **40** | *e*Pn | **Pb** | **15 01 25.0** | **+0.1** |
| **KARA** | **Karaisali** | **1.56** | **200** | *e*PN | **Pb** | **15 01 24.6** | **-0.4** |
| **KARA** | **Karaisali** | **1.56** | **200** | *e*Pn | **Pb** | **15 01 24.6** | **-0.4** |
| **GULE** | **Gulek** | **1.62** | **207** | *i* P | **Pb** | **15 01 25.9** | **-0.3** |
| GULE | | | | *i* S | **Sg** | **15 01 48.5** | **+0.3** |
| **GULE** | **Gulek** | **1.62** | **207** | P | **Pb** | **15 01 25.9** | **-0.3** |
| GULE | | | | S | **Sg** | **15 01 48.5** | **+0.3** |
| **HCB** | **Kahramanmara¯** | **1.68** | **145** | *i* P | **Pb** | **15 01 27.4** | **+0.4** |
| HCB | | | | *i* S | **Sg** | **15 01 53.1** | **+3.2** |
| **KAMT** | **Kaman** | **1.68** | **293** | *e*PN | **Pb** | **15 01 27.1** | **-0.1** |
| **KAMT** | **Kaman** | **1.68** | **293** | *e*Pn | **Pb** | **15 01 27.1** | **-0.1** |
| **KAMA** | **Osmaniye** | **1.72** | **154** | *i* P | **Pg** | **15 01 28.5** | **-0.5** |
| KAMA | | | | *i* S | **Sg** | **15 01 52.5** | **+1.3** |

*DJA **19** 15:13:56.1 ± 0.7, 0°N ± 6° × 12°8E ± °, h125km ± 7km, M4.4/7, mB5.0/1, mb4.4/2, MLv4.4/7, Mw(mB)4.3/1*
*IDC **19** 15:14:32.5 ± 4.5, 3.00S × 130.67E, h0km, mb3.9/2, mb1 4.0/4, mb1mx3.5/40, mbtmp3.9/4, ML3.8/2, MS3.4/2, Ms1 3.4/2, ms1mx2.6/37, Error ellipse: s-maj=102.9km s-min=51.7km az=82.0*
**ISC 19 15:14:09.9** ± 1.0, **1.12S** ± 0.05 × **127.13E** ± 0.05, **h34**km, **n13**, σ 2.68/14, **Halmahera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LBMI** | **Labuha** | **0.60** | **38** | P | **Pb** | **15 14 22.9** | **+0.7** |
| LBMI | | | | S | **Sb** | **15 14 33.6** | **+3.0** |
| **SANI** | **Sanana** | **1.47** | **231** | P | **Pb** | **15 14 40.3** | **+3.7** |
| SANI | | | | S | **Sb** | **15 14 54.6** | **-0.4** |
| **NLAI** | **Namlea** | **2.11** | **181** | P | **Pb** | **15 14 47.3** | **-0.2** |
| NLAI | | | | S | **Sb** | **15 15 13.7** | **+0.4** |
| **AAI** | **Ambon** | **2.77** | **157** | P | **Pn** | **15 14 53.3** | **+1.5** |
| AAI | | | | S | **Sb** | **15 15 35.0** | **+2.8** |
| **MSAI** | **Masohi** | **2.85** | **141** | P | **Pn** | **15 14 50.7** | **-2.3** |
| MSAI | | | | S | **Pn** | **15 14 50.6** | **-2.4** |
| **LUWI** | **Luwuk** | **4.36** | **271** | P | **Pn** | **15 15 11.2** | **-2.5** |
| **BNDI** | **Bandanaira** | **4.37** | **141** | P | Pn | 15 15 08.5 | -5.4 |
| **FITZ** | **Fitzroy Crossi** | **16.94** | **185** | Pn | P | 15 18 16.4 | +10 |
| | 0.2nm,0.3s,baz=47,slow=6.1,SNR=2.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **20.00** | **160** | P | **P** | **15 18 34.5** | **-5.2** |
| | 0.4nm,0.3s,baz=350,slow=11,SNR=23 | | | | | | |
| WRA | | | | S | S | 15 21 47.9 | -35 |
| | 0.1nm,0.3s,baz=347,slow=22,SNR=3.3 | | | | | | |
| **ASAR** | **Alice Springs** | **23.36** | **164** | P | **P** | **15 19 16.1** | **+0.5** |
| | 2.7nm,0.5s,baz=346,slow=12,SNR=37 | | | | | | |
| **STKA** | **Stephens Creek** | **33.51** | **157** | P | **P** | **15 20 47.2** | **+0.9** |
| | 2.4nm,1.0s,baz=321,slow=10.0,SNR=6.7 | | | | | | |
| **TLY** | **Talaya** | **56.24** | **343** | LR | LR | 15 51 50.9 | |
| | comp=Z,25nm,20.5s,baz=89,slow=38 | | | | | | |
| **AAK** | **Ala-Archa** | **64.23** | **319** | LR | LR | 15 58 05.0 | |
| | comp=Z,38nm,21.7s,baz=194,slow=38 | | | | | | |

**SCB 19 15:14:48.5** ± 0.1, **18.07S** × **65.04W**, **h18**km, **Ml3.7/4**, **7C, Error ellipse: s-maj=3.8km s-min=3.0km az=11.0, Central Bolivia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BBOE** | **La Paz, Chanca** | **3.08** | **294** | ⇑*i*Pn | Pb | 15 15 43.2 | +0.1 |
| **BBOJ** | **La Paz, Jacaqu** | **3.20** | **289** | ⇑*i*Pn | Pb | 15 15 45.6 | +0.4 |
| BBOJ | | | | ⇑*i*Sn | Sb | 15 16 25.7 | +1.6 |
| | 371nm,1.0s | | | | | | |
| **MOCB** | **Mochara** | **3.21** | **190** | *e*Pn | Pb | 15 15 45.4 | +0.1 |
| MOCB | | | | *e*Sn | Sb | 15 16 25.5 | +1.2 |
| | 83nm,0.5s | | | | | | |
| **LPAZ** | **La Paz** | **3.45** | **301** | ⇑*i*Pn | Pb | 15 15 47.8 | -1.7 |
| LPAZ | | | | *e*Sn | Sb | 15 16 32.4 | +1.1 |
| **BBOD** | **La Paz, Gloria** | **3.69** | **292** | ⇑*i*Pn | Pb | 15 15 51.7 | -1.8 |
| BBOD | | | | ⇑⇑*i*Sn | Sb | 15 16 38.4 | +0.3 |
| | 107nm,0.6s | | | | | | |
| **SIV** | **San Ignacio** | **4.32** | **62** | ⇑*i*Pn | Pb | 15 16 00.2 | -3.8 |
| SIV | | | | *e*Sn | Sb | 15 16 51.9 | -4.0 |
| | 19nm,0.5s | | | | | | |

*NIED **19** 15:21:00, 38.60N × 144.70E, h8km, Mw3.6 Best double couple: M₀2.87000×10¹⁴ NP1:φs 17.0000°, δ25.00000°, λ-76.00000°. NP2:φs 181.0000°, δ66.00000°, λ-96.00000°.*
*IDC **19** 15:21:23.1 ± 1.0, 38.46N × 144.89E, h0km, mb3.5/5, mb1 3.8/8, mb1mx3.5/47, mbtmp3.6/8, ML3.6/2, MS2.8/2, Ms1 2.8/2, ms1mx2.3/39, Error ellipse: s-maj=27.6km s-min=19.0km az=104.0*
*ISCJB **19** 15:21:25.6 ± 0.7, 38.67N ± 0.04 × 144.77E ± 0.06, h35km, mb3.5/5, MS3.1/1, Error ellipse: s-maj=7.1km s-min=4.9km az=28.4*
*JMA **19** 15:21:26.2 ± 0.2, 38.57N × 144.67E, h42km, M3.8*
**ISC 19 15:21:27.7** ± 1.0, **38.64N** ± 0.05 × **144.77E** ± 0.08, **h35**km, **n36**, σ 2.25/46, **mb3.6/5**, **Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OFUJ** | **Ofunato** | **2.46** | **281** | P | **Pn** | **15 22 04.4** | **-0.8** |
| OFUJ | | | | S | **Sn** | **15 22 32.3** | **-1.7** |
| **MIYJ** | **Miyakonagasawa** | **2.47** | **293** | P | **Pn** | **15 22 04.7** | **-0.8** |
| **JTH** | **Tanohata** | **2.60** | **301** | P | **Pn** | **15 22 06.5** | **-0.7** |
| JTH | | | | *e*S | **Sn** | **15 22 36.5** | **-1.0** |
| **JMK** | **Ichinoseki** | **2.79** | **277** | P | **Pn** | **15 22 09.3** | **-0.5** |
| **JOM** | **Ohasama** | **2.83** | **288** | P | **Pn** | **15 22 09.9** | **-0.4** |
| **JANG** | **Nango** | **3.05** | **306** | P | **Pn** | **15 22 12.2** | **-1.2** |
| **JOU** | **Okura** | **3.23** | **266** | P | **Pn** | **15 22 15.4** | **-0.5** |
| JOU | | | | *e*S | **Sn** | **15 22 51.0** | **-2.1** |
| **JRG** | **Rokugo** | **3.30** | **284** | P | **Pn** | **15 22 17.1** | **+0.2** |
| **JYK** | **Kaneyama** | **3.45** | **276** | P | **Pn** | **15 22 18.9** | **-0.1** |
| **JAH** | **Hinai** | **3.55** | **297** | P | **Pn** | **15 22 20.4** | **+0.1** |
| **JTM** | **Tenmabayashi** | **3.56** | **308** | P | **Pn** | **15 22 20.2** | **-0.3** |
| JTM | | | | S | **Sn** | **15 23 00.0** | **-1.3** |
| **JFT** | **Otama** | **3.67** | **254** | P | **Pn** | **15 22 21.3** | **-0.7** |
| JFT | | | | S | **Sn** | **15 23 02.1** | **-1.9** |
| **JOT** | **Ohata** | **3.95** | **315** | P | **Pn** | **15 22 26.5** | **+0.7** |
| **JCH** | **Churui** | **4.11** | **345** | P | **Pn** | **15 22 26.5** | **-1.4** |
| JCH | | | | *e*S | **Sn** | **15 23 11.7** | **-3.0** |
| **JKB** | **Kayabe** | **4.32** | **320** | P | **Pn** | **15 22 31.7** | **+0.9** |
| **NEM2** | **Nemuro 2** | **4.77** | **9** | P | **Pn** | **15 22 34.5** | **-2.6** |
| NEM2 | | | | S | **Sn** | **15 23 25.2** | **-5.9** |
| **BSO1** | **Boso 1** | **5.01** | **219** | P | **Pn** | **15 22 37.4** | **-2.5** |
| BSO1 | | | | S | **Sn** | **15 23 32.3** | **-4.0** |
| **JOSM** | **Okushiri--Mats** | **5.30** | **312** | P | **Pn** | **15 22 45.2** | **+0.9** |
| **JRY** | **Ryogami san** | **5.36** | **242** | P | **Pn** | **15 22 43.7** | **-1.5** |
| JRY | | | | S | **Sn** | **15 23 40.5** | **-5.1** |
| **JTKR** | **Abashiri--Toko** | **5.36** | **353** | P | **Pn** | **15 22 44.1** | **-1.0** |
| JTKR | | | | S | **Sn** | **15 23 42.3** | **-3.3** |
| **JHR** | **Hokuryu** | **5.59** | **337** | P | **Pn** | **15 22 49.7** | **+1.5** |
| JHR | | | | *e*S | **Sn** | **15 23 51.0** | **-0.2** |
| **MJAR** | **Matsushiro Arr** | **5.61** | **250** | Pn | **Pn** | **15 22 48.8** | **+0.1** |
| | 2.6nm,0.3s,baz=51,slow=10,SNR=26 | | | | | | |
| MJAR | | | | Sn | **Sn** | **15 23 55.5** | **+3.6** |
| | 0.4nm,0.3s,baz=319,slow=50,SNR=2.8 | | | | | | |
| **MAT** | **Matsushiro** | **5.61** | **250** | P | **Pn** | **15 22 49.0** | **+0.3** |
| MAT | | | | S | **Sn** | **15 23 55.1** | **+3.2** |
| **JOD2** | **Odawara 2** | **5.66** | **235** | P | **Pn** | **15 22 47.9** | **-1.4** |
| JOD2 | | | | S | **Sn** | **15 23 47.7** | **-5.4** |
| **ASAJ** | **Asahikawa** | **5.71** | **344** | Pn | **Pn** | **15 22 50.5** | **+0.6** |
| | 1.4nm,0.3s,baz=192,slow=16,SNR=23 | | | | | | |
| ASAJ | | | | Sn | **Sn** | **15 23 52.0** | **-2.1** |
| | 1.0nm,0.3s,baz=35,slow=21,SNR=1.9 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **11.08** | **304** | Pn | **Pn** | **15 24 06.7** | **+3.1** |
| | 0.2nm,0.3s,baz=118,slow=15,SNR=4.2 | | | | | | |
| **KSRS** | **Korea Array** | **13.33** | **270** | LR | LR | 15 28 36.2 | |
| | comp=Z,15nm,18.6s,baz=120,slow=32 | | | | | | |
| **SEY** | **Seymchan** | **24.76** | **8** | P | **P** | **15 26 48.4** | **+2.7** |
| | 1.3nm,0.7s,baz=200,slow=8.2,SNR=7.7 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **26.87** | **128** | T | T | 15 54 57.0 | |
| | baz=320,slow=76,SNR=5.3 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **26.88** | **128** | T | T | 15 55 02.5 | |
| | baz=320,slow=76,SNR=5.5 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **26.89** | **128** | T | T | 15 54 55.9 | |
| | baz=320,slow=76,SNR=5.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **45.53** | **301** | P | **P** | **15 29 45.0** | **+1.2** |
| | 0.4nm,0.8s,baz=93,slow=8.8,SNR=4.0 | | | | | | |
| **ILAR** | **Eielson Array** | **46.71** | **33** | P | **P** | **15 29 54.0** | **+1.3** |
| | 0.2nm,0.8s,baz=248,slow=4.8,SNR=3.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **59.09** | **191** | P | **P** | **15 31 23.9** | **-0.6** |
| | 1.0nm,0.7s,baz=15,slow=7.3,SNR=9.4 | | | | | | |
| **AKTO** | **Aktyubinsk** | **59.57** | **312** | LR | LR | 15 57 22.2 | |
| | comp=Z,15nm,18.5s,baz=87,slow=36 | | | | | | |
| **ASAR** | **Alice Springs** | **62.81** | **191** | P | **P** | **15 31 49.5** | **-0.3** |
| | 0.4nm,0.8s,baz=9.2,slow=7.0,SNR=6.9 | | | | | | |

*CSEM **19** 15:36:48.4 ± 0.5, 49.08N × 8.18E, h15km, ML2.3/9, Error ellipse: s-maj=7.2km s-min=4.9km az=62.0*
*LDG **19** 15:36:48.4 ± 0.1, 49.09N × 8.30E, h15km ± 1km, Ml2.3/10, Error ellipse: s-maj=1.5km s-min=1.3km az=97.0*
*STR **19** 15:36:53.0 ± 0.5, 48.93N × 7.93E, h10km, Ml2.2, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*
**ISC 19 15:36:50.5** ± 1.9, **49.01N** ± 0.05 × **8.17E** ± 0.08, **h12**km ± 8km, **n33**, σ 1.945/58, **Germany**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LANF** | **Langenberg** | **0.24** | **264** | P | **Pg** | **15 36 55.2** | **-0.4** |
| LANF | | | | S | **Sg** | **15 36 59.7** | **+0.7** |
| **LANF** | **Langenberg** | **0.24** | **264** | P | **Pg** | **15 36 55.2** | **-0.4** |
| LANF | | | | S | **Sg** | **15 36 59.7** | **+0.7** |
| **CDF** | **Champ du Feu** | **0.84** | **225** | *e*Pn | **Pg** | **15 37 05.6** | **-1.1** |
| **CDF** | **Champ du Feu** | **0.84** | **225** | *e*Pg | **Pg** | **15 37 06.7** | **0.0** |
| **CDF** | **Champ du Feu** | **0.84** | **225** | *e*Pn | **Pg** | **15 37 05.6** | **-1.1** |
| **CDF** | **Champ du Feu** | **0.84** | **225** | *e*Pg | **Pg** | **15 37 06.7** | **0.0** |
| **ECH** | **Echery** | **1.03** | **221** | Pg | **Pb** | **15 37 09.4** | **-0.9** |
| ECH | | | | Sg | **Sg** | **15 37 21.9** | **-2.0** |
| **ECH** | **Echery** | **1.03** | **221** | Pg | **Pb** | **15 37 09.4** | **-0.9** |
| ECH | | | | Sg | **Sg** | **15 37 21.9** | **-2.0** |
| **FELD** | **Feldberg im Sc** | **1.14** | **185** | Pg | **Pn** | **15 37 12.7** | **+0.4** |
| FELD | | | | Sg | **Sn** | **15 37 27.7** | **-0.2** |
| **MOF** | **Molkenrain** | **1.34** | **211** | Pg | **Pg** | **15 37 16.5** | **+0.2** |
| MOF | | | | Sg | **Sn** | **15 37 32.9** | **-0.1** |
| **MOF** | **Molkenrain** | **1.34** | **211** | Pg | **Pg** | **15 37 16.5** | **+0.2** |
| MOF | | | | Sg | **Sn** | **15 37 32.9** | **-0.1** |
| **HINF** | **Hinteralfeld** | **1.48** | **217** | *e*Pg | **Pb** | **15 37 18.4** | **+0.5** |
| HINF | | | | *e*Sg | **Sg** | **15 37 39.1** | **+1.1** |
| | 4.8nm,0.2s | | | | | | |
| **HINF** | **Hinteralfeld** | **1.48** | **217** | *e*Pg | **Pb** | **15 37 18.4** | **+0.5** |
| HINF | | | | *e*Sg | **Sg** | **15 37 39.1** | **+1.1** |
| | 2.4nm,0.2s | | | | | | |
| **HAU** | **Haudompre** | **1.57** | **231** | *e*Pn | **Pn** | **15 37 15.6** | **-2.6** |
| **HAU** | **Haudompre** | **1.57** | **231** | *e*Pg | **Pb** | **15 37 19.8** | **+0.4** |
| HAU | | | | *e*Sg | **Sg** | **15 37 41.8** | **+0.8** |
| | 8.4nm,0.2s | | | | | | |
| **HAU** | **Haudompre** | **1.57** | **231** | *e*Pn | **Pn** | **15 37 15.6** | **-2.6** |
| **HAU** | **Haudompre** | **1.57** | **231** | *e*Pg | **Pb** | **15 37 19.8** | **+0.4** |
| HAU | | | | *e*Sg | **Sg** | **15 37 41.8** | **+0.8** |
| | 4.2nm,0.2s | | | | | | |
| **THEF** | **They Montfort** | **1.64** | **242** | Pg | **Pb** | **15 37 20.6** | **-0.1** |
| THEF | | | | Sg | **Sn** | **15 37 40.4** | **+0.2** |
| **THEF** | **They Montfort** | **1.64** | **242** | Pg | **Pb** | **15 37 20.6** | **-0.1** |
| THEF | | | | Sg | **Sn** | **15 37 40.4** | **+0.2** |
| **PAGF** | **Fort de Pagny** | **1.68** | **255** | *e*Pg | **Pb** | **15 37 21.7** | **+0.4** |
| | baz=186 | | | | | | |
| PAGF | | | | *e*Sg | **Sb** | **15 37 44.8** | **+2.5** |
| | 0.4nm,0.2s,baz=76 | | | | | | |
| **PAGF** | **Fort de Pagny** | **1.68** | **255** | *e*Pg | **Pb** | **15 37 21.7** | **+0.4** |
| PAGF | | | | *e*Sg | **Sb** | **15 37 44.8** | **+2.5** |
| | 0.2nm,0.2s | | | | | | |
| **LOMF** | **Lomont** | **1.88** | **209** | Pg | **Pg** | **15 37 26.8** | **+0.2** |
| LOMF | | | | Sg | **Sb** | **15 37 50.6** | **+2.3** |
| **LOMF** | **Lomont** | **1.88** | **209** | Pg | **Pg** | **15 37 26.8** | **+0.2** |
| LOMF | | | | Sg | **Sb** | **15 37 50.6** | **+2.3** |
| **MEZF** | **Maizieres J'vi** | **2.12** | **257** | *e*Pg | **Pb** | **15 37 29.8** | **+1.0** |
| MEZF | | | | *e*Sg | **Sb** | **15 37 58.5** | **+3.4** |
| | 7.6nm,0.2s | | | | | | |
| **MEZF** | **Maizieres J'vi** | **2.12** | **257** | *e*Pg | **Pb** | **15 37 29.8** | **+1.0** |
| MEZF | | | | *e*Sg | **Sb** | **15 37 58.5** | **+3.4** |
| | 3.8nm,0.2s | | | | | | |
| **SFTF** | **Sexfontaines** | **2.23** | **250** | *e*Pg | **Pb** | **15 37 31.5** | **+0.9** |
| SFTF | | | | *e*Sg | **Sg** | **15 38 01.8** | **-0.2** |
| | 2.3nm,0.2s | | | | | | |
| **SFTF** | **Sexfontaines** | **2.23** | **250** | *e*Pg | **Pb** | **15 37 31.5** | **+0.9** |
| SFTF | | | | *e*Sg | **Sg** | **15 38 01.8** | **-0.2** |
| | 1.1nm,0.2s | | | | | | |
| **GIVF** | **Givet** | **2.44** | **298** | *e*Pg | **Pb** | **15 37 34.6** | **+0.4** |
| GIVF | | | | *e*Sg | **Sb** | **15 38 06.2** | **+2.0** |
| | 2.9nm,0.2s | | | | | | |
| **GIVF** | **Givet** | **2.44** | **298** | *e*Pg | **Pb** | **15 37 34.6** | **+0.4** |
| GIVF | | | | *e*Sg | **Sb** | **15 38 06.2** | **+2.0** |
| | 1.5nm,0.2s | | | | | | |
| **LOR** | **Lormes** | **3.37** | **241** | *e*Pn | **Pn** | **15 37 40.2** | **-2.7** |
| **LOR** | **Lormes** | **3.37** | **241** | *e*Pg | **Pg** | **15 37 53.1** | **-1.9** |
| LOR | baz=65 | | | | | | |
| | | | | *e*Sg | **Sg** | **15 38 37.7** | **-0.9** |
| | 1.7nm,0.2s | | | | | | |
| **LOR** | **Lormes** | **3.37** | **241** | *e*Pn | **Pn** | **15 37 40.2** | **-2.7** |
| **LOR** | **Lormes** | **3.37** | **241** | *e*Pg | **Pg** | **15 37 53.1** | **-1.9** |
| LOR | | | | *e*Sg | **Sg** | **15 38 37.7** | **-0.9** |
| | 0.9nm,0.2s | | | | | | |

*ISCJB **19** 15:36:57.5 ± 0.3, 49.08N ± 0.01 × 8.24E ± 0.02, h9km ± 3km, Error ellipse: s-maj=2.2km s-min=1.9km az=160.7*
*CSEM **19** 15:36:58.8 ± 0.1, 49.09N × 8.28E, h19km, ML2.6/13, Error ellipse: s-maj=1.2km s-min=1.1km az=73.0*
*BGR **19** 15:36:58.9 ± 0.3, 49.10N × 8.31E, h10km, ML2.2/11, Error ellipse: s-maj=3.3km s-min=2.2km az=109.0*
*LDG **19** 15:36:59.2 ± 0.1, 49.10N × 8.29E, h16km, Md2.5/2, Ml2.6/13, Error ellipse: s-maj=0.9km s-min=0.8km az=85.0*
*STR **19** 15:36:59.4 ± 0.4, 49.06N × 8.25E, h10km, Ml2.3, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*
**ISC 19 15:36:59.4** ± 0.9, **49.08N** ± 0.01 × **8.31E** ± 0.01, **h10**km ± 7km, **n116**, σ 1.967/187, **5C-2D**, **Germany**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KTD** | **Kalmit** | **0.28** | **329** | ⇓*i*P* | **Pg** | **15 37 04.8** | **-0.4** |
| KTD | | | | S* | **Sg** | **15 37 08.8** | **-0.3** |
| **KTD** | **Kalmit** | **0.28** | **329** | Pb | **Pg** | **15 37 04.8** | **-0.4** |
| KTD | | | | Sb | **Sg** | **15 37 08.8** | **-0.3** |
| **LANF** | **Langenberg** | **0.34** | **254** | Pg | **Pg** | **15 37 05.7** | **-0.6** |
| LANF | | | | Sg | **Sg** | **15 37 10.4** | **-0.5** |
| **LANF** | **Langenberg** | **0.34** | **254** | ⇑*i*P* | **Pg** | **15 37 06.0** | **-0.3** |
| LANF | | | | *i* S* | **Sg** | **15 37 10.9** | **0.0** |
| **LANF** | **Langenberg** | **0.34** | **254** | Pg | **Pg** | **15 37 05.7** | **-0.6** |
| **LANF** | **Langenberg** | **0.34** | **254** | Pb | **Pg** | **15 37 06.0** | **-0.3** |
| LANF | | | | Sg | **Sg** | **15 37 10.4** | **-0.5** |
| LANF | | | | Sb | **Sg** | **15 37 10.9** | **0.0** |
| **PEB** | **Petersbachel** | **0.39** | **269** | ⇑P* | **Pg** | **15 37 06.8** | **-0.3** |
| PEB | | | | S* | **Sg** | **15 37 12.3** | **0.0** |
| PEB | | | | SmS | | 15 37 15.7 | |
| **PEB** | **Petersbachel** | **0.39** | **269** | Pb | **Pg** | **15 37 06.8** | **-0.3** |
| PEB | | | | Sb | **Sg** | **15 37 12.3** | **0.0** |
| PEB | | | | S | **Sb** | **15 37 15.7** | **+1.3** |
| **SWS** | **Schriesheim-Wi** | **0.48** | **32** | ⇑*i*P* | **Pg** | **15 37 08.8** | **-0.1** |
| SWS | | | | S* | **Sg** | **15 37 16.5** | **+1.3** |
| **SWS** | **Schriesheim-Wi** | **0.48** | **32** | Pb | **Pg** | **15 37 08.8** | **-0.1** |
| SWS | | | | Sb | **Sg** | **15 37 16.5** | **+1.3** |
| **LBG** | **Lerchenberg** | **0.53** | **142** | *i* P* | **Pg** | **15 37 09.6** | **-0.1** |
| LBG | | | | S* | **Sg** | **15 37 16.5** | **-0.1** |
| LBG | | | | SmS | | 15 37 19.6 | |
| **LBG** | **Lerchenberg** | **0.53** | **142** | Pb | **Pg** | **15 37 09.6** | **-0.1** |
| LBG | | | | Sb | **Sg** | **15 37 16.5** | **-0.1** |
| LBG | | | | S | **Sb** | **15 37 19.5** | **+1.1** |
| **IMS** | **Imsbach** | **0.58** | **333** | P* | **Pg** | **15 37 09.9** | **-0.8** |
| IMS | | | | PmP | | 15 37 11.1 | |
| IMS | | | | S* | **Sg** | **15 37 17.9** | **-0.5** |
| IMS | | | | SmS | | 15 37 19.7 | |
| **IMS** | **Imsbach** | **0.58** | **333** | Pb | **Pg** | **15 37 09.9** | **-0.8** |
| **IMS** | **Imsbach** | **0.58** | **333** | P | **Pg** | **15 37 11.1** | **+0.4** |
| IMS | | | | Sb | **Sg** | **15 37 17.9** | **-0.5** |
| IMS | | | | S | **Sb** | **15 37 19.7** | **-0.3** |
| **OPP** | **Oppenau** | **0.59** | **188** | SmS | | 15 37 20.5 | |
| **OPP** | **Oppenau** | **0.59** | **188** | S | **Sg** | **15 37 20.5** | **+1.9** |
| **STU** | **Stuttgart** | **0.66** | **117** | *e*Sg | **Sg** | **15 37 20.5** | **-0.4** |
| STU | | | | SmS | | 15 37 22.8 | |
| **STU** | **Stuttgart** | **0.66** | **117** | Sg | **Sg** | **15 37 20.5** | **-0.4** |
| STU | | | | S | **Sb** | **15 37 22.8** | **+0.6** |
| **BFO** | **Black Forest** | **0.75** | **179** | *e*Pg | **Pg** | **15 37 13.3** | **-0.6** |
| BFO | | | | *e*Sg | **Sg** | **15 37 22.9** | **-0.8** |
| BFO | | | | SmS | | 15 37 24.8 | |
| **BFO** | **Black Forest** | **0.75** | **179** | Pg | **Pg** | **15 37 13.3** | **-0.6** |
| BFO | | | | Sg | **Sg** | **15 37 22.9** | **-0.8** |
| BFO | | | | S | **Sb** | **15 37 24.8** | **0.0** |
| **TUBL** | **Tuebingen-Lenn** | **0.76** | **137** | P* | **Pg** | **15 37 13.7** | **-0.3** |
| **TUBL** | **Tuebingen-Lenn** | **0.76** | **137** | Pb | **Pg** | **15 37 13.7** | **-0.3** |
| **WBB** | **Darmstadt** | **0.80** | **17** | S* | **Sg** | **15 37 24.8** | **-0.5** |
| **WBB** | **Darmstadt** | **0.80** | **17** | Sb | **Sg** | **15 37 24.8** | **-0.5** |
| **SIND** | **Sindeldorf** | **0.89** | **72** | P | **Pg** | **15 37 15.7** | **-0.9** |
| SIND | | | | Pg | **Pb** | **15 37 16.0** | **-1.0** |
| SIND | | | | Sg | **Sg** | **15 37 28.5** | **+0.3** |
| **SIND** | **Sindeldorf** | **0.89** | **72** | P | **Pg** | **15 37 15.7** | **-0.9** |
| **BUCH** | **Bad Urach** | **0.94** | **132** | ⇓*i*Pg | **Pb** | **15 37 17.3** | **-0.4** |
| BUCH | | | | Sg | **Sb** | **15 37 30.5** | **+0.3** |
| **BUCH** | **Bad Urach** | **0.94** | **132** | Pg | **Pb** | **15 37 17.3** | **-0.4** |
| BUCH | | | | Sg | **Sb** | **15 37 30.5** | **+0.3** |
| **ABH** | **Alteburg** | **0.94** | **329** | ⇓⇓Pg | **Pb** | **15 37 16.8** | **-1.1** |
| ABH | | | | Sg | **Sb** | **15 37 29.5** | **-1.0** |
| **ABH** | **Alteburg** | **0.94** | **329** | Pg | **Pb** | **15 37 16.8** | **-1.1** |
| ABH | | | | Sg | **Sb** | **15 37 29.5** | **-1.0** |
| **CDF** | **Champ du Feu** | **0.95** | **226** | *e*Pg | **Pb** | **15 37 17.4** | **-0.7** |
| CDF | | | | *e*Sg | **Sb** | **15 37 30.1** | **-0.7** |
| | 25nm,0.2s | | | | | | |
| **RUP** | **Ruppelstein** | **1.03** | **308** | ⇑*i*Pg | **Pb** | **15 37 18.5** | **-0.8** |
| **RUP** | **Ruppelstein** | **1.03** | **308** | Pg | **Pb** | **15 37 18.5** | **-0.8** |
| **SPAK** | **Spaichingen-Ko** | **1.03** | **162** | *i* Pg | **Pb** | **15 37 18.9** | **-0.4** |
| **SPAK** | **Spaichingen-Ko** | **1.03** | **162** | Pg | **Pb** | **15 37 18.8** | **-0.5** |
| SPAK | | | | Sg | **Sb** | **15 37 32.4** | **-0.5** |
| **GUT** | **Gutenstein** | **1.14** | **152** | Pg | **Pb** | **15 37 21.1** | **-0.2** |
| GUT | | | | Sg | **Sb** | **15 37 36.3** | **+0.2** |
| **GUT** | **Gutenstein** | **1.14** | **152** | Pg | **Pb** | **15 37 21.1** | **-0.2** |
| GUT | | | | Sg | **Sb** | **15 37 36.3** | **+0.2** |
| **TNS** | **Taunus Mts** | **1.15** | **4** | *e*Pg | **Pb

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| GIVF | | | | *e*Sg | | **Sb** | **15 38 17.0** | **+2.2** |
| | 4.0nm,0.2s | | | | | | | |
| **GIVF** | **Givet** | **2.49** | **296** | *e*Pg | | **Pb** | **15 37 45.0** | **+0.8** |
| GIVF | | | | *e*Sg | | **Sb** | **15 38 17.0** | **+2.2** |
| | 2.0nm,0.2s | | | | | | | |
| **MOTA** | **Moosalm** | **2.55** | **132** | *e*Pn | | **Pn** | **15 37 40.4** | **-0.5** |
| | 1.1nm,0.3s | | | | | | | |
| MOTA | | | | *e*Sn | | **Sn** | **15 38 10.4** | **-1.7** |
| | 0.8nm,0.2s | | | | | | | |
| **MOTA** | **Moosalm** | **2.55** | **132** | Pn | | **Pn** | **15 37 40.4** | **-0.5** |
| | 1.1nm,0.3s | | | | | | | |
| MOTA | | | | Sn | | **Sn** | **15 38 10.4** | **-1.7** |
| | 0.8nm,0.2s | | | | | | | |
| **MOX** | **Moxa** | **2.65** | **53** | *e*Pg | | **Pb** | **15 37 48.8** | **+1.8** |
| MOX | | | | *e*Sg | | **Sb** | **15 38 22.4** | **+2.8** |
| **MOX** | **Moxa** | **2.65** | **53** | Pg | | **Pb** | **15 37 48.8** | **+1.8** |
| MOX | | | | Sg | | **Sb** | **15 38 22.4** | **+2.8** |
| **BAIF** | **Baives** | **2.84** | **292** | *e*Pg | | **Pb** | **15 37 51.7** | **+1.5** |
| BAIF | | | | *e*Sg | | **Sb** | **15 38 28.2** | **+3.1** |
| | 3.1nm,0.3s | | | | | | | |
| **BAIF** | **Baives** | **2.84** | **292** | *e*Pg | | **Pb** | **15 37 51.7** | **+1.5** |
| BAIF | | | | *e*Sg | | **Sb** | **15 38 28.2** | **+3.1** |
| | 1.5nm,0.3s | | | | | | | |
| **CABF** | **La Chapelle** | **2.89** | **212** | *e*Sg | | **Sb** | **15 38 30.4** | **+4.0** |
| | 2.7nm,0.3s | | | | | | | |
| **CABF** | **La Chapelle** | **2.89** | **212** | *e*Sg | | **Sb** | **15 38 30.4** | **+4.0** |
| | 1.4nm,0.3s | | | | | | | |
| **LOR** | **Lormes** | **3.48** | **240** | *e*Pn | | **Pn** | **15 37 50.9** | **-2.8** |
| | baz=64 | | | | | | | |
| **LOR** | **Lormes** | **3.48** | **240** | *e*Pg | | **Pb** | **15 38 03.7** | **+2.5** |
| | baz=62 | | | | | | | |
| LOR | | | | *e*Sg | | **Sb** | **15 38 48.5** | **+5.0** |
| | 3.2nm,0.2s,baz=68 | | | | | | | |
| **LOR** | **Lormes** | **3.48** | **240** | *e*Pn | | **Pn** | **15 37 50.9** | **-2.8** |
| **LOR** | **Lormes** | **3.48** | **240** | *e*Pg | | **Pb** | **15 38 03.7** | **+2.5** |
| LOR | | | | *e*Sg | | **Sb** | **15 38 48.5** | **+5.0** |
| | 1.6nm,0.2s | | | | | | | |
| **SSF** | **Saint Saulge** | **3.80** | **240** | *e*Pn | | **Pn** | **15 37 55.2** | **-2.8** |
| **SSF** | **Saint Saulge** | **3.80** | **240** | *e*Pg | | **Pb** | **15 38 09.4** | **+2.9** |
| **SSF** | **Saint Saulge** | **3.80** | **240** | *e*Pn | | **Pn** | **15 37 55.2** | **-2.8** |
| **SSF** | **Saint Saulge** | **3.80** | **240** | *e*Pg | | **Pb** | **15 38 09.4** | **+2.9** |
| **SMF** | **Signal de Mont** | **3.87** | **233** | *e*Sg | | **Sn** | **15 38 50.0** | **+5.6** |
| | 1.6nm,0.2s | | | | | | | |
| **SMF** | **Signal de Mont** | **3.87** | **233** | *e*Pg | | Pb | 15 38 10.9 | +3.2 |
| SMF | | | | *e*Sg | | **Sg** | **15 39 00.8** | **-2.8** |
| | 6.5nm,0.3s | | | | | | | |
| **SMF** | **Signal de Mont** | **3.87** | **233** | *e*Pg | | Pb | 15 38 10.9 | +3.2 |
| SMF | | | | *e*Sg | | **Sg** | **15 39 00.8** | **-2.8** |
| | 3.2nm,0.3s | | | | | | | |
| **SMF** | **Signal de Mont** | **3.87** | **233** | *e*Sg | | **Sn** | **15 38 50.0** | **+5.6** |
| | 0.8nm,0.2s | | | | | | | |
| **AVF** | **Avril sur Loir** | **4.04** | **237** | *e*Sg | | **Sb** | **15 38 55.3** | **-4.2** |
| | 0.5nm,0.2s | | | | | | | |
| **AVF** | **Avril sur Loir** | **4.04** | **237** | *e*Pg | | Pb | 15 38 14.0 | +3.3 |
| AVF | | | | *e*Sg | | **Sg** | **15 39 06.0** | **-3.2** |
| | 1.0nm,0.2s | | | | | | | |
| **AVF** | **Avril sur Loir** | **4.04** | **237** | *e*Pg | | Pb | 15 38 14.0 | +3.3 |
| AVF | | | | *e*Sg | | **Sg** | **15 39 06.0** | **-3.2** |
| | 0.5nm,0.2s | | | | | | | |
| **AVF** | **Avril sur Loir** | **4.04** | **237** | *e*Sg | | **Sb** | **15 38 55.3** | **-4.2** |
| | 0.2nm,0.2s | | | | | | | |

*ISCJB* ***19*** *15:41:40.1±1.1,24°.7N±0°.2×95°.0E±0°.1,h100km,mb3.2/3, Error ellipse: s-maj=31.6km s-min=10.4km az=30.1*

*IDC* ***19*** *15:41:44.9±3.7,24°.67N×94°.98E,h137km±36km,mb2.9/3, mb1 3.1/4,mb1mx2.8/50,mbtmp3.3/4, Error ellipse: s-maj=80.4km s-min=22.3km az=60.0*

**ISC 19 15:41:41.8±1.3,24°.8N±0°.2×95°.0E±0°.2,h100km,n5, σ1ᵍ77/6,mb3.1/3,Myanmar-India border region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SHL** | **Shillong** | **2.91** | **285** | *e*PN | **Pn** | **15 42 27.0** | **+0.5** |
| SHL | | | | *e*SN | **Sn** | **15 43 00.0** | **-0.8** |
| **CMAR** | **Chiang Mai Arr** | **7.33** | **149** | P | **Pn** | **15 43 27.6** | **+1.4** |
| | 0.2nm,0.3s,baz=325,slow=13,SNR=16 | | | | | | |
| **MKAR** | **Makanchi Array** | **24.16** | **338** | P | **P** | **15 46 49.5** | **+1.0** |
| | 0.4nm,0.5s,baz=148,slow=8.8,SNR=5.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **58.71** | **136** | P | **P** | **15 51 27.4** | **-1.9** |
| | 0.3nm,0.6s,baz=322,slow=7.5,SNR=6.7 | | | | | | |
| **ASAR** | **Alice Springs** | **61.21** | **139** | P | **P** | **15 51 45.0** | **-1.4** |
| | 0.1nm,0.6s,baz=319,slow=6.4,SNR=4.8 | | | | | | |

**IDC 19 15:42:02.8±6.8,5°.28S×146°.69E,h142km±98km,mb2.8/3, mb1 2.9/5,mb1mx2.8/37,mbtmp3.3/5,Error ellipse: s-maj=118.2km s-min=33.5km az=118.0,Eastern New Guinea region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PMG** | **Port Moresby** | **4.13** | **174** | P | Pn | 15 43 06.5 | +1.9 |
| | 0.7nm,0.3s,baz=17,slow=11,SNR=5.2 | | | | | | |
| PMG | | | | S | Sn | 15 43 52.3 | -0.3 |
| | 1.5nm,0.3s,baz=131,slow=19,SNR=14 | | | | | | |
| **WRA** | **Warramunga Arr** | **18.90** | **218** | P | P | 15 46 11.7 | -0.8 |
| | 0.1nm,0.3s,baz=37,slow=12,SNR=7.3 | | | | | | |
| **ASAR** | **Alice Springs** | **22.05** | **213** | P | P | 15 46 46.7 | +0.4 |
| | 0.2nm,0.6s,baz=42,slow=7.7,SNR=7.9 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **24.20** | **236** | P | P | 15 47 07.0 | +0.6 |
| | 0.6nm,0.5s,baz=67,slow=8.6,SNR=6.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **76.75** | **320** | P | P | 15 53 38.2 | -0.4 |
| | 0.3nm,0.8s,baz=104,slow=6.9,SNR=3.0 | | | | | | |

**WEL 19 16:06:16.6±0.5,37°.25S×179°.83E,h33km,ML3.5/10,2D, Error ellipse: s-maj=5.1km s-min=5.0km az=0.0,Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MXZ** | **Matakaoa Point** | **1.25** | **255** | PN | Pn | 16 06 36.9 | -0.8 |
| MXZ | | | | SN | Sn | 16 06 52.8 | -0.6 |
| MXZ | | | | AML | AML | 16 06 53.1 | |
| **WMGZ** | **Waiomatatini S** | **1.26** | **243** | PN | Pn | 16 06 37.0 | -0.8 |
| WMGZ | | | | *e*SN | Sn | 16 06 52.0 | -1.6 |
| WMGZ | | | | AML | AML | 16 06 54.6 | |
| **PUZ** | **Puketiti** | **1.49** | **236** | ⇓PN | Pn | 16 06 40.4 | -0.7 |
| PUZ | | | | SN | Sn | 16 06 58.3 | -1.2 |
| PUZ | | | | AML | AML | 16 06 59.6 | |
| **PKGZ** | **Pakihiroa** | **1.53** | **245** | PN | Pn | 16 06 40.8 | -0.8 |
| PKGZ | | | | SN | Sn | 16 06 59.3 | -1.1 |
| PKGZ | | | | AML | AML | 16 07 00.6 | |
| **HAZ** | **Te Kaha** | **1.70** | **252** | PN | Pn | 16 06 44.1 | +0.1 |
| HAZ | | | | *e*SN | Sn | 16 07 03.5 | -1.0 |
| HAZ | | | | AML | AML | 16 07 07.4 | |
| **TWGZ** | **Tauwhareparae** | **1.73** | **237** | PN | Pn | 16 06 43.9 | -0.5 |
| TWGZ | | | | AML | AML | 16 07 05.6 | |
| TWGZ | | | | AML | AML | 16 07 05.8 | |
| **CNGZ** | **Carnagh Statio** | **1.78** | **226** | PN | Pn | 16 06 45.1 | +0.2 |
| **RUGZ** | **Raukumara Rang** | **1.85** | **247** | PN | Pn | 16 06 46.0 | -0.1 |
| **TKGZ** | **Te Karaka** | **1.97** | **232** | PN | Pn | 16 06 46.8 | -0.7 |
| TKGZ | | | | AML | AML | 16 07 10.8 | |
| TKGZ | | | | AML | AML | 16 07 11.0 | |
| **MWZ** | **Matawai** | **2.12** | **239** | PN | Pn | 16 06 48.9 | -0.9 |
| MWZ | | | | AML | AML | 16 07 14.5 | |
| MWZ | | | | AML | AML | 16 07 14.5 | |
| **RIGZ** | **Rimuhau** | **2.19** | **228** | PN | Pn | 16 06 49.9 | -0.7 |
| RIGZ | | | | AML | AML | 16 07 16.9 | |
| RIGZ | | | | AML | AML | 16 07 18.3 | |
| **URZ** | **Urewera** | **2.38** | **244** | PN | Pn | 16 06 53.4 | +0.2 |
| URZ | | | | AML | AML | 16 07 21.8 | |
| **RTZ** | **Ruatahuna** | **2.63** | **238** | PN | Pn | 16 06 56.5 | -0.3 |
| **BKZ** | **Black Stump Fm** | **3.25** | **233** | ⇓PN | Pn | 16 07 04.1 | -1.2 |
| **BFZ** | **Birch Farm** | **4.42** | **218** | PN | Pn | 16 07 18.4 | -2.9 |

*CSEM* ***19*** *16:51:22.8±0.2,45°.02N×22°.84E,h2km,ML1.4, Error ellipse: s-maj=3.6km s-min=2.8km az=109.0*

*BUC* ***19*** *16:51:22.9±0.7,45°.11N×22°.86E,h2km,MD2.6/2, Error ellipse: s-maj=9.2km s-min=4.0km az=47.0*

*BEO* ***19*** *16:51:23.4±0.6,45°.03N×22°.88E,h0km,M1.4/4*

**ISC 19 16:51:22.7±1.2,45°.02N±0°.02×22°.85E±0°.02,h0km±12km, n24,σ0ᵍ36/42,14D,Romania**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SRE** | **Strehaia** | **0.44** | **144** | S | **Sb** | **16 51 40.7** | **+0.4** |
| **SRE** | **Strehaia** | **0.44** | **144** | *i* S | **Sb** | **16 51 40.7** | **+0.4** |
| **SRE** | **Strehaia** | **0.44** | **144** | S | **Sb** | **16 51 40.7** | **+0.4** |
| **LOT** | **Lotru** | **0.78** | **56** | ⇓*i*P | **Pg** | **16 51 37.3** | **-0.3** |
| **LOT** | **Lotru** | **0.78** | **56** | ⇓*i*P | **Pg** | **16 51 37.3** | **-0.3** |
| LOT | | | | *i* S | **Sg** | **16 51 47.6** | **-0.2** |
| **LOT** | **Lotru** | **0.78** | **56** | ⇓*i*P | **Pg** | **16 51 37.3** | **-0.3** |
| LOT | | | | S | **Sg** | **16 51 47.6** | **-0.2** |
| **KUBS** | **Kucevo** | **1.03** | **235** | *e*Pg | **Pg** | **16 51 42.0** | **-0.4** |
| KUBS | | | | *e*Sg | **Sb** | **16 51 57.3** | **-0.2** |
| **KUBS** | **Kucevo** | **1.03** | **235** | *e*Pg | **Pg** | **16 51 42.0** | **-0.4** |
| KUBS | | | | *e*Sg | **Sb** | **16 51 57.3** | **-0.2** |
| **BZS** | **Buzias** | **1.06** | **305** | *e*Pg | **Pg** | **16 51 43.3** | **+0.4** |
| BZS | | | | *e*Sg | **Sg** | **16 51 57.0** | **+0.4** |
| **BZS** | **Buzias** | **1.06** | **305** | ⇓*i*P | **Pg** | **16 51 43.3** | **+0.4** |
| **BZS** | **Buzias** | **1.06** | **305** | ⇓*i*P | **Pg** | **16 51 43.3** | **+0.4** |
| BZS | | | | *i* S | **Sg** | **16 51 56.7** | **+0.1** |
| **BZS** | **Buzias** | **1.06** | **305** | *e*Pg | **Pg** | **16 51 43.3** | **+0.4** |
| BZS | | | | S | **Sg** | **16 51 56.7** | **+0.1** |
| BZS | | | | *e*Sg | **Sg** | **16 51 57.0** | **+0.4** |
| **ZAGS** | **Zajecar** | **1.28** | **200** | *e*Pg | **Pg** | **16 51 46.7** | **-0.5** |
| ZAGS | | | | *e*Sg | **Sg** | **16 52 04.1** | **+0.3** |
| **ZAGS** | **Zajecar** | **1.28** | **200** | *e*Pg | **Pg** | **16 51 46.7** | **-0.5** |
| ZAGS | | | | *e*Sg | **Sg** | **16 52 04.1** | **+0.3** |
| **SIRR** | **Siria** | **1.50** | **327** | ⇓*i*P | **Pn** | **16 51 50.9** | **0.0** |
| **SIRR** | **Siria** | **1.50** | **327** | ⇓*i*P | **Pn** | **16 51 50.9** | **0.0** |
| SIRR | | | | *i* S | **Sg** | **16 52 10.4** | **-0.6** |
| **SIRR** | **Siria** | **1.50** | **327** | ⇓*i*P | **Pn** | **16 51 50.9** | **0.0** |
| SIRR | | | | S | **Sg** | **16 52 10.4** | **-0.6** |
| **VOIR** | | **1.61** | **74** | ⇓*i*P | **Pb** | **16 51 53.3** | **0.0** |
| **VOIR** | | **1.61** | **74** | ⇓*i*P | **Pb** | **16 51 53.3** | **0.0** |
| VOIR | | | | *i* S | **Sg** | **16 52 15.1** | **+0.7** |
| **VOIR** | | **1.61** | **74** | ⇓*i*P | **Pb** | **16 51 53.3** | **0.0** |
| VOIR | | | | S | **Sg** | **16 52 15.1** | **+0.7** |
| **ZAPS** | **Zavoj** | **1.75** | **185** | *e*Pg | **Pg** | **16 51 56.1** | **-0.1** |
| ZAPS | | | | *e*Sg | **Sg** | **16 52 19.3** | **+0.5** |
| **DRGR** | | **1.78** | **357** | ⇓*i*P | **Pn** | **16 51 54.5** | **-0.2** |
| **DRGR** | | **1.78** | **357** | ⇓*i*P | **Pn** | **16 51 54.5** | **-0.2** |
| DRGR | | | | *i* S | **Sn** | **16 52 18.0** | **0.0** |
| **DRGR** | | **1.78** | **357** | ⇓*i*P | **Pn** | **16 51 54.5** | **-0.2** |
| DRGR | | | | S | **Sn** | **16 52 18.0** | **0.0** |
| DRGR | | | | *e*Sg | **Sb** | **16 52 19.0** | **0.0** |

*ISCJB* ***19*** *16:53:35.2±0.8,25°.07N±0°.07×95°.28E±0°.06,h125km, mb3.6/6,Error ellipse: s-maj=10.3km s-min=6.8km az=19.3*

*IDC* ***19*** *16:53:37.0±2.9,24°.77N×95°.34E,h165km±33km,mb3.3/6, mb1 3.4/8,mb1mx3.0/55,mbtmp3.8/8,Error ellipse: s-maj=33.9km s-min=13.1km az=62.0*

**ISC 19 16:53:33.5±0.9,25°.0N±0°.1×95°.43E±0°.09,h125km,n21, σ1ᵍ77/34,mb3.6/6,Myanmar**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SHL** | **Shillong** | **3.26** | **281** | *e*PN | **Pn** | **16 54 25.0** | **+1.5** |
| SHL | | | | *ex* | x | 16 54 32.0 | |
| SHL | | | | *e*SN | **Sn** | **16 55 01.0** | **-1.2** |
| **BRDH** | **Bariadhala** | **4.16** | **237** | P | **Pn** | **16 54 37.8** | **+2.5** |
| | 25nm,0.3s,baz=53,slow=20,SNR=1.9 | | | | | | |
| BRDH | | | | S | **Sn** | **16 55 24.6** | **+1.4** |
| | 115nm,0.3s,baz=258,slow=22,SNR=18 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **7.27** | **153** | P | **Pn** | **16 55 18.4** | **+1.3** |
| | 0.2nm,0.3s,baz=328,slow=13,SNR=11 | | | | | | |
| **TAPN** | **Taplejung** | **7.32** | **290** | *e*Pn | **Pn** | **16 55 21.2** | **+3.1** |
| TAPN | | | | *e*Sn | **Sn** | **16 56 40.6** | **+0.7** |
| | 94nm,0.5s | | | | | | |
| **ODAN** | **Odare** | **7.47** | **286** | *e*Pn | **Pn** | **16 55 22.0** | **+1.9** |
| ODAN | | | | *e*Sn | **Sn** | **16 56 41.8** | **-1.7** |
| | 87nm,0.4s | | | | | | |
| **RAMN** | **Ramite** | **8.18** | **286** | *e*Pn | **Pn** | **16 55 31.6** | **+2.0** |
| RAMN | | | | *e*Sn | **Sn** | **16 56 58.8** | **-1.8** |
| | 54nm,0.4s | | | | | | |
| **JIRN** | **Jiri** | **8.71** | **290** | *e*Pn | **Pn** | **16 55 38.7** | **+1.9** |
| JIRN | | | | *e*Sn | **Sn** | **16 57 12.4** | **-1.1** |
| | 82nm,0.4s | | | | | | |
| **GUN** | **Gumba** | **9.04** | **291** | *e*Pn | **Pn** | **16 55 42.9** | **+1.6** |
| GUN | | | | *e*Sn | **Sn** | **16 57 20.7** | **-0.8** |
| | 57nm,0.5s | | | | | | |
| **PKI** | **Pulchoki** | **9.35** | **288** | *e*Pn | **Pn** | **16 55 46.6** | **+1.1** |
| PKI | | | | *e*Sn | **Sn** | **16 57 27.0** | **-2.1** |
| | 20nm,0.4s | | | | | | |
| **PKIN** | **Phulchoki** | **9.37** | **288** | *e*Pn | **Pn** | **16 55 47.6** | **+2.0** |
| PKIN | | | | *e*Sn | **Sn** | **16 57 27.5** | **-1.8** |
| | 124nm,0.8s | | | | | | |
| **KKN** | **Kakani** | **9.52** | **289** | *e*Pn | **Pn** | **16 55 48.8** | **+1.2** |
| KKN | | | | *e*Sn | **Sn** | **16 57 31.8** | **-1.1** |
| **DMN** | **Daman** | **9.62** | **288** | *e*Pn | **Pn** | **16 55 49.9** | **+0.8** |
| DMN | | | | *e*Sn | **Sn** | **16 57 34.3** | **-1.3** |
| | 19nm,0.4s | | | | | | |
| **GKN** | **Gorkha** | **10.12** | **290** | *e*Pn | **Pn** | **16 55 57.1** | **+1.4** |
| **KOLN** | **Koldanda** | **10.96** | **287** | *e*Pn | **Pn** | **16 56 07.3** | **+0.3** |
| KOLN | | | | *e*Sn | **Sn** | **16 58 04.8** | **-3.1** |
| | 16nm,0.4s | | | | | | |
| **PYUN** | **Piuthan** | **11.56** | **288** | *e*Pn | **Pn** | **16 56 16.1** | **+1.2** |
| PYUN | | | | *e*Sn | **Sn** | **16 58 19.8** | **-2.6** |
| | 18nm,0.5s | | | | | | |
| **MKAR** | **Makanchi Array** | **24.16** | **338** | P | **P** | **16 58 39.7** | **+1.8** |
| | 0.8nm,0.5s,baz=145,slow=10,SNR=15 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **28.73** | **337** | P | **P** | **16 59 19.4** | **+0.5** |
| | 0.4nm,0.5s,baz=144,slow=9.5,SNR=4.5 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **29.99** | **347** | P | **P** | **16 59 31.7** | **+1.7** |
| | 0.3nm,0.3s,baz=188,slow=7.3,SNR=2.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **58.54** | **136** | P | **P** | **17 03 15.5** | **-1.6** |
| | 0.9nm,0.6s,baz=325,slow=7.4,SNR=9.6 | | | | | | |
| **ASAR** | **Alice Springs** | **61.07** | **139** | P | **P** | **17 03 33.3** | **-1.1** |
| | 0.6nm,0.6s,baz=323,slow=6.8,SNR=17 | | | | | | |
| **STKA** | **Stephens Creek** | **71.70** | **140** | P | **P** | **17 04 39.9** | **-2.0** |
| | 1.4nm,0.7s,baz=344,slow=12,SNR=3.6 | | | | | | |

*ISCJB* ***19*** *16:57:52.8±0.3,15°.58N±0°.04×94°.67W±0°.03,h40km, mb4.4/43,MS4.0/26,Error ellipse: s-maj=5.7km s-min=3.7km az=35.0*

*MEX* ***19*** *16:57:53.9±0.9,15°.36N×94°.69W,h22km±27km,MD4.6*

*GCMT* ***19*** *16:57:54.5±0.4,15°.67N×94°.87W,h32km,MW5.0/72, Moment Tensor Solution. s45,c58; s72,c87; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr3.35±.16; Mθθ-2.24±.11; Mϕϕ-1.12±.11; Mrθ1.17±.11; Mθϕ1.21±.08; Mϕr-0.75±.12; Best double couple: Mo3.47200×10¹⁶ NP1:ϕs123.00000°,δ57.00000°,λ90.00000°. NP2: ϕs303.00000°,δ33.00000°,λ90.00000°. Principal axes: T 3.6400, Plg78.0000°, Azm33.0000°; N -0.3470, Plg0.0000°, Azm303.0000°; P -3.3040, Plg12.0000°, Azm213.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC* ***19*** *16:57:54.5±0.7,15°.57N×94°.65W,h38km±5km,mb4.6/47, MD4.6(MEX) Error ellipse: s-maj=8.4km s-min=4.3km az=217.0*

*BJI* ***19*** *16:57:55.6,15°.60N×94°.60W,h48km,Ms5.1/2,Ms7 5.0/2*

*IDC* ***19*** *16:58:02.0±1.4,16°.34N×94°.52W,h70km±12km,mb3.9/16, mb1 4.0/17,mb1mx3.9/41,mbtmp4.1/17,MS4.0/26, Ms1 4.0/26,ms1mx3.9/37,Error ellipse: s-maj=40.4km s-min=13.4km az=59.0*

**ISC 19 16:57:54.0±0.5,15°.46N±0°.06×94°.72W±0°.04,h40km,n244, σ1ᵍ39/230,mb4.5/42,MS4.0/26,Near coast of Oaxaca**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PCIG** | | **1.47** | **80** | *e*P | **Pn** | **16 58 16.0** | **-2.0** |
| PCIG | | | | *e*S | **Sn** | **16 58 32.6** | **-3.4** |
| **PCIG** | | **1.47** | **80** | *e*P | **Pn** | **16 58 16.0** | **-2.0** |
| PCIG | | | | *e*S | **Sn** | **16 58 32.6** | **-3.4** |
| **CMIG** | **Matias Romero** | **1.63** | **355** | P | **Pn** | **16 58 18.2** | **-2.0** |
| | 562nm,0.3s,baz=155,slow=12,SNR=2805 | | | | | | |
| CMIG | | | | S | **Sn** | **16 58 35.8** | **-4.1** |
| | 714nm,0.3s,baz=169,slow=14,SNR=18 | | | | | | |
| CMIG | | | | LR | LR | 16 58 47.9 | |
| | comp=Z,2μm,19.9s,baz=188,slow=56 | | | | | | |
| **TGIG** | | **2.02** | **49** | *e*P | **Pn** | **16 58 24.9** | **-0.7** |
| TGIG | | | | *e*S | **Sn** | **16 58 49.9** | **+0.2** |
| **TGIG** | | **2.02** | **49** | *e*P | **Pn** | **16 58 24.9** | **-0.7** |
| TGIG | | | | *e*S | **Sn** | **16 58 49.9** | **+0.2** |
| **VHO** | **Vista Hermosa** | **2.51** | **310** | *e*P | **Pn** | **16 58 32.9** | **+0.4** |
| VHO | | | | *e*S | **Sn** | **16 59 02.4** | **+0.4** |
| **VHO** | **Vista Hermosa** | **2.51** | **310** | *e*P | **Pn** | **16 58 32.9** | **+0.4** |
| VHO | | | | *e*S | **Sn** | **16 59 02.4** | **+0.4** |
| **TUIG** | **Tuzandepetl** | **2.58** | **6** | *e*Pn | **Pn** | **16 58 32.2** | **-1.0** |
| **PNIG** | **Pinotepa** | **3.40** | **286** | *e*P | **Pn** | **16 58 43.4** | **-1.2** |
| PNIG | | | | *e*S | **Sn** | **16 59 19.1** | **-4.7** |
| **PNIG** | **Pinotepa** | **3.40** | **286** | *e*P | **Pn** | **16 58 43.4** | **-1.2** |
| PNIG | | | | *e*S | **Sn** | **16 59 19.1** | **-4.7** |
| **TLIG** | **Tlapa** | **4.24** | **300** | *e*Pn | **Pn** | **16 58 57.5** | **+1.3** |
| **LVIG** | **Laguna Verde** | **4.54** | **339** | *e*Pn | **Pn** | **16 58 58.2** | **-1.9** |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **SCIG** | **Sabancuy** | **4.86** | **44** | *e*Pn | | **Pn** | **16 59 03.6** | **-1.0** |
| **MYIG** | **MØrida** | **7.23** | **40** | *e*Pn | | **Pn** | **16 59 36.5** | **-0.7** |
| **JTS** | **JuntasAbangare** | **10.82** | **117** | Pn | | Pn | **17 00 28.8** | **+2.3** |
| | 19nm,0.8s | | | | | | | |
| **833A** | **Chaparral WMA,** | **13.51** | **342** | P | | **Pn** | **17 01 04.1** | **+0.9** |
| | baz=160,SNR=5.4 | | | | | | | |
| **435B** | **Jarrell** | **15.48** | **351** | P | | **Pn** | **17 01 29.9** | **+0.5** |
| | baz=169 | | | | | | | |
| **445A** | **Amite** | **15.72** | **14** | P | | **Pn** | **17 01 33.0** | **+0.4** |
| | baz=196 | | | | | | | |
| **446A** | **Poplarville** | **16.03** | **17** | P | | **Pn** | **17 01 37.5** | **+1.0** |
| | baz=199 | | | | | | | |
| **TXAR** | **Lajitas Array** | **16.08** | **331** | P | | **Pn** | **17 01 35.8** | **-1.6** |
| | 0.1nm,0.3s,baz=60,slow=31,SNR=5.1 | | | | | | | |
| TXAR | | | | LR | | LR | 17 08 06.0 | |
| | comp=Z,141nm,20.0s,baz=0.0,slow=39 | | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **16.08** | **331** | *e*Pn | | **Pn** | **17 01 37.7** | **+0.3** |
| **NATX** | **Nacogdoches** | **16.23** | **0** | P | | **Pn** | **17 01 39.5** | **+0.5** |
| | baz=180 | | | | | | | |
| **344A** | **Westbrook Farm** | **16.33** | **12** | P | | **Pn** | **17 01 40.2** | **-0.1** |
| | baz=194 | | | | | | | |
| **345A** | **Thompson Farm,** | **16.35** | **14** | P | | **Pn** | **17 01 40.4** | **-0.2** |
| | baz=196 | | | | | | | |
| **237A** | **Washetta, Mont** | **16.50** | **357** | P | | **P** | **17 01 43.7** | **-1.0** |
| | baz=176 | | | | | | | |
| **346A** | **Big Creek Wild** | **16.57** | **16** | P | | **Pn** | **17 01 42.5** | **-0.9** |
| | baz=198 | | | | | | | |
| **243A** | **Waterproof** | **16.61** | **10** | P | | **Pn** | **17 01 43.8** | **-0.1** |
| | baz=191 | | | | | | | |
| **244A** | **Avery, Jackson** | **16.91** | **12** | P | | **Pn** | **17 01 47.9** | **+0.2** |
| | baz=193 | | | | | | | |
| **LPIG** | **La Paz** | **16.99** | **303** | LR | | LR | 17 07 51.7 | |
| | comp=Z,540nm,19.0s,baz=135,slow=35 | | | | | | | |
| **245A** | **Little AP, Sta** | **17.07** | **14** | P | | **Pn** | **17 01 50.1** | **+0.4** |
| | baz=196 | | | | | | | |
| **137A** | **Heron Place, G** | **17.09** | **357** | P | | **Pn** | **17 01 50.4** | **+0.6** |
| | baz=176 | | | | | | | |
| **VBMS** | **Vicksburg** | **17.12** | **12** | P | | **Pn** | **17 01 49.5** | **-0.8** |
| | baz=194 | | | | | | | |
| **138A** | **Matatall Enter** | **17.13** | **359** | P | | **P** | **17 01 51.2** | **-0.5** |
| | baz=179 | | | | | | | |
| **140A** | **Cam and Jess,** | **17.14** | **3** | P | | **Pn** | **17 01 50.9** | **+0.4** |
| | baz=184 | | | | | | | |
| **141A** | **Papa Simpson,** | **17.15** | **5** | P | | **P** | **17 01 51.9** | **0.0** |
| | baz=186 | | | | | | | |
| **145A** | **Houston Renfro** | **17.61** | **13** | P | | **Pn** | **17 01 55.9** | **-0.5** |
| | baz=195 | | | | | | | |
| **ABTX** | **Abilene, Hawle** | **17.66** | **346** | P | | **P** | **17 01 58.3** | **+0.7** |
| | baz=164 | | | | | | | |
| **ABTX** | **Abilene, Hawle** | **17.66** | **346** | *e*Pn | | **Pn** | **17 01 57.3** | **+0.3** |
| | 37nm,1.1s | | | | | | | |
| **Z37A** | **Pogue Cattle C** | **17.68** | **358** | P | | **Pn** | **17 01 57.1** | **-0.1** |
| | baz=177 | | | | | | | |
| **Z38A** | **Mt. Pleasant** | **17.72** | **359** | P | | **Pn** | **17 01 57.6** | **-0.1** |
| | baz=179 | | | | | | | |
| **Z36A** | **Blue Ridge** | **17.80** | **355** | P | | **P** | **17 01 59.3** | **+0.2** |
| | baz=174 | | | | | | | |
| **146A** | **Union** | **17.86** | **16** | P | | **P** | **17 02 00.1** | **+0.4** |
| | baz=198 | | | | | | | |
| **147A** | **Livingston** | **18.11** | **18** | P | | **P** | **17 02 03.5** | **+1.0** |
| | baz=200 | | | | | | | |
| **Z44A** | **Pea Ridge, Bel** | **18.16** | **12** | P | | **Pn** | **17 02 04.2** | **+1.1** |
| | baz=193 | | | | | | | |
| **Y38A** | **Idabel** | **18.39** | **360** | P | | **Pn** | **17 02 06.9** | **+1.1** |
| | baz=180 | | | | | | | |
| **Z45A** | **Winona** | **18.41** | **13** | P | | **Pn** | **17 02 06.8** | **+0.7** |
| | baz=195 | | | | | | | |
| **Y39A** | **Lockesburg** | **18.41** | **2** | P | | **Pn** | **17 02 07.1** | **+1.0** |
| | baz=182 | | | | | | | |
| **Y37A** | **Hugo** | **18.46** | **358** | P | | **Pn** | **17 02 07.4** | **+0.7** |
| | baz=177 | | | | | | | |
| **MNTX** | **Cornudas Mount** | **18.86** | **331** | P | | **Pn** | **17 02 12.0** | **+0.3** |
| | baz=146 | | | | | | | |
| **MNTX** | **Cornudas Mount** | **18.86** | **331** | *e*P | | **P** | **17 02 11.2** | **+0.3** |
| | 6.7nm,1.1s | | | | | | | |
| **Y45A** | **Yeager Farm, C** | **18.91** | **13** | P | | **P** | **17 02 09.3** | **-2.0** |
| | baz=195 | | | | | | | |
| **X35A** | **Drake** | **18.97** | **354** | P | | **P** | **17 02 12.0** | **+0.1** |
| | baz=173 | | | | | | | |
| **X35A** | **Drake** | **18.97** | **354** | *e*P | | **P** | **17 02 11.4** | **-0.5** |
| | 22nm,0.6s | | | | | | | |
| **MIAR** | **Mount Ida** | **19.03** | **3** | P | | **P** | **17 02 11.8** | **-0.8** |
| | baz=183 | | | | | | | |
| **MIAR** | **Mount Ida** | **19.03** | **3** | *e*P | | **P** | **17 02 11.5** | **-1.1** |
| | 9.4nm,0.7s | | | | | | | |
| **X37A** | **Clayton** | **19.06** | **358** | P | | **P** | **17 02 12.1** | **-0.8** |
| | baz=178 | | | | | | | |
| **X37A** | **Clayton** | **19.06** | **358** | *e*P | | **P** | **17 02 11.1** | **-1.8** |
| | 20nm,0.7s | | | | | | | |
| **X36A** | **Centrahoma** | **19.09** | **356** | P | | **Pn** | **17 02 14.4** | **+0.1** |
| | baz=175 | | | | | | | |
| **Y46A** | **Houston** | **19.09** | **15** | P | | **P** | **17 02 13.4** | **+0.1** |
| | baz=197 | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| HELC | Santa Helena | 20.96 | 114 | *e*P | | P | 17 02 34.6 | +0.4 | |
| | 34nm,1.0s | | | | | | | | |
| U42A | Revenden | 21.04 | 8 | P | | P | 17 02 33.1 | -1.3 | |
| | baz=189 | | | | | | | | |
| YOTC | Yotoco, Valle | 21.38 | 120 | *e*P | | P | 17 02 39.4 | +1.0 | |
| T35A | Sooner Cattle | 21.43 | 356 | P | | P | 17 02 37.9 | -0.8 | |
| | baz=175 | | | | | | | | |
| BNM | Barren Site | 21.48 | 332 | *e*P | | P | 17 02 41.1 | +1.6 | |
| T36A | Boggs Farm, Ca | 21.54 | 357 | P | | P | 17 02 39.2 | -0.6 | |
| | baz=177 | | | | | | | | |
| GUYC | Guyana, Colomb | 21.54 | 116 | *e*P | | P | 17 02 42.8 | +2.3 | |
| T37A | Cheneyville 18 | 21.58 | 360 | P | | P | 17 02 39.8 | -0.4 | |
| | baz=179,SNR=6.1 | | | | | | | | |
| T34A | McClaskey Farm | 21.59 | 355 | P | | P | 17 02 39.8 | -0.5 | |
| | baz=173 | | | | | | | | |
| T41A | Mountain View | 21.66 | 6 | P | | P | 17 02 40.6 | -0.5 | |
| | baz=188 | | | | | | | | |
| LAZ | Ladron | 21.93 | 332 | *e*P | | P | 17 02 44.7 | +0.4 | |
| POPC | Popayan, Colom | 21.93 | 124 | *e*P | | P | 17 02 54.2 | +10 | |
| ANMO | Albuquerque | 22.08 | 334 | P | | P | 17 02 45.3 | -0.6 | |
| | 3.6nm,0.8s,baz=339,slow=12,SNR=9.1 | | | | | | | | |
| ANMO | Albuquerque | 22.08 | 334 | P | | P | 17 02 45.8 | -0.1 | |
| | baz=148 | | | | | | | | |
| ANMO | Albuquerque | 22.08 | 334 | *e*P | | P | 17 02 47.3 | +1.4 | |
| | 8.6nm,1.4s | | | | | | | | |
| S38A | Stockton | 22.09 | 2 | P | | P | 17 02 44.9 | -0.9 | |
| | baz=182 | | | | | | | | |
| BG3 | Lake Jocassee | 22.15 | 26 | *e*P | | P | 17 02 45.5 | -0.9 | |
| | 12nm,0.7s | | | | | | | | |
| S39A | Bolivar | 22.18 | 3 | P | | P | 17 02 45.5 | -1.1 | |
| | baz=183 | | | | | | | | |
| S35A | Otter Creek Ra | 22.18 | 357 | P | | P | 17 02 45.9 | -0.8 | |
| | baz=176 | | | | | | | | |
| S36A | Lake Cedric, C | 22.19 | 358 | P | | P | 17 02 45.9 | -0.8 | |
| | baz=178 | | | | | | | | |
| S41A | Jillco Farms, | 22.20 | 6 | P | | P | 17 02 44.7 | -2.2 | |
| | baz=187 | | | | | | | | |
| S37A | Fort Scott | 22.21 | 360 | P | | P | 17 02 45.5 | -1.5 | |
| | baz=180 | | | | | | | | |
| TUC | Tucson | 22.25 | 322 | P | | P | 17 02 46.8 | -0.7 | |
| | baz=135 | | | | | | | | |
| TUC | Tucson | 22.25 | 322 | *e*P | | P | 17 02 49.9 | +2.3 | |
| | 11nm,1.0s | | | | | | | | |
| T46A | Princeton | 22.34 | 14 | P | | P | 17 02 46.3 | -2.1 | |
| | baz=197 | | | | | | | | |
| TKL | Tuckaleechee C | 22.37 | 24 | LR | | LR | 17 13 38.6 | | |
| | comp=Z,214nm,18.8s,baz=183,slow=44 | | | | | | | | |
| ROSC | El Rosal | 22.66 | 116 | *e*P | | P | 17 02 55.0 | +2.5 | |
| | 43nm,1.3s | | | | | | | | |
| PRAC | Prado | 22.75 | 119 | *e*P | | P | 17 02 54.5 | +1.5 | |
| | 48nm,1.3s | | | | | | | | |
| R36A | Gordon, Harris | 22.79 | 358 | P | | P | 17 02 51.9 | -1.3 | |
| | baz=178 | | | | | | | | |
| R39A | Chumby, Stover | 22.81 | 3 | P | | P | 17 02 51.6 | -1.8 | |
| | baz=184 | | | | | | | | |
| R40A | Maddies Statio | 22.84 | 5 | P | | P | 17 02 52.3 | -1.4 | |
| | baz=186 | | | | | | | | |
| R34A | Isabella, Hill | 22.86 | 355 | P | | P | 17 02 52.4 | -1.5 | |
| | baz=174 | | | | | | | | |
| BARC | Barichara | 22.88 | 110 | *e*P | | P | 17 02 54.6 | -0.1 | |
| R41A | Rosebud | 22.94 | 7 | P | | P | 17 02 52.6 | -2.1 | |
| | baz=188 | | | | | | | | |
| R43A | Red Bud | 23.12 | 10 | P | | P | 17 02 54.4 | -2.2 | |
| | baz=192 | | | | | | | | |
| T25A | Trinidad | 23.24 | 340 | P | | P | 17 02 57.2 | -0.8 | |
| | baz=156,SNR=6.0 | | | | | | | | |
| T25A | Trinidad | 23.24 | 340 | *e*P | | P | 17 02 58.9 | +0.9 | |
| | 95nm,1.8s | | | | | | | | |
| 214A | Organ Pipe Nat | 23.26 | 318 | P | | P | 17 02 58.1 | 0.0 | |
| | baz=130 | | | | | | | | |
| RUSC | La Rusia | 23.27 | 112 | *e*P | | P | 17 02 58.7 | -0.1 | |
| RUSC | La Rusia | 23.27 | 112 | *e*P | | P | 17 02 59.0 | +0.2 | |
| | 43nm,1.2s | | | | | | | | |
| CHIC | Chingaza | 23.27 | 115 | *e*P | | P | 17 03 00.2 | +1.5 | |
| MHTCO | State Highway | 23.33 | 340 | *e*P | | P | 17 03 00.3 | +1.5 | |
| | 38nm,1.2s | | | | | | | | |
| Q35A | Mercer Eighty, | 23.34 | 357 | P | | P | 17 02 56.3 | -2.4 | |
| | baz=177 | | | | | | | | |
| Q38A | Cooks Store, C | 23.43 | 2 | P | | P | 17 02 58.5 | -1.1 | |
| | baz=182 | | | | | | | | |
| Q41A | Truxton | 23.60 | 7 | P | | P | 17 02 59.7 | -1.6 | |
| | baz=188 | | | | | | | | |
| Q43A | New Douglas | 23.80 | 10 | P | | P | 17 03 00.9 | -2.2 | |
| | baz=192 | | | | | | | | |
| P35A | Duane Minner, | 24.00 | 358 | P | | P | 17 03 03.2 | -1.8 | |
| | baz=177 | | | | | | | | |
| P40A | Paris | 24.09 | 5 | P | | P | 17 03 03.5 | -2.3 | |
| | baz=186 | | | | | | | | |
| P38A | Dawn | 24.10 | 2 | P | | P | 17 03 03.6 | -2.2 | |
| | baz=183 | | | | | | | | |
| X16A | Lo Mia Camp, P | 24.14 | 324 | *e*P | | P | 17 03 07.0 | +0.5 | |
| | 8.5nm,0.8s | | | | | | | | |
| SDCO | Great Sand Dun | 24.16 | 339 | *e*P | | P | 17 03 07.4 | +0.6 | |
| | 14nm,1.0s | | | | | | | | |
| SDV | Santo Domingo | 24.42 | 103 | LR | | LR | 17 13 35.0 | | |
| | comp=Z,498nm,20.7s,baz=292,slow=38 | | | | | | | | |
| SDV | Santo Domingo | 24.42 | 103 | *e*P | | P | 17 03 09.6 | +0.3 | |
| | 16nm,1.0s | | | | | | | | |
| Y14A | Wickenburg | 24.71 | 321 | *e*P | | P | 17 03 13.5 | +1.9 | |
| | 70nm,1.4s | | | | | | | | |
| MVCO | Mesa Verde | 24.88 | 333 | *e*P | | P | 17 03 14.2 | +0.9 | |
| | 16nm,1.3s | | | | | | | | |
| WUAZ | Wupatki | 24.92 | 326 | P | | P | 17 03 12.9 | -0.7 | |
| | baz=139,SNR=5.2 | | | | | | | | |
| WUAZ | Wupatki | 24.92 | 326 | *e*P | | P | 17 03 13.8 | +0.2 | |
| | 20nm,1.0s | | | | | | | | |
| Q24A | Divide | 25.14 | 341 | P | | P | 17 03 13.9 | -1.8 | |
| | baz=156 | | | | | | | | |
| GLA | Glamis | 25.27 | 317 | P | | P | 17 03 17.0 | +0.3 | |
| | baz=129 | | | | | | | | |
| GLA | Glamis | 25.27 | 317 | *e*P | | P | 17 03 15.7 | -0.9 | |
| | 8.6nm,0.8s | | | | | | | | |
| N38A | Joes South For | 25.27 | 3 | P | | P | 17 03 14.2 | -2.3 | |
| | baz=183,SNR=8.0 | | | | | | | | |
| N39A | Derby Farms, D | 25.40 | 4 | P | | P | 17 03 16.9 | -0.8 | |
| | baz=185 | | | | | | | | |
| PDMCI | Parker Dam,Lak | 25.65 | 321 | P | | P | 17 03 20.1 | +0.1 | |
| | baz=132 | | | | | | | | |
| PV01 | Paradox Valley | 25.68 | 334 | *e*P | | P | 17 03 21.8 | +1.2 | |
| SWSC | Sam W. Stewart | 25.85 | 316 | P | | P | 17 03 18.8 | -3.0 | |
| | baz=127 | | | | | | | | |
| ISCO | Idaho Springs | 26.05 | 341 | P | | P | 17 03 24.1 | +0.1 | |
| | baz=155 | | | | | | | | |
| BC3 | Big Chuckawall | 26.06 | 318 | P | | P | 17 03 23.0 | -0.9 | |
| | baz=129 | | | | | | | | |
| PV10 | Paradox Valley | 26.09 | 334 | *e*P | | P | 17 03 21.8 | -2.5 | |
| PFO | Pinyon Flats O | 26.69 | 317 | LR | | LR | 17 14 42.7 | | |
| | comp=Z,674nm,18.2s,baz=136,slow=38 | | | | | | | | |
| SJG | San Juan | 27.47 | 80 | LR | | LR | 17 13 41.1 | | |
| | comp=Z,208nm,20.7s,baz=222,slow=35 | | | | | | | | |
| ATAH | Atahualpa | 27.67 | 143 | P | | P | 17 03 48.6 | +10 | |
| | 2.3nm,0.4s,baz=324,slow=9.1,SNR=3.8 | | | | | | | | |
| ATAH | | | | LR | | LR | 17 13 19.0 | | |
| | comp=Z,305nm,18.1s,baz=301,slow=32 | | | | | | | | |
| ECSD | EROS Data Cent | 28.23 | 357 | P | | P | 17 03 42.1 | -1.0 | |
| | baz=176 | | | | | | | | |
| ECSD | EROS Data Cent | 28.23 | 357 | *e*P | | P | 17 03 42.2 | -1.0 | |
| | 9.2nm,1.3s | | | | | | | | |
| I35A | Creekview Farm | 28.30 | 360 | P | | P | 17 03 42.4 | -1.4 | |
| | baz=179 | | | | | | | | |
| MPMC | Manual Prospec | 28.87 | 320 | P | | P | 17 03 48.6 | -0.5 | |
| | baz=129 | | | | | | | | |
| H32A | Carlson Farm, | 29.04 | 356 | P | | P | 17 03 49.3 | -1.0 | |
| | baz=174 | | | | | | | | |
| H39A | Augusta | 29.27 | 5 | P | | P | 17 03 50.6 | -1.8 | |
| | baz=187 | | | | | | | | |
| TCUT | Toone Canyon | 29.38 | 334 | *e*P | | P | 17 03 54.7 | +1.0 | |
| | 18nm,1.1s | | | | | | | | |
| PCRV | Puerto La Cruz | 29.78 | 97 | LR | | LR | 17 18 23.9 | | |
| | comp=Z,248nm,18.6s,baz=278,slow=41 | | | | | | | | |
| PDAR | Pinedale Array | 30.04 | 338 | P | | P | 17 03 59.8 | +0.3 | |
| | 0.9nm,0.8s,baz=138,slow=7.4,SNR=7.1 | | | | | | | | |
| PDAR | | | | LR | | LR | 17 18 47.8 | | |
| | comp=Z,161nm,20.1s,baz=152,slow=42 | | | | | | | | |
| NV01 | Mina Array Sit | 30.90 | 322 | *e*P | | P | 17 04 08.1 | +1.0 | |
| E34A | Wadena | 30.96 | 359 | P | | P | 17 04 06.1 | -1.2 | |
| | baz=179 | | | | | | | | |
| REDW | Red Top Meadow | 31.04 | 337 | *e*P | | P | 17 04 08.2 | -0.1 | |
| | 17nm,1.4s | | | | | | | | |
| SNOW | Snow King Moun | 31.09 | 337 | *e*P | | P | 17 04 10.1 | +1.4 | |
| | 12nm,0.6s | | | | | | | | |
| TPAW | Teton Pass | 31.18 | 337 | *e*P | | P | 17 04 11.1 | +1.5 | |
| | 9.1nm,1.2s | | | | | | | | |
| MOOW | Moose Ponds | 31.33 | 337 | *e*P | | P | 17 04 11.8 | +0.9 | |
| | 3.7nm,0.8s | | | | | | | | |
| RLMT | Red Lodge | 32.02 | 340 | P | | P | 17 04 15.7 | -1.2 | |
| | baz=153 | | | | | | | | |
| RLMT | Red Lodge | 32.02 | 340 | *e*P | | P | 17 04 17.3 | +0.5 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| C36A | Pine Crest Far | 32.24 | 2 | P | | P | 17 04 16.6 | -2.0 | |
| | baz=183 | | | | | | | | |
| C37A | Embarrass | 32.24 | 3 | P | | P | 17 04 16.2 | -2.3 | |
| | baz=184 | | | | | | | | |
| C31A | Landman Farms, | 32.34 | 356 | P | | P | 17 04 17.9 | -1.5 | |
| | baz=174 | | | | | | | | |
| EYMN | Ely | 32.50 | 4 | *e*P | | P | 17 04 19.2 | -1.6 | |
| NNA | Nana | 32.51 | 146 | LR | | LR | 17 15 11.3 | | |
| | comp=Z,299nm,20.6s,baz=334,slow=31 | | | | | | | | |
| HLID | Hailey | 32.66 | 333 | P | | P | 17 04 22.4 | -0.1 | |
| | baz=143,SNR=6.4 | | | | | | | | |
| HLID | Hailey | 32.66 | 333 | *e*P | | P | 17 04 23.2 | +0.8 | |
| AGMN | Agassiz Nation | 32.76 | 359 | P | | P | 17 04 21.4 | -1.6 | |
| | baz=178 | | | | | | | | |
| AGMN | Agassiz Nation | 32.76 | 359 | *e*P | | P | 17 04 21.6 | -1.5 | |
| B35A | Bob, Littlefor | 32.82 | 1 | P | | P | 17 04 21.7 | -1.8 | |
| | baz=182 | | | | | | | | |
| B32A | Ashes, Strandq | 32.88 | 358 | P | | P | 17 04 22.4 | -1.6 | |
| | baz=177 | | | | | | | | |
| MCMT | McKenzie Canyo | 33.05 | 336 | *e*P | | P | 17 04 27.4 | +1.5 | |
| DLMT | Dillon | 33.40 | 337 | *e*P | | P | 17 04 30.2 | +1.4 | |
| | 9.3nm,1.2s | | | | | | | | |
| LRM | Limekiln Ridge | 33.73 | 337 | *e*P | | P | 17 04 32.6 | +0.8 | |
| HRY | Holter Researc | 34.27 | 339 | *e*P | | P | 17 04 37.1 | +0.7 | |
| J08A | Circle Bar Ran | 34.41 | 329 | *e*P | | P | 17 04 36.0 | -1.7 | |
| | 8.2nm,0.9s | | | | | | | | |
| ULM | Lac du Bonnet | 34.71 | 359 | P | | P | 17 04 38.5 | -1.4 | |
| | 1.9nm,0.5s,baz=164,slow=9.0,SNR=4.7 | | | | | | | | |
| ULM | | | | LR | | LR | 17 20 40.2 | | |
| | comp=Z,147nm,20.5s,baz=236,slow=40 | | | | | | | | |
| F10A | Beach Ranch, E | 35.79 | 333 | *e*P | | P | 17 04 49.9 | +0.4 | |
| | 12nm,0.9s | | | | | | | | |
| PTGA | Pitinga | 37.92 | 112 | P | | P | 17 05 16.2 | +8.3 | |
| | 6.3nm,0.8s,baz=290,slow=11,SNR=7.5 | | | | | | | | |
| PTGA | | | | LR | | LR | 17 23 22.1 | | |
| | comp=Z,129nm,18.0s,baz=308,slow=40 | | | | | | | | |
| PTGA | Pitinga | 37.92 | 112 | *e*P | | P | 17 05 07.0 | -0.9 | |
| LON | Longmire | 38.49 | 330 | *e*P | | P | 17 05 12.0 | -0.3 | |
| | 6.1nm,1.0s | | | | | | | | |
| LPAZ | La Paz | 41.04 | 139 | LR | | LR | 17 21 09.0 | | |
| | comp=Z,250nm,20.9s,baz=313,slow=33 | | | | | | | | |
| SCHQ | Schefferville | 44.83 | 23 | LR | | LR | 17 27 21.9 | | |
| | comp=Z,305nm,19.1s,baz=170,slow=40 | | | | | | | | |
| YKA | Yellowknife Ar | 49.03 | 348 | P | | P | 17 06 36.1 | -0.6 | |
| | 1.9nm,0.7s,baz=152,slow=7.5,SNR=28 | | | | | | | | |
| YKA | | | | PcP | | PcP | 17 07 58.8 | -1.2 | |
| | 0.6nm,0.8s,baz=153,slow=5.9,SNR=5.2 | | | | | | | | |
| YKA | | | | LR | | LR | 17 31 14.1 | | |
| | comp=Z,10nm,18.2s,baz=180,slow=41 | | | | | | | | |
| RKT | Rikitea | 54.96 | 227 | *e*T | | T | 18 06 27.2 | | |
| | 4.6nm,0.2s | | | | | | | | |
| CPUP | Villa Florida | 55.20 | 138 | P | | P | 17 07 31.6 | +8.5 | |
| | 0.7nm,0.4s,baz=312,slow=8.6,SNR=3.9 | | | | | | | | |
| CPUP | | | | LR | | LR | 17 31 08.7 | | |
| | comp=Z,78nm,18.5s,baz=336,slow=36 | | | | | | | | |
| INK | Inuvik | 58.31 | 344 | P | | P | 17 07 44.3 | -0.2 | |
| | 2.0nm,0.5s,baz=120,slow=2.4,SNR=10 | | | | | | | | |
| INK | | | | LR | | LR | 17 36 39.0 | | |
| | comp=Z,215nm,19.6s,baz=148,slow=40 | | | | | | | | |
| INK | Inuvik | 58.31 | 344 | *e*P | | P | 17 07 44.1 | -0.4 | |
| | 4.7nm,0.9s | | | | | | | | |
| KDAK | Kodiak Island | 60.10 | 328 | LR | | LR | 17 35 00.1 | | |
| | comp=Z,178nm,18.2s,baz=110,slow=37 | | | | | | | | |
| PLCA | Paso Flores | 60.24 | 159 | P | | P | 17 08 09.0 | +11 | |
| | 5.5nm,1.0s,baz=344,slow=6.1,SNR=5.3 | | | | | | | | |
| PLCA | | | | LR | | LR | 17 28 06.2 | | |
| | comp=Z,124nm,19.4s,baz=344,slow=30 | | | | | | | | |
| PLCA | Paso Flores | 60.24 | 159 | *e*P | | P | 17 07 57.2 | -1.1 | |
| | 9.7nm,1.1s | | | | | | | | |
| IL1 | Eielson Array | 60.47 | 337 | *e*P | | P | 17 07 59.0 | -0.5 | |
| ILAR | Eielson Array | 60.47 | 337 | P | | P | 17 07 59.4 | -0.2 | |
| | 2.0nm,0.9s,baz=140,slow=4.8,SNR=19 | | | | | | | | |
| ILAR | | | | LR | | LR | 17 37 44.6 | | |
| | comp=Z,277nm,18.2s,baz=135,slow=40 | | | | | | | | |
| ILB | Eielson Array | 60.47 | 337 | *e*P | | P | 17 07 59.0 | -0.5 | |
| PMOR | Pomariorio Ree | 60.63 | 243 | *e*T | | T | 18 13 35.8 | | |
| | 2.3nm,0.2s | | | | | | | | |
| TRQA | Tornquist | 61.47 | 151 | *e*P | | P | 17 08 06.6 | 0.0 | |
| | 16nm,1.5s | | | | | | | | |
| MLY | Manley | 62.05 | 337 | *e*P | | P | 17 08 10.2 | -0.1 | |
| | 7.1nm,0.8s | | | | | | | | |
| PPT | Papeete | 63.25 | 241 | LR | | LR | 17 28 02.1 | | |
| | comp=Z,122nm,20.7s,baz=72,slow=28 | | | | | | | | |
| PPT2 | Papeete2 | 63.26 | 241 | *e*LR | | LR | 17 27 04.0 | | |
| | 196nm,26.2s | | | | | | | | |
| TBI | Tubuai | 65.97 | 235 | *e*LR | | LR | 17 28 31.2 | | |
| | 196nm,26.8s | | | | | | | | |
| ESDC | Sonseca Array | 80.87 | 51 | P | | P | 17 10 04.2 | 0.0 | |
| | 1.9nm,0.7s,baz=293,slow=5.0,SNR=9.2 | | | | | | | | |
| ES19 | SONSECA Array | 80.92 | 51 | *e*P | | P | 17 10 03.1 | -1.4 | |
| NOA | NORSAR Array B | 84.11 | 28 | P | | P | 17 10 20.7 | +0.1 | |
| | 0.7nm,0.7s,baz=293,slow=4.9,SNR=3.3 | | | | | | | | |
| NOA | | | | LR | | LR | 17 46 51.0 | | |
| | comp=Z,67nm,20.7s,baz=285,slow=35 | | | | | | | | |
| ARCES | ARCESS Array B | 85.57 | 18 | P | | P | 17 10 27.1 | -0.7 | |
| | 1.6nm,0.6s,baz=303,slow=6.7,SNR=6.5 | | | | | | | | |
| ARCES | | | | LR | | LR | 17 49 41.4 | | |
| | comp=Z,61nm,20.3s,baz=293,slow=37 | | | | | | | | |
| SEY | Seymchan | 86.33 | 335 | P | | P | 17 10 31.7 | +0.1 | |
| | 1.7nm,0.9s,baz=125,slow=6.3,SNR=4.2 | | | | | | | | |
| KOWA | Kowa | 86.88 | 76 | *e*P | | P | 17 10 34.5 | -0.7 | |
| | 22nm,1.5s | | | | | | | | |
| MA2 | Magadan | 88.60 | 332 | LR | | LR | 17 52 58.0 | | |
| | comp=Z,31nm,18.1s,baz=96,slow=38 | | | | | | | | |
| GERES | GERESS Array B | 90.14 | 39 | P | | P | 17 10 51.0 | +0.8 | |
| | 0.3nm,0.6s,baz=270,slow=6.9,SNR=3.3 | | | | | | | | |
| GERES | | | | LR | | LR | 17 54 01.4 | | |
| | comp=Z,38nm,18.0s,baz=276,slow=38 | | | | | | | | |
| FINES | FINESS Array B | 90.28 | 24 | LR | | LR | 17 53 37.7 | | |
| | comp=Z,53nm,18.4s,baz=7.5,slow=37 | | | | | | | | |
| TORD | Torodi Ar. Bea | 92.58 | 76 | LR | | LR | 17 50 00.1 | | |
| | comp=Z,76nm,19.3s,baz=275,slow=34 | | | | | | | | |
| AKASG | Malin Array Be | 97.93 | 32 | P | | Pdif | 17 11 25.9 | +0.1 | |
| | 0.1nm,0.2s,baz=58,slow=29,SNR=5.8 | | | | | | | | |
| DZM | Mont Dzumac | 103.67 | 251 | *e*LR | | LR | 17 46 08.4 | | |
| | 122nm,22.1s | | | | | | | | |
| HHC | Hu-ho-hao-te | 118.90 | 337 | *e*PKP | | PKPdf | 17 16 39.6 | +0.9 | |
| WMQ | Urumqi | 120.97 | 358 | *e*PKP | | PKPdf | 17 16 42.0 | -0.5 | |
| WMQ | | | | LR | | LR | | | |
| | comp=N,190nm,17.9s | | | | | | | | |
| WMQ | | | | LR | | LR | | | |
| | comp=E,180nm,19.5s | | | | | | | | |
| WMQ | | | | LR | | LR | | | |
| | comp=Z,190nm,19.5s | | | | | | | | |
| NJ2 | Nanjing | 122.84 | 326 | *e*PKP | | PKPdf | 17 16 47.6 | +1.3 | |
| KSH | Kashi | 124.62 | 9 | *e*PKP | | PKPdf | 17 16 52.3 | +2.6 | |
| KSH | | | | sPKP | | | 17 17 06.3 | | |
| KSH | | | | PP | | PP | 17 18 42.3 | +6.9 | |
| KSH | | | | PKS | | PKSdf | 17 20 27.4 | +0.9 | |
| KSH | | | | SKS | | SKSdf | 17 23 59.3 | +0.5 | |
| KSH | | | | SKKS | | SKKSac | 17 25 30.4 | -1.9 | |
| KSH | | | | SS | | SS | 17 35 29.3 | +3.9 | |
| KSH | | | | LR | | LR | | | |
| | comp=Z,140nm,3.9s | | | | | | | | |
| WRA | Warramunga Arr | 133.18 | 257 | PKhKP | | PKPpre | 17 17 06.7 | | |
| | 0.4nm,0.7s,baz=88,slow=2.7,SNR=7.0 | | | | | | | | |
| ASAR | Alice Springs | 133.64 | 252 | PKhKP | | PKPpre | 17 17 07.4 | | |
| | 0.3nm,0.8s,baz=81,slow=1.6,SNR=5.0 | | | | | | | | |
| CMAR | Chiang Mai Arr | 143.71 | 338 | PKhKP | | PKPpre | 17 17 22.9 | | |
| | 0.4nm,0.3s,baz=335,slow=3.9,SNR=4.3 | | | | | | | | |

*ISCJB* ***19*** *17:00:50.7±0.7, 19.2°N±0.1°×145.5°E±0.2, h214km, mb3.6/15, Error ellipse: s-maj=23.2km s-min=15.0km az=8.9*

*IDC* ***19*** *17:00:53.3±7.4, 19.1°N×145.49°E, h224km±73km, mb3.5/14, mb1 3.7/14, mb1mx3.4/47, mbtmp4.1/14, Error ellipse: s-maj=19.8km s-min=12.9km az=95.0*

**ISC 19 17:00:52.1**±0.9, **19.2N**±0.1°×**145.5E**±0.2, **h214**km, **n15,** σ**05.7**/16, **mb3.7**/15, **Mariana Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| KLR | Kul'dur | 31.95 | 343 | P | | P | | 17 06 57.9 | +0.1 |
| | 0.1nm,0.3s,baz=176,slow=10,SNR=6.2 | | | | | | | | |
| WRA | Warramunga Arr | 40.38 | 196 | P | | P | | 17 08 09.7 | +0.3 |
| | 4.2nm,0.5s,baz=35,slow=9.5,SNR=111 | | | | | | | | |
| SONM | Songino Array | 42.63 | 321 | P | | P | | 17 08 27.7 | 0.0 |
| | 0.6nm,0.6s,baz=143,slow=9.8,SNR=5.0 | | | | | | | | |
| SEY | Seymchan | 43.98 | 5 | P | | P | | 17 08 38.0 | 0.0 |
| | 0.5nm,0.4s,baz=81,slow=23,SNR=5.1 | | | | | | | | |
| ASAR | Alice Springs | 44.05 | 195 | P | | P | | 17 08 38.9 | -0.2 |
| | 0.8nm,0.6s,baz=11,slow=6.7,SNR=21 | | | | | | | | |
| MKAR | Makanchi Array | 57.98 | 314 | P | | P | | 17 10 23.5 | +1.1 |
| | 0.3nm,0.5s,baz=84,slow=10,SNR=2.7 | | | | | | | | |
| KDAK | Kodiak Island | 59.09 | 33 | P | | P | | 17 10 30.1 | +0.4 |
| | 12nm,1.0s,baz=323,slow=5.0,SNR=10 | | | | | | | | |
| KURBB | Kurchatov Arra | 60.82 | 318 | P | | P | | 17 10 41.8 | +0.1 |
| | 0.6nm,0.4s,baz=92,slow=7.5,SNR=18 | | | | | | | | |
| KURBB | | | | pP | | PcP | | 17 11 22.6 | -0.6 |
| | 0.4nm,0.6s,baz=92,slow=7.5,SNR=2.9 | | | | | | | | |
| ILAR | Eielson Array | 63.32 | 26 | P | | P | | 17 10 57.3 | -0.8 |
| | 1.9nm,0.5s,baz=255,slow=5.5,SNR=20 | | | | | | | | |
| BVAR | Borovoye Array | 65.97 | 320 | P | | P | | 17 11 15.3 | -0.1 |
| | 0.8nm,0.6s,baz=94,slow=8.1,SNR=6.7 | | | | | | | | |
| BVAR | | | | pP | | pP | | 17 11 55.5 | -9.4 |
| | 0.6nm,0.5s,baz=96,slow=7.9,SNR=3.1 | | | | | | | | |
| INK | Inuvik | 69.03 | 23 | P | | P | | 17 11 34.0 | -0.1 |
| | 1.8nm,0.8s,baz=288,slow=9.1,SNR=5.6 | | | | | | | | |
| YKA | Yellowknife Ar | 77.67 | 28 | P | | P | | 17 12 25.0 | +0.3 |
| | 1.0nm,0.5s,baz=290,slow=5.4,SNR=17 | | | | | | | | |
| ARCES | ARCESS Array B | 81.97 | 342 | P | | P | | 17 12 48.1 | +0.4 |
| | 1.4nm,0.6s,baz=79,slow=6.5,SNR=10 | | | | | | | | |
| FINES | FINESS Array B | 86.36 | 335 | P | | P | | 17 13 08.7 | -1.2 |
| | 1.6nm,0.5s,baz=80,slow=4.9,SNR=20 | | | | | | | | |
| PDAR | Pinedale Array | 87.65 | 45 | P | | P | | 17 13 17.2 | +0.3 |
| | 0.4nm,0.5s,baz=195,slow=1.9,SNR=5.2 | | | | | | | | |

*NIED* ***19*** *17:23:00, 36.70N×140.60E, h5km, Mw3.8 Best double couple: M0 5.46000×10^14 NP1:φs329.00000°, δ19.00000°, λ-94.00000°. NP2:φs153.00000°, δ71.00000°, λ-88.00000°.*

*ISCJB* ***19*** *17:23:21.3±0.7, 36.67N±0.03×140.71E±0.05, h12km±4km, mb3.6/7, Error ellipse: s-maj=7.8km s-min=4.6km az=25.7*

*IDC* ***19*** *17:23:21.0±1.1, 36.70N×140.61E, h0km, mb3.7/7, mb1 3.8/9, mb1mx3.6/37, mbtmp3.7/9, ML3.2/2, Error ellipse: s-maj=23.3km s-min=18.1km az=122.0*

*JMA* ***19*** *17:23:22.3, 36.70N×140.62E, h5km±1km, M3.7 Broadband fault plane solution: P waves. NP1: φs112.00000°, δ75.00000°, λ-120.00000°. NP2: φs358.00000°, δ33.00000°, λ-29.00000°. Principal axes: T Plg24.0000°, Azm225.0000°; N Plg29.0000°, Azm121.0000°; P Plg51.0000°, Azm348.0000°;*

*JMA Felt II J1.*

**ISC 19 17:23:22.3**±0.9, **36.71N**±0.03×**140.61E**±0.05, **h8**km±6km, **n17,** σ**0.59**/25, **mb3.6**/7, **3C-2D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| JHO | Hitachi | 0.10 | 198 | ↑↑P | | Pg | | 17 23 24.6 | 0.0 |
| JHO | | | | S | | Sg | | 17 23 26.2 | -0.1 |
| ONAJ | Iwakimizuishiy | 0.42 | 21 | ↑↑P | | Pg | | 17 23 30.7 | +0.1 |
| ONAJ | | | | eS | | Sg | | 17 23 36.6 | +0.4 |
| JYT | Yasato | 0.58 | 215 | ↑↑P | | Pg | | 17 23 33.6 | +0.1 |
| JSB | Shiboa | 0.61 | 296 | P | | Pb | | 17 23 34.9 | -0.3 |
| JSB | | | | S | | Sb | | 17 23 43.7 | -0.3 |
| JFK | Kawauchi | 0.69 | 18 | ↓↓P | | Pg | | 17 23 35.5 | -0.2 |
| JFK | | | | S | | Sg | | 17 23 45.0 | +0.3 |
| JFT | Otama | 0.84 | 345 | ↓↓P | | Pb | | 17 23 38.5 | -0.6 |
| JFT | | | | S | | Sg | | 17 23 49.8 | +0.4 |
| MJAR | Matsushiro Arr | 1.94 | 266 | Pn | | Pn | | 17 23 56.0 | +0.6 |
| | 26nm,0.3s,baz=84,slow=10.0,SNR=142 | | | | | | | | |
| MJAR | | | | Sn | | Sn | | 17 24 21.0 | +1.0 |
| | 76nm,0.3s,baz=54,slow=18,SNR=9.3 | | | | | | | | |
| MAT | Matsushiro | 1.94 | 266 | P | | Pn | | 17 23 56.2 | +0.7 |
| MAT | | | | S | | Sb | | 17 24 21.6 | -0.6 |
| JHJ | Hachijo jima 2 | 3.64 | 191 | Pn | | Pn | | 17 24 19.9 | +1.0 |
| | 6.1nm,0.3s,baz=43,slow=22,SNR=1.3 | | | | | | | | |
| JHJ | | | | Sn | | Sn | | 17 25 01.9 | -0.2 |
| | 16nm,0.3s,baz=86,slow=24,SNR=1.2 | | | | | | | | |
| ASAJ | Asahikawa | 7.56 | 11 | Pn | | Pn | | 17 25 12.7 | 0.0 |
| | 0.3nm,0.3s,baz=74,slow=0.1,SNR=2.0 | | | | | | | | |
| SEY | Seymchan | 27.24 | 12 | P | | P | | 17 29 06.8 | +0.3 |
| | 1.7nm,0.9s,baz=270,slow=7.1,SNR=2.8 | | | | | | | | |
| SONM | Songino Array | 27.44 | 305 | P | | P | | 17 29 07.3 | -1.3 |
| | 1.0nm,0.7s,baz=112,slow=10.0,SNR=8.7 | | | | | | | | |
| ZALV | Zalesovo Beam | 41.66 | 313 | P | | P | | 17 31 10.5 | -0.4 |
| | 2.0nm,0.5s,baz=90,slow=6.4,SNR=8.3 | | | | | | | | |
| MKAR | Makanchi Array | 43.75 | 302 | P | | P | | 17 31 28.8 | +0.7 |
| | 0.4nm,0.7s,baz=93,slow=7.3,SNR=3.5 | | | | | | | | |
| ILAR | Eielson Array | 50.12 | 32 | P | | P | | 17 32 17.8 | +0.3 |
| | 0.6nm,0.9s,baz=265,slow=6.0,SNR=3.6 | | | | | | | | |
| WRA | Warramunga Arr | 56.65 | 187 | P | | P | | 17 33 05.3 | -0.7 |
| | 0.6nm,0.6s,baz=3.7,slow=7.3,SNR=4.5 | | | | | | | | |
| YKA | Yellowknife Ar | 64.42 | 30 | P | | P | | 17 33 58.9 | +0.3 |
| | 0.2nm,0.6s,baz=305,slow=6.4,SNR=3.5 | | | | | | | | |

*NIED* ***19*** *17:24:00, 36.70N×140.60E, h5km, Mw4.2 Best double couple: M0 2.09000×10^15 NP1:φs335.00000°, δ34.00000°, λ-87.00000°. NP2:φs151.00000°, δ56.00000°, λ-92.00000°.*

*BJI* ***19*** *17:24:40.6, 36.62N×140.69E, h12km, mb4.3/7, mB4.8/3, Ms4.7/3, Ms7 4.4/3*

*IDC* ***19*** *17:24:42.5±0.5, 36.71N×140.57E, h0km, mb4.3/23, mb1 4.4/27, mb1mx4.3/39, mbtmp4.2/27, ML3.8/3, MS3.2/5, Ms1 3.3/5, ms1mx2.8/42, Error ellipse: s-maj=14.5km s-min=12.0km az=114.0*

*ISCJB* ***19*** *17:24:43.8±0.4, 36.68N±0.02×140.50E±0.04, h16km±3km, mb4.5/73, MS3.2/5, Error ellipse: s-maj=5.2km s-min=3.7km az=23.8*

*JMA* ***19*** *17:24:44.0, 36.70N×140.62E, h5km±1km, M4.4 Broadband fault plane solution: P waves. NP1: φs331.00000°, δ47.00000°, λ-89.00000°. NP2: φs149.00000°, δ43.00000°, λ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| KSAR | Wonju Array Be | 10.14 | 278 | P | | Pn | | 17 27 09.9 | +0.1 |
| KSAR | Wonju Array Be | 10.14 | 278 | Pn | | Pn | | 17 27 09.9 | +0.1 |
| YSS | Yuzh-Sakhalins | 10.39 | 8 | *e*P | | Pn | | 17 27 10.9 | -2.2 |
| YSS | | | | MLR | MLR | | | | |
| | comp=Z,100nm,12.0s | | | | | | | | |
| TJN | Taejon | 10.60 | 272 | *cc*eP | | Pn | | 17 27 20.4 | +4.3 |
| KLR | Kul'dur | 14.07 | 336 | Pn | | Pn | | 17 28 04.3 | +0.9 |
| | comp=Z,0.0nm,0.3s,baz=135,slow=8.8,SNR=5.0 | | | | | | | | |
| KLR | Kul'dur | 14.07 | 336 | *i* P | | Pn | | 17 28 06.4 | +2.9 |
| TYV | Tymovskoe | 14.25 | 5 | *e*P | | Pn | | 17 28 01.7 | -4.2 |
| TYV | | | | pmax | pmax | | | | |
| | comp=Z,7.0nm,1.1s | | | | | | | | |
| PETK | Petropavlovsk- | 20.34 | 31 | LR | LR | | | 17 36 35.2 | |
| | comp=Z,66nm,21.9s,baz=169,slow=35 | | | | | | | | |
| MA2 | Magadan | 23.84 | 13 | P | | P | | 17 29 56.9 | -0.1 |
| | comp=Z,7.1nm,0.6s,baz=206,slow=7.2,SNR=6.6 | | | | | | | | |
| MA2 | Magadan | 23.84 | 13 | *cc*eP | | P | | 17 29 57.7 | +0.6 |
| YAK | Yakutsk | 26.25 | 348 | P | | P | | 17 30 18.5 | -0.5 |
| | comp=Z,7.2nm,0.5s,baz=201,slow=2.7,SNR=8.4 | | | | | | | | |
| YAK | Yakutsk | 26.25 | 348 | *e*P | | P | | 17 30 17.0 | -2.0 |
| YAK | | | | *e**PP | | sP | | 17 30 25.0 | -1.1 |
| YAK | | | | *e* | | | | 17 33 46.3 | |
| YAK | | | | *e*S | | S | | 17 34 46.4 | -4.1 |
| YAK | | | | *e**SS | | sS | | 17 35 03.3 | +4.5 |
| YAK | | | | *e* | | | | 17 41 11.5 | |
| YAK | | | | pmax | pmax | | | | |
| | comp=Z,17nm,1.0s | | | | | | | | |
| YAK | | | | pmax | pmax | | | | |
| | comp=N,3.0nm,0.9s | | | | | | | | |
| YAK | | | | pmax | pmax | | | | |
| | comp=E,2.0nm,1.1s | | | | | | | | |
| YAK | | | | smax | smax | | | | |
| | comp=E,43nm,2.3s | | | | | | | | |
| YAK | | | | smax | smax | | | | |
| | comp=N,27nm,2.6s | | | | | | | | |
| YAK | | | | MLR | MLR | | | | |
| | comp=Z,93nm,21.0s | | | | | | | | |
| YAK | Yakutsk | 26.25 | 348 | *e*P | | P | | 17 30 18.1 | -0.9 |
| | comp=Z,14nm,0.8s | | | | | | | | |
| ENH | Enshi | 26.60 | 265 | *e*P | | P | | 17 30 20.6 | -1.9 |
| | comp=Z,8.4nm,0.6s | | | | | | | | |
| ULN | Ulaanbaatar | 26.97 | 305 | *cc*eP | | P | | 17 30 26.3 | +0.5 |
| ULN | | | | pmax | pmax | | | | |
| | comp=Z,6.0nm,1.0s | | | | | | | | |
| ULN | Ulaanbaatar | 26.97 | 305 | *e*P | | P | | 17 30 25.9 | +0.1 |
| | comp=Z,5.2nm,0.9s | | | | | | | | |
| SEY | Seymchan | 27.27 | 12 | P | | P | | 17 30 28.1 | -0.1 |
| | comp=Z,5.4nm,0.9s,baz=166,slow=3.7,SNR=9.3 | | | | | | | | |
| SEY | Seymchan | 27.27 | 12 | *i* P | | P | | 17 30 30.2 | +2.1 |
| SONA1 | Songino Array | 27.39 | 305 | *e*P | | P | | 17 30 29.8 | +0.2 |
| SONA0 | Songino Array | 27.39 | 305 | *e*P | | P | | 17 30 28.7 | -0.9 |
| SONM | Songino Array | 27.39 | 305 | P | | P | | 17 30 28.7 | -0.9 |
| | comp=Z,4.6nm,0.7s,baz=108,slow=8.4,SNR=28 | | | | | | | | |
| SONM | | | | LR | | LR | | 17 41 14.6 | |
| | comp=Z,57nm,19.5s,baz=220,slow=36 | | | | | | | | |
| H11N2 | WAKE ISLAND Hy | 28.59 | 119 | T | | T | | 18 00 23.5 | |
| | baz=312,slow=75,SNR=821 | | | | | | | | |
| H11N1 | WAKE ISLAND Hy | 28.60 | 119 | T | | T | | 18 00 23.0 | |
| | baz=312,slow=75,SNR=153 | | | | | | | | |
| H11N3 | WAKE ISLAND Hy | 28.61 | 119 | T | | T | | 18 00 23.8 | |
| | baz=312,slow=75,SNR=156 | | | | | | | | |
| H11S1 | WAKE ISLAND Hy | 29.28 | 121 | T | | T | | 18 01 14.3 | |
| | baz=314,slow=76,SNR=493 | | | | | | | | |
| H11S3 | WAKE ISLAND Hy | 29.28 | 121 | T | | T | | 18 01 15.3 | |
| | baz=314,slow=76,SNR=328 | | | | | | | | |
| H11S2 | WAKE ISLAND Hy | 29.29 | 121 | T | | T | | 18 01 15.5 | |
| | baz=314,slow=76,SNR=168 | | | | | | | | |
| BILL | Bilibino | 34.55 | 17 | *e*P | | P | | 17 31 31.9 | -0.4 |
| BILL | | | | *e* | | | | 17 32 50.4 | |
| BILL | | | | pmax | pmax | | | | |
| | comp=Z,4.0nm,1.0s | | | | | | | | |
| TIXI | Tiksi | 35.55 | 354 | P | | P | | 17 31 39.7 | -1.1 |
| | comp=Z,1.2nm,0.5s,baz=157,slow=5.6,SNR=9.1 | | | | | | | | |
| TIXI | Tiksi | 35.55 | 354 | *cc*eP | | P | | 17 31 40.6 | -0.2 |
| TIXI | | | | pmax | pmax | | | | |
| | comp=Z,3.0nm,1.0s | | | | | | | | |
| DGZ | Jazzator, Alta | 40.02 | 306 | *i* P | | P | | 17 32 20.5 | +1.4 |
| DGZ | | | | pmax | pmax | | | | |
| | comp=Z,5.0nm,1.0s | | | | | | | | |
| CM31 | Chiang Mai Arr | 40.73 | 255 | *e*P | | P | | 17 32 25.2 | +0.2 |
| CM31 | | | | *e*S | | S | | 17 38 36.1 | +1.1 |
| CMAR | Chiang Mai Arr | 40.73 | 255 | P | | P | | 17 32 25.9 | +0.8 |
| | comp=Z,0.5nm,0.6s,baz=46,slow=8.1,SNR=5.0 | | | | | | | | |
| CMAR | | | | LR | | LR | | 17 50 05.9 | |
| | comp=Z,36nm,18.4s,baz=82,slow=37 | | | | | | | | |
| ZAA0 | Zalesovo Array | 41.62 | 313 | *e*P | | P | | 17 32 31.6 | -0.4 |
| | comp=Z,6.3nm,0.7s | | | | | | | | |
| ZAA1 | Zalesovo Array | 41.62 | 313 | *e*P | | P | | 17 32 31.7 | -0.3 |
| ZAA1 | | | | *e*PcP | | PcP | | 17 34 28.4 | -0.3 |
| ZALV | Zalesovo Beam | 41.62 | 313 | P | | P | | 17 32 31.7 | -0.3 |
| | comp=Z,6.8nm,0.5s,baz=97,slow=7.3,SNR=27 | | | | | | | | |
| ZALV | | | | PcP | | PcP | | 17 34 28.4 | -0.3 |
| | comp=Z,1.1nm,0.6s,baz=101,slow=2.3,SNR=3.8 | | | | | | | | |
| ZALV | Zalesovo Beam | 41.62 | 313 | *e*P | | P | | 17 32 30.9 | -1.1 |
| ZALV | | | | PcP | | PcP | | 17 34 28.4 | -0.3 |
| AAI | Ambon | 41.79 | 199 | P | | P | | 17 32 33.5 | -0.2 |
| AAI | | | | pmax | pmax | | | | |
| | comp=Z,27nm,0.8s | | | | | | | | |
| NVS | Novosibirsk | 42.57 | 314 | *i* P | | P | | 17 32 40.0 | +0.3 |
| MK01 | Makanchi Array | 43.70 | 302 | *e*P | | P | | 17 32 49.2 | +0.2 |
| MK31 | Makanchi Array | 43.70 | 302 | *e*P | | P | | 17 32 49.3 | +0.2 |
| MK31 | Makanchi Array | 43.70 | 302 | *e*P | | P | | 17 32 49.3 | +0.2 |
| MK32 | Makanchi Array | 43.70 | 302 | *e*P | | P | | 17 32 49.7 | +0.7 |
| MKAR | Makanchi Array | 43.70 | 302 | P | | P | | 17 32 49.7 | +0.7 |
| | comp=Z,2.5nm,0.8s,baz=87,slow=10,SNR=16 | | | | | | | | |
| MKAR | Makanchi Array | 43.70 | 302 | *e*P | | P | | 17 32 49.3 | +0.2 |
| | comp=Z,16nm,0.8s | | | | | | | | |
| KURK | Kurchatov | 45.59 | 308 | *cc*eP | | P | | 17 33 03.9 | -0.1 |
| KURK | | | | pmax | pmax | | | | |
| | comp=Z,47nm,0.8s | | | | | | | | |
| KURK | Kurchatov | 45.59 | 308 | *e*P | | P | | 17 33 04.0 | -0.1 |
| | comp=Z,13nm,0.8s | | | | | | | | |
| PDGK | Podgornoye | 46.31 | 298 | P | | P | | 17 33 09.8 | -0.2 |
| PDGK | | | | pmax | pmax | | | | |
| | comp=Z,10.0nm,0.8s | | | | | | | | |
| SOEI | Soe | 48.67 | 202 | *e*P | | P | | 17 33 29.7 | +1.2 |
| | comp=Z,14nm,0.8s | | | | | | | | |
| AAK | Ala-Archa | 50.03 | 298 | *i* P | | P | | 17 33 42.0 | +3.2 |
| AAK | | | | pmax | pmax | | | | |
| | comp=Z,4.0nm,1.0s | | | | | | | | |
| IL1 | Eielson Array | 50.16 | 32 | *e*P | | P | | 17 33 39.6 | +0.4 |
| ILAR | Eielson Array | 50.16 | 32 | P | | P | | 17 33 39.6 | +0.4 |
| | comp=Z,2.0nm,0.9s,baz=266,slow=5.4,SNR=18 | | | | | | | | |
| ILB | Eielson Array | 50.16 | 32 | *e*P | | P | | 17 33 40.0 | +0.8 |
| BRVK | Borovoye | 50.34 | 312 | *cc*eP | | P | | 17 33 41.0 | +0.3 |
| BRVK | | | | pmax | pmax | | | | |
| | comp=Z,13nm,0.8s | | | | | | | | |
| BRVK | Borovoye | 50.34 | 312 | *e*P | | P | | 17 33 41.1 | +0.4 |
| | comp=Z,7.6nm,1.1s | | | | | | | | |
| MNAS | Manas | 51.48 | 299 | P | | P | | 17 33 50.0 | +0.3 |
| MNAS | | | | pmax | pmax | | | | |
| | comp=Z,6.0nm,0.8s | | | | | | | | |
| DOT | Dot Lake | 51.48 | 34 | *e*P | | P | | 17 33 50.2 | +1.0 |
| | comp=Z,28nm,1.1s | | | | | | | | |
| SFK | Sufi-Kurgan | 51.54 | 295 | P | | P | | 17 33 50.7 | +0.4 |
| SFK | | | | pmax | pmax | | | | |
| | comp=Z,4.0nm,1.0s | | | | | | | | |
| KKAR | Karatay Array | 52.68 | 300 | *e*P | | P | | 17 33 58.7 | +0.2 |
| KKAR | | | | pmax | pmax | | | | |
| | comp=Z,31nm,1.0s | | | | | | | | |
| KKAR | Karatay Array | 52.68 | 300 | *e*P | | P | | 17 33 58.7 | +0.2 |
| | comp=Z,31nm,1.0s | | | | | | | | |
| SVE | Sverdlovsk | 54.94 | 319 | *e*P | | P | | 17 34 14.4 | -0.3 |
| INK | Inuvik | 55.01 | 27 | P | | P | | 17 34 14.5 | -0.5 |
| | comp=Z,3.1nm,0.7s,baz=296,slow=7.5,SNR=9.5 | | | | | | | | |
| DZET | Dzherino | 55.36 | 296 | P | | P | | 17 34 18.5 | +0.3 |
| DZET | | | | pmax | pmax | | | | |
| | comp=Z,7.0nm,0.6s | | | | | | | | |
| ARU | Arti | 56.15 | 319 | *d i* P | | P | | 17 34 23.1 | -0.3 |
| ARU | | | | | | | | 17 36 24.9 | |
| ARU | | | | S | | S | | 17 42 09.4 | -2.3 |
| ARU | | | | SS | | SS | | 17 45 49.4 | -8.2 |
| ARU | | | | pmax | pmax | | | | |
| | comp=Z,12nm,1.0s | | | | | | | | |
| ARU | Arti | 56.15 | 319 | *e*P | | P | | 17 34 23.5 | 0.0 |
| | comp=Z,9.8nm,0.9s | | | | | | | | |
| WRAB | Tennant Creek | 56.62 | 187 | *e*P | | P | | 17 34 26.9 | -0.2 |
| WRAB | | | | pmax | pmax | | | | |
| | comp=Z,7.0nm,0.8s | | | | | | | | |
| WRAB | Tennant Creek | 56.62 | 187 | *e*P | | P | | 17 34 26.9 | -0.2 |
| | comp=Z,6.5nm,0.8s | | | | | | | | |
| WB2 | Warramunga Arr | 56.63 | 187 | *e*P | | P | | 17 34 26.6 | -0.6 |
| | comp=Z,7.7nm,0.8s | | | | | | | | |
| WR1 | Warramunga Arr | 56.63 | 187 | *e*P | | P | | 17 34 26.7 | -0.5 |
| | comp=Z,7.4nm,0.8s | | | | | | | | |
| WRA | Warramunga Arr | 56.63 | 187 | P | | P | | 17 34 26.7 | -0.5 |
| | comp=Z,6.1nm,0.8s,baz=5.7,slow=7.5,SNR=24 | | | | | | | | |
| ABKAR | Akbulak array | 57.62 | 310 | *e*P | | P | | 17 34 33.7 | -0.2 |
| | comp=Z,38nm,1.0s | | | | | | | | |
| AS01 | Alice Springs | 60.35 | 187 | *e*P | | P | | 17 34 52.9 | -0.2 |
| AS31 | Alice Springs | 60.36 | 187 | *e*P | | P | | 17 34 53.2 | 0.0 |
| | comp=Z,1.0nm,0.7s | | | | | | | | |
| ASAR | Alice Springs | 60.36 | 187 | P | | P | | 17 34 53.2 | 0.0 |
| | comp=Z,2.8nm,0.8s,baz=11,slow=5.5,SNR=20 | | | | | | | | |
| GEYT | Alibeck | 63.38 | 299 | P | | P | | 17 35 13.9 | +0.4 |
| | comp=Z,1.4nm,0.7s,baz=73,slow=5.0,SNR=4.3 | | | | | | | | |
| YKA | Yellowknife Ar | 64.46 | 30 | P | | P | | 17 35 20.5 | +0.4 |
| | comp=Z,0.9nm,0.7s,baz=303,slow=6.6,SNR=13 | | | | | | | | |
| YKB5 | Yellowknife Ar | 64.46 | 30 | *e*P | | P | | 17 35 20.4 | +0.3 |
| DAG | Danmarks Havn | 66.05 | 355 | *i* P | | P | | 17 35 29.5 | -0.8 |
| DAG | | | | pmax | pmax | | | | |
| | comp=Z,4.0nm,0.8s | | | | | | | | |
| DAG | Danmarks Havn | 66.05 | 355 | *i* P | | P | | 17 35 29.5 | -0.8 |
| | comp=Z,4.2nm,0.8s | | | | | | | | |
| OBN | Obninsk | 67.94 | 323 | *e*P | | P | | 17 35 42.3 | -0.3 |
| OBN | | | | *e* | | | | 17 38 14.1 | |
| OBN | | | | pmax | pmax | | | | |
| | comp=Z,3.0nm,0.9s | | | | | | | | |
| STKA | Stephens Creek | 68.22 | 179 | P | | P | | 17 35 44.9 | +0.4 |
| | comp=Z,1.9nm,0.7s,baz=312,slow=9.4,SNR=4.3 | | | | | | | | |
| STKA | Stephens Creek | 68.22 | 179 | *e*P | | P | | 17 35 44.9 | +0.4 |
| STKA | | | | pmax | pmax | | | | |
| | comp=Z,5.0nm,1.6s | | | | | | | | |
| STKA | Stephens Creek | 68.22 | 179 | *e*P | | P | | 17 35 44.9 | +0.4 |
| | comp=Z,4.9nm,1.6s | | | | | | | | |
| FIA0 | FINESS Array S | 68.78 | 332 | *e*P | | P | | 17 35 48.1 | +0.3 |
| FIA0 | FINESS Array S | 68.78 | 332 | *e*P | | P | | 17 35 48.1 | +0.3 |
| FINES | FINESS Array B | 68.78 | 332 | P | | P | | 17 35 48.1 | +0.3 |
| | comp=Z,5.2nm,0.8s,baz=52,slow=7.5,SNR=7.3 | | | | | | | | |
| KIV | Kislovodsk | 70.59 | 311 | *e*P | | P | | 17 35 59.7 | +0.3 |
| KIV | | | | pmax | pmax | | | | |
| | comp=Z,11nm,1.1s | | | | | | | | |
| SUMG | Summit | 71.02 | 360 | *e*P | | P | | 17 36 02.1 | +0.2 |
| SUMG | | | | pmax | pmax | | | | |
| | comp=Z,8.0nm,0.9s | | | | | | | | |
| SUMG | Summit | 71.02 | 360 | *i* P | | P | | 17 36 01.6 | -0.3 |
| | comp=Z,6.2nm,0.7s | | | | | | | | |
| SUMG | Summit | 71.02 | 360 | *e*P | | P | | 17 36 02.1 | +0.2 |
| | comp=Z,7.7nm,0.9s | | | | | | | | |
| E09A | Wood Farm, Sta | 71.26 | 46 | *e*P | | P | | 17 36 04.8 | +1.6 |
| | comp=Z,12nm,1.6s | | | | | | | | |
| BEKR | Beckworth | 73.62 | 52 | *e*P | | P | | 17 36 19.1 | +1.4 |
| | comp=Z,4.4nm,1.0s | | | | | | | | |
| AKASG | Malin Array Be | 74.13 | 322 | P | | P | | 17 36 20.1 | -0.2 |
| | comp=Z,2.8nm,0.6s,baz=47,slow=6.1,SNR=11 | | | | | | | | |
| AKBB | Malin Array Si | 74.13 | 322 | *e*P | | P | | 17 36 19.6 | -0.7 |
| AKBB | | | | pmax | pmax | | | | |
| | comp=Z,5.0nm,0.8s | | | | | | | | |
| AKBB | Malin Array Si | 74.13 | 322 | *e*P | | P | | 17 36 19.6 | -0.7 |
| | comp=Z,5.0nm,0.8s | | | | | | | | |
| AK11 | Malin Array Si | 74.17 | 322 | *e*P | | P | | 17 36 19.9 | -0.7 |
| NB2 | NORSAR Subarra | 74.23 | 337 | P | | P | | 17 36 20.5 | -0.2 |
| | comp=Z,1.6nm,0.7s,baz=39,slow=6.2 | | | | | | | | |
| NB200 | NORSAR Array S | 74.23 | 337 | *e*P | | P | | 17 36 20.7 | 0.0 |
| NOA | NORSAR Array B | 74.23 | 337 | P | | P | | 17 36 20.7 | 0.0 |
| | comp=Z,2.5nm,0.8s,baz=43,slow=5.4,SNR=7.2 | | | | | | | | |
| NOA | | | | LR | | LR | | 18 12 01.2 | |
| | comp=Z,16nm,19.2s,baz=40,slow=38 | | | | | | | | |
| FFC | Flin Flon | 74.37 | 32 | *e*P | | P | | 17 36 22.4 | +0.8 |
| FFC | | | | pmax | pmax | | | | |
| | comp=Z,7.0nm,1.1s | | | | | | | | |
| FFC | Flin Flon | 74.37 | 32 | *e*P | | P | | 17 36 22.4 | +0.8 |
| | comp=Z,7.1nm,1.1s | | | | | | | | |
| HRY | Holter Researc | 74.69 | 43 | *e*P | | P | | 17 36 25.3 | +1.6 |
| YERR | Yerington | 74.84 | 53 | *e*P | | P | | 17 36 26.5 | +1.6 |
| | comp=Z,4.0nm,0.9s | | | | | | | | |
| LRM | Limekiln Ridge | 74.88 | 44 | *e*P | | P | | 17 36 26.6 | +1.5 |
| DLMT | Dillon | 75.08 | 44 | *e*P | | P | | 17 36 27.4 | +1.4 |
| | comp=Z,6.5nm,0.6s | | | | | | | | |
| KVN | Kaiserville | 75.53 | 52 | *e*P | | P | | 17 36 30.1 | +1.3 |
| KVN | | | | pmax | pmax | | | | |
| | comp=Z,4.0nm,0.8s | | | | | | | | |
| KVN | Kaiserville | 75.53 | 52 | *e*P | | P | | 17 36 30.1 | +1.3 |
| | comp=Z,3.6nm,0.8s | | | | | | | | |
| NV01 | Mina Array Sit | 75.76 | 53 | *e*P | | P | | 17 36 31.4 | +1.2 |
| YHB | Horse Butte | 76.24 | 44 | *e*P | | P | | 17 36 34.9 | +2.1 |
| | comp=Z,12nm,1.5s | | | | | | | | |
| H17A | Grant Village | 76.81 | 44 | *e*P | | P | | 17 36 39.5 | +3.4 |
| | comp=Z,5.0nm,0.9s | | | | | | | | |
| FXWY | Fox Creek | 77.03 | 45 | *e*P | | P | | 17 36 39.1 | +1.8 |
| | comp=Z,5.2nm,1.4s | | | | | | | | |
| R11A | Troy Canyon, C | 77.53 | 51 | *e*P | | P | | 17 36 41.8 | +1.6 |
| | comp=Z,3.0nm,1.0s | | | | | | | | |
| BGU | Big Grassy Mou | 77.53 | 48 | *e*P | | P | | 17 36 41.8 | +1.7 |
| | comp=Z,7.1nm,1.5s | | | | | | | | |
| KWP | Kalwaria Pacla | 77.99 | 324 | *e*P | | P | | 17 36 43.3 | +1.0 |
| KWP | Kalwaria Pacla | 77.99 | 324 | *e*P | | P | | 17 36 43.3 | +1.0 |
| | comp=Z,125nm,1.1s | | | | | | | | |
| BUR08 | Bucovina Ar. S | 78.13 | 321 | *e*P | | P | | 17 36 43.9 | +0.6 |
| BUR04 | Bucovina Ar. S | 78.14 | 321 | *e*P | | P | | 17 36 43.4 | +0.1 |
| BURAR | Bucovina Array | 78.14 | 321 | *i* P | | P | | 17 36 43.8 | +0.5 |
| PD31 | Pinedale Array | 78.41 | 45 | *e*P | | P | | 17 36 46.0 | +1.0 |
| PDAR | Pinedale Array | 78.41 | 45 | P | | P | | 17 36 45.6 | +0.6 |
| | comp=Z,1.0nm,0.6s,baz=261,slow=1.8,SNR=11 | | | | | | | | |
| VRI | Vrincioaia | 78.53 | 319 | *i* P | | P | | 17 36 46.3 | +1.0 |
| BR101 | Keskin Array S | 78.55 | 311 | *e*P | | P | | 17 36 46.5 | +0.7 |
| BR131 | Keskin Array S | 78.55 | 311 | *e*P | | P | | 17 36 46.1 | +0.4 |
| BRTR | Keskin Array B | 78.55 | 311 | P | | P | | 17 36 46.5 | +0.7 |
| | comp=Z,2.1nm,1.0s,baz=76,slow=5.2,SNR=7.6 | | | | | | | | |
| NLU | North Lily Min | 78.70 | 48 | *e*P | | P | | 17 36 47.7 | +1.0 |
| | comp=Z,4.1nm,1.1s | | | | | | | | |
| BR231 | Keskin MP Arra | 78.99 | 312 | *e*P | | P | | 17 36 47.2 | -1.0 |
| CCUT | Cedar City | 79.41 | 51 | *e*P | | P | | 17 36 50.5 | -0.1 |
| | comp=Z,3.6nm,0.7s | | | | | | | | |
| P17A | Butcher Ranch, | 79.81 | 48 | *e*P | | P | | 17 36 54.6 | +1.9 |
| | comp=Z,11nm,1.3s | | | | | | | | |
| LCMT | Little Creek M | 79.81 | 51 | *e*P | | P | | 17 36 53.9 | +1.2 |
| | comp=Z,3.3nm,0.9s | | | | | | | | |
| MTPU | Mount Pierson | 79.83 | 50 | *e*P | | P | | 17 36 55.4 | +2.3 |
| | comp=Z,2.2nm,0.7s | | | | | | | | |
| P18A | Preston Nutter | 80.00 | 48 | *e*P | | P | | 17 36 56.0 | +2.1 |
| | comp=Z,16nm,1.6s | | | | | | | | |
| SRU | San Rafael Swe | 80.17 | 48 | *e*P | | P | | 17 36 56.2 | +1.5 |
| SRU | | | | pmax | pmax | | | | |
| | comp=Z,4.0nm,0.5s | | | | | | | | |
| SRU | San Rafael Swe | 80.17 | 48 | *e*P | | P | | 17 36 56.2 | +1.5 |
| | comp=Z,3.9nm,0.5s | | | | | | | | |
| ULM | Lac du Bonnet | 80.17 | 33 | P | | P | | 17 36 54.3 | +0.1 |
| | comp=Z,2.9nm,0.8s,baz=342,slow=5.5,SNR=4.8 | | | | | | | | |
| DPC | Dobruska-Polom | 80.37 | 327 | *e*P | | P | | 17 36 56.3 | +1.0 |
| DPC | Dobruska-Polom | 80.37 | 327 | *e*P | | P | | 17 36 56.3 | +1.0 |
| PVCC | Panska Ves | 80.98 | 328 | *e*P | | P | | 17 36 59.4 | +0.8 |
| PVCC | Panska Ves | 80.98 | 328 | *e*P | | P | | 17 36 59.4 | +0.8 |
| CLL | Collm | 81.04 | 330 | *e*P | | P | | 17 36 59.1 | +0.2 |
| CLL | | | | pmax | pmax | | | | |
| | comp=Z,32nm,1.9s | | | | | | | | |
| CLL | Collm | 81.04 | 330 | *e*P | | P | | 17 36 59.0 | +0.2 |
| | comp=Z,15nm,1.6s | | | | | | | | |
| CLL | Collm | 81.04 | 330 | *e*P | | P | | 17 36 59.0 | +0.2 |
| | comp=Z,32nm,1.9s | | | | | | | | |
| PV10 | Paradox Valley | 81.53 | 48 | *e*P | | P | | 17 37 04.0 | +2.0 |
| PV05 | Paradox Valley | 81.69 | 48 | *e*P | | P | | 17 37 03.7 | +0.9 |
| KHC | Kasperske Hory | 82.46 | 328 | *e*P | | P | | 17 37 07.1 | +0.7 |
| KHC | Kasperske Hory | 82.46 | 328 | *e*P | | P | | 17 37 07.1 | +0.7 |
| GERES | GERESS Array B | 82.63 | 328 | P | | P | | 17 37 07.2 | -0.2 |
| | comp=Z,0.8nm,0.5s,baz=44,slow=5.9,SNR=6.2 | | | | | | | | |
| S22A | 4UR Ranch, Cre | 83.26 | 47 | *e*P | | P | | 17 37 12.3 | +1.2 |
| | comp=Z,2.7nm,0.7s | | | | | | | | |
| ECSD | EROS Data Cent | 84.62 | 38 | *e*P | | P | | 17 37 18.3 | +0.7 |
| LIT | Litokhoron | 84.73 | 317 | P | | P | | 17 37 17.1 | -1.1 |
| LIT | | | | pmax | pmax | | | | |
| | comp=Z,11nm,0.9s | | | | | | | | |
| BFO | Black Forest | 85.25 | 330 | *cc*eP | | P | | 17 37 22.0 | +1.3 |
| ANMO | Albuquerque | 85.35 | 49 | *cc*eP | | P | | 17 37 23.9 | +2.2 |
| ANMO | | | | pmax | pmax | | | | |
| | comp=Z,5.0nm,2.5s | | | | | | | | |
| LTX | Lajitas | 90.89 | 52 | *e*P | | P | | 17 37 48.5 | +0.3 |
| LTX | Lajitas | 90.89 | 52 | *e*P | | P | | 17 37 48.5 | +0.3 |
| TXAR | Lajitas Array | 90.89 | 52 | P | | P | | 17 37 48.5 | +0.3 |
| | comp=Z,1.2nm,0.7s,baz=300,slow=2.9,SNR=5.6 | | | | | | | | |
| SFIN | Lafayette | 91.71 | 34 | *e*P | | P | | 17 37 52.4 | +0.8 |
| | comp=Z,73nm,0.8s | | | | | | | | |
| LPAZ | La Paz | 147.47 | 59 | PKPbc | | PKPab | | 17 44 30.1 | -1.3 |
| | comp=Z,2.5nm,0.7s,baz=330,slow=5.2,SNR=8.3 | | | | | | | | |
| LPAZ | La Paz | 147.47 | 59 | *e*PKP2 | | PKPab | | 17 44 30.4 | -0.9 |
| LPAZ | La Paz | 147.47 | 59 | *e*PKPbc | | PKPab | | 17 44 30.4 | -0.9 |

*ISCJB **19** 17:30:19.0±0.7,51.51N±0.03×16.13E±0.03,h0km, Error ellipse: s-maj=4.9km s-min=2.9km az=13.9*
*CSEM **19** 17:30:19.8±0.4,51.54N×16.11E,h2km,ML3.0/11, Error ellipse: s-maj=6.9km s-min=4.0km az=6.0*
*WAR **19** 17:30:20.3,51.5ºN×16.1ºE,h1km,Mw2.3*
*VIE **19** 17:30:23.0±1.2,51.32N×16.23E,h0km,mb2.4/2,ML2.4/4, Error ellipse: s-maj=11.3km s-min=7.2km az=43.0, Suspected Mining induced.*

**ISC 19 17:30:21.5±1.0,51.49N±0.05×16.08E±0.02,h0km,n34, σ089/68,Poland**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| KSP | Ksiaz | 0.66 | 168 | *e*Pg | | Pg | 17 30 33.6 | -0.4 |
| KSP | | | | *e* | | | 17 30 35.8 | |
| KSP | | | | *e*Sg | | Sg | 17 30 42.8 | +0.2 |
| KSP | Ksiaz | 0.66 | 168 | *e*Pg | | Pg | 17 30 33.6 | -0.4 |
| KSP | | | | *e*Sg | | Sg | 17 30 42.8 | +0.2 |
| KSP | Ksiaz | 0.66 | 168 | *e*Pg | | Pg | 17 30 33.6 | -0.4 |
| KSP | | | | *e* | | | 17 30 35.8 | |
| KSP | | | | *e*Sg | | Sg | 17 30 42.8 | +0.2 |
| UPC | Upice | 0.98 | 183 | *e*PG | | Pg | 17 30 39.9 | -0.3 |
| UPC | | | | *e*SG | | Sb | 17 30 54.6 | -0.2 |
| | comp=Z,36nm,0.4s | | | | | | | |
| UPC | Upice | 0.98 | 183 | Pg | | Pg | 17 30 39.9 | -0.3 |
| UPC | | | | Sg | | Sb | 17 30 54.6 | -0.2 |
| | 36nm,0.4s | | | | | | | |
| DPC | Dobruska-Polom | 1.15 | 172 | *e*PG | | Pg | 17 30 42.5 | -0.9 |
| DPC | | | | *e*SG | | Sg | 17 30 58.5 | +0.2 |
| | comp=Z,9.9nm,0.4s | | | | | | | |
| DPC | Dobruska-Polom | 1.15 | 172 | Pg | | Pg | 17 30 42.5 | -0.9 |
| DPC | | | | Sg | | Sg | 17 30 58.5 | +0.2 |
| | 9.9nm,0.4s | | | | | | | |
| PVCC | Panska Ves | 1.36 | 226 | *e*PG | | Pg | 17 30 47.2 | -0.2 |
| PVCC | | | | *e*SG | | Sn | 17 31 07.2 | +0.9 |
| | comp=Z,53nm,0.2s | | | | | | | |
| PVCC | Panska Ves | 1.36 | 226 | Pg | | Pg | 17 30 47.2 | -0.2 |
| PVCC | | | | Sg | | Sn | 17 31 07.2 | +0.9 |
| | 53nm,0.2s | | | | | | | |
| BRG | Berggiesshubel | 1.48 | 246 | PG | | Pn | 17 30 49.3 | 0.0 |
| BRG | | | | SG | | Sn | 17 31 10.0 | +0.6 |
| | 55nm,0.4s | | | | | | | |
| BRG | Berggiesshubel | 1.48 | 246 | PG | | Pn | 17 30 49.3 | 0.0 |
| BRG | | | | SG | | Sn | 17 31 10.0 | +0.6 |
| | 55nm,0.4s | | | | | | | |
| KRLC | Kraliky | 1.48 | 162 | *e*PG | | Pn | 17 30 47.8 | -1.6 |
| KRLC | | | | *e*SG | | Sg | 17 31 08.6 | -0.4 |
| | comp=Z,3.6nm,0.4s | | | | | | | |
| KRLC | Kraliky | 1.48 | 162 | Pg | | Pn | 17 30 47.8 | -1.6 |
| KRLC | | | | Sg | | Sg | 17 31 08.6 | -0.4 |
| | 3.6nm,0.4s | | | | | | | |
| GOPC | GO Pecny, Ondr | 1.78 | 208 | *e*PG | | Pb | 17 30 54.1 | -0.8 |
| GOPC | | | | *e*SG | | Sg | 17 31 18.7 | +0.2 |
| | comp=Z,7.5nm,0.2s | | | | | | | |
| GOPC | GO Pecny, Ondr | 1.78 | 208 | Pg | | Pb | 17 30 54.1 | -0.8 |
| GOPC | | | | Sg | | Sg | 17 31 18.7 | +0.2 |
| | 7.5nm,0.2s | | | | | | | |
| PRU | Pruhonice | 1.79 | 214 | *e*PG | | Pn | 17 30 54.2 | +0.6 |
| PRU | | | | *e*SG | | Sg | 17 31 19.6 | +0.6 |
| | comp=Z,16nm,0.3s | | | | | | | |
| PRU | Pruhonice | 1.79 | 214 | Pg | | Pn | 17 30 54.2 | +0.6 |
| PRU | | | | Sg | | Sg | 17 31 19.6 | +0.6 |
| | 16nm,0.3s | | | | | | | |
| CLL | Collm | 1.94 | 266 | *e*Pn | | Pn | 17 30 55.0 | -0.6 |
| CLL | | | | *e*Pg | | Pg | 17 30 58.0 | -0.6 |
| CLL | | | | *e* | | | 17 30 59.0 | |
| CLL | | | | *i* | | | 17 31 02.6 | |
| CLL | | | | *e*Sg | | Sg | 17 31 24.0 | +0.3 |
| | comp=Z,16nm,0.4s | | | | | | | |
| MORC | Moravsky Berou | 1.95 | 151 | *e*Sg | | Sg | 17 31 24.8 | +0.8 |
| OKC | Ostrava-Krasne | 2.11 | 141 | *e*PG | | Pb | 17 31 00.9 | +0.4 |
| OKC | | | | *e*SG | | Sb | 17 31 27.2 | -0.1 |
| | comp=Z,12nm,0.4s | | | | | | | |
| OKC | Ostrava-Krasne | 2.11 | 141 | Pg | | Pb | 17 31 00.9 | +0.4 |
| OKC | | | | Sg | | Sb | 17 31 27.2 | -0.1 |
| | comp=Z,12nm,0.4s | | | | | | | |
| VRAC | Vranov | 2.21 | 171 | *e*Sg | | Sg | 17 31 33.1 | +0.8 |
| NKC | Novy Kostel | 2.62 | 243 | *e*PN | | Pn | 17 31 04.4 | -0.7 |
| NKC | | | | *e*PG | | Pg | 17 31 10.5 | -1.2 |
| NKC | | | | *e*SG | | Sg | 17 31 47.1 | +1.4 |
| | comp=Z,27nm,0.3s | | | | | | | |
| NKC | Novy Kostel | 2.62 | 243 | Pn | | Pn | 17 31 04.4 | -0.7 |
| NKC | Novy Kostel | 2.62 | 243 | Pg | | Pg | 17 31 10.5 | -1.2 |
| NKC | | | | Sg | | Sg | 17 31 47.1 | +1.4 |
| | comp=Z,27nm,0.3s | | | | | | | |
| OJC | Ojcow | 2.67 | 117 | *e*Pg | | Pg | 17 31 11.4 | -1.3 |
| OJC | | | | *e*Sg | | Sg | 17 31 46.7 

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | comp=N,453nm,0.6s | | | | | | | | |
| **MAK** | **Makhachkala** | **1.17** | **331** | *e*P | | Pn | 17 33 11.2 | -0.3 | |
| | comp=N,85nm,0.3s | | | | | | | | |
| MAK | | | | *e*S | | Sn | 17 33 26.6 | -0.2 | |
| | comp=N,453nm,0.6s | | | | | | | | |
| **BUJR** | **Buynaksk** | **1.24** | **316** | *e*P | | Pn | 17 33 12.0 | -0.5 | |
| BUJR | | | | *e*S | | Sn | 17 33 29.0 | +0.5 | |
| **BUJR** | **Buynaksk** | **1.24** | **316** | *e*P | | Pn | 17 33 12.0 | -0.5 | |
| BUJR | | | | *e*S | | Sn | 17 33 29.0 | +0.5 | |
| **ZKTA** | **Zakatala** | **1.28** | **257** | P | | Pn | 17 33 13.8 | +0.7 | |
| **ZKTA** | **Zakatala** | **1.28** | **257** | P | | Pn | 17 33 13.8 | +0.7 | |
| **XNZR** | **Khunzakh** | **1.31** | **297** | *e*P | | Pn | 17 33 15.4 | +1.7 | |
| XNZR | | | | *e*S | | Sn | 17 33 33.7 | +3.1 | |
| **XNZR** | **Khunzakh** | **1.31** | **297** | *e*P | | Pn | 17 33 15.4 | +1.7 | |
| XNZR | | | | *e*S | | Sn | 17 33 33.7 | +3.1 | |
| **UNCR** | **Uncukul** | **1.34** | **305** | *e*P | | Pn | 17 33 15.0 | +1.1 | |
| UNCR | | | | *e*S | | Sn | 17 33 33.0 | +1.9 | |
| UNCR | | | | pmax | | pmax | | | |
| | comp=Z,34nm,0.3s | | | | | | | | |
| **UNCR** | **Uncukul** | **1.34** | **305** | *e*P | | Pn | 17 33 15.0 | +1.1 | |
| | comp=Z,34nm,0.3s | | | | | | | | |
| UNCR | | | | *e*S | | Sn | 17 33 33.0 | +1.9 | |
| **KRNR** | **Karanay** | **1.35** | **311** | ⇓*i*P | | Pn | 17 33 14.8 | +0.8 | |
| KRNR | | | | *i* S | | Sn | 17 33 32.0 | +0.8 | |
| KRNR | | | | pmax | | pmax | | | |
| | comp=Z,52nm,0.2s | | | | | | | | |
| **KRNR** | **Karanay** | **1.35** | **311** | *i* P | | Pn | 17 33 14.8 | +0.8 | |
| | comp=Z,52nm,0.2s | | | | | | | | |
| KRNR | | | | *i* S | | Sn | 17 33 32.0 | +0.8 | |
| **DLMR** | **Dylym** | **1.66** | **313** | P | | Pn | 17 33 21.0 | +2.9 | |
| DLMR | | | | *e*S | | Sn | 17 33 41.0 | +2.5 | |
| **DLMR** | **Dylym** | **1.66** | **313** | P | | Pn | 17 33 21.0 | +2.9 | |
| DLMR | | | | *e*S | | Sn | 17 33 41.0 | +2.5 | |
| **BTLR** | **Botlikh** | **1.69** | **296** | *e*P | | Pn | 17 33 20.0 | +1.5 | |
| BTLR | | | | *e*S | | Sn | 17 33 41.3 | +2.0 | |
| **BTLR** | **Botlikh** | **1.69** | **296** | *e*P | | Pn | 17 33 20.0 | +1.5 | |
| BTLR | | | | *e*S | | Sn | 17 33 41.3 | +2.0 | |
| **GANJ** | **Ganja** | **1.97** | **229** | P | | Pn | 17 33 24.1 | +1.8 | |
| **GANJ** | **Ganja** | **1.97** | **229** | P | | Pn | 17 33 24.1 | +1.8 | |
| **LACR** | **Lac** | **3.08** | **288** | *e*P | | Pn | 17 33 37.9 | +0.4 | |
| **LACR** | **Lac** | **3.08** | **288** | *e*P | | Pn | 17 33 37.9 | +0.4 | |
| **GNI** | **Garni** | **3.22** | **237** | *i* P | | Pn | 17 33 39.7 | +0.2 | |
| **GNI** | **Garni** | **3.22** | **237** | *i* P | | Pn | 17 33 39.7 | +0.2 | |
| **LKRN** | **Lenkeran, Azer** | **3.25** | **173** | P | | Pn | 17 33 41.3 | +1.6 | |
| **LKRN** | **Lenkeran, Azer** | **3.25** | **173** | P | | Pn | 17 33 41.3 | +1.6 | |
| **ARU** | **Arti** | **15.95** | **21** | *e*P | | Pn | 17 36 32.0 | +0.9 | |
| ARU | | | | pmax | | pmax | | | |
| | comp=Z,2.0nm,1.3s | | | | | | | | |
| **ARU** | **Arti** | **15.95** | **21** | *e*P | | Pn | 17 36 32.0 | +0.9 | |
| | comp=Z,2.0nm,1.3s | | | | | | | | |
| **BRVK** | **Borovoye** | **18.48** | **46** | *e*P | | Pn | 17 37 04.0 | +1.8 | |
| BRVK | | | | pmax | | pmax | | | |
| | comp=Z,2.0nm,0.8s | | | | | | | | |
| **BRVK** | **Borovoye** | **18.48** | **46** | *e*P | | Pn | 17 37 04.0 | +1.8 | |
| | comp=Z,2.0nm,0.8s | | | | | | | | |

*ISCJB **19** 17:38:18.4±0.8,36°.68N±0°.04×140°.69E±0°.07,h13km±4km, mb3.2/4, Error ellipse: s-maj=9.7km s-min=4.7km az=27.5*
*IDC **19** 17:38:19.6±1.9,36°.51N×140°.46E,h0km,mb3.3/4, mb1 3.5/4,mb1mx3.3/40,mbtmp3.3/4,Error ellipse: s-maj=47.5km s-min=22.9km az=46.0*
*JMA **19** 17:38:19.4,36°.72N×140°.59E,h8km±1km, M3.4*
*JMA Felt II J1.*

**ISC 19 17:38:18.8±1.1,36°.72N±0°.05×140°.64E±0°.06,h7km±8km, n18,σ1°23/20,mb3.4/4,4D,Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JHO** | **Hitachi** | **0.12** | **207** | ⇓P | **Pg** | **17 38 21.9** | **+0.4** |
| JHO | | | | S | **Sg** | **17 38 23.8** | **+0.5** |
| **ONAJ** | **Iwakimizuishiy** | **0.40** | **19** | ⇓P | **Pb** | **17 38 27.6** | **-0.6** |
| ONAJ | | | | S | **Sb** | **17 38 33.2** | **-1.4** |
| **JYT** | **Yasato** | **0.61** | **216** | P | **Pb** | **17 38 30.3** | **-1.4** |
| JYT | | | | S | **Sb** | **17 38 38.6** | **-1.9** |
| **JSB** | **Shiboa** | **0.63** | **293** | P | **Pb** | **17 38 31.5** | **-0.6** |
| JSB | | | | S | **Sb** | **17 38 39.8** | **-1.3** |
| **JFK** | **Kawauchi** | **0.67** | **16** | ⇓P | **Pb** | **17 38 32.2** | **-0.6** |
| JFK | | | | S | **Sb** | **17 38 41.5** | **-0.9** |
| **JFT** | **Otama** | **0.83** | **343** | ⇓P | **Pn** | **17 38 35.2** | **-1.7** |
| JFT | | | | S | **Sb** | **17 38 46.2** | **-0.7** |
| **MJAR** | **Matsushiro Arr** | **1.96** | **265** | Pn | **Pn** | **17 38 51.2** | **-1.2** |
| | 12nm,0.3s,baz=82,slow=10,SNR=79 | | | | | | |
| MJAR | | | | Sn | **Sn** | **17 39 17.0** | **-0.3** |
| | 12nm,0.3s,baz=66,slow=9.4,SNR=8.7 | | | | | | |
| MJAR | | | | LR | LR | 17 39 54.8 | |
| | comp=Z,50nm,20.2s,baz=85,slow=54 | | | | | | |
| **MAT** | **Matsushiro** | **1.96** | **266** | P | **Pn** | **17 38 52.6** | **+0.1** |
| MAT | | | | S | **Sb** | **17 39 19.0** | **-0.5** |
| **SONM** | **Songino Array** | **27.45** | **305** | P | **P** | **17 44 06.9** | **+1.6** |
| | 0.3nm,0.5s,baz=96,slow=13,SNR=2.4 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.53** | **119** | T | T | 18 13 58.5 | |
| | baz=312,slow=75,SNR=97 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.54** | **119** | T | T | 18 13 59.1 | |
| | baz=312,slow=75,SNR=92 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.55** | **119** | T | T | 18 13 59.8 | |
| | baz=312,slow=75,SNR=118 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.22** | **121** | T | T | 18 14 49.1 | |
| | baz=314,slow=76,SNR=188 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.22** | **121** | T | T | 18 14 51.1 | |
| | baz=314,slow=76,SNR=134 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.24** | **121** | T | T | 18 14 52.3 | |
| | baz=314,slow=76,SNR=159 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.76** | **302** | P | **P** | **17 46 26.9** | **+2.1** |
| | 0.1nm,0.5s,baz=81,slow=9.3,SNR=2.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **56.67** | **187** | P | **P** | **17 48 03.5** | **+0.7** |
| | 0.3nm,0.6s,baz=2.5,slow=7.5,SNR=6.4 | | | | | | |
| **ASAR** | **Alice Springs** | **60.40** | **187** | P | **P** | **17 48 28.5** | **-0.2** |
| | 0.3nm,0.8s,baz=10,slow=5.9,SNR=5.0 | | | | | | |

**DJA 19 17:49:36.3±1.5,9°S±5°×112°4E±°,h17km±19km,M3.5/7, MLv3.5/7,Flores region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SOEI** | **Soe** | **0.89** | **153** | P | Pb | 17 49 53.1 | -0.2 |
| SOEI | | | | S | Sn | 17 50 06.2 | -0.5 |
| **MMRI** | **Maumere** | **1.64** | **281** | P | Pn | 17 50 04.3 | 0.0 |
| MMRI | | | | S | Sb | 17 50 25.9 | -0.5 |
| **EDFI** | **Ende, Flores** | **2.15** | **275** | P | Pn | 17 50 11.4 | -0.2 |
| EDFI | | | | S | Sn | 17 50 38.7 | +0.7 |
| **BASI** | **Baing, Sumba** | **3.47** | **249** | P | Pn | 17 50 29.4 | -0.2 |
| **WSI** | **Waingapu** | **3.59** | **258** | P | Pn | 17 50 31.0 | -0.2 |
| **BBSI** | **Bau Bau** | **3.68** | **340** | P | Pn | 17 50 32.6 | +0.1 |
| **WBSI** | **Waikabubak, Su** | **4.46** | **261** | P | Pn | 17 50 43.3 | 0.0 |

*ISCJB **19** 18:18:29.3±0.6,56°.0S±0°.1×27°.7W±0°.2,h112km,mb4.4/8, Error ellipse: s-maj=18.6km s-min=12.2km az=147.2*
*NEIC **19** 18:18:30.2±1.5,55°.96S×27°.75W,h106km±14km,mb4.6/5, Error ellipse: s-maj=17.2km s-min=8.6km az=68.0*
*IDC **19** 18:18:32.9±6.4,55°.98S×27°.49W,h125km±56km,mb4.1/6, mb1 4.3/7,mb1mx3.9/23,mbtmp4.6/7,MS3.0/1,Ms1 3.0/1, ms1mx2.6/20,Error ellipse: s-maj=30.7km s-min=19.7km az=67.0*

**ISC 19 18:18:30.8±0.6,56°.0S±0°.1×27°.8W±0°.1,h112km,n32, σ0°83/29,mb4.4/6,1C,South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HOPE** | **Hope Point** | **5.29** | **285** | *e*Pn | **Pn** | **18 19 46.4** | **-1.1** |
| **SNAA** | **Sanae** | **18.95** | **156** | P | **P** | **18 22 42.4** | **-0.3** |
| | 11nm,0.3s,baz=306,slow=10,SNR=783 | | | | | | |
| SNAA | | | | LR | LR | 18 28 19.5 | |
| | comp=Z,52nm,21.5s,baz=306,slow=31 | | | | | | |
| **SNAA** | **Sanae** | **18.95** | **156** | *e*P | **P** | **18 22 42.5** | **-0.3** |
| | 39nm,0.5s | | | | | | |
| SNAA | | | | *e* | | 18 28 19.4 | |
| **SYO** | **Syowa Base** | **31.85** | **141** | ⇑*e*P | **P** | **18 24 43.0** | **-1.5** |
| **QSPA** | **South Pole Qui** | **34.29** | **180** | *e*P | **P** | **18 25 06.8** | **+0.8** |
| | 29nm,1.4s | | | | | | |
| **MAW** | **Mawson** | **40.40** | **144** | P | **P** | **18 25 57.4** | **+0.1** |
| | 4.0nm,0.6s,baz=263,slow=9.8,SNR=5.8 | | | | | | |
| **MAW** | **Mawson** | **40.40** | **144** | *e*P | **P** | **18 25 57.4** | **+0.1** |
| | 12nm,1.8s | | | | | | |
| **VNDA** | **Vanda** | **46.64** | **183** | P | **P** | **18 26 48.4** | **+1.2** |
| | 5.3nm,0.6s,baz=186,slow=6.4,SNR=32 | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **48.01** | **18** | T | T | 19 19 04.7 | |
| | baz=189,slow=74,SNR=7.1 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **48.01** | **18** | T | T | 19 19 04.7 | |
| | baz=189,slow=74,SNR=7.6 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **48.03** | **18** | T | T | 19 19 04.7 | |
| | baz=189,slow=74,SNR=5.3 | | | | | | |
| **LPAZ** | **La Paz** | **50.07** | **306** | P | **P** | **18 27 16.2** | **+1.4** |
| | 1.5nm,0.5s,baz=119,slow=9.1,SNR=8.0 | | | | | | |
| **LPAZ** | **La Paz** | **50.07** | **306** | *e*P | **P** | **18 27 14.8** | **-0.1** |
| **TOA0** | **Torodi Ar. Sit** | **73.14** | **30** | *e*P | **P** | **18 29 49.3** | **+0.4** |
| **TORD** | **Torodi Ar. Bea** | **73.14** | **30** | P | **P** | **18 29 49.4** | **+0.4** |
| | 1.1nm,0.4s,baz=200,slow=6.2,SNR=15 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **73.14** | **30** | *e*P | **P** | **18 29 49.4** | **+0.4** |
| **STKA** | **Stephens Creek** | **92.04** | **171** | *e*P | **P** | **18 31 26.8** | **-0.1** |
| | 1.4nm,0.8s,baz=158,slow=13,SNR=3.3 | | | | | | |
| **STKA** | **Stephens Creek** | **92.04** | **171** | *e*P | **P** | **18 31 26.8** | **-0.1** |
| | 4.5nm,1.7s | | | | | | |
| **ASAR** | **Alice Springs** | **99.16** | **163** | P | **Pdif** | **18 31 58.6** | **-0.9** |
| | 1.6nm,0.8s,baz=184,slow=4.1,SNR=24 | | | | | | |
| **AS31** | **Alice Springs** | **99.17** | **163** | *e*P | **Pdif** | **18 31 58.6** | **-0.9** |
| | 1.2nm,1.1s | | | | | | |
| **WR1** | **Warramunga Arr** | **102.88** | **163** | *e*Pdif | **Pdif** | **18 32 14.5** | **-1.6** |
| **WRA** | **Warramunga Arr** | **102.88** | **163** | P | **Pdif** | **18 32 14.5** | **-1.6** |
| | 0.4nm,0.6s,baz=196,slow=4.5,SNR=6.4 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **125.39** | **111** | PKP | **PKPdf** | **18 37 18.5** | **+0.1** |
| | 0.7nm,0.7s,baz=225,slow=3.8,SNR=6.8 | | | | | | |
| **ARA0** | **ARCESS Array S** | **130.98** | **22** | *e*PKPdf | **PKPdf** | **18 37 27.9** | **+0.4** |
| **ARCES** | **ARCESS Array B** | **130.98** | **22** | PKP | **PKPdf** | **18 37 27.9** | **+0.4** |
| | 1.6nm,0.9s,baz=222,slow=1.6,SNR=3.6 | | | | | | |
| **YKA** | **Yellowknife Ar** | **135.90** | **318** | PKP | **PKPdf** | **18 37 36.8** | **0.0** |
| | 0.7nm,0.6s,baz=127,slow=2.3,SNR=14 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **142.61** | **64** | PKP | **PKPdf** | **18 37 48.4** | **-0.9** |
| | 0.6nm,0.5s,baz=298,slow=3.1,SNR=3.2 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **142.62** | **64** | *e*PKPdf | **PKPdf** | **18 37 48.4** | **-0.9** |
| **ILAR** | **Eielson Array** | **149.82** | **312** | PKPbc | **PKPbc** | **18 38 06.3** | **+0.2** |
| | 5.4nm,0.7s,baz=134,slow=2.5,SNR=70 | | | | | | |
| **KDAK** | **Kodiak Island** | **150.50** | **297** | PKPbc | **PKPbc** | **18 38 08.6** | **+0.7** |
| | 6.8nm,0.4s,baz=195,slow=1.2,SNR=26 | | | | | | |
| **SONA0** | **Songino Array** | **151.03** | **87** | *e*PKPbc | **PKPbc** | **18 38 09.4** | **-0.3** |
| **SONM** | **Songino Array** | **151.03** | **87** | PKPbc | **PKPbc** | **18 38 09.4** | **-0.3** |
| | 2.9nm,0.6s,baz=224,slow=3.5,SNR=28 | | | | | | |

*ISCJB **19** 18:41:47.4±1.4,5°.90S±0°.10×146°.9E±0°.2,h78km,mb3.4/3, Error ellipse: s-maj=27.7km s-min=13.3km az=171.1*
*IDC **19** 18:41:51.1±6.9,6°.08S×147°.14E,h106km±70km,mb3.3/3, mb1 3.5/6,mb1mx3.2/32,mbtmp3.7/6,ML3.6/2,MS3.2/1, Ms1 3.2/1,ms1mx2.4/18,Error ellipse: s-maj=73.8km s-min=27.9km az=142.0*

**ISC 19 18:41:48.5±1.4,5°.9S±0°.1×146°.9E±0°.3,h78km,n8,σ0°79/8, mb3.5/3,Eastern New Guinea region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **3.52** | **176** | P | **Pn** | **18 42 41.4** | **+0.6** |
| | 10nm,0.3s,baz=2.7,slow=5.4,SNR=52 | | | | | | |
| PMG | | | | S | **Sn** | **18 43 20.2** | **-1.2** |
| | 9.4nm,0.3s,baz=170,slow=20,SNR=11 | | | | | | |
| **CTA** | **Charters Tower** | **14.15** | **183** | P | **Pn** | **18 45 06.0** | **+0.7** |
| | 0.4nm,0.3s,baz=8.0,slow=15,SNR=5.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **18.59** | **220** | P | **P** | **18 45 58.9** | **-0.7** |
| | 0.1nm,0.3s,baz=41,slow=12,SNR=8.8 | | | | | | |
| **ASAR** | **Alice Springs** | **21.68** | **214** | P | **P** | **18 46 32.8** | **-0.3** |
| | 0.2nm,0.3s,baz=52,slow=8.8,SNR=14 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **24.08** | **238** | P | **P** | **18 46 57.2** | **+0.4** |
| | 2.4nm,0.5s,baz=54,slow=9.0,SNR=19 | | | | | | |
| **JCJ** | **Chichijima** | **33.09** | **352** | LR | LR | 19 01 20.4 | |
| | comp=Z,35nm,18.8s,baz=22,slow=35 | | | | | | |
| **ILAR** | **Eielson Array** | **85.39** | **23** | P | **P** | **18 54 16.6** | **-0.3** |
| | 0.3nm,0.6s,baz=250,slow=4.8,SNR=12 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **144.99** | **284** | PKPbc | **PKPab** | **19 01 17.2** | **-0.1** |
| | 0.2nm,0.5s,baz=38,slow=2.5,SNR=2.7 | | | | | | |

*CSEM **19** 18:49:48.1±0.4,34°.19N×45°.56E,h15km,ML3.4, Error ellipse: s-maj=10.9km s-min=8.1km az=164.0*
*ISN **19** 18:49:48.9±1.1,34°.15N×45°.58E,h45km±5km, ML4.0*

**TEH 19 18:49:50.5,34°.38N×45°.64E,h10km,ML3.4,Iran-Iraq border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **IGHG** | **Ghaleghazi** | **0.77** | **93** | *e*AMB | AMB | 18 50 15.5 | |
| | comp=Z,43μm,0.2s | | | | | | |
| **IVIS** | **Veis** | **1.01** | **81** | *e*AMB | AMB | 18 50 23.2 | |
| | comp=Z,8μm,0.2s | | | | | | |
| IVIS | | | | *e*Pg | Pg | 18 50 07.7 | -2.2 |
| **ILIN** | **Lien** | **1.22** | **63** | *e*Pg | Pb | 18 50 12.9 | -0.9 |
| ILIN | | | | *e*AMB | AMB | 18 50 15.6 | |
| | comp=Z,8μm,0.1s | | | | | | |
| **ILIN** | **Lien** | **1.22** | **63** | *e*Pg | Pb | 18 50 12.9 | -0.9 |
| **IBDR** | **Badra** | **1.28** | **169** | *e*Pg | Pn | 18 50 09.0 | -5.5 |
| | SNR=10.0 | | | | | | |
| IBDR | | | | *e*Sg | Sb | 18 50 25.0 | -6.3 |
| | SNR=10.0 | | | | | | |
| **BHD** | **Baghdad** | **1.52** | **224** | *e*Pn | Pn | 18 50 10.9 | -6.9 |
| | SNR=54 | | | | | | |
| BHD | | | | *e*Sn | Sn | 18 50 28.9 | -8.7 |
| | SNR=54 | | | | | | |
| **IKOM** | **Komasi** | **1.56** | **97** | *e*Pn | Pn | 18 50 18.5 | 0.0 |
| IKOM | | | | *e*Sg | Sb | 18 50 39.5 | +0.1 |
| IKOM | | | | *e*AMB | AMB | 18 50 48.3 | |
| | comp=Z,11μm,0.2s | | | | | | |
| **IKOM** | **Komasi** | **1.56** | **97** | *e*Pn | Pn | 18 50 18.5 | 0.0 |
| IKOM | | | | *e*Sg | Sb | 18 50 39.5 | +0.1 |
| **SNGE** | **Sanandaj** | **1.58** | **63** | *e*Pg | Pb | 18 50 19.5 | -0.4 |
| SNGE | | | | *e*Sg | Sg | 18 50 42.3 | +1.1 |
| **NSR** | **Nassriya** | **3.38** | **173** | *e*Pn | Pn | 18 50 37.4 | -5.9 |
| | SNR=54 | | | | | | |
| NSR | | | | *e*Sn | Sn | 18 51 12.9 | -11 |
| | SNR=54 | | | | | | |
| **ASAO** | **Ashtian** | **3.63** | **86** | *e*Pn | Pn | 18 50 47.3 | +0.3 |
| ASAO | | | | *e*Sg | Sb | 18 51 42.9 | +3.9 |
| **KHMZ** | **Khomeyn** | **3.64** | **99** | *e*Pn | Pn | 18 50 47.4 | +0.3 |
| **IRAZ** | **Razeghan** | **3.67** | **73** | *e*Pn | Pn | 18 50 49.2 | +1.7 |
| IRAZ | | | | *e*AMB | AMB | 18 51 03.4 | |
| | comp=Z,591nm,0.4s | | | | | | |
| **RTB** | **Rutbah** | **4.64** | **255** | *e*Pn | Pn | 18 50 56.3 | -4.5 |
| | SNR=54 | | | | | | |
| RTB | | | | *e*Sn | Sn | 18 51 46.1 | -8.7 |
| | SNR=54 | | | | | | |
| **QAM** | **Ghamsar** | **4.85** | **96** | *e*Pn | Pn | 18 51 03.6 | -0.2 |
| QAM | | | | *e*AMB | AMB | 18 52 02.5 | |
| | comp=Z,733nm,0.3s | | | | | | |
| **IKLH** | **Kolahrood** | **5.05** | **100** | *e*Pn | Pn | 18 51 05.8 | -0.8 |
| IKLH | | | | *e*AMB | AMB | 18 52 16.5 | |
| | comp=Z,442nm,0.2s | | | | | | |
| **IKLH** | **Kolahrood** | **5.05** | **100** | *e*Pn | Pn | 18 51 05.8 | -0.8 |
| **IZEF** | **Zefreh** | **5.77** | **103** | *e*Pn | Pn | 18 51 15.3 | -1.1 |
| IZEF | | | | *e*AMB | AMB | 18 52 36.4 | |
| | comp=Z,92nm,0.2s | | | | | | |
| **IZEF** | **Zefreh** | **5.77** | **103** | *e*Pn | Pn | 18 51 15.3 | -1.1 |
| **IRAM** | **Ramesheh** | **6.21** | **112** | *e*Pn | Pn | 18 51 19.2 | -3.2 |
| IRAM | | | | *e*AMB | AMB | 18 52 33.2 | |
| | comp=Z,103nm,0.2s | | | | | | |
| **IRAM** | **Ramesheh** | **6.21** | **112** | *e*Pn | Pn | 18 51 19.2 | -3.2 |

**IDC 19 18:52:28.4±7.5,20°.20S×179°.13W,h590km±83km, mb2.9/5,mb1 3.2/5,mb1mx3.0/23,mbtmp3.9/5,Error ellipse: s-maj=98.3km s-min=36.9km az=146.0,Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **STKA** | **Stephens Creek** | **36.97** | **244** | P | P | 18 58 48.4 | -0.7 |
| | 0.8nm,0.4s,baz=67,slow=14,SNR=6.2 | | | | | | |
| **ASAR** | **Alice Springs** | **43.55** | **257** | P | P | 18 59 41.6 | 0.0 |
| | 2.3nm,0.5s,baz=92,slow=8.2,SNR=87 | | | | | | |
| ASAR | | | | PcP | PcP | 19 01 15.0 | -0.9 |
| | 0.4nm,0.7s,baz=103,slow=3.7,SNR=5.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.59** | **262** | P | P | 18 59 42.0 | +0.1 |
| | 0.9nm,0.3s,baz=97,slow=7.0,SNR=51 | | | | | | |
| **ILAR** | **Eielson Array** | **88.26** | **13** | P | P | 19 04 15.9 | -1.4 |
| | 0.1nm,0.6s,baz=206,slow=3.9,SNR=3.4 | | | | | | |
| **PDAR** | **Pinedale Array** | **89.47** | **44** | P | P | 19 04 25.1 | +1.3 |
| | 0.3nm,0.5s,baz=318,slow=4.0,SNR=3.4 | | | | | | |
| **AKASG** | **Malin Array Be** | **142.23** | **330** | PKhKP | PKPpre | 19 10 50.0 | |
| | 1.4nm,0.5s,baz=45,slow=4.0,SNR=11 | | | | | | |
| **BRTR** | **Keskin Array B** | **145.85** | **312** | PKPbc | PKPbc | 19 11 02.6 | -0.3 |
| | 0.4nm,0.6s,baz=339,slow=3.2,SNR=3.0 | | | | | | |

**IDC 19 18:57:33.4±1.2,13°.41N×93°.23E,h0km,mb3.6/5, mb1 3.6/6,mb1mx3.4/32,mbtmp3.5/6,ML3.6/1,Error ellipse: s-maj=44.2km s-min=21.3km az=54.0,Andaman Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CMAR** | **Chiang Mai Arr** | **7.44** | **47** | Pn | Pn | 18 59 23.8 | +0.4 |
| | 0.2nm,0.3s,baz=242,slow=15,SNR=5.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **34.52** | **347** | P | P | 19 04 23.0 | -0.5 |
| | 0.7nm,0.5s,baz=165,slow=8.0,SNR=11 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **40.98** | **352** | P | P | 19 05 18.0 | +0.1 |
| | 0.5nm,0.3s,baz=161,slow=9.2,SNR=3.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **52.30** | **129** | P | P | 19 06 46.5 | -0.7 |
| | 0.3nm,0.9s,baz=304,slow=8.8,SNR=4.8 | | | | | | |
| **ASAR** | **Alice Springs** | **54.23** | **133** | P | P | 19 07 01.7 | +0.3 |
| | 0.1nm,0.3s,baz=309,slow=7.4,SNR=6.5 | | | | | | |
| **BRTR** | **Keskin Array B** | **58.22** | **309** | P | P | 19 07 30.0 | +0.1 |
| | 0.8nm,0.8s,baz=55,slow=5.8,SNR=3.6 | | | | | | |

*IDC **19** 19:14:28.7±2.1,43°.58N×105°.30W,h0km,mb1 3.6/3, mb1mx3.3/51,mbtmp3.3/3,ML2.8/2,Error ellipse: s-maj=48.1km s-min=9.1km az=151.0*
*ISCJB **19** 19:14:29.4±0.5,43°.82N±0°.04×105°.23W±0°.06,h0km,Error ellipse: s-maj=6.2km s-min=4.8km az=157.6*
*NEIC **19** 19:14:31.4±1.2,43°.82N×105°.21W,h7km±10km,ML3.4, Error ellipse: s-maj=4.8km s-min=3.8km az=74.0, Suspected Mining explosion.*
*NEIC 57 km [36 miles] SSE of Gillette.*

**ISC 19 19:14:30.8±0.9,43°.82N±0°.05×105°.23W±0°.06,h0km,n55, σ0°84/51,Wyoming**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RSSD** | **Black Hills** | **0.91** | **70** | *e*Pg | **Pg** | **19 14 48.8** | **+0.5** |
| **K22A** | **Casper** | **1.50** | **219** | *e*Pn | **Pn** | **19 14 56.8** | **-2.5** |
| **PHWY** | **Pilot Hill** | **2.52** | **184** | *e*Pn | **Pn** | **19 15 13.2** | **-0.1** |
| **RWWY** | **Rawlins** | **2.58** | **215** | *e*Pn | **Pn** | **19 15 14.4** | **+0.3** |
| **LAO** | **LASA Array** | **2.95** | **347** | *e*Pn | **Pn** | **19 15 19.0** | **0.0** |
| **N23A** | **Red Feather La** | **2.97** | **191** | *e*Pn | **Pn** | **19 15 19.4** | **-0.1** |
| **RLMT** | **Red Lodge** | **3.17** | **296** | *e*Pn | **Pn** | **19 15 22.2** | **+0.1** |
| **BW06** | **Boulder Array** | **3.33** | **253** | *e*Pn | **Pn** | **19 15 24.2** | **-0.2** |
| **PD31** | **Pinedale Array** | **3.33** | **253** | *e*Pn | **Pn** | **19 15 24.4** | **0.0** |
| PD31 | | | | *e*Lg | Lg | 19 16 08.8 | |
| **PDAR** | **Pinedale Array** | **3.33** | **253** | Pn | **Pn** | **19 15 24.1** | **-0.3** |
| | 5.8nm,0.3s,baz=79,slow=13,SNR=57 | | | | | | |
| PDAR | | | | Lg | Lg | 19 16 08.8 | |
| | 25nm,0.3s,baz=81,slow=29,SNR=11 | | | | | | |
| **YTP** | **The Promontory** | **3.69** | **281** | *e*Pn | **Pn** | **19 15 29.5** | **+0.2** |
| **GCMT** | **Greycliff** | **3.72** | **303** | *e*Pn | **Pn** | **19 15 29.8** | **+0.1** |
| **OGNE** | **Ogallala** | **3.72** | **139** | *e*Pn | **Pn** | **19 15 29.5** | **-0.1** |
| **CRMT** | **Chrome Mountai** | **3.87** | **297** | *e*Pb | **Pb** | **19 15 40.8** | **+0.7** |
| **H17A** | **Grant Village** | **3.89** | **280** | *e*Pn | **Pn** | **19 15 33.0** | **+0.8** |
| **MOOW** | **Moose Ponds** | **4.00** | **271** | *e*Pn | **Pn** | **19 15 34.4** | **+0.9** |
| **SNOW** | **Snow King Moun** | **4.03** | **267** | *e*Pn | **Pn** | **19 15 35.4** | **+1.5** |
| **ISCO** | **Idaho Springs** | **4.03** | **184** | *e*Pn | **Pn** | **19 15 34.2** | **+0.2** |
| **YPP** | **Pitchstone Pla** | **4.04** | **278** | *e*Pn | **Pn** | **19 15 34.1** | **-0.2** |
| **REDW** | **Red Top Meadow** | **4.11** | **266** | *e*Pn | **Pn** | **19 15 35.7** | **+0.6** |
| **IMW** | **Indian Meadow** | **4.13** | **273** | *e*Pn | **Pn** | **19 15 35.6** | **+0.2** |
| **YHH** | **Holmes Hill** | **4.15** | **285** | *e*Pn | **Pn** | **19 15 35.8** | **+0.1** |
| **TPAW** | **Teton Pass** | **4.17** | **267** | *e*Pn | **Pn** | **19 15 35.9** | **0.0** |
| **FXWY** | **Fox Creek** | **4.21** | **270** | *e*Pn | **Pn** | **19 15 36.9** | **+0.4** |
| **YMR** | **Madison River** | **4.21** | **284** | *e*Pn | **Pn** | **19 15 36.3** | **-0.2** |
| **O20A** | **White River Ci** | **4.31** | **212** | *e*Pn | **Pn** | **19 15 37.9** | **0.0** |
| **YHB** | **Horse Butte** | **4.38** | **284** | *e*Pn | **Pn** | **19 15 38.3** | **-0.5** |
| **AHID** | **Auburn Hatcher** | **4.41** | **258** | *e*Pn | **Pn** | **19 15 38.2** | **-1.0** |
| **BMUT** | **Black Mountain** | **4.79** | **249** | *e*Pb | **Pb** | **19 15 53.9** | **-1.9** |
| **Q24A** | **Divide** | **4.85** | **179** | *e*Pn | **Pn** | **19 15 45.5** | **+0.1** |
| **BOZ** | **Bozeman (W)** | **4.90** | **293** | *e*Pn | **Pn** | **19 15 45.5** | **-0.3** |
| **MCU** | **Monte Cristo P** | **5.20** | **245** | *e*Pn | **Pn** | **19 15 50.8** | **+0.7** |
| **EGMT** | **Eagleton** | **5.26** | **325** | *e*Pn | **Pn** | **19 15 51.2** | **+0.6** |
| **TCUT** | **Toone Canyon** | **5.31** | **242** | *e*Pn | **Pn** | **19 15 52.7** | **+1.1** |
| **MLI** | **Malad Range** | **5.37** | **253** | *e*Pn | **Pn** | **19 15 53.1** | **+0.7** |
| **DLMT** | **Dillon** | **5.48** | **289** | *e*Pn | **Pn** | **19 15 51.5** | **-2.3** |
| **HRY** | **Holter Researc** | **5.48** | **304** | *e*Pn | **Pn** | **19 15 53.3** | **-0.5** |
| **LRM** | **Limekiln Ridge** | **5.51** | **294** | *e*Pn | **Pn** | **19 15 53.3** | **-1.1** |
| **SPUT** | **South Promonto** | **5.89** | **247** | *e*Pn | **Pn** | **19 15 59.4** | **-0.2** |
| **P17A** | **Butcher Ranch,** | **5.99

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 8.4nm,0.3s,baz=181,slow=25,SNR=6.1 | | | | | | |
| KOTS | Kotyrbulak | 3.77 | 263 | eP | Pb | 19 36 10.3 | -1.1 |
| KOTS | | | | eS | Sb | 19 36 57.2 | -0.3 |
| CHKK | Chushkaly | 3.80 | 273 | eP | Pg | 19 36 15.1 | -1.6 |
| | 8.1nm,0.3s | | | | | | |
| CHKK | | | | eS | Sg | 19 37 05.8 | -0.1 |
| | 100nm,0.4s | | | | | | |
| DGS | Degeres | 4.73 | 266 | eP | Pb | 19 36 29.3 | +1.6 |
| | 3.3nm,0.4s | | | | | | |
| DGS | | | | eS | Sg | 19 37 30.9 | -5.0 |
| | 26nm,0.5s | | | | | | |
| TKM2 | Tokmak 2 | 4.92 | 262 | ⇓Pn | Pn | 19 36 21.1 | +1.9 |
| | 3.2nm,0.7s | | | | | | |
| TKM2 | | | | ⇑Lg | Lg | 19 37 46.9 | |
| | 15nm,0.9s | | | | | | |
| AAK | Ala-Archa | 5.77 | 261 | Pg | Pg | 19 36 51.9 | -2.7 |
| | 0.5nm,0.3s,baz=94,slow=11,SNR=4.8 | | | | | | |
| AAK | | | | Lg | Lg | 19 38 16.5 | |
| | 0.7nm,0.3s,baz=281,slow=18,SNR=3.8 | | | | | | |
| AAK | Ala-Archa | 5.77 | 261 | ⇑Pg | Pb | 19 36 48.9 | +3.4 |
| | 2.0nm,0.8s | | | | | | |
| AAK | | | | ⇑Lg | Lg | 19 38 15.4 | |
| | 4.1nm,0.8s | | | | | | |
| KURBB | Kurchatov Arra | 7.28 | 341 | Pn | Pn | 19 36 52.6 | +1.2 |
| | 0.2nm,0.3s,baz=156,slow=8.6,SNR=11 | | | | | | |
| KURBB | | | | Sn | Sn | 19 38 13.6 | -1.0 |
| | 0.2nm,0.3s,baz=138,slow=30,SNR=11 | | | | | | |
| KURBB | | | | Lg | Lg | 19 38 58.0 | |
| | 0.2nm,0.3s,baz=172,slow=27,SNR=4.3 | | | | | | |
| KURBB | Kurchatov Arra | 7.28 | 341 | ⇑Pn | Pn | 19 36 52.2 | +0.8 |
| | 2.5nm,0.6s | | | | | | |
| KURBB | | | | ⇑Sn | Sn | 19 38 13.7 | -1.0 |
| | 14nm,0.7s | | | | | | |
| KURBB | | | | ⇑Lg | Lg | 19 38 56.8 | |
| | 19nm,0.7s | | | | | | |
| KURK | Kurchatov | 7.35 | 342 | ⇑Pn | Pn | 19 36 52.4 | +0.1 |
| | 1.5nm,0.9s | | | | | | |
| KURK | | | | ⇑Sn | Sn | 19 38 13.7 | -2.6 |
| | 8.9nm,0.8s | | | | | | |
| KURK | | | | ⇓Lg | Lg | 19 39 00.3 | |
| | 19nm,1.0s | | | | | | |
| ZALV | Zalesovo Beam | 10.30 | 9 | Pn | Pn | 19 37 34.4 | +1.6 |
| | 0.1nm,0.3s,baz=193,slow=12,SNR=3.8 | | | | | | |
| ZALV | | | | Lg | Lg | 19 40 33.4 | |
| | 0.1nm,0.3s,baz=189,slow=26,SNR=3.3 | | | | | | |
| BVAR | Borovoye Array | 12.12 | 324 | Pn | Pn | 19 37 58.5 | +0.8 |
| | 0.0nm,0.3s,baz=118,slow=15,SNR=3.0 | | | | | | |
| SONM | Songino Array | 17.30 | 68 | P | Pn | 19 39 06.2 | -0.6 |
| | 0.1nm,0.3s,baz=260,slow=12,SNR=6.4 | | | | | | |

*ISCJB **19** 19:38:27.3±0.6, 63.°49S±0.°08×171.°0E±0.°3, h10$^{km}$, mb4.6/11, MS3.9/11, Error ellipse: s-maj=21.7km s-min=9.7km az=161.6*

*IDC **19** 19:38:28.6±0.8, 63.°04S×171.°80E, h0$^{km}$, mb4.3/5, mb1 4.5/5, mb1mx4.2/24, mbtmp4.3/5, MS3.9/13, Ms1 3.9/13, ms1mx3.8/24, Error ellipse: s-maj=45.7km s-min=25.0km az=43.0*

*NEIC **19** 19:38:29.7±0.5, 63.°54S×170.°98E, h10$^{km}$, mb4.6/8, Error ellipse: s-maj=24.1km s-min=12.3km az=71.0*

**ISC 19 19:38:29.6**±0.6**, 63.°42S**±0.°09×**171.°4E**±0.°2**, h10$^{km}$, n55, σ1.$^{s}$63**/33**, mb4.6**/11**, MS3.9**/11**, 1D, Balleny Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VNDA | Vanda | 14.48 | 188 | Pn | Pn | 19 41 52.8 | -1.5 |
| | 1.0nm,0.3s,baz=27,slow=17,SNR=40 | | | | | | |
| VNDA | | | | LR | LR | 19 46 12.4 | |
| | comp=Z,928nm,20.2s,baz=18,slow=31 | | | | | | |
| DCZ | Deep Cove | 18.15 | 350 | ePn | P | 19 42 44.4 | +2.5 |
| | 86nm,1.8s | | | | | | |
| RPZ | Rata Peaks | 19.74 | 359 | LR | LR | 19 49 23.0 | |
| | comp=Z,553nm,19.6s,baz=195,slow=34 | | | | | | |
| URZ | Urewera | 25.43 | 10 | LR | LR | 19 52 19.8 | |
| | comp=Z,406nm,21.2s,baz=186,slow=33 | | | | | | |
| QSPA | South Pole Qui | 26.67 | 180 | eP | P | 19 44 07.0 | -1.5 |
| | 11nm,1.1s | | | | | | |
| MAW | Mawson | 39.63 | 215 | LR | LR | 20 02 10.7 | |
| | comp=Z,405nm,18.1s,baz=89,slow=36 | | | | | | |
| DZM | Mont Dzumac | 41.46 | 353 | LR | LR | 20 00 37.0 | |
| | comp=Z,208nm,21.7s,baz=198,slow=32 | | | | | | |
| DZM | Mont Dzumac | 41.46 | 353 | eLR | LR | 19 57 52.8 | |
| | 315nm,21.9s | | | | | | |
| DZM | Mont Dzumac | 41.46 | 353 | eP | P | 19 46 13.7 | -2.8 |
| | 36nm,1.4s | | | | | | |
| SYO | Syowa Base | 43.53 | 203 | ⇓epP | P | 19 46 34.8 | +2.1 |
| H01W1 | Cape Leeuwin H | 44.88 | 282 | T | T | 20 34 59.4 | |
| | baz=148,slow=76,SNR=129 | | | | | | |
| H01W2 | Cape Leeuwin H | 44.88 | 281 | T | T | 20 34 59.7 | |
| | baz=148,slow=76,SNR=142 | | | | | | |
| H01W3 | Cape Leeuwin H | 44.89 | 282 | T | T | 20 35 00.6 | |
| | baz=148,slow=76,SNR=146 | | | | | | |
| SNAA | Sanae | 45.12 | 183 | P | P | 19 46 42.9 | -2.6 |
| SNAA | Sanae | 45.12 | 183 | eP | P | 19 46 42.5 | -2.9 |
| | 7.0nm,0.9s | | | | | | |
| VNA3 | Neumayer Olymp | 45.61 | 180 | P | P | 19 46 51.2 | +1.9 |
| VNA2 | Neumayer--Watz | 45.93 | 181 | P | P | 19 46 50.4 | -1.4 |
| | baz=184,slow=7.7 | | | | | | |
| VNA1 | Neumayer--Stat | 46.20 | 180 | P | P | 19 46 52.0 | -1.9 |
| AS01 | Alice Springs | 46.85 | 310 | eP | P | 19 46 58.6 | -1.0 |
| ASAR | Alice Springs | 46.87 | 310 | P | P | 19 46 58.7 | -1.0 |
| | 3.8nm,0.8s,baz=154,slow=7.3,SNR=39 | | | | | | |
| ASAR | | | | LR | LR | 20 04 32.6 | |
| | comp=Z,51nm,18.8s,baz=153,slow=33 | | | | | | |
| AS31 | Alice Springs | 46.87 | 310 | eP | P | 19 46 59.0 | -0.8 |
| | 1.8nm,0.9s | | | | | | |
| TBI | Tubuai | 47.73 | 52 | eLR | LR | 20 00 43.4 | |
| | 169nm,24.8s | | | | | | |
| TBI | Tubuai | 47.73 | 52 | eT | T | 20 37 52.1 | |
| | 11nm,0.3s | | | | | | |
| WR1 | Warramunga Arr | 50.17 | 312 | eP | P | 19 47 23.3 | -1.9 |
| | 8.8nm,1.3s | | | | | | |
| WRA | Warramunga Arr | 50.17 | 312 | P | P | 19 47 23.3 | -1.9 |
| | 2.1nm,0.8s,baz=163,slow=6.5,SNR=14 | | | | | | |
| WRA | | | | LR | LR | 20 06 16.8 | |
| | comp=Z,68nm,19.6s,baz=125,slow=33 | | | | | | |
| TVO | Taravao | 52.94 | 49 | eT | T | 20 44 22.0 | |
| | 2.2nm,0.3s | | | | | | |
| PPT2 | Papeete2 | 53.01 | 49 | eLR | LR | 20 02 51.2 | |
| | 171nm,26.2s | | | | | | |
| PPT2 | Papeete2 | 53.01 | 49 | eT | T | 20 44 27.4 | |
| | 6.7nm,0.4s | | | | | | |
| PPT | Papeete | 53.03 | 49 | LR | LR | 20 03 32.4 | |
| | comp=Z,66nm,20.5s,baz=184,slow=29 | | | | | | |
| RKT | Rikitea | 53.53 | 67 | eT | T | 20 45 15.0 | |
| | 6.9nm,0.2s | | | | | | |
| HNR | Honiara | 54.52 | 346 | LR | LR | 20 08 41.7 | |
| | comp=Z,68nm,19.2s,baz=147,slow=34 | | | | | | |
| VAH | Vaihoa | 55.87 | 50 | eT | T | 20 48 01.0 | |
| | 100nm,0.3s | | | | | | |
| RPN | Rapa Nui | 61.33 | 94 | LR | LR | 20 07 47.1 | |
| | comp=Z,120nm,20.2s,baz=226,slow=29 | | | | | | |
| RPN | Rapa Nui | 61.33 | 94 | eP | P | 19 48 45.0 | -0.2 |
| | 296nm,1.2s | | | | | | |
| CPUP | Villa Florida | 82.66 | 137 | P | P | 19 50 53.8 | +0.8 |
| | 2.1nm,0.9s,baz=210,slow=8.0,SNR=4.0 | | | | | | |
| CPUP | | | | LR | LR | 20 24 40.2 | |
| | comp=Z,97nm,18.7s,baz=208,slow=34 | | | | | | |
| CPUP | Villa Florida | 82.66 | 137 | eP | P | 19 50 53.8 | +0.8 |
| | 20nm,1.6s | | | | | | |
| BOSA | Boshof | 84.43 | 209 | P | P | 19 51 04.1 | +1.8 |
| | 2.1nm,0.6s,baz=150,slow=3.2,SNR=7.2 | | | | | | |
| BOSA | | | | LR | LR | 20 26 02.0 | |
| | comp=Z,107nm,20.1s,baz=173,slow=34 | | | | | | |
| H08S2 | Diego Garcia H | 87.19 | 259 | T | T | 21 27 50.1 | |
| | baz=153,slow=76,SNR=45 | | | | | | |
| H08S1 | Diego Carcia H | 87.20 | 259 | T | T | 21 28 00.1 | |
| | baz=153,slow=76,SNR=8.8 | | | | | | |
| H08S3 | Diego Garcia H | 87.21 | 259 | T | T | 21 27 54.3 | |
| | baz=153,slow=76,SNR=165 | | | | | | |
| LPAZ | La Paz | 88.29 | 124 | P | P | 19 51 21.4 | -0.5 |
| | 3.2nm,0.9s,baz=161,slow=6.5,SNR=5.5 | | | | | | |
| LPAZ | La Paz | 88.29 | 124 | eP | P | 19 51 21.7 | -0.2 |
| | 4.7nm,1.0s | | | | | | |
| CMAR | Chiang Mai Arr | 98.77 | 294 | LR | LR | 20 34 13.6 | |
| | comp=Z,35nm,20.6s,baz=158,slow=34 | | | | | | |
| TORD | Torodi Ar. Bea | 129.27 | 193 | PKP | PKPdf | 19 57 39.9 | +2.0 |
| | 0.7nm,1.0s,baz=144,slow=0.5,SNR=3.2 | | | | | | |
| TOA1 | Torodi Ar. Sit | 129.28 | 193 | ePKPdf | PKPdf | 19 57 39.9 | +2.0 |
| ILAR | Eielson Array | 131.53 | 22 | PKP | PKPdf | 19 57 40.2 | -0.4 |
| | 1.0nm,0.9s,baz=250,slow=3.5,SNR=9.1 | | | | | | |
| INK | Inuvik | 137.17 | 27 | PKP | PKPdf | 19 57 51.0 | 0.0 |
| | 1.0nm,0.9s,baz=243,slow=2.3,SNR=2.7 | | | | | | |
| YKA | Yellowknife Ar | 137.17 | 41 | PKP | PKPdf | 19 57 51.2 | 0.0 |
| | 0.4nm,0.8s,baz=210,slow=3.4,SNR=4.2 | | | | | | |
| KBZ | Khabaz | 144.91 | 261 | PKPbc | PKPdf | 19 58 08.1 | +2.3 |
| | 7.3nm,0.9s,baz=138,slow=1.8,SNR=5.3 | | | | | | |
| BR101 | Keskin Array S | 145.63 | 247 | ePKPdf | PKPab | 19 58 08.1 | +0.1 |
| BRTR | Keskin Array B | 145.63 | 247 | PKPbc | PKPab | 19 58 08.1 | +0.1 |
| | 2.4nm,0.8s,baz=140,slow=5.8,SNR=12 | | | | | | |
| ARU | Arti | 147.10 | 290 | PKPbc | PKPab | 19 58 12.9 | 0.0 |
| | 0.8nm,0.4s,baz=300,slow=3.9,SNR=3.9 | | | | | | |
| ARU | Arti | 147.10 | 290 | ePKPbc | PKPbc | 19 58 10.2 | -1.0 |
| RES | Resolute Bay | 150.31 | 32 | PKPbc | PKPbc | 19 58 18.9 | 0.0 |
| | 5.0nm,1.1s,baz=246,slow=3.3,SNR=4.8 | | | | | | |
| AKASG | Malin Array Be | 156.24 | 255 | PKPab | PKPab | 19 58 52.7 | +1.6 |
| | 2.5nm,0.8s,baz=129,slow=3.7,SNR=7.7 | | | | | | |

**IDC 19 19:39:25.5**±327.0**, 37.°85N**×**118.°01W, h0$^{km}$, Error ellipse: s-maj=155.9km s-min=93.8km az=159.0, California-Nevada border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| I57US | PINON FLAT INF | 4.42 | 163 | i | | 20 07 00.0 | |
| | baz=344,slow=323,SNR=1.3 | | | | | | |
| I56US | NEWPORT INFRAS | 10.43 | 3 | i | | 20 45 40.0 | |
| | baz=185,slow=326,SNR=0.7 | | | | | | |
| I10CA | LAC DU BONNET | 19.96 | 45 | i | | 21 44 50.0 | |
| | baz=241,slow=271,SNR=1.0 | | | | | | |

**IDC 19 19:41:31.9**±3.9**, 20.°66S**×**168.°27E, h0$^{km}$, mb3.8**/4**, mb1 4.0**/5**, mb1mx3.7**/32**, mbtmp3.8**/5**, ML3.2**/1**, MS3.1**/2**, Ms1 3.2**/2**, ms1mx2.7**/22**, Error ellipse: s-maj=110.9km s-min=28.5km az=131.0, Loyalty Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DZM | Mont Dzumac | 2.21 | 230 | Pn | Pn | 19 42 09.3 | -0.6 |
| | 7.0nm,0.3s,baz=88,slow=6.9,SNR=347 | | | | | | |
| DZM | | | | Sn | Sn | 19 42 38.1 | +0.1 |
| | 60nm,0.3s,baz=77,slow=21,SNR=22 | | | | | | |
| DZM | | | | LR | LR | 19 42 49.8 | |
| | comp=Z,92nm,21.4s,baz=184,slow=35 | | | | | | |
| WRA | Warramunga Arr | 31.80 | 265 | P | P | 19 47 58.3 | -0.1 |
| | 0.4nm,0.9s,baz=92,slow=8.5,SNR=7.1 | | | | | | |
| ASAR | Alice Springs | 31.92 | 258 | P | P | 19 47 59.5 | +0.1 |
| | 1.3nm,0.7s,baz=85,slow=9.5,SNR=12 | | | | | | |
| FITZ | Fitzroy Crossi | 40.21 | 266 | P | P | 19 49 10.8 | +0.3 |
| | 1.9nm,0.7s,baz=129,slow=13,SNR=8.6 | | | | | | |
| SONM | Songino Array | 87.81 | 324 | P | P | 19 54 23.4 | +0.3 |
| | 0.6nm,0.7s,baz=131,slow=5.1,SNR=5.6 | | | | | | |
| PDAR | Pinedale Array | 98.24 | 47 | LR | LR | 20 30 33.2 | |
| | comp=Z,41nm,20.6s,baz=60,slow=30 | | | | | | |
| GERES | GERESS Array B | 145.28 | 330 | PKPbc | PKPbc | 20 01 09.9 | -1.5 |
| | 0.5nm,0.6s,baz=20,slow=3.1,SNR=4.5 | | | | | | |

**KRSC 19 19:52:54.3**±1.9**, 49.°81N**×**158.°69E, h48$^{km}$**±40$^{km}$**, ML3.8, East of Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SKR | Severo-Kuril's | 1.87 | 299 | eP | Pn | 19 53 24.2 | +0.4 |
| SKR | | | | eS | Sn | 19 53 47.9 | +1.7 |
| KDTR | Khodutka, Kamc | 2.04 | 349 | eP | Pn | 19 53 28.5 | +2.4 |
| KDTR | | | | eS | Sn | 19 53 54.5 | +4.1 |
| ASAK | Asacha | 2.63 | 349 | eP | Pn | 19 53 38.0 | +3.7 |
| RUS | Russkaya | 2.63 | 358 | eP | Pn | 19 53 36.8 | +2.6 |
| RUS | | | | eS | Sn | 19 54 08.5 | +3.6 |
| MTVR | Mutnovka | 2.70 | 353 | eP | Pn | 19 53 38.3 | +3.0 |
| MTVR | | | | eS | Sn | 19 54 10.9 | +4.1 |
| KRMR | Karymshinskiy | 3.05 | 354 | eP | Pn | 19 53 43.7 | +3.8 |
| KRMR | | | | eS | Sn | 19 54 20.4 | +5.3 |
| PET | Petropavlovsk | 3.22 | 360 | eP | Pn | 19 53 45.3 | +3.0 |
| PET | | | | eS | Sn | 19 54 23.0 | +3.6 |
| DALK | Dalny | 3.23 | 1 | eP | Pn | 19 53 45.4 | +3.0 |
| DALK | | | | eS | Sn | 19 54 24.3 | +4.7 |
| APC | Apacha | 3.27 | 343 | eP | Pn | 19 53 46.8 | +3.9 |
| NLC | Nalytchevo | 3.40 | 7 | S | Sn | 19 54 25.4 | +1.8 |
| SPN | Mys Shipunski | 3.40 | 14 | eP | Pn | 19 53 47.8 | +3.1 |
| SPN | | | | eS | Sn | 19 54 28.1 | +4.3 |
| UGLR | Uglovaya | 3.41 | 1 | eP | Pn | 19 53 48.3 | +3.3 |
| AVH | Avacha | 3.46 | 0 | eP | Pn | 19 53 49.1 | +3.4 |
| SDLR | Sedlovina | 3.48 | 2 | eP | Pn | 19 53 48.7 | +2.7 |
| KOK | Koryaka | 3.49 | 359 | P | Pn | 19 53 49.4 | +3.3 |
| KRX | Arik | 3.56 | 360 | P | Pn | 19 53 52.3 | +5.2 |
| GNL | Ganaly | 3.92 | 353 | eP | Pn | 19 53 56.8 | +4.8 |
| TUMR | Tumrok | 5.56 | 9 | eP | Pn | 19 54 19.2 | +4.8 |
| KMNR | Kamenistaya | 6.03 | 8 | eP | Pn | 19 54 27.1 | +6.2 |

*IDC **19** 20:02:18.6±1.6, 28.°29S×177.°29W, h0$^{km}$, mb3.8/3, mb1 4.0/3, mb1mx3.7/25, mbtmp3.8/3, MS3.4/1, Ms1 3.4/1, ms1mx2.7/34, Error ellipse: s-maj=34.8km s-min=23.1km az=107.0*

**ISC 19 20:02:25.4**±2.5**, 28.°4S**±0.°2×**177.°2W**±0.°4**, h54$^{km}$, n7, σ1.$^{s}$61**/7**, mb3.8**/3**, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RAO | Raoul Island | 1.01 | 216 | Pn | Pn | 20 02 41.4 | -1.9 |
| | 188nm,0.3s,baz=33,slow=23,SNR=12 | | | | | | |
| RAO | | | | Sn | Sn | 20 02 58.7 | +2.2 |
| | 280nm,0.3s,baz=78,slow=22,SNR=6.8 | | | | | | |
| DZM | Mont Dzumac | 16.05 | 290 | LR | LR | 20 11 07.7 | |
| | comp=Z,130nm,18.9s,baz=216,slow=33 | | | | | | |
| STKA | Stephens Creek | 35.61 | 254 | P | P | 20 09 17.9 | 0.0 |
| | 1.8nm,0.8s,baz=74,slow=10,SNR=3.1 | | | | | | |
| ASAR | Alice Springs | 43.91 | 265 | P | P | 20 10 26.9 | -0.1 |
| | 0.6nm,0.7s,baz=100,slow=7.1,SNR=9.9 | | | | | | |
| WRA | Warramunga Arr | 44.72 | 270 | P | P | 20 10 33.1 | -0.5 |
| | 1.3nm,0.8s,baz=108,slow=8.0,SNR=9.8 | | | | | | |
| AKASG | Malin Array Be | 150.10 | 325 | PKPbc | PKPbc | 20 22 10.3 | +0.6 |
| | 0.5nm,0.5s,baz=63,slow=1.8,SNR=2.8 | | | | | | |
| BRTR | Keskin Array B | 152.18 | 302 | PKPbc | PKPbc | 20 22 16.4 | +1.2 |
| | 0.3nm,0.6s,baz=98,slow=4.4,SNR=2.3 | | | | | | |

**CASC 19 20:13:54.3**±2.2**, 12.°50N**×**87.°79W, h33$^{km}$**±17$^{km}$**, MD4.3, ML3.7, Near coast of Nicaragua**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CNCH | Conchagua | 0.77 | 357 | eP | Pb | 20 14 09.3 | -0.2 |
| CNCH | | | | eS | Sb | 20 14 21.2 | +1.4 |
| CNCH | | | | AML | AML | 20 14 22.1 | |
| | comp=Z,1μm,0.2s | | | | | | |
| LCND | La Ca˜–ada | 0.81 | 353 | i P | Pn | 20 14 09.7 | +0.3 |
| LCND | | | | eS | Sb | 20 14 21.8 | +1.1 |
| VSM | San Miguel | 1.03 | 333 | eP | Pn | 20 14 12.7 | 0.0 |
| VSM | | | | eP | Pb | 20 14 12.8 | -1.2 |
| LCY | Lacayo | 1.04 | 332 | i P | Pn | 20 14 12.8 | +0.1 |
| LCY | | | | eS | Sb | 20 14 27.0 | -0.3 |
| PACA | Pacayal | 1.09 | 332 | i P | Pn | 20 14 13.6 | +0.1 |
| PACA | | | | eS | Sn | 20 14 27.8 | +0.3 |
| PACA | | | | AML | AML | 20 14 31.8 | |
| | comp=Z,18μm,0.3s | | | | | | |
| COPN | Copaltepe | 1.22 | 105 | eP | Pn | 20 14 14.1 | -0.9 |
| COPN | | | | eS | Sn | 20 14 29.6 | -0.7 |
| MOMN | Momotombo | 1.23 | 94 | i P | Pn | 20 14 14.6 | -0.6 |
| MOMN | | | | eS | Sn | 20 14 31.2 | +0.5 |
| CAHU | Cacacuatique | 1.33 | 342 | eP | Pn | 20 14 17.1 | +0.3 |
| CAHU | | | | AML | AML | 20 14 30.1 | |
| | comp=Z,307nm,0.6s | | | | | | |
| XAVN | Gruta Xavier | 1.48 | 104 | eP | Pn | 20 14 18.1 | -0.5 |
| XAVN | | | | eS | Sn | 20 14 36.7 | 0.0 |
| SNVI | San Vicente | 1.50 | 317 | eP | Pn | 20 14 19.9 | +0.8 |
| TISN | Laguna Tiscapa | 1.53 | 103 | eP | Pn | 20 14 17.9 | -1.4 |
| TGUH | Tegucigalpa,Un | 1.63 | 18 | eP | Pn | 20 14 21.6 | +0.9 |
| LFRS | El Faro | 1.67 | 312 | i P | Pn | 20 14 20.7 | -0.6 |
| LFRS | | | | eS | Sn | 20 14 42.0 | +0.4 |
| LBRS | Las Brisas | 1.73 | 315 | eP | Pn | 20 14 21.4 | -0.8 |
| BOQS | Boqueron | 1.90 | 310 | eP | Pn | 20 14 24.5 | -0.1 |
| SBLS | San Blas | 2.23 | 307 | eP | Pn | 20 14 28.9 | -0.2 |
| CRZ1 | La Cruz | 2.54 | 124 | eP | Pn | 20 14 35.6 | +2.3 |
| CRZ1 | | | | eS | Sn | 20 15 05.1 | +1.9 |
| VCR | Vista de Mar | 3.17 | 138 | eP | Pn | 20 14 41.6 | -0.4 |
| URSC | Urasca | 4.75 | 124 | eP | Pn | 20 15 05.9 | +2.2 |
| URSC | | | | eS | Sn | 20 16 00.2 | +2.5 |

*ISCJB **19** 20:16:09.9±0.7, 14.°06N±0.°07×145.°0E±0.°2, h200$^{km}$, mb3.5/12, Error ellipse: s-maj=26.4km s-min=10.0km az=173.4*

*IDC **19** 20:16:09.8±0.5, 14.°07N×144.°96E, h177$^{km}$±3$^{km}$, mb3.3/12, mb1 3.5/13, mb1mx3.4/35, mbtmp3.9/13, MS3.4/2, Ms1 3.4/2, ms1mx2.8/23, Error ellipse: s-maj=23.4km s-min=10.1km az=80.0*

**ISC 19 20:16:10.7**±0.7**, 14.°04N**±0.°09×**145.°0E**±0.°2**, h200$^{km}$, n21, σ2.$^{s}$35**/22**, mb3.6**/12**, Mariana Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GUMO | Guam | 0.45 | 190 | P | Pn | 20 16 35.8 | -1.9 |
| | 441nm,0.3s,baz=359,slow=1.0,SNR=118 | | | | | | |
| GUMO | | | | S | Sn | 20 16 53.9 | -4.8 |
| | 1μm,0.3s,baz=343,slow=19,SNR=93 | | | | | | |
| JCJ | Chichijima | 13.24 | 349 | P | P | 20 19 12.0 | -2.1 |
| | 8.7nm,0.3s,baz=351,slow=19,SNR=3.9 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 21.34 | 75 | T | T | 20 42 33.6 | |
| | baz=264,slow=74,SNR=3.8 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 21.35 | 75 | T | T | 20 42 40.3 | |
| | baz=66,slow=74,SNR=2.5 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 21.73 | 72 | T | T | 20 44 19.2 | |
| | baz=257,slow=75,SNR=7.6 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 21.74 | 72 | T | T | 20 44 19.5 | |
| | baz=257,slow=75,SNR=7.5 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 21.75 | 72 | T | T | 20 44 17.1 | |
| | baz=257,slow=75,SNR=12 | | | | | | |
| JNU | Nakatsue | 22.91 | 328 | P | P | 20 20 58.2 | +0.9 |
| | 7.2nm,0.9s,baz=81,slow=0.5,SNR=4.8 | | | | | | |
| MJAR | Matsushiro Arr | 23.21 | 346 | P | P | 20 21 00.0 | +0.1 |
| | 3.1nm,0.8s,baz=166,slow=11,SNR=6.8 | | | | | | |
| MJAR | | | | LR | LR | 20 29 18.3 | |
| | comp=Z,55nm,18.2s,baz=175,slow=34 | | | | | | |
| PMG | Port Moresby | 23.40 | 174 | P | P | 20 21 03.7 | +1.9 |
| | 14nm,0.7s,baz=359,slow=4.5,SNR=5.2 | | | | | | |
| KSRS | Korea Array | 27.81 | 330 | P | P | 20 21 42.3 | +1.0 |
| | 1.2nm,0.7s,baz=140,slow=8.9,SNR=5.0 | | | | | | |
| WRA | Warramunga Arr | 35.34 | 197 | P | P | 20 22 48.0 | +0.8 |
| | 1.9nm,0.7s,baz=19,slow=9.6,SNR=14 | | | | | | |
| WRA | | | | pP | pP | 20 23 24.8 | -4.0 |
| | 2.1nm,0.8s,baz=18,slow=9.5,SNR=4.2 | | | | | | |
| WRA | | | | ScP | ScP | 20 28 42.8 | +2.9 |
| | 0.5nm,0.9s,baz=16,slow=4.5,SNR=4.8 | | | | | | |
| ASAR | Alice Springs | 39.00 | 196 | P | P | 20 23 19.1 | +1.1 |
| | 0.2nm,0.3s,baz=16,slow=12,SNR=6.5 | | | | | | |
| PETK | Petropavlovsk- | 40.27 | 12 | LR | LR | 20 38 27.0 | |
| | comp=Z,80nm,19.8s,baz=149,slow=33 | | | | | | |
| CMAR | Chiang Mai Arr | 44.30 | 282 | P | P | 20 24 02.8 | +1.7 |
| | 0.4nm,0.6s,baz=86,slow=5.7,SNR=4.7 | | | | | | |
| CMAR | | | | pP | pP | 20 24 41.4 | -2.8 |
| | 1.3nm,1.0s,baz=71,slow=6.5,SNR=3.7 | | | | | | |
| STKA | Stephens Creek | 45.77 | 184 | P | P | 20 24 13.6 | +1.2 |
| | 2.7nm,0.8s,baz=14,slow=7.3,SNR=8.8 | | | | | | |
| SONM | Songino Array | 46.41 | 325 | P | P | 20 24 18.3 | +0.9 |
| | 0.2nm,0.6s,baz=147,slow=3.4,SNR=2.1 | | | | | | |
| SONM | | | | pP | pP | 20 24 57.7 | -3.2 |
| | 1.1nm,1.1s,baz=108,slow=4.7,SNR=2.7 | | | | | | |
| SONM | | | | ScP | ScP | 20 29 26.9 | +3.7 |
| | 0.4nm,0.6s,baz=166,slow=2.4,SNR=4.1 | | | | | | |
| MKAR | Makanchi Array | 61.22 | 316 | P | P | 20 26 06.2 | +1.6 |
| | 0.5nm,0.8s,baz=90,slow=8.5,SNR=4.4 | | | | | | |
| MKAR | | | | pP | PcP | 20 26 46.6 | +1.4 |
| | 1.7nm,0.9s,baz=89,slow=10,SNR=5.4 | | | | | | |
| ILAR | Eielson Array | 68.13 | 25 | P | P | 20 26 48.5 | -0.4 |
| | 0.4nm,0.8s,baz=252,slow=4.7,SNR=4.8 | | | | | | |
| YKA | Yellowknife Ar | 82.43 | 27 | P | P | 20 28 11.3 | +1.0 |
| | 0.2nm,0.6s,baz=286,slow=4.9,SNR=4.0 | | | | | | |
| LPAZ | La Paz | 148.01 | 98 | PKPbc | PKPab | 20 35 37.3 | -0.2 |
| | 2.6nm,0.7s,baz=304,slow=2.9,SNR=8.4 | | | | | | |

*ISCJB **19** 20:25:11.7±1.0, 3.°32S±0.°07×135.°75E±0.°09, h10$^{km}$, mb3.7/2, Error ellipse: s-maj=14.0km s-min=8.0km az=149.5*

*IDC **19** 20:25:12.3±2.5, 3.°31S×135.°73E, h0$^{km}$, mb3.8/3, mb1 3.9/5, mb1mx3.5/33, mbtmp3.8/5, ML3.5/2, Error ellipse: s-maj=100.6km s-min=24.6km az=86.0*

*DJA **19** 20:25:20.4±0.5, 3°S±3°×13°5E±°, h10$^{km}$, M4.2/6, mb4.7/1, MLv4.0/6*

**ISC 19 20:25:13.2**±0.9**, 3.°25S**±0.°07×**135.°75E**±0.°07**, h10$^{km}$, n11, σ2.$^{s}$65**/16**, Irian Jaya region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KMPI | Kaimana, Papua | 2.08 | 259 | P | Pn | 20 25 51.2 | +3.0 |
| KMPI | | | | S | Sn | 20 26 15.4 | +1.2 |
| RKPI | Ransiki, Papua | 2.34 | 318 | P | Pn | 20 25 53.2 | +1.4 |
| RKPI | | | | S | Sn | 20 26 18.4 | -2.2 |
| FAKI | Fak Fak | 3.51 | 275 | P | Pn | 20 26 09.4 | +1.5 |
| FAKI | | | | S | Sn | 20 26 48.4 | -1.2 |
| GENI | Genyem | 4.46 | 82 | P | Pb | 20 26 32.8 | +1.1 |
| SWI | Sorong | 5.08 | 298 | P | Pn | 20 26 29.7 | +0.3 |
| SWI | | | | S | Sn | 20 27 25.5 | -2.7 |
| BNDI | Bandanaira | 5.97 | 258 | P | Pn | 20 26 44.5 | +2.8 |
| WRA | Warramunga Arr | 16.64 | 185 | Pn | Pn | 20 29 04.6 | -2.2 |
| | 0.2nm,0.3s,baz=4.2,slow=13,SNR=12 | | | | | | |
| WRA | | | | Sn | Sn | 20 31 58.7 | -13 |
| | 0.2nm,0.3s,baz=7.5,slow=23,SNR=5.3 | | | | | | |
| FITZ | Fitzroy Crossi | 17.77 | 213 | P | Pn | 20 29 19.8 | -1.1 |
| | 0.1nm,0.3s,baz=42,slow=12,SNR=4.4 | | | | | | |
| FITZ | | | | S | Sn | 20 32 24.7 | -14 |
| | 0.4nm,0.3s,baz=193,slow=15,SNR=8.2 | | | | | | |
| ASAR | Alice Springs | 20.37 | 185 | P | P | 20 29 51.4 | +1.2 |
| | 2.5nm,0.7s,baz=8.1,slow=12,SNR=14 | | | | | | |
| ASAR | | | | S | S | 20 33 31.9 | -6.7 |
| | 0.2nm,0.5s,baz=8.2,slow=13,SNR=4.2 | | | | | | |
| MKAR | Makanchi Array | 68.44 | 324 | P | P | 20 36 17.0 | +1.5 |
| | 1.0nm,0.6s,baz=115,slow=8.8,SNR=14 | | | | | | |
| ZALV | Zalesovo Beam | 70.94 | 331 | P | P | 20 36 30.7 | 0.0 |
| | 0.3nm,0.6s,baz=114,slow=6.6,SNR=3.6 | | | | | | |

*TAP **19** 20:25:55.9, 24.°28N×122.°73E, h5$^{km}$±1$^{km}$, ML3.1, D*

*JMA **19** 20:25:55.5±0.1, 24.°37N×122.°97E, h48$^{km}$±1$^{km}$, M2.5*

**ISC 19 20:25:53.7**±1.2**, 24.°21N**±0.°04×**122.°84E**±0.°03**, h1$^{km}$**±11$^{km}$**, n37, σ1.$^{s}$31**/56**, Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JYNG | Yonagunijimaku | 0.25 | 21 | P | Pb | 20 26 03.0 | +1.9 |
| JYNG | | | | S | Sb | 20 26 08.3 | +2.3 |
| YOJ | Yonaguni jima | 0.29 | 32 | P | Pb | 20 26 03.1 | +1.4 |
| YOJ | | | | S | Sb | 20 26 08.4 | +1.4 |
| IRIF | Iriomote-Funau | 0.82 | 81 | P | Pg | 20 26 09.0 | -0.3 |
| IRIF | | | | S | Sg | 20 26 19.1 | -0.9 |
| HATJ | Hateruma jima | 0.89 | 100 | P | Pg | 20 26 11.0 | +0.2 |
| HATJ | | | | S | Sg | 20 26 22.1 | -0.2 |
| TWC | Suao | 0.99 | 294 | i P | Pb | 20 26 13.4 | -0.2 |
| | baz=292 | | | | | | |
| TWC | | | | S | Sb | 20 26 26.2 | -0.9 |
| | baz=292 | | | | | | |
| JKRS | Kuro-shima | 1.06 | 88 | P | Pg | 20 26 13.1 | -1.0 |
| JKRS | | | | S | Sg | 20 26 25.9 | -2.0 |
| TWD | Chiawan | 1.15 | 264 | eS | Sn | 20 26 32.0 | -1.1 |
| | baz=258 | | | | | | |
| TWE | Neicheng | 1.19 | 295 | P | Pb | 20 26 16.9 | -0.1 |
| | baz=294 | | | | | | |
| TWE | | | | eS | Sb | 20 26 31.6 | -1.2 |
| | baz=294 | | | | | | |
| JIJ | Ishigaki jima | 1.20 | 83 | P | Pn | 20 26 14.0 | -3.5 |
| JIJ | | | | S | Sg | 20 26 27.5 | -4.6 |
| ENTT | Nioudou | 1.24 | 290 | eP | Pn | 20 26 18.3 | +0.1 |
| | baz=288 | | | | | | |
| ENTT | | | | eS | Sn | 20 26 34.1 | -1.4 |
| | baz=288 | | | | | | |
| NWF | Wu-fen Shan | 1.29 | 312 | eP | Pg | 20 26 18.3 | -0.1 |
| | baz=312 | | | | | | |
| ESL | Shilin | 1.35 | 253 | eP | Pn | 20 26 19.2 | -0.5 |
| | baz=248 | | | | | | |
| ESL | | | | eS | Sg | 20 26 37.0 | -0.1 |
| | baz=248 | | | | | | |
| NNS | Nan Shan | 1.36 | 280 | eP | Pn | 20 26 20.4 | +0.5 |
| | baz=277 | | | | | | |
| NNS | | | | eS | Sn | 20 26 38.1 | -0.5 |
| | baz=277 | | | | | | |
| JISG | Ishigakijimahi | 1.39 | 74 | P | Pn | 20 26 16.6 | -3.6 |
| JISG | | | | S | Sn | 20 26 32.2 | -6.9 |
| NSK | Sanguang | 1.43 | 289 | eP | Pg | 20 26 21.2 | +0.1 |
| | baz=287 | | | | | | |
| NSK | | | | eS | Sn | 20 26 39.2 | -1.0 |
| | baz=287 | | | | | | |
| WHF | Hehuan Shan | 1.44 | 268 | eP | Pn | 20 26 21.6 | +0.3 |
| | baz=264 | | | | | | |
| WHF | | | | eS | Sn | 20 26 40.2 | -0.9 |
| | baz=264 | | | | | | |
| TWT | Tachien | 1.52 | 272 | eS | Sn | 20 26 42.5 | -0.3 |
| | baz=268 | | | | | | |
| EHY | Hungye | 1.56 | 243 | eP | Pn | 20 26 22.2 | -0.3 |
| | baz=238 | | | | | | |
| EHY | | | | eS | Sn | 20 26 42.3 | -1.1 |
| | baz=238 | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **TWF1** | **Yuli** | **1.66** | **239** | *e*P | **Pn** | **20** | **26** | **23.8 0.0** |
| | baz=234 | | | | | | | |
| TWF1 | | | | *e*S | **Sn** | **20** | **26** | **44.9 -0.9** |
| | baz=234 | | | | | | | |
| **JTJ** | **Tarama** | **1.75** | **76** P | | Pn | 20 | 26 | 22.0 -3.1 |
| JTJ | | | | S | Sn | 20 | 26 | 41.6 -6.4 |
| **SMLT** | **Sun Moon Lake** | **1.81** | **260** | *e*S | **Sn** | **20** | **26** | **49.2 -0.4** |
| | baz=256 | | | | | | | |
| **TYC** | **Yuchr** | **1.84** | **261** | *e*P | **Pn** | **20** | **26** | **27.3 +0.9** |
| | baz=257 | | | | | | | |
| TYC | | | | *e*S | **Sb** | **20** | **26** | **50.3 -1.4** |
| | baz=257 | | | | | | | |
| **YUS** | **Yu-Shan** | **1.88** | **248** | *e*P | **Pn** | **20** | **26** | **27.8 +0.5** |
| | baz=243 | | | | | | | |
| YUS | | | | *e*S | **Sn** | **20** | **26** | **51.4 -0.5** |
| | baz=243 | | | | | | | |
| **ELDTW** | **Lidau** | **1.96** | **239** | *e*P | **Pn** | **20** | **26** | **27.5 -0.6** |
| | baz=235 | | | | | | | |
| **ALS** | **Alishan** | **1.99** | **250** | *e*P | **Pn** | **20** | **26** | **29.6 +0.8** |
| | baz=246 | | | | | | | |
| ALS | | | | *e*S | **Sn** | **20** | **26** | **54.5 0.0** |
| | baz=246 | | | | | | | |
| **CHN5** | **Tsauling** | **2.08** | **253** | *e*P | **Pn** | **20** | **26** | **31.1 +1.4** |
| | baz=250 | | | | | | | |
| CHN5 | | | | *e*S | **Sn** | **20** | **26** | **56.6 +0.4** |
| | baz=250 | | | | | | | |
| **TWG** | **Pinlang** | **2.14** | **230** | *e*P | **Pn** | **20** | **26** | **31.7 +1.3** |
| | baz=226 | | | | | | | |
| **STYT** | **Tauyuan** | **2.18** | **242** | *e*P | **Pn** | **20** | **26** | **31.7 +0.6** |
| | baz=238 | | | | | | | |
| STYT | | | | *e*S | **Sn** | **20** | **26** | **59.0 +0.2** |
| | baz=238 | | | | | | | |
| **JIRB** | **Irabujima** | **2.21** | **73** P | | Pn | 20 | 26 | 28.4 -3.0 |
| **CHN4** | **Tsaushan** | **2.23** | **248** | *e*P | **Pn** | **20** | **26** | **33.2 +1.4** |
| | baz=244 | | | | | | | |
| CHN4 | | | | *e*S | **Sb** | **20** | **27** | **02.3 -0.6** |
| | baz=244 | | | | | | | |
| **WTP** | **Ta-pu** | **2.26** | **245** | *e*P | **Pn** | **20** | **26** | **33.8 +1.6** |
| | baz=241 | | | | | | | |
| WTP | | | | *e*S | **Sb** | **20** | **27** | **02.4 -1.4** |
| | baz=241 | | | | | | | |
| **JIKM** | **Ikemajima** | **2.30** | **72** | *e*S | **Sn** | **20** | **26** | **56.2 -5.4** |
| **TWK** | **Hsinying** | **2.35** | **247** | *e*S | **Sn** | **20** | **27** | **03.7 +0.6** |
| | baz=243 | | | | | | | |
| **CHN1** | **Nanshi** | **2.36** | **245** | *e*P | **Pn** | **20** | **26** | **34.6 +1.1** |
| | baz=241 | | | | | | | |
| CHN1 | | | | *e*S | **Sn** | **20** | **27** | **04.2 +1.1** |
| | baz=241 | | | | | | | |
| **SGST** | **Jiashian** | **2.36** | **242** | *e*P | **Pn** | **20** | **26** | **35.2 +1.7** |
| | baz=238 | | | | | | | |
| SGST | | | | *e*S | **Sn** | **20** | **27** | **04.5 +1.4** |
| | baz=238 | | | | | | | |
| **ECL** | **Taimali** | **2.37** | **228** | *e*P | **Pn** | **20** | **26** | **35.2 +1.6** |
| | baz=224 | | | | | | | |
| **SSD** | **Sandimen** | **2.50** | **235** | *e*P | **Pn** | **20** | **26** | **37.2 +1.7** |
| | baz=231 | | | | | | | |
| SSD | | | | *e*S | **Sn** | **20** | **27** | **08.5 +1.8** |
| | baz=231 | | | | | | | |

*IDC **19** 20:27:31.5±2.5, 43.˚05N×105.˚11W, h0km, mb2.6/1, mb1 3.5/3, mb1mx3.2/44, mbtmp3.3/3, ML3.3/2, Error ellipse: s-maj=45.0km s-min=9.2km az=157.0*
*ISCJB **19** 20:27:34.4±0.5, 43.˚58N±0.˚04×105.˚22W±0.˚06, h0km, Error ellipse: s-maj=6.9km s-min=5.4km az=145.8*
*NEIC **19** 20:27:35.5±0.4, 43.˚59N×105.˚19W, h0km, ML3.3, MN2.8, Error ellipse: s-maj=4.8km s-min=4.3km az=55.0, Suspected Mining explosion.*
*NEIC 82 km [51 miles] SSE of Gillette.*

**ISC 19 20:27:34.3±1.1, 43.˚57N±0.˚05×105.˚17W±0.˚06, h0km, n41, σ1§29/40, Wyoming**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RSSD** | **Black Hills** | **0.99** | **56** | *e*Pg | **Pn** | **20 27 55.2** | **-0.5** |
| **K22A** | **Casper** | **1.35** | **228** | *e*Pg | **Pg** | **20 27 57.7** | **-2.5** |
| **PHWY** | **Pilot Hill** | **2.28** | **186** | *e*Pn | **Pn** | **20 28 14.1** | **+0.7** |
| **RWWY** | **Rawlins** | **2.41** | **219** | *e*Pn | **Pn** | **20 28 16.3** | **+1.1** |
| **N23A** | **Red Feather La** | **2.73** | **192** | *e*Pn | **Pn** | **20 28 20.8** | **+1.1** |
| **LAO** | **LASA Array** | **3.21** | **347** | *e*Pn | **Pn** | **20 28 27.6** | **+1.6** |
| **BW06** | **Boulder Array** | **3.31** | **257** | *e*Pn | **Pn** | **20 28 28.1** | **+0.5** |
| **PD31** | **Pinedale Array** | **3.31** | **257** | *e*Pn | **Pn** | **20 28 27.8** | **+0.2** |
| **PDAR** | **Pinedale Array** | **3.31** | **257** | Pn | **Pn** | **20 28 27.6** | **+0.1** |
| | 1.7nm,0.3s,baz=83,slow=17,SNR=43 | | | | | | |
| PDAR | | | | Lg | Lg | 20 29 13.9 | |
| | 33nm,0.3s,baz=82,slow=33,SNR=29 | | | | | | |
| **PDAR** | **Pinedale Array** | **3.31** | **257** | *e*Pn | **Pn** | **20 28 28.3** | **+0.7** |
| PDAR | | | | Lg | Lg | 20 29 13.9 | |
| **RLMT** | **Red Lodge** | **3.33** | **299** | *e*Pn | **Pn** | **20 28 28.0** | **+0.3** |
| **OGNE** | **Ogallala** | **3.51** | **137** | *e*Pn | **Pn** | **20 28 32.5** | **+2.4** |
| **ISCO** | **Idaho Springs** | **3.78** | **185** | *e*Pn | **Pn** | **20 28 36.0** | **+1.9** |
| **GCMT** | **Greycliff** | **3.90** | **306** | *e*Pn | **Pn** | **20 28 36.2** | **+0.6** |
| **CRMT** | **Chrome Mountai** | **4.03** | **300** | *e*Pn | **Pn** | **20 28 39.9** | **+2.4** |
| **MOOW** | **Moose Ponds** | **4.05** | **274** | *e*Pn | **Pn** | **20 28 39.0** | **+1.2** |
| **SNOW** | **Snow King Moun** | **4.07** | **270** | *e*Pn | **Pn** | **20 28 38.4** | **+0.4** |
| **O20A** | **White River Ci** | **4.13** | **215** | *e*Pn | **Pn** | **20 28 39.9** | **+1.1** |
| **YPP** | **Pitchstone Pla** | **4.13** | **282** | *e*Pn | **Pn** | **20 28 39.8** | **+0.9** |
| **REDW** | **Red Top Meadow** | **4.14** | **269** | *e*Pn | **Pn** | **20 28 38.8** | **-0.2** |
| **YFT** | **Old Faithful** | **4.18** | **284** | *e*Pn | **Pn** | **20 28 39.9** | **+0.3** |
| **IMW** | **Indian Meadow** | **4.20** | **276** | *e*Pn | **Pn** | **20 28 40.3** | **+0.5** |
| **TPAW** | **Teton Pass** | **4.21** | **271** | *e*Pn | **Pn** | **20 28 41.4** | **+1.4** |
| **FXWY** | **Fox Creek** | **4.26** | **273** | *e*Pn | **Pn** | **20 28 42.2** | **+1.6** |
| **YHH** | **Holmes Hill** | **4.26** | **289** | *e*Pn | **Pn** | **20 28 42.3** | **+1.6** |
| **YMR** | **Madison River** | **4.32** | **287** | *e*Pn | **Pn** | **20 28 42.8** | **+1.4** |
| **MCID** | **Moose Creek** | **4.39** | **280** | *e*Pb | **Pb** | **20 28 53.3** | **+0.9** |
| **AHID** | **Auburn Hatcher** | **4.41** | **262** | *e*Pn | **Pn** | **20 28 41.8** | **-0.9** |
| **YHB** | **Horse Butte** | **4.50** | **287** | *e*Pn | **Pn** | **20 28 46.0** | **+2.1** |
| **KSCO** | **Kaye Shedlock'** | **4.94** | **156** | *e*Pn | **Pn** | **20 28 50.9** | **+1.0** |
| **BOZ** | **Bozeman (W)** | **5.04** | **296** | *e*Pn | **Pn** | **20 28 52.8** | **+1.5** |
| **TCUT** | **Toone Canyon** | **5.23** | **244** | *e*Pn | **Pn** | **20 28 56.1** | **+2.0** |
| **P18A** | **Preston Nutter** | **5.48** | **226** | *e*Pn | **Pn** | **20 28 58.6** | **+1.2** |
| **EGMT** | **Eagleton** | **5.49** | **326** | *e*Pn | **Pn** | **20 28 55.6** | **-1.7** |
| **DLMT** | **Dillon** | **5.61** | **291** | *e*Pn | **Pn** | **20 28 59.5** | **+0.5** |
| **LRM** | **Limekiln Ridge** | **5.66** | **296** | *e*Pn | **Pn** | **20 29 00.6** | **+0.7** |
| **HRY** | **Holter Researc** | **5.66** | **306** | *e*Pn | **Pn** | **20 29 00.9** | **+1.1** |
| **Q16A** | **Castle Valley** | **6.49** | **226** | *e*Pn | **Pn** | **20 29 12.2** | **+1.0** |
| **I10CA** | **LAC DU BONNET** | **9.12** | **40** | *i* | | 21 27 10.0 | |
| | baz=221,slow=329,SNR=7.9 | | | | | | |
| **ULM** | **Lac du Bonnet** | **9.22** | **40** | Pn | **Pn** | **20 29 48.0** | **-0.4** |
| | 1.2nm,0.3s,baz=219,slow=12,SNR=9.9 | | | | | | |
| ULM | | | | Lg | Lg | 20 32 30.4 | |
| | 0.6nm,0.3s,baz=120,slow=12,SNR=2.8 | | | | | | |
| **YKA** | **Yellowknife Ar** | **19.75** | **347** | P | **Pn** | **20 32 06.8** | **0.0** |
| | 0.1nm,0.4s,baz=154,slow=12,SNR=3.4 | | | | | | |

**IDC 19 20:28:03.8±51.0, 16.˚63S×176.˚85W, h0km, mb3.9/3, mb1 4.1/3, mb1mx3.6/40, mbtmp3.9/3, MS3.2/1, Ms1 3.2/1, ms1mx2.6/32, Error ellipse: s-maj=945.9km s-min=171.0km az=78.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **12.60** | **184** | LR | LR | 20 34 59.8 | |
| | comp=Z,124nm,21.7s,baz=206,slow=33 | | | | | | |
| **STKA** | **Stephens Creek** | **40.55** | **240** | P | P | 20 35 45.3 | +0.2 |
| | 0.7nm,0.5s,baz=85,slow=12,SNR=3.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **46.34** | **258** | P | P | 20 36 31.7 | -0.4 |
| | 0.2nm,0.3s,baz=93,slow=8.1,SNR=8.7 | | | | | | |
| **ASAR** | **Alice Springs** | **46.58** | **253** | P | P | 20 36 33.8 | -0.2 |
| | 3.0nm,0.6s,baz=88,slow=8.4,SNR=32 | | | | | | |

*IDC **19** 20:32:44.7±2.6, 20.˚74S×168.˚21E, h0km, mb3.8/5, mb1 4.0/6, mb1mx3.8/38, mbtmp3.8/6, ML3.1/1, MS3.0/4, Ms1 3.0/4, ms1mx2.7/34, Error ellipse: s-maj=89.4km s-min=23.4km az=135.0*

**ISC 19 20:32:49.2±2.5, 20.˚9S±0.˚5×168.˚3E±0.˚4, h35km, n9, σ1§11/8, mb3.7/5, MS3.0/3, Loyalty Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DZM** | **Mont Dzumac** | **2.13** | **235** | Pn | **Pn** | **20 33 21.3** | **-1.2** |
| | 6.2nm,0.3s,baz=90,slow=13,SNR=317 | | | | | | |
| DZM | | | | Sn | **Sn** | **20 33 49.2** | **+1.5** |
| | 79nm,0.3s,baz=130,slow=20,SNR=11 | | | | | | |
| DZM | | | | LR | LR | 20 34 10.4 | |
| | comp=Z,202nm,18.0s,baz=308,slow=41 | | | | | | |
| **AFI** | **Afiamalu** | **20.20** | **73** | LR | LR | 20 45 02.1 | |
| | comp=Z,38nm,18.4s,baz=38,slow=36 | | | | | | |
| **RPZ** | **Rata Peaks** | **22.92** | **175** | LR | LR | 20 44 51.2 | |
| | comp=Z,53nm,18.5s,baz=333,slow=32 | | | | | | |
| **STKA** | **Stephens Creek** | **26.28** | **240** | P | **P** | **20 38 21.9** | **+0.4** |
| | 1.8nm,0.9s,baz=91,slow=12,SNR=5.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **31.83** | **266** | P | **P** | **20 39 10.1** | **-0.9** |
| | 1.1nm,1.0s,baz=91,slow=8.6,SNR=5.9 | | | | | | |
| **ASAR** | **Alice Springs** | **31.93** | **258** | P | **P** | **20 39 11.7** | **-0.2** |
| | 2.8nm,0.8s,baz=83,slow=9.2,SNR=23 | | | | | | |
| ASAR | | | | LR | LR | 20 51 59.4 | |
| | comp=Z,40nm,19.3s,baz=86,slow=36 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **78.38** | **295** | P | **P** | **20 44 47.3** | **+0.7** |
| | 0.4nm,0.8s,baz=116,slow=4.2,SNR=3.0 | | | | | | |
| **ILAR** | **Eielson Array** | **92.02** | **18** | P | **P** | **20 45 54.6** | **+0.7** |
| | 0.2nm,0.7s,baz=214,slow=6.4,SNR=2.8 | | | | | | |
| **GERES** | **GERESS Array B** | **145.47** | **330** | PKPbc | **PKPbc** | **20 52 22.9** | **-0.8** |
| | 0.5nm,0.7s,baz=57,slow=4.9,SNR=4.3 | | | | | | |

*MOS **19** 20:37:37.2±1.2, 56.˚61N×121.˚50E, h4km, mb4.4/1, Error ellipse: s-maj=34.4km s-min=28.1km az=135.8*
*BYKL **19** 20:37:37.3±0.5, 56.˚65N×121.˚62E, h11km±6km*
*YARS **19** 20:37:37.0±0.1, 56.˚62N±0.˚01×121.˚58E±0.˚01, h10km*

**ISC 19 20:37:36.1±0.8, 56.˚63N±0.˚03×121.˚57E±0.˚02, h9km±5km, n59, σ2§88/78, 1C-5D, Southeastern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **YKLR** | **Yuktali** | **0.06** | **124** | ⇓*i*Pg | **Pg** | **20 37 39.3** | **+1.2** |
| YKLR | | | | *e*Sg | **Sg** | **20 37 40.6** | **+1.0** |
| **YKLR** | **Yuktali** | **0.06** | **124** | *i* P | **Pg** | **20 37 38.6** | **+0.5** |
| YKLR | | | | *e*S | **Sg** | **20 37 39.8** | **+0.2** |
| **KHNR** | **Khani** | **0.92** | **289** | ⇓*i*Pg | **Pg** | **20 37 54.4** | **+0.5** |
| KHNR | | | | *e*Sg | **Sg** | **20 38 06.7** | **+0.8** |
| **KHN** | **Khani** | **1.02** | **288** | *i* P | **Pg** | **20 37 53.8** | **-2.0** |
| KHN | | | | *e*S | **Sg** | **20 38 05.9** | **-3.1** |
| **CRS** | **Chara** | **1.84** | **280** | *e*Pg | **Pb** | **20 38 10.5** | **+0.6** |
| CRS | | | | Pmax | | 20 38 12.6 | |
| | 513nm,0.9s | | | | | | |
| CRS | | | | *e* | | 20 38 17.7 | |
| CRS | | | | *e*Sg | **Sb** | **20 38 34.9** | **+2.0** |
| CRS | | | | Smax | | 20 38 37.2 | |
| | 1μm,0.8s | | | | | | |
| **CRS** | **Chara** | **1.84** | **280** | *e*P | **Pb** | **20 38 11.1** | **+1.2** |
| CRS | | | | *e* | | 20 38 34.5 | |
| CRS | | | | pmax | pmax | | |
| | comp=Z,516nm,0.5s | | | | | | |
| CRS | | | | smax | smax | | |
| | comp=N,1μm,0.8s | | | | | | |
| **CRS** | **Chara** | **1.84** | **280** | *e*P | **Pb** | **20 38 10.5** | **+0.6** |
| CRS | | | | *e*S | **Sb** | **20 38 34.9** | **+2.0** |
| **CLNS** | **Chul'man** | **1.85** | **82** | *e*Pg | **Pg** | **20 38 11.5** | **-0.1** |
| CLNS | | | | *e*Sg | **Sg** | **20 38 35.0** | **-0.4** |
| **CLNS** | **Chul'man** | **1.85** | **82** | *e*P | **Pg** | **20 38 11.4** | **-0.1** |
| CLNS | | | | *e* | | 20 38 37.1 | |
| CLNS | | | | pmax | pmax | | |
| | comp=E,34nm,0.2s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=Z,55nm,0.2s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=N,32nm,0.2s | | | | | | |
| CLNS | | | | smax | smax | | |
| | comp=N,178nm,0.2s | | | | | | |
| CLNS | | | | smax | smax | | |
| | comp=E,259nm,0.2s | | | | | | |
| CLNS | | | | smax | smax | | |
| | comp=Z,86nm,0.2s | | | | | | |
| **CLNS** | **Chul'man** | **1.85** | **82** | *e*P | **Pn** | **20 38 09.3** | **+1.3** |
| CLNS | | | | *e*P | **Pb** | **20 38 10.0** | **-0.1** |
| CLNS | | | | *e*S | **Sb** | **20 38 33.7** | **+0.5** |
| **IENR** | **Iengra** | **1.87** | **101** | *e*Pg | **Pb** | **20 38 11.2** | **+0.7** |
| IENR | | | | *e*Sg | **Sg** | **20 38 36.2** | **-0.1** |
| **IENR** | **Iengra** | **1.87** | **101** | *e*P | **Pb** | **20 38 10.4** | **-0.1** |
| IENR | | | | *e*S | **Sb** | **20 38 34.4** | **+0.4** |
| **TNDR** | **Tynda** | **2.31** | **128** | *e*Pn | **Pn** | **20 38 16.8** | **+2.4** |
| TNDR | | | | *e*Pg | **Pb** | **20 38 18.4** | **+0.4** |
| TNDR | | | | *e*Sg | **Sb** | **20 38 47.3** | **+0.6** |
| TNDR | | | | *e* | | 20 38 52.4 | |
| **TNDR** | **Tynda** | **2.31** | **128** | *e*P | **Pn** | **20 38 15.7** | **+1.3** |
| TNDR | | | | *e*P | **Pb** | **20 38 18.4** | **+0.4** |
| TNDR | | | | *e*S | **Sb** | **20 38 48.1** | **+1.4** |
| **TUP** | **Tupik** | **2.39** | **203** | ⇓*i*Pn | **Pn** | **20 38 16.9** | **+1.5** |
| TUP | | | | ⇓*i*Pg | **Pb** | **20 38 19.9** | **+0.6** |
| TUP | | | | *e* | | 20 38 20.6 | |
| TUP | | | | max | | 20 38 20.9 | |
| | comp=Z,119nm,0.4s | | | | | | |
| TUP | | | | *e*Sg | **Sb** | **20 38 51.4** | **+2.6** |
| TUP | | | | Smax | | 20 38 53.0 | |
| | comp=Z,2μm,0.6s | | | | | | |
| **TUP** | **Tupik** | **2.39** | **203** | *e*P | **Pn** | **20 38 16.8** | **+1.4** |
| TUP | | | | *e*S | **Sn** | **20 38 46.3** | **+1.5** |
| TUP | | | | pmax | pmax | | |
| | comp=Z,120nm,0.4s | | | | | | |
| TUP | | | | smax | smax | | |
| | comp=E,2μm,0.6s | | | | | | |
| **TUP** | **Tupik** | **2.39** | **203** | *i* P | **Pn** | **20 38 16.9** | **+1.5** |
| TUP | | | | *i* P | **Pb** | **20 38 18.8** | **-0.5** |
| TUP | | | | *e*S | **Sb** | **20 38 51.4** | **+2.6** |
| **ALDR** | **Aldan** | **2.87** | **44** | *e*P | **Pb** | **20 38 28.6** | **+1.1** |
| ALDR | | | | *e*S | **Sg** | **20 39 05.7** | **-2.5** |
| **NLYR** | **Nelyaty** | **3.25** | **270** | ⇑*i*Pn | **Pn** | **20 38 29.8** | **+2.6** |
| NLYR | | | | ⇓*i*Pg | **Pb** | **20 38 35.2** | **+1.3** |
| NLYR | | | | Pmax | | 20 38 41.8 | |
| | comp=E,60nm,0.5s | | | | | | |
| NLYR | | | | *e*Sg | **Sb** | **20 39 16.8** | **+3.3** |
| NLYR | | | | Smax | | 20 39 21.1 | |
| | comp=E,559nm,1.0s | | | | | | |
| **NLYR** | **Nelyaty** | **3.25** | **270** | *e*P | **Pn** | **20 38 29.3** | **+2.1** |
| NLYR | | | | *e* | | 20 39 16.4 | |
| NLYR | | | | pmax | pmax | | |
| | comp=Z,59nm,0.5s | | | | | | |
| NLYR | | | | smax | smax | | |
| | comp=E,559nm,1.1s | | | | | | |
| **NLYR** | **Nelyaty** | **3.25** | **270** | *i* P | **Pn** | **20 38 29.8** | **+2.6** |
| NLYR | | | | *i* P | **Pb** | **20 38 35.2** | **+1.3** |
| NLYR | | | | *e*S | **Sb** | **20 39 16.8** | **+3.3** |
| **OLMR** | **Olekminsk** | **3.81** | **352** | *e*S | **Sg** | **20 39 35.0** | **-3.2** |
| **BOD** | **Bodaibo** | **4.28** | **289** | *e*Pg | **Pb** | **20 38 52.3** | **+0.8** |
| BOD | | | | *e* | | 20 38 56.9 | |
| BOD | | | | max | | 20 39 05.6 | |
| | comp=E,15nm,0.5s | | | | | | |
| BOD | | | | *e*Sg | **Sb** | **20 39 47.5** | **+4.3** |
| BOD | | | | Smax | | 20 39 52.1 | |
| | comp=E,152nm,1.1s | | | | | | |
| **BOD** | **Bodaibo** | **4.28** | **289** | *e*P | **Pn** | **20 38 42.8** | **+1.4** |
| BOD | | | | *e*S | **Sn** | **20 39 29.9** | **-1.5** |
| BOD | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.2s | | | | | | |
| BOD | | | | smax | smax | | |
| | comp=N,153nm,1.0s | | | | | | |
| **BOD** | **Bodaibo** | **4.28** | **289** | *e*S | **Sb** | **20 39 47.5** | **+4.3** |
| **SVKR** | **Severomuysk** | **4.48** | **267** | *e*Sg | **Sg** | **20 39 58.1** | **-1.8** |
| SVKR | | | | Smax | | 20 40 05.7 | |
| | comp=N,358nm,0.6s | | | | | | |
| **UKT** | **Uakit** | **4.59** | **259** | *e*Pn | **Pn** | **20 38 48.0** | **+2.2** |
| UKT | | | | *e*Pg | **Pb** | **20 38 58.9** | **+2.0** |
| UKT | | | | *e* | | 20 39 04.7 | |
| UKT | | | | max | | 20 39 06.5 | |
| | comp=N,25nm,1.4s | | | | | | |
| UKT | | | | *e*Sg | **Sg** | **20 40 00.8** | **-2.7** |
| UKT | | | | Smax | | 20 40 08.9 | |
| | comp=N,151nm,1.1s | | | | | | |
| **UKT** | **Uakit** | **4.59** | **259** | *e*P | **Pb** | **20 38 58.6** | **+1.7** |
| UKT | | | | pmax | pmax | | |
| | comp=Z,18nm,0.7s | | | | | | |
| **UKT** | **Uakit** | **4.59** | **259** | *e*P | **Pn** | **20 38 48.0** | **+2.2** |
| UKT | | | | *e*P | **Pb** | **20 38 58.9** | **+2.0** |
| UKT | | | | *e*S | **Sg** | **20 40 00.8** | **-2.7** |
| **CGD** | **Chagda** | **5.30** | **63** | *e*S | **Sg** | **20 40 20.5** | **-5.7** |
| **YOA** | **Uoyan** | **5.49** | **269** | *e*Sg | **Sg** | **20 40 28.0** | **-4.3** |
| YOA | | | | *e* | | 20 40 36.3 | |
| YOA | | | | max | | 20 40 59.0 | |
| | comp=Z,684nm,1.9s | | | | | | |
| **VTMR** | **Vitim** | **5.56** | **304** | *e* | **Sn** | **20 40 06.0** | **+3.2** |
| VTMR | | | | *e*Sg | **Sg** | **20 40 29.5** | **-4.9** |
| **KMO** | **Kumora** | **5.83** | **267** | *e* | Pb | 20 39 13.8 | -4.0 |
| KMO | | | | *e* | | 20 39 23.4 | |
| KMO | | | | max | | 20 39 30.3 | |
| | comp=Z,9.0nm,0.6s | | | | | | |
| KMO | | | | *e*Sg | **Sg** | **20 40 38.0** | **-5.0** |
| KMO | | | | Smax | | 20 40 45.4 | |
| | comp=Z,234nm,1.2s | | | | | | |
| KMO | | | | *e* | | 20 40 50.4 | |
| **YLYR** | **Ulyunkhan** | **6.13** | **258** | *e*Pn | **Pn** | **20 39 08.1** | **+1.3** |
| YLYR | | | | *e* | | 20 39 17.9 | |
| YLYR | | | | *e*Pg | **Pb** | **20 39 26.8** | **+3.8** |
| YLYR | | | | Pmax | | 20 39 37.7 | |
| | comp=Z,5.0nm,0.9s | | | | | | |
| YLYR | | | | *e*Sg | **Sg** | **20 40 47.6** | **-5.2** |
| YLYR | | | | *e* | | 20 40 56.0 | |
| YLYR | | | | max | | 20 40 56.8 | |
| | comp=Z,114nm,1.0s | | | | | | |
| **CIT** | **Chita** | **6.57** | **229** | *e*Sg | **Sg** | **20 41 01.9** | **-5.1** |
| CIT | | | | *e* | | 20 41 05.3 | |
| CIT | | | | max | | 20 41 06.0 | |
| | comp=Z,280nm,1.1s | | | | | | |
| **NIZ** | **Nizh Angarsk** | **6.76** | **268** | *e* | **Sn** | **20 40 29.6** | **-3.0** |
| NIZ | | | | *e*Sg | Sb | 20 41 05.4 | +11 |
| NIZ | | | | Smax | | 20 41 20.8 | |
| | comp=Z,72nm,1.3s | | | | | | |
| **YAK** | **Yakutsk** | **6.83** | **34** | *e*P | **Pb** | **20 39 38.7** | **+3.9** |
| YAK | | | | *e* | | 20 40 33.3 | |
| YAK | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.2s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=E,14nm,0.6s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=N,8.0nm,0.5s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=N,130nm,0.7s | | | | | | |
| YAK | | | | MLR | MLR | | |
| | comp=Z,41nm,4.7s | | | | | | |
| **YAK** | **Yakutsk** | **6.83** | **34** | *e*S | **Sg** | **20 41 07.9** | **-7.1** |
| **SYVR** | **Suvo** | **7.26** | **251** | *e*Pg | Pb | 20 39 48.5 | +6.2 |
| SYVR | | | | Pmax | | 20 39 59.4 | |
| | comp=Z,7.0nm,0.1s | | | | | | |
| SYVR | | | | *e*Sn | **Sb** | **20 41 06.6** | **-2.4** |
| SYVR | | | | *e*Sg | Sg | 20 41 22.3 | -6.8 |
| SYVR | | | | Smax | | 20 41 36.8 | |
| | comp=Z,130nm,1.5s | | | | | | |
| **HIA** | **Hailar** | **7.45** | **189** | *e*Sg | Sg | 20 41 27.9 | -7.3 |
| HIA | | | | *e* | | 20 41 37.7 | |
| **USMR** | **Ust'-Maya** | **7.78** | **55** | *e*S | **Sg** | **20 41 37.2** | **-8.4** |
| **MXMB** | **Maximikha** | **8.11** | **251** | *e* | | 20 41 32.7 | |
| MXMB | | | | *e*Sg | **Sg** | **20 41 51.4** | **-4.8** |
| **OGRR** | **Ongureny** | **8.54** | **255** | *e* | | 20 41 26.9 | |
| OGRR | | | | *e*Sg | Sg | 20 42 02.0 | -8.0 |
| OGRR | | | | Smax | | 20 42 15.2 | |
| | comp=Z,56nm,1.5s | | | | | | |
| **KELR** | **Kotokel** | **8.71** | **249** | *e*Sg | **Sg** | **20 42 09.9** | **-5.6** |
| **KPC** | **Khapcheranga** | **8.85** | **222** | *e*Pn | **Pn** | **20 39 44.8** | **+0.6** |
| KPC | | | | *e* | | 20 40 14.5 | |
| KPC | | | | max | | 20 40 44.9 | |
| | comp=Z,1.0nm,0.5s | | | | | | |
| KPC | | | | *e*Sn | **Sn** | **20 41 19.1** | **-4.9** |
| KPC | | | | *e*Sg | Sg | 20 42 10.8 | -9.2 |
| KPC | | | | Smax | | 20 42 19.3 | |
| | comp=Z,147nm,1.4s | | | | | | |
| **TRTB** | **Turuntaevo** | **9.23** | **247** | *e* | | 20 41 52.6 | |
| TRTB | | | | *e*Sg | Sn | 20 42 25.4 | +52 |
| TRTB | | | | Smax | | 20 42 34.9 | |
| | comp=Z,81nm,1.4s | | | | | | |
| TRTB | | | | *e* | | 20 42 41.3 | |
| **ZRHB** | **Zarechye** | **9.30** | **250** | *e*Sg | Sn | 20 42 27.8 | +53 |
| ZRHB | | | | Smax | | 20 42 45.5 | |
| | comp=Z,408nm,1.7s | | | | | | |
| **UUDB** | **Ulan-Yde** | **9.43** | **245** | *e* | | 20 41 54.4 | |
| UUDB | | | | *e*Sg | Sn | 20 42 32.0 | +54 |
| UUDB | | | | Smax | | 20 42 40.6 | |
| | comp=Z,192nm,1.4s | | | | | | |
| **TRG** | **Tyrgan** | **9.62** | **253** | *e* | | 20 42 19.6 | |
| TRG | | | | *e*Sg | Sn | 20 42 35.3 | +53 |
| TRG | | | | *e* | | 20 42 40.6 | |
| TRG | | | | max | | 20 42 46.0 | |
| | comp=Z,47nm,1.3s | | | | | | |
| **KAB** | **Kabansk** | **9.83** | **248** | *e* | | 20 42 30.1 | |
| KAB | | | | *e*Sg | Sn | 20 42 45.2 | +57 |
| KAB | | | | Smax | | 20 43 04.0 | |
| | comp=Z,462nm,1.7s | | | | | | |
| **HRMR** | **Khuramsha** | **9.92** | **246** | *e*Sg | Sn | 20 42 47.6 | +57 |
| HRMR | | | | Smax | | 20 42 57.8 | |
| | comp=Z,246nm,1.5s | | | | | | |
| **LSTR** | **Listvyanka** | **10.88** | **251** | *e*Sg | Sn | 20 43 14.3 | +61 |
| LSTR | | | | Smax | | 20 43 29.3 | |
| | comp=Z,39nm,1.5s | | | | | | |
| **IRK** | **Irkutsk** | **10.98** | **254** | *e*Sg | Sn | 20 43 15.9 | +60 |
| IRK | | | | Smax | | 20 43 50.6 | |
| | comp=Z,108nm,0.3s | | | | | | |
| **TLY** | **Talaya** | **11.60** | **252** | *e*Sg | | 20 43 37.1 | |
| TLY | | | | Smax | | 20 44 09.1 | |
| | comp=Z,19nm,1.2s | | | | | | |
| **ARS** | **Arshan** | **12.12** | **255** | *e* | Pn | 20 41 15.7 | +47 |
| ARS | | | | max | | 20 41 38.3 | |
| | comp=Z,2.0nm,0.2s | | | | | | |
| ARS | | | | *e*Sg | | 20 43 55.3 | |
| ARS | | | | *e* | | 20 44 10.8 | |
| ARS | | | | max | | 20 44 15.3 | |
| | comp=Z,41nm,1.9s | | | | | | |
| **ZAK** | **Zakamensk** | **12.53** | **248** | *e*Sg | | 20 44 05.1 | |
| ZAK | | | | Smax | | 20 44 35.5 | |
| | comp=Z,27nm,1.5s | | | | | | |
| **MOY** | **Mondy** | **13.02** | **256** | *e* | P | 20 41 51.1 | +59 |
| MOY | | | | *e*Sg | S | 20 44 21.7 | +50 |
| MOY | | | | Smax | | 20 44 42.8 | |
| | comp=Z,23nm,1.7s | | | | | | |
| MOY | | | | *e* | | 20 44 52.3 | |
| **UNR** | **Ust'-Nera** | **13.22** | **44** | *e*S | S | 20 44 25.5 | +50 |
| **ORL** | **Orlik** | **13.24** | **261** | *e* | | 20 44 16.7 | |
| ORL | | | | *e*Sg | S | 20 44 28.6 | +52 |
| ORL | | | | Smax | | 20 44 48.1 | |
| | comp=Z,19nm,1.9s | | | | | | |

*CSEM **19** 20:37:51.5, 42.˚71N×13.˚67E, h20km, MD1.7/4*

**ROM 19 20:37:51.5±0.2, 42.˚71N×13.˚67E, h20km±3km, Md1.7/4, Ml1.8/4, 2C, Error ellipse: s-maj=6.2km s-min=1.3km az=21.0, Central Italy**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TERO** | **Teramo** | **0.10** | **209** | ⇑*i*Pg | Pg | 20 37 55.7 | +0.3 |
| TERO | | | | Sg | Sg | 20 37 58.4 | +0.3 |
| | 132nm,0.2s | | | | | | |
| **TERO** | **Teramo** | **0.10** | **209** | ⇑*i*Pg | Pg | 20 37 55.7 | +0.3 |
| TERO | | | | Sg | Sg | 20 37 58.4 | +0.3 |
| | 132nm,0.2s | | | | | | |
| **SMA1** | **SAN MARTINO** | **0

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| VRI | | | | *i* S | Sb | 20 39 04.4 | -1.2 | |
| **VRI** | **Vrincioaia** | 0.26 | 49⇑ | *i*P | Pg | 20 38 59.2 | -0.1 | |
| VRI | | | | *i* S | Sb | 20 39 04.4 | -1.2 | |
| **MLR** | **Muntele Rosu** | 0.41 | 240⇑ | *i*P | Pg | 20 39 01.9 | -0.1 | |
| **MLR** | **Muntele Rosu** | 0.41 | 240⇑ | *i*P | Pg | 20 39 01.9 | -0.1 | |
| MLR | | | | *i* S | Sg | 20 39 08.3 | +0.9 | |
| **MLR** | **Muntele Rosu** | 0.41 | 240⇑ | *i*P | Pg | 20 39 01.9 | -0.1 | |
| MLR | | | | *i* S | Sg | 20 39 08.3 | +0.9 | |
| **ODBI** | **Odobesti** | 0.43 | 81⇑ | *i*P | Pb | 20 39 03.7 | -0.2 | |
| **ODBI** | **Odobesti** | 0.43 | 81⇑ | *i*P | Pb | 20 39 03.7 | -0.2 | |
| ODBI | | | | *i* S | Sb | 20 39 11.4 | +0.9 | |
| **ODBI** | **Odobesti** | 0.43 | 81⇑ | *i*P | Pb | 20 39 03.7 | -0.2 | |
| ODBI | | | | *i* S | Sb | 20 39 11.4 | +0.9 | |
| **GRER** | | 0.49 | 130⇑ | *i*P | Pg | 20 39 04.2 | +0.7 | |
| **GRER** | | 0.49 | 130⇑ | *i*P | Pg | 20 39 04.2 | +0.7 | |
| GRER | | | | *i* S | Sb | 20 39 13.4 | +1.4 | |
| **GRER** | | 0.49 | 130⇑ | *i*P | Pg | 20 39 04.2 | +0.7 | |
| GRER | | | | *i* S | Sb | 20 39 13.4 | +1.4 | |
| **PETR** | **Petresti** | 0.55 | 87⇓ | *i*P | Pb | 20 39 06.4 | +0.5 | |
| PETR | | | | S | Sb | 20 39 15.4 | +1.5 | |
| **PETR** | **Petresti** | 0.55 | 87⇓ | *i*P | Pb | 20 39 06.4 | +0.5 | |
| PETR | | | | *i* S | Sb | 20 39 15.4 | +1.5 | |
| **PETR** | **Petresti** | 0.55 | 87⇓ | *i*P | Pb | 20 39 06.4 | +0.5 | |
| PETR | | | | *i* S | Sb | 20 39 15.4 | +1.5 | |
| **ISR** | **Istrita** | 0.58 | 173⇓ | *i*P | Pg | 20 39 05.8 | +0.5 | |
| **ISR** | **Istrita** | 0.58 | 173⇓ | *i*P | Pg | 20 39 05.8 | +0.5 | |
| **ISR** | **Istrita** | 0.58 | 173⇓ | *i*P | Pg | 20 39 05.8 | +0.5 | |
| **SECR** | | 0.71 | 202⇓ | *i*P | Pb | 20 39 09.0 | +0.4 | |
| SECR | | | | S | Sb | 20 39 20.0 | +1.6 | |
| **SECR** | | 0.71 | 202⇓ | *i*P | Pb | 20 39 09.0 | +0.4 | |
| SECR | | | | *i* S | Sb | 20 39 20.0 | +1.6 | |
| **SECR** | | 0.71 | 202⇓ | *i*P | Pb | 20 39 09.0 | +0.4 | |
| SECR | | | | *i* S | Sb | 20 39 20.0 | +1.6 | |
| **DOPR** | **Dopca** | 0.79 | 291⇑ | *i*P | Pb | 20 39 10.0 | +0.1 | |
| **DOPR** | **Dopca** | 0.79 | 291⇑ | *i*P | Pb | 20 39 10.0 | +0.1 | |
| DOPR | | | | *i* S | Sb | 20 39 20.7 | 0.0 | |
| **DOPR** | **Dopca** | 0.79 | 291⇑ | *i*P | Pb | 20 39 10.0 | +0.1 | |
| DOPR | | | | *i* S | Sb | 20 39 20.7 | 0.0 | |
| **TESR** | **Tescani** | 0.83 | 10⇑ | *i*P | Pb | 20 39 10.6 | -0.1 | |
| **TESR** | **Tescani** | 0.83 | 10⇑ | *i*P | Pb | 20 39 10.6 | -0.1 | |
| TESR | | | | *i* S | Sb | 20 39 22.1 | +0.1 | |
| **TESR** | **Tescani** | 0.83 | 10⇑ | *i*P | Pb | 20 39 10.6 | -0.1 | |
| TESR | | | | *i* S | Sb | 20 39 22.1 | +0.1 | |
| **PGOR** | **Pogoanele** | 0.87 | 154⇓ | *i*P | Pb | 20 39 11.5 | +0.2 | |
| **PGOR** | **Pogoanele** | 0.87 | 154⇓ | *i*P | Pb | 20 39 11.5 | +0.2 | |
| PGOR | | | | *i* S | Sb | 20 39 24.0 | +0.9 | |
| **PGOR** | **Pogoanele** | 0.87 | 154⇓ | *i*P | Pb | 20 39 11.5 | +0.2 | |
| PGOR | | | | *i* S | Sb | 20 39 24.0 | +0.9 | |
| **VOIR** | | 1.01 | 256⇑ | *i*P | Pb | 20 39 12.5 | -1.0 | |
| **VOIR** | | 1.01 | 256⇑ | *i*P | Pg | 20 39 12.5 | -1.0 | |
| VOIR | | | | *i* S | Sn | 20 39 28.8 | -0.1 | |
| **VOIR** | | 1.01 | 256⇑ | *i*P | Pg | 20 39 12.5 | -1.0 | |
| VOIR | | | | *i* S | Sn | 20 39 28.8 | -0.1 | |
| **SULR** | | 1.02 | 188⇑ | *i*P | Pn | 20 39 15.0 | +0.4 | |
| **SULR** | | 1.02 | 188⇑ | *i*P | Pn | 20 39 15.0 | +0.4 | |
| SULR | | | | *i* S | Sn | 20 39 29.9 | +0.9 | |
| **SULR** | | 1.02 | 188⇑ | *i*P | Pn | 20 39 15.0 | +0.4 | |
| SULR | | | | *i* S | Sn | 20 39 29.9 | +0.9 | |
| **MTUR** | **Matau** | 1.08 | 245⇑ | *i*P | Pn | 20 39 15.5 | +0.1 | |
| **MTUR** | **Matau** | 1.08 | 245⇑ | *i*P | Pn | 20 39 15.5 | +0.1 | |
| **MTUR** | **Matau** | 1.08 | 245⇑ | *i*P | Pn | 20 39 15.5 | +0.1 | |
| **JOSR** | **Joseni** | 1.20 | 328⇓ | *i*P | Pg | 20 39 17.5 | +0.4 | |
| **JOSR** | **Joseni** | 1.20 | 328⇓ | *i*P | Pg | 20 39 17.5 | +0.4 | |
| **JOSR** | **Joseni** | 1.20 | 328⇓ | *i*P | Pg | 20 39 17.5 | +0.4 | |
| **AMRR** | **Amara** | 1.25 | 149⇓ | *i*P | Pn | 20 39 17.6 | -0.1 | |
| **AMRR** | **Amara** | 1.25 | 149⇓ | *i*P | Pn | 20 39 17.6 | -0.1 | |
| **AMRR** | **Amara** | 1.25 | 149⇓ | *i*P | Pn | 20 39 17.6 | -0.1 | |
| **ARR** | **Arges** | 1.31 | 256⇑ | *i*P | Pb | 20 39 18.9 | 0.0 | |
| **ARR** | **Arges** | 1.31 | 256⇑ | *i*P | Pb | 20 39 18.9 | 0.0 | |
| ARR | | | | *i* S | Sn | 20 39 37.3 | +1.0 | |
| **ARR** | **Arges** | 1.31 | 256⇑ | *i*P | Pb | 20 39 18.9 | 0.0 | |
| ARR | | | | *i* S | Sn | 20 39 37.3 | +1.0 | |
| **HARR** | **Harsova** | 1.45 | 133⇑ | *i*P | Pn | 20 39 19.7 | -0.8 | |
| **HARR** | **Harsova** | 1.45 | 133⇑ | *i*P | Pn | 20 39 19.7 | -0.8 | |
| **HARR** | **Harsova** | 1.45 | 133⇑ | *i*P | Pn | 20 39 19.7 | -0.8 | |
| **LEOM** | **Leova** | 1.48 | 57⇑ | *i*P | Pb | 20 39 21.3 | -0.4 | |
| **LEOM** | **Leova** | 1.48 | 57⇑ | *i*P | Pb | 20 39 21.3 | -0.4 | |
| LEOM | | | | *i* S | Sg | 20 39 41.6 | +0.1 | |
| **LEOM** | **Leova** | 1.48 | 57⇑ | *i*P | Pb | 20 39 21.3 | -0.4 | |
| LEOM | | | | *i* S | Sg | 20 39 41.6 | +0.1 | |
| **SGRR** | **Singureni** | 1.51 | 193⇑ | *i*P | Pn | 20 39 21.6 | +0.4 | |
| **SGRR** | **Singureni** | 1.51 | 193⇑ | *i*P | Pn | 20 39 21.6 | +0.4 | |
| SGRR | | | | *i* S | Sg | 20 39 42.5 | 0.0 | |
| **SGRR** | **Singureni** | 1.51 | 193⇑ | *i*P | Pn | 20 39 21.6 | +0.4 | |
| SGRR | | | | *i* S | Sg | 20 39 42.5 | 0.0 | |
| **HUMR** | **Humele** | 1.56 | 222⇓ | *i*P | Pn | 20 39 22.3 | +0.4 | |
| **HUMR** | **Humele** | 1.56 | 222⇓ | *i*P | Pn | 20 39 22.3 | +0.4 | |
| **HUMR** | **Humele** | 1.56 | 222⇓ | *i*P | Pn | 20 39 22.3 | +0.4 | |
| **PRAR** | **RASCA** | 1.68 | 355⇑ | *i*P | Pb | 20 39 24.6 | -0.5 | |
| **PRAR** | **RASCA** | 1.68 | 355⇑ | *i*P | Pb | 20 39 24.6 | -0.5 | |
| **PRAR** | **RASCA** | 1.68 | 355⇑ | *i*P | Pb | 20 39 24.6 | -0.5 | |
| **IAS** | **Iasi** | 1.69 | 27⇑ | *i*P | Pb | 20 39 24.8 | -0.5 | |
| **IAS** | **Iasi** | 1.69 | 27⇑ | *i*P | Pb | 20 39 24.8 | -0.5 | |
| IAS | | | | *i* S | Sb | 20 39 46.7 | +0.1 | |
| **IAS** | **Iasi** | 1.69 | 27⇑ | *i*P | Pb | 20 39 24.8 | -0.5 | |
| IAS | | | | *i* S | Sb | 20 39 46.7 | +0.1 | |
| **TLCR** | | 1.74 | 106⇑ | *i*P | Pn | 20 39 24.9 | +0.4 | |
| **TLCR** | | 1.74 | 106⇑ | *i*P | Pn | 20 39 24.9 | +0.4 | |
| TLCR | | | | *i* S | Sb | 20 39 48.9 | +0.7 | |
| **TLCR** | | 1.74 | 106⇑ | *i*P | Pn | 20 39 24.9 | +0.4 | |
| TLCR | | | | *i* S | Sb | 20 39 48.9 | +0.7 | |
| **CVDA** | **Cernavoda** | 1.77 | 140⇑ | *i*P | Pb | 20 39 26.1 | -0.5 | |
| **CVDA** | **Cernavoda** | 1.77 | 140⇑ | *i*P | Pb | 20 39 26.1 | -0.5 | |
| CVDA | | | | *i* S | Sb | 20 39 49.8 | +0.9 | |
| **CVDA** | **Cernavoda** | 1.77 | 140⇑ | *i*P | Pb | 20 39 26.1 | -0.5 | |
| CVDA | | | | *i* S | Sb | 20 39 49.8 | +0.9 | |
| **TIRR** | **Tirgusor** | 1.86 | 131 | S | Sb | 20 39 52.1 | +0.5 | |
| **TIRR** | **Tirgusor** | 1.86 | 131 | *i* S | Sb | 20 39 52.1 | +0.5 | |
| **TIRR** | **Tirgusor** | 1.86 | 131 | *i* S | Sb | 20 39 52.1 | +0.5 | |
| **LOT** | **Lotru** | 1.90 | 264⇑ | *i*P | Pn | 20 39 26.6 | -0.1 | |
| **LOT** | **Lotru** | 1.90 | 264⇑ | *i*P | Pn | 20 39 26.6 | -0.1 | |
| **LOT** | **Lotru** | 1.90 | 264⇑ | *i*P | Pn | 20 39 26.6 | -0.1 | |
| **MILM** | **Milestii Mici** | 2.05 | 52⇑ | *i*P | Pn | 20 39 29.1 | +0.4 | |
| **MILM** | **Milestii Mici** | 2.05 | 52⇑ | *i*P | Pn | 20 39 29.1 | +0.4 | |
| MILM | | | | *i* S | Sn | 20 39 55.0 | +0.7 | |
| **MILM** | **Milestii Mici** | 2.05 | 52⇑ | *i*P | Pn | 20 39 29.1 | +0.4 | |
| MILM | | | | *i* S | Sn | 20 39 55.0 | +0.7 | |
| **KIS** | **Kishinev** | 2.10 | 51 | *e*P | Pg | 20 39 37.0 | +2.7 | |
| KIS | | | | *i* S | Sb | 20 39 59.0 | +0.6 | |
| | 700nm,0.8s | | | | | | | |
| **KIS** | **Kishinev** | 2.10 | 51 | *e*P | Pg | 20 39 37.0 | +2.7 | |
| KIS | | | | *i* S | Sb | 20 39 59.0 | +0.6 | |
| KIS | | | | Sm | | 20 40 10.0 | | |
| **BURAR** | **Bucovina Array** | 2.10 | 337⇓ | *i*P | Pn | 20 39 30.8 | +1.3 | |
| **BURAR** | **Bucovina Array** | 2.10 | 337⇓ | *i*P | Pn | 20 39 30.8 | +1.3 | |
| **BURAR** | **Bucovina Array** | 2.10 | 337⇓ | *i*P | Pn | 20 39 30.8 | +1.3 | |
| **PSN** | **Preselentsi** | 2.36 | 148 | *i* P | Pb | 20 39 35.4 | -1.4 | |
| **SZH** | **Strazhica** | 2.45 | 189 | *i* P | Pn | 20 39 34.0 | -0.2 | |
| **PVL** | **Pavlikeni** | 2.60 | 198 | *i* P | Pn | 20 39 38.3 | +2.1 | |
| **CHRU** | **Chernivtsi** | 2.63 | 352 | *e*P | Pn | 20 39 38.1 | +1.4 | |
| CHRU | | | | *i* S | Sn | 20 40 10.5 | +1.8 | |
| **SORM** | **Soroca** | 2.77 | 27⇑ | *i*P | Pn | 20 39 37.9 | -0.7 | |
| SORM | | | | S | Sn | 20 40 11.1 | -1.0 | |
| **SORM** | **Soroca** | 2.77 | 27⇑ | *i*P | Pn | 20 39 37.9 | -0.7 | |
| SORM | | | | *i* S | Sn | 20 40 11.1 | -1.0 | |
| **SORM** | **Soroca** | 2.77 | 27⇑ | *i*P | Pn | 20 39 37.9 | -0.7 | |
| SORM | | | | *i* S | Sn | 20 40 11.1 | -1.0 | |
| **KSV** | **Kosov** | 2.79 | 341 | *e*P | Pn | 20 39 40.6 | +1.8 | |
| KSV | | | | Pm | | 20 39 52.4 | | |
| KSV | | | | *e*S | Sn | 20 40 14.4 | +1.8 | |
| KSV | | | | Sm | | 20 40 16.4 | | |
| **RAKU** | **Rahkiv** | 2.81 | 327 | *i* P | Pn | 20 39 40.6 | +1.5 | |
| RAKU | | | | Pm | | 20 39 46.2 | | |
| RAKU | | | | *e*S | Sn | 20 40 15.2 | +2.1 | |
| RAKU | | | | Sm | | 20 40 29.3 | | |
| **DRGR** | | 2.81 | 294⇓ | *i*P | Pn | 20 39 39.5 | +0.2 | |
| **DRGR** | | 2.81 | 294⇓ | *i*P | Pn | 20 39 39.5 | +0.2 | |
| **DRGR** | | 2.81 | 294⇓ | *i*P | Pn | 20 39 39.5 | +0.2 | |
| **NSLU** | **Nyzhne Selyshc** | 2.85 | 332 | *i* P | Pg | 20 39 47.4 | -1.3 | |
| NSLU | | | | Pm | | 20 39 51.8 | | |
| NSLU | | | | *e*S | Sg | 20 40 25.8 | +0.2 | |
| NSLU | | | | Sm | | 20 40 28.4 | | |
| **KMPD** | **K-Podol'skiy** | 2.87 | 0 | *e*P | Pn | 20 39 41.7 | +1.7 | |
| KMPD | | | | *i* S | Sn | 20 40 16.9 | +2.3 | |
| **NDNU** | **Novodnistrovsk** | 2.97 | 12 | *e*P | Pn | 20 39 43.5 | +2.2 | |
| NDNU | | | | Pm | | 20 39 53.1 | | |
| NDNU | | | | *i* S | Sn | 20 40 18.7 | +1.6 | |
| NDNU | | | | Sm | | 20 40 19.2 | | |
| **STNU** | **Starunia** | 3.30 | 337 | *e*P | Pn | 20 39 47.6 | +1.8 | |
| STNU | | | | *e*S | Sn | 20 40 27.4 | +2.3 | |
| **KORU** | **Korolevo** | 3.35 | 319 | *e*P | Pn | 20 39 48.2 | +1.7 | |
| KORU | | | | Pm | | 20 39 50.4 | | |
| KORU | | | | *e*S | Sn | 20 40 29.3 | +2.9 | |
| KORU | | | | Sm | | 20 40 29.8 | | |
| **SIRR** | **Siria** | 3.38 | 281⇑ | *i*P | Pn | 20 39 47.8 | +0.7 | |
| **SIRR** | **Siria** | 3.38 | 281⇑ | *i*P | Pn | 20 39 47.8 | +0.7 | |
| **SIRR** | **Siria** | 3.38 | 281⇑ | *i*P | Pn | 20 39 47.8 | +0.7 | |
| **TRSU** | **Trosnyk** | 3.39 | 316 | *e*P | Pn | 20 39 49.1 | +2.0 | |
| TRSU | | | | Pm | | 20 40 02.4 | | |
| TRSU | | | | *i* S | Sn | 20 40 30.4 | +3.0 | |
| TRSU | | | | Sm | | 20 40 32.9 | | |
| **MEZ** | **Mezhgor'ye** | 3.46 | 326 | *e*P | Pn | 20 39 49.1 | +1.0 | |
| MEZ | | | | Pm | | 20 40 03.3 | | |
| MEZ | | | | *e*S | Sn | 20 40 31.4 | +2.2 | |
| MEZ | | | | Sm | | 20 40 33.2 | | |
| **HORU** | **Horodok** | 3.52 | 360 | *e*P | Pn | 20 39 50.8 | +1.9 | |
| HORU | | | | *i* S | Sn | 20 40 33.4 | +2.7 | |
| **BRIU** | **Brid** | 3.53 | 320 | *e*P | Pn | 20 39 50.9 | +1.8 | |
| BRIU | | | | Pm | | 20 40 05.2 | | |
| BRIU | | | | *e*S | Sn | 20 40 33.7 | +2.8 | |
| BRIU | | | | Sm | | 20 40 42.9 | | |
| **ZAGS** | **Zajecar** | 3.54 | 239 | *e*Pn | Pn | 20 39 48.2 | -1.0 | |
| **PGB** | **Panagyurishte** | 3.54 | 208 | *i* P | Pn | 20 39 50.0 | +0.7 | |
| **KUBS** | **Kucevo** | 3.62 | 251 | *e*Pn | Pn | 20 39 49.4 | -0.8 | |
| **TRPA** | **Tarpa** | 3.62 | 314⇑ | *ex* | Pb | 20 39 52.4 | -5.8 | |
| TRPA | | | | *ex* | Sn | 20 40 32.0 | -1.1 | |
| **TRPA** | **Tarpa** | 3.62 | 314 | *e*Sn | Sn | 20 40 32.0 | -1.1 | |
| **BERU** | **Beregovo** | 3.64 | 316 | *e*P | Pn | 20 39 52.8 | +2.3 | |
| BERU | | | | *e*S | Sn | 20 40 36.1 | +2.6 | |
| **ZAPS** | **Zavoj** | 3.65 | 230 | *e*Pn | Pn | 20 39 50.5 | -0.2 | |
| **MUKU** | **Mukachevo** | 3.77 | 318 | *e*P | Pn | 20 39 54.2 | +1.9 | |
| MUKU | | | | Pm | | 20 40 04.7 | | |
| MUKU | | | | *e*S | Sn | 20 40 39.3 | +2.5 | |
| MUKU | | | | Sm | | 20 40 40.5 | | |
| **MORS** | **Morshin** | 3.85 | 334 | *i* P | Pn | 20 39 55.3 | +1.8 | |
| MORS | | | | *e*S | Sn | 20 40 40.9 | +2.1 | |
| **VTS** | **Vitosha** | 3.88 | 218 | *i* P | Pn | 20 39 54.5 | +0.5 | |
| **BOVS** | **Bovan** | 3.96 | 240 | *e*Pn | Pn | 20 39 54.8 | -0.1 | |
| **ONO** | **Onokovtsy** | 4.08 | 318 | *e*P | Pn | 20 39 58.6 | +2.0 | |
| ONO | | | | *e*S | Sn | 20 40 47.4 | +2.9 | |
| **SHIU** | **Shidnytsya** | 4.10 | 330 | *e*P | Pn | 20 39 59.1 | +2.1 | |
| SHIU | | | | Pm | | 20 40 07.5 | | |
| SHIU | | | | *e*S | Sn | 20 40 48.0 | +2.9 | |
| SHIU | | | | Sm | | 20 40 49.1 | | |
| **STZU** | **Stuzhytsa** | 4.22 | 323 | *i* P | Pn | 20 39 59.7 | +1.2 | |
| STZU | | | | Pm | | 20 40 03.1 | | |
| STZU | | | | *i* S | Sn | 20 40 50.5 | +2.6 | |
| STZU | | | | Sm | | 20 40 57.5 | | |
| **BARS** | **Barje** | 4.40 | 231 | *e*Pn | Pn | 20 40 01.2 | +0.2 | |
| **LVV** | **L'vov** | 4.44 | 339 | *e*P | Pn | 20 40 03.8 | +2.3 | |
| LVV | | | | Pm | | 20 40 10.2 | | |
| LVV | | | | *e*S | Sn | 20 40 55.0 | +1.8 | |
| LVV | | | | Sm | | 20 40 58.6 | | |
| **GRUS** | **Gruza** | 4.46 | 248 | *e*Pn | Pn | 20 40 03.0 | +1.2 | |
| **TRUS** | **Trudelj** | 4.53 | 253 | *e*Pn | Pn | 20 40 03.8 | +1.0 | |
| **SELS** | **Selova** | 4.54 | 239 | *e*Pn | Pn | 20 40 03.2 | +0.2 | |
| **CRVS** | **Cervenica-Dubn** | 4.67 | 315 | *e*Pn | Pn | 20 40 07.9 | +3.2 | |
| **CRVS** | **Cervenica-Dubn** | 4.67 | 315 | *e*PN | Pn | 20 40 07.9 | +3.2 | |
| **DIVS** | **Divibare** | 4.85 | 253 | *e*Pn | Pn | 20 40 08.5 | +1.2 | |
| **KECS** | **Kecovo** | 4.93 | 307 | *e*Pn | Pn | 20 40 07.8 | -0.5 | |
| **KECS** | **Kecovo** | 4.93 | 307 | *e*PN | Pn | 20 40 07.8 | -0.5 | |
| **IVAS** | **Ivanjica** | 4.96 | 247 | *e*Pn | Pn | 20 40 10.3 | +1.5 | |
| **TEKS** | **Tekeris** | 5.03 | 259 | *e*Pn | Pn | 20 40 11.3 | +1.7 | |
| **STHS** | **Stebnicka Huta** | 5.12 | 318 | *e*Pn | Pn | 20 40 11.4 | +0.4 | |
| **STHS** | **Stebnicka Huta** | 5.12 | 318 | *e*PN | Pn | 20 40 11.4 | +0.4 | |
| **SEV** | **Sevastopol'** | 5.24 | 100⇓ | *e*P | Pn | 20 40 11.6 | -1.1 | |
| SEV | | | | Pm | | 20 40 13.2 | | |
| SEV | | | | *e*S | Sn | 20 41 14.6 | +1.6 | |
| SEV | | | | Sm | | 20 41 15.4 | | |
| **AKASG** | **Malin Array Be** | 5.34 | 19 | Pn | Pn | 20 40 13.6 | -0.4 | |
| | 1.8nm,0.3s,baz=204,slow=13,SNR=6.5 | | | | | | | |
| AKASG | | | | Sn | Sn | 20 41 13.1 | -2.5 | |
| | 2.9nm,0.3s,baz=198,slow=22,SNR=4.8 | | | | | | | |
| AKASG | | | | Lg | Lg | 20 41 37.6 | | |
| | 4.6nm,0.3s,baz=200,slow=30,SNR=9.1 | | | | | | | |
| **VYHS** | **Vyhne** | 5.90 | 301 | *e*Pn | Pn | 20 40 23.6 | +2.0 | |
| **VYHS** | **Vyhne** | 5.90 | 301 | *e*PN | Pn | 20 40 23.6 | +2.0 | |
| **SUDU** | **Sudak** | 6.09 | 95 | *e*P | Pn | 20 40 22.3 | -1.9 | |
| SUDU | | | | Pm | | 20 40 25.1 | | |
| SUDU | | | | *e*S | Sn | 20 41 33.7 | -0.2 | |
| SUDU | | | | Sm | | 20 41 34.5 | | |
| **BRTR** | **Keskin Array B** | 7.97 | 136 | Pn | Pn | 20 40 47.6 | -2.6 | |
| | 0.0nm,0.3s,baz=340,slow=15,SNR=2.4 | | | | | | | |
| **FINES** | **FINESS Array B** | 15.78 | 359 | Pn | Pn | 20 42 30.9 | -5.4 | |
| | 0.1nm,0.3s,baz=185,slow=14,SNR=2.7 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | 37.58 | 56 | P | P | 20 46 07.8 | -0.7 | |
| | 0.6nm,0.5s,baz=283,slow=8.7,SNR=3.3 | | | | | | | |
| **MKAR** | **Makanchi Array** | 37.94 | 68 | P | P | 20 46 11.3 | -0.4 | |
| | 0.1nm,0.4s,baz=279,slow=7.8,SNR=4.2 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | 38.62 | 221 | P | P | 20 46 17.0 | -0.6 | |
| | 0.3nm,0.4s,baz=35,slow=7.6,SNR=4.1 | | | | | | | |

*BJI* ***19*** *21:03:42.3, 7.°85S ×103.°35E, h15km, mb4.8/59, mB5.0/44, Ms4.7/43, Ms7 4.5/42*

*ISCJB* ***19*** *21:03:45.5±1.2, 7.°37S±0.°04×103.°13E±0.°03, h11km±8km, mb4.6/60, MS4.1/23, Error ellipse: s-maj=6.4km s-min=4.9km az=173.1*

*DJA* ***19*** *21:03:46.7±1.0, 7.°5±6.°×10.°3E±.°, h16km±13km, M4.8/15, mb5.1/9, mB4.9/5, MLv4.9/15, Mw(mB)4.2/5*

*IDC* ***19*** *21:03:46.2±0.9, 7.°23S×103.°06E, h0km, mb4.1/15, mb1 4.2/15, mb1mx4.0/41, mbtmp4.1/15, MS3.7/12, Ms1 3.7/12, ms1mx3.3/40, Error ellipse: s-maj=34.2km s-min=14.5km az=51.0*

*MOS* ***19*** *21:03:49.2±1.0, 7.°19S×102.°92E, h33km, mb4.8/24, Error ellipse: s-maj=14.7km s-min=7.8km az=94.7*

*NEIC* ***19*** *21:03:51.3±0.4, 7.°22S×103.°17E, h35km, mb5.0/13, Error ellipse: s-maj=10.8km s-min=7.1km az=37.0*

**ISC 19 21:03:49.3±1.3, 7.°35S±0.°04×103.°08E±0.°04, h23km±8km, n179, σ2s27/188, mb4.7/60, MS4.0/23, 4C-4D, Southwest of Sumatera**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **KASI** | **Kota Agung** | 2.29 | 38 | P | | Pn | 21 04 23.7 | -2.0 |
| KASI | | | | S | | Sn | 21 04 52.5 | -0.8 |
| **LWLI** | **Liwa** | 2.51 | 23 | P | | Pn | 21 04 26.9 | -1.9 |
| LWLI | | | | S | | Sn | 21 04 58.3 | -0.5 |
| **BLSI** | **Bandar Lampung** | 2.92 | 48 | P | | Pn | 21 04 33.9 | -0.4 |
| BLSI | | | | S | | Sn | 21 05 08.3 | -0.4 |
| **MNAI** | **Manna** | 2.97 | 358 | P | | Pn | 21 04 32.6 | -2.4 |
| **MNAI** | **Manna** | 2.97 | 358 | *e*Pn | | Pn | 21 04 32.1 | -2.9 |
| MNAI | | | | *e*S | | Sn | 21 05 01.2 | -8.7 |
| **KLI** | **Kotabumi** | 3.03 | 36 | P | | Pn | 21 04 35.0 | -0.9 |
| KLI | | | | S | | Sn | 21 05 10.4 | -1.2 |
| **KLI** | **Kotabumi** | 3.03 | 36 | P | | Pn | 21 04 35.8 | -0.1 |
| **SBJI** | **Serang** | 3.27 | 68 | P | | Pn | 21 04 38.6 | -0.5 |
| **SKJI** | **Sukabumi** | 3.47 | 85 | P | | Pn | 21 04 41.7 | -0.2 |
| SKJI | | | | S | | Sn | 21 05 18.2 | -4.1 |
| **DBJI** | **Dramaga** | 3.73 | 78 | P | | Pn | 21 04 45.3 | -0.2 |
| DBJI | | | | S | | Sn | 21 05 32.3 | +3.5 |
| **CNJI** | **Cibinong** | 4.02 | 90 | P | | Pn | 21 04 49.2 | -0.3 |
| **XMIS** | **Christmas Isla** | 4.02 | 141 | *e*Pn | | Pn | 21 04 44.5 | -5.0 |
| **MASI** | **Maura Aman, Be** | 4.26 | 349 | P | | Pn | 21 04 49.6 | -3.2 |
| MASI | | | | S | | Sn | 21 05 39.9 | -2.0 |
| **CISI** | **Cisompet, Garu** | 4.70 | 93 | P | | Pn | 21 04 58.2 | -0.8 |
| **CISI** | **Cisompet, Garu** | 4.70 | 93 | *e*Pn | | Pn | 21 04 56.6 | -2.3 |
| CISI | | | | *e*S | | Sn | 21 05 47.1 | -5.7 |
| **PPSI** | **Pulau Pagai** | 5.48 | 326 | P | | Pn | 21 05 04.9 | -4.7 |
| **KPJI** | **Karang Pucung** | 5.80 | 90 | P | | Pn | 21 05 14.6 | +0.5 |
| **PPBI** | **Pangkal Pinang** | 5.98 | 31 | P | | Pn | 21 05 16.1 | -0.4 |
| | 0.2nm,0.7s,11nm | | | | | | | |
| **PDSI** | **Padang** | 6.90 | 338 | P | | Pn | 21 05 26.4 | -2.8 |
| | 48nm,1.0s,2μm | | | | | | | |
| **SMRI** | **Semarang** | 7.31 | 88 | P | | Pn | 21 05 34.3 | -0.5 |
| **SMRI** | **Semarang** | 7.31 | 88 | *e*Pn | | Pn | 21 05 34.2 | -0.6 |
| SMRI | | | | *e*S | | Sn | 21 06 47.4 | -10 |
| **UGM** | **Wanagama** | 7.40 | 95 | P | | Pn | 21 05 35.3 | -0.7 |
| | 154nm,0.9s | | | | | | | |
| **UGM** | **Wanagama** | 7.40 | 95 | *e*Pn | | Pn | 21 05 35.0 | -1.0 |
| **COCO** | **West Island** | 7.81 | 231 | *e*P | | Pn | 21 05 41.8 | +0.2 |
| COCO | | | | *e*S | | Sn | 21 07 06.6 | -2.8 |
| **COCO** | **West Island** | 7.81 | 231 | *e*Pn | | Pn | 21 05 41.8 | +0.2 |
| COCO | | | | *e*S | | Sn | 21 07 06.6 | -2.8 |
| **PCJI** | **Pacitan** | 8.07 | 97 | P | | Pn | 21 05 44.4 | -0.8 |
| | 117nm,0.9s | | | | | | | |
| **PWJI** | **Pagerwojo** | 8.67 | 95 | P | | Pn | 21 05 52.9 | -0.6 |
| | 145nm,0.7s,1μm | | | | | | | |
| **PBSI** | **Pulau Batu** | 8.68 | 326 | P | | Pn | 21 05 49.8 | -3.8 |
| **PSI** | **Prapat** | 10.90 | 337 | *e*P | | Pn | 21 06 20.7 | -3.4 |
| **PSI** | **Prapat** | 10.90 | 337 | *e*Pn | | Pn | 21 06 20.7 | -3.4 |
| **JAGI** | **Jajag, Banyuwa** | 11.03 | 97 | P | | Pn | 21 06 25.3 | -0.5 |
| **JAGI** | **Jajag, Banyuwa** | 11.03 | 97 | *e*Pn | | Pn | 21 06 24.3 | -1.5 |
| JAGI | | | | *e*S | | Sn | 21 08 14.5 | -14 |
| **KKM** | **Kota Kinabalu** | 18.67 | 45 | *e*Pn | | P | 21 08 05.0 | -1.0 |
| **MYLDM** | **Lahad Datu** | 19.79 | 51 | *e*P | | P | 21 08 17.6 | -0.7 |
| | 109nm,1.0s | | | | | | | |
| **PHET** | **Kaeng Krachan** | 20.41 | 350 | P | | P | 21 08 25.2 | +0.2 |
| | 12nm,0.9s | | | | | | | |
| **SOEI** | **Soe** | 21.09 | 98 | *e*P | | P | 21 08 29.4 | -3.0 |
| | 132nm,1.0s | | | | | | | |
| SOEI | | | | *e*S | | S | 21 12 16.9 | -9.5 |
| **CHAI** | **Chaiyaphum** | 23.12 | 357 | P | | P | 21 08 55.5 | +1.6 |
| | 9.3nm,1.3s,112nm | | | | | | | |
| **PBKT** | **Sadao Pong** | 23.85 | 355 | P | | P | 21 09 01.0 | -0.1 |
| | 27nm,1.2s | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | 24.43 | 118 | P | | P | 21 09 09.0 | +2.4 |
| | 1.7nm,0.9s,baz=292,slow=5.4,SNR=3.5 | | | | | | | |
| **CM01** | **Chiang Mai Arr** | 25.92 | 351 | *e*P | | P | 21 09 18.4 | -1.6 |
| **CM31** | **Chiang Mai Arr** | 25.96 | 351 | *e*P | | P | 21 09 19.6 | -0.7 |
| **CMAR** | **Chiang Mai Arr** | 25.96 | 351 | P | | P | 21 09 20.1 | -0.2 |
| | 30nm,1.0s,baz=183,slow=8.3,SNR=94 | | | | | | | |
| CMAR | | | | | | LR | 21 21 32.7 | |
| | comp=Z,151nm,18.2s,baz=190,slow=41 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | 25.96 | 351 | *e*P | | P | 21 09 20.1 | -0.2 |
| CMAR | | | | pmax | | pmax | | |
| | comp=Z,32nm,1.0s | | | | | | | |
| **CMMT** | **Chiang Mai** | 26.31 | 351 | P | | P | 21 09 23.4 | -0.1 |
| | comp=Z,39nm,1.1s | | | | | | | |
| **CHTO** | **Chiang Mai** | 26.31 | 351 | P | | P | 21 09 23.5 | 0.0 |
| | comp=Z,150nm,1.2s | | | | | | | |
| **CHTO** | **Chiang Mai** | 26.31 | 351 | *e*P | | P | 21 09 23.3 | -0.2 |
| CHTO | | | | pmax | | pmax | | |
| | comp=Z,57nm,1.2s | | | | | | | |
| **CHTO** | **Chiang Mai** | 26.31 | 351 | *e*P | | P | 21 09 23.3 | -0.2 |
| | comp=Z,57nm,1.2s | | | | | | | |
| **DAV** | **Davao City (W)** | 26.62 | 58 | *e*P | | P | 21 09 26.6 | +0.2 |
| **QIZ** | **Qiongzhong** | 27.04 | 14 | P | | P | 21 09 35.3 | +5.2 |
| QIZ | | | | S | | S | 21 14 11.3 | +4.5 |
| QIZ | | | | LR | | LR | | |
| | comp=Z,560nm,7.2s | | | | | | | |
| **NWAO** | **Narrogin (SRO)** | 28.65 | 155 | LR | | LR | 21 21 53.6 | |
| | comp=Z,91nm,18.1s,baz=138,slow=38 | | | | | | | |
| **H01W3** | **Cape Leeuwin H** | 29.23 | 161 | T | | T | 21 40 44.0 | |
| | baz=339,slow=75,SNR=7.6 | | | | | | | |
| **H01W2** | **Cape Leeuwin H** | 29.25 | 161 | T | | T | 21 40 46.9 | |
| | baz=

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| LZH | | | | | LR | LR | | | |
| | comp=Z,920nm,13.1s | | | | | | | | |
| LZH | | | | | LR | LR | | | |
| | comp=Z,630nm,12.6s | | | | | | | | |
| LZH | | | | | LR | LR | | | |
| | comp=Z,1μm,14.8s | | | | | | | | |
| **STKA** | **Stephens Creek** | **43.36** | **130** | | P | **P** | **21 11 51.1** | **+1.0** | |
| | comp=Z,2.0nm,0.8s,baz=303,slow=8.2,SNR=4.6 | | | | | | | | |
| STKA | | | | | LR | LR | 21 32 52.4 | | |
| | comp=Z,52nm,18.0s,baz=14,slow=40 | | | | | | | | |
| **STKA** | **Stephens Creek** | **43.36** | **130** | *e* | P | **P** | **21 11 51.9** | **+1.8** | |
| STKA | | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.8s | | | | | | | | |
| **TIA** | **Tai'an** | **45.29** | **16** | ⇓ | P | **P** | **21 12 04.4** | **-1.0** | |
| TIA | | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,1.1s | | | | | | | | |
| **GTA** | **Gaotai** | **46.62** | **357** | | P | **P** | **21 12 16.3** | **+0.4** | |
| GTA | | | | | pP | pP | 21 12 21.9 | -1.1 | |
| GTA | | | | | sP | sP | 21 12 25.0 | -0.8 | |
| GTA | | | | | PP | **PP** | **21 14 06.1** | **+0.2** | |
| GTA | | | | | S | **S** | **21 19 03.9** | **0.0** | |
| GTA | | | | | SS | **SS** | **21 22 21.6** | **-8.9** | |
| GTA | | | | | pmax | pmax | | | |
| | comp=Z,9.0nm,1.1s | | | | | | | | |
| GTA | | | | | pmax | pmax | | | |
| | comp=Z,96nm,7.1s | | | | | | | | |
| GTA | | | | | LR | LR | | | |
| | comp=Z,570nm,15.7s | | | | | | | | |
| GTA | | | | | LR | LR | | | |
| | comp=Z,250nm,16.2s | | | | | | | | |
| GTA | | | | | LR | LR | | | |
| | comp=Z,560nm,15.2s | | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **48.59** | **9** | *e* | P | **P** | **21 12 33.8** | **+2.6** | |
| HHC | | | | | S | **S** | **21 19 36.1** | **+4.3** | |
| HHC | | | | | pmax | pmax | | | |
| | comp=Z,15nm,0.6s | | | | | | | | |
| HHC | | | | | pmax | pmax | | | |
| | comp=Z,110nm,5.6s | | | | | | | | |
| HHC | | | | | LR | LR | | | |
| | comp=Z,290nm,12.3s | | | | | | | | |
| HHC | | | | | LR | LR | | | |
| | comp=Z,200nm,13.6s | | | | | | | | |
| HHC | | | | | LR | LR | | | |
| | comp=Z,220nm,13.6s | | | | | | | | |
| **BJI** | **Beijing** | **48.68** | **13** | | P | **P** | **21 12 31.4** | **-0.3** | |
| BJI | | | | | S | **S** | **21 19 35.8** | **+3.0** | |
| BJI | | | | | pmax | pmax | | | |
| | comp=Z,14nm,0.8s | | | | | | | | |
| BJI | | | | | LR | LR | | | |
| | comp=Z,270nm,19.0s | | | | | | | | |
| BJI | | | | | LR | LR | | | |
| | comp=Z,190nm,16.5s | | | | | | | | |
| BJI | | | | | LR | LR | | | |
| | comp=Z,150nm,17.0s | | | | | | | | |
| **KSAR** | **Wonju Array Be** | **50.23** | **26** | | P | **P** | **21 12 42.4** | **-1.2** | |
| **KSAR** | **Wonju Array Be** | **50.23** | **26** | | P | **P** | **21 12 42.4** | **-1.2** | |
| **KSRS** | **Korea Array** | **50.25** | **26** | | P | **P** | **21 12 42.4** | **-1.5** | |
| | comp=Z,3.9nm,0.9s,baz=221,slow=7.6,SNR=10.0 | | | | | | | | |
| **KS01** | **Wonju Array Si** | **50.26** | **26** | *e* | P | **P** | **21 12 43.2** | **-0.6** | |
| **WMQ** | **Urumqi** | **52.80** | **346** | | P | **P** | **21 13 04.3** | **+1.4** | |
| WMQ | | | | | sP | pP | 21 13 11.3 | +1.3 | |
| WMQ | | | | | S | **S** | **21 20 33.8** | **+3.7** | |
| WMQ | | | | | sS | sS | 21 20 42.5 | +0.7 | |
| WMQ | | | | | pmax | pmax | | | |
| | comp=Z,52nm,1.1s | | | | | | | | |
| WMQ | | | | | pmax | pmax | | | |
| | comp=Z,280nm,4.7s | | | | | | | | |
| WMQ | | | | | LR | LR | | | |
| | comp=Z,130nm,15.1s | | | | | | | | |
| WMQ | | | | | LR | LR | | | |
| | comp=Z,140nm,18.5s | | | | | | | | |
| WMQ | | | | | LR | LR | | | |
| | comp=Z,120nm,16.9s | | | | | | | | |
| **KSH** | **Kashi** | **52.95** | **334** | *e* | P | **P** | **21 13 07.4** | **+3.2** | |
| KSH | | | | | PcP | **PcP** | **21 14 15.9** | **+3.0** | |
| KSH | | | | | PP | **PP** | **21 15 09.3** | **+5.2** | |
| KSH | | | | | S | **S** | **21 20 37.1** | **+4.7** | |
| KSH | | | | | pmax | pmax | | | |
| | comp=Z,5.0nm,0.5s | | | | | | | | |
| KSH | | | | | LR | LR | | | |
| | comp=Z,94nm,4.7s | | | | | | | | |
| KSH | | | | | LR | LR | | | |
| | comp=Z,80nm,5.3s | | | | | | | | |
| KSH | | | | | LR | LR | | | |
| | comp=Z,180nm,5.2s | | | | | | | | |
| **SFK** | **Sufi-Kurgan** | **54.46** | **332** | | P | **P** | **21 13 15.3** | **-0.1** | |
| SFK | | | | | pmax | pmax | | | |
| | comp=Z,11nm,1.0s | | | | | | | | |
| **CN2** | **Changchun** | **54.79** | **20** | *e* | P | **P** | **21 13 15.3** | **-2.1** | |
| CN2 | | | | *e* | PP | **PP** | **21 15 19.5** | **-0.9** | |
| CN2 | | | | *e* | S | **S** | **21 20 55.5** | **-1.4** | |
| CN2 | | | | *e* | SS | **SS** | **21 24 37.9** | **-2.7** | |
| CN2 | | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.9s | | | | | | | | |
| CN2 | | | | | pmax | pmax | | | |
| | comp=Z,200nm,5.0s | | | | | | | | |
| CN2 | | | | | LR | LR | | | |
| | comp=Z,300nm,14.0s | | | | | | | | |
| CN2 | | | | | LR | LR | | | |
| | comp=Z,200nm,14.0s | | | | | | | | |
| CN2 | | | | | LR | LR | | | |
| | comp=Z,200nm,15.0s | | | | | | | | |
| **PDGK** | **Podgornoye** | **54.80** | **339** | | P | **P** | **21 13 15.7** | **-1.9** | |
| PDGK | | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,1.2s | | | | | | | | |
| **SONM** | **Songino Array** | **55.02** | **3** | | P | **P** | **21 13 20.1** | **+1.0** | |
| | comp=Z,7.2nm,0.9s,baz=180,slow=8.8,SNR=49 | | | | | | | | |
| SONM | | | | | LR | LR | 21 40 45.8 | | |
| | comp=Z,90nm,19.3s,baz=154,slow=40 | | | | | | | | |
| **SONA1** | **Songino Array** | **55.03** | **3** | *e* | P | **P** | **21 13 19.1** | **-0.1** | |
| **ULN** | **Ulaanbaatar** | **55.08** | **3** | *i* | P | **P** | **21 13 20.2** | **+0.6** | |
| ULN | | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,1.0s | | | | | | | | |
| **ULN** | **Ulaanbaatar** | **55.08** | **3** | *e* | P | **P** | **21 13 19.7** | **+0.1** | |
| | comp=Z,11nm,1.2s | | | | | | | | |
| **MK01** | **Makanchi Array** | **56.96** | **343** | *e* | P | **P** | **21 13 32.4** | **-0.5** | |
| **MDJ** | **Mudanjiang** | **56.98** | **22** | | P | **P** | **21 13 33.9** | **+0.9** | |
| MDJ | | | | | pmax | pmax | | | |
| | comp=Z,8.0nm,1.1s | | | | | | | | |
| MDJ | | | | | pmax | pmax | | | |
| | comp=Z,110nm,6.1s | | | | | | | | |
| **MK31** | **Makanchi Array** | **56.98** | **343** | *e* | P | **P** | **21 13 33.0** | **-0.1** | |
| **MK31** | **Makanchi Array** | **56.98** | **343** | *e* | P | **P** | **21 13 33.0** | **-0.1** | |
| **MKAR** | **Makanchi Array** | **56.98** | **343** | | P | **P** | **21 13 33.0** | **-0.1** | |
| | comp=Z,2.5nm,0.8s,baz=148,slow=7.3,SNR=19 | | | | | | | | |
| MKAR | | | | | LR | LR | 21 41 12.6 | | |
| | comp=Z,39nm,19.5s,baz=177,slow=40 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **56.98** | **343** | *e* | P | **P** | **21 13 33.0** | **-0.1** | |
| | comp=Z,33nm,0.8s | | | | | | | | |
| **ZAK** | **Zakamensk** | **57.49** | **0** | *e* | P | **P** | **21 13 36.6** | **-0.1** | |
| ZAK | | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,1.4s | | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **57.57** | **24** | | P | **P** | **21 13 36.5** | **-0.6** | |
| | comp=Z,4.3nm,0.8s,baz=225,slow=2.4,SNR=6.0 | | | | | | | | |
| **HIA** | **Hailar** | **58.23** | **13** | *i* | P | **P** | **21 13 40.3** | **-1.5** | |
| HIA | | | | | pmax | pmax | | | |
| | comp=Z,8.0nm,1.0s | | | | | | | | |
| **DGZ** | **Jazzator, Alta** | **58.43** | **348** | *i* | P | **P** | **21 13 43.9** | **+0.6** | |
| DGZ | | | | | pmax | pmax | | | |
| | comp=Z,9.0nm,0.8s | | | | | | | | |
| **TLY** | **Talaya** | **58.79** | **0** | | LR | LR | 21 43 05.8 | | |
| | comp=Z,97nm,20.9s,baz=160,slow=40 | | | | | | | | |
| **TLY** | **Talaya** | **58.79** | **0** | *e* | P | | 21 13 56.1 | +10 | |
| TLY | | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,0.7s | | | | | | | | |
| **GEYT** | **Alibeck** | **61.49** | **321** | | P | **P** | **21 14 03.6** | **-0.9** | |
| | comp=Z,1.2nm,0.7s,baz=217,slow=17,SNR=4.8 | | | | | | | | |
| **KURK** | **Kurchatov** | **61.58** | **343** | *e* | P | **P** | **21 14 02.3** | **-2.4** | |
| KURK | | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,1.0s | | | | | | | | |
| **KURK** | **Kurchatov** | **61.58** | **343** | *e* | P | **P** | **21 14 04.1** | **-0.6** | |
| | comp=Z,9.0nm,0.9s | | | | | | | | |
| **KLR** | **Kul'dur** | **61.67** | **21** | | P | **P** | **21 14 04.8** | **-0.6** | |
| | comp=Z,0.3nm,0.8s,baz=241,slow=4.7,SNR=9.3 | | | | | | | | |
| **KLR** | **Kul'dur** | **61.67** | **21** | *i* | P | **P** | **21 14 04.5** | **-0.9** | |
| **ZAA0** | **Zalesovo Array** | **62.98** | **348** | *e* | P | **P** | **21 14 14.0** | **0.0** | |
| | comp=Z,13nm,1.0s | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **62.98** | **348** | | P | **P** | **21 14 14.0** | **0.0** | |
| | comp=Z,6.3nm,0.8s,baz=159,slow=4.5,SNR=30 | | | | | | | | |
| ZALV | | | | | LR | LR | 21 44 30.6 | | |
| | comp=Z,103nm,18.5s,baz=63,slow=39 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **62.98** | **348** | *e* | P | **P** | **21 14 13.4** | **-0.6** | |
| **ZALV** | **Zalesovo Beam** | **62.98** | **348** | *e* | P | **P** | **21 14 13.4** | **-0.6** | |
| **RAYN** | **Ar Rayn** | **64.04** | **300** | *e* | P | **P** | **21 14 22.2** | **+0.5** | |
| | comp=Z,7.4nm,1.3s | | | | | | | | |
| **NVS** | **Novosibirsk** | **64.14** | **347** | *e* | P | **P** | **21 14 21.0** | **-0.7** | |
| **BOD** | **Bodaibo** | **65.55** | **6** | *e* | P | **P** | **21 14 29.5** | **-1.3** | |
| BOD | | | | | pmax | pmax | | | |
| | comp=Z,14nm,1.5s | | | | | | | | |
| **MAW** | **Mawson** | **65.95** | **196** | | LR | LR | 21 37 36.3 | | |
| | comp=Z,57nm,19.6s,baz=36,slow=31 | | | | | | | | |
| **BRVK** | **Borovoye** | **66.30** | **339** | *i* | P | **P** | **21 14 38.3** | **+2.6** | |
| BRVK | | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,1.0s | | | | | | | | |
| **ABKAR** | **Akbulak array** | **67.77** | **331** | *e* | P | **P** | **21 14 45.0** | **-0.2** | |
| | comp=Z,51nm,0.7s | | | | | | | | |
| **MAK** | **Makhachkala** | **71.01** | **320** | *e* | P | P | 21 15 00.5 | -4.8 | |
| MAK | | | | *e* | | | 21 17 37.4 | | |
| MAK | | | | *e* | S | **S** | **21 24 14.7** | **-5.5** | |
| **YAK** | **Yakutsk** | **72.17** | **13** | | P | **P** | **21 15 11.2** | **-0.7** | |
| | comp=Z,6.8nm,0.4s,baz=7.8,slow=2.5,SNR=9.8 | | | | | | | | |
| **YAK** | **Yakutsk** | **72.17** | **13** | *e* | P | **P** | **21 15 10.9** | **-1.0** | |
| YAK | | | | | pmax | pmax | | | |
| | comp=Z,45nm,1.1s | | | | | | | | |
| **YAK** | **Yakutsk** | **72.17** | **13** | *e* | P | **P** | **21 15 10.7** | **-1.2** | |
| | comp=Z,24nm,0.9s | | | | | | | | |
| **SVE** | **Sverdlovsk** | **72.76** | **337** | ⇑ | P | **P** | **21 15 16.5** | **+0.9** | |
| SVE | | | | | pmax | pmax | | | |
| | comp=Z,16nm,1.2s | | | | | | | | |
| **ARU** | **Arti** | **73.30** | **336** | *d* | P | **P** | **21 15 17.5** | **-1.3** | |
| ARU | | | | | | | 21 15 36.8 | | |
| ARU | | | | | S | **S** | **21 24 44.5** | **-1.5** | |
| ARU | | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,1.2s | | | | | | | | |
| **SYO** | **Syowa Base** | **73.86** | **200** | ⇓ | *e* P | **P** | **21 15 23.4** | **+1.5** | |
| **KBZ** | **Khabaz** | **74.33** | **319** | | P | **P** | **21 15 24.9** | **-0.2** | |
| | comp=Z,3.0nm,1.0s,baz=139,slow=0.6,SNR=3.5 | | | | | | | | |
| **VNDA** | **Vanda** | **76.36** | **169** | | LR | LR | 21 49 24.6 | | |
| | comp=Z,30nm,18.0s,baz=323,slow=36 | | | | | | | | |
| **VRH** | **Novokhopyorsk** | **78.44** | **326** | *e* | P | **P** | **21 15 47.4** | **-0.8** | |
| VRH | | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,1.3s | | | | | | | | |
| **BRTR** | **Keskin Array B** | **79.17** | **313** | | P | **P** | **21 15 52.0** | **-0.8** | |
| | comp=Z,0.9nm,0.9s,baz=152,slow=5.6,SNR=4.8 | | | | | | | | |
| **BRTR** | **Keskin Array B** | **79.17** | **313** | *e* | P | **P** | **21 15 52.7** | **-0.1** | |
| BRTR | | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.9s | | | | | | | | |
| **BR231** | **Keskin MP Arra** | **79.84** | **313** | *e* | P | **P** | **21 15 53.1** | **-3.2** | |
| **VSR** | **Storozhevoye** | **79.89** | **325** | *e* | P | **P** | **21 15 59.4** | **+3.2** | |
| VSR | | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,0.7s | | | | | | | | |
| **LPSR** | **Galich'ya Gora** | **80.61** | **326** | *e* | P | **P** | **21 15 59.5** | **-0.5** | |
| LPSR | | | | | pmax | pmax | | | |
| | comp=Z,5.0nm,0.8s | | | | | | | | |
| **TIXI** | **Tiksi** | **80.65** | **8** | *e* | P | **P** | **21 15 58.8** | **-1.1** | |
| TIXI | | | | | pmax | pmax | | | |
| | comp=Z,5.0nm,1.1s | | | | | | | | |
| **TIXI** | **Tiksi** | **80.65** | **8** | *e* | P | **P** | **21 15 59.0** | **-0.9** | |
| | comp=Z,10.0nm,0.4s | | | | | | | | |
| **OBN** | **Obninsk** | **82.92** | **328** | *de* | P | **P** | **21 16 12.9** | **+0.8** | |
| OBN | | | | *e* | | | 21 19 24.5 | | |
| OBN | | | | | pmax | pmax | | | |
| | comp=Z,11nm,0.8s | | | | | | | | |
| **KLMR** | **Klimovskoe** | **83.95** | **334** | *e* | P | **P** | **21 16 16.4** | **-0.9** | |
| KLMR | | | | | pmax | pmax | | | |
| | comp=Z,11nm,1.3s | | | | | | | | |
| **BILL** | **Bilibino** | **87.10** | **20** | ⇑ | *e* P | **P** | **21 16 31.5** | **-1.4** | |
| BILL | | | | *e* | | | 21 19 55.0 | | |
| BILL | | | | *e* | S | **SKSac** | **21 26 50.2** | **-8.3** | |
| BILL | | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,1.2s | | | | | | | | |
| BILL | | | | | MLR | MLR | | | |
| | comp=Z,67nm,14.0s | | | | | | | | |
| **SNAA** | **Sanae** | **88.03** | **198** | | P | **P** | **21 16 39.3** | **+1.8** | |
| **SNAA** | **Sanae** | **88.03** | **198** | *e* | P | **P** | **21 16 37.4** | **-0.1** | |
| SNAA | | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,1.1s | | | | | | | | |
| **SNAA** | **Sanae** | **88.03** | **198** | *e* | P | **P** | **21 16 37.4** | **-0.1** | |
| | comp=Z,6.2nm,1.1s | | | | | | | | |
| **VNA2** | **Neumayer--Watz** | **89.66** | **198** | | P | **P** | **21 16 48.1** | **+3.0** | |
| | baz=86,slow=5.3 | | | | | | | | |
| **VNA1** | **Neumayer--Stat** | **90.03** | **198** | | P | P | 21 16 39.1 | -7.7 | |
| **GSTR** | **Great Sitkin T** | **90.16** | **38** | *e* | P | **P** | **21 16 48.4** | **+0.6** | |
| **VNA3** | **Neumayer Olymp** | **90.22** | **197** | | P | **P** | **21 16 48.9** | **+1.1** | |
| **FINES** | **FINESS Array B** | **90.24** | **332** | | P | **P** | **21 16 49.8** | **+2.0** | |
| | comp=Z,2.1nm,0.8s,baz=157,slow=5.4,SNR=3.6 | | | | | | | | |
| **FINES** | **FINESS Array B** | **90.24** | **332** | *e* | P | P | 21 16 52.9 | +5.1 | |
| FINES | | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,1.0s | | | | | | | | |
| **NOA** | **NORSAR Array B** | **97.28** | **331** | | LR | LR | 22 05 07.7 | | |
| | comp=Z,36nm,19.0s,baz=70,slow=38 | | | | | | | | |
| **BAR** | **Barrett** | **135.35** | **50** | *e* | PKPpre | PKPpre | 21 22 58.3 | | |
| **SRU** | **San Rafael Swe** | **136.26** | **39** | *e* | PKHKP | PKPpre | 21 22 57.9 | | |
| **SRU** | **San Rafael Swe** | **136.26** | **39** | *e* | PKPpre | PKPpre | 21 22 57.9 | | |
| **Y12C** | **Blythe** | **136.47** | **48** | *e* | PKPpre | PKPpre | 21 22 60.0 | | |
| **Y14A** | **Wickenburg** | **137.48** | **46** | *e* | PKPpre | PKPpre | 21 22 58.5 | | |
| **TUC** | **Tucson** | **139.91** | **47** | *e* | PKHKP | PKPpre | 21 23 06.8 | | |
| **TUC** | **Tucson** | **139.91** | **47** | *e* | PKPpre | PKPpre | 21 23 06.8 | | |
| **OK021** | **N3530 Road, Sp** | **146.53** | **30** | *e* | PKPdf | **PKPbc** | **21 23 30.3** | **+0.9** | |
| **TX31** | **Lajitas Ar. Si** | **146.65** | **46** | *e* | PKPdf | **PKPbc** | **21 23 30.4** | **+0.3** | |
| **TXAR** | **Lajitas Array** | **146.65** | **46** | | PKPbc | **PKPbc** | **21 23 30.4** | **+0.4** | |
| | comp=Z,1.5nm,0.8s,baz=294,slow=1.2,SNR=5.7 | | | | | | | | |
| **TXAR** | **Lajitas Array** | **146.65** | **46** | *e* | PKP2 | **PKPab** | **21 23 31.3** | **+0.2** | |
| TXAR | | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.8s | | | | | | | | |
| **X35A** | **Drake** | **147.34** | **32** | *e* | PKPdf | **PKPbc** | **21 23 31.9** | **+0.3** | |
| **W37B** | **Quinton** | **147.53** | **29** | *e* | PKPbc | **PKPbc** | **21 23 32.9** | **+0.7** | |
| **JCT** | **Junction City** | **148.54** | **40** | *e* | PKP2 | **PKPbc** | **21 23 36.0** | **+0.9** | |
| **JCT** | **Junction City** | **148.54** | **40** | *e* | PKPbc | **PKPbc** | **21 23 36.0** | **+0.9** | |
| **MIAR** | **Mount Ida** | **148.88** | **27** | *e* | PKHKP | PKPpre | 21 23 29.6 | | |
| **MIAR** | **Mount Ida** | **148.88** | **27** | *e* | PKPdf | PKPpre | 21 23 29.6 | | |
| **WVT** | **Waverly** | **149.66** | **18** | *e* | PKP2 | **PKPbc** | **21 23 38.1** | **+0.5** | |
| **WVT** | **Waverly** | **149.66** | **18** | *e* | PKPbc | **PKPbc** | **21 23 38.1** | **+0.5** | |

**IDC 19 21:18:41.5±3.7, 14°.46N×92°.84W, h0km, mb3.6/2, mb1 3.9/4, mb1mx3.6/42, mbtmpb3.5/4, ML3.4/2, Error ellipse: s-maj=163.2km s-min=55.6km az=49.0, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CMIG** | **Matias Romero** | **3.28** | **323** | Pn | Pn | 21 19 33.5 | -0.7 |
| | 1.6nm,0.3s,baz=130,slow=11,SNR=15 | | | | | | |
| CMIG | | | | Sn | Sn | 21 20 10.3 | -3.6 |
| | 5.4nm,0.3s,baz=146,slow=18,SNR=5.6 | | | | | | |
| **TXAR** | **Lajitas Array** | **17.88** | **328** | P | P | 21 22 53.3 | +0.8 |
| | 0.1nm,0.3s,baz=157,slow=13,SNR=4.7 | | | | | | |
| **YKA** | **Yellowknife Ar** | **50.40** | **347** | P | P | 21 27 40.2 | -0.1 |
| | 1.2nm,0.7s,baz=152,slow=7.4,SNR=16 | | | | | | |
| **ILAR** | **Eielson Array** | **62.10** | **337** | P | P | 21 29 03.6 | -0.4 |
| | 0.4nm,0.9s,baz=134,slow=7.8,SNR=3.4 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **145.29** | **340** | PKPbc | PKPbc | 21 38 21.2 | -0.6 |
| | 0.9nm,1.0s,baz=349,slow=3.7,SNR=3.8 | | | | | | |

**IDC 19 21:25:58.2±8.4, 5°.64S×150°.73E, h49km±62km, mb3.6/3, mb1 3.9/4, mb1mx3.3/39, mbtmpb3.9/4, ML1.8/1, MS2.7/2, Ms1 2.7/2, ms1mx2.5/28, Error ellipse: s-maj=94.1km s-min=57.8km az=123.0, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PMG** | **Port Moresby** | **5.15** | **223** | P | Pn | 21 27 14.0 | +1.2 |
| | 2.2nm,0.3s,baz=36,slow=15,SNR=5.4 | | | | | | |
| PMG | | | | S | Sn | 21 28 11.4 | +0.4 |
| | 1.0nm,0.3s,baz=86,slow=17,SNR=2.4 | | | | | | |
| PMG | | | | LR | LR | 21 28 43.0 | |
| | comp=Z,36nm,18.3s,baz=360,slow=32 | | | | | | |
| **GUMO** | **Guam** | **19.96** | **343** | LR | LR | 21 37 04.3 | |
| | comp=Z,44nm,21.3s,baz=102,slow=33 | | | | | | |
| **WRA** | **Warramunga Arr** | **21.36** | **227** | P | P | 21 30 40.9 | -0.6 |
| | 1.1nm,0.4s,baz=52,slow=10,SNR=19 | | | | | | |
| **ASAR** | **Alice Springs** | **24.16** | **220** | P | P | 21 31 09.8 | -0.2 |
| | 2.7nm,0.8s,baz=56,slow=9.2,SNR=24 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **27.45** | **241** | P | P | 21 31 40.6 | +0.9 |
| | 2.2nm,0.9s,baz=51,slow=6.8,SNR=3.1 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **148.58** | **286** | PKPbc | PKPbc | 21 45 39.9 | -0.9 |
| | 1.0nm,0.7s,baz=66,slow=2.5,SNR=9.9 | | | | | | |

**JMA 19 21:29:54.6, 35°.15N×135°.69E, h10km, M3.1, Western Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JWT** | **Wachi** | **0.27** | **299** | P | Pg | 21 30 00.1 | 0.0 |
| JWT | | | | S | Sg | 21 30 03.7 | -0.1 |
| **JHE** | **Heguri** | **0.49** | **180** | P | Pg | 21 30 04.3 | 0.0 |
| **JKY** | **Yasaka** | **0.68** | **315** | P | Pg | 21 30 07.5 | -0.2 |
| **JKS** | **Kasai** | **0.71** | **257** | P | Pg | 21 30 08.1 | -0.3 |
| **TSUJ** | **Tsu 2** | **0.74** | **126** | P | Pg | 21 30 08.4 | -0.5 |
| **JWY** | **Kouya** | **0.93** | **185** | P | Pg | 21 30 12.1 | -0.5 |
| **JKSM** | **Kasumi** | **0.94** | **298** | P | Pg | 21 30 12.3 | -0.5 |
| JKSM | | | | S | Sg | 21 30 24.6 | -0.5 |
| **MAT** | **Matsushiro** | **2.47** | **55** | P | Pn | 21 30 36.1 | +1.1 |
| MAT | | | | S | Sb | 21 31 11.5 | +1.8 |

**IDC 19 21:30:38.0±5.3, 50°.32N×113°.70W, h0km, mb1 3.6/1, mb1mx2.9/45, mbtmpb3.3/1, ML3.2/1, Error ellipse: s-maj=89.4km s-min=41.1km az=78.0, Alberta**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **I56US** | **NEWPORT INFRAS** | **3.05** | **229** | *i* | | 21 49 05.0 | |
| | baz=44,slow=318,SNR=6.0 | | | | | | |
| **I10CA** | **LAC DU BONNET** | **11.31** | **84** | *i* | | 22 44 29.6 | |
| | baz=276,slow=324,SNR=1.7 | | | | | | |
| **YKA** | **Yellowknife Ar** | **12.21** | **358** | Pn | Pn | 21 33 29.2 | -3.8 |
| | 0.2nm,0.3s,baz=180,slow=13,SNR=13 | | | | | | |
| YKA | | | | Sn | Sn | 21 35 38.9 | -11 |
| | 0.1nm,0.3s,baz=176,slow=22,SNR=6.0 | | | | | | |
| YKA | | | | Lg | Lg | 21 36 59.4 | |
| | 0.0nm,0.3s,baz=172,slow=29,SNR=3.5 | | | | | | |

**IDC 19 21:34:19.7±3.2, 13°.91N×143°.43E, h110km±51km, mb3.3/5, mb1 3.5/5, mb1mx3.0/49, mbtmpb3.6/5, Error ellipse: s-maj=63.0km s-min=22.4km az=85.0, South of Mariana Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GUMO** | **Guam** | **1.44** | **103** | P | Pn | 21 34 46.3 | +0.6 |
| | 76nm,0.3s,baz=231,slow=2.6,SNR=14 | | | | | | |
| GUMO | | | | S | Sn | 21 35 05.4 | -0.1 |
| | 193nm,0.3s,baz=129,slow=21,SNR=30 | | | | | | |
| **WRA** | **Warramunga Arr** | **34.81** | **195** | P | P | 21 40 59.2 | -0.8 |
| | 0.5nm,0.7s,baz=7.4,slow=8.6,SNR=9.4 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **36.33** | **209** | P | P | 21 41 13.7 | +0.7 |
| | 0.7nm,0.7s,baz=28,slow=14,SNR=3.6 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **42.88** | **282** | P | P | 21 42 07.0 | -0.6 |
| | 0.4nm,0.3s,baz=90,slow=9.0,SNR=5.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **60.29** | **316** | P | P | 21 44 17.1 | +0.4 |
| | 0.2nm,0.5s,baz=87,slow=8.4,SNR=4.8 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **63.48** | **320** | P | P | 21 44 37.7 | -0.2 |
| | 0.4nm,0.5s,baz=104,slow=7.2,SNR=4.5 | | | | | | |

**IDC 19 22:17:19.1±1.7, 3°.77N×127°.05E, h0km, mb3.5/5, mb1 3.7/5, mb1mx3.5/36, mbtmpb3.6/5, Error ellipse: s-maj=105.4km s-min=22.2km az=68.0, Talaud Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **FITZ** | **Fitzroy Crossi** | **21.78** | **184** | P | P | 22 22 12.5 | -0.2 |
| | 0.9nm,0.7s,baz=4.4,slow=13,SNR=3.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **24.63** | **163** | P | P | 22 22 39.6 | -1.9 |
| | 0.7nm,0.7s,baz=344,slow=9.6,SNR=16 | | | | | | |
| **ASAR** | **Alice Springs** | **28.08** | **167** | P | P | 22 23 13.5 | +0.9 |
| | 0.1nm,0.3s,baz=343,slow=11,SNR=2.9 | | | | | | |
| **STKA** | **Stephens Creek** | **38.06** | **160** | P | P | 22 24 41.0 | +1.4 |
| | 1.3nm,0.7s,baz=328,slow=13,SNR=2.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **57.70** | **325** | P | P | 22 27 11.6 | -0.1 |
| | 0.4nm,0.4s,baz=118,slow=7.5,SNR=11 | | | | | | |

**IDC 19 22:23:44.0±3.0, 28°.36S×177°.00W, h0km, mb3.8/2, mb1 4.0/2, mb1mx3.7/21, mbtmpb3.8/2, MS3.2/3, Ms1 3.2/3, ms1mx2.7/25, Error ellipse: s-maj=83.3km s-min=25.3km az=121.0, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **1.20** | **222** | Pn | Pn | 22 24 07.9 | -0.1 |
| | 202nm,0.3s,baz=128,slow=9.8,SNR=9.4 | | | | | | |
| RAO | | | | Sn | Sn | 22 24 25.4 | +0.5 |
| | 455nm,0.3s,baz=70,slow=22,SNR=8.3 | | | | | | |
| RAO | | | | LR | LR | 22 24 43.9 | |
| | comp=Z,451nm,19.1s,baz=266,slow=50 | | | | | | |
| **DZM** | **Mont Dzumac** | **16.23** | **289** | LR | LR | 22 32 07.4 | |
| | comp=Z,74nm,20.6s,baz=46,slow=31 | | | | | | |
| **RAR** | **Rarotonga** | **17.18** | **69** | LR | LR | 22 34 06.6 | |
| | comp=Z,33nm,19.1s,baz=142,slow=36 | | | | | | |
| **ASAR** | **Alice Springs** | **44.13** | **264** | P | P | 22 31 54.2 | -0.3 |
| | 1.0nm,0.7s,baz=110,slow=7.3,SNR=6.3 | | | | | | |
| ASAR | | | | LR | LR | 22 49 36.5 | |
| | comp=Z,73nm,18.8s,baz=93,slow=35 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.94** | **270** | P | P | 22 32 01.2 | +0.3 |
| | 1.1nm,0.9s,baz=109,slow=8.0,SNR=8.3 | | | | | | |
| **AKASG** | **Malin Array Be** | **150.16** | **326** | PKPbc | PKPbc | 22 43 35.9 | -0.6 |
| | 0.2nm,0.3s,baz=44,slow=3.0,SNR=5.0 | | | | | | |
| **BRTR** | **Keskin Array B** | **152.32** | **302** | PKPab | PKPab | 22 43 51.6 | -0.5 |
| | 0.5nm,0.6s,baz=98,slow=2.9,SNR=2.6 | | | | | | |

*GEN **19** 22:24:48.0, 44°.15N×10°.92E, h14km, ML2.2*
*CSEM **19** 22:24:48.5±0.1, 44°.14N×10°.86E, h10km, ML2.6/4, Error ellipse: s-maj=2.8km s-min=1.8km az=5.0*
**ROM 19 22:24:48.1±0.1, 44°.13N×10°.87E, h10km±1km, Md2.2/12, Ml2.2/5, 8C, Error ellipse: s-maj=1.6km s-min=1.0km az=161.0, Northern Italy**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **POPM** | **Popiglio** | **0.12** | **223** | ⇑ *i* | Pg | 22 24 51.9 | +1.0 |
| POPM | | | | | Sg | 22 24 54.7 | +1.8 |
| **POPM** | **Popiglio** | **0.12** | **223** | ⇑ *i* | Pg | 22 24 51.9 | +1.0 |
| PO

*GEN* ***19*** *22:25:35.7, 44°.16N × 10°.91E, h13km, ML1.5*
*CSEM* ***19*** *22:25:36.0 ± 0.1, 44°.15N × 10°.87E, h10km, ML1.5, Error ellipse: s-maj=2.8km s-min=1.6km az=5.0*
**ROM 19 22:25:35.5 ± 0.1, 44°.14N × 10°.87E, h10km, Md1.4/5, Ml1.4/4, 2C, Error ellipse: s-maj=1.2km s-min=0.6km az=174.0, Northern Italy**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **POPM** | **Popiglio** | **0.12** | **221** | P | Pg | 22 25 39.4 | +1.0 |
| POPM | | | | S | Sg | 22 25 42.2 | +1.7 |
| **FNVD** | **Fontana Vidola** | **0.18** | **81** | Pg | Pg | 22 25 39.9 | +0.4 |
| FNVD | | | | Sg | Sg | 22 25 42.9 | +0.7 |
| | 73nm,0.3s | | | | | | |
| **FNVD** | **Fontana Vidola** | **0.18** | **81** | Pg | Pg | 22 25 39.9 | +0.4 |
| FNVD | | | | Sg | Sg | 22 25 42.9 | +0.7 |
| | 73nm,0.3s | | | | | | |
| **BDI** | **Bagni Di Lucca** | **0.21** | **249** | Pg | Pg | 22 25 40.6 | +0.7 |
| BDI | | | | Sg | Sg | 22 25 44.2 | +1.3 |
| | 76nm,0.3s | | | | | | |
| **BDI** | **Bagni Di Lucca** | **0.21** | **249** | Pg | Pg | 22 25 40.6 | +0.7 |
| BDI | | | | Sg | Sg | 22 25 44.2 | +1.3 |
| | 76nm,0.3s | | | | | | |
| **ZCCA** | **Zocca** | **0.23** | **20** | ⇑*i*Pg | Pg | 22 25 41.2 | +1.0 |
| **ZCCA** | **Zocca** | **0.23** | **20** | ⇑*i*Pg | Pg | 22 25 41.2 | +1.0 |
| **PTF** | **Prato** | **0.23** | **141** | Pg | Pg | 22 25 41.0 | +0.8 |
| PTF | | | | Sg | Sg | 22 25 45.1 | +1.7 |
| **PTF** | **Prato** | **0.23** | **141** | Pg | Pg | 22 25 41.0 | +0.8 |
| PTF | | | | Sg | Sg | 22 25 45.1 | +1.7 |
| **SARO** | **Sassorosso** | **0.34** | **278** | P | Pg | 22 25 42.6 | +0.3 |
| SARO | | | | S | Sg | 22 25 47.8 | +0.9 |
| **VLC** | **Villacollemand** | **0.35** | **274** | Pg | Pg | 22 25 43.0 | +0.6 |
| VLC | | | | Sg | Sb | 22 25 48.5 | -1.0 |
| | 34nm,0.3s | | | | | | |
| **VLC** | **Villacollemand** | **0.35** | **274** | Pg | Pg | 22 25 43.0 | +0.6 |
| VLC | | | | Sg | Sb | 22 25 48.5 | -1.0 |
| | 34nm,0.3s | | | | | | |
| **MAIM** | **Mastiano** | **0.35** | **231** | Pg | Pb | 22 25 43.2 | -0.7 |
| MAIM | | | | Sg | Sb | 22 25 48.7 | -0.8 |
| | 23nm,0.4s | | | | | | |
| **MAIM** | **Mastiano** | **0.35** | **231** | P | Pb | 22 25 43.2 | -0.7 |
| MAIM | | | | S | Sb | 22 25 48.8 | -0.7 |
| **SEI** | **Scarperia** | **0.36** | **103** | Pg | Pg | 22 25 43.1 | +0.5 |
| SEI | | | | Sg | Sb | 22 25 49.1 | -0.7 |
| **SEI** | **Scarperia** | **0.36** | **103** | Pg | Pg | 22 25 43.1 | +0.5 |
| SEI | | | | Sg | Sb | 22 25 49.1 | -0.7 |
| **GRAM** | **Graiana** | **0.68** | **302** | P | Pg | 22 25 49.0 | +0.4 |
| GRAM | | | | S | Sg | 22 25 58.1 | +0.6 |

---

*CSEM* ***19*** *22:29:08.5 ± 0.1, 37°.66N × 1°.78W, h8km, ML3.5/12, Error ellipse: s-maj=3.7km s-min=2.3km az=145.0*
*SFS* ***19*** *22:29:09.0, 37°.62N × 1°.73W, h6km, ML2.9*
*INMG* ***19*** *22:29:09.2 ± 1.4, 37°.63N × 1°.73W, h6km ± 2km, ML3.0, Error ellipse: s-maj=2.0km s-min=1.7km az=126.0*
*MDD* ***19*** *22:29:09.4 ± 0.2, 37°.63N × 1°.74W, h6km ± 1km, mbLg2.9/33, Error ellipse: s-maj=3.6km s-min=2.1km az=153.0, PRXIMO*
*MDD EMS: IV INTENSIDAD MAXIMA.*
*IGIL* ***19*** *22:29:09.8, 37°.63N × 1°.74W, h6km*
**ISC 19 22:29:08.3 ± 1.4, 37°.67N ± 0°.02 × 1°.74W ± 0°.02, h15km ± 11km, n108, σ1$24/154, 1C-2D, Spain**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **EMUR** | **La Murta** | **0.43** | **66** | ⇑Pg | **Pb** | **22 29 17.7** | **0.0** |
| | 77nm,0.2s,SNR=18 | | | | | | |
| EMUR | | | | Lg | Lg | 22 29 25.3 | |
| | 263nm,0.3s | | | | | | |
| **EMUR** | **La Murta** | **0.43** | **66** | Pg | **Pb** | **22 29 17.7** | **0.0** |
| | 77nm,0.2s,SNR=18 | | | | | | |
| EMUR | | | | Lg | Lg | 22 29 25.3 | |
| | 263nm,0.3s | | | | | | |
| **CART** | **Cartagena** | **0.59** | **97** | Pg | **Pb** | **22 29 20.5** | **+0.1** |
| CART | | | | Lg | Lg | 22 29 27.5 | |
| **CART** | **Cartagena** | **0.59** | **97** | *e*P | **Pb** | **22 29 20.5** | **+0.1** |
| CART | | | | Lg | Lg | 22 29 27.5 | |
| **SESP** | **Santiago Espad** | **0.78** | **306** | ⇓Pg | **Pb** | **22 29 23.7** | **-0.1** |
| | 36nm,0.4s,SNR=18 | | | | | | |
| SESP | | | | Lg | Lg | 22 29 34.4 | |
| | 159nm,0.2s,SNR=7.9 | | | | | | |
| **SESP** | **Santiago Espad** | **0.78** | **306** | Pg | **Pb** | **22 29 23.7** | **-0.1** |
| | 36nm,0.4s,SNR=18 | | | | | | |
| SESP | | | | Lg | Lg | 22 29 34.4 | |
| | 159nm,0.2s,SNR=7.9 | | | | | | |
| **ENIJ** | **Nijar** | **0.79** | **208** | ⇓Pg | **Pg** | **22 29 23.7** | **0.0** |
| | 44nm,0.1s,SNR=18 | | | | | | |
| ENIJ | | | | Lg | Lg | 22 29 33.9 | |
| | 573nm,0.4s,SNR=7.9 | | | | | | |
| **ENIJ** | **Nijar** | **0.79** | **208** | Pg | **Pg** | **22 29 23.7** | **0.0** |
| | 44nm,0.1s,SNR=18 | | | | | | |
| ENIJ | | | | Lg | Lg | 22 29 33.9 | |
| | 573nm,0.4s,SNR=7.9 | | | | | | |
| **ETOB** | **Tobarra** | **0.99** | **9** | Pg | **Pb** | **22 29 27.5** | **+0.3** |
| | 113nm,0.4s,SNR=212 | | | | | | |
| ETOB | | | | Lg | Lg | 22 29 43.1 | |
| | 254nm,0.3s | | | | | | |
| **ETOB** | **Tobarra** | **0.99** | **9** | Pg | **Pb** | **22 29 27.5** | **+0.3** |
| | 113nm,0.4s,SNR=212 | | | | | | |
| ETOB | | | | Lg | Lg | 22 29 43.1 | |
| | 254nm,0.3s | | | | | | |
| **GORA** | **Gorafe** | **1.05** | **260** | Pg | **Pb** | **22 29 28.0** | **-0.3** |
| | 7.3nm,0.2s,SNR=7.9 | | | | | | |
| GORA | | | | Lg | Lg | 22 29 44.6 | |
| | 129nm,0.2s,SNR=7.9 | | | | | | |
| **GORA** | **Gorafe** | **1.05** | **260** | Pg | **Pb** | **22 29 28.0** | **-0.3** |
| | 7.3nm,0.2s,SNR=7.9 | | | | | | |
| GORA | | | | Lg | Lg | 22 29 44.6 | |
| | 129nm,0.2s,SNR=7.9 | | | | | | |
| **EQES** | **Quesada** | **1.06** | **278** | Pg | **Pn** | **22 29 28.9** | **+0.1** |
| | 17nm,0.1s,SNR=139 | | | | | | |
| EQES | | | | Lg | Lg | 22 29 44.3 | |
| | 126nm,0.3s | | | | | | |
| **EQES** | **Quesada** | **1.06** | **278** | Pg | **Pn** | **22 29 28.9** | **+0.1** |
| | 17nm,0.1s,SNR=139 | | | | | | |
| EQES | | | | Lg | Lg | 22 29 44.3 | |
| | 126nm,0.3s | | | | | | |
| **EBER** | **Berja** | **1.20** | **230** | Pg | **Pn** | **22 29 30.7** | **0.0** |
| | 37nm,0.2s,SNR=147 | | | | | | |
| EBER | | | | Lg | Lg | 22 29 48.6 | |
| | 231nm,0.3s | | | | | | |
| **EBER** | **Berja** | **1.20** | **230** | Pg | **Pn** | **22 29 30.7** | **0.0** |
| | 37nm,0.2s,SNR=147 | | | | | | |
| EBER | | | | Lg | Lg | 22 29 48.6 | |
| | 231nm,0.3s | | | | | | |
| **AFON** | **Font Roja** | **1.37** | **43** | Pg | **Pg** | **22 29 34.5** | **-0.3** |
| | 0.9nm,0.1s,SNR=7.6 | | | | | | |
| AFON | | | | Lg | Lg | 22 29 55.3 | |
| | 34nm,0.3s | | | | | | |
| **AFON** | **Font Roja** | **1.37** | **43** | Pg | **Pg** | **22 29 34.5** | **-0.3** |
| | 0.9nm,0.1s,SNR=7.6 | | | | | | |
| AFON | | | | Lg | Lg | 22 29 55.3 | |
| | 34nm,0.3s | | | | | | |
| **EQUE** | **Quentar** | **1.43** | **252** | Pg | **Pb** | **22 29 35.0** | **+0.3** |
| | 28nm,0.3s,SNR=38 | | | | | | |
| EQUE | | | | Lg | Lg | 22 29 56.9 | |
| | 132nm,0.3s | | | | | | |
| **EQUE** | **Quentar** | **1.43** | **252** | Pg | **Pb** | **22 29 35.0** | **+0.3** |
| | 28nm,0.3s,SNR=38 | | | | | | |
| EQUE | | | | Lg | Lg | 22 29 56.9 | |
| | 132nm,0.3s | | | | | | |
| **SELV** | **Sierra Elvira** | **1.64** | **255** | Pg | **Pg** | **22 29 40.2** | **+0.4** |
| | 31nm,0.3s,SNR=7.9 | | | | | | |
| SELV | | | | Lg | Lg | 22 30 02.9 | |
| | 48nm,0.4s,SNR=7.9 | | | | | | |
| **SELV** | **Sierra Elvira** | **1.64** | **255** | Pg | **Pg** | **22 29 40.2** | **+0.4** |
| | 31nm,0.3s,SNR=7.9 | | | | | | |
| SELV | | | | Lg | Lg | 22 30 02.9 | |
| | 48nm,0.4s,SNR=7.9 | | | | | | |
| **ELGU** | **Los Guajares,** | **1.70** | **243** | Pn | **Pb** | **22 29 39.2** | **-0.2** |
| | 39nm,0.3s,SNR=7.9 | | | | | | |
| ELGU | | | | Lg | Lg | 22 30 02.1 | |
| | 52nm,0.3s,SNR=7.9 | | | | | | |
| **ELGU** | **Los Guajares,** | **1.70** | **243** | Pn | **Pb** | **22 29 39.2** | **-0.2** |
| | 39nm,0.3s,SNR=7.9 | | | | | | |
| ELGU | | | | Lg | Lg | 22 30 02.2 | |
| | 52nm,0.3s,SNR=7.9 | | | | | | |
| **EGOR** | **Sierra Gorda,** | **1.97** | **254** | Pg | **Pb** | **22 29 44.5** | **+0.5** |
| | 3.6nm,0.2s,SNR=7.9 | | | | | | |
| EGOR | | | | Lg | Lg | 22 30 12.8 | |
| | 65nm,0.4s,SNR=7.9 | | | | | | |
| **EGOR** | **Sierra Gorda,** | **1.97** | **254** | Pg | **Pb** | **22 29 44.5** | **+0.5** |
| | 3.6nm,0.2s,SNR=7.9 | | | | | | |
| EGOR | | | | Lg | Lg | 22 30 12.8 | |
| | 65nm,0.4s,SNR=7.9 | | | | | | |
| **EALB** | **Alboran** | **2.01** | **211** | Pn | **Pn** | **22 29 41.7** | **0.0** |
| | 8.5nm,0.2s,SNR=6.2 | | | | | | |
| EALB | | | | Sn | **Sn** | **22 30 05.5** | **-1.1** |
| | 22nm,0.3s,SNR=7.9 | | | | | | |
| EALB | | | | Lg | Lg | 22 30 12.6 | |
| | 12nm,0.2s,SNR=4.0 | | | | | | |
| **EALB** | **Alboran** | **2.01** | **211** | Pn | **Pn** | **22 29 41.7** | **0.0** |
| | 8.5nm,0.2s,SNR=6.2 | | | | | | |
| EALB | | | | Sn | **Sn** | **22 30 05.5** | **-1.1** |
| | 22nm,0.3s,SNR=7.9 | | | | | | |
| EALB | | | | Lg | Lg | 22 30 12.6 | |
| | 12nm,0.2s,SNR=4.0 | | | | | | |
| **EADA** | **Adamuz** | **2.30** | **283** | Pn | **Pn** | **22 29 46.8** | **+1.1** |
| | 6.5nm,0.2s,SNR=61 | | | | | | |
| EADA | | | | Sn | **Sn** | **22 30 15.7** | **+1.9** |
| | 80nm,0.3s,SNR=17 | | | | | | |
| EADA | | | | Lg | Lg | 22 30 24.5 | |
| | 34nm,0.2s | | | | | | |
| **EADA** | **Adamuz** | **2.30** | **283** | Pn | **Pn** | **22 29 46.8** | **+1.1** |
| | 6.5nm,0.2s,SNR=61 | | | | | | |
| EADA | | | | Sn | **Sn** | **22 30 15.7** | **+1.9** |
| | 80nm,0.3s,SNR=17 | | | | | | |
| EADA | | | | Lg | Lg | 22 30 24.5 | |
| | 34nm,0.2s | | | | | | |
| **EMAL** | **Malaga-Limoner** | **2.33** | **248** | *e*P | **Pb** | **22 29 50.4** | **+0.4** |
| **OKGL** | **Djebel Kef Gue** | **2.51** | **130** | Pn | **Pn** | **22 29 49.1** | **+0.5** |
| | 29nm,0.2s,SNR=7.9 | | | | | | |
| OKGL | | | | Sn | **Sn** | **22 30 18.3** | **-0.6** |
| | 337nm,0.5s,SNR=7.9 | | | | | | |
| **OKGL** | **Djebel Kef Gue** | **2.51** | **130** | Pn | **Pn** | **22 29 49.1** | **+0.5** |
| | 29nm,0.2s,SNR=7.9 | | | | | | |
| **EMIJ** | **Mijas** | **2.66** | **247** | Pn | **Pn** | **22 29 51.6** | **+0.9** |
| | 1.1nm,0.2s,SNR=11 | | | | | | |
| EMIJ | | | | Lg | Lg | 22 30 33.5 | |
| | 16nm,0.4s,SNR=4.0 | | | | | | |
| **EMIJ** | **Mijas** | **2.66** | **247** | Pn | **Pn** | **22 29 51.6** | **+0.9** |
| | 1.1nm,0.2s,SNR=11 | | | | | | |
| EMIJ | | | | Lg | Lg | 22 30 33.5 | |
| | 16nm,0.4s,SNR=4.0 | | | | | | |
| **EIBI** | **Ibiza** | **2.78** | **60** | Pn | **Pn** | **22 29 52.5** | **+0.2** |
| | 8.2nm,0.2s,SNR=12 | | | | | | |
| EIBI | | | | Sn | **Sn** | **22 30 24.8** | **-0.8** |
| | 21nm,0.4s,SNR=5.0 | | | | | | |
| **EIBI** | **Ibiza** | **2.78** | **60** | Pn | **Pn** | **22 29 52.5** | **+0.2** |
| | 8.2nm,0.2s,SNR=12 | | | | | | |
| **EMOS** | **Mosqueruela** | **2.87** | **20** | Pn | **Pn** | **22 29 54.8** | **+1.1** |
| | 0.3nm,0.3s,SNR=7.1 | | | | | | |
| EMOS | | | | Pg | **Pg** | **22 30 03.2** | **-0.2** |
| | 2.3nm,0.3s,SNR=7.1 | | | | | | |
| EMOS | | | | Lg | Lg | 22 30 40.0 | |
| | 8.6nm,0.4s | | | | | | |
| **EMOS** | **Mosqueruela** | **2.87** | **20** | Pn | **Pn** | **22 29 54.8** | **+1.1** |
| | 0.3nm,0.3s,SNR=7.1 | | | | | | |
| **UCM** | **Universidad Co** | **2.89** | **337** | *e*P | **Pb** | **22 29 57.2** | **-2.4** |
| **ECAB** | **El Cabril** | **2.94** | **279** | Pn | **Pn** | **22 29 55.1** | **+0.6** |
| | 6.4nm,0.3s,SNR=52 | | | | | | |
| ECAB | | | | Sn | **Sn** | **22 30 30.3** | **+0.7** |
| | 89nm,0.5s,SNR=20 | | | | | | |
| ECAB | | | | Lg | Lg | 22 30 43.0 | |
| | 31nm,0.2s | | | | | | |
| **ECAB** | **El Cabril** | **2.94** | **279** | Pn | **Pn** | **22 29 55.1** | **+0.6** |
| | 6.4nm,0.3s,SNR=52 | | | | | | |
| ECAB | | | | Sn | **Sn** | **22 30 30.3** | **+0.7** |
| | 89nm,0.5s,SNR=20 | | | | | | |
| ECAB | | | | Lg | Lg | 22 30 43.0 | |
| | 31nm,0.2s | | | | | | |
| **ETOR** | **Torete** | **3.16** | **356** | Pn | **Pn** | **22 29 57.6** | **0.0** |
| | 0.5nm,0.4s,SNR=6.1 | | | | | | |
| ETOR | | | | Pg | **Pg** | **22 30 07.6** | **-1.3** |
| | 2.1nm,0.2s,SNR=115 | | | | | | |
| ETOR | | | | Lg | Lg | 22 30 51.7 | |
| | 17nm,0.3s,SNR=7.3 | | | | | | |
| **ETOR** | **Torete** | **3.16** | **356** | Pn | **Pn** | **22 29 57.6** | **0.0** |
| | 0.5nm,0.4s,SNR=6.1 | | | | | | |
| **ESPR** | **Espera** | **3.38** | **258** | Pn | **Pn** | **22 30 03.4** | **+2.9** |
| | 0.4nm,0.1s,SNR=4.0 | | | | | | |
| ESPR | | | | Sn | **Sb** | **22 30 47.2** | **-1.6** |
| | 6.7nm,0.3s,SNR=4.0 | | | | | | |
| ESPR | | | | Lg | Lg | 22 30 56.1 | |
| | 21nm,0.4s,SNR=4.0 | | | | | | |
| **ESPR** | **Espera** | **3.38** | **258** | Pn | **Pn** | **22 30 03.4** | **+2.9** |
| | 0.4nm,0.1s,SNR=4.0 | | | | | | |
| ESPR | | | | Lg | Lg | 22 30 56.1 | |
| | 21nm,0.4s,SNR=4.0 | | | | | | |
| **GUD** | **Guadarrama** | **3.52** | **328** | Pn | **Pn** | **22 30 03.9** | **+1.4** |
| | 0.2nm,0.1s,SNR=7.9 | | | | | | |
| GUD | | | | Pg | **Pg** | **22 30 14.6** | **-1.1** |
| | 7.8nm,0.4s,SNR=15 | | | | | | |
| GUD | | | | Lg | Lg | 22 30 59.3 | |
| | 4.5nm,0.3s,SNR=7.9 | | | | | | |
| **GUD** | **Guadarrama** | **3.52** | **328** | Pn | **Pn** | **22 30 03.9** | **+1.4** |
| | 0.2nm,0.1s,SNR=7.9 | | | | | | |
| **ERTA** | **Horta de San J** | **3.66** | **25** | Pn | **Pn** | **22 30 06.1** | **+1.7** |
| | 0.4nm,0.1s,SNR=6.7 | | | | | | |
| ERTA | | | | Sn | **Sn** | **22 30 48.3** | **+1.0** |
| | 3.9nm,0.4s,SNR=7.9 | | | | | | |
| **ERTA** | **Horta de San J** | **3.66** | **25** | Pn | **Pn** | **22 30 06.1** | **+1.7** |
| | 0.4nm,0.1s,SNR=6.7 | | | | | | |
| ERTA | | | | Sn | **Sn** | **22 30 48.3** | **+1.0** |
| | 3.9nm,0.4s,SNR=7.9 | | | | | | |
| **EMIN** | **Mina Concepcio** | **3.91** | **273** | Pn | **Pn** | **22 30 08.5** | **+0.6** |
| | 0.5nm,0.1s,SNR=12 | | | | | | |
| EMIN | | | | Sn | **Sn** | **22 30 53.3** | **-0.2** |
| | 16nm,0.5s,SNR=7.9 | | | | | | |
| EMIN | | | | Lg | Lg | 22 31 12.5 | |
| | 15nm,0.4s,SNR=7.9 | | | | | | |
| **EMIN** | **Mina Concepcio** | **3.91** | **273** | Pn | **Pn** | **22 30 08.5** | **+0.6** |
| | 0.5nm,0.1s,SNR=12 | | | | | | |
| EMIN | | | | Sn | **Sn** | **22 30 53.3** | **-0.2** |
| | 16nm,0.5s,SNR=7.9 | | | | | | |
| EMIN | | | | Lg | Lg | 22 31 12.5 | |
| | 15nm,0.4s,SNR=7.9 | | | | | | |
| **ETOS** | **Mallorca** | **4.13** | **58** | Pn | **Pn** | **22 30 12.0** | **+1.1** |
| | 2.1nm,0.3s,SNR=5.1 | | | | | | |
| **ETOS** | **Mallorca** | **4.13** | **58** | Pn | **Pn** | **22 30 12.0** | **+1.1** |
| | 2.1nm,0.3s,SNR=5.1 | | | | | | |
| **EPLA** | **Plasencia** | **4.15** | **307** | Pn | **Pn** | **22 30 12.3** | **+1.1** |
| | 3.0nm,0.4s,SNR=7.9 | | | | | | |
| EPLA | | | | Pg | **Pg** | **22 30 26.8** | **-1.0** |
| | 1.6nm,0.2s,SNR=6.9 | | | | | | |
| EPLA | | | | Sn | **Sn** | **22 30 59.7** | **+0.3** |
| | 2.9nm,0.2s,SNR=7.9 | | | | | | |
| EPLA | | | | Lg | Lg | 22 31 18.5 | |
| | 4.7nm,0.2s,SNR=7.9 | | | | | | |
| **EPLA** | **Plasencia** | **4.15** | **307** | Pn | **Pn** | **22 30 12.3** | **+1.1** |
| | 3.0nm,0.4s,SNR=7.9 | | | | | | |
| **ESAC** | **San Caprasio** | **4.17** | **13** | Pg | **Pg** | **22 30 28.2** | **0.0** |
| | 14nm,0.3s,SNR=4.7 | | | | | | |
| ESAC | | | | Lg | Lg | 22 31 23.2 | |
| | 32nm,0.3s,SNR=4.0 | | | | | | |
| **ESAC** | **San Caprasio** | **4.17** | **13** | Pg | **Pg** | **22 30 28.2** | **0.0** |
| | 14nm,0.3s,SNR=4.7 | | | | | | |
| ESAC | | | | Lg | Lg | 22 31 23.2 | |
| | 32nm,0.3s,SNR=4.0 | | | | | | |
| **PBAR** | **Barrancos** | **4.22** | **279** | *e*Pn | **Pn** | **22 30 13.7** | **+1.6** |
| PBAR | | | | *e*Sn | **Sn** | **22 31 02.1** | **+1.0** |
| PBAR | | | | A | A | 22 31 33.8 | |
| | 47nm,0.6s | | | | | | |
| **EPOB** | **Poblet** | **4.28** | **30** | Pn | **Pn** | **22 30 14.0** | **+1.0** |
| | 0.7nm,0.3s,SNR=7.9 | | | | | | |
| **EPOB** | **Poblet** | **4.28** | **30** | Pn | **Pn** | **22 30 14.0** | **+1.0** |
| | 0.7nm,0.3s,SNR=7.9 | | | | | | |
| **EBAD** | **Badajoz** | **4.29** | **286** | Pn | **Pn** | **22 30 13.8** | **+0.7** |
| | 1.3nm,0.2s,SNR=14 | | | | | | |
| EBAD | | | | Sn | **Sn** | **22 31 01.2** | **-1.7** |
| | 12nm,0.3s,SNR=7.9 | | | | | | |
| EBAD | | | | Lg | Lg | 22 31 23.9 | |
| | 18nm,0.2s,SNR=7.9 | | | | | | |
| **EBAD** | **Badajoz** | **4.29** | **286** | Pn | **Pn** | **22 30 13.8** | **+0.7** |
| | 1.3nm,0.2s,SNR=14 | | | | | | |
| EBAD | | | | Lg | Lg | 22 31 23.9 | |
| | 18nm,0.2s,SNR=7.9 | | | | | | |
| **EGRO** | **El Granado** | **4.56** | **270** | Pn | **Pn** | **22 30 17.6** | **+0.8** |
| | 1.4nm,0.2s,SNR=5.7 | | | | | | |
| EGRO | | | | Sn | **Sn** | **22 31 08.7** | **-0.8** |
| | 6.4nm,0.3s,SNR=7.9 | | | | | | |
| EGRO | | | | Lg | Lg | 22 31 31.6 | |
| | 3.1nm,0.2s,SNR=7.9 | | | | | | |
| **EGRO** | **El Granado** | **4.56** | **270** | Pn | **Pn** | **22 30 17.6** | **+0.8** |
| | 1.4nm,0.2s,SNR=5.7 | | | | | | |
| EGRO | | | | Sn | **Sn** | **22 31 08.7** | **-0.8** |
| | 6.4nm,0.3s,SNR=7.9 | | | | | | |
| EGRO | | | | Lg | Lg | 22 31 31.6 | |
| | 3.1nm,0.2s,SNR=7.9 | | | | | | |
| **PESTR** | **Estremoz** | **4.76** | **286** | *e*Pn | **Pn** | **22 30 20.1** | **+0.6** |
| PESTR | | | | *e*Sn | **Sn** | **22 31 15.2** | **+0.8** |
| PESTR | | | | A | A | 22 31 49.0 | |
| | 26nm,0.6s | | | | | | |
| **PVAQ** | **Vaqueiros** | **4.76** | **269** | *e*Pn | **Pn** | **22 30 20.2** | **+0.7** |
| PVAQ | | | | *e*Sn | **Sn** | **22 31 15.1** | **+0.7** |
| PVAQ | | | | A | A | 22 31 56.5 | |
| | 10nm,0.7s | | | | | | |
| **PMRV** | **Marv??o** | **4.77** | **293** | *e*Pn | **Pn** | **22 30 21.4** | **+1.8** |
| PMRV | | | | *e*Sn | **Sn** | **22 31 14.9** | **+0.3** |
| PMRV | | | | A | A | 22 31 45.2 | |
| | 20nm,0.5s | | | | | | |
| **PBEJ** | **Beja** | **4.86** | **276** | *e*Pn | **Pn** | **22 30 22.4** | **+1.5** |
| PBEJ | | | | *e*Sn | **Sn** | **22 31 16.6** | **-0.4** |
| **PBDV** | **Barranco-do-Ve** | **4.94** | **267** | *e*Pn | **Pn** | **22 30 23.6** | **+1.5** |
| PBDV | | | | *e*Sn | **Sn** | **22 31 19.0** | **0.0** |
| PBDV | | | | A | A | 22 32 01.1 | |
| | 12nm,0.6s | | | | | | |
| **PCVE** | **Castro Verde** | **5.00** | **272** | *e*Pn | **Pn** | **22 30 24.2** | **+1.4** |
| PCVE | | | | *e*Sn | **Sn** | **22 31 20.8** | **+0.5** |
| PCVE | | | | A | A | 22 31 50.7 | |
| | 16nm,0.5s | | | | | | |
| **EVO** | **Evora** | **5.02** | **282** | *e*Pn | **Pn** | **22 30 24.4** | **+1.3** |
| EVO | | | | *e*Sn | **Sn** | **22 31 21.8** | **+0.9** |
| EVO | | | | A | A | 22 31 58.2 | |
| | 15nm,0.6s | | | | | | |
| **MESJ** | **Messejana** | **5.14** | **274** | *e*P | **Pn** | **22 30 25.2** | **+0.5** |
| **MESJ** | **Messejana** | **5.14** | **274** | *e*Pn | **Pn** | **22 30 25.6** | **+0.9** |
| MESJ | | | | *e*Sn | **Sn** | **22 31 24.1** | **+0.4** |
| MESJ | | | | A | A | 22 32 01.8 | |
| | 12nm,0.7s | | | | | | |
| **IELO** | **Elcoad** | **5.19** | **4** | Pn | **Pn** | **22 30 28.0** | **+2.6** |
| | 1.6nm,0.3s,SNR=7.9 | | | | | | |
| **IELO** | **Elcoad** | **5.19** | **4** | Pn | **Pn** | **22 30 28.0** | **+2.6** |
| | 1.6nm,0.3s,SNR=7.9 | | | | | | |
| **CSOR** | **Sort** | **5.20** | **24** | Pn | **Pn** | **22 30 27.1** | **+1.5** |
| | 0.7nm,0.3s,SNR=7.9 | | | | | | |
| CSOR | | | | Sn | **Sn** | **22 31 22.4** | **-2.9** |
| | 1.6nm,0.4s,SNR=7.9 | | | | | | |
| CSOR | | | | Lg | Lg | 22 31 54.4 | |
| | 4.5nm,0.5s,SNR=4.0 | | | | | | |
| **CSOR** | **Sort** | **5.20** | **24** | Pn | **Pn** | **22 30 27.1** | **+1.5** |
| | 0.7nm,0.3s,SNR=7.9 | | | | | | |
| CSOR | | | | Lg | Lg | 22 31 54.4 | |
| | 4.5nm,0.5s,SNR=4.0 | | | | | | |
| **CFON** | **Fontmartina** | **5.21** | **37** | Pn | **Pn** | **22 30 26.9** | **+1.2** |
| | 0.5nm,0.2s,SNR=7.9 | | | | | | |
| **CFON** | **Fontmartina** | **5.21** | **37** | Pn | **Pn** | **22 30 26.9** | **+1.2** |
| | 0.5nm,0.2s,SNR=7.9 | | | | | | |
| **EORO** | **Oroz-Betelu** | **5.23** | **3** | Pn | **Pn** | **22 30 29.0** | **+2.9** |
| | 3.2nm,0.3s,SNR=6.1 | | | | | | |
| EORO | | | | Lg | Lg | 22 31 56.6 | |
| | 0.9nm,0.1s,SNR=5.0 | | | | | | |
| **EORO** | **Oroz-Betelu** | **5.23** | **3** | Pn | **Pn** | **22 30 29.0** | **+2.9** |
| | 3.2nm,0.3s,SNR=6.1 | | | | | | |
| EORO | | | | Lg | Lg | 22 31 56.7 | |
| | 0.9nm,0.1s,SNR=5.0 | | | | | | |
| **PMTG** | **Montargil** | **5.29** | **287** | *e*Pn | **Pn** | **22 30 28.5** | **+1.8** |
| PMTG | | | | *e*Sn | **Sn** | **22 31 26.9** | **-0.5** |
| PMTG | | | | A | A | 22 32 05.1 | |
| | 25nm,0.5s | | | | | | |
| **MVO** | **Moncorvo** | **5.38** | **312** | Pn | **Pn** | **22 30 28.2** | **0.0** |
| | 0.6nm,0.1s,SNR=7.9 | | | | | | |
| MVO | | | | Sn | **Sn** | **22 31 29.6** | **-0.3** |
| | 4.7nm,0.3s,SNR=7.9 | | | | | | |
| MVO | | | | Lg | Lg | 22 31 58.2 | |
| | 4.4nm,0.3s,SNR=7.9 | | | | | | |
| **MVO** | **Moncorvo** | **5.38** | **312** | Pn | **Pn** | **22 30 28.2** | **0.0** |
| | 0.6nm,0.1s,SNR=7.9 | | | | | | |
| MVO | | | | Sn | **Sn** | **22 31 29.6** | **-0.3** |
| | 4.7nm,0.3s,SNR=7.9 | | | | | | |
| MVO | | | | Lg | Lg | 22 31 58.2 | |
| | 4.4nm,0.3s,SNR=7.9 | | | | | | |
| **ATE** | **Arette** | **5.47** | **8** | Pn | **Pn** | **22 30 31.5** | **+2.2** |
| | 0.8nm,0.3s,SNR=7.9 | | | | | | |
| **ATE** | **Arette** | **5.47** | **8** | Pn | **Pn** | **22 30 31.5** | **+2.2** |
| | 0.8nm,0.3s,SNR=7.9 | | | | | | |
| **MORF** | **Marmelete** | **5.51** | **268** | *e*Pn | **Pn** | **22 30 31.5** | **+1.6** |
| MORF | | | | *e*Sn | **Sn** | **22 31 32.9** | **0.0** |
| MORF | | | | A | A | 22 32 17.6 | |
| | 5.1nm,0.6s | | | | | | |
| **EALK** | **Alkurruntz** | **5.55** | **2** | Pn | **Pn** | **22 30 33.2** | **+2.7** |
| | 1.7nm,0.3s,SNR=7.9 | | | | | | |
| EALK | | | | Sn | **Sn** | **22 31 34.0** | **0.0** |
| | 7.4nm,0.4s,SNR=7.9 | | | | | | |
| EALK | | | | Lg | Lg | 22 32 09.2 | |
| | 4.4nm,0.4s,SNR=5.0 | | | | | | |
| **EALK** | **Alkurruntz** | **5.55** | **2** | Pn | **Pn** | **22 30 33.2** | **+2.7** |
| | 1.7nm,0.3s,SNR=7.9 | | | | | | |
| EALK | | | | Sn | **Sn** | **22 31 34.0** | **0.0** |
| | 7.4nm,0.4s,SNR=7.9 | | | | | | |
| EALK | | | | Lg | Lg | 22 32 09.2 | |
| | 4.4nm,0.4s,SNR=5.0 | | | | | | |
| **PTOM** | **Tomar** | **5.57** | **293** | *e*P | **Pn** | **22 30 33.6** | **+2.9** |
| PTOM | | | | *e*Sn | **Sn** | **22 31 34.3** | **-0.2** |
| PTOM | | | | A | A | 22 32 14.5 | |
| | 25nm,0.6s | | | | | | |
| **CLLI** | **Llivia** | **5.59** | **29** | Pn | **Pn** | **22 30 33.3** | **+2.3** |
| | 0.9nm,0.3s,SNR=7.9 | | | | | | |
| **CLLI** | **Llivia** | **5.59** | **29** | Pn | **Pn** | **22 30 33.3** | **+2.3** |
| | 0.9nm,0.3s,SNR=7.9 | | | | | | |
| **PFVI** | **Vila Bisbo** | **5.67** | **267** | Pn | **Pn** | **22 30 33.4** | **+1.4** |
| | 2.3nm,0.3s,SNR=7.9 | | | | | | |
| PFVI | | | | Sn | **Sn** | **22 31 35.5** | **-1.3** |
| | 3.7nm,0.2s,SNR=7.9 | | | | | | |
| PFVI | | | | Lg | Lg | 22 32 07.3 | |
| | 3.6nm,0.3s,SNR=7.9 | | | | | | |
| **PFVI** | **Vila Bisbo** | **5.67** | **267** | Pn | **Pn** | **22 30 33.4** | **+1.4** |
| | 2.3nm,0.3s,SNR=7.9 | | | | | | |
| PFVI | | | | Sn | **Sn** | **22 31 35.5** | **-1.3** |
| | 3.7nm,0.2s,SNR=7.9 | | | | | | |
| PFVI | | | | Lg | Lg | 22 32 07.3 | |
| | 3.6nm,0.3s,SNR=7.9 | | | | | | |
| **PFVI** | **Vila Bisbo** | **5.67** | **267** | *e*Pn | **Pn** | **22 30 33.6** | **+1.6** |
| PFVI | | | | *e*Sn | **Sn** | **22 31 36.5** | **-0.3** |
| PFVI | | | | A | A | 22 32 35.4 | |
| | 8.7nm,1.0s | | | | | | |
| **ELAN** | **Lanestosa** | **5.71** | **347** | Pn | **Pn** | **22 30 34.1** | **+1.5** |
| | 0.4nm,0.2s,SNR=7.9 | | | | | | |
| ELAN | | | | Sn | **Sn** | **22 31 36.4** | **-1.4** |
| | 1.3nm,0.4s,SNR=7.9 | | | | | | |
| ELAN | | | | Lg | Lg | 22 32 11.0

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **EPON** | **Pontenova** 3.6nm,0.4s,SNR=4.0 | **7.00** | **326** | Lg | Lg | 22 32 51.2 | | |
| **EPON** | **Pontenova** 3.6nm,0.4s,SNR=4.0 | **7.00** | **326** | Lg | Lg | 22 32 51.2 | | |

*CSEM* ***19*** *22:38:40.9±0.3, 38°.71N×43°.52E, h10km, MD2.6, Error ellipse: s-maj=7.3km s-min=5.2km az=106.0*
*DDA* ***19*** *22:38:40.6, 38°.71N×43°.56E, h7km, Ml2.8*
*ISK* ***19*** *22:38:40.8, 38°.72N×43°.46E, h6km, MD2.6*
*ISCJB* ***19*** *22:38:41.5±0.5, 38°.71N±0°.02×43°.53E±0°.05, h11km±4km, Error ellipse: s-maj=6.4km s-min=3.9km az=15.4*

**ISC 19 22:38:41.3±0.9, 38°.71N±0°.02×43°.56E±0°.03, h13km±7km, n34, σ1§08/51, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.17** | **230** | *e*PG | **Pg** | **22 38 45.6** | **+0.3** |
| **VANB** | **Van** | **0.17** | **230** | *e*Pg | **Pg** | **22 38 45.6** | **+0.3** |
| **TVAN** | **Van** | **0.21** | **214** | *i* P | **Pg** | **22 38 45.4** | **-0.7** |
| TVAN | | | | *i* S | **Sg** | **22 38 49.7** | **+0.4** |
| **TVAN** | **Van** | **0.21** | **214** | P | **Pg** | **22 38 45.4** | **-0.7** |
| TVAN | | | | S | **Sg** | **22 38 49.7** | **+0.4** |
| **VMUR** | **Van-Muradiye** | **0.28** | **2** | *i* P | **Pg** | **22 38 46.4** | **-1.0** |
| VMUR | | | | *i* S | **Sb** | **22 38 53.0** | **-0.2** |
| **VMUR** | **Van-Muradiye** | **0.28** | **2** | P | **Pg** | **22 38 46.3** | **-1.0** |
| VMUR | | | | S | **Sb** | **22 38 53.0** | **-0.2** |
| **CLDR** | **Caldiran** | **0.52** | **33** | *e*PG | **Pb** | **22 38 52.0** | **-0.5** |
| CLDR | | | | *e*SG | **Sb** | **22 39 00.1** | **+0.1** |
| **CLDR** | **Caldiran** | **0.52** | **33** | *i* P | **Pg** | **22 38 50.9** | **-0.7** |
| CLDR | | | | *i* S | **Sb** | **22 39 00.2** | **+0.1** |
| **CLDR** | **Caldiran** | **0.52** | **33** | P | **Pg** | **22 38 50.9** | **-0.7** |
| **CLDR** | **Caldiran** | **0.52** | **33** | *e*Pg | **Pb** | **22 38 52.0** | **-0.5** |
| CLDR | | | | *e*Sg | **Sb** | **22 39 00.1** | **+0.1** |
| **GEVA** | **Gevas** | **0.55** | **225** | *i* P | **Pg** | **22 38 50.8** | **-1.4** |
| GEVA | | | | *i* S | **Sb** | **22 39 01.4** | **+0.5** |
| **GEVA** | **Gevas** | **0.55** | **225** | P | **Pg** | **22 38 50.8** | **-1.4** |
| GEVA | | | | S | **Sb** | **22 39 01.4** | **+0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.66** | **279** | *i* P | **Pg** | **22 38 52.6** | **-1.6** |
| ADCV | | | | *i* S | **Sb** | **22 39 03.9** | **0.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.66** | **279** | P | **Pg** | **22 38 52.6** | **-1.6** |
| ADCV | | | | S | **Sb** | **22 39 03.9** | **0.0** |
| **TUTA** | **Tutak** | **0.90** | **320** | *i* P | **Pg** | **22 38 57.3** | **-1.5** |
| TUTA | | | | *i* S | **Sb** | **22 39 10.6** | **-0.5** |
| **TUTA** | **Tutak** | **0.90** | **320** | P | **Pg** | **22 38 57.3** | **-1.5** |
| TUTA | | | | S | **Sb** | **22 39 10.6** | **-0.5** |
| **AGRB** | **Hanur-Agry** | **0.97** | **333** | *e*PG | **Pg** | **22 38 59.0** | **-1.1** |
| **AGRB** | **Hanur-Agry** | **0.97** | **333** | *e*Pg | **Pg** | **22 38 59.0** | **-1.1** |
| **HAKT** | **HAKKARI** | **1.15** | **174** | *i* P | **Pg** | **22 39 01.4** | **-2.1** |
| HAKT | | | | *i* S | **Sn** | **22 39 20.1** | **+0.9** |
| **HAKT** | **HAKKARI** | **1.15** | **174** | P | **Pg** | **22 39 01.4** | **-2.1** |
| HAKT | | | | S | **Sn** | **22 39 20.1** | **+0.9** |
| **EKAR** | **Karacoban** | **1.29** | **296** | *i* P | **Pn** | **22 39 06.3** | **+1.0** |
| EKAR | | | | *i* S | **Sn** | **22 39 25.9** | **+3.4** |
| **EKAR** | **Karacoban** | **1.29** | **296** | P | **Pn** | **22 39 06.3** | **+1.0** |
| **TASB** | **TASBURUN-IGDIR** | **1.38** | **22** | *e*PN | **Pg** | **22 39 07.3** | **-0.5** |
| **TASB** | **TASBURUN-IGDIR** | **1.38** | **22** | *e*Pn | **Pg** | **22 39 07.3** | **-0.5** |
| **EATA** | **Eleskirt** | **1.42** | **325** | *i* P | **Pn** | **22 39 07.1** | **-0.1** |
| EATA | | | | *i* S | **Sn** | **22 39 27.8** | **+1.9** |
| **EATA** | **Eleskirt** | **1.42** | **325** | P | **Pn** | **22 39 07.1** | **-0.1** |
| **CUKT** | **Cukurca** | **1.46** | **178** | *e*PN | **Pg** | **22 39 09.0** | **-0.3** |
| **CUKT** | **Cukurca** | **1.46** | **178** | *e*Pn | **Pg** | **22 39 09.0** | **-0.3** |
| **VRTB** | **Varto-Mus** | **1.70** | **286** | *e*PN | **Pn** | **22 39 10.6** | **-0.3** |
| **VRTB** | **Varto-Mus** | **1.70** | **286** | *e*Pn | **Pn** | **22 39 10.6** | **-0.3** |
| **SENK** | **Senkaya-Erzuru** | **2.07** | **334** | *e*PN | **Pn** | **22 39 16.5** | **+0.4** |
| **SENK** | **Senkaya-Erzuru** | **2.07** | **334** | *e*Pn | **Pn** | **22 39 16.5** | **+0.4** |
| **BNGB** | **Bing¶ll** | **2.27** | **278** | *e*PN | **Pn** | **22 39 18.6** | **0.0** |
| **BINT** | **Bingol** | **2.40** | **275** | *e*Pn | **Pn** | **22 39 18.6** | **-1.9** |

*ISCJB* ***19*** *22:40:25.7±0.8, 36°.96N±0°.03×38°.93E±0°.04, h4km±7km, Error ellipse: s-maj=5.4km s-min=4.6km az=14.9*
*CSEM* ***19*** *22:40:25.8±0.2, 36°.98N×38°.97E, h2km, ML2.8, Error ellipse: s-maj=5.8km s-min=4.3km az=158.0*
*ISK* ***19*** *22:40:26.3, 37°.00N×38°.97E, h8km, MD2.8*
*DDA* ***19*** *22:40:29.2, 37°.01N×38°.57E, h7km, Ml2.8*
*NSSC* ***19*** *22:40:30.0±1.5, 36°.19N×39°.00E, h0km±9km, ML1.7*

**ISC 19 22:40:25.5±1.1, 36°.98N±0°.03×38°.95E±0°.03, h7km±11km, n27, σ1§21/41, Jordan-Syria region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SURC** | **SANLIURFA_SURC** | **0.29** | **250** | *i* P | **Pg** | **22 40 31.2** | **0.0** |
| SURC | | | | *i* S | **Sg** | **22 40 34.7** | **-0.3** |
| **SURC** | **SANLIURFA_SURC** | **0.29** | **250** | P | **Pg** | **22 40 31.2** | **0.0** |
| SURC | | | | S | **Sg** | **22 40 34.7** | **-0.3** |
| **URFA** | **Urfa** | **0.47** | **348** | *e*PG | **Pb** | **22 40 35.6** | **-0.5** |
| URFA | | | | *e*SG | **Sb** | **22 40 42.4** | **-1.0** |
| **URFA** | **Urfa** | **0.47** | **348** | *e*Pg | **Pb** | **22 40 35.7** | **-0.5** |
| URFA | | | | *e*Sg | **Sb** | **22 40 42.4** | **-1.0** |
| **ATAB** | **Bozova** | **0.72** | **313** | *i* P | **Pg** | **22 40 39.2** | **-0.1** |
| ATAB | | | | *i* S | **Sg** | **22 40 48.0** | **-0.6** |
| **ATAB** | **Bozova** | **0.72** | **313** | P | **Pg** | **22 40 39.2** | **-0.1** |
| ATAB | | | | S | **Sg** | **22 40 48.0** | **-0.6** |
| **SFNV** | **Sufian** | **1.09** | **121** | *e*P | **Pb** | **22 40 48.1** | **+1.4** |
| SFNV | | | | *e*S | **Sg** | **22 41 00.2** | **-0.4** |
| SFNV | comp=N,45nm,0.2s | | | AML | AML | 22 41 05.7 | |
| SFNV | comp=E,27nm,0.4s | | | AML | AML | 22 41 06.2 | |
| **KSRV** | **Kasrt alli** | **1.11** | **178** | *e*P | **Pg** | **22 40 47.6** | **+0.7** |
| KSRV | | | | AML | AML | 22 40 48.2 | |
| KSRV | comp=E,7.7nm,0.2s | | | *e*S | **Sg** | **22 41 01.6** | **+0.3** |
| KSRV | | | | AML | AML | 22 41 06.4 | |
| **SLMH** | **Al Salmeh** | **1.12** | **227** | *e*P | **Pg** | **22 40 46.4** | **-0.6** |
| SLMH | | | | *e*S | **Sg** | **22 40 59.5** | **-2.0** |
| SLMH | comp=E,24nm,0.7s | | | AML | AML | 22 41 03.4 | |
| SLMH | comp=N,56nm,0.5s | | | AML | AML | 22 41 04.3 | |
| **MAZI** | **Mazidag** | **1.29** | **68** | *e*PN | **Pn** | **22 40 50.8** | **+0.7** |
| MAZI | | | | *e*SN | **Sn** | **22 41 08.5** | **+0.9** |
| **MAZI** | **Mazidag** | **1.29** | **68** | *e*Pn | **Pn** | **22 40 50.8** | **+0.7** |
| MAZI | | | | *e*Sn | **Sn** | **22 41 08.5** | **+0.9** |
| **DYBB** | **Diyarbakir** | **1.36** | **44** | *e*PN | **Pn** | **22 40 51.7** | **+0.7** |
| **DIY** | **Diyarbakir** | **1.37** | **48** | *e*Pn | **Pn** | **22 40 51.7** | **+0.6** |
| **MALT** | **Malatya** | **1.40** | **343** | *e*PN | **Pb** | **22 40 52.4** | **+0.4** |
| **MALT** | **Malatya** | **1.40** | **343** | *e*Pn | **Pb** | **22 40 52.4** | **+0.4** |
| **GAZ** | **Gaziantep** | **1.40** | **278** | *e*PN | **Pn** | **22 40 53.0** | **+1.4** |
| **GAZ** | **Gaziantep** | **1.40** | **278** | *e*Pn | **Pn** | **22 40 53.0** | **+1.4** |
| **SVRC** | **Sivrice-ELAZID** | **1.43** | **11** | *e*PN | **Pb** | **22 40 52.7** | **+0.2** |
| **SVRC** | **Sivrice-ELAZID** | **1.43** | **11** | *e*Pn | **Pb** | **22 40 52.7** | **+0.2** |
| **AKCD** | **Akcadag** | **1.55** | **329** | *i* P | **Pg** | **22 40 55.4** | **+0.2** |
| AKCD | | | | *i* S | **Sb** | **22 41 14.6** | **+0.2** |
| **AKCD** | **Akcadag** | **1.55** | **329** | P | **Pg** | **22 40 55.4** | **+0.2** |
| AKCD | | | | S | **Sb** | **22 41 14.6** | **+0.2** |
| **HCB** | **Kahramanmara¯** | **1.67** | **283** | *i* P | **Pn** | **22 40 55.1** | **-0.1** |
| **KMRS** | **Kahramanmaras** | **1.72** | **288** | *e*PN | **Pn** | **22 40 57.4** | **+1.5** |
| **KMRS** | **Kahramanmaras** | **1.72** | **288** | *e*Pn | **Pn** | **22 40 57.4** | **+1.5** |
| **MZRK** | **Al-Mazaregh** | **1.79** | **129** | *e*P | **Pn** | **22 40 56.7** | **-0.1** |
| MZRK | | | | *e*S | **Sn** | **22 41 15.1** | **-4.8** |
| MZRK | comp=N,25nm,0.5s | | | AML | AML | 22 41 21.1 | |
| MZRK | comp=E,26nm,0.2s | | | AML | AML | 22 41 21.2 | |
| **TAHT** | **Tahtakopru-Hat** | **2.30** | **256** | *e*PN | **Pn** | **22 41 05.8** | **+1.9** |
| **TAHT** | **Tahtakopru-Hat** | **2.30** | **256** | *e*Pn | **Pn** | **22 41 05.8** | **+1.9** |

**SCB 19 22:40:54.8±0.1, 18°.02S×65°.06W, h31km, Ml3.5/3, 14C, Error ellipse: s-maj=4.2km s-min=2.7km az=24.0, Central Bolivia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BBOE** | **La Paz, Chanca** | **3.04** | **293** | ⇑*i*Pn | Pb | 22 41 47.8 | -0.8 |
| **BBOJ** | **La Paz, Jacaqu** | **3.17** | **289** | ⇑*i*Pn | Pb | 22 41 49.8 | -1.0 |
| **BBOJ** | **La Paz, Jacaqu** | **3.17** | **289** | ⇑*i*Pg | Pb | 22 41 52.6 | +1.8 |
| BBOJ | | | | ⇑*i*Sn | Sb | 22 42 29.7 | +0.5 |
| BBOJ | | | | ⇑*i*Sg | Sn | 22 42 34.9 | +15 |
| **MOCB** | **Mochara** 30nm,0.5s | **3.26** | **190** | ⇑*i*Pn | Pb | 22 41 50.6 | -1.7 |
| MOCB | | | | *e*Sn | Sb | 22 42 31.3 | -0.4 |
| **LPAZ** | **La Paz** 30nm,0.4s | **3.41** | **300** | ⇑*i*Pn | Pb | 22 41 52.8 | -2.1 |
| **LPAZ** | **La Paz** | **3.41** | **300** | ⇑*i*Pg | Pb | 22 41 56.4 | +1.5 |
| LPAZ | | | | *e*Sn | Sb | 22 42 35.6 | -0.5 |
| **BBOB** | **La Paz, Bander** | **3.49** | **302** | ⇑*i*Pn | Pb | 22 41 53.4 | -2.8 |
| **BBOB** | **La Paz, Bander** | **3.49** | **302** | ⇑*i*Pg | Pb | 22 41 58.4 | +2.2 |
| BBOB | | | | ⇑*i*Sn | Sb | 22 42 36.8 | -1.5 |
| BBOB | | | | ⇑*i*Sg | Sn | 22 42 43.4 | +16 |
| **BBOD** | **La Paz, Gloria** 96nm,0.3s | **3.65** | **292** | ⇑*i*Pn | Pb | 22 41 56.1 | -2.9 |
| **SIV** | **San Ignacio** | **4.31** | **63** | ⇑*i*Pn | Pb | 22 42 05.3 | -4.6 |
| SIV | | | | *e*Sn | Sb | 22 42 55.3 | -6.3 |

**IDC 19 22:50:44.7±12.0, 14°.89S×164°.97E, h0km, mb3.8/3, mb1 3.9/4, mb1mx3.5/34, mbtmp3.7/4, ML3.0/1, MS2.7/1, Ms1 2.7/1, ms1mx2.3/23, Error ellipse: s-maj=217.0km s-min=35.3km az=51.0, Vanuatu Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** 0.3nm,0.3s,baz=180,slow=20,SNR=3.2 | **7.28** | **169** | Pn | Pn | 22 52 32.8 | +0.3 |
| DZM | | | | Sn | Sn | 22 53 56.4 | +0.4 |
| **STKA** | **Stephens Creek** 1.5nm,0.4s,baz=52,slow=9.7,SNR=6.8 | **27.22** | **228** | P | P | 22 56 29.9 | -0.5 |
| **WRA** | **Warramunga Arr** 0.2nm,0.4s,baz=85,slow=9.0,SNR=8.0 | **29.62** | **256** | P | P | 22 56 52.2 | +0.2 |
| WRA | comp=Z,14nm,18.2s,baz=135,slow=38 | | | LR | LR | 23 09 40.9 | |
| **ASAR** | **Alice Springs** 0.4nm,0.4s,baz=77,slow=9.6,SNR=6.1 | **30.54** | **249** | P | P | 22 57 00.3 | +0.2 |

**IDC 19 22:54:52.4±3.3, 46°.16N×154°.68E, h0km, mb4.0/2, mb1 4.2/3, mb1mx3.5/37, mbtmp4.0/3, ML3.0/1, Error ellipse: s-maj=76.5km s-min=56.0km az=32.0, East of Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PETK** | **Petropavlovsk-** 1.4nm,0.3s,baz=188,slow=13,SNR=7.8 | **7.22** | **15** | Pn | Pn | 22 56 39.1 | -0.1 |
| **FINES** | **FINESS Array B** 5.1nm,1.0s,baz=38,slow=7.0,SNR=4.3 | **65.03** | **336** | P | P | 23 05 34.0 | +0.2 |
| **TXAR** | **Lajitas Array** 0.1nm,0.6s,baz=316,slow=5.0,SNR=4.0 | **76.83** | **61** | P | P | 23 06 46.2 | -0.1 |

*ISCJB* ***19*** *23:10:09.1±0.4, 43°.22N±0°.05×142°.78E±0°.06, h171km±3km, mb3.6/7, Error ellipse: s-maj=8.2km s-min=6.2km az=151.7*
*IDC* ***19*** *23:10:09.8±1.1, 43°.28N×142°.81E, h163km±6km, mb3.3/7, mb1 3.4/7, mb1mx3.1/31, mbtmp3.7/7, Error ellipse: s-maj=24.3km s-min=21.2km az=55.0*
*JMA* ***19*** *23:10:10.8±0.1, 43°.23N×142°.72E, h164km±1km, M2.8*

**ISC 19 23:10:10.1±0.8, 43°.23N±0°.05×142°.77E±0°.05, h168km±6km, n26, σ0§67/40, mb3.5/7, Hokkaido region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JFR** | **Furan** | **0.14** | **241** | P | **Pn** | **23 10 32.9** | **+0.4** |
| JFR | | | | *e*S | **Sn** | **23 10 49.5** | **-0.1** |
| **JAB** | **Ashibetsu** | **0.48** | **305** | P | **Pn** | **23 10 33.6** | **+0.2** |
| JAB | | | | *e*S | **Sn** | **23 10 50.9** | **-0.4** |
| **JBT2** | **Biratori 2** | **0.54** | **213** | P | **Pn** | **23 10 34.1** | **+0.4** |
| JBT2 | | | | *e*S | **Sn** | **23 10 51.5** | **-0.3** |
| **JKK2** | **Kamakawa 2** | **0.64** | **359** | P | **Pn** | **23 10 34.6** | **+0.4** |
| JKK2 | | | | *e*S | **Sn** | **23 10 52.1** | **-0.8** |
| **JAR** | **Ashorobuto** | **0.73** | **85** | P | **Pn** | **23 10 35.3** | **+0.6** |
| JAR | | | | *e*S | **Sn** | **23 10 53.8** | **+0.1** |
| **JCH** | **Churui** | **0.76** | **145** | P | **Pn** | **23 10 34.9** | **0.0** |
| JCH | | | | *e*S | **Sn** | **23 10 53.2** | **-0.7** |
| **ASAJ** | **Asahikawa** 29nm,0.3s,baz=222,slow=5.4,SNR=19 | **0.89** | **352** | P | **Pn** | **23 10 35.7** | **0.0** |
| ASAJ | 1.9nm,0.3s,baz=360,slow=19,SNR=4.9 | | | S | **Sn** | **23 10 54.3** | **-1.4** |
| **JHR** | **Hokuryu** | **0.91** | **304** | P | **Pn** | **23 10 36.3** | **+0.4** |
| JHR | | | | *e*S | **Sn** | **23 10 56.0** | **+0.2** |
| **JNBK** | **Urakawa-nobuka** | **0.95** | **181** | P | **Pn** | **23 10 37.1** | **+0.9** |
| **JEW** | **Eniwo** | **1.04** | **248** | P | **Pn** | **23 10 37.1** | **+0.2** |
| JEW | | | | *e*S | **Sn** | **23 10 56.5** | **-1.0** |
| **JTKR** | **Abashiri--Toko** | **1.11** | **48** | P | **Pn** | **23 10 38.1** | **+0.7** |
| JTKR | | | | *e*S | **Sn** | **23 10 58.5** | **-0.1** |
| **JAK** | **Akkeshi** | **1.43** | **99** | P | **Pn** | **23 10 40.4** | **+0.1** |
| JAK | | | | *e*S | **Sn** | **23 11 03.4** | **-0.3** |
| **JYG** | **Yagishiri** | **1.54** | **321** | P | **Pn** | **23 10 41.0** | **-0.3** |
| **JSK** | **Shakotan** | **1.68** | **275** | P | **Pn** | **23 10 42.6** | **-0.2** |
| **JSE** | **Soyaes** | **1.73** | **356** | P | **Pn** | **23 10 43.3** | **0.0** |
| **JKB** | **Kayabe** | **1.86** | **224** | P | **Pn** | **23 10 44.9** | **+0.2** |
| JKB | | | | *e*S | **Sn** | **23 11 10.2** | **-1.3** |
| **JWK2** | **Keihoku** | **2.17** | **344** | P | **Pn** | **23 10 48.5** | **+0.3** |
| **NEM2** | **Nemuro 2** | **2.18** | **86** | P | **Pn** | **23 10 48.0** | **-0.3** |
| NEM2 | | | | *e*S | **Sn** | **23 11 15.7** | **-2.1** |
| **JOT** | **Ohata** | **2.25** | **215** | P | **Pn** | **23 10 49.4** | **+0.3** |
| JOT | | | | *e*S | **Sn** | **23 11 18.1** | **-1.2** |
| **SONM** | **Songino Array** 1.2nm,0.8s,baz=85,slow=8.2,SNR=6.9 | **25.73** | **293** | P | **P** | **23 15 25.5** | **+0.6** |
| **ZALV** | **Zalesovo Beam** 0.5nm,0.5s,baz=97,slow=7.4,SNR=3.1 | **38.76** | **307** | P | **P** | **23 17 17.7** | **-0.1** |
| **MKAR** | **Makanchi Array** 0.3nm,0.4s,baz=77,slow=9.6,SNR=12 | **41.98** | **297** | P | **P** | **23 17 44.6** | **+0.3** |
| **KURBB** | **Kurchatov Arra** 1.9nm,0.2s,baz=72,slow=9.1,SNR=6.3 | **43.24** | **303** | P | **P** | **23 17 54.9** | **+0.6** |
| **YKA** | **Yellowknife Ar** 0.1nm,0.3s,baz=302,slow=6.8,SNR=2.6 | **57.97** | **32** | P | **P** | **23 19 44.5** | **+0.1** |
| **WRA** | **Warramunga Arr** 0.4nm,0.8s,baz=6.6,slow=6.9,SNR=2.9 | **63.34** | **189** | P | **P** | **23 20 21.5** | **+0.3** |
| **FINES** | **FINESS Array B** 1.1nm,0.4s,baz=46,slow=8.2,SNR=13 | **63.84** | **331** | P | **P** | **23 20 23.4** | **-0.5** |

*ISCJB* ***19*** *23:21:50.0±0.4, 43°.77N±0°.02×8°.36E±0°.02, h9km±2km, Error ellipse: s-maj=3.9km s-min=2.8km az=167.2*
*CSEM* ***19*** *23:21:50.6±0.2, 43°.78N×8°.41E, h12km, ML3.5/22, Error ellipse: s-maj=4.1km s-min=2.8km az=170.0*
*LDG* ***19*** *23:21:51.3±0.1, 43°.75N×8°.42E, h2km, Md3.0/3, Ml3.3/24, Error ellipse: s-maj=2.0km s-min=1.8km az=167.0*
*GEN* ***19*** *23:21:51.2, 43°.78N×8°.42E, h2km, ML3.0*
*ROM* ***19*** *23:21:52.0±0.2, 43°.84N×8°.37E, h17km±3km, Md2.8/19, Ml3.0/19, Error ellipse: s-maj=3.5km s-min=2.0km az=173.0*

**ISC 19 23:21:51.1±1.1, 43°.78N±0°.02×8°.41E±0°.02, h18km±4km, n120, σ1§71/183, 1C-4D, Corsica**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **IMI** | **Imperia** 2µm,0.2s | **0.40** | **289** | ⇓*i*Pg | **Pg** | **23 21 59.3** | **0.0** |
| IMI | | | | Sg | **Sg** | **23 22 04.7** | **-0.2** |
| **IMI** | **Imperia** 2µm,0.2s | **0.40** | **289** | P | **Pg** | **23 21 59.3** | **0.0** |
| IMI | | | | Sg | **Sg** | **23 22 04.7** | **-0.2** |
| **FINB** | **Finale Ligure** 3µm,0.3s | **0.40** | **351** | ⇓*i*Pg | **Pg** | **23 21 59.5** | **+0.1** |
| FINB | | | | Sg | **Sg** | **23 22 04.4** | **-0.6** |
| **FINB** | **Finale Ligure** 3µm,0.3s | **0.40** | **351** | ⇓*i*Pg | **Pg** | **23 21 59.5** | **+0.1** |
| FINB | | | | Sg | **Sg** | **23 22 04.4** | **-0.6** |
| **RORO** | **Rocca Rossa** 1µm,0.1s | **0.41** | **323** | ⇑*i*Pg | **Pg** | **23 21 59.4** | **-0.2** |
| **RORO** | **Rocca Rossa** | **0.41** | **323** | P | **Pg** | **23 21 59.4** | **-0.2** |
| **NEGI** | **Seborga** | **0.52** | **278** | ⇓*i*Pg | **Pg** | **23 22 01.6** | **+0.1** |
| NEGI | | | | Sg | **Sg** | **23 22 08.7** | **+0.2** |
| **NEGI** | **Seborga** 2µm,0.2s | **0.52** | **278** | P | **Pg** | **23 22 01.6** | **+0.1** |
| NEGI | | | | S | **Sg** | **23 22 08.5** | **0.0** |
| **GBOS** | **Grotte di Boss** 349nm,0.2s | **0.62** | **318** | Pg | **Pb** | **23 22 03.0** | **-0.4** |
| **GBOS** | **Grotte di Boss** 349nm,0.2s | **0.62** | **318** | Pg | **Pb** | **23 22 03.0** | **-0.4** |
| **SBF** | **Sospel** | **0.71** | **277** | *e*Pg | **Pb** | **23 22 05.4** | **+0.4** |
| **SBF** | **Sospel** SNR=1.0 | **0.71** | **277** | *e*Pn | **Pb** | **23 22 06.1** | **+1.1** |
| SBF | 5µm,0.3s,SNR=1.0 | | | *e*Sg | **Sb** | **23 22 14.6** | **+0.2** |
| **SBF** | **Sospel** | **0.71** | **277** | *e*Pg | **Pb** | **23 22 05.4** | **+0.4** |
| **SBF** | **Sospel** SNR=1.0 | **0.71** | **277** | *e*Pn | **Pb** | **23 22 06.1** | **+1.1** |
| SBF | 2µm,0.3s,SNR=1.0 | | | *e*Sg | **Sb** | **23 22 14.6** | **+0.2** |
| **PCP** | **Piancastagn** 329nm,0.2s | **0.77** | **7** | Pg | **Pb** | **23 22 05.9** | **0.0** |
| **PCP** | **Piancastagn** 329nm,0.2s | **0.77** | **7** | Pg | **Pb** | **23 22 05.9** | **0.0** |
| PCP | | | | S | **Sb** | **23 22 15.9** | **-0.1** |
| **ENR** | **Entracque** 729nm,0.2s | **0.84** | **302** | Pg | **Pb** | **23 22 07.1** | **-0.1** |
| **ENR** | **Entracque** 729nm,0.2s | **0.84** | **302** | Pg | **Pb** | **23 22 07.1** | **-0.1** |
| ENR | | | | S | **Sb** | **23 22 18.8** | **+0.5** |
| **STV** | **Sant Anna di V** 720nm,0.3s | **0.91** | **301** | Pg | **Pb** | **23 22 08.4** | **0.0** |
| STV | | | | Sg | **Sb** | **23 22 20.5** | **+0.3** |
| **STV** | **Sant Anna di V** 720nm,0.3s | **0.91** | **301** | P | **Pb** | **23 22 08.4** | **0.0** |
| STV | | | | S | **Sb** | **23 22 20.1** | **-0.1** |
| STV | | | | Sg | **Sb** | **23 22 20.5** | **+0.3** |
| **MSSA** | **Maissana** | **0.96** | **56** | Pg | **Pb** | **23 22 09.6** | **+0.4** |
| **MSSA** | **Maissana** | **0.96** | **56** | Pg | **Pb** | **23 22 09.6** | **+0.4** |
| **SC2M** | **Scurtabo** 202nm,0.2s | **1.02** | **52** | Pg | **Pb** | **23 22 10.1** | **-0.1** |
| **SC2M** | **Scurtabo** | **1.02** | **52** | P | **Pb** | **23 22 10.1** | **-0.1** |
| SC2M | | | | S | **Sb** | **23 22 22.8** | **-0.5** |
| **ROTM** | **Rocchetta Tana** 949nm,0.4s | **1.07** | **358** | Pg | **Pb** | **23 22 12.1** | **+1.1** |
| **ROTM** | **Rocchetta Tana** 949nm,0.4s | **1.07** | **358** | Pg | **Pb** | **23 22 12.1** | **+1.1** |
| ROTM | | | | S | **Sg** | **23 22 27.0** | **+1.2** |
| **PLMA** | **Palmaria, Port** 118nm,0.6s | **1.07** | **75** | Pg | **Pg** | **23 22 12.8** | **+0.9** |
| **PLMA** | **Palmaria, Port** 118nm,0.6s | **1.07** | **75** | Pg | **Pg** | **23 22 12.8** | **+0.9** |
| **DOI** | **San Damiano** 771nm,0.4s | **1.11** | **311** | Pg | **Pn** | **23 22 12.0** | **+0.2** |
| **DOI** | **San Damiano** 771nm,0.4s | **1.11** | **311** | Pg | **Pn** | **23 22 12.0** | **+0.2** |
| **PZZ** | **Stroppo** 882nm,0.3s | **1.18** | **308** | Pg | **Pn** | **23 22 13.3** | **+0.5** |
| **PZZ** | **Stroppo** | **1.18** | **308** | P | **Pn** | **23 22 13.5** | **+0.7** |
| PZZ | | | | S | **Sb** | **23 22 28.4** | **+0.3** |
| **BOB** | **Bobbio (Coli)** | **1.24** | **37** | Pg | **Pn** | **23 22 14.2** | **+0.7** |
| **BOB** | **Bobbio (Coli)** | **1.24** | **37** | Pg | **Pn** | **23 22 14.2** | **+0.7** |
| **FRF** | **La Foret Royal** SNR=1.0 | **1.30** | **261** | *e*Pn | **Pn** | **23 22 13.5** | **-0.8** |
| **FRF** | **La Foret Royal** SNR=1.0 | **1.30** | **261** | *e*Pn | **Pb** | **23 22 16.5** | **+1.6** |
| FRF | SNR=1.0 | | | *e*Sn | **Sn** | **23 22 31.4** | **+0.2** |
| FRF | 182nm,0.2s,SNR=1.0 | | | *e*Sg | **Sb** | **23 22 32.5** | **+1.2** |
| **FRF** | **La Foret Royal** SNR=1.0 | **1.30** | **261** | *e*Pn | **Pn** | **23 22 13.5** | **-0.8** |
| **FRF** | **La Foret Royal** SNR=1.0 | **1.30** | **261** | *e*Pg | **Pb** | **23 22 16.5** | **+1.6** |
| FRF | SNR=1.0 | | | *e*Sn | **Sn** | **23 22 31.4** | **+0.2** |
| FRF | 91nm,0.2s,SNR=1.0 | | | *e*Sg | **Sb** | **23 22 32.5** | **+1.2** |
| **PGF** | **Pioggiola** SNR=1.0 | **1.30** | **161** | *e*Pn | **Pn** | **23 22 14.2** | **-0.3** |
| PGF | 86nm,0.2s,SNR=1.0 | | | *e*Sn | **Sn** | **23 22 30.9** | **-0.6** |
| **PGF** | **Pioggiola** SNR=1.0 | **1.30** | **161** | *e*Pn | **Pn** | **23 22 14.2** | **-0.3** |
| PGF | 43nm,0.2s,SNR=1.0 | | | *e*Sn | **Sn** | **23 22 30.9** | **-0.6** |
| **BHB** | **Bricherasio** | **1.34** | **323** | Pg | **Pn** | **23 22 15.4** | **+0.4** |
| **BHB** | **Bricherasio** | **1.34** | **323** | Pg | **Pn** | **23 22 15.4** | **+0.4** |
| **LMR** | **La Mourre** SNR=1.0 | **1.45** | **253** | *e*Pn | **Pn** | **23 22 15.5** | **-0.9** |
| **LMR** | **La Mourre** | **1.45** | **253** | *e*Pg | **Pb** | **23 22 19.2** | **+1.6** |
| LMR | SNR=1.0 | | | *e*Sn | **Sn** | **23 22 34.7** | **-0.3** |
| LMR | 70nm,0.2s,SNR=1.0 | | | *e*Sg | **Sb** | **23 22 36.8** | **+1.1** |
| **LMR** | **La Mourre** SNR=1.0 | **1.45** | **253** | *e*Pn | **Pn** | **23 22 15.5** | **-0.9** |
| **LMR** | **La Mourre** SNR=1.0 | **1.45** | **253** | *e*Pg | **Pb** | **23 22 19.2** | **+1.6** |
| LMR | SNR=1.0 | | | *e*Sn | **Sn** | **23 22 34.7** | **-0.3** |
| LMR | 35nm,0.2s,SNR=1.0 | | | *e*Sg | **Sb** | **23 22 36.8** | **+1.1** |
| **VLC** | **Villacollemand** 90nm,0.6s | **1.48** | **74** | Pg | **Pn** | **23 22 17.9** | **+1.1** |
| **VLC** | **Villacollemand** 90nm,0.6s | **1.48** | **74** | Pg | **Pn** | **23 22 17.9** | **+1.1** |
| **MBDF** | **Montbardon** SNR=1.0 | **1.51** | **309** | *e*Pn | **Pn** | **23 22 18.4** | **+1.0** |
| MBDF | 148nm,0.3s,SNR=1.0 | | | *e*Sn | **Sn** | **23 22 37.4** | **+0.7** |
| MBDF | 106nm,0.3s | | | *e*Sg | **Sb** | **23 22 39.9** | **+2.3** |
| **RSP** | **Reno Superiore** 109nm,0.6s | **1.59** | **329** | Pg | **Pn** | **23 22 18.3** | **-0.2** |
| **BDI** | **Bagni Di Lucca** | **1.60** | **79** | Pg | **Pn** | **23 22 20.2** | **+1.6** |
| **BDI** | **Bagni Di Lucca** | **1.60** | **79** | Pg | **Pn** | **23 22 20.2** | **+1.6** |
| **RRL** | **Rocca Remolon** 95nm,0.4s | **1.63** | **315** | Pg | **Pn** | **23 22 20.5** | **+1.4** |
| **RRL** | **Rocca Remolon** 95nm,0.4s | **1.63** | **315** | Pg | **Pn** | **23 22 20.5** | **+1.4** |
| **BNI** | **Bardonecchia** 38nm,0.6s | **1.78** | **316** | Pg | **Pn** | **23 22 22.1** | **+1.1** |
| **TRAV** | **Traversella** 47nm,0.2s | **1.80** | **345** | Pg | **Pn** | **23 22 21.9** | **+0.7** |
| **LSD** | **Lago del Serru** 55nm,0.5s | **1.91** | **332** | Pg | **Pn** | **23 22 22.8** | **-0.2** |
| **SMRF** | **Simiane la Rot** SNR=1.0 | **2.06** | **276** | *e*Pn | **Pn** | **23 22 25.7** | **+0.9** |
| **SMRF** | **Simiane la Rot** SNR=1.0 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **LASF** | **Ste Croix** | **3.30** | **277** | *e*Pg | **Pb** | **23** | **22** | **52.2 +3.1** |
| LASF | | | | *e*Sn | **Sn** | **23** | **23** | **19.5 -1.2** |
| LASF | | | | *e*S | **Sb** | **23** | **23** | **25.3 -3.7** |
| LASF | | | | *e*Sg | Sg | 23 | 23 | 35.4 -1.8 |
| | 8.1nm,0.2s | | | | | | | |
| **LASF** | **Ste Croix** | **3.30** | **277** | *e*Pn | **Pn** | **23** | **22** | **41.8 -0.1** |
| | SNR=1.0 | | | | | | | |
| **LASF** | **Ste Croix** | **3.30** | **277** | *e*Pg | **Pb** | **23** | **22** | **52.2 +3.1** |
| LASF | | | | *e*Sn | **Sn** | **23** | **23** | **19.5 -1.2** |
| LASF | | | | *e*S | **Sb** | **23** | **23** | **25.3 -3.7** |
| LASF | | | | *e*Sg | Sg | 23 | 23 | 35.4 -1.8 |
| | 4.1nm,0.2s | | | | | | | |
| **FETA** | **Feichten** | **3.63** | **26** | *i* Pn | **Pb** | **23** | **22** | **51.8 -3.0** |
| | 0.6nm,0.1s | | | | | | | |
| FETA | | | | *i* Sn | **Sb** | **23** | **23** | **35.7 -2.7** |
| | 1.5nm,0.3s | | | | | | | |
| **DAVA** | **Damuels** | **3.66** | **16** | *i* Pn | **Pn** | **23** | **22** | **50.8 +4.0** |
| | 3.1nm,0.3s | | | | | | | |
| DAVA | | | | *e*Sn | **Sb** | **23** | **23** | **35.8 -3.4** |
| | 12nm,0.5s | | | | | | | |
| **DAVA** | **Damuels** | **3.66** | **16** | Pn | **Pn** | **23** | **22** | **50.8 +4.0** |
| | 3.1nm,0.3s | | | | | | | |
| **MOTA** | **Moosalm** | **4.04** | **27** | *i* Pn | **Pn** | **23** | **22** | **56.6 +4.5** |
| | 3.9nm,0.2s | | | | | | | |
| **MOTA** | **Moosalm** | **4.04** | **27** | Pn | **Pn** | **23** | **22** | **56.6 +4.5** |
| | 3.9nm,0.2s | | | | | | | |
| **ABTA** | **Abfaltersbach** | **4.14** | **43** | *i* Pn | Pn | 23 | 22 | 58.2 +4.7 |
| | 0.6nm,0.2s | | | | | | | |
| ABTA | | | | *e*Sn | **Sb** | **23** | **23** | **49.3 -4.0** |
| | 0.8nm,0.2s | | | | | | | |
| **ABTA** | **Abfaltersbach** | **4.14** | **43** | Pn | Pn | 23 | 22 | 58.2 +4.7 |
| | 0.6nm,0.2s | | | | | | | |
| **HINF** | **Hinteralfeld** | **4.18** | **345** | *e*Pn | **Pn** | **23** | **22** | **54.4 +0.4** |
| | SNR=1.0 | | | | | | | |
| HINF | | | | *e*Sn | **Sn** | **23** | **23** | **41.4 -1.0** |
| | 4.8nm,0.3s | | | | | | | |
| **HINF** | **Hinteralfeld** | **4.18** | **345** | *e*Pn | **Pn** | **23** | **22** | **54.4 +0.4** |
| | SNR=1.0 | | | | | | | |
| HINF | | | | *e*Sn | **Sn** | **23** | **23** | **41.4 -1.0** |
| | 2.4nm,0.3s | | | | | | | |
| **WATA** | **Walderalm** | **4.19** | **31** | *i* Pn | Pn | 23 | 22 | 59.1 +4.9 |
| | 3.1nm,0.2s | | | | | | | |
| **WATA** | **Walderalm** | **4.19** | **31** | Pn | Pn | 23 | 22 | 59.1 +4.9 |
| | 3.1nm,0.2s | | | | | | | |
| **SMF** | **Signal de Mont** | **4.32** | **313** | *e*Pn | **Pn** | **23** | **22** | **56.4 +0.6** |
| | SNR=1.0 | | | | | | | |
| SMF | | | | *e*Sn | **Sn** | **23** | **23** | **44.3 -1.4** |
| | 5.7nm,0.3s,SNR=1.0 | | | | | | | |
| **SMF** | **Signal de Mont** | **4.32** | **313** | *e*Pn | **Pn** | **23** | **22** | **56.4 +0.6** |
| | SNR=1.0 | | | | | | | |
| SMF | | | | *e*Sn | **Sn** | **23** | **23** | **44.3 -1.4** |
| | 2.8nm,0.3s,SNR=1.0 | | | | | | | |
| **HAU** | **Haudompre** | **4.46** | **342** | *e*Pn | **Pn** | **23** | **22** | **58.9 +1.1** |
| | SNR=1.0 | | | | | | | |
| HAU | | | | *e*Sn | **Sn** | **23** | **23** | **48.4 -0.9** |
| | 9.3nm,0.3s,SNR=1.0 | | | | | | | |
| **HAU** | **Haudompre** | **4.46** | **342** | *e*Pn | **Pn** | **23** | **22** | **58.9 +1.1** |
| | SNR=1.0 | | | | | | | |
| HAU | | | | *e*Sn | **Sn** | **23** | **23** | **48.4 -0.9** |
| | 4.7nm,0.3s,SNR=1.0 | | | | | | | |
| **MTLF** | **Montolieu** | **4.52** | **267** | *e*Pn | **Pn** | **23** | **22** | **58.8 +0.2** |
| | SNR=1.0 | | | | | | | |
| MTLF | | | | *e*Sn | **Sn** | **23** | **23** | **48.2 -2.5** |
| | 4.0nm,0.3s,SNR=1.0 | | | | | | | |
| MTLF | | | | *e*Sg | **Sg** | **23** | **24** | **12.8 -3.4** |
| | 5.0nm,0.4s | | | | | | | |
| **MTLF** | **Montolieu** | **4.52** | **267** | *e*Pn | **Pn** | **23** | **22** | **58.8 +0.2** |
| | SNR=1.0 | | | | | | | |
| MTLF | | | | *e*Sn | **Sn** | **23** | **23** | **48.2 -2.5** |
| | 2.0nm,0.3s,SNR=1.0 | | | | | | | |
| MTLF | | | | *e*Sg | **Sg** | **23** | **24** | **12.8 -3.4** |
| | 2.5nm,0.4s | | | | | | | |
| **MYKA** | **Terra Mystica** | **4.67** | **51** | *i* Pn | **Pn** | **23** | **23** | **04.9 +4.3** |
| | 1.1nm,0.2s | | | | | | | |
| **MYKA** | **Terra Mystica** | **4.67** | **51** | Pn | **Pn** | **23** | **23** | **04.9 +4.3** |
| | 1.1nm,0.2s | | | | | | | |
| **AVF** | **Avril sur Loir** | **4.67** | **312** | *e*Pn | **Pn** | **23** | **23** | **02.4 +1.8** |
| | SNR=1.0 | | | | | | | |
| AVF | | | | *e*Sg | **Sg** | **23** | **24** | **18.4 -2.5** |
| | 4.2nm,0.4s,SNR=1.0 | | | | | | | |
| **AVF** | **Avril sur Loir** | **4.67** | **312** | *e*Pn | **Pn** | **23** | **23** | **02.4 +1.8** |
| | SNR=1.0 | | | | | | | |
| AVF | | | | *e*Sg | **Sg** | **23** | **24** | **18.4 -2.5** |
| | 2.1nm,0.4s,SNR=1.0 | | | | | | | |
| **CAF** | **Calviac** | **4.69** | **286** | *e*Pn | **Pn** | **23** | **23** | **01.9 +0.9** |
| | SNR=1.0 | | | | | | | |
| CAF | | | | *e*Sn | **Sn** | **23** | **23** | **52.4 -2.6** |
| CAF | | | | *e*Sg | **Sg** | **23** | **24** | **18.5 -3.2** |
| | 2.7nm,0.2s | | | | | | | |
| **CAF** | **Calviac** | **4.69** | **286** | *e*Pn | **Pn** | **23** | **23** | **01.9 +0.9** |
| | SNR=1.0 | | | | | | | |
| CAF | | | | *e*Sn | **Sn** | **23** | **23** | **52.4 -2.6** |
| CAF | | | | *e*Sg | **Sg** | **23** | **24** | **18.5 -3.2** |
| | 1.4nm,0.2s | | | | | | | |
| **CDF** | **Champ du Feu** | **4.70** | **351** | *e*Pn | **Pn** | **23** | **23** | **01.9 +0.8** |
| | SNR=1.0 | | | | | | | |
| **CDF** | **Champ du Feu** | **4.70** | **351** | *e*Pn | **Pn** | **23** | **23** | **01.9 +0.8** |
| | SNR=1.0 | | | | | | | |
| **LOR** | **Lormes** | **4.73** | **319** | *e*Pn | **Pn** | **23** | **23** | **02.6 +1.1** |
| | baz=134,SNR=1.0 | | | | | | | |
| LOR | | | | *e*Sn | **Sn** | **23** | **23** | **55.0 -0.9** |
| | 3.2nm,0.2s,SNR=1.0 | | | | | | | |
| **LOR** | **Lormes** | **4.73** | **319** | *e*Pn | **Pn** | **23** | **23** | **02.6 +1.1** |
| | SNR=1.0 | | | | | | | |
| LOR | | | | *e*Sn | **Sn** | **23** | **23** | **55.0 -0.9** |
| | 1.6nm,0.2s,SNR=1.0 | | | | | | | |
| **SSF** | **Saint Saulge** | **4.76** | **315** | *e*Pn | **Pn** | **23** | **23** | **03.2 +1.3** |
| | SNR=1.0 | | | | | | | |
| **SSF** | **Saint Saulge** | **4.76** | **315** | *e*Pn | **Pn** | **23** | **23** | **03.2 +1.3** |
| | SNR=1.0 | | | | | | | |
| **RJF** | **Les Rejaudoux** | **5.16** | **290** | *e*Sg | **Sg** | **23** | **24** | **32.7 -3.9** |
| | 5.2nm,0.4s,SNR=1.0 | | | | | | | |
| **RJF** | **Les Rejaudoux** | **5.16** | **290** | *e*Sg | **Sg** | **23** | **24** | **32.7 -3.9** |
| | 2.6nm,0.4s,SNR=1.0 | | | | | | | |
| **ARSA** | **Arzberg** | **6.08** | **53** | *i* Pn | **Pn** | **23** | **23** | **24.0 +3.9** |
| | 0.7nm,0.2s | | | | | | | |
| **LDF** | **La Druitiere** | **7.63** | **312** | *e*Pn | **Pn** | **23** | **23** | **43.0 +1.8** |
| | SNR=1.0 | | | | | | | |
| **LDF** | **La Druitiere** | **7.63** | **312** | *e*Pn | **Pn** | **23** | **23** | **43.0 +1.8** |
| | SNR=1.0 | | | | | | | |

**PGC 19 23:45:24.6±11.0, 50.92N×130.51W, h10km, MLSn2.9/6, Mw3.5/6, 214km Wsw of Bella Bella, Bc Vancouver Island, Canada Region, Vancouver Island region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BPBC** | **Brooks Peninsu** | **1.91** | **113** | Pn | Pn | 23 45 54.2 | -3.0 |
| **BBB** | **Bella Bella** | **1.96** | **49** | Pn | Pn | 23 45 54.9 | -2.9 |
| BBB | | | | Sn | Sn | 23 46 20.1 | -2.3 |
| **PHC** | **Port Hardy** | **1.96** | **95** | Pn | Pn | 23 45 55.6 | -2.3 |
| PHC | | | | Sn | Sn | 23 46 18.3 | -4.2 |
| **PACB** | **Port Alice, BC** | **1.98** | **103** | Pn | Pn | 23 45 54.2 | -3.9 |
| **MAYB** | **Maynard** | **2.18** | **103** | Pn | Pn | 23 45 59.2 | -1.9 |
| **WOSB** | **Woss** | **2.62** | **105** | Pn | Pn | 23 46 05.6 | -1.5 |
| **NCRB** | **Newcastle Ridg** | **2.88** | **99** | Pn | Pn | 23 46 09.2 | -1.4 |
| **BTB** | **Buttle Lake** | **3.52** | **113** | Pn | Pn | 23 46 14.1 | -5.4 |

*IDC **19** 23:49:07.7±6.6,2°.14N×99°.68E,h0km,mb3.8/3,mb1 4.0/3, mb1mx3.4/35,mbtmp3.8/3,MS2.7/1,Ms1 2.7/1, ms1mx2.4/35,Error ellipse: s-maj=331.1km s-min=26.4km az=55.0*

*ISCJB **19** 23:49:21.2±0.9,1°.84N±0°.05×99°.56E±0°.08,h138km, mb3.6/3,Error ellipse: s-maj=11.8km s-min=7.6km az=178.0*

*DJA **19** 23:49:23.3±0.6,2°N±3°×10°0E±°,h68km±32km,M3.4/6, MLv3.4/6*

**ISC 19 23:49:22.4±1.1, 1°.82N±0°.07×99°.5E±0°.1, h138km, n10, σ0s71/12, mb3.7/3, Northern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GSI** | **Gunungsitoli** | **2.01** | **255** | P | **Pn** | **23 49 57.5** | **+0.6** |
| GSI | | | | S | **Sn** | **23 50 22.9** | **-0.5** |
| **PBSI** | **Pulau Batu** | **2.24** | **214** | P | **Pn** | **23 49 59.9** | **+0.2** |
| PBSI | | | | S | **Sn** | **23 50 28.1** | **-0.3** |
| **KCSI** | **Kotacane, Aceh** | **2.42** | **314** | P | **Pn** | **23 50 02.4** | **+0.3** |
| **TPTI** | | **2.73** | **302** | P | **Pn** | **23 50 07.1** | **+1.1** |
| **SISI** | **Saibi** | **3.16** | **188** | P | **Pn** | **23 50 11.4** | **0.0** |
| SISI | | | | S | **Sn** | **23 50 49.6** | **+0.3** |
| **MLSI** | **Meulaboh, Aceh** | **3.94** | **308** | P | **Pn** | **23 50 21.9** | **+0.2** |
| **WRA** | **Warramunga Arr** | **40.43** | **124** | P | **P** | **23 56 48.4** | **+0.8** |
| | 1.2nm,0.4s,baz=302,slow=9.1,SNR=29 | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **AAK** | **Ala-Archa** | **46.40** | **334** | LR | LR | 00 | 19 | 03.0 |
| | comp=Z,8.8nm,19.2s,baz=222,slow=39 | | | | | | | |
| **MKAR** | **Makanchi Array** | **47.24** | **344** | P | **P** | **23** | **57** | **40.8 -0.8** |
| | 0.7nm,0.8s,baz=154,slow=7.3,SNR=6.6 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **53.35** | **349** | P | **P** | **23** | **58** | **26.3 -1.0** |
| | 0.6nm,0.5s,baz=165,slow=6.0,SNR=3.5 | | | | | | | |

**KRSC 19 23:52:20.9±1.2, 54.22N×161.68E, h61km±25km, ML3.7, Near east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KZV** | **Kizimen** | **1.21** | **319** | *e*P | Pn | 23 52 42.7 | +0.9 |
| KZV | | | | *e*S | Sn | 23 52 57.5 | +0.2 |
| **KII** | **Karymskiy** | **1.32** | **263** | P | Pn | 23 52 45.2 | +2.0 |
| KII | | | | *e*S | Sn | 23 53 01.0 | +1.0 |
| **TUMR** | **Tumrok** | **1.39** | **321** | *e*P | Pn | 23 52 45.5 | +1.3 |
| **SPN** | **Mys Shipunski** | **1.49** | **222** | *e*P | Pn | 23 52 46.5 | +1.1 |
| SPN | | | | *e*S | Sn | 23 53 04.3 | +0.4 |
| **NLC** | **Nalytchevo** | **1.74** | **234** | *e*P | Pn | 23 52 50.7 | +2.0 |
| NLC | | | | *e*S | Sn | 23 53 11.6 | +1.8 |
| **KMNR** | **Kamenistaya** | **1.75** | **332** | *i* P | Pn | 23 52 51.4 | +2.4 |
| **BZMR** | **Bezymyannaya** | **1.85** | **339** | *e*P | Pn | 23 52 52.8 | +2.4 |
| **ZLN** | **Zelenaya** | **1.87** | **345** | *e*P | Pn | 23 52 53.1 | +2.4 |
| **BZWR** | **Bezymyannyi-We** | **1.88** | **339** | *e*P | Pn | 23 52 53.1 | +2.3 |
| **KIRR** | **Kirishev** | **1.90** | **337** | *e*P | Pn | 23 52 53.5 | +2.4 |
| **SDLR** | **Sedlovina** | **1.91** | **242** | *i* P | Pn | 23 52 54.0 | +2.9 |
| SDLR | | | | *e*S | Sn | 23 53 16.6 | +2.5 |
| **KPT** | **Kopyto** | **1.94** | **335** | *e*P | Pn | 23 52 54.1 | +2.5 |
| **LGNR** | **Loginova** | **1.96** | **344** | *e*P | Pn | 23 52 54.6 | +2.7 |
| **SMAR** | **Somma** | **1.96** | **242** | *e*P | Pn | 23 52 54.6 | +2.7 |
| SMAR | | | | *e*S | Sn | 23 53 18.0 | +2.5 |
| **KRER** | **Koryakskii** | **1.96** | **243** | *e*P | Pn | 23 52 55.2 | +3.2 |
| KRER | | | | *e*S | Sn | 23 53 19.4 | +3.8 |
| **UGLR** | **Uglovaya** | **1.97** | **240** | *i* P | Pn | 23 52 55.0 | +3.0 |
| **CIRR** | **Tsirk** | **1.98** | **345** | *e*P | Pn | 23 52 54.5 | +2.4 |
| **AVH** | **Avacha** | **1.99** | **243** | *e*P | Pn | 23 52 55.5 | +3.3 |
| AVH | | | | *e*S | Sn | 23 53 19.2 | +3.2 |
| **KRX** | **Arik** | **1.99** | **246** | *e*P | Pn | 23 52 55.3 | +3.0 |
| KRX | | | | *e*S | Sn | 23 53 18.9 | +2.7 |
| **KOK** | **Koryaka** | **2.03** | **244** | *e*P | Pn | 23 52 55.9 | +3.1 |
| KOK | | | | *e*S | Sn | 23 53 20.7 | +3.7 |
| **KBTR** | **Krutoberegovo** | **2.10** | **18** | *e*P | Pn | 23 52 55.5 | +1.8 |
| **KRSR** | **Krestovskiy** | **2.10** | **343** | *e*P | Pn | 23 52 55.5 | +1.7 |
| **DALK** | **Dalny** | **2.11** | **237** | *e*P | Pn | 23 52 56.1 | +2.4 |
| DALK | | | | *e*S | Sn | 23 53 21.1 | +2.3 |
| **KOZ** | **Kozyrevsk** | **2.12** | **331** | *e*P | Pn | 23 52 56.7 | +2.8 |
| **KBG** | **Krutoberegovo** | **2.13** | **16** | *e*P | Pn | 23 52 57.8 | +3.8 |
| **PET** | **Petropavlovsk** | **2.16** | **238** | *e*P | Pn | 23 52 57.6 | +3.1 |
| PET | | | | *e*S | Sn | 23 53 22.5 | +2.4 |
| **KLY** | **Klyuchi** | **2.18** | **345** | *e*P | Pn | 23 52 56.4 | +1.7 |
| **GNL** | **Ganaly** | **2.27** | **258** | *e*P | Pn | 23 52 59.1 | +3.1 |
| **BDR** | **Baidarnaya** | **2.37** | **354** | *e*P | Pn | 23 53 00.2 | +2.8 |
| **SMKR** | **Semkarok** | **2.38** | **357** | *e*P | Pn | 23 53 00.2 | +2.7 |
| **ESO** | **Esso** | **2.42** | **316** | *e*P | Pn | 23 53 00.0 | +2.0 |
| ESO | | | | *e*S | Sn | 23 53 27.1 | +0.6 |
| **SRKR** | **Sorokina** | **2.46** | **353** | *e*P | Pn | 23 53 01.2 | +2.6 |
| **KRMR** | **Karymshinskiy** | **2.53** | **238** | *e*P | Pn | 23 53 02.1 | +2.6 |
| KRMR | | | | *e*S | Sn | 23 53 31.4 | +2.3 |
| **RUS** | **Russkaya** | **2.60** | **228** | *i* P | Pn | 23 53 02.9 | +2.4 |
| RUS | | | | *e*S | Sn | 23 53 32.6 | +1.7 |
| RUS | | | | *e*S | Sn | 23 53 32.7 | +1.8 |
| **BKI** | **Bering** | **2.68** | **67** | *e*S | Sn | 23 53 32.2 | -0.6 |
| **MTVR** | **Mutnovka** | **2.72** | **232** | *e*P | Pn | 23 53 05.3 | +3.1 |
| MTVR | | | | *e*S | Sn | 23 53 36.2 | +2.2 |
| **ASAK** | **Asacha** | **2.92** | **233** | *e*P | Pn | 23 53 08.6 | +3.7 |
| **KDTR** | **Khodutka, Kamc** | **3.25** | **223** | *e*P | Pn | 23 53 12.1 | +2.8 |
| KDTR | | | | *e*S | Sn | 23 53 47.3 | +0.7 |

*ISCJB **19** 23:53:17.2±0.5,24°.33N±0°.06×122°.95E±0°.02,h48km±7km, Error ellipse: s-maj=10.7km s-min=3.1km az=174.5*

*JMA **19** 23:53:17.3±0.1,24°.44N×122°.96E,h50km±1km,M2.6*

*TAP **19** 23:53:17.4,24°.35N×122°.91E,h57km±1km,ML3.5,C*

**ISC 19 23:53:17.6±1.3, 24°.35N±0°.08×122°.96E±0°.03, h45km±9km, n26, σ0s80/48, Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JYNG** | **Yonagunijimaku** | **0.10** | **355** | P | **Pn** | **23 53 24.8** | **-0.1** |
| JYNG | | | | S | **Sn** | **23 53 30.2** | **+0.2** |
| **YOJ** | **Yonaguni jima** | **0.12** | **24** | P | **Pn** | **23 53 25.0** | **0.0** |
| YOJ | | | | S | **Sn** | **23 53 30.3** | **+0.1** |
| **IRIF** | **Iriomote-Funau** | **0.71** | **91** | P | **Pn** | **23 53 30.9** | **-0.4** |
| IRIF | | | | *e*S | **Sn** | **23 53 40.8** | **-0.4** |
| **HATJ** | **Hateruma jima** | **0.83** | **110** | P | **Pn** | **23 53 33.6** | **+0.7** |
| HATJ | | | | *e*S | **Sn** | **23 53 45.5** | **+1.4** |
| **JKRS** | **Kuro-shima** | **0.97** | **96** | P | **Pn** | **23 53 34.8** | **0.0** |
| JKRS | | | | S | **Sn** | **23 53 47.7** | **+0.2** |
| **TWC** | **Suao** | **1.04** | **285** | *i* P | **Pn** | **23 53 35.2** | **-0.6** |
| | baz=295 | | | | | | |
| TWC | | | | *i* S | **Sn** | **23 53 48.4** | **-0.9** |
| | baz=295 | | | | | | |
| **JIJ** | **Ishigaki jima** | **1.08** | **89** | P | **Pn** | **23 53 35.9** | **-0.5** |
| JIJ | | | | S | **Sn** | **23 53 49.2** | **-1.1** |
| **JISG** | **Ishigakijimahi** | **1.26** | **79** | P | **Pn** | **23 53 38.8** | **0.0** |
| JISG | | | | S | **Sn** | **23 53 54.1** | **-0.4** |
| **TWD** | **Chiawan** | **1.27** | **258** | *e*S | **Sn** | **23 53 54.6** | **-0.3** |
| | baz=247 | | | | | | |
| **NSK** | **Sanguang** | **1.49** | **283** | *e*P | **Pn** | **23 53 42.3** | **+0.3** |
| | baz=291 | | | | | | |
| NSK | | | | *e*S | **Sn** | **23 54 00.7** | **+0.3** |
| | baz=291 | | | | | | |
| **WHF** | **Hehuan Shan** | **1.56** | **263** | *e*P | **Pn** | **23 53 43.1** | **-0.2** |
| | baz=263 | | | | | | |
| WHF | | | | *e*S | **Sn** | **23 54 02.0** | **-0.5** |
| | baz=263 | | | | | | |
| **JTJ** | **Tarama** | **1.62** | **79** | *e*S | **Sn** | **23 54 03.3** | **-0.1** |
| **TWT** | **Tachien** | **1.63** | **267** | *e*P | **Pn** | **23 53 44.8** | **+0.8** |
| | baz=267 | | | | | | |
| TWT | | | | *e*S | **Sn** | **23 54 04.5** | **+0.6** |
| | baz=267 | | | | | | |
| **EHY** | **Hungye** | **1.71** | **241** | *e*P | **Pn** | **23 53 44.3** | **-0.7** |
| | baz=251 | | | | | | |
| EHY | | | | *e*S | **Sn** | **23 54 04.3** | **-1.5** |
| | baz=251 | | | | | | |
| **TWF1** | **Yuli** | **1.81** | **237** | *e*P | **Pn** | **23 53 45.8** | **-0.7** |
| | baz=236 | | | | | | |
| TWF1 | | | | *e*S | **Sn** | **23 54 06.7** | **-1.6** |
| | baz=236 | | | | | | |
| **SMLT** | **Sun Moon Lake** | **1.94** | **257** | *e*S | **Sn** | **23 54 10.7** | **-0.7** |
| | baz=256 | | | | | | |
| **TYC** | **Yuchr** | **1.97** | **257** | *e*P | **Pn** | **23 53 48.6** | **+0.1** |
| | baz=249 | | | | | | |
| TYC | | | | *e*S | **Sn** | **23 54 11.4** | **-0.6** |
| | baz=249 | | | | | | |
| **TWQ1** | **Liyutan** | **1.99** | **270** | *e*S | **Sn** | **23 54 14.1** | **+1.5** |
| | baz=271 | | | | | | |
| **YUS** | **Yu-Shan** | **2.02** | **245** | *e*P | **Pn** | **23 53 49.7** | **0.0** |
| | baz=244 | | | | | | |
| YUS | | | | *e*S | **Sn** | **23 54 12.2** | **-1.8** |
| | baz=244 | | | | | | |
| **ALS** | **Alishan** | **2.14** | **247** | *e*P | **Pn** | **23 53 51.3** | **+0.2** |
| | baz=247 | | | | | | |
| ALS | | | | *e*S | **Sn** | **23 54 15.5** | **-1.1** |
| | baz=247 | | | | | | |
| **CHN5** | **Tsauling** | **2.21** | **251** | *e*P | **Pn** | **23 53 53.0** | **+1.0** |
| | baz=250 | | | | | | |
| CHN5 | | | | *e*S | **Sn** | **23 54 18.4** | **+0.2** |
| | baz=250 | | | | | | |
| **STYT** | **Tauyuan** | **2.33** | **240** | *e*P | **Pn** | **23 53 53.7** | **+0.1** |
| | baz=233 | | | | | | |
| STYT | | | | *e*S | **Sn** | **23 54 20.3** | **-0.8** |
| | baz=233 | | | | | | |
| **CHN4** | **Tsaushan** | **2.38** | **246** | *e*P | **Pn** | **23 53 55.4** | **+1.2** |
| | baz=245 | | | | | | |
| CHN4 | | | | *e*S | **Sn** | **23 54 22.9** | **+0.7** |
| | baz=245 | | | | | | |
| **WTP** | **Ta-pu** | **2.41** | **243** | *e*P | **Pn** | **23 53 55.6** | **+0.9** |
| | baz=242 | | | | | | |
| WTP | | | | *e*S | **Sn** | **23 54 23.3** | **+0.3** |
| | baz=242 | | | | | | |
| **TWK** | **Hsinying** | **2.50** | **245** | *e*P | **Pn** | **23 53 57.0** | **+1.0** |
| | baz=244 | | | | | | |
| TWK | | | | *e*S | **Sn** | **23 54 25.7** | **+0.4** |
| | baz=244 | | | | | | |
| **CHN1** | **Nanshi** | **2.51** | **243** | *e*P | **Pn** | **23 53 57.1** | **+1.2** |
| | baz=242 | | | | | | |
| CHN1 | | | | *e*S | **Sn** | **23 54 26.1** | **+0.8** |
| | baz=242 | | | | | | |

*ISCJB **20** 00:10:02.9±0.8,13°.19N±0°.10×91°.03W±0°.05,h38km, mb4.1/10,MS3.2/2,Error ellipse: s-maj=14.5km s-min=4.9km az=18.1*

*IDC **20** 00:10:06.0±4.3,13°.47N×90°.71W,h39km±37km,mb3.6/8, mb1 3.9/10,mb1mx3.6/42,mbtmp3.8/10,ML4.1/2,MS3.3/2, Ms1 3.2/2,ms1mx2.7/27,Error ellipse: s-maj=44.8km s-min=19.4km az=45.0*

*NEIC **20** 00:10:06.4±1.4,13°.46N×90°.79W,h46km±13km,mb4.0/1, Error ellipse: s-maj=27.4km s-min=9.2km az=222.0*

*SSS **20** 00:10:06.5,13°.25N×90°.69W,h12km,MD3.8*

*CASC **20** 00:10:06.3±0.8,13°.28N×90°.76W,h17km±10km,MD4.0, mb4.0(NEIC)*

**ISC 20 00:10:05.0±0.9, 13°.3N±0°.1×90°.92W±0°.08, h38km, n28, σ1s17/31, mb4.0/10, Near coast of Guatemala**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CUS1** | **Cusmapa** | **1.13** | **57** | *e*P | **Pn** | **00 10 24.5** | **+0.1** |
| **MONT** | **Ecomontaæa** | **1.36** | **66** | *e*P | **Pn** | **00 10 28.4** | **+0.7** |
| **SBLS** | **San Blas** | **1.37** | **67** | *e*P | **Pn** | **00 10 28.4** | **+0.5** |
| **RTR** | **El Retiro** | **1.38** | **64** | *e*P | **Pn** | **00 10 28.7** | **+0.8** |
| **SNJE** | **San Jose** | **1.40** | **66** | *e*P | **Pn** | **00 10 28.9** | **+0.7** |
| **BCQS** | **Boqueron** | **1.66** | **75** | *e*P | **Pn** | **00 10 32.5** | **+0.7** |
| **LFRS** | **El Faro** | **1.84** | **80** | *e*P | **Pn** | **00 10 35.4** | **+1.2** |
| LFRS | | | | *e*S | **Sn** | **00 10 57.2** | **+1.0** |
| **LBRS** | **Las Brisas** | **1.88** | **76** | *e*P | **Pn** | **00 10 35.9** | **+1.1** |
| **PACA** | **Pacayal** | **2.54** | **86** | *e*P | **Pn** | **00 10 43.8** | **0.0** |
| **LCY** | **Lacayo** | **2.56** | **87** | *e*P | **Pn** | **00 10 44.8** | **+0.7** |
| **LCND** | **La Ca˜–ada** | **2.95** | **89** | *e*P | **Pn** | **00 10 50.0** | **+0.6** |
| LCND | | | | *e*S | **Sn** | **00 11 23.3** | **-0.3** |
| **CMIG** | **Matias Romero** | **5.37** | **315** | Pn | **Pn** | **00 11 22.8** | **+0.1** |
| | 3.0nm,0.3s,baz=108,slow=9.0,SNR=11 | | | | | | |
| CMIG | | | | Sn | **Sn** | **00 12 24.3** | **+1.0** |
| | 2.4nm,0.3s,baz=150,slow=11,SNR=3.7 | | | | | | |
| **JTS** | **JuntasAbangare** | **6.56** | **116** | *e*Pn | **Pn** | **00 11 40.5** | **+1.4** |
| JTS | | | | *e*S | **Sn** | **00 12 50.2** | **-2.6** |
| **TXAR** | **Lajitas Array** | **19.86** | **325** | P | **P** | **00 14 35.3** | **+2.2** |
| | 0.2nm,0.3s,baz=146,slow=13,SNR=14 | | | | | | |
| **SDV** | **Santo Domingo** | **20.38** | **100** | P | **P** | **00 14 37.7** | **-1.2** |
| | 2.4nm,0.4s,baz=295,slow=10,SNR=3.9 | | | | | | |
| **MNTX** | **Cornudas Mount** | **22.62** | **326** | *e*P | **P** | **00 15 03.3** | **+0.6** |
| | 7.0nm,1.1s | | | | | | |
| **TKL** | **Tuckaleechee C** | **23.18** | **15** | P | **P** | **00 15 08.1** | **-0.3** |
| | 1.9nm,0.6s,baz=188,slow=11,SNR=4.5 | | | | | | |
| **ANMO** | **Albuquerque** | **25.73** | **330** | P | **P** | **00 15 33.5** | **+1.2** |
| | 0.5nm,0.5s,baz=327,slow=14,SNR=3.0 | | | | | | |
| **PDAR** | **Pinedale Array** | **33.49** | **335** | LR | LR | 00 | 33 | 42.2 |
| | comp=Z,32nm,18.3s,baz=140,slow=42 | | | | | | | |
| **HLID** | **Hailey** | **36.30** | **331** | *e*P | **P** | **00 17 03.1** | **-2.0** |
| | 4.8nm,0.3s | | | | | | | |
| **ULM** | **Lac du Bonnet** | **37.07** | **355** | P | **P** | **00 17 10.1** | **-1.4** |
| | 2.5nm,0.6s,baz=168,slow=10,SNR=5.7 | | | | | | | |
| ULM | | | | LR | LR | 00 | 34 | 03.9 |
| | comp=Z,56nm,18.6s,baz=60,slow=39 | | | | | | | |
| **BMO** | **Blue Mountains** | **38.65** | **330** | *e*P | **P** | **00 17 24.4** | **-0.6** |
| | 6.6nm,0.1s | | | | | | | |
| **SIV** | **San Ignacio** | **41.45** | **134** | P | **P** | **00 17 48.9** | **+0.5** |
| | 1.3nm,0.4s,baz=319,slow=6.9,SNR=3.1 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **51.95** | **346** | P | **P** | **00 19 09.3** | **-0.6** |
| | 0.3nm,0.7s,baz=145,slow=7.7,SNR=6.2 | | | | | | | |
| **INK** | **Inuvik** | **61.41** | **343** | P | **P** | **00 20 16.8** | **-0.2** |
| | 1.0nm,0.6s,baz=140,slow=5.9,SNR=5.1 | | | | | | | |
| **ILAR** | **Eielson Array** | **63.90** | **337** | P | **P** | **00 20 33.5** | **-0.2** |
| | 0.7nm,0.8s,baz=141,slow=4.4,SNR=6.1 | | | | | | | |
| **WRA** | **Warramunga Arr** | **136.23** | **255** | PKP | **PKPdf** | **00 29 25.1** | **+1.7** |
| | 0.4nm,0.8s,baz=94,slow=2.0,SNR=4.0 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **146.98** | **343** | PKPbc | **PKPdf** | **00 29 44.3** | **+1.7** |
| | 3.7nm,1.0s,baz=335,slow=3.3,SNR=7.8 | | | | | | | |

*ISCJB **19** 23:19:08.9±1.1,38°.72N±0°.04×43°.86E±0°.07,h6km±11km, Error ellipse: s-maj=10.5km s-min=5.2km az=24.4*

*DDA **20** 00:19:08.1,38°.71N×43°.89E,h7km,Ml2.3*

*ISK **20** 00:19:08.6,38°.76N×43°.74E,h5km,MD2.7*

*CSEM **20** 00:19:09.1±0.3,38°.73N×43°.77E,h2km,MD2.7,Error ellipse: s-maj=8.9km s-min=4.8km az=109.0*

**ISC 20 00:19:08.9±1.4, 38.74N±0°.03×43.76E±0°.04, h7km±12km, n26, σ0s59/36, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.29** | **329** | *i* P | **Pg** | **00 19 14.8** | **+0.1** |
| VMUR | | | | *i* S | **Sb** | **00 19 21.5** | **-0.1** |
| **VMUR** | **Van-Muradiye** | **0.29** | **329** | P | **Pg** | **00 19 14.8** | **+0.1** |
| VMUR | | | | S | **Sb** | **00 19 21.5** | **-0.1** |
| **VANB** | **Van** | **0.33** | **243** | *e*PG | **Pb** | **00 19 16.8** | **-0.3** |
| **VANB** | **Van** | **0.33** | **243** | *e*Pg | **Pb** | **00 19 16.8** | **-0.3** |
| **TVAN** | **Van** | **0.35** | **233** | *i* P | **Pg** | **00 19 15.8** | **-0.1** |
| TVAN | | | | *i* S | **Sb** | **00 19 24.3** | **+0.9** |
| **TVAN** | **Van** | **0.35** | **233** | P | **Pg** | **00 19 15.8** | **-0.1** |
| TVAN | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **CTZ** | **Chatham Island** | **13.81** | **181** | PN | **Pn** | **00 38 29.0** | **+0.6** |
| CTZ | | | | SN | **Sn** | **00 40 52.6** | **-7.8** |
| **THZ** | **Tophouse** | **14.75** | **214** | *e*Pn | **Pn** | **00 38 38.1** | **-3.3** |
| | 38nm,1.0s | | | | | | |
| THZ | | | | *e*Sn | **Sn** | **00 41 21.0** | **-2.6** |
| **THZ** | **Tophouse** | **14.75** | **214** | PN | **Pn** | **00 38 37.9** | **-3.5** |
| **KHZ** | **Kahutara** | **14.97** | **211** | *e*Pn | **Pn** | **00 38 39.6** | **-4.5** |
| | 86nm,0.8s | | | | | | |
| **KHZ** | **Kahutara** | **14.97** | **211** | PN | **P** | **00 38 47.8** | **-1.5** |
| **LTZ** | **Lake Taylor** | **15.83** | **213** | *e*Pn | **Pn** | **00 38 52.5** | **-3.0** |
| | 13nm,0.8s | | | | | | |
| **INZ** | **Inchbonnie** | **16.19** | **214** | PN | **Pn** | **00 38 57.4** | **-2.5** |
| **OXZ** | **Oxford** | **16.36** | **212** | *e*Pn | **Pn** | **00 39 00.2** | **-2.0** |
| | 58nm,1.1s | | | | | | |
| **OXZ** | **Oxford** | **16.36** | **212** | PN | Pn | 00 38 54.1 | -8.2 |
| **MQZ** | **McQueen's Vall** | **16.39** | **210** | *e*Pn | **Pn** | **00 38 58.7** | **-3.8** |
| | 34nm,1.2s | | | | | | |
| **RPZ** | **Rata Peaks** | **17.12** | **213** | P | **Pn** | **00 39 11.7** | **0.0** |
| | 2.2nm,0.3s,baz=4.8,slow=12,SNR=3.9 | | | | | | |
| **RAR** | **Rarotonga** | **17.15** | **63** | P | Pn | 00 39 02.1 | -10 |
| | 1.1nm,0.3s,baz=241,slow=19,SNR=2.8 | | | | | | |
| RAR | | | | LR | LR | 00 43 10.5 | |
| | comp=Z,49nm,21.8s,baz=249,slow=28 | | | | | | |
| **DZM** | **Mont Dzumac** | **17.43** | **293** | LR | LR | 00 45 07.7 | |
| | comp=Z,188nm,18.5s,baz=199,slow=35 | | | | | | |
| **ODZ** | **Otahua Downs** | **18.33** | **211** | *e*P | **P** | **00 39 22.8** | **-3.7** |
| | 12nm,0.8s | | | | | | |
| **JCZ** | **Jackson Bay** | **18.50** | **216** | P* | **P** | **00 39 26.9** | **-1.6** |
| **WHZ** | **Wether Hill Ro** | **20.22** | **214** | *e*P | **P** | **00 39 46.5** | **-0.6** |
| | 28nm,1.4s | | | | | | |
| **PPT2** | **Papeete2** | **27.21** | **69** | *e*LR | LR | 00 47 46.7 | |
| | 49nm,21.8s | | | | | | |
| **PPT** | **Papeete** | **27.22** | **69** | LR | LR | 00 49 39.9 | |
| | comp=Z,41nm,21.6s,baz=215,slow=32 | | | | | | |
| **EIDS** | **Eidsvold** | **29.27** | **271** | *e*P | **P** | **00 41 14.5** | **+0.2** |
| | 5.3nm,0.7s | | | | | | |
| **CTAO** | **Charters Tower** | **35.27** | **277** | *e*P | **P** | **00 42 07.0** | **+0.1** |
| | 30nm,0.6s | | | | | | |
| **STKA** | **Stephens Creek** | **36.11** | **256** | P | **P** | **00 42 14.8** | **+0.8** |
| | 11nm,0.6s,baz=98,slow=10,SNR=31 | | | | | | |
| **AS01** | **Alice Springs** | **44.65** | **266** | *e*P | **P** | **00 43 23.5** | **-1.3** |
| **ASAR** | **Alice Springs** | **44.69** | **266** | P | **P** | **00 43 23.7** | **-1.4** |
| | 1.6nm,0.4s,baz=104,slow=7.8,SNR=37 | | | | | | |
| ASAR | | | | PcP | **PP** | **00 45 08.3** | **-1.5** |
| | 0.7nm,0.7s,baz=101,slow=4.8,SNR=3.5 | | | | | | |
| **WB2** | **Warramunga Arr** | **45.63** | **271** | *e*P | **P** | **00 43 30.9** | **-1.7** |
| **WRAB** | **Tennant Creek** | **45.63** | **271** | *e*P | **P** | **00 43 30.9** | **-1.7** |
| | 7.3nm,0.6s | | | | | | |
| **WRA** | **Warramunga Arr** | **45.64** | **271** | P | **P** | **00 43 30.8** | **-1.8** |
| | 7.4nm,0.5s,baz=109,slow=7.7,SNR=106 | | | | | | |
| WRA | | | | PcP | **PcP** | **00 45 11.2** | **+0.7** |
| | 0.8nm,0.8s,baz=116,slow=3.6,SNR=2.4 | | | | | | |
| **QSPA** | **South Pole Qui** | **60.20** | **180** | *e*P | **P** | **00 45 23.7** | **+4.2** |
| | 51nm,1.1s | | | | | | |
| **VNA3** | **Neumayer Olymp** | **78.68** | **176** | P | **P** | **00 47 12.5** | **-0.9** |
| **MJAR** | **Matsushiro Arr** | **78.74** | **324** | P | **P** | **00 47 09.7** | **-4.4** |
| | 0.8nm,0.3s,baz=157,slow=5.4,SNR=3.2 | | | | | | |
| **VNA2** | **Neumayer--Watz** | **79.14** | **176** | P | **P** | **00 47 18.2** | **+2.3** |
| | baz=178,slow=4.3 | | | | | | |
| **KSRS** | **Korea Array** | **84.99** | **319** | P | **P** | **00 47 48.9** | **+1.9** |
| | 1.2nm,0.5s,baz=130,slow=7.8,SNR=5.4 | | | | | | |
| **KSAR** | **Wonju Array Be** | **85.01** | **319** | P | **P** | **00 47 48.9** | **+1.8** |
| **NJ2** | **Nanjing** | **87.12** | **310** | *e*P | P | 00 48 01.8 | +4.2 |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,16nm,0.5s | | | | | | |
| **CN2** | **Changchun** | **90.70** | **322** | *e*P | P | 00 48 19.0 | +4.8 |
| **TXAR** | **Lajitas Array** | **90.82** | **56** | P | **P** | **00 48 14.3** | **-0.9** |
| | comp=Z,1.1nm,1.0s,baz=225,slow=6.7,SNR=5.8 | | | | | | |
| **PDAR** | **Pinedale Array** | **94.71** | **43** | P | **P** | **00 48 31.7** | **-1.4** |
| | comp=Z,0.3nm,0.7s,baz=243,slow=5.0,SNR=2.9 | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **97.02** | **313** | *e*P | P | 00 48 48.0 | +4.5 |
| **HHC** | **Hu-ho-hao-te** | **97.02** | **313** | S | **S** | **01 00 06.4** | **+2.6** |
| **HHC** | **Hu-ho-hao-te** | **97.02** | **313** | SS | SS | 01 06 46.1 | +4.6 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.1s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,64nm,5.5s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=N,140nm,17.1s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=E,220nm,16.7s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,54nm,16.1s | | | | | | |
| **ILAR** | **Eielson Array** | **97.11** | **12** | P | **P** | **00 48 40.6** | **-2.5** |
| | comp=Z,0.8nm,1.0s,baz=227,slow=5.3,SNR=6.9 | | | | | | |
| **WMQ** | **Urumqi** | **114.15** | **308** | *e*P | **PKiKP** | **00 53 55.1** | **+4.3** |
| **KSH** | **Kashi** | **121.33** | **300** | *e*PKP | PKPdf | 00 54 12.3 | +7.4 |
| KSH | | | | PP | PP | 00 55 46.3 | +10 |
| KSH | | | | PKS | **PKSdf** | **00 57 47.3** | **+5.7** |
| KSH | | | | SKS | **SKSdf** | **01 01 23.4** | **+9.1** |
| KSH | | | | SKKS | **SKKSac** | **01 02 38.3** | **+5.3** |
| **KSH** | **Kashi** | **121.33** | **300** | SS | SS | 01 12 18.4 | +10 |
| KSH | | | | AMB | AMB | | |
| | comp=Z,14nm,2.4s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,32nm,3.0s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,33nm,2.4s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,100nm,5.8s | | | | | | |
| **KURK** | **Kurchatov** | **121.83** | **314** | PKP | **PKPdf** | **00 54 04.1** | **-1.2** |
| **KURBB** | **Kurchatov Arra** | **121.87** | **314** | PKP | **PKPdf** | **00 54 04.1** | **-1.3** |
| | comp=Z,1.0nm,0.8s,baz=101,slow=2.2,SNR=8.3 | | | | | | |
| **BVAR** | **Borovoye Array** | **127.14** | **316** | PKP | **PKPdf** | **00 54 14.9** | **-0.5** |
| | comp=Z,1.2nm,0.7s,baz=64,slow=5.0,SNR=6.4 | | | | | | |
| **AKTO** | **Aktyubinsk** | **134.91** | **313** | PKP | **PKPdf** | **00 54 29.9** | **-0.3** |
| | comp=Z,1.1nm,0.8s,baz=90,slow=3.0,SNR=3.4 | | | | | | |
| **FINES** | **FINESS Array B** | **145.20** | **341** | PKP | **PKPbc** | **00 54 46.1** | **-1.9** |
| | comp=Z,5.8nm,0.8s,baz=41,slow=2.6,SNR=21 | | | | | | |
| **KBZ** | **Khabaz** | **146.12** | **305** | PKPbc | **PKPab** | **00 54 51.5** | **-0.7** |
| | comp=Z,1.3nm,0.7s,baz=90,slow=7.1,SNR=4.4 | | | | | | |
| **NB2** | **NORSAR Subarra** | **148.47** | **353** | PKP | **PKPbc** | **00 54 55.9** | **-1.7** |
| | comp=Z,1.9nm,0.7s,baz=9.6,slow=2.9 | | | | | | |
| **NOA** | **NORSAR Array B** | **148.47** | **353** | PKPbc | **PKPbc** | **00 54 56.0** | **-1.7** |
| | comp=Z,2.4nm,0.7s,baz=12,slow=4.4,SNR=7.0 | | | | | | |
| **AKASG** | **Malin Array Be** | **151.82** | **325** | PKPbc | **PKPbc** | **00 55 04.8** | **-1.2** |
| | comp=Z,6.2nm,0.6s,baz=46,slow=2.8,SNR=24 | | | | | | |
| **BRTR** | **Keskin Array B** | **153.72** | **300** | PKPab | **PKPab** | **00 55 21.9** | **-1.7** |
| | comp=Z,0.5nm,0.6s,baz=72,slow=3.1,SNR=3.5 | | | | | | |
| **KHC** | **Kasperske Hory** | **159.40** | **342** | *e*PKPDF | PKPdf | 00 55 17.0 | +7.2 |
| **TORD** | **Torodi Ar. Bea** | **163.21** | **173** | PKPab | **PKPab** | **00 56 06.7** | **+1.8** |
| | comp=Z,2.0nm,0.7s,baz=187,slow=3.9,SNR=13 | | | | | | |

*ISN **20** 00:36:16.9±1.2, 38°.53N×43°.98E, h0km±57km, ML3.5*
*NSSP **20** 00:36:20.8, 38°.42N×44°.47E, h5km, Ms3.6*
*ISK **20** 00:36:22.1, 38°.37N×44°.11E, h5km, ML3.4*
*DDA **20** 00:36:22.6, 38°.44N×44°.11E, h2km, Ml3.5*
*CSEM **20** 00:36:22.7±0.1, 38°.35N×44°.07E, h2km, ML3.5, Error ellipse: s-maj=2.9km s-min=2.3km az=139.0*
*AZER **20** 00:36:23.5±0.3, 38°.40N×44°.11E, h2km, Error ellipse: s-maj=3.7km s-min=2.8km az=100.0*

**ISC 20 00:36:22.9±1.1, 38°.39N±0°.02×44°.12E±0°.02, h4km±9km, n130, σ1§56/197, 30C-29D, Turkey-Iran border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **BASK** | **Baskale_VAN** | **0.35** | **195** | *i* P | | **Pg** | **00 36 29.8** | **0.0** |
| BASK | | | | *i* S | | **Sb** | **00 36 37.1** | **-0.8** |
| **BASK** | **Baskale_VAN** | **0.35** | **195** | P | | **Pg** | **00 36 29.8** | **0.0** |
| **TVAN** | **Van** | **0.58** | **284** | *i* P | | **Pg** | **00 36 33.3** | **-0.8** |
| TVAN | | | | *i* S | | **Sn** | **00 36 47.4** | **-0.8** |
| **TVAN** | **Van** | **0.58** | **284** | P | | **Pg** | **00 36 33.3** | **-0.8** |
| **VANB** | **Van** | **0.61** | **290** | *e*PG | | **Pg** | **00 36 33.4** | **-1.3** |
| **VANB** | **Van** | **0.61** | **290** | *e*Pg | | **Pg** | **00 36 33.4** | **-1.3** |
| **VMUR** | **Van-Muradiye** | **0.73** | **324** | *i* P | | **Pg** | **00 36 37.0** | **-0.1** |
| VMUR | | | | *i* S | | **Sn** | **00 36 50.1** | **-1.9** |
| **VMUR** | **Van-Muradiye** | **0.73** | **324** | P | | **Pg** | **00 36 37.0** | **-0.1** |
| **CLDR** | **Caldiran** | **0.77** | **348** | *e*PG | | **Pg** | **00 36 38.2** | **+0.6** |
| **CLDR** | **Caldiran** | **0.77** | **348** | *i* P | | **Pg** | **00 36 36.3** | **-1.4** |
| **CLDR** | **Caldiran** | **0.77** | **348** | P | | **Pg** | **00 36 36.3** | **-1.4** |
| **CLDR** | **Caldiran** | **0.77** | **348** | *e*Pg | | **Pg** | **00 36 38.2** | **+0.6** |
| **YOVA** | **Hakkari_Y`…kse** | **0.81** | **171** | *i* P | | **Pg** | **00 36 39.1** | **+0.5** |
| YOVA | | | | *i* S | | **Sn** | **00 36 54.4** | **+0.4** |
| **YOVA** | **Hakkari_Y`…kse** | **0.81** | **171** | P | | **Pg** | **00 36 39.1** | **+0.5** |
| **GEVA** | **Gevas** | **0.84** | **265** | *i* P | | **Pg** | **00 36 37.4** | **-1.7** |
| GEVA | | | | *i* S | | **Sb** | **00 36 51.4** | **-0.5** |
| **GEVA** | **Gevas** | **0.84** | **265** | P | | **Pg** | **00 36 37.4** | **-1.7** |
| **ERCV** | **ERCIS-VAN** | **0.88** | **316** | *e*PG | | **Pg** | **00 36 40.1** | **+0.4** |
| ERCV | | | | *e*SG | | **Sn** | **00 36 53.5** | **-2.0** |
| **ERCV** | **ERCIS-VAN** | **0.88** | **316** | *e*Pg | | **Pg** | **00 36 40.1** | **+0.4** |
| ERCV | | | | *e*Sg | | **Sn** | **00 36 53.5** | **-2.0** |
| **HAKT** | **HAKKARI** | **0.90** | **202** | *i* P | | **Pg** | **00 36 39.4** | **-0.7** |
| HAKT | | | | *i* S | | **Sn** | **00 36 56.1** | **+0.1** |
| **HAKT** | **HAKKARI** | **0.90** | **202** | P | | **Pg** | **00 36 39.4** | **-0.7** |
| **MAKU** | **Maku** | **1.05** | **24** | *e*Pg | | **Pg** | **00 36 41.7** | **-1.5** |
| MAKU | | | | *e*Sg | | **Sg** | **00 36 54.8** | **-2.1** |
| **ADCV** | **BITLIS_Adilcev** | **1.17** | **291** | *i* P | | **Pb** | **00 36 44.9** | **-0.9** |
| **ADCV** | **BITLIS_Adilcev** | **1.17** | **291** | P | | **Pb** | **00 36 44.9** | **-0.9** |
| **DYDN** | **Diyadin** | **1.20** | **344** | *i* P | | **Pb** | **00 36 45.7** | **-0.6** |
| DYDN | | | | *i* S | | **Sn** | **00 37 06.6** | **+3.1** |
| **DYDN** | **Diyadin** | **1.20** | **344** | P | | **Pb** | **00 36 45.7** | **-0.6** |
| **CUKT** | **Cukurca** | **1.21** | **200** | *e*PN | | **Pb** | **00 36 45.8** | **-0.7** |
| **CUKT** | **Cukurca** | **1.21** | **200** | *i* P | | **Pb** | **00 36 45.5** | **-1.0** |
| CUKT | | | | *i* S | | **Sn** | **00 37 07.0** | **+3.2** |
| **CUKT** | **Cukurca** | **1.21** | **200** | P | | **Pb** | **00 36 45.5** | **-1.0** |
| **CUKT** | **Cukurca** | **1.21** | **200** | *e*Pn | | **Pb** | **00 36 45.8** | **-0.7** |
| **NAX** | **Nakhchivan** | **1.33** | **54** | ⇑P | | **Pb** | **00 36 48.1** | **-0.3** |
| NAX | | | | ⇑S | | **Sg** | **00 37 07.3** | **+1.8** |
| **NAX** | **Nakhchivan** | **1.33** | **54** | P | | **Pb** | **00 36 48.1** | **-0.3** |
| NAX | | | | *i* S | | **Sg** | **00 37 07.3** | **+1.8** |
| **TUTA** | **Tutak** | **1.44** | **315** | *i* P | | **Pn** | **00 36 49.4** | **-0.5** |
| TUTA | | | | *i* S | | **Sg** | **00 37 11.2** | **+2.2** |
| **TUTA** | **Tutak** | **1.44** | **315** | P | | **Pn** | **00 36 49.4** | **-0.5** |
| **HYR** | **Heyderabad** | **1.44** | **23** | ⇓P | | **Pn** | **00 36 49.7** | **-0.2** |
| HYR | | | | ⇓S | | **Sg** | **00 37 11.4** | **+2.1** |
| **HYR** | **Heyderabad** | **1.44** | **23** | P | | **Pn** | **00 36 49.7** | **-0.2** |
| HYR | | | | *i* S | | **Sg** | **00 37 11.4** | **+2.1** |
| **SBZ** | **Shahbuz** | **1.50** | **48** | ⇓P | | **Pb** | **00 36 51.0** | **-0.4** |
| SBZ | | | | ⇓S | | **Sg** | **00 37 12.6** | **+1.5** |
| **SBZ** | **Shahbuz** | **1.50** | **48** | P | | **Pb** | **00 36 51.0** | **-0.4** |
| SBZ | | | | *i* S | | **Sg** | **00 37 12.6** | **+1.5** |
| **ORD** | **Ordubad** | **1.56** | **69** | P | | **Pb** | **00 36 52.0** | **-0.4** |
| ORD | | | | *i* S | | **Sg** | **00 37 15.0** | **+2.0** |
| **TASB** | **TASBURUN-IGDIR** | **1.59** | **3** | *e*PN | | **Pb** | **00 36 52.8** | **-0.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.59** | **3** | *e*Pn | | **Pb** | **00 36 52.8** | **-0.1** |
| **SIRT** | **Sirnak** | **1.60** | **237** | *e*PN | | **Pb** | **00 36 52.3** | **-0.8** |
| **SIRT** | **Sirnak** | **1.60** | **237** | *e*Pn | | **Pb** | **00 36 52.3** | **-0.8** |
| **SIRN** | **S¨–rnak** | **1.62** | **237** | *i* P | | **Pg** | **00 36 53.8** | **-0.2** |
| SIRN | | | | *i* S | | **Sg** | **00 37 19.9** | **+4.9** |
| **SRTM** | **Siirt_Merkez** | **1.78** | **258** | *i* P | | **Pb** | **00 36 56.4** | **+0.3** |
| SRTM | | | | *i* S | | **Sg** | **00 37 22.5** | **+2.3** |
| **GNI** | **Garni** | **1.82** | **15** | ⇓*i*P | | **Pb** | **00 36 55.7** | **-1.2** |
| GNI | | | | ⇑*i*S | | **Sg** | **00 37 20.7** | **-0.6** |
| **GNI** | **Garni** | **1.82** | **15** | ⇓P | | **Pb** | **00 36 55.7** | **-1.2** |
| **EKAR** | **Karacoban** | **1.82** | **299** | *i* P | | **Pg** | **00 36 58.1** | **+0.2** |
| **EATA** | **Eleskirt** | **1.94** | **320** | *i* P | | **Pb** | **00 36 58.7** | **-0.3** |
| **EATA** | **Eleskirt** | **1.94** | **320** | P | | **Pb** | **00 36 58.7** | **-0.3** |
| **GRS** | **Goris** | **2.05** | **57** | ⇑*i*P | | **Pn** | **00 36 58.0** | **-0.3** |
| GRS | | | | ⇑*i*S | | **Sg** | **00 37 29.0** | **+0.3** |
| **GRS** | **Goris** | **2.05** | **57** | ⇑P | | **Pn** | **00 36 58.0** | **-0.3** |
| GRS | | | | *i* S | | **Sg** | **00 37 29.0** | **+0.3** |
| **DIGO** | **Kars** | **2.10** | **344** | *i* P | | **Pb** | **00 37 02.2** | **+0.4** |
| **MSL** | **Mosul** | **2.15** | **202** | *e*Pn | | **Pn** | **00 36 57.0** | **-2.5** |
| | SNR=4.0 | | | | | | | |
| MSL | | | | *i* Sn | | **Sn** | **00 37 26.0** | **-0.6** |
| | SNR=4.0 | | | | | | | |
| **VRTB** | **Varto-Mus** | **2.22** | **291** | *e*PN | | **Pn** | **00 37 01.5** | **+0.8** |
| **VRTB** | **Varto-Mus** | **2.22** | **291** | *i* P | | **Pg** | **00 37 04.7** | **-0.8** |
| **VRTB** | **Varto-Mus** | **2.22** | **291** | *e*Pn | | **Pn** | **00 37 01.5** | **+0.8** |
| **BTMN** | **Batman** | **2.31** | **258** | *i* P | | **Pb** | **00 37 03.5** | **-1.6** |
| **EAK** | **Akyaka** | **2.33** | **350** | *i* P | | **Pb** | **00 37 06.1** | **+0.6** |
| **KARS** | **Kars** | **2.37** | **340** | *e*PN | | **Pn** | **00 37 03.5** | **+0.7** |
| **KARS** | **Kars** | **2.37** | **340** | *e*Pn | | **Pn** | **00 37 03.5** | **+0.7** |
| **BNGL** | **BINGOL** | **2.39** | **284** | *i* P | | **Pg** | **00 37 10.0** | **+1.2** |
| **SENK** | **Senkaya-Erzuru** | **2.56** | **328** | *e*PN | | **Pn** | **00 37 06.5** | **+1.1** |
| **SENK** | **Senkaya-Erzuru** | **2.56** | **328** | *e*Pn | | **Pn** | **00 37 06.6** | **+1.1** |
| **GDB** | **GEDABAY** | **2.65** | **28** | ⇓P | | **Pb** | **00 37 07.1** | **+0.6** |
| GDB | | | | ⇓S | | **Sb** | **00 37 41.2** | **-2.6** |
| **GDB** | **GEDABAY** | **2.65** | **28** | P | | **Pn** | **00 37 07.1** | **+0.6** |
| GDB | | | | S | | **Sb** | **00 37 41.2** | **-2.6** |
| **BNGB** | **Bing¨ll** | **2.76** | **284** | *e*PN | | **Pn** | **00 37 09.1** | **+1.1** |
| **GANJ** | **Ganja** | **2.82** | **36** | ⇑P | | **Pn** | **00 37 10.5** | **+1.7** |
| GANJ | | | | ⇓S | | **Sb** | **00 37 45.7** | **-3.1** |
| **GANJ** | **Ganja** | **2.82** | **36** | P | | **Pn** | **00 37 10.5** | **+1.7** |
| **QZX** | **Qazax, Azerbai** | **2.83** | **20** | ⇑P | | **Pn** | **00 37 09.3** | **+0.4** |
| QZX | | | | ⇓S | | **Sn** | **00 37 44.9** | **+1.4** |
| **QZX** | **Qazax, Azerbai** | **2.83** | **20** | P | | **Pn** | **00 37 09.3** | **+0.4** |
| QZX | | | | S | | **Sn** | **00 37 44.9** | **+1.4** |
| **BINT** | **Bingol** | **2.89** | **281** | *e*Pn | | **Pn** | **00 37 09.1** | **-0.7** |
| **BGD** | **Bogdanovka** | **2.90** | **352** | P | | **Pb** | **00 37 16.4** | **+1.2** |
| **YEDI** | **Yedisu-Bingol** | **2.98** | **292** | *e*PN | | **Pn** | **00 37 12.4** | **+1.3** |
| **YEDI** | **Yedisu-Bingol** | **2.98** | **292** | *e*Pn | | **Pn** | **00 37 12.4** | **+1.3** |
| **GRMI** | **Germi** | **2.98** | **81** | *e*Pn | | **Pb** | **00 37 13.7** | **-3.0** |
| GRMI | | | | *e*Sg | | **Sg** | **00 37 57.8** | **-1.0** |
| **BRDA** | **Brd** | **3.02** | **51** | ⇓P | | **Pn** | **00 37 12.2** | **+0.7** |
| BRDA | | | | ⇓S | | **Sn** | **00 37 49.8** | **+1.8** |
| **BRDA** | **Brd** | **3.02** | **51** | P | | **Pn** | **00 37 12.2** | **+0.7** |
| BRDA | | | | S | | **Sn** | **00 37 49.8** | **+1.8** |
| **AKH** | **Akhalkalaki** | **3.05** | **351** | P | | **Pg** | **00 37 20.7** | **-0.7** |
| **MAZI** | **Mazidag** | **3.05** | **253** | *e*PN | | **Pn** | **00 37 13.4** | **+1.3** |
| **MAZI** | **Mazidag** | **3.05** | **253** | *e*Pn | | **Pn** | **00 37 13.4** | **+1.3** |
| **DIY** | **Diyarbakir** | **3.11** | **262** | *e*Pn | | **Pn** | **00 37 14.7** | **+1.9** |
| **DYBB** | **Diyarbakir** | **3.17** | **263** | *e*PN | | **Pn** | **00 37 14.7** | **+1.0** |
| **MNGR** | **Mingechevir, A** | **3.30** | **43** | ⇑P | | **Pn** | **00 37 16.1** | **+0.8** |
| MNGR | | | | ⇓S | | **Sn** | **00 37 56.9** | **+1.9** |
| **MNGR** | **Mingechevir, A** | **3.30** | **43** | P | | **Pn** | **00 37 16.1** | **+0.8** |
| **LRK** | **Lerik** | **3.32** | **84** | ⇑P | | **Pn** | **00 37 16.6** | **+0.9** |
| LRK | | | | ⇓S | | **Sn** | **00 37 57.9** | **+2.2** |
| **LRK** | **Lerik** | **3.32** | **84** | P | | **Pn** | **00 37 16.6** | **+0.9** |
| LRK | | | | S | | **Sn** | **00 37 57.9** | **+2.2** |
| **ZRD** | **Zardab** | **3.34** | **55** | ⇑P | | **Pn** | **00 37 16.7** | **+0.8** |
| ZRD | | | | ⇓S | | **Sn** | **00 37 58.3** | **+2.3** |
| **ZRD** | **Zardab** | **3.34** | **55** | P | | **Pn** | **00 37 16.7** | **+0.8** |
| ZRD | | | | S | | **Sn** | **00 37 58.3** | **+2.3** |
| **TBLG** | **Delisi** | **3.37** | **8** | P | | **Pg** | **00 37 26.8** | **-0.6** |
| **DDFL** | **Dedoflistskaro** | **3.41** | **26** | P | | **Pg** | **00 37 27.0** | **-1.3** |
| **GLBA** | **Clilabad** | **3.44** | **74** | ⇑P | | **Pn** | **00 37 18.0** | **+0.7** |
| GLBA | | | | ⇑S | | **Sn** | **00 38 01.0** | **+2.5** |
| **GLBA** | **Clilabad** | **3.44** | **74** | P | | **Pn** | **00 37 18.0** | **+0.7** |
| GLBA | | | | S | | **Sn** | **00 38 01.0** | **+2.5** |
| **SAAT** | **Saatly** | **3.65** | **65** | ⇑P | | **Pn** | **00 37 20.6** | **+0.4** |
| SAAT | | | | ⇑S | | **Sn** | **00 38 05.3** | **+1.6** |
| **SAAT** | **Saatly** | **3.65** | **65** | P | | **Pn** | **00 37 20.6** | **+0.4** |
| SAAT | | | | S | | **Sn** | **00 38 05.3** | **+1.6** |
| **LKRN** | **Lenkeran, Azer** | **3.66** | **84** | ⇓P | | **Pn** | **00 37 21.2** | **+0.9** |
| LKRN | | | | ⇓S | | **Sn** | **00 38 06.5** | **+2.5** |
| **LKRN** | **Lenkeran, Azer** | **3.66** | **84** | P | | **Pn** | **00 37 21.2** | **+0.9** |
| LKRN | | | | S | | **Sn** | **00 38 06.5** | **+2.5** |
| **ASTR** | **Astara** | **3.67** | **86** | ⇓P | | **Pn** | **00 37 21.0** | **+0.6** |
| ASTR | | | | ⇓S | | **Sn** | **00 38 06.4** | **+2.4** |
| **ASTR** | **Astara** | **3.67** | **86** | P | | **Pn** | **00 37 21.0** | **+0.6** |
| ASTR | | | | S | | **Sn** | **00 38 06.4** | **+2.4** |
| **SEKA** | **Sheki** | **3.68** | **39** | ⇓P | | **Pn** | **00 37 21.9** | **+1.3** |
| SEKA | | | | ⇓S | | **Sn** | **00 38 08.1** | **+3.7** |
| **SEKA** | **Sheki** | **3.68** | **39** | P | | **Pn** | **00 37 21.9** | **+1.3** |
| SEKA | | | | S | | **Sn** | **00 38 08.1** | **+3.7** |
| **KDMR** | **Kurdemir** | **3.72** | **57** | ⇑P | | **Pn** | **00 37 21.9** | **+0.8** |
| KDMR | | | | ⇓S | | **Sn** | **00 38 07.5** | **+2.2** |
| **KDMR** | **Kurdemir** | **3.72** | **57** | P | | **Pn** | **00 37 21.9** | **+0.8** |
| KDMR | | | | S | | **Sn** | **00 38 07.5** | **+2.2** |
| **ZKTA** | **Zakatala** | **3.77** | **30** | ⇑P | | **Pn** | **00 37 21.9** | **+0.1** |
| ZKTA | | | | ⇑S | | **Sn** | **00 38 08.8** | **+2.3** |
| **QBL** | **Gabala** | **3.84** | **47** | ⇑P | | **Pn** | **00 37 23.3** | **+0.5** |
| QBL | | | | ⇓S | | **Sn** | **00 38 10.4** | **+2.1** |
| **QBL** | **Gabala** | **3.84** | **47** | P | | **Pn** | **00 37 23.3** | **+0.5** |
| QBL | | | | S | | **Sn** | **00 38 10.4** | **+2.1** |
| **IML** | **Ismayilli** | **3.95** | **51** | ⇓P | | **Pn** | **00 37 25.5** | **+1.2** |
| IML | | | | ⇓S | | **Sn** | **00 38 12.2** | **+2.1** |
| **IML** | **Ismayilli** | **3.95** | **51** | P | | **Pn** | **00 37 25.5** | **+1.2** |
| **GUDG** | **Gudauri** | **4.08** | **4** | P | | **Pg** | **00 37 38.4** | **-2.7** |
| **ALIB** | **Äli-Bayra** | **4.10** | **66** | ⇑P | | **Pn** | **00 37 27.5** | **+1.1** |
| ALIB | | | | ⇑S | | **Sn** | **00 38 17.1** | **+2.3** |
| **ALIB** | **Äli-Bayra** | **4.10** | **66** | P | | **Pn** | **00 37 27.5** | **+1.1** |
| ALIB | | | | S | | **Sn** | **00 38 17.1** | **+2.3** |
| **XNQ** | **Khinaliq** | **4.16** | **47** | ⇑P | | **Pn** | **00 37 28.3** | **+1.0** |
| XNQ | | | | ⇑S | | **Sn** | **00 38 18.6** | **+2.2** |
| **XNQ** | **Khinaliq** | **4.16** | **47** | P | | **Pn** | **00 37 28.3** | **+1.0** |
| XNQ | | | | S | | **Sn** | **00 38 18.6** | **+2.2** |
| **SNGE** | **Sanandaj** | **4.19** | **141** | *e*Pn | | Pn | 00 37 32.3 | +4.5 |
| **PQL** | **Pirkuli** | **4.20** | **54** | ⇓P | | **Pn** | **00 37 29.0** | **+1.1** |
| PQL | | | | ⇓S | | **Sn** | **00 38 19.6** | **+2.1** |
| **PQL** | **Pirkuli** | **4.20** | **54** | P | | **Pn** | **00 37 29.0** | **+1.1** |
| **ONI** | **Oni** | **4.22** | **353** | P | | Pb | 00 37 32.9 | -4.9 |
| **GBS** | **Qobustan** | **4.30** | **59** | ⇑P | | **Pn** | **00 37 30.3** | **+1.2** |
| GBS | | | | ⇑S | | **Sn** | **00 38 22.1** | **+2.3** |
| **GBS** | **Qobustan** | **4.30** | **59** | P | | **Pn** | **00 37 30.3** | **+1.2** |
| GBS | | | | S | | **Sn** | **00 38 22.1** | **+2.3** |
| **QSAR** | **Qusar** | **4.45** | **44** | ⇓P | | **Pn** | **00 37 32.3** | **+1.0** |
| QSAR | | | | ⇓S | | **Sn** | **00 38 25.4** | **+1.9** |
| **QSAR** | **Qusar** | **4.45** | **44** | P | | **Pn** | **00 37 32.3** | **+1.0** |
| QSAR | | | | S | | **Sn** | **00 38 25.4** | **+1.9** |
| **ATGJ** | **Altiaghaj** | **4.46** | **55** | ⇑P | | **Pn** | **00 37 32.2** | **+0.8** |
| ATGJ | | | | ⇓S | | **Sn** | **00 38 26.0** | **+2.2** |
| **ATGJ** | **Altiaghaj** | **4.46** | **55** | P | | **Pn** | **00 37 32.2** | **+0.8** |
| **QUBA** | **Quba, Azerbaij** | **4.48** | **47** | ⇓P | | **Pn** | **00 37 32.5** | **+0.9** |
| QUBA | | | | ⇓S | | **Sn** | **00 38 26.5** | **+2.4** |
| **QUBA** | **Quba, Azerbaij** | **4.48** | **47** | P | | **Pn** | **00 37 32.5** | **+0.9** |
| QUBA | | | | S | | **Sn** | **00 38 26.5** | **+2.4** |
| **SIZA** | **Siyzn** | **4.55** | **52** | ⇑S | | **Sn** | **00 38 28.3** | **+2.2** |
| **SIZA** | **Siyzn** | **4.55** | **52** | S | | **Sn** | **00 38 28.3** | **+2.2** |
| **CHVG** | **Ch'k'valeri** | **4.59** | **341** | P | | **Pn** | **00 37 36.8** | **+3.7** |
| **BHD** | **Baghdad** | **5.12** | **178** | *e*Pn | | **Pn** | **00 37 39.0** | **-1.3** |
| | SNR=4.0 | | | | | | | |
| BHD | | | | *i* Sn | | **Sn** | **00 38 39.0** | **-0.8** |
| | SNR=4.0 | | | | | | | |
| **RTB** | **Rutbah** | **6.19** | **211** | *e*Pn | | **Pn** | **00 37 53.0** | **-2.1** |
| | SNR=4.0 | | | | | | | |
| RTB | | | | *i* Sn | | **Sn** | **00 39 03.0** | **-3.3** |
| | SNR=4.0 | | | | | | | |
| **NSR** | **Nassriya** | **7.55** | **167** | *e*Pn | | **Pn** | **00 38 13.0** | **-0.7** |
| | SNR=4.0 | | | | | | | |
| NSR | | | | *i* Sn | | **Sn** | **00 39 38.0** | **-1.8** |
| | SNR=4.0 | | | | | | | |

*CSEM **20** 00:40:16.5, 40°.28N×29°.60W, h10km, ML3.0*
**PDA 20 00:40:16.5±1.1, 40°.28N×29°.60W, h10km, MD3.7, ML3.0, Error ellipse: s-maj=11.2km s-min=5.7km az=81.0, Azores Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **PGRA** | **Graciosa** | **1.76** | **134** | *e*P | | Pn | 00 40 42.4 | -4.7 |
| PGRA | | | | *e*S | | Sn | 00 41 02.6 | -7.0 |
| PGRA |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| NEST | | | | S | Sb | 00 44 55.3 | +0.7 | | |
| **NEST** | **Nestorio** | **1.15** | **140** | P | Pg | 00 44 37.3 | -1.6 | | |
| NEST | | | | S | Sb | 00 44 55.3 | +0.7 | | |
| **SKO** | **Skopje** | **1.21** | **56** | *i* Pg | Pg | 00 44 40.0 | 0.0 | | |
| SKO | | | | *i* Sg | Sn | 00 44 57.2 | -0.1 | | |
| SKO | | | | *e*Lg | Lg | 00 44 57.6 | | | |
| | comp=E,6.2nm,0.6s | | | | | | | | |
| SKO | | | | *e*Lg | Lg | 00 44 57.7 | | | |
| | comp=N,8.8nm,0.4s | | | | | | | | |
| **PDG** | **Podgorica** | **1.28** | **331** | *e*Pg | Pg | 00 44 39.5 | -1.9 | | |
| PDG | | | | *e*Sg | Sb | 00 44 58.0 | -0.3 | | |
| **PDG** | **Podgorica** | **1.28** | **331** | ⇑*i*Pg | Pg | 00 44 40.1 | -1.3 | | |
| PDG | | | | *e*Sg | Sb | 00 44 58.0 | -0.3 | | |
| **TTG** | **Podgorica** | **1.28** | **331** | ⇑*i*Pg | Pg | 00 44 40.1 | -1.3 | | |
| TTG | | | | *e*Sg | Sn | 00 44 59.4 | +0.3 | | |
| **PVY** | **Plav** | **1.29** | **356** | ⇓*i*Pg | Pg | 00 44 40.4 | -1.2 | | |
| PVY | | | | *e*Sg | Sn | 00 45 00.1 | +0.6 | | |
| **PVY** | **Plav** | **1.29** | **356** | ⇓*i*Pg | Pg | 00 44 40.4 | -1.2 | | |
| PVY | | | | *e*Sg | Sn | 00 45 00.1 | +0.6 | | |
| **BUM** | **Brajici-Budva** | **1.33** | **318** | *e*Pg | Pn | 00 44 41.1 | -1.2 | | |
| BUM | | | | *e*Sg | Sn | 00 45 01.5 | +1.0 | | |
| **BUM** | **Brajici-Budva** | **1.33** | **318** | *e*Pg | Pn | 00 44 41.1 | -1.2 | | |
| BUM | | | | *e*Sg | Sn | 00 45 01.5 | +1.0 | | |
| **PENT** | **Pentalofos** | **1.37** | **144** | P | Pg | 00 44 43.1 | +0.1 | | |
| **PENT** | **Pentalofos** | **1.37** | **144** | P | Pg | 00 44 43.2 | +0.1 | | |
| **SRN** | **Sarande** | **1.43** | **183** | *i* PN | Pn | 00 44 43.4 | 0.0 | | |
| **SRN** | **Sarande** | **1.43** | **183** | *i* Pn | Pn | 00 44 43.4 | 0.0 | | |
| | SNR=40 | | | | | | | | |
| **CEME** | **Cevo** | **1.52** | **325** | *e*Pg | Pn | 00 44 44.2 | -0.6 | | |
| CEME | | | | *e*Sg | Sg | 00 45 07.0 | +1.5 | | |
| **CEME** | **Cevo** | **1.52** | **325** | *e*Pg | Pn | 00 44 44.2 | -0.6 | | |
| CEME | | | | *e*Sg | Sg | 00 45 07.0 | +1.5 | | |
| **BEY** | **Berane** | **1.57** | **355** | *e*Pg | Pn | 00 44 45.6 | +0.1 | | |
| **IVA** | **Berane** | **1.57** | **355** | *e*Pg | Pn | 00 44 45.6 | +0.1 | | |
| IVA | | | | *e*Sg | Sg | 00 45 09.7 | +2.4 | | |
| **KOME** | **Kolasin** | **1.60** | **345** | ⇓*i*Pg | Pn | 00 44 46.2 | +0.3 | | |
| KOME | | | | *e*Sg | Sg | 00 45 10.4 | +2.2 | | |
| **KOME** | **Kolasin** | **1.60** | **345** | ⇓*i*Pg | Pn | 00 44 46.2 | +0.3 | | |
| KOME | | | | *e*Sg | Sg | 00 45 10.4 | +2.2 | | |
| **KEK** | **Kerkira** | **1.61** | **188** | P | Pb | 00 44 46.9 | -0.2 | | |
| **KEK** | **Kerkira** | **1.61** | **188** | P | Pb | 00 44 46.8 | -0.2 | | |
| **KZN** | **Kozani** | **1.62** | **127** | P | Pb | 00 44 46.8 | -0.5 | | |
| **KZN** | **Kozani** | **1.62** | **127** | P | Pb | 00 44 46.8 | -0.5 | | |
| **HCY** | **Herceg Novi** | **1.65** | **314** | ⇓*i*Pn | Pn | 00 44 46.6 | +0.1 | | |
| HCY | | | | *e*Sn | Sg | 00 45 11.4 | +1.6 | | |
| **HCY** | **Herceg Novi** | **1.65** | **314** | ⇓*i*Pn | Pn | 00 44 46.6 | +0.1 | | |
| HCY | | | | *e*Sn | Sg | 00 45 11.4 | +1.6 | | |
| **NKME** | **Niksic** | **1.69** | **330** | ⇑*i*Pn | Pn | 00 44 47.4 | +0.3 | | |
| NKME | | | | *e*Sn | Sg | 00 45 12.8 | +1.8 | | |
| **NKME** | **Niksic** | **1.69** | **330** | ⇑*i*Pn | Pn | 00 44 47.4 | +0.3 | | |
| NKME | | | | *e*Sn | Sg | 00 45 12.8 | +1.8 | | |
| **NKY** | **Niksic** | **1.71** | **332** | *e*Pn | Pn | 00 44 48.0 | +0.5 | | |
| NKY | | | | *e*Sn | Sg | 00 45 13.3 | +1.5 | | |
| **NKY** | **Niksic** | **1.71** | **332** | *e*Pn | Pn | 00 44 48.0 | +0.5 | | |
| NKY | | | | *e*Sn | Sg | 00 45 13.3 | +1.5 | | |
| **SCTE** | **Santa Cesarea** | **1.74** | **225** | P | Pn | 00 44 47.5 | -0.3 | | |
| **SCTE** | **Santa Cesarea** | **1.74** | **225** | P | Pn | 00 44 47.5 | -0.3 | | |
| **GRG** | **Griva** | **1.78** | **101** | P | Pn | 00 44 48.7 | +0.3 | | |
| **GRG** | **Griva** | **1.78** | **101** | P | Pn | 00 44 48.7 | +0.3 | | |
| **VAY** | **Valandovo** | **1.87** | **89** | *i* Pn | Pb | 00 44 51.1 | -0.4 | | |
| VAY | | | | *e*Lg | Lg | 00 45 18.4 | | | |
| | comp=N,32nm,0.7s | | | | | | | | |
| VAY | | | | *e*Lg | Lg | 00 45 19.6 | | | |
| | comp=E,17nm,0.4s | | | | | | | | |
| **TREB** | **Trebinje** | **1.91** | **318** | *e*Pn | Pn | 00 44 50.2 | 0.0 | | |
| TREB | | | | *e*Sg | Sg | 00 45 18.6 | +0.3 | | |
| **TREB** | **Trebinje** | **1.91** | **318** | *e*Pn | Pn | 00 44 50.2 | 0.0 | | |
| TREB | | | | *e*Sg | Sg | 00 45 18.6 | +0.3 | | |
| **SJES** | **Sjenica** | **1.95** | **358** | *e*Pg | Pb | 00 44 53.0 | 0.0 | | |
| SJES | | | | *e*Sg | Sg | 00 45 19.4 | -0.2 | | |
| **SJES** | **Sjenica** | **1.95** | **358** | *e*Pg | Pb | 00 44 53.0 | 0.0 | | |
| **BRY** | **Bratogost** | **1.97** | **325** | ⇓*i*Pn | Pn | 00 44 52.0 | +1.0 | | |
| BRY | | | | *e*Sn | Sg | 00 45 19.3 | -0.7 | | |
| **BRY** | **Bratogost** | **1.97** | **325** | ⇓*i*Pn | Pn | 00 44 52.0 | +1.0 | | |
| BRY | | | | *e*Sn | Sg | 00 45 19.3 | -0.7 | | |
| **BARS** | **Barje** | **1.98** | **40** | *e*Pg | Pb | 00 44 53.2 | -0.2 | | |
| BARS | | | | *e*Sg | Sb | 00 45 19.2 | +0.7 | | |
| **BARS** | **Barje** | **1.98** | **40** | *e*Pg | Pb | 00 44 53.2 | -0.2 | | |
| BARS | | | | *e*Sg | Sb | 00 45 19.2 | +0.7 | | |
| **SELS** | **Selova** | **2.06** | **21** | *e*Pn | Pn | 00 44 51.7 | -0.5 | | |
| SELS | | | | *e*Sg | Sg | 00 45 22.6 | -0.4 | | |
| **PLE** | **Pljevlja** | **2.09** | **346** | ⇑*i*Pn | Pb | 00 44 54.0 | -1.3 | | |
| PLE | | | | *e*Sn | Sb | 00 45 22.1 | +0.5 | | |
| **PLE** | **Pljevlja** | **2.09** | **346** | ⇑*i*Pn | Pb | 00 44 54.0 | -1.3 | | |
| PLE | | | | *e*Sn | Sb | 00 45 22.1 | +0.5 | | |
| **UPM** | **Unac-Piva** | **2.09** | **336** | *e*Pn | Pn | 00 44 53.8 | +1.1 | | |
| UPM | | | | *e*Sn | Sb | 00 45 22.2 | +0.5 | | |
| **UPM** | **Unac-Piva** | **2.09** | **336** | *e*Pn | Pn | 00 44 53.8 | +1.1 | | |
| UPM | | | | *e*Sn | Sb | 00 45 22.2 | +0.5 | | |
| **KNT** | **Kendrikon** | **2.12** | **93** | P | Pb | 00 44 55.1 | -0.8 | | |
| **KNT** | **Kendrikon** | **2.12** | **93** | P | Pb | 00 44 55.1 | -0.8 | | |
| **IVAS** | **Ivanjica** | **2.27** | **1** | *e*Pn | Pn | 00 44 54.5 | -0.6 | | |
| IVAS | | | | *e*Sg | Sg | 00 45 29.2 | -0.5 | | |
| **IVAS** | **Ivanjica** | **2.27** | **1** | *e*Pn | Pn | 00 44 54.5 | -0.6 | | |
| IVAS | | | | *e*Sg | Sg | 00 45 29.2 | -0.5 | | |
| **STON** | **Ston** | **2.37** | **312** | *e*Pn | Pn | 00 44 55.7 | -0.7 | | |
| STON | | | | Sn | Sn | 00 45 26.5 | +0.7 | | |
| **BBLS** | **Lazići** | **2.61** | **349** | *e*Pg | Pb | 00 45 04.1 | 0.0 | | |
| BBLS | | | | *e*Sg | Sg | 00 45 38.8 | -1.7 | | |
| **BBLS** | **Lazići** | **2.61** | **349** | *e*Pg | Pb | 00 45 04.1 | 0.0 | | |
| **ZAPS** | **Zavoj** | **2.73** | **43** | *e*Pg | Pb | 00 45 05.7 | -0.4 | | |
| **ZAPS** | **Zavoj** | **2.73** | **43** | *e*Pg | Pb | 00 45 05.7 | -0.4 | | |
| **DIVS** | **Divibare** | **2.79** | **359** | *e*Pn | Pn | 00 45 02.4 | +0.1 | | |
| DIVS | | | | *e*Sg | Sg | 00 45 45.0 | -1.4 | | |
| **DIVS** | **Divibare** | **2.79** | **359** | *e*Pn | Pn | 00 45 02.4 | +0.1 | | |
| DIVS | | | | *e*Sg | Sg | 00 45 45.0 | -1.4 | | |
| **AGG** | **Agios Georgios** | **2.86** | **142** | P | Pn | 00 45 04.2 | +1.1 | | |
| **AGG** | **Agios Georgios** | **2.86** | **142** | P | Pn | 00 45 04.2 | +1.1 | | |
| **ZAGS** | **Zajecar** | **2.96** | **32** | *e*Pg | Pb | 00 45 09.2 | -0.9 | | |
| **ZAGS** | **Zajecar** | **2.96** | **32** | *e*Pg | Pb | 00 45 09.2 | -0.9 | | |

*CSEM **20** 00:48:28.7±0.3, 41.°20N×19.°92E, h2km, ML2.1, Error ellipse: s-maj=7.1km s-min=4.2km az=38.0*
*PDG **20** 00:48:28.8±0.2, 41.°31N×20.°07E, h7km, ML2.5/13, Error ellipse: s-maj=0.4km s-min=0.4km az=0.0*
*TIR **20** 00:48:28.1±1.8, 41.°28N×20.°13E, h9km±121km, ML2.5*
*SKO **20** 00:48:29.4, 41.°26N×20.°05E, h2km, M1.6, ML2.2*
*BEO **20** 00:48:30.8±0.6, 41.°26N×19.°96E, h6km±2km, M2.1/4*

**ISC 20 00:48:28.9±1.1, 41°30N±0.°03×20°10E±0.°02, h4km±9km, n61, σ0s78/118, 12C-7D, Albania**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TIR** | **Tirane** | **0.19** | **286** | *i* PG | Pg | 00 48 32.4 | -0.2 |
| TIR | | | | *i* SG | Sg | 00 48 35.8 | +0.8 |
| **TIR** | **Tirane** | **0.19** | **286** | *e*Pg | Pg | 00 48 32.4 | -0.2 |
| TIR | | | | *e*Sg | Sg | 00 48 35.6 | +0.6 |
| **TIR** | **Tirane** | **0.19** | **286** | *e*Pg | Pg | 00 48 32.4 | -0.2 |
| TIR | | | | *e*Sg | Sg | 00 48 35.6 | +0.6 |
| **PHP** | **Peshkopia** | **0.46** | **33** | *i* PG | Pg | 00 48 36.8 | -1.0 |
| PHP | | | | *i* SG | Sg | 00 48 44.6 | +0.7 |
| **PHP** | **Peshkopia** | **0.46** | **33** | *i* Pg | Pg | 00 48 36.8 | -1.0 |
| | SNR=92 | | | | | | |
| PHP | | | | *i* Sg | Sg | 00 48 44.6 | +0.7 |
| | SNR=92 | | | | | | |
| **OHR** | **Ohrid** | **0.56** | **109** | *i* Pg | Pg | 00 48 39.6 | 0.0 |
| OHR | | | | *i* Sg | Sb | 00 48 48.8 | -0.7 |
| OHR | | | | *e*Lg | Lg | 00 48 50.5 | |
| | comp=E,49nm,0.3s | | | | | | |
| OHR | | | | *e*Lg | Lg | 00 48 51.0 | |
| | comp=N,77nm,0.3s | | | | | | |
| **PUK** | **Puka** | **0.76** | **348** | *i* PG | Pg | 00 48 44.2 | +0.7 |
| PUK | | | | *i* SG | Sb | 00 48 56.7 | +1.2 |
| **PUK** | **Puka** | **0.76** | **348** | *i* Pg | Pg | 00 48 44.2 | +0.7 |
| | SNR=91 | | | | | | |
| PUK | | | | *i* Sg | Sb | 00 48 56.7 | +1.2 |
| | SNR=91 | | | | | | |
| **KBN** | **Korca** | **0.85** | **142** | *i* PG | Pg | 00 48 45.1 | 0.0 |
| **KBN** | **Korca** | **0.85** | **142** | *i* Pg | Pg | 00 48 45.1 | 0.0 |
| | SNR=91 | | | | | | |
| **KRUS** | **Krusevo** | **0.87** | **85** | *i* Pg | Pg | 00 48 45.2 | -0.3 |
| KRUS | | | | *i* Sg | Sb | 00 48 58.8 | +0.4 |
| **ULC** | **Ulcinj** | **0.93** | **316** | ⇑*i*Pg | Pg | 00 48 45.5 | -1.2 |
| ULC | | | | *e*Sg | Sg | 00 48 59.4 | +0.7 |
| **ULC** | **Ulcinj** | **0.93** | **316** | ⇑*i*Pg | Pg | 00 48 45.5 | -1.2 |
| ULC | | | | *e*Sg | Sg | 00 48 59.4 | +0.7 |
| **BIA** | **Bitola** | **0.96** | **106** | *i* Pg | Pg | 00 48 46.7 | -0.6 |
| BIA | | | | *i* Sg | Sb | 00 49 01.9 | +0.8 |
| **BCI** | **Bajram Curri** | **1.07** | **359** | *i* PG | Pg | 00 48 49.7 | +0.3 |
| BCI | | | | *i* SG | Sb | 00 49 04.8 | +0.5 |
| **BCI** | **Bajram Curri** | **1.07** | **359** | *i* Pg | Pg | 00 48 49.7 | +0.3 |
| | SNR=91 | | | | | | |
| BCI | | | | *i* Sg | Sb | 00 49 04.8 | +0.5 |
| | SNR=91 | | | | | | |
| **DRME** | **Dracevica, Mon** | **1.12** | **323** | ⇑*i*Pg | Pg | 00 48 49.1 | -1.3 |
| DRME | | | | *e*Sg | Sb | 00 49 06.2 | +0.4 |
| **DRME** | **Dracevica, Mon** | **1.12** | **323** | ⇑*i*Pg | Pg | 00 48 49.1 | -1.3 |
| DRME | | | | *e*Sg | Sb | 00 49 06.2 | +0.4 |
| **SKO** | **Skopje** | **1.21** | **56** | *i* Pg | Pg | 00 48 51.6 | -0.4 |
| SKO | | | | *e*Sg | Sn | 00 49 09.5 | +0.2 |
| SKO | | | | *e*Lg | Lg | 00 49 10.0 | |
| | comp=N,6.9nm,0.4s | | | | | | |
| SKO | | | | *e*Lg | Lg | 00 49 10.1 | |
| | comp=E,5.5nm,0.6s | | | | | | |
| **PDG** | **Podgorica** | **1.30** | **331** | *e*Pg | Pn | 00 48 53.3 | -0.4 |
| PDG | | | | *e*Sg | Sn | 00 49 12.2 | +0.7 |
| **PDG** | **Podgorica** | **1.30** | **331** | *e*Pg | Pn | 00 48 53.3 | -0.4 |
| PDG | | | | *e*Sg | Sn | 00 49 12.2 | +0.7 |
| **TTG** | **Podgorica** | **1.30** | **331** | ⇓*i*Pg | Pn | 00 48 52.2 | -1.5 |
| TTG | | | | *e*Sg | Sn | 00 49 12.4 | +0.9 |
| **PVY** | **Plav** | **1.30** | **355** | ⇑*i*Pg | Pg | 00 48 52.6 | -1.3 |
| PVY | | | | *e*Sg | Sn | 00 49 12.6 | +0.8 |
| **PVY** | **Plav** | **1.30** | **355** | ⇑*i*Pg | Pg | 00 48 52.6 | -1.3 |
| PVY | | | | *e*Sg | Sn | 00 49 12.6 | +0.8 |
| **BUM** | **Brajici-Budva** | **1.35** | **318** | *e*Pg | Pn | 00 48 53.3 | -1.2 |
| BUM | | | | *e*Sg | Sn | 00 49 14.0 | +1.0 |
| **BUM** | **Brajici-Budva** | **1.35** | **318** | *e*Pg | Pn | 00 48 53.3 | -1.2 |
| BUM | | | | *e*Sg | Sn | 00 49 14.0 | +1.0 |
| **CEME** | **Cevo** | **1.53** | **325** | ⇓*i*Pg | Pn | 00 48 56.7 | -0.3 |
| CEME | | | | *e*Sg | Sg | 00 49 19.8 | +1.7 |
| **CEME** | **Cevo** | **1.53** | **325** | ⇓*i*Pg | Pn | 00 48 56.7 | -0.3 |
| CEME | | | | *e*Sg | Sg | 00 49 19.8 | +1.7 |
| **BEY** | **Berane** | **1.58** | **354** | *e*Pg | Pn | 00 48 57.8 | +0.1 |
| BEY | | | | *e*Sg | Sg | 00 49 21.1 | +1.4 |
| **IVA** | **Berane** | **1.58** | **354** | *e*Pg | Pn | 00 48 57.8 | +0.1 |
| IVA | | | | *e*Sg | Sg | 00 49 21.1 | +1.4 |
| **KOME** | **Kolasin** | **1.61** | **344** | *e*Pn | Pn | 00 48 58.2 | 0.0 |
| KOME | | | | *e*Sn | Sg | 00 49 21.9 | +1.1 |
| **KOME** | **Kolasin** | **1.61** | **344** | *e*Pn | Pn | 00 48 58.2 | 0.0 |
| KOME | | | | *e*Sn | Sg | 00 49 21.9 | +1.1 |
| **HCY** | **Herceg Novi** | **1.66** | **314** | ⇑*i*Pn | Pn | 00 48 58.9 | +0.1 |
| HCY | | | | *e*Sn | Sg | 00 49 23.5 | +1.2 |
| **HCY** | **Herceg Novi** | **1.66** | **314** | ⇑*i*Pn | Pn | 00 48 58.9 | +0.1 |
| HCY | | | | *e*Sn | Sg | 00 49 23.5 | +1.2 |
| **NKME** | **Niksic** | **1.70** | **330** | *e*Pn | Pn | 00 48 59.6 | +0.3 |
| NKME | | | | *e*Sn | Sg | 00 49 24.1 | +0.5 |
| **NKME** | **Niksic** | **1.70** | **330** | *e*Pn | Pn | 00 48 59.6 | +0.3 |
| NKME | | | | *e*Sn | Sg | 00 49 24.1 | +0.5 |
| **NKY** | **Niksic** | **1.73** | **332** | ⇑*i*Pn | Pn | 00 48 59.8 | +0.1 |
| NKY | | | | *e*Sn | Sg | 00 49 24.8 | +0.4 |
| **NKY** | **Niksic** | **1.73** | **332** | ⇑*i*Pn | Pn | 00 48 59.8 | +0.1 |
| NKY | | | | *e*Sn | Sg | 00 49 24.8 | +0.4 |
| **VAY** | **Valandovo** | **1.86** | **88** | *e*Sn | Sg | 00 49 29.3 | +0.7 |
| **VAY** | **Valandovo** | **1.86** | **88** | *e*Sn | Sg | 00 49 29.3 | +0.7 |
| **VAY** | **Valandovo** | **1.86** | **88** | *i* Pn | Pb | 00 49 03.2 | -0.1 |
| VAY | | | | *e*Sg | Sg | 00 49 29.5 | +0.9 |
| VAY | | | | *e*Lg | Lg | 00 49 30.5 | |
| | comp=N,24nm,0.6s | | | | | | |
| VAY | | | | *e*Lg | Lg | 00 49 31.8 | |
| | comp=E,14nm,0.4s | | | | | | |
| **TREB** | **Trebinje** | **1.93** | **318** | *e*Pn | Pb | 00 49 03.9 | -0.7 |
| TREB | | | | *e*Sn | Sn | 00 49 26.9 | -0.2 |
| **TREB** | **Trebinje** | **1.93** | **318** | *e*Pn | Pb | 00 49 03.9 | -0.7 |
| TREB | | | | *e*Sn | Sn | 00 49 26.9 | -0.2 |
| **SJES** | **Sjenica** | **1.97** | **357** | *e*Pn | Pb | 00 49 05.2 | -0.1 |
| SJES | | | | *e*Sn | Sb | 00 49 30.1 | -0.1 |
| **BARS** | **Barje** | **1.98** | **39** | *e*Pn | Pg | 00 49 06.7 | -0.2 |
| BARS | | | | *e*Sn | Sb | 00 49 31.5 | +0.9 |
| **BARS** | **Barje** | **1.98** | **39** | *e*Pn | Pg | 00 49 06.7 | -0.2 |
| BARS | | | | *e*Sn | Sb | 00 49 31.5 | +0.9 |
| **BRY** | **Bratogost** | **1.98** | **325** | ⇓*i*Pn | Pn | 00 49 03.5 | +0.2 |
| BRY | | | | *e*Sn | Sb | 00 49 30.9 | +0.2 |
| **BRY** | **Bratogost** | **1.98** | **325** | ⇓*i*Pn | Pn | 00 49 03.5 | +0.2 |
| BRY | | | | *e*Sn | Sb | 00 49 30.9 | +0.2 |
| **SELS** | **Selova** | **2.06** | **21** | *e*Pn | Pb | 00 49 06.9 | 0.0 |
| SELS | | | | *e*Sn | Sb | 00 49 32.8 | -0.1 |
| **PLE** | **Pljevlja** | **2.10** | **346** | ⇑*i*Pn | Pn | 00 49 05.2 | +0.3 |
| PLE | | | | *e*Sn | Sb | 00 49 33.5 | -0.5 |
| **PLE** | **Pljevlja** | **2.10** | **346** | ⇑*i*Pn | Pn | 00 49 05.2 | +0.3 |
| PLE | | | | *e*Sn | Sb | 00 49 33.5 | -0.5 |
| **UPM** | **Unac-Piva** | **2.10** | **335** | ⇓*i*Pn | Pn | 00 49 05.0 | 0.0 |
| UPM | | | | *e*Sn | Sb | 00 49 33.5 | -0.7 |
| **UPM** | **Unac-Piva** | **2.10** | **335** | ⇓*i*Pn | Pn | 00 49 05.0 | 0.0 |
| UPM | | | | *e*Sn | Sb | 00 49 33.5 | -0.7 |
| **IVAS** | **Ivanjica** | **2.28** | **1** | *e*Pn | Pb | 00 49 09.3 | -1.3 |
| IVAS | | | | *e*Sn | Sb | 00 49 39.3 | +0.2 |
| **IVAS** | **Ivanjica** | **2.28** | **1** | *e*Pn | Pb | 00 49 09.3 | -1.3 |
| IVAS | | | | *e*Sn | Sb | 00 49 39.3 | +0.2 |
| **STON** | **Ston** | **2.38** | **312** | *e*Pn | Pn | 00 49 08.3 | -0.3 |
| STON | | | | Sn | Sn | 00 49 38.7 | +0.4 |
| **STON** | **Ston** | **2.38** | **312** | *e*Pn | Pn | 00 49 08.3 | -0.3 |
| STON | | | | Sn | Sn | 00 49 38.6 | +0.3 |
| **VTS** | **Vitosha** | **2.65** | **60** | *e*Pn | Pb | 00 49 16.6 | -0.4 |
| VTS | | | | *e*Sn | Sb | 00 49 49.2 | -0.8 |
| **VTS** | **Vitosha** | **2.65** | **60** | *e*Pn | Pb | 00 49 16.6 | -0.4 |
| VTS | | | | *e*Sn | Sb | 00 49 49.2 | -0.8 |
| **ZAPS** | **Zavoj** | **2.73** | **43** | *e*Pn | Pb | 00 49 16.6 | -1.6 |
| ZAPS | | | | *e*Sn | Sb | 00 49 50.8 | -1.1 |
| **ZAPS** | **Zavoj** | **2.73** | **43** | *e*Pn | Pb | 00 49 16.6 | -1.6 |
| ZAPS | | | | *e*Sn | Sb | 00 49 50.8 | -1.1 |

**IDC 20 00:50:45.3±2.3, 6°59S×129°89E, h0km, mb3.3/1, mb1 3.4/4, mb1mx3.2/36, mbtmp3.2/4, ML3.3/3, Error ellipse: s-maj=106.5km s-min=27.8km az=77.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **FITZ** | **Fitzroy Crossi** | **12.17** | **200** | Pn | Pn | 00 53 40.9 | +0.9 |
| | 0.1nm,0.3s,baz=87,slow=6.3,SNR=9.4 | | | | | | |
| FITZ | | | | Sn | Sn | 00 55 43.9 | -13 |
| | 0.2nm,0.3s,baz=60,slow=20,SNR=6.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **13.96** | **162** | Pn | Pn | 00 54 02.6 | -1.9 |
| | 0.2nm,0.3s,baz=334,slow=13,SNR=17 | | | | | | |
| WRA | | | | Sn | Sn | 00 56 25.9 | -14 |
| | 0.2nm,0.3s,baz=339,slow=22,SNR=8.0 | | | | | | |
| **ASAR** | **Alice Springs** | **17.41** | **168** | P | P | 00 54 50.6 | -0.6 |
| | 0.1nm,0.3s,baz=342,slow=9.4,SNR=5.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.83** | **327** | P | P | 01 01 45.3 | 0.0 |
| | 0.2nm,0.5s,baz=139,slow=7.7,SNR=3.6 | | | | | | |

*ISCJB **20** 00:53:21.6±0.4, 67.°73N±0.°02×20.°30E±0.°06, h0km, Error ellipse: s-maj=3.5km s-min=2.9km az=171.6*
*NAO **20** 00:53:23.6±0.8, 67.°77N×20.°51E, ML2.5*
*UPP **20** 00:53:23.3±0.0, 67.°82N×20.°21E, h0km, ML2.3*
*CSEM **20** 00:53:23.3±0.4, 67.°76N×20.°40E, h1km, ML2.0, Error ellipse: s-maj=10.0km s-min=7.3km az=97.0, Mining explosion.*
*HEL **20** 00:53:23.0±0.2, 67.°78N×20.°17E, h0km, ML2.0, Explosion*
*BER **20** 00:53:25.4±4.2, 67.°81N×20.°33E, h0km, ML2.0, ML2.5(NAO), Suspected explosion*

**ISC 20 00:53:23.3±0.7, 67.79N±0.°02×20.°26E±0.°03, h0km, n60, σ1s29/86, Sweden**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KUA** | **Kurravaara** | **0.17** | **9** | P | Pg | 00 53 26.2 | -0.4 |
| KUA | | | | S | Sg | 00 53 28.2 | -0.6 |
| **RATU** | **Laukkuluspa** | **0.26** | **279** | P | Pg | 00 53 28.0 | -0.2 |
| **NIKU** | **Nikkaluokta** | **0.47** | **281** | P | Pg | 00 53 31.9 | -0.4 |
| **DUNU** | **Dundret** | **0.68** | **170** | P | Pg | 00 53 36.7 | +0.5 |
| **LANU** | **Lannavaara** | **0.70** | **67** | P | Pg | 00 53 36.6 | -0.1 |
| **LANU** | **Lannavaara** | **0.70** | **67** | PG | Pg | 00 53 36.4 | -0.4 |
| LANU | | | | SG | Sg | 00 53 46.6 | +0.7 |
| **MASU** | **Masugnsbyn** | **0.74** | **116** | P | Pg | 00 53 37.9 | +0.4 |
| **KIF** | **Kilpisjarvi** | **1.24** | **9** | Pg | Pg | 00 53 46.5 | -0.6 |
| KIF | | | | Lg | Lg | 00 54 02.5 | |
| **KIF** | **Kilpisjarvi** | **1.24** | **9** | Pg | Pg | 00 53 46.5 | -0.6 |
| KIF | | | | Lg | Lg | 00 54 02.5 | |
| **KIF** | **Kilpisjarvi** | **1.24** | **9** | Pg | Pg | 00 53 46.5 | -0.6 |
| | SNR=90 | | | | | | |
| KIF | | | | Sg | Sg | 00 54 02.5 | -0.6 |
| **KIF** | **Kilpisjarvi** | **1.24** | **9** | PG | Pg | 00 53 46.1 | -0.9 |
| | baz=196 | | | | | | |
| KIF | | | | SG | Sg | 00 54 02.5 | -0.6 |
| **PAJU** | **Pajala** | **1.34** | **123** | P | Pg | 00 53 48.4 | -0.5 |
| **HEF** | **Hetta** | **1.42** | **62** | Pg | Pn | 00 53 49.0 | -1.3 |
| HEF | | | | Sn | Sn | 00 54 10.8 | +1.1 |
| **HEF** | **Hetta** | **1.42** | **62** | PG | Pn | 00 53 49.0 | -1.3 |
| HEF | | | | MSG | | 00 54 06.8 | |
| | comp=Z,17nm,0.2s | | | | | | |
| HEF | | | | SN | Sn | 00 54 10.8 | +1.1 |
| **ERTU** | **Ertsjaerv** | **1.45** | **148** | Pn | Pn | 00 53 50.2 | -0.5 |
| ERTU | | | | Sn | Sn | 00 54 11.1 | +0.8 |
| **ERTU** | **Ertsjaerv** | **1.45** | **148** | P | Pn | 00 53 50.5 | -0.2 |
| **ERTU** | **Ertsjaerv** | **1.45** | **148** | PN | Pn | 00 53 50.3 | -0.5 |
| ERTU | | | | SN | Sn | 00 54 11.1 | +0.8 |
| **KTK1** | **Kautokeino** | **1.65** | **40** | *e*P | Pn | 00 53 53.1 | -0.4 |
| KTK1 | | | | IAML | | 00 54 17.8 | |
| | comp=Z,23nm,0.3s | | | | | | |
| **KTK1** | **Kautokeino** | **1.65** | **40** | *e*P | Pn | 00 53 53.1 | -0.4 |
| | SNR=50 | | | | | | |
| **STEI** | **Steigen** | **1.91** | **277** | *e*P | Pn | 00 53 57.8 | +0.8 |
| STEI | | | | *e*Sg | Sg | 00 54 24.3 | -0.2 |
| STEI | | | | IAML | | 00 54 28.4 | |
| | comp=Z,33nm,0.4s | | | | | | |
| **STEI** | **Steigen** | **1.91** | **277** | *e*P | Pn | 00 53 57.8 | +0.8 |
| | SNR=50 | | | | | | |
| **TRO** | **Tromso** | **1.92** | **346** | *e*P | Pg | 00 54 01.3 | +1.3 |
| TRO | | | | *e*S | Sg | 00 54 26.4 | +1.6 |
| TRO | | | | IAML | | 00 54 31.3 | |
| | comp=Z,24nm,0.5s | | | | | | |
| **TRO** | **Tromso** | **1.92** | **346** | *e*P | Pg | 00 54 01.3 | +1.3 |
| | SNR=50 | | | | | | |
| **KALU** | **Kalix** | **2.29** | **146** | Pg | Pn | 00 54 03.6 | +1.4 |
| **KALU** | **Kalix** | **2.29** | **146** | PG | Pn | 00 54 03.6 | +1.4 |
| | baz=328 | | | | | | |
| KALU | | | | SG | Sb | 00 54 34.2 | 0.0 |
| **TOF** | **Tornio** | **2.34** | **135** | Pg | Pn | 00 54 04.6 | +1.7 |
| **TOF** | **Tornio** | **2.34** | **135** | PG | Pn | 00 54 04.7 | +1.7 |
| TOF | | | | SG | Sb | 00 54 35.9 | +0.1 |
| **SGF** | **Sodankyl** | **2.42** | **95** | Pb | Pn | 00 54 05.2 | +1.1 |
| **SGF** | **Sodankyl** | **2.42** | **95** | PB | Pn | 00 54 05.2 | +1.1 |
| | baz=283 | | | | | | |
| SGF | | | | SG | Sb | 00 54 38.8 | +0.7 |
| **ARA0** | **ARCESS Array S** | **2.60** | **45** | Pn | Pn | 00 54 06.7 | +0.1 |
| | baz=226,slow=14 | | | | | | |
| ARA0 | | | | Sn | Sn | 00 54 39.6 | +0.7 |
| | baz=233,slow=28 | | | | | | |
| **ARA0** | **ARCESS Array S** | **2.60** | **45** | Pn | Pn | 00 54 06.7 | +0.1 |
| | baz=226,slow=14 | | | | | | |
| ARA0 | | | | Sn | Sn | 00 54 39.6 | +0.7 |
| | baz=233,slow=28 | | | | | | |
| **ARA0** | **ARCESS Array S** | **2.60** | **45** | Pn | Pn | 00 54 06.7 | +0.1 |
| | SNR=50 | | | | | | |
| ARA0 | | | | Sn | Sn | 00 54 39.6 | +0.7 |
| | SNR=50 | | | | | | |
| **ARE0** | **ARCESS Array S** | **2.60** | **45** | Pn | Pn | 00 54 06.5 | -0.1 |
| **ARE0** | **ARCESS Array S** | **2.60** | **45** | PN | Pn | 00 54 06.5 | -0.1 |
| | baz=226 | | | | | | |
| ARE0 | | | | SB | Sb | 00 54 41.7 | -1.5 |
| **BURU** | **Burvik** | **3.25** | **171** | SB | Sn | 00 54 58.6 | +4.0 |
| **OUL** | **Oulu** | **3.53** | **138** | Pb | Pn | 00 54 21.4 | +2.1 |
| **OUL** | **Oulu** | **3.53** | **138** | PB | Pn | 00 54 21.4 | +2.1 |
| | baz=319 | | | | | | |
| **VRF** | **Varrio** | **3.55** | **86** | Pn | Pn | 00 54 20.5 | +0.9 |
| **VRF** | **Varrio** | **3.55** | **86** | PN | Pn | 00 54 20.5 | +0.9 |
| | baz=278 | | | | | | |
| **UMAU** | **Umeaa** | **3.92** | **177** | Pn | Pn | 00 54 26.5 | +1.9 |
| **UMAU** | **Umeaa** | **3.92** | **177** | PN | Pn | 00 54 26.6 | +1.9 |
| **MSF** | **Maaselka** | **3.94** | **114** | Pn | Pn | 00 54 26.6 | +1.6 |
| **MSF** | **Maaselka** | **3.94** | **114** | PN | Pn | 00 54 26.7 | +1.6 |
| | baz=305 | | | | | | |
| **KU6** | **Riekki** | **4.18** | **110** | Pn | Pn | 00 54 29.3 | +1.1 |
| **KU6** | **Riekki** | **4.18** | **110** | P

1.9nm,0.3s,baz=180,slow=15,SNR=3.1
**MJAR Matsushiro Arr 5.01 233** P **Pn** **01 11 15.5 +0.5**
1.4nm,0.3s,baz=42,slow=11,SNR=14
MJAR LR LR 01 13 17.2
comp=Z,34nm,19.4s,baz=60,slow=43
**MAT Matsushiro 5.01 233** P **Pn** **01 11 15.6 +0.5**
**USRK Ussuriysk Ar. 9.47 302** P **Pn** **01 12 15.5 -0.8**
0.1nm,0.3s,baz=109,slow=16,SNR=2.3
**SEY Seymchan 23.94 10** P P 01 15 22.5 +10
0.7nm,0.3s,baz=184,slow=3.1,SNR=4.0
**SONM Songino Array 27.57 299** P **P** **01 15 45.6 -0.5**
0.9nm,0.6s,baz=97,slow=8.4,SNR=5.2
**H11N2 WAKE ISLAND Hy 28.48 127** T T 01 45 44.3
baz=320,slow=75,SNR=24
**H11N1 WAKE ISLAND Hy 28.49 127** T T 01 45 48.2
baz=320,slow=75,SNR=15
**H11N3 WAKE ISLAND Hy 28.50 127** T T 01 45 50.2
baz=320,slow=75,SNR=16
**H11S1 WAKE ISLAND Hy 29.30 129** T T 01 46 46.6
baz=321,slow=76,SNR=4.8
**H11S3 WAKE ISLAND Hy 29.30 129** T T 01 46 48.0
baz=321,slow=76,SNR=4.1
**H11S2 WAKE ISLAND Hy 29.32 129** T T 01 46 52.5
baz=321,slow=76,SNR=4.5
**ZALV Zalesovo Beam 41.21 310** P **P** **01 17 43.2 -0.2**
0.6nm,0.4s,baz=87,slow=8.3,SNR=3.9
**MKAR Makanchi Array 43.94 300** P **P** **01 18 05.2 -0.5**
0.8nm,0.7s,baz=82,slow=10.0,SNR=8.3
**KURBB Kurchatov Arra 45.51 306** P **P** **01 18 17.6 -0.6**
1.1nm,0.6s,baz=80,slow=8.2,SNR=7.0
**ILAR Eielson Array 46.53 34** P P 01 18 36.0 +10
0.6nm,1.1s,baz=270,slow=8.1,SNR=3.7
**BVAR Borovoye Array 49.85 311** P **P** **01 18 52.1 +0.2**
0.8nm,0.7s,baz=65,slow=8.5,SNR=4.6
**INK Inuvik 51.41 28** P P 01 19 13.9 +11
0.4nm,0.5s,baz=270,slow=8.1,SNR=2.8
**WRA Warramunga Arr 59.88 190** P P 01 20 10.3 +5.7
0.4nm,0.6s,baz=8.3,slow=6.9,SNR=6.4

*ISN **20** 01:12:57.1±1.2,38°.54N×44°.24E,h0km±75km, ML3.0*
*CSEM **20** 01:13:02.5±0.2,38°.38N×44°.12E,h2km, ML3.0, Error ellipse: s-maj=6.3km s-min=3.2km az=83.0*
*DDA **20** 01:13:02.3,38°.38N×44°.12E,h6km, Ml3.0*
*ISK **20** 01:13:02.4,38°.41N×44°.04E,h5km, ML2.9*
*NSSP **20** 01:13:03.7,38°.33N×44°.45E,h5km, Ms3.1*
**ISC 20 01:13:02.7±1.2,38°.38N±0°.02×44°.12E±0°.03,h5km±10km, n60,σ1s03/84,2C-1D,Turkey-Iran border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **BASK** | **Baskale_VAN** | **0.34** | **195** | *i* | P | **Pg** | **01 13 09.1** | **-0.3** |
| BASK | | | | | S | **Sb** | **01 13 17.2** | **-0.1** |
| **BASK** | **Baskale_VAN** | **0.34** | **195** | | P | **Pg** | **01 13 09.1** | **-0.3** |
| **TVAN** | **Van** | **0.58** | **285** | *i* | P | **Pg** | **01 13 13.2** | **-0.6** |
| TVAN | | | | | S | **Sn** | **01 13 26.6** | **-1.3** |
| **TVAN** | **Van** | **0.58** | **285** | | P | **Pg** | **01 13 13.2** | **-0.6** |
| **VANB** | **Van** | **0.61** | **291** | *e* | PG | **Pg** | **01 13 13.4** | **-1.0** |
| VANB | | | | *e* | SG | **Sg** | **01 13 21.5** | **-0.9** |
| **VANB** | **Van** | **0.61** | **291** | *e* | Pg | **Pg** | **01 13 13.4** | **-1.0** |
| VANB | | | | *e* | Sg | **Sg** | **01 13 21.5** | **-0.9** |
| **VMUR** | **Van-Muradiye** | **0.74** | **325** | *i* | P | **Pg** | **01 13 16.7** | **-0.2** |
| VMUR | | | | *i* | S | **Sb** | **01 13 28.4** | **-0.4** |
| **VMUR** | **Van-Muradiye** | **0.74** | **325** | | P | **Pg** | **01 13 16.7** | **-0.2** |
| VMUR | | | | | S | **Sb** | **01 13 28.4** | **-0.4** |
| **CLDR** | **Caldiran** | **0.78** | **348** | *e* | PG | **Pg** | **01 13 17.7** | **+0.1** |
| **CLDR** | **Caldiran** | **0.78** | **348** | *i* | P | **Pg** | **01 13 16.0** | **-1.6** |
| **CLDR** | **Caldiran** | **0.78** | **348** | | P | **Pg** | **01 13 16.0** | **-1.6** |
| **CLDR** | **Caldiran** | **0.78** | **348** | *e* | Pg | **Pg** | **01 13 17.7** | **+0.1** |
| **YOVA** | **Hakkari_Y¨…kse** | **0.81** | **170** | *i* | P | **Pb** | **01 13 18.9** | **-0.4** |
| YOVA | | | | *i* | S | **Sn** | **01 13 32.8** | **-0.6** |
| **YOVA** | **Hakkari_Y¨…kse** | **0.81** | **170** | | P | **Pb** | **01 13 18.9** | **-0.4** |
| **GEVA** | **Gevas** | **0.84** | **265** | *i* | P | **Pg** | **01 13 17.3** | **-1.4** |
| GEVA | | | | *i* | S | **Sb** | **01 13 31.3** | **-0.2** |
| **GEVA** | **Gevas** | **0.84** | **265** | | P | **Pg** | **01 13 17.3** | **-1.4** |
| GEVA | | | | | S | **Sb** | **01 13 31.3** | **-0.2** |
| **ERCV** | **ERCIS-VAN** | **0.88** | **316** | *e* | PG | **Pg** | **01 13 19.5** | **-0.1** |
| ERCV | | | | *e* | SG | **Sg** | **01 13 31.7** | **+0.6** |
| **ERCV** | **ERCIS-VAN** | **0.88** | **316** | *e* | Pg | **Pg** | **01 13 19.5** | **-0.1** |
| ERCV | | | | *e* | Sg | **Sg** | **01 13 31.7** | **+0.6** |
| **HAKT** | **HAKKARI** | **0.89** | **202** | *i* | P | **Pg** | **01 13 19.1** | **-0.6** |
| HAKT | | | | *i* | S | **Sn** | **01 13 35.6** | **+0.2** |
| **HAKT** | **HAKKARI** | **0.89** | **202** | | P | **Pg** | **01 13 19.1** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **1.17** | **292** | *i* | P | **Pg** | **01 13 24.1** | **-1.1** |
| **ADCV** | **BITLIS_Adilcev** | **1.17** | **292** | | P | **Pg** | **01 13 24.1** | **-1.1** |
| **CUKT** | **Cukurca** | **1.20** | **200** | *e* | PN | **Pn** | **01 13 25.9** | **-0.4** |
| **CUKT** | **Cukurca** | **1.20** | **200** | *i* | P | **Pg** | **01 13 25.3** | **-0.5** |
| CUKT | | | | *i* | S | **Sn** | **01 13 42.5** | **-0.6** |
| **CUKT** | **Cukurca** | **1.20** | **200** | | P | **Pg** | **01 13 25.3** | **-0.5** |
| **CUKT** | **Cukurca** | **1.20** | **200** | *e* | Pn | **Pn** | **01 13 25.9** | **-0.4** |
| CUKT | | | | | S | **Sn** | **01 13 42.5** | **-0.6** |
| **DYDN** | **Diyadin** | **1.21** | **344** | *i* | P | **Pg** | **01 13 25.7** | **-0.1** |
| DYDN | | | | *i* | S | **Sn** | **01 13 43.7** | **+0.3** |
| **DYDN** | **Diyadin** | **1.21** | **344** | | P | **Pg** | **01 13 25.7** | **-0.1** |
| DYDN | | | | | S | **Sn** | **01 13 43.7** | **+0.3** |
| **TUTA** | **Tutak** | **1.44** | **315** | *i* | P | **Pn** | **01 13 28.5** | **-1.2** |
| TUTA | | | | *i* | S | **Sn** | **01 13 50.8** | **+1.6** |
| **TUTA** | **Tutak** | **1.44** | **315** | | P | **Pn** | **01 13 28.5** | **-1.2** |
| TUTA | | | | | S | **Sn** | **01 13 50.8** | **+1.6** |
| **AGRB** | **Hanur-Agry** | **1.48** | **324** | *e* | PN | **Pb** | **01 13 30.5** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **1.48** | **324** | *e* | Pn | **Pb** | **01 13 30.5** | **-0.3** |
| **SIRT** | **Sirnak** | **1.59** | **237** | *e* | PN | **Pb** | **01 13 32.4** | **-0.3** |
| **SIRT** | **Sirnak** | **1.59** | **237** | *e* | Pn | **Pb** | **01 13 32.4** | **-0.3** |
| **TASB** | **TASBURUN-IGDIR** | **1.60** | **3** | *e* | PN | **Pb** | **01 13 32.6** | **-0.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.60** | **3** | *e* | Pn | **Pb** | **01 13 32.6** | **-0.2** |
| **SIRN** | **S¨–rnak** | **1.61** | **237** | *i* | P | **Pg** | **01 13 33.2** | **-0.4** |
| SIRN | | | | *i* | S | **Sg** | **01 13 59.9** | **+5.4** |
| **SIRN** | **S¨–rnak** | **1.61** | **237** | | P | **Pg** | **01 13 33.2** | **-0.4** |
| **SRTM** | **Siirt_Merkez** | **1.77** | **258** | *i* | P | **Pg** | **01 13 36.0** | **-0.7** |
| SRTM | | | | *i* | S | **Sg** | **01 14 02.5** | **+2.8** |
| **SRTM** | **Siirt_Merkez** | **1.77** | **258** | | P | **Pg** | **01 13 36.0** | **-0.7** |
| **GNI** | **Garni** | **1.83** | **15** | ⇑ | *i*P | **Pb** | **01 13 35.9** | **-0.8** |
| GNI | | | | ⇓ | *i*S | **Sb** | **01 13 60.0** | **0.0** |
| **GNI** | **Garni** | **1.83** | **15** | ⇑ | P | **Pb** | **01 13 35.9** | **-0.8** |
| GNI | | | | | S | **Sb** | **01 14 00.0** | **0.0** |
| **EATA** | **Eleskirt** | **1.95** | **320** | *i* | P | **Pb** | **01 13 38.4** | **-0.4** |
| **EATA** | **Eleskirt** | **1.95** | **320** | | P | **Pb** | **01 13 38.4** | **-0.4** |
| **MSL** | **Mosul** | **2.14** | **202** | *e* | Pn | **Pn** | **01 13 39.0** | **0.0** |
| | SNR=4.0 | | | | | | | |
| MSL | | | | *i* | Sn | **Sb** | **01 14 08.0** | **-0.7** |
| | SNR=4.0 | | | | | | | |
| **BTMN** | **Batman** | **2.30** | **259** | *i* | P | **Pb** | **01 13 43.4** | **-1.3** |
| **BTMN** | **Batman** | **2.30** | **259** | | P | **Pb** | **01 13 43.4** | **-1.3** |
| **KARS** | **Kars** | **2.38** | **341** | *e* | PN | **Pn** | **01 13 43.1** | **+0.6** |
| **KARS** | **Kars** | **2.38** | **341** | *e* | Pn | **Pn** | **01 13 43.1** | **+0.6** |
| **SENK** | **Senkaya-Erzuru** | **2.57** | **328** | *e* | PN | **Pn** | **01 13 46.2** | **+1.0** |
| **SENK** | **Senkaya-Erzuru** | **2.57** | **328** | *e* | Pn | **Pn** | **01 13 46.2** | **+1.0** |
| **BNGB** | **Bing¨l** | **2.76** | **284** | *e* | PN | **Pn** | **01 13 48.6** | **+0.9** |
| **BINT** | **Bingol** | **2.89** | **281** | *e* | Pn | **Pn** | **01 13 48.6** | **-0.9** |
| **YEDI** | **Yedisu-Bingol** | **2.98** | **292** | *e* | PN | **Pn** | **01 13 51.5** | **+0.7** |
| **YEDI** | **Yedisu-Bingol** | **2.98** | **292** | *e* | Pn | **Pn** | **01 13 51.5** | **+0.7** |
| **MAZI** | **Mazidag** | **3.05** | **254** | *e* | PN | **Pn** | **01 13 52.7** | **+1.0** |
| **MAZI** | **Mazidag** | **3.05** | **254** | *e* | Pn | **Pn** | **01 13 52.7** | **+1.0** |
| **SVRC** | **Sivrice-ELAZID** | **3.78** | **271** | *e* | PN | **Pn** | **01 14 03.0** | **+1.2** |
| **SVRC** | **Sivrice-ELAZID** | **3.78** | **271** | *e* | Pn | **Pn** | **01 14 03.0** | **+1.2** |
| **RTB** | **Rutbah** | **6.18** | **211** | *e* | Pn | **Pn** | **01 14 34.0** | **-0.6** |
| | SNR=4.0 | | | | | | | |
| RTB | | | | *i* | Sn | **Sn** | **01 15 46.0** | **+0.3** |
| | SNR=4.0 | | | | | | | |

**IDC 20 01:15:03.0±1.4,32°.08S×57°.18E,h0km,mb3.9/5, mb1 4.1/5,mb1mx3.7/41,mbtmp3.9/5,MS3.2/2,Ms1 3.2/2, ms1mx2.8/30,Error ellipse: s-maj=62.7km s-min=25.6km az=25.0,Southwest Indian Ridge**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **LBTB** | **Lobatse** | **28.55** | **276** | | LR | LR | | 01 29 15.6 | |
| | comp=Z,37nm,20.0s,baz=127,slow=30 | | | | | | | | |
| **H08N3** | **Diego Garcia H** | **28.67** | **30** | | T | T | | 01 51 32.2 | |
| | baz=205,slow=77,SNR=11 | | | | | | | | |
| **H08N1** | **Diego Carcia H** | **28.68** | **30** | | T | T | | 01 51 33.5 | |
| | baz=205,slow=77,SNR=10 | | | | | | | | |
| **H08N2** | **Diego Garcia H** | **28.69** | **30** | | T | T | | 01 51 33.7 | |
| | baz=205,slow=77,SNR=12 | | | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **47.04** | **110** | | T | T | | 02 13 56.1 | |
| | baz=257,slow=75,SNR=5.2 | | | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **47.05** | **110** | | T | T | | 02 13 52.0 | |
| | baz=257,slow=75,SNR=4.3 | | | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **47.06** | **110** | | T | T | | 02 13 50.6 | |
| | baz=257,slow=75,SNR=4.0 | | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **64.23** | **45** | | P | P | | 01 25 39.9 | -0.1 |
| | 0.7nm,0.3s,baz=243,slow=5.9,SNR=3.3 | | | | | | | | |
| **ASAR** | **Alice Springs** | **67.07** | **104** | | P | P | | 01 25 58.3 | -0.2 |
| | 1.2nm,0.8s,baz=240,slow=6.2,SNR=11 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **69.11** | **101** | | P | P | | 01 26 11.4 | +0.1 |
| | 1.6nm,0.9s,baz=241,slow=5.5,SNR=7.2 | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **69.56** | **301** | | P | P | | 01 26 13.8 | -0.3 |
| | 0.3nm,0.6s,baz=126,slow=6.2,SNR=2.9 | | | | | | | | |
| **BRTR** | **Keskin Array B** | **74.70** | **341** | | P | P | | 01 26 44.4 | -0.1 |
| | 0.7nm,0.8s,baz=184,slow=6.8,SNR=4.3 | | | | | | | | |
| **VRAC** | **Vranov** | **88.72** | **335** | | LR | LR | | 02 10 56.4 | |
| | comp=Z,14nm,18.1s,baz=166,slow=38 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **149.12** | **353** | | PKPbc | PKPbc | | 01 34 52.9 | +0.5 |
| | 0.8nm,0.7s,baz=7.6,slow=2.6,SNR=7.0 | | | | | | | | |

*BYKL **20** 01:16:33.4±0.4,56°.63N×121°.58E,h10km±5km*
*YARS **20** 01:16:33.5±0.1,56°.60N±0°.01×121°.58E±0°.01,h10km*
*IDC **20** 01:16:34.4±1.0,56°.51N×121°.67E,h0km,mb3.4/5, mb1 3.7/9,mb1mx3.5/51,mbtmp3.7/9,ML3.3/3,MS2.3/2, Ms1 2.4/2,ms1mx2.3/30,Error ellipse: s-maj=22.0km s-min=13.6km az=122.0*
*MOS **20** 01:16:35.4±1.7,56°.43N×121°.60E,h15km,mb4.1/3,Error ellipse: s-maj=12.0km s-min=8.7km az=81.0*
**ISC 20 01:16:33.3±0.7,56°.59N±0°.02×121°.51E±0°.02,h11km±4km, n80,σ2s83/108,mb3.4/6,2C-3D,Southeastern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **YKLR** | **Yuktali** | **0.08** | **86** | ⇓ | *i*Pg | **Pg** | | **01 16 35.3** | **-0.5** |
| YKLR | | | | | *e*Sg | **Sg** | | **01 16 36.4** | **-1.2** |
| **YKLR** | **Yuktali** | **0.08** | **86** | | *i* P | **Pg** | | **01 16 35.2** | **-0.5** |
| YKLR | | | | | *e*S | **Sg** | | **01 16 36.6** | **-1.0** |
| **KHNR** | **Khani** | **0.91** | **292** | ⇑ | *i*Pg | **Pg** | | **01 16 50.3** | **-0.4** |
| KHNR | | | | | *e*Pb | **Pn** | | **01 16 53.0** | **+0.9** |
| KHNR | | | | | *e*Sg | **Sg** | | **01 17 02.6** | **+0.1** |
| **KHN** | **Khani** | **1.00** | **290** | | *i* P | **Pb** | | **01 16 50.5** | **-2.2** |
| KHN | | | | | *e*S | **Sb** | | **01 17 02.2** | **-3.8** |
| **CRS** | **Chara** | **1.81** | **281** | | *e*Pg | **Pb** | | **01 17 06.9** | **+0.5** |
| CRS | | | | | *e* | | | 01 17 12.5 | |
| CRS | | | | | max | | | 01 17 14.5 | |
| | 728nm,1.0s | | | | | | | | |
| CRS | | | | | *e*Sg | **Sb** | | **01 17 30.7** | **+1.5** |
| CRS | | | | | *e* | | | 01 17 33.1 | |
| CRS | | | | | max | | | 01 17 33.2 | |
| | 4μm,0.8s | | | | | | | | |
| **CRS** | **Chara** | **1.81** | **281** | | *e*P | **Pb** | | **01 17 07.0** | **+0.5** |
| CRS | | | | | *e* | | | 01 17 31.0 | |
| CRS | | | | | pmax | pmax | | | |
| | comp=Z,672nm,0.5s | | | | | | | | |
| CRS | | | | | smax | smax | | | |
| | comp=E,2μm,0.7s | | | | | | | | |
| **CRS** | **Chara** | **1.81** | **281** | | *e*P | **Pb** | | **01 17 07.0** | **+0.5** |
| CRS | | | | | *e*S | **Sb** | | **01 17 31.0** | **+1.8** |
| **CLNS** | **Chul'man** | **1.89** | **81** | ⇓ | *i*Pg | **Pb** | | **01 17 07.5** | **-0.3** |
| CLNS | | | | | *e*Sg | **Sb** | | **01 17 31.1** | **-0.2** |
| CLNS | | | | | *e* | | | 01 17 35.1 | |
| **CLNS** | **Chul'man** | **1.89** | **81** | | *e*P | **Pb** | | **01 17 07.7** | **-0.1** |
| CLNS | | | | | *e* | | | 01 17 32.0 | |
| CLNS | | | | | pmax | pmax | | | |
| | comp=E,29nm,0.2s | | | | | | | | |
| CLNS | | | | | pmax | pmax | | | |
| | comp=Z,71nm,0.3s | | | | | | | | |
| CLNS | | | | | pmax | pmax | | | |
| | comp=N,18nm,0.2s | | | | | | | | |
| CLNS | | | | | smax | smax | | | |
| | comp=N,233nm,0.3s | | | | | | | | |
| CLNS | | | | | smax | smax | | | |
| | comp=E,128nm,0.2s | | | | | | | | |
| CLNS | | | | | smax | smax | | | |
| | comp=Z,119nm,0.4s | | | | | | | | |
| **CLNS** | **Chul'man** | **1.89** | **81** | | *i* P | **Pb** | | **01 17 06.7** | **-1.1** |
| CLNS | | | | | *e*S | **Sb** | | **01 17 30.5** | **-0.8** |
| **IENR** | **Iengra** | **1.90** | **100** | | *e*Pn | **Pb** | | **01 17 06.8** | **-1.2** |
| IENR | | | | | *e*Pg | **Pg** | | **01 17 08.0** | **-1.7** |
| IENR | | | | | *e*Sg | **Sg** | | **01 17 32.8** | **-1.5** |
| IENR | | | | | *e* | | | 01 17 35.6 | |
| **IENR** | **Iengra** | **1.90** | **100** | | *e*P | **Pb** | | **01 17 07.0** | **-1.0** |
| IENR | | | | | *e*S | **Sb** | | **01 17 31.2** | **-0.5** |
| **TNDR** | **Tynda** | **2.32** | **127** | ⇑ | *i*Pg | **Pb** | | **01 17 14.7** | **-0.4** |
| TNDR | | | | | *e* | | | 01 17 42.1 | |
| TNDR | | | | | *e*Sg | **Sg** | | **01 17 45.1** | **-2.6** |
| TNDR | | | | | *e* | | | 01 17 52.4 | |
| **TNDR** | **Tynda** | **2.32** | **127** | | *i* P | **Pb** | | **01 17 15.2** | **+0.1** |
| TNDR | | | | | *e*S | **Sb** | | **01 17 44.6** | **+0.9** |
| **TUP** | **Tupik** | **2.34** | **203** | ⇓ | *i*Pn | **Pn** | | **01 17 12.8** | **+1.1** |
| TUP | | | | | *e*Pg | **Pb** | | **01 17 15.9** | **+0.4** |
| TUP | | | | | *e* | | | 01 17 21.1 | |
| TUP | | | | | max | | | 01 17 21.3 | |
| | comp=Z,146nm,0.6s | | | | | | | | |
| TUP | | | | | *e*Sg | **Sg** | | **01 17 47.4** | **-1.0** |
| TUP | | | | | Smax | | | 01 17 49.0 | |
| | comp=Z,4μm,0.6s | | | | | | | | |
| **TUP** | **Tupik** | **2.34** | **203** | | *e*P | **Pn** | | **01 17 12.6** | **+0.9** |
| TUP | | | | | *e*S | **Sn** | | **01 17 42.0** | **+1.5** |
| TUP | | | | | pmax | pmax | | | |
| | comp=Z,148nm,0.3s | | | | | | | | |
| TUP | | | | | smax | smax | | | |
| | comp=E,4μm,0.6s | | | | | | | | |
| **TUP** | **Tupik** | **2.34** | **203** | *i* | P | **Pn** | | **01 17 12.6** | **+0.9** |
| TUP | | | | | *e*P | **Pb** | | **01 17 15.8** | **+0.3** |
| TUP | | | | | *e*S | **Sn** | | **01 17 41.9** | **+1.5** |
| TUP | | | | | *e*S | **Sb** | | **01 17 46.7** | **+2.3** |
| **ALDR** | **Aldan** | **2.92** | **44** | | *e*P | **Pb** | | **01 17 25.1** | **-0.3** |
| ALDR | | | | | *e*S | **Sb** | | **01 18 02.5** | **+1.4** |
| **NLYR** | **Nelyaty** | **3.21** | **271** | | *e*Pn | **Pn** | | **01 17 25.7** | **+2.0** |
| NLYR | | | | | *e*Pg | **Pb** | | **01 17 30.7** | **+0.3** |
| NLYR | | | | | Pmax | | | 01 17 37.8 | |
| | comp=E,116nm,0.4s | | | | | | | | |
| NLYR | | | | | *e* | | | 01 17 53.5 | |
| NLYR | | | | | *e*Sg | **Sb** | | **01 18 12.7** | **+3.1** |
| NLYR | | | | | Smax | | | 01 18 17.0 | |
| | comp=E,1μm,1.0s | | | | | | | | |
| NLYR | | | | | *e* | | | 01 18 18.4 | |
| **NLYR** | **Nelyaty** | **3.21** | **271** | | *e*P | **Pn** | | **01 17 25.8** | **+2.0** |
| NLYR | | | | | *e* | | | 01 18 11.0 | |
| NLYR | | | | | pmax | pmax | | | |
| | comp=Z,115nm,0.4s | | | | | | | | |
| NLYR | | | | | smax | smax | | | |
| | comp=E,1μm,1.0s | | | | | | | | |
| **KROS** | **Kirovskiy** | **3.78** | **122** | | *e*Sg | **Sb** | | **01 18 26.8** | **+0.9** |
| **OLMR** | **Olekminsk** | **3.84** | **352** | | *e*P | **Pn** | | **01 17 33.2** | **+0.9** |
| OLMR | | | | | *e*P | **Pb** | | **01 17 42.7** | **+1.7** |
| OLMR | | | | | *e*S | **Sn** | | **01 18 16.5** | **-0.9** |
| OLMR | | | | | *e*S | **Sb** | | **01 18 32.1** | **+4.6** |
| **BOD** | **Bodaibo** | **4.26** | **290** | | *e*Pn | **Pn** | | **01 17 38.8** | **+0.7** |
| BOD | | | | | *e*Pg | **Pb** | | **01 17 49.1** | **+0.9** |
| BOD | | | | | Pmax | | | 01 18 01.8 | |
| | comp=E,19nm,0.5s | | | | | | | | |
| BOD | | | | | *e*Sg | **Sb** | | **01 18 43.8** | **+4.2** |
| BOD | | | | | *e* | | | 01 18 47.1 | |
| BOD | | | | | max | | | 01 18 48.0 | |
| | comp=E,432nm,1.1s | | | | | | | | |
| **BOD** | **Bodaibo** | **4.26** | **290** | | *e*P | **Pn** | | **01 17 41.1** | **+3.0** |
| BOD | | | | | pmax | pmax | | | |
| | comp=Z,19nm,0.4s | | | | | | | | |
| **ZEA** | **Zeya** | **4.36** | **129** | | *e*Pn | **Pn** | | **01 17 40.1** | **+0.7** |
| ZEA | | | | | *e*Pg | **Pb** | | **01 17 51.9** | **+2.0** |
| ZEA | | | | | *e*Sn | **Sn** | | **01 18 30.2** | **0.0** |
| ZEA | | | | | *e*Sg | **Sb** | | **01 18 47.0** | **+4.6** |
| **SVKR** | **Severomuysk** | **4.45** | **267** | | *e*Pg | **Pb** | | **01 17 53.4** | **+2.0** |
| SVKR | | | | | Pmax | | | 01 17 59.4 | |
| | comp=Z,69nm,0.5s | | | | | | | | |
| SVKR | | | | | *e* | | | 01 18 23.1 | |
| SVKR | | | | | *e*Sg | **Sb** | | **01 18 51.3** | **+6.3** |
| SVKR | | | | | Smax | | | 01 19 04.7 | |
| | comp=Z,969nm,1.3s | | | | | | | | |
| **UKT** | **Uakit** | **4.55** | **259** | | *e*Pn | **Pn** | | **01 17 44.2** | **+2.0** |
| UKT | | | | | *e*Pg | **Pb** | | **01 17 54.8** | **+1.6** |
| UKT | | | | | *e* | | | 01 17 57.1 | |
| UKT | | | | | max | | | 01 18 01.8 | |
| | comp=Z,45nm,0.8s | | | | | | | | |
| UKT | | | | | *e*Sg | **Sg** | | **01 18 55.5** | **-3.9** |
| UKT | | | | | Smax | | | 01 19 01.1 | |
| | comp=Z,394nm,1.0s | | | | | | | | |
| **UKT** | **Uakit** | **4.55** | **259** | | *e*P | **Pb** | | **01 17 54.6** | **+1.4** |
| UKT | | | | | pmax | pmax | | | |
| | comp=Z,46nm,0.5s | | | | | | | | |
| **CGD** | **Chagda** | **5.35** | **62** | | *e*S | **Sb** | | **01 19 17.1** | **+6.2** |
| **YOA** | **Uoyan** | **5.46** | **269** | | *e*Sg | **Sg** | | **01 19 23.5** | **-4.9** |
| YOA | | | | | Smax | | | 01 19 37.2 | |
| | comp=Z,1μm,1.4s | | | | | | | | |
| **VTMR** | **Vitim** | **5.55** | **305** | | *e* | **Sn** | | **01 19 01.3** | **+1.7** |
| VTMR | | | | | *e*Sg | **Sg** | | **01 19 25.9** | **-5.5** |
| **VTMR** | **Vitim** | **5.55** | **305** | | *e*S | **Sg** | | **01 19 26.2** | **-5.2** |
| **KMO** | **Kumora** | **5.79** | **267** | | *e* | **Pb** | | 01 18 08.8 | -5.5 |
| KMO | | | | | *e*Pg | **Pg** | | 01 18 17.9 | -6.2 |
| KMO | | | | | Pmax | | | 01 18 30.4 | |
| | comp=Z,15nm,0.7s | | | | | | | | |
| KMO | | | | | *e* | | | 01 18 41.8 | |
| KMO | | | | | *e*Sg | **Sg** | | **01 19 33.7** | **-5.3** |
| KMO | | | | | Smax | | | 01 19 50.0 | |
| | comp=Z,498nm,1.1s | | | | | | | | |
| **YLYR** | **Ulyunkhan** | **6.09** | **258** | | *e*Pn | **Pn** | | **01 18 05.1** | **+1.9** |
| YLYR | | | | | *e* | | | 01 18 14.2 | |
| YLYR | | | | | *e*Pg | Pb | | 01 18 24.6 | +5.2 |
| YLYR | | | | | Pmax | | | 01 18 28.1 | |
| | comp=Z,11nm,0.9s | | | | | | | | |
| YLYR | | | | | *e*Sg | **Sg** | | **01 19 43.7** | **-4.9** |
| YLYR | | | | | Smax | | | 01 19 49.2 | |
| | comp=Z,295nm,1.3s | | | | | | | | |
| YLYR | | | | | *e* | | | 01 19 51.9 | |
| **YLYR** | **Ulyunkhan** | **6.09** | **258** | | *e*P | **Pn** | | **01 18 05.4** | **+2.2** |
| YLYR | | | | | *e*S | **Sn** | | **01 19 12.5** | **-0.4** |
| YLYR | | | | | pmax | pmax | | | |
| | comp=Z,22nm,0.5s | | | | | | | | |
| YLYR | | | | | smax | smax | | | |
| | comp=E,296nm,1.4s | | | | | | | | |
| **CIT** | **Chita** | **6.52** | **229** | | *e* | Pg | | 01 18 48.3 | +10 |
| CIT | | | | | *e* | | | 01 19 54.3 | |
| CIT | | | | | *e*Sg | **Sg** | | **01 19 57.9** | **-4.6** |
| CIT | | | | | Smax | | | 01 20 01.9 | |
| | comp=E,458nm,1.1s | | | | | | | | |
| **NIZ** | **Nizh Angarsk** | **6.73** | **268** | | *e*Pg | **Pb** | | **01 18 33.9** | **+3.7** |
| NIZ | | | | | Pmax | | | 01 18 52.2 | |
| | comp=E,28nm,2.0s | | | | | | | | |
| NIZ | | | | | *e*Sg | Sg | | 01 20 01.6 | -7.5 |
| NIZ | | | | | Smax | | | 01 20 14.4 | |
| | comp=E,154nm,1.6s | | | | | | | | |
| **YAK** | **Yakutsk** | **6.88** | **34** | | Pn | **Pn** | | **01 18 16.4** | **+2.5** |
| | comp=E,0.0nm,0.3s,baz=48,slow=1.4,SNR=2.8 | | | | | | | | |
| YAK | | | | | Sn | **Sn** | | **01 19 28.7** | **-3.4** |
| | comp=E,0.0nm,0.3s,baz=43,slow=21,SNR=6.2 | | | | | | | | |
| YAK | | | | | Lg | Lg | | 01 20 02.5 | |
| | comp=E,0.0nm,0.3s,baz=238,slow=20,SNR=24 | | | | | | | | |
| **YAK** | **Yakutsk** | **6.88** | **34** | | *e*P | **Pn** | | **01 18 14.9** | **+1.0** |
| **YAK** | **Yakutsk** | **6.88** | **34** | | *e*S | **Sg** | | **01 20 05.5** | **-8.2** |
| **SYVR** | **Suvo** | **7.22** | **251** | | *e* | **Sn** | | **01 19 39.1** | **-1.6** |
| SYVR | | | | | *e*Sg | **Sg** | | **01 20 18.4** | **-6.4** |
| SYVR | | | | | Smax | | | 01 20 26.4 | |
| | comp=E,239nm,1.0s | | | | | | | | |
| **HIA** | **Hailar** | **7.41** | **189** | | *e* | **Sn** | | **01 19 47.4** | **+2.0** |
| HIA | | | | | *e* | | | 01 20 12.7 | |
| HIA | | | | | *e*Sg | **Sg** | | **01 20 23.4** | **-7.5** |
| HIA | | | | | *e* | | | 01 20 33.5 | |
| **HIA** | **Hailar** | **7.41** | **189** | *i* | P | **Pn** | | **01 18 22.6** | **+1.2** |
| **USMR** | **Ust'-Maya** | **7.83** | **55** | | *e*S | Sg | | 01 20 34.1 | -10 |
| **MXMB** | **Maximikha** | **8.07** | **251** | | *e*Sg | Sg | | 01 20 42.6 | -9.4 |
| MXMB | | | | | *e* | | | 01 20 49.3 | |
| **OGRR** | **Ongureny** | **8.50** | **256** | | *e*Pg | Pg | | 01 19 06.1 | -10 |
| OGRR | | | | | *e*Sg | Sg | | 01 20 56.4 | -9.4 |
| OGRR | | | | | Smax | | | 01 21 10.5 | |
| | comp=E,107nm,1.2s | | | | | | | | |
| **KELR** | **Kotokel** | **8.67** | **249** | | *e*Sg | Sg | | 01 21 03.3 | -7.9 |
| KELR | | | | | *e* | | | 01 21 09.8 | |
| **KPC** | **Khapcheranga** | **8.80** | **222** | | *e*Pn | **Pn** | | **01 18 40.8** | **+0.3** |
| KPC | | | | | *e* | | | 01 18 59.2 | |
| KPC | | | | | *e*Pg | Pg | | 01 19 12.8 | -8.9 |
| KPC | | | | | Pmax | | | 01 19 20.6 | |
| | comp=E,5.0nm,1.2s | | | | | | | | |
| KPC | | | | | *e*Sg | **Sg** | | **01 21 08.8** | **-6.7** |
| KPC | | | | | Smax | | | 01 21 15.3 | |
| | comp=E,270nm,1.3s | | | | | | | | |
| KPC | | | | | *e* | | | 01 21 20.6 | |
| **KPC** | **Khapcheranga** | **8.80** | **222** | | *e*P | **Pn** | | **01 18 40.8** | **+0.3** |
| KPC | | | | | pmax | pmax | | | |
| | comp=Z,13nm,0.8s | | | | | | | | |
| **TRTB** | **Turuntaevo** | **9.19** | **247** | | *e*Pg | Pn | | 01 19 21.4 | +36 |
| TRTB | | | | | Pmax | | | 01 19 46.6 | |
| | comp=Z,3.0nm,0.2s | | | | | | | | |
| TRTB | | | | | *e*Sg | Sn | | 01 21 21.5 | +52 |
| TRTB | | | | | *e* | | | 01 21 24.2 | |
| TRTB | | | | | Smax | | | 01 21 31.6 | |
| | comp=Z,125nm,1.4s | | | | | | | | |
| **UUDB** | **Ulan-Yde** | **9.38** | **246** | | *e*Sg | Sn | | 01 21 27.1 | +53 |
| UUDB | | | | | Smax | | | 01 21 36.4 | |
| | comp=Z,302nm,1.4s | | | | | | | | |
| **TRG** | **Tyrgan** | **9.58** | **253** | | *e* | | | 01 20 51.5 | |
| TRG | | | | | *e*Sg | Sn | | 01 21 33.9 | +55 |
| TRG | | | | |

NOA NORSAR Array B 50.63 324 LR LR 01 51 42.2
comp=Z,9.3nm,18.3s,baz=285,slow=42
YKA Yellowknife Ar 53.52 29 P P 01 25 56.0 +2.7
comp=Z,0.2nm,0.7s,baz=334,slow=6.7,SNR=3.2
YKA Yellowknife Ar 53.52 29 P P 01 25 56.0 +2.7
BRTR Keskin Array B 56.90 293 P P 01 26 21.4 +3.3
comp=Z,0.5nm,0.8s,baz=86,slow=7.4,SNR=3.9
WRA Warramunga Arr 76.99 168 P P 01 28 26.6 +0.8
comp=Z,0.4nm,0.9s,baz=350,slow=6.6,SNR=3.4

---

*BJI **20** 01:22:20.8,27°.20N×140°.20E, h343km, mb4.4/40, mB4.4/27*
*MOS **20** 01:22:22.3±0.8,27°.21N×140°.12E, h367km, mb4.4/44, Error ellipse: s-maj=11.7km s-min=6.1km az=97.5*
*IDC **20** 01:22:22.8±0.5,27°.27N×140°.24E, h357km±4km, mb3.8/25, mb1 3.9/30, mb1mx3.9/44, mbtmp4.5/30, Error ellipse: s-maj=11.1km s-min=7.1km az=80.0*
*ISCJB **20** 01:22:22.5±0.3,27°.24N±0°.03×140°.17E±0°.03, h361km±2km, mb4.4/137, Error ellipse: s-maj=4.3km s-min=4.1km az=155.6*
*NEIC **20** 01:22:23.8±0.4,27°.24N×140°.15E, h364km±4km, mb4.5/96, Error ellipse: s-maj=4.5km s-min=3.3km az=117.0*
*JMA **20** 01:22:25.2±0.3,27°.51N×140°.87E, h375km±4km, M4.2*
**ISC 20 01:22:24.0±0.5, 27°.31N±0°.04×140°.32E±0°.06, h368km±4km, n356, σ1°36/397, mb4.5/137, 7C-4D, Bonin Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| CBIJ | **Chichi jima** | **1.68** | **97** | P | **Pn** | **01 23 14.8** | **-0.2** |
| CBIJ | | | | S | **S** | **01 23 52.8** | **-3.1** |
| CBIJ | **Chichi jima** | **1.68** | **97** | *e*Pn | **Pn** | **01 23 14.7** | **-0.2** |
| CBIJ | | | | *e*S | **S** | **01 23 52.8** | **-3.1** |
| JCJ | **Chichijima** | **1.68** | **97** | P | **Pn** | **01 23 14.8** | **-0.1** |
| | 290nm,0.3s,baz=9.4,slow=14,SNR=97 | | | | | | |
| JCJ | | | | S | **S** | **01 23 52.9** | **-3.1** |
| | 704nm,0.3s,baz=277,slow=21,SNR=26 | | | | | | |
| JHHJ | **Haha-jima-NKT** | **1.79** | **112** | P | **Pn** | **01 23 15.9** | **+0.2** |
| JHHJ | | | | S | **S** | **01 23 56.1** | **-1.1** |
| JHCJ | **Hachijojimakas** | **5.76** | **356** | P | **Pn** | **01 23 53.8** | **+1.1** |
| JHJ2 | **Mitsune** | **5.80** | **356** | P | **Pn** | **01 23 54.0** | **+0.9** |
| JHJ2 | **Mitsune** | **5.80** | **356** | *e*Pn | **Pn** | **01 23 53.8** | **+0.7** |
| JHJ | **Hachijo jima 2** | **5.81** | **356** | P | **Pn** | **01 23 53.5** | **+0.2** |
| | 159nm,0.3s,baz=328,slow=23,SNR=25 | | | | | | |
| JHJ | | | | S | **S** | **01 25 03.5** | **-2.2** |
| | 14nm,0.3s,baz=90,slow=20,SNR=1.9 | | | | | | |
| **BSO1** | **Boso 1** | **7.34** | **4** | P | **Pn** | **01 24 10.6** | **+0.5** |
| **JWZ** | **Kozaga** | **7.36** | **328** | P | **P** | **01 24 13.8** | **+1.8** |
| **BSO3** | **Boso 3** | **7.47** | **1** | P | **Pn** | **01 24 12.0** | **+0.1** |
| **BSO4** | **Boso 4** | **7.66** | **0** | P | **Pn** | **01 24 14.4** | **+0.2** |
| **JIE** | **Ise** | **7.71** | **337** | P | **P** | **01 24 17.7** | **+1.7** |
| **JOD2** | **Odawara 2** | **8.00** | **353** | P | **P** | **01 24 18.9** | **-0.4** |
| JOD2 | | | | *e*S | **S** | **01 25 48.2** | **-3.6** |
| **JNY** | **Yasuok** | **8.29** | **346** | P | **P** | **01 24 23.1** | **-0.5** |
| **INU** | **Inuyama** | **8.50** | **341** | *e*Pn | **P** | **01 24 25.2** | **-0.6** |
| **JHU** | **Hanno** | **8.56** | **354** | P | **Pn** | **01 24 24.3** | **-0.6** |
| JHU | | | | *e*S | **S** | **01 25 55.9** | **-8.0** |
| **JRY** | **Ryogami san** | **8.76** | **352** | P | **Pn** | **01 24 27.3** | **0.0** |
| **JAG** | **Ashikaga** | **9.12** | **356** | P | **Pn** | **01 24 30.3** | **-1.1** |
| JAG | | | | *e*S | **S** | **01 26 08.1** | **-7.9** |
| **JHO** | **Hitachi** | **9.28** | **1** | P | **Pn** | **01 24 33.0** | **-0.3** |
| **MJAR** | **Matsushiro Arr** | **9.38** | **350** | P | **Pn** | **01 24 33.4** | **-1.1** |
| | 2.1nm,0.3s,baz=165,slow=10,SNR=13 | | | | | | |
| MJAR | | | | S | **S** | **01 26 18.2** | **-3.4** |
| | 1.4nm,0.3s,baz=140,slow=16,SNR=4.2 | | | | | | |
| **MAJO** | **Matsushiro** | **9.38** | **350** | *i* P | **P** | **01 24 35.7** | **+0.1** |
| **MAJO** | **Matsushiro** | **9.38** | **350** | *e*Pn | **Pn** | **01 24 34.9** | **+0.4** |
| MAJO | | | | *e*S | **S** | **01 26 22.2** | **+0.6** |
| **MAT** | **Matsushiro** | **9.38** | **350** | P | **Pn** | **01 24 33.5** | **-1.0** |
| MAT | | | | S | **S** | **01 26 18.2** | **-3.4** |
| **MJB9** | **Matsu-Tunnel** | **9.38** | **350** | *e*Pn | **Pn** | **01 24 34.4** | **-0.2** |
| **JNU** | **Nakatsue** | **10.01** | **308** | P | **Pn** | **01 24 41.1** | **-0.9** |
| | 0.2nm,0.3s,baz=131,slow=5.3,SNR=2.3 | | | | | | |
| **JNU** | **Nakatsue** | **10.01** | **308** | *e*Pn | **P** | **01 24 45.6** | **+2.9** |
| **JFK** | **Kawauchi** | **10.04** | **3** | P | **Pn** | **01 24 42.0** | **-0.3** |
| **KSRS** | **Korea Array** | **14.54** | **317** | P | **P** | **01 25 32.8** | **+0.1** |
| | 0.4nm,0.3s,baz=133,slow=11,SNR=8.3 | | | | | | |
| **KS15** | **Wonju Array Si** | **14.56** | **317** | *e*P | **P** | **01 25 32.8** | **-0.1** |
| **YHNB** | **Yeheng** | **17.23** | **265** | *e*P | **P** | **01 26 01.9** | **-0.1** |
| | 184nm,1.6s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **18.14** | **340** | P | **P** | **01 26 12.3** | **+1.0** |
| | 1.3nm,0.3s,baz=170,slow=9.9,SNR=27 | | | | | | |
| **NJ2** | **Nanjing** | **19.23** | **289** | *e*P | **P** | **01 26 21.4** | **-1.6** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,13nm,0.5s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **19.70** | **5** | *e*P | **P** | **01 26 27.9** | **+0.3** |
| YSS | | | | *e*S | **S** | **01 29 47.0** | **-0.3** |
| YSS | | | | pmax | pmax | | |
| | comp=Z,30nm,1.1s | | | | | | |
| **CN2** | **Changchun** | **20.37** | **328** | *e*P | **P** | **01 26 35.8** | **+1.8** |
| **KLR** | **Kul'dur** | **22.87** | **345** | P | **P** | **01 26 57.3** | **+0.8** |
| | comp=Z,0.8nm,0.6s,baz=160,slow=8.0,SNR=23 | | | | | | |
| KLR | | | | PcP | **PcP** | **01 30 35.0** | **+0.3** |
| | comp=Z,0.2nm,1.1s,baz=183,slow=2.4,SNR=4.2 | | | | | | |
| KLR | | | | ScP | **ScP** | **01 33 36.2** | **-0.7** |
| | comp=Z,0.4nm,0.9s,baz=68,slow=0.8,SNR=11 | | | | | | |
| **KLR** | **Kul'dur** | **22.87** | **345** | *d i* P | **P** | **01 26 57.4** | **+0.9** |
| **HIA** | **Hailar** | **27.06** | **330** | *i* P | **P** | **01 27 34.5** | **+0.4** |
| HIA | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.9s | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **27.24** | **307** | *e*P | **P** | **01 27 36.8** | **+1.0** |
| HHC | | | | S | **S** | **01 31 48.3** | **+0.8** |
| HHC | | | | ScS | **ScS** | **01 37 43.8** | **+2.0** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,15nm,1.0s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,74nm,5.5s | | | | | | |
| **XAN** | **Xi'an** | **27.75** | **292** | P | **P** | **01 27 40.3** | **-0.1** |
| XAN | | | | pmax | pmax | | |
| | comp=Z,19nm,0.9s | | | | | | |
| XAN | | | | pmax | pmax | | |
| | comp=Z,120nm,5.3s | | | | | | |
| **PETK** | **Petropavlovsk-** | **28.83** | **22** | P | **P** | **01 27 50.9** | **+1.3** |
| | comp=Z,2.3nm,0.5s,baz=167,slow=3.3,SNR=8.1 | | | | | | |
| **PETK** | **Petropavlovsk-** | **28.83** | **22** | *e*P | **P** | **01 27 48.3** | **-1.3** |
| **PEA1** | **Petropavlovsk-** | **28.84** | **22** | *e*P | **P** | **01 27 50.9** | **+1.2** |
| **MANU** | **Manus Island** | **29.96** | **166** | *e*pP | pP | 01 29 02.6 | -5.7 |
| **FAKI** | **Fak Fak** | **31.04** | **196** | *e*P | **P** | **01 28 07.9** | **-1.5** |
| | comp=Z,26nm,0.7s | | | | | | |
| **CD2** | **Chengdu** | **32.05** | **285** | P | **P** | **01 28 17.9** | **-0.1** |
| CD2 | | | | S | **S** | **01 33 01.3** | **-1.2** |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,20nm,0.6s | | | | | | |
| **LZH** | **Lanzhou** | **32.09** | **295** | *e*P | **P** | **01 28 18.6** | **+0.1** |
| LZH | | | | pP | pP | 01 29 23.4 | -3.9 |
| LZH | | | | sP | sP | 01 30 01.3 | -8.7 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,36nm,1.3s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,130nm,4.8s | | | | | | |
| **ULN** | **Ulaanbaatar** | **33.03** | **317** | *c e* P | **P** | **01 28 26.6** | **+0.2** |
| ULN | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.9s | | | | | | |
| **ULN** | **Ulaanbaatar** | **33.03** | **317** | *e*P | **P** | **01 28 25.8** | **-0.5** |
| | comp=Z,4.1nm,0.8s | | | | | | |
| **MA2** | **Magadan** | **33.05** | **10** | *c e* P | **P** | **01 28 27.8** | **+1.6** |
| **SONA0** | **Songino Array** | **33.42** | **317** | *e*P | **P** | **01 28 29.8** | **+0.1** |
| SONA0 | | | | *e*PcP | **PcP** | **01 31 01.1** | **-0.1** |
| SONA0 | | | | *e*ScP | **ScP** | **01 34 09.6** | **-0.4** |
| **SONA1** | **Songino Array** | **33.42** | **317** | *e*P | **P** | **01 28 29.6** | **-0.1** |
| **SONM** | **Songino Array** | **33.42** | **317** | P | **P** | **01 28 29.8** | **+0.1** |
| | comp=Z,1.8nm,0.6s,baz=129,slow=9.5,SNR=8.8 | | | | | | |
| SONM | | | | PcP | **PcP** | **01 31 01.1** | **-0.1** |
| | comp=Z,0.5nm,0.5s,baz=113,slow=1.7,SNR=4.4 | | | | | | |
| SONM | | | | ScP | **ScP** | **01 34 09.6** | **-0.4** |
| | comp=Z,1.7nm,0.9s,baz=116,slow=3.4,SNR=6.4 | | | | | | |
| **YAK** | **Yakutsk** | **35.44** | **351** | *e*P | **P** | **01 28 45.4** | **-1.0** |
| YAK | | | | pmax | pmax | | |
| | comp=Z,16nm,0.9s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,5.0nm,1.1s | | | | | | |
| **GTA** | **Gaotai** | **35.64** | **300** | *e*P | **P** | **01 28 48.8** | **+0.2** |
| GTA | | | | pP | pP | 01 29 58.5 | 0.0 |
| GTA | | | | sP | sP | 01 30 35.8 | -5.2 |
| GTA | | | | ScP | **ScP** | **01 34 18.8** | **+0.6** |
| GTA | | | | pmax | pmax | | |
| | comp=N,10.0nm,1.2s | | | | | | |
| **BOD** | **Bodaibo** | **35.67** | **336** | *e*P | **P** | **01 28 48.0** | **-0.4** |
| BOD | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.3s | | | | | | |
| **SEY** | **Seymchan** | **36.50** | **9** | P | **P** | **01 28 55.9** | **+0.6** |
| | comp=Z,5.0nm,0.6s,baz=185,slow=7.1,SNR=16 | | | | | | |
| **SEY** | **Seymchan** | **36.50** | **9** | *c e* P | **P** | **01 28 57.1** | **+1.8** |
| **KAPI** | **Kappang** | **37.78** | **215** | *e*P | **P** | **01 29 03.4** | **-3.1** |
| | comp=Z,391nm,0.8s | | | | | | |
| **SOEI** | **Soe** | **40.00** | **205** | *e*P | **P** | **01 29 23.6** | **-1.3** |
| | comp=Z,20nm,0.8s | | | | | | |
| **MTN** | **Manton Dam** | **40.90** | **194** | *e*P | **P** | **01 29 31.5** | **-0.5** |
| | comp=Z,46nm,0.5s | | | | | | |
| **COEN** | **Coen** | **41.11** | **176** | *e*P | **P** | **01 29 34.3** | **+0.6** |
| | comp=Z,86nm,1.8s | | | | | | |
| **MYKOM** | **Kota Tinggi** | **43.16** | **240** | *e*P | **P** | **01 29 50.4** | **+0.2** |
| | comp=Z,108nm,1.7s | | | | | | |
| **BILL** | **Bilibino** | **43.63** | **14** | *c i* P | **P** | **01 29 53.5** | **+0.4** |
| BILL | | | | *i* *PP | **pP** | **01 31 10.4** | **+4.4** |
| BILL | | | | *i* | | 01 31 31.6 | |
| BILL | | | | pmax | pmax | | |
| | comp=Z,21nm,1.1s | | | | | | |
| **TIXI** | **Tiksi** | **44.84** | **355** | *c e* P | **P** | **01 30 02.8** | **+0.3** |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.6s | | | | | | |
| **WMQ** | **Urumqi** | **45.10** | **306** | P | **P** | **01 30 05.9** | **+0.8** |
| WMQ | | | | pP | pP | 01 31 19.3 | +0.8 |
| WMQ | | | | S | **S** | **01 36 16.1** | **+0.2** |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,32nm,0.9s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,160nm,6.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,400nm,31.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,320nm,23.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,200nm,23.7s | | | | | | |
| **NIKH** | **Nikolski High** | **45.30** | **41** | *e*P | **P** | **01 30 07.2** | **+0.8** |
| | comp=Z,237nm,1.4s | | | | | | |
| **DGZ** | **Jazzator, Alta** | **45.92** | **314** | *i* P | **P** | **01 30 12.1** | **+0.7** |
| DGZ | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | |
| **BKNI** | **Bangkinang** | **46.26** | **241** | *e*P | **P** | **01 30 13.4** | **-1.0** |
| | comp=Z,71nm,0.4s | | | | | | |
| **TAPN** | **Taplejung** | **46.43** | **283** | *e*P | **P** | **01 30 16.3** | **+0.4** |
| | comp=Z,3.6nm,0.3s | | | | | | |
| **ODAN** | **Odarc** | **46.82** | **282** | *e*P | **P** | **01 30 19.2** | **+0.4** |
| | comp=Z,12nm,0.6s | | | | | | |
| **WRAB** | **Tennant Creek** | **47.32** | **188** | *c e* P | **P** | **01 30 21.8** | **-0.5** |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,21nm,0.9s | | | | | | |
| **WRAB** | **Tennant Creek** | **47.32** | **188** | *e*P | **P** | **01 30 22.0** | **-0.3** |
| | comp=Z,22nm,0.9s | | | | | | |
| **WB2** | **Warramunga Arr** | **47.33** | **188** | *e*P | **P** | **01 30 22.1** | **-0.3** |
| | comp=Z,17nm,0.8s | | | | | | |
| WB2 | | | | *e*pP | **pP** | **01 31 41.0** | **+4.3** |
| **WR1** | **Warramunga Arr** | **47.33** | **188** | *e*P | **P** | **01 30 21.9** | **-0.4** |
| | comp=Z,18nm,0.8s | | | | | | |
| WR1 | | | | *e*ScP | **ScP** | **01 35 03.8** | **-0.9** |
| **WRA** | **Warramunga Arr** | **47.33** | **188** | P | **P** | **01 30 21.9** | **-0.4** |
| | comp=Z,16nm,0.4s,baz=5.8,slow=7.7,SNR=126 | | | | | | |
| WRA | | | | ScP | **ScP** | **01 35 03.8** | **-0.9** |
| | comp=Z,3.7nm,0.7s,baz=5.1,slow=4.4,SNR=11 | | | | | | |
| **WRA** | **Warramunga Arr** | **47.33** | **188** | P | **P** | **01 30 22.0** | **-0.4** |
| WRA | | | | pmax | pmax | | |
| | comp=Z,16nm,0.4s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **47.33** | **199** | P | **P** | **01 30 22.4** | **0.0** |
| | comp=Z,5.2nm,0.6s,baz=23,slow=9.4,SNR=50 | | | | | | |
| **WC3** | **Warramunga Arr** | **47.34** | **188** | *e*P | **P** | **01 30 22.3** | **-0.1** |
| | comp=Z,19nm,0.6s | | | | | | |
| **AKUT** | **Akutan** | **47.36** | **40** | *e*P | **P** | **01 30 23.4** | **+1.2** |
| | comp=Z,243nm,1.4s | | | | | | |
| **CTA** | **Charters Tower** | **47.47** | **172** | P | **P** | **01 30 22.9** | **-0.5** |
| | comp=Z,1.3nm,0.3s,baz=344,slow=9.0,SNR=3.9 | | | | | | |
| **CTAO** | **Charters Tower** | **47.47** | **172** | *e*P | **P** | **01 30 21.5** | **-1.9** |
| CTAO | | | | pmax | pmax | | |
| | comp=Z,22nm,1.4s | | | | | | |
| **CTAO** | **Charters Tower** | **47.47** | **172** | *e*P | **P** | **01 30 21.5** | **-1.9** |
| | comp=Z,22nm,1.4s | | | | | | |
| **RAMN** | **Ramite** | **47.49** | **283** | *e*P | **P** | **01 30 24.3** | **+0.4** |
| **GAMB** | **Gambell** | **47.67** | **27** | *e*P | **P** | **01 30 26.1** | **+1.7** |
| | comp=Z,76nm,2.0s | | | | | | |
| **JIRN** | **Jiri** | **47.68** | **284** | *e*P | **P** | **01 30 26.4** | **+0.8** |
| | comp=Z,112nm,0.4s | | | | | | |
| **GUN** | **Gumba** | **47.90** | **284** | *e*P | **P** | **01 30 27.9** | **+0.7** |
| | comp=Z,7.7nm,0.3s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **48.24** | **319** | P | **P** | **01 30 28.1** | **-0.7** |
| | comp=Z,1.3nm,0.6s,baz=102,slow=7.9,SNR=5.7 | | | | | | |
| ZALV | | | | PcP | **PcP** | **01 31 48.6** | **-0.8** |
| | comp=Z,2.2nm,0.6s,baz=106,slow=3.1,SNR=7.8 | | | | | | |
| ZALV | | | | ScP | **ScP** | **01 35 06.7** | **-1.4** |
| | comp=Z,1.5nm,0.6s,baz=139,slow=4.8,SNR=6.2 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **48.24** | **319** | *e*P | **P** | **01 30 28.1** | **-0.7** |
| ZAA1 | | | | *e*pP | **PcP** | **01 31 48.6** | **-0.8** |
| ZAA1 | | | | *e*ScP | **ScP** | **01 35 06.7** | **-1.4** |
| **PKI** | **Pulchoki** | **48.38** | **284** | *e*P | **P** | **01 30 30.8** | **0.0** |
| **PKIN** | **Phulchoki** | **48.39** | **284** | *e*P | **P** | **01 30 32.0** | **+1.2** |
| **GSI** | **Gunungsitoli** | **48.42** | **245** | *e*P | **P** | **01 30 30.9** | **+0.1** |
| | comp=Z,30nm,1.2s | | | | | | |
| **MK01** | **Makanchi Array** | **49.05** | **309** | *e*P | **P** | **01 30 34.9** | **-0.3** |
| **MK31** | **Makanchi Array** | **49.06** | **310** | *e*P | **P** | **01 30 35.4** | **+0.2** |
| **MK31** | **Makanchi Array** | **49.06** | **310** | *e*P | **P** | **01 30 35.4** | **+0.2** |
| **MK32** | **Makanchi Array** | **49.06** | **310** | *e*P | **P** | **01 30 34.5** | **-0.7** |
| MK32 | | | | *e*pP | **PcP** | **01 31 52.5** | **-0.2** |
| MK32 | | | | *e*ScP | **ScP** | **01 35 11.1** | **-0.8** |
| **MKAR** | **Makanchi Array** | **49.06** | **310** | P | **P** | **01 30 34.5** | **-0.7** |
| | comp=Z,2.4nm,0.8s,baz=95,slow=8.9,SNR=16 | | | | | | |
| MKAR | | | | PcP | **PcP** | **01 31 52.5** | **-0.2** |
| | comp=Z,0.9nm,0.7s,baz=89,slow=6.8,SNR=4.4 | | | | | | |
| MKAR | | | | ScP | **ScP** | **01 35 11.1** | **-0.8** |
| | comp=Z,2.1nm,0.6s,baz=86,slow=4.7,SNR=21 | | | | | | |
| **MKAR** | **Makanchi Array** | **49.06** | **310** | *e*P | **P** | **01 30 35.4** | **+0.2** |
| MKAR | | | | pmax | pmax | | |
| | comp=Z,19nm,1.0s | | | | | | |
| **MKAR** | **Makanchi Array** | **49.06** | **310** | *e*P | **P** | **01 30 35.4** | **+0.2** |
| | comp=Z,19nm,1.0s | | | | | | |
| **DANN** | **Dangsing** | **49.62** | **285** | *e*P | **P** | **01 30 41.2** | **+1.1** |
| **KOLN** | **Koldanda** | **49.89** | **284** | *e*P | **P** | **01 30 42.5** | **+0.5** |
| | comp=Z,21nm,0.8s | | | | | | |
| **PYUN** | **Piuthan** | **50.34** | **285** | *e*P | **P** | **01 30 45.9** | **+0.6** |
| **AS01** | **Alice Springs** | **51.05** | **188** | *e*P | **P** | **01 30 49.5** | **-0.7** |
| **AS31** | **Alice Springs** | **51.05** | **188** | *e*P | **P** | **01 30 49.2** | **-1.0** |
| | comp=Z,1.9nm,0.6s | | | | | | |
| AS31 | | | | *e*ScP | **ScP** | **01 35 19.7** | **-0.9** |
| **ASAR** | **Alice Springs** | **51.05** | **188** | P | **P** | **01 30 49.7** | **-0.6** |
| | comp=Z,4.3nm,0.7s,baz=356,slow=4.6,SNR=52 | | | | | | |
| ASAR | | | | ScP | **ScP** | **01 35 19.7** | **-0.9** |
| | comp=Z,1.6nm,0.6s,baz=5.5,slow=4.4,SNR=8.2 | | | | | | |
| **KURK** | **Kurchatov** | **51.65** | **314** | *d e* P | **P** | **01 30 53.6** | **-0.7** |
| KURK | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.3s | | | | | | |
| **KURK** | **Kurchatov** | **51.65** | **314** | *e*P | **P** | **01 30 54.0** | **-0.3** |
| | comp=Z,17nm,1.4s | | | | | | |
| **CHGN** | **Chignik** | **51.88** | **38** | *e*P | **P** | **01 30 56.3** | **+0.5** |
| | comp=Z,174nm,1.8s | | | | | | |
| **MBWA** | **Marble Bar** | **52.14** | **205** | *e*P | **P** | **01 30 58.1** | **-0.1** |
| | comp=Z,16nm,0.7s | | | | | | |
| **SVW2** | **Sparrevohn** | **54.01** | **33** | *e*P | **P** | **01 31 12.6** | **+1.4** |
| | comp=Z,51nm,2.0s | | | | | | |
| **KSH** | **Kashi** | **54.04** | **301** | P | **P** | **01 31 15.8** | **+3.8** |
| KSH | | | | pP | pP | 01 32 29.6 | +1.1 |
| KSH | | | | PP | **PP** | **01 33 23.8** | **+6.0** |
| KSH | | | | S | **S** | **01 38 21.5** | **+2.4** |
| KSH | | | | ScS | **ScS** | **01 40 22.3** | **-0.2** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.7s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,61nm,3.6s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,76nm,4.8s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,65nm,6.4s | | | | | | |
| **TTA** | **Tatalina** | **54.10** | **30** | *e*P | **P** | **01 31 13.2** | **+1.3** |
| TTA | | | | pmax | pmax | | |
| | comp=Z,27nm,1.8s | | | | | | |
| **TTA** | **Tatalina** | **54.10** | **30** | *e*P | **P** | **01 31 13.2** | **+1.3** |
| | comp=Z,27nm,1.8s | | | | | | |
| **AAK** | **Ala-Archa** | **54.77** | **304** | *e*P | **P** | **01 31 16.8** | **-0.3** |
| AAK | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.8s | | | | | | |
| **AAK** | **Ala-Archa** | **54.77** | **304** | *e*P | **P** | **01 31 16.8** | **-0.3** |
| | comp=Z,3.7nm,0.8s | | | | | | |
| **OHAK** | **Old Harbor** | **54.78** | **38** | *e*P | **P** | **01 31 17.4** | **+0.7** |
| | comp=Z,75nm,1.4s | | | | | | |
| **KDAK** | **Kodiak Island** | **55.19** | **37** | P | **P** | **01 31 20.4** | **+0.8** |
| | comp=Z,10nm,0.8s,baz=325,slow=4.6,SNR=18 | | | | | | |
| **KDAK** | **Kodiak Island** | **55.19** | **37** | *e*P | **P** | **01 31 20.4** | **+0.8** |
| | comp=Z,167nm,2.0s | | | | | | |
| **RSO** | **Redoubt South** | **55.31** | **34** | *e*P | **P** | **01 31 22.1** | **+1.4** |
| **IMAR** | **Indian Mountai** | **55.60** | **27** | *e*P | **P** | **01 31 23.1** | **+0.7** |
| IMAR | | | | *e*PcP | **PcP** | **01 32 17.0** | **0.0** |
| **PPLA** | **Purkeypile** | **55.83** | **31** | *e*P | **P** | **01 31 25.6** | **+1.4** |
| | comp=Z,52nm,1.9s | | | | | | |
| **CNPM** | **China Poot** | **56.00** | **35** | *e*P | **P** | **01 31 25.9** | **+0.6** |
| | comp=Z,107nm,1.6s | | | | | | |
| **BRLK** | **Bradley Lake** | **56.19** | **35** | *e*P | **P** | **01 31 25.8** | **-0.9** |
| | comp=Z,126nm,1.8s | | | | | | |
| **SUA** | **Susitna One** | **56.37** | **33** | *e*P | **P** | **01 31 28.9** | **+0.9** |
| | comp=Z,13nm,1.0s | | | | | | |
| **KTH** | **Kantishna Hill** | **56.47** | **30** | *e*P | **P** | **01 31 29.7** | **+1.1** |
| | comp=Z,44nm,1.9s | | | | | | |
| **BPAW** | **Bear Paw Mtn.** | **56.50** | **29** | *e*P | **P** | **01 31 30.5** | **+1.7** |
| | comp=Z,42nm,2.0s | | | | | | |
| BPAW | | | | *e*PcP | **PcP** | **01 32 21.4** | **+0.8** |
| **MLY** | **Manley** | **56.71** | **28** | *e*P | **P** | **01 31 31.9** | **+1.6** |
| | comp=Z,9.0nm,0.7s | | | | | | |
| **TRF** | **Thorofare Moun** | **56.74** | **30** | *e*P | **P** | **01 31 31.9** | **+1.2** |
| | comp=Z,14nm,1.0s | | | | | | |
| **BRVK** | **Borovoye** | **56.82** | **317** | *d e* P | **P** | **01 31 31.0** | **-0.2** |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,12nm,1.1s | | | | | | |
| **BRVK** | **Borovoye** | **56.82** | **317** | *e*P | **P** | **01 31 30.9** | **-0.2** |
| | comp=Z,12nm,1.1s | | | | | | |
| **COLD** | **Coldfoot** | **57.20** | **26** | *e*P | **P** | **01 31 35.5** | **+2.0** |
| | comp=Z,6.0nm,0.8s | | | | | | |
| **MCK** | **McKinley** | **57.37** | **30** | *e*P | **P** | **01 31 35.8** | **+1.0** |
| MCK | | | | pmax | pmax | | |
| | comp=Z,17nm,0.7s | | | | | | |
| **MCK** | **McKinley** | **57.37** | **30** | *e*P | **P** | **01 31 35.8** | **+1.0** |
| | comp=Z,18nm,0.7s | | | | | | |
| **RND** | **Reindeer** | **57.38** | **30** | *e*P | **P** | **01 31 35.7** | **+0.8** |
| RND | | | | pmax | pmax | | |
| | comp=Z,14nm,0.6s | | | | | | |
| **RND** | **Reindeer** | **57.38** | **30** | *e*P | **P** | **01 31 35.7** | **+0.8** |
| | comp=Z,14nm,0.6s | | | | | | |
| **SML** | **Sawmill** | **57.54** | **32** | *e*P | **P** | **01 31 37.1** | **+1.1** |
| SML | | | | pmax | pmax | | |
| | comp=Z,20nm,0.9s | | | | | | |
| **SML** | **Sawmill** | **57.54** | **32** | *e*P | **P** | **01 31 37.1** | **+1.1** |
| | comp=Z,20nm,0.9s | | | | | | |
| **KKAR** | **Karatay Array** | **57.61** | **306** | *e*P | **P** | **01 31 37.2** | **+0.4** |
| KKAR | | | | pmax | pmax | | |
| | comp=Z,64nm,0.7s | | | | | | |
| **KKAR** | **Karatay Array** | **57.61** | **306** | *e*P | **P** | **01 31 37.2** | **+0.4** |
| | comp=Z,64nm,0.7s | | | | | | |
| **MDM** | **Murphy Dome** | **57.76** | **28** | *e*P | **P** | **01 31 38.7** | **+1.2** |
| | comp=Z,37nm,1.7s | | | | | | |
| **COLA** | **College** | **57.92** | **29** | *e*P | **P** | **01 31 40.3** | **+1.8** |
| COLA | | | | pmax | pmax | | |
| | comp=Z,70nm,1.9s | | | | | | |
| **COLA** | **College** | **57.92** | **29** | *e*P | **P** | **01 31 40.3** | **+1.8** |
| | comp=Z,70nm,1.9s | | | | | | |
| **CCB** | **Clear Creek Bu** | **57.92** | **29** | *e*P | **P** | **01 31 39.0** | **+0.5** |
| | comp=Z,6.0nm,0.8s | | | | | | |
| **DHY** | **Denali Highway** | **58.03** | **31** | *e*P | **P** | **01 31 40.3** | **+0.7** |
| | comp=Z,15nm,1.4s | | | | | | |
| **HDA** | **Harding Lake** | **58.28** | **29** | *e*P | **P** | **01 31 41.0** | **0.0** |
| | comp=Z,10nm,0.8s | | | | | | |
| **IL1** | **Eielson Array** | **58.32** | **29** | *e*P | **P** | **01 31 41.1** | **-0.2** |
| **ILAR** | **Eielson Array** | **58.32** | **29** | P | **P** | **01 31 41.2** | **-0.2** |
| | comp=Z,5.6nm,0.8s,baz=261,slow=5.8,SNR=55 | | | | | | |
| **ILB** | **Eielson Array** | **58.32** | **29** | *e*P | **P** | **01 31 41.1** | **-0.2** |
| **KLU** | **Klutina** | **58.68** | **33** | *e*P | **P** | **01 31 45.3** | **+1.4** |
| | comp=Z,10.0nm,0.8s | | | | | | |
| **STKA** | **Stephens Creek** | **58.87** | **179** | P | **P** | **01 31 44.9** | **-0.5** |
| | comp=Z,1.9nm,0.3s,baz=334,slow=8.2,SNR=5.5 | | | | | | |
| **PAX** | **Paxson** | **58.90** | **31** | *e*P | **P** | **01 31 46.7** | **+1.3** |
| PAX | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.8s | | | | | | |
| **PAX** | **Paxson** | **58.90** | **31** | *e*P | **P** | **01 31 46.7** | **+1.3** |
| | comp=Z,6.6nm,0.8s | | | | | | |
| **FORT** | **Forrest** | **58.94** | **192** | *e*P | **P** | **01 31 45.4** | **-0.4** |
| | comp=Z,294nm,1.0s | | | | | | |
| **FYU** | **Fort Yukon** | **59.09** | **27** | *e*P | **P** | **01 31 49.1** | **+2.6** |
| | comp=Z,26nm,1.3s | | | | | | |
| **BMRM** | **Bremner River** | **59.33** | **33** | *e*P | **P** | **01 31 49.9** | **+1.6** |
| | comp=Z,28nm,1.0s | | | | | | |
| **KBL** | **Kabul** | **60.44** | **296** | *e*P | **P** | **01 31 56.7** | **+0.3** |
| KBL | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.8s | | | | | | |
| **KBL** | **Kabul** | **60.44** | **296** | *e*P | **P** | **01 31 56.7** | **+0.3** |
| | comp=Z,5.5nm,0.8s | | | | | | |
| **EGAK** | **Eagle** | **60.78** | **29** | *e*P | **P** | **01 31 58.6** | **+0.8** |
| | comp=Z,4.6nm,0.8s | | | | | | |
| **ARU** | **Arti** | **63.23** | **322** | *e*P | **P** | **01 32 13.7** | **-0.5** |
| ARU | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.9s | | | | | | |
| **ARU** | **Arti** | **63.23** | **322** | *e*P | **P** | **01 32 13.7** | **-0.5** |
| | comp=Z,8.1nm,0.9s | | | | | | |
| **INK** | **Inuvik** | **63.53** | **24** | P | **P** | **01 32 15.9** | **+0.1** |
| | comp=Z,4.1nm,0.6s,baz=296,slow=6.0,SN

comp=Z,3.0nm,1.0s
**J08A Circle Bar Ran 79.28 47** *e*P **P 01 33 51.2 +1.5**
comp=Z,9.5nm,0.6s
**BMO Blue Mountains 79.33 45** *e*P **P 01 33 51.3 +1.3**
BMO pmax pmax
comp=Z,6.0nm,0.9s
**BMO Blue Mountains 79.33 45** *e*P **P 01 33 51.2 +1.3**
comp=Z,6.2nm,0.9s
**BEKR Beckworth 79.61 51** *e*P **P 01 33 52.9 +1.3**
comp=Z,11nm,0.7s
**PAHR Pah Rah Range 80.35 50** *e*P **P 01 33 56.8 +1.3**
comp=Z,6.1nm,0.8s
**SUMG Summit 80.38 360** *e*P **P 01 33 56.2 +0.9**
SUMG pmax pmax
comp=Z,7.0nm,0.7s
**SUMG Summit 80.38 360** *e*P **P 01 33 56.2 +0.9**
comp=Z,7.2nm,0.7s
**PNTR Pine Nut 80.48 51** *e*P **P 01 33 58.0 +1.7**
comp=Z,6.6nm,0.6s
**YERR Yerington 80.78 51** *e*P **P 01 33 59.3 +1.5**
comp=Z,5.7nm,0.8s
**MFID Camas Ranch 80.95 46** *e*P **P 01 34 00.0 +1.4**
comp=Z,8.6nm,0.8s
**AKASG Malin Array Be 81.46 323** P **P 01 33 59.4 -1.5**
baz=300,SNR=5.2
**AKASG Malin Array Be 81.46 323** P **P 01 33 59.4 -1.5**
AKASG pmax pmax
comp=Z,2.0nm,0.7s
**AKBB Malin Array Si 81.46 323** *e*P **P 01 33 59.4 -1.5**
AKBB pmax pmax
comp=Z,5.0nm,0.8s
**AKBB Malin Array Si 81.46 323** *e*P **P 01 33 59.4 -1.5**
comp=Z,4.7nm,0.8s
**KVN Kaiserville 81.53 50** *e*P **P 01 34 02.9 +1.1**
KVN pmax pmax
comp=Z,8.0nm,0.7s
**KVN Kaiserville 81.53 50** *e*P **P 01 34 02.9 +1.1**
comp=Z,7.6nm,0.7s
**NV01 Mina Array Sit 81.69 51** *e*P **P 01 34 03.7 +1.1**
**HRY Holter Researc 81.75 41** *e*P **P 01 34 04.1 +1.5**
**HLID Hailey 81.78 45** P **P 01 34 04.2 +1.3**
baz=300,SNR=12
**HLID Hailey 81.78 45** *e*P **P 01 34 04.6 +1.7**
comp=Z,5.1nm,0.8s
**NV11 Mina Array Sit 81.79 51** *e*P **P 01 34 04.4 +1.4**
comp=Z,0.3nm,0.8s
**LRM Limekiln Ridge 81.84 42** *e*P **P 01 34 04.8 +1.5**
**DLMT Dillon 81.99 43** *e*P **P 01 34 05.2 +1.3**
comp=Z,30nm,2.0s
**EGMT Eagleton 82.26 40** P **P 01 34 06.1 +0.9**
baz=303
**VES Vestal, Richgr 82.35 54** P **P 01 34 06.6 +0.8**
baz=298
**FFC Flin Flon 82.43 31** *e*P **P 01 34 06.5 +0.7**
FFC pmax pmax
comp=Z,8.0nm,0.9s
**FFC Flin Flon 82.43 31** *e*P **P 01 34 06.5 +0.7**
comp=Z,7.7nm,0.9s
**BOZ Bozeman (W) 82.45 42** P **P 01 34 07.2 +0.9**
baz=302,SNR=6.3
**BOZ Bozeman (W) 82.45 42** *e*P **P 01 34 07.7 +1.3**
BOZ pmax pmax
comp=Z,3.0nm,0.7s
**BOZ Bozeman (W) 82.45 42** *e*P **P 01 34 07.7 +1.3**
comp=Z,3.2nm,0.7s
**NC405 NORSAR Array S 82.57 337** *e*P **P 01 34 06.0 -0.5**
**NC204 NORSAR Array S 82.77 338** *e*P **P 01 34 07.1 -0.4**
**CWC Cottonwood Cre 82.79 53** P **P 01 34 09.0 +0.8**
baz=299
**NB2 NORSAR Subarra 82.79 338** P **P 01 34 06.5 -1.1**
comp=Z,9.2nm,0.8s,baz=46,slow=5.1
**NB2 NORSAR Subarra 82.79 338** P **P 01 34 06.5 -1.1**
NB2 pmax pmax
comp=Z,8.0nm,0.8s
**NB2 NORSAR Subarra 82.79 338** P **P 01 34 06.5 -1.1**
baz=46,slow=5.1
**NB200 NORSAR Array S 82.79 338** *e*P **P 01 34 06.5 -1.1**
**NOA NORSAR Array B 82.79 338** P **P 01 34 06.5 -1.1**
comp=Z,6.8nm,0.7s,baz=47,slow=4.8,SNR=29
**ISA Isabella, Lake 82.88 54** P **P 01 34 09.2 +0.7**
baz=298
**QLMT Earthquake Lak 82.97 43** *e*P **P 01 34 11.0 +1.9**
**GRAC Grapevine Rang 83.02 52** P **P 01 34 10.3 +1.1**
baz=299
**YHB Horse Butte 83.16 43** *e*P **P 01 34 12.0 +2.0**
comp=Z,23nm,0.3s
**YMR Madison River 83.34 43** *e*P **P 01 34 13.2 +2.2**
comp=Z,8.3nm,0.8s
**YHH Holmes Hill 83.34 43** *e*P **P 01 34 12.9 +1.9**
comp=Z,4.3nm,1.1s
**MPMC Manual Prospec 83.39 53** P **P 01 34 12.2 +0.9**
baz=299
**LRMC Laurel Mtn Rad 83.53 53** P **P 01 34 13.1 +1.1**
baz=299
**YFT Old Faithful 83.53 43** *e*P **P 01 34 15.8 +3.9**
comp=Z,10nm,1.0s
**RAYN Ar Rayn 83.54 293** *e*P **P 01 34 12.5 +0.4**
comp=Z,9.9nm,0.9s
**EDW2 Edwards Air Fo 83.59 54** P **P 01 34 13.5 +1.3**
baz=299
**R11A Troy Canyon, C 83.59 50** P **P 01 34 13.3 +1.0**
baz=300,SNR=9.7
**R11A Troy Canyon, C 83.59 50** *e*P **P 01 34 13.3 +1.0**
comp=Z,4.4nm,0.8s
**FURC Furnace Creek, 83.63 52** P **P 01 34 13.7 +1.5**
baz=299
**H17A Grant Village 83.72 43** P **P 01 34 15.8 +2.8**
baz=302,SNR=7.0
**H17A Grant Village 83.72 43** *e*P **P 01 34 15.7 +2.8**
comp=Z,11nm,1.2s
**IMW Indian Meadow 83.76 44** *e*P **P 01 34 15.1 +1.9**
comp=Z,7.5nm,0.8s
**TPNV Topopah Spring 83.83 52** P **P 01 34 14.4 +0.9**
baz=300,SNR=9.8
**TPNV Topopah Spring 83.83 52** *e*P **P 01 34 13.2 -0.3**
TPNV pmax pmax
comp=Z,8.0nm,0.8s
**TPNV Topopah Spring 83.83 52** *e*P **P 01 34 13.2 -0.3**
comp=Z,8.1nm,0.8s
**FXWY Fox Creek 83.85 44** *e*P **P 01 34 15.2 +1.7**
comp=Z,7.6nm,1.4s
**MOOW Moose Ponds 83.96 44** *e*P **P 01 34 15.7 +1.6**
comp=Z,3.2nm,0.7s
**TPAW Teton Pass 83.97 44** *e*P **P 01 34 16.0 +1.7**
comp=Z,6.3nm,0.7s
**RLMT Red Lodge 84.11 42** P **P 01 34 16.4 +1.6**
baz=303
**RLMT Red Lodge 84.11 42** *e*P **P 01 34 16.5 +1.6**
comp=Z,9.4nm,0.6s
**GSC Goldstone, Bar 84.24 53** P **P 01 34 16.3 +0.8**
baz=300,SNR=7.4
**GSC Goldstone, Bar 84.24 53** *e*P **P 01 34 16.3 +0.8**
GSC pmax pmax
comp=Z,8.0nm,0.8s
**GSC Goldstone, Bar 84.24 53** *e*P **P 01 34 16.3 +0.8**
comp=Z,7.6nm,0.8s
**AHID Auburn Hatcher 84.27 45** *e*P **P 01 34 16.6 +1.0**
comp=Z,11nm,0.8s
**DUG Dugway, Tooele 84.52 47** P **P 01 34 17.9 +1.1**
baz=301,SNR=8.4
**DUG Dugway, Tooele 84.52 47** *e*P **P 01 34 18.3 +1.5**
DUG pmax pmax
comp=Z,6.0nm,0.9s
**DUG Dugway, Tooele 84.52 47** *e*P **P 01 34 18.3 +1.5**
comp=Z,5.8nm,0.9s
**BR101 Keskin Array S 84.63 312** *e*P **P 01 34 16.0 -1.4**
**BRTR Keskin Array B 84.63 312** P **P 01 34 16.0 -1.4**
comp=Z,0.9nm,0.7s,baz=91,slow=4.7,SNR=6.1
**MURC Murrieta 84.79 55** P **P 01 34 19.3 +1.1**
baz=299
**TUQ Turquoise Moun 84.80 53** P **P 01 34 19.3 +1.0**
baz=300,SNR=8.6
**SHPR Sheep Range 84.81 52** *e*P **P 01 34 19.9 +1.5**
comp=Z,4.1nm,0.9s
**HEC Hector,Ludlow 84.81 53** P **P 01 34 19.3 +1.0**
baz=300
**LAO LASA Array 85.00 39** P **P 01 34 20.2 +1.2**
baz=305
**BR231 Keskin MP Arra 85.14 313** *e*P **P 01 34 16.6 -3.2**
**BW06 Boulder Array 85.22 44** P **P 01 34 21.2 +0.8**
baz=303
**BW06 Boulder Array 85.22 44** *e*P **P 01 34 21.1 +0.8**
**PD31 Pinedale Array 85.22 44** *e*P **P 01 34 21.1 +0.7**
**PDAR Pinedale Array 85.22 44** P **P 01 34 21.1 +0.7**
comp=Z,2.6nm,0.9s,baz=279,slow=2.9,SNR=15
**PDAR Pinedale Array 85.22 44** *e*P **P 01 34 20.7 +0.3**
**GMRC Granite Mounta 85.31 53** P **P 01 34 21.8 +1.0**
baz=300
**PFO Pinyon Flats O 85.32 55** P **P 01 34 21.8 +0.9**
baz=300
**PFO Pinyon Flats O 85.32 55** *e*P **P 01 34 21.8 +0.9**
PFO pmax pmax
comp=Z,9.0nm,0.8s
**PFO Pinyon Flats O 85.32 55** *e*P **P 01 34 21.8 +0.9**
comp=Z,9.3nm,0.8s
**XPFO Pinon Flat 85.32 55** *e*P **P 01 34 21.8 +0.9**
comp=Z,9.9nm,0.8s
**BELC Belle Mtn. Jos 85.46 54** P **P 01 34 22.1 +0.5**
baz=300,SNR=6.9
**MONP2 Monument Peak 85.70 55** P **P 01 34 23.8 +0.9**
baz=300
**IRM Iron Mountain 86.00 54** P **P 01 34 24.9 +0.9**
baz=300
**BC3 Big Chuckawall 86.03 54** P **P 01 34 25.2 +0.9**
baz=300,SNR=5.2
**IKP In-Ko-Pah, Jac 86.05 55** P **P 01 34 25.2 +0.8**
baz=300
**Y12C Blythe 86.65 54** P **P 01 34 28.2 +1.1**
baz=301
**GLA Glamis 86.78 54** P **P 01 34 28.9 +1.1**
baz=301
**U15A North Rim 86.83 50** *e*P **P 01 34 29.6 +1.3**
comp=Z,16nm,1.8s
**O20A White River Ci 87.50 46** P **P 01 34 31.2 -0.1**
baz=304
**RSSD Black Hills 87.75 41** P **P 01 34 32.8 +0.4**
baz=307
**ULM Lac du Bonnet 88.16 32** P **P 01 34 33.1 -0.8**
comp=Z,1.5nm,0.4s,baz=303,slow=5.2,SNR=8.2
**A31A Linda, St. Vin 88.41 34** P **P 01 34 36.2 +1.1**
baz=312
**N23A Red Feather La 88.51 44** P **P 01 34 37.7 +1.6**
baz=306
**B31A Greenbush Farm 88.51 34** P **P 01 34 36.6 +1.0**
baz=311
**A32A Rocking H Ranc 88.76 34** P **P 01 34 37.4 +0.6**
baz=312
**C31A Landman Farms, 88.88 35** P **P 01 34 38.1 +0.8**
baz=311
**B32A Ashes, Strandq 89.08 34** P **P 01 34 38.8 +0.5**
baz=312
**A33A Warroad 89.28 33** P **P 01 34 38.9 -0.3**
baz=313
**ISCO Idaho Springs 89.35 45** P **P 01 34 41.2 +1.1**
baz=306
**D31A Mcclaflin, Tow 89.38 35** P **P 01 34 40.5 +0.8**
baz=311
**AGMN Agassiz Nation 89.48 34** P **P 01 34 40.4 +0.3**
baz=312
**E31A Nome 89.61 36** P **P 01 34 41.4 +0.6**
baz=311
**S22A 4UR Ranch, Cre 89.76 47** P **P 01 34 42.8 +0.8**
baz=305
**F31A Hecla 89.88 37** P **P 01 34 42.6 +0.6**
baz=311
**C33A Trail 89.89 34** P **P 01 34 42.3 +0.3**
baz=313
**B34A Aery, Baudette 89.95 33** P **P 01 34 42.5 +0.2**
baz=313
**TUC Tucson 90.07 53** P **P 01 34 44.6 +1.3**
baz=303
**Q24A Divide 90.13 45** P **P 01 34 44.5 +0.8**
baz=306
**D33A AnnSam, Waubun 90.27 35** P **P 01 34 44.3 +0.5**
baz=312
**C34A RKJ Ranch, Bem 90.39 34** P **P 01 34 44.5 +0.1**
baz=313
**GERES GERESS Array B 90.46 328** P **P 01 34 43.5 -1.3**
comp=Z,0.9nm,0.8s,baz=31,slow=3.6,SNR=6.2
**B35A Bob, Littlefor 90.48 33** P **P 01 34 45.1 +0.3**
baz=314
**SDCO Great Sand Dun 90.62 46** P **P 01 34 46.6 +0.6**
baz=306
**E33A Westby DABS, E 90.62 35** P **P 01 34 45.9 +0.5**
baz=312
**D34A Park Rapids 90.64 34** P **P 01 34 46.0 +0.5**
baz=313
**OGNE Ogallala 90.85 42** P **P 01 34 47.1 +0.3**
baz=308
**F33A 5 Mile Ranch, 90.92 36** P **P 01 34 47.4 +0.6**
baz=312
**D35A Remer 91.21 34** P **P 01 34 48.3 +0.1**
baz=314
**G33A Ortonville 91.27 36** P **P 01 34 49.1 +0.6**
baz=312
**E35A Pequot Lakes 91.39 34** P **P 01 34 49.6 +0.5**
baz=314
**H33A Presn Over Nor 91.45 37** P **P 01 34 50.1 +0.7**
baz=312
**ANMO Albuquerque 91.61 49** P **P 01 34 51.2 +0.7**
comp=Z,2.9nm,0.8s,baz=120,slow=8.1
**ANMO Albuquerque 91.61 49** P **P 01 34 51.7 +1.2**
baz=305
**ANMO Albuquerque 91.61 49***ce*P **P 01 34 50.6 +0.1**
ANMO pmax pmax
comp=Z,2.0nm,0.8s
**ANMO Albuquerque 91.61 49** *e*P **P 01 34 51.9 +1.4**
comp=Z,3.0nm,0.8s
**F35A Swanville 91.79 35** P **P 01 34 51.3 +0.4**
baz=313
**ECSD EROS Data Cent 92.15 37** P **P 01 34 52.9 +0.3**
baz=312
**H35A Sunnyside Ranc 92.45 36** P **P 01 34 54.2 +0.3**
baz=313
**H38A Maiden Rock 93.77 35** P **P 01 35 00.4 +0.4**
baz=315
**H39A Augusta 94.27 34** P **P 01 35 02.5 +0.2**
baz=316
**K37A Belmond 94.40 37** P **P 01 35 03.4 +0.4**
baz=314
**LTX Lajitas 96.80 52** *e*P **P 01 35 15.4 +1.2**
**LTX Lajitas 96.80 52** *e*P **P 01 35 15.4 +1.2**
**TXAR Lajitas Array 96.80 52** P **P 01 35 15.4 +1.2**
comp=Z,7.3nm,0.4s,baz=298,slow=1.9,SNR=7.8
**Q43A New Douglas 99.22 37** P **Pdif 01 35 24.5 -0.2**
baz=316
**TOA1 Torodi Ar. Sit 123.18 310** *e*PKPdf **PKPdf 01 40 38.0 -0.2**
**TOA0 Torodi Ar. Sit 123.18 310** *e*PKPdf **PKPdf 01 40 37.8 -0.4**
**TORD Torodi Ar. Bea 123.18 310** PKP **PKPdf 01 40 38.0 -0.2**
comp=Z,1.5nm,0.7s,baz=16,slow=2.7,SNR=8.5
**DBIC Dimbokro 132.29 310** PKP **PKPdf 01 40 55.3 -0.3**
comp=Z,1.3nm,0.5s,baz=163,slow=4.3,SNR=3.7
**TIC Toumodi 132.42 310** *e*PKP1 **SKPbc 01 43 46.2 -1.4**
**KIC Kosan Boka 132.43 310** *e*PKP1 **SKPbc 01 43 46.3 -1.3**
comp=Z,43nm,1.5s
**LIC Lamto 132.73 310** *e*PKP1 **SKPbc 01 43 47.3 -1.3**
comp=Z,36nm,1.3s
**SDV Santo Domingo 133.16 44** PKP **PKPdf 01 40 57.2 -0.2**
comp=Z,2.9nm,0.6s,baz=252,slow=3.2,SNR=3.5
**PTGA Pitinga 147.18 40** PKPbc **PKPbc 01 41 25.3 +0.2**
comp=Z,6.0nm,0.6s,baz=322,slow=5.7,SNR=14
**PTGA Pitinga 147.18 40** *e*PKPbc **PKPbc 01 41 25.6 +0.4**
**PLCA Paso Flores 151.29 126** PKPbc **PKPbc 01 41 35.0 +0.4**
comp=Z,1.9nm,0.7s,baz=237,slow=5.0,SNR=4.7
**PLCA Paso Flores 151.29 126** *e*PKIKP **PKPbc 01 41 35.0 +0.4**
**LPAZ La Paz 151.47 73** PKPbc **PKPbc 01 41 36.7 +0.3**
comp=Z,3.5nm,0.8s,baz=341,slow=4.6,SNR=14
**LPAZ La Paz 151.47 73** *e*PKPbc **PKPbc 01 41 37.2 +0.9**

*ISK **20** 01:23:07.8,38°.83N×43°.62E,h2km,MD2.5*
*DDA **20** 01:23:08.6,38°.78N×43°.73E,h7km,Ml2.0*
*ISCJB **20** 01:23:09.3±0.8,38°.82N±0°.03×43°.67E±0°.07,h7km±8km, Error ellipse: s-maj=9.6km s-min=5.4km az=12.8*
*CSEM **20** 01:23:09.0±0.3,38°.82N×43°.67E,h5km,ML2.0, Error ellipse: s-maj=9.4km s-min=5.7km az=111.0*

**ISC 20 01:23:09.3±1.0, 38°.82N±0°.04×43°.69E±0°.06, h19km±3km, n16, σ1s00/28, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.20** | **332** | *i* | P | | **Pb** | **01 23 13.2** | **-0.7** |
| VMUR | | | | *i* | S | | **Sg** | **01 23 19.3** | **+1.4** |
| **VMUR** | **Van-Muradiye** | **0.20** | **332** | | P | | **Pb** | **01 23 13.2** | **-0.7** |
| VMUR | | | | | S | | **Sg** | **01 23 19.3** | **+1.4** |
| **VANB** | **Van** | **0.32** | **227** | *e* | PG | | **Pg** | **01 23 15.9** | **-0.4** |
| **VANB** | **Van** | **0.32** | **227** | *e* | Pg | | **Pg** | **01 23 15.9** | **-0.4** |
| **TVAN** | **Van** | **0.36** | **218** | *i* | P | | **Pg** | **01 23 15.6** | **-1.4** |
| TVAN | | | | *i* | S | | **Sg** | **01 23 22.6** | **+0.2** |
| **TVAN** | **Van** | **0.36** | **218** | | P | | **Pg** | **01 23 15.6** | **-1.4** |
| TVAN | | | | | S | | **Sg** | **01 23 22.6** | **+0.2** |
| **CLDR** | **Calditan** | **0.37** | **28** | *e* | PG | | **Pg** | **01 23 16.4** | **-0.8** |
| CLDR | | | | *e* | SG | | **Sg** | **01 23 22.9** | **+0.3** |
| **CLDR** | **Calditan** | **0.37** | **28** | *i* | P | | **Pg** | **01 23 16.0** | **-1.2** |
| CLDR | | | | *i* | S | | **Sg** | **01 23 23.5** | **+0.9** |
| **CLDR** | **Calditan** | **0.37** | **28** | | P | | **Pg** | **01 23 16.0** | **-1.2** |
| **CLDR** | **Calditan** | **0.37** | **28** | *e* | Pg | | **Pg** | **01 23 16.4** | **-0.8** |
| CLDR | | | | *e* | Sg | | **Sg** | **01 23 22.9** | **+0.3** |
| CLDR | | | | | S | | **Sg** | **01 23 23.5** | **+0.9** |
| **TUTA** | **Tutak** | **0.90** | **311** | *i* | P | | **Pb** | **01 23 25.4** | **-1.1** |
| TUTA | | | | *i* | S | | **Sn** | **01 23 39.9** | **+0.1** |
| **TUTA** | **Tutak** | **0.90** | **311** | | P | | **Pb** | **01 23 25.4** | **-1.1** |
| TUTA | | | | | S | | **Sn** | **01 23 39.9** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **0.93** | **325** | *e* | PG | | **Pb** | **01 23 26.0** | **-1.0** |
| AGRB | | | | *e* | SG | | **Sb** | **01 23 39.2** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **0.93** | **325** | *e* | Pg | | **Pb** | **01 23 26.0** | **-1.0** |
| AGRB | | | | *e* | Sg | | **Sb** | **01 23 39.2** | **+0.1** |
| **CUKT** | **Cukurca** | **1.57** | **182** | *e* | PN | | **Pn** | **01 23 37.8** | **+1.5** |
| **CUKT** | **Cukurca** | **1.57** | **182** | *e* | Pn | | **Pn** | **01 23 37.8** | **+1.5** |

*IDC **20** 01:25:33.8±1.9, 13°.53N×143°.91E, h72km±20km, mb3.6/9, mb1 3.8/9, mb1mx3.5/45, mbtmp3.9/9, Error ellipse: s-maj=31.2km s-min=15.9km az=107.0*
*ISCJB **20** 01:25:35.3±0.7, 13°.5N±0°.1×143°.74E±0°.09, h100km, mb3.8/9, Error ellipse: s-maj=15.7km s-min=12.2km az=166.0*

**ISC 20 01:25:37.3±1.0, 13°.5N±0°.2×143°.8E±0°.1, h100km, n10, σ0s74/7, mb3.8/9, South of Mariana Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **GUMO** | **Guam** | **1.03** | **86** | P | | | Pn | 01 25 51.6 | -6.4 |
| | 90nm,0.3s,baz=150,slow=5.3,SNR=8.2 | | | | | | | | |
| GUMO | | | | | S | | **Sn** | **01 26 13.8** | **+0.1** |
| | 64nm,0.3s,baz=173,slow=20,SNR=9.3 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **34.53** | **196** | P | | | **P** | **01 32 17.0** | **+0.7** |
| | 0.6nm,0.4s,baz=11,slow=8.7,SNR=3.0 | | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **36.17** | **210** | P | | | **P** | **01 32 29.6** | **-0.7** |
| | 0.9nm,0.6s,baz=33,slow=10 | | | | | | | | |
| **ASAR** | **Alice Springs** | **38.20** | **195** | P | | | P | 01 32 46.3 | -1.2 |
| | 0.8nm,0.8s,baz=14,slow=7.8,SNR=4.3 | | | | | | | | |
| **SONM** | **Songino Array** | **46.21** | **325** | P | | | **P** | **01 33 53.3** | **+0.9** |
| | 0.7nm,0.5s,baz=148,slow=7.1,SNR=5.6 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **60.83** | **316** | P | | | **P** | **01 35 38.8** | **-0.3** |
| | 0.5nm,0.6s,baz=87,slow=8.5,SNR=3.2 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **61.09** | **325** | P | | | P | 01 35 39.7 | -1.0 |
| | 0.7nm,0.5s,baz=106,slow=8.2,SNR=3.5 | | | | | | | | |
| **ILAR** | **Eielson Array** | **69.08** | **25** | P | | | P | 01 36 31.2 | -1.0 |
| | 0.5nm,0.6s,baz=252,slow=6.0,SNR=13 | | | | | | | | |
| **INK** | **Inuvik** | **74.83** | **22** | P | | | **P** | **01 37 06.0** | **-0.4** |
| | 2.4nm,0.9s,baz=277,slow=5.8,SNR=7.6 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **83.40** | **27** | P | | | **P** | **01 37 53.1** | **-0.2** |
| | 0.6nm,0.6s,baz=286,slow=5.0,SNR=11 | | | | | | | | |

*IDC **20** 01:26:51.7±0.6, 47°.53S×100°.05E, h0km, mb4.6/11, mb1 4.7/11, mb1mx4.4/29, mbtmp4.6/11, MS4.1/17, Ms1 4.1/17, ms1mx4.0/22, Error ellipse: s-maj=25.8km s-min=15.1km az=135.0*
*ISCJB **20** 01:26:52.6±0.3, 47°.54S±0°.06×100°.2E±0°.1, h10km, mb4.9/40, MS4.2/22, Error ellipse: s-maj=10.5km s-min=7.3km az=24.8*
*BJI **20** 01:26:52.8, 47°.54S×100°.32E, h6km, mb4.8/27, mB5.3/17, Ms5.0/15, Ms7 4.6/15*
*NEIC **20** 01:26:53.6±0.3, 47°.45S×100°.03E, h10km, mb4.9/24, Error ellipse: s-maj=10.3km s-min=7.4km az=115.0*
*GCMT **20** 01:26:53.6±0.3, 47°.46S×100°.00E, h16km±1km, MW4.9/75, Moment Tensor Solution. s16,c22; s75,c98; Duration: 0 Moment tensor: Scale 10^16 Nm; Mrr0.13±.12; Mθθ2.38±.11; Mϕϕ-2.51±.11; Mrθ-1.54±.43; Mθϕ0.97±.09; Mϕr0.30±.28; Best double couple: Mo3.04300×10^16 NP1:ϕs306.00000°, δ82.00000°, λ.28.00000°. NP2: ϕs211.00000°, δ63.00000°, λ171.00000°. Principal axes: T 3.2560, Plg25.0000°, Azm172.0000°; N -0.4270, Plg61.0000°, Azm321.0000°; P -2.8300, Plg13.0000°, Azm76.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

**ISC 20 01:26:53.8±1.9, 47°.58S±0°.08×100°.14E±0°.10, h8km±11km, n88, σ1s45/85, mb4.9/40, MS4.3/22, Southeast Indian Ridge**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **H01W2** | **Cape Leeuwin H** | **16.43** | **45** | T | | | T | 01 47 23.5 | |
| | baz=215,slow=74,SNR=261 | | | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **16.45** | **45** | T | | | T | 01 47 24.6 | |
| | baz=215,slow=74,SNR=356 | | | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **16.45** | **45** | T | | | T | 01 47 24.6 | |
| | baz=215,slow=74,SNR=327 | | | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **19.54** | **48** | LR | | | LR | 01 36 58.8 | |
| | comp=Z,584nm,21.0s,baz=135,slow=31 | | | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **19.54** | **48** | *e*P | | | **P** | **01 31 21.2** | **-0.5** |
| | 34nm,1.3s | | | | | | | | |
| **FORT** | **Forest** | **27.17** | **62** | *e*P | | | **P** | **01 32 36.9** | **-0.7** |
| | 294nm,1.0s | | | | | | | | |
| FORT | | | | | | *e*PcP | **PcP** | **01 35 57.5** | **-0.4** |
| **MAW** | **Mawson** | **27.60** | **210** | P | | | **P** | **01 32 40.2** | **-0.9** |
| | 4.3nm,0.9s,baz=69,slow=8.6,SNR=3.6 | | | | | | | | |
| MAW | | | | | | LR | LR | 01 40 37.9 | |
| | comp=Z,346nm,20.7s,baz=61,slow=30 | | | | | | | | |
| **MAW** | **Mawson** | **27.60** | **210** | *e*P | | | **P** | **01 32 41.7** | **+0.6** |
| | 15nm,1.9s | | | | | | | | |
| **MBWA** | **Marble Bar** | **30.74** | **38** | *e*P | | | **P** | **01 33 08.4** | **-1.0** |
| | 12nm,1.0s | | | | | | | | |
| **BBOO** | **Buckleboo** | **30.84** | **75** | *e*P | | | **P** | **01 33 10.3** | **+0.1** |
| | 30nm,1.3s | | | | | | | | |
| **STKA** | **Stephens Creek** | **35.07** | **79** | P | | | **P** | **01 33 46.9** | **-0.3** |
| | 13nm,0.8s,baz=228,slow=9.3,SNR=24 | | | | | | | | |
| STKA | | | | | | LR | LR | 01 45 20.0 | |
| | comp=Z,475nm,21.4s,baz=209,slow=32 | | | | | | | | |
| **STKA** | **Stephens Creek** | **35.07** | **79** | *e*P | | | **P** | **01 33 47.3** | **+0.1** |
| | 4.1nm,0.9s | | | | | | | | |
| **COCO** | **West Island** | **35.38** | **354** | *e*P | | | **P** | **01 33 48.1** | **-1.8** |
| | 146nm,1.3s | | | | | | | | |
| **ASAR** | **Alice Springs** | **35.92** | **60** | P | | | **P** | **01 33 54.0** | **-0.7** |
| | 7.1nm,0.8s,baz=216,slow=8.0,SNR=51 | | | | | | | | |
| ASAR | | | | | | PcP | **PcP** | **01 36 22.5** | **+0.9** |
| | 0.6nm,0.5s,baz=205,slow=2.5,SNR=3.9 | | | | | | | | |
| ASAR | | | | | | LR | LR | 01 46 56.8 | |
| | comp=Z,376nm,18.4s,baz=219,slow=34 | | | | | | | | |
| **AS31** | **Alice Springs** | **35.92** | **60** | *e*P | | | **P** | **01 33 53.4** | **-1.3** |
| | 3.1nm,0.8s | | | | | | | | |
| AS31 | | | | | | *e*PcP | **PcP** | **01 36 22.5** | **+0.9** |
| **AS01** | **Alice Springs** | **35.95** | **60** | *e*P | | | **P** | **01 33 53.8** | **-1.1** |
| **FITZ** | **Fitzroy Crossi** | **36.05** | **44** | P | | | **P** | **01 33 54.8** | **-0.9** |
| | 5.2nm,1.0s,baz=217,slow=10,SNR=4.4 | | | | | | | | |
| **VNDA** | **Vanda** | **37.99** | **162** | P | | | **P** | **01 34 12.2** | **+0.5** |
| | 5.0nm,0.9s,baz=279,slow=10,SNR=7.0 | | | | | | | | |
| VNDA | | | | | | LR | LR | 01 48 42.5 | |
| | comp=Z,676nm,18.4s,baz=294,slow=34 | | | | | | | | |
| **VNDA** | **Vanda** | **37.99** | **162** | *e*P | | | **P** | **01 34 13.0** | **+1.4** |
| | 13nm,1.2s | | | | | | | | |
| **WRA** | **Warramunga Arr** | **39.07** | **57** | P | | | **P** | **01 34 20.2** | **-1.1** |
| | 9.9nm,0.9s,baz=220,slow=8.7,SNR=53 | | | | | | | | |
| WRA | | | | | | PcP | **PcP** | **01 36 31.7** | **+0.5** |
| | 1.1nm,1.0s,baz=220,slow=3.1,SNR=2.9 | | | | | | | | |
| WRA | | | | | | LR | LR | 01 48 32.5 | |
| | comp=Z,496nm,21.2s,baz=220,slow=33 | | | | | | | | |
| **WR1** | **Warramunga Arr** | **39.07** | **57** | *e*P | | | **P** | **01 34 20.2** | **-1.1** |
| | 15nm,0.9s | | | | | | | | |
| WR1 | | | | | | *e*PcP | **PcP** | **01 36 31.7** | **+0.5** |
| **WB2** | **Warramunga Arr** | **39.08** | **57** | *e*P | | | **P** | **01 34 21.9** | **+0.5** |
| | 78nm,1.9s | | | | | | | | |
| **WRAB** | **Tennant Creek** | **39.09** | **57** | *e*P | | | **P** | **01 34 21.1** | **-0.4** |
| | 83nm,1.9s | | | | | | | | |
| **SBA** | **Scott Base** | **39.09** | **162** | *e*P | | | **P** | **01 34 22.9** | **+2.1** |
| | 44nm,1.4s | | | | | | | | |
| **CISI** | **Cisompet, Garu** | **40.41** | **12** | *e*P | | | **P** | **01 34 31.5** | **-1.0** |
| | 61nm,1.3s | | | | | | | | |
| **SMRI** | **Semarang** | **41.33** | **16** | *e*P | | | **P** | **01 34 39.3** | **-0.8** |
| | 118nm,1.3s | | | | | | | | |
| **QSPA** | **South Pole Qui** | **42.56** | **180** | *e*P | | | **P** | **01 34 50.5** | **+0.7** |
| | 16nm,1.0s | | | | | | | | |
| **ARMA** | **Armidale** | **42.70** | **85** | *e*P | | | **P** | **01 34 51.3** | **0.0** |
| | 28nm,1.4s | | | | | | | | |
| **SOEI** | **Soe** | **42.86** | **36** | *e*P | | | **P** | **01 34 52.0** | **-0.7** |
| | 12nm,0.9s | | | | | | | | |
| **MTN** | **Manton Dam** | **43.23** | **47** | *e*P | | | **P** | **01 34 55.0** | **-0.5** |
| | 31nm,1.5s | | | | | | | | |
| **PYZ** | **Puysegur Point** | **44.24** | **114** | *e*P | | | **P** | **01 35 03.9** | **+0.5** |
| | 56nm,1.2s | | | | | | | | |
| **DCZ** | **Deep Cove** | **44.85** | **113** | *e*P | | | **P** | **01 35 08.8** | **+0.5** |
| | 25nm,1.2s | | | | | | | | |
| **KAPI** | **Kappang** | **45.63** | **28** | *e*P | | | **P** | **01 35 14.5** | **-0.2** |
| | 274nm,0.8s | | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **CTA** | **Charters Tower** | **46.18** | **70** | P | **P** | **01 35 17.0** | **-2.1** |
| | 9.0nm,0.9s,baz=232,slow=8.4,SNR=7.6 | | | | | | |
| **CTAO** | **Charters Tower** | **46.18** | **70** | *e*P | **P** | **01 35 18.5** | **-0.5** |
| | 17nm,1.0s | | | | | | |
| **H08S2** | **Diego Garcia H** | **46.23** | **320** | T | T | 02 24 22.3 | |
| | baz=167,slow=76 | | | | | | |
| **H08S1** | **Diego Garcia H** | **46.24** | **320** | T | T | 02 24 21.1 | |
| | baz=167 | | | | | | |
| **H08S3** | **Diego Garcia H** | **46.25** | **320** | T | T | 02 24 19.1 | |
| | baz=167,slow=76 | | | | | | |
| **SNAA** | **Sanae** | **49.46** | **204** | P | **P** | **01 35 44.1** | **+0.1** |
| **SNAA** | **Sanae** | **49.46** | **204** | P | **P** | **01 35 43.1** | **-0.8** |
| | 9.8nm,0.9s,baz=108,slow=7.7,SNR=21 | | | | | | |
| **SNAA** | **Sanae** | **49.46** | **204** | *e*P | **P** | **01 35 44.0** | **+0.1** |
| | 15nm,1.0s | | | | | | |
| **VNA2** | **Neumayer--Watz** | **51.10** | **204** | P | **P** | **01 35 56.4** | **+0.1** |
| | baz=116,slow=6.3 | | | | | | |
| **VNA1** | **Neumayer--Stab** | **51.50** | **204** | P | **P** | **01 35 58.2** | **-1.0** |
| **VNA3** | **Neumayer Olymp** | **51.53** | **203** | P | **P** | **01 35 59.6** | **0.0** |
| **BKZ** | **Black Stump Fm** | **54.05** | **111** | *e*P | **P** | **01 36 20.4** | **+1.7** |
| | 26nm,1.2s | | | | | | |
| **PMG** | **Port Moresby** | **54.90** | **62** | P | **P** | **01 36 25.1** | **+0.1** |
| | 4.5nm,0.3s,baz=158,slow=5.4,SNR=3.0 | | | | | | |
| **DZM** | **Mont Dzumac** | **58.17** | **89** | *e*LR | LR | 01 53 57.6 | |
| | 402nm,27.9s | | | | | | |
| **BOSA** | **Boshof** | **59.61** | **260** | P | **P** | **01 36 56.4** | **-2.0** |
| | 5.7nm,1.1s,baz=150,slow=8.1,SNR=3.0 | | | | | | |
| BOSA | | | | LR | LR | 01 57 27.3 | |
| | comp=Z,226nm,19.5s,baz=125,slow=31 | | | | | | |
| **SUR** | **Sutherland** | **60.11** | **254** | LR | LR | 01 57 10.8 | |
| | comp=Z,23nm,18.1s,slow=30 | | | | | | |
| **LBTB** | **Lobatse** | **61.76** | **263** | LR | LR | 01 59 54.7 | |
| | comp=Z,141nm,18.3s,baz=149,slow=32 | | | | | | |
| **CM01** | **Chiang Mai Arr** | **65.70** | **359** | *e*P | **P** | **01 37 37.9** | **-0.8** |
| **CM31** | **Chiang Mai Arr** | **65.73** | **359** | *e*P | **P** | **01 37 38.5** | **-0.4** |
| **CMAR** | **Chiang Mai Arr** | **65.73** | **359** | P | **P** | **01 37 38.5** | **-0.4** |
| | 8.4nm,1.0s,baz=194,slow=5.7,SNR=26 | | | | | | |
| CMAR | | | | LR | LR | 02 03 17.3 | |
| | comp=Z,236nm,19.4s,baz=192,slow=33 | | | | | | |
| **LSZ** | **Lusaka** | **66.73** | **273** | LR | LR | 02 02 51.9 | |
| | comp=Z,163nm,18.5s,baz=146,slow=32 | | | | | | |
| **QIZ** | **Qiongzhong** | **66.87** | **10** | P | **P** | **01 37 48.5** | **+2.3** |
| QIZ | | | | S | **S** | **01 46 43.6** | **+4.5** |
| **KMBO** | **Kilima Mbogo** | **71.16** | **290** | LR | LR | 02 02 44.5 | |
| | comp=Z,97nm,20.0s,baz=92,slow=30 | | | | | | |
| **KMI** | **Kunming** | **72.40** | **2** | P | **P** | **01 38 22.3** | **+1.8** |
| KMI | | | | pP | sP | 01 38 27.0 | +3.0 |
| KMI | | | | sP | pP | 01 38 28.3 | +5.3 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.2s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=N,210nm,15.9s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=E,150nm,17.3s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,230nm,22.1s | | | | | | |
| **GYA** | **Guiyang** | **73.92** | **6** | *e*P | **P** | **01 38 32.0** | **+2.6** |
| GYA | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| **ATD** | **Arta Tunnel** | **77.74** | **302** | LR | LR | 02 06 16.8 | |
| | comp=Z,31nm,18.2s,slow=30 | | | | | | |
| **CD2** | **Chengdu** | **78.19** | **3** | P | **P** | **01 38 54.8** | **+1.3** |
| CD2 | | | | S | **S** | **01 48 48.3** | **+0.1** |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.0s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=E,310nm,14.2s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,330nm,19.0s | | | | | | |
| **WSAR** | **Wadi Sarin** | **79.77** | **322** | LR | LR | 02 07 45.9 | |
| | comp=Z,139nm,18.4s,slow=31 | | | | | | |
| **NJ2** | **Nanjing** | **81.03** | **16** | *e*P | **P** | **01 39 09.4** | **+0.6** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,15nm,0.5s | | | | | | |
| **LZH** | **Lanzhou** | **83.35** | **3** | *e*P | **P** | **01 39 21.8** | **+0.7** |
| LZH | | | | pP | PcP | 01 39 25.8 | +0.3 |
| LZH | | | | sP | sP | 01 39 27.8 | +3.1 |
| LZH | | | | *e*S | **S** | **01 49 41.0** | **-1.1** |
| LZH | | | | pmax | pmax | | |
| | comp=Z,41nm,1.5s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,130nm,4.2s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=N,1μm,17.6s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=E,1μm,15.2s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,1μm,18.6s | | | | | | |
| **KBL** | **Kabul** | **86.37** | **335** | *e*P | **P** | **01 39 36.0** | **-0.4** |
| | 14nm,1.0s | | | | | | |
| **GTA** | **Gaotai** | **86.61** | **360** | *e*P | **P** | **01 39 38.9** | **+1.5** |
| GTA | | | | pP | sP | 01 39 43.5 | +2.6 |
| GTA | | | | sP | pP | 01 39 45.9 | +5.9 |
| GTA | | | | S | **S** | **01 50 16.8** | **+2.6** |
| GTA | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.2s | | | | | | |
| GTA | | | | pmax | pmax | | |
| | comp=Z,100nm,4.3s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=N,130nm,20.4s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=E,160nm,22.7s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,160nm,20.4s | | | | | | |
| **KSRS** | **Korea Array** | **88.22** | **22** | LR | LR | 02 22 09.3 | |
| | comp=Z,19nm,18.4s,baz=215,slow=38 | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **88.63** | **9** | *e*P | **P** | **01 39 48.1** | **+1.1** |
| HHC | | | | SKS | **SKSac** | **01 50 16.4** | **+0.3** |
| HHC | | | | S | **ScS** | **01 50 37.9** | **-1.0** |
| HHC | | | | sS | sS | 01 50 45.9 | +8.2 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.0s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,82nm,5.4s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=N,110nm,17.1s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=E,110nm,16.5s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,54nm,16.5s | | | | | | |
| **KSH** | **Kashi** | **89.34** | **342** | *e*P | **P** | **01 39 51.8** | **+1.4** |
| KSH | | | | pP | sP | 01 39 55.3 | +1.3 |
| KSH | | | | PP | **PP** | **01 43 24.5** | **+2.6** |
| KSH | | | | SKS | **SKSac** | **01 50 18.5** | **-2.0** |
| KSH | | | | S | **S** | **01 50 38.3** | **-2.0** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.3s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,25nm,4.1s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,68nm,5.9s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,110nm,4.0s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,160nm,5.8s | | | | | | |
| **PPT2** | **Papeete2** | **90.16** | **117** | *e*LR | LR | 02 08 45.8 | |
| | 104nm,23.5s | | | | | | |
| **WMQ** | **Urumqi** | **91.67** | **351** | P | **P** | **01 40 01.1** | **0.0** |
| WMQ | | | | pP | sP | 01 40 05.3 | +0.7 |
| WMQ | | | | sP | pP | 01 40 08.8 | +5.1 |
| WMQ | | | | PP | **PP** | **01 43 41.8** | **+1.6** |
| WMQ | | | | SKS | **SKSac** | **01 50 31.1** | **-2.5** |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,14nm,0.7s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,290nm,4.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,220nm,24.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,77nm,22.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,220nm,22.9s | | | | | | |
| **GEYT** | **Allbeck** | **93.02** | **328** | LR | LR | 02 18 43.9 | |
| | comp=Z,55nm,18.2s,baz=320,slow=34 | | | | | | |
| **CN2** | **Changchun** | **93.69** | **18** | *e*P | **P** | **01 40 12.8** | **+2.5** |
| **MKAR** | **Makanchi Array** | **95.27** | **348** | LR | LR | 02 19 55.7 | |
| | comp=Z,72nm,21.2s,baz=198,slow=33 | | | | | | |
| **STHS** | **Stebnicka Huta** | **118.17** | **313** | *e*PDIFF | **Pdif** | **01 42 00.4** | **+0.8** |
| **DAWY** | **Dawson** | **144.28** | **40** | *e*PKPdf | PKPbc | 01 46 28.0 | +0.5 |
| **INK** | **Inuvik** | **146.34** | **33** | PKPbc | **PKPdf** | **01 46 32.1** | **-0.3** |
| | 1.7nm,0.9s,baz=260,slow=2.1,SNR=6.1 | | | | | | |
| **YBH** | **Yreka Blue Hor** | **149.27** | **85** | PKPbc | **PKPbc** | **01 46 41.4** | **-1.2** |
| | 1.3nm,0.8s,baz=258,slow=9.3,SNR=2.7 | | | | | | |
| **NV11** | **Mina Array Sit** | **150.79** | **94** | *e*PKPab | **PKPab** | **01 46 54.8** | **+1.1** |
| **TPNV** | **Topopah Spring** | **151.29** | **98** | *e*PKPab | **PKPab** | **01 46 54.2** | **-1.7** |
| **SHPR** | **Sheep Range** | **151.78** | **100** | *e*PKPab | **PKPab** | **01 46 56.5** | **-1.3** |
| **RES** | **Resolute Bay** | **152.03** | **8** | PKPbc | **PKPbc** | **01 46 47.1** | **-0.9** |
| | 4.4nm,0.7s,baz=3.0,slow=2.7,SNR=8.5 | | | | | | |
| **LTX** | **Lajitas** | **154.10** | **126** | *e*PKPbc | **PKPbc** | **01 46 52.8** | **-1.3** |
| **TXAR** | **Lajitas Array** | **154.10** | **126** | PKPbc | **PKPbc** | **01 46 52.8** | **-1.3** |
| | 0.6nm,1.1s,baz=232,slow=4.4,SNR=3.3 | | | | | | |
| **YKA** | **Yellowknife Ar** | **155.52** | **40** | PKPab | **PKPab** | **01 47 09.3** | **-3.4** |
| | 0.6nm,0.8s,baz=293,slow=3.2,SNR=5.8 | | | | | | |
| **YKB5** | **Yellowknife Ar** | **155.52** | **40** | *e*PKPab | **PKPab** | **01 47 09.3** | **-3.4** |
| **SRU** | **San Rafael Swe** | **156.27** | **100** | *e*PKPab | **PKPab** | **01 47 18.6** | **+1.7** |
| **PD31** | **Pinedale Array** | **158.59** | **92** | *e*PKPab | **PKPab** | **01 47 24.7** | **-2.2** |
| **PDAR** | **Pinedale Array** | **158.59** | **92** | PKPab | **PKPab** | **01 47 24.7** | **-2.2** |
| | 0.8nm,1.1s,baz=266,slow=2.7,SNR=2.7 | | | | | | |

*ISCJB **20** 01:31:10.7±0.5, 40.06N±0.02×38.96E±0.03, h7km±5km, Error ellipse: s-maj=4.6km s-min=3.4km az=141.5*
*CSEM **20** 01:31:10.7±0.1, 40.06N×38.97E, h8km, ML2.6, Error ellipse: s-maj=2.9km s-min=2.4km az=58.0*
*DDA **20** 01:31:10.4, 40.05N×38.93E, h7km, Ml2.6*
*ISK **20** 01:31:10.4, 40.05N×38.97E, h5km, MD2.8*

**ISC 20 01:31:10.9±0.9, 40.05N±0.02×38.96E±0.02, h13km±8km, n40, σ0.962/58, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **KELT** | **Kelkit** | **0.25** | **67** | *i* P | **Pg** | | **01 31 16.6** | **+0.3** |
| KELT | | | | *i* S | **Sg** | | **01 31 20.4** | **+0.4** |
| **KELT** | **Kelkit** | **0.25** | **67** | P | **Pg** | | **01 31 16.6** | **+0.3** |
| KELT | | | | S | **Sg** | | **01 31 20.4** | **+0.4** |
| **SUSE** | **Susehri** | **0.60** | **285** | *i* P | **Pg** | | **01 31 22.6** | **-0.1** |
| SUSE | | | | *i* S | **Sg** | | **01 31 30.9** | **+0.3** |
| **SUSE** | **Susehri** | **0.60** | **285** | P | **Pg** | | **01 31 22.6** | **-0.1** |
| SUSE | | | | S | **Sg** | | **01 31 30.9** | **+0.3** |
| **EUZM** | **Uzumlu** | **0.67** | **121** | *i* P | **Pg** | | **01 31 23.7** | **-0.2** |
| EUZM | | | | *i* S | **Sb** | | **01 31 33.3** | **-0.4** |
| **EUZM** | **Uzumlu** | **0.67** | **121** | P | **Pg** | | **01 31 23.7** | **-0.2** |
| EUZM | | | | S | **Sb** | | **01 31 33.3** | **-0.4** |
| **ILIC** | **ilic-Erzincan** | **0.67** | **207** | *e*PG | **Pg** | | **01 31 23.8** | **-0.2** |
| ILIC | | | | *e*SG | **Sb** | | **01 31 33.6** | **-0.1** |
| **ILIC** | **ilic-Erzincan** | **0.67** | **207** | *e*Pg | **Pg** | | **01 31 23.8** | **-0.2** |
| ILIC | | | | *e*Sg | **Sb** | | **01 31 33.6** | **-0.1** |
| **REFA** | **Refahiye_ERZ** | **0.67** | **193** | *i* P | Pg | | 01 31 15.0 | -9.0 |
| REFA | | | | *i* S | Sg | | 01 31 18.0 | -15 |
| **ERZN** | **Erzincan** | **0.75** | **128** | *e*PG | **Pg** | | **01 31 25.1** | **-0.4** |
| ERZN | | | | *e*SG | **Sb** | | **01 31 35.8** | **-0.3** |
| **KEMA** | **Kemaliye** | **0.86** | **205** | *i* P | **Pg** | | **01 31 26.2** | **-1.4** |
| **KEMA** | **Kemaliye** | **0.86** | **205** | P | **Pg** | | **01 31 26.2** | **-1.4** |
| **ESPY** | **Espiye-Giresun** | **0.88** | **349** | *e*PG | **Pg** | | **01 31 27.7** | **-0.3** |
| ESPY | | | | *e*SG | **Sb** | | **01 31 39.8** | **0.0** |
| **ESPY** | **Espiye-Giresun** | **0.88** | **349** | *e*Pg | **Pg** | | **01 31 27.7** | **-0.3** |
| ESPY | | | | *e*Sg | **Sb** | | **01 31 39.8** | **0.0** |
| **BAYT** | **Ayd¯–ntepe-Bay** | **0.97** | **69** | *e*PG | **Pb** | | **01 31 29.2** | **-0.4** |
| **BAYT** | **Ayd¯–ntepe-Bay** | **0.97** | **69** | *e*Pg | **Pb** | | **01 31 29.3** | **-0.4** |
| **GRSN** | **GIRESUNGRSN** | **1.02** | **329** | *i* P | **Pg** | | **01 31 29.6** | **-1.0** |
| GRSN | | | | *i* S | **Sg** | | **01 31 43.3** | **-0.6** |
| **GRSN** | **GIRESUNGRSN** | **1.02** | **329** | P | **Pg** | | **01 31 29.6** | **-1.0** |
| GRSN | | | | S | **Sg** | | **01 31 43.3** | **-0.6** |
| **TNCL** | **Tunceli-Merkez** | **1.04** | **154** | *i* P | **Pg** | | **01 31 30.5** | **-0.5** |
| TNCL | | | | *i* S | **Sb** | | **01 31 44.5** | **+0.1** |
| **TNCL** | **Tunceli-Merkez** | **1.04** | **154** | P | **Pg** | | **01 31 30.5** | **-0.5** |
| TNCL | | | | S | **Sb** | | **01 31 44.5** | **+0.1** |
| **KTUT** | **Trabzon** | **1.12** | **33** | *e*PN | **Pn** | | **01 31 32.3** | **0.0** |
| **KTUT** | **Trabzon** | **1.12** | **33** | *e*Pn | **Pn** | | **01 31 32.3** | **0.0** |
| **PTK** | **Pertek** | **1.21** | **164** | *e*PN | **Pg** | | **01 31 33.4** | **-0.8** |
| **PTK** | **Pertek** | **1.21** | **164** | *e*Pn | **Pg** | | **01 31 33.4** | **-0.8** |
| **ORDU** | **Ordu-Boztepe** | **1.26** | **319** | *i* P | **Pn** | | **01 31 33.5** | **-0.7** |
| ORDU | | | | *i* S | **Sb** | | **01 31 51.3** | **+0.7** |
| **ORDU** | **Ordu-Boztepe** | **1.26** | **319** | P | **Pn** | | **01 31 33.5** | **-0.7** |
| ORDU | | | | S | **Sb** | | **01 31 51.3** | **+0.7** |
| **RSDY** | **Resadiye-TOKAT** | **1.29** | **286** | *e*PN | **Pg** | | **01 31 35.7** | **-0.1** |
| **RSDY** | **Resadiye-TOKAT** | **1.29** | **286** | *e*Pn | **Pg** | | **01 31 35.7** | **-0.1** |
| **CUKAN** | **kangal_SIVAS** | **1.36** | **238** | *i* P | **Pn** | | **01 31 36.1** | **+0.3** |
| CUKAN | | | | *i* S | **Sn** | | **01 31 55.0** | **+1.2** |
| **CUKAN** | **kangal_SIVAS** | **1.36** | **238** | P | **Pn** | | **01 31 36.1** | **+0.3** |
| CUKAN | | | | S | **Sn** | | **01 31 55.0** | **+1.2** |
| **YEDI** | **Yedisu-Bingol** | **1.37** | **116** | *e*PN | **Pg** | | **01 31 36.7** | **-0.6** |
| **YEDI** | **Yedisu-Bingol** | **1.37** | **116** | *e*Pn | **Pg** | | **01 31 36.7** | **-0.6** |
| **SVSK** | **Karacayir** | **1.51** | **266** | *e*PN | **Pb** | | **01 31 39.0** | **+0.2** |
| **SVSK** | **Karacayir** | **1.51** | **266** | *e*Pn | **Pb** | | **01 31 39.0** | **+0.2** |
| **SVRC** | **Sivrice-ELAZID** | **1.69** | **171** | *e*PN | **Pn** | | **01 31 41.1** | **+0.7** |
| **SVRC** | **Sivrice-ELAZID** | **1.69** | **171** | *e*Pn | **Pn** | | **01 31 41.1** | **+0.7** |
| **MALT** | **Malatya** | **1.78** | **193** | *e*PN | **Pn** | | **01 31 42.6** | **+1.1** |
| **MALT** | **Malatya** | **1.78** | **193** | *e*Pn | **Pn** | | **01 31 42.6** | **+1.1** |
| **DARE** | **Darende-Malaty** | **1.87** | **218** | *e*PN | **Pb** | | **01 31 44.0** | **-1.0** |
| **DARE** | **Darende-Malaty** | **1.87** | **218** | *e*Pn | **Pb** | | **01 31 44.0** | **-1.0** |

**WEL 20 01:40:16.0±0.5, 39.61S×174.42E, h218km±3km, ML3.5/4, 8C-1D, Error ellipse: s-maj=4.6km s-min=2.2km az=90.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **WAZ** | **Wanganui** | **0.46** | **109** | ⇑P | N | Pn | 01 40 45.2 | +0.2 |
| WAZ | | | | | SN | S | 01 41 07.2 | -0.5 |
| **PKVZ** | **Pokaka** | **0.78** | **66** | | PN | Pn | 01 40 45.9 | -0.6 |
| **OHWZ** | **Ohakea** | **0.91** | **131** | | PN | Pn | 01 40 47.7 | +0.7 |
| **TRVZ** | **Turoa** | **0.92** | **71** | | PN | Pn | 01 40 47.0 | -0.5 |
| **FWVZ** | **Far West T-bar** | **0.94** | **68** | ⇓P | N | Pn | 01 40 47.2 | -0.4 |
| **WNVZ** | **Wahianoa** | **0.95** | **73** | ⇑P | N | Pn | 01 40 47.1 | -0.4 |
| WNVZ | | | | | SN | S | 01 41 10.2 | -1.7 |
| **TUVZ** | **Tukino** | **1.01** | **71** | | PN | Pn | 01 40 47.6 | -0.3 |
| **WTVZ** | **West Tongariro** | **1.03** | **62** | | PN | Pn | 01 40 47.4 | -0.5 |
| **MOVZ** | **Moawhango** | **1.05** | **79** | | PN | Pn | 01 40 47.3 | -0.7 |
| **OTVZ** | **Oturere** | **1.06** | **66** | ⇑P | N | Pn | 01 40 47.9 | -0.4 |
| OTVZ | | | | | SN | S | 01 41 11.2 | -2.0 |
| **TSZ** | **Takapari Road** | **1.27** | **111** | | PN | Pn | 01 40 49.6 | +0.1 |
| **BHHZ** | **Black Hill Sta** | **1.27** | **85** | | PN | Pn | 01 40 49.0 | -0.6 |
| **POWZ** | **Post Office Ro** | **1.30** | **128** | | PN | Pn | 01 40 49.7 | 0.0 |
| **KIW** | **Kapiti Island** | **1.31** | **164** | | PN | Pn | 01 40 49.5 | -0.3 |
| **OGWZ** | **Otaki Gorge** | **1.34** | **155** | ⇑P | N | Pn | 01 40 50.0 | 0.0 |
| OGWZ | | | | | AML | AML | 01 41 16.8 | |
| OGWZ | | | | | AML | AML | 01 41 17.0 | |
| **MRZ** | **Mangatainoka R** | **1.38** | **140** | ⇑P | N | Pn | 01 40 50.1 | -0.1 |
| **PNHZ** | **Pukenui** | **1.40** | **103** | | PN | Pn | 01 40 50.6 | +0.1 |
| **KRHZ** | **Kereru** | **1.50** | **92** | | PN | Pn | 01 40 51.5 | +0.1 |
| KRHZ | | | | | AML | AML | 01 41 20.1 | |
| KRHZ | | | | | AML | AML | 01 41 21.9 | |
| **DVHZ** | **Dannevirke** | **1.51** | **118** | | PN | Pn | 01 40 51.4 | +0.1 |
| **PRWZ** | **Pori Road** | **1.52** | **129** | | PN | Pn | 01 40 51.8 | +0.4 |
| **HOWZ** | **Holdsworth Sta** | **1.54** | **147** | | PN | Pn | 01 40 51.4 | -0.2 |
| **CAW** | **Cannon Point** | **1.58** | **162** | | PN | Pn | 01 40 51.7 | -0.2 |
| **TCW** | **Tory Channel** | **1.61** | **184** | | PN | Pn | 01 40 51.8 | -0.3 |
| TCW | | | | | AML | AML | 01 41 20.1 | |
| TCW | | | | | AML | AML | 01 41 20.2 | |
| **TIWZ** | **Tintock** | **1.62** | **137** | ⇑P | N | Pn | 01 40 52.4 | 0.0 |
| **BKZ** | **Black Stump Fm** | **1.66** | **75** | | PN | Pn | 01 40 52.3 | -0.5 |
| **MTW** | **Mount Morrison** | **1.75** | **152** | | PN | Pn | 01 40 53.2 | -0.3 |
| **BFZ** | **Birch Farm** | **1.76** | **128** | | PN | Pn | 01 40 53.6 | 0.0 |
| **NNZ** | **Nelson** | **1.79** | **206** | | PN | Pn | 01 40 53.1 | -0.7 |
| **PRHZ** | **Porangahau** | **1.82** | **112** | | PN | Pn | 01 40 54.0 | -0.1 |
| **TUWZ** | **Tuamarina** | **1.86** | **191** | | PN | Pn | 01 40 53.8 | -0.6 |
| TUWZ | | | | | AML | AML | 01 41 22.7 | |
| TUWZ | | | | | AML | AML | 01 41 24.1 | |
| **TMWZ** | **Te Maipa** | **1.87** | **144** | ⇑P | N | Pn | 01 40 54.6 | 0.0 |
| **QRZ** | **Quartz Range** | **1.89** | **229** | | PN | Pn | 01 40 52.9 | -1.9 |
| **KAHZ** | **Kahuranaki** | **1.90** | **96** | | PN | Pn | 01 40 55.6 | +0.6 |
| **PXZ** | **Pawanui** | **1.93** | **103** | ⇑P | N | Pn | 01 40 55.5 | +0.4 |
| **PAWZ** | **Paruwai Farm** | **1.93** | **157** | | PN | Pn | 01 40 54.8 | -0.4 |
| **PLWZ** | **Palliser** | **2.06** | **162** | | PN | Pn | 01 40 55.8 | -0.6 |
| **THZ** | **Tophouse** | **2.44** | **208** | | PN | Pn | 01 40 59.3 | -1.1 |
| **RIGZ** | **Rimuhau** | **2.75** | **72** | | PN | Pn | 01 41 03.4 | -0.4 |
| **KHZ** | **Kahutara** | **2.88** | **193** | | PN | Pn | 01 41 04.2 | -0.9 |
| **INZ** | **Inchbonnie** | **3.84** | **215** | | PN | Pn | 01 41 14.4 | -2.0 |
| **OXZ** | **Oxford** | **4.12** | **205** | | PN | Pn | 01 41 17.6 | -2.2 |
| **MQZ** | **McQueen's Vall** | **4.30** | **197** | | PN | Pn | 01 41 19.5 | -2.6 |

*IDC **20** 01:54:10.0±0.5, 13.84N×93.31W, h0km, mb4.6/24, mb1 4.8/27, mb1mx4.7/41, mbtmp4.7/27, ML4.9/3, MS4.2/24, Ms1 4.2/24, ms1mx4.1/34, Error ellipse: s-maj=21.3km s-min=11.7km az=54.0*
*MEX **20** 01:54:14.5±0.8, 13.81N×93.42W, h14km±22km, MD5.1*
*MOS **20** 01:54:15.8±0.9, 14.07N×93.22W, h36km, mb5.2/63, Error ellipse: s-maj=8.9km s-min=4.2km az=104.5*
*BJI **20** 01:54:17.8, 14.20N×93.20W, h46km, mB5.3/13, Ms5.4/11, Ms7 5.0/12*
*ISCJB **20** 01:54:17.4±0.4, 14.25N±0.02×93.11W±0.02, h45km±3km, mb5.0/264, MS4.3/32, Error ellipse: s-maj=4.3km s-min=2.3km az=38.4*
*NEIC **20** 01:54:17.1±0.6, 13.96N×93.16W, h40km±4km, mb5.1/264, MD5.1(MEX), Error ellipse: s-maj=5.1km s-min=3.1km az=205.0*
*NEIC Felt at San Marcos La Laguna, Guatemala.*
*GCMT **20** 01:54:17.1±0.3, 14.05N×93.46W, h21km, MW5.1/94, Moment Tensor Solution. s66,c87; s94,c145; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr4.10±.16; Mθθ-3.76±.11; Mφφ-0.34±.11; Mrθ2.54±.19; Mrφ1.62±.08; Mθφ0.81±.20; Best double couple: Mo5.02200×10¹⁶ NP1:φs93.00000°, δ61.00000°, λ70.00000°. NP2: φs310.00000°, δ35.00000°, λ121.00000°. Principal axes: T 5.1360, Plg68.0000°, Azm323.0000°; N -0.2300, Plg17.0000°, Azm103.0000°; P -4.9080, Plg14.0000°, Azm197.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*CASC **20** 01:54:20.1±1.7, 13.57N×93.02W, h35km±999km, ML4.1, mb5.1(NEIC)*

**ISC 20 01:54:17.3±0.6, 14.06N±0.04×93.24W±0.04, h42km±4km, h42km:pP-P, n992, σ1.933/1048, mb5.0/276, MS4.4/32, 9C, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **PCIG** | | **1.63** | **1** | *i* P | | **Pn** | **01 54 42.7** | **-0.8** |
| PCIG | | | | *i* S | | **Sn** | **01 55 04.8** | **+1.4** |
| **PCIG** | | **1.63** | **1** | *e*Pn | | **Pn** | **01 54 42.7** | **-0.8** |
| PCIG | | | | *e*Sn | | **Sn** | **01 55 04.8** | **+1.4** |
| **TGIG** | | **2.70** | **2** | *e*P | | **Pn** | **01 54 59.5** | **+1.2** |
| TGIG | | | | *e*S | | **Sn** | **01 55 33.0** | **+3.1** |
| **TGIG** | | **2.70** | **2** | *e*Pn | | **Pn** | **01 54 59.5** | **+1.2** |
| TGIG | | | | *e*Sn | | **Sn** | **01 55 33.0** | **+3.1** |
| **CUS1** | **Cusmapa** | **3.20** | **92** | *e*P | | **Pn** | **01 55 05.3** | **+0.1** |
| CUS1 | | | | *e*S | | **Sn** | **01 55 40.4** | **-1.8** |
| **CMIG** | **Matias Romero** | **3.40** | **332** | Pn | | **Pn** | **01 55 06.8** | **-1.1** |
| | 151nm,0.3s,baz=154,slow=14,SNR=1239 | | | | | | | |
| CMIG | | | | Sn | | **Sn** | **01 55 44.3** | **-2.7** |
| | 156nm,0.3s,baz=158,slow=22,SNR=4.8 | | | | | | | |
| CMIG | | | | LR | | LR | 01 56 30.4 | |
| | comp=Z,5μm,21.3s,baz=227,slow=39 | | | | | | | |
| **RTR** | **El Retiro** | **3.49** | **92** | *e*P | | **Pn** | **01 55 09.7** | **+0.4** |
| **MONT** | **Ecomontaæa** | **3.49** | **93** | *e*P | | **Pn** | **01 55 09.5** | **+0.1** |
| **PANG** | **Puerto Angel** | **3.51** | **297** | *e*P | | Pn | 01 55 05.1 | -4.2 |
| PANG | | | | *e*S | | Sn | 01 55 38.4 | -11 |
| **SBLS** | **San Blas** | **3.52** | **93** | *e*P | | **Pn** | **01 55 10.1** | **+0.4** |
| **SNJE** | **San Jose** | **3.53** | **93** | *e*P | | **Pn** | **01 55 09.7** | **-0.2** |
| **BOQS** | **Boqueron** | **3.86** | **94** | *e*P | | **Pn** | **01 55 14.6** | **+0.2** |
| BOQS | | | | *e*S | | **Sn** | **01 55 58.6** | **-0.1** |
| BOQS | | | | AML | | AML | 01 55 60.0 | |
| | comp=Z,574nm,0.5s | | | | | | | |
| **SNET** | **Serv Nac Est T** | **3.91** | **95** | *e*Pn | | **Pn** | **01 55 15.3** | **+0.3** |
| **SNET** | **Serv Nac Est T** | **3.91** | **95** | *e*P | | **Pn** | **01 55 15.2** | **+0.3** |
| SNET | | | | *e*S | | **Sn** | **01 55 58.6** | **-1.1** |
| SNET | | | | AML | | AML | 01 56 04.8 | |
| | comp=Z,943nm,0.4s | | | | | | | |
| **LFRS** | **El Faro** | **4.08** | **96** | *e*P | | **Pn** | **01 55 17.4** | **+0.1** |
| LFRS | | | | *e*S | | **Sn** | **01 56 02.2** | **-1.8** |
| **LBRS** | **Las Brisas** | **4.09** | **94** | *e*P | | **Pn** | **01 55 17.6** | **+0.2** |
| **TUIG** | **Tuzandepetl** | **4.11** | **344** | *e*Pn | | **Pn** | **01 55 17.1** | **-0.5** |
| **SNVI** | **San Vicente** | **4.30** | **95** | *e*P | | **Pn** | **01 55 19.7** | **-0.7** |
| **VHO** | **Vista Hermosa** | **4.50** | **312** | *e*P | | **Pn** | **01 55 22.8** | **-0.5** |
| VHO | | | | *e*S | | **Sn** | **01 56 09.9** | **-4.6** |
| **VHO** | **Vista Hermosa** | **4.50** | **312** | *e*Pn | | **Pn** | **01 55 22.8** | **-0.5** |
| VHO | | | | *e*Sn | | **Sn** | **01 56 09.9** | **-4.6** |
| **PACA** | **Pacayal** | **4.81** | **96** | *e*P | | **Pn** | **01 55 28.5** | **+1.1** |
| **VSM** | **San Miguel** | **4.87** | **97** | *e*P | | **Pn** | **01 55 29.5** | **+1.2** |
| **CAHU** | **Cacacuatique** | **4.89** | **93** | *e*P | | **Pn** | **01 55 29.1** | **+0.6** |
| **LCND** | **La Ca¯–ada** | **5.25** | **98** | *e*P | | **Pn** | **01 55 34.0** | **+0.7** |
| LCND | | | | *e*S | | **Sn** | **01 56 30.3** | **-2.4** |
| **PNIG** | **Pinotepa** | **5.25** | **297** | *e*P | | **Pn** | **01 55 30.4** | **-3.0** |
| PNIG | | | | *e*S | | Sn | 01 56 21.5 | -11 |
| **PNIG** | **Pinotepa** | **5.25** | **297** | *e*Pn | | **Pn** | **01 55 30.4** | **-3.0** |
| PNIG | | | | *e*Sn | | Sn | 01 56 21.5 | -11 |
| **SCIG** | **Sabancuy** | **5.26** | **22** | *e*Pn | | **Pn** | **01 55 34.2** | **+0.8** |
| **CNCH** | **Conchagua** | **5.31** | **98** | *e*P | | **Pn** | **01 55 34.3** | **0.0** |
| **TGUH** | **Tegucigalpa,Un** | **5.79** | **89** | *e*Pn | | **Pn** | **01 55 41.2** | **+0.5** |
| **TGUH** | **Tegucigalpa,Un** | **5.79** | **89** | *e*P | | **Pn** | **01 55 40.5** | **-0.2** |
| **TLIG** | **T

baz=197
LTX Lajitas 18.00 329 eP Pn 01 58 25.6 +1.0
LTX Lajitas 18.00 329 eP Pn 01 58 25.6 +1.0
TXAR Lajitas Array 18.00 329 P Pn 01 58 25.6 +1.0
comp=Z,0.4nm,0.3s,baz=144,slow=13,SNR=104
TXAR LR LR 02 05 52.4
comp=Z,420nm,18.4s,baz=0.0,slow=39
TX31 Lajitas Ar. Si 18.00 329 eP Pn 01 58 26.7 +2.2
MOTC Monteria, Cord 18.00 105 eP Pn 01 58 25.6 +1.0
237A Washetta, Mont 18.01 353 P P 01 58 24.5 -0.1
baz=172
244A Avery, Jackson 18.05 7 P P 01 58 24.7 -0.2
baz=188
236A Katherine and 18.11 351 P Pn 01 58 26.4 +0.8
baz=170,SNR=9.3
SJCC San Jacinto, C 18.14 101 eP P 01 58 23.4 -2.8
245A Little AP, Sta 18.15 9 P P 01 58 26.2 +0.2
baz=190
VBMS Vicksburg 18.24 7 P P 01 58 26.8 -0.3
baz=188
VBMS Vicksburg 18.24 7 eP Pn 01 58 29.1 +1.8
comp=Z,71nm,0.8s
WHTX Lake Whitney, 18.26 348 P Pn 01 58 28.0 +0.5
baz=167,SNR=11
WHTX Lake Whitney, 18.26 348 eP Pn 01 58 28.0 +0.5
comp=Z,53nm,0.8s
WHTX eSn Sn 02 01 42.5 -7.9
247A Quitman 18.40 13 P P 01 58 28.1 -0.8
baz=194
142A Monroe 18.44 3 P P 01 58 28.8 -0.5
baz=184
141A Papa Simpson, 18.46 1 P P 01 58 29.1 -0.4
baz=181
SLBS Sierra La Lagu 18.46 304 eP Pn 01 58 31.5 +1.4
comp=Z,38nm,1.0s
140A Cam and Jess, 18.50 359 P P 01 58 30.2 +0.3
baz=179
139A Bunkhouse Ranc 18.56 357 P P 01 58 31.1 +0.5
baz=176
136A Ennis 18.57 351 P Pn 01 58 31.7 +0.4
baz=170,SNR=14
138A Matatall Enter 18.59 355 P Pn 01 58 32.0 +0.5
baz=174,SNR=14
137A Heron Place, G 18.59 353 P P 01 58 31.2 +0.2
baz=172
248A Dixon Mills 18.64 15 P P 01 58 32.3 +0.8
baz=196,SNR=7.9
144A Alexander Plac 18.66 7 P P 01 58 31.8 0.0
baz=188
145A Houston Renfro 18.70 9 P P 01 58 32.5 +0.4
baz=190
146A Union 18.88 11 P P 01 58 33.7 -0.4
baz=192
LPIG La Paz 18.95 304 P P 01 58 34.4 -0.6
comp=Z,8.2nm,0.3s,baz=117,slow=4.5,SNR=2.7
147A Livingston 19.07 13 P P 01 58 35.5 -0.8
baz=195
HELC Santa Helena 19.10 112 eP Pn 01 58 40.6 +2.4
HELC Santa Helena 19.10 112 eP Pn 01 58 41.0 +2.9
comp=Z,65nm,1.0s
Z40A Long Farm, Mag 19.11 360 P P 01 58 37.2 +0.5
baz=179,SNR=8.5
Z41A Richland Creek 19.11 1 P P 01 58 36.9 +0.2
baz=181,SNR=6.6
Z42A Norrel Spur, H 19.16 3 P P 01 58 37.3 +0.1
baz=184
Z38A Mt. Pleasant 19.18 356 P P 01 58 37.4 0.0
baz=175
Z44A Pea Ridge, Bel 19.30 7 P P 01 58 38.8 +0.1
baz=188
Z36A Blue Ridge 19.34 352 P P 01 58 39.9 +0.7
baz=170,SNR=6.8
ABTX Abilene, Hawle 19.38 344 P P 01 58 40.5 +0.9
baz=161,SNR=27
ABTX Abilene, Hawle 19.38 344 eP Pn 01 58 41.5 +0.4
comp=Z,61nm,0.6s
TIGA Tifton 19.43 26 P P 01 58 40.3 +0.2
baz=209,SNR=20
TIGA Tifton 19.43 26 eP P 01 58 41.1 +0.9
comp=Z,382nm,0.9s
Z46A Louisville 19.44 11 P P 01 58 39.9 -0.4
baz=192
YOTC Yotoco, Valle 19.44 119 eP Pn 01 58 42.7 +0.7
Z45A Winona 19.49 9 P P 01 58 40.5 -0.3
baz=190
WLAR White Oak Lake 19.54 0 eP Pn 01 58 43.2 +0.3
comp=Z,105nm,1.1s
Z47A Carrollton 19.62 13 P P 01 58 42.3 0.0
baz=195,SNR=8.4
GUYC Guyana, Colomb 19.65 115 eP Pn 01 58 47.0 +2.1
LRAL Lakeview Retre 19.72 16 P P 01 58 43.2 -0.2
baz=198,SNR=10
LRAL Lakeview Retre 19.72 16 eP P 01 58 44.2 +0.9
comp=Z,26nm,0.9s
Y42A Garnett, Star 19.73 4 P P 01 58 43.0 -0.4
baz=184
Y41A Eaglette Beard 19.74 2 P P 01 58 43.7 +0.2
baz=182,SNR=12
Y39A Lockesburg 19.80 358 P P 01 58 44.6 +0.4
baz=177,SNR=23
CCAR Cane Creek 19.81 4 eP Pn 01 58 45.8 -0.3
comp=Z,298nm,1.7s
CCAR eS S 02 02 20.5 -4.7
Y38A Idabel 19.82 356 P P 01 58 44.2 -0.2
baz=176,SNR=16
Y40A Okolona 19.86 360 P P 01 58 45.0 +0.1
baz=180,SNR=10
Y43A Makayla and Ka 19.87 6 P P 01 58 44.9 -0.1
baz=186
Z48A Northport 19.91 14 P P 01 58 45.4 0.0
baz=196
PTBC PUERTO BERRIO, 19.92 110 eP Pn 01 58 47.7 +0.1
Y36A Durant 19.94 353 P P 01 58 46.2 +0.5
baz=171,SNR=10
Y37A Hugo 19.95 354 P P 01 58 46.2 +0.4
baz=173,SNR=73
Y45A Yeager Farm, C 20.00 9 P P 01 58 46.7 +0.3
baz=190,SNR=12
Y44A Strider, Charl 20.00 7 P P 01 58 46.1 -0.3
baz=188
TOLC Tolima 20.02 116 eP Pn 01 58 52.0 +3.0
Y35A Marietta 20.05 351 P P 01 58 48.1 +1.2
baz=169,SNR=57
OTAV Otavalo 20.07 132 eP Pn 01 58 50.1 +0.2
comp=Z,18nm,1.2s
Y46A Houston 20.13 11 P P 01 58 49.0 +1.3
baz=192,SNR=31
X40A Basin Creek Fa 20.34 1 P P 01 58 50.0 0.0
baz=181,SNR=11
Y47A UCPARC, Winfie 20.35 13 P P 01 58 50.8 +0.6
baz=195,SNR=8.2
X41A Kaden, Bauxite 20.35 2 P P 01 58 50.2 0.0
baz=182,SNR=26
X39A Fountain Ranch 20.37 358 P P 01 58 50.7 +0.3
baz=177,SNR=26
OCAC Ocana 20.38 104 eP P 01 58 51.3 +0.5
MIAR Mount Ida 20.39 359 P P 01 58 50.6 -0.1
baz=179,SNR=43
MIAR Mount Ida 20.39 359 eP P 01 58 50.7 +0.1
MIAR pmax pmax
comp=Z,75nm,1.0s
MIAR Mount Ida 20.39 359 eP P 01 58 50.7 +0.1
comp=Z,75nm,1.0s
X42A Stuttgart 20.45 4 P P 01 58 50.7 -0.6
baz=184
X43A Marvell 20.48 6 P P 01 58 52.1 +0.6
baz=186,SNR=7.4
X35A Drake 20.53 351 P P 01 58 52.5 +0.5
baz=170,SNR=18
X35A Drake 20.53 351 eP P 01 58 53.0 +0.9
comp=Z,79nm,0.8s
X37A Clayton 20.53 355 P P 01 58 52.6 +0.5
baz=174,SNR=39
X37A Clayton 20.53 355 eP P 01 58 52.9 +0.8
comp=Z,85nm,0.9s
X44A Crenshaw 20.54 7 P P 01 58 51.7 -0.5
baz=188
X38A Whitesboro 20.57 356 P P 01 58 53.1 +0.6
baz=175,SNR=95
X45A UM Field Stati 20.57 9 P P 01 58 51.9 -0.7
baz=190
X36A Centrahoma 20.61 353 P P 01 58 53.7 +0.7
baz=171,SNR=60
UALR University of 20.64 2 eP P 01 58 53.7 +0.4
comp=Z,73nm,1.0s
OXF Oxford 20.65 9 P P 01 58 52.9 -0.5
baz=190
OXF Oxford 20.65 9 eP P 01 58 54.1 +0.7
OXF pmax pmax
comp=Z,172nm,1.4s
OXF Oxford 20.65 9 eP P 01 58 54.1 +0.7
comp=Z,172nm,1.4s
ROSC El Rosal 20.77 114 eP Pn 01 58 57.7 -0.3
ROSC El Rosal 20.77 114 eP Pn 01 59 01.4 +3.4
comp=Z,106nm,0.9s
MNTX Cornudas Mount 20.78 330 P P 01 58 55.3 +0.4
baz=145,SNR=42
MNTX Cornudas Mount 20.78 330 eP P 01 58 55.7 +0.8
comp=Z,24nm,0.8s
PRAC Prado 20.82 118 eP Pn 01 58 59.9 +1.6
PRAC Prado 20.82 118 eP Pn 01 59 00.7 +2.4
comp=Z,47nm,0.9s
X46A Booneville 20.83 11 P P 01 58 54.6 -0.8
baz=192,SNR=5.8
X47A Russelville 20.94 13 P P 01 58 56.4 -0.2
baz=194,SNR=7.3
W38A Poteau 20.95 357 P P 01 58 56.9 +0.3
baz=176,SNR=42
W40A Ferguson Farm, 21.04 0 P P 01 58 57.8 +0.2
baz=180,SNR=8.3
W40A Ferguson Farm, 21.04 0 eP P 01 58 58.8 +1.2
comp=Z,62nm,1.0s
W41B Gary Mavity, V 21.04 2 P P 01 58 57.7 +0.1
baz=182,SNR=12
W39A Magazine 21.05 359 P P 01 58 58.0 +0.3
baz=178,SNR=32
W43A Forest City 21.06 6 P P 01 58 57.2 -0.6
baz=187
BARC Barichara 21.07 109 eP P 01 58 59.9 +1.5
W37B Quinton 21.08 355 P P 01 58 58.1 +0.1
baz=174,SNR=55
W37B Quinton 21.08 355 eP P 01 58 58.8 +0.8
comp=Z,104nm,0.6s
X301 Greenbrier Sit 21.10 2 eP P 01 58 58.7 +0.5
comp=Z,64nm,1.3s
WHAR Wooly Hollow 21.15 2 eP P 01 58 59.2 +0.4
comp=Z,79nm,1.1s
W36A Wetumka 21.16 353 P P 01 58 58.9 0.0
baz=172,SNR=36
W36A Wetumka 21.16 353 eP P 01 58 59.1 +0.2
comp=Z,75nm,0.6s
WMOK Wichita Mounta 21.18 347 P P 01 58 59.5 +0.3
baz=165,SNR=50
WMOK Wichita Mounta 21.18 347 eP P 01 59 00.0 +0.8
WMOK pmax pmax
comp=Z,105nm,1.4s
WMOK Wichita Mounta 21.18 347 eP P 01 59 00.0 +0.8
comp=Z,105nm,1.4s
GOGA Godfrey 21.21 23 eP P 01 58 59.5 0.0
GOGA pmax pmax
comp=Z,60nm,0.9s
GOGA Godfrey 21.21 23 eP P 01 58 59.5 0.0
comp=Z,60nm,0.9s
PAMC Pamplona, Colo 21.25 106 eP P 01 59 01.3 +0.7
W35A Tecumseh 21.25 352 P P 01 59 00.0 +0.1
baz=170,SNR=92
W35A Tecumseh 21.25 352 eP P 01 59 00.4 +0.5
comp=Z,253nm,1.0s
X49A Woodville 21.30 16 P P 01 59 00.2 -0.2
baz=198
PLAL Pickwick Lake 21.34 12 eP P 01 59 03.3 +2.4
PLAL epP pP 01 59 14.6 +3.4
FLOC Florencia 21.36 124 eP P 01 59 03.1 +1.9
CHIC Chingaza 21.39 114 eP P 01 59 06.3 +4.3
RUSC La Rusia 21.43 110 eP P 01 59 05.6 +3.0
RUSC La Rusia 21.43 110 eP P 01 59 04.6 +2.1
comp=Z,116nm,1.4s
HBAR Harrisburg 21.53 6 eP P 01 59 07.7 +4.9
comp=Z,192nm,1.4s
SDDR Presa de Saban 21.60 74 eP P 01 59 04.8 +0.9
comp=Z,29nm,0.9s
MSTX Muleshoe 21.62 338 P P 01 59 03.9 -0.1
baz=154,SNR=36
MSTX Muleshoe 21.62 338 eP P 01 59 05.5 +1.5
comp=Z,158nm,0.9s
OK020 N3440 Road, Me 21.63 352 eP P 01 59 03.9 -0.1
comp=Z,244nm,0.6s
V40A Witts Springs 21.65 1 P P 01 59 03.8 -0.4
baz=181,SNR=28
V41A Mountainview 21.65 2 P P 01 59 03.6 -0.6
baz=183,SNR=49
VILC Villavicencio, 21.66 115 eP P 01 59 06.3 +1.6
OK021 N3530 Road, Sp 21.68 352 eP P 01 59 03.8 -0.6
comp=Z,213nm,0.7s
V39A Pettigrew 21.69 359 P P 01 59 04.4 -0.2
baz=179,SNR=76
V42A Cord 21.71 4 P P 01 59 04.1 -0.7
baz=185
V38A Canehill 21.73 357 P P 01 59 04.3 -0.8
baz=177,SNR=100
V36A Jenks 21.77 354 P P 01 59 04.5 -0.8
baz=173,SNR=9.1
V36A Jenks 21.77 354 eP P 01 59 05.0 -0.4
comp=Z,31nm,0.7s
V36A eSn Sn 02 03 19.1 +4.3
V37A Hulbert 21.80 356 P P 01 59 05.0 -0.7
baz=175,SNR=63
V35A Meyer Ranch, C 21.85 352 P P 01 59 05.7 -0.6
baz=170,SNR=36
V35A Meyer Ranch, C 21.85 352 eP P 01 59 06.1 -0.2
comp=Z,163nm,0.6s
TUL1 Leonard 21.88 354 P P 01 59 06.1 -0.5
baz=173,SNR=32
TUL1 Leonard 21.88 354 eP P 01 59 06.1 -0.5
comp=Z,119nm,0.6s
SWET Sewanee 22.07 16 eP P 01 59 08.1 -0.6
comp=Z,43nm,1.1s
AMTX Amarillo 22.09 341 P P 01 59 10.3 +1.3
baz=158
AMTX Amarillo 22.09 341 eP P 01 59 10.1 +1.1
comp=Z,253nm,0.6s
SRIG Santa Rosalia 22.09 310 eP P 01 59 08.8 -0.1
comp=Z,91nm,1.0s
HHAR Hobbs 22.13 358 eP P 01 59 09.2 -0.2
comp=Z,73nm,0.7s
HHAR eS S 02 03 10.0 -0.9
HSIG 22.15 315 eP P 01 59 10.8 +1.2
comp=Z,62nm,1.7s
U40A Yellville 22.20 1 P P 01 59 09.6 -0.5
baz=181,SNR=36
RGRS Roger Stewart 22.21 30 eP P 01 59 11.8 +1.7
comp=Z,660nm,0.6s
U41A Viola 22.22 3 P P 01 59 09.7 -0.5
baz=183,SNR=61
U39A Green Forest 22.23 359 P P 01 59 10.0 -0.4
baz=179,SNR=35
U42A Revenden 22.27 4 P P 01 59 09.4 -1.4
baz=185,SNR=16
U38A Gravette 22.31 358 P P 01 59 10.9 -0.3
baz=177,SNR=112
U37A Salina 22.31 356 P P 01 59 10.8 -0.5
baz=175,SNR=61
CSU Charleston Sou 22.33 30 eP P 01 59 12.6 +1.1
CSU epP pP 01 59 25.9 +4.0
V48A Smith Brothers 22.34 14 P P 01 59 10.4 -1.2
baz=196,SNR=8.6
U36A Oologah 22.35 355 P P 01 59 10.9 -0.7
baz=174,SNR=38
NHSC New Hope 22.38 30 eP P 01 59 12.4 +0.4
comp=Z,469nm,1.0s
HODGE Hodges 22.41 24 eP P 01 59 12.1 -0.2
comp=Z,50nm,1.0s
U35A Pawnee 22.43 353 P P 01 59 11.9 -0.7
baz=171,SNR=76
U35A Pawnee 22.43 353 eP P 01 59 11.2 -1.4
comp=Z,273nm,0.8s
U44B Burton Farm, H 22.45 8 P P 01 59 11.9 -0.8
baz=190
WVT Waverly 22.50 12 P P 01 59 11.9 -1.4
baz=194
WVT Waverly 22.50 12 eP P 01 59 12.4 -0.9
WVT pmax pmax
comp=Z,32nm,1.2s
WVT Waverly 22.50 12 eP P 01 59 12.4 -0.9
comp=Z,32nm,1.2s
319A Douglas 22.66 322 eP P 01 59 17.1 +1.9
comp=Z,33nm,0.9s
U46A Springville 22.66 11 P P 01 59 13.8 -1.2
baz=193,SNR=7.5
121A Cookes Peak, D 22.68 327 P P 01 59 15.8 +0.4
baz=141,SNR=25
121A Cookes Peak, D 22.68 327 eP P 01 59 16.4 +1.0
comp=Z,80nm,1.1s
CPCT Cooper Cave 22.70 19 eP P 01 59 15.7 +0.3
comp=Z,22nm,1.0s
PARMO Parma 22.72 7 eP P 01 59 16.4 +0.9
comp=Z,72nm,0.8s
SDV Santo Domingo 22.74 101 P P 01 59 15.5 -0.7
comp=Z,19nm,0.7s,baz=292,slow=5.4,SNR=22
SDV LR LR 02 08 44.5
comp=Z,457nm,20.5s,baz=251,slow=38
SDV Santo Domingo 22.74 101 eP P 01 59 16.9 +0.7
comp=Z,42nm,0.9s
PBMO Poplar Bluff 22.76 6 eP P 01 59 14.6 -1.4
comp=Z,49nm,0.6s
U32A Winter Ranch, 22.82 348 P P 01 59 16.4 -0.3
baz=165,SNR=9.8
BG3 Lake Jocassee 22.82 22 eP P 01 59 17.2 +0.5
comp=Z,52nm,1.0s
JSC Jenkinsville 22.87 26 eP P 01 59 16.7 -0.4
JSC pmax pmax
comp=Z,63nm,0.8s
JSC Jenkinsville 22.87 26 eP P 01 59 16.7 -0.4
comp=Z,63nm,0.8s
T39A Clever 22.87 360 P P 01 59 16.2 -1.0
baz=180,SNR=78
T38A Diamond 22.90 358 P P 01 59 16.6 -0.8
baz=177,SNR=96
T41A Mountain View 22.92 3 P P 01 59 16.6 -1.1
baz=184,SNR=76
T35A Sooner Cattle 22.95 353 P P 01 59 17.2 -0.8
baz=172,SNR=28
T42A Van Buren 22.95 4 P P 01 59 16.5 -1.5
baz=185,SNR=22
T40A Mansfield 23.00 1 P P 01 59 17.7 -0.9
baz=182,SNR=61
T37A Cheneyville 18 23.01 357 P P 01 59 17.5 -1.1
baz=176,SNR=91
T36A Boggs Farm, Ca 23.02 355 P P 01 59 17.4 -1.3
baz=173,SNR=49
T43A Greenville 23.08 6 P P 01 59 17.7 -1.6
baz=187,SNR=22
TKL Tuckaleechee C 23.13 20 P P 01 59 18.8 -1.0
comp=Z,15nm,0.7s,baz=196,slow=12,SNR=17
TKL PP PnPn 01 59 42.6 -3.6
comp=Z,20nm,0.8s,baz=203,slow=16,SNR=6.5
TKL LR LR 02 10 20.4
comp=Z,927nm,18.6s,baz=196,slow=42
TKL Tuckaleechee C 23.13 20 eP P 01 59 19.5 -0.3
TKL pmax pmax
comp=Z,52nm,1.0s
TKL Tuckaleechee C 23.13 20 eP P 01 59 19.5 -0.3
comp=Z,52nm,1.0s
TKL PP PnPn 01 59 42.6 -3.6
T34A McClaskey Farm 23.14 352 P P 01 59 18.8 -1.1
baz=170,SNR=51
U48A Cassie Pea, Po 23.14 14 P P 01 59 18.3 -1.7
baz=196
T44A Benton 23.16 7 P P 01 59 18.9 -1.2
baz=189
T45A Paducah 23.23 9 P P 01 59 19.9 -0.8
baz=191
BNM Barren Site 23.39 331 eP P 01 59 24.3 +1.6
S40A Lebanon 23.45 1 P P 01 59 21.9 -1.1
baz=182,SNR=42
Y22D IRIS PASSCAL I 23.46 330 P P 01 59 23.3 0.0
baz=145
Y22D IRIS PASSCAL I 23.46 330 eP P 01 59 24.5 +1.2
comp=Z,72nm,0.9s
Y22E IRIS PASSCAL I 23.47 330 P P 01 59 23.3 0.0
baz=145
S41A Jillco Farms, 23.47 3 P P 01 59 22.0 -1.1
baz=183,SNR=23
S38A Stockton 23.48 359 P P 01 59 22.3 -0.9
baz=178,SNR=92
T47A Sharon Grove 23.48 12 P P 01 59 21.9 -1.3
baz=195,SNR=8.8
LPM Los Pinos Moun 23.52 331 eP P 01 59 25.4 +1.5
S39A Bolivar 23.53 360 P P 01 59 23.0 -0.7
baz=180,SNR=86
KMSC Kings Mountain 23.57 25 P P 01 59 23.3 -0.8
baz=210,SNR=23
KMSC Kings Mountain 23.57 25 eP P 01 59 24.1 0.0
comp=Z,159nm,1.4s
S43A Fulton Ridge, 23.58 6 P P 01 59 22.8 -1.4
baz=187,SNR=17
S37A Fort Scott 23.64 357 P P 01 59 24.0 -0.8
baz=176,SNR=51
S36A Lake Cedric, C 23.66 355 P P 01 59 24.5 -0.4
baz=174,SNR=128
S35A Otter Creek Ra 23.68 354 P P 01 59 24.5 -0.6
baz=172,SNR=102
S42A Caledonia 23.71 5 P P 01 59 23.6 -1.8
baz=186,SNR=8.4
T48A Bowling Green 23.75 14 P P 01 59 24.5 -1.3
baz=196
S34A Willow Spring 23.79 352 P P 01 59 24.7 -1.4
baz=171,SNR=20
S44A Carbondale 23.80 8 P P 01 59 25.2 -1.0
baz=189,SNR=14
SIUC Southern Illin 23.83 8 eP P 01 59 26.1 -0.4
comp=Z,78nm,0.9s
LAZ Ladron 23.84 331 eP P 01 59 28.6 +1.8
S45A Carrier Mills 23.88 9 P P 01 59 25.7 -1.2
baz=191
FVM French Village 23.95 5 eP P 01 59 27.5 -0.2
FVM pmax pmax
comp=Z,17nm,0.8s
FVM French Village 23.95 5 eP P 01 59 27.5 -0.2
comp=Z,17nm,0.8s
CCM Cathedral Cave 23.96 4 P P 01 59 26.9 -0.8
baz=185
CCM Cathedral Cave 23.96 4 eP P 01 59 26.7 -1.0
CCM pmax pmax
comp=Z,143nm,1.4s
CCM Cathedral Cave 23.96 4 eP P 01 59 26.7 -1.0
comp=Z,143nm,1.4s
ANMO Albuquerque 23.97 332 P P 01 59 27.6 -0.5
comp=Z,2.7nm,0.6s,baz=324,slow=14,SNR=8.9
ANMO LR LR 02 10 08.0
comp=Z,597nm,20.4s,baz=288,slow=40
ANMO Albuquerque 23.97 332 P P 01 59 27.7 -0.3
baz=147
ANMO Albuquerque 23.97 332 ceP P 01 59 29.1 +1.0
ANMO pmax pmax
comp=Z,16nm,1.7s
ANMO Albuquerque 23.97 332 eP P 01 59 29.2 +1.1
comp=Z,13nm,0.9s
R38A Fenwick Farm, 24.03 359 P P 01 59 27.6 -0.8
baz=178,SNR=92
S46A Don Dixon Farm 24.03 11 P P 01 59 27.8 -0.5
baz=193
R40A Maddies Statio 24.15 2 P P 01 59 28.4 -1.0
baz=182,SNR=24
R39A Chumby, Stover 24.16 0 P P 01 59 28.8 -0.7
baz=180,SNR=49
R41A Rosebud 24.19 4 P P 01 59 28.5 -1.3
baz=184,SNR=38
R42A Luebbering 24.22 5 P P 01 59 28.6 -1.4
baz=186,SNR=15
TUC Tucson 24.22 322 P P 01 59 31.0 +0.7
baz=135
TUC Tucson 24.22 322 eP P 01 59 31.3 +1.0
TUC pmax pmax
comp=Z,65nm,1.3s
TUC Tucson 24.22 322 eP P 01 59 31.3 +1.0
comp=Z,65nm,1.3s
R36A Gordon, Harris 24.25 356 P P 01 59 29.4 -1.0
baz=174,SNR=29
R43A Red Bud 24.29 6 P P 01 59 29.6 -1.1
baz=188,SNR=10
R35A Emporia Munici 24.30 354 P P 01 59 30.2 -0.7
baz=173,SNR=16
USIN University of 24.32 11 eP P 01 59 29.8 -1.1
comp=Z,109nm,1.4s
R44A Waltonville 24.37 8 P P 01 59 31.3 -0.1
baz=190,SNR=5.9
R34A Isabella, Hill 24.40 352 P P 01 59 31.8 +0.1
baz=170,SNR=22
R45A Skylar, Fairfi 24.53 9 P P 01 59 32.2 -0.7
baz=191
R46A Gibon Southern 24.58 11 P P 01 59 32.8 -0.6
baz=193
SLM Saint Louis 24.62 6 eP P 01 59 34.1 +0.4
SLM pmax pmax
comp=Z,57nm,0.6s
SLM Saint Louis 24.62 6 eP P 01 59 34.1 +0.4
comp=Z,57nm,0.6s
Q37A Longview Farm, 24.74 358 P P 01 59 34.3 -0.5
baz=177,SNR=16
Q38A Cooks Store, C 24.80 359 P P 01 59 35.1 -0.3
baz=179,SNR=81
Q35A Mercer Eighty, 24.82 355 P P 01 59 35.7 +0.1

baz=173,SNR=52
**WCl Wyandotte Cave** 24.85 13 P P 01 59 34.7 -1.2
baz=196
**WCl Wyandotte Cave** 24.85 13 *e*P P 01 59 34.6 -1.2
WCl pmax pmax
comp=Z,55nm,0.9s
**WCl Wyandotte Cave** 24.85 13 *e*P P 01 59 34.6 -1.2
comp=Z,55nm,0.9s
**Q40A Laux Farm, Aux** 24.86 2 P P 01 59 35.4 -0.5
baz=182,SNR=23
**Q41A Truxton** 24.86 4 P P 01 59 35.4 -0.5
baz=184,SNR=31
**R47A Wooly Knot Far** 24.86 13 P P 01 59 35.0 -0.9
baz=195
**Q42A Golden Eagle** 24.87 5 P P 01 59 35.5 -0.4
baz=186,SNR=11
**Q36A Arnold C. Orve** 24.88 356 P P 01 59 36.0 -0.1
baz=175,SNR=6.9
**Q39A Willow Grove F** 24.89 0 P P 01 59 35.6 -0.5
baz=180,SNR=32
**Q34A Chapman** 24.98 353 P P 01 59 37.2 +0.3
baz=171,SNR=24
**Q43A New Douglas** 24.98 7 P P 01 59 36.1 -0.8
baz=188,SNR=8.1
**OLIL Olney** 24.99 10 *e*P P 01 59 39.2 +2.2
comp=Z,30nm,0.8s
**Q44A Meyer Farm, Va** 25.02 8 P P 01 59 36.7 -0.7
baz=190
**T25A Trinidad** 25.05 339 P P 01 59 38.7 +0.7
baz=154,SNR=27
**T25A Trinidad** 25.05 339 *e*P P 01 59 40.6 +2.7
comp=Z,122nm,1.4s
**R48A Northridge Ran** 25.10 14 P P 01 59 37.7 -0.4
baz=197
**KSU1 Kansas State U** 25.12 354 P P 01 59 38.3 0.0
baz=172,SNR=29
**KSU1 Kansas State U** 25.12 354 *e*P P 01 59 38.9 +0.7
comp=Z,152nm,0.7s
**Q45A Warren Harvey,** 25.14 9 P P 01 59 38.5 0.0
baz=191
**MHTCO State Highway** 25.14 338 *e*P P 01 59 41.1 +2.4
comp=Z,57nm,1.0s
**CNNC Cliffs of the** 25.22 31 *e*P P 01 59 39.0 -0.1
comp=Z,133nm,1.2s
**CBKS Cedar Bluff** 25.31 348 P P 01 59 40.0 0.0
baz=165,SNR=8.1
**CBKS Cedar Bluff** 25.31 348 *e*P P 01 59 42.0 +1.9
CBKS pmax pmax
comp=Z,79nm,0.7s
**CBKS Cedar Bluff** 25.31 348 *e*P P 01 59 42.0 +1.9
comp=Z,80nm,0.7s
**P39B Salisbury** 25.33 1 P P 01 59 39.3 -0.9
baz=181,SNR=37
**X18A Snowflake** 25.37 326 *e*P P 01 59 42.5 +1.7
comp=Z,98nm,1.8s
**P40A Paris** 25.39 2 P P 01 59 39.9 -0.7
baz=182,SNR=31
**P37A Lathrop** 25.45 358 P P 01 59 41.1 -0.1
baz=177,SNR=67
**P38A Dawn** 25.46 359 P P 01 59 41.1 -0.3
baz=179,SNR=44
**P35A Duane Minner,** 25.48 355 P P 01 59 41.8 +0.2
baz=174,SNR=39
**Q47A Bedord North L** 25.50 12 P P 01 59 41.1 -0.5
baz=195
**P36A Good Intent, A** 25.52 356 P P 01 59 41.8 0.0
baz=175,SNR=44
**P42A Winchester** 25.55 5 P P 01 59 41.7 -0.5
baz=186,SNR=7.9
**P34A Walnut Farm, R** 25.58 354 P P 01 59 43.0 +0.6
baz=172,SNR=51
**P41A Barry, Barry** 25.59 4 P P 01 59 41.7 -0.8
baz=185,SNR=16
**P43A Skaggs, Pawnee** 25.69 7 P P 01 59 42.9 -0.5
baz=188
**W18A Petrified Fore** 25.70 328 P P 01 59 45.2 +1.4
baz=141,SNR=8.6
**W18A Petrified Fore** 25.70 328 *e*P P 01 59 45.4 +1.6
comp=Z,46nm,1.5s
**ATAH Atahualpa** 25.70 144 LR LR 02 08 09.1
comp=Z,996nm,18.1s,baz=295,slow=33
**BLO Bloomington** 25.70 12 *e*P P 01 59 42.4 -1.1
BLO pmax pmax
comp=Z,20nm,0.6s
**BLO Bloomington** 25.70 12 *e*P P 01 59 42.4 -1.1
comp=Z,20nm,0.6s
**BLA Blacksburg** 25.73 24 *e*P P 01 59 45.4 +1.5
BLA pmax pmax
comp=Z,60nm,1.0s
**BLA Blacksburg** 25.73 24 *e*P P 01 59 45.4 +1.5
comp=Z,60nm,1.0s
**P45A Graceland, Par** 25.82 10 P P 01 59 44.5 -0.1
baz=192
**O38A Galt** 25.96 360 P P 01 59 46.0 +0.1
baz=179,SNR=16
**SDCO Great Sand Dun** 25.98 337 P P 01 59 46.9 +0.4
baz=152,SNR=19
**SDCO Great Sand Dun** 25.98 337 *e*P P 01 59 48.4 +1.9
comp=Z,32nm,1.1s
**O40A La Belle** 25.99 2 P P 01 59 45.4 -0.7
baz=183,SNR=16
**P46A Rosedale** 26.00 11 P P 01 59 45.4 -0.9
baz=193
**O36A Bolckow** 26.01 357 P P 01 59 45.8 -0.6
baz=176,SNR=14
**O37A Wolven Farm, M** 26.02 358 P P 01 59 46.2 -0.2
baz=178,SNR=23
**O41A Passleys Farm,** 26.04 4 P P 01 59 46.2 -0.3
baz=185,SNR=14
**P47A Martinsville** 26.06 12 P P 01 59 45.1 -1.6
baz=195
**O39A Kirksville** 26.10 1 P P 01 59 46.9 -0.2
baz=181,SNR=11
**X16A Lo Mia Camp, P** 26.11 324 *e*P P 01 59 49.0 +1.5
comp=Z,27nm,1.2s
**O33A Hebron** 26.19 352 P P 01 59 48.7 +0.7
baz=170,SNR=29
**KSCO Kaye Shedlock'** 26.20 343 P P 01 59 48.4 +0.2
baz=159,SNR=5.9
**KSCO Kaye Shedlock'** 26.20 343 *e*P P 01 59 50.7 +2.5
comp=Z,85nm,1.3s
**O34A Beatrice** 26.20 354 P P 01 59 48.3 +0.3
baz=172,SNR=53
**O35A Humboldt** 26.21 355 P P 01 59 47.8 -0.3
baz=174,SNR=10
**O44A Mansfield** 26.32 8 P P 01 59 47.8 -1.4
baz=190
**SJG San Juan** 26.33 78 LR LR 02 10 20.7
comp=Z,436nm,21.3s,baz=259,slow=37
**O43A Sugar Creek Fa** 26.35 7 P P 01 59 48.4 -1.0
baz=188
**113A Mohawk Valley,** 26.40 318 *e*P P 01 59 50.8 +0.9
comp=Z,68nm,1.8s
**S22A 4UR Ranch, Cre** 26.50 335 P P 01 59 51.5 +0.3
baz=149,SNR=17
**S22A 4UR Ranch, Cre** 26.50 335 *e*P P 01 59 53.2 +2.1
comp=Z,33nm,1.4s
**O45A Potomac** 26.53 9 P P 01 59 50.2 -0.9
baz=192
**N37A Lee Faris, Mou** 26.61 358 P P 01 59 51.5 -0.2
baz=178,SNR=16
**HDIL Hopedale** 26.62 7 P P 01 59 50.6 -1.2
baz=188
**HDIL Hopedale** 26.62 7 *e*P P 01 59 50.8 -1.0
comp=Z,31nm,0.8s
**N41A Harden Midland** 26.63 4 P P 01 59 51.3 -0.6
baz=185
**N38A Joes South For** 26.63 0 P P 01 59 51.6 -0.4
baz=180,SNR=44
**Y14A Wickenburg** 26.69 321 *e*P P 01 59 53.7 +1.0
comp=Z,86nm,1.0s
**N36A Muff Farm, Cla** 26.70 357 P P 01 59 52.0 -0.5
baz=176,SNR=9.4
**N39A Derby Farms, D** 26.72 1 P P 01 59 51.9 -0.8
baz=181,SNR=18
**N40A Mertquake, Sal** 26.76 3 P P 01 59 52.6 -0.4
baz=183,SNR=9.4
**SFIN Lafayette** 26.76 10 P P 01 59 51.3 -1.8
baz=193
**SFIN Lafayette** 26.76 10 *e*P P 01 59 51.5 -1.6
comp=Z,28nm,0.9s
**MVCO Mesa Verde** 26.77 332 P P 01 59 54.0 +0.5
baz=146,SNR=15
**MVCO Mesa Verde** 26.77 332 *e*P P 01 59 55.2 +1.7
comp=Z,48nm,1.4s
**N35A Tabor** 26.78 356 P P 01 59 53.4 +0.1
baz=175,SNR=16
**O47A Sheridan** 26.80 12 P P 01 59 52.4 -1.1
baz=195
**N42A Yates City** 26.81 5 P P 01 59 53.7 +0.1
baz=187
**N34A Lincoln** 26.83 355 P P 01 59 54.1 +0.4
baz=173,SNR=11
**N33A J Bar K, Exete** 26.83 353 P P 01 59 54.1 +0.4
baz=171,SNR=5.6
**WUAZ Wupatki** 26.88 326 P P 01 59 55.2 +0.8
baz=138,SNR=17
**WUAZ Wupatki** 26.88 326 *e*P P 01 59 56.0 +1.5
comp=Z,28nm,1.0s
**Q24A Divide** 26.94 339 P P 01 59 54.7 -0.5
baz=154
**Q24A Divide** 26.94 339 *e*P P 01 59 57.8 +2.7
comp=Z,30nm,1.3s
**N44A Piper City** 27.00 9 P P 01 59 53.9 -1.4
baz=191
**N43A Stutzman Famil** 27.01 7 P P 01 59 55.4 0.0
baz=188,SNR=5.6
**JSRW J. Sargeant Re** 27.21 27 *e*P P 01 59 57.2 0.0
**M37A Trindle Farm,** 27.25 359 P P 01 59 57.3 -0.2
baz=178,SNR=20
**M38A Pleasantville** 27.25 0 P P 01 59 56.9 -0.6
baz=180,SNR=33
**GLA Glamis** 27.26 318 P P 01 59 58.4 +0.6
baz=129,SNR=14
**GLA Glamis** 27.26 318 *e*P P 01 59 58.9 +1.1
GLA pmax pmax
comp=Z,58nm,1.4s
**GLA Glamis** 27.26 318 *e*P P 01 59 58.9 +1.1
comp=Z,58nm,1.4s
**URVA University of** 27.27 28 *e*P P 01 59 58.0 +0.3
**M40A Post Highland** 27.28 3 P P 01 59 57.3 -0.5
baz=184,SNR=10
**M41A Milan** 27.31 4 P P 01 59 57.1 -1.0
baz=186
**M36A Felix, Anita** 27.32 357 P P 01 59 57.8 -0.3
baz=177,SNR=7.1
**M39A Webster** 27.33 2 P P 01 59 57.9 -0.4
baz=182,SNR=9.5
**IP07 Quail** 27.33 27 *e*P P 01 59 58.7 +0.4
comp=Z,85nm,1.7s
**IP06 Yanceyville** 27.37 27 *e*P P 01 59 58.9 +0.4
comp=Z,28nm,1.1s
**IP05 Hopewell Churc** 27.38 27 *e*P P 01 59 58.8 +0.1
comp=Z,26nm,1.0s
**M35A Neola** 27.39 356 P P 01 59 58.6 -0.2
baz=175,SNR=12
**IP01 Cuckoo** 27.42 27 *e*P P 01 59 59.5 +0.4
comp=Z,94nm,1.8s
**IP03 Louisa** 27.42 27 *e*P P 01 59 59.5 +0.4
comp=Z,77nm,1.9s
**IP04 Greensprings** 27.45 27 *e*P P 01 59 59.8 +0.5
comp=Z,15nm,1.0s
**SPRD Spring Road, M** 27.48 27 *e*P P 01 59 60.0 +0.3
comp=Z,20nm,1.1s
**M34A Aspy Farms, Fr** 27.49 355 P P 01 59 59.5 -0.2
baz=173
**Y12C Blythe** 27.51 319 P P 02 00 00.2 +0.3
baz=130
**Y12C Blythe** 27.51 319 *e*P P 02 00 01.4 +1.5
comp=Z,15nm,1.0s
**M43A Waltham Townsh** 27.53 7 P P 02 00 00.1 +0.1
baz=189
**PV01 Paradox Valley** 27.56 333 *e*P P 02 00 02.5 +1.8
**ACSO Alum Creek Sta** 27.58 17 P P 02 00 00.2 -0.2
baz=202
**BGNE Belgrade** 27.58 352 P P 02 00 00.7 +0.2
baz=170,SNR=5.7
**BGNE Belgrade** 27.58 352 *e*P P 02 00 01.9 +1.5
comp=Z,51nm,0.6s
**M33A Taylor Creek F** 27.62 354 P P 02 00 01.4 +0.5
baz=172,SNR=6.8
**PDMCI Parker Dam, Lak** 27.64 320 P P 02 00 01.9 +0.9
baz=132,SNR=16
**SCIA State Center** 27.74 0 P P 02 00 02.1 +0.2
baz=180
**SCIA State Center** 27.74 0 *e*P P 02 00 02.5 +0.6
comp=Z,36nm,0.7s
**PV05 Paradox Valley** 27.75 332 *e*P P 02 00 04.2 +1.9
**SMCO Snowmass** 27.80 337 *e*P P 02 00 04.9 +2.1
comp=Z,36nm,1.4s
**SWSC Sam W. Stewart** 27.84 316 P P 02 00 03.8 +0.9
baz=127,SNR=5.6
**ISCO Idaho Springs** 27.85 339 P P 02 00 04.1 +0.8
baz=154,SNR=11
**ISCO Idaho Springs** 27.85 339 *e*P P 02 00 05.2 +2.0
ISCO pmax pmax
comp=Z,26nm,1.4s
**ISCO Idaho Springs** 27.85 339 *e*P P 02 00 05.2 +2.0
comp=Z,26nm,1.4s
**OGNE Ogallala** 27.86 346 P P 02 00 02.7 -0.4
baz=162,SNR=7.7
**OGNE Ogallala** 27.86 346 *e*P P 02 00 05.7 +2.6
comp=Z,130nm,1.2s
**IKP In-Ko-Pah, Jac** 27.88 315 P P 02 00 03.7 +0.3
baz=126
**PV04 Paradox Valley** 27.93 333 *e*P P 02 00 04.7 +0.9
**L34A Svendsen Farm,** 27.93 355 P P 02 00 03.5 -0.2
baz=173,SNR=15
**L40A Anamosa** 27.95 3 P P 02 00 03.2 -0.6
baz=184,SNR=9.2
**L36A Harn Buss Farm** 27.96 358 P P 02 00 03.6 -0.3
baz=177,SNR=7.4
**L37A Phoenix Point,** 27.96 359 P P 02 00 03.4 -0.5
baz=179,SNR=6.8
**PV10 Paradox Valley** 27.97 333 *e*P P 02 00 05.4 +1.1
**L38A Oak Wood Farm,** 27.98 0 P P 02 00 04.2 +0.2
baz=180
**L39A Vinton** 27.98 2 P P 02 00 03.6 -0.4
baz=182
**L41A Preston** 28.01 4 P P 02 00 04.2 0.0
baz=186
**L42A Oliver, Polo** 28.01 6 P P 02 00 04.2 -0.1
baz=187
**W13A Hualapai Mount** 28.02 322 *e*P P 02 00 06.2 +1.5
comp=Z,26nm,1.1s
**L35A Bielow Farm, R** 28.02 356 P P 02 00 04.4 0.0
baz=175,SNR=5.3
**BC3 Big Chuckawall** 28.05 318 P P 02 00 05.6 +0.7
baz=129,SNR=25
**U15A North Rim** 28.05 326 *e*P P 02 00 06.9 +1.8
comp=Z,23nm,1.1s
**PV09 Paradox Valley** 28.11 333 *e*P P 02 00 07.6 +2.0
**L32A Elgin** 28.15 352 P P 02 00 06.3 +0.7
baz=170,SNR=7.0
**IRM Iron Mountain** 28.17 319 P P 02 00 06.6 +0.8
baz=130,SNR=16
**L33A Hoskins** 28.22 354 P P 02 00 07.1 +0.9
baz=172
**PCRV Puerto La Cruz** 28.22 95 P P 02 00 06.6 +0.1
comp=Z,5.6nm,0.7s,baz=282,slow=9.3,SNR=2.4
PCRV LR LR 02 12 39.1
comp=Z,219nm,18.9s,baz=294,slow=39
**MONP2 Monument Peak** 28.23 316 P P 02 00 07.0 +0.4
baz=126
**NEE2 Needles Airpor** 28.24 321 P P 02 00 07.2 +0.8
baz=132
**BAR Barrett** 28.28 315 *e*P P 02 00 08.1 +1.3
comp=Z,27nm,1.4s
**K38A Parkersburg** 28.48 1 P P 02 00 08.9 +0.4
baz=181
**K36A Gilmore City** 28.49 358 P P 02 00 08.6 +0.1
baz=177,SNR=12
**K41A Shullsburg** 28.55 5 P P 02 00 08.7 -0.4
baz=186,SNR=6.1
**K39A Oelwein** 28.56 2 P P 02 00 08.5 -0.7
baz=183
**K40A Colesburg** 28.59 3 P P 02 00 09.0 -0.4
baz=184,SNR=9.7
**K37A Belmond** 28.60 359 P P 02 00 09.5 -0.1
baz=179,SNR=9.0
**K35A Storm Lake** 28.61 357 P P 02 00 10.2 +0.6
baz=176
**BELC Belle Mtn. Jos** 28.62 318 P P 02 00 10.7 +0.7
baz=129,SNR=9.0
**K33A Hardington** 28.63 354 P P 02 00 10.4 +0.6
baz=172
**K34A Le Mars** 28.63 356 P P 02 00 09.9 +0.1
baz=174,SNR=7.8
**XPFO Piæon Flat** 28.68 317 *e*P P 02 00 12.1 +1.6
comp=Z,36nm,1.7s
XPFO *e*pP **pP** 02 00 19.8 -2.1
**PFO Pinyon Flats O** 28.68 317 P P 02 00 11.4 +0.8
comp=Z,4.3nm,0.9s,baz=112,slow=9.6,SNR=5.0
PFO LR LR 02 12 34.1
comp=Z,830nm,18.2s,baz=134,slow=38
**PFO Pinyon Flats O** 28.68 317 P P 02 00 11.2 +0.7
baz=127
**PFO Pinyon Flats O** 28.68 317 *e*P P 02 00 12.1 +1.6
PFO *e**PP **pP** 02 00 19.8 -2.1
PFO pmax pmax
comp=Z,31nm,1.6s
**PFO Pinyon Flats O** 28.68 317 *e*P P 02 00 12.1 +1.6
comp=Z,31nm,1.6s
PFO *e*pP **pP** 02 00 19.8 -2.1
**109C Camp Elliot, M** 28.70 315 P P 02 00 11.7 +1.2
baz=125
**LDFC Landfair** 28.74 321 *e*P P 02 00 13.3 +2.3
comp=Z,59nm,1.3s
**K32A Verdigre** 28.79 353 P P 02 00 11.4 +0.2
baz=170,SNR=7.9
**K31A O'Neill** 28.85 352 P P 02 00 12.6 +0.7
baz=169,SNR=9.0
**JFWS Jewell Farm** 28.86 5 P P 02 00 12.1 +0.2
baz=186,SNR=6.9
**JFWS Jewell Farm** 28.86 5 *e*P P 02 00 12.8 +0.9
JFWS pmax pmax
comp=Z,27nm,0.8s
**JFWS Jewell Farm** 28.86 5 *e*P P 02 00 12.8 +0.9
comp=Z,27nm,0.8s
**GMRC Granite Mounta** 28.90 319 P P 02 00 13.1 +0.6
baz=130,SNR=9.8
**N23A Red Feather La** 28.94 340 P P 02 00 13.4 +0.5
baz=154
**N23A Red Feather La** 28.94 340 *e*P P 02 00 18.6 +5.7
comp=Z,20nm,1.3s
**LCMT Little Creek M** 29.00 326 *e*P P 02 00 15.2 +1.9
comp=Z,17nm,1.3s
**O20A White River Ci** 29.11 336 *e*P P 02 00 16.4 +2.0
comp=Z,17nm,1.0s
**J37A Redenius Farm,** 29.15 360 P P 02 00 14.2 -0.2
baz=179,SNR=5.3
**PHWY Pilot Hill** 29.15 341 *e*P P 02 00 16.7 +1.9
comp=Z,30nm,1.5s
**J38A Wedel Dairy, R** 29.16 1 P P 02 00 13.6 -0.9
baz=181
**MURC Murrieta** 29.17 316 P P 02 00 13.4 -1.4
baz=126
**J36A Seneca 1, Swea** 29.18 358 P P 02 00 13.9 -0.8
baz=178,SNR=11
**N54A Moraine State** 29.19 21 P P 02 00 13.6 -1.2
baz=207
**J39A Decorah** 29.20 2 P P 02 00 13.9 -0.9
baz=183
**MTPU Mount Pierson** 29.20 328 *e*P P 02 00 17.4 +2.0
comp=Z,25nm,1.1s
**J34A George** 29.21 356 P P 02 00 14.7 -0.3
baz=174,SNR=5.1
**SRU San Rafael Swe** 29.24 332 *e*P P 02 00 17.3 +1.8
SRU pmax pmax
comp=Z,62nm,2.0s
**SRU San Rafael Swe** 29.24 332 *e*P P 02 00 17.3 +1.8
comp=Z,62nm,2.0s
**J35A Milford** 29.25 357 P P 02 00 15.2 -0.2
baz=176,SNR=10
**J40A Soldiers Grove** 29.31 4 P P 02 00 15.1 -0.8
baz=185
**J33A Davis** 29.33 354 P P 02 00 16.5 +0.5
baz=172,SNR=7.7
**J41A Loganville** 29.33 5 P P 02 00 14.7 -1.3
baz=186
**SZCU Shurtz Canyon** 29.34 327 *e*P P 02 00 18.5 +2.1
comp=Z,44nm,1.2s
SZCU *e*PcP **PcP** 02 03 23.1 +0.9
**J42A Columbus** 29.37 6 P P 02 00 15.9 -0.4
baz=188
**Q16A Castle Valley** 29.39 331 *e*P P 02 00 19.1 +2.2
comp=Z,30nm,1.0s
**CCUT Cedar City** 29.46 326 *e*P P 02 00 19.7 +2.3
comp=Z,25nm,1.1s
**J32A Parkston** 29.47 353 P P 02 00 17.7 +0.4
baz=171,SNR=11
**TUQ Turquoise Moun** 29.48 320 P P 02 00 18.6 +1.0
baz=131,SNR=9.7
**J31A Geddes** 29.51 352 P P 02 00 17.7 +0.1
baz=169,SNR=6.5
**P18A Preston Nutter** 29.53 333 *e*P P 02 00 20.3 +2.0
comp=Z,68nm,2.0s
**MSU Marysvale** 29.56 329 *e*P P 02 00 20.6 +2.2
MSU *e* 02 03 23.7
**MSU Marysvale** 29.56 329 *e*P P 02 00 20.6 +2.2
MSU *e*PcP **PcP** 02 03 23.7 +0.9
**P17A Butcher Ranch,** 29.63 332 *e*P P 02 00 20.9 +2.0
comp=Z,23nm,0.8s
**TMUT Trail Mountain** 29.70 331 *e*P P 02 00 21.8 +2.1
comp=Z,16nm,0.7s
**ECSD EROS Data Cent** 29.71 355 P P 02 00 19.2 -0.1
baz=173,SNR=20
**ECSD EROS Data Cent** 29.71 355 *e*P P 02 00 19.0 -0.3
comp=Z,54nm,1.4s
**I39A Houston** 29.73 3 P P 02 00 19.7 +0.2
baz=183,SNR=8.4
**I35A Creekview Farm** 29.73 357 P P 02 00 19.9 +0.4
baz=176,SNR=11
**SHPR Sheep Range** 29.73 323 *e*P P 02 00 21.7 +1.8
comp=Z,33nm,1.5s
**MVL Millersville** 29.79 27 *e*P P 02 00 20.4 +0.4
comp=Z,64nm,1.7s
**I37A Lemond, Waseca** 29.85 360 P P 02 00 21.3 +0.7
baz=180,SNR=9.2
**BFSC Mount Baldy Ra** 29.86 317 P P 02 00 20.7 -0.3
baz=126
**I36A Fitzsimmons Fa** 29.86 359 P P 02 00 20.4 -0.3
baz=178
**I38A Scanlan Farm,** 29.89 1 P P 02 00 20.6 -0.4
baz=182
**GSC Goldstone, Bar** 29.95 319 P P 02 00 22.1 +0.3
baz=129
**GSC Goldstone, Bar** 29.95 319 *e*PcP **PcP** 02 03 23.9 +0.3
**I42A Draeger Farm,** 29.96 6 P P 02 00 20.6 -1.0
baz=188
**I34A Hadley** 29.96 356 P P 02 00 21.2 -0.4
baz=175,SNR=12
**I33A Coleman** 30.04 355 P P 02 00 22.5 +0.2
baz=173
**RWWY Rawlins** 30.08 339 *e*P P 02 00 25.3 +2.3
comp=Z,64nm,1.4s
**MWC Mount Wilson** 30.12 316 *e*P P 02 00 24.8 +1.5
MWC pmax pmax
comp=Z,33nm,1.2s
**MWC Mount Wilson** 30.12 316 *e*P P 02 00 24.8 +1.5
comp=Z,33nm,1.2s
**I31A Royce, Wessing** 30.21 352 P P 02 00 24.0 +0.2
baz=170
**H36A Jessenland, He** 30.42 359 P P 02 00 25.6 0.0
baz=178
**PSUT Pine Spring** 30.44 327 *e*P P 02 00 28.6 +2.4
comp=Z,19nm,0.9s
**EDW2 Edwards Air Fo** 30.46 317 P P 02 00 25.7 -0.6
baz=127
**MPU Maple Canyon** 30.48 331 *e*P P 02 00 28.3 +1.9
comp=Z,28nm,1.4s
MPU *e*PcP **PcP** 02 03 25.8 +0.8
**H38A Maiden Rock** 30.52 1 P P 02 00 25.6 -0.9
baz=182
**H32A Carlson Farm,** 30.55 354 P P 02 00 26.6 -0.2
baz=172,SNR=14
**H40A Chili** 30.55 4 P P 02 00 25.9 -0.9
baz=185
**H39A Augusta** 30.56 3 P P 02 00 27.1 +0.3
baz=184,SNR=16
**H35A Sunnyside Ranc** 30.56 358 P P 02 00 27.1 +0.2
baz=177,SNR=6.7
**H34A Spellman Lake,** 30.58 356 P P 02 00 26.9 -0.1
baz=175
**LRMC Laurel Mtn Rad** 30.62 318 P P 02 00 28.3 +0.5
baz=128,SNR=7.5
**NLU North Lily Min** 30.64 331 *e*P P 02 00 30.0 +2.2
comp=Z,23nm,1.3s
NLU *e*PcP **PcP** 02 03 26.0 +0.5
**H31A Wolsey** 30.64 353 P P 02 00 28.2 +0.6
baz=170,SNR=6.2
**H33A Prehn Over Nor** 30.66 355 P P 02 00 27.9 +0.1
baz=173,SNR=9.4
**SUSD Miller** 30.67 352 P P 02 00 28.6 +0.8
baz=169
**TPNV Topopah Spring** 30.68 322 P P 02 00 29.0 +0.8
baz=132,SNR=12
**TPNV Topopah Spring** 30.68 322 *e*P P 02 00 30.5 +2.3
TPNV *e* 02 03 26.3
TPNV pmax pmax
comp=Z,22nm,1.3s
**TPNV Topopah Spring** 30.68 322 *e*P P 02 00 30.5 +2.3
comp=Z,22nm,1.3s
TPNV *e*PcP **PcP** 02 03 26.3 +0.7

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| LUPA | Lehigh Univers | 30.71 | 27 | eP | | P | 02 00 29.1 | +0.9 | |
| | comp=Z,1.5nm,0.8s | | | | | | | | |
| K22A | Casper | 30.71 | 341 | P | | P | 02 00 29.4 | +1.0 | |
| | baz=154,SNR=12 | | | | | | | | |
| K22A | Casper | 30.71 | 341 | eP | | P | 02 00 30.3 | +1.9 | |
| | comp=Z,21nm,0.9s | | | | | | | | |
| FURC | Furnace Creek, | 30.73 | 321 | P | | P | 02 00 29.4 | +1.0 | |
| | baz=131,SNR=7.6 | | | | | | | | |
| MPMC | Manual Prospec | 30.86 | 320 | P | | P | 02 00 30.4 | +0.5 | |
| | baz=129,SNR=12 | | | | | | | | |
| JLU | Jordanelle | 30.86 | 332 | eP | | P | 02 00 31.9 | +2.0 | |
| | comp=Z,6.3nm,0.9s | | | | | | | | |
| G38A | Ridgeland | 31.03 | 2 | P | | P | 02 00 30.9 | -0.1 | |
| | baz=182,SNR=15 | | | | | | | | |
| DAC | Darwin (Calif) | 31.06 | 320 | eP | | P | 02 00 32.7 | +1.1 | |
| DAC | | | | pmax | pmax | | | | |
| | comp=Z,26nm,1.4s | | | | | | | | |
| DAC | Darwin (Calif) | 31.06 | 320 | eP | | P | 02 00 32.7 | +1.1 | |
| | comp=Z,26nm,1.4s | | | | | | | | |
| SPMN | Marine on St. | 31.06 | 1 | P | | P | 02 00 31.3 | 0.0 | |
| | baz=181 | | | | | | | | |
| SPMN | Marine on St. | 31.06 | 1 | eP | | P | 02 00 27.3 | -4.0 | |
| | comp=Z,46nm,0.6s | | | | | | | | |
| SPMN | | | | eS | | S | 02 05 36.6 | +3.0 | |
| CTU | Camp Tracy | 31.07 | 332 | eP | | P | 02 00 33.7 | +2.0 | |
| | comp=Z,20nm,1.2s | | | | | | | | |
| G34A | Benson | 31.14 | 357 | P | | P | 02 00 31.7 | -0.3 | |
| | baz=175,SNR=6.4 | | | | | | | | |
| G33A | Ortonville | 31.15 | 356 | P | | P | 02 00 31.8 | -0.3 | |
| | baz=174,SNR=10 | | | | | | | | |
| ARVC | Arvin | 31.16 | 317 | P | | P | 02 00 32.9 | +0.6 | |
| | baz=126 | | | | | | | | |
| G39A | Holcombe | 31.17 | 3 | P | | P | 02 00 32.0 | -0.3 | |
| | baz=184,SNR=6.2 | | | | | | | | |
| DUG | Dugway, Tooele | 31.18 | 330 | P | | P | 02 00 33.5 | +1.0 | |
| | baz=141,SNR=10 | | | | | | | | |
| DUG | Dugway, Tooele | 31.18 | 330 | eP | | P | 02 00 34.3 | +1.8 | |
| DUG | | | | e | | | 02 03 27.2 | | |
| DUG | | | | pmax | pmax | | | | |
| | comp=Z,42nm,1.8s | | | | | | | | |
| DUG | Dugway, Tooele | 31.18 | 330 | eP | | P | 02 00 34.3 | +1.8 | |
| | comp=Z,42nm,1.8s | | | | | | | | |
| DUG | | | | ePcP | | PcP | 02 03 27.2 | +0.3 | |
| R11A | Troy Canyon, C | 31.25 | 325 | P | | P | 02 00 34.5 | +1.2 | |
| | baz=135,SNR=14 | | | | | | | | |
| R11A | Troy Canyon, C | 31.25 | 325 | eP | | P | 02 00 35.1 | +1.8 | |
| | comp=Z,14nm,1.1s | | | | | | | | |
| TCUT | Toone Canyon | 31.26 | 333 | eP | | P | 02 00 35.6 | +2.2 | |
| | comp=Z,65nm,0.9s | | | | | | | | |
| G32A | Webster | 31.30 | 354 | P | | P | 02 00 33.5 | +0.1 | |
| | baz=172,SNR=9.1 | | | | | | | | |
| G31A | Conde | 31.34 | 353 | P | | P | 02 00 34.0 | +0.2 | |
| | baz=171 | | | | | | | | |
| RSSD | Black Hills | 31.35 | 345 | P | | P | 02 00 35.9 | +1.8 | |
| | baz=160 | | | | | | | | |
| RSSD | Black Hills | 31.35 | 345 | eP | | P | 02 00 36.3 | +2.2 | |
| RSSD | | | | pmax | pmax | | | | |
| | comp=Z,20nm,0.7s | | | | | | | | |
| RSSD | Black Hills | 31.35 | 345 | eP | | P | 02 00 36.3 | +2.2 | |
| | comp=Z,20nm,0.7s | | | | | | | | |
| GRAC | Grapevine Rang | 31.38 | 321 | P | | P | 02 00 35.4 | +1.2 | |
| | baz=130,SNR=5.6 | | | | | | | | |
| CWC | Cottonwood Cre | 31.47 | 320 | P | | P | 02 00 35.6 | +0.4 | |
| | baz=129 | | | | | | | | |
| F37A | Hinrichs Farm, | 31.56 | 1 | P | | P | 02 00 35.5 | -0.2 | |
| | baz=181 | | | | | | | | |
| F34A | Alexandria | 31.68 | 357 | P | | P | 02 00 36.4 | -0.3 | |
| | baz=176 | | | | | | | | |
| PKM | Mcpherson Peak | 31.68 | 316 | P | | P | 02 00 38.1 | +1.0 | |
| | baz=124,SNR=5.5 | | | | | | | | |
| F36A | Milaca | 31.70 | 360 | P | | P | 02 00 36.9 | 0.0 | |
| | baz=179 | | | | | | | | |
| F35A | Swanville | 31.71 | 358 | P | | P | 02 00 36.9 | -0.1 | |
| | baz=177 | | | | | | | | |
| VES | Vestal, Richgr | 31.75 | 318 | P | | P | 02 00 38.3 | +0.9 | |
| | baz=127,SNR=13 | | | | | | | | |
| F41A | Three Lakes | 31.77 | 6 | P | | P | 02 00 37.1 | -0.4 | |
| | baz=188 | | | | | | | | |
| F33A | 5 Mile Ranch, | 31.78 | 356 | P | | P | 02 00 37.1 | -0.5 | |
| | baz=174 | | | | | | | | |
| F39A | Loretta | 31.81 | 3 | P | | P | 02 00 37.1 | -0.8 | |
| | baz=184 | | | | | | | | |
| F38A | Pierce - Schro | 31.81 | 2 | P | | P | 02 00 38.2 | +0.3 | |
| | baz=182,SNR=7.7 | | | | | | | | |
| BGU | Big Grassy Mou | 31.85 | 331 | eP | | P | 02 00 40.2 | +1.7 | |
| | comp=Z,13nm,1.1s | | | | | | | | |
| BGU | | | | ePcP | | PcP | 02 03 29.0 | +0.4 | |
| F40A | Park Falls | 31.86 | 4 | P | | P | 02 00 37.6 | -0.8 | |
| | baz=186 | | | | | | | | |
| BW06 | Boulder Array | 31.88 | 337 | P | | P | 02 00 39.3 | +0.5 | |
| | baz=149,SNR=7.0 | | | | | | | | |
| BW06 | Boulder Array | 31.88 | 337 | eP | | P | 02 00 40.0 | +1.2 | |
| | comp=Z,9.8nm,1.1s | | | | | | | | |
| PD31 | Pinedale Array | 31.88 | 337 | eP | | P | 02 00 40.0 | +1.2 | |
| PD31 | | | | ePcP | | PcP | 02 03 27.9 | -0.8 | |
| PDAR | Pinedale Array | 31.88 | 337 | P | | P | 02 00 39.5 | +0.8 | |
| | comp=Z,3.0nm,0.8s,baz=130,slow=8.4,SNR=23 | | | | | | | | |
| PDAR | | | | PcP | | PcP | 02 03 27.9 | -0.8 | |
| | comp=Z,2.1nm,0.9s,baz=159,slow=2.6,SNR=4.3 | | | | | | | | |
| PDAR | | | | LR | | LR | 02 15 25.2 | | |
| | comp=Z,316nm,18.9s,baz=148,slow=40 | | | | | | | | |
| SPUT | South Promonto | 31.88 | 332 | eP | | P | 02 00 40.9 | +2.1 | |
| | comp=Z,25nm,1.3s | | | | | | | | |
| SPUT | | | | ePcP | | PcP | 02 03 29.2 | +0.4 | |
| F31A | Hecla | 31.98 | 353 | P | | P | 02 00 38.5 | -0.8 | |
| | baz=171 | | | | | | | | |
| RCTC | Rector, Farmer | 32.13 | 318 | P | | P | 02 00 41.6 | +0.8 | |
| | baz=127 | | | | | | | | |
| E36A | McGregor | 32.35 | 360 | P | | P | 02 00 42.1 | -0.5 | |
| | baz=180,SNR=8.0 | | | | | | | | |
| E34A | Wadena | 32.39 | 358 | P | | P | 02 00 42.7 | -0.2 | |
| | baz=176,SNR=7.5 | | | | | | | | |
| E40A | Wakefield | 32.40 | 4 | P | | P | 02 00 42.3 | -0.8 | |
| | baz=186 | | | | | | | | |
| E35A | Pequot Lakes | 32.41 | 359 | P | | P | 02 00 42.9 | -0.2 | |
| | baz=178,SNR=19 | | | | | | | | |
| E33A | Westby DABS, E | 32.42 | 356 | P | | P | 02 00 42.9 | -0.3 | |
| | baz=175 | | | | | | | | |
| E38A | The Farm, Brul | 32.47 | 2 | P | | P | 02 00 43.1 | -0.6 | |
| | baz=183 | | | | | | | | |
| E41A | Kenton | 32.50 | 6 | P | | P | 02 00 42.9 | -1.0 | |
| | baz=188 | | | | | | | | |
| E31A | Nome | 32.63 | 354 | P | | P | 02 00 43.1 | -2.0 | |
| | baz=172 | | | | | | | | |
| NV11 | Mina Array Sit | 32.79 | 322 | eP | | P | 02 00 48.7 | +2.0 | |
| | comp=Z,4.7nm,1.1s | | | | | | | | |
| NV11 | | | | ePcP | | PcP | 02 03 31.9 | +0.6 | |
| MDPB | Devils Postpil | 32.84 | 320 | eP | | P | 02 00 47.6 | +0.3 | |
| | comp=Z,34nm,1.0s | | | | | | | | |
| NV01 | Mina Array Sit | 32.88 | 322 | eP | | P | 02 00 48.9 | +1.3 | |
| NV01 | | | | ePcP | | PcP | 02 03 31.9 | +0.3 | |
| REDW | Red Top Meadow | 32.88 | 336 | eP | | P | 02 00 49.2 | +1.6 | |
| | comp=Z,125nm,1.6s | | | | | | | | |
| D35A | Remer | 32.92 | 359 | P | | P | 02 00 46.6 | -1.1 | |
| | baz=178,SNR=12 | | | | | | | | |
| SNOW | Snow King Moun | 32.93 | 336 | eP | | P | 02 00 49.8 | +1.8 | |
| | comp=Z,46nm,0.9s | | | | | | | | |
| D34A | Park Rapids | 32.96 | 358 | P | | P | 02 00 47.3 | -0.7 | |
| | baz=176,SNR=7.2 | | | | | | | | |
| D37A | Cotton | 33.00 | 1 | P | | P | 02 00 47.0 | -1.3 | |
| | baz=181,SNR=8.4 | | | | | | | | |
| D36A | Goodland | 33.01 | 0 | P | | P | 02 00 47.3 | -1.1 | |
| | baz=180 | | | | | | | | |
| TPAW | Teton Pass | 33.03 | 336 | eP | | P | 02 00 50.5 | +1.5 | |
| | comp=Z,70nm,1.4s | | | | | | | | |
| D33A | AnnSam, Waubun | 33.05 | 357 | P | | P | 02 00 48.3 | -0.4 | |
| | baz=175,SNR=5.7 | | | | | | | | |
| D31A | Mcclaflin, Tow | 33.10 | 354 | P | | P | 02 00 48.3 | -0.9 | |
| | baz=172 | | | | | | | | |
| PMPB | Monarch Peak | 33.10 | 317 | eP | | P | 02 00 51.5 | +2.1 | |
| | comp=Z,49nm,1.0s | | | | | | | | |
| D32A | Dogwood Acres, | 33.12 | 355 | P | | P | 02 00 47.9 | -1.4 | |
| | baz=173 | | | | | | | | |
| KVN | Kaiserville | 33.16 | 323 | eP | | P | 02 00 51.7 | +1.6 | |
| KVN | | | | e | | | 02 03 32.7 | | |
| KVN | | | | pmax | pmax | | | | |
| | comp=Z,16nm,0.9s | | | | | | | | |
| KVN | Kaiserville | 33.16 | 323 | eP | | P | 02 00 51.7 | +1.6 | |
| | comp=Z,16nm,0.9s | | | | | | | | |
| KVN | | | | ePcP | | PcP | 02 03 32.7 | +0.4 | |
| MOOW | Moose Ponds | 33.17 | 337 | eP | | P | 02 00 51.7 | +1.7 | |
| | comp=Z,62nm,2.0s | | | | | | | | |
| MOOW | | | | ePcP | | PcP | 02 03 32.3 | 0.0 | |
| FXWY | Fox Creek | 33.19 | 336 | eP | | P | 02 00 51.5 | +1.3 | |
| | comp=Z,9.4nm,0.9s | | | | | | | | |
| FXWY | | | | ePcP | | PcP | 02 03 32.9 | +0.5 | |
| IMW | Indian Meadow | 33.37 | 336 | eP | | P | 02 00 53.5 | +1.6 | |
| | comp=Z,9.2nm,0.8s | | | | | | | | |
| BBGB | Big Mountain B | 33.46 | 317 | eP | | P | 02 00 50.5 | -2.1 | |
| C34A | RKJ Ranch, Bem | 33.51 | 358 | P | | P | 02 00 50.4 | -2.4 | |
| | baz=177 | | | | | | | | |
| C35A | Jirik Farms, M | 33.54 | 359 | P | | P | 02 00 52.4 | -0.6 | |
| | baz=179,SNR=20 | | | | | | | | |
| YTP | The Promontory | 33.54 | 338 | eP | | P | 02 00 53.3 | -0.1 | |
| C37A | Embarrass | 33.58 | 1 | P | | P | 02 00 52.4 | -0.9 | |
| | baz=182 | | | | | | | | |
| C38A | Sawbill Land. | 33.59 | 2 | P | | P | 02 00 52.3 | -1.1 | |
| | baz=183 | | | | | | | | |
| C36A | Pine Crest Far | 33.59 | 0 | P | | P | 02 00 52.8 | -0.6 | |
| | baz=181,SNR=6.7 | | | | | | | | |
| WAKR | Walker | 33.60 | 321 | eP | | P | 02 00 55.5 | +1.5 | |
| | comp=Z,27nm,1.2s | | | | | | | | |
| BMN | Battle Mountai | 33.61 | 326 | eP | | P | 02 00 55.7 | +1.7 | |
| BMN | | | | pmax | pmax | | | | |
| | comp=Z,19nm,0.9s | | | | | | | | |
| BMN | Battle Mountai | 33.61 | 326 | eP | | P | 02 00 55.6 | +1.7 | |
| | comp=Z,19nm,0.9s | | | | | | | | |
| YPP | Pitchstone Pla | 33.63 | 337 | eP | | P | 02 00 56.9 | +2.7 | |
| | comp=Z,33nm,1.6s | | | | | | | | |
| H17A | Grant Village | 33.65 | 337 | eP | | P | 02 00 57.0 | +2.7 | |
| | comp=Z,31nm,1.2s | | | | | | | | |
| C33A | Trail | 33.66 | 357 | P | | P | 02 00 53.9 | -0.2 | |
| | baz=175 | | | | | | | | |
| LKWY | Lake | 33.73 | 338 | eP | | P | 02 00 57.9 | +2.9 | |
| LKWY | | | | pmax | pmax | | | | |
| | comp=Z,32nm,1.4s | | | | | | | | |
| LKWY | Lake | 33.73 | 338 | eP | | P | 02 00 57.9 | +2.9 | |
| | comp=Z,32nm,1.4s | | | | | | | | |
| YERR | Yerington | 33.79 | 322 | eP | | P | 02 00 57.2 | +1.7 | |
| | comp=Z,65nm,1.5s | | | | | | | | |
| YFT | Old Faithful | 33.80 | 337 | eP | | P | 02 00 58.9 | +3.3 | |
| | comp=Z,19nm,1.2s | | | | | | | | |
| YFT | | | | ePcP | | PcP | 02 03 36.2 | +2.1 | |
| EYMN | Ely | 33.81 | 2 | eP | | P | 02 00 55.5 | +0.1 | |
| | comp=Z,8.0nm,0.8s | | | | | | | | |
| RLMT | Red Lodge | 33.81 | 339 | P | | P | 02 00 56.2 | +0.5 | |
| | baz=151,SNR=14 | | | | | | | | |
| RLMT | Red Lodge | 33.81 | 339 | eP | | P | 02 00 56.9 | +1.3 | |
| | comp=Z,59nm,1.6s | | | | | | | | |
| C31A | Landman Farms, | 33.84 | 355 | P | | P | 02 00 55.8 | +0.2 | |
| | baz=172,SNR=17 | | | | | | | | |
| CMB | Columbia Colle | 33.90 | 320 | eP | | P | 02 00 57.2 | +0.9 | |
| CMB | | | | pmax | pmax | | | | |
| | comp=Z,23nm,1.2s | | | | | | | | |
| CMB | Columbia Colle | 33.90 | 320 | eP | | P | 02 00 57.2 | +0.9 | |
| | comp=Z,23nm,1.2s | | | | | | | | |
| YNR | Norris Junctio | 33.97 | 338 | eP | | P | 02 00 59.9 | +2.9 | |
| | comp=Z,38nm,1.6s | | | | | | | | |
| YMR | Madison River | 34.03 | 337 | eP | | P | 02 01 00.0 | +2.5 | |
| | comp=Z,72nm,1.7s | | | | | | | | |
| PNTR | Pine Nut | 34.07 | 322 | eP | | P | 02 01 00.3 | +2.3 | |
| | comp=Z,34nm,0.9s | | | | | | | | |
| YHH | Holmes Hill | 34.09 | 337 | eP | | P | 02 01 00.4 | +2.2 | |
| | comp=Z,24nm,1.4s | | | | | | | | |
| YHH | | | | ePcP | | PcP | 02 03 35.9 | +0.9 | |
| MDND | Maddock | 34.10 | 352 | P | | P | 02 00 58.0 | +0.1 | |
| | baz=169,SNR=12 | | | | | | | | |
| MDND | Maddock | 34.10 | 352 | eP | | P | 02 00 59.1 | +1.3 | |
| | comp=Z,116nm,0.8s | | | | | | | | |
| B33A | Robert and Kas | 34.16 | 357 | P | | P | 02 00 58.2 | -0.2 | |
| | baz=176 | | | | | | | | |
| YHB | Horse Butte | 34.19 | 337 | eP | | P | 02 01 01.2 | +2.3 | |
| | comp=Z,7.0nm,0.8s | | | | | | | | |
| B35A | Bob, Littlefor | 34.20 | 359 | P | | P | 02 00 58.1 | -0.6 | |
| | baz=179,SNR=12 | | | | | | | | |
| AGMN | Agassiz Nation | 34.20 | 357 | P | | P | 02 00 58.3 | -0.5 | |
| | baz=175,SNR=28 | | | | | | | | |
| AGMN | Agassiz Nation | 34.20 | 357 | eP | | P | 02 00 58.4 | -0.3 | |
| | comp=Z,25nm,0.8s | | | | | | | | |
| LAO | LASA Array | 34.30 | 344 | P | | P | 02 01 00.1 | +0.4 | |
| | baz=157,SNR=11 | | | | | | | | |
| LAO | LASA Array | 34.30 | 344 | eP | | P | 02 01 01.0 | +1.3 | |
| | comp=Z,37nm,1.1s | | | | | | | | |
| LAO | | | | eS | | S | 02 06 22.3 | -1.8 | |
| B32A | Ashes, Strandq | 34.34 | 356 | P | | P | 02 00 59.8 | -0.2 | |
| | baz=174,SNR=27 | | | | | | | | |
| B34A | Aery, Baudette | 34.34 | 358 | P | | P | 02 00 59.2 | -0.7 | |
| | baz=178,SNR=16 | | | | | | | | |
| PAHR | Pah Rah Range | 34.34 | 323 | eP | | P | 02 01 02.1 | +1.8 | |
| | comp=Z,51nm,1.6s | | | | | | | | |
| QLMT | Earthquake Lak | 34.34 | 337 | eP | | P | 02 01 03.0 | +2.8 | |
| B31A | Greenbush Farm | 34.45 | 355 | P | | P | 02 01 00.8 | -0.1 | |
| | baz=179,SNR=9.6 | | | | | | | | |
| GCMT | Greycliff | 34.54 | 340 | eP | | P | 02 01 03.6 | +1.7 | |
| HLID | Hailey | 34.55 | 332 | P | | P | 02 01 03.0 | +1.0 | |
| | baz=142,SNR=32 | | | | | | | | |
| HLID | Hailey | 34.55 | 332 | eP | | P | 02 01 03.5 | +1.4 | |
| | comp=Z,22nm,1.0s | | | | | | | | |
| A33A | Warroad | 34.82 | 358 | P | | P | 02 01 03.8 | -0.2 | |
| | baz=176,SNR=17 | | | | | | | | |
| A32A | Rocking H Ranc | 34.86 | 356 | P | | P | 02 01 04.4 | 0.0 | |
| | baz=174,SNR=14 | | | | | | | | |
| MCMT | McKenzie Canyo | 34.90 | 335 | eP | | P | 02 01 07.6 | +2.4 | |
| BEKR | Beckworth | 35.02 | 322 | eP | | P | 02 01 08.2 | +2.0 | |
| | comp=Z,35nm,1.2s | | | | | | | | |
| BOZ | Bozeman (W) | 35.07 | 337 | P | | P | 02 01 07.7 | +1.2 | |
| | baz=148,SNR=12 | | | | | | | | |
| BOZ | Bozeman (W) | 35.07 | 337 | eP | | P | 02 01 08.1 | +1.6 | |
| BOZ | | | | pmax | pmax | | | | |
| | comp=Z,14nm,1.1s | | | | | | | | |
| BOZ | Bozeman (W) | 35.07 | 337 | eP | | P | 02 01 08.1 | +1.6 | |
| | comp=Z,14nm,1.1s | | | | | | | | |
| MFID | Camas Ranch | 35.09 | 331 | eP | | P | 02 01 07.5 | +0.9 | |
| | comp=Z,33nm,1.5s | | | | | | | | |
| MFID | | | | ePcP | | PcP | 02 03 38.6 | +0.9 | |
| DLMT | Dillon | 35.24 | 336 | eP | | P | 02 01 10.0 | +2.0 | |
| | comp=Z,51nm,1.2s | | | | | | | | |
| ORV | Oroville | 35.52 | 321 | eP | | P | 02 01 11.7 | +1.5 | |
| ORV | | | | pmax | pmax | | | | |
| | comp=Z,21nm,1.1s | | | | | | | | |
| ORV | Oroville | 35.52 | 321 | eP | | P | 02 01 11.7 | +1.5 | |
| | comp=Z,21nm,1.1s | | | | | | | | |
| LRM | Limekiln Ridge | 35.57 | 337 | eP | | P | 02 01 12.4 | +1.6 | |
| WVOR | Wild Horse Val | 35.78 | 327 | eP | | P | 02 01 13.6 | +1.1 | |
| WVOR | | | | e | | | 02 03 41.0 | | |
| WVOR | | | | pmax | pmax | | | | |
| | comp=Z,45nm,1.1s | | | | | | | | |
| WVOR | Wild Horse Val | 35.78 | 327 | eP | | P | 02 01 13.6 | +1.1 | |
| | comp=Z,45nm,1.1s | | | | | | | | |
| WVOR | | | | ePcP | | PcP | 02 03 41.0 | +1.3 | |
| PTGA | Pitinga | 36.08 | 111 | eP | | P | 02 01 15.3 | 0.0 | |
| | comp=Z,28nm,0.8s | | | | | | | | |
| HRY | Holter Researc | 36.09 | 338 | ePcP | | PcP | 02 03 40.6 | +0.1 | |
| HRY | | | | eS | | S | 02 06 48.2 | -3.5 | |
| ULM | Lac du Bonnet | 36.15 | 357 | P | | P | 02 01 14.6 | -0.9 | |
| | comp=Z,21nm,0.7s,baz=176,slow=9.6,SNR=46 | | | | | | | | |
| ULM | | | | PcP | | PcP | 02 03 39.5 | -1.0 | |
| | comp=Z,14nm,0.9s,baz=162,slow=3.7,SNR=7.5 | | | | | | | | |
| ULM | | | | LR | | LR | 02 19 20.1 | | |
| | comp=Z,420nm,20.0s,baz=174,slow=42 | | | | | | | | |
| ULM | Lac du Bonnet | 36.15 | 357 | eP | | P | 02 01 14.9 | -0.6 | |
| ULM | | | | e | | | 02 03 40.1 | | |
| ULM | | | | pmax | pmax | | | | |
| | comp=Z,22nm,0.7s | | | | | | | | |
| ULM | Lac du Bonnet | 36.15 | 357 | eP | | P | 02 01 14.9 | -0.6 | |
| | comp=Z,22nm,0.7s | | | | | | | | |
| ULM | | | | ePcP | | PcP | 02 03 40.0 | -0.4 | |
| O03D | Paynes Creek | 36.15 | 322 | P | | P | 02 01 15.7 | 0.0 | |
| | baz=128,SNR=6.0 | | | | | | | | |
| MOD | Modoc Plateau | 36.32 | 325 | eP | | P | 02 01 18.0 | +0.8 | |
| | comp=Z,36nm,1.2s | | | | | | | | |
| J08A | Circle Bar Ran | 36.35 | 328 | eP | | P | 02 01 18.7 | +1.3 | |
| | comp=Z,82nm,1.3s | | | | | | | | |
| J08A | | | | ePcP | | PcP | 02 03 42.6 | +1.2 | |
| EGMT | Eagleton | 36.53 | 341 | P | | P | 02 01 19.7 | +0.8 | |
| | baz=152,SNR=20 | | | | | | | | |
| EGMT | Eagleton | 36.53 | 341 | eP | | P | 02 01 20.3 | +1.4 | |
| | comp=Z,67nm,1.3s | | | | | | | | |
| BMO | Blue Mountains | 36.87 | 331 | eP | | P | 02 01 22.0 | +0.1 | |
| BMO | | | | pmax | pmax | | | | |
| | comp=Z,19nm,1.3s | | | | | | | | |
| BMO | Blue Mountains | 36.87 | 331 | eP | | P | 02 01 22.0 | +0.1 | |
| | comp=Z,19nm,1.3s | | | | | | | | |
| MSO | Missoula | 36.98 | 336 | P | | P | 02 01 23.5 | +0.7 | |
| | baz=145,SNR=15 | | | | | | | | |
| MSO | Missoula | 36.98 | 336 | eP | | P | 02 01 23.7 | +1.0 | |
| | comp=Z,30nm,1.2s | | | | | | | | |
| M04C | Macdoel | 37.11 | 324 | P | | P | 02 01 24.4 | +0.5 | |
| | baz=130,SNR=7.0 | | | | | | | | |
| N02D | Trinity Center | 37.11 | 322 | P | | P | 02 01 23.8 | -0.1 | |
| | baz=128 | | | | | | | | |
| I07A | Izee | 37.39 | 328 | eP | | P | 02 01 27.1 | +0.9 | |
| | comp=Z,13nm,1.0s | | | | | | | | |
| I07A | | | | ePcP | | PcP | 02 03 45.2 | +0.7 | |
| M02C | Callahan | 37.46 | 322 | P | | P | 02 01 27.0 | +0.2 | |
| | baz=128 | | | | | | | | |
| YBH | Yreka Blue Hor | 37.58 | 323 | eP | | P | 02 01 27.2 | -0.7 | |
| YBH | | | | pmax | pmax | | | | |
| | comp=Z,37nm,1.9s | | | | | | | | |
| YBH | Yreka Blue Hor | 37.58 | 323 | eP | | P | 02 01 27.2 | -0.7 | |
| | comp=Z,37nm,1.9s | | | | | | | | |
| K04D | Chiloquin, OR | 37.60 | 325 | P | | P | 02 01 29.0 | +0.9 | |
| | baz=131 | | | | | | | | |
| KHMM | Horse Mountain | 37.67 | 321 | eP | | P | 02 01 30.5 | +1.8 | |
| | comp=Z,32nm,0.8s | | | | | | | | |
| F10A | Beach Ranch, E | 37.69 | 332 | eP | | P | 02 01 29.3 | +0.6 | |
| | comp=Z,32nm,0.8s | | | | | | | | |
| J05D | Fort Rock, OR | 37.75 | 326 | P | | P | 02 01 30.1 | +0.7 | |
| | baz=132 | | | | | | | | |
| JTMT | Jette | 37.87 | 337 | eP | | P | 02 01 31.6 | +1.4 | |
| | comp=Z,21nm,1.0s | | | | | | | | |
| G08A | Pilot Rock | 37.98 | 330 | eP | | P | 02 01 31.5 | +0.2 | |
| | comp=Z,12nm,1.2s | | | | | | | | |
| G08A | | | | ePcP | | PcP | 02 03 47.2 | +0.8 | |
| J04D | Umpqua Nationa | 38.20 | 325 | P | | P | 02 01 33.1 | -0.2 | |
| | baz=131,SNR=8.7 | | | | | | | | |
| L02D | Cave Junction, | 38.37 | 323 | P | | P | 02 01 35.6 | +1.2 | |
| | baz=128 | | | | | | | | |
| E09A | Wood Farm, Sta | 38.51 | 332 | eP | | P | 02 01 35.8 | +0.3 | |
| | comp=Z,15nm,1.0s | | | | | | | | |
| I05D | Terrebonne, OR | 38.52 | 327 | P | | P | 02 01 36.3 | +0.6 | |
| | baz=133 | | | | | | | | |
| I04A | Tendick Farm, | 38.73 | 326 | P | | P | 02 01 37.7 | +0.2 | |
| | baz=131,SNR=5.7 | | | | | | | | |
| KBO | Bosley Butte | 38.77 | 322 | eP | | P | 02 01 39.8 | +1.9 | |
| | comp=Z,117nm,1.0s | | | | | | | | |
| G06A | Carlson Farm, | 38.77 | 329 | eP | | P | 02 01 38.9 | +1.1 | |
| | comp=Z,41nm,1.4s | | | | | | | | |
| F07A | Phinny Hill Vi | 38.89 | 330 | eP | | P | 02 01 39.5 | +0.8 | |
| | comp=Z,7.6nm,0.9s | | | | | | | | |
| LPAZ | La Paz | 39.05 | 140 | P | | P | 02 01 38.8 | -2.3 | |
| | comp=Z,2.8nm,0.7s,baz=336,slow=8.9,SNR=9.6 | | | | | | | | |
| LPAZ | | | | LR | | LR | 02 18 20.8 | | |
| | comp=Z,240nm,19.0s,baz=313,slow=37 | | | | | | | | |
| LPAZ | La Paz | 39.05 | 140 | eP | | P | 02 01 40.2 | -0.9 | |
| LPAZ | | | | pmax | pmax | | | | |
| | comp=Z,12nm,1.0s | | | | | | | | |
| LPAZ | La Paz | 39.05 | 140 | eP | | P | 02 01 40.1 | -0.9 | |
| | comp=Z,12nm,1.0s | | | | | | | | |
| HAWA | Hanford | 39.06 | 331 | eP | | P | 02 01 39.5 | -0.6 | |
| | comp=Z,11nm,1.4s | | | | | | | | |
| G05D | Wamic, OR | 39.12 | 328 | P | | P | 02 01 41.7 | +1.0 | |
| | baz=134,SNR=7.7 | | | | | | | | |
| I03D | Drain, OR | 39.19 | 325 | P | | P | 02 01 42.1 | +0.9 | |
| | baz=130 | | | | | | | | |
| H04A | Detroit Lake | 39.20 | 327 | eP | | P | 02 01 42.1 | +0.7 | |
| | comp=Z,62nm,1.0s | | | | | | | | |
| KEBM | Edson Butte | 39.23 | 323 | eP | | P | 02 01 43.8 | +2.1 | |
| | comp=Z,143nm,1.1s | | | | | | | | |
| NEW | Newport | 39.42 | 335 | P | | P | 02 01 43.4 | +0.2 | |
| | baz=142,SNR=6.9 | | | | | | | | |
| NEW | Newport | 39.42 | 335 | eP | | P | 02 01 43.5 | +0.3 | |
| NEW | | | | pmax | pmax | | | | |
| | comp=Z,11nm,1.0s | | | | | | | | |
| NEW | Newport | 39.42 | 335 | eP | | P | 02 01 43.5 | +0.3 | |
| | comp=Z,11nm,1.0s | | | | | | | | |
| C09A | Chrisman Ranch | 39.55 | 333 | eP | | P | 02 01 45.0 | +0.8 | |
| | comp=Z,74nm,1.6s | | | | | | | | |
| G03D | McMinnville, O | 40.12 | 327 | P | | P | 02 01 49.8 | +0.9 | |
| | baz=131 | | | | | | | | |
| MNMC | Minye Minye | 40.38 | 144 | eP | | P | 02 01 51.0 | -0.7 | |
| | comp=Z,57nm,1.1s | | | | | | | | |
| LON | Longmire | 40.42 | 330 | eP | | P | 02 01 52.0 | +0.5 | |
| LON | | | | pmax | pmax | | | | |
| | comp=Z,18nm,0.9s | | | | | | | | |
| LON | Longmire | 40.42 | 330 | eP | | P | 02 01 52.0 | +0.5 | |
| | comp=Z,18nm,0.9s | | | | | | | | |
| B08A | Colville Reser | 40.43 | 333 | eP | | P | 02 01 52.1 | +0.6 | |
| | comp=Z,10.0nm,1.2s | | | | | | | | |
| F04D | Rainier, OR | 40.56 | 328 | P | | P | 02 01 53.5 | +0.9 | |
| | baz=132 | | | | | | | | |
| F03A | Seaside | 40.75 | 327 | eP | | P | 02 01 56.5 | +2.3 | |
| | comp=Z,80nm,1.1s | | | | | | | | |
| D05A | Enumclaw | 40.81 | 330 | eP | | P | 02 01 55.9 | +1.3 | |
| | comp=Z,31nm,1.0s | | | | | | | | |
| PB11 | IPOC Station P | 40.85 | 145 | eP | | P | 02 01 59.1 | +3.7 | |
| | comp=Z,39nm,1.0s | | | | | | | | |
| PB11 | | | | ePcP | | PcP | 02 03 55.6 | -0.2 | |
| FFC | Flin Flon | 41.14 | 352 | eP | | P | 02 01 58.7 | +1.4 | |
| FFC | | | | pmax | pmax | | | | |
| | comp=Z,17nm,1.0s | | | | | | | | |
| FFC | Flin Flon | 41.14 | 352 | eP | | P | 02 01 58.7 | +1.4 | |
| | comp=Z,17nm,1.0s | | | | | | | | |
| E03A | Lebam | 41.16 | 328 | eP | | P | 02 01 59.0 | +1.5 | |
| | comp=Z,33nm,0.9s | | | | | | | | |
| B06A | Marblemount | 41.52 | 332 | eP | | P | 02 02 01.2 | +0.8 | |
| | comp=Z,17nm,1.0s | | | | | | | | |
| B05A | Bryant | 41.62 | 331 | P | | P | 02 02 01.6 | +0.3 | |
| | baz=135,SNR=6.0 | | | | | | | | |
| PB01 | IPOC Station P | 41.97 | 146 | eP | | P | 02 02 08.7 | +4.1 | |
| | comp=Z,12nm,1.1s | | | | | | | | |
| A04D | Lummi Island | 42.23 | 331 | P | | P | 02 02 06.9 | +0.7 | |
| | baz=135 | | | | | | | | |
| LLLB | Lillooet | 43.22 | 334 | eP | | P | 02 02 15.4 | +1.1 | |
| | comp=Z,54nm,1.4s | | | | | | | | |
| SCHQ | Schefferville | 45.59 | 21 | P | | P | 02 02 32.8 | -0.3 | |
| | comp=Z,5.6nm,0.8s,baz=196,slow=7.4,SNR=4.1 | | | | | | | | |
| SCHQ | | | | PcP | | PcP | 02 04 10.2 | -0.8 | |
| | comp=Z,13nm,1.0s,baz=258,slow=5.9,SNR=4.8 | | | | | | | | |
| SCHQ | | | | LR | | LR | 02 23 42.0 | | |
| | comp=Z,864nm,18.4s,baz=221,slow=39 | | | | | | | | |
| YKA | Yellowknife Ar | 50.70 | 347 | P | | P | 02 03 12.8 | +0.4 | |
| | comp=Z,19nm,0.5s,baz=152,slow=7.5,SNR=166 | | | | | | | | |
| YKA | | | | PcP | | PcP | 02 04 28.7 | -0.4 | |
| | comp=Z,4.1nm,0.9s,baz=148,slow=3.7,SNR=7.1 | | | | | | | | |
| YKA | | | | LR | | LR | 02 29 29.5 | | |
| | comp=Z,23nm,18.2s,baz=180,slow=42 | | | | | | | | |
| YKB5 | Yellowknife Ar | 50.70 | 347 | eP | | P | 02 03 12.8 | +0.4 | |
| YKB5 | | | | ePcP | | PcP | 02 04 28.7 | -0.4 | |
| YKW3 | Yellowknife Ar | 50.76 | 347 | eP | | P | 02 03 12.9 | +0.1 | |
| | comp=Z,27nm,0.6s | | | | | | | | |
| TAOE | Nuku Hiva Isla | 51.81 | 247 | eLR | | LR | 02 18 08.5 | | |
| | comp=Z,230nm,24.7s | | | | | | | | |
| DLBC | Dease Lake | 52.11 | 336 | eP | | P

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | comp=Z,82nm,1.5s | | | | | | | | | |
| **SML** | **Sawmill** | **61.56** | **334** | *e*P | | **P** | | **02 04 31.0** | **+0.9** | |
| | comp=Z,82nm,1.5s | | | | | | | | | |
| **DHY** | **Denali Highway** | **61.72** | **335** | *e*P | | **P** | | **02 04 31.6** | **+0.3** | |
| | comp=Z,14nm,1.0s | | | | | | | | | |
| **PMR** | **Palmer** | **61.82** | **333** | *e*P | | **P** | | **02 04 32.4** | **+0.7** | |
| PMR | | | | pmax | | pmax | | | | |
| | comp=Z,13nm,0.6s | | | | | | | | | |
| **PMR** | **Palmer** | **61.82** | **333** | *e*P | | **P** | | **02 04 32.4** | **+0.7** | |
| | comp=Z,13nm,0.6s | | | | | | | | | |
| **RC01** | **Rabbit Creek A** | **61.88** | **333** | *e*P | | **P** | | **02 04 33.2** | **+1.0** | |
| | comp=Z,55nm,1.0s | | | | | | | | | |
| **BRLK** | **Bradley Lake** | **61.90** | **331** | *e*P | | **P** | | **02 04 33.1** | **+0.7** | |
| | comp=Z,73nm,1.0s | | | | | | | | | |
| **KDAK** | **Kodiak Island** | **62.03** | **329** | *c*e*e*P | | **P** | | **02 04 33.6** | **+0.4** | |
| **HDA** | **Harding Lake** | **62.16** | **337** | *e*P | | **P** | | **02 04 34.6** | **+0.6** | |
| | comp=Z,29nm,1.0s | | | | | | | | | |
| **IL1** | **Eielson Array** | **62.31** | **337** | *e*P | | **P** | | **02 04 34.5** | **-0.5** | |
| **ILAR** | **Eielson Array** | **62.31** | **337** | P | | **P** | | **02 04 35.1** | **+0.1** | |
| | comp=Z,17nm,0.9s,baz=142,slow=4.3,SNR=148 | | | | | | | | | |
| ILAR | | | | PcP | | **PcP** | | **02 05 14.2** | **-0.3** | |
| | comp=Z,2.0nm,0.7s,baz=143,slow=3.2,SNR=4.3 | | | | | | | | | |
| ILAR | | | | LR | | LR | | 02 36 21.7 | | |
| | comp=Z,265nm,18.1s,baz=126,slow=40 | | | | | | | | | |
| **ILB** | **Eielson Array** | **62.31** | **337** | *e*P | | **P** | | **02 04 35.3** | **+0.3** | |
| ILB | | | | *e*PcP | | **PcP** | | **02 05 14.2** | **-0.3** | |
| **RND** | **Reindeer** | **62.47** | **335** | *e*P | | **P** | | **02 04 36.9** | **+0.8** | |
| RND | | | | pmax | | pmax | | | | |
| | comp=Z,73nm,0.9s | | | | | | | | | |
| **RND** | **Reindeer** | **62.47** | **335** | *e*P | | **P** | | **02 04 36.9** | **+0.8** | |
| | comp=Z,73nm,0.9s | | | | | | | | | |
| **SUA** | **Susitna One** | **62.47** | **333** | *e*P | | **P** | | **02 04 37.1** | **+0.8** | |
| | comp=Z,209nm,1.8s | | | | | | | | | |
| **FYU** | **Fort Yukon** | **62.59** | **339** | *e*P | | **P** | | **02 04 37.8** | **+1.0** | |
| | comp=Z,52nm,1.5s | | | | | | | | | |
| **CCB** | **Clear Creek Bu** | **62.60** | **337** | *e*P | | **P** | | **02 04 36.7** | **-0.2** | |
| | comp=Z,8.3nm,0.8s | | | | | | | | | |
| **MCK** | **McKinley** | **62.64** | **336** | *e*P | | **P** | | **02 04 37.9** | **+0.6** | |
| MCK | | | | pmax | | pmax | | | | |
| | comp=Z,45nm,1.0s | | | | | | | | | |
| **MCK** | **McKinley** | **62.64** | **336** | *e*P | | **P** | | **02 04 37.9** | **+0.6** | |
| | comp=Z,45nm,1.0s | | | | | | | | | |
| **MDM** | **Murphy Dome** | **62.91** | **337** | *e*P | | **P** | | **02 04 39.3** | **+0.3** | |
| | comp=Z,10nm,0.6s | | | | | | | | | |
| **SPU** | **Mount Spurr** | **62.95** | **332** | *e*P | | **P** | | **02 04 39.7** | **+0.3** | |
| **RSO** | **Redoubt South** | **63.02** | **331** | *e*P | | **P** | | **02 04 40.4** | **+0.4** | |
| **TRF** | **Thorofare Moun** | **63.07** | **335** | *e*P | | **P** | | **02 04 40.7** | **+0.4** | |
| | comp=Z,48nm,0.8s | | | | | | | | | |
| **KTH** | **Kantishna Hill** | **63.37** | **335** | *e*P | | **P** | | **02 04 41.9** | **-0.3** | |
| | comp=Z,36nm,0.9s | | | | | | | | | |
| **BPAW** | **Bear Paw Mtn.** | **63.62** | **336** | *e*P | | **P** | | **02 04 43.9** | **+0.1** | |
| | comp=Z,30nm,0.9s | | | | | | | | | |
| **PPLA** | **Purkeypile** | **63.65** | **334** | *e*P | | **P** | | **02 04 44.2** | **+0.2** | |
| | comp=Z,29nm,1.1s | | | | | | | | | |
| **TULEG** | **Thule** | **63.78** | **6** | *e*P | | **P** | | **02 04 45.3** | **+0.7** | |
| | comp=Z,12nm,1.0s | | | | | | | | | |
| **PPT** | **Papeete** | **63.85** | **242** | LR | | LR | | 02 24 16.2 | | |
| | comp=Z,148nm,21.5s,baz=28,slow=28 | | | | | | | | | |
| **PPT2** | **Papeete2** | **63.86** | **242** | *e*LR | | LR | | 02 23 33.7 | | |
| | comp=Z,158nm,24.2s | | | | | | | | | |
| **MLY** | **Manley** | **63.90** | **337** | *e*P | | **P** | | **02 04 45.9** | **+0.3** | |
| | comp=Z,35nm,0.8s | | | | | | | | | |
| **SVW2** | **Sparrevohn** | **64.54** | **332** | *e*P | | **P** | | **02 04 49.4** | **-0.4** | |
| | comp=Z,24nm,1.0s | | | | | | | | | |
| **COLD** | **Coldfoot** | **64.64** | **339** | *e*P | | **P** | | **02 04 51.5** | **+1.2** | |
| | comp=Z,28nm,1.2s | | | | | | | | | |
| **IMAR** | **Indian Mountai** | **65.43** | **337** | *e*P | | **P** | | **02 04 54.7** | **-0.8** | |
| **TBI** | **Tubuai** | **66.38** | **236** | *e*LR | | LR | | 02 24 58.1 | | |
| | comp=Z,187nm,25.0s | | | | | | | | | |
| **SUMG** | **Summit** | **66.50** | **16** | *i* P | | **P** | | **02 05 04.2** | **+1.5** | |
| SUMG | | | | pmax | | pmax | | | | |
| | comp=Z,20nm,0.9s | | | | | | | | | |
| **SUMG** | **Summit** | **66.50** | **16** | *i* P | | **P** | | **02 05 04.2** | **+1.5** | |
| | comp=Z,20nm,0.9s | | | | | | | | | |
| **SUMG** | **Summit** | **66.50** | **16** | *e*P | | **P** | | **02 05 03.0** | **+0.3** | |
| | comp=Z,23nm,1.0s | | | | | | | | | |
| **UNV** | **Unalaska Valle** | **68.89** | **323** | *e*P | | **P** | | **02 05 18.0** | **+0.3** | |
| | comp=Z,129nm,1.3s | | | | | | | | | |
| **PMOZ** | **Porto Moniz, M** | **70.89** | **60** | A | | A | | 02 51 10.6 | | |
| | comp=Z,700nm,18.0s | | | | | | | | | |
| **EFI** | **East Falkland** | **72.24** | **158** | *i* P | | **P** | | **02 05 40.0** | **+2.1** | |
| EFI | | | | pmax | | pmax | | | | |
| | comp=Z,21nm,1.0s | | | | | | | | | |
| **GAMB** | **Gambell** | **72.39** | **333** | *e*P | | **P** | | **02 05 39.4** | **+0.7** | |
| | comp=Z,82nm,1.9s | | | | | | | | | |
| **DAG** | **Danmarks Havn** | **72.88** | **13** | *i* P | | **P** | | **02 05 41.8** | **+0.3** | |
| DAG | | | | pmax | | pmax | | | | |
| | comp=Z,24nm,1.1s | | | | | | | | | |
| **DAG** | **Danmarks Havn** | **72.88** | **13** | *i* P | | **P** | | **02 05 41.8** | **+0.3** | |
| | comp=Z,24nm,1.1s | | | | | | | | | |
| **PGAV** | **Gavieira, Arco** | **77.04** | **50** | A | | A | | 02 43 41.7 | | |
| | comp=Z,227nm,18.0s | | | | | | | | | |
| **PTOM** | **Tomar** | **77.24** | **52** | *e*P | | **P** | | **02 06 07.7** | **+0.4** | |
| **PMTG** | **Montargil** | **77.45** | **53** | *e*P | | **P** | | **02 06 08.4** | **-0.1** | |
| **PVIS** | **Viseu** | **77.48** | **51** | *e*P | | **P** | | **02 06 08.8** | **+0.1** | |
| **PVRL** | **Vila Real** | **77.54** | **50** | *e*P | | **P** | | **02 06 09.1** | **+0.1** | |
| **EVO** | **Evora** | **77.69** | **53** | *e*P | | **P** | | **02 06 10.1** | **+0.2** | |
| **MTE** | **Manteigas** | **77.79** | **51** | *e*P | | **P** | | **02 06 09.8** | **-0.7** | |
| MTE | | | | A | | A | | 02 37 04.1 | | |
| | comp=Z,164nm,18.0s | | | | | | | | | |
| **PCBR** | **Castelo Branco** | **77.92** | **52** | *e*P | | **P** | | **02 06 11.2** | **+0.1** | |
| **PESTR** | **Estremoz** | **77.97** | **53** | A | | A | | 02 38 37.9 | | |
| | comp=Z,118nm,18.0s | | | | | | | | | |
| **PMRV** | **Marv??o** | **78.05** | **52** | *e*P | | **P** | | **02 06 11.6** | **-0.2** | |
| PMRV | | | | A | | A | | 02 38 12.8 | | |
| | comp=Z,125nm,18.0s | | | | | | | | | |
| **MVO** | **Moncorvo** | **78.07** | **50** | *e*P | | **P** | | **02 06 11.8** | **-0.2** | |
| MVO | | | | A | | A | | 02 37 21.7 | | |
| | comp=Z,133nm,18.0s | | | | | | | | | |
| **PVAQ** | **Vaqueiros** | **78.09** | **54** | *e*P | | **P** | | **02 06 11.3** | **-0.8** | |
| PVAQ | | | | A | | A | | 02 38 27.2 | | |
| | comp=Z,173nm,20.0s | | | | | | | | | |
| **PBAR** | **Barrancos** | **78.50** | **53** | *e*P | | **P** | | **02 06 13.9** | **-0.5** | |
| **SPITS** | **Spitsbergen Ar** | **80.26** | **11** | P | | **P** | | **02 06 23.8** | **+0.5** | |
| | comp=Z,4.5nm,0.7s,baz=290,slow=4.2,SNR=6.1 | | | | | | | | | |
| **PAB** | **San Pablo** | **80.35** | **52** | *e*P | | **P** | | **02 06 25.1** | **+0.6** | |
| PAB | | | | pmax | | pmax | | | | |
| | comp=Z,23nm,1.6s | | | | | | | | | |
| **PAB** | **San Pablo** | **80.35** | **52** | *e*P | | **P** | | **02 06 25.1** | **+0.6** | |
| | comp=Z,23nm,1.6s | | | | | | | | | |
| **ESDC** | **Sonseca Array** | **80.62** | **51** | P | | **P** | | **02 06 25.9** | **0.0** | |
| | comp=Z,3.4nm,0.8s,baz=289,slow=5.8,SNR=15 | | | | | | | | | |
| **ES19** | **SONSECA Array** | **80.66** | **51** | *e*P | | **P** | | **02 06 26.3** | **+0.2** | |
| **BILL** | **Bilibino** | **80.95** | **338** | *c*/*i*P | | **P** | | **02 06 27.5** | **+0.5** | |
| BILL | | | | *i* | | | | 02 09 33.3 | | |
| BILL | | | | pmax | | pmax | | | | |
| | comp=Z,51nm,1.3s | | | | | | | | | |
| **DOU** | **Dourbes** | **84.29** | **40** | P | | **P** | | **02 06 45.5** | **+0.8** | |
| **KONO** | **Kongsberg** | **84.35** | **30** | *c*e*e*P | | **P** | | **02 06 46.3** | **+1.5** | |
| KONO | | | | pmax | | pmax | | | | |
| | comp=Z,24nm,1.2s | | | | | | | | | |
| **KONO** | **Kongsberg** | **84.35** | **30** | *e*P | | **P** | | **02 06 47.6** | **+2.7** | |
| | comp=Z,62nm,1.4s | | | | | | | | | |
| **NBO00** | **NORSAR Array S** | **84.46** | **28** | *e*P | | **P** | | **02 06 47.8** | **+2.3** | |
| **NBO02** | **NORSAR Array S** | **84.49** | **28** | *e*P | | **P** | | **02 06 47.2** | **+1.6** | |
| **NAO01** | **NORSAR Array S** | **84.57** | **28** | *e*P | | **P** | | **02 06 48.8** | **+2.8** | |
| **BCLA** | **Clavier** | **84.64** | **39** | P | | **P** | | **02 06 47.6** | **+1.1** | |
| **NB2** | **NORSAR Subarra** | **84.66** | **28** | P | | **P** | | **02 06 48.3** | **+1.8** | |
| | comp=Z,36nm,1.1s,baz=291,slow=4.8 | | | | | | | | | |
| **NB2** | **NORSAR Subarra** | **84.66** | **28** | P | | **P** | | **02 06 48.3** | **+1.8** | |
| | baz=291,slow=4.8 | | | | | | | | | |
| **NB200** | **NORSAR Array S** | **84.66** | **28** | *e*P | | **P** | | **02 06 48.2** | **+1.8** | |
| **NOA** | **NORSAR Array B** | **84.66** | **28** | P | | **P** | | **02 06 48.2** | **+1.8** | |
| | comp=Z,14nm,0.9s,baz=292,slow=4.8,SNR=25 | | | | | | | | | |
| NOA | | | | LR | | LR | | 02 42 59.8 | | |
| | comp=Z,184nm,21.7s,baz=285,slow=34 | | | | | | | | | |
| **NB201** | **NORSAR Array S** | **84.69** | **28** | *e*P | | **P** | | **02 06 48.9** | **+2.2** | |
| **BEBN** | **Eben Emael** | **84.77** | **39** | P | | **P** | | **02 06 48.6** | **+1.4** | |
| **NC602** | **NORSAR Array S** | **84.91** | **28** | *e*P | | **P** | | **02 06 49.9** | **+2.2** | |
| **MEM** | **Membach** | **85.02** | **39** | P | | **P** | | **02 06 49.5** | **+1.0** | |
| **WLF** | **Walferdange** | **85.38** | **40** | P | | **P** | | **02 06 51.4** | **+1.1** | |
| | comp=Z,22nm,1.3s | | | | | | | | | |
| **WLF** | **Walferdange** | **85.38** | **40** | *e*P | | **P** | | **02 06 51.9** | **+1.6** | |
| WLF | | | | pmax | | pmax | | | | |
| | comp=Z,28nm,1.0s | | | | | | | | | |
| **WLF** | **Walferdange** | **85.38** | **40** | *e*P | | **P** | | **02 06 51.9** | **+1.6** | |
| | comp=Z,28nm,1.0s | | | | | | | | | |
| **KOWA** | **Kowa** | **85.83** | **76** | *e*P | | **P** | | **02 06 54.3** | **+1.1** | |
| | comp=Z,24nm,1.0s | | | | | | | | | |
| **HFS** | **Hagfors** | **86.13** | **29** | P | | **P** | | **02 06 54.2** | **+0.5** | |
| | comp=Z,6.0nm,0.8s,baz=235,slow=5.1,SNR=5.5 | | | | | | | | | |
| **ECH** | **Echery** | **86.42** | **41** | *e*P | | **P** | | **02 06 56.0** | **+0.5** | |
| ECH | | | | pmax | | pmax | | | | |
| | comp=Z,46nm,1.8s | | | | | | | | | |
| **ECH** | **Echery** | **86.42** | **41** | *e*P | | **P** | | **02 06 56.0** | **+0.5** | |
| | comp=Z,46nm,1.8s | | | | | | | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **ARA0** | **ARCESS Array S** | **86.45** | **18** | *e*P | | **P** | | **02 06 55.0** | **-0.2** | |
| **ARCES** | **ARCESS Array B** | **86.45** | **18** | P | | **P** | | **02 06 55.0** | **-0.2** | |
| | comp=Z,5.9nm,0.7s,baz=292,slow=4.3,SNR=20 | | | | | | | | | |
| ARCES | | | | LR | | LR | | 02 46 26.5 | | |
| | comp=Z,209nm,18.3s,baz=286,slow=36 | | | | | | | | | |
| **TIC** | **Toumodi** | **86.69** | **84** | *e*P | | **P** | | **02 06 54.4** | **-3.1** | |
| **LIC** | **Lamto** | **86.78** | **84** | *e*P | | **P** | | **02 06 58.0** | **+0.1** | |
| | comp=Z,84nm,1.4s | | | | | | | | | |
| **DBIC** | **Dimbokro** | **86.84** | **84** | P | | **P** | | **02 06 58.2** | **0.0** | |
| | comp=Z,7.8nm,0.9s,baz=264,slow=6.5,SNR=7.5 | | | | | | | | | |
| DBIC | | | | LR | | LR | | 02 42 47.5 | | |
| | comp=Z,75nm,19.5s,baz=254,slow=34 | | | | | | | | | |
| **DBIC** | **Dimbokro** | **86.84** | **84** | *e*P | | **P** | | **02 06 58.2** | **0.0** | |
| DBIC | | | | pmax | | pmax | | | | |
| | comp=Z,9.0nm,0.8s | | | | | | | | | |
| **DBIC** | **Dimbokro** | **86.84** | **84** | *e*P | | **P** | | **02 06 58.2** | **0.0** | |
| | comp=Z,8.7nm,0.8s | | | | | | | | | |
| **BNI** | **Bardonecchia** | **87.03** | **44** | *e*P | | **P** | | **02 07 00.4** | **+1.7** | |
| BNI | | | | pmax | | pmax | | | | |
| | comp=Z,17nm,1.1s | | | | | | | | | |
| **BNI** | **Bardonecchia** | **87.03** | **44** | *e*P | | **P** | | **02 07 00.4** | **+1.7** | |
| | comp=Z,17nm,1.1s | | | | | | | | | |
| **KIC** | **Kosan Boka** | **87.03** | **84** | *e*P | | **P** | | **02 06 59.2** | **+0.1** | |
| | comp=Z,36nm,1.0s | | | | | | | | | |
| **SENIN** | **Lac Senin/Sane** | **87.06** | **43** | *e*P | | **P** | | **02 07 00.8** | **+1.9** | |
| | comp=Z,15nm,0.9s | | | | | | | | | |
| **BFO** | **Black Forest** | **87.14** | **41** | *c*e*e*P | | **P** | | **02 07 00.3** | **+1.3** | |
| **BFO** | **Black Forest** | **87.14** | **41** | *e*P | | **P** | | **02 06 59.7** | **+0.7** | |
| | comp=Z,18nm,1.4s | | | | | | | | | |
| **SEY** | **Seymchan** | **88.20** | **335** | *c*e*e*P | | **P** | | **02 07 04.0** | **+0.3** | |
| **DAVA** | **Damuels** | **88.46** | **42** | *e*PcP | | **P** | | **02 07 07.7** | **+2.2** | |
| | comp=Z,8.0nm,1.1s | | | | | | | | | |
| **DAVOX** | **Davos/Dischmat** | **88.62** | **42** | P | | **P** | | **02 07 06.3** | **0.0** | |
| | comp=Z,2.2nm,0.8s,baz=311,slow=7.4,SNR=4.2 | | | | | | | | | |
| **FUORN** | **Ofenpass-Fuorn** | **88.92** | **42** | *e*P | | **P** | | **02 07 09.3** | **+1.5** | |
| | comp=Z,29nm,1.6s | | | | | | | | | |
| **RETA** | **Reutte** | **88.96** | **41** | *e*PcP | | **P** | | **02 07 08.4** | **+0.7** | |
| | comp=Z,5.1nm,0.8s | | | | | | | | | |
| **CLL** | **Collm** | **88.99** | **37** | *i* P | | **P** | | **02 07 08.2** | **+0.5** | |
| CLL | | | | pmax | | pmax | | | | |
| | comp=Z,13nm,1.6s | | | | | | | | | |
| **CLL** | **Collm** | **88.99** | **37** | *i* P | | **P** | | **02 07 08.2** | **+0.5** | |
| | comp=Z,13nm,1.6s | | | | | | | | | |
| CLL | | | | LmV | | | | 02 46 00.0 | | |
| | comp=Z,200nm,22.0s | | | | | | | | | |
| **NKC** | **Novy Kostel** | **89.05** | **38** | *e*P | | **P** | | **02 07 09.1** | **+1.1** | |
| **NKC** | **Novy Kostel** | **89.05** | **38** | *e*P | | **P** | | **02 07 09.1** | **+1.1** | |
| **FETA** | **Feichten** | **89.09** | **42** | *e*PcP | | **P** | | **02 07 09.6** | **+1.1** | |
| | comp=Z,4.0nm,0.9s | | | | | | | | | |
| **MOTA** | **Moosalm** | **89.22** | **41** | *e*PcP | | **P** | | **02 07 09.7** | **+0.6** | |
| | comp=Z,3.4nm,0.8s | | | | | | | | | |
| **BRG** | **Berggiesshubel** | **89.70** | **37** | *e*P | | **P** | | **02 07 13.3** | **+2.3** | |
| | comp=Z,4.5nm,1.0s | | | | | | | | | |
| **BRG** | **Berggiesshubel** | **89.70** | **37** | *e*P | | **P** | | **02 07 13.3** | **+2.3** | |
| BRG | | | | pmax | | pmax | | | | |
| | comp=Z,5.0nm,1.0s | | | | | | | | | |
| **PETK** | **Petropavlovsk-** | **89.91** | **325** | LR | | LR | | 02 47 43.1 | | |
| | comp=Z,21nm,19.3s,baz=58,slow=36 | | | | | | | | | |
| **TIXI** | **Tiksi** | **89.94** | **348** | *i* eP | | **P** | | **02 07 11.1** | **-0.6** | |
| TIXI | | | | pmax | | pmax | | | | |
| | comp=Z,19nm,1.0s | | | | | | | | | |
| **TIXI** | **Tiksi** | **89.94** | **348** | *e*P | | **P** | | **02 07 11.2** | **-0.6** | |
| | comp=Z,16nm,0.9s | | | | | | | | | |
| **KHC** | **Kasperske Hory** | **90.14** | **39** | *e*P | | **P** | | **02 07 14.0** | **+0.8** | |
| KHC | | | | *ex* | | x | | 02 07 19.1 | | |
| KHC | | | | AMS | | AMS | | 02 49 40.0 | | |
| | comp=Z,200nm,15.7s | | | | | | | | | |
| **KHC** | **Kasperske Hory** | **90.14** | **39** | *e*P | | **P** | | **02 07 14.0** | **+0.8** | |
| KHC | | | | MLR | | MLR | | | | |
| | comp=Z,200nm,15.7s | | | | | | | | | |
| **GERES** | **GERESS Array B** | **90.32** | **39** | P | | **P** | | **02 07 14.1** | **0.0** | |
| | comp=Z,1.6nm,0.8s,baz=328,slow=3.6,SNR=9.5 | | | | | | | | | |
| GERES | | | | LR | | LR | | 02 45 19.7 | | |
| | comp=Z,91nm,21.8s,baz=269,slow=34 | | | | | | | | | |
| **ABTA** | **Abfaltersbach** | **90.33** | **41** | P | | **P** | | **02 07 13.0** | **-1.2** | |
| | comp=Z,6.5nm,1.4s | | | | | | | | | |
| **PRU** | **Pruhonice** | **90.39** | **38** | *e*P | | **P** | | **02 07 15.4** | **+1.1** | |
| PRU | | | | *ex* | | x | | 02 07 22.6 | | |
| PRU | | | | AMS | | AMS | | 02 50 10.0 | | |
| | comp=Z,200nm,14.9s | | | | | | | | | |
| **PRU** | **Pruhonice** | **90.39** | **38** | *e*P | | **P** | | **02 07 15.4** | **+1.1** | |
| PRU | | | | *e* | | | | 02 07 22.6 | | |
| PRU | | | | MLR | | MLR | | | | |
| | comp=Z,200nm,14.9s | | | | | | | | | |
| **MA2** | **Magadan** | **90.49** | **333** | *c*e*e*P | | **P** | | **02 07 15.1** | **+0.6** | |
| **GOPC** | **GO Pecny, Ondr** | **90.57** | **38** | AMS | | AMS | | 02 50 00.0 | | |
| | comp=Z,200nm,16.8s | | | | | | | | | |
| **FIA0** | **FINESS Array S** | **90.95** | **25** | *e*P | | **P** | | **02 07 15.7** | **-0.9** | |
| **FIA0** | **FINESS Array S** | **90.95** | **25** | *e*P | | **P** | | **02 07 15.7** | **-0.9** | |
| **FINES** | **FINESS Array B** | **90.95** | **25** | P | | **P** | | **02 07 15.7** | **-0.9** | |
| | comp=Z,3.4nm,0.9s,baz=305,slow=4.9,SNR=8.6 | | | | | | | | | |
| **MOA** | **Molln** | **91.04** | **40** | *e*PcP | | **P** | | **02 07 17.5** | **+0.1** | |
| | comp=Z,6.2nm,1.0s | | | | | | | | | |
| **UPC** | **Upice** | **91.06** | **37** | *e*P | | **P** | | **02 07 19.3** | **+1.9** | |
| UPC | | | | AMS | | AMS | | 02 48 20.0 | | |
| | comp=Z,300nm,21.4s | | | | | | | | | |
| **UPC** | **Upice** | **91.06** | **37** | *e*P | | **P** | | **02 07 19.3** | **+1.9** | |
| UPC | | | | MLR | | MLR | | | | |
| | comp=Z,300nm,21.4s | | | | | | | | | |
| **DPC** | **Dobruska-Polom** | **91.30** | **37** | *e*P | | **P** | | **02 07 20.0** | **+1.4** | |
| DPC | | | | *ep*P | | **pP** | | **02 07 31.7** | **+0.3** | |
| DPC | | | | AMS | | AMS | | 02 48 30.0 | | |
| | comp=Z,200nm,15.3s | | | | | | | | | |
| **DPC** | **Dobruska-Polom** | **91.30** | **37** | *e*P | | **P** | | **02 07 20.0** | **+1.4** | |
| DPC | | | | *e* | | | | 02 07 31.7 | | |
| DPC | | | | MLR | | MLR | | | | |
| | comp=Z,200nm,15.3s | | | | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **91.53** | **76** | *e*P | | **P** | | **02 07 19.1** | **-1.1** | |
| **TOA0** | **Torodi Ar. Sit** | **91.53** | **76** | *e*P | | **P** | | **02 07 19.7** | **-0.5** | |
| **TORD** | **Torodi Ar. Bea** | **91.53** | **76** | P | | **P** | | **02 07 19.1** | **-1.1** | |
| | comp=Z,1.3nm,0.7s,baz=294,slow=4.9,SNR=10 | | | | | | | | | |
| TORD | | | | LR | | LR | | 02 46 09.7 | | |
| | comp=Z,65nm,20.6s,baz=210,slow=34 | | | | | | | | | |
| **KRLC** | **Kraliky** | **91.69** | **37** | *e*P | | **P** | | **02 07 21.8** | **+1.4** | |
| **KRLC** | **Kraliky** | **91.69** | **37** | *e*P | | **P** | | **02 07 21.8** | **+1.4** | |
| **VRAC** | **Vranov** | **91.89** | **38** | P | | **P** | | **02 07 20.7** | **-0.5** | |
| | comp=Z,2.2nm,0.7s,baz=297,slow=6.8,SNR=3.5 | | | | | | | | | |
| **CONA** | **Conrad Observa** | **92.00** | **39** | P | | **P** | | **02 07 21.2** | **-0.7** | |
| | comp=Z,3.6nm,0.9s | | | | | | | | | |
| **ARSA** | **Arzberg** | **92.06** | **40** | *e*PcP | | **P** | | **02 07 22.6** | **+0.5** | |
| | comp=Z,3.7nm,0.9s | | | | | | | | | |
| **TAM** | **Tamanrasset** | **92.49** | **66** | *e*P | | **P** | | **02 07 26.2** | **+1.5** | |
| TAM | | | | pmax | | pmax | | | | |
| | comp=Z,7.0nm,1.1s | | | | | | | | | |
| **TAM** | **Tamanrasset** | **92.49** | **66** | *e*P | | **P** | | **02 07 26.2** | **+1.5** | |
| | comp=Z,7.4nm,1.1s | | | | | | | | | |
| **VYHS** | **Vyhne** | **93.57** | **38** | *e*P | | **P** | | **02 07 30.2** | **+1.1** | |
| VYHS | | | | pmax | | pmax | | | | |
| | comp=Z,9.0nm,1.7s | | | | | | | | | |
| **VYHS** | **Vyhne** | **93.57** | **38** | *e*P | | **P** | | **02 07 30.2** | **+1.1** | |
| **KECS** | **Kecovo** | **94.56** | **38** | *e*P | | **P** | | **02 07 34.7** | **+1.1** | |
| KECS | | | | pmax | | pmax | | | | |
| | comp=Z,2.0nm,0.9s | | | | | | | | | |
| **KECS** | **Kecovo** | **94.56** | **38** | *e*P | | **P** | | **02 07 34.7** | **+1.1** | |
| **LVV** | **L'vov** | **95.97** | **35** | *e*P | | **P** | | **02 07 40.5** | **+0.5** | |
| LVV | | | | eS | | **S** | | **02 18 53.1** | **-2.3** | |
| **YAK** | **Yakutsk** | **97.01** | **341** | *e*P | | Pdif | | 02 07 45.1 | **+0.6** | |
| YAK | | | | pmax | | pmax | | | | |
| | comp=Z,6.0nm,0.9s | | | | | | | | | |
| **AKASG** | **Malin Array Be** | **98.33** | **33** | LR | | LR | | 02 55 39.4 | | |
| | comp=Z,120nm,18.0s,baz=295,slow=37 | | | | | | | | | |
| **OBN** | **Obninsk** | **99.17** | **27** | *i* P | | **Pdif** | | **02 07 53.5** | **-0.7** | |
| OBN | | | | *i* | | | | 02 11 56.1 | | |
| OBN | | | | pmax | | pmax | | | | |
| | comp=Z,4.0nm,0.9s | | | | | | | | | |
| OBN | | | | MLR | | MLR | | | | |
| | comp=Z,112nm,17.0s | | | | | | | | | |
| **IDI** | **Anoyia** | **103.62** | **48** | Pdiff | | **Pdif** | | **02 08 13.8** | **-0.8** | |
| | comp=Z,31nm,1.3s,baz=270,slow=5.1,SNR=3.0 | | | | | | | | | |
| **DZM** | **Mont Dzumac** | **104.56** | **251** | *e*LR | | LR | | 02 42 56.1 | | |
| | comp=Z,117nm,22.4s | | | | | | | | | |
| **BVAR** | **Borovoye Array** | **111.71** | **11** | PKiKP | | **PKiKP** | | **02 12 47.3** | **-0.1** | |
| | comp=Z,1.2nm,0.7s,baz=325,slow=1.8,SNR=7.1 | | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **112.24** | **1** | PKiKP | | **PKiKP** | | **02 12 47.5** | **-0.9** | |
| | comp=Z,0.8nm,0.5s,baz=240,slow=2.1,SNR=4.1 | | | | | | | | | |
| ZALV | | | | PP | | **PP** | | **02 13 28.8** | **-3.7** | |
| | comp=Z,1.0nm,0.7s,baz=347,slow=5.9,SNR=3.0 | | | | | | | | | |
| **KURK** | **Kurchatov** | **115.11** | **6** | *c* /PKiKP | | **PKPdf** | | **02 12 53.9** | **-0.1** | |
| KURK | | | | pmax | | pmax | | | | |
| | comp=Z,11nm,1.2s | | | | | | | | | |
| **KURK** | **Kurchatov** | **115.11** | **6** | *e*PKiKP | | **PKiKP** | | **02 12 53.5** | **-0.4** | |
| **KURBB** | **Kurchatov Arra** | **115.19** | **6** | PKP | | **PKPdf** | | **02 12 53.5** | **-0.6** | |
| | comp=Z,2.6nm,0.8s,baz=351,slow=2.0,SNR=27 | | | | | | | | | |
| **KSRS** | **Korea Array** | **115.80** | **324** | PKP | | **PKPdf** | | **02 12 54.7** | **-1.0** | |
| | comp=Z,0.7nm,0.5s,baz=132,slow=1.8,SNR=4.6 | | | | | | | | | |
| **KS15** | **Wonju Array Si** | **115.83** | **324** | *e*PKPdf | | **PKPdf** | | **02 12 54.7** | **-1.1** | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **KSAR** | **Wonju Array Be** | **115.83** | **324** | PKIKP | | **PKPdf** | | **02 12 54.7** | **-1.1** | |
| **KSAR** | **Wonju Array Be** | **115.83** | **324** | PKP | | **PKPdf** | | **02 12 54.7** | **-1.1** | |
| **SONA0** | **Songino Array** | **115.94** | **345** | *e*PKPdf | | **PKPdf** | | **02 12 55.1** | **-0.8** | |
| SONA0 | | | | *e*PP | | **PP** | | **02 13 58.5** | **-0.5** | |
| **SONM** | **Songino Array** | **115.94** | **345** | PKP | | **PKPdf** | | **02 12 55.1** | **-0.8** | |
| | comp=Z,0.8nm,0.8s,baz=132,slow=2.1,SNR=4.6 | | | | | | | | | |
| SONM | | | | PP | | **PP** | | **02 13 58.5** | **-0.5** | |
| | comp=Z,1.3nm,0.9s,baz=18,slow=5.2,SNR=5.0 | | | | | | | | | |
| **MK32** | **Makanchi Array** | **119.29** | **4** | *e*PKPdf | | **PKPdf** | | **02 13 01.1** | **-1.1** | |
| MK32 | | | | *e*PP | | **PP** | | **02 14 20.3** | **-1.8** | |
| **MKAR** | **Makanchi Array** | **119.29** | **4** | PKP | | **PKPdf** | | **02 13 01.1** | **-1.1** | |
| | comp=Z,1.8nm,0.8s,baz=1.7,slow=2.1,SNR=16 | | | | | | | | | |
| MKAR | | | | PP | | **PP** | | **02 14 20.3** | **-1.8** | |
| | comp=Z,2.1nm,1.1s,baz=27,slow=5.7,SNR=5.4 | | | | | | | | | |
| **MK01** | **Makanchi Array** | **119.32** | **4** | *e*PKPdf | | **PKPdf** | | **02 13 00.9** | **-1.3** | |
| **HHC** | **Hu-ho-hao-te** | **120.72** | **338** | *e*PKP | | **PKPdf** | | **02 13 07.3** | **+2.0** | |
| HHC | | | | PP | | **PP** | | **02 14 37.8** | **+5.5** | |
| HHC | | | | SKS | | **SKSdf** | | **02 20 14.3** | **0.0** | |
| HHC | | | | SKKS | | **SKKSac** | | **02 21 26.4** | **-3.6** | |
| HHC | | | | SS | | **SS** | | **02 31 01.3** | **+2.1** | |
| HHC | | | | AMB | | AMB | | | | |
| | comp=Z,64nm,5.5s | | | | | | | | | |
| HHC | | | | LR | | LR | | | | |
| | comp=Z,66nm,17.3s | | | | | | | | | |
| HHC | | | | LR | | LR | | | | |
| | comp=Z,100nm,19.2s | | | | | | | | | |
| HHC | | | | LR | | LR | | | | |
| | comp=Z,67nm,17.5s | | | | | | | | | |
| **BOSA** | **Boshof** | **121.47** | **115** | PKP | | **PKPdf** | | **02 13 05.0** | **-1.9** | |
| | comp=Z,3.1nm,0.8s,baz=21,slow=0.3,SNR=6.4 | | | | | | | | | |
| **GEYT** | **Alibeck** | **121.71** | **26** | PKP | | **PKPdf** | | **02 13 06.7** | **-0.5** | |
| | comp=Z,3.6nm,0.9s,baz=263,slow=7.3,SNR=6.6 | | | | | | | | | |
| **WMQ** | **Urumqi** | **122.39** | **359** | PKP | | **PKPdf** | | **02 13 08.1** | **-0.2** | |
| WMQ | | | | sPKP | | | | 02 13 27.3 | | |
| WMQ | | | | PP | | PP | | 02 14 53.4 | +10 | |
| WMQ | | | | SKKS | | | | 02 21 35.6 | | |
| WMQ | | | | AMB | | AMB | | | | |
| | comp=Z,220nm,4.9s | | | | | | | | | |
| WMQ | | | | LR | | LR | | | | |
| | comp=Z,490nm,20.5s | | | | | | | | | |
| WMQ | | | | LR | | LR | | | | |
| | comp=Z,610nm,17.9s | | | | | | | | | |
| WMQ | | | | LR | | LR | | | | |
| | comp=Z,430nm,20.5s | | | | | | | | | |
| **AAK** | **Ala-Archa** | **122.46** | **11** | PKP | | **PKPdf** | | **02 13 

comp=Z,80nm,18.3s,baz=57,slow=34
**H01W2 Cape Leeuwin H 47.06 110** T T 02 53 26.0
baz=257,slow=75,SNR=8.4
**H01W3 Cape Leeuwin H 47.07 110** T T 02 53 26.0
baz=257,slow=75,SNR=8.9
**H01W1 Cape Leeuwin H 47.08 110** T T 02 53 26.9
baz=257,slow=75,SNR=10
**SNAA Sanae 50.88 201** P **P** **02 03 43.6 -0.8**
3.6nm,1.0s,baz=59,slow=13,SNR=6.4
**SNAA Sanae 50.88 201** *e*P **P** **02 03 43.4 -1.1**
4.1nm,1.0s
**PSI Prapat 52.37 57** *e*P **P** **02 03 53.9 -2.5**
18nm,1.5s
**QSPA South Pole Qui 58.42 180** *e*P **P** **02 04 39.3 -0.1**
9.6nm,1.2s
**VNDA Vanda 62.32 166** LR LR 02 28 59.0
comp=Z,54nm,20.6s,baz=190,slow=33
**CM31 Chiang Mai Arr 63.93 45** *e*P **P** **02 05 16.7 -0.4**
**CMAR Chiang Mai Arr 63.93 45** P **P** **02 05 16.7 -0.4**
2.1nm,0.4s,baz=231,slow=7.2,SNR=8.6
CMAR LR LR 02 30 23.1
comp=Z,41nm,18.7s,baz=193,slow=33
**ASF Jabal al Asfar 66.44 341** P **P** **02 05 35.7 +2.5**
1.3nm,0.7s,baz=194,slow=4.2,SNR=3.2
**ASAR Alice Springs 67.06 104** P **P** **02 05 36.8 -0.7**
1.9nm,0.8s,baz=242,slow=6.2,SNR=16
**AS31 Alice Springs 67.06 104** *e*P **P** **02 05 36.8 -0.7**
1.2nm,0.8s
**AS01 Alice Springs 67.10 104** *e*P **P** **02 05 37.1 -0.7**
**MMAI Mount Meron Ar 67.65 340** P **P** **02 05 43.5 +2.6**
1.1nm,0.6s,baz=134,slow=6.2,SNR=3.0
**WR1 Warramunga Arr 69.08 101** *e*P **P** **02 05 49.9 -0.3**
24nm,1.8s
**WRA Warramunga Arr 69.08 101** P **P** **02 05 49.9 -0.4**
2.7nm,0.8s,baz=241,slow=5.4,SNR=23
**WB2 Warramunga Arr 69.09 101** *e*P **P** **02 05 50.6 +0.3**
**TOA0 Torodi Ar. Sit 69.47 301** *e*P **P** **02 05 53.9 +1.3**
**TORD Torodi Ar. Bea 69.47 301** P **P** **02 05 53.6 +1.0**
1.6nm,0.8s,baz=130,slow=6.0,SNR=12
**TOA1 Torodi Ar. Sit 69.48 301** *e*P **P** **02 05 53.6 +0.9**
**STKA Stephens Creek 69.69 115** P **P** **02 05 53.6 -0.2**
1.8nm,0.7s,baz=243,slow=6.2,SNR=4.4
**STKA Stephens Creek 69.69 115** *e*P **P** **02 05 53.6 -0.2**
7.6nm,1.9s
**MK32 Makanchi Array 81.37 17** *e*P **P** **02 07 01.3 +1.0**
**MKAR Makanchi Array 81.37 17** P **P** **02 07 01.3 +1.0**
0.7nm,0.8s,baz=215,slow=4.0,SNR=6.3
**KURBB Kurchatov Arra 84.14 13** P **P** **02 07 16.2 +1.7**
0.8nm,0.6s,baz=208,slow=5.1,SNR=6.1
**KURK Kurchatov 84.24 13** *e*P **P** **02 07 16.2 +1.2**
**BVAR Borovoye Array 85.19 8** P **P** **02 07 21.4 +1.6**
1.0nm,0.8s,baz=178,slow=4.3,SNR=6.3
**ILAR Eielson Array 143.73 17** PKP PKPbc 02 14 15.8 +0.1
0.4nm,0.7s,baz=325,slow=5.4,SNR=5.8
**ILB Eielson Array 143.73 17** *e*PKPpre PKPbc 02 14 15.8 +0.1
**YKA Yellowknife Ar 148.80 353** PKPbc **PKPbc** **02 14 31.3 +0.6**
2.3nm,0.7s,baz=6.2,slow=2.5,SNR=41
**YKB5 Yellowknife Ar 148.80 353** *e*PKPbc **PKPbc** **02 14 31.2 +0.5**
**ULM Lac du Bonnet 152.81 321** PKPbc **PKPbc** **02 14 40.4 -0.1**
2.3nm,0.8s,baz=81,slow=2.7,SNR=5.3

*ISCJB **20** 02:13:16.1±1.0,38.82N±0.06×142.12E±0.10,h51km, mb3.6/4, Error ellipse: s-maj=11.2km s-min=8.1km az=20.2*
*JMA **20** 02:13:17.4±0.1,38.84N×142.06E,h46km±1km,M3.6*
*JMA Felt I J1.*
*IDC **20** 02:13:21.5±4.3,38.82N×142.07E,h86km±41km, mb3.2/4, mb1 3.3/5, mb1mx3.1/28, mbtmp3.5/5, Error ellipse: s-maj=32.9km s-min=27.1km az=87.0*

**ISC 20 02:13:17.5±1.2,38.83N±0.06×142.1E±0.1,h51km,n18, σ0.953/15,mb3.5/4,Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **OFUJ** | **Ofunato** | **0.39** | **311** | P | **Pn** | **02 13 27.2** | **-0.4** |
| OFUJ | | | | S | **Sn** | **02 13 33.8** | **-1.0** |
| **JIO** | **Ouri** | **0.66** | **236** | P | **Pn** | **02 13 30.5** | **-0.3** |
| JIO | | | | S | **Sn** | **02 13 39.3** | **-1.1** |
| **JOM** | **Ohasama** | **0.87** | **318** | P | **Pn** | **02 13 33.4** | **-0.1** |
| JOM | | | | S | **Sn** | **02 13 44.8** | **-0.5** |
| **JOU** | **Okura** | **1.18** | **247** | P | **Pn** | **02 13 37.8** | **+0.2** |
| JOU | | | | S | **Sn** | **02 13 52.8** | **+0.2** |
| **JRG** | **Rokugo** | **1.24** | **298** | P | **Pn** | **02 13 38.5** | **+0.1** |
| **JYK** | **Kaneyama** | **1.32** | **274** | P | **Pn** | **02 13 39.8** | **+0.2** |
| **JMM** | **Marumori** | **1.38** | **226** | P | **Pn** | **02 13 40.1** | **-0.2** |
| **MJAR** | **Matsushiro Arr** | **3.80** | **234** | P | Pn | 02 14 17.7 | +4.1 |
| | 0.6nm,0.3s,baz=34,slow=13,SNR=5.7 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.69** | **124** | T | T | 02 49 35.3 | |
| | baz=317,slow=76,SNR=79 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **29.70** | **124** | T | T | 02 49 34.7 | |
| | baz=317,slow=76,SNR=124 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.71** | **124** | T | T | 02 49 35.3 | |
| | baz=317,slow=76,SNR=64 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.46** | **126** | T | T | 02 50 32.7 | |
| | baz=318,slow=76,SNR=60 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.47** | **126** | T | T | 02 50 32.8 | |
| | baz=318,slow=76,SNR=71 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.48** | **126** | T | T | 02 50 33.9 | |
| | baz=318,slow=76,SNR=60 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.62** | **301** | P | **P** | **02 21 17.2** | **+0.5** |
| | 0.4nm,0.4s,baz=82,slow=9.1,SNR=8.9 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **45.31** | **307** | P | **P** | **02 21 30.7** | **+0.6** |
| | 1.3nm,0.4s,baz=81,slow=8.2,SNR=4.2 | | | | | | |
| **ILAR** | **Eielson Array** | **47.72** | **33** | P | **P** | **02 21 48.9** | **+0.1** |
| | 0.3nm,1.0s,baz=265,slow=5.9,SNR=3.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **58.90** | **188** | P | **P** | **02 23 11.2** | **-0.1** |
| | 0.3nm,0.9s,baz=5.8,slow=6.9,SNR=5.4 | | | | | | |

**IDC 20 02:26:59.7±18.0,13.71N×89.25W,h0km,mb3.4/3, mb1 3.8/3,mb1mx3.4/36,mbtmp3.5/3,MS3.2/2,Ms1 3.2/2, ms1mx2.7/24,Error ellipse: s-maj=336.9km s-min=99.1km az=4.0,El Salvador**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TXAR** | **Lajitas Array** | **20.50** | **322** | P | P | 02 31 39.8 | +0.2 |
| | 0.3nm,0.4s,baz=144,slow=11,SNR=6.3 | | | | | | |
| **PCRV** | **Puerto La Cruz** | **24.33** | **96** | LR | LR | 02 43 06.2 | |
| | comp=Z,104nm,21.6s,baz=130,slow=40 | | | | | | |
| **ANMO** | **Albuquerque** | **26.24** | **327** | LR | LR | 02 43 10.0 | |
| | comp=Z,37nm,21.3s,baz=28,slow=37 | | | | | | |
| **ULM** | **Lac du Bonnet** | **36.84** | **353** | P | P | 02 34 09.3 | -0.3 |
| | 0.9nm,0.6s,baz=162,slow=9.6,SNR=3.1 | | | | | | |
| **YKA** | **Yellowknife Ar** | **51.95** | **345** | P | P | 02 36 10.2 | -0.1 |
| | 0.2nm,0.4s,baz=149,slow=7.8,SNR=7.1 | | | | | | |

**MEX 20 02:32:17.5±1.0,17.16N×100.74W,h5km±13km,MD3.7, Guerrero**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CAIG** | **El Cayaco** | **0.47** | **104** | *e*P | Pg | 02 32 26.5 | -0.1 |
| CAIG | | | | *e*S | Sg | 02 32 32.0 | -0.6 |
| **ZIIG** | **Zihuatanejo** | **0.82** | **303** | *e*P | Pg | 02 32 31.4 | -1.9 |
| ZIIG | | | | *e*S | Sg | 02 32 42.6 | -1.3 |
| **ACX** | **Acapulco** | **0.89** | **109** | *e*P | Pb | 02 32 35.3 | -0.2 |
| ACX | | | | *e*S | Sg | 02 32 46.5 | +0.2 |
| **ARIG** | **Puente Sto Nin** | **1.18** | **19** | *e*P | Pg | 02 32 36.7 | -3.4 |
| ARIG | | | | *i* S | Sg | 02 32 51.4 | -4.0 |
| **MEIG** | **Mezcala** | **1.31** | **54** | *e*P | Pn | 02 32 39.2 | -3.4 |
| MEIG | | | | *e*S | Sg | 02 32 55.1 | -4.7 |
| **PLIG** | **Platanillo** | **1.70** | **44** | *e*P | Pn | 02 32 45.2 | -2.8 |
| PLIG | | | | *e*S | Sn | 02 33 05.7 | -4.5 |
| **TLIG** | **Tlapa** | **2.12** | **79** | *e*P | Pn | 02 32 51.2 | -2.5 |
| TLIG | | | | *e*S | Sn | 02 33 15.9 | -4.6 |

**IDC 20 02:37:40.5±1.4,19.44N×121.35E,h0km,mb3.5/5, mb1 3.8/5,mb1mx3.4/44,mbtmp3.5/5,Error ellipse: s-maj=58.6km s-min=29.4km az=64.0,Philippine Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **41.16** | **161** | P | P | 02 45 26.6 | -0.2 |
| | 0.2nm,0.5s,baz=343,slow=9.2,SNR=3.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **41.94** | **320** | P | P | 02 45 32.6 | -0.4 |
| | 1.1nm,0.9s,baz=108,slow=9.3,SNR=5.3 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **44.35** | **330** | P | P | 02 45 52.2 | -0.1 |
| | 0.4nm,0.4s,baz=126,slow=7.3,SNR=3.2 | | | | | | |
| **ILAR** | **Eielson Array** | **73.35** | **27** | P | P | 02 49 13.2 | -0.7 |
| | 0.2nm,0.6s,baz=272,slow=4.4,SNR=3.7 | | | | | | |
| **YKA** | **Yellowknife Ar** | **87.26** | **23** | P | P | 02 50 29.8 | +1.0 |
| | 0.3nm,0.5s,baz=307,slow=4.8,SNR=6.3 | | | | | | |

*IDC **20** 03:03:09.0±0.7,2.93S×142.16E,h0km,mb4.1/10, mb1 4.3/12,mb1mx4.1/38,mbtmp4.1/12,ML4.4/1,MS3.9/12, Ms1 3.9/12,ms1mx3.5/41,Error ellipse: s-maj=29.2km s-min=15.3km az=94.0*
*ISCJB **20** 03:03:11.8±0.3,3.02S±0.04×142.16E±0.05,h30km, mb4.7/32,MS3.9/12,Error ellipse: s-maj=7.7km s-min=5.1km az=179.2*
*NEIC **20** 03:03:13.3±0.8,2.97S×142.16E,h29km±6km,mb4.9/16, Error ellipse: s-maj=8.4km s-min=6.2km az=99.0*
*BJI **20** 03:03:17.7,3.01S×141.75E,h55km,mb4.8/31,mB5.2/22, Ms4.6/14,Ms7 4.3/14*

**ISC 20 03:03:13.5±0.4,3.05S±0.05×142.10E±0.07,h30km,n77, σ2.914/80,mb4.8/32,MS3.9/13,1C,Near north coast of New Guinea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MANU** | **Manus Island** | **5.36** | **79** | *e*Pn | **Pn** | **03 04 31.7** | **+0.2** |
| **PMG** | **Port Moresby** | **8.07** | **142** | Pn | **Pn** | **03 05 10.1** | **+1.4** |
| | 1.4nm,0.3s,baz=333,slow=18,SNR=2.2 | | | | | | |
| PMG | | | | Sn | **Sn** | **03 06 35.1** | **-3.9** |
| | 0.9nm,0.3s,baz=198,slow=20,SNR=2.1 | | | | | | |
| PMG | | | | LR | LR | 03 08 27.3 | |
| | comp=Z,316nm,21.2s,baz=58,slow=39 | | | | | | |
| **COEN** | **Coen** | **10.89** | **174** | *e*Pn | **Pn** | **03 05 48.8** | **+1.4** |
| **MTN** | **Manton Dam** | **14.57** | **228** | *e*Pn | **Pn** | **03 06 37.8** | **0.0** |
| **GUMO** | **Guam** | **16.76** | **9** | LR | LR | 03 13 02.1 | |
| | comp=Z,247nm,18.6s,baz=143,slow=36 | | | | | | |
| **WRAB** | **Tennant Creek** | **18.41** | **204** | *e*P | **P** | **03 07 26.9** | **+0.6** |
| | 15nm,0.8s | | | | | | |
| **WB2** | **Warramunga Arr** | **18.41** | **204** | *e*P | **Pn** | **03 07 27.8** | **+1.1** |
| **WR1** | **Warramunga Arr** | **18.42** | **204** | *e*P | **P** | **03 07 25.9** | **-0.6** |
| | 38nm,1.3s | | | | | | |
| **WRA** | **Warramunga Arr** | **18.42** | **204** | P | **P** | **03 07 25.9** | **-0.6** |
| | 1.2nm,0.3s,baz=25,slow=11,SNR=38 | | | | | | |
| WRA | | | | LR | LR | 03 14 51.9 | |
| | comp=Z,985nm,19.1s,baz=35,slow=38 | | | | | | |
| **SOEI** | **Soe** | **18.92** | **249** | *e*P | **Pn** | **03 07 35.5** | **+2.6** |
| | 69nm,0.9s | | | | | | |
| **LUWI** | **Luwuk** | **19.42** | **275** | *e*P | **P** | **03 07 32.7** | **-4.8** |
| | 43nm,0.5s | | | | | | |
| **AS01** | **Alice Springs** | **21.96** | **200** | *e*P | **P** | **03 08 04.8** | **-0.2** |
| **AS31** | **Alice Springs** | **21.97** | **200** | *e*P | **P** | **03 08 07.8** | **+2.7** |
| | 4.4nm,0.9s | | | | | | |
| AS31 | | | | *e*S | **S** | **03 12 04.5** | **-1.8** |
| **ASAR** | **Alice Springs** | **21.97** | **200** | P | **P** | **03 08 05.4** | **+0.3** |
| | 2.7nm,0.8s,baz=30,slow=10.0,SNR=18 | | | | | | |
| ASAR | | | | S | **S** | **03 12 04.5** | **-1.8** |
| | 0.2nm,0.3s,baz=20,slow=25,SNR=3.6 | | | | | | |
| ASAR | | | | LR | LR | 03 16 39.5 | |
| | comp=Z,372nm,20.6s,baz=25,slow=37 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **22.00** | **226** | P | **P** | **03 08 06.5** | **+1.1** |
| | 16nm,1.1s,baz=39,slow=11,SNR=14 | | | | | | |
| FITZ | | | | S | **S** | **03 12 01.2** | **-5.6** |
| | 1.4nm,0.6s,baz=139,slow=13,SNR=2.0 | | | | | | |
| FITZ | | | | LR | LR | 03 17 44.3 | |
| | comp=Z,656nm,19.7s,baz=0.0,slow=40 | | | | | | |
| **KAPI** | **Kappang** | **22.38** | **264** | *e*P | **P** | **03 08 08.5** | **-1.0** |
| | 370nm,1.0s | | | | | | |
| **EIDS** | **Eidsvold** | **23.81** | **160** | *e*P | **P** | **03 08 25.1** | **+1.1** |
| | 18nm,1.0s | | | | | | |
| **MYLDM** | **Lahad Datu** | **24.95** | **289** | *e*P | **P** | **03 08 36.2** | **+1.6** |
| | 32nm,1.1s | | | | | | |
| **STKA** | **Stephens Creek** | **28.68** | **181** | P | **P** | **03 09 08.4** | **+0.6** |
| | 3.4nm,1.1s,baz=338,slow=5.4,SNR=4.7 | | | | | | |
| STKA | | | | LR | LR | 03 21 17.2 | |
| | comp=Z,215nm,18.4s,baz=357,slow=38 | | | | | | |
| **STKA** | **Stephens Creek** | **28.68** | **181** | *e*P | **P** | **03 09 08.8** | **+0.9** |
| | 7.7nm,1.8s | | | | | | |
| **DZM** | **Mont Dzumac** | **30.27** | **131** | *e*LR | LR | 03 17 25.2 | |
| | 208nm,26.2s | | | | | | |
| **SBUM** | **Sibu** | **30.36** | **280** | *e*P | **P** | **03 09 23.5** | **+0.4** |
| | 25nm,1.4s | | | | | | |
| **FORT** | **Forrest** | **30.61** | **204** | *e*P | **P** | **03 09 26.2** | **+1.2** |
| | 290nm,0.9s | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **32.32** | **48** | T | T | 03 43 26.1 | |
| | baz=231,slow=74,SNR=41 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **32.33** | **48** | T | T | 03 43 28.8 | |
| | baz=231,slow=74,SNR=31 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **32.34** | **48** | T | T | 03 43 33.0 | |
| | baz=231,slow=74,SNR=36 | | | | | | |
| **YOJ** | **Yonaguni jima** | **33.05** | **327** | *e*P | **P** | **03 09 46.0** | **-0.5** |
| | 228nm,1.1s | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **33.24** | **46** | T | T | 03 44 33.9 | |
| | baz=230,slow=76,SNR=330 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **33.26** | **46** | T | T | 03 44 37.6 | |
| | baz=230,slow=76,SNR=319 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **33.26** | **46** | T | T | 03 44 35.2 | |
| | baz=230,slow=76,SNR=160 | | | | | | |
| **QIZ** | **Qiongzhong** | **38.58** | **306** | P | **P** | **03 10 33.5** | **-0.5** |
| QIZ | | | | S | **S** | **03 16 29.0** | **+0.5** |
| QIZ | | | | pmax | pmax | | |
| | comp=Z,310nm,3.7s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=Z,64nm,24.1s | | | | | | |
| **MJAR** | **Matsushiro Arr** | **39.56** | **355** | LR | LR | 03 26 06.4 | |
| | comp=Z,97nm,18.9s,baz=195,slow=35 | | | | | | |
| **NJ2** | **Nanjing** | **41.30** | **329** | *e*P | **P** | **03 10 56.8** | **+0.3** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,12nm,0.5s | | | | | | |
| **PSI** | **Prapat** | **43.55** | **277** | *e*P | **P** | **03 11 14.4** | **-0.8** |
| | 26nm,1.3s | | | | | | |
| **HIZ** | **Hauiti** | **46.24** | **144** | *e*P | **P** | **03 11 35.4** | **-0.7** |
| | 167nm,1.6s | | | | | | |
| **KMI** | **Kunming** | **47.35** | **309** | P | **P** | **03 11 45.5** | **+0.3** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,16nm,0.5s | | | | | | |
| **CM31** | **Chiang Mai Arr** | **47.56** | **298** | *e*P | **P** | **03 11 47.7** | **+1.0** |
| **CMAR** | **Chiang Mai Arr** | **47.56** | **298** | P | **P** | **03 11 47.7** | **+1.0** |
| | 1.6nm,0.3s,baz=134,slow=5.2,SNR=4.3 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **47.91** | **350** | P | **P** | **03 11 47.4** | **-1.5** |
| | 3.9nm,0.9s,baz=180,slow=4.3,SNR=3.7 | | | | | | |
| **XAN** | **Xi'an** | **48.35** | **323** | P | **P** | **03 11 54.3** | **+1.6** |
| XAN | | | | pP | sP | 03 12 09.3 | +4.0 |
| XAN | | | | P | **PP** | **03 13 47.8** | **+2.3** |
| XAN | | | | S | **S** | **03 18 50.3** | **-0.9** |
| XAN | | | | sS | sS | 03 19 15.4 | +9.3 |
| XAN | | | | ScS | **ScS** | **03 21 38.4** | **-5.3** |
| XAN | | | | SS | **SS** | **03 22 15.4** | **-5.8** |
| XAN | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.6s | | | | | | |
| XAN | | | | pmax | pmax | | |
| | comp=Z,130nm,5.8s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=N,130nm,11.8s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=E,100nm,14.9s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,130nm,11.8s | | | | | | |
| **CN2** | **Changchun** | **48.98** | **344** | *e*P | **P** | **03 12 00.1** | **+2.8** |
| **HHC** | **Hu-ho-hao-te** | **51.83** | **331** | *e*P | **P** | **03 12 21.3** | **+2.3** |
| HHC | | | | S | **S** | **03 19 38.8** | **-0.8** |
| HHC | | | | sS | sS | 03 20 05.8 | +11 |
| HHC | | | | ScS | **ScS** | **03 22 02.5** | **-4.8** |
| HHC | | | | SS | **SS** | **03 23 14.3** | **-2.4** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,13nm,1.1s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,43nm,5.3s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=N,90nm,16.1s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=E,92nm,17.6s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,79nm,16.1s | | | | | | |
| **LZH** | **Lanzhou** | **52.83** | **321** | *e*P | **P** | **03 12 27.8** | **+1.2** |
| LZH | | | | pP | sP | 03 12 40.8 | +1.5 |
| LZH | | | | sP | pP | 03 12 46.1 | +10 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,16nm,1.0s | | | | | | |
| **KLR** | **Kul'dur** | **52.84** | **352** | P | **P** | **03 12 25.0** | **-1.2** |
| | 0.1nm,0.6s,baz=184,slow=6.2,SNR=4.4 | | | | | | |
| **GTA** | **Gaotai** | **57.39** | **322** | P | **P** | **03 13 00.5** | **+1.0** |
| GTA | | | | pP | sP | 03 13 16.0 | +3.8 |
| GTA | | | | sP | pP | 03 13 22.5 | +14 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.9s | | | | | | |
| **PETK** | **Petropavlovsk-** | **57.47** | **11** | LR | LR | 03 33 56.3 | |
| | comp=Z,86nm,21.5s,baz=207,slow=32 | | | | | | |
| **SEY** | **Seymchan** | **66.27** | **5** | P | **P** | **03 13 59.6** | **+1.0** |
| | 0.4nm,0.2s,baz=41,slow=20,SNR=2.4 | | | | | | |
| **WMQ** | **Urumqi** | **67.40** | **320** | P | **P** | **03 14 07.6** | **+1.3** |
| WMQ | | | | pP | sP | 03 14 23.3 | +4.1 |
| WMQ | | | | sP | PcP | 03 14 29.4 | -4.3 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,25nm,1.1s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,440nm,5.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,200nm,25.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,160nm,16.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,190nm,16.7s | | | | | | |
| **PPT2** | **Papeete2** | **68.43** | **108** | *e*LR | LR | 03 34 56.8 | |
| | 120nm,32.0s | | | | | | |
| **MK01** | **Makanchi Array** | **72.13** | **321** | *e*P | **P** | **03 14 35.5** | **+0.3** |
| **MK31** | **Makanchi Array** | **72.14** | **321** | *e*P | **P** | **03 14 36.0** | **+0.6** |
| **MK32** | **Makanchi Array** | **72.14** | **321** | *e*P | **P** | **03 14 35.6** | **+0.2** |
| **MKAR** | **Makanchi Array** | **72.14** | **321** | P | **P** | **03 14 35.6** | **+0.2** |
| | 1.2nm,0.8s,baz=118,slow=5.9,SNR=9.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **72.14** | **321** | *e*P | **P** | **03 14 36.0** | **+0.6** |
| | 28nm,1.2s | | | | | | |
| **KSH** | **Kashi** | **73.79** | **313** | P | **P** | **03 14 48.3** | **+2.9** |
| KSH | | | | PcP | **PcP** | **03 15 02.8** | **+1.8** |
| KSH | | | | pP | sP | 03 15 03.9 | +5.5 |
| KSH | | | | PP | **PP** | **03 17 35.3** | **+4.9** |
| KSH | | | | S | **SKiKP** | **03 24 13.6** | **+0.6** |
| KSH | | | | SKS | **SKSac** | **03 24 44.5** | **-6.1** |
| KSH | | | | ScS | **SKKSac** | **03 24 48.6** | **-2.3** |
| KSH | | | | SS | **SS** | **03 29 01.9** | **+2.5** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.2s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,33nm,1.8s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,91nm,4.8s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,80nm,6.8s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,130nm,6.1s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **73.95** | **329** | P | **P** | **03 14 45.0** | **-0.9** |
| | 1.2nm,0.6s,baz=107,slow=4.1,SNR=6.2 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **73.95** | **329** | *e*P | **P** | **03 14 45.0** | **-0.9** |
| **ZAA1** | **Zalesovo Array** | **73.96** | **329** | *e*P | **P** | **03 14 45.0** | **-0.9** |
| **VNDA** | **Vanda** | **75.16** | **176** | LR | LR | 03 48 20.7 | |
| | comp=Z,75nm,18.1s,baz=330,slow=36 | | | | | | |
| **KURK** | **Kurchatov** | **75.96** | **324** | *e*P | **P** | **03 14 59.1** | **+1.6** |
| | 14nm,1.4s | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **77.44** | **98** | *e*LR | LR | 03 39 03.9 | |
| | 121nm,24.4s | | | | | | |
| **IMAR** | **Indian Mountai** | **82.53** | **22** | *e*P | **P** | **03 15 32.6** | **-0.5** |
| **MAW** | **Mawson** | **83.09** | **202** | LR | LR | 03 50 40.6 | |
| | comp=Z,84nm,19.1s,baz=53,slow=34 | | | | | | |
| **MLY** | **Manley** | **83.30** | **23** | *e*pP | pP | 03 15 45.8 | -1.0 |
| **RND** | **Reindeer** | **83.48** | **25** | *e*P | **P** | **03 15 37.4** | **-0.8** |
| | 12nm,1.0s | | | | | | |
| **CCB** | **Clear Creek Bu** | **84.34** | **24** | *e*P | **P** | **03 15 41.4** | **-1.0** |
| | 21nm,1.5s | | | | | | |
| **ILAR** | **Eielson Array** | **84.75** | **24** | P | **P** | **03 15 42.8** | **-1.8** |
| | 2.3nm,0.9s,baz=248,slow=5.0,SNR=18 | | | | | | |
| ILAR | | | | LR | LR | 03 46 32.5 | |
| | comp=Z,68nm,20.8s,baz=250,slow=31 | | | | | | |
| **ILB** | **Eielson Array** | **84.75** | **24** | *e*P | **P** | **03 15 42.6** | **-1.9** |
| **IL1** | **Eielson Array** | **84.75** | **24** | *e*P | **P** | **03 15 41.2** | **-3.3** |
| **QSPA** | **South Pole Qui** | **86.90** | **180** | *e*P | **P** | **03 15 56.2** | **+0.9** |
| | 13nm,1.3s | | | | | | |
| **SYO** | **Syowa Base** | **91.64** | **201** | *e*PcP | **PcP** | **03 16 20.4** | **+2.1** |
| **YKA** | **Yellowknife Ar** | **98.83** | **27** | P | **P** | **03 16 49.0** | **-1.3** |
| | 0.6nm,1.0s,baz=280,slow=5.0,SNR=4.7 | | | | | | |
| YKA | | | | LR | LR | 03 54 54.2 | |
| | comp=Z,18nm,21.2s,baz=0.0,slow=32 | | | | | | |
| **YKB5** | **Yellowknife Ar** | **98.83** | **27** | *e*P | **P** | **03 16 49.0** | **-1.3** |
| **LPAZ** | **La Paz** | **144.48** | **124** | PKP | **PKPdf** | **03 22 48.4** | **-0.4** |
| | 4.8nm,0.9s,baz=26,slow=1.3,SNR=13 | | | | | | |
| **LPAZ** | **La Paz** | **144.48** | **124** | *e*PKPdf | **PKPdf** | **03 22 48.7** | **-0.1** |
| **CPUP** | **Villa Florida** | **145.27** | **148** | PKPbc | **PKPdf** | **03 22 50.2** | **+1.0** |
| | 1.7nm,0.7s,baz=329,slow=4.1,SNR=5.2 | | | | | | |
| **DBIC** | **Dimbokro** | **146.89** | **277** | PKPbc | **PKPbc** | **03 22 54.9** | **+0.8** |
| | 1.8nm,0.6s,baz=89,slow=4.0,SNR=4.3 | | | | | | |

**IDC 20 03:06:40.8±1.8,2.75S×142.31E,h0km,mb3.5/3, mb1 3.8/4,mb1mx3.5/32,mbtmp3.6/4,ML3.7/1,Error ellipse: s-maj=79.3km s-min=27.1km az=101.0,Near north coast of New Guinea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **18.78** | **204** | P | P | 03 10 59.8 | -2.0 |
| | 0.2nm,0.3s,baz=28,slow=12,SNR=4.8 | | | | | | |
| **ASAR** | **Alice Springs** | **22.33** | **201** | P | P | 03 11 41.6 | +1.2 |
| | 1.1nm,0.6s,baz=28,slow=12,SNR=4.9 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **31.96** | **48** | T | T | 03 47 06.9 | |
| | baz=231,slow=74,SNR=20 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **31.97** | **48** | T | T | 03 47 03.8 | |
| | baz=231,slow=74,SNR=11 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **31.98** | **48** | T | T | 03 47 01.7 | |
| | baz=231,slow=74,SNR=12 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **32.88** | **46** | T | T | 03 48 04.6 | |
| | baz=229,slow=76,SNR=56 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **32.90** | **46** | T | T | 03 48 07.2 | |
| | baz=229,slow=76,SNR=56 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **32.90** | **46** | T | T | 03 48 12.9 | |
| | baz=229,slow=76,SNR=53 | | | | | | |
| **MKAR** | **Makanchi Array** | **72.04** | **321** | P | P | 03 18 06.8 | 0.0 |
| | 0.3nm,0.6s,baz=99,slow=6.6,SNR=3.4 | | | | | | |
| **ILAR** | **Eielson Array** | **84.39** | **24** | P | P | 03 19 14.8 | 0.0 |
| | 0.3nm,0.6s,baz=248,slow=4.8,SNR=4.3 | | | | | | |

**IDC 20 03:32:32.9±1.9,2.50S×141.69E,h0km,mb3.2/2, mb1 3.5/3,mb1mx3.4/35,mbtmp3.2/3,ML3.3/1,Error ellipse: s-maj=302.3km s-min=30.1km az=111.0,Near north coast of New Guinea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **18.77** | **202** | P | P | 03 36 53.0 | -0.7 |
| | 0.1nm,0.3s,baz=22,slow=13,SNR=6.4 | | | | | | |
| **ASAR** | **Alice Springs** | **22.36** | **199** | P | P | 03 37 33.3 | +0.6 |
| | 0.2nm,0.3s,baz=29,slow=12,SNR=3.8 | | | | | | |
| **ILAR** | **Eielson Array** | **84.41** | **24** | P | P | 03 45 06.9 | -0.1 |
| | 0.3nm,0.7s,baz=268,slow=3.9,SNR=5.1 | | | | | | |

*IDC **20** 03:32:52.2±1.1,2.86S×142.08E,h0km,mb3.8/4, mb1 4.1/5,mb1mx3.8/35,mbtmp3.9/5,ML4.1/1,MS3.5/4, Ms1 3.4/4,ms1mx3.1/28,Error ellipse: s-maj=59.

comp=Z,6.9nm,21.6s,baz=0.0,slow=31
**LPAZ La Paz 144.71 124** PKP **PKPdf 03 52 32.1 0.0**
1.1nm,0.6s,baz=261,slow=3.0,SNR=5.2
**CPUP Villa Florida 145.52 148** PKPbc **PKPab 03 52 32.7 0.0**
0.7nm,0.6s,baz=320,slow=1.6,SNR=4.6
**DBIC Dimbokro 146.72 278** PKPbc **PKPab 03 52 37.9 +0.3**
3.4nm,1.0s,baz=126,slow=8.7,SNR=3.1

---

*IDC **20** 03:33:51.6±1.2,56˚19S×27˚72W,h0km,mb4.0/3, mb1 4.1/3,mb1mx3.8/16,mbtmp3.9/3,Error ellipse: s-maj=54.4km s-min=41.2km az=43.0*
*ISCJB **20** 03:34:04.3±1.0,56˚1S±0˚2×28˚0W±0˚6,h112km,mb3.8/3, Error ellipse: s-maj=49.2km s-min=15.2km az=156.6*
**ISC 20 03:34:05.8±1.0,56˚1S±0˚2×28˚0W±0˚3,h112km,n9, σ1§09/9,South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | Time h m s | Res |
|---|---|---|---|---|---|---|---|---|
| **VNA3** | **Neumayer Olymp** | **17.07** | **160** | P | | **Pn** | **03 37 55.5** | **-1.7** |
| **VNA2** | **Neumayer--Watz** | **17.29** | **157** | P | | **Pn** | **03 38 01.7** | **+1.9** |
| | baz=314,slow=13 | | | | | | | |
| **SNAA** | **Sanae** | **18.86** | **155** | P | | **Pn** | **03 38 18.2** | **-0.4** |
| **CPUP** | **Villa Florida** | **36.52** | **312** | P | | **P** | **03 41 00.0** | **-0.2** |
| | 0.6nm,0.4s,baz=150,slow=8.1,SNR=3.5 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **73.36** | **30** | P | | **P** | **03 45 25.1** | **-0.2** |
| | 0.4nm,0.6s,baz=198,slow=6.6,SNR=2.7 | | | | | | | |
| **ASAR** | **Alice Springs** | **99.05** | **163** | P | | **Pdif** | **03 47 34.2** | **+0.2** |
| | 0.5nm,0.6s,baz=174,slow=4.2,SNR=4.4 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **135.92** | **318** | PKP | | **PKPdf** | **03 53 12.1** | **+0.3** |
| | 0.4nm,0.7s,baz=128,slow=2.3,SNR=7.0 | | | | | | | |
| **ILAR** | **Eielson Array** | **149.82** | **312** | PKPbc | | **PKPbc** | **03 53 41.8** | **+0.6** |
| | 2.4nm,0.7s,baz=130,slow=2.6,SNR=36 | | | | | | | |
| **SONM** | **Songino Array** | **151.20** | **87** | PKPbc | | **PKPbc** | **03 53 44.8** | **-0.2** |
| | 0.9nm,0.5s,baz=219,slow=3.0,SNR=7.1 | | | | | | | |

---

*IDC **20** 03:34:41.3±0.6,13˚22N×122˚52E,h0km,mb4.2/28, mb1 4.3/28,mb1mx4.2/44,mbtmp4.1/28,MS3.9/21, Ms1 3.9/21,ms1mx3.8/41,Error ellipse: s-maj=18.2km s-min=12.4km az=62.0*
*ISCJB **20** 03:34:42.9±0.5,13˚26N±0˚02×122˚44E±0˚02,h16km±4km, mb4.6/68,MS4.1/30,Error ellipse: s-maj=4.0km s-min=2.9km az=151.8*
*MAN **20** 03:34:43,13˚31N×122˚45E,h19km,mb4.8,ML3.7,MS3.8*
*NEIC **20** 03:34:44.6±3.8,13˚25N×122˚56E,h19km±23km,mb4.9/31, Error ellipse: s-maj=10.1km s-min=6.2km az=74.0*
*BJI **20** 03:34:46.0,13˚07N×122˚39E,h37km,mb4.6/59,mB4.8/39, Ms4.5/46,Ms7 4.3/45*
*BKK **20** 03:34:56.6±0.9,14˚N±6˚×12˚2E±1˚0,h10km,M4.2/19, mB4.7/8,mb4.6/19,Mw(mB)4.0/8*
**ISC 20 03:34:45.7±0.4,13°25N±0°02×122°40E±0°02,h22km±3km, n153,σ2§68/190,mb4.7/67,MS4.1/30,6C-5D,Luzon**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res |
|---|---|---|---|---|---|---|---|---|
| **AUQP** | **San Andres** | **0.28** | **75** | *e*P | | **Pb** | **03 34 50.4** | **-1.8** |
| AUQP | | | | *e*S | | **Sn** | **03 34 58.6** | **-1.5** |
| **BOAC** | **Boac** | **0.58** | **291** | *e*P | | **Pb** | **03 34 53.0** | **-4.1** |
| BOAC | | | | *e*S | | **Sb** | **03 35 01.3** | **-3.6** |
| **GQP** | **Guinayangan** | **0.65** | **4** | ⇑*e*P | | **Pb** | **03 34 54.2** | **-4.2** |
| GQP | | | | *e*S | | **Sb** | **03 35 04.1** | **-3.0** |
| **OTRP** | **Odiongan** | **0.96** | **203** | *e*P | | **Pb** | **03 35 01.0** | **-2.6** |
| OTRP | | | | *e*S | | **Sb** | **03 35 14.8** | **-1.0** |
| **PGP** | **Puerto Galera** | **1.43** | **280** | ⇓*i*P | | **Pn** | **03 35 08.2** | **-2.1** |
| PGP | | | | *i* S | | **Sn** | **03 35 27.1** | **-1.4** |
| **SJMP** | **San Jose** | **1.47** | **238** | *e*P | | **Pn** | **03 35 09.8** | **-1.1** |
| SJMP | | | | *e*S | | **Sb** | **03 35 30.6** | **-0.1** |
| **MMPH** | **Masbate** | **1.49** | **126** | *e*P | | **Pn** | **03 35 08.2** | **-2.9** |
| MMPH | | | | *e*S | | **Sn** | **03 35 28.3** | **-1.7** |
| **TGY** | **Tagaytay City** | **1.65** | **301** | Pn | | **Pn** | **03 35 12.6** | **-0.9** |
| | 654nm,0.3s,baz=137,slow=2.5,SNR=72 | | | | | | | |
| TGY | | | | Sn | | **Sb** | **03 35 35.7** | **-0.2** |
| | 2μm,0.3s,baz=65,slow=15,SNR=16 | | | | | | | |
| TGY | | | | LR | | LR | 03 36 12.1 | |
| | comp=Z,3μm,21.6s,baz=357,slow=52 | | | | | | | |
| **TGY** | **Tagaytay City** | **1.65** | **301** | ⇑*i*P | | **Pn** | **03 35 11.8** | **-1.7** |
| TGY | | | | *i* S | | **Sn** | **03 35 34.1** | **0.0** |
| **RCP** | **Roxas** | **1.71** | **169** | ⇑*e*P | | **Pn** | **03 35 12.4** | **-1.9** |
| RCP | | | | *e*S | | **Sn** | **03 35 34.0** | **-1.5** |
| **PVCP** | **Virac** | **1.74** | **78** | *e*P | | **Pn** | **03 35 13.6** | **-1.1** |
| PVCP | | | | *e*S | | **Sb** | **03 35 40.3** | **+1.8** |
| **LUBP** | **Lubang** | **2.15** | **283** | *e*P | | **Pn** | **03 35 18.9** | **-1.3** |
| **CNP** | **Catarman** | **2.33** | **108** | *e*P | | **Pn** | **03 35 21.5** | **-1.2** |
| CNP | | | | *e*S | | **Sb** | **03 36 02.4** | **+7.1** |
| **BUSP** | **Coron** | **2.48** | **240** | *e*P | | **Pn** | **03 35 23.0** | **-1.8** |
| BUSP | | | | *e*S | | **Sn** | **03 35 51.9** | **-2.5** |
| **JAP** | **San Jose, Anti** | **2.53** | **190** | ⇓*e*P | | **Pn** | **03 35 23.4** | **-2.1** |
| **BALP** | **Baler** | **2.60** | **342** | *e*P | | **Pn** | **03 35 25.2** | **-1.3** |
| BALP | | | | *e*S | | **Sn** | **03 35 54.9** | **-2.5** |
| **GUIM** | **Jordan** | **2.62** | **176** | *e*P | | **Pn** | **03 35 26.6** | **-0.1** |
| **PLP** | **Palo** | **3.27** | **129** | ⇓*e*P | | **Pn** | **03 35 33.9** | **-1.8** |
| **LLP** | **Lapu-Lapu** | **3.30** | **152** | *e*P | | **Pn** | **03 35 34.0** | **-2.0** |
| LLP | | | | *e*S | | **Sb** | **03 35 37.5** | **-1.0** |
| **SCZP** | **Santa Cruz** | **3.48** | **316** | *e*P | | **Pn** | **03 35 37.5** | **-1.0** |
| SCZP | | | | *e*S | | **Sn** | **03 36 22.6** | **+3.5** |
| **CAUP** | **Cauayan** | **3.71** | **351** | *e*P | | **Pn** | **03 35 40.6** | **-1.1** |
| CAUP | | | | *e*S | | **Sn** | **03 36 21.5** | **-3.4** |
| **MSLP** | **Maasin** | **3.93** | **142** | *e*P | | **Pn** | **03 35 44.8** | **+0.1** |
| **SNPH** | **Sibulan** | **3.97** | **168** | ⇑*i*P | | **Pn** | **03 35 46.0** | **+0.7** |
| **ABRA** | **Dolores** | **4.66** | **340** | *e*P | | **Pn** | **03 35 54.7** | **-0.2** |
| **APYP** | **Conner** | **4.72** | **347** | *e*P | | **Pn** | **03 35 54.8** | **-0.8** |
| APYP | | | | *e*S | | **Sn** | **03 36 47.4** | **-2.3** |
| **DAV** | **Davao City (W)** | **6.89** | **153** | LR | | LR | 03 39 22.1 | |
| | comp=Z,1μm,20.2s,baz=338,slow=41 | | | | | | | |
| **MYLDM** | **Lahad Datu** | **8.89** | **206** | *e*Pn | | **Pn** | **03 36 56.4** | **+3.4** |
| **TWG** | **Pinlang** | **9.60** | **353** | *e*Pn | | **Pn** | **03 37 04.0** | **+1.3** |
| **YULB** | **Yu-li** | **10.14** | **354** | *e*Pn | | **Pn** | **03 37 05.7** | **-4.4** |
| **QIZ** | **Qiongzhong** | **13.36** | **297** | P | | **Pn** | **03 37 56.3** | **+2.2** |
| QIZ | | | | S | | **Sn** | **03 40 23.3** | **+1.3** |
| QIZ | | | | LR | | LR | | |
| | comp=E,900nm,14.4s | | | | | | | |
| QIZ | | | | LR | | LR | | |
| | comp=Z,990nm,19.3s | | | | | | | |
| **LUWI** | **Luwuk** | **14.21** | **178** | *e*Pn | | **Pn** | **03 38 05.0** | **-0.7** |
| **SBUM** | **Sibu** | **14.71** | **224** | *e*Pn | | **Pn** | **03 38 12.0** | **-0.7** |
| **KAPI** | **Kappang** | **18.34** | **188** | *e*P | | **P** | **03 38 58.7** | **0.0** |
| | 30nm,1.0s | | | | | | | |
| **WHN** | **Wuhan** | **18.75** | **338** | ⇓P | | **P** | **03 39 02.4** | **-0.7** |
| WHN | | | | S | | **S** | **03 42 38.3** | **+3.0** |
| WHN | | | | LR | | LR | | |
| | comp=N,890nm,10.4s | | | | | | | |
| WHN | | | | LR | | LR | | |
| | comp=E,3μm,17.0s | | | | | | | |
| WHN | | | | LR | | LR | | |
| | comp=Z,2μm,21.0s | | | | | | | |
| **NJ2** | **Nanjing** | **18.99** | **351** | *e*P | | **Pn** | **03 39 06.8** | **+0.2** |
| NJ2 | | | | pmax | | pmax | | |
| | comp=Z,19nm,0.8s | | | | | | | |
| NJ2 | | | | LR | | LR | | |
| | comp=N,1μm,24.9s | | | | | | | |
| NJ2 | | | | LR | | LR | | |
| | comp=E,950nm,23.9s | | | | | | | |
| NJ2 | | | | LR | | LR | | |
| | comp=Z,1μm,22.8s | | | | | | | |
| **GYA** | **Guiyang** | **19.76** | **314** | ⇑*i*P | | **Pn** | **03 39 17.8** | **+1.8** |
| GYA | | | | pP | | sP | 03 39 26.4 | +3.0 |
| GYA | | | | PP | | **PnPn** | **03 39 38.0** | **+7.9** |
| GYA | | | | S | | **S** | **03 42 54.3** | **-2.0** |
| GYA | | | | sS | | sS | 03 43 07.8 | +1.7 |
| GYA | | | | SS | | **SnSn** | **03 43 21.8** | **+10** |
| GYA | | | | PcP | | **PcP** | **03 43 35.0** | **+2.4** |
| GYA | | | | pmax | | pmax | | |
| | comp=Z,20nm,0.8s | | | | | | | |
| GYA | | | | pmax | | pmax | | |
| | comp=Z,130nm,4.8s | | | | | | | |
| GYA | | | | LR | | LR | | |
| | comp=N,600nm,17.4s | | | | | | | |
| GYA | | | | LR | | LR | | |
| | comp=E,560nm,17.8s | | | | | | | |
| GYA | | | | LR | | LR | | |
| | comp=Z,550nm,17.6s | | | | | | | |
| **SRAK** | **Srakaew** | **19.80** | **275** | P | | **P** | **03 39 14.2** | **-0.6** |
| | 47nm,1.1s | | | | | | | |
| **CHAI** | **Chaiyaphum** | **19.93** | **280** | P | | **Pn** | **03 39 17.3** | **-0.7** |
| | 22nm,1.0s,193nm | | | | | | | |
| **NAYO** | **Nakonayok** | **20.50** | **275** | P | | Pn | 03 39 27.6 | +2.9 |
| | 28nm,1.1s,1μm | | | | | | | |
| **ENH** | **Enshi** | **20.72** | **327** | *e*P | | Pn | 03 39 27.9 | +0.8 |
| | 61nm,1.3s | | | | | | | |
| **PBKT** | **Sadao Pong** | **20.96** | **282** | P | | Pn | 03 39 29.0 | -1.1 |
| | 24nm,1.1s | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **JNU** | **Nakatsue** | **21.24** | **20** | *e*P | | **P** | **03 39 24.0** | **-6.4** |
| | 11nm,1.1s | | | | | | | |
| **MMRI** | **Maumere** | **21.75** | **180** | *e*P | | **P** | **03 39 39.9** | **+4.0** |
| | 52nm,0.7s | | | | | | | |
| **KMI** | **Kunming** | **21.97** | **305** | P | | **P** | **03 39 41.4** | **+2.9** |
| KMI | | | | pP | | sP | 03 39 50.8 | +3.4 |
| KMI | | | | sP | | pP | 03 39 55.1 | +10 |
| KMI | | | | PP | | **PnPn** | **03 40 08.8** | **+8.4** |
| KMI | | | | S | | **S** | **03 43 36.6** | **-3.7** |
| KMI | | | | sS | | Sn | 03 43 53.5 | +2.6 |
| KMI | | | | LR | | LR | | |
| | comp=N,260nm,12.8s | | | | | | | |
| KMI | | | | LR | | LR | | |
| | comp=E,610nm,15.0s | | | | | | | |
| KMI | | | | LR | | LR | | |
| | comp=Z,660nm,14.7s | | | | | | | |
| **UTHA** | **Uthaitani** | **22.35** | **279** | P | | **P** | **03 39 46.5** | **+4.1** |
| | 5.7nm,1.0s | | | | | | | |
| **SOEI** | **Soe** | **22.93** | **175** | *e*P | | **P** | **03 39 45.6** | **-3.0** |
| | 42nm,1.0s | | | | | | | |
| **JAGI** | **Jajag, Banyuwa** | **23.08** | **201** | *e*P | | **P** | **03 39 46.7** | **-3.4** |
| | 35nm,1.0s | | | | | | | |
| **CM01** | **Chiang Mai Arr** | **23.12** | **286** | *e*P | | **P** | **03 39 50.7** | **+0.2** |
| **CM31** | **Chiang Mai Arr** | **23.14** | **286** | *e*P | | **P** | **03 39 50.3** | **-0.3** |
| **CMAR** | **Chiang Mai Arr** | **23.14** | **286** | P | | **P** | **03 39 51.0** | **+0.3** |
| | 22nm,1.0s,baz=98,slow=8.0,SNR=41 | | | | | | | |
| CMAR | | | | LR | | LR | 03 49 33.2 | |
| | comp=Z,145nm,18.8s,baz=100,slow=38 | | | | | | | |
| **CMMT** | **Chiang Mai** | **23.19** | **287** | P | | **P** | **03 39 51.4** | **+0.1** |
| | 20nm,1.3s | | | | | | | |
| **CHTO** | **Chiang Mai** | **23.20** | **287** | P | | **P** | **03 39 51.9** | **+0.6** |
| | 89nm,1.3s | | | | | | | |
| **CHTO** | **Chiang Mai** | **23.20** | **287** | *e*P | | **P** | **03 39 51.3** | **0.0** |
| | 34nm,1.3s | | | | | | | |
| **TIA** | **Tai'an** | **23.35** | **349** | ⇓P | | **P** | **03 39 52.5** | **-0.1** |
| TIA | | | | pmax | | pmax | | |
| | comp=Z,60nm,1.2s | | | | | | | |
| **XAN** | **Xi'an** | **24.05** | **332** | P | | **P** | **03 39 58.3** | **-1.1** |
| XAN | | | | pP | | sP | 03 40 07.5 | -1.2 |
| XAN | | | | S | | **S** | **03 44 16.4** | **+0.8** |
| XAN | | | | pmax | | pmax | | |
| | comp=Z,38nm,1.3s | | | | | | | |
| XAN | | | | pmax | | pmax | | |
| | comp=Z,79nm,4.4s | | | | | | | |
| XAN | | | | LR | | LR | | |
| | comp=N,490nm,17.3s | | | | | | | |
| XAN | | | | LR | | LR | | |
| | comp=E,1μm,17.3s | | | | | | | |
| XAN | | | | LR | | LR | | |
| | comp=Z,1μm,17.3s | | | | | | | |
| **CD2** | **Chengdu** | **24.57** | **319** | ⇑*i*P | | **P** | **03 40 06.4** | **+2.1** |
| CD2 | | | | pP | | sP | 03 40 16.8 | +3.2 |
| CD2 | | | | sP | | pP | 03 40 22.4 | +12 |
| CD2 | | | | PP | | **PnPn** | **03 40 41.8** | **+6.0** |
| CD2 | | | | S | | **S** | **03 44 21.8** | **-2.4** |
| CD2 | | | | sS | | sS | 03 44 38.8 | +3.9 |
| CD2 | | | | pmax | | pmax | | |
| | comp=Z,20nm,1.4s | | | | | | | |
| CD2 | | | | pmax | | pmax | | |
| | comp=Z,190nm,4.8s | | | | | | | |
| CD2 | | | | LR | | LR | | |
| | comp=N,680nm,14.2s | | | | | | | |
| CD2 | | | | LR | | LR | | |
| | comp=E,790nm,15.2s | | | | | | | |
| CD2 | | | | LR | | LR | | |
| | comp=Z,1μm,14.2s | | | | | | | |
| **KS15** | **Wonju Array Si** | **24.59** | **11** | *e*P | | **P** | **03 40 03.0** | **-1.2** |
| **KSAR** | **Wonju Array Be** | **24.59** | **11** | P | | **P** | **03 40 03.0** | **-1.2** |
| **KSRS** | **Korea Array** | **24.60** | **11** | P | | **P** | **03 40 03.0** | **-1.4** |
| | 1.5nm,0.8s,baz=194,slow=9.5,SNR=5.2 | | | | | | | |
| KSRS | | | | LR | | LR | 03 50 11.2 | |
| | comp=Z,131nm,19.1s,baz=190,slow=38 | | | | | | | |
| **KS01** | **Wonju Array Si** | **24.62** | **11** | *e*P | | **P** | **03 40 01.3** | **-3.3** |
| **CISI** | **Cisompet, Garu** | **25.24** | **216** | *e*P | | **P** | **03 40 12.3** | **+1.9** |
| | 168nm,1.5s | | | | | | | |
| **PSI** | **Prapat** | **25.43** | **248** | *e*P | | **P** | **03 40 15.9** | **+3.7** |
| | 17nm,1.0s | | | | | | | |
| **DL2** | **Dalian** | **25.56** | **359** | P | | **P** | **03 40 16.8** | **+3.8** |
| DL2 | | | | S | | **S** | **03 44 45.3** | **+5.7** |
| DL2 | | | | pmax | | pmax | | |
| | comp=Z,23nm,0.8s | | | | | | | |
| DL2 | | | | pmax | | pmax | | |
| | comp=Z,78nm,5.2s | | | | | | | |
| DL2 | | | | LR | | LR | | |
| | comp=N,540nm,13.8s | | | | | | | |
| DL2 | | | | LR | | LR | | |
| | comp=E,420nm,13.6s | | | | | | | |
| DL2 | | | | LR | | LR | | |
| | comp=Z,550nm,22.6s | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **27.19** | **29** | P | | **P** | **03 40 28.1** | **+0.3** |
| | 1.9nm,0.8s,baz=210,slow=7.0,SNR=3.6 | | | | | | | |
| MJAR | | | | LR | | LR | 03 49 22.3 | |
| | comp=Z,197nm,21.4s,baz=185,slow=32 | | | | | | | |
| **BJT** | **Baijiatuan** | **27.22** | **350** | *e*P | | **P** | **03 40 24.7** | **-3.3** |
| | 25nm,0.9s | | | | | | | |
| **BJI** | **Beijing** | **27.24** | **350** | P | | **P** | **03 40 30.6** | **+2.4** |
| BJI | | | | S | | **S** | **03 45 14.8** | **+8.7** |
| BJI | | | | pmax | | pmax | | |
| | comp=Z,29nm,1.4s | | | | | | | |
| BJI | | | | LR | | LR | | |
| | comp=N,320nm,20.9s | | | | | | | |
| BJI | | | | LR | | LR | | |
| | comp=E,380nm,23.4s | | | | | | | |
| BJI | | | | LR | | LR | | |
| | comp=Z,480nm,24.2s | | | | | | | |
| **LZH** | **Lanzhou** | **28.20** | **327** | *e*P | | **P** | **03 40 38.9** | **+1.8** |
| LZH | | | | pP | | sP | 03 40 46.8 | +0.4 |
| LZH | | | | sP | | pP | 03 40 51.8 | +8.1 |
| LZH | | | | *e*S | | **S** | **03 45 19.3** | **-2.5** |
| LZH | | | | sS | | sS | 03 45 34.3 | +1.7 |
| LZH | | | | pmax | | pmax | | |
| | comp=Z,44nm,1.1s | | | | | | | |
| LZH | | | | pmax | | pmax | | |
| | comp=Z,150nm,4.6s | | | | | | | |
| LZH | | | | LR | | LR | | |
| | comp=N,1μm,15.8s | | | | | | | |
| LZH | | | | LR | | LR | | |
| | comp=E,1μm,15.2s | | | | | | | |
| LZH | | | | LR | | LR | | |
| | comp=Z,1μm,15.8s | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **29.09** | **343** | *e*P | | **P** | **03 40 47.8** | **+3.0** |
| HHC | | | | PP | | **PnPn** | **03 41 42.3** | **+4.9** |
| HHC | | | | S | | **S** | **03 45 35.9** | **+0.5** |
| HHC | | | | sS | | sS | 03 45 51.8 | +5.5 |
| HHC | | | | SS | | **SnSn** | **03 47 06.4** | **+6.3** |
| HHC | | | | ScS | | **ScS** | **03 51 25.8** | **-1.3** |
| HHC | | | | pmax | | pmax | | |
| | comp=Z,18nm,1.0s | | | | | | | |
| HHC | | | | pmax | | pmax | | |
| | comp=Z,54nm,5.1s | | | | | | | |
| HHC | | | | LR | | LR | | |
| | comp=N,460nm,18.0s | | | | | | | |
| HHC | | | | LR | | LR | | |
| | comp=E,400nm,14.3s | | | | | | | |
| HHC | | | | LR | | LR | | |
| | comp=Z,450nm,14.9s | | | | | | | |
| **CN2** | **Changchun** | **30.56** | **4** | *e*P | | **P** | **03 41 02.0** | **+4.4** |
| CN2 | | | | *e*pP | | sP | 03 41 12.0 | +5.0 |
| CN2 | | | | pmax | | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | | |
| **SHL** | **Shillong** | **31.19** | **298** | *e*P | | **P** | **03 41 00.0** | **-3.7** |
| **FITZ** | **Fitzroy Crossi** | **31.32** | **174** | P | | **P** | **03 41 04.8** | **+0.2** |
| | 4.2nm,1.0s,baz=355,slow=9.9,SNR=4.2 | | | | | | | |
| **MDJ** | **Mudanjiang** | **31.86** | **10** | P | | **P** | **03 41 10.1** | **+1.0** |
| MDJ | | | | pP | | sP | 03 41 18.9 | +0.5 |
| MDJ | | | | sP | | pP | 03 41 22.8 | +7.1 |
| MDJ | | | | S | | **S** | **03 46 20.5** | **+1.9** |
| MDJ | | | | sS | | sS | 03 46 36.3 | +6.8 |
| MDJ | | | | PcS | | **PcS** | **03 47 41.8** | **-2.3** |
| MDJ | | | | pmax | | pmax | | |
| | comp=Z,5.0nm,0.8s | | | | | | | |
| MDJ | | | | pmax | | pmax | | |
| | comp=Z,53nm,4.0s | | | | | | | |
| MDJ | | | | LR | | LR | | |
| | comp=N,140nm,24.4s | | | | | | | |
| MDJ | | | | LR | | LR | | |
| | comp=E,100nm,19.5s | | | | | | | |
| MDJ | | | | LR | | LR | | |
| | comp=Z,240nm,17.1s | | | | | | | |
| **MDJ** | **Mudanjiang** | **31.86** | **10** | *e*P | | **P** | **03 41 05.7** | **-3.4** |
| | 13nm,1.0s | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **31.92** | **13** | P | | **P** | **03 41 08.5** | **-1.1** |
| | 3.9nm,0.8s,baz=191,slow=9.3,SNR=5.5 | | | | | | | |
| USRK | | | | LR | | LR | 03 53 10.2 | |
| | comp=Z,145nm,21.6s,baz=184,slow=35 | | | | | | | |
| **GTA** | **Gaotai** | **32.80** | **327** | P | | **P** | **03 41 20.8** | **+3.1** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| GTA | | | | pP | | sP | 03 41 30.3 | +3.3 |
| GTA | | | | sP | | pP | 03 41 34.3 | +10 |
| GTA | | | | S | | **S** | **03 46 37.3** | **+3.5** |
| GTA | | | | sS | | sS | 03 46 53.3 | +8.6 |
| GTA | | | | SS | | **SnSn** | **03 48 39.8** | **+9.2** |
| GTA | | | | pmax | | pmax | | |
| | comp=Z,8.0nm,1.2s | | | | | | | |
| GTA | | | | pmax | | pmax | | |
| | comp=Z,94nm,5.4s | | | | | | | |
| GTA | | | | LR | | LR | | |
| | comp=N,740nm,18.5s | | | | | | | |
| GTA | | | | LR | | LR | | |
| | comp=E,520nm,19.5s | | | | | | | |
| GTA | | | | LR | | LR | | |
| | comp=Z,650nm,17.1s | | | | | | | |
| **LSA** | **Lhasa** | **33.22** | **305** | *e*P | | **P** | **03 41 20.3** | **-1.5** |
| | 32nm,1.7s | | | | | | | |
| **RABL** | **Rabaul** | **34.26** | **118** | *e*P | | **P** | **03 41 28.9** | **-1.6** |
| | 196nm,0.4s | | | | | | | |
| **WR1** | **Warramunga Arr** | **35.02** | **160** | *e*P | | **P** | **03 41 33.6** | **-3.3** |
| | 58nm,2.0s | | | | | | | |
| **WRA** | **Warramunga Arr** | **35.02** | **160** | P | | **P** | **03 41 33.6** | **-3.3** |
| | 3.6nm,1.0s,baz=337,slow=10,SNR=6.8 | | | | | | | |
| **ULN** | **Ulaanbaatar** | **36.80** | **343** | *e*P | | **P** | **03 41 52.6** | **+0.5** |
| | 26nm,1.5s | | | | | | | |
| **SONA0** | **Songino Array** | **36.97** | **342** | *e*P | | **P** | **03 41 53.1** | **-0.5** |
| **SONM** | **Songino Array** | **36.97** | **342** | P | | **P** | **03 41 53.1** | **-0.5** |
| | 4.2nm,0.9s,baz=163,slow=9.5,SNR=13 | | | | | | | |
| SONM | | | | LR | | LR | 03 58 50.5 | |
| | comp=Z,510nm,18.8s,baz=166,slow=39 | | | | | | | |
| **SONA1** | **Songino Array** | **36.98** | **342** | *e*P | | **P** | **03 41 53.5** | **-0.1** |
| **AS31** | **Alice Springs** | **38.38** | **163** | *e*P | | **P** | **03 42 04.5** | **-1.0** |
| | 2.1nm,0.8s | | | | | | | |
| **ASAR** | **Alice Springs** | **38.38** | **163** | P | | **P** | **03 42 03.9** | **-1.6** |
| | 3.3nm,0.9s,baz=339,slow=7.1,SNR=14 | | | | | | | |
| ASAR | | | | LR | | LR | 03 59 11.1 | |
| | comp=Z,100nm,21.4s,baz=8.0,slow=38 | | | | | | | |
| **AS01** | **Alice Springs** | **38.39** | **163** | *e*P | | **P** | **03 42 04.1** | **-1.5** |
| **PALK** | **Pallekele** | **41.41** | **266** | LR | | LR | 04 00 30.8 | |
| | comp=Z,105nm,18.8s,baz=116,slow=37 | | | | | | | |
| **WMQ** | **Urumqi** | **42.56** | **322** | P | | **P** | **03 42 40.8** | **+0.8** |
| WMQ | | | | pP | | sP | 03 42 53.8 | +4.4 |
| WMQ | | | | sP | | pP | 03 42 56.4 | +10 |
| WMQ | | | | S | | **S** | **03 48 56.5** | **-5.0** |
| WMQ | | | | SS | | **SS** | **03 52 07.4** | **-4.2** |
| WMQ | | | | pmax | | pmax | | |
| | comp=Z,14nm,0.7s | | | | | | | |
| WMQ | | | | pmax | | pmax | | |
| | comp=Z,310nm,5.1s | | | | | | | |
| WMQ | | | | LR | | LR | | |
| | comp=N,2μm,15.9s | | | | | | | |
| WMQ | | | | LR | | LR | | |
| | comp=E,1μm,16.5s | | | | | | | |
| WMQ | | | | LR | | LR | | |
| | comp=Z,860nm,20.1s | | | | | | | |
| **MK01** | **Makanchi Array** | **47.36** | **323** | *e*P | | **P** | **03 43 19.5** | **+1.4** |
| **MK31** | **Makanchi Array** | **47.38** | **323** | *e*P | | **P** | **03 43 18.4** | **+0.2** |
| **MK32** | **Makanchi Array** | **47.38** | **323** | *e*P | | **P** | **03 43 17.3** | **-0.9** |
| **MKAR** | **Makanchi Array** | **47.38** | **323** | P | | **P** | **03 43 17.3** | **-0.9** |
| | 2.7nm,0.9s,baz=120,slow=7.7,SNR=16 | | | | | | | |
| **MKAR** | **Makanchi Array** | **47.38** | **323** | *e*P | | **P** | **03 43 18.9** | **+0.6** |
| | 28nm,1.0s | | | | | | | |
| **KSH** | **Kashi** | **48.43** | **311** | P | | **P** | **03 43 31.4** | **+4.7** |
| KSH | | | | pP | | sP | 03 43 42.6 | +6.5 |
| KSH | | | | PcP | | **PcP** | **03 44 57.3** | **+4.5** |
| KSH | | | | PP | | **PP** | **03 45 24.4** | **+5.0** |
| KSH | | | | S | | **S** | **03 50 29.6** | **+3.1** |
| KSH | | | | ScS | | **ScS** | **03 53 17.4** | **-1.2** |
| KSH | | | | SS | | **SS** | **03 53 54.3** | **-2.0** |
| KSH | | | | pmax | | pmax | | |
| | comp=Z,7.0nm,1.0s | | | | | | | |
| KSH | | | | LR | | LR | | |
| | comp=N,100nm,7.5s | | | | | | | |
| KSH | | | | LR | | LR | | |
| | comp=E,140nm,6.0s | | | | | | | |
| KSH | | | | LR | | LR | | |
| | comp=Z,330nm,7.8s | | | | | | | |
| **STKA** | **Stephens Creek** | **48.50** | **158** | P | | **P** | **03 43 25.3** | **-1.8** |
| | 3.9nm,1.0s,baz=336,slow=10,SNR=3.5 | | | | | | | |
| STKA | | | | LR | | LR | 04 08 26.1 | |
| | comp=Z,66nm,18.6s,baz=11,slow=42 | | | | | | | |
| **STKA** | **Stephens Creek** | **48.50** | **158** | *e*P | | **P** | **03 43 25.2** | **-1.8** |
| | 6.8nm,1.8s | | | | | | | |
| **PETK** | **Petropavlovsk-** | **48.64** | **28** | P | | **P** | **03 43 26.6** | **-1.3** |
| | 3.5nm,0.8s,baz=248,slow=2.3,SNR=3.4 | | | | | | | |
| **PEA1** | **Petropavlovsk-** | **48.64** | **28** | *e*P | | **P** | **03 43 26.6** | **-1.3** |
| **YAK** | **Yakutsk** | **48.99** | **5** | LR | | LR | 04 06 24.0 | |
| | comp=Z,145nm,19.4s,baz=268,slow=39 | | | | | | | |
| **ZAA0** | **Zalesovo Array** | **50.22** | **332** | *e*P | | **P** | **03 43 41.4** | **+1.5** |
| | 5.5nm,0.9s | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **50.22** | **332** | P | | **P** | **03 43 37.6** | **-2.3** |
| | 0.7nm,0.5s,baz=106,slow=4.7,SNR=4.6 | | | | | | | |
| ZALV | | | | LR | | LR | 04 05 57.6 | |
| | comp=Z,222nm,19.2s,baz=70,slow=37 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **50.22** | **332** | *e*P | | **P** | **03 43 39.5** | **-0.3** |
| **ZAA1** | **Zalesovo Array** | **50.22** | **332** | *e*P | | **P** | **03 43 37.6** | **-2.3** |
| **AAK** | **Ala-Archa** | **50.55** | **315** | P | | **P** | **03 43 44.0** | **+1.2** |
| | 0.8nm,0.3s,baz=64,slow=6.7,SNR=3.7 | | | | | | | |
| **KURK** | **Kurchatov** | **51.48** | **326** | *e*P | | **P** | **03 43 49.2** | **-0.2** |
| | 41nm,1.0s | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **51.48** | **326** | P | | **P** | **03 43 49.3** | **-0.1** |
| | 8.3nm,0.8s,baz=118,slow=7.9,SNR=24 | | | | | | | |
| **KBL** | **Kabul** | **52.53** | **303** | *e*P | | **P** | **03 43 56.3** | **-1.6** |
| | 19nm,1.6s | | | | | | | |
| **KKAR** | **Karatay Array** | **53.47** | **314** | *e*P | | **P** | **03 44 04.1** | **-0.3** |
| | 63nm,1.3s | | | | | | | |
| **BVAR** | **Borovoye Array** | **57.07** | **325** | P | | **P** | **03 44 30.4** | **+0.2** |
| | 6.6nm,1.1s,baz=101,slow=7.5,SNR=13 | | | | | | | |
| **BRVK** | **Borovoye** | **57.15** | **325** | *e*P | | **P** | **03 44 31.2** | **+0.5** |
| | 19nm,1.2s | | | | | | | |
| **TIXI** | **Tiksi** | **58.50** | **2** | P | | **P** | **03 44 39.6** | **-0.3** |
| | 1.8nm,0.6s,baz=162,slow=4.3,SNR=5.6 | | | | | | | |
| **TIXI** | **Tiksi** | **58.50** | **2** | *e*P | | **P** | **03 44 39.2** | **-0.6** |
| | 20nm,1.9s | | | | | | | |
| **GEYT** | **Alibeck** | **61.73** | **306** | P | | **P** | **03 45 02.5** | **-0.2** |
| | 5.4nm,1.0s,baz=67,slow=3.9,SNR=10 | | | | | | | |
| GEYT | | | | LR | | LR | 04 16 39.1 | |
| | comp=Z,166nm,18.2s,baz=90,slow=41 | | | | | | | |
| **ABKAR** | **Akbulak array** | **62.15** | **319** | *e*P | | **P** | **03 45 05.5** | **+0.2** |
| | 21nm,0.6s | | | | | | | |
| **AKTO** | **Aktyubinsk** | **63.62** | **320** | P | | **P** | **03 45 15.8** | **+0.8** |
| | 2.9nm,1.1s,baz=98,slow=16,SNR=3.9 | |

187nm,1.1s
**STHS Stebnicka Huta 87.16 320** *e*P **P 03 47 30.4 +0.1**
**CRVS Cervenica-Dubn 87.18 320** *e*P **P 03 47 31.0 +0.7**
**NB2 NORSAR Subarra 88.41 333** P **P 03 47 35.9 -0.1**
comp=Z,1.7nm,0.8s,baz=68,slow=5.1
**NB200 NORSAR Array S 88.41 333** *e*P **P 03 47 35.8 -0.1**
**NOA NORSAR Array B 88.41 333** P **P 03 47 35.8 -0.1**
comp=Z,0.7nm,0.7s,baz=68,slow=5.0,SNR=2.6
NOA LR LR 04 30 19.6
comp=Z,267nm,19.9s,baz=70,slow=38
**GERES GERESS Array B 92.02 321** P **P 03 47 53.6 +0.5**
comp=Z,0.3nm,0.7s,baz=336,slow=6.5,SNR=4.6
GERES LR LR 04 31 37.9
comp=Z,108nm,20.5s,baz=76,slow=37
**GEA0 GERESS Array S 92.02 321** *e*P **P 03 47 56.0 +2.9**
**PPT Papeete 92.08 107** LR LR 04 21 27.7
comp=Z,45nm,21.4s,baz=302,slow=30
**YKA Yellowknife Ar 92.55 23** P **P 03 47 54.0 -1.2**
comp=Z,0.5nm,0.9s,baz=304,slow=4.6,SNR=6.4
**YKB5 Yellowknife Ar 92.55 23** *e*P **P 03 47 54.0 -1.2**
**VNDA Vanda 93.37 172** LR LR 04 32 34.8
comp=Z,31nm,18.5s,baz=318,slow=37
**KDKW Coast Env Seat 96.53 38** *e*P **P 03 48 11.4 -2.3**
**LTX Lajitas 118.61 46** *e*PKPdf **PKPdf 03 53 33.0 +0.2**
**TXAR Lajitas Array 118.61 46** PKP **PKPdf 03 53 33.0 +0.2**
comp=Z,0.4nm,0.9s,baz=235,slow=3.2,SNR=3.5
**DBIC Dimbokro 124.00 288** PKP **PKPdf 03 53 42.1 -1.3**
comp=Z,3.0nm,1.0s,baz=114,slow=12,SNR=2.8

**GUC 20 03:40:43.2±0.6, 16°82S×71°83W, h125km±16km, ML4.0, 3C-3D, Southern Peru**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PB12** | **IPOC Station P** | **2.28** | **142** | ⇓*i* P | Pn | 03 41 21.1 | +0.5 |
| PB12 | | | | *i* S | Sn | 03 41 49.8 | +0.5 |
| PB12 | | | | IAML | | 03 41 53.2 | |
| | comp=E,1μm,0.2s | | | | | | |
| **MNMC** | **Minye Minye** | **3.13** | **138** | ⇓*i* P | Pn | 03 41 32.2 | +0.6 |
| MNMC | | | | *i* S | Sn | 03 42 09.6 | +0.7 |
| MNMC | | | | IAML | | 03 42 20.7 | |
| | comp=E,222nm,0.1s | | | | | | |
| **PSGC** | **Pisagua** | **3.20** | **150** | ⇑*i* P | Pn | 03 41 33.0 | +0.6 |
| PSGC | | | | *i* S | Sn | 03 42 10.8 | +0.4 |
| **PB11** | **IPOC Station P** | **3.58** | **145** | ⇑*i* P | Pn | 03 41 37.8 | +0.4 |
| PB11 | | | | *i* S | Sn | 03 42 19.7 | +0.4 |
| **PB08** | **IPOC Station P** | **4.16** | **143** | ⇓*i* P | Pn | 03 41 46.8 | +1.4 |
| PB08 | | | | *e*S | Sn | 03 42 34.9 | +1.3 |
| **PB01** | **IPOC Station P** | **4.75** | **153** | ⇑*i* P | Pn | 03 41 53.3 | +0.3 |
| PB01 | | | | *i* S | Sn | 03 42 47.6 | +0.5 |
| **PB02** | **IPOC Station P** | **4.83** | **158** | *e*P | Pn | 03 41 55.0 | +1.0 |
| PB02 | | | | *i* S | Sn | 03 42 49.1 | -0.1 |

*ISK **20** 04:14:32.8,38°.91N×43°.60E,h5km,MD2.6*
*ISCJB **20** 04:14:34.3±0.6,38°.94N±0°.03×43°.59E±0°.05,h11km±4km, Error ellipse: s-maj=7.0km s-min=4.8km az=33.9*
*CSEM **20** 04:14:34.0±0.2,38°.94N×43°.59E,h10km,ML2.7,Error ellipse: s-maj=5.6km s-min=4.0km az=127.0*
*DDA **20** 04:14:34.1,38°.93N×43°.58E,h11km,Ml2.7*
**ISC 20 04:14:33.9±0.9, 38°92N±0°.03×43°60E±0°.03, h9km±6km, n26, σ0°55/40, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VMUR** | **Van-Muradiye** | **0.07** | **339** | *i* P | **Pg** | **04 14 35.7** | **-0.6** |
| VMUR | | | | *i* S | **Sg** | **04 14 38.6** | **+0.7** |
| **VMUR** | **Van-Muradiye** | **0.07** | **339** | P | **Pg** | **04 14 35.7** | **-0.6** |
| VMUR | | | | S | **Sg** | **04 14 38.6** | **+0.7** |
| **ERCV** | **ERCIS-VAN** | **0.23** | **295** | *e*PG | **Pg** | **04 14 38.5** | **-0.2** |
| ERCV | | | | *e*SG | **Sg** | **04 14 42.7** | **+0.8** |
| **ERCV** | **ERCIS-VAN** | **0.23** | **295** | *e*Pg | **Pg** | **04 14 38.5** | **-0.2** |
| ERCV | | | | *e*Sg | **Sg** | **04 14 42.7** | **+0.8** |
| **CLDR** | **Caldiran** | **0.33** | **48** | *e*PG | **Pg** | **04 14 40.6** | **+0.1** |
| CLDR | | | | *e*SG | **Sb** | **04 14 46.4** | **-1.2** |
| **CLDR** | **Caldiran** | **0.33** | **48** | *i* P | **Pg** | **04 14 40.3** | **-0.2** |
| CLDR | | | | *i* S | **Sb** | **04 14 47.1** | **-0.5** |
| **CLDR** | **Caldiran** | **0.33** | **48** | P | **Pg** | **04 14 40.3** | **-0.2** |
| **CLDR** | **Caldiran** | **0.33** | **48** | *e*Pg | **Pg** | **04 14 40.6** | **+0.1** |
| CLDR | | | | *e*Sg | **Sb** | **04 14 46.4** | **-1.2** |
| CLDR | | | | S | **Sb** | **04 14 47.1** | **-0.5** |
| **VANB** | **Van** | **0.37** | **207** | *e*PG | **Pb** | **04 14 42.3** | **-0.4** |
| **VANB** | **Van** | **0.37** | **207** | *e*Pg | **Pb** | **04 14 42.3** | **-0.4** |
| **TVAN** | **Van** | **0.42** | **201** | *i* P | **Pg** | **04 14 42.0** | **-0.3** |
| TVAN | | | | *i* S | **Sb** | **04 14 50.5** | **+0.2** |
| **TVAN** | **Van** | **0.42** | **201** | P | **Pg** | **04 14 42.0** | **-0.3** |
| TVAN | | | | S | **Sb** | **04 14 50.5** | **+0.2** |
| **DYDN** | **Diyadin** | **0.62** | **6** | *i* P | **Pg** | **04 14 45.9** | **-0.1** |
| DYDN | | | | *i* S | **Sb** | **04 14 56.3** | **+0.3** |
| **DYDN** | **Diyadin** | **0.62** | **6** | P | **Pg** | **04 14 45.9** | **-0.1** |
| DYDN | | | | S | **Sb** | **04 14 56.3** | **+0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.70** | **261** | *i* P | **Pg** | **04 14 46.8** | **-0.6** |
| ADCV | | | | *i* S | **Sb** | **04 14 58.1** | **0.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.70** | **261** | P | **Pg** | **04 14 46.8** | **-0.6** |
| ADCV | | | | S | **Sb** | **04 14 58.1** | **0.0** |
| **TUTA** | **Tutak** | **0.78** | **308** | *i* P | **Pg** | **04 14 48.1** | **-0.9** |
| **TUTA** | **Tutak** | **0.78** | **308** | P | **Pg** | **04 14 48.1** | **-0.9** |
| **AGRB** | **Hanur-Agry** | **0.81** | **324** | *e*PG | **Pg** | **04 14 49.7** | **+0.2** |
| **AGRB** | **Hanur-Agry** | **0.81** | **324** | *e*Pg | **Pg** | **04 14 49.7** | **+0.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.17** | **25** | *e*PN | **Pg** | **04 14 56.3** | **0.0** |
| **TASB** | **TASBURUN-IGDIR** | **1.17** | **25** | *e*Pn | **Pg** | **04 14 56.3** | **0.0** |
| **CUKT** | **Cukurca** | **1.67** | **180** | *e*PN | **Pn** | **04 15 04.1** | **+0.6** |
| **CUKT** | **Cukurca** | **1.67** | **180** | *e*Pn | **Pn** | **04 15 04.1** | **+0.6** |
| **VRTB** | **Varto-Mus** | **1.69** | **279** | *e*PN | **Pb** | **04 15 04.7** | **-0.6** |
| **VRTB** | **Varto-Mus** | **1.69** | **279** | *e*Pn | **Pb** | **04 15 04.7** | **-0.6** |

*CSEM **20** 04:19:19.6±0.3,38°.73N×43°.52E,h20km,MD2.5,Error ellipse: s-maj=6.8km s-min=5.1km az=102.0*
*ISK **20** 04:19:19.2,38°.73N×43°.48E,h21km,MD2.5*
*ISCJB **20** 04:19:20.2±0.8,38°.73N±0°.04×43°.54E±0°.06,h23km±8km, Error ellipse: s-maj=8.3km s-min=5.8km az=15.2*
*DDA **20** 04:19:20.4,38°.74N×43°.51E,h7km,Ml2.4*
**ISC 20 04:19:19.5±1.2, 38°73N±0°.03×43°50E±0°.04, h20km±1km, n19, σ0°62/33, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.16** | **212** | *e*PG | **Pb** | **04 19 25.1** | **-0.1** |
| **VANB** | **Van** | **0.16** | **212** | *e*Pg | **Pb** | **04 19 25.2** | **-0.1** |
| **TVAN** | **Van** | **0.21** | **199** | *i* P | **Pb** | **04 19 25.3** | **-0.2** |
| TVAN | | | | *i* S | **Sb** | **04 19 30.5** | **+0.8** |
| **TVAN** | **Van** | **0.21** | **199** | P | **Pb** | **04 19 25.3** | **-0.2** |
| TVAN | | | | S | **Sb** | **04 19 30.5** | **+0.8** |
| **VMUR** | **Van-Muradiye** | **0.27** | **13** | *i* P | **Pb** | **04 19 25.5** | **-0.5** |
| VMUR | | | | *i* S | **Sb** | **04 19 30.9** | **+0.5** |
| **VMUR** | **Van-Muradiye** | **0.27** | **13** | P | **Pb** | **04 19 25.5** | **-0.5** |
| VMUR | | | | S | **Sb** | **04 19 30.9** | **+0.5** |
| **ERCV** | **ERCIS-VAN** | **0.32** | **337** | *e*PG | **Pb** | **04 19 26.6** | **0.0** |
| ERCV | | | | *e*SG | **Sb** | **04 19 32.0** | **+0.6** |
| **ERCV** | **ERCIS-VAN** | **0.32** | **337** | *e*Pg | **Pb** | **04 19 26.6** | **0.0** |
| ERCV | | | | *e*Sg | **Sb** | **04 19 32.0** | **+0.6** |
| **CLDR** | **Caldiran** | **0.53** | **38** | *e*PG | **Pb** | **04 19 30.4** | **+0.1** |
| CLDR | | | | *e*SG | **Sb** | **04 19 38.8** | **+1.2** |
| **CLDR** | **Caldiran** | **0.53** | **38** | *i* P | **Pb** | **04 19 30.2** | **0.0** |
| CLDR | | | | *i* S | **Sn** | **04 19 39.5** | **-1.0** |
| **CLDR** | **Caldiran** | **0.53** | **38** | *e*Pg | **Pb** | **04 19 30.4** | **+0.1** |
| CLDR | | | | *e*Sg | **Sb** | **04 19 38.8** | **+1.2** |
| CLDR | | | | S | **Sn** | **04 19 39.5** | **-1.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.61** | **278** | *i* P | **Pn** | **04 19 32.0** | **-1.1** |
| ADCV | | | | *i* S | **Sn** | **04 19 42.7** | **+0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.61** | **278** | P | **Pn** | **04 19 32.0** | **-1.1** |
| ADCV | | | | S | **Sn** | **04 19 42.7** | **+0.3** |
| **TUTA** | **Tutak** | **0.86** | **322** | *i* P | **Pb** | **04 19 35.8** | **0.0** |
| TUTA | | | | *i* S | **Sn** | **04 19 49.0** | **+0.4** |
| **TUTA** | **Tutak** | **0.86** | **322** | P | **Pb** | **04 19 35.8** | **0.0** |
| TUTA | | | | S | **Sn** | **04 19 49.0** | **+0.4** |
| **AGRB** | **Hanur-Agry** | **0.93** | **335** | *e*PG | **Pn** | **04 19 37.5** | **0.0** |
| **AGRB** | **Hanur-Agry** | **0.93** | **335** | *e*Pg | **Pn** | **04 19 37.6** | **0.0** |
| **HAKT** | **HAKKARI** | **1.18** | **172** | *i* P | **Pb** | **04 19 41.6** | **+0.3** |
| **HAKT** | **HAKKARI** | **1.18** | **172** | P | **Pb** | **04 19 41.6** | **+0.3** |

**IDC 20 04:22:34.3±3.3, 5°92S×147°31E, h0km, mb2.9/1, mb1 3.3/3, mb1mx3.2/30, mbtmp3.2/3, ML3.4/1, Error ellipse: s-maj=85.9km s-min=34.1km az=90.0, Eastern New Guinea region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PMG** | **Port Moresby** | **3.46** | **182** | Pn | | 04 23 30.0 | +0.4 |
| | 3.6nm,0.3s,baz=316,slow=7.4,SNR=5.5 | | | | | | |
| PMG | | | | Sn | | 04 24 10.5 | -0.8 |
| | 3.4nm,0.3s,baz=131,slow=15,SNR=9.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **18.79** | **221** | P | | 04 26 55.3 | -0.2 |
| | 0.1nm,0.3s,baz=45,slow=12,SNR=7.8 | | | | | | |
| **ASAR** | **Alice Springs** | **21.86** | **215** | P | | 04 27 29.4 | +0.6 |
| | 0.3nm,0.5s,baz=53,slow=8.6,SNR=4.9 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **145.37** | **285** | PKPbc | PKPbc | 04 42 14.2 | -1.1 |
| | 0.5nm,1.0s,baz=60,slow=4.1,SNR=3.5 | | | | | | |

*SCB **20** 04:39:07.6±1.2,23°.80S×67°.18W,h175km,Ml3.6/1,Error ellipse: s-maj=29.3km s-min=14.9km az=18.0*
*ISCJB **20** 04:39:11.1±0.4,23°.95S±0°.03×66°.93W±0°.03,h181km, mb3.7/8,Error ellipse: s-maj=4.9km s-min=4.2km az=40.1*
*SJA **20** 04:39:11.4±1.1,23°.94S×67°.16W,h144km±33km,ML3.3, MW3.5*
*IDC **20** 04:39:11.1±2.3,23°.83S×66°.67W,h188km±19km,mb3.5/8, mb1 3.7/12,mb1mx3.5/30,mbtmp4.0/12,Error ellipse: s-maj=24.0km s-min=15.9km az=47.0*
*GUC **20** 04:39:12.4±0.5,23°.83S×67°.58W,h252km±13km,ML4.7*
**ISC 20 04:39:10.4±0.6, 23°92S±0°.05×66°90W±0°.05, h181km, n40, σ1°72/53, mb3.8/8, 6C-1D, Jujuy Province**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **HJA** | **Humahuaca** | **1.54** | **63** | *e*P | **Pn** | **04 39 45.7** | **+2.5** |
| HJA | | | | IAML | | 04 39 49.8 | |
| | comp=Z,306nm,0.4s | | | | | | |
| **AZAP** | **Zapla** | **1.70** | **101** | *e*P | **Pn** | **04 39 46.9** | **+2.3** |
| **YJA** | **Yavi** | **2.15** | **36** | *e*P | **Pn** | **04 39 51.8** | **+2.2** |
| YJA | | | | IAML | | 04 39 53.1 | |
| | comp=Z,42nm,0.3s | | | | | | |
| **ASTB** | **Santa Barbara** | **2.23** | **91** | *e*P | **Pn** | **04 39 52.1** | **+1.9** |
| **ALOL** | **LOMAS DE OLMED** | **2.67** | **88** | *e*P | **Pn** | **04 39 56.8** | **+1.6** |
| **PB06** | **IPOC Station P** | **2.74** | **296** | ⇑*i* P | **Pn** | **04 39 58.5** | **+2.4** |
| PB06 | | | | *i* S | **Sn** | **04 40 33.5** | **+1.8** |
| PB06 | | | | IAML | | 04 40 35.1 | |
| | comp=E,987nm,0.3s | | | | | | |
| **MOCB** | **Mochara** | **2.90** | **24** | *e*Pn | **Pn** | **04 40 00.8** | **+2.4** |
| MOCB | | | | *e*Sn | **Sn** | **04 40 39.8** | **+4.1** |
| | comp=E,126nm,0.9s | | | | | | |
| **PB09** | **IPOC Station P** | **3.03** | **314** | *i* P | **Pn** | **04 40 02.3** | **+2.8** |
| PB09 | | | | *e*S | **Sn** | **04 40 40.3** | **+2.4** |
| PB09 | | | | IAML | | 04 40 42.7 | |
| | comp=N,2μm,0.2s | | | | | | |
| **AHML** | **Horco Molle** | **3.18** | **154** | *e*P | **Pn** | **04 40 03.2** | **+1.9** |
| **ANCH** | **Antofagasta** | **3.23** | **274** | ⇑*i* P | **Pn** | **04 40 04.1** | **+2.3** |
| ANCH | | | | *e*S | **Sn** | **04 40 40.9** | **-1.0** |
| **PB14** | **IPOC Station P** | **3.28** | **257** | *e*P | **Pn** | **04 40 04.5** | **+1.7** |
| PB14 | | | | ⇓*e*S | **Sn** | **04 40 44.0** | **+0.4** |
| **PB14** | **IPOC Station P** | **3.28** | **257** | ⇑*i* P | **Pn** | **04 40 04.4** | **+1.7** |
| PB14 | | | | *i* S | **Sn** | **04 40 44.0** | **+0.4** |
| **PB10** | **IPOC Station P** | **3.38** | **276** | *e*P | **Pn** | **04 40 05.5** | **+1.9** |
| PB10 | | | | *e*S | **Sn** | **04 40 45.3** | **0.0** |
| **PB10** | **IPOC Station P** | **3.38** | **276** | ⇑*i* P | **Pn** | **04 40 05.6** | **+1.9** |
| PB10 | | | | *e*S | **Sn** | **04 40 43.6** | **-1.7** |
| PB10 | | | | IAML | | 04 40 48.7 | |
| | comp=E,2μm,0.4s | | | | | | |
| **PB04** | **IPOC Station P** | **3.39** | **297** | ⇑*i* P | **Pn** | **04 40 05.6** | **+1.7** |
| PB04 | | | | *i* S | **Sn** | **04 40 45.5** | **-0.3** |
| PB04 | | | | IAML | | 04 40 47.1 | |
| | comp=N,877nm,0.7s | | | | | | |
| **PB07** | **IPOC Station P** | **3.52** | **308** | ⇑*i* P | **Pn** | **04 40 07.2** | **+1.6** |
| PB07 | | | | *i* S | **Sn** | **04 40 48.4** | **-0.3** |
| **PB08** | **IPOC Station P** | **4.31** | **330** | *e*P | **Pn** | **04 40 17.7** | **+1.9** |
| PB08 | | | | *i* S | **Sn** | **04 41 07.6** | **+0.5** |
| **CYA** | **Choya** | **4.61** | **168** | *e*P | **Pn** | **04 40 21.1** | **+1.8** |
| CYA | | | | IAML | | 04 40 22.8 | |
| | comp=Z,30nm,0.5s | | | | | | |
| **AGUA** | **GUANDACOL** | **5.72** | **194** | *e*P | **Pn** | **04 40 35.1** | **+1.3** |
| AGUA | | | | *e*S | **Sn** | **04 41 40.0** | **+0.5** |
| **BBOJ** | **La Paz, Jacaqu** | **7.02** | **350** | *e*Pn | **Pn** | **04 40 53.1** | **+1.8** |
| **BBOE** | **La Paz, Chanca** | **7.15** | **352** | *e*Pn | **Pn** | **04 40 54.5** | **+1.5** |
| **BBOD** | **La Paz, Gloria** | **7.42** | **347** | *e*Pn | **Pn** | **04 40 58.0** | **+1.4** |
| **LPAZ** | **La Paz** | **7.68** | **351** | P | **Pn** | **04 41 00.9** | **+0.8** |
| | comp=Z,3.4nm,0.3s,baz=149,slow=6.0,SNR=104 | | | | | | |
| LPAZ | | | | S | **Sn** | **04 42 25.3** | **-1.6** |
| | baz=280,slow=18,SNR=1.4 | | | | | | |
| **LPAZ** | **La Paz** | **7.68** | **351** | *e*Pn | **Pn** | **04 41 00.9** | **+0.8** |
| LPAZ | | | | *e*Sn | **Sn** | **04 42 23.7** | **-3.2** |
| **BBOB** | **La Paz, Bander** | **7.83** | **351** | *e*Pn | **Pn** | **04 41 02.9** | **+1.0** |
| **CPUP** | **Villa Florida** | **8.99** | **107** | P | **Pn** | **04 41 15.8** | **-0.9** |
| | comp=Z,0.1nm,0.3s,baz=284,slow=11,SNR=6.5 | | | | | | |
| **SIV** | **San Ignacio** | **9.60** | **36** | P | **Pn** | **04 41 23.2** | **-1.6** |
| | comp=Z,2.4nm,0.3s,baz=186,slow=1.6,SNR=42 | | | | | | |
| **SIV** | **San Ignacio** | **9.60** | **36** | *e*P | **Pn** | **04 41 23.2** | **-1.6** |
| **PLCA** | **Paso Flores** | **17.04** | **190** | P | **P** | **04 42 57.9** | **+0.9** |
| | comp=Z,0.3nm,0.3s,baz=31,slow=12,SNR=10 | | | | | | |
| **PTGA** | **Pitinga** | **24.01** | **17** | P | **P** | **04 44 07.5** | **-1.2** |
| | comp=Z,2.1nm,0.3s,baz=342,slow=23,SNR=7.1 | | | | | | |
| **TXAR** | **Lajitas Array** | **63.67** | **324** | P | **P** | **04 49 23.1** | **+0.5** |
| | comp=Z,3.0nm,0.8s,baz=171,slow=6.4,SNR=2.8 | | | | | | |
| **DBIC** | **Dimbokro** | **67.69** | **72** | P | **P** | **04 49 46.0** | **-2.5** |
| | comp=Z,3.7nm,0.8s,baz=222,slow=7.3,SNR=6.1 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **76.45** | **69** | P | **P** | **04 50 39.2** | **-1.3** |
| | comp=Z,2.1nm,0.5s,baz=254,slow=5.5,SNR=62 | | | | | | |
| **PDAR** | **Pinedale Array** | **77.13** | **329** | P | **P** | **04 50 44.3** | **+0.2** |
| | comp=Z,0.2nm,0.6s,baz=119,slow=5.6,SNR=2.4 | | | | | | |
| **ULM** | **Lac du Bonnet** | **78.18** | **341** | P | **P** | **04 50 48.8** | **-0.6** |
| | comp=Z,1.3nm,0.6s,baz=133,slow=7.3,SNR=3.0 | | | | | | |
| **ESDC** | **Sonseca Array** | **86.27** | **44** | P | **P** | **04 51 32.0** | **+0.3** |
| | comp=Z,0.7nm,0.7s,baz=241,slow=4.1,SNR=5.1 | | | | | | |
| **YKA** | **Yellowknife Ar** | **94.08** | **340** | P | **P** | **04 52 07.5** | **0.0** |
| | comp=Z,0.3nm,0.5s,baz=135,slow=4.7,SNR=10 | | | | | | |
| **WRA** | **Warramunga Arr** | **131.74** | **207** | PKP | **PKPdf** | **04 58 02.7** | **+0.1** |
| | comp=Z,0.2nm,0.3s,baz=152,slow=2.0,SNR=13 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **143.28** | **28** | PKP | PKPbc | 04 58 19.8 | -0.4 |
| | comp=Z,0.8nm,0.4s,baz=314,slow=7.4,SNR=4.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **146.40** | **39** | PKPbc | **PKPdf** | **04 58 28.6** | **+0.3** |
| | comp=Z,2.7nm,0.6s,baz=318,slow=2.5,SNR=23 | | | | | | |

**ISC 20 04:44:21.7±2.1, 51°45N±0°.10×16°06E±0°.07, h0km, n10, σ0°60/20, Poland**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KSP** | **Ksiaz** | **0.63** | **166** | *e*Pg | **Pg** | **04 44 33.8** | **+0.1** |
| KSP | | | | *e*Sg | **Sg** | **04 44 43.1** | **+1.3** |
| **UPC** | **Upice** | **0.94** | **182** | *e*PG | **Pg** | **04 44 39.8** | **0.0** |
| UPC | | | | *e*SG | **Sb** | **04 44 53.5** | **-0.5** |
| | comp=Z,10nm,0.5s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.11** | **171** | *e*PG | **Pg** | **04 44 42.4** | **-0.6** |
| DPC | | | | *e*SG | **Sg** | **04 44 57.8** | **+0.4** |
| | comp=Z,2.1nm,0.2s | | | | | | |
| **PVCC** | **Panska Ves** | **1.32** | **226** | *e*PG | **Pg** | **04 44 46.4** | **-0.5** |
| PVCC | | | | *e*SG | **Sn** | **04 45 05.2** | **-0.4** |
| | comp=Z,8.4nm,0.2s | | | | | | |
| **BRG** | **Berggiesshubel** | **1.45** | **247** | PG | **Pn** | **04 44 48.6** | **-0.6** |
| BRG | | | | SG | **Sn** | **04 45 08.7** | **-0.2** |
| | 5.5nm,0.5s | | | | | | |
| **KRLC** | **Kraliky** | **1.45** | **161** | *e*PG | **Pn** | **04 44 48.8** | **-0.4** |
| KRLC | | | | *e*SG | **Sb** | **04 45 08.7** | **+0.1** |
| **PRU** | **Pruhonice** | **1.75** | **214** | *e*PG | **Pb** | **04 44 54.5** | **-0.2** |
| PRU | | | | *e*SG | **Sg** | **04 45 18.1** | **+0.2** |
| | comp=Z,2.6nm,0.3s | | | | | | |
| **CLL** | **Collm** | **1.92** | **267** | *e*Pg | **Pn** | **04 44 56.0** | **+0.4** |
| CLL | | | | *i* Sg | **Sg** | **04 45 23.2** | **-0.1** |
| **NKC** | **Novy Kostel** | **2.59** | **243** | *e*PG | **Pb** | **04 45 09.6** | **+0.6** |
| NKC | | | | *e*SG | **Sg** | **04 45 46.2** | **+1.3** |
| | comp=Z,3.1nm,0.3s | | | | | | |
| **KHC** | **Kasperske Hory** | **2.81** | **215** | *e*PG | **Pb** | **04 45 13.1** | **+0.3** |
| KHC | | | | *e*SG | **Sg** | **04 45 52.6** | **+0.6** |

*IDC **20** 04:46:30.3±0.7,27°.83N×57°.54E,h0km,mb4.0/22, mb1 4.1/29,mb1mx4.1/52,mbtmp4.1/29,ML3.9/6,MS3.4/12, Ms1 3.5/12,ms1mx3.2/34,Error ellipse: s-maj=15.6km s-min=12.8km az=172.0*
*ISCJB **20** 04:46:31.2±0.2,27°.85N±0°.02×57°.60E±0°.03,h10km, mb4.2/32,MS3.4/10,Error ellipse: s-maj=3.9km s-min=3.2km az=176.0*
*CSEM **20** 04:46:32.5±0.1,27°.84N×57°.69E,h10km,mb4.5/13,Error ellipse: s-maj=5.7km s-min=4.2km az=95.0*
*DSN **20** 04:46:32.7±1.4,27°.49N×58°.23E,h15km,ML4.6/9,Error ellipse: s-maj=21.7km s-min=7.3km az=160.0*
*MOS **20** 04:46:33.8±1.2,27°.86N×57°.55E,h33km,mb4.1/6,Error ellipse: s-maj=11.9km s-min=8.7km az=102.2*
*THR **20** 04:46:33.0±0.9,27°.65N×57°.22E,h14km±9km,ML4.3*
*OMAN **20** 04:46:33.5±5.4,27°.80N×57°.55E,h10km,Error ellipse: s-maj=5.3km s-min=1.6km az=268.0*
*NEIC **20** 04:46:33.0±0.0,27°.65N×57°.22E,h14km,mb4.7/12, ML4.3(THR),MN4.2(TEH),After THR.*
*TEH **20** 04:46:36.4,28°.08N×57°.29E,h10km,ML4.2*
*BJI **20** 04:46:36.0,28°.08N×57°.98E,h20km,mb4.3/7,mB4.7/3*
**ISC 20 04:46:31.9±0.4, 27°.75N±0°.03×57°.58E±0°.04, h10km, n237, σ1°73/237, mb4.2/32, MS3.4/10, Southern Iran**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **IBND** | **Bandar-abas** | **0.97** | **252** | *e*Pg | **Pn** | **04 46 54.2** | **+2.5** |
| IBND | | | | *e*Sg | **Sn** | **04 47 08.9** | **+3.4** |
| IBND | | | | *e*AMB | AMB | 04 47 19.7 | |
| | comp=Z,77μm,0.2s | | | | | | |
| **IBND** | **Bandar-abas** | **0.97** | **252** | *e*Pg | **Pn** | **04 46 54.2** | **+2.5** |
| IBND | | | | *e*Sg | **Sn** | **04 47 08.9** | **+3.4** |
| **BNDS** | **Bandar-Abbas** | **1.30** | **255** | *e*Pg | Pn | 04 46 51.1 | -5.3 |
| BNDS | | | | AML | AML | 04 47 10.5 | |
| | comp=N,4μm,0.4s | | | | | | |
| BNDS | | | | AML | AML | 04 47 10.6 | |
| | comp=E,9μm,0.3s | | | | | | |
| **BNDS** | **Bandar-Abbas** | **1.30** | **255** | *e*Pg | Pn | 04 46 51.1 | -5.2 |
| **BNDS** | **Bandar-Abbas** | **1.30** | **255** | *e*Pg | Pn | 04 46 51.1 | -5.3 |
| **NGRK** | **Negar Kerman** | **2.03** | **339** | *e*Pn | **Pb** | **04 47 08.5** | **-0.6** |
| **NGRK** | **Negar Kerman** | **2.03** | **339** | *e*Pn | **Pb** | **04 47 08.5** | **-0.6** |
| **SHME** | **Shamm** | **2.13** | **218** | P | **Pn** | **04 47 10.0** | **+2.4** |
| | SNR=60 | | | | | | |
| **BANOM** | **Banah** | **2.15** | **212** | *e*P | **Pb** | **04 47 10.6** | **-0.4** |
| | SNR=654 | | | | | | |
| BANOM | | | | S | **Sb** | **04 47 39.8** | **+1.9** |
| **BANOM** | **Banah** | **2.15** | **212** | P | **Pn** | **04 47 10.2** | **+2.3** |
| | SNR=501 | | | | | | |
| BANOM | | | | S | **Sb** | **04 47 39.8** | **+1.9** |
| **BANOM** | **Banah** | **2.15** | **212** | P | **Pn** | **04 47 10.2** | **+2.3** |
| | SNR=501 | | | | | | |
| **KRBR** | **Kerman** | **2.34** | **342** | *e*Pn | **Pb** | **04 47 14.2** | **-0.1** |
| KRBR | | | | *e*Sg | **Sg** | **04 47 47.0** | **0.0** |
| KRBR | | | | AML | AML | 04 47 56.4 | |
| | comp=E,2μm,0.3s | | | | | | |
| KRBR | | | | AML | AML | 04 47 56.6 | |
| | comp=N,2μm,0.7s | | | | | | |
| **KRBR** | **Kerman** | **2.34** | **342** | *e*Pn | **Pb** | **04 47 14.2** | **-0.1** |
| KRBR | | | | *e*Sg | **Sg** | **04 47 47.0** | **0.0** |
| **KRBR** | **Kerman** | **2.34** | **342** | *e*Pn | **Pb** | **04 47 14.2** | **-0.1** |
| KRBR | | | | *e*Sg | **Sg** | **04 47 47.0** | **0.0** |
| **TVBK** | **TV Kerman** | **2.34** | **342** | *e*Pn | **Pb** | **04 47 14.7** | **+0.3** |
| **TVBK** | **TV Kerman** | **2.34** | **342** | *e*Pn | **Pb** | **04 47 14.7** | **+0.3** |
| **MSFE** | **Esma-Masafi** | **2.70** | **208** | P | **Pb** | **04 47 19.5** | **-0.9** |
| | SNR=12 | | | | | | |
| **KHGB** | **Koh Gabri** | **2.79** | **340** | *e*Pn | **Pb** | **04 47 21.4** | **-0.6** |
| **KHGB** | **Koh Gabri** | **2.79** | **340** | *e*Pn | **Pb** | **04 47 21.4** | **-0.6** |
| **UOSS** | **Minazif** | **3.06** | **204** | *e*Pn | **Pn** | **04 47 22.1** | **+1.8** |
| **UOSS** | **Minazif** | **3.06** | **204** | P | **Pb** | **04 47 25.0** | **-1.5** |
| | SNR=11 | | | | | | |
| UOSS | | | | *e*Sn | **Sn** | **04 47 58.9** | **+1.9** |
| **UOSS** | **Minazif** | **3.06** | **204** | *e*Pn | **Pn** | **04 47 22.1** | **+1.8** |
| UOSS | | | | *e*Sn | **Sn** | **04 47 58.9** | **+1.9** |
| **UOSS** | **Minazif** | **3.06** | **204** | P | **Pb** | **04 47 25.0** | **-1.5** |
| | SNR=11 | | | | | | |
| **HATD** | **Hatta, Dubai** | **3.19** | **204** | P | **Pn** | **04 47 22.8** | **+0.6** |
| **HATD** | **Hatta, Dubai** | **3.19** | **204** | P | **Pn** | **04 47 22.8** | **+0.6** |
| **HATD** | **Hatta, Dubai** | **3.19** | **204** | P | **Pb** | **04 47 27.0** | **-1.8** |
| | SNR=8.5 | | | | | | |
| **NAZ** | **Nazwa, Dubai** | **3.25** | **212** | *i* P | **Pn** | **04 47 26.4** | **+3.4** |
| | SNR=12 | | | | | | |
| **NAZ** | **Nazwa, Dubai** | **3.25** | **212** | P | **Pn** | **04 47 26.4** | **+3.4** |
| | SNR=12 | | | | | | |
| **NAZ** | **Nazwa, Dubai** | **3.25** | **212** | P | **Pn** | **04 47 27.2** | **+4.2** |
| | SNR=12 | | | | | | |
| **ASHO** | **Ashiyiah** | **3.35** | **204** | *i* P | **Pn** | **04 47 26.4** | **+2.0** |
| | SNR=23 | | | | | | |
| **ASHO** | **Ashiyiah** | **3.35** | **204** | P | **Pn** | **04 47 26.4** | **+2.0** |
| | SNR=23 | | | | | | |
| **ASHO** | **Ashiyiah** | **3.35** | **204** | P | **Pn** | **04 47 28.2** | **+3.8** |
| | SNR=23 | | | | | | |
| **ZHSF** | **Zahedan** | **3.36** | **56** | *e*Pn | **Pb** | **04 47 31.3** | **-0.4** |
| ZHSF | | | | AML | AML | 04 48 34.3 | |
| | comp=N,446nm,1.3

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| IZEF | Zefreh | 6.85 | 320 | Pn | Pn | 04 48 14.0 | +1.3 | | | |
| IKLH | Kolahrood | 7.59 | 318 | ePn | Pn | 04 48 24.4 | +1.6 | | | |
| IKLH | | | | eAMB | AMB | 04 50 04.2 | | | | |
| | comp=Z,263nm,0.3s | | | | | | | | | |
| IKLH | Kolahrood | 7.59 | 318 | ePn | Pn | 04 48 24.4 | +1.6 | | | |
| IKLH | Kolahrood | 7.59 | 318 | Pn | Pn | 04 48 24.4 | +1.6 | | | |
| IPIR | Pirpir | 7.59 | 312 | ePn | Pn | 04 48 24.8 | +1.9 | | | |
| IPIR | | | | eAMB | AMB | 04 49 59.4 | | | | |
| | comp=Z,605nm,0.2s | | | | | | | | | |
| IPIR | Pirpir | 7.59 | 312 | ePn | Pn | 04 48 24.8 | +1.9 | | | |
| IPIR | Pirpir | 7.59 | 312 | Pn | Pn | 04 48 24.8 | +1.9 | | | |
| SHRO | Shahrood | 8.32 | 351 | ePn | Pn | 04 48 37.5 | +4.7 | | | |
| SHRO | Shahrood | 8.32 | 351 | Pn | Pn | 04 48 37.5 | +4.7 | | | |
| KHMZ | Khomeyn | 8.87 | 314 | ePn | Pn | 04 48 41.9 | +1.6 | | | |
| KHMZ | Khomeyn | 8.87 | 314 | ePn | Pn | 04 48 41.9 | +1.6 | | | |
| KHMZ | Khomeyn | 8.87 | 314 | ePn | Pn | 04 48 41.9 | +1.6 | | | |
| ASAO | Ashtian | 9.37 | 318 | ePn | Pn | 04 48 48.7 | +1.5 | | | |
| ASAO | Ashtian | 9.37 | 318 | ePn | Pn | 04 48 48.7 | +1.5 | | | |
| ASAO | Ashtian | 9.37 | 318 | ePn | Pn | 04 48 48.7 | +1.5 | | | |
| SHAO | Shalim | 9.85 | 191 | P | Pn | 04 48 54.2 | +0.5 | | | |
| | SNR=10 | | | | | | | | | |
| SHAO | Shalim | 9.85 | 191 | P | Pn | 04 48 54.1 | +0.5 | | | |
| | SNR=10 | | | | | | | | | |
| MRVT | Maraveh tapeh | 9.96 | 353 | ePn | Pn | 04 48 59.3 | +4.2 | | | |
| MRVT | Maraveh tapeh | 9.96 | 353 | ePn | Pn | 04 48 59.3 | +4.2 | | | |
| MRVT | Maraveh tapeh | 9.96 | 353 | ePn | Pn | 04 48 59.3 | +4.2 | | | |
| GEYT | Alibeck | 10.16 | 2 | Pn | Pn | 04 48 56.5 | -1.4 | | | |
| | comp=Z,0.3nm,0.3s,baz=146,slow=14,SNR=2.2 | | | | | | | | | |
| GEYT | | | | LR | LR | 04 53 18.2 | | | | |
| | comp=Z,217nm,19.2s,baz=165,slow=40 | | | | | | | | | |
| ABTO | Aybut | 11.08 | 202 | P | Pn | 04 49 13.0 | +2.4 | | | |
| | SNR=5.2 | | | | | | | | | |
| ABTO | Aybut | 11.08 | 202 | P | Pn | 04 49 13.0 | +2.4 | | | |
| | SNR=5.2 | | | | | | | | | |
| SNGE | Sanandaj | 11.39 | 312 | ePn | Pn | 04 49 16.1 | +1.1 | | | |
| SNGE | Sanandaj | 11.39 | 312 | ePn | Pn | 04 49 16.1 | +1.1 | | | |
| SNGE | Sanandaj | 11.39 | 312 | ePn | Pn | 04 49 16.1 | +1.1 | | | |
| RAYN | Ar Rayn | 11.68 | 252 | ePn | Pn | 04 49 15.6 | -3.2 | | | |
| RAYN | | | | eSn | Sn | 04 51 16.4 | -13 | | | |
| RAYN | Ar Rayn | 11.68 | 252 | ePn | Pn | 04 49 15.6 | -3.2 | | | |
| RAYN | | | | eSn | Sn | 04 51 16.4 | -13 | | | |
| GNI | Garni | 16.30 | 323 | Pn | Pn | 04 50 21.1 | +0.1 | | | |
| | comp=Z,0.6nm,0.3s,baz=164,slow=19,SNR=2.2 | | | | | | | | | |
| MARD | Mardin | 17.06 | 308 | ePn | P | 04 50 32.5 | +0.1 | | | |
| | comp=Z,24nm,0.6s | | | | | | | | | |
| MARD | Mardin | 17.06 | 308 | ePn | P | 04 50 32.5 | +0.1 | | | |
| | comp=Z,24nm,0.6s | | | | | | | | | |
| ASF | Jabal al Asfar | 18.45 | 289 | P | P | 04 50 45.6 | -2.3 | | | |
| | comp=Z,0.8nm,0.3s,baz=60,slow=8.8,SNR=7.0 | | | | | | | | | |
| KKAR | Karatay Array | 18.55 | 31 | eP | Pn | 04 50 49.0 | 0.0 | | | |
| KKAR | | | | pmax | pmax | | | | | |
| | comp=Z,48nm,0.9s | | | | | | | | | |
| KKAR | Karatay Array | 18.55 | 31 | eP | Pn | 04 50 49.0 | 0.0 | | | |
| | comp=Z,48nm,0.9s | | | | | | | | | |
| KKAR | Karatay Array | 18.55 | 31 | eP | Pn | 04 50 49.0 | 0.0 | | | |
| | comp=Z,48nm,0.9s | | | | | | | | | |
| ZEI | Tsey | 18.66 | 327 | eP | Pn | 04 50 51.4 | +0.8 | | | |
| ZEI | | | | pmax | pmax | | | | | |
| | comp=Z,3.0nm,0.9s | | | | | | | | | |
| MMAI | Mount Meron Ar | 19.83 | 291 | P | P | 04 51 03.8 | +0.8 | | | |
| | comp=Z,1.6nm,0.3s,baz=97,slow=17,SNR=3.7 | | | | | | | | | |
| MMAI | | | | LR | LR | 05 00 48.4 | | | | |
| | comp=Z,174nm,18.4s,baz=110,slow=43 | | | | | | | | | |
| KBZ | Khabaz | 19.86 | 327 | P | Pn | 04 51 03.8 | -0.8 | | | |
| | comp=Z,0.1nm,0.3s,baz=179,slow=17,SNR=2.0 | | | | | | | | | |
| EIL | Elat | 19.94 | 281 | P | P | 04 51 05.2 | +1.2 | | | |
| | comp=Z,0.3nm,0.3s,baz=84,slow=8,SNR=4.7 | | | | | | | | | |
| AAK | Ala-Archa | 20.23 | 38 | P | P | 04 51 07.8 | +0.5 | | | |
| | comp=Z,3.3nm,0.8s,baz=208,slow=9.9,SNR=7.4 | | | | | | | | | |
| AAK | Ala-Archa | 20.23 | 38 | eP | Pn | 04 51 09.0 | -0.3 | | | |
| ATD | Arta Tunnel | 21.25 | 223 | P | P | 04 51 19.4 | +1.0 | | | |
| | comp=Z,38nm,1.0s,baz=2.9,slow=9.3,SNR=7.3 | | | | | | | | | |
| ATD | Arta Tunnel | 21.25 | 223 | eP | P | 04 51 21.1 | +2.7 | | | |
| | comp=Z,26nm,0.8s | | | | | | | | | |
| ATD | Arta Tunnel | 21.25 | 223 | eP | P | 04 51 21.1 | +2.7 | | | |
| | comp=Z,26nm,0.8s | | | | | | | | | |
| ABKAR | Akbulak array | 21.55 | 4 | eP | P | 04 51 21.8 | +0.5 | | | |
| | comp=Z,50nm,0.6s | | | | | | | | | |
| ABKAR | Akbulak array | 21.55 | 4 | eP | P | 04 51 21.8 | +0.5 | | | |
| | comp=Z,50nm,0.6s | | | | | | | | | |
| PYUN | Piuthan | 22.44 | 83 | eP | P | 04 51 33.3 | +1.9 | | | |
| AKTK | Aktyubinsk | 22.65 | 1 | P | P | 04 51 32.7 | -0.4 | | | |
| AKTO | Aktyubinsk | 22.65 | 1 | P | P | 04 51 32.7 | -0.4 | | | |
| | comp=Z,2.7nm,0.5s,baz=170,slow=9.2,SNR=10 | | | | | | | | | |
| KOLN | Koldanda | 23.01 | 84 | eP | P | 04 51 39.2 | +1.8 | | | |
| | comp=Z,14nm,0.8s | | | | | | | | | |
| DANN | Dangsing | 23.10 | 82 | eP | P | 04 51 40.6 | +2.3 | | | |
| BRTR | Keskin Array B | 23.14 | 307 | P | P | 04 51 38.2 | -0.3 | | | |
| | comp=Z,4.1nm,0.8s,baz=121,slow=10,SNR=18 | | | | | | | | | |
| BRTR | | | | LR | LR | 05 02 40.5 | | | | |
| | comp=Z,66nm,19.9s,baz=102,slow=42 | | | | | | | | | |
| BR101 | Keskin Array S | 23.14 | 307 | eP | P | 04 51 38.2 | -0.3 | | | |
| BR101 | Keskin Array S | 23.14 | 307 | eP | P | 04 51 38.2 | -0.3 | | | |
| BR131 | Keskin Array S | 23.14 | 307 | eP | P | 04 51 39.2 | +0.7 | | | |
| BR131 | Keskin Array S | 23.14 | 307 | eP | P | 04 51 39.2 | +0.7 | | | |
| BR231 | Keskin MP Arra | 23.80 | 307 | eP | P | 04 51 39.8 | -5.2 | | | |
| BR231 | Keskin MP Arra | 23.80 | 307 | eP | P | 04 51 39.8 | -5.2 | | | |
| DMN | Daman | 24.36 | 84 | eP | P | 04 51 51.8 | +1.3 | | | |
| | comp=Z,6.2nm,0.4s | | | | | | | | | |
| KKN | Kakani | 24.49 | 83 | eP | P | 04 51 53.2 | +1.5 | | | |
| | comp=Z,32nm,0.6s | | | | | | | | | |
| PKIN | Phulchoki | 24.62 | 84 | eP | P | 04 51 54.3 | +1.4 | | | |
| | comp=Z,23nm,0.6s | | | | | | | | | |
| PKI | Pulchoki | 24.63 | 84 | eP | P | 04 51 54.3 | +1.2 | | | |
| | comp=Z,28nm,0.6s | | | | | | | | | |
| GUN | Gumba | 25.00 | 83 | eP | P | 04 51 57.9 | +1.4 | | | |
| | comp=Z,29nm,0.5s | | | | | | | | | |
| JIRN | Jiri | 25.31 | 83 | eP | P | 04 52 00.5 | +1.3 | | | |
| RAMN | Ramite | 25.76 | 85 | eP | P | 04 52 03.9 | +0.7 | | | |
| | comp=Z,9.0nm,0.5s | | | | | | | | | |
| BVAR | Borovoye Array | 26.98 | 17 | P | P | 04 52 13.5 | -0.2 | | | |
| | comp=Z,2.1nm,0.6s,baz=198,slow=8.6,SNR=11 | | | | | | | | | |
| MAKZ | Makanchi | 26.99 | 39 | eP | P | 04 52 14.1 | +0.2 | | | |
| MAKZ | | | | pmax | pmax | | | | | |
| | comp=Z,4.0nm,1.0s | | | | | | | | | |
| MAKZ | Makanchi | 26.99 | 39 | eP | P | 04 52 14.1 | +0.2 | | | |
| | comp=Z,4.0nm,1.0s | | | | | | | | | |
| MAKZ | Makanchi | 26.99 | 39 | eP | P | 04 52 14.1 | +0.2 | | | |
| | comp=Z,4.4nm,1.0s | | | | | | | | | |
| MK01 | Makanchi Array | 27.15 | 39 | eP | P | 04 52 15.1 | -0.3 | | | |
| MK01 | Makanchi Array | 27.15 | 39 | eP | P | 04 52 15.1 | -0.3 | | | |
| MK31 | Makanchi Array | 27.16 | 39 | eP | P | 04 52 15.5 | +0.1 | | | |
| MK31 | Makanchi Array | 27.16 | 39 | eP | P | 04 52 15.5 | +0.1 | | | |
| MK31 | Makanchi Array | 27.16 | 39 | eP | P | 04 52 15.5 | +0.1 | | | |
| MK32 | Makanchi Array | 27.16 | 39 | eP | P | 04 52 15.0 | -0.4 | | | |
| MK32 | Makanchi Array | 27.16 | 39 | eP | P | 04 52 15.0 | -0.4 | | | |
| MK32 | | | | ePcP | PcP | 04 55 35.6 | -0.2 | | | |
| MKAR | Makanchi Array | 27.16 | 39 | P | P | 04 52 15.0 | -0.4 | | | |
| | comp=Z,1.2nm,0.6s,baz=223,slow=7.9,SNR=14 | | | | | | | | | |
| MKAR | | | | PcP | PcP | 04 55 35.6 | -0.2 | | | |
| | comp=Z,0.2nm,0.6s,baz=226,slow=4.5,SNR=2.5 | | | | | | | | | |
| MKAR | | | | LR | LR | 05 04 30.9 | | | | |
| | comp=Z,49nm,19.3s,baz=202,slow=40 | | | | | | | | | |
| MKAR | Makanchi Array | 27.16 | 39 | P | P | 04 52 15.0 | -0.4 | | | |
| | comp=Z,1.0nm,0.6s | | | | | | | | | |
| MKAR | Makanchi Array | 27.16 | 39 | eP | P | 04 52 15.5 | +0.1 | | | |
| | comp=Z,14nm,0.5s | | | | | | | | | |
| MKAR | | | | PcP | PcP | 04 55 35.6 | -0.2 | | | |
| KURBB | Kurchatov Arra | 27.84 | 29 | P | P | 04 52 21.6 | +0.3 | | | |
| | comp=Z,1.2nm,0.6s,baz=229,slow=8.5,SNR=18 | | | | | | | | | |
| KURK | Kurchatov | 27.94 | 29 | P | P | 04 52 21.7 | -0.6 | | | |
| KURK | | | | pmax | pmax | | | | | |
| | comp=Z,1.0nm,0.6s | | | | | | | | | |
| KURK | Kurchatov | 27.94 | 29 | eP | P | 04 52 22.0 | -0.3 | | | |
| KURK | Kurchatov | 27.94 | 29 | eP | P | 04 52 22.0 | -0.3 | | | |
| IDI | Anoyia | 28.77 | 293 | P | P | 04 52 28.5 | -1.5 | | | |
| | comp=Z,5.7nm,0.8s,baz=48,slow=16,SNR=3.1 | | | | | | | | | |
| AKASG | Malin Array Be | 31.41 | 325 | P | P | 04 52 52.9 | -0.2 | | | |
| | comp=Z,0.2nm,0.3s,baz=134,slow=8.1,SNR=1.7 | | | | | | | | | |
| BUR04 | Bucovina Ar. S | 32.06 | 317 | eP | P | 04 52 56.7 | -2.2 | | | |
| BUR04 | Bucovina Ar. S | 32.06 | 317 | eP | P | 04 52 56.7 | -2.2 | | | |
| ZAA0 | Zalesovo Array | 32.92 | 30 | eP | P | 04 53 05.7 | -0.6 | | | |
| | comp=Z,6.7nm,1.0s | | | | | | | | | |
| ZAA0 | Zalesovo Array | 32.92 | 30 | eP | P | 04 53 05.7 | -0.6 | | | |
| | comp=Z,6.7nm,1.0s | | | | | | | | | |
| ZALV | Zalesovo Beam | 32.92 | 30 | P | P | 04 53 05.7 | -0.6 | | | |
| | comp=Z,3.2nm,0.2s,baz=226,slow=9.0,SNR=16 | | | | | | | | | |
| ZALV | | | | LR | LR | 05 08 40.4 | | | | |
| | comp=Z,57nm,18.7s,baz=248,slow=40 | | | | | | | | | |
| ZALV | Zalesovo Beam | 32.92 | 30 | eP | P | 04 53 05.5 | -0.8 | | | |
| ZAA1 | Zalesovo Array | 32.92 | 30 | eP | P | 04 53 05.7 | -0.6 | | | |
| ZAA1 | Zalesovo Array | 32.92 | 30 | eP | P | 04 53 05.7 | -0.6 | | | |
| KMBO | Kilima Mbogo | 34.73 | 218 | LR | LR | 05 09 36.0 | | | | |
| | comp=Z,28nm,20.9s,baz=73,slow=40 | | | | | | | | | |
| OJC | Ojcow | 36.40 | 318 | eP | P | 04 53 36.2 | -0.2 | | | |
| OJC | | | | pmax | pmax | | | | | |
| | comp=Z,7.0nm,0.6s | | | | | | | | | |
| OJC | Ojcow | 36.40 | 318 | eP | P | 04 53 36.2 | -0.2 | | | |
| | comp=Z,6.7nm,0.6s | | | | | | | | | |
| OJC | Ojcow | 36.40 | 318 | eP | P | 04 53 36.1 | -0.2 | | | |
| | comp=Z,6.7nm,0.6s | | | | | | | | | |
| GTA | Gaotai | 36.75 | 60 | eP | P | 04 53 40.0 | +0.3 | | | |
| GTA | | | | pP | sP | 04 53 47.1 | +3.1 | | | |
| GTA | | | | sP | pP | 04 53 50.6 | +7.8 | | | |
| GTA | | | | pmax | pmax | | | | | |
| | comp=Z,5.0nm,1.0s | | | | | | | | | |
| CM31 | Chiang Mai Arr | 39.00 | 95 | eP | P | 04 53 58.9 | +0.1 | | | |
| CM31 | Chiang Mai Arr | 39.00 | 95 | eP | P | 04 53 58.9 | +0.1 | | | |
| CMAR | Chiang Mai Arr | 39.00 | 95 | LR | LR | 05 13 49.5 | | | | |
| | comp=Z,28nm,20.0s,baz=318,slow=42 | | | | | | | | | |
| GERES | GERESS Array B | 39.67 | 314 | P | P | 04 54 02.3 | -1.9 | | | |
| | comp=Z,0.2nm,0.4s,baz=106,slow=7.2,SNR=2.8 | | | | | | | | | |
| FIA0 | FINESS Array S | 39.71 | 337 | eP | P | 04 54 03.1 | -1.1 | | | |
| FIA0 | FINESS Array S | 39.71 | 337 | eP | P | 04 54 03.1 | -1.1 | | | |
| FIA0 | FINESS Array S | 39.71 | 337 | eP | P | 04 54 03.0 | -1.1 | | | |
| FIA1 | FINESS Array S | 39.71 | 337 | eP | P | 04 54 02.7 | -1.4 | | | |
| FIA1 | FINESS Array S | 39.71 | 337 | eP | P | 04 54 02.7 | -1.4 | | | |
| FINES | FINESS Array B | 39.71 | 337 | P | P | 04 54 03.1 | -1.1 | | | |
| | comp=Z,6.8nm,0.9s,baz=157,slow=8.7,SNR=12 | | | | | | | | | |
| SONA0 | Songino Array | 42.65 | 48 | eP | P | 04 54 28.9 | +0.2 | | | |
| SONA0 | Songino Array | 42.65 | 48 | eP | P | 04 54 28.9 | +0.2 | | | |
| SONM | Songino Array | 42.65 | 48 | P | P | 04 54 28.9 | +0.2 | | | |
| | comp=Z,1.1nm,0.9s,baz=252,slow=8.6,SNR=5.7 | | | | | | | | | |
| SONM | | | | LR | LR | 05 14 07.7 | | | | |
| | comp=Z,134nm,19.2s,baz=300,slow=39 | | | | | | | | | |
| NB200 | NORSAR Array S | 45.39 | 330 | eP | P | 04 54 47.7 | -2.7 | | | |
| NOA | NORSAR Array B | 45.39 | 330 | P | P | 04 54 47.7 | -2.7 | | | |
| | comp=Z,1.3nm,0.8s,baz=117,slow=8.1,SNR=3.3 | | | | | | | | | |
| ARA0 | ARCESS Array S | 45.76 | 345 | eP | P | 04 54 52.7 | -0.4 | | | |
| ARA0 | ARCESS Array S | 45.76 | 345 | eP | P | 04 54 52.7 | -0.4 | | | |
| ARCES | ARCESS Array B | 45.76 | 345 | P | P | 04 54 52.7 | -0.4 | | | |
| | comp=Z,4.4nm,0.8s,baz=137,slow=8.4,SNR=8.6 | | | | | | | | | |
| TAM | Tamanrasset | 47.06 | 276 | eP | P | 04 55 04.7 | +0.5 | | | |
| TAM | | | | pmax | pmax | | | | | |
| | comp=Z,3.0nm,0.8s | | | | | | | | | |
| TAM | Tamanrasset | 47.06 | 276 | eP | P | 04 55 04.7 | +0.5 | | | |
| | comp=Z,2.6nm,0.8s | | | | | | | | | |
| TAM | Tamanrasset | 47.06 | 276 | eP | P | 04 55 04.7 | +0.5 | | | |
| | comp=Z,2.6nm,0.8s | | | | | | | | | |
| BOD | Bodaibo | 49.18 | 36 | eP | P | 04 55 21.5 | +1.5 | | | |
| BOD | | | | pmax | pmax | | | | | |
| | comp=Z,7.0nm,1.4s | | | | | | | | | |
| BOD | Bodaibo | 49.18 | 36 | eP | P | 04 55 21.5 | +1.5 | | | |
| | comp=Z,7.0nm,1.4s | | | | | | | | | |
| ESDC | Sonseca Array | 51.65 | 300 | P | P | 04 55 38.3 | -0.7 | | | |
| | comp=Z,0.3nm,0.4s,baz=77,slow=7.0,SNR=9.0 | | | | | | | | | |
| TOA0 | Torodi Ar. Sit | 53.92 | 266 | eP | P | 04 55 55.0 | -1.1 | | | |
| TOA0 | Torodi Ar. Sit | 53.92 | 266 | eP | P | 04 55 55.0 | -1.1 | | | |
| TORD | Torodi Ar. Bea | 53.92 | 266 | P | P | 04 55 55.0 | -1.0 | | | |
| | comp=Z,2.9nm,0.5s,baz=65,slow=7.3,SNR=101 | | | | | | | | | |
| TORD | | | | LR | LR | 05 22 03.9 | | | | |
| | comp=Z,62nm,18.4s,baz=135,slow=40 | | | | | | | | | |
| TOA1 | Torodi Ar. Sit | 53.93 | 266 | eP | P | 04 55 55.0 | -1.0 | | | |
| TOA1 | Torodi Ar. Sit | 53.93 | 266 | eP | P | 04 55 55.0 | -1.0 | | | |
| KOWA | Kowa | 58.43 | 270 | eP | P | 04 56 28.0 | -0.3 | | | |
| | comp=Z,6.8nm,0.6s | | | | | | | | | |
| KOWA | Kowa | 58.43 | 270 | eP | P | 04 56 28.0 | -0.3 | | | |
| | comp=Z,6.8nm,0.6s | | | | | | | | | |
| KS15 | Wonju Array Si | 58.79 | 61 | eP | P | 04 56 29.2 | -1.2 | | | |
| KS15 | Wonju Array Si | 58.79 | 61 | eP | P | 04 56 29.2 | -1.2 | | | |
| KSAR | Wonju Array Be | 58.79 | 61 | P | P | 04 56 29.2 | -1.2 | | | |
| KSAR | Wonju Array Be | 58.79 | 61 | P | P | 04 56 29.2 | -1.2 | | | |
| KSAR | Wonju Array Be | 58.79 | 61 | P | P | 04 56 29.2 | -1.2 | | | |
| KSRS | Korea Array | 58.82 | 61 | P | P | 04 56 29.2 | -1.4 | | | |
| | comp=Z,1.2nm,0.5s,baz=275,slow=6.0,SNR=4.7 | | | | | | | | | |
| KSRS | | | | LR | LR | 05 25 08.9 | | | | |
| | comp=Z,33nm,20.7s,baz=185,slow=39 | | | | | | | | | |
| USRK | Ussuriysk Ar. | 60.45 | 53 | LR | LR | 05 25 43.6 | | | | |
| | comp=Z,58nm,18.5s,baz=324,slow=39 | | | | | | | | | |
| DBIC | Dimbokro | 62.56 | 263 | LR | LR | 05 24 08.3 | | | | |
| | comp=Z,47nm,20.1s,baz=21,slow=36 | | | | | | | | | |
| ILAR | Eielson Array | 85.83 | 10 | P | P | 04 59 09.8 | -1.6 | | | |
| | comp=Z,0.3nm,0.6s,baz=314,slow=4.8,SNR=3.8 | | | | | | | | | |
| ILB | Eielson Array | 85.83 | 10 | eP | P | 04 59 09.8 | -1.6 | | | |
| ILB | Eielson Array | 85.83 | 10 | eP | P | 04 59 09.8 | -1.6 | | | |
| WR1 | Warramunga Arr | 88.05 | 114 | eP | P | 04 59 23.5 | +0.5 | | | |
| | comp=Z,20nm,1.6s | | | | | | | | | |
| WR1 | Warramunga Arr | 88.05 | 114 | eP | P | 04 59 23.5 | +0.5 | | | |
| | comp=Z,20nm,1.6s | | | | | | | | | |
| WRA | Warramunga Arr | 88.05 | 114 | P | P | 04 59 23.5 | +0.5 | | | |
| | comp=Z,1.3nm,0.7s,baz=316,slow=4.0,SNR=22 | | | | | | | | | |
| AS31 | Alice Springs | 89.58 | 117 | eP | P | 04 59 30.1 | 0.0 | | | |
| | comp=Z,2.2nm,1.4s | | | | | | | | | |
| AS31 | Alice Springs | 89.58 | 117 | eP | P | 04 59 30.1 | 0.0 | | | |
| | comp=Z,2.2nm,1.4s | | | | | | | | | |
| ASAR | Alice Springs | 89.58 | 117 | P | P | 04 59 30.1 | 0.0 | | | |
| | comp=Z,0.2nm,0.3s,baz=297,slow=4.1,SNR=4.2 | | | | | | | | | |
| YKA | Yellowknife Ar | 89.85 | 356 | P | P | 04 59 30.2 | -0.4 | | | |
| | comp=Z,0.7nm,0.7s,baz=1.6,slow=5.2,SNR=11 | | | | | | | | | |
| YKB5 | Yellowknife Ar | 89.85 | 356 | eP | P | 04 59 30.2 | -0.5 | | | |
| YKB5 | Yellowknife Ar | 89.85 | 356 | eP | P | 04 59 30.2 | -0.5 | | | |
| LTX | Lajitas | 120.47 | 341 | ePKIKP | PKPdf | 05 05 24.0 | -0.3 | | | |
| LTX | Lajitas | 120.47 | 341 | ePKPdf | PKPdf | 05 05 24.0 | -0.3 | | | |
| TXAR | Lajitas Array | 120.47 | 341 | PKP | PKPdf | 05 05 24.0 | -0.3 | | | |
| | comp=Z,0.2nm,0.6s,baz=197,slow=1.5,SNR=3.5 | | | | | | | | | |
| TXAR | Lajitas Array | 120.47 | 341 | PKIKP | PKPdf | 05 05 24.0 | -0.3 | | | |

*IDC **20** 04:47:53.8±1.2,38.˚38N×22.˚11E,h0km,mb3.4/4, mb1 3.5/6,mb1mx3.3/44,mbtmp3.4/6,ML2.9/2,Error ellipse: s-maj=35.3km s-min=20.9km az=154.0*

*ISCJB **20** 04:47:54.6±0.2,38.˚35N±0.˚01×22.˚04E±0.˚02,h9km±1km, mb3.3/3,Error ellipse: s-maj=2.2km s-min=2.1km az=175.6*

*IASPEI **20** 04:47:54.8±0.8,38.˚35N±0.˚01×22.˚04E±0.˚01,h10km±3km, mb3.5/3,Error ellipse: s-maj=2.0km s-min=1.9km az=134.3,GT5 selection from ISC bulletin GT5 identified by Bond˚jr and McLaughlin (2009) selection criteria Bond˚jr and McLaughlin, A new ground truth data set for seismic studies, Seism. Res. Let., 80, 465-472, 2009*

*ATH **20** 04:47:54.1,38.˚35N×22.˚04E,h14km,ML3.3/16,Error ellipse: s-maj=0.9km s-min=0.5km az=322.0*

*CSEM **20** 04:47:54.7±0.1,38.˚34N×22.˚05E,h2km,ML3.3,Error ellipse: s-maj=1.9km s-min=1.7km az=76.0*

*THE **20** 04:47:55.3,38.˚34N×22.˚05E,h2km±1km,ML3.3/23,Error ellipse: s-maj=1.1km s-min=0.3km az=298.0*

**ISC 20 04:47:55.2±0.7,38.˚34N±0.˚01×22.˚05E±0.˚01,h8km±3km, n196,σ0°93/270,mb3.5/3,8C-5D,Greece**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| TRIZ | Trizonia | 0.03 | 38 | P | | P | Pg | 04 47 56.1 | -0.6 |
| TRIZ | Trizonia | 0.03 | 38 | P | | P | Pg | 04 47 56.1 | -0.6 |
| TRIZ | | | | S | | S | Sg | 04 47 57.5 | -0.3 |
| SERG | Sergoula | 0.07 | 3 | P | | P | Pg | 04 47 56.8 | -0.4 |
| SERG | | | | S | | S | Sg | 04 47 57.5 | -1.2 |
| SERG | | | | AML | | AML | AML | 04 47 58.6 | |
| SERG | | | | AML | | AML | AML | 04 48 00.3 | |
| SERG | Sergoula | 0.07 | 3 | P | | Pg | | 04 47 56.8 | -0.4 |
| SERG | | | | S | | Sg | | 04 47 58.5 | -0.2 |
| SERG | Sergoula | 0.07 | 3 | P | | Pg | | 04 47 56.8 | -0.4 |
| SERG | | | | S | | Sg | | 04 47 58.5 | -0.2 |
| KALE | Kalithea | 0.08 | 56 | P | | Pg | | 04 47 57.4 | 0.0 |
| KALE | | | | S | | Sg | | 04 47 59.1 | 0.0 |
| KALE | | | | AML | | AML | | 04 47 59.5 | |
| KALE | | | | AML | | AML | | 04 47 59.8 | |
| KALE | Kalithea | 0.08 | 56 | P | | Pg | | 04 47 57.2 | -0.2 |
| KALE | | | | S | | Sg | | 04 47 59.0 | 0.0 |
| KALE | Kalithea | 0.08 | 56 | P | | Pg | | 04 47 57.3 | -0.2 |
| KALE | | | | S | | Sg | | 04 47 59.0 | 0.0 |
| LAKA | Lakka | 0.12 | 209 | P | | Pg | | 04 47 57.7 | -0.2 |
| LAKA | | | | S | | Sg | | 04 47 59.4 | -0.4 |
| LAKA | Lakka | 0.12 | 209 | P | | Pg | | 04 47 57.7 | -0.2 |
| LAKA | | | | S | | Sg | | 04 47 59.6 | -0.2 |
| LAKA | Lakka | 0.12 | 209 | P | | Pg | | 04 47 57.6 | -0.3 |
| LAKA | | | | S | | Sg | | 04 47 59.6 | -0.2 |
| EFP | Efpalio | 0.14 | 306 | P | | Pg | | 04 47 57.9 | -0.3 |
| EFP | | | | S | | Sg | | 04 47 59.6 | -0.7 |
| EFP | | | | AML | | AML | | 04 48 01.2 | |
| | comp=N,56114μm,0.4s | | | | | | | | |
| EFP | | | | AML | | AML | | 04 48 01.9 | |
| | comp=E,28077μm,0.2s | | | | | | | | |
| EFP | Efpalio | 0.14 | 306 | P | | Pg | | 04 47 57.9 | -0.3 |
| EFP | | | | S | | Sg | | 04 48 00.3 | -0.1 |
| EFP | Efpalio | 0.14 | 306 | P | | Pg | | 04 47 57.8 | -0.5 |
| EFP | | | | S | | Sg | | 04 48 00.4 | 0.0 |
| VVK | Vomvokou | 0.20 | 292 | P | | Pg | | 04 47 58.9 | -0.5 |
| UPR | University Cam | 0.22 | 254 | P | | Pg | | 04 47 59.6 | +0.1 |
| UPR | University Cam | 0.22 | 254 | P | | Pg | | 04 47 59.3 | -0.3 |
| UPR | | | | S | | Sg | | 04 48 02.7 | +0.1 |
| UPR | University Cam | 0.22 | 254 | P | | Pg | | 04 47 59.4 | -0.2 |
| UPR | | | | S | | Sg | | 04 48 03.0 | +0.4 |
| ANX | Ano Chora | 0.27 | 338 | P | | Pg | | 04 48 00.2 | -0.4 |
| ANX | | | | S | | Sg | | 04 48 04.3 | +0.1 |
| ANX | Ano Chora | 0.27 | 338 | P | | Pg | | 04 48 00.2 | -0.4 |
| ANX | | | | S | | Sg | | 04 48 04.7 | +0.5 |
| KLV | Kalavryta, Ach | 0.31 | 165 | P | | Pg | | 04 48 00.9 | -0.4 |
| KLV | | | | S | | Sg | | 04 48 04.9 | -0.6 |
| KLV | | | | AML | | AML | | 04 48 06.7 | |
| | comp=E,3847μm,0.1s | | | | | | | | |
| KLV | | | | AML | | AML | | 04 48 07.0 | |
| | comp=N,3520μm,0.2s | | | | | | | | |
| KLV | Kalavryta, Ach | 0.31 | 165 | P | | Pg | | 04 48 00.9 | -0.4 |
| KLV | | | | S | | Sg | | 04 48 04.9 | -0.6 |
| KLV | Kalavryta, Ach | 0.31 | 165 | P | | Pg | | 04 48 00.8 | -0.5 |
| KLV | | | | S | | Sg | | 04 48 05.8 | +0.3 |
| DSF | Desfina | 0.38 | 80 | P | | Pg | | 04 48 02.0 | -0.7 |
| DSF | | | | S | | Sg | | 04 48 08.2 | +0.6 |
| DSF | | | | AML | | AML | | 04 48 09.3 | |
| | comp=E,13694μm,0.3s | | | | | | | | |
| DSF | | | | AML | | AML | | 04 48 09.6 | |
| | comp=N,22133μm,0.2s | | | | | | | | |
| DSF | Desfina | 0.38 | 80 | P | | Pg | | 04 48 02.5 | -0.1 |
| DSF | | | | S | | Sg | | 04 48 08.2 | +0.6 |
| DSF | Desfina | 0.38 | 80 | P | | Pg | | 04 48 02.5 | -0.1 |
| DSF | | | | S | | Sb | | 04 48 08.8 | -1.4 |
| GUR | Goura | 0.47 | 151 | P | | Pg | | 04 48 03.1 | -1.2 |
| GUR | Goura | 0.47 | 151 | P | | Pg | | 04 48 03.8 | -0.5 |
| GUR | | | | S | | Sg | | 04 48 10.8 | +0.4 |
| GUR | Goura | 0.47 | 151 | P | | Pg | | 04 48 03.8 | -0.5 |
| GUR | | | | S | | Sg | | 04 48 11.3 | +0.9 |
| DRO | Drossia | 0.47 | 215 | P | | Pg | | 04 48 04.0 | -0.4 |
| DRO | | | | S | | Sg | | 04 48 10.0 | -0.6 |
| DRO | | | | AML | | AML | | 04 48 14.8 | |
| | comp=N,13068μm,0.3s | | | | | | | | |
| DRO | | | | AML | | AML | | 04 48 15.3 | |
| | comp=E,17186μm,0.3s | | | | | | | | |
| DRO | Drossia | 0.47 | 215 | P | | Pg | | 04 48 04.0 | -0.4 |
| DRO | | | | S | | Sg | | 04 48 10.0 | -0.6 |
| DRO | Drossia | 0.47 | 215 | P | | Pg | | 04 48 03.7 | -0.7 |
| DRO | | | | S | | Sg | | 04 48 11.6 | +1.0 |
| PVO | Paravola | 0.49 | 304 | P | | Pg | | 04 48 03.9 | -0.9 |
| PVO | | | | S | | Sg | | 04 48 10.0 | -1.3 |
| PVO | | | | AML | | AML | | 04 48 15.6 | |
| | comp=N,3658μm,0.5s | | | | | | | | |
| PVO | | | | AML | | AML | | 04 48 16.4 | |
| | comp=E,4479μm,0.3s | | | | | | | | |
| PVO | Paravola | 0.49 | 304 | P | | Pg | | 04 48 03.9 | -0.9 |
| PVO | | | | S | | Sg | | 04 48 10.0 | -1.3 |
| PVO | Paravola | 0.49 | 304 | P | | Pg | | 04 48 04.5 | -0.3 |
| PVO | | | | S | | Sb | | 04 48 12.2 | -1.3 |
| RLS | Riolos of Patr | 0.54 | 238 | P | | Pg | | 04 48 04.9 | -0.7 |
| RLS | | | | S | | Sg | | 04 48 11.9 | -0.9 |
| RLS | | | | AML | | AML | | 04 48 15.4 | |
| | comp=N,3762μm,0.4s | | | | | | | | |
| RLS | | | | AML | | AML | | 04 48 15.6 | |
| | comp=E,3339μm,0.2s | | | | | | | | |
| RLS | Riolos of Patr | 0.54 | 238 | P | | Pg | | 04 48 05.1 | -0.6 |
| RLS | | | | S | | Sg | | 04 48 11.9 | -0.9 |
| RLS | Riolos of Patr | 0.54 | 238 | P | | Pg | | 04 48 05.4 | -0.3 |
| RLS | | | | S | | Sg | | 04 48 13.3 | +0.5 |
| AXS | Araxos | 0.55 | 255 | P | | Pg | | 04 48 05

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **VLS** | **Valsamata** | **1.16** | **262** | P | **Pg** | **04 48 15.5** | **-2.0** |
| VLS | | | | S | **Sg** | **04 48 31.4** | **-1.2** |
| VLS | | | | AML | AML | 04 48 41.5 | |
| | comp=N,1326μm,0.4s | | | | | | |
| VLS | | | | AML | AML | 04 48 42.8 | |
| | comp=E,874μm,0.5s | | | | | | |
| **VLS** | **Valsamata** | **1.16** | **262** | P | **Pg** | **04 48 15.7** | **-1.8** |
| VLS | | | | S | **Sg** | **04 48 31.4** | **-1.2** |
| **VLS** | **Valsamata** | **1.16** | **262** | P | **Pg** | **04 48 15.7** | **-1.8** |
| **ITM** | **Ithomi** | **1.17** | **185** | P | **Pg** | **04 48 15.8** | **-1.8** |
| **ITM** | **Ithomi** | **1.17** | **185** | P | **Pg** | **04 48 16.3** | **-1.3** |
| ITM | | | | S | **Sb** | **04 48 33.2** | **+0.4** |
| **ITM** | **Ithomi** | **1.17** | **185** | P | **Pg** | **04 48 16.3** | **-1.3** |
| ITM | | | | S | **Sb** | **04 48 33.2** | **+0.4** |
| **LKD2** | **Lefkada island** | **1.18** | **293** | P | **Pg** | **04 48 16.7** | **-1.1** |
| **LKD2** | **Lefkada island** | **1.18** | **293** | P | **Pg** | **04 48 16.7** | **-1.1** |
| **THL** | **Klokotos Trika** | **1.22** | **359** | P | **Pg** | **04 48 16.9** | **-1.7** |
| **THL** | **Klokotos Trika** | **1.22** | **359** | P | **Pb** | **04 48 18.3** | **-0.2** |
| **THL** | **Klokotos Trika** | **1.22** | **359** | P | **Pb** | **04 48 18.3** | **-0.2** |
| **DID** | **Didima** | **1.26** | **131** | P | **Pg** | **04 48 17.7** | **-1.6** |
| **DID** | **Didima** | **1.26** | **131** | P | **Pg** | **04 48 18.1** | **-1.2** |
| **DID** | **Didima** | **1.26** | **131** | P | **Pg** | **04 48 18.1** | **-1.2** |
| **FYTO** | **Fytoko, Volos** | **1.27** | **33** | P | **Pg** | **04 48 18.7** | **-0.8** |
| **FYTO** | **Fytoko, Volos** | **1.27** | **33** | P | **Pg** | **04 48 18.7** | **-0.8** |
| **FYTO** | **Fytoko, Volos** | **1.27** | **33** | P | **Pg** | **04 48 18.7** | **-0.8** |
| **KRND** | **KRANIDI** | **1.29** | **137** | P | **Pg** | **04 48 18.3** | **-1.8** |
| **KRND** | **KRANIDI** | **1.29** | **137** | P | **Pg** | **04 48 19.6** | **-0.4** |
| **KRND** | **KRANIDI** | **1.29** | **137** | P | **Pg** | **04 48 19.6** | **-0.4** |
| **NEO** | **Neokhori** | **1.33** | **43** | P | **Pg** | **04 48 19.5** | **-1.1** |
| **NEO** | **Neokhori** | **1.33** | **43** | P | **Pg** | **04 48 19.6** | **-1.1** |
| **NEO** | **Neokhori** | **1.33** | **43** | P | **Pg** | **04 48 19.6** | **-1.1** |
| **XOR** | **Xorichti** | **1.35** | **41** | P | **Pn** | **04 48 19.5** | **-0.8** |
| **XOR** | **Xorichti** | **1.35** | **41** | P | **Pn** | **04 48 20.2** | **-0.2** |
| **XOR** | **Xorichti** | **1.35** | **41** | P | **Pn** | **04 48 20.2** | **-0.2** |
| **ATH** | **Athens Observa** | **1.36** | **105** | P | **Pn** | **04 48 20.7** | **+0.2** |
| ATH | | | | S | **Sg** | **04 48 38.6** | **-0.4** |
| ATH | | | | AML | AML | 04 48 47.5 | |
| | comp=E,1054μm,0.3s | | | | | | |
| ATH | | | | AML | AML | 04 48 50.4 | |
| | comp=N,951μm,0.6s | | | | | | |
| **ATH** | **Athens Observa** | **1.36** | **105** | P | **Pn** | **04 48 20.7** | **+0.2** |
| ATH | | | | S | **Sg** | **04 48 38.6** | **-0.4** |
| **SKIA** | **Skiathos** | **1.38** | **53** | P | **Pn** | **04 48 20.3** | **-0.3** |
| **SKIA** | **Skiathos** | **1.38** | **53** | P | **Pn** | **04 48 20.6** | **-0.1** |
| **SKIA** | **Skiathos** | **1.38** | **53** | P | **Pn** | **04 48 20.6** | **-0.1** |
| **ATHU** | **Athens Univers** | **1.42** | **105** | P | **Pn** | **04 48 21.2** | **0.0** |
| **ATHU** | **Athens Univers** | **1.42** | **105** | P | **Pn** | **04 48 21.2** | **0.0** |
| **PTL** | **Penteli** | **1.46** | **101** | P | **Pn** | **04 48 21.6** | **-0.2** |
| **PTL** | **Penteli** | **1.46** | **101** | P | **Pn** | **04 48 21.9** | **+0.1** |
| PTL | | | | S | **Sn** | **04 48 42.8** | **+1.7** |
| **PTL** | **Penteli** | **1.46** | **101** | P | **Pn** | **04 48 21.9** | **+0.1** |
| PTL | | | | S | **Sn** | **04 48 42.8** | **+1.7** |
| **VLY** | **Voula,Athens** | **1.46** | **109** | P | **Pn** | **04 48 21.6** | **-0.1** |
| **VLY** | **Voula,Athens** | **1.46** | **109** | P | **Pn** | **04 48 21.7** | **-0.1** |
| **VLY** | **Voula,Athens** | **1.46** | **109** | P | **Pn** | **04 48 21.7** | **-0.1** |
| **PYL** | **PYLOS** | **1.47** | **190** | P | **Pn** | **04 48 21.0** | **-0.9** |
| **PYL** | **PYLOS** | **1.47** | **190** | P | **Pn** | **04 48 21.4** | **-0.5** |
| PYL | | | | S | **Sn** | **04 48 42.7** | **+1.4** |
| **PYL** | **PYLOS** | **1.47** | **190** | P | **Pn** | **04 48 21.4** | **-0.5** |
| PYL | | | | S | **Sn** | **04 48 42.7** | **+1.4** |
| **EREA** | **Eretria** | **1.48** | **86** | P | **Pn** | **04 48 21.7** | **-0.4** |
| **EREA** | **Eretria** | **1.48** | **86** | P | **Pn** | **04 48 22.0** | **-0.1** |
| **EREA** | **Eretria** | **1.48** | **86** | P | **Pn** | **04 48 22.0** | **-0.1** |
| **MES2** | **Methoni** | **1.54** | **190** | P | **Pn** | **04 48 22.7** | **-0.2** |
| **MES2** | **Methoni** | **1.54** | **190** | P | **Pn** | **04 48 22.7** | **-0.2** |
| **DYR** | **Agios Nikonas** | **1.59** | **172** | P | **Pn** | **04 48 23.2** | **-0.5** |
| **DYR** | **Agios Nikonas** | **1.59** | **172** | P | **Pn** | **04 48 23.2** | **-0.5** |
| **JAN** | **Janina** | **1.61** | **325** | P | **Pb** | **04 48 25.2** | **0.0** |
| **JAN** | **Janina** | **1.61** | **325** | P | **Pb** | **04 48 25.2** | **0.0** |
| **KPRO** | **Kipourio** | **1.69** | **342** | P | **Pn** | **04 48 25.7** | **+0.6** |
| **KPRO** | **Kipourio** | **1.69** | **342** | P | **Pn** | **04 48 25.7** | **+0.6** |
| **KPRO** | **Kipourio** | **1.69** | **342** | P | **Pb** | **04 48 26.8** | **+0.2** |
| **VLI** | **Veliai** | **1.77** | **156** | P | **Pn** | **04 48 25.6** | **-0.4** |
| **VLI** | **Veliai** | **1.77** | **156** | P | **Pn** | **04 48 26.5** | **+0.5** |
| **VLI** | **Veliai** | **1.77** | **156** | P | **Pn** | **04 48 26.5** | **+0.5** |
| **LIT** | **Litokhoron** | **1.79** | **11** | P | **Pn** | **04 48 25.1** | **-1.3** |
| **LIT** | **Litokhoron** | **1.79** | **11** | P | **Pn** | **04 48 25.9** | **-0.4** |
| **LIT** | **Litokhoron** | **1.79** | **11** | P | **Pn** | **04 48 25.9** | **-0.4** |
| **KARY** | **Karystos** | **1.91** | **99** | P | **Pn** | **04 48 27.7** | **-0.2** |
| **KARY** | **Karystos** | **1.91** | **99** | P | **Pn** | **04 48 27.7** | **-0.2** |
| **KZN** | **Kozani** | **1.97** | **354** | P | **Pb** | **04 48 30.7** | **-0.7** |
| **KZN** | **Kozani** | **1.97** | **354** | P | **Pn** | **04 48 30.1** | **+1.2** |
| **KZN** | **Kozani** | **1.97** | **354** | P | **Pn** | **04 48 30.1** | **+1.2** |
| **PENT** | **Pentalofos** | **1.98** | **339** | P | **Pg** | **04 48 33.5** | **+0.4** |
| **PENT** | **Pentalofos** | **1.98** | **339** | P | **Pg** | **04 48 32.2** | **-1.0** |
| **PENT** | **Pentalofos** | **1.98** | **339** | P | **Pg** | **04 48 32.2** | **-1.0** |
| **PAIG** | **Paliouri** | **2.02** | **38** | P | **Pn** | **04 48 28.1** | **-1.5** |
| **PAIG** | **Paliouri** | **2.02** | **38** | P | **Pn** | **04 48 28.1** | **-1.5** |
| **NEST** | **Nestorio** | **2.21** | **340** | P | **Pb** | **04 48 35.8** | **+0.4** |
| **NEST** | **Nestorio** | **2.21** | **340** | P | **Pb** | **04 48 35.8** | **+0.4** |
| **PLG** | **Polygyros** | **2.30** | **28** | P | **Pn** | **04 48 32.0** | **-1.3** |
| **PLG** | **Polygyros** | **2.30** | **28** | P | **Pn** | **04 48 32.0** | **-1.3** |
| **HORT** | **Hortiatis** | **2.39** | **19** | P | **Pn** | **04 48 33.0** | **-1.7** |
| **HORT** | **Hortiatis** | **2.39** | **19** | P | **Pn** | **04 48 33.0** | **-1.7** |
| **FNA** | **Florina** | **2.49** | **348** | P | **Pn** | **04 48 36.7** | **+0.6** |
| **FNA** | **Florina** | **2.49** | **348** | P | **Pn** | **04 48 36.7** | **+0.6** |
| **GRG** | **Griva** | **2.62** | **6** | P | **Pn** | **04 48 38.1** | **+0.3** |
| **GRG** | **Griva** | **2.62** | **6** | P | **Pn** | **04 48 38.1** | **+0.3** |
| **SOH** | **Sokhos** | **2.67** | **22** | P | **Pn** | **04 48 38.3** | **-0.2** |
| **SOH** | **Sokhos** | **2.67** | **22** | P | **Pn** | **04 48 38.3** | **-0.2** |
| **SOH** | **Sokhos** | **2.67** | **22** | P | **Pn** | **04 48 38.8** | **+0.3** |
| **BIA** | **Bitola** | **2.73** | **348** | *e*Pn | **Pb** | **04 48 44.0** | **-0.3** |
| **KNT** | **Kendrikon** | **2.89** | **13** | P | **Pn** | **04 48 42.1** | **+0.6** |
| **KNT** | **Kendrikon** | **2.89** | **13** | P | **Pn** | **04 48 42.1** | **+0.6** |
| **OHR** | **Ohrid** | **2.93** | **341** | *e*Pn | **Pn** | **04 48 41.3** | **-0.7** |
| **VAY** | **Valandovo** | **3.00** | **7** | *e*Pn | **Pn** | **04 48 44.8** | **+1.8** |
| **APE** | **Apeiranthos** | **3.04** | **114** | ǁ *i*P | **Pn** | **04 48 43.1** | **-0.5** |
| **APE** | **Apeiranthos** | **3.04** | **114** | ǁ *i*P | **Pn** | **04 48 43.1** | **-0.5** |
| APE | | | | S | **Sn** | **04 49 18.6** | **-1.5** |
| **KRUS** | **Krusevo** | **3.08** | **349** | *e*Pn | **Pn** | **04 48 47.1** | **+2.9** |
| **TIR** | **Tirane** | **3.44** | **331** | ǁ *i*P | **Pb** | **04 48 57.9** | **+1.6** |
| **TIR** | **Tirane** | **3.44** | **331** | S | **Sg** | **04 49 50.8** | **+5.2** |
| **IDI** | **Anoyia** | **3.81** | **142** | Pn | **Pn** | **04 48 54.2** | **+0.1** |
| | comp=N,0.8nm,0.3s,baz=268,slow=12,SNR=11 | | | | | | |
| IDI | | | | Sn | **Sn** | **04 49 36.7** | **-2.4** |
| | comp=N,2.5nm,0.3s,baz=277,slow=19,SNR=3.4 | | | | | | |
| **VTS** | **Vitosha** | **4.33** | **11** | ǁ *i*P | **Pn** | **04 49 03.4** | **+2.0** |
| **VTS** | **Vitosha** | **4.33** | **11** | ǁ *i*P | **Pn** | **04 49 03.4** | **+2.0** |
| VTS | | | | S | **Sn** | **04 49 53.5** | **+1.3** |
| **BOVS** | **Bovan** | **5.29** | **357** | *e*Pn | **Pn** | **04 49 15.1** | **+0.6** |
| **ZAGS** | **Zajecar** | **5.46** | **1** | *e*Pn | **Pn** | **04 49 17.0** | **+0.2** |
| **DIVS** | **Divibare** | **5.95** | **346** | *e*Pn | **Pn** | **04 49 25.8** | **+2.1** |
| **ARR** | **Arges** | **7.28** | **15** | ǁ *i*P | **Pn** | **04 49 42.6** | **+0.8** |
| **ARR** | **Arges** | **7.28** | **15** | ǁ *i*P | **Pn** | **04 49 42.6** | **+0.8** |
| **VOIR** | | **7.43** | **17** | ǁ *i*P | **Pn** | **04 49 45.2** | **+1.3** |
| **VOIR** | | **7.43** | **17** | ǁ *i*P | **Pn** | **04 49 45.2** | **+1.3** |
| **MLR** | **Muntele Rosu** | **7.71** | **21** | ǁ *i*P | **Pn** | **04 49 49.9** | **+2.2** |
| **MLR** | **Muntele Rosu** | **7.71** | **21** | ǁ *i*P | **Pn** | **04 49 49.9** | **+2.2** |
| **PLOR** | **Plostina** | **8.24** | **23** | ǁ *i*P | **Pn** | **04 49 55.9** | **+0.9** |
| **PLOR** | **Plostina** | **8.24** | **23** | ǁ *i*P | **Pn** | **04 49 55.9** | **+0.9** |
| **BRTR** | **Keskin Array B** | **9.12** | **78** | Pn | **Pn** | **04 50 08.8** | **+1.6** |
| | comp=N,0.1nm,0.3s,baz=259,slow=12,SNR=5.7 | | | | | | |
| **ESDC** | **Sonseca Array** | **20.24** | **282** | P | **P** | **04 52 31.3** | **+0.5** |
| | comp=N,0.8nm,0.7s,baz=80,slow=11,SNR=7.3 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **30.93** | **221** | P | **P** | **04 54 12.8** | **+0.3** |
| | comp=N,0.3nm,0.5s,baz=31,slow=9.0,SNR=8.5 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **41.16** | **54** | P | **P** | **04 55 38.8** | **-0.9** |
| | comp=N,0.1nm,0.3s,baz=284,slow=9.4,SNR=2.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.19** | **59** | P | **P** | **04 56 03.6** | **-0.8** |
| | comp=N,0.5nm,0.5s,baz=276,slow=7.9,SNR=11 | | | | | | |

**MAN 20 05:05:31,13°38N×122°33E,h29km,mb4.1,ML2.9,MS2.6, 1D,Luzon**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AUQP** | **San Andres** | **0.34** | **100** | *e*P | Pn | 05 05 40.0 | 0.0 |
| AUQP | | | | *e*S | Sn | 05 05 48.2 | +2.2 |
| **BOAC** | **Boac** | **0.47** | **279** | *e*P | Pn | 05 05 42.3 | +0.4 |
| BOAC | | | | *e*S | Sn | 05 05 50.6 | +1.4 |
| **GQP** | **Guinayangan** | **0.53** | **13** | ǁ *e*P | Pn | 05 05 43.6 | +0.9 |
| **OTRP** | **Odiongan** | **1.06** | **196** | *e*P | Pn | 05 05 50.1 | +0.2 |
| OTRP | | | | *e*S | Sb | 05 06 04.2 | +0.1 |
| **SJMP** | **San Jose** | **1.49** | **232** | *e*P | Pb | 05 05 57.5 | -0.6 |

*THE **20** 05:10:35.3,38°.34N×22°.05E,h8km±1km,ML1.8/9, Error ellipse: s-maj=1.1km s-min=0.3km az=40.0*
*CSEM **20** 05:10:35.0±0.1,38°.34N×22°.05E,h5km,ML1.7, Error ellipse: s-maj=2.8km s-min=2.4km az=65.0*

**ATH 20 05:10:35.0,38°.35N×22°.04E,h9km±1km,ML1.7/8,Error ellipse: s-maj=1.6km s-min=0.7km az=55.0,Greece**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TRIZ** | **Trizonia** | **0.03** | **53** | P | Pg | 05 10 36.6 | -0.1 |
| TRIZ | | | | S | Sg | 05 10 37.8 | -0.2 |
| **TRIZ** | **Trizonia** | **0.03** | **53** | P | Pg | 05 10 36.6 | -0.1 |
| TRIZ | | | | S | Sg | 05 10 37.8 | -0.2 |
| **SERG** | **Sergoula** | **0.07** | **10** | P | Pg | 05 10 37.2 | +0.1 |
| SERG | | | | S | Sg | 05 10 38.3 | -0.4 |
| SERG | | | | AML | AML | 05 10 38.9 | |
| | comp=N,5898μm,0.2s | | | | | | |
| SERG | | | | AML | AML | 05 10 38.9 | |
| | comp=E,4301μm,0.2s | | | | | | |
| **SERG** | **Sergoula** | **0.07** | **10** | P | Pg | 05 10 37.2 | +0.1 |
| SERG | | | | S | Sg | 05 10 38.5 | -0.2 |
| **SERG** | **Sergoula** | **0.07** | **10** | P | Pg | 05 10 37.2 | +0.1 |
| SERG | | | | S | Sg | 05 10 38.5 | -0.2 |
| **KALE** | **Kalithea** | **0.09** | **60** | P | Pg | 05 10 37.9 | +0.4 |
| KALE | | | | S | Sg | 05 10 39.5 | +0.3 |
| KALE | | | | AML | AML | 05 10 39.8 | |
| | comp=E,4111μm,0.2s | | | | | | |
| KALE | | | | AML | AML | 05 10 40.1 | |
| | comp=N,3212μm,0.3s | | | | | | |
| **KALE** | **Kalithea** | **0.09** | **60** | P | Pg | 05 10 37.9 | +0.5 |
| KALE | | | | S | Sg | 05 10 39.5 | +0.3 |
| **KALE** | **Kalithea** | **0.09** | **60** | P | Pg | 05 10 37.6 | +0.2 |
| KALE | | | | S | Sg | 05 10 39.5 | +0.3 |
| **LAKA** | **Lakka** | **0.12** | **205** | P | Pg | 05 10 37.9 | +0.1 |
| LAKA | | | | S | Sg | 05 10 39.9 | +0.1 |
| LAKA | | | | AML | AML | 05 10 40.2 | |
| | comp=E,474μm,0.2s | | | | | | |
| LAKA | | | | AML | AML | 05 10 40.2 | |
| | comp=N,371μm,0.2s | | | | | | |
| **LAKA** | **Lakka** | **0.12** | **205** | P | Pg | 05 10 37.9 | +0.1 |
| LAKA | | | | S | Sg | 05 10 39.9 | +0.1 |
| **LAKA** | **Lakka** | **0.12** | **205** | P | Pg | 05 10 37.8 | 0.0 |
| LAKA | | | | S | Sg | 05 10 39.9 | +0.1 |
| **EFP** | **Efpalio** | **0.13** | **307** | P | Pg | 05 10 38.0 | 0.0 |
| EFP | | | | S | Sg | 05 10 39.9 | -0.3 |
| EFP | | | | AML | AML | 05 10 41.7 | |
| | comp=N,1457μm,0.2s | | | | | | |
| EFP | | | | AML | AML | 05 10 42.7 | |
| | comp=E,1268μm,0.3s | | | | | | |
| **EFP** | **Efpalio** | **0.13** | **307** | P | Pg | 05 10 38.0 | 0.0 |
| EFP | | | | S | Sg | 05 10 40.6 | +0.5 |
| **EFP** | **Efpalio** | **0.13** | **307** | P | Pg | 05 10 38.1 | +0.1 |
| EFP | | | | S | Sg | 05 10 40.6 | +0.5 |
| **ANX** | **Ano Chora** | **0.26** | **339** | P | Pg | 05 10 40.5 | +0.1 |
| ANX | | | | S | Sg | 05 10 45.1 | +1.1 |
| **ANX** | **Ano Chora** | **0.26** | **339** | P | Pg | 05 10 40.5 | +0.1 |
| ANX | | | | S | Sg | 05 10 45.1 | +1.1 |
| **KLV** | **Kalavryta, Ach** | **0.32** | **164** | P | Pg | 05 10 40.9 | -0.4 |
| KLV | | | | S | Sg | 05 10 46.0 | +0.5 |
| KLV | | | | AML | AML | 05 10 47.2 | |
| | comp=E,96μm,0.1s | | | | | | |
| KLV | | | | AML | AML | 05 10 47.7 | |
| | comp=N,82μm,0.1s | | | | | | |
| **KLV** | **Kalavryta, Ach** | **0.32** | **164** | P | Pg | 05 10 40.8 | -0.5 |
| KLV | | | | S | Sg | 05 10 46.0 | +0.5 |
| **KLV** | **Kalavryta, Ach** | **0.32** | **164** | P | Pg | 05 10 41.1 | -0.2 |
| KLV | | | | S | Sg | 05 10 46.0 | +0.5 |
| **DSF** | **Desfina** | **0.39** | **80** | P | Pg | 05 10 42.7 | 0.0 |
| DSF | | | | S | Sg | 05 10 47.9 | +0.2 |
| DSF | | | | AML | AML | 05 10 49.3 | |
| | comp=N,408μm,0.2s | | | | | | |
| DSF | | | | AML | AML | 05 10 49.8 | |
| | comp=E,297μm,0.1s | | | | | | |
| **DSF** | **Desfina** | **0.39** | **80** | P | Pg | 05 10 42.8 | +0.2 |
| DSF | | | | S | Sg | 05 10 47.9 | +0.2 |
| **DSF** | **Desfina** | **0.39** | **80** | P | Pg | 05 10 42.8 | +0.2 |
| DSF | | | | S | Sg | 05 10 48.2 | +0.5 |
| **DRO** | **Drossia** | **0.47** | **214** | P | Pg | 05 10 43.9 | -0.3 |
| DRO | | | | S | Sg | 05 10 50.9 | +0.4 |
| DRO | | | | AML | AML | 05 10 54.4 | |
| | comp=E,346μm,0.2s | | | | | | |
| DRO | | | | AML | AML | 05 10 55.8 | |
| | comp=N,332μm,0.2s | | | | | | |
| **DRO** | **Drossia** | **0.47** | **214** | P | Pg | 05 10 43.9 | -0.3 |
| DRO | | | | S | Sg | 05 10 50.9 | +0.5 |
| **DRO** | **Drossia** | **0.47** | **214** | P | Pg | 05 10 44.0 | -0.2 |
| DRO | | | | S | Sg | 05 10 51.1 | +0.7 |
| **GUR** | **Goura** | **0.47** | **150** | P | Pg | 05 10 43.7 | -0.5 |
| **GUR** | **Goura** | **0.47** | **150** | P | Pg | 05 10 43.7 | -0.5 |
| GUR | | | | S | Sg | 05 10 50.9 | +0.4 |
| **GUR** | **Goura** | **0.47** | **150** | P | Pg | 05 10 44.1 | -0.1 |
| GUR | | | | S | Sg | 05 10 50.9 | +0.4 |
| **PVO** | **Paravola** | **0.49** | **304** | P | Pg | 05 10 44.4 | -0.1 |
| **PVO** | **Paravola** | **0.49** | **304** | P | Pg | 05 10 44.3 | -0.2 |
| **RLS** | **Riolos of Patr** | **0.54** | **238** | P | Pg | 05 10 45.5 | +0.1 |
| **RLS** | **Riolos of Patr** | **0.54** | **238** | P | Pg | 05 10 45.5 | +0.1 |
| **EVR** | **Evrytania** | **0.60** | **342** | P | Pg | 05 10 46.5 | -0.1 |
| EVR | | | | S | Sg | 05 10 55.3 | +0.8 |
| EVR | | | | AML | AML | 05 10 57.9 | |
| | comp=E,113μm,0.2s | | | | | | |
| EVR | | | | AML | AML | 05 10 58.3 | |
| | comp=N,130μm,0.3s | | | | | | |
| **EVR** | **Evrytania** | **0.60** | **342** | P | Pg | 05 10 46.5 | -0.1 |
| EVR | | | | S | Sg | 05 10 55.3 | +0.8 |
| **EVR** | **Evrytania** | **0.60** | **342** | P | Pg | 05 10 46.5 | -0.1 |
| EVR | | | | S | Sb | 05 10 56.1 | -0.2 |
| **AGG** | **Agios Georgios** | **0.71** | **18** | P | Pg | 05 10 47.7 | -1.1 |
| **AGG** | **Agios Georgios** | **0.71** | **18** | P | Pg | 05 10 47.7 | -1.0 |
| **PDO** | **Prodromos** | **0.72** | **291** | P | Pb | 05 10 49.3 | -0.3 |
| **PDO** | **Prodromos** | **0.72** | **291** | P | Pb | 05 10 49.3 | -0.4 |
| PDO | | | | S | Sb | 05 10 59.7 | 0.0 |
| **PDO** | **Prodromos** | **0.72** | **291** | P | Pb | 05 10 49.4 | -0.3 |
| PDO | | | | S | Sb | 05 10 59.7 | 0.0 |

*ISK **20** 05:17:09.8,38°.52N×43°.47E,h4km,MD2.4*
*CSEM **20** 05:17:16.9±0.6,38°.83N×43°.54E,h5km,MD2.4, Error ellipse: s-maj=15.7km s-min=10.4km az=139.0*

**DDA 20 05:17:17.6,38°.81N×43°.50E,h7km,Ml2.6,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.19** | **18** | *i* P | Pg | 05 17 22.2 | +0.7 |
| VMUR | | | | *i* S | Sg | 05 17 26.9 | +2.8 |
| **VMUR** | **Van-Muradiye** | **0.19** | **18** | P | Pg | 05 17 22.2 | +0.8 |
| VMUR | | | | S | Sg | 05 17 26.9 | +2.8 |
| **ERCV** | **ERCIS-VAN** | **0.24** | **329** | *e*PG | Pg | 05 17 20.5 | -2.0 |
| ERCV | | | | *e*SG | Sg | 05 17 28.2 | +2.5 |
| **TVAN** | **Van** | **0.29** | **194** | *i* P | Pg | 05 17 23.4 | 0.0 |
| TVAN | | | | *i* S | Sg | 05 17 28.7 | +1.4 |
| **TVAN** | **Van** | **0.29** | **194** | P | Pg | 05 17 23.4 | 0.0 |
| TVAN | | | | S | Sg | 05 17 28.7 | +1.4 |
| **CLDR** | **Caldiran** | **0.47** | **45** | *e*PG | Pg | 05 17 24.3 | -2.4 |
| CLDR | | | | *e*SG | Sb | 05 17 34.8 | -0.7 |
| **CLDR** | **Caldiran** | **0.47** | **45** | *i* P | Pg | 05 17 26.5 | -0.1 |
| CLDR | | | | *i* S | Sb | 05 17 34.2 | -1.2 |
| **CLDR** | **Caldiran** | **0.47** | **45** | *e*Pg | Pg | 05 17 24.3 | -2.4 |
| **CLDR** | **Caldiran** | **0.47** | **45** | P | Pg | 05 17 26.5 | -0.2 |
| CLDR | | | | S | Sb | 05 17 34.2 | -1.3 |
| **ADCV** | **BITLIS_Adilcev** | **0.60** | **270** | *i* P | Pg | 05 17 29.2 | -0.1 |
| ADCV | | | | *i* S | Sb | 05 17 38.9 | -0.5 |
| **ADCV** | **BITLIS_Adilcev** | **0.60** | **270** | P | Pg | 05 17 29.2 | -0.1 |
| **ADCV** | **BITLIS_Adilcev** | **0.60** | **270** | S | Sb | 05 17 38.9 | -0.5 |
| **TUTA** | **Tutak** | **0.79** | **318** | *i* P | Pg | 05 17 32.5 | -0.4 |
| TUTA | | | | *i* S | Sb | 05 17 44.3 | -0.6 |
| **TUTA** | **Tutak** | **0.79** | **318** | P | Pg | 05 17 32.5 | -0.4 |
| TUTA | | | | S | Sb | 05 17 44.3 | -0.6 |
| **AGRB** | **Hanur-Agry** | **0.86** | **333** | *e*PN | Pg | 05 17 31.9 | -2.2 |
| **AGRB** | **Hanur-Agry** | **0.86** | **333** | *e*Pn | Pg | 05 17 31.9 | -2.2 |
| **TASB** | **TASBURUN-IGDIR** | **1.30** | **26** | *e*PN | Pn | 05 17 39.4 | -2.9 |
| **TASB** | **TASBURUN-IGDIR** | **1.30** | **26** | *e*Pn | Pn | 05 17 39.4 | -2.9 |

*NEIC **20** 05:48:43.8±2.4,57°.79S×25°.42W,h64km±21km,mb4.4/2, Error ellipse: s-maj=13.1km s-min=11.5km az=62.0*
*IDC **20** 05:48:44.3±0.6,57°.78S×25°.43W,h66km±5km,mb3.8/8, mb1 4.0/9,mb1mx3.8/27,mbtmp4.2/9, Error ellipse: s-maj=21.8km s-min=20.0km az=46.0*

**ISC 20 05:48:44.0±0.7,57°.8S±0°.1×25°.4W±0°.1,h67km±5km, h67km:pP-P,n27,σ0s71/35,mb4.2/8,South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VNA1** | **Neumayer--Stat** | **14.77** | **157** | P | **Pn** | **05 52 08.1** | **-0.7** |
| **VNA3** | **Neumayer Olymp** | **14.98** | **160** | P | **Pn** | **05 52 10.6** | **-1.0** |
| **VNA2** | **Neumayer--Watz** | **15.17** | **157** | P | **Pn** | **05 52 12.6** | **-1.3** |
| | baz=319,slow=13 | | | | | | |
| **SNAA** | **Sanae** | **16.71** | **155** | P | **Pn** | **05 52 33.7** | **+0.3** |
| **SNAA** | **Sanae** | **16.71** | **155** | P | **Pn** | **05 52 33.7** | **+0.3** |
| | 6.2nm,0.3s,baz=318,slow=14,SNR=156 | | | | | | |
| **SNAA** | **Sanae** | **16.71** | **155** | *e*Pn | **Pn** | **05 52 33.6** | **+0.1** |
| | 14nm,0.4s | | | | | | |
| **CPUP** | **Villa Florida** | **38.71** | **311** | P | **P** | **05 56 00.7** | **-0.5** |
| | 0.6nm,0.4s,baz=156,slow=13,SNR=3.1 | | | | | | |
| **CPUP** | **Villa Florida** | **38.71** | **311** | *e*P | **P** | **05 56 00.7** | **-0.5** |
| | 8.1nm,1.6s | | | | | | |
| **VNDA** | **Vanda** | **44.83** | **182** | P | **P** | **05 56 52.4** | **+1.9** |
| | 1.6nm,0.6s,baz=193,slow=5.7,SNR=6.8 | | | | | | |
| **BOSA** | **Boshof** | **45.54** | **72** | P | **P** | **05 56 56.5** | **-0.5** |
| | 1.8nm,0.6s,baz=209,slow=6.3,SNR=5.7 | | | | | | |
| **LBTB** | **Lobatse** | **48.66** | **70** | P | **P** | **05 57 20.8** | **-0.5** |
| | 2.9nm,0.7s,baz=205,slow=6.1,SNR=4.0 | | | | | | |
| **LBTB** | **Lobatse** | **48.66** | **70** | *e*P | **P** | **05 57 20.8** | **-0.5** |
| | 25nm,1.6s | | | | | | |
| **LPAZ** | **La Paz** | **52.19** | **304** | P | **P** | **05 57 48.3** | **-0.2** |
| | 0.8nm,0.6s,baz=170,slow=6.1,SNR=3.7 | | | | | | |
| LPAZ | | | | pP | **pP** | **05 58 06.0** | **+0.3** |
| | 1.9nm,0.5s,baz=157,slow=2.8,SNR=5.1 | | | | | | |
| **DBIC** | **Dimbokro** | **66.43** | **22** | P | **P** | **05 59 25.4** | **-0.5** |
| | 4.8nm,1.1s,baz=150,slow=8.1,SNR=2.7 | | | | | | |
| **DBIC** | **Dimbokro** | **66.43** | **22** | *e*P | **P** | **05 59 25.6** | **-0.3** |
| | 12nm,1.3s | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **74.17** | **28** | P | **P** | **06 00 14.0** | **+0.8** |
| | 2.0nm,0.6s,baz=198,slow=6.2,SNR=22 | | | | | | |
| TORD | | | | pP | **pP** | **06 00 32.7** | **+1.4** |
| | 1.0nm,0.5s,baz=198,slow=6.1,SNR=4.5 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **74.18** | **27** | *e*P | **P** | **06 00 14.0** | **+0.8** |
| TOA1 | | | | *e*pP | **pP** | **06 00 32.6** | **+1.4** |
| **ASAR** | **Alice Springs** | **96.99** | **161** | P | **P** | **06 02 07.8** | **-0.4** |
| | 0.4nm,0.6s,baz=176,slow=4.4,SNR=4.2 | | | | | | |
| **FIA0** | **FINESS Array S** | **125.52** | **28** | *e*PKPdf | **PKPdf** | **06 07 35.7** | **-0.1** |
| **FINES** | **FINESS Array B** | **125.52** | **28** | PKP | **PKPdf** | **06 07 35.7** | **-0.1** |
| | 2.7nm,0.8s,baz=197,slow=6.0,SNR=5.8 | | | | | | |
| FINES | | | | pPKP | **pPKPdf** | **06 07 54.4** | **-0.8** |
| | 2.1nm,0.8s,baz=162,slow=6.7,SNR=1.3 | | | | | | |
| **ARA0** | **ARCESS Array S** | **132.25** | **22** | *e*PKPdf | **PKPdf** | **06 07 48.3** | **-0.2** |
| **ARCES** | **ARCESS Array B** | **132.25** | **22** | PKP | **PKPdf** | **06 07 48.3** | **-0.2** |
| | 2.2nm,0.9s,baz=201,slow=4.7,SNR=3.6 | | | | | | |
| ARCES | | | | pPKP | **pPKPdf** | **06 08 07.3** | **-0.5** |
| | 2.1nm,0.8s,baz=207,slow=3.7,SNR=1.7 | | | | | | |
| **YKA** | **Yellowknife Ar** | **138.13** | **316** | PKP | **PKPdf** | **06 07 59.6** | **0.0** |
| | 0.3nm,0.4s,baz=133,slow=2.2,SNR=18 | | | | | | |
| YKA | | | | pPKP | **pPKPdf** | **06 08 18.3** | **-0.7** |
| | 1.8nm,0.6s,baz=128,slow=2.3,SNR=15 | | | | | | |
| **SONA0** | **Songino Array** | **149.85** | **88** | *e*PKPbc | **PKPbc** | **06 08 25.5** | **+0.1** |
| **SONM** | **Songino Array** | **149.85** | **88** | PKPbc | **PKPbc** | **06 08 25.5** | **+0.1** |
| | 1.9nm,0.5s,baz=227,slow=3.2,SNR=14 | | | | | | |
| SONM | | | | pPKPbc | **pPKPbc** | **06 08 44.6** | **-0.1** |
| | 0.5nm,0.4s,baz=219,slow=4.0,SNR=2.8 | | | | | | |
| **ILAR** | **Eielson Array** | **152.01** | **309** | PKPbc | **PKPbc** | **06 08 30.1** | **+0.3** |
| | 1.0nm,0.4s,baz=137,slow=2.2,SNR=32 | | | | | | |
| ILAR | | | | pPKPbc | **pPKPbc** | **06 08 48.5** | **-0.6** |
| | 4.0nm,0.8s,baz=138,slow=5.3,SNR=18 | | | | | | |

*Azm104.0000°; nsta1 refers to body waves, cutoff=40s.*
*nsta2 refers to surface waves, cutoff=50s.*

**ISC 20 06:26:21.4±0.3, 40°.10N±0°.03×142°.71E±0°.03, h42km±2km, h42km:pP-P, n591, σ1s.75/685, mb5.1/208, MS4.6/69, 64C-25D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JTH | Tanohata | 0.67 | 256 | ⇓P | Pn | 06 26 32.4 | -2.0 |
| JTH | | | | S | Sn | 06 26 41.5 | -2.3 |
| MIYJ | Miyakonagasawa | 0.86 | 233 | ⇓P | Pn | 06 26 34.9 | -2.2 |
| MIYJ | | | | S | Sn | 06 26 45.8 | -2.7 |
| JANG | Nango | 0.95 | 287 | ⇓P | Pn | 06 26 36.8 | -1.5 |
| JANG | | | | eS | Sn | 06 26 49.3 | -1.4 |
| JKZ | Kuzumaki | 1.07 | 264 | ⇓P | Pn | 06 26 38.6 | -1.3 |
| JOM | Ohasama | 1.26 | 241 | ⇓P | Pn | 06 26 41.3 | -1.2 |
| JOM | | | | eS | Sn | 06 26 57.2 | -1.0 |
| OFUJ | Ofunato | 1.30 | 219 | ⇓P | Pn | 06 26 41.4 | -1.6 |
| OFUJ | | | | eS | Sn | 06 26 57.9 | -1.3 |
| JTM | Tenmabayashi | 1.43 | 299 | ⇓P | Pn | 06 26 44.6 | -0.2 |
| JTM | | | | S | Sn | 06 27 03.1 | +0.7 |
| JAH | Hinai | 1.59 | 274 | ⇓P | Pn | 06 26 47.0 | -0.1 |
| JAH | | | | S | Sn | 06 27 06.8 | +0.4 |
| JMK | Ichinoseki | 1.63 | 226 | ⇓P | Pn | 06 26 46.9 | -0.6 |
| JMK | | | | S | Sn | 06 27 07.2 | -0.1 |
| JRG | Rokugo | 1.75 | 247 | ⇓P | Pn | 06 26 48.8 | -0.4 |
| JOT | Ohata | 1.80 | 316 | ⇓P | Pn | 06 26 50.1 | +0.2 |
| ERM | Erimo | 1.94 | 10 | d iP | Pn | 06 26 51.3 | -0.5 |
| ERM | | | | pmax | pmax | | |
| | comp=Z,885nm,1.0s | | | | | | |
| ERM | Erimo | 1.94 | 10 | ePn | Pn | 06 26 51.7 | -0.1 |
| JIO | Ouri | 1.96 | 213 | ⇑P | Pn | 06 26 51.1 | -0.9 |
| JSI2 | Shiura 2 | 1.99 | 299 | ⇓P | Pn | 06 26 53.2 | +0.6 |
| JIW | Iwasaki | 2.12 | 284 | ⇓P | Pn | 06 26 55.2 | +0.8 |
| JYK | Kaneyama | 2.17 | 238 | P | Pn | 06 26 54.9 | -0.1 |
| JSR | Shiriuchi | 2.25 | 310 | ⇓P | Pn | 06 26 57.0 | +0.9 |
| JYS | Shirataka | 2.79 | 228 | ⇑P | Pn | 06 27 04.1 | +0.6 |
| ASAJ | Asahikawa | 4.01 | 359 | P | Pn | 06 27 21.0 | +0.7 |
| | comp=Z,12nm,0.3s,baz=212,slow=11,SNR=23 | | | | | | |
| ASAJ | | | | S | Sn | 06 28 07.6 | +1.6 |
| | comp=Z,86nm,0.3s,baz=214,slow=31,SNR=6.7 | | | | | | |
| ASAJ | | | | LR | LR | 06 29 14.6 | |
| | comp=Z,22nm,20.0s,baz=260,slow=43 | | | | | | |
| JAG | Ashikaga | 4.48 | 216 | ⇑P | Pn | 06 27 26.7 | 0.0 |
| YUK | Yuzh-Kuril'sk | 4.58 | 30 | eP | Pn | 06 27 26.8 | -1.2 |
| YUK | | | | i S | Sn | 06 28 16.6 | -3.3 |
| YUK | | | | pmax | pmax | | |
| | comp=Z,144nm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=N,145nm,0.3s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=E,575nm,0.3s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=E,2μm,0.6s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,2μm,0.4s | | | | | | |
| YUK | | | | MLR | MLR | | |
| | comp=Z,6μm,15.0s | | | | | | |
| YUK | | | | MLR | MLR | | |
| | comp=E,3μm,12.0s | | | | | | |
| JJN | Nakama | 4.65 | 231 | P | Pn | 06 27 31.3 | +2.2 |
| SHO | Shikotan | 4.86 | 38 | ⇑iP | Pn | 06 27 28.9 | -3.0 |
| SHO | | | | pmax | pmax | | |
| | comp=Z,283nm,0.6s | | | | | | |
| MJAR | Matsushiro Arr | 5.02 | 226 | P | Pn | 06 27 35.5 | +1.4 |
| | comp=Z,12nm,0.3s,baz=31,slow=13,SNR=310 | | | | | | |
| MJAR | | | | S | Sn | 06 28 29.6 | -1.2 |
| | baz=45,slow=11,SNR=2.0 | | | | | | |
| MJAR | | | | LR | LR | 06 29 45.4 | |
| | comp=Z,5μm,19.9s,baz=50,slow=41 | | | | | | |
| MJB9 | Matsu-Tunnel | 5.02 | 226 | ePn | Pn | 06 27 35.6 | +1.5 |
| MAJO | Matsushiro | 5.02 | 226 | c iP | Pn | 06 27 35.5 | +1.4 |
| MAJO | Matsushiro | 5.02 | 226 | ePn | Pn | 06 27 35.6 | +1.5 |
| MAT | Matsushiro | 5.02 | 226 | P | Pn | 06 27 35.4 | +1.3 |
| MAT | | | | S | Sn | 06 28 35.2 | +4.4 |
| MAT | Matsushiro | 5.02 | 226 | P | Pn | 06 27 35.4 | +1.3 |
| JNG | Nsakai | 5.17 | 226 | P | Pn | 06 27 37.7 | +1.3 |
| JGN | Niukaw | 5.75 | 229 | ⇑P | Pn | 06 27 46.1 | +1.9 |
| KUR | Kuril'sk | 6.38 | 35 | c iP | Pn | 06 27 51.8 | -1.0 |
| KUR | | | | i S | Sn | 06 29 00.9 | -3.4 |
| KUR | | | | pmax | pmax | | |
| | comp=Z,231nm,0.5s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=N,138nm,0.4s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=E,85nm,0.2s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=Z,1μm,4.0s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,455nm,0.7s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=N,340nm,0.9s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=N,3μm,1.9s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,1μm,1.3s | | | | | | |
| KUR | | | | MLR | MLR | | |
| | comp=Z,1μm,13.0s | | | | | | |
| KUR | | | | MLR | MLR | | |
| | comp=N,2μm,11.0s | | | | | | |
| INU | Inuyama | 6.55 | 225 | ePn | Pn | 06 27 56.5 | +1.4 |
| YSS | Yuzh-Sakhalins | 6.85 | 0 | αeP | Pn | 06 27 59.6 | +0.4 |
| YSS | | | | eS | Sn | 06 29 12.3 | -3.5 |
| YSS | | | | pmax | pmax | | |
| | comp=Z,90nm,0.9s | | | | | | |
| YSS | | | | pmax | pmax | | |
| | comp=Z,400μm,3.3s | | | | | | |
| YSS | | | | MLR | MLR | | |
| | comp=Z,2μm,16.0s | | | | | | |
| YSS | | | | MLR | MLR | | |
| | comp=N,2μm,15.0s | | | | | | |
| YSS | Yuzh-Sakhalins | 6.85 | 0 | ePn | Pn | 06 28 00.0 | +0.8 |
| JHJ | Hachijo jima 2 | 7.36 | 200 | S | Sn | 06 29 21.5 | -6.9 |
| | comp=N,74nm,0.3s,baz=69,slow=21,SNR=4.3 | | | | | | |
| USRK | Ussuriysk Ar. | 8.95 | 301 | P | Pn | 06 28 30.1 | +2.1 |
| | comp=N,7.5nm,0.3s,baz=108,slow=15,SNR=73 | | | | | | |
| USRK | | | | S | Sn | 06 30 22.5 | +15 |
| | baz=130,slow=17,SNR=1.6 | | | | | | |
| USRK | | | | LR | LR | 06 31 51.5 | |
| | comp=N,4μm,18.7s,baz=109,slow=37 | | | | | | |
| HABR | Khabarovsk | 10.00 | 329 | eP | Pn | 06 28 39.6 | -2.8 |
| HABR | | | | eS | Sn | 06 30 29.8 | -3.4 |
| HABR | | | | MLR | MLR | | |
| | comp=Z,2μm,15.0s | | | | | | |
| MDJ | Mudanjiang | 10.70 | 299 | P | Pn | 06 28 53.8 | +1.8 |
| MDJ | | | | sP | | 06 29 08.4 | |
| MDJ | | | | S | Sn | 06 30 52.5 | +2.1 |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,74nm,1.0s | | | | | | |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,240nm,6.3s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=Z,1μm,15.1s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=Z,2μm,17.6s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=Z,4μm,16.4s | | | | | | |
| MDJ | Mudanjiang | 10.70 | 299 | ePn | Pn | 06 28 54.1 | +2.1 |
| JNU | Nakatsue | 11.78 | 237 | P | Pn | 06 29 06.8 | -0.1 |
| | comp=Z,0.4nm,0.3s,baz=76,slow=7.3,SNR=8.5 | | | | | | |
| JNU | | | | LR | LR | 06 33 48.4 | |
| | comp=Z,6.8nm,18.5s,baz=34,slow=38 | | | | | | |
| KSRS | Korea Array | 11.84 | 262 | P | Pn | 06 29 10.2 | +2.6 |
| | comp=Z,0.6nm,0.3s,baz=76,slow=12,SNR=64 | | | | | | |
| KSRS | | | | S | Sn | 06 31 25.4 | +7.1 |
| | comp=Z,0.5nm,0.3s,baz=74,slow=22,SNR=3.1 | | | | | | |
| KSRS | | | | LR | LR | 06 33 17.3 | |
| | comp=Z,2μm,20.1s,baz=74,slow=35 | | | | | | |
| KS01 | Wonju Array Si | 11.86 | 262 | ePn | Pn | 06 29 10.4 | +2.6 |
| KS15 | Wonju Array Si | 11.88 | 262 | ePn | Pn | 06 29 12.5 | +4.4 |
| KS15 | | | | eSn | Sn | 06 31 25.4 | +6.3 |
| KSAR | Wonju Array Be | 11.88 | 262 | P | Pn | 06 29 10.2 | +2.1 |
| KSAR | | | | S | Sn | 06 31 25.4 | +6.3 |
| KSAR | Wonju Array Be | 11.88 | 262 | P | Pn | 06 29 10.2 | +2.1 |
| KSAR | | | | S | Sn | 06 31 25.4 | +6.3 |
| KLR | Kul'dur | 11.99 | 323 | P | Pn | 06 29 10.5 | +0.9 |
| | comp=Z,0.1nm,0.3s,baz=124,slow=13,SNR=23 | | | | | | |
| KLR | | | | LR | LR | 06 34 00.9 | |
| | comp=Z,268nm,18.2s,baz=136,slow=38 | | | | | | |
| TJN | Taejon | 12.62 | 258 | c iP | Pn | 06 29 19.9 | +1.6 |
| NKL | Nikolayevsk | 13.13 | 355 | eP | Pn | 06 29 24.8 | -0.2 |
| NKL | | | | e | | 06 31 50.0 | |
| NKL | | | | pmax | pmax | | |
| | comp=Z,500nm,5.0s | | | | | | |
| NKL | | | | pmax | pmax | | |
| | comp=N,26nm,1.0s | | | | | | |
| NKL | | | | pmax | pmax | | |
| | comp=Z,43nm,1.0s | | | | | | |
| NKL | | | | MLR | MLR | | |
| | comp=N,600nm,16.0s | | | | | | |
| NKL | | | | MLR | MLR | | |
| | comp=E,500nm,16.0s | | | | | | |
| NKL | | | | MLR | MLR | | |
| | comp=Z,1μm,16.0s | | | | | | |
| CN2 | Changchun | 13.37 | 292 | eP | Pn | 06 29 29.0 | +0.6 |
| CN2 | | | | esP | P | 06 29 44.8 | +7.7 |
| CN2 | | | | eS | Sn | 06 31 55.3 | -0.2 |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,30nm,0.8s | | | | | | |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,200nm,6.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,900nm,16.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,2μm,16.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,2μm,18.0s | | | | | | |
| SNY | Shenyang | 14.56 | 283 | ⇑P | Pn | 06 29 46.8 | +2.2 |
| SNY | | | | S | Sn | 06 32 29.0 | +4.4 |
| SNY | | | | pmax | pmax | | |
| | comp=Z,17nm,1.3s | | | | | | |
| SNY | | | | pmax | pmax | | |
| | comp=Z,590nm,8.5s | | | | | | |
| SNY | | | | LR | LR | | |
| | comp=Z,730nm,15.1s | | | | | | |
| SNY | | | | LR | LR | | |
| | comp=Z,2μm,18.1s | | | | | | |
| SNY | | | | LR | LR | | |
| | comp=Z,3μm,18.4s | | | | | | |
| DL2 | Dalian | 16.32 | 273 | P | Pn | 06 30 01.1 | -6.3 |
| DL2 | | | | eS | Sn | 06 32 53.1 | -14 |
| DL2 | | | | pmax | pmax | | |
| | comp=Z,16nm,0.9s | | | | | | |
| DL2 | | | | pmax | pmax | | |
| | comp=Z,500nm,8.4s | | | | | | |
| DL2 | | | | LR | LR | | |
| | comp=Z,630nm,12.4s | | | | | | |
| DL2 | | | | LR | LR | | |
| | comp=Z,590nm,17.3s | | | | | | |
| DL2 | | | | LR | LR | | |
| | comp=Z,1μm,19.8s | | | | | | |
| PETK | Petropavlovsk- | 16.55 | 33 | P | Pn | 06 30 07.0 | -3.2 |
| | comp=Z,0.1nm,0.3s,baz=232,slow=11,SNR=3.4 | | | | | | |
| PETK | | | | LR | LR | 06 36 58.1 | |
| | comp=Z,415nm,21.1s,baz=219,slow=38 | | | | | | |
| PETK | Petropavlovsk- | 16.55 | 33 | P | Pn | 06 30 07.0 | -3.2 |
| PEA1 | Petropavlovsk- | 16.55 | 33 | ePn | Pn | 06 30 07.0 | -3.3 |
| PET | Petropavlovsk | 16.89 | 35 | ⇓eP | P | 06 30 16.0 | -0.1 |
| PET | | | | pmax | pmax | | |
| | comp=Z,31nm,1.7s | | | | | | |
| HIA | Hailar | 18.66 | 307 | eP | P | 06 30 33.5 | -2.2 |
| HIA | | | | pmax | pmax | | |
| | comp=Z,49nm,0.9s | | | | | | |
| HIA | Hailar | 18.66 | 307 | eP | P | 06 30 33.5 | -2.2 |
| | comp=Z,49nm,0.9s | | | | | | |
| SSE | Sheshan | 19.64 | 249 | P | P | 06 30 46.3 | -0.1 |
| SSE | | | | S | S | 06 34 22.3 | -3.4 |
| SSE | | | | pmax | pmax | | |
| | comp=Z,63nm,0.7s | | | | | | |
| SSE | | | | pmax | pmax | | |
| | comp=Z,170nm,4.9s | | | | | | |
| SSE | | | | LR | LR | | |
| | comp=Z,160nm,20.5s | | | | | | |
| SSE | | | | LR | LR | | |
| | comp=Z,380nm,20.1s | | | | | | |
| SSE | | | | LR | LR | | |
| | comp=Z,400nm,20.8s | | | | | | |
| MA2 | Magadan | 20.14 | 12 | P | P | 06 30 50.7 | -1.1 |
| | comp=Z,12nm,0.7s,baz=192,slow=12,SNR=7.1 | | | | | | |
| MA2 | | | | LR | LR | 06 39 50.8 | |
| | comp=Z,907nm,18.6s,baz=200,slow=40 | | | | | | |
| MA2 | Magadan | 20.14 | 12 | ⇑eP | P | 06 30 51.4 | -0.3 |
| BJI | Beijing | 20.29 | 278 | P | P | 06 30 50.4 | -3.0 |
| BJI | | | | S | S | 06 34 36.1 | -2.4 |
| BJI | | | | pmax | pmax | | |
| | comp=Z,36nm,1.7s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,850nm,15.9s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,1μm,16.9s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,1μm,20.7s | | | | | | |
| BJT | Baijiatuau | 20.30 | 278 | eP | P | 06 30 51.5 | -2.0 |
| BJT | | | | pmax | pmax | | |
| | comp=Z,44nm,0.8s | | | | | | |
| BJT | Baijiatuau | 20.30 | 278 | eP | P | 06 30 51.5 | -2.0 |
| | comp=Z,44nm,0.8s | | | | | | |
| CLNS | Chul'man | 20.39 | 331 | eP | P | 06 30 53.4 | -1.0 |
| CLNS | | | | e | | 06 31 12.3 | |
| CLNS | | | | e | | 06 34 58.0 | |
| CLNS | | | | pmax | pmax | | |
| | comp=Z,75nm,0.8s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=N,47nm,0.9s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=E,16nm,0.8s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=Z,29nm,0.8s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=N,61nm,0.9s | | | | | | |
| CLNS | | | | pmax | pmax | | |
| | comp=E,33nm,0.9s | | | | | | |
| CLNS | | | | MLR | MLR | | |
| | comp=E,660nm,14.0s | | | | | | |
| CLNS | | | | MLR | MLR | | |
| | comp=N,960nm,14.0s | | | | | | |
| CLNS | | | | MLR | MLR | | |
| | comp=Z,1μm,14.0s | | | | | | |
| TIA | Tai'an | 20.47 | 267 | ⇓P | P | 06 30 53.8 | -1.6 |
| TIA | | | | S | S | 06 34 35.9 | -6.3 |
| TIA | | | | pmax | pmax | | |
| | comp=Z,40nm,0.8s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,630nm,16.7s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,2μm,16.1s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,2μm,18.1s | | | | | | |
| NJ2 | Nanjing | 20.85 | 255 | eP | P | 06 30 58.5 | -1.0 |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,91nm,1.0s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,1μm,16.3s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,970nm,19.5s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,1μm,19.0s | | | | | | |
| CIT | Chita | 23.31 | 310 | eP | P | 06 31 21.1 | -4.4 |
| CIT | | | | e | | 06 31 33.4 | |
| CIT | | | | e | | 06 31 54.7 | |
| CIT | | | | e | | 06 32 05.9 | |
| CIT | | | | pmax | pmax | | |
| | comp=Z,216nm,1.2s | | | | | | |
| YAK | Yakutsk | 23.34 | 344 | P | P | 06 31 23.5 | -2.2 |
| | comp=Z,138nm,0.8s,baz=179,slow=1.3,SNR=25 | | | | | | |
| YAK | | | | LR | LR | 06 41 17.9 | |
| | comp=Z,413nm,19.8s,baz=102,slow=38 | | | | | | |
| YAK | Yakutsk | 23.34 | 344 | eP | P | 06 31 23.0 | -2.6 |
| YAK | | | | e*PP | pP | 06 31 34.5 | -1.8 |
| YAK | | | | ePPP | PPP | 06 31 54.9 | |
| YAK | | | | e | | 06 35 12.0 | |
| YAK | | | | eS | S | 06 35 29.0 | -6.1 |
| YAK | | | | e*SS | sS | 06 35 45.4 | -8.5 |
| YAK | | | | eSSS | SSS | 06 36 13.7 | |
| YAK | | | | pmax | pmax | | |
| | comp=Z,86nm,0.8s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,11nm,0.9s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,23nm,1.0s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=N,522nm,2.2s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=E,274nm,1.8s | | | | | | |
| YAK | | | | MLR | MLR | | |
| | comp=Z,535nm,16.0s | | | | | | |
| YAK | | | | MLR | MLR | | |
| | comp=N,1μm,18.0s | | | | | | |
| YAK | | | | MLR | MLR | | |
| | comp=E,367nm,17.0s | | | | | | |
| YAK | Yakutsk | 23.34 | 344 | eP | P | 06 31 22.9 | -2.8 |
| | comp=E,117nm,0.7s | | | | | | |
| SEY | Seymchan | 23.59 | 11 | P | P | 06 31 27.2 | -0.8 |
| | comp=E,45nm,0.8s,baz=194,slow=7.4,SNR=29 | | | | | | |
| HHC | Hu-ho-hao-te | 23.65 | 282 | eP | P | 06 31 28.6 | -0.3 |
| HHC | | | | PP | PnPn | 06 32 00.9 | +3.7 |
| HHC | | | | S | S | 06 35 35.6 | -5.1 |
| HHC | | | | sS | sS | 06 35 54.8 | -4.6 |
| HHC | | | | SS | SnSn | 06 36 25.4 | +5.1 |
| HHC | | | | pmax | pmax | | |
| | comp=E,19nm,1.0s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=E,94nm,5.1s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=E,230nm,14.5s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=E,2μm,17.5s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=E,2μm,16.9s | | | | | | |
| BTO | Baotou | 24.84 | 282 | eP | P | 06 31 36.0 | -3.9 |
| WHN | Wuhan | 24.94 | 256 | ⇓P | P | 06 31 39.5 | -1.2 |
| WHN | | | | S | S | 06 35 54.1 | -7.2 |
| WHN | | | | LR | LR | | |
| | comp=E,3μm,18.6s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=E,7μm,27.0s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=E,3μm,17.2s | | | | | | |
| BOD | Bodaibo | 25.57 | 323 | ⇑iP | P | 06 31 45.7 | -0.5 |
| BOD | | | | pmax | pmax | | |
| | comp=Z,142nm,1.0s | | | | | | |
| ULN | Ulaanbaatar | 26.62 | 299 | c iP | P | 06 31 55.5 | -0.4 |
| ULN | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.6s | | | | | | |
| ULN | Ulaanbaatar | 26.62 | 299 | eP | P | 06 31 55.7 | -0.3 |
| | comp=Z,15nm,0.7s | | | | | | |
| ULN | Ulaanbaatar | 26.62 | 299 | P | P | 06 31 56.2 | +0.2 |
| | SNR=6.6 | | | | | | |
| ULN | Ulaanbaatar | 26.62 | 299 | P | P | 06 31 56.2 | +0.2 |
| | SNR=6.6 | | | | | | |
| ULN | | | | P | P | 06 31 56.2 | +0.2 |
| | SNR=6.6 | | | | | | |
| SONA1 | Songino Array | 27.05 | 299 | eP | P | 06 31 59.0 | -0.9 |
| SONA0 | Songino Array | 27.06 | 299 | eP | P | 06 31 59.8 | -0.1 |
| SONM | Songino Array | 27.06 | 299 | P | P | 06 31 59.8 | -0.1 |
| | comp=Z,19nm,0.8s,baz=106,slow=7.5,SNR=58 | | | | | | |
| SONM | | | | LR | LR | 06 43 17.4 | |
| | comp=Z,2μm,18.7s,baz=104,slow=38 | | | | | | |
| XAN | Xi'an | 27.52 | 268 | P | P | 06 32 01.8 | -2.2 |
| XAN | | | | pP | pP | 06 32 13.3 | -2.0 |
| XAN | | | | S | S | 06 36 35.5 | -6.7 |
| XAN | | | | pmax | pmax | | |
| | comp=Z,27nm,1.3s | | | | | | |
| XAN | | | | pmax | pmax | | |
| | comp=Z,180nm,8.8s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,890nm,16.5s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,1μm,16.5s | | | | | | |
| ENH | Enshi | 28.73 | 260 | eP | P | 06 32 14.2 | -0.7 |
| | comp=Z,78nm,1.1s | | | | | | |
| H11N2 | WAKE ISLAND Hy | 29.02 | 127 | T | T | 07 03 06.2 | |
| | baz=318,slow=75,SNR=1205 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 29.03 | 127 | T | T | 07 03 06.8 | |
| | baz=318,slow=75,SNR=1434 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 29.04 | 127 | T | T | 07 03 02.9 | |
| | baz=318,slow=75,SNR=1157 | | | | | | |
| TLY | Talaya | 29.21 | 306 | P | P | 06 32 18.9 | +0.1 |
| | comp=Z,5.1nm,0.5s,baz=114,slow=10,SNR=10 | | | | | | |
| TLY | | | | LR | LR | 06 44 45.4 | |
| | comp=Z,1μm,18.4s,baz=100,slow=38 | | | | | | |
| TLY | Talaya | 29.21 | 306 | eP | P | 06 32 19.3 | +0.5 |
| TLY | | | | e | | 06 33 25.5 | |
| TLY | | | | eS | S | 06 37 12.9 | +4.5 |
| TLY | | | | eSS | SnSn | 06 38 32.9 | -2.8 |
| TLY | | | | eSSS | SSS | 06 38 52.8 | |
| TLY | | | | pmax | pmax | | |
| | comp=Z,26nm,1.1s | | | | | | |
| TLY | | | | MLR | MLR | | |
| | comp=Z,901nm,15.0s | | | | | | |
| TLY | Talaya | 29.21 | 306 | eP | P | 06 32 18.8 | 0.0 |
| | comp=Z,40nm,1.4s | | | | | | |
| TLY | Talaya | 29.21 | 306 | P | P | 06 32 20.1 | +1.2 |
| | SNR=5.8 | | | | | | |
| TLY | Talaya | 29.21 | 306 | P | P | 06 32 20.1 | +1.2 |
| | SNR=5.8 | | | | | | |
| TLY | | | | P | P | 06 32 20.1 | +1.2 |
| | SNR=5.8 | | | | | | |
| ZAK | Zakamensk | 29.29 | 304 | eP | P | 06 32 18.7 | -1.0 |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,33nm,1.2s | | | | | | |
| H11S1 | WAKE ISLAND Hy | 29.84 | 129 | T | T | 07 04 13.1 | |
| | baz=321,slow=76,SNR=84 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 29.84 | 129 | T | T | 07 04 17.5 | |
| | baz=321,slow=76,SNR=40 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 29.86 | 129 | T | T | 07 04 08.5 | |
| | baz=321,slow=76,SNR=32 | | | | | | |
| LZH | Lanzhou | 30.68 | 275 | eP | P | 06 32 31.9 | -0.3 |
| LZH | | | | pP | pP | 06 32 43.8 | +0.2 |
| LZH | | | | sP | sP | 06 32 49.1 | +0.5 |
| LZH | | | | PP | PnPn | 06 33 34.8 | +2.0 |
| LZH | | | | eS | S | 06 37 30.8 | -1.3 |
| LZH | | | | sS | sS | 06 37 48.1 | -2.9 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,46nm,1.2s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,110nm,4.2s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,2μm,15.9s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,2μm,16.1s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,2μm,16.8s | | | | | | |
| BILL | Bilibino | 30.80 | 17 | c iP | P | 06 32 32.8 | +0.1 |
| BILL | | | | i | | 06 32 46.0 | |
| BILL | | | | i | | 06 33 36.8 | |
| BILL | | | | i | | 06 35 29.4 | |
| BILL | | | | pmax | pmax | | |
| | comp=Z,17nm,1.1s | | | | | | |
| BILL | | | | MLR | MLR | | |
| | comp=Z,455nm,20.0s | | | | | | |
| MOY | Mondy | 30.84 | 306 | eP | P | 06 32 33.6 | +0.2 |
| MOY | | | | pmax | pmax | | |
| | comp=Z,31nm,2.2s | | | | | | |
| TIXI | Tiksi | 32.38 | 352 | eP | P | 06 32 46.0 | -0.6 |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,17nm,0.9s | | | | | | |
| TIXI | Tiksi | 32.38 | 352 | eP | P | 06 32 46.0 | -0.6 |
| | comp=Z,17nm,0.9s | | | | | | |
| GTA | Gaotai | 32.75 | 283 | P | P | 06 32 50.1 | -0.2 |
| GTA | | | | pP | pP | 06 33 02.4 | +0.7 |
| GTA | | | | sP | sP | 06 33 07.9 | +1.2 |
| GTA | | | | PP | PnPn | 06 34 00.8 | +1.4 |
| GTA | | | | PcP | PcP | 06 35 36.3 | +1.4 |
| GTA | | | | S | S | 06 38 03.5 | -0.8 |
| GTA | | | | sS | sS | 06 38 23.3 | +0.1 |
| GTA | | | | ScP | ScP | 06 39 16.3 | +0.8 |
| GTA | | | | PcS | PcS | 06 39 20.6 | +0.3 |
| GTA | | | | SS | SnSn | 06 40 04.0 | +1.7 |
| GTA | | | | ScS | ScS | 06 43 11.6 | -3.8 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,29nm,1.2s | | | | | | |
| GTA | | | | pmax | pmax | | |
| | comp=Z,110nm,5.1s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,480nm,18.1s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,1μm,18.5s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,2μm,18.1s | | | | | | |
| CD2 | Chengdu | 32.79 | 266 | ⇓iP | P | 06 32 49.3 | -1.4 |
| CD2 | | | | pP | pP | 06 33 01.6 | -0.5 |
| CD2 | | | | sP | sP | 06 33 07.3 | +0.3 |
| CD2 | | | | S | S | 06 38 00.8 | -4.1 |
| CD2 | | | | sS | sS | 06 38 22.6 | -1.3 |
| CD2 | | | | SS | SnSn | 06 40 01.3 | -2.1 |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,30nm,1.0s | | | | | | |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,240nm,8.5s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,870nm,16.1s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,570nm,19.9s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,810nm,15.2s | | | | | | |
| GYA | Guiyang | 32.83 | 257 | ⇑iP | P | 06 32 50.1 | -1.0 |

GYA pP sP 06 33 05.6 -1.9
GYA PP **PP** **06 34 03.8 -2.0**
GYA PcP **PcP** **06 35 37.0 +1.7**
GYA S **S** **06 38 04.4 -1.3**
GYA sS sS 06 38 26.3 +1.6
GYA ScP **ScP** **06 39 16.8 +0.9**
GYA SS **SnSn** **06 40 04.0 -0.5**
GYA ScS **ScS** **06 43 15.5 -0.7**
GYA pmax pmax
comp=Z,140nm,0.8s
GYA pmax pmax
comp=Z,160nm,5.2s
GYA LR LR
comp=Z,580nm,17.4s
GYA LR LR
comp=Z,540nm,17.8s
GYA LR LR
comp=Z,520nm,17.6s
**QIZ Qiongzhong 35.17 243** P **P** **06 33 11.8 +0.4**
QIZ S **S** **06 38 42.0 +0.3**
QIZ LR LR
comp=Z,590nm,14.9s
QIZ LR LR
comp=Z,730nm,18.6s
**KMI Kunming 36.51 258** P **P** **06 33 22.8 -0.2**
KMI pP pP 06 33 34.6 +0.1
KMI sP sP 06 33 41.3 +1.9
KMI S **S** **06 38 57.9 -4.7**
KMI sS sS 06 39 19.8 -1.9
KMI SS **SnSn** **06 41 22.8 -11**
KMI pmax pmax
comp=Z,83nm,1.2s
KMI LR LR
comp=Z,810nm,15.7s
KMI LR LR
comp=Z,890nm,16.7s
KMI LR LR
comp=Z,1μm,16.8s
**WMQ Urumqi 40.45 294** P **P** **06 33 56.5 +0.8**
WMQ pP pP 06 34 07.6 +0.3
WMQ sP sP 06 34 13.9 +1.7
WMQ PP **PnPn** **06 35 32.1 -1.1**
WMQ S **S** **06 40 01.3 0.0**
WMQ sS sS 06 40 20.8 +0.2
WMQ SS **SS** **06 42 53.6 -7.7**
WMQ pmax pmax
comp=Z,130nm,0.9s
WMQ pmax pmax
comp=Z,750nm,3.7s
WMQ LR LR
comp=Z,1μm,14.3s
WMQ LR LR
comp=Z,780nm,9.5s
WMQ LR LR
comp=Z,640nm,19.7s
**SKNT Sakolnakorn 40.64 247** P **P** **06 33 58.5 +1.0**
comp=Z,399nm,2.0s
**ZAA1 Zalesovo Array 40.67 310** *e*P **P** **06 33 57.6 +0.3**
ZAA1 *e*PcP **PcP** **06 35 58.4 +0.1**
**ZAA0 Zalesovo Array 40.67 310** *e*P **P** **06 33 57.3 0.0**
comp=Z,53nm,0.6s
**ZALV Zalesovo Beam 40.67 310** P **P** **06 33 57.7 +0.3**
comp=Z,52nm,0.6s,baz=90,slow=7.7,SNR=201
ZALV PcP **PcP** **06 35 58.4 +0.1**
comp=Z,9.7nm,0.8s,baz=100,slow=3.5,SNR=5.0
ZALV LR LR 06 51 38.7
comp=Z,1μm,18.7s,baz=70,slow=37
**ZALV Zalesovo Beam 40.67 310** *e*P **P** **06 33 57.1 -0.2**
ZALV 06 35 58.4
**ZALV Zalesovo Beam 40.67 310** *e*P **P** **06 33 57.1 -0.2**
ZALV PcP **PcP** **06 35 58.4 +0.1**
**MYLDM Lahad Datu 41.04 218** *e*P **P** **06 34 03.1 +2.3**
comp=Z,88nm,1.2s
**KKM Kota Kinabalu 41.43 222** *e*P **P** **06 34 05.2 +1.2**
comp=Z,29nm,1.0s
**NVS Novosibirsk 41.52 311** ǁ *i*P **P** **06 34 04.9 +0.6**
NVS pmax pmax
comp=Z,29nm,0.8s
NVS pmax pmax
comp=N,3.0nm,0.6s
NVS pmax pmax
comp=E,16nm,0.7s
**PHRA Phrae 42.34 252** P **P** **06 34 11.8 +0.4**
comp=E,16nm,1.0s
**CHAI Chaiyaphum 42.77 248** P **P** **06 34 14.6 -0.3**
comp=E,14nm,0.8s,comp=E,142nm
**LSA Lhasa 43.02 273** P **P** **06 34 18.3 +0.9**
LSA pmax pmax
comp=E,12nm,0.8s
**LSA Lhasa 43.02 273** *e*P **P** **06 34 18.6 +1.2**
LSA pmax pmax
comp=Z,30nm,1.1s
**LSA Lhasa 43.02 273** *e*P **P** **06 34 18.6 +1.2**
comp=Z,30nm,1.1s
**PBKT Sadao Pong 43.05 249** P **P** **06 34 17.4 +0.2**
comp=Z,24nm,1.2s,comp=Z,1μm
**CHTO Chiang Mai 43.08 254** P **P** **06 34 17.5 +0.1**
comp=Z,112nm,1.2s
**CHTO Chiang Mai 43.08 254** *e*P **P** **06 34 17.6 +0.1**
CHTO pmax pmax
comp=Z,22nm,1.0s
**CHTO Chiang Mai 43.08 254** *e*P **P** **06 34 17.6 +0.2**
comp=Z,22nm,1.0s
**CHTO Chiang Mai 43.08 254** P **P** **06 34 17.8 +0.3**
SNR=5.4
**CHTO Chiang Mai 43.08 254** P **P** **06 34 17.8 +0.3**
SNR=5.4
**CMAR Chiang Mai Arr 43.31 253** P **P** **06 34 19.6 +0.3**
comp=Z,6.8nm,0.7s,baz=43,slow=7.3,SNR=19
CMAR PcP **PcP** **06 36 09.2 +1.6**
comp=Z,2.7nm,0.7s,baz=2.4,slow=2.2,SNR=4.8
CMAR LR LR 06 52 06.2
comp=Z,143nm,19.9s,baz=56,slow=36
**CM01 Chiang Mai Arr 43.32 253** *e*P **P** **06 34 18.7 -0.7**
**MK01 Makanchi Array 43.42 300** *e*P **P** **06 34 19.9 +0.1**
**MK31 Makanchi Array 43.42 300** *i*P **P** **06 34 19.5 -0.4**
MK31 pmax pmax
comp=Z,43nm,0.8s
**MK31 Makanchi Array 43.42 300** *e*P **P** **06 34 20.1 +0.1**
**MK32 Makanchi Array 43.42 300** *e*P **P** **06 34 20.0 +0.1**
**MKAR Makanchi Array 43.42 300** P **P** **06 34 20.0 +0.1**
comp=Z,26nm,0.8s,baz=84,slow=9.5,SNR=154
MKAR LR LR 06 53 15.2
comp=Z,1μm,19.8s,baz=72,slow=37
**MKAR Makanchi Array 43.42 300** *e*P **P** **06 34 20.1 +0.1**
MKAR pmax pmax
comp=Z,188nm,0.8s
**MKAR Makanchi Array 43.42 300** *e*P **P** **06 34 20.1 +0.1**
comp=Z,188nm,0.8s
**IMAR Indian Mountai 43.51 32** *e*P **P** **06 34 21.2 +0.9**
**MAKZ Makanchi 43.62 300** *i*P **P** **06 34 20.1 -1.5**
MAKZ pmax pmax
comp=Z,47nm,1.0s
**MAKZ Makanchi 43.62 300** *e*P **P** **06 34 21.6 +0.1**
comp=Z,55nm,1.1s
**SRAK Srakaew 44.02 246** P **P** **06 34 22.1 -2.9**
comp=Z,138nm,0.8s,comp=Z,1μm
**KDAK Kodiak Island 44.16 44** P **P** **06 34 25.5 -0.1**
comp=Z,7.7nm,0.8s,baz=270,slow=13,SNR=3.3
**KDAK Kodiak Island 44.16 44** *e*P **P** **06 34 25.5 -0.1**
KDAK pmax pmax
comp=Z,40nm,1.1s
**KDAK Kodiak Island 44.16 44** *e*P **P** **06 34 25.5 -0.1**
comp=Z,40nm,1.1s
**SHL Shillong 44.52 267** *e*P **P** **06 34 28.0 -1.2**
**KTH Kantishna Hill 44.65 36** *e*P **P** **06 34 31.9 +2.2**
comp=Z,34nm,1.1s
**MLY Manley 44.72 34** *e*P **P** **06 34 32.0 +1.9**
comp=Z,17nm,1.2s
**SUA Susitna One 44.81 39** *e*P **P** **06 34 33.6 +2.6**
comp=Z,70nm,1.8s
**UTHA Uthaitani 44.82 250** P **P** **06 34 32.5 +1.1**
comp=Z,6.5nm,1.2s
**KURK Kurchatov 44.90 306** *c i*P **P** **06 34 31.5 -0.1**
KURK pmax pmax
comp=Z,145nm,0.9s
**KURK Kurchatov 44.90 306** *e*P **P** **06 34 31.7 +0.1**
comp=Z,127nm,0.9s
**KURK Kurchatov 44.90 306** P **P** **06 34 31.7 +0.1**
SNR=136
KURK P **P** **06 34 31.9 +0.3**
SNR=37
**COLD Coldfoot 44.99 30** *e*P **P** **06 34 33.7 +1.6**
comp=Z,8.5nm,0.9s
**MCK McKinley 45.53 35** *e*P **P** **06 34 38.0 +1.5**
MCK pmax pmax
comp=Z,19nm,1.0s
**MCK McKinley 45.53 35** *e*P **P** **06 34 38.0 +1.5**
comp=Z,19nm,1.0s
**PMR Palmer 45.58 38** *e*P **P** **06 34 39.9 +3.1**
PMR pmax pmax
comp=Z,19nm,1.0s
**PMR Palmer 45.58 38** *e*P **P** **06 34 39.9 +3.1**
comp=Z,19nm,1.0s
**RND Reindeer 45.59 36** *e*P **P** **06 34 38.1 +1.1**
RND pmax pmax
comp=Z,16nm,1.0s
**RND Reindeer 45.59 36** *e*P **P** **06 34 38.1 +1.1**
comp=Z,16nm,1.0s
**MDM Murphy Dome 45.79 34** *e*P **P** **06 34 39.9 +1.4**
comp=Z,15nm,1.0s
**SML Sawmill 45.94 38** *e*P **P** **06 34 42.6 +2.9**
SML pmax pmax
comp=Z,25nm,1.0s
**SML Sawmill 45.94 38** *e*P **P** **06 34 42.6 +2.9**
comp=Z,25nm,1.0s
**CCB Clear Creek Bu 45.98 34** *e*P **P** **06 34 42.3 +2.3**
comp=Z,15nm,1.3s
**PDGK Podgornoye 46.30 296** *i*P **P** **06 34 41.7 -1.3**
PDGK pmax pmax
comp=Z,31nm,0.9s
**HDA Harding Lake 46.37 34** *e*P **P** **06 34 45.5 +2.4**
comp=Z,22nm,1.2s
**IL1 Eielson Array 46.37 34** *e*P **P** **06 34 43.1 0.0**
**ILAR Eielson Array 46.37 34** P **P** **06 34 43.7 +0.6**
comp=Z,2.8nm,0.7s,baz=269,slow=6.2,SNR=37
ILAR LR LR 06 56 04.7
comp=Z,199nm,18.6s,baz=281,slow=38
**ILB Eielson Array 46.37 34** *e*P **P** **06 34 43.8 +0.6**
**PHET Kaeng Krachan 46.47 247** P **P** **06 34 45.5 +1.0**
comp=Z,27nm,0.8s,comp=Z,204nm
**TAPN Taplejung 46.80 272** *e*P **P** **06 34 47.7 +0.4**
comp=Z,66nm,0.9s
**FYU Fort Yukon 46.95 31** *e*P **P** **06 34 50.0 +2.4**
comp=Z,24nm,0.8s
**KLU Klutina 47.12 38** *e*P **P** **06 34 51.8 +2.7**
KLU *e*pP **pP** **06 34 59.7 -1.1**
**ODAN Odare 47.30 271** *e*P **P** **06 34 51.2 +0.1**
comp=Z,76nm,1.0s
**JIRN Jiri 47.81 273** *e*P **P** **06 34 55.5 +0.3**
**BMRM Bremner River 47.82 39** *e*P **P** **06 34 56.0 +1.5**
BMRM *e*pP **pP** **06 35 06.9 +0.7**
**RAMN Ramite 47.85 272** *e*P **P** **06 34 55.5 0.0**
comp=Z,128nm,0.8s
**GUN Gumba 47.92 274** *e*P **P** **06 34 56.3 +0.2**
comp=Z,194nm,0.7s
**MENT Mentasta 47.95 36** *e*P **P** **06 34 57.3 +1.9**
comp=Z,14nm,1.0s
**KKN Kakani 48.44 274** *e*P **P** **06 35 00.0 +0.1**
comp=Z,178nm,0.7s
**PKI Pulchoki 48.45 273** *e*P **P** **06 34 59.9 -0.3**
comp=Z,88nm,1.0s
**PKIN Phulchoki 48.46 273** *e*P **P** **06 34 59.9 -0.2**
comp=Z,61nm,0.7s
**DMN Daan 48.67 274** *e*P **P** **06 35 01.7 0.0**
comp=Z,63nm,0.9s
**EGAK Eagle 48.81 34** *e*P **P** **06 35 04.4 +2.4**
comp=Z,9.7nm,0.8s
**TKM2 Tokmak 2 49.12 296** *i*P **P** **06 35 05.0 0.0**
TKM2 pmax pmax
comp=Z,120nm,0.9s
**TKM2 Tokmak 2 49.12 296** P **P** **06 35 05.8 +0.9**
SNR=78
**BVAR Borovoye Array 49.30 311** LR LR 06 57 06.0
comp=Z,198nm,18.4s,baz=76,slow=37
**DANN Dangsing 49.32 275** *e*P **P** **06 35 07.2 +0.4**
comp=Z,18nm,0.8s
**BRVK Borovoye 49.36 311** *c i*P **P** **06 35 06.7 +0.4**
BRVK pmax pmax
comp=Z,77nm,1.0s
**BRVK Borovoye 49.36 311** *e*P **P** **06 35 06.8 +0.4**
comp=Z,64nm,0.9s
**BRVK Borovoye 49.36 311** P **P** **06 35 07.1 +0.8**
SNR=20
**BRVK Borovoye 49.36 311** P **P** **06 35 07.1 +0.8**
SNR=20
BRVK P **P** **06 35 07.1 +0.8**
SNR=20
**KAPI Kappang 49.62 211** *e*P **P** **06 35 09.0 +0.3**
comp=Z,38nm,1.1s
**KBK Karagaybulak 49.66 296** P **P** **06 35 09.6 +0.5**
SNR=91
**KZA Kyzart 49.66 296** P **P** **06 35 10.7 +1.3**
SNR=14
**CHMS Chumysh 49.67 297** P **P** **06 35 09.2 +0.3**
SNR=12
**KOLN Koldanda 49.74 275** *e*P **P** **06 35 10.0 +0.2**
comp=Z,93nm,0.9s
**USP Ospenovka 49.75 297** P **P** **06 35 09.8 +0.3**
SNR=22
**SURT Suratani 49.82 244** P **P** **06 35 11.8 +1.5**
comp=Z,18nm,1.0s
**AAK Ala-Archa 49.98 297** LR LR 06 57 22.0
comp=Z,829nm,20.6s,baz=64,slow=37
**AAK Ala-Archa 49.98 297** *i*P **P** **06 35 10.4 -1.0**
AAK pmax pmax
comp=Z,21nm,0.6s
**AAK Ala-Archa 49.98 297** P **P** **06 35 11.6 +0.2**
SNR=19
**AAK Ala-Archa 49.98 297** *e*P **P** **06 35 11.6 +0.2**
comp=Z,32nm,1.0s
**PYUN Piuthan 50.04 276** *e*P **P** **06 35 12.3 +0.2**
comp=Z,217nm,1.1s
**UCH Uchtor 50.12 296** P **P** **06 35 13.5 +0.7**
SNR=12
**KSH Kashi 50.14 292** P **P** **06 35 16.9 +4.3**
KSH pP sP 06 35 30.3 +0.9
KSH PcP **PcP** **06 36 36.3 +4.7**
KSH PP **PP** **06 37 14.3 +6.4**
KSH S **S** **06 42 25.3 +3.9**
KSH ScS **ScS** **06 45 01.3 +0.9**
KSH SS **SS** **06 45 55.3 +0.7**
KSH pmax pmax
comp=Z,31nm,0.9s
KSH LR LR
comp=Z,140nm,6.9s
KSH LR LR
comp=Z,130nm,6.7s
KSH LR LR
comp=Z,280nm,11.3s
**EKS2 Erkin-Say 50.46 297** P **P** **06 35 15.4 +0.3**
SNR=30
**AML Almayashu 50.72 296** P **P** **06 35 18.2 +0.9**
SNR=36
**PKDT Phuket 50.90 243** P **P** **06 35 19.7 +1.2**
comp=Z,72nm,0.9s,comp=Z,2μm
**INK Inuvik 51.20 28** P **P** **06 35 21.4 +1.4**
comp=Z,8.1nm,0.8s,baz=287,slow=7.5,SNR=22
INK LR LR 07 01 06.8
comp=Z,240nm,18.6s,baz=298,slow=41
**INK Inuvik 51.20 28** *e*P **P** **06 35 21.2 +1.2**
comp=Z,9.4nm,0.8s
**HYT Haines Junctio 51.25 38** *e*P **P** **06 35 23.3 +2.6**
comp=Z,45nm,0.9s
**KULM Kulim 51.26 239** *e*P **P** **06 35 20.6 -0.5**
comp=Z,35nm,1.0s
**MNAS Manas 51.40 297** P **P** **06 35 22.4 +0.3**
MNAS pmax pmax
comp=Z,126nm,0.9s
**SFK Sufi-Kurgan 51.68 294** P **P** **06 35 24.3 -0.1**
SFK pmax pmax
comp=Z,73nm,0.9s
**SOEI Soe 52.47 203** *e*P **P** **06 35 31.7 +1.5**
comp=Z,154nm,0.6s
SOEI *e*S **S** **06 42 53.0 -0.8**
**KK31 Karatay Array 52.51 298** *i*P **P** **06 35 29.8 -0.4**
KK31 pmax pmax
comp=Z,32nm,0.7s
**KKAR Karatay Array 52.51 298** *e*P **P** **06 35 30.2 -0.1**
KKAR pmax pmax
comp=Z,275nm,0.8s
**KKAR Karatay Array 52.51 298** *e*P **P** **06 35 30.2 -0.1**
comp=Z,275nm,0.8s
**SVE Sverdlovsk 53.55 317** *d i*P **P** **06 35 38.6 +1.0**
SVE pmax pmax
comp=Z,101nm,1.0s
SVE MLR MLR
comp=Z,2μm,16.0s
**MTN Manton Dam 53.76 194** *e*P **P** **06 35 39.2 -0.3**
comp=Z,36nm,1.0s
**PSI Prapat 54.25 238** *e*P **P** **06 35 43.4 0.0**
PSI pmax pmax
comp=Z,23nm,1.0s
**PSI Prapat 54.25 238** *e*P **P** **06 35 43.4 0.0**
comp=Z,23nm,1.0s
**ARU Arti 54.77 317** LR LR 07 01 40.9
comp=Z,1μm,18.2s,baz=76,slow=39
**ARU Arti 54.77 317** *c i*P **P** **06 35 46.8 +0.3**
ARU *PP **pP** **06 35 56.9 -1.5**
ARU 06 37 49.1
ARU S **S** **06 43 25.9 +2.0**
ARU SS **SS** **06 47 01.8 -5.0**
ARU pmax pmax
comp=Z,117nm,1.2s
ARU MLR MLR
comp=Z,2μm,16.0s
**ARU Arti 54.77 317** *e*P **P** **06 35 46.3 -0.2**
comp=Z,98nm,1.1s
**DZET Dzherino 55.47 294** P **P** **06 35 51.8 -0.2**
DZET pmax pmax
comp=Z,46nm,0.9s
**GSI Gunungsitoli 56.26 238** *e*P **P** **06 35 58.4 +0.7**
comp=Z,101nm,1.4s
**AB31 Akbulak array 56.77 309** *i*P **P** **06 36 00.3 -0.7**
AB31 pmax pmax
comp=Z,24nm,0.6s
**ABKAR Akbulak array 56.77 309** *e*P **P** **06 36 01.1 +0.1**
comp=Z,276nm,0.6s
**KBL Kabul 57.30 290** *e*P **P** **06 36 04.8 -0.4**
KBL pmax pmax
comp=Z,142nm,0.9s
**KBL Kabul 57.30 290** *e*P **P** **06 36 04.8 -0.4**
comp=Z,142nm,0.9s
**AKTO Aktyubinsk 57.41 311** LR LR 07 02 13.3
comp=Z,608nm,18.4s,slow=38
**AKTO Aktyubinsk 57.41 311** *i*P **P** **06 36 04.7 -0.8**
AKTO pmax pmax
comp=Z,35nm,0.8s
**HSPB Hornsund (broa 58.66 348** *e*P **P** **06 36 14.9 +1.1**
**HYB Hyderabad 59.33 267** *i*P **P** **06 36 20.0 +0.6**
**RES Resolute Bay 59.38 15** LR LR 07 04 57.9
comp=Z,118nm,19.0s,baz=337,slow=39
**WRAB Tennant Creek 60.23 189** *c e*P **P** **06 36 24.4 -0.8**
WRAB pmax pmax
comp=Z,134nm,1.2s
**WRAB Tennant Creek 60.23 189** *e*P **P** **06 36 24.5 -0.8**
**WB2 Warramunga Arr 60.24 189** *e*P **P** **06 36 23.2 -2.1**
WB2 *e*P **P** **06 36 24.4 -0.9**
**WR1 Warramunga Arr 60.24 189** *e*P **P** **06 36 24.0 -1.3**
WR1 *e*pP **pP** **06 36 37.0 -0.4**
**WRA Warramunga Arr 60.24 189** P **P** **06 36 24.0 -1.3**
comp=Z,5.5nm,0.8s,baz=6.1,slow=6.9,SNR=15
WRA pP **pP** **06 36 37.1 -0.4**
comp=Z,39nm,0.8s,baz=6.8,slow=6.9,SNR=27
WRA LR LR 07 03 46.2
comp=Z,56nm,18.5s,baz=355,slow=37
WRA PKP2bc 07 05 58.8
comp=Z,1.8nm,0.9s,baz=206,slow=2.8,SNR=7.9
**TMCR Tamitsa 60.55 331** *e*P **P** **06 36 27.1 +0.1**
TMCR pmax pmax
comp=Z,55nm,0.4s
**YKA Yellowknife Ar 60.66 31** P **P** **06 36 28.1 +0.4**
comp=Z,1.9nm,0.8s,baz=302,slow=6.6,SNR=20
YKA LR LR 07 04 14.4
comp=Z,11nm,19.4s,baz=0.0,slow=38
**YKB5 Yellowknife Ar 60.66 31** *e*P **P** **06 36 28.1 +0.4**
**KEV Kevo 60.94 339** *e*P **P** **06 36 30.0 +0.4**
KEV *e*PP **pP** **06 36 42.1 +0.4**
KEV pmax pmax
comp=Z,31nm,0.9s
**KEV Kevo 60.94 339** *e*P **P** **06 36 30.0 +0.4**
comp=Z,31nm,0.9s
KEV *e*pP **pP** **06 36 42.1 +0.4**
**ARA0 ARCESS Array S 61.49 339** *e*P **P** **06 36 33.6 +0.3**
**ARCES ARCESS Array B 61.49 339** P **P** **06 36 33.6 +0.3**
comp=Z,9.1nm,0.8s,baz=45,slow=7.2,SNR=22
ARCES LR LR 07 08 57.5
comp=Z,237nm,18.4s,baz=49,slow=42
**KLMR Klimovskoe 61.72 327** *c i*P **P** **06 36 34.9 0.0**
KLMR *e*PP **pP** **06 36 47.1 0.0**
KLMR *e* 06 38 48.9
KLMR pmax pmax
comp=Z,45nm,1.4s
**TULEG Thule 61.93 8** *e*P **P** **06 36 36.0 -0.1**
comp=Z,23nm,0.9s
**POO Poona 62.28 271** *e*P P 06 36 32.0 -7.4
**DAG Danmarks Havn 62.81 355** *i*P **P** **06 36 42.1 +0.1**
DAG pmax pmax
comp=Z,24nm,0.9s
**DAG Danmarks Havn 62.81 355** *i*P **P** **06 36 42.1 +0.1**
comp=Z,24nm,0.9s
**GEYT Alibeck 63.26 298** P **P** **06 36 45.9 +0.1**
comp=Z,29nm,0.9s,baz=28,slow=3.5,SNR=40
GEYT pP **pP** **06 36 57.3 -0.6**
comp=Z,16nm,0.7s,baz=78,slow=2.1,SNR=8.0
GEYT LR LR 07 06 17.4
comp=Z,270nm,18.3s,baz=45,slow=38
**AS01 Alice Springs 63.96 189** *e*P **P** **06 36 49.5 -0.8**
**AS31 Alice Springs 63.97 189** *e*P **P** **06 36 49.5 -0.8**
AS31 *e*pP **pP** **06 36 58.0 -4.5**
**ASAR Alice Springs 63.97 189** P **P** **06 36 49.5 -0.8**
comp=Z,2.7nm,0.8s,baz=2.6,slow=5.0,SNR=11
ASAR pP **pP** **06 37 02.5 0.0**
comp=Z,15nm,0.8s,baz=12,slow=5.7,SNR=23
ASAR LR LR 07 04 23.8
comp=Z,80nm,21.7s,baz=1.0,slow=36
ASAR PKP2bc 07 05 49.2
comp=Z,0.6nm,0.8s,baz=202,slow=3.4,SNR=5.4
**MBWA Marble Bar 64.60 204** *e*P **P** **06 36 53.7 -0.8**
MBWA *e*pP **pP** **06 37 03.4 -3.3**
**MOS Moscow 65.40 323** *e*P **P** **06 36 59.4 +0.1**
MOS *e* 06 39 28.2
MOS MLR MLR
comp=Z,2μm,18.0s
**DZM Mont Dzumac 65.69 156** *e*LR LR 06 56 56.8
comp=Z,430nm,21.9s
**VRH Novokhopyorsk 66.00 317** *e*P **P** **06 37 02.9 -0.3**
VRH pmax pmax
comp=Z,60nm,0.7s
**OBN Obninsk 66.26 323** LR LR 07 10 34.1
comp=Z,178nm,18.9s,baz=74,slow=40
**OBN Obninsk 66.26 323** *i*P **P** **06 37 04.6 -0.2**
OBN *i* 06 37 16.2
OBN *i* 06 37 35.0
OBN *i* 06 39 33.0
OBN *i*S **S** **06 45 42.1 -8.6**
OBN *i*SS **SS** **06 50 10.5 +4.0**
OBN pmax pmax
comp=Z,25nm,0.8s
OBN MLR MLR
comp=Z,762nm,16.0s
**OBN Obninsk 66.26 323** *e*P **P** **06 37 05.0 +0.1**
comp=Z,34nm,0.6s
**H04A Detroit Lake 66.36 51** *e*P **P** **06 37 06.3 +0.5**
H04A *e*pP **pP** **06 37 17.0 -1.0**
**FIA1 FINESS Array S 66.58 332** *e*P **P** **06 37 06.7 -0.1**
FIA1 *e*P **P** **06 37 07.2 +0.4**
**FIA0 FINESS Array S 66.58 332** *e*P **P** **06 37 07.1 +0.3**
FIA0 *e**PP **pP** **06 37 20.9 +1.9**
**FIA0 FINESS Array S 66.58 332** *e*P **P** **06 37 07.1 +0.3**
FIA0 *e*pP **pP** **06 37 20.9 +1.9**
**FINES FINESS Array B 66.58 332** P **P** **06 37 07.1 +0.3**
comp=Z,33nm,0.7s,baz=47,slow=8.4,SNR=54
FINES pP **pP** **06 37 20.9 +1.9**
comp=Z,11nm,0.7s,baz=35,slow=7.9,SNR=5.0
FINES LR LR 07 09 14.9
comp=Z,672nm,18.5s,baz=44,slow=39
**LPSR Galich'ya Gora 66.61 320** *e*P **P** **06 37 06.5 -0.6**
LPSR pmax pmax
comp=Z,60nm,0.8s
**C09A Chrisman Ranch 66.87 46** *e*P **P** **06 37 10.1 +1.2**
comp=Z,30nm,1.6s
**NEW Newport 67.24 45** LR LR 07 02 23.9
comp=Z,76nm,21.9s,baz=315,slow=32
**NEW Newport 67.24 45** *e*P **P** **06 37 12.7 +1.4**
NEW pmax pmax
comp=Z,11nm,1.4s
**NEW Newport 67.24 45** *e*P **P** **06 37 12.7 +1.4**
comp=Z,11nm,1.4s
**VSR Storozhevoye 67.30 318** *e*P **P** **06 37 11.3 -0.3**
VSR pmax pmax
comp=Z,50nm,0.8s
**MAK Makhachkala 67.38 308** *e*P **P** **06 37 13.7 +1.5**
MAK *e* 06 39 40.6
MAK *e*S **S** **06 46 05.3 +0.6**
MAK *e*SS **SS** **06 50 31.0 +6.5**
MAK pmax pmax
comp=Z,89nm,0.8s

MAK MLR MLR
comp=Z,419nm,17.0s
**SUMG Summit 67.62 0** *e*P **P 06 37 14.8 +1.1**
SUMG pmax pmax
comp=Z,36nm,0.8s
**SUMG Summit 67.62 0** *i* P **P 06 37 14.8 +1.1**
comp=Z,33nm,0.8s
**SUMG Summit 67.62 0** *e*P **P 06 37 14.8 +1.1**
comp=Z,36nm,0.8s
**E09A Wood Farm, Sta 67.67 47** *e*P **P 06 37 15.4 +1.4**
comp=Z,22nm,1.4s
**YBH Yreka Blue Hor 67.69 54** LR LR 06 59 22.5
comp=Z,106nm,21.9s,baz=312,slow=29
**VSU Vasula 68.33 329**⇑ *e*P **P 06 37 17.3 -0.6**
VSU pmax pmax
comp=Z,60nm,0.7s
**WALA Waterton Lakes 68.50 43** *e*P **P 06 37 19.1 -0.2**
WALA *e*PcP **PcP 06 37 44.0 -0.4**
**GOF Gofitskoye 68.82 311**⇑ *e*P **P 06 37 22.0 +0.8**
GOF pmax pmax
comp=Z,84nm,0.8s
**JTMT Jette 69.09 45** *e*P **P 06 37 24.5 +1.4**
comp=Z,13nm,1.2s
**BMO Blue Mountains 69.12 49** *e*P **P 06 37 24.5 +1.3**
BMO pmax pmax
comp=Z,5.0nm,1.0s
**BMO Blue Mountains 69.12 49** *e*P **P 06 37 24.5 +1.3**
comp=Z,5.1nm,1.0s
**SCO Scoresbysund 69.16 355** *i* P **P 06 37 23.6 +0.7**
SCO pmax pmax
comp=Z,11nm,1.0s
**SCO Scoresbysund 69.16 355** *i* P **P 06 37 23.6 +0.7**
comp=Z,11nm,1.0s
**J08A Circle Bar Ran 69.32 50** *e*P **P 06 37 25.8 +1.3**
comp=Z,9.4nm,1.1s
**NCK Nalchik 69.41 310**⇓ *e*P **P 06 37 25.8 +0.8**
NCK pmax pmax
comp=Z,37nm,0.8s
**ZEI Tsey 69.65 309** *e*P **P 06 37 24.5 -2.2**
ZEI pmax pmax
comp=Z,12nm,0.8s
**KIV Kislovodsk 69.67 311** *i* P **P 06 37 27.4 +0.8**
SNR=12
**KIV Kislovodsk 69.67 311** *e*P **P 06 37 27.5 +0.8**
KIV pmax pmax
comp=Z,96nm,1.0s
KIV MLR MLR
comp=Z,569nm,17.0s
**KIV Kislovodsk 69.67 311** *e*P **P 06 37 26.9 +0.2**
comp=Z,82nm,0.9s
**KIV Kislovodsk 69.67 311** P **P 06 37 28.1 +1.5**
SNR=9.2
**KIV Kislovodsk 69.67 311** P **P 06 37 28.1 +1.5**
SNR=9.2
KIV P **P 06 37 28.1 +1.5**
SNR=9.2
**KBZ Khabaz 69.69 310** P **P 06 37 27.5 +0.9**
comp=Z,27nm,0.8s,baz=63,slow=5.4,SNR=33
KBZ LR LR 07 10 42.5
comp=Z,401nm,20.1s,baz=45,slow=38
**MSO Missoula 69.83 45** *e*P **P 06 37 29.0 +1.5**
comp=Z,9.2nm,1.1s
**NEY Neytrino 70.07 310**⇑ *e*P **P 06 37 29.9 +0.7**
NEY pmax pmax
comp=Z,5.0nm,0.7s
**FFC Flin Flon 70.58 34** *e*P **P 06 37 32.3 +0.4**
FFC pmax pmax
comp=Z,11nm,0.8s
**FFC Flin Flon 70.58 34** *e*P **P 06 37 32.3 +0.4**
comp=Z,11nm,0.8s
**GNI Garni 70.70 306** P **P 06 37 34.2 +1.2**
**GNI Garni 70.70 306***c* *i*P **P 06 37 34.3 +1.2**
GNI pmax pmax
comp=Z,105nm,1.2s
**GNI Garni 70.70 306** *e*P **P 06 37 34.2 +1.2**
comp=Z,30nm,1.0s
**AKH Akhalkalaki 70.71 308**⇑ *i*P **P 06 37 34.4 +1.3**
**AKH Akhalkalaki 70.71 308** P **P 06 37 34.4 +1.3**
**HRY Holter Researc 71.04 45** *e*P **P 06 37 36.4 +1.4**
**LRM Limekiln Ridge 71.26 46** *e*P **P 06 37 38.0 +1.5**
**EGMT Eagleton 71.31 43** *e*P **P 06 37 37.5 +0.9**
comp=Z,20nm,1.1s
**YERR Yerington 71.44 54** *e*P **P 06 37 38.6 +1.0**
comp=Z,16nm,1.4s
**DLMT Dillon 71.47 46** *e*P **P 06 37 39.0 +1.4**
comp=Z,16nm,1.1s
**NC405 NORSAR Array S 71.54 337** *e*P **P 06 37 38.0 +0.4**
**HLID Hailey 71.56 48** *e*P **P 06 37 39.7 +1.5**
comp=Z,7.8nm,1.4s
**NC303 NORSAR Array S 71.56 337** *e*P **P 06 37 38.3 +0.6**
**SOC Sochi 71.61 312** *e*P **P 06 37 41.0 +2.7**
SOC e 06 40 18.1
SOC *e*PPP PPP 06 41 57.6
SOC *e*S **SKiKP 06 47 16.7 +3.2**
SOC *e*SS **SS 06 51 29.8 +0.2**
SOC MLR MLR
comp=Z,256nm,14.0s
**STKA Stephens Creek 71.62 181** P **P 06 37 38.2 -0.1**
comp=Z,1.1nm,0.7s,baz=337,slow=15,SNR=2.3
STKA pP **pP 06 37 51.1 +0.5**
comp=Z,5.3nm,0.9s,baz=351,slow=7.2,SNR=5.9
STKA LR LR 07 08 27.5
comp=Z,74nm,21.8s,baz=23,slow=35
**STKA Stephens Creek 71.62 181** *e*P **P 06 37 38.2 -0.1**
STKA *P *e*P **pP 06 37 51.1 +0.5**
STKA pmax pmax
comp=Z,7.0nm,1.6s
**STKA Stephens Creek 71.62 181** *e*P **P 06 37 38.2 -0.1**
comp=Z,6.6nm,1.6s
STKA pP **pP 06 37 51.1 +0.5**
**NC204 NORSAR Array S 71.69 338** *e*P **P 06 37 38.9 +0.3**
**NB201 NORSAR Array S 71.72 337** *e*P **P 06 37 39.1 +0.4**
**NB2 NORSAR Subarra 71.75 337** P **P 06 37 38.9 0.0**
comp=Z,35nm,0.8s,baz=38,slow=6.2
**NB2 NORSAR Subarra 71.75 337** P **P 06 37 38.7 -0.2**
NB2 pmax pmax
comp=Z,30nm,0.8s
**NB2 NORSAR Subarra 71.75 337** P **P 06 37 38.9 0.0**
baz=38,slow=6.2
**NB200 NORSAR Array S 71.75 337** *e*P **P 06 37 39.1 +0.2**
NB200 *e*PP **PP 06 40 20.0 +2.1**
**NOA NORSAR Array B 71.75 337** P **P 06 37 39.1 +0.2**
comp=Z,28nm,0.8s,baz=39,slow=6.0,SNR=78
NOA PP **PP 06 40 20.0 +2.1**
comp=Z,1.5nm,0.7s,baz=39,slow=8.5,SNR=3.3
NOA LR LR 07 12 02.7
comp=Z,292nm,21.7s,baz=40,slow=38
**NBO02 NORSAR Array S 71.85 338** *e*P **P 06 37 39.8 +0.3**
**BOZ Bozeman (W) 71.85 45** *e*P **P 06 37 41.1 +1.2**
BOZ pmax pmax
comp=Z,10.0nm,0.9s
**BOZ Bozeman (W) 71.85 45** *e*P **P 06 37 41.1 +1.2**
comp=Z,9.8nm,0.9s
**NBO00 NORSAR Array S 71.89 338** *e*P **P 06 37 40.0 +0.3**
**HATD Hatta, Dubai 71.97 287** *i* P **P 06 37 40.6 -0.2**
SNR=6.0
**NAO01 NORSAR Array S 72.00 337** *e*P **P 06 37 40.4 0.0**
**KVN Kaiserville 72.11 54** *e*P **P 06 37 43.6 +1.9**
KVN pmax pmax
comp=Z,9.0nm,1.0s
**KVN Kaiserville 72.11 54** *e*P **P 06 37 43.6 +1.9**
comp=Z,9.3nm,1.0s
**ANN Anapa 72.14 314** *e*P **P 06 37 40.6 -0.8**
ANN pmax pmax
comp=Z,112nm,2.0s
ANN MLR MLR
comp=Z,714nm,20.0s
**NV01 Mina Array Sit 72.36 54** *e*P **P 06 37 44.2 +1.0**
**AKASG Malin Array Be 72.50 322** P **P 06 37 43.4 0.0**
comp=Z,18nm,0.7s,baz=45,slow=6.0,SNR=114
AKASG LR LR 07 13 33.1
comp=Z,175nm,19.9s,baz=40,slow=39
**AKBB Malin Array Si 72.50 322** *e*P **P 06 37 43.5 0.0**
AKBB pmax pmax
comp=Z,31nm,0.8s
**AKBB Malin Array Si 72.50 322** *e*P **P 06 37 43.5 0.0**
comp=Z,31nm,0.8s
**AK11 Malin Array Si 72.54 322** *e*P **P 06 37 43.6 -0.1**
**YHH Holmes Hill 72.79 46** *e*P **P 06 37 46.9 +1.2**
comp=Z,9.1nm,1.3s
**SUW Suwalki 72.85 327** *e*P **P 06 37 45.8 +0.3**
**SUW Suwalki 72.85 327** *e*P **P 06 37 45.8 +0.3**
**H17A Grant Village 73.19 46** *e*P **P 06 37 51.2 +3.1**
comp=Z,13nm,1.0s
**IMW Indian Meadow 73.31 46** *e*P **P 06 37 50.5 +1.7**
comp=Z,7.7nm,1.1s

**KONO Kongsberg 73.35 337**⇓ *e*P **P 06 37 49.0 +0.6**
KONO pmax pmax
comp=Z,338nm,2.5s
**FXWY Fox Creek 73.42 47** *e*P **P 06 37 51.3 +1.9**
comp=Z,6.0nm,1.1s
**RLMT Red Lodge 73.43 45** *e*P **P 06 37 50.5 +1.0**
comp=Z,31nm,1.8s
**MOOW Moose Ponds 73.51 46** *e*P **P 06 37 51.7 +1.8**
comp=Z,9.9nm,1.3s
**TPAW Teton Pass 73.56 47** *e*P **P 06 37 52.6 +2.3**
comp=Z,10nm,1.3s
**SIM Simferopol' 73.85 316** *e*P **P 06 37 51.0 -0.6**
SIM pmax pmax
comp=Z,51nm,0.9s
SIM MLR MLR
comp=Z,500nm,18.0s
**LAO LASA Array 74.00 42** *e*P **P 06 37 53.9 +1.3**
comp=Z,13nm,1.0s
**R11A Troy Canyon, C 74.09 53** *e*P **P 06 37 54.7 +1.3**
comp=Z,11nm,1.4s
**TPNV Topopah Spring 74.55 55** *e*P **P 06 37 57.0 +0.9**
TPNV pmax pmax
comp=Z,11nm,1.1s
**TPNV Topopah Spring 74.55 55** *e*P **P 06 37 57.0 +0.9**
comp=Z,11nm,1.1s
**DUG Dugway, Tooele 74.60 50** *e*P **P 06 37 57.2 +1.0**
DUG pmax pmax
comp=Z,17nm,1.6s
**DUG Dugway, Tooele 74.60 50** *e*P **P 06 37 57.2 +1.0**
comp=Z,17nm,1.6s
**SORM Soroca 74.66 321**⇑ *i*P **P 06 37 56.3 +0.1**
**PD31 Pinedale Array 74.81 47** *e*P **P 06 37 58.3 +0.8**
**PDAR Pinedale Array 74.81 47** P **P 06 37 57.4 -0.1**
comp=Z,1.0nm,0.7s,baz=268,slow=2.6,SNR=11
PDAR LR LR 07 07 22.5
comp=Z,73nm,21.9s,baz=330,slow=33
**PDAR Pinedale Array 74.81 47** *e*P **P 06 37 57.8 +0.3**
**TCUT Toone Canyon 74.83 49** *e*P **P 06 37 59.0 +1.3**
comp=Z,20nm,1.2s
**NLU North Lily Min 75.19 50** *e*P **P 06 38 01.2 +1.4**
comp=Z,6.6nm,1.2s
**KIS Kishinev 75.22 320** *e*P P 06 38 16.0 +17
KIS LRM MLR 07 14 05.0
comp=Z,1μm,20.0s
**KIS Kishinev 75.22 320** *e*P **pP 06 38 16.0 +4.1**
KIS *e* 06 48 20.0
KIS MLR MLR
comp=Z,500nm,18.0s
KIS MLR MLR
comp=N,300nm,19.0s
KIS MLR MLR
comp=E,1μm,20.0s
KIS MLR MLR
comp=Z,600nm,20.0s
**MPU Maple Canyon 75.41 50** *e*P **P 06 38 02.2 +1.2**
comp=Z,11nm,1.4s
**BEL Belsk 75.43 327** *e*P **P 06 38 01.8 +1.2**
**BEL Belsk 75.43 327** *e*P **P 06 38 01.8 +1.2**
**LVV L'vov 75.50 324** *e*P **P 06 38 01.5 +0.4**
LVV MLR MLR
comp=Z,500nm,15.0s
LVV MLR MLR
comp=N,400nm,14.0s
LVV MLR MLR
comp=E,600nm,16.0s
**SHPR Sheep Range 75.51 54** *e*P **P 06 38 03.1 +1.5**
comp=E,12nm,1.5s
**TMUT Trail Mountain 76.12 50** *e*P **P 06 38 03.2 -2.0**
comp=E,7.4nm,0.7s
**KWP Kalwaria Pacla 76.23 325** *e*P **P 06 38 06.3 +1.1**
**KWP Kalwaria Pacla 76.23 325** *e*P **P 06 38 05.6 +0.4**
**KWP Kalwaria Pacla 76.23 325** *e*P **P 06 38 05.6 +0.4**
comp=E,580nm,1.1s
**P17A Butcher Ranch, 76.28 50** *e*P **P 06 38 07.2 +1.3**
comp=E,6.9nm,0.9s
**MTPU Mount Pierson 76.35 52** *e*P **P 06 38 08.6 +2.0**
comp=E,19nm,1.7s
**LCMT Little Creek M 76.37 53** *e*P **P 06 38 08.0 +1.5**
comp=E,6.8nm,1.2s
**ULM Lac du Bonnet 76.39 34** P **P 06 38 06.2 +0.1**
comp=E,3.1nm,0.7s,baz=299,slow=6.9,SNR=7.9
**TLCR 76.47 318**⇑ *i*P **P 06 38 07.7 +1.1**
**BUR08 Bucovina Ar. S 76.52 322** *e*P **P 06 38 07.5 +0.4**
**BUR04 Bucovina Ar. S 76.53 322** *e*P **P 06 38 07.6 +0.5**
**BURAR Bucovina Array 76.53 322**⇑ *i*P **P 06 38 07.7 +0.6**
**BURAR Bucovina Array 76.53 322** P **P 06 38 07.7 +0.6**
**TESR Tescani 76.63 320**⇑ *i*P **P 06 38 08.1 +0.6**
**SRU San Rafael Swe 76.64 50** *e*P **P 06 38 08.9 +0.9**
SRU pmax pmax
comp=Z,7.0nm,0.8s
**SRU San Rafael Swe 76.64 50** *e*P **P 06 38 08.9 +0.9**
comp=Z,7.4nm,0.8s
**CFR Carcaliu 76.82 319**⇑ *i*P **P 06 38 09.2 +0.6**
**RSSD Black Hills 76.88 43** *e*P **P 06 38 09.6 +0.3**
RSSD pmax pmax
comp=Z,7.0nm,0.9s
**RSSD Black Hills 76.88 43** *e*P **P 06 38 09.6 +0.3**
comp=Z,6.6nm,0.9s
**PETR Petresti 76.90 320**⇑ *i*P **P 06 38 10.6 +1.6**
**ODBI Odobesti 76.95 320**⇑ *i*P P 06 38 25.2 +16
**STHS Stebnicka Huta 77.03 325** *e*P **P 06 38 11.3 +1.5**
STHS pmax pmax
comp=Z,12nm,0.8s
**STHS Stebnicka Huta 77.03 325** *e*P **P 06 38 11.3 +1.5**
**VRI Vrincioaia 77.04 320**⇑ *i*P **P 06 38 10.0 +0.1**
**VRI Vrincioaia 77.04 320** P **P 06 38 10.0 +0.1**
**OJC Ojcow 77.06 326** *e*P **P 06 38 10.7 +0.8**
**OJC Ojcow 77.06 326** *e*P **P 06 38 10.7 +0.8**
**OJC Ojcow 77.06 326** *e*P **P 06 38 10.2 +0.3**
comp=Z,41nm,1.0s
**UZH Uzhgorod 77.15 324** *e*P **P 06 38 09.3 -1.1**
UZH *e* 06 38 22.3
**CRVS Cervenica-Dubn 77.32 325** *e*P **P 06 38 12.0 +0.6**
**CRVS Cervenica-Dubn 77.32 325** *e*P **P 06 38 12.0 +0.6**
**U15A North Rim 77.33 53** *e*P **P 06 38 13.4 +1.4**
comp=Z,6.9nm,1.1s
**NIE Niedzica 77.44 326** *e*P **P 06 38 13.3 +1.2**
**NIE Niedzica 77.44 326** *e*P **P 06 38 13.3 +1.2**
**BR101 Keskin Array S 77.58 312** *e*P **P 06 38 13.7 +0.5**
BR101 *e*pP **pP 06 38 27.4 +1.7**
**BR131 Keskin Array S 77.58 312** *e*P **P 06 38 13.8 +0.6**
**BRTR Keskin Array B 77.58 312** P **P 06 38 13.7 +0.5**
comp=Z,10nm,0.9s,baz=86,slow=3.2,SNR=31
BRTR pP **pP 06 38 27.3 +1.7**
comp=Z,3.6nm,0.6s,baz=96,slow=2.8,SNR=5.7
BRTR LR LR 07 16 39.4
comp=Z,154nm,18.2s,baz=44,slow=39
**DOPR Dopca 77.63 321**⇑ *i*P **P 06 38 15.2 +2.0**
**ISR Istrita 77.67 319**⇑ *i*P **P 06 38 15.0 +1.5**
**ISR Istrita 77.67 319** P **P 06 38 14.9 +1.5**
**Y12C Blythe 77.67 56** *e*P **P 06 38 15.0 +1.4**
comp=Z,5.9nm,0.9s
**MLR Muntele Rosu 77.70 320**⇑ *i*P **P 06 38 14.3 +0.6**
**MLR Muntele Rosu 77.70 320** *e*P **P 06 38 14.0 +0.3**
MLR pmax pmax
comp=Z,32nm,1.5s
**MLR Muntele Rosu 77.70 320** *e*P **P 06 38 14.0 +0.3**
comp=Z,32nm,1.5s
**ICOR Ion Corvin 77.74 318**⇑ *i*P **P 06 38 15.1 +1.3**
**GLA Glamis 77.92 57** *e*P **P 06 38 17.0 +1.9**
GLA pmax pmax
comp=Z,6.0nm,0.9s
**GLA Glamis 77.92 57** *e*P **P 06 38 17.0 +1.9**
comp=Z,6.3nm,0.9s
**ANTO Ankara 77.96 312** *e*P **P 06 38 16.5 +1.3**
ANTO pmax pmax
comp=Z,51nm,0.9s
**ANTO Ankara 77.96 312** *e*P **P 06 38 16.5 +1.3**
comp=Z,51nm,0.9s
**ANTO Ankara 77.96 312** P **P 06 38 16.5 +1.3**
SNR=7.5
**ANTO Ankara 77.96 312** P **P 06 38 16.5 +1.3**
SNR=7.5
ANTO P **P 06 38 16.5 +1.3**
SNR=7.5
**BR231 Keskin MP Arra 77.99 312** *e*P **P 06 38 14.1 -1.3**
**PV10 Paradox Valley 78.00 50** *e*P **P 06 38 17.0 +1.3**
**LANS Liptovska Anna 78.00 326** *e*P **P 06 38 16.7 +1.5**
**LANS Liptovska Anna 78.00 326** *e*P **P 06 38 16.7 +1.5**
**KSP Ksiaz 78.03 329** *e*P **P 06 38 16.2 +0.9**
**KSP Ksiaz 78.03 329** *e*P **P 06 38 16.2 +0.9**
**OKC Ostrava-Krasne 78.04 327**⇑ *e*P **P 06 38 16.3 +0.9**
OKC *ex* x 06 38 26.4
OKC AMS AMS 07 15 30.0
comp=Z,600nm,18.3s

**OKC Ostrava-Krasne 78.04 327** *e*P **P 06 38 16.3 +0.9**
OKC *e* 06 38 26.4
OKC MLR MLR
comp=Z,600nm,18.3s
**KECS Kecovo 78.06 325** *e*P **P 06 38 15.4 -0.1**
KECS pmax pmax
comp=Z,4.0nm,1.0s
**KECS Kecovo 78.06 325** *e*P **P 06 38 15.4 -0.1**
**VOIR 78.17 320**⇓ *i*P **P 06 38 17.2 +0.9**
**VOIR 78.17 320** P **P 06 38 17.2 +0.9**
**DRGR 78.31 323**⇑ *i*P **P 06 38 17.7 +0.7**
**DRGR 78.31 323** P **P 06 38 17.6 +0.6**
**MORC Moravsky Berou 78.34 327**⇑ *i*P **P 06 38 18.1 +1.0**
**MORC Moravsky Berou 78.34 327** *e*P **P 06 38 17.6 +0.5**
MORC pmax pmax
comp=Z,101nm,0.9s
**MORC Moravsky Berou 78.34 327** *e*P **P 06 38 17.6 +0.5**
comp=Z,101nm,0.9s
**DPC Dobruska-Polom 78.40 328**⇑ *i*P **P 06 38 18.7 +1.3**
DPC *e*PCP **pP 06 38 28.9 -1.0**
DPC *e*PP **PP 06 41 07.8 -6.5**
DPC AMS AMS 07 15 40.0
comp=Z,500nm,19.1s
**DPC Dobruska-Polom 78.40 328**⇑ *i*P **P 06 38 18.7 +1.3**
DPC *e* 06 38 28.9
DPC MLR MLR
comp=Z,500nm,19.1s
**UPC Upice 78.40 328**⇑ *e*P **P 06 38 18.2 +0.8**
UPC AMS AMS 07 15 30.0
comp=Z,500nm,18.1s
**UPC Upice 78.40 328** *e*P **P 06 38 18.2 +0.8**
UPC MLR MLR
comp=Z,500nm,18.1s
**KRLC Kraliky 78.42 328**⇑ *e*P **P 06 38 18.5 +0.9**
KRLC *e*PCP **PcP 06 38 27.8 +1.1**
KRLC *e*pP **pP 06 38 30.9 +0.9**
**KRLC Kraliky 78.42 328**⇑ *e*P **P 06 38 18.5 +0.9**
KRLC *e* 06 38 27.8
KRLC *e* 06 38 30.9
**ARR Arges 78.43 321**⇓ *i*P **P 06 38 19.1 +1.4**
**WUAZ Wupatki 78.49 53** *e*P **P 06 38 20.0 +1.6**
comp=Z,5.8nm,0.9s
**PSZ Piszkesteto 78.75 325**⇑ *i*P **P 06 38 20.4 +1.0**
**PSZ Piszkesteto 78.75 325** *e*P **P 06 38 20.2 +0.8**
PSZ pmax pmax
comp=Z,30nm,1.0s
**PSZ Piszkesteto 78.75 325** *e*P **P 06 38 20.2 +0.8**
comp=Z,30nm,1.0s
**VYHS Vyhne 78.77 326** *e*P **P 06 38 20.3 +0.8**
VYHS pmax pmax
comp=Z,8.0nm,1.0s
**VYHS Vyhne 78.77 326** *e*P **P 06 38 20.2 +0.8**
**LOT Lotru 78.79 321**⇑ *i*P **P 06 38 20.4 +0.7**
**BRG Berggiesshubel 78.92 330** *i* P **P 06 38 20.8 +0.5**
comp=Z,12nm,1.0s
**BRG Berggiesshubel 78.92 330** *i* P **P 06 38 20.8 +0.5**
BRG *e* 06 41 20.5
BRG pmax pmax
comp=Z,12nm,1.0s
BRG pmax pmax
comp=Z,7.0nm,1.1s
BRG MLR MLR
comp=Z,375nm,17.2s
BRG MLR MLR
comp=N,297nm,20.2s
BRG MLR MLR
comp=E,305nm,20.2s
**CLL Collm 78.94 331**⇑ *i*P **P 06 38 20.6 +0.3**
CLL pmax pmax
comp=Z,24nm,0.9s
**CLL Collm 78.94 331**⇑ *i*P **P 06 38 20.6 +0.3**
comp=Z,24nm,0.9s
CLL *e*(pP) **pP 06 38 33.0 +0.2**
CLL *es*P **sP 06 38 41.0 +3.5**
CLL LmH 07 12 00.0
comp=N,300nm,20.2s
CLL LmH 07 12 00.0
comp=E,300nm,21.8s
CLL L L 07 18 00.0
comp=Z,300nm,18.3s
**CLL Collm 78.94 331** *e*P **P 06 38 20.2 -0.1**
comp=Z,23nm,0.9s
CLL *e*pP **pP 06 38 33.4 +0.6**
**PVCC Panska Ves 78.95 329**⇑ *e*P **P 06 38 21.6 +1.2**
PVCC *e*PCP **pP 06 38 31.5 -1.4**
PVCC AMS AMS 07 16 20.0
comp=Z,600nm,19.6s
**PVCC Panska Ves 78.95 329** *e*P **P 06 38 21.6 +1.2**
PVCC *e* 06 38 31.5
PVCC MLR MLR
comp=Z,600nm,19.6s
**ISCO Idaho Springs 79.00 47** *e*P **P 06 38 23.6 +2.3**
ISCO pmax pmax
comp=Z,5.0nm,1.0s
**ISCO Idaho Springs 79.00 47** *e*P **P 06 38 23.6 +2.3**
comp=Z,4.9nm,1.0s
**VRAC Vranov 79.09 327**⇑ *i*P **P 06 38 22.3 +1.0**
**VRAC Vranov 79.09 327** P **P 06 38 22.2 +1.0**
**MVCO Mesa Verde 79.10 50** *e*P **P 06 38 23.1 +1.3**
comp=Z,17nm,1.6s
**X16A Lo Mia Camp, P 79.17 54** *e*P **P 06 38 23.9 +1.7**
comp=Z,5.2nm,1.1s
**SIRR Siria 79.18 323**⇑ *i*P **P 06 38 22.5 +0.7**
**KPL Plockton 79.34 343** *e*P **P 06 38 21.9 -0.5**
KPL IAmb IAmb 06 38 24.0
comp=Z,32nm,0.9s
**GOPC GO Pecny, Ondr 79.35 329**⇑ *e*P **P 06 38 23.6 +1.0**
GOPC AMS AMS 07 16 10.0
comp=Z,500nm,13.8s
**GOPC GO Pecny, Ondr 79.35 329**⇑ *e*P **P 06 38 23.6 +1.0**
GOPC MLR MLR
comp=Z,500nm,13.8s
**PRU Pruhonice 79.39 329**⇑ *e*P **P 06 38 23.8 +1.0**
PRU AMS AMS 07 16 20.0
comp=Z,600nm,15.3s
**PRU Pruhonice 79.39 329** *e*P **P 06 38 23.8 +1.0**
PRU MLR MLR
comp=Z,600nm,15.3s
**BZS Buzias 79.69 322**⇑ *i*P **P 06 38 24.9 +0.4**
**HERR Herculane 79.86 321**⇑ *i*P **P 06 38 25.7 +0.3**
**NKC Novy Kostel 80.01 330**⇑ *e*P **P 06 38 26.7 +0.5**
NKC *e*pP **pP 06 38 39.6 +0.9**
**NKC Novy Kostel 80.01 330** *e*P **P 06 38 26.7 +0.5**
NKC *e* 06 38 39.6
**EAB Aberfoyle 80.09 342** *e*P **P 06 38 25.9 -0.5**
**MDVR Moldovita 80.26 322**⇑ *i*P **P 06 38 27.9 +0.2**
**SOP Sopron 80.37 326** P **P 06 38 29.7 +1.6**
**RAYN Ar Rayn 80.43 293** *e*P **P 06 38 28.9 0.0**
comp=Z,11nm,0.9s
**KHC Kasperske Hory 80.45 329**⇑ *e*P **P 06 38 29.4 +0.8**
KHC *e*PCP **PcP 06 38 33.8 -1.7**
KHC *e*pP **pP 06 38 40.5 -0.6**
KHC *e*PP **PP 06 41 29.7 -1.7**
KHC AMS AMS 07 17 00.0
comp=Z,500nm,17.0s
**KHC Kasperske Hory 80.45 329**⇑ *e*P **P 06 38 29.4 +0.8**
KHC *e* 06 38 40.5
KHC *e* 06 41 29.7
KHC MLR MLR
comp=Z,500nm,17.0s
**KHC Kasperske Hory 80.45 329** *e*P **P 06 38 28.9 +0.2**
comp=Z,11nm,0.9s
**PGBU Glenifferbraes 80.46 342** *e*P **P 06 38 28.7 +0.2**
PGBU IAmb IAmb 06 38 30.7
comp=Z,66nm,1.0s
**CONA Conrad Observa 80.47 327** *i* P **P 06 38 30.2 +1.3**
SNR=8.8
**GEC2 GERESS Array S 80.63 329** *e*P **P 06 38 30.2 +0.5**
GEC2 pmax pmax
comp=Z,11nm,0.9s
**GEC2 GERESS Array S 80.63 329** *e*P **P 06 38 30.2 +0.5**
comp=Z,11nm,0.9s
**GERES GERESS Array B 80.63 329** P **P 06 38 30.2 +0.5**
comp=Z,6.9nm,0.8s,baz=35,slow=4.9,SNR=33
GERES pP **pP 06 38 41.8 -0.4**
comp=Z,2.3nm,0.6s,baz=32,slow=6.2,SNR=5.0
GERES LR LR 07 17 32.5
comp=Z,411nm,19.9s,baz=40,slow=38
**GEA0 GERESS Array S 80.64 329** *e*P **P 06 38 29.9 +0.2**
**PGB Panagyurishte 80.71 319** *i* P **P 06 38 31.2 +1.1**
**PLD Plovdiv 80.76 318** P **P 06 38 32.9 +2.6**
**ECSD EROS Data Cent 80.89 39** *e*P **P 06 38 31.5 +0.5**
comp=Z,6.9nm,0.9s
**GRFO Grafenberg 80.92 330** *e*P **P 06 38 32.3 +1.2**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| GRFO | | | | | pmax | pmax | | |
| | comp=Z,34nm,0.9s | | | | | | | |
| **GRFO** | **Grafenberg** | **80.92** | **330** | *eP* | **P** | **06 38 32.2 +1.2** | | |
| | comp=Z,34nm,0.9s | | | | | | | |
| **TUC** | **Tucson** | **80.98** | **55** | *eP* | **P** | **06 38 33.0 +1.2** | | |
| TUC | | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.2s | | | | | | | |
| **TUC** | **Tucson** | **80.98** | **55** | *eP* | **P** | **06 38 33.0 +1.2** | | |
| | comp=Z,6.2nm,1.2s | | | | | | | |
| **VTS** | **Vitosha** | **81.16** | **319** | *i*P | **P** | **06 38 33.5 +0.8** | | |
| **VTS** | **Vitosha** | **81.16** | **319** | *eP* | **P** | **06 38 33.5 +0.8** | | |
| VTS | | | | | pmax | pmax | | |
| | comp=Z,27nm,0.9s | | | | | | | |
| **VTS** | **Vitosha** | **81.16** | **319** | *i* P | **P** | **06 38 33.3 +0.6** | | |
| **VTS** | **Vitosha** | **81.16** | **319** | *eP* | **P** | **06 38 33.5 +0.8** | | |
| | comp=Z,27nm,0.9s | | | | | | | |
| **T25A** | **Trinidad** | **81.52** | **48** | *eP* | **P** | **06 38 35.9 +1.1** | | |
| | comp=Z,8.2nm,0.9s | | | | | | | |
| **MMB** | **Musomiste** | **81.63** | **318** | *i* P | **P** | **06 38 34.5 -0.5** | | |
| **KKB** | **Krupnik** | **81.75** | **319** | *i* P | **P** | **06 38 37.0 +1.4** | | |
| **PERS** | **Pernice** | **81.81** | **327** | *i* P | **P** | **06 38 36.2 +0.3** | | |
| **PERS** | **Pernice** | **81.81** | **327** | *i* P | **P** | **06 38 36.2 +0.3** | | |
| **SOKA** | **Soboth** | **81.81** | **327** | *i* P | **P** | **06 38 36.6 +0.7** | | |
| | SNR=11 | | | | | | | |
| **ANMO** | **Albuquerque** | **81.85** | **51** | *eP* | **P** | **06 38 38.1 +1.6** | | |
| ANMO | | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.1s | | | | | | | |
| **ANMO** | **Albuquerque** | **81.85** | **51** | *eP* | **P** | **06 38 38.1 +1.6** | | |
| | comp=Z,6.5nm,1.1s | | | | | | | |
| **LBWR** | **Ladybower, Pea** | **81.94** | **339** | *eP* | **P** | **06 38 37.2 +0.8** | | |
| **MEM** | **Membach** | **82.02** | **334** | P | **P** | **06 38 37.2 +0.4** | | |
| | comp=Z,9.1nm,0.9s | | | | | | | |
| **SCHQ** | **Schefferville** | **82.11** | **17** | P | **P** | **06 38 37.3 +0.1** | | |
| | comp=Z,4.7nm,0.7s,baz=314,slow=8.1,SNR=4.0 | | | | | | | |
| SCHQ | | | | | LR | LR | 07 17 15.1 | |
| | comp=Z,165nm,21.1s,baz=12,slow=37 | | | | | | | |
| **SCHQ** | **Schefferville** | **82.11** | **17** | *eP* | **P** | **06 38 37.4 +0.1** | | |
| | comp=Z,60nm,1.7s | | | | | | | |
| **KBA** | **Koelnbreinsper** | **82.19** | **328** | P | **P** | **06 38 38.9 +0.9** | | |
| **KBA** | **Koelnbreinsper** | **82.19** | **328** | *i* P | **P** | **06 38 39.0 +0.9** | | |
| | SNR=11 | | | | | | | |
| **CWF** | **Charnwood Fore** | **82.42** | **339** | *eP* | **P** | **06 38 38.9 +0.1** | | |
| CWF | | | | | lAmb | lAmb | 06 38 40.0 | |
| | comp=Z,21nm,1.0s | | | | | | | |
| **BCLA** | **Clavier** | **82.42** | **334** | P | **P** | **06 38 39.3 +0.4** | | |
| **VAY** | **Valandovo** | **82.42** | **319** | *eP* | **P** | **06 38 39.9 +0.8** | | |
| **MYKA** | **Terra Mystica** | **82.43** | **327** | *i* P | **P** | **06 38 39.2 0.0** | | |
| | SNR=5.5 | | | | | | | |
| **SKO** | **Skopje** | **82.50** | **320** | *i* P | **P** | **06 38 40.7 +1.2** | | |
| **VISS** | **Visnje** | **82.58** | **326** | *i* P | **P** | **06 38 40.0 +0.1** | | |
| **VISS** | **Visnje** | **82.58** | **326** | *i* P | **P** | **06 38 40.0 +0.1** | | |
| **BOJS** | **Bojanci** | **82.64** | **326** | *i* P | **P** | **06 38 40.5 +0.3** | | |
| **BOJS** | **Bojanci** | **82.64** | **326** | *i* P | **P** | **06 38 40.5 +0.3** | | |
| **FOEL** | **Foel Wylfa** | **82.79** | **340** | *eP* | **P** | **06 38 41.7 +0.9** | | |
| FOEL | | | | | lAmb | lAmb | 06 38 43.4 | |
| | comp=Z,61nm,0.8s | | | | | | | |
| **JAVS** | **Javornik** | **82.84** | **327** | *i* P | **P** | **06 38 40.3 -1.1** | | |
| **JAVS** | **Javornik** | **82.84** | **327** | *i* P | **P** | **06 38 40.3 -1.0** | | |
| **MOTA** | **Moosalm** | **82.87** | **329** | *i* P | **P** | **06 38 42.4 +0.8** | | |
| | SNR=12 | | | | | | | |
| **RETA** | **Reutte** | **82.89** | **329** | *i* PcP | **P** | **06 38 42.6 +1.1** | | |
| | SNR=7.6 | | | | | | | |
| **KRUS** | **Krusevo** | **83.04** | **320** | *eP* | **P** | **06 38 43.1 +0.6** | | |
| **BFO** | **Black Forest** | **83.12** | **331** | *i* P | **P** | **06 38 43.3 +0.7** | | |
| **BFO** | **Black Forest** | **83.12** | **331** | *eP* | **P** | **06 38 42.9 +0.2** | | |
| | comp=Z,18nm,1.0s | | | | | | | |
| **PDG** | **Podgorica** | **83.21** | **322** | *i*P | **P** | **06 38 43.4 +0.2** | | |
| **TTG** | **Podgorica** | **83.21** | **322** | *eP* | **P** | **06 38 43.3 +0.2** | | |
| TTG | | | | | pmax | pmax | | |
| | comp=Z,56nm,1.0s | | | | | | | |
| **TTG** | **Podgorica** | **83.21** | **322** | *eP* | **P** | **06 38 43.3 +0.2** | | |
| | comp=Z,56nm,1.0s | | | | | | | |
| **FETA** | **Feichten** | **83.28** | **329** | *i* PcP | **P** | **06 38 44.6 +0.9** | | |
| | SNR=6.6 | | | | | | | |
| **DAVA** | **Damuels** | **83.40** | **330** | *i* PcP | **P** | **06 38 45.2 +0.9** | | |
| | SNR=6.0 | | | | | | | |
| **OHR** | **Ohrid** | **83.46** | **320** | *eP* | **P** | **06 38 45.0 +0.4** | | |
| **STRD** | **Stroud** | **83.51** | **339** | *eP* | **P** | **06 38 45.2 +0.7** | | |
| STRD | | | | | lAmb | lAmb | 06 38 46.0 | |
| | comp=Z,55nm,0.8s | | | | | | | |
| **MCH1** | **Michaelchurch** | **83.54** | **339** | *eP* | **P** | **06 38 45.1 +0.4** | | |
| **ECH** | **Echery** | **83.64** | **332** | *eP* | **P** | **06 38 45.5 +0.2** | | |
| ECH | | | | | pmax | pmax | | |
| | comp=Z,16nm,0.9s | | | | | | | |
| **ECH** | **Echery** | **83.64** | **332** | *eP* | **P** | **06 38 45.5 +0.2** | | |
| | comp=Z,16nm,0.9s | | | | | | | |
| **WOL** | **Wolverton** | **83.66** | **338** | *eP* | **P** | **06 38 45.8 +0.5** | | |
| **FUORN** | **Ofenpass-Fuorn** | **83.80** | **329** | *eP* | **P** | **06 38 47.2 +0.8** | | |
| | comp=Z,54nm,1.0s | | | | | | | |
| **HINF** | **Hinteralfeld** | **84.09** | **332** | *eP* | **P** | **06 38 47.5 -0.2** | | |
| HINF | | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.0s | | | | | | | |
| **TUE** | **Stuetta** | **84.28** | **330** | *eP* | **P** | **06 38 49.5 +0.7** | | |
| | comp=Z,18nm,1.0s | | | | | | | |
| **PMOR** | **Pomariorio Ree** | **84.50** | **115** | *eT* | T | 08 12 26.9 | | |
| | comp=Z,11nm,0.2s | | | | | | | |
| **MNTX** | **Cornudas Mount** | **84.75** | **53** | *eP* | **P** | **06 38 52.3 +1.0** | | |
| | comp=Z,6.1nm,1.1s | | | | | | | |
| **PPT** | **Papeete** | **85.12** | **118** | LR | LR | 07 09 47.3 | | |
| | comp=Z,269nm,19.9s,baz=298,slow=31 | | | | | | | |
| **PPT2** | **Papeete2** | **85.14** | **118** | *eLR* | LR | 07 05 44.3 | | |
| | comp=Z,625nm,22.2s,baz=320 | | | | | | | |
| **PPT2** | **Papeete2** | **85.14** | **118** | *eT* | T | 08 13 11.5 | | |
| | comp=Z,4.5nm,0.3s | | | | | | | |
| **SENIN** | **Lac Senin/Sane** | **85.15** | **331** | *eP* | **P** | **06 38 53.8 +0.5** | | |
| | comp=Z,13nm,0.8s | | | | | | | |
| **PAE** | **Paea** | **85.19** | **118** | *eT* | T | 08 13 14.3 | | |
| | comp=Z,0.9nm,0.3s | | | | | | | |
| **SSF** | **Saint Saulge** | **85.91** | **333** | *eP* | **P** | **06 38 57.1 +0.3** | | |
| SSF | | | | | pmax | pmax | | |
| | comp=Z,25nm,0.9s | | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **85.95** | **105** | *eLR* | LR | 07 06 31.6 | | |
| | comp=Z,443nm,20.8s,baz=316 | | | | | | | |
| **SMF** | **Signal de Mont** | **86.16** | **333** | *eP* | **P** | **06 38 58.3 +0.3** | | |
| SMF | | | | | pmax | pmax | | |
| | comp=Z,16nm,1.0s | | | | | | | |
| **BNI** | **Bardonecchia** | **86.49** | **330** | P | **P** | **06 39 00.3 +0.5** | | |
| BNI | | | | | pmax | pmax | | |
| | comp=Z,32nm,1.6s | | | | | | | |
| **ORIF** | **Oris-en-Rattie** | **86.90** | **331** | *eP* | **P** | **06 39 02.2 +0.4** | | |
| ORIF | | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.8s | | | | | | | |
| **TCF** | **Toulx Ste Croi** | **87.03** | **334** | *eP* | **P** | **06 39 03.0 +0.7** | | |
| TCF | | | | | pmax | pmax | | |
| | comp=Z,20nm,1.1s | | | | | | | |
| **VIVF** | **Saint-Julien-l** | **87.40** | **332** | *eP* | **P** | **06 39 04.6 +0.5** | | |
| VIVF | | | | | pmax | pmax | | |
| | comp=Z,43nm,1.5s | | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **87.46** | **53** | *eP* | **P** | **06 39 05.1 +0.3** | | |
| TX31 | | | | | *eP* | **P** | **06 39 06.0 +1.2** | |
| **LTX** | **Lajitas** | **87.46** | **53** | *eP* | **P** | **06 39 05.7 +0.9** | | |
| **LTX** | **Lajitas** | **87.46** | **53** | *eP* | **P** | **06 39 05.7 +0.9** | | |
| **TXAR** | **Lajitas Array** | **87.46** | **53** | P | **P** | **06 39 05.7 +0.9** | | |
| | comp=Z,0.9nm,0.9s,baz=282,slow=3.9,SNR=7.4 | | | | | | | |
| TXAR | | | | | LR | LR | 07 17 27.9 | |
| | comp=Z,44nm,19.8s,baz=0.0,slow=35 | | | | | | | |
| **CCM** | **Cathedral Cave** | **87.85** | **40** | *eP* | **P** | **06 39 06.9 +0.6** | | |
| CCM | | | | | pmax | pmax | | |
| | comp=Z,12nm,0.9s | | | | | | | |
| **CCM** | **Cathedral Cave** | **87.85** | **40** | *eP* | **P** | **06 39 06.9 +0.6** | | |
| | comp=Z,12nm,0.9s | | | | | | | |
| **SIUC** | **Southern Illin** | **89.10** | **39** | *eP* | **P** | **06 39 13.0 +0.8** | | |
| | comp=Z,25nm,1.3s | | | | | | | |
| **TBI** | **Tubuai** | **89.25** | **122** | *eLR* | LR | 07 07 24.9 | | |
| | comp=Z,328nm,26.5s,baz=318 | | | | | | | |
| **TBI** | **Tubuai** | **89.25** | **122** | *eT* | T | 08 18 12.7 | | |
| | comp=Z,13nm,0.3s | | | | | | | |
| **PBMO** | **Poplar Bluff** | **89.25** | **40** | *eP* | **P** | **06 39 13.6 +0.6** | | |
| | comp=Z,12nm,1.0s | | | | | | | |
| **MIAR** | **Mount Ida** | **89.38** | **43** | *eP* | **P** | **06 39 14.6 +0.9** | | |
| MIAR | | | | | pmax | pmax | | |
| | comp=Z,15nm,1.3s | | | | | | | |
| **MIAR** | **Mount Ida** | **89.38** | **43** | *eP* | **P** | **06 39 14.6 +0.9** | | |
| | comp=Z,15nm,1.3s | | | | | | | |
| **WHAR** | **Wooly Hollow** | **89.48** | **42** | *eP* | **P** | **06 39 14.7 +0.6** | | |
| | comp=Z,20nm,1.2s | | | | | | | |
| **KEST** | **Kesra** | **93.18** | **324** | LR | LR | 07 26 15.2 | | |
| | comp=Z,306nm,18.8s,baz=324,slow=38 | | | | | | | |
| **ES19** | **SONSECA Array** | **94.92** | **335** | *eP* | **P** | **06 39 39.4 +0.1** | | |
| **ESDC** | **Sonseca Array** | **94.97** | **335** | P | **P** | **06 39 39.4 -0.1** | | |
| | comp=Z,1.6nm,0.6s,baz=16,slow=4.6,SNR=9.9 | | | | | | | |
| ESDC | | | | | LR | LR | 07 30 00.3 | |
| | comp=Z,149nm,18.7s,baz=0.0,slow=40 | | | | | | | |
| **ABPO** | **Ambohimpanom** | **106.09** | **259** | *eP* | **Pdif** | **06 40 28.8 -0.8** | | |
| **ABPO** | **Ambohimpanom** | **106.09** | **259** | *e*Pdif | **Pdif** | **06 40 28.8 -0.8** | | |
| **TOA1** | **Torodi Ar. Sit** | **115.83** | **317** | *e*PKPdf | **PKPdf** | **06 44 58.9 -1.0** | | |
| TOA1 | | | | *e*PP | **PP** | **06 46 04.0 +1.2** | | |
| **TOA0** | **Torodi Ar. Sit** | **115.83** | **317** | *e*PKPdf | **PKPdf** | **06 44 59.2 -0.7** | | |
| **TORD** | **Torodi Ar. Bea** | **115.83** | **317** | PKP | **PKPdf** | **06 44 58.9 -1.0** | | |
| | comp=Z,0.9nm,0.7s,baz=20,slow=1.3,SNR=5.7 | | | | | | | |
| TORD | | | | | pPKP | PKiKP | 06 45 12.0 +12 | |
| | comp=Z,0.9nm,0.9s,baz=60,slow=2.5,SNR=4.0 | | | | | | | |
| TORD | | | | | PP | **PP** | **06 46 04.0 +1.2** | |
| | comp=Z,1.0nm,0.7s,baz=28,slow=4.3,SNR=6.3 | | | | | | | |
| **DBIC** | **Dimbokro** | **124.68** | **320** | PKP | **PKPdf** | **06 45 16.0 -0.9** | | |
| | comp=Z,1.9nm,0.6s,baz=298,slow=3.1,SNR=4.1 | | | | | | | |
| **DBIC** | **Dimbokro** | **124.68** | **320** | *e*PKIKP | **PKPdf** | **06 45 16.0 -0.9** | | |
| **LBTB** | **Lobatse** | **125.94** | **266** | *e*PKIKP | **PKPdf** | **06 45 19.2 +0.1** | | |
| **LBTB** | **Lobatse** | **125.94** | **266** | *e*PKPdf | **PKPdf** | **06 45 19.1 +0.1** | | |
| **BOSA** | **Boshof** | **128.07** | **262** | PKP | **PKPdf** | **06 45 24.0 +1.0** | | |
| | comp=Z,3.9nm,0.9s,baz=143,slow=5.2,SNR=4.4 | | | | | | | |
| **LPAZ** | **La Paz** | **144.22** | **57** | *e*PKIKP | PKPbc | 06 45 52.7 +0.6 | | |
| **LPAZ** | **La Paz** | **144.22** | **57** | *e*PKPdf | PKPbc | 06 45 52.7 +0.6 | | |
| **MNMC** | **Minye Minye** | **145.28** | **63** | *e*PKPbc | **PKPdf** | **06 45 56.4 +1.2** | | |
| **PB11** | **IPOC Station P** | **145.67** | **63** | *e*PKPdf | **PKPab** | **06 45 56.5 +0.1** | | |
| **PB01** | **IPOC Station P** | **146.65** | **65** | *e*PKPdf | **PKPbc** | **06 45 59.3 +0.5** | | |
| **LCO** | **Las Campanas** | **150.50** | **78** | *e*PKPbc | **PKPbc** | **06 46 09.7 +0.8** | | |

*ISCJB **20** 06:28:11.8±0.3, 6°.16S±0°.05×154°.49E±0°.05, h100km, mb4.2/24, Error ellipse: s-maj=8.3km s-min=6.4km az=138.1*

*IDC **20** 06:28:11.0±2.0, 6°.16S×154°.36E, h78km±19km, mb4.0/17, mb1 4.1/21, mb1mx4.0/42, mbtmp4.3/21, MS3.6/5, Ms1 3.6/5, ms1mx3.2/33, Error ellipse: s-maj=13.8km s-min=12.0km az=43.0*

*NEIC **20** 06:28:12.2±0.9, 6°.18S×154°.46E, h90km±8km, mb4.4/8, Error ellipse: s-maj=9.3km s-min=7.4km az=77.0*

**ISC 20 06:28:12.8±0.5, 6°.26S±0°.07×154°.41E±0°.06, h100km, n58, σ1°39/61, mb4.3/23, Bougainville-Solomon Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RABL** | **Rabaul** | **3.04** | **312** | *e*Pn | **Pn** | **06 28 58.4** | **-0.7** |
| **HNR** | **Honiara** | **6.33** | **120** | *e*P | Pn | 06 29 34.0 | -10 |
| HNR | | | | *e*S | **Sn** | **06 30 53.0** | **-1.4** |
| **HNR** | **Honiara** | **6.33** | **120** | P | **Pn** | **06 29 42.6** | **-0.9** |
| | 7.2nm,0.3s,baz=134,slow=0.7,SNR=3.0 | | | | | | |
| HNR | | | | S | **Sn** | **06 30 57.6** | **+3.2** |
| | 14nm,0.3s,baz=343,slow=19,SNR=3.0 | | | | | | |
| HNR | | | | LR | LR | 06 32 06.6 | |
| | comp=Z,385nm,21.5s,baz=279,slow=37 | | | | | | |
| **HNR** | **Honiara** | **6.33** | **120** | *e*Pn | **Pn** | **06 29 42.6** | **-0.9** |
| HNR | | | | *e*Sn | **Sn** | **06 30 54.1** | **-0.3** |
| HNR | | | | *e*Sn | Sn | 06 30 57.6 | +3.2 |
| HNR | | | | *e* | | 06 32 06.6 | |
| **PMG** | **Port Moresby** | **7.83** | **246** | P | **Pn** | **06 30 01.6** | **-2.4** |
| | 34nm,0.3s,baz=50,slow=9.4,SNR=45 | | | | | | |
| PMG | | | | S | **Sn** | **06 31 30.8** | **-0.5** |
| | 8.9nm,0.3s,baz=6.0,slow=19,SNR=10 | | | | | | |
| PMG | | | | LR | LR | 06 33 06.4 | |
| | comp=Z,397nm,19.7s,baz=54,slow=38 | | | | | | |
| **PMG** | **Port Moresby** | **7.83** | **246** | *e*Pn | **Pn** | **06 30 01.8** | **-2.3** |
| PMG | | | | *e*Sn | **Sn** | **06 31 30.9** | **-0.3** |
| **MANU** | **Manus Island** | **8.18** | **301** | *e*Pn | Pn | 06 30 10.9 | +2.1 |
| **CTA** | **Charters Tower** | **15.87** | **209** | P | **P** | **06 31 50.5** | **-1.7** |
| | 0.5nm,0.3s,baz=26,slow=12,SNR=10 | | | | | | |
| **CTAO** | **Charters Tower** | **15.87** | **209** | *e*Pn | **P** | **06 31 53.5** | **+1.2** |
| | 12nm,0.8s | | | | | | |
| **DZM** | **Mont Dzumac** | **19.55** | **145** | P | **Pn** | **06 32 33.6** | **-1.5** |
| | 0.8nm,0.3s,baz=324,slow=18,SNR=7.8 | | | | | | |
| DZM | | | | LR | LR | 06 39 10.4 | |
| | comp=Z,187nm,18.8s,baz=28,slow=34 | | | | | | |
| **DZM** | **Mont Dzumac** | **19.55** | **145** | *eP* | **Pn** | **06 32 33.6** | **-1.5** |
| | 94nm,1.9s | | | | | | |
| **GUMO** | **Guam** | **21.88** | **334** | P | **P** | **06 32 55.8** | **-1.9** |
| | 55nm,0.7s,baz=180,slow=20,SNR=2.5 | | | | | | |
| **FAKI** | **Fak Fak** | **22.34** | **278** | *eP* | **P** | **06 33 03.9** | **+1.3** |
| | 14nm,0.9s | | | | | | |
| **SAUI** | **Saumlaki** | **23.00** | **264** | *eP* | **P** | **06 33 11.7** | **+2.4** |
| | 238nm,1.1s | | | | | | |
| **WRAB** | **Tennant Creek** | **23.76** | **233** | *eP* | **P** | **06 33 18.9** | **+2.7** |
| | 20nm,1s | | | | | | |
| **WB2** | **Warramunga Arr** | **23.76** | **233** | *eP* | **P** | **06 33 18.4** | **+2.1** |
| | 14nm,0.9s | | | | | | |
| WB2 | | | | *eP* | **P** | **06 33 20.1** | **+3.8** |
| **WR1** | **Warramunga Arr** | **23.77** | **233** | *eP* | **P** | **06 33 16.5** | **+0.1** |
| | 19nm,1.0s | | | | | | |
| WR1 | | | | *e*PcP | **PcP** | **06 36 58.2** | **+0.5** |
| **WRA** | **Warramunga Arr** | **23.77** | **233** | P | **P** | **06 33 16.5** | **+0.1** |
| | 2.2nm,0.7s,baz=57,slow=9.7,SNR=27 | | | | | | |
| WRA | | | | PcP | **PcP** | **06 36 58.2** | **+0.5** |
| | 3.8nm,0.5s,baz=58,slow=2.4,SNR=8.5 | | | | | | |
| **AS31** | **Alice Springs** | **26.24** | **227** | *eP* | **P** | **06 33 39.6** | **+0.9** |
| | 1.6nm,0.6s | | | | | | |
| **ASAR** | **Alice Springs** | **26.24** | **227** | P | **P** | **06 33 39.1** | **+0.4** |
| | 1.1nm,0.4s,baz=58,slow=9.4,SNR=14 | | | | | | |
| **URZ** | **Urewera** | **37.93** | **150** | P | **P** | **06 35 22.0** | **+1.5** |
| | 10nm,1.0s,baz=346,slow=4.2,SNR=4.7 | | | | | | |
| **RPZ** | **Rata Peaks** | **40.07** | **161** | P | **P** | **06 35 39.3** | **+0.9** |
| | 3.2nm,0.7s,baz=346,slow=4.2,SNR=2.6 | | | | | | |
| **JNU** | **Nakatsue** | **45.09** | **332** | P | **P** | **06 36 18.4** | **-0.8** |
| | 4.0nm,0.6s,baz=135,slow=2.9,SNR=4.1 | | | | | | |
| **JNU** | **Nakatsue** | **45.09** | **332** | *eP* | **P** | **06 36 18.4** | **-0.8** |
| | 6.3nm,0.8s | | | | | | |
| **KSRS** | **Korea Array** | **50.02** | **332** | P | **P** | **06 36 56.4** | **-0.8** |
| | 1.6nm,0.6s,baz=150,slow=8.5,SNR=5.3 | | | | | | |
| KSRS | | | | LR | LR | 06 56 06.3 | |
| | comp=Z,52nm,18.7s,baz=74,slow=34 | | | | | | |
| **KS15** | **Wonju Array Si** | **50.03** | **332** | *eP* | **P** | **06 36 56.5** | **-0.7** |
| **KSAR** | **Wonju Array Be** | **50.03** | **332** | P | **P** | **06 36 56.4** | **-0.9** |
| **KLR** | **Kul'dur** | **58.70** | **343** | P | **P** | **06 38 00.2** | **+0.3** |
| | 0.2nm,0.6s,baz=153,slow=2.3,SNR=4.0 | | | | | | |
| **PETK** | **Petropavlovsk-** | **59.21** | **2** | P | **P** | **06 38 02.7** | **-0.6** |
| | 4.6nm,0.9s,baz=208,slow=4.6,SNR=3.8 | | | | | | |
| **PEA1** | **Petropavlovsk-** | **59.21** | **2** | *eP* | **P** | **06 38 02.6** | **-0.7** |
| **CMAR** | **Chiang Mai Arr** | **59.95** | **295** | P | P | 06 38 10.9 | +1.9 |
| | 1.4nm,0.3s,baz=112,slow=5.3,SNR=5.1 | | | | | | |
| **SONA0** | **Songino Array** | **68.41** | **327** | *eP* | **P** | **06 39 04.0** | **0.0** |
| **SONM** | **Songino Array** | **68.41** | **327** | P | **P** | **06 39 04.0** | **0.0** |
| | 2.1nm,0.7s,baz=128,slow=5.1,SNR=4.0 | | | | | | |
| **TAPN** | **Taejung** | **72.53** | **301** | *eP* | **P** | **06 39 30.9** | **+1.2** |
| | 20nm,0.6s | | | | | | |
| **ODAN** | **Odare** | **72.66** | **301** | *eP* | **P** | **06 39 31.4** | **+1.0** |
| | 51nm,0.7s | | | | | | |
| **RAMN** | **Ramite** | **73.36** | **300** | *eP* | **P** | **06 39 35.4** | **+0.8** |
| **JIRN** | **Jiri** | **73.91** | **301** | *eP* | **P** | **06 39 38.8** | **+0.9** |
| **GUN** | **Gumba** | **74.24** | **301** | *eP* | **P** | **06 39 40.7** | **+0.9** |
| | 48nm,0.7s | | | | | | |
| **PKI** | **Pulchoki** | **74.55** | **301** | *eP* | **P** | **06 39 42.3** | **+0.7** |
| | 17nm,0.7s | | | | | | |
| **PKIN** | **Phulchoki** | **74.56** | **301** | *eP* | P | 06 39 42.9 | +1.3 |
| | 19nm,0.7s | | | | | | |
| **KKN** | **Kakani** | **74.72** | **301** | *eP* | **P** | **06 39 43.3** | **+0.9** |
| **DMN** | **Daman** | **74.82** | **301** | *eP* | **P** | **06 39 44.2** | **+1.1** |
| | 54nm,0.7s | | | | | | |
| **KOLN** | **Koldanda** | **76.15** | **300** | *eP* | **P** | **06 39 51.2** | **+0.6** |
| **PYUN** | **Piuthan** | **76.76** | **301** | *eP* | **P** | **06 39 54.4** | **+0.4** |
| | 56nm,0.8s | | | | | | |
| **MK32** | **Makanchi Array** | **82.47** | **319** | *eP* | **P** | **06 40 24.9** | **+0.6** |
| **MKAR** | **Makanchi Array** | **82.47** | **319** | P | **P** | **06 40 24.9** | **+0.6** |
| | 0.7nm,0.5s,baz=94,slow=5.6,SNR=4.6 | | | | | | |
| **ILAR** | **Eielson Array** | **82.91** | **22** | P | **P** | **06 40 25.2** | **-1.0** |
| | 1.5nm,0.8s,baz=247,slow=4.3,SNR=13 | | | | | | |
| **ILB** | **Eielson Array** | **82.91** | **22** | *eP* | P | 06 40 28.8 | +2.6 |
| **ZALV** | **Zalesovo Beam** | **83.25** | **326** | P | **P** | **06 40 28.8** | **+0.7** |
| | 1.1nm,0.5s,baz=90,slow=5.8,SNR=3.0 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **83.25** | **326** | *eP* | **P** | **06 40 28.8** | **+0.6** |
| **MAW** | **Mawson** | **84.85** | **203** | P | **P** | **06 40 36.3** | **+0.3** |
| | 3.0nm,0.8s,baz=90,slow=8.1,SNR=3.1 | | | | | | |
| **YBH** | **Yreka Blue Hor** | **88.83** | **48** | LR | LR | 07 14 58.7 | |
| | comp=Z,69nm,19.3s,baz=310,slow=32 | | | | | | |
| **INK** | **Inuvik** | **89.24** | **21** | P | P | 06 40 58.7 | +1.6 |
| | 1.0nm,0.9s,baz=271,slow=4.3,SNR=4.8 | | | | | | |
| **YKA** | **Yellowknife Ar** | **95.96** | **28** | P | **P** | **06 41 28.8** | **+0.5** |
| | 0.3nm,0.7s,baz=273,slow=4.3,SNR=3.8 | | | | | | |
| **PDAR** | **Pinedale Array** | **98.64** | **48** | P | Pdif | 06 41 41.2 | 0.0 |
| | 0.3nm,0.6s,baz=266,slow=3.6,SNR=3.2 | | | | | | |
| **BOSA** | **Boshof** | **120.02** | **232** | PKP | **PKPdf** | **06 46 54.2** | **+1.5** |
| | 1.9nm,0.6s,baz=86,slow=1.7,SNR=4.8 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **152.27** | **286** | PKPbc | **PKPbc** | **06 47 58.1** | **0.0** |
| | 1.7nm,0.4s,baz=94,slow=1.8,SNR=23 | | | | | | |
| TORD | | | | PKPab | **PKPab** | **06 48 08.9** | **+0.7** |
| | 5.1nm,0.8s,baz=75,slow=4.1,SNR=10 | | | | | | |
| TORD | | | | pPKPbc | **pPKPbc** | **06 48 21.3** | **-4.1** |
| | 2.2nm,0.7s,baz=69,slow=3.0,SNR=3.9 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **152.27** | **286** | *e*PKPbc | **PKPbc** | **06 47 58.0** | **0.0** |
| TOA1 | | | | *e*PKPab | **PKPab** | **06 48 08.9** | **+0.7** |

*IDC **20** 07:04:02.0±1.3, 6°.35S×133°.03E, h0km, mb3.9/3, mb1 4.1/7, mb1mx3.8/30, mbtmp4.0/7, ML3.9/4, Error ellipse: s-maj=59.5km s-min=20.7km az=70.0*

*ISCJB **20** 07:04:04.3±0.6, 6°.42S±0°.05×133°.16E±0°.08, h33km, mb3.7/3, Error ellipse: s-maj=12.0km s-min=6.1km az=164.2*

*DJA **20** 07:04:09.9±1.2, 6°.S±8°×13°.3E±°, h10km, M4.5/4, MLv4.5/4*

**ISC 20 07:04:05.5±0.8, 6°.35S±0°.05×133°.32E±0°.08, h35km, n12, σ2°51/18, mb3.8/3, Aru Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KMPI** | **Kaimana, Papua** | **2.69** | **8** | P | **Pn** | **07 04 47.4** | **+1.1** |
| KMPI | | | | S | **Sn** | **07 05 14.9** | **-2.8** |
| **FAKI** | **Fak Fak** | **3.57** | **343** | P | **Pn** | **07 04 58.5** | **+0.1** |
| FAKI | | | | S | **Sn** | **07 05 35.8** | **-3.5** |
| **BNDI** | **Bandanaira** | **3.85** | **298** | P | **Pn** | **07 05 04.0** | **+1.7** |
| BNDI | | | | S | **Sn** | **07 05 44.3** | **-2.0** |
| **RKPI** | **Ransiki, Papua** | **4.88** | **10** | P | **Pn** | **07 05 16.8** | **+0.4** |
| RKPI | | | | S | **Sn** | **07 06 09.0** | **-2.7** |
| **SWI** | **Sorong** | **5.82** | **339** | P | **Pn** | **07 05 31.8** | **+2.4** |
| **WRA** | **Warramunga Arr** | **13.55** | **176** | Pn | **Pn** | **07 07 14.6** | **-0.7** |
| | 0.4nm,0.3s,baz=353,slow=13,SNR=32 | | | | | | |
| WRA | | | | Sn | **Sn** | **07 09 41.1** | **-3.6** |
| | 0.9nm,0.3s,baz=357,slow=24,SNR=6.1 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **13.88** | **212** | Pn | **Pn** | **07 07 18.9** | **-0.9** |
| | 0.5nm,0.3s,baz=30,slow=11,SNR=22 | | | | | | |
| **ASAR** | **Alice Springs** | **17.23** | **178** | P | **Pn** | **07 08 03.5** | **0.0** |
| | 0.4nm,0.3s,baz=0.7,slow=12,SNR=37 | | | | | | |
| ASAR | | | | S | **Sn** | **07 11 09.9** | **-4.4** |
| | 0.2nm,0.3s,baz=355,slow=26,SNR=4.3 | | | | | | |
| **CTA** | **Charters Tower** | **18.56** | **139** | P | **Pn** | **07 08 22.9** | **+3.1** |
| | 0.3nm,0.3s,baz=297,slow=9.0,SNR=2.5 | | | | | | |
| **STKA** | **Stephens Creek** | **26.55** | **164** | P | **P** | **07 09 42.7** | **+2.5** |
| | 0.4nm,0.3s,baz=337,slow=13,SNR=3.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **69.53** | **325** | P | **P** | **07 15 12.0** | **+1.3** |
| | 0.8nm,0.5s,baz=127,slow=7.8,SNR=14 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **72.50** | **332** | P | **P** | **07 15 29.3** | **+0.8** |
| | 0.9nm,0.8s,baz=129,slow=5.2,SNR=5.5 | | | | | | |

*NEIC **20** 07:22:13.3±0.0, 52°.11N×179°.05W, h124km, MG3.0(AEIC), After AEIC.*

*IDC **20** 07:22:50.7±40.0, 52°.73N×174°.64W, h305km±232km, mb2.6/3, mb1 2.9/5, mb1mx2.6/53, mbtmp3.4/5, Error ellipse: s-maj=387.8km s-min=64.0km az=65.0*

**ISC 20 07:22:13.5±1.4, 52°.0N±0°.3×179°.1W±0°.1, h131km±12km, n21, σ0°93/27, mb3.1/3, Andreanof Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GAEA** | **Gareloi East** | **0.29** | **130** | P | **Pn** | **07 22 31.7** | **0.0** |
| **GALAA** | **Gareloi Lava P** | **0.29** | **135** | P | **Pn** | **07 22 31.7** | **0.0** |
| **TASE** | **Tanaga Southea** | **0.67** | **101** | P | **Pn** | **07 22 33.9** | **+0.1** |
| TASE | | | | S | **Sn** | **07 22 49.2** | **0.0** |
| **TAFP** | **Tanaga Falls P** | **0.69** | **95** | P | **Pn** | **07 22 33.5** | **-0.4** |
| TAFP | | | | S | **Sn** | **07 22 50.0** | **+0.6** |
| **TAFL** | **Tanaga Flats** | **0.78** | **105** | P | **Pn** | **07 22 34.5** | **0.0** |
| **TAPA** | **Tanaga Point A** | **0.81** | **100** | P | **Pn** | **07 22 34.5** | **-0.4** |
| TAPA | | | | S | **Sn** | **07 22 51.3** | **+0.2** |
| **KICM** | **Kanaga Island** | **1.18** | **92** | P | **Pn** | **07 22 38.7

*IASPEI* ***20*** *07:30:59.2±0.8, 38°.36N±0°.02×26°.56E±0°.02, h16km±4km, Error ellipse: s-maj=3.8km s-min=2.8km az=41.5, GT5 selection from ISC bulletin GT5 identified by Bond¨ j r and McLaughlin (2009) selection criteria Bond¨ j r and McLaughlin, A new ground truth data set for seismic studies, Seism. Res. Let., 80, 465-472, 2009*

*ATH* ***20*** *07:30:59.1, 38°.34N×26°.50E, h33km±2km, ML2.4/6, Error ellipse: s-maj=2.8km s-min=1.2km az=46.0*

*DDA* ***20*** *07:30:59.2, 38°.35N×26°.59E, h17km, Ml3.0*

**ISC 20 07:30:59.2±0.8, 38°.36N±0°.02×26°.56E±0°.02, h17km±4km, n68, σ0946/105, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **URLA** | **Izmir** | **0.03** | **91** | PG | **Pg** | **07 31 01.9** | **-0.2** |
| URLA | | | | *e*SG | **Sg** | **07 31 04.3** | **+0.1** |
| **URLA** | **Izmir** | **0.03** | **91** | *i* P | **Pg** | **07 31 02.1** | **-0.1** |
| URLA | | | | *i* S | **Sg** | **07 31 04.2** | **0.0** |
| **URLA** | **Izmir** | **0.03** | **91** | *i* Pg | **Pg** | **07 31 02.0** | **-0.2** |
| URLA | | | | S | **Sg** | **07 31 04.2** | **0.0** |
| **ZEY** | **¯zmir** | **0.13** | **198** | *i* P | **Pg** | **07 31 03.2** | **+0.3** |
| ZEY | | | | *i* S | **Sb** | **07 31 06.2** | **+0.4** |
| **CESE** | **¯e¯me** | **0.20** | **262** | *e*PG | **Pg** | **07 31 04.0** | **0.0** |
| CESE | | | | *e*SG | **Sb** | **07 31 08.0** | **0.0** |
| **CESE** | **¯e¯me** | **0.20** | **262** | *e*Pg | **Pg** | **07 31 04.0** | **0.0** |
| CESE | | | | *e*Sg | **Sb** | **07 31 08.0** | **0.0** |
| **CHOS** | **Chios island** | **0.39** | **274** | *e*PG | **Pg** | **07 31 07.3** | **0.0** |
| CHOS | | | | *e*SG | **Sb** | **07 31 13.6** | **+0.1** |
| **CHOS** | **Chios island** | **0.39** | **274** | P | **Pb** | **07 31 08.3** | **+0.6** |
| CHOS | | | | S | **Sg** | **07 31 12.9** | **+0.1** |
| CHOS | | | | AML | AML | 07 31 14.4 | |
| | comp=N,1101μm,0.2s | | | | | | |
| CHOS | | | | AML | AML | 07 31 15.2 | |
| | comp=E,1558μm,0.2s | | | | | | |
| **CHOS** | **Chios island** | **0.39** | **274** | *e*Pg | **Pg** | **07 31 07.3** | **0.0** |
| **CHOS** | **Chios island** | **0.39** | **274** | P | **Pb** | **07 31 08.3** | **+0.6** |
| CHOS | | | | S | **Sg** | **07 31 12.9** | **+0.1** |
| CHOS | | | | *e*Sg | **Sb** | **07 31 13.6** | **+0.1** |
| **DGB** | **¯zmir** | **0.40** | **140** | *i* P | **Pg** | **07 31 07.6** | **+0.2** |
| DGB | | | | *i* S | **Sb** | **07 31 13.6** | **-0.1** |
| **SMG** | **Samos** | **0.69** | **161** | P | **Pg** | **07 31 12.6** | **-0.1** |
| SMG | | | | S | **Sn** | **07 31 24.6** | **+0.1** |
| SMG | | | | AML | AML | 07 31 25.3 | |
| | comp=E,2674μm,0.4s | | | | | | |
| SMG | | | | AML | AML | 07 31 25.5 | |
| | comp=N,2618μm,0.5s | | | | | | |
| **SMG** | **Samos** | **0.69** | **161** | P | **Pg** | **07 31 12.6** | **-0.1** |
| SMG | | | | S | **Sn** | **07 31 24.6** | **+0.1** |
| **DKL** | **Dikili** | **0.76** | **21** | *e*PG | **Pb** | **07 31 13.6** | **-0.4** |
| DKL | | | | *e*SG | **Sg** | **07 31 24.4** | **+0.3** |
| **DKL** | **Dikili** | **0.76** | **21** | *e*Pg | **Pb** | **07 31 13.6** | **-0.4** |
| DKL | | | | *e*Sg | **Sg** | **07 31 24.4** | **+0.3** |
| **PRK** | **Paraskevi** | **0.91** | **346** | P | **Pb** | **07 31 16.4** | **-0.1** |
| PRK | | | | S | **Sg** | **07 31 29.1** | **+0.2** |
| PRK | | | | AML | AML | 07 31 31.6 | |
| | comp=N,908μm,0.3s | | | | | | |
| PRK | | | | AML | AML | 07 31 32.2 | |
| | comp=E,1228μm,0.5s | | | | | | |
| **PRK** | **Paraskevi** | **0.91** | **346** | P | **Pb** | **07 31 16.4** | **-0.1** |
| PRK | | | | S | **Sg** | **07 31 29.1** | **+0.2** |
| **SIGR** | **SIGRI** | **1.01** | **327** | *e*PG | **Pb** | **07 31 18.3** | **+0.1** |
| SIGR | | | | *e*SG | **Sn** | **07 31 32.6** | **+0.2** |
| **SIGR** | **SIGRI** | **1.01** | **327** | P | **Pg** | **07 31 19.3** | **+0.5** |
| SIGR | | | | S | **Sn** | **07 31 32.2** | **-0.2** |
| SIGR | | | | AML | AML | 07 31 36.1 | |
| | comp=N,457μm,0.6s | | | | | | |
| SIGR | | | | AML | AML | 07 31 36.7 | |
| | comp=E,341μm,0.5s | | | | | | |
| **SIGR** | **SIGRI** | **1.01** | **327** | *e*Pg | **Pb** | **07 31 18.3** | **+0.1** |
| **SIGR** | **SIGRI** | **1.01** | **327** | P | **Pg** | **07 31 19.3** | **+0.5** |
| SIGR | | | | S | **Sn** | **07 31 32.2** | **-0.2** |
| **AKS** | **Akhisar** | **1.11** | **62** | *e*PN | **Pb** | **07 31 19.7** | **-0.3** |
| **AKS** | **Akhisar** | **1.11** | **62** | *e*Pn | **Pb** | **07 31 19.7** | **-0.3** |
| **AKHS** | **Akhisar** | **1.11** | **62** | *i* P | **Pn** | **07 31 20.1** | **+0.1** |
| AKHS | | | | *i* S | **Sg** | **07 31 35.7** | **+0.4** |
| **AKHS** | **Akhisar** | **1.11** | **62** | P | **Pn** | **07 31 20.1** | **+0.1** |
| AKHS | | | | S | **Sg** | **07 31 35.7** | **+0.4** |
| **AYDN** | **Tasoluk** | **1.26** | **123** | *i* P | **Pb** | **07 31 22.6** | **+0.2** |
| AYDN | | | | *i* S | **Sg** | **07 31 39.5** | **-0.4** |
| **AYDN** | **Tasoluk** | **1.26** | **123** | P | **Pb** | **07 31 22.6** | **+0.2** |
| AYDN | | | | S | **Sg** | **07 31 39.5** | **-0.4** |
| **BAYC** | **CANAKKALE_Bayr** | **1.38** | **360** | *i* P | **Pn** | **07 31 23.7** | **0.0** |
| BAYC | | | | *i* S | **Sn** | **07 31 41.2** | **-0.4** |
| **BAYC** | **CANAKKALE_Bayr** | **1.38** | **360** | P | **Pn** | **07 31 23.7** | **0.0** |
| BAYC | | | | S | **Sn** | **07 31 41.2** | **-0.4** |
| **BODT** | **Bodrum** | **1.43** | **155** | *e*PN | **Pn** | **07 31 24.7** | **+0.3** |
| **BODT** | **Bodrum** | **1.43** | **155** | *e*Pn | **Pn** | **07 31 24.7** | **+0.3** |
| **BDRM** | **Kayabasi** | **1.47** | **151** | *i* P | **Pb** | **07 31 26.8** | **+0.7** |
| BDRM | | | | *i* S | **Sb** | **07 31 45.7** | **+1.1** |
| **BDRM** | **Kayabasi** | **1.47** | **151** | P | **Pb** | **07 31 26.8** | **+0.7** |
| BDRM | | | | S | **Sb** | **07 31 45.7** | **+1.1** |
| **EZN** | **Ezine** | **1.47** | **353** | *e*PN | **Pn** | **07 31 24.9** | **-0.1** |
| **EZN** | **Ezine** | **1.47** | **353** | *e*Pn | **Pn** | **07 31 24.9** | **-0.1** |
| **APE** | **Apeiranthos** | **1.52** | **213** | *e*PN | **Pn** | **07 31 26.0** | **+0.3** |
| **APE** | **Apeiranthos** | **1.52** | **213** | P | **Pn** | **07 31 24.7** | **-1.0** |
| APE | | | | S | **Sn** | **07 31 43.1** | **-2.0** |
| APE | | | | AML | AML | 07 31 51.7 | |
| | comp=E,103μm,0.2s | | | | | | |
| APE | | | | AML | AML | 07 31 54.3 | |
| | comp=N,86μm,0.3s | | | | | | |
| **APE** | **Apeiranthos** | **1.52** | **213** | P | **Pn** | **07 31 24.7** | **-1.0** |
| **APE** | **Apeiranthos** | **1.52** | **213** | *e*Pn | **Pn** | **07 31 26.0** | **+0.3** |
| APE | | | | S | **Sn** | **07 31 43.2** | **-2.0** |
| **BOZC** | **Bozcaada** | **1.53** | **345** | *e*PN | **Pn** | **07 31 25.6** | **-0.1** |
| **BOZC** | **Bozcaada** | **1.53** | **345** | *i* P | **Pg** | **07 31 28.0** | **-0.6** |
| BOZC | | | | *i* S | **Sb** | **07 31 45.6** | **+0.2** |
| **BOZC** | **Bozcaada** | **1.53** | **345** | *e*Pn | **Pn** | **07 31 25.6** | **-0.1** |
| **MANT** | **Manisa** | **1.58** | **85** | *i* P | **Pg** | **07 31 29.4** | **-0.2** |
| MANT | | | | *i* S | **Sg** | **07 31 49.2** | **-0.9** |
| **BALY** | **Balya** | **1.61** | **31** | *i* P | **Pg** | **07 31 30.0** | **-0.1** |
| BALY | | | | *i* S | **Sg** | **07 31 51.2** | **+0.2** |
| **BALB** | **Balikesir** | **1.64** | **39** | *e*PN | **Pn** | **07 31 27.4** | **+0.1** |
| **BALB** | **Balikesir** | **1.64** | **39** | *e*Pn | **Pn** | **07 31 27.4** | **+0.1** |
| **KULA** | **Kula-Manisa** | **1.66** | **84** | *e*PN | **Pn** | **07 31 27.7** | **+0.1** |
| **KULA** | **Kula-Manisa** | **1.66** | **84** | *e*Pn | **Pn** | **07 31 27.7** | **+0.1** |
| **KARY** | **Karystos** | **1.70** | **260** | P | **Pb** | **07 31 29.5** | **-0.5** |
| KARY | | | | S | **Sn** | **07 31 49.4** | **0.0** |
| **KARY** | **Karystos** | **1.70** | **260** | P | **Pb** | **07 31 29.5** | **-0.5** |
| KARY | | | | S | **Sn** | **07 31 49.4** | **0.0** |
| **LIA** | **Limnos Island** | **1.87** | **326** | P | **Pn** | **07 31 30.9** | **+0.5** |
| **LIA** | **Limnos Island** | **1.87** | **326** | P | **Pn** | **07 31 30.9** | **+0.5** |
| **GADA** | **Gvkgeada** | **1.90** | **345** | *e*PN | **Pn** | **07 31 31.0** | **+0.2** |
| **GADA** | **Gvkgeada** | **1.90** | **345** | *e*Pn | **Pn** | **07 31 31.0** | **+0.2** |
| **LPK** | **Lapseki** | **2.02** | **4** | *e*PN | **Pn** | **07 31 32.3** | **-0.1** |
| **LPK** | **Lapseki** | **2.02** | **4** | *e*Pn | **Pn** | **07 31 32.3** | **-0.1** |
| **GELI** | **Tayfur-Gelibol** | **2.04** | **358** | *e*PN | **Pn** | **07 31 32.5** | **-0.2** |
| **GELI** | **Tayfur-Gelibol** | **2.04** | **358** | *e*Pn | **Pn** | **07 31 32.5** | **-0.2** |
| **KRBG** | **Karabiga-Canak** | **2.11** | **16** | *e*PN | **Pn** | **07 31 33.9** | **+0.2** |
| **KRBG** | **Karabiga-Canak** | **2.11** | **16** | *e*Pn | **Pn** | **07 31 33.9** | **+0.2** |
| **SMTH** | **Samothraki Isl** | **2.25** | **340** | P | **Pn** | **07 31 35.7** | **0.0** |
| SMTH | | | | S | **Sn** | **07 32 02.5** | **-0.6** |
| SMTH | | | | AML | AML | 07 32 15.6 | |
| | comp=E,21μm,0.2s | | | | | | |
| SMTH | | | | AML | AML | 07 32 17.8 | |
| | comp=N,30μm,0.3s | | | | | | |
| **SMTH** | **Samothraki Isl** | **2.25** | **340** | P | **Pn** | **07 31 35.7** | **0.0** |
| SMTH | | | | S | **Sn** | **07 32 02.5** | **-0.6** |
| **ERIK** | **Erikli-Kesan** | **2.31** | **359** | *e*PN | **Pn** | **07 31 36.8** | **+0.4** |
| **ERIK** | **Erikli-Kesan** | **2.31** | **359** | *e*Pn | **Pn** | **07 31 36.8** | **+0.4** |
| **RKY** | **Sarkoy-Tekirda** | **2.37** | **12** | *e*PN | **Pn** | **07 31 37.6** | **+0.2** |
| **RKY** | **Sarkoy-Tekirda** | **2.37** | **12** | *e*Pn | **Pn** | **07 31 37.6** | **+0.2** |
| **ALN** | **Alexandroupoli** | **2.56** | **351** | *e*PN | **Pn** | **07 31 40.4** | **+0.5** |
| **ALN** | **Alexandroupoli** | **2.56** | **351** | *e*Pn | **Pn** | **07 31 40.4** | **+0.5** |

*IDC* ***20*** *07:33:48.7±0.6, 7°.38N×78°.64W, h0km, mb4.1/16, mb1 4.3/22, mb1mx4.3/29, mbtmp4.2/22, ML3.4/5, MS3.6/13, Ms1 3.6/13, ms1mx3.4/33, Error ellipse: s-maj=18.8km s-min=11.8km az=52.0*

*CASC* ***20*** *07:33:49.3±1.3, 7°.37N×78°.64W, h6km±9km, mb4.7(NEIC)*

*RSNC* ***20*** *07:33:50.8±0.8, 7°.21N×78°.76W, h26km±17km, ML4.1*

*ISCJB* ***20*** *07:33:52.3±0.2, 7°.33N±0°.03×78°.57W±0°.02, h33km, mb4.5/74, MS3.9/9, Error ellipse: s-maj=4.4km s-min=2.4km az=34.7*

*NEIC* ***20*** *07:33:52.7±1.8, 7°.34N×78°.55W, h21km±13km, mb4.7/67, Error ellipse: s-maj=7.2km s-min=4.5km az=53.0*

*BJI* ***20*** *07:33:52.9, 7°.40N×78°.50W, h20km, mB5.4/3, Ms5.1/3, Ms7 4.9/4*

**ISC 20 07:33:52.8±1.2, 7°.31N±0°.04×78°.68W±0°.04, h27km±8km, n149, σ1§80/166, mb4.6/74, MS3.6/9, 1C, Panama**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **UPD2** | **Meteti** | **1.40** | **28** | *e*P | **Pn** | **07 34 12.9** | **-3.6** |
| UPD2 | | | | *e*S | **Sn** | **07 34 32.0** | **-2.2** |
| **AZU** | **Azuero** | **1.65** | **287** | *i* P | **Pn** | **07 34 17.9** | **-2.2** |
| **SOLC** | **Bahia Solano** | **1.66** | **130** | *e*P | **Pn** | **07 34 16.7** | **-3.4** |
| SOLC | | | | *i* | | 07 34 52.4 | |
| | comp=Z,776nm,1.0s | | | | | | |
| **FLAM** | **Flamenco Islan** | **1.81** | **332** | *e*P | **Pn** | **07 34 20.6** | **-1.6** |
| FLAM | | | | *e*S | **Sn** | **07 34 43.6** | **-0.7** |
| **UPA** | **Univ. de Panam** | **1.87** | **333** | *e*P | **Pn** | **07 34 21.0** | **-2.0** |
| UPA | | | | *e*S | **Sn** | **07 34 44.4** | **-1.3** |
| **PNME** | **Penonome** | **2.01** | **306** | *e*P | **Pn** | **07 34 23.5** | **-1.5** |
| PNME | | | | *e*S | **Sn** | **07 34 50.5** | **+1.2** |
| **BCIP** | **Isla Barro Col** | **2.18** | **328** | *e*P | **Pn** | **07 34 24.9** | **-2.3** |
| BCIP | | | | *e*S | **Sn** | **07 34 52.2** | **-1.1** |
| BCIP | | | | *i* | | 07 35 00.4 | |
| | comp=Z,4μm,0.7s | | | | | | |
| **BCIP** | **Isla Barro Col** | **2.18** | **328** | *e*Pn | **Pn** | **07 34 25.0** | **-2.3** |
| BCIP | | | | *e*Sn | **Sb** | **07 34 58.6** | **+0.5** |
| **BCIP** | **Isla Barro Col** | **2.18** | **328** | *e*P | **Pn** | **07 34 25.1** | **-2.2** |
| BCIP | | | | *e*S | **Sn** | **07 34 53.6** | **+0.3** |
| **HELC** | **Santa Helena** | **3.32** | **109** | *i* P | **Pn** | **07 34 42.0** | **-1.3** |
| HELC | | | | *e*S | **Sn** | **07 35 20.4** | **-1.7** |
| HELC | | | | *i* | | 07 35 34.3 | |
| | comp=Z,468nm,0.6s | | | | | | |
| **HELC** | **Santa Helena** | **3.32** | **109** | *e*Pn | **Pn** | **07 34 42.0** | **-1.3** |
| **MOTC** | **Monteria, Cord** | **3.32** | **64** | *e*P | **Pn** | **07 34 41.7** | **-1.3** |
| MOTC | | | | *e*S | **Sn** | **07 35 21.8** | **+0.1** |
| MOTC | | | | *i* | | 07 35 27.3 | |
| | comp=Z,1μm,0.7s | | | | | | |
| **PLMC** | **San Jos++ del** | **3.37** | **135** | *e*P | **Pn** | **07 34 40.2** | **-3.6** |
| PLMC | | | | *i* | | 07 36 01.2 | |
| | comp=Z,380nm,0.5s | | | | | | |
| **MALC** | **Bahia Malaga** | **3.53** | **158** | *e*P | **Pn** | **07 34 43.0** | **-2.9** |
| **YOTC** | **Yotoco, Valle** | **4.04** | **145** | *e*P | **Pn** | **07 34 49.9** | **-3.1** |
| YOTC | | | | *i* | | 07 36 20.0 | |
| | comp=Z,200nm,0.8s | | | | | | |
| **NORC** | **Norcasia** | **4.16** | **114** | *e*P | **Pn** | **07 34 52.8** | **-1.9** |
| **BRU2** | **Volcan** | **4.24** | **291** | *e*P | **Pb** | **07 35 03.9** | **-2.9** |
| **PTBC** | **PUERTO BERRIO,** | **4.26** | **100** | *e*P | **Pn** | **07 34 54.5** | **-1.5** |
| PTBC | | | | *e*S | **Sn** | **07 35 43.3** | **-1.6** |
| **TOLC** | **Tolima** | **4.30** | **129** | *e*P | **Pn** | **07 34 54.9** | **-1.8** |
| **SJCC** | **San Jacinto, C** | **4.31** | **53** | *e*P | **Pn** | **07 34 55.6** | **-1.1** |
| **ROSC** | **El Rosal** | **4.98** | **119** | Pn | **Pn** | **07 35 07.2** | **+1.0** |
| | comp=Z,6.7nm,0.3s,baz=305,slow=12,SNR=24 | | | | | | |
| ROSC | | | | Sn | **Sn** | **07 36 04.5** | **+1.4** |
| | comp=Z,3.7nm,0.3s,baz=0.0,slow=20,SNR=2.9 | | | | | | |
| ROSC | | | | Lg | Lg | 07 36 21.1 | |
| | comp=Z,8.4nm,0.3s,baz=340,slow=18,SNR=6.5 | | | | | | |
| ROSC | | | | LR | LR | 07 36 48.2 | |
| | comp=Z,296nm,19.8s,baz=13,slow=36 | | | | | | |
| **ROSC** | **El Rosal** | **4.98** | **119** | *e*P | **Pn** | **07 35 04.2** | **-2.0** |
| ROSC | | | | *i* | | 07 36 28.1 | |
| | comp=Z,121nm,0.7s | | | | | | |
| **PRAC** | **Prado** | **5.19** | **133** | *e*Pn | **Pn** | **07 35 09.6** | **+0.8** |
| **GIRC** | **Giron, Santand** | **5.45** | **92** | *e*P | **Pn** | **07 35 11.3** | **-1.1** |
| **RUSC** | **La Rusia** | **5.73** | **104** | *e*P | **Pn** | **07 35 14.7** | **-1.9** |
| **RUSC** | **La Rusia** | **5.73** | **104** | *e*Pn | **Pn** | **07 35 16.5** | **-0.1** |
| **HDC** | **Heredia** | **6.00** | **297** | *e*Pn | **Pn** | **07 35 21.6** | **+1.5** |
| **OTAV** | **Otavalo** | **7.03** | **178** | *e*Pn | **Pn** | **07 35 35.3** | **+0.9** |
| **SDV** | **Santo Domingo** | **8.12** | **78** | Pn | **Pn** | **07 35 48.2** | **-0.9** |
| | comp=Z,6.3nm,0.3s,baz=270,slow=9.1,SNR=53 | | | | | | |
| SDV | | | | Sn | **Sn** | **07 37 20.3** | **+0.1** |
| | comp=Z,25nm,0.3s,baz=356,slow=16,SNR=6.4 | | | | | | |
| SDV | | | | LR | LR | 07 40 06.7 | |
| | comp=Z,315nm,18.7s,baz=246,slow=47 | | | | | | |
| **MTDJ** | **Mount Denham** | **10.91** | **6** | *e*Pn | **Pn** | **07 36 26.4** | **-0.9** |
| **LGNH** | **LØogne** | **12.61** | **27** | *e*Pn | **Pn** | **07 36 49.9** | **-0.6** |
| **GTBY** | **Guantanamo Bay** | **13.02** | **15** | *e*Pn | **Pn** | **07 36 57.5** | **+1.5** |
| **SDDR** | **Presa de Saban** | **13.65** | **31** | *e*Pn | **Pn** | **07 37 05.4** | **+0.6** |
| **PCRV** | **Puerto La Cruz** | **14.17** | **77** | Pn | **Pn** | **07 37 09.0** | **-2.9** |
| | comp=Z,1.3nm,0.3s,baz=208,slow=2.5,SNR=4.8 | | | | | | |
| PCRV | | | | Sn | **Sn** | **07 39 49.4** | **+1.1** |
| | comp=Z,0.5nm,0.3s,baz=267,slow=19,SNR=3.3 | | | | | | |
| PCRV | | | | LR | LR | 07 44 46.4 | |
| | comp=Z,892nm,18.1s,baz=268,slow=46 | | | | | | |
| **ATAH** | **Atahualpa** | **14.35** | **179** | Pn | **Pn** | **07 37 15.1** | **+0.4** |
| | comp=Z,0.5nm,0.3s,baz=291,slow=17,SNR=2.1 | | | | | | |
| ATAH | | | | LR | LR | 07 43 13.9 | |
| | comp=Z,80nm,21.7s,baz=1.6,slow=39 | | | | | | |
| **CELP** | **Cerrillos** | **15.92** | **47** | *e*Pn | **Pn** | **07 37 33.1** | **-2.0** |
| **SJG** | **San Juan** | **16.26** | **47** | Pn | **Pn** | **07 37 36.5** | **-2.9** |
| | comp=Z,3.2nm,0.3s,baz=243,slow=16,SNR=5.4 | | | | | | |
| SJG | | | | LR | LR | 07 44 13.1 | |
| | comp=Z,198nm,20.7s,baz=244,slow=39 | | | | | | |
| **SJG** | **San Juan** | **16.26** | **47** | *e*Pn | **Pn** | **07 37 35.9** | **-3.6** |
| | comp=Z,126nm,2.0s | | | | | | |
| **CBYP** | **Canovanas** | **16.57** | **48** | *e*Pn | **Pn** | **07 37 39.9** | **-3.6** |
| | comp=Z,41nm,1.0s | | | | | | |
| **STVI** | **Saint Thomas** | **17.29** | **49** | *e*Pn | **Pn** | **07 37 51.5** | **-0.9** |
| | comp=Z,39nm,0.9s | | | | | | |
| **GRGR** | **Grenville** | **17.45** | **73** | *e*P | **P** | **07 37 56.8** | **+1.3** |
| | comp=Z,379nm,1.6s | | | | | | |
| **TBVI** | **Tortola** | **17.59** | **50** | *e*Pn | **Pn** | **07 37 55.2** | **-0.9** |
| **SVB** | **Belmont** | **18.14** | **70** | *e*Pn | **Pn** | **07 38 01.9** | **-1.1** |
| | comp=Z,289nm,1.6s | | | | | | |
| **CMIG** | **Matias Romero** | **18.57** | **303** | P | **P** | **07 38 07.4** | **-0.4** |
| | comp=Z,0.1nm,0.3s,baz=101,slow=5.2,SNR=3.0 | | | | | | |
| CMIG | | | | LR | LR | 07 46 28.2 | |
| | comp=Z,175nm,20.1s,baz=126,slow=41 | | | | | | |
| **PTGA** | **Pitinga** | **20.30** | **112** | P | **P** | **07 38 26.8** | **0.0** |
| | comp=Z,35nm,0.8s,baz=298,slow=13,SNR=49 | | | | | | |
| PTGA | | | | LR | LR | 07 46 38.7 | |
| | comp=Z,324nm,21.6s,baz=308,slow=38 | | | | | | |
| **PTGA** | **Pitinga** | **20.30** | **112** | *e*P | **P** | **07 38 27.1** | **+0.3** |
| | comp=Z,40nm,0.9s | | | | | | |
| **SAML** | **Samuel** | **22.34** | **136** | *e*P | **P** | **07 38 48.5** | **-0.3** |
| | comp=Z,18nm,0.8s | | | | | | |
| **LPAZ** | **La Paz** | **25.66** | **156** | P | **P** | **07 39 21.8** | **+0.6** |
| | comp=Z,1.7nm,0.7s,baz=0.9,slow=9.6,SNR=6.0 | | | | | | |
| **LPAZ** | **La Paz** | **25.66** | **156** | *e*P | **P** | **07 39 21.9** | **+0.6** |
| | comp=Z,14nm,1.6s | | | | | | |
| **GOGA** | **Godfrey** | **26.35** | **351** | *e*P | **P** | **07 39 27.6** | **+0.9** |
| | comp=Z,28nm,1.4s | | | | | | |
| **LRAL** | **Lakeview Retre** | **26.74** | **344** | *e*P | **P** | **07 39 31.6** | **+1.4** |
| | comp=Z,45nm,1.7s | | | | | | |
| **HODGE** | **Hodges** | **27.00** | **353** | *e*P | **P** | **07 39 34.0** | **+1.5** |
| | comp=Z,22nm,1.4s | | | | | | |
| **MNMC** | **Minye Minye** | **27.75** | **161** | *e*P | **P** | **07 39 41.3** | **+1.6** |
| | comp=Z,23nm,0.9s | | | | | | |
| **BG3** | **Lake Jocassee** | **27.83** | **353** | *e*P | **P** | **07 39 40.9** | **+0.9** |
| | comp=Z,9.5nm,1.0s | | | | | | |
| **PB11** | **IPOC Station P** | **28.32** | **162** | *e*P | **P** | **07 39 46.7** | **+2.0** |
| | comp=Z,15nm,0.8s | | | | | | |
| **SWET** | **Sewanee** | **28.57** | **348** | *e*P | **P** | **07 39 47.6** | **+1.1** |
| | comp=Z,56nm,2.0s | | | | | | |
| **TKL** | **Tuckaleechee C** | **28.60** | **351** | P | **P** | **07 39 46.5** | **-0.3** |
| | comp=Z,2.7nm,1.0s,baz=156,slow=18,SNR=2.4 | | | | | | |
| TKL | | | | LR | LR | 07 51 41.8 | |
| | comp=Z,95nm,20.7s,baz=125,slow=38 | | | | | | |
| **SIV** | **San Ignacio** | **28.98** | **143** | P | **P** | **07 39 50.5** | **+0.1** |
| | comp=Z,24nm,0.9s,baz=330,slow=10,SNR=58 | | | | | | |
| SIV | | | | LR | LR | 07 52 59.3 | |
| | comp=Z,145nm,20.6s,baz=360,slow=40 | | | | | | |
| **WVT** | **Waverly** | **29.89** | **345** | *e*P | **P** | **07 40 00.3** | **+2.1** |
| | comp=Z,5.2nm,0.9s | | | | | | |
| **PARMO** | **Parma** | **30.92** | **343** | *e*P | **P** | **07 40 08.1** | **+0.7** |
| | comp=Z,23nm,0.6s | | | | | | |
| **WCI** | **Wyandotte Cave** | **31.55** | **348** | *e*P | **P** | **07 40 13.6** | **+0.7** |
| | comp=Z,13nm,0.8s | | | | | | |
| **USIN** | **University of** | **31.59** | **346** | *e*P | **P** | **07 40 15.2** | **+1.9** |
| | comp=Z,37nm,0.8s | | | | | | |
| **TXAR** | **Lajitas Array** | **32.15** | **316** | P | **P** | **07 40 17.8** | **-0.7** |
| | comp=Z,0.9nm,0.7s,baz=134,slow=8.6,SNR=11 | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **32.15** | **316** | *e*P | **P** | **07 40 18.6** | **+0.2** |
| **FVM** | **French Village** | **32.34** | **343** | *e*P | **P** | **07 40 21.1** | **+1.3** |
| | comp=Z,8.8nm,0.7s | | | | | | |
| **W35A** | **Tecumseh** | **32.37** | **331** | *e*P | **P** | **07 40 21.1** | **+0.9** |
| | comp=Z,7.1nm,0.8s | | | | | | |
| **OLIL** | **Olney** | **32.42** | **346** | *e*P | **P** | **07 40 21.8** | **+1.3** |
| | comp=Z,42nm,1.5s | | | | | | |
| **BLO** | **Bloomington** | **32.50** | **349** | *e*P | **P** | **07 40 21.9** | **+0.7** |
| | comp=Z,20nm,0.8s | | | | | | |
| **CCM** | **Cathedral Cave** | **32.66** | **341** | *e*P | **P** | **07 40 23.0** | **+0.3** |
| | comp=Z,10.0nm,0.8s | | | | | | |
| **WMOK** | **Wichita Mounta** | **32.98** | **329** | *e*P | **P** | **07 40 24.8** | **-0.7** |
| | comp=Z,3.7nm,0.8s | | | | | | |
| **MSTX** | **Muleshoe** | **34.63** | **323** | *e*P | **P** | **07 40 41.4** | **+1.4** |
| | comp=Z,8.2nm,0.8s | | | | | | |
| **MNTX** | **Cornudas Mount** | **34.77** | **318** | *e*P | **P** | **07 40 40.5** | **-0.6** |
| | comp=Z,10nm,1.0s | | | | | | |
| **319A** | **Douglas** | **37.27** | **314** | *e*P | **P** | **07 41 04.0** | **+1.3** |
| | comp=Z,15nm,0.8s | | | | | | |
| **ANMO** | **Albuquerque** | **37.53** | **321** | *e*P | **P** | **07 41 05.7** | **+0.8** |
| | comp=Z,8.6nm,0.9s | | | | | | |
| **LAZ** | **Ladron** | **37.61** | **320** | *e*P | **P** | **07 41 06.1** | **+0.4** |
| **T25A** | **Trinidad** | **37.81** | **326** | *e*P | **P** | **07 41 08.8** | **+1.5** |
| | comp=Z,7.8nm,0.9s | | | | | | |
| **SDCO** | **Great Sand Dun** | **38.85** | **325** | *e*P | **P** | **07 41 18.1** | **+2.0** |
| | comp=Z,3.8nm,0.8s | | | | | | |
| **TUC** | **Tucson** | **38.85** | **314** | *e*P | **P** | **07 41 17.7** | **+1.7** |
| | comp=Z,4.3nm,0.8s | | | | | | |
| **CPUP** | **Villa Florida** | **39.34** | **149** | P | **P** | **07 41 18.8** | **-1.2** |
| | comp=Z,1.5nm,0.8s,baz=343,slow=10,SNR=5.0 | | | | | | |
| **S22A** | **4UR Ranch, Cre** | **39.61** | **324** | *e*P | **P** | **07 41 24.8** | **+2.3** |
| | comp=Z,22nm,1.8s | | | | | | |
| **SPMN** | **Marine on St.** | **39.72** | **344** | *e*P | **P** | **07 41 26.0** | **+3.2** |
| | comp=Z,17nm,1.4s | | | | | | |
| **ISCO** | **Idaho Springs** | **40.37** | **327** | *e*P | **P** | **07 41 31.1** | **+2.3** |
| | comp=Z,19nm,1.8s | | | | | | |
| **X16A** | **Lo Mia Camp, P** | **40.47** | **316** | *e*P | **P** | **07 41 30.6** | **+1.0** |
| | comp=Z,3.3nm,0.8s | | | | | | |
| **SMCO** | **Snowmass** | **40.68** | **326** | *e*P | **P** | **07 41 33.6** | **+2.2** |
| | comp=Z,18nm,1.9s | | | | | | |
| **WUAZ** | **Wupatki** | **41.05** | **318** | *e*P | **P** | **07 41 35.5** | **+1.1** |
| | comp=Z,8.0nm,0.9s | | | | | | |
| **Y14A** | **Wickenburg** | **41.30** | **315** | *e*P | **P** | **07 41 38.1** | **+1.9** |
| | comp=Z,10nm,0.8s | | | | | | |
| **W13A** | **Hualapai Mount** | **42.53** | **316** | *e*P | **P** | **07 41 47.6** | **+1.1** |
| | comp=Z,4.1nm,0.8s | | | | | | |
| **SRU** | **San Rafael Swe** | **42.70** | **323** | *e*P | **P** | **07 41 49.0** | **+1.3** |
| | comp=Z,6.3nm,1.0s | | | | | | |
| **XPFO** | **Piæon Flat** | **43.62** | **312** | *e*P | **P** | **07 41 56.2** | **+1.0** |
| | comp=Z,15nm,1.6s | | | | | | |
| **PFO** | **Pinyon Flats O** | **43.62** | **312** | *e*P | **P** | **07 41 56.4** | **+1.2** |
| | comp=Z,14nm,1.6s | | | | | | |
| **SHPR** | **Sheep Range** | **44.16** | **317** | *e*P | **P** | **07 42 01.7** | **+2.2** |
| | comp=Z,9.7nm,1.5s | | | | | | |
| **TCUT** | **Toone Canyon** | **44.50** | **324** | *e*P | **P** | **07 42 05.1** | **+2.8** |
| | comp=Z,10.0nm,0.7s | | | | | | |
| **BW06** | **Boulder Array** | **44.57** | **327** | *e*P | **P** | **07 42 04.0** | **+1.2** |
| | comp=Z,13nm,1.7s | | | | | | |
| **PD31** | **Pinedale Array** | **44.57** | **327** | *e*P | **P** | **07 42 05.0** | **+2.2** |
| **PDAR** | **Pinedale Array** | **44.57** | **327** | P | **P** | **07 42 03.3** | **+0.5** |
| | comp=Z,0.7nm,0.7s,baz=123,slow=12,SNR=6.0 | | | | | | |
| **PDAR** | **Pinedale Array** | **44.57** | **327** | *e*P | **P** | **07 42 04.7** | **+1.9** |
| **RCBR** | **Riachuelo** | **44.63** | **106** | *e*P | **P** | **07 42 03.2** | **-0.3** |
| | comp=Z,12nm,0.8s | | | | | | |
| **DUG** | **Dugway, Tooele** | **44.75** | **322** | *e*P | **P** | **07 42 07.3** | **+3.1** |
| | comp=Z,5.4nm,1.1s | | | | | | |
| **TPNV** | **Topopah Spring** | **45.13** | **316** | *e*P | **P** | **07 42 08.4** | **+1.1** |
| **ULM** | **Lac du Bonnet** | **45.15** | **344** | P | **P** | **07 42 06.4** | **-0.6** |
| | comp=Z,1.9nm,0.7s,baz=158,slow=8.2,SNR=4.4 | | | | | | |
| **BGU** | **Big Grassy Mou** | **45.33** | **323** | *e*P | **P** | **07 42 09.9** | **+1.1** |
| | comp=Z,4.4nm,1.2s | | | | | | |
| **REDW** | **Red Top Meadow** | **45.67** | **327** | *e*P | **P** | **07 42 14.4** | **+2.8** |
| | comp=Z,8.8nm,1.0s | | | | | | |
| **SNOW** | **Snow King Moun** | **45.68** | **327** | *e*P | **P** | **07 42 15.2** | **+3.5** |
| | comp=Z,36nm,1.8s | | | | | | |
| **TPAW** | **Teton

**DJA 20 07:47:00.2±0.5, 8°S±3°×11°8E±°, h134km±8km, M4.0/12, mb4.2/2, MLv3.9/12, Sumbawa region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PLAI** | **Plampang** | **0.78** | **232** | P | Pn | 07 47 20.7 | -0.9 |
| PLAI | | | | Pg | Pn | 07 47 20.7 | -0.9 |
| PLAI | | | | S | Sn | 07 47 35.2 | -2.7 |
| PLAI | | | | Sg | Sn | 07 47 35.2 | -2.7 |
| **WSI** | **Waingapu** | **2.29** | **125** | P | Pn | 07 47 37.2 | -0.8 |
| **BASI** | **Baing, Sumba** | **2.85** | **131** | P | Pn | 07 47 43.5 | -1.5 |
| BASI | | | | S | Sn | 07 48 17.2 | -2.4 |
| **SRBI** | **Singaraja** | **3.17** | **274** | P | Pn | 07 47 49.7 | +0.6 |
| **EDFI** | **Ende, Flores** | **3.28** | **97** | P | Pn | 07 47 51.9 | +1.2 |
| EDFI | | | | S | Sn | 07 48 31.4 | +1.7 |
| **JAGI** | **Jajag, Banyuwa** | **4.21** | **268** | P | Pn | 07 48 01.8 | -1.0 |
| JAGI | | | | S | Sn | 07 48 49.9 | -1.5 |
| **GMJI** | **Gumukmas** | **4.91** | **270** | P | Pn | 07 48 12.6 | +0.5 |
| **SOEI** | **Soe** | **5.96** | **104** | P | Pn | 07 48 26.0 | -0.4 |
| | 31nm,0.7s,0.1nm | | | | | | |
| **PCJI** | **Pacitan** | **7.15** | **271** | P | Pn | 07 48 41.5 | -0.8 |

**IDC 20 07:49:51.3±1.8, 53°80N×85°68E, h0km, mb1 2.7/2, mb1mx2.6/43, mbtmp2.7/2, ML2.4/2, Error ellipse: s-maj=13.0km s-min=7.0km az=94.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **I46RU** | **ZALESOVO INFRA** | **0.53** | **286** | *i* | | 07 52 20.0 | |
| | baz=108,slow=356,SNR=4.4 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **0.53** | **286** | Pg | Pg | 07 50 00.1 | -1.4 |
| | 0.8nm,0.3s,baz=103,slow=18,SNR=5.9 | | | | | | |
| ZALV | | | | Lg | Lg | 07 50 09.7 | |
| | 1.5nm,0.3s,baz=104,slow=31,SNR=59 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **5.43** | **237** | Pn | Pn | 07 51 14.9 | +1.4 |
| | 0.1nm,0.3s,baz=60,slow=11,SNR=5.1 | | | | | | |
| KURBB | | | | Lg | Lg | 07 52 41.7 | |
| | 0.1nm,0.3s,baz=144,slow=46,SNR=2.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **7.34** | **199** | Pn | Pn | 07 51 41.0 | +1.2 |
| | 0.1nm,0.3s,baz=20,slow=12,SNR=4.8 | | | | | | |
| MKAR | | | | Lg | Lg | 07 53 42.4 | |
| | 0.0nm,0.3s,baz=30,slow=32,SNR=3.3 | | | | | | |

**IDC 20 07:54:30.3±4.2, 31°48S×177°10E, h0km, mb3.6/2, mb1 3.8/2, mb1mx3.5/27, mbtmp3.6/2, Error ellipse: s-maj=225.1km s-min=69.7km az=173.0, North of New Zealand**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ASAR** | **Alice Springs** | **38.88** | **271** | P | P | 08 01 57.2 | -0.4 |
| | 0.5nm,0.8s,baz=111,slow=7.8,SNR=4.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **39.98** | **276** | P | P | 08 02 06.9 | +0.1 |
| | 0.7nm,0.6s,baz=115,slow=7.8,SNR=17 | | | | | | |
| **MKAR** | **Makanchi Array** | **115.27** | **311** | PKP | PKPdf | 08 13 13.4 | -0.1 |
| | 0.1nm,0.5s,baz=116,slow=3.4,SNR=2.5 | | | | | | |

**IDC 20 07:59:20.3±2.4, 53°73N×86°93E, h0km, mb1 3.1/2, mb1mx2.9/42, mbtmp3.1/2, ML2.7/2, Error ellipse: s-maj=22.4km s-min=12.8km az=74.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **I46RU** | **ZALESOVO INFRA** | **1.27** | **281** | *i* | | 08 06 32.3 | |
| | baz=100,slow=356,SNR=1.2 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **1.27** | **281** | Pg | Pg | 07 59 43.1 | -1.5 |
| | 1.9nm,0.3s,baz=101,slow=17,SNR=17 | | | | | | |
| ZALV | | | | Lg | Lg | 08 00 01.7 | |
| | 1.4nm,0.3s,baz=102,slow=28,SNR=7.8 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **6.03** | **242** | Pn | Pn | 08 00 51.2 | +0.6 |
| | 0.1nm,0.3s,baz=58,slow=14,SNR=7.1 | | | | | | |
| KURBB | | | | Pg | Pb | 08 01 04.2 | -1.9 |
| | 0.1nm,0.3s,baz=60,slow=14,SNR=3.8 | | | | | | |
| KURBB | | | | Lg | Lg | 08 02 33.2 | |
| | 0.1nm,0.3s,baz=196,slow=29,SNR=3.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **7.55** | **205** | Pn | Pn | 08 01 13.1 | +1.5 |
| | 0.2nm,0.3s,baz=26,slow=14,SNR=12 | | | | | | |
| MKAR | | | | Sn | Sn | 08 02 37.4 | -0.4 |
| | 0.1nm,0.3s,baz=28,slow=24,SNR=4.0 | | | | | | |
| MKAR | | | | Lg | Lg | 08 03 20.5 | |
| | 0.0nm,0.3s,baz=26,slow=27,SNR=3.7 | | | | | | |

*NIED **20** 08:07:00, 36°70N×141°50E, h32km, Mw3.8 Best double couple: M₀6.09000×10¹⁴ NP1:φs310.00000°, δ32.00000°, λ4.00000°. NP2:φs216.00000°, δ88.00000°, λ122.00000°.*
*JMA **20** 08:07:14.5±0.1, 36°67N×141°50E, h38km±3km, M3.9*
*JMA Felt I J1.*
*IDC **20** 08:07:16.8±1.7, 36°61N×141°49E, h47km±16km, mb3.5/12, mb1 3.7/17, mb1mx3.6/45, mbtmp3.8/17, ML3.6/5, MS2.6/3, Ms1 2.6/3, ms1mx2.4/34, Error ellipse: s-maj=15.8km s-min=10.9km az=93.0*

**ISC 20 08:07:12.5±1.9, 36°63N±0°05×141°52E±0°06, h12km±11km, n36, σ1s17/38, mb3.9/12, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ONAJ** | **Iwakimizuishiy** | **0.74** | **309** | P | **Pn** | **08 07 28.1** | **-0.8** |
| ONAJ | | | | S | **Sb** | **08 07 38.2** | **+0.6** |
| **JHO** | **Hitachi** | **0.77** | **269** | P | **Pn** | **08 07 28.4** | **-0.7** |
| JHO | | | | *e*S | **Sb** | **08 07 38.2** | **+0.1** |
| **JFK** | **Kawauchi** | **0.90** | **325** | P | **Pb** | **08 07 29.9** | **-0.1** |
| JFK | | | | S | **Sg** | **08 07 40.9** | **-0.7** |
| **JYT** | **Yasato** | **1.14** | **250** | P | **Pg** | **08 07 34.1** | **-0.3** |
| **JFT** | **Otama** | **1.30** | **313** | P | **Pb** | **08 07 37.0** | **+0.2** |
| JFT | | | | S | **Sn** | **08 07 53.5** | **-0.2** |
| **JMM** | **Marumori** | **1.36** | **335** | P | **Pn** | **08 07 36.5** | **-0.8** |
| JMM | | | | *e*S | **Sn** | **08 07 52.8** | **-2.5** |
| **JFY** | **Yanaizu** | **1.65** | **299** | S | **Sb** | **08 08 03.4** | **-0.1** |
| **JAG** | **Ashikaga** | **1.68** | **264** | P | **Pn** | **08 07 42.0** | **+0.4** |
| **JKT** | **Katashina** | **1.83** | **275** | P | **Pb** | **08 07 44.9** | **-1.0** |
| **MJAR** | **Matsushiro Arr** | **2.67** | **269** | P | **Pn** | **08 07 56.6** | **+1.4** |
| | 18nm,0.3s,baz=108,slow=10,SNR=112 | | | | | | |
| MJAR | | | | S | **Sn** | **08 08 27.9** | **+0.4** |
| | 12nm,0.3s,baz=111,slow=20,SNR=6.5 | | | | | | |
| **MAT** | **Matsushiro** | **2.67** | **269** | P | **Pn** | **08 07 56.8** | **+1.5** |
| MAT | | | | S | **Sb** | **08 08 31.6** | **-1.2** |
| **JHJ** | **Hachijo jima 2** | **3.78** | **203** | P | **Pn** | **08 08 11.9** | **+1.3** |
| | 36nm,0.3s,baz=120,slow=22,SNR=10 | | | | | | |
| JHJ | | | | S | **Sn** | **08 08 55.0** | **0.0** |
| | 32nm,0.3s,baz=99,slow=19,SNR=3.7 | | | | | | |
| **ASAJ** | **Asahikawa** | **7.52** | **6** | P | **Pn** | **08 09 03.9** | **+2.0** |
| | 2.1nm,0.3s,baz=215,slow=7.9,SNR=8.5 | | | | | | |
| ASAJ | | | | S | **Sn** | **08 10 27.4** | **+0.3** |
| | 1.1nm,0.3s,baz=90,slow=20,SNR=2.4 | | | | | | |
| **JNU** | **Nakatsue** | **9.42** | **251** | P | **Pn** | **08 09 30.4** | **+2.5** |
| | 0.2nm,0.3s,baz=72,slow=20,SNR=2.6 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **10.48** | **319** | P | Pn | 08 09 49.2 | +6.8 |
| | 0.3nm,0.3s,baz=134,slow=13,SNR=8.6 | | | | | | |
| USRK | | | | LR | LR | 08 13 40.1 | |
| | comp=Z,61nm,19.8s,baz=137,slow=37 | | | | | | |
| **KSRS** | **Korea Array** | **10.90** | **278** | P | **Pn** | **08 09 51.3** | **+3.1** |
| | 0.2nm,0.3s,baz=94,slow=14,SNR=2.7 | | | | | | |
| KSRS | | | | LR | LR | 08 13 49.6 | |
| | comp=Z,56nm,19.0s,baz=92,slow=36 | | | | | | |
| **KLR** | **Kul'dur** | **14.47** | **334** | P | **Pn** | **08 10 38.4** | **+1.4** |
| | 0.0nm,0.3s,baz=144,slow=14,SNR=2.4 | | | | | | |
| KLR | | | | LR | LR | 08 15 47.8 | |
| | comp=Z,4.8nm,19.0s,baz=171,slow=35 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy 27.87** | **120** | | T | T | 08 42 16.8 | |
| | baz=313,slow=75,SNR=86 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy 27.88** | **120** | | T | T | 08 42 16.6 | |
| | baz=313,slow=75,SNR=94 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy 27.89** | **120** | | T | T | 08 42 17.3 | |
| | baz=313,slow=75,SNR=69 | | | | | | |
| **SONM** | **Songino Array** | **28.08** | **305** | P | **P** | **08 13 03.9** | **0.0** |
| | 1.6nm,0.6s,baz=106,slow=9.3,SNR=10 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy 28.57** | **122** | | T | T | 08 43 11.6 | |
| | baz=315,slow=76,SNR=53 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy 28.57** | **122** | | T | T | 08 43 12.7 | |
| | baz=315,slow=76,SNR=55 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy 28.59** | **122** | | T | T | 08 43 12.8 | |
| | baz=315,slow=76,SNR=31 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.25** | **313** | P | **P** | **08 15 05.1** | **-0.2** |
| | 2.5nm,0.6s,baz=94,slow=7.3,SNR=8.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.41** | **302** | P | **P** | **08 15 22.3** | **-0.6** |
| | 1.6nm,0.8s,baz=89,slow=10.0,SNR=13 | | | | | | |
| **ILAR** | **Eielson Array** | **49.79** | **32** | P | **P** | **08 16 04.7** | **+0.1** |
| | 0.4nm,0.9s,baz=272,slow=6.0,SNR=4.3 | | | | | | |
| **INK** | **Inuvik** | **54.71** | **27** | P | **P** | **08 16 42.5** | **+1.5** |
| | 0.4nm,0.6s,baz=334,slow=3.6,SNR=4.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **56.67** | **188** | P | **P** | **08 16 54.9** | **-0.8** |
| | 0.4nm,0.4s,baz=6.7,slow=7.4,SNR=12 | | | | | | |
| **ASAR** | **Alice Springs** | **60.40** | **188** | P | **P** | **08 17 20.9** | **-0.8** |
| | 0.4nm,0.7s,baz=28,slow=6.8,SNR=5.3 | | | | | | |
| **YKA** | **Yellowknife Ar** | **64.11** | **30** | P | **P** | **08 17 45.5** | **-0.6** |
| | 0.1nm,0.7s,baz=305,slow=6.3,SNR=2.7 | | | | | | |
| **FINES** | **FINESS Array B** | **69.21** | **332** | P | **P** | **08 18 18.1** | **-0.6** |
| | 2.4nm,0.9s,baz=67,slow=11,SNR=2.4 | | | | | | |
| **NB2** | **NORSAR Subarra** | **74.59** | **337** | P | **P** | **08 18 51.5** | **+0.5** |
| | comp=Z,1.8nm,0.9s,baz=42,slow=5.9 | | | | | | |
| **NOA** | **NORSAR Array B** | **74.59** | **337** | P | **P** | **08 18 50.3** | **-0.8** |
| | comp=Z,1.3nm,0.8s,baz=42,slow=5.4,SNR=3.9 | | | | | | |
| **AKASG** | **Malin Array Be** | **74.67** | **322** | P | **P** | **08 18 50.4** | **-1.2** |
| | comp=Z,0.6nm,0.4s,baz=46,slow=6.2,SNR=4.9 | | | | | | |
| **TXAR** | **Lajitas Array** | **90.30** | **52** | P | **P** | **08 20 14.0** | **+0.4** |
| | comp=Z,0.1nm,0.5s,baz=280,slow=5.4,SNR=2.8 | | | | | | |

*IDC **20** 08:15:30.9±9.9, 12°34N×92°34E, h129km±81km, mb3.3/5, mb1 3.5/6, mb1mx3.1/46, mbtmp3.7/6, MS2.9/3, Ms1 3.0/3, ms1mx2.5/25, Error ellipse: s-maj=91.7km s-min=17.8km az=60.0*

**ISC 20 08:15:20.5±1.2, 12°4N±0°1×92°5E±0°1, h26km, n19, σ0s63/17, mb3.8/5, Andaman Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PBA** | **Port Blair** | **0.80** | **161** | *e*P | Pn | 08 15 40.8 | +4.7 |
| PBA | | | | *e*S | Sn | 08 15 54.6 | +7.4 |
| PBA | | | | *e*S | Sb | 08 15 54.7 | +8.5 |
| PBA | | | | AML | AML | 08 15 58.0 | |
| | comp=N,18μm,0.6s | | | | | | |
| PBA | | | | AML | AML | 08 15 58.3 | |
| | comp=E,14μm,0.5s | | | | | | |
| **DGPR** | **DIGLIPUR** | **0.88** | **30** | *e*P | **Pn** | **08 15 37.1** | **0.0** |
| DGPR | | | | *e*S | **Sb** | **08 15 48.0** | **-0.4** |
| DGPR | | | | AML | AML | 08 15 49.0 | |
| | comp=N,14μm,0.4s | | | | | | |
| DGPR | | | | AML | AML | 08 15 49.5 | |
| | comp=E,16μm,0.4s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **8.66** | **45** | P | Pn | 08 17 35.3 | +11 |
| | comp=E,0.5nm,0.3s,baz=236,slow=15,SNR=5.6 | | | | | | |
| CMAR | | | | S | **Sn** | **08 19 01.1** | **+0.2** |
| | comp=E,0.8nm,0.3s,baz=209,slow=26,SNR=5.5 | | | | | | |
| CMAR | | | | LR | LR | 08 21 18.4 | |
| | comp=E,42nm,21.9s,baz=211,slow=40 | | | | | | |
| **ODAN** | **Odare** | **15.14** | **342** | *e*P | **Pn** | **08 18 51.9** | **-1.0** |
| | comp=E,14nm,0.3s | | | | | | |
| **RAMN** | **Ramite** | **15.47** | **340** | *e*P | **Pn** | **08 18 55.8** | **-1.5** |
| | comp=E,21nm,0.5s | | | | | | |
| **TAPN** | **Taplejung** | **15.51** | **344** | *e*P | **Pn** | **08 18 57.6** | **-0.2** |
| | comp=E,16nm,0.4s | | | | | | |
| **JIRN** | **Jiri** | **16.27** | **340** | *e*P | **Pn** | **08 19 07.1** | **-0.5** |
| **PKI** | **Pulchoki** | **16.46** | **337** | *e*P | **Pn** | **08 19 09.7** | **-0.4** |
| **DMN** | **Daman** | **16.61** | **337** | *e*P | **Pn** | **08 19 11.5** | **-0.4** |
| | comp=E,22nm,0.6s | | | | | | |
| **GKN** | **Gorkha** | **17.15** | **336** | *e*P | **Pn** | **08 19 18.6** | **0.0** |
| **KOLN** | **Koldanda** | **17.39** | **333** | *e*P | **P** | **08 19 22.4** | **-0.3** |
| | comp=E,19nm,0.5s | | | | | | |
| **PYUN** | **Piuthan** | **17.95** | **332** | *e*P | **P** | **08 19 29.4** | **+0.5** |
| **MKAR** | **Makanchi Array** | **35.33** | **348** | P | **P** | **08 22 14.0** | **+0.5** |
| | comp=E,1.0nm,0.7s,baz=165,slow=8.3,SNR=9.6 | | | | | | |
| **SONM** | **Songino Array** | **37.18** | **16** | P | **P** | **08 22 30.3** | **+0.8** |
| | comp=E,0.2nm,0.3s,baz=191,slow=9.0,SNR=2.5 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **39.77** | **346** | P | **P** | **08 22 51.3** | **+0.3** |
| | comp=E,0.9nm,0.5s,baz=165,slow=7.8,SNR=4.7 | | | | | | |
| **KSRS** | **Korea Array** | **40.30** | **46** | LR | LR | 08 41 28.1 | |
| | comp=E,14nm,19.0s,baz=180,slow=38 | | | | | | |
| **ARU** | **Arti** | **51.09** | **337** | LR | LR | 08 47 48.5 | |
| | comp=E,28nm,20.4s,baz=228,slow=38 | | | | | | |
| **WRA** | **Warramunga Arr** | **52.27** | **127** | P | **P** | **08 24 29.6** | **-0.4** |
| | comp=E,1.1nm,0.8s,baz=305,slow=8.5,SNR=9.2 | | | | | | |
| **ASAR** | **Alice Springs** | **54.11** | **132** | P | **P** | **08 24 43.2** | **-0.3** |
| | comp=E,0.5nm,0.6s,baz=311,slow=6.5,SNR=7.3 | | | | | | |

**IDC 20 08:22:18.0±3.3, 55°46N×86°20E, h0km, mb1 2.8/2, mb1mx2.8/40, mbtmp2.8/2, ML2.6/2, Error ellipse: s-maj=26.1km s-min=23.8km az=76.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **I46RU** | **ZALESOVO INFRA** | **1.71** | **208** | *i* | | 08 32 30.0 | |
| | baz=25,slow=344,SNR=30 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **1.71** | **208** | Pn | Pn | 08 22 47.3 | -1.7 |
| | 2.4nm,0.3s,baz=31,slow=15,SNR=22 | | | | | | |
| ZALV | | | | Lg | Lg | 08 23 13.1 | |
| | 3.3nm,0.3s,baz=23,slow=34,SNR=10 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **6.70** | **227** | Pn | Pn | 08 23 58.3 | +0.9 |
| | 0.1nm,0.3s,baz=46,slow=14,SNR=2.6 | | | | | | |
| KURBB | | | | Lg | Lg | 08 25 51.7 | |
| | 0.0nm,0.3s,baz=42,slow=31,SNR=3.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **9.02** | **197** | Pn | Pn | 08 24 29.7 | +0.3 |
| | 0.1nm,0.3s,baz=22,slow=14,SNR=4.0 | | | | | | |
| MKAR | | | | Sn | Sn | 08 26 08.4 | -3.1 |
| | 0.1nm,0.3s,baz=187,slow=28,SNR=5.0 | | | | | | |
| MKAR | | | | Lg | Lg | 08 27 04.3 | |
| | 0.0nm,0.3s,baz=29,slow=30,SNR=2.9 | | | | | | |

*ISCJB **20** 08:32:22.3±0.3, 33°97N±0°02×117°58W±0°02, h6km±3km, Error ellipse: s-maj=2.7km s-min=2.0km az=31.4*
*NEIC **20** 08:32:23.1±0.0, 34°02N×117°58W, h2km, ML3.6(PAS), After PAS.*
*NEIC Felt [IV] at Chino and Ontario, [III] from Upland to Lake Elsinore and from Orange to Loma Linda and [II] from La Verne to Trabuco Canyon and from Santa Ana to San Bernardino. Felt from Valencia to Yucca Valley and from Ladera Ranch to Murrieta.*

**ISC 20 08:32:22.7±0.7, 34°01N±0°02×117°58W±0°02, h15km±5km, n97, σ1s74/140, Southern California**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SSK** | **Sunset Peak** | **0.22** | **335** | *e*Pg | **Pg** | **08 32 27.9** | **+0.2** |
| **BFSC** | **Mount Baldy Ra** | **0.23** | **344** | P | **Pg** | **08 32 27.9** | **0.0** |
| | baz=166,SNR=1000 | | | | | | |
| BFSC | | | | S | **Sg** | **08 32 31.3** | **-0.2** |
| | baz=166 | | | | | | |
| **MWC** | **Mount Wilson** | **0.45** | **298** | *e*Pg | **Pg** | **08 32 31.8** | **+0.1** |
| MWC | | | | *e*Sg | **Sg** | **08 32 38.0** | **+0.2** |
| **MURC** | **Murrieta** | **0.52** | **142** | P | **Pg** | **08 32 33.1** | **+0.1** |
| | baz=322,SNR=308 | | | | | | |
| MURC | | | | S | **Sg** | **08 32 40.0** | **-0.1** |
| | baz=322 | | | | | | |
| **PASC** | **Pasadena Art C** | **0.52** | **288** | *e*Pg | **Pg** | **08 32 32.9** | **-0.1** |
| PASC | | | | *e*Sg | **Sg** | **08 32 39.9** | **-0.2** |
| **BBRC** | **Big Bear Solar** | **0.60** | **65** | P | **Pg** | **08 32 35.0** | **+0.5** |
| | baz=246,SNR=88 | | | | | | |
| BBRC | | | | S | **Sg** | **08 32 43.2** | **+0.5** |
| | baz=246 | | | | | | |
| **FMP** | **Fort Macarthur** | **0.66** | **243** | P | **Pg** | **08 32 35.7** | **+0.1** |
| | baz=63,SNR=13 | | | | | | |
| **DECC** | **Green Verdugo** | **0.67** | **291** | P | **Pg** | **08 32 35.7** | **0.0** |
| | baz=111,SNR=63 | | | | | | |
| DECC | | | | S | **Sg** | **08 32 44.9** | **+0.3** |
| | baz=111 | | | | | | |
| **OAT** | **Oat Mountain** | **0.92** | **291** | *e*Pn | **Pn** | **08 32 41.2** | **0.0** |
| **CIS** | **Catalina Islan** | **0.92** | **229** | P | **Pb** | **08 32 40.5** | **0.0** |
| | baz=48,SNR=131 | | | | | | |
| CIS | | | | S | **Sg** | **08 32 53.0** | **+0.3** |
| | baz=48 | | | | | | |
| **EDW2** | **Edwards Air Fo** | **0.93** | **339** | P | **Pb** | **08 32 40.7** | **+0.1** |
| | baz=159,SNR=216 | | | | | | |
| EDW2 | | | | S | **Sb** | **08 32 52.8** | **0.0** |
| | baz=159 | | | | | | |
| **RRX** | **Edison Barstow** | **0.99** | **29** | P | **Pg** | **08 32 42.0** | **+0.2** |
| | baz=210,SNR=66 | | | | | | |
| RRX | | | | S | **Sn** | **08 32 55.7** | **-0.1** |
| | baz=210 | | | | | | |
| **PFO** | **Pinyon Flats O** | **1.02** | **113** | P | **Pb** | **08 32 41.8** | **-0.2** |
| | baz=293,SNR=179 | | | | | | |
| PFO | | | | S | **Sg** | **08 32 55.7** | **0.0** |
| | baz=293 | | | | | | |
| **PFO** | **Pinyon Flats O** | **1.02** | **113** | *e*Pg | **Pb** | **08 32 41.9** | **-0.2** |
| PFO | | | | *e*Sg | **Sg** | **08 32 55.9** | **+0.2** |
| **XPFO** | **Piæon Flat** | **1.02** | **113** | *e*Pg | **Pb** | **08 32 41.9** | **-0.2** |
| XPFO | | | | *e*Sg | **Sg** | **08 32 55.9** | **+0.1** |
| **OSI** | **Osito Audit: C** | **1.12** | **303** | P | **Pb** | **08 32 43.6** | **-0.2** |
| | baz=122,SNR=35 | | | | | | |
| OSI | | | | S | **Sn** | **08 32 59.2** | **+0.1** |
| | baz=122 | | | | | | |
| **OSI** | **Osito Audit: C** | **1.12** | **303** | *e*Pg | **Pb** | **08 32 43.8** | **0.0** |
| **109C** | **Camp Elliot, M** | **1.19** | **160** | P | **Pn** | **08 32 44.5** | **-0.3** |
| | baz=340,SNR=52 | | | | | | |
| 109C | | | | S | **Sb** | **08 32 59.7** | **-0.4** |
| | baz=340 | | | | | | |
| **BLG** | **Laguna Peak, P** | **1.23** | **275** | P | **Pn** | **08 32 45.3** | **-0.2** |
| | baz=94,SNR=18 | | | | | | |
| BLG | | | | S | **Sb** | **08 33 01.8** | **+0.3** |
| | baz=94 | | | | | | |
| **SCI2** | **San Clemente I** | **1.31** | **218** | P | **Pn** | **08 32 46.5** | **+0.1** |
| | baz=38,SNR=36 | | | | | | |
| SCI2 | | | | S | **Sb** | **08 33 04.0** | **+0.5** |
| | baz=38 | | | | | | |
| **HEC** | **Hector,Ludlow** | **1.31** | **51** | Pb | Pb | **08 32 47.6** | **+0.5** |
| | baz=232,SNR=76 | | | | | | |
| HEC | | | | S | **Sg** | **08 33 05.4** | **+0.3** |
| | baz=232 | | | | | | |
| **BELC** | **Belle Mtn. Jos** | **1.32** | **90** | Pg | Pb | **08 32 47.7** | **+0.5** |
| | baz=271,SNR=621 | | | | | | |
| BELC | | | | S | **Sg** | **08 33 05.5** | **+0.3** |
| | baz=271 | | | | | | |
| **GSC** | **Goldstone, Bar** | **1.44** | **26** | Pb | **Pb** | **08 32 49.8** | **+0.5** |
| | baz=207,SNR=365 | | | | | | |
| GSC | | | | S | **Sg** | **08 33 08.6** | **-0.4** |
| | baz=207 | | | | | | |
| **GSC** | **Goldstone, Bar** | **1.44** | **26** | *e*Pn | **Pb** | **08 32 49.7** | **+0.5** |
| GSC | | | | *e*Sn | **Sg** | **08 33 09.3** | **+0.2** |
| **MONP2** | **Monument Peak** | **1.48** | **139** | Pb | **Pb** | **08 32 49.7** | **-0.3** |
| | baz=319,SNR=120 | | | | | | |
| MONP2 | | | | S | **Sb** | **08 33 08.8** | **+0.1** |
| | baz=319 | | | | | | |
| **ARVC** | **Arvin** | **1.52** | **318** | Pb | **Pb** | **08 32 50.7** | **+0.2** |
| | baz=137,SNR=113 | | | | | | |
| ARVC | | | | S | **Sg** | **08 33 11.5** | **0.0** |
| | baz=137 | | | | | | |
| **BAR** | **Barrett** | **1.53** | **150** | *e*Pn | **Pn** | **08 32 49.9** | **+0.3** |
| BAR | | | | *e*Sn | **Sn** | **08 33 09.4** | **+0.2** |
| **ABL** | **Mount Abel** | **1.59** | **302** | *e*Pn | **Pb** | **08 32 51.8** | **-0.1** |
| **SCZ2** | **Santa Cruz Isl** | **1.71** | **270** | P | **Pn** | **08 32 51.7** | **-0.2** |
| | baz=89 | | | | | | |
| **GMRC** | **Granite Mounta** | **1.77** | **64** | P | **Pn** | **08 32 53.5** | **+0.6** |
| | baz=245,SNR=137 | | | | | | |
| GMRC | | | | S | **Sg** | **08 33 19.5** | **-0.1** |
| | baz=245 | | | | | | |
| **WOFM** | **Oak Flat** | **1.78** | **329** | *e*Pn | **Pb** | **08 32 55.0** | **-0.1** |
| **SNCC** | **San Nicolas Is** | **1.79** | **245** | P | **Pn** | **08 32 52.9** | **-0.2** |
| | baz=64 | | | | | | |
| **SNCC** | **San Nicolas Is** | **1.79** | **245** | *e*Pn | **Pn** | **08 32 52.7** | **-0.4** |
| **ISA** | **Isabella, Lake** | **1.80** | **336** | P | **Pn** | **08 32 53.8** | **+0.5** |
| | baz=156,SNR=32 | | | | | | |
| **ISA** | **Isabella, Lake** | **1.80** | **336** | *e*Pn | **Pb** | **08 32 54.9** | **-0.5** |
| ISA | | | | *e*Sn | **Sg** | **08 33 19.7** | **-1.0** |
| **BC3** | **Big Chuckawall** | **1.81** | **101** | P | **Pn** | **08 32 54.1** | **+0.7** |
| | baz=282,SNR=102 | | | | | | |
| **SWSC** | **Sam W. Stewart** | **1.83** | **125** | P | **Pn** | **08 32 53.7** | **+0.1** |
| | baz=306,SNR=169 | | | | | | |
| **IKP** | **In-Ko-Pah, Jac** | **1.83** | **137** | P | **Pn** | **08 32 54.4** | **+0.7** |
| | baz=318,SNR=65 | | | | | | |
| **TUQ** | **Turquoise Moun** | **1.97** | **43** | P | **Pn** | **08 32 56.6** | **+0.9** |
| | baz=224,SNR=93 | | | | | | |
| **IRM** | **Iron Mountain** | **2.03** | **85** | P | **Pn** | **08 32 56.9** | **+0.5** |
| | baz=266,SNR=171 | | | | | | |
| IRM | | | | S | **Sn** | **08 33 22.1** | **+0.6** |
| | baz=266 | | | | | | |
| **MPMC** | **Manual Prospec** | **2.04** | **2** | P | **Pn** | **08 32 58.0** | **+1.3** |
| | baz=182,SNR=136 | | | | | | |
| MPMC | | | | Sb | **Sg** | **08 33 27.8** | **-0.6** |
| | baz=182 | | | | | | |
| **SHOC** | **Shoshone, Teco** | **2.17** | **29** | Sb | **Sg** | **08 33 31.0** | **-1.3** |
| | baz=210 | | | | | | |
| **DAC** | **Darwin (Calif)** | **2.26** | **360** | *e*Pn | **Pb** | **08 33 03.0** | **-0.3** |
| DAC | | | | *e*Sn | **Sg** | **08 33 35.5** | **+0.1** |
| **LDFC** | **Landfair** | **2.30** | **62** | *e*Pn | **Pn** | **08 33 01.7** | **+1.5** |
| LDFC | | | | *e*Sn | **Sg** | **08 33 35.6** | **-1.1** |
| **SMMC** | **Simmler** | **2.38** | **304** | P | **Pn** | **08 33 02.2** | **+1.0** |
| | baz=123 | | | | | | |
| **CWC** | **Cottonwood Cre** | **2.46** | **351** | Sb | **Sg** | **08 33 40.4** | **-1.2** |
| | baz=170 | | | | | | |
| **GLA** | **Glamis** | **2.49** | **112** | P | **Pn** | **08 33 03.2** | **+0.4** |
| | baz=293,SNR=12 | | | | | | |
| **GLA** | **Glamis** | **2.49** | **112** | *e*Pn | **Pn** | **08 33 03.5** | **+0.7** |
| GLA | | | | *e*Sn | **Sg** | **08 33 42.3** | **-0.6** |
| **Y12C** | **Blythe** | **2.56** | **95** | P | **Pn** | **08 33 04.1** | **+0.6** |
| | baz=277,SNR=15 | | | | | | |
| Y12C | | | | S | **Sn** | **08 33 35.7** | **+1.2** |
| | baz=277 | | | | | | |
| **Y12C** | **Blythe** | **2.56** | **95** | *e*Pn | **Pn** | **08 33 04.2** | **+0.6** |
| Y12C | | | | *e*Sn | **Sg** | **08 33 45.6** | **+0.7** |
| **RCTC** | **Rector, Farmer** | **2.66** | **330** | S | **Sn** | **08 33 39.2** | **+2.1** |
| | baz=149 | | | | | | |
| **PDMCI** | **Parker Dam,Lak** | **2.87** | **83** | S | **Sn** | **08 33 42.9** | **+0.7** |
| | baz=265 | | | | | | |
| **GRAC** | **Grapevine Rang** | **2.98** | **3** | P | **Pn** | **08 33 11.3** | **+1.7** |
| | baz=184,SNR=9.3 | | | | | | |
| **TIN** | **Tinemaha, Big** | **3.08** | **350** | Sb | **Sg** | **08 34 00.1** | **-1.5** |
| | baz=170 | | | | | | |
| **TPNV** | **Topopah Spring** | **3.12** | **20** | P | **Pn** | **08 33 13.6** | **+2.0** |
| | baz=201,SNR=11 | | | | | | |
| TPNV | | | | Sb | **Sg** | **08 34 01.8** | **-1.3** |
| | baz=201 | | | | | | |
| **TPNV** | **Topopah Spring** | **3.12** | **20** | *e*Pn | **Pn** | **08 33 14.0** | **+2.4** |
| TPNV | | | | *e*Sg | **Sg** | **08 34 03.2** | **+0.1** |
| **SHPR** | **Sheep Range** | **3.18** | **38** | *e*Pn | **Pn** | **08 33 14.7** | **+2.3** |
| SHPR | | | | *e*Sg | **Sg** | **08 34 04.0** | **-0.8** |
| **W13A** | **Hualapai Mount** | **3.24** | **69** | *e*Pn | **Pn** | **08 33 14.7** | **+1.5** |
| **113A** | **Mohawk Valley,** | **3.42** | **110** | *e*Pn | **Pn** | **08 33 15.9** | **+0.4** |
| **PMPB** | **Monarch Peak** | **3.43** | **311** | *e*Pn | **Pn** | **08 33 18.0** | **+2.3** |
| **Y14A** | **Wickenburg** | **

*ISK **20** 08:34:54.6, 38.63N×43.15E, h7km, MD2.7*
*ISCJB **20** 08:34:55.8±0.4, 38.64N±0.02×43.18E±0.04, h11km±5km, Error ellipse: s-maj=5.5km s-min=4.4km az=19.0*
*CSEM **20** 08:34:55.2±0.1, 38.63N×43.17E, h10km, MD2.7, Error ellipse: s-maj=3.3km s-min=3.1km az=92.0*
*DDA **20** 08:34:55.4, 38.64N×43.17E, h7km, Ml3.4*

**ISC 20 08:34:55.9±0.8, 38.65N±0.02×43.19E±0.03, h12km±6km, n33, σ1§04/52, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.16** | **108** | *e*P | **Pg** | **08 34 59.6** | **-0.2** |
| VANB | | | | *e*Sg | **Sb** | **08 35 03.5** | **+0.9** |
| **VANB** | **Van** | **0.16** | **108** | *e*Pg | **Pg** | **08 34 59.6** | **-0.2** |
| VANB | | | | *e*Sg | **Sb** | **08 35 03.5** | **+0.9** |
| **TVAN** | **Van** | **0.21** | **125** | *i* P | **Pg** | **08 34 59.5** | **-1.1** |
| TVAN | | | | *i* S | **Sg** | **08 35 03.8** | **0.0** |
| **TVAN** | **Van** | **0.21** | **125** | P | **Pg** | **08 34 59.5** | **-1.1** |
| TVAN | | | | S | **Sg** | **08 35 03.8** | **0.0** |
| **GEVA** | **Gevas** | **0.35** | **197** | *i* P | **Pg** | **08 35 01.6** | **-1.5** |
| GEVA | | | | *i* S | **Sg** | **08 35 08.5** | **+0.6** |
| **GEVA** | **Gevas** | **0.35** | **197** | P | **Pg** | **08 35 01.6** | **-1.5** |
| GEVA | | | | S | **Sg** | **08 35 08.5** | **+0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.40** | **294** | *i* P | **Pg** | **08 35 03.1** | **-0.9** |
| ADCV | | | | *i* S | **Sg** | **08 35 10.1** | **+0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.40** | **294** | P | **Pg** | **08 35 03.1** | **-0.9** |
| ADCV | | | | S | **Sg** | **08 35 10.1** | **+0.7** |
| **VMUR** | **Van-Muradiye** | **0.45** | **41** | *i* P | **Pg** | **08 35 04.9** | **-0.1** |
| VMUR | | | | *i* S | **Sb** | **08 35 12.9** | **+0.2** |
| **VMUR** | **Van-Muradiye** | **0.45** | **41** | P | **Pg** | **08 35 04.9** | **-0.1** |
| VMUR | | | | S | **Sb** | **08 35 12.9** | **+0.2** |
| **CLDR** | **Caldiran** | **0.75** | **49** | *e*PG | **Pg** | **08 35 10.2** | **-0.4** |
| CLDR | | | | *e*SG | **Sb** | **08 35 21.5** | **+0.1** |
| **CLDR** | **Caldiran** | **0.75** | **49** | *e*Pg | **Pg** | **08 35 10.2** | **-0.4** |
| CLDR | | | | *e*Sg | **Sb** | **08 35 21.5** | **+0.1** |
| **TUTA** | **Tutak** | **0.81** | **339** | *i* P | **Pg** | **08 35 10.6** | **-1.1** |
| TUTA | | | | *i* S | **Sg** | **08 35 22.3** | **0.0** |
| **TUTA** | **Tutak** | **0.81** | **339** | P | **Pg** | **08 35 10.6** | **-1.1** |
| TUTA | | | | S | **Sg** | **08 35 22.3** | **0.0** |
| **AGRB** | **Hanur-Agry** | **0.94** | **351** | *e*PG | **Pb** | **08 35 13.2** | **-1.1** |
| **AGRB** | **Hanur-Agry** | **0.94** | **351** | *e*Pg | **Pb** | **08 35 13.2** | **-1.1** |
| **EKAR** | **Karacoban** | **1.07** | **305** | *i* P | **Pb** | **08 35 15.7** | **-0.8** |
| EKAR | | | | *i* S | **Sn** | **08 35 35.3** | **+3.5** |
| **EKAR** | **Karacoban** | **1.07** | **305** | P | **Pb** | **08 35 15.7** | **-0.8** |
| **SRTM** | **Siirt_Merkez** | **1.19** | **237** | *i* P | **Pn** | **08 35 18.0** | **-0.5** |
| SRTM | | | | *i* S | **Sg** | **08 35 38.6** | **+4.1** |
| **SRTM** | **Siirt_Merkez** | **1.19** | **237** | P | **Pn** | **08 35 18.0** | **-0.5** |
| **SIRT** | **Sirnak** | **1.29** | **208** | *e*PN | **Pn** | **08 35 19.1** | **-0.7** |
| **SIRT** | **Sirnak** | **1.29** | **208** | *e*Pn | **Pn** | **08 35 19.1** | **-0.7** |
| **EATA** | **Eleskirt** | **1.33** | **336** | *i* P | **Pn** | **08 35 20.2** | **-0.4** |
| EATA | | | | *i* S | **Sg** | **08 35 39.1** | **+0.2** |
| **EATA** | **Eleskirt** | **1.33** | **336** | P | **Pn** | **08 35 20.2** | **-0.4** |
| EATA | | | | S | **Sg** | **08 35 39.1** | **+0.2** |
| **CUKT** | **Cukurca** | **1.44** | **167** | *e*PN | **Pn** | **08 35 21.5** | **-0.4** |
| **CUKT** | **Cukurca** | **1.44** | **167** | *e*Pn | **Pn** | **08 35 21.5** | **-0.4** |
| **VRTB** | **Varto-Mus** | **1.45** | **291** | *e*PN | **Pn** | **08 35 21.4** | **-0.7** |
| **VRTB** | **Varto-Mus** | **1.45** | **291** | *e*Pn | **Pn** | **08 35 21.4** | **-0.7** |
| **BNGL** | **BINGOL** | **1.62** | **281** | *i* P | **Pb** | **08 35 25.3** | **-0.7** |
| BNGL | | | | *i* S | **Sg** | **08 35 48.0** | **-0.3** |
| **SENK** | **Senkaya-Erzuru** | **2.02** | **342** | *e*PN | **Pn** | **08 35 30.0** | **0.0** |
| **SENK** | **Senkaya-Erzuru** | **2.02** | **342** | *e*Pn | **Pn** | **08 35 30.0** | **0.0** |
| **MAZI** | **Mazidag** | **2.47** | **242** | *e*PN | **Pn** | **08 35 36.0** | **-0.1** |
| **MAZI** | **Mazidag** | **2.47** | **242** | *e*Pn | **Pn** | **08 35 36.0** | **-0.1** |

**DHMR 20 08:39:12.2±0.9, 12.03N×42.23E, h5km±9km, ML3.9, Ethiopia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TRBA** | **At Turbah** | **2.20** | **57** | *i* P | Pb | 08 39 51.4 | -1.3 |
| TRBA | | | | *i* S | Sb | 08 40 21.5 | +1.2 |
| **UDYN** | **Al 'Udayn** | **2.57** | **41** | *i* P | Pn | 08 39 56.7 | +2.0 |
| UDYN | | | | *i* S | Sb | 08 40 32.2 | +1.3 |
| UDYN | | | | AML | AML | 08 40 41.6 | |
| | comp=N,597nm,0.3s | | | | | | |
| **DHBB** | **Dhamar BB** | **3.29** | **40** | *i* P | Pn | 08 40 07.8 | +3.1 |
| DHBB | | | | *i* S | Sb | 08 40 50.4 | -1.4 |
| DHBB | | | | AML | AML | 08 41 04.8 | |
| | comp=N,1μm,0.7s | | | | | | |
| **BDHA** | **Al Bayda'** | **3.79** | **59** | *i* P | Pn | 08 40 13.6 | +2.1 |
| BDHA | | | | *i* S | Sb | 08 41 02.1 | -4.0 |
| BDHA | | | | AML | AML | 08 41 19.6 | |
| | comp=N,450nm,0.5s | | | | | | |

**IDC 20 08:39:53.2±3.9, 19.27S×173.08W, h0km, mb4.1/4, mb1 4.3/5, mb1mx3.8/32, mbtmp4.1/5, ML4.0/1, Error ellipse: s-maj=136.6km s-min=26.4km az=131.0, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **AFI** | **Afiamalu** | **5.48** | **13** | Pn | Pn | 08 41 17.6 | +1.4 |
| | 5.0nm,0.3s,baz=221,slow=18,SNR=9.8 | | | | | | |
| AFI | | | | Sn | Sn | 08 42 04.8 | -15 |
| | 16nm,0.3s,baz=207,slow=8.8,SNR=16 | | | | | | |
| **STKA** | **Stephens Creek** | **42.48** | **244** | P | P | 08 47 50.7 | +0.3 |
| | 2.2nm,0.9s,baz=107,slow=11,SNR=2.6 | | | | | | |
| **ASAR** | **Alice Springs** | **49.31** | **255** | P | P | 08 48 44.9 | +0.5 |
| | 9.9nm,0.6s,baz=94,slow=6.9,SNR=188 | | | | | | |
| **WRA** | **Warramunga Arr** | **49.37** | **260** | P | P | 08 48 44.0 | -0.9 |
| | 1.5nm,0.5s,baz=97,slow=8.0,SNR=44 | | | | | | |
| **ILAR** | **Eielson Array** | **86.17** | **11** | P | P | 08 52 35.2 | -0.6 |
| | 0.1nm,0.5s,baz=226,slow=6.2,SNR=6.7 | | | | | | |

*LJU **20** 08:51:18.2, 46.39N×15.07E, h0km Rockburst*
**CSEM 20 08:51:18.2±99.0, 46.39N×15.07E, h0km, Mining explosion., Northwestern Balkan Peninsula**

*IDC **20** 09:10:52.8±2.0, 36.68N×140.74E, h0km, mb3.6/3, mb1 3.7/4, mb1mx3.4/57, mbtmp3.6/4, ML3.4/1, MS2.2/1, Ms1 2.2/1, ms1mx2.0/53, Error ellipse: s-maj=43.9km s-min=25.1km az=46.0*
*ISCJB **20** 09:10:53.7±0.9, 36.63N±0.04×140.76E±0.06, h12km±4km, mb3.7/3, Error ellipse: s-maj=9.2km s-min=4.8km az=32.4*
*JMA **20** 09:10:55.5, 36.69N×140.63E, h5km±1km, M3.2 Broadband fault plane solution: P waves. NP1: ϕ±0.00000°, δ55.00000°, λ-72.00000°. NP2:ϕ±150.00000°, δ38.00000°, λ-114.00000°. Principal axes: T Plg9.0000°, Azm77.0000°; N Plg14.0000°, Azm169.0000°; P Plg73.0000°, Azm317.0000°;*
*JMA Felt III J1.*

**ISC 20 09:10:54.4±1.1, 36.67N±0.05×140.66E±0.06, h15km±5km, n19, σ0§81/22, mb3.8/3, 6C-1D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JHO** | **Hitachi** | **0.09** | **233** | ⇑P | **Pb** | **09 10 57.6** | **0.0** |
| JHO | | | | S | **Sg** | **09 10 59.1** | **-0.5** |
| **ONAJ** | **Iwakimizuishiy** | **0.45** | **14** | ⇑P | **Pb** | **09 11 03.9** | **-0.1** |
| ONAJ | | | | S | **Sb** | **09 11 09.8** | **-0.7** |
| **JYT** | **Yasato** | **0.58** | **221** | ⇑P | **Pn** | **09 11 06.6** | **-1.4** |
| JYT | | | | S | **Sb** | **09 11 14.5** | **+0.3** |
| **JSB** | **Shiboa** | **0.67** | **297** | ⇑P | **Pn** | **09 11 08.4** | **-0.9** |
| JSB | | | | *e*S | **Sb** | **09 11 17.4** | **+0.6** |
| **JFK** | **Kawauchi** | **0.72** | **14** | ⇑P | **Pn** | **09 11 08.7** | **-1.3** |
| JFK | | | | S | **Sb** | **09 11 18.2** | **-0.1** |
| **JFT** | **Otama** | **0.89** | **343** | ⇓P | **Pn** | **09 11 12.0** | **-0.3** |
| JFT | | | | S | **Sb** | **09 11 23.2** | **0.0** |
| **JAG** | **Ashikaga** | **1.00** | **256** | ⇑P | **Pn** | **09 11 13.5** | **-0.4** |
| JAG | | | | S | **Sg** | **09 11 26.7** | **-0.2** |
| **JFY** | **Yanaizu** | **1.06** | **314** | P | **Pg** | **09 11 15.2** | **+0.3** |
| **MJAR** | **Matsushiro Arr** | **1.98** | **267** | Pn | **Pb** | **09 11 28.7** | **-1.4** |
| | 13nm,0.3s,baz=85,slow=15,SNR=72 | | | | | | |
| MJAR | | | | Sn | **Sb** | **09 11 54.0** | **-0.6** |
| | 23nm,0.3s,baz=102,slow=30,SNR=20 | | | | | | |
| MJAR | | | | LR | LR | 09 12 20.2 | |
| | comp=Z,57nm,18.6s,baz=105,slow=44 | | | | | | |
| **MAT** | **Matsushiro** | **1.98** | **267** | P | **Pb** | **09 11 29.6** | **-0.5** |
| MAT | | | | S | **Sb** | **09 11 55.3** | **+0.7** |
| **H11N2** | **WAKE ISLAND Hy 28.49** | **119** | | T | T | 09 46 33.9 | |
| | baz=312,slow=75,SNR=399 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy 28.50** | **119** | | T | T | 09 46 34.9 | |
| | baz=312,slow=75,SNR=320 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy 28.50** | **119** | | T | T | 09 46 35.3 | |
| | baz=312,slow=75,SNR=335 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy 29.18** | **121** | | T | T | 09 47 24.9 | |
| | baz=314,slow=76,SNR=1465 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy 29.18** | **121** | | T | T | 09 47 25.0 | |
| | baz=314,slow=76,SNR=803 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy 29.19** | **121** | | T | T | 09 47 26.2 | |
| | baz=314,slow=76,SNR=618 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **45.75** | **308** | P | **P** | **09 19 15.9** | **+1.0** |
| | 1.0nm,0.6s,baz=86,slow=8.0,SNR=11 | | | | | | |
| **WRA** | **Warramunga Arr** | **56.62** | **187** | P | **P** | **09 20 37.9** | **+1.2** |
| | 0.5nm,0.6s,baz=4.5,slow=7.3,SNR=12 | | | | | | |
| **ASAR** | **Alice Springs** | **60.35** | **187** | P | **P** | **09 21 03.2** | **+0.4** |
| | 0.2nm,0.6s,baz=5.4,slow=9.4,SNR=5.1 | | | | | | |

*IDC **20** 09:15:44.7±0.8, 52.07N×171.63W, h0km, mb4.0/16, mb1 4.2/18, mb1mx4.0/45, mbtmp4.0/18, ML3.4/2, MS2.9/2, Ms1 2.9/2, ms1mx2.4/47, Error ellipse: s-maj=25.0km s-min=14.8km az=170.0*
*ISCJB **20** 09:15:49.4±0.6, 51.81N±0.09×171.39W±0.05, h44km, mb4.0/16, MS2.8/2, Error ellipse: s-maj=13.2km s-min=3.1km az=164.5*
*NEIC **20** 09:15:50.5±0.0, 51.89N×171.40W, h42km, ML3.8(AEIC), After AEIC.*

**ISC 20 09:15:50.8±0.8, 51.9N±0.1×171.46W±0.05, h44km, n48, σ1§47/49, mb4.0/16, Fox Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KOSE** | **Korovin Southe** | **1.65** | **285** | P | **Pn** | **09 16 18.9** | **+1.6** |
| **KOFP** | **Korovin Flat P** | **1.67** | **283** | P | **Pn** | **09 16 18.5** | **+1.0** |
| **ATKA** | **Atka Island** | **1.71** | **280** | P | **Pn** | **09 16 18.5** | **+0.4** |
| ATKA | | | | S | **Sn** | **09 16 40.7** | **+2.0** |
| **KOKL** | **Mount Kliuchef** | **1.74** | **284** | P | **Pn** | **09 16 19.5** | **+1.0** |
| **NIKH** | **Nikolski High** | **1.90** | **56** | P | **Pn** | **09 16 20.6** | **-0.1** |
| NIKH | | | | S | **Sn** | **09 16 45.2** | **+1.8** |
| **OKSP** | **Okmok Steeple** | **2.34** | **54** | P | **Pn** | **09 16 27.6** | **+0.9** |
| **OKSO** | **Okmok South** | **2.46** | **53** | P | **Pn** | **09 16 29.3** | **+0.9** |
| **GSTR** | **Great Sitkin T** | **2.85** | **275** | P | **Pn** | **09 16 35.8** | **+2.1** |
| **GSTD** | **Great Sitkin T** | **2.90** | **274** | P | **Pn** | **09 16 35.7** | **+1.2** |
| GSTD | | | | S | **Sn** | **09 17 09.9** | **+1.8** |
| **ETKA** | **Kagalaska Isla** | **3.07** | **271** | P | **Pn** | **09 16 37.8** | **+1.1** |
| **ADAG** | **Mount Adagdak** | **3.19** | **273** | P | **Pn** | **09 16 40.3** | **+2.0** |
| **MREP** | **Makushin Rep't** | **3.42** | **55** | P | **Pn** | **09 16 42.8** | **+1.2** |
| **MSW** | **Makushin Switc** | **3.45** | **53** | P | **Pn** | **09 16 43.3** | **+1.3** |
| **MTBL** | **Makushin Table** | **3.53** | **53** | P | **Pn** | **09 16 44.5** | **+1.3** |
| **KIKV** | **Kanaga Island** | **3.54** | **271** | P | **Pn** | **09 16 44.5** | **+1.3** |
| **UNV** | **Unalaska Valle** | **3.56** | **56** | P | **Pn** | **09 16 45.0** | **+1.6** |
| UNV | | | | S | **Sn** | **09 17 25.5** | **+1.3** |
| **AKRB** | **Akutan Reef Bi** | **3.92** | **54** | P | **Pn** | **09 16 50.2** | **+1.7** |
| **TAPA** | **Tanaga Point A** | **3.94** | **271** | P | **Pn** | **09 16 50.0** | **+1.2** |
| **LVA** | **Lava Point** | **3.96** | **54** | P | **Pn** | **09 16 50.6** | **+1.7** |
| **TAFP** | **Tanaga Falls P** | **4.04** | **272** | P | **Pn** | **09 16 51.4** | **+1.3** |
| TAFP | | | | S | **Sn** | **09 17 37.2** | **+1.0** |
| **AKUT** | **Akutan** | **4.08** | **55** | *e*Pn | **Pn** | **09 16 52.9** | **+2.4** |
| AKUT | | | | *e*Sn | **Sn** | **09 17 37.0** | **+0.1** |
| **KDAK** | **Kodiak Island** | **12.33** | **54** | Pn | **Pn** | **09 18 40.1** | **-3.3** |
| | 0.9nm,0.3s,baz=222,slow=5.6,SNR=24 | | | | | | |
| **RC01** | **Rabbit Creek A** | **15.02** | **44** | *e*Pn | **Pn** | **09 19 19.4** | **-0.4** |
| RC01 | | | | *e*Sn | **Sn** | **09 22 08.9** | **+4.2** |
| **ILAR** | **Eielson Array** | **18.04** | **35** | P | **Pn** | **09 19 56.1** | **-1.7** |
| | 0.2nm,0.3s,baz=226,slow=9.8,SNR=18 | | | | | | |
| **PETK** | **Petropavlovsk-** | **18.74** | **286** | P | **P** | **09 20 04.1** | **-1.6** |
| | 0.3nm,0.3s,baz=77,slow=14,SNR=2.7 | | | | | | |
| **INK** | **Inuvik** | **24.42** | **34** | P | **P** | **09 21 04.2** | **-0.4** |
| | 0.5nm,0.3s,baz=230,slow=8.7,SNR=11 | | | | | | |
| INK | | | | LR | LR | 09 30 12.3 | |
| | comp=Z,41nm,18.9s,baz=172,slow=36 | | | | | | |
| **YKA** | **Yellowknife Ar** | **31.49** | **48** | P | **P** | **09 22 08.0** | **0.0** |
| | 0.2nm,0.4s,baz=272,slow=7.7,SNR=9.2 | | | | | | |
| **NEW** | **Newport** | **34.36** | **74** | P | **P** | **09 22 33.4** | **+0.1** |
| | 0.6nm,0.3s,baz=292,slow=11,SNR=3.1 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy 36.33** | **216** | | T | T | 10 01 27.8 | |
| | baz=21,slow=75,SNR=27 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy 36.34** | **216** | | T | T | 10 01 26.8 | |
| | baz=21,slow=75,SNR=20 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy 36.35** | **216** | | T | T | 10 01 29.1 | |
| | baz=21,slow=75,SNR=20 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy 37.53** | **215** | | T | T | 10 02 58.7 | |
| | baz=21,slow=75,SNR=25 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy 37.54** | **215** | | T | T | 10 02 54.7 | |
| | baz=21,slow=75,SNR=31 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy 37.54** | **215** | | T | T | 10 02 54.9 | |
| | baz=21,slow=75,SNR=14 | | | | | | |
| **PDAR** | **Pinedale Array** | **41.75** | **77** | P | **P** | **09 23 37.1** | **+1.4** |
| | 0.4nm,0.4s,baz=300,slow=4.4,SNR=4.8 | | | | | | |
| **KSRS** | **Korea Array** | **44.17** | **276** | P | **P** | **09 23 54.5** | **-0.5** |
| | 0.5nm,0.4s,baz=57,slow=6.4,SNR=4.8 | | | | | | |
| KSRS | | | | LR | LR | 09 42 53.1 | |
| | comp=Z,7.8nm,19.2s,baz=70,slow=37 | | | | | | |
| **KSAR** | **Wonju Array Be** | **44.20** | **276** | P | **P** | **09 23 54.5** | **-0.8** |
| **SONM** | **Songino Array** | **50.41** | **300** | P | **P** | **09 24 43.1** | **-0.5** |
| | 0.8nm,0.6s,baz=62,slow=6.9,SNR=5.0 | | | | | | |
| **TXAR** | **Lajitas Array** | **54.05** | **87** | P | **P** | **09 25 11.6** | **+0.8** |
| | 0.2nm,0.5s,baz=298,slow=5.4,SNR=5.8 | | | | | | |
| **ARCES** | **ARCESS Array B** | **58.21** | **353** | P | **P** | **09 25 38.1** | **-1.6** |
| | 6.9nm,1.2s,baz=12,slow=6.7,SNR=5.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **63.16** | **312** | P | **P** | **09 26 12.6** | **-1.2** |
| | 1.3nm,0.4s,baz=42,slow=6.4,SNR=37 | | | | | | |
| **FINES** | **FINESS Array B** | **66.11** | **351** | P | **P** | **09 26 31.9** | **-0.8** |
| | 3.9nm,1.1s,baz=12,slow=8.7,SNR=5.7 | | | | | | |
| **NOA** | **NORSAR Array B** | **67.35** | **359** | P | **P** | **09 26 40.0** | **-0.7** |
| | 0.8nm,0.7s,baz=5.3,slow=3.0,SNR=2.8 | | | | | | |
| **AKTO** | **Aktyubinsk** | **69.73** | **329** | P | **P** | **09 26 54.9** | **-0.8** |
| | 3.1nm,0.5s,baz=36,slow=5.0,SNR=15 | | | | | | |
| **AAK** | **Ala-Archa** | **69.89** | **314** | P | **P** | **09 26 56.5** | **-0.6** |
| | 1.4nm,0.3s,baz=15,slow=8.0,SNR=7.0 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **75.45** | **281** | P | **P** | **09 27 30.9** | **+0.6** |
| | 1.1nm,0.3s,baz=24,slow=6.8,SNR=4.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **85.73** | **230** | P | **P** | **09 28 24.5** | **-0.5** |
| | 0.4nm,0.8s,baz=36,slow=6.1,SNR=5.2 | | | | | | |
| **ASAR** | **Alice Springs** | **89.14** | **228** | P | **P** | **09 28 41.8** | **+0.4** |
| | 2.1nm,0.9s,baz=28,slow=4.9,SNR=19 | | | | | | |

*KRNET **20** 09:18:01.8±0.1, 39.89N×77.10E, mb2.8*
*SOME **20** 09:18:03.8, 39.98N×77.37E, h10km*

**ISC 20 09:18:04.0±2.2, 39.82N±0.10×77.37E±0.08, h28km, n16, σ1§44/31, 14C-6D, Southern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **NRN** | **Naryn** | **1.92** | **328** | ⇑*i*P | **Pn** | **09 18 35.0** | **0.0** |
| | baz=331 | | | | | | |
| NRN | | | | ⇑*i*S | **Sb** | **09 18 59.1** | **-2.9** |
| | baz=331 | | | | | | |
| **ULHL** | **Ulahol** | **2.56** | **341** | ⇑*i*P | **Pn** | **09 18 45.2** | **+1.3** |
| | baz=344 | | | | | | |
| ULHL | | | | ⇑*i*S | **Sb** | **09 19 17.3** | **-3.3** |
| | baz=344 | | | | | | |
| **KZA** | **Kyzart** | **2.76** | **325** | ⇑*e*P | **Pn** | **09 18 47.5** | **+0.7** |
| | baz=328 | | | | | | |
| KZA | | | | ⇑*e*S | **Sn** | **09 19 21.2** | **+1.7** |
| | baz=328 | | | | | | |
| **SFK** | **Sufi-Kurgan** | **2.98** | **275** | ⇑*i*P | **Pn** | **09 18 49.8** | **+0.2** |
| | baz=274 | | | | | | |
| SFK | | | | ⇑*i*S | **Sn** | **09 19 25.4** | **+1.0** |
| | baz=274 | | | | | | |
| **TNSS** | **Tian-Shan** | **3.23** | **355** | *e*P | **Pb** | **09 18 58.6** | **-2.2** |
| | 3.7nm,0.7s | | | | | | |
| TNSS | | | | *e*S | **Sb** | **09 19 38.4** | **-1.4** |
| | 14nm,0.5s | | | | | | |
| **UCH** | **Uchtor** | **3.23** | **319** | ⇓*i*P | **Pn** | **09 18 53.6** | **+0.4** |
| | baz=321 | | | | | | |
| UCH | | | | ⇓*i*S | **Sn** | **09 19 31.7** | **+0.7** |
| | baz=321 | | | | | | |
| **MDOK** | **Medeo** | **3.35** | **356** | *e*P | **Pb** | **09 19 01.5** | **-1.2** |
| | 2.6nm,0.2s | | | | | | |
| MDOK | | | | *e*S | **Sb** | **09 19 43.0** | **0.0** |
| | 19nm,0.5s | | | | | | |
| **KBK** | **Karagaybulak** | **3.37** | **328** | ⇑*e*P | **Pn** | **09 18 56.1** | **+1.2** |
| | baz=330 | | | | | | |
| KBK | | | | ⇑*e*S | **Sn** | **09 19 35.6** | **+1.6** |
| | baz=330 | | | | | | |
| **TKM2** | **Tokmak 2** | **3.37** | **337** | ⇑*e*P | **Pn** | **09 18 56.2** | **+1.3** |
| | baz=340 | | | | | | |
| TKM2 | | | | ⇑*i*S | **Sn** | **09 19 36.0** | **+1.9** |
| | baz=340 | | | | | | |
| **KST** | **Kastek** | **3.39** | **342** | *e*P | **Pb** | **09 19 03.1** | **-0.2** |
| | 1.6nm,0.2s | | | | | | |
| KST | | | | *e*S | **Sb** | **09 19 45.9** | **+1.8** |
| | 4.4nm,0.4s | | | | | | |
| **ZHN** | **Zhinishke** | **3.44** | **13** | *e*P | **Pb** | **09 19 02.2** | **-2.0** |
| | 3.9nm,0.1s | | | | | | |
| ZHN | | | | *e*S | **Sb** | **09 19 44.0** | **-1.6** |
| | 4.6nm,0.1s | | | | | | |
| **UZB** | **Uzynbulak** | **3.55** | **20** | *e*P | **Pb** | **09 19 05.5** | **-0.6** |
| UZB | | | | *e*S | **Sb** | **09 19 49.8** | **+1.0** |
| **AAK** | **Ala-Archa** | **3.55** | **323** | ⇓*i*P | **Pn** | **09 18 58.0** | **+0.7** |
| | baz=325 | | | | | | |
| AAK | | | | ⇓*e*S | **Sn** | **09 19 39.2** | **+0.8** |
| | baz=325 | | | | | | |
| **AML** | **Almayashu** | **3.61** | **311** | ⇑*i*P | **Pn** | **09 18 59.0** | **+0.6** |
| | baz=312 | | | | | | |
| AML | | | | ⇑*e*S | **Sn** | **09 19 40.6** | **+0.3** |
| | baz=312 | | | | | | |
| **DGS** | **Degeres** | **3.62** | **341** | *e*P | **Pb** | **09 19 08.1** | **+0.8** |
| **EKS2** | **Erkin-Say** | **3.92** | **318** | ⇓*i*P | **Pn** | **09 19 03.0** | **+0.6** |
| | baz=319 | | | | | | |
| EKS2 | | | | ⇓*i*S | **Sn** | **09 19 48.0** | **+0.5** |
| | baz=319 | | | | | | |

*NNC **20** 09:30:47.1±2.4, 53.64N×87.94E, h0km, mb3.7, mpv3.3, Error ellipse: s-maj=22.9km s-min=16.2km az=173.0*

**IDC 20 09:30:45.2±2.6, 53.71N×88.08E, h0km, mb1 3.4/2, mb1mx3.0/53, mbtmp3.4/2, ML3.0/2, 7C-1D, Error ellipse: s-maj=22.4km s-min=15.7km az=60.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **I46RU** | **ZALESOVO INFRA** | **1.95** | **278** | *i* | | 09 42 20.0 | |
| | baz=93,slow=351,SNR=1.7 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **1.95** | **278** | Pn | Pn | 09 31 19.6 | 0.0 |
| | 3.8nm,0.3s,baz=92,slow=12,SNR=54 | | | | | | |
| ZALV | | | | Lg | Lg | 09 31 46.5 | |
| | 8.8nm,0.3s,baz=98,slow=27,SNR=25 | | | | | | |
| **KURK** | **Kurchatov** | **6.54** | **247** | ⇓Pn | Pn | 09 32 22.9 | +0.3 |
| | 1.6nm,0.6s | | | | | | |
| KURK | | | | ⇑Sn | Sn | 09 33 39.5 | +1.7 |
| | 1.6nm,0.6s | | | | | | |
| KURK | | | | ⇑Lg | Lg | 09 34 10.3 | |
| | 3.1nm,0.7s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **6.64** | **246** | Pn | Pn | 09 32 24.5 | +0.6 |
| | 0.3nm,0.3s,baz=62,slow=14,SNR=25 | | | | | | |
| KURBB | | | | Sn | Sn | 09 33 39.8 | -0.4 |
| | 0.0nm,0.3s,baz=61,slow=25,SNR=3.1 | | | | | | |
| KURBB | | | | Lg | Lg | 09 34 16.2 | |
| | 0.1nm,0.3s,baz=61,slow=30,SNR=7.1 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **6.64** | **246** | ⇑Pn | Pn | 09 32 24.4 | +0.5 |
| | 2.8nm,0.3s | | | | | | |
| KURBB | | | | ⇑Sn | Sn | 09 33 39.8 | -0.5 |
| | 3.9nm,0.6s | | | | | | |
| KURBB | | | | ⇑Lg | Lg | 09 34 13.0 | |
| | 4.7nm,0.6s | | | | | | |
| **MK31** | **Makanchi Array** | **7.85** | **211** | ⇑Pn | Pn | 09 32 40.9 | +0.3 |
| | 0.2nm,0.3s,baz=28,slow=13,SNR=14 | | | | | | |
| MK31 | | | | Sn | Sn | 09 34 11.6 | +1.4 |
| | 0.6nm,0.6s,baz=33,slow=24,SNR=6.0 | | | | | | |
| MK31 | | | | ⇑Lg | Lg | 09 34 52.8 | |
| | 1.1nm,0.6s,baz=30,slow=30,SNR=4.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **7.85** | **211** | Pn | Pn | 09 32 41.8 | +1.2 |
| | 0.3nm,0.3s,baz=32,slow=14,SNR=18 | | | | | | |
| MKAR | | | | Sn | Sn | 09 34 09.2 | -0.9 |
| | 0.2nm,0.3s,baz=31,slow=24,SNR=6.8 | | | | | | |
| MKAR | | | | Lg | Lg | 09 34 54.6 | |
| | 0.2nm,0.3s,baz=30,slow=31,SNR=6.6 | | | | | | |

*GUC **20** 10:16:35.2±0.5, 35.68S×71.42W, h99km±6km, ML3.5*
*SJA **20** 10:16:35.1±0.5, 35.64S×70.94W, h54km±7km, ML3.2, MW3.3*

**ISC 20 10:16:34.9±1.9, 35.81S±0.07×71.1W±0.1, h73km±40km, n17, σ1§68/25, 2C-1D, Central Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GO05** | **HualaæØ** | **1.03** | **320** | *e*P | **Pn** | **10 16 54.3** | **+0.3** |
| GO05 | | | | *e*S | **Sn** | **10 17 08.8** | **+0.7** |
| **GO05** | **HualaæØ** | **1.03** | **320** | ⇑*i*P | **Pn** | **10 16 53.5** | **-0.5** |
| GO05 | | | | *i* S | **Sn** | **10 17 06.6** | **-1.6** |
| **CCHI** | **Chillan** | **1.10** | **224** | *e*P | **Pn** | **10 16 55.8** | **+0.9** |
| CCHI | | | | *i* S | **Sn** | **10 17 11.5** | **+1.7** |
| CCHI | | | | IAML | | 10 17 13.0 | |
| | comp=N,722nm,0.2s | | | | | | |
| **COCH** | **Cobquecura** | **1.39** | **256** | *e*P | **Pn** | **10 16 57.5** | **-0.9** |
| COCH | | | | *i* S | **Sn** | **10 17 14.0** | **-2.1** |
| **ANTU** | **Antumapu** | **2.27** | **10** | *e*P | **Pn** | **10 17 10.4** | **0.0** |
| ANTU | | | | *e*S | **Sn** | **10 17 37.2** | **-0.1** |
| ANTU | | | | IAML | | 10 17 40.5 | |
| | comp=E,312nm,0.2s | | | | | | |
| **CLCH** | **Cerro Calan** | **2.45** | **12** | ⇑*i*P | **Pn** | **10 17 12.9** | **0.0** |
| CLCH | | | | *i* S | **Sn** | **10 17 41.7** | **-0.1** |
| CLCH | | | | IAML | | 10 17 45.2 | |
| | comp=E,196nm,0.3s | | | | | | |
| **FCH** | **Farellones** | **2.57** | **16** | ⇓*i*P | **Pn** | **10 17 15.0** | **+0.4** |
| FCH | | | | *e*S | **Sn** | **10 17 45.4** | **+0.5** |
| FCH | | | | IAML | | 10 17 48.8 | |
| | comp=N,218nm,0.2s | | | | | | |
| **PEL** | **Peldehue** | **2.68** | **8** | *e*P | **Pn** | **10 17 15.4** | **-0.5** |
| PEL | | | | *e*S | **Sn** | **10 17 46.1** | **-1.3** |
| PEL | | | | IAML | | 10 17 49.0 | |
| | comp=N,222nm,0.3s | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | baz=327 | | | | | | | | |
| **STYT** | **Tauyuan** | **0.91** | **278** | ⇑ | *i* | P | **Pb** | 10 30 42.0 | -0.3 |
| | baz=277 | | | | | | | | |
| STYT | | | | | | S | **Sb** | 10 30 52.9 | -1.3 |
| | baz=277 | | | | | | | | |
| **HWA** | **Hwalien** | **0.94** | **352** | | *e* | P | **Pb** | 10 30 42.8 | 0.0 |
| | baz=10.0 | | | | | | | | |
| **ALS** | **Alishan** | **0.98** | **299** | ⇑ | *i* | P | **Pb** | 10 30 43.9 | +0.2 |
| | baz=301 | | | | | | | | |
| ALS | | | | | *i* | S | **Sb** | 10 30 56.1 | -0.1 |
| | baz=301 | | | | | | | | |
| **LAY** | **Lan-yu** | **1.02** | **190** | ⇓ | *e* | P | **Pb** | 10 30 42.9 | -1.2 |
| | baz=184 | | | | | | | | |
| **TAW** | **Tawu** | **1.04** | **229** | | *e* | P | **Pb** | 10 30 44.3 | -0.1 |
| | baz=235 | | | | | | | | |
| **TWD** | **Chiawan** | **1.04** | **353** | | *e* | P | **Pb** | 10 30 43.4 | -1.1 |
| | baz=9.0 | | | | | | | | |
| TWD | | | | | | S | **Sb** | 10 30 56.8 | -0.9 |
| | baz=9.0 | | | | | | | | |
| **EAST** | **Anshuo** | **1.05** | **232** | | | P | **Pb** | 10 30 43.6 | -1.2 |
| | baz=226 | | | | | | | | |
| **WTP** | **Ta-pu** | **1.06** | **281** | ⇑ | *i* | P | **Pb** | 10 30 45.1 | +0.3 |
| | baz=279 | | | | | | | | |
| WTP | | | | | | S | **Sb** | 10 30 58.7 | +0.5 |
| | baz=279 | | | | | | | | |
| **SSD** | **Sandimen** | **1.06** | **254** | | *e* | P | **Pb** | 10 30 44.0 | -0.9 |
| | baz=250 | | | | | | | | |
| **SGST** | **Jiashian** | **1.07** | **272** | ⇑ | | P | **Pn** | 10 30 45.4 | +0.4 |
| | baz=271 | | | | | | | | |
| SGST | | | | | | S | **Sb** | 10 30 59.2 | +0.7 |
| | baz=271 | | | | | | | | |
| **CHN4** | **Tsaushan** | **1.10** | **286** | ⇑ | *i* | P | **Pn** | 10 30 46.2 | +0.7 |
| | baz=293 | | | | | | | | |
| CHN4 | | | | | | S | **Sg** | 10 31 00.9 | 0.0 |
| | baz=293 | | | | | | | | |
| **CHN5** | **Tsauling** | **1.12** | **300** | ⇑ | | P | **Pn** | 10 30 46.5 | +0.6 |
| | baz=302 | | | | | | | | |
| CHN5 | | | | | | S | **Sn** | 10 31 01.1 | +0.4 |
| | baz=302 | | | | | | | | |
| **CHN1** | **Nanshi** | **1.13** | **277** | ⇑ | *i* | P | **Pg** | 10 30 46.7 | -0.3 |
| | baz=285 | | | | | | | | |
| CHN1 | | | | | | S | **Sg** | 10 31 02.3 | +0.4 |
| | baz=285 | | | | | | | | |
| **SMLT** | **Sun Moon Lake** | **1.14** | **317** | ⇑ | | P | **Pn** | 10 30 46.1 | 0.0 |
| | baz=330 | | | | | | | | |
| SMLT | | | | | | S | **Sb** | 10 30 59.5 | -1.2 |
| | baz=330 | | | | | | | | |
| **TWK** | **Hsinying** | **1.18** | **281** | ⇑ | *i* | P | **Pb** | 10 30 47.3 | +0.5 |
| | baz=281 | | | | | | | | |
| TWK | | | | | | S | **Sn** | 10 31 02.8 | +0.8 |
| | baz=281 | | | | | | | | |
| **TYC** | **Yuchr** | **1.18** | **317** | ⇓ | | P | **Pn** | 10 30 46.8 | +0.2 |
| | baz=330 | | | | | | | | |
| TYC | | | | | | S | **Sb** | 10 31 01.6 | -0.1 |
| | baz=330 | | | | | | | | |
| **WHF** | **Hehuan Shan** | **1.18** | **338** | ⇓ | *e* | P | **Pn** | 10 30 46.4 | -0.6 |
| | baz=343 | | | | | | | | |
| WHF | | | | | | S | **Sb** | 10 31 00.5 | -1.7 |
| | baz=343 | | | | | | | | |
| **SGLT** | **Jiouru** | **1.20** | **255** | | *e* | P | **Pb** | 10 30 47.6 | +0.5 |
| | baz=246 | | | | | | | | |
| **SCZT** | **Fangliau** | **1.23** | **237** | | *e* | P | **Pn** | 10 30 47.7 | +0.5 |
| | baz=232 | | | | | | | | |
| **TWM1** | **Shoushan** | **1.23** | **260** | | *e* | P | **Pg** | 10 30 49.1 | 0.0 |
| | baz=257 | | | | | | | | |
| **WGK** | **Gukeng** | **1.26** | **301** | | *e* | P | **Pn** | 10 30 48.1 | +0.5 |
| | baz=318 | | | | | | | | |
| WGK | | | | | | S | **Sg** | 10 31 05.7 | -0.3 |
| | baz=318 | | | | | | | | |
| **CHN2** | **Minshiung** | **1.26** | **293** | | *e* | P | **Pb** | 10 30 48.8 | +0.5 |
| | baz=294 | | | | | | | | |
| **CHN3** | **Shinhua** | **1.27** | **272** | | *e* | P | **Pg** | 10 30 50.3 | +0.6 |
| | baz=270 | | | | | | | | |
| CHN3 | | | | | | S | **Sg** | 10 31 08.3 | +2.0 |
| | baz=270 | | | | | | | | |
| **WNT** | **Mingjian** | **1.28** | **311** | | *e* | P | **Pb** | 10 30 49.1 | +0.6 |
| | baz=314 | | | | | | | | |
| WNT | | | | | | S | **Sn** | 10 31 05.1 | +0.6 |
| | baz=314 | | | | | | | | |
| **CHY** | **Chiayi** | **1.29** | **291** | ⇑ | *e* | P | **Pb** | 10 30 49.1 | +0.3 |
| | baz=292 | | | | | | | | |
| **TWT** | **Tachien** | **1.31** | **337** | | *e* | P | **Pn** | 10 30 48.8 | +0.3 |
| | baz=351 | | | | | | | | |
| TWT | | | | | | S | **Sb** | 10 31 03.4 | -2.3 |
| | baz=351 | | | | | | | | |
| **ENA** | **Nanau** | **1.38** | **360** | | *e* | P | **Pn** | 10 30 49.2 | -0.1 |
| | baz=14 | | | | | | | | |
| ENA | | | | | | S | **Sn** | 10 31 05.6 | -1.4 |
| | baz=14 | | | | | | | | |
| **TSEB** | **Hengchuen, Pin** | **1.38** | **215** | | *e* | P | **Pb** | 10 30 50.7 | +0.4 |
| | baz=211 | | | | | | | | |
| **HEN** | **Hengchun** | **1.39** | **222** | | *e* | P | **Pb** | 10 30 51.2 | +0.8 |
| | baz=217 | | | | | | | | |
| **TAI1** | **Yung-k'ang** | **1.39** | **270** | | *e* | P | **Pg** | 10 30 51.5 | -0.6 |
| | baz=268 | | | | | | | | |
| **TWK1** | **Hengchun** | **1.40** | **218** | | *e* | P | **Pn** | 10 30 49.7 | +0.2 |
| | baz=213 | | | | | | | | |
| **KAU** | **Kaohsiung** | **1.41** | **251** | | *e* | P | **Pg** | 10 30 54.3 | +2.1 |
| | baz=247 | | | | | | | | |
| **NNS** | **Nan Shan** | **1.43** | **346** | | *e* | P | **Pn** | 10 30 50.3 | +0.2 |
| | baz=350 | | | | | | | | |
| **SCLT** | **Jiali** | **1.43** | **276** | | *e* | P | **Pb** | 10 30 51.1 | -0.1 |
| | baz=275 | | | | | | | | |
| SCLT | | | | | | S | **Sg** | 10 31 10.7 | -0.8 |
| | baz=275 | | | | | | | | |
| **CHN8** | **Yiju** | **1.44** | **282** | | *e* | P | **Pb** | 10 30 51.4 | +0.1 |
| | baz=283 | | | | | | | | |
| CHN8 | | | | | | S | **Sg** | 10 31 10.7 | -1.1 |
| | baz=283 | | | | | | | | |
| **TWP** | **Hsiaoliuchiu** | **1.45** | **242** | | *e* | P | **Pg** | 10 30 53.2 | +0.1 |
| | baz=231 | | | | | | | | |
| **TCU** | **Taichung** | **1.47** | **319** | | *e* | P | **Pg** | 10 30 53.1 | -0.4 |
| | baz=322 | | | | | | | | |
| **WSF** | **Szhu** | **1.52** | **293** | | *e* | P | **Pn** | 10 30 51.9 | +0.7 |
| | baz=296 | | | | | | | | |
| WSF | | | | | | S | **Sn** | 10 31 10.8 | +0.4 |
| | baz=296 | | | | | | | | |
| **TWC** | **Suao** | **1.56** | **4** | | *e* | P | **Pn** | 10 30 52.3 | +0.5 |
| | baz=17 | | | | | | | | |
| TWC | | | | | | S | **Sn** | 10 31 11.2 | -0.3 |
| | baz=17 | | | | | | | | |
| **TWQ1** | **Liyutan** | **1.57** | **326** | ⇑ | | P | **Pb** | 10 30 54.1 | +0.5 |
| | baz=330 | | | | | | | | |
| TWQ1 | | | | | | S | **Sb** | 10 31 14.0 | +0.9 |
| | baz=330 | | | | | | | | |
| **ENTT** | **Nioudou** | **1.60** | **354** | | *e* | P | **Pn** | 10 30 52.0 | -0.3 |
| | baz=359 | | | | | | | | |
| **NSY** | **Sanyi** | **1.64** | **327** | | *e* | P | **Pb** | 10 30 54.9 | +0.2 |
| | baz=331 | | | | | | | | |
| NSY | | | | | | S | **Sb** | 10 31 15.7 | +0.8 |
| | baz=331 | | | | | | | | |
| **NSK** | **Sanguang** | **1.66** | **348** | | *e* | P | **Pn** | 10 30 54.2 | +1.0 |
| | baz=352 | | | | | | | | |
| NSK | | | | | | S | **Sn** | 10 31 13.3 | -0.8 |
| | baz=352 | | | | | | | | |
| **TWE** | **Neicheng** | **1.67** | **358** | | *e* | P | **Pn** | 10 30 53.6 | +0.3 |
| | baz=350 | | | | | | | | |
| **NSTT** | **Nanjuang** | **1.72** | **337** | | *e* | P | **Pb** | 10 30 55.6 | -0.5 |
| | baz=350 | | | | | | | | |
| **JYNG** | **Yonaguni jima** | **1.78** | **38** | | | P | **Pn** | 10 30 55.9 | +1.0 |
| JYNG | | | | | | S | **Sn** | 10 31 16.8 | -0.2 |
| **YOJ** | **Yonaguni jima** | **1.83** | **39** | | *e* | P | **Pn** | 10 30 56.3 | +0.9 |
| | baz=42 | | | | | | | | |
| **YOJ** | **Yonaguni jima** | **1.83** | **39** | | | P | **Pn** | 10 30 56.4 | +0.9 |
| YOJ | | | | | | S | **Sn** | 10 31 18.8 | +0.7 |
| **WDGT** | **Dungji** | **1.93** | **277** | | *e* | P | **Pn** | 10 30 57.0 | +0.2 |
| | baz=260 | | | | | | | | |
| WDGT | | | | | | S | **Sn** | 10 31 19.4 | -1.1 |
| | baz=260 | | | | | | | | |
| **TWB1** | **Santiao Chiao** | **1.97** | **7** | | *e* | P | **Pn** | 10 30 58.7 | +1.3 |
| | baz=10.0 | | | | | | | | |
| **NWF** | **Wu-fen Shan** | **2.02** | **1** | | *e* | P | **Pn** | 10 30 59.2 | +1.0 |
| | baz=351 | | | | | | | | |
| **PNG** | **Penghu** | **2.08** | **285** | | | P | **Pn** | 10 30 59.4 | +0.5 |
| | baz=287 | | | | | | | | |
| PNG | | | | | | S | **Sn** | 10 31 23.4 | -0.7 |
| | baz=287 | | | | | | | | |
| **HATJ** | **Hateruma jima** | **2.15** | **62** | | | P | **Pn** | 10 31 00.7 | +0.9 |
| HATJ | | | | | | S | **Sn** | 10 31 25.8 | -0.1 |
| **IRIF** | **Iriomote-Funau** | **2.23** | **54** | | | P | **Pn** | 10 31 01.9 | +0.9 |
| IRIF | | | | | | S | **Sn** | 10 31 28.7 | +0.7 |
| **JKRS** | **Kuro-shima** | **2.40** | **60** | | | P | **Pn** | 10 31 04.4 | +1.1 |
| JKRS | | | | | | S | **Sn** | 10 31 32.6 | +0.5 |
| **JIJ** | **Ishigaki jima** | **2.56** | **59** | | | P | **Pn** | 10 31 06.2 | +0.6 |
| JIJ | | | | | | S | **Sn** | 10 31 35.4 | -0.8 |
| **JISG** | **Ishigakijimahi** | **2.81** | **56** | | | P | **Pn** | 10 31 09.4 | +0.4 |
| JISG | | | | | | S | **Sn** | 10 31 40.6 | -1.7 |
| **JTJ** | **Tarama** | **3.14** | **59** | | | P | **Pn** | 10 31 14.6 | +1.0 |
| JTJ | | | | | | S | **Sn** | 10 31 50.7 | +0.2 |
| **JIRB** | **Irabujima** | **3.61** | **60** | | | P | **Pn** | 10 31 20.7 | +0.8 |
| JIRB | | | | | | S | **Sn** | 10 32 01.6 | -0.4 |
| **JIKM** | **Ikemajima** | **3.71** | **59** | | | P | **Pn** | 10 31 22.2 | +0.8 |
| JIKM | | | | | | S | **Sn** | 10 32 03.5 | -1.1 |
| **JOGS** | **Gusukube** | **3.76** | **62** | | | P | **Pn** | 10 31 23.5 | +1.4 |

*JMA **20** 10:33:31.9±0.2, 37.03N×142.73E, h39km, M3.3*
*IDC **20** 10:33:31.6±2.0, 37.24N×142.67E, h0km, mb3.6/4, mb1 3.6/6, mb1mx3.4/57, mbtmp3.5/6, ML3.3/2, MS3.2/2, Ms1 3.2/2, ms1mx2.4/52, Error ellipse: s-maj=48.4km s-min=26.6km az=76.0*
*ISCJB **20** 10:33:34.2±1.1, 37.06N±0.04×142.6E±0.1, h35km, mb3.5/4, Error ellipse: s-maj=11.7km s-min=5.8km az=12.7*

**ISC 20 10:33:36.0±1.3, 37.10N±0.06×142.6E±0.1, h35km, n24, σ1°24/23, mb3.6/4, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **JFK** | **Kawauchi** | **1.39** | **282** | | | P | **Pn** | **10 33 57.4** | **-1.6** |
| **JMM** | **Marumori** | **1.62** | **299** | | | P | **Pn** | **10 34 00.8** | **-1.3** |
| **JIO** | **Ouri** | **1.67** | **324** | | | P | **Pn** | **10 34 01.5** | **-1.3** |
| JIO | | | | | | *e*S | **Sn** | **10 34 23.0** | **0.0** |
| **JHO** | **Hitachi** | **1.69** | **254** | | | P | **Pn** | **10 34 01.2** | **-1.8** |
| **JFT** | **Otama** | **1.84** | **284** | | | P | **Pn** | **10 34 04.3** | **-0.8** |
| **JOU** | **Okura** | **1.98** | **310** | | | P | **Pn** | **10 34 06.4** | **-0.7** |
| **JMK** | **Ichinoseki** | **2.14** | **330** | | | P | **Pn** | **10 34 08.2** | **-1.0** |
| JMK | | | | | | *e*S | **Sn** | **10 34 34.8** | **+0.2** |
| **JYK** | **Kaneyama** | **2.53** | **317** | | | P | **Pn** | **10 34 13.9** | **-0.7** |
| **JOM** | **Ohasama** | **2.58** | **337** | | | P | **Pn** | **10 34 13.9** | **-1.4** |
| **JAG** | **Ashikaga** | **2.60** | **256** | | | P | **Pn** | **10 34 14.6** | **-1.0** |
| JAG | | | | | | *e*S | **Sn** | **10 34 45.4** | **-0.6** |
| **BSO1** | **Boso 1** | **2.77** | **209** | | | S | **Sn** | **10 34 47.5** | **-1.7** |
| **JRY** | **Ryogami san** | **3.16** | **251** | | | P | **Pn** | **10 34 22.0** | **-1.2** |
| JRY | | | | | | S | **Sn** | **10 34 58.4** | **-1.3** |
| **MJAR** | **Matsushiro Arr** | **3.56** | **262** | | | Pn | **Pn** | **10 34 28.9** | **+0.2** |
| | 1.3nm,0.3s,baz=86,slow=15,SNR=15 | | | | | | | | |
| **MAT** | **Matsushiro** | **3.56** | **262** | | | P | **Pn** | **10 34 28.9** | **+0.2** |
| MAT | | | | | | S | Sn | 10 35 20.5 | +11 |
| **ASAJ** | **Asahikawa** | **7.01** | **0** | | | Pn | **Pn** | **10 35 13.9** | **-2.2** |
| | 0.8nm,0.3s,baz=18,slow=20,SNR=3.6 | | | | | | | | |
| **JNU** | **Nakatsue** | **10.38** | **251** | | | LR | LR | 10 40 14.9 | |
| | comp=Z,530nm,19.9s,baz=279,slow=38 | | | | | | | | |
| **KSRS** | **Korea Array** | **11.69** | **276** | | | LR | LR | 10 40 48.6 | |
| | comp=Z,27nm,18.1s,baz=70,slow=37 | | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **27.38** | **123** | | | T | T | 11 08 19.3 | |
| | baz=315 | | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **27.39** | **123** | | | T | T | 11 08 10.3 | |
| | baz=315 | | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **27.40** | **123** | | | T | T | 11 08 10.9 | |
| | baz=315 | | | | | | | | |
| **SONM** | **Songino Array** | **28.53** | **304** | | | P | **P** | **10 39 29.1** | **+0.8** |
| | 0.8nm,0.8s,baz=96,slow=7.4,SNR=3.9 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **44.88** | **302** | | | P | **P** | **10 41 47.4** | **+0.5** |
| | 0.3nm,0.7s,baz=91,slow=8.8,SNR=3.5 | | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **46.70** | **308** | | | P | **P** | **10 42 01.1** | **-0.1** |
| | 0.7nm,0.6s,baz=82,slow=7.8,SNR=7.3 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **57.26** | **189** | | | P | **P** | **10 43 22.0** | **+2.0** |
| | 0.4nm,0.6s,baz=9.1,slow=7.0,SNR=2.3 | | | | | | | | |

*ISCJB **20** 10:36:30.5±0.4, 6.46S±0.04×146.02E±0.07, h122km, mb4.3/12, Error ellipse: s-maj=10.0km s-min=5.4km az=6.8*
*NEIC **20** 10:36:34.4±0.7, 6.59S×146.14E, h151km±8km, mb4.1/6, Error ellipse: s-maj=13.4km s-min=5.8km az=113.0*
*IDC **20** 10:36:34.1±1.5, 6.69S×146.22E, h152km±18km, mb3.9/12, mb1 3.9/15, mb1mx3.8/34, mbtmp4.3/15, MS3.0/2, Ms1 3.0/2, ms1mx2.5/31, Error ellipse: s-maj=24.3km s-min=10.1km az=109.0*

**ISC 20 10:36:31.8±0.5, 6.54S±0.05×146.04E±0.08, h122km, n43, σ1°48/49, mb4.4/12, Eastern New Guinea region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **3.06** | **159** | | | P | **Pn** | **10 37 19.8** | **+0.9** |
| | 30nm,0.3s,baz=311,slow=5.5,SNR=62 | | | | | | | | |
| PMG | | | | | | S | **Sn** | **10 37 55.1** | **0.0** |
| | 134nm,0.3s,baz=0.1,slow=19,SNR=44 | | | | | | | | |
| PMG | | | | | | LR | LR | 10 38 34.1 | |
| | comp=Z,149nm,18.3s,baz=154,slow=42 | | | | | | | | |
| **PMG** | **Port Moresby** | **3.06** | **159** | | | *e*P | **Pn** | **10 37 19.8** | **+0.9** |
| PMG | | | | | | *e*Sn | **Sn** | **10 37 55.5** | **+0.3** |
| **MANU** | **Manus Island** | **4.66** | **17** | | | *e*Pn | **Pn** | **10 37 44.8** | **+4.5** |
| **RABL** | **Rabaul** | **6.53** | **69** | | | *e*Pn | **Pn** | **10 38 06.9** | **+1.4** |
| **COEN** | **Coen** | **7.89** | **201** | | | *e*Pn | **Pn** | **10 38 27.2** | **+3.4** |
| COEN | | | | | | *e*Sn | **Sn** | **10 39 55.0** | **+3.5** |
| **CTA** | **Charters Tower** | **13.47** | **179** | | | P | **Pn** | **10 39 38.5** | **+0.5** |
| | 0.0nm,0.3s,baz=356,slow=15,SNR=2.2 | | | | | | | | |
| **WRAB** | **Tennant Creek** | **17.49** | **219** | | | *e*P | **Pn** | **10 40 28.2** | **0.0** |
| | 7.6nm,0.7s | | | | | | | | |
| **WB2** | **Warramunga Arr** | **17.50** | **219** | | | *e*P | **Pn** | **10 40 28.3** | **0.0** |
| **WR1** | **Warramunga Arr** | **17.51** | **219** | | | *e*P | **Pn** | **10 40 28.2** | **-0.2** |
| | 10nm,0.8s | | | | | | | | |
| WR1 | | | | | | *e*S | **Sn** | **10 43 44.8** | **+0.8** |
| WR1 | | | | | | *e*PcP | **PcP** | **10 45 00.2** | **-1.8** |
| **WRA** | **Warramunga Arr** | **17.51** | **219** | | | P | **Pn** | **10 40 28.2** | **-0.2** |
| | 0.7nm,0.3s,baz=38,slow=11,SNR=40 | | | | | | | | |
| WRA | | | | | | S | **Sn** | **10 43 44.8** | **+0.8** |
| | 0.1nm,0.3s,baz=37,slow=22,SNR=3.4 | | | | | | | | |
| WRA | | | | | | PcP | **PcP** | **10 45 00.2** | **-1.8** |
| | 0.0nm,0.3s,baz=19,slow=1.7,SNR=4.6 | | | | | | | | |
| **EIDS** | **Eidsvold** | **19.33** | **166** | | | *e*P | **Pn** | **10 40 50.2** | **+0.3** |
| | 9.4nm,0.8s | | | | | | | | |
| **AS01** | **Alice Springs** | **20.61** | **213** | | | *e*P | **P** | **10 41 02.2** | **+0.7** |
| **AS31** | **Alice Springs** | **20.64** | **213** | | | *e*P | **P** | **10 41 02.9** | **+1.1** |
| | 3.4nm,0.8s | | | | | | | | |
| AS31 | | | | | | *e*S | **S** | **10 44 42.7** | **-3.2** |
| **ASAR** | **Alice Springs** | **20.64** | **213** | | | P | **P** | **10 41 02.5** | **+0.7** |
| | 3.1nm,0.5s,baz=44,slow=9.3,SNR=50 | | | | | | | | |
| ASAR | | | | | | S | **S** | **10 44 42.7** | **-3.2** |
| | 1.0nm,0.9s,baz=28,slow=20,SNR=4.8 | | | | | | | | |
| ASAR | | | | | | LR | LR | 10 50 25.9 | |
| | comp=Z,63nm,19.5s,baz=34,slow=40 | | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **22.97** | **238** | | | P | **P** | **10 41 25.2** | **-0.7** |
| | 1.2nm,0.4s,baz=51,slow=12,SNR=7.9 | | | | | | | | |
| **STKA** | **Stephens Creek** | **25.55** | **189** | | | P | **P** | **10 41 48.5** | **-0.8** |
| | 3.2nm,0.4s,baz=354,slow=9.3,SNR=16 | | | | | | | | |
| **STKA** | **Stephens Creek** | **25.55** | **189** | | | *e*P | **P** | **10 41 50.1** | **+0.9** |
| | 6.6nm,1.9s | | | | | | | | |
| **KKM** | **Kota Kinabalu** | **32.28** | **292** | | | *e*P | **P** | **10 42 46.1** | **-3.3** |
| | 39nm,1.3s | | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **52.08** | **347** | | | P | **P** | **10 45 29.2** | **+0.1** |
| | 2.9nm,0.5s,baz=165,slow=8.9,SNR=7.2 | | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **52.67** | **299** | | | P | **P** | **10 45 35.2** | **+1.2** |
| | 3.9nm,0.6s,baz=123,slow=6.0,SNR=21 | | | | | | | | |
| **PETK** | **Petropavlovsk-** | **60.24** | | | | P | **P** | **10 46 27.1** | **+0.1** |
| | 5.7nm,0.8s,baz=158,slow=4.7,SNR=7.5 | | | | | | | | |
| **PEA1** | **Petropavlovsk-** | **60.25** | **8** | | | *e*P | **P** | **10 46 27.1** | **+0.1** |
| **SONA0** | **Songino Array** | **64.42** | **332** | | | *e*P | **P** | **10 46 55.5** | **+0.4** |
| **SONM** | **Songino Array** | **64.42** | **332** | | | P | **P** | **10 46 55.5** | **+0.4** |
| | 0.6nm,0.5s,baz=152,slow=5.3,SNR=4.7 | | | | | | | | |
| **MK32** | **Makanchi Array** | **77.31** | **321** | | | *e*P | **P** | **10 48 13.5** | **+0.5** |
| **MKAR** | **Makanchi Array** | **77.31** | **321** | | | P | **P** | **10 48 13.5** | **+0.5** |
| | 6.5nm,0.8s,baz=105,slow=6.8,SNR=44 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **78.96** | **328** | | | P | **P** | **10 48 21.3** | **-0.6** |
| | 3.1nm,0.4s,baz=107,slow=6.0,SNR=13 | | | | | | | | |
| **ZAA1** | **Zalesovo Array** | **78.96** | **328** | | | *e*P | **P** | **10 48 21.2** | **-0.6** |
| **KURK** | **Kurchatov** | **81.07** | **324** | | | *e*P | **P** | **10 48 33.6** | **+0.3** |
| **KURBB** | **Kurchatov Arra** | **81.09** | **323** | | | P | **P** | **10 48 33.6** | **+0.2** |
| | 3.5nm,0.7s,baz=117,slow=4.4,SNR=35 | | | | | | | | |
| **ILAR** | **Eielson Array** | **86.35** | **23** | | | P | **P** | **10 48 58.2** | **-1.7** |
| | 2.7nm,0.9s,baz=253,slow=5.0,SNR=29 | | | | | | | | |
| **ILB** | **Eielson Array** | **86.35** | **23** | | | *e*P | **P** | **10 48 58.2** | **-1.7** |
| **BVAR** | **Borovoye Array** | **86.64** | **324** | | | P | **P** | **10 49 01.5** | **-0.1** |
| | 1.9nm,0.5s,baz=106,slow=5.3,SNR=14 | | | | | | | | |
| **GERES** | **GERESS Array B** | **121.80** | **325** | | | PKP | **PKPdf** | **10 55 11.1** | **-0.6** |
| | 0.2nm,0.4s,baz=67,slow=2.6,SNR=3.0 | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **144.29** | **283** | | | PKP | **PKPab** | **10 55 52.8** | **+0.1** |
| | 3.1nm,0.9s,baz=88,slow=3.4,SNR=16 | | | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **144.29** | **283** | | | *e*PKPdf | **PKPab** | **10 55 52.8** | **+0.1** |
| **KIC** | **Kosan Boka** | **150.97** | **271** | | | *e*PKP1 | **PKPbc** | **10 56 11.6** | **+0.2** |
| | 11nm,0.7s | | | | | | | | |
| **KIC** | **Kosan Boka** | **150.97** | **271** | | | *e*P | pPKPbc | 10 56 45.4 | +1.2 |
| | 40nm,1.3s | | | | | | | | |
| **DBIC** | **Dimbokro** | **151.09** | **272** | | | PKPbc | **PKPbc** | **10 56 11.7** | **+0.1** |
| | 4.8nm,0.6s,baz=63,slow=2.3,SNR=11 | | | | | | | | |
| **LIC** | **Lamto** | **151.25** | **271** | | | *e*PKP1 | **PKPbc** | **10 56 12.4** | **+0.4** |
| | 24nm,0.6s | | | | | | | | |
| **LIC** | **Lamto** | **151.25** | **271** | | | *e*P | pPKPbc | 10 56 46.8 | +2.0 |
| | 24nm,0.7s | | | | | | | | |
| **TIC** | **Toumodi** | **151.25** | **272** | | | *e*PKP1 | **PKPbc** | **10 56 12.0** | **-0.1** |
| **TIC** | **Toumodi** | **151.25** | **272** | | | *e*P | pPKPbc | 10 56 46.8 | +2.0 |

*IDC **20** 10:39:00.9±4.3, 13.73N×89.76W, h0km, mb3.3/3, mb1 3.8/4, mb1mx3.5/36, mbtmp3.6/4, ML4.3/1, MS2.9/3, Ms1 2.8/3, ms1mx2.6/22, Error ellipse: s-maj=122.5km s-min=53.9km az=27.0*
*CASC **20** 10:39:13.8±1.0, 13.71N×90.87W, h29km±7km, MD4.8, ML4.1*
*ISCJB **20** 10:39:14.0±0.8, 13.9N±0.1×90.77W±0.09, h96km±9km, mb3.5/2, Error ellipse: s-maj=24.0km s-min=6.0km az=35.0*

**ISC 20 10:39:16.1±1.3, 14.1N±0.2×90.7W±0.1, h88km±11km, n37, σ0°92/44, 1C, Guatemala**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **CUS1** | **Cusmapa** | **0.70** | **101** | | | *e*P | **Pn** | **10 39 30.9** | **-1.6** |
| **RTR** | **El Retiro** | **0.99** | **98** | | | *e*P | **Pn** | **10 39 35.2** | **-0.5** |
| **MONT** | **Ecomontaæa** | **0.99** | **101** | | | *e*P | **Pn** | **10 39 35.4** | **-0.4** |
| **SBLS** | **San Blas** | **1.02** | **101** | | | *e*P | **Pn** | **10 39 35.3** | **-0.8** |
| SBLS | | | | | | *e*S | **Sn** | **10 39 51.2** | **+0.1** |
| **SNJE** | **San Jose** | **1.03** | **100** | | | *e*P | **Pn** | **10 39 35.3** | **-0.9** |
| **UNIC** | **Santa Ana** | **1.06** | **93** | | | *e*P | **Pn** | **10 39 35.7** | **-0.7** |
| **BOQS** | **Boqueron** | **1.37** | **103** | | | *e*P | **Pn** | **10 39 39.7** | **-0.6** |
| **COLS** | **Colinas** | **1.37** | **106** | | | *e*P | **Pn** | **10 39 39.7** | **-0.5** |
| **UEES** | **San Salvador** | **1.40** | **103** | | | *e*P | **Pn** | **10 39 40.6** | **0.0** |
| UEES | | | | | | *e*S | **Sn** | **10 40 01.1** | **+2.0** |
| **SNET** | **Serv Nac Est T** | **1.42** | **104** | | | *e*P | **Pn** | **10 39 40.2** | **-0.6** |
| SNET | | | | | | *e*S | **Sn** | **10 40 00.8** | **+1.2** |
| SNET | | | | | | AML | AML | 10 40 07.5 | |
| | comp=Z,4μm,0.3s | | | | | | | | |
| **OPAM** | **San Salvador** | **1.45** | **103** | | | *e*P | **Pn** | **10 39 40.9** | **-0.2** |
| OPAM | | | | | | *e*S | **Sn** | **10 40 00.7** | **+0.6** |
| **UDBS** | **Soyapango** | **1.48** | **102** | | | *e*P | **Pn** | **10 39 40.8** | **-0.8** |
| UDBS | | | | | | *e*S | **Sn** | **10 40 02.7** | **+1.8** |
| **LBRS** | **Las Brisas** | **1.59** | **101** | | | *e*P | **Pn** | **10 39 42.7** | **-0.2** |
| **LFRS** | **El Faro** | **1.60** | **105** | | | *e*P | **Pn** | **10 39 42.5** | **-0.6** |
| **SNVI** | **San Vicente** | **1.81** | **104** | | | *e*P | **Pn** | **10 39 45.9** | **0.0** |
| **CAHU** | **Cacacuatique** | **2.38** | **96** | | | *e*P | **Pn** | **10 39 53.6** | **+0.1** |
| **VSM** | **San Miguel** | **2.39** | **105** | | | *e*P | **Pn** | **10 39 53.8** | **+0.2** |
| **LCND** | **La Caˆ–ada** | **2.78** | **105** | | | *e*P | **Pn** | **10 39 58.1** | **-0.5** |
| LCND | | | | | | *e*S | **Sn** | **10 40 33.0** | **+1.6** |
| **CNCH** | **Conchagua** | **2.84** | **105** | | | *e*P | **Pn** | **10 39 59.4** | **-0.2** |
| **MOMN** | **Momotombo** | **4.32** | **112** | | | *e*P | **Pn** | **10 40 18.5** | **-1.0** |
| **COPN** | **Copaltepe** | **4.37** | **115** | | | *e*P | **Pn** | **10 40 18.8** | **-1.3** |
| COPN | | | | | | AML | AML | 10 41 14.3 | |
| | comp=Z,286nm,0.8s | | | | | | | | |
| **APYN** | **Apoyeque** | **4.56** | **113** | | | *e*P | **Pn** | **10 40 22.0** | **-0.8** |
| **XAVN** | **Gruta Xavier** | **4.62** | **114** | | | *e*P | **Pn** | **10 40 23.0** | **-0.4** |
| **TISN** | **Laguna Tiscapa** | **4.67** | **113** | | | *e*P | **Pn** | **10 40 23.2** | **-1.0** |
| **MGAN** | **Managua** | **4.69** | **113** | | | *e*P | **Pn** | **10 40 23.6** | **-0.8** |
| **CMIG** | **Matias Romero** | **5.08** | **307** | | | Pn | **Pn** | **10 40 30.1** | **+0.3** |
| | comp=Z,8.3nm,0.3s,baz=110,slow=11,SNR=121 | | | | | | | | |
| CMIG | | | | | | Sn | **Sn** | **10 41 29.1** | **+1.9** |
| | comp=Z,16nm,0.3s,baz=291,slow=20,SNR=7.0 | | | | | | | | |
| CMIG | | | | | | LR | LR | 10 42 55.9 | |
| | comp=Z,54nm,21.2s,baz=99,slow=39 | | | | | | | | |
| **CRZ1** | **La Cruz** | **5.72** | **121** | | | *e*P | **Pn** | **10 40 38.0** | **-0.6** |
| CRZ1 | | | | | | *e*S | **Sn** | **10 41 43.7** | **+0.8** |
| **VCR** | **Vista de Mar** | **6.27** | **128** | | | *e*P | **Pn** | **10 40 45.4** | **-0.7** |
| **CGA2** | **Cerro Gallo 2** | **7.25** | **123** | | | *e*P | **Pn** | **10 40 59.8** | **+0.2** |
| **QCR1** | **Quepos** | **7.83** | **125** | ⇑ | *e* | P | **Pn** | **10 41 07.7** | **+0.3** |
| **URSC** | **Urasca** | **7.92** | **121** | | | *e*P | **Pn** | **10 41 07.4** | **-1.3** |
| URSC | | | | | | *e*S | **Sn** | **10 42 37.9** | **+1.0** |
| **TXAR** | **Lajitas Array** | **19.41** | **324** | | | P | **Pn** | **10 43 37.9** | **+0.5** |
| | comp=Z,0.4nm,0.4s,baz=146,slow=11,SNR=20 | | | | | | | | |
| **ATAH** | **Atahualpa** | **24.31** | **149** | | | LR | LR | 10 51 58.8 | |
| | comp=Z,58nm,21.9s,baz=282,slow=33 | | | | | | | | |
| **PDAR** | **Pinedale Array** | **32.94** | **334** | | | LR | LR | 11 00 21.7 | |
| | comp=Z,15nm,18.4s,baz=330,slow=38 | | | | | | | | |
| **YKA** | **

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SVKR | | | | | pmax | pmax | | | |
| | comp=Z,854nm,1.1s | | | | | | | | |
| SVKR | | | | | smax | smax | | | |
| | comp=N,4µm,0.8s | | | | | | | | |
| **UKT** | **Uakit** | **2.63** | **260** | ⇓ | *i*Pn | **Pn** | **10 58 45.5** | **+1.8** | |
| UKT | | | | ⇓ | *i*Pg | **Pb** | **10 58 49.2** | **+1.1** | |
| UKT | | | | | Pmax | | 10 58 49.8 | | |
| | comp=N,325nm,0.5s | | | | | | | | |
| UKT | | | | | *e*Sg | **Sg** | **10 59 24.1** | **-0.6** | |
| UKT | | | | | Smax | | 10 59 28.6 | | |
| | comp=N,2µm,0.7s | | | | | | | | |
| **UKT** | **Uakit** | **2.63** | **260** | | *e*PN | **Pb** | **10 58 49.1** | **+1.0** | |
| UKT | | | | | *e* | | 10 59 23.4 | | |
| UKT | | | | | pmax | pmax | | | |
| | comp=Z,242nm,0.3s | | | | | | | | |
| UKT | | | | | smax | smax | | | |
| | comp=N,1µm,0.6s | | | | | | | | |
| **BOD** | **Bodaibo** | **2.90** | **310** | ⇓ | *i*Pn | **Pn** | **10 58 47.7** | **+0.4** | |
| BOD | | | | ⇓ | *i*Pg | **Pb** | **10 58 52.9** | **+0.3** | |
| BOD | | | | | Pmax | | 10 58 58.3 | | |
| | comp=N,301nm,0.8s | | | | | | | | |
| BOD | | | | | *e*Sg | **Sb** | **10 59 30.3** | **+1.8** | |
| BOD | | | | | Smax | | 10 59 31.8 | | |
| | comp=N,4µm,0.8s | | | | | | | | |
| **BOD** | **Bodaibo** | **2.90** | **310** | ⇑ | *e*PN | **Pn** | **10 58 47.4** | **+0.1** | |
| BOD | | | | | *i* | | 10 58 52.8 | | |
| BOD | | | | | *e* | | 10 59 30.1 | | |
| BOD | | | | | pmax | pmax | | | |
| | comp=Z,335nm,0.6s | | | | | | | | |
| BOD | | | | | smax | smax | | | |
| | comp=N,4µm,0.7s | | | | | | | | |
| **BOD** | **Bodaibo** | **2.90** | **310** | | *e*P | **Pn** | **10 58 47.4** | **+0.1** | |
| **YOA** | **Uoyan** | **3.62** | **274** | | *e*Pn | **Pn** | **10 58 59.2** | **+2.0** | |
| YOA | | | | | *e*Pg | **Pb** | **10 59 06.2** | **+1.4** | |
| YOA | | | | | Pmax | | 10 59 21.0 | | |
| | comp=N,633nm,1.5s | | | | | | | | |
| YOA | | | | | *e*Sg | **Sg** | **10 59 54.2** | **-2.2** | |
| YOA | | | | | *e* | | 11 00 01.9 | | |
| YOA | | | | | max | | 11 00 15.3 | | |
| | comp=N,3µm,1.2s | | | | | | | | |
| **YOA** | **Uoyan** | **3.62** | **274** | | *e*PN | **Pn** | **10 58 59.2** | **+2.0** | |
| YOA | | | | | *e* | | 10 59 06.2 | | |
| YOA | | | | | *e* | | 10 59 56.5 | | |
| YOA | | | | | pmax | pmax | | | |
| | comp=Z,424nm,0.4s | | | | | | | | |
| YOA | | | | | smax | smax | | | |
| | comp=E,3µm,1.0s | | | | | | | | |
| **IENR** | **Iengra** | **3.74** | **84** | | *e*Pn | **Pn** | **10 59 00.1** | **+1.2** | |
| IENR | | | | | *e* | | 10 59 04.3 | | |
| IENR | | | | | *e*Pg | **Pb** | **10 59 07.7** | **+0.8** | |
| IENR | | | | | *e*Sn | **Sn** | **10 59 43.6** | **+0.2** | |
| IENR | | | | | *e*Sg | **Sg** | **10 59 56.8** | **-3.4** | |
| **CLNS** | **Chul'man** | **3.81** | **75** | | *e*Pn | **Pn** | **10 59 01.3** | **+1.5** | |
| CLNS | | | | | *e*PgPg | **PnPn** | **10 59 05.1** | **-1.8** | |
| CLNS | | | | | *e* | | 10 59 47.9 | | |
| CLNS | | | | | *e*Sg | **Sg** | **10 59 59.0** | **-3.4** | |
| CLNS | | | | | *e* | | 11 00 05.7 | | |
| **CLNS** | **Chul'man** | **3.81** | **75** | | *e*PN | **Pn** | **10 59 01.1** | **+1.3** | |
| CLNS | | | | | *e* | | 10 59 46.7 | | |
| CLNS | | | | | pmax | pmax | | | |
| | comp=N,82nm,0.6s | | | | | | | | |
| CLNS | | | | | pmax | pmax | | | |
| | comp=Z,111nm,0.5s | | | | | | | | |
| CLNS | | | | | pmax | pmax | | | |
| | comp=E,46nm,0.4s | | | | | | | | |
| CLNS | | | | | smax | smax | | | |
| | comp=N,1µm,0.9s | | | | | | | | |
| CLNS | | | | | smax | smax | | | |
| | comp=E,2µm,1.1s | | | | | | | | |
| CLNS | | | | | smax | smax | | | |
| | comp=Z,200nm,0.4s | | | | | | | | |
| **TNDR** | **Tynda** | **3.82** | **101** | | *e*Pn | **Pn** | **10 59 02.0** | **+2.1** | |
| TNDR | | | | | *e*PgPg | **PnPn** | **10 59 05.4** | **-1.6** | |
| TNDR | | | | | *e* | | 10 59 10.8 | | |
| TNDR | | | | | *e* | | 10 59 41.9 | | |
| TNDR | | | | | *e*Sg | **Sg** | **10 59 59.3** | **-3.3** | |
| **KMO** | **Kumora** | **3.93** | **271** | ⇓ | *i*Pn | **Pn** | **10 59 03.5** | **+2.1** | |
| KMO | | | | | max | | 10 59 04.0 | | |
| | comp=Z,312nm,0.4s | | | | | | | | |
| KMO | | | | | *e*Pg | **Pb** | **10 59 11.9** | **+1.8** | |
| KMO | | | | | *e* | | 10 59 14.5 | | |
| KMO | | | | | *e* | | 10 59 47.8 | | |
| KMO | | | | | *e*Sg | **Sg** | **11 00 03.8** | **-2.4** | |
| KMO | | | | | Smax | | 11 00 08.6 | | |
| | comp=Z,1µm,1.1s | | | | | | | | |
| KMO | | | | | *e* | | 11 00 19.8 | | |
| **KMO** | **Kumora** | **3.93** | **271** | | *e*PN | **Pn** | **10 59 03.5** | **+2.1** | |
| KMO | | | | | *e* | | 10 59 11.9 | | |
| KMO | | | | | *e* | | 11 00 03.9 | | |
| KMO | | | | | pmax | pmax | | | |
| | comp=Z,311nm,0.3s | | | | | | | | |
| KMO | | | | | smax | smax | | | |
| | comp=N,1µm,1.0s | | | | | | | | |
| **KMO** | **Kumora** | **3.93** | **271** | | *e*P | **Pn** | **10 59 03.5** | **+2.1** | |
| **YLYR** | **Ulyunkhan** | **4.17** | **257** | ⇓ | *i*Pn | **Pn** | **10 59 06.8** | **+2.0** | |
| YLYR | | | | | *e*Pg | **Pb** | **10 59 16.7** | **+2.6** | |
| YLYR | | | | | Pmax | | 10 59 19.6 | | |
| | comp=N,94nm,0.9s | | | | | | | | |
| YLYR | | | | | *e*Sn | **Sn** | **10 59 55.6** | **+1.7** | |
| YLYR | | | | | *e*Sg | **Sg** | **11 00 11.4** | **-2.5** | |
| YLYR | | | | | Smax | | 11 00 20.0 | | |
| | comp=N,709nm,1.1s | | | | | | | | |
| **YLYR** | **Ulyunkhan** | **4.17** | **257** | | *e*PN | **Pn** | **10 59 06.7** | **+2.0** | |
| YLYR | | | | | *e* | | 10 59 16.6 | | |
| YLYR | | | | | *e* | | 11 00 10.9 | | |
| YLYR | | | | | pmax | pmax | | | |
| | comp=Z,91nm,0.5s | | | | | | | | |
| YLYR | | | | | smax | smax | | | |
| | comp=N,715nm,0.8s | | | | | | | | |
| **YLYR** | **Ulyunkhan** | **4.17** | **257** | | *e*P | **Pn** | **10 59 06.7** | **+2.0** | |
| **VTMR** | **Vitim** | **4.55** | **321** | ⇑ | *i*Pn | **Pn** | **10 59 11.2** | **+1.3** | |
| VTMR | | | | | *e*Pg | **Pb** | **10 59 23.7** | **+3.0** | |
| VTMR | | | | | *e* | | 10 59 57.4 | | |
| VTMR | | | | | *e*Sg | **Sg** | **11 00 23.0** | **-3.2** | |
| **CIT** | **Chita** | **4.87** | **216** | | *e*Pg | **Pb** | **10 59 29.8** | **+3.7** | |
| CIT | | | | | *e*Sg | **Sg** | **11 00 34.6** | **-1.8** | |
| CIT | | | | | Smax | | 11 00 46.9 | | |
| | comp=N,1µm,1.0s | | | | | | | | |
| **NIZ** | **Nizh Angarsk** | **4.87** | **270** | | *e*Pn | **Pn** | **10 59 15.9** | **+1.5** | |
| NIZ | | | | | *e* | | 10 59 27.0 | | |
| NIZ | | | | | max | | 10 59 44.6 | | |
| | comp=N,45nm,0.9s | | | | | | | | |
| NIZ | | | | | *e*Sg | **Sg** | **11 00 31.9** | **-4.6** | |
| NIZ | | | | | *e* | | 11 00 40.8 | | |
| NIZ | | | | | max | | 11 00 56.5 | | |
| | comp=N,188nm,0.6s | | | | | | | | |
| **NIZ** | **Nizh Angarsk** | **4.87** | **270** | | *e*PN | **Pn** | **10 59 16.4** | **+2.0** | |
| NIZ | | | | | *e* | | 10 59 30.6 | | |
| NIZ | | | | | *e* | | 11 00 34.8 | | |
| NIZ | | | | | pmax | pmax | | | |
| | comp=Z,45nm,0.9s | | | | | | | | |
| NIZ | | | | | smax | smax | | | |
| | comp=N,246nm,1.1s | | | | | | | | |
| **SYVR** | **Suvo** | **5.30** | **247** | | *e*Pn | **Pn** | **10 59 22.1** | **+1.9** | |
| SYVR | | | | | *e* | | 10 59 30.9 | | |
| SYVR | | | | | *e*Pg | **Pb** | **10 59 37.0** | **+3.6** | |
| SYVR | | | | | Pmax | | 10 59 40.8 | | |
| | comp=N,71nm,1.0s | | | | | | | | |
| SYVR | | | | | *e*Sg | **Sg** | **11 00 46.9** | **-3.3** | |
| SYVR | | | | | Smax | | 11 00 53.7 | | |
| | comp=N,795nm,1.2s | | | | | | | | |
| **SYVR** | **Suvo** | **5.30** | **247** | | *e*PN | **Pn** | **10 59 22.3** | **+2.1** | |
| SYVR | | | | | *e* | | 10 59 37.7 | | |
| **MXMB** | **Maximikha** | **6.14** | **247** | | *e*Pn | **Pn** | **10 59 33.1** | **+1.2** | |
| MXMB | | | | | *e* | | 10 59 37.4 | | |
| MXMB | | | | | *e*Sg | **Sg** | **11 01 14.1** | **-3.3** | |
| MXMB | | | | | *e* | | 11 01 19.4 | | |
| **OGRR** | **Ongureny** | **6.57** | **253** | | *e*Pn | **Pn** | **10 59 38.4** | **+0.7** | |
| OGRR | | | | | *e*Pg | Pb | 11 00 00.1 | +5.0 | |
| OGRR | | | | | Pmax | | 11 00 16.0 | | |
| | comp=N,13nm,0.6s | | | | | | | | |
| OGRR | | | | | *e*Sn | **Sn** | **11 00 50.6** | **-2.6** | |
| OGRR | | | | | *e*Sg | **Sg** | **11 01 26.7** | **-4.3** | |
| OGRR | | | | | Smax | | 11 01 30.6 | | |
| | comp=N,226nm,1.1s | | | | | | | | |
| **OGRR** | **Ongureny** | **6.57** | **253** | | *e*PN | **Pn** | **10 59 39.0** | **+1.3** | |
| OGRR | | | | | *e* | | 10 59 59.8 | | |
| OGRR | | | | | *e* | | 11 01 24.4 | | |
| OGRR | | | | | pmax | pmax | | | |
| | comp=Z,17nm,0.5s | | | | | | | | |
| OGRR | | | | | smax | smax | | | |
| | comp=N,226nm,1.1s | | | | | | | | |
| **KELR** | **Kotokel** | **6.75** | **245** | | *e* | **Pn** | **10 59 38.3** | **-1.9** | |
| KELR | | | | | *e*Sg | **Sg** | **11 01 32.0** | **-4.8** | |
| **HIA** | **Hailar** | **6.85** | **171** | | *e* | **Pn** | **10 59 41.4** | **-0.2** | |
| HIA | | | | | *e* | | 11 00 06.6 | | |
| HIA | | | | | *e*Sg | **Sg** | **11 01 34.0** | **-6.1** | |
| HIA | | | | | *e* | | 11 01 45.0 | | |
| HIA | | | | | *e* | | 11 01 59.2 | | |
| **HIA** | **Hailar** | **6.85** | **171** | *c* | *i*Pn | **Pn** | **10 59 41.3** | **-0.3** | |
| **HIA** | **Hailar** | **6.85** | **171** | | *e*Pn | **Pn** | **10 59 41.5** | **-0.1** | |
| HIA | | | | | *e*Sg | **Sg** | **11 01 39.7** | **-0.4** | |
| **KPC** | **Khapcheranga** | **7.25** | **211** | | *e*Pn | **Pn** | **10 59 47.6** | **+0.4** | |
| KPC | | | | | *e* | | 10 59 58.3 | | |
| KPC | | | | | Pg | Pb | 11 00 13.0 | +6.3 | |
| KPC | | | | | Pmax | | 11 00 20.9 | | |
| | comp=N,18nm,1.0s | | | | | | | | |
| KPC | | | | | *e*Sn | **Sb** | **11 01 39.5** | **+5.8** | |
| KPC | | | | | *e*Sg | **Sg** | **11 01 47.6** | **-5.3** | |
| KPC | | | | | *e* | | 11 01 52.4 | | |
| KPC | | | | | max | | 11 02 00.3 | | |
| | comp=N,411nm,0.9s | | | | | | | | |
| **KPC** | **Khapcheranga** | **7.25** | **211** | | *e*PN | **Pn** | **10 59 48.3** | **+1.1** | |
| **TRTB** | **Turuntaevo** | **7.28** | **243** | | *e* | Pb | 10 59 57.9 | -9.3 | |
| TRTB | | | | | Pg | Pg | 11 00 12.9 | -6.6 | |
| TRTB | | | | | Pmax | | 11 00 17.5 | | |
| | comp=N,19nm,1.0s | | | | | | | | |
| TRTB | | | | | *e*Sg | **Sg** | **11 01 47.8** | **-6.0** | |
| TRTB | | | | | Smax | | 11 02 04.4 | | |
| | comp=N,552nm,1.3s | | | | | | | | |
| **ZRHB** | **Zarechye** | **7.34** | **246** | | *e* | Pg | 11 00 34.0 | +13 | |
| ZRHB | | | | | Sg | **Sg** | **11 01 51.8** | **-3.8** | |
| ZRHB | | | | | Smax | | 11 01 59.9 | | |
| | comp=N,2µm,1.7s | | | | | | | | |
| **UUDB** | **Ulan-Yde** | **7.48** | **240** | | *e* | Pn | 10 59 57.4 | +7.2 | |
| UUDB | | | | | *e* | | 11 00 14.7 | | |
| UUDB | | | | | max | | 11 00 18.2 | | |
| | comp=N,46nm,1.6s | | | | | | | | |
| UUDB | | | | | *e*Sg | **Sg** | **11 01 54.0** | **-6.2** | |
| UUDB | | | | | Smax | | 11 02 01.8 | | |
| | comp=N,670nm,1.1s | | | | | | | | |
| **TRG** | **Tyrgan** | **7.65** | **249** | | *e*Pn | **Pn** | **10 59 52.8** | **+0.3** | |
| TRG | | | | | *e*Pg | Pb | 11 00 19.8 | +6.4 | |
| TRG | | | | | *e*Sg | **Sg** | **11 01 59.8** | **-5.8** | |
| TRG | | | | | *e* | | 11 02 02.9 | | |
| TRG | | | | | max | | 11 02 19.3 | | |
| | comp=N,174nm,1.6s | | | | | | | | |
| **TRG** | **Tyrgan** | **7.65** | **249** | | *e*PN | **Pn** | **10 59 54.0** | **+1.5** | |
| **KAB** | **Kabansk** | **7.88** | **244** | | *e* | **Pg** | **11 00 29.3** | **-1.6** | |
| KAB | | | | | *e*Sg | **Sg** | **11 02 08.0** | **-4.8** | |
| KAB | | | | | Smax | | 11 02 32.8 | | |
| | comp=N,2µm,1.4s | | | | | | | | |
| **STDB** | **Stepnoy Dvoret** | **7.95** | **246** | | *e* | **Pg** | **11 00 29.1** | **-3.3** | |
| STDB | | | | | *e*Sg | **Sg** | **11 02 09.0** | **-6.3** | |
| STDB | | | | | Smax | | 11 02 18.4 | | |
| | comp=N,1µm,1.5s | | | | | | | | |
| STDB | | | | | *e* | | 11 02 27.2 | | |
| **HRMR** | **Khuramsha** | **7.98** | **241** | | *e*Pn | **Pn** | **10 59 59.0** | **+2.0** | |
| HRMR | | | | | *e* | | 11 00 07.2 | | |
| HRMR | | | | | *e*Pg | Pg | 11 00 26.5 | -6.3 | |
| HRMR | | | | | Pmax | | 11 00 42.3 | | |
| | comp=N,25nm,0.6s | | | | | | | | |
| HRMR | | | | | *e*Sg | **Sg** | **11 02 10.7** | **-5.4** | |
| HRMR | | | | | *e* | | 11 02 16.7 | | |
| HRMR | | | | | max | | 11 02 24.1 | | |
| | comp=N,1µm,0.7s | | | | | | | | |
| **YAK** | **Yakutsk** | **8.43** | **40** | | Pn | **Pn** | **11 00 02.8** | **-0.3** | |
| | comp=N,0.0nm,0.3s,baz=85,slow=0.9,SNR=2.7 | | | | | | | | |
| YAK | | | | | Sn | **Sn** | **11 01 34.9** | **-3.8** | |
| | comp=N,0.0nm,0.3s,baz=303,slow=22,SNR=8.9 | | | | | | | | |
| YAK | | | | | Lg | Lg | 11 02 15.0 | | |
| | comp=N,0.0nm,0.3s,baz=214,slow=23,SNR=9.3 | | | | | | | | |
| **YAK** | **Yakutsk** | **8.43** | **40** | | *e*PN | **Pn** | **11 00 04.7** | **+1.6** | |
| YAK | | | | | *e* | | 11 00 30.4 | | |
| YAK | | | | | *e* | | 11 01 37.5 | | |
| YAK | | | | | pmax | pmax | | | |
| | comp=Z,9.0nm,0.4s | | | | | | | | |
| YAK | | | | | pmax | pmax | | | |
| | comp=N,1.0nm,0.3s | | | | | | | | |
| YAK | | | | | pmax | pmax | | | |
| | comp=Z,12nm,0.4s | | | | | | | | |
| YAK | | | | | pmax | pmax | | | |
| | comp=N,6.0nm,0.4s | | | | | | | | |
| YAK | | | | | smax | smax | | | |
| | comp=E,49nm,0.5s | | | | | | | | |
| YAK | | | | | smax | smax | | | |
| | comp=N,57nm,0.6s | | | | | | | | |
| YAK | | | | | MLR | MLR | | | |
| | comp=Z,110nm,1.0s | | | | | | | | |
| **BGT** | **Bolshoye Golou** | **8.52** | **247** | | *e* | **Pn** | **11 00 04.5** | **+0.1** | |
| BGT | | | | | *e* | | 11 01 45.8 | | |
| BGT | | | | | *e*Sg | **Sg** | **11 02 27.8** | **-5.5** | |
| BGT | | | | | Smax | | 11 02 35.2 | | |
| | comp=Z,144nm,1.0s | | | | | | | | |
| **LSTR** | **Listvyanka** | **8.91** | **248** | | *e*Pn | **Pn** | **11 00 11.2** | **+1.4** | |
| LSTR | | | | | *e* | | 11 00 51.2 | | |
| LSTR | | | | | *e* | | 11 02 33.6 | | |
| LSTR | | | | | *e*Sg | **Sg** | **11 02 40.5** | **-5.5** | |
| LSTR | | | | | Smax | | 11 02 46.1 | | |
| | comp=Z,90nm,1.5s | | | | | | | | |
| **IRK** | **Irkutsk** | **9.01** | **251** | | *e* | | 11 02 17.6 | | |
| IRK | | | | | Sg | Sn | 11 02 43.2 | +50 | |
| IRK | | | | | Smax | | 11 02 50.6 | | |
| | comp=Z,292nm,1.0s | | | | | | | | |
| **IVK** | **Ivanovka** | **9.16** | **248** | | *e* | **Pn** | **11 00 14.4** | **+1.1** | |
| IVK | | | | | *e* | | 11 01 48.0 | | |
| IVK | | | | | *e*Sg | Sn | 11 02 47.0 | +50 | |
| IVK | | | | | Smax | | 11 02 54.4 | | |
| | comp=Z,127nm,1.6s | | | | | | | | |
| **TLY** | **Talaya** | **9.63** | **249** | | Pn | **Pn** | **11 00 20.5** | **+0.9** | |
| | comp=Z,0.0nm,0.3s,baz=28,slow=8.5,SNR=5.3 | | | | | | | | |
| TLY | | | | | Lg | Lg | 11 02 58.7 | | |
| | comp=Z,0.0nm,0.3s,baz=35,slow=13,SNR=3.7 | | | | | | | | |
| TLY | | | | | LR | LR | 11 04 21.1 | | |
| | comp=Z,57nm,19.4s,baz=352,slow=39 | | | | | | | | |
| **TLY** | **Talaya** | **9.63** | **249** | | *e* | **Pn** | **11 00 20.3** | **+0.6** | |
| TLY | | | | | *e* | | 11 00 47.2 | | |
| TLY | | | | | max | | 11 01 09.8 | | |
| | comp=Z,7.0nm,1.0s | | | | | | | | |
| TLY | | | | | *e*Sg | Sn | 11 03 00.6 | +52 | |
| TLY | | | | | *e* | | 11 03 08.7 | | |
| TLY | | | | | max | | 11 03 29.5 | | |
| | comp=Z,76nm,1.2s | | | | | | | | |
| **TLY** | **Talaya** | **9.63** | **249** | | *e*P | **Pn** | **11 00 21.3** | **+1.6** | |
| **TLY** | **Talaya** | **9.63** | **249** | | *e*Pn | **Pn** | **11 00 21.3** | **+1.6** | |
| TLY | | | | | *e*Lg | Lg | 11 02 58.7 | | |
| **ZAK** | **Zakamensk** | **10.57** | **244** | | *e*P | **Pn** | **11 00 36.2** | **+3.5** | |
| ZAK | | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,1.2s | | | | | | | | |
| **ULN** | **Ulaanbaatar** | **10.68** | **225** | ⇑ | *e*P | **Pn** | **11 00 35.4** | **+1.3** | |
| **KLR** | **Kul'dur** | **10.69** | **124** | | Pn | **Pn** | **11 00 35.4** | **+1.3** | |
| | comp=Z,0.1nm,0.3s,baz=311,slow=13,SNR=19 | | | | | | | | |
| KLR | | | | | Sn | **Sn** | **11 02 25.5** | **-8.7** | |
| | comp=Z,0.1nm,0.3s,baz=65,slow=19,SNR=3.9 | | | | | | | | |
| KLR | | | | | Lg | Lg | 11 03 37.7 | | |
| | comp=Z,0.3nm,0.3s,baz=34,slow=17,SNR=6.4 | | | | | | | | |
| KLR | | | | | LR | LR | 11 04 18.2 | | |
| | comp=Z,4.4nm,19.8s,baz=316,slow=36 | | | | | | | | |
| **SONA1** | **Songino Array** | **10.95** | **226** | | *e*Pn | **Pn** | **11 00 40.4** | **+2.5** | |
| **SONA0** | **Songino Array** | **10.96** | **226** | | *e*Pn | **Pn** | **11 00 39.8** | **+1.8** | |
| SONA0 | | | | | *e*Sn | **Sn** | **11 02 35.1** | **-6.1** | |
| SONA0 | | | | | *e*Lg | Lg | 11 03 45.4 | | |
| **SONM** | **Songino Array** | **10.96** | **226** | | Pn | **Pn** | **11 00 39.8** | **+1.8** | |
| | comp=Z,0.4nm,0.3s,baz=34,slow=14,SNR=9.6 | | | | | | | | |
| SONM | | | | | Sn | **Sn** | **11 02 35.1** | **-6.1** | |
| | comp=Z,0.5nm,0.3s,baz=43,slow=16,SNR=3.9 | | | | | | | | |
| SONM | | | | | Lg | Lg | 11 03 45.4 | | |
| | comp=Z,2.9nm,0.3s,baz=23,slow=30,SNR=8.5 | | | | | | | | |
| SONM | | | | | LR | LR | 11 05 05.1 | | |
| | comp=Z,45nm,19.1s,baz=152,slow=39 | | | | | | | | |
| **MOY** | **Mondy** | **11.05** | **254** | | *e*P | **Pn** | **11 00 41.5** | **+2.3** | |
| MOY | | | | | *e*S | **Sn** | **11 02 48.8** | **+5.5** | |
| **HABR** | **Khabarovsk** | **12.79** | **119** | | *e*P | **Pn** | **11 01 01.6** | **-1.2** | |
| HABR | | | | | pmax | pmax | | | |
| | comp=N,26nm,1.8s | | | | | | | | |
| HABR | | | | | pmax | pmax | | | |
| | comp=E,37nm,1.8s | | | | | | | | |
| HABR | | | | | pmax | pmax | | | |
| | comp=Z,17nm,1.8s | | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **14.76** | **138** | | Lg | Lg | 11 05 45.1 | | |
| | comp=Z,0.3nm,0.3s,baz=313,slow=32,SNR=4.9 | | | | | | | | |
| **UGL** | **Uglegorsk** | **16.05** | **106** | | *e*P | **Pn** | **11 01 45.6** | **-1.1** | |
| UGL | | | | | *e*S | **Sn** | **11 04 44.3** | **-0.8** | |
| **TIXI** | **Tiksi** | **16.31** | **12** | | *e*P | **Pn** | **11 01 44.8** | **-5.1** | |
| TIXI | | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,0.7s | | | | | | | | |
| **TIXI** | **Tiksi** | **16.31** | **12** | | *e*Pn | **Pn** | **11 01 44.8** | **-5.1** | |
| | comp=Z,7.1nm,0.7s | | | | | | | | |
| TIXI | | | | | *e*Sn | Sn | 11 04 39.1 | -12 | |
| **MA2** | **Magadan** | **17.61** | **65** | | LR | LR | 11 08 50.7 | | |
| | comp=Z,38nm,18.3s,baz=88,slow=37 | | | | | | | | |
| **SEY** | **Seymchan** | **18.50** | **54** | | P | **Pn** | **11 02 19.4** | **+2.1** | |
| | comp=Z,0.2nm,0.3s,baz=270,slow=14,SNR=7.2 | | | | | | | | |
| SEY | | | | | Lg | Lg | 11 07 39.7 | | |
| | comp=Z,0.1nm,0.3s,baz=353,slow=12,SNR=4.7 | | | | | | | | |
| **ZAA1** | **Zalesovo Array** | **19.15** | **278** | | *e*P | **Pn** | **11 02 26.9** | **+1.7** | |
| **ZAA0** | **Zalesovo Array** | **19.15** | **278** | | *e*P | **P** | **11 02 25.0** | **+0.6** | |
| | comp=Z,3.6nm,0.8s | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **19.15** | **278** | | P | **Pn** | **11 02 26.9** | **+1.7** | |
| | comp=Z,0.2nm,0.3s,baz=66,slow=9.6,SNR=13 | | | | | | | | |
| ZALV | | | | | LR | LR | 11 10 09.0 | | |
| | comp=Z,41nm,18.8s,baz=68,slow=38 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **19.15** | **278** | | *e*P | **P** | **11 02 25.1** | **+0.7** | |
| **ASAJ** | **Asahikawa** | **19.57** | **117** | | *e*P | **Pn** | **11 02 30.6** | **+0.2** | |
| | comp=Z,14nm,1.2s | | | | | | | | |
| **KS01** | **Wonju Array Si** | **19.69** | **157** | | *e*P | **Pn** | **11 02 34.0** | **+2.2** | |
| **KSRS** | **Korea Array** | **19.72** | **156** | | P | **Pn** | **11 02 35.0** | **+2.9** | |
| | comp=Z,0.2nm,0.3s,baz=340,slow=11,SNR=11 | | | | | | | | |
| KSRS | | | | | Lg | Lg | 11 08 25.5 | | |
| | comp=Z,0.1nm,0.3s,baz=342,slow=32,SNR=3.0 | | | | | | | | |
| KSRS | | | | | LR | LR | 11 11 18.5 | | |
| | comp=Z,25nm,19.1s,baz=337,slow=41 | | | | | | | | |
| **KS15** | **Wonju Array Si** | **19.72** | **157** | | *e*P | **Pn** | **11 02 34.4** | **+2.2** | |
| **KSAR** | **Wonju Array Be** | **19.72** | **157** | | P | **Pn** | **11 02 35.0** | **+2.8** | |
| **KSAR** | **Wonju Array Be** | **19.72** | **157** | | P | **Pn** | **11 02 35.0** | **+2.8** | |
| KSAR | | | | | Lg | Lg | 11 08 25.5 | | |
| **NVS** | **Novosibirsk** | **19.74** | **281** | | *e*P | **P** | **11 02 31.0** | **+0.2** | |
| **TJN** | **Taejon** | **20.64** | **159** | ⇑ | *e*P | **P** | **11 02 40.4** | **-0.3** | |
| **ERM** | **Erimo** | **21.40** | **120** | | *i*P | **P** | **11 02 48.2** | **-0.7** | |
| ERM | | | | | MLR | MLR | | | |
| | comp=Z,54nm,14.0s | | | | | | | | |
| **PEA1** | **Petropavlovsk-** | **22.87** | **81** | | *e*P | **P** | **11 03 08.5** | **+3.9** | |
| **PETK** | **Petropavlovsk-** | **22.87** | **81** | | P | **P** | **11 03 08.5** | **+3.8** | |
| | comp=Z,4.3nm,0.8s,baz=315,slow=4.4,SNR=8.6 | | | | | | | | |
| **MAJO** | **Matsushiro** | **23.75** | **137** | ⇑ | *e*P | **P** | **11 03 10.7** | **-2.9** | |
| MAJO | | | | | pmax | pmax | | | |
| | comp=Z,8.0nm,1.3s | | | | | | | | |
| MAJO | | | | | MLR | MLR | | | |
| | comp=Z,31nm,13.0s | | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **23.75** | **137** | | LR | LR | 11 12 24.9 | | |
| | comp=Z,23nm,18.6s,baz=295,slow=36 | | | | | | | | |
| **KURK** | **Kurchatov** | **23.95** | **274** | *de* | P | **P** | **11 03 16.6** | **+1.3** | |
| KURK | | | | | pmax | pmax | | | |
| | comp=Z,8.0nm,1.0s | | | | | | | | |
| KURK | | | | | MLR | MLR | | | |
| | comp=Z,49nm,16.0s | | | | | | | | |
| **KURK** | **Kurchatov** | **23.95** | **274** | | *e*P | **P** | **11 03 17.8** | **+2.4** | |
| | comp=Z,6.7nm,0.9s | | | | | | | | |
| **MK31** | **Makanchi Array** | **23.97** | **263** | | *e*P | **P** | **11 03 17.9** | **+2.2** | |
| **MK31** | **Makanchi Array** | **23.97** | **263** | | *e*P | **P** | **11 03 17.9** | **+2.2** | |
| **MK32** | **Makanchi Array** | **23.97** | **263** | | *e*P | **P** | **11 03 17.6** | **+1.9** | |
| **MKAR** | **Makanchi Array** | **23.97** | **263** | | P | **P** | **11 03 17.6** | **+1.9** | |
| | comp=Z,2.1nm,0.8s,baz=60,slow=8.6,SNR=19 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **23.97** | **263** | | *e*P | **P** | **11 03 17.9** | **+2.2** | |
| MKAR | | | | | pmax | pmax | | | |
| | comp=Z,13nm,0.6s | | | | | | | | |
| **MKAR** | **Makanchi Array** | **23.97** | **263** | | *e*P | **P** | **11 03 17.9** | **+2.2** | |
| | comp=Z,13nm,0.6s | | | | | | | | |
| **MK01** | **Makanchi Array** | **23.98** | **262** | | *e*P | **P** | **11 03 17.5** | **+1.7** | |
| **KURBB** | **Kurchatov Arra** | **24.04** | **274** | | P | **P** | **11 03 18.1** | **+1.9** | |
| | comp=Z,3.4nm,0.8s,baz=70,slow=10,SNR=15 | | | | | | | | |
| **MAKZ** | **Makanchi** | **24.14** | **263** | | *e*P | **P** | **11 03 20.2** | **+2.9** | |
| MAKZ | | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,1.1s | | | | | | | | |
| **MAKZ** | **Makanchi** | **24.14** | **263** | | *e*P | **P** | **11 03 20.2** | **+2.9** | |
| | comp=Z,3.2nm,1.1s | | | | | | | | |
| **BILL** | **Bilibino** | **24.78** | **42** | ⇑ | *e*P | **P** | **11 03 23.1** | **+0.2** | |
| BILL | | | | | *i* | | 11 03 54.0 | | |
| BILL | | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,1.2s | | | | | | | | |
| BILL | | | | | MLR | MLR | | | |
| | comp=Z,75nm,15.0s | | | | | | | | |
| **BVAR** | **Borovoye Array** | **27.46** | **284** | | P | **P** | **11 03 49.1** | **+1.9** | |
| | comp=Z,0.7nm,0.6s,baz=50,slow=9.9,SNR=2.4 | | | | | | | | |
| **BRVK** | **Borovoye** | **27.50** | **284** | ⇑ | *e*P | **P** | **11 03 48.9** | **+1.3** | |
| BRVK | | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.8s | | | | | | | | |
| BRVK | | | | | MLR | MLR | | | |
| | comp=Z,24nm,15.0s | | | | | | | | |
| **AAK** | **Ala-Archa** | **30.90** | **263** | | LR | LR | 11 17 29.3 | | |
| | comp=Z,44nm,19.4s,baz=54,slow=38 | | | | | | | | |
| **AAK** | **Ala-Archa** | **30.90** | **263** | ⇑ | *e*P | **P** | **11 04 17.7** | **-0.4** | |
| AAK | | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,1.0s | | | | | | | | |
| AAK | | | | | MLR | MLR | | | |
| | comp=Z,40nm,16.0s | | | | | | | | |
| **ARU** | **Arti** | **32.23** | **296** | *c* | *i*P | **P** | **11 04 27.8** | **-1.6** | |
| ARU | | | | | S | **S** | **11 09 41.0** | **-2.0** | |
| ARU | | | | | pmax | pmax | | | |
| | comp=Z,9.0nm,2.5s | | | | | | | | |
| **ABKAR** | **Akbulak array** | **35.03** | **284** | | *e*P | **P** | **11 04 55.5** | **+1.7** | |
| | comp=Z,0.7nm,0.6s | | | | | | | | |
| **SPITS** | **Spitsbergen Ar** | **38.16** | **341** | | P | **P** | **11 05 21.6** | **+1.4** | |
| | comp=Z,9.1nm,1.0s,baz=66,slow=7.0,SNR=8.9 | | | | | | | | |
| **ILAR** | **Eielson Array** | **43.35** | **38** | | P | **P** | **11 06 04.7** | **+1.5** | |
| | comp=Z,0.4nm,0.6s,baz=283,slow=5.5,SNR=7.5 | | | | | | | | |
| **OBN** | **Obninsk** | **43.58** | **304** | | *i*P | **P** | **11 06 03.1** | **-1.9** | |
| OBN | | | | | *i*S | **S** | **11 12 30.8** | **-3.8** | |
| OBN | | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,1.1s | | | | | | | | |
| OBN | | | | | MLR | MLR | | | |
| | comp=Z,31nm,17.0s | | | | | | | | |
| **FIA0** | **FINESS Array S** | **44.28** | **317** | | *e*P | **P** | **11 06 11.7** | **+1.1** | |
| **FIA0** | **FINESS Array S** | **44.28** | **317** | | *e*P | **P** | **11 06 11.7** | **+1.1** | |
| **FINES** | **FINESS Array B** | **44.28** | **317** | | P | **

| | | | | | | |
|---|---|---|---|---|---|---|
| **LAKA** | **Lakka** | **0.11 209** | P | Pg | 11 19 07.6 | +0.3 |
| LAKA | | | S | Sg | 11 19 09.8 | +0.6 |
| LAKA | | | AML | AML | 11 19 09.9 | |
| | comp=E,238μm,0.1s | | | | | |
| LAKA | | | AML | AML | 11 19 11.1 | |
| | comp=N,133μm,0.2s | | | | | |
| **LAKA** | **Lakka** | **0.11 209** | P | Pg | 11 19 07.6 | +0.3 |
| LAKA | | | S | Sg | 11 19 09.8 | +0.6 |
| **EFP** | **Efpalio** | **0.14 309** | P | Pg | 11 19 07.8 | +0.1 |
| EFP | | | S | Sg | 11 19 10.2 | +0.1 |
| EFP | | | AML | AML | 11 19 10.7 | |
| | comp=N,439μm,0.3s | | | | | |
| EFP | | | AML | AML | 11 19 11.0 | |
| | comp=E,419μm,0.2s | | | | | |
| **EFP** | **Efpalio** | **0.14 309** | P | Pg | 11 19 07.8 | 0.0 |
| EFP | | | S | Sg | 11 19 10.1 | +0.1 |
| **ANX** | **Ano Chora** | **0.28 339** | P | Pg | 11 19 10.2 | +0.1 |
| ANX | | | S | Sg | 11 19 14.4 | +0.5 |
| ANX | | | AML | AML | 11 19 15.0 | |
| | comp=N,396μm,0.3s | | | | | |
| ANX | | | AML | AML | 11 19 15.2 | |
| | comp=E,530μm,0.2s | | | | | |
| **ANX** | **Ano Chora** | **0.28 339** | P | Pg | 11 19 10.2 | 0.0 |
| ANX | | | S | Sg | 11 19 14.4 | +0.5 |
| **KLV** | **Kalavryta, Ach** | **0.30 164** | P | Pg | 11 19 10.7 | 0.0 |
| **KLV** | **Kalavryta, Ach** | **0.30 164** | P | Pg | 11 19 10.7 | +0.1 |
| **DSF** | **Desfina** | **0.39 79** | P | Pg | 11 19 11.9 | -0.3 |
| DSF | | | S | Sg | 11 19 17.9 | +0.6 |
| **DSF** | **Desfina** | **0.39 79** | P | Pg | 11 19 11.9 | -0.3 |
| DSF | | | S | Sg | 11 19 17.9 | +0.6 |
| **DRO** | **Drossia** | **0.47 215** | P | Pg | 11 19 13.2 | -0.5 |
| **DRO** | **Drossia** | **0.47 215** | P | Pg | 11 19 13.2 | -0.4 |

*VIE **20** 11:21:31.1±1.0, 45°.25N×14°.61E, h6km±12km, mb2.2/2, ML2.5/8, Error ellipse: s-maj=6.8km s-min=3.6km az=10.0*
*CSEM **20** 11:21:31.9±0.3, 45°.28N×14°.62E, h10km, ML2.8/17, Error ellipse: s-maj=4.3km s-min=2.9km az=9.0*
*LJU **20** 11:21:32.4, 45°.34N×14°.62E, h14km, ML1.7*
*ROM **20** 11:21:32.4±0.5, 45°.15N×14°.57E, h10km, Md2.6/8, Ml2.4/6, Error ellipse: s-maj=9.5km s-min=4.4km az=57.0*

**ISC 20 11:21:32.3**±1.1, **45°.29N**±0°.03×**14°.63E**±0°.02, **h7**km±9km, **n53**, σ=**0.81**/92, **2D, Northwestern Balkan Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GBRS** | **Gornja Briga** | **0.27** | **28** | Pg | **Pg** | **11 21 37.9** | **+0.1** |
| GBRS | | | | *i* Sg | **Sg** | **11 21 41.7** | **+0.2** |
| | 41nm,0.1s | | | | | | |
| **KNDS** | **Knezji Dol** | **0.30** | **324** | ⇓*i* Pg | **Pg** | **11 21 37.7** | **-0.5** |
| KNDS | | | | *i* Sg | **Sg** | **11 21 42.2** | **0.0** |
| | comp=Z,113nm,0.3s | | | | | | |
| **KNDS** | **Knezji Dol** | **0.30** | **324** | ⇓*i* Pg | **Pg** | **11 21 37.7** | **-0.5** |
| KNDS | | | | *i* Sg | **Sg** | **11 21 42.2** | **0.0** |
| | comp=Z,113nm,0.3s | | | | | | |
| **CEY** | **Cerknica** | **0.47** | **343** | *i* Pg | **Pg** | **11 21 41.1** | **-0.4** |
| CEY | | | | *i* Sg | **Sg** | **11 21 48.1** | **+0.4** |
| | comp=Z,20nm,0.1s | | | | | | |
| **CEY** | **Cerknica** | **0.47** | **343** | *i* Pg | **Pg** | **11 21 41.1** | **-0.4** |
| CEY | | | | *i* Sg | **Sg** | **11 21 48.1** | **+0.4** |
| | comp=Z,20nm,0.1s | | | | | | |
| **BOJS** | **Bojanci** | **0.49** | **64** | *i* Pg | **Pg** | **11 21 41.8** | **0.0** |
| BOJS | | | | *i* Sg | **Sg** | **11 21 48.8** | **+0.6** |
| | comp=Z,15nm,0.1s | | | | | | |
| **BOJS** | **Bojanci** | **0.49** | **64** | *i* Pg | **Pg** | **11 21 41.8** | **0.0** |
| BOJS | | | | *i* Sg | **Sg** | **11 21 48.8** | **+0.6** |
| | comp=Z,15nm,0.1s | | | | | | |
| **SKDS** | **Skadanscina** | **0.50** | **301** | *i* Pg | **Pg** | **11 21 41.2** | **-0.9** |
| SKDS | | | | *i* Sg | **Sg** | **11 21 48.5** | **-0.2** |
| **SKDS** | **Skadanscina** | **0.50** | **301** | *i* Pg | **Pg** | **11 21 41.2** | **-0.9** |
| SKDS | | | | *i* Sg | **Sg** | **11 21 48.5** | **-0.2** |
| **VISS** | **Visnje** | **0.54** | **16** | *i* Pg | **Pg** | **11 21 42.0** | **-0.7** |
| VISS | | | | *i* Sg | **Sg** | **11 21 49.6** | **-0.1** |
| | comp=Z,24nm,0.1s | | | | | | |
| **VISS** | **Visnje** | **0.54** | **16** | *i* Pg | **Pg** | **11 21 42.0** | **-0.7** |
| VISS | | | | *i* Sg | **Sg** | **11 21 49.6** | **-0.1** |
| | comp=Z,24nm,0.1s | | | | | | |
| **GBAS** | **Gorenja Brezov** | **0.66** | **349** | *i* Pg | **Pg** | **11 21 44.5** | **-0.6** |
| GBAS | | | | *i* Sg | **Sg** | **11 21 53.7** | **0.0** |
| | comp=Z,9.0nm,0.1s | | | | | | |
| **GBAS** | **Gorenja Brezov** | **0.66** | **349** | *i* Pg | **Pg** | **11 21 44.5** | **-0.6** |
| GBAS | | | | *i* Sg | **Sg** | **11 21 53.7** | **0.0** |
| | comp=Z,20nm,0.3s | | | | | | |
| **OZLJ** | **Ozalj** | **0.68** | **61** | *e*Pg | **Pg** | **11 21 45.6** | **+0.2** |
| OZLJ | | | | Sg | **Sg** | **11 21 54.9** | **+0.7** |
| **OZLJ** | **Ozalj** | **0.68** | **61** | *e*Pg | **Pg** | **11 21 45.5** | **+0.2** |
| OZLJ | | | | Sg | **Sg** | **11 21 54.8** | **+0.7** |
| **TRI** | **Trieste** | **0.74** | **305** | Pg | **Pg** | **11 21 46.9** | **+0.3** |
| TRI | | | | Sg | **Sb** | **11 21 58.3** | **+0.5** |
| **TRI** | **Trieste** | **0.74** | **305** | Pg | **Pg** | **11 21 46.9** | **+0.3** |
| TRI | | | | Sg | **Sb** | **11 21 58.3** | **+0.5** |
| **NVLJ** | **Novalja** | **0.74** | **167** | *i* Pg | **Pb** | **11 21 47.2** | **-0.4** |
| NVLJ | | | | Sg | **Sn** | **11 22 00.3** | **-0.4** |
| **NVLJ** | **Novalja** | **0.74** | **167** | *i* Pg | **Pb** | **11 21 47.2** | **-0.4** |
| NVLJ | | | | Sg | **Sn** | **11 22 00.3** | **-0.4** |
| **LEGS** | **Legarje** | **0.82** | **36** | *i* Sg | **Sg** | **11 21 58.7** | **0.0** |
| **LEGS** | **Legarje** | **0.82** | **36** | *i* Sg | **Sg** | **11 21 58.7** | **0.0** |
| **SABO** | **M.te Sabotino** | **1.00** | **314** | Pg | **Pn** | **11 21 52.5** | **-0.3** |
| SABO | | | | Sg | **Sn** | **11 22 06.2** | **-0.9** |
| **SABO** | **M.te Sabotino** | **1.00** | **314** | Pg | **Pn** | **11 21 52.5** | **-0.3** |
| SABO | | | | Sg | **Sn** | **11 22 06.2** | **-0.9** |
| **DRE** | **Drenchia** | **1.12** | **322** | *e*Pg | **Pb** | **11 21 53.3** | **-0.8** |
| DRE | | | | *e*Sg | **Sn** | **11 22 09.4** | **-0.8** |
| **DRE** | **Drenchia** | **1.12** | **322** | *e*Pg | **Pb** | **11 21 53.3** | **-0.8** |
| DRE | | | | *e*Sg | **Sn** | **11 22 09.4** | **-0.8** |
| **OBKA** | **Obir** | **1.22** | **357** | Pg | **Pn** | **11 21 55.4** | **-0.5** |
| | comp=Z,2.3nm,0.2s | | | | | | |
| OBKA | | | | Sg | **Sb** | **11 22 11.3** | **-0.5** |
| | comp=Z,13nm,0.2s | | | | | | |
| **VINO** | **Villanova** | **1.35** | **316** | Pg | **Pg** | **11 21 58.3** | **0.0** |
| VINO | | | | Sg | **Sg** | **11 22 16.5** | **+0.7** |
| | comp=Z,53nm,0.9s | | | | | | |
| **VINO** | **Villanova** | **1.35** | **316** | *e*Pg | **Pg** | **11 21 58.2** | **-0.1** |
| VINO | | | | *e*Sg | **Sg** | **11 22 16.7** | **+0.9** |
| **VINO** | **Villanova** | **1.35** | **316** | Pg | **Pg** | **11 21 58.3** | **0.0** |
| VINO | | | | Sg | **Sg** | **11 22 16.5** | **+0.7** |
| | comp=Z,53nm,0.9s | | | | | | |
| **PRED** | **Cave del Predi** | **1.37** | **328** | *e*Pg | **Pb** | **11 21 58.1** | **-0.3** |
| **PRED** | **Cave del Predi** | **1.37** | **328** | *e*Pg | **Pb** | **11 21 58.1** | **-0.3** |
| **SOKA** | **Soboth** | **1.42** | **11** | Pg | **Pn** | **11 21 58.8** | **+0.2** |
| | comp=Z,2.5nm,0.5s | | | | | | |
| SOKA | | | | Sg | **Sg** | **11 22 18.0** | **+0.1** |
| | comp=Z,5.5nm,0.4s | | | | | | |
| **PTCC** | **Patocco-Chiusa** | **1.43** | **322** | Pg | **Pg** | **11 21 59.6** | **-0.1** |
| PTCC | | | | Sg | **Sg** | **11 22 20.4** | **+2.1** |
| | comp=Z,21nm,0.4s | | | | | | |
| **PTCC** | **Patocco-Chiusa** | **1.43** | **322** | Pg | **Pg** | **11 21 59.6** | **-0.1** |
| PTCC | | | | Sg | **Sg** | **11 22 20.4** | **+2.1** |
| | comp=Z,21nm,0.4s | | | | | | |
| **GEPF** | **Gemona** | **1.44** | **314** | Pg | **Pb** | **11 21 59.2** | **-0.2** |
| GEPF | | | | Sg | **Sg** | **11 22 20.5** | **+2.0** |
| | comp=Z,50nm,0.7s | | | | | | |
| **GEPF** | **Gemona** | **1.44** | **314** | Pg | **Pb** | **11 21 59.2** | **-0.2** |
| GEPF | | | | Sg | **Sg** | **11 22 20.5** | **+2.0** |
| | comp=Z,50nm,0.7s | | | | | | |
| **ACOM** | **Acomizza, Ital** | **1.48** | **329** | Pg | **Pg** | **11 22 00.8** | **+0.1** |
| ACOM | | | | Sg | **Sg** | **11 22 22.7** | **+2.7** |
| | comp=Z,49nm,0.5s | | | | | | |
| **ACOM** | **Acomizza, Ital** | **1.48** | **329** | *e*Pg | **Pb** | **11 22 00.2** | **-0.1** |
| **ACOM** | **Acomizza, Ital** | **1.48** | **329** | Pg | **Pg** | **11 22 00.8** | **+0.1** |
| ACOM | | | | Sg | **Sg** | **11 22 22.7** | **+2.7** |
| | comp=Z,49nm,0.5s | | | | | | |
| **MYKA** | **Terra Mystica** | **1.51** | **333** | Sg | **Sg** | **11 22 22.6** | **+1.8** |
| | comp=Z,5.3nm,0.2s | | | | | | |
| **STAL** | **STALIGIAL** | **1.66** | **307** | Pg | **Pb** | **11 22 03.5** | **+0.3** |
| STAL | | | | Sg | **Sg** | **11 22 25.7** | **+0.1** |
| | comp=Z,39nm,0.3s | | | | | | |
| **STAL** | **STALIGIAL** | **1.66** | **307** | Pg | **Pb** | **11 22 03.5** | **+0.3** |
| STAL | | | | Sg | **Sg** | **11 22 25.7** | **+0.1** |
| | comp=Z,39nm,0.3s | | | | | | |
| **POLC** | **Polcenigo** | **1.67** | **297** | Pg | **Pb** | **11 22 02.5** | **-0.8** |
| POLC | | | | Sg | **Sg** | **11 22 25.1** | **-0.7** |
| | comp=Z,75nm,0.5s | | | | | | |
| **POLC** | **Polcenigo** | **1.67** | **297** | Pg | **Pb** | **11 22 02.5** | **-0.8** |
| POLC | | | | Sg | **Sg** | **11 22 25.1** | **-0.7** |
| | comp=Z,75nm,0.5s | | | | | | |
| **CLUD** | **Cludinico** | **1.69** | **314** | *e*Pg | **Pb** | **11 22 03.5** | **-0.2** |
| **CLUD** | **Cludinico** | **1.69** | **314** | *e*Pg | **Pb** | **11 22 03.5** | **-0.2** |
| **ZOU** | **Zoufplan** | **1.72** | **318** | *e*Pg | **Pb** | **11 22 03.6** | **-0.7** |
| **FVI** | **Forni Avoltri** | **1.84** | **316** | Pg | **Pb** | **11 22 06.2** | **-0.1** |
| **FVI** | **Forni Avoltri** | **1.84** | **316** | Pg | **Pb** | **11 22 06.2** | **-0.1** |
| **KBA** | **Koelnbreinsper** | **2.00** | **334** | Sg | **Sg** | **11 22 36.7** | **+0.1** |
| | comp=Z,2.2nm,0.2s | | | | | | |
| **ABTA** | **Abfaltersbach** | **2.07** | **315** | Pg | **Pb** | **11 22 10.8** | **+0.5** |
| | comp=Z,0.8nm,0.2s | | | | | | |
| ABTA | | | | Sg | **Sg** | **11 22 39.1** | **+0.1** |
| | comp=Z,23nm,0.8s | | | | | | |
| **RISI** | **Rein** | **2.43** | **314** | Pg | **Pn** | **11 22 14.1** | **+1.5** |
| **RISI** | **Rein** | **2.43** | **314** | Pg | **Pn** | **11 22 14.1** | **+1.5** |

*IDC **20** 11:54:59.8±1.1, 40°.21N×20°.75E, h0km, mb3.5/9, mb1 3.7/13, mb1mx3.5/49, mbtmp3.6/13, ML3.3/4, MS2.7/8, Ms1 2.7/8, ms1mx2.5/48, Error ellipse: s-maj=20.5km s-min=14.1km az=60.0*
*SKO **20** 11:54:59.5, 40°.10N×20°.73E, h0km, M2.6, ML3.3*
*CSEM **20** 11:55:00.7±0.1, 40°.14N×20°.77E, h2km, ML3.1, Error ellipse: s-maj=4.0km s-min=2.5km az=43.0*
*ATH **20** 11:55:00.2, 40°.17N×20°.77E, h16km, ML3.1/16, Error ellipse: s-maj=1.3km s-min=0.8km az=309.0*
*PDG **20** 11:55:01.6±0.6, 40°.22N×20°.79E, h8km±1km, ML3.5/13, Error ellipse: s-maj=0.8km s-min=1.1km az=0.0*

**ISC 20 11:55:00.2**±1.1, **40°.16N**±0°.02×**20°.77E**±0°.02, **h3**km±8km, **n142**, σ=**1.34**/208, **mb3.6**/8, **26C-14D, Greece-Albania border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PENT** | **Pentalofos** | **0.29** | **83** | P | **Pg** | **11 55 06.4** | **+0.6** |
| PENT | | | | S | **Sg** | **11 55 10.0** | **+0.4** |
| **PENT** | **Pentalofos** | **0.29** | **83** | P | **Pg** | **11 55 06.4** | **+0.6** |
| PENT | | | | S | **Sg** | **11 55 10.0** | **+0.4** |
| **NEST** | **Nestorio** | **0.33** | **40** | P | **Pg** | **11 55 07.4** | **+0.7** |
| NEST | | | | S | **Sg** | **11 55 11.3** | **+0.2** |
| NEST | | | | AML | AML | 11 55 14.2 | |
| | comp=N,13494μm,0.3s | | | | | | |
| NEST | | | | AML | AML | 11 55 15.1 | |
| | comp=E,14734μm,0.3s | | | | | | |
| **NEST** | **Nestorio** | **0.33** | **40** | P | **Pg** | **11 55 07.4** | **+0.7** |
| NEST | | | | S | **Sg** | **11 55 11.3** | **+0.2** |
| **KPRO** | **Kipourio** | **0.50** | **114** | P | **Pg** | **11 55 10.4** | **+0.6** |
| KPRO | | | | S | **Sb** | **11 55 18.5** | **-0.9** |
| KPRO | | | | AML | AML | 11 55 24.7 | |
| | comp=E,11580μm,0.4s | | | | | | |
| KPRO | | | | AML | AML | 11 55 25.0 | |
| | comp=N,7792μm,0.4s | | | | | | |
| **KPRO** | **Kipourio** | **0.50** | **114** | P | **Pg** | **11 55 10.4** | **+0.6** |
| **JAN** | **Janina** | **0.51** | **173** | P | **Pg** | **11 55 09.5** | **-0.5** |
| JAN | | | | S | **Sg** | **11 55 18.1** | **+1.5** |
| JAN | | | | AML | AML | 11 55 18.7 | |
| | comp=N,9429μm,0.4s | | | | | | |
| JAN | | | | AML | AML | 11 55 21.1 | |
| | comp=E,14292μm,0.5s | | | | | | |
| **JAN** | **Janina** | **0.51** | **173** | P | **Pg** | **11 55 09.5** | **-0.5** |
| JAN | | | | S | **Sg** | **11 55 18.0** | **+1.5** |
| **FNA** | **Florina** | **0.78** | **37** | P | **Pg** | **11 55 14.8** | **-0.3** |
| FNA | | | | S | **Sg** | **11 55 26.2** | **+0.9** |
| FNA | | | | AML | AML | 11 55 29.7 | |
| | comp=E,7136μm,0.4s | | | | | | |
| FNA | | | | AML | AML | 11 55 30.7 | |
| | comp=N,7393μm,0.4s | | | | | | |
| **FNA** | **Florina** | **0.78** | **37** | P | **Pg** | **11 55 14.8** | **-0.3** |
| FNA | | | | S | **Sg** | **11 55 26.2** | **+0.9** |
| **KZN** | **Kozani** | **0.78** | **79** | P | **Pb** | **11 55 16.3** | **-0.2** |
| KZN | | | | S | **Sg** | **11 55 25.6** | **+0.2** |
| KZN | | | | AML | AML | 11 55 32.0 | |
| | comp=N,2579μm,0.5s | | | | | | |
| KZN | | | | AML | AML | 11 55 32.4 | |
| | comp=E,4495μm,0.7s | | | | | | |
| **KZN** | **Kozani** | **0.78** | **79** | P | **Pb** | **11 55 16.3** | **-0.2** |
| KZN | | | | S | **Sg** | **11 55 25.6** | **+0.2** |
| **KEK** | **Kerkira** | **0.87** | **239** | P | **Pg** | **11 55 17.3** | **+0.5** |
| KEK | | | | S | **Sg** | **11 55 28.8** | **+0.7** |
| KEK | | | | AML | AML | 11 55 34.1 | |
| | comp=E,2856μm,0.5s | | | | | | |
| KEK | | | | AML | AML | 11 55 36.1 | |
| | comp=N,1620μm,0.5s | | | | | | |
| **KEK** | **Kerkira** | **0.87** | **239** | P | **Pg** | **11 55 17.3** | **+0.5** |
| KEK | | | | S | **Sg** | **11 55 28.8** | **+0.7** |
| **OHR** | **Ohrid** | **0.95** | **2** | *i* Pg | **Pg** | **11 55 18.3** | **-0.2** |
| OHR | | | | *i* Sg | **Sb** | **11 55 32.1** | **-0.3** |
| OHR | | | | *e*Lg | Lg | 11 55 33.2 | |
| | comp=E,1μm,0.8s | | | | | | |
| OHR | | | | *e*Lg | Lg | 11 55 33.3 | |
| | comp=N,658nm,0.6s | | | | | | |
| **BIA** | **Bitola** | **0.96** | **26** | *i* Pg | **Pg** | **11 55 17.9** | **-0.7** |
| BIA | | | | *i* Sg | **Sb** | **11 55 32.8** | **+0.2** |
| **THL** | **Klokotos Trika** | **1.13** | **121** | P | **Pg** | **11 55 21.4** | **-0.5** |
| THL | | | | S | **Sg** | **11 55 35.8** | **-0.7** |
| THL | | | | AML | AML | 11 55 45.5 | |
| | comp=E,1221μm,0.4s | | | | | | |
| THL | | | | AML | AML | 11 55 46.8 | |
| | comp=N,1066μm,0.5s | | | | | | |
| **THL** | **Klokotos Trika** | **1.13** | **121** | P | **Pg** | **11 55 21.4** | **-0.5** |
| THL | | | | S | **Sg** | **11 55 35.8** | **-0.7** |
| **KRUS** | **Krusevo** | **1.26** | **17** | *i* Pg | **Pg** | **11 55 22.9** | **-1.0** |
| KRUS | | | | *i* Sg | **Sb** | **11 55 41.5** | **+0.1** |
| **LIT** | **Litokhoron** | **1.32** | **92** | P | **Pg** | **11 55 23.9** | **-1.7** |
| LIT | | | | S | **Sn** | **11 55 45.1** | **+1.4** |
| LIT | | | | AML | AML | 11 55 49.5 | |
| | comp=E,1245μm,0.6s | | | | | | |
| LIT | | | | AML | AML | 11 55 53.8 | |
| | comp=N,1390μm,0.8s | | | | | | |
| **LIT** | **Litokhoron** | **1.32** | **92** | P | **Pg** | **11 55 23.9** | **-1.7** |
| **TIR** | **Tirane** | **1.37** | **330** | ⇓*i* P | **Pn** | **11 55 26.1** | **-0.1** |
| **TIR** | **Tirane** | **1.37** | **330** | ⇓*i* P | **Pn** | **11 55 26.1** | **-0.1** |
| **GRG** | **Griva** | **1.48** | **57** | P | **Pn** | **11 55 27.7** | **0.0** |
| **GRG** | **Griva** | **1.48** | **57** | P | **Pn** | **11 55 27.7** | **0.0** |
| **EVR** | **Evrytania** | **1.48** | **147** | P | **Pn** | **11 55 27.8** | **0.0** |
| **EVR** | **Evrytania** | **1.48** | **147** | P | **Pn** | **11 55 27.8** | **0.0** |
| **AGG** | **Agios Georgios** | **1.66** | **133** | P | **Pb** | **11 55 31.6** | **+0.2** |
| AGG | | | | S | **Sg** | **11 55 54.4** | **+0.9** |
| AGG | | | | AML | AML | 11 56 04.0 | |
| | comp=N,1804μm,0.5s | | | | | | |
| AGG | | | | AML | AML | 11 56 04.4 | |
| | comp=E,1715μm,0.6s | | | | | | |
| **AGG** | **Agios Georgios** | **1.66** | **133** | P | **Pb** | **11 55 31.6** | **+0.2** |
| **VAY** | **Valandovo** | **1.80** | **49** | *i* Pn | **Pn** | **11 55 32.1** | **+0.1** |
| VAY | | | | *i* Sg | **Sg** | **11 55 59.2** | **+1.3** |
| VAY | | | | *e*Lg | Lg | 11 56 02.1 | |
| | comp=N,163nm,0.6s | | | | | | |
| VAY | | | | *e*Lg | Lg | 11 56 03.5 | |
| | comp=E,110nm,0.6s | | | | | | |
| **HORT** | **Hortiatis** | **1.84** | **75** | P | **Pn** | **11 55 33.0** | **+0.3** |
| HORT | | | | S | **Sn** | **11 55 55.9** | **-0.6** |
| HORT | | | | AML | AML | 11 56 04.6 | |
| | comp=N,542μm,1.0s | | | | | | |
| HORT | | | | AML | AML | 11 56 05.7 | |
| | comp=E,290μm,0.7s | | | | | | |
| **HORT** | **Hortiatis** | **1.84** | **75** | P | **Pn** | **11 55 33.0** | **+0.3** |
| HORT | | | | S | **Sn** | **11 55 55.9** | **-0.6** |
| **SKO** | **Skopje** | **1.88** | **16** | *i* Pn | **Pb** | **11 55 34.8** | **-0.4** |
| SKO | | | | *i* Sg | **Sg** | **11 56 00.3** | **-0.4** |
| SKO | | | | *e*Lg | Lg | 11 56 02.7 | |
| | comp=N,25nm,0.4s | | | | | | |
| SKO | | | | *e*Lg | Lg | 11 56 02.9 | |
| | comp=E,58nm,0.8s | | | | | | |
| **KNT** | **Kendrikon** | **1.91** | **58** | P | **Pn** | **11 55 32.8** | **-0.8** |
| KNT | | | | S | **Sb** | **11 55 59.5** | **-0.3** |
| KNT | | | | AML | AML | 11 56 10.3 | |
| | comp=N,274μm,0.5s | | | | | | |
| KNT | | | | AML | AML | 11 56 12.3 | |
| | comp=E,161μm,0.5s | | | | | | |
| **KNT** | **Kendrikon** | **1.91** | **58** | P | **Pn** | **11 55 32.8** | **-0.8** |
| KNT | | | | S | **Sb** | **11 55 59.5** | **-0.3** |
| **XOR** | **Xorichti** | **2.03** | **112** | P | **Pb** | **11 55 36.6** | **-1.1** |
| XOR | | | | S | **Sb** | **11 56 02.5** | **-0.9** |
| XOR | | | | AML | AML | 11 56 16.3 | |
| | comp=E,592μm,1.3s | | | | | | |
| XOR | | | | AML | AML | 11 56 19.8 | |
| | comp=N,492μm,0.5s | | | | | | |
| **XOR** | **Xorichti** | **2.03** | **112** | P | **Pb** | **11 55 36.6** | **-1.1** |
| XOR | | | | S | **Sb** | **11 56 02.5** | **-0.9** |
| **TRIZ** | **Trizonia** | **2.06** | **150** | P | **Pb** | **11 55 37.8** | **-0.4** |
| TRIZ | | | | S | **Sn** | **11 56 01.9** | **+0.1** |
| **TRIZ** | **Trizonia** | **2.06** | **150** | P | **Pb** | **11 55 37.8** | **-0.4** |
| TRIZ | | | | S | **Sn** | **11 56 01.9** | **+0.1** |
| **PLG** | **Polygyros** | **2.06** | **83** | P | **Pn** | **11 55 36.0** | **+0.2** |
| PLG | | | | S | **Sb** | **11 56 04.3** | **0.0** |
| PLG | | | | AML | AML | 11 56 11.6 | |
| | comp=N,284μm,0.9s | | | | | | |
| PLG | | | | AML | AML | 11 56 12.7 | |
| | comp=E,219μm,0.5s | | | | | | |
| **PLG** | **Polygyros** | **2.06** | **83** | P | **Pn** | **11 55 36.0** | **+0.2** |
| PLG | | | | S | **Sb** | **11 56 04.3** | **0.0** |
| **KALE** | **Kalithea** | **2.06** | **148** | P | **Pn** | **11 55 36.9** | **+1.1** |
| KALE | | | | S | **Sn** | **11 56 02.0** | **0.0** |
| KALE | | | | AML | AML | 11 56 17.2 | |
| | comp=E,665μm,1.0s | | | | | | |
| KALE | | | | AML | AML | 11 56 22.4 | |
| | comp=N,850μm,0.5s | | | | | | |
| **KALE** | **Kalithea** | **2.06** | **148** | P | **Pn** | **11 55 36.9** | **+1.1** |
| KALE | | | | S | **Sn** | **11 56 02.0** | **0.0** |
| **NEO** | **Neokhori** | **2.08** | **113** | P | **Pn** | **11 55 36.8** | **+0.8** |
| NEO | | | | S | **Sn** | **11 56 03.5** | **+1.2** |
| NEO | | | | AML | AML | 11 56 17.2 | |
| | comp=E,665μm,0.5s | | | | | | |
| NEO | | | | AML | AML | 11 56 21.7 | |
| | comp=N,685μm,0.5s | | | | | | |
| **NEO** | **Neokhori** | **2.08** | **113** | P | **Pn** | **11 55 36.8** | **+0.8** |
| NEO | | | | S | **Sn** | **11 56 03.5** | **+1.2** |
| **SOH** | **Sokhos** | **2.08** | **71** | P | **Pn** | **11 55 36.9** | **+0.9** |
| SOH | | | | S | **Sn** | **11 56 03.6** | **+1.2** |
| **SOH** | **Sokhos** | **2.08** | **71** | P | **Pn** | **11 55 36.9** | **+0.9** |
| SOH | | | | S | **Sn** | **11 56 03.6** | **+1.2** |
| **ULC** | **Ulcinj** | **2.14** | **328** | ⇑*i* Pn | **Pb** | **11 55 38.4** | **-1.2** |
| ULC | | | | *e*Sn | **Sb** | **11 56 06.9** | **+0.4** |
| **ULC** | **Ulcinj** | **2.14** | **328** | ⇑*i* Pn | **Pb** | **11 55 38.4** | **-1.2** |
| ULC | | | | *e*Sn | **Sb** | **11 56 06.9** | **+0.4** |
| **DRME** | **Dracevica, Mon** | **2.35** | **330** | ⇑*i* Pn | **Pn** | **11 55 40.9** | **+1.2** |
| DRME | | | | *e*Sn | **Sb** | **11 56 11.8** | **-0.8** |
| **DRME** | **Dracevica, Mon** | **2.35** | **330** | ⇑*i* Pn | **Pn** | **11 55 40.9** | **+1.2** |
| DRME | | | | *e*Sn | **Sb** | **11 56 11.8** | **-0.8** |
| **PVY** | **Plav** | **2.51** | **346** | ⇓*i* Pn | **Pn** | **11 55 43.9** | **+1.9** |
| PVY | | | | *e*Sn | **Sb** | **11 56 15.2** | **-2.0** |
| **PVY** | **Plav** | **2.51** | **346** | ⇓*i* Pn | **Pn** | **11 55 43.9** | **+1.9** |
| PVY | | | | *e*Sn | **Sb** | **11 56 15.2** | **-2.0** |
| **PDG** | **Podgorica** | **2.54** | **334** | ⇑*i* P | **Pn** | **11 55 43.4** | **+1.2** |
| **PDG** | **Podgorica** | **2.54** | **334** | ⇑*i* P | **Pn** | **11 55 43.4** | **+1.2** |
| **PDG** | **Podgorica** | **2.54** | **334** | ⇑*i* Pn | **Pn** | **11 55 43.7** | **+1.5** |
| PDG | | | | *e*Sn | **Sb** | **11 56 16.3** | **-1.6** |
| **TTG** | **Podgorica** | **2.54** | **334** | ⇑*i* Pn | **Pn** | **11 55 43.7** | **+1.5** |
| TTG | | | | *e*Sn | **Sb** | **11 56 16.3** | **-1.6** |
| **BUM** | **Brajici-Budva** | **2.56** | **327** | ⇑*i* Pn | **Pn** | **11 55 43.2** | **+0.5** |
| BUM | | | | *e*Sn | **Sb** | **11 56 17.2** | **-1.5** |
| **BUM** | **Brajici-Budva** | **2.56** | **327** | ⇑*i* Pn | **Pn** | **11 55 43.2** | **+0.5** |
| BUM | | | | *e*Sn | **Sb** | **11 56 17.2** | **-1.5** |
| **CEME** | **Cevo** | **2.76** | **330** | ⇑*i* Pn | **Pn** | **11 55 46.0** | **+0.6** |
| CEME | | | | *e*Sn | **Sn** | **11 56 21.4** | **+2.2** |
| **CEME** | **Cevo** | **2.76** | **330** | ⇑*i* Pn | **Pn** | **11 55 46.0** | **+0.6** |
| CEME | | | | *e*Sn | **Sn** | **11 56 21.4** | **+2.2** |
| **BARS** | **Barje** | **2.77** | **16** | *e*Pn | **Pn** | **11 55 45.8** | **+0.4** |
| **BEY** | **Berane** | **2.79** | **347** | ⇑*i* Pn | **Pn** | **11 55 47.5** | **+1.7** |
| BEY | | | | *e*Sn | **Sn** | **11 56 22.0** | **+2.1** |
| **IVA** | **Berane** | **2.79** | **347** | ⇑*i* Pn | **Pn** | **11 55 47.5** | **+1.7** |
| IVA | | | | *e*Sn | **Sn** | **11 56 22.0** | **+2.1** |
| **KOME** | **Kolasin** | **2.85** | **341** | *e*Pn | **Pn** | **11 55 48.5** | **+1.9** |
| KOME | | | | *e*Sn | **Sn** | **11 56 23.6** | **+2.2** |
| **KOME** | **Kolasin** | **2.85** | **341** | *e*Pn | **Pn** | **11 55 48.5** | **+1.9** |
| KOME | | | | *e*Sn | **Sn** | **11 56 23.6** | **+2.2** |
| **HCY** | **Herceg Novi** | **2.85** | **324** | ⇓*i* Pn | **Pn** | **11 55 47.5** | **+0.9** |
| HCY | | | | *e*Sn | **Sb** | **11 56 24.6** | **-2.5** |
| **HCY** | **Herceg Novi** | **2.85** | **324** | ⇓*i* Pn | **Pn** | **11 55 47.5** | **+0.9** |
| HCY | | | | *e*Sn | **Sb** | **11 56 24.6** | **-2.5** |
| **NKME** | **Niksic** | **2.94** | **333** | ⇓*i* Pn | **Pn** | **11 55 49.2** | **+1.4** |
| NKME | | | | *e*Sn | **Sn** | **11 56 26.2** | **+2.6** |
| **NKME** | **Niksic** | **2.94** | **333** | ⇓*i* Pn | **Pn** | **11 55 49.2** | **+1.4** |
| NKME | | | | *e*Sn | **Sn** | **11 56 26.2** | **+2.6** |
| **NKY** | **Niksic** | **2.97** | **334** | ⇑*i* Pn | **Pn** | **11 55 49.8** | **+1.6** |
| NKY | | | | *e*Sn | **Sn** | **11 56 26.9** | **+2.5** |
| **NKY** | **Niksic** | **2.97** | **334** | ⇑*i* Pn | **Pn** | **11 55 49.8** | **+1.6** |
| NKY | | | | *e*Sn | **Sn** | **11 56 26.9** | **+2.5** |
| **VTS** | **Vitosha** | **3.05** | **36** | ⇓*i* P | **Pn** | **11 55 50.9** | **+1.5** |
| **VTS** | **Vitosha** | **3.05** | **36** | ⇓*i* P | **Pn** | **11 55 50.9** | **+1.5** |
| **TREB** | **Trebinje** | **3.13** | **325** | *e*Pn | **Pn** | **11 55 49.9** | **-0.6** |
| **BRY** | **Bratogost** | **3.21** | **329** | *e*Pn | **Pn** | **11 55 52.2** | **+0.6** |
| BRY | | | | *e*Sn | **Sn** | **11 56 32.5** | **+2.1** |
| **BRY** | **Bratogost** | **3.21** | **329** | *e*Pn | **Pn** | **11 55 52.2** | **+0.6** |
| BRY | | | | *e*Sn | **Sn** | **11 56 32.5** | **+2.1** |
| **PLE** | **Pljevlja** | **3.33** | **342** | ⇓*i* Pn | **Pn** | **11 55 54.2** | **+0.9** |
| PLE | | | | *e*Sn | **Sn** | **11 56 35.0** | **+1.6** |
| **PLE** | **Pljevlja** | **3.33** | **342** | ⇓*i* Pn | **Pn** | **11 55 54.2** | **+0.9** |
| PLE | | | | *e*Sn | **Sn** | **11 56 35.0** | **+1.6** |
| **UPM** | **Unac-Piva** | **3.34** | **336** | ⇑*i* Pn | **Pn** | **11 55 54.8** | **+1.3** |
| UPM | | | | *e*Sn | **Sn** | **11 56 35.9** | **+2.1** |
| **UPM** | **Unac-Piva** | **3.34** | **336** | ⇑*i* Pn | **Pn

comp=N,25nm,19.7s,baz=110,slow=46
**OBN Obninsk 18.30 30** LR LR 12 07 03.9
comp=N,36nm,18.2s,baz=324,slow=40
**HFS Hagfors 20.48 350** P **P** **11 59 37.2 -1.6**
comp=N,3.8nm,0.7s,baz=140,slow=11,SNR=5.0
**FINES FINESS Array B 21.56 7** P **P** **11 59 49.2 -1.2**
comp=N,4.4nm,0.9s,baz=170,slow=12,SNR=5.8
**NB2 NORSAR Subarra 21.72 347** P **P** **11 59 51.0 -1.2**
comp=Z,3.4nm,1.1s,baz=160,slow=11
**NB2 NORSAR Subarra 21.72 347** P **P** **11 59 51.0 -1.2**
comp=Z,3.4nm,1.1s,SNR=3.8
**NOA NORSAR Array B 21.72 347** P **P** **11 59 51.1 -1.2**
comp=Z,1.2nm,0.9s,baz=156,slow=8.3,SNR=3.9
**AKTO Aktyubinsk 27.87 56** LR LR 12 12 28.0
comp=Z,18nm,20.1s,baz=279,slow=38
**ARU Arti 29.48 44** LR LR 12 12 44.7
comp=Z,41nm,18.4s,baz=138,slow=36
**ARCES ARCESS Array B 29.55 3** P **P** **12 01 04.8 -0.8**
comp=Z,3.0nm,1.0s,baz=186,slow=7.2,SNR=2.8
**TORD Torodi Ar. Bea 31.70 217** P **P** **12 01 24.9 -0.3**
comp=Z,1.3nm,1.1s,baz=34,slow=9.7,SNR=5.0
**MKAR Makanchi Array 44.13 60** P **P** **12 03 09.0 -0.8**
comp=Z,0.3nm,0.6s,baz=292,slow=7.2,SNR=4.1
**ZALV Zalesovo Beam 44.24 50** P **P** **12 03 09.4 -1.1**
comp=Z,0.3nm,0.4s,baz=225,slow=1.0,SNR=2.2
**YKA Yellowknife Ar 71.59 340** P **P** **12 06 23.8 +1.5**
comp=Z,0.1nm,0.7s,baz=40,slow=4.9,SNR=3.4
**ILAR Eielson Array 74.96 355** P **P** **12 06 42.8 +0.6**
comp=Z,0.2nm,0.8s,baz=22,slow=9.8,SNR=3.2

*NNC* ***20*** *11:55:41.2±1.7,51.09N×73.73E,h0km,mb3.4,mpv3.0, Error ellipse: s-maj=36.5km s-min=6.5km az=26.0, Suspected Mining explosion.*

**IDC 20 11:55:41.5±1.4,50.98N×73.73E,h0km,mb3.1/1, mb1 3.0/5,mb1mx2.9/56,mbtmp2.8/5,ML2.2/4,2C-5D, Error ellipse: s-maj=30.3km s-min=9.4km az=30.0, Central Kazakhstan**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **BVA0** | **Borovoye Array** | **2.91** | **316** | ⇓Pg | Pb | 11 56 32.0 | -2.3 |
| | 4.1nm,0.6s,baz=132,slow=16,SNR=17 | | | | | | |
| BVA0 | | | | Lg | Lg | 11 57 12.3 | |
| | 7.7nm,0.5s,baz=127,slow=29,SNR=11 | | | | | | |
| **BVAR** | **Borovoye Array** | **2.91** | **316** | Pn | Pn | 11 56 29.4 | +0.3 |
| | 1.3nm,0.3s,baz=130,slow=17,SNR=15 | | | | | | |
| BVAR | | | | Lg | Lg | 11 57 12.9 | |
| | 4.5nm,0.3s,baz=113,slow=26,SNR=14 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **3.06** | **95** | Pn | Pn | 11 56 31.4 | +0.2 |
| | 0.1nm,0.3s,baz=280,slow=14,SNR=34 | | | | | | |
| KURBB | | | | Pg | Pg | 11 56 39.8 | -0.5 |
| | 0.4nm,0.3s,baz=281,slow=14,SNR=24 | | | | | | |
| KURBB | | | | Lg | Lg | 11 57 17.9 | |
| | 0.4nm,0.3s,baz=277,slow=30,SNR=11 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **3.06** | **95** | ⇑Pn | Pn | 11 56 31.7 | +0.6 |
| | 5.5nm,0.5s | | | | | | |
| KURBB | | | | ⇓Lg | Lg | 11 57 18.1 | |
| | 43nm,0.7s | | | | | | |
| **KURK** | **Kurchatov** | **3.11** | **93** | ⇓Pn | Pn | 11 56 32.1 | +0.4 |
| | 3.2nm,0.6s | | | | | | |
| KURK | | | | ⇓Lg | Lg | 11 57 19.4 | |
| | 26nm,0.8s | | | | | | |
| **MK31** | **Makanchi Array** | **7.02** | **123** | ⇑Pg | Pb | 11 57 47.0 | +2.6 |
| | 0.3nm,0.4s,baz=298,slow=13,SNR=4.6 | | | | | | |
| MK31 | | | | ⇓Lg | Lg | 11 59 25.1 | |
| | 2.2nm,0.7s,baz=313,slow=26,SNR=7.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **7.02** | **123** | Pn | Pn | 11 57 25.0 | -0.6 |
| | 0.0nm,0.3s,baz=297,slow=13,SNR=2.8 | | | | | | |
| MKAR | | | | Sn | Sn | 11 58 52.5 | +6.4 |
| | 0.1nm,0.3s,baz=313,slow=16,SNR=3.6 | | | | | | |
| MKAR | | | | Lg | Lg | 11 59 20.9 | |
| | 0.2nm,0.3s,baz=310,slow=28,SNR=6.8 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **7.40** | **62** | Pn | Pn | 11 57 31.3 | +0.7 |
| | 0.2nm,0.3s,baz=248,slow=14,SNR=5.0 | | | | | | |
| ZALV | | | | Sn | Sn | 11 58 56.3 | +1.1 |
| | 0.1nm,0.3s,baz=250,slow=21,SNR=3.3 | | | | | | |
| **I46RU** | **ZALESOVO INFRA** | **7.40** | **62** | *i* | | 12 41 20.0 | |
| | baz=246,slow=326,SNR=1.8 | | | | | | |
| **AAK** | **Ala-Archa** | **8.36** | **176** | Lg | Lg | 12 00 05.2 | |
| | 0.1nm,0.3s,baz=340,slow=17,SNR=3.7 | | | | | | |
| **ILAR** | **Eielson Array** | **60.37** | **19** | P | P | 12 05 50.0 | -1.8 |
| | 0.1nm,0.5s,baz=326,slow=6.2,SNR=5.3 | | | | | | |

**IDC 20 12:01:09.9±2.0,38.01S×75.32W,h0km,mb3.7/4, mb1 4.0/5,mb1mx3.8/17,mbtmp3.6/5,ML3.8/1,Error ellipse: s-maj=62.6km s-min=31.5km az=49.0,Off coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PLCA** | **Paso Flores** | **4.59** | **128** | Pn | Pn | 12 02 21.4 | +0.7 |
| | 1.0nm,0.3s,baz=326,slow=10.0,SNR=22 | | | | | | |
| PLCA | | | | Sn | Sn | 12 03 20.4 | +5.6 |
| | 2.2nm,0.3s,baz=38,slow=21,SNR=6.1 | | | | | | |
| **LPAZ** | **La Paz** | **22.55** | **18** | P | P | 12 06 12.5 | +0.2 |
| | 1.9nm,0.8s,baz=172,slow=6.7,SNR=3.4 | | | | | | |
| **TXAR** | **Lajitas Array** | **72.05** | **334** | P | P | 12 12 36.3 | +0.5 |
| | 0.5nm,0.7s,baz=153,slow=8.0,SNR=5.3 | | | | | | |
| **PDAR** | **Pinedale Array** | **86.21** | **335** | P | P | 12 13 52.7 | -0.5 |
| | 0.5nm,0.8s,baz=160,slow=3.7,SNR=3.7 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **88.04** | **72** | P | P | 12 14 02.0 | -0.4 |
| | 0.5nm,0.9s,baz=220,slow=3.8,SNR=2.5 | | | | | | |

*ISCJB* ***20*** *12:16:13.8±0.3,12.80N±0.05×143.85E±0.08,h138km, mb4.2/23,Error ellipse: s-maj=10.6km s-min=6.6km az=176.8*

*NEIC* ***20*** *12:16:14.3±1.1,12.82N×143.78E,h125km±11km, mb4.6/12,Error ellipse: s-maj=15.1km s-min=6.3km az=80.0*

*IDC* ***20*** *12:16:14.4±1.1,12.85N×143.78E,h123km±10km, mb3.8/14,mb1 4.0/14,mb1mx3.8/41,mbtmp4.2/14,MS3.3/5, Ms1 3.3/5,ms1mx2.8/39,Error ellipse: s-maj=19.2km s-min=10.7km az=82.0*

**ISC 20 12:16:15.5±0.5,12.86N±0.07×143.9E±0.1,h138km,n50, σ1s07/47,mb4.3/23,South of Mariana Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GUMO** | **Guam** | **1.19** | **52** | P | **Pn** | **12 16 40.0** | **-1.0** |
| | 154nm,0.3s,baz=326,slow=22,SNR=127 | | | | | | |
| GUMO | | | | S | **Sn** | **12 16 58.9** | **-1.5** |
| | 391nm,0.3s,baz=72,slow=22,SNR=20 | | | | | | |
| GUMO | | | | LR | LR | 12 17 06.5 | |
| | comp=Z,122nm,20.7s,baz=186,slow=40 | | | | | | |
| **GUMO** | **Guam** | **1.19** | **52** | *e*Pn | **Pn** | **12 16 39.9** | **-1.0** |
| GUMO | | | | *e*Sn | **Sn** | **12 17 00.8** | **+0.5** |
| **RABL** | **Rabaul** | **18.82** | **154** | *e*P | **Pn** | **12 20 26.8** | **0.0** |
| | 28nm,0.7s | | | | | | |
| **PMG** | **Port Moresby** | **22.35** | **172** | *e*P | **P** | **12 21 01.3** | **-1.0** |
| | 69nm,1.8s | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **22.64** | **73** | T | T | 12 44 03.9 | |
| | baz=260,slow=75,SNR=6.1 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **22.65** | **73** | T | T | 12 44 04.3 | |
| | baz=260,slow=75,SNR=4.7 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **22.65** | **73** | T | T | 12 44 03.4 | |
| | baz=260,slow=75,SNR=2.2 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **23.08** | **70** | T | T | 12 45 12.9 | |
| | baz=255,slow=75,SNR=5.4 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **23.09** | **70** | T | T | 12 45 00.0 | |
| | baz=255,slow=75,SNR=4.2 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **23.10** | **70** | T | T | 12 45 13.5 | |
| | baz=255,slow=75,SNR=5.4 | | | | | | |
| **JNU** | **Nakatsue** | **23.42** | **332** | P | **P** | **12 21 12.1** | **-0.1** |
| | 3.4nm,0.5s,baz=174,slow=6.3,SNR=7.0 | | | | | | |
| **JNU** | **Nakatsue** | **23.42** | **332** | *e*P | **P** | **12 21 12.1** | **-0.1** |
| | 30nm,1.8s | | | | | | |
| **MJAR** | **Matsushiro Arr** | **24.13** | **349** | P | **P** | **12 21 19.7** | **+1.1** |
| | 1.1nm,0.4s,baz=168,slow=8.9,SNR=5.4 | | | | | | |
| **HNR** | **Honiara** | **27.28** | **143** | *e*P | **P** | **12 21 45.8** | **-1.5** |
| | 93nm,0.8s | | | | | | |
| **KSRS** | **Korea Array** | **28.36** | **333** | P | **P** | **12 21 56.6** | **+0.1** |
| | 0.8nm,0.7s,baz=155,slow=12,SNR=3.0 | | | | | | |
| KSRS | | | | LR | LR | 12 31 01.3 | |
| | comp=Z,24nm,20.9s,baz=166,slow=31 | | | | | | |
| **KSAR** | **Wonju Array Be** | **28.36** | **332** | P | **P** | **12 21 56.6** | **0.0** |
| **WRAB** | **Tennant Creek** | **33.91** | **196** | *e*P | **P** | **12 22 44.5** | **-1.0** |
| | 6.9nm,0.5s | | | | | | |
| **WB2** | **Warramunga Arr** | **33.92** | **196** | *e*P | **P** | **12 22 44.7** | **-0.8** |
| **WR1** | **Warramunga Arr** | **33.92** | **196** | *e*P | **P** | **12 22 44.5** | **-1.0** |
| | 8.4nm,0.9s | | | | | | |
| **WRA** | **Warramunga Arr** | **33.92** | **196** | P | **P** | **12 22 44.5** | **-1.1** |
| | 3.4nm,0.5s,baz=21,slow=9.6,SNR=51 | | | | | | |
| **MDJ** | **Mudanjiang** | **33.94** | **342** | *e*P | **P** | **12 22 42.5** | **-2.9** |
| | 24nm,1.6s | | | | | | |
| **AS01** | **Alice Springs** | **37.58** | **195** | *e*P | **P** | **12 23 15.9** | **-0.8** |
| **AS31** | **Alice Springs** | **37.59** | **195** | *e*P | **P** | **12 23 16.4** | **-0.5** |
| | 3.0nm,0.5s | | | | | | |
| **ASAR** | **Alice Springs** | **37.59** | **195** | P | **P** | **12 23 16.4** | **-0.5** |
| | 3.0nm,0.7s,baz=18,slow=12,SNR=87 | | | | | | |
| **KLR** | **Kul'dur** | **37.63** | **347** | P | **P** | **12 23 16.7** | **-0.2** |
| | 0.1nm,0.5s,baz=152,slow=5.2,SNR=4.3 | | | | | | |
| **DZM** | **Mont Dzumac** | **41.16** | **147** | P | **P** | **12 23 49.0** | **+2.5** |
| | 24nm,0.5s,baz=258,slow=5.8,SNR=41 | | | | | | |
| **DZM** | **Mont Dzumac** | **41.16** | **147** | *e*P | **P** | **12 23 49.1** | **+2.5** |
| | 32nm,0.6s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **43.56** | **283** | P | **P** | **12 24 06.3** | **+0.3** |
| | 1.2nm,0.6s,baz=91,slow=6.8,SNR=7.9 | | | | | | |
| **STKA** | **Stephens Creek** | **44.53** | **183** | P | **P** | **12 24 12.9** | **-0.6** |
| | 3.3nm,0.7s,baz=360,slow=6.8,SNR=7.8 | | | | | | |
| **SONA0** | **Songino Array** | **46.79** | **326** | *e*P | **P** | **12 24 31.6** | **+0.4** |
| SONA0 | | | | *e*PcP | **PcP** | **12 26 03.2** | **+0.9** |
| **SONM** | **Songino Array** | **46.79** | **326** | P | **P** | **12 24 31.6** | **+0.4** |
| | 0.9nm,0.7s,baz=144,slow=8.6,SNR=5.1 | | | | | | |
| SONM | | | | PcP | **PcP** | **12 26 03.2** | **+0.9** |
| | 0.8nm,0.7s,baz=155,slow=4.4,SNR=3.6 | | | | | | |
| SONM | | | | LR | LR | 12 44 21.0 | |
| | comp=Z,25nm,20.2s,baz=250,slow=36 | | | | | | |
| **TLY** | **Talaya** | **50.48** | **329** | LR | LR | 12 47 42.8 | |
| | comp=Z,13nm,19.0s,baz=136,slow=38 | | | | | | |
| **MK01** | **Makanchi Array** | **61.35** | **316** | *e*P | **P** | **12 26 17.2** | **+0.5** |
| **MK31** | **Makanchi Array** | **61.36** | **316** | *e*P | **P** | **12 26 17.6** | **+0.8** |
| **MK32** | **Makanchi Array** | **61.36** | **316** | *e*P | **P** | **12 26 17.5** | **+0.7** |
| **MKAR** | **Makanchi Array** | **61.36** | **316** | P | **P** | **12 26 17.5** | **+0.7** |
| | 1.0nm,0.5s,baz=94,slow=8.4,SNR=15 | | | | | | |
| **MKAR** | **Makanchi Array** | **61.36** | **316** | *e*P | **P** | **12 26 17.6** | **+0.7** |
| | 8.9nm,0.5s | | | | | | |
| **MAKZ** | **Makanchi** | **61.58** | **316** | *e*P | **P** | **12 26 18.8** | **+0.6** |
| | 2.5nm,0.7s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **61.67** | **325** | P | **P** | **12 26 18.8** | **+0.1** |
| | 0.4nm,0.4s,baz=75,slow=7.6,SNR=2.9 | | | | | | |
| ZALV | | | | PcP | **PcP** | **12 26 58.2** | **-0.6** |
| | 1.2nm,0.5s,baz=129,slow=3.5,SNR=5.5 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **61.67** | **325** | *e*P | **P** | **12 26 18.8** | **+0.1** |
| ZAA1 | | | | *e*PcP | **PcP** | **12 26 58.2** | **-0.6** |
| **ILAR** | **Eielson Array** | **69.63** | **25** | P | **P** | **12 27 09.6** | **-0.1** |
| | 1.8nm,0.5s,baz=249,slow=5.8,SNR=49 | | | | | | |
| **BBB** | **Bella Bella** | **78.74** | **39** | LR | LR | 12 56 10.0 | |
| | comp=Z,103nm,20.2s,baz=108,slow=30 | | | | | | |
| **GEYT** | **Alibeck** | **78.93** | **307** | LR | LR | 13 06 48.5 | |
| | comp=Z,16nm,18.6s,baz=5.0,slow=38 | | | | | | |
| **YKA** | **Yellowknife Ar** | **83.94** | **27** | P | **P** | **12 28 31.1** | **+1.2** |
| | 2.1nm,0.5s,baz=286,slow=5.0,SNR=54 | | | | | | |
| **YKB5** | **Yellowknife Ar** | **83.94** | **27** | *e*P | **P** | **12 28 30.8** | **+1.0** |
| **ARA0** | **ARCESS Array S** | **87.49** | **342** | *e*P | **P** | **12 28 47.6** | **+0.4** |
| **ARCES** | **ARCESS Array B** | **87.49** | **342** | P | **P** | **12 28 47.6** | **+0.4** |
| | 1.9nm,0.8s,baz=71,slow=9.0,SNR=3.8 | | | | | | |
| **FIA0** | **FINESS Array S** | **91.42** | **335** | *e*P | **P** | **12 29 04.5** | **-1.3** |
| **FINES** | **FINESS Array B** | **91.42** | **335** | P | **P** | **12 29 04.5** | **-1.3** |
| | 3.2nm,1.0s,baz=72,slow=6.2,SNR=6.3 | | | | | | |
| **LPAZ** | **La Paz** | **148.83** | **100** | PKPbc | **PKPbc** | **12 35 50.4** | **+1.8** |
| | 1.2nm,0.8s,baz=274,slow=5.5,SNR=3.5 | | | | | | |

*NIED* ***20*** *12:26:00,28.70N×128.70E,h130km,Mw4.6 Best double couple: M0 8.17000×10^15 NP1:φ=254.00000°, δ=28.00000°,λ=136.00000°. NP2:φ=25.00000°,δ=71.00000°, λ=69.00000°.*

*NEIC* ***20*** *12:26:34.7±0.6,28.74N×128.60E,h134km±6km,mb4.8/47, Error ellipse: s-maj=8.9km s-min=5.6km az=136.0*

*NEIC Felt at Chatan, Okinawa. Recorded [2 JMA] on Amami-oshima and Tokuno-shima.*

*ISCJB* ***20*** *12:26:34.2±0.2,28.66N±0.02×128.71E±0.03, h145km±2km,mb4.6/105,Error ellipse: s-maj=4.9km s-min=2.8km az=38.4*

*MOS* ***20*** *12:26:34.5±1.1,28.69N×128.70E,h148km,mb4.5/44, Error ellipse: s-maj=9.5km s-min=5.9km az=112.5*

*JMA* ***20*** *12:26:35.3±0.2,28.69N×128.62E,h137km±3km,M4.2*

*JMA Felt II J1.*

*IDC* ***20*** *12:26:35.7±0.6,28.84N×128.66E,h145km±5km,mb4.1/29, mb1 4.1/32,mb1mx4.0/56,mbtmp4.5/32,MS2.8/2, Ms1 2.8/2,ms1mx2.5/34,Error ellipse: s-maj=11.5km s-min=9.0km az=82.0*

*BJI* ***20*** *12:26:35.2,28.70N×128.70E,h158km,mb4.8/65, mB4.8/36*

**ISC 20 12:26:35.8±0.4,28.66N±0.04×128.71E±0.04,h149km±3km, h149km:pP-P,n296,σ1s56/366,mb4.6/110,20C-7D, Ryukyu Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JAMN** | **Amaminishikomi** | **0.59** | **135** | P | **Pn** | **12 26 56.2** | **-1.3** |
| JAMN | | | | S | **Sn** | **12 27 11.9** | **-2.1** |
| **JTAJ** | **Takarajima** | **0.65** | **42** | P | **Pn** | **12 26 56.7** | **-1.2** |
| JTAJ | | | | S | **Sn** | **12 27 12.5** | **-2.3** |
| **JAM** | **Amami Oshima** | **0.83** | **107** | P | **Pn** | **12 26 57.9** | **-1.2** |
| JAM | | | | S | **Sn** | **12 27 14.0** | **-2.8** |
| **JTK** | **Tokunoshima** | **0.90** | **166** | P | **Pn** | **12 26 58.7** | **-1.0** |
| JTK | | | | S | **Sn** | **12 27 15.8** | **-2.1** |
| **JZK** | **Kikaishima** | **1.17** | **107** | P | **Pn** | **12 27 02.2** | **+0.2** |
| JZK | | | | S | **Sn** | **12 27 22.2** | **+0.3** |
| **JOKE** | **Okinoerabujima** | **1.30** | **185** | P | **Pn** | **12 27 02.2** | **-1.2** |
| JOKE | | | | S | **Sn** | **12 27 22.3** | **-2.1** |
| **JNN** | **Nakanoshima** | **1.56** | **41** | P | **Pn** | **12 27 04.9** | **-1.0** |
| JNN | | | | S | **Sn** | **12 27 27.6** | **-1.4** |
| **JIH** | **Iheya** | **1.75** | **202** | P | **Pn** | **12 27 07.1** | **-1.0** |
| JIH | | | | S | **Sn** | **12 27 30.8** | **-1.9** |
| **JOW** | **Kunigami** | **1.86** | **192** | P | **Pn** | **12 27 08.1** | **-1.3** |
| JOW | | | | S | **Sn** | **12 27 32.6** | **-2.5** |
| **JOW** | **Kunigami** | **1.86** | **192** | *e*Pn | **Pn** | **12 27 08.3** | **-1.1** |
| JOW | | | | *e*Sn | **Sn** | **12 27 33.1** | **-2.0** |
| **JKC** | **Kuchinoerabu** | **2.21** | **36** | P | **Pn** | **12 27 12.6** | **-0.8** |
| JKC | | | | S | **Sn** | **12 27 39.6** | **-2.7** |
| **JYAK** | **Yakushimahirau** | **2.22** | **45** | P | **Pn** | **12 27 12.0** | **-1.5** |
| JYAK | | | | *e*S | **Sn** | **12 27 39.3** | **-3.2** |
| **JNTH** | **Nagotoyohara** | **2.22** | **196** | P | **Pn** | **12 27 12.5** | **-1.0** |
| JNTH | | | | *e*S | **Sn** | **12 27 40.3** | **-2.2** |
| **JAGN** | **Aguni-jima** | **2.44** | **213** | P | **Pn** | **12 27 15.3** | **-0.9** |
| JAGN | | | | *e*S | **Sn** | **12 27 45.2** | **-2.1** |
| **JJT2** | **Tamagusuku 2** | **2.65** | **199** | P | **Pn** | **12 27 18.3** | **-0.5** |
| JJT2 | | | | *e*S | **Sn** | **12 27 50.6** | **-1.4** |
| **JTN** | **Tanegashima 3** | **2.80** | **44** | P | **Pn** | **12 27 19.1** | **-1.5** |
| JTN | | | | *e*S | **Sn** | **12 27 50.6** | **-4.7** |
| **JKE** | **Kume jima 2** | **2.89** | **217** | P | **Pn** | **12 27 20.4** | **-1.3** |
| JKE | | | | *e*S | **Sn** | **12 27 55.3** | **-1.9** |
| **JMZ** | **Minamidaito 2** | **3.61** | **141** | P | **Pn** | **12 27 30.2** | **-0.8** |
| JMZ | | | | *e*S | **Sn** | **12 28 10.0** | **-3.8** |
| **JNU** | **Nakatsue** | **4.82** | **22** | P | **Pn** | **12 27 47.5** | **+0.7** |
| | 9.5nm,0.3s,baz=282,slow=3.4,SNR=106 | | | | | | |
| JNU | | | | S | **Sn** | **12 28 41.9** | **-0.3** |
| | 5.5nm,0.3s,baz=6.0,slow=22,SNR=6.6 | | | | | | |
| **JNU** | **Nakatsue** | **4.82** | **22** | *e*Pn | **Pn** | **12 27 47.6** | **+0.7** |
| JNU | | | | *e*Sn | **Sn** | **12 28 44.1** | **+1.8** |
| **YOJ** | **Yonaguni jima** | **6.60** | **232** | *e*P | **Pn** | **12 28 08.5** | **-2.0** |
| **YOJ** | **Yonaguni jima** | **6.60** | **232** | *e*Pn | **Pn** | **12 28 08.5** | **-2.0** |
| **TATO** | **Taipei** | **7.42** | **242** | *e*Pn | **Pn** | **12 28 23.1** | **+1.5** |
| TATO | | | | *e*Sn | **Sn** | **12 29 41.5** | **-3.0** |
| **YHNB** | **Yeheng** | **7.67** | **240** | *e*Pn | **Pn** | **12 28 24.8** | **-0.1** |
| **TJN** | **Taejon** | **7.78** | **352** | *ce*P | **Pn** | **12 28 27.5** | **+1.4** |
| **NACB** | **Ninganchiao** | **7.79** | **237** | *e*Pn | **Pn** | **12 28 22.8** | **-3.6** |
| **YULB** | **Yu-li** | **8.48** | **233** | *e*Pn | Pn | 12 28 30.5 | -5.2 |
| **SSLB** | **Suanglung** | **8.49** | **237** | *e*Pn | **Pn** | **12 28 32.1** | **-3.7** |
| SSLB | | | | *e*Sn | **Sn** | **12 30 06.5** | **-3.7** |
| **KSRS** | **Korea Array** | **8.79** | **356** | P | **Pn** | **12 28 40.6** | **+1.0** |
| | 0.5nm,0.3s,baz=177,slow=13,SNR=12 | | | | | | |
| **INCN** | **Inchon** | **8.96** | **349** | *e*Pn | **Pn** | **12 28 38.8** | **-3.3** |
| **TWG** | **Pinlang** | **9.01** | **232** | *e*Pn | **Pn** | **12 28 38.8** | **-4.0** |
| **TPUB** | **Ta-pu** | **9.02** | **236** | *e*Pn | **Pn** | **12 28 40.2** | **-2.6** |
| **NJ2** | **Nanjing** | **9.16** | **294** | *e*P | **Pn** | **12 28 45.9** | **+1.3** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,21nm,0.6s | | | | | | |
| **INU** | **Inuyama** | **9.70** | **45** | *e*Pn | **Pn** | **12 28 53.3** | **+1.5** |
| INU | | | | *e*Sn | **Sn** | **12 30 38.4** | **-0.8** |
| **JHJ** | **Hachijo jima 2** | **10.50** | **62** | P | **Pn** | **12 29 05.3** | **+2.9** |
| | 49nm,0.3s,baz=82,slow=22,SNR=18 | | | | | | |
| JHJ | | | | S | **Sn** | **12 31 00.3** | **+1.8** |
| | 8.3nm,0.3s,baz=77,slow=19,SNR=3.6 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **11.21** | **43** | P | **Pn** | **12 29 11.7** | **-0.2** |
| | 1.3nm,0.3s,baz=245,slow=14,SNR=9.5 | | | | | | |
| MJAR | | | | LR | LR | 12 33 44.4 | |
| | comp=Z,52nm,18.7s,baz=215,slow=38 | | | | | | |
| **CBIJ** | **Chichi jima** | **12.03** | **94** | *e*Pn | **Pn** | **12 29 24.5** | **+2.0** |
| **JCJ** | **Chichijima** | **12.03** | **94** | P | **Pn** | **12 29 24.3** | **+1.8** |
| | 6.2nm,0.3s,baz=282,slow=18,SNR=3.4 | | | | | | |
| **TIA** | **Tai'an** | **12.34** | **311** | *e*P | **P** | **12 29 33.1** | **+0.7** |
| TIA | | | | pmax | pmax | | |
| | comp=Z,20nm,0.9s | | | | | | |
| **WHN** | **Wuhan** | **12.63** | **282** | ⇑P | **P** | **12 29 34.9** | **-0.9** |
| **CN2** | **Changchun** | **15.33** | **351** | *e*P | **P** | **12 30 06.5** | **+0.9** |
| CN2 | | | | *e*S | **Sn** | **12 32 51.1** | **-3.5** |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.0s | | | | | | |
| **MDJ** | **Mudanjiang** | **15.94** | **2** | P | **P** | **12 30 12.5** | **+0.2** |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.6s | | | | | | |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,49nm,4.3s | | | | | | |
| **ENH** | **Enshi** | **16.82** | **280** | *e*P | **Pn** | **12 30 23.3** | **+0.7** |
| | comp=Z,30nm,0.8s | | | | | | |
| **XAN** | **Xi'an** | **17.72** | **293** | P | **Pn** | **12 30 33.1** | **-0.3** |
| XAN | | | | sP | sP | 12 31 18.8 | +2.1 |
| XAN | | | | pmax | pmax | | |
| | comp=Z,250nm,0.7s | | | | | | |
| XAN | | | | pmax | pmax | | |
| | comp=Z,120nm,7.9s | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **18.57** | **315** | *e*P | **Pn** | **12 30 43.4** | **0.0** |
| HHC | | | | S | **S** | **12 34 00.8** | **-4.4** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,30nm,1.1s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,140nm,5.2s | | | | | | |
| **ASAJ** | **Asahikawa** | **19.01** | **32** | P | **P** | **12 30 43.5** | **-2.5** |
| | comp=Z,0.2nm,0.3s,baz=243,slow=9.0,SNR=2.4 | | | | | | |
| **ASAJ** | **Asahikawa** | **19.01** | **32** | *e*P | **P** | **12 30 45.0** | **-1.0** |
| | comp=Z,14nm,1.1s | | | | | | |
| **BTO** | **Baotou** | **19.41** | **313** | *e*P | **P** | **12 30 46.8** | **-3.7** |
| **GYA** | **Guiyang** | **19.66** | **269** | ⇑*i*P | **Pn** | **12 30 55.6** | **-0.8** |
| GYA | | | | PP | **pP** | **12 31 21.3** | **+1.8** |
| GYA | | | | sP | sP | 12 31 43.0 | +4.7 |
| GYA | | | | S | **S** | **12 34 22.4** | **-4.9** |
| GYA | | | | PcP | **PcP** | **12 35 07.8** | **+1.4** |
| GYA | | | | ScP | **ScP** | **12 38 27.6** | **-0.9** |
| GYA | | | | pmax | pmax | | |
| | comp=Z,20nm,0.8s | | | | | | |
| GYA | | | | pmax | pmax | | |
| | comp=Z,120nm,4.8s | | | | | | |
| **QIZ** | **Qiongzhong** | **19.72** | **245** | P | **P** | **12 30 54.8** | **+0.9** |
| QIZ | | | | sP | **sP** | **12 31 39.8** | **+1.0** |
| QIZ | | | | S | **S** | **12 34 28.3** | **+0.1** |
| QIZ | | | | pmax | pmax | | |
| | comp=Z,31nm,1.1s | | | | | | |
| **KLR** | **Kul'dur** | **20.67** | **6** | P | **P** | **12 31 00.9** | **-2.8** |
| | comp=Z,0.1nm,0.6s,baz=172,slow=14,SNR=4.4 | | | | | | |
| KLR | | | | PcP | **PcP** | **12 35 08.4** | **+0.8** |
| | comp=Z,0.1nm,0.6s,baz=262,slow=4.2,SNR=4.2 | | | | | | |
| **CD2** | **Chengdu** | **21.76** | **282** | P | **P** | **12 31 14.4** | **-1.3** |
| CD2 | | | | PP | **PnPn** | **12 31 44.8** | **-1.3** |
| CD2 | | | | S | **S** | **12 35 02.5** | **-4.1** |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,30nm,0.7s | | | | | | |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,150nm,4.8s | | | | | | |
| **LZH** | **Lanzhou** | **22.23** | **296** | *e*P | **P** | **12 31 20.3** | **-0.2** |
| LZH | | | | pP | pP | 12 31 50.9 | +3.4 |
| LZH | | | | *e*S | **S** | **12 35 10.3** | **-4.3** |
| LZH | | | | SS | **SnSn** | **12 36 06.5** | **+7.2** |
| LZH | | | | pmax | pmax | | |
| | comp=Z,68nm,1.2s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,150nm,4.0s | | | | | | |
| **KMI** | **Kunming** | **23.41** | **267** | P | **P** | **12 31 32.6** | **+0.9** |
| KMI | | | | pP | pP | 12 32 03.5 | +3.0 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,40nm,0.7s | | | | | | |
| **UBPT** | **Khong Chiam** | **25.27** | **243** | P | **P** | **12 31 50.7** | **+2.3** |
| | comp=Z,107nm,1.4s | | | | | | |
| **ULN** | **Ulaanbaatar** | **25.47** | **325** | *ce*P | **P** | **12 31 53.0** | **+2.8** |
| ULN | | | | pmax | pmax | | |
| | comp=Z,12nm,1.7s | | | | | | |
| **ULN** | **Ulaanbaatar** | **25.47** | **325** | *e*P | **P** | **12 31 51.5** | **+1.3** |
| | comp=Z,6.3nm,0.9s | | | | | | |
| **SKNT** | **Sakolnakorn** | **25.53** | **248** | P | **P** | **12 31 53.2** | **+2.4** |
| | comp=Z,120nm,1.1s | | | | | | |
| **SONA0** | **Songino Array** | **25.79** | **324** | *e*P | **P** | **12 31 51.8** | **-1.2** |
| SONA0 | | | | *e*pP | **pP** | **12 32 26.1** | **+2.0** |
| **SONM** | **Songino Array** | **25.79** | **324** | P | **P** | **12 31 51.8** | **-1.2** |
| | comp=Z,2.8nm,0.4s,baz=142,slow=10.0,SNR=17 | | | | | | |
| SONM | | | | pP | **pP** | **12 32 26.1** | **+2.0** |
| | comp=Z,3.7nm,0.8s,baz=143,slow=12,SNR=4.6 | | | | | | |
| SONM | | | | ScP | **ScP** | **12 38 46.0** | **+1.8** |
| | comp=Z,0.4nm,0.4s,baz=149,slow=5.9,SNR=3.6 | | | | | | |
| **SONA1** | **Songino Array** | **25.80** | **324** | *e*P | **P** | **12 31 53.9** | **+0.9** |
| **GTA** | **Gaotai** | **26.13** | **302** | P | **P** | **12 31 54.9** | **-1.2** |
| GTA | | | | pP | pP | 12 32 28.0 | +0.7 |
| GTA | | | | sP | sP | 12 32 46.4 | +1.8 |
| GTA | | | | PcP | **PcP** | **12 35 20.6** | **+1.0** |
| GTA | | | | S | **S** | **12 36 13.8** | **-2.9** |
| GTA | | | | sS | sS | 12 37 11.8 | -0.2 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,12nm,1.0s | | | | | | |
| GTA | | | | pmax | pmax | | |
| | comp=Z,

GUN **Gumba** 37.57 279 *e*P P 12 33 36.5 +0.2
comp=Z,27nm,0.3s
SEY **Seymchan** 37.58 18 P P 12 33 33.9 -1.6
comp=Z,2.1nm,0.8s,baz=218,slow=6.7,SNR=5.1
PKI **Pulchoki** 38.05 279 *e*P P 12 33 39.2 -1.1
comp=Z,36nm,0.6s
PKIN **Phulchoki** 38.06 279 *e*P P 12 33 39.1 -1.2
comp=Z,41nm,0.6s
KKN **Kakani** 38.12 279 *e*P P 12 33 39.9 -0.8
comp=Z,27nm,0.6s
PSI **Prapat** 38.28 233 P P 12 33 43.2 +1.2
comp=Z,8.5nm,0.6s,baz=0.8,slow=4.8,SNR=5.5
PSI **Prapat** 38.28 233 *e*P P 12 33 43.3 +1.2
PSI pmax pmax
comp=Z,11nm,0.6s
PSI **Prapat** 38.28 233 *e*P P 12 33 43.3 +1.2
comp=Z,11nm,0.6s
DMN **Daman** 38.31 279 *e*P P 12 33 40.9 -1.5
DANN **Dangsing** 39.32 281 *e*P P 12 33 51.1 +0.2
comp=Z,2.5nm,0.8s
KOLN **Koldanda** 39.58 280 *e*P P 12 33 51.3 -1.6
comp=Z,7.2nm,0.3s
PYUN **Piuthan** 40.04 281 *e*P P 12 33 56.4 -0.3
comp=Z,23nm,0.5s
MK32 **Makanchi Array** 40.27 310 *e*P P 12 33 58.2 0.0
MK32 *ep*P **pP** 12 34 32.5 +1.6
MK32 *e*PcP **PcP** 12 35 59.5 +0.5
MKAR **Makanchi Array** 40.27 310 P P 12 33 58.2 0.0
comp=Z,10nm,0.5s,baz=93,slow=12,SNR=30
MKAR pP **pP** 12 34 32.5 +1.6
comp=Z,9.2nm,0.8s,baz=104,slow=10,SNR=4.8
MKAR PcP **PcP** 12 35 59.4 +0.5
comp=Z,1.3nm,0.5s,baz=66,slow=5.3,SNR=4.6
GSI **Gunungsitoli** 40.29 233 *e*P P 12 33 59.2 +0.6
comp=Z,25nm,0.7s
ZAA0 **Zalesovo Array** 40.60 321 *e*P P 12 33 58.7 -2.0
comp=Z,5.2nm,0.6s
ZALV **Zalesovo Beam** 40.60 321 P P 12 33 58.5 -2.1
comp=Z,6.1nm,0.5s,baz=112,slow=7.2,SNR=28
ZALV pP **pP** 12 34 31.9 -1.5
comp=Z,3.3nm,0.7s,baz=109,slow=8.1,SNR=3.4
ZALV PcP **PcP** 12 35 59.6 -0.1
comp=Z,1.5nm,0.4s,baz=146,slow=3.2,SNR=8.5
ZALV ScP **ScP** 12 39 35.2 0.0
comp=Z,1.0nm,0.4s,baz=126,slow=4.2,SNR=4.5
**ZALV** **Zalesovo Beam** 40.60 321 *e*P P 12 33 58.5 -2.1
ZALV *e*PcP **PcP** 12 35 59.0 -0.7
**ZAA1** **Zalesovo Array** 40.60 321 *e*P P 12 33 58.5 -2.1
ZAA1 *ep*P **pP** 12 34 31.9 -1.5
ZAA1 *e*PcP **PcP** 12 35 59.6 -0.1
**PDGK** **Podgornoye** 41.83 304 P P 12 34 12.1 +1.0
PDGK pmax pmax
comp=Z,18nm,0.7s
**KURK** **Kurchatov** 43.38 315 *ce*P P 12 34 21.6 -1.7
KURK pmax pmax
comp=Z,45nm,0.7s
**KURK** **Kurchatov** 43.38 315 *e*P P 12 34 21.4 -1.9
comp=Z,14nm,0.6s
KURK *e*PP **PcP** 12 36 08.9 -0.2
**KURBB** **Kurchatov Arra** 43.42 315 P P 12 34 21.9 -1.6
comp=Z,10nm,0.5s,baz=102,slow=8.9,SNR=56
KURBB PP **PcP** 12 36 08.9 -0.3
comp=Z,1.0nm,0.2s,baz=100,slow=10,SNR=3.2
**ULHL** **Ulahol** 44.18 302 P P 12 34 31.6 +1.6
SNR=7.1
**KSH** **Kashi** 44.44 298 P P 12 34 35.6 +3.6
KSH pP pP 12 35 10.8 +5.5
KSH PcP **PcP** 12 36 15.6 +2.5
KSH PP **PP** 12 36 22.5 +3.9
KSH S **S** 12 40 58.3 +2.6
KSH SS **ScS** 12 44 13.9 -0.7
KSH pmax pmax
comp=Z,15nm,0.5s
KSH pmax pmax
comp=Z,77nm,3.6s
KSH LR LR
comp=Z,73nm,4.7s
KSH LR LR
comp=Z,63nm,4.4s
KSH LR LR
comp=Z,100nm,6.5s
**TKM2** **Tokmak 2** 44.66 303 P P 12 34 35.6 +1.8
SNR=5.3
**KZA** **Kyzart** 44.92 302 P P 12 34 38.6 +2.5
SNR=8.8
**KBK** **Karagaybulak** 45.14 303 P P 12 34 39.5 +1.9
SNR=11
**CHMS** **Chumysh** 45.28 303 P P 12 34 40.0 +1.4
SNR=13
**UCH** **Uchtor** 45.46 302 P P 12 34 42.9 +2.4
SNR=6.0
**USP** **Ospenovka** 45.47 304 P P 12 34 41.4 +1.4
SNR=5.6
**AAK** **Ala-Archa** 45.47 303 P P 12 34 39.6 -0.6
comp=Z,7.1nm,0.5s,baz=124,slow=5.9,SNR=14
**AAK** **Ala-Archa** 45.47 303 *e*P P 12 34 41.2 +1.0
AAK pmax pmax
comp=Z,5.0nm,0.9s
**AAK** **Ala-Archa** 45.47 303 *e*P P 12 34 41.4 +1.2
**AML** **Almayashu** 46.07 302 P P 12 34 47.3 +2.1
SNR=6.8
**SFK** **Sufi-Kurgan** 46.31 299 P P 12 34 48.2 +1.3
SFK pmax pmax
comp=Z,5.0nm,0.9s
**MNAS** **Manas** 46.94 303 P P 12 34 52.3 +0.6
MNAS pmax pmax
comp=Z,9.0nm,0.7s
**KKAR** **Karatay Array** 48.39 304 *e*P P 12 35 02.1 -0.6
KKAR pmax pmax
comp=Z,103nm,0.6s
**KKAR** **Karatay Array** 48.39 304 *e*P P 12 35 02.1 -0.6
comp=Z,103nm,0.6s
**WR1** **Warramunga Arr** 48.63 173 *e*P P 12 35 05.3 +0.7
WR1 *ep*P **pP** 12 35 37.8 -0.6
**WRA** **Warramunga Arr** 48.63 173 P P 12 35 05.3 +0.7
comp=Z,2.7nm,0.7s,baz=353,slow=8.1,SNR=35
WRA pP **pP** 12 35 37.8 -0.6
comp=Z,2.4nm,0.7s,baz=350,slow=8.7,SNR=5.1
**BVAR** **Borovoye Array** 48.77 317 P P 12 35 03.7 -1.7
comp=Z,7.9nm,0.5s,baz=95,slow=11,SNR=29
BVAR pP **pP** 12 35 41.3 +2.1
comp=Z,10nm,0.7s,baz=93,slow=10,SNR=7.7
BVAR PcP **PcP** 12 36 28.1 +0.1
comp=Z,8.3nm,0.6s,baz=98,slow=3.3,SNR=11
BVAR ScP **ScP** 12 40 08.0 -0.9
comp=Z,1.0nm,0.7s,baz=128,slow=4.2,SNR=4.5
**BRVK** **Borovoye** 48.84 317 *ce*P P 12 35 04.8 -1.1
BRVK pmax pmax
comp=Z,27nm,0.7s
**BRVK** **Borovoye** 48.84 317 *e*P P 12 35 04.7 -1.3
comp=Z,26nm,1.1s
**PALK** **Pallekele** 49.96 254 P P 12 35 15.9 +0.9
comp=Z,10nm,0.6s,baz=113,slow=4.9,SNR=6.6
**PALK** **Pallekele** 49.96 254 *e*P P 12 35 15.6 +0.6
comp=Z,149nm,1.9s
**KBL** **Kabul** 50.53 293 *e*P P 12 35 20.1 +0.9
KBL pmax pmax
comp=Z,27nm,0.6s
**KBL** **Kabul** 50.53 293 *e*P P 12 35 20.1 +0.9
comp=Z,27nm,0.6s
**CTA** **Charters Tower** 51.34 159 P P 12 35 26.5 +1.4
comp=Z,4.4nm,0.7s,baz=333,slow=6.8,SNR=3.9
**AS31** **Alice Springs** 52.27 174 *e*P P 12 35 33.2 +1.2
comp=Z,4.4nm,1.8s
**ASAR** **Alice Springs** 52.27 174 P P 12 35 33.4 +1.5
comp=Z,0.8nm,0.6s,baz=3.7,slow=13,SNR=25
ASAR pP **pP** 12 36 06.3 +0.2
comp=Z,0.8nm,0.6s,baz=6.0,slow=13,SNR=3.2
**ASAR** **Alice Springs** 52.27 174 P P 12 35 33.4 +1.5
ASAR *PP **pP** 12 36 06.4 +0.2
ASAR pmax pmax
comp=Z,1.0nm,0.6s
ASAR pmax pmax
comp=Z,1.0nm,0.6s
**ABKAR** **Akbulak array** 55.32 312 *e*P P 12 35 52.0 -1.8
comp=Z,46nm,0.7s
ABKAR *e*PcP **PcP** 12 36 52.0 -0.7
**ARU** **Arti** 55.77 321 P P 12 35 56.8 -0.1
comp=Z,1.8nm,0.4s,baz=301,slow=0.9,SNR=5.4
ARU PcP **PcP** 12 36 53.8 -0.4
comp=Z,2.1nm,0.3s,baz=119,slow=2.7,SNR=4.1
**ARU** **Arti** 55.77 321 *e*P P 12 35 57.4 +0.5
ARU pmax pmax
comp=Z,12nm,1.7s
**AKTO** **Aktyubinsk** 56.45 314 P P 12 36 01.9 0.0
comp=Z,1.9nm,0.7s,baz=90,slow=11,SNR=8.1
AKTO PcP **PcP** 12 36 56.6 -0.5

comp=Z,4.6nm,0.7s,baz=129,slow=6.5,SNR=8.2
**GEYT** **Alibeck** 58.46 299 P P 12 36 15.8 -0.4
comp=Z,2.7nm,0.4s,baz=58,slow=5.6,SNR=4.9
**IMAR** **Indian Mountai** 59.14 28 *e*P P 12 36 20.6 +0.3
**KDAK** **Kodiak Island** 60.32 37 *i* P P 12 36 28.7 +0.1
**BPAW** **Bear Paw Mtn.** 60.42 30 *e*P P 12 36 29.8 +0.6
comp=Z,5.2nm,0.8s
**MLY** **Manley** 60.44 29 *e*P P 12 36 30.4 +1.0
comp=Z,6.9nm,0.7s
**SUA** **Susitna One** 60.80 33 *e*P P 12 36 32.1 +0.2
comp=Z,18nm,0.6s
**MCK** **McKinley** 61.36 30 *e*P P 12 36 35.7 +0.1
MCK pmax pmax
comp=Z,9.0nm,0.8s
**MCK** **McKinley** 61.36 30 *e*P P 12 36 35.6 +0.1
comp=Z,9.3nm,0.8s
**RND** **Reindeer** 61.43 31 *e*P P 12 36 36.4 +0.2
RND pmax pmax
comp=Z,24nm,0.6s
**RND** **Reindeer** 61.43 31 *e*P P 12 36 36.4 +0.2
comp=Z,24nm,0.6s
**STKA** **Stephens Creek** 61.44 168 P P 12 36 37.3 +0.9
comp=Z,1.1nm,0.6s,baz=346,slow=11,SNR=3.3
**STKA** **Stephens Creek** 61.44 168 *e*P P 12 36 37.7 +1.3
STKA pmax pmax
comp=Z,4.0nm,1.6s
**STKA** **Stephens Creek** 61.44 168 *e*P P 12 36 37.6 +1.3
comp=Z,3.7nm,1.6s
**MDM** **Murphy Dome** 61.51 29 *e*P P 12 36 37.3 +0.8
comp=Z,23nm,0.7s
**COLA** **College** 61.68 29 *e*P P 12 36 38.5 +0.9
COLA pmax pmax
comp=Z,9.0nm,0.6s
**COLA** **College** 61.68 29 *e*P P 12 36 38.5 +0.9
comp=Z,9.3nm,0.6s
**CCB** **Clear Creek Bu** 61.73 29 *e*P P 12 36 38.2 +0.3
comp=Z,4.4nm,0.6s
**IL1** **Eielson Array** 62.10 29 *e*P P 12 36 39.5 -1.0
**ILAR** **Eielson Array** 62.10 29 P P 12 36 39.7 -0.8
comp=Z,2.1nm,0.6s,baz=276,slow=7.2,SNR=65
ILAR pP **pP** 12 37 13.8 -2.0
comp=Z,1.1nm,0.7s,baz=279,slow=4.9,SNR=4.0
**ILB** **Eielson Array** 62.10 29 *e*P P 12 36 39.7 -0.8
**HDA** **Harding Lake** 62.13 29 *e*P P 12 36 40.1 -0.5
comp=Z,14nm,0.9s
**DHY** **Denali Highway** 62.14 31 *e*P P 12 36 40.6 -0.4
comp=Z,35nm,1.9s
**MENT** **Mentasta** 63.81 31 *e*P P 12 36 52.5 +0.7
comp=Z,7.9nm,0.6s
**EGAK** **Eagle** 64.52 28 *e*P P 12 36 56.3 0.0
comp=Z,5.0nm,0.9s
**DAWY** **Dawson** 65.43 29 *e*P P 12 37 02.8 +0.4
comp=Z,3.8nm,0.8s
**INK** **Inuvik** 66.50 24 *e*P P 12 37 09.2 +0.2
INK pmax pmax
comp=Z,15nm,1.3s
**INK** **Inuvik** 66.50 24 *e*P P 12 37 09.2 +0.2
comp=Z,15nm,1.3s
**SPITS** **Spitsbergen Ar** 66.54 348 P P 12 37 08.5 -0.7
comp=Z,2.3nm,0.7s,baz=36,slow=12,SNR=6.0
**ZEI** **Tsey** 67.57 308 *e*P P 12 37 15.8 -0.7
ZEI pmax pmax
comp=Z,4.0nm,0.6s
**ARA0** **ARCESS Array S** 67.91 338 *e*P P 12 37 15.8 -2.1
**ARCES** **ARCESS Array B** 67.91 338 P P 12 37 15.8 -2.1
comp=Z,2.3nm,0.9s,baz=79,slow=6.8,SNR=6.0
**ARCES** **ARCESS Array B** 67.91 338 P P 12 37 15.8 -2.1
ARCES pmax pmax
comp=Z,3.0nm,0.9s
**PUL** **Pulkovo** 69.72 328 *ce*P P 12 37 29.8 +0.6
**FIA0** **FINESS Array S** 70.96 330 *e*P P 12 37 36.0 -0.7
**FIA0** **FINESS Array S** 70.96 330 *e*P P 12 37 36.0 -0.7
**FINES** **FINESS Array B** 70.96 330 P P 12 37 36.0 -0.7
comp=Z,4.5nm,0.5s,baz=69,slow=5.5,SNR=30
**RAYN** **Ar Rayn** 73.45 288 *e*P P 12 37 52.6 +0.3
comp=Z,12nm,1.0s
**AKASG** **Malin Array Be** 73.97 319 P P 12 37 53.0 -1.7
comp=Z,7.4nm,0.7s,baz=60,slow=5.9,SNR=19
**AKASG** **Malin Array Be** 73.97 319 P P 12 37 53.0 -1.7
AKASG pmax pmax
comp=Z,7.0nm,0.7s
**AKBB** **Malin Array Si** 73.97 319 *e*P P 12 37 54.3 -0.4
AKBB pmax pmax
comp=Z,7.0nm,0.6s
**AKBB** **Malin Array Si** 73.97 319 *e*P P 12 37 54.3 -0.4
comp=Z,7.1nm,0.6s
**TULEG** **Thule** 74.48 4 *e*P P 12 37 56.3 -1.0
comp=Z,10nm,1.1s
**BR101** **Keskin Array S** 75.88 308 *e*P P 12 38 05.3 -0.8
BR101 *ep*P **pP** 12 38 45.0 +2.2
**BRTR** **Keskin Array B** 75.88 308 P P 12 38 05.3 -0.8
comp=Z,3.6nm,0.6s,baz=97,slow=4.8,SNR=16
BRTR pP **pP** 12 38 45.0 +2.2
comp=Z,3.1nm,0.8s,baz=98,slow=5.4,SNR=4.8
**YKA** **Yellowknife Ar** 76.15 25 P P 12 38 07.4 +0.4
comp=Z,4.1nm,0.7s,baz=305,slow=6.0,SNR=90
YKA pP **pP** 12 38 43.9 +0.2
comp=Z,1.2nm,0.7s,baz=301,slow=5.6,SNR=3.8
**BR231** **Keskin MP Arra** 76.43 308 *e*P P 12 38 05.8 -3.4
**TLCR** **Tescani** 76.67 314 ⇑*i*P P 12 38 10.9 +0.7
**VRI** **Vrincioaia** 77.65 316 ⇑*i*P P 12 38 10.9 +0.7
**VRI** **Vrincioaia** 77.65 316 P P 12 38 17.6 +1.8
**HFS** **Hagfors** 76.87 332 P P 12 38 10.0 -1.1
comp=Z,1.5nm,0.4s,baz=46,slow=4.2,SNR=6.2
**BUR08** **Bucovina Ar. S** 77.72 318 *e*P P 12 38 16.7 +0.5
**BURAR** **Bucovina Array** 77.72 318 ⇑*i*P P 12 38 16.6 +0.4
**BURAR** **Bucovina Array** 77.72 318 P P 12 38 16.6 +0.4
**BUR04** **Bucovina Ar. S** 77.72 318 *e*P P 12 38 16.7 +0.4
**CFR** **Carcaliu** 77.10 314 ⇑*i*P P 12 38 11.5 -1.1
**NB2** **NORSAR Subarra** 77.33 334 P P 12 38 12.3 -1.4
comp=Z,2.6nm,0.6s,baz=53,slow=5.9
**NB2** **NORSAR Subarra** 77.33 334 P P 12 38 13.0 -0.7
NB2 pmax pmax
comp=Z,2.0nm,0.5s
**NB200** **NORSAR Array S** 77.33 334 *e*P P 12 38 12.3 -1.4
**NOA** **NORSAR Array B** 77.33 334 P P 12 38 12.3 -1.4
comp=Z,2.0nm,0.6s,baz=50,slow=5.2,SNR=10.0
**TESR** **Tescani** 77.39 316 ⇑*i*P P 12 38 14.9 +0.6
**VRI** **Vrincioaia** 77.65 316 ⇑*i*P P 12 38 15.8 0.0
**VRI** **Vrincioaia** 77.65 316 P P 12 38 17.6 +1.8
**BUR08** **Bucovina Ar. S** 77.72 318 *e*P P 12 38 16.7 +0.5
**BURAR** **Bucovina Array** 77.72 318 ⇑*i*P P 12 38 16.6 +0.4
**BURAR** **Bucovina Array** 77.72 318 P P 12 38 16.6 +0.4
**BUR04** **Bucovina Ar. S** 77.72 318 *e*P P 12 38 16.7 +0.4
**KWP** **Kalwaria Pacla** 78.17 320 *e*P P 12 38 19.4 +0.9
**KWP** **Kalwaria Pacla** 78.17 320 *e*P P 12 38 19.4 +0.9
comp=Z,148nm,0.9s
**DAMY** **Dhamar** 78.25 280 *e*P P 12 38 21.8 +1.8
comp=Z,25nm,0.8s
**MLR** **Muntele Rosu** 78.31 316 ⇑*i*P P 12 38 19.7 +0.1
**DOPR** **Dopca** 78.42 316 ⇓*i*P P 12 38 21.0 +1.0
**VOIR** 78.89 316 ⇓*i*P P 12 38 23.4 +0.7
**VOIR** 78.89 316 P P 12 38 23.3 +0.6
**STHS** **Stebnicka Huta** 79.10 321 *e*P P 12 38 23.0 -0.7
STHS pmax pmax
comp=Z,5.0nm,1.1s
**STHS** **Stebnicka Huta** 79.10 321 *e*P P 12 38 23.0 -0.7
**ARR** **Arges** 79.17 316 ⇑*i*P P 12 38 25.5 +1.3
**CRVS** **Cervenica-Dubn** 79.24 320 *e*P P 12 38 25.5 +1.0
**CRVS** **Cervenica-Dubn** 79.24 320 *e*P P 12 38 25.5 +1.0
**OJC** **Ojcow** 79.47 322 *e*P P 12 38 26.4 +0.7
**OJC** **Ojcow** 79.47 322 *e*P P 12 38 26.4 +0.7
**OJC** **Ojcow** 79.47 322 *e*P P 12 38 26.3 +0.7
comp=Z,26nm,1.1s
**DRGR** 79.61 318 ⇑*i*P P 12 38 26.8 +0.2
**DRGR** 79.61 318 P P 12 38 27.1 +0.5
DRGR pmax pmax
comp=Z,19nm,0.9s
**NIE** **Niedzica** 79.62 321 *e*P P 12 38 27.7 +1.2
**NIE** **Niedzica** 79.62 321 *e*P P 12 38 27.7 +1.2
**LOT** **Lotru** 79.66 316 ⇓*i*P P 12 38 28.0 +1.1
**BER** **Bergen** 79.98 335 P P 12 38 28.5 +0.4
BER pmax pmax
comp=Z,17nm,1.7s
**KECS** **Kecovo** 80.01 320 *e*P P 12 38 29.6 +1.0
KECS pmax pmax
comp=Z,2.0nm,1.0s
**KECS** **Kecovo** 80.01 320 *e*P P 12 38 29.6 +1.0
**LANS** **Liptovska Anna** 80.22 321 *e*P P 12 38 30.8 +1.0
**LANS** **Liptovska Anna** 80.22 321 *e*P P 12 38 30.8 +1.0
**OKC** **Ostrava-Krasne** 80.57 322 *e*P P 12 38 32.7 +1.2
**OKC** **Ostrava-Krasne** 80.57 322 *e*P P 12 38 32.7 +1.2
**BZS** **Buzias** 80.87 317 ⇑*i*P P 12 38 32.5 -0.7
**MORC** **Moravsky Berou** 80.93 322 ⇑*i*P P 12 38 34.7 +1.2
**MORC** **Moravsky Berou** 80.93 322 *e*P P 12 38 34.3 +0.8
MORC pmax pmax
comp=Z,25nm,0.9s
**MORC** **Moravsky Berou** 80.93 322 *e*P P 12 38 34.3 +0.8
comp=Z,25nm,0.9s
**VYHS** **Vyhne** 80.93 321 *e*P P 12 38 34.3 +0.7
VYHS pmax pmax
comp=Z,141nm,3.7s
**VYHS** **Vyhne** 80.93 321 *e*P P 12 38 34.2 +0.7
**MDVR** **Moldovita** 81.25 316 ⇑*i*P P 12 38 35.2 -0.1
**DPC** **Dobruska-Polom** 81.26 323 *e*P P 12 38 36.4 +1.2
DPC *ex* x 12 38 47.6
**DPC** **Dobruska-Polom** 81.26 323 *e*P P 12 38 36.4 +1.2
**VTS** **Vitosha** 81.47 314 ⇑*i*P P 12 38 37.4 +0.8
**VTS** **Vitosha** 81.47 314 *e*P P 12 38 37.5 +0.8
VTS pmax pmax
comp=Z,7.0nm,0.8s
**VTS** **Vitosha** 81.47 314 *e*P P 12 38 37.5 +0.8
comp=Z,7.4nm,0.8s
**VRAC** **Vranov** 81.71 322 ⇓*i*P P 12 38 37.1 -0.5
**PVCC** **Panska Ves** 82.07 324 *e*P P 12 38 40.7 +1.3
**PVCC** **Panska Ves** 82.07 324 *e*P P 12 38 40.7 +1.3
**PRU** **Pruhonice** 82.40 324 *e*P P 12 38 42.6 +1.4
**PRU** **Pruhonice** 82.40 324 *e*P P 12 38 42.6 +1.4
**CLL** **Collm** 82.40 325 ⇓*i*P P 12 38 41.8 +0.7
CLL pmax pmax
comp=Z,14nm,0.7s
**CLL** **Collm** 82.40 325 ⇓*i*P P 12 38 41.8 +0.7
comp=Z,14nm,0.7s
**CLL** **Collm** 82.40 325 *e*P P 12 38 41.6 +0.5
comp=Z,14nm,0.9s
**DIVS** **Divibare** 82.66 317 *e*P P 12 38 42.8 0.0
comp=Z,9.3nm,0.8s
**GRG** **Griva** 82.83 313 P P 12 38 43.2 -0.5
GRG pmax pmax
comp=Z,16nm,1.8s
**CONA** **Conrad Observa** 82.89 321 *i* PcP P 12 38 45.2 +1.3
comp=Z,6.0nm,0.7s
**SKO** **Skopje** 82.91 314 P P 12 38 45.3 +1.3
SKO pmax pmax
comp=Z,4.0nm,1.0s
**LIT** **Litokhoron** 83.23 312 P P 12 38 45.1 -0.6
LIT pmax pmax
comp=Z,29nm,0.8s
**NKC** **Novy Kostel** 83.33 325 *e*P P 12 38 46.8 +0.8
**NKC** **Novy Kostel** 83.33 325 *e*P P 12 38 46.8 +0.8
**KHC** **Kasperske Hory** 83.41 323 *e*P P 12 38 47.3 +0.8
**KHC** **Kasperske Hory** 83.41 323 *e*P P 12 38 47.3 +0.8
KHC pmax pmax
comp=Z,3.0nm,0.8s
**KHC** **Kasperske Hory** 83.41 323 *e*P P 12 38 47.3 +0.8
comp=Z,2.6nm,0.8s
**MOX** **Moxa** 83.50 325 P P 12 38 47.4 +0.6
MOX pmax pmax
comp=Z,8.0nm,2.1s
**GEC2** **GERESS Array S** 83.52 323 *e*P P 12 38 47.6 +0.5
GEC2 pmax pmax
comp=Z,8.0nm,0.8s
**GEC2** **GERESS Array S** 83.52 323 *e*P P 12 38 47.6 +0.5
comp=Z,7.7nm,0.8s
**GERES** **GERESS Array B** 83.52 323 P P 12 38 47.5 +0.5
comp=Z,5.6nm,0.7s,baz=52,slow=5.2,SNR=38
**GEA0** **GERESS Array S** 83.53 323 *e*P P 12 38 47.3 +0.2
**FNA** **Florina** 83.59 313 P P 12 38 46.8 -0.7
FNA pmax pmax
comp=Z,15nm,1.2s
**WET** **Wettzell** 83.77 324 P P 12 38 48.8 +0.5
WET pmax pmax
comp=Z,9.0nm,1.2s
**MOA** **Molln** 83.81 322 *i* PcP P 12 38 49.5 +1.0
comp=Z,8.4nm,0.9s
**AGG** **Agios Georgios** 83.90 311 P P 12 38 47.6 -1.5
**PDG** **Podgorica** 84.02 315 ⇓*i*P P 12 38 50.2 +0.6
**SOKA** **Soboth** 84.08 321 *i* PcP P 12 38 50.6 +0.6
comp=Z,6.5nm,0.7s
**OBKA** **Obir** 84.45 321 *i* PcP P 12 38 52.4 +0.6
comp=Z,7.4nm,0.7s
**SFJD** **Kangerlussuaq** 84.64 360 P P 12 38 51.4 -0.8
SFJD pmax pmax
comp=Z,32nm,0.8s
**KBA** **Koelnbreinsper** 84.77 322 P P 12 38 53.9 +0.3
KBA pmax pmax
comp=Z,9.0nm,0.6s
**KBA** **Koelnbreinsper** 84.77 322 *i* P P 12 38 53.4 -0.2
**MYKA** **Terra Mystica** 84.88 321 *i* P P 12 38 53.5 -0.4
comp=Z,5.7nm,0.8s
**ABTA** **Abfaltersbach** 85.43 322 *e*P P 12 38 56.6 -0.1
comp=Z,7.4nm,0.6s
**MOTA** **Moosalm** 85.82 323 *i* P P 12 38 58.1 -0.6
comp=Z,5.2nm,0.5s
**FETA** **Feichten** 86.22 323 *e*P P 12 38 59.9 -0.8
comp=Z,10.0nm,1.6s
**FFC** **Flin Flon** 86.23 27 *i* P P 12 39 01.1 +0.7
**DAVA** **Damuels** 86.50 323 *i* PcP P 12 39 01.9 -0.2
comp=Z,3.2nm,0.4s
**FUORN** **Ofenpass-Fuorn** 86.72 323 *e*P P 12 39 02.9 -0.4
comp=Z,9.8nm,0.7s
**FRB** **Frobisher Bay** 86.90 8 P P 12 39 02.5 -0.9
FRB pmax pmax
comp=Z,48nm,0.9s
**SLE** **Schleitheim** 86.91 324 P P 12 39 03.5 -0.4
SLE pmax pmax
comp=Z,5.0nm,1.9s
**HLID** **Hailey** 87.77 40 *e*P P 12 39 09.9 +1.6
comp=Z,2.6nm,0.8s
**DUG** **Dugway, Tooele** 90.81 42 *e*P P 12 39 21.1 -1.4
DUG pmax pmax
comp=Z,17nm,1.9s
**DUG** **Dugway, Tooele** 90.81 42 *e*P P 12 39 21.1 -1.4
comp=Z,17nm,1.9s
**PD31** **Pinedale Array** 91.00 39 *e*P P 12 39 23.2 -0.3
**PDAR** **Pinedale Array** 91.00 39 P P 12 39 24.2 +0.7
comp=Z,0.7nm,0.7s,baz=306,slow=2.0,SNR=8.8
PDAR pP **pP** 12 40 00.9 -0.4
comp=Z,0.8nm,0.8s,baz=335,slow=2.5,SNR=3.5
**ULM** **Lac du Bonnet** 92.06 27 P P 12 39 27.8 -0.1
comp=Z,5.5nm,0.7s,baz=346,slow=5.3,SNR=9.7
ULM pP **pP** 12 40 04.3 -1.3
comp=Z,2.5nm,0.9s,baz=338,slow=4.6,SNR=2.7
**ULM** **Lac du Bonnet** 92.06 27 *e*P P 12 39 27.8 -0.1
ULM pmax pmax
comp=Z,19nm,1.4s
**ULM** **Lac du Bonnet** 92.06 27 *e*P P 12 39 27.8 -0.1
comp=Z,19nm,1.4s
**TOA1** **Torodi Ar. Sit** 114.05 302 *e*PKiKP PKPdf 12 44 57.7 -0.3
**TORD** **Torodi Ar. Bea** 114.05 302 PKiKP PKPdf 12 44 57.7 -0.3
comp=Z,1.0nm,0.7s,baz=18,slow=3.4,SNR=6.1
**DBIC** **Dimbokro** 123.13 301 PKP **PKPdf** 12 45 15.4 -0.1
comp=Z,3.2nm,0.7s,baz=64,slow=4.1,SNR=4.7
**DBIC** **Dimbokro** 123.13 301 *e*PKPdf **PKPdf** 12 45 15.2 -0.3

**IDC 20 12:36:04.0±4.5, 6°18S×153°77E, h0km, mb3.7/5, mb1 3.8/5, mb1mx3.5/42, mbtmp3.7/5, Error ellipse: s-maj=151.1km s-min=28.5km az=110.0, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **23.32** | **232** | P | P | P | 12 41 13.7 | -0.3 |
| | 0.6nm,0.9s,baz=58,slow=9.2,SNR=4.6 | | | | | | | |
| **ASAR** | **Alice Springs** | **25.84** | **226** | P | P | P | 12 41 37.7 | +0.3 |
| | 0.9nm,0.9s,baz=60,slow=9.0,SNR=8.1 | | | | | | | |
| **SONM** | **Songino Array** | **68.00** | **328** | P | P | | 12 47 05.7 | +0.5 |
| | 0.7nm,0.5s,baz=128,slow=5.9,SNR=4.0 | | | | | | | |
| **MKAR** | **Makanchi Array** | **81.99** | **319** | P | P | | 12 48 26.0 | -0.1 |
| | 0.6nm,0.7s,baz=98,slow=7.2,SNR=8.6 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **82.83** | **326** | P | P | | 12 48 29.8 | -0.4 |
| | 0.9nm,0.6s,baz=119,slow=5.1,SNR=4.4 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **151.64** | **286** | PKPbc | PKPbc | | 12 56 01.3 | -0.2 |
| | 0.9nm,0.8s,baz=58,slow=1.2,SNR=5.1 | | | | | | | |

*IDC **20** 12:46:07.8±6.9, 51°37N×179°22E, h0km, mb3.4/5, mb1 3.8/6, mb1mx3.4/44, mbtmp3.5/6, ML3.9/1, Error ellipse: s-maj=131.0km s-min=57.9km az=82.0*
*NEIC **20** 12:46:16.5±0.0, 52°32N×179°17E, h28km, ML3.2(AEIC), After AEIC.*

**ISC 20 12:46:12.9±2.4, 51°9N±0°3×178°7E±0°1, h35km, n17, σ1°29/22, mb3.5/5, Rat Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **GALAA** | **Gareloi Lava P** | **1.59** | **93** | P | P | **Pn** | 12 46 39.9 | +1.4 |
| GALAA | | | | S | S | **Sn** | 12 46 58.0 | +0.2 |
| **GAEA** | **Gareloi East** | **1.61** | **92** | P | P | **Pn** | 12 46 40.0 | +1.3 |
| GAEA | | | | S | S | **Sn** | 12 46 59.2 | +1.0 |
| **TASE** | **Tanaga Southea** | **2.04** | **90** | P | P | **Pn** | 12 46 46.0 | +1.2 |
| **TAFP** | **Tanaga Falls P** | **2.08** | **88** | P | P | **Pn** | 12 46 46.2 | +1.0 |
| TAFP | | | | S | S | **Sn** | 12 47 08.8 | -0.9 |
| **TAFL** | **Tanaga Flats** | **2.13** | **92** | P | P | **Pn** | 12 46 47.1 | +1.1 |
| **TAPA** | **Tanaga Point A** | **2.18** | **90** | P | P | **Pn** | 12 46 47.8 | +1.1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| TAPA | | | | S | | Sn | 12 47 11.9 | -0.6 |
| KIKV | Kanaga Island | 2.58 | 88 | P | | Pn | 12 46 53.4 | +1.3 |
| KIRH | Kanaga Island | 2.63 | 88 | P | | Pn | 12 46 54.0 | +1.3 |
| ADAG | Mount Adagdak | 2.93 | 86 | P | | Pn | 12 46 57.8 | +0.9 |
| ATKA | Atka Island | 4.42 | 83 | P | | Pn | 12 47 18.7 | +1.4 |
| ATKA | | | | S | | Sn | 12 48 05.8 | -1.7 |
| KOKL | Mount Kliuchef | 4.42 | 81 | P | | Pn | 12 47 18.3 | +0.9 |
| KDAK | Kodiak Island | 17.50 | 59 | P | | P | 12 50 13.4 | -1.2 |
| | 0.4nm,0.3s,baz=269,slow=4.5,SNR=23 | | | | | | | |
| ILAR | Eielson Array | 21.87 | 41 | P | | P | 12 51 04.5 | +2.4 |
| | 0.2nm,0.5s,baz=230,slow=7.8,SNR=11 | | | | | | | |
| INK | Inuvik | 27.97 | 36 | P | | P | 12 52 00.8 | +1.1 |
| | 0.2nm,0.3s,baz=202,slow=5.4,SNR=2.9 | | | | | | | |
| YKA | Yellowknife Ar | 36.03 | 46 | P | | P | 12 53 10.3 | 0.0 |
| | 0.2nm,0.3s,baz=281,slow=8.9,SNR=6.2 | | | | | | | |
| PDAR | Pinedale Array | 47.65 | 71 | P | | P | 12 54 44.4 | -1.3 |
| | 0.4nm,0.5s,baz=314,slow=4.8,SNR=5.8 | | | | | | | |
| TXAR | Lajitas Array | 60.13 | 80 | P | | P | 12 56 15.9 | -0.9 |
| | 0.4nm,0.5s,baz=296,slow=4.5,SNR=5.0 | | | | | | | |

*ISN **20** 12:52:07.3±1.0,38.58N×43.94E,h0km±52km, ML3.4*
*AZER **20** 12:52:08.8±0.1,38.48N×44.22E,h2km, Error ellipse: s-maj=4.6km s-min=3.5km az=338.0*
*DDA **20** 12:52:09.1,38.44N×44.15E,h2km,Ml3.4*
*ISK **20** 12:52:09.5,38.38N×44.18E,h6km,ML3.5*
*CSEM **20** 12:52:10.5±0.2,38.36N×44.09E,h2km,ML3.4, Error ellipse: s-maj=4.6km s-min=3.9km az=109.0*

**ISC 20 12:52:10.5±1.2,38.38N±0.02×44.08E±0.02,h1km±10km, n78,σ1$16/104,2C-10D,Turkey-Iran border region**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| TVAN | Van | 0.55 | 286 | *i* P | | Pg | 12 52 20.4 | -0.5 |
| TVAN | Van | 0.55 | 286 | P | | Pg | 12 52 20.5 | -0.5 |
| VANB | Van | 0.58 | 292 | *e*PG | | Pg | 12 52 21.9 | +0.2 |
| VANB | | | | *e*SG | | Sb | 12 52 31.0 | -1.3 |
| VANB | Van | 0.58 | 292 | *e*Pg | | Pg | 12 52 21.9 | +0.2 |
| VANB | | | | *e*Sg | | Sb | 12 52 31.0 | -1.3 |
| VMUR | Van-Muradiye | 0.73 | 327 | *i* P | | Pg | 12 52 23.6 | -0.9 |
| VMUR | | | | *i* S | | Sb | 12 52 36.1 | -0.4 |
| VMUR | Van-Muradiye | 0.73 | 327 | P | | Pg | 12 52 23.6 | -0.9 |
| VMUR | | | | S | | Sb | 12 52 36.2 | -0.4 |
| CLDR | Caldiran | 0.77 | 351 | *e*PG | | Pg | 12 52 25.1 | -0.2 |
| CLDR | | | | *e*SG | | Sg | 12 52 36.5 | +1.1 |
| CLDR | Caldiran | 0.77 | 351 | *i* P | | Pg | 12 52 22.9 | -2.5 |
| CLDR | Caldiran | 0.77 | 351 | *e*Pg | | Pg | 12 52 25.2 | -0.2 |
| CLDR | | | | *e*Sg | | Sg | 12 52 36.5 | +1.1 |
| GEVA | Gevas | 0.80 | 266 | *i* P | | Pg | 12 52 24.3 | -1.6 |
| GEVA | | | | *i* S | | Sb | 12 52 38.3 | -0.4 |
| GEVA | Gevas | 0.80 | 266 | P | | Pg | 12 52 24.3 | -1.6 |
| GEVA | | | | S | | Sb | 12 52 38.3 | -0.4 |
| YOVA | Hakkari_Y˜...kse | 0.81 | 168 | *i* P | | Pg | 12 52 26.2 | +0.2 |
| YOVA | | | | *i* S | | Sb | 12 52 39.0 | +0.2 |
| YOVA | Hakkari_Y˜...kse | 0.81 | 168 | P | | Pg | 12 52 26.2 | +0.2 |
| HAKT | HAKKARI | 0.87 | 200 | *i* P | | Pg | 12 52 26.3 | -0.9 |
| HAKT | | | | *i* S | | Sn | 12 52 41.9 | -1.5 |
| HAKT | HAKKARI | 0.87 | 200 | P | | Pg | 12 52 26.3 | -0.9 |
| ADCV | BITLIS_Adilcev | 1.14 | 292 | *i* P | | Pg | 12 52 32.5 | +0.1 |
| ADCV | | | | *i* S | | Sb | 12 52 32.5 | +0.3 |
| ADCV | BITLIS_Adilcev | 1.14 | 292 | P | | Pg | 12 52 32.5 | +0.1 |
| ADCV | | | | S | | Sb | 12 52 48.8 | +0.3 |
| CUKT | Cukurca | 1.19 | 198 | *e*PN | | Pg | 12 52 33.2 | -0.1 |
| CUKT | | | | *e*SN | | Sn | 12 52 50.4 | -0.8 |
| CUKT | Cukurca | 1.19 | 198 | *i* P | | Pg | 12 52 32.1 | -1.2 |
| CUKT | Cukurca | 1.19 | 198 | P | | Pg | 12 52 32.1 | -1.2 |
| CUKT | Cukurca | 1.19 | 198 | *e*Pn | | Pg | 12 52 33.2 | -0.1 |
| CUKT | | | | *e*Sn | | Sn | 12 52 50.4 | -0.8 |
| NAX | Nakhchivan | 1.36 | 54 | ⇓P | | Pn | 12 52 34.5 | -2.2 |
| | SNR=23 | | | | | | | |
| NAX | | | | ⇑S | | Sg | 12 52 54.1 | -0.3 |
| NAX | Nakhchivan | 1.36 | 54 | P | | Pn | 12 52 34.5 | -2.2 |
| | SNR=23 | | | | | | | |
| NAX | | | | S | | Sg | 12 52 54.1 | -0.3 |
| TUTA | Tutak | 1.42 | 316 | *i* P | | Pn | 12 52 36.0 | -1.6 |
| TUTA | Tutak | 1.42 | 316 | P | | Pn | 12 52 36.0 | -1.6 |
| AGRB | Hanur-Agry | 1.46 | 325 | *e*PN | | Pn | 12 52 37.7 | -0.5 |
| AGRB | Hanur-Agry | 1.46 | 325 | *e*Pn | | Pn | 12 52 37.7 | -0.5 |
| HYR | Heyderabad | 1.47 | 24 | ⇓P | | Pn | 12 52 38.1 | -0.1 |
| | SNR=6.7 | | | | | | | |
| HYR | | | | ⇑S | | Sn | 12 52 59.8 | +1.8 |
| HYR | Heyderabad | 1.47 | 24 | P | | Pn | 12 52 38.1 | -0.1 |
| | SNR=6.7 | | | | | | | |
| HYR | | | | S | | Sn | 12 52 59.8 | +1.8 |
| SBZ | Shahbuz | 1.54 | 48 | ⇓P | | Pn | 12 52 38.1 | -1.0 |
| | SNR=6.9 | | | | | | | |
| SBZ | | | | ⇓S | | Sn | 12 52 59.8 | 0.0 |
| SBZ | Shahbuz | 1.54 | 48 | P | | Pn | 12 52 38.1 | -1.0 |
| | SNR=6.9 | | | | | | | |
| SBZ | | | | S | | Sn | 12 52 59.8 | 0.0 |
| SIRT | Sirnak | 1.56 | 236 | *e*PN | | Pn | 12 52 39.4 | -0.1 |
| SIRT | Sirnak | 1.56 | 236 | *e*Pn | | Pn | 12 52 39.4 | -0.1 |
| SIRN | S˜¨rnak | 1.58 | 237 | *i* P | | Pg | 12 52 41.7 | +0.9 |
| SIRN | | | | *i* S | | Sg | 12 53 05.1 | +3.8 |
| ORD | Ordubad | 1.60 | 69 | P | | Pn | 12 52 39.0 | -1.0 |
| | SNR=26 | | | | | | | |
| ORD | | | | S | | Sg | 12 53 02.8 | +0.9 |
| TASB | TASBURUN-IGDIR | 1.61 | 4 | *e*PN | | Pn | 12 52 39.2 | -0.9 |
| TASB | TASBURUN-IGDIR | 1.61 | 4 | *e*Pn | | Pn | 12 52 39.2 | -0.9 |
| SRTM | Siirt_Merkez | 1.74 | 258 | *i* P | | Pg | 12 52 44.0 | +0.2 |
| SRTM | Siirt_Merkez | 1.74 | 258 | P | | Pg | 12 52 44.0 | +0.2 |
| EKAR | Karacoban | 1.80 | 300 | *i* P | | Pg | 12 52 45.0 | 0.0 |
| EKAR | Karacoban | 1.80 | 300 | P | | Pg | 12 52 45.0 | 0.0 |
| EATA | Eleskirt | 1.93 | 321 | *i* P | | Pn | 12 52 45.4 | +0.7 |
| EATA | Eleskirt | 1.93 | 321 | P | | Pn | 12 52 45.4 | +0.7 |
| DIGO | Kars | 2.10 | 345 | *i* P | | Pb | 12 52 48.7 | -0.9 |
| DIGO | Kars | 2.10 | 345 | P | | Pb | 12 52 48.7 | -0.9 |
| MSL | Mosul | 2.12 | 202 | *e*Pn | | Pn | 12 52 46.0 | -1.0 |
| | SNR=3.0 | | | | | | | |
| MSL | | | | *e*Sn | | Sn | 12 53 13.0 | -1.0 |
| | SNR=3.0 | | | | | | | |
| BTMN | Batman | 2.27 | 258 | *i* P | | Pb | 12 52 51.1 | -1.1 |
| BTMN | Batman | 2.27 | 258 | P | | Pb | 12 52 51.1 | -1.1 |
| BNGL | BINGOL | 2.36 | 285 | *i* P | | Pg | 12 52 56.8 | +0.9 |
| HOMI | Horasan | 2.37 | 315 | *i* P | | Pg | 12 52 55.4 | -0.5 |
| KARS | Kars | 2.38 | 341 | *e*PN | | Pn | 12 52 50.3 | -0.4 |
| KARS | Kars | 2.38 | 341 | *e*Pn | | Pn | 12 52 50.3 | -0.4 |
| SENK | Senkaya-Erzuru | 2.56 | 329 | *e*PN | | Pn | 12 52 53.3 | 0.0 |
| SENK | Senkaya-Erzuru | 2.56 | 329 | *e*Pn | | Pn | 12 52 53.3 | 0.0 |
| ERZM | Erzurum | 2.60 | 307 | *i* P | | Pg | 12 52 59.6 | -0.8 |
| GDB | GEDABAY | 2.67 | 28 | ⇓P | | Pn | 12 52 54.7 | -0.1 |
| | SNR=6.2 | | | | | | | |
| GDB | GEDABAY | 2.67 | 28 | P | | Pn | 12 52 54.7 | -0.1 |
| | SNR=6.2 | | | | | | | |
| BNGB | Bing˜¶l | 2.73 | 284 | *e*PN | | Pn | 12 52 56.3 | +0.8 |
| BINT | Bingol | 2.85 | 281 | *e*Pn | | Pn | 12 52 56.3 | -0.9 |
| GANJ | Ganja | 2.85 | 37 | ⇓P | | Pn | 12 52 56.9 | -0.3 |
| | SNR=4.8 | | | | | | | |
| GANJ | | | | ⇓S | | Sn | 12 53 34.1 | +1.9 |
| GANJ | Ganja | 2.85 | 37 | P | | Pn | 12 52 56.9 | -0.3 |
| | SNR=4.8 | | | | | | | |
| GANJ | | | | S | | Sn | 12 53 34.1 | +1.9 |
| QZX | Qazax, Azerbai | 2.86 | 20 | ⇓P | | Pn | 12 52 58.1 | +0.9 |
| QZX | Qazax, Azerbai | 2.86 | 20 | P | | Pn | 12 52 58.1 | +0.9 |
| MAZI | Mazidag | 3.01 | 253 | *e*PN | | Pn | 12 53 00.2 | +0.8 |
| MAZI | Mazidag | 3.01 | 253 | *e*Pn | | Pn | 12 53 00.2 | +0.8 |
| DIY | Diyarbakir | 3.07 | 262 | *e*Pn | | Pn | 12 53 02.0 | +1.8 |
| DYBB | Diyarbakir | 3.13 | 263 | *e*PN | | Pn | 12 53 02.0 | +1.0 |
| LRK | Lerik | 3.35 | 84 | ⇓P | | Pn | 12 53 06.4 | +2.2 |
| | SNR=12 | | | | | | | |
| LRK | Lerik | 3.35 | 84 | P | | Pn | 12 53 06.4 | +2.2 |
| | SNR=12 | | | | | | | |
| BCA | Borcka | 3.60 | 329 | *e*PN | | Pn | 12 53 08.1 | +0.7 |
| BCA | Borcka | 3.60 | 329 | *e*Pn | | Pn | 12 53 08.1 | +0.7 |
| PTK | Pertek | 3.70 | 279 | *e*PN | | Pn | 12 53 10.3 | +1.3 |
| PTK | Pertek | 3.70 | 279 | *e*Pn | | Pn | 12 53 10.3 | +1.3 |
| ASTR | Astara | 3.71 | 86 | ⇓S | | Sn | 12 53 55.2 | +2.1 |
| ASTR | Astara | 3.71 | 86 | S | | Sn | 12 53 55.2 | +2.1 |
| SVRC | Sivrice-ELAZID | 3.75 | 271 | *e*PN | | Pn | 12 53 10.8 | +1.2 |
| SVRC | Sivrice-ELAZID | 3.75 | 271 | *e*Pn | | Pn | 12 53 10.8 | +1.2 |
| RTB | Rutbah | 6.15 | 211 | *e*Pn | | Pn | 12 53 43.0 | +0.5 |
| | SNR=3.0 | | | | | | | |
| RTB | | | | *i* Sn | | Sn | 12 54 50.0 | -3.6 |
| | SNR=3.0 | | | | | | | |

*ISCJB **20** 13:01:15.4±1.0,41.09N±0.06×30.62E±0.06,h13km±5km, Error ellipse: s-maj=12.0km s-min=4.9km az=31.1*
*CSEM **20** 13:01:15.5±0.2,41.10N×30.62E,h12km,MD2.7, Error ellipse: s-maj=5.9km s-min=2.7km az=37.0*
*DDA **20** 13:01:15.6,41.07N×30.64E,h7km,Md2.7*

*ISK **20** 13:01:16.2,41.05N×30.55E,h17km,MD2.7*

**ISC 20 13:01:15.4±1.3,41.09N±0.06×30.64E±0.05,h14km±10km, n40,σ0$32/50,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| SAHE | Sakarya_HENDEK | 0.29 | 145 | *i* P | | Pg | 13 01 21.4 | 0.0 |
| SAHE | | | | *i* S | | Sg | 13 01 25.3 | -0.2 |
| SAHE | Sakarya_HENDEK | 0.29 | 145 | P | | Pg | 13 01 21.4 | 0.0 |
| SAHE | | | | S | | Sg | 13 01 25.3 | -0.2 |
| KAND | Kocaeli-Kandir | 0.34 | 271 | *i* P | | Pg | 13 01 22.6 | +0.3 |
| KAND | | | | *i* S | | Sb | 13 01 27.7 | -0.7 |
| KAND | Kocaeli-Kandir | 0.34 | 271 | P | | Pg | 13 01 22.6 | +0.3 |
| KAND | | | | S | | Sb | 13 01 27.7 | -0.7 |
| GEYV | SAKARYA_Geyve | 0.66 | 203 | *i* P | | Pb | 13 01 28.7 | +0.1 |
| GEYV | SAKARYA_Geyve | 0.66 | 203 | P | | Pb | 13 01 28.7 | +0.1 |
| GULT | Gulveren | 0.66 | 188 | *e*PG | | Pb | 13 01 29.0 | +0.2 |
| GULT | | | | *e*SG | | Sb | 13 01 38.0 | +0.2 |
| GULT | Gulveren | 0.66 | 188 | *e*Pg | | Pb | 13 01 29.0 | +0.2 |
| GULT | | | | *e*Sg | | Sb | 13 01 38.0 | +0.2 |
| MDUB | Mudurnu | 0.75 | 145 | *e*PG | | Pn | 13 01 31.6 | -0.1 |
| MDUB | Mudurnu | 0.75 | 145 | *e*Pg | | Pn | 13 01 31.6 | -0.1 |
| SILT | Sile | 0.75 | 275 | *e*PG | | Pb | 13 01 30.2 | -0.1 |
| SILT | | | | *e*SG | | Sb | 13 01 40.4 | 0.0 |
| SILT | Sile | 0.75 | 275 | *e*Pg | | Pb | 13 01 30.2 | -0.1 |
| SILT | | | | *e*Sg | | Sb | 13 01 40.4 | 0.0 |
| HRT | Hereke | 0.78 | 250 | *e*PG | | Pg | 13 01 30.3 | -0.2 |
| HRT | | | | *e*SG | | Sb | 13 01 40.9 | -0.3 |
| HRT | Hereke | 0.78 | 250 | *e*Pg | | Pg | 13 01 30.3 | -0.2 |
| HRT | | | | *e*Sg | | Sb | 13 01 40.9 | -0.3 |
| YLV | Yalova | 1.09 | 242 | *e*PG | | Pb | 13 01 36.1 | 0.0 |
| YLV | Yalova | 1.09 | 242 | *e*Pg | | Pb | 13 01 36.1 | 0.0 |
| BUY | Buyukada | 1.17 | 259 | *e*PN | | Pb | 13 01 37.3 | -0.1 |
| BUY | Buyukada | 1.17 | 259 | *e*Pn | | Pb | 13 01 37.3 | -0.1 |
| ISK | Istanbul-Kandi | 1.19 | 270 | *e*PN | | Pn | 13 01 37.6 | -0.1 |
| ISK | Istanbul-Kandi | 1.19 | 270 | *e*Pn | | Pn | 13 01 37.6 | -0.1 |
| KAVV | Kandilli-Istan | 1.19 | 269 | *e*PN | | Pb | 13 01 37.6 | -0.2 |
| KAVV | Kandilli-Istan | 1.19 | 269 | *e*Pn | | Pb | 13 01 37.6 | -0.2 |
| KLYT | Kilyos | 1.21 | 278 | *e*PN | | Pn | 13 01 38.2 | +0.2 |
| KLYT | Kilyos | 1.21 | 278 | *e*Pn | | Pn | 13 01 38.2 | +0.2 |
| SBT5 | Esenkoy-Cinarc | 1.41 | 252 | *e*PN | | Pn | 13 01 40.6 | 0.0 |
| SBT5 | Esenkoy-Cinarc | 1.41 | 252 | *e*Pn | | Pn | 13 01 40.6 | 0.0 |
| ARMT | Armutlu | 1.44 | 249 | *e*PN | | Pn | 13 01 41.1 | 0.0 |
| ARMT | Armutlu | 1.44 | 249 | *e*Pn | | Pn | 13 01 41.1 | 0.0 |
| MDNY | Mudanya-Bursa | 1.51 | 242 | *e*PN | | Pn | 13 01 42.1 | 0.0 |
| MDNY | Mudanya-Bursa | 1.51 | 242 | *e*Pn | | Pn | 13 01 42.1 | 0.0 |
| CTKS | Kestanelik-??a | 1.61 | 276 | *e*PN | | Pn | 13 01 43.9 | +0.4 |
| CTKS | Kestanelik-??a | 1.61 | 276 | *e*Pn | | Pn | 13 01 43.9 | +0.4 |
| SBT2 | Guzelce-Avcila | 1.62 | 263 | *e*PN | | Pn | 13 01 43.7 | +0.3 |
| SBT2 | Guzelce-Avcila | 1.62 | 263 | *e*Pn | | Pn | 13 01 43.7 | +0.3 |
| CTYL | Yalikoy Yolu | 1.81 | 283 | *e*PN | | Pn | 13 01 46.5 | +0.4 |
| CTYL | Yalikoy Yolu | 1.81 | 283 | *e*Pn | | Pn | 13 01 46.5 | +0.4 |
| TVSB | Tavsanli | 1.86 | 209 | *e*PN | | Pn | 13 01 47.3 | +0.3 |
| TVSB | Tavsanli | 1.86 | 209 | *e*Pn | | Pn | 13 01 47.3 | +0.3 |
| SBT3 | Marmara-Eregli | 2.02 | 265 | *e*PN | | Pn | 13 01 49.9 | +0.9 |
| SBT3 | Marmara-Eregli | 2.02 | 265 | *e*Pn | | Pn | 13 01 49.9 | +0.9 |

**BUC 20 13:02:39.8±0.2,44.52N×28.44E,h8km±2km,MD2.0/2, 4C-2D,Error ellipse: s-maj=3.1km s-min=1.6km az=42.0, Romania**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| TIRR | Tirgusor | 0.07 | 198 | ⇑*i* P | | Pg | 13 02 41.8 | +0.2 |
| TIRR | | | | *i* S | | Sg | 13 02 43.2 | +0.2 |
| TIRR | Tirgusor | 0.07 | 198 | ⇑*i* P | | Pg | 13 02 41.8 | +0.2 |
| TIRR | | | | *i* S | | Sg | 13 02 43.2 | +0.2 |
| HARR | Harsova | 0.40 | 295 | ⇑*i* P | | Pg | 13 02 48.1 | +0.5 |
| HARR | Harsova | 0.40 | 295 | ⇑*i* P | | Pg | 13 02 48.1 | +0.5 |
| CFR | Carcaliu | 0.69 | 342 | ⇓*i* P | | Pb | 13 02 54.0 | -0.1 |
| CFR | | | | S | | Sb | 13 03 04.0 | +0.2 |
| CFR | Carcaliu | 0.69 | 342 | ⇓*i* P | | Pb | 13 02 54.0 | -0.1 |
| CFR | | | | *i* S | | Sb | 13 03 04.0 | +0.2 |

*NIED **20** 13:14:00,38.30N×144.50E,h5km,Mw3.8 Best double couple: M₀6.15000×10¹⁴ NP1:φs20.00000°,δ34.00000°, λ-84.00000°. NP2:φs193.00000°,δ56.00000°, λ-94.00000°.*
*IDC **20** 13:14:38.2±0.7,38.14N×144.78E,h0km,mb3.8/11, mb1 4.0/15,mb1mx3.8/47,mbtmp3.9/15,ML3.8/3,MS2.6/2, Ms1 2.6/2,ms1mx2.4/32,Error ellipse: s-maj=19.7km s-min=15.3km az=109.0*
*NEIC **20** 13:14:39.9±0.5,38.20N×144.80E,h10km,mb4.7/4, Error ellipse: s-maj=10.2km s-min=6.7km az=121.0*
*ISCJB **20** 13:14:40.7±0.5,38.27N±0.04×144.60E±0.04,h26km, mb4.0/15, Error ellipse: s-maj=5.5km s-min=4.5km az=151.8*
*JMA **20** 13:14:42.9±0.1,38.29N×144.50E,h48km,M4.4*

**ISC 20 13:14:42.5±0.7,38.29N±0.05×144.63E±0.07,h26km,n44, σ2$45/65,mb3.9/15,Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| OFUJ | Ofunato | 2.45 | 290 | P | | Pn | 13 15 20.3 | -0.4 |
| OFUJ | | | | S | | Sn | 13 15 48.4 | -1.3 |
| MIYJ | Miyakonagasawa | 2.54 | 301 | P | | Pn | 13 15 21.5 | -0.5 |
| MIYJ | | | | S | | Sn | 13 15 50.1 | -1.9 |
| JIO | Ouri | 2.58 | 275 | P | | Pn | 13 15 22.1 | -0.4 |
| JIO | | | | *e*S | | Sn | 13 15 51.1 | -2.0 |
| JMK | Ichinoseki | 2.75 | 285 | P | | Pn | 13 15 24.8 | 0.0 |
| JMK | | | | S | | Sn | 13 15 55.9 | -1.3 |
| JOM | Ohasama | 2.86 | 295 | P | | Pn | 13 15 26.4 | +0.1 |
| JOM | | | | *e*S | | Sn | 13 15 58.9 | -1.0 |
| JANG | Nango | 3.19 | 312 | P | | Pn | 13 15 30.3 | -0.6 |
| JANG | | | | S | | Sn | 13 16 06.7 | -1.3 |
| JYK | Kaneyama | 3.40 | 282 | P | | Pn | 13 15 34.2 | +0.4 |
| JYK | | | | S | | Sn | 13 16 13.0 | -0.3 |
| JFT | Otama | 3.48 | 258 | P | | Pn | 13 15 34.9 | 0.0 |
| JFT | | | | S | | Sn | 13 16 14.2 | -1.1 |
| ERM | Erimo | 3.88 | 344 | *e*Pn | | Pn | 13 15 40.4 | 0.0 |
| JOT | Ohata | 4.14 | 319 | P | | Pn | 13 15 44.0 | +0.1 |
| JOT | | | | *e*S | | Sn | 13 16 27.2 | -4.2 |
| JCH | Churui | 4.42 | 348 | P | | Pn | 13 15 45.9 | -2.0 |
| JCH | | | | *e*S | | Sn | 13 16 34.6 | -3.9 |
| JKB | Kayabe | 4.53 | 324 | P | | Pn | 13 15 50.5 | +1.2 |
| BSO1 | Boso 1 | 4.67 | 220 | P | | Pn | 13 15 49.1 | -1.7 |
| JRY | Ryogami san | 5.11 | 245 | P | | Pn | 13 15 56.5 | -0.8 |
| JRY | | | | *e*S | | Sn | 13 16 50.2 | -5.2 |
| NEM2 | Nemuro 2 | 5.14 | 9 | P | | Pn | 13 15 54.4 | -3.2 |
| NEM2 | | | | *e*S | | Sn | 13 16 48.4 | -7.6 |
| JOD2 | Odawara 2 | 5.38 | 237 | P | | Pn | 13 16 00.7 | -0.3 |
| JOD2 | | | | *e*S | | Sn | 13 16 56.5 | -5.6 |
| MJAR | Matsushiro Arr | 5.40 | 253 | Pn | | Pn | 13 16 02.1 | +0.7 |
| | 1.9nm,0.3s,baz=79,slow=15,SNR=26 | | | | | | | |
| MJAR | | | | Sn | | Sn | 13 17 04.0 | +1.4 |
| | 1.3nm,0.3s,baz=345,slow=9.1,SNR=3.4 | | | | | | | |
| MJAR | | | | LR | | LR | 13 18 11.6 | |
| | comp=Z,65nm,20.8s,baz=100,slow=39 | | | | | | | |
| MAJO | Matsushiro | 5.40 | 253 | *e*Pn | | Pn | 13 16 02.3 | +0.9 |
| | 22nm,0.6s | | | | | | | |
| MAT | Matsushiro | 5.40 | 253 | P | | Pn | 13 16 02.3 | +1.0 |
| MAT | | | | S | | Sn | 13 17 02.4 | -0.3 |
| JOSM | Okushiri--Mats | 5.47 | 315 | P | | Pn | 13 16 03.0 | +0.8 |
| JTKR | Abashiri--Toko | 5.70 | 355 | P | | Pn | 13 16 04.1 | -1.3 |
| JTKR | | | | *e*S | | Sn | 13 17 04.5 | -5.4 |
| JHR | Hokuryu | 5.87 | 339 | P | | Pn | 13 16 08.8 | +1.1 |
| JHR | | | | *e*S | | Sn | 13 17 10.7 | -3.4 |
| ASAJ | Asahikawa | 6.02 | 346 | Pn | | Pn | 13 16 09.9 | +0.1 |
| | 2.5nm,0.3s,baz=189,slow=11,SNR=24 | | | | | | | |
| ASAJ | | | | Sn | | Sn | 13 17 16.3 | -1.4 |
| | 2.6nm,0.3s,baz=4.1,slow=31,SNR=7.5 | | | | | | | |
| JHJ2 | Mitsune | 6.48 | 219 | P | | Pn | 13 16 14.8 | -1.4 |
| JHJ2 | | | | *e*S | | Sn | 13 17 23.5 | -5.8 |
| JHJ2 | Mitsune | 6.48 | 219 | P | | Pn | 13 16 15.1 | -1.1 |
| JHJ | Hachijo jima 2 | 6.49 | 219 | Pn | | Pn | 13 16 13.3 | -3.0 |
| | 7.5nm,0.3s,baz=72,slow=20,SNR=8.3 | | | | | | | |
| JHJ | | | | Sn | | Sn | 13 17 21.6 | -8.0 |
| | 18nm,0.3s,baz=55,slow=16,SNR=4.4 | | | | | | | |
| USRK | Ussuriysk Ar. | 11.19 | 306 | Pn | | Pn | 13 17 22.7 | +2.1 |
| | 0.3nm,0.3s,baz=109,slow=10,SNR=4.6 | | | | | | | |
| KSRS | Korea Array | 13.23 | 272 | LR | | LR | 13 22 24.6 | |
| | comp=Z,32nm,21.8s,baz=62,slow=35 | | | | | | | |
| KLR | Kul'dur | 14.33 | 324 | Pn | | P | 13 18 09.4 | -1.0 |
| | 0.0nm,0.3s,baz=132,slow=13,SNR=7.6 | | | | | | | |
| SEY | Seymchan | 25.12 | 8 | P | | P | 13 20 06.6 | +1.7 |
| | 5.1nm,0.7s,baz=176,slow=7.4,SNR=18 | | | | | | | |
| YAK | Yakutsk | 25.49 | 344 | P | | P | 13 20 09.2 | +1.0 |
| | 8.6nm,0.5s,baz=250,slow=1.3,SNR=5.7 | | | | | | | |
| SONM | Songino Array | 29.25 | 301 | P | | P | 13 20 43.8 | +1.5 |
| | 0.4nm,0.7s,baz=88,slow=11,SNR=2.2 | | | | | | | |
| ENH | Enshi | 29.98 | 265 | P | | P | 13 20 51.4 | +2.6 |
| | 8.1nm,0.4s | | | | | | | |
| ZALV | Zalesovo Beam | 42.97 | 311 | P | | P | 13 22 40.0 | +0.9 |
| | 1.3nm,0.4s,baz=88,slow=9.2,SNR=4.5 | | | | | | | |
| ZALV | | | | PcP | | PcP | 13 24 28.7 | -0.5 |
| | 1.0nm,0.6s,baz=107,slow=0.8,SNR=4.1 | | | | | | | |
| MKAR | Makanchi Array | 45.62 | 302 | P | | P | 13 23 01.6 | +1.1 |
| | 1.4nm,0.7s,baz=85,slow=9.6,SNR=16 | | | | | | | |
| KURK | Kurchatov | 47.17 | 308 | *e*P | | P | 13 23 13.2 | +0.7 |
| | 16nm,0.8s | | | | | | | |
| BRVK | Borovoye | 51.67 | 312 | *e*P | | P | 13 23 48.1 | +1.3 |
| | 5.4nm,0.9s | | | | | | | |
| INK | Inuvik | 52.10 | 28 | P | | P | 13 23 49.8 | 0.0 |
| | 0.4nm,0.4s,baz=286,slow=3.9,SNR=5.8 | | | | | | | |
| WRA | Warramunga Arr | 58.73 | 191 | P | | P | 13 24 36.5 | -1.6 |
| | 0.7nm,0.6s,baz=10,slow=7.2,SNR=9.2 | | | | | | | |
| WRA | | | | PcP | | PcP | 13 25 27.8 | +0.1 |
| | 0.4nm,0.7s,baz=353,slow=4.0,SNR=3.2 | | | | | | | |
| ABKAR | Akbulak array | 59.07 | 310 | *e*P | | P | 13 24 41.1 | +0.9 |
| | 0.6nm,0.6s | | | | | | | |
| YKA | Yellowknife Ar | 61.42 | 31 | P | | P | 13 24 55.7 | -0.4 |
| | 0.2nm,0.7s,baz=302,slow=6.7,SNR=4.5 | | | | | | | |
| ASAR | Alice Springs | 62.45 | 191 | P | | P | 13 25 02.4 | -0.9 |
| | 0.6nm,0.9s,baz=14,slow=4.1,SNR=3.6 | | | | | | | |
| PDAR | Pinedale Array | 74.95 | 47 | P | | P | 13 26 21.5 | 0.0 |
| | 0.3nm,0.5s,baz=252,slow=3.0,SNR=3.7 | | | | | | | |
| TXAR | Lajitas Array | 87.32 | 54 | P | | P | 13 27 27.8 | +0.4 |
| | 0.3nm,0.9s,baz=318,slow=2.4,SNR=2.9 | | | | | | | |

*GCMT **20** 13:17:37.9±0.2,15.40S×172.80W,h61km±1km,MW5.1/94, Moment Tensor Solution. s66,c92; s94,c140; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr-3.73±.14; Mθθ3.63±.13; Mφφ0.10±.13; Mrθ-2.13±.09; Mrφ-1.36±.09; Mθφ1.54±.08; Best double couple: M₀4.71800×10¹⁶ NP1:φs119.00000°,δ62.00000°,λ-80.00000°. NP2: φs278.00000°,δ29.00000°,λ-108.00000°. Principal axes: T 4.8400, Plg17.0000°, Azm201.0000°; N -0.2430, Plg9.0000°, Azm294.0000°; P -4.5970, Plg71.0000°, Azm51.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*NEIC **20** 13:17:37.9±0.9,15.59S×173.12W,h57km±8km,mb4.5/2 Error ellipse: s-maj=17.4km s-min=12.6km az=161.0*
*IDC **20** 13:17:38.7±0.7,15.45S×173.31W,h60km±4km,mb3.7/9, mb1 3.9/9,mb1mx3.6/42,mbtmp3.9/9,MS4.0/20, Ms1 4.0/20,ms1mx4.0/27,Error ellipse: s-maj=33.5km s-min=14.4km az=139.0*

**ISC 20 13:17:38.0±0.6,15.7S±0.2×173.1W±0.1,h60km±5km, h58km:pP-P,n51,σ1$51/28,mb4.2/13,Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| AFI | Afiamalu | 2.14 | 36 | P | | Pn | 13 18 05.7 | -5.8 |
| | 510nm,0.3s,baz=40,slow=17,SNR=832 | | | | | | | |
| AFI | | | | S | | Sn | 13 18 26.6 | -10 |
| | 2µm,0.3s,baz=52,slow=19,SNR=16 | | | | | | | |
| AFI | Afiamalu | 2.14 | 36 | *e*Pn | | Pn | 13 18 05.2 | -6.2 |
| AFI | | | | *e*Sn | | Sn | 13 18 24.9 | -12 |
| AFI | | | | S | | Sn | 13 18 26.6 | -10 |
| MSVF | Nonsavu | 8.74 | 255 | *e*Pn | | Pn | 13 19 48.5 | +6.6 |
| | 49nm,1.1s | | | | | | | |
| RAR | Rarotonga | 13.79 | 116 | P | | Pn | 13 20 49.8 | -0.7 |
| | 0.9nm,0.3s,baz=196,slow=7.4,SNR=4.8 | | | | | | | |
| RAR | | | | S | | Sn | 13 23 09.4 | -13 |
| | 0.6nm,0.3s,baz=348,slow=17,SNR=3.1 | | | | | | | |
| RAR | | | | LR | | LR | 13 25 09.4 | |
| | comp=Z,251nm,18.8s,baz=274,slow=32 | | | | | | | |
| DZM | Mont Dzumac | 20.39 | 249 | eLR | | LR | 13 27 21.4 | |
| | 2µm,28.0s | | | | | | | |
| PAE | Paea | 22.61 | 98 | *e*T | | T | 13 45 17.6 | |
| | 1.9nm,0.2s | | | | | | | |
| PPT | Papeete | 22.61 | 98 | LR | | LR | 13 28 49.9 | |
| | comp=Z,153nm,19.6s,baz=266,slow=29 | | | | | | | |
| PPT2 | Papeete2 | 22.61 | 98 | *e*S | | S | 13 26 33.5 | -4.1 |
| | 240nm,27.1s | | | | | | | |
| PPT2 | | | | *e*LQ | | LQ | 13 27 03.8 | |
| | 552nm,25.0s | | | | | | | |
| PPT2 | | | | eLR | | LR | 13 27 43.8 | |
| | 964nm,28.0s,baz=265 | | | | | | | |
| PPT2 | Papeete2 | 22.61 | 98 | *e

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **MAW** | **Mawson** | **87.65** | **199** | LR | LR | 14 05 51.6 | | |
| | comp=Z,175nm,21.9s,baz=63,slow=33 | | | | | | | |
| **INK** | **Inuvik** | **88.44** | **14** | P | **P** | **13 30 24.0** | **+1.0** | |
| | 0.4nm,0.6s,baz=272,slow=2.0,SNR=4.3 | | | | | | | |
| INK | | | | pP | **pP** | **13 30 43.2** | **+3.2** | |
| | 2.1nm,1.0s,baz=208,slow=8.1,SNR=4.5 | | | | | | | |
| **PLCA** | **Paso Flores** | **89.12** | **132** | LR | LR | 14 03 06.9 | | |
| | comp=Z,90nm,19.9s,baz=328,slow=30 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **90.20** | **23** | P | **P** | **13 30 31.3** | **-0.1** | |
| | 0.4nm,0.8s,baz=243,slow=4.8,SNR=6.2 | | | | | | | |
| YKA | | | | pP | **pP** | **13 30 49.0** | **+0.5** | |
| | 1.0nm,1.0s,baz=240,slow=4.1,SNR=4.6 | | | | | | | |
| YKA | | | | LR | LR | 14 04 09.4 | | |
| | comp=Z,21nm,19.4s,baz=180,slow=31 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **92.98** | **288** | pP | **pP** | **13 31 02.4** | **-0.1** | |
| | 0.4nm,0.4s,baz=86,slow=3.7,SNR=2.6 | | | | | | | |
| CMAR | | | | LR | LR | 14 07 08.8 | | |
| | comp=Z,30nm,21.8s,baz=105,slow=32 | | | | | | | |
| **ULM** | **Lac du Bonnet** | **93.94** | **39** | LR | LR | 14 04 28.9 | | |
| | comp=Z,264nm,21.8s,baz=248,slow=30 | | | | | | | |
| **KHC** | **Kasperske Hory** | **146.17** | **352** | *e*PKP | **PKPab** | **13 37 13.0** | **+0.8** | |
| KHC | | | | *ep*PKP | **pPKPdf** | **13 37 25.4** | **-2.8** | |
| KHC | | | | *ex* | x | 13 37 30.8 | | |
| **MLR** | **Muntele Rosu** | **146.22** | **336** | PKPbc | **PKPab** | **13 37 12.5** | **-0.2** | |
| | 0.5nm,0.5s,baz=329,slow=5.1,SNR=4.1 | | | | | | | |
| **GERES** | **GERESS Array B** | **146.43** | **352** | PKPbc | **PKPab** | **13 37 13.3** | **0.0** | |
| | 0.2nm,0.3s,baz=64,slow=7.6,SNR=5.5 | | | | | | | |
| GERES | | | | pPKPbc | pPKPab | 13 37 30.6 | -0.1 | |
| | 1.2nm,0.7s,baz=46,slow=3.9,SNR=4.8 | | | | | | | |
| **BRTR** | **Keskin Array B** | **146.54** | **321** | PKPbc | **PKPbc** | **13 37 13.4** | **+0.3** | |
| | 1.8nm,0.7s,baz=171,slow=2.4,SNR=8.8 | | | | | | | |
| BRTR | | | | pPKPbc | **pPKPdf** | **13 37 29.1** | **-0.2** | |
| | 4.4nm,1.1s,baz=129,slow=1.8,SNR=6.0 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **174.36** | **116** | PKPab | **PKPab** | **13 39 15.6** | **+1.1** | |
| | 0.5nm,0.9s,baz=209,slow=2.6,SNR=2.6 | | | | | | | |

*CSEM **20** 13:27:59.5, 40˚.61N×29˚.22W, h10km, ML3.3*
**PDA 20 13:27:59.5±1.1, 40˚.61N×29˚.22W, h10km, MD3.9, ML3.3, Error ellipse: s-maj=26.3km s-min=7.8km az=83.0, Azores Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **PGRA** | **Graciosa** | **1.85** | **149** | *e*P | | Pn | 13 28 26.6 | -4.6 |
| **PGRA** | **Graciosa** | **1.85** | **149** | *e*P | | Pn | 13 28 26.6 | -4.6 |
| **PCED** | **Cedros** | **2.02** | **168** | *e*P | | Pn | 13 28 29.2 | -4.4 |
| PCED | | | | *e*S | | Sn | 13 28 50.8 | -8.1 |
| PCED | | | | A | | A | 13 28 52.5 | |
| | 73nm,0.2s | | | | | | | |
| **PCED** | **Cedros** | **2.02** | **168** | *e*P | | Pn | 13 28 29.2 | -4.4 |
| PCED | | | | *e*S | | Sn | 13 28 50.8 | -8.1 |
| **CALA** | **Caldeira** | **2.07** | **169** | *e*P | | Pn | 13 28 30.1 | -4.2 |
| CALA | | | | *e*S | | Sn | 13 28 52.4 | -7.8 |
| **CALA** | **Caldeira** | **2.07** | **169** | *e*P | | Pn | 13 28 30.1 | -4.2 |
| CALA | | | | *e*S | | Sn | 13 28 52.4 | -7.8 |
| **PMAN** | **Manadas** | **2.16** | **156** | *e*P | | Pn | 13 28 30.4 | -5.1 |
| PMAN | | | | *e*S | | Sn | 13 28 54.9 | -7.5 |
| PMAN | | | | A | | A | 13 28 57.3 | |
| | 66nm,0.2s | | | | | | | |
| **PMAN** | **Manadas** | **2.16** | **156** | *e*P | | Pn | 13 28 30.4 | -5.1 |
| PMAN | | | | *e*S | | Sn | 13 28 54.9 | -7.5 |
| **PICO** | **Pico** | **2.20** | **164** | *e*P | | Pg | 13 28 46.9 | +5.3 |
| PICO | | | | *e*S | | Sg | 13 29 10.9 | +0.8 |
| PICO | | | | A | | A | 13 29 14.7 | |
| | 61nm,0.1s | | | | | | | |
| **PICO** | **Pico** | **2.20** | **164** | *e*P | | Pg | 13 28 46.9 | +5.3 |
| PICO | | | | *e*S | | Sg | 13 29 10.9 | +0.8 |
| **PCAN** | **Candelaria** | **2.22** | **165** | *e*P | | Pn | 13 28 32.0 | -4.4 |
| PCAN | | | | *e*S | | Sn | 13 28 56.3 | -7.6 |
| PCAN | | | | A | | A | 13 29 00.7 | |
| | 120nm,0.3s | | | | | | | |
| **PCAN** | **Candelaria** | **2.22** | **165** | *e*P | | Pn | 13 28 32.0 | -4.4 |
| PCAN | | | | *e*S | | Sn | 13 28 56.3 | -7.6 |

*THE **20** 13:30:19.7, 40˚.17N×20˚.76E, h0km±2km, ML3.3/9, Error ellipse: s-maj=2.5km s-min=0.7km az=293.0*
*ATH **20** 13:30:19.3, 40˚.18N×20˚.68E, h14km±1km, ML3.3/14, Error ellipse: s-maj=1.4km s-min=0.8km az=127.0*
*IDC **20** 13:30:20.3±1.0, 40˚.31N×20˚.74E, h0km, mb3.6/9, mb1 3.8/13, mb1mx3.6/47, mbtmp3.6/13, ML3.4/3, MS2.7/7, Ms1 2.8/7, ms1mx2.5/46, Error ellipse: s-maj=18.4km s-min=17.1km az=126.0*
*PDA **20** 13:30:20.3±0.4, 40˚.20N×20˚.74E, h5km, ML3.5/10, Error ellipse: s-maj=0.5km s-min=0.7km az=0.0*
*CSEM **20** 13:30:20.4±0.1, 40˚.12N×20˚.73E, h5km, ML3.3, Error ellipse: s-maj=4.0km s-min=2.7km az=47.0*
**ISC 20 13:30:19.4±1.1, 40˚.16N±0˚.01×20˚.72E±0˚.02, h0km±8km, n176, σ1§45/243, mb3.7/8, 30C-18D, Greece-Albania border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **PENT** | **Pentalofos** | **0.32** | **84** | P | | **Pg** | **13 30 25.5** | **-0.1** |
| PENT | | | | S | | **Sg** | **13 30 31.1** | **+1.3** |
| PENT | | | | AML | | AML | 13 30 35.5 | |
| | comp=N,40860μm,1.3s | | | | | | | |
| PENT | | | | AML | | AML | 13 30 36.8 | |
| | comp=E,15915μm,0.8s | | | | | | | |
| **PENT** | **Pentalofos** | **0.32** | **84** | P | | **Pg** | **13 30 25.9** | **+0.3** |
| PENT | | | | S | | **Sg** | **13 30 30.4** | **+0.6** |
| **PENT** | **Pentalofos** | **0.32** | **84** | P | | **Pg** | **13 30 25.9** | **+0.3** |
| PENT | | | | S | | **Sg** | **13 30 30.4** | **+0.6** |
| **NEST** | **Nestorio** | **0.36** | **45** | P | | **Pg** | **13 30 26.8** | **+0.5** |
| NEST | | | | S | | **Sg** | **13 30 32.4** | **+1.5** |
| NEST | | | | AML | | AML | 13 30 38.1 | |
| | comp=N,7954μm,0.7s | | | | | | | |
| NEST | | | | AML | | AML | 13 30 39.5 | |
| | comp=E,13055μm,0.4s | | | | | | | |
| **NEST** | **Nestorio** | **0.36** | **45** | P | | **Pg** | **13 30 26.8** | **+0.5** |
| NEST | | | | S | | **Sg** | **13 30 32.4** | **+1.5** |
| **NEST** | **Nestorio** | **0.36** | **45** | P | | **Pg** | **13 30 26.4** | **+0.1** |
| NEST | | | | S | | **Sg** | **13 30 32.0** | **+1.1** |
| **JAN** | **Janina** | **0.52** | **169** | P | | **Pg** | **13 30 28.9** | **-0.4** |
| JAN | | | | S | | **Sg** | **13 30 37.0** | **+1.1** |
| JAN | | | | AML | | AML | 13 30 40.1 | |
| | comp=E,23059μm,0.4s | | | | | | | |
| JAN | | | | AML | | AML | 13 30 42.0 | |
| | comp=N,14183μm,0.3s | | | | | | | |
| **JAN** | **Janina** | **0.52** | **169** | P | | **Pg** | **13 30 28.8** | **-0.4** |
| JAN | | | | S | | **Sg** | **13 30 37.0** | **+1.1** |
| **JAN** | **Janina** | **0.52** | **169** | P | | **Pg** | **13 30 28.8** | **-0.4** |
| JAN | | | | S | | **Sg** | **13 30 37.2** | **+1.3** |
| **KPRO** | **Kipourio** | **0.54** | **113** | P | | **Pg** | **13 30 29.0** | **-0.7** |
| KPRO | | | | S | | **Sb** | **13 30 38.6** | **-1.4** |
| KPRO | | | | AML | | AML | 13 30 42.2 | |
| | comp=N,14262μm,0.6s | | | | | | | |
| KPRO | | | | AML | | AML | 13 30 44.2 | |
| | comp=E,13447μm,0.7s | | | | | | | |
| **KPRO** | **Kipourio** | **0.54** | **113** | P | | **Pg** | **13 30 29.3** | **-0.4** |
| KPRO | | | | S | | **Sg** | **13 30 37.0** | **+0.4** |
| **KPRO** | **Kipourio** | **0.54** | **113** | P | | **Pg** | **13 30 29.3** | **-0.4** |
| KPRO | | | | S | | **Sg** | **13 30 37.0** | **+0.4** |
| **SGD** | **Sagiada** | **0.66** | **214** | P | | **Pg** | **13 30 33.0** | **+0.8** |
| **SGD** | **Sagiada** | **0.66** | **214** | P | | **Pg** | **13 30 32.6** | **+0.5** |
| **SGD** | **Sagiada** | **0.66** | **214** | P | | **Pg** | **13 30 32.6** | **+0.5** |
| **FNA** | **Florina** | **0.80** | **39** | P | | **Pg** | **13 30 33.6** | **-1.1** |
| FNA | | | | S | | **Sb** | **13 30 46.1** | **-1.4** |
| FNA | | | | AML | | AML | 13 30 53.7 | |
| | comp=E,4270μm,0.6s | | | | | | | |
| FNA | | | | AML | | AML | 13 30 53.8 | |
| | comp=N,5968μm,0.5s | | | | | | | |
| **FNA** | **Florina** | **0.80** | **39** | P | | **Pg** | **13 30 33.9** | **-0.8** |
| FNA | | | | S | | **Sb** | **13 30 46.1** | **-1.4** |
| **FNA** | **Florina** | **0.80** | **39** | P | | **Pg** | **13 30 33.9** | **-0.8** |
| FNA | | | | S | | **Sg** | **13 30 45.4** | **+0.3** |
| **KZN** | **Kozani** | **0.82** | **79** | P | | **Pb** | **13 30 35.7** | **-0.8** |
| KZN | | | | S | | **Sb** | **13 30 47.6** | **-0.6** |
| KZN | | | | AML | | AML | 13 30 52.2 | |
| | comp=E,5370μm,0.4s | | | | | | | |
| KZN | | | | AML | | AML | 13 30 55.2 | |
| | comp=N,2804μm,0.5s | | | | | | | |
| **KZN** | **Kozani** | **0.82** | **79** | P | | **Pb** | **13 30 35.7** | **-0.8** |
| KZN | | | | S | | **Sg** | **13 30 46.1** | **+0.4** |
| **KZN** | **Kozani** | **0.82** | **79** | P | | **Pg** | **13 30 34.2** | **-0.9** |
| KZN | | | | S | | **Sg** | **13 30 46.1** | **+0.4** |
| **KEK** | **Kerkira** | **0.84** | **238** | P | | **Pb** | **13 30 36.2** | **-0.6** |
| KEK | | | | S | | **Sg** | **13 30 45.7** | **-0.6** |
| KEK | | | | AML | | AML | 13 30 56.9 | |
| | comp=N,2639μm,0.6s | | | | | | | |
| KEK | | | | AML | | AML | 13 30 59.0 | |
| | comp=E,3034μm,0.4s | | | | | | | |
| **KEK** | **Kerkira** | **0.84** | **238** | P | | **Pb** | **13 30 36.2** | **-0.6** |
| KEK | | | | S | | **Sg** | **13 30 45.7** | **-0.6** |
| **KEK** | **Kerkira** | **0.84** | **238** | P | | **Pg** | **13 30 35.9** | **+0.4** |
| KEK | | | | S | | **Sb** | **13 30 48.9** | **+0.3** |
| **OHR** | **Ohrid** | **0.95** | **4** | *i* Pg | | **Pg** | **13 30 38.0** | **+0.3** |
| **BIA** | **Bitola** | **0.97** | **28** | *i* Pg | | **Pg** | **13 30 37.5** | **-0.6** |
| BIA | | | | *e*Sg | | **Sn** | **13 30 54.4** | **-0.5** |
| **DSL** | **Palaion Diasel** | **1.07** | **164** | P | | **Pg** | **13 30 39.2** | **-0.6** |
| DSL | | | | S | | **Sn** | **13 30 55.7** | **-1.5** |
| DSL | | | | AML | | AML | 13 31 02.8 | |
| | comp=N,5024μm,0.5s | | | | | | | |
| DSL | | | | AML | | AML | 13 31 06.0 | |
| | comp=E,3564μm,0.5s | | | | | | | |
| **DSL** | **Palaion Diasel** | **1.07** | **164** | P | | **Pg** | **13 30 39.2** | **-0.6** |
| DSL | | | | S | | **Sn** | **13 30 55.7** | **-1.5** |
| **DSL** | **Palaion Diasel** | **1.07** | **164** | P | | **Pg** | **13 30 39.1** | **-0.8** |
| DSL | | | | S | | **Sn** | **13 30 55.9** | **-1.2** |
| **THL** | **Klokotos Trika** | **1.16** | **120** | P | | **Pn** | **13 30 42.6** | **-0.3** |
| THL | | | | S | | **Sn** | **13 30 58.8** | **-0.6** |
| THL | | | | AML | | AML | 13 31 03.6 | |
| | comp=N,2278μm,0.7s | | | | | | | |
| THL | | | | AML | | AML | 13 31 05.1 | |
| | comp=E,2674μm,0.6s | | | | | | | |
| **THL** | **Klokotos Trika** | **1.16** | **120** | P | | **Pb** | **13 30 40.2** | **-2.1** |
| THL | | | | S | | **Sn** | **13 30 58.8** | **-0.6** |
| **THL** | **Klokotos Trika** | **1.16** | **120** | P | | **Pb** | **13 30 40.2** | **-2.1** |
| **KRUS** | **Krusevo** | **1.27** | **18** | *i* Pg | | **Pn** | **13 30 42.3** | **-2.2** |
| KRUS | | | | *e*Sg | | **Sn** | **13 31 01.1** | **-1.2** |
| **TIR** | **Tirane** | **1.35** | **332** | ⇓*i*P | | **Pg** | **13 30 46.6** | **+1.3** |
| **TIR** | **Tirane** | **1.35** | **332** | S | | Sg | 13 31 12.2 | +9.4 |
| **TIR** | **Tirane** | **1.35** | **332** | ⇓*i*P | | **Pg** | **13 30 46.6** | **+1.3** |
| **LIT** | **Litokhoron** | **1.36** | **92** | P | | **Pg** | **13 30 46.2** | **+0.7** |
| **LIT** | **Litokhoron** | **1.36** | **92** | P | | **Pn** | **13 30 44.7** | **-0.9** |
| LIT | | | | S | | **Sg** | **13 31 03.7** | **+0.6** |
| **LIT** | **Litokhoron** | **1.36** | **92** | P | | **Pn** | **13 30 44.7** | **-0.9** |
| LIT | | | | S | | **Sg** | **13 31 03.7** | **+0.6** |
| **EVR** | **Evrytania** | **1.50** | **146** | P | | **Pn** | **13 30 46.8** | **-0.9** |
| EVR | | | | S | | **Sg** | **13 31 10.4** | **+2.8** |
| EVR | | | | AML | | AML | 13 31 19.7 | |
| | comp=N,2735μm,1.1s | | | | | | | |
| EVR | | | | AML | | AML | 13 31 20.6 | |
| | comp=E,3198μm,1.3s | | | | | | | |
| **EVR** | **Evrytania** | **1.50** | **146** | P | | **Pn** | **13 30 46.8** | **-0.9** |
| EVR | | | | S | | **Sg** | **13 31 10.4** | **+2.8** |
| **GRG** | **Griva** | **1.51** | **58** | P | | **Pb** | **13 30 48.0** | **-0.3** |
| GRG | | | | S | | **Sg** | **13 31 10.6** | **+2.8** |
| GRG | | | | AML | | AML | 13 31 17.3 | |
| | comp=E,1171μm,0.8s | | | | | | | |
| GRG | | | | AML | | AML | 13 31 24.1 | |
| | comp=N,876μm,0.6s | | | | | | | |
| **GRG** | **Griva** | **1.51** | **58** | P | | **Pb** | **13 30 48.0** | **-0.3** |
| GRG | | | | S | | **Sg** | **13 31 10.6** | **+2.8** |
| **PDO** | **Prodromos** | **1.60** | **167** | P | | **Pg** | **13 30 50.0** | **-0.1** |
| **PDO** | **Prodromos** | **1.60** | **167** | P | | **Pg** | **13 30 50.0** | **-0.1** |
| **PVO** | **Paravola** | **1.67** | **158** | P | | **Pg** | **13 30 52.0** | **+0.7** |
| **PVO** | **Paravola** | **1.67** | **158** | P | | **Pg** | **13 30 52.0** | **+0.7** |
| **AGG** | **Agios Georgios** | **1.69** | **132** | P | | **Pb** | **13 30 51.2** | **-0.1** |
| AGG | | | | S | | **Sg** | **13 31 14.3** | **+0.7** |
| AGG | | | | AML | | AML | 13 31 24.8 | |
| | comp=N,4587μm,0.5s | | | | | | | |
| AGG | | | | AML | | AML | 13 31 27.3 | |
| | comp=E,4082μm,0.5s | | | | | | | |
| **AGG** | **Agios Georgios** | **1.69** | **132** | P | | **Pb** | **13 30 50.3** | **-1.0** |
| AGG | | | | S | | **Sg** | **13 31 14.3** | **+0.7** |
| **AGG** | **Agios Georgios** | **1.69** | **132** | P | | **Pb** | **13 30 50.3** | **-1.0** |
| **VAY** | **Valandovo** | **1.82** | **50** | *i* Pg | | **Pn** | **13 30 51.6** | **-0.3** |
| **FYTO** | **Fytoko, Volos** | **1.87** | **113** | P | | **Pb** | **13 30 54.4** | **0.0** |
| **FYTO** | **Fytoko, Volos** | **1.87** | **113** | P | | **Pb** | **13 30 54.4** | **0.0** |
| **HORT** | **Hortiatis** | **1.87** | **76** | P | | **Pb** | **13 30 53.0** | **-1.5** |
| **HORT** | **Hortiatis** | **1.87** | **76** | P | | **Pb** | **13 30 53.0** | **-1.5** |
| **KNT** | **Kendrikon** | **1.94** | **58** | P | | **Pn** | **13 30 53.2** | **-0.3** |
| KNT | | | | S | | **Sg** | **13 31 20.8** | **-0.8** |
| KNT | | | | AML | | AML | 13 31 29.7 | |
| | comp=E,244μm,0.8s | | | | | | | |
| KNT | | | | AML | | AML | 13 31 31.5 | |
| | comp=N,416μm,0.8s | | | | | | | |
| **KNT** | **Kendrikon** | **1.94** | **58** | P | | **Pn** | **13 30 53.2** | **-0.3** |
| KNT | | | | S | | **Sg** | **13 31 20.8** | **-0.8** |
| **XOR** | **Xorichti** | **2.06** | **112** | P | | **Pn** | **13 30 55.5** | **+0.2** |
| **XOR** | **Xorichti** | **2.06** | **112** | P | | **Pn** | **13 30 55.5** | **+0.2** |
| **PLG** | **Polygyros** | **2.10** | **83** | P | | **Pn** | **13 30 56.0** | **+0.2** |
| **PLG** | **Polygyros** | **2.10** | **83** | P | | **Pn** | **13 30 56.0** | **+0.2** |
| **SOH** | **Sokhos** | **2.11** | **71** | P | | **Pn** | **13 30 56.2** | **+0.1** |
| **SOH** | **Sokhos** | **2.11** | **71** | P | | **Pn** | **13 30 56.2** | **+0.1** |
| **ULC** | **Ulcinj** | **2.12** | **329** | ⇑*i*Pn | | **Pb** | **13 30 57.0** | **-1.7** |
| ULC | | | | *e*Sn | | **Sb** | **13 31 26.0** | **+0.5** |
| **ULC** | **Ulcinj** | **2.12** | **329** | ⇑*i*Pn | | **Pb** | **13 30 57.0** | **-1.7** |
| ULC | | | | *e*Sn | | **Sb** | **13 31 26.0** | **+0.5** |
| **PAIG** | **Paliouri** | **2.28** | **95** | P | | **Pn** | **13 30 58.4** | **+0.1** |
| PAIG | | | | S | | **Sb** | **13 31 27.9** | **-2.3** |
| PAIG | | | | AML | | AML | 13 31 36.1 | |
| | comp=E,357μm,0.6s | | | | | | | |
| PAIG | | | | AML | | AML | 13 31 37.6 | |
| | comp=N,310μm,0.9s | | | | | | | |
| **PAIG** | **Paliouri** | **2.28** | **95** | P | | **Pn** | **13 30 58.4** | **+0.1** |
| PAIG | | | | S | | **Sb** | **13 31 27.9** | **-2.3** |
| **DRME** | **Dracevica, Mon** | **2.33** | **331** | ⇓*i*Pn | | **Pb** | **13 31 00.2** | **-2.1** |
| DRME | | | | *e*Sn | | **Sb** | **13 31 31.5** | **-0.1** |
| **DRME** | **Dracevica, Mon** | **2.33** | **331** | ⇓*i*Pn | | **Pb** | **13 31 00.2** | **-2.1** |
| DRME | | | | *e*Sn | | **Sb** | **13 31 31.5** | **-0.1** |
| **PVY** | **Plav** | **2.50** | **347** | ⇑*i*Pn | | **Pn** | **13 31 02.4** | **+1.0** |
| PVY | | | | *e*Sn | | **Sb** | **13 31 34.9** | **-1.6** |
| **PVY** | **Plav** | **2.50** | **347** | ⇑*i*Pn | | **Pn** | **13 31 02.4** | **+1.0** |
| PVY | | | | *e*Sn | | **Sb** | **13 31 34.9** | **-1.6** |
| **OUR** | **Ouranopolis** | **2.50** | **85** | P | | **Pn** | **13 31 00.4** | **-0.9** |
| **OUR** | **Ouranopolis** | **2.50** | **85** | P | | **Pn** | **13 31 00.4** | **-0.9** |
| **PDG** | **Podgorica** | **2.52** | **335** | ⇑*i*P | | **Pb** | **13 31 04.3** | **-1.2** |
| **PDG** | **Podgorica** | **2.52** | **335** | S | | **Sg** | **13 31 43.4** | **+3.0** |
| **PDG** | **Podgorica** | **2.52** | **335** | ⇑*i*Pn | | **Pb** | **13 31 02.9** | **-2.6** |
| **PDG** | **Podgorica** | **2.52** | **335** | ⇑*i*P | | **Pb** | **13 31 04.3** | **-1.2** |
| PDG | | | | *e*Sn | | **Sb** | **13 31 35.8** | **-1.2** |
| **TTG** | **Podgorica** | **2.52** | **335** | ⇑*i*Pn | | **Pb** | **13 31 02.9** | **-2.6** |
| TTG | | | | *e*Sn | | **Sb** | **13 31 35.8** | **-1.2** |
| **BUM** | **Brajici-Budva** | **2.54** | **328** | ⇓*i*Pn | | **Pn** | **13 31 02.9** | **+1.0** |
| BUM | | | | *e*Sn | | **Sb** | **13 31 36.4** | **-1.3** |
| **BUM** | **Brajici-Budva** | **2.54** | **328** | ⇓*i*Pn | | **Pn** | **13 31 02.9** | **+1.0** |
| BUM | | | | *e*Sn | | **Sb** | **13 31 36.4** | **-1.3** |
| **CEME** | **Cevo** | **2.74** | **331** | ⇓*i*Pn | | **Pn** | **13 31 05.4** | **+0.7** |
| CEME | | | | *e*Sn | | **Sb** | **13 31 41.0** | **-2.5** |
| **CEME** | **Cevo** | **2.74** | **331** | ⇓*i*Pn | | **Pn** | **13 31 05.4** | **+0.7** |
| CEME | | | | *e*Sn | | **Sb** | **13 31 41.0** | **-2.5** |
| **BARS** | **Barje** | **2.78** | **17** | *e*P | | **Pn** | **13 31 06.1** | **+1.0** |
| **BEY** | **Berane** | **2.78** | **347** | ⇓*i*Pn | | **Pn** | **13 31 06.4** | **+1.2** |
| BEY | | | | *e*Sn | | **Sb** | **13 31 41.2** | **-3.3** |
| **IVA** | **Berane** | **2.78** | **347** | ⇓*i*Pn | | **Pn** | **13 31 06.4** | **+1.2** |
| IVA | | | | *e*Sn | | **Sb** | **13 31 41.2** | **-3.3** |
| **HCY** | **Herceg Novi** | **2.83** | **324** | ⇓*i*Pn | | **Pn** | **13 31 06.8** | **+0.9** |
| HCY | | | | *e*Sn | | **Sb** | **13 31 43.2** | **-2.8** |
| **HCY** | **Herceg Novi** | **2.83** | **324** | ⇓*i*Pn | | **Pn** | **13 31 06.8** | **+0.9** |
| HCY | | | | *e*Sn | | **Sb** | **13 31 43.2** | **-2.8** |
| **KOME** | **Kolasin** | **2.83** | **342** | ⇑*i*Pn | | **Pb** | **13 31 08.2** | **-2.7** |
| KOME | | | | *e*Sn | | **Sb** | **13 31 43.6** | **-2.6** |
| **KOME** | **Kolasin** | **2.83** | **342** | ⇑*i*Pn | | **Pb** | **13 31 08.2** | **-2.7** |
| KOME | | | | *e*Sn | | **Sb** | **13 31 43.6** | **-2.6** |
| **NKME** | **Niksic** | **2.92** | **334** | ⇑*i*Pn | | **Pn** | **13 31 09.0** | **+1.9** |
| NKME | | | | *e*Sn | | **Sb** | **13 31 45.1** | **-3.6** |
| **NKME** | **Niksic** | **2.92** | **334** | ⇑*i*Pn | | **Pn** | **13 31 09.0** | **+1.9** |
| NKME | | | | *e*Sn | | **Sb** | **13 31 45.1** | **-3.6** |
| **NKY** | **Niksic** | **2.95** | **334** | ⇑*i*Pn | | **Pn** | **13 31 08.9** | **+1.3** |
| NKY | | | | *e*Sn | | **Sb** | **13 31 45.6** | **-3.9** |
| **NKY** | **Niksic** | **2.95** | **334** | ⇑*i*Pn | | **Pn** | **13 31 08.9** | **+1.3** |
| NKY | | | | *e*Sn | | **Sb** | **13 31 45.6** | **-3.9** |
| **VTS** | **Vitosha** | **3.07** | **37** | ⇓*i*P | | **Pn** | **13 31 10.3** | **+1.1** |
| **VTS** | **Vitosha** | **3.07** | **37** | S | | **Sg** | **13 31 57.0** | **-0.9** |
| **VTS** | **Vitosha** | **3.07** | **37** | ⇓*i*P | | **Pn** | **13 31 10.3** | **+1.1** |
| **TREB** | **Trebinje** | **3.11** | **326** | *e*Pn | | **Pn** | **13 31 09.4** | **-0.3** |
| **BRY** | **Bratogost** | **3.19** | **330** | ⇑*i*Pn | | **Pn** | **13 31 11.3** | **+0.4** |
| BRY | | | | *e*Sn | | **Sn** | **13 31 51.5** | **+1.8** |
| **BRY** | **Bratogost** | **3.19** | **330** | ⇑*i*Pn | | **Pn** | **13 31 11.3** | **+0.4** |
| BRY | | | | *e*Sn | | **Sn** | **13 31 51.5** | **+1.8** |
| **PLE** | **Pljevlja** | **3.32** | **343** | ⇑*i*Pn | | **Pn** | **13 31 13.6** | **+0.9** |
| PLE | | | | *e*Sn | | **Sn** | **13 31 54.4** | **+1.6** |
| **PLE** | **Pljevlja** | **3.32** | **343** | ⇑*i*Pn | | **Pn** | **13 31 13.6** | **+0.9** |
| PLE | | | | *e*Sn | | **Sn** | **13 31 54.4** | **+1.6** |
| **UPM** | **Unac-Piva** | **3.33** | **336** | *e*Pn | | **Pn** | **13 31 13.9** | **+1.0** |
| UPM | | | | *e*Sn | | **Sn** | **13 31 55.0** | **+1.8** |
| **UPM** | **Unac-Piva** | **3.33** | **336** | *e*Pn | | **Pn** | **13 31 13.9** | **+1.0** |
| UPM | | | | *e*Sn | | **Sn** | **13 31 55.0** | **+1.8** |
| **IVAS** | **Ivanjica** | **3.44** | **353** | *e*P | | **Pn** | **13 31 16.2** | **+1.9** |
| **CDT** | **Castel del Mon** | **3.51** | **287** | *e*Pn | | **Pb** | **13 31 20.1** | **-2.2** |
| **STON** | **Ston** | **3.53** | **321** | *e*Pn | | **Pn** | **13 31 15.4** | **0.0** |
| STON | | | | Sn | | **Sn** | **13 31 57.9** | **0.0** |
| **STON** | **Ston** | **3.53** | **321** | *e*Pn | | **Pn** | **13 31 15.4** | **0.0** |
| STON | | | | Sn | | **Sn** | **13 31 57.9** | **0.0** |
| **BOVS** | **Bovan** | **3.55** | **12** | *e*P | | **Pn** | **13 31 16.0** | **+0.3** |
| **GRUS** | **Gruza** | **3.72** | **360** | *e*P | | **Pn** | **13 31 19.5** | **+1.4** |
| **ZAGS** | **Zajecar** | **3.82** | **17** | *e*P | | **Pn** | **13 31 20.2** | **+0.8** |
| **BBLS** | **Lazići** | **3.83** | **346** | *e*Pn | | **Pb** | **13 31 24.7** | **-3.1** |
| **DIVS** | **Divibare** | **3.97** | **352** | *e*Pn | | **Pn** | **13 31 22.8** | **+1.2** |
| **TRUS** | **Trudelj** | **4.07** | **357** | *e*P | | **Pn** | **13 31 25.0** | **+2.2** |
| **HAPS** | **Han Pijesak,BI** | **4.14** | **342** | *e*Pn | | **Pn** | **13 31 24.1** | **+0.2** |
| **KUBS** | **Kucevo** | **4.31** | **9** | *e*P | | **Pn** | **13 31 24.7** | **-1.4** |
| **TEKS** | **Tekeris** | **4.47** | **349** | *e*Pn | | **Pn** | **13 31 28.3** | **-0.1** |
| **TEKS** | **Tekeris** | **4.47** | **349** | *e*P | | **Pn** | **13 31 29.8** | **+1.4** |
| **MDVR** | **Moldovita** | **4.67** | **9** | ⇑*i*P | | **Pn** | **13 31 33.9** | **+2.7** |
| **MDVR** | **Moldovita** | **4.67** | **9** | ⇑*i*P | | **Pn** | **13 31 33.9** | **+2.7** |
| **APE** | **Apeiranthos** | **4.87** | **128** | ⇑*i*P | | **Pn** | **13 31 36.7** | **+2.8** |
| **APE** | **Apeiranthos** | **4.87** | **128** | ⇑*i*P | | **Pn** | **13 31 36.7** | **+2.8** |
| **FGSL** | **Fruska Gora** | **5.04** | **353** | *e*P | | **Pn** | **13 31 37.2** | **+1.0** |
| **BZS** | **Buzias** | **5.49** | **7** | ⇑*i*P | | **Pn** | **13 31 44.4** | **+2.0** |
| **BZS** | **Buzias** | **5.49** | **7** | ⇑*i*P | | **Pn** | **13 31 44.4** | **+2.0** |
| **UDBI** | **Udbina** | **5.70** | **322** | *e*Pn | | **Pn** | **13 31 45.7** | **+0.4** |
| **UDBI** | **Udbina** | **5.70** | **322** | *e*Pn | | **Pn** | **13 31 45.7** | **+0.4** |
| **LOT** | **Lotru** | **5.74** | **22** | ⇑*i*P | | **Pn** | **13 31 48.0** | **+2.1** |
| **LOT** | **Lotru** | **5.74** | **22** | ⇑*i*P | | **Pn** | **13 31 48.0** | **+2.1** |
| **IDI** | **Anoyia** | **5.88** | **145** | Pn | | **Pn** | **13 31 51.3** | **+3.5** |
| | comp=N,0.8nm,0.3s,baz=303,slow=20,SNR=5.8 | | | | | | | |
| IDI | | | | Sn | | **Sn** | **13 32 56.2** | **+0.2** |
| | comp=N,1.2nm,0.3s,baz=126,slow=17,SNR=3.0 | | | | | | | |
| IDI | | | | LR | | LR | 13 34 10.9 | |
| | comp=N,49nm,20.1s,baz=320,slow=38 | | | | | | | |
| **VOIR** | | | **6.16** | **30** | ⇓*i*P | **Pn** | **13 31 52.8** | **+1.2** |
| **VOIR** | | | **6.16** | **30** | ⇓*i*P | **Pn** | **13 31 52.8** | **+1.2** |
| **NVLJ** | **Novalja** | | **6.17** | **317** | *e*Pn | **Pn** | **13 31 51.5** | **-0.3** |
| **NVLJ** | **Novalja** | | **6.17** | **317** | *e*Pn | **Pn** | **13 31 51.4** | **-0.3** |
| **MLR** | **Muntele Rosu** | | **6.56** | **34** | Pn | **Pn** | **13 31 57.0** | **-0.2** |
| | comp=N,0.1nm,0.3s,baz=166,slow=12,SNR=2.3 | | | | | | | |
| MLR | | | | LR | | LR | 13 35 02.5 | |
| | comp=N,38nm,19.6s,baz=204,slow=44 | | | | | | | |
| **MLR** | **Muntele Rosu** | | **6.56** | **34** | ⇑*i*P | **Pn** | **13 31 58.1** | **+0.8** |
| **MLR** | **Muntele Rosu** | | **6.56** | **34** | ⇑*i*P | **Pn** | **13 31 58.1** | **+0.8** |
| **CRES** | **Cresnjev** | | **6.85** | **327** | *e*Pn | **Pn** | **13 32 00.5** | **-0.6** |
| **PLOR** | **Plostina** | | **7.16** | **35** | ⇑*i*P | **Pn** | **13 32 07.6** | **+2.3** |
| **PLOR** | **Plostina** | | **7.16** | **35** | ⇑*i*P | **Pn** | **13 32 07.6** | **+2.3** |
| **VRI** | **Vrincioaia** | | **7.20** | **36** | ⇓*i*P | **Pn** | **13 32 07.9** | **+2.0** |
| **VRI** | **Vrincioaia** | | **7.20** | **36** | ⇓*i*P | **Pn** | **13 32 07.9** | **+2.0** |
| **CEY** | **Cerknica** | | **7.24** | **322** | *e*Pn | **Pn** | **13 32 06.1** | **-0.3** |
| **SOKA** | **Soboth** | | **7.71** | **329** | *i* Pn | **Pn** | **13 32 12.9** | **-0.1** |
| | comp=N,3.2nm,0.6s | | | | | | | |
| **SOKA** | **Soboth** | | **7.71** | **329** | Pn | **Pn**

0.1nm,0.2s,baz=0.1,slow=7.6,SNR=6.3

**KRSC 20 14:57:49.3±0.5, 56°05N×161°16E, h115km±5km, ML3.8, Near east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ZLN** | **Zelenaya** | **0.20** | **261** | *e*P | Pn | 14 58 06.6 | +1.2 |
| ZLN | | | | *e*S | Sn | 14 58 18.9 | +1.4 |
| **CIRR** | **Tsirk** | **0.24** | **286** | *e*P | Pn | 14 58 06.6 | +1.0 |
| CIRR | | | | *e*S | Sn | 14 58 19.0 | +1.2 |
| **KRSR** | **Krestovskiy** | **0.37** | **297** | *e*P | Pn | 14 58 06.8 | +0.7 |
| KRSR | | | | *e*S | Sn | 14 58 19.3 | +0.6 |
| **BZWR** | **Bezymyannyi-We** | **0.38** | **257** | *e*P | Pn | 14 58 07.3 | +1.1 |
| BZWR | | | | *e*S | Sn | 14 58 20.2 | +1.3 |
| **KLY** | **Klyuchi** | **0.39** | **313** | *i* P | Pn | 14 58 06.6 | +0.6 |
| KLY | | | | *i* S | Sn | 14 58 19.4 | +0.9 |
| **BZMR** | **Bezymyannaya** | **0.40** | **253** | *e*P | Pn | 14 58 07.4 | +1.2 |
| BZMR | | | | *e*S | Sn | 14 58 20.1 | +1.2 |
| **KIRR** | **Kirishev** | **0.47** | **258** | *e*P | Pn | 14 58 07.3 | +0.7 |
| KIRR | | | | *e*S | Sn | 14 58 20.8 | +1.3 |
| **BDR** | **Baidarnaya** | **0.52** | **3** | *e*P | Pn | 14 58 08.2 | +1.3 |
| BDR | | | | *e*S | Sn | 14 58 21.7 | +1.6 |
| **KPT** | **Kopyto** | **0.54** | **261** | *e*P | Pn | 14 58 07.7 | +0.7 |
| KPT | | | | *e*S | Sn | 14 58 21.3 | +1.0 |
| **SMKR** | **Semkarok** | **0.56** | **18** | *e*P | Pn | 14 58 08.5 | +1.4 |
| SMKR | | | | *e*S | Sn | 14 58 22.6 | +2.0 |
| **KMNR** | **Kamenistaya** | **0.60** | **241** | *i* P | Pn | 14 58 08.4 | +1.0 |
| KMNR | | | | *i* S | Sn | 14 58 22.6 | +1.5 |
| **SRKR** | **Sorokina** | **0.61** | **0** | *i* P | Pn | 14 58 08.8 | +1.4 |
| SRKR | | | | *e*S | Sn | 14 58 22.9 | +1.8 |
| **KOZ** | **Kozyrevsk** | **0.72** | **271** | *e*P | Pn | 14 58 09.3 | +1.0 |
| KOZ | | | | *e*S | Sn | 14 58 23.8 | +1.2 |
| **KBG** | **Krutoberegovo** | **0.89** | **76** | *e*P | Pn | 14 58 10.8 | +1.1 |
| KBG | | | | *e*S | Sn | 14 58 27.1 | +2.0 |
| **KBTR** | **Krutoberegovo** | **0.94** | **80** | *i* P | Pn | 14 58 11.5 | +1.3 |
| KBTR | | | | *e*S | Sn | 14 58 27.1 | +1.0 |
| **TUMR** | **Tumrok** | **0.96** | **217** | *e*P | Pn | 14 58 12.2 | +1.6 |
| TUMR | | | | *e*S | Sn | 14 58 28.4 | +1.8 |
| **KZV** | **Kizimen** | **1.06** | **208** | *e*P | Pn | 14 58 12.6 | +1.0 |
| **ESO** | **Esso** | **1.39** | **266** | *e*P | Pn | 14 58 15.8 | +0.7 |
| ESO | | | | *e*S | Sn | 14 58 35.7 | +1.0 |
| **KII** | **Karymskiy** | **2.25** | **207** | *e*P | Pn | 14 58 27.1 | +1.4 |
| **BKI** | **Bering** | **2.86** | **105** | *e*P | Pn | 14 58 34.9 | +1.5 |
| BKI | | | | *e*S | Sn | 14 59 07.8 | +0.4 |
| **GNL** | **Ganaly** | **3.00** | **220** | *e*P | Pn | 14 58 37.2 | +1.6 |
| **SPN** | **Mys Shipunski** | **3.03** | **193** | *e*P | Pn | 14 58 36.4 | +0.6 |
| SPN | | | | *e*S | Sn | 14 59 12.2 | +0.6 |
| **KRX** | **Arik** | **3.07** | **209** | *e*P | Pn | 14 58 39.8 | +3.4 |
| **NLC** | **Nalytchevo** | **3.07** | **201** | *e*P | Pn | 14 58 38.0 | +1.7 |
| NLC | | | | *e*S | Sn | 14 59 15.1 | +2.6 |
| **SDLR** | **Sedlovina** | **3.08** | **206** | *e*P | Pn | 14 58 38.6 | +2.1 |
| **KRER** | **Koryakskii** | **3.09** | **208** | *e*P | Pn | 14 58 38.8 | +2.1 |
| **PALN** | **Palana** | **3.12** | **349** | *e*P | Pn | 14 58 38.0 | +1.2 |
| **AVH** | **Avacha** | **3.13** | **208** | *e*P | Pn | 14 58 39.8 | +2.7 |
| **KOK** | **Koryaka** | **3.13** | **209** | *e*P | Pn | 14 58 39.3 | +2.1 |
| **UGLR** | **Uglovaya** | **3.15** | **206** | *e*P | Pn | 14 58 40.3 | +2.8 |
| **DALK** | **Dalny** | **3.33** | **206** | *e*P | Pn | 14 58 42.3 | +2.5 |
| DALK | | | | *e*S | Sn | 14 59 22.1 | +3.3 |
| **PET** | **Petropavlovsk** | **3.37** | **207** | *e*P | Pn | 14 58 42.5 | +2.3 |
| PET | | | | *e*S | Sn | 14 59 22.0 | +2.5 |
| **OSSR** | **Ossora** | **3.37** | **17** | *e*P | Pn | 14 58 43.0 | +2.9 |
| OSSR | | | | *e*S | Sn | 14 59 22.4 | +2.9 |
| **KRMR** | **Karymshinskiy** | **3.68** | **210** | *e*P | Pn | 14 58 45.3 | +0.9 |
| **APC** | **Apacha** | **3.91** | **218** | *e*P | Pn | 14 58 48.7 | +1.3 |
| **RUS** | **Russkaya** | **3.94** | **204** | *e*P | Pn | 14 58 49.6 | +1.7 |
| **ASAK** | **Asacha** | **4.14** | **209** | *e*P | Pn | 14 58 54.0 | +3.3 |
| **KDTR** | **Khodutka, Kamc** | **4.62** | **204** | *e*P | Pn | 14 58 58.3 | +1.3 |
| KDTR | | | | *e*S | Sn | 14 59 51.5 | +1.9 |
| **TILK** | **Tilichiki** | **5.13** | **29** | *e*P | Pn | 14 59 07.1 | +3.3 |

*ISCJB **20** 15:01:59.7±0.3,36°.08N±0°.02×28°.10E±0°.03,h69km±6km, Error ellipse: s-maj=3.9km s-min=3.4km az=170.0*
*ATH **20** 15:02:00.5,36°.23N×28°.07E,h54km±3km, ML3.3/6, Error ellipse: s-maj=3.3km s-min=1.4km az=101.0*
*DDA **20** 15:02:00.4,36°.17N×28°.07E,h40km, Ml3.5*
*ISK **20** 15:02:01.2,36°.18N×28°.08E,h43km, ML3.3*
*HLW **20** 15:02:01.1,35°.97N×28°.13E,h33km±31km, Ml4.0*
*CSEM **20** 15:02:01.3±0.1,36°.09N×28°.10E,h40km, ML3.1, Error ellipse: s-maj=3.5km s-min=3.3km az=93.0*
*THE **20** 15:02:02.4,36°.21N×28°.12E,h45km±1km, ML3.1/5, Error ellipse: s-maj=1.6km s-min=0.8km az=13.0*
*NIC **20** 15:02:05.5±0.2,36°.72N×28°.78E,h25km, mb4.0, ML3.5*
**ISC 20 15:02:00.4**±1.0, **36°.14N**±0°.03×**28°.08E**±0°.02, **h47**km±6km, **n143**, σ**2**s**01**/195, **Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ARG** | **Arkhangelos** | **0.08** | **26** | P | **Pn** | **15 02 09.3** | **+1.5** |
| ARG | | | | S | **Sn** | **15 02 13.7** | **+0.7** |
| ARG | | | | AML | AML | 15 02 14.9 | |
| | comp=N,13154μm,0.2s | | | | | | |
| ARG | | | | AML | AML | 15 02 15.7 | |
| | comp=E,19067μm,0.2s | | | | | | |
| **ARG** | **Arkhangelos** | **0.08** | **26** | P | **Pn** | **15 02 09.1** | **+1.3** |
| ARG | | | | S | **Sn** | **15 02 13.7** | **+0.7** |
| **ARG** | **Arkhangelos** | **0.08** | **26** | P | **Pn** | **15 02 09.1** | **+1.3** |
| ARG | | | | S | **Sn** | **15 02 14.6** | **+1.6** |
| **MRSB** | **Marmaris-Mugla** | **0.58** | **9** | *e*Pg | **Pn** | **15 02 13.0** | **+0.5** |
| MRSB | | | | *e*SG | **Sn** | **15 02 21.6** | **+0.4** |
| **MRSB** | **Marmaris-Mugla** | **0.58** | **9** | *e*Pg | **Pn** | **15 02 13.0** | **+0.5** |
| MRSB | | | | *e*Sg | **Sn** | **15 02 21.6** | **+0.4** |
| **DALY** | **Dalyan (Mu¨la** | **0.82** | **34** | *e*PG | **Pn** | **15 02 16.5** | **+0.9** |
| DALY | | | | *e*SG | **Sn** | **15 02 27.5** | **+0.9** |
| **DALY** | **Dalyan (Mu¨la** | **0.82** | **34** | *i* P | **Pn** | **15 02 17.1** | **+1.5** |
| DALY | | | | *i* S | **Sn** | **15 02 28.7** | **+2.1** |
| **DALY** | **Dalyan (Mu¨la** | **0.82** | **34** | *e*Pg | **Pn** | **15 02 16.5** | **+0.9** |
| **DALY** | **Dalyan (Mu¨la** | **0.82** | **34** | P | **Pn** | **15 02 17.1** | **+1.5** |
| DALY | | | | *e*Sg | **Sn** | **15 02 27.5** | **+0.9** |
| DALY | | | | S | **Sn** | **15 02 28.7** | **+2.1** |
| **TURN** | **Turunc** | **0.84** | **30** | *e*PG | **Pn** | **15 02 13.9** | **-2.0** |
| TURN | | | | *e*SG | **Sn** | **15 02 23.3** | **-3.9** |
| **TURN** | **Turunc** | **0.84** | **30** | *i* P | **Pn** | **15 02 14.4** | **-1.5** |
| TURN | | | | *i* S | **Sn** | **15 02 23.4** | **-3.9** |
| **TURN** | **Turunc** | **0.84** | **30** | *e*Pg | **Pn** | **15 02 13.9** | **-2.0** |
| **TURN** | **Turunc** | **0.84** | **30** | P | **Pn** | **15 02 14.4** | **-1.5** |
| **NISR** | **Nisiros** | **0.90** | **302** | P | **Pn** | **15 02 17.8** | **+1.1** |
| NISR | | | | S | **Sn** | **15 02 29.8** | **+1.2** |
| **NISR** | **Nisiros** | **0.90** | **302** | P | **Pn** | **15 02 17.8** | **+1.1** |
| NISR | | | | S | **Sn** | **15 02 30.8** | **+2.2** |
| **NISR** | **Nisiros** | **0.90** | **302** | P | **Pn** | **15 02 17.8** | **+1.1** |
| NISR | | | | S | **Sn** | **15 02 30.8** | **+2.2** |
| **FETY** | **Fethiye** | **0.95** | **58** | *e*PG | **Pn** | **15 02 18.3** | **+0.9** |
| **FETY** | **Fethiye** | **0.95** | **58** | P | **Pn** | **15 02 18.3** | **+0.9** |
| FETY | | | | S | **Sn** | **15 02 31.7** | **+1.9** |
| **KARP** | **Karpathos** | **0.95** | **232** | *e*PG | **Pn** | **15 02 19.1** | **+1.7** |
| **KARP** | **Karpathos** | **0.95** | **232** | P | **Pn** | **15 02 20.0** | **+2.5** |
| KARP | | | | S | **Sn** | **15 02 33.0** | **+3.0** |
| KARP | | | | AML | AML | 15 02 35.9 | |
| | comp=N,3101μm,0.2s | | | | | | |
| KARP | | | | AML | AML | 15 02 36.0 | |
| | comp=E,5068μm,0.3s | | | | | | |
| **KARP** | **Karpathos** | **0.95** | **232** | *e*Pg | **Pn** | **15 02 19.2** | **+1.7** |
| **KARP** | **Karpathos** | **0.95** | **232** | P | **Pn** | **15 02 19.6** | **+2.1** |
| KARP | | | | S | **Sn** | **15 02 33.0** | **+3.0** |
| **KARP** | **Karpathos** | **0.95** | **232** | P | **Pn** | **15 02 19.6** | **+2.1** |
| KARP | | | | S | **Sn** | **15 02 33.0** | **+3.0** |
| **BDRM** | **Kayabasi** | **1.05** | **331** | *i* P | **Pn** | **15 02 19.3** | **+0.5** |
| BDRM | | | | *i* S | **Sn** | **15 02 31.4** | **-1.0** |
| **BDRM** | **Kayabasi** | **1.05** | **331** | P | **Pn** | **15 02 19.3** | **+0.5** |
| BDRM | | | | S | **Sn** | **15 02 31.4** | **-1.0** |
| **BODT** | **Bodrum** | **1.11** | **326** | *e*PN | **Pn** | **15 02 20.1** | **+0.6** |
| **BODT** | **Bodrum** | **1.11** | **326** | *e*Pn | **Pn** | **15 02 20.1** | **+0.6** |
| **KSL** | **Kastellorizon** | **1.22** | **89** | P | **Pn** | **15 02 22.3** | **+1.3** |
| KSL | | | | S | **Sn** | **15 02 37.4** | **+1.1** |
| KSL | | | | AML | AML | 15 02 38.9 | |
| | comp=N,518μm,0.4s | | | | | | |
| KSL | | | | AML | AML | 15 02 39.7 | |
| | comp=E,1208μm,0.4s | | | | | | |
| **KSL** | **Kastellorizon** | **1.22** | **89** | P | **Pn** | **15 02 22.3** | **+1.3** |
| KSL | | | | S | **Sn** | **15 02 37.2** | **+0.9** |
| **KSL** | **Kastellorizon** | **1.22** | **89** | P | **Pn** | **15 02 22.4** | **+1.4** |
| KSL | | | | S | **Sn** | **15 02 37.2** | **+0.9** |
| **AKAS** | **Kas** | **1.24** | **85** | *e*PN | **Pn** | **15 02 22.7** | **+1.3** |
| **AKAS** | **Kas** | **1.24** | **85** | *i* P | **Pn** | **15 02 22.7** | **+1.3** |
| AKAS | | | | *i* S | **Sn** | **15 02 38.0** | **+1.0** |
| **AKAS** | **Kas** | **1.24** | **85** | P | **Pn** | **15 02 22.7** | **+1.3** |
| AKAS | | | | S | **Sn** | **15 02 38.0** | **+1.0** |
| **TAVA** | **DENIZLI_Tavas** | **1.48** | **27** | *i* P | **Pn** | **15 02 27.8** | **+3.1** |
| TAVA | | | | *i* S | **Sn** | **15 02 46.2** | **+3.3** |
| **TAVA** | **DENIZLI_Tavas** | **1.48** | **27** | P | **Pn** | **15 02 27.8** | **+3.1** |
| TAVA | | | | S | **Sn** | **15 02 46.2** | **+3.3** |
| **GLHS** | **Glhisar (BURDU** | **1.52** | **48** | *e*Pn | **Pn** | **15 02 26.5** | **+1.2** |
| **GLHS** | **Glhisar (BURDU** | **1.52** | **48** | *e*Pn | **Pn** | **15 02 26.5** | **+1.2** |
| **AYDN** | **Tasoluk** | **1.52** | **354** | *i* P | **Pn** | **15 02 26.3** | **+1.0** |
| AYDN | | | | *i* S | **Sn** | **15 02 43.9** | **-0.1** |
| **AYDN** | **Tasoluk** | **1.52** | **354** | P | **Pn** | **15 02 26.3** | **+1.0** |
| AYDN | | | | S | **Sn** | **15 02 43.9** | **-0.1** |
| **ELL** | **Elmali** | **1.59** | **67** | *e*PN | **Pn** | **15 02 27.6** | **+1.4** |
| **ELL** | **Elmali** | **1.59** | **67** | *e*Pn | **Pn** | **15 02 27.6** | **+1.4** |
| **GOLH** | **Golhisar** | **1.61** | **47** | *i* P | **Pn** | **15 02 28.7** | **+2.2** |
| GOLH | | | | *i* S | **Sn** | **15 02 49.9** | **+3.6** |
| **GOLH** | **Golhisar** | **1.61** | **47** | P | **Pn** | **15 02 28.7** | **+2.2** |
| GOLH | | | | S | **Sn** | **15 02 49.9** | **+3.6** |
| **DNZL** | **Cakiroluk** | **1.73** | **26** | *i* P | **Pn** | **15 02 32.0** | **+3.8** |
| DNZL | | | | *i* S | **Sn** | **15 02 54.2** | **+5.1** |
| **DNZL** | **Cakiroluk** | **1.73** | **26** | P | **Pn** | **15 02 32.0** | **+3.8** |
| DNZL | | | | S | **Sn** | **15 02 54.2** | **+5.1** |
| **DENT** | **Denizli** | **1.78** | **25** | *e*PN | **Pn** | **15 02 30.3** | **+1.5** |
| **DENT** | **Denizli** | **1.78** | **25** | *e*Pn | **Pn** | **15 02 30.3** | **+1.5** |
| **ZKR** | **Zakros** | **1.83** | **237** | P | **Pn** | **15 02 32.6** | **+3.2** |
| ZKR | | | | S | **Sn** | **15 02 54.0** | **+2.5** |
| ZKR | | | | AML | AML | 15 03 02.6 | |
| | comp=N,295μm,0.4s | | | | | | |
| ZKR | | | | AML | AML | 15 03 05.7 | |
| | comp=E,639μm,0.3s | | | | | | |
| **ZKR** | **Zakros** | **1.83** | **237** | P | **Pn** | **15 02 32.1** | **+2.6** |
| ZKR | | | | S | **Sn** | **15 02 54.0** | **+2.5** |
| **ZKR** | **Zakros** | **1.83** | **237** | P | **Pn** | **15 02 32.1** | **+2.6** |
| ZKR | | | | S | **Sn** | **15 02 55.5** | **+4.0** |
| **SMG** | **Samos** | **1.85** | **328** | P | **Pn** | **15 02 29.9** | **+0.2** |
| SMG | | | | S | **Sn** | **15 02 51.0** | **-1.0** |
| SMG | | | | AML | AML | 15 02 53.3 | |
| | comp=E,759μm,0.4s | | | | | | |
| SMG | | | | AML | AML | 15 02 53.8 | |
| | comp=N,732μm,0.3s | | | | | | |
| **SMG** | **Samos** | **1.85** | **328** | P | **Pn** | **15 02 30.0** | **+0.2** |
| SMG | | | | S | **Sn** | **15 02 51.0** | **-1.0** |
| **SMG** | **Samos** | **1.85** | **328** | P | **Pn** | **15 02 30.0** | **+0.2** |
| **KORT** | **Korkueli** | **2.02** | **64** | *e*PN | **Pn** | **15 02 33.6** | **+1.6** |
| **KORT** | **Korkueli** | **2.02** | **64** | *e*Pn | **Pn** | **15 02 33.6** | **+1.6** |
| **SANT** | **Santorini** | **2.13** | **277** | P | **Pn** | **15 02 34.7** | **+1.1** |
| **SANT** | **Santorini** | **2.13** | **277** | P | **Pn** | **15 02 34.7** | **+1.1** |
| **DGB** | **¨zmir** | **2.13** | **334** | *i* P | **Pn** | **15 02 33.6** | **+0.1** |
| DGB | | | | *i* S | **Sn** | **15 02 55.9** | **-2.9** |
| **THR6** | **Thira Island,** | **2.18** | **276** | P | **Pn** | **15 02 36.1** | **+1.9** |
| **THR6** | **Thira Island,** | **2.18** | **276** | P | **Pn** | **15 02 36.1** | **+1.9** |
| **NPS** | **Neapolis** | **2.19** | **247** | P | **Pn** | **15 02 35.7** | **+1.3** |
| NPS | | | | S | **Sn** | **15 03 01.2** | **+0.9** |
| NPS | | | | AML | AML | 15 03 04.4 | |
| | comp=E,1480μm,0.3s | | | | | | |
| NPS | | | | AML | AML | 15 03 06.8 | |
| | comp=N,1024μm,0.4s | | | | | | |
| **NPS** | **Neapolis** | **2.19** | **247** | P | **Pn** | **15 02 35.7** | **+1.3** |
| NPS | | | | S | **Sn** | **15 03 01.2** | **+0.9** |
| **NPS** | **Neapolis** | **2.19** | **247** | P | **Pn** | **15 02 36.0** | **+1.6** |
| **BRDR** | **BURDUR-Merkez** | **2.22** | **45** | *i* P | Pn | 15 02 41.7 | +6.9 |
| BRDR | | | | *i* S | **Sn** | **15 03 09.1** | **+8.0** |
| **APE** | **Apeiranthos** | **2.25** | **295** | *e*PN | **Pn** | **15 02 37.1** | **+1.9** |
| **APE** | **Apeiranthos** | **2.25** | **295** | P | **Pn** | **15 02 36.5** | **+1.3** |
| **APE** | **Apeiranthos** | **2.25** | **295** | P | **Pn** | **15 02 36.5** | **+1.3** |
| **APE** | **Apeiranthos** | **2.25** | **295** | *e*Pn | **Pn** | **15 02 37.1** | **+1.9** |
| **LAST** | **Lasithi** | **2.33** | **246** | P | **Pn** | **15 02 38.1** | **+1.7** |
| **LAST** | **Lasithi** | **2.33** | **246** | P | **Pn** | **15 02 38.1** | **+1.7** |
| **LAST** | **Lasithi** | **2.33** | **246** | P | **Pn** | **15 02 38.3** | **+1.9** |
| **MANT** | **Manisa** | **2.38** | **9** | *i* P | **Pn** | **15 02 39.0** | **+1.9** |
| MANT | | | | *i* S | **Sn** | **15 03 05.7** | **+0.6** |
| **MANT** | **Manisa** | **2.38** | **9** | P | **Pn** | **15 02 39.0** | **+1.9** |
| MANT | | | | S | **Sn** | **15 03 05.7** | **+0.6** |
| **KULA** | **Kula-Manisa** | **2.41** | **11** | *e*PN | **Pn** | **15 02 39.1** | **+1.6** |
| **KULA** | **Kula-Manisa** | **2.41** | **11** | *e*Pn | **Pn** | **15 02 39.1** | **+1.6** |
| **ZEY** | **¨zmir** | **2.44** | **329** | *i* P | **Pn** | **15 02 38.1** | **+0.3** |
| **KHAL** | **Karahalli** | **2.49** | **26** | *i* P | **Pn** | **15 02 39.5** | **+0.9** |
| KHAL | | | | *i* S | **Sn** | **15 03 08.0** | **+0.1** |
| **KHAL** | **Karahalli** | **2.49** | **26** | P | **Pn** | **15 02 39.5** | **+0.9** |
| KHAL | | | | S | **Sn** | **15 03 07.9** | **+0.1** |
| **URLA** | **Izmir** | **2.51** | **332** | *e*PN | **Pn** | **15 02 39.2** | **+0.4** |
| **URLA** | **Izmir** | **2.51** | **332** | *e*Pn | **Pn** | **15 02 39.2** | **+0.4** |
| **SUTC** | **Sutluce-Ispart** | **2.69** | **60** | *e*PN | **Pn** | **15 02 43.2** | **+1.8** |
| **SUTC** | **Sutluce-Ispart** | **2.69** | **60** | *e*Pn | **Pn** | **15 02 43.2** | **+1.8** |
| **IDI** | **Anoyia** | **2.73** | **253** | P | **Pn** | **15 02 42.8** | **+1.0** |
| **IDI** | **Anoyia** | **2.73** | **253** | P | **Pn** | **15 02 42.8** | **+1.0** |
| **IDI** | **Anoyia** | **2.73** | **253** | P | **Pn** | **15 02 43.2** | **+1.3** |
| **CHOS** | **Chios island** | **2.76** | **325** | P | **Pn** | **15 02 42.4** | **+0.1** |
| **CHOS** | **Chios island** | **2.76** | **325** | P | **Pn** | **15 02 42.4** | **+0.1** |
| **SIVA** | **Sivas** | **2.89** | **248** | P | **Pn** | **15 02 45.6** | **+1.6** |
| **SIVA** | **Sivas** | **2.89** | **248** | P | **Pn** | **15 02 45.6** | **+1.6** |
| **SIMA** | **Simav-Kutahya** | **3.02** | **13** | *e*PN | **Pn** | **15 02 47.9** | **+2.1** |
| **SIMA** | **Simav-Kutahya** | **3.02** | **13** | *e*Pn | **Pn** | **15 02 47.9** | **+2.1** |
| **TVSB** | **Tavsanli** | **3.48** | **18** | *e*PN | **Pn** | **15 02 54.3** | **+2.2** |
| **TVSB** | **Tavsanli** | **3.48** | **18** | *e*Pn | **Pn** | **15 02 54.3** | **+2.2** |
| **BALB** | **Balikesir** | **3.50** | **357** | *e*PN | **Pn** | **15 02 53.2** | **+1.0** |
| **BALB** | **Balikesir** | **3.50** | **357** | *e*Pn | **Pn** | **15 02 53.2** | **+1.0** |
| **AKMC** | **Akamas** | **3.64** | **107** | P | **Pn** | **15 02 54.8** | **+0.6** |
| **AKMC** | **Akamas** | **3.64** | **107** | P | **Pn** | **15 02 54.8** | **+0.6** |
| | baz=301 | | | | | | |
| **PPCY** | **Paphos** | **3.70** | **109** | P | **Pn** | **15 02 55.9** | **+0.9** |
| **PPCY** | **Paphos** | **3.70** | **109** | P | **Pn** | **15 02 55.9** | **+0.9** |
| | baz=303 | | | | | | |
| **ALFC** | **Alefka** | **3.81** | **104** | P | **Pn** | **15 02 57.0** | **+0.4** |
| ALFC | | | | S | **Sn** | **15 03 36.6** | **-3.5** |
| **ALFC** | **Alefka** | **3.81** | **104** | P | **Pn** | **15 02 57.0** | **+0.4** |
| | baz=297 | | | | | | |
| ALFC | | | | S | **Sn** | **15 03 36.6** | **-3.5** |
| **KONT** | **Konya--Tatoy** | **3.87** | **61** | *e*PN | **Pn** | **15 03 00.0** | **+2.6** |
| **KONT** | **Konya--Tatoy** | **3.87** | **61** | *e*Pn | **Pn** | **15 03 00.0** | **+2.6** |
| **LEF** | **Lefka** | **4.05** | **103** | *e*PN | **Pn** | **15 03 02.5** | **+2.7** |
| **LEF** | **Lefka** | **4.05** | **103** | *e*Pn | **Pn** | **15 03 02.5** | **+2.7** |
| **KIZT** | **Kizilcal** | **4.07** | **47** | *e*PN | **Pn** | **15 03 01.8** | **+1.5** |
| **KIZT** | **Kizilcal** | **4.07** | **47** | *e*Pn | **Pn** | **15 03 01.8** | **+1.5** |
| **SZAC** | **Souni** | **4.16** | **108** | P | **Pn** | **15 03 02.3** | **+0.9** |
| SZAC | | | | S | **Sn** | **15 03 47.2** | **-1.5** |
| **SZAC** | **Souni** | **4.16** | **108** | P | **Pn** | **15 03 02.3** | **+0.9** |
| | baz=301 | | | | | | |
| SZAC | | | | S | **Sn** | **15 03 47.2** | **-1.5** |
| **TEVE** | **Tevekalti-Mers** | **4.34** | **85** | *e*PN | **Pn** | **15 03 06.4** | **+2.5** |
| **TEVE** | **Tevekalti-Mers** | **4.34** | **85** | *e*Pn | **Pn** | **15 03 06.4** | **+2.5** |
| **KOT** | **Kottamia** | **6.95** | **152** | P | **Pn** | **15 03 39.0** | **-0.7** |
| | baz=151 | | | | | | |
| KOT | | | | AMP | | 15 04 00.0 | |
| | comp=E,180μm,0.2s,logA/T=5.9,baz=151 | | | | | | |
| KOT | | | | S | **Sn** | **15 04 50.5** | **-6.9** |
| | baz=151 | | | | | | |
| **KOT** | **Kottamia** | **6.95** | **152** | P | **Pn** | **15 03 39.0** | **-0.7** |
| **RSH** | | **6.99** | **136** | P | **Pn** | **15 03 39.8** | **-0.4** |
| | baz=135 | | | | | | |
| **RSH** | | **6.99** | **136** | P | **Pn** | **15 03 39.8** | **-0.4** |
| **HHAG** | **Hagoal** | **7.03** | **150** | P | **Pn** | **15 03 39.6** | **-1.2** |
| | baz=149 | | | | | | |
| HHAG | | | | AMP | | 15 04 00.0 | |
| | comp=E,110μm,0.1s,logA/T=6.0,baz=149 | | | | | | |
| **HHAG** | **Hagoal** | **7.03** | **150** | P | **Pn** | **15 03 39.6** | **-1.2** |
| **HSAF** | **As Saff** | **7.13** | **155** | P | **Pn** | **15 03 40.6** | **-1.6** |
| | baz=154 | | | | | | |
| **HSAF** | **As Saff** | **7.13** | **155** | P | **Pn** | **15 03 40.6** | **-1.6** |
| **GLL** | **Jalalah** | **7.22** | **154** | P | **Pn** | **15 03 42.6** | **-0.8** |
| | baz=153 | | | | | | |
| **GLL** | **Jalalah** | **7.22** | **154** | P | **Pn** | **15 03 42.7** | **-0.8** |
| **SWA2** | | **7.23** | **199** | P | **Pn** | **15 03 43.1** | **-0.4** |
| | baz=200 | | | | | | |
| SWA2 | | | | S | **Sn** | **15 04 57.1** | **-7.1** |
| | baz=200 | | | | | | |
| SWA2 | | | | AMP | | 15 05 00.0 | |
| | comp=N,140μm,0.4s,logA/T=5.5,baz=200 | | | | | | |
| **SWA2** | | **7.23** | **199** | P | **Pn** | **15 03 43.1** | **-0.4** |
| **SUZ** | **Suez** | **7.44** | **146** | P | **Pn** | **15 03 46.1** | **-0.4** |
| | baz=145 | | | | | | |
| **SUZ** | **Suez** | **7.44** | **146** | P | **Pn** | **15 03 46.1** | **-0.4** |
| **HNKL** | **Nakhl** | **7.93** | **140** | P | **Pn** | **15 03 52.4** | **-0.8** |
| | baz=139 | | | | | | |
| **HNKL** | **Nakhl** | **7.93** | **140** | P | **Pn** | **15 03 52.4** | **-0.8** |
| **NBNS** | **Bani Suef** | **7.97** | **159** | P | **Pn** | **15 03 52.7** | **-1.0** |
| | baz=159 | | | | | | |
| **NBNS** | **Bani Suef** | **7.97** | **159** | P | **Pn** | **15 03 52.7** | **-1.0** |
| **GRB** | **Gharib** | **8.80** | **152** | P | **Pn** | **15 04 04.2** | **-0.9** |
| | baz=151 | | | | | | |
| **GRB** | **Gharib** | **8.80** | **152** | P | **Pn** | **15 04 04.2** | **-0.9** |
| **HBST** | **Basata** | **8.89** | **139** | P | **Pn** | **15 04 06.8** | **+0.5** |
| | baz=138 | | | | | | |
| **HBST** | **Basata** | **8.89** | **139** | P | **Pn** | **15 04 06.8** | **+0.5** |
| **HFRF** | **Wahat Farafira** | **8.97** | **179** | P | **Pn** | **15 04 06.7** | **-0.7** |
| | baz=178 | | | | | | |
| **HFRF** | **Wahat Farafira** | **8.97** | **179** | P | **Pn** | **15 04 06.7** | **-0.7** |
| **TR2** | **Tor 2** | **9.09** | **147** | P | **Pn** | **15 04 08.6** | **-0.4** |
| | baz=146 | | | | | | |
| **TR2** | **Tor 2** | **9.09** | **147** | P | **Pn** | **15 04 08.6** | **-0.4** |
| **HDHB** | **Dhahab** | **9.23** | **141** | P | **Pn** | **15 04 11.2** | **+0.3** |
| | baz=141 | | | | | | |
| **HDHB** | **Dhahab** | **9.23** | **141** | P | **Pn** | **15 04 11.2** | **+0.3** |
| **TR1** | **Tor 1** | **9.52** | **147** | P | **Pn** | **15 04 14.3** | **-0.6** |
| | baz=146 | | | | | | |
| **TR1** | **Tor 1** | **9.52** | **147** | P | **Pn** | **15 04 14.3** | **-0.6** |
| **HHRG** | **Al Ghardaqah** | **10.05** | **151** | P | **Pn** | **15 04 23.9** | **+1.8** |
| | baz=150 | | | | | | |
| HHRG | | | | S | **Sn** | **15 06 08.4** | **-5.1** |
| | baz=150 | | | | | | |
| **HHRG** | **Al Ghardaqah** | **10.05** | **151** | P | **Pn** | **15 04 23.9** | **+1.8** |

*ISCJB **20** 15:22:17.5±0.9,24°.88S±0°.09×179°.9W±0°.2,h505km, mb3.6/7, Error ellipse: s-maj=18.2km s-min=11.8km az=179.6*
*IDC **20** 15:22:18.2±3.7,24°.71S×179°.92W,h497km±40km, mb3.2/8, mb1 3.4/10, mb1mx3.1/36, mbtmp4.1/10, Error ellipse: s-maj=26.2km s-min=21.0km az=46.0*
**ISC 20 15:22:18.3**±0.8, **24°.9S**±0°.1×**179°.8W**±0°.1, **h505**km, **n16**, σ**1**s**34**/17, **mb3.6/7, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DZM** | **Mont Dzumac** | **12.91** | **280** | P | **P** | **15 25 07.1** | **+0.4** |
| | 0.7nm,0.3s,baz=99,slow=17,SNR=8.0 | | | | | | |
| **URZ** | **Urewera** | **13.53** | **190** | P | **P** | **15 25 14.6** | **+1.7** |
| | 0.3nm,0.3s,baz=27,slow=4.5,SNR=3.1 | | | | | | |
| URZ | | | | S | **S** | **15 27 33.4** | **-3.4** |
| | 1.1nm,0.3s,baz=350,slow=17,SNR=7.6 | | | | | | |
| **RPZ** | **Rata Peaks** | **20.16** | **199** | P | **P** | **15 26 19.6** | **+1.6** |
| | 2.6nm,0.6s,baz=52,slow=6.2,SNR=4.9 | | | | | | |
| **CTA** | **Charters Tower** | **31.64** | **272** | P | **P** | **15 27 59.9** | **+0.2** |
| | baz=90,slow=12 | | | | | | |
| **STKA** | **Stephens Creek** | **34.49** | **250** | P | **P** | **15 28 24.5** | **+0.8** |
| | 1.0nm,0.4s,baz=89,slow=10.0,SNR=10.0 | | | | | | |
| **ASAR** | **Alice Springs** | **42.02** | **262** | P | **P** | **15 29 24.9** | **-0.3** |
| | 0.7nm,0.4s,baz=83,slow=8.6,SNR=16 | | | | | | |
| **WRA** | **Warramunga Arr** | **42.49** | **267** | P | **P** | **15 29 28.0** | **-1.0** |
| | 2.3nm,0.4s,baz=99,slow=8.2,SNR=84 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **50.91** | **266** | P | **P** | **15 30 32.5** | **-0.2** |
| | 1.4nm,0.9s,baz=143,slow=10,SNR=4.0 | | | | | | |
| **ASAJ** | **Asahikawa** | **76.86** | **333** | P | **P** | **15 33 16.1** | **-1.6** |
| | 6.4nm,1.0s,baz=139,slow=11,SNR=6.2 | | | | | | |
| **TXAR** | **Lajitas Array** | **90.85** | **58** | P | **P** | **15 34 27.9** | **-0.1** |
| | 0.4nm,0.8s,baz=242,slow=2.7,SNR=3.4 | | | | | | |
| **ILAR** | **Eielson Array** | **93.00** | **13** | P | **P** | **15 34 36.8** | **0.0** |
| | 0.2nm,0.8s,baz=230,slow=7.0,SNR=2.8 | | | | | | |
| **ARCES** | **ARCESS Array B** | **132.93** | **348** | PKP | **PKPdf** | **15 40 36.0** | **+0.9** |
| | 2.3nm,0.8s,baz=72,slow=2.9,SNR=7.5 | | | | | | |
| **AKASG** | **Malin Array Be** | **145.92** | **327** | PKPbc | **PKPbc** | **15 41 00.0** | **-0.8** |
| | 1.0nm,0.5s,baz=42,slow=3.9,SN

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | baz=244 | | | | | | |
| TYC | | | | *e*S | | **Sn** | **15 25 15.4 +0.7** |
| | baz=244 | | | | | | |
| **TCU** | **Taichung** | **1.60 247** | *e*P | | | **Pn** | **15 24 54.8 +0.3** |
| | baz=254 | | | | | | |
| TCU | | | | *e*S | | **Sn** | **15 25 15.4 0.0** |
| | baz=254 | | | | | | |
| **JKRS** | **Kuro-shima** | **1.66 109** | P | | | **Pn** | **15 24 55.7 +0.4** |
| JKRS | | | S | | | **Sn** | **15 25 17.1 +0.3** |
| **TWF1** | **Yuli** | **1.69 213** | *e*P | | | **Pn** | **15 24 54.4 -1.3** |
| | baz=219 | | | | | | |
| **WNT** | **Mingjian** | **1.72 239** | P | | | **Pn** | **15 24 56.4 +0.4** |
| | baz=239 | | | | | | |
| WNT | | | | *e*S | | **Sn** | **15 25 18.7 +0.7** |
| | baz=239 | | | | | | |
| **JIJ** | **Ishigaki jima** | **1.74 103** | P | | | **Pn** | **15 24 56.3 0.0** |
| JIJ | | | S | | | **Sn** | **15 25 17.9 -0.7** |
| **YUS** | **Yu-Shan** | **1.77 224** | P | | | **Pn** | **15 24 57.6 +0.4** |
| | baz=217 | | | | | | |
| YUS | | | | *e*S | | **Sn** | **15 25 20.1 0.0** |
| | baz=217 | | | | | | |
| **JISG** | **Ishigakijimahi** | **1.85 96** | P | | | **Pn** | **15 24 58.2 +0.5** |
| JISG | | | S | | | **Sn** | **15 25 20.9 -0.2** |
| **ALS** | **Alishan** | **1.85 227** | *e*P | | | **Pn** | **15 24 59.1 +1.0** |
| | baz=220 | | | | | | |
| ALS | | | | *e*S | | **Sn** | **15 25 23.9 +2.3** |
| | baz=220 | | | | | | |
| **CHN5** | **Tsauling** | **1.88 232** | P | | | **Pn** | **15 24 58.8 +0.5** |
| | baz=241 | | | | | | |
| CHN5 | | | | *e*S | | **Sn** | **15 25 23.0 +1.0** |
| | baz=241 | | | | | | |
| **WGK** | **Gukeng** | **1.92 236** | P | | | **Pn** | **15 24 59.3 +0.7** |
| | baz=236 | | | | | | |
| WGK | | | | *e*S | | **Sn** | **15 25 24.1 +1.5** |
| | baz=236 | | | | | | |
| **ELDTW** | **Lidau** | **1.97 216** | *e*P | | | **Pn** | **15 24 58.7 -0.7** |
| | baz=217 | | | | | | |
| ELDTW | | | | *e*S | | **Sn** | **15 25 22.6 -1.3** |
| | baz=217 | | | | | | |
| **WTCT** | **Ta-ch'eng** | **2.04 244** | *e*S | | | **Sn** | **15 25 24.6 -0.9** |
| | baz=244 | | | | | | |
| **CHN2** | **Minshiung** | **2.07 233** | *e*P | | | **Pn** | **15 25 01.3 +0.7** |
| | baz=242 | | | | | | |
| CHN2 | | | | *e*S | | **Sn** | **15 25 28.1 +2.0** |
| | baz=242 | | | | | | |
| **CHN4** | **Tsaushan** | **2.10 228** | *e*P | | | **Pn** | **15 25 01.7 +0.7** |
| | baz=229 | | | | | | |
| CHN4 | | | | *e*S | | **Sn** | **15 25 28.2 +1.3** |
| | baz=229 | | | | | | |
| **CHY** | **Chiayi** | **2.13 233** | *e*P | | | **Pn** | **15 25 01.4 +0.1** |
| | baz=234 | | | | | | |
| **STYT** | **Tauyuan** | **2.13 221** | P | | | **Pn** | **15 25 02.4 +0.9** |
| | baz=222 | | | | | | |
| STYT | | | | *e*S | | **Sn** | **15 25 28.5 +0.8** |
| | baz=222 | | | | | | |
| **WTP** | **Ta-pu** | **2.16 225** | P | | | **Pn** | **15 25 02.1 +0.3** |
| | baz=236 | | | | | | |
| WTP | | | | *e*S | | **Sn** | **15 25 29.7 +1.3** |
| | baz=236 | | | | | | |
| **JTJ** | **Tarama** | **2.20 93** | *e*S | | | **Sn** | **15 25 29.7 +0.5** |
| **WSF** | **Szhu** | **2.20 239** | *e*P | | | **Pn** | **15 25 02.0 -0.2** |
| | baz=240 | | | | | | |
| WSF | | | | *e*S | | **Sn** | **15 25 29.3 +0.1** |
| | baz=240 | | | | | | |
| **TWK** | **Hsinying** | **2.23 228** | *e*P | | | **Pn** | **15 25 02.9 +0.1** |
| | baz=220 | | | | | | |
| TWK | | | | *e*S | | **Sn** | **15 25 30.8 +0.8** |
| | baz=220 | | | | | | |
| **TWG** | **Pinlang** | **2.25 210** | *e*P | | | **Pn** | **15 25 01.7 -1.3** |
| | baz=205 | | | | | | |
| **CHN1** | **Nanshi** | **2.26 226** | *e*P | | | **Pn** | **15 25 03.3 +0.2** |
| | baz=236 | | | | | | |
| CHN1 | | | | *e*S | | **Sn** | **15 25 31.5 +0.8** |
| | baz=236 | | | | | | |
| **SGST** | **Jiashian** | **2.30 223** | *e*P | | | **Pn** | **15 25 04.0 +0.3** |
| | baz=224 | | | | | | |
| SGST | | | | *e*S | | **Sn** | **15 25 33.2 +1.7** |
| | baz=224 | | | | | | |
| **ECL** | **Taimali** | **2.50 210** | *e*P | | | **Pn** | **15 25 04.9 -1.2** |
| | baz=207 | | | | | | |
| **SSD** | **Sandimen** | **2.53 217** | *e*P | | | **Pn** | **15 25 07.3 +0.7** |
| | baz=227 | | | | | | |
| SSD | | | | *e*S | | **Sn** | **15 25 38.3 +1.3** |
| | baz=227 | | | | | | |
| **JIRB** | **Irabujima** | **2.62 88** | S | | | **Sn** | **15 25 38.5 -0.6** |
| **EAST** | **Anshuo** | **2.73 209** | *e*P | | | **Pn** | **15 25 10.3 +1.0** |
| | baz=205 | | | | | | |
| EAST | | | | *e*S | | **Sn** | **15 25 41.5 -0.2** |
| | baz=205 | | | | | | |
| **PNG** | **Penghu** | **2.77 245** | *e*P | | | **Pn** | **15 25 08.2 -1.6** |
| | baz=245 | | | | | | |
| PNG | | | | *e*S | | **Sn** | **15 25 39.8 -2.8** |
| | baz=245 | | | | | | |
| **LAY** | **Lan-yu** | **2.81 194** | *e*P | | | **Pn** | **15 25 09.5 -1.0** |
| | baz=189 | | | | | | |
| LAY | | | | *e*S | | **Sn** | **15 25 41.2 -2.5** |
| | baz=189 | | | | | | |
| **SCZT** | **Fangliau** | **2.84 213** | *e*P | | | **Pn** | **15 25 11.3 +0.5** |
| | baz=225 | | | | | | |

*IDC **20** 15:28:01.9±9.6, 1°.43N×127°.23E, h109km±89km, mb3.8/6, mb1 3.9/7, mb1mx3.4/45, mbtmp4.1/7, ML3.8/1, Error ellipse: s-maj=94.3km s-min=19.7km az=65.0*
*ISCJB **20** 15:28:03.8±0.6, 1°.57N±0°.05×127°.44E±0°.07, h150km, mb4.0/7, Error ellipse: s-maj=10.3km s-min=6.0km az=147.6*
*NEIC **20** 15:28:05.7±0.8, 1°.41N×127°.33E, h147km±6km, mb4.3/1, Error ellipse: s-maj=16.4km s-min=9.8km az=47.0*
*DJA **20** 15:28:09.1±0.6, 1°.N±3°×12°.7E±°, h24km±8km, M4.6/9, mb4.8/7, mB5.1/6, MLv4.5/9, Mw(mB)4.4/6*

**ISC 20 15:28:04.7±1.2, 1°.59N±0°.09×127°.5E±0°.1, h150km, n25, σ1°16/24, mb4.0/7, Halmahera**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TNTI** | **Ternate** | **0.82 188** | | *e*Pn | **Pn** | **15 28 27.1** | **-1.0** |
| TNTI | | | | *e*Sn | **Sn** | **15 28 43.9** | **-2.0** |
| **LBMI** | **Labuha** | **2.21 180** | | P | **Pn** | **15 28 42.4** | **0.0** |
| LBMI | | | | S | **Sn** | **15 29 10.9** | **-0.5** |
| **SGSI** | **Sangihe** | **2.86 317** | | P | **Pn** | **15 28 49.4** | **-0.9** |
| SGSI | | | | S | **Sn** | **15 29 24.0** | **-1.5** |
| **KMSI** | **Cibinong** | **3.65 254** | | P | **Pn** | **15 29 00.1** | **-0.3** |
| **SANI** | **Sanana** | **3.91 203** | | P | **Pn** | **15 29 01.8** | **-2.0** |
| **NLAI** | **Namlea** | **4.81 185** | | P | **Pn** | **15 29 14.9** | **-0.7** |
| **LUWI** | **Luwuk** | **5.39 241** | | P | **Pn** | **15 29 21.7** | **-1.6** |
| **LUWI** | **Luwuk** | **5.39 241** | | *e*Pn | **Pn** | **15 29 21.7** | **-1.6** |
| | 118nm,0.4s | | | | | | |
| **MRSI** | **Marisa** | **5.65 259** | | P | **Pn** | **15 29 26.3** | **-0.5** |
| | 37nm,0.8s,510nm0.2nm | | | | | | |
| **APSI** | **Ampana** | **6.34 247** | | P | **Pn** | **15 29 34.9** | **-1.1** |
| | 120nm,0.4s,2μm0.7nm | | | | | | |
| **FAKI** | **Fak Fak** | **6.54 133** | | *e*Pn | Pn | 15 29 40.1 | +1.5 |
| **KDI** | **Kendari** | **7.35 221** | | P | **Pn** | **15 29 49.0** | **-0.5** |
| | 26nm,0.7s,0.1nm | | | | | | |
| **MPSI** | **Mapaga** | **7.69 261** | | P | **Pn** | **15 29 55.6** | **+1.6** |
| | 15nm,0.8s,563nm | | | | | | |
| **TTSI** | **Tana Toraja** | **8.94 239** | | P | **Pn** | **15 30 10.1** | **-0.6** |
| | 107nm,0.7s,1μm | | | | | | |
| **SPSI** | **Sidrap Palu** | **9.48 234** | | P | **Pn** | **15 30 19.2** | **+1.3** |
| | 100nm,0.4s,2μm | | | | | | |
| **PLAI** | **Plampang** | **14.17 223** | | P | **P** | **15 31 22.9** | **+1.1** |
| **FITZ** | **Fitzroy Crossi** | **19.65 185** | | P | **P** | **15 32 21.2** | **-0.7** |
| | 0.2nm,0.3s,baz=1.5,slow=9.5,SNR=7.6 | | | | | | |
| **WRAB** | **Tennant Creek** | **22.42 163** | | *e*P | **P** | **15 32 50.9** | **-0.3** |
| | 5.1nm,0.4s | | | | | | |
| **WRA** | **Warramunga Arr** | **22.43 163** | | P | **P** | **15 32 50.9** | **-0.4** |
| | 7.6nm,0.4s,baz=338,slow=11,SNR=89 | | | | | | |
| **ASAR** | **Alice Springs** | **25.87 166** | | P | **P** | **15 33 22.8** | **+0.2** |
| | 2.1nm,0.5s,baz=349,slow=7.3,SNR=37 | | | | | | |
| **STKA** | **Stephens Creek** | **35.87 159** | | P | **P** | **15 34 50.9** | **+0.6** |
| | 5.9nm,0.4s,baz=338,slow=7.9,SNR=34 | | | | | | |
| **MKAR** | **Makanchi Array** | **59.74 326** | | P | P | 15 37 55.7 | +2.0 |
| | 0.4nm,0.5s,baz=106,slow=8.6,SNR=7.2 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **63.94 328** | | P | P | 15 38 23.1 | +1.4 |
| | 0.4nm,0.2s,baz=124,slow=6.0,SNR=2.4 | | | | | | |
| **KURK** | **Kurchatov** | **63.94 328** | | P | P | 15 38 23.1 | +1.4 |
| **VNDA** | **Vanda** | **81.22 173** | | P | **P** | **15 40 04.3** | **+1.0** |
| | 0.8nm,0.8s,baz=301,slow=3.6,SNR=3.0 | | | | | | |

*IDC **20** 15:43:01.6±0.9, 29°.98N×97°.24E, h0km, mb3.6/10, mb1 3.7/11, mb1mx3.5/49, mbtmp3.6/11, ML3.4/1, MS2.9/4, Ms1 2.9/4, ms1mx2.5/33, Error ellipse: s-maj=33.8km s-min=16.3km az=50.0*

*ISCJB **20** 15:43:04.7±0.7, 30°.05N±0°.09×97°.36E±0°.08, h33km, mb3.5/10, MS2.8/3, Error ellipse: s-maj=13.7km s-min=8.0km az=152.0*

**ISC 20 15:43:07.2±0.9, 30°.1N±0°.1×97°.31E±0°.09, h35km, n23, σ1°18/22, mb3.6/10, MS2.7/3, Xizang**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TAPN** | **Taplejung** | **8.85 255** | | *e*P | **Pn** | **15 45 14.7** | **+1.8** |
| | 4.1nm,0.4s | | | | | | |
| **RAMN** | **Ramite** | **9.92 254** | | *e*P | **Pn** | **15 45 28.7** | **+1.2** |
| | 6.7nm,0.5s | | | | | | |
| RAMN | | | | *e*S | **Sn** | **15 47 15.5** | **-2.2** |
| **JIRN** | **Jiri** | **10.04 259** | | *e*P | **Pn** | **15 45 30.2** | **+0.9** |
| | 46nm,0.4s | | | | | | |
| **GUN** | **Gumba** | **10.24 261** | | *e*P | **Pn** | **15 45 33.1** | **+1.2** |
| | 11nm,0.4s | | | | | | |
| **PKI** | **Pulchoki** | **10.73 260** | | *e*P | **Pn** | **15 45 39.3** | **+0.6** |
| | 6.2nm,0.4s | | | | | | |
| **PKIN** | **Phulchoki** | **10.74 260** | | *e*P | **Pn** | **15 45 40.2** | **+1.5** |
| | 9.1nm,0.5s | | | | | | |
| **KKN** | **Kakani** | **10.78 261** | | *e*P | **Pn** | **15 45 40.1** | **+0.8** |
| | 9.4nm,0.4s | | | | | | |
| **DMN** | **Daman** | **10.98 260** | | *e*P | **Pn** | **15 45 42.7** | **+0.7** |
| | 5.4nm,0.4s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **11.65 172** | | LR | LR | 15 50 35.8 | |
| | comp=Z,37nm,19.8s,baz=342,slow=39 | | | | | | |
| **KOLN** | **Koldanda** | **12.23 263** | | *e*P | **Pn** | **15 45 58.6** | **-0.4** |
| | 4.7nm,0.5s | | | | | | |
| **SONM** | **Songino Array** | **19.07 19** | | P | **P** | **15 47 25.6** | **-1.1** |
| | 0.1nm,0.3s,baz=195,slow=14,SNR=4.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **20.37 329** | | P | **P** | **15 47 39.6** | **-1.1** |
| | 0.9nm,0.5s,baz=138,slow=13,SNR=20 | | | | | | |
| MKAR | | | | LR | LR | 15 55 58.0 | |
| | comp=Z,33nm,21.3s,baz=89,slow=38 | | | | | | |
| **AAK** | **Ala-Archa** | **22.17 311** | | P | **P** | **15 48 02.1** | **+1.9** |
| | 1.1nm,0.7s,baz=153,slow=4.9,SNR=4.9 | | | | | | |
| AAK | | | | LR | LR | 15 58 42.6 | |
| | comp=Z,17nm,19.9s,baz=114,slow=42 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **24.90 331** | | P | **P** | **15 48 26.5** | **-0.1** |
| | 0.6nm,0.5s,baz=137,slow=10,SNR=6.4 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **25.53 343** | | P | **P** | **15 48 31.8** | **-0.5** |
| | 1.4nm,0.5s,baz=155,slow=9.3,SNR=7.9 | | | | | | |
| **KSRS** | **Korea Array** | **26.42 66** | | P | **P** | **15 48 42.2** | **+1.6** |
| | 0.9nm,0.8s,baz=260,slow=9.8,SNR=3.5 | | | | | | |
| **TGY** | **Tagaytay City** | **26.96 121** | | LR | LR | 15 58 56.5 | |
| | comp=Z,67nm,18.1s,baz=132,slow=35 | | | | | | |
| **BVAR** | **Borovoye Array** | **30.21 327** | | P | **P** | **15 49 14.6** | **+0.3** |
| | 0.4nm,0.7s,baz=114,slow=7.2,SNR=4.1 | | | | | | |
| **AKTO** | **Aktyubinsk** | **35.68 316** | | P | **P** | **15 50 02.5** | **+0.5** |
| | 0.5nm,0.5s,baz=113,slow=14,SNR=3.0 | | | | | | |
| **AKASG** | **Malin Array Be** | **53.81 313** | | P | **P** | **15 52 26.2** | **0.0** |
| | 0.4nm,0.5s,baz=75,slow=6.1,SNR=3.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **61.18 140** | | P | **P** | **15 53 17.6** | **-0.9** |
| | 0.5nm,0.7s,baz=327,slow=7.7,SNR=8.0 | | | | | | |
| **ASAR** | **Alice Springs** | **63.95 143** | | P | **P** | **15 53 36.5** | **-0.5** |
| | 0.4nm,0.8s,baz=327,slow=7.0,SNR=4.2 | | | | | | |
| **INK** | **Inuvik** | **74.98 17** | | P | **P** | **15 54 43.7** | **-0.7** |
| | 0.6nm,0.6s,baz=329,slow=3.9,SNR=4.5 | | | | | | |

**WEL 20 15:49:41.2±0.5, 38°.26S×175°.86E, h160km±4km, ML3.5/23, 17C-2D, Error ellipse: s-maj=3.5km s-min=2.8km az=0.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **OTVZ** | **Oturere** | **0.91 190** | | ⇑P | Pn | 15 50 06.9 | +0.4 |
| **RTZ** | **Ruatahuna** | **0.95 112** | | ⇑P | Pn | 15 50 06.6 | 0.0 |
| RTZ | | | | SN | Sn | 15 50 25.9 | -0.2 |
| **MTHZ** | **Maungataniwha** | **0.97 128** | | PN | Pn | 15 50 06.9 | +0.1 |
| MTHZ | | | | SN | Sn | 15 50 26.2 | -0.2 |
| **URZ** | **Urewera** | **0.98 90** | | PN | Pn | 15 50 06.4 | -0.4 |
| URZ | | | | AML | AML | 15 50 26.0 | |
| URZ | | | | AML | AML | 15 50 26.6 | |
| **TUVZ** | **Tukino** | **1.02 189** | | PN | Pn | 15 50 07.5 | +0.1 |
| **BKZ** | **Black Stump Fm** | **1.03 152** | | ⇑PN | Pn | 15 50 07.2 | -0.1 |
| **TRVZ** | **Turoa** | **1.07 193** | | PN | Pn | 15 50 08.0 | +0.2 |
| **WNVZ** | **Wahianoa** | **1.08 191** | | PN | Pn | 15 50 07.8 | 0.0 |
| **NMHZ** | **Naumai** | **1.11 139** | | PN | Pn | 15 50 08.7 | +0.7 |
| NMHZ | | | | AML | AML | 15 50 31.7 | |
| NMHZ | | | | AML | AML | 15 50 34.7 | |
| **MOVZ** | **Moawhango** | **1.15 184** | | ⇑PN | Pn | 15 50 07.9 | -0.4 |
| **VRZ** | **Vera Road** | **1.22 225** | | PN | Pn | 15 50 09.2 | +0.3 |
| **BHHZ** | **Black Hill Sta** | **1.24 173** | | PN | Pn | 15 50 08.6 | -0.5 |
| **KWHZ** | **Kaweka Forest** | **1.24 160** | | ⇑PN | Pn | 15 50 09.1 | -0.1 |
| KWHZ | | | | AML | AML | 15 50 10.9 | |
| KWHZ | | | | AML | AML | 15 50 38.5 | |
| **RAGZ** | **Rawiri** | **1.24 101** | | PN | Pn | 15 50 09.2 | 0.0 |
| RAGZ | | | | SN | Sn | 15 50 30.0 | -0.6 |
| RAGZ | | | | AML | AML | 15 50 33.9 | |
| **SNGZ** | **Shannon Statio** | **1.27 115** | | ⇑PN | Pn | 15 50 09.6 | +0.3 |
| SNGZ | | | | AML | AML | 15 50 32.3 | |
| SNGZ | | | | AML | AML | 15 50 43.6 | |
| **MWZ** | **Matawai** | **1.31 94** | | ⇑PN | Pn | 15 50 09.7 | 0.0 |
| MWZ | | | | AML | AML | 15 50 31.7 | |
| MWZ | | | | AML | AML | 15 50 33.5 | |
| **ARHZ** | **Aropaoanui** | **1.34 139** | | PN | Pn | 15 50 10.2 | +0.3 |
| ARHZ | | | | AML | AML | 15 50 32.6 | |
| ARHZ | | | | AML | AML | 15 50 32.7 | |
| **WHHZ** | **Waihua** | **1.35 128** | | PN | Pn | 15 50 10.3 | +0.2 |
| WHHZ | | | | AML | AML | 15 50 33.0 | |
| WHHZ | | | | AML | AML | 15 50 35.7 | |
| **MCHZ** | **McNeill Hill** | **1.35 151** | | ⇑PN | Pn | 15 50 10.5 | +0.5 |
| **KRHZ** | **Kereru** | **1.44 164** | | PN | Pn | 15 50 10.7 | -0.3 |
| **RUGZ** | **Raukumara Rang** | **1.46 79** | | PN | Pn | 15 50 10.2 | -1.1 |
| **RIGZ** | **Rimuhau** | **1.56 107** | | PN | Pn | 15 50 12.1 | 0.0 |
| RIGZ | | | | AML | AML | 15 50 35.7 | |
| RIGZ | | | | AML | AML | 15 50 37.6 | |
| **TKGZ** | **Te Karaka** | **1.57 97** | | PN | Pn | 15 50 12.6 | +0.3 |
| TKGZ | | | | SN | Sn | 15 50 35.5 | -0.6 |
| TKGZ | | | | AML | AML | 15 50 37.3 | |
| **HAZ** | **Te Kaha** | **1.60 72** | | ⇑PN | Pn | 15 50 11.7 | -0.8 |
| **KNZ** | **Kokohu** | **1.61 119** | | PN | Pn | 15 50 12.3 | -0.3 |
| **WAZ** | **Wanganui** | **1.64 204** | | PN | Pn | 15 50 12.8 | -0.3 |
| **TWGZ** | **Tauwhareparae** | **1.67 88** | | ⇑PN | Pn | 15 50 13.5 | +0.2 |
| TWGZ | | | | AML | AML | 15 50 39.1 | |
| TWGZ | | | | AML | AML | 15 50 44.1 | |
| **PNHZ** | **Pukenui** | **1.67 171** | | PN | Pn | 15 50 12.6 | -0.8 |
| **PRGZ** | **Paritu Road** | **1.71 113** | | PN | Pn | 15 50 13.5 | -0.3 |
| **KAHZ** | **Kahuranaki** | **1.72 153** | | PN | Pn | 15 50 13.7 | -0.2 |
| **PKGZ** | **Pakihiroa** | **1.79 79** | | PN | Pn | 15 50 14.3 | -0.4 |
| PKGZ | | | | AML | AML | 15 50 40.0 | |
| PKGZ | | | | AML | AML | 15 50 40.2 | |
| **TSZ** | **Takapari Road** | **1.80 178** | | ⇑PN | Pn | 15 50 13.8 | -0.9 |
| **MHGZ** | **Mahia Peninsul** | **1.83 120** | | PN | Pn | 15 50 14.9 | -0.2 |
| **CNGZ** | **Carnagh Statio** | **1.86 98** | | PN | Pn | 15 50 15.6 | +0.3 |
| **WPHZ** | **Waipukurau** | **1.86 166** | | ⇑PN | Pn | 15 50 14.5 | -0.8 |
| **PUZ** | **Puketiti** | **1.90 85** | | PN | Pn | 15 50 15.0 | -0.8 |
| **PXZ** | **Pawanui** | **1.93 157** | | PN | Pn | 15 50 15.4 | -0.8 |
| **OHWZ** | **Ohakea** | **1.99 192** | | PN | Pn | 15 50 16.2 | -0.6 |
| **DVHZ** | **Dannevirke** | **2.05 174** | | PN | Pn | 15 50 16.1 | -1.4 |
| DVHZ | | | | AML | AML | 15 50 45.5 | |
| **MXZ** | **Matakaoa Point** | **2.05 71** | | ⇑PN | Pn | 15 50 17.3 | -0.3 |
| **WMGZ** | **Waiomatatini S** | **2.06 78** | | PN | Pn | 15 50 17.1 | -0.6 |
| WMGZ | | | | AML | AML | 15 50 45.1 | |
| WMGZ | | | | AML | AML | 15 50 45.5 | |
| **PRHZ** | **Porangahau** | **2.09 164** | | ⇑PN | Pn | 15 50 16.9 | -1.1 |
| PRHZ | | | | AML | AML | 15 50 47.3 | |
| PRHZ | | | | AML | AML | 15 50 47.4 | |
| **POWZ** | **Post Office Ro** | **2.13 182** | | PN | Pn | 15 50 16.9 | -1.5 |
| **ANWZ** | **Angora Road** | **2.25 168** | | ⇑PN | Pn | 15 50 18.6 | -1.2 |
| ANWZ | | | | AML | AML | 15 50 49.2 | |
| ANWZ | | | | AML | AML | 15 50 50.1 | |
| **PRWZ** | **Pori Road** | **2.29 178** | | PN | Pn | 15 50 18.8 | -1.5 |
| **MRZ** | **Mangatainoka R** | **2.41 185** | | ⇑PN | Pn | 15 50 19.6 | -2.1 |
| MRZ | | | | AML | AML | 15 50 51.6 | |
| MRZ | | | | AML | AML | 15 50 51.6 | |
| **BFZ** | **Birch Farm** | **2.44 173** | | PN | Pn | 15 50 20.1 | -1.9 |
| **TIWZ** | **Tintock** | **2.51 180** | | PN | Pn | 15 50 21.0 | -2.0 |
| TIWZ | | | | AML | AML | 15 50 53.6 | |
| **OGWZ** | **Otaki Gorge** | **2.61 192** | | PN | Pn | 15 50 22.2 | -2.0 |
| OGWZ | | | | AML | AML | 15 50 55.2 | |
| OGWZ | | | | AML | AML | 15 50 55.5 | |
| **HOWZ** | **Holdsworth Sta** | **2.65 186** | | PN | Pn | 15 50 22.1 | -2.5 |
| HOWZ | | | | AML | AML | 15 50 56.0 | |
| **KIW** | **Kapiti Island** | **2.70 196** | | PN | Pn | 15 50 22.7 | -2.5 |
| **TMWZ** | **Te Maipa** | **2.84 180** | | ⇓PN | Pn | 15 50 24.5 | -2.5 |
| **MTW** | **Mount Morrison** | **2.91 185** | | ⇓PN | Pn | 15 50 24.9 | -2.9 |
| **CAW** | **Cannon Point** | **2.91 192** | | PN | Pn | 15 50 25.1 | -2.7 |
| CAW | | | | AML | AML | 15 51 01.8 | |
| **DUWZ** | **D'Urville Isla** | **2.95 210** | | PN | Pn | 15 50 25.7 | -2.7 |
| **PAWZ** | **Paruwai Farm** | **3.13 186** | | PN | Pn | 15 50 27.5 | -3.2 |
| **WEL** | **Wellington** | **3.13 195** | | PN | Pn | 15 50 27.7 | -3.0 |
| **TRWZ** | **Traveller** | **3.14 182** | | PN | Pn | 15 50 28.0 | -2.6 |
| **MSWZ** | **Moikau Station** | **3.19 188** | | PN | Pn | 15 50 28.0 | -3.3 |
| **TCW** | **Tory Channel** | **3.19 202** | | PN | Pn | 15 50 28.5 | -2.8 |
| TCW | | | | AML | AML | 15 51 06.8 | |
| **PLWZ** | **Palliser** | **3.34 188** | | PN | Pn | 15 50 29.7 | -3.5 |
| **TUWZ** | **Tuamarina** | **3.49 204** | | PN | Pn | 15 50 32.1 | -3.0 |
| **NNZ** | **Nelson** | **3.52 212** | | PN | Pn | 15 50 32.1 | -3.4 |
| **QRZ** | **Quartz Range** | **3.63 224** | | PN | Pn | 15 50 33.2 | -3.8 |
| **THZ** | **Tophouse** | **4.17 212** | | PN | Pn | 15 50 40.0 | -3.9 |
| **KHZ** | **Kahutara** | **4.51 202** | | PN | Pn | 15 50 44.7 | -3.7 |
| KHZ | | | | AML | AML | 15 51 36.3 | |
| **DSZ** | **Denniston Nort** | **4.67 221** | | PN | Pn | 15 50 47.9 | -2.5 |
| **INZ** | **Inchbonnie** | **5.59 216** | | PN | Pn | 15 50 58.0 | -4.5 |
| **OXZ** | **Oxford** | **5.83 209** | | PN | Pn | 15 51 00.3 | -5.5 |
| **MQZ** | **McQueen's Vall** | **5.96 203** | | PN | Pn | 15 51 01.4 | -6.0 |

*DDA **20** 15:50:07.0, 37°.60N×30°.69E, h7km, Md2.6*
*ISK **20** 15:50:06.7, 37°.65N×30°.61E, h3km, MD2.7*
*CSEM **20** 15:50:07.4±0.2, 37°.63N×30°.59E, h10km, MD2.7, Error ellipse: s-maj=4.8km s-min=3.8km az=86.0*

**ISC 20 15:50:07.1±1.3, 37°.63N±0°.02×30°.60E±0°.03, h7km±11km, n25, σ1°76/42, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **BCK** | **Bucak** | **0.16 184** | | *e*PG | **Pg** | **15 50 11.2** | **+0.7** |
| **BCK** | **Bucak** | **0.16 184** | | *e*Pg | **Pg** | **15 50 11.2** | **+0.7** |
| **SUTC** | **Sutluce-Ispart** | **0.35 115** | | *e*PG | **Pg** | **15 50 14.3** | **+0.3** |
| SUTC | | | | *e*SG | **Sb** | **15 50 20.0** | **-1.5** |
| **SUTC** | **Sutluce-Ispart** | **0.35 115** | | *e*Pg | **Pg** | **15 50 14.3** | **+0.3** |
| SUTC | | | | *e*Sg | **Sb** | **15 50 20.0** | **-1.5** |
| **BAGO** | **Egridir - ISPA** | **0.39 22** | | *i*P | **Pg** | **15 50 15.2** | **+0.4** |
| BAGO | | | | *i*S | **Sb** | **15 50 22.2** | **-0.6** |
| **BRDR** | **BURDUR-Merkez** | **0.43 280** | | *i*P | **Pg** | **15 50 14.7** | **-0.9** |
| BRDR | | | | *i*S | **Sb** | **15 50 23.0** | **-0.9** |
| **BRDR** | **BURDUR-Merkez** | **0.43 280** | | P | **Pg** | **15 50 14.7** | **-0.9** |
| BRDR | | | | S | **Sb** | **15 50 23.0** | **-0.9** |
| **KORT** | **Korkueli** | **0.65 198** | | *e*PG | **Pb** | **15 50 20.6** | **-0.3** |
| KORT | | | | *e*SG | **Sb** | **15 50 30.4** | **+0.1** |
| **KORT** | **Korkueli** | **0.65 198** | | *i*P | **Pg** | **15 50 19.0** | **-0.7** |
| KORT | | | | *i*S | **Sb** | **15 50 29.8** | **-0.5** |
| **KORT** | **Korkueli** | **0.65 198** | | P | **Pg** | **15 50 19.0** | **-0.7** |
| **KORT** | **Korkueli** | **0.65 198** | | *e*Pg | **Pb** | **15 50 20.6** | **-0.3** |
| KORT | | | | S | **Sb** | **15 50 29.8** | **-0.5** |
| KORT | | | | *e*Sg | **Sb** | **15 50 30.4** | **+0.1** |
| **KZIL** | **AFYON_Kizioren** | **0.73 330** | | *i*P | **Pg** | **15 50 21.1** | **0.0** |
| KZIL | | | | *i*S | **Sb** | **15 50 33.1** | **+0.6** |
| **KZIL** | **AFYON_Kizioren** | **0.73 330** | | P | **Pg** | **15 50 21.1** | **0.0** |
| KZIL | | | | S | **Sb** | **15 50 33.1** | **+0.6** |
| **GOLH** | **Golhisar** | **0.91 245** | | *i*P | **Pb** | **15 50 25.2** | **-0.1** |
| GOLH | | | | *i*S | **Sn** | **15 50 40.7** | **+0.8** |
| **GOLH** | **Golhisar** | **0.91 245** | | P | **Pb** | **15 50 25.2** | **-0.1** |
| GOLH | | | | S | **Sn** | **15 50 40.7** | **+0.8** |
| **SHUT** | **Suhut-Afyon** | **0.93 358** | | *e*PG | **Pg** | **15 50 24.4** | **-0.6** |
| SHUT | | | | *e*SG | **Sb** | **15 50 38.1** | **-0.1** |
| **SHUT** | **Suhut-Afyon** | **0.93 358** | | *e*Pg | **Pg** | **15 50 24.4** | **-0.6** |
| SHUT | | | | *e*Sg | **Sb** | **15 50 38.1** | **-0.1** |
| **ELL** | **Elmali** | **1.03 213** | | *e*PG | **Pb** | **15 50 27.7** | **+0.3** |
| **ELL** | **Elmali** | **1.03 213** | | *e*Pg | **Pb** | **15 50 27.7** | **+0.3** |
| **KHAL** | **Karahalli** | **1.15 311** | | *i*P | **Pn** | **15 50 29.5** | **-0.2** |
| KHAL | | | | *i*S | **Sn** | **15 50 47.7** | **+1.9** |
| **KHAL** | **Karahalli** | **1.15 311** | | P | **Pn** | **15 50 29.5** | **-0.2** |
| KHAL | | | | S | **Sn** | **15 50 47.7** | **+1.9** |
| **KONT** | **Konya--Tatoy** | **1.43 77** | | *e*PN | **Pb** | **15 50 34.0** | **-0.1** |
| **KONT** | **Konya--Tatoy** | **1.43 77** | | *e*Pn | **Pb** | **15 50 34.0** | **-0.1** |
| **KIZT** | **Kizilcal** | **1.61 38** | | *e*PN | **Pb** | **15 50 36.6** | **-0.6** |
| **KIZT** | **Kizilcal** | **1.61 38** | | *e*Pn | **Pb** | **15 50 36.6** | **-0.6** |

*IDC **20** 15:55:53.2±5.0, 4°.73N×93°.73E, h0km, mb3.4/2, mb1 3.7/4, mb1mx3.3/36, mbtmp3.4/4, ML3.6/2, Error ellipse: s-maj=106.0km s-min=49.8km az=79.0*
*DJA **20** 15:56:10.2±0.9, 5°.N±4°×9°.5E±°, h10km, M3.6/5, MLv3.6/5*

**ISC 20 15:56:03.3±1.8, 5°.4N±0°.1×94°.7E±0°.1, h46km, n8, σ1°84/13, Northern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MLSI** | **Meulaboh, Aceh** | **2.05 124** | | Pg | **Pn** | **15 56 37.1** | **+1.8** |
| MLSI | | | | S | **Sn** | **15 56 58.7** | **-1.0** |
| MLSI | | | | Sg | **Sn** | **15 56 58.7** | **-1.0** |
| **LHMI** | **Lhok Sumawe** | **2.25 95** | | P | **Pn** | **15 56 40.1** | **+2.1** |
| LHMI | | | | S | **Sn** | **15 57 03.5** | **-1.1** |
| LHMI | | | | Sg | **Sn** | **15 57 03.5** | **-1.1** |
| **TPTI** | | **3.28 131** | | P | **Pn** | **15 56 53.7** | **+1.5** |
| TPTI | | | | S | **Sn** | **15 57 28.0** | **-1.9** |
| **KCSI** | **Kotacane, Aceh** | **3.60 121** | | P | **Pn** | **15 56 59.0** | **+2.4** |
| **PSI** | **Prapat

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **AFDM** | **Forest Hills D** | **7.76** | **129** | *e*Pn | | **Pn** | **16 08 39.2** | **+1.2** |
| **B08A** | **Colville Reser** | **7.82** | **53** | *e*Pn | | **Pn** | **16 08 38.4** | **-0.5** |
| **LLLB** | **Lillooet** | **8.04** | **33** | *e*Pn | | **Pn** | **16 08 43.1** | **+1.3** |
| **BBB** | **Bella Bella** | **8.14** | **3** | Pn | | **Pn** | **16 08 43.6** | **+0.5** |
| | 1.9nm,0.3s,baz=180,slow=6.7,SNR=5.5 | | | | | | | |
| **C09A** | **Chrisman Ranch** | **8.21** | **59** | *e*Pn | | **Pn** | **16 08 44.3** | **+0.2** |
| **BMO** | **Blue Mountains** | **8.23** | **80** | *e*Pn | | **Pn** | **16 08 45.9** | **+1.3** |
| **PAHR** | **Pah Rah Range** | **8.23** | **119** | *e*Pn | | **Pn** | **16 08 47.7** | **+3.1** |
| **F10A** | **Beach Ranch, E** | **8.39** | **73** | *e*Pn | | **Pn** | **16 08 48.2** | **+1.5** |
| **PNTR** | **Pine Nut** | **8.47** | **123** | *e*Pn | | **Pn** | **16 08 50.0** | **+2.1** |
| **CMB** | **Columbia Colle** | **8.73** | **131** | *e*Pn | | **Pn** | **16 08 52.8** | **+1.5** |
| **YERR** | **Yerington** | **8.75** | **122** | *e*Pn | | **Pn** | **16 08 53.4** | **+1.6** |
| **WAKR** | **Walker** | **8.94** | **125** | *e*Pn | | **Pn** | **16 08 56.9** | **+2.5** |
| **NEW** | **Newport** | **9.10** | **58** | Pn | | **Pn** | **16 08 55.8** | **-0.6** |
| | 1.2nm,0.3s,baz=258,slow=10,SNR=11 | | | | | | | |
| NEW | | | | LR | | LR | 16 12 21.5 | |
| | comp=Z,273nm,21.5s,baz=256,slow=37 | | | | | | | |
| **NEW** | **Newport** | **9.10** | **58** | P | | **P** | **16 08 56.1** | **-0.3** |
| | baz=247,SNR=5.8 | | | | | | | |
| **NEW** | **Newport** | **9.10** | **58** | *e*Pn | | **Pn** | **16 08 56.1** | **-0.3** |
| **NV01** | **Mina Array Sit** | **9.67** | **122** | *e*Pn | | **Pn** | **16 09 05.5** | **+1.1** |
| **NV11** | **Mina Array Sit** | **9.76** | **122** | *e*Pn | | **Pn** | **16 09 06.3** | **+0.8** |
| **HLID** | **Hailey** | **10.38** | **88** | *e*Pn | | **Pn** | **16 09 15.3** | **+1.2** |
| **JTMT** | **Jette** | **10.74** | **65** | *e*Pn | | **Pn** | **16 09 20.6** | **+1.6** |
| **MSO** | **Missoula** | **10.77** | **70** | *e*Pn | | **Pn** | **16 09 20.4** | **+1.0** |
| **WALA** | **Waterton Lakes** | **11.37** | **59** | *e*Pn | | **Pn** | **16 09 28.0** | **+0.5** |
| WALA | | | | *e*Sn | | Sn | 16 11 18.2 | -16 |
| **MCMT** | **McKenzie Canyo** | **11.40** | **81** | *e*Pn | | **Pn** | **16 09 29.2** | **+1.1** |
| **R11A** | **Troy Canyon, C** | **11.44** | **115** | *e*Pn | | **Pn** | **16 09 31.5** | **+3.0** |
| **TPNV** | **Topopah Spring** | **11.87** | **122** | *e*Pn | | **Pn** | **16 09 37.9** | **+3.5** |
| **BOZ** | **Bozeman (W)** | **12.26** | **77** | *e*Pn | | **Pn** | **16 09 41.2** | **+1.4** |
| **YHB** | **Horse Butte** | **12.58** | **81** | *e*Pn | | **Pn** | **16 09 46.9** | **+2.7** |
| **GSC** | **Goldstone, Bar** | **12.69** | **130** | *e*Pn | | **Pn** | **16 09 47.8** | **+2.3** |
| **YHH** | **Holmes Hill** | **12.83** | **80** | *e*Pn | | **Pn** | **16 09 50.3** | **+2.7** |
| **IMW** | **Indian Meadow** | **12.84** | **85** | *e*Pn | | **Pn** | **16 09 50.9** | **+3.1** |
| **YFT** | **Old Faithful** | **12.86** | **82** | *e*Pn | | **Pn** | **16 09 50.9** | **+2.9** |
| **TPAW** | **Teton Pass** | **12.89** | **86** | *e*Pn | | **Pn** | **16 09 51.2** | **+2.8** |
| **YPP** | **Pitchstone Pla** | **12.90** | **83** | *e*Pn | | **Pn** | **16 09 52.0** | **+3.4** |
| **H17A** | **Grant Village** | **13.05** | **82** | *e*Pn | | **Pn** | **16 09 54.8** | **+4.2** |
| **MSU** | **Marysvale** | **13.64** | **108** | *e*Pn | | **Pn** | **16 09 59.7** | **+1.1** |
| **GCMT** | **Greycliff** | **13.64** | **76** | *e*Pn | | **Pn** | **16 10 02.3** | **+3.7** |
| **PDAR** | **Pinedale Array** | **14.02** | **89** | Pn | | **Pn** | **16 10 06.2** | **+2.3** |
| | 0.1nm,0.3s,baz=268,slow=13,SNR=5.3 | | | | | | | |
| PDAR | | | | LR | | LR | 16 15 38.8 | |
| | comp=Z,177nm,19.0s,baz=287,slow=38 | | | | | | | |
| **PDAR** | **Pinedale Array** | **14.02** | **89** | *e*Pn | | **Pn** | **16 10 05.1** | **+1.2** |
| **Q16A** | **Castle Valley** | **14.14** | **105** | *e*Pn | | **Pn** | **16 10 05.3** | **-0.2** |
| **PFO** | **Pinyon Flats O** | **14.15** | **133** | Pn | | **Pn** | **16 10 06.7** | **+1.2** |
| | 0.1nm,0.3s,baz=312,slow=6.7,SNR=3.8 | | | | | | | |
| PFO | | | | LR | | LR | 16 15 10.4 | |
| | comp=Z,117nm,18.1s,baz=318,slow=36 | | | | | | | |
| **U15A** | **North Rim** | **14.69** | **116** | *e*Pn | | **Pn** | **16 10 15.9** | **+2.8** |
| **PV09** | **Paradox Valley** | **15.75** | **104** | *e*Pn | | **Pn** | **16 10 28.9** | **+1.7** |
| **WUAZ** | **Wupatki** | **15.83** | **117** | *e*Pn | | **P** | **16 10 30.6** | **-1.2** |
| | 12nm,1.0s | | | | | | | |
| **Y14A** | **Wickenburg** | **15.85** | **124** | *e*Pn | | **P** | **16 10 33.4** | **+1.4** |
| | 33nm,1.0s | | | | | | | |
| **LAO** | **LASA Array** | **16.04** | **73** | *e*Pn | | **Pn** | **16 10 28.1** | **-2.5** |
| | 27nm,1.4s | | | | | | | |
| **PV01** | **Paradox Valley** | **16.31** | **104** | *e*Pn | | **Pn** | **16 10 34.3** | **0.0** |
| **X16A** | **Lo Mia Camp, P** | **16.48** | **120** | *e*Pn | | **Pn** | **16 10 37.6** | **+1.1** |
| | 8.6nm,1.1s | | | | | | | |
| **MVCO** | **Mesa Verde** | **16.81** | **107** | *e*Pn | | **Pn** | **16 10 41.8** | **+1.1** |
| | 20nm,1.3s | | | | | | | |
| **W18A** | **Petrified Fore** | **17.14** | **115** | *e*Pn | | **P** | **16 10 46.4** | **0.0** |
| | 19nm,1.1s | | | | | | | |
| **S22A** | **4UR Ranch, Cre** | **17.71** | **103** | *e*Pn | | **P** | **16 10 53.0** | **+0.2** |
| | 8.9nm,1.3s | | | | | | | |
| **TUC** | **Tucson** | **18.32** | **124** | *e*P | | **P** | **16 11 00.7** | **+1.4** |
| | 8.3nm,1.2s | | | | | | | |
| **SDCO** | **Great Sand Dun** | **18.65** | **102** | *e*P | | **Pn** | **16 11 03.9** | **+0.5** |
| | 6.3nm,1.1s | | | | | | | |
| **ANMO** | **Albuquerque** | **19.42** | **110** | P | | **P** | **16 11 11.3** | **-0.2** |
| | 0.1nm,0.3s,baz=214,slow=15,SNR=3.7 | | | | | | | |
| ANMO | | | | LR | | LR | 16 19 18.0 | |
| | comp=Z,41nm,19.2s,baz=126,slow=39 | | | | | | | |
| **BNM** | **Barren Site** | **19.77** | **113** | *e*P | | **P** | **16 11 15.4** | **+0.1** |
| **YKA** | **Yellowknife Ar** | **20.23** | **19** | P | | **P** | **16 11 19.5** | **-0.3** |
| | 1.0nm,0.7s,baz=210,slow=10,SNR=11 | | | | | | | |
| **FFC** | **Flin Flon** | **20.31** | **49** | *e*P | | **P** | **16 11 21.6** | **+0.8** |
| | 46nm,1.5s | | | | | | | |
| **DAWY** | **Dawson** | **20.94** | **347** | *e*P | | **P** | **16 11 28.4** | **+0.8** |
| | 19nm,1.7s | | | | | | | |
| **DHY** | **Denali Highway** | **21.87** | **337** | *e*P | | **P** | **16 11 38.5** | **+0.7** |
| | 31nm,1.4s | | | | | | | |
| **EGAK** | **Eagle** | **21.90** | **346** | *e*P | | **P** | **16 11 38.9** | **+1.0** |
| | 11nm,1.3s | | | | | | | |
| **MNTX** | **Cornudas Mount** | **22.11** | **116** | *e*P | | **P** | **16 11 41.8** | **+1.3** |
| | 6.0nm,1.3s | | | | | | | |
| **ULM** | **Lac du Bonnet** | **23.07** | **63** | P | | **P** | **16 11 49.0** | **-1.4** |
| | 3.9nm,0.9s,baz=273,slow=11,SNR=6.4 | | | | | | | |
| ULM | | | | LR | | LR | 16 20 56.3 | |
| | comp=Z,101nm,20.5s,baz=180,slow=37 | | | | | | | |
| **ECSD** | **EROS Data Cent** | **23.09** | **80** | *e*P | | **P** | **16 11 51.0** | **+0.2** |
| | 40nm,1.9s | | | | | | | |
| **IL1** | **Eielson Array** | **23.11** | **340** | *e*P | | **P** | **16 11 50.8** | **+0.1** |
| **ILAR** | **Eielson Array** | **23.11** | **340** | P | | **P** | **16 11 50.8** | **0.0** |
| | 1.6nm,1.0s,baz=157,slow=8.8,SNR=10 | | | | | | | |
| ILAR | | | | LR | | LR | 16 18 53.4 | |
| | comp=Z,138nm,18.7s,baz=150,slow=32 | | | | | | | |
| **MLY** | **Manley** | **24.32** | **337** | *e*P | | **P** | **16 12 02.8** | **+0.3** |
| | 5.2nm,1.0s | | | | | | | |
| **INK** | **Inuvik** | **24.44** | **356** | P | | **P** | **16 12 00.6** | **-2.8** |
| | 1.3nm,0.9s,baz=143,slow=17,SNR=2.3 | | | | | | | |
| INK | | | | LR | | LR | 16 21 21.0 | |
| | comp=Z,120nm,18.0s,baz=123,slow=36 | | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **24.79** | **118** | *e*P | | **P** | **16 12 07.0** | **0.0** |
| **TXAR** | **Lajitas Array** | **24.79** | **118** | P | | **P** | **16 12 04.7** | **-2.4** |
| | 0.6nm,0.7s,baz=326,slow=8.0,SNR=3.0 | | | | | | | |
| **LPIG** | **La Paz** | **24.99** | **127** | LR | | LR | 16 20 41.0 | |
| | comp=Z,80nm,18.3s,baz=346,slow=34 | | | | | | | |
| **IMAR** | **Indian Mountai** | **25.88** | **337** | *e*P | | **P** | **16 12 17.1** | **+0.6** |
| **H11N3** | **WAKE ISLAND Hy** | **58.22** | **267** | T | | T | 17 19 23.9 | |
| | baz=49,slow=75,SNR=1885 | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **58.23** | **267** | T | | T | 17 19 22.3 | |
| | baz=49,slow=75,SNR=1081 | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **58.24** | **267** | T | | T | 17 19 24.3 | |
| | baz=49,slow=75,SNR=949 | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **59.16** | **266** | T | | T | 17 20 35.9 | |
| | baz=49,slow=75,SNR=89 | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **59.16** | **266** | T | | T | 17 20 37.7 | |
| | baz=49,slow=75,SNR=130 | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **59.17** | **266** | T | | T | 17 20 37.7 | |
| | baz=49,slow=75,SNR=100 | | | | | | | |
| **SONM** | **Songino Array** | **76.44** | **325** | P | | **P** | **16 18 34.1** | **-0.5** |
| | 0.9nm,0.9s,baz=25,slow=4.9,SNR=3.9 | | | | | | | |
| SONM | | | | LR | | LR | 16 51 21.0 | |
| | comp=Z,34nm,18.4s,baz=321,slow=35 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **78.23** | **340** | LR | | LR | 16 55 20.4 | |
| | comp=Z,18nm,18.3s,baz=70,slow=37 | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **79.59** | **318** | *e*P | | **P** | **16 18 52.6** | **+0.4** |
| HHC | | | | S | | **S** | **16 28 52.3** | **-1.5** |
| **HHC** | **Hu-ho-hao-te** | **79.59** | **318** | ScS | | **ScS** | **16 29 12.3** | **-3.4** |
| **HHC** | **Hu-ho-hao-te** | **79.59** | **318** | SS | | SS | 16 34 02.8 | +2.1 |
| HHC | | | | pmax | | pmax | | |
| | comp=Z,13nm,1.0s | | | | | | | |
| HHC | | | | pmax | | pmax | | |
| | comp=Z,55nm,5.1s | | | | | | | |
| HHC | | | | LR | | LR | | |
| | comp=N,69nm,16.1s | | | | | | | |
| HHC | | | | LR | | LR | | |
| | comp=E,120nm,16.5s | | | | | | | |
| HHC | | | | LR | | LR | | |
| | comp=Z,78nm,17.1s | | | | | | | |
| **HNR** | **Honiara** | **83.38** | **250** | LR | | LR | 16 47 47.6 | |
| | comp=Z,43nm,21.9s,baz=120,slow=30 | | | | | | | |
| **MKAR** | **Makanchi Array** | **85.46** | **339** | LR | | LR | 16 59 35.8 | |
| | comp=Z,37nm,18.5s,baz=35,slow=37 | | | | | | | |
| **WMQ** | **Urumqi** | **86.65** | **334** | *e*P | | **P** | **16 19 30.5** | **+1.9** |
| WMQ | | | | pmax | | pmax | | |
| | comp=Z,16nm,0.7s | | | | | | | |

**MEX 20 16:11:21.3±0.5, 16°31'N×98°22'W, h15km±2km, MD3.5, Near coast of Guerrero**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PNIG** | **Pinotepa** | **0.12** | **46** | *i* P | Pg | 16 11 23.9 | -1.0 |
| PNIG | | | | *e*S | Sg | 16 11 26.8 | -0.4 |
| **TLIG** | **Tlapa** | **1.29** | **345** | *e*P | Pn | 16 11 41.6 | -3.3 |
| TLIG | | | | *i* S | Sb | 16 11 56.8 | -5.0 |
| **VHO** | **Vista Hermosa** | **1.61** | **62** | *e*P | Pn | 16 11 46.1 | -3.3 |
| VHO | | | | *i* S | Sn | 16 12 05.2 | -4.8 |
| **CAIG** | **El Cayaco** | **2.10** | **291** | *e*P | Pn | 16 11 52.6 | -3.3 |
| CAIG | | | | *i* S | Sn | 16 12 16.9 | -4.9 |

**MEX 20 16:38:51.8±0.6, 16°99'N×100°36'W, h28km±4km, MD3.6, Near coast of Guerrero**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CAIG** | **El Cayaco** | **0.10** | **58** | *i* P | Pb | 16 38 55.4 | -1.5 |
| CAIG | | | | *e*S | Sb | 16 38 59.0 | -1.3 |
| **ACP2** | **Acapulco** | **0.47** | **105** | *e*P | Pb | 16 38 59.4 | -2.3 |
| ACP2 | | | | *i* S | Sb | 16 39 06.5 | -1.7 |
| **MEIG** | **Mezcala** | **1.16** | **37** | *e*P | Pn | 16 39 10.3 | -2.1 |
| MEIG | | | | *i* S | Sn | 16 39 23.6 | -3.7 |
| **ARIG** | **Puente Sto Nin** | **1.28** | **0** | *e*P | Pn | 16 39 11.6 | -2.2 |
| ARIG | | | | *e*S | Sn | 16 39 26.6 | -3.5 |
| **PLIG** | **Platanillo** | **1.61** | **30** | *e*P | Pn | 16 39 16.5 | -2.0 |
| PLIG | | | | *i* S | Sn | 16 39 35.2 | -3.2 |
| **TLIG** | **Tlapa** | **1.80** | **71** | *e*P | Pn | 16 39 20.1 | -1.1 |
| TLIG | | | | *e*S | Sn | 16 39 40.0 | -3.2 |

**IDC 20 16:40:09.6±7.4, 8°28'S×130°08'E, h75km±82km, mb3.1/1, mb1 3.2/4, mb1mx3.0/27, mbtmp3.3/4, ML3.2/3, MS3.7/1, Ms1 3.7/1, ms1mx2.5/9, Error ellipse: s-maj=51.8km s-min=43.3km az=30.0, Tanimbar Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **10.68** | **203** | P | Pn | 16 42 41.6 | +1.8 |
| | 0.1nm,0.3s,baz=27,slow=14,SNR=10.0 | | | | | | |
| FITZ | | | | S | Sn | 16 44 35.7 | -1.9 |
| | 0.2nm,0.3s,baz=100,slow=18,SNR=3.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **12.30** | **161** | P | Pn | 16 43 00.9 | -1.0 |
| | 0.2nm,0.3s,baz=339,slow=14,SNR=12 | | | | | | |
| WRA | | | | S | Sn | 16 45 17.1 | -0.3 |
| | 0.3nm,0.3s,baz=343,slow=21,SNR=6.3 | | | | | | |
| **ASAR** | **Alice Springs** | **15.73** | **167** | P | Pn | 16 43 48.1 | +1.3 |
| | 0.1nm,0.3s,baz=340,slow=8.1,SNR=8.7 | | | | | | |
| ASAR | | | | S | Sn | 16 46 43.0 | +2.4 |
| | 0.1nm,0.3s,baz=324,slow=17,SNR=3.8 | | | | | | |
| **CTA** | **Charters Tower** | **19.56** | **129** | LR | LR | 16 51 32.5 | |
| | comp=Z,194nm,18.8s,baz=76,slow=35 | | | | | | |
| **MKAR** | **Makanchi Array** | **69.34** | **327** | P | P | 16 51 09.1 | -0.1 |
| | 0.2nm,0.5s,baz=111,slow=8.5,SNR=2.9 | | | | | | |

**MAN 20 16:41:17, 11°39'N×122°04'E, h1km, mb3.8, ML2.5, MS2.1, 2C, Panay**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JAP** | **San Jose, Anti** | **0.64** | **188** | *e*P | Pb | 16 41 30.7 | -0.3 |
| JAP | | | | *e*S | Sn | 16 41 59.3 | +15 |
| **RCP** | **Roxas** | **0.71** | **76** | *e*P | Pb | 16 41 32.0 | -0.2 |
| RCP | | | | *e*S | Sn | 16 41 46.6 | +0.7 |
| **BUSP** | **Coron** | **1.90** | **289** | *e*P | Pb | 16 41 51.6 | -0.9 |

*ISCJB **20** 16:54:12.9±0.5, 45°.75N±0°.02×10°.80E±0°.02, h14km±4km, Error ellipse: s-maj=3.4km s-min=2.5km az=18.0*
*CSEM **20** 16:54:13.9±0.1, 45°.75N×10°.79E, h2km, ML2.8/21, Error ellipse: s-maj=2.2km s-min=1.8km az=13.0*
*ROM **20** 16:54:13.6±0.1, 45°.75N×10°.79E, h6km±1km, Md2.4/18, Ml2.1/15, Error ellipse: s-maj=1.4km s-min=0.9km az=24.0*
*PRU **20** 16:54:19.0, 45°.92N×10°.98E, h0km*

**ISC 20 16:54:13.9±0.8, 45°.75N±0°.02×10°.80E±0°.01, h5km±6km, n78, σ0°61/135, 1C-3D, Northern Italy**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BALD** | **Monte Baldo** | **0.07** | **166** | *i* Pg | **Pg** | **16 54 15.4** | **-0.2** |
| BALD | | | | *i* Sg | **Sg** | **16 54 16.5** | **-0.3** |
| **BALD** | **Monte Baldo** | **0.07** | **166** | *i* Pg | **Pg** | **16 54 15.4** | **-0.2** |
| BALD | | | | *i* Sg | **Sg** | **16 54 16.5** | **-0.3** |
| **MAGA** | **Magasa** | **0.12** | **284** | Pg | **Pg** | **16 54 16.5** | **0.0** |
| MAGA | | | | Sg | **Sg** | **16 54 18.6** | **+0.4** |
| | 2µm,0.4s | | | | | | |
| **MAGA** | **Magasa** | **0.12** | **284** | Pg | **Pg** | **16 54 16.5** | **0.0** |
| MAGA | | | | Sg | **Sg** | **16 54 18.6** | **+0.4** |
| | 2µm,0.4s | | | | | | |
| **ROVR** | **Rover¨¤ Verone** | **0.22** | **117** | Pg | **Pg** | **16 54 18.5** | **+0.3** |
| ROVR | | | | Sg | **Sg** | **16 54 21.6** | **+0.5** |
| | 424nm,0.3s | | | | | | |
| **ROVR** | **Rover¨¤ Verone** | **0.22** | **117** | Pg | **Pg** | **16 54 18.5** | **+0.3** |
| ROVR | | | | Sg | **Sg** | **16 54 21.6** | **+0.5** |
| | 424nm,0.3s | | | | | | |
| **SALO** | **Salr** | **0.23** | **236** | Pg | **Pg** | **16 54 18.6** | **+0.2** |
| SALO | | | | Sg | **Sg** | **16 54 22.9** | **+1.5** |
| | 302nm,0.6s | | | | | | |
| **SALO** | **Salr** | **0.23** | **236** | Pg | **Pg** | **16 54 18.6** | **+0.2** |
| SALO | | | | Sg | **Sg** | **16 54 22.9** | **+1.5** |
| | 302nm,0.6s | | | | | | |
| **RNI** | **Roncone** | **0.26** | **333** | *e*Pg | **Pg** | **16 54 19.2** | **+0.1** |
| RNI | | | | *e*Sg | **Sg** | **16 54 23.9** | **+1.3** |
| **RNI** | **Roncone** | **0.26** | **333** | *e*Pg | **Pg** | **16 54 19.2** | **+0.1** |
| RNI | | | | *e*Sg | **Sg** | **16 54 23.9** | **+1.3** |
| **MARN** | **Marana (Italy)** | **0.31** | **110** | *e*Pg | **Pg** | **16 54 20.1** | **+0.1** |
| MARN | | | | *e*Sg | **Sg** | **16 54 24.1** | **0.0** |
| **MARN** | **Marana (Italy)** | **0.31** | **110** | *e*Pg | **Pg** | **16 54 20.1** | **+0.1** |
| MARN | | | | *e*Sg | **Sg** | **16 54 24.1** | **0.0** |
| **MABI** | **Malga Bissina** | **0.37** | **328** | Pg | **Pg** | **16 54 21.3** | **+0.2** |
| MABI | | | | Sg | **Sb** | **16 54 27.9** | **-1.3** |
| | 43nm,0.2s | | | | | | |
| **MABI** | **Malga Bissina** | **0.37** | **328** | Pg | **Pg** | **16 54 21.3** | **+0.2** |
| MABI | | | | Sg | **Sb** | **16 54 27.9** | **-1.3** |
| | 43nm,0.2s | | | | | | |
| **PANI** | **Panarotta** | **0.48** | **51** | *e*Pg | **Pg** | **16 54 23.6** | **+0.4** |
| **CARE** | **Lago del Cares** | **0.68** | **354** | *e*Pg | **Pg** | **16 54 27.4** | **+0.3** |
| **CARE** | **Lago del Cares** | **0.68** | **354** | *e*Pg | **Pg** | **16 54 27.4** | **+0.3** |
| **CGRP** | **Cima Grappa** | **0.72** | **79** | Pg | **Pg** | **16 54 27.8** | **+0.1** |
| CGRP | | | | Sg | **Sb** | **16 54 38.5** | **-0.7** |
| | 51nm,0.3s | | | | | | |
| **CGRP** | **Cima Grappa** | **0.72** | **79** | *e*Pg | **Pg** | **16 54 27.8** | **+0.1** |
| **CGRP** | **Cima Grappa** | **0.72** | **79** | Pg | **Pg** | **16 54 27.8** | **+0.1** |
| CGRP | | | | Sg | **Sb** | **16 54 38.5** | **-0.7** |
| | 51nm,0.3s | | | | | | |
| **TEOL** | **Teolo** | **0.73** | **122** | Pg | **Pg** | **16 54 28.0** | **+0.2** |
| TEOL | | | | Sg | **Sb** | **16 54 38.4** | **-0.9** |
| | 105nm,0.5s | | | | | | |
| **TEOL** | **Teolo** | **0.73** | **122** | *e*Pg | **Pg** | **16 54 27.9** | **0.0** |
| **TEOL** | **Teolo** | **0.73** | **122** | Pg | **Pg** | **16 54 28.0** | **+0.2** |
| TEOL | | | | Sg | **Sb** | **16 54 38.4** | **-0.9** |
| | 105nm,0.5s | | | | | | |
| **BRMO** | **Bormio** | **0.79** | **338** | Pg | **Pg** | **16 54 29.4** | **+0.3** |
| BRMO | | | | Sg | **Sg** | **16 54 39.6** | **+0.3** |
| **BRMO** | **Bormio** | **0.79** | **338** | Pg | **Pg** | **16 54 29.4** | **+0.3** |
| BRMO | | | | Sg | **Sg** | **16 54 39.6** | **+0.3** |
| **APPI** | **Appiano** | **0.79** | **22** | Pg | **Pg** | **16 54 29.6** | **+0.5** |
| APPI | | | | Sg | **Sg** | **16 54 40.3** | **+0.9** |
| | 51nm,0.2s | | | | | | |
| **APPI** | **Appiano** | **0.79** | **22** | Pg | **Pg** | **16 54 29.6** | **+0.5** |
| APPI | | | | Sg | **Sg** | **16 54 40.3** | **+0.9** |
| | 51nm,0.2s | | | | | | |
| **KOSI** | **Kohlern** | **0.82** | **29** | Pg | **Pg** | **16 54 30.0** | **+0.2** |
| KOSI | | | | Sg | **Sg** | **16 54 41.0** | **+0.5** |
| | 22nm,0.3s | | | | | | |
| **KOSI** | **Kohlern** | **0.82** | **29** | Pg | **Pg** | **16 54 30.0** | **+0.2** |
| KOSI | | | | Sg | **Sg** | **16 54 41.0** | **+0.5** |
| | 22nm,0.3s | | | | | | |
| **MOSI** | **Grossmontoni** | **0.89** | **349** | Pg | **Pg** | **16 54 30.1** | **-0.9** |
| MOSI | | | | Sg | **Sg** | **16 54 42.8** | **+0.3** |
| | 79nm,0.5s | | | | | | |
| **MOSI** | **Grossmontoni** | **0.89** | **349** | Pg | **Pg** | **16 54 30.1** | **-0.9** |
| MOSI | | | | Sg | **Sg** | **16 54 42.8** | **+0.3** |
| | 79nm,0.5s | | | | | | |
| **MTLO** | **Montello** | **0.91** | **85** | *e*Pg | **Pg** | **16 54 31.8** | **+0.4** |
| **MTLO** | **Montello** | **0.91** | **85** | *e*Pg | **Pg** | **16 54 31.8** | **+0.4** |
| **VARN** | **Col Varnada, M** | **0.95** | **74** | *e*Pg | **Pg** | **16 54 31.7** | **-0.4** |
| **VARN** | **Col Varnada, M** | **0.95** | **74** | *e*Pg | **Pg** | **16 54 31.7** | **-0.4** |
| **FUORN** | **Ofenpass-Fuorn** | **0.95** | **337** | Pg | **Pg** | **16 54 32.0** | **-0.2** |
| FUORN | | | | Sg | **Sg** | **16 54 44.7** | **+0.2** |
| **FUORN** | **Ofenpass-Fuorn** | **0.95** | **337** | Pg | **Pg** | **16 54 32.0** | **-0.2** |
| FUORN | | | | Sg | **Sg** | **16 54 44.7** | **+0.2** |
| **AGOR** | **Agordo** | **1.02** | **58** | Pg | **Pg** | **16 54 33.7** | **+0.1** |
| AGOR | | | | Sg | **Sg** | **16 54 46.6** | **-0.3** |
| | 36nm,0.4s | | | | | | |
| **AGOR** | **Agordo** | **1.02** | **58** | *e*Pg | **Pg** | **16 54 33.7** | **+0.1** |
| **ABSI** | **Aberstueckl** | **1.05** | **20** | Pg | **Pg** | **16 54 34.3** | **+0.3** |
| ABSI | | | | Sg | **Sb** | **16 54 48.3** | **-0.5** |
| | 55nm,0.4s | | | | | | |
| **ABSI** | **Aberstueckl** | **1.05** | **20** | Pg | **Pg** | **16 54 34.3** | **+0.3** |
| ABSI | | | | Sg | **Sb** | **16 54 48.3** | **-0.5** |
| | 55nm,0.4s | | | | | | |
| **CAE** | **Caneva** | **1.18** | **77** | *e*Pg | **Pn** | **16 54 37.7** | **+0.6** |
| **CAE** | **Caneva** | **1.18** | **77** | *e*Pg | **Pn** | **16 54 37.7** | **+0.6** |
| **MUGIO** | **Muggio** | **1.24** | **279** | Pg | **Pg** | **16 54 37.4** | **-0.3** |
| MUGIO | | | | Sg | **Sg** | **16 54 53.6** | **-0.1** |
| **MUGIO** | **Muggio** | **1.24** | **279** | Pg | **Pg** | **16 54 37.4** | **-0.3** |
| MUGIO | | | | Sg | **Sg** | **16 54 53.6** | **-0.1** |
| **TUE** | **Stuetta** | **1.24** | **306** | Pg | **Pg** | **16 54 36.5** | **-1.2** |
| TUE | | | | Sg | **Sg** | **16 54 53.7** | **-0.2** |
| | 19nm,0.3s | | | | | | |
| **TUE** | **Stuetta** | **1.24** | **306** | Pg | **Pg** | **16 54 36.5** | **-1.2** |
| TUE | | | | Sg | **Sg** | **16 54 53.7** | **-0.2** |
| | 19nm,0.3s | | | | | | |
| **ROSI** | **Rosskopf** | **1.26** | **20** | Pg | **Pg** | **16 54 37.3** | **-0.7** |
| ROSI | | | | Sg | **Sb** | **16 54 54.8** | **0.0** |
| | 55nm,0.5s | | | | | | |
| **ROSI** | **Rosskopf** | **1.26** | **20** | Pg | **Pg** | **16 54 37.3** | **-0.7** |
| ROSI | | | | Sg | **Sb** | **16 54 54.8** | **0.0** |
| | 55nm,0.5s | | | | | | |
| **FETA** | **Feichten** | **1.28** | **358** | *e*Pg | **Pn** | **16 54 39.1** | **+0.5** |
| | 0.2nm,0.1s | | | | | | |
| FETA | | | | *e*Sg | **Sb** | **16 54 55.2** | **-0.1** |
| | 2.1nm,0.2s | | | | | | |
| **FETA** | **Feichten** | **1.28** | **358** | Pg | **Pn** | **16 54 39.1** | **+0.5** |
| | 0.2nm,0.1s | | | | | | |
| FETA | | | | Sg | **Sb** | **16 54 55.2** | **-0.1** |
| | 2.1nm,0.2s | | | | | | |
| **CIMO** | **Cimolais** | **1.28** | **63** | *e*Pg | **Pb** | **16 54 38.9** | **+0.4** |
| **CIMO** | **Cimolais** | **1.28** | **63** | *e*Pg | **Pb** | **16 54 38.9** | **+0.4** |
| **VARE** | **Varese** | **1.42** | **276** | Pg | **Pn** | **16 54 40.7** | **+0.2** |
| VARE | | | | Sg | **Sb** | **16 54 59.2** | **-0.2** |
| **VARE** | **Varese** | **1.42** | **276** | Pg | **Pn** | **16 54 40.7** | **+0.2** |
| VARE | | | | Sg | **Sb** | **16 54 59.2** | **-0.2** |
| **STAL** | **STALIGIAL** | **1.43** | **68** | Pg | **Pn** | **16 54 40.6** | **0.0** |
| STAL | | | | Sg | **Sb** | **16 54 59.4** | **-0.2** |
| | 44nm,0.4s | | | | | | |
| **STAL** | **STALIGIAL** | **1.43** | **68** | Pg | **Pn** | **16 54 40.6** | **0.0** |
| STAL | | | | Sg | **Sb** | **16 54 59.4** | **-0.2** |
| | 44nm,0.4s | | | | | | |
| **RISI** | **Rein** | **1.50** | **36** | Pg | **Pb** | **16 54 42.0** | **-0.3** |
| RISI | | | | Sg | **Sn** | **16 55 01.6** | **0.0** |
| | 51nm,0.3s | | | | | | |
| **RISI** | **Rein** | **1.50** | **36** | Pg | **Pb** | **16 54 42.0** | **-0.3** |
| RISI | | | | Sg | **Sn** | **16 55 01.6** | **0.0** |
| | 51nm,0.3s | | | | | | |
| **ABTA** | **Abfaltersbach** | **1.56** | **49** | *e*Pg | **Pg** | **16 54 43.9** | **+0.1** |
| | 3.2nm,0.1s,SNR=6.2 | | | | | | |
| ABTA | | | | *e*Sg | **Sg** | **16 55 04.5** | **+0.6** |
| | 4.1nm,0.2s | | | | | | |
| **ABTA** | **Abfaltersbach** | **1.56** | **49** | Pg | **Pg** | **16 54 43.9** | **+0.1** |
| | 3.2nm,0.1s,SNR=6.2 | | | | | | |
| ABTA | | | | Sg | **Sg** | **16 55 04.5** | **+0.6** |
| | 4.1nm,0.2s | | | | | | |
| **MOTA** | **Moosalm** | **1.61** | **7** | *e*Pg | **Pg** | **16 54 45.3** | **+0.5** |
| | 1.5nm,0.3s | | | | | | |
| MOTA | | | | *e*Sg | **Sg** | **16 55 06.7** | **+0.9** |
| | 1.2nm,0.2s | | | | | | |
| **MOTA** | **Moosalm** | **1.61** | **7** | Pg | **Pg** | **16 54 45.3** | **+0.5** |
| | 1.5nm,0.3s | | | | | | |
| MOTA | | | | Sg | **Sg** | **16 55 06.7** | **+0.9** |
| | 1.2nm,0.2s | | | | | | |
| **CLUD** | **Cludinico** | **1.62** | **63** | *e*Pg | **Pb** | **16 54 44.4** | **+0.1** |
| **CLUD** | **Cludinico** | **1.62** | **63** | *e*Pg | **Pb** | **16 54 44.4** | **+0.1** |
| **FVI** | **Forni Avoltri** | **1.62** | **58** | Pg | **Pn** | **16 54 43.5** | **+0.3** |
| **FVI** | **Forni Avoltri** | **1.62** | **58** | Pg | **Pn** | **16 54 43.5** | **+0.3** |
| **WTTA** | **Wattenberg** | **1.63** | **21** | *e*Pg | **Pb** | **16 54 44.7** | **+0.2** |
| | 0.1nm,0.0s | | | | | | |
| WTTA | | | | Sg | **Sg** | **16 55 06.1** | **-0.1** |
| | 5.1nm,0.2s,SNR=5.0 | | | | | | |
| **WTTA** | **Wattenberg** | **1.63** | **21** | Pg | **Pb** | **16 54 44.7** | **+0.2** |
| | 0.1nm,0.0s | | | | | | |
| WTT

| | | | | | | |
|---|---|---|---|---|---|---|
| **U42A** | **Revenden** | **1.29** | **41** | P | **Pn** | **16 55 54.7 -0.8** |
| | baz=221,SNR=24 | | | | | |
| U42A | | | | S | **Sg** | **16 56 11.7 -0.8** |
| | baz=221 | | | | | |
| **W43A** | **Forest City** | **1.32** | **102** | S | **Sb** | **16 56 13.4 +0.1** |
| | baz=283 | | | | | |
| **MIAR** | **Mount Ida** | **1.35** | **232** | Pb | **Pn** | **16 55 56.0 -0.4** |
| | baz=52,SNR=23 | | | | | |
| MIAR | | | | S | **Sg** | **16 56 14.4 -0.1** |
| | baz=52 | | | | | |
| **MIAR** | **Mount Ida** | **1.35** | **232** | *e*Pn | **Pn** | **16 55 55.9 -0.4** |
| MIAR | | | | *e*Sg | **Sb** | **16 56 13.7 -0.5** |
| **U39A** | **Green Forest** | **1.40** | **316** | Pb | **Pn** | **16 55 56.8 -0.2** |
| | baz=136 | | | | | |
| U39A | | | | S | **Sb** | **16 56 15.5 -0.1** |
| | baz=136 | | | | | |
| **X43A** | **Marvell** | **1.44** | **126** | Pb | **Pn** | **16 55 57.3 -0.2** |
| | baz=307 | | | | | |
| X43A | | | | Sb | **Sg** | **16 56 17.2 0.0** |
| | baz=307 | | | | | |
| **Y41A** | **Eaglette Beard** | **1.52** | **190** | Pb | **Pn** | **16 55 58.9 +0.2** |
| | baz=10 | | | | | |
| Y41A | | | | Sb | **Sg** | **16 56 20.0 +0.1** |
| | baz=10 | | | | | |
| **Y42A** | **Garnett, Star** | **1.59** | **165** | Sb | **Sg** | **16 56 22.2 0.0** |
| | baz=345 | | | | | |
| **Y40A** | **Okolona** | **1.59** | **211** | S | **Sn** | **16 56 20.8 +0.3** |
| | baz=31 | | | | | |
| **HHAR** | **Hobbs** | **1.62** | **304** | *e*Pn | **Pn** | **16 56 01.1 +1.0** |
| HHAR | | | | *e*Sn | **Sb** | **16 56 22.4 +0.3** |
| **T41A** | **Mountain View** | **1.71** | **14** | Sb | **Sb** | **16 56 25.0 +0.3** |
| | baz=194 | | | | | |
| **X39A** | **Fountain Ranch** | **1.74** | **241** | Sb | **Sb** | **16 56 25.8 +0.5** |
| | baz=60 | | | | | |
| **T40A** | **Mansfield** | **1.78** | **354** | Sb | **Sb** | **16 56 27.3 +0.8** |
| | baz=174 | | | | | |
| **PBMO** | **Poplar Bluff** | **2.05** | **46** | *e*Pn | **Pn** | **16 56 07.1 +1.1** |
| PBMO | | | | *e*Sn | **Sb** | **16 56 34.1 -0.2** |
| **EBZ** | **Ebenezer Churc** | **2.41** | **95** | *e*Sn | **Sn** | **16 56 40.5 -0.3** |
| **OXF** | **Oxford** | **2.51** | **109** | Pn | **Pn** | **16 56 13.2 +0.9** |

*NIED **20** 16:56:00,38.60N×141.80E,h62km,Mw3.5 Best double couple: M0 1.92000×10^14 NP1:φs 101.00000°,δ53.00000°, λ-38.00000°. NP2:φs 216.00000°,δ60.00000°, λ-137.00000°.*

**JMA 20 16:56:44.7,38.63N×141.82E,h45km±1km,M3.7,Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JIO** | **Ouri** | **0.41** | **245** | P | Pn | 16 56 54.5 | 0.0 |
| JIO | | | | S | Sn | 16 57 01.1 | -0.4 |
| **OFUJ** | **Ofunato** | **0.47** | **345** | P | Pn | 16 56 55.3 | +0.1 |
| OFUJ | | | | S | Sn | 16 57 02.5 | -0.2 |
| **JMK** | **Ichinoseki** | **0.57** | **305** | P | Pn | 16 56 56.6 | +0.1 |
| JMK | | | | S | Sn | 16 57 04.9 | -0.1 |
| **JOM** | **Ohasama** | **0.94** | **334** | P | Pn | 16 57 01.6 | +0.1 |
| **JOU** | **Okura** | **0.94** | **254** | P | Pn | 16 57 01.6 | 0.0 |
| JOU | | | | *e*S | Sn | 16 57 14.5 | +0.5 |
| **JMM** | **Marumori** | **1.11** | **227** | P | Pn | 16 57 03.4 | -0.4 |
| JMM | | | | S | Sn | 16 57 17.0 | -1.0 |
| **JYK** | **Kaneyama** | **1.18** | **285** | P | Pn | 16 57 05.0 | +0.3 |
| JYK | | | | *e*S | Sn | 16 57 19.9 | +0.3 |
| **JRG** | **Rokugo** | **1.20** | **310** | P | Pn | 16 57 05.4 | +0.4 |
| JRG | | | | *e*S | Sn | 16 57 21.0 | +0.8 |
| **JYS** | **Shirataka** | **1.44** | **254** | P | Pn | 16 57 08.6 | +0.3 |
| JYS | | | | *e*S | Sn | 16 57 26.5 | +0.5 |
| **JFK** | **Kawauchi** | **1.47** | **211** | P | Pn | 16 57 08.5 | -0.2 |
| JFK | | | | S | Sn | 16 57 25.6 | -1.1 |

**KRSC 20 17:36:31.0±0.6,55.12N×161.64E,h74km±1.8km,ML3.9, Near east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KZV** | **Kizimen** | **0.77** | **270** | *e*P | Pn | 17 36 48.1 | +0.9 |
| KZV | | | | *e*S | Sn | 17 37 00.0 | +0.9 |
| **TUMR** | **Tumrok** | **0.87** | **282** | *i*P | Pn | 17 36 49.8 | +1.5 |
| TUMR | | | | *i*S | Sn | 17 37 02.7 | +1.6 |
| **ZLN** | **Zelenaya** | **1.02** | **333** | *i*P | Pn | 17 36 51.5 | +1.4 |
| ZLN | | | | *i*S | Sn | 17 37 07.0 | +2.7 |
| **KMNR** | **Kamenistaya** | **1.02** | **309** | *e*P | Pn | 17 36 51.3 | +1.2 |
| KMNR | | | | *e*S | Sn | 17 37 06.2 | +1.9 |
| **BZMR** | **Bezymyannaya** | **1.05** | **322** | *e*P | Pn | 17 36 51.3 | +0.8 |
| **BZWR** | **Bezymyannyi-We** | **1.07** | **323** | *e*P | Pn | 17 36 51.9 | +1.2 |
| **KIRR** | **Kirishev** | **1.12** | **319** | *e*P | Pn | 17 36 52.4 | +1.1 |
| KIRR | | | | *e*S | Sn | 17 37 08.4 | +1.9 |
| **CIRR** | **Tsirk** | **1.12** | **334** | *e*P | Pn | 17 36 52.7 | +1.3 |
| **KPT** | **Kopyto** | **1.17** | **317** | *e*P | Pn | 17 36 53.3 | +1.4 |
| KPT | | | | *e*S | Sn | 17 37 08.2 | +0.6 |
| **KBTR** | **Krutoberegovo** | **1.28** | **31** | *e*P | Pn | 17 36 55.5 | +2.2 |
| KBTR | | | | *e*S | Sn | 17 37 13.2 | +3.2 |
| **KBG** | **Krutoberegovo** | **1.29** | **27** | *e*P | Pn | 17 36 55.5 | +2.1 |
| KBG | | | | *e*S | Sn | 17 37 12.9 | +2.7 |
| **KLY** | **Klyuchi** | **1.32** | **336** | *e*P | Pn | 17 36 54.7 | +0.9 |
| KLY | | | | *e*S | Sn | 17 37 11.5 | +0.6 |
| **KOZ** | **Kozyrevsk** | **1.38** | **314** | *e*P | Pn | 17 36 55.8 | +1.3 |
| KOZ | | | | *e*S | Sn | 17 37 14.3 | +2.1 |
| **SMKR** | **Semkarok** | **1.47** | **356** | *e*P | Pn | 17 36 57.7 | +1.9 |
| **BDR** | **Baidarnaya** | **1.48** | **351** | *e*P | Pn | 17 36 57.6 | +1.7 |
| BDR | | | | *e*S | Sn | 17 37 16.6 | +2.0 |
| **SRKR** | **Sorokina** | **1.56** | **350** | *e*P | Pn | 17 36 58.7 | +1.7 |
| SRKR | | | | *e*S | Sn | 17 37 18.8 | +2.2 |
| **KII** | **Karymskiy** | **1.67** | **231** | *e*P | Pn | 17 37 00.4 | +2.0 |
| KII | | | | *e*S | Sn | 17 37 21.8 | +2.6 |
| **ESO** | **Esso** | **1.86** | **297** | *e*P | Pn | 17 37 01.4 | +0.6 |
| ESO | | | | *e*S | Sn | 17 37 23.0 | -0.5 |
| **SPN** | **Mys Shipunski** | **2.23** | **206** | *e*P | Pn | 17 37 07.2 | +1.3 |
| SPN | | | | *e*S | Sn | 17 37 33.5 | +1.0 |
| **NLC** | **Nalytchevo** | **2.37** | **216** | *e*P | Pn | 17 37 09.7 | +2.0 |
| NLC | | | | *e*S | Sn | 17 37 37.9 | +2.2 |
| **SDLR** | **Sedlovina** | **2.45** | **222** | *e*P | Pn | 17 37 11.1 | +2.2 |
| SDLR | | | | *e*S | Sn | 17 37 40.4 | +2.5 |
| **KRER** | **Koryakskii** | **2.48** | **224** | *e*P | Pn | 17 37 12.0 | +2.6 |
| **KRX** | **Arik** | **2.48** | **226** | *e*P | Pn | 17 37 11.9 | +2.5 |
| **BKI** | **Bering** | **2.49** | **86** | *e*P | Pn | 17 37 11.1 | +1.8 |
| BKI | | | | *e*S | Sn | 17 37 39.2 | +0.6 |
| **AVH** | **Avacha** | **2.52** | **224** | *e*P | Pn | 17 37 12.4 | +2.6 |
| AVH | | | | *e*S | Sn | 17 37 42.0 | +2.5 |
| **UGLR** | **Uglovaya** | **2.53** | **222** | *e*P | Pn | 17 37 12.5 | +2.6 |
| UGLR | | | | *e*S | Sn | 17 37 42.7 | +3.0 |
| **KOK** | **Koryaka** | **2.54** | **225** | *e*P | Pn | 17 37 12.9 | +2.8 |
| **GNL** | **Ganaly** | **2.59** | **238** | *e*P | Pn | 17 37 12.9 | +2.2 |
| **DALK** | **Dalny** | **2.69** | **220** | *e*P | Pn | 17 37 14.0 | +2.0 |
| DALK | | | | *e*S | Sn | 17 37 45.5 | +2.0 |
| **PET** | **Petropavlovsk** | **2.73** | **221** | *e*P | Pn | 17 37 14.9 | +2.3 |
| PET | | | | *e*S | Sn | 17 37 47.1 | +2.5 |
| **KRMR** | **Karymshinskiy** | **3.09** | **224** | *e*P | Pn | 17 37 19.8 | +2.4 |
| KRMR | | | | *e*S | Sn | 17 37 55.9 | +2.8 |
| **RUS** | **Russkaya** | **3.26** | **216** | *e*P | Pn | 17 37 21.9 | +2.1 |
| RUS | | | | *e*S | Sn | 17 37 59.9 | +2.4 |
| **MTVR** | **Mutnovka** | **3.34** | **219** | *e*P | Pn | 17 37 24.4 | +3.4 |
| MTVR | | | | *e*S | Sn | 17 38 02.2 | +2.7 |
| **APC** | **Apacha** | **3.43** | **232** | *e*P | Pn | 17 37 26.8 | +4.7 |
| **ASAK** | **Asacha** | **3.52** | **221** | *e*P | Pn | 17 37 27.6 | +4.2 |
| **KDTR** | **Khodutka, Kamc** | **3.94** | **214** | *e*P | Pn | 17 37 31.3 | +2.4 |
| KDTR | | | | *e*S | Sn | 17 38 16.8 | +3.0 |

**DJA 20 17:54:25.4±0.9,1.8S×112.7E×,h16km±15km,M3.4/5, mB4.5/1,mb3.9/1,MLv3.1/5,Mw(mB)3.7/1,Southern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LBMI** | **Labuha** | **0.67** | **57** | Pg | Pg | 17 54 38.6 | 0.0 |
| LBMI | | | | Sg | Sb | 17 54 47.9 | 0.0 |
| **SANI** | **Sanana** | **1.40** | **223** | P | Pn | 17 54 48.7 | -1.7 |
| SANI | | | | S | Sb | 17 55 09.5 | +0.5 |
| **NLAI** | **Namlea** | **2.22** | **176** | P | Pn | 17 55 02.1 | +0.5 |
| NLAI | | | | S | Sn | 17 55 28.1 | -0.6 |
| **AAI** | **Ambon** | **2.94** | **155** | P | Pn | 17 55 13.4 | +1.9 |
| **APSI** | **Ampana** | **5.29** | **271** | P | Pn | 17 55 43.8 | -0.1 |

*CSEM **20** 18:08:51.7±0.2,67.05N×21.07E,h2km,ML1.9,Error ellipse: s-maj=5.9km s-min=4.3km az=105.0,Mining explosion.*
*HEL **20** 18:08:51.6±0.1,67.06N×20.95E,h0km,ML1.9,Explosion*
*UPP **20** 18:08:51.1±0.1,67.06N×20.99E,h0km,ML2.0*
*NAO **20** 18:08:51.6±0.9,67.06N×21.11E,ML2.5*
*IDC **20** 18:08:51.0±1.1,67.07N×20.77E,h0km,mb1 3.0/3, mb1mx2.9/35,mbtmp2.9/3,ML2.1/3,Error ellipse: s-maj=16.3km s-min=7.4km az=109.0*
*BER **20** 18:08:54.0±4.1,67.07N×20.96E,h0km,ML1.6, ML2.5(NAO),Suspected explosion*

**ISC 20 18:08:51.2±1.2,67.06N±0.02×21.00E±0.02,h0km±10km, n79,σ1s20/114,Sweden**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DUNU** | **Dundret** | **0.18** | **291** | P | **Pg** | **18 08 54.7** | **0.0** |
| DUNU | | | | S | **Sg** | **18 08 57.4** | **+0.4** |
| **ERTU** | **Ertsjaerv** | **0.69** | **137** | P | **Pg** | **18 09 04.2** | **-0.2** |
| **ERTU** | **Ertsjaerv** | **0.69** | **137** | *e*P | **Pg** | **18 09 03.9** | **-0.5** |
| ERTU | | | | *e*S | **Sg** | **18 09 14.0** | **+0.7** |
| **PAJU** | **Pajala** | **0.83** | **91** | P | **Pg** | **18 09 06.8** | **-0.2** |
| PAJU | | | | S | **Sg** | **18 09 19.3** | **+1.5** |
| **HARU** | **Harads** | **0.90** | **181** | P | **Pg** | **18 09 07.8** | **-0.6** |
| **KUA** | **Kurravaara** | **0.94** | **344** | P | **Pg** | **18 09 08.4** | **-0.7** |
| **RATU** | **Laukkuluspa** | **0.94** | **325** | P | **Pg** | **18 09 08.5** | **-0.7** |
| **LANU** | **Lannavaara** | **1.07** | **20** | P | **Pg** | **18 09 10.7** | **-0.9** |
| LANU | | | | Sb | **Sb** | **18 09 27.3** | **+0.4** |
| **LANU** | **Lannavaara** | **1.07** | **20** | P | **Pg** | **18 09 10.9** | **-0.7** |
| **LANU** | **Lannavaara** | **1.07** | **20** | *e*P | **Pg** | **18 09 10.7** | **-0.9** |
| LANU | | | | *e*SB | **Sb** | **18 09 27.3** | **+0.4** |
| **NIKU** | **Nikkaluokta** | **1.11** | **318** | P | **Pg** | **18 09 11.7** | **-0.8** |
| **KALU** | **Kalix** | **1.53** | **141** | P | **Pn** | **18 09 19.1** | **-0.5** |
| KALU | | | | Sn | **Sn** | **18 09 40.6** | **+0.4** |
| **KALU** | **Kalix** | **1.53** | **141** | P | **Pn** | **18 09 19.2** | **-0.5** |
| **KALU** | **Kalix** | **1.53** | **141** | *e*P | **Pn** | **18 09 19.1** | **-0.5** |
| KALU | | | | *e*SN | **Sn** | **18 09 40.6** | **+0.4** |
| **SJUU** | **Sjulsmark** | **1.57** | **171** | P | **Pn** | **18 09 19.9** | **-0.4** |
| **TOF** | **Tornio** | **1.65** | **125** | P | **Pn** | **18 09 21.3** | **0.0** |
| TOF | | | | Sn | **Sn** | **18 09 43.7** | **+0.5** |
| **TOF** | **Tornio** | **1.65** | **125** | *e*P | **Pn** | **18 09 21.4** | **0.0** |
| TOF | | | | *e*SN | **Sn** | **18 09 43.7** | **+0.5** |
| TOF | | | | MSG | | 18 09 46.4 | |
| | comp=Z,6.0nm,0.1s | | | | | | |
| **HEF** | **Hetta** | **1.69** | **35** | *e*P | **Pn** | **18 09 22.0** | **+0.1** |
| **HEF** | **Hetta** | **1.69** | **35** | *e*P | **Pn** | **18 09 22.0** | **+0.1** |
| | SNR=50 | | | | | | |
| **HEF** | **Hetta** | **1.69** | **35** | *e*P | **Pn** | **18 09 21.8** | **-0.2** |
| HEF | | | | MSG | | 18 09 41.5 | |
| | comp=Z,12nm,0.2s | | | | | | |
| HEF | | | | *e*SN | **Sg** | **18 09 46.6** | **+1.1** |
| **KIF** | **Kilpisjarvi** | **1.96** | **358** | Pn | **Pb** | **18 09 27.1** | **-0.5** |
| KIF | | | | Lg | Lg | 18 09 55.3 | |
| **KIF** | **Kilpisjarvi** | **1.96** | **358** | Pn | **Pb** | **18 09 27.1** | **-0.5** |
| KIF | | | | Lg | Lg | 18 09 55.3 | |
| **KIF** | **Kilpisjarvi** | **1.96** | **358** | Pn | **Pb** | **18 09 27.1** | **-0.5** |
| | SNR=50 | | | | | | |
| KIF | | | | Sg | **Sg** | **18 09 53.9** | **-0.1** |
| KIF | | | | Lg | Lg | 18 09 55.3 | |
| **KIF** | **Kilpisjarvi** | **1.96** | **358** | *e*PG | **Pb** | **18 09 27.3** | **-0.4** |
| KIF | | | | *e*SG | **Sg** | **18 09 54.0** | **-0.1** |
| **KTK1** | **Kautokeino** | **2.14** | **22** | *e*P | **Pb** | **18 09 30.2** | **-0.5** |
| KTK1 | | | | *e*Sg | **Sb** | **18 09 57.6** | **-0.1** |
| KTK1 | | | | IAML | | 18 10 00.7 | |
| | comp=Z,6.1nm,0.2s | | | | | | |
| **KTK1** | **Kautokeino** | **2.14** | **22** | *e*P | **Pb** | **18 09 30.2** | **-0.5** |
| | SNR=50 | | | | | | |
| KTK1 | | | | *e*Sg | **Sb** | **18 09 57.6** | **-0.1** |
| | SNR=90 | | | | | | |
| **SGF** | **Sodankyl** | **2.18** | **77** | Pb | **Pn** | **18 09 29.8** | **+1.2** |
| SGF | | | | Sg | **Sb** | **18 09 59.6** | **+0.6** |
| **SGF** | **Sodankyl** | **2.18** | **77** | *e*PB | **Pn** | **18 09 29.8** | **+1.2** |
| SGF | | | | *e*SG | **Sb** | **18 09 59.6** | **+0.6** |
| **BURU** | **Burvik** | **2.49** | **176** | Pb | **Pn** | **18 09 34.5** | **+1.7** |
| BURU | | | | Sb | **Sn** | **18 10 06.2** | **+2.4** |
| **BURU** | **Burvik** | **2.49** | **176** | P | **Pn** | **18 09 34.8** | **+1.0** |
| **BURU** | **Burvik** | **2.49** | **176** | *e*PB | **Pn** | **18 09 34.5** | **+1.7** |
| BURU | | | | *e*SB | **Sn** | **18 10 06.2** | **+2.4** |
| **SVAU** | **Svanoeiden** | **2.64** | **194** | P | **Pn** | **18 09 35.6** | **+0.7** |
| **TRO** | **Tromso** | **2.70** | **344** | *e*P | **Pb** | **18 09 41.0** | **+0.7** |
| TRO | | | | IAML | | 18 10 23.4 | |
| | comp=Z,6.3nm,0.2s | | | | | | |
| **OUL** | **Oulu** | **2.81** | **133** | P | **Pn** | **18 09 37.8** | **+0.6** |
| **OUL** | **Oulu** | **2.81** | **133** | *e*P | **Pn** | **18 09 37.8** | **+0.6** |
| **ARE0** | **ARCESS Array S** | **3.00** | **32** | *e*P | **Pn** | **18 09 40.9** | **+1.0** |
| **ARE0** | **ARCESS Array S** | **3.00** | **32** | P | **Pn** | **18 09 40.3** | **+0.4** |
| ARE0 | | | | Sb | **Sb** | **18 10 20.7** | **-1.8** |
| **ARE0** | **ARCESS Array S** | **3.00** | **32** | *e*P | **Pn** | **18 09 40.3** | **+0.4** |
| ARE0 | | | | *e*SB | **Sb** | **18 10 20.7** | **-1.8** |
| **ARA0** | **ARCESS Array S** | **3.00** | **32** | Pn | **Pn** | **18 09 40.3** | **+0.4** |
| | baz=208,slow=16 | | | | | | |
| ARA0 | | | | Sn | **Sn** | **18 10 17.0** | **+0.5** |
| | baz=216,slow=22 | | | | | | |
| **ARA0** | **ARCESS Array S** | **3.00** | **32** | Pn | **Pn** | **18 09 40.3** | **+0.4** |
| | baz=208,slow=16 | | | | | | |
| ARA0 | | | | Sn | **Sn** | **18 10 17.0** | **+0.5** |
| | baz=216,slow=22 | | | | | | |
| **ARA0** | **ARCESS Array S** | **3.00** | **32** | Pn | **Pn** | **18 09 40.3** | **+0.4** |
| | SNR=50 | | | | | | |
| ARA0 | | | | Sn | **Sn** | **18 10 17.0** | **+0.5** |
| | SNR=50 | | | | | | |
| **ARCES** | **ARCESS Array B** | **3.00** | **32** | Pn | **Pn** | **18 09 40.4** | **+0.5** |
| | comp=Z,0.2nm,0.3s,baz=220,slow=14,SNR=42 | | | | | | |
| ARCES | | | | Sn | **Sn** | **18 10 18.6** | **+2.2** |
| | comp=Z,0.9nm,0.3s,baz=216,slow=25,SNR=11 | | | | | | |
| ARCES | | | | Lg | Lg | 18 10 25.7 | |
| | comp=Z,0.6nm,0.3s,baz=220,slow=27,SNR=5.9 | | | | | | |
| **LOF** | **Lofoten** | **3.06** | **294** | *e*P | **Pn** | **18 09 40.7** | **+0.1** |
| **LOF** | **Lofoten** | **3.06** | **294** | *e*P | **Pn** | **18 09 40.7** | **+0.1** |
| | SNR=50 | | | | | | |
| **OUF** | **Merijarvi** | **3.11** | **149** | P | **Pn** | **18 09 42.7** | **+1.3** |
| **OUF** | **Merijarvi** | **3.11** | **149** | *e*P | **Pn** | **18 09 42.7** | **+1.3** |
| **KONS** | **Konsvik** | **3.17** | **263** | *e*P | **Pn** | **18 09 44.4** | **+2.1** |
| **KONS** | **Konsvik** | **3.17** | **263** | *e*P | **Pn** | **18 09 44.4** | **+2.1** |
| | SNR=50 | | | | | | |
| **UMAU** | **Umeaa** | **3.19** | **183** | P | **Pn** | **18 09 43.6** | **+1.1** |
| **UMAU** | **Umeaa** | **3.19** | **183** | *e*P | **Pn** | **18 09 43.6** | **+1.1** |
| **STOK** | **Stokkvaagen** | **3.26** | **261** | *e*P | **Pn** | **18 09 45.0** | **+1.6** |
| **STOK** | **Stokkvaagen** | **3.26** | **261** | *e*P | **Pn** | **18 09 45.0** | **+1.6** |
| | SNR=50 | | | | | | |
| **VRF** | **Varrio** | **3.39** | **74** | P | **Pn** | **18 09 46.1** | **+0.8** |
| VRF | | | | Sb | **Sb** | **18 10 34.5** | **+0.7** |
| **VRF** | **Varrio** | **3.39** | **74** | *e*P | **Pn** | **18 09 46.2** | **+0.8** |
| VRF | | | | *e*SB | **Sb** | **18 10 34.5** | **+0.7** |
| **MSF** | **Maaselka** | **3.42** | **106** | P | **Pn** | **18 09 47.1** | **+1.4** |
| **MSF** | **Maaselka** | **3.42** | **106** | *e*P | **Pn** | **18 09 47.1** | **+1.4** |
| **KU6** | **Riekki** | **3.70** | **102** | P | **Pn** | **18 09 50.1** | **+0.6** |
| **KU6** | **Riekki** | **3.70** | **102** | *e*P | **Pn** | **18 09 50.2** | **+0.6** |
| **HAMF** | **Hammerfest** | **3.73** | **14** | *e*P | **Pn** | **18 09 51.4** | **+1.5** |
| **HAMF** | **Hammerfest** | **3.73** | **14** | *e*P | **Pn** | **18 09 51.4** | **+1.5** |
| | SNR=50 | | | | | | |
| **VAF** | **Ylistaro** | **4.09** | **169** | P | **Pn** | **18 09 56.0** | **+1.2** |
| **VAF** | **Ylistaro** | **4.09** | **169** | *e*P | **Pn** | **18 09 56.1** | **+1.2** |
| VAF | | | | MSG | | 18 11 04.8 | |
| | comp=Z,1.0nm,1.0s | | | | | | |
| **HEMU** | **Hemsoen** | **4.58** | **197** | P | **Pn** | **18 10 02.0** | **+0.5** |
| **HEMU** | **Hemsoen** | **4.58** | **197** | *e*P | **Pn** | **18 10 02.0** | **+0.5** |
| **APA0** | **Apatity Array** | **4.67** | **78** | Pn | **Pn** | **18 10 03.0** | **+0.2** |
| | baz=288,slow=16 | | | | | | |
| APA0 | | | | Sn | **Sn** | **18 10 56.6** | **-1.0** |
| | baz=252,slow=14 | | | | | | |
| **APA0** | **Apatity Array** | **4.67** | **78** | Pn | **Pn** | **18 10 03.0** | **+0.2** |
| | baz=288,slow=16 | | | | | | |
| APA0 | | | | Sn | **Sn** | **18 10 56.6** | **-1.0** |
| | baz=252,slow=14 | | | | | | |
| **APA0** | **Apatity Array** | **4.67** | **78** | Pn | **Pn** | **18 10 03.0** | **+0.2** |
| | SNR=50 | | | | | | |
| APA0 | | | | Sn | **Sn** | **18 10 56.6** | **-1.0** |
| | SNR=50 | | | | | | |
| **KEF** | **Keuruu** | **5.18** | **159** | MSG | | 18 11 35.4 | |
| | comp=Z,1.2nm,0.2s | | | | | | |
| **FIA0** | **FINESS Array S** | **6.05** | **156** | Pn | **Pn** | **18 10 22.4** | **+0.6** |
| | baz=347,slow=14 | | | | | | |
| FIA0 | | | | Sn | **Sn** | **18 11 31.8** | **+0.2** |
| | baz=341,slow=28 | | | | | | |
| **FIA0** | **FINESS Array S** | **6.05** | **156** | Pn | **Pn** | **18 10 22.4** | **+0.6** |
| | baz=347,slow=14 | | | | | | |
| FIA0 | | | | Sn | **Sn** | **18 11 31.8** | **+0.2** |
| | baz=341,slow=28 | | | | | | |
| **FIA0** | **FINESS Array S** | **6.05** | **156** | Pn | **Pn** | **18 10 22.4** | **+0.6** |
| | SNR=1.5 | | | | | | |
| FIA0 | | | | Sn | **Sn** | **18 11 31.8** | **+0.2** |
| | SNR=50 | | | | | | |
| **FINES** | **FINESS Array B** | **6.05** | **156** | Pn | **Pn** | **18 10 22.1** | **+0.4** |
| | comp=Z,0.1nm,0.3s,baz=344,slow=13,SNR=1.6 | | | | | | |
| FINES | | | | Sn | **Sn** | **18 11 31.9** | **+0.2** |
| | comp=Z,0.2nm,0.3s,baz=345,slow=22,SNR=10 | | | | | | |
| FINES | | | | Lg | Lg | 18 12 03.9 | |
| | comp=Z,0.1nm,0.3s,baz=337,slow=29,SNR=2.9 | | | | | | |
| **NB2** | **NORSAR Subarra** | **7.40** | **220** | Pn | **Pn** | **18 10 39.5** | **-0.8** |
| | baz=28,slow=14 | | | | | | |
| **NB2** | **NORSAR Subarra** | **7.40** | **220** | Pn | **Pn** | **18 10 39.5** | **-0.8** |
| | baz=28,slow=14 | | | | | | |
| **NB2** | **NORSAR Subarra** | **7.40** | **220** | Pn | **Pn** | **18 10 39.5** | **-0.8** |
| | SNR=50 | | | | | | |
| **NOA** | **NORSAR Array B** | **7.40** | **220** | Pn | **Pn** | **18 10 39.1** | **-1.2** |
| | comp=Z,0.0nm,0.3s,baz=30,slow=18,SNR=1.9 | | | | | | |
| NOA | | | | Sn | **Sn** | **18 11 58.8** | **-6.1** |
| | comp=Z,0.1nm,0.3s,baz=270,slow=18,SNR=2.3 | | | | | | |
| **HFS** | **Hagfors** | **7.67** | **208** | Pn | **Pn** | **18 10 42.6** | **-1.4** |
| | baz=26,slow=14 | | | | | | |
| HFS | | | | Sn | **Sn** | **18 12 08.1** | **-3.4** |
| | baz=38,slow=28 | | | | | | |
| **HFS** | **Hagfors** | **7.67** | **208** | Pn | **Pn** | **18 10 42.6** | **-1.4** |
| | baz=26,slow=14 | | | | | | |
| HFS | | | | Sn | **Sn** | **18 12 08.1** | **-3.4** |
| | baz=38,slow=28 | | | | | | |
| **HFS** | **Hagfors** | **7.67** | **208** | Pn | **Pn** | **18 10 42.6** | **-1.4** |
| | SNR=50 | | | | | | |

*NIED **20** 18:30:00,33.40N×141.80E,h8km,Mw4.0 Best double couple: M0 1.17000×10^15 NP1:φs 23.00000°,δ35.00000°, λ91.00000°. NP2:φs 201.00000°,δ55.00000°,λ89.00000°.*
*IDC **20** 18:30:14.2±0.7,33.31N×141.84E,h0km,mb3.9/17, mb1 4.0/20,mb1mx3.9/58,mbtmp3.9/20,ML3.4/4,MS2.9/2, Ms1 2.9/2,ms1mx2.5/36,Error ellipse: s-maj=16.9km s-min=14.9km az=85.0*
*ISCJB **20** 18:30:17.0±0.3,33.32N±0.03×141.86E±0.05,h34km, mb4.3/28,MS3.0/1,Error ellipse: s-maj=6.6km s-min=4.2km az=156.0*
*JMA **20** 18:30:17.8±0.5,33.41N×141.81E,h58km,M3.5*
*NEIC **20** 18:30:18.0±1.8,33.32N×141.87E,h26km±12km,mb4.9/15, Error ellipse: s-maj=7.3km s-min=4.5km az=81.0*

**ISC 20 18:30:18.6±0.6,33.32N±0.05×141.91E±0.07,h34km,n93, σ1s11/92,mb4.2/28,Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BSO1** | **Boso 1** | **1.54** | **330** | P | **Pn** | **18 30 41.8** | **-1.4** |
| **JHJ2** | **Mitsune** | **1.77** | **264** | P | **Pn** | **18 30 45.8** | **-1.0** |
| **JHCJ** | **Hachijojimakas** | **1.79** | **263** | P | **Pn** | **18 30 45.8** | **-1.3** |
| **JHJ** | **Hachijo jima 2** | **1.80** | **264** | Pn | **Pn** | **18 30 45.9** | **-1.3** |
| | 128nm,0.3s,baz=90,slow=9.1,SNR=76 | | | | | | |
| JHJ | | | | Sn | **Sn** | **18 31 08.3** | **-0.5** |
| | 182nm,0.3s,baz=90,slow=20,SNR=11 | | | | | | |
| **BSO3** | **Boso 3** | **1.88** | **322** | P | **Pn** | **18 30 46.7** | **-1.4** |
| **BSO4** | **Boso 4** | **2.12** | **322** | P | **Pn** | **18 30 50.7** | **-0.8** |
| **JIZS** | **Izushimoda** | **2.88** | **300** | P | **Pn** | **18 31 00.7** | **-1.4** |
| **JOD2** | **Odawara 2** | **3.04** | **310** | P | **Pn** | **18 31 02.2** | **-2.1** |
| **JRY** | **Ryogami san** | **3.66** | **318** | P | **Pn** | **18 31 11.5** | **-1.3** |
| **JAG** | **Ashikaga** | **3.70** | **328** | P | **Pn** | **18 31 12.3** | **-1.0** |
| JAG | | | | S | **Sn** | **18 31 53.3** | **-2.4** |
| **MJAR** | **Matsushiro Arr** | **4.42** | **318** | Pn | **Pn** | **18 31 22.8** | **-0.6** |
| | 3.9nm,0.3s,baz=144,slow=11,SNR=22 | | | | | | |
| MJAR | | | | Sn | **Sn** | **18 32 14.3** | **+0.6** |
| | 2.6nm,0.3s,baz=125,slow=14,SNR=5.2 | | | | | | |
| **MAJO** | **Matsushiro** | **4.43** | **318** | *e*Pn | **Pn** | **18 31 23.2** | **-0.2** |
| **MAT** | **Matsushiro** | **4.43** | **318** | P | **Pn** | **18 31 23.2** | **-0.2** |
| MAT | | | | S | **Sn** | **18 32 12.7** | **-1.0** |
| **MJB9** | **Matsu-Tunnel** | **4.43** | **318** | *e*Pn | **Pn** | **18 31 23.3** | **-0.1** |
| **INU** | **Inuyama** | **4.53** | **298** | *e*Pn | **Pn** | **18 31 23.8** | **-1.0** |
| **CBIJ** | **Chichi jima** | **6.21** | **178** | *e*Pn | **Pn** | **18 31 47.1** | **-0.8** |
| CBIJ | | | | *e*Sn | **Sn** | **18 32 56.2** | **-1.5** |
| **JCJ** | **Chichijima** | **6.21** | **178** | Pn | **Pn** | **18 31 47.0** | **-0.9** |
| | 8.8nm,0.3s,baz=33,slow=17,SNR=9.4 | | | | | | |
| JCJ | | | | Sn | **Sn** | **18 32 54.2** | **-3.5** |
| | 4.4nm,0.3s,baz=37,slow=20,SNR=1.7 | | | | | | |
| **ERM** | **Erimo** | **8.73** | **6** | *e*Pn | **Pn** | **18 32 19.1** | **-3.3** |
| **JNU** | **Nakatsue** | **9.25** | **272** | *e*Pn | **Pn** | **18 32 28.4** | **-1.2** |
| **ASAJ** | **Asahikawa** | **10.79** | **3** | Pn | **Pn** | **18 32 47.9** | **-2.7** |
| | 2.0nm,0.3s,baz=212,slow=11,SNR=21 | | | | | | |
| ASAJ | | | | Sn | Sn | 18 34 41.2 | -8.9 |
| | 0.2nm,0.3s,baz=217,slow=20,SNR=2.1 | | | | | | |
| **KSRS** | **Korea Array** | **12.14** | **294** | Pn | **Pn** | **18 33 09.7** | **+0.7** |
| | 0.1nm,0.3s,baz=113,slow=12,SNR=2.9 | | | | | | |
| KSRS | | | | LR | LR | 18 37 30.4 | |
| | comp=Z,35nm,21.6s,baz=117,slow=36 | | | | | | |
| **KS15** | **Wonju Array Si** | **12.16** | **294** | *e*Pn | **Pn** | **18 33 10.0** | **+0.5** |
| **KSAR** | **Wonju Array Be** | **12.16** | **294** | Pn | **Pn** | **18 33 09.7** | **+0.3** |
| **YSS** | **Yuzh-Sakhalins** | **13.63** | **2** | *e*Pn | **Pn** | **18 33 26.3** | **-3.1** |
| **KLR** | **Kul'dur** | **17.61** | **338** | P | **Pn** | **18 34 20.4** | **-0.8** |
| | 0.0nm,0.3s,baz=146,slow=11,SNR=7

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **WR1** | **Warramunga Arr** | **53.46** | **189** | *e*P | **P** | **18 39 35.7** | **+0.2** |
| | 28nm,1.9s | | | | | | |
| **WRA** | **Warramunga Arr** | **53.46** | **189** | P | **P** | **18 39 35.7** | **+0.2** |
| | 0.8nm,0.3s,baz=5.8,slow=7.6,SNR=35 | | | | | | |
| **AS01** | **Alice Springs** | **57.18** | **189** | *e*P | **P** | **18 40 02.6** | **+0.3** |
| **AS31** | **Alice Springs** | **57.18** | **189** | *e*P | **P** | **18 40 02.2** | **-0.1** |
| | 2.9nm,1.6s | | | | | | |
| **ASAR** | **Alice Springs** | **57.18** | **189** | P | **P** | **18 40 03.3** | **+1.1** |
| | 0.3nm,0.4s,baz=2.4,slow=6.7,SNR=11 | | | | | | |
| **INK** | **Inuvik** | **57.52** | **26** | P | **P** | **18 40 06.1** | **+2.0** |
| | 0.8nm,0.6s,baz=295,slow=2.8,SNR=4.9 | | | | | | |
| **INK** | **Inuvik** | **57.52** | **26** | *e*P | **P** | **18 40 05.7** | **+1.6** |
| | 16nm,1.9s | | | | | | |
| **ARU** | **Arti** | **59.44** | **320** | P | **P** | **18 40 17.8** | **+0.1** |
| | 2.3nm,0.4s,baz=87,slow=7.3,SNR=6.9 | | | | | | |
| **ARU** | **Arti** | **59.44** | **320** | *e*P | **P** | **18 40 17.5** | **-0.2** |
| | 6.1nm,1.3s | | | | | | |
| **ABKAR** | **Akbulak array** | **60.68** | **312** | *e*P | **P** | **18 40 25.9** | **-0.4** |
| | 13nm,0.4s | | | | | | |
| **AKTO** | **Aktyubinsk** | **61.49** | **314** | P | **P** | **18 40 33.1** | **+1.3** |
| | 1.1nm,0.7s,baz=90,slow=10,SNR=3.6 | | | | | | |
| **FORT** | **Forrest** | **65.09** | **193** | *e*P | **P** | **18 40 58.1** | **+2.4** |
| | 476nm,1.4s | | | | | | |
| **YKA** | **Yellowknife Ar** | **66.82** | **29** | P | **P** | **18 41 07.8** | **+1.3** |
| | 0.2nm,0.5s,baz=301,slow=5.9,SNR=5.3 | | | | | | |
| **FIA0** | **FINESS Array S** | **72.29** | **333** | *e*P | **P** | **18 41 41.0** | **+0.7** |
| **FINES** | **FINESS Array B** | **72.29** | **333** | P | **P** | **18 41 40.9** | **+0.7** |
| | 1.6nm,0.8s,baz=52,slow=9.1,SNR=2.8 | | | | | | |
| **NEW** | **Newport** | **72.52** | **43** | *e*P | **P** | **18 41 42.0** | **0.0** |
| | 33nm,2.0s | | | | | | |
| **AKASG** | **Malin Array Be** | **77.49** | **323** | P | **P** | **18 42 10.7** | **+0.2** |
| | 0.3nm,0.5s,baz=46,slow=6.2,SNR=4.4 | | | | | | |
| **AKBB** | **Malin Array Si** | **77.49** | **323** | *e*P | **P** | **18 42 10.9** | **+0.4** |
| | 12nm,1.6s | | | | | | |
| **NB200** | **NORSAR Array S** | **77.77** | **338** | *e*P | **P** | **18 42 11.6** | **-0.3** |
| **NOA** | **NORSAR Array B** | **77.77** | **338** | P | **P** | **18 42 11.6** | **-0.3** |
| | 0.8nm,0.7s,baz=38,slow=5.6,SNR=2.9 | | | | | | |
| **BR101** | **Keskin Array S** | **81.63** | **312** | *e*P | **P** | **18 42 33.0** | **-0.5** |
| **BRTR** | **Keskin Array B** | **81.63** | **312** | P | **P** | **18 42 33.0** | **-0.4** |
| | 0.8nm,0.9s,baz=118,slow=7.1,SNR=4.0 | | | | | | |

*ISN **20** 18:31:29.9±1.6,38°.93N×43°.72E,h0km±85km,ML3.8*
*ISK **20** 18:31:30.3,38°.91N×43°.57E,h5km,ML3.6*
*DDA **20** 18:31:30.8,38°.91N×43°.59E,h11km,Ml3.8*
*IASPEI **20** 18:31:31.8±1.0,38°.93N±0°.02×43°.53E±0°.03,h6km±7km, Error ellipse: s-maj=3.9km s-min=3.4km az=111.7,GT5 selection from ISC bulletin GT5 identified by Bond˜ı r and McLaughlin (2009) selection criteria Bond˜ı r and McLaughlin, A new ground truth data set for seismic studies, Seism. Res. Let., 80, 465-472, 2009*
*AZER **20** 18:31:31.0±0.5,39°.01N×43°.42E,h0km, Error ellipse: s-maj=5.0km s-min=3.4km az=91.0*
*CSEM **20** 18:31:31.8±0.1,38°.92N×43°.53E,h2km,ML3.8, Error ellipse: s-maj=2.7km s-min=2.0km az=160.0*
*TEH **20** 18:31:35.4,38°.96N×43°.69E,h22km,ML3.4*

**ISC 20 18:31:31.8±1.1,38°.92N±0°.01×43°.51E±0°.01,h1km±9km, n149,σ1§22/237,35C-21D,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VMUR** | **Van-Muradiye** | **0.08** | **34** | *i* P | **Pg** | **18 31 33.0** | **-0.5** |
| VMUR | | | | *i* S | **Sg** | **18 31 35.5** | **+0.8** |
| **VMUR** | **Van-Muradiye** | **0.08** | **34** | P | **Pg** | **18 31 33.0** | **-0.5** |
| VMUR | | | | S | **Sg** | **18 31 35.5** | **+0.8** |
| **ERCV** | **ERCIS-VAN** | **0.17** | **306** | PG | **Pg** | **18 31 34.8** | **-0.3** |
| ERCV | | | | *e*SG | **Sg** | **18 31 39.4** | **+2.1** |
| **ERCV** | **ERCIS-VAN** | **0.17** | **306** | *i* Pg | **Pg** | **18 31 34.8** | **-0.3** |
| ERCV | | | | *e*Sg | **Sg** | **18 31 39.4** | **+2.1** |
| **VANB** | **Van** | **0.34** | **197** | *e*PG | **Pg** | **18 31 39.3** | **+1.0** |
| VANB | | | | *e*SG | **Sb** | **18 31 46.8** | **+0.1** |
| **VANB** | **Van** | **0.34** | **197** | *e*Pg | **Pg** | **18 31 39.3** | **+1.0** |
| VANB | | | | *e*Sg | **Sb** | **18 31 46.8** | **+0.1** |
| **CLDR** | **Caldiran** | **0.39** | **55** | *e*PG | **Pg** | **18 31 38.6** | **-0.6** |
| CLDR | | | | *e*SG | **Sg** | **18 31 44.6** | **+0.3** |
| **CLDR** | **Caldiran** | **0.39** | **55** | *i* P | **Pg** | **18 31 38.0** | **-1.2** |
| CLDR | | | | *i* S | **Sg** | **18 31 44.4** | **+0.1** |
| **CLDR** | **Caldiran** | **0.39** | **55** | P | **Pg** | **18 31 38.0** | **-1.2** |
| **CLDR** | **Caldiran** | **0.39** | **55** | *e*Pg | **Pg** | **18 31 38.6** | **-0.6** |
| CLDR | | | | S | **Sg** | **18 31 44.4** | **+0.1** |
| **TVAN** | **Van** | **0.40** | **192** | *i* P | **Pg** | **18 31 39.2** | **-0.3** |
| TVAN | | | | *i* S | **Sb** | **18 31 46.9** | **-1.6** |
| **TVAN** | **Van** | **0.40** | **192** | P | **Pg** | **18 31 39.2** | **-0.3** |
| TVAN | | | | S | **Sb** | **18 31 46.9** | **-1.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.62** | **260** | *i* P | **Pb** | **18 31 43.8** | **-1.8** |
| ADCV | | | | *i* S | **Sb** | **18 31 54.2** | **-0.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.62** | **260** | P | **Pb** | **18 31 43.8** | **-1.8** |
| ADCV | | | | S | **Sb** | **18 31 54.2** | **-0.8** |
| **DYDN** | **Diyadin** | **0.64** | **12** | *i* P | **Pg** | **18 31 43.2** | **-0.9** |
| DYDN | | | | *i* S | **Sg** | **18 31 53.0** | **+0.6** |
| **DYDN** | **Diyadin** | **0.64** | **12** | P | **Pg** | **18 31 43.2** | **-0.9** |
| DYDN | | | | S | **Sg** | **18 31 53.0** | **+0.6** |
| **GEVA** | **Gevas** | **0.70** | **210** | *i* P | **Pg** | **18 31 44.6** | **-0.6** |
| GEVA | | | | *i* S | **Sb** | **18 31 56.0** | **-1.2** |
| **GEVA** | **Gevas** | **0.70** | **210** | P | **Pg** | **18 31 44.7** | **-0.6** |
| GEVA | | | | S | **Sb** | **18 31 56.0** | **-1.2** |
| **TUTA** | **Tutak** | **0.73** | **312** | *i* P | **Pg** | **18 31 45.1** | **-0.6** |
| TUTA | | | | *i* S | **Sb** | **18 31 55.1** | **-2.9** |
| **TUTA** | **Tutak** | **0.73** | **312** | P | **Pg** | **18 31 45.1** | **-0.6** |
| TUTA | | | | S | **Sb** | **18 31 55.1** | **-2.9** |
| **AGRB** | **Hanur-Agry** | **0.77** | **329** | *e*PG | **Pg** | **18 31 46.1** | **-0.5** |
| **AGRB** | **Hanur-Agry** | **0.77** | **329** | *e*Pg | **Pg** | **18 31 46.1** | **-0.5** |
| **BASK** | **Baskale_VAN** | **0.95** | **156** | *i* P | **Pg** | **18 31 47.5** | **-2.5** |
| BASK | | | | *i* S | **Sg** | **18 32 03.1** | **+0.8** |
| **EKAR** | **Karacoban** | **1.18** | **287** | *i* P | **Pn** | **18 31 54.3** | **-1.3** |
| EKAR | | | | *i* S | **Sn** | **18 32 13.7** | **+1.3** |
| **EKAR** | **Karacoban** | **1.18** | **287** | P | **Pn** | **18 31 54.3** | **-1.3** |
| **TASB** | **TASBURUN-IGDIR** | **1.20** | **28** | *e*PN | **Pg** | **18 31 54.3** | **-0.6** |
| **TASB** | **TASBURUN-IGDIR** | **1.20** | **28** | *e*Pn | **Pg** | **18 31 54.3** | **-0.6** |
| **EATA** | **Eleskirt** | **1.23** | **320** | *i* P | **Pg** | **18 31 54.0** | **-1.4** |
| EATA | | | | *i* S | **Sn** | **18 32 13.4** | **-0.5** |
| **EATA** | **Eleskirt** | **1.23** | **320** | P | **Pg** | **18 31 54.0** | **-1.4** |
| EATA | | | | S | **Sn** | **18 32 13.4** | **-0.5** |
| **HYR** | **Heyderabad** | **1.31** | **52** | ⇓P | **Pn** | **18 31 55.2** | **-2.2** |
| HYR | | | | ⇓S | **Sn** | **18 32 15.3** | **-0.2** |
| **HYR** | **Heyderabad** | **1.31** | **52** | P | **Pn** | **18 31 55.2** | **-2.2** |
| HYR | | | | S | **Sn** | **18 32 15.3** | **-0.2** |
| **HAKT** | **HAKKARI** | **1.37** | **173** | *i* P | **Pn** | **18 31 55.6** | **-2.7** |
| HAKT | | | | *i* S | **Sn** | **18 32 17.0** | **-0.2** |
| **HAKT** | **HAKKARI** | **1.37** | **173** | S | **Sn** | **18 32 17.0** | **-0.2** |
| **DIGO** | **Kars** | **1.50** | **356** | *i* P | **Pn** | **18 31 59.1** | **-1.0** |
| **DIGO** | **Kars** | **1.50** | **356** | P | **Pn** | **18 31 59.1** | **-1.0** |
| **SRTM** | **Siirt_Merkez** | **1.56** | **234** | *i* P | **Pg** | **18 32 01.1** | **-0.5** |
| SRTM | | | | *i* S | **Sg** | **18 32 23.8** | **+2.1** |
| **SRTM** | **Siirt_Merkez** | **1.56** | **234** | P | **Pg** | **18 32 01.1** | **-0.5** |
| SRTM | | | | S | **Sg** | **18 32 23.8** | **+2.1** |
| **NAX** | **Nakhchivan** | **1.56** | **80** | ⇑P | **Pn** | **18 32 00.2** | **-0.6** |
| NAX | | | | ⇑S | **Sg** | **18 32 24.6** | **+2.5** |
| **NAX** | **Nakhchivan** | **1.56** | **80** | P | **Pn** | **18 32 00.2** | **-0.6** |
| NAX | | | | S | **Sg** | **18 32 24.6** | **+2.5** |
| **VRTB** | **Varto-Mus** | **1.62** | **279** | *e*PN | **Pg** | **18 32 01.9** | **-0.9** |
| **VRTB** | **Varto-Mus** | **1.62** | **279** | *i* P | **Pg** | **18 32 02.4** | **-0.4** |
| VRTB | | | | *i* S | **Sg** | **18 32 28.1** | **+4.3** |
| **VRTB** | **Varto-Mus** | **1.62** | **279** | *e*Pn | **Pg** | **18 32 02.0** | **-0.9** |
| **VRTB** | **Varto-Mus** | **1.62** | **279** | P | **Pg** | **18 32 02.4** | **-0.4** |
| **SIRT** | **Sirnak** | **1.65** | **211** | *e*PN | **Pb** | **18 32 01.9** | **-1.2** |
| **SIRT** | **Sirnak** | **1.65** | **211** | *e*Pn | **Pb** | **18 32 01.9** | **-1.2** |
| **SBZ** | **Shahbuz** | **1.66** | **73** | ⇑P | **Pn** | **18 32 01.6** | **-0.6** |
| SBZ | | | | ⇑S | **Sn** | **18 32 23.9** | **-0.2** |
| **SBZ** | **Shahbuz** | **1.66** | **73** | P | **Pn** | **18 32 01.6** | **-0.6** |
| SBZ | | | | S | **Sn** | **18 32 23.9** | **-0.2** |
| **SIRN** | **S¨–rnak** | **1.66** | **212** | *i* P | **Pb** | **18 32 02.5** | **-0.8** |
| SIRN | | | | *i* S | **Sg** | **18 32 26.0** | **+0.8** |
| **SIRN** | **S¨–rnak** | **1.66** | **212** | P | **Pb** | **18 32 02.5** | **-0.8** |
| SIRN | | | | S | **Sg** | **18 32 26.0** | **+0.8** |
| **CUKT** | **Cukurca** | **1.67** | **177** | *e*PN | **Pn** | **18 32 01.9** | **-0.4** |
| **CUKT** | **Cukurca** | **1.67** | **177** | *e*Pn | **Pn** | **18 32 01.9** | **-0.4** |
| **HOMI** | **Horasan** | **1.68** | **313** | *i* P | **Pg** | **18 32 03.3** | **-0.6** |
| HOMI | | | | *i* S | **Sg** | **18 32 30.1** | **+4.5** |
| **IMRD** | **Marand** | **1.72** | **96** | *e*Pn | **Pn** | **18 32 01.9** | **-1.2** |
| IMRD | | | | *e*AMB | AMB | 18 32 34.8 | |
| | comp=Z,9μm,0.3s | | | | | | |
| **IMRD** | **Marand** | **1.72** | **96** | *e*Pn | **Pn** | **18 32 01.9** | **-1.2** |
| **KARS** | **Kars** | **1.74** | **349** | *e*PN | **Pn** | **18 32 03.1** | **-0.2** |
| **KARS** | **Kars** | **1.74** | **349** | *e*Pn | **Pn** | **18 32 03.1** | **-0.2** |
| **ISHB** | **Shabestar** | **1.77** | **110** | *e*AMB | AMB | 18 32 10.6 | |
| | comp=Z,5μm,0.2s | | | | | | |
| ISHB | | | | *e*Pn | **Pn** | **18 32 02.4** | **-1.4** |
| **BNGL** | **BINGOL** | **1.84** | **272** | *i* P | **Pg** | **18 32 06.3** | **-0.8** |
| BNGL | | | | *i* S | **Sg** | **18 32 30.9** | **-0.1** |
| **SENK** | **Senkaya-Erzuru** | **1.87** | **332** | *e*PN | **Pb** | **18 32 05.3** | **-1.6** |
| **SENK** | **Senkaya-Erzuru** | **1.87** | **332** | *e*Pn | **Pb** | **18 32 05.3** | **-1.6** |
| **ERZM** | **Erzurum** | **1.93** | **301** | *i* P | **Pb** | **18 32 06.8** | **-1.2** |
| **ERZM** | **Erzurum** | **1.93** | **301** | P | **Pb** | **18 32 06.8** | **-1.2** |
| **ORD** | **Ordubad** | **1.94** | **89** | P | **Pn** | **18 32 05.6** | **-0.4** |
| ORD | | | | S | **Sb** | **18 32 34.1** | **+1.5** |
| **ECAT** | **Cat-ERZURUM** | **2.09** | **290** | *i* P | **Pb** | **18 32 09.1** | **-1.5** |
| **ECAT** | **Cat-ERZURUM** | **2.09** | **290** | P | **Pb** | **18 32 09.1** | **-1.5** |
| **ITBZ** | **Tabriz** | **2.18** | **108** | *e*AMB | AMB | 18 32 28.0 | |
| | comp=Z,1μm,0.4s | | | | | | |
| ITBZ | | | | *e*Pn | **Pn** | **18 32 08.7** | **-0.6** |
| ITBZ | | | | *e*Sg | **Sb** | **18 32 39.6** | **0.0** |
| **BNGB** | **Bing¨ll** | **2.21** | **273** | *e*PN | **Pb** | **18 32 10.2** | **-2.4** |
| **BINT** | **Bingol** | **2.36** | **270** | *e*PN | **Pn** | **18 32 10.2** | **-1.6** |
| **YEDI** | **Yedisu-Bingol** | **2.36** | **284** | *e*PN | **Pn** | **18 32 12.4** | **+0.5** |
| **YEDI** | **Yedisu-Bingol** | **2.36** | **284** | *e*Pn | **Pn** | **18 32 12.4** | **+0.5** |
| **AKH** | **Akhalkalaki** | **2.49** | **360** | *e*PN | **Pn** | **18 32 13.9** | **+0.3** |
| **AKH** | **Akhalkalaki** | **2.49** | **360** | *e*Pn | **Pn** | **18 32 13.9** | **+0.3** |
| **GDB** | **GEDABAY** | **2.49** | **43** | ⇓P | **Pn** | **18 32 13.2** | **-0.5** |
| **GDB** | **GEDABAY** | **2.49** | **43** | P | **Pn** | **18 32 13.2** | **-0.5** |
| **QZX** | **Qazax, Azerbai** | **2.57** | **33** | ⇓P | **Pn** | **18 32 14.1** | **-0.5** |
| QZX | | | | ⇓S | **Sn** | **18 32 44.6** | **-1.9** |
| **QZX** | **Qazax, Azerbai** | **2.57** | **33** | P | **Pn** | **18 32 14.1** | **-0.5** |
| QZX | | | | S | **Sn** | **18 32 44.6** | **-1.9** |
| **GANJ** | **Ganja** | **2.77** | **51** | ⇑P | **Pn** | **18 32 17.3** | **0.0** |
| GANJ | | | | ⇑S | **Sn** | **18 32 51.8** | **+0.4** |
| **GANJ** | **Ganja** | **2.77** | **51** | P | **Pn** | **18 32 17.3** | **0.0** |
| GANJ | | | | S | **Sn** | **18 32 51.8** | **+0.4** |
| **DIY** | **Diyarbakir** | **2.78** | **249** | *e*Pn | **Pb** | **18 32 19.1** | **-3.2** |
| **DIYBB** | **Diyarbakir** | **2.82** | **251** | *e*PN | **Pn** | **18 32 19.1** | **+1.0** |
| **MAZI** | **Mazidag** | **2.82** | **240** | *e*PN | **Pn** | **18 32 18.8** | **+0.6** |
| **MAZI** | **Mazidag** | **2.82** | **240** | *e*Pn | **Pn** | **18 32 18.8** | **+0.6** |
| **IHRS** | **Heris** | **2.83** | **101** | *e*Pn | **Pn** | **18 32 18.1** | **-0.3** |
| IHRS | | | | *e*AMB | AMB | 18 32 26.0 | |
| | comp=Z,2μm,0.4s | | | | | | |
| IHRS | | | | *e*Sg | **Sb** | **18 33 00.0** | **+1.5** |
| **IHRS** | **Heris** | **2.83** | **101** | *e*Pn | **Pn** | **18 32 18.1** | **-0.3** |
| IHRS | | | | *e*Sg | **Sb** | **18 33 00.0** | **+1.5** |
| **BCA** | **Borcka** | **2.91** | **331** | *e*PN | **Pn** | **18 32 20.2** | **+0.9** |
| **BCA** | **Borcka** | **2.91** | **331** | *e*Pn | **Pn** | **18 32 20.2** | **+0.9** |
| **IBST** | **Bostanabad** | **2.92** | **114** | *e*Pn | **Pn** | **18 32 19.2** | **-0.5** |
| IBST | | | | *e*AMB | AMB | 18 32 33.4 | |
| | comp=Z,487nm,0.3s | | | | | | |
| **IBST** | **Bostanabad** | **2.92** | **114** | *e*Pn | **Pn** | **18 32 19.2** | **-0.5** |
| **BAYT** | **Ayd¨–ntepe-Bay** | **2.99** | **301** | *e*PN | **Pn** | **18 32 21.6** | **+1.1** |
| **BAYT** | **Ayd¨–ntepe-Bay** | **2.99** | **301** | *e*Pn | **Pn** | **18 32 21.6** | **+1.1** |
| **BRDA** | **Brd** | **3.13** | **64** | ⇑P | **Pn** | **18 32 22.7** | **+0.3** |
| BRDA | | | | ⇑S | **Sn** | **18 33 01.1** | **+0.7** |
| **BRDA** | **Brd** | **3.13** | **64** | P | **Pn** | **18 32 22.7** | **+0.3** |
| BRDA | | | | S | **Sn** | **18 33 01.1** | **+0.7** |
| **PTK** | **Pertek** | **3.21** | **271** | *e*PN | **Pn** | **18 32 24.9** | **+1.3** |
| **PTK** | **Pertek** | **3.21** | **271** | *e*Pn | **Pn** | **18 32 24.9** | **+1.3** |
| **MNGR** | **Mingechevir, A** | **3.31** | **55** | ⇓P | **Pn** | **18 32 24.4** | **-0.4** |
| MNGR | | | | ⇓S | **Sn** | **18 33 05.3** | **+0.5** |
| **MNGR** | **Mingechevir, A** | **3.31** | **55** | P | **Pn** | **18 32 24.4** | **-0.4** |
| MNGR | | | | S | **Sn** | **18 33 05.3** | **+0.5** |
| **SVRC** | **Sivrice-ELAZID** | **3.34** | **262** | *e*PN | **Pn** | **18 32 26.5** | **+1.2** |
| **SVRC** | **Sivrice-ELAZID** | **3.34** | **262** | *e*Pn | **Pn** | **18 32 26.5** | **+1.2** |
| **ZRD** | **Zardab** | **3.50** | **66** | ⇑P | **Pn** | **18 32 27.5** | **+0.2** |
| ZRD | | | | ⇑S | **Sn** | **18 33 10.2** | **+0.9** |
| **ZRD** | **Zardab** | **3.50** | **66** | P | **Pn** | **18 32 27.5** | **+0.2** |
| ZRD | | | | S | **Sn** | **18 33 10.2** | **+0.9** |
| **ZKTA** | **Zakatala** | **3.61** | **40** | ⇑P | **Pn** | **18 32 28.2** | **-0.7** |
| ZKTA | | | | ⇓S | **Sn** | **18 33 11.9** | **-0.3** |
| **GUDG** | **Gudauri** | **3.62** | **11** | P | **Pg** | **18 32 43.2** | **+2.1** |
| **SEKA** | **Sheki** | **3.64** | **50** | ⇑P | **Pn** | **18 32 29.5** | **+0.2** |
| SEKA | | | | ⇑S | **Sn** | **18 33 14.6** | **+1.7** |
| **SEKA** | **Sheki** | **3.64** | **50** | P | **Pn** | **18 32 29.5** | **+0.2** |
| SEKA | | | | S | **Sn** | **18 33 14.6** | **+1.7** |
| **ONI** | **Oni** | **3.67** | **359** | P | **Pg** | **18 32 42.9** | **+0.9** |
| **LRK** | **Lerik** | **3.78** | **93** | ⇓P | **Pn** | **18 32 32.1** | **+0.7** |
| LRK | | | | ⇓S | **Sn** | **18 33 18.6** | **+1.9** |
| **LRK** | **Lerik** | **3.78** | **93** | P | **Pn** | **18 32 32.1** | **+0.7** |
| LRK | | | | S | **Sn** | **18 33 18.6** | **+1.9** |
| **GLBA** | **Clilabad** | **3.81** | **84** | ⇑P | **Pn** | **18 32 31.8** | **+0.2** |
| GLBA | | | | ⇑S | **Sn** | **18 33 19.2** | **+2.1** |
| **GLBA** | **Clilabad** | **3.81** | **84** | P | **Pn** | **18 32 31.8** | **+0.2** |
| GLBA | | | | S | **Sn** | **18 33 19.2** | **+2.1** |
| **KDMR** | **Kurdemir** | **3.89** | **67** | ⇓P | **Pn** | **18 32 32.3** | **-0.4** |
| KDMR | | | | ⇓S | **Sn** | **18 33 20.1** | **+1.1** |
| **KDMR** | **Kurdemir** | **3.89** | **67** | P | **Pn** | **18 32 32.3** | **-0.4** |
| KDMR | | | | S | **Sn** | **18 33 20.1** | **+1.1** |
| **QBL** | **Gabala** | **3.89** | **57** | ⇑P | **Pn** | **18 32 32.3** | **-0.5** |
| QBL | | | | ⇑S | **Sn** | **18 33 19.9** | **+0.7** |
| **QBL** | **Gabala** | **3.89** | **57** | P | **Pn** | **18 32 32.3** | **-0.5** |
| QBL | | | | S | **Sn** | **18 33 19.9** | **+0.7** |
| **SAAT** | **Saatly** | **3.92** | **75** | ⇑P | **Pn** | **18 32 32.6** | **-0.5** |
| SAAT | | | | ⇓S | **Sn** | **18 33 20.5** | **+0.8** |
| **SAAT** | **Saatly** | **3.92** | **75** | P | **Pn** | **18 32 32.6** | **-0.5** |
| SAAT | | | | S | **Sn** | **18 33 20.5** | **+0.8** |
| **CHVG** | **Ch'k'valeri** | **3.95** | **345** | *e*PN | **Pn** | **18 32 34.9** | **+1.4** |
| **CHVG** | **Ch'k'valeri** | **3.95** | **345** | P | **Pg** | **18 32 51.7** | **+4.3** |
| **CHVG** | **Ch'k'valeri** | **3.95** | **345** | *e*Pn | **Pn** | **18 32 34.9** | **+1.4** |
| **IML** | **Ismayilli** | **4.05** | **61** | ⇑P | **Pn** | **18 32 34.6** | **-0.4** |
| IML | | | | ⇑S | **Sn** | **18 33 23.8** | **+0.7** |
| **IML** | **Ismayilli** | **4.05** | **61** | P | **Pn** | **18 32 34.6** | **-0.4** |
| IML | | | | S | **Sn** | **18 33 23.8** | **+0.7** |
| **LKRN** | **Lenkeran, Azer** | **4.12** | **91** | ⇑P | **Pn** | **18 32 36.1** | **+0.2** |
| LKRN | | | | ⇑S | **Sn** | **18 33 27.0** | **+2.3** |
| **LKRN** | **Lenkeran, Azer** | **4.12** | **91** | P | **Pn** | **18 32 36.1** | **+0.2** |
| LKRN | | | | S | **Sn** | **18 33 27.0** | **+2.3** |
| **ASTR** | **Astara** | **4.14** | **93** | ⇓P | **Pn** | **18 32 36.3** | **+0.1** |
| ASTR | | | | ⇓S | **Sn** | **18 33 28.1** | **+2.8** |
| **ASTR** | **Astara** | **4.14** | **93** | P | **Pn** | **18 32 36.3** | **+0.1** |
| ASTR | | | | S | **Sn** | **18 33 28.1** | **+2.8** |
| **XNQ** | **Khinaliq** | **4.20** | **56** | ⇑P | **Pn** | **18 32 36.3** | **-1.0** |
| XNQ | | | | ⇑S | **Sn** | **18 33 27.4** | **+0.3** |
| **XNQ** | **Khinaliq** | **4.20** | **56** | P | **Pn** | **18 32 36.3** | **-1.0** |
| XNQ | | | | S | **Sn** | **18 33 27.4** | **+0.3** |
| **PQL** | **Pirkuli** | **4.33** | **63** | ⇑P | **Pn** | **18 32 38.1** | **-0.9** |
| PQL | | | | ⇑S | **Sn** | **18 33 31.1** | **+0.9** |
| **PQL** | **Pirkuli** | **4.33** | **63** | P | **Pn** | **18 32 38.1** | **-0.9** |
| PQL | | | | S | **Sn** | **18 33 31.1** | **+0.9** |
| **ALIB** | **Äli-Bayra** | **4.38** | **75** | ⇓P | **Pn** | **18 32 39.0** | **-0.4** |
| ALIB | | | | ⇓S | **Sn** | **18 33 32.7** | **+1.7** |
| **ALIB** | **Äli-Bayra** | **4.38** | **75** | P | **Pn** | **18 32 39.0** | **-0.4** |
| ALIB | | | | S | **Sn** | **18 33 32.7** | **+1.7** |
| **QSAR** | **Qusar** | **4.47** | **53** | ⇓P | **Pn** | **18 32 39.7** | **-1.0** |
| QSAR | | | | ⇓S | **Sn** | **18 33 33.8** | **+0.5** |
| **QSAR** | **Qusar** | **4.47** | **53** | P | **Pn** | **18 32 39.7** | **-1.0** |
| QSAR | | | | S | **Sn** | **18 33 33.8** | **+0.5** |
| **GBS** | **Qobustan** | **4.49** | **67** | ⇓P | **Pn** | **18 32 40.0** | **-1.0** |
| GBS | | | | ⇓S | **Sn** | **18 33 35.0** | **+1.1** |
| **GBS** | **Qobustan** | **4.49** | **67** | P | **Pn** | **18 32 40.0** | **-1.0** |
| GBS | | | | S | **Sn** | **18 33 35.0** | **+1.1** |
| **QUBA** | **Quba, Azerbaij** | **4.53** | **56** | ⇓P | **Pn** | **18 32 40.7** | **-0.8** |
| QUBA | | | | ⇓S | **Sn** | **18 33 35.8** | **+1.0** |
| **QUBA** | **Quba, Azerbaij** | **4.53** | **56** | P | **Pn** | **18 32 40.7** | **-0.8** |
| QUBA | | | | S | **Sn** | **18 33 35.8** | **+1.0** |
| **ATGJ** | **Altiaghaj** | **4.60** | **63** | ⇑P | **Pn** | **18 32 41.5** | **-1.1** |
| ATGJ | | | | ⇓S | **Sn** | **18 33 37.2** | **+0.7** |
| **ATGJ** | **Altiaghaj** | **4.60** | **63** | P | **Pn** | **18 32 41.5** | **-1.1** |
| ATGJ | | | | S | **Sn** | **18 33 37.5** | **+0.7** |
| **SIZA** | **Siyzn** | **4.66** | **61** | ⇑P | **Pn** | **18 32 42.7** | **-0.8** |
| SIZA | | | | ⇓S | **Sn** | **18 33 39.1** | **+0.8** |
| **SIZA** | **Siyzn** | **4.66** | **61** | P | **Pn** | **18 32 42.7** | **-0.8** |
| SIZA | | | | S | **Sn** | **18 33 39.1** | **+0.8** |
| **GOBA** | **Gobu** | **5.02** | **71** | ⇓P | **Pn** | **18 32 47.9** | **-0.4** |
| GOBA | | | | ⇓S | **Sn** | **18 33 48.1** | **+1.1** |
| **GOBA** | **Gobu** | **5.02** | **71** | P | **Pn** | **18 32 47.9** | **-0.4** |
| GOBA | | | | S | **Sn** | **18 33 48.1** | **+1.1** |
| **IVIS** | **Veis** | **5.14** | **148** | *e*Pn | **Pn** | **18 32 49.2** | **-0.8** |
| IVIS | | | | *e*AMB | AMB | 18 33 15.2 | |
| | comp=Z,143nm,0.3s | | | | | | |
| **IVIS** | **Veis** | **5.14** | **148** | *e*Pn | **Pn** | **18 32 49.2** | **-0.8** |
| **IGHG** | **Ghaleghazi** | **5.20** | **151** | *e*Pn | **Pn** | **18 32 51.6** | **+0.7** |
| IGHG | | | | *e*AMB | AMB | 18 33 20.2 | |
| | comp=Z,384nm,0.3s | | | | | | |
| **IGHG** | **Ghaleghazi** | **5.20** | **151** | *e*Pn | **Pn** | **18 32 51.6** | **+0.7** |
| **NDR** | **Nardaran** | **5.26** | **70** | ⇑P | **Pn** | **18 32 51.1** | **-0.4** |
| **NDR** | **Nardaran** | **5.26** | **70** | P | **Pn** | **18 32 51.1** | **-0.4** |
| **RTB** | **Rutbah** | **6.43** | **205** | *e*Pn | **Pn** | **18 33 06.0** | **-1.6** |
| | SNR=3.0 | | | | | | |

*SJA **20** 18:36:48.2±0.6,35°.52S×72°.23W,h10km,ML4.0,MW3.3*
*GUC **20** 18:37:04.9±0.5,34°.77S×71°.84W,h45km±1km,ML3.9*

**ISC 20 18:37:04.8±1.3,34°.77S±0°.04×71°.81W±0°.05,h27km±13km, n18,σ2§24/32,Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GO05** | **HualaæØ** | **0.26** | **202** | *e*P | **Pn** | **18 37 13.3** | **+0.4** |
| GO05 | | | | *e*S | **Sn** | **18 37 19.5** | **+1.4** |
| **CHPI** | **Pichilemu** | **0.41** | **337** | *e*P | **Pb** | **18 37 14.1** | **+0.4** |
| CHPI | | | | *e*S | **Sn** | **18 37 21.3** | **-0.3** |
| **NICH** | **Los Niches** | **0.53** | **116** | *e*P | **Pb** | **18 37 16.4** | **+0.8** |
| NICH | | | | *e*S | **Sn** | **18 37 24.6** | **-0.1** |
| **RCDM** | **Rinconada Maip** | **1.52** | **33** | *e*P | **Pn** | **18 37 30.1** | **-0.2** |
| RCDM | | | | *e*S | **Sn** | **18 37 50.2** | **+0.9** |
| **ANTU** | **Antumapu** | **1.54** | **40** | *e*P | **Pn** | **18 37 30.7** | **+0.1** |
| ANTU | | | | *e*S | **Sn** | **18 37 49.8** | **+0.1** |
| ANTU | | | | IAML | | 18 37 53.1 | |
| | comp=N,2μm,0.4s | | | | | | |
| **COCH** | **Cobquecura** | **1.58** | **210** | *e*P | **Pn** | **18 37 30.1** | **-0.9** |
| COCH | | | | *e*S | **Sn** | **18 37 49.8** | **-0.7** |
| **LMEL** | **Las Melosas** | **1.62** | **56** | *e*P | **Pn** | **18 37 31.6** | **-0.1** |
| LMEL | | | | *e*S | **Sn** | **18 37 52.4** | **+0.7** |
| LMEL | | | | IAML | | 18 37 55.7 | |
| | comp=N,3μm,0.2s | | | | | | |
| **STL** | **Santa Lucia** | **1.65** | **36** | *e*P | **Pn** | **18 37 31.7** | **-0.3** |
| **FSR** | **Penalolen** | **1.67** | **40** | *e*P | **Pn** | **18 37 32.2** | **-0.2** |
| FSR | | | | *e*S | **Sn** | **18 37 52.9** | **-0.1** |
| **CLCH** | **Cerro Calan** | **1.73** | **38** | *e*P | **Pn** | **18 37 33.2** | **+0.1** |
| CLCH | | | | *e*S | **Sn** | **18 37 54.7** | **+0.3** |
| CLCH | | | | IAML | | 18 38 00.3 | |
| | comp=N,2μm,0.3s | | | | | | |
| **PEL** | **Peldehue** | **1.87** | **30** | *e*P | **Pn** | **18 37 35.2** | **+0.1** |
| PEL | | | | *e*S | **Sn** | **18 37 57.5** | **-0.4** |
| PEL | | | | IAML | | 18 38 03.5 | |
| | comp=N,1μm,0.5s | | | | | | |
| **ROC1** | **El Roble** | **1.91** | **21** | *e*S | **Sb** | **18 38 09.2** | **+6.7** |
| **FCH** | **Farellones** | **1.91** | **42** | *e*P | **Pn** | **18 37 36.1** | **+0.2** |
| FCH | | | | *e*S | **Sn** | **18 38 00.1** | **+0.8** |
| FCH | | | | IAML | | 18 38 04.4 | |
| | comp=N,2μm,0.4s | | | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **APSI** | **Ampana** | **8.64** | **316** | P | | **Pn** | **18 47 38.7** | **+2.7** |
| **RKPI** | **Ransiki, Papua** | **8.69** | **49** | P | | **Pn** | **18 47 35.3** | **-1.3** |
| RKPI | | | | S | | **S** | **18 49 06.7** | **-8.7** |
| **TTSI** | **Tana Toraja** | **8.79** | **298** | P | | **Pn** | **18 47 40.3** | **+2.4** |
| **MRSI** | **Marisa** | **9.52** | **323** | P | | **Pn** | **18 47 49.8** | **+2.8** |
| **PLAI** | **Plampang** | **9.85** | **260** | P | | **Pn** | **18 47 49.5** | **-1.5** |
| | comp=Z,394nm,0.6s,comp=Z,4μm | | | | | | | |
| **PCI** | **Palu** | **9.97** | **309** | P | | **P** | **18 47 55.8** | **-2.1** |
| | comp=Z,317nm,1.1s,comp=Z,3μm | | | | | | | |
| **PCI** | **Palu** | **9.97** | **309** | P | | **P** | **18 47 55.9** | **-2.0** |
| PCI | | | | pmax | | pmax | | |
| | comp=Z,317nm,1.1s | | | | | | | |
| **MPSI** | **Mapaga** | **10.76** | **314** | P | | **P** | **18 48 04.7** | **-1.9** |
| **FITZ** | **Fitzroy Crossi** | **10.96** | **190** | P | | **Pn** | **18 48 03.9** | **-0.9** |
| | comp=Z,9.8nm,0.3s,baz=24,slow=10,SNR=149 | | | | | | | |
| FITZ | | | | S | | **S** | **18 50 01.0** | **-6.6** |
| | comp=Z,50nm,0.3s,baz=53,slow=20,SNR=9.7 | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **10.96** | **190** | P | | **Pn** | **18 48 03.6** | **-1.3** |
| | baz=11,SNR=153 | | | | | | | |
| **SGSI** | **Sangihe** | **11.05** | **349** | P | | **Pn** | **18 48 06.8** | **+0.7** |
| **SGKI** | **Sangatta, Kali** | **11.99** | **303** | P | | P | 18 48 32.3 | +12 |
| **KBKI** | **Kotabaru** | **12.03** | **288** | P | | **P** | **18 48 19.7** | **-1.1** |
| **SRBI** | **Singaraja** | **12.30** | **265** | P | | **Pn** | **18 48 22.4** | **+0.9** |
| **DNP** | **Denpasar** | **12.35** | **263** | P | | **P** | **18 48 24.5** | **+0.3** |
| **DNP** | **Denpasar** | **12.35** | **263** | P | | **P** | **18 48 27.5** | **+3.3** |
| DNP | | | | pmax | | pmax | | |
| | comp=Z,189nm,0.7s | | | | | | | |
| **SMKI** | **Samarinda** | **12.36** | **303** | P | | **P** | **18 48 27.0** | **+2.5** |
| **MMPI** | **Merauke** | **12.73** | **96** | P | | **P** | **18 48 28.4** | **-0.1** |
| **ABJI** | **Asem Bagus** | **13.25** | **267** | P | | **P** | **18 48 34.3** | **0.0** |
| **GENI** | **Genyem** | **13.35** | **70** | P | | **P** | **18 48 35.2** | **-0.2** |
| **JAGI** | **Jajag, Banyuwa** | **13.37** | **264** | P | | **Pn** | **18 48 32.6** | **-2.0** |
| **JAGI** | **Jajag, Banyuwa** | **13.37** | **264** | *e*Pn | | **Pn** | **18 48 30.8** | **-3.9** |
| **KMMI** | **Kalianget** | **13.52** | **270** | P | | **P** | **18 48 40.0** | **+2.7** |
| **JAY** | **Jayapura** | **13.88** | **71** | P | | **Pn** | **18 48 40.8** | **-0.1** |
| **JAY** | **Jayapura** | **13.88** | **71** | P | | **Pn** | **18 48 41.1** | **+0.2** |
| **BLJI** | **Banyuglugur** | **13.89** | **267** | P | | **P** | **18 48 41.4** | **+0.1** |
| **GMJI** | **Gumukmas** | **14.06** | **265** | P | | **Pn** | **18 48 43.1** | **+0.1** |
| **MTKI** | **Muara Teweh, K** | **14.12** | **296** | P | | **P** | **18 48 46.8** | **+2.8** |
| **MATI** | **Mati** | **14.16** | **355** | *e*P | | **P** | **18 48 45.7** | **+1.3** |
| **WRAB** | **Tennant Creek** | **14.21** | **153** | *c i*P | | **Pn** | **18 48 43.5** | **-1.3** |
| WRAB | | | | pmax | | pmax | | |
| | comp=Z,2μm,1.2s | | | | | | | |
| **WRAB** | **Tennant Creek** | **14.21** | **153** | *e*Pn | | **Pn** | **18 48 43.4** | **-1.3** |
| **WR1** | **Warramunga Arr** | **14.22** | **153** | *e*Pn | | **Pn** | **18 48 43.5** | **-1.4** |
| WR1 | | | | *e*S | | **S** | **18 51 19.1** | **-2.9** |
| **WRA** | **Warramunga Arr** | **14.22** | **153** | P | | **Pn** | **18 48 43.5** | **-1.4** |
| | comp=Z,6.4nm,0.3s,baz=329,slow=11,SNR=448 | | | | | | | |
| WRA | | | | S | | **S** | **18 51 19.1** | **-2.9** |
| | comp=Z,19nm,0.3s,baz=333,slow=22,SNR=8.5 | | | | | | | |
| **WB2** | **Warramunga Arr** | **14.22** | **153** | *e*Pn | | **Pn** | **18 48 42.3** | **-2.6** |
| **DAV** | **Davao City (W)** | **14.36** | **352** | P | | **Pn** | **18 48 48.3** | **+1.7** |
| | comp=Z,24nm,0.3s,baz=174,slow=12,SNR=10 | | | | | | | |
| **DAV** | **Davao City (W)** | **14.36** | **352** | *e*P | | **Pn** | **18 48 48.2** | **+1.5** |
| **DAV** | **Davao City (W)** | **14.36** | **352** | P | | **Pn** | **18 48 48.9** | **+2.2** |
| | SNR=9.4 | | | | | | | |
| **DAV** | **Davao City (W)** | **14.36** | **352** | Pn | | **Pn** | **18 48 48.9** | **+2.2** |
| | SNR=9.4 | | | | | | | |
| **KCP** | **Kidapawan** | **14.38** | **350** | ⇑*e*P | | **Pn** | **18 48 47.9** | **+1.0** |
| **GRJI** | **Gresik** | **15.00** | **270** | P | | **Pn** | **18 48 55.6** | **+1.3** |
| **TSM** | **Tawau** | **15.02** | **319** | ⇑P | | **Pn** | **18 48 57.7** | **+3.2** |
| **MYLDM** | **Lahad Datu** | **15.32** | **323** | *e*P | | **Pn** | **18 49 00.7** | **+2.6** |
| | comp=Z,288nm,1.2s | | | | | | | |
| **PWJI** | **Pagerwojo** | **15.67** | **266** | P | | **P** | **18 49 01.6** | **+0.6** |
| **MBWA** | **Marble Bar** | **15.78** | **208** | *e*P | | **Pn** | **18 49 03.2** | **-0.2** |
| | comp=Z,188nm,0.8s | | | | | | | |
| **MBWA** | **Marble Bar** | **15.78** | **208** | P | | **Pn** | **18 49 03.7** | **+0.2** |
| | SNR=13 | | | | | | | |
| **MBWA** | **Marble Bar** | **15.78** | **208** | P | | **Pn** | **18 49 03.7** | **+0.2** |
| | SNR=13 | | | | | | | |
| **PALU** | **Palau** | **16.04** | **25** | P | | **P** | **18 49 05.4** | **+0.3** |
| | baz=16,SNR=30 | | | | | | | |
| **PCJI** | **Pacitan** | **16.29** | **266** | P | | **P** | **18 49 07.4** | **-0.5** |
| **SDKM** | **Sandakan** | **16.48** | **321** | ⇑P | | **Pn** | **18 49 13.1** | **+1.3** |
| **PBKI** | **Pangkalan Bun** | **16.49** | **285** | P | | **Pn** | **18 49 12.7** | **+0.8** |
| **COEN** | **Coen** | **16.70** | **115** | P | | **Pn** | **18 49 13.6** | **-0.8** |
| | baz=17,SNR=409 | | | | | | | |
| **COEN** | **Coen** | **16.70** | **115** | *e*P | | **Pn** | **18 49 13.4** | **-1.0** |
| | comp=Z,207nm,0.9s | | | | | | | |
| **UGM** | **Wanagama** | **16.93** | **267** | *e*P | | **P** | **18 49 13.8** | **-1.1** |
| | comp=Z,716nm,1.8s | | | | | | | |
| **SCPH** | **Surigao** | **17.05** | **353** | *e*P | | **Pn** | **18 49 17.5** | **-0.9** |
| **AS31** | **Alice Springs** | **17.41** | **160** | *e*P | | **Pn** | **18 49 21.8** | **-0.9** |
| | comp=Z,550nm,0.6s | | | | | | | |
| **KKM** | **Kota Kinabalu** | **17.41** | **319** | ⇑P | | **Pn** | **18 49 22.5** | **-0.3** |
| **KKM** | **Kota Kinabalu** | **17.41** | **319** | *e*P | | **Pn** | **18 49 22.2** | **-0.6** |
| | comp=Z,87nm,0.9s | | | | | | | |
| **ASAR** | **Alice Springs** | **17.41** | **160** | P | | **Pn** | **18 49 22.0** | **-0.7** |
| | comp=Z,95nm,0.3s,baz=344,slow=12,SNR=4381 | | | | | | | |
| ASAR | | | | S | | **S** | **18 52 30.6** | **+3.1** |
| | baz=332,slow=23,SNR=5.3 | | | | | | | |
| **AS01** | **Alice Springs** | **17.43** | **160** | *e*P | | **P** | **18 49 21.6** | **+1.4** |
| **MSLP** | **Maasin** | **17.48** | **351** | *e*P | | **Pn** | **18 49 22.3** | **-1.2** |
| **QIS** | **Mount Isa** | **17.62** | **140** | P | | **P** | **18 49 23.7** | **+1.4** |
| | baz=18,SNR=382 | | | | | | | |
| **STKI** | **Sintang** | **17.64** | **294** | P | | **Pn** | **18 49 28.1** | **+2.7** |
| **KDM** | **Kudat** | **17.70** | **322** | ⇑P | | **Pn** | **18 49 26.6** | **+0.6** |
| **WRKA** | **Warakurna** | **17.70** | **178** | P | | **Pn** | **18 49 25.1** | **-0.9** |
| | baz=18,SNR=587 | | | | | | | |
| **LLP** | **Lapu-Lapu** | **17.82** | **348** | *e*P | | **P** | **18 49 25.2** | **+0.7** |
| LLP | | | | *e*S | | **S** | **18 52 44.8** | **+9.3** |
| **SBUM** | **Sibu** | **18.11** | **302** | ⇑P | | **Pn** | **18 49 30.1** | **-0.8** |
| **SBUM** | **Sibu** | **18.11** | **302** | *e*P | | **Pn** | **18 49 30.3** | **-0.6** |
| | comp=Z,114nm,0.7s | | | | | | | |
| **PLP** | **Palo** | **18.48** | **352** | ⇓*e*P | | **P** | **18 49 31.6** | **0.0** |
| **KPJI** | **Karang Pucung** | **18.51** | **269** | P | | **P** | **18 49 31.2** | **-0.7** |
| **JAP** | **San Jose, Anti** | **18.74** | **342** | ⇑*e*P | | **P** | **18 49 35.5** | **+1.1** |
| **RCP** | **Roxas** | **19.30** | **345** | ⇑*e*P | | **P** | **18 49 41.0** | **+0.8** |
| **KSM** | **Kuching** | **19.30** | **296** | ⇓P | | **P** | **18 49 42.5** | **+2.1** |
| **KSM** | **Kuching** | **19.30** | **296** | *e*P | | **P** | **18 49 41.5** | **+1.1** |
| | comp=Z,100nm,1.0s | | | | | | | |
| **PMG** | **Port Moresby** | **19.48** | **98** | P | | **P** | **18 49 44.2** | **+1.9** |
| | comp=Z,13nm,0.3s,baz=274,slow=2.6,SNR=116 | | | | | | | |
| PMG | | | | S | | S | 18 53 21.2 | +13 |
| | comp=Z,1.2nm,0.3s,baz=216,slow=19,SNR=4.9 | | | | | | | |
| **PMG** | **Port Moresby** | **19.48** | **98** | *d*e*P* | | **P** | **18 49 44.2** | **+1.9** |
| PMG | | | | pmax | | pmax | | |
| | comp=Z,2μm,1.0s | | | | | | | |
| **PMG** | **Port Moresby** | **19.48** | **98** | *e*P | | **Pn** | **18 49 44.7** | **-2.2** |
| | comp=Z,292nm,0.8s | | | | | | | |
| PMG | | | | S | | S | 18 53 21.2 | +13 |
| **MTSU** | **Mount Surprise** | **19.56** | **125** | P | | **P** | **18 49 44.0** | **+0.9** |
| | baz=20,SNR=106 | | | | | | | |
| **CISI** | **Cisompet, Garu** | **19.61** | **268** | P | | **P** | **18 49 42.4** | **-1.4** |
| **CISI** | **Cisompet, Garu** | **19.61** | **268** | *e*P | | **P** | **18 49 40.8** | **-3.0** |
| | comp=Z,130nm,0.7s | | | | | | | |
| **GIRL** | **Giralia** | **19.99** | **219** | P | | **P** | **18 49 49.0** | **+1.4** |
| | baz=20,SNR=24 | | | | | | | |
| **CNJI** | **Cibinong** | **20.30** | **269** | P | | **P** | **18 49 49.1** | **-1.9** |
| **MANU** | **Manus Island** | **20.37** | **76** | *e*P | | **P** | **18 49 51.9** | **+0.1** |
| | comp=Z,410nm,0.8s | | | | | | | |
| **DBJI** | **Dramaga** | **20.70** | **271** | P | | **P** | **18 49 55.7** | **+0.4** |
| **MEEK** | **Meekatharra** | **21.09** | **203** | P | | **P** | **18 49 59.3** | **+0.3** |
| | baz=21,SNR=180 | | | | | | | |
| **PPBI** | **Pangkal Pinang** | **21.96** | **282** | P | | **P** | **18 50 09.5** | **+2.2** |
| **CTA** | **Charters Tower** | **22.14** | **127** | P | | **P** | **18 50 10.6** | **+1.7** |
| | comp=Z,12nm,0.6s,baz=304,slow=11,SNR=20 | | | | | | | |
| CTA | | | | S | | **S** | **18 53 53.0** | **-0.4** |
| | comp=Z,9.2nm,0.6s,baz=288,slow=19,SNR=3.4 | | | | | | | |
| **CTAO** | **Charters Tower** | **22.14** | **127** | *e*P | | **P** | **18 50 10.5** | **+1.7** |
| CTAO | | | | pmax | | pmax | | |
| | comp=Z,44nm,1.0s | | | | | | | |
| **CTAO** | **Charters Tower** | **22.14** | **127** | *e*P | | **P** | **18 50 10.5** | **+1.7** |
| | comp=Z,44nm,1.0s | | | | | | | |
| **TGY** | **Tagaytay City** | **22.22** | **343** | P | | **P** | **18 50 10.1** | **+0.6** |
| | comp=Z,1μm,0.8s,baz=160,slow=12,SNR=36 | | | | | | | |
| TGY | | | | S | | **S** | **18 53 54.5** | **-0.2** |
| | comp=Z,68nm,0.3s,baz=151,slow=19,SNR=5.1 | | | | | | | |
| **KASI** | **Kota Agung** | **23.01** | **273** | P | | **P** | **18 50 15.2** | **-1.6** |
| **FORT** | **Forrest** | **23.41** | **179** | P | | **P** | **18 50 21.3** | **+1.0** |
| | baz=24,SNR=203 | | | | | | | |
| **FORT** | **Forrest** | **23.41** | **179** | *e*P | | **P** | **18 50 21.0** | **+0.8** |
| | comp=Z,5μm,0.6s | | | | | | | |
| FORT | | | | *e*pP | | **pP** | **18 51 04.8** | **-1.7** |
| **MORW** | **Morawa** | **24.29** | **205** | P | | **P** | **18 50 28.8** | **+0.6** |
| | baz=24,SNR=81 | | | | | | | |
| **KMBL** | **Kambalda** | **24.58** | **192** | P | | **P** | **18 50 31.6** | **+0.7** |
| | baz=25,SNR=30 | | | | | | | |
| **RABL** | **Rabaul** | **24.64** | **84** | *e*P | | **P** | **18 50 31.4** | **-0.1** |
| | comp=Z,404nm,0.6s | | | | | | | |
| RABL | | | | *e*pP | | **pP** | **18 51 21.8** | **+1.9** |
| **QLP** | **Quilpie** | **24.91** | **142** | P | | **P** | **18 50 35.0** | **+1.1** |
| | baz=25,SNR=23 | | | | | | | |
| **MYKOM** | **Kota Tinggi** | **25.33** | **290** | *e*P | | **P** | **18 50 39.4** | **+1.5** |
| MYKOM | | | | *e*pP | | **pP** | **18 51 28.5** | **+1.0** |
| **BLDU** | **Ballidu** | **25.39** | **202** | P | | **P** | **18 50 38.4** | **+0.3** |
| | baz=25,SNR=12 | | | | | | | |
| **KLBR** | **Kellerberrin** | **25.90** | **199** | P | | **P** | **18 50 43.4** | **+0.6** |
| | baz=26,SNR=48 | | | | | | | |
| **KGM** | **Kluang** | **25.91** | **290** | ⇑P | | **P** | **18 50 46.1** | **+3.1** |
| **BBOO** | **Buckleboo** | **26.62** | **164** | P | | **P** | **18 50 50.2** | **+1.0** |
| | baz=27,SNR=47 | | | | | | | |
| **BBOO** | **Buckleboo** | **26.62** | **164** | *e*P | | **P** | **18 50 49.6** | **+0.5** |
| | comp=Z,166nm,1.1s | | | | | | | |
| BBOO | | | | *e*pP | | **pP** | **18 51 39.8** | **-0.5** |
| **MUN** | **Mundaring** | **26.80** | **202** | P | | **P** | **18 50 51.2** | **+0.5** |
| | baz=27,SNR=12 | | | | | | | |
| **GUMO** | **Guam** | **26.89** | **40** | P | | **P** | **18 50 51.8** | **+0.2** |
| | comp=Z,44nm,0.4s,baz=215,slow=18,SNR=3.4 | | | | | | | |
| **GUMO** | **Guam** | **26.89** | **40** | *e*P | | **P** | **18 50 50.3** | **-1.3** |
| | comp=Z,323nm,1.1s | | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **27.30** | **199** | P | | **P** | **18 50 55.6** | **+0.5** |
| | comp=Z,74nm,0.5s,baz=239,slow=11,SNR=112 | | | | | | | |
| NWAO | | | | *e*pP | | **pP** | **18 51 44.7** | **-1.6** |
| | comp=Z,89nm,0.6s,baz=257,slow=10,SNR=8.3 | | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **27.30** | **199** | P | | **P** | **18 50 55.8** | **+0.7** |
| | baz=27,SNR=80 | | | | | | | |
| NWAO | | | | P | | **P** | **18 50 55.8** | **+0.7** |
| | baz=27,SNR=80 | | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **27.30** | **199** | *e*pP | | **pP** | **18 51 44.7** | **-1.6** |
| NWAO | | | | *e*pP | | pP | 18 51 45.2 | -1.2 |
| **BKNI** | **Bangkinang** | **27.53** | **285** | *e*P | | **P** | **18 50 56.4** | **-1.0** |
| BKNI | | | | *e*pP | | **pP** | **18 51 47.9** | **-0.8** |
| **STKA** | **Stephens Creek** | **27.77** | **154** | P | | **P** | **18 51 00.4** | **+1.1** |
| | comp=Z,22nm,0.4s,baz=332,slow=9.0,SNR=100 | | | | | | | |
| STKA | | | | pP | | **pP** | **18 51 50.3** | **-0.3** |
| | comp=Z,73nm,0.9s,baz=318,slow=12,SNR=5.5 | | | | | | | |
| **STKA** | **Stephens Creek** | **27.77** | **154** | P | | **P** | **18 51 00.4** | **+1.1** |
| | baz=28,SNR=79 | | | | | | | |
| **STKA** | **Stephens Creek** | **27.77** | **154** | *e*P | | **P** | **18 51 00.2** | **+0.9** |
| STKA | | | | *e*pP | | **pP** | **18 51 48.8** | **-1.8** |
| **RMQ** | **Roma** | **27.78** | **136** | P | | **P** | **18 51 00.5** | **+1.0** |
| | baz=28,SNR=9.6 | | | | | | | |
| **FRIM** | **Kepong** | **27.93** | **291** | ⇑P | | **P** | **18 51 01.5** | **+0.5** |
| **EIDS** | **Eidsvold** | **28.77** | **131** | P | | **P** | **18 51 08.7** | **+0.4** |
| | baz=29 | | | | | | | |
| **EIDS** | **Eidsvold** | **28.77** | **131** | *e*P | | **P** | **18 51 08.3** | **+0.1** |
| | comp=Z,17nm,0.9s | | | | | | | |
| **RKGY** | **Rocky Gully** | **28.93** | **198** | P | | **P** | **18 51 11.7** | **+2.2** |
| | baz=29,SNR=32 | | | | | | | |
| **IPM** | **Ipoh** | **28.96** | **293** | ⇑P | | **P** | **18 51 11.0** | **+0.9** |
| **CMSA** | **Cobar Meteorol** | **29.49** | **147** | P | | **P** | **18 51 16.0** | **+1.5** |
| | baz=30,SNR=78 | | | | | | | |
| **PSI** | **Prapat** | **30.30** | **288** | *e*P | | **P** | **18 51 22.2** | **+0.2** |
| PSI | | | | *e**P*P | | **pP** | **18 52 13.1** | **-0.7** |
| PSI | | | | pmax | | pmax | | |
| | comp=Z,36nm,0.8s | | | | | | | |
| **PSI** | **Prapat** | **30.30** | **288** | *e*P | | **P** | **18 51 22.2** | **+0.2** |
| | comp=Z,36nm,0.8s | | | | | | | |
| PSI | | | | *e*pP | | **pP** | **18 52 13.1** | **-0.7** |
| **TPUB** | **Ta-pu** | **31.11** | **348** | *e*P | | **P** | **18 51 27.3** | **-1.6** |
| | comp=Z,62nm,0.8s | | | | | | | |
| **UBPT** | **Khong Chiam** | **31.33** | **316** | P | | **P** | **18 51 32.9** | **+2.1** |
| | comp=Z,91nm,1.4s | | | | | | | |
| **QIZ** | **Qiongzhong** | **31.43** | **326** | P | | **P** | **18 51 31.8** | **+0.1** |
| QIZ | | | | sP | | **sP** | **18 52 54.8** | **+0.7** |
| QIZ | | | | S | | **S** | **18 56 21.3** | **+1.6** |
| QIZ | | | | sS | | **sS** | **18 57 51.5** | **-1.9** |
| QIZ | | | | pmax | | pmax | | |
| | comp=Z,52nm,1.2s | | | | | | | |
| **QIZ** | **Qiongzhong** | **31.43** | **326** | *e*P | | **P** | **18 51 30.5** | **-1.2** |
| | comp=Z,125nm,1.5s | | | | | | | |
| **SSLB** | **Suanglung** | **31.52** | **348** | *e*P | | **P** | **18 51 29.9** | **-2.5** |
| | comp=Z,24nm,0.7s | | | | | | | |
| **HNR** | **Honiara** | **32.08** | **96** | *e*P | | **P** | **18 51 35.0** | **-2.4** |
| **HNR** | **Honiara** | **32.08** | **96** | P | | **P** | **18 51 37.6** | **+0.2** |
| | comp=Z,91nm,0.4s,baz=225,slow=8.6,SNR=8.1 | | | | | | | |
| **HNR** | **Honiara** | **32.08** | **96** | *e*P | | **P** | **18 51 37.2** | **-0.3** |
| | comp=Z,187nm,0.8s | | | | | | | |
| **ARPS** | **Mount Arapiles** | **32.13** | **158** | P | | **P** | **18 51 39.5** | **+1.9** |
| | baz=32,SNR=72 | | | | | | | |
| **ARMA** | **Armidale** | **32.24** | **139** | P | | **P** | **18 51 40.8** | **+2.0** |
| | baz=32,SNR=25 | | | | | | | |
| **ARMA** | **Armidale** | **32.24** | **139** | *e*P | | **P** | **18 51 40.5** | **+1.7** |
| | comp=Z,26nm,0.6s | | | | | | | |
| **YHNB** | **Yeheng** | **32.30** | **349** | *e*P | | **P** | **18 51 38.1** | **-1.1** |
| | comp=Z,175nm,1.5s | | | | | | | |
| **LHMI** | **Lhok Sumawe** | **33.00** | **291** | *e*P | | **P** | **18 51 44.2** | **-1.2** |
| | comp=Z,70nm,0.6s | | | | | | | |
| **YNG** | **Young** | **33.06** | **147** | P | | **P** | **18 51 47.7** | **+2.0** |
| | baz=33,SNR=25 | | | | | | | |
| **MLSI** | **Meulaboh, Aceh** | **33.16** | **289** | P | | **P** | **18 51 48.1** | **+1.3** |
| **SKNT** | **Sakolnakorn** | **33.53** | **316** | P | | **P** | **18 51 51.7** | **+1.8** |
| | comp=Z,83nm,1.0s | | | | | | | |
| **MGCD** | **Mangrove Creek** | **33.80** | **143** | P | | **P** | **18 51 54.8** | **+2.8** |
| | baz=34,SNR=8.1 | | | | | | | |
| **JOW** | **Kunigami** | **33.88** | **1** | *e*P | | **P** | **18 51 53.1** | **+0.3** |
| | comp=Z,109nm,0.9s | | | | | | | |
| **KHON** | **Khomkaen** | **33.91** | **314** | P | | **P** | **18 51 57.1** | **+3.9** |
| | comp=Z,12nm,0.8s | | | | | | | |
| **CAN** | **Canberra** | **34.16** | **148** | P | | **P** | **18 51 57.6** | **+2.4** |
| | baz=34 | | | | | | | |
| **CAN** | **Canberra** | **34.16** | **148** | *e*P | | **P** | **18 51 57.3** | **+2.1** |
| CAN | | | | pmax | | pmax | | |
| | comp=Z,68nm,0.7s | | | | | | | |
| **CAN** | **Canberra** | **34.16** | **148** | *e*P | | **P** | **18 51 57.3** | **+2.1** |
| | comp=Z,68nm,0.7s | | | | | | | |
| **CHAI** | **Chaiyaphum** | **34.23** | **312** | P | | **P** | **18 51 58.1** | **+2.2** |
| | comp=Z,6.6nm,0.8s | | | | | | | |
| **TOO** | **Toolangi** | **34.28** | **154** | P | | **P** | **18 51 59.1** | **+2.9** |
| | baz=34,SNR=28 | | | | | | | |
| **CNB** | **Canberra Magne** | **34.35** | **147** | P | | **P** | **18 51 59.0** | **+2.2** |
| | baz=34,SNR=13 | | | | | | | |
| **NONG** | **Nongkai** | **34.86** | **316** | P | | **P** | **18 52 02.8** | **+1.6** |
| | comp=Z,26nm,1.9s | | | | | | | |
| **MILA** | **Mila** | **35.58** | **150** | P | | **P** | **18 52 09.8** | **+2.5** |
| | baz=36,SNR=7.7 | | | | | | | |
| **UTHA** | **Uthaitani** | **35.93** | **309** | P | | **P** | **18 52 12.4** | **+2.0** |
| | comp=Z,6.8nm,0.6s | | | | | | | |
| **PHRA** | **Phrae** | **37.19** | **314** | P | | **P** | **18 52 24.4** | **+3.4** |
| | comp=Z,10nm,1.9s,comp=Z,30μm | | | | | | | |
| **CM01** | **Chiang Mai Arr** | **38.06** | **312** | *e*P | | **P** | **18 52 29.0** | **+0.7** |
| CM01 | | | | *e*pP | | **pP** | **18 53 27.5** | **+5.8** |
| CM01 | | | | *e*S | | **S** | **18 58 00.9** | **-0.2** |
| **CM31** | **Chiang Mai Arr** | **38.10** | **312** | *e*P | | **P** | **18 52 29.4** | **+0.8** |
| CM31 | | | | *e*PcP | | **PcP** | **18 54 39.8** | **+1.9** |
| CM31 | | | | *e*S | | **S** | **18 58 03.5** | **+1.9** |
| **CMAR** | **Chiang Mai Arr** | **38.10** | **312** | P | | **P** | **18 52 29.7** | **+1.1** |
| | comp=Z,9.5nm,0.6s,baz=139,slow=6.8,SNR=99 | | | | | | | |
| CMAR | | | | pP | | **pP** | **18 53 24.4** | **+2.4** |
| | comp=Z,3.7nm,0.7s,baz=143,slow=6.9,SNR=2.0 | | | | | | | |
| CMAR | | | | PcP | | **PcP** | **18 54 39.8** | **+1.9** |
| | comp=Z,7.2nm,0.7s,baz=175,slow=2.6,SNR=10 | | | | | | | |
| CMAR | | | | ScP | | **ScP** | **18 57 59.1** | **-1.1** |
| | comp=Z,3.4nm,0.8s,baz=160,slow=3.1,SNR=7.5 | | | | | | | |
| **CHTO** | **Chiang Mai** | **38.32** | **313** | P | | **P** | **18 52 31.8** | **+1.4** |
| | comp=Z,90nm,0.8s | | | | | | | |
| **CHTO** | **Chiang Mai** | **38.32** | **313** | *e*P | | **P** | **18 52 31.5** | **+1.1** |
| CHTO | | | | *e*S | | **S** | **18 58 02.3** | **-2.7** |
| CHTO | | | | pmax | | pmax | | |
| | comp=Z,20nm,0.9s | | | | | | | |
| **CHTO** | **Chiang Mai** | **38.32** | **313** | *e*P | | **P** | **18 52 31.5** | **+1.1** |
| | comp=Z,20nm,0.9s | | | | | | | |
| CHTO | | | | *e*S | | **S** | **18 58 02.3** | **-2.7** |
| **SSE** | **Sheshan** | **38.62** | **351** | P | | **P** | **18 52 33.0** | **+0.4** |
| SSE | | | | S | | **S** | **18 58 08.8** | **-0.1** |
| SSE | | | | sS | | **sS** | **18 59 42.9** | **-1.7** |
| SSE | | | | SS | | **SS** | **19 01 09.1** | **-2.3** |
| SSE | | | | pmax | | pmax | | |
| | comp=Z,54nm,1.1s | | | | | | | |
| SSE | | | | pmax | | pmax | | |
| | comp=Z,72nm,4.1s | | | | | | | |
| SSE | | | | LR | | LR | | |
| | comp=Z,64nm,20.6s | | | | | | | |
| SSE | | | | LR | | LR | | |
| | comp=Z,41nm,20.5s | | | | | | | |
| SSE | | | | LR | | LR | | |
| | comp=Z,62nm,19.9s | | | | | | | |
| **GYA** | **Guiyang** | **39.18** | **330** | ⇑*i*P | | **P** | **18 52 38.1** | **+0.6** |
| GYA | | | | pP | | pP | 18 53 34.5 | +3.3 |
| GYA | | | | sP | | sP | 18 54 05.0 | +3.7 |
| GYA | | | | PP | | **PnPn** | **18 54 19.4** | **+0.1** |
| GYA | | | | PcP | | **PcP** | **18 54 42.8** | **+1.5** |
| GYA | | | | ScP | | **ScP** | **18 58 05.8** | **+1.4** |
| GYA | | | | S | | **S** | **18 58 20.3** | **+2.5** |
| GYA | | | | sS | | sS | 18 59 57.0 | +3.3 |
| GYA | | | | ScS | | **ScS** | **19 02 16.4** | **-0.7** |
| GYA | | | | pmax | | pmax | | |
| | comp=Z,40nm,0.7s | | | | | | | |
| GYA | | | | pmax | | pmax | | |
| | comp=Z,130nm,5.4s | | | | | | | |
| **TAU** | **Tasmania Unive** | **39.54** | **157** | *e*P | | **P** | **18 52 42.2** | **+2.1** |
| TAU | | | | pmax | | pmax | | |
| | comp=Z,131nm,1.8s | | | | | | | |
| **TAU** | **Tasmania Unive** | **39.54** | **157** | *e*P | | **P** | **18 52 42.2** | **+2.1** |
| | comp=Z,131nm,1.8s | | | | | | | |
| **WHN** | **Wuhan** | **39.66** | **342** | ⇓P | | **P** | **18 52 42.3** | **+1.0** |
| WHN | | | | pmax | | pmax | | |
| | comp=Z,290nm,0.9s | | | | | | | |
| **NJ2** | **Nanjing** | **39.96** | **348** | *e*P | | **P** | **18 52 44.3** | **+0.6** |
| NJ2 | | | | pmax | | pmax | | |
| | comp=Z,120nm,0.9s | | | | | | | |
| **DZM** | **Mont Dzumac** | **40.23** | **116** | P | | **P** | **18 52 47.5** | **+1.3** |
| | comp=Z,20nm,1.0s,baz=289,slow=5.2,SNR=9.9 | | | | | | | |
| **DZM** | **Mont Dzumac** | **40.23** | **116** | *e*P | | **P** | **18 52 47.9** | **+1.6** |
| | comp=Z,17nm,0.8s | | | | | | | |
| **KMI** | **Kunming** | **40.26** | **324** | P | | **P** | **18 52 48.1** | **+1.6** |
| KMI | | | | S | | **S** | **18 58 35.0** | **+1.0** |
| KMI | | | | sS | | sS | 19 00 10.5 | +0.2 |
| KMI | | | | SS | | **SS** | **19 01 43.1** | **-1.2** |
| KMI | | | | pmax | | pmax | | |
| | comp=Z,73nm,1.2s | | | | | | | |
| KMI | | | | LR | | LR | | |
| | comp=Z,110nm,14.6s | | | | | | | |
| KMI | | | | LR | | LR | | |
| | comp=Z,110nm,13.0s | | | | | | | |
| KMI | | | | LR | | LR | | |
| | comp=Z,200nm,22.4s | | | | | | | |
| **JNU** | **Nakatsue** | **40.27** | **4** | *e*P | | **P** | **18 52 44.9** | **-1.3** |
| | comp=Z,18nm,0.9s | | | | | | | |
| **ENH** | **Enshi** | **41.16** | **336** | *e*P | | **P** | **18 52 53.4** | **-0.2** |
| | comp=Z,56nm,0.6s | | | | | | | |
| ENH | | | | *e*S | | **S** | **18 58 46.8** | **0.0** |
| **INU** | **Inuyama** | **43.29** | **11** | *e*P | | **P** | **18 53 09.7** | **-0.8** |
| | comp=Z,21nm,0.8s | | | | | | | |
| **TJN** | **Taejon** | **43.39** | **360** | *d i*P | | **P** | **18 53 11.5** | **+0.2** |
| **CD2** | **Chengdu** | **44.28** | **330** | P | | **P** | **18 53 18.8** | **+0.2** |
| CD2 | | | | pP | | pP | 18 54 16.4 | +2.9 |
| CD2 | | | | sP | | sP | 18 54 42.1 | -1.1 |
| CD2 | | | | PP | | **PP** | **18 55 07.1** | **-0.7** |
| CD2 | | | | S | | **S** | **18 59 35.1** | **+2.9** |
| CD2 | | | | pmax | | pmax | | |
| | comp=Z,110nm,1.2s | | | | | | | |
| **TIA** | **Tai'an** | **44.33** | **348** | ⇓P | | **P** | **18 53 18.3** | **-0.5** |
| TIA | | | | pmax | | pmax | | |
| | comp=Z,70nm,0.8s | | | | | | | |
| **KS15** | **Wonju Array Si** | **44.46** | **0** | *e*P | | **P** | **18 53 20.6** | **+0.8** |
| KS15 | | | | *e*PcP | | **PcP** | **18 54 59.5** | **+1.1** |
| **KSAR** | **Wonju Array Be** | **44.46** | **0** | P | | **P** | **18 53 20.4** | **+0.6** |
| KSAR | | | | **PP* | | **pP** | **18 54 15.8** | **+1.0** |
| KSAR | | | | | | | 18 54 59.4 | |
| **KSAR** | **Wonju Array Be** | **44.46** | **0** | P | | **P** | **18 53 20.4** | **+0.6** |
| KSAR | | | | pP | | **pP** | **18 54 15.8** | **+1.0** |
| KSAR | | | | PcP | | **PcP** | **18 54 59.4** | **+1.0** |
| **KSRS** | **Korea Array** | **44.47** | **0** | P | | **P** | **18 53 20.4** | **+0.6** |
| | comp=Z,21nm,0.8s,baz=179,slow=9.8,SNR=72 | | | | | | | |
| KSRS | | | | pP | | **pP** | **18 54 15.8** | **+1.0** |
| | comp=Z,3.4nm,0.7s,baz=181,slow=9.8,SNR=2.0 | | | | | | | |
| KSRS | | | | PcP | | **PcP** | **18 54 59.4** | **+1.0** |
| | comp=Z,10.0nm,0.8s,baz=189,slow=3.0,SNR=12 | | | | | | | |
| **KSRS** | **Korea Array** | **44.47** | **0** | P | | **P** | **18 53 20.4** | **+0.6** |
| KSRS | | | | **PP* | | **pP** | **18 54 15.8** | **+1.0** |
| KSRS | | | | | | | 18 54 59.4 | |
| KSRS | | | | pmax | | pmax | | |
| | comp=Z,22nm,0.8s | | | | | | | |
| KSRS | | | | pmax | | pmax | | |
| | comp=Z,3.0nm,0.7s | | | | | | | |
| **KS01** | **Wonju Array Si** | **44.49** | **0** | *e*P

**PYZ Puysegur Point 51.30 146** *e*P **P 18 54 13.6 +1.6**
comp=Z,50nm,1.1s
**USRK Ussuriysk Ar. 51.36 4** P **P 18 54 12.6 +0.2**
comp=Z,22nm,0.7s,baz=188,slow=7.2,SNR=40
**ODAN Odare 51.64 313** *e*P **P 18 54 15.4 +0.3**
comp=Z,101nm,1.0s
**MLZ Mavora Lakes 51.65 144** *e*P **P 18 54 15.7 +1.1**
comp=Z,14nm,0.8s
**MDJ Mudanjiang 51.66 2** P **P 18 54 14.8 +0.3**
MDJ pP pP 18 55 11.3 0.0
MDJ sP sP 18 55 39.8 -0.7
MDJ S **S** **19 01 18.3 +3.3**
MDJ sS sS 19 02 55.8 +0.5
MDJ pmax pmax
comp=Z,39nm,1.0s
MDJ pmax pmax
comp=Z,130nm,3.7s
MDJ LR LR
comp=Z,46nm,18.5s
**MDJ Mudanjiang 51.66 2** *e*P **P 18 54 15.2 +0.6**
comp=Z,74nm,1.3s
MDJ *e*pP **pP** **18 55 11.3 +0.1**
**FOZ Fox Glacier 51.66 141** *e*P **P 18 54 16.0 +1.3**
comp=Z,14nm,0.7s
FOZ *e*pP **pP** **18 55 12.9 +1.6**
**TAPN Taplejung 51.69 313** *e*P **P 18 54 16.0 +0.5**
comp=Z,167nm,1.1s
**WHZ Wether Hill Ro 51.85 145** *e*P **P 18 54 17.0 +1.0**
comp=Z,39nm,0.7s
WHZ *e*pP **pP** **18 55 12.9 +0.1**
**WKZ Wanaka 51.87 143** *e*P **P 18 54 17.7 +1.4**
comp=Z,83nm,1.8s
**RAMN Ramite 52.27 312** *e*P **P 18 54 20.5 +0.8**
comp=Z,142nm,0.7s
**LBZ Lake Benmore 52.34 142** *e*P **P 18 54 20.5 +0.8**
comp=Z,20nm,0.8s
LBZ *e*pP **pP** **18 55 16.6 +0.1**
**RPZ Rata Peaks 52.52 141** P **P 18 54 22.9 +1.9**
comp=Z,71nm,0.6s,baz=276,slow=2.2,SNR=90
RPZ pP **pP** **18 55 19.5 +1.5**
comp=Z,22nm,0.5s,baz=301,slow=3.4,SNR=3.4
**RPZ Rata Peaks 52.52 141** *e*P **P 18 54 22.6 +1.5**
comp=Z,78nm,0.7s
RPZ *e*pP **pP** **18 55 19.0 +1.0**
**THZ Tophouse 52.76 138** *e*P **P 18 54 23.8 +0.9**
comp=Z,21nm,0.6s
**LTZ Lake Taylor 52.83 139** *e*P **P 18 54 24.9 +1.6**
LTZ *e*pP **pP** **18 55 20.7 +0.4**
**OXZ Oxford 52.95 140** *e*P **P 18 54 24.9 +0.7**
comp=Z,24nm,0.6s
OXZ *e*pP **pP** **18 55 21.4 +0.3**
**ODZ Otahua Downs 52.96 143** *e*P **P 18 54 24.9 +0.7**
ODZ *e*pP **pP** **18 55 22.0 +0.8**
**JIRN Jiri 52.97 313** *e*P **P 18 54 25.4 +0.4**
comp=Z,665nm,1.0s
**GTA Gaotai 53.08 333** ⇓P **P 18 54 26.0 +0.8**
GTA pP pP 18 55 21.8 -0.5
GTA PcP **PcP** **18 55 31.8 +1.9**
GTA sP sP 18 55 50.8 -0.6
GTA ScP **ScP** **18 59 02.4 +0.4**
GTA S **S** **19 01 36.6 +1.9**
GTA sS sS 19 03 14.3 -1.2
GTA ScS **ScS** **19 03 46.8 -0.5**
GTA SS **SS** **19 05 20.3 +2.1**
GTA pmax pmax
comp=Z,77nm,1.0s
GTA pmax pmax
comp=Z,220nm,6.4s
GTA LR LR
comp=Z,68nm,15.7s
GTA LR LR
comp=Z,130nm,18.1s
GTA LR LR
comp=Z,110nm,18.1s
**GUN Gumba 53.34 313** *e*P **P 18 54 28.0 +0.4**
comp=Z,92nm,0.7s
**CRLZ Canterbury Las 53.44 140** *e*P **P 18 54 28.6 +0.9**
CRLZ *e*pP **pP** **18 55 25.5 +0.8**
**KHZ Kahutara 53.48 139** *e*P **P 18 54 28.9 +0.9**
comp=Z,45nm,0.8s
KHZ *e*pP **pP** **18 55 25.2 +0.1**
**PKI Pulchoki 53.49 312** *e*P **P 18 54 28.8 +0.1**
comp=Z,53nm,0.8s
**PKIN Phulchoki 53.51 312** *e*P **P 18 54 29.1 +0.4**
comp=Z,33nm,0.7s
**MQZ McQueen's Vall 53.52 140** *e*P **P 18 54 30.0 +1.7**
MQZ *e*pP **pP** **18 55 26.1 +0.7**
**KKN Kakani 53.71 312** *e*P **P 18 54 30.4 +0.2**
comp=Z,95nm,1.1s
**DMN Daman 53.74 312** *e*P **P 18 54 30.8 +0.4**
comp=Z,137nm,1.1s
**SNZO South Karori 53.77 137** *e*P **P 18 54 30.1 0.0**
comp=Z,59nm,1.2s
**BKZ Black Stump Fm 54.14 134** *e*P **P 18 54 34.1 +1.2**
comp=Z,18nm,0.5s
**URZ Urewera 54.24 132** P **P 18 54 34.3 +0.7**
comp=Z,22nm,0.6s,baz=277,slow=5.2,SNR=13
URZ pP **PcP** **18 55 33.9 -0.4**
comp=Z,11nm,0.7s,baz=120,slow=7.2,SNR=2.4
**URZ Urewera 54.24 132** *e*P **P 18 54 34.1 +0.6**
comp=Z,23nm,0.6s
URZ *e*pP **PcP** **18 55 33.4 -0.9**
**HYB Hyderabad 54.29 297** *i* P **P 18 54 34.0 -0.3**
**GKN Gorkha 54.30 312** *e*P **P 18 54 34.9 +0.6**
**BFZ Birch Farm 54.56 136** *e*P **P 18 54 36.1 +0.2**
comp=Z,71nm,1.6s
**MXZ Matakaoa Point 54.88 131** *e*P **P 18 54 39.4 +1.3**
comp=Z,62nm,0.6s
**KOLN Koldanda 54.94 311** *e*P **P 18 54 39.5 +0.5**
comp=Z,156nm,1.0s
**DANN Dangsing 55.14 312** *e*P **P 18 54 41.2 +0.7**
comp=Z,4.7nm,0.9s
**PYUN Piuthan 55.58 311** *e*P **P 18 54 44.0 +0.5**
comp=Z,255nm,1.0s
**YSS Yuzh-Sakhalins 55.62 13** *i* P **P 18 54 42.8 -0.3**
YSS pmax pmax
comp=Z,65nm,1.9s
**YSS Yuzh-Sakhalins 55.62 13** *e*P **P 18 54 42.9 -0.2**
comp=Z,21nm,0.7s
**HABR Khabarovsk 55.87 6** *ce*P **P 18 54 43.3 -1.6**
HABR *e* 18 55 39.1
HABR *e* 18 56 50.7
HABR *e*S **S** **19 02 10.9 -0.3**
HABR *e* 19 04 06.4
HABR *e*SS **SS** **19 06 02.1 +0.5**
HABR pmax pmax
comp=E,7.0nm,0.9s
HABR pmax pmax
comp=Z,37nm,0.9s
HABR pmax pmax
comp=N,5.0nm,0.9s
HABR MLR MLR
comp=Z,47nm,18.0s
**HIA Hailar 56.70 354** *e*P **P 18 54 51.4 +0.6**
HIA *e* 18 55 44.4
HIA pmax pmax
comp=Z,46nm,1.5s
**HIA Hailar 56.70 354** *e*P **P 18 54 51.4 +0.6**
comp=Z,46nm,1.5s
HIA *e*PcP **PcP** **18 55 44.4 +0.9**
**ULN Ulaanbaatar 57.80 344** *d i*P **P 18 54 59.4 +0.8**
ULN pmax pmax
comp=Z,73nm,1.0s
**ULN Ulaanbaatar 57.80 344** *e*P **P 18 54 59.1 +0.5**
comp=Z,56nm,0.9s
ULN *e*PcP **PcP** **18 55 47.0 -1.0**
ULN *e*sP **sP** **18 56 24.4 -1.2**
**ULN Ulaanbaatar 57.80 344** P **P 18 54 60.0 +1.4**
SNR=18
**ULN Ulaanbaatar 57.80 344** P **P 18 54 60.0 +1.4**
SNR=18
**SONA0 Songino Array 57.95 343** *e*P **P 18 55 00.4 +0.8**
SONA0 *e*PcP **PcP** **18 55 49.0 +0.3**
SONA0 *e*sP **sP** **18 56 25.6 -1.0**
**SONM Songino Array 57.95 343** P **P 18 55 00.4 +0.8**
comp=Z,36nm,0.8s,baz=165,slow=7.8,SNR=169
SONM PcP **PcP** **18 55 49.0 +0.3**
comp=Z,12nm,0.8s,baz=165,slow=3.3,SNR=7.2
SONM sP **sP** **18 56 25.6 -1.0**
comp=Z,6.9nm,0.7s,baz=164,slow=8.8,SNR=3.8
**SONA1 Songino Array 57.96 343** *e*P **P 18 55 00.3 +0.6**
SONA1 *e*PcP **PcP** **18 55 48.5 -0.3**
SONA1 *e*pP **pP** **18 55 57.2 -0.6**
SONA1 *e*sP **sP** **18 56 25.2 -1.5**
**AFI Afiamalu 59.84 102** *e*P **P 18 55 13.9 +0.8**
AFI pmax pmax
comp=Z,61nm,1.0s
**AFI Afiamalu 59.84 102** *e*P **P 18 55 13.9 +0.8**
comp=Z,61nm,1.0s
**KNTN Kanton 60.58 89** *e*P **P 18 55 19.7 +1.6**
comp=Z,189nm,1.2s
**ZAK Zakamensk 61.15 342** *e*P **P 18 55 21.3 0.0**
ZAK *e* 18 55 58.5
ZAK pmax pmax
comp=Z,12nm,1.1s
**NKL Nikolayevsk 61.19 9** *e*P **P 18 55 22.0 +0.7**
NKL *e* 18 56 02.3
NKL pmax pmax
comp=E,10.0nm,1.0s
NKL pmax pmax
comp=Z,47nm,1.0s
**TLY Talaya 62.20 343** *d i*P **P 18 55 29.1 +0.9**
TLY pmax pmax
comp=Z,27nm,1.4s
**TLY Talaya 62.20 343** *e*P **P 18 55 28.9 +0.7**
comp=Z,13nm,0.8s
**WMQ Urumqi 62.33 328** P **P 18 55 29.8 +0.6**
WMQ PcP **PcP** **18 56 07.3 +1.0**
WMQ pP pP 18 56 32.6 +4.3
WMQ PcS **PcS** **19 00 10.4 +0.6**
WMQ S **S** **19 03 36.6 +2.3**
WMQ sS sS 19 05 18.0 -0.2
WMQ pmax pmax
comp=Z,93nm,0.9s
WMQ pmax pmax
comp=Z,190nm,5.7s
WMQ LR LR
comp=Z,190nm,26.9s
WMQ LR LR
comp=Z,200nm,29.7s
WMQ LR LR
comp=Z,180nm,24.3s
**MOY Mondy 62.97 342** *e*P **P 18 55 34.7 +1.3**
MOY pmax pmax
comp=Z,55nm,1.9s
**THN Thein Dam 63.19 312** *e*P **P 18 55 33.4 -1.6**
**CLNS Chul'man 63.90 358** *e*P **P 18 55 37.2 -2.0**
CLNS pmax pmax
comp=Z,16nm,0.9s
CLNS pmax pmax
comp=N,11nm,1.0s
CLNS pmax pmax
comp=E,8.0nm,0.9s
**PEA0B Petropavlovsk- 65.33 19** *e*P **P 18 55 48.9 +0.4**
comp=E,48nm,0.8s
**PETK Petropavlovsk- 65.33 19** P **P 18 55 49.0 +0.5**
comp=E,37nm,0.7s,baz=176,slow=3.7,SNR=71
PETK PcP **PcP** **18 56 18.5 +0.1**
comp=E,11nm,0.8s,baz=185,slow=3.5,SNR=3.6
**PETK Petropavlovsk- 65.33 19** *e*P **P 18 55 48.8 +0.3**
PETK *e*PcP **PcP** **18 56 18.7 +0.4**
PETK *e*sP **sP** **18 57 11.7 -4.8**
**PEA1 Petropavlovsk- 65.33 19** *e*P **P 18 55 49.0 +0.5**
PEA1 *e*PcP **PcP** **18 56 18.5 +0.1**
**BOD Bodaibo 65.78 352** *e*P **P 18 55 50.8 -0.4**
BOD pmax pmax
comp=Z,35nm,1.4s
**KSH Kashi 66.61 319** P **P 18 55 58.3 +1.3**
KSH PcP **PcP** **18 56 26.0 +1.8**
KSH pP pP 18 57 00.3 +3.4
KSH PP **PP** **18 58 31.6 +4.0**
KSH S **S** **19 04 21.9 -5.0**
KSH pmax pmax
comp=Z,22nm,0.8s
KSH LR LR
comp=Z,78nm,4.3s
KSH LR LR
comp=Z,70nm,5.2s
KSH LR LR
comp=Z,100nm,7.4s
**MK01 Makanchi Array 67.12 328** *e*P **P 18 56 00.4 +0.3**
MK01 *e*PcP **PcP** **18 56 27.0 +1.0**
**MK31 Makanchi Array 67.15 328** *e*P **P 18 56 00.3 +0.2**
MK31 *e* 18 56 26.1
**MK31 Makanchi Array 67.15 328** *e*P **P 18 56 00.3 +0.2**
MK31 *e*PcP **PcP** **18 56 26.1 -0.1**
MK31 *e*pP **pP** **18 56 57.9 -2.2**
MK31 *e*sP **sP** **18 57 27.5 -1.0**
**MK32 Makanchi Array 67.15 328** *e*P **P 18 56 00.8 +0.7**
MK32 *e*PcP **PcP** **18 56 26.8 +0.7**
MK32 *e*pP **pP** **18 57 02.3 +2.2**
**MKAR Makanchi Array 67.15 328** P **P 18 56 00.8 +0.7**
comp=Z,21nm,0.6s,baz=123,slow=7.8,SNR=171
MKAR PcP **PcP** **18 56 26.8 +0.7**
comp=Z,19nm,0.8s,baz=119,slow=5.2,SNR=10
MKAR pP **pP** **18 57 02.3 +2.2**
comp=Z,6.7nm,0.9s,baz=126,slow=8.0,SNR=1.8
**MKAR Makanchi Array 67.15 328** *e*P **P 18 56 00.5 +0.4**
MKAR *e* 18 56 26.1
MKAR **PP* **pP** **18 57 02.3 +2.2**
MKAR pmax pmax
comp=Z,128nm,0.7s
**MKAR Makanchi Array 67.15 328** *e*P **P 18 56 00.5 +0.4**
comp=Z,128nm,0.7s
MKAR *e*PcP **PcP** **18 56 26.1 0.0**
MKAR pP **pP** **18 57 02.3 +2.2**
**MAKZ Makanchi 67.32 328** *e*P **P 18 56 01.4 +0.1**
MAKZ *e* 18 56 26.6
MAKZ pmax pmax
comp=Z,68nm,1.5s
**MAKZ Makanchi 67.32 328** *e*P **P 18 56 01.4 +0.1**
comp=Z,68nm,1.5s
MAKZ *e*PcP **PcP** **18 56 26.6 -0.2**
MAKZ *e*sP **sP** **18 57 28.7 -0.9**
**KZA Kyzart 68.44 321** P **P 18 56 10.2 +1.4**
SNR=9.0
**TKM2 Tokmak 2 68.67 322** P **P 18 56 10.7 +0.8**
SNR=12
**KBK Karagaybulak 68.93 321** P **P 18 56 13.9 +2.3**
SNR=11
**UCH Uchtor 68.98 320** P **P 18 56 13.9 +1.7**
SNR=11
**YAK Yakutsk 69.09 1** *d i*P **P 18 56 11.8 0.0**
YAK *e* 18 56 32.9
YAK *e*PP* **pP** **18 57 16.6 +4.5**
YAK *e*S **S** **19 04 54.1 -0.9**
YAK *e* 19 05 39.1
YAK *e*SSS SSS 19 12 36.7
YAK pmax pmax
comp=Z,114nm,0.9s
YAK pmax pmax
comp=N,23nm,1.0s
YAK pmax pmax
comp=E,4.0nm,0.9s
YAK smax smax
comp=N,24nm,2.1s
YAK smax smax
comp=E,95nm,2.2s
**YAK Yakutsk 69.09 1** *e*P **P 18 56 11.6 -0.2**
comp=E,142nm,0.8s
**KBL Kabul 69.11 311** *e*P **P 18 56 13.3 +0.5**
**KBL Kabul 69.11 311** *e*P **P 18 56 13.3 +0.5**
KBL *e*pP **pP** **18 57 10.0 -3.1**
**MA2 Magadan 69.13 12** *d i*P **P 18 56 12.6 +0.5**
**AAK Ala-Archa 69.21 321** *d i*P **P 18 56 14.1 +0.9**
AAK pmax pmax
comp=Z,27nm,1.1s
**AAK Ala-Archa 69.21 321** P **P 18 56 14.5 +1.4**
SNR=14
**AAK Ala-Archa 69.21 321** *e*P **P 18 56 14.2 +1.1**
comp=Z,32nm,1.1s
AAK *e*pP **pP** **18 57 11.9 -1.5**
**AAK Ala-Archa 69.21 321** P **P 18 56 14.7 +1.5**
SNR=10
**AAK Ala-Archa 69.21 321** P **P 18 56 14.7 +1.5**
SNR=10
**CHMS Chumysh 69.24 321** P **P 18 56 14.2 +1.0**
SNR=7.8
**AML Almayashu 69.45 320** P **P 18 56 16.2 +1.2**
SNR=11
**USP Ospenovka 69.54 321** P **P 18 56 16.0 +1.0**
SNR=28
**EKS2 Erkin-Say 69.67 321** P **P 18 56 17.5 +1.5**
SNR=14
**ZAA0 Zalesovo Array 70.77 335** *e*P **P 18 56 21.6 -0.5**
comp=Z,66nm,0.8s
ZAA0 *e*S **S** **19 05 12.4 -2.5**
**ZALV Zalesovo Beam 70.77 335** P **P 18 56 22.0 -0.2**
comp=Z,47nm,0.7s,baz=128,slow=4.6,SNR=229
ZALV pP **pP** **18 57 25.1 +2.3**
comp=Z,7.1nm,0.8s,baz=125,slow=3.6,SNR=2.0
**ZALV Zalesovo Beam 70.77 335** *e*P **P 18 56 21.5 -0.7**
ZALV **PP* **pP** **18 57 25.1 +2.3**
ZALV *e*S **S** **19 05 12.4 -2.5**
**ZALV Zalesovo Beam 70.77 335** *e*P **P 18 56 21.5 -0.7**
ZALV pP **pP** **18 57 25.1 +2.3**
ZALV *e*S **S** **19 05 12.3 -2.5**
**ZAA1 Zalesovo Array 70.77 335** *e*P **P 18 56 22.0 -0.2**
ZAA1 *e*pP **pP** **18 57 25.1 +2.3**
**KURK Kurchatov 71.50 330** *d i*P **P 18 56 27.1 +0.5**
KURK pmax pmax
comp=Z,147nm,1.0s
**KURK Kurchatov 71.50 330** *e*P **P 18 56 27.1 +0.5**
comp=Z,125nm,0.9s
**KURK Kurchatov 71.50 330** P **P 18 56 27.5 +0.9**
SNR=33
**KURK Kurchatov 71.50 330** P **P 18 56 27.5 +0.9**
SNR=33
**MSEY Mahe Island 71.71 267** *e*P **P 18 56 27.9 -0.8**
MSEY pmax pmax
comp=Z,34nm,1.3s
**MSEY Mahe Island 71.71 267** *e*P **P 18 56 27.9 -0.8**
comp=Z,34nm,1.3s
**KKAR Karatay Array 71.97 320** *e*P **P 18 56 30.3 +0.7**
KKAR pmax pmax
comp=Z,129nm,1.0s
**KKAR Karatay Array 71.97 320** *e*P **P 18 56 30.3 +0.7**
comp=Z,129nm,1.0s
**NVS Novosibirsk 72.06 335** ⇑ *i*P **P 18 56 30.1 +0.3**
NVS *e* 18 56 41.1
NVS *e*S **S** **19 05 24.8 -4.7**
NVS *e* 19 06 00.4
NVS *e*PS PnS 19 06 19.9 -21
NVS pmax pmax
comp=Z,64nm,1.3s
NVS pmax pmax
comp=N,28nm,1.2s
NVS pmax pmax
comp=E,23nm,1.0s
NVS smax smax
comp=N,14nm,1.6s
NVS smax smax
comp=E,31nm,1.3s
**VNDA Vanda 72.50 173** P **P 18 56 33.0 +0.8**
comp=E,6.4nm,0.8s,baz=315,slow=6.6,SNR=18
**VNDA Vanda 72.50 173** *e*P **P 18 56 33.2 +1.1**
VNDA pmax pmax
comp=Z,7.0nm,0.8s
**VNDA Vanda 72.50 173** *e*P **P 18 56 33.2 +1.1**
comp=Z,6.9nm,0.8s
**MAW Mawson 73.85 201** P **P 18 56 41.7 +1.6**
comp=Z,10nm,0.5s,baz=81,slow=6.9,SNR=12
MAW pP **pP** **18 57 44.9 +3.7**
comp=Z,10nm,0.7s,baz=88,slow=7.4,SNR=3.1
**MAW Mawson 73.85 201** P **P 18 56 41.7 +1.6**
MAW **PP* **pP** **18 57 44.9 +3.7**
MAW pmax pmax
comp=Z,11nm,0.5s
MAW pmax pmax
comp=Z,11nm,0.7s
**MAW Mawson 73.85 201** *e*P **P 18 56 41.0 +0.9**
comp=Z,4.1nm,0.8s
MAW *e*pP **pP** **18 57 43.0 +1.8**
**UOSS Minazif 76.42 298** *e*P **P 18 56 56.0 +0.4**
comp=Z,62nm,1.8s
**BRVK Borovoye 77.08 329** *d i*P **P 18 56 59.1 +0.4**
BRVK pmax pmax
comp=Z,67nm,1.0s
**BRVK Borovoye 77.08 329** *e*P **P 18 56 59.0 +0.4**
comp=Z,52nm,0.9s
**BRVK Borovoye 77.08 329** P **P 18 56 59.5 +0.8**
SNR=23
**BRVK Borovoye 77.08 329** P **P 18 56 59.5 +0.8**
SNR=23
**GEYT Alibeck 78.56 311** P **P 18 57 08.1 +0.9**
comp=Z,7.0nm,0.7s,baz=157,slow=4.2,SNR=23
GEYT pP **pP** **18 58 09.4 +0.3**
comp=Z,4.8nm,1.0s,baz=95,slow=6.3,SNR=2.6
**TIXI Tiksi 78.74 0** *e*P **P 18 57 06.2 -1.2**
TIXI pmax pmax
comp=Z,34nm,0.8s
**TIXI Tiksi 78.74 0** *e*P **P 18 57 06.2 -1.2**
comp=Z,34nm,0.8s
**BILL Bilibino 79.91 14** ⇓ *i*P **P 18 57 12.5 -1.3**
BILL *i* 18 57 23.5
BILL *i *PP* **pP** **18 58 14.5 -1.4**
BILL pmax pmax
comp=Z,6.0nm,1.1s
**MLOA Mauna Loa Obse 80.13 69** *e*P **P 18 57 17.6 +1.1**
comp=Z,438nm,1.5s
**MLH Mauna Loa 80.29 69** *e*P **P 18 57 17.8 +0.7**
**MLH Mauna Loa 80.29 69** *e*P **P 18 57 17.8 +0.7**
**ABKAR Akbulak array 81.23 322** *e*P **P 18 57 20.9 -0.2**
comp=Z,123nm,0.6s
**SYO Syowa Base 82.56 201** ⇓ *i*P **P 18 57 27.2 -0.5**
**SYO Syowa Base 82.56 201** ⇑ *e*PcP **PcP** **18 57 32.0 -0.1**
**QSPA South Pole Qui 82.73 180** *e*P **P 18 57 29.3 +0.4**
comp=Z,22nm,0.8s
QSPA *e*pP **pP** **18 58 30.0 -1.4**
**SVE Sverdlovsk 83.75 329** *c i*P **P 18 57 34.5 +0.5**
SVE pmax pmax
comp=Z,64nm,1.3s
**ARU Arti 84.66 329** *d i*P **P 18 57 38.6 +0.1**
ARU **PP* **pP** **18 58 43.7 +2.4**
ARU S **S** **19 07 37.3 -5.8**
ARU SS **SS** **19 13 14.6 -6.7**
ARU pmax pmax
comp=Z,55nm,1.0s
**ARU Arti 84.66 329** *e*P **P 18 57 38.0 -0.5**
comp=Z,44nm,0.9s
**RAYN Ar Rayn 85.66 294** *e*P **P 18 57 44.6 +0.3**
comp=Z,14nm,1.1s
RAYN *e*pP **pP** **18 58 44.5 -2.8**
**LKRN Lenkeran, Azer 85.84 310** P **P 18 57 44.7 0.0**
**MNGR Mingechevir, A 87.55 311** P **P 18 57 52.9 0.0**
**SEKA Sheki 87.56 312** P **P 18 57 52.6 -0.5**
**MAK Makhachkala 87.69 314** *e*P **P 18 57 52.3 -1.2**
MAK *e*PP* **pP** **18 58 53.9 -2.9**
MAK *e* 19 01 18.8
MAK *e*S **SKSac** **19 07 54.3 -1.9**
MAK *e*SS* sS 19 09 48.6 -16
**ZKTA Zakatala 88.06 312** P **P 18 57 55.3 -0.1**
**GANJ Ganja 88.09 311** P **P 18 57 55.4 -0.2**
**NAX Nakhchivan 88.44 310** P **P 18 57 57.1 -0.2**
**GNI Garni 89.19 310** ⇓ *e*P **P 18 58 01.0 +0.1**
GNI pmax pmax
comp=Z,19nm,1.2s
**ZEI Tsey 90.26 313** *e*P **P 18 58 03.3 -2.6**
ZEI pmax pmax
comp=Z,5.0nm,0.9s
**NCK Nalchik 90.60 314** ⇓ *e*P **P 18 58 08.2 +1.0**
NCK pmax pmax
comp=Z,14nm,1.0s
**NVL N'lazarevskaya 91.41 197** *e*P **P 18 58 12.1 +1.8**
**IMAR Indian Mountai 91.98 24** *e*P **P 18 58 12.2 -0.8**
**VRH Novokhopyorsk 93.01 321** *e*P **P 18 58 17.1 -0.9**
VRH pmax pmax
comp=Z,20nm,0.6s
**PMR Palmer 93.13 28** *e*P **P 18 58 16.4 -1.9**
PMR pmax pmax
comp=Z,18nm,1.0s
**PMR Palmer 93.13 28** *e*P **P 18 58 16.4 -1.9**
comp=Z,18nm,1.0s
**ILAR Eielson Array 94.59 25** P **P 18 58 22.6 -2.5**
comp=Z,5.5nm,1.1s,baz=263,slow=4.1,SNR=28
ILAR PKKPbc **PKKPdf** **19 15 22.6 -1.3**
comp=Z,0.5nm,0.7s,baz=86,slow=1.8,SNR=6.2
**ILB Eielson Array 94.59 25** *e*P **P 18 58 22.6 -2.5**
**VSR Storozhevoye 94.61 321** *e*P **P 18 58 24.1 -1.3**
VSR pmax pmax
comp=Z,10.0nm,0.7s
**SNAA Sanae 94.86 194** P **P 18 58 27.7 +1.4**
comp=Z,7.1nm,0.6s,baz=163,slow=4.4,SNR=48
SNAA pP **pP** **18 59 34.1 +4.1**
comp=Z,7.8nm,0.7s,baz=124,slow=4.4,SNR=9.2
**SNAA Sanae 94.86 194** *c i*P **P 18 58 27.3 +1.0**
**SNAA Sanae 94.86 194** *e*P **P 18 58 27.2 +0.9**
SNAA *e*pP **pP** **18 59 27.9 -2.0**
SNAA pP **pP** **18 59 34.1 +4.1**
**LPSR Galich'ya Gora 94.89 322** *e*P **P 18 58 26.1 -0.5**
LPSR pmax pmax
comp=Z,20nm,1.0s
**KLMR Klimovskoe 95.33 331** *d i*P **P 18 58 26.6 -1.9**
KLMR pmax pmax
comp=Z,15nm,0.8s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **OBN** | **Obninsk** | **96.47** | **325** | *d* iP | **P** | **18 58 32.8** | **-0.9** |
| OBN | | | | *i* *PP | **pP** | **18 59 35.2** | **-2.3** |
| OBN | | | | *i* S | **SKSac** | **19 08 36.9** | **-7.7** |
| OBN | | | | pmax | pmax | | |
| | comp=Z,35nm,1.5s | | | | | | |
| **BOSA** | **Boshof** | **97.28** | **240** | P | **P** | **18 58 37.9** | **-0.3** |
| | comp=Z,1.0nm,0.5s,baz=124,slow=0.4,SNR=4.2 | | | | | | |
| **BR101** | **Keskin Array S** | **97.61** | **309** | *e*P | **P** | **18 58 38.7** | **-0.8** |
| BR101 | | | | *e*pP | **pP** | **18 59 45.6** | **+2.3** |
| **BRTR** | **Keskin Array B** | **97.62** | **309** | P | **P** | **18 58 38.7** | **-0.8** |
| | comp=Z,1.1nm,0.8s,baz=163,slow=9.1,SNR=6.0 | | | | | | |
| BRTR | | | | pP | **pP** | **18 59 45.6** | **+2.3** |
| | comp=Z,1.3nm,0.8s,baz=118,slow=5.2,SNR=5.0 | | | | | | |
| **DAWY** | **Dawson** | **97.79** | **26** | *e*P | **P** | **18 58 39.1** | **-0.5** |
| | comp=Z,11nm,1.0s | | | | | | |
| **BR231** | **Keskin MP Arra** | **98.28** | **309** | *e*P | **P** | **18 58 39.2** | **-3.3** |
| BR231 | | | | *e*pP | **pP** | **18 59 40.1** | **-6.2** |
| **INK** | **Inuvik** | **99.98** | **22** | *e*P | **Pdif** | **18 58 48.5** | **-0.7** |
| INK | | | | pmax | pmax | | |
| | comp=Z,14nm,1.2s | | | | | | |
| **INK** | **Inuvik** | **99.98** | **22** | *e*Pdif | **Pdif** | **18 58 48.5** | **-0.7** |
| | comp=Z,14nm,1.2s | | | | | | |
| **AKASG** | **Malin Array Be** | **100.87** | **320** | P | **Pdif** | **18 58 52.6** | **-0.9** |
| | comp=Z,2.5nm,0.7s,baz=72,slow=4.2,SNR=6.4 | | | | | | |
| **AKBB** | **Malin Array Si** | **100.87** | **320** | *e*P | **Pdif** | **18 58 52.1** | **-1.4** |
| **AKBB** | **Malin Array Si** | **100.87** | **320** | *e*Pdif | **Pdif** | **18 58 52.1** | **-1.4** |
| **KIEV** | **Kiev** | **100.88** | **320** | *e*P | **Pdif** | **18 58 52.9** | **-0.6** |
| **ARA0** | **ARCESS Array S** | **100.97** | **339** | *e*Pdif | **Pdif** | **18 58 52.6** | **-1.0** |
| ARA0 | | | | *e*PKiKP | **PKiKP** | **19 03 17.4** | **0.0** |
| **ARCES** | **ARCESS Array B** | **100.97** | **339** | P | **Pdif** | **18 58 52.6** | **-1.0** |
| | comp=Z,8.8nm,0.8s,baz=79,slow=4.8,SNR=13 | | | | | | |
| ARCES | | | | PKiKP | **PKiKP** | **19 03 17.4** | **0.0** |
| | comp=Z,3.2nm,0.9s,baz=103,slow=1.2,SNR=5.0 | | | | | | |
| **SPA0** | **Spitsbergen Ar** | **101.34** | **349** | *e*Pdif | **Pdif** | **18 58 54.8** | **-0.3** |
| **FIA0** | **FINESS Array S** | **101.83** | **331** | *e*P | **Pdif** | **18 58 56.1** | **-1.5** |
| **FIA0** | **FINESS Array S** | **101.83** | **331** | *e*Pdif | **Pdif** | **18 58 56.0** | **-1.5** |
| **FINES** | **FINESS Array B** | **101.83** | **331** | P | **Pdif** | **18 58 56.0** | **-1.5** |
| | comp=Z,2.6nm,0.7s,baz=76,slow=5.9,SNR=5.4 | | | | | | |
| **MLR** | **Muntele Rosu** | **103.30** | **315** | *e*P | **Pdif** | **18 59 03.3** | **-1.3** |
| **MLR** | **Muntele Rosu** | **103.30** | **315** | *e*Pdif | **Pdif** | **18 59 03.3** | **-1.3** |
| **BUR04** | **Bucovina Ar. S** | **103.66** | **317** | *e*Pdif | **Pdif** | **18 59 06.8** | **+0.6** |
| **BUR08** | **Bucovina Ar. S** | **103.67** | **317** | *e*Pdif | **Pdif** | **18 59 06.3** | **+0.1** |
| **NB2** | **NORSAR Subarra** | **108.91** | **333** | P | **Pdif** | **18 59 27.6** | **-1.5** |
| | comp=Z,2.1nm,0.8s,baz=73,slow=4.6 | | | | | | |
| **NB2** | **NORSAR Subarra** | **108.91** | **333** | P | **Pdif** | **18 59 27.6** | **-1.5** |
| | baz=73,slow=4.6 | | | | | | |
| **NB200** | **NORSAR Array S** | **108.91** | **333** | *e*Pdif | **Pdif** | **18 59 27.9** | **-1.2** |
| NB200 | | | | *e*PKiKP | **PKiKP** | **19 03 32.3** | **0.0** |
| **NOA** | **NORSAR Array B** | **108.91** | **333** | Pdiff | **Pdif** | **18 59 27.9** | **-1.2** |
| | comp=Z,1.8nm,0.8s,baz=68,slow=4.8,SNR=4.4 | | | | | | |
| NOA | | | | PKiKP | **PKiKP** | **19 03 32.3** | **0.0** |
| | comp=Z,0.8nm,0.8s,baz=63,slow=2.0,SNR=3.5 | | | | | | |
| **YKA** | **Yellowknife Ar** | **109.02** | **26** | Pdiff | **Pdif** | **18 59 29.4** | **-0.1** |
| | comp=Z,0.8nm,0.8s,baz=294,slow=4.5,SNR=8.8 | | | | | | |
| YKA | | | | PKiKP | **PKiKP** | **19 03 32.3** | **-0.1** |
| | comp=Z,2.9nm,0.7s,baz=292,slow=1.7,SNR=29 | | | | | | |
| YKA | | | | PKKPbc | **PKKPbc** | **19 14 40.6** | **-2.6** |
| | comp=Z,0.6nm,0.7s,baz=110,slow=3.0,SNR=9.8 | | | | | | |
| **YKB5** | **Yellowknife Ar** | **109.02** | **26** | *e*Pdif | **Pdif** | **18 59 29.6** | **+0.1** |
| YKB5 | | | | *e*PKiKP | **PKiKP** | **19 03 32.0** | **-0.3** |
| **CLL** | **Collm** | **110.90** | **322** | *e*PKiKP | **PKiKP** | **19 03 37.0** | **+0.7** |
| **GERES** | **GERESS Array B** | **111.07** | **320** | PKiKP | **PKiKP** | **19 03 36.6** | **-0.2** |
| | comp=Z,1.6nm,0.7s,baz=48,slow=2.0,SNR=12 | | | | | | |
| GERES | | | | PKKPab | **PKKPab** | **19 14 45.1** | **+0.1** |
| | comp=Z,0.6nm,0.8s,baz=265,slow=4.1,SNR=3.5 | | | | | | |
| **HLID** | **Hailey** | **115.12** | **45** | *e*PKPdf | **PKPdf** | **19 03 45.1** | **+0.3** |
| **HEC** | **Hector,Ludlow** | **115.47** | **55** | P | **PKPdf** | **19 03 46.8** | **+1.2** |
| | baz=279 | | | | | | |
| **PFO** | **Pinyon Flats O** | **115.55** | **56** | P | **PKPdf** | **19 03 46.9** | **+1.0** |
| | baz=279 | | | | | | |
| **PFO** | **Pinyon Flats O** | **115.55** | **56** | *e*PKIKP | **PKPdf** | **19 03 46.6** | **+0.7** |
| **PFO** | **Pinyon Flats O** | **115.55** | **56** | *e*PKPdf | **PKPdf** | **19 03 46.6** | **+0.7** |
| **XPFO** | **Piæon Flat** | **115.56** | **56** | *e*PKPdf | **PKPdf** | **19 03 46.5** | **+0.6** |
| **TPFO** | **Pinon Flats** | **115.56** | **56** | P | **PKPdf** | **19 03 46.9** | **+1.0** |
| | baz=279 | | | | | | |
| **MCMT** | **McKenzie Canyo** | **115.87** | **43** | *e*PKPdf | **PKPdf** | **19 03 47.2** | **+0.9** |
| **EGMT** | **Eagleton** | **116.89** | **39** | *e*PKPdf | **PKPdf** | **19 03 48.0** | **0.0** |
| **DUG** | **Dugway, Tooele** | **117.12** | **48** | *e*PKiKP | **PKPdf** | **19 03 48.5** | **+0.7** |
| **DUG** | **Dugway, Tooele** | **117.12** | **48** | *e*PKPdf | **PKPdf** | **19 03 49.5** | **+0.7** |
| **W13A** | **Hualapai Mount** | **117.40** | **54** | *e*PKPdf | **PKPdf** | **19 03 49.2** | **-0.3** |
| **FXWY** | **Fox Creek** | **117.47** | **44** | *e*PKPdf | **PKPdf** | **19 03 50.4** | **+1.0** |
| **LCMT** | **Little Creek M** | **117.52** | **52** | *e*PKPdf | **PKPdf** | **19 03 50.5** | **+0.9** |
| **TPAW** | **Teton Pass** | **117.57** | **44** | *e*PKPdf | **PKPdf** | **19 03 50.5** | **+0.8** |
| **MOOW** | **Moose Ponds** | **117.63** | **44** | *e*PKPdf | **PKPdf** | **19 03 50.3** | **+0.6** |
| **REDW** | **Red Top Meadow** | **117.67** | **45** | *e*PKPdf | **PKPdf** | **19 03 50.7** | **+0.8** |
| **SNOW** | **Snow King Moun** | **117.71** | **44** | *e*PKPdf | **PKPdf** | **19 03 51.3** | **+1.4** |
| **TCUT** | **Toone Canyon** | **117.92** | **47** | *e*PKPdf | **PKPdf** | **19 03 50.9** | **+0.5** |
| **MSU** | **Marysvale** | **118.01** | **50** | *e*PKIKP | **PKPdf** | **19 03 51.4** | **+0.7** |
| **MSU** | **Marysvale** | **118.01** | **50** | *e*PKPdf | **PKPdf** | **19 03 51.4** | **+0.7** |
| **MTPU** | **Mount Pierson** | **118.11** | **51** | *e*PKPdf | **PKPdf** | **19 03 52.1** | **+1.1** |
| **FFC** | **Flin Flon** | **118.38** | **30** | *e*PKIKP | **PKPdf** | **19 03 50.3** | **-0.2** |
| **FFC** | **Flin Flon** | **118.38** | **30** | *e*PKPdf | **PKPdf** | **19 03 50.3** | **-0.2** |
| **U15A** | **North Rim** | **118.40** | **52** | *e*PKPdf | **PKPdf** | **19 03 52.9** | **+1.4** |
| **TMUT** | **Trail Mountain** | **118.55** | **49** | *e*PKPdf | **PKPdf** | **19 03 52.4** | **+0.6** |
| **Q16A** | **Castle Valley** | **118.67** | **49** | *e*PKPdf | **PKPdf** | **19 03 52.6** | **+0.8** |
| **BW06** | **Boulder Array** | **118.76** | **45** | *e*PKPdf | **PKPdf** | **19 03 52.2** | **+0.3** |
| **PD31** | **Pinedale Array** | **118.76** | **45** | *e*PKPdf | **PKPdf** | **19 03 52.0** | **0.0** |
| **PDAR** | **Pinedale Array** | **118.76** | **45** | PKP | **PKPdf** | **19 03 52.0** | **0.0** |
| | comp=Z,2.5nm,0.7s,baz=270,slow=0.8,SNR=20 | | | | | | |
| PDAR | | | | PKKPbc | **PKKPbc** | **19 14 09.7** | **-0.1** |
| | comp=Z,1.3nm,0.7s,baz=108,slow=5.9,SNR=10 | | | | | | |
| **PDAR** | **Pinedale Array** | **118.76** | **45** | *e*PKPdf | **PKPdf** | **19 03 51.7** | **-0.3** |
| PDAR | | | | PKKPbc | **PKKPbc** | **19 14 09.7** | **-0.1** |
| **SRU** | **San Rafael Swe** | **119.11** | **49** | *e*PKIKP | **PKPdf** | **19 03 53.5** | **+0.8** |
| **SRU** | **San Rafael Swe** | **119.11** | **49** | *e*PKPdf | **PKPdf** | **19 03 53.5** | **+0.8** |
| **WUAZ** | **Wupatki** | **119.32** | **53** | *e*PKPdf | **PKPdf** | **19 03 54.1** | **+1.0** |
| **X16A** | **Lo Mia Camp, P** | **119.51** | **55** | *e*PKPdf | **PKPdf** | **19 03 54.6** | **+1.0** |
| **PV09** | **Paradox Valley** | **120.32** | **49** | *e*PKPdf | **PKPdf** | **19 03 56.3** | **+1.2** |
| **PV10** | **Paradox Valley** | **120.42** | **50** | *e*PKPdf | **PKPdf** | **19 03 56.7** | **+1.3** |
| **PV05** | **Paradox Valley** | **120.46** | **50** | *e*PKPdf | **PKPdf** | **19 03 56.5** | **+1.1** |
| **TUC** | **Tucson** | **120.48** | **57** | *e*PKIKP | **PKPdf** | **19 03 55.8** | **+0.5** |
| **TUC** | **Tucson** | **120.48** | **57** | *e*PKPdf | **PKPdf** | **19 03 55.8** | **+0.5** |
| **O20A** | **White River Ci** | **120.51** | **47** | *e*PKPdf | **PKPdf** | **19 03 56.5** | **+1.2** |
| **W18A** | **Petrified Fore** | **120.72** | **53** | *e*PKPdf | **PKPdf** | **19 03 56.4** | **+0.5** |
| **RWWY** | **Rawlins** | **120.75** | **45** | *e*PKPdf | **PKPdf** | **19 03 55.9** | **+0.1** |
| **PV01** | **Paradox Valley** | **120.85** | **50** | *e*PKPdf | **PKPdf** | **19 03 56.5** | **+0.4** |
| **MVCO** | **Mesa Verde** | **121.16** | **51** | *e*PKPdf | **PKPdf** | **19 03 57.9** | **+1.2** |
| **SMCO** | **Snowmass** | **121.73** | **48** | *e*PKPdf | **PKPdf** | **19 03 59.3** | **+1.3** |
| **319A** | **Douglas** | **121.92** | **58** | *e*PKPdf | **PKPdf** | **19 03 59.4** | **+1.2** |
| **RSSD** | **Black Hills** | **122.04** | **42** | *e*PKPpre | PKPpre | 19 03 49.1 | |
| RSSD | | | | *e*PKPdf | **PKPdf** | **19 03 56.6** | **-1.6** |
| **S22A** | **4UR Ranch, Cre** | **122.28** | **50** | *e*PKPdf | **PKPdf** | **19 04 00.4** | **+1.4** |
| **ISCO** | **Idaho Springs** | **122.53** | **47** | *e*PKIKP | **PKPdf** | **19 03 59.9** | **+0.5** |
| **ISCO** | **Idaho Springs** | **122.53** | **47** | *e*PKPdf | **PKPdf** | **19 03 59.9** | **+0.5** |
| **SDCO** | **Great Sand Dun** | **123.28** | **49** | *e*PKPdf | **PKPdf** | **19 04 01.5** | **+0.6** |
| **ANMO** | **Albuquerque** | **123.36** | **53** | *e*PKIKP | **PKPdf** | **19 04 01.9** | **+0.9** |
| **ANMO** | **Albuquerque** | **123.36** | **53** | *e*PKPdf | **PKPdf** | **19 04 01.9** | **+0.9** |
| **LPM** | **Los Pinos Moun** | **123.40** | **54** | *e*PKPdf | **PKPdf** | **19 04 02.0** | **+0.9** |
| **BNM** | **Barren Site** | **123.44** | **54** | *e*PKPdf | **PKPdf** | **19 04 01.9** | **+0.7** |
| **ULM** | **Lac du Bonnet** | **123.94** | **32** | PKP | **PKPdf** | **19 04 00.7** | **-0.6** |
| | comp=Z,10.0nm,0.7s,baz=279,slow=3.2,SNR=16 | | | | | | |
| **ULM** | **Lac du Bonnet** | **123.94** | **32** | *e*PKPdf | **PKPdf** | **19 03 59.5** | **-1.9** |
| **MHTCO** | **State Highway** | **124.08** | **50** | *e*PKPdf | **PKPdf** | **19 04 03.0** | **+0.7** |
| **T25A** | **Trinidad** | **124.29** | **50** | *e*PKPdf | **PKPdf** | **19 04 03.3** | **+0.5** |
| **MNTX** | **Cornudas Mount** | **125.08** | **56** | *e*PKPdf | **PKPdf** | **19 04 04.3** | **+0.1** |
| **ES19** | **SONSECA Array** | **125.93** | **314** | *e*PKPdf | **PKPdf** | **19 04 05.5** | **0.0** |
| **ESDC** | **Sonseca Array** | **125.99** | **314** | PKP | **PKPdf** | **19 04 05.8** | **+0.1** |
| | comp=Z,2.4nm,0.9s,baz=25,slow=3.3,SNR=13 | | | | | | |
| **PAB** | **San Pablo** | **126.31** | **314** | *e*PKIKP | **PKPdf** | **19 04 06.0** | **-0.3** |
| **PAB** | **San Pablo** | **126.31** | **314** | *e*PKPdf | **PKPdf** | **19 04 06.0** | **-0.3** |
| **TOA0** | **Torodi Ar. Sit** | **126.51** | **281** | *e*PKPdf | **PKPdf** | **19 04 07.0** | **-0.2** |
| TOA0 | | | | *e*PKiKP | **PKiKP** | **19 04 07.2** | **-0.6** |
| TOA0 | | | | *ep*PKPdf | **pPKPdf** | **19 05 16.2** | **+2.2** |
| **TORD** | **Torodi Ar. Bea** | **126.51** | **281** | PKP | **PKPdf** | **19 04 07.3** | **+0.1** |
| | comp=Z,7.2nm,0.8s,baz=73,slow=1.9,SNR=39 | | | | | | |
| TORD | | | | pPKP | **pPKPdf** | **19 05 16.4** | **+2.3** |
| | comp=Z,2.4nm,1.0s,baz=68,slow=2.0,SNR=2.7 | | | | | | |
| TORD | | | | SKPbc | SKiKP | 19 06 56.5 | -22 |
| | comp=Z,1.3nm,1.0s,baz=92,slow=2.4,SNR=4.4 | | | | | | |
| TORD | | | | PKKPbc | **PKKPbc** | **19 13 41.5** | **+2.2** |
| | comp=Z,0.6nm,0.9s,baz=252,slow=4.2,SNR=4.1 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **126.51** | **281** | *e*PKPdf | **PKPdf** | **19 04 07.3** | **+0.1** |
| TOA1 | | | | *ep*PKPdf | **pPKPdf** | **19 05 16.4** | **+2.3** |
| TOA1 | | | | *e* | | 19 06 56.5 | |
| TOA1 | | | | *e*Sdif | Sdif | 19 13 41.5 | -1.8 |
| **PBRG** | **Braganca** | **126.98** | **318** | *e*PKPdf | **PKPdf** | **19 04 05.0** | **-2.5** |
| **ECSD** | **EROS Data Cent** | **127.00** | **39** | *e*PKPdf | **PKPdf** | **19 04 07.5** | **0.0** |
| **TX31** | **Lajitas Ar. Si** | **127.10** | **59** | *e*PKPdf | **PKPdf** | **19 04 08.1** | **-0.1** |
| TX31 | | | | *e*PKPdf | **PKiKP** | **19 04 08.9** | **+0.2** |
| **LTX** | **Lajitas** | **127.10** | **59** | *e*PKIKP | **PKPdf** | **19 04 08.2** | **0.0** |
| LTX | | | | *e* | | 19 05 16.3 | |
| **LTX** | **Lajitas** | **127.10** | **59** | *e*PKPdf | **PKPdf** | **19 04 08.2** | **0.0** |
| LTX | | | | *ep*PKPdf | **pPKPdf** | **19 05 16.3** | **+1.3** |
| **TXAR** | **Lajitas Array** | **127.10** | **59** | PKP | **PKPdf** | **19 04 08.2** | **0.0** |
| | comp=Z,2.0nm,0.8s,baz=237,slow=2.0,SNR=16 | | | | | | |
| TXAR | | | | pPKP | **pPKPdf** | **19 05 16.3** | **+1.3** |
| | comp=Z,0.5nm,0.8s,baz=282,slow=0.8,SNR=1.9 | | | | | | |
| **MVO** | **Moncorvo** | **127.47** | **317** | *e*PKPdf | **PKPdf** | **19 04 10.8** | **+2.3** |
| **POLO** | **Lamas de Olo** | **127.88** | **318** | *e*PKPdf | **PKPdf** | **19 04 11.0** | **+1.7** |
| **MTE** | **Manteigas** | **128.16** | **317** | *e*PKPdf | **PKPdf** | **19 04 11.7** | **+1.9** |
| **PCBR** | **Castelo Branco** | **128.37** | **316** | *e*PKPdf | **PKPdf** | **19 04 12.1** | **+2.0** |
| **PMRV** | **Marv??o** | **128.50** | **316** | *e*PKPdf | **PKPdf** | **19 04 11.9** | **+1.5** |
| **PBAR** | **Barrancos** | **128.79** | **314** | *e*PKPdf | **PKPdf** | **19 04 13.2** | **+2.2** |
| **PCAS** | **Casmilo, Conde** | **128.97** | **317** | *e*PKPdf | **PKPdf** | **19 04 11.9** | **+0.6** |
| **PMTG** | **Montargil** | **129.24** | **316** | *e*PKPdf | **PKPdf** | **19 04 13.5** | **+1.7** |
| **PLCA** | **Paso Flores** | **129.42** | **162** | PKP | **PKPdf** | **19 04 14.2** | **+1.9** |
| | comp=Z,2.9nm,1.0s,baz=225,slow=2.0,SNR=2.4 | | | | | | |
| PLCA | | | | pPKP | **pPKPdf** | **19 05 23.4** | **+4.3** |
| | comp=Z,7.2nm,0.9s,baz=217,slow=9.5,SNR=5.0 | | | | | | |
| PLCA | | | | SKPbc | SKPab | 19 07 08.2 | -0.4 |
| | comp=Z,7.8nm,1.0s,baz=207,slow=3.9,SNR=5.9 | | | | | | |
| **MESJ** | **Messejana** | **129.78** | **314** | *e*PKPdf | **PKPdf** | **19 04 14.9** | **+2.0** |
| **PBDV** | **Barranco-do-Ve** | **129.83** | **313** | *e*PKPdf | **PKPdf** | **19 04 11.8** | **-1.2** |
| **JCT** | **Junction City** | **130.02** | **56** | *e*PKIKP | **PKPdf** | **19 04 14.2** | **+0.6** |
| **JCT** | **Junction City** | **130.02** | **56** | *e*PKPdf | **PKPdf** | **19 04 14.2** | **+0.6** |
| **V36A** | **Jenks** | **131.13** | **48** | *e*PKPdf | **PKPdf** | **19 04 16.3** | **+0.8** |
| **SCHQ** | **Schefferville** | **131.16** | **11** | PKP | **PKPdf** | **19 04 16.3** | **+1.3** |
| | comp=Z,6.7nm,0.6s,baz=0.0,slow=3.0,SNR=7.8 | | | | | | |
| SCHQ | | | | SKPbc | **SKPbc** | **19 07 14.2** | **-0.6** |
| | comp=Z,14nm,0.9s,baz=311,slow=4.4,SNR=8.4 | | | | | | |
| **SCHQ** | **Schefferville** | **131.16** | **11** | *e*PKPdf | **PKPdf** | **19 04 15.7** | **+0.7** |
| SCHQ | | | | SKPbc | **SKPbc** | **19 07 14.2** | **-0.6** |
| **W36A** | **Wetumka** | **131.19** | **49** | *e*PKPdf | **PKPdf** | **19 04 15.7** | **+0.1** |
| **W37B** | **Quinton** | **131.78** | **49** | *e*PKPdf | **PKPdf** | **19 04 17.9** | **+1.2** |
| **X37A** | **Clayton** | **132.05** | **49** | *e*PKPdf | **PKPdf** | **19 04 17.6** | **+0.3** |
| **HHAR** | **Hobbs** | **132.37** | **46** | *e*PKPdf | **PKPdf** | **19 04 17.4** | **-0.5** |
| **KIC** | **Kosan Boka** | **132.68** | **272** | *e*PKP1 | | 19 07 20.2 | |
| | comp=Z,24nm,1.0s | | | | | | |
| **DBIC** | **Dimbokro** | **132.81** | **272** | PKP | **PKPdf** | **19 04 19.5** | **+0.3** |
| | comp=Z,5.3nm,0.8s,baz=106,slow=6.6,SNR=6.4 | | | | | | |
| DBIC | | | | SKPbc | **SKPbc** | **19 07 21.5** | **-0.3** |
| | comp=Z,8.3nm,1.0s,baz=77,slow=4.1,SNR=5.6 | | | | | | |
| **LIC** | **Lamto** | **132.95** | **272** | *e*PKP1 | | 19 07 21.3 | |
| | comp=Z,42nm,1.6s | | | | | | |
| **TIC** | **Toumodi** | **132.97** | **272** | *e*PKP1 | | 19 07 21.2 | |
| **CCM** | **Cathedral Cave** | **133.39** | **43** | *e*PKIKP | **PKPdf** | **19 04 19.1** | **-0.6** |
| **CCM** | **Cathedral Cave** | **133.39** | **43** | *e*PKPdf | **PKPdf** | **19 04 19.1** | **-0.6** |
| **MIAR** | **Mount Ida** | **133.41** | **48** | *e*PKIKP | **PKPdf** | **19 04 20.9** | **+1.0** |
| **MIAR** | **Mount Ida** | **133.41** | **48** | *e*PKPdf | **PKPdf** | **19 04 20.9** | **+1.0** |
| **WVT** | **Waverly** | **136.73** | **43** | *e*PKIKP | **PKPdf** | **19 04 26.0** | **0.0** |
| **WVT** | **Waverly** | **136.73** | **43** | *e*PKPdf | **PKPdf** | **19 04 26.0** | **0.0** |
| **PLAL** | **Pickwick Lake** | **137.17** | **45** | *e*PKPdf | **PKPdf** | **19 04 27.7** | **+0.9** |
| **LRAL** | **Lakeview Retre** | **138.94** | **47** | *e*PKPdf | **PKPdf** | **19 04 30.1** | **-0.1** |
| **TKL** | **Tuckaleechee C** | **139.69** | **41** | *e*PKIKP | **PKPdf** | **19 04 31.7** | **+0.2** |
| **TKL** | **Tuckaleechee C** | **139.69** | **41** | *e*PKPdf | **PKPdf** | **19 04 31.7** | **+0.2** |
| **KMSC** | **Kings Mountain** | **141.58** | **40** | *e*PKPpre | PKPpre | 19 04 28.1 | |
| KMSC | | | | *e*PKPdf | **PKPdf** | **19 04 35.6** | **+0.7** |
| **IP05** | **Hopewell Churc** | **141.86** | **33** | *e*PKPpre | PKPpre | 19 04 29.1 | |
| IP05 | | | | *e*PKPdf | **PKPdf** | **19 04 35.3** | **0.0** |
| **TGUH** | **Tegucigalpa,Un** | **145.11** | **76** | *e*PKPdf | **PKPab** | **19 04 42.0** | **+0.1** |
| **DWPF** | **Disney Wildern** | **145.60** | **49** | *e*PKPdf | **PKPbc** | **19 04 43.1** | **+0.3** |
| **PB04** | **IPOC Station P** | **145.85** | **150** | *e*PKPdf | **PKPab** | **19 04 45.2** | **+0.5** |
| **CPUP** | **Villa Florida** | **146.28** | **172** | PKPbc | **PKPbc** | **19 04 44.5** | **-0.4** |
| | comp=Z,23nm,0.8s,baz=187,slow=2.0,SNR=53 | | | | | | |
| CPUP | | | | pPKPbc | pPKPab | 19 05 52.7 | +1.7 |
| | comp=Z,6.4nm,0.9s,baz=187,slow=1.9,SNR=2.5 | | | | | | |
| CPUP | | | | SKPbc | **SKiKP** | **19 07 59.1** | **+0.5** |
| | comp=Z,2.6nm,0.8s,baz=212,slow=3.8,SNR=3.3 | | | | | | |
| **CPUP** | **Villa Florida** | **146.28** | **172** | *e*PKIKP | **PKPbc** | **19 04 44.3** | **-0.6** |
| CPUP | | | | *e* | | 19 04 46.3 | |
| CPUP | | | | | | 19 05 52.7 | |
| **CPUP** | **Villa Florida** | **146.28** | **172** | *e*PKPdf | **PKPbc** | **19 04 44.3** | **-0.6** |
| CPUP | | | | *e*PKPbc | **PKPab** | **19 04 46.3** | **+0.2** |
| CPUP | | | | *ep*PKPdf | **pPKPdf** | **19 05 45.8** | **-4.5** |
| CPUP | | | | pPKPbc | pPKPab | 19 05 52.7 | +1.7 |
| CPUP | | | | *e*SKPbc | **SKPbc** | **19 07 58.4** | **+0.1** |
| **PB01** | **IPOC Station P** | **147.26** | **150** | *e*PKPdf | **PKPdf** | **19 04 45.7** | **+0.5** |
| PB01 | | | | *e*PKPbc | **PKPbc** | **19 04 48.6** | **+0.7** |
| **PB11** | **IPOC Station P** | **148.24** | **148** | *e*PKPdf | **PKPdf** | **19 04 48.0** | **+1.1** |
| PB11 | | | | *e*PKPbc | **PKiKP** | **19 04 51.5** | **-0.6** |
| PB11 | | | | *e*PKPab | **PKPab** | **19 04 56.2** | **+1.9** |
| **MNMC** | **Minye Minye** | **148.79** | **147** | *e*PKPdf | **PKPdf** | **19 04 49.3** | **+1.3** |
| MNMC | | | | *e*PKPbc | **PKiKP** | **19 04 53.8** | **+0.3** |
| MNMC | | | | *e*PKPab | **PKPab** | **19 04 59.0** | **+2.3** |
| **NNA** | **Nana** | **149.09** | **128** | *e*PKPdf | **PKPdf** | **19 04 47.8** | **-0.5** |
| NNA | | | | *e*PKPbc | **PKiKP** | **19 04 53.8** | **-0.1** |
| **SACV** | **Santiago Islan** | **150.74** | **288** | *e*PKPbc | **PKPbc** | **19 04 56.2** | **-0.5** |
| **LPAZ** | **La Paz** | **151.91** | **146** | PKPbc | **PKPbc** | **19 05 00.9** | **+0.9** |
| | comp=Z,13nm,0.8s,baz=189,slow=2.7,SNR=22 | | | | | | |
| LPAZ | | | | PKPab | **PKPab** | **19 05 11.8** | **+1.7** |
| | comp=Z,41nm,0.7s,baz=198,slow=4.2,SNR=47 | | | | | | |
| LPAZ | | | | pPKPbc | **pPKPbc** | **19 06 09.6** | **+3.0** |
| | comp=Z,12nm,1.0s,baz=352,slow=1.6,SNR=2.6 | | | | | | |
| **LPAZ** | **La Paz** | **151.91** | **146** | *e*PKIKP | **PKPdf** | **19 04 53.7** | **+0.4** |
| LPAZ | | | | *e* | | 19 04 54.0 | |
| LPAZ | | | | *e* | | 19 06 06.9 | |
| **LPAZ** | **La Paz** | **151.91** | **146** | *e*PKPdf | **PKPdf** | **19 04 53.7** | **+0.4** |
| LPAZ | | | | *e*PKPbc | **PKPbc** | **19 04 54.0** | **-6.0** |
| LPAZ | | | | *e* | | 19 05 00.9 | |
| LPAZ | | | | *e* | | 19 05 01.1 | |
| LPAZ | | | | *e* | | 19 05 12.3 | |
| LPAZ | | | | *e* | | 19 05 12.6 | |
| LPAZ | | | | *ep*PKPab | **pPKPbc** | **19 06 06.9** | **+0.3** |
| **OTAV** | **Otavalo** | **153.11** | **104** | *e*PKPdf | **PKPdf** | **19 04 56.6** | **+1.6** |
| OTAV | | | | *e*PKPbc | **PKiKP** | **19 05 05.2** | **+2.5** |
| OTAV | | | | *e*PKPab | **PKPab** | **19 05 16.6** | **+1.3** |
| **SDDR** | **Presa de Saban** | **158.25** | **56** | *e*PKPab | **PKPab** | **19 05 36.6** | **0.0** |
| **RUSC** | **La Rusia** | **159.42** | **93** | *e*PKPdf | **PKPdf** | **19 05 02.5** | **-0.7** |
| RUSC | | | | *e*PKPab | **PKPab** | **19 05 42.9** | **0.4** |
| **SDV** | **Santo Domingo** | **161.88** | **84** | *e*PKPdf | **PKPdf** | **19 05 04.8** | **-0.6** |
| SDV | | | | *e*PKPab | **PKPab** | **19 05 52.7** | **-0.2** |

**IDC 20 19:09:06.2**±1.8,**0°.31N**×127°.21E,**h0**km,**mb3.7**/4,
**mb1 3.9**/4,**mb1mx3.4**/41,**mbtmp3.7**/4,**Error ellipse:**
**s-maj=160.0km s-min=23.7km az=65.0,Halmahera**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | | | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h | m | s | ISC |
| **WRA** | **Warramunga Arr** | **21.30** | **161** | P | P | 19 13 54.8 | | | +0.1 |
| | 0.8nm,0.4s,baz=340,slow=11,SNR=51 | | | | | | | | |
| **ASAR** | **Alice Springs** | **24.70** | **165** | P | P | 19 14 29.1 | | | -0.1 |
| | 1.6nm,0.6s,baz=342,slow=11,SNR=24 | | | | | | | | |
| **STKA** | **Stephens Creek** | **34.79** | **158** | P | P | 19 15 58.5 | | | -0.1 |
| | 1.5nm,0.5s,baz=343,slow=12,SNR=4.4 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **60.63** | **326** | P | P | 19 19 19.0 | | | 0.0 |
| | 0.2nm,0.4s,baz=129,slow=8.3,SNR=7.1 | | | | | | | | |

*ISCJB **20** 19:11:07.3±1.1,33°.81S×0°.02×72°.48W×0°.03,h9km±6km,*
*mb4.8/55,MS4.1/3,Error ellipse: s-maj=4.3km*
*s-min=3.8km az=29.5*
*IDC **20** 19:11:07.2±0.7,33°.79S×72°.38W,h0km,mb4.2/8,*
*mb1 4.3/11,mb1mx4.2/25,mbtmp4.2/11,ML4.4/3,MS3.9/5,*
*Ms1 3.9/5,ms1mx3.5/22,Error ellipse: s-maj=28.9km*
*s-min=20.0km az=81.0*
*NEIC **20** 19:11:09.6±2.1,33°.80S×72°.28W,h12km±13km,mb4.9/49,*
*Error ellipse: s-maj=8.8km s-min=4.6km az=85.0*
*NEIC Felt [III] at Pichilemu and San Antonio and [II] at*
*Rancagua, San Esteban and Villa Alemana.*
*GUC **20** 19:11:09.2±0.4,33°.86S×72°.44W,h40km±2km,ML4.3*
**ISC 20 19:11:09.2**±1.0,**33°.82S**±0°.03×**72°.46W**±0°.05,**h13**km±5km,
**n118,σ1°.49**/136,**mb4.8**/55,**MS3.9**/3,**Off coast of central**
**Chile**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | | | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h | m | s | ISC |
| **CHPI** | **Pichilemu** | **0.69** | **147** | *e*P | **Pg** | **19 11 21.8** | | | **-0.7** |
| CHPI | | | | *e*S | **Sg** | **19 11 31.3** | | | **-0.3** |
| CHPI | | | | IAML | | 19 11 33.2 | | | |
| | comp=E,23μm,0.8s | | | | | | | | |
| **GO05** | **HualaæØ** | **1.27** | **160** | *e*Pn | **Pn** | **19 11 31.6** | | | **-1.1** |
| GO05 | | | | *e*Sn | **Sb** | **19 11 47.8** | | | **-1.5** |
| **GO05** | **HualaæØ** | **1.27** | **160** | *e*P | **Pn** | **19 11 30.9** | | | **-1.8** |
| GO05 | | | | *e*S | **Sb** | **19 11 47.5** | | | **-1.7** |
| GO05 | | | | IAML | | 19 11 52.2 | | | |
| | comp=E,11μm,0.9s | | | | | | | | |
| **RCDM** | **Rinconada Maip** | **1.41** | **77** | *e*P | **Pn** | **19 11 33.2** | | | **-1.4** |
| RCDM | | | | *e*S | **Sn** | **19 11 52.1** | | | **-1.1** |
| **ROC1** | **El Roble** | **1.47** | **56** | *e*Pn | Pg | 19 11 41.8 | | | +4.4 |
| **ANTU** | **Antumapu** | **1.54** | **81** | *e*P | **Pn** | **19 11 35.8** | | | **-0.7** |
| ANTU | | | | *e*S | **Sn** | **19 11 55.7** | | | **-0.6** |
| **NICH** | **Los Niches** | **1.56** | **140** | *e*P | **Pn** | **19 11 36.5** | | | **-0.2

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | comp=Z,4.5nm,0.4s | | | | | | |
| **TRQ** | **Mont Tremblant** | **79.69** | **359** | *e*P | **P** | **19 23 15.8** | **-0.5** |
| **ECSD** | **EROS Data Center** | **80.27** | **342** | *e*P | **P** | **19 23 20.2** | **+0.8** |
| | comp=Z,21nm,1.8s | | | | | | |
| **BOSA** | **Boshof** | **80.46** | **118** | P | **P** | **19 23 20.6** | **-0.7** |
| | comp=Z,1.7nm,0.8s,baz=133,slow=2.1,SNR=4.0 | | | | | | |
| **MTPU** | **Mount Pierson** | **80.47** | **329** | *e*P | **P** | **19 23 23.1** | **+2.0** |
| | comp=Z,6.1nm,1.0s | | | | | | |
| **SHPR** | **Sheep Range** | **80.51** | **326** | *e*P | **P** | **19 23 19.6** | **-1.5** |
| | comp=Z,4.7nm,1.1s | | | | | | |
| **CCUT** | **Cedar City** | **80.57** | **328** | *e*P | **P** | **19 23 22.1** | **+0.6** |
| | comp=Z,4.6nm,1.1s | | | | | | |
| **O20A** | **White River Ci** | **80.67** | **333** | *e*P | **P** | **19 23 20.7** | **-1.3** |
| | comp=Z,15nm,1.1s | | | | | | |
| **KOWA** | **Kowa** | **80.88** | **66** | *e*P | **P** | **19 23 22.7** | **-0.7** |
| | comp=Z,21nm,1.6s | | | | | | |
| **NV01** | **Mina Array Sit** | **83.54** | **325** | *e*P | **P** | **19 23 38.2** | **+1.2** |
| **NVAR** | **Mina Array Bea** | **83.54** | **325** | P | **P** | **19 23 37.4** | **+0.3** |
| | comp=Z,0.5nm,0.5s,baz=170,slow=4.5,SNR=3.8 | | | | | | |
| **AHID** | **Auburn Hatcher** | **84.03** | **332** | *e*P | **P** | **19 23 39.5** | **+0.1** |
| | comp=Z,20nm,0.9s | | | | | | |
| **TOA0** | **Torodi Ar. Sit** | **84.47** | **70** | *e*P | **P** | **19 23 41.3** | **-0.8** |
| | comp=Z,5.8nm,1.1s | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **84.47** | **70** | P | **P** | **19 23 41.8** | **-0.3** |
| | comp=Z,2.2nm,0.7s,baz=284,slow=7.8,SNR=16 | | | | | | |
| TORD | | | | LR | LR | 20 01 08.3 | |
| | comp=Z,43nm,18.0s,baz=270,slow=36 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **84.47** | **70** | *e*P | **P** | **19 23 41.8** | **-0.3** |
| **IMW** | **Indian Meadow** | **84.93** | **333** | *e*P | **P** | **19 23 43.7** | **-0.4** |
| | comp=Z,3.1nm,0.7s | | | | | | |
| **YPP** | **Pitchstone Pla** | **85.20** | **333** | *e*P | **P** | **19 23 46.0** | **+0.6** |
| | comp=Z,5.2nm,1.2s | | | | | | |
| **YHH** | **Holmes Hill** | **85.66** | **334** | *e*P | **P** | **19 23 48.4** | **+0.7** |
| | comp=Z,7.2nm,1.3s | | | | | | |
| **ULM** | **Lac du Bonnet** | **86.23** | **345** | P | **P** | **19 23 50.9** | **+0.8** |
| | comp=Z,3.4nm,0.9s,baz=187,slow=7.8,SNR=3.0 | | | | | | |
| **MCMT** | **McKenzie Canyo** | **86.44** | **332** | *e*P | **P** | **19 23 52.9** | **+1.3** |
| **J08A** | **Circle Bar Ran** | **87.55** | **328** | *e*P | **P** | **19 23 59.0** | **+2.2** |
| | comp=Z,4.4nm,0.9s | | | | | | |
| **ASAR** | **Alice Springs** | **117.57** | **207** | PKP | **PKPdf** | **19 29 55.2** | **-0.2** |
| | comp=Z,0.2nm,0.6s,baz=125,slow=2.0,SNR=3.0 | | | | | | |
| **WR1** | **Warramunga Arr** | **120.75** | **210** | *e*PKPdf | **PKPdf** | **19 30 00.8** | **-0.9** |
| **WRA** | **Warramunga Arr** | **120.75** | **210** | PKP | **PKPdf** | **19 30 00.8** | **-0.9** |
| | comp=Z,0.3nm,0.4s,baz=155,slow=1.5,SNR=12 | | | | | | |
| **BR101** | **Keskin Array S** | **122.05** | **61** | *e*PKPdf | **PKPdf** | **19 30 03.5** | **0.0** |
| **BRTR** | **Keskin Array B** | **122.05** | **61** | PKP | **PKPdf** | **19 30 03.5** | **0.0** |
| | comp=Z,0.4nm,0.8s,baz=179,slow=2.4,SNR=3.0 | | | | | | |
| **KKAR** | **Karatay Array** | **149.76** | **61** | *e*PKPbc | **PKPbc** | **19 30 57.7** | **-1.0** |
| **AAK** | **Ala-Archa** | **152.72** | **61** | *e*PKPbc | **PKPbc** | **19 31 05.8** | **0.0** |
| **ZAA1** | **Zalesovo Array** | **154.25** | **32** | *e*PKPbc | **PKPbc** | **19 31 08.7** | **+0.2** |
| **ZALV** | **Zalesovo Beam** | **154.25** | **32** | PKPbc | **PKPbc** | **19 31 08.7** | **+0.2** |
| | comp=Z,2.9nm,0.7s,baz=296,slow=3.3,SNR=14 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **154.25** | **32** | *e*PKPdf | **PKPdf** | **19 31 00.2** | **-0.1** |
| ZALV | | | | *e*PKPbc | **sPKPdf** | **19 31 07.0** | **+0.8** |
| **MK32** | **Makanchi Array** | **156.90** | **48** | *e*PKPab | **PKPab** | **19 31 33.5** | **-0.7** |
| **MKAR** | **Makanchi Array** | **156.90** | **48** | PKPab | **PKPab** | **19 31 33.5** | **-0.7** |
| | comp=Z,1.2nm,0.6s,baz=284,slow=2.6,SNR=9.7 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **162.88** | **151** | PKP | **PKPdf** | **19 31 12.8** | **+1.1** |
| | comp=Z,0.4nm,0.8s,baz=225,slow=1.8,SNR=4.2 | | | | | | |

**IDC 20 19:15:04.9±4.2, 61.46S×156.45E, h0km, mb3.4/2, mb1 3.8/3, mb1mx3.7/25, mbtmp3.6/3, ML2.3/1, MS3.7/8, Ms1 3.8/8, ms1mx3.6/11, Error ellipse: s-maj=294.6km s-min=39.2km az=74.0, Balleny Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VNDA** | **Vanda** | **16.24** | **176** | Pn | Pn | 19 18 53.8 | -0.2 |
| | 0.0nm,0.3s,baz=354,slow=11,SNR=4.9 | | | | | | |
| VNDA | | | | LR | LR | 19 24 18.9 | |
| | comp=Z,548nm,18.6s,baz=5.5,slow=34 | | | | | | |
| **RPZ** | **Rata Peaks** | **19.77** | **33** | LR | LR | 19 25 21.0 | |
| | comp=Z,395nm,18.4s,baz=196,slow=31 | | | | | | |
| **URZ** | **Urewera** | **26.53** | **38** | LR | LR | 19 31 20.0 | |
| | comp=Z,212nm,18.1s,baz=204,slow=37 | | | | | | |
| **STKA** | **Stephens Creek** | **31.14** | **335** | LR | LR | 19 32 46.8 | |
| | comp=Z,103nm,18.3s,baz=179,slow=34 | | | | | | |
| **MAW** | **Mawson** | **37.00** | **219** | LR | LR | 19 38 26.7 | |
| | comp=Z,138nm,18.1s,baz=66,slow=38 | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **37.67** | **295** | T | T | 20 04 15.2 | |
| | baz=145,slow=76,SNR=14 | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **37.68** | **295** | T | T | 20 04 15.6 | |
| | baz=145,slow=76,SNR=14 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **37.69** | **295** | T | T | 20 04 16.5 | |
| | baz=145,slow=76,SNR=15 | | | | | | |
| **DZM** | **Mont Dzumac** | **39.96** | **15** | LR | LR | 19 35 37.9 | |
| | comp=Z,115nm,19.0s,baz=208,slow=31 | | | | | | |
| **ASAR** | **Alice Springs** | **40.81** | **327** | P | P | 19 22 48.2 | +0.3 |
| | 0.6nm,0.8s,baz=155,slow=9.1,SNR=4.0 | | | | | | |
| ASAR | | | | PcP | PcP | 19 24 49.1 | +0.1 |
| | 0.4nm,0.8s,baz=147,slow=5.0,SNR=4.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.27** | **330** | P | P | 19 23 15.3 | -0.8 |
| | 0.5nm,1.0s,baz=166,slow=6.5,SNR=2.9 | | | | | | |
| **PPT** | **Papeete** | **57.82** | **66** | LR | LR | 19 43 07.7 | |
| | comp=Z,28nm,20.7s,baz=188,slow=29 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **91.78** | **307** | LR | LR | 20 08 29.8 | |
| | comp=Z,22nm,19.4s,baz=180,slow=35 | | | | | | |

**MAN 20 19:19:04, 13.40N×122.31E, h27km, mb4.2, ML3.0, MS2.7, 1C, Luzon**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AUQP** | **San Andres** | **0.36** | **101** | *e*P | Pn | 19 19 13.0 | -0.5 |
| AUQP | | | | *e*S | Sn | 19 19 21.5 | +1.7 |
| **BOAC** | **Boac** | **0.46** | **278** | *e*P | Pn | 19 19 14.7 | -0.1 |
| BOAC | | | | *e*S | Sn | 19 19 23.3 | +1.2 |
| **GQP** | **Guinayangan** | **0.52** | **15**⇑ | *e*P | Pn | 19 19 16.1 | +0.3 |
| **OTRP** | **Odiongan** | **1.06** | **195** | *e*P | Pn | 19 19 22.9 | -0.3 |
| OTRP | | | | *e*S | Sb | 19 19 37.9 | +0.5 |
| **SJMP** | **San Jose** | **1.49** | **231** | *e*P | Pb | 19 19 30.9 | 0.0 |
| SJMP | | | | *e*S | Sb | 19 19 50.9 | +1.4 |
| **BUSP** | **Coron** | **2.48** | **236** | *e*P | Pb | 19 19 47.1 | -0.9 |

**WEL 20 19:40:45.8±0.5, 37.21S×179.98E, h33km, ML3.7/9, 1C-3D, Error ellipse: s-maj=5.5km s-min=3.8km az=0.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MXZ** | **Matakaoa Point** | **1.38** | **255** | PN | Pn | 19 41 08.0 | -0.7 |
| MXZ | | | | SN | Sn | 19 41 25.2 | -0.7 |
| MXZ | | | | AML | AML | 19 41 26.8 | |
| **WMGZ** | **Waiomatatini S** | **1.39** | **243** | PN | Pn | 19 41 08.3 | -0.6 |
| WMGZ | | | | SN | Sn | 19 41 24.8 | -1.3 |
| WMGZ | | | | AML | AML | 19 41 26.4 | |
| **PUZ** | **Puketiti** | **1.62** | **237** | PN | Pn | 19 41 11.1 | -1.0 |
| PUZ | | | | SN | Sn | 19 41 30.5 | -1.3 |
| PUZ | | | | AML | AML | 19 41 32.5 | |
| **PKGZ** | **Pakihiroa** | **1.66** | **245** | PN | Pn | 19 41 11.9 | -0.8 |
| PKGZ | | | | AML | AML | 19 41 33.0 | |
| PKGZ | | | | AML | AML | 19 41 33.6 | |
| **HAZ** | **Te Kaha** | **1.84** | **252** | PN | Pn | 19 41 15.3 | +0.3 |
| HAZ | | | | AML | AML | 19 41 40.7 | |
| HAZ | | | | AML | AML | 19 41 41.1 | |
| **TWGZ** | **Tauwhareparae** | **1.86** | **238** | ⇓PN | Pn | 19 41 14.8 | -0.6 |
| TWGZ | | | | SN | Sn | 19 41 36.6 | -1.3 |
| TWGZ | | | | AML | AML | 19 41 37.9 | |
| **CNGZ** | **Carnagh Statio** | **1.90** | **227** | PN | Pn | 19 41 15.5 | -0.4 |
| **RUGZ** | **Raukumara Rang** | **1.98** | **247** | PN | Pn | 19 41 16.9 | -0.2 |
| **MWZ** | **Matawai** | **2.25** | **239** | PN | Pn | 19 41 19.6 | -1.1 |
| MWZ | | | | AML | AML | 19 41 45.7 | |
| MWZ | | | | AML | AML | 19 41 46.1 | |
| **RAGZ** | **Rawiri** | **2.41** | **237** | PN | Pn | 19 41 22.5 | -0.5 |
| RAGZ | | | | AML | AML | 19 41 50.0 | |
| RAGZ | | | | AML | AML | 19 41 52.5 | |
| **URZ** | **Urewera** | **2.51** | **244** | PN | Pn | 19 41 24.1 | -0.2 |
| URZ | | | | AML | AML | 19 41 53.7 | |
| URZ | | | | AML | AML | 19 41 54.1 | |
| **RTZ** | **Ruatahuna** | **2.76** | **238** | ⇓PN | Pn | 19 41 27.6 | -0.3 |
| **MUGZ** | **Murupara** | **2.84** | **243** | ⇑PN | Pn | 19 41 28.6 | -0.3 |
| **MTHZ** | **Maungataniwha** | **2.98** | **236** | ⇓PN | Pn | 19 41 29.9 | -0.9 |
| MTHZ | | | | SN | Sn | 19 42 02.9 | -2.5 |
| **KAHZ** | **Kahuranaki** | **3.55** | **222** | PN | Pn | 19 41 36.3 | -2.3 |
| **BHHZ** | **Black Hill Sta** | **3.83** | **232** | PN | Pn | 19 41 41.0 | -1.6 |
| **OTVZ** | **Oturere** | **3.92** | **239** | PN | Pn | 19 41 42.5 | -1.4 |
| **BFZ** | **Birch Farm** | **4.53** | **219** | PN | Pn | 19 41 47.8 | -4.3 |
| BFZ | | | | SN | Sn | 19 42 36.0 | -7.6 |

*WAR **20** 19:49:46.2, 50.12N×19.20E, h1km, Mw2.3*

*ISCJB **20** 19:49:49.4±0.6, 50.15N±0.04×19.04E±0.03, h0km, Error ellipse: s-maj=5.6km s-min=2.5km az=10.8*
*CSEM **20** 19:49:50.4±0.3, 50.14N×19.08E, h1km, ML2.5/9, Error ellipse: s-maj=7.6km s-min=3.5km az=9.0*
*IPEC **20** 19:49:51.1±0.2, 50.16N×19.11E, h1km±1km, ML1.7/3, Error ellipse: s-maj=2.7km s-min=1.1km az=166.0*
*PRU **20** 19:49:51.1, 50.15N×19.09E, h0km*

**ISC 20 19:49:50.0±0.8, 50.12N±0.04×19.09E±0.02, h0km, n33, σ0s80/54, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OJC** | **Ojcow** | **0.47** | **78** | *e*Pg | **Pg** | **19 49 58.8** | **-0.1** |
| OJC | | | | *e*Sg | **Sg** | **19 50 05.0** | **0.0** |
| **OJC** | **Ojcow** | **0.47** | **78** | *e*Pg | **Pg** | **19 49 58.8** | **-0.1** |
| OJC | | | | *e*Sg | **Sg** | **19 50 05.0** | **0.0** |
| **OJC** | **Ojcow** | **0.47** | **78** | *e*Pg | **Pg** | **19 49 58.8** | **-0.1** |
| OJC | | | | *e*Sg | **Sg** | **19 50 05.0** | **0.0** |
| **OKC** | **Ostrava-Krasne** | **0.67** | **245** | *e*PG | **Pb** | **19 50 05.4** | **+0.9** |
| OKC | | | | *e*SG | **Sg** | **19 50 12.4** | **+0.9** |
| | comp=Z,8.9nm,0.3s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **0.67** | **245** | Pg | **Pb** | **19 50 05.4** | **+0.9** |
| OKC | | | | Sg | **Sg** | **19 50 12.4** | **+0.9** |
| | 8.9nm,0.3s | | | | | | |
| **LANS** | **Liptovska Anna** | **1.00** | **166** | *e*Pg | **Pb** | **19 50 10.1** | **-0.2** |
| LANS | | | | *e*Sg | **Sb** | **19 50 24.3** | **+0.2** |
| **LANS** | **Liptovska Anna** | **1.00** | **166** | *e*PG | **Pb** | **19 50 10.1** | **-0.2** |
| LANS | | | | *e*SG | **Sb** | **19 50 24.3** | **+0.2** |
| **MORC** | **Moravsky Berou** | **1.06** | **251** | *e*Pg | **Pn** | **19 50 11.9** | **-0.2** |
| | baz=69 | | | | | | |
| MORC | | | | *e*Sg | **Sb** | **19 50 24.8** | **-0.7** |
| | 11nm,0.3s,baz=69 | | | | | | |
| **NIE** | **Niedzica** | **1.06** | **131** | *e*Pg | **Pn** | **19 50 11.7** | **-0.4** |
| NIE | | | | *e*Sg | **Sb** | **19 50 25.8** | **+0.2** |
| **NIE** | **Niedzica** | **1.06** | **131** | *e*Pg | **Pn** | **19 50 11.7** | **-0.4** |
| NIE | | | | *e*Sg | **Sb** | **19 50 25.8** | **+0.2** |
| **NIE** | **Niedzica** | **1.06** | **131** | *e*Pg | **Pn** | **19 50 11.7** | **-0.4** |
| NIE | | | | *e*Sg | **Sb** | **19 50 25.8** | **+0.2** |
| **KRLC** | **Kraliky** | **1.48** | **269** | *e*PG | **Pn** | **19 50 18.0** | **0.0** |
| KRLC | | | | *e*SG | **Sn** | **19 50 39.2** | **+1.1** |
| | comp=Z,3.9nm,0.5s | | | | | | |
| **KRLC** | **Kraliky** | **1.48** | **269** | Pg | **Pn** | **19 50 18.0** | **0.0** |
| KRLC | | | | Sg | **Sn** | **19 50 39.2** | **+1.1** |
| | 3.9nm,0.5s | | | | | | |
| **STHS** | **Stebnicka Huta** | **1.57** | **116** | *e*Pn | **Pg** | **19 50 20.2** | **+0.2** |
| STHS | | | | *e*Sn | **Sg** | **19 50 42.4** | **+2.1** |
| **STHS** | **Stebnicka Huta** | **1.57** | **116** | *e*PN | **Pg** | **19 50 20.2** | **+0.2** |
| STHS | | | | *e*SN | **Sg** | **19 50 42.4** | **+2.1** |
| STHS | | | | *e*LG | Lg | 19 50 49.8 | |
| **VYHS** | **Vyhne** | **1.64** | **186** | *e*Pg | **Pn** | **19 50 20.2** | **+0.1** |
| VYHS | | | | *e*Sn | **Sn** | **19 50 41.3** | **-0.6** |
| **VYHS** | **Vyhne** | **1.64** | **186** | *e*PG | **Pn** | **19 50 20.2** | **+0.1** |
| VYHS | | | | *e*SN | **Sn** | **19 50 41.3** | **-0.6** |
| VYHS | | | | *e*LG | Lg | 19 50 43.7 | |
| **DPC** | **Dobruska-Polom** | **1.79** | **278** | *e*PG | **Pb** | **19 50 23.1** | **-0.6** |
| DPC | | | | *e*SG | **Sg** | **19 50 47.7** | **+0.3** |
| | comp=Z,14nm,0.6s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.79** | **278** | Pg | **Pb** | **19 50 23.1** | **-0.6** |
| DPC | | | | Sg | **Sg** | **19 50 47.7** | **+0.3** |
| | 14nm,0.6s | | | | | | |
| **VRAC** | **Vranov** | **1.81** | **244** | *e*Pn | **Pb** | **19 50 24.1** | **+0.1** |
| VRAC | | | | *e*Sg | **Sg** | **19 50 48.8** | **+0.7** |
| | 6.9nm,0.4s,baz=62 | | | | | | |
| **KECS** | **Kecovo** | **1.88** | **150** | *e*Sn | **Sn** | **19 50 46.4** | **-1.4** |
| **KECS** | **Kecovo** | **1.88** | **150** | *e*SN | **Sn** | **19 50 46.3** | **-1.5** |
| KECS | | | | *e*LG | Lg | 19 50 51.1 | |
| **UPC** | **Upice** | **2.01** | **282** | *e*SG | **Sg** | **19 50 55.5** | **+1.1** |
| | comp=Z,3.6nm,0.4s | | | | | | |
| **UPC** | **Upice** | **2.01** | **282** | Sg | **Sg** | **19 50 55.5** | **+1.1** |
| | 3.6nm,0.4s | | | | | | |
| **KRUC** | **Moravsky** | **2.05** | **240** | *e*Pn | **Pb** | **19 50 27.1** | **-0.9** |
| | baz=57 | | | | | | |
| KRUC | | | | *e*Sg | **Sg** | **19 50 56.3** | **+0.6** |
| | 2.5nm,0.3s,baz=57 | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **2.78** | **267** | *e*SG | **Sg** | **19 51 18.8** | **-0.5** |
| | comp=Z,4.1nm,0.5s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **2.78** | **267** | Sg | **Sg** | **19 51 18.8** | **-0.5** |
| | 4.1nm,0.5s | | | | | | |
| **PVCC** | **Panska Ves** | **2.92** | **280** | *e*SG | **Sg** | **19 51 25.0** | **+1.2** |
| | comp=Z,5.5nm,0.4s | | | | | | |
| **PVCC** | **Panska Ves** | **2.92** | **280** | Sg | **Sg** | **19 51 25.0** | **+1.2** |
| | 5.5nm,0.4s | | | | | | |
| **PRU** | **Pruhonice** | **2.93** | **269** | *e*SG | **Sg** | **19 51 23.9** | **-0.2** |
| **PRU** | **Pruhonice** | **2.93** | **269** | Sg | **Sg** | **19 51 23.9** | **-0.2** |
| **KHC** | **Kasperske Hory** | **3.72** | **257** | *e*SG | **Sg** | **19 51 47.8** | **-1.5** |
| **KHC** | **Kasperske Hory** | **3.72** | **257** | Sg | **Sg** | **19 51 47.8** | **-1.5** |

*IDC **20** 20:02:05.0±3.4, 21.22S×178.23W, h485km±36km, mb3.6/15, mb1 3.8/16, mb1mx3.6/30, mbtmp4.4/16, Error ellipse: s-maj=18.7km s-min=15.5km az=95.0*
*ISCJB **20** 20:02:08.2±0.6, 21.35S±0.1×178.4W±0.1, h536km, mb4.0/15, Error ellipse: s-maj=19.1km s-min=12.9km az=42.3*

**ISC 20 20:02:09.5±0.6, 21.35S±0.1×178.4W±0.1, h536km, n56, σ0s99/58, mb4.2/15, 14C-2D, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **14.09** | **264** | P | **P** | **20 05 07.4** | **-2.6** |
| | 0.6nm,0.3s,baz=164,slow=16,SNR=5.5 | | | | | | |
| **RPZ** | **Rata Peaks** | **24.03** | **199** | P | **P** | **20 06 42.4** | **+0.2** |
| | 6.6nm,0.5s,baz=275,slow=2.1,SNR=6.1 | | | | | | |
| **STKA** | **Stephens Creek** | **37.10** | **245** | P | **P** | **20 08 35.1** | **+0.6** |
| | 7.3nm,0.7s,baz=74,slow=8.5,SNR=17 | | | | | | |
| **ASAR** | **Alice Springs** | **43.96** | **258** | P | **P** | **20 09 28.9** | **-0.5** |
| | 2.4nm,0.5s,baz=99,slow=8.2,SNR=45 | | | | | | |
| ASAR | | | | PcP | **PcP** | **20 11 04.8** | **+1.2** |
| | 1.2nm,0.6s,baz=99,slow=3.6,SNR=7.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.11** | **263** | P | **P** | **20 09 29.6** | **-1.0** |
| | 2.3nm,0.3s,baz=95,slow=7.8,SNR=86 | | | | | | |
| **VNDA** | **Vanda** | **57.10** | **185** | P | **P** | **20 11 04.8** | **+0.5** |
| | 1.0nm,0.8s,baz=24,slow=9.9,SNR=3.8 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **70.61** | **324** | P | **P** | **20 12 31.1** | **+0.2** |
| | 1.3nm,0.7s,baz=176,slow=6.4,SNR=4.7 | | | | | | |
| **ASAJ** | **Asahikawa** | **74.23** | **332** | P | **P** | **20 12 52.7** | **+1.1** |
| | 10.0nm,1.0s,baz=228,slow=11,SNR=4.0 | | | | | | |
| **PETK** | **Petropavlovsk-** | **76.92** | **345** | P | **P** | **20 13 06.7** | **+0.2** |
| | 9.3nm,0.7s,baz=130,slow=5.3,SNR=11 | | | | | | |
| **KSRS** | **Korea Array** | **77.21** | **319** | P | **P** | **20 13 10.2** | **+1.8** |
| | 1.1nm,0.6s,baz=115,slow=5.3,SNR=5.2 | | | | | | |
| **NVAR** | **Mina Array Bea** | **81.86** | **43** | P | **P** | **20 13 32.1** | **-1.1** |
| | 1.8nm,0.7s,baz=223,slow=8.7,SNR=9.2 | | | | | | |
| **SEY** | **Seymchan** | **87.04** | **347** | P | **P** | **20 13 57.7** | **+0.1** |
| | 6.2nm,0.7s,baz=143,slow=4.8,SNR=24 | | | | | | |
| **TXAR** | **Lajitas Array** | **87.81** | **57** | P | **P** | **20 14 01.2** | **-0.9** |
| | 0.9nm,0.8s,baz=218,slow=7.3,SNR=8.6 | | | | | | |
| **ILAR** | **Eielson Array** | **89.16** | **13** | P | **P** | **20 14 05.8** | **-1.7** |
| | 2.0nm,0.7s,baz=219,slow=5.7,SNR=28 | | | | | | |
| **PDAR** | **Pinedale Array** | **89.80** | **43** | P | **P** | **20 14 09.9** | **-1.4** |
| | 1.4nm,0.6s,baz=201,slow=3.3,SNR=15 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **90.01** | **290** | P | **P** | **20 14 14.7** | **+2.2** |
| | 3.5nm,0.9s,baz=123,slow=2.9,SNR=24 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **114.35** | **317** | PKP | PKPdf | 20 19 48.0 | -0.1 |
| | 0.7nm,0.6s,baz=113,slow=1.9,SNR=5.1 | | | | | | |
| **BVAR** | **Borovoye Array** | **119.42** | **320** | PKP | **PKPdf** | **20 19 57.9** | **0.0** |
| | 1.7nm,0.3s,baz=117,slow=2.4,SNR=22 | | | | | | |
| **ARU** | **Arti** | **125.62** | **325** | PKP | **PKPdf** | **20 20 10.0** | **+0.4** |
| | 1.8nm,0.4s,baz=84,slow=3.6,SNR=6.5 | | | | | | |
| **GEYT** | **Alibeck** | **128.87** | **302** | PKP | **PKPdf** | **20 20 17.7** | **+1.1** |
| | 1.4nm,0.7s,baz=85,slow=1.6,SNR=3.8 | | | | | | |
| **ARCES** | **ARCESS Array B** | **129.61** | **349** | PKP | **PKPdf** | **20 20 17.0** | **+0.1** |
| | 1.6nm,0.6s,baz=92,slow=1.8,SNR=17 | | | | | | |
| **FINES** | **FINESS Array B** | **136.41** | **343** | PKP | **PKPdf** | **20 20 30.3** | **+0.4** |
| | 7.0nm,1.1s,baz=197,slow=2.0,SNR=5.2 | | | | | | |
| **AKASG** | **Malin Array Be** | **143.50** | **330** | PKP | PKPab | 20 20 41.0 | -0.5 |
| | 7.0nm,0.5s,baz=43,slow=4.5,SNR=53 | | | | | | |
| **SORM** | **Soroca** | **145.66** | **328** | ⇑P | **PKPbc** | **20 20 48.6** | **+0.3** |
| **BRTR** | **Keskin Array B** | **147.06** | **311** | PKPbc | **PKPbc** | **20 20 53.0** | **+0.3** |
| | 2.7nm,0.6s,baz=145,slow=4.5,SNR=16 | | | | | | |
| **BURAR** | **Bucovina Array** | **147.54** | **330** | ⇑P | **PKPab** | **20 20 55.8** | **-1.8** |
| **TESR** | **Tescani** | **147.61** | **327** | ⇑P | **PKPbc** | **20 20 54.0** | **+0.3** |
| **CFR** | **Carcaliu** | **147.69** | **324** | ⇑P | **PKPbc** | **20 20 54.7** | **+0.8** |
| **TIRR** | **Tirgusor** | **147.97** | **322** | ⇑P | **PKPbc** | **20 20 55.9** | **+1.3** |
| **VRI** | **Vrincioaia** | **148.00** | **326** | ⇑P | **PKPbc** | **20 20 55.3** | **+0.6** |
| **PLOR** | **Plostina** | **148.05** | **326** | ⇓P | **PKPbc** | **20 20 55.6** | **+0.7** |
| **DOPR** | **Dopca** | **148.62** | **327** | ⇑P | **PKPbc** | **20 20 57.5** | **+1.2** |
| **MLR** | **Muntele Rosu** | **148.66** | **326** | ⇑P | **PKPbc** | **20 20 57.7** | **+1.2** |
| **UPC** | **Upice** | **148.69** | **342** | *e*PKP | **PKPbc** | **20 20 57.2** | **+0.9** |
| **CLL** | **Collm** | **148.73** | **346** | *i* P | **PKPbc** | **20 20 56.9** | **+0.6** |
| | comp=Z,10.0nm,0.9s | | | | | | |
| CLL | | | | *i* PcP | **PKPab** | **20 21 02.7** | **+0.6** |
| **DPC** | **Dobruska-Polom** | **148.75** | **342** | *e*PKP | **PKPbc** | **20 20 57.4** | **+0.9** |
| DPC | | | | *ex* | x | 20 21 03.8 | |
| **BRG** | **Berggiesshubel** | **148.91** | **345** | *i* P | **PKPbc** | **20 20 57.3** | **+0.5** |
| | comp=Z,17nm,1.6s | | | | | | |
| BRG | | | | *i* | | 20 21 03.8 | |
| | comp=Z,14nm,1.5s | | | | | | |
| **CJR** | **Cluj-Napoca** | **148.95** | **330**⇑ | *i* P | **PKPbc** | **20 20 58.1** | **+1.0** |
| **VOIR** | | **149.16** | **327**⇑ | *i* P | **PKPbc** | **20 20 55.7** | **-2.0** |
| **DRGR** | | **149.30** | **331**⇑ | *i* P | **PKPbc** | **20 20 58.4** | **+0.4** |
| **ARR** | **Arges** | **149.41** | **327**⇑ | *i* P | **PKPbc** | **20 21 00.0** | **+1.7** |
| **PRU** | **Pruhonice** | **149.57** | **343** | *e*PKP | **PKPbc** | **20 20 59.0** | **+0.6** |
| PRU | | | | *ex* | x | 20 21 06.8 | |
| **GOPC** | **GO Pecny, Ondr** | **149.57** | **343** | *e*PKP | **PKPbc** | **20 20 59.3** | **+0.9** |
| **NKC** | **Novy Kostel** | **149.86** | **346** | *e*PKP | **PKPbc** | **20 20 59.7** | **+0.6** |
| NKC | | | | *ex* | x | 20 21 07.8 | |
| **SIRR** | **Siria** | **150.17** | **331**⇓ | *i* P | **PKPbc** | **20 21 00.9** | **+0.9** |
| **KHC** | **Kasperske Hory** | **150.61** | **344** | *e*PKP | **PKPbc** | **20 21 01.5** | **+0.6** |
| KHC | | | | *ex* | x | 20 21 10.6 | |
| **BZS** | **Buzias** | **150.69** | **331**⇑ | *i* P | **PKPbc** | **20 21 01.7** | **+0.6** |
| **GERES** | **GERESS Array B** | **150.84** | **343** | PKPbc | **PKPbc** | **20 21 02.0** | **+0.5** |
| | comp=Z,1.9nm,0.6s,baz=37,slow=2.7,SNR=14 | | | | | | |
| GERES | | | | PKPab | **PKPab** | **20 21 11.7** | **+0.5** |
| | comp=Z,1.0nm,0.6s,baz=344,slow=4.3,SNR=5.2 | | | | | | |
| **CONA** | **Conrad Observa** | **151.03** | **340** | *i* PKPbc | **PKPbc** | **20 21 02.8** | **+0.8** |
| | comp=Z,3.9nm,0.8s | | | | | | |
| **VTS** | **Vitosha** | **152.07** | **324**⇑ | *i* P | **PKPbc** | **20 21 04.8** | **+0.2** |
| **MYKA** | **Terra Mystica** | **152.87** | **342** | *e*PKPbc | **PKPbc** | **20 21 05.7** | **-0.4** |
| | comp=Z,4.8nm,1.2s | | | | | | |
| **MOTA** | **Moosalm** | **152.88** | **346** | *i* PKPbc | **PKPbc** | **20 21 06.2** | **0.0** |
| | comp=Z,1.8nm,0.6s | | | | | | |
| **SQTA** | **Sankt Quirin** | **152.97** | **345** | *i* PKPbc | **PKPbc** | **20 21 06.5** | **+0.2** |
| | comp=Z,0.1nm,1.2s | | | | | | |
| **ABTA** | **Abfaltersbach** | **153.08** | **343** | *i* PKPbc | **PKPbc** | **20 21 06.4** | **-0.2** |
| | comp=Z,3.0nm,0.7s | | | | | | |
| **ESDC** | **Sonseca Array** | **161.06** | **13** | PKPab | **PKPab** | **20 21 55.8** | **+0.4** |
| | comp=Z,0.1nm,0.3s,baz=348,slow=6.7,SNR=4.9 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **171.91** | **181** | PKP | **PKPdf** | **20 21 16.8** | **-0.8** |
| | comp=Z,0.8nm,0.9s,baz=32,slow=1.1,SNR=4.6 | | | | | | |
| TORD | | | | PKPab | **PKPab** | **20 22 43.4** | **-0.3** |
| | comp=Z,0.4nm,0.7s,baz=167,slow=3.3,SNR=2.7 | | | | | | |

*ISCJB **20** 20:34:35.4±0.4, 6.82N±0.03×73.12W±0.04, h160km±3km, mb3.5/7, Error ellipse: s-maj=6.5km s-min=4.4km az=30.1*
*IDC **20** 20:34:35.2±3.1, 6.66N×72.91W, h159km±23km, mb3.4/7, mb1 3.6/8, mb1mx3.3/33, mbtmp3.9/8, Error ellipse: s-maj=33.7km s-min=18.3km az=14.0*
*RSNC **20** 20:34:37.4±0.8, 6.79N×73.12W, h150km±3km, ML4.0*

**ISC 20 20:34:35.6±0.6, 6.80N±0.04×73.08W±0.04, h158km±5km, n33, σ0s82/50, mb3.4/7, 1C-3D, Northern Colombia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BARC** | **Barichara** | **0.23** | **207** | *i* P | **Pn** | **20 34 57.4** | **+0.1** |
| BARC | | | | *e*S | **Sn** | **20 35 13.1** | **-0.7** |
| BARC | | | | *i* | | 20 35 13.7 | |
| | comp=Z,2μm,0.5s | | | | | | |
| **GIRC** | **Giron, Santand** | **0.30** | **338** | *i* P | **Pn** | **20 34 57.5** | **+0.1** |
| GIRC | | | | *e*S | **Sn** | **20 35 13.0** | **-1.0** |
| **PAMC** | **Pamplona, Colo** | **0.66** | **35** | *i* P |

λ-87.00000°. NP2:φ52.00000°, δ51.00000°, λ-93.00000°.

*ISCJB **20** 21:51:54.0±0.9, 36°42N±0°03×141°39E±0°09, h42km±9km, mb3.6/6, Error ellipse: s-maj=11.9km s-min=5.7km az=5.9*
*JMA **20** 21:51:54.8±0.1, 36°45N×141°29E, h50km±2km, M3.8*
*JMA Felt I J1.*
*IDC **20** 21:51:58.8±2.5, 36°26N×141°18E, h70km±24km, mb3.4/6, mb1 3.6/9, mb1mx3.3/46, mbtmp3.8/9, MS2.4/2, Ms1 2.4/2, ms1mx2.2/31, Error ellipse: s-maj=28.9km s-min=13.7km az=84.0*

**ISC 20 21:51:54.2±1.5, 36°46N±0°04×141°30E±0°07, h30km±11km, n25, σ1§67/26, mb3.7/6, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JHO** | **Hitachi** | **0.61** | **285** | P | **Pn** | **21 52 07.2** | **+0.3** |
| JHO | | | | S | **Sn** | **21 52 15.9** | **+0.2** |
| **ONAJ** | **Iwakimizuishiy** | **0.76** | **328** | P | **Pb** | **21 52 09.1** | **+0.1** |
| ONAJ | | | | *e*S | **Sn** | **21 52 19.1** | **-0.4** |
| **CHOJ** | **Chosi** | **0.83** | **206** | P | **Pb** | **21 52 10.2** | **0.0** |
| CHOJ | | | | S | **Sb** | **21 52 21.4** | **+0.4** |
| **JYT** | **Yasato** | **0.93** | **256** | P | **Pb** | **21 52 11.4** | **-0.3** |
| JYT | | | | S | **Sb** | **21 52 23.0** | **-0.6** |
| **JFK** | **Kawauchi** | **0.97** | **339** | P | **Pn** | **21 52 12.0** | **+0.1** |
| **JFT** | **Otama** | **1.31** | **324** | P | **Pb** | **21 52 18.1** | **-0.1** |
| JFT | | | | S | **Sb** | **21 52 35.5** | **+0.8** |
| **JMM** | **Marumori** | **1.46** | **344** | P | **Pn** | **21 52 19.2** | **+0.6** |
| JMM | | | | S | **Sn** | **21 52 37.2** | **+0.4** |
| **MJAR** | **Matsushiro Arr** | **2.50** | **273** | P | **Pn** | **21 52 35.2** | **+2.4** |
| | 8.3nm,0.3s,baz=87,slow=9.4,SNR=64 | | | | | | |
| MJAR | | | | LR | LR | 21 53 46.6 | |
| | comp=Z,61nm,21.1s,baz=85,slow=45 | | | | | | |
| **MAT** | **Matsushiro** | **2.50** | **273** | P | **Pb** | **21 52 35.8** | **-2.6** |
| MAT | | | | S | **Sb** | **21 53 07.3** | **-1.4** |
| **JHJ** | **Hachijo jima 2** | **3.56** | **201** | P | **Pn** | **21 52 48.6** | **+1.3** |
| | 31nm,0.3s,baz=304,slow=22,SNR=14 | | | | | | |
| JHJ | | | | S | **Sn** | **21 53 27.2** | **-1.2** |
| | 41nm,0.3s,baz=52,slow=22,SNR=9.7 | | | | | | |
| **ASAJ** | **Asahikawa** | **7.71** | **7** | P | **Pn** | **21 53 45.6** | **+1.2** |
| | 0.8nm,0.3s,baz=177,slow=17,SNR=6.1 | | | | | | |
| ASAJ | | | | S | **Sn** | **21 55 05.0** | **-5.8** |
| | 0.3nm,0.3s,baz=332,slow=13,SNR=1.9 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **10.50** | **320** | P | Pn | 21 54 29.3 | +6.7 |
| | 0.4nm,0.3s,baz=126,slow=13,SNR=14 | | | | | | |
| **KSRS** | **Korea Array** | **10.76** | **279** | LR | LR | 21 58 19.7 | |
| | comp=Z,29nm,19.9s,baz=120,slow=36 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **27.93** | **120** | T | T | 22 27 04.8 | |
| | baz=312,slow=75,SNR=30 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **27.94** | **120** | T | T | 22 27 10.5 | |
| | baz=312,slow=75,SNR=44 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **27.95** | **120** | T | T | 22 27 11.0 | |
| | baz=312,slow=75,SNR=19 | | | | | | |
| **SONM** | **Songino Array** | **28.04** | **305** | P | **P** | **21 57 43.2** | **+0.4** |
| | 0.6nm,0.6s,baz=107,slow=9.8,SNR=3.6 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.63** | **122** | T | T | 22 28 05.1 | |
| | baz=314,slow=75,SNR=56 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.63** | **122** | T | T | 22 27 55.0 | |
| | baz=314,slow=75,SNR=48 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.64** | **122** | T | T | 22 27 56.3 | |
| | baz=314,slow=75,SNR=30 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.24** | **313** | P | **P** | **21 59 44.8** | **+0.4** |
| | 0.8nm,0.5s,baz=89,slow=6.8,SNR=4.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.35** | **303** | P | **P** | **22 00 02.2** | **+0.6** |
| | 0.3nm,0.5s,baz=86,slow=11,SNR=3.3 | | | | | | |
| **ILAR** | **Eielson Array** | **50.03** | **32** | P | **P** | **22 00 46.5** | **+1.0** |
| | 0.9nm,0.8s,baz=264,slow=5.5,SNR=9.2 | | | | | | |
| **INK** | **Inuvik** | **54.94** | **27** | P | **P** | **22 01 23.9** | **+2.1** |
| | 0.6nm,0.6s,baz=313,slow=7.8,SNR=4.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **56.48** | **188** | P | **P** | **22 01 32.2** | **-1.2** |
| | 0.4nm,0.6s,baz=23,slow=7.2,SNR=17 | | | | | | |

*IPEC **20** 22:00:13.3±0.4, 49°83N×18°51E, h0km, ML1.2/3, Error ellipse: s-maj=2.3km s-min=2.0km az=112.0*
*CSEM **20** 22:00:13.4±0.4, 49°85N×18°44E, h1km, ML1.8/6, Error ellipse: s-maj=8.0km s-min=3.2km az=30.0*

**PRU 20 22:00:14.5, 49°88N×18°43E, h0km, Czech and Slovak Republics**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **OKC** | **Ostrava-Krasne** | **0.19** | **257** | *e*Pg | Pg | 22 00 18.3 | +0.2 |
| OKC | | | | *e*Sg | Sg | 22 00 21.6 | +1.1 |
| | comp=Z,37nm,0.4s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **0.19** | **257** | Pg | Pg | 22 00 18.3 | +0.2 |
| OKC | | | | Sg | Sg | 22 00 21.6 | +1.1 |
| | 37nm,0.4s | | | | | | |
| **MORC** | **Moravsky Berou** | **0.58** | **260** | *e*Pg | Pg | 22 00 25.1 | -0.6 |
| | baz=85 | | | | | | |
| MORC | | | | *e*Sg | Sg | 22 00 32.8 | -0.4 |
| | 5.3nm,0.3s,baz=85 | | | | | | |
| **LANS** | **Liptovska Anna** | **0.99** | **137** | *e*Pg | Pg | 22 00 32.1 | -1.5 |
| LANS | | | | *e*Sg | Sg | 22 00 47.1 | +0.7 |
| **LANS** | **Liptovska Anna** | **0.99** | **137** | *e*PG | Pg | 22 00 32.1 | -1.5 |
| LANS | | | | *e*SG | Sg | 22 00 47.1 | +0.7 |
| **KRLC** | **Kraliky** | **1.08** | **281** | *e*PG | Pg | 22 00 33.8 | -1.4 |
| KRLC | | | | *e*SG | Sg | 22 00 48.9 | -0.3 |
| | comp=Z,1.2nm,0.4s | | | | | | |
| **KRLC** | **Kraliky** | **1.08** | **281** | Pg | Pg | 22 00 33.8 | -1.4 |
| KRLC | | | | Sg | Sg | 22 00 48.9 | -0.3 |
| | 1.2nm,0.4s | | | | | | |
| **VRAC** | **Vranov** | **1.32** | **245** | *e*Pg | Pg | 22 00 38.6 | -1.3 |
| | baz=67 | | | | | | |
| VRAC | | | | *e*Sg | Sg | 22 00 55.4 | -1.6 |
| | 3.2nm,0.4s,baz=67 | | | | | | |
| **VYHS** | **Vyhne** | **1.41** | **169** | *e*Pg | Pn | 22 00 39.4 | -2.1 |
| VYHS | | | | *e*Sg | Sg | 22 00 58.4 | -1.4 |
| **VYHS** | **Vyhne** | **1.41** | **169** | *e*PG | Pn | 22 00 39.4 | -2.1 |
| VYHS | | | | *e*SG | Sg | 22 00 58.4 | -1.4 |
| **DPC** | **Dobruska-Polom** | **1.44** | **290** | *e*PG | Pn | 22 00 40.7 | -1.1 |
| DPC | | | | *e*SG | Sg | 22 01 00.1 | -0.5 |
| | comp=Z,2.3nm,0.4s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.44** | **290** | Pg | Pn | 22 00 40.7 | -1.1 |
| DPC | | | | Sg | Sg | 22 01 00.1 | -0.5 |
| | 2.3nm,0.4s | | | | | | |
| **KRUC** | **Moravsky** | **1.56** | **239** | *e*Pg | Pn | 22 00 42.0 | -1.5 |
| | baz=60 | | | | | | |
| KRUC | | | | *e*Sg | Sn | 22 01 02.8 | -1.6 |
| | 2.2nm,0.3s,baz=60 | | | | | | |
| **UPC** | **Upice** | **1.68** | **293** | *e*SG | Sb | 22 01 08.0 | +0.1 |
| **UPC** | **Upice** | **1.68** | **293** | Sg | Sb | 22 01 08.0 | +0.1 |
| **STHS** | **Stebnicka Huta** | **1.89** | **103** | *e*PN | Pb | 22 00 49.2 | -0.6 |
| **KHC** | **Kasperske Hory** | **3.25** | **259** | *e*SG | Sg | 22 01 57.6 | -1.3 |
| **KHC** | **Kasperske Hory** | **3.25** | **259** | Sg | Sg | 22 01 57.6 | -1.3 |

*CSEM **20** 22:00:43.3±1.0, 50°41N×18°92E, h1km, Error ellipse: s-maj=21.3km s-min=6.8km az=24.0*

**PRU 20 22:00:47.5, 50°24N×18°79E, h0km, Poland**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MORC** | **Moravsky Berou** | **0.93** | **241** | *e*Pn | Pg | 22 01 05.2 | -0.1 |
| MORC | | | | *e*Sg | Sg | 22 01 18.1 | +0.8 |
| **LANS** | **Liptovska Anna** | **1.18** | **158** | *e*Pg | Pg | 22 01 09.0 | -1.0 |
| LANS | | | | *e*Sg | Sg | 22 01 25.0 | -0.2 |
| **LANS** | **Liptovska Anna** | **1.18** | **158** | *e*PG | Pg | 22 01 09.0 | -1.0 |
| LANS | | | | *e*SG | Sg | 22 01 24.9 | -0.3 |
| **KRLC** | **Kraliky** | **1.30** | **263** | *e*SG | Sg | 22 01 29.4 | +0.1 |
| **KRLC** | **Kraliky** | **1.30** | **263** | Sg | Sg | 22 01 29.4 | +0.1 |
| **DPC** | **Dobruska-Polom** | **1.59** | **275** | *e*SG | Sn | 22 01 37.3 | -0.8 |
| **DPC** | **Dobruska-Polom** | **1.59** | **275** | Sg | Sn | 22 01 37.3 | -0.8 |

*IASPEI **20** 22:21:37.6±1.0, 39°63N±0°02×28°53E±0°02, h5km±10km, Error ellipse: s-maj=3.4km s-min=2.8km az=56.6, GT5 selection from ISC bulletin GT5 identified by Bond¨¡r and McLaughlin (2009) selection criteria Bond¨¡r and McLaughlin, A new ground truth data set for seismic studies, Seism. Res. Let., 80, 465-472, 2009*
*ISCJB **20** 22:21:37.5±0.4, 39°62N±0°02×28°55E±0°03, h2km±4km, Error ellipse: s-maj=3.7km s-min=3.4km az=137.0*
*DDA **20** 22:21:37.8, 39°63N×28°55E, h7km, Ml3.5*
*ISK **20** 22:21:37.4, 39°63N×28°54E, h3km, ML2.8*
*CSEM **20** 22:21:38.0±0.1, 39°61N×28°56E, h5km, ML2.8, Error ellipse: s-maj=1.8km s-min=1.6km az=74.0*

**ISC 20 22:21:37.7±0.9, 39°63N±0°02×28°55E±0°02, h6km±8km, n88, σ0§54/102, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DST** | **Dursunbey** | **0.06** | **111** | *e*Pg | **Pg** | **22 21 39.3** | **0.0** |
| **DST** | **Dursunbey** | **0.06** | **111** | *e*Pg | **Pg** | **22 21 39.3** | **0.0** |
| **BALB** | **Balikesir** | **0.51** | **272** | *e*Pg | **Pg** | **22 21 48.4** | **+0.8** |
| BALB | | | | *e*SG | **Sb** | **22 21 56.3** | **-0.6** |
| **BALB** | **Balikesir** | **0.51** | **272** | *e*Pg | **Pg** | **22 21 48.4** | **+0.8** |
| BALB | | | | *e*Sg | **Sb** | **22 21 56.3** | **-0.6** |
| **DEMI** | **Demirci** | **0.60** | **167** | *i* P | **Pg** | **22 21 49.5** | **+0.3** |
| DEMI | | | | *i* S | **Sg** | **22 21 57.0** | **+0.1** |
| **DEMI** | **Demirci** | **0.60** | **167** | P | **Pg** | **22 21 49.5** | **+0.3** |
| DEMI | | | | S | **Sg** | **22 21 57.0** | **+0.1** |
| **SIMA** | **Simav-Kutahya** | **0.64** | **148** | *e*PG | **Pg** | **22 21 50.6** | **+0.6** |
| **SIMA** | **Simav-Kutahya** | **0.64** | **148** | *e*Pg | **Pg** | **22 21 50.6** | **+0.6** |
| **KCTX** | **Karacabey (Bur** | **0.66** | **347** | *e*PG | **Pg** | **22 21 50.8** | **+0.5** |
| **KCTX** | **Karacabey (Bur** | **0.66** | **347** | *e*Pg | **Pg** | **22 21 50.8** | **+0.5** |
| **BALY** | **Balya** | **0.72** | **279** | *i* P | **Pg** | **22 21 51.8** | **+0.2** |
| BALY | | | | *i* S | **Sg** | **22 22 00.3** | **-0.7** |
| **BALY** | **Balya** | **0.72** | **279** | P | **Pg** | **22 21 51.8** | **+0.2** |
| BALY | | | | S | **Sg** | **22 22 00.3** | **-0.7** |
| **TVSB** | **Tavsanli** | **0.73** | **104** | *e*PG | **Pg** | **22 21 51.5** | **-0.2** |
| **TVSB** | **Tavsanli** | **0.73** | **104** | *e*Pg | **Pg** | **22 21 51.5** | **-0.2** |
| **GONE** | **Gonen-Balikesi** | **0.78** | **303** | *e*PG | **Pg** | **22 21 52.8** | **+0.1** |
| **GONE** | **Gonen-Balikesi** | **0.78** | **303** | *e*Pg | **Pg** | **22 21 52.8** | **+0.1** |
| **MDNY** | **Mudanya-Bursa** | **0.79** | **19** | *e*PG | **Pg** | **22 21 53.3** | **+0.5** |
| **MDNY** | **Mudanya-Bursa** | **0.79** | **19** | *e*Pg | **Pg** | **22 21 53.3** | **+0.5** |
| **EDC** | **Edincik** | **0.89** | **324** | *e*PG | **Pg** | **22 21 55.2** | **+0.4** |
| **EDC** | **Edincik** | **0.89** | **324** | *e*Pg | **Pg** | **22 21 55.2** | **+0.4** |
| **GDZ** | **Gediz** | **0.90** | **126** | *i* P | **Pg** | **22 21 55.0** | **0.0** |
| GDZ | | | | *i* S | **Sg** | **22 22 07.2** | **+0.5** |
| **GDZ** | **Gediz** | **0.90** | **126** | P | **Pg** | **22 21 55.0** | **0.0** |
| GDZ | | | | S | **Sg** | **22 22 07.2** | **+0.5** |
| **AKHS** | **Akhisar** | **0.94** | **217** | *i* P | **Pg** | **22 21 56.1** | **+0.4** |
| AKHS | | | | *i* S | **Sb** | **22 22 09.0** | **-0.1** |
| **AKHS** | **Akhisar** | **0.94** | **217** | P | **Pg** | **22 21 56.1** | **+0.4** |
| AKHS | | | | S | **Sb** | **22 22 09.0** | **-0.1** |
| **AKS** | **Akhisar** | **0.94** | **218** | *e*PG | **Pg** | **22 21 56.1** | **+0.4** |
| **AKS** | **Akhisar** | **0.94** | **218** | *e*Pg | **Pg** | **22 21 56.1** | **+0.4** |
| **GEMT** | **Gemlik** | **0.95** | **31** | *e*PG | **Pb** | **22 21 56.5** | **-0.1** |
| **GEMT** | **Gemlik** | **0.95** | **31** | *e*Pg | **Pb** | **22 21 56.5** | **-0.1** |
| **ARMT** | **Armutlu** | **0.97** | **14** | *e*PG | **Pb** | **22 21 56.8** | **-0.1** |
| **ARMT** | **Armutlu** | **0.97** | **14** | *e*Pg | **Pb** | **22 21 56.8** | **-0.1** |
| **SBT5** | **Esenkoy-Cinarc** | **1.04** | **14** | *e*PG | **Pb** | **22 21 57.9** | **-0.1** |
| **SBT5** | **Esenkoy-Cinarc** | **1.04** | **14** | *e*Pg | **Pb** | **22 21 57.9** | **-0.1** |
| **KULA** | **Kula-Manisa** | **1.11** | **175** | *e*PN | **Pg** | **22 21 59.3** | **+0.3** |
| **KULA** | **Kula-Manisa** | **1.11** | **175** | *e*Pn | **Pg** | **22 21 59.3** | **+0.3** |
| **MANT** | **Manisa** | **1.13** | **179** | *i* P | **Pg** | **22 21 59.6** | **+0.2** |
| MANT | | | | *i* S | **Sg** | **22 22 13.7** | **-0.4** |
| **MANT** | **Manisa** | **1.13** | **179** | P | **Pg** | **22 21 59.6** | **+0.2** |
| MANT | | | | S | **Sg** | **22 22 13.7** | **-0.4** |
| **YLV** | **Yalova** | **1.13** | **34** | *e*PN | **Pb** | **22 21 59.8** | **0.0** |
| **YLV** | **Yalova** | **1.13** | **34** | *e*Pn | **Pb** | **22 21 59.8** | **0.0** |
| **CAVI** | **Cavuskoy** | **1.15** | **60** | *e*PN | **Pb** | **22 22 00.2** | **+0.1** |
| **CAVI** | **Cavuskoy** | **1.15** | **60** | *e*Pn | **Pb** | **22 22 00.2** | **+0.1** |
| **ADVT** | **Abdulvahap** | **1.22** | **48** | *e*PN | **Pn** | **22 22 01.5** | **+0.2** |
| **ADVT** | **Abdulvahap** | **1.22** | **48** | *e*Pn | **Pn** | **22 22 01.5** | **+0.2** |
| **KRBG** | **Karabiga-Canak** | **1.23** | **309** | *e*PN | **Pg** | **22 22 01.2** | **0.0** |
| **KRBG** | **Karabiga-Canak** | **1.23** | **309** | *e*Pn | **Pg** | **22 22 01.2** | **0.0** |
| **SBT2** | **Guzelce-Avcila** | **1.25** | **359** | *e*PN | **Pn** | **22 22 02.0** | **+0.4** |
| **SBT2** | **Guzelce-Avcila** | **1.25** | **359** | *e*Pn | **Pn** | **22 22 02.0** | **+0.4** |
| **SBT3** | **Marmara-Eregli** | **1.33** | **341** | *e*PN | **Pg** | **22 22 03.4** | **+0.2** |
| **SBT3** | **Marmara-Eregli** | **1.33** | **341** | *e*Pn | **Pg** | **22 22 03.4** | **+0.2** |
| **HRT** | **Hereke** | **1.47** | **35** | *e*PN | **Pb** | **22 22 05.3** | **-0.2** |
| **HRT** | **Hereke** | **1.47** | **35** | *e*Pn | **Pb** | **22 22 05.3** | **-0.2** |
| **KAVV** | **Kandilli-Istan** | **1.49** | **15** | *e*PN | **Pb** | **22 22 05.8** | **0.0** |
| **KAVV** | **Kandilli-Istan** | **1.49** | **15** | *e*Pn | **Pb** | **22 22 05.8** | **0.0** |
| **ISK** | **Istanbul-Kandi** | **1.49** | **15** | *e*PN | **Pb** | **22 22 05.9** | **+0.1** |
| **ISK** | **Istanbul-Kandi** | **1.49** | **15** | *e*Pn | **Pb** | **22 22 05.9** | **+0.1** |
| **RKY** | **Sarkoy-Tekirda** | **1.49** | **316** | *e*PN | **Pb** | **22 22 05.8** | **0.0** |
| **RKY** | **Sarkoy-Tekirda** | **1.49** | **316** | *e*Pn | **Pb** | **22 22 05.8** | **0.0** |
| **BAYC** | **CANAKKALE_Bayr** | **1.55** | **275** | *i* P | **Pn** | **22 22 05.5** | **-0.3** |
| BAYC | | | | *i* S | **Sn** | **22 22 25.2** | **-1.0** |
| **BAYC** | **CANAKKALE_Bayr** | **1.55** | **275** | P | **Pn** | **22 22 05.5** | **-0.3** |
| BAYC | | | | S | **Sn** | **22 22 25.2** | **-1.0** |
| **LPK** | **Lapseki** | **1.56** | **299** | *e*PN | **Pn** | **22 22 06.7** | **+0.7** |
| **LPK** | **Lapseki** | **1.56** | **299** | *e*Pn | **Pn** | **22 22 06.7** | **+0.7** |
| **TKR** | **Tekirdag** | **1.57** | **331** | *e*PN | **Pb** | **22 22 06.9** | **-0.2** |
| **TKR** | **Tekirdag** | **1.57** | **331** | *e*Pn | **Pb** | **22 22 06.9** | **-0.2** |
| **CTKS** | **Kestanelik-??a** | **1.61** | **359** | *e*PN | **Pb** | **22 22 07.5** | **-0.3** |
| **CTKS** | **Kestanelik-??a** | **1.61** | **359** | *e*Pn | **Pb** | **22 22 07.5** | **-0.3** |
| **SLVT** | **Silivri** | **1.62** | **351** | *e*PN | **Pb** | **22 22 07.7** | **-0.3** |
| **SLVT** | **Silivri** | **1.62** | **351** | *e*Pn | **Pb** | **22 22 07.7** | **-0.3** |
| **CRLT** | **Corlu** | **1.62** | **338** | *e*PN | **Pb** | **22 22 07.7** | **-0.4** |
| **CRLT** | **Corlu** | **1.62** | **338** | *e*Pn | **Pb** | **22 22 07.7** | **-0.4** |
| **KLYT** | **Kilyos** | **1.67** | **13** | *e*PN | **Pb** | **22 22 08.5** | **-0.3** |
| **KLYT** | **Kilyos** | **1.67** | **13** | *e*Pn | **Pb** | **22 22 08.5** | **-0.3** |
| **GULT** | **Gulveren** | **1.71** | **61** | *e*PN | **Pb** | **22 22 09.0** | **-0.6** |
| **GULT** | **Gulveren** | **1.71** | **61** | *e*Pn | **Pb** | **22 22 09.0** | **-0.6** |
| **EZN** | **Ezine** | **1.72** | **277** | *e*PN | **Pn** | **22 22 08.6** | **+0.4** |
| **EZN** | **Ezine** | **1.72** | **277** | *e*Pn | **Pn** | **22 22 08.6** | **+0.4** |
| **SILT** | **Sile** | **1.74** | **28** | *e*PN | **Pb** | **22 22 09.4** | **-0.7** |
| **SILT** | **Sile** | **1.74** | **28** | *e*Pn | **Pb** | **22 22 09.4** | **-0.7** |
| **GELI** | **Tayfur-Gelibol** | **1.77** | **297** | *e*PN | **Pn** | **22 22 09.8** | **+0.9** |
| **GELI** | **Tayfur-Gelibol** | **1.77** | **297** | *e*Pn | **Pn** | **22 22 09.8** | **+0.9** |
| **CTYL** | **Yalikoy Yolu** | **1.86** | **354** | *e*PN | **Pn** | **22 22 11.1** | **+1.0** |
| **CTYL** | **Yalikoy Yolu** | **1.86** | **354** | *e*Pn | **Pn** | **22 22 11.1** | **+1.0** |
| **ERIK** | **Erikli-Kesan** | **1.87** | **304** | *e*PN | **Pn** | **22 22 11.2** | **+0.9** |
| **ERIK** | **Erikli-Kesan** | **1.87** | **304** | *e*Pn | **Pn** | **22 22 11.2** | **+0.9** |
| **SHUT** | **Suhut-Afyon** | **1.89** | **124** | *e*PN | **Pn** | **22 22 11.6** | **+0.9** |
| **SHUT** | **Suhut-Afyon** | **1.89** | **124** | *e*Pn | **Pn** | **22 22 11.6** | **+0.9** |
| **GADA** | **Gvkgeada** | **2.11** | **286** | *e*PN | **Pn** | **22 22 14.7** | **+1.1** |
| **GADA** | **Gvkgeada** | **2.11** | **286** | *e*Pn | **Pn** | **22 22 14.7** | **+1.1** |
| **ALN** | **Alexandroupoli** | **2.29** | **304** | *e*PN | **Pn** | **22 22 17.7** | **+1.6** |
| **ALN** | **Alexandroupoli** | **2.29** | **304** | *e*Pn | **Pn** | **22 22 17.7** | **+1.6** |

**IDC 20 22:32:43.3±2.1, 5°52S×153°08E, h0km, mb3.3/3, mb1 3.7/4, mb1mx3.5/42, mbtmp3.5/4, ML1.6/1, MS3.4/1, Ms1 3.4/1, ms1mx2.5/16, Error ellipse: s-maj=124.5km s-min=27.2km az=130.0, New Ireland region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PMG** | **Port Moresby** | **7.03** | **236** | Pn | Pn | 22 34 28.9 | +1.4 |
| | 0.7nm,0.3s,baz=57,slow=7.1,SNR=4.7 | | | | | | |
| PMG | | | | Sn | Sn | 22 35 44.6 | -3.6 |
| | 1.3nm,0.3s,baz=307,slow=21,SNR=2.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **23.19** | **230** | P | P | 22 37 50.4 | -1.5 |
| | 0.3nm,0.4s,baz=55,slow=10,SNR=5.5 | | | | | | |
| **ASAR** | **Alice Springs** | **25.82** | **224** | P | P | 22 38 16.6 | +0.1 |
| | 0.5nm,0.5s,baz=57,slow=9.2,SNR=5.5 | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **43.09** | **226** | LR | LR | 22 59 07.1 | |
| | comp=Z,46nm,21.1s,baz=62,slow=37 | | | | | | |
| **ILAR** | **Eielson Array** | **82.72** | **22** | P | P | 22 45 08.0 | -0.7 |
| | 0.2nm,0.6s,baz=238,slow=4.9,SNR=4.5 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **150.79** | **287** | PKPbc | PKPbc | 22 52 39.9 | +1.0 |
| | 0.3nm,0.6s,baz=80,slow=3.4,SNR=5.0 | | | | | | |

**IDC 20 22:34:45.8±2.2, 5°33S×153°02E, h0km, mb3.6/3, mb1 3.9/4, mb1mx3.6/42, mbtmp3.7/4, ML1.7/1, MS3.5/1, Ms1 3.5/1, ms1mx2.5/25, Error ellipse: s-maj=143.9km s-min=26.9km az=130.0, New Ireland region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PMG** | **Port Moresby** | **7.08** | **235** | Pn | Pn | 22 36 32.3 | +1.5 |
| | 0.9nm,0.3s,baz=16,slow=8.2,SNR=3.9 | | | | | | |
| PMG | | | | Sn | Sn | 22 37 46.6 | -5.6 |
| | 1.2nm,0.3s,baz=114,slow=19,SNR=6.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **23.27** | **230** | P | P | 22 39 54.4 | -0.8 |
| | 1.2nm,0.6s,baz=53,slow=9.9,SNR=5.0 | | | | | | |
| **ASAR** | **Alice Springs** | **25.91** | **223** | P | P | 22 40 19.7 | -0.2 |
| | 0.5nm,0.5s,baz=58,slow=8.8,SNR=4.7 | | | | | | |
| **RPZ** | **Rata Peaks** | **41.40** | **160** | LR | LR | 22 59 17.7 | |
| | comp=Z,66nm,19.8s,baz=350,slow=36 | | | | | | |
| **ILAR** | **Eielson Array** | **82.57** | **22** | P | P | 22 47 10.5 | +0.1 |
| | 0.4nm,0.7s,baz=244,slow=5.1,SNR=5.5 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **150.68** | **287** | PKPbc | PKPbc | 22 54 41.0 | -0.1 |
| | 0.5nm,0.7s,baz=85,slow=3.5,SNR=3.9 | | | | | | |

**IDC 20 22:42:52.0±2.2, 16°59S×69°11W, h196km±8km, mb3.2/2, mb1 3.4/3, mb1mx3.0/38, mbtmp3.8/3, Error ellipse: s-maj=57.6km s-min=43.3km az=7.0, Peru-Bolivia border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **LPAZ** | **La Paz** | **0.99** | **73** | P | Pn | 22 43 22.2 | +0.3 |
| | 13nm,0.3s,baz=313,slow=5.9,SNR=271 | | | | | | |
| LPAZ | | | | S | Sn | 22 43 45.4 | +0.3 |
| | 9.8nm,0.3s,baz=160,slow=24,SNR=52 | | | | | | |
| **PTGA** | **Pitinga** | **18.15** | **31** | P | P | 22 46 50.5 | +0.7 |
| | 0.4nm,0.3s,baz=246,slow=12,SNR=5.0 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **75.94** | **72** | P | P | 22 54 17.5 | -0.2 |
| | 0.9nm,0.9s,baz=264,slow=5.3,SNR=10 | | | | | | |
| **YKA** | **Yellowknife Ar** | **86.52** | **341** | P | P | 22 55 11.3 | -0.9 |
| | 0.2nm,0.4s,baz=131,slow=4.9,SNR=5.3 | | | | | | |
| **SONM** | **Songino Array** | **148.62** | **6** | PKPbc | PKPbc | 23 02 16.6 | +0.6 |
| | 0.4nm,0.6s,baz=327,slow=3.2,SNR=3.8 | | | | | | |

*SOME **20** 22:43:14.6, 43°82N×85°78E, h25km*
*NNC **20** 22:43:18.4±1.9, 43°88N×85°45E, h0km, mb3.0, mpv2.6, Error ellipse: s-maj=16.8km s-min=10.5km az=98.0*

**ISC 20 22:43:18.2±2.7, 43°9N±0°1×85°5E±0°1, h10km, n9, σ2§03/12, 3C-5D, Northern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ZSN** | **Zaisan** | **3.54** | **353** | *e*P | **Pb** | **22 44 21.4** | **+0.5** |
| | 1.2nm,0.5s | | | | | | |
| ZSN | | | | *e*S | **Sg** | **22 45 10.2** | **-1.7** |
| | 4.8nm,0.3s | | | | | | |
| **MK31** | **Makanchi Array** | **3.65** | **323** | ⇓Pn | **Pn** | **22 44 16.0** | **+1.4** |
| | 0.3nm,0.3s,baz=142,slow=14,SNR=28 | | | | | | |
| MK31 | | | | ⇓Pg | **Pb** | **22 44 25.6** | **+2.8** |
| | 0.5nm,0.2s,baz=138,slow=16,SNR=7.9 | | | | | | |
| MK31 | | | | Lg | Lg | 22 45 14.1 | |
| | 1.5nm,0.2s,baz=137,slow=30,SNR=16 | | | | | | |
| **KTMS** | **Ketmen** | **3.77** | **264** | *e*P | **Pb** | **22 44 26.1** | **+1.2** |
| | 3.8nm,0.1s | | | | | | |
| KTMS | | | | *e*S | **Sg** | **22 45 18.0** | **-1.2** |
| | 12nm,0.4s | | | | | | |
| **MAKZ** | **Makanchi** | **3.80** | **320** | ⇑Pg | **Pg** | **22 44 29.2** | **-1.7** |
| | 1.2nm,0.4s | | | | | | |
| MAKZ | | | | ⇓Lg | Lg | 22 45 19.5 | |
| | 4.6nm,0.5s | | | | | | |
| **DJR** | **Jarkent** | **4.13** | **277** | *e*P | **Pb** | **22 44 32.6** | **+1.5** |
| | 3.7nm,0.5s | | | | | | |
| DJR | | | | *e*S | **Sg** | **22 45 29.2** | **-1.7** |
| | 12nm,0.4s | | | | | | |
| **PDGK** | **Podgornoye** | **4.41** | **264** | ⇓Pn | **Pn** | **22 44 26.0** | **+0.8** |
| | 0.4nm,0.3s | | | | | | |
| PDGK | | | | ⇑Lg | Lg | 22 45 36.5 | |
| | 6.1nm,0.5s | | | | | | |
| **KAPS** | **Kapalarasan** | **4.59** | **289** | *e*P | **Pg** | **22 44 43.2** | **-2.9** |
| | 0.5nm,0.1s | | | | | | |
| KAPS | | | | *e*S | **Sg** | **22 45 47.6** | **+2.1** |
| | 6.8nm,0.4s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **8.20** | **327** | ⇓Lg | Lg | 22 47 40.1 | |
| | 8.9nm,0.7s | | | | | | |
| **KURK** | **Kurchatov** | **8.23** | **328** | ⇑Lg | Lg | 22 47 39.8 | |
| | 2.9nm,0.6s | | | | | | |

**DJA 20 22:46:36.1±0.7, 8°S±4°×107°E±°, h10km±3km, M3.6/9, MLv3.6/9, Jawa**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CNJI** | **Cibinong** | **0.59** | **10** | Pg | Pn | 22 46 49.6 | -0.9 |
| CNJI | | | | Sg | Sb | 22 46 56.2 | -0.6 |
| **CISI** | **Cisompet, Garu** | **0.85** | **67** | Pg | Pb | 22 46 53.0 | +0.1 |
| CISI | | | | Sg | Sg | 22 47 03.8 | +0.3 |
| **SKJI** | **Sukabumi** | **1.00** | **332** | Pg | Pg | 22 46 55.2 | -0.1 |
| SKJI | | | | S | Sg | 22 47 08.0 | -0.3 |
| SKJI | | | | Sg | Sb | 22 47 08.1 | -0.6 |
| **DBJI** | **Dramaga** | **1.36** | **348** | Pg | Pb | 22 47 01.4 | -0.2 |
| DBJI | | | | Sg | Sg | 22 47 20.3 | +0.5 |
| **KPJI** | **Karang Pucung** | **1.96** | **74** | P | Pn | 22 47 09.8 | +0.3 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LCND | | | | eS | Sn | 22 53 51.3 | +1.0 | X48A | Hartselle | 21.87 6 P | P | 22 57 45.9 | -0.2 | MSTX | Muleshoe | 24.35 333 eP | P | 22 58 09.6 | -1.4 |
| TGUH | Tegucigalpa,Un | 2.78 59 | ePn | Pn | 22 53 38.7 | -0.6 | | baz=186,SNR=7.3 | | | | | | comp=Z,8.9nm,0.8s | | | | | |
| TGUH | Tegucigalpa,Un | 2.78 59 | eP | Pn | 22 53 38.6 | -0.7 | ABTX | Abilene, Hawle | 21.89 337 P | P | 22 57 45.3 | -1.0 | T43A | Greenville | 24.37 359 P | P | 22 58 10.3 | -0.6 |
| COPN | Copaltepe | 3.09 98 | eP | Pn | 22 53 41.1 | -2.4 | | baz=153 | | | | | | baz=178 | | | | | |
| COPN | | | eS | Sn | 22 54 18.2 | -1.1 | ABTX | Abilene, Hawle | 21.89 337 eP | P | 22 57 45.4 | -1.0 | T46A | Princeton | 24.38 4 P | P | 22 58 10.2 | -0.8 |
| COPN | | | AML | AML | 22 54 27.8 | | | comp=Z,9.7nm,0.6s | | | | | | baz=184,SNR=8.6 | | | | | |
| | comp=Z,374nm,0.5s | | | | | | X42A | Stuttgart | 21.91 356 P | P | 22 57 46.1 | -0.3 | T47A | Sharon Grove | 24.38 5 P | P | 22 58 10.1 | -0.9 |
| MOMN | Momotombo | 3.11 93 | eP | Pn | 22 53 41.4 | -2.5 | | baz=174 | | | | | | baz=186,SNR=6.6 | | | | | |
| XAVN | Gruta Xavier | 3.35 98 | eP | Pn | 22 53 45.2 | -1.9 | X41A | Kaden, Bauxite | 21.93 354 P | P | 22 57 47.1 | +0.4 | T41A | Mountain View | 24.39 356 P | P | 22 58 10.3 | -0.9 |
| TISN | Laguna Tiscapa | 3.41 98 | eP | Pn | 22 53 45.8 | -2.1 | | baz=172 | | | | | | baz=175 | | | | | |
| MGAN | Managua | 3.43 97 | eP | Pn | 22 53 46.1 | -2.1 | Y37A | Hugo | 21.93 347 P | P | 22 57 46.0 | -0.7 | U35A | Pawnee | 24.48 346 P | P | 22 58 10.2 | -1.8 |
| MGAN | | | eS | Sn | 22 54 25.2 | -2.3 | | baz=164 | | | | | | baz=163 | | | | | |
| CCIG | Comitan | 4.33 328 | ePn | Pn | 22 54 03.4 | +2.6 | X40A | Basin Creek Fa | 21.95 353 P | P | 22 57 47.0 | 0.0 | U35A | Pawnee | 24.48 346 eP | P | 22 58 10.4 | -1.6 |
| VCR | Vista de Mar | 4.71 121 | / P | Pn | 22 54 04.5 | -1.5 | | baz=171 | | | | | | comp=Z,19nm,0.8s | | | | | |
| CGA2 | Cerro Gallo 2 | 5.77 116 | eP | Pn | 22 54 19.7 | -0.8 | X49A | Woodville | 22.01 7 P | P | 22 57 47.6 | 0.0 | T39A | Clever | 24.52 353 P | P | 22 58 11.2 | -1.2 |
| QCR1 | Quepos | 6.31 120 | eP | Pn | 22 54 27.7 | -0.1 | | baz=188,SNR=6.7 | | | | | | baz=171,SNR=6.0 | | | | | |
| URSC | Urasca | 6.45 115 | eP | Pn | 22 54 30.0 | +0.1 | Y36A | Durant | 22.01 345 P | P | 22 57 46.8 | -0.9 | T40A | Mansfield | 24.56 355 P | P | 22 58 11.5 | -1.2 |
| CMIG | Matias Romero | 6.69 312 | Pn | Pn | 22 54 32.0 | -0.9 | | baz=162 | | | | | | baz=173 | | | | | |
| | comp=Z,1.1nm,0.3s,baz=134,slow=10,SNR=12 | | | | | | X50A | Fort Payne | 22.06 9 P | P | 22 57 47.7 | -0.5 | T48A | Bowling Green | 24.57 6 P | P | 22 58 11.3 | -1.5 |
| CMIG | | | Sn | Sn | 22 55 44.1 | -3.8 | | baz=190 | | | | | | baz=187 | | | | | |
| | comp=Z,1.0nm,0.3s,baz=333,slow=9.5,SNR=2.3 | | | | | | MIAR | Mount Ida | 22.11 352 P | P | 22 57 48.2 | -0.5 | T38A | Diamond | 24.66 351 P | P | 22 58 12.6 | -1.0 |
| TLIG | Tlapa | 9.86 301 | ePn | Pn | 22 55 17.4 | +0.9 | | baz=170,SNR=10 | | | | | | baz=169,SNR=6.0 | | | | | |
| LNIG | Linares | 15.30 324 | ePn | P | 22 56 33.1 | -1.1 | MIAR | Mount Ida | 22.11 352 eP | P | 22 57 48.0 | -0.7 | AMTX | Amarillo | 24.68 336 P | P | 22 58 12.9 | -1.0 |
| | comp=Z,31nm,1.0s | | | | | | | comp=Z,20nm,0.7s | | | | | | baz=151 | | | | | |
| 833A | Chaparral WMA, | 18.05 331 | P | Pn | 22 57 04.8 | +0.1 | X39A | Fountain Ranch | 22.16 350 P | P | 22 57 49.5 | +0.3 | AMTX | Amarillo | 24.68 336 eP | P | 22 58 14.1 | +0.2 |
| | baz=148 | | | | | | | baz=168 | | | | | | comp=Z,20nm,1.1s | | | | | |
| 344A | Westbrook Farm | 18.77 357 | P | Pn | 22 57 13.3 | 0.0 | UALR | University of | 22.19 354 eP | P | 22 57 49.3 | -0.2 | T37A | Chenoyville 18 | 24.84 350 P | P | 22 58 14.3 | -1.0 |
| | baz=176 | | | | | | | comp=Z,65nm,1.0s | | | | | | baz=168,SNR=14 | | | | | |
| 341A | Kurthwood | 18.90 351 | P | Pn | 22 57 14.7 | -0.1 | Y35A | Marietta | 22.22 344 P | P | 22 57 49.0 | -0.8 | S43A | Fulton Ridge, | 24.85 359 P | P | 22 58 14.9 | -0.4 |
| | baz=169 | | | | | | | baz=160,SNR=15 | | | | | | baz=179,SNR=10 | | | | | |
| SDV | Santo Domingo | 19.11 99 | P | P | 22 57 15.1 | -1.6 | PLAL | Pickwick Lake | 22.32 4 eP | P | 22 57 51.0 | +0.1 | S41A | Jillco Farms, | 24.93 356 P | P | 22 58 15.0 | -1.1 |
| | comp=Z,0.6nm,0.3s,baz=268,slow=6.7,SNR=4.8 | | | | | | | comp=Z,12nm,0.9s | | | | | | baz=175,SNR=8.1 | | | | | |
| 243A | Waterproof | 19.24 355 | P | Pn | 22 57 19.0 | 0.0 | X38A | Whitesboro | 22.44 349 P | P | 22 57 51.8 | -0.4 | T35A | Sooner Cattle | 24.95 347 P | P | 22 58 15.0 | -1.3 |
| | baz=174 | | | | | | | baz=166 | | | | | | baz=164 | | | | | |
| 244A | Avery, Jackson | 19.35 358 | P | Pn | 22 57 20.3 | 0.0 | W45A | Hickory Valley | 22.45 1 P | P | 22 57 51.6 | -0.7 | T36A | Boggs Farm, Ca | 24.96 348 P | P | 22 58 15.0 | -1.3 |
| | baz=177,SNR=6.3 | | | | | | | baz=187,SNR=6.3 | | | | | | baz=165 | | | | | |
| 247A | Quitman | 19.37 3 | P | Pn | 22 57 20.7 | +0.2 | X37A | Clayton | 22.47 348 P | P | 22 57 52.0 | -0.5 | S44A | Carbondale | 24.98 1 P | P | 22 58 15.7 | -0.7 |
| | baz=183 | | | | | | | baz=165 | | | | | | baz=181,SNR=14 | | | | | |
| 248A | Dixon Mills | 19.47 5 | P | Pn | 22 57 22.4 | +0.7 | X37A | Clayton | 22.47 348 eP | P | 22 57 53.5 | +0.9 | S45A | Carrier Mills | 24.98 2 P | P | 22 58 15.9 | -0.6 |
| | baz=185 | | | | | | | comp=Z,12nm,0.7s | | | | | | baz=182 | | | | | |
| 242A | Grayson | 19.48 354 | P | P | 22 57 20.9 | +0.6 | HODGE | Hodges | 22.56 16 eP | P | 22 57 53.1 | -0.4 | SIUC | Southern Illin | 25.00 1 eP | P | 22 58 16.5 | -0.1 |
| | baz=172 | | | | | | | comp=Z,13nm,0.8s | | | | | | comp=Z,39nm,0.6s | | | | | |
| 435B | Jarrell | 19.48 339 | P | P | 22 57 20.8 | +0.5 | W41B | Gary Mavity, V | 22.57 355 P | P | 22 57 53.4 | -0.2 | S40A | Lebanon | 25.00 355 P | P | 22 58 15.4 | -1.4 |
| | baz=156 | | | | | | | baz=173 | | | | | | baz=173 | | | | | |
| VBMS | Vicksburg | 19.52 358 | P | Pn | 22 57 22.2 | -0.1 | X301 | Greenbrier Sit | 22.65 354 eP | P | 22 57 55.2 | +0.7 | S46A | Don Dixon Farm | 25.03 4 P | P | 22 58 16.0 | -1.0 |
| | baz=177 | | | | | | | comp=Z,22nm,1.0s | | | | | | baz=184 | | | | | |
| VBMS | Vicksburg | 19.52 358 | eP | Pn | 22 57 22.9 | +0.6 | X35A | Drake | 22.66 344 P | P | 22 57 53.2 | -1.5 | S42A | Caledonia | 25.07 358 P | P | 22 58 16.5 | -0.8 |
| | comp=Z,60nm,0.7s | | | | | | | baz=161,SNR=8.1 | | | | | | baz=177,SNR=5.3 | | | | | |
| 241A | Mo Tay, Goldon | 19.54 352 | P | P | 22 57 20.7 | -0.2 | X35A | Drake | 22.66 344 eP | P | 22 57 53.5 | -1.1 | U32A | Winter Ranch, | 25.09 342 P | P | 22 58 16.4 | -1.2 |
| | baz=170 | | | | | | | comp=Z,25nm,0.8s | | | | | | baz=158 | | | | | |
| TIGA | Tifton | 19.57 16 | P | P | 22 57 22.1 | +0.8 | X36A | Centrahoma | 22.67 346 P | P | 22 57 53.4 | -1.3 | S48A | Wiedeman Farm, | 25.15 7 P | P | 22 58 16.2 | -1.9 |
| | baz=198,SNR=5.3 | | | | | | | baz=163,SNR=9.3 | | | | | | baz=188 | | | | | |
| TIGA | Tifton | 19.57 16 | ePn | P | 22 57 21.9 | +0.7 | W40A | Ferguson Farm, | 22.68 353 P | P | 22 57 54.6 | -0.2 | S39A | Bolivar | 25.18 353 P | P | 22 58 17.0 | -1.3 |
| | comp=Z,48nm,0.7s | | | | | | | baz=171 | | | | | | baz=171,SNR=13 | | | | | |
| NATX | Nacogdoches | 19.59 347 | P | P | 22 57 22.0 | +0.5 | W40A | Ferguson Farm, | 22.68 353 eP | P | 22 57 56.0 | +1.2 | S38A | Stockton | 25.19 352 P | P | 22 58 17.2 | -1.2 |
| | baz=165 | | | | | | | comp=Z,24nm,0.9s | | | | | | baz=170,SNR=7.7 | | | | | |
| NATX | Nacogdoches | 19.59 347 | eP | P | 22 57 16.6 | -4.8 | WHAR | Wooly Hollow | 22.69 355 eP | P | 22 57 54.7 | -0.2 | T34A | McClaskey Farm | 25.21 346 P | P | 22 58 16.8 | -1.8 |
| | comp=Z,26nm,0.9s | | | | | | | comp=Z,22nm,0.9s | | | | | | baz=162,SNR=5.9 | | | | | |
| 240A | Hunter Patters | 19.68 350 | P | P | 22 57 22.7 | +0.2 | SWET | Sewanee | 22.76 8 eP | P | 22 57 55.2 | -0.5 | FVM | French Village | 25.27 359 eP | P | 22 58 18.3 | -0.8 |
| | baz=168 | | | | | | | comp=Z,12nm,0.6s | | | | | | comp=Z,10nm,0.7s | | | | | |
| 145A | Houston Renfro | 19.89 359 | P | Pn | 22 57 26.2 | -0.5 | W38A | Poteau | 22.77 350 P | P | 22 57 55.2 | -0.5 | CCM | Cathedral Cave | 25.37 357 P | P | 22 58 19.0 | -1.0 |
| | baz=179 | | | | | | | baz=167 | | | | | | baz=176 | | | | | |
| 146A | Union | 19.94 2 | P | P | 22 57 25.9 | +0.7 | W39A | Magazine | 22.78 351 P | P | 22 57 55.1 | -0.7 | CCM | Cathedral Cave | 25.37 357 eP | P | 22 58 19.0 | -1.0 |
| | baz=181 | | | | | | | baz=169 | | | | | | comp=Z,24nm,1.0s | | | | | |
| 142A | Monroe | 19.94 354 | P | P | 22 57 25.5 | +0.1 | JSC | Jenkinsville | 22.90 18 eP | P | 22 57 54.4 | -2.6 | S37A | Fort Scott | 25.45 351 P | P | 22 58 19.5 | -1.3 |
| | baz=173 | | | | | | | comp=Z,13nm,0.8s | | | | | | baz=168,SNR=11 | | | | | |
| 147A | Livingston | 20.01 4 | P | P | 22 57 26.9 | +0.9 | W37B | Quinton | 23.01 348 P | P | 22 57 57.3 | -0.9 | R44A | Waltonville | 25.53 1 P | P | 22 58 21.1 | -0.3 |
| | baz=184 | | | | | | | baz=165 | | | | | | baz=181 | | | | | |
| 143A | Socs Landing, | 20.05 356 | P | P | 22 57 26.7 | +0.2 | W37B | Quinton | 23.01 348 eP | P | 22 57 57.5 | -0.7 | S36A | Lake Cedric, C | 25.55 349 P | P | 22 58 20.3 | -1.4 |
| | baz=175 | | | | | | | comp=Z,18nm,0.8s | | | | | | baz=166,SNR=10 | | | | | |
| JCT | Junction City | 20.07 334 | P | P | 22 57 26.8 | 0.0 | V45A | Humboldt | 23.03 2 P | P | 22 57 57.1 | -1.3 | R43A | Red Bud | 25.55 360 P | P | 22 58 22.5 | +0.8 |
| | baz=150 | | | | | | | baz=181 | | | | | | baz=179,SNR=8.5 | | | | | |
| JCT | Junction City | 20.07 334 | eP | P | 22 57 26.3 | -0.6 | V42A | Cord | 23.14 357 P | P | 22 57 58.6 | -0.8 | R46A | Gibon Southern | 25.57 4 P | P | 22 58 21.1 | -0.7 |
| | comp=Z,7.8nm,0.8s | | | | | | | baz=175 | | | | | | baz=185 | | | | | |
| 237A | Washetta, Mont | 20.09 345 | P | P | 22 57 27.4 | +0.5 | V48A | Smith Brothers | 23.17 6 P | P | 22 57 58.8 | -1.0 | R42A | Luebbering | 25.57 358 P | P | 22 58 21.0 | -0.9 |
| | baz=162 | | | | | | | baz=187 | | | | | | baz=177 | | | | | |
| 236A | Katherine and | 20.28 343 | P | P | 22 57 28.5 | -0.5 | V41A | Mountainview | 23.17 355 P | P | 22 57 58.6 | -1.2 | R45A | Skylar, Fairfi | 25.60 3 P | P | 22 58 21.7 | -0.4 |
| | baz=160,SNR=5.9 | | | | | | | baz=174,SNR=11 | | | | | | baz=183 | | | | | |
| LRAL | Lakeview Retre | 20.48 7 | P | P | 22 57 32.0 | +0.8 | W36A | Wetumka | 23.18 346 P | P | 22 57 57.9 | -2.0 | R41A | Rosebud | 25.62 357 P | P | 22 58 21.8 | -0.5 |
| | baz=187,SNR=6.4 | | | | | | | baz=163 | | | | | | baz=176,SNR=18 | | | | | |
| LRAL | Lakeview Retre | 20.48 7 | eP | P | 22 57 32.0 | +0.8 | W36A | Wetumka | 23.18 346 eP | P | 22 57 58.5 | -1.5 | S35A | Otter Creek Ra | 25.65 348 P | P | 22 58 21.1 | -1.4 |
| | comp=Z,14nm,0.9s | | | | | | | comp=Z,12nm,0.8s | | | | | | baz=165 | | | | | |
| Z46A | Louisville | 20.49 2 | P | P | 22 57 31.9 | +0.6 | CPCT | Cooper Cave | 23.21 11 eP | P | 22 57 59.9 | -0.3 | R40A | Maddies Statio | 25.67 355 P | P | 22 58 21.8 | -1.0 |
| | baz=182 | | | | | | | comp=Z,13nm,1.2s | | | | | | baz=174 | | | | | |
| Z47A | Carrollton | 20.54 4 | P | P | 22 57 32.7 | +0.9 | V40A | Witts Springs | 23.25 354 P | P | 22 57 59.0 | -1.7 | WCI | Wyandotte Cave | 25.69 6 P | P | 22 58 22.0 | -1.0 |
| | baz=184 | | | | | | | baz=172,SNR=5.8 | | | | | | baz=187 | | | | | |
| Z43A | Armstrong Fami | 20.55 356 | P | P | 22 57 32.3 | +0.4 | W35A | Tecumseh | 23.35 345 P | P | 22 57 59.5 | -2.0 | WCI | Wyandotte Cave | 25.69 6 eP | P | 22 58 21.8 | -1.1 |
| | baz=175 | | | | | | | baz=162,SNR=6.3 | | | | | | comp=Z,13nm,0.8s | | | | | |
| 138A | Matatall Enter | 20.55 347 | P | P | 22 57 31.8 | -0.1 | W35A | Tecumseh | 23.35 345 eP | P | 22 57 59.9 | -1.7 | R47A | Wooly Knot Far | 25.73 6 P | P | 22 58 22.7 | -0.6 |
| | baz=164 | | | | | | | comp=Z,20nm,0.7s | | | | | | baz=187 | | | | | |
| WHTX | Lake Whitney, | 20.55 341 | P | P | 22 57 31.3 | -0.6 | V39A | Pettigrew | 23.39 352 P | P | 22 58 00.5 | -1.5 | R38A | Fenwick Farm, | 25.74 352 P | P | 22 58 22.1 | -1.3 |
| | baz=158,SNR=7.9 | | | | | | | baz=170 | | | | | | baz=170,SNR=5.1 | | | | | |
| WHTX | Lake Whitney, | 20.55 341 | eP | P | 22 57 31.6 | -0.4 | WVT | Waverly | 23.47 4 P | P | 22 58 01.6 | -1.1 | R39A | Chumby, Stover | 25.76 354 P | P | 22 58 22.2 | -1.4 |
| | comp=Z,44nm,0.8s | | | | | | | baz=184 | | | | | | baz=172,SNR=8.5 | | | | | |
| Z44A | Pea Ridge, Bel | 20.57 358 | P | P | 22 57 32.5 | +0.3 | WVT | Waverly | 23.47 4 eP | P | 22 58 02.1 | -0.6 | 121A | Cookes Peak, D | 25.83 323 P | P | 22 58 25.8 | +1.3 |
| | baz=178 | | | | | | | comp=Z,12nm,1.0s | | | | | | baz=136 | | | | | |
| 137A | Heron Place, G | 20.64 345 | P | P | 22 57 32.8 | -0.2 | WMOK | Wichita Mounta | 23.51 341 P | P | 22 58 01.1 | -2.0 | 121A | Cookes Peak, D | 25.83 323 eP | P | 22 58 26.3 | +1.8 |
| | baz=163 | | | | | | | baz=157,SNR=7.0 | | | | | | comp=Z,12nm,1.0s | | | | | |
| HPIG | | 20.65 316 | eP | Pn | 22 57 35.4 | -0.6 | WMOK | Wichita Mounta | 23.51 341 eP | P | 22 58 01.2 | -1.9 | S34A | Willow Spring | 25.84 346 P | P | 22 58 22.8 | -1.5 |
| | comp=Z,10nm,0.9s | | | | | | | comp=Z,13nm,0.9s | | | | | | baz=163 | | | | | |
| Z45A | Winona | 20.66 0 | P | P | 22 57 33.7 | +0.6 | V38A | Canehill | 23.53 350 P | P | 22 58 01.9 | -1.4 | R48A | Northridge Ran | 25.91 7 P | P | 22 58 24.5 | -0.4 |
| | baz=180 | | | | | | | baz=168,SNR=5.5 | | | | | | baz=188 | | | | | |
| Z42A | Norrel Spur, H | 20.66 355 | P | P | 22 57 33.3 | +0.2 | GLAT | Glass | 23.55 1 eP | P | 22 58 04.0 | +0.6 | OLIL | Olney | 26.05 3 eP | P | 22 58 26.0 | -0.2 |
| | baz=173 | | | | | | | comp=Z,136nm,1.0s | | | | | | comp=Z,23nm,0.8s | | | | | |
| Z49A | Columbiana | 20.69 8 | P | P | 22 57 33.1 | -0.3 | TKL | Tuckaleechee C | 23.56 12 P | P | 22 58 02.1 | -1.4 | R36A | Gordon, Harris | 26.11 350 P | P | 22 58 25.5 | -1.3 |
| | baz=188 | | | | | | | comp=Z,10nm,0.7s,baz=182,slow=12,SNR=16 | | | | | | baz=167,SNR=5.0 | | | | | |
| 136A | Ennis | 20.73 344 | P | P | 22 57 33.1 | -0.8 | TKL | Tuckaleechee C | 23.56 12 eP | P | 22 58 02.8 | -0.8 | Q44A | Meyer Farm, Va | 26.19 1 P | P | 22 58 27.0 | -0.4 |
| | baz=160,SNR=10 | | | | | | | comp=Z,10nm,0.8s | | | | | | baz=181 | | | | | |
| Z41A | Richland Creek | 20.74 353 | P | Pn | 22 57 35.9 | -0.9 | U44B | Burton Farm, H | 23.62 1 P | P | 22 58 03.4 | -0.6 | Q42A | Golden Eagle | 26.20 359 P | P | 22 58 26.9 | -0.6 |
| | baz=171 | | | | | | | baz=180,SNR=9.4 | | | | | | baz=178 | | | | | |
| Z48A | Northport | 20.76 5 | P | P | 22 57 34.9 | +0.7 | UTMT | University of | 23.64 2 eP | P | 22 58 03.4 | -0.8 | Q45A | Warren Harvey, | 26.21 3 P | P | 22 58 27.3 | -0.3 |
| | baz=186 | | | | | | | comp=Z,80nm,0.7s | | | | | | baz=183 | | | | | |
| Z40A | Long Farm, Mag | 20.82 351 | P | P | 22 57 34.7 | -0.1 | U45A | Rockin P Farm, | 23.64 2 P | P | 22 58 03.5 | -0.8 | Q43A | New Douglas | 26.22 0 P | P | 22 58 27.2 | -0.5 |
| | baz=169 | | | | | | | baz=182 | | | | | | baz=180,SNR=5.7 | | | | | |
| Z39A | Irene McRaven, | 20.93 349 | P | P | 22 57 36.3 | +0.2 | U43A | Rector | 23.66 359 P | P | 22 58 03.7 | -0.7 | R35A | Emporia Munici | 26.24 348 P | P | 22 58 26.7 | -1.3 |
| | baz=167 | | | | | | | baz=178,SNR=6.6 | | | | | | baz=165 | | | | | |
| TXAR | Lajitas Array | 21.09 324 | P | P | 22 57 39.4 | +1.5 | U42A | Revenden | 23.67 357 P | P | 22 58 03.5 | -1.1 | Q41A | Truxton | 26.26 357 P | P | 22 58 27.5 | -0.6 |
| | comp=Z,15nm,0.8s,baz=149,slow=11,SNR=119 | | | | | | | baz=175,SNR=11 | | | | | | baz=176,SNR=10 | | | | | |
| TX31 | Lajitas Ar. Si | 21.09 324 | eP | P | 22 57 39.1 | +1.2 | V37A | Hulbert | 23.68 349 P | P | 22 58 03.4 | -1.2 | Q40A | Laux Farm, Aux | 26.35 356 P | P | 22 58 27.8 | -1.2 |
| Z38A | Mt. Pleasant | 21.10 348 | P | P | 22 57 37.6 | -0.3 | | baz=166,SNR=11 | | | | | | baz=174 | | | | | |
| | baz=165 | | | | | | KMSC | Kings Mountain | 23.68 17 P | P | 22 58 03.4 | -1.3 | Q47A | Bedord North L | 26.38 6 P | P | 22 58 27.7 | -1.4 |
| Y45A | Yeager Farm, C | 21.15 0 | P | P | 22 57 39.3 | +0.9 | | baz=200 | | | | | | baz=187 | | | | | |
| | baz=180 | | | | | | KMSC | Kings Mountain | 23.68 17 eP | P | 22 58 03.6 | -1.0 | Q46A | CEJHS Indians, | 26.38 4 P | P | 22 58 27.3 | -1.9 |
| Y46A | Houston | 21.18 2 | P | P | 22 57 39.3 | +0.6 | | comp=Z,9.8nm,0.8s | | | | | | baz=185 | | | | | |
| | baz=182,SNR=10 | | | | | | U46A | Springville | 23.68 3 P | P | 22 58 03.7 | -0.9 | BNM | Barren Site | 26.38 327 eP | P | 22 58 30.9 | +1.3 |
| Z37A | Pogue Cattle C | 21.18 346 | P | P | 22 57 38.8 | +0.1 | | baz=183,SNR=11 | | | | | R34A | Isabella, Hill | 26.44 347 P | P | 22 58 28.4 | -1.4 |
| | baz=163 | | | | | | U41A | Viola | 23.71 356 P | P | 22 58 04.1 | -0.8 | | baz=163 | | | | | |
| WLAR | White Oak Lake | 21.20 352 | eP | P | 22 57 42.6 | +3.7 | | baz=174 | | | | | Q38A | Cooks Store, C | 26.46 353 P | P | 22 58 28.9 | -1.0 |
| | comp=Z,51nm,0.8s | | | | | | OK020 | N3440 Road, Me | 23.72 345 eP | P | 22 58 03.4 | -1.6 | | baz=171,SNR=10 | | | | | |
| Y42A | Garnett, Star | 21.21 355 | P | P | 22 57 39.5 | +0.6 | | comp=Z,26nm,0.8s | | | | | Q39A | Willow Grove F | 26.48 354 P | P | 22 58 28.6 | -1.4 |
| | baz=174 | | | | | | OK021 | N3530 Road, Sp | 23.74 346 eP | P | 22 58 03.5 | -1.7 | | baz=172 | | | | | |
| Y43A | Makayla and Ka | 21.23 357 | P | P | 22 57 40.0 | +0.8 | | comp=Z,10nm,0.6s | | | | | Q37A | Longview Farm, | 26.49 352 P | P | 22 58 28.7 | -1.5 |
| | baz=176 | | | | | | V36A | Jenks | 23.74 347 P | P | 22 58 03.9 | -1.4 | | baz=169 | | | | | |
| Y44A | Strider, Charl | 21.25 359 | P | P | 22 57 40.0 | +0.5 | | baz=164 | | | | | Q36A | Arnold C. Orve | 26.73 350 P | P | 22 58 30.6 | -1.7 |
| | baz=178 | | | | | | U44A | Portageville | 23.79 0 P | P | 22 58 04.5 | -1.1 | | baz=167 | | | | | |
| Y47A | UCPARC, Winfie | 21.26 4 | P | P | 22 57 40.3 | +0.8 | | baz=180 | | | | | Q35A | Mercer Eighty, | 26.73 349 P | P | 22 58 30.7 | -1.7 |
| | baz=184,SNR=18 | | | | | | U40A | Neville | 23.80 354 P | P | 22 58 04.9 | -0.9 | | baz=166 | | | | | |
| CCAR | Cane Creek | 21.29 355 | eP | P | 22 57 39.1 | -0.7 | | baz=172,SNR=7.8 | | | | | P44A | Sand Creek, Wi | 26.76 2 P | P | 22 58 31.4 | -1.2 |
| | comp=Z,38nm,0.8s | | | | | | U47A | Clarksville | 23.82 5 P | P | 22 58 04.7 | -1.3 | | baz=182 | | | | | |
| Y48A | Jasper | 21.33 6 | P | P | 22 57 40.6 | +0.4 | | baz=185,SNR=8.3 | | | | | P45A | Graceland, Par | 26.86 3 P | P | 22 58 32.8 | -0.7 |
| | baz=186 | | | | | | TUL1 | Leonard | 23.83 348 P | P | 22 58 04.7 | -1.4 | | baz=184 | | | | | |
| Y41A | Eaglette Beard | 21.33 353 | P | P | 22 57 40.2 | -0.1 | | baz=165 | | | | | P42A | Winchester | 26.87 359 P | P | 22 58 32.3 | -1.3 |
| | baz=172 | | | | | | MNTX | Cornudas Mount | 23.84 325 P | P | 22 58 05.9 | -0.3 | | baz=178 | | | | | |
| Y49A | Blount Mountai | 21.36 8 | P | P | 22 57 41.0 | +0.4 | | baz=139,SNR=15 | | | | | P40A | Paris | 26.88 356 P | P | 22 58 32.1 | -1.6 |
| | baz=188 | | | | | | MNTX | Cornudas Mount | 23.84 325 eP | P | 22 58 06.1 | -0.1 | | baz=175 | | | | | |
| Z36A | Blue Ridge | 21.45 344 | P | P | 22 57 40.2 | -1.5 | | comp=Z,11nm,1.0s | | | | | P39B | Salisbury | 26.90 355 P | P | 22 58 32.4 | -1.4 |
| | baz=161 | | | | | | U39A | Green Forest | 23.90 352 P | P | 22 58 05.9 | -0.8 | | baz=173 | | | | | |
| GOGA | Godfrey | 21.47 14 | eP | P | 22 57 41.0 | -0.9 | | baz=170 | | | | | ANMO | Albuquerque | 26.91 328 P | P | 22 58 33.6 | -0.7 |
| | comp=Z,8.1nm,0.6s | | | | | | V35A | Meyer Ranch, C | 23.92 346 P | P | 22 58 05.2 | -1.7 | | baz=141 | | | | | |
| Y40A | Okolona | 21.54 352 | P | P | 22 57 42.7 | +0.1 | | baz=162 | | | | | P43A | Skaggs, Pawnee | 26.92 0 P | P | 22 58 33.4 | -0.6 |
| | baz=170 | | | | | | V35A | Meyer Ranch, C | 23.92 346 eP | P | 22 58 05.7 | -1.2 | | baz=180 | | | | | |
| Y39A | Lockesburg | 21.59 350 | P | P | 22 57 43.8 | +0.7 | | comp=Z,13nm,0.6s | | | | | P47A | Martinsville | 26.94 6 P | P | 22 58 32.3 | -1.9 |
| | baz=168 | | | | | | U48A | Cassie Pea, Po | 23.96 6 P | P | 22 58 05.9 | -1.3 | | baz=187 | | | | | |
| Y38A | Idabel | 21.70 349 | P | P | 22 57 44.0 | -0.3 | | baz=187 | | | | | Q34A | Chapman | 26.97 348 P | P | 22 58 33.6 | -1.0 |
| | baz=166 | | | | | | PBMO | Poplar Bluff | 24.07 359 eP | P | 22 58 07.2 | -1.0 | | baz=164 | | | | | |
| X45A | UM Field Stati | 21.71 1 | P | P | 22 57 44.5 | +0.1 | | comp=Z,18nm,0.8s | | | | | P41A | Barry, Barry | 26.98 358 P | P | 22 58 33.4 | -1.2 |
| | baz=180,SNR=10 | | | | | | U38A | Gravette | 24.09 351 P | P | 22 58 07.0 | -1.5 | | baz=177 | | | | | |
| OXF | Oxford | 21.80 1 | P | P | 22 57 45.2 | -0.1 | | baz=168 | | | | | P46A | Rosedale | 26.98 4 P | P | 22 58 33.6 | -1.0 |
| | baz=180,SNR=13 | | | | | | U37A | Salina | 24.18 349 P | P | 22 58 08.2 | -1.0 | | baz=185 | | | | | |
| OXF | Oxford | 21.80 1 | eP | P | 22 57 45.3 | 0.0 | | baz=167,SNR=5.5 | | | | | KSU1 | Kansas State U | 27.07 348 P | P | 22 58 34.0 | -1.4 |
| | comp=Z,105nm,1.0s | | | | | | U36A | Oologah | 24.28 348 P | P | 22 58 08.6 | -1.6 | | baz=165 | | | | | |
| X43A | Marvell | 21.83 357 | P | P | 22 57 45.2 | -0.4 | T45A | Paducah | 24.32 2 P | P | 22 58 09.5 | -1.0 | KSU1 | Kansas State U | 27.07 348 eP | P | 22 58 35.2 | -0.2 |
| | baz=176 | | | | | | | baz=182 | | | | | | comp=Z,7.9nm,0.6s | | | | | |
| X46A | Booneville | 21.86 3 | P | P | 22 57 45.6 | -0.4 | T42A | Van Buren | 24.34 357 P | P | 22 58 10.2 | -0.5 | P38A | Dawn | 27.11 354 P | P | 22 58 34.6 | -1.2 |
| | baz=182,SNR=7.2 | | | | | | | baz=176,SNR=14 | | | | | | baz=171 | | | | | |
| X47A | Russelville | 21.87 4 | P | P | 22 57 46.1 | 0.0 | MSTX | Muleshoe | 24.35 333 P | P | 22 58 09.6 | -1.4 | P37A | Lathrop | 27.17 352 P | P | 22 58 35.1 | -1.3 |
| | baz=184,SNR=13 | | | | | | | baz=147,SNR=6.1 | | | | | | baz=170 | | | | | |
| | | | | | | | | | | | | | P36A | Good Intent, A | 27.33 351 P | P | 22 58 36.6 | -1.1 |

baz=168
P35A **Duane Minner,** 27.38 349 P P 22 58 37.1 -1.1
baz=166,SNR=6.3
O41A **Passleys Farm,** 27.41 358 P P 22 58 37.1 -1.3
baz=177
O44A **Mansfield** 27.45 2 P P 22 58 37.6 -1.2
baz=182
O40A **La Belle** 27.46 356 P P 22 58 38.0 -0.9
baz=175,SNR=6.7
O42A **Bath** 27.47 359 P P 22 58 37.8 -1.1
baz=179
TUC **Tucson** 27.52 319 P P 22 58 39.4 -0.3
baz=130
P34A **Walnut Farm, R** 27.55 348 P P 22 58 38.6 -1.1
baz=164
CBKS **Cedar Bluff** 27.57 343 P P 22 58 38.8 -1.1
baz=158
O45A **Potomac** 27.58 3 P P 22 58 39.1 -0.9
baz=184
O38A **Galt** 27.59 354 P P 22 58 38.9 -1.2
baz=172
O39A **Kirksville** 27.64 355 P P 22 58 39.0 -1.5
baz=174
O47A **Sheridan** 27.69 6 P P 22 58 38.7 -2.2
baz=187
O37A **Wolven Farm, M** 27.72 353 P P 22 58 39.8 -1.4
baz=170
SFIN **Lafayette** 27.75 4 P P 22 58 40.3 -1.1
baz=185
O36A **Bolckow** 27.79 351 P P 22 58 40.3 -1.6
baz=169
HDIL **Hopedale** 27.83 1 P P 22 58 41.0 -1.2
baz=180
N41A **Harden Midland** 28.00 358 P P 22 58 42.5 -1.2
baz=177
O35A **Humboldt** 28.08 350 P P 22 58 43.1 -1.3
baz=167
N42A **Yates City** 28.10 359 P P 22 58 44.4 -0.3
baz=179
N44A **Piper City** 28.10 3 P P 22 58 43.6 -1.0
baz=183
O34A **Beatrice** 28.14 349 P P 22 58 44.0 -0.9
baz=165
ACSO **Alum Creek Sta** 28.14 11 P P 22 58 43.8 -1.2
baz=194
N45A **Kentland** 28.19 4 P P 22 58 44.2 -1.2
baz=184
N40A **Mertquake, Sal** 28.20 357 P P 22 58 44.2 -1.3
baz=176
O33A **Hebron** 28.22 347 P P 22 58 45.0 -0.7
baz=163
N43A **Stutzman Famil** 28.22 1 P P 22 58 44.6 -1.1
baz=181
N39A **Derby Farms, D** 28.26 356 P P 22 58 44.4 -1.6
baz=174
N46A **Monticello** 28.29 5 P P 22 58 45.6 -0.7
baz=186
N37A **Lee Faris, Mou** 28.31 353 P P 22 58 44.5 -2.0
baz=170
N36A **Muff Farm, Cla** 28.46 352 P P 22 58 46.7 -1.2
baz=169
N35A **Tabor** 28.61 351 P P 22 58 48.1 -1.0
baz=168
M41A **Milan** 28.66 359 P P 22 58 48.3 -1.3
baz=178
KSCO **Kaye Shedlock'** 28.67 339 P P 22 58 48.5 -1.4
baz=153
M43A **Waltham Townsh** 28.72 1 P P 22 58 48.5 -1.6
baz=181
N34A **Lincoln** 28.73 349 P P 22 58 49.1 -1.2
baz=166
M45A **Boilermakers S** 28.74 4 P P 22 58 49.5 -0.8
baz=185
N33A **J Bar K, Exete** 28.82 348 P P 22 58 49.6 -1.4
baz=164
M39A **Webster** 28.83 356 P P 22 58 50.0 -1.1
baz=175
M38A **Pleasantville** 28.85 355 P P 22 58 49.8 -1.5
baz=173
M37A **Trindle Farm,** 28.93 353 P P 22 58 50.2 -1.8
baz=171
M36A **Felix, Anita** 29.07 352 P P 22 58 51.5 -1.7
baz=169
M35A **Neola** 29.21 351 P P 22 58 53.2 -1.3
baz=168
O56A **Blue Knob Stat** 29.24 18 P P 22 58 54.4 -0.5
baz=202
L42A **Oliver, Polo** 29.28 0 P P 22 58 53.4 -1.6
baz=180
S22A **4UR Ranch, Cre** 29.32 332 P P 22 58 55.5 -0.4
baz=144
X16A **Lo Mia Camp, P** 29.33 321 *e*P P 22 58 59.0 +3.1
comp=Z,4.1nm,1.1s
L41A **Preston** 29.36 359 P P 22 58 54.3 -1.5
baz=178
L40A **Anamosa** 29.36 358 P P 22 58 54.7 -1.1
baz=177
M34A **Aspy Farms, Fr** 29.39 349 P P 22 58 54.6 -1.5
baz=166
L39A **Vinton** 29.46 357 P P 22 58 55.5 -1.2
baz=175
L43A **Garden Prairie** 29.47 1 P P 22 58 55.0 -1.7
baz=182
L44A **Lake County Fo** 29.49 3 P P 22 58 55.2 -1.7
baz=183
N54A **Moraine State** 29.50 15 P P 22 58 56.2 -0.9
baz=199
L38A **Oak Wood Farm,** 29.55 355 P P 22 58 55.7 -1.8
baz=173
L35A **Bielow Farm, R** 29.82 351 P P 22 58 58.4 -1.5
baz=168
K41A **Shullsburg** 29.88 359 P P 22 58 58.8 -1.7
baz=178
K40A **Colesburg** 30.00 358 P P 22 58 59.3 -2.1
baz=177
K43A **Burlington** 30.00 2 P P 22 59 00.2 -1.3
baz=182
K39A **Oelwein** 30.04 357 P P 22 58 59.9 -1.9
baz=175
K38A **Parkersburg** 30.04 356 P P 22 58 59.8 -2.0
baz=174
K42A **Prairie Point,** 30.05 1 P P 22 59 00.5 -1.4
baz=180
JFWS **Jewell Farm** 30.19 359 P P 22 59 01.5 -1.7
baz=179
OGNE **Ogallala** 30.21 341 P P 22 59 01.9 -1.6
baz=155
K37A **Belmond** 30.23 354 P P 22 59 01.9 -1.6
baz=172
ISCO **Idaho Springs** 30.50 335 P P 22 59 04.5 -1.8
baz=148
K33A **Hardington** 30.54 349 P P 22 59 04.9 -1.3
baz=166
J42A **Columbus** 30.59 1 P P 22 59 05.4 -1.3
baz=181
J41A **Loganville** 30.64 360 P P 22 59 05.9 -1.1
baz=179
J39A **Decorah** 30.66 357 P P 22 59 06.1 -1.2
baz=176
J43A **Natural Harves** 30.67 2 P P 22 59 05.9 -1.5
baz=182
J40A **Soldiers Grove** 30.68 359 P P 22 59 05.8 -1.7
baz=178
J38A **Wedel Dairy, R** 30.68 356 P P 22 59 06.5 -0.9
baz=174
N59A **State Game Lan** 30.73 21 P P 22 59 06.7 -1.2
baz=207
J37A **Redenius Farm,** 30.76 355 P P 22 59 06.6 -1.6
baz=172
K32A **Verdigre** 30.78 348 P P 22 59 07.7 -0.6
baz=164
PV04 **Paradox Valley** 30.83 330 *e*P P 22 59 08.8 -0.2
J36A **Seneca 1, Swea** 30.86 353 P P 22 59 06.9 -2.2
baz=171
K31A **O'Neill** 30.91 347 P P 22 59 07.9 -1.6
baz=162
I39A **Houston** 31.16 357 P P 22 59 10.1 -1.7
baz=176
I42A **Draeger Farm,** 31.17 1 P P 22 59 10.1 -1.6
baz=181
I40A **Norwalk** 31.17 359 P P 22 59 10.5 -1.3
baz=178
I43A **Langenfeld Bro** 31.19 2 P P 22 59 10.7 -1.2
baz=183,SNR=6.5
U15A **North Rim** 31.21 323 *e*P P 22 59 14.6 +2.1
comp=Z,18nm,1.8s
SWSC **Sam W. Stewart** 31.27 315 P P 22 59 12.2 -0.6
baz=124

I41A **Arkdale** 31.33 360 P P 22 59 11.9 -1.2
baz=179
I38A **Scanlan Farm,** 31.39 356 P P 22 59 12.2 -1.5
baz=175
J32A **Parkston** 31.44 349 P P 22 59 12.9 -1.2
baz=164
I37A **Lemond, Waseca** 31.45 355 P P 22 59 12.8 -1.4
baz=173
J31A **Geddes** 31.54 347 P P 22 59 12.9 -2.2
baz=163
ECSD **EROS Data Cent** 31.57 350 P P 22 59 14.6 -0.7
baz=167,SNR=7.6
ECSD **EROS Data Cent** 31.57 350 *e*P P 22 59 13.3 -2.0
comp=Z,29nm,1.5s
H43A **Windswept, Lux** 31.79 3 P P 22 59 15.9 -1.2
baz=183
H42A **Shiocton** 31.80 2 P P 22 59 16.2 -1.0
baz=182
H41A **Junction City** 31.89 0 P P 22 59 16.6 -1.4
baz=180
H40A **Chili** 31.90 359 P P 22 59 16.4 -1.8
baz=178
I33A **Coleman** 31.91 350 P P 22 59 16.4 -1.8
baz=166
H37A **Dierke Farm, C** 31.97 356 P P 22 59 17.1 -1.7
baz=174
H39A **Augusta** 31.98 358 P P 22 59 16.1 -2.7
baz=177
H38A **Maiden Rock** 32.02 357 P P 22 59 17.3 -1.9
baz=175
H36A **Jessenland, He** 32.05 354 P P 22 59 18.2 -1.3
baz=172
H35A **Sunnyside Ranc** 32.27 353 P P 22 59 19.6 -1.8
baz=170
MTPU **Mount Pierson** 32.28 326 *e*P P 22 59 23.4 +1.4
comp=Z,5.5nm,1.8s
H32A **Carlson Farm,** 32.46 350 P P 22 59 21.4 -1.7
baz=166,SNR=8.9
G41A **Antigo** 32.49 1 P P 22 59 21.5 -1.8
baz=181
G38A **Ridgeland** 32.49 357 P P 22 59 21.8 -1.6
baz=176
G42A **Mountain** 32.53 2 P P 22 59 21.4 -2.3
baz=182
P17A **Butcher Ranch,** 32.57 329 *e*P P 22 59 25.5 +1.1
comp=Z,5.1nm,0.9s
G43A **Wallace** 32.58 3 P P 22 59 22.3 -1.7
baz=183
G39A **Holcombe** 32.58 358 P P 22 59 22.5 -1.6
baz=177
SPMN **Marine on St.** 32.60 356 P P 22 59 23.0 -1.4
baz=174
SPMN **Marine on St.** 32.60 356 *e*P P 22 59 22.7 -1.6
comp=Z,20nm,1.0s
H31A **Wolsey** 32.63 348 P P 22 59 22.9 -1.7
baz=164
G36A **St. Michael** 32.69 355 P P 22 59 23.7 -1.3
baz=172
SUSD **Miller** 32.69 348 P P 22 59 24.0 -1.1
baz=163
G34A **Benson** 32.90 352 P P 22 59 25.2 -1.7
baz=169
G33A **Ortonville** 32.97 351 P P 22 59 25.7 -1.8
baz=168
F41A **Three Lakes** 33.02 1 P P 22 59 26.3 -1.6
baz=181
F45A **CMU Biological** 33.15 5 P P 22 59 27.8 -1.3
baz=187
F43A **Flat Rock, Esc** 33.17 3 P P 22 59 27.4 -1.9
baz=184
F40A **Park Falls** 33.19 359 P P 22 59 27.8 -1.7
baz=179
G32A **Webster** 33.20 350 P P 22 59 28.1 -1.4
baz=166,SNR=6.3
F38A **Pierce - Schro** 33.28 357 P P 22 59 28.2 -2.0
baz=176
F36A **Milaca** 33.29 355 P P 22 59 29.0 -1.3
baz=173
G31A **Conde** 33.29 349 P P 22 59 28.1 -2.3
baz=164
SADO **Sadowa** 33.30 14 P P 22 59 25.7 -4.7
comp=Z,7.8nm,0.5s,baz=86,slow=22,SNR=5.8
CIS **Catalina Islan** 33.36 313 P P 22 59 30.8 -0.3
baz=121
F44A **Big Bay de Noc** 33.36 4 P P 22 59 28.2 -2.7
baz=186
F34A **Alexandria** 33.40 353 P P 22 59 29.6 -1.7
baz=170
F33A **5 Mile Ranch,** 33.58 352 P P 22 59 31.0 -1.9
baz=168
E40A **Wakefield** 33.72 360 P P 22 59 32.8 -1.3
baz=179
RSSD **Black Hills** 33.72 341 P P 22 59 33.6 -0.7
baz=154
RSSD **Black Hills** 33.72 341 *e*P P 22 59 34.7 +0.3
comp=Z,4.8nm,0.6s
E43A **Lone Tree Farm** 33.73 3 P P 22 59 32.7 -1.4
baz=184
E42A **Champion** 33.74 2 P P 22 59 32.9 -1.3
baz=183
F31A **Hecla** 33.91 349 P P 22 59 34.4 -1.4
baz=165
SAML **Samuel** 33.98 128 *e*P P 22 59 40.7 +4.1
comp=Z,4.3nm,0.8s
E35A **Pequot Lakes** 34.06 354 P P 22 59 35.1 -1.9
baz=172
E34A **Wadena** 34.10 353 P P 22 59 35.5 -1.8
baz=170
E33A **Westby DABS, E** 34.19 352 P P 22 59 36.2 -2.0
baz=169
D37A **Cotton** 34.51 357 P P 22 59 39.3 -1.6
baz=175
D35A **Remer** 34.55 355 P P 22 59 39.3 -2.0
baz=172
PDAR **Pinedale Array** 34.61 334 P P 22 59 42.0 -0.1
comp=Z,0.4nm,0.7s,baz=108,slow=7.7,SNR=2.8
D33A **AnnSam, Waubun** 34.80 353 P P 22 59 42.0 -1.4
baz=169
C36A **Pine Crest Far** 35.13 356 P P 22 59 44.6 -1.6
baz=174
C35A **Jirik Farms, M** 35.15 355 P P 22 59 44.7 -1.8
baz=172
EYMN **Ely** 35.25 358 P P 22 59 45.5 -1.8
baz=177
REDW **Red Top Meadow** 35.65 333 *e*P P 22 59 51.6 +0.5
comp=Z,35nm,1.9s
C31A **Landman Farms,** 35.70 351 P P 22 59 49.6 -1.6
baz=166
AGMN **Agassiz Nation** 35.94 353 P P 22 59 51.4 -1.8
baz=170
AGMN **Agassiz Nation** 35.94 353 *e*P P 22 59 51.3 -1.8
comp=Z,9.9nm,0.7s
B34A **Aery, Baudette** 35.99 354 P P 22 59 52.0 -1.7
baz=172
NV11 **Mina Array Sit** 36.05 321 *e*P P 22 59 57.0 +2.5
comp=Z,1.9nm,2.0s
MDND **Paddock** 36.08 349 P P 22 59 53.3 -1.1
baz=163
B32A **Ashes, Strandq** 36.12 352 P P 22 59 53.0 -1.7
baz=168
NV01 **Mina Array Sit** 36.14 320 *e*P P 22 59 56.9 +1.6
NVAR **Mina Array Bea** 36.14 320 P P 22 59 57.6 +2.3
comp=Z,2.1nm,0.8s,baz=128,slow=8.6,SNR=9.5
NVAR LR LR 23 16 34.5
comp=Z,67nm,18.1s,baz=83,slow=40
RLMT **Red Lodge** 36.43 336 P P 22 59 55.9 -1.8
baz=146
A33A **Warroad** 36.52 354 P P 22 59 56.4 -1.7
baz=170,SNR=6.3
A32A **Rocking H Ranc** 36.62 353 P P 22 59 57.0 -2.0
baz=169
ULM **Lac du Bonnet** 37.86 354 P P 23 00 07.2 -2.3
comp=Z,2.9nm,0.5s,baz=172,slow=10,SNR=8.5
B040 **Montague** 40.70 322 *e*P P 23 00 31.3 -2.0
YBH **Yreka Blue Hor** 40.82 321 LR LR 23 19 18.9
comp=Z,54nm,20.8s,baz=176,slow=39
NEW **Newport** 42.22 333 LR LR 23 18 58.5
comp=Z,20nm,18.2s,baz=208,slow=37
SCHQ **Schefferville** 45.79 18 P P 23 01 10.9 -3.2
comp=Z,8.8nm,0.5s,baz=225,slow=7.4,SNR=18
CPUP **Villa Florida** 49.91 141 LR LR 23 25 27.5
comp=Z,45nm,18.6s,baz=257,slow=39
YKA **Yellowknife Ar** 52.89 346 P P 23 02 06.8 -1.3
comp=Z,1.5nm,0.7s,baz=146,slow=7.9,SNR=24
YKA LR LR 23 29 02.5
comp=Z,5.4nm,19.9s,baz=180,slow=41
YKW3 **Yellowknife Ar** 52.95 346 *e*P P 23 02 07.4 -1.2
comp=Z,6.9nm,1.3s

RES **Resolute Bay** 62.12 358 P P 23 03 11.3 -1.7
comp=Z,1.2nm,0.5s,baz=166,slow=9.0,SNR=3.8
INK **Inuvik** 62.39 343 P P 23 03 14.1 -0.8
comp=Z,1.2nm,0.6s,baz=124,slow=6.6,SNR=5.7
IL1 **Eielson Array** 64.98 337 *e*P P 23 03 30.2 -1.8
ILAR **Eielson Array** 64.98 337 P P 23 03 31.1 -0.9
comp=Z,1.1nm,1.0s,baz=115,slow=6.3,SNR=6.7
TIC **Toumodi** 83.42 85 *e*P P 23 05 18.1 -2.4
LIC **Lamto** 83.50 85 *e*P P 23 05 21.1 +0.2
comp=Z,25nm,0.9s
DBIC **Dimbokro** 83.58 85 P P 23 05 21.9 +0.7
comp=Z,2.2nm,0.8s,baz=225,slow=7.2,SNR=3.3
KIC **Kosan Boka** 83.75 85 *e*P P 23 05 21.9 -0.3
comp=Z,32nm,1.3s
TORD **Torodi Ar. Bea** 88.53 77 P P 23 05 43.9 -1.8
comp=Z,0.4nm,0.5s,baz=291,slow=5.7,SNR=10
HHC **Hu-ho-hao-te** 123.27 341 *e*PKP PKPdf 23 11 53.6 +4.1
HHC PP PP 23 13 35.9 +6.9
HHC SKKS 23 20 23.9
HHC SS SS 23 30 13.1 +2.5
HHC LR LR
comp=Z,120nm,17.6s
HHC LR LR
comp=Z,87nm,17.8s
HHC LR LR
comp=Z,31nm,17.5s
WMQ **Urumqi** 123.79 2 *e*PKP PKPdf 23 11 50.4 0.0
WMQ LR LR
comp=Z,93nm,27.9s
WMQ LR LR
comp=Z,110nm,23.3s
WMQ LR LR
comp=Z,120nm,18.7s
KSH **Kashi** 126.45 14 *e*PKP PKPdf 23 12 00.5 +4.8
KSH PP PP 23 13 58.3 +8.2
KSH PKS PKSdf 23 15 35.0 +2.6
KSH SKKS 23 20 45.5
KSH SS SS 23 30 53.8 +3.4
KSH LR LR
comp=Z,180nm,5.4s
WRA **Warramunga Arr** 137.18 254 PKhKP PKPpre 23 12 16.9
comp=Z,0.5nm,0.9s,baz=86,slow=2.6,SNR=3.8
CMAR **Chiang Mai Arr** 147.96 344 PKPbc PKPbc 23 12 39.5 +1.1
comp=Z,1.7nm,0.7s,baz=324,slow=3.8,SNR=13

*DDA* ***20*** *22:55:49.6,39°.58N×44°.13E,h5km,Ml2.8*
*ISK* ***20*** *22:55:51.5,39°.50N×43°.97E,h4km,ML2.4*
*ISCJB* ***20*** *22:55:52.2±0.7,39°.52N±0°.03×44°.00E±0°.05,h7km±5km,*
*Error ellipse: s-maj=6.7km s-min=4.7km az=17.0*
*CSEM* ***20*** *22:55:52.0±0.2,39°.50N×43°.98E,h5km,ML2.8,Error*
*ellipse: s-maj=5.5km s-min=3.5km az=101.0*
**ISC 20 22:55:52.3±1.0,39°.51N±0°.02×43°.97E±0°.04,h12km±8km,**
**n27,σ1s20/45,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DYDN** | **Diyadin** | **0.22** | **279** | *i* P | **Pg** | **22 55 56.5** | **-0.7** |
| DYDN | | | | *i* S | **Sg** | **22 56 02.3** | **+1.7** |
| **DYDN** | **Diyadin** | **0.22** | **279** | P | **Pg** | **22 55 56.5** | **-0.7** |
| DYDN | | | | S | **Sg** | **22 56 02.3** | **+1.7** |
| **CLDR** | **Caldiran** | **0.37** | **187** | *e*PG | **Pg** | **22 55 59.0** | **-0.8** |
| CLDR | | | | *e*SG | **Sg** | **22 56 05.0** | **+0.2** |
| **CLDR** | **Caldiran** | **0.37** | **187** | *i* P | **Pg** | **22 55 59.0** | **-0.8** |
| CLDR | | | | *i* S | **Sb** | **22 56 05.3** | **-1.3** |
| **CLDR** | **Caldiran** | **0.37** | **187** | P | **Pg** | **22 55 59.0** | **-0.8** |
| CLDR | | | | *e*Sg | **Sg** | **22 56 05.0** | **+0.2** |
| **TASB** | **TASBURUN-IGDIR** | **0.52** | **23** | *e*PG | **Pg** | **22 56 02.3** | **-0.1** |
| TASB | | | | *e*SG | **Sb** | **22 56 10.1** | **-0.7** |
| **TASB** | **TASBURUN-IGDIR** | **0.52** | **23** | *e*Pg | **Pg** | **22 56 02.3** | **-0.1** |
| TASB | | | | *e*Sg | **Sb** | **22 56 10.1** | **-0.7** |
| **VMUR** | **Van-Muradiye** | **0.61** | **211** | *i* P | **Pg** | **22 56 03.7** | **-0.5** |
| VMUR | | | | *i* S | **Sn** | **22 56 14.7** | **-1.9** |
| **VMUR** | **Van-Muradiye** | **0.61** | **211** | P | **Pg** | **22 56 03.7** | **-0.5** |
| **AGRB** | **Hanur-Agry** | **0.76** | **275** | *e*PG | **Pb** | **22 56 06.9** | **-0.7** |
| AGRB | | | | *e*SG | **Sg** | **22 56 17.8** | **+0.7** |
| **AGRB** | **Hanur-Agry** | **0.76** | **275** | *e*Pg | **Pb** | **22 56 06.9** | **-0.7** |
| AGRB | | | | *e*Sg | **Sg** | **22 56 17.8** | **+0.7** |
| **TUTA** | **Tutak** | **0.91** | **264** | *i* P | **Pb** | **22 56 08.9** | **-1.1** |
| TUTA | | | | *i* S | **Sg** | **22 56 21.4** | **-0.3** |
| **TUTA** | **Tutak** | **0.91** | **264** | P | **Pb** | **22 56 08.9** | **-1.1** |
| TUTA | | | | S | **Sg** | **22 56 21.4** | **-0.3** |
| **VANB** | **Van** | **1.02** | **207** | *e*PN | **Pg** | **22 56 12.9** | **+0.9** |
| **VANB** | **Van** | **1.02** | **207** | *e*Pn | **Pg** | **22 56 12.9** | **+0.9** |
| **TVAN** | **Van** | **1.07** | **204** | *i* P | **Pg** | **22 56 12.5** | **-0.5** |
| TVAN | | | | *i* S | **Sn** | **22 56 33.0** | **+4.7** |
| **TVAN** | **Van** | **1.07** | **204** | P | **Pg** | **22 56 12.5** | **-0.5** |
| **ADCV** | **BITLIS_Adilcev** | **1.20** | **235** | *i* P | **Pg** | **22 56 15.9** | **+0.6** |
| ADCV | | | | *i* S | **Sg** | **22 56 33.9** | **+3.0** |
| **ADCV** | **BITLIS_Adilcev** | **1.20** | **235** | P | **Pg** | **22 56 15.9** | **+0.6** |
| **KARS** | **Kars** | **1.31** | **329** | *e*PN | **Pb** | **22 56 17.0** | **+0.1** |
| **KARS** | **Kars** | **1.31** | **329** | *e*Pn | **Pb** | **22 56 17.0** | **+0.1** |
| **GEVA** | **Gevas** | **1.39** | **211** | *i* P | **Pb** | **22 56 17.8** | **-0.5** |
| GEVA | | | | *i* S | **Sg** | **22 56 38.1** | **+1.0** |
| **GEVA** | **Gevas** | **1.39** | **211** | P | **Pb** | **22 56 17.8** | **-0.5** |
| GEVA | | | | S | **Sg** | **22 56 38.1** | **+1.0** |
| **EKAR** | **Karacoban** | **1.50** | **261** | *i* P | **Pg** | **22 56 21.1** | **-0.1** |
| EKAR | | | | *i* S | **Sg** | **22 56 39.6** | **-1.1** |
| **EKAR** | **Karacoban** | **1.50** | **261** | P | **Pg** | **22 56 21.0** | **-0.1** |
| EKAR | | | | S | **Sg** | **22 56 39.6** | **-1.1** |
| **SENK** | **Senkaya-Erzuru** | **1.63** | **311** | *e*PN | **Pb** | **22 56 22.0** | **-0.4** |
| **SENK** | **Senkaya-Erzuru** | **1.63** | **311** | *e*Pn | **Pb** | **22 56 22.0** | **-0.4** |

*ISK* ***20*** *23:10:37.4,38°.42N×43°.43E,h5km,ML2.6*
*ISCJB* ***20*** *23:10:38.5±0.6,38°.48N±0°.04×43°.39E±0°.05,h10km,Error*
*ellipse: s-maj=7.1km s-min=4.2km az=41.3*
*DDA* ***20*** *23:10:38.3,38°.48N×43°.36E,h8km,Ml2.8*
*CSEM* ***20*** *23:10:38.0±0.3,38°.45N×43°.38E,h2km,ML2.8,Error*
*ellipse: s-maj=7.9km s-min=5.2km az=125.0*
**ISC 20 23:10:38.7±0.9,38°.47N±0°.03×43°.37E±0°.03,h10km,n35,**
**σ1s71/47,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TVAN** | **Van** | **0.07** | **25** | *i* P | **Pg** | **23 10 40.0** | **-1.2** |
| TVAN | | | | *i* S | **Sg** | **23 10 41.8** | **-1.1** |
| **TVAN** | **Van** | **0.07** | **25** | P | **Pg** | **23 10 40.0** | **-1.2** |
| TVAN | | | | S | **Sg** | **23 10 41.8** | **-1.1** |
| **VANB** | **Van** | **0.13** | **7** | PG | **Pg** | **23 10 39.7** | **-2.1** |
| VANB | | | | *e*SG | **Sg** | **23 10 41.5** | **-2.5** |
| **VANB** | **Van** | **0.13** | **7** | *i* Pg | **Pg** | **23 10 39.7** | **-2.1** |
| VANB | | | | *e*Sg | **Sg** | **23 10 41.5** | **-2.5** |
| **GEVA** | **Gevas** | **0.29** | **237** | *i* P | **Pg** | **23 10 43.6** | **-1.1** |
| GEVA | | | | *i* S | **Sg** | **23 10 49.2** | **+0.6** |
| **GEVA** | **Gevas** | **0.29** | **237** | P | **Pg** | **23 10 43.6** | **-1.1** |
| GEVA | | | | S | **Sg** | **23 10 49.2** | **+0.6** |
| **VMUR** | **Van-Muradiye** | **0.54** | **17** | *i* P | **Sn** | **23 11 06.2** | **+4.2** |
| VMUR | | | | *i* S | **Sn** | **23 11 08.2** | **+6.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.61** | **304** | *i* P | **Pg** | **23 10 49.8** | **-0.8** |
| ADCV | | | | *i* S | **Sg** | **23 10 58.9** | **+0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.61** | **304** | P | **Pg** | **23 10 49.8** | **-0.8** |
| ADCV | | | | S | **Sg** | **23 10 58.8** | **+0.2** |
| **CLDR** | **Caldiran** | **0.80** | **32** | *e*PG | **Pb** | **23 10 54.5** | **-0.4** |
| **CLDR** | **Caldiran** | **0.80** | **32** | *i* P | **Pg** | **23 10 54.1** | **0.0** |
| **CLDR** | **Caldiran** | **0.80** | **32** | P | **Pg** | **23 10 54.1** | **0.0** |
| **CLDR** | **Caldiran** | **0.80** | **32** | *e*Pg | **Pb** | **23 10 54.5** | **-0.4** |
| **TUTA** | **Tutak** | **1.03** | **335** | *i* P | **Pg** | **23 10 56.8** | **-1.8** |
| **TUTA** | **Tutak** | **1.03** | **335** | P | **Pg** | **23 10 56.8** | **-1.8** |
| **AGRB** | **Hanur-Agry** | **1.14** | **345** | *e*PN | **Pn** | **23 11 01.8** | **+0.8** |
| **AGRB** | **Hanur-Agry** | **1.14** | **345** | *e*Pn | **Pn** | **23 11 01.8** | **+0.8** |
| **SIRT** | **Sirnak** | **1.22** | **218** | *e*PN | **Pg** | **23 11 01.6** | **-0.5** |
| **SIRT** | **Sirnak** | **1.22** | **218** | *e*Pn | **Pg** | **23 11 01.6** | **-0.5** |
| **CUKT** | **Cukurca** | **1.23** | **171** | *e*PN | **Pn** | **23 11 01.2** | **-1.0** |
| **CUKT** | **Cukurca** | **1.23** | **171** | *e*Pn | **Pn** | **23 11 01.2** | **-1.0** |
| **SRTM** | **Siirt_Merkez** | **1.24** | **248** | *i* P | **Pg** | **23 11 02.0** | **-0.5** |
| SRTM | | | | *i* S | **Sb** | **23 11 17.0** | **-0.8** |
| **SRTM** | **Siirt_Merkez** | **1.24** | **248** | P | **Pg** | **23 11 02.0** | **-0.5** |
| SRTM | | | | S | **Sb** | **23 11 17.5** | **-0.8** |
| **EKAR** | **Karacoban** | **1.29** | **308** | *i* P | **Pn** | **23 11 02.4** | **-0.6** |
| EKAR | | | | *i* S | **Sn** | **23 11 24.6** | **+4.2** |
| **EKAR** | **Karacoban** | **1.29** | **308** | P | **Pn** | **23 11 02.4** | **-0.6** |
| **VRTB** | **Varto-Mus** | **1.65** | **295** | *e*PN | **Pg** | **23 11 09.8** | **-0.6** |
| **VRTB** | **Varto-Mus** | **1.65** | **295** | *e*Pn | **Pg** | **23 11 09.8** | **-0.6** |
| **TASB** | **TASBURUN-IGDIR** | **1.66** | **24** | *e*PN | **Pb** | **23 11 09.1** | **-0.3** |
| **TASB** | **TASBURUN-IGDIR** | **1.66** | **24** | *e*Pn | **Pb** | **23 11 09.1** | **-0.3** |
| **BNGB** | **Bing¶ll** | **2.17** | **285** | *e*PN | **Pb** | **23 11 17.0** | **-1.1** |
| **SENK** | **Senkaya-Erzuru** | **2.23** | **340** | *e*PN | **Pb** | **23 11 18.0** | **-1.3** |
| **SENK** | **Senkaya-Erzuru** | **2.23** | **340** | *e*Pn | **Pb** | **23 11 18.0** | **-1.3** |
| **BINT** | **Bingol** | **2.29** | **281** | *e*Pn | **Pn** | **23 11 17.0** | **+0.3** |
| **YEDI** | **Yedisu-Bingol** | **2.41** | **295** | *e*PN | **Pb** | **23 11 20.6** | **-1.6** |

**YEDI Yedisu-Bingol 2.41 295** *e*Pn **Pb 23 11 20.6 -1.6**

*IDC* ***20*** *23:37:53.5±0.6,28˚.93S×176˚.35W,h0km,mb4.4/18, mb1 4.5/22,mb1mx4.5/35,mbtmp4.4/22,ML3.9/4,MS4.6/19, Ms1 4.7/19,ms1mx4.5/29,Error ellipse: s-maj=20.2km s-min=15.5km az=145.0*

*ISCJB* ***20*** *23:37:56.2±0.2,29˚.25S±0˚.04×176˚.76W±0˚.05,h10km, mb4.8/42,MS4.7/20,Error ellipse: s-maj=6.7km s-min=4.4km az=42.4*

*NEIC* ***20*** *23:37:57.2±0.2,29˚.17S×176˚.70W,h10km,mb4.9/24, Error ellipse: s-maj=9.1km s-min=5.3km az=128.0*

*GCMT* ***20*** *23:37:57.2±0.2,28˚.79S×176˚.08W,h16km,MW5.2/102, Moment Tensor Solution. s61,c84; s102,c148; Duration: 0 Moment tensor: Scale 10^16Nm; Mrr4.70±.17; Mθθ-0.40±.11; Mφφ-4.30±.12; Mrθ0.34±.34; Mrφ-1.02±.08; Mθφ5.06±.38; Best double couple: Mo6.86200×10^16 NP1:φs7.00000°,δ69.00000°,λ85.00000°. NP2: φs200.00000°,δ22.00000°,λ103.00000°. Principal axes: T 6.9730, Plg66.0000°, Azm268.0000°; N -0.2190, Plg5.0000°, Azm8.0000°; P -6.7510, Plg24.0000°, Azm100.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*BJI* ***20*** *23:38:02.6,29˚.37S×177˚.17W,h50km,mb5.1/21, mB5.5/16,Ms5.1/11,Ms7 4.8/11*

**ISC 20 23:37:58.2±0.3,29˚.29S±0˚.06×176˚.45W±0˚.05,h21km, n168,σ2ϕ29/152,mb4.8/42,MS4.8/20,10C-6D,Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **1.28** | **271** | Pn | **Pn** | **23 38 22.1** | **+1.3** |
| | 168nm,0.3s,baz=246,slow=11,SNR=18 | | | | | | |
| RAO | | | | Sn | **Sb** | **23 38 45.6** | **+8.1** |
| | 3μm,0.3s,baz=314,slow=23,SNR=14 | | | | | | |
| **RAO** | **Raoul Island** | **1.28** | **271** | Pg | **Pn** | **23 38 21.2** | **+0.3** |
| RAO | | | | *e*Sg | **Sn** | **23 38 32.1** | **-5.2** |
| **MXZ** | **Matakaoa Point** | **9.34** | **207** | *e*Pn | **Pn** | **23 40 12.1** | **+0.6** |
| **OUZ** | **Omahuta** | **10.29** | **232** | *e*Pn | Pn | 23 40 32.3 | +7.8 |
| **URZ** | **Urewera** | **10.42** | **209** | Pn | **Pn** | **23 40 27.4** | **+1.1** |
| | 1.3nm,0.3s,baz=27,slow=18,SNR=10 | | | | | | |
| URZ | | | | Sn | **Sn** | **23 42 22.4** | **0.0** |
| | 3.4nm,0.3s,baz=37,slow=11,SNR=3.2 | | | | | | |
| **URZ** | **Urewera** | **10.42** | **209** | *e*Pn | **Pn** | **23 40 25.4** | **-0.9** |
| URZ | | | | Sn | **Sn** | **23 42 22.4** | **0.0** |
| **BKZ** | **Black Stump Fm** | **11.44** | **209** | *e*Pn | **Pn** | **23 40 42.1** | **+1.7** |
| **HIZ** | **Hauiti** | **11.68** | **216** | *e*Pn | Pn | 23 40 50.8 | +7.1 |
| **MSVF** | **Nonsavu** | **12.56** | **335** | *e*Pn | Pn | 23 40 51.9 | -3.9 |
| **BFZ** | **Birch Farm** | **12.83** | **206** | *e*Pn | Pn | 23 41 02.2 | +2.8 |
| **THZ** | **Tophouse** | **15.14** | **212** | *e*Pn | **Pn** | **23 41 30.1** | **-0.8** |
| | 41nm,1.1s | | | | | | |
| **KHZ** | **Kahutara** | **15.39** | **209** | *e*Pn | **Pn** | **23 41 33.9** | **-0.1** |
| | 51nm,0.8s | | | | | | |
| **LTZ** | **Lake Taylor** | **16.24** | **211** | *e*Pn | **P** | **23 41 45.5** | **-2.4** |
| | 65nm,1.5s | | | | | | |
| **OXZ** | **Oxford** | **16.77** | **210** | *e*Pn | **Pn** | **23 41 50.7** | **-1.1** |
| | 59nm,0.5s | | | | | | |
| OXZ | | | | *e*Sn | **Sn** | **23 44 47.9** | **-9.5** |
| **MQZ** | **McQueen's Vall** | **16.82** | **208** | *e*Pn | **P** | **23 41 53.3** | **-1.0** |
| | 60nm,1.4s | | | | | | |
| **DZM** | **Mont Dzumac** | **17.00** | **291** | Pn | **Pn** | **23 41 51.6** | **-3.3** |
| | 0.2nm,0.3s,baz=110,slow=17,SNR=2.0 | | | | | | |
| DZM | | | | LR | LR | 23 46 54.6 | |
| | comp=Z,2μm,20.6s,baz=175,slow=32 | | | | | | |
| **DZM** | **Mont Dzumac** | **17.00** | **291** | *e*P | **P** | **23 41 59.1** | **+2.5** |
| | 319nm,1.6s | | | | | | |
| DZM | | | | *e*LR | LR | 23 46 02.3 | |
| | 3μm,24.1s | | | | | | |
| **DZM** | **Mont Dzumac** | **17.00** | **291** | *e*Pn | **P** | **23 41 57.9** | **+1.3** |
| | 409nm,1.8s | | | | | | |
| **RAR** | **Rarotonga** | **17.09** | **66** | Pn | **Pn** | **23 41 50.9** | **-4.9** |
| | 1.0nm,0.3s,baz=187,slow=16,SNR=5.5 | | | | | | |
| RAR | | | | Sn | Sn | 23 44 51.0 | -14 |
| | 0.4nm,0.3s,baz=43,slow=21,SNR=2.6 | | | | | | |
| RAR | | | | LR | LR | 23 47 30.0 | |
| | comp=Z,2μm,19.2s,baz=246,slow=34 | | | | | | |
| **RPZ** | **Rata Peaks** | **17.52** | **211** | P | **P** | **23 42 02.1** | **-0.1** |
| | 2.8nm,0.3s,baz=37,slow=8.6,SNR=8.6 | | | | | | |
| RPZ | | | | LR | LR | 23 49 53.6 | |
| | comp=Z,2μm,18.5s,baz=32,slow=40 | | | | | | |
| **RPZ** | **Rata Peaks** | **17.52** | **211** | *e*Pn | **P** | **23 42 02.6** | **+0.5** |
| | 18nm,0.6s | | | | | | |
| **FOZ** | **Fox Glacier** | **17.96** | **214** | *e*Pn | **P** | **23 42 05.5** | **-1.5** |
| | 15nm,0.7s | | | | | | |
| **ODZ** | **Otahua Downs** | **18.75** | **210** | *e*P | **Pn** | **23 42 15.0** | **-1.1** |
| | 26nm,0.8s | | | | | | |
| **TBI** | **Tubuai** | **24.88** | **83** | *e*LQ | LQ | 23 47 56.6 | |
| | 1μm,27.8s | | | | | | |
| TBI | | | | *e*LR | LR | 23 48 57.6 | |
| | 2μm,32.0s,baz=248 | | | | | | |
| **TBI** | **Tubuai** | **24.88** | **83** | *e*T | T | 00 08 39.2 | |
| | 7.5nm,0.3s | | | | | | |
| **PAE** | **Paea** | **27.16** | **71** | *e*T | T | 00 11 27.4 | |
| | 4.4nm,0.3s | | | | | | |
| **PPT2** | **Papeete2** | **27.20** | **71** | *e*LQ | LQ | 23 48 50.0 | |
| | 2μm,24.2s | | | | | | |
| PPT2 | | | | *e*LR | LR | 23 50 12.9 | |
| | 1μm,21.0s,baz=237 | | | | | | |
| **PPT** | **Papeete** | **27.21** | **71** | LR | LR | 23 52 40.5 | |
| | comp=Z,1μm,18.5s,baz=248,slow=33 | | | | | | |
| **HNR** | **Honiara** | **29.65** | **307** | LR | LR | 23 55 17.0 | |
| | comp=Z,1μm,18.0s,baz=144,slow=35 | | | | | | |
| **CAN** | **Canberra** | **29.71** | **249** | *e*P | **P** | **23 44 04.9** | **+2.0** |
| | 16nm,0.9s | | | | | | |
| **VAH** | **Vaihoa** | **30.02** | **68** | *e*T | T | 00 15 00.5 | |
| | 5.3nm,0.3s | | | | | | |
| **CTAO** | **Charters Tower** | **34.98** | **277** | *e*P | **P** | **23 44 49.5** | **+0.3** |
| | 40nm,1.3s | | | | | | |
| **STKA** | **Stephens Creek** | **36.05** | **255** | P | **P** | **23 44 57.4** | **-0.9** |
| | 5.8nm,0.8s,baz=90,slow=9.4,SNR=11 | | | | | | |
| STKA | | | | LR | LR | 23 59 33.8 | |
| | comp=Z,2μm,18.4s,baz=91,slow=36 | | | | | | |
| **STKA** | **Stephens Creek** | **36.05** | **255** | *e*P | **P** | **23 44 57.9** | **-0.3** |
| | 3.0nm,0.9s | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **39.64** | **67** | *e*LR | LR | 23 55 58.8 | |
| | 1μm,21.1s | | | | | | |
| **COEN** | **Coen** | **40.29** | **283** | *e*P | **P** | **23 45 33.1** | **-1.0** |
| | 9.6nm,0.9s | | | | | | |
| **BBOO** | **Buckleboo** | **40.57** | **253** | *e*P | **P** | **23 45 36.7** | **+0.4** |
| | 26nm,1.1s | | | | | | |
| **KWAJ** | **Kwajalein Atol** | **40.87** | **336** | *e*P | **P** | **23 45 36.2** | **-2.5** |
| | 704nm,1.4s | | | | | | |
| **AS01** | **Alice Springs** | **44.48** | **265** | *e*P | **P** | **23 46 07.2** | **-1.0** |
| **AS31** | **Alice Springs** | **44.52** | **265** | *e*P | **P** | **23 46 08.6** | **0.0** |
| | 20nm,1.8s | | | | | | |
| **ASAR** | **Alice Springs** | **44.52** | **265** | P | **P** | **23 46 07.6** | **-1.0** |
| | 7.4nm,0.9s,baz=122,slow=8.0,SNR=36 | | | | | | |
| **WB2** | **Warramunga Arr** | **45.41** | **270** | *e*P | **P** | **23 46 14.1** | **-1.5** |
| | 18nm,1.0s | | | | | | |
| **WRAB** | **Tennant Creek** | **45.41** | **270** | *e*P | **P** | **23 46 14.4** | **-1.3** |
| | 22nm,1.0s | | | | | | |
| **WRA** | **Warramunga Arr** | **45.42** | **270** | P | **P** | **23 46 14.2** | **-1.5** |
| | 7.9nm,0.9s,baz=110,slow=8.0,SNR=29 | | | | | | |
| WRA | | | | LR | LR | 00 04 53.3 | |
| | comp=Z,563nm,18.1s,baz=115,slow=36 | | | | | | |
| **FORT** | **Forrest** | **47.64** | **254** | *e*P | **P** | **23 46 32.3** | **-0.7** |
| **SBA** | **Scott Base** | **49.24** | **185** | *e*P | **P** | **23 46 45.9** | **+1.2** |
| | 23nm,0.8s | | | | | | |
| **VNDA** | **Vanda** | **49.33** | **186** | P | **P** | **23 46 46.4** | **+1.1** |
| | 0.6nm,0.8s,baz=352,slow=6.9,SNR=2.4 | | | | | | |
| VNDA | | | | LR | LR | 00 04 06.2 | |
| | comp=Z,569nm,20.7s,baz=21,slow=32 | | | | | | |
| **GUMO** | **Guam** | **56.67** | **313** | LR | LR | 00 09 08.2 | |
| | comp=Z,246nm,21.6s,baz=104,slow=33 | | | | | | |
| **MBWA** | **Marble Bar** | **57.69** | **262** | *e*P | **P** | **23 47 46.7** | **-0.8** |
| | 32nm,1.1s | | | | | | |
| **QSPA** | **South Pole Qui** | **60.81** | **180** | *e*P | **P** | **23 48 09.1** | **+0.4** |
| **JAGI** | **Jajag, Banyuwa** | **67.95** | **273** | *e*P | **P** | **23 48 55.1** | **-0.9** |
| | 24nm,1.1s | | | | | | |
| **KKM** | **Kota Kinabalu** | **73.51** | **287** | *e*P | **P** | **23 49 28.5** | **-1.4** |
| | 18nm,0.8s | | | | | | |
| **MAW** | **Mawson** | **73.81** | **200** | P | **P** | **23 49 33.0** | **+2.3** |
| | 2.4nm,0.4s,baz=106,slow=7.4,SNR=3.4 | | | | | | |
| MAW | | | | LR | LR | 00 23 02.3 | |
| | comp=Z,439nm,18.8s,baz=98,slow=36 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **78.12** | **324** | P | P | 23 49 51.8 | -3.8 |
| | 0.9nm,0.3s,baz=158,slow=6.4,SNR=5.5 | | | | | | |
| **SYO** | **Syowa Base** | **78.49** | **192⇑** | *e*pP | pP | 23 50 01.0 | -3.2 |
| **SNAA** | **Sanae** | **79.22** | **178** | P | **P** | **23 49 58.5** | **-2.8** |
| **SNAA** | **Sanae** | **79.22** | **178** | *e*P | **P** | **23 49 58.9** | **-2.5** |
| **VNA3** | **Neumayer Olymp** | **79.31** | **176** | P | P | 23 50 06.6 | +4.8 |
| **JNU** | **Nakatsue** | **79.64** | **317** | *e*P | **P** | **23 50 00.9** | **-3.2** |
| | 5.4nm,0.7s,baz=185,slow=11,SNR=2.9 | | | | | | |
| **JNU** | **Nakatsue** | **79.64** | **317** | *e*P | **P** | **23 50 04.2** | **+0.1** |
| **VNA2** | **Neumayer--Watz** | **79.76** | **176** | P | **P** | **23 50 06.9** | **+2.6** |
| | baz=194,slow=4.3 | | | | | | |
| **VNA1** | **Neumayer--Stat** | **79.98** | **176** | P | **P** | **23 50 06.2** | **+0.8** |
| **ASAJ** | **Asahikawa** | **82.09** | **332** | P | **P** | **23 50 16.0** | **-0.9** |
| | 5.2nm,0.9s,baz=188,slow=32,SNR=2.4 | | | | | | |
| **PLCA** | **Paso Flores** | **82.27** | **132** | P | **P** | **23 50 18.4** | **+0.1** |
| | 6.9nm,1.0s,baz=190,slow=4.5,SNR=5.4 | | | | | | |
| PLCA | | | | LR | LR | 00 21 10.0 | |
| | comp=Z,517nm,18.1s,baz=318,slow=32 | | | | | | |
| **PLCA** | **Paso Flores** | **82.27** | **132** | *e*P | P | 23 50 22.4 | +4.2 |
| **YSS** | **Yuzh-Sakhalins** | **84.35** | **333** | *e*P | **P** | **23 50 28.5** | **+0.1** |
| | 28nm,0.8s | | | | | | |
| **KSRS** | **Korea Array** | **84.39** | **319** | P | **P** | **23 50 26.4** | **-2.4** |
| | 1.2nm,0.7s,baz=120,slow=4.5,SNR=5.4 | | | | | | |
| **KSAR** | **Wonju Array Be** | **84.41** | **319** | P | **P** | **23 50 26.4** | **-2.5** |
| **KS01** | **Wonju Array Si** | **84.42** | **319** | *e*P | **P** | **23 50 27.8** | **-1.2** |
| **CMB** | **Columbia Colle** | **85.05** | **41** | *e*P | **P** | **23 50 35.4** | **+3.1** |
| **PETK** | **Petropavlovsk-** | **85.09** | **345** | P | P | 23 50 28.5 | -3.6 |
| | 5.6nm,0.9s,baz=144,slow=13,SNR=3.7 | | | | | | |
| PETK | | | | LR | LR | 00 24 29.3 | |
| | comp=Z,365nm,19.9s,baz=154,slow=33 | | | | | | |
| **AFDM** | **Forest Hills D** | **85.34** | **40** | *e*P | **P** | **23 50 37.9** | **+4.2** |
| **GSC** | **Goldstone, Bar** | **85.35** | **45** | *e*P | **P** | **23 50 36.7** | **+2.8** |
| **DAC** | **Darwin (Calif)** | **85.51** | **44** | *e*P | **P** | **23 50 36.5** | **+1.7** |
| **WDC** | **Whiskeytown Da** | **85.61** | **38** | *e*P | P | 23 50 39.7 | +4.7 |
| **IPM** | **Ipoh** | **85.66** | **278** | *e*P | **P** | **23 50 35.6** | **-0.3** |
| **WAKR** | **Walker** | **85.91** | **41** | *e*P | **P** | **23 50 40.9** | **+4.1** |
| **PNTR** | **Pine Nut** | **86.22** | **41** | *e*P | **P** | **23 50 38.9** | **+0.6** |
| **YERR** | **Yerington** | **86.35** | **41** | *e*P | **P** | **23 50 40.1** | **+1.2** |
| **KULM** | **Kulim** | **86.39** | **278** | *e*P | **P** | **23 50 39.9** | **+0.4** |
| | 16nm,1.0s | | | | | | |
| **NV01** | **Mina Array Sit** | **86.52** | **42** | *e*P | **P** | **23 50 39.7** | **-0.1** |
| **NVAR** | **Mina Array Bea** | **86.52** | **42** | P | **P** | **23 50 36.2** | **-3.6** |
| | 2.5nm,0.8s,baz=220,slow=5.4,SNR=2.6 | | | | | | |
| NVAR | | | | LR | LR | 00 23 42.7 | |
| | comp=Z,963nm,19.0s,baz=261,slow=32 | | | | | | |
| **NJ2** | **Nanjing** | **86.56** | **310** | *e*P | **P** | **23 50 40.3** | **+0.5** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,12nm,0.8s | | | | | | |
| **NV11** | **Mina Array Sit** | **86.61** | **42** | *e*P | **P** | **23 50 41.9** | **+1.8** |
| **PSI** | **Prapat** | **86.67** | **275** | LR | LR | 00 28 46.3 | |
| | comp=Z,100nm,21.6s,slow=35 | | | | | | |
| **TPNV** | **Topopah Spring** | **86.77** | **44** | *e*P | **P** | **23 50 42.3** | **+1.3** |
| **USRK** | **Ussuriysk Ar.** | **86.99** | **326** | P | **P** | **23 50 40.8** | **-0.8** |
| | 3.4nm,0.8s,baz=110,slow=7.8,SNR=3.8 | | | | | | |
| USRK | | | | LR | LR | 00 26 07.1 | |
| | comp=Z,414nm,19.6s,baz=132,slow=33 | | | | | | |
| **SHPR** | **Sheep Range** | **87.15** | **45** | *e*P | P | 23 50 47.8 | +5.0 |
| **TUC** | **Tucson** | **87.37** | **51** | *e*P | **P** | **23 50 45.9** | **+2.0** |
| **MDJ** | **Mudanjiang** | **88.49** | **325** | P | **P** | **23 50 48.8** | **0.0** |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,12nm,1.2s | | | | | | |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,64nm,3.5s | | | | | | |
| **U15A** | **North Rim** | **88.90** | **47** | *e*P | **P** | **23 50 52.7** | **+1.3** |
| **CCUT** | **Cedar City** | **88.92** | **45** | *e*P | **P** | **23 50 54.0** | **+2.7** |
| **WUAZ** | **Wupatki** | **88.93** | **48** | *e*P | **P** | **23 50 53.4** | **+2.1** |
| **MTPU** | **Mount Pierson** | **89.96** | **45** | *e*P | **P** | **23 50 58.5** | **+2.2** |
| **TIA** | **Tai'an** | **90.21** | **312** | ⇑P | **P** | **23 50 58.8** | **+1.7** |
| TIA | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **90.66** | **57** | *e*P | **P** | **23 51 02.3** | **+2.8** |
| **TXAR** | **Lajitas Array** | **90.66** | **57** | P | **P** | **23 50 56.5** | **-3.0** |
| | 0.7nm,0.9s,baz=204,slow=7.9,SNR=3.3 | | | | | | |
| TXAR | | | | LR | LR | 00 24 46.4 | |
| | comp=Z,444nm,19.6s,baz=0.0,slow=31 | | | | | | |
| **MNTX** | **Cornudas Mount** | **90.75** | **54** | *e*P | **P** | **23 51 03.5** | **+3.8** |
| **G08A** | **Pilot Rock** | **90.77** | **37** | *e*P | **P** | **23 51 00.5** | **+0.8** |
| **LAZ** | **Ladron** | **91.07** | **51** | *e*P | P | 23 51 06.1 | +4.7 |
| **SRU** | **San Rafael Swe** | **91.64** | **45** | *e*P | **P** | **23 51 08.5** | **+4.5** |
| **SPUT** | **South Promonto** | **91.81** | **43** | *e*P | **P** | **23 51 06.5** | **+1.8** |
| **ANMO** | **Albuquerque** | **91.84** | **51** | *e*P | **P** | **23 51 06.8** | **+1.8** |
| **HLID** | **Hailey** | **92.09** | **40** | *e*P | **P** | **23 51 05.6** | **-0.3** |
| | 3.4nm,0.9s | | | | | | |
| **ENH** | **Enshi** | **92.10** | **304** | *e*P | **P** | **23 51 06.1** | **0.0** |
| **F10A** | **Beach Ranch, E** | **92.13** | **37** | *e*P | **P** | **23 51 06.0** | **0.0** |
| **GYA** | **Guiyang** | **92.18** | **299** | *e*P | **P** | **23 51 07.6** | **+1.0** |
| GYA | | | | PP | **PP** | **23 54 49.0** | **+1.7** |
| GYA | | | | S | **S** | **00 02 07.4** | **-1.1** |
| GYA | | | | pmax | pmax | | |
| | comp=Z,20nm,1.0s | | | | | | |
| GYA | | | | pmax | pmax | | |
| | comp=Z,120nm,5.8s | | | | | | |
| **TCUT** | **Toone Canyon** | **92.32** | **43** | *e*P | P | 23 51 11.7 | +4.6 |
| **S22A** | **4UR Ranch, Cre** | **93.19** | **48** | *e*P | **P** | **23 51 13.3** | **+2.0** |
| **FXWY** | **Fox Creek** | **94.07** | **41** | *e*P | **P** | **23 51 16.6** | **+1.5** |
| **CMAR** | **Chiang Mai Arr** | **94.31** | **289** | P | **P** | **23 51 14.9** | **-1.6** |
| | 0.4nm,0.3s,baz=101,slow=9.5,SNR=6.3 | | | | | | |
| **PDAR** | **Pinedale Array** | **94.41** | **43** | P | P | 23 51 12.4 | -4.3 |
| | 0.5nm,0.8s,baz=251,slow=5.6,SNR=2.1 | | | | | | |
| PDAR | | | | LR | LR | 00 28 46.9 | |
| | comp=Z,596nm,18.8s,baz=252,slow=32 | | | | | | |
| **XAN** | **Xi'an** | **94.53** | **307** | P | **P** | **23 51 19.8** | **+2.6** |
| XAN | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.8s | | | | | | |
| **KMI** | **Kunming** | **94.53** | **296** | P | **P** | **23 51 18.1** | **+0.4** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.2s | | | | | | |
| **YHH** | **Holmes Hill** | **94.87** | **41** | *e*P | **P** | **23 51 22.4** | **+3.6** |
| **BOZ** | **Bozeman (W)** | **94.92** | **40** | *e*P | **P** | **23 51 20.1** | **+1.3** |
| **SEY** | **Seymchan** | **95.22** | **346** | P | **P** | **23 51 17.3** | **-2.3** |
| | 1.6nm,0.3s,baz=76,slow=5.1,SNR=4.3 | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **96.44** | **313** | *e*P | **P** | **23 51 27.8** | **+1.9** |
| HHC | | | | S | **S** | **00 02 45.3** | **+0.1** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.0s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,51nm,5.2s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=N,130nm,17.1s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=E,65nm,16.3s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,110nm,16.9s | | | | | | |
| **ILAR** | **Eielson Array** | **96.56** | **12** | P | **P** | **23 51 22.6** | **-3.0** |
| | 0.6nm,0.9s,baz=204,slow=3.8,SNR=4.7 | | | | | | |
| **CD2** | **Chengdu** | **96.64** | **302** | *e*P | **P** | **23 51 24.6** | **-2.3** |
| CD2 | | | | PP | **PP** | **23 55 24.3** | **+2.3** |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.1s | | | | | | |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,170nm,8.3s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=E,150nm,17.8s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,280nm,19.0s | | | | | | |
| **LPAZ** | **La Paz** | **97.36** | **113** | LR | LR | 00 29 41.6 | |
| | comp=Z,85nm,18.3s,baz=212,slow=32 | | | | | | |
| **LZH** | **Lanzhou** | **99.15** | **306** | *e*P | **Pdif** | **23 51 35.6** | **-2.6** |
| LZH | | | | SKS | **SKSac** | **00 02 13.0** | **-2.5** |
| LZH | | | | *e*S | **ScS** | **00 03 04.3** | **-4.3** |
| LZH | | | | SS | **SS** | **00 09 55.1** | **-2.7** |
| LZH | | | | pmax | pmax | | |
| | comp=Z,17nm,1.4s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,95nm,4.2s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=N,1μm,13.4s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=E,1μm,15.2s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,1μm,15.3s | | | | | | |
| **CPUP** | **Villa Florida** | **99.60** | **127** | LR | LR | 00 32 19.5 | |
| | comp=Z,262nm,18.4s,baz=232,slow=33 | | | | | | |
| **SONM** | **Songino Array** | **103.23** | **318** | Pdiff | **Pdif** | **23 52 03.0** | **+7.0** |
| | 0.6nm,1.1s,baz=90,slow=2.9,SNR=3.2 | | | | | | |
| **WMQ** | **Urumqi** | **113.60** | **308** | PKP | **PKiKP** | **23 56 36.8** | **+2.0** |
| WMQ | | | | PP | **PP** | **23 57 28.9** | **+1.5** |
| WMQ | | | | SKKS | | 00 04 21.8 | |
| WMQ | | | | AMB | AMB | | |
| | comp=Z,170nm,5.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,170nm,16.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,160nm,17.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,200nm,20.7s | | | | | | |
| **KSH** | **Kashi** | **120.83** | **301** | *e*PKP | **PKPdf** | **23 56 50.5** | **+1.5** |
| KSH | | | | PP | **PP** | **23 58 23.4** | **+5.3** |
| KSH | | | | PKS | **PKSdf** | **00 00 26.8** | **+1.1** |
| KSH | | | | AMB | AMB | | |
| | comp=Z,57nm,3.7s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,44nm,4.0s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,32nm,4.0s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,190nm,6.7s | | | | | | |
| **KURK** | **Kurchatov** | **121.25** | **314** | *e*PKPdf | **PKPdf** | **23 56 50.0** | **+0.8** |
| **ARU** | **Arti** | **133.08** | **321** | *e*PKPdf | **PKPdf** | **23 57 12.1** | **+0.5** |
| **ABKAR** | **Akbulak array** | **133.19** | **312** | *e*PKPdf | **PKPdf** | **23 57 12.3** | **+0.2** |
| **RAYN** | **Ar Rayn** | **142.13** | **271** | *e*PKPdf | **PKPdf** | **23 57 29.1** | **-0.2** |
| **FINES** | **FINESS Array B** | **144.55** | **341** | PKP | **PKPab** | **23 57 29.1** | **-1.8** |
| | 6.5nm,0.9s,baz=0.0,slow=1.8,SNR=7.7 | | | | | | |
| **CLDR** | **Caldiran** | **145.44** | **297** | *i* P | **PKPdf** | **23 57 34.9** | **0.0** |
| **AKH** | **Akhalkalaki** | **145.54** | **301⇑** | *i*P | **PKPdf** | **23 57 35.4** | **+0.4** |
| **KIV** | **Kislovodsk** | **145.69** | **306** | *e*PKPdf | **PKPdf** | **23 57 35.1** | **0.0** |
| **HAKT** | **HAKKARI** | **145.69** | **295** | *i* P | **PKPdf** | **23 57 34.2** | **-1.3** |
| **TUTA** | **Tutak** | **146.28** | **298** | *i* P | **PKPdf** | **23 57 37.5** | **+1.1** |
| **EKAR** | **Karacoban** | **146.87** | **298** | *i* P | **PKPbc** | **23 57 40.0** | **+0.8** |
| **SRTM** | **Siirt_Merkez** | **147.08** | **295** | *i* P | **PKPbc** | **23 57 40.4** | **+0.6** |
| **VRTB** | **Varto-Mus** | **147.35** | **298** | *i* P | **PKPab** | **23 57 42.8** | **+0.3** |
| **NB2** | **NORSAR Subarra** | **147.84** | **353** | PKP | **PKPdf** | **23 57 39.0** | **+0.9** |
| | comp=Z,10nm,1.1s,baz=10,slow=3.2 | | | | | | |
| **NOA** | **NORSAR Array B** | **147.84** | **353** | PKPbc | **PKPdf** | **23 57 39.2** | **+1.1** |
| | comp=Z,4.8nm,1.0s,baz=13,slow=4.5,SNR=5.2 | | | | | | |
| **NACGM** | **Naroch** | **149.42** | **333** | *e* | PKPab | 23 57 58.0 | +8.0 |
| **AKASG** | **Malin Array Be** | **151.20** | **325** | PKPbc | **PKPbc** | **23 57 48.2** | **-1.4** |
| | comp=Z,2.4nm,0.7s,baz=48,slow=3.0,SNR=12 | | | | | | |
| **KIEV** | **Kiev** | **151.21** | **325** | *e*PKPbc | **PKPbc** | **23 57 49.0** | **-0.6** |
| KIEV | | | | *e*PKPab | **PKPab** | **23 57 58.6** | **+1.1** |
| **SORM** | **Soroca** | **153.20** | **321⇑** | *i*P | **PKPbc** | **23 57 51.2** | **-2.9** |
| **BRTR** | **Keskin Array B** | **153.22** | **301** | PKPbc | **PKPbc** | **23 57 54.5** | **-0.2** |
| | comp=Z,1.3nm,1.0s,baz=98,slow=3.0,SNR=4.7 | | | | | | |
| BRTR | | | | PKPab | **sPKPbc** | **23 58 05.8** | **+1.4** |
| | comp=Z,5.5nm,0.9s,baz=90,slow=3.8,SNR=12 | | | | | | |
| **MILM** | **Milestii Mici** | **153.63** | **319⇑** | *i*P | **PKPbc** | **23 58 01.5** | **+6.4** |
| **ANTO** | **Ankara** | **153.82** | **302** | *e*PKPbc | **PKPbc** | **23 57 56.3** | **+0.4** |
| **TESR** | **Tescani** | **155.09** | **320⇑** | *i*P | **PKPab** | **23 58 12.0** | **-2.0** |
| **BURAR** | **Buccovina Array** | **155.19** | **323⇑** | *i*P | PKPdf | 23 58 00.2 | +11 |
| **VRI** | **Vrincioaia** | **155.41** | **319** | *i*P | **PKPab** | **23 58 17.6** | **+2.1** |
| **PLOR** | **Plostina** | **155.46** | **319** | *i*P | **PKPab** | **23 58 17.1** | **+1.4** |
| **STHS** | **Stebnicka Huta** | **155.80** | **331** | *e*PKP | **PKPab** | **23 58 20.1** | **+3.1** |
| STHS | | | | *e* | | 23 58 30.6 | |
| **MLR** | **Muntele Rosu** | **156.08** | **319** | *i*P | **PKPab** | **23 58 19.8** | **+1.3** |
| **CRVS** | **Cervenica-Dubn** | **156.09** | **330** | *e*PKP | **PKPab** | **23 58 19.9** | **+1.7** |
| CRVS | | | | *e* | | 23 58 31.4 | |
| **DOPR** | **Dopca** | **156.11** | **320** | *i*P | PKPab | 23 58 07.7 | -11 |
| **VOIR** | | **156.62** | **319** | *i*P | **PKPab** | **23 58 19.8** | **-0.9** |
| **DPC** | **Dobruska-Polom** | **156.86** | **339** | *e*PKPAB | **PKPab** | **23 58 20.5** | **-1.0** |
| DPC | | | | *ex* | x | 23 58 31.2 | |
| DPC | | | | *ex* | x | 23 58 34.4 | |
| **CLL** | **Collm** | **156.90** | **345** | *i* PKPab | **PKPab** | **23 58 23.0** | **+1.5** |
| | comp=Z,6.0nm,1.1s | | | | | | |
| **ARR** | **Arges** | **156.90** | **320⇑** | *i*P | PKPab | 23 58 09.8 | -12 |
| **BRG** | **Berggiesshubel** | **157.07** | **343** | *e*PKP | **PKPab** | **23 58 22.8** | **+0.5** |
| | comp=Z,5.2nm,1.0s | | | | | | |
| BRG | | | | *e* | | 23 58 34.0 | |
| | comp=Z,3.3nm,0.7s | | | | | | |
| **LOT** | **Lotru** | **157.33** | **321⇑** | *i*P | PKPab | 23 58 16.6 | -7.2 |
| **PRU** | **Prunonice** | **157.71** | **341** | *e*PKPAB | **PKPab** | **23 58 26.8** | **+1.7** |
| PRU | | | | *ex* | x | 23 58 37.7 | |
| **BZS** | **Buzias** | **158.37** | **324⇑** | *i*P | PKPab | 23 58 17.9 | -10 |
| **KHC** | **Kasperske Hory** | **158.75** | **342** | *e*PKPAB | **PKPab** | **23 58 28.5** | **-1.2** |
| KHC | | | | *ex* | x | 23 58 41.5 | |
| **MDVR** | **Moldovita** | **158.88** | **322** | *i*P | PKPab | 23 58 19.6 | -11 |
| **TORD** | **Torodi Ar. Bea** | **163.84** | **174** | PKPab | **PKPab** | **23 58 52.8** | **+0.1** |
| | comp=Z,1.1nm,0.8s,baz=172,slow=3.1,SNR=3.7 | | | | | | |
| **ESDC** | **Sonseca Array** | **167.94** | **29** | PKPab | **PKPab** | **23 59 07.4** | **-2.9** |
| | comp=Z,0.8nm,1.0s,baz=102,slow=20,SNR=2.6 | | | | | | |

**IDC 20 23:51:12.7±2.2,16˚.78S×178˚.42E,h0km,mb3.9/5, mb1 4.1/5,mb1mx3.7/37,mbtmp3.9/5,Error ellipse: s-maj=108.4km s-min=30.2km az=147.0,Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **STKA** | **Stephens Creek** | **36.57** | **239** | P | P | 23 58 19.8 | -0.7 |
| | 0.7nm,0.4s,baz=87,slow=11,SNR=3.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **41.87** | **259** | P | P | 23 59 05.9 | +0.9 |
| | 0.6nm,0.5s,baz=94,slow=7.7,SNR=20 | | | | | | |
| **ASAR** | **Alice Springs** | **42.20** | **253** | P | P | 23 59 07.5 | -0.2 |
| | 4.6

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **MKAR** | **Makanchi Array** | **64.31** | **332** | P | | **P** | **00 25 24.2** | **-2.0** |
| | 0.2nm,0.5s,baz=149,slow=7.4,SNR=4.4 | | | | | | | |

*CSEM* ***21*** *00:18:10.9±0.2,38.64N×43.17E, h20km, MD2.4, Error ellipse: s-maj=5.3km s-min=3.7km az=98.0*
*ISK* ***21*** *00:18:10.8,38.66N×43.22E, h20km, MD2.4*
*ISCJB* ***21*** *00:18:11.1±1.0,38.62N±0.04×43.19E±0.05, h26km±9km, Error ellipse: s-maj=7.8km s-min=6.2km az=41.8*
*DDA* ***21*** *00:18:11.8,38.65N×43.18E, h7km, Md2.6*
**ISC 21 00:18:10.6±1.0,38.61N±0.03×43.19E±0.04, h26km±7km, n18, σ0§59/34, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.16** | **95** | *e*PG | **Pb** | **00 18 16.2** | **+0.2** |
| VANB | | | | *e*SG | **Sb** | **00 18 20.2** | **+0.5** |
| **VANB** | **Van** | **0.16** | **95** | *e*Pg | **Pb** | **00 18 16.2** | **+0.2** |
| VANB | | | | *e*Sg | **Sb** | **00 18 20.2** | **+0.5** |
| **TVAN** | **Van** | **0.19** | **115** | *i* P | **Pb** | **00 18 15.8** | **-0.7** |
| TVAN | | | | *i* S | **Sb** | **00 18 20.2** | **-0.2** |
| **TVAN** | **Van** | **0.19** | **115** | P | **Pb** | **00 18 15.8** | **-0.7** |
| TVAN | | | | S | **Sb** | **00 18 20.2** | **-0.2** |
| **GEVA** | **Gevas** | **0.31** | **199** | *i* P | **Pb** | **00 18 18.3** | **+0.2** |
| GEVA | | | | *i* S | **Sn** | **00 18 25.1** | **-0.4** |
| **GEVA** | **Gevas** | **0.31** | **199** | P | **Pb** | **00 18 18.3** | **+0.2** |
| GEVA | | | | S | **Sn** | **00 18 25.1** | **-0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.41** | **299** | *i* P | **Pb** | **00 18 19.3** | **-0.4** |
| ADCV | | | | *i* S | **Sb** | **00 18 26.3** | **+0.5** |
| **ERCV** | **ERCIS-VAN** | **0.43** | **16** | *e*PG | **Pb** | **00 18 19.1** | **-0.7** |
| ERCV | | | | *e*SG | **Sb** | **00 18 25.1** | **-1.0** |
| **VMUR** | **Van-Muradiye** | **0.48** | **38** | *i* P | **Pb** | **00 18 20.6** | **-0.1** |
| VMUR | | | | *i* S | **Sn** | **00 18 29.0** | **-0.8** |
| **VMUR** | **Van-Muradiye** | **0.48** | **38** | P | **Pb** | **00 18 20.6** | **-0.1** |
| VMUR | | | | S | **Sn** | **00 18 29.0** | **-0.8** |
| **CLDR** | **Caldiran** | **0.78** | **47** | *e*PG | **Pb** | **00 18 25.5** | **-0.2** |
| CLDR | | | | *e*SG | **Sb** | **00 18 36.2** | **+0.2** |
| **CLDR** | **Caldiran** | **0.78** | **47** | *i* P | **Pn** | **00 18 26.1** | **0.0** |
| CLDR | | | | *i* S | **Sn** | **00 18 38.3** | **+1.2** |
| **CLDR** | **Caldiran** | **0.78** | **47** | *e*Pg | **Pb** | **00 18 25.5** | **-0.2** |
| **CLDR** | **Caldiran** | **0.78** | **47** | P | **Pn** | **00 18 26.1** | **0.0** |
| CLDR | | | | *e*Sg | **Sb** | **00 18 36.2** | **+0.2** |
| CLDR | | | | S | **Sn** | **00 18 38.3** | **+1.2** |
| **TUTA** | **Tutak** | **0.84** | **340** | *i* P | **Pb** | **00 18 26.1** | **-0.7** |
| **TUTA** | **Tutak** | **0.84** | **340** | P | **Pb** | **00 18 26.1** | **-0.7** |
| **AGRB** | **Hanur-Agry** | **0.98** | **351** | *e*PG | **Pb** | **00 18 29.2** | **+0.2** |
| AGRB | | | | *e*SG | **Sn** | **00 18 42.8** | **+0.8** |
| **AGRB** | **Hanur-Agry** | **0.98** | **351** | *e*Pg | **Pb** | **00 18 29.3** | **+0.2** |
| AGRB | | | | *e*Sg | **Sn** | **00 18 42.8** | **+0.8** |

*IDC* ***21*** *00:21:02.5±1.9,2.72S×128.40E, h0km, mb3.7/2, mb1 4.0/4, mb1mx3.6/27, mbtmp3.8/4, ML3.8/2, Error ellipse: s-maj=106.7km s-min=24.2km az=71.0*
*ISCJB* ***21*** *00:21:10.3±0.7,3.47S±0.06×127.22E±0.05, h33km, mb3.7/2, Error ellipse: s-maj=10.2km s-min=5.4km az=34.7*
*DJA* ***21*** *00:21:10.3±0.4,3°S±4′×12°7E±°, h10km, M4.1/8, mb4.5/1, MLv3.9/8*
**ISC 21 00:21:11.1±0.9,3.44S±0.07×127.23E±0.06, h35km, n12, σ1§45/18, Seram**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **AAI** | **Ambon** | **0.99** | **105** | Pg | **Pn** | **00 21 29.2** | **+0.7** |
| AAI | | | | Sg | **Sn** | **00 21 41.8** | **+0.5** |
| AAI | | | | S | **Sn** | **00 21 42.3** | **+1.0** |
| **MSAI** | **Masohi** | **1.70** | **87** | P | **Pn** | **00 21 39.2** | **+1.0** |
| MSAI | | | | Pg | **Pn** | **00 21 39.4** | **+1.2** |
| MSAI | | | | S | **Sn** | **00 22 00.6** | **+1.9** |
| **SANI** | **Sanana** | **1.85** | **318** | P | **Pn** | **00 21 40.3** | **-0.1** |
| SANI | | | | S | **Sn** | **00 22 04.8** | **+2.2** |
| **LBMI** | **Labuha** | **2.79** | **6** | P | **Pn** | **00 21 54.5** | **+1.2** |
| LBMI | | | | S | **Sn** | **00 22 25.6** | **-0.2** |
| **BNDI** | **Bandanaira** | **2.88** | **112** | P | **Pn** | **00 21 55.0** | **+0.6** |
| **SWI** | **Sorong** | **4.77** | **58** | P | **Pn** | **00 22 20.1** | **-0.4** |
| **FAKI** | **Fak Fak** | **5.04** | **84** | P | **Pn** | **00 22 24.3** | **+0.1** |
| **APSI** | **Ampana** | **6.12** | **294** | P | **Pn** | **00 22 42.1** | **+3.1** |
| **FITZ** | **Fitzroy Crossi** | **14.66** | **186** | Pn | **P** | **00 24 42.4** | **+0.6** |
| | 0.1nm,0.3s,baz=3.8,slow=13,SNR=5.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **17.81** | **158** | P | **Pn** | **00 25 15.6** | **-0.8** |
| | 0.7nm,0.3s,baz=341,slow=11,SNR=35 | | | | | | |
| **ASAR** | **Alice Springs** | **21.12** | **163** | P | **P** | **00 25 52.2** | **-0.7** |
| | 2.9nm,0.8s,baz=345,slow=11,SNR=18 | | | | | | |
| **MKAR** | **Makanchi Array** | **63.76** | **327** | P | **P** | **00 31 37.0** | **-2.5** |
| | 0.7nm,0.7s,baz=120,slow=8.3,SNR=8.8 | | | | | | |

*ISK* ***21*** *00:30:59.1,38.73N×43.36E, h5km, MD2.7*
*ISCJB* ***21*** *00:31:00.7±0.5,38.74N±0.02×43.34E±0.04, h13km±4km, Error ellipse: s-maj=5.7km s-min=3.7km az=16.9*
*DDA* ***21*** *00:31:00.5,38.71N×43.35E, h7km, Md2.8*
*CSEM* ***21*** *00:31:00.4±0.2,38.73N×43.35E, h5km, MD2.7, Error ellipse: s-maj=5.6km s-min=3.6km az=110.0*
**ISC 21 00:30:60.0±1.0,38.72N±0.02×43.37E±0.03, h16km±7km, n22, σ0§64/39, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.13** | **171** | *e*PG | **Pb** | **00 31 04.5** | **+0.4** |
| VANB | | | | *e*SG | **Sb** | **00 31 08.8** | **+2.0** |
| **VANB** | **Van** | **0.13** | **171** | *e*Pg | **Pb** | **00 31 04.5** | **+0.4** |
| **TVAN** | **Van** | **0.19** | **170** | *i* P | **Pg** | **00 31 04.3** | **-0.5** |
| TVAN | | | | *i* S | **Sb** | **00 31 08.5** | **-0.3** |
| **TVAN** | **Van** | **0.19** | **170** | P | **Pg** | **00 31 04.3** | **-0.5** |
| TVAN | | | | S | **Sb** | **00 31 08.5** | **-0.3** |
| **ERCV** | **ERCIS-VAN** | **0.30** | **356** | *e*PG | **Pg** | **00 31 06.0** | **-0.4** |
| ERCV | | | | *e*SG | **Sg** | **00 31 11.2** | **+0.4** |
| **ERCV** | **ERCIS-VAN** | **0.30** | **356** | *e*Pg | **Pg** | **00 31 06.0** | **-0.4** |
| ERCV | | | | *e*Sg | **Sg** | **00 31 11.3** | **+0.4** |
| **VMUR** | **Van-Muradiye** | **0.31** | **31** | *i* P | **Pg** | **00 31 06.7** | **0.0** |
| VMUR | | | | *i* S | **Sb** | **00 31 13.1** | **+0.9** |
| **VMUR** | **Van-Muradiye** | **0.31** | **31** | P | **Pg** | **00 31 06.7** | **0.0** |
| VMUR | | | | S | **Sb** | **00 31 13.1** | **+0.9** |
| **GEVA** | **Gevas** | **0.47** | **211** | *i* P | **Pg** | **00 31 08.9** | **-0.6** |
| GEVA | | | | *i* S | **Sb** | **00 31 17.4** | **+0.6** |
| **GEVA** | **Gevas** | **0.47** | **211** | P | **Pg** | **00 31 08.9** | **-0.6** |
| GEVA | | | | S | **Sb** | **00 31 17.4** | **+0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.51** | **280** | *i* P | **Pg** | **00 31 10.1** | **-0.1** |
| ADCV | | | | *i* S | **Sb** | **00 31 18.2** | **+0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.51** | **280** | P | **Pg** | **00 31 10.1** | **-0.1** |
| ADCV | | | | S | **Sb** | **00 31 18.2** | **+0.4** |
| **CLDR** | **Caldiran** | **0.60** | **45** | *e*PG | **Pg** | **00 31 11.9** | **-0.1** |
| CLDR | | | | *e*SG | **Sb** | **00 31 21.2** | **+0.6** |
| **CLDR** | **Caldiran** | **0.60** | **45** | *i* P | **Pg** | **00 31 11.7** | **-0.3** |
| CLDR | | | | *i* S | **Sn** | **00 31 22.2** | **-1.4** |
| **CLDR** | **Caldiran** | **0.60** | **45** | P | **Pg** | **00 31 11.6** | **-0.3** |
| **CLDR** | **Caldiran** | **0.60** | **45** | *e*Pg | **Pg** | **00 31 11.9** | **-0.1** |
| CLDR | | | | *e*Sg | **Sb** | **00 31 21.2** | **+0.6** |
| CLDR | | | | S | **Sn** | **00 31 22.2** | **-1.4** |
| **AGRB** | **Hanur-Agry** | **0.90** | **341** | *e*PG | **Pb** | **00 31 17.3** | **0.0** |
| AGRB | | | | *e*SG | **Sn** | **00 31 30.6** | **-0.4** |
| **AGRB** | **Hanur-Agry** | **0.90** | **341** | *e*Pg | **Pb** | **00 31 17.3** | **0.0** |
| AGRB | | | | *e*Sg | **Sn** | **00 31 30.6** | **-0.4** |
| **SIRT** | **Sirnak** | **1.42** | **211** | *e*PN | **Pg** | **00 31 27.2** | **-0.1** |
| **SIRT** | **Sirnak** | **1.42** | **211** | *e*Pn | **Pg** | **00 31 27.2** | **-0.1** |
| **CUKT** | **Cukurca** | **1.48** | **172** | *e*PN | **Pg** | **00 31 28.4** | **-0.1** |
| **CUKT** | **Cukurca** | **1.48** | **172** | *e*Pn | **Pg** | **00 31 28.4** | **-0.1** |

*ISCJB* ***21*** *00:37:21.6±0.7,13.0N±0.1×143.3E±0.1, h200km, mb3.3/8, Error ellipse: s-maj=18.1km s-min=13.2km az=43.4*
*IDC* ***21*** *00:37:24.0±1.1,13.01N×143.59E, h213km±13km, mb3.2/8, mb1 3.4/8, mb1mx3.2/35, mbtmp3.7/8, Error ellipse: s-maj=34.4km s-min=13.6km az=98.0*
**ISC 21 00:37:23.0±0.8,13.0N±0.1×143.4E±0.1, h200km, n9, σ1§00/10, mb3.3/8, South of Mariana Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GUMO** | **Guam** | **1.59** | **68** | P | **Pn** | **00 37 58.7** | **+1.2** |
| | 8.5nm,0.3s,baz=246,slow=13,SNR=1.9 | | | | | | |
| GUMO | | | | S | **Sn** | **00 38 23.9** | **-0.3** |
| | 29nm,0.3s,baz=11,slow=23,SNR=5.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **33.92** | **195** | P | **P** | **00 43 47.9** | **+0.6** |
| | 1.4nm,0.7s,baz=17,slow=9.4,SNR=22 | | | | | | |
| **ASAR** | **Alice Springs** | **37.59** | **194** | P | **P** | **00 44 18.7** | **+0.1** |
| | 0.6nm,0.6s,baz=16,slow=12,SNR=6.0 | | | | | | |
| **STKA** | **Stephens Creek** | **44.65** | **182** | P | **P** | **00 45 15.3** | **-0.5** |
| | 2.9nm,0.8s,baz=10,slow=20,SNR=4.3 | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **SONM** | **Songino Array** | **46.38** | **326** | P | | **P** | **00 45 30.3** | **+0.9** |
| | 0.4nm,0.5s,baz=148,slow=7.5,SNR=5.0 | | | | | | | |
| **MKAR** | **Makanchi Array** | **60.90** | **317** | P | | **P** | **00 47 15.3** | **+0.7** |
| | 0.2nm,0.4s,baz=96,slow=8.9,SNR=4.5 | | | | | | | |
| **ILAR** | **Eielson Array** | **69.73** | **25** | P | | **P** | **00 48 09.7** | **-1.3** |
| | 0.3nm,0.6s,baz=248,slow=6.3,SNR=7.2 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **84.06** | **27** | P | | **P** | **00 49 31.0** | **+0.1** |
| | 0.1nm,0.4s,baz=289,slow=5.4,SNR=2.5 | | | | | | | |
| **FINES** | **FINESS Array B** | **91.07** | **335** | P | | **P** | **00 50 03.1** | **-1.4** |
| | 2.7nm,1.0s,baz=72,slow=4.5,SNR=5.7 | | | | | | | |

*ISCJB* ***21*** *00:42:04.9±0.8,20.97S±0.06×66.80W±0.06, h194km, mb3.5/3, Error ellipse: s-maj=9.6km s-min=5.4km az=142.4*
*GUC* ***21*** *00:42:06.6±0.5,20.99S×67.16W, h219km±38km, ML3.7*
*IDC* ***21*** *00:42:07.8±6.1,20.73S×66.62W, h234km±41km, mb3.3/3, mb1 3.4/5, mb1mx3.2/23, mbtmp3.8/5, Error ellipse: s-maj=72.1km s-min=19.1km az=14.0*
**ISC 21 00:42:03.9±1.0,20.96S±0.07×66.77W±0.07, h194km, n15, σ1§68/23, mb3.5/3, 5C-3D, Southern Bolivia**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PB09** | **IPOC Station P** | **2.45** | **250** | | IAML | 00 43 24.2 | |
| | comp=N,218nm,0.6s | | | | | | |
| **PB01** | **IPOC Station P** | **2.54** | **268** | ⇓*i* P | **Pn** | **00 42 49.9** | **+1.8** |
| PB01 | | | | | IAML | 00 43 25.5 | |
| | comp=E,86nm,0.1s | | | | | | |
| **PB02** | **IPOC Station P** | **2.94** | **263** | ⇑*i* P | **Pn** | **00 42 54.7** | **+1.9** |
| PB02 | | | | *i* S | **Sn** | **00 43 30.9** | **+0.1** |
| PB02 | | | | | IAML | 00 43 32.2 | |
| | comp=N,236nm,0.4s | | | | | | |
| **PB11** | **IPOC Station P** | **2.96** | **293** | ⇑*i* P | **Pn** | **00 42 54.9** | **+1.8** |
| PB11 | | | | *i* S | **Sn** | **00 43 32.3** | **+1.0** |
| **PB07** | **IPOC Station P** | **3.01** | **255** | ⇓*i* P | **Pn** | **00 42 55.1** | **+1.6** |
| PB07 | | | | *i* S | **Sn** | **00 43 32.2** | **-0.1** |
| PB07 | | | | | IAML | 00 43 32.6 | |
| | comp=N,150nm,0.2s | | | | | | |
| **PB06** | **IPOC Station P** | **3.13** | **236** | *e*P | **Pn** | **00 42 57.4** | **+2.4** |
| PB06 | | | | *i* S | **Sn** | **00 43 35.7** | **+0.8** |
| PB06 | | | | | IAML | 00 43 36.4 | |
| | comp=N,156nm,0.4s | | | | | | |
| **MNMC** | **Minye Minye** | **3.23** | **304** | ⇑*i* P | **Pn** | **00 42 58.6** | **+2.3** |
| MNMC | | | | | IAML | 00 43 43.7 | |
| | comp=N,197nm,0.3s | | | | | | |
| **PB04** | **IPOC Station P** | **3.43** | **246** | ⇓*i* P | **Pn** | **00 42 59.9** | **+1.3** |
| PB04 | | | | *i* S | **Sn** | **00 43 40.7** | **-0.8** |
| PB04 | | | | | IAML | 00 43 44.0 | |
| | comp=N,86nm,0.1s | | | | | | |
| **PSGC** | **Pisagua** | **3.43** | **293** | ⇑*i* P | **Pn** | **00 42 59.5** | **+0.9** |
| PSGC | | | | *i* S | **Sn** | **00 43 40.4** | **-1.0** |
| PSGC | | | | | IAML | 00 43 42.8 | |
| | comp=N,96nm,0.3s | | | | | | |
| **PB12** | **IPOC Station P** | **4.09** | **304** | ⇑*i* P | **Pn** | **00 43 07.0** | **+0.2** |
| PB12 | | | | *i* S | **Sn** | **00 43 54.0** | **-2.0** |
| **LPAZ** | **La Paz** | **4.83** | **344** | P | **Pn** | **00 43 19.8** | **+3.2** |
| | comp=N,1.2nm,0.3s,baz=164,slow=10,SNR=25 | | | | | | |
| LPAZ | | | | S | **Sn** | **00 44 15.9** | **+2.1** |
| | baz=229,slow=18,SNR=3.1 | | | | | | |
| **SIV** | **San Ignacio** | **7.32** | **48** | P | **Pn** | **00 43 49.8** | **+1.4** |
| | comp=N,2.4nm,0.3s,baz=249,slow=14,SNR=21 | | | | | | |
| SIV | | | | S | **Sn** | **00 45 11.8** | **+0.5** |
| | comp=N,0.2nm,0.3s,baz=177,slow=17,SNR=3.2 | | | | | | |
| **PDAR** | **Pinedale Array** | **74.67** | **329** | P | **P** | **00 53 21.6** | **-0.7** |
| | comp=N,0.2nm,0.5s,baz=113,slow=8.2,SNR=4.2 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **75.29** | **70** | P | **P** | **00 53 24.2** | **-2.0** |
| | comp=N,1.5nm,0.5s,baz=253,slow=5.4,SNR=31 | | | | | | |
| **YKA** | **Yellowknife Ar** | **91.36** | **340** | P | **P** | **00 54 46.0** | **-1.2** |
| | comp=N,0.3nm,0.6s,baz=131,slow=4.6,SNR=7.5 | | | | | | |

**WEL 21 01:09:21.8±0.6, 37.30S×179.84E, h33km, ML3.5/6, Error ellipse: s-maj=6.4km s-min=5.8km az=0.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WMGZ** | **Waiomatatini S** | **1.24** | **245** | PN | Pn | 01 09 42.4 | -0.5 |
| WMGZ | | | | SN | Sn | 01 09 58.3 | -0.2 |
| WMGZ | | | | AML | AML | 01 09 58.4 | |
| **MXZ** | **Matakaoa Point** | **1.25** | **257** | PN | Pn | 01 09 42.2 | -0.7 |
| MXZ | | | | SN | Sn | 01 09 57.6 | -1.0 |
| MXZ | | | | AML | AML | 01 09 58.7 | |
| **PUZ** | **Puketiti** | **1.47** | **238** | PN | Pn | 01 09 45.3 | -0.8 |
| PUZ | | | | SN | Sn | 01 10 03.3 | -0.9 |
| PUZ | | | | AML | AML | 01 10 05.9 | |
| **HAZ** | **Te Kaha** | **1.70** | **254** | PN | Pn | 01 09 49.4 | +0.3 |
| HAZ | | | | AML | AML | 01 10 10.9 | |
| HAZ | | | | AML | AML | 01 10 15.1 | |
| **TWGZ** | **Tauwhareparae** | **1.71** | **239** | PN | Pn | 01 09 49.4 | 0.0 |
| TWGZ | | | | AML | AML | 01 10 11.3 | |
| TWGZ | | | | AML | AML | 01 10 11.4 | |
| **RUGZ** | **Raukumara Rang** | **1.84** | **248** | PN | Pn | 01 09 51.7 | +0.5 |
| **URZ** | **Urewera** | **2.36** | **245** | PN | Pn | 01 09 58.8 | +0.5 |
| URZ | | | | AML | AML | 01 10 27.0 | |

**MAN 21 01:15:14, 13.36N×122.31E, h3km, mb4.5, ML3.4, MS3.1, 3C-1D, Luzon**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **AUQP** | **San Andres** | **0.36** | **96** | *e*P | Pb | 01 15 22.3 | -0.7 |
| AUQP | | | | *e*S | Sb | 01 15 30.7 | +1.6 |
| **BOAC** | **Boac** | **0.46** | **282** | *e*P | Pb | 01 15 24.2 | -0.6 |
| BOAC | | | | *e*S | Sb | 01 15 32.4 | +0.4 |
| **GQP** | **Guinayangan** | **0.56** | **14** | ⇑*e*P | Pg | 01 15 25.2 | +0.5 |
| GQP | | | | *e*S | Sb | 01 15 35.2 | +0.3 |
| **OTRP** | **Odiongan** | **1.03** | **196** | *e*P | Pg | 01 15 33.0 | -0.8 |
| OTRP | | | | *e*S | Sg | 01 15 42.3 | -4.8 |
| **PGP** | **Puerto Galera** | **1.32** | **276** | ⇓*e*P | Pg | 01 15 39.2 | -0.2 |
| PGP | | | | *i* S | Sn | 01 15 58.8 | +1.2 |
| **SJMP** | **San Jose** | **1.46** | **233** | *e*P | Pn | 01 15 40.3 | -1.0 |
| **PVCP** | **Virac** | **1.81** | **82** | *e*P | Pn | 01 15 45.2 | -0.9 |
| **RCP** | **Roxas** | **1.84** | **166** | ⇑*e*P | Pb | 01 15 47.9 | -0.4 |
| **LUBP** | **Lubang** | **2.04** | **281** | *e*P | Pn | 01 15 48.9 | -0.4 |
| **BALP** | **Baler** | **2.47** | **343** | *e*P | Pn | 01 15 56.8 | +1.6 |
| **JAP** | **San Jose, Anti** | **2.62** | **188** | ⇑*e*P | Pg | 01 16 09.7 | +5.4 |

**MAN 21 01:16:10, 13.39N×122.26E, h23km, mb4.4, ML3.2, MS3.0, 2C-1D, Luzon**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **BOAC** | **Boac** | **0.41** | **280** | *e*P | Pn | 01 16 21.6 | +1.0 |
| BOAC | | | | *e*S | Sn | 01 16 29.2 | +1.7 |
| **GQP** | **Guinayangan** | **0.54** | **19** | ⇓*e*P | Pn | 01 16 23.0 | +0.6 |
| **OTRP** | **Odiongan** | **1.05** | **193** | *e*P | Pb | 01 16 30.2 | +0.8 |
| OTRP | | | | *e*S | Sn | 01 16 44.0 | +0.8 |
| **PGP** | **Puerto Galera** | **1.28** | **275** | ⇑*e*P | Pb | 01 16 39.9 | +3.5 |
| PGP | | | | *i* S | Sb | 01 16 57.4 | +7.9 |
| **TGY** | **Tagaytay City** | **1.47** | **299** | ⇑*e*P | Pb | 01 16 40.8 | +4.1 |
| TGY | | | | *i* S | Sb | 01 17 02.3 | +7.3 |

*CSEM* ***21*** *01:16:13.7±0.1,37.73N×37.45E, h2km, MD2.9, Error ellipse: s-maj=3.4km s-min=2.6km az=144.0*
*ISK* ***21*** *01:16:13.7,37.73N×37.47E, h8km, MD2.9*
*DDA* ***21*** *01:16:13.4,37.71N×37.45E, h7km, Ml3.0*
**ISC 21 01:16:13.7±1.1,37.73N±0.02×37.44E±0.02, h8km±10km, n36, σ0§50/55, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KMRS** | **Kahramanmaras** | **0.48** | **243** | *e*PG | **Pg** | **01 16 23.8** | **+0.7** |
| **KMRS** | **Kahramanmaras** | **0.48** | **243** | *e*Pg | **Pg** | **01 16 23.8** | **+0.7** |
| **HCB** | **Kahramanmara˘** | **0.57** | **228** | *i* P | **Pg** | **01 16 24.9** | **+0.2** |
| HCB | | | | *i* S | **Sg** | **01 16 32.6** | **+0.4** |
| **GAZ** | **Gaziantep** | **0.58** | **198** | *e*PG | **Pb** | **01 16 25.7** | **-0.5** |
| GAZ | | | | *e*SG | **Sb** | **01 16 34.4** | **-0.2** |
| **GAZ** | **Gaziantep** | **0.58** | **198** | *e*Pg | **Pb** | **01 16 25.7** | **-0.5** |
| GAZ | | | | *e*Sg | **Sb** | **01 16 34.4** | **-0.2** |
| **ELBS** | **KAHRAMANMARAS** | **0.65** | **338** | *i* P | **Pg** | **01 16 26.4** | **+0.2** |
| ELBS | | | | *i* S | **Sb** | **01 16 36.3** | **-0.2** |
| **ELBS** | **KAHRAMANMARAS** | **0.65** | **338** | P | **Pg** | **01 16 26.4** | **+0.2** |
| ELBS | | | | S | **Sb** | **01 16 36.3** | **-0.2** |
| **AKCD** | **Akcadag** | **0.68** | **34** | *i* P | **Pg** | **01 16 27.0** | **0.0** |
| AKCD | | | | *i* S | **Sg** | **01 16 36.3** | **+0.4** |
| **AKCD** | **Akcadag** | **0.68** | **34** | P | **Pg** | **01 16 27.0** | **0.0** |
| AKCD | | | | S | **Sg** | **01 16 36.3** | **+0.4** |
| **ATAB** | **Bozova** | **0.72** | **110** | *i* P | **Pg** | **01 16 27.2** | **-0.4** |
| ATAB | | | | *i* S | **Sb** | **01 16 37.9** | **-0.8** |
| **ATAB** | **Bozova** | **0.72** | **110** | P | **Pg** | **01 16 27.2** | **-0.4** |
| ATAB | | | | S | **Sb** | **01 16 37.9** | **-0.8** |
| **DARE** | **Darende-Malaty** | **0.84** | **2** | *e*PG | **Pg** | **01 16 29.5** | **-0.5** |
| DARE | | | | *e*SG | **Sb** | **01 16 42.6** | **+0.3** |
| **DARE** | **Darende-Malaty** | **0.84** | **2** | *e*Pg | **Pg** | **01 16 29.5** | **-0.5** |
| DARE | | | | *e*Sg | **Sb** | **01 16 42.6** | **+0.3** |
| **ANDN** | **Andirin** | **0.88** | **261** | *i* P | **Pg** | **01 16 30.3** | **-0.4** |
| ANDN | | | | *i* S | **Sg** | **01 16 41.2** | **-1.0** |
| **ANDN** | **Andirin** | **0.88** | **261** | P | **Pg** | **01 16 30.3** | **-0.4** |
| ANDN | | | | S | **Sg** | **01 16 41.2** | **-1.0** |
| **MALT** | **Malatya** | **0.97** | **53** | *e*PG | **Pg** | **01 16 32.2** | **-0.3** |
| MALT | | | | *e*SG | **Sb** | **01 16 46.4** | **+0.4** |
| **MALT** | **Malatya** | **0.97** | **53** | *e*Pg | **Pg** | **01 16 32.2** | **-0.3** |
| MALT | | | | *e*Sg | **Sb** | **01 16 46.4** | **+0.4** |
| **SARI** | **SarD1z-Kayseri** | **1.06** | **310** | *e*PG | **Pn** | **01 16 34.9** | **-0.1** |
| **SAIM** | **ADANA** | **1.10** | **284** | *i* P | **Pg** | **01 16 34.7** | **-0.2** |
| SAIM | | | | *i* S | **Sn** | **01 16 50.9** | **-0.1** |
| **SAIM** | **ADANA** | **1.10** | **284** | P | **Pg** | **01 16 34.7** | **-0.2** |
| SAIM | | | | S | **Sn** | **01 16 50.9** | **-0.1** |
| **URFA** | **Urfa** | **1.13** | **104** | *e*PN | **Pb** | **01 16 35.5** | **-0.1** |
| **URFA** | **Urfa** | **1.13** | **104** | *e*Pn | **Pb** | **01 16 35.5** | **-0.1** |
| **HEKM** | **Malatya_Hekimh** | **1.22** | **19** | *i* P | **Pb** | **01 16 37.1** | **0.0** |
| **HEKM** | **Malatya_Hekimh** | **1.22** | **19** | P | **Pb** | **01 16 37.2** | **0.0** |
| **KOZT** | **Kozan** | **1.30** | **260** | *e*PN | **Pg** | **01 16 38.9** | **+0.1** |
| **KOZT** | **Kozan** | **1.30** | **260** | *e*Pn | **Pg** | **01 16 38.9** | **+0.1** |
| **SVRC** | **Sivrice-ELAZID** | **1.61** | **66** | *e*Pn | **Pn** | **01 16 43.1** | **+0.5** |
| **SVRC** | **Sivrice-ELAZID** | **1.61** | **66** | *e*Pn | **Pn** | **01 16 43.1** | **+0.5** |
| **BNN** | **Bunyan** | **1.69** | **312** | *e*PN | **Pb** | **01 16 44.6** | **-0.5** |
| **BNN** | **Bunyan** | **1.69** | **312** | *e*Pn | **Pb** | **01 16 44.6** | **-0.5** |
| **KEMA** | **Kemaliye** | **1.75** | **28** | *i* P | **Pb** | **01 16 45.5** | **-0.6** |
| KEMA | | | | *i* S | **Sg** | **01 17 10.0** | **+0.1** |
| **KEMA** | **Kemaliye** | **1.75** | **28** | P | **Pb** | **01 16 45.5** | **-0.6** |
| KEMA | | | | S | **Sg** | **01 17 10.0** | **+0.1** |
| **PTK** | **Pertek** | **1.93** | **52** | *e*PN | **Pn** | **01 16 47.6** | **+0.6** |
| **PTK** | **Pertek** | **1.93** | **52** | *e*Pn | **Pn** | **01 16 47.6** | **+0.6** |
| **YAYL** | **Yayladag** | **2.00** | **213** | *e*PN | **Pn** | **01 16 49.1** | **+1.2** |
| **YAYL** | **Yayladag** | **2.00** | **213** | *e*Pn | **Pn** | **01 16 49.1** | **+1.2** |

**NNC 21 01:26:45.6±1.5, 37.24N×66.77E, h18km±5km, mb3.7, mpv3.4, 11C-6D, Error ellipse: s-maj=15.9km s-min=10.0km az=135.0, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DZET** | **Dzherino** | **2.26** | **45** | ⇓Pn | Pn | 01 27 22.1 | 0.0 |
| | 2.2nm,0.4s | | | | | | |
| DZET | | | | ⇑Pg | Pb | 01 27 27.1 | +1.2 |
| | 34nm,0.8s | | | | | | |
| DZET | | | | ⇓Lg | Lg | 01 27 57.1 | |
| | 95nm,0.4s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **5.96** | **60** | ⇓Pn | Pn | 01 28 13.3 | +0.2 |
| | 4.2nm,1.1s | | | | | | |
| SFK | | | | ⇑Sn | Sn | 01 29 23.0 | +2.0 |
| | 3.8nm,0.4s | | | | | | |
| SFK | | | | ⇑Lg | Lg | 01 29 55.6 | |
| | 4.5nm,0.5s | | | | | | |
| **KK31** | **Karatay Array** | **6.52** | **25** | ⇑Pn | Pn | 01 28 21.4 | +0.7 |
| | 0.3nm,0.2s,baz=205,slow=11,SNR=5.0 | | | | | | |
| KK31 | | | | ⇓Pg | Pg | 01 28 45.1 | -5.3 |
| | 2.2nm,0.8s | | | | | | |
| KK31 | | | | ⇑Sn | Sn | 01 29 36.5 | +1.9 |
| | 0.9nm,0.4s,baz=216,slow=17,SNR=6.8 | | | | | | |
| KK31 | | | | ⇑Lg | Lg | 01 30 12.4 | |
| | 4.7nm,0.6s,baz=208,slow=29,SNR=6.6 | | | | | | |
| **MNAS** | **Manas** | **6.85** | **38** | ⇓Pn | Pn | 01 28 25.3 | 0.0 |
| | 3.0nm,0.7s | | | | | | |
| MNAS | | | | ⇑Sn | Sn | 01 29 41.9 | -1.0 |
| | 3.9nm,1.1s | | | | | | |
| MNAS | | | | ⇑Lg | Lg | 01 30 22.6 | |
| | 3.7nm,0.7s | | | | | | |
| **AAK** | **Ala-Archa** | **8.02** | **45** | ⇑Pn | Pn | 01 28 40.4 | -1.0 |
| | 2.5nm,0.7s | | | | | | |
| AAK | | | | ⇑Sn | Sn | 01 30 13.2 | +1.6 |
| | 3.6nm,0.9s | | | | | | |
| **TKM2** | **Tokmak 2** | **8.83** | **47** | ⇑Pn | Pn | 01 28 50.9 | -1.6 |
| | 2.4nm,0.6s | | | | | | |
| TKM2 | | | | ⇓Sn | Sn | 01 30 32.2 | +0.6 |
| | 1.1nm,0.6s | | | | | | |

**MEX 21 01:46:28.4±0.5, 17.92N×101.56W, h37km±8km, MD3.9, 1D, Near coast of Guerrero**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |

**n71,σ1$00/121, Arkansas**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WHAR** | **Wooly Hollow** | **0.08** | **190** | *e*Pg | **Pg** | **02 05 59.6** | **-0.1** |
| WHAR | | | | *e*Sg | **Sg** | **02 06 00.9** | **+0.1** |
| **X301** | **Greenbrier Sit** | **0.17** | **218** | *e*Pg | **Pg** | **02 06 01.1** | **-0.2** |
| X301 | | | | *e*Sg | **Sg** | **02 06 03.3** | **-0.2** |
| **W41B** | **Gary Mavity, V** baz=358,SNR=931 | **0.20** | **175** | P | **Pg** | **02 06 01.6** | **-0.2** |
| W41B | | | | S | **Sg** | **02 06 04.3** | **-0.1** |
| **V41A** | **Mountainview** baz=191,SNR=397 | **0.42** | **13** | P | **Pg** | **02 06 05.9** | **-0.1** |
| V41A | | | | S | **Sg** | **02 06 11.8** | **+0.3** |
| **UALR** | **University of** | **0.60** | **186** | *e*Pg | **Pg** | **02 06 09.3** | **-0.1** |
| UALR | | | | *e*Sg | **Sg** | **02 06 17.4** | **+0.3** |
| **W42A** | **Bald Knob** baz=279,SNR=11 | **0.62** | **99** | P | **Pg** | **02 06 09.7** | **-0.1** |
| W42A | | | | S | **Sg** | **02 06 18.2** | **+0.4** |
| **V40A** | **Witts Springs** baz=133,SNR=589 | **0.62** | **314** | P | **Pg** | **02 06 09.6** | **-0.3** |
| V40A | | | | S | **Sg** | **02 06 18.0** | **0.0** |
| **W40A** | **Ferguson Farm,** baz=75,SNR=112 | **0.68** | **255** | P | **Pg** | **02 06 10.8** | **-0.1** |
| W40A | | | | S | **Sg** | **02 06 20.1** | **+0.4** |
| **W40A** | **Ferguson Farm,** | **0.68** | **255** | *e*Pg | **Pg** | **02 06 10.7** | **-0.2** |
| W40A | | | | *e*Sb | **Sg** | **02 06 19.6** | **-0.1** |
| **V42A** | **Cord** baz=238,SNR=77 | **0.84** | **59** | P | **Pg** | **02 06 13.2** | **-0.7** |
| V42A | | | | S | **Sg** | **02 06 24.5** | **-0.3** |
| **X41A** | **Kaden, Bauxite** baz=14 | **0.90** | **193** | P | **Pg** | **02 06 14.4** | **-0.7** |
| X41A | | | | S | **Sg** | **02 06 26.6** | **-0.2** |
| **X42A** | **Stuttgart** baz=328 | **0.97** | **147** | P | **Pg** | **02 06 16.0** | **-0.6** |
| X42A | | | | S | **Sb** | **02 06 29.8** | **-0.6** |
| **X40A** | **Basin Creek Fa** baz=28 | **1.00** | **208** | P | **Pg** | **02 06 16.3** | **-0.7** |
| X40A | | | | S | **Sg** | **02 06 29.8** | **-0.1** |
| **U41A** | **Viola** baz=196,SNR=106 | **1.01** | **16** | P | **Pg** | **02 06 16.5** | **-0.7** |
| U41A | | | | S | **Sg** | **02 06 30.2** | **-0.1** |
| **U40A** | **Yellville** baz=154,SNR=206 | **1.09** | **334** | P | **Pg** | **02 06 18.0** | **-0.7** |
| U40A | | | | S | **Sg** | **02 06 32.5** | **-0.4** |
| **V39A** | **Pettigrew** baz=112,SNR=84 | **1.21** | **293** | P | **Pg** | **02 06 20.1** | **-1.0** |
| V39A | | | | S | **Sg** | **02 06 36.1** | **-0.8** |
| **W39A** | **Magazine** baz=82,SNR=52 | **1.25** | **262** | P | **Pg** | **02 06 20.9** | **-0.9** |
| W39A | | | | S | **Sg** | **02 06 37.8** | **-0.3** |
| **U42A** | **Revenden** baz=220,SNR=140 | **1.29** | **40** | P | **Pg** | **02 06 21.3** | **-1.2** |
| U42A | | | | S | **Sg** | **02 06 38.4** | **-0.8** |
| **W43A** | **Forest City** baz=283 | **1.31** | **102** | P | **Pn** | **02 06 21.9** | **-1.0** |
| W43A | | | | S | **Sg** | **02 06 39.6** | **-0.4** |
| **HBAR** | **Harrisburg** | **1.33** | **82** | *e*Pn | **Pn** | **02 06 22.5** | **-0.5** |
| HBAR | | | | *e*Sg | **Sg** | **02 06 39.5** | **-1.1** |
| **MIAR** | **Mount Ida** baz=52 | **1.35** | **233** | P | **Pn** | **02 06 22.5** | **-0.9** |
| MIAR | | | | S | **Sb** | **02 06 40.7** | **-0.6** |
| **MIAR** | **Mount Ida** | **1.35** | **233** | *e*Pn | **Pn** | **02 06 22.5** | **-0.9** |
| MIAR | | | | *e*Sg | **Sb** | **02 06 40.4** | **-0.9** |
| **U39A** | **Green Forest** baz=135,SNR=63 | **1.41** | **316** | Pb | **Pn** | **02 06 23.4** | **-0.8** |
| U39A | | | | S | **Sb** | **02 06 42.0** | **-0.9** |
| **X43A** | **Marvell** baz=307 | **1.43** | **126** | Pb | **Pn** | **02 06 23.8** | **-0.6** |
| X43A | | | | Sb | **Sn** | **02 06 43.6** | **+0.1** |
| **V43A** | **Jonesboro** baz=254,SNR=5.5 | **1.47** | **73** | Pb | **Pn** | **02 06 24.6** | **-0.4** |
| V43A | | | | Sb | **Sg** | **02 06 44.6** | **-0.4** |
| **CCAR** | **Cane Creek** | **1.51** | **164** | *e*Pn | **Pn** | **02 06 25.5** | **-0.1** |
| CCAR | | | | *e*Sn | **Sg** | **02 06 46.1** | **-0.2** |
| **Y41A** | **Eaglette Beard** baz=11,SNR=14 | **1.52** | **191** | Pb | **Pn** | **02 06 25.6** | **0.0** |
| Y41A | | | | Sb | **Sg** | **02 06 46.2** | **-0.3** |
| **Y42A** | **Garnett, Star** baz=346,SNR=20 | **1.58** | **165** | Pb | **Pn** | **02 06 26.5** | **0.0** |
| Y42A | | | | Sb | **Sg** | **02 06 48.2** | **-0.5** |
| **Y40A** | **Okolona** baz=32 | **1.59** | **212** | Pb | **Pn** | **02 06 26.6** | **-0.1** |
| Y40A | | | | Sb | **Sb** | **02 06 48.0** | **-0.2** |
| **HHAR** | **Hobbs** | **1.63** | **304** | *e*Pn | **Pn** | **02 06 27.3** | **+0.1** |
| HHAR | | | | *e*Sn | **Sn** | **02 06 47.9** | **-0.8** |
| **T41A** | **Mountain View** baz=193,SNR=43 | **1.72** | **14** | Pb | **Pn** | **02 06 28.6** | **+0.2** |
| T41A | | | | Sb | **Sb** | **02 06 51.7** | **-0.1** |
| **X39A** | **Fountain Ranch** baz=60,SNR=128 | **1.74** | **241** | Pb | **Pn** | **02 06 29.1** | **+0.3** |
| X39A | | | | Sb | **Sb** | **02 06 52.2** | **-0.3** |
| **T40A** | **Mansfield** baz=173,SNR=86 | **1.79** | **354** | Pb | **Pn** | **02 06 29.8** | **+0.5** |
| T40A | | | | Sb | **Sb** | **02 06 53.8** | **0.0** |
| **V38A** | **Canehill** baz=105,SNR=50 | **1.81** | **286** | Pb | **Pn** | **02 06 30.0** | **+0.3** |
| V38A | | | | Sb | **Sn** | **02 06 54.2** | **+1.2** |
| **U43A** | **Rector** baz=237,SNR=18 | **1.81** | **56** | Pb | **Pn** | **02 06 30.3** | **+0.6** |
| U43A | | | | Sb | **Sb** | **02 06 54.3** | **-0.2** |
| **WLAR** | **White Oak Lake** | **1.82** | **203** | *e*Pn | **Pn** | **02 06 30.0** | **+0.1** |
| WLAR | | | | *e*Sn | **Sn** | **02 06 53.0** | **-0.3** |
| **Y43A** | **Makayla and Ka** baz=324 | **1.83** | **142** | Sb | **Sb** | **02 06 55.4** | **+0.4** |
| **SFTN** | **Shelby Forest** | **1.84** | **90** | *e*Sn | **Sb** | **02 06 55.4** | **+0.1** |
| **W38A** | **Poteau** baz=80,SNR=52 | **1.86** | **261** | Pb | **Pn** | **02 06 31.2** | **+0.7** |
| W38A | | | | Sb | **Sb** | **02 06 56.4** | **+0.3** |
| **T39A** | **Clever** baz=151,SNR=53 | **1.88** | **332** | Pb | **Pn** | **02 06 31.3** | **+0.7** |
| T39A | | | | Sb | **Sb** | **02 06 56.7** | **+0.3** |
| **T42A** | **Van Buren** baz=210,SNR=55 | **1.91** | **30** | Pb | **Pn** | **02 06 31.9** | **+0.8** |
| **GNAR** | **Gosnell** | **1.93** | **71** | *e*Pn | **Pn** | **02 06 32.1** | **+0.8** |
| GNAR | | | | *e*Sn | **Sb** | **02 06 56.7** | **-1.1** |
| **MET** | **Memphis--Engin** | **1.93** | **97** | *e*Pn | **Pn** | **02 06 31.4** | **+0.1** |
| **X44A** | **Crenshaw** baz=297 | **1.95** | **116** | Pb | **Pb** | **02 06 32.8** | **-1.1** |
| **PBMO** | **Poplar Bluff** | **2.05** | **46** | *e*Pn | **Pn** | **02 06 34.2** | **+1.2** |
| PBMO | | | | *e*Sn | **Sn** | **02 06 58.2** | **-0.7** |
| **S40A** | **Lebanon** baz=175,SNR=37 | **2.23** | **355** | Pb | **Pn** | **02 06 36.8** | **+1.3** |
| **V37A** | **Hulbert** baz=102,SNR=18 | **2.39** | **283** | P | **Pn** | **02 06 38.0** | **+0.3** |
| **S39A** | **Bolivar** baz=159,SNR=27 | **2.46** | **340** | P | **Pn** | **02 06 39.1** | **+0.4** |
| **OXF** | **Oxford** baz=291 | **2.50** | **109** | P | **Pn** | **02 06 39.0** | **-0.2** |
| **OXF** | **Oxford** | **2.50** | **109** | *e*Pn | **Pn** | **02 06 39.3** | **+0.1** |
| OXF | | | | *e*Sn | **Sn** | **02 07 08.7** | **-1.4** |
| **U37A** | **Salina** baz=113,SNR=10 | **2.53** | **295** | P | **Pn** | **02 06 39.9** | **+0.3** |
| **GLAT** | **Glass** | **2.58** | **69** | *e*Pn | **Pb** | **02 06 44.0** | **-0.7** |
| GLAT | | | | *e*Sn | **Sn** | **02 07 11.3** | **-0.8** |
| **W37B** | **Quinton** | **2.60** | **266** | *e*Pn | **Pn** | **02 06 41.1** | **+0.6** |
| W37B | | | | *e*Sn | **Sn** | **02 07 11.8** | **-0.7** |
| **X37A** | **Clayton** | **2.66** | **254** | *e*Pn | **Pn** | **02 06 44.0** | **+2.5** |
| X37A | | | | *e*Sn | **Sn** | **02 07 14.3** | **+0.2** |
| **CCM** | **Cathedral Cave** | **2.80** | **17** | *e*Pn | **Pn** | **02 06 43.2** | **-0.2** |
| CCM | | | | *e*Sn | **Sn** | **02 07 18.4** | **+0.9** |
| **TUL1** | **Leonard** | **2.92** | **282** | *e*Pn | **Pn** | **02 06 45.2** | **+0.3** |
| TUL1 | | | | *e*Sn | **Sn** | **02 07 20.2** | **-0.2** |
| **FVM** | **French Village** | **3.00** | **29** | *e*Sn | **Sb** | **02 07 27.5** | **-1.2** |
| **W36A** | **Wetumka** | **3.25** | **267** | *e*Pn | **Pn** | **02 06 50.0** | **+0.5** |
| **SIUC** | **Southern Illin** | **3.39** | **46** | *e*Sb | **Sb** | **02 07 42.0** | **+2.0** |
| **PLAL** | **Pickwick Lake** | **3.46** | **95** | *e*Pb | **Pb** | **02 06 59.7** | **+0.1** |
| PLAL | | | | *e*Sn | **Sn** | **02 07 34.4** | **+0.6** |
| PLAL | | | | *e*Sb | **Sb** | **02 07 43.9** | **+2.0** |
| **OK021** | **N3530 Road, Sp** | **3.64** | **275** | *e*Pn | **Pn** | **02 06 55.1** | **+0.2** |
| **WVT** | **Waverly** | **3.69** | **77** | *e*Pb | **Pb** | **02 07 03.9** | **+0.4** |
| **V35A** | **Meyer Ranch, C** | **3.74** | **277** | *e*Pb | **Pb** | **02 07 06.3** | **+1.8** |
| **U35A** | **Pawnee** | **3.76** | **287** | *e*Pb | **Pb** | **02 07 04.4** | **-0.3** |
| U35A | | | | *e*Sg | **Sg** | **02 07 57.0** | **-1.5** |
| **OK020** | **N3440 Road, Me** | **3.76** | **274** | *e*Pb | **Pb** | **02 07 05.1** | **+0.3** |
| **W35A** | **Tecumseh** baz=86,SNR=8.0 | **3.77** | **268** | P | **Pn** | **02 06 56.4** | **-0.4** |
| **W35A** | **Tecumseh** | **3.77** | **268** | *e*Pn | **Pn** | **02 06 57.0** | **+0.2** |
| **X35A** | **Drake** | **3.99** | **257** | *e*Pb | **Pb** | **02 07 07.8** | **-0.7** |
| **LRAL** | **Lakeview Retre** | **4.95** | **117** | *e*Sb | **Sb** | **02 08 30.2** | **+5.3** |
| **SWET** | **Sewanee** | **5.19** | **90** | *e*Sb | **Sb** | **02 08 36.0** | **+4.3** |
| **WMOK** | **Wichita Mounta** | **5.38** | **265** | *e*Pb | **Pb** | **02 07 34.5** | **+2.2** |
| WMOK | | | | *e*Sb | **Sb** | **02 08 40.0** | **+2.8** |

*NIED* ***21*** *02:06:00, 39.60N×142.10E, h47km, Mw4.6 Best double couple: M07.56000×1015 NP1:φs89.00000°, δ8.00000°, λ-40.00000°. NP2:φs219.00000°, δ85.00000°, λ-96.00000°.*

*BJI* ***21*** *02:06:49.3, 39.55N×142.39E, h57km, mb4.7/61, mB5.0/39, Ms4.2/38, Ms7 3.9/40*

*MOS* ***21*** *02:06:50.1±1.0, 39.69N×142.00E, h46km, mb5.0/48, Error ellipse: s-maj=7.0km s-min=4.5km az=100.3*

*ISCJB* ***21*** *02:06:51.2±0.3, 39.64N±0.02×142.03E±0.02, h56km±2km, mb4.7/165, MS3.8/33, Error ellipse: s-maj=3.7km s-min=2.8km az=150.8*

*JMA* ***21*** *02:06:51.4, 39.63N×142.11E, h49km±1km, M4.7*

*JMA Felt III J1.*

*IDC* ***21*** *02:06:52.8±1.5, 39.61N×142.03E, h60km±13km, mb4.3/34, mb1 4.5/40, mb1mx4.4/53, mbtmp4.6/40, MS3.6/29, Ms1 3.6/29, ms1mx3.5/52, Error ellipse: s-maj=12.1km s-min=7.9km az=99.0*

*NEIC* ***21*** *02:06:53.5±0.5, 39.60N×141.94E, h63km±4km, mb4.7/101, Error ellipse: s-maj=4.1km s-min=3.2km az=141.0*

*NEIC Recorded [3 JMA] in Iwate and Miyagi.*

**ISC 21 02:06:51.8±0.5, 39.62N±0.03×142.20E±0.03, h53km±3km, h53km:pP-P, n624, σ1$57/645, mb4.7/172, MS3.8/36, 22C-12D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MIYJ** | **Miyakonagasawa** | **0.29** | **262** | P | **Pn** | **02 06 59.9** | **-1.3** |
| MIYJ | | | | S | **Sn** | **02 07 05.7** | **-2.2** |
| **JTH** | **Tanohata** | **0.41** | **321** | P | **Pn** | **02 07 01.0** | **-1.3** |
| JTH | | | | S | **Sn** | **02 07 07.8** | **-2.0** |
| **OFUJ** | **Ofunato** | **0.68** | **217** | P | **Pn** | **02 07 04.3** | **-1.1** |
| OFUJ | | | | S | **Sn** | **02 07 13.4** | **-1.8** |
| **JOM** | **Ohasama** | **0.71** | **258** | P | **Pn** | **02 07 04.7** | **-1.2** |
| JOM | | | | S | **Sn** | **02 07 14.1** | **-2.0** |
| **JKZ** | **Kuzumaki** | **0.76** | **299** | P | **Pn** | **02 07 05.3** | **-1.2** |
| JKZ | | | | S | **Sn** | **02 07 14.9** | **-2.3** |
| **JANG** | **Nango** | **0.92** | **325** | P | **Pn** | **02 07 07.1** | **-1.4** |
| JANG | | | | S | **Sn** | **02 07 18.1** | **-2.7** |
| **JMK** | **Ichinoseki** | **1.01** | **229** | P | **Pn** | **02 07 08.7** | **-1.0** |
| JMK | | | | S | **Sn** | **02 07 21.3** | **-1.7** |
| **JRG** | **Rokugo** | **1.23** | **260** | P | **Pn** | **02 07 11.5** | **-1.2** |
| **JAH** | **Hinai** | **1.33** | **296** | P | **Pn** | **02 07 13.0** | **-1.0** |
| JAH | | | | S | **Sn** | **02 07 29.4** | **-1.2** |
| **JTM** | **Tenmabayashi** | **1.45** | **324** | P | **Pn** | **02 07 14.7** | **-1.0** |
| JTM | | | | S | **Sn** | **02 07 32.1** | **-1.5** |
| **ERM** | **Erimo** | **2.50** | **17** | *e*P | **Pn** | **02 07 30.1** | **+0.1** |
| ERM | | | | *e* | | 02 07 59.8 | |
| **ERM** | **Erimo** | **2.50** | **17** | *e*Pn | **Pn** | **02 07 30.1** | **+0.1** |
| ERM | | | | *e*Sn | **Sn** | **02 07 59.8** | **+0.5** |
| **MAJO** | **Matsushiro** | **4.40** | **227** | *de*P | **Pn** | **02 07 56.8** | **+0.7** |
| **MAJO** | **Matsushiro** | **4.40** | **227** | *e*Pn | **Pn** | **02 07 57.2** | **+1.1** |
| **MAT** | **Matsushiro** | **4.40** | **227** | P | **Pn** | **02 07 56.4** | **+0.3** |
| MAT | | | | S | **Sn** | **02 08 52.1** | **+6.1** |
| **MJAR** | **Matsushiro Arr** 25nm,0.3s,baz=27,slow=12,SNR=140 | **4.40** | **227** | P | **Pn** | **02 07 57.4** | **+1.4** |
| MJAR | | | | LR | LR | 02 10 14.0 | |
| | comp=Z,192nm,21.8s,baz=30,slow=47 | | | | | | |
| **MJB9** | **Matsu-Tunnel** | **4.40** | **227** | *e*Pn | **Pn** | **02 07 57.4** | **+1.3** |
| **ASAJ** | **Asahikawa** 25nm,0.3s,baz=222,slow=8.6,SNR=20 | **4.50** | **4** | P | **Pn** | **02 07 57.9** | **+0.4** |
| ASAJ | | | | S | **Sn** | **02 08 50.0** | **+1.5** |
| | 19nm,0.3s,baz=60,slow=16,SNR=2.7 | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **5.19** | **31** | *c i*P | **Pn** | **02 08 06.3** | **-0.5** |
| YUK | | | | *i* S | **Sn** | **02 09 01.9** | **-3.4** |
| YUK | comp=N,152nm,0.2s | | | pmax | pmax | | |
| YUK | comp=E,103nm,0.2s | | | pmax | pmax | | |
| YUK | comp=Z,375nm,0.2s | | | pmax | pmax | | |
| YUK | comp=N,2μm,0.4s | | | smax | smax | | |
| YUK | comp=E,712nm,0.4s | | | smax | smax | | |
| YUK | comp=Z,678nm,11.0s | | | MLR | MLR | | |
| **SHO** | **Shikotan** | **5.48** | **38** | *e*P | **Pn** | **02 08 08.8** | **-2.0** |
| SHO | | | | *i* S | **Sn** | **02 09 06.6** | **-5.9** |
| SHO | comp=N,38nm,0.5s | | | pmax | pmax | | |
| SHO | comp=Z,129nm,0.5s | | | pmax | pmax | | |
| SHO | comp=E,95nm,0.3s | | | smax | smax | | |
| SHO | comp=E,2μm,0.4s | | | smax | smax | | |
| SHO | comp=N,981nm,0.3s | | | smax | smax | | |
| **INU** | **Inuyama** | **5.93** | **226** | *e*Pn | **Pn** | **02 08 18.5** | **+1.5** |
| **JHJ** | **Hachijo jima 2** comp=N,56nm,0.3s,baz=306,slow=21,SNR=13 | **6.77** | **197** | P | **Pn** | **02 08 28.0** | **-0.6** |
| JHJ | | | | S | **Sn** | **02 09 40.4** | **-4.0** |
| | comp=N,77nm,0.3s,baz=73,slow=19,SNR=3.6 | | | | | | |
| **JHJ2** | **Mitsune** | **6.77** | **197** | *e*Pn | **Pn** | **02 08 26.8** | **-1.8** |
| **KUR** | **Kuril'sk** | **7.00** | **35** | *d i*P | **Pn** | **02 08 32.5** | **+0.9** |
| KUR | | | | *e*S | **Sn** | **02 09 46.8** | **-3.0** |
| KUR | comp=Z,121nm,0.5s | | | pmax | pmax | | |
| KUR | comp=N,45nm,0.2s | | | pmax | pmax | | |
| KUR | comp=E,63nm,0.3s | | | smax | smax | | |
| KUR | comp=N,33nm,0.5s | | | smax | smax | | |
| KUR | comp=E,117nm,0.3s | | | smax | smax | | |
| **YSS** | **Yuzh-Sakhalins** | **7.34** | **3** | *e*P | **Pn** | **02 08 37.0** | **+0.7** |
| YSS | | | | *e*S | **Sn** | **02 09 59.4** | **+1.2** |
| YSS | comp=Z,40nm,0.9s | | | pmax | pmax | | |
| YSS | comp=N,70nm,1.4s | | | smax | smax | | |
| YSS | comp=Z,330nm,12.0s | | | MLR | MLR | | |
| **YSS** | **Yuzh-Sakhalins** | **7.34** | **3** | *e*Pn | **Pn** | **02 08 37.1** | **+0.8** |
| **VLA** | **Vladivostok** | **8.51** | **298** | *ce*P | **Pn** | **02 08 51.4** | **-0.8** |
| **USRK** | **Ussuriysk Ar.** comp=Z,2.7nm,0.3s,baz=112,slow=19,SNR=82 | **8.88** | **304** | P | **Pn** | **02 08 58.4** | **+1.1** |
| USRK | | | | LR | LR | 02 12 09.3 | |
| | comp=Z,859nm,21.6s,baz=107,slow=36 | | | | | | |
| **HABR** | **Khabarovsk** | **10.23** | **332** | *e*P | **Pn** | **02 09 12.9** | **-2.9** |
| HABR | | | | *e*S | **Sn** | **02 11 04.8** | **-4.1** |
| HABR | comp=N,16nm,1.3s | | | pmax | pmax | | |
| HABR | comp=E,23nm,1.3s | | | pmax | pmax | | |
| HABR | comp=Z,35nm,1.3s | | | pmax | pmax | | |
| HABR | comp=Z,150nm,10.0s | | | MLR | MLR | | |
| **MDJ** | **Mudanjiang** | **10.61** | **302** | P | **Pn** | **02 09 23.6** | **+2.6** |
| MDJ | | | | S | **Sn** | **02 11 22.1** | **+3.8** |
| MDJ | | | | ScS | **ScS** | **02 22 21.8** | **-1.7** |
| MDJ | comp=Z,130nm,1.0s | | | pmax | pmax | | |
| MDJ | comp=Z,68nm,5.2s | | | LR | LR | | |
| MDJ | comp=Z,310nm,16.2s | | | LR | LR | | |
| MDJ | comp=Z,420nm,25.2s | | | LR | LR | | |
| MDJ | comp=Z,610nm,17.9s | | | LR | LR | | |
| **MDJ** | **Mudanjiang** | **10.61** | **302** | *e*Pn | **Pn** | **02 09 23.2** | **+2.2** |
| **JNU** | **Nakatsue** comp=Z,0.9nm,0.3s,baz=60,slow=4.5,SNR=5.2 | **11.19** | **238** | P | **Pn** | **02 09 30.3** | **+1.2** |
| **JNU** | **Nakatsue** | **11.19** | **238** | *e*Pn | **Pn** | **02 09 32.9** | **+3.8** |
| **TYV** | **Tymovskoe** | **11.25** | **1** | *e*P | **Pn** | **02 09 29.3** | **-0.4** |
| TYV | | | | *e* | | 02 11 26.0 | |
| TYV | comp=Z,3.0nm,0.1s | | | pmax | pmax | | |
| **KSRS** | **Korea Array** comp=Z,4.4nm,0.3s,baz=72,slow=14,SNR=30 | **11.39** | **264** | P | **Pn** | **02 09 35.1** | **+3.4** |
| KSRS | | | | S | **Sn** | **02 11 39.1** | **+1.8** |
| | comp=Z,1.2nm,0.3s,baz=72,slow=24,SNR=5.5 | | | | | | |
| KSRS | | | | LR | LR | 02 13 33.3 | |
| | comp=Z,317nm,19.2s,baz=77,slow=36 | | | | | | |
| **KS01** | **Wonju Array Si** | **11.40** | **264** | *e*Pn | **Pn** | **02 09 35.0** | **+3.0** |
| **KS15** | **Wonju Array Si** | **11.42** | **264** | *e*Pn | **Pn** | **02 09 35.2** | **+3.0** |
| KS15 | | | | *e*Sn | **Sn** | **02 11 39.1** | **+0.9** |
| **KSAR** | **Wonju Array Be** | **11.42** | **264** | P | **Pn** | **02 09 35.1** | **+2.9** |
| **KSAR** | **Wonju Array Be** | **11.42** | **264** | P | **Pn** | **02 09 35.1** | **+2.9** |
| **TJN** | **Taejon** | **12.14** | **259** | *e*P | **Pn** | **02 09 40.4** | **-1.6** |
| **KLR** | **Kul'dur** comp=Z,0.0nm,0.3s,baz=133,slow=12,SNR=14 | **12.16** | **326** | P | **Pn** | **02 09 42.7** | **+0.6** |
| KLR | | | | LR | LR | 02 14 25.2 | |
| | comp=Z,39nm,18.4s,baz=150,slow=37 | | | | | | |
| **CBIJ** | **Chichi jima** | **12.49** | **180** | *e*Pn | **Pn** | **02 09 44.1** | **-2.7** |
| CBIJ | | | | *e*Sn | Sn | 02 11 51.8 | -13 |
| **JCJ** | **Chichijima** comp=Z,12nm,0.3s,baz=0.0,slow=20,SNR=6.4 | **12.49** | **180** | P | **Pn** | **02 09 46.5** | **-0.3** |
| JCJ | | | | S | Sn | 02 11 51.8 | -13 |
| | comp=Z,6.2nm,0.3s,baz=307,slow=20,SNR=2.9 | | | | | | |
| JCJ | | | | LR | LR | 02 16 38.2 | |
| | comp=Z,34nm,20.0s,baz=281,slow=47 | | | | | | |
| **CN2** | **Changchun** | **13.19** | **294** | *e*P | **Pn** | **02 09 56.8** | **+0.5** |
| CN2 | | | | *e*S | **Sn** | **02 12 21.5** | **+0.2** |
| CN2 | comp=Z,10.0nm,0.8s | | | pmax | pmax | | |
| CN2 | comp=Z,200nm,5.0s | | | pmax | pmax | | |
| CN2 | comp=Z,300nm,17.0s | | | LR | LR | | |
| CN2 | comp=Z,300nm,17.0s | | | LR | LR | | |
| CN2 | comp=Z,300nm,21.0s | | | LR | LR | | |
| **PETK** | **Petropavlovsk-** comp=Z,0.2nm,0.3s,baz=225,slow=5.9,SNR=4.9 | **17.16** | **33** | P | **P** | **02 10 51.9** | **+3.1** |
| PETK | | | | LR | LR | 02 17 49.6 | |
| | comp=Z,72nm,18.3s,baz=227,slow=38 | | | | | | |
| **PEA1** | **Petropavlovsk-** | **17.17** | **33** | *e*Pn | **P** | **02 10 51.9** | **+3.1** |
| **HIA** | **Hailar** | **18.65** | **309** | *de*P | **P** | **02 11 02.8** | **-2.3** |
| HIA | comp=Z,20nm,1.1s | | | pmax | pmax | | |
| **HIA** | **Hailar** comp=Z,19nm,1.0s | **18.65** | **309** | *e*P | **P** | **02 11 02.9** | **-2.2** |
| **BJI** | **Beijing** | **19.97** | **280** | P | **P** | **02 11 18.8** | **-0.8** |
| BJI | | | | S | **S** | **02 14 59.3** | **-2.0** |
| BJI | | | | sS | **sS** | **02 15 21.0** | **+0.5** |
| BJI | comp=Z,26nm,0.8s | | | pmax | pmax | | |
| BJI | comp=Z,100nm,3.4s | | | pmax | pmax | | |
| BJI | comp=Z,260nm,14.6s | | | LR | LR | | |
| BJI | comp=Z,240nm,31.1s | | | LR | LR | | |
| **BJT** | **Baijiatuau** | **19.98** | **280** | *e*P | **P** | **02 11 18.8** | **-0.9** |
| BJT | comp=Z,28nm,0.6s | | | pmax | pmax | | |
| **BJT** | **Baijiatuau** comp=Z,28nm,0.6s | **19.98** | **280** | *e*P | **P** | **02 11 18.8** | **-0.9** |
| **TIA** | **Tai'an** | **20.05** | **268** | *e*P | **P** | **02 11 18.3** | **-2.3** |
| TIA | comp=Z,80nm,0.9s | | | pmax | pmax | | |
| TIA | comp=Z,180nm,9.8s | | | LR | LR | | |
| TIA | comp=Z,490nm,15.6s | | | LR | LR | | |
| TIA | comp=Z,310nm,15.2s | | | LR | LR | | |
| **NJ2** | **Nanjing** | **20.34** | **255** | *e*P | Pn | 02 11 25.0 | -1.1 |
| NJ2 | comp=Z,44nm,0.8s | | | pmax | pmax | | |
| **CLNS** | **Chul'man** | **20.62** | **332** | *e*P | **P** | **02 11 25.6** | **-1.0** |
| CLNS | | | | *e* | | 02 11 39.6 | |
| CLNS | | | | *e*PPP | PPP | 02 11 52.0 | |
| CLNS | | | | *e*S | **S** | **02 15 12.5** | **-1.5** |
| CLNS | | | | *e*SS | SnSn | 02 15 52.5 | +16 |
| CLNS | comp=N,9.0nm,0.8s | | | pmax | pmax | | |
| CLNS | comp=Z,10.0nm,0.9s | | | pmax | pmax | | |
| CLNS | comp=E,4.0nm,0.9s | | | pmax | pmax | | |
| CLNS | comp=E,12nm,0.9s | | | pmax | pmax | | |
| CLNS | comp=Z,11nm,0.8s | | | pmax | pmax | | |
| CLNS | comp=N,20nm,0.9s | | | smax | smax | | |
| CLNS | comp=N,129nm,16.4s | | | smax | smax | | |
| CLNS | comp=E,326nm,16.2s | | | MLR | MLR | | |
| CLNS | comp=N,212nm,19.0s | | | MLR | MLR | | |
| CLNS | comp=Z,192nm,17.0s | | | MLR | MLR | | |
| **MA2** | **Magadan** comp=Z,22nm,0.7s,baz=204,slow=9.3,SNR=16 | **20.70** | **12** | P | **P** | **02 11 28.0** | **+0.7** |
| MA2 | | | | LR | LR | 02 18 59.5 | |
| | comp=Z,103nm,21.1s,baz=198,slow=35 | | | | | | |
| **MA2** | **Magadan** | **20.70** | **12** | *e*P | **P** | **02 11 28.1** | **+0.8** |
| **NACB** | **Ninganchiao** comp=Z,23nm,0.9s | **23.22** | **235** | *e*P | **P** | **02 11 52.7** | **-1.6** |
| **HHC** | **Hu-ho-hao-te** | **23.36** | **283** | *e*P | **P** | **02 11 56.3** | **+0.6** |
| HHC | | | | S | **S** | **02 15 59.8** | **-4.9** |
| HHC | | | | sS | Sn | 02 16 23.8 | -3.1 |
| HHC | | | | SS | **SnSn** | **02 16 49.3** | **+5.7** |
| HHC | comp=Z,27nm,1.1s | | | pmax | pmax | | |
| HHC | comp=Z,52nm,5.4s | | | pmax | pmax | | |
| HHC | comp=Z,160nm,15.3s | | | LR | LR | | |
| HHC | comp=Z,360nm,17.3s | | | LR | LR | | |
| HHC | comp=Z,260nm,16.9s | | | LR | LR | | |
| **YAK** | **Yakutsk** comp=Z,69nm,0.7s,baz=180,slow=2.7,SNR=13 | **23.70** | **345** | P | **P** | **02 11 57.1** | **-1.4** |
| **YAK** | **Yakutsk** | **23.70** | **345** | *e*P | **P** | **02 11 55.8** | **-2.7** |
| YAK | | | | *e*PP | **pP** | **02 12 08.3** | **-3.2** |
| YAK | | | | *e* | | 02 12 24.1 | |
| YAK | | | | *e* | | 02 15 42.3 | |
| YAK | | | | *e*S | **S** | **02 16 05.0** | **-4.5** |
| YAK | | | | *e*SS | **sS** | **02 16 29.3** | **-2.6** |
| YAK | | | | *e*SS | **SnSn** | **02 16 57.2** | **+5.8** |
| YAK | | | | *e* | | 02 23 08.2 | |
| YAK | comp=Z,63nm,1.0s | | | pmax | pmax | | |
| YAK | comp=N,25nm,1.2s | | | pmax | pmax | | |
| YAK | comp=E,11nm,1.1s | | | pmax | pmax | | |
| YAK | comp=N,11nm,0.8s | | | pmax | pmax | | |
| YAK | comp=Z,18nm,0.8s | | | pmax | pmax | | |
| YAK | comp=E,15nm,0.9s | | | pmax | pmax | | |
| YAK | comp=N,154nm,2.8s | | | smax | smax | | |
| YAK | comp=E,93nm,1.6s | | | smax | smax | | |
| **YAK** | **Yakutsk** comp=E,68nm,0.7s | **23.70** | **345** | *e*P | **P** | **02 11 56.0** | **-2.5** |
| **SEY** | **Seymchan** | **24.14** | **11** | P | **P** | **02 12 03.6** | **+1.1** |

comp=E,12nm,0.8s,baz=193,slow=8.6,SNR=36
**BOD Bodaibo 25.73 324** *e*P **P 02 12 15.8 -1.2**
BOD pmax pmax
comp=Z,18nm,0.9s
**GUMO Guam 26.04 174** LR LR 02 22 25.6
comp=Z,50nm,21.5s,baz=68,slow=36
**ULN Ulaanbaatar 26.51 300**⇓ *e*P **P 02 12 22.7 -1.7**
ULN pmax pmax
comp=Z,11nm,1.2s
**ULN Ulaanbaatar 26.51 300** *e*P **P 02 12 24.1 -0.2**
comp=Z,6.9nm,0.8s
**SONA1 Songino Array 26.94 300** *e*P **P 02 12 27.0 -1.3**
**SONA0 Songino Array 26.95 300** *e*P **P 02 12 27.3 -1.0**
**SONM Songino Array 26.95 300** P **P 02 12 27.3 -1.0**
comp=Z,3.7nm,0.6s,baz=90,slow=8.8,SNR=23
SONM LR LR 02 23 31.4
comp=Z,286nm,19.7s,baz=96,slow=37
**XAN Xi'an 27.11 269** P **P 02 12 28.5 -1.3**
XAN pmax pmax
comp=Z,12nm,0.7s
**ENH Enshi 28.26 261** *e*P **P 02 12 38.6 -1.5**
comp=Z,25nm,0.9s
**H11N2 WAKE ISLAND Hy 29.05 126** T T 02 43 17.5
baz=318,slow=76,SNR=3810
**H11N1 WAKE ISLAND Hy 29.06 126** T T 02 43 20.5
baz=318,slow=76
**H11N3 WAKE ISLAND Hy 29.07 126** T T 02 43 25.1
baz=318,slow=76
**TLY Talaya 29.18 307** P **P 02 12 47.1 -0.9**
comp=Z,2.9nm,0.5s,baz=87,slow=5.4,SNR=3.6
**TLY Talaya 29.18 307** *e*P **P 02 12 47.6 -0.4**
TLY pmax pmax
comp=Z,9.0nm,0.9s
TLY MLR MLR
comp=Z,224nm,21.0s
**ZAK Zakamensk 29.23 305** *e*P **P 02 12 47.5 -1.1**
ZAK pmax pmax
comp=Z,7.0nm,1.0s
**H11S1 WAKE ISLAND Hy 29.85 128** T T 02 44 22.4
baz=320,slow=76,SNR=993
**H11S3 WAKE ISLAND Hy 29.85 128** T T 02 44 20.1
baz=320,slow=76,SNR=873
**H11S2 WAKE ISLAND Hy 29.87 128** T T 02 44 27.0
baz=320,slow=76,SNR=634
**LZH Lanzhou 30.33 276** *e*P **P 02 12 57.3 -1.2**
LZH pP pP 02 13 13.4 +1.4
LZH sP sP 02 13 19.6 +1.4
LZH PcP **PcP 02 15 58.8 +1.2**
LZH *e*S **S 02 17 46.8 -8.4**
LZH pmax pmax
comp=Z,24nm,1.0s
LZH pmax pmax
comp=Z,160nm,5.4s
LZH LR LR
comp=Z,1μm,11.8s
LZH LR LR
comp=Z,1μm,12.2s
LZH LR LR
comp=Z,1μm,15.1s
**BILL Bilibino 31.38 17**⇓ *e*P **P 02 13 08.2 +1.0**
BILL pmax pmax
comp=Z,10.0nm,2.5s
BILL MLR MLR
comp=Z,95nm,19.0s
**GYA Guiyang 32.34 257** P **P 02 13 14.5 -1.7**
GYA pP sP 02 13 33.3 -2.6
GYA sP pP 02 13 40.0 +10
GYA PP **PnPn 02 14 25.6 +1.4**
GYA S **S 02 18 24.0 -2.5**
GYA sS sS 02 18 50.4 +1.1
GYA SS **SnSn 02 20 20.8 -1.7**
GYA pmax pmax
comp=Z,20nm,0.8s
GYA pmax pmax
comp=Z,110nm,5.0s
GYA LR LR
comp=Z,520nm,17.2s
GYA LR LR
comp=Z,480nm,17.8s
GYA LR LR
comp=Z,470nm,18.0s
**CD2 Chengdu 32.37 266** *e*P **P 02 13 17.3 +1.0**
CD2 pP pP 02 13 26.8 -3.0
CD2 sP sP 02 13 36.6 +0.5
CD2 S **S 02 18 20.3 -6.5**
CD2 pmax pmax
comp=Z,10.0nm,1.0s
CD2 LR LR
comp=Z,210nm,12.3s
CD2 LR LR
comp=Z,190nm,16.1s
**GTA Gaotai 32.48 283** *e*P **P 02 13 17.4 +0.1**
GTA pP pP 02 13 32.0 +1.2
GTA sP sP 02 13 39.5 +2.5
GTA S **S 02 18 24.1 -4.4**
GTA sS sS 02 18 49.3 -2.0
GTA pmax pmax
comp=Z,4.0nm,0.6s
GTA pmax pmax
comp=Z,70nm,7.1s
GTA LR LR
comp=Z,110nm,15.4s
GTA LR LR
comp=Z,280nm,17.3s
GTA LR LR
comp=Z,350nm,19.2s
**TIXI Tiksi 32.81 352** P **P 02 13 18.6 -1.0**
comp=Z,3.6nm,0.5s,baz=157,slow=6.3,SNR=6.8
**TIXI Tiksi 32.81 352** *e*P **P 02 13 19.0 -0.6**
**TIXI Tiksi 32.81 352** *e*P **P 02 13 19.0 -0.6**
**QIZ Qiongzhong 34.60 243** P **P 02 13 34.4 -1.4**
QIZ S **S 02 18 58.5 -3.0**
QIZ sS **sS 02 19 28.1 +3.7**
QIZ pmax pmax
comp=Z,240nm,6.3s
QIZ LR LR
comp=Z,60nm,22.2s
**HVS Khovu-Aksy 35.34 305**⇓ *e*P **P 02 13 41.5 -0.5**
HVS pmax pmax
comp=Z,17nm,0.7s
**KMI Kunming 36.02 258** P **P 02 13 49.4 +1.1**
KMI pmax pmax
comp=Z,11nm,0.8s
KMI LR LR
comp=Z,190nm,10.8s
KMI LR LR
comp=Z,240nm,16.0s
KMI LR LR
comp=Z,160nm,18.8s
**DGZ Jazzator, Alta 39.43 303** *c i*P **P 02 14 16.6 -0.1**
DGZ pmax pmax
comp=Z,11nm,1.1s
**WMQ Urumqi 40.28 294** P **P 02 14 23.8 +0.1**
WMQ pP pP 02 14 35.5 -2.0
WMQ sP sP 02 14 44.6 +0.9
WMQ pmax pmax
comp=Z,32nm,0.9s
WMQ pmax pmax
comp=Z,270nm,6.3s
WMQ LR LR
comp=Z,64nm,20.7s
WMQ LR LR
comp=Z,140nm,30.9s
WMQ LR LR
comp=Z,190nm,32.7s
**ZAA0 Zalesovo Array 40.67 310** *e*P **P 02 14 26.2 -0.5**
comp=Z,15nm,0.7s
**ZAA1 Zalesovo Array 40.67 310** *e*P **P 02 14 26.0 -0.7**
**ZALV Zalesovo Beam 40.67 310** P **P 02 14 26.0 -0.7**
comp=Z,17nm,0.4s,baz=92,slow=8.3,SNR=87
ZALV LR LR 02 32 07.9
comp=Z,179nm,19.4s,baz=70,slow=37
**ZALV Zalesovo Beam 40.67 310** *e*P **P 02 14 25.1 -1.6**
**NVS Novosibirsk 41.54 312** *e*P **P 02 14 32.9 -0.9**
**CHTO Chiang Mai 42.57 254** *e*P **P 02 14 41.2 -1.4**
CHTO pmax pmax
comp=Z,7.0nm,0.8s
**CHTO Chiang Mai 42.57 254** *e*P **P 02 14 41.2 -1.4**
comp=Z,7.2nm,0.8s
**LSA Lhasa 42.64 273** P **P 02 14 43.8 +0.1**
LSA pmax pmax
comp=Z,6.0nm,0.8s
**LSA Lhasa 42.64 273** *e*P **P 02 14 46.3 +2.6**
LSA pmax pmax
comp=Z,9.0nm,0.9s
**LSA Lhasa 42.64 273** *e*P **P 02 14 46.3 +2.6**
comp=Z,9.2nm,0.9s
**CM31 Chiang Mai Arr 42.79 253** *e*P **P 02 14 47.2 +2.8**
**CMAR Chiang Mai Arr 42.79 253** P **P 02 14 47.2 +2.8**
comp=Z,1.6nm,0.4s,baz=40,slow=7.1,SNR=6.6
CMAR LR LR 02 34 14.7
comp=Z,41nm,18.6s,baz=43,slow=38
**MK01 Makanchi Array 43.31 300** *e*P **P 02 14 47.5 -0.9**
**MK31 Makanchi Array 43.32 300** *e*P **P 02 14 47.9 -0.5**
**MK31 Makanchi Array 43.32 300** *e*P **P 02 14 47.9 -0.5**
**MK32 Makanchi Array 43.32 300** *e*P **P 02 14 47.6 -0.8**
**MKAR Makanchi Array 43.32 300** P **P 02 14 47.6 -0.8**
comp=Z,9.7nm,0.7s,baz=84,slow=9.5,SNR=70
MKAR LR LR 02 33 40.0
comp=Z,153nm,19.2s,baz=50,slow=37
**MAKZ Makanchi 43.52 300** *e*P **P 02 14 49.2 -0.8**
MAKZ pmax pmax
comp=Z,13nm,0.8s
**MAKZ Makanchi 43.52 300** *e*P **P 02 14 49.2 -0.8**
comp=Z,13nm,0.8s
**IMAR Indian Mountai 44.12 32** *e*P **P 02 14 54.8 +0.2**
**KDAK Kodiak Island 44.78 44** P **P 02 15 00.7 +0.8**
comp=Z,12nm,0.5s,baz=292,slow=3.5,SNR=20
**KDAK Kodiak Island 44.78 44** *e*P **P 02 15 00.7 +0.8**
KDAK pmax pmax
comp=Z,113nm,1.4s
**KDAK Kodiak Island 44.78 44** *e*P **P 02 15 00.7 +0.8**
comp=Z,113nm,1.4s
**KURK Kurchatov 44.86 306** *ce*P **P 02 14 59.5 -1.2**
KURK pmax pmax
comp=Z,39nm,0.6s
**KURK Kurchatov 44.86 306** *e*P **P 02 14 59.7 -0.9**
comp=Z,42nm,0.6s
**KTH Kantishna Hill 45.27 35** *e*P **P 02 15 06.1 +2.2**
comp=Z,134nm,0.8s
**MLY Manley 45.34 33** *e*P **P 02 15 06.5 +2.2**
comp=Z,6.5nm,0.6s
**PDGK Podgornoye 46.15 296** P **P 02 15 10.7 -0.5**
PDGK pmax pmax
comp=Z,17nm,0.8s
**MDM Murphy Dome 46.41 33** *e*P **P 02 15 14.7 +2.0**
comp=Z,10nm,0.8s
**TAPN Taplejung 46.42 272** *e*P **P 02 15 14.0 +0.3**
comp=Z,32nm,0.7s
**ODAN Odare 46.91 272** *e*P **P 02 15 16.9 -0.5**
comp=Z,28nm,0.7s
**IL1 Eielson Array 46.99 34** *e*P **P 02 15 17.7 +0.5**
**ILAR Eielson Array 46.99 34** P **P 02 15 18.2 +0.9**
comp=Z,5.0nm,0.7s,baz=262,slow=5.8,SNR=84
**ILB Eielson Array 46.99 34** *e*P **P 02 15 18.4 +1.1**
**JIRN Jiri 47.44 273** *e*P **P 02 15 22.4 +0.7**
comp=Z,258nm,0.6s
**RAMN Ramite 47.48 272** *e*P **P 02 15 20.4 -1.4**
comp=Z,58nm,0.7s
**GUN Gumba 47.56 274** *e*P **P 02 15 22.0 -0.6**
comp=Z,86nm,0.6s
**KKN Kakani 48.08 274** *e*P **P 02 15 26.0 -0.5**
comp=Z,80nm,0.7s
**PKI Pulchoki 48.09 274** *e*P **P 02 15 25.5 -1.2**
comp=Z,20nm,0.4s
**PKIN Phulchoki 48.09 274** *e*P **P 02 15 25.6 -1.0**
comp=Z,28nm,0.6s
**DANN Dangsing 48.98 275** *e*P **P 02 15 33.4 0.0**
comp=Z,4.5nm,0.7s
**TKM2 Tokmak 2 48.98 297** P **P 02 15 32.5 -0.7**
TKM2 pmax pmax
comp=Z,31nm,1.0s
**BRVK Borovoye 49.37 311** *e*P **P 02 15 35.5 -0.3**
BRVK pmax pmax
comp=Z,7.0nm,0.6s
**BRVK Borovoye 49.37 311** *e*P **P 02 15 35.5 -0.3**
comp=Z,7.1nm,0.6s
**KOLN Koldanda 49.38 275** *e*P **P 02 15 35.8 -0.6**
comp=Z,22nm,0.5s
**EGAK Eagle 49.43 33** *e*P **P 02 15 37.1 +1.1**
comp=Z,20nm,1.5s
**PYUN Piuthan 49.69 276** *e*P **P 02 15 38.3 -0.5**
comp=Z,58nm,0.7s
**AAK Ala-Archa 49.84 297** *c i*P **P 02 15 38.8 -0.9**
AAK pmax pmax
comp=Z,3.0nm,0.4s
**AAK Ala-Archa 49.84 297** *e*P **P 02 15 39.0 -0.7**
comp=Z,10nm,1.1s
**KSH Kashi 49.95 292** P P 02 15 45.9 +5.4
KSH pP sP 02 16 01.6 +0.8
KSH PcP **PcP 02 17 05.4 +5.3**
KSH PP **PP 02 17 42.6 +7.0**
KSH S **S 02 22 50.8 +3.5**
KSH ScS **ScS 02 25 28.8 +1.5**
KSH SS **SS 02 26 20.8 +0.5**
KSH pmax pmax
comp=Z,6.0nm,0.7s
KSH pmax pmax
comp=Z,64nm,2.9s
KSH LR LR
comp=Z,74nm,5.5s
KSH LR LR
comp=Z,65nm,4.9s
KSH LR LR
comp=Z,110nm,6.3s
**MNAS Manas 51.27 297** P **P 02 15 50.0 -0.4**
MNAS pmax pmax
comp=Z,17nm,0.8s
**HNR Honiara 51.51 157** LR LR 02 34 06.5
comp=Z,42nm,21.0s,baz=346,slow=32
**SFK Sufi-Kurgan 51.52 294** P **P 02 15 51.7 -0.7**
SFK pmax pmax
comp=Z,7.0nm,0.6s
**INK Inuvik 51.81 28** P **P 02 15 55.3 +1.5**
comp=Z,8.7nm,0.4s,baz=291,slow=6.6,SNR=112
**INK Inuvik 51.81 28** *e*P **P 02 15 55.4 +1.5**
INK pmax pmax
comp=Z,25nm,1.3s
**INK Inuvik 51.81 28** *e*P **P 02 15 55.4 +1.5**
comp=Z,25nm,1.3s
**HYT Haines Junctio 51.87 38** *e*P **P 02 15 57.6 +3.0**
comp=Z,26nm,1.0s
**KK31 Karatay Array 52.40 299** P **P 02 15 58.1 -0.6**
KK31 pmax pmax
comp=Z,7.0nm,0.6s
**KKAR Karatay Array 52.40 299** *e*P **P 02 15 57.4 -1.2**
KKAR pmax pmax
comp=Z,9.0nm,0.6s
**KKAR Karatay Array 52.40 299** *e*P **P 02 15 57.4 -1.2**
comp=Z,8.7nm,0.6s
**SVE Sverdlovsk 53.64 318**⇑ *e*P **P 02 16 07.7 +0.2**
SVE pmax pmax
comp=Z,20nm,0.6s
**ARU Arti 54.85 318** *c i*P **P 02 16 15.8 -0.6**
ARU *PP **pP 02 16 30.1 -0.6**
ARU 02 18 19.8
ARU PPP PPP 02 19 32.8
ARU S **S 02 23 53.5 +0.1**
ARU SS **SS 02 27 37.7 +1.0**
ARU pmax pmax
comp=Z,18nm,0.8s
**ARU Arti 54.85 318** *e*P **P 02 16 15.4 -1.0**
comp=Z,17nm,0.6s
**AB31 Akbulak array 56.77 309** P **P 02 16 29.3 -0.9**
AB31 pmax pmax
comp=Z,11nm,0.6s
**ABKAR Akbulak array 56.77 309** *e*P **P 02 16 29.4 -0.8**
comp=Z,140nm,0.6s
**KBL Kabul 57.09 290** *e*P **P 02 16 32.6 -0.4**
KBL pmax pmax
comp=Z,8.0nm,1.0s
**KBL Kabul 57.09 290** *e*P **P 02 16 32.6 -0.4**
comp=Z,8.3nm,1.0s
**AKTO Aktyubinsk 57.43 311** LR LR 02 42 33.2
comp=Z,82nm,19.6s,baz=69,slow=37
**SPITS Spitsbergen Ar 58.11 349** P **P 02 16 40.2 +0.9**
comp=Z,6.4nm,1.0s,baz=46,slow=4.8,SNR=7.7
**FITZ Fitzroy Crossi 59.47 198** P **P 02 16 49.0 -0.3**
comp=Z,5.3nm,0.8s,baz=21,slow=5.4,SNR=14
**CTA Charters Tower 59.52 176** P **P 02 16 49.0 -0.6**
comp=Z,6.3nm,1.0s,baz=9,6,slow=7.1,SNR=3.8
**WRAB Tennant Creek 59.70 189** *d i*P **P 02 16 49.6 -1.3**
WRAB pmax pmax
comp=Z,27nm,0.6s
**WRAB Tennant Creek 59.70 189** *e*P **P 02 16 49.7 -1.1**
comp=Z,16nm,0.9s
**WB2 Warramunga Arr 59.70 189** *e*P **P 02 16 49.3 -1.6**
**WR1 Warramunga Arr 59.70 189** *e*P **P 02 16 49.9 -1.0**
comp=Z,16nm,0.6s
**WRA Warramunga Arr 59.70 189** P **P 02 16 49.9 -1.1**
comp=Z,14nm,0.6s,baz=7.4,slow=7.0,SNR=100
**RES Resolute Bay 59.95 15** P **P 02 16 52.1 +0.2**
comp=Z,3.3nm,0.5s,baz=316,slow=6.1,SNR=25
**YKW3 Yellowknife Ar 61.23 31** *e*P **P 02 17 01.5 +0.7**
comp=Z,19nm,1.8s
**YKA Yellowknife Ar 61.27 31** P **P 02 17 01.7 +0.6**
comp=Z,1.7nm,0.7s,baz=301,slow=6.3,SNR=24
**YKB5 Yellowknife Ar 61.27 31** *e*P **P 02 17 01.7 +0.6**
**ARA0 ARCESS Array S 61.80 339** *e*P **P 02 17 04.5 -0.1**
**ARCES ARCESS Array B 61.80 339** P **P 02 17 04.5 -0.1**
comp=Z,4.9nm,0.9s,baz=44,slow=7.1,SNR=9.7
**KLMR Klimovskoe 61.91 327** *e*P P 02 17 00.0 -5.5
KLMR pmax pmax
comp=Z,15nm,1.6s
**TULEG Thule 62.46 8** *e*P **P 02 17 08.7 -0.2**
comp=Z,23nm,1.4s
**GEYT Alibeck 63.14 298** P **P 02 17 13.6 -0.5**
comp=Z,2.9nm,0.7s,baz=22,slow=4.8,SNR=6.5
GEYT LR LR 02 46 29.2
comp=Z,52nm,18.4s,baz=315,slow=38
**DAG Danmarks Havn 63.25 355** *e*P **P 02 17 18.5 +4.3**
DAG pmax pmax
comp=Z,7.0nm,0.8s
**DAG Danmarks Havn 63.25 355** *i*P **P 02 17 18.5 +4.3**
comp=Z,7.4nm,0.8s
**AS01 Alice Springs 63.42 188** *e*P **P 02 17 15.3 -0.6**
**AS31 Alice Springs 63.43 189** *e*P **P 02 17 15.6 -0.4**
comp=Z,2.2nm,0.6s
**ASAR Alice Springs 63.43 189** P **P 02 17 15.6 -0.5**
comp=Z,8.5nm,0.8s,baz=3.9,slow=4.9,SNR=44
ASAR LR LR 02 43 56.3
comp=Z,44nm,21.5s,baz=8.5,slow=35
**EIDS Eidsvold 65.18 171** *e*P **P 02 17 28.2 +0.9**
**DZM Mont Dzumac 65.42 155** P **P 02 17 30.7 +1.6**
comp=Z,9.3nm,0.8s,baz=4.8,slow=12,SNR=7.0
DZM LR LR 02 42 13.6
comp=Z,59nm,20.1s,baz=293,slow=32
**DZM Mont Dzumac 65.42 155** *e*P **P 02 17 30.7 +1.6**
comp=Z,48nm,1.6s
**VRH Novokhopyorsk 66.09 317** *e*P **P 02 17 31.3 -1.7**
VRH pmax pmax
comp=Z,7.0nm,0.6s
**OBN Obninsk 66.40 323** LR LR 02 48 38.2
comp=Z,49nm,18.1s,baz=88,slow=38
**OBN Obninsk 66.40 323**⇑ *i*P **P 02 17 34.9 -0.1**
OBN *i* 02 17 57.9
OBN *e* 02 18 04.4
OBN *e* 02 19 57.6
OBN pmax pmax
comp=Z,5.0nm,0.9s
OBN MLR MLR
comp=Z,98nm,15.0s
**B08A Colville Reser 66.58 46** *e*P **P 02 17 38.5 +2.1**
comp=Z,10nm,1.4s
**LPSR Galich'ya Gora 66.72 320** *e*P **P 02 17 36.5 -0.6**
LPSR pmax pmax
comp=Z,6.0nm,0.7s
**I03D Drain, OR 66.81 52** P **P 02 17 40.0 +2.2**
baz=303
**FIA1 FINESS Array S 66.82 332** *e*P **P 02 17 37.4 -0.1**
**FIA0 FINESS Array S 66.82 332** *e*P **P 02 17 37.3 -0.3**
**FIA0 FINESS Array S 66.82 332** *e*P **P 02 17 37.3 -0.3**
**FINES FINESS Array B 66.82 332** P **P 02 17 37.3 -0.3**
comp=Z,6.6nm,0.6s,baz=31,slow=9.1,SNR=30
FINES LR LR 02 48 12.6
comp=Z,114nm,20.3s,baz=38,slow=37
**YA2 Yakima 66.92 48** *e*P **P 02 17 36.3 -2.3**
**H04A Detroit Lake 66.97 50** *e*P **P 02 17 40.6 +1.7**
comp=Z,16nm,1.1s
**G05D Wamic, OR 67.18 50** P **P 02 17 41.9 +1.8**
baz=304
**I04A Tendick Farm, 67.33 51** P **P 02 17 42.8 +1.6**
baz=304
**VSR Storozhevoye 67.40 318** *e*P **P 02 17 40.3 -1.1**
VSR pmax pmax
comp=Z,3.0nm,0.5s
**C09A Chrisman Ranch 67.49 46** *e*P **P 02 17 43.7 +1.7**
comp=Z,23nm,1.4s
**L02D Cave Junction, 67.50 53** P **P 02 17 44.1 +1.8**
baz=304
**F07A Phinny Hill Vi 67.62 48** *e*P **P 02 17 45.1 +2.2**
comp=Z,10.0nm,0.9s
**I05D Terrebonne, OR 67.67 50** P **P 02 17 45.0 +1.7**
baz=304
**J04D Umpqua Nationa 67.82 52** P **P 02 17 46.0 +1.5**
baz=304
**NEW Newport 67.86 45** P **P 02 17 46.0 +1.5**
comp=Z,4.6nm,1.1s,baz=282,slow=14,SNR=3.6
**NEW Newport 67.86 45** P **P 02 17 46.0 +1.5**
baz=305
**NEW Newport 67.86 45** P **P 02 17 46.0 +1.5**
**SUMG Summit 68.10 0** *i*P **P 02 17 46.6 +0.6**
SUMG pmax pmax
comp=Z,6.0nm,0.9s
**SUMG Summit 68.10 0** *i*P **P 02 17 46.6 +0.6**
comp=Z,5.8nm,0.9s
**SUMG Summit 68.10 0** *e*P **P 02 17 46.6 +0.6**
comp=Z,27nm,1.7s
**E09A Wood Farm, Sta 68.29 47** *e*P **P 02 17 48.6 +1.5**
comp=Z,9.9nm,1.2s
**J05D Fort Rock, OR 68.32 51** P **P 02 17 49.4 +1.8**
baz=305
**N02D Trinity Center 68.72 54** P **P 02 17 51.8 +1.8**
baz=305
**M04C Macdoel 68.80 53** P **P 02 17 52.4 +1.9**
baz=305
**WALA Waterton Lakes 69.12 43** *e*P **P 02 17 53.9 +1.5**
comp=Z,5.8nm,0.9s
**O03D Paynes Creek 69.67 54** P **P 02 17 57.4 +1.5**
baz=305
**KVAR Kislovodsk Arr 69.68 311** LR LR 02 50 26.6
comp=Z,60nm,18.6s,slow=38
**KIV Kislovodsk 69.69 311** *e*P **P 02 17 56.8 +0.9**
KIV pmax pmax
comp=Z,17nm,1.1s
KIV MLR MLR
comp=Z,39nm,17.0s
**KIV Kislovodsk 69.69 311** *e*P **P 02 17 57.0 +1.1**
comp=Z,20nm,0.6s
**KBZ Khabaz 69.69 310** P **P 02 17 56.4 +0.5**
comp=Z,3.7nm,0.6s,baz=45,slow=2.9,SNR=12
KBZ LR LR 02 53 53.5
comp=Z,61nm,18.1s,baz=52,slow=40
**JTMT Jette 69.71 44** *e*P **P 02 17 57.9 +1.9**
comp=Z,16nm,1.1s
**ORV Oroville 70.29 55** *e*P **P 02 18 00.8 +1.2**
ORV pmax pmax
comp=Z,3.0nm,0.8s
**ORV Oroville 70.29 55** *e*P **P 02 18 00.8 +1.2**
comp=Z,3.3nm,0.8s
**MSO Missoula 70.44 45** P **P 02 18 01.9 +1.3**
baz=308
**MSO Missoula 70.44 45** *e*P **P 02 18 01.8 +1.3**
comp=Z,8.8nm,1.1s
**GNI Garni 70.66 306** LR LR 02 52 01.1
comp=Z,72nm,19.8s,baz=74,slow=38
**NACGM Naroch 70.91 326** *e* **P 02 18 07.0 +3.9**
**STKA Stephens Creek 71.14 181** P **P 02 18 04.8 +0.2**
comp=Z,4.1nm,0.6s,baz=360,slow=8.1,SNR=12
**STKA Stephens Creek 71.14 181** *e*P **P 02 18 04.9 +0.3**
STKA pmax pmax
comp=Z,1.0nm,1.0s
**STKA Stephens Creek 71.14 181** *e*P **P 02 18 04.9 +0.3**
comp=Z,1.3nm,1.0s
**FFC Flin Flon 71.20 33** *e*P **P 02 18 05.7 +0.8**
FFC pmax pmax
comp=Z,8.0nm,1.1s
**FFC Flin Flon 71.20 33** *e*P **P 02 18 05.7 +0.8**
comp=Z,7.7nm,1.1s
**MFID Camas Ranch 71.44 49** *e*P **P 02 18 08.2 +1.5**
comp=Z,8.7nm,1.3s
**HRY Holter Researc 71.66 44** *e*P **P 02 18 09.6 +1.6**
**PNTR Pine Nut 71.75 54** *e*P **P 02 18 10.8 +2.1**
comp=Z,7.8nm,1.0s
**CMB Columbia Colle 71.88 55** *e*P **P 02 18 11.1 +1.8**
CMB pmax pmax
comp=Z,5.0nm,0.8s
**CMB Columbia Colle 71.88 55** *e*P **P 02 18 11.1 +1.8**
comp=Z,5.4nm,0.8s
**EGMT Eagleton 71.93 42** P **P 02 18 10.5 +1.0**
baz=310,SNR=6.6
**EGMT Eagleton 71.93 42** *e*P **P 02 18 10.8 +1.3**
comp=Z,13nm,1.0s
**HFS Hagfors 71.99 336** LR LR 02 51 39.8
comp=Z,71nm,20.6s,baz=67,slow=37
**NC204 NORSAR Array S 71.99 338** *e*P **P 02 18 10.3 +0.7**
**YERR Yerington 72.04 54** *e*P **P 02 18 12.4 +2.0**
comp=Z,11nm,1.0s
**NB2 NORSAR Subarra 72.04 337** P **P 02 18 10.0 +0.2**

comp=Z,2.0nm,0.5s,baz=36,slow=6.5
**NB200 NORSAR Array S 72.04 337** *e*P P 02 18 10.1 +0.2
**NOA NORSAR Array B 72.04 337** P P 02 18 10.1 +0.2
comp=Z,2.0nm,0.5s,baz=277,slow=7.1,SNR=11
NOA LR LR 02 53 56.2
comp=Z,41nm,18.5s,baz=40,slow=39
**DLMT Dillon 72.08 46** *e*P P 02 18 12.4 +1.8
comp=Z,8.0nm,0.8s
**HLID Hailey 72.17 48** P P 02 18 12.1 +0.9
baz=308
**HLID Hailey 72.17 48** *e*P P 02 18 12.7 +1.6
comp=Z,3.0nm,0.9s
**ANN Anapa 72.19 314** *e*P P 02 18 11.7 +0.8
ANN pmax pmax
comp=Z,49nm,1.1s
**BMN Battle Mountai 72.42 52** *e*P P 02 18 14.8 +2.2
BMN pmax pmax
comp=Z,12nm,1.3s
**BMN Battle Mountai 72.42 52** *e*P P 02 18 14.8 +2.2
comp=Z,12nm,1.3s
**BOZ Bozeman (W) 72.47 45** P P 02 18 14.0 +1.2
baz=309,SNR=13
**BOZ Bozeman (W) 72.47 45** *e*P P 02 18 14.0 +1.2
BOZ pmax pmax
comp=Z,6.0nm,0.8s
**BOZ Bozeman (W) 72.47 45** *e*P P 02 18 14.0 +1.2
comp=Z,6.1nm,0.8s
**AKASG Malin Array Be 72.63 322** P P 02 18 12.7 -0.8
comp=Z,3.3nm,0.4s,baz=45,slow=6.4,SNR=14
AKASG LR LR 02 54 15.1
comp=Z,33nm,18.3s,baz=295,slow=39
**AKBB Malin Array Si 72.63 322** *e*P P 02 18 14.1 +0.6
AKBB pmax pmax
comp=Z,7.0nm,0.6s
**AKBB Malin Array Si 72.63 322** *e*P P 02 18 14.1 +0.6
comp=Z,7.0nm,0.6s
**KIEV Kiev 72.64 322**⇑*e*P P 02 18 14.0 +0.4
**KIEV Kiev 72.64 322** *e*P P 02 18 13.5 -0.1
comp=Z,6.6nm,0.6s
**AK11 Malin Array Si 72.67 322** *e*P P 02 18 15.5 +1.8
**NV01 Mina Array Sit 72.96 54** *e*P P 02 18 17.5 +1.5
**NVAR Mina Array Bea 72.96 54** P P 02 18 17.7 +1.7
comp=Z,5.6nm,0.8s,baz=289,slow=6.2,SNR=26
**NV11 Mina Array Sit 73.05 54** *e*P P 02 18 18.0 +1.6
comp=Z,0.5nm,1.2s
**PAGB Antelope Grade 73.34 57** *e*P P 02 18 20.2 +2.2
comp=Z,49nm,1.9s
**YHH Holmes Hill 73.41 45** *e*P P 02 18 20.3 +1.7
comp=Z,6.6nm,1.3s
**YMR Madison River 73.42 45** *e*P P 02 18 20.7 +2.1
comp=Z,31nm,1.9s
**H17A Grant Village 73.81 45** P P 02 18 23.9 +3.0
baz=310
**H17A Grant Village 73.81 45** *e*P P 02 18 24.4 +3.4
comp=Z,9.2nm,1.0s
**IMW Indian Meadow 73.93 46** *e*P P 02 18 23.8 +2.1
comp=Z,6.1nm,0.8s
**VES Vestal, Richgr 74.03 57** P P 02 18 22.7 +0.7
baz=308
**FXWY Fox Creek 74.04 46** *e*P P 02 18 24.5 +2.3
comp=Z,4.2nm,0.8s
**RLMT Red Lodge 74.05 44** P P 02 18 23.6 +1.4
baz=311,SNR=5.7
**RLMT Red Lodge 74.05 44** *e*P P 02 18 24.1 +1.8
comp=Z,7.2nm,1.1s
**MOOW Moose Ponds 74.13 46** *e*P P 02 18 24.6 +1.8
comp=Z,3.4nm,0.8s
**PKM Mcpherson Peak 74.13 58** P P 02 18 24.2 +1.4
baz=308
**TPAW Teton Pass 74.18 46** *e*P P 02 18 25.4 +2.3
comp=Z,4.5nm,0.8s
**CWC Cottonwood Cre 74.31 56** P P 02 18 24.8 +0.9
baz=308
**GRAC Grapevine Rang 74.42 55** P P 02 18 26.2 +1.8
baz=308,SNR=5.8
**LAO LASA Array 74.62 42** P P 02 18 26.7 +1.4
baz=312
**LAO LASA Array 74.62 42** *e*P P 02 18 27.0 +1.7
comp=Z,17nm,1.1s
**ARVC Arvin 74.63 57** P P 02 18 27.2 +1.7
baz=308
**WORM Onyx Ranch 74.66 56** *e*P P 02 18 25.8 0.0
**R11A Troy Canyon, C 74.70 53** P P 02 18 27.5 +1.4
baz=309,SNR=12
**R11A Troy Canyon, C 74.70 53** *e*P P 02 18 27.5 +1.4
comp=Z,7.6nm,1.1s
**DAC Darwin (Calif) 74.72 56** *e*P P 02 18 27.7 +1.4
DAC pmax pmax
comp=Z,6.0nm,1.2s
**DAC Darwin (Calif) 74.72 56** *e*P P 02 18 27.7 +1.4
comp=Z,5.5nm,1.2s
**MPMC Manual Prospec 74.92 56** P P 02 18 28.6 +1.2
baz=308,SNR=7.0
**FURC Furnace Creek, 75.06 55** P P 02 18 29.6 +1.6
baz=308,SNR=6.0
**LRMC Laurel Mtn Rad 75.15 56** P P 02 18 30.1 +1.4
baz=308
**TPNV Topopah Spring 75.15 54** P P 02 18 30.2 +1.5
baz=309,SNR=11
**TPNV Topopah Spring 75.15 54** *e*P P 02 18 30.2 +1.5
TPNV pmax pmax
comp=Z,16nm,1.1s
**TPNV Topopah Spring 75.15 54** *e*P P 02 18 30.2 +1.5
comp=Z,16nm,1.1s
**DUG Dugway, Tooele 75.21 50** P P 02 18 30.6 +1.7
baz=310,SNR=7.6
**DUG Dugway, Tooele 75.21 50** *e*P P 02 18 30.6 +1.7
DUG pmax pmax
comp=Z,10.0nm,1.2s
**DUG Dugway, Tooele 75.21 50** *e*P P 02 18 30.6 +1.7
comp=Z,9.7nm,1.2s
**EDW2 Edwards Air Fo 75.32 57** P P 02 18 30.9 +1.3
baz=308
**BW06 Boulder Array 75.42 46** P P 02 18 31.2 +0.9
baz=311,SNR=8.6
**BW06 Boulder Array 75.42 46** *e*P P 02 18 31.1 +0.9
comp=Z,4.1nm,0.6s
**PD31 Pinedale Array 75.42 46** *e*P P 02 18 31.3 +1.0
**PDAR Pinedale Array 75.42 46** P P 02 18 31.1 +0.9
comp=Z,3.4nm,0.6s,baz=268,slow=2.1,SNR=50
**PDAR Pinedale Array 75.42 46** *e*P P 02 18 31.0 +0.8
**TCUT Toone Canyon 75.44 48** *e*P P 02 18 32.3 +1.9
comp=Z,17nm,1.0s
**NLU North Lily Min 75.80 50** *e*P P 02 18 34.5 +2.0
comp=Z,4.9nm,0.9s
**GSC Goldstone, Bar 75.82 56** P P 02 18 33.5 +1.0
baz=309
**GSC Goldstone, Bar 75.82 56** *e*P P 02 18 34.0 +1.5
GSC pmax pmax
comp=Z,4.0nm,0.8s
**GSC Goldstone, Bar 75.82 56** *e*P P 02 18 34.0 +1.5
comp=Z,4.1nm,0.8s
**BFSC Mount Baldy Ra 75.93 57** P P 02 18 34.4 +1.2
baz=309
**MPU Maple Canyon 76.02 49** *e*P P 02 18 35.6 +1.9
comp=Z,10nm,1.2s
**SHPR Sheep Range 76.11 54** *e*P P 02 18 36.3 +2.1
comp=Z,8.4nm,0.9s
**TUQ Turquoise Moun 76.30 55** P P 02 18 36.5 +1.3
baz=309,SNR=5.5
**KWP Kalwaria Pacla 76.39 324** *e*P P 02 18 30.3 -5.1
**KWP Kalwaria Pacla 76.39 324** *e*P P 02 18 37.1 +1.8
KWP pmax pmax
comp=Z,111nm,0.9s
**KWP Kalwaria Pacla 76.39 324** *e*P P 02 18 37.1 +1.8
comp=Z,111nm,0.9s
**CCUT Cedar City 76.56 52** *e*P P 02 18 38.9 +2.1
comp=Z,8.9nm,1.2s
**MURC Murrieta 76.63 57** P P 02 18 38.1 +1.1
baz=309
**BUR08 Bucovina Ar. S 76.65 322** *e*P P 02 18 37.5 +0.5
**MSU Marysvale 76.66 51** *e*P P 02 18 39.7 +2.3
**MSU Marysvale 76.66 51** *e*P P 02 18 39.7 +2.3
**BUR04 Bucovina Ar. S 76.67 322** *e*P P 02 18 37.2 +0.2
**BURAR Bucovina Array 76.67 322**⇑*i*P P 02 18 37.5 +0.4
**BURAR Bucovina Array 76.67 322**⇑P P 02 18 37.5 +0.4
**SZCU Shurtz Canyon 76.70 52** *e*P P 02 18 39.5 +1.9
comp=Z,6.3nm,1.1s
**TESR Tescani 76.75 320**⇑*i*P P 02 18 37.0 -0.4
**GMRC Granite Mounta 76.88 56** P P 02 18 39.8 +1.3
baz=309
**P17A Butcher Ranch, 76.89 49** *e*P P 02 18 40.3 +1.7
comp=Z,10nm,0.9s
**MTPU Mount Pierson 76.96 51** *e*P P 02 18 41.7 +2.5
comp=Z,4.6nm,0.8s
**LCMT Little Creek M 76.98 53** *e*P P 02 18 40.9 +1.9
comp=Z,7.7nm,1.0s

**Q16A Castle Valley 77.00 50** *e*P P 02 18 41.4 +2.1
comp=Z,5.5nm,1.1s
**ULM Lac du Bonnet 77.01 34** P P 02 18 37.5 -1.4
comp=Z,4.0nm,0.8s,baz=326,slow=7.2,SNR=5.8
**P18A Preston Nutter 77.08 49** *e*P P 02 18 41.7 +1.9
comp=Z,14nm,1.4s
**PFO Pinyon Flats O 77.10 57** P P 02 18 40.4 +0.6
baz=309
**K22A Casper 77.17 45** P P 02 18 41.2 +1.2
baz=313
**K22A Casper 77.17 45** *e*P P 02 18 41.3 +1.2
comp=Z,14nm,1.2s
**STHS Stebnicka Huta 77.20 325** *e*P P 02 18 41.2 +1.3
STHS pmax pmax
comp=Z,5.0nm,1.2s
**STHS Stebnicka Huta 77.20 325** *e*P P 02 18 41.2 +1.3
**OJC Ojcow 77.24 326** *e*P P 02 18 41.3 +1.2
**OJC Ojcow 77.24 326** *e*P P 02 18 41.3 +1.2
**OJC Ojcow 77.24 326** *e*P P 02 18 40.6 +0.6
comp=Z,10nm,1.0s
**CRVS Cervenica-Dubn 77.48 324** *e*P P 02 18 42.8 +1.3
**CRVS Cervenica-Dubn 77.48 324** *e*P P 02 18 42.8 +1.3
**RSSD Black Hills 77.50 42** P P 02 18 42.5 +0.6
baz=314
**RSSD Black Hills 77.50 42** *e*P P 02 18 42.7 +0.7
RSSD pmax pmax
comp=Z,13nm,1.1s
**RSSD Black Hills 77.50 42** *e*P P 02 18 42.7 +0.7
comp=Z,13nm,1.1s
**BR101 Keskin Array S 77.60 312** *e*P P 02 18 42.3 -0.2
**BRTR Keskin Array B 77.60 312** P P 02 18 42.3 -0.2
comp=Z,0.7nm,0.5s,baz=101,slow=2.5,SNR=7.1
BRTR LR LR 02 57 38.4
comp=Z,39nm,18.3s,baz=83,slow=39
**IRM Iron Mountain 77.61 56** P P 02 18 43.8 +1.3
baz=310,SNR=5.3
**NIE Niedzica 77.61 325** *e*P P 02 18 43.0 +0.7
**NIE Niedzica 77.61 325** *e*P P 02 18 43.0 +0.7
**A32A Rocking H Ranc 77.72 35** P P 02 18 43.2 +0.3
baz=316
**BC3 Big Chuckawall 77.73 56** P P 02 18 44.3 +1.1
baz=310
**DOPR Dopca 77.75 320**⇑*i*P P 02 18 46.4 +3.3
**W13A Hualapai Mount 77.81 55** *e*P P 02 18 45.4 +1.6
comp=Z,3.7nm,0.9s
**O20A White River Ci 77.90 48** P P 02 18 45.0 +0.7
baz=312
**O20A White River Ci 77.90 48** *e*P P 02 18 45.3 +1.0
comp=Z,26nm,1.8s
**IKP In-Ko-Pah, Jac 77.94 58** P P 02 18 45.1 +0.7
baz=310
**U15A North Rim 77.94 53** *e*P P 02 18 46.6 +2.0
comp=Z,12nm,1.0s
**SWSC Sam W. Stewart 77.95 57** P P 02 18 44.9 +0.5
baz=310
**C31A Landman Farms, 77.99 37** P P 02 18 44.6 +0.2
baz=317
**BR231 Keskin MP Arra 78.02 312** *e*P P 02 18 42.5 -2.3
**B32A Ashes, Strandq 78.09 36** P P 02 18 45.0 +0.1
baz=318
**PDMCI Parker Dam,Lak 78.15 55** P P 02 18 46.6 +1.1
baz=310
**A33A Warroad 78.20 35** P P 02 18 45.7 +0.2
baz=318
**Y12C Blythe 78.26 56** P P 02 18 47.3 +1.2
baz=310
**Y12C Blythe 78.26 56** *e*P P 02 18 47.6 +1.5
comp=Z,7.8nm,0.9s
**VOIR 78.29 320**⇑*i*P P 02 18 47.5 +1.3
**VOIR 78.29 320**⇑P P 02 18 47.5 +1.3
**DRGR 78.45 322**⇓*i*P P 02 18 49.7 +2.7
**DRGR 78.45 322**⇓P P 02 18 49.7 +2.7
**AGMN Agassiz Nation 78.47 35** P P 02 18 46.8 -0.1
baz=318
**PV09 Paradox Valley 78.48 49** *e*P P 02 18 49.3 +1.8
**GLA Glamis 78.51 57** P P 02 18 48.7 +1.2
baz=310
**MORC Moravsky Berou 78.53 327** *e*P P 02 18 48.1 +0.8
MORC pmax pmax
comp=Z,23nm,0.9s
**MORC Moravsky Berou 78.53 327** *e*P P 02 18 48.1 +0.8
comp=Z,23nm,0.9s
**ARR Arges 78.55 320**⇑*i*P P 02 18 49.4 +1.9
**DPC Dobruska-Polom 78.60 328** *e*P P 02 18 49.1 +1.4
DPC *ex* x 02 19 01.3
**DPC Dobruska-Polom 78.60 328** *e*P P 02 18 49.1 +1.4
DPC *e* 02 19 01.3
**PV10 Paradox Valley 78.61 49** *e*P P 02 18 50.3 +2.0
**KRLC Kraliky 78.62 328** *e*P P 02 18 51.6 +3.8
KRLC *ex* x 02 18 59.7
**KRLC Kraliky 78.62 328** *e*P P 02 18 51.6 +3.8
KRLC *e* 02 18 59.7
**PV04 Paradox Valley 78.68 49** *e*P P 02 18 49.8 +1.2
**N23A Red Feather La 78.68 46** P P 02 18 49.8 +1.1
baz=313
**N23A Red Feather La 78.68 46** *e*P P 02 18 50.5 +1.9
comp=Z,15nm,1.3s
**PV05 Paradox Valley 78.78 50** *e*P P 02 18 51.1 +1.9
**E31A Nome 78.82 38** P P 02 18 49.5 +0.6
baz=317
**B34A Aery, Baudette 78.86 35** P P 02 18 48.8 -0.4
baz=319
**C33A Trail 78.91 36** P P 02 18 49.5 +0.1
baz=318
**VYHS Vyhne 78.95 326** *e*P P 02 18 51.1 +1.5
VYHS pmax pmax
comp=Z,3.0nm,1.6s
**VYHS Vyhne 78.95 326** *e*P P 02 18 51.1 +1.5
**PV01 Paradox Valley 79.05 49** *e*P P 02 18 52.3 +1.6
**WUAZ Wupatki 79.10 53** P P 02 18 52.5 +1.6
baz=311
**Y14A Wickenburg 79.11 55** *e*P P 02 18 52.6 +1.8
comp=Z,47nm,1.3s
**BRG Berggiesshubel 79.14 330** *e*P P 02 18 51.9 +1.3
comp=Z,3.6nm,0.8s
**BRG Berggiesshubel 79.14 330** *e*P P 02 18 51.9 +1.3
BRG pmax pmax
comp=Z,4.0nm,0.8s
**CLL Collm 79.16 330** *i*P P 02 18 49.4 -1.3
CLL pmax pmax
comp=Z,5.0nm,0.7s
**CLL Collm 79.16 330** *e*P P 02 18 50.0 -0.7
CLL *i*pP pP 02 19 03.0 -2.7
comp=Z,8.0nm,1.0s
**SMCO Snowmass 79.27 48** *e*P P 02 18 53.7 +1.6
comp=Z,6.9nm,1.1s
**SIRR Siria 79.33 323**⇑*i*P P 02 18 52.3 +0.6
**D33A AnnSam, Waubun 79.34 36** P P 02 18 51.8 +0.1
baz=318
**B35A Bob, Littlefor 79.36 34** P P 02 18 51.6 -0.3
baz=320
**C34A RKJ Ranch, Bem 79.38 35** P P 02 18 51.8 -0.1
baz=319
**GOPC GO Pecny, Ondr 79.56 329** *e*P P 02 18 57.1 +4.2
GOPC *ex* x 02 19 06.4
**GOPC GO Pecny, Ondr 79.56 329** *e*P P 02 18 57.1 +4.2
GOPC *e* 02 19 06.4
**PRU Pruhonice 79.60 329** *e*P P 02 18 53.7 +0.6
PRU *ex* x 02 19 03.0
**PRU Pruhonice 79.60 329** *e*P P 02 18 53.7 +0.6
PRU *e* 02 19 03.0
**ISCO Idaho Springs 79.62 46** P P 02 18 54.7 +0.8
baz=314
**ISCO Idaho Springs 79.62 46** *e*P P 02 18 55.7 +1.9
ISCO pmax pmax
comp=Z,10.0nm,1.4s
**ISCO Idaho Springs 79.62 46** *e*P P 02 18 55.6 +1.9
comp=Z,9.5nm,1.4s
**D34A Park Rapids 79.67 36** P P 02 18 53.4 -0.2
baz=319
**F32A Veblen 79.68 38** P P 02 18 53.7 0.0
baz=318
**MVCO Mesa Verde 79.71 50** P P 02 18 55.3 +1.0
baz=312
**MVCO Mesa Verde 79.71 50** *e*P P 02 18 55.6 +1.3
comp=Z,6.9nm,0.9s
**E33A Westby DABS, E 79.74 37** P P 02 18 54.4 +0.4
baz=318
**C35A Jirik Farms, M 79.75 35** P P 02 18 53.9 0.0
baz=320
**X16A Lo Mia Camp, P 79.78 54** *e*P P 02 18 56.8 +2.1
comp=Z,5.4nm,0.9s
**BZS Buzias 79.83 322**⇑*i*P P 02 18 53.0 -1.4
**BZS Buzias 79.83 322** ⇑P P 02 18 53.0 -1.4
**SUSD Miller 79.85 40** P P 02 18 55.3 +0.7
baz=317

**G32A Webster 79.96 38** P P 02 18 55.6 +0.4
baz=318
**H31A Wolsey 80.06 39** P P 02 18 55.9 +0.2
baz=317
**F33A 5 Mile Ranch, 80.10 37** P P 02 18 56.1 +0.2
baz=318
**RAYN Ar Rayn 80.25 292** *e*P P 02 18 56.9 -0.3
comp=Z,4.7nm,0.7s
**S22A 4UR Ranch, Cre 80.33 49** P P 02 18 59.0 +1.3
baz=313
**S22A 4UR Ranch, Cre 80.33 49** *e*P P 02 18 59.7 +2.0
comp=Z,7.4nm,1.4s
**MDVR Moldovita 80.40 322**⇓*i*P P 02 18 57.0 -0.6
**E35A Pequot Lakes 80.43 36** P P 02 18 57.7 +0.1
baz=319
**Q24A Divide 80.45 47** P P 02 18 59.3 +0.9
baz=314
**C37A Embarrass 80.51 34** P P 02 18 58.1 0.0
baz=321
**G33A Ortonville 80.51 38** P P 02 18 58.8 +0.7
baz=318
**X18A Snowflake 80.62 53** *e*P P 02 19 01.1 +1.9
comp=Z,3.6nm,0.7s
**CONA Conrad Observa 80.66 327** *e*PcP P 02 19 01.3 +2.3
comp=Z,3.0nm,1.2s
**KHC Kasperske Hory 80.66 329** *e*P P 02 18 59.9 +1.1
KHC *ex* x 02 19 11.4
**KHC Kasperske Hory 80.66 329** *e*P P 02 19 00.0 +1.1
KHC pmax pmax
comp=Z,2.0nm,0.9s
**KHC Kasperske Hory 80.66 329** *e*P P 02 19 00.0 +1.1
comp=Z,2.2nm,0.9s
**H33A Prehn Over Nor 80.75 38** P P 02 19 00.4 +0.9
baz=318
**OGNE Ogallala 80.78 44** P P 02 19 00.8 +1.1
baz=315
**GERES GERESS Array B 80.84 328** P P 02 19 00.2 +0.3
comp=Z,0.9nm,0.5s,baz=39,slow=6.5,SNR=8.5
GERES LR LR 02 57 37.4
comp=Z,94nm,18.9s,baz=66,slow=38
**GEA0 GERESS Array S 80.84 328** *e*P P 02 19 00.3 +0.4
**E36A McGregor 80.97 35** P P 02 19 00.6 0.0
baz=320
**SDCO Great Sand Dun 81.09 48** P P 02 19 02.7 +1.0
baz=314
**SDCO Great Sand Dun 81.09 48** *e*P P 02 19 03.4 +1.6
comp=Z,2.9nm,1.0s
**VTS Vitosha 81.27 319**⇓*i*P P 02 19 03.0 +0.6
**VTS Vitosha 81.27 319** ⇓P P 02 19 03.0 +0.6
**VTS Vitosha 81.27 319** *e*P P 02 19 02.6 +0.2
comp=Z,7.4nm,0.8s
**K31A O'Neill 81.27 41** P P 02 19 03.0 +0.8
baz=317
**C39A Grand Marais 81.31 33** P P 02 19 03.5 +1.1
baz=322
**F36A Milaca 81.35 36** P P 02 19 02.5 -0.1
baz=320
**MOA Molln 81.39 327** *e*PcP P 02 19 04.4 +1.6
comp=Z,1.9nm,0.7s
**ECSD EROS Data Cent 81.51 39** P P 02 19 03.8 +0.3
baz=318
**TUC Tucson 81.58 55** P P 02 19 05.1 +0.9
baz=312
**H35A Sunnyside Ranc 81.64 37** P P 02 19 04.7 +0.6
baz=319
**E38A The Farm, Brul 81.65 34** P P 02 19 04.4 +0.2
baz=321
**SOKA Soboth 81.99 326** *e*P P 02 19 07.0 +0.9
comp=Z,4.5nm,0.9s
**F38A Pierce - Schro 82.01 35** P P 02 19 06.4 +0.4
baz=321
**T25A Trinidad 82.14 48** P P 02 19 08.0 +0.8
baz=315
**H36A Jessenland, He 82.15 37** P P 02 19 07.3 +0.5
baz=320
**E39A Mellen 82.26 34** P P 02 19 07.5 +0.1
baz=322
**OBKA Obir 82.33 327** PcP P 02 19 09.9 +2.0
comp=Z,2.1nm,0.6s
**ANMO Albuquerque 82.46 51** P P 02 19 10.5 +1.7
baz=314
**ANMO Albuquerque 82.46 51**⇑*e*P P 02 19 09.5 +0.6
ANMO pmax pmax
comp=Z,6.0nm,1.2s
**ANMO Albuquerque 82.46 51** *e*P P 02 19 10.8 +1.9
comp=Z,10.0nm,1.3s
**F39A Loretta 82.47 34** P P 02 19 08.8 +0.3
baz=322
**E40A Wakefield 82.49 33** P P 02 19 09.3 +0.8
baz=322
**I37A Lemond, Waseca 82.82 37** P P 02 19 11.0 +0.7
baz=320
**J36A Seneca 1, Swea 82.91 38** P P 02 19 11.6 +0.8
baz=320
**L34A Svendsen Farm, 82.94 40** P P 02 19 11.4 +0.4
baz=319
**MOTA Moosalm 83.08 329** *e*PcP P 02 19 13.6 +1.8
comp=Z,0.1nm,0.2s
**RETA Reutte 83.10 329** *e*PcP P 02 19 13.2 +1.4
comp=Z,3.2nm,1.0s
**319A Douglas 83.15 55** *e*P P 02 19 14.2 +1.8
comp=Z,15nm,1.1s
**H39A Augusta 83.27 35** P P 02 19 12.9 +0.2
baz=322
**G40A Rib Lake 83.29 34** P P 02 19 13.0 +0.3
baz=322
**J37A Redenius Farm, 83.29 37** P P 02 19 13.0 +0.3
baz=320
**121A Cookes Peak, D 83.30 53** P P 02 19 14.6 +1.3
baz=313
**K36A Gilmore City 83.38 38** P P 02 19 13.8 +0.6
baz=320
**FETA Feichten 83.50 329** *e*PcP P 02 19 15.0 +1.1
comp=Z,0.2nm,0.4s
**DAVA Damuels 83.61 330** *e*PcP P 02 19 16.2 +1.6
comp=Z,4.8nm,0.9s
**M35A Neola 83.66 40** P P 02 19 15.4 +0.7
baz=319
**K37A Belmond 83.67 38** P P 02 19 15.0 +0.3
baz=320
**N34A Lincoln 83.73 41** P P 02 19 15.0 0.0
baz=319
**O33A Hebron 83.74 42** P P 02 19 15.6 +0.4
baz=318
**I39A Houston 83.81 36** P P 02 19 15.7 +0.3
baz=322
**L37A Phoenix Point, 84.10 38** P P 02 19 17.2 +0.3
baz=320
**M36A Felix, Anita 84.11 39** P P 02 19 17.3 +0.3
baz=320
**F43A Flat Rock, Esc 84.12 32** P P 02 19 17.4 +0.4
baz=324
**J39A Decorah 84.13 36** P P 02 19 16.6 -0.4
baz=321
**F44A Big Bay de Noc 84.31 32** P P 02 19 17.5 -0.4
baz=325
**M37A Trindle Farm, 84.51 39** P P 02 19 19.6 +0.6
baz=320
**J40A Soldiers Grove 84.52 36** P P 02 19 19.1 +0.1
baz=322
**P34A Walnut Farm, R 84.52 42** P P 02 19 19.7 +0.5
baz=319
**SCIA State Center 84.53 38** P P 02 19 19.7 +0.6
baz=321
**H42A Shiocton 84.61 34** P P 02 19 19.5 +0.1
baz=323
**PMOR Pomariorio Ree 84.66 114** *e*T T 03 52 41.8
comp=Z,74nm,0.2s
**J41A Loganville 84.87 35** P P 02 19 20.8 0.0
baz=322
**K40A Colesburg 84.88 36** P P 02 19 21.0 +0.1
baz=322
**M38A Pleasantville 84.91 38** P P 02 19 21.4 +0.4
baz=321
**L39A Vinton 84.93 37** P P 02 19 22.0 +0.9
baz=321
**P35A Duane Minner, 84.95 41** P P 02 19 21.6 +0.3
baz=319
**KSU1 Kansas State U 84.97 42** P P 02 19 21.8 +0.4
baz=319
**PPT Papeete 85.25 117** LR LR 02 49 03.6
comp=Z,44nm,21.5s,baz=354,slow=30
**PPT2 Papeete2 85.27 117** *e*LR LR 02 45 43.8
comp=Z,109nm,24.0s
**PPT2 Papeete2 85.27 117** *e*T T 03 53 28.7
comp=Z,20nm,0.3s
**AMTX Amarillo 85.29 48** P P 02 19 23.6 +0.4
baz=316

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| P36A | Good Intent, A baz=320 | 85.29 | 41 | P | P | 02 19 23.5 | +0.5 |
| MSTX | Muleshoe baz=316 | 85.31 | 49 | P | P | 02 19 23.7 | +0.4 |
| PAE | Paea comp=Z,4.1nm,0.3s | 85.31 | 117 | *e*T | T | 03 53 31.7 | |
| L40A | Anamosa baz=322 | 85.34 | 37 | P | P | 02 19 23.3 | +0.1 |
| M39A | Webster baz=321 | 85.35 | 38 | P | P | 02 19 23.6 | +0.4 |
| MNTX | Cornudas Mount baz=314 | 85.35 | 52 | P | P | 02 19 24.2 | +0.8 |
| N38A | Joes South For baz=321 | 85.37 | 39 | P | P | 02 19 23.7 | +0.4 |
| TIAR | Tiarei comp=Z,8.7nm,0.3s | 85.40 | 117 | *e*T | T | 03 53 38.4 | |
| O37A | Wolven Farm, M baz=320 | 85.41 | 40 | P | P | 02 19 24.3 | +0.7 |
| Q35A | Mercer Eighty, baz=319 | 85.44 | 42 | P | P | 02 19 24.4 | +0.6 |
| J43A | Natural Harves baz=324 | 85.56 | 34 | P | P | 02 19 24.5 | +0.3 |
| TVO | Taravao comp=Z,1.3nm,0.3s | 85.62 | 117 | *e*T | T | 03 53 45.6 | |
| K42A | Prairie Point, baz=323 | 85.63 | 35 | P | P | 02 19 24.9 | +0.3 |
| N39A | Derby Farms, D baz=321 | 85.66 | 38 | P | P | 02 19 25.3 | +0.5 |
| L41A | Preston baz=322 | 85.67 | 36 | P | P | 02 19 25.1 | +0.3 |
| M40A | Post Highland baz=322 | 85.72 | 37 | P | P | 02 19 25.4 | +0.3 |
| P37A | Lathrop baz=320 | 85.75 | 40 | P | P | 02 19 26.0 | +0.7 |
| S34A | Willow Spring baz=318 | 85.75 | 43 | P | P | 02 19 25.9 | +0.6 |
| O38A | Galt baz=320 | 85.77 | 39 | P | P | 02 19 26.0 | +0.6 |
| R36A | Gordon, Harris baz=319 | 86.12 | 42 | P | P | 02 19 27.6 | +0.5 |
| P38A | Dawn baz=320 | 86.13 | 40 | P | P | 02 19 27.7 | +0.6 |
| S35A | Otter Creek Ra baz=319 | 86.18 | 43 | P | P | 02 19 28.3 | +0.8 |
| M41A | Milan baz=322 | 86.20 | 37 | P | P | 02 19 28.0 | +0.6 |
| T34A | McClaskey Farm baz=318 | 86.22 | 44 | P | P | 02 19 28.3 | +0.6 |
| S36A | Lake Cedric, C baz=319 | 86.53 | 42 | P | P | 02 19 29.6 | +0.5 |
| O40A | La Belle baz=322 | 86.55 | 38 | P | P | 02 19 29.8 | +0.6 |
| Q38A | Cooks Store, C baz=320 | 86.59 | 40 | P | P | 02 19 29.7 | +0.3 |
| P39B | Salisbury baz=321 | 86.61 | 39 | P | P | 02 19 30.1 | +0.6 |
| Q39A | Willow Grove F baz=321 | 86.85 | 40 | P | P | 02 19 31.3 | +0.7 |
| N42A | Yates City baz=323 | 86.86 | 37 | P | P | 02 19 31.1 | +0.4 |
| M43A | Waltham Townsh baz=323 | 86.88 | 36 | P | P | 02 19 31.2 | +0.4 |
| T36A | Boggs Farm, Ca baz=319 | 86.88 | 43 | P | P | 02 19 31.6 | +0.7 |
| S37A | Fort Scott baz=320 | 86.90 | 42 | P | P | 02 19 31.3 | +0.4 |
| P40A | Paris baz=321 | 86.93 | 39 | P | P | 02 19 31.5 | +0.5 |
| U35A | Pawnee baz=319 | 86.94 | 44 | P | P | 02 19 31.9 | +0.7 |
| O41A | Passleys Farm, baz=320 | 87.03 | 38 | P | P | 02 19 32.1 | +0.6 |
| WMOK | Wichita Mounta baz=318 | 87.04 | 46 | P | P | 02 19 31.8 | +0.1 |
| R38A | Fenwick Farm, baz=320 | 87.04 | 41 | P | P | 02 19 31.7 | 0.0 |
| N43A | Stutzman Famil baz=323 | 87.17 | 36 | P | P | 02 19 32.4 | +0.2 |
| P41A | Barry, Barry baz=322 | 87.29 | 38 | P | P | 02 19 33.4 | +0.7 |
| T37A | Cheneyville 18 baz=320 | 87.33 | 42 | P | P | 02 19 33.2 | +0.2 |
| R39A | Chumby, Stover baz=321 | 87.38 | 40 | P | P | 02 19 33.5 | +0.2 |
| HDIL | Hopedale baz=323 | 87.42 | 37 | P | P | 02 19 33.3 | -0.1 |
| P42A | Winchester baz=322 | 87.70 | 38 | P | P | 02 19 35.3 | +0.5 |
| S39A | Bolivar baz=321 | 87.72 | 41 | P | P | 02 19 34.9 | 0.0 |
| T38A | Diamond baz=320 | 87.72 | 42 | P | P | 02 19 35.0 | 0.0 |
| Q41A | Truxton baz=322 | 87.77 | 39 | P | P | 02 19 35.2 | +0.1 |
| U37A | Salina baz=320 | 87.78 | 43 | P | P | 02 19 35.7 | +0.5 |
| R40A | Maddies Statio baz=321 | 87.78 | 40 | P | P | 02 19 35.5 | +0.3 |
| V36A | Jenks baz=319 | 87.81 | 44 | P | P | 02 19 35.9 | +0.5 |
| TX31 | Lajitas Ar. Si | 88.06 | 53 | *e*P | P | 02 19 37.6 | +0.8 |
| LTX | Lajitas | 88.06 | 53 | *e*P | P | 02 19 37.6 | +0.8 |
| LTX | Lajitas | 88.06 | 53 | *e*P | P | 02 19 37.6 | +0.8 |
| TXAR | Lajitas Array comp=Z,1.2nm,0.5s,baz=290,slow=3.2,SNR=43 | 88.06 | 53 | P | P | 02 19 37.6 | +0.8 |
| ABTX | Abilene, Hawle baz=317 | 88.10 | 48 | P | P | 02 19 37.3 | +0.4 |
| U38A | Gravette baz=320 | 88.13 | 42 | P | P | 02 19 37.2 | +0.3 |
| W36A | Watumka baz=319 | 88.14 | 44 | P | P | 02 19 37.9 | +1.0 |
| Q42A | Golden Eagle baz=322 | 88.14 | 38 | P | P | 02 19 37.2 | +0.3 |
| V37A | Hulbert baz=320 | 88.16 | 43 | P | P | 02 19 37.8 | +0.8 |
| S40A | Lebanon baz=321 | 88.20 | 40 | P | P | 02 19 37.4 | +0.2 |
| R41A | Rosebud baz=322 | 88.21 | 39 | P | P | 02 19 37.7 | +0.4 |
| O45A | Potomac baz=324 | 88.39 | 36 | P | P | 02 19 38.7 | +0.7 |
| CCM | Cathedral Cave baz=322 | 88.47 | 39 | P | P | 02 19 38.8 | +0.3 |
| R42A | Luebbering baz=322 | 88.51 | 39 | P | P | 02 19 38.6 | 0.0 |
| T40A | Mansfield baz=321 | 88.54 | 41 | P | P | 02 19 38.8 | 0.0 |
| V38A | Canehill baz=320 | 88.56 | 43 | P | P | 02 19 39.4 | +0.5 |
| S41A | Jillco Farms, baz=322 | 88.59 | 40 | P | P | 02 19 39.4 | +0.4 |
| P44A | Sand Creek, Wi baz=324 | 88.60 | 37 | P | P | 02 19 39.7 | +0.6 |
| U39A | Green Forest baz=321 | 88.64 | 42 | P | P | 02 19 39.5 | +0.2 |
| S42A | Caledonia baz=322 | 88.91 | 39 | P | P | 02 19 40.6 | +0.1 |
| R43A | Red Bud baz=323 | 88.93 | 38 | P | P | 02 19 40.6 | 0.0 |
| V39A | Pettigrew baz=320 | 88.97 | 42 | P | P | 02 19 41.1 | +0.2 |
| U40A | Yellville baz=321 | 88.98 | 41 | P | P | 02 19 41.4 | +0.4 |
| T41A | Mountain View baz=322 | 89.00 | 40 | P | P | 02 19 41.3 | +0.3 |
| X37A | Clayton baz=320 | 89.02 | 44 | P | P | 02 19 41.5 | +0.4 |
| P46A | Rosedale baz=324 | 89.13 | 36 | P | P | 02 19 42.0 | +0.5 |
| X38A | Whitesboro baz=320 | 89.25 | 44 | P | P | 02 19 42.5 | +0.4 |
| TBI | Tubuai comp=Z,65nm,0.3s | 89.33 | 121 | *e*T | T | 03 58 34.0 | |
| T42A | Van Buren baz=322 | 89.35 | 40 | P | P | 02 19 42.9 | +0.3 |
| R44A | Waltonville baz=323 | 89.36 | 38 | P | P | 02 19 42.9 | +0.3 |
| S43A | Fulton Ridge, baz=323 | 89.42 | 39 | P | P | 02 19 43.1 | +0.2 |
| Z36A | Blue Ridge baz=319 | 89.43 | 46 | P | P | 02 19 43.3 | +0.3 |
| U41A | Viola baz=322 | 89.47 | 41 | P | P | 02 19 43.4 | +0.2 |
| JCT | Junction City baz=317 | 89.57 | 50 | P | P | 02 19 44.1 | +0.3 |
| P47A | Martinsville baz=325 | 89.66 | 35 | P | P | 02 19 43.9 | -0.1 |
| R45A | Skylar, Fairfi baz=324 | 89.70 | 37 | P | P | 02 19 43.9 | -0.3 |
| T43A | Greenville baz=322 | 89.70 | 39 | P | P | 02 19 44.5 | +0.3 |
| S44A | Carbondale baz=323 | 89.72 | 38 | P | P | 02 19 44.8 | +0.5 |
| X39A | Fountain Ranch baz=320 | 89.75 | 43 | P | P | 02 19 45.0 | +0.5 |
| W40A | Ferguson Farm, baz=321 | 89.77 | 42 | P | P | 02 19 45.3 | +0.7 |
| V41A | Mountainview baz=321 | 89.78 | 41 | P | P | 02 19 44.8 | +0.1 |
| U42A | Revenden baz=322 | 89.81 | 40 | P | P | 02 19 44.9 | +0.2 |
| MIAR | Mount Ida baz=321 | 90.00 | 43 | P | P | 02 19 46.3 | +0.6 |
| Q47A | Bedord North L baz=325 | 90.04 | 36 | P | P | 02 19 46.2 | +0.5 |
| Y39A | Lockesburg baz=320 | 90.19 | 44 | P | P | 02 19 46.5 | -0.1 |
| U43A | Rector baz=322 | 90.21 | 40 | P | P | 02 19 46.8 | +0.2 |
| W41B | Gary Mavity, V baz=321 | 90.21 | 42 | P | P | 02 19 46.8 | +0.1 |
| X40A | Basin Creek Fa baz=321 | 90.44 | 43 | P | P | 02 19 47.5 | -0.2 |
| X41A | Kaden, Bauxite baz=321 | 90.60 | 42 | P | P | 02 19 48.9 | +0.5 |
| 237A | Washetta, Mont baz=319 | 90.73 | 46 | P | P | 02 19 49.2 | +0.1 |
| T46A | Princeton baz=324 | 90.89 | 38 | P | P | 02 19 50.5 | +0.7 |
| S48A | Wiedeman Farm, baz=325 | 91.25 | 36 | P | P | 02 19 52.1 | +0.7 |
| WVT | Waverly baz=324 | 91.65 | 38 | P | P | 02 19 53.6 | +0.3 |
| Z42A | Norrel Spur, H baz=322 | 91.84 | 43 | P | P | 02 19 55.0 | +0.8 |
| X45A | UM Field Stati baz=323 | 92.25 | 40 | P | P | 02 19 56.0 | -0.2 |
| V48A | Smith Brothers baz=325 | 92.45 | 38 | P | P | 02 19 56.6 | -0.4 |
| ESDC | Sonseca Array comp=Z,0.2nm,0.5s,baz=13,slow=4.6,SNR=3.6 | 95.23 | 334 | P | P | 02 20 09.6 | -0.2 |
| ESDC | | | | LR | LR | 03 08 07.6 | |
| TOA1 | Torodi Ar. Sit comp=Z,54nm,18.1s,baz=15,slow=39 | 115.91 | 316 | *e*PKPdf | PKPdf | 02 25 28.1 | -0.9 |
| TOA1 | | | | *e*PP | PP | 02 26 31.5 | -1.1 |
| TORD | Torodi Ar. Bea comp=Z,0.2nm,0.6s,baz=47,slow=2.6,SNR=3.5 | 115.92 | 316 | PKP | PKPdf | 02 25 28.1 | -1.0 |
| TORD | | | | PP | PP | 02 26 31.5 | -1.1 |
| SNAA | Sanae | 143.40 | 198 | PKP | PKPab | 02 26 14.7 | -0.6 |
| SNAA | Sanae | 143.40 | 198 | *e*PKHKP | PKPpre | 02 26 15.3 | |
| SNAA | Sanae | 143.40 | 198 | *e*PKPpre | PKPpre | 02 26 15.2 | |
| LPAZ | La Paz comp=Z,3.6nm,0.4s,baz=356,slow=3.2,SNR=24 | 144.81 | 57 | PKP | PKPab | 02 26 23.1 | +0.1 |
| LPAZ | La Paz | 144.81 | 57 | *e*PKIKP | PKPbc | 02 26 23.2 | +0.1 |
| LPAZ | La Paz | 144.81 | 57 | *e*PKPbc | PKPbc | 02 26 23.2 | +0.2 |
| VNA2 | Neumayer--Watz baz=105,slow=1.8 | 144.97 | 197 | PKP | PKPbc | 02 26 21.0 | -0.3 |
| VNA3 | Neumayer Olymp | 145.22 | 196 | PKP | PKPbc | 02 26 21.5 | -0.5 |
| VNA1 | Neumayer--Stat | 145.37 | 197 | PKP | PKPdf | 02 26 21.6 | -0.9 |
| MNMC | Minye Minye | 145.85 | 63 | *e*PKPdf | PKPab | 02 26 27.1 | +0.7 |
| PB11 | IPOC Station P | 146.24 | 63 | *e*PKPdf | PKPbc | 02 26 27.1 | +0.2 |
| CPUP | Villa Florida comp=Z,1.9nm,0.8s,baz=331,slow=4.9,SNR=5.5 | 158.99 | 57 | PKPab | PKPab | 02 27 21.0 | +0.5 |

*NEIC* ***21*** *02:23:56.5±0.0, 37.°86S×176.°56E, h137km, MG4.3(WEL), After WEL.*

**WEL 21 02:23:56.6±0.2, 37.°85S×176.°55E, h136km±2km, ML4.3/53, 10C-23D, Error ellipse: s-maj=1.1km s-min=1.0km az=90.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| OPRZ | Ohinepanea | 0.01 | 35 | Pn | Pn | 02 24 14.8 | -0.2 |
| OPRZ | | | | Sn | Sn | 02 24 29.3 | +0.5 |
| OPRZ | Ohinepanea | 0.01 | 35 | PN | Pn | 02 24 14.8 | -0.2 |
| OPRZ | | | | SN | Sn | 02 24 29.3 | +0.5 |
| MARZ | Manawahe | 0.17 | 142 | Pn | Pn | 02 24 15.2 | +0.1 |
| MARZ | Manawahe | 0.17 | 142 | ⇓PN | Pn | 02 24 15.2 | +0.1 |
| TGRZ | Tauranga | 0.26 | 299 | Pn | Pn | 02 24 15.3 | 0.0 |
| TGRZ | | | | Sn | Sn | 02 24 30.5 | +0.9 |
| TGRZ | Tauranga | 0.26 | 299 | ⇓PN | Pn | 02 24 15.3 | 0.0 |
| TGRZ | | | | SN | Sn | 02 24 30.5 | +0.9 |
| KARZ | Kaharoa | 0.29 | 235 | Pn | Pn | 02 24 15.5 | 0.0 |
| KARZ | Kaharoa | 0.29 | 235 | ⇓PN | Pn | 02 24 15.5 | 0.0 |
| MKRZ | Makatiti | 0.29 | 192 | Pn | Pn | 02 24 16.1 | +0.5 |
| MKRZ | Makatiti | 0.29 | 192 | PN | Pn | 02 24 16.1 | +0.5 |
| EDRZ | Edgecumbe | 0.29 | 149 | Pn | Pn | 02 24 15.6 | 0.0 |
| EDRZ | Edgecumbe | 0.29 | 149 | PN | Pn | 02 24 15.6 | 0.0 |
| WHRZ | Whale Island | 0.34 | 90 | PN | Pn | 02 24 16.2 | +0.5 |
| TARZ | Mount Tarawera | 0.38 | 185 | Pn | Pn | 02 24 16.1 | +0.2 |
| TARZ | Mount Tarawera | 0.38 | 185 | ⇓PN | Pn | 02 24 16.1 | +0.2 |
| HLRZ | Highlands Stat | 0.42 | 201 | ⇓PN | Pn | 02 24 16.3 | +0.2 |
| RRRZ | Republican Roa | 0.48 | 183 | Pn | Pn | 02 24 16.2 | -0.1 |
| RRRZ | Republican Roa | 0.48 | 183 | ⇓PN | Pn | 02 24 16.2 | -0.1 |
| HSRZ | Hossack Road | 0.51 | 207 | PN | Pn | 02 24 16.6 | +0.1 |
| HRRZ | Handcock Road | 0.57 | 201 | Pn | Pn | 02 24 16.9 | 0.0 |
| HRRZ | Handcock Road | 0.57 | 201 | ⇓PN | Pn | 02 24 16.9 | 0.0 |
| URZ | Urewera | 0.60 | 132 | Pn | Pn | 02 24 16.4 | -0.5 |
| URZ | Urewera | 0.60 | 132 | PN | Pn | 02 24 16.4 | -0.5 |
| URZ | | | | AML | AML | 02 24 34.7 | |
| URZ | | | | AML | AML | 02 24 35.2 | |
| MUGZ | Murupara | 0.65 | 164 | ⇓PN | Pn | 02 24 16.8 | -0.5 |
| PRRZ | Plateau Road | 0.66 | 191 | Pn | Pn | 02 24 17.1 | -0.2 |
| PRRZ | Plateau Road | 0.66 | 191 | ⇓PN | Pn | 02 24 17.1 | -0.2 |
| ALRZ | Allen Road | 0.72 | 193 | Pn | Pn | 02 24 17.7 | -0.2 |
| ALRZ | Allen Road | 0.72 | 193 | PN | Pn | 02 24 17.7 | -0.2 |
| WPRZ | Whakapapatarin | 0.73 | 204 | Pn | Pn | 02 24 17.9 | 0.0 |
| WPRZ | Whakapapatarin | 0.73 | 204 | PN | Pn | 02 24 17.9 | 0.0 |
| RTZ | Ruatahuna | 0.83 | 156 | PN | Pn | 02 24 18.2 | -0.6 |
| TOZ | Tahuroa Road | 0.84 | 278 | Pn | Pn | 02 24 18.7 | +0.1 |
| TOZ | Tahuroa Road | 0.84 | 278 | PN | Pn | 02 24 18.7 | +0.1 |
| RUGZ | Raukumara Rang | 0.90 | 97 | PN | Pn | 02 24 18.4 | -1.0 |
| MWZ | Matawai | 0.91 | 122 | Pn | Pn | 02 24 19.1 | -0.2 |
| MWZ | Matawai | 0.91 | 122 | ⇓PN | Pn | 02 24 19.1 | -0.2 |
| MWZ | | | | AML | AML | 02 24 39.6 | |
| MWZ | | | | AML | AML | 02 24 44.2 | |
| TLZ | Tolley Road | 0.93 | 239 | Pn | Pn | 02 24 19.6 | +0.1 |
| TLZ | Tolley Road | 0.93 | 239 | ⇓PN | Pn | 02 24 19.6 | +0.1 |
| RAGZ | Rawiri | 0.94 | 133 | Pn | Pn | 02 24 19.7 | +0.1 |
| RAGZ | Rawiri | 0.94 | 133 | ⇓PN | Pn | 02 24 19.7 | +0.1 |
| RAGZ | | | | AML | AML | 02 24 43.6 | |
| RAGZ | | | | AML | AML | 02 24 44.2 | |
| MRHZ | Matea Rd | 0.98 | 186 | PN | Pn | 02 24 20.1 | +0.1 |
| MRHZ | | | | AML | AML | 02 24 38.7 | |
| MRHZ | | | | AML | AML | 02 24 41.9 | |
| HAZ | Te Kaha | 0.98 | 85 | ⇓PN | Pn | 02 24 19.3 | -0.6 |
| HAZ | | | | AML | AML | 02 24 41.5 | |
| HAZ | | | | AML | AML | 02 24 41.5 | |
| HAZ | | | | AML | AML | 02 24 41.6 | |
| HAZ | | | | AML | AML | 02 24 41.6 | |
| MTHZ | Maungataniwha | 1.02 | 167 | ⇓PN | Pn | 02 24 20.2 | -0.1 |
| SNGZ | Shannon Statio | 1.12 | 146 | Pn | Pn | 02 24 20.3 | -0.9 |
| SNGZ | Shannon Statio | 1.12 | 146 | PN | Pn | 02 24 21.3 | +0.1 |
| SNGZ | | | | AML | AML | 02 24 42.4 | |
| SNGZ | | | | AML | AML | 02 24 46.0 | |
| TWGZ | Tauwhareparae | 1.18 | 106 | Pn | Pn | 02 24 21.9 | +0.1 |
| TWGZ | Tauwhareparae | 1.18 | 106 | PN | Pn | 02 24 21.9 | +0.1 |
| TWGZ | | | | AML | AML | 02 24 51.5 | |
| TWGZ | | | | AML | AML | 02 24 52.8 | |
| RATZ | Rangitukua | 1.18 | 211 | Pn | Pn | 02 24 21.3 | -0.5 |
| RATZ | Rangitukua | 1.18 | 211 | PN | Pn | 02 24 21.3 | -0.5 |
| PKGZ | Pakihiroa | 1.21 | 92 | PN | Pn | 02 24 22.1 | -0.1 |
| PKGZ | | | | AML | AML | 02 24 50.6 | |
| PKGZ | | | | AML | AML | 02 24 50.9 | |
| RITZ | Rihia Road | 1.24 | 206 | Pn | Pn | 02 24 23.0 | +0.5 |
| RITZ | Rihia Road | 1.24 | 206 | PN | Pn | 02 24 22.9 | +0.5 |
| NMHZ | Naumai | 1.26 | 171 | Pn | Pn | 02 24 23.2 | +0.6 |
| NMHZ | Naumai | 1.26 | 171 | PN | Pn | 02 24 23.2 | +0.6 |
| NMHZ | | | | AML | AML | 02 24 50.3 | |
| NMHZ | | | | AML | AML | 02 24 50.8 | |
| RIGZ | Rimuhau | 1.28 | 132 | PN | Pn | 02 24 23.0 | +0.1 |
| RIGZ | | | | AML | AML | 02 24 46.2 | |
| RIGZ | | | | AML | AML | 02 24 51.9 | |
| KUZ | Kuaotunu | 1.29 | 329 | Pn | Pn | 02 24 22.6 | -0.2 |
| KUZ | Kuaotunu | 1.29 | 329 | PN | Pn | 02 24 22.6 | -0.2 |
| KATZ | Kakaramea | 1.30 | 211 | Pn | Pn | 02 24 23.3 | +0.1 |
| KATZ | Kakaramea | 1.30 | 211 | PN | Pn | 02 24 23.3 | +0.1 |
| BKZ | Black Stump Fm | 1.31 | 182 | Pn | Pn | 02 24 22.6 | -0.6 |
| BKZ | Black Stump Fm | 1.31 | 182 | ⇓PN | Pn | 02 24 22.6 | -0.6 |
| BKZ | | | | | AML | AML | 02 24 50.6 | |
| BKZ | | | | | AML | AML | 02 24 50.7 | |
| WHHZ | Waihua | 1.33 | 156 | PN | Pn | 02 24 23.5 | +0.2 |
| WHHZ | | | | | AML | AML | 02 24 53.3 | |
| WHHZ | | | | | AML | AML | 02 24 53.8 | |
| PUZ | Puketiti | 1.37 | 100 | Pn | Pn | 02 24 23.6 | -0.2 |
| PUZ | Puketiti | 1.37 | 100 | PN | Pn | 02 24 23.6 | -0.2 |
| PUZ | | | | | AML | AML | 02 24 54.0 | |
| PUZ | | | | | AML | AML | 02 24 55.2 | |
| MXZ | Matakaoa Point | 1.43 | 79 | Pn | Pn | 02 24 24.9 | +0.6 |
| MXZ | Matakaoa Point | 1.43 | 79 | ⇑PN | Pn | 02 24 24.9 | +0.6 |
| MXZ | | | | | AML | AML | 02 24 52.2 | |
| MXZ | | | | | AML | AML | 02 24 52.3 | |
| KRVZ | Karewarewa | 1.43 | 210 | Pn | Pn | 02 24 24.6 | +0.1 |
| KRVZ | Karewarewa | 1.43 | 210 | PN | Pn | 02 24 24.6 | +0.1 |
| ARHZ | Aropaoanui | 1.45 | 166 | Pn | Pn | 02 24 24.5 | -0.1 |
| ARHZ | Aropaoanui | 1.45 | 166 | PN | Pn | 02 24 24.5 | -0.1 |
| ARHZ | | | | | AML | AML | 02 24 54.4 | |
| ARHZ | | | | | AML | AML | 02 24 55.2 | |
| CNGZ | Carnagh Statio | 1.45 | 116 | Pn | Pn | 02 24 25.1 | +0.6 |
| CNGZ | Carnagh Statio | 1.45 | 116 | PN | Pn | 02 24 25.1 | +0.5 |
| CNGZ | | | | | AML | AML | 02 24 48.6 | |
| CNGZ | | | | | AML | AML | 02 24 51.1 | |
| KNZ | Kokohu | 1.46 | 143 | Pn | Pn | 02 24 24.5 | -0.2 |
| KNZ | Kokohu | 1.46 | 143 | PN | Pn | 02 24 24.5 | -0.2 |
| KNZ | | | | | AML | AML | 02 24 47.4 | |
| KNZ | | | | | AML | AML | 02 24 57.2 | |
| WTVZ | West Tongariro | 1.47 | 211 | Pn | Pn | 02 24 25.2 | +0.3 |
| WTVZ | West Tongariro | 1.47 | 211 | PN | Pn | 02 24 25.2 | +0.3 |
| OTVZ | Oturere | 1.48 | 208 | Pn | Pn | 02 24 25.2 | +0.2 |
| OTVZ | Oturere | 1.48 | 208 | ⇓PN | Pn | 02 24 25.2 | +0.2 |
| WMGZ | Waiomatatini S | 1.48 | 89 | Pn | Pn | 02 24 24.9 | 0.0 |
| WMGZ | Waiomatatini S | 1.48 | 89 | PN | Pn | 02 24 24.8 | 0.0 |
| WMGZ | | | | | AML | AML | 02 24 48.8 | |
| WMGZ | | | | | AML | AML | 02 24 56.5 | |
| HIZ | Hauiti | 1.48 | 243 | Pn | Pn | 02 24 25.0 | 0.0 |
| HIZ | Hauiti | 1.48 | 243 | ⇑PN | Pn | 02 24 25.0 | 0.0 |
| TWVZ | Taurewa | 1.49 | 215 | Pn | Pn | 02 24 25.2 | +0.1 |
| TWVZ | Taurewa | 1.49 | 215 | PN | Pn | 02 24 25.3 | +0.1 |
| PRGZ | Paritu Road | 1.50 | 136 | Pn | Pn | 02 24 25.0 | -0.1 |
| PRGZ | Paritu Road | 1.50 | 136 | PN | Pn | 02 24 25.0 | -0.1 |
| PRGZ | | | | | AML | AML | 02 24 53.4 | |
| PRGZ | | | | | AML | AML | 02 24 54.7 | |
| NGZ | Ngauruhoe | 1.51 | 209 | Pn | Pn | 02 24 25.6 | +0.2 |
| NGZ | Ngauruhoe | 1.51 | 209 | PN | Pn | 02 24 25.6 | +0.2 |
| WIAZ | Waiheke Island | 1.55 | 313 | ⇑PN | Pn | 02 24 25.7 | 0.0 |
| KWHZ | Kaweka Forest | 1.57 | 183 | PN | Pn | 02 24 25.7 | -0.3 |
| KWHZ | | | | | AML | AML | 02 24 55.9 | |
| KWHZ | | | | | AML | AML | 02 24 56.3 | |
| TUVZ | Tukino | 1.57 | 206 | Pn | Pn | 02 24 26.0 | -0.1 |
| TUVZ | Tukino | 1.57 | 206 | ⇑PN | Pn | 02 24 26.0 | -0.1 |
| MCHZ | McNeill Hill | 1.59 | 176 | Pn | Pn | 02 24 26.3 | +0.2 |
| MCHZ | McNeill Hill | 1.59 | 176 | PN | Pn | 02 24 26.3 | +0.2 |
| MCHZ | | | | | AML | AML | 02 25 02.8 | |
| MCHZ | | | | | AML | AML | 02 25 04.8 | |
| FWVZ | Far West T-bar | 1.60 | 209 | Pn | Pn | 02 24 26.4 | -0.1 |
| FWVZ | Far West T-bar | 1.60 | 209 | PN | Pn | 02 24 26.4 | -0.1 |
| DRZ | Dome Shelter | 1.61 | 208 | Pn | Pn | 02 24 27.5 | +0.8 |
| DRZ | Dome Shelter | 1.61 | 208 | PN | Pn | 02 24 27.4 | +0.7 |
| TRVZ | Turoa | 1.64 | 208 | Pn | Pn | 02 24 26.9 | -0.1 |
| TRVZ | Turoa | 1.64 | 208 | ⇓PN | Pn | 02 24 26.9 | -0.1 |
| WNVZ | Wahianoa | 1.65 | 207 | Pn | Pn | 02 24 26.7 | -0.3 |
| WNVZ | Wahianoa | 1.65 | 207 | ⇑PN | Pn | 02 24 26.7 | -0.3 |
| MOVZ | Moawhango | 1.67 | 202 | Pn | Pn | 02 24 26.3 | -0.8 |
| MOVZ | Moawhango | 1.67 | 202 | ⇑PN | Pn | 02 24 26.3 | -0.8 |
| BHHZ | Black Hill Sta | 1.68 | 193 | Pn | Pn | 02 24 26.3 | -0.8 |
| BHHZ | Black Hill Sta | 1.68 | 193 | ⇓PN | Pn | 02 24 26.3 | -0.8 |
| BHHZ | | | | | AML | AML | 02 24 51.9 | |
| BHHZ | | | | | AML | AML | 02 24 59.4 | |
| MHGZ | Mahia Peninsul | 1.68 | 141 | Pn | Pn | 02 24 27.2 | +0.1 |
| MHGZ | Mahia Peninsul | 1.68 | 141 | PN | Pn | 02 24 27.2 | +0.1 |
| MHGZ | | | | | AML | AML | 02 24 55.3 | |
| MHGZ | | | | | AML | AML | 02 24 55.9 | |
| AWAZ | Awhitu Peninsu | 1.71 | 297 | ⇑PN | Pn | 02 24 27.3 | -0.2 |
| PKVZ | Pokaka | 1.71 | 213 | Pn | Pn | 02 24 27.5 | -0.1 |
| PKVZ | Pokaka | 1.71 | 213 | ⇓PN | Pn | 02 24 27.5 | -0.1 |
| MTVZ | Mangateitei | 1.75 | 209 | Pn | Pn | 02 24 28.0 | 0.0 |
| MTVZ | Mangateitei | 1.75 | 209 | PN | Pn | 02 24 28.0 | 0.0 |
| KRHZ | Kereru | 1.79 | 184 | PN | Pn | 02 24 28.0 | -0.5 |
| KRHZ | | | | | AML | AML | 02 25 00.2 | |
| KRHZ | | | | | AML | AML | 02 25 00.9 | |
| GRZ | Great Barrier | 1.82 | 331 | ⇑PN | Pn | 02 24 28.7 | -0.1 |
| CKHZ | Cape Kidnapper | 1.85 | 167 | Pn | Pn | 02 24 28.6 | -0.5 |
| CKHZ | Cape Kidnapper | 1.85 | 167 | PN | Pn | 02 24 28.6 | -0.5 |
| CKHZ | | | | | AML | AML | 02 24 54.8 | |
| CKHZ | | | | | AML | AML | 02 24 55.4 | |
| KAHZ | Kahuranaki | 1.95 | 173 | Pn | Pn | 02 24 29.9 | -0.5 |
| KAHZ | Kahuranaki | 1.95 | 173 | PN | Pn | 02 24 29.9 | -0.5 |
| KAHZ | | | | | AML | AML | 02 24 57.8 | |
| KAHZ | | | | | AML | AML | 02 24 58.5 | |
| PNHZ | Pukenui | 2.07 | 187 | Pn | Pn | 02 24 30.5 | -1.3 |
| PNHZ | Pukenui | 2.07 | 187 | PN | Pn | 02 24 30.5 | -1.3 |
| PNHZ | | | | | AML | AML | 02 25 07.3 | |
| PNHZ | | | | | AML | AML | 02 25 09.9 | |
| PXZ | Pawanui | 2.19 | 174 | Pn | Pn | 02 24 32.1 | -1.0 |
| PXZ | Pawanui | 2.19 | 174 | ⇓PN | Pn | 02 24 32.1 | -1.0 |
| PXZ | | | | | AML | AML | 02 25 01.4 | |
| PXZ | | | | | AML | AML | 02 25 01.4 | |
| PXZ | | | | | AML | AML | 02 25 01.5 | |
| PXZ | | | | | AML | AML | 02 25 01.6 | |
| WPHZ | Waipukurau | 2.21 | 182 | Pn | Pn | 02 24 32.1 | -1.3 |
| WPHZ | Waipukurau | 2.21 | 182 | PN | Pn | 02 24 32.1 | -1.3 |
| WPHZ | | | | | AML | AML | 02 25 03.1 | |
| WPHZ | | | | | AML | AML | 02 25 05.9 | |
| TSZ | Takapari Road | 2.25 | 192 | Pn | Pn | 02 24 32.4 | -1.5 |
| TSZ | Takapari Road | 2.25 | 192 | PN | Pn | 02 24 32.4 | -1.5 |
| TSZ | | | | | AML | AML | 02 25 09.4 | |
| TSZ | | | | | AML | AML | 02 25 11.1 | |
| WAZ | Wanganui | 2.25 | 212 | Pn | Pn | 02 24 33.6 | -0.5 |
| WAZ | Wanganui | 2.25 | 212 | PN | Pn | 02 24 33.6 | -0.5 |
| NEZ | North Egmont | 2.38 | 233 | Pn | Pn | 02 24 36.8 | +1.2 |
| NEZ | North Egmont | 2.38 | 233 | PN | Pn | 02 24 36.6 | +0.9 |
| PRHZ | Porangahau | 2.41 | 178 | Pn | Pn | 02 24 34.5 | -1.4 |
| PRHZ | Porangahau | 2.41 | 178 | ⇓PN | Pn | 02 24 34.5 | -1.4 |
| PRHZ | | | | | AML | AML | 02 25 04.5 | |
| PRHZ | | | | | AML | AML | 02 25 04.8 | |
| DVHZ | Dannevirke | 2.46 | 187 | Pn | Pn | 02 24 34.5 | -2.0 |
| DVHZ | Dannevirke | 2.46 | 187 | PN | Pn | 02 24 34.5 | -2.0 |
| DVHZ | | | | | AML | AML | 02 25 05.7 | |
| DVHZ | | | | | AML | AML | 02 25 10.0 | |
| OHWZ | Ohakea | 2.54 | 202 | PN | Pn | 02 24 36.3 | -1.2 |
| ANWZ | Angora Road | 2.60 | 181 | PN | Pn | 02 24 36.7 | -1.6 |
| ANWZ | | | | | AML | AML | 02 25 07.9 | |
| ANWZ | | | | | AML | AML | 02 25 12.4 | |
| POWZ | Post Office Ro | 2.60 | 193 | Pn | Pn | 02 24 36.4 | -2.0 |
| POWZ | Post Office Ro | 2.60 | 193 | ⇓PN | Pn | 02 24 36.4 | -2.0 |
| POWZ | | | | | AML | AML | 02 25 13.1 | |
| POWZ | | | | | AML | AML | 02 25 22.1 | |
| PRWZ | Pori Road | 2.73 | 189 | Pn | Pn | 02 24 38.1 | -1.9 |
| PRWZ | Pori Road | 2.73 | 189 | PN | Pn | 02 24 38.1 | -1.9 |
| PRWZ | | | | | AML | AML | 02 25 12.5 | |
| PRWZ | | | | | AML | AML | 02 25 14.1 | |
| BFZ | Birch Farm | 2.83 | 185 | Pn | Pn | 02 24 38.9 | -2.4 |
| BFZ | Birch Farm | 2.83 | 185 | PN | Pn | 02 24 38.9 | -2.4 |
| BFZ | | | | | AML | AML | 02 25 15.9 | |
| BFZ | | | | | AML | AML | 02 25 16.1 | |
| BFZ | | | | | AML | AML | 02 25 16.1 | |
| BFZ | | | | | AML | AML | 02 25 16.3 | |
| MRZ | Mangatainoka R | 2.90 | 195 | Pn | Pn | 02 24 39.5 | -2.6 |
| MRZ | Mangatainoka R | 2.90 | 195 | PN | Pn | 02 24 39.5 | -2.6 |
| MRZ | | | | | AML | AML | 02 25 15.1 

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **KIW** | **Kapiti Island** | **3.26 202** | Pn | Pn | 02 24 43.5 | -3.3 |
| **KIW** | **Kapiti Island** | **3.26 202** | PN | Pn | 02 24 43.5 | -3.3 |
| KIW | | | AML | AML | 02 25 23.2 | |
| KIW | | | AML | AML | 02 25 23.8 | |
| **TMWZ** | **Te Maipa** | **3.29 189** | Pn | Pn | 02 24 44.2 | -3.0 |
| **TMWZ** | **Te Maipa** | **3.29 189** | PN | Pn | 02 24 44.2 | -3.0 |
| TMWZ | | | AML | AML | 02 25 23.5 | |
| TMWZ | | | AML | AML | 02 25 24.2 | |
| **MTW** | **Mount Morrison** | **3.40 193** | Pn | Pn | 02 24 45.0 | -3.5 |
| **MTW** | **Mount Morrison** | **3.40 193** | PN | Pn | 02 24 45.0 | -3.5 |
| MTW | | | AML | AML | 02 25 25.3 | |
| MTW | | | AML | AML | 02 25 25.3 | |
| **CAW** | **Cannon Point** | **3.44 199** | Pn | Pn | 02 24 45.7 | -3.4 |
| **CAW** | **Cannon Point** | **3.44 199** | PN | Pn | 02 24 45.7 | -3.4 |
| CAW | | | AML | AML | 02 25 27.5 | |
| CAW | | | AML | AML | 02 25 27.6 | |
| **DUWZ** | **D'Urville Isla** | **3.58 214** | Pn | Pn | 02 24 47.6 | -3.3 |
| **DUWZ** | **D'Urville Isla** | **3.58 214** | PN | Pn | 02 24 47.6 | -3.3 |
| **TRWZ** | **Traveller** | **3.60 190** | Pn | Pn | 02 24 47.9 | -3.3 |
| **TRWZ** | **Traveller** | **3.60 190** | ⇑PN | Pn | 02 24 47.9 | -3.3 |
| TRWZ | | | AML | AML | 02 25 30.1 | |
| TRWZ | | | AML | AML | 02 25 30.7 | |
| **PAWZ** | **Paruwai Farm** | **3.63 193** | Pn | Pn | 02 24 47.8 | -3.8 |
| **PAWZ** | **Paruwai Farm** | **3.63 193** | PN | Pn | 02 24 47.8 | -3.8 |
| PAWZ | | | AML | AML | 02 25 30.1 | |
| PAWZ | | | AML | AML | 02 25 31.2 | |
| **WEL** | **Wellington** | **3.69 201** | Pn | Pn | 02 24 48.9 | -3.4 |
| **WEL** | **Wellington** | **3.69 201** | PN | Pn | 02 24 48.9 | -3.4 |
| WEL | | | AML | AML | 02 25 33.2 | |
| WEL | | | AML | AML | 02 25 33.2 | |
| WEL | | | AML | AML | 02 25 33.6 | |
| WEL | | | AML | AML | 02 25 33.6 | |
| **MSWZ** | **Moikau Station** | **3.69 195** | Pn | Pn | 02 24 48.5 | -3.9 |
| **MSWZ** | **Moikau Station** | **3.69 195** | PN | Pn | 02 24 48.5 | -3.9 |
| MSWZ | | | AML | AML | 02 25 31.2 | |
| MSWZ | | | AML | AML | 02 25 31.7 | |
| **BHW** | **Baring Head** | **3.78 199** | PN | Pn | 02 24 49.8 | -3.7 |
| BHW | | | AML | AML | 02 25 35.6 | |
| BHW | | | AML | AML | 02 25 36.1 | |
| **TCW** | **Tory Channel** | **3.78 207** | Pn | Pn | 02 24 49.8 | -3.8 |
| **TCW** | **Tory Channel** | **3.78 207** | PN | Pn | 02 24 49.8 | -3.8 |
| TCW | | | AML | AML | 02 25 39.4 | |
| TCW | | | AML | AML | 02 25 39.4 | |
| **PLWZ** | **Palliser** | **3.84 195** | Pn | Pn | 02 24 50.3 | -4.1 |
| **PLWZ** | **Palliser** | **3.84 195** | PN | Pn | 02 24 50.3 | -4.1 |
| PLWZ | | | AML | AML | 02 25 37.4 | |
| PLWZ | | | AML | AML | 02 25 38.7 | |
| **TUWZ** | **Tuamarina** | **4.10 209** | Pn | Pn | 02 24 53.7 | -4.0 |
| **TUWZ** | **Tuamarina** | **4.10 209** | PN | Pn | 02 24 53.7 | -4.0 |
| TUWZ | | | AML | AML | 02 25 44.3 | |
| TUWZ | | | AML | AML | 02 25 44.8 | |
| **NNZ** | **Nelson** | **4.16 215** | Pn | Pn | 02 24 55.6 | -2.9 |
| **NNZ** | **Nelson** | **4.16 215** | PN | Pn | 02 24 55.6 | -2.9 |
| **QRZ** | **Quartz Range** | **4.30 225** | Pn | Pn | 02 24 56.9 | -3.5 |
| **QRZ** | **Quartz Range** | **4.30 225** | PN | Pn | 02 24 56.9 | -3.5 |
| **BSWZ** | **Blackbirch Sta** | **4.37 207** | Pn | Pn | 02 24 58.0 | -3.4 |
| **BSWZ** | **Blackbirch Sta** | **4.37 207** | PN | Pn | 02 24 57.9 | -3.4 |
| **THZ** | **Tophouse** | **4.80 215** | Pn | Pn | 02 25 03.8 | -3.3 |
| **THZ** | **Tophouse** | **4.80 215** | PN | Pn | 02 25 03.5 | -3.6 |
| **KHZ** | **Kahutara** | **5.11 206** | Pn | Pn | 02 25 06.5 | -4.5 |
| **KHZ** | **Kahutara** | **5.11 206** | PN | Pn | 02 25 06.5 | -4.5 |
| **DSZ** | **Denniston Nort** | **5.33 222** | Pn | Pn | 02 25 10.6 | -3.6 |
| **DSZ** | **Denniston Nort** | **5.33 222** | PN | Pn | 02 25 09.9 | -4.3 |
| **LTZ** | **Lake Taylor** | **5.91 212** | Pn | Pn | 02 25 17.3 | -4.6 |
| **OXZ** | **Oxford** | **6.45 211** | Pn | Pn | 02 25 23.5 | -5.7 |
| **OXZ** | **Oxford** | **6.45 211** | PN | Pn | 02 25 23.5 | -5.7 |
| **MQZ** | **McQueen's Vall** | **6.55 206** | Pn | Pn | 02 25 24.0 | -6.4 |
| **MQZ** | **McQueen's Vall** | **6.55 206** | PN | Pn | 02 25 24.0 | -6.4 |
| **CTZ** | **Chatham Island** | **7.83 141** | Pn | Pn | 02 25 47.0 | -0.7 |
| **CTZ** | **Chatham Island** | **7.83 141** | PN | Pn | 02 25 47.0 | -0.7 |
| **ODZ** | **Otahua Downs** | **8.44 210** | Pn | Pn | 02 25 50.2 | -5.6 |
| **ODZ** | **Otahua Downs** | **8.44 210** | PN | Pn | 02 25 50.2 | -5.6 |

*IDC **21** 02:25:19.0±1.2,6˚.13S×152˚.29E, h0km, mb4.0/10, mb1 4.2/11,mb1mx4.0/35,mbtmp4.0/11,ML2.2/1, Error ellipse: s-maj=45.7km s-min=17.7km az=130.0*
*ISCJB **21** 02:25:23.3±0.6,6˚.12S±0.07×152˚.2E±0.1, h36km, mb4.0/15, Error ellipse: s-maj=16.9km s-min=6.2km az=29.0*
*NEIC **21** 02:25:23.3±3.5,6˚.11S×152˚.16E, h26km±23km, mb4.4/5, Error ellipse: s-maj=22.0km s-min=8.0km az=119.0*
**ISC 21 02:25:24.7±0.9,6˚.1S±0˚.1×152˚.2E±0˚.1, h36km, n27, σ1§15/30, mb4.0/15, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RABL** | **Rabaul** | **1.89** | **358** | *e*Pn | **Pn** | **02 25 54.1** | **-0.3** |
| RABL | | | | *e*Sn | **Sn** | **02 26 17.4** | **+0.4** |
| **PMG** | **Port Moresby** | **6.01** | **236** | Pn | **Pn** | **02 26 51.9** | **+0.8** |
| | 3.4nm,0.3s,baz=51,slow=13,SNR=4.9 | | | | | | |
| PMG | | | | Sn | **Sn** | **02 28 00.4** | **+1.7** |
| | 4.0nm,0.3s,baz=128,slow=19,SNR=5.9 | | | | | | |
| **PMG** | **Port Moresby** | **6.01** | **236** | *e*Pn | **Pn** | **02 26 49.2** | **-1.9** |
| PMG | | | | Sn | **Sn** | **02 28 00.4** | **+1.7** |
| **WRAB** | **Tennant Creek** | **22.16** | **230** | *e*P | **P** | **02 30 15.8** | **-2.0** |
| | 33nm,1.9s | | | | | | |
| **WB2** | **Warramunga Arr** | **22.17** | **230** | *e*P | **P** | **02 30 16.4** | **-1.4** |
| | 42nm,2.0s | | | | | | |
| **WR1** | **Warramunga Arr** | **22.18** | **230** | *e*P | **P** | **02 30 17.4** | **-0.5** |
| | 14nm,1.5s | | | | | | |
| **WRA** | **Warramunga Arr** | **22.18** | **230** | P | **P** | **02 30 17.4** | **-0.5** |
| | 2.8nm,0.8s,baz=55,slow=9.9,SNR=16 | | | | | | |
| **AS01** | **Alice Springs** | **24.79** | **223** | *e*P | **P** | **02 30 44.0** | **+0.5** |
| **AS31** | **Alice Springs** | **24.82** | **223** | *e*P | **P** | **02 30 43.3** | **-0.4** |
| | 1.6nm,1.0s | | | | | | |
| **ASAR** | **Alice Springs** | **24.82** | **223** | P | **P** | **02 30 43.3** | **-0.4** |
| | 2.3nm,0.9s,baz=58,slow=9.4,SNR=16 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **28.56** | **243** | P | **P** | **02 31 16.5** | **-0.9** |
| | 2.5nm,0.7s,baz=72,slow=7.3,SNR=6.6 | | | | | | |
| **KULM** | **Kulim** | **52.72** | **281** | *e*P | **P** | **02 34 34.4** | **-1.9** |
| | 43nm,1.5s | | | | | | |
| **SONA0** | **Songino Array** | **67.11** | **328** | *e*P | **P** | **02 36 16.7** | **+1.9** |
| **SONM** | **Songino Array** | **67.11** | **328** | P | **P** | **02 36 16.7** | **+1.9** |
| | 0.3nm,0.6s,baz=132,slow=4.1,SNR=2.7 | | | | | | |
| **MK32** | **Makanchi Array** | **80.92** | **319** | *e*P | **P** | **02 37 35.9** | **+0.5** |
| **MKAR** | **Makanchi Array** | **80.92** | **319** | P | **P** | **02 37 35.8** | **+0.5** |
| | 0.5nm,0.8s,baz=127,slow=4.4,SNR=3.5 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **81.91** | **327** | P | **P** | **02 37 39.5** | **-0.8** |
| | 1.8nm,0.7s,baz=108,slow=5.7,SNR=8.5 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **81.91** | **327** | *e*P | **P** | **02 37 39.5** | **-0.9** |
| **ILAR** | **Eielson Array** | **83.56** | **22** | P | **P** | **02 37 48.5** | **-0.3** |
| | 1.9nm,0.8s,baz=252,slow=5.2,SNR=13 | | | | | | |
| **ILB** | **Eielson Array** | **83.56** | **22** | *e*P | **P** | **02 37 48.5** | **-0.3** |
| **BVAR** | **Borovoye Array** | **89.93** | **323** | P | **P** | **02 38 19.5** | **-0.6** |
| | 1.4nm,0.8s,baz=102,slow=5.1,SNR=7.2 | | | | | | |
| **NV01** | **Mina Array Sit** | **93.32** | **52** | *e*P | **P** | **02 38 37.7** | **+1.2** |
| **NVAR** | **Mina Array Bea** | **93.32** | **52** | P | **P** | **02 38 37.7** | **+1.2** |
| | 0.1nm,0.3s,baz=268,slow=5.1,SNR=3.0 | | | | | | |
| **YKA** | **Yellowknife Ar** | **96.82** | **28** | P | **P** | **02 38 51.1** | **-0.5** |
| | 0.6nm,1.1s,baz=262,slow=4.1,SNR=3.0 | | | | | | |
| **YKB5** | **Yellowknife Ar** | **96.82** | **28** | *e*P | **P** | **02 38 51.1** | **-0.4** |
| **TORD** | **Torodi Ar. Bea** | **150.14** | **286** | PKPbc | **PKPbc** | **02 45 12.2** | **-0.6** |
| | 1.0nm,0.6s,baz=94,slow=2.5,SNR=8.0 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **150.14** | **286** | *e*PKPbc | **PKPbc** | **02 45 12.2** | **-0.6** |

**WEL 21 02:39:07.0±0.4,37.41S×179.75E, h5km, ML3.5/6, 1D, Error ellipse: s-maj=3.7km s-min=2.7km az=0.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WMGZ** | **Waiomatatini S** | **1.14** | **249** | P* | Pg | 02 39 28.4 | -0.3 |
| WMGZ | | | | S* | Sb | 02 39 44.5 | +0.3 |
| WMGZ | | | | | AML | 02 39 44.7 | |
| **MXZ** | **Matakaoa Point** | **1.16** | **262** | P* | Pg | 02 39 28.5 | -0.6 |
| MXZ | | | | S* | Sg | 02 39 44.2 | 0.0 |
| MXZ | | | | | AML | 02 39 44.6 | |
| **PUZ** | **Puketiti** | **1.35** | **240** | ⇓PN | Pn | 02 39 31.9 | -0.7 |
| PUZ | | | | | AML | 02 39 50.2 | |
| PUZ | | | | | AML | 02 39 51.7 | |
| **PKGZ** | **Pakihiroa** | **1.41** | **250** | PN | Pn | 02 39 32.3 | -1.1 |
| PKGZ | | | | | AML | 02 39 51.5 | |
| PKGZ | | | | | AML | 02 39 51.8 | |
| **TWGZ** | **Tauwhareparae** | **1.60** | **241** | PN | Pn | 02 39 35.6 | -0.4 |
| TWGZ | | | | SN | Sn | 02 39 56.0 | -1.0 |
| TWGZ | | | | | AML | 02 39 57.4 | |
| **HAZ** | **Te Kaha** | **1.60** | **257** | PN | Pn | 02 39 35.6 | -0.3 |
| HAZ | | | | | AML | 02 39 57.0 | |
| HAZ | | | | | AML | 02 40 01.2 | |
| **RUGZ** | **Raukumara Rang** | **1.73** | **251** | PN | Pn | 02 39 37.8 | -0.1 |
| **URZ** | **Urewera** | **2.25** | **247** | PN | Pn | 02 39 44.8 | -0.1 |

*TIR **21** 02:39:25.7±6.4,40˚.15N×19˚.74E, h5km±20km, ML3.4*
*THE **21** 02:39:27.8,40˚.16N×19˚.69E, h0km±1km, ML3.0/14, Error ellipse: s-maj=2.2km s-min=0.9km az=295.0*
*ATH **21** 02:39:27.6,40˚.13N×19˚.71E, h16km±1km, ML2.9/8, Error ellipse: s-maj=1.7km s-min=1.2km az=165.0*
*IDC **21** 02:39:28.2±3.3, 39˚.97N×19˚.37E, h37km±40km, mb3.2/3, mb1 3.5/6, mb1mx3.1/35, mbtmp3.4/6, ML3.7/3, MS2.7/1, Ms1 2.7/1, ms1mx2.0/30, Error ellipse: s-maj=44.2km s-min=23.8km az=51.0*
*CSEM **21** 02:39:28.0±0.1, 40˚.13N×19˚.70E, h2km, ML3.4, Error ellipse: s-maj=3.8km s-min=2.3km az=53.0*
*ROM **21** 02:39:28.3±0.3, 40˚.11N×19˚.87E, h10km, Md2.9/3, MI3.0/3, Error ellipse: s-maj=5.3km s-min=2.9km az=96.0*
*PDG **21** 02:39:28.2±0.7, 40˚.09N×19˚.61E, h10km±1km, ML3.1/11, Error ellipse: s-maj=0.8km s-min=1.3km az=0.0*
**ISC 21 02:39:27.2±1.0, 40˚.10N±0˚.01×19˚.69E±0˚.02, h10km±8km, n186, σ1§75/271, mb3.3/3, 8C-10D, Albania**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SRN** | **Sarande** | **0.33** | **132** | *i* PG | **Pg** | **02 39 33.8** | **+0.1** |
| SRN | | | | *i* SG | **Sb** | **02 39 39.8** | **-0.6** |
| **SRN** | **Sarande** | **0.33** | **132** | *i* Pg | **Pg** | **02 39 33.8** | **+0.1** |
| | SNR=90 | | | | | | |
| SRN | | | | *i* Sg | **Sb** | **02 39 39.8** | **-0.6** |
| | SNR=90 | | | | | | |
| **KEK** | **Kerkira** | **0.40** | **167** | Pg | **Pb** | **02 39 36.1** | **-0.1** |
| KEK | | | | Sg | **Sb** | **02 39 43.4** | **+1.0** |
| | 222nm,0.3s | | | | | | |
| **KEK** | **Kerkira** | **0.40** | **167** | P | **Pb** | **02 39 36.2** | **-0.1** |
| KEK | | | | S | **Sb** | **02 39 42.9** | **+0.5** |
| KEK | | | | AML | AML | 02 39 44.5 | |
| | comp=E,3888μm,0.2s | | | | | | |
| KEK | | | | AML | AML | 02 39 46.6 | |
| | comp=N,4912μm,0.4s | | | | | | |
| **KEK** | **Kerkira** | **0.40** | **167** | Pg | **Pb** | **02 39 36.1** | **-0.1** |
| KEK | | | | S | **Sb** | **02 39 42.9** | **+0.5** |
| KEK | | | | Sg | **Sb** | **02 39 43.4** | **+1.0** |
| | comp=N,222nm,0.3s | | | | | | |
| **KEK** | **Kerkira** | **0.40** | **167** | P | **Pb** | **02 39 35.9** | **-0.4** |
| KEK | | | | S | **Sb** | **02 39 43.7** | **+1.3** |
| **SGD** | **Sagiada** | **0.65** | **139** | P | **Pg** | **02 39 39.8** | **+0.1** |
| **SGD** | **Sagiada** | **0.65** | **139** | P | **Pg** | **02 39 39.8** | **+0.1** |
| **SGD** | **Sagiada** | **0.65** | **139** | P | **Pg** | **02 39 39.8** | **+0.1** |
| **SCTE** | **Santa Cesarea** | **0.93** | **269** | Pg | **Pn** | **02 39 47.6** | **+1.3** |
| SCTE | | | | Sg | **Sn** | **02 40 03.2** | **+3.5** |
| | comp=N,300nm,0.3s | | | | | | |
| **SCTE** | **Santa Cesarea** | **0.93** | **269** | P | **Pn** | **02 39 47.2** | **+0.9** |
| SCTE | | | | S | **Sb** | **02 39 59.6** | **+1.7** |
| SCTE | | | | AML | AML | 02 40 04.2 | |
| | comp=E,1460μm,0.4s | | | | | | |
| SCTE | | | | AML | AML | 02 40 05.8 | |
| | comp=N,1011μm,0.3s | | | | | | |
| **SCTE** | **Santa Cesarea** | **0.93** | **269** | P | **Pn** | **02 39 47.2** | **+0.9** |
| **SCTE** | **Santa Cesarea** | **0.93** | **269** | Pg | **Pn** | **02 39 47.6** | **+1.3** |
| SCTE | | | | S | **Sb** | **02 39 59.6** | **+1.7** |
| **KBN** | **Korca** | **0.99** | **58** | *i* PN | **Pg** | **02 39 44.6** | **-1.7** |
| KBN | | | | *i* SN | Sn | 02 40 16.7 | +15 |
| **JAN** | **Janina** | **1.00** | **116** | P | **Pg** | **02 39 46.3** | **-0.2** |
| JAN | | | | S | **Sb** | **02 39 60.0** | **+0.2** |
| JAN | | | | AML | AML | 02 40 04.8 | |
| | comp=E,2201μm,0.4s | | | | | | |
| JAN | | | | AML | AML | 02 40 07.4 | |
| | comp=N,1384μm,0.4s | | | | | | |
| **JAN** | **Janina** | **1.00** | **116** | P | **Pb** | **02 39 47.1** | **+0.5** |
| JAN | | | | S | **Sn** | **02 40 01.8** | **+0.4** |
| **JAN** | **Janina** | **1.00** | **116** | P | **Pb** | **02 39 47.1** | **+0.5** |
| JAN | | | | S | **Sn** | **02 40 01.8** | **+0.4** |
| **NEST** | **Nestorio** | **1.09** | **73** | P | **Pg** | **02 39 46.9** | **-1.3** |
| **NEST** | **Nestorio** | **1.09** | **73** | P | **Pg** | **02 39 47.1** | **-1.0** |
| **NEST** | **Nestorio** | **1.09** | **73** | P | **Pg** | **02 39 47.1** | **-1.0** |
| **PENT** | **Pentalofos** | **1.12** | **85** | P | **Pg** | **02 39 47.8** | **-0.9** |
| **PENT** | **Pentalofos** | **1.12** | **85** | P | **Pg** | **02 39 47.8** | **-0.9** |
| PENT | | | | S | **Sn** | **02 40 05.5** | **+1.1** |
| **PENT** | **Pentalofos** | **1.12** | **85** | P | **Pg** | **02 39 47.5** | **-1.2** |
| PENT | | | | S | **Sn** | **02 40 05.5** | **+1.1** |
| **TIR** | **Tirane** | **1.25** | **6** | *i* PG | **Pg** | **02 39 51.0** | **-0.2** |
| TIR | | | | *i* SG | **Sn** | **02 40 12.1** | **+4.5** |
| **TIR** | **Tirane** | **1.25** | **6** | Pg | **Pg** | **02 39 51.1** | **-0.2** |
| TIR | | | | Sg | **Sg** | **02 40 08.0** | **+0.5** |
| | comp=N,427nm,0.6s | | | | | | |
| **TIR** | **Tirane** | **1.25** | **6** | P | **Pg** | **02 39 51.5** | **+0.2** |
| **TIR** | **Tirane** | **1.25** | **6** | Pg | **Pg** | **02 39 51.1** | **-0.2** |
| **TIR** | **Tirane** | **1.25** | **6** | P | **Pg** | **02 39 51.5** | **+0.2** |
| TIR | | | | Sg | **Sg** | **02 40 08.0** | **+0.5** |
| | comp=N,427nm,0.6s | | | | | | |
| **KPRO** | **Kipourio** | **1.30** | **96** | P | **Pg** | **02 39 51.7** | **-0.4** |
| **KPRO** | **Kipourio** | **1.30** | **96** | P | **Pg** | **02 39 51.7** | **-0.4** |
| KPRO | | | | S | **Sn** | **02 40 11.1** | **+2.3** |
| **KPRO** | **Kipourio** | **1.30** | **96** | P | **Pg** | **02 39 51.6** | **-0.5** |
| KPRO | | | | S | **Sn** | **02 40 11.1** | **+2.3** |
| **OHR** | **Ohrid** | **1.32** | **40** | *e*Pg | **Pg** | **02 39 51.9** | **-0.6** |
| OHR | | | | *e*Sg | **Sn** | **02 40 13.8** | **+4.4** |
| OHR | | | | *e*Lg | Lg | 02 40 14.4 | |
| | comp=N,264nm,0.8s | | | | | | |
| OHR | | | | *e*Lg | Lg | 02 40 15.1 | |
| | comp=E,308nm,0.6s | | | | | | |
| **DSL** | **Palaion Diasel** | **1.46** | **131** | P | **Pg** | **02 39 55.5** | **+0.4** |
| DSL | | | | S | **Sn** | **02 40 14.9** | **+2.2** |
| DSL | | | | AML | AML | 02 40 22.2 | |
| | comp=E,884μm,0.4s | | | | | | |
| DSL | | | | AML | AML | 02 40 25.7 | |
| | comp=N,1082μm,0.6s | | | | | | |
| **DSL** | **Palaion Diasel** | **1.46** | **131** | P | **Pg** | **02 39 55.5** | **+0.4** |
| DSL | | | | S | **Sn** | **02 40 14.9** | **+2.2** |
| **DSL** | **Palaion Diasel** | **1.46** | **131** | P | **Pg** | **02 39 55.7** | **+0.6** |
| DSL | | | | S | **Sn** | **02 40 16.2** | **+3.5** |
| **FNA** | **Florina** | **1.46** | **62** | P | **Pn** | **02 39 52.7** | **-0.9** |
| FNA | | | | AML | AML | 02 40 22.8 | |
| | comp=E,773μm,0.8s | | | | | | |
| FNA | | | | AML | AML | 02 40 23.6 | |
| | comp=N,1109μm,0.5s | | | | | | |
| **FNA** | **Florina** | **1.46** | **62** | P | **Pn** | **02 39 53.5** | **-0.1** |
| FNA | | | | S | **Sn** | **02 40 15.3** | **+2.5** |
| **FNA** | **Florina** | **1.46** | **62** | P | **Pn** | **02 39 53.5** | **-0.1** |
| FNA | | | | S | **Sn** | **02 40 15.3** | **+2.5** |
| **LKD2** | **Lefkada island** | **1.51** | **150** | P | **Pg** | **02 39 56.2** | **0.0** |
| **LKD2** | **Lefkada island** | **1.51** | **150** | P | **Pg** | **02 39 56.2** | **0.0** |
| LKD2 | | | | S | **Sg** | **02 40 18.0** | **+2.2** |
| **LKD2** | **Lefkada island** | **1.51** | **150** | P | **Pg** | **02 39 56.2** | **0.0** |
| LKD2 | | | | S | **Sg** | **02 40 18.0** | **+2.2** |
| **BIA** | **Bitola** | **1.55** | **53** | P | **Pn** | **02 39 55.9** | **+1.1** |
| **BIA** | **Bitola** | **1.55** | **53** | P | **Pn** | **02 39 55.9** | **+1.1** |
| **BIA** | **Bitola** | **1.55** | **53** | *e*Pg | **Pn** | **02 39 55.9** | **+1.1** |
| BIA | | | | *i* Sg | **Sg** | **02 40 19.6** | **+2.6** |
| **KZN** | **Kozani** | **1.61** | **82** | P | **Pb** | **02 39 57.4** | **+0.4** |
| KZN | | | | AML | AML | 02 40 29.4 | |
| | comp=E,563μm,0.8s | | | | | | |
| KZN | | | | AML | AML | 02 40 29.8 | |
| | comp=N,569μm,0.6s | | | | | | |
| **KZN** | **Kozani** | **1.61** | **82** | P | **Pb** | **02 39 57.4** | **+0.4** |
| KZN | | | | S | **Sg** | **02 40 19.1** | **+0.1** |
| **KZN** | **Kozani** | **1.61** | **82** | P | **Pb** | **02 39 57.4** | **+0.4** |
| KZN | | | | S | **Sg** | **02 40 19.1** | **+0.1** |
| **PHP** | **Peshkopia** | **1.68** | **20** | *i* PN | **Pg** | **02 39 59.5** | **+0.1** |
| PHP | | | | *i* SN | **Sg** | **02 40 23.6** | **+2.3** |
| **PHP** | **Peshkopia** | **1.68** | **20** | *i* Pn | **Pg** | **02 39 59.5** | **+0.1** |
| | SNR=40 | | | | | | |
| **KRUS** | **Krusevo** | **1.74** | **43** | *e*Pg | **Pn** | **02 39 59.2** | **+1.8** |
| KRUS | | | | *i* Sg | **Sg** | **02 40 23.4** | **+0.3** |
| **CGL1** | **Ceglie Messapi** | **1.78** | **289** | *e*Pn | **Pg** | **02 40 01.2** | **0.0** |
| **THL** | **Klokotos Trika** | **1.87** | **106** | P | **Pb** | **02 40 01.6** | **+0.2** |
| THL | | | | AML | AML | 02 40 30.7 | |
| | comp=N,216μm,0.6s | | | | | | |
| THL | | | | AML | AML | 02 40 40.4 | |
| | comp=E,229μm,0.7s | | | | | | |
| **THL** | **Klokotos Trika** | **1.87** | **106** | P | **Pb** | **02 40 01.6** | **+0.2** |
| THL | | | | S | **Sb** | **02 40 26.1** | **+1.3** |
| **THL** | **Klokotos Trika** | **1.87** | **106** | P | **Pb** | **02 40 01.2** | **-0.2** |
| THL | | | | S | **Sb** | **02 40 26.1** | **+1.3** |
| **TAR1** | **Taranto** | **1.88** | **284** | *e*Pn | **Pg** | **02 40 03.9** | **+0.6** |
| **ULC** | **Ulcinj** | **1.89** | **350** | ⇓*i*Pn | **Pn** | **02 40 01.6** | **+2.1** |
| ULC | | | | *e*Sn | **Sg** | **02 40 28.0** | **0.0** |
| **ULC** | **Ulcinj** | **1.89** | **350** | ⇓*i*Pn | **Pn** | **02 40 01.6** | **+2.1** |
| ULC | | | | *e*Sn | **Sg** | **02 40 28.0** | **0.0** |
| **PDO** | **Prodromos** | **1.90** | **142** | P | **Pn** | **02 40 01.0** | **+1.5** |
| **PDO** | **Prodromos** | **1.90** | **142** | P | **Pn** | **02 40 01.2** | **+1.6** |
| PDO | | | | S | **Sg** | **02 40 27.6** | **-0.5** |
| **PDO** | **Prodromos** | **1.90** | **142** | P | **Pn** | **02 40 01.2** | **+1.6** |
| PDO | | | | S | **Sg** | **02 40 27.6** | **-0.5** |
| **FASA** | **Fasano** | **1.92** | **293** | *e*Pn | **Pg** | **02 40 04.2** | **+0.3** |
| **PUK** | **Puka** | **1.95** | **5** | *i* PN | **Pn** | **02 40 01.7** | **+1.4** |
| **PUK** | **Puka** | **1.95** | **5** | *i* Pn | **Pn** | **02 40 01.7** | **+1.4** |
| | SNR=40 | | | | | | |
| **MASS** | **Massafra** | **2.01** | **286** | *e*Pn | **Pg** | **02 40 06.2** | **+0.5** |
| **EVR** | **Evrytania** | **2.02** | **125** | P | **Pg** | **02 40 05.3** | **-0.6** |
| EVR | | | | | AML | 02 40 39.9 | |
| | comp=E,333μm,0.8s | | | | | | |
| EVR | | | | | AML | 02 40 44.4 | |
| | comp=N,450μm,0.6s | | | | | | |
| **EVR** | **Evrytania** | **2.02** | **125** | P | **Pb** | **02 40 04.3** | **+0.2** |
| EVR | | | | S | **Sb** | **02 40 30.0** | **+0.7** |
| **EVR** | **Evrytania** | **2.02** | **125** | P | **Pb** | **02 40 04.3** | **+0.2** |
| EVR | | | | S | **Sb** | **02 40 30.0** | **+0.7** |
| **VLS** | **Valsamata** | **2.05** | **160** | P | **Pn** | **02 40 01.6** | **0.0** |
| **VLS** | **Valsamata** | **2.05** | **160** | P | **Pn** | **02 40 02.7** | **+1.1** |
| **VLS** | **Valsamata** | **2.05** | **160** | P | **Pn** | **02 40 02.7** | **+1.1** |
| **PVO** | **Paravola** | **2.06** | **135** | P | **Pb** | **02 40 03.9** | **-0.7** |
| **PVO** | **Paravola** | **2.06** | **135** | P | **Pb** | **02 40 03.9** | **-0.7** |
| **NOCI** | **Noci** | **2.12** | **290** | P | **Pn** | **02 40 02.6** | **0.0** |
| **NOCI** | **Noci** | **2.12** | **290** | P | **Pn** | **02 40 02.6** | **0.0** |
| **DRME** | **Dracevica, Mon** | **2.12** | **350** | ⇑*i*Pn | **Pn** | **02 40 04.5** | **+1.9** |
| DRME | | | | *e*Sn | **Sb** | **02 40 33.6** | **+1.6** |
| **DRME** | **Dracevica, Mon** | **2.12** | **350** | ⇑*i*Pn | **Pn** | **02 40 04.5** | **+1.9** |
| DRME | | | | *e*Sn | **Sb** | **02 40 33.6** | **+1.6** |
| **LIT** | **Litokhoron** | **2.15** | **89** | P | **Pb** | **02 40 05.5** | **-0.8** |
| **LIT** | **Litokhoron** | **2.15** | **89** | P | **Pb** | **02 40 05.4** | **-0.8** |
| **LIT** | **Litokhoron** | **2.15** | **89** | P | **Pn** | **02 40 04.4** | **+1.3** |
| **KFL** | **Anninata** | **2.17** | **156** | P | **Pb** | **02 40 06.6** | **+0.2** |
| **KFL** | **Anninata** | **2.17** | **156** | P | **Pn** | **02 40 04.6** | **+1.4** |
| **KFL** | **Anninata** | **2.17** | **156** | P | **Pn** | **02 40 04.6** | **+1.4** |
| **GRG** | **Griva** | **2.24** | **67** | P | **Pb** | **02 40 07.4** | **-0.3** |
| **GRG** | **Griva** | **2.24** | **67** | P | **Pn** | **02 40 06.2** | **+1.9** |
| GRG | | | | S | **Sn** | **02 40 34.1** | **+2.1** |
| **GRG** | **Griva** | **2.24** | **67** | P | **Pn** | **02 40 06.2** | **+1.9** |
| GRG | | | | S | **Sn** | **02 40 34.1** | **+2.1** |
| **BUM** | **Brajici-Budva** | **2.28** | **345** | ⇑*i*Pn | **Pn** | **02 40 07.1** | **+2.2** |
| BUM | | | | *e*Sn | **Sb** | **02 40 37.4** | **+0.8** |
| **BUM** | **Brajici-Budva** | **2.28** | **345** | ⇑*i*Pn | **Pn** | **02 40 07.1** | **+2.2** |
| BUM | | | | *e*Sn | **Sb** | **02 40 37.4** | **+0.8** |
| **SKO** | **Skopje** | **2.29** | **35** | *e*Pg | **Pn** | **02 40 06.7** | **+1.7** |
| SKO | | | | *e*Sg | **Sb** | **02 40 38.0** | **+1.0** |
| **ANX** | **Ano Chora** | **2.30** | **130** | P | **Pn** | **02 40 06.8** | **+1.7** |
| ANX | | | | S | **Sb** | **02 40 37.2** | **0.0** |
| **ANX** | **Ano Chora** | **2.30** | **130** | P | **Pn** | **02 40 06.8** | **+1.7** |
| ANX | | | | S | **Sb** | **02 40 37.2** | **0.0** |
| **AGG** | **Agios Georgios** | **2.31** | **117** | P | **Pb** | **02 40 08.9** | **0.0** |
| **AGG** | **Agios Georgios** | **2.31** | **117** | P | **Pb** | **02 40 08.1** | **-0.8** |
| AGG | | | | S | **Sb** | **02 40 37.4** | **-0.1** |
| **AGG** | **Agios Georgios** | **2.31** | **117** | P | **Pb** | **02 40 08.1** | **-0.8** |
| AGG | | | | S | **Sb** | **02 40 37.4** | **-0.1** |
| **PDG** | **Podgorica** | **2.35** | **352** | ⇓*i*Pn | **Pn** | **02 40 07.4** | **+1.6** |
| PDG | | | | *e*Sn | **Sb** | **02 40 39.1** | **+0.5** |
| **TTG** | **Podgorica** | **2.35** | **352** | ⇓*i*Pn | **Pn** | **02 40 07.4** | **+1.6** |
| TTG | | | | *e*Sn | **Sb** | **02 40 39.1** | **+0.5** |
| **BAI** | **Bari** | **2.36** | **296** | *e*Pn | **Pn** | **02 40 06.8** | **+0.9** |
| **EFP** | **Efpalio** | **2.40** | **133** | P | **Pb** | **02 40 09.5** | **-0.9** |
| **EFP** | **Efpalio** | **2.40** | **133** | P | **Pb** | **02 40 09.1** | **-1.3** |
| EFP | | | | S | **Sb** | **02 40 40.2** | **+0.1** |
| **EFP** | **Efpalio** | **2.40** | **133** | P | **Pb** | **02 40 09.1** | **-1.3** |
| EFP | | | | S | **Sb** | **02 40 40.2** | **+0.1** |
| **SG1** | **Sgolgore (BA)** | **2.41** | **289** | *e*Pn | **Pn** | **02 40 08.1** | **+1.5** |
| **TIP** | **Timpagrande** | **2.44** | **249** | P | **Pn** | **02 40 08.9** | **+1.8** |
| **TIP** | **Timpagrande** | **2.44** | **249** | P | **Pn** | **02 40 08.9** | **+1.8** |
| **RLS** | **Riolos of Patr** | **2.47** | **145** | P | **Pn** | **02 40 08.7** | **+1.3** |
| **RLS** | **Riolos of Patr** | **2.47** | **145** | P | **Pn** | **02 40 08.6** | **+1.3** |
| **PVY** | **Plav** | **2.50** | **5** | *e*Pn | **Pn** | **02 40 09.7** | **+1.7

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| NVLJ | | | | Sn | | **Sn** | 02 41 55.1 | -2.4 | |
| **NVLJ** | **Novalja** | **5.71** | **323** | *e*Pn | | **Pn** | 02 40 52.1 | +0.2 | |
| **IDI** | **Anoyia** | **6.33** | **138** | Pn | | **Pn** | 02 41 00.1 | -0.5 | |
| | comp=N,0.2nm,0.3s,baz=270,slow=16,SNR=2.8 | | | | | | | | |
| IDI | | | | Sn | | **Sn** | 02 42 08.9 | -4.0 | |
| | comp=N,0.4nm,0.3s,baz=305,slow=16,SNR=4.1 | | | | | | | | |
| **CRES** | **Cresnjev** | **6.51** | **333** | *e*Pn | | **Pn** | 02 41 02.8 | -0.1 | |
| **CEY** | **Cerknica** | **6.83** | **327** | *e*Pn | | **Pn** | 02 41 06.6 | -0.7 | |
| **SOKA** | **Soboth** | **7.39** | **334** | *e*Pn | | **Pn** | 02 41 16.2 | +1.1 | |
| | comp=N,0.8nm,0.3s | | | | | | | | |
| SOKA | | | | *e*Sn | | **Sn** | 02 42 35.1 | -4.0 | |
| | comp=N,0.8nm,0.4s | | | | | | | | |
| **SOKA** | **Soboth** | **7.39** | **334** | Pn | | **Pn** | 02 41 16.2 | +1.1 | |
| | comp=N,0.8nm,0.3s | | | | | | | | |
| **OBKA** | **Obir** | **7.42** | **331** | *e*Pn | | **Pn** | 02 41 16.4 | +0.9 | |
| | comp=N,2.1nm,0.3s | | | | | | | | |
| OBKA | | | | *e*Sn | | **Sn** | 02 42 39.8 | +0.1 | |
| | comp=N,3.4nm,0.5s | | | | | | | | |
| **OBKA** | **Obir** | **7.42** | **331** | Pn | | **Pn** | 02 41 16.4 | +0.9 | |
| | comp=N,2.1nm,0.3s | | | | | | | | |
| OBKA | | | | Sn | | **Sn** | 02 42 39.8 | +0.1 | |
| | comp=N,3.4nm,0.5s | | | | | | | | |
| **MOA** | **Molln** | **8.67** | **335** | *e*Pn | | **Pn** | 02 41 34.5 | +1.9 | |
| | comp=N,0.6nm,0.3s | | | | | | | | |
| MOA | | | | *e*Sn | | **Sn** | 02 43 07.9 | -2.5 | |
| | comp=N,0.5nm,0.3s | | | | | | | | |
| **MOA** | **Molln** | **8.67** | **335** | Pn | | **Pn** | 02 41 34.5 | +1.9 | |
| | comp=N,0.6nm,0.3s | | | | | | | | |
| **GERES** | **GERESS Array B** | **9.73** | **336** | Pn | | **Pn** | 02 41 47.2 | 0.0 | |
| | comp=N,0.2nm,0.3s,baz=158,slow=14,SNR=5.7 | | | | | | | | |
| **ESDC** | **Sonseca Array** | **18.15** | **276** | P | | **Pn** | 02 43 33.8 | -5.4 | |
| | comp=N,0.2nm,0.3s,baz=84,slow=17,SNR=4.5 | | | | | | | | |
| **MDT** | **Midelt** | **20.81** | **257** | LR | | LR | 02 51 17.7 | | |
| | comp=N,18nm,18.7s,baz=242,slow=34 | | | | | | | | |
| **NOA** | **NORSAR Array B** | **21.61** | **349** | P | | **P** | 02 44 16.8 | -0.3 | |
| | comp=N,1.0nm,0.8s,baz=158,slow=10,SNR=2.8 | | | | | | | | |
| **FINES** | **FINESS Array B** | **21.73** | **8** | P | | **P** | 02 44 16.2 | -2.0 | |
| | comp=N,1.2nm,0.7s,baz=187,slow=8.1,SNR=3.4 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **44.87** | **60** | P | | **P** | 02 47 41.0 | -0.6 | |
| | comp=N,0.1nm,0.3s,baz=283,slow=7.7,SNR=6.4 | | | | | | | | |

*ISK* ***21*** *02:48:50.5,38˚.71N×43˚.39E, h5km, MD2.4, ML2.3*
*ISCJB* ***21*** *02:48:51.6±0.5, 38˚.72N±0˚.03×43˚.37E±0˚.05, h12km±6km, Error ellipse: s-maj=6.5km s-min=4.0km az=20.3*
*CSEM* ***21*** *02:48:51.4±0.2, 38˚.72N×43˚.36E, h5km, MD2.4, Error ellipse: s-maj=6.0km s-min=4.0km az=120.0*
*DDA* ***21*** *02:48:51.0, 38˚.72N×43˚.38E, h7km, Ml2.7*
**ISC 21 02:48:50.7±0.9, 38.73N±0˚.03×43.39E±0˚.03, h16km±8km, n21, σ0°60/34, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.13** | **180** | *e*PG | **Pb** | **02 48 55.5** | **+0.6** |
| **VANB** | **Van** | **0.13** | **180** | *e*Pg | **Pb** | **02 48 55.5** | **+0.6** |
| **TVAN** | **Van** | **0.20** | **176** | *i* P | **Pg** | **02 48 55.3** | **-0.3** |
| TVAN | | | | *i* S | **Sg** | **02 48 59.1** | **+0.1** |
| **TVAN** | **Van** | **0.20** | **176** | P | **Pg** | **02 48 55.3** | **-0.3** |
| **ERCV** | **ERCIS-VAN** | **0.29** | **352** | *e*PG | **Pb** | **02 48 57.6** | **-0.1** |
| ERCV | | | | *e*SG | **Sb** | **02 49 03.3** | **+0.8** |
| **ERCV** | **ERCIS-VAN** | **0.29** | **352** | *e*Pg | **Pb** | **02 48 57.6** | **-0.1** |
| ERCV | | | | *e*Sg | **Sb** | **02 49 03.3** | **+0.8** |
| **VMUR** | **Van-Muradiye** | **0.30** | **29** | *i* P | **Pb** | **02 48 58.0** | **+0.2** |
| VMUR | | | | *i* S | **Sb** | **02 49 03.5** | **+1.0** |
| **VMUR** | **Van-Muradiye** | **0.30** | **29** | P | **Pb** | **02 48 58.0** | **+0.2** |
| VMUR | | | | S | **Sb** | **02 49 03.5** | **+1.0** |
| **GEVA** | **Gevas** | **0.49** | **212** | *i* P | **Pg** | **02 49 00.0** | **-0.6** |
| GEVA | | | | *i* S | **Sb** | **02 49 07.9** | **-0.1** |
| **GEVA** | **Gevas** | **0.49** | **212** | P | **Pg** | **02 49 00.0** | **-0.6** |
| GEVA | | | | S | **Sb** | **02 49 07.9** | **-0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.53** | **279** | *i* P | **Pg** | **02 49 01.0** | **-0.3** |
| ADCV | | | | *i* S | **Sb** | **02 49 09.3** | **+0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.53** | **279** | P | **Pg** | **02 49 01.0** | **-0.3** |
| ADCV | | | | S | **Sb** | **02 49 09.3** | **+0.3** |
| **CLDR** | **Caldiran** | **0.58** | **45** | *e*PG | **Pb** | **02 49 03.2** | **+0.5** |
| CLDR | | | | *e*SG | **Sn** | **02 49 12.4** | **-1.5** |
| **CLDR** | **Caldiran** | **0.58** | **45** | *i* P | **Pb** | **02 49 02.7** | **0.0** |
| CLDR | | | | *i* S | **Sb** | **02 49 11.1** | **+0.3** |
| **CLDR** | **Caldiran** | **0.58** | **45** | P | **Pb** | **02 49 02.7** | **0.0** |
| **CLDR** | **Caldiran** | **0.58** | **45** | *e*Pg | **Pb** | **02 49 03.2** | **+0.5** |
| CLDR | | | | S | **Sb** | **02 49 11.1** | **+0.3** |
| CLDR | | | | *e*Sg | **Sn** | **02 49 12.4** | **-1.5** |
| **TUTA** | **Tutak** | **0.81** | **327** | *i* P | **Pb** | **02 49 06.9** | **+0.4** |
| **TUTA** | **Tutak** | **0.81** | **327** | P | **Pb** | **02 49 06.9** | **+0.4** |
| **AGRB** | **Hanur-Agry** | **0.90** | **340** | *e*PG | **Pn** | **02 49 09.3** | **+0.4** |
| **SIRT** | **Sirnak** | **1.44** | **212** | *e*PN | **Pg** | **02 49 18.5** | **+0.1** |
| **CUKT** | **Cukurca** | **1.49** | **173** | *e*PN | **Pg** | **02 49 19.1** | **-0.2** |

*ISCJB* ***21*** *03:02:56.1±0.4, 55˚.37S±0˚.07×76˚.8E±0˚.1, h10km, mb4.5/17, MS3.5/2, Error ellipse: s-maj=10.1km s-min=8.4km az=172.5*
*IDC* ***21*** *03:02:56.6±0.6, 55˚.21S×76˚.65E, h0km, mb4.3/8, mb1 4.4/8, mb1mx4.1/28, mbtmp4.3/8, MS3.5/2, Ms1 3.6/2, ms1mx3.1/25, Error ellipse: s-maj=27.8km s-min=17.6km az=168.0*
*NEIC* ***21*** *03:02:58.0±0.3, 55˚.37S×76˚.77E, h10km, mb4.7/13, Error ellipse: s-maj=9.7km s-min=7.9km az=187.0*
**ISC 21 03:02:58.1±0.5, 55˚.31S±0˚.07×76˚.68E±0˚.09, h10km, n52, σ1§25/52, mb4.6/17, 1C-2D, Southern Kerguelen Plateau**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PAF** | **Port-aux-Franc** | **7.17** | **324** | *e*Pn | **Pn** | **03 04 44.4** | **+1.6** |
| PAF | | | | *e*Sn | **Sn** | **03 06 00.7** | **-3.5** |
| **MAW** | **Mawson** | **13.93** | **202** | Pn | **Pn** | **03 06 12.5** | **-2.7** |
| | 1.8nm,0.3s,baz=26,slow=14,SNR=8.7 | | | | | | |
| MAW | | | | Sn | Sn | 03 08 33.4 | -16 |
| | 3.2nm,0.3s,baz=317,slow=22,SNR=4.0 | | | | | | |
| **CRZF** | **Crozet Islands** | **17.93** | **289** | *e*Pn | **P** | **03 07 07.4** | **-0.4** |
| | 63nm,1.0s | | | | | | |
| **SYO** | **Syowa Base** | **21.61** | **216‖** | *i*P | **P** | **03 07 46.6** | **-1.2** |
| **SYO** | **Syowa Base** | **21.61** | **216‖** | *e*P | **P** | **03 07 52.3** | **+4.5** |
| **SYO** | **Syowa Base** | **21.61** | **216‖** | *e*pP | pP | 03 07 54.4 | +3.7 |
| **H01W2** | **Cape Leeuwin H** | **32.83** | **67** | T | T | 03 44 04.4 | |
| | baz=219,slow=75,SNR=66 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **32.84** | **67** | T | T | 03 44 05.4 | |
| | baz=219,slow=95 | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **32.84** | **67** | T | T | 03 43 57.2 | |
| | baz=219,slow=75,SNR=74 | | | | | | |
| **QSPA** | **South Pole Qui** | **34.84** | **180** | *e*P | **P** | **03 09 48.7** | **-0.3** |
| | 9.5nm,0.8s | | | | | | |
| **VNDA** | **Vanda** | **35.78** | **158** | LR | LR | 03 24 41.2 | |
| | comp=Z,72nm,19.2s,baz=260,slow=36 | | | | | | |
| **VNDA** | **Vanda** | **35.78** | **158** | *e*P | **P** | **03 09 57.0** | **+0.3** |
| **SNAA** | **Sanae** | **35.78** | **212** | P | **P** | **03 09 57.2** | **+0.3** |
| **SNAA** | **Sanae** | **35.78** | **212** | P | **P** | **03 09 56.5** | **-0.4** |
| | 8.8nm,1.0s,baz=126,slow=8.6,SNR=14 | | | | | | |
| **SNAA** | **Sanae** | **35.78** | **212** | *e*P | **P** | **03 09 57.4** | **+0.5** |
| | 17nm,1.2s | | | | | | |
| **VNA2** | **Neumayer--Watz** | **37.41** | **213** | P | **P** | **03 10 10.5** | **-0.2** |
| | baz=101,slow=8.3 | | | | | | |
| **VNA1** | **Neumayer--Stat** | **37.78** | **213** | P | **P** | **03 10 12.5** | **-1.3** |
| **VNA3** | **Neumayer Olymp** | **37.99** | **212** | P | **P** | **03 10 15.8** | **+0.2** |
| **BOSA** | **Boshof** | **45.23** | **284** | P | **P** | **03 11 15.5** | **0.0** |
| | 4.1nm,0.8s,baz=147,slow=7.7,SNR=7.5 | | | | | | |
| **BBOO** | **Buckleboo** | **46.55** | **87** | *e*P | **P** | **03 11 26.0** | **+0.3** |
| | 14nm,0.8s | | | | | | |
| **LBTB** | **Lobatse** | **47.87** | **288** | P | **P** | **03 11 35.6** | **-0.6** |
| | 2.5nm,0.7s,baz=158,slow=7.1,SNR=4.7 | | | | | | |
| **LBTB** | **Lobatse** | **47.87** | **288** | *e*P | **P** | **03 11 35.6** | **-0.6** |
| | 6.1nm,1.0s | | | | | | |
| **STKA** | **Stephens Creek** | **50.40** | **90** | P | **P** | **03 11 56.0** | **+0.6** |
| | 7.1nm,0.7s,baz=189,slow=4.5,SNR=22 | | | | | | |
| **STKA** | **Stephens Creek** | **50.40** | **90** | *e*P | **P** | **03 11 55.5** | **+0.1** |
| | 4.3nm,0.9s | | | | | | |
| **ASAR** | **Alice Springs** | **52.32** | **77** | P | **P** | **03 12 09.9** | **0.0** |
| | 1.1nm,0.6s,baz=211,slow=7.4,SNR=22 | | | | | | |
| ASAR | | | | PcP | **PcP** | **03 13 20.8** | **-0.3** |
| | 1.3nm,0.8s,baz=215,slow=3.6,SNR=4.5 | | | | | | |
| **AS31** | **Alice Springs** | **52.32** | **77** | *e*P | **P** | **03 12 09.9** | **0.0** |
| | 1.1nm,0.6s | | | | | | |
| AS31 | | | | *e*PcP | **PcP** | **03 13 20.8** | **-0.3** |
| **AS01** | **Alice Springs** | **52.35** | **77** | *e*P | **P** | **03 12 10.0** | **-0.1** |
| **LSZ** | **Lusaka** | **54.52** | **297** | *e*P | **P** | **03 12 28.3** | **+2.1** |
| | 8.4nm,0.9s | | | | | | |
| **MLZ** | **Mavora Lakes** | **55.12** | **121** | *e*P | **P** | **03 12 29.9** | **-0.2** |
| | 33nm,1.9s | | | | | | |
| **WR1** | **Warramunga Arr** | **55.53** | **75** | *e*P | **P** | **03 12 33.2** | **-0.2** |
| | 6.6nm,1.1s | | | | | | |
| **WRA** | **Warramunga Arr** | **55.53** | **75** | P | **P** | **03 12 33.2** | **-0.2** |
| | 1.4nm,0.6s,baz=215,slow=6.8,SNR=22 | | | | | | |
| **WB2** | **Warramunga Arr** | **55.54** | **75** | *e*P | **P** | **03 12 32.3** | **-1.2** |
| | 15nm,1.5s | | | | | | |
| **WRAB** | **Tennant Creek** | **55.55** | **75** | *e*P | **P** | **03 12 31.2** | **-2.3** |
| | 5.6nm,1.1s | | | | | | |
| **KMBO** | **Kilima Mbogo** | **62.77** | **314** | LR | LR | 03 37 45.2 | |
| | comp=Z,41nm,18.3s,baz=70,slow=33 | | | | | | |
| **CM31** | **Chiang Mai Arr** | **75.88** | **22** | *e*P | **P** | **03 14 43.3** | **-1.2** |
| **CMAR** | **Chiang Mai Arr** | **75.88** | **22** | P | **P** | **03 14 43.3** | **-1.2** |
| | 1.2nm,0.5s,baz=216,slow=6.7,SNR=5.3 | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **83.46** | **264** | T | T | 04 47 57.9 | |
| | baz=143,slow=75,SNR=4.7 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **83.48** | **264** | T | T | 04 47 59.2 | |
| | baz=143,slow=75,SNR=4.3 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **83.48** | **264** | T | T | 04 47 59.8 | |
| | baz=143,slow=75,SNR=4.2 | | | | | | |
| **KBL** | **Kabul** | **89.73** | **354** | *e*P | **P** | **03 15 57.9** | **+1.7** |
| | 6.6nm,0.8s | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **92.36** | **290** | P | **P** | **03 16 10.0** | **+1.3** |
| | 1.1nm,0.9s,baz=129,slow=4.7,SNR=6.5 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **92.37** | **290** | *e*P | **P** | **03 16 10.0** | **+1.3** |
| **GERES** | **GERESS Array B** | **116.39** | **319** | PKP | **PKPdf** | **03 21 40.6** | **-0.3** |
| | 0.6nm,0.6s,baz=151,slow=3.0,SNR=4.8 | | | | | | |
| **ESDC** | **Sonseca Array** | **116.74** | **301** | PKP | **PKPdf** | **03 21 40.7** | **-1.2** |
| | 0.1nm,0.3s,baz=166,slow=2.6,SNR=2.8 | | | | | | |
| **ARA0** | **ARCESS Array S** | **129.94** | **339** | *e*PKPdf | **PKPdf** | **03 22 05.2** | **-1.0** |
| **ARCES** | **ARCESS Array B** | **129.94** | **339** | PKP | **PKPdf** | **03 22 05.2** | **-1.0** |
| | 4.6nm,1.0s,baz=108,slow=4.0,SNR=4.7 | | | | | | |
| **LTX** | **Lajitas** | **154.03** | **179** | *e*PKPdf | **PKPdf** | **03 22 50.4** | **+0.8** |
| LTX | | | | *e*PKPbc | **PKiKP** | **03 22 58.8** | **+1.1** |
| LTX | | | | *e*PKPab | **PKPab** | **03 23 11.4** | **+0.3** |
| **TXAR** | **Lajitas Array** | **154.03** | **179** | PKP | **PKPdf** | **03 22 50.4** | **+0.8** |
| | 0.6nm,0.8s,baz=188,slow=5.5,SNR=5.6 | | | | | | |
| TXAR | | | | PKPbc | **PKiKP** | **03 22 58.8** | **+1.1** |
| | 2.0nm,0.7s,baz=184,slow=5.4,SNR=22 | | | | | | |
| TXAR | | | | PKPab | **PKPab** | **03 23 11.4** | **+0.3** |
| | 2.2nm,0.7s,baz=183,slow=6.1,SNR=7.5 | | | | | | |
| **PD31** | **Pinedale Array** | **166.80** | **159** | *e*PKPdf | **PKPdf** | **03 23 03.1** | **-0.2** |
| PD31 | | | | *e*PKPab | **PKPab** | **03 24 06.5** | **0.0** |
| **PDAR** | **Pinedale Array** | **166.80** | **159** | PKP | **PKPdf** | **03 23 03.1** | **-0.2** |
| | 0.4nm,0.6s,baz=157,slow=3.1,SNR=5.0 | | | | | | |
| PDAR | | | | PKPab | **PKPab** | **03 24 06.5** | **0.0** |
| | 0.3nm,0.6s,baz=143,slow=3.3,SNR=3.3 | | | | | | |
| **YKA** | **Yellowknife Ar** | **170.74** | **34** | PKPab | **PKPab** | **03 24 22.5** | **-0.6** |
| | 0.2nm,0.8s,baz=316,slow=4.9,SNR=4.2 | | | | | | |
| **YKB5** | **Yellowknife Ar** | **170.74** | **34** | *e*PKPab | **PKPab** | **03 24 22.5** | **-0.6** |

*NIED* ***21*** *03:04:00, 32˚.20N×141˚.80E, h5km, Mw4.4 Best double couple: M0 4.15000×10^15 NP1:φ8136.00000°, δ48.00000°, λ46.00000°. NP2:φ8 12.00000°, δ58.00000°, λ128.00000°.*
*IDC* ***21*** *03:04:01.0±0.6, 31˚.99N×141˚.79E, h0km, mb4.3/23, mb1 4.4/26, mb1mx4.3/43, mbtmp4.3/26, ML3.5/3, MS3.7/16, Ms1 3.7/16, ms1mx3.4/43, Error ellipse: s-maj=16.3km s-min=14.5km az=57.0*
*ISCJB* ***21*** *03:04:03.6±1.1, 32˚.08N±0˚.03×141˚.71E±0˚.04, h24km±7km, mb4.5/64, MS3.9/23, Error ellipse: s-maj=5.9km s-min=4.0km az=150.9*
*NEIC* ***21*** *03:04:04.5±1.9, 32˚.01N×141˚.80E, h20km±13km, mb4.9/24, Error ellipse: s-maj=6.9km s-min=5.9km az=79.0*
*MOS* ***21*** *03:04:04.5±1.1, 32˚.04N×141˚.75E, h31km, mb4.9/20, Error ellipse: s-maj=14.0km s-min=6.3km az=113.0*
*BJI* ***21*** *03:04:04.2, 31˚.97N×141˚.74E, h36km, mb4.5/43, mB4.8/34, Ms4.4/31, Ms7 4.2/32*
*JMA* ***21*** *03:04:05.9±0.1, 32˚.18N×141˚.77E, h58km, M4.0*
**ISC 21 03:04:06.0±1.6, 32˚.04N±0˚.05×141˚.76E±0˚.05, h31km±10km, n176, σ1§72/201, mb4.5/64, MS3.8/24, 7C-9D, Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JHCJ** | **Hachijojimakas** | **1.95** | **302** | P | **Pn** | **03 04 36.2** | **-0.7** |
| JHCJ | | | | *e*S | **Sn** | **03 04 59.0** | **-1.3** |
| **JHJ2** | **Mitsune** | **1.96** | **304** | P | **Pn** | **03 04 36.5** | **-0.5** |
| JHJ2 | | | | *e*S | **Sn** | **03 04 59.5** | **-1.0** |
| **JHJ2** | **Mitsune** | **1.96** | **304** | *e*Pn | **Pn** | **03 04 36.8** | **-0.2** |
| JHJ2 | | | | *e*Sn | **Sn** | **03 04 58.9** | **-1.6** |
| **JHJ** | **Hachijo jima 2** | **1.98** | **303** | Pn | **Pn** | **03 04 36.6** | **-0.8** |
| | 84nm,0.3s,baz=91,slow=23,SNR=18 | | | | | | |
| JHJ | | | | Sn | **Sn** | **03 04 59.1** | **-2.1** |
| | 166nm,0.3s,baz=97,slow=20,SNR=6.9 | | | | | | |
| **BSO1** | **Boso 1** | **2.68** | **346** | P | **Pn** | **03 04 46.0** | **-0.5** |
| BSO1 | | | | *e*S | **Sn** | **03 05 16.0** | **-1.7** |
| **BSO4** | **Boso 4** | **3.17** | **338** | P | **Pn** | **03 04 53.2** | **-0.4** |
| **JOD2** | **Odawara 2** | **3.91** | **326** | P | **Pn** | **03 05 03.4** | **-0.5** |
| JOD2 | | | | S | **Sn** | **03 05 46.9** | **-1.8** |
| **JHU** | **Hanno** | **4.32** | **332** | P | **Pn** | **03 05 08.7** | **-0.8** |
| JHU | | | | *e*S | **Sn** | **03 05 56.7** | **-2.2** |
| **JYN** | **Shimodate** | **4.36** | **323** | *e*S | **Sn** | **03 05 59.2** | **-0.8** |
| **JRY** | **Ryogami san** | **4.62** | **330** | P | **Pn** | **03 05 13.4** | **-0.3** |
| **JNY** | **Yasuok** | **4.63** | **317** | P | **Pn** | **03 05 13.4** | **-0.5** |
| **JHO** | **Hitachi** | **4.66** | **348** | P | **Pn** | **03 05 12.9** | **-1.3** |
| JHO | | | | *e*S | **Sn** | **03 06 05.1** | **-2.2** |
| **JAG** | **Ashikaga** | **4.77** | **337** | P | **Pn** | **03 05 15.1** | **-0.6** |
| JAG | | | | *e*S | **Sn** | **03 06 07.9** | **-2.0** |
| **JIE** | **Ise** | **4.84** | **300** | P | **Pn** | **03 05 17.5** | **+0.8** |
| **CBIJ** | **Chichi jima** | **4.95** | **176** | *e*Pn | **Pn** | **03 05 16.2** | **-2.0** |
| CBIJ | | | | *e*Sn | **Sn** | **03 06 09.6** | **-4.7** |
| **JCJ** | **Chichijima** | **4.95** | **176** | Pn | **Pn** | **03 05 16.7** | **-1.5** |
| | 40nm,0.3s,baz=64,slow=19,SNR=23 | | | | | | |
| JCJ | | | | Sn | **Sn** | **03 06 09.6** | **-4.7** |
| | 17nm,0.3s,baz=315,slow=20,SNR=2.6 | | | | | | |
| JCJ | | | | LR | LR | 03 06 56.7 | |
| | comp=Z,605nm,18.4s,baz=17,slow=36 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **5.36** | **328** | Pn | **Pn** | **03 05 24.2** | **+0.3** |
| | 3.6nm,0.3s,baz=151,slow=12,SNR=31 | | | | | | |
| **MAJO** | **Matsushiro** | **5.37** | **328** | *e*P | **Pn** | **03 05 25.0** | **+1.1** |
| MAJO | | | | *e* | | 03 06 23.9 | |
| **MAJO** | **Matsushiro** | **5.37** | **328** | *e*Pn | **Pn** | **03 05 25.0** | **+1.1** |
| MAJO | | | | *e*Sn | **Sn** | **03 06 23.9** | **-0.8** |
| **MAT** | **Matsushiro** | **5.37** | **328** | P | **Pn** | **03 05 24.3** | **+0.4** |
| MAT | | | | *e*S | **Sn** | **03 06 17.6** | **-7.0** |
| **MAT** | **Matsushiro** | **5.37** | **328** | P | **Pn** | **03 05 23.5** | **-0.4** |
| MAT | | | | *e*S | **Sn** | **03 06 23.4** | **-1.2** |
| **MJB9** | **Matsu-Tunnel** | **5.37** | **328** | *e*Pn | **Pn** | **03 05 25.1** | **+1.1** |
| MJB9 | | | | *e*Sn | **Sn** | **03 06 24.2** | **-0.5** |
| **JFT** | **Otama** | **5.58** | **348** | P | **Pn** | **03 05 26.2** | **-0.7** |
| JFT | | | | *e*S | **Sn** | **03 06 28.1** | **-2.0** |
| **JNU** | **Nakatsue** | **9.24** | **280** | Pn | **Pn** | **03 06 19.2** | **+2.0** |
| | 0.2nm,0.3s,baz=104,slow=8.3,SNR=2.6 | | | | | | |
| **ERM** | **Erimo** | **10.02** | **6‖** | *e*P | **Pn** | **03 06 27.4** | **-0.2** |
| **ERM** | **Erimo** | **10.02** | **6** | *e*Pn | **Pn** | **03 06 27.2** | **-0.4** |
| ERM | | | | *e*Sn | **Sn** | **03 08 14.5** | **-4.4** |
| **ASAJ** | **Asahikawa** | **12.07** | **3** | Pn | **Pn** | **03 06 51.7** | **-4.1** |
| | 1.6nm,0.3s,baz=210,slow=10,SNR=9.6 | | | | | | |
| ASAJ | | | | Sn | Sn | 03 08 59.0 | -10 |
| | 0.2nm,0.3s,baz=221,slow=20,SNR=2.5 | | | | | | |
| **ASAJ** | **Asahikawa** | **12.07** | **3** | *e*Pn | **Pn** | **03 06 53.6** | **-2.2** |
| ASAJ | | | | *e*Sn | Sn | 03 08 59.0 | -10 |
| **KSRS** | **Korea Array** | **12.59** | **299** | Pn | Pn | 03 07 07.8 | +4.9 |
| | 0.7nm,0.3s,baz=110,slow=13,SNR=5.9 | | | | | | |
| KSRS | | | | LR | LR | 03 12 04.5 | |
| | comp=Z,401nm,18.4s,baz=109,slow=38 | | | | | | |
| **KS15** | **Wonju Array Si** | **12.61** | **299** | *e*Pn | Pn | 03 07 07.8 | +4.5 |
| **KSAR** | **Wonju Array Be** | **12.61** | **299** | P | Pn | 03 07 07.8 | +4.5 |
| **KSAR** | **Wonju Array Be** | **12.61** | **299** | Pn | Pn | 03 07 07.8 | +4.5 |
| **YSS** | **Yuzh-Sakhalins** | **14.91** | **3** | *e*P | **Pn** | **03 07 33.8** | **-0.6** |
| YSS | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.5s | | | | | | |
| YSS | | | | MLR | MLR | | |
| | comp=Z,500nm,16.0s | | | | | | |
| **KLR** | **Kul'dur** | **18.74** | **339** | P | **P** | **03 08 21.1** | **-1.1** |
| | comp=Z,0.0nm,0.3s,baz=134,slow=11,SNR=15 | | | | | | |
| **NJ2** | **Nanjing** | **19.41** | **276** | *e*P | **P** | **03 08 29.6** | **0.0** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,13nm,0.8s | | | | | | |
| **BJI** | **Beijing** | **22.12** | **298** | P | **P** | **03 08 58.1** | **-0.7** |
| BJI | | | | S | **S** | **03 13 01.1** | **+0.2** |
| BJI | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.8s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,130nm,11.7s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,360nm,16.3s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,200nm,17.7s | | | | | | |
| **HIA** | **Hailar** | **23.84** | **323‖** | *e*P | **P** | **03 09 15.5** | **-0.8** |
| HIA | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.9s | | | | | | |
| **PETK** | **Petropavlovsk-** | **24.00** | **24** | LR | LR | 03 21 44.5 | |
| | comp=Z,202nm,18.2s,baz=216,slow=44 | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **25.73** | **298** | *e*P | **P** | **03 09 34.8** | **+1.1** |
| HHC | | | | S | **S** | **03 13 58.3** | **-2.5** |
| HHC | | | | sS | sS | 03 14 13.6 | -1.9 |
| HHC | | | | SS | **SnSn** | **03 15 02.4** | **+5.6** |
| HHC | | | | ScS | **ScS** | **03 20 29.3** | **-0.5** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,17nm,1.0s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,79nm,5.4s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,260nm,10.5s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,400nm,12.4s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,420nm,12.4s | | | | | | |
| **XAN** | **Xi'an** | **27.54** | **283** | P | **P** | **03 09 48.5** | **-1.5** |
| XAN | | | | pP | pP | 03 09 55.5 | -3.5 |
| XAN | | | | pmax | pmax | | |
| | comp=Z,15nm,0.6s | | | | | | |
| XAN | | | | pmax | pmax | | |
| | comp=Z,81nm,7.1s | | | | | | |
| **DAV** | **Davao City (W)** | **29.07** | **215** | LR | LR | 03 20 23.0 | |
| | comp=Z,89nm,20.8s,baz=15,slow=34 | | | | | | |
| **ULN** | **Ulaanbaatar** | **30.63** | **311** | *c iP* | **P** | **03 10 19.9** | **+2.4** |
| ULN | | | | pmax | pmax | | |
| | comp=Z,11nm,1.7s | | | | | | |
| **ULN** | **Ulaanbaatar** | **30.63** | **311** | *e*P | **P** | **03 10 18.8** | **+1.3** |
| | comp=Z,4.6nm,0.7s | | | | | | |
| **GYA** | **Guiyang** | **31.03** | **269** | *e*P | **P** | **03 10 22.3** | **+1.1** |
| GYA | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| **SONA1** | **Songino Array** | **31.04** | **311** | *e*P | **P** | **03 10 22.7** | **+1.6** |
| **SONA0** | **Songino Array** | **31.04** | **311** | *e*P | **P** | **03 10 22.1** | **+1.0** |
| **SONM** | **Songino Array** | **31.04** | **311** | P | **P** | **03 10 22.1** | **+1.0** |
| | comp=Z,2.7nm,0.9s,baz=112,slow=7.5,SNR=14 | | | | | | |
| **QIZ** | **Qiongzhong** | **31.45** | **253** | P | **P** | **03 10 24.8** | **0.0** |
| QIZ | | | | S | **S** | **03 15 30.8** | **-0.1** |
| QIZ | | | | sS | sS | 03 15 48.9 | +3.2 |
| QIZ | | | | LR | LR | | |
| | comp=Z,75nm,32.3s | | | | | | |
| **LZH** | **Lanzhou** | **31.54** | **288** | *e*P | **P** | **03 10 23.0** | **-2.6** |
| LZH | | | | pP | sP | 03 10 33.8 | -4.6 |
| LZH | | | | sP | pP | 03 10 37.8 | +3.2 |
| LZH | | | | *e*S | **S** | **03 15 28.4** | **-3.8** |
| LZH | | | | sS | sS | 03 15 45.3 | -1.8 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,23nm,1.0s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,73nm,4.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,1μm,10.2s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,1μm,11.8s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,1μm,12.8s | | | | | | |
| **BOD** | **Bodaibo** | **31.98** | **332** | *e*P | **P** | **03 10 26.4** | **-2.6** |
| BOD | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.5s | | | | | | |
| **CD2** | **Chengdu** | **32.32** | **278** | *e*P | **P** | **03 10 30.5** | **-1.9** |
| CD2 | | | | pP | pP | 03 10 39.0 | -2.4 |
| CD2 | | | | sP | sP | 03 10 42.3 | -2.9 |
| CD2 | | | | S | **S** | **03 15 41.9** | **-2.5** |
| CD2 | | | | SS | **SnSn** | **03 17 35.3** | **-2.3** |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,610nm,16.1s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,450nm,12.3s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,480nm,14.2s | | | | | | |
| **ZAK** | **Zakamensk** | **33.77** | **314** | *e*P | **P** | **03 10 47.2** | **+2.2** |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.3s | | | | | | |
| **TLY** | **Talaya** | **33.98** | **317** | *e*P | P | 03 10 51.9 | +5.2 |
| TLY | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.6s | | | | | | |
| TLY | | | | MLR | MLR | | |
| | comp=Z,250nm,17.0s | | | | | | |
| **GTA** | **Gaotai** | **34.59** | **294** | *e*P | **P** | **03 10 51.3** | **-0.9** |
| GTA | | | | pP | sP | 03 11 00.5 | -4.5 |
| GTA | | | | sP | pP | 03 11 04.3 | +3.0 |
| GTA | | | | S | **S** | **03 16 14.3** | **-5.3** |
| GTA | | | | sS | sS | 03 16 31.3 | -3.2 |
| GTA | | | | SS | **SnSn** | **03 18 25.8** | **-6.8** |
| GTA | | | | pmax | pm

comp=Z,181nm,0.5s
**GUN Gumba 48.13 280** *e*P **P 03 12 43.2 -0.5**
comp=Z,18nm,0.6s
**PKI Pulchoki 48.64 280** *e*P **P 03 12 46.4 -1.1**
**KKN Kakani 48.67 280** *e*P **P 03 12 47.0 -0.7**
**DMN Daman 48.88 280** *e*P **P 03 12 48.5 -0.8**
**KURK Kurchatov 49.34 312** *d*i*P* **P 03 12 52.3 +0.1**
KURK pmax pmax
comp=Z,58nm,0.7s
**KURK Kurchatov 49.34 312** *e*P **P 03 12 52.4 +0.1**
comp=Z,17nm,0.8s
**DANN Dangsing 49.75 282** *e*P **P 03 12 56.5 +0.5**
**KOLN Koldanda 50.08 281** *e*P **P 03 12 57.9 -0.5**
comp=Z,21nm,1.0s
**PYUN Piuthan 50.48 282** *e*P **P 03 13 01.1 -0.3**
**KDAK Kodiak Island 50.70 39** P **P 03 13 03.5 +1.1**
comp=Z,17nm,0.9s,baz=248,slow=11,SNR=3.2
**KDAK Kodiak Island 50.70 39** *e*P **P 03 13 03.5 +1.1**
KDAK pmax pmax
comp=Z,193nm,1.6s
**KDAK Kodiak Island 50.70 39** *e*P **P 03 13 03.5 +1.1**
comp=Z,192nm,1.6s
**WRAB Tennant Creek 52.17 189**⇑*e*P **P 03 13 13.2 -0.5**
WRAB pmax pmax
comp=Z,10.0nm,1.0s
**WRAB Tennant Creek 52.17 189** *e*P **P 03 13 13.3 -0.5**
comp=Z,12nm,1.0s
**WB2 Warramunga Arr 52.18 189** *e*P **P 03 13 13.4 -0.4**
comp=Z,8.0nm,0.7s
**WR1 Warramunga Arr 52.18 189** *e*P **P 03 13 12.9 -0.9**
comp=Z,8.3nm,0.8s
**WRA Warramunga Arr 52.18 189** P **P 03 13 12.9 -0.9**
comp=Z,5.3nm,0.4s,baz=4.6,slow=7.6,SNR=64
**KSH Kashi 52.84 298** P **P 03 13 22.9 +4.1**
KSH pP sP 03 13 32.8 +0.9
KSH PcP **PcP 03 14 30.6 +2.8**
KSH PP **PP 03 15 23.9 +5.6**
KSH S **S 03 20 47.5 +1.9**
KSH ScS **ScS 03 23 05.6 -0.9**
KSH SS **SS 03 24 26.8 +2.5**
KSH pmax pmax
comp=Z,5.0nm,0.7s
KSH pmax pmax
comp=Z,120nm,4.5s
KSH LR LR
comp=Z,98nm,5.6s
KSH LR LR
comp=Z,88nm,6.2s
KSH LR LR
comp=Z,190nm,6.4s
**MDM Murphy Dome 53.03 30** *e*P **P 03 13 22.2 +2.5**
comp=Z,8.8nm,1.0s
**AAK Ala-Archa 53.23 302**⇑*i*P **P 03 13 22.2 +0.5**
AAK pmax pmax
comp=Z,3.0nm,0.9s
**ILAR Eielson Array 53.60 30** P **P 03 13 23.8 -0.1**
comp=Z,2.0nm,0.9s,baz=266,slow=5.8,SNR=16
**ILB Eielson Array 53.60 30** *e*P **P 03 13 24.5 +0.6**
**IL1 Eielson Array 53.60 30** *e*P **P 03 13 22.6 -1.2**
**BVAR Borovoye Array 54.22 315** P **P 03 13 28.6 0.0**
comp=Z,5.1nm,0.9s,baz=93,slow=9.8,SNR=13
**BRVK Borovoye 54.28 315**⇑*e*P **P 03 13 30.1 +1.1**
BRVK pmax pmax
comp=Z,16nm,1.0s
**BRVK Borovoye 54.28 315** *e*P **P 03 13 29.7 +0.7**
comp=Z,5.0nm,0.8s
**AS01 Alice Springs 55.90 189** *e*P **P 03 13 42.6 +1.7**
**AS31 Alice Springs 55.90 189** *e*P **P 03 13 41.7 +0.7**
comp=Z,2.0nm,0.6s
**ASAR Alice Springs 55.90 189** P **P 03 13 40.6 -0.3**
comp=Z,2.0nm,0.5s,baz=3.5,slow=6.3,SNR=23
**KKAR Karatay Array 55.98 303** *e*P **P 03 13 41.9 +0.4**
KKAR pmax pmax
comp=Z,49nm,0.6s
**KKAR Karatay Array 55.98 303** *e*P **P 03 13 41.9 +0.4**
comp=Z,49nm,0.6s
**DAWY Dawson 56.88 31** *e*P **P 03 13 48.1 +0.6**
comp=Z,19nm,1.8s
**MBWA Marble Bar 56.95 205** *e*P **P 03 13 48.4 -0.1**
comp=Z,24nm,1.4s
**HPO Honuapo 57.30 87** *e*P **P 03 13 48.4 -2.7**
**INK Inuvik 58.72 26** P **P 03 13 59.7 -0.6**
comp=Z,1.1nm,0.5s,baz=283,slow=5.8,SNR=13
**INK Inuvik 58.72 26** *e*P **P 03 13 59.7 -0.6**
INK pmax pmax
comp=Z,15nm,1.7s
**INK Inuvik 58.72 26** *e*P **P 03 13 59.7 -0.6**
comp=Z,15nm,1.7s
**DZM Mont Dzumac 58.77 153** LR LR 03 37 06.6
comp=Z,240nm,21.9s,baz=22,slow=34
**KBL Kabul 59.58 294** *e*P **P 03 14 06.3 -0.8**
KBL pmax pmax
comp=Z,7.0nm,0.8s
**KBL Kabul 59.58 294** *e*P **P 03 14 06.3 -0.8**
comp=Z,6.6nm,0.8s
**ARU Arti 60.34 321** *d*i*P* **P 03 14 11.9 +0.2**
ARU 03 16 21.7
ARU S **S 03 22 26.3 +2.3**
ARU SS **SS 03 26 23.0 +1.8**
ARU pmax pmax
comp=Z,5.0nm,1.0s
**ARU Arti 60.34 321** *e*P **P 03 14 11.7 +0.1**
comp=Z,3.5nm,0.3s
**ABKAR Akbulak array 61.44 312** *e*P **P 03 14 19.4 +0.1**
comp=Z,36nm,0.4s
**GEYT Alibeck 66.57 301** P **P 03 14 52.8 -0.6**
comp=Z,2.3nm,0.7s,baz=298,slow=3.2,SNR=4.5
**YKA Yellowknife Ar 67.99 29** P **P 03 15 02.1 +0.3**
comp=Z,0.4nm,0.5s,baz=301,slow=6.6,SNR=9.5
**YKB5 Yellowknife Ar 67.99 29** *e*P **P 03 15 02.1 +0.3**
**ARA0 ARCESS Array S 68.77 340** *e*P **P 03 15 07.4 +0.8**
**ARCES ARCESS Array B 68.77 340** P **P 03 15 07.4 +0.8**
comp=Z,1.8nm,0.8s,baz=40,slow=7.1,SNR=2.7
ARCES LR LR 03 50 39.9
comp=Z,48nm,18.8s,baz=40,slow=41
**VSR Storozhevoye 72.90 320**⇓*e*P **P 03 15 32.1 +0.2**
VSR pmax pmax
comp=Z,8.0nm,0.8s
**FIA0 FINESS Array S 73.37 333** *e*P **P 03 15 34.7 +0.2**
**FIA0 FINESS Array S 73.37 333** *e*P **P 03 15 34.6 +0.2**
**FINES FINESS Array B 73.37 333** P **P 03 15 34.6 +0.2**
comp=Z,4.6nm,1.0s,baz=46,slow=8.2,SNR=8.6
**KBZ Khabaz 74.40 312** P **P 03 15 40.0 -0.9**
comp=Z,2.5nm,0.9s,baz=35,slow=2.4,SNR=2.9
**KVAR Kislovodsk Arr 74.42 312** P **P 03 15 40.6 -0.5**
comp=Z,2.3nm,0.4s,baz=90,slow=9.1,SNR=2.5
**KIV Kislovodsk 74.42 312** *e*P **P 03 15 43.3 +2.1**
KIV pmax pmax
comp=Z,7.0nm,1.0s
KIV MLR MLR
comp=Z,71nm,18.0s
**KIV Kislovodsk 74.42 312** *e*P **P 03 15 40.6 -0.5**
comp=Z,23nm,1.4s
**GNI Garni 74.95 308**⇑*e*P **P 03 15 46.2 +1.8**
GNI pmax pmax
comp=Z,14nm,0.9s
**CCOB Coe Ranch Numb 76.07 55** *e*P **P 03 15 53.0 +2.3**
**NV01 Mina Array Sit 77.78 52** *e*P **P 03 16 02.2 +1.7**
**NVAR Mina Array Bea 77.78 52** P **P 03 15 59.5 -1.0**
comp=Z,1.0nm,0.7s,baz=291,slow=6.6,SNR=7.5
NVAR LR LR 03 47 36.7
comp=Z,93nm,19.5s,baz=288,slow=34
**AKASG Malin Array Be 78.43 323** P **P 03 16 03.2 -0.3**
comp=Z,0.4nm,0.3s,baz=49,slow=5.7,SNR=7.8
**AKBB Malin Array Si 78.43 323** *e*P **P 03 16 03.3 -0.3**
AKBB pmax pmax
comp=Z,28nm,1.9s
**AKBB Malin Array Si 78.43 323** *e*P **P 03 16 03.2 -0.3**
comp=Z,28nm,1.9s
**KIEV Kiev 78.44 323**⇓*e*P **P 03 16 03.5 -0.2**
KIEV pmax pmax
comp=Z,4.0nm,1.0s
**NB2 NORSAR Subarra 78.90 338** P **P 03 16 05.9 -0.1**
comp=Z,3.6nm,0.8s,baz=42,slow=5.9
**NB200 NORSAR Array S 78.90 338** *e*P **P 03 16 06.1 +0.1**
**NOA NORSAR Array B 78.90 338** P **P 03 16 06.1 +0.1**
comp=Z,1.4nm,0.9s,baz=42,slow=5.7,SNR=3.6
NOA LR LR 03 56 36.5
comp=Z,66nm,18.3s,baz=55,slow=40
**ISA Isabella, Lake 79.10 55** *e*P **P 03 16 10.7 +3.0**
ISA pmax pmax
comp=Z,18nm,0.8s
**ISA Isabella, Lake 79.10 55** *e*P **P 03 16 10.7 +3.0**
comp=Z,18nm,0.8s
**TPNV Topopah Spring 79.94 53** *e*P **P 03 16 13.7 +1.3**
TPNV pmax pmax
comp=Z,7.0nm,1.3s
**TPNV Topopah Spring 79.94 53** *e*P **P 03 16 13.7 +1.3**
comp=Z,6.9nm,1.3s
**PD31 Pinedale Array 80.97 45** *e*P **P 03 16 17.8 -0.1**
**PDAR Pinedale Array 80.97 45** P **P 03 16 17.8 -0.1**
comp=Z,0.4nm,0.6s,baz=252,slow=0.5,SNR=5.7
PDAR LR LR 03 49 23.6
comp=Z,30nm,21.6s,baz=309,slow=34
**PPT Papeete 82.16 116** LR LR 03 47 16.3
comp=Z,21nm,20.6s,baz=330,slow=32
**BR101 Keskin Array S 82.39 312** *e*P **P 03 16 25.8 +0.4**
**BRTR Keskin Array B 82.39 312** P **P 03 16 25.8 +0.4**
comp=Z,1.6nm,0.9s,baz=104,slow=5.1,SNR=6.2
**BUR04 Bucovina Ar. S 82.41 322** *e*P **P 03 16 25.8 +0.6**
**BURAR Bucovina Array 82.41 322**⇑*i*P **P 03 16 28.8 +3.6**
**RAYN Ar Rayn 82.84 293** *e*P **P 03 16 28.5 +0.7**
comp=Z,4.7nm,0.9s
**BR231 Keskin MP Arra 82.86 313** *e*P **P 03 16 25.6 -2.1**
**STHS Stebnicka Huta 83.21 325** *e*P **P 03 16 27.9 -1.3**
STHS pmax pmax
comp=Z,3.0nm,1.2s
**STHS Stebnicka Huta 83.21 325** *e*P **P 03 16 27.9 -1.3**
**PV10 Paradox Valley 83.86 48** *e*P **P 03 16 35.3 +2.2**
**PV05 Paradox Valley 84.00 49** *e*P **P 03 16 32.0 -1.7**
**ARR Arges 84.17 321**⇓*i*P **P 03 16 35.5 +1.2**
**ASF Jabal al Asfar 84.55 305** P **P 03 16 36.6 +0.1**
comp=Z,2.1nm,0.8s,baz=42,slow=6.7,SNR=4.4
**DPC Dobruska-Polom 84.84 328** *epP* pP 03 16 50.7 +3.3
**VYHS Vyhne 85.00 326** *e*P **P 03 16 39.1 +0.8**
VYHS pmax pmax
comp=Z,3.0nm,1.3s
**VYHS Vyhne 85.00 326** *e*P **P 03 16 39.1 +0.8**
**MMAI Mount Meron Ar 85.10 306** P **P 03 16 40.3 +1.1**
comp=Z,1.8nm,0.7s,baz=5.7,slow=4.3,SNR=2.9
**CLL Collm 85.56 331** *e*P **P 03 16 41.0 0.0**
CLL *i* 03 16 56.5
**GERES GERESS Array B 87.10 329** LR LR 03 58 18.4
comp=Z,36nm,18.8s,baz=278,slow=37
**TX31 Lajitas Ar. Si 92.92 53** *e*P **P 03 17 16.9 +0.4**
**LTX Lajitas 92.92 53** *e*P **P 03 17 17.1 +0.6**
**LTX Lajitas 92.92 53** *e*P **P 03 17 17.1 +0.6**
**TXAR Lajitas Array 92.92 53** P **P 03 17 17.1 +0.6**
comp=Z,1.3nm,0.7s,baz=303,slow=3.0,SNR=17
TXAR LR LR 03 53 43.6
comp=Z,32nm,21.1s,baz=0.0,slow=32
**LPAZ La Paz 148.68 67** PKPbc **PKPbc 03 23 50.8 -0.6**
comp=Z,0.6nm,0.5s,baz=360,slow=4.9,SNR=2.8

*GUC **21** 03:10:24.1±1.3,27.°38S×67.°74W,h159km±17km,ML3.7*
*ISCJB **21** 03:10:25.0±0.6,27.°49S±0.°03×67.°76W±0.°03,*
*h140km±10km, Error ellipse: s-maj=6.0km s-min=4.4km az=149.1*
*SJA **21** 03:10:25.1±0.5,27.°51S×67.°66W,h150km±3km,ML3.3, MW3.5*
**ISC 21 03:10:25.1**±1.4,**27.°45S**±0.°04×**67.°74W**±0.°03,
**h144**km±13km**, n24,** σ1°**53**/41,**5C-1D, Catamarca Province**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VCA** | **Vinchina** | **1.35** | **198** | *e*P | **Pn** | **03 10 53.7** | **+0.8** |
| VCA | | | | *e*S | **Sn** | **03 11 14.9** | **+0.9** |
| VCA | | | | IAML | | 03 11 22.0 | |
| | comp=Z,337nm,0.3s | | | | | | |
| **VCA** | **Vinchina** | **1.35** | **198** | ⇑*i*P | **Pn** | **03 10 53.6** | **+0.8** |
| VCA | | | | *i* S | **Sn** | **03 11 14.3** | **+0.3** |
| VCA | | | | IAML | | 03 11 21.8 | |
| | comp=E,621nm,0.3s | | | | | | |
| **CYA** | **Choya** | **1.98** | **120** | *i* P | **Pn** | **03 10 59.9** | **+0.2** |
| CYA | | | | IAML | | 03 11 00.0 | |
| | comp=Z,167nm,0.3s | | | | | | |
| CYA | | | | *i* S | **Sn** | **03 11 24.1** | **-2.1** |
| **CYA** | **Choya** | **1.98** | **120** | ⇓*i*P | **Pn** | **03 10 59.9** | **+0.2** |
| CYA | | | | *i* S | **Sn** | **03 11 24.0** | **-2.3** |
| CYA | | | | IAML | | 03 11 25.7 | |
| | comp=E,355nm,0.7s | | | | | | |
| **FSA** | **Cafayete** | **2.06** | **50** | *e*P | **Pn** | **03 11 02.1** | **+1.2** |
| FSA | | | | *e*S | **Sn** | **03 11 29.3** | **+1.1** |
| **AGUA** | **GUANDACOL** | **2.14** | **198** | *e*P | **Pn** | **03 11 02.5** | **+0.9** |
| AGUA | | | | *e*S | **Sn** | **03 11 29.7** | **0.0** |
| **GO03** | **Copiap** | **2.22** | **266** | ⇑*i*P | **Pn** | **03 11 02.7** | **+0.2** |
| GO03 | | | | *e*S | **Sn** | **03 11 30.4** | **-0.9** |
| GO03 | | | | IAML | | 03 11 31.4 | |
| | comp=E,601nm,0.6s | | | | | | |
| **AHML** | **Horco Molle** | **2.25** | **73** | *e*P | **Pn** | **03 11 03.6** | **+0.6** |
| AHML | | | | *e*S | **Sn** | **03 11 31.3** | **-0.6** |
| **AHML** | **Horco Molle** | **2.25** | **73** | ⇑*i*P | **Pn** | **03 11 03.5** | **+0.6** |
| AHML | | | | *i* S | **Sn** | **03 11 31.0** | **-0.9** |
| AHML | | | | IAML | | 03 11 33.4 | |
| | comp=E,132nm,1.0s | | | | | | |
| **CPCH** | **Copiapo** | **2.32** | **272** | *e*P | **Pn** | **03 11 03.5** | **-0.3** |
| CPCH | | | | *i* S | **Sn** | **03 11 32.4** | **-1.1** |
| **CDCH** | **Caldera** | **2.77** | **277** | *i* S | **Sn** | **03 11 42.0** | **-1.3** |
| **VACH** | **Vallenar** | **2.89** | **246** | ⇑*i*P | **Pn** | **03 11 11.0** | **+0.1** |
| VACH | | | | *i* S | **Sn** | **03 11 45.2** | **-1.0** |
| **LCO** | **Las Campanas** | **3.04** | **238** | *e*P | **Pn** | **03 11 12.9** | **-0.1** |
| LCO | | | | *e*S | **Sn** | **03 11 49.4** | **-0.6** |
| **LCO** | **Las Campanas** | **3.04** | **238** | ⇑*i*P | **Pn** | **03 11 13.0** | **-0.1** |
| LCO | | | | *i* S | **Sn** | **03 11 50.3** | **+0.3** |
| LCO | | | | IAML | | 03 11 52.3 | |
| | comp=N,238nm,0.4s | | | | | | |
| **AMOG** | **MOGNA** | **3.54** | **190** | *e*P | **Pn** | **03 11 19.9** | **+0.7** |
| AMOG | | | | *e*S | **Sn** | **03 12 00.1** | **-1.1** |
| **PB14** | **IPOC Station P** | **3.69** | **319** | *e*P | **Pn** | **03 11 22.1** | **+0.6** |
| PB14 | | | | *e*S | **Sn** | **03 12 01.8** | **-3.3** |
| **AZAP** | **Zapla** | **4.01** | **38** | *e*P | **Pn** | **03 11 26.8** | **+1.1** |
| **RTCV** | **Cerro Valdivia** | **4.45** | **189** | *e*P | **Pn** | **03 11 31.7** | **+0.5** |
| RTCV | | | | *e*S | **Sn** | **03 12 20.8** | **-1.9** |
| **ASTB** | **Santa Barbara** | **4.58** | **41** | *e*P | **Pn** | **03 11 34.0** | **+0.9** |
| **HJA** | **Humahuaca** | **4.72** | **27** | *i* P | **Pn** | **03 11 37.9** | **+2.8** |
| HJA | | | | IAML | | 03 11 38.2 | |
| | comp=Z,15nm,0.4s | | | | | | |
| **TCA** | **Tanti** | **4.75** | **145** | *i* P | **Pn** | **03 11 34.9** | **-0.3** |
| TCA | | | | *e*S | **Sn** | **03 12 26.7** | **-3.1** |
| TCA | | | | IAML | | 03 12 29.2 | |
| | comp=Z,27nm,0.6s | | | | | | |
| **ACAN** | **Cantantal** | **4.83** | **174** | *e*P | **Pn** | **03 11 36.7** | **+0.4** |
| **ALOL** | **LOMAS DE OLMED** | **4.96** | **44** | *e*P | **Pn** | **03 11 38.8** | **+0.8** |
| **ROC1** | **El Roble** | **6.20** | **206** | *e*P | Pn | 03 12 00.6 | +6.0 |
| ROC1 | | | | *e*S | **Sn** | **03 13 09.6** | **+5.1** |

*ISCJB **21** 03:10:57.3±2.2,31.°9N±0.°2×141.°7E±0.°5, h26km, mb3.4/4, Error ellipse: s-maj=64.4km s-min=8.4km az=160.7*
*IDC **21** 03:10:57.5±4.6,31.°75N×141.°30E, h0km, mb3.5/4, mb1 3.6/6, mb1mx3.4/48, mbtmp3.5/6, ML3.2/2, Error ellipse: s-maj=174.4km s-min=16.9km az=68.0*
**ISC 21 03:10:59.7**±1.7,**31.°9N**±0.°2×**141.°7E**±0.°3,**h26**km**, n7,** σ0°**99**/8,**mb3.5**/4,**Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JHJ** | **Hachijo jima 2** | **2.00** | **308** | Pn | **Pn** | **03 11 30.7** | **-1.1** |
| | 11nm,0.3s,baz=81,slow=22,SNR=6.7 | | | | | | |
| **JCJ** | **Chichijima** | **4.80** | **174** | Pn | Pn | 03 12 09.6 | -0.7 |
| | 2.3nm,0.3s,baz=203,slow=18,SNR=2.5 | | | | | | |
| JCJ | | | | Sn | **Sn** | **03 13 04.9** | **-0.2** |
| | 2.3nm,0.3s,baz=270,slow=20,SNR=2.6 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **5.45** | **329** | Pn | **Pn** | **03 12 18.1** | **-1.1** |
| | 0.4nm,0.3s,baz=299,slow=20,SNR=4.2 | | | | | | |
| **SONM** | **Songino Array** | **31.08** | **311** | P | **P** | **03 17 16.8** | **+1.0** |
| | 0.1nm,0.3s,baz=98,slow=8.9,SNR=2.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **47.17** | **306** | P | **P** | **03 19 30.2** | **+0.3** |
| | 0.3nm,0.5s,baz=89,slow=9.6,SNR=4.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **52.02** | **189** | P | **P** | **03 20 07.0** | **0.0** |
| | 0.5nm,0.5s,baz=5.3,slow=7.6,SNR=8.3 | | | | | | |
| **ASAR** | **Alice Springs** | **55.74** | **189** | P | **P** | **03 20 35.1** | **+0.9** |
| | 0.3nm,0.7s,baz=19,slow=13,SNR=3.5 | | | | | | |

**MAN 21 03:17:10,13.°59N×120.°68E,h109km, mb3.7, ML2.4, MS2.0,1D, Mindoro**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PGP** | **Puerto Galera** | **0.28** | **108** | ⇓*e*P | Pn | 03 17 27.0 | +1.4 |
| PGP | | | | *e*S | Sn | 03 17 39.9 | +2.6 |
| **LUBP** | **Lubang** | **0.44** | **289** | *e*P | Pn | 03 17 28.4 | +2.0 |
| LUBP | | | | *e*S | Sn | 03 17 41.7 | +3.0 |
| **BOAC** | **Boac** | **1.14** | **96** | *e*P | Pn | 03 17 33.5 | +0.8 |
| **SJMP** | **San Jose** | **1.20** | **159** | *e*P | Pn | 03 17 34.6 | +1.3 |
| SJMP | | | | *e*S | Sn | 03 17 52.3 | +1.4 |
| **BUSP** | **Coron** | **1.64** | **196** | *e*P | Pn | 03 17 39.1 | +0.6 |
| BUSP | | | | *e*S | Sn | 03 18 01.5 | +1.3 |

**IDC 21 03:20:24.9**±6.4,**19.°06S×177.°94W,h617**km±68km**, mb2.7/5, mb1 3.1/5, mb1mx2.8/30, mbtmp3.6/5, Error ellipse: s-maj=94.3km s-min=27.5km az=147.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **44.87** | **261** | P | P | 03 27 46.0 | -0.4 |
| | 0.5nm,0.5s,baz=96,slow=7.9,SNR=12 | | | | | | |
| WRA | | | | PcP | PcP | 03 29 13.5 | -1.0 |
| | 0.2nm,0.5s,baz=98,slow=3.7,SNR=3.1 | | | | | | |
| **ASAR** | **Alice Springs** | **44.91** | **255** | P | P | 03 27 47.2 | +0.5 |
| | 0.6nm,0.5s,baz=85,slow=8.5,SNR=9.8 | | | | | | |
| ASAR | | | | PcP | PcP | 03 29 14.5 | -0.1 |
| | 0.3nm,0.5s,baz=87,slow=3.8,SNR=3.1 | | | | | | |
| **TXAR** | **Lajitas Array** | **86.24** | **57** | P | P | 03 32 02.5 | -0.4 |
| | 0.4nm,0.6s,baz=224,slow=6.7,SNR=6.2 | | | | | | |
| **ILAR** | **Eielson Array** | **86.91** | **13** | P | P | 03 32 03.9 | -1.2 |
| | 0.3nm,0.9s,baz=221,slow=7.7,SNR=3.5 | | | | | | |
| **YKA** | **Yellowknife Ar** | **95.19** | **25** | P | P | 03 32 44.6 | +1.4 |
| | 0.2nm,0.7s,baz=251,slow=3.8,SNR=3.3 | | | | | | |
| **ARCES** | **ARCESS Array B 127.52 350** | | | PKP | PKPdf | 03 38 20.2 | -0.2 |
| | 6.6nm,1.1s,baz=328,slow=2.6,SNR=3.0 | | | | | | |
| **BRTR** | **Keskin Array B 145.90 314** | | | PKPbc | PKPbc | 03 38 56.9 | -0.1 |
| | 1.1nm,1.1s,baz=12,slow=0.4,SNR=3.8 | | | | | | |
| **GERES** | **GERESS Array B 148.83 345** | | | PKPbc | PKPbc | 03 39 03.8 | -0.5 |
| | 0.6nm,1.0s,baz=27,slow=2.4,SNR=4.2 | | | | | | |

**IDC 21 03:28:39.6**±7.3,**15.°44S×70.°79W,h131**km±57km**, mb3.1/1, mb1 3.2/2, mb1mx3.0/23, mbtmp3.5/2, Error ellipse: s-maj=122.7km s-min=62.5km az=175.0, Southern Peru**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **LPAZ** | **La Paz** | **2.69** | **109** | P | Pn | 03 29 23.4 | +0.4 |
| | 3.8nm,0.3s,baz=303,slow=8.4,SNR=174 | | | | | | |
| LPAZ | | | | S | Sn | 03 29 56.6 | +0.4 |
| | 0.7nm,0.3s,baz=135,slow=21,SNR=5.3 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **77.12** | **72** | P | P | 03 40 19.6 | +0.3 |
| | 0.3nm,0.6s,baz=247,slow=5.0,SNR=6.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **137.03** | **216** | PKP | PKPdf | 03 47 46.6 | -1.4 |
| | 0.3nm,0.9s,baz=148,slow=1.8,SNR=3.8 | | | | | | |

*IDC **21** 03:29:18.8±1.1,0.°15S×125.°61E,h0km,mb3.8/5, mb1 4.0/5,mb1mx3.7/34,mbtmp3.9/5,MS3.2/7,Ms1 3.2/7, ms1mx2.9/34, Error ellipse: s-maj=138.1km s-min=20.1km az=68.0*
*ISCJB **21** 03:29:24.7±0.7,0.°01S±0.°07×126.°42E±0.°07,h73km, mb3.7/5, Error ellipse: s-maj=10.8km s-min=8.7km az=144.3*
*DJA **21** 03:29:25.4±1.5,0.°5S±3.°12°6E±°,h20km±12km,M3.6/4, MLv3.6/4*
**ISC 21 03:29:26.5**±1.0,**0.°08S**±0.°09×**126.°46E**±0.°07,**h73**km**, n14,** σ1°**54**/10,**mb3.8/5**,**Southern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **LBMI** | **Labuha** | **1.18** | **118** | P | **Pn** | **03 29 46.5** | **-0.9** |
| LBMI | | | | S | **Sn** | **03 30 03.0** | **0.0** |
| **SANI** | **Sanana** | **2.02** | **194** | P | **Pn** | **03 29 57.3** | **-1.2** |
| SANI | | | | S | **Sn** | **03 30 22.0** | **-0.8** |
| **APSI** | **Ampana** | **4.89** | **260** | P | **Pn** | **03 30 37.5** | **0.0** |
| **WRA** | **Warramunga Arr** | **21.20** | **159** | P | **P** | **03 34 08.0** | **+1.7** |
| | 1.6nm,0.5s,baz=334,slow=11,SNR=20 | | | | | | |
| WRA | | | | LR | LR | 03 44 05.1 | |
| | comp=Z,62nm,18.1s,baz=320,slow=41 | | | | | | |
| **PMG** | **Port Moresby** | **22.59** | **115** | LR | LR | 03 44 38.3 | |
| | comp=Z,59nm,19.3s,baz=277,slow=39 | | | | | | |
| **GUMO** | **Guam** | **22.73** | **53** | LR | LR | 03 42 55.5 | |
| | comp=Z,67nm,19.9s,baz=114,slow=35 | | | | | | |
| **ASAR** | **Alice Springs** | **24.54** | **163** | P | **P** | **03 34 42.6** | **+3.1** |
| | 1.0nm,0.4s,baz=344,slow=10,SNR=11 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **32.72** | **306** | LR | LR | 03 49 35.2 | |
| | comp=Z,21nm,20.5s,baz=158,slow=38 | | | | | | |
| **KSRS** | **Korea Array** | **37.37** | **2** | LR | LR | 03 52 01.9 | |
| | comp=Z,25nm,22.0s,baz=176,slow=36 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **38.03** | **15** | LR | LR | 03 51 12.8 | |
| | comp=Z,21nm,21.3s,baz=185,slow=34 | | | | | | |
| **SONM** | **Songino Array** | **50.81** | **343** | P | **P** | **03 38 19.0** | **-0.6** |
| | 1.1nm,0.8s,baz=155,slow=9.4,SNR=8.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **60.54** | **327** | P | **P** | **03 39 28.3** | **-0.9** |
| | 0.6nm,0.6s,baz=122,slow=7.6,SNR=5.6 | | | | | | |
| **AFI** | **Niamalu** | **62.63** | **106** | LR | LR | 04 07 31.2 | |
| | comp=Z,55nm,19.6s,baz=87,slow=36 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **63.85** | **334** | P | **P** | **03 39 51.5** | **+0.3** |
| | 0.4nm,0.4s,baz=116,slow=6.5,SNR=3.6 | | | | | | |

**GUC 21 03:42:16.9**±0.6,**22.°52S×68.°91W,h116**km±4km**, ML3.6, 1C-4D, Northern Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PB06** | **IPOC Station P** | **0.64** | **253** | ⇓*i*P | Pn | 03 42 35.7 | +0.2 |
| PB06 | | | | *i* S | Sn | 03 42 50.2 | +0.6 |
| PB06 | | | | IAML | | 03 42 51.6 | |
| | comp=E,2μm,0.1s | | | | | | |
| **PB09** | **IPOC Station P** | **0.79** | **337** | *i* P | Pn | 03 42 37.2 | +0.4 |
| PB09 | | | | *e*S | Sn | 03 42 52.9 | +1.1 |
| PB09 | | | | IAML | | 03 42 54.4 | |
| | comp=N,3μm,0.2s | | | | | | |
| **PB04** | **IPOC Station P** | **1.16** | **279** | ⇑*i*P | Pn | 03 42 41.2 | +0.7 |
| PB04 | | | | *i* S | Sn | 03 42 59.6 | +1.3 |
| PB04 | | | | IAML | | 03 43 03.6 | |
| | comp=N,2μm,0.2s | | | | | | |
| **PB07** | **IPOC Station P** | **1.20** | **311** | ⇓*i*P | Pn | 03 42 41.7 | +0.8 |
| PB07 | | | | *i* S | Sn | 03 43 00.1 | +1.0 |
| PB07 | | | | IAML | | 03 43 00.8 | |
| | comp=N,1μm,0.2s | | | | | | |
| **PB02** | **IPOC Station P** | **1.51** | **322** | ⇓*i*P | Pn | 03 42 44.9 | +0.6 |
| PB02 | | | | *e*S | Sn | 03 43 05.8 | +0.7 |
| PB02 | | | | IAML | | 03 43 12.3 | |
| | comp=E,697nm,0.2s | | | | | | |
| **PB01** | **IPOC Station P** | **1.57** | **340** | ⇓*i*P | Pn | 03 42 45.3 | +0.3 |
| PB01 | | | | *e*S | Sn | 03 43 07.4 | +1.1 |
| PB01 | | | | IAML | | 03 43 11.3 | |
| | comp=E,640nm,0.2s | | | | | | |

*JMA **21** 03:47:28.7±0.1,24.°44N×122.°40E,h61km±2km,M2.4*
*ISCJB **21** 03:47:29.2±0.6,24.°52N±0.°04×122.°43E±0.°02,h53km±8km, Error ellipse: s-maj=7.4km s-min=3.2km az=3.1*
*TAP **21** 03:47:29.1,24.°49N×122.°41E,h57km,ML3.3,C*
**ISC 21 03:47:29.8**±1.3,**24.°51N**±0.°05×**122.°43E**±0.°03,**h48**km±14km,
**n30,** σ0°**73**/47,**Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JYNG** | **Yonagunijimaku** | **0.47** | **97** | P | **Pn** | **03 47 40.8** | **+0.2** |
| JYNG | | | | S | **Sn** | **03 47 49.2** | **+0.9** |
| **YOJ** | **Yonaguni jima** | **0.53** | **95** | P | **Pn** | **03 47 41.4** | **+0.1** |
| YOJ | | | | S | **Sn** | **03 47 50.1** | **+0.5** |
| **TWC** | **Suao** | **0.54** | **281** | P | **Pn** | **03 47 41.0** | **-0.4** |
| | baz=288 | | | | | | |
| TWC | | | | S | **Sn** | **03 47 49.3** | **-0.3** |
| | baz=288 | | | | | | |
| **ENA** | **Nanau** | **0.63** | **263** | *e*P | **Pn** | **03 47 42.4** | **-0.2** |
| | baz=264 | | | | | | |
| ENA | | | | *e*S | **Sn** | **03 47 52.6** | **+0.8** |
| | baz=264 | | | | | | |
| **TWB1** | **Santiao Chiao** | **0.64** | **321** | *e*S | **Sn** | **03 47 51.9** | **0.0** |
| | baz=330 | | | | | | |
| **TWE** | **Neicheng** | **0.72** | **287** | P | **Pn** | **03 47 43.6** | **-0.1** |
| | baz=294 | | | | | | |
| TWE | | | | S | **Sn** | **03 47 53.9** | **0.0** |
| | baz=294 | | | | | | |
| **ENTT** | **Nioudou** | **0.80** | **280** | *e*P | **Pn** | **03 47 45.1** | **+0.4** |
| | baz=285 | | | | | | |
| **NWF** | **Wu-fen Shan** | **0.81** | **314** | *e*P | **Pn** | **03 47 44.7** | **-0.4** |
| | baz=315 | | | | | | |
| NWF | | | | *e*S | **Sn** | **03 47 55.8** | **-0.3** |
| | baz=315 | | | | | | |
| **TWD** | **Chiawan** | **0.87** | **241** | *e*P | **Pn** | **03 47 44.4** | **-1.3** |
| | baz=231 | | | | | | |
| TWD | | | | *e*S | **Sn** | **03 47 56.2** | **-1.2** |
| | baz=231 | | | | | | |
| **TWA** | **Mucha** | **

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **NSK** | **Sanguang** baz=289 | **0.99** | **280** | *e*P | **Pn** | **03 47 47.4** | **0.0** |
| NSK | baz=289 | | | *e*S | **Sn** | **03 48 00.6** | **+0.3** |
| **TWS1** | **Kuangyinshan** baz=304 | **1.09** | **303** | *e*P | **Pn** | **03 47 48.7** | **0.0** |
| TWS1 | baz=304 | | | *e*S | **Sn** | **03 48 02.8** | **+0.1** |
| **WHF** | **Hehuan Shan** baz=252 | **1.12** | **251** | *e*P | **Pn** | **03 47 48.9** | **-0.6** |
| WHF | baz=252 | | | *e*S | **Sn** | **03 48 02.9** | **-1.2** |
| **TWT** | **Tachien** baz=258 | **1.17** | **258** | *e*P | **Pn** | **03 47 50.2** | **+0.3** |
| TWT | baz=258 | | | *e*S | **Sn** | **03 48 04.3** | **-0.6** |
| **IRIF** | **Iriomote-Funau** | **1.20** | **98** | P | **Pn** | **03 47 49.8** | **-0.3** |
| IRIF | | | | S | **Sn** | **03 48 05.3** | **0.0** |
| **NSTT** | **Nanjuang** baz=276 | **1.31** | **276** | *e*P | **Pn** | **03 47 51.1** | **-0.5** |
| **EHY** | **Hungye** baz=234 | **1.42** | **226** | *e*P | **Pn** | **03 47 51.6** | **-1.7** |
| **JKRS** | **Kuro-shima** | **1.47** | **100** | P | **Pn** | **03 47 53.8** | **0.0** |
| JKRS | | | | S | **Sn** | **03 48 12.2** | **+0.4** |
| **SMLT** | **Sun Moon Lake** baz=240 | **1.53** | **246** | *e*P | **Pn** | **03 47 55.4** | **+0.6** |
| **TWF1** | **Yuli** baz=232 | **1.55** | **222** | *e*P | **Pn** | **03 47 53.4** | **-1.6** |
| **TYC** | **Yuchr** baz=240 | **1.56** | **248** | *e*P | **Pn** | **03 47 55.7** | **+0.7** |
| **JIJ** | **Ishigaki jima** | **1.57** | **95** | P | **Pn** | **03 47 54.5** | **-0.7** |
| JIJ | | | | S | **Sn** | **03 48 13.8** | **-0.6** |
| **WNT** | **Mingjian** baz=248 | **1.71** | **249** | *e*P | **Pn** | **03 47 58.3** | **+1.1** |
| **JISG** | **Ishigakijimahi** | **1.71** | **87** | P | **Pn** | **03 47 56.7** | **-0.5** |
| **ALS** | **Alishan** baz=228 | **1.79** | **237** | *e*P | **Pn** | **03 47 58.7** | **+0.2** |
| **CHN5** | **Tsauling** baz=232 | **1.84** | **241** | *e*P | **Pn** | **03 47 59.4** | **+0.4** |
| CHN5 | baz=232 | | | *e*S | **Sn** | **03 48 22.5** | **+1.3** |
| **CHN4** | **Tsaushan** baz=228 | **2.04** | **236** | *e*P | **Pn** | **03 48 02.5** | **+0.9** |
| CHN4 | baz=228 | | | *e*S | **Sn** | **03 48 27.5** | **+1.6** |
| **TWK** | **Hsinying** baz=235 | **2.17** | **236** | *e*P | **Pn** | **03 48 03.8** | **+0.3** |
| **CHN1** | **Nanshi** baz=234 | **2.18** | **233** | *e*P | **Pn** | **03 48 04.2** | **+0.5** |
| CHN1 | baz=234 | | | *e*S | **Sn** | **03 48 30.1** | **+0.6** |

**IDC 21 03:47:35.6±1.1, 0.23S×125.32E, h0km, mb3.7/6, mb1 3.9/7, mb1mx3.7/30, mbtmp3.8/7, ML3.4/1, MS3.0/3, Ms1 3.0/3, ms1mx2.7/32, Error ellipse: s-maj=104.5km s-min=17.9km az=69.0, Southern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **FITZ** | **Fitzroy Crossi** 0.1nm,0.3s,baz=159,slow=20,SNR=6.9 | **17.76** | **179** | P | **Pn** | 03 51 42.8 | **-1.6** |
| **WRA** | **Warramunga Arr** 1.3nm,0.5s,baz=334,slow=11,SNR=17 | **21.49** | **156** | P | P | 03 52 24.9 | **-1.1** |
| WRA | comp=Z,36nm,18.2s,baz=75,slow=43 | | | LR | LR | 04 02 56.6 | |
| **ASAR** | **Alice Springs** 1.3nm,0.7s,baz=342,slow=8.2,SNR=9.2 | **24.74** | **161** | P | P | 03 53 00.4 | **+1.4** |
| **CMAR** | **Chiang Mai Arr** comp=Z,18nm,19.2s,baz=166,slow=39 | **31.89** | **307** | LR | LR | 04 08 13.6 | |
| **STKA** | **Stephens Creek** comp=Z,30nm,21.4s,baz=21,slow=38 | **35.03** | **155** | LR | LR | 04 09 58.8 | |
| **SONM** | **Songino Array** 1.0nm,0.9s,baz=142,slow=6.9,SNR=4.1 | **50.63** | **344** | P | P | 03 56 36.4 | **-0.2** |
| **MKAR** | **Makanchi Array** 0.3nm,0.4s,baz=146,slow=6.7,SNR=4.3 | **60.05** | **327** | P | P | 03 57 45.7 | **+1.3** |
| **ZALV** | **Zalesovo Beam** 0.5nm,0.4s,baz=145,slow=8.0,SNR=2.9 | **63.50** | **335** | P | P | 03 58 06.2 | **-1.2** |
| **BVAR** | **Borovoye Array** 0.4nm,0.6s,baz=101,slow=7.5,SNR=3.2 | **69.89** | **328** | P | P | 03 58 48.5 | **+0.2** |

**IDC 21 04:03:36.7±31.0, 17.98S×178.08W, h477km±276km, mb3.4/2, mb1 3.7/2, mb1mx2.9/31, mbtmp4.3/2, Error ellipse: s-maj=256.6km s-min=85.4km az=118.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** 0.7nm,0.5s,baz=93,slow=7.0,SNR=17 | **44.93** | **260** | P | P | 04 11 07.4 | **-0.9** |
| **ASAR** | **Alice Springs** 7.7nm,0.6s,baz=89,slow=8.3,SNR=105 | **45.07** | **254** | P | P | 04 11 09.9 | **+0.6** |
| ASAR | 0.1nm,0.3s,baz=93,slow=3.7,SNR=2.9 | | | PcP | pP | 04 12 39.3 | 0.0 |
| **BRTR** | **Keskin Array B** 0.3nm,0.8s,baz=90,slow=4.3,SNR=2.4 | **145.05** | **315** | PKPbc | PKPdf | 04 22 19.3 | **-0.1** |
| **GERES** | **GERESS Array B** 0.2nm,0.3s,baz=50,slow=6.5,SNR=2.9 | **147.76** | **345** | PKPbc | PKPbc | 04 22 26.9 | **-0.3** |

*ISCJB **21** 04:08:09.5±2.0,20.31S±0.04×71.08W±0.09,h12km±16km, mb3.4/1, Error ellipse: s-maj=13.7km s-min=6.8km az=177.9*
*GUC **21** 04:08:10.9±0.5,20.31S×71.03W,h30km±2km, ML3.5*
*IDC **21** 04:08:47.5±4.0,17.09S×69.91W,h246km±22km, mb3.0/1, mb1 3.0/1, mb1mx2.6/22, mbtmp3.6/1, Error ellipse: s-maj=212.0km s-min=75.1km az=161.0*

**ISC 21 04:08:09.8±3.9, 20.29S±0.05×71.01W±0.09, h9km±26km, n13, σ0.946/18, 6C, Off coast of northern Chile**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PSGC** | **Pisagua** | **1.08** | **51** | ⇑*i*P | **Pb** | **04 08 30.5** | **-0.3** |
| PSGC | | | | *i*S | **Sb** | **04 08 45.1** | **+0.1** |
| PSGC | comp=N,893nm,0.4s | | | IAML | | 04 08 48.6 | |
| **PB11** | **IPOC Station P** | **1.38** | **68** | ⇑*i*P | **Pn** | **04 08 35.2** | **-0.1** |
| PB11 | | | | *i*S | **Sn** | **04 08 53.7** | **-0.1** |
| **PB02** | **IPOC Station P** | **1.46** | **135** | *e*P | **Pn** | **04 08 36.6** | **+0.2** |
| PB02 | | | | *i*S | **Sn** | **04 08 55.6** | **-0.3** |
| PB02 | comp=E,1μm,0.5s | | | IAML | | 04 09 02.4 | |
| **PB01** | **IPOC Station P** | **1.61** | **118** | ⇑*i*P | **Pn** | **04 08 39.0** | **+0.5** |
| PB01 | | | | *i*S | **Sn** | **04 08 59.3** | **-0.2** |
| PB01 | comp=N,665nm,0.2s | | | IAML | | 04 09 04.7 | |
| **PB08** | **IPOC Station P** | **1.75** | **86** | ⇑*i*P | **Pn** | **04 08 41.1** | **+0.5** |
| PB08 | | | | *i*S | **Sb** | **04 09 05.1** | **+0.5** |
| PB08 | comp=N,312nm,0.3s | | | IAML | | 04 09 07.2 | |
| **MNMC** | **Minye Minye** | **1.76** | **49** | *e*P | **Pn** | **04 08 41.1** | **+0.3** |
| MNMC | | | | *i*S | **Sb** | **04 09 04.7** | **-0.1** |
| MNMC | comp=N,1μm,0.7s | | | IAML | | 04 09 08.1 | |
| **PB07** | **IPOC Station P** | **1.78** | **144** | ⇑*i*P | **Pn** | **04 08 41.2** | **+0.3** |
| **PB12** | **IPOC Station P** | **1.79** | **21** | *e*P | **Pn** | **04 08 41.5** | **+0.6** |
| PB12 | | | | *i*S | **Sb** | **04 09 05.0** | **-0.3** |
| PB12 | comp=E,2μm,0.5s | | | IAML | | 04 09 14.7 | |
| **PB04** | **IPOC Station P** | **2.19** | **159** | ⇑*i*P | **Pn** | **04 08 46.6** | **+0.1** |
| **LPAZ** | **La Paz** comp=E,0.5nm,0.3s,baz=241,slow=7.8,SNR=18 | **4.83** | **35** | P | Pn | 04 09 29.3 | **+6.1** |
| **TORD** | **Torodi Ar. Bea** comp=E,0.2nm,0.4s,baz=251,slow=5.2,SNR=5.6 | **78.82** | **71** | P | **P** | **04 20 13.0** | **-0.7** |
| **WRA** | **Warramunga Arr** comp=E,0.3nm,0.8s,baz=155,slow=2.1,SNR=2.5 | **132.94** | **213** | PKP | PKPdf | 04 27 40.1 | **+14** |
| **MKAR** | **Makanchi Array** comp=E,0.1nm,0.4s,baz=323,slow=3.9,SNR=3.4 | **145.76** | **33** | PKP | **PKPab** | **04 27 50.6** | **+1.0** |

**IDC 21 04:15:52.9±2.2, 4.66S×151.91E, h0km, mb3.3/3, mb1 3.7/3, mb1mx3.4/28, mbtmp3.4/3, MS3.1/1, Ms1 3.1/1, ms1mx2.4/15, Error ellipse: s-maj=149.6km s-min=29.7km az=125.0, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DZM** | **Mont Dzumac** comp=Z,53nm,19.6s,baz=22,slow=32 | **22.32** | **142** | LR | LR | 04 27 37.3 | |
| **WRA** | **Warramunga Arr** 0.6nm,0.6s,baz=51,slow=9.9,SNR=5.3 | **22.89** | **227** | P | P | 04 20 58.5 | 0.0 |
| **ASAR** | **Alice Springs** 0.3nm,0.5s,baz=56,slow=9.0,SNR=6.2 | **25.67** | **221** | P | P | 04 21 24.4 | **-0.3** |
| **ILAR** | **Eielson Array** 0.4nm,0.7s,baz=260,slow=5.4,SNR=4.5 | **82.36** | **22** | P | P | 04 28 16.1 | **-0.3** |
| **TORD** | **Torodi Ar. Bea** 0.4nm,0.7s,baz=74,slow=3.2,SNR=3.5 | **149.42** | **288** | PKPbc | PKPbc | 04 35 45.4 | **+0.2** |

*ISCJB **21** 04:27:18.7±0.4, 7.04S±0.04×127.82E±0.04, h200km, mb3.8/9, Error ellipse: s-maj=6.9km s-min=4.4km az=36.8*
*DJA **21** 04:27:21.9±0.3, 7.5S×12.8E±, h176km±10km, M4.7/8, mb4.6/6, mB4.8/4, MLv4.9/8, Mw(mB)4.1/4*
*IDC **21** 04:27:26.1±3.8, 7.24S×127.83E, h287km±46km, mb3.5/9, mb1 3.8/13, mb1mx3.5/36, mbtmp4.4/13, Error ellipse: s-maj=18.6km s-min=15.9km az=46.0*

**ISC 21 04:27:19.9±0.6, 6.94S±0.06×127.78E±0.06, h200km, n21, σ1.981/26, mb3.8/9, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **BNDI** | **Bandanaira** | **3.20** | **41** | P | **Pn** | **04 28 10.3** | **-1.6** |
| BNDI | | | | S | **Sn** | **04 28 52.9** | **+0.3** |
| **SAUI** | **Saumlaki** | **3.64** | **107** | P | **Pn** | **04 28 18.0** | **+0.7** |
| SAUI | | | | S | **Sn** | **04 29 04.7** | **+2.5** |
| **SOEI** | **Soe** | **4.46** | **231** | P | **Pn** | **04 28 27.9** | **+0.2** |
| SOEI | | | | S | **Sn** | **04 29 23.4** | **+2.4** |
| **FAKI** | **Fak Fak** | **5.98** | **48** | P | **Pn** | **04 28 48.7** | **+1.7** |
| FAKI | | | | S | **Sn** | **04 29 56.6** | **+0.8** |
| **EDFI** | **Ende, Flores** | **6.30** | **253** | P | **Pn** | **04 28 52.3** | **+1.1** |
| EDFI | | | | S | **Sn** | **04 30 05.4** | **+2.0** |
| **SWI** | **Sorong** | **6.96** | **30** | P | **Pn** | **04 29 02.0** | **+2.3** |
| SWI | | | | S | **Sn** | **04 30 19.9** | **+1.0** |
| **BASI** | **Baing, Sumba** | **7.83** | **245** | P | **Pn** | **04 29 13.7** | **+2.6** |
| BASI | | | | S | **Sn** | **04 30 36.6** | **-2.9** |
| **PLAI** | **Plampang** | **10.09** | **259** | P | **Pn** | **04 29 42.5** | **+2.1** |
| **FITZ** | **Fitzroy Crossi** baz=28,slow=11,SNR=35 | **11.29** | **190** | P | **Pn** | **04 29 55.2** | **-0.6** |
| FITZ | baz=274,slow=23,SNR=9.9 | | | S | Sn | 04 31 56.4 | -5.4 |
| **WRA** | **Warramunga Arr** 3.1nm,0.3s,baz=330,slow=12,SNR=131 | **14.41** | **154** | P | Pn | 04 30 32.4 | -2.6 |
| WRA | 1.0nm,0.3s,baz=332,slow=21,SNR=17 | | | S | S | 04 33 06.8 | -8.5 |
| **ASAR** | **Alice Springs** 6.6nm,0.3s,baz=343,slow=11,SNR=227 | **17.64** | **161** | P | **P** | **04 31 09.9** | **-2.0** |
| ASAR | 0.3nm,0.3s,baz=338,slow=23,SNR=10 | | | S | S | 04 34 14.1 | -11 |
| **PMG** | **Port Moresby** 1.0nm,0.3s,baz=239,slow=2.3,SNR=5.7 | **19.33** | **99** | P | **P** | **04 31 31.1** | **+0.7** |
| **NWAO** | **Narrogin (SRO)** 3.6nm,0.5s,baz=257,slow=12,SNR=4.5 | **27.65** | **199** | P | **P** | **04 32 45.6** | **-3.6** |
| **STKA** | **Stephens Creek** 3.0nm,0.4s,baz=327,slow=11,SNR=13 | **27.96** | **154** | P | P | 04 32 48.1 | -3.8 |
| **PSI** | **Prapat** 9.5nm,0.7s,baz=96,slow=4.6,SNR=8.3 | **30.39** | **288** | P | **P** | **04 33 13.8** | **+0.1** |
| **CMAR** | **Chiang Mai Arr** 1.0nm,0.4s,baz=129,slow=5.0,SNR=6.4 | **38.03** | **312** | P | **P** | **04 34 20.4** | **+1.2** |
| **KSRS** | **Korea Array** 0.8nm,0.3s,baz=182,slow=10.0,SNR=4.1 | **44.16** | **0** | P | **P** | **04 35 08.7** | **-0.1** |
| **USRK** | **Ussuriysk Ar.** 1.3nm,0.4s,baz=169,slow=5.9,SNR=4.8 | **51.04** | **4** | P | **P** | **04 36 00.7** | **-1.0** |
| **SONM** | **Songino Array** 0.3nm,0.4s,baz=167,slow=6.8,SNR=2.4 | **57.72** | **343** | P | **P** | **04 36 49.4** | **-0.4** |
| **PETK** | **Petropavlovsk-** 3.2nm,0.8s,baz=173,slow=2.5,SNR=2.8 | **64.97** | **19** | P | **P** | **04 37 36.8** | **-1.4** |
| **MKAR** | **Makanchi Array** 0.2nm,0.5s,baz=118,slow=7.7,SNR=4.4 | **66.99** | **328** | P | **P** | **04 37 49.8** | **-1.4** |

*ISK **21** 04:41:08.9, 38.69N×43.40E, h5km, ML3.3*
*DDA **21** 04:41:09.3, 38.68N×43.39E, h23km, Ml3.7*
*ISN **21** 04:41:09.7±1.2, 38.20N×43.45E, h0km±5km, ML3.7*
*CSEM **21** 04:41:10.1±0.1, 38.67N×43.37E, h2km, ML3.3, Error ellipse: s-maj=3.6km s-min=3.1km az=140.0*
*AZER **21** 04:41:10.2±1.0, 38.63N×43.15E, h20km, Error ellipse: s-maj=8.7km s-min=7.5km az=160.0*

**ISC 21 04:41:11.0±0.8, 38.67N±0.02×43.38E±0.02, h15km±5km, n103, σ1.952/148, 4C-8D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.07** | **175** | *e*PG | **Pg** | **04 41 13.4** | **-0.8** |
| **VANB** | **Van** | **0.07** | **175** | *e*Pg | **Pg** | **04 41 13.4** | **-0.8** |
| **TVAN** | **Van** | **0.14** | **172** | *i*P | **Pg** | **04 41 13.5** | **-1.5** |
| TVAN | | | | *i*S | **Sg** | **04 41 18.9** | **+1.3** |
| **TVAN** | **Van** | **0.14** | **172** | P | **Pg** | **04 41 13.5** | **-1.5** |
| TVAN | | | | S | **Sg** | **04 41 18.9** | **+1.3** |
| **ERCV** | **ERCIS-VAN** | **0.35** | **355** | *e*PG | **Pg** | **04 41 16.4** | **-1.9** |
| ERCV | | | | *e*SG | **Sg** | **04 41 22.4** | **-0.9** |
| **ERCV** | **ERCIS-VAN** | **0.35** | **355** | *e*Pg | **Pg** | **04 41 16.4** | **-1.9** |
| ERCV | | | | *e*Sg | **Sg** | **04 41 22.4** | **-0.9** |
| **VMUR** | **Van-Muradiye** | **0.35** | **25** | *i*P | **Pg** | **04 41 17.0** | **-1.4** |
| VMUR | | | | *i*S | **Sg** | **04 41 23.3** | **-0.1** |
| **VMUR** | **Van-Muradiye** | **0.35** | **25** | P | **Pg** | **04 41 17.0** | **-1.4** |
| VMUR | | | | S | **Sg** | **04 41 23.3** | **-0.1** |
| **GEVA** | **Gevas** | **0.44** | **215** | *i*P | **Pg** | **04 41 18.1** | **-1.8** |
| **GEVA** | **Gevas** | **0.44** | **215** | P | **Pg** | **04 41 18.1** | **-1.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.53** | **285** | *i*P | **Pg** | **04 41 20.0** | **-1.6** |
| ADCV | | | | *i*S | **Sg** | **04 41 28.1** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.53** | **285** | P | **Pg** | **04 41 20.0** | **-1.6** |
| ADCV | | | | S | **Sg** | **04 41 28.1** | **-0.6** |
| **CLDR** | **Caldiran** | **0.63** | **41** | *e*PG | **Pg** | **04 41 21.9** | **-1.6** |
| CLDR | | | | *e*SG | **Sg** | **04 41 31.3** | **-0.6** |
| **CLDR** | **Caldiran** | **0.63** | **41** | *i*P | **Pg** | **04 41 21.9** | **-1.6** |
| CLDR | | | | *i*S | **Sb** | **04 41 32.5** | **-0.2** |
| **CLDR** | **Caldiran** | **0.63** | **41** | P | **Pg** | **04 41 21.9** | **-1.6** |
| CLDR | | | | *e*Sg | **Sg** | **04 41 31.3** | **-0.6** |
| CLDR | | | | S | **Sb** | **04 41 32.5** | **-0.2** |
| **BASK** | **Baskale_VAN** | **0.79** | **141** | *i*P | **Pg** | **04 41 23.7** | **-2.7** |
| BASK | | | | *i*S | **Sb** | **04 41 36.9** | **-0.3** |
| **BASK** | **Baskale_VAN** | **0.79** | **141** | P | **Pg** | **04 41 23.7** | **-2.7** |
| BASK | | | | S | **Sb** | **04 41 36.9** | **-0.3** |
| **TUTA** | **Tutak** | **0.85** | **329** | *i*P | **Pg** | **04 41 25.3** | **-2.4** |
| TUTA | | | | *i*S | **Sg** | **04 41 36.5** | **-2.4** |
| **TUTA** | **Tutak** | **0.85** | **329** | P | **Pg** | **04 41 25.3** | **-2.4** |
| TUTA | | | | S | **Sg** | **04 41 36.5** | **-2.4** |
| **DYDN** | **Diyadin** | **0.91** | **15** | *i*P | **Pg** | **04 41 25.7** | **-2.9** |
| **DYDN** | **Diyadin** | **0.91** | **15** | P | **Pg** | **04 41 25.7** | **-2.9** |
| **AGRB** | **Hanur-Agry** | **0.95** | **342** | *e*PG | **Pg** | **04 41 27.6** | **-2.0** |
| **AGRB** | **Hanur-Agry** | **0.95** | **342** | *e*Pg | **Pg** | **04 41 27.6** | **-2.0** |
| **HAKT** | **HAKKARI** | **1.14** | **167** | *i*P | **Pg** | **04 41 30.0** | **-3.1** |
| HAKT | | | | *i*S | **Sn** | **04 41 52.8** | **+4.5** |
| **HAKT** | **HAKKARI** | **1.14** | **167** | P | **Pg** | **04 41 30.0** | **-3.1** |
| **EKAR** | **Karacoban** | **1.18** | **300** | *i*P | **Pg** | **04 41 32.8** | **-1.1** |
| EKAR | | | | *i*S | **Sn** | **04 41 50.6** | **+1.4** |
| **EKAR** | **Karacoban** | **1.18** | **300** | P | **Pg** | **04 41 32.8** | **-1.1** |
| EKAR | | | | S | **Sn** | **04 41 50.7** | **+1.4** |
| **SRTM** | **Siirt_Merkez** | **1.33** | **240** | *i*P | **Pn** | **04 41 34.6** | **-0.6** |
| SRTM | | | | *i*S | **Sn** | **04 41 54.5** | **+1.7** |
| **SRTM** | **Siirt_Merkez** | **1.33** | **240** | P | **Pn** | **04 41 34.7** | **-0.6** |
| SRTM | | | | S | **Sn** | **04 41 54.5** | **+1.7** |
| **EATA** | **Eleskirt** | **1.38** | **330** | *i*P | **Pn** | **04 41 34.2** | **-1.9** |
| EATA | | | | *i*S | **Sg** | **04 41 53.6** | **-1.9** |
| **EATA** | **Eleskirt** | **1.38** | **330** | P | **Pn** | **04 41 34.2** | **-1.9** |
| EATA | | | | S | **Sg** | **04 41 53.6** | **-1.9** |
| **SIRT** | **Sirnak** | **1.38** | **213** | *e*PN | **Pg** | **04 41 36.6** | **-1.0** |
| **SIRT** | **Sirnak** | **1.38** | **213** | *e*Pn | **Pg** | **04 41 36.6** | **-1.0** |
| **SIRN** | **S¨¨-rnak** | **1.40** | **213** | *i*P | **Pn** | **04 41 35.9** | **-0.2** |
| SIRN | | | | *i*S | **Sn** | **04 41 55.5** | **+1.1** |
| **SIRN** | **S¨¨-rnak** | **1.40** | **213** | P | **Pn** | **04 41 35.9** | **-0.2** |
| SIRN | | | | S | **Sn** | **04 41 55.5** | **+1.1** |
| **CUKT** | **Cukurca** | **1.43** | **173** | *e*PN | **Pg** | **04 41 37.2** | **-1.4** |
| **CUKT** | **Cukurca** | **1.43** | **173** | *i*P | **Pn** | **04 41 35.3** | **-1.3** |
| **CUKT** | **Cukurca** | **1.43** | **173** | P | **Pn** | **04 41 35.3** | **-1.3** |
| **CUKT** | **Cukurca** | **1.43** | **173** | *e*Pn | **Pg** | **04 41 37.2** | **-1.4** |
| **TASB** | **TASBURUN-IGDIR** | **1.47** | **27** | *e*PN | **Pn** | **04 41 37.3** | **+0.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.47** | **27** | *e*Pn | **Pn** | **04 41 37.3** | **+0.2** |
| **HYR** | **Heyderabad** SNR=4.7 | **1.55** | **47** | ⇓P | **Pb** | **04 41 39.0** | **-0.6** |
| HYR | | | | ⇓S | **Sg** | **04 42 01.1** | **0.0** |
| **HYR** | **Heyderabad** SNR=4.7 | **1.55** | **47** | P | **Pb** | **04 41 39.0** | **-0.6** |
| HYR | | | | S | **Sg** | **04 42 01.1** | **0.0** |
| **VRTB** | **Varto-Mus** | **1.58** | **289** | *e*PN | **Pn** | **04 41 39.3** | **+0.6** |
| **VRTB** | **Varto-Mus** | **1.58** | **289** | *i*P | **Pb** | **04 41 39.5** | **-0.6** |
| VRTB | | | | *i*S | **Sg** | **04 42 02.5** | **+0.5** |
| **VRTB** | **Varto-Mus** | **1.58** | **289** | *e*Pn | **Pn** | **04 41 39.3** | **+0.6** |
| VRTB | | | | S | **Sg** | **04 42 02.5** | **+0.5** |
| **NAX** | **Nakhchivan** SNR=8.1 | **1.73** | **72** | ⇓P | **Pb** | **04 41 41.7** | **-0.8** |
| NAX | | | | ⇑S | **Sg** | **04 42 06.0** | **-0.6** |
| **NAX** | **Nakhchivan** SNR=8.1 | **1.73** | **72** | P | **Pb** | **04 41 41.7** | **-0.8** |
| NAX | | | | S | **Sg** | **04 42 06.0** | **-0.6** |
| **DIGO** | **Kars** | **1.74** | **360** | *i*P | **Pn** | **04 41 41.7** | **+0.6** |
| **DIGO** | **Kars** | **1.74** | **360** | P | **Pn** | **04 41 41.7** | **+0.6** |
| **BNGL** | **BINGOL** | **1.77** | **280** | *i*P | **Pn** | **04 41 41.8** | **+0.4** |
| BNGL | | | | *i*S | **Sb** | **04 42 05.6** | **+0.3** |
| **HOMI** | **Horasan** | **1.79** | **321** | *i*P | **Pn** | **04 41 41.5** | **-0.1** |
| HOMI | | | | *i*S | **Sg** | **04 42 07.5** | **-1.2** |
| **BTMN** | **Batman** | **1.83** | **246** | *i*P | **Pn** | **04 41 41.3** | **-0.9** |
| BTMN | | | | *i*S | **Sg** | **04 42 08.2** | **-1.9** |
| **BTMN** | **Batman** | **1.83** | **246** | P | **Pn** | **04 41 41.3** | **-0.9** |
| BTMN | | | | S | **Sg** | **04 42 08.2** | **-1.9** |
| **SBZ** | **Shahbuz** SNR=38 | **1.84** | **66** | P | **Pb** | **04 41 43.2** | **-1.3** |
| SBZ | | | | ⇑S | **Sg** | **04 42 08.7** | **-1.6** |
| **SBZ** | **Shahbuz** SNR=38 | **1.84** | **66** | P | **Pb** | **04 41 43.2** | **-1.3** |
| SBZ | | | | S | **Sg** | **04 42 08.7** | **-1.6** |
| **KARS** | **Kars** | **1.97** | **353** | *e*PN | **Pn** | **04 41 44.2** | **+0.1** |
| **KARS** | **Kars** | **1.97** | **353** | *e*Pn | **Pn** | **04 41 44.2** | **+0.1** |
| **EAK** | **Akyaka** | **2.02** | **5** | *i*P | **Pn** | **04 41 46.1** | **+1.3** |
| EAK | | | | *i*S | **Sg** | **04 42 19.3** | **+3.2** |
| **EAK** | **Akyaka** | **2.02** | **5** | P | **Pn** | **04 41 46.1** | **+1.3** |
| **SENK** | **Senkaya-Erzuru** | **2.05** | **337** | *e*PN | **Pn** | **04 41 45.6** | **+0.4** |
| **SENK** | **Senkaya-Erzuru** | **2.05** | **337** | *e*Pn | **Pn** | **04 41 45.6** | **+0.4** |
| **ORD** | **Ordubad** SNR=36 | **2.06** | **82** | P | **Pb** | **04 41 46.7** | **-1.5** |
| ORD | | | | S | **Sb** | **04 42 14.2** | **+0.5** |
| **ECAT** | **Cat-ERZURUM** | **2.09** | **297** | *i*P | **Pn** | **04 41 46.5** | **+0.7** |
| ECAT | | | | *i*S | **Sb** | **04 42 15.5** | **+0.7** |
| **ECAT** | **Cat-ERZURUM** | **2.09** | **297** | P | **Pn** | **04 41 46.5** | **+0.7** |
| ECAT | | | | S | **Sb** | **04 42 15.5** | **+0.7** |
| **BNGB** | **Bing¨¶l** | **2.13** | **279** | *e*PN | **Pn** | **04 41 47.4** | **+1.0** |
| **BINT** | **Bingol** | **2.27** | **276** | *e*Pn | **Pn** | **04 41 47.4** | **-0.8** |
| **YEDI** | **Yedisu-Bingol** | **2.34** | **290** | *e*PN | **Pn** | **04 41 50.1** | **+0.9** |
| **YEDI** | **Yedisu-Bingol** | **2.34** | **290** | *e*Pn | **Pn** | **04 41 50.1** | **+0.9** |
| **HANI** | **Diyarbakir_Han** | **2.35** | **265** | *i*P | **Pn** | **04 41 49.8** | **+0.5** |
| HANI | | | | *i*S | **Sb** | **04 42 22.6** | **+0.5** |
| **HANI** | **Diyarbakir_Han** | **2.35** | **265** | P | **Pn** | **04 41 49.8** | **+0.5** |
| HANI | | | | S | **Sb** | **04 42 22.6** | **+0.5** |
| **BGD** | **Bogdanovka** | **2.60** | **4** | P | **Pb** | **04 41 57.7** | **+0.2** |
| **DIY** | **Diyarbakir** | **2.60** | **254** | *e*Pn | **Pn** | **04 41 54.6** | **+1.9** |
| **DYBB** | **Diyarbakir** | **2.65** | **255** | *e*PN | **Pn** | **04 41 54.6** | **+1.3** |
| **AKH** | **Akhalkalaki** | **2.74** | **2** | P | **Pg** | **04 42 01.9** | **-1.6** |
| **GDB** | **GEDABAY** SNR=5.9 | **2.75** | **41** | ⇓P | **Pn** | **04 41 56.3** | **+1.5** |
| GDB | | | | ⇓S | **Sn** | **04 42 31.1** | **+3.3** |
| **GDB** | **GEDABAY** SNR=5.9 | **2.75** | **41** | P | **Pn** | **04 41 56.3** | **+1.5** |
| GDB | | | | S | **Sn** | **04 42 31.1** | **+3.3** |
| **QZX** | **Qazax, Azerbai** SNR=7.6 | **2.83** | **32** | ⇓P | **Pn** | **04 41 56.7** | **+0.9** |
| **QZX** | **Qazax, Azerbai** SNR=7.6 | **2.83** | **32** | P | **Pn** | **04 41 56.7** | **+0.9** |
| **GANJ** | **Ganja** SNR=6.3 | **3.01** | **48** | ⇓P | **Pn** | **04 41 59.2** | **+1.0** |
| **GANJ** | **Ganja** SNR=6.3 | **3.01** | **48** | P | **Pn** | **04 41 59.2** | **+1.0** |
| **BAYT** | **Ayd¨¨-ntepe-Bay** | **3.04** | **306** | *e*PN | **Pn** | **04 42 00.1** | **+1.3** |
| **BAYT** | **Ayd¨¨-ntepe-Bay** | **3.04** | **306** | *e*Pn | **Pn** | **04 42 00.1** | **+1.3** |
| **BCA** | **Borcka** | **3.08** | **335** | *e*PN | **Pn** | **04 42 00.4** | **+1.1** |
| **BCA** | **Borcka** | **3.08** | **335** | *e*Pn | **Pn** | **04 42 00.4** | **+1.1** |
| **PTK** | **Pertek** | **3.12** | **275** | *e*PN | **Pn** | **04 42 01.4** | **+1.4** |
| **PTK** | **Pertek** | **3.12** | **275** | *e*Pn | **Pn** | **04 42 01.4** | **+1.4** |
| **SVRC** | **Sivrice-ELAZID** | **3.21** | **266** | *e*PN | **Pn** | **04 42 02.5** | **+1.4** |
| **SVRC** | **Sivrice-ELAZID** | **3.21** | **266** | *e*Pn | **Pn** | **04 42 02.5** | **+1.4** |
| **TBLG** | **Delisi** | **3.23** | **18** | P | **Pg** | **04 42 10.9** | **-2.1** |
| **URFA** | **Urfa** | **3.80** | **253** | *e*PN | **Pn** | **04 42 11.1** | **+1.9** |
| **URFA** | **Urfa** | **3.80** | **253** | *e*Pn | **Pn** | **04 42 11.1** | **+1.9** |
| **ILIC** | **ilic-Erzincan** | **3.83** | **283** | *e*PN | **Pn** | **04 42 11.2** | **+1.6** |
| **ILIC** | **ilic-Erzincan** | **3.83** | **283** | *e*Pn | **Pn** | **04 42 11.2** | **+1.6** |
| **SEKA** | **Sheki** | **3.88** | **48** | ⇓P | **Pn** | **04 42 12.4** | **+2.1** |
| **SEKA** | **Sheki** | **3.88** | **48** | P | **Pn** | **04 42 12.4** | **+2.1** |
| **LRK** | **Lerik** | **3.88** | **89** | ⇑P | **Pn** | **04 42 11.3** | **+0.9** |
| **LRK** | **Lerik** | **3.88** | **89** | P | **Pn** | **04 42 11.3** | **+0.9** |
| **MALT** | **Malatya** | **3.90** | **266** | *e*PN | **Pn** | **04 42 12.9** | **+2.3** |
| **MALT** | **Malatya** | **3.90** | **266** | *e*Pn | **Pn** | **04 42 12.9** | **+2.3** |
| **ONI** | **Oni** | **3.92** | **1** | P | **Pg** | **04 42 24.3** | **-1.8** |
| **GLBA** | **Clilabad** | **3.95** | **80** | ⇑P | **Pn** | **04 42 13.0** | **+1.9** |
| **GLBA** | **Clilabad** | **3.95** | **80** | P | **Pn** | **04 42 13.0** | **+1.9** |

**NNC 21 04:43:13.1±2.4, 36.85N×70.94E, h144km±30km, mb2.7, mpv3.6, 7C-5D, Error ellipse: s-maj=23.5km s-min=11.5km az=161.0, Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DZET** | **Dzherino** 11nm,0.4s | **2.57** | **320** | ⇓P | Pn | 04 43 54.3 | -0.5 |
| DZET | 38n

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.07** | **166** | *e*PG | **Pg** | **04 57 09.0** | **+0.5** |
| **VANB** | **Van** | **0.07** | **166** | *e*Pg | **Pg** | **04 57 09.0** | **+0.5** |
| **TVAN** | **Van** | **0.14** | **167** | *i* P | **Pg** | **04 57 08.9** | **-0.3** |
| TVAN | | | | *i* S | **Sg** | **04 57 12.4** | **+0.3** |
| **TVAN** | **Van** | **0.14** | **167** | P | **Pg** | **04 57 08.9** | **-0.3** |
| TVAN | | | | S | **Sg** | **04 57 12.4** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.36** | **26** | *i* P | **Pg** | **04 57 12.6** | **-0.1** |
| VMUR | | | | *i* S | **Sb** | **04 57 18.9** | **+0.4** |
| **VMUR** | **Van-Muradiye** | **0.36** | **26** | P | **Pg** | **04 57 12.6** | **-0.1** |
| VMUR | | | | S | **Sb** | **04 57 18.9** | **+0.4** |
| **GEVA** | **Gevas** | **0.42** | **215** | *i* P | **Pg** | **04 57 13.5** | **-0.2** |
| **GEVA** | **Gevas** | **0.42** | **215** | P | **Pg** | **04 57 13.5** | **-0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.52** | **286** | *i* P | **Pg** | **04 57 15.2** | **-0.3** |
| ADCV | | | | *i* S | **Sb** | **04 57 23.6** | **+0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.52** | **286** | P | **Pg** | **04 57 15.2** | **-0.3** |
| ADCV | | | | S | **Sb** | **04 57 23.6** | **+0.6** |
| **CLDR** | **Caldiran** | **0.64** | **42** | *e*PG | **Pg** | **04 57 17.9** | **+0.2** |
| CLDR | | | | *e*SG | **Sb** | **04 57 27.9** | **+1.5** |
| **CLDR** | **Caldiran** | **0.64** | **42** | *i* P | **Pg** | **04 57 17.3** | **-0.4** |
| CLDR | | | | *i* S | **Sb** | **04 57 27.7** | **+1.3** |
| **CLDR** | **Caldiran** | **0.64** | **42** | P | **Pg** | **04 57 17.3** | **-0.4** |
| **CLDR** | **Caldiran** | **0.64** | **42** | *e*Pg | **Pg** | **04 57 17.9** | **+0.2** |
| CLDR | | | | S | **Sb** | **04 57 27.7** | **+1.3** |
| **TUTA** | **Tutak** | **0.86** | **330** | *i* P | **Pb** | **04 57 20.7** | **-0.6** |
| TUTA | | | | *i* S | **Sg** | **04 57 32.5** | **-0.6** |
| **TUTA** | **Tutak** | **0.86** | **330** | P | **Pb** | **04 57 20.7** | **-0.6** |
| TUTA | | | | S | **Sg** | **04 57 32.5** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **0.96** | **342** | *e*PG | **Pb** | **04 57 22.7** | **-0.4** |
| AGRB | | | | *e*SG | **Sn** | **04 57 36.3** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **0.96** | **342** | *e*Pg | **Pb** | **04 57 22.7** | **-0.4** |
| AGRB | | | | *e*Sg | **Sn** | **04 57 36.3** | **-0.6** |
| **EKAR** | **Karacoban** | **1.18** | **301** | *i* S | **Pg** | **04 57 29.7** | **+2.0** |

*NIED* ***21*** *04:58:00.44˚.60N×145˚.30E, h5km, Mw3.8 Best double couple: M₀5.14000×10¹⁴ NP1:φ₅74.00000°, δ36.00000°, λ111.00000°. NP2:φ₅230.00000°, δ57.00000°, λ76.00000°.*
*MOS* ***21*** *04:58:56.4±1.3, 44˚.60N×145˚.25E, h12km, mb4.1/6, Error ellipse: s-maj=12.4km s-min=7.6km az=101.7*
*IDC* ***21*** *04:58:56.6±0.8, 44˚.60N×145˚.35E, h0km, mb3.6/10, mb1 4.0/11, mb1mx3.7/35, mbtmp3.7/11, ML3.6/2, MS2.5/1, Ms1 2.5/1, ms1mx2.1/48, Error ellipse: s-maj=24.6km s-min=15.4km az=152.0*
*ISCJB* ***21*** *04:58:57.6±0.8, 44˚.63N±0˚.04×145˚.36E±0˚.04, h17km±7km, mb3.6/11, MS2.5/1, Error ellipse: s-maj=5.9km s-min=4.9km az=4.2*
*JMA* ***21*** *04:58:58.3±0.2, 44˚.62N×145˚.31E, h17km±1km, M4.0*
*JMA Felt I J1.*
*SKHL* ***21*** *04:58:59.5±0.5, 44˚.60N×145˚.37E, h31km±2km, mb4.1/5*
**ISC 21 04:58:58.5±1.3, 44˚.58N±0˚.05×145˚.36E±0˚.03, h16km±9km, n53, σ0ˢ88/68, mb3.7/11, 8C-5D, Hokkaido region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LAGR** | **Lagunnoye** | **0.61** | **149** | *e*PN | **Pg** | **04 59 10.4** | **0.0** |
| LAGR | | | | *i* S | **Sg** | **04 59 18.6** | **+0.1** |
| **LAGR** | **Lagunnoye** | **0.61** | **149** | *i* P | **Pg** | **04 59 10.4** | **0.0** |
| LAGR | | | | *i* S | **Sg** | **04 59 18.6** | **+0.1** |
| **YUK** | **Yuzh-Kuril'sk** | **0.65** | **146** | *d i*PN | **Pg** | **04 59 11.2** | **-0.1** |
| YUK | | | | *i* S | **Sg** | **04 59 20.2** | **+0.3** |
| YUK | comp=Z,1μm,0.2s | | | pmax | pmax | | |
| YUK | comp=N,470nm,0.1s | | | pmax | pmax | | |
| YUK | comp=E,424nm,0.2s | | | pmax | pmax | | |
| YUK | comp=E,3μm,0.1s | | | smax | smax | | |
| YUK | comp=N,9μm,0.2s | | | smax | smax | | |
| **YUK** | **Yuzh-Kuril'sk** | **0.65** | **146** | *i* P | **Pg** | **04 59 11.1** | **-0.2** |
| YUK | | | | AMB | AMB | 04 59 11.6 | |
| YUK | comp=N,470nm,0.2s | | | AMB | AMB | 04 59 11.6 | |
| YUK | comp=N,430nm,0.2s | | | AMB | AMB | 04 59 11.6 | |
| YUK | comp=N,136nm,0.2s | | | *i* S | **Sg** | **04 59 20.0** | **+0.1** |
| YUK | | | | A | A | 04 59 22.0 | |
| YUK | comp=N,350nm,0.2s | | | A | A | 04 59 22.0 | |
| YUK | comp=N,860nm,0.2s | | | A | A | 04 59 22.0 | |
| **GRPR** | **Tuman** | **0.66** | **153** | *e*PN | **Pg** | **04 59 11.4** | **0.0** |
| GRPR | | | | *i* S | **Sg** | **04 59 19.8** | **-0.3** |
| **GRPR** | **Tuman** | **0.66** | **153** | *i* P | **Pg** | **04 59 11.4** | **0.0** |
| GRPR | | | | *i* S | **Sg** | **04 59 19.8** | **-0.3** |
| **JRA** | **Rausu** | **0.66** | **195** | P | **Pg** | **04 59 11.4** | **0.0** |
| **GLVR** | **Golovnino** | **0.85** | **172** | *d i*PN | **Pb** | **04 59 14.9** | **+0.1** |
| GLVR | | | | *i* S | **Sg** | **04 59 27.0** | **+0.9** |
| **GLVR** | **Golovnino** | **0.85** | **172** | *i* P | **Pb** | **04 59 14.9** | **+0.1** |
| GLVR | | | | *i* S | **Sg** | **04 59 27.0** | **+0.9** |
| **JNK** | **Nakash** | **1.09** | **205** | ⇑P | **Pb** | **04 59 18.5** | **-0.5** |
| JNK | | | | *e*S | **Sb** | **04 59 32.9** | **-0.1** |
| **JTKR** | **Abashiri--Toko** | **1.20** | **240** | ⇑P | **Pn** | **04 59 19.7** | **-0.9** |
| **NEM2** | **Nemuro 2** | **1.24** | **167** | ⇓P | **Pn** | **04 59 20.5** | **-0.7** |
| NEM2 | | | | *e*S | **Sb** | **04 59 37.2** | **-0.1** |
| **SHO** | **Shikotan** | **1.27** | **123** | *c i*PN | **Pn** | **04 59 20.7** | **-0.9** |
| SHO | | | | *i* S | **Sb** | **04 59 37.8** | **-0.4** |
| SHO | comp=Z,352nm,0.3s | | | pmax | pmax | | |
| SHO | comp=N,183nm,0.2s | | | pmax | pmax | | |
| SHO | comp=E,138nm,0.3s | | | pmax | pmax | | |
| SHO | comp=N,7μm,0.5s | | | smax | smax | | |
| SHO | comp=E,23μm,0.5s | | | smax | smax | | |
| **SHO** | **Shikotan** | **1.27** | **123** | *i* P | **Pn** | **04 59 20.7** | **-0.9** |
| SHO | | | | AMB | AMB | 04 59 21.4 | |
| SHO | comp=E,352nm,0.3s | | | *i* S | **Sb** | **04 59 37.0** | **-1.2** |
| SHO | | | | A | A | 04 59 38.6 | |
| SHO | comp=E,114nm,0.3s | | | A | A | 04 59 38.6 | |
| SHO | comp=E,614nm,0.3s | | | A | A | 04 59 38.6 | |
| **JMP** | **Maruseppu** | **1.54** | **249** | ⇑P | **Pn** | **04 59 25.1** | **-0.2** |
| **JAK** | **Akkeshi** | **1.65** | **197** | ⇑P | **Pn** | **04 59 26.9** | **+0.1** |
| JAK | | | | *e*S | **Sb** | **04 59 49.2** | **+0.2** |
| **KUR** | **Kuril'sk** | **1.90** | **69** | *d i*PN | **Pn** | **04 59 29.9** | **-0.3** |
| KUR | | | | *i* S | **Sn** | **04 59 53.2** | **-0.6** |
| KUR | comp=E,22nm,0.2s | | | pmax | pmax | | |
| KUR | comp=Z,45nm,0.2s | | | pmax | pmax | | |
| KUR | comp=N,20nm,0.1s | | | pmax | pmax | | |
| KUR | comp=N,130nm,0.3s | | | smax | smax | | |
| KUR | comp=E,190nm,0.3s | | | smax | smax | | |
| **KUR** | **Kuril'sk** | **1.90** | **69** | *e*P | **Pn** | **04 59 29.9** | **-0.3** |
| KUR | | | | AMB | AMB | 04 59 30.3 | |
| KUR | comp=E,29nm,0.3s | | | AMB | AMB | 04 59 30.3 | |
| KUR | comp=E,45nm,0.3s | | | AMB | AMB | 04 59 30.3 | |
| KUR | comp=E,123nm,0.3s | | | *e*S | **Sn** | **04 59 53.0** | **-0.8** |
| KUR | | | | A | A | 04 59 59.9 | |
| KUR | comp=E,130nm,0.3s | | | A | A | 04 59 59.9 | |
| KUR | comp=E,160nm,0.3s | | | A | A | 04 59 59.9 | |
| **JKA** | **Kamikawa-asahi** | **2.03** | **258** | *e*P | **Pn** | **04 59 31.6** | **-0.4** |
| **ASAJ** | **Asahikawa** | **2.03** | **258** | Pn | **Pn** | **04 59 31.6** | **-0.5** |
| ASAJ | comp=E,15nm,0.3s,baz=72,slow=20,SNR=13 | | | Sn | **Sb** | **04 59 59.0** | **-1.0** |
| YSS | comp=E,28nm,0.3s,baz=49,slow=20,SNR=8.3 | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **2.99** | **323** | *e*PN | **Pn** | **04 59 45.6** | **+0.4** |
| YSS | | | | *e*S | **Sn** | **05 00 20.8** | **0.0** |
| YSS | comp=Z,20nm,0.8s | | | pmax | pmax | | |
| YSS | comp=N,170nm,0.5s | | | smax | smax | | |
| YSS | comp=E,110nm,0.7s | | | smax | smax | | |
| **YSS** | **Yuzh-Sakhalins** | **2.99** | **323** | *e*P | **Pn** | **04 59 44.2** | **-1.0** |
| YSS | | | | AMB | AMB | 04 59 50.0 | |
| YSS | comp=E,20nm,0.8s | | | *e*S | **Sn** | **05 00 20.8** | **0.0** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **ERM** | **Erimo** | **3.02** | **213** | ⇑*e*PN | **Pn** | **04 59 44.8** | **-0.8** |
| **ERM** | **Erimo** | **3.02** | **213** | *e*P | **Pn** | **04 59 44.8** | **-0.8** |
| **TYV** | **Tymovskoe** | **6.55** | **345** | *e*PN | Pn | 05 00 24.8 | -9.2 |
| TYV | comp=Z,5.0nm,1.3s | | | pmax | pmax | | |
| TYV | comp=Z,500nm,19.0s | | | MLR | MLR | | |
| **TYV** | **Tymovskoe** | **6.55** | **345** | *e*P | Pn | 05 00 24.8 | -9.2 |
| TYV | comp=Z,5.0nm,1.0s | | | AMB | AMB | 05 00 25.3 | |
| **MAJO** | **Matsushiro** | **9.69** | **217** | ⇓*e*PN | **Pn** | **05 01 15.4** | **-1.8** |
| **MAJO** | **Matsushiro** | **9.69** | **217** | *e*P | **Pn** | **05 01 16.5** | **-0.7** |
| **EKMR** | **Ekimchan** | **11.78** | **321** | *e*P | **Pn** | **05 01 45.6** | **-0.1** |
| **SEY** | **Seymchan** | **18.83** | **10** | P | **Pn** | **05 03 19.1** | **+1.3** |
| **SONM** | **Songino Array** | **26.96** | **291** | P | **P** | **05 04 39.8** | **+0.5** |
| SONM | comp=Z,2.0nm,0.3s,baz=196,slow=19,SNR=4.9 | | | pmax | pmax | | |
| **ZALV** | **Zalesovo Beam** | **39.47** | **306** | LR | LR | 05 25 32.5 | |
| **BILL** | **Bilibino** | **25.95** | **18** | ⇑*e*P | **P** | **05 04 28.9** | **-0.8** |
| **BILL** | **Bilibino** | **25.95** | **18** | *e*P | **P** | **05 04 30.4** | **+0.7** |
| **SONM** | **Songino Array** | **26.96** | **291** | P | **P** | **05 04 39.8** | **+0.5** |
| SONM | comp=Z,1.0nm,0.4s | | | pmax | pmax | | |
| **ILAR** | **Eielson Array** | **41.59** | **37** | P | **P** | **05 06 44.1** | **-1.1** |
| **ILAR** | **Eielson Array** | **41.59** | **37** | *e*P | **P** | **05 06 45.4** | **+0.2** |
| **ILAR** | **Eielson Array** | **41.59** | **37** | *e*P | **P** | **05 06 45.4** | **+0.2** |
| **MKAR** | **Makanchi Array** | **43.06** | **296** | P | **P** | **05 06 56.8** | **-0.6** |
| **CMAR** | **Chiang Mai Arr** | **46.54** | **251** | P | **P** | **05 07 27.3** | **+1.9** |
| **BRVK** | **Borovoye** | **48.02** | **308** | ⇑*e*P | **P** | **05 07 35.9** | **-0.6** |
| **BRVK** | **Borovoye** | **48.02** | **308** | *e*P | **P** | **05 07 35.9** | **-0.6** |
| **WRA** | **Warramunga Arr** | **64.99** | **191** | P | **P** | **05 09 37.5** | **-0.1** |
| **WRA** | **Warramunga Arr** | **64.99** | **191** | *e*P | **P** | **05 09 38.6** | **+1.0** |
| **WRA** | **Warramunga Arr** | **64.99** | **191** | *e*P | **P** | **05 09 38.6** | **+1.0** |
| **NVAR** | **Mina Array Bea** | **68.22** | **57** | P | **P** | **05 09 59.4** | **+0.9** |
| **KIV** | **Kislovodsk** | **68.25** | **311** | *e*P | **P** | **05 09 55.4** | **-3.0** |
| KIV | comp=Z,13nm,1.1s | | | pmax | pmax | | |
| **KIV** | **Kislovodsk** | **68.25** | **311** | *e*P | **P** | **05 09 55.4** | **-3.0** |
| **ASAR** | **Alice Springs** | **68.71** | **191** | P | **P** | **05 10 02.6** | **+1.3** |
| **PDAR** | **Pinedale Array** | **70.35** | **49** | P | **P** | **05 10 12.7** | **+1.1** |
| **GERES** | **GERESS Array B** | **77.80** | **330** | P | **P** | **05 10 55.6** | **+0.8** |
| **TXAR** | **Lajitas Array** | **83.25** | **55** | P | **P** | **05 11 25.2** | **+0.8** |
| **TXAR** | **Lajitas Array** | **83.25** | **55** | *e*P | **P** | **05 11 24.8** | **+0.4** |

*IDC* ***21*** *05:08:22.3±0.9, 65˚.00S×174˚.69E, h0km, mb4.2/7, mb1 4.4/7, mb1mx4.2/23, mbtmp4.2/7, MS4.3/8, Ms1 4.2/8, ms1mx3.9/22, Error ellipse: s-maj=59.0km s-min=20.2km az=44.0*
*ISCJB* ***21*** *05:08:23.0±0.5, 64˚.61S±0˚.06×175˚.0E±0˚.3, h10km, mb4.5/14, MS4.2/7, Error ellipse: s-maj=18.9km s-min=7.9km az=170.0*
*NEIC* ***21*** *05:08:24.9±0.5, 64˚.62S×175˚.10E, h10km, mb4.7/15, Error ellipse: s-maj=18.8km s-min=8.0km az=80.0*
**ISC 21 05:08:23.8±0.7, 64˚.9S±0˚.1×174˚.7E±0˚.2, h10km, n52, σ1ˢ69/30, mb4.6/14, MS4.1/7, Balleny Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SBA** | **Scott Base** | **13.20** | **187** | *e*Pn | **P** | **05 11 37.9** | **-3.0** |
| **VNDA** | **Vanda** | **13.24** | **192** | LR | LR | 05 15 46.7 | |
| **VNDA** | **Vanda** | **13.24** | **192** | *e*Pn | **P** | **05 11 38.4** | **-2.9** |
| **PYZ** | **Puysegur Point** | **19.32** | **343** | *e*P | **P** | **05 12 48.0** | **-0.8** |
| **WHZ** | **Wheke Hill Ro** | **19.45** | **346** | *e*P | **P** | **05 12 48.6** | **-1.5** |
| **WKZ** | **Wanaka** | **20.40** | **348** | *e*P | **P** | **05 13 00.9** | **+0.3** |
| **LBZ** | **Lake Benmore** | **20.75** | **351** | *e*P | **P** | **05 13 02.6** | **-1.8** |
| **RPZ** | **Rata Peaks** | **21.37** | **353** | P | **P** | **05 13 12.9** | **+1.9** |
| RPZ | | | | LR | LR | 05 20 41.2 | |
| **OXZ** | **Oxford** | **21.71** | **355** | *e*P | **P** | **05 13 13.4** | **-1.3** |
| **LTZ** | **Lake Taylor** | **22.24** | **355** | *e*P | **P** | **05 13 19.8** | **-0.7** |
| **BFZ** | **Birch Farm** | **24.32** | **3** | *e*P | **P** | **05 13 38.4** | **-2.9** |
| **QSPA** | **South Pole Qui** | **25.15** | **180** | *e*P | **P** | **05 13 54.4** | **+5.6** |
| **URZ** | **Urewera** | **26.76** | **4** | LR | LR | 05 23 28.1 | |
| **STKA** | **Stephens Creek** | **38.83** | **312** | P | **P** | **05 15 49.2** | **+0.7** |
| **STKA** | **Stephens Creek** | **38.83** | **312** | *e*P | **P** | **05 15 49.2** | **+0.7** |
| **MAW** | **Mawson** | **39.19** | **214** | LR | LR | 05 32 16.4 | |
| **DZM** | **Mont Dzumac** | **43.20** | **349** | LR | LR | 05 33 06.9 | |
| **DZM** | **Mont Dzumac** | **43.20** | **349** | *e*LR | LR | 05 28 08.0 | |
| **H01W1** | **Cape Leeuwin H** | **46.57** | **280** | T | T | 06 07 31.7 | |
| **H01W2** | **Cape Leeuwin H** | **46.58** | **280** | T | T | 06 07 32.0 | |
| **H01W3** | **Cape Leeuwin H** | **46.59** | **280** | T | T | 06 07 32.9 | |
| **NWAO** | **Narrogin (SRO)** | **46.99** | **284** | LR | LR | 05 31 56.6 | |
| **TBI** | **Tubuai** | **47.63** | **47** | *e*S | S | 05 23 43.3 | -12 |
| TBI | | | | *e*LR | LR | 05 29 50.4 | |
| **TBI** | **Tubuai** | **47.63** | **47** | *e*T | T | 06 06 55.2 | |
| **AS01** | **Alice Springs** | **48.93** | **307** | *e*P | **P** | **05 17 10.2** | **+0.4** |
| **ASAR** | **Alice Springs** | **48.94** | **307** | P | **P** | **05 17 10.0** | **+0.1** |
| **AS31** | **Alice Springs** | **48.94** | **307** | *e*P | **P** | **05 17 10.2** | **+0.3** |
| **USHA** | **Ushuaia** | **51.20** | **139** | LR | LR | 05 37 15.2 | |
| **WB2** | **Warramunga Arr** | **52.25** | **310** | *e*P | **P** | **05 17 34.5** | **-0.4** |
| WB2 | | | | *e*P | **P** | **05 17 34.9** | **0.0** |
| **WR1** | **Warramunga Arr** | **52.26** | **310** | *e*P | **P** | **05 17 34.0** | **-0.9** |
| **WRA** | **Warramunga Arr** | **52.26** | **310** | P | **P** | **05 17 34.0** | **-1.0** |
| **RKT** | **Rikitea** | **52.88** | **63** | *e*T | T | 06 13 33.7 | |
| **TVO** | **Taravao** | **52.93** | **45** | *e*T | T | 06 13 32.0 | |
| **PAE** | **Paea** | **52.95** | **44** | *e*T | T | 06 13 33.3 | |
| **PPT2** | **Papeete2** | **53.02** | **44** | *e*S | S | 05 24 57.9 | -12 |
| PPT2 | | | | *e*LR | LR | 05 32 14.3 | |
| **PPT2** | **Papeete2** | **53.02** | **44** | *e*T | T | 06 13 39.0 | |
| **TIAR** | **Tiarei** | **53.12** | **44** | *e*T | T | 06 13 45.7 | |
| **VAH** | **Vaihoa** | **55.83** | **45** | *e*T | T | 06 17 08.8 | |
| **PLCA** | **Paso Flores** | **63.09** | **129** | P | **P** | **05 18 50.8** | **-0.3** |
| **PLCA** | **Paso Flores** | **63.09** | **129** | *e*P | **P** | **05 18 50.8** | **-0.3** |
| **CPUP** | **Villa Florida** | **80.56** | **134** | P | **P** | **05 20 36.0** | **0.0** |
| **CPUP** | **Villa Florida** | **80.56** | **134** | *e*P | **P** | **05 20 36.5** | **+0.5** |
| **BOSA** | **Boshof** | **83.77** | **207** | LR | LR | 05 55 01.4 | |
| **LPAZ** | **La Paz** | **86.25** | **121** | P | **P** | **05 21 05.3** | **-0.8** |
| **LPAZ** | **La Paz** | **86.25** | **121** | *e*P | **P** | **05 21 06.5** | **+0.3** |
| **H08S2** | **Diego Garcia H** | **88.26** | **256** | T | T | 07 00 08.3 | |
| **H08S1** | **Diego Carcia H** | **88.27** | **256** | T | T | 07 00 08.7 | |
| | baz=155 | | | | | | |
| **H08S3** | **Diego Garcia H** | **88.28** | **256** | T | T | 07 00 09.9 | |
| | baz=155,slow=76,SNR=30 | | | | | | |
| **ILAR** | **Eielson Array** | **132.41** | **21** | PKP | **PKPdf** | **05 27 37.0** | **+0.6** |
| | 0.5nm,0.8s,baz=208,slow=1.7,SNR=4.3 | | | | | | |
| **ILB** | **Eielson Array** | **132.41** | **21** | *e*PKPdf | **PKPdf** | **05 27 38.1** | **+1.8** |
| **BR101** | **Keskin Array S** | **146.24** | **241** | *e*PKPdf | **PKPab** | **05 28 04.7** | **+0.3** |
| **BRTR** | **Keskin Array B** | **146.24** | **241** | PKPbc | **PKPab** | **05 28 04.7** | **+0.3** |
| | 1.2nm,0.8s,baz=142,slow=4.2,SNR=7.4 | | | | | | |

*ISCJB* ***21*** *05:14:36.3±1.2, 29˚.41S±0˚.08×176˚.5W±0˚.1, h31km, mb3.8/4, Error ellipse: s-maj=13.6km s-min=12.0km az=168.9*
*IDC* ***21*** *05:14:41.7±2.7, 29˚.31S×176˚.86W, h48km±20km, mb3.6/4, mb1 3.9/6, mb1mx3.6/35, mbtmp3.9/6, ML3.7/2, Error ellipse: s-maj=36.3km s-min=25.5km az=117.0*
**ISC 21 05:14:38.9±1.0, 29˚.3S±0˚.1×176˚.65W±0˚.10, h31km, n10, σ1ˢ23/13, mb3.8/4, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **1.11** | **270** | P | **Pb** | **05 14 58.5** | **-1.0** |
| RAO | 305nm,0.3s,baz=67,slow=8.6,SNR=27 | | | S | **Sb** | **05 15 15.5** | **+1.9** |
| **URZ** | **Urewera** | **10.37** | **208** | P | **Pn** | **05 17 06.4** | **+0.9** |
| URZ | 1μm,0.3s,baz=71,slow=21,SNR=11 | | | S | **Sn** | **05 19 00.4** | **-0.2** |
| **RPZ** | **Rata Peaks** | **17.46** | **211** | P | **Pn** | **05 18 39.5** | **-0.5** |
| **STKA** | **Stephens Creek** | **35.89** | **255** | P | **P** | **05 21 36.4** | **0.0** |
| **ASAR** | **Alice Springs** | **44.36** | **265** | P | **P** | **05 22 45.1** | **-1.5** |
| **WRA** | **Warramunga Arr** | **45.25** | **270** | P | **P** | **05 22 52.1** | **-1.6** |
| **NVAR** | **Mina Array Bea** | **86.61** | **42** | P | **P** | **05 27 19.2** | **-0.3** |
| **NB2** | **NORSAR Subarra** | **147.78** | **353** | PKP | **PKPdf** | **05 34 17.7** | **+0.6** |
| **NOA** | **NORSAR Array B** | **147.78** | **353** | PKPbc | **PKPbc** | **05 34 21.8** | **+1.8** |
| **AKASG** | **Malin Array Be** | **151.07** | **325** | PKPbc | **PKPbc** | **05 34 28.1** | **-0.3** |
| AKASG | | | | PKPab | **PKPab** | **05 34 37.1** | **+1.0** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **1.11** | **270** | P | **Pb** | **05 14 58.5** | **-1.0** |
| RAO | 305nm,0.3s,baz=67,slow=8.6,SNR=27 | | | S | **Sb** | **05 15 15.5** | **+1.9** |
| **URZ** | **Urewera** | **10.37** | **208** | P | **Pn** | **05 17 06.4** | **+0.9** |
| URZ | 0.4nm,0.3s,baz=243,slow=2.3,SNR=3.3 | | | S | **Sn** | **05 19 00.4** | **-0.2** |
| **RPZ** | **Rata Peaks** | **17.46** | **211** | P | **Pn** | **05 18 39.5** | **-0.5** |
| **STKA** | **Stephens Creek** | **35.89** | **255** | P | **P** | **05 21 36.4** | **0.0** |
| **ASAR** | **Alice Springs** | **44.36** | **265** | P | **P** | **05 22 45.1** | **-1.5** |
| **WRA** | **Warramunga Arr** | **45.25** | **270** | P | **P** | **05 22 52.1** | **-1.6** |
| **NVAR** | **Mina Array Bea** | **86.61** | **42** | P | **P** | **05 27 19.2** | **-0.3** |
| **NB2** | **NORSAR Subarra** | **147.78** | **353** | PKP | **PKPdf** | **05 34 17.7** | **+0.6** |
| **NOA** | **NORSAR Array B** | **147.78** | **353** | PKPbc | **PKPbc** | **05 34 21.8** | **+1.8** |
| **AKASG** | **Malin Array Be** | **151.07** | **325** | PKPbc | **PKPbc** | **05 34 28.1** | **-0.3** |
| AKASG | | | | PKPab | **PKPab** | **05 34 37.1** | **+1.0** |

*ISCJB* ***21*** *05:23:53.5±0.8, 5˚.23N±0˚.04×94˚.78E±0˚.05, h73km±8km, mb4.3/28, Error ellipse: s-maj=8.9km s-min=6.6km az=147.6*
*DJA* ***21*** *05:23:53.6±1.2, 5˚.1N±4˚×9˚5E±˚, h26km±17km, M4.3/8, mB4.4/1, mb4.3/3, MLv4.2/8, Mw(mB)3.6/1*
*IDC* ***21*** *05:23:55.2±3.0, 5˚.28N×94˚.82E, h69km±25km, mb4.0/21, mb1 4.0/23, mb1mx3.8/59, mbtmp4.2/23, MS3.0/4, Ms1 3.0/4, ms1mx2.7/36, Error ellipse: s-maj=30.5km s-min=10.3km az=55.0*
*NEIC* ***21*** *05:23:55.1±0.5, 5˚.25N×94˚.82E, h70km±4km, mb4.8/8, Error ellipse: s-maj=6.2km s-min=3.3km az=50.0*
**ISC 21 05:23:54.3±1.1, 5˚.20N±0˚.05×94˚.75E±0˚.07, h66km±11km, n69, σ0ˢ97/87, mb4.4/28, Northern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MLSI** | **Meulaboh, Aceh** | **1.89** | **119** | P | **Pn** | **05 24 23.8** | **-0.7** |
| MLSI | | | | S | **Sn** | **05 24 47.8** | **+0.4** |
| **LHMI** | **Lhok Sumawe** | **2.19** | **89** | P | **Pn** | **05 24 28.9** | **+0.4** |
| LHMI | | | | S | **Sn** | **05 24 56.3** | **+1.6** |
| **LHMI** | **Lhok Sumawe** | **2.19** | **89** | *e*Pn | **Pn** | **05 24 29.0** | **+0.4** |
| **TPTI** | | **3.10** | **128** | P | **Pn** | **05 24 40.0** | **-0.9** |
| TPTI | | | | S | **Sn** | **05 25 17.3** | **+0.6** |
| **SNSI** | **Sinabang, Aceh** | **3.19** | **150** | P | **Pn** | **05 24 40.6** | **-1.5** |
| SNSI | | | | S | **Sn** | **05 25 18.5** | **-0.4** |
| **KCSI** | **Kotacane, Aceh** | **3.44** | **119** | P | **Pn** | **05 24 46.5** | **+0.9** |
| KCSI | | | | S | **Sn** | **05 25 26.0** | **+0.7** |
| **GSI** | **Gunungsitoli** | **4.79** | **144** | *e*Pn | **Pn** | **05 25 03.7** | **-0.3** |
| GSI | | | | *e*Sn | **Sn** | **05 25 54.4** | **-3.8** |
| **PSI** | **Prapat** | **4.80** | **120** | P | **Pn** | **05 25 05.2** | **+0.9** |
| PSI | 5.2nm,0.3s,baz=331,slow=15,SNR=16 | | | S | **Sn** | **05 26 01.5** | **+2.8** |
| PSI | 3.1nm,0.3s,baz=203,slow=10,SNR=4.7 | | | LR | LR | 05 27 15.6 | |
| **PSI** | **Prapat** | **4.80** | **120** | *e*Pn | **Pn** | **05 25 05.0** | **+0.7** |
| PSI | | | | *e*Sn | **Sn** | **05 26 02.1** | **+3.5** |
| **KULM** | **Kulim** | **5.88** | **89** | *e*Pn | **Pn** | **05 25 18.6** | **-0.4** |
| KULM | | | | *e*Sn | **Sn** | **05 26 26.4** | **+1.3** |
| **IPM** | **Ipoh** | **6.30** | **96** | *e*Pn | **Pn** | **05 25 24.7** | **0.0** |
| IPM | | | | *e*Sn | **Sn** | **05 26 33.6** | **-1.7** |
| **CMAR** | **Chiang Mai Arr** | **13.80** | **17** | P | **Pn** | **05 27 06.5** | **-0.5** |
| CMAR | 0.4nm,0.3s,baz=211,slow=13,SNR=3.6 | | | S | **Sn** | **05 29 36.1** | **-2.7** |
| PALK | 0.9nm,0.3s,baz=188,slow=29,SNR=6.6 | | | LR | LR | 05 32 25.7 | |
| CMAR | comp=Z,27nm,18.9s,baz=190,slow=37 | | | LR | LR | 05 32 01.8 | |
| **PALK** | **Pallekele** | **14.11** | **279** | LR | LR | 05 32 16.4 | |
| **PALK** | **Pallekele** | **14.11** | **279** | *e*Pn | **Pn** | **05 27 13.2** | **+2.0** |
| **CHTO** | **Chiang Mai** | **14.14** | **16** | *e*Pn | **P** | **05 27 15.4** | **-1.7** |
| **LSA** | **Lhasa** | **24.61** | **352** | *e*P | **P** | **05 29 10.0** | **+0.9** |
| **H08S2** | **Diego Garcia H** | **25.60** | **240** | T | T | 05 56 21.3 | |
| **H08S3** | **Diego Garcia H** | **25.60** | **240** | T | T | 05 56 11.5 | |
| **H08S1** | **Diego Carcia H** | **25.62** | **240** | T | T | 05 56 20.2 | |
| **TGY** | **Tagaytay City** | **27.27** | **69** | LR | LR | 05 41 49.3 | |
| **FITZ** | **Fitzroy Crossi** | **38.27** | **128** | P | **P** | **05 31 08.5** | **0.0** |
| **AAK** | **Ala-Archa** | **41.39** | **337** | P | **P** | **05 31 35.3** | **+0.9** |
| **AAK** | **Ala-Archa** | **41.39** | **337** | *e*P | **P** | **05 31 35.3** | **+0.9** |
| AAK | | | | *e*P | **P** | **05 31 35.8** | **+1.5** |
| **MK01** | **Makanchi Array** | **42.79** | **347** | *e*P | **P** | **05 31 45.4** | **-0.1** |
| **MK31** | **Makanchi Array** | **42.82** | **347** | *e*P | **P** | **05 31 45.6** | **-0.1** |
| **MK32** | **Makanchi Array** | **42.82** | **347** | *e*P | **P** | **05 31 45.5** | **-0.3** |
| MK32 | | | | *e*PcP | **PcP** | **05 33 36.4** | **+0.5** |
| **MKAR** | **Makanchi Array** | **42.82** | **347** | P | **P** | **05 31 45.5** | **-0.3** |
| MKAR | 2.0nm,0.4s,baz=164,slow=7.9,SNR=39 | | | PcP | **PcP** | **05 33 36.4** | **+0.5** |
| **MKAR** | 0.5nm,0.6s,baz=194,slow=4.6,SNR=3.8 **Makanchi Array** | **42.82** | **347** | *e*P | **P** | **05 31 45.7** | **0.0** |
| MKAR | 20nm,0.8s | | | PcP | **PcP** | **05 33 36.4** | **+0.5** |
| **KKAR** | **Karatay Array** | **43.41** | **334** | *e*P | **P** | **05 31 50.8** | **+0.2** |
| SONA0 | 28nm,0.4s | | | *e*P | **P** | **05 31 51.7** | **-0.8** |
| **SONM** | **Songino Array** | **43.64** | **11** | P | **P** | **05 31 51.7** | **-0.8** |
| SONM | 2.5nm,0.8s,baz=192,slow=8.3,SNR=17 | | | PcP | **PcP** | **05 33 38.9** | **+0.1** |
| **KS15** | 0.7nm,0.5s,baz=194,slow=4.2,SNR=9.5 **Wonju Array Si** | **44.09** | **39** | *e*P | **P** | **05 31 55.8** | **-0.3** |
| **KSAR** | **Wonju Array Be** | **44.09** | **39** | P | **P** | **05 31 55.8** | **-0.3** |
| **KSRS** | **Korea Array** | **44.12** | **39** | P | **P** | **05 31 55.8** | **-0.5** |
| **WRA** | 1.0nm,0.4s,baz=228,slow=8.1,SNR=4.0 **Warramunga Arr** | **46.25** | **124** | P | **P** | **05 32 13.9** | **+0.4** |
| W

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| AS01 | **Alice Springs** | 47.80 | 129 | *e*P | | P | 05 32 25.4 | -0.2 |
| ZAA0 | **Zalesovo Array** | 49.27 | 352 | *e*P | | P | 05 32 36.3 | 0.0 |
| | 7.5nm,0.6s | | | | | | | |
| ZALV | **Zalesovo Beam** | 49.27 | 352 | P | | P | 05 32 36.4 | +0.1 |
| | 7.7nm,0.5s,baz=191,slow=7.8,SNR=29 | | | | | | | |
| ZALV | | | | PcP | | PcP | 05 33 57.7 | -0.6 |
| | 0.8nm,0.5s,baz=170,slow=4.2,SNR=2.3 | | | | | | | |
| ZAA1 | **Zalesovo Array** | 49.28 | 352 | *e*P | | P | 05 32 36.4 | 0.0 |
| ZAA1 | | | | *e*PcP | | PcP | 05 33 57.7 | -0.6 |
| BVAR | **Borovoye Array** | 51.70 | 341 | P | | P | 05 32 54.9 | +0.2 |
| | 2.3nm,0.5s,baz=142,slow=10,SNR=12 | | | | | | | |
| ABKAR | **Akbulak array** | 52.86 | 332 | *e*P | | P | 05 33 03.5 | +0.2 |
| | 42nm,0.5s | | | | | | | |
| AKTO | **Aktyubinsk** | 54.58 | 332 | P | | P | 05 33 15.8 | 0.0 |
| | 1.9nm,0.4s,baz=107,slow=8.5,SNR=11 | | | | | | | |
| STKA | **Stephens Creek** | 57.84 | 133 | P | | P | 05 33 39.1 | -0.3 |
| | 1.8nm,0.8s,baz=329,slow=12,SNR=2.7 | | | | | | | |
| ARU | **Arti** | 58.58 | 337 | P | | P | 05 33 44.1 | -0.1 |
| | 2.1nm,0.3s,baz=122,slow=5.7,SNR=3.5 | | | | | | | |
| BR101 | **Keskin Array S** | 64.63 | 312 | *e*P | | P | 05 34 25.4 | -0.1 |
| BRTR | **Keskin Array B** | 64.63 | 312 | P | | P | 05 34 25.4 | -0.1 |
| | 0.7nm,0.5s,baz=136,slow=7.8,SNR=5.7 | | | | | | | |
| TIXI | **Tiksi** | 69.73 | 11 | P | | P | 05 34 56.1 | -0.8 |
| | 3.4nm,0.3s,baz=224,slow=3.2,SNR=6.0 | | | | | | | |
| FIA0 | **FINESS Array S** | 75.35 | 332 | *e*P | | P | 05 35 30.4 | 0.0 |
| FINES | **FINESS Array B** | 75.35 | 332 | P | | P | 05 35 30.4 | 0.0 |
| | 1.4nm,0.6s,baz=112,slow=5.0,SNR=7.1 | | | | | | | |
| ARA0 | **ARCESS Array S** | 77.97 | 340 | *e*P | | P | 05 35 45.6 | +0.4 |
| ARCES | **ARCESS Array B** | 77.97 | 340 | P | | P | 05 35 45.6 | +0.4 |
| | 2.7nm,0.9s,baz=92,slow=6.3,SNR=15 | | | | | | | |
| GEA0 | **GERESS Array S** | 80.21 | 319 | *e*P | | P | 05 35 58.5 | +0.5 |
| GERES | **GERESS Array B** | 80.21 | 319 | P | | P | 05 35 58.6 | +0.7 |
| | 0.9nm,0.5s,baz=113,slow=5.1,SNR=11 | | | | | | | |
| NB200 | **NORSAR Array S** | 82.34 | 331 | *e*P | | P | 05 36 08.8 | -0.1 |
| NOA | **NORSAR Array B** | 82.34 | 331 | P | | P | 05 36 08.8 | -0.1 |
| | 0.4nm,0.6s,baz=0.4,slow=6.0,SNR=2.7 | | | | | | | |
| ILAR | **Eielson Array** | 96.98 | 22 | P | | P | 05 37 18.4 | -0.2 |
| | 0.2nm,0.6s,baz=304,slow=4.1,SNR=4.4 | | | | | | | |
| NV01 | **Mina Array Sit** | 126.87 | 32 | *e*PKPdf | | PKPdf | 05 42 51.4 | -0.1 |
| NVAR | **Mina Array Bea** | 126.87 | 32 | PKP | | PKPdf | 05 42 52.5 | +1.1 |
| | 0.2nm,0.5s,baz=268,slow=2.7,SNR=2.2 | | | | | | | |
| PD31 | **Pinedale Array** | 127.41 | 22 | *e*PKPdf | | PKPdf | 05 42 52.9 | +0.5 |
| PDAR | **Pinedale Array** | 127.41 | 22 | PKP | | PKPdf | 05 42 52.9 | +0.5 |
| | 0.2nm,0.5s,baz=99,slow=3.2,SNR=4.0 | | | | | | | |
| LTX | **Lajitas** | 141.38 | 26 | *e*PKPdf | | PKPpre | 05 43 15.2 | |
| TXAR | **Lajitas Array** | 141.38 | 26 | PKhKP | | PKPpre | 05 43 15.2 | |
| | 0.2nm,0.5s,baz=319,slow=1.2,SNR=4.0 | | | | | | | |

**IDC 21 05:29:46.5±2.4, 54.04N×86.45E, h0km, mb1 3.1/2, mb1mx2.8/40, mbtmp3.1/2, ML2.9/2, Error ellipse: s-maj=20.4km s-min=12.3km az=58.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| I46RU | **ZALESOVO INFRA** | 0.97 | 265 | *i* | | 05 35 48.3 | |
| | baz=83,slow=352,SNR=0.9 | | | | | | |
| ZALV | **Zalesovo Beam** | 0.97 | 265 | Pg | Pg | 05 30 03.9 | -1.1 |
| | 0.8nm,0.3s,baz=84,slow=17,SNR=7.9 | | | | | | |
| ZALV | | | | Lg | Lg | 05 30 19.0 | |
| | 3.2nm,0.3s,baz=87,slow=28,SNR=15 | | | | | | |
| KURBB | **Kurchatov Arra** | 5.94 | 238 | Pn | Pn | 05 31 16.3 | +0.6 |
| | 0.1nm,0.3s,baz=54,slow=13,SNR=11 | | | | | | |
| MKAR | **Makanchi Array** | 7.73 | 202 | Pn | Pn | 05 31 41.4 | +1.2 |
| | 0.6nm,0.3s,baz=24,slow=14,SNR=38 | | | | | | |

*IDC **21** 05:33:16.4±0.7, 1.88N×102.30W, h0km, mb4.5/15, mb1 4.6/16, mb1mx4.5/29, mbtmp4.5/16, ML3.2/1, MS4.4/18, Ms1 4.4/18, ms1mx4.3/27, Error ellipse: s-maj=25.6km s-min=12.5km az=53.0*

*ISCJB **21** 05:33:17.6±0.3, 1.83N±0.04×102.06W±0.03, h10km, mb4.8/188, MS4.5/21, Error ellipse: s-maj=6.3km s-min=4.2km az=28.7*

*GCMT **21** 05:33:18.7±0.2, 1.90N×102.23W, h13km±1km, MW5.2/106, Moment Tensor Solution. s66,c100; s106,c167; Duration: 0 Moment tensor: Scale $10^{16}$Nm; $M_{rr}$=1.20±.13; $M_{\theta\theta}$=6.06±.14; $M_{\phi\phi}$=7.25±.16; $M_{r\theta}$=0.76±.28; $M_{r\phi}$=1.74±.12; $M_{\theta\phi}$=1.50±.35; Best double couple: $M_0$=7.05100×$10^{16}$ NP1:$\phi_s$232.00000°,δ87.00000°,λ12.00000°. NP2: $\phi_s$142.00000°,δ78.00000°,λ177.00000°. Principal axes: T 7.7550, Plg10.0000°, Azm98.0000°; N -1.4170, Plg78.0000°, Azm244.0000°; P -6.3480, Plg6.0000°, Azm7.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **21** 05:33:18.7±0.3, 1.71N×102.14W, h10km, mb4.8/185 Error ellipse: s-maj=6.4km s-min=4.4km az=54.0*

*BJI **21** 05:33:19.3, 1.70N×102.20W, h10km, mB5.1/3, Ms5.1/5, Ms7 4.8/6*

**ISC 21 05:33:18.7±0.4, 1.74N±0.06×102.19W±0.07, h10km, n676, σ1s08/673, mb4.8/188, MS4.4/21, Galapagos Triple Junction region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| TLIG | **Tlapa** | 16.12 | 13 | *e*Pn | Pn | 05 37 06.9 | +1.2 |
| | 96nm,1.4s | | | | | | |
| CMIG | **Matias Romero** | 16.86 | 25 | Pn | Pn | 05 37 13.8 | -1.2 |
| | 0.1nm,0.3s,baz=202,slow=10,SNR=14 | | | | | | |
| CMIG | | | | LR | LR | 05 42 06.7 | |
| | comp=Z,3μm,18.8s,baz=200,slow=32 | | | | | | |
| CCIG | **Comitan** | 17.52 | 34 | *e*P | P | 05 37 24.4 | -0.1 |
| | 107nm,1.5s | | | | | | |
| UNM | **Universidad Na** | 17.73 | 9 | *e*Pn | Pn | 05 37 24.0 | -2.1 |
| | 95nm,0.8s | | | | | | |
| MOIG | **Morelia** | 17.85 | 3 | *e*Pn | P | 05 37 27.9 | -0.4 |
| | 87nm,1.3s | | | | | | |
| JRQG | **Juriquilla Cam** | 18.92 | 5 | *e*P | Pn | 05 37 42.5 | +1.8 |
| | 275nm,1.6s | | | | | | |
| JTS | **JuntasAbangare** | 19.11 | 63 | *e*P | P | 05 37 41.8 | -0.3 |
| | 187nm,1.7s | | | | | | |
| TGUH | **Tegucigalpa,Un** | 19.16 | 50 | *e*P | Pn | 05 37 43.2 | -0.1 |
| | 100nm,1.1s | | | | | | |
| HDC | **Heredia** | 19.75 | 65 | *e*P | P | 05 37 49.8 | +0.7 |
| | 160nm,1.3s | | | | | | |
| SCIG | **Sabancuy** | 20.23 | 31 | *e*P | P | 05 37 53.6 | -0.5 |
| | 146nm,1.6s | | | | | | |
| ZAIG | **Zacatecas** | 20.91 | 359 | *e*P | P | 05 38 02.9 | +1.1 |
| | 47nm,1.2s | | | | | | |
| MYIG | **MOrida** | 22.63 | 32 | *e*P | P | 05 38 20.5 | +0.5 |
| | 158nm,1.1s | | | | | | |
| SLBS | **Sierra La Lagu** | 23.07 | 342 | *e*P | P | 05 38 26.6 | +1.9 |
| LPIG | **La Paz** | 23.58 | 341 | P | P | 05 38 30.7 | +1.1 |
| | 37nm,1.0s,baz=277,slow=5.8,SNR=2.8 | | | | | | |
| OTAV | **Otavalo** | 23.78 | 93 | *e*P | P | 05 38 32.6 | +0.3 |
| | 272nm,1.7s | | | | | | |
| CMBC | **Cumbal** | 24.37 | 92 | *e*P | P | 05 38 38.9 | +1.1 |
| HPIG | | 25.27 | 353 | *e*P | P | 05 38 45.7 | +0.2 |
| | 40nm,1.5s | | | | | | |
| ATAH | **Atahualpa** | 25.33 | 111 | P | P | 05 38 48.7 | +2.3 |
| | 45nm,1.2s,baz=294,slow=9.2,SNR=20 | | | | | | |
| ATAH | | | | LR | LR | 05 46 15.3 | |
| | comp=Z,2μm,20.9s,baz=298,slow=31 | | | | | | |
| YOTC | **Yotoco, Valle** | 25.90 | 84 | *e*P | P | 05 38 49.4 | -2.0 |
| PLMC | **San Jos¨ del** | 26.05 | 82 | *e*P | P | 05 38 50.8 | -1.8 |
| FLOC | **Florencia** | 26.52 | 90 | *e*P | P | 05 38 55.0 | -1.9 |
| 833A | **Chaparral WMA,** | 26.57 | 6 | P | P | 05 38 58.0 | +1.0 |
| | baz=186 | | | | | | |
| SRIG | **Santa Rosalia** | 27.20 | 340 | *e*P | P | 05 39 03.2 | +0.5 |
| | 21nm,1.2s | | | | | | |
| MOTC | **Monteria, Cord** | 27.30 | 74 | *e*P | P | 05 39 04.0 | +0.2 |
| LTX | **Lajitas** | 27.48 | 357 | *e*P | P | 05 39 04.7 | -0.6 |
| LTX | | | | *e*PcP | PcP | 05 42 22.9 | -0.9 |
| TXAR | **Lajitas Array** | 27.48 | 357 | P | P | 05 39 04.7 | -0.6 |
| | 5.7nm,1.0s,baz=184,slow=12,SNR=32 | | | | | | |
| TXAR | | | | PcP | PcP | 05 42 22.9 | -0.9 |
| | 0.7nm,0.8s,baz=171,slow=6.3,SNR=6.1 | | | | | | |
| TXAR | | | | LR | LR | 05 48 59.7 | |
| | comp=Z,1μm,21.1s,baz=0.0,slow=34 | | | | | | |
| TX31 | **Lajitas Ar. Si** | 27.48 | 357 | *e*P | P | 05 39 05.0 | -0.3 |
| TX31 | | | | *e*P | P | 05 39 06.3 | +1.0 |
| TX31 | | | | *e*PcP | PcP | 05 42 23.0 | -0.8 |
| SJCC | **San Jacinto, C** | 28.04 | 72 | *e*P | P | 05 39 09.6 | -0.9 |
| NNA | **Nana** | 28.64 | 119 | P | P | 05 39 17.0 | +1.1 |
| | 4.0nm,0.4s,baz=243,slow=4.5,SNR=3.3 | | | | | | |
| JCT | **Junction City** | 28.67 | 4 | P | P | 05 39 16.3 | +0.4 |
| | baz=185,SNR=7.7 | | | | | | |
| JCT | **Junction City** | 28.67 | 4 | *e*P | P | 05 39 16.0 | 0.0 |
| | 22nm,1.0s | | | | | | |
| HKT | **Hockley** | 28.70 | 12 | *e*P | P | 05 39 16.2 | +0.2 |
| | 50nm,1.9s | | | | | | |
| 435B | **Jarrell** | 29.21 | 8 | P | P | 05 39 21.2 | +0.5 |
| | baz=189 | | | | | | |
| RUSC | **La Rusia** | 29.32 | 81 | *e*P | P | 05 39 23.6 | +1.1 |
| RUSC | **La Rusia** | 29.32 | 81 | *e*P | P | 05 39 22.7 | +0.2 |
| | 26nm,1.6s | | | | | | |
| 541A | **Lake Charles** | 29.43 | 16 | P | P | 05 39 23.6 | +1.0 |
| | baz=198 | | | | | | |
| 542A | **Morse** | 29.68 | 17 | P | P | 05 39 26.0 | +1.2 |
| | baz=200 | | | | | | |
| 645A | **Chauvin** | 29.69 | 21 | P | P | 05 39 26.1 | +1.2 |
| | baz=204 | | | | | | |
| 543A | **St. Martinvill** | 29.85 | 18 | P | P | 05 39 27.8 | +1.5 |
| | baz=201 | | | | | | |
| MNTX | **Cornudas Mount** | 29.95 | 355 | P | P | 05 39 27.4 | +0.2 |
| | baz=174,SNR=7.0 | | | | | | |
| MNTX | **Cornudas Mount** | 29.95 | 355 | *e*P | P | 05 39 27.2 | -0.1 |
| | 7.2nm,1.0s | | | | | | |
| 646A | **Port Sulphur** | 30.08 | 22 | P | P | 05 39 29.1 | +0.7 |
| | baz=205 | | | | | | |
| 319A | **Douglas** | 30.23 | 348 | *e*P | P | 05 39 30.6 | +0.8 |
| | 18nm,1.1s | | | | | | |
| 442A | **Mamou** | 30.26 | 17 | P | P | 05 39 30.7 | +0.8 |
| | baz=199 | | | | | | |
| 545A | **Edgard** | 30.26 | 20 | P | P | 05 39 30.5 | +0.5 |
| | baz=204 | | | | | | |
| WHTX | **Lake Whitney,** | 30.42 | 8 | P | P | 05 39 31.2 | -0.1 |
| | baz=189 | | | | | | |
| WHTX | **Lake Whitney,** | 30.42 | 8 | *e*P | P | 05 39 31.5 | +0.1 |
| | 31nm,1.4s | | | | | | |
| 443A | **Delano Plantat** | 30.50 | 18 | P | P | 05 39 32.1 | 0.0 |
| | baz=201 | | | | | | |
| 236A | **Katherine and** | 30.57 | 9 | P | P | 05 39 33.1 | +0.5 |
| | baz=191 | | | | | | |
| 341A | **Kurthwood** | 30.64 | 15 | P | P | 05 39 33.6 | +0.3 |
| | baz=198 | | | | | | |
| NATX | **Nacogdoches** | 30.69 | 13 | P | P | 05 39 34.4 | +0.6 |
| | baz=195 | | | | | | |
| NATX | **Nacogdoches** | 30.69 | 13 | *e*P | P | 05 39 34.5 | +0.7 |
| | 96nm,1.4s | | | | | | |
| 237A | **Washetta, Mont** | 30.70 | 11 | P | P | 05 39 34.2 | +0.4 |
| | baz=192 | | | | | | |
| 444A | **Pine Grove** | 30.79 | 19 | P | P | 05 39 34.4 | -0.2 |
| | baz=203 | | | | | | |
| ABTX | **Abilene, Hawle** | 30.81 | 4 | P | P | 05 39 34.9 | +0.1 |
| | baz=185,SNR=13 | | | | | | |
| ABTX | **Abilene, Hawle** | 30.81 | 4 | *e*P | P | 05 39 33.7 | -1.2 |
| | 28nm,1.0s | | | | | | |
| 342A | **Flagon Creek P** | 30.91 | 17 | P | P | 05 39 35.9 | +0.2 |
| | baz=199 | | | | | | |
| 343A | **Vidalia** | 31.04 | 18 | P | P | 05 39 37.4 | +0.5 |
| | baz=201 | | | | | | |
| 121A | **Cookes Peak, D** | 31.08 | 351 | P | P | 05 39 38.2 | +0.7 |
| | baz=169 | | | | | | |
| 121A | **Cookes Peak, D** | 31.08 | 351 | *e*P | P | 05 39 38.1 | +0.7 |
| | 23nm,1.4s | | | | | | |
| 137A | **Hen Place, G** | 31.29 | 10 | P | P | 05 39 39.5 | +0.6 |
| | baz=192 | | | | | | |
| 446A | **Poplarville** | 31.34 | 22 | P | P | 05 39 40.5 | +1.0 |
| | baz=205 | | | | | | |
| 241A | **Mo Tay, Goldon** | 31.36 | 15 | P | P | 05 39 40.7 | +1.0 |
| | baz=198 | | | | | | |
| TUC | **Tucson** | 31.47 | 346 | P | P | 05 39 41.1 | +0.4 |
| | baz=163 | | | | | | |
| TUC | **Tucson** | 31.47 | 346 | *e*P | P | 05 39 41.2 | +0.4 |
| | 7.2nm,0.9s | | | | | | |
| 138A | **Matatall Enter** | 31.47 | 12 | P | P | 05 39 41.4 | +0.7 |
| | baz=194 | | | | | | |
| 345A | **Thompson Farm,** | 31.57 | 20 | P | P | 05 39 42.1 | +0.6 |
| | baz=204 | | | | | | |
| 242A | **Grayson** | 31.61 | 16 | P | P | 05 39 42.8 | +1.0 |
| | baz=199 | | | | | | |
| 243A | **Waterproof** | 31.63 | 18 | P | P | 05 39 42.9 | +0.9 |
| | baz=200 | | | | | | |
| 139A | **Bunkhouse Ranc** | 31.64 | 13 | P | P | 05 39 42.7 | +0.6 |
| | baz=195 | | | | | | |
| 140A | **Cam and Jess,** | 31.79 | 14 | P | P | 05 39 44.1 | +0.7 |
| | baz=196 | | | | | | |
| Z36A | **Blue Ridge** | 31.83 | 9 | P | P | 05 39 44.3 | +0.6 |
| | baz=191 | | | | | | |
| Z37A | **Pogue Cattle C** | 31.89 | 10 | P | P | 05 39 44.9 | +0.6 |
| | baz=192 | | | | | | |
| 244A | **Avery, Jackson** | 32.03 | 19 | P | P | 05 39 46.1 | +0.5 |
| | baz=202 | | | | | | |
| GTBY | **Guantanamo Bay** | 32.05 | 54 | *e*P | P | 05 39 43.7 | -2.2 |
| | 73nm,1.0s | | | | | | |
| MSTX | **Muleshoe** | 32.07 | 359 | P | P | 05 39 46.3 | +0.2 |
| | baz=179,SNR=9.2 | | | | | | |
| MSTX | **Muleshoe** | 32.07 | 359 | *e*P | P | 05 39 46.2 | +0.2 |
| | 24nm,1.1s | | | | | | |
| 142A | **Monroe** | 32.12 | 16 | P | P | 05 39 47.2 | +0.9 |
| | baz=199 | | | | | | |
| SDV | **San Domingo** | 32.19 | 76 | P | P | 05 39 47.8 | +0.3 |
| | 15nm,0.9s,baz=242,slow=4.1,SNR=16 | | | | | | |
| SDV | | | | LR | LR | 05 50 29.9 | |
| | comp=Z,861nm,20.9s,baz=248,slow=32 | | | | | | |
| SDV | **Santo Domingo** | 32.19 | 76 | *e*P | P | 05 39 47.7 | +0.3 |
| | 26nm,1.0s | | | | | | |
| 347A | **Saraland** | 32.20 | 22 | P | P | 05 39 47.9 | +0.8 |
| | baz=206 | | | | | | |
| Z39A | **Irene McRaven,** | 32.23 | 13 | P | P | 05 39 48.0 | +0.7 |
| | baz=195 | | | | | | |
| VBMS | **Vicksburg** | 32.25 | 19 | P | P | 05 39 48.2 | +0.7 |
| | baz=202 | | | | | | |
| 245A | **Little AP, Sta** | 32.28 | 20 | P | P | 05 39 48.5 | +0.7 |
| | baz=203 | | | | | | |
| Y35A | **Marietta** | 32.36 | 8 | P | P | 05 39 48.9 | +0.5 |
| | baz=190 | | | | | | |
| Z40A | **Long Farm, Mag** | 32.42 | 14 | P | P | 05 39 49.9 | +0.9 |
| | baz=196 | | | | | | |
| 143A | **Socs Landing,** | 32.43 | 17 | P | P | 05 39 49.5 | +0.5 |
| | baz=200 | | | | | | |
| 348A | **Jackson** | 32.45 | 23 | P | P | 05 39 50.0 | +0.7 |
| | baz=207 | | | | | | |
| Y36A | **Durant** | 32.47 | 9 | P | P | 05 39 50.0 | +0.7 |
| | baz=191 | | | | | | |
| BNM | **Barren Site** | 32.51 | 353 | *e*P | P | 05 39 51.1 | +1.0 |
| BRAL | **Brewton** | 32.58 | 25 | P | P | 05 39 50.8 | +0.4 |
| | baz=209 | | | | | | |
| Y37A | **Hugo** | 32.66 | 10 | P | P | 05 39 51.8 | +0.8 |
| | baz=192 | | | | | | |
| 113A | **Mohawk Valley,** | 32.73 | 342 | *e*P | P | 05 39 53.2 | +1.6 |
| | 16nm,1.2s | | | | | | |
| 247A | **Quitman** | 32.76 | 22 | P | P | 05 39 52.8 | +0.9 |
| | baz=206 | | | | | | |
| 145A | **Houston Renfro** | 32.80 | 19 | P | P | 05 39 53.3 | +1.0 |
| | baz=203 | | | | | | |
| Z42A | **Norrel Spur, H** | 32.81 | 16 | P | P | 05 39 52.9 | +0.6 |
| | baz=199 | | | | | | |
| LAZ | **Lazron** | 32.82 | 352 | *e*P | P | 05 39 53.7 | +1.0 |
| X35A | **Drake** | 32.85 | 8 | P | P | 05 39 52.8 | +0.1 |
| | baz=190,SNR=8.2 | | | | | | |
| X35A | **Drake** | 32.85 | 8 | *e*P | P | 05 39 52.3 | -0.5 |
| | 20nm,1.1s | | | | | | |
| Y39A | **Lockesburg** | 32.91 | 12 | P | P | 05 39 54.0 | +0.7 |
| | baz=195 | | | | | | |
| Z43A | **Armstrong Fami** | 32.95 | 17 | P | P | 05 39 54.0 | +0.5 |
| | baz=200 | | | | | | |
| AMTX | **Amarillo** | 32.98 | 1 | P | P | 05 39 54.4 | +0.4 |
| | baz=181 | | | | | | |
| AMTX | **Amarillo** | 32.98 | 1 | *e*P | P | 05 39 54.5 | +0.5 |
| | 24nm,1.3s | | | | | | |
| WMOK | **Wichita Mounta** | 32.98 | 5 | P | P | 05 39 55.1 | +1.2 |
| | baz=186 | | | | | | |
| WMOK | **Wichita Mounta** | 32.98 | 5 | *e*P | P | 05 39 53.3 | -0.6 |
| | 13nm,1.6s | | | | | | |
| X36A | **Centrahoma** | 33.11 | 9 | P | P | 05 39 55.3 | +0.3 |
| | baz=191,SNR=5.5 | | | | | | |
| 248A | **Dixon Mills** | 33.12 | 23 | P | P | 05 39 55.8 | +0.7 |
| | baz=207 | | | | | | |
| 146A | **Union** | 33.12 | 21 | P | P | 05 39 55.9 | +0.8 |
| | baz=204 | | | | | | |
| Y40A | **Okolona** | 33.17 | 14 | P | P | 05 39 55.7 | +0.2 |
| | baz=196 | | | | | | |
| Y41A | **Eaglette Beard** | 33.21 | 15 | P | P | 05 39 56.5 | +0.7 |
| | baz=198 | | | | | | |
| Z44A | **Pea Ridge, Bel** | 33.25 | 18 | P | P | 05 39 57.1 | +0.8 |
| | baz=202 | | | | | | |
| ANMO | **Albuquerque** | 33.28 | 354 | P | P | 05 39 57.3 | +0.6 |
| | baz=172 | | | | | | |
| ANMO | **Albuquerque** | 33.28 | 354 | *e*P | P | 05 39 57.3 | +0.6 |
| | 9.8nm,1.4s | | | | | | |
| X37A | **Clayton** | 33.29 | 10 | P | P | 05 39 56.9 | +0.2 |
| | baz=192,SNR=6.0 | | | | | | |
| X37A | **Clayton** | 33.29 | 10 | *e*P | P | 05 39 57.2 | +0.6 |
| | 47nm,1.4s | | | | | | |
| GLA | **Glamis** | 33.33 | 340 | P | P | 05 39 57.3 | +0.3 |
| | baz=157 | | | | | | |
| GLA | **Glamis** | 33.33 | 340 | *e*P | P | 05 39 58.2 | +1.2 |
| | 34nm,1.5s | | | | | | |
| Y42A | **Garnett, Star** | 33.38 | 16 | P | P | 05 39 58.3 | +1.0 |
| | baz=199 | | | | | | |
| X18A | **Snowflake** | 33.42 | 348 | *e*P | P | 05 39 59.4 | +1.5 |
| | 18nm,1.5s | | | | | | |
| IKP | **In-Ko-Pah, Jac** | 33.42 | 338 | P | P | 05 39 58.4 | +0.5 |
| | baz=154 | | | | | | |
| 147A | **Livingston** | 33.44 | 22 | P | P | 05 39 58.3 | +0.5 |
| | baz=206 | | | | | | |
| X39A | **Fountain Ranch** | 33.46 | 12 | P | P | 05 39 58.6 | +0.5 |
| | baz=195,SNR=9.7 | | | | | | |
| X38A | **Whitesboro** | 33.47 | 11 | P | P | 05 39 58.6 | +0.4 |
| | baz=193,SNR=7.5 | | | | | | |
| SWSC | **Sam W. Stewart** | 33.57 | 339 | P | P | 05 39 59.6 | +0.5 |
| | baz=155 | | | | | | |
| Z45A | **Winona** | 33.58 | 19 | P | P | 05 39 59.8 | +0.7 |
| | baz=203 | | | | | | |
| Y14A | **Wickenburg** | 33.59 | 344 | *e*P | P | 05 40 00.3 | +1.0 |
| | 33nm,1.2s | | | | | | |
| W35A | **Tecumseh** | 33.61 | 8 | P | P | 05 39 59.5 | +0.2 |
| | baz=190,SNR=7.4 | | | | | | |
| W35A | **Tecumseh** | 33.61 | 8 | *e*P | P | 05 39 59.9 | +0.5 |
| | 120nm,1.8s | | | | | | |
| MIAR | **Mount Ida** | 33.61 | 13 | P | P | 05 39 59.7 | +0.3 |
| | baz=196,SNR=11 | | | | | | |
| MIAR | **Mount Ida** | 33.61 | 13 | *e*P | P | 05 39 59.4 | 0.0 |
| | 46nm,1.4s | | | | | | |
| X16A | **Lo Mia Camp, P** | 33.64 | 346 | *e*P | P | 05 40 00.8 | +0.9 |
| | 25nm,2.0s | | | | | | |
| BAR | **Barrett** | 33.66 | 338 | *e*P | P | 05 40 01.1 | +1.3 |
| | 38nm,1.6s | | | | | | |
| Z46A | **Louisville** | 33.67 | 20 | P | P | 05 40 00.5 | +0.7 |
| | baz=204 | | | | | | |
| W36A | **Wetumka** | 33.69 | 9 | P | P | 05 40 00.2 | +0.2 |
| | baz=191 | | | | | | |
| W36A | **Wetumka** | 33.69 | 9 | *e*P | P | 05 40 00.7 | +0.7 |
| | 25nm,1.1s | | | | | | |
| Y43A | **Makayla and Ka** | 33.70 | 17 | P | P | 05 40 00.5 | +0.5 |
| | baz=200 | | | | | | |
| X40A | **Basin Creek Fa** | 33.73 | 14 | P | P | 05 40 00.7 | +0.3 |
| | baz=197 | | | | | | |
| MONP2 | **Monument Peak** | 33.75 | 338 | P | P | 05 40 01.6 | +0.8 |
| | baz=154 | | | | | | |
| W37B | **Quinton** | 33.82 | 10 | P | P | 05 40 01.4 | +0.2 |
| | baz=192 | | | | | | |
| W37B | **Quinton** | 33.82 | 10 | *e*P | P | 05 40 01.6 | +0.4 |
| | 75nm,1.8s | | | | | | |
| Y12C | **Blythe** | 33.88 | 341 | P | P | 05 40 02.5 | +0.8 |
| | baz=158 | | | | | | |
| Y12C | **Blythe** | 33.88 | 341 | *e*P | P | 05 40 03.1 | +1.4 |
| | 5.5nm,1.0s | | | | | | |
| W38A | **Poteau** | 33.92 | 11 | P | P | 05 40 02.4 | +0.3 |
| | baz=194 | | | | | | |
| W18A | **Petrified Fore** | 33.94 | 349 | *e*P | P | 05 40 03.1 | +0.6 |
| | 9.3nm,0.8s | | | | | | |
| Z47A | **Carrollton** | 33.98 | 21 | P | P | 05 40 02.7 | +0.1 |
| | baz=206 | | | | | | |
| OK020 | **N3440 Road, Me** | 33.99 | 8 | *e*P | P | 05 40 02.7 | +0.1 |
| | 38nm,1.4s | | | | | | |
| OK021 | **N3530 Road, Sp** | 34.07 | 8 | *e*P | P | 05 40 03.2 | -0.2 |
| | 26nm,1.1s | | | | | | |
| Y45A | **Yeager Farm, C** | 34.08 | 19 | P | P | 05 40 04.3 | +0.8 |
| | baz=203 | | | | | | |
| BC3 | **Big Chuckawall** | 34.09 | 340 | P | P | 05 40 04.6 | +0.8 |
| | baz=156 | | | | | | |
| X42A | **Stuttgart** | 34.10 | 16 | P | P | 05 40 03.9 | +0.3 |
| | baz=199 | | | | | | |
| UALR | **University of** | 34.12 | 15 | *e*P | P | 05 40 02.3 | -1.5 |
| | 33nm,1.6s | | | | | | |
| W39A | **Magazine** | 34.19 | 12 | P | P | 05 40 04.7 | +0.3 |
| | baz=195,SNR=5.9 | | | | | | |
| V35A | **Meyer Ranch, C** | 34.21 | 8 | P | P | 05 40 04.5 | -0.1 |
| | baz=189 | | | | | | |
| V35A | **Meyer Ranch, C** | 34.21 | 8 | *e*P | P | 05 40 04.2 | -0.4 |
| | 35nm,1.3s | | | | | | |
| LRAL | **Lakeview Retre** | 34.24 | 23 | P | P | 05 40 05.1 | +0.2 |
| | baz=208 | | | | | | |
| LRAL | **Lakeview Retre** | 34.24 | 23 | *e*P | P | 05 40 05.5 | +0.6 |
| | 16nm,1.2s | | | | | | |
| PDMCI | **Parker Dam,Lak** | 34.27 | 342 | P | P | 05 40 06.1 | +1.0 |
| | baz=158 | | | | | | |
| X43A | **Marvell** | 34.27 | 17 | P | P | 05 40 05.5 | +0.4 |
| | baz=200 | | | | | | |
| Y46A | **Houston** | 34.32 | 20 | P | P | 05 40 06.0 | +0.5 |
| | baz=204 | | | | | | |
| Z48A | **Northport** | 34.33 | 22 | P | P | 05 40 05.5 | -0.2 |
| | baz=206 | | | | | | |
| W40A | **Ferguson Farm,** | 34.35 | 13 | P | P | 05 40 06.5 | +0.7 |
| | baz=196 | | | | | | |
| W40A | **Ferguson Farm,** | 34.35 | 13 | *e*P | P | 05 40 06.0 | +0.3 |
| | 61nm,1.6s | | | | | | |
| V36A | **Jenks** | 34.37 | 9 | P | P | 05 40 05.7 | -0.2 |
| | baz=191 | | | | | | |
| V36A | **Jenks** | 34.37 | 9 | *e*P | P | 05 40 06.7 | +0.8 |
| | 17nm,1.0s | | | | | | |
| TIGA | **Tifton** | 34.37 | 29 | P | P | 05 40 06.0 | -0.1 |
| | baz=214 | | | | | | |
| XPFO | **Piæon Flat** | 34.41 | 339 | *e*P | P | 05 40 07.9 | +1.4 |
| | 32nm,1.4s | | | | | | |
| PFO | **Pinyon Flats O** | 34.41 | 339 | P | P | 05 40 07.8 | +1.3 |
| | baz=154 | | | | | | |
| PFO | **Pinyon Flats O** | 34.41 | 339 | *e*P | P | 05 40 07.9 | +1.3 |
| | 30nm,1.4s | | | | | | |
| IRM | **Iron Mountain** | 34.45 | 341 | P | P | 05 40 07.7 | +1.0 |
| | baz=157,SNR=7.2 | | | | | | |
| TUL1 | **Leonard** | 34.51 | 9 | P | P | 05 40 06.8 | -0.3 |
| | baz=191 | | | | | | |
| TUL1 | **Leonard** | 34.51 | 9 | *e*P | P | 05 40 06.4 | -0.8 |
| | 12nm,0.8s | | | | | | |
| W41B | **Gary Mavity, V** | 34.53 | 14 | P | P | 05 40 07.8 | +0.5 |
| | baz=198 | | | | | | |
| X301 | **Greenbrier Sit** | 34.55 | 14 | *e*P | P | 05 40 07.4 | -0.1 |
| | 20nm,1.3s | | | | | | |
| U32A | **Winter Ranch,** | 34.59 | 5 | P | P | 05 40 07.9 | 0.0 |
| | baz=186 | | | | | | |
| V37A | **Hulbert** | 34.59 | 10 | P | P | 05 40 07.8 | -0.1 |
| | baz=192 | | | | | | |
| BELC | **Belle Mtn. Jos** | 34.60 | 340 | P | P | 05 40 08.3 | +0.2 |
| | baz=155 | | | | | | |
| WHAR | **Wooly Hollow** | 34.63 | 14 | *e*P | P | 05 40 08.9 | +0.7 |
| | 78nm,1.8s | | | | | | |
| X45A | **UM Field Stati** | 34.64 | 19 | P | P | 05 40 08.0 | -0.3 |
| | baz=203 | | | | | | |
| SCI2 | **San Clemente I** | 34.67 | 335 | P | P | 05 40 07.7 | -0.8 |
| | baz=150 | | | | | | |
| MURC | **Murrieta** | 34.67 | 338 | P | P | 05 40 09.0 | +0.3 |
| | baz=153 | | | | | | |
| WUAZ | **Wupatki** | 34.67 | 347 | P | P | 05 40 09.8 | +1.1 |
| | baz=164,SNR=11 | | | | | | |
| WUAZ | **Wupatki** | 34.67 | 347 | *e*P | P | 05 40 09.9 | +1.1 |
| | 13nm,0.9s | | | | | | |
| Y47A | **UCPARC, Winfie** | 34.70 | 21 | P | P | 05 40 08.9 | +0.1 |
| | baz=206,SNR=5.5 | | | | | | |
| V38A | **Canehill** | 34.71 | 11 | P | P | 05 40 09.1 | +0.2 |
| | baz=194 | | | | | | |
| U35A | **Pawnee** | 34.83 | 8 | P | P | 05 40 09.7 | -0.2 |
| | baz

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| U39A | Green Forest<br>baz=195 | 35.40 | 12 | P | | P | 05 40 14.2 | -0.7 |
| T34A | McClaskey Farm<br>baz=188 | 35.41 | 7 | P | | P | 05 40 14.6 | -0.3 |
| BFSC | Mount Baldy Ra<br>baz=153 | 35.42 | 338 | P | | P | 05 40 15.6 | +0.4 |
| HEC | Hector,Ludlow<br>baz=155 | 35.46 | 340 | P | | P | 05 40 16.0 | +0.4 |
| X48A | Hartselle<br>baz=206 | 35.48 | 22 | P | | P | 05 40 15.6 | 0.0 |
| U40A | Yellville<br>baz=196,SNR=5.1 | 35.51 | 13 | P | | P | 05 40 15.8 | 0.0 |
| MWC | Mount Wilson<br>68nm,2.0s | 35.56 | 337 | eP | | P | 05 40 16.7 | +0.2 |
| PASC | Pasadena Art C<br>38nm,1.6s | 35.56 | 337 | eP | | P | 05 40 17.7 | +1.4 |
| PLAL | Pickwick Lake<br>15nm,1.1s | 35.59 | 20 | eP | | P | 05 40 16.5 | 0.0 |
| T36A | Boggs Farm, Ca<br>baz=191,SNR=5.7 | 35.63 | 9 | P | | P | 05 40 16.5 | -0.2 |
| U15A | North Rim<br>9.7nm,1.3s | 35.76 | 346 | eP | | P | 05 40 19.2 | +0.9 |
| MVCO | Mesa Verde<br>baz=169,SNR=6.6 | 35.77 | 351 | P | | P | 05 40 19.1 | +0.8 |
| MVCO | Mesa Verde<br>14nm,1.1s | 35.77 | 351 | eP | | P | 05 40 19.3 | +0.9 |
| X49A | Woodville<br>baz=208 | 35.81 | 23 | P | | P | 05 40 18.2 | -0.2 |
| T37A | Cheneyville 18<br>baz=192,SNR=5.2 | 35.84 | 10 | P | | P | 05 40 18.5 | -0.1 |
| BLG | Laguna Peak, P<br>baz=150 | 35.86 | 336 | P | | P | 05 40 18.9 | 0.0 |
| T38A | Diamond<br>baz=193 | 35.87 | 11 | P | | P | 05 40 18.9 | 0.0 |
| U42A | Revenden<br>baz=199 | 35.90 | 15 | P | | P | 05 40 19.2 | +0.1 |
| SDCO | Great Sand Dun<br>baz=174 | 35.96 | 356 | P | | P | 05 40 20.4 | +0.4 |
| SDCO | Great Sand Dun<br>15nm,1.6s | 35.96 | 356 | eP | | P | 05 40 20.8 | +0.8 |
| T39A | Clever<br>baz=195,SNR=6.5 | 36.04 | 12 | P | | P | 05 40 20.4 | +0.1 |
| GSC | Goldstone, Bar<br>24nm,1.4s | 36.05 | 339 | eP | | P | 05 40 21.0 | +0.4 |
| GOGA | Godfrey<br>13nm,1.0s | 36.06 | 27 | eP | | P | 05 40 21.2 | +0.6 |
| S22A | 4UR Ranch, Cre<br>baz=172,SNR=12 | 36.09 | 354 | P | | P | 05 40 22.1 | +1.0 |
| S22A | 4UR Ranch, Cre<br>23nm,1.5s | 36.09 | 354 | eP | | P | 05 40 21.7 | +0.6 |
| S34A | Willow Spring<br>baz=188 | 36.09 | 7 | P | | P | 05 40 20.8 | +0.1 |
| EDW2 | Edwards Air Fo<br>baz=152,SNR=8.1 | 36.11 | 338 | P | | P | 05 40 21.1 | 0.0 |
| S35A | Otter Creek Ra<br>baz=190 | 36.17 | 8 | P | | P | 05 40 21.6 | +0.2 |
| S36A | Lake Cedric, C<br>baz=191 | 36.32 | 9 | P | | P | 05 40 22.8 | +0.1 |
| T40A | Mansfield<br>baz=196 | 36.35 | 13 | P | | P | 05 40 23.1 | +0.1 |
| SHOC | Shoshone, Teco<br>baz=156 | 36.41 | 341 | P | | P | 05 40 23.9 | +0.3 |
| T41A | Mountain View<br>baz=198,SNR=9.2 | 36.42 | 14 | P | | P | 05 40 23.8 | +0.2 |
| PBMO | Poplar Bluff<br>24nm,1.3s | 36.52 | 16 | eP | | P | 05 40 24.8 | +0.4 |
| S38A | Stockton<br>baz=194 | 36.52 | 11 | P | | P | 05 40 23.9 | -0.6 |
| LRMC | Laurel Mtn Rad<br>baz=153,SNR=16 | 36.53 | 339 | P | | P | 05 40 26.0 | +1.3 |
| LCMT | Little Creek M<br>6.6nm,1.1s | 36.55 | 345 | eP | | P | 05 40 25.4 | +0.5 |
| SWET | Sewanee<br>16nm,1.2s | 36.58 | 23 | eP | | P | 05 40 22.7 | -2.3 |
| T42A | Van Buren<br>baz=199,SNR=6.7 | 36.58 | 15 | P | | P | 05 40 24.4 | -0.5 |
| U45A | Rockin P Farm,<br>baz=203 | 36.61 | 18 | P | | P | 05 40 24.4 | -0.8 |
| SHPR | Sheep Range<br>8.9nm,1.4s | 36.62 | 342 | eP | | P | 05 40 27.3 | +1.8 |
| R34A | Isabella, Hill<br>baz=188,SNR=6.0 | 36.67 | 7 | P | | P | 05 40 25.8 | +0.1 |
| PV01 | Paradox Valley | 36.69 | 352 | eP | | P | 05 40 27.3 | +1.1 |
| S39A | Bolivar<br>baz=195,SNR=9.1 | 36.69 | 12 | P | | P | 05 40 25.5 | -0.4 |
| V48A | Smith Brothers<br>baz=206,SNR=6.2 | 36.71 | 21 | P | | P | 05 40 25.5 | -0.6 |
| WVT | Waverly<br>baz=204 | 36.71 | 20 | P | | P | 05 40 25.5 | -0.6 |
| WVT | Waverly<br>67nm,1.8s | 36.71 | 20 | eP | | P | 05 40 24.1 | -2.0 |
| PV05 | Paradox Valley | 36.72 | 351 | eP | | P | 05 40 27.2 | +0.8 |
| PKCU | Pink Cliffs<br>30nm,1.6s | 36.73 | 346 | eP | | P | 05 40 28.4 | +1.8 |
| S40A | Lebanon<br>baz=196 | 36.78 | 13 | P | | P | 05 40 26.2 | -0.5 |
| R35A | Emporia Munici<br>baz=190 | 36.82 | 8 | P | | P | 05 40 26.8 | -0.1 |
| PKM | Mcpherson Peak<br>baz=150 | 36.84 | 335 | P | | P | 05 40 26.9 | -0.6 |
| T43A | Greenville<br>baz=200 | 36.84 | 16 | P | | P | 05 40 26.2 | -1.0 |
| R36A | Gordon, Harris<br>baz=191,SNR=7.4 | 36.92 | 9 | P | | P | 05 40 27.0 | -0.8 |
| S41A | Jillco Farms,<br>baz=197,SNR=6.3 | 36.95 | 14 | P | | P | 05 40 28.1 | +0.1 |
| CBKS | Cedar Bluff<br>24nm,0.8s | 36.97 | 3 | eP | | P | 05 40 28.8 | +0.5 |
| MPMC | Manual Prospec<br>baz=154,SNR=6.1 | 36.98 | 339 | P | | P | 05 40 29.0 | +0.4 |
| PV04 | Paradox Valley | 36.99 | 351 | eP | | P | 05 40 28.8 | +0.1 |
| PV10 | Paradox Valley | 37.00 | 351 | eP | | P | 05 40 28.8 | 0.0 |
| R38A | Fenwick Farm,<br>baz=194 | 37.06 | 11 | P | | P | 05 40 28.8 | -0.3 |
| SZCU | Shurtz Canyon<br>8.2nm,1.2s | 37.06 | 346 | eP | | P | 05 40 30.8 | +1.4 |
| CCUT | Cedar City<br>4.4nm,1.1s | 37.09 | 345 | eP | | P | 05 40 31.4 | +1.8 |
| KSCO | Kaye Shedlock'<br>baz=179 | 37.10 | 359 | P | | P | 05 40 29.1 | -0.4 |
| KSCO | Kaye Shedlock'<br>39nm,1.4s | 37.10 | 359 | eP | | P | 05 40 30.4 | +0.9 |
| PV09 | Paradox Valley | 37.13 | 351 | eP | | P | 05 40 30.9 | +0.9 |
| Q24A | Divide<br>baz=175 | 37.15 | 356 | P | | P | 05 40 30.2 | 0.0 |
| Q24A | Divide<br>17nm,1.4s | 37.15 | 356 | eP | | P | 05 40 31.1 | +1.0 |
| U47A | Clarksville<br>baz=205,SNR=5.9 | 37.18 | 20 | P | | P | 05 40 29.5 | -0.5 |
| DAC | Darwin (Calif)<br>22nm,1.5s | 37.21 | 339 | eP | | P | 05 40 30.8 | +0.2 |
| MTPU | Mount Pierson<br>46nm,1.8s | 37.27 | 347 | eP | | P | 05 40 32.9 | +1.6 |
| HODGE | Hodges<br>12nm,1.1s | 37.30 | 28 | eP | | P | 05 40 32.2 | +1.1 |
| Q34A | Chapman<br>baz=189 | 37.31 | 7 | P | | P | 05 40 31.4 | +0.2 |
| CPCT | Cooper Cave<br>24nm,1.1s | 37.34 | 24 | eP | | P | 05 40 30.9 | -0.6 |
| R39A | Chumby, Stover<br>baz=195,SNR=6.5 | 37.35 | 12 | P | | P | 05 40 31.2 | -0.3 |
| S42A | Caledonia<br>baz=199,SNR=7.5 | 37.35 | 15 | P | | P | 05 40 31.2 | -0.3 |
| S43A | Fulton Ridge,<br>baz=200 | 37.36 | 16 | P | | P | 05 40 30.9 | -0.6 |
| TPNV | Topopah Spring<br>baz=156 | 37.36 | 341 | P | | P | 05 40 32.2 | +0.4 |
| TPNV | Topopah Spring<br>22nm,1.4s | 37.36 | 341 | eP | | P | 05 40 33.0 | +1.2 |
| Q35A | Mercer Eighty,<br>baz=190 | 37.37 | 8 | P | | P | 05 40 31.6 | 0.0 |
| VES | Vestal, Richgr<br>baz=152 | 37.38 | 337 | P | | P | 05 40 31.5 | -0.2 |
| R40A | Maddies Statio<br>baz=196,SNR=11 | 37.50 | 13 | P | | P | 05 40 32.5 | -0.2 |
| U48A | Cassie Pea, Po<br>baz=206 | 37.50 | 21 | P | | P | 05 40 32.9 | 0.0 |
| CCM | Cathedral Cave<br>baz=198 | 37.51 | 14 | P | | P | 05 40 32.5 | -0.3 |
| CCM | Cathedral Cave<br>21nm,1.2s | 37.51 | 14 | eP | | P | 05 40 31.9 | -0.9 |
| SMCO | Snowmass<br>19nm,1.6s | 37.52 | 354 | eP | | P | 05 40 34.6 | +1.2 |
| T46A | Princeton<br>baz=204,SNR=6.4 | 37.52 | 19 | P | | P | 05 40 32.9 | -0.1 |
| CWC | Cottonwood Cre<br>baz=153 | 37.53 | 339 | P | | P | 05 40 33.7 | +0.4 |
| KSU1 | Kansas State U<br>baz=189 | 37.53 | 7 | P | | P | 05 40 33.0 | 0.0 |
| Q36A | Arnold C. Orve<br>baz=191 | 37.55 | 9 | P | | P | 05 40 33.2 | 0.0 |
| BG3 | Lake Jocassee<br>10nm,0.8s | 37.63 | 26 | eP | | P | 05 40 33.9 | -0.1 |
| Q37A | Longview Farm,<br>baz=193 | 37.63 | 10 | P | | P | 05 40 33.4 | -0.5 |
| FVM | French Village<br>15nm,1.0s | 37.65 | 15 | eP | | P | 05 40 34.3 | +0.3 |
| S44A | Carbondale<br>baz=201,SNR=6.9 | 37.70 | 17 | P | | P | 05 40 34.4 | -0.1 |
| R41A | Rosebud<br>baz=198,SNR=8.4 | 37.71 | 14 | P | | P | 05 40 34.3 | -0.2 |
| MSU | Marysvale | 37.72 | 347 | eP | | P | 05 40 36.4 | +1.5 |
| SIUC | Southern Illin<br>48nm,1.3s | 37.74 | 17 | eP | | P | 05 40 35.2 | +0.5 |
| T47A | Sharon Grove<br>baz=205,SNR=6.7 | 37.74 | 20 | P | | P | 05 40 34.8 | +0.1 |
| PAGB | Antelope Grade<br>45nm,1.8s | 37.75 | 336 | eP | | P | 05 40 33.8 | -1.1 |
| JSC | Jenkinsville<br>15nm,1.2s | 37.82 | 29 | eP | | P | 05 40 34.8 | -0.7 |
| TKL | Tuckaleechee C<br>11nm,0.8s | 37.83 | 25 | eP | | P | 05 40 35.5 | -0.2 |
| R42A | Luebbering<br>baz=199 | 37.84 | 15 | P | | P | 05 40 35.6 | 0.0 |
| RCTC | Rector, Farmer<br>baz=152 | 37.85 | 337 | P | | P | 05 40 35.8 | +0.1 |
| Q38A | Cooks Store, C<br>baz=194 | 37.86 | 11 | P | | P | 05 40 36.0 | +0.1 |
| S45A | Carrier Mills<br>baz=202 | 37.89 | 18 | P | | P | 05 40 36.1 | 0.0 |
| P34A | Walnut Farm, R<br>baz=189,SNR=7.4 | 37.95 | 7 | P | | P | 05 40 37.1 | +0.6 |
| ISCO | Idaho Springs<br>baz=174,SNR=7.7 | 38.01 | 356 | P | | P | 05 40 38.3 | +0.8 |
| ISCO | Idaho Springs<br>18nm,1.5s | 38.01 | 356 | eP | | P | 05 40 38.1 | +0.7 |
| P35A | Duane Minner,<br>baz=190 | 38.03 | 8 | P | | P | 05 40 37.4 | +0.2 |
| R43A | Red Bud<br>baz=200,SNR=5.7 | 38.06 | 16 | P | | P | 05 40 37.5 | +0.1 |
| Q39A | Willow Grove F<br>baz=195 | 38.07 | 12 | P | | P | 05 40 37.7 | +0.1 |
| T48A | Bowling Green<br>baz=206 | 38.09 | 21 | P | | P | 05 40 37.2 | -0.5 |
| LPAZ | La Paz<br>10nm,0.9s,baz=298,slow=7.0,SNR=33 | 38.10 | 119 | P | | P | 05 40 39.5 | +0.6 |
| LPAZ | comp=Z,484nm,19.0s,baz=317,slow=34 | | | | LR | LR | 05 54 41.4 | |
| LPAZ | La Paz | 38.10 | 119 | eP | | P | 05 40 40.0 | +1.1 |
| LPAZ | | | | epP | | P | 05 40 40.1 | +1.2 |
| S46A | Don Dixon Farm<br>baz=204 | 38.17 | 19 | P | | P | 05 40 38.2 | -0.2 |
| Q40A | Laux Farm, Aux<br>baz=196 | 38.21 | 13 | P | | P | 05 40 38.7 | -0.1 |
| P36A | Good Intent, A<br>baz=191 | 38.24 | 9 | P | | P | 05 40 39.0 | +0.1 |
| R44A | Waltonville<br>baz=201,SNR=5.6 | 38.27 | 17 | P | | P | 05 40 39.3 | +0.1 |
| Q41A | Truxton<br>baz=198,SNR=6.2 | 38.37 | 14 | P | | P | 05 40 40.1 | 0.0 |
| O33A | Hebron<br>baz=187,SNR=5.7 | 38.39 | 6 | P | | P | 05 40 40.2 | 0.0 |
| PB11 | IPOC Station P<br>20nm,0.8s | 38.41 | 125 | eP | | P | 05 40 41.5 | +0.6 |
| R11A | Troy Canyon, C<br>baz=158,SNR=6.7 | 38.45 | 343 | P | | P | 05 40 42.0 | +1.0 |
| R11A | Troy Canyon, C<br>14nm,1.6s | 38.45 | 343 | eP | | P | 05 40 41.9 | +0.9 |
| KMSC | Kings Mountain<br>baz=215 | 38.48 | 28 | P | | P | 05 40 41.3 | +0.1 |
| KMSC | Kings Mountain<br>15nm,1.0s | 38.48 | 28 | eP | | P | 05 40 40.7 | -0.4 |
| Q42A | Golden Eagle<br>baz=199,SNR=7.1 | 38.50 | 15 | P | | P | 05 40 41.5 | +0.3 |
| P38A | Dawn<br>baz=194 | 38.52 | 11 | P | | P | 05 40 41.0 | -0.4 |
| P39B | Salisbury<br>baz=195,SNR=6.2 | 38.54 | 12 | P | | P | 05 40 41.3 | -0.3 |
| R45A | Skylar, Fairfi<br>baz=202 | 38.55 | 18 | P | | P | 05 40 41.5 | -0.1 |
| O34A | Beatrice<br>baz=189 | 38.59 | 7 | P | | P | 05 40 41.4 | -0.5 |
| O20A | White River Ci<br>baz=170,SNR=5.4 | 38.61 | 353 | P | | P | 05 40 42.0 | -0.3 |
| O20A | White River Ci<br>16nm,1.1s | 38.61 | 353 | eP | | P | 05 40 43.1 | +0.8 |
| S48A | Wiedeman Farm,<br>baz=206 | 38.70 | 21 | P | | P | 05 40 42.4 | -0.5 |
| R46A | Gibon Southern<br>baz=204 | 38.71 | 19 | P | | P | 05 40 42.9 | -0.1 |
| P40A | Paris<br>baz=196,SNR=13 | 38.73 | 13 | P | | P | 05 40 42.9 | -0.2 |
| Q43A | New Douglas<br>baz=200 | 38.74 | 16 | P | | P | 05 40 43.2 | 0.0 |
| O35A | Humboldt<br>baz=190 | 38.77 | 8 | P | | P | 05 40 43.4 | 0.0 |
| MLAC | Mammoth, Mammo<br>baz=153 | 38.86 | 339 | P | | P | 05 40 44.5 | -0.1 |
| Q44A | Meyer Farm, Va<br>baz=201,SNR=5.2 | 38.90 | 16 | P | | P | 05 40 44.5 | 0.0 |
| O37A | Wolven Farm, M<br>baz=193 | 38.94 | 10 | P | | P | 05 40 44.2 | -0.6 |
| MDPB | Devils Postpil<br>12nm,1.4s | 38.95 | 338 | eP | | P | 05 40 45.3 | 0.0 |
| O38A | Galt<br>baz=194 | 39.02 | 11 | P | | P | 05 40 45.2 | -0.3 |
| OGNE | Ogallala<br>baz=180 | 39.03 | 0 | P | | P | 05 40 45.5 | -0.2 |
| OGNE | Ogallala<br>36nm,0.8s | 39.03 | 0 | eP | | P | 05 40 45.9 | +0.2 |
| MPU | Maple Canyon<br>40nm,1.8s | 39.05 | 348 | eP | | P | 05 40 47.2 | +1.2 |
| NLU | North Lily Min<br>9.9nm,1.3s | 39.09 | 348 | eP | | P | 05 40 47.9 | +1.6 |
| P41A | Barry, Barry<br>baz=198,SNR=9.8 | 39.09 | 14 | P | | P | 05 40 46.2 | 0.0 |
| R47A | Wooly Knot Far<br>baz=205,SNR=7.0 | 39.11 | 20 | P | | P | 05 40 46.4 | +0.1 |
| N23A | Red Feather La<br>baz=174,SNR=13 | 39.12 | 355 | P | | P | 05 40 46.2 | -0.5 |
| N23A | Red Feather La<br>25nm,1.0s | 39.12 | 355 | eP | | P | 05 40 46.6 | -0.1 |
| WCI | Wyandotte Cave<br>baz=206 | 39.13 | 20 | P | | P | 05 40 45.8 | -0.7 |
| WCI | Wyandotte Cave<br>35nm,1.4s | 39.13 | 20 | eP | | P | 05 40 46.5 | 0.0 |
| Q45A | Wm Harvey,<br>baz=202 | 39.14 | 17 | P | | P | 05 40 45.9 | -0.7 |
| P42A | Winchester<br>baz=199 | 39.18 | 15 | P | | P | 05 40 46.3 | -0.6 |
| PB01 | IPOC Station P<br>20nm,1.0s | 39.20 | 127 | eP | | P | 05 40 48.4 | +0.9 |
| N34A | Lincoln<br>baz=189 | 39.26 | 7 | P | | P | 05 40 47.1 | -0.4 |
| TAOE | Nuku Hiva Isla<br>2um,25.6s,baz=77 | 39.27 | 254 | eLR | | LR | 05 51 22.4 | |
| TAOE | Nuku Hiva Isla<br>27nm,0.2s | 39.27 | 254 | eT | | T | 06 22 22.9 | |
| O39A | Kirksville<br>baz=195,SNR=7.0 | 39.32 | 12 | P | | P | 05 40 48.0 | -0.1 |
| O40A | La Belle<br>baz=196,SNR=9.0 | 39.34 | 13 | P | | P | 05 40 48.0 | -0.2 |
| NV11 | Mina Array Sit<br>0.4nm,1.2s | 39.34 | 340 | eP | | P | 05 40 48.7 | +0.3 |
| NV01 | Mina Array Sit | 39.39 | 340 | eP | | P | 05 40 48.9 | -0.1 |
| NVAR | Mina Array Bea<br>1.1nm,0.7s,baz=156,slow=8.9,SNR=10 | 39.39 | 340 | P | | P | 05 40 48.2 | -0.7 |
| NVAR | comp=Z,250nm,18.7s,baz=164,slow=32 | | | | LR | LR | 05 54 01.8 | |
| N35A | Tabor<br>baz=190 | 39.39 | 8 | P | | P | 05 40 48.2 | -0.4 |
| R48A | Northridge Ran<br>baz=206 | 39.43 | 20 | P | | P | 05 40 48.3 | -0.7 |
| N36A | Muff Farm, Cla<br>baz=191 | 39.44 | 9 | P | | P | 05 40 48.8 | -0.2 |
| P43A | Skaggs, Pawnee<br>baz=200 | 39.45 | 15 | P | | P | 05 40 48.4 | -0.7 |
| DUG | Dugway, Tooele<br>baz=163,SNR=8.5 | 39.48 | 347 | P | | P | 05 40 51.0 | +1.5 |
| DUG | Dugway, Tooele<br>9.6nm,1.1s | 39.48 | 347 | eP | | P | 05 40 49.8 | +0.2 |
| PHWY | Pilot Hill<br>9.7nm,1.3s | 39.49 | 356 | eP | | P | 05 40 50.2 | +0.4 |
| Q46A | CEJHS Indians,<br>baz=204 | 39.50 | 18 | P | | P | 05 40 49.5 | -0.1 |
| P44A | Sand Creek, Wi<br>baz=201 | 39.53 | 17 | P | | P | 05 40 49.6 | -0.2 |
| O41A | Passleys Farm,<br>baz=198,SNR=8.6 | 39.55 | 14 | P | | P | 05 40 49.9 | -0.1 |
| JLU | Jordanelle<br>19nm,1.5s | 39.58 | 349 | eP | | P | 05 40 51.9 | +1.3 |
| BGNE | Belgrade<br>baz=186 | 39.66 | 5 | P | | P | 05 40 51.3 | +0.5 |
| N38A | Joes South For<br>baz=194 | 39.71 | 11 | P | | P | 05 40 51.2 | -0.1 |
| Q47A | Bedord North L<br>baz=205 | 39.73 | 19 | P | | P | 05 40 51.3 | -0.1 |
| CTU | Camp Tracy<br>6.5nm,1.1s | 39.73 | 349 | eP | | P | 05 40 52.4 | +0.7 |
| CMB | Columbia Colle<br>17nm,1.5s | 39.80 | 337 | eP | | P | 05 40 52.9 | +0.7 |
| O42A | Bath<br>baz=199 | 39.83 | 15 | P | | P | 05 40 52.2 | 0.0 |
| P45A | Graceland, Par<br>baz=203 | 39.85 | 18 | P | | P | 05 40 52.6 | +0.1 |
| WAKR | Walker<br>25nm,1.6s | 39.86 | 339 | eP | | P | 05 40 53.6 | +0.8 |
| KVN | Kaiserville<br>7.5nm,1.2s | 39.88 | 341 | eP | | P | 05 40 53.5 | +0.5 |
| M34A | Aspy Farms, Fr<br>baz=189 | 39.90 | 7 | P | | P | 05 40 53.1 | +0.2 |
| M33A | Taylor Creek F<br>baz=188 | 39.91 | 6 | P | | P | 05 40 52.9 | 0.0 |
| N39A | Derby Farms, D<br>baz=195,SNR=8.7 | 39.93 | 11 | P | | P | 05 40 52.9 | -0.3 |
| M35A | Neola<br>baz=190 | 39.98 | 8 | P | | P | 05 40 53.5 | 0.0 |
| TCUT | Toone Canyon<br>15nm,1.0s | 40.08 | 349 | eP | | P | 05 40 56.4 | +1.8 |
| M36A | Felix, Anita<br>baz=191 | 40.09 | 9 | P | | P | 05 40 54.4 | -0.1 |
| P46A | Rosedale<br>baz=204 | 40.09 | 18 | P | | P | 05 40 54.5 | 0.0 |
| O43A | Sugar Creek Fa<br>baz=200 | 40.11 | 15 | P | | P | 05 40 54.7 | +0.1 |
| N41A | Harden Midland<br>baz=198 | 40.12 | 13 | P | | P | 05 40 54.6 | -0.1 |
| M37A | Trindle Farm,<br>baz=192,SNR=5.2 | 40.16 | 9 | P | | P | 05 40 54.6 | -0.4 |
| YERR | Yerington<br>26nm,1.8s | 40.21 | 339 | eP | | P | 05 40 56.9 | +1.1 |
| O44A | Mansfield<br>baz=201 | 40.22 | 16 | P | | P | 05 40 55.3 | -0.1 |
| BGU | Big Grassy Mou<br>42nm,2.0s | 40.22 | 347 | eP | | P | 05 40 56.7 | +0.9 |
| CNNC | Cliffs of the<br>20nm,1.1s | 40.27 | 31 | eP | | P | 05 40 54.7 | -1.3 |
| SAML | Samuel<br>111nm,1.9s | 40.29 | 106 | eP | | P | 05 40 56.4 | -0.1 |
| M38A | Pleasantville<br>baz=194,SNR=7.4 | 40.32 | 10 | P | | P | 05 40 56.0 | -0.3 |
| HDIL | Hopedale<br>baz=200,SNR=5.6 | 40.37 | 15 | P | | P | 05 40 56.9 | +0.2 |
| HDIL | Hopedale<br>58nm,1.3s | 40.37 | 15 | eP | | P | 05 40 57.2 | +0.5 |
| RKT | Rikitea<br>2um,28.0s | 40.37 | 230 | eLQ | | LQ | 05 50 26.6 | |
| RKT | Rikitea<br>3.4nm,0.3s | 40.37 | 230 | eT | | T | 06 23 54.4 | |
| L34A | Svendsen Farm,<br>baz=189 | 40.39 | 7 | P | | P | 05 40 56.5 | -0.4 |
| PNTR | Pine Nut<br>9.4nm,0.8s | 40.43 | 339 | eP | | P | 05 40 58.4 | +0.8 |
| N42A | Yates City<br>baz=199 | 40.44 | 14 | P | | P | 05 40 57.0 | -0.3 |
| SPUT | South Promonto<br>5.5nm,1.0s | 40.47 | 348 | eP | | P | 05 40 58.5 | +0.8 |
| O45A | Potomac<br>baz=202 | 40.52 | 17 | P | | P | 05 40 57.9 | -0.1 |
| M39A | Webster<br>baz=195 | 40.58 | 12 | P | | P | 05 40 58.7 | +0.2 |
| L35A | Bielow Farm, R<br>baz=190 | 40.63 | 8 | P | | P | 05 40 58.9 | 0.0 |
| M40A | Post Highland<br>baz=196 | 40.65 | 12 | P | | P | 05 40 59.4 | +0.3 |
| L36A | Harm Buss Farm<br>baz=191 | 40.74 | 9 | P | | P | 05 40 59.4 | -0.4 |
| N43A | Stutzman Famil<br>baz=200 | 40.76 | 15 | P | | P | 05 40 59.9 | -0.1 |
| SCIA | State Center<br>baz=194 | 40.79 | 10 | P | | P | 05 41 00.0 | -0.2 |
| SCIA | State Center<br>34nm,1.3s | 40.79 | 10 | eP | | P | 05 41 00.1 | -0.2 |
| AFDM | Forest Hills D<br>22nm,1.4s | 40.82 | 337 | eP | | P | 05 41 02.2 | +1.7 |
| K31A | O'Neill<br>baz=185 | 40.82 | 4 | P | | P | 05 41 00.7 | +0.2 |
| SFIN | Lafayette<br>baz=203 | 40.83 | 18 | P | | P | 05 41 00.4 | -0.2 |
| SFIN | Lafayette<br>65nm,1.8s | 40.83 | 18 | eP | | P | 05 40 59.5 | -1.0 |
| M41A | Milan<br>baz=198 | 40.83 | 13 | P | | P | 05 41 00.4 | -0.2 |
| BMN | Battle Mountai<br>6.6nm,0.9s | 40.86 | 342 | eP | | P | 05 41 01.8 | +0.8 |
| N44A | Piper City<br>baz=202 | 40.91 | 16 | P | | P | 05 41 01.1 | -0.1 |
| PAHR | Pah Rah Range<br>26nm,1.6s | 40.91 | 340 | eP | | P | 05 41 02.1 | +0.7 |
| L37A | Phoenix Point,<br>baz=193,SNR=5.8 | 40.91 | 10 | P | | P | 05 41 00.8 | -0.4 |
| K32A | Verdigre<br>baz=186 | 40.91 | 5 | P | | P | 05 41 01.2 | -0.1 |
| K22A | Casper<br>baz=173 | 40.91 | 355 | P | | P | 05 41 01.5 | 0.0 |
| K22A | Casper<br>37nm,1.7s | 40.91 | 355 | eP | | P | 05 41 02.3 | +0.8 |
| O47A | Sheridan<br>baz=205 | 40.98 | 19 | P | | P | 05 41 01.5 | -0.4 |
| K34A | Le Mars<br>baz=189 | 41.13 | 7 | P | | P | 05 41 02.7 | -0.3 |
| N45A | Kentland<br>baz=202 | 41.13 | 17 | P | | P | 05 41 02.2 | -0.9 |
| L39A | Vinton<br>baz=195 | 41.23 | 12 | P | | P | 05 41 03.4 | -0.5 |
| K35A | Storm Lake<br>baz=190 | 41.27 | 8 | P | | P | 05 41 04.2 | 0.0 |
| M43A | Waltham Townsh<br>baz=200 | 41.28 | 15 | P | | P | 05 41 03.8 | -0.4 |
| K36A | Gilmore City<br>baz=192 | 41.30 | 9 | P | | P | 05 41 04.5 | +0.1 |
| L40A | Anamosa<br>baz=197 | 41.34 | 12 | P | | P | 05 41 04.2 | -0.5 |
| BW06 | Boulder Array<br>baz=169,SNR=14 | 41.38 | 352 | P | | P | 05 41 05.9 | +0.5 |
| BW06 | Boulder Array<br>10nm,0.9s | 41.38 | 352 | eP | | P | 05 41 04.5 | -0.9 |
| PD31 | Pinedale Array | 41.38 | 352 | eP | | P | 05 41 03.9 | -1.4 |
| PDAR | Pinedale Array<br>6.3nm,0.8s,baz=155,slow=7.4,SNR=44 | 41.38 | 352 | P | | P | 05 41 04.3 | -1.0 |
| PDAR | comp=Z,300nm,18.2s,baz=188,slow=34 | | | | LR | LR | 05 56 57.0 | |
| PDAR | Pinedale Array | 41.38 | 352 | eP | | P | 05 41 03.9 | -1.4 |
| N46A | Monticello<br>baz=204 | 41.41 | 18 | P | | P | 05 41 04.8 | -0.6 |
| M44A | Midewin, Midew<br>baz=202 | 41.48 | 16 | P | | P | 05 41 05.4 | -0.5 |
| J31A | Geddes<br>baz=185 | 41.48 | 4 | P | | P | 05 41 05.4 | -0.6 |
| L41A | Preston<br>baz=198 | 41.51 | 13 | P | | P | 05 41 05.3 | -0.8 |
| ORV | Oroville<br>12nm,1.0s | 41.55 | 337 | eP | | P | 05 41 07.1 | +0.6 |
| K37A | Belmond<br>baz=193 | 41.56 | 9 | P | | P | 05 41 05.3 | -1.2 |
| K38A | Parkersburg<br>baz=194 | 41.59 | 10 | P | | P | 05 41 05.8 | -1.1 |
| AHID | Auburn Hatcher<br>6.7nm,1.0s | 41.62 | 350 | eP | | P | 05 41 07.2 | -0.1 |
| J32A | Parkston<br>baz=186 | 41.63 | 5 | P | | P | 05 41 05.8 | -1.3 |
| L42A | Oliver, Polo<br>baz=199,SNR=5.4 | 41.63 | 14 | P | | P | 05 41 06.5 | -0.7 |
| J33A | Davis<br>baz=188 | 41.66 | 6 | P | | P | 05 41 06.4 | -1.0 |
| M45A | Boilermakers S<br>baz=203 | 41.71 | 17 | P | | P | 05 41 07.2 | -0.6 |
| J34A | George<br>baz=189 | 41.74 | 7 | P | | P | 05 41 06.9 | -1.1 |
| K39A | Oelwein<br>baz=195 | 41.81 | 11 | P | | P | 05 41 07.6 | -1.1 |
| K40A | Colesburg<br>baz=196 | 41.96 | 12 | P | | P | 05 41 08.4 | -1.5 |
| M46A | Old House Fiel | 41.99 | 18 | P | | P | 05 41 08.2 | -1.9 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | baz=204 | | | | | | | |
| J36A | Seneca 1, Swea | 42.00 | 9 | P | P | 05 41 08.9 | -1.2 | |
| | baz=192 | | | | | | | |
| L43A | Garden Prairie | 42.04 | 15 | P | P | 05 41 09.1 | -1.3 | |
| | baz=200 | | | | | | | |
| K41A | Shullsburg | 42.06 | 13 | P | P | 05 41 09.4 | -1.2 | |
| | baz=198 | | | | | | | |
| ACSO | Alum Creek Sta | 42.09 | 22 | P | P | 05 41 09.7 | -1.3 | |
| | baz=209 | | | | | | | |
| J37A | Redenius Farm, | 42.10 | 9 | P | P | 05 41 09.9 | -1.1 | |
| | baz=193 | | | | | | | |
| ECSD | EROS Data Cent | 42.11 | 6 | P | P | 05 41 10.4 | -0.6 | |
| | baz=188,SNR=9.4 | | | | | | | |
| ECSD | EROS Data Cent | 42.11 | 6 | eP | P | 05 41 09.7 | -1.3 | |
| | 24nm,1.4s | | | | | | | |
| REDW | Red Top Meadow | 42.16 | 351 | eP | P | 05 41 12.4 | +0.6 | |
| | 12nm,1.3s | | | | | | | |
| RSSD | Black Hills | 42.23 | 358 | P | P | 05 41 11.6 | -0.7 | |
| | baz=177 | | | | | | | |
| RSSD | Black Hills | 42.23 | 358 | eP | P | 05 41 13.2 | +0.9 | |
| | 19nm,1.1s | | | | | | | |
| SNOW | Snow King Moun | 42.24 | 351 | eP | P | 05 41 13.4 | +0.9 | |
| | 27nm,1.6s | | | | | | | |
| PTGA | Pitinga | 42.29 | 93 | P | P | 05 41 12.0 | -1.0 | |
| | 10.0nm,0.8s,baz=282,slow=8.1,SNR=12 | | | | | | | |
| PTGA | Pitinga | 42.29 | 93 | eP | P | 05 41 12.4 | -0.5 | |
| | 13nm,0.9s | | | | | | | |
| J38A | Wedel Dairy, R | 42.30 | 11 | P | P | 05 41 11.3 | -1.3 | |
| | baz=194 | | | | | | | |
| TPAW | Teton Pass | 42.30 | 351 | eP | P | 05 41 14.9 | +1.9 | |
| | 20nm,1.6s | | | | | | | |
| I32A | Karley and Nic | 42.31 | 5 | P | P | 05 41 11.3 | -1.4 | |
| | baz=187 | | | | | | | |
| JFWS | Jewell Farm | 42.36 | 13 | P | P | 05 41 11.5 | -1.6 | |
| | baz=198 | | | | | | | |
| JFWS | Jewell Farm | 42.36 | 13 | eP | P | 05 41 11.7 | -1.4 | |
| | 20nm,0.9s | | | | | | | |
| I35A | Creekview Farm | 42.42 | 8 | P | P | 05 41 12.4 | -1.2 | |
| | baz=191 | | | | | | | |
| K42A | Prairie Point, | 42.45 | 14 | P | P | 05 41 13.1 | -0.7 | |
| | baz=199 | | | | | | | |
| FXWY | Fox Creek | 42.45 | 350 | eP | P | 05 41 13.4 | -0.7 | |
| | 7.1nm,1.4s | | | | | | | |
| MOOW | Moose Ponds | 42.52 | 351 | eP | P | 05 41 15.1 | +0.5 | |
| | 11nm,1.5s | | | | | | | |
| SUSD | Miller | 42.62 | 3 | P | P | 05 41 14.6 | -0.6 | |
| | baz=185 | | | | | | | |
| H31A | Wolsey | 42.69 | 4 | P | P | 05 41 14.9 | -0.8 | |
| | baz=185 | | | | | | | |
| IMW | Indian Meadow | 42.69 | 351 | eP | P | 05 41 16.3 | +0.1 | |
| | 28nm,1.6s | | | | | | | |
| J40A | Soldiers Grove | 42.71 | 12 | P | P | 05 41 15.4 | -0.6 | |
| | baz=197,SNR=8.8 | | | | | | | |
| I36A | Fitzsimmons Fa | 42.72 | 9 | P | P | 05 41 15.2 | -0.8 | |
| | baz=192 | | | | | | | |
| H32A | Carlson Farm, | 42.79 | 5 | P | P | 05 41 14.8 | -1.8 | |
| | baz=187,SNR=9.5 | | | | | | | |
| I37A | Lemond, Waseca | 42.81 | 9 | P | P | 05 41 15.4 | -1.3 | |
| | baz=193,SNR=6.1 | | | | | | | |
| J41A | Loganville | 42.84 | 13 | P | P | 05 41 15.3 | -1.7 | |
| | baz=198 | | | | | | | |
| I39A | Houston | 42.99 | 11 | P | P | 05 41 16.9 | -1.4 | |
| | baz=196 | | | | | | | |
| J42A | Columbus | 43.01 | 14 | P | P | 05 41 16.8 | -1.5 | |
| | baz=199 | | | | | | | |
| I38A | Scanlan Farm, | 43.02 | 10 | P | P | 05 41 17.6 | -0.9 | |
| | baz=194 | | | | | | | |
| H33A | Prehn Over Nor | 43.03 | 6 | P | P | 05 41 17.6 | -0.9 | |
| | baz=188 | | | | | | | |
| YPP | Pitchstone Pla | 43.03 | 351 | eP | P | 05 41 20.2 | +1.3 | |
| | 12nm,1.5s | | | | | | | |
| HLID | Hailey | 43.04 | 347 | P | P | 05 41 18.4 | -0.5 | |
| | baz=162,SNR=7.4 | | | | | | | |
| HLID | Hailey | 43.04 | 347 | eP | P | 05 41 19.0 | +0.1 | |
| | 6.9nm,1.2s | | | | | | | |
| WVOR | Wild Horse Val | 43.12 | 342 | eP | P | 05 41 19.6 | +0.2 | |
| | 46nm,2.0s | | | | | | | |
| H17A | Grant Village | 43.12 | 351 | eP | P | 05 41 20.8 | +1.2 | |
| | 32nm,2.0s | | | | | | | |
| H34A | Spellman Lake, | 43.12 | 7 | P | P | 05 41 18.6 | -0.6 | |
| | baz=189 | | | | | | | |
| MOD | Modoc Plateau | 43.18 | 340 | eP | P | 05 41 21.1 | +1.2 | |
| | 21nm,1.4s | | | | | | | |
| I40A | Norwalk | 43.21 | 12 | P | P | 05 41 19.3 | -0.7 | |
| | baz=197 | | | | | | | |
| N02D | Trinity Center | 43.24 | 337 | P | P | 05 41 19.1 | -1.2 | |
| | baz=149 | | | | | | | |
| J43A | Natural Harves | 43.24 | 15 | P | P | 05 41 18.8 | -1.4 | |
| | baz=200 | | | | | | | |
| MFID | Camas Ranch | 43.24 | 345 | eP | P | 05 41 20.5 | +0.1 | |
| | 9.4nm,1.0s | | | | | | | |
| LKWY | Lake | 43.26 | 351 | eP | P | 05 41 21.4 | +0.7 | |
| | 13nm,1.3s | | | | | | | |
| H35A | Sunnyside Ranc | 43.27 | 8 | P | P | 05 41 19.1 | -1.3 | |
| | baz=191 | | | | | | | |
| H36A | Jessenland, He | 43.28 | 9 | P | P | 05 41 19.8 | -0.7 | |
| | baz=192 | | | | | | | |
| H37A | Dierke Farm, C | 43.44 | 10 | P | P | 05 41 21.2 | -0.6 | |
| | baz=193 | | | | | | | |
| YMR | Madison River | 43.45 | 351 | eP | P | 05 41 23.7 | +1.5 | |
| | 30nm,1.7s | | | | | | | |
| G32A | Webster | 43.53 | 5 | P | P | 05 41 21.8 | -0.8 | |
| | baz=187 | | | | | | | |
| I41A | Arkdale | 43.54 | 13 | P | P | 05 41 21.5 | -1.1 | |
| | baz=198 | | | | | | | |
| YHH | Holmes Hill | 43.55 | 351 | eP | P | 05 41 24.2 | +1.2 | |
| | 15nm,1.5s | | | | | | | |
| YHB | Horse Butte | 43.56 | 351 | eP | P | 05 41 24.5 | +1.4 | |
| | 31nm,2.0s | | | | | | | |
| G33A | Ortonville | 43.57 | 6 | P | P | 05 41 21.9 | -1.0 | |
| | baz=188 | | | | | | | |
| I42A | Draeger Farm, | 43.60 | 14 | P | P | 05 41 22.0 | -1.1 | |
| | baz=199 | | | | | | | |
| M04C | Macdoel | 43.61 | 339 | P | P | 05 41 22.2 | -1.3 | |
| | baz=151 | | | | | | | |
| H38A | Maiden Rock | 43.64 | 10 | P | P | 05 41 23.1 | -0.4 | |
| | baz=194 | | | | | | | |
| RLMT | Red Lodge | 43.65 | 353 | eP | P | 05 41 24.3 | +0.5 | |
| | 11nm,1.4s | | | | | | | |
| M02C | Callahan | 43.65 | 337 | P | P | 05 41 22.6 | -1.1 | |
| | baz=149 | | | | | | | |
| AAM | Ann Arbor | 43.67 | 20 | P | P | 05 41 22.4 | -1.3 | |
| | baz=207 | | | | | | | |
| QLMT | Earthquake Lak | 43.68 | 350 | eP | P | 05 41 25.9 | +1.9 | |
| G34A | Benson | 43.70 | 7 | P | P | 05 41 23.3 | -0.6 | |
| | baz=189 | | | | | | | |
| I43A | Langenfeld Bro | 43.78 | 15 | P | P | 05 41 23.3 | -1.3 | |
| | baz=200 | | | | | | | |
| G35A | Watkins | 43.83 | 8 | P | P | 05 41 24.0 | -0.9 | |
| | baz=191 | | | | | | | |
| H39A | Augusta | 43.83 | 11 | P | P | 05 41 24.1 | -0.9 | |
| | baz=196 | | | | | | | |
| YBH | Yreka Blue Hor | 43.89 | 338 | eP | P | 05 41 24.7 | -0.9 | |
| | 34nm,1.8s | | | | | | | |
| N54A | Moraine State | 43.90 | 24 | P | P | 05 41 24.0 | -1.6 | |
| | baz=213 | | | | | | | |
| N54A | Moraine State | 43.90 | 24 | eP | P | 05 41 26.1 | +0.5 | |
| | 32nm,1.1s | | | | | | | |
| J08A | Circle Bar Ran | 43.91 | 343 | eP | P | 05 41 26.8 | +1.0 | |
| | 24nm,1.9s | | | | | | | |
| MCMT | McKenzie Canyo | 43.93 | 349 | eP | P | 05 41 26.4 | +0.3 | |
| O56A | Blue Knob Stat | 43.93 | 26 | P | P | 05 41 25.2 | -0.8 | |
| | baz=215 | | | | | | | |
| G36A | St. Michael | 43.95 | 9 | P | P | 05 41 25.1 | -0.8 | |
| | baz=192 | | | | | | | |
| H40A | Chili | 43.96 | 12 | P | P | 05 41 24.7 | -1.3 | |
| | baz=197 | | | | | | | |
| SDMD | Soldier's Deli | 44.04 | 28 | eP | P | 05 41 27.9 | +1.2 | |
| | 30nm,1.9s | | | | | | | |
| F31A | Hecla | 44.07 | 4 | P | P | 05 41 26.0 | -0.9 | |
| | baz=186 | | | | | | | |
| SPMN | Marine on St. | 44.09 | 10 | P | P | 05 41 26.3 | -0.7 | |
| | baz=193 | | | | | | | |
| SPMN | Marine on St. | 44.09 | 10 | eP | P | 05 41 26.4 | -0.7 | |
| | 16nm,0.8s | | | | | | | |
| H41A | Junction City | 44.11 | 13 | P | P | 05 41 25.4 | -1.9 | |
| | baz=198 | | | | | | | |
| F32A | Veblen | 44.17 | 5 | P | P | 05 41 26.6 | -1.1 | |
| | baz=187 | | | | | | | |
| G38A | Ridgeland | 44.20 | 10 | P | P | 05 41 26.8 | -1.2 | |
| | baz=195 | | | | | | | |
| F33A | 5 Mile Ranch, | 44.22 | 6 | P | P | 05 41 26.8 | -1.3 | |
| | baz=188 | | | | | | | |
| F34A | Alexandria | 44.30 | 7 | P | P | 05 41 27.5 | -1.2 | |
| | baz=190 | | | | | | | |
| H43A | Windswept, Lux | 44.42 | 15 | P | P | 05 41 28.4 | -1.3 | |
| | baz=201 | | | | | | | |
| G39A | Holcombe | 44.44 | 11 | P | P | 05 41 29.0 | -0.9 | |
| | baz=196,SNR=6.7 | | | | | | | |
| F35A | Swanville | 44.44 | 8 | P | P | 05 41 28.6 | -1.3 | |
| | baz=191 | | | | | | | |
| BOZ | Bozeman (W) | 44.46 | 351 | P | P | 05 41 29.4 | -0.8 | |
| | baz=166 | | | | | | | |
| M54A | Oil Creek Stat | 44.49 | 24 | P | P | 05 41 28.7 | -1.7 | |
| | baz=213 | | | | | | | |
| M54A | Oil Creek Stat | 44.49 | 24 | eP | P | 05 41 30.0 | -0.3 | |
| | 49nm,1.4s | | | | | | | |
| SSPA | Standing Stone | 44.53 | 27 | eP | P | 05 41 30.1 | -0.6 | |
| | 72nm,1.6s | | | | | | | |
| F36A | Milaca | 44.59 | 9 | P | P | 05 41 29.8 | -1.3 | |
| | baz=192 | | | | | | | |
| F37A | Hinrichs Farm, | 44.60 | 10 | P | P | 05 41 29.7 | -1.4 | |
| | baz=194 | | | | | | | |
| G40A | Rib Lake | 44.62 | 12 | P | P | 05 41 29.6 | -1.7 | |
| | baz=197 | | | | | | | |
| J05D | Fort Rock, OR | 44.72 | 340 | P | P | 05 41 31.0 | -1.4 | |
| | baz=152 | | | | | | | |
| MVL | Millersville | 44.73 | 28 | eP | P | 05 41 31.6 | -0.6 | |
| | 20nm,0.9s | | | | | | | |
| PAGS | Pennsylvania G | 44.74 | 28 | eP | P | 05 41 33.3 | +1.0 | |
| | 22nm,1.0s | | | | | | | |
| I07A | Izee | 44.88 | 342 | eP | P | 05 41 35.2 | +1.6 | |
| | 6.5nm,1.0s | | | | | | | |
| LAO | LASA Array | 44.91 | 356 | P | P | 05 41 32.6 | -1.1 | |
| | baz=174 | | | | | | | |
| E33A | Westby DABS, E | 44.91 | 6 | P | P | 05 41 32.5 | -1.1 | |
| | baz=189 | | | | | | | |
| F38A | Pierce - Schro | 44.96 | 10 | P | P | 05 41 33.2 | -0.8 | |
| | baz=195,SNR=8.7 | | | | | | | |
| G42A | Mountain | 44.99 | 14 | P | P | 05 41 33.3 | -0.9 | |
| | baz=200 | | | | | | | |
| E34A | Wadena | 45.01 | 7 | P | P | 05 41 33.3 | -1.1 | |
| | baz=190 | | | | | | | |
| F39A | Loretta | 45.09 | 11 | P | P | 05 41 33.8 | -1.3 | |
| | baz=196 | | | | | | | |
| E35A | Pequot Lakes | 45.15 | 8 | P | P | 05 41 34.8 | -0.7 | |
| | baz=191,SNR=7.8 | | | | | | | |
| F40A | Park Falls | 45.26 | 12 | P | P | 05 41 35.1 | -1.3 | |
| | baz=197 | | | | | | | |
| E36A | McGregor | 45.28 | 9 | P | P | 05 41 35.5 | -1.0 | |
| | baz=192 | | | | | | | |
| D34A | Park Rapids | 45.57 | 7 | P | P | 05 41 37.9 | -0.9 | |
| | baz=190,SNR=5.9 | | | | | | | |
| I04A | Tendick Farm, | 45.57 | 339 | P | P | 05 41 37.7 | -1.2 | |
| | baz=151 | | | | | | | |
| E39A | Mellen | 45.61 | 11 | P | P | 05 41 37.8 | -1.4 | |
| | baz=196 | | | | | | | |
| E38A | The Farm, Brul | 45.64 | 10 | P | P | 05 41 38.1 | -1.3 | |
| | baz=195 | | | | | | | |
| LUPA | Lehigh Univers | 45.67 | 29 | eP | P | 05 41 39.4 | -0.3 | |
| | 2.6nm,1.2s | | | | | | | |
| D35A | Remer | 45.71 | 8 | P | P | 05 41 38.0 | -1.9 | |
| | baz=191 | | | | | | | |
| N59A | State Game Lan | 45.73 | 28 | P | P | 05 41 37.6 | -2.6 | |
| | baz=218 | | | | | | | |
| N59A | State Game Lan | 45.73 | 28 | eP | P | 05 41 39.4 | -0.8 | |
| | 25nm,1.2s | | | | | | | |
| E40A | Wakefield | 45.80 | 12 | P | P | 05 41 38.7 | -2.0 | |
| | baz=197 | | | | | | | |
| G08A | Pilot Rock | 45.82 | 343 | eP | P | 05 41 42.5 | +1.5 | |
| | 29nm,1.9s | | | | | | | |
| MDND | Maddock | 45.98 | 2 | eP | P | 05 41 42.2 | +0.1 | |
| | 45nm,1.2s | | | | | | | |
| D37A | Cotton | 46.03 | 9 | P | P | 05 41 40.9 | -1.6 | |
| | baz=194 | | | | | | | |
| C31A | Landman Farms, | 46.03 | 4 | P | P | 05 41 40.7 | -1.8 | |
| | baz=186 | | | | | | | |
| C34A | RKJ Ranch, Bem | 46.16 | 7 | P | P | 05 41 42.2 | -1.3 | |
| | baz=190 | | | | | | | |
| MMNY | Mt. Morris Dam | 46.23 | 25 | eP | P | 05 41 44.3 | +0.2 | |
| | 41nm,1.3s | | | | | | | |
| C35A | Jirik Farms, M | 46.33 | 8 | P | P | 05 41 43.1 | -1.7 | |
| | baz=191 | | | | | | | |
| E43A | Lone Tree Farm | 46.40 | 15 | P | P | 05 41 43.7 | -1.7 | |
| | baz=201 | | | | | | | |
| G05D | Wamic, OR | 46.49 | 341 | P | P | 05 41 44.6 | -1.5 | |
| | baz=153 | | | | | | | |
| C36A | Pine Crest Far | 46.55 | 9 | P | P | 05 41 45.3 | -1.3 | |
| | baz=193 | | | | | | | |
| EGMT | Eagleton | 46.57 | 353 | P | P | 05 41 45.7 | -1.1 | |
| | baz=170 | | | | | | | |
| EGMT | Eagleton | 46.57 | 353 | eP | P | 05 41 46.5 | -0.3 | |
| | 20nm,1.4s | | | | | | | |
| DGMT | Dagmar | 46.58 | 358 | eP | P | 05 41 46.2 | -0.6 | |
| | 24nm,1.1s | | | | | | | |
| C37A | Embarrass | 46.62 | 9 | P | P | 05 41 46.2 | -1.0 | |
| | baz=194 | | | | | | | |
| D41A | Chassel | 46.67 | 13 | P | P | 05 41 46.8 | -0.7 | |
| | baz=199 | | | | | | | |
| PAL | Palisades | 46.69 | 30 | eP | P | 05 41 46.0 | -1.7 | |
| | 16nm,0.8s | | | | | | | |
| AGMN | Agassiz Nation | 46.70 | 6 | P | P | 05 41 47.1 | -0.6 | |
| | baz=189,SNR=6.7 | | | | | | | |
| AGMN | Agassiz Nation | 46.70 | 6 | eP | P | 05 41 47.6 | -0.1 | |
| | 14nm,0.9s | | | | | | | |
| B33A | Robert and Kas | 46.70 | 6 | P | P | 05 41 46.9 | -0.8 | |
| | baz=189 | | | | | | | |
| B32A | Ashes, Strandq | 46.73 | 5 | P | P | 05 41 47.1 | -0.8 | |
| | baz=188 | | | | | | | |
| C38A | Sawbill Land. | 46.76 | 10 | P | P | 05 41 46.7 | -1.6 | |
| | baz=195 | | | | | | | |
| E44A | Grand Marais A | 46.90 | 15 | P | P | 05 41 47.9 | -1.4 | |
| | baz=202 | | | | | | | |
| EYMN | Ely | 46.95 | 10 | P | P | 05 41 48.5 | -1.2 | |
| | baz=195 | | | | | | | |
| EYMN | Ely | 46.95 | 10 | eP | P | 05 41 49.5 | -0.2 | |
| | 41nm,1.1s | | | | | | | |
| HAWA | Hanford | 46.99 | 344 | eP | P | 05 41 51.5 | +1.5 | |
| | 10nm,1.0s | | | | | | | |
| B35A | Bob, Littlefor | 47.01 | 8 | P | P | 05 41 49.0 | -1.1 | |
| | baz=192 | | | | | | | |
| B34A | Aery, Baudette | 47.02 | 7 | P | P | 05 41 49.1 | -1.1 | |
| | baz=190 | | | | | | | |
| MDW | Midway | 47.26 | 344 | eP | P | 05 41 51.9 | -0.2 | |
| A33A | Warroad | 47.38 | 6 | P | P | 05 41 51.8 | -1.2 | |
| | baz=189 | | | | | | | |
| ULM | Lac du Bonnet | 48.63 | 5 | P | P | 05 41 59.9 | -2.7 | |
| | 10nm,0.9s,baz=192,slow=8.3,SNR=11 | | | | | | | |
| ULM | | | | | LR | LR | 06 02 08.5 | |
| | comp=Z,652nm,19.0s,baz=190,slow=36 | | | | | | | |
| ULM | Lac du Bonnet | 48.63 | 5 | eP | P | 05 42 00.4 | -2.3 | |
| | 13nm,0.9s | | | | | | | |
| TRQ | Mont Tremblant | 50.47 | 25 | eP | P | 05 42 15.4 | -1.4 | |
| PPT | Papeete | 50.47 | 246 | LR | LR | 05 58 06.0 | | |
| | comp=Z,420nm,19.0s,baz=71,slow=30 | | | | | | | |
| PPT2 | Page2 | 50.48 | 246 | eS | S | 05 49 28.9 | -2.7 | |
| | 239nm,26.2s | | | | | | | |
| PPT2 | | | | eLQ | LQ | 05 54 35.3 | | |
| | 880nm,27.2s | | | | | | | |
| PPT2 | | | | eLR | LR | 05 56 40.5 | | |
| | 1µm,26.2s,baz=62 | | | | | | | |
| PLCA | Paso Flores | 51.16 | 149 | P | P | 05 42 24.2 | +2.0 | |
| | 4.4nm,1.1s,baz=344,slow=8.2,SNR=5.2 | | | | | | | |
| PLCA | | | | | LR | LR | 05 59 30.6 | |
| | comp=Z,313nm,18.0s,baz=339,slow=31 | | | | | | | |
| PLCA | Paso Flores | 51.16 | 149 | eP | P | 05 42 24.2 | +2.0 | |
| | 21nm,1.5s | | | | | | | |
| CPUP | Villa Florida | 51.50 | 126 | P | P | 05 42 24.8 | -0.1 | |
| | 4.8nm,0.8s,baz=300,slow=7.7,SNR=19 | | | | | | | |
| CPUP | Villa Florida | 51.50 | 126 | eP | P | 05 42 25.1 | +0.2 | |
| TBI | Tubuai | 52.31 | 239 | eS | S | 05 49 57.0 | +0.4 | |
| | 107nm,28.8s | | | | | | | |
| TBI | | | | eLQ | LQ | 05 54 53.8 | | |
| | 524nm,29.0s | | | | | | | |
| TBI | | | | eLR | LR | 05 57 42.8 | | |
| | 718nm,27.2s,baz=62 | | | | | | | |
| TBI | Tubuai | 52.31 | 239 | eT | T | 06 38 45.8 | | |
| | 3.5nm,0.3s | | | | | | | |
| BDFB | Brasilia | 56.25 | 110 | eP | P | 05 43 01.5 | +1.6 | |
| | 7µm,1.0s | | | | | | | |
| SCHQ | Schefferville | 60.25 | 23 | P | P | 05 43 24.6 | -2.5 | |
| | 6.7nm,1.0s,baz=235,slow=10,SNR=3.8 | | | | | | | |
| SCHQ | | | | | LR | LR | 06 09 42.2 | |
| | comp=Z,363nm,19.2s,baz=173,slow=36 | | | | | | | |
| SCHQ | Schefferville | 60.25 | 23 | eP | P | 05 43 24.6 | -2.5 | |
| | 28nm,1.4s | | | | | | | |
| RAR | Rarotonga | 60.72 | 245 | LR | LR | 06 03 17.9 | | |
| | comp=Z,486nm,18.2s,baz=82,slow=30 | | | | | | | |
| YKA | Yellowknife Ar | 61.32 | 353 | P | P | 05 43 31.8 | -2.4 | |
| | 1.0nm,0.8s,baz=161,slow=7.2,SNR=13 | | | | | | | |
| YKA | | | | | LR | LR | 06 10 02.0 | |
| | comp=Z,125nm,18.6s,baz=180,slow=36 | | | | | | | |
| DAWY | Dawson | 67.84 | 343 | eP | P | 05 44 19.0 | +2.0 | |
| | 9.2nm,1.1s | | | | | | | |
| SML | Sawmill | 69.18 | 339 | eP | P | 05 44 24.5 | -0.8 | |
| | 41nm,1.1s | | | | | | | |
| INK | Inuvik | 69.79 | 348 | P | P | 05 44 26.9 | -2.0 | |
| | 1.4nm,0.7s,baz=129,slow=5.9,SNR=7.2 | | | | | | | |
| INK | | | | | LR | LR | 06 15 28.8 | |
| | comp=Z,365nm,19.3s,baz=144,slow=36 | | | | | | | |
| INK | Inuvik | 69.79 | 348 | eP | P | 05 44 27.7 | -1.2 | |
| | 7.7nm,1.0s | | | | | | | |
| RND | Reindeer | 70.39 | 340 | eP | P | 05 44 32.3 | -0.5 | |
| | 31nm,1.1s | | | | | | | |
| IL1 | Eielson Array | 70.62 | 341 | eP | P | 05 44 32.5 | -1.6 | |
| ILAR | Eielson Array | 70.62 | 341 | P | P | 05 44 32.1 | -2.0 | |
| | 2.3nm,0.8s,baz=152,slow=4.6,SNR=20 | | | | | | | |
| ILB | Eielson Array | 70.62 | 341 | eP | P | 05 44 32.4 | -1.8 | |
| AFI | Afiamalu | 70.65 | 255 | LR | LR | 06 07 10.0 | | |
| | comp=Z,194nm,19.8s,baz=98,slow=29 | | | | | | | |
| MLY | Manley | 72.05 | 340 | eP | P | 05 44 42.0 | -0.8 | |
| | 20nm,1.2s | | | | | | | |
| COLD | Coldfoot | 73.26 | 342 | eP | P | 05 44 49.5 | -0.4 | |
| | 9.1nm,1.1s | | | | | | | |
| IMAR | Indian Mountai | 73.63 | 340 | eP | P | 05 44 52.6 | +0.5 | |
| SUMG | Summit | 80.67 | 16 | eP | P | 05 45 30.9 | -1.1 | |
| | 17nm,1.3s | | | | | | | |
| ODZ | Otahua Downs | 89.21 | 225 | eP | P | 05 46 13.5 | -1.6 | |
| | 42nm,0.3s | | | | | | | |
| H11N3 | WAKE ISLAND Hy | 90.27 | 290 | T | T | 07 26 15.7 | | |
| | baz=88,slow=75,SNR=17 | | | | | | | |
| H11N2 | WAKE ISLAND Hy | 90.28 | 290 | T | T | 07 26 29.5 | | |
| | baz=88,slow=75,SNR=14 | | | | | | | |
| H11N1 | WAKE ISLAND Hy | 90.29 | 290 | T | T | 07 26 17.2 | | |
| | baz=88,slow=75,SNR=16 | | | | | | | |
| H11S2 | WAKE ISLAND Hy | 90.51 | 288 | T | T | 07 26 48.3 | | |
| | baz=85,slow=74,SNR=23 | | | | | | | |
| H11S1 | WAKE ISLAND Hy | 90.51 | 288 | T | T | 07 26 47.5 | | |
| | baz=85,slow=74,SNR=18 | | | | | | | |
| H11S3 | WAKE ISLAND Hy | 90.52 | 288 | T | T | 07 26 38.5 | | |
| | baz=85,slow=74,SNR=12 | | | | | | | |
| QSPA | South Pole Qui | 91.76 | 180 | eP | P | 05 46 28.1 | +1.6 | |
| | 7.9nm,1.1s | | | | | | | |
| DZM | Mont Dzumac | 91.92 | 248 | eLR | LR | 06 16 00.4 | | |
| | 447nm,30.1s | | | | | | | |
| VNDA | Vanda | 92.98 | 193 | LR | LR | 06 20 32.3 | | |
| | comp=Z,102nm,19.4s,baz=118,slow=30 | | | | | | | |
| DBIC | Dimbokro | 97.08 | 83 | LR | LR | 06 27 39.2 | | |
| | comp=Z,120nm,18.1s,baz=224,slow=34 | | | | | | | |
| NOA | NORSAR Array B | 99.61 | 27 | LR | LR | 06 31 33.0 | | |
| | comp=Z,71nm,18.4s,baz=280,slow=35 | | | | | | | |
| ERM | Erimo | 106.89 | 315 | ePdif | Pdif | 05 47 35.5 | +0.4 | |
| AS01 | Alice Springs | 121.51 | 243 | ePKPdf | PKPdf | 05 52 13.8 | +0.2 | |
| AS31 | Alice Springs | 121.56 | 243 | ePKPdf | PKPdf | 05 52 13.4 | -0.2 | |
| ASAR | Alice Springs | 121.56 | 243 | PKP | PKPdf | 05 52 12.0 | -1.6 | |
| | 1.0nm,1.0s,baz=120,slow=1.3,SNR=5.6 | | | | | | | |
| WB2 | Warramunga Arr | 121.92 | 248 | ePKPdf | PKPdf | 05 52 13.2 | -1.1 | |
| WR1 | Warramunga Arr | 121.93 | 248 | ePKPdf | PKPdf | 05 52 12.9 | -1.5 | |
| WRA | Warramunga Arr | 121.93 | 248 | PKP | PKPdf | 05 52 12.9 | -1.5 | |
| | 1.6nm,1.0s,baz=96,slow=1.9,SNR=8.4 | | | | | | | |
| BOSA | Boshof | 123.28 | 123 | PKP | PKPdf | 05 52 15.1 | -1.8 | |
| | 2.6nm,0.8s,baz=180,slow=11,SNR=3.7 | | | | | | | |
| ZAA1 | Zalesovo Array | 124.20 | 355 | ePKPdf | PKPdf | 05 52 15.5 | -2.2 | |
| ZALV | Zalesovo Beam | 124.20 | 355 | PKP | PKPdf | 05 52 15.5 | -2.2 | |
| | 0.3nm,0.3s,baz=286,slow=1.1,SNR=3.8 | | | | | | | |
| SONA0 | Songino Array | 124.69 | 337 | ePKPdf | PKPdf | 05 52 18.0 | -1.1 | |
| SONM | Songino Array | 124.69 | 337 | PKP | PKPdf | 05 52 18.0 | -1.1 | |
| | 0.3nm,0.4s,baz=111,slow=3.2,SNR=3.3 | | | | | | | |
| HHC | Hu-ho-hao-te | 127.65 | 328 | ePKP | PKPdf | 05 52 26.3 | +1.4 | |
| HHC | | | | PP | PP | 05 54 30.5 | +5.3 | |
| HHC | | | | SKS | SKSdf | 05 59 36.6 | -0.5 | |
| HHC | | | | SKKS | SKKSac | 06 01 22.5 | -1.5 | |
| HHC | | | | SS | SS | 06 11 39.8 | +3.4 | |
| HHC | | | | AMB | AMB | | | |
| | comp=Z,36nm,5.5s | | | | | | | |
| HHC | | | | LR | LR | | | |
| | comp=N,76nm,18.8s | | | | | | | |
| HHC | | | | LR | LR | | | |
| | comp=E,170nm,19.6s | | | | | | | |
| HHC | | | | LR | LR | | | |
| | comp=Z,83nm,17.5s | | | | | | | |
| KURK | Kurchatov | 127.74 | 359 | ePKPdf | PKPdf | 05 52 26.1 | +1.5 | |
| NJ2 | Nanjing | 128.63 | 314 | ePKP | PKPdf | 05 52 26.1 | -0.7 | |
| MK32 | Makanchi Array | 131.51 | 356 | ePKPdf | PKPdf | 05 52 30.1 | -1.9 | |
| MKAR | Makanchi Array | 131.51 | 356 | PKP | PKPdf | 05 52 30.1 | -1.9 | |
| | 0.9nm,0.9s,baz=355,slow=1.3,SNR=4.6 | | | | | | | |
| MK01 | Makanchi Array | 131.53 | 356 | ePKPdf | PKPdf | 05 52 30.6 | -1.4 | |
| WMQ | Urumqi | 133.78 | 350 | ePKP | PKPdf | 05 52 36.5 | +0.1 | |
| WMQ | | | | LR | LR | | | |
| | comp=N,270nm,24.1s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=Z,210nm,28.3s | | | | | | | |
| KSH | Kashi | 138.91 | 2 | ePKP | PKPdf | 05 52 47.4 | +1.3 | |
| KSH | | | | PP | PP | 05 55 43.6 | +7.2 | |
| KSH | | | | SKS | SKSdf | 05 59 54.8 | -2.3 | |
| KSH | | | | SKKS | SKKSac | 06 02 33.4 | +1.0 | |
| KSH | | | | SS | SS | 06 13 56.8 | +5.2 | |
| KSH | | | | AMB | AMB | | | |
| | comp=Z,54nm,5.6s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=N,30nm,4.6s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=Z,210nm,6.9s | | | | | | | |
| QIZ | Qiongzhong | 142.36 | 305 | PKP | PKPdf | 05 52 51.1 | -1.6 | |
| QIZ | | | | PP | PP | 05 55 58.3 | -0.8 | |
| QIZ | | | | SS | SS | 06 14 33.1 | -1.7 | |
| QIZ | | | | LR | LR | | | |
| | comp=Z,91nm,25.7s | | | | | | | |
| KMI | Kunming | 143.99 | 319 | PKP | PKPbc | 05 52 53.5 | 0.0 | |
| KMI | | | | LR | LR | | | |
| | comp=E,230nm,18.4s | | | | | | | |
| KMI | | | | LR | LR | | | |
| | comp=Z,220nm,18.9s | | | | | | | |
| SKNT | Sakolnakorn | 148.19 | 307 | P | PKPdf | 05 53 03.8 | +1.1 | |
| NONG | Nongkai | 148.23 | 309 | P | PKPbc | 05 53 05.2 | -0.9 | |
| KHON | Khomkaen | 149.46 | 307 | P | PKPbc | 05 53 10.1 | +0.9 | |
| PHRA | Phrae | 150.15 | 313 | P | PKPbc | 05 53 08.9 | -2.0 | |
| CHAI | Chaiyaphum | 150.37 | 307 | P | PKPab | 05 53 15.0 | -2.7 | |
| PBKT | Sadao Pong | 150.78 | 309 | P | PKPbc | 05 53 12.4 | 0.0 | |
| CMMT | Chiang Mai | 150.86 | 315 | P | PKPbc | 05 53 15.2 | +2.6 | |
| | 12nm,1.6s | | | | | | | |
| CMMT | Chiang Mai | 150.86 | 315 | P | PKPbc | 05 53 11.6 | -1.0 | |
| CHTO | Chiang Mai | 150.86 | 315 | P | PKPbc | 05 53 15.2 | +2.6 | |
| | 53nm,1.4s | | | | | | | |
| CHTO | Chiang Mai | 150.86 | 315 | P | PKPbc | 05 53 11.7 | -0.9 | |
| CMAR | Chiang Mai Arr | 151.10 | 315 | PKP | PKPdf | 05 53 05.7 | -1.7 | |
| | 1.3nm,0.3s,baz=286,slow=1.7,SNR=5.7 | | | | | | | |
| CMAR | | | | PKPbc | PKiKP | 05 53 13.4 | -0.3 | |
| | 4.2nm,0.7s,baz=5.8,slow=1.5,SNR=22 | | | | | | | |
| CM01 | Chiang Mai Arr | 151.12 | 315 | ePKPdf | PKPdf | 05 53 07.6 | +0.3 | |
| CM01 | | | | ePKPbc | PKPbc | 05 53 13.0 | -0.2 | |
| UTHA | Uthaitani | 152.56 | 310 | P | PKPab | 05 53 33.0 | +6.2 | |
| UTHA | Uthaitani | 152.56 | 310 | P | PKPbc | 05 53 20.4 | +3.9 | |

*DDA* ***21*** *05:48:48.9,38.67N×43.37E,h7km,Ml2.9*
*ISK* ***21*** *05:48:48.1,38.71N×43.37E,h5km,ML2.6*
*ISCJB* ***21*** *05:48:49.7±0.5,38.70N±0.02×43.34E±0.04,h5km±5km, Error ellipse: s-maj=5.1km s-min=3.9km az=8.5*
*CSEM* ***21*** *05:48:49.5±0.2,38.71N×43.34E,h8km,ML2.6,Error ellipse: s-maj=4.8km s-min=3.5km az=107.0*
**ISC 21 05:48:49.5±0.8,38.69N±0.02×43.39E±0.03,h17km±5km, n29,σ1$11/53,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| TUTA | | | *i* S | **Sb** | **05 49 16.4** | **-0.5** |
| **TUTA** | **Tutak** | **0.84 328** | P | **Pb** | **05 49 04.4** | **-1.4** |
| TUTA | | | S | **Sb** | **05 49 16.5** | **-0.5** |
| **AGRB** | **Hanu-Agry** | **0.94 341** | *e*PG | **Pb** | **05 49 06.4** | **-1.0** |
| AGRB | | | *e*SG | **Sg** | **05 49 20.6** | **+0.5** |
| **AGRB** | **Hanu-Agry** | **0.94 341** | *e*Pg | **Pb** | **05 49 06.4** | **-1.0** |
| AGRB | | | *e*Sg | **Sg** | **05 49 20.6** | **+0.5** |
| **HAKT** | **HAKKARI** | **1.16 168** | *i* P | **Pn** | **05 49 08.3** | **-2.8** |
| HAKT | | | *i* S | **Sn** | **05 49 27.2** | **+0.6** |
| **HAKT** | **HAKKARI** | **1.16 168** | P | **Pn** | **05 49 08.3** | **-2.8** |
| HAKT | | | S | **Sn** | **05 49 27.2** | **+0.6** |
| **EKAR** | **Karacoban** | **1.18 299** | *i* P | **Pg** | **05 49 12.8** | **+0.5** |
| EKAR | | | *i* S | **Sg** | **05 49 29.4** | **+1.5** |
| **EKAR** | **Karacoban** | **1.18 299** | P | **Pg** | **05 49 12.8** | **+0.5** |
| EKAR | | | S | **Sg** | **05 49 29.4** | **+1.5** |
| **SRTM** | **Siirt_Merkez** | **1.35 239** | *i* P | **Pn** | **05 49 14.0** | **+0.4** |
| SRTM | | | *i* S | **Sg** | **05 49 35.1** | **+1.9** |
| **SRTM** | **Siirt_Merkez** | **1.35 239** | P | **Pn** | **05 49 14.0** | **+0.4** |
| SRTM | | | S | **Sg** | **05 49 35.1** | **+1.9** |
| **SIRT** | **Sirnak** | **1.41 213** | *e*PN | **Pb** | **05 49 16.0** | **+0.7** |
| **SIRT** | **Sirnak** | **1.41 213** | *e*Pn | **Pb** | **05 49 16.0** | **+0.7** |
| **CUKT** | **Cukurca** | **1.45 173** | *e*PN | **Pb** | **05 49 16.7** | **+0.6** |
| **CUKT** | **Cukurca** | **1.45 173** | *e*Pn | **Pb** | **05 49 16.7** | **+0.6** |
| **TASB** | **TASBURUN-IGDIR** | **1.45 27** | *e*PN | **Pb** | **05 49 16.3** | **+0.3** |
| **TASB** | **TASBURUN-IGDIR** | **1.45 27** | *e*Pn | **Pb** | **05 49 16.3** | **+0.3** |
| **BTMN** | **Batman** | **1.85 245** | *i* P | **Pn** | **05 49 21.3** | **+0.8** |
| BTMN | | | *i* S | **Sb** | **05 49 46.7** | **+0.9** |
| **BTMN** | **Batman** | **1.85 245** | P | **Pn** | **05 49 21.3** | **+0.8** |
| BTMN | | | S | **Sb** | **05 49 46.7** | **+0.9** |

**IDC 21 05:56:35.8±6.1, 20°.36S×173°.02E, h0 km, mb4.2/2, mb1 4.4/2, mb1mx3.7/29, mbtmp4.2/2, Error ellipse: s-maj=265.4km s-min=56.7km az=150.0, Vanuatu Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **36.26** | **264** | P | P | 06 03 42.6 | +1.5 |
| | 2.0nm,0.4s,baz=92,slow=8.3,SNR=96 | | | | | | |
| **ASAR** | **Alice Springs** | **36.33** | **257** | P | P | 06 03 39.9 | -1.9 |
| | 0.7nm,0.3s,baz=99,slow=6.8,SNR=11 | | | | | | |
| **GERES** | **GERESS Array B** | **147.09** | **335** | PKPbc | PKPbc | 06 16 20.2 | -0.6 |
| | 0.2nm,0.3s,baz=31,slow=4.0,SNR=3.0 | | | | | | |

*ISCJB **21** 06:03:05.4±0.8, 51°.41N±0°.04×16°.21E±0°.04, h0 km, Error ellipse: s-maj=5.3km s-min=3.0km az=15.6*
*CSEM **21** 06:03:06.3±0.4, 51°.46N×16°.20E, h2 km, ML2.8/12, Error ellipse: s-maj=6.6km s-min=3.7km az=4.0*
*WAR **21** 06:03:07.8, 51°.44N×16°.16E, h1 km, Mw2.4*
*PRU **21** 06:03:08.0, 51°.41N×16°.21E, h0 km*
*VIE **21** 06:03:09.7±0.6, 51°.26N×16°.03E, h0 km, mb2.2/2, ML2.4/5, Error ellipse: s-maj=5.0km s-min=3.9km az=91.0, Suspected Mining induced.*

**ISC 21 06:03:06.6±1.1, 51°.44N±0°.05×16°.22E±0°.02, h0 km, n32, σ 0s 75/63, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KSP** | **Ksiaz** | **0.60** | **176** | *e*Pg | **Pb** | **06 03 19.2** | **-0.8** |
| KSP | | | | *e*Sg | **Sg** | **06 03 27.3** | **+1.4** |
| **KSP** | **Ksiaz** | **0.60** | **176** | *e*Pg | **Pb** | **06 03 19.2** | **-0.8** |
| KSP | | | | *e*Sg | **Sg** | **06 03 27.3** | **+1.4** |
| **KSP** | **Ksiaz** | **0.60** | **176** | *e*Pg | **Pb** | **06 03 19.2** | **-0.8** |
| KSP | | | | *e*Sg | **Sg** | **06 03 27.3** | **+1.4** |
| **UPC** | **Upice** | **0.95** | **188** | *e*PG | **Pg** | **06 03 25.3** | **+0.6** |
| UPC | | | | *e*SG | **Sb** | **06 03 38.3** | **-0.6** |
| | comp=Z,26nm,0.3s | | | | | | |
| **UPC** | **Upice** | **0.95** | **188** | Pg | **Pg** | **06 03 25.3** | **+0.6** |
| UPC | | | | Sg | **Sb** | **06 03 38.3** | **-0.6** |
| | 26nm,0.3s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.10** | **177** | *e*PG | **Pb** | **06 03 28.1** | **-0.4** |
| DPC | | | | *e*SG | **Sg** | **06 03 42.6** | **+0.8** |
| | comp=Z,11nm,0.4s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.10** | **177** | Pg | **Pb** | **06 03 28.1** | **-0.4** |
| DPC | | | | Sg | **Sg** | **06 03 42.6** | **+0.8** |
| | 11nm,0.4s | | | | | | |
| **PVCC** | **Panska Ves** | **1.39** | **229** | *e*PG | **Pg** | **06 03 33.3** | **+0.1** |
| PVCC | | | | *e*SG | **Sn** | **06 03 52.4** | **+0.1** |
| | comp=Z,54nm,0.4s | | | | | | |
| **PVCC** | **Panska Ves** | **1.39** | **229** | Pg | **Pg** | **06 03 33.3** | **+0.1** |
| PVCC | | | | Sg | **Sn** | **06 03 52.4** | **+0.1** |
| | 54nm,0.4s | | | | | | |
| **KRLC** | **Kraliky** | **1.42** | **165** | *e*SG | **Sg** | **06 03 51.9** | **-0.1** |
| | comp=Z,3.6nm,0.5s | | | | | | |
| **KRLC** | **Kraliky** | **1.42** | **165** | Sg | **Sg** | **06 03 51.9** | **-0.1** |
| | 3.6nm,0.5s | | | | | | |
| **BRG** | **Berggiesshubel** | **1.54** | **249** | PG | **Pb** | **06 03 36.0** | **-0.1** |
| BRG | | | | SG | **Sg** | **06 03 56.4** | **+0.2** |
| | 18nm,0.5s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **1.78** | **211** | *e*PG | **Pb** | **06 03 40.2** | **+0.1** |
| GOPC | | | | *e*SG | **Sg** | **06 04 04.0** | **+0.2** |
| | comp=Z,5.2nm,0.3s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **1.78** | **211** | Pg | **Pb** | **06 03 40.2** | **+0.1** |
| GOPC | | | | Sg | **Sg** | **06 04 04.0** | **+0.2** |
| | 5.2nm,0.3s | | | | | | |
| **PRU** | **Pruhonice** | **1.81** | **217** | *e*PG | **Pn** | **06 03 39.6** | **+0.6** |
| PRU | | | | *e*SG | **Sg** | **06 04 04.6** | **0.0** |
| | comp=Z,9.0nm,0.4s | | | | | | |
| **PRU** | **Pruhonice** | **1.81** | **217** | Pg | **Pn** | **06 03 39.6** | **+0.6** |
| PRU | | | | Sg | **Sg** | **06 04 04.6** | **0.0** |
| | 9.0nm,0.4s | | | | | | |
| **MORC** | **Moravsky Berou** | **1.87** | **153** | *e*Pn | **Pn** | **06 03 40.1** | **+0.2** |
| MORC | | | | *e*Sg | **Sb** | **06 04 05.6** | **0.0** |
| **CLL** | **Collm** | **2.02** | **267** | *i* Pn | **Pb** | **06 03 44.0** | **-0.2** |
| CLL | | | | *i* Pg | **Pg** | **06 03 45.0** | **-0.3** |
| CLL | | | | *i* | | 06 03 46.1 | |
| CLL | | | | *i* | | 06 03 59.5 | |
| CLL | | | | *i* Sg | **Sg** | **06 04 12.8** | **+1.3** |
| | comp=Z,7.0nm,0.3s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **2.02** | **142** | *e*PG | **Pg** | **06 03 45.3** | **0.0** |
| OKC | | | | *e*SG | **Sg** | **06 04 11.5** | **0.0** |
| | comp=Z,6.3nm,0.3s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **2.02** | **142** | Pg | **Pg** | **06 03 45.3** | **0.0** |
| OKC | | | | Sg | **Sg** | **06 04 11.5** | **0.0** |
| | comp=Z,6.3nm,0.3s | | | | | | |
| **OJC** | **Ojcow** | **2.58** | **117** | *e*Pg | **Pg** | **06 03 55.9** | **-0.1** |
| OJC | | | | *e*Sg | **Sg** | **06 04 30.8** | **+1.4** |
| **OJC** | **Ojcow** | **2.58** | **117** | *e*Pg | **Pg** | **06 03 55.9** | **-0.1** |
| OJC | | | | *e*Sg | **Sg** | **06 04 30.8** | **+1.4** |
| **OJC** | **Ojcow** | **2.58** | **117** | *e*Pg | **Pg** | **06 03 55.9** | **-0.1** |
| OJC | | | | *e*Sg | **Sg** | **06 04 30.8** | **+1.4** |
| **NKC** | **Novy Kostel** | **2.68** | **245** | *e*PN | **Pn** | **06 03 50.9** | **-0.1** |
| NKC | | | | *e*PG | **Pg** | **06 03 57.1** | **-0.8** |
| NKC | | | | *e*SG | **Sg** | **06 04 32.5** | **-0.2** |
| | comp=Z,9.6nm,0.3s | | | | | | |
| **NKC** | **Novy Kostel** | **2.68** | **245** | Pn | **Pn** | **06 03 50.9** | **-0.1** |
| **KHC** | **Kasperske Hory** | **2.87** | **217** | *e*PN | **Pn** | **06 03 54.0** | **+0.4** |
| KHC | | | | *e*PG | **Pb** | **06 03 59.9** | **+1.2** |
| KHC | | | | *e*SN | **Sn** | **06 04 28.1** | **-0.7** |
| KHC | | | | *e*SG | **Sg** | **06 04 37.0** | **-1.7** |
| | comp=Z,4.3nm,0.3s | | | | | | |
| **KHC** | **Kasperske Hory** | **2.87** | **217** | Pn | **Pn** | **06 03 54.0** | **+0.4** |
| **LANS** | **Liptovska Anna** | **3.10** | **137** | *e*Pg | **Pg** | **06 04 05.4** | **-0.6** |
| LANS | | | | *e*Sg | **Sg** | **06 04 44.6** | **-1.5** |
| **LANS** | **Liptovska Anna** | **3.10** | **137** | *e*PG | **Pg** | **06 04 05.4** | **-0.6** |
| LANS | | | | *e*SG | **Sg** | **06 04 44.6** | **-1.5** |
| **CONA** | **Conrad Observa** | **3.53** | **184** | Pg | **Pg** | **06 04 13.7** | **-0.5** |
| | comp=Z,1.1nm,0.2s | | | | | | |
| CONA | | | | Sg | **Sg** | **06 05 01.3** | **+1.5** |
| | comp=Z,5.3nm,0.4s | | | | | | |
| **MOA** | **Molln** | **3.81** | **200** | Pn | **Pn** | **06 04 07.4** | **+0.8** |
| | comp=Z,0.5nm,0.2s | | | | | | |
| MOA | | | | Sg | **Sg** | **06 05 08.9** | **-0.2** |
| | comp=Z,3.1nm,0.4s | | | | | | |
| **ARSA** | **Arzberg** | **4.22** | **186** | Sg | **Sg** | **06 05 22.1** | **-0.1** |
| | comp=Z,3.1nm,0.6s | | | | | | |

*NIED **21** 06:04:00, 35°.90N×139°.30E, h130 km, Mw4.1 Best double couple: $M_0$1.72000×10$^{15}$ NP1:$\phi_s$77.00000°, δ35.00000°, λ120.00000°. NP2:$\phi_s$221.00000°, δ60.00000°, λ71.00000°.*
*NEIC **21** 06:04:08.8±0.5, 35°.81N×139°.35E, h118 km±4km, mb4.9/10, Error ellipse: s-maj=6.6km s-min=5.9km az=97.0*
*NEIC Recorded [2 JMA] in Kanagawa, Tokyo and Yamanashi.*
*ISCJB **21** 06:04:08.4±0.3, 35°.84N±0°.03×139°.30E±0°.05, h128 km±1km, mb4.3/43, Error ellipse: s-maj=6.7km s-min=4.8km az=151.9*

*MOS **21** 06:04:08.3±1.1, 35°.91N×139°.35E, h126 km, mb4.5/11, Error ellipse: s-maj=11.0km s-min=6.8km az=115.0*
*IDC **21** 06:04:09.9±0.6, 35°.80N×139°.18E, h126 km±4km, mb3.8/25, mb1 3.9/28, mb1mx3.8/52, mbtmp4.2/28, MS3.5/3, Ms1 3.5/3, ms1mx2.9/33, Error ellipse: s-maj=12.5km s-min=6.9km az=69.0*
*JMA **21** 06:04:10.1±0.1, 35°.83N×139°.34E, h116 km±1km, M4.0 Broadband fault plane solution: P waves. NP1: $\phi_s$210.00000°, δ85.00000°, λ60.00000°. NP2: $\phi_s$111.00000°, δ31.00000°, λ170.00000°. Principal axes: T Plg42.0000°, Azm91.0000°; N Plg30.0000°, Azm213.0000°; P Plg33.0000°, Azm325.0000°;*
*JMA Felt II J1.*

**ISC 21 06:04:09.1±0.6, 35°.85N±0°.04×139°.30E±0°.06, h117 km±5km, n113, σ 1s 36/128, mb4.3/43, 6C-3D, Near south coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JHU** | **Hanno** | **0.02** | **287** | ⇑P | **Pn** | **06 04 26.4** | **+1.4** |
| JHU | | | | *i* S | **Sn** | **06 04 38.4** | **+1.4** |
| **JRY** | **Ryogami san** | **0.37** | **298** | ⇑P | **Pn** | **06 04 27.4** | **+1.5** |
| JRY | | | | S | **Sn** | **06 04 40.6** | **+2.0** |
| **JAG** | **Ashikaga** | **0.59** | **12** | ⇑P | **Pn** | **06 04 28.4** | **+1.2** |
| JAG | | | | S | **Sn** | **06 04 42.0** | **+1.0** |
| **JOD2** | **Odawara 2** | **0.61** | **197** | ⇓P | **Pn** | **06 04 28.1** | **+0.7** |
| JOD2 | | | | S | **Sn** | **06 04 41.9** | **+0.7** |
| **JYN** | **Shimob** | **0.71** | **241** | ⇑P | **Pn** | **06 04 29.1** | **+0.9** |
| JYN | | | | S | **Sn** | **06 04 44.1** | **+1.4** |
| **JKT** | **Katashina** | **0.92** | **357** | ⇑P | **Pn** | **06 04 31.4** | **+1.3** |
| JKT | | | | S | **Sn** | **06 04 47.6** | **+1.6** |
| **MJAR** | **Matsushiro Arr** | **1.12** | **308** | P | **Pn** | **06 04 32.6** | **+0.6** |
| | 224nm,0.3s,baz=148,slow=9.0,SNR=1125 | | | | | | |
| MJAR | | | | LR | LR | 06 04 49.4 | |
| | comp=Z,66nm,18.4s,baz=145,slow=38 | | | | | | |
| MJAR | | | | S | **Sn** | **06 04 50.7** | **+1.2** |
| | 100nm,0.3s,baz=129,slow=16,SNR=34 | | | | | | |
| **MAJO** | **Matsushiro** | **1.13** | **308** | *d* P | **Pn** | **06 04 32.5** | **+0.4** |
| **MAJO** | **Matsushiro** | **1.13** | **308** | *e*Pn | **Pn** | **06 04 33.2** | **+1.1** |
| MAJO | | | | *e*Sn | **Sn** | **06 04 50.5** | **+0.9** |
| **MAT** | **Matsushiro** | **1.13** | **308** | P | **Pn** | **06 04 33.1** | **+1.0** |
| MAT | | | | S | **Sn** | **06 04 50.0** | **+0.4** |
| **MAT** | **Matsushiro** | **1.13** | **308** | P | **Pn** | **06 04 33.1** | **+1.0** |
| MAT | | | | S | **Sn** | **06 04 50.0** | **+0.4** |
| **MJB9** | **Matsu-Tunnel** | **1.13** | **308** | *e*Pn | **Pn** | **06 04 33.3** | **+1.1** |
| MJB9 | | | | *e*Sn | **Sn** | **06 04 50.4** | **+0.7** |
| **BSO1** | **Boso 1** | **1.81** | **130** | P | **Pn** | **06 04 40.4** | **+0.9** |
| BSO1 | | | | S | **Sn** | **06 05 05.9** | **+3.1** |
| **INU** | **Inuyama** | **1.93** | **256** | *e*Pn | **Pn** | **06 04 42.7** | **+1.2** |
| **JHJ** | **Hachijo jima 2** | **2.75** | **172** | P | **Pn** | **06 04 52.9** | **+0.9** |
| | 254nm,0.3s,baz=98,slow=22,SNR=45 | | | | | | |
| JHJ | | | | S | **Sn** | **06 05 26.4** | **+1.4** |
| | 50nm,0.3s,baz=52,slow=19,SNR=4.6 | | | | | | |
| **JHJ2** | **Mitsune** | **2.76** | **171** | *e*Pn | **Pn** | **06 04 51.7** | **-0.4** |
| **ERM** | **Erimo** | **6.85** | **25** | *e*P | **Pn** | **06 05 46.4** | **-0.5** |
| **ERM** | **Erimo** | **6.85** | **25** | *e*Pn | **Pn** | **06 05 46.4** | **-0.5** |
| **JNU** | **Nakatsue** | **7.47** | **251** | P | **Pn** | **06 05 56.6** | **+1.2** |
| | 0.6nm,0.3s,baz=118,slow=4.7,SNR=8.0 | | | | | | |
| **JNU** | **Nakatsue** | **7.47** | **251** | *e*Pn | **Pn** | **06 05 56.3** | **+1.0** |
| **ASAJ** | **Asahikawa** | **8.64** | **16** | P | **Pn** | **06 06 07.9** | **-3.1** |
| | 1.5nm,0.3s,baz=250,slow=15,SNR=5.5 | | | | | | |
| **ASAJ** | **Asahikawa** | **8.64** | **16** | *e*Pn | **Pn** | **06 06 09.5** | **-1.5** |
| **CBIJ** | **Chichi jima** | **9.06** | **163** | *e*Pn | **Pn** | **06 06 13.2** | **-3.7** |
| CBIJ | | | | S | Sn | 06 07 45.8 | -11 |
| **JCJ** | **Chichijima** | **9.06** | **163** | P | **Pn** | **06 06 13.2** | **-3.8** |
| | 17nm,0.3s,baz=85,slow=23,SNR=15 | | | | | | |
| JCJ | | | | S | Sn | 06 07 45.8 | -11 |
| | 11nm,0.3s,baz=120,slow=20,SNR=4.4 | | | | | | |
| JCJ | | | | LR | LR | 06 10 04.0 | |
| | comp=Z,49nm,19.9s,baz=210,slow=39 | | | | | | |
| **KSRS** | **Korea Array** | **9.29** | **283** | P | **Pn** | **06 06 22.6** | **+2.8** |
| | 1.1nm,0.3s,baz=98,slow=14,SNR=32 | | | | | | |
| **KS01** | **Wonju Array Si** | **9.31** | **283** | *e*Pn | **Pn** | **06 06 20.7** | **+0.4** |
| **KS15** | **Wonju Array Si** | **9.32** | **283** | *e*Pn | **Pn** | **06 06 21.8** | **+1.6** |
| **KSAR** | **Wonju Array Be** | **9.32** | **283** | P | **Pn** | **06 06 22.7** | **+2.4** |
| **KSAR** | **Wonju Array Be** | **9.32** | **283** | P | **Pn** | **06 06 22.6** | **+2.4** |
| **USRK** | **Usuriysk Ar.** | **10.05** | **328** | P | **Pn** | **06 06 31.4** | **+1.3** |
| | 0.4nm,0.3s,baz=149,slow=13,SNR=4.6 | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **11.39** | **12** | *e*P | **Pn** | **06 06 46.4** | **-1.8** |
| **YSS** | **Yuzh-Sakhalins** | **11.39** | **12** | *e*Pn | **Pn** | **06 06 46.4** | **-1.8** |
| **KLR** | **Kul'dur** | **14.48** | **340** | P | **Pn** | **06 07 25.5** | **-2.7** |
| | 0.1nm,0.3s,baz=130,slow=12,SNR=9.3 | | | | | | |
| **KLR** | **Kul'dur** | **14.48** | **340** | *e*P | **P** | **06 07 35.9** | **+4.3** |
| **HIA** | **Hailar** | **19.61** | **319** | *e*P | **Pn** | **06 08 33.8** | **+3.2** |
| HIA | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.8s | | | | | | |
| **MA2** | **Magadan** | **24.89** | **14** | P | **P** | **06 09 21.5** | **+0.8** |
| | comp=Z,5.1nm,0.2s,baz=175,slow=12,SNR=5.5 | | | | | | |
| **ULN** | **Ulaanbaatar** | **26.66** | **307** | *c*eP | **P** | **06 09 37.6** | **+0.6** |
| ULN | | | | pmax | pmax | | |
| | comp=Z,7.0nm,2.5s | | | | | | |
| **YAK** | **Yakutsk** | **26.90** | **350** | *e*P | **P** | **06 09 40.2** | **+1.4** |
| YAK | | | | pmax | pmax | | |
| | comp=Z,16nm,1.4s | | | | | | |
| **SONA0** | **Songino Array** | **27.08** | **306** | *e*P | **P** | **06 09 39.6** | **-1.2** |
| **SONM** | **Songino Array** | **27.08** | **306** | P | **P** | **06 09 39.6** | **-1.2** |
| | comp=Z,0.8nm,0.7s,baz=119,slow=6.9,SNR=3.7 | | | | | | |
| **BOD** | **Bodaibo** | **27.68** | **330** | *e*P | **P** | **06 09 45.6** | **-0.2** |
| BOD | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.0s | | | | | | |
| **SEY** | **Seymchan** | **28.30** | **13** | P | **P** | **06 09 50.6** | **-0.7** |
| | comp=Z,1.0nm,0.2s,baz=118,slow=2.5,SNR=2.9 | | | | | | |
| **TIXI** | **Tiksi** | **36.28** | **354** | *e*P | **P** | **06 11 00.6** | **-0.2** |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.6s | | | | | | |
| **TIXI** | **Tiksi** | **36.28** | **354** | *e*P | **P** | **06 11 00.5** | **-0.2** |
| TIXI | | | | *e*pP | **pP** | **06 11 22.2** | **-4.5** |
| **CMAR** | **Chiang Mai Arr** | **39.55** | **255** | P | **P** | **06 11 27.7** | **-1.1** |
| | comp=Z,1.1nm,0.3s,baz=20,slow=2.9,SNR=3.2 | | | | | | |
| **DGZ** | **Jazzator, Alta** | **39.73** | **307** | *e*P | **P** | **06 11 30.9** | **+0.8** |
| DGZ | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | |
| **ZAA0** | **Zalesovo Array** | **41.48** | **313** | *e*P | **P** | **06 11 44.1** | **-0.1** |
| | comp=Z,3.6nm,1.0s | | | | | | |
| **ZAA1** | **Zalesovo Array** | **41.48** | **313** | *e*P | **P** | **06 11 44.0** | **-0.2** |
| **ZALV** | **Zalesovo Beam** | **41.48** | **313** | P | **P** | **06 11 44.0** | **-0.2** |
| | comp=Z,1.7nm,0.3s,baz=116,slow=7.9,SNR=10 | | | | | | |
| **NVS** | **Novosibirsk** | **42.45** | **315** | *e*P | **P** | **06 11 51.5** | **-0.6** |
| **MK01** | **Makanchi Array** | **43.32** | **303** | *e*P | **P** | **06 11 59.0** | **-0.3** |
| **MK31** | **Makanchi Array** | **43.32** | **303** | *e*P | **P** | **06 11 59.6** | **+0.3** |
| **MK31** | **Makanchi Array** | **43.32** | **303** | *e*P | **P** | **06 11 59.6** | **+0.3** |
| **MK32** | **Makanchi Array** | **43.32** | **303** | *e*P | **P** | **06 11 58.9** | **-0.4** |
| **MKAR** | **Makanchi Array** | **43.32** | **303** | P | **P** | **06 11 58.9** | **-0.4** |
| | comp=Z,2.1nm,0.6s,baz=84,slow=10,SNR=20 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.32** | **303** | *e*P | **P** | **06 11 59.4** | **+0.1** |
| MKAR | | | | pmax | pmax | | |
| | comp=Z,19nm,0.6s | | | | | | |
| **MKAR** | **Makanchi Array** | **43.32** | **303** | *e*P | **P** | **06 11 59.4** | **+0.1** |
| | comp=Z,18nm,0.6s | | | | | | |
| **KURK** | **Kurchatov** | **45.34** | **309** | *d* P | **P** | **06 12 14.8** | **-0.4** |
| KURK | | | | pmax | pmax | | |
| | comp=Z,44nm,0.6s | | | | | | |
| **KURK** | **Kurchatov** | **45.34** | **309** | *e*P | **P** | **06 12 15.0** | **-0.2** |
| | comp=Z,17nm,0.6s | | | | | | |
| KURK | | | | *e*P | **P** | **06 12 15.8** | **+0.6** |
| **KURBB** | **Kurchatov Arra** | **45.40** | **309** | P | **P** | **06 12 15.8** | **+0.1** |
| | comp=Z,11nm,0.6s,baz=83,slow=8.2,SNR=57 | | | | | | |
| **SVW2** | **Sparrevohn** | **47.49** | **37** | *e*P | **P** | **06 12 32.3** | **+0.4** |
| | comp=Z,32nm,0.8s | | | | | | |
| **AAK** | **Ala-Archa** | **49.56** | **299** | P | **P** | **06 12 47.7** | **-0.6** |
| | comp=Z,2.0nm,0.4s,baz=109,slow=4.9,SNR=7.5 | | | | | | |
| **AAK** | **Ala-Archa** | **49.56** | **299** | *e*P | **P** | **06 12 47.7** | **-0.6** |
| AAK | | | | *e*P | **P** | **06 12 48.2** | **-0.1** |
| **BVAR** | **Borovoye Array** | **50.12** | **313** | P | **P** | **06 12 52.1** | **-0.1** |
| | comp=Z,2.6nm,0.5s,baz=94,slow=6.2,SNR=12 | | | | | | |
| **BRVK** | **Borovoye** | **50.18** | **313** | *e*P | **P** | **06 12 52.9** | **+0.4** |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.1s | | | | | | |
| **BRVK** | **Borovoye** | **50.18** | **313** | *e*P | **P** | **06 12 52.9** | **+0.4** |
| | comp=Z,5.9nm,1.1s | | | | | | |
| **ILAR** | **Eielson Array** | **51.40** | **32** | P | **P** | **06 13 02.7** | **+1.1** |
| | comp=Z,0.9nm,0.6s,baz=275,slow=5.6,SNR=13 | | | | | | |
| **ILB** | **Eielson Array** | **51.40** | **32** | *e*P | **P** | **06 13 02.2** | **+0.6** |
| **KK31** | **Karatay Array** | **52.25** | **300** | *i* P | **P** | **06 13 07.7** | **-0.5** |
| KK31 | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.0s | | | | | | |
| **KKAR** | **Karatay Array** | **52.25** | **300** | *e*P | **P** | **06 13 08.1** | **-0.1** |
| KKAR | | | | pmax | pmax | | |
| | comp=Z,40nm,0.8s | | | | | | |
| **KKAR** | **Karatay Array** | **52.25** | **300** | *e*P | **P** | **06 13 08.1** | **-0.1** |
| | comp=Z,40nm,0.8s | | | | | | |
| **DZET** | **Dzherino** | **54.83** | **296** | P | **P** | **06 13 26.7** | **-0.5** |
| DZET | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.5s | | | | | | |
| **WB2** | **Warramunga Arr** | **55.68** | **186** | *e*P | **P** | **06 13 32.1** | **-1.2** |
| **WR1** | **Warramunga Arr** | **55.68** | **186** | *e*P | **P** | **06 13 32.5** | **-0.8** |
| | comp=Z,35nm,1.9s | | | | | | |
| **WRA** | **Warramunga Arr** | **55.68** | **186** | P | **P** | **06 13 32.5** | **-0.8** |
| | comp=Z,1.9nm,0.5s,baz=1.1,slow=7.5,SNR=49 | | | | | | |
| WRA | | | | LR | LR | 06 38 49.6 | |
| | comp=Z,111nm,18.1s,baz=50,slow=37 | | | | | | |
| **ARU** | **Arti** | **56.12** | **319** | P | **P** | **06 13 35.8** | **-0.3** |
| | comp=Z,4.5nm,0.3s,baz=86,slow=1.5,SNR=16 | | | | | | |
| **ARU** | **Arti** | **56.12** | **319** | *i* P | **P** | **06 13 36.6** | **+0.6** |
| ARU | | | | pmax | pmax | | |
| | comp=Z,11nm,0.8s | | | | | | |
| **ARU** | **Arti** | **56.12** | **319** | *e*P | **P** | **06 13 36.1** | **+0.1** |
| | comp=Z,13nm,0.9s | | | | | | |
| **INK** | **Inuvik** | **56.21** | **27** | P | **P** | **06 13 36.1** | **-0.4** |
| | comp=Z,2.3nm,0.8s,baz=305,slow=5.5,SNR=7.7 | | | | | | |
| **INK** | **Inuvik** | **56.21** | **27** | *e*P | **P** | **06 13 36.1** | **-0.4** |
| INK | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.9s | | | | | | |
| **INK** | **Inuvik** | **56.21** | **27** | *e*P | **P** | **06 13 36.1** | **-0.4** |
| | comp=Z,3.8nm,0.9s | | | | | | |
| **AB31** | **Akbulak array** | **57.40** | **310** | P | **P** | **06 13 45.2** | **0.0** |
| AB31 | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.5s | | | | | | |
| **ABKAR** | **Akbulak array** | **57.40** | **310** | *e*P | **P** | **06 13 45.2** | **+0.1** |
| | comp=Z,96nm,0.4s | | | | | | |
| **AKTO** | **Aktyubinsk** | **58.20** | **312** | P | **P** | **06 13 50.5** | **-0.2** |
| | comp=Z,3.6nm,0.7s,baz=81,slow=8.9,SNR=7.7 | | | | | | |
| **AS31** | **Alice Springs** | **59.41** | **186** | *e*P | **P** | **06 13 58.4** | **-0.9** |
| | comp=Z,0.9nm,0.9s | | | | | | |
| **ASAR** | **Alice Springs** | **59.41** | **186** | P | **P** | **06 13 58.4** | **-1.0** |
| | comp=Z,1.1nm,0.6s,baz=16,slow=6.7,SNR=15 | | | | | | |
| **GEYT** | **Alibeck** | **62.91** | **299** | P | **P** | **06 14 22.2** | **-0.8** |
| | comp=Z,1.3nm,0.4s,baz=7.4,slow=3.3,SNR=2.6 | | | | | | |
| **ARA0** | **ARCESS Array S** | **64.50** | **339** | *e*P | **P** | **06 14 32.7** | **-0.2** |
| **ARCES** | **ARCESS Array B** | **64.50** | **339** | P | **P** | **06 14 32.7** | **-0.2** |
| | comp=Z,1.9nm,0.8s,baz=52,slow=7.5,SNR=7.7 | | | | | | |
| **YKA** | **Yellowknife Ar** | **65.68** | **29** | P | **P** | **06 14 41.1** | **+0.6** |
| | comp=Z,0.3nm,0.7s,baz=305,slow=6.8,SNR=5.6 | | | | | | |
| **FIA0** | **FINESS Array S** | **69.06** | **332** | *e*P | **P** | **06 15 01.3** | **-0.6** |
| **FIA0** | **FINESS Array S** | **69.06** | **332** | *e*P | **P** | **06 15 01.2** | **-0.6** |
| **FINES** | **FINESS Array B** | **69.06** | **332** | P | **P** | **06 15 01.2** | **-0.6** |
| | comp=Z,1.3nm,0.5s,baz=72,slow=6.2,SNR=9.1 | | | | | | |
| **KBZ** | **Khabaz** | **70.37** | **310** | LR | LR | 06 49 10.6 | |
| | comp=Z,78nm,18.4s,baz=348,slow=38 | | | | | | |
| **KIV** | **Kislovodsk** | **70.39** | **310** | *e*P | **P** | **06 15 06.3** | **-4.2** |
| KIV | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.9s | | | | | | |
| KIV | | | | MLR | MLR | | |
| | comp=Z,72nm,18.0s | | | | | | |
| **AKASG** | **Malin Array Be** | **74.18** | **322** | P | **P** | **06 15 31.8** | **-0.9** |
| | comp=Z,1.1nm,0.5s,baz=49,slow=6.0,SNR=8.3 | | | | | | |
| **AKBB** | **Malin Array Si** | **74.18** | **322** | *e*P | **P** | **06 15 31.8** | **-0.9** |
| AKBB | | | | pmax | pmax | | |
| | comp=Z,23nm,1.8s | | | | | | |
| **AKBB** | **Malin Array Si** | **74.18** | **322** | *e*P | **P** | **06 15 31.8** | **-0.9** |
| | comp=Z,23nm,1.8s | | | | | | |
| **NB2** | **NORSAR Subarra** | **74.61** | **337** | P | **P** | **06 15 35.0** | **0.0** |
| | comp=Z,1.5nm,0.8s,baz=41,slow=5.9 | | | | | | |
| **NB200** | **NORSAR Array S** | **74.61** | **337** | *e*P | **P** | **06 15 35.1** | **0.0** |
| **NOA** | **NORSAR Array B** | **74.61** | **337** | P | **P** | **06 15 35.1** | **0.0** |
| | comp=Z,0.9nm,0.8s,baz=56,slow=16,SNR=5.0 | | | | | | |
| **NV01** | **Mina Array Sit** | **77.06** | **52** | *e*P | **P** | **06 15 51.3** | **+1.6** |
| **NVAR** | **Mina Array Bea** | **77.06** | **52** | P | **P** | **06 15 51.7** | **+2.0** |
| | comp=Z,1.2nm,0.8s,baz=288,slow=5.7,SNR=5.8 | | | | | | |
| **BR101** | **Keskin Array S** | **78.35** | **311** | *e*P | **P** | **06 15 57.7** | **+1.0** |
| **BRTR** | **Keskin Array B** | **78.35** | **311** | P | **P** | **06 15 57.7** | **+1.0** |
| | comp=Z,0.3nm,0.5s,baz=99,slow=3.2,SNR=4.3 | | | | | | |
| **PD31** | **Pinedale Array** | **79.71** | **44** | *e*P | **P** | **06 16 04.3** | **

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| PB02 | | | | IAML | | | 06 26 08.7 | |
| | comp=N,296nm,0.2s | | | | | | | |
| **PB10** | **IPC Station P** | **3.44** | **263** | *i* P | **Pn** | | **06 25 26.7** | **+1.4** |
| PB10 | | | | *e*S | **S** | | **06 26 08.5** | **-0.7** |
| **PB10** | **IPC Station P** | **3.44** | **263** | ⇑*i* P | **Pn** | | **06 25 26.7** | **+1.4** |
| PB10 | | | | *e*S | **S** | | **06 26 07.6** | **-1.6** |
| **PB14** | **IPC Station P** | **3.59** | **245** | *e*P | **Pn** | | **06 25 28.6** | **+1.1** |
| PB14 | | | | *e*S | **S** | | **06 26 12.4** | **-0.6** |
| **PB08** | **IPOC Station P** | **3.67** | **324** | IAML | | | 06 26 16.3 | |
| | comp=N,140nm,0.5s | | | | | | | |
| **AHML** | **Horco Molle** | **3.89** | **160** | *i* P | **Pn** | | **06 25 31.9** | **+1.2** |
| AHML | | | | IAML | | | 06 25 32.2 | |
| | comp=Z,5.5nm,0.3s | | | | | | | |
| AHML | | | | *i* S | **S** | | **06 26 20.1** | **+1.1** |
| **PB11** | **IPOC Station P** | **4.26** | **321** | ⇑*i* P | **Pn** | | **06 25 36.5** | **+1.2** |
| PB11 | | | | *e*S | **S** | | **06 26 25.5** | **-1.8** |
| **MNMC** | **Minye Minye** | **4.74** | **327** | ⇓*i* P | **Pn** | | **06 25 42.9** | **+1.6** |
| MNMC | | | | *e*S | **S** | | **06 26 36.7** | **-1.6** |
| **CYA** | **Choya** | **5.37** | **170** | *i* P | **Pn** | | **06 25 50.6** | **+1.6** |
| CYA | | | | IAML | | | 06 25 52.2 | |
| | comp=Z,4.7nm,0.2s | | | | | | | |
| CYA | | | | *e*S | **S** | | **06 26 52.8** | **+0.5** |
| **LPAZ** | **La Paz** | **6.91** | **350** | P | **Pn** | | **06 26 10.7** | **+1.5** |
| | comp=Z,1.8nm,0.3s,baz=161,slow=6.8,SNR=62 | | | | | | | |
| LPAZ | | | | S | **S** | | **06 27 27.6** | **-1.2** |
| | baz=281,slow=16,SNR=2.6 | | | | | | | |
| **AMOG** | **MOGNA** | **7.92** | **190** | *e*P | **Pn** | | **06 26 21.4** | **-0.1** |
| AMOG | | | | *e*S | **S** | | **06 27 46.5** | **-5.0** |
| **TCA** | **Tanti** | **8.42** | **167** | IAML | | | 06 26 29.9 | |
| | comp=Z,6.8nm,0.2s | | | | | | | |
| **SIV** | **San Ignacio** | **8.94** | **38** | P | **Pn** | | **06 26 33.5** | **-1.2** |
| | comp=Z,1.2nm,0.3s,baz=244,slow=10,SNR=11 | | | | | | | |
| SIV | | | | S | **S** | | **06 28 11.5** | **-4.0** |
| | comp=Z,0.2nm,0.3s,baz=207,slow=2.3,SNR=2.8 | | | | | | | |
| **CPUP** | **Villa Florida** | **9.21** | **112** | LR | LR | | 06 30 21.8 | |
| | comp=Z,54nm,19.8s,baz=331,slow=40 | | | | | | | |
| **NNA** | **Nana** | **14.61** | **318** | P | P | | 06 27 51.6 | +5.1 |
| | comp=Z,0.6nm,0.3s,baz=31,slow=12,SNR=3.1 | | | | | | | |
| **PLCA** | **Paso Flores** | **17.83** | **189** | P | **P** | | **06 28 21.9** | **+0.3** |
| | comp=Z,0.2nm,0.3s,baz=28,slow=11,SNR=9.7 | | | | | | | |
| **PTGA** | **Pitinga** | **23.24** | **18** | P | **P** | | **06 29 17.4** | **+0.5** |
| | comp=Z,2.2nm,0.6s,baz=204,slow=18,SNR=3.2 | | | | | | | |
| **USHA** | **Ushuaia** | **31.69** | **182** | P | **P** | | **06 30 29.8** | **-1.8** |
| | comp=Z,11nm,0.4s,baz=31,slow=5.9,SNR=3.8 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **76.11** | **69** | P | **P** | | **06 35 53.6** | **+0.8** |
| | comp=Z,0.5nm,0.5s,baz=258,slow=5.6,SNR=12 | | | | | | | |
| **WRA** | **Warramunga Arr** | **132.47** | **207** | PKP | **PKPdf** | | **06 43 19.9** | **+2.2** |
| | comp=Z,0.2nm,0.8s,baz=172,slow=1.6,SNR=3.3 | | | | | | | |
| **MKAR** | **Makanchi Array** | **145.75** | **39** | PKPbc | **PKPab** | | **06 43 44.8** | **+2.2** |
| | comp=Z,0.5nm,0.5s,baz=330,slow=2.8,SNR=7.2 | | | | | | | |

**SKO 21 06:34:38.7, 41°.49N×21°.41E, h15km, 1C, Northwestern Balkan Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KRUS** | **Krusevo** | **0.17** | **225** | ⇑*i* P | Pg | 06 34 43.0 | +0.1 |
| KRUS | | | | *i* Sg | Sg | 06 34 45.8 | 0.0 |
| **BIA** | **Bitola** | **0.47** | **188** | *i* Pg | Pb | 06 34 48.7 | -0.1 |
| BIA | | | | *i* Sg | Sb | 06 34 55.7 | +0.2 |
| **SKO** | **Skopje** | **0.48** | **3** | *e*Pg | Pg | 06 34 48.4 | +0.1 |
| SKO | | | | *e*Sg | Sg | 06 34 54.2 | -0.5 |

**KRSC 21 06:48:14.0±1.1, 53°.54N×161°.43E, h40km±15km, ML3.6, Off east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SPN** | **Mys Shipunski** | **0.95** | **243** | *i* P | Pn | 06 48 32.6 | +1.7 |
| SPN | | | | *i* S | Sn | 06 48 44.7 | +1.4 |
| **KII** | **Karymskiy** | **1.27** | **294** | *e*P | Pn | 06 48 36.6 | +1.2 |
| KII | | | | *e*S | Sn | 06 48 51.3 | 0.0 |
| **NLC** | **Nalytchevo** | **1.30** | **254** | *e*P | Pn | 06 48 37.4 | +1.7 |
| NLC | | | | *e*S | Sn | 06 48 53.3 | +1.5 |
| **SDLR** | **Sedlovina** | **1.55** | **261** | *e*P | Pn | 06 48 41.2 | +2.0 |
| SDLR | | | | *e*S | Sn | 06 48 59.7 | +1.6 |
| **UGLR** | **Uglovaya** | **1.59** | **259** | *e*P | Pn | 06 48 42.2 | +2.4 |
| UGLR | | | | *e*S | Sn | 06 49 01.4 | +2.1 |
| **KRER** | **Koryakskii** | **1.62** | **263** | *e*P | Pn | 06 48 42.7 | +2.4 |
| KRER | | | | *e*S | Sn | 06 49 02.0 | +2.0 |
| **AVH** | **Avacha** | **1.63** | **261** | *e*P | Pn | 06 48 42.8 | +2.5 |
| AVH | | | | *e*S | Sn | 06 49 02.2 | +2.0 |
| **KRX** | **Arik** | **1.67** | **265** | *e*P | Pn | 06 48 43.0 | +2.1 |
| KRX | | | | *e*S | Sn | 06 49 02.8 | +1.6 |
| **DALK** | **Dalny** | **1.69** | **253** | *e*P | Pn | 06 48 43.1 | +2.2 |
| DALK | | | | *e*S | Sn | 06 49 03.2 | +1.9 |
| **KOK** | **Koryaka** | **1.69** | **263** | *e*P | Pn | 06 48 43.4 | +2.3 |
| **KZV** | **Kizimen** | **1.71** | **338** | *e*P | Pn | 06 48 43.5 | +2.0 |
| KZV | | | | *e*S | Sn | 06 49 03.0 | +0.8 |
| **PET** | **Petropavlovsk** | **1.75** | **254** | *e*P | Pn | 06 48 44.3 | +2.5 |
| PET | | | | *e*S | Sn | 06 49 04.9 | +2.2 |
| **TUMR** | **Tumrok** | **1.90** | **337** | *e*P | Pn | 06 48 46.3 | +2.3 |
| TUMR | | | | *e*S | Sn | 06 49 08.4 | +1.6 |
| **RUS** | **Russkaya** | **2.08** | **239** | *e*P | Pn | 06 48 48.7 | +2.3 |
| RUS | | | | *e*S | Sn | 06 49 12.5 | +1.4 |
| **GNL** | **Ganaly** | **2.08** | **276** | *e*P | Pn | 06 48 49.3 | +2.8 |
| GNL | | | | *e*S | Sn | 06 49 13.9 | +2.6 |
| **KRMR** | **Karymshinskiy** | **2.11** | **252** | *e*P | Pn | 06 48 49.8 | +3.0 |
| KRMR | | | | *e*S | Sn | 06 49 15.7 | +4.0 |
| **MTVR** | **Mutnovka** | **2.23** | **243** | *e*P | Pn | 06 48 51.2 | +2.6 |
| MTVR | | | | *e*S | Sn | 06 49 17.4 | +2.5 |
| **KMNR** | **Kamenistaya** | **2.33** | **343** | *e*P | Pn | 06 48 53.1 | +3.2 |
| KMNR | | | | *e*S | Sn | 06 49 21.0 | +3.7 |
| **ASAK** | **Asacha** | **2.43** | **243** | *e*P | Pn | 06 48 54.4 | +3.1 |
| **BZMR** | **Bezymyannaya** | **2.46** | **348** | P | Pn | 06 48 55.1 | +3.3 |
| **BZWR** | **Bezymyannyi-We** | **2.49** | **348** | P | Pn | 06 48 55.9 | +3.7 |
| **KIRR** | **Kirishev** | **2.50** | **346** | *e*P | Pn | 06 48 55.5 | +3.2 |
| KIRR | | | | *e*S | Sn | 06 49 24.3 | +2.7 |
| **ZLN** | **Zelenaya** | **2.51** | **352** | *e*P | Pn | 06 48 56.0 | +3.6 |
| ZLN | | | | *e*S | Sn | 06 49 24.7 | +3.0 |
| **KPT** | **Kopyto** | **2.53** | **344** | *e*P | Pn | 06 48 56.6 | +3.9 |
| **CIRR** | **Tsirk** | **2.61** | **352** | *e*P | Pn | 06 48 57.5 | +3.7 |
| **APC** | **Apacha** | **2.64** | **258** | P | Pn | 06 48 57.3 | +3.2 |
| **KDTR** | **Khodutka, Kamc** | **2.68** | **231** | *e*P | Pn | 06 48 57.7 | +3.1 |
| KDTR | | | | *e*S | Sn | 06 49 28.8 | +3.1 |
| **KOZ** | **Kozyrevsk** | **2.68** | **341** | *e*P | Pn | 06 48 57.8 | +3.2 |
| **KRSR** | **Krestovskiy** | **2.73** | **350** | *e*P | Pn | 06 48 57.5 | +2.1 |
| **KBTR** | **Krutoberegovo** | **2.79** | **16** | *e*P | Pn | 06 48 59.1 | +2.9 |
| KBTR | | | | *e*S | Sn | 06 49 32.3 | +3.7 |
| **KLY** | **Klyuchi** | **2.81** | **351** | *e*P | Pn | 06 49 01.3 | +4.8 |
| **KBG** | **Krutoberegovo** | **2.82** | **15** | *e*S | Sn | 06 49 34.4 | +5.2 |
| **ESO** | **Esso** | **2.87** | **328** | *e*P | Pn | 06 48 59.5 | +3.3 |
| **SMKR** | **Semkarok** | **3.05** | **0** | *e*P | Pn | 06 49 03.5 | +3.7 |
| **SRKR** | **Sorokina** | **3.12** | **357** | *e*P | Pn | 06 49 05.4 | +4.6 |
| **BKI** | **Bering** | **3.14** | **56** | *e*P | Pn | 06 49 04.0 | +3.1 |
| BKI | | | | *e*S | Sn | 06 49 37.6 | +0.6 |

**NNC 21 07:02:05.0±4.4, 37°.03N×69°.69E, h0km, mb4.0, mpv3.6, 5C-4D, Error ellipse: s-maj=35.4km s-min=32.7km az=138.0, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SFK** | **Sufi-Kurgan** | **4.22** | **44** | ⇑Pn | Pn | 07 03 11.2 | +0.4 |
| | 13nm,0.5s | | | | | | |
| SFK | | | | ⇓Sn | Sn | 07 04 03.4 | +2.5 |
| | 13nm,0.4s | | | | | | |
| **MNAS** | **Manas** | **5.86** | **21** | ⇑Pn | Pn | 07 03 34.2 | +0.9 |
| | 1.9nm,0.4s | | | | | | |
| MNAS | | | | ⇑Sn | Sn | 07 04 42.3 | +1.0 |
| | 2.8nm,0.5s | | | | | | |
| **AML** | **Almayashu** | **5.96** | **30** | P | Pn | 07 03 34.3 | -0.6 |
| | SNR=39 | | | | | | |
| **KK31** | **Karatay Array** | **6.10** | **6** | ⇓Pn | Pn | 07 03 38.6 | +2.1 |
| | 0.5nm,0.3s,baz=192,slow=14,SNR=21 | | | | | | |
| KK31 | | | | ⇓Sn | Sn | 07 04 48.2 | +1.3 |
| | 0.7nm,0.3s,baz=197,slow=23,SNR=3.7 | | | | | | |
| **UCH** | **Uchtor** | **6.38** | **34** | P | Pn | 07 03 39.6 | -1.2 |
| | SNR=16 | | | | | | |
| **EKS2** | **Erkin-Say** | **6.44** | **28** | P | Pn | 07 03 40.6 | -0.6 |
| | SNR=25 | | | | | | |
| **KZA** | **Kyzart** | **6.62** | **39** | P | Pn | 07 03 41.9 | -2.1 |
| | SNR=13 | | | | | | |
| **AAK** | **Ala-Archa** | **6.71** | **32** | ⇓Pn | Pn | 07 03 43.6 | -1.3 |
| | 3.8nm,0.3s | | | | | | |
| AAK | | | | ⇑Sn | Sn | 07 05 01.0 | -1.1 |
| | 2.7nm,0.6s | | | | | | |
| **AAK** | **Ala-Archa** | **6.71** | **32** | P | Pn | 07 03 43.9 | -1.1 |
| | SNR=14 | | | | | | |
| **USP** | **Ospenovka** | **7.23** | **29** | P | Pn | 07 03 50.4 | -1.6 |
| | SNR=8.2 | | | | | | |
| **ULHL** | **Ulahol** | **7.26** | **42** | P | Pn | 07 03 49.4 | -3.2 |
| | SNR=6.9 | | | | | | |
| **TKM2** | **Tokmak 2** | **7.42** | **36** | ⇑Pn | Pn | 07 03 51.8 | -3.0 |
| | 3.8nm,0.8s | | | | | | |
| **TKM2** | **Tokmak 2** | **7.42** | **36** | P | Pn | 07 03 52.0 | -2.8 |
| | SNR=7.4 | | | | | | |

*NNC **21** 07:11:35.4±7.7, 53°.21N×87°.66E, h0km, mb3.2, mpv2.9, Error ellipse: s-maj=61.6km s-min=30.2km az=109.0*

**IDC 21 07:11:34.6±2.8, 53°.55N×87°.84E, h0km, mb1 3.1/2, mb1mx2.9/57, mbtmp3.1/2, ML2.8/2, 4C-3D, Error ellipse: s-maj=23.6km s-min=15.8km az=63.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ZAA0** | **Zalesovo Array** | **1.84** | **284** | ⇓Pn | Pn | 07 12 07.0 | -0.3 |
| | 0.6nm,0.5s,baz=105,slow=15 | | | | | | |
| ZAA0 | | | | ⇑Sn | Sg | 07 12 33.4 | -0.1 |
| | 2.6nm,0.8s,baz=120,slow=26 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **1.84** | **284** | Pn | Pn | 07 12 06.9 | -0.5 |
| | 1.7nm,0.3s,baz=102,slow=14,SNR=14 | | | | | | |
| ZALV | | | | Lg | Lg | 07 12 33.2 | |
| | 4.0nm,0.3s,baz=111,slow=24,SNR=13 | | | | | | |
| **I46RU** | **ZALESOVO INFRA** | **1.84** | **284** | *i* | | 07 26 00.0 | |
| | baz=100,slow=346,SNR=1.4 | | | | | | |
| **KURK** | **Kurchatov** | **6.35** | **247** | ⇑Pn | Pn | 07 13 09.2 | -0.1 |
| | 1.4nm,0.7s | | | | | | |
| KURK | | | | ⇓Sn | Sn | 07 14 20.0 | -2.5 |
| | 1.9nm,0.8s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **6.44** | **247** | Pn | Pn | 07 13 11.1 | +0.4 |
| | 0.2nm,0.3s,baz=63,slow=14,SNR=15 | | | | | | |
| KURBB | | | | Sn | Sn | 07 14 23.5 | -1.3 |
| | 0.1nm,0.3s,baz=68,slow=25,SNR=4.2 | | | | | | |
| KURBB | | | | Lg | Lg | 07 14 58.2 | |
| | 0.0nm,0.3s,baz=62,slow=32,SNR=5.3 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **6.44** | **247** | ⇑Pn | Pn | 07 13 10.2 | -0.5 |
| | 1.4nm,0.3s | | | | | | |
| KURBB | | | | ⇓Sn | Sn | 07 14 22.1 | -2.7 |
| | 5.0nm,0.7s | | | | | | |
| KURBB | | | | ⇑Lg | Lg | 07 14 53.8 | |
| | 7.4nm,0.6s | | | | | | |
| **MKAR** | **Makanchi Array** | **7.64** | **210** | Pn | Pn | 07 13 28.8 | +1.6 |
| | 0.2nm,0.3s,baz=26,slow=13,SNR=4.4 | | | | | | |
| MKAR | | | | Sn | Sn | 07 14 54.4 | 0.0 |
| | 0.1nm,0.3s,baz=30,slow=24,SNR=4.2 | | | | | | |
| MKAR | | | | Lg | Lg | 07 15 35.9 | |
| | 0.1nm,0.3s,baz=26,slow=30,SNR=5.8 | | | | | | |

*SKO **21** 07:22:58.3, 39°.82N×20°.47E, h0km, M2.5, ML2.8*
*ATH **21** 07:22:59.8, 39°.95N×20°.66E, h5km±2km, ML2.9/9, Error ellipse: s-maj=2.1km s-min=0.8km az=298.0*
*TIR **21** 07:23:00.1±6.1, 40°.28N×20°.23E, h0km±35km, ML3.4*
*CSEM **21** 07:23:00.9±0.2, 39°.92N×20°.66E, h2km, ML2.9, Error ellipse: s-maj=4.6km s-min=3.5km az=82.0*
*THE **21** 07:23:00.2, 39°.94N×20°.66E, h0km±2km, ML2.8/10, Error ellipse: s-maj=2.4km s-min=0.6km az=304.0*

**ISC 21 07:23:00.3±1.1, 39°.92N±0°.01×20°.65E±0°.02, h1km±10km, n122, σ1§04/156, 5C-2D, Greece-Albania border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JAN** | **Janina** | **0.30** | **149** | P | **Pg** | **07 23 05.5** | **-0.5** |
| JAN | | | | S | **Sg** | **07 23 11.9** | **+2.0** |
| JAN | | | | AML | AML | 07 23 12.4 | |
| | comp=E,18958μm,0.4s | | | | | | |
| JAN | | | | AML | AML | 07 23 12.8 | |
| | comp=N,13278μm,0.3s | | | | | | |
| **JAN** | **Janina** | **0.30** | **149** | P | **Pg** | **07 23 05.5** | **-0.5** |
| JAN | | | | S | **Sg** | **07 23 11.2** | **+1.3** |
| **JAN** | **Janina** | **0.30** | **149** | P | **Pg** | **07 23 05.4** | **-0.6** |
| JAN | | | | S | **Sg** | **07 23 11.2** | **+1.3** |
| **SGD** | **Sagiada** | **0.44** | **227** | P | **Pg** | **07 23 07.8** | **-0.9** |
| **SGD** | **Sagiada** | **0.44** | **227** | P | **Pg** | **07 23 08.2** | **-0.5** |
| **SGD** | **Sagiada** | **0.44** | **227** | P | **Pg** | **07 23 08.2** | **-0.5** |
| **PENT** | **Pentalofos** | **0.47** | **53** | P | **Pg** | **07 23 08.1** | **-1.1** |
| PENT | | | | S | **Sg** | **07 23 15.0** | **-0.3** |
| PENT | | | | AML | AML | 07 23 19.4 | |
| | comp=N,2116μm,0.5s | | | | | | |
| PENT | | | | AML | AML | 07 23 21.2 | |
| | comp=E,1638μm,0.4s | | | | | | |
| **PENT** | **Pentalofos** | **0.47** | **53** | P | **Pg** | **07 23 08.1** | **-1.1** |
| PENT | | | | S | **Sg** | **07 23 15.4** | **+0.1** |
| **PENT** | **Pentalofos** | **0.47** | **53** | P | **Pg** | **07 23 08.1** | **-1.1** |
| PENT | | | | S | **Sg** | **07 23 15.4** | **+0.1** |
| **SRN** | **Sarande** | **0.50** | **266** | *i* PG | **Pg** | **07 23 09.3** | **-0.6** |
| SRN | | | | *i* SG | **Sb** | **07 23 18.9** | **-0.8** |
| **SRN** | **Sarande** | **0.50** | **266** | *i* Pg | **Pg** | **07 23 09.3** | **-0.6** |
| | SNR=90 | | | | | | |
| SRN | | | | *i* Sg | **Sb** | **07 23 18.9** | **-0.8** |
| | SNR=90 | | | | | | |
| **NEST** | **Nestorio** | **0.58** | **31** | P | **Pg** | **07 23 11.2** | **-0.3** |
| NEST | | | | S | **Sg** | **07 23 18.3** | **-0.8** |
| NEST | | | | AML | AML | 07 23 21.8 | |
| | comp=N,1192μm,0.7s | | | | | | |
| NEST | | | | AML | AML | 07 23 26.1 | |
| | comp=E,1118μm,0.4s | | | | | | |
| **NEST** | **Nestorio** | **0.58** | **31** | P | **Pg** | **07 23 11.2** | **-0.3** |
| NEST | | | | S | **Sg** | **07 23 18.3** | **-0.8** |
| **NEST** | **Nestorio** | **0.58** | **31** | P | **Pg** | **07 23 10.8** | **-0.7** |
| NEST | | | | S | **Sg** | **07 23 19.5** | **+0.4** |
| **KEK** | **Kerkira** | **0.69** | **253** | P | **Pg** | **07 23 13.2** | **-0.2** |
| KEK | | | | S | **Sb** | **07 23 24.1** | **-1.0** |
| KEK | | | | AML | AML | 07 23 28.2 | |
| | comp=E,1275μm,0.7s | | | | | | |
| KEK | | | | AML | AML | 07 23 30.5 | |
| | comp=N,1289μm,0.6s | | | | | | |
| **KEK** | **Kerkira** | **0.69** | **253** | P | **Pg** | **07 23 13.2** | **-0.2** |
| KEK | | | | S | **Sb** | **07 23 24.0** | **-1.0** |
| **KEK** | **Kerkira** | **0.69** | **253** | P | **Pg** | **07 23 13.2** | **-0.2** |
| KEK | | | | S | **Sb** | **07 23 24.5** | **-0.6** |
| **KBN** | **Korca** | **0.71** | **8** | *i* PG | **Pg** | **07 23 12.5** | **-1.5** |
| KBN | | | | *i* SG | **Sg** | **07 23 23.1** | **-0.2** |
| **DSL** | **Palaion Diasel** | **0.85** | **156** | P | **Pg** | **07 23 16.0** | **-0.6** |
| DSL | | | | S | **Sg** | **07 23 28.6** | **+0.9** |
| DSL | | | | AML | AML | 07 23 34.8 | |
| | comp=N,2642μm,0.6s | | | | | | |
| DSL | | | | AML | AML | 07 23 37.2 | |
| | comp=E,2108μm,0.7s | | | | | | |
| **DSL** | **Palaion Diasel** | **0.85** | **156** | P | **Pg** | **07 23 16.0** | **-0.6** |
| DSL | | | | S | **Sg** | **07 23 28.6** | **+0.9** |
| **DSL** | **Palaion Diasel** | **0.85** | **156** | P | **Pg** | **07 23 15.8** | **-0.8** |
| DSL | | | | S | **Sb** | **07 23 29.7** | **-0.2** |
| **KZN** | **Kozani** | **0.94** | **65** | P | **Pg** | **07 23 17.6** | **-0.8** |
| **KZN** | **Kozani** | **0.94** | **65** | P | **Pg** | **07 23 17.5** | **-0.8** |
| KZN | | | | S | **Sg** | **07 23 31.3** | **+0.7** |
| **KZN** | **Kozani** | **0.94** | **65** | P | **Pg** | **07 23 17.4** | **-1.0** |
| KZN | | | | S | **Sg** | **07 23 31.3** | **+0.7** |
| **FNA** | **Florina** | **1.03** | **32** | P | **Pg** | **07 23 19.0** | **-1.0** |
| **FNA** | **Florina** | **1.03** | **32** | P | **Pg** | **07 23 19.0** | **-1.0** |
| **FNA** | **Florina** | **1.03** | **32** | P | **Pg** | **07 23 19.0** | **-1.0** |
| **THL** | **Klokotos Trika** | **1.11** | **108** | P | **Pg** | **07 23 20.8** | **-0.7** |
| THL | | | | S | **Sb** | **07 23 37.0** | **-0.2** |
| **THL** | **Klokotos Trika** | **1.11** | **108** | P | **Pg** | **07 23 20.8** | **-0.7** |
| THL | | | | S | **Sb** | **07 23 37.0** | **-0.2** |
| **THL** | **Klokotos Trika** | **1.11** | **108** | P | **Pg** | **07 23 20.4** | **-1.1** |
| THL | | | | S | **Sb** | **07 23 37.3** | **+0.2** |
| **LKD2** | **Lefkada island** | **1.12** | **180** | P | **Pg** | **07 23 22.0** | **+0.2** |
| LKD2 | | | | AML | AML | 07 23 49.7 | |
| | comp=N,959μm,0.7s | | | | | | |
| LKD2 | | | | AML | AML | 07 23 51.3 | |
| | comp=E,1130μm,0.8s | | | | | | |
| **LKD2** | **Lefkada island** | **1.12** | **180** | P | **Pg** | **07 23 22.0** | **+0.2** |
| LKD2 | | | | S | **Sn** | **07 23 38.7** | **-0.6** |
| **LKD2** | **Lefkada island** | **1.12** | **180** | P | **Pg** | **07 23 21.4** | **-0.4** |
| LKD2 | | | | S | **Sn** | **07 23 38.7** | **-0.6** |
| **OHR** | **Ohrid** | **1.20** | **5** | *e*Pn | **Pg** | **07 23 23.0** | **-0.2** |
| OHR | | | | *e*Sg | **Sn** | **07 23 41.1** | **-0.2** |
| OHR | | | | *e*Lg | Lg | 07 23 44.1 | |
| | comp=E,203nm,0.6s | | | | | | |
| OHR | | | | *e*Lg | Lg | 07 23 45.7 | |
| | comp=N,285nm,1.1s | | | | | | |
| **BIA** | **Bitola** | **1.22** | **25** | *e*Pg | **Pg** | **07 23 22.6** | **-1.0** |
| BIA | | | | *e*Sg | **Sn** | **07 23 41.5** | **-0.1** |
| **EVR** | **Evrytania** | **1.34** | **138** | P | **Pg** | **07 23 24.3** | **-1.7** |
| **EVR** | **Evrytania** | **1.34** | **138** | P | **Pg** | **07 23 24.9** | **-1.1** |
| **EVR** | **Evrytania** | **1.34** | **138** | P | **Pg** | **07 23 24.9** | **-1.1** |
| **PDO** | **Prodromos** | **1.38** | **162** | P | **Pb** | **07 23 26.9** | **+0.1** |
| PDO | | | | AML | AML | 07 23 53.9 | |
| | comp=N,1142μm,0.5s | | | | | | |
| PDO | | | | AML | AML | 07 23 55.3 | |
| | comp=E,1339μm,0.5s | | | | | | |
| **PDO** | **Prodromos** | **1.38** | **162** | P | **Pb** | **07 23 27.0** | **+0.1** |
| **PDO** | **Prodromos** | **1.38** | **162** | P | **Pn** | **07 23 26.3** | **-0.4** |
| **LIT** | **Litokhoron** | **1.42** | **82** | P | **Pn** | **07 23 27.2** | **-0.1** |
| **LIT** | **Litokhoron** | **1.42** | **82** | P | **Pn** | **07 23 27.2** | **-0.1** |
| **LIT** | **Litokhoron** | **1.42** | **82** | P | **Pn** | **07 23 27.1** | **-0.2** |
| **PVO** | **Paravola** | **1.46** | **152** | P | **Pn** | **07 23 28.0** | **+0.2** |
| **PVO** | **Paravola** | **1.46** | **152** | P | **Pn** | **07 23 28.0** | **+0.2** |
| **KRUS** | **Krusevo** | **1.52** | **17** | *e*Pn | Pn | 07 23 28.3 | -0.4 |
| KRUS | | | | *e*Sg | **Sn** | **07 23 50.2** | **+1.0** |
| **TIR** | **Tirane** | **1.55** | **338** | *i* PG | Pn | 07 23 23.1 | -5.9 |
| **TIR** | **Tirane** | **1.55** | **338** | ⇓*i* P | **Pg** | **07 23 31.8** | **+1.8** |
| **TIR** | **Tirane** | **1.55** | **338** | P | **Pg** | **07 23 30.2** | **+0.2** |
| **TIR** | **Tirane** | **1.55** | **338** | P | **Pg** | **07 23 30.2** | **+0.2** |
| **AGG** | **Agios Georgios** | **1.58** | **124** | P | **Pn** | **07 23 28.8** | **-0.6** |
| AGG | | | | AML | AML | 07 24 01.4 | |
| | comp=N,1377μm,0.4s | | | | | | |
| AGG | | | | AML | AML | 07 24 01.7 | |
| | comp=E,1708μm,0.7s | | | | | | |
| **AGG** | **Agios Georgios** | **1.58** | **124** | P | **Pn** | **07 23 29.2** | **-0.2** |
| AGG | | | | S | **Sn** | **07 23 50.6** | **+0.1** |
| **AGG** | **Agios Georgios** | **1.58** | **124** | P | **Pn** | **07 23 29.2** | **-0.2** |
| AGG | | | | S | **Sn** | **07 23 50.6** | **+0.1** |
| **ANX** | **Ano Chora** | **1.65** | **143** | P | **Pn** | **07 23 30.9** | **+0.5** |
| ANX | | | | AML | AML | 07 24 02.8 | |
| | comp=N,1022μm,0.6s | | | | | | |
| ANX | | | | AML | AML | 07 24 06.5 | |
| | comp=Z,815μm,0.6s | | | | | | |
| **ANX** | **Ano Chora** | **1.65** | **143** | P | **Pn** | **07 23 30.9** | **+0.5** |
| ANX | | | | S | **Sb** | **07 23 52.9** | **+0.1** |
| **ANX** | **Ano Chora** | **1.65** | **143** | P | **Pn** | **07 23 30.7** | **+0.2** |
| ANX | | | | S | **Sb** | **07 23 52.9** | **+0.1** |
| **SCTE** | **Santa Cesarea** | **1.69** | **276** | P | **Pn** | **07 23 29.9** | **-0.9** |
| **SCTE** | **Santa Cesarea** | **1.69** | **276** | P | **Pn** | **07 23 29.9** | **-0.9** |
| **GRG** | **Griva** | **1.69** | **52** | P | **Pn** | **07 23 29.6** | **-1.4** |
| **GRG** | **Griva** | **1.69** | **52** | P | **Pn** | **07 23 30.2** | **-0.8** |
| **GRG** | **Griva** | **1.69** | **52** | P | **Pn** | **07 23 30.2** | **-0.8** |
| **VLS** | **Valsamata** | **1.74** | **182** | P | **Pn** | **07 23 32.1** | **+0.6** |
| **VLS** | **Valsamata** | **1.74** | **182** | P | **Pn** | **07 23 32.2** | **+0.6** |
| **PHP** | **Peshkopia** | **1.77** | **355** | *i* PN | **Pn** | **07 23 32.1** | **0.0** |
| **PHP** | **Peshkopia** | **1.77** | **355** | *i* Pn | **Pn** | **07 23 32.2** | **0.0** |
| | SNR=40 | | | | | | |
| **EFP** | **Efpalio** | **1.78** | **146** | P | **Pg** | **07 23 34.5** | **+0.2** |
| **EFP** | **Efpalio** | **1.78** | **146** | P | **Pb** | **07 23 33.2** | **-0.4** |
| **EFP** | **Efpalio** | **1.78** | **146** | P | **Pb** | **07 23 33.2** | **-0.4** |
| **AXS** | **Araxos** | **1.81** | **162** | P | **Pb** | **07 23 33.6** | **-0.5** |
| **AXS** | **Araxos** | **1.81** | **162** | P | **Pb** | **07 23 33.7** | **-0.5** |
| **SERG** | **Sergoula** | **1.86** | **143** | P | **Pb** | **07 23 35.3** | **+0.3** |
| **SERG** | **Sergoula** | **1.86** | **143** | P | **Pb** | **07 23 34.3** | **-0.7** |
| **SERG** | **Sergoula** | **1.86** | **143** | P | **Pb** | **07 23 34.3** | **-0.7** |
| **TRIZ** | **Trizonia** | **1.90** | **144** | P | **Pb** | **07 23 35.7** | **0.0** |
| **TRIZ** | **Trizonia** | **1.90** | **144** | P | **Pb** | **07 23 35.7** | **0.0** |
| **KALE** | **Kalithea** | **1.91** | **142** | P | **Pn** | **07 23 34.9** | **+0.9** |
| **KALE** | **Kalithea** | **1.91** | **142** | P | **Pn** | **07 23 34.9** | **+0.9** |
| **KALE** | **Kalithea** | **1.91** | **142** | P | **Pb** | **07 23 35.1** | **-0.9** |
| **RLS** | **Riolos of Patr** | **1.96** | **161** | P | **Pb** | **07 23 36.5** | **-0.3** |
| **RLS** | **Riolos of Patr** | **1.96** | **161** | P | **Pb** | **07 23 36.5** | **-0.3** |
| **LAKA** | **Lakka** | **1.97** | **148** | P | **Pb** | **07 23 36.5** | **-0.4** |
| **LAKA** | **Lakka** | **1.97** | **148** | P | **Pb** | **07 23 36.5** | **-0.4** |
| **HORT** | **Hortiatis** | **1.99** | **69** | P | **Pn** | **07 23 33.5** | **-1.7** |
| **HORT** | **Hortiatis** | **1.99** | **69** | P | **Pn** | **07 23 33.5** | **-1.7** |
| **VAY** | **Valandovo** | **2.03** | **46** | *e*Pn | **Pn** | **07 23 36.4** | **+0.9** |
| VAY | | | | *e*Sg | **Sg** | **07 24 08.6** | **+3.2** |
| VAY | | | | *e*Lg | Lg | 07 24 10.2 | |
| | comp=N,43nm,0.5s | | | | | | |
| VAY | | | | *e*Lg | Lg | 07 24 11.9 | |
| | comp=E,39nm,0.7s | | | | | | |
| **XOR** | **Xorichti** | **2.04** | **105** | P | **Pb** | **07 23 37.9** | **-0.2** |
| **XOR** | **Xorichti** | **2.04** | **105** | P | **Pb** | **07 23 37.9** | **-0.2** |
| **KNT** | **Kendrikon** | **2.12** | **53** | P | **Pb** | **07 23 37.0** | **+0.2** |
| **KNT** | **Kendrikon** | **2.12** | **53** | P | **Pb** | **07 23 37.0** | **+0.2** |
| **SKO** | **Skopje** | **2.14** | **16** | *e*Pn | Pn | 07 23 37.4 | +0.2 |
| **PLG** | **Polygyros** | **2.19** | **77** | P | **Pb** | **07 23 40.3** | **-0.4** |
| **PLG** | **Polygyros** | **2.19** | **77** | P | **Pb** | **07 23 40.3** | **-0.4** |
| **PUK** | **Puka** | **2.20** | **345** | *i* PN | **Pn** | **07 23 39.3** | **+1.2** |
| **PUK** | **Puka** | **2.20** | **345** | *i* Pn | **Pn** | **07 23 39.3** | **+1.2** |
| | SNR=40 | | | | | | |
| **KLV** | **Kalavryta, Ach** | **2.20** | **148** | P | **Pb** | **07 23 40.5** | **-0.5** |
| **KLV** | **Kalavryta, Ach** | **2.20**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CAIG | | | | *i* S | Sn | 07 32 35.0 | -2.1 |
| **MEIG** | **Mezcala** | **1.30** | **78** | *e*P | Pn | 07 32 29.0 | -1.9 |
| MEIG | | | | *i* S | Sn | 07 32 45.1 | -2.1 |
| **PLIG** | **Platanillo** | **1.57** | **62** | *e*P | Pn | 07 32 33.1 | -1.3 |
| PLIG | | | | *i* S | Sn | 07 32 51.7 | -2.1 |
| **TLIG** | **Tlapa** | **2.28** | **92** | *e*P | Pn | 07 32 43.3 | -1.0 |
| TLIG | | | | *i* S | Sn | 07 33 08.9 | -2.4 |
| **PNIG** | **Pinotepa** | **2.98** | **114** | *e*P | Pn | 07 32 53.1 | -0.7 |
| PNIG | | | | *i* S | Sn | 07 33 25.1 | -3.2 |

*ISCJB* ***21*** *07:37:13.9±0.3, 44.4°N±0.02×6.72E±0.02, h6km±3km, Error ellipse: s-maj=3.1km s-min=2.3km az=141.6*
*CSEM* ***21*** *07:37:14.5±0.1, 44.45°N×6.75E, h8km, ML2.5/15, Error ellipse: s-maj=1.6km s-min=1.3km az=47.0*
*GEN* ***21*** *07:37:14.4, 44.44°N×6.75E, h0km, ML1.9*
*ROM* ***21*** *07:37:14.7±0.2, 44.46°N×6.81E, h10km±1km, Md2.0/9, Ml1.8/5, Error ellipse: s-maj=2.3km s-min=1.0km az=58.0*
*LDG* ***21*** *07:37:15.1±0.1, 44.46°N×6.77E, h2km, Md2.6/4, Ml2.6/9, Error ellipse: s-maj=1.8km s-min=1.3km az=49.0*

**ISC 21 07:37:14.7±0.9, 44.45°N±0.02×6.76°E±0.02, h12km±7km, n64, σ0.971/114, France**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PZZ** | **Stroppo** | **0.26** | **78** | Pg | **Pg** | **07 37 20.2** | **0.0** |
| PZZ | | | | Sg | **Sg** | **07 37 23.9** | **0.0** |
| **MBDF** | **Montbardon** SNR=1.0 | **0.27** | **2** | *e*Pg | **Pg** | **07 37 20.2** | **-0.2** |
| MBDF | 178nm,0.3s | | | *e*Sg | **Sg** | **07 37 24.1** | **-0.2** |
| **MBDF** | **Montbardon** SNR=1.0 | **0.27** | **2** | *e*Pg | **Pg** | **07 37 20.2** | **-0.2** |
| MBDF | 89nm,0.3s | | | *e*Sg | **Sg** | **07 37 24.1** | **-0.2** |
| **DOI** | **San Damiano** | **0.35** | **82** | Pg | **Pg** | **07 37 21.8** | **0.0** |
| DOI | | | | Sg | **Sg** | **07 37 26.8** | **+0.3** |
| **DOI** | **San Damiano** | **0.35** | **82** | Pg | **Pg** | **07 37 21.8** | **0.0** |
| DOI | | | | Sg | **Sg** | **07 37 26.8** | **+0.3** |
| **STV** | **Sant Anna di V** | **0.46** | **117** | Pg | **Pg** | **07 37 23.7** | **0.0** |
| STV | 65nm,0.2s | | | Sg | **Sg** | **07 37 29.7** | **-0.1** |
| **STV** | **Sant Anna di V** | **0.46** | **117** | P | **Pg** | **07 37 23.7** | **0.0** |
| STV | 65nm,0.2s | | | Sg | **Sg** | **07 37 29.7** | **-0.1** |
| **RRL** | **Rocca Remolon** | **0.47** | **3** | Pg | **Pg** | **07 37 23.9** | **0.0** |
| RRL | 67nm,0.4s | | | Sg | **Sg** | **07 37 30.8** | **+0.6** |
| **RRL** | **Rocca Remolon** | **0.47** | **3** | P | **Pg** | **07 37 23.9** | **0.0** |
| RRL | | | | S | **Sg** | **07 37 30.8** | **+0.6** |
| **ENR** | **Entracque** | **0.53** | **115** | Pg | **Pg** | **07 37 24.9** | **-0.1** |
| ENR | 55nm,0.1s | | | Sg | **Sg** | **07 37 31.7** | **-0.3** |
| **ENR** | **Entracque** | **0.53** | **115** | Pg | **Pg** | **07 37 24.9** | **-0.1** |
| ENR | 55nm,0.1s | | | Sg | **Sg** | **07 37 31.7** | **-0.3** |
| ENR | | | | S | **Sb** | **07 37 32.2** | **-1.3** |
| **BHB** | **Bricherasio** | **0.53** | **43** | Pg | **Pg** | **07 37 24.9** | **-0.1** |
| BHB | 88nm,0.2s | | | Sg | **Sg** | **07 37 32.0** | **-0.1** |
| **BHB** | **Bricherasio** | **0.53** | **43** | P | **Pg** | **07 37 24.9** | **-0.1** |
| BHB | | | | S | **Sg** | **07 37 32.0** | **-0.1** |
| **BNI** | **Bardonecchia** | **0.60** | **355** | Pg | **Pg** | **07 37 26.3** | **-0.1** |
| BNI | 138nm,2.3s | | | Sg | **Sg** | **07 37 34.8** | **+0.4** |
| **BNI** | **Bardonecchia** | **0.60** | **355** | Pg | **Pg** | **07 37 26.3** | **-0.1** |
| BNI | 138nm,2.3s | | | Sg | **Sg** | **07 37 34.8** | **+0.4** |
| **SBF** | **Sospel** SNR=1.0 | **0.77** | **140** | *e*Pg | **Pg** | **07 37 29.6** | **+0.1** |
| **SBF** | **Sospel** | **0.77** | **140** | *e*Pn | **Pn** | **07 37 31.8** | **+0.5** |
| SBF | 19nm,0.2s,SNR=1.0 | | | *e*Sg | **Sg** | **07 37 39.6** | **+0.1** |
| **SBF** | **Sospel** SNR=1.0 | **0.77** | **140** | *e*Pg | **Pg** | **07 37 29.6** | **+0.1** |
| **SBF** | **Sospel** | **0.77** | **140** | *e*Pn | **Pn** | **07 37 31.8** | **+0.5** |
| SBF | 9.3nm,0.2s,SNR=1.0 | | | *e*Sg | **Sg** | **07 37 39.6** | **+0.1** |
| **ORIF** | **Oris-en-Rattie** SNR=1.0 | **0.78** | **307** | *e*Pg | **Pg** | **07 37 29.2** | **-0.6** |
| ORIF | 43nm,0.4s,SNR=1.0 | | | *e*Sg | **Sg** | **07 37 38.3** | **-1.7** |
| **ORIF** | **Oris-en-Rattie** SNR=1.0 | **0.78** | **307** | *e*Pg | **Pg** | **07 37 29.2** | **-0.6** |
| ORIF | 22nm,0.4s,SNR=1.0 | | | *e*Sg | **Sg** | **07 37 38.3** | **-1.7** |
| **RSP** | **Reno Superiore** | **0.78** | **27** | Pg | **Pg** | **07 37 29.7** | **-0.1** |
| RSP | | | | Sg | **Sg** | **07 37 39.9** | **-0.2** |
| **RSP** | **Reno Superiore** | **0.78** | **27** | Pg | **Pg** | **07 37 29.7** | **-0.1** |
| RSP | | | | Sg | **Sg** | **07 37 39.9** | **-0.2** |
| RSP | | | | S | **Sb** | **07 37 41.0** | **+0.1** |
| **GBOS** | **Grotte di Boss** | **0.80** | **105** | Pg | **Pg** | **07 37 30.1** | **-0.1** |
| GBOS | | | | Sg | **Sg** | **07 37 40.7** | **0.0** |
| **GBOS** | **Grotte di Boss** | **0.80** | **105** | Pg | **Pg** | **07 37 30.1** | **-0.1** |
| GBOS | | | | Sg | **Sg** | **07 37 40.7** | **0.0** |
| **FRF** | **La Foret Royal** SNR=1.0 | **0.90** | **185** | *e*Pg | **Pg** | **07 37 31.7** | **-0.2** |
| FRF | 44nm,0.2s,SNR=1.0 | | | *e*Sg | **Sg** | **07 37 43.4** | **-0.2** |
| **FRF** | **La Foret Royal** SNR=1.0 | **0.90** | **185** | *e*Pg | **Pg** | **07 37 31.7** | **-0.2** |
| FRF | 22nm,0.2s,SNR=1.0 | | | *e*Sg | **Sg** | **07 37 43.4** | **-0.2** |
| **NEGI** | **Seborga** | **0.91** | **131** | P | **Pg** | **07 37 32.2** | **0.0** |
| NEGI | | | | S | **Sb** | **07 37 44.8** | **+0.3** |
| **SMRF** | **Simiane la Rot** SNR=1.0 | **0.98** | **241** | *e*Pg | **Pb** | **07 37 34.1** | **+0.6** |
| SMRF | 19nm,0.2s,SNR=1.0 | | | *e*Sn | **Sb** | **07 37 47.9** | **+1.5** |
| **SMRF** | **Simiane la Rot** SNR=1.0 | **0.98** | **241** | *e*Pg | **Pb** | **07 37 34.1** | **+0.6** |
| SMRF | 9.7nm,0.2s,SNR=1.0 | | | *e*Sn | **Sb** | **07 37 47.9** | **+1.5** |
| **IMI** | **Imperia** | **0.98** | **123** | P | **Pg** | **07 37 33.2** | **-0.3** |
| IMI | | | | S | **Sg** | **07 37 46.5** | **+0.2** |
| **RORO** | **Rocca Rossa** | **1.00** | **110** | P | **Pg** | **07 37 33.4** | **-0.5** |
| RORO | | | | S | **Sg** | **07 37 47.0** | **+0.1** |
| **LSD** | **Lago del Serru** | **1.04** | **15** | P | **Pg** | **07 37 34.4** | **-0.3** |
| LSD | | | | S | **Sb** | **07 37 48.6** | **+0.1** |
| **LPG** | **La Plagne** SNR=1.0 | **1.04** | **360** | *e*Pg | **Pg** | **07 37 34.4** | **-0.4** |
| LPG | 14nm,0.3s,SNR=1.0 | | | *e*Sg | **Sg** | **07 37 48.3** | **-0.2** |
| **LPG** | **La Plagne** SNR=1.0 | **1.04** | **360** | *e*Pg | **Pg** | **07 37 34.4** | **-0.4** |
| LPG | 6.8nm,0.3s,SNR=1.0 | | | *e*Sg | **Sg** | **07 37 48.3** | **-0.2** |
| **LPL** | **La Plagne** SNR=1.0 | **1.06** | **359** | *e*Pg | **Pg** | **07 37 34.7** | **-0.5** |
| LPL | 12nm,0.3s,SNR=1.0 | | | *e*Sg | **Sb** | **07 37 49.2** | **+0.1** |
| **LPL** | **La Plagne** SNR=1.0 | **1.06** | **359** | *e*Pg | **Pg** | **07 37 34.7** | **-0.5** |
| LPL | 5.9nm,0.3s,SNR=1.0 | | | *e*Sg | **Sb** | **07 37 49.2** | **+0.1** |
| **LMR** | **La Mourre** SNR=1.0 | **1.13** | **189** | *e*Pn | **Pg** | **07 37 36.6** | **+0.1** |
| LMR | 21nm,0.2s,SNR=1.0 | | | *e*Sg | **Sg** | **07 37 50.7** | **-0.5** |
| **LMR** | **La Mourre** SNR=1.0 | **1.13** | **189** | *e*Pn | **Pg** | **07 37 36.6** | **+0.1** |
| LMR | 11nm,0.2s,SNR=1.0 | | | *e*Sg | **Sg** | **07 37 50.7** | **-0.5** |
| **PCP** | **Piancastagn** | **1.28** | **85** | P | **Pn** | **07 37 38.3** | **-0.1** |
| PCP | | | | S | **Sg** | **07 37 55.7** | **-0.2** |
| **VIVF** | **Saint-Julien-l** SNR=1.0 | **1.54** | **286** | *e*Pn | **Pn** | **07 37 42.6** | **+0.6** |
| **VIVF** | **Saint-Julien-l** | **1.54** | **286** | *e*Pg | **Pg** | **07 37 44.3** | **0.0** |
| VIVF | 14nm,0.3s,SNR=1.0 | | | *e*Sn | **Sn** | **07 38 02.4** | **+0.4** |
| **VIVF** | **Saint-Julien-l** SNR=1.0 | **1.54** | **286** | *e*Pn | **Pn** | **07 37 42.6** | **+0.6** |
| **VIVF** | **Saint-Julien-l** | **1.54** | **286** | *e*Pg | **Pg** | **07 37 44.3** | **0.0** |
| VIVF | 6.9nm,0.3s,SNR=1.0 | | | *e*Sn | **Sn** | **07 38 02.4** | **+0.4** |
| **LASF** | **Ste Croix** | **2.12** | **261** | *e*Pn | **Pn** | **07 37 50.1** | **+0.2** |
| **LASF** | **Ste Croix** | **2.12** | **261** | *e*Pg | **Pg** | **07 37 54.8** | **-0.5** |
| LASF | 2.2nm,0.2s,SNR=1.0 | | | *e*Sn | **Sn** | **07 38 15.7** | **-0.5** |
| **LASF** | **Ste Croix** | **2.12** | **261** | *e*Pn | **Pn** | **07 37 50.1** | **+0.2** |
| **LASF** | **Ste Croix** | **2.12** | **261** | *e*Pg | **Pg** | **07 37 54.8** | **-0.5** |
| LASF | 1.1nm,0.2s,SNR=1.0 | | | *e*Sn | **Sn** | **07 38 15.7** | **-0.5** |
| **CABF** | **La Chapelle** SNR=1.0 | **2.21** | **348** | *e*Pg | **Pb** | **07 37 53.4** | **-1.2** |
| CABF | 6.6nm,0.6s,SNR=1.0 | | | *e*Sg | **Sg** | **07 38 27.4** | **+1.8** |
| **CABF** | **La Chapelle** SNR=1.0 | **2.21** | **348** | *e*Pg | **Pb** | **07 37 53.4** | **-1.2** |
| CABF | 3.3nm,0.6s,SNR=1.0 | | | *e*Sg | **Sg** | **07 38 27.4** | **+1.8** |
| **PGF** | **Pioggiola** | **2.51** | **139** | *e*Pn | **Pn** | **07 37 56.2** | **+0.9** |
| PGF | 2.5nm,0.2s,SNR=1.0 | | | *e*Sn | **Sn** | **07 38 24.7** | **-1.2** |
| **PGF** | **Pioggiola** | **2.51** | **139** | *e*Pn | **Pn** | **07 37 56.2** | **+0.9** |
| PGF | 1.2nm,0.2s,SNR=1.0 | | | *e*Sn | **Sn** | **07 38 24.7** | **-1.2** |
| **AVF** | **Avril sur Loir** | **3.34** | **316** | *e*Pn | **Pn** | **07 38 08.6** | **+1.9** |
| AVF | | | | *e*Sg | **Sg** | **07 39 00.3** | **-1.7** |
| **AVF** | **Avril sur Loir** | **3.34** | **316** | *e*Pn | **Pn** | **07 38 08.6** | **+1.9** |
| AVF | | | | *e*Sg | **Sg** | **07 39 00.3** | **-1.7** |
| **CAF** | **Calviac** SNR=1.0 | **3.38** | **280** | *e*Pn | **Pn** | **07 38 06.8** | **-0.5** |
| **CAF** | **Calviac** SNR=1.0 | **3.38** | **280** | *e*Pn | **Pn** | **07 38 06.8** | **-0.5** |
| **BGF** | **Bois d'Agland** SNR=1.0 | **3.46** | **309** | *e*Pn | **Pn** | **07 38 09.8** | **+1.4** |
| **BGF** | **Bois d'Agland** SNR=1.0 | **3.46** | **309** | *e*Pn | **Pn** | **07 38 09.8** | **+1.4** |
| **HAU** | **Haudompre** | **3.56** | **356** | *e*Pn | **Pn** | **07 38 10.9** | **+1.1** |
| **HAU** | **Haudompre** | **3.56** | **356** | *e*Pn | **Pn** | **07 38 10.9** | **+1.1** |
| **CDF** | **Champ du Feu** SNR=1.0 | **3.98** | **5** | *e*Pn | **Pn** | **07 38 16.1** | **+0.6** |
| **CDF** | **Champ du Feu** SNR=1.0 | **3.98** | **5** | *e*Pn | **Pn** | **07 38 16.1** | **+0.6** |
| **GRR** | **Gorron** SNR=1.0 | **6.57** | **309** | *e*Pn | **Pn** | **07 38 52.1** | **+1.0** |
| **GRR** | **Gorron** SNR=1.0 | **6.57** | **309** | *e*Pn | **Pn** | **07 38 52.1** | **+1.0** |

*NIED* ***21*** *08:02:00, 42.00°N×141.10E, h104km, Mw4.2 Best double couple: M0 1.89000×10^15 NP1:φs70.00000°, δ30.00000°, λ149.00000°. NP2:φs187.00000°, δ75.00000°, λ63.00000°.*
*ISCJB* ***21*** *08:02:10.2±0.3, 41.98°N±0.03×141.08E±0.04, h118km±2km, mb4.0/16, Error ellipse: s-maj=5.8km s-min=4.5km az=32.7*
*IDC* ***21*** *08:02:10.5±1.1, 42.01°N×141.05E, h108km±10km, mb3.7/15, mb1 3.9/22, mb1mx3.8/36, mbtmp4.1/22, MS2.5/2, Ms1 2.5/2, ms1mx2.2/41, Error ellipse: s-maj=14.3km s-min=9.3km az=131.0*
*JMA* ***21*** *08:02:11.4±0.1, 42.00°N×141.07E, h110km±1km, M3.4*
*JMA Felt I J1.*

**ISC 21 08:02:10.8±0.6, 41.93°N±0.04×141.06°E±0.04, h113km±5km, n60, σ1.927/69, mb4.0/16, Hokkaido region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JKB** | **Kayabe** | **0.05** | **204** | P | **Pn** | **08 02 26.6** | **+0.3** |
| JKB | | | | *e*S | **Sn** | **08 02 37.9** | **0.0** |
| **JNB** | **Noboribetsu** | **0.54** | **358** | P | **Pn** | **08 02 27.8** | **-0.4** |
| JNB | | | | *e*S | **Sn** | **08 02 40.6** | **-0.7** |
| **JYM2** | **Yakumo 2** | **0.55** | **290** | P | **Pn** | **08 02 28.5** | **+0.2** |
| **JOT** | **Ohata** | **0.55** | **181** | P | **Pn** | **08 02 29.1** | **+0.8** |
| **JSR** | **Shiriuchi** | **0.63** | **230** | P | **Pn** | **08 02 29.7** | **+0.9** |
| JSR | | | | *e*S | **Sn** | **08 02 43.1** | **+0.7** |
| **JEW** | **Eniwo** | **0.95** | **18** | P | **Pn** | **08 02 31.9** | **+0.2** |
| **JSH** | **Shimam** | **1.03** | **314** | P | **Pn** | **08 02 32.8** | **+0.2** |
| JSH | | | | *e*S | **Sn** | **08 02 49.0** | **0.0** |
| **JTM** | **Tenmabayashi** | **1.14** | **180** | P | **Pn** | **08 02 35.0** | **+1.2** |
| JTM | | | | *e*S | **Sn** | **08 02 52.8** | **+1.7** |
| **JOSM** | **Okushiri--Mats** | **1.19** | **278** | P | **Pn** | **08 02 34.3** | **+0.1** |
| JOSM | | | | *e*S | **Sn** | **08 02 51.8** | **-0.1** |
| **JBT2** | **Biratori 2** | **1.28** | **48** | P | **Pn** | **08 02 35.4** | **+0.1** |
| **JNBK** | **Urakawa-nobuka** | **1.31** | **74** | P | **Pn** | **08 02 35.6** | **+0.1** |
| JNBK | | | | *e*S | **Sn** | **08 02 55.3** | **+1.0** |
| **JSK** | **Shakotan** | **1.48** | **343** | P | **Pn** | **08 02 37.8** | **+0.3** |
| JSK | | | | *e*S | **Sn** | **08 02 57.7** | **-0.2** |
| **JANG** | **Nango** | **1.59** | **167** | P | **Pn** | **08 02 39.4** | **+0.5** |
| JANG | | | | *e*S | **Sn** | **08 03 00.7** | **+0.4** |
| **JFR** | **Furan** | **1.67** | **42** | P | **Pn** | **08 02 39.3** | **-0.6** |
| **JCH** | **Churui** | **1.84** | **67** | P | **Pn** | **08 02 42.1** | **+0.2** |
| JCH | | | | *e*S | **Sn** | **08 03 04.9** | **-0.7** |
| **JHR** | **Hokuryu** | **1.88** | **15** | P | **Pn** | **08 02 43.1** | **+0.8** |
| JHR | | | | *e*S | **Sn** | **08 03 07.8** | **+1.4** |
| **ASAJ** | **Asahikawa** 20nm,0.3s,baz=226,slow=12,SNR=85 | **2.46** | **27** | P | **Pn** | **08 02 50.0** | **+0.2** |
| ASAJ | 10nm,0.3s,baz=311,slow=31,SNR=5.4 | | | S | **Sn** | **08 03 17.2** | **-2.4** |
| **MAT** | **Matsushiro** | **5.82** | **203** | P | **Pn** | **08 03 37.0** | **+2.2** |
| **MJAR** | **Matsushiro Arr** 1.2nm,0.3s,baz=9.0,slow=13,SNR=8.2 | **5.82** | **203** | P | **Pn** | **08 03 36.3** | **+1.5** |
| **USRK** | **Ussuriysk Ar.** 2.7nm,0.3s,baz=97,slow=16,SNR=79 | **7.02** | **292** | P | **Pn** | **08 03 52.0** | **+1.1** |
| **JHJ** | **Hachijo jima 2** 8.7nm,0.3s,baz=9.6,slow=14,SNR=4.5 | **8.86** | **187** | P | **Pn** | **08 04 14.8** | **-1.1** |
| JHJ | 8.9nm,0.3s,baz=12,slow=20,SNR=4.1 | | | S | **Sn** | **08 05 46.6** | **-7.3** |
| **KLR** | **Kul'dur** 0.0nm,0.3s,baz=131,slow=13,SNR=10 | **9.78** | **321** | P | **Pn** | **08 04 28.6** | **+0.3** |
| **KSRS** | **Korea Array** 0.1nm,0.3s,baz=64,slow=12,SNR=5.5 | **11.06** | **250** | P | **Pn** | **08 04 47.4** | **+1.8** |
| KSRS | comp=Z,33nm,21.6s,baz=104,slow=33 | | | LR | LR | 08 08 20.4 | |
| **PETK** | **Petropavlovsk-** 0.2nm,0.3s,baz=226,slow=12,SNR=4.5 | **15.81** | **39** | P | **Pn** | **08 05 46.7** | **-0.2** |
| PETK | comp=Z,17nm,20.3s,baz=66,slow=36 | | | LR | LR | 08 11 45.7 | |
| **MA2** | **Magadan** 0.2nm,0.3s,baz=194,slow=13,SNR=4.6 | **18.67** | **16** | P | **P** | **08 06 18.0** | **-1.7** |
| **SEY** | **Seymchan** 1.4nm,0.4s,baz=85,slow=8.7,SNR=13 | **22.07** | **14** | P | **P** | **08 06 54.7** | **-1.5** |
| **SONM** | **Songino Array** 2.0nm,0.5s,baz=203,slow=15,SNR=9.0 | **25.11** | **295** | P | **P** | **08 07 24.3** | **-0.8** |
| **H11N2** | **WAKE ISLAND Hy 31.12** baz=322,slow=75,SNR=12 | **127** | | T | T | 08 40 53.1 | |
| **H11N1** | **WAKE ISLAND Hy 31.13** baz=322,slow=75,SNR=12 | **127** | | T | T | 08 40 34.4 | |
| **H11N3** | **WAKE ISLAND Hy 31.14** baz=322,slow=75,SNR=14 | **127** | | T | T | 08 41 02.7 | |
| **H11S1** | **WAKE ISLAND Hy 31.96** baz=323,slow=76,SNR=17 | **129** | | T | T | 08 41 36.6 | |
| **H11S3** | **WAKE ISLAND Hy 31.97** baz=323,slow=76,SNR=13 | **129** | | T | T | 08 41 52.5 | |
| **H11S2** | **WAKE ISLAND Hy 31.98** baz=323,slow=76,SNR=13 | **129** | | T | T | 08 41 50.2 | |
| **ZALV** | **Zalesovo Beam** 25nm,0.4s,baz=90,slow=8.9,SNR=69 | **38.55** | **308** | P | **P** | **08 09 22.0** | **-0.1** |
| **MKAR** | **Makanchi Array** 5.9nm,0.6s,baz=84,slow=9.2,SNR=48 | **41.45** | **297** | P | **P** | **08 09 46.1** | **-0.1** |
| **CMAR** | **Chiang Mai Arr** 0.9nm,0.3s,baz=40,slow=7.8,SNR=4.2 | **42.70** | **250** | P | **P** | **08 09 57.2** | **+0.5** |
| **TAPN** | **Taplejung** | **45.54** | **269** | *e*P | **P** | **08 10 20.4** | **+0.8** |
| **ILAR** | **Eielson Array** 5.5nm,0.9s,baz=272,slow=6.5,SNR=49 | **45.57** | **35** | P | **P** | **08 10 19.3** | **+0.3** |
| **JIRN** | **Jiri** | **46.51** | **270** | *e*P | **P** | **08 10 28.2** | **+1.0** |
| **RAMN** | **Ramite** 28nm,0.6s | **46.58** | **269** | *e*P | **P** | **08 10 28.6** | **+0.9** |
| **GUN** | **Gumba** 49nm,0.4s | **46.60** | **271** | *e*P | **P** | **08 10 28.4** | **+0.4** |
| **KKN** | **Kakani** 17nm,0.5s | **47.11** | **271** | *e*P | **P** | **08 10 32.0** | **+0.2** |
| **PKI** | **Pulchoki** 9.8nm,0.5s | **47.14** | **271** | *e*P | **P** | **08 10 33.0** | **+0.9** |
| **PKIN** | **Phulchoki** 25nm,0.6s | **47.14** | **271** | *e*P | **P** | **08 10 32.5** | **+0.4** |
| **DMN** | **Daman** 13nm,0.5s | **47.34** | **271** | *e*P | **P** | **08 10 34.1** | **+0.5** |
| **GKN** | **Gorkha** | **47.48** | **272** | *e*P | **P** | **08 10 36.0** | **+1.4** |
| **DANN** | **Dangsing** | **47.95** | **273** | *e*P | **P** | **08 10 39.3** | **+1.0** |
| **KOLN** | **Koldanda** 19nm,0.5s | **48.38** | **272** | *e*P | **P** | **08 10 41.9** | **+0.4** |
| **PYUN** | **Piuthan** 29nm,0.4s | **48.66** | **273** | *e*P | **P** | **08 10 44.1** | **+0.4** |
| **YKA** | **Yellowknife Ar** 2.0nm,0.6s,baz=307,slow=6.2,SNR=42 | **59.74** | **31** | P | **P** | **08 12 03.5** | **+0.3** |
| **WRA** | **Warramunga Arr** 1.0nm,0.9s,baz=6.7,slow=7.0,SNR=9.5 | **61.87** | **187** | P | **P** | **08 12 18.1** | **0.0** |
| WRA | 1.1nm,0.8s,baz=4.5,slow=7.1,SNR=4.2 | | | pP | **pP** | **08 12 44.8** | **-0.9** |
| **FINES** | **FINESS Array B** 2.3nm,0.6s,baz=44,slow=8.5,SNR=11 | **64.38** | **331** | P | **P** | **08 12 33.8** | **-0.4** |
| **ASAR** | **Alice Springs** 0.3nm,0.8s,baz=1.1,slow=6.3,SNR=5.0 | **65.60** | **187** | P | **P** | **08 12 43.2** | **+0.7** |
| ASAR | 0.4nm,0.5s,baz=9.2,slow=7.5,SNR=3.2 | | | pP | **pP** | **08 13 11.0** | **+0.6** |
| **NB2** | **NORSAR Subarra** comp=Z,0.7nm,0.6s,baz=38,slow=6.5 | **69.58** | **337** | P | **P** | **08 13 06.6** | **-0.6** |
| **NOA** | **NORSAR Array B** comp=Z,0.8nm,0.6s,baz=38,slow=6.3,SNR=3.9 | **69.58** | **337** | P | **P** | **08 13 05.9** | **-1.3** |
| **AKASG** | **Malin Array Be** comp=Z,0.4nm,0.3s,baz=44,slow=6.7,SNR=4.5 | **70.29** | **321** | P | **P** | **08 13 10.4** | **-1.2** |
| **NVAR** | **Mina Array Bea** comp=Z,1.4nm,0.6s,baz=288,slow=5.9,SNR=7.9 | **72.31** | **54** | P | **P** | **08 13 25.0** | **+0.7** |
| **PDAR** | **Pinedale Array** comp=Z,1.0nm,0.5s,baz=271,slow=1.9,SNR=14 | **74.45** | **46** | P | **P** | **08 13 37.4** | **+0.6** |
| **ULM** | **Lac du Bonnet** comp=Z,1.7nm,0.5s,baz=324,slow=6.4,SNR=7.6 | **75.58** | **34** | P | **P** | **08 13 42.6** | **-0.3** |
| **TXAR** | **Lajitas Array** comp=Z,0.2nm,0.4s,baz=288,slow=3.1,SNR=9.0 | **87.34** | **52** | P | **P** | **08 14 45.7** | **+0.4** |

**MEX 21 07:45:24.2±0.3, 18.25°N×103.56°W, h2km±3km, MD3.6, Near coast of Michoacan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MMIG** | **Aquila** | **0.21** | **79** | *i* P | Pg | 07 45 28.1 | -0.1 |
| MMIG | | | | *i* S | Sg | 07 45 31.0 | +0.1 |
| **R15V** | | **1.00** | **336** | *e*P | Pg | 07 45 41.2 | -2.2 |
| R15V | | | | *e*S | Sg | 07 45 54.6 | -1.8 |
| **EZ5V** | | **1.22** | **358** | *e*P | Pg | 07 45 44.7 | -3.0 |
| EZ5V | | | | *i* S | Sg | 07 46 00.6 | -3.0 |
| **CJM** | **Chamela** | **1.88** | **312** | *e*P | Pn | 07 45 54.0 | -3.3 |
| CJM | | | | *e*S | Sn | 07 46 17.1 | -4.4 |
| **ARIG** | **Puente Sto Nin** | **3.05** | **89** | *e*P | Pn | 07 46 10.7 | -2.8 |
| ARIG | | | | *i* S | Sn | 07 46 46.9 | -3.8 |

*NIED* ***21*** *08:20:00, 23.30°N×144.40E, h74km, Mw4.8 Best double couple: M0 2.04000×10^16 NP1:φs353.00000°, δ18.00000°, λ62.00000°. NP2:φs202.00000°, δ74.00000°, λ99.00000°.*
*ISCJB* ***21*** *08:20:25.9±0.8, 22.80°N±0.03×143.81E±0.06, h34km±6km, mb4.8/98, MS3.7/43, Error ellipse: s-maj=8.6km s-min=4.5km az=170.4*
*MOS* ***21*** *08:20:26.2±1.1, 22.79°N×143.70E, h36km, mb5.1/39, Error ellipse: s-maj=12.3km s-min=5.2km az=109.1*
*BJI* ***21*** *08:20:27.1, 22.40°N×142.30E, h5km, mb5.0/52, mB5.0/35, Ms4.2/26, Ms7 3.9/24*
*NEIC* ***21*** *08:20:29.8±0.2, 22.82°N×143.82E, mb4.9/29, Error ellipse: s-maj=6.7km s-min=3.2km az=78.0*
*IDC* ***21*** *08:20:29.5±0.4, 22.82°N×143.79E, h52km±3km, mb4.3/31, mb1 4.4/36, mb1mx4.4/49, mbtmp4.6/36, MS3.7/32, Ms1 3.7/32, ms1mx3.6/43, Error ellipse: s-maj=13.6km s-min=7.3km az=76.0*
*JMA* ***21*** *08:20:31.9±0.2, 23.29°N×144.39E, h99km, M5.2*

**ISC 21 08:20:29.5±0.4, 22.87°N±0.04×143.78°E±0.06, h45km±2km, h45km:pP-P, n215, σ2.930/260, mb4.8/97, MS3.7/42, 9C-5D, Volcano Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JHHJ** | **Haha-jima-NKT** | **4.02** | **339** | P | **Pn** | **08 21 30.7** | **+2.2** |
| JHHJ | | | | S | **Sn** | **08 22 16.2** | **+1.9** |
| **CBIJ** | **Chichi jima** | **4.45** | **341** | P | **Pn** | **08 21 36.0** | **+1.6** |
| CBIJ | | | | *e*S | **Sn** | **08 22 24.8** | **-0.2** |
| **CBIJ** | **Chichi jima** | **4.45** | **341** | *e*Pn | **Pn** | **08 21 36.1** | **+1.6** |
| CBIJ | | | | *e*Sn | **Sn** | **08 22 24.3** | **-0.7** |
| **JCJ** | **Chichijima** 140nm,0.3s,baz=155,slow=19,SNR=112 | **4.45** | **341** | P | **Pn** | **08 21 36.0** | **+1.6** |
| JCJ | 856nm,0.3s,baz=52,slow=20,SNR=25 | | | S | **Sn** | **08 22 24.3** | **-0.7** |
| **JHJ2** | **Mitsune** | **10.79** | **342** | P | **Pn** | **08 23 02.0** | **+0.7** |
| JHJ2 | | | | *e*S | **Sn** | **08 24 53.5** | **-7.2** |
| **JHJ2** | **Mitsune** | **10.79** | **342** | *e*Pn | **Pn** | **08 23 02.3** | **+1.0** |
| JHJ2 | | | | *e*Sn | **Sn** | **08 24 55.0** | **-5.7** |
| **JHJ** | **Hachijo jima 2** 12nm,0.3s,baz=135,slow=11,SNR=6.9 | **10.80** | **342** | P | **Pn** | **08 23 01.6** | **+0.1** |
| JHJ | 57nm,0.3s,baz=241,slow=20,SNR=8.2 | | | S | **Sn** | **08 24 54.5** | **-6.5** |
| **BSO1** | **Boso 1** | **12.00** | **349** | P | **Pn** | **08 23 18.0** | **+0.7** |
| BSO1 | | | | *e*S | **Sn** | **08 25 25.0** | **-4.5** |
| **BSO3** | **Boso 3** | **12.23** | **347** | P | **Pn** | **08 23 21.2** | **+0.4** |
| BSO3 | | | | *e*S | **Sn** | **08 25 31.0** | **-4.6** |
| **BSO4** | **Boso 4** | **12.45** | **347** | *e*S | **Sn** | **08 25 37.7** | **-3.4** |
| **JWZ** | **Kozaga** | **12.78** | **328** | P | **Pn** | **08 23 30.4** | **+1.9** |
| **JOD2** | **Odawara 2** | **13.01** | **343** | P | **Pn** | **08 23 31.6** | **-0.1** |
| **JNY** | **Yasuok** | **13.47** | **339** | P | **Pn** | **08 23 37.3** | **-0.8** |
| **JHU** | **Hanno** | **13.52** | **344** | P | **Pn** | **08 23 37.0** | **-1.6** |
| JHU | | | | *e*S | Sn | 08 25 58.7 | -8.7 |
| **JAO** | **Obara** | **13.60** | **337** | P | **Pn** | **08 23 39.6** | **-0.2** |
| **JYT** | **Yasato** | **13.67** | **348** | *e*S | **Sn** | **08 26 03.4** | **-7.7** |
| **INU** | **Inuyama** | **13.76** | **336** | *e*Pn | **Pn** | **08 23 42.4** | **+0.4** |
| **JRY** | **Ryogami san** | **13.77** | **343** | P | **Pn** | **08 23 40.8** | **-1.3** |
| JRY | | | | *e*S | **Sn** | **08 26 07.3** | **-6.3** |
| **JTO** | **Tosashimizu** | **13.89** | **318** | P | **Pn** | **08 23 46.4** | **+2.6** |
| **JHO** | **Hitachi** | **13.97** | **349** | S | Sn | 08 26 09.3 | -9.2 |
| **JAG** | **Ashikaga** | **14.02** | **345** | P | **Pn** | **08 23 43.8** | **-1.7** |
| JAG | | | | *e*S | Sn | 08 26 10.5 | -9.2 |
| **MJAR** | **Matsushiro Arr** 2.6nm,0.3s,baz=169,slow=12,SNR=40 | **14.46** | **342** | P | **Pn** | **08 23 49.6** | **-1.8** |
| MJAR | 2.4nm,0.3s,baz=180,slow=24,SNR=7.4 | | | S | **Sn** | **08 26 26.1** | **-4.2** |
| **MAJO** | **Matsushiro** | **14.46** | **342** | ⇑*i* P | **Pn** | **08 23 50.5** | **-0.8** |
| **MAJO** | **Matsushiro** | **14.46** | **342** | *e*Pn | **Pn** | **08 23 51.4** | **0.0** |
| **MJB9** | **Matsu-Tunnel** | **14.46** | **342** | *e*Pn | **Pn** | **08 23 51.3** | **-0.1** |
| **JNU** | **Nakatsue** 0.2nm,0.3s,baz=122,slow=11,SNR=14 | **15.29** | **315** | P | **Pn** | **08 24 04.3** | **+1.9** |
| **JNU** | **Nakatsue** | **15.29** | **315** | *e*P | **P**

YSS *e* 08 31 04.8
YSS MLR MLR
comp=Z,150nm,15.0s
**YSS Yuzh-Sakhalins 24.05 358** P **P** **08 25 41.2 +0.9**
comp=Z,65nm,1.3s
**MDJ Mudanjiang 24.62 335** P **P** **08 25 47.6 +2.0**
MDJ S **S** **08 30 04.3 +0.5**
MDJ ScS **ScS** **08 36 52.3 +7.0**
MDJ pmax pmax
comp=Z,64nm,0.9s
MDJ pmax pmax
comp=Z,220nm,5.9s
MDJ LR LR
comp=Z,260nm,28.1s
MDJ LR LR
comp=Z,150nm,19.4s
MDJ LR LR
comp=Z,350nm,27.1s
**MDJ Mudanjiang 24.62 335** *e*P **P** **08 25 46.8 +1.2**
comp=Z,85nm,0.8s
**MANU Manus Island 25.01 171** *e*P **P** **08 25 49.9 +0.5**
comp=Z,70nm,0.7s
**SNY Shenyang 25.36 323** ⇑P **P** **08 25 52.3 0.0**
SNY S **S** **08 30 09.0 -6.6**
SNY pmax pmax
comp=Z,110nm,0.8s
SNY pmax pmax
comp=Z,200nm,3.9s
SNY LR LR
comp=Z,410nm,32.9s
**CN2 Changchun 25.78 328** *e*P **P** **08 25 58.6 +2.4**
CN2 *e*S **S** **08 30 28.1 +5.8**
CN2 pmax pmax
comp=Z,20nm,1.0s
CN2 pmax pmax
comp=Z,200nm,4.0s
CN2 LR LR
comp=Z,200nm,23.0s
CN2 LR LR
comp=Z,100nm,23.0s
CN2 LR LR
comp=Z,200nm,22.0s
**HABR Khabarovsk 26.48 347** *de*P **P** **08 26 00.8 -1.6**
HABR *e**PP **pP** **08 26 10.2 -4.0**
HABR *e**SP **sP** **08 26 14.3 -5.3**
HABR *e* 08 29 24.1
HABR *e*S **S** **08 30 34.0 +0.9**
HABR *e**SS **sS** **08 30 50.3 -2.8**
HABR *e*SS **SnSn** **08 31 39.3 +1.6**
HABR *e* 08 36 51.8
HABR pmax pmax
comp=Z,81nm,1.1s
HABR MLR MLR
comp=Z,82nm,15.0s
**TIA Tai'an 26.63 306** ⇑P **P** **08 26 05.1 +1.2**
TIA pmax pmax
comp=Z,90nm,1.0s
**TYV Tymovskoe 27.96 358** *e*P **P** **08 26 16.2 +0.6**
TYV pmax pmax
comp=Z,20nm,0.6s
**KLR Kul'dur 27.98 343** P **P** **08 26 16.7 +0.9**
comp=Z,4.3nm,0.6s,baz=153,slow=7.4,SNR=149
KLR LR LR 08 37 05.4
comp=Z,20nm,21.3s,baz=144,slow=36
**BJI Beijing 28.95 313** P **P** **08 26 25.0 +0.5**
BJI S **S** **08 31 08.8 -3.4**
BJI pmax pmax
comp=Z,10.0nm,0.6s
BJI pmax pmax
comp=Z,71nm,3.2s
BJI LR LR
comp=Z,140nm,9.2s
BJI LR LR
comp=Z,180nm,9.8s
**NKL Nikolayevsk 30.33 356** *i*P **P** **08 26 38.0 +1.4**
NKL pmax pmax
comp=N,22nm,1.0s
NKL pmax pmax
comp=Z,52nm,1.0s
**QIZ Qiongzhong 31.88 270** P P 08 26 43.6 -7.1
QIZ S S 08 31 46.3 -12
**PETK Petropavlovsk- 32.00 16** LR LR 08 38 23.8
comp=Z,107nm,21.6s,baz=198,slow=34
**PET Petropavlovsk 32.18 17** *e*P P 08 27 02.0 +9.1
**PMG Port Moresby 32.25 174** P **P** **08 26 52.4 -1.4**
comp=Z,42nm,0.7s,baz=355,slow=6.8,SNR=18
**PMG Port Moresby 32.25 174** ⇑*i*P **P** **08 26 52.2 -1.7**
PMG pmax pmax
comp=Z,137nm,0.8s
**PMG Port Moresby 32.25 174** *e*P **P** **08 26 52.1 -1.7**
comp=Z,44nm,0.8s
**HIA Hailar 32.46 330** *e*P **P** **08 26 55.9 +0.4**
HIA pmax pmax
comp=Z,13nm,0.9s
**HIA Hailar 32.46 330** *e*P **P** **08 26 55.7 +0.2**
comp=Z,7.5nm,0.4s
**HHC Hu-ho-hao-te 32.47 311** *e*P **P** **08 26 57.6 +1.9**
HHC S **S** **08 32 08.0 +0.4**
HHC SS **SnSn** **08 33 56.9 -6.8**
HHC ScS **ScS** **08 37 28.4 +6.6**
HHC pmax pmax
comp=Z,22nm,1.1s
HHC pmax pmax
comp=Z,43nm,5.5s
HHC LR LR
comp=Z,110nm,11.8s
HHC LR LR
comp=Z,130nm,11.0s
HHC LR LR
comp=Z,87nm,12.8s
**HNR Honiara 35.79 152** LR LR 08 41 46.3
comp=Z,76nm,19.6s,baz=323,slow=36
**KAPI Kappang 36.33 223** *e*P **P** **08 27 28.9 -0.3**
comp=Z,24nm,1.0s
**COEN Coen 36.60 181** *e*P **P** **08 27 31.6 0.0**
comp=Z,59nm,0.8s
**LZH Lanzhou 36.92 300** *e*P **P** **08 27 32.3 -2.1**
LZH pP pP 08 27 35.9 -11
LZH sP sP 08 27 37.8 -14
LZH pmax pmax
comp=Z,32nm,1.3s
LZH pmax pmax
comp=Z,170nm,5.1s
LZH LR LR
comp=Z,95nm,11.8s
LZH LR LR
comp=Z,150nm,13.3s
LZH LR LR
comp=Z,250nm,19.2s
**KMI Kunming 37.46 282** P **P** **08 27 37.3 -1.8**
KMI pmax pmax
comp=Z,15nm,0.6s
**MTN Manton Dam 37.59 200** *e*P **P** **08 27 38.5 -1.4**
comp=Z,44nm,1.4s
**ULN Ulaanbaatar 38.42 320** ⇑*i*P **P** **08 27 47.2 +0.3**
ULN pmax pmax
comp=Z,21nm,1.7s
**ULN Ulaanbaatar 38.42 320** *e*P **P** **08 27 47.0 +0.2**
comp=Z,25nm,1.5s
**SONA0 Songino Array 38.80 319** *e*P **P** **08 27 50.2 +0.2**
**SONA1 Songino Array 38.80 319** *e*P **P** **08 27 50.4 +0.3**
**SONM Songino Array 38.80 319** P **P** **08 27 50.2 +0.2**
comp=Z,3.1nm,0.7s,baz=129,slow=9.5,SNR=16
SONM LR LR 08 43 39.6
comp=Z,101nm,21.8s,baz=68,slow=36
**YAK Yakutsk 40.31 350** *e*P **P** **08 28 01.7 -0.4**
YAK *e**PP **pP** **08 28 15.5 +1.1**
YAK *e* 08 29 46.0
YAK *e* 08 30 04.1
YAK *e*S **S** **08 34 06.5 0.0**
YAK *e* 08 37 45.9
YAK pmax pmax
comp=Z,60nm,1.0s
YAK pmax pmax
comp=N,16nm,1.2s
YAK pmax pmax
comp=E,5.0nm,1.0s
YAK pmax pmax
comp=Z,15nm,0.9s
YAK pmax pmax
comp=N,14nm,1.3s
YAK pmax pmax
comp=E,21nm,1.8s
YAK smax smax
comp=N,55nm,4.2s
YAK smax smax
comp=E,70nm,4.7s
**YAK Yakutsk 40.31 350** *e*P **P** **08 28 01.8 -0.4**
comp=E,44nm,0.8s
**SEY Seymchan 40.47 6** P **P** **08 28 04.1 +0.6**
comp=E,14nm,0.9s,baz=180,slow=6.8,SNR=35
**GTA Gaotai 40.66 304** *e*P **P** **08 28 06.1 +0.5**
GTA pP pP 08 28 10.4 -7.4
GTA sP sP 08 28 13.8 -9.3
GTA S **S** **08 34 08.0 -4.6**
GTA sS sS 08 34 15.3 -18
GTA SS SS 08 36 55.3 -19
GTA pmax pmax
comp=E,11nm,1.1s
GTA pmax pmax
comp=E,58nm,7.6s
GTA LR LR
comp=E,100nm,15.4s
GTA LR LR
comp=E,130nm,15.2s
GTA LR LR
comp=E,69nm,13.5s
**BOD Bodaibo 40.99 336** *e*P **P** **08 28 08.2 +0.4**
BOD pmax pmax
comp=Z,9.0nm,1.0s
**ZAK Zakamensk 41.77 321** *e*P **P** **08 28 15.1 +0.6**
ZAK pmax pmax
comp=Z,17nm,1.2s
**CMAR Chiang Mai Arr 42.06 273** P **P** **08 28 18.0 +0.8**
comp=Z,1.0nm,0.3s,baz=59,slow=8.8,SNR=4.6
CMAR LR LR 08 47 13.5
comp=Z,25nm,18.5s,baz=80,slow=38
**TLY Talaya 42.15 323** *e*P **P** **08 28 18.8 +1.3**
TLY pmax pmax
comp=Z,12nm,1.1s
TLY MLR MLR
comp=Z,21nm,5.0s
**CTA Charters Tower 42.76 177** P **P** **08 28 22.2 -0.6**
comp=Z,84nm,0.8s,baz=0.8,slow=8.2,SNR=56
**CTAO Charters Tower 42.76 177** *e*P **P** **08 28 22.0 -0.7**
CTAO pmax pmax
comp=Z,90nm,0.8s
**CTAO Charters Tower 42.76 177** *e*P **P** **08 28 22.0 -0.7**
comp=Z,90nm,0.8s
**WRAB Tennant Creek 43.53 193** *ci*P **P** **08 28 27.8 -1.1**
WRAB pmax pmax
comp=Z,66nm,1.7s
**WRAB Tennant Creek 43.53 193** *e*P **P** **08 28 27.9 -1.1**
comp=Z,7.9nm,0.5s
**WB2 Warramunga Arr 43.53 193** *e*P **P** **08 28 28.1 -0.8**
comp=Z,18nm,1.1s
**WR1 Warramunga Arr 43.54 193** *e*P **P** **08 28 27.8 -1.2**
comp=Z,29nm,1.2s
**WRA Warramunga Arr 43.54 193** P **P** **08 28 27.8 -1.2**
comp=Z,3.4nm,0.4s,baz=18,slow=9.1,SNR=150
WRA PcP **PcP** **08 30 15.7 -0.6**
comp=Z,1.6nm,0.5s,baz=1.4,slow=3.3,SNR=4.8
WRA ScP **ScP** **08 34 00.5 -3.7**
comp=Z,2.1nm,1.0s,baz=20,slow=4.6,SNR=6.4
WRA LR LR 08 46 41.3
comp=Z,79nm,20.4s,baz=0.0,slow=36
**FITZ Fitzroy Crossi 44.41 205** P **P** **08 28 35.1 -1.0**
comp=Z,9.4nm,0.7s,baz=14,slow=6.2,SNR=31
**SHL Shillong 47.16 284** *e*P **P** **08 29 01.0 +3.0**
**AS01 Alice Springs 47.23 192** *e*P **P** **08 28 56.5 -1.7**
**AS31 Alice Springs 47.24 192** *e*P **P** **08 28 57.5 -0.8**
comp=Z,2.2nm,0.4s
**ASAR Alice Springs 47.24 192** P **P** **08 28 56.7 -1.6**
comp=Z,2.6nm,0.6s,baz=13,slow=6.8,SNR=45
ASAR PcP **PcP** **08 30 28.4 -0.7**
comp=Z,1.6nm,0.8s,baz=16,slow=3.8,SNR=5.0
ASAR ScP **ScP** **08 34 15.3 -4.2**
comp=Z,0.9nm,1.0s,baz=15,slow=3.8,SNR=4.0
ASAR LR LR 08 47 47.8
comp=Z,101nm,21.2s,baz=27,slow=35
**BILL Bilibino 47.27 11** *di*P **P** **08 28 58.2 +0.2**
BILL *e* 08 30 49.3
BILL *e*S **S** **08 35 49.5 +1.7**
BILL pmax pmax
comp=Z,33nm,1.0s
BILL MLR MLR
comp=Z,64nm,19.0s
**TIXI Tiksi 49.55 354** *e*P **P** **08 29 15.0 -0.5**
TIXI pmax pmax
comp=Z,9.0nm,0.9s
**TIXI Tiksi 49.55 354** *e*P **P** **08 29 15.0 -0.5**
comp=Z,8.7nm,0.9s
**DZM Mont Dzumac 49.83 152** P **P** **08 29 17.0 -1.3**
comp=Z,12nm,0.7s,baz=351,slow=6.7,SNR=11
DZM LR LR 08 48 06.1
comp=Z,137nm,21.5s,baz=26,slow=33
**DZM Mont Dzumac 49.83 152** *e*P P 08 29 33.7 +15
comp=Z,71nm,1.5s
**DZM Mont Dzumac 49.83 152** *e*LR LR 08 43 48.9
comp=Z,516nm,25.8s
**DGZ Jazzator, Alta 51.26 316** *di*P **P** **08 29 28.0 -1.0**
DGZ pmax pmax
comp=Z,10.0nm,1.1s
**ARMA Armidale 53.52 172** *e*P **P** **08 29 44.4 -1.3**
comp=Z,45nm,1.5s
**KIP Kipapa 53.62 80** *e*P **P** **08 29 46.6 -0.1**
**ZAA0 Zalesovo Array 53.65 321** *e*P **P** **08 29 45.9 -0.5**
comp=Z,63nm,1.5s
**ZAA1 Zalesovo Array 53.65 321** *e*P **P** **08 29 46.0 -0.4**
**ZALV Zalesovo Beam 53.65 321** P **P** **08 29 46.0 -0.4**
comp=Z,6.7nm,0.6s,baz=103,slow=6.6,SNR=30
ZALV pP **pP** **08 29 59.6 +0.7**
comp=Z,3.0nm,0.5s,baz=106,slow=7.6,SNR=5.3
ZALV LR LR 08 53 07.3
comp=Z,98nm,20.6s,baz=70,slow=36
**ZALV Zalesovo Beam 53.65 321** *e*P **P** **08 29 45.6 -0.8**
ZALV *PP **pP** **08 29 59.6 +0.7**
**ZALV Zalesovo Beam 53.65 321** *e*P **P** **08 29 45.6 -0.8**
ZALV pP **pP** **08 29 59.6 +0.7**
**MK01 Makanchi Array 54.31 312** *e*P **P** **08 29 51.1 -0.3**
**MK31 Makanchi Array 54.32 312** *e*P **P** **08 29 51.9 +0.4**
**MK31 Makanchi Array 54.32 312** *e*P **P** **08 29 51.9 +0.4**
**MK32 Makanchi Array 54.32 312** *e*P **P** **08 29 51.5 0.0**
**MKAR Makanchi Array 54.32 312** P **P** **08 29 51.5 0.0**
comp=Z,6.5nm,0.5s,baz=90,slow=9.2,SNR=52
MKAR pP **pP** **08 30 05.4 +1.3**
comp=Z,2.8nm,0.7s,baz=88,slow=8.9,SNR=4.3
MKAR LR LR 08 53 49.2
comp=Z,69nm,21.3s,baz=70,slow=37
**MKAR Makanchi Array 54.32 312** *e*P **P** **08 29 51.9 +0.4**
MKAR *PP **pP** **08 30 05.4 +1.3**
MKAR pmax pmax
comp=Z,51nm,0.5s
**MKAR Makanchi Array 54.32 312** *e*P **P** **08 29 51.9 +0.4**
comp=Z,51nm,0.5s
MKAR pP **pP** **08 30 05.4 +1.3**
**STKA Stephens Creek 54.48 182** P **P** **08 29 50.9 -1.7**
comp=Z,20nm,0.6s,baz=357,slow=7.6,SNR=85
STKA LR LR 08 53 32.7
comp=Z,94nm,20.8s,baz=24,slow=36
**STKA Stephens Creek 54.48 182** *e*P **P** **08 29 51.1 -1.5**
STKA pmax pmax
comp=Z,5.0nm,0.6s
**STKA Stephens Creek 54.48 182** *e*P **P** **08 29 51.1 -1.5**
comp=Z,4.7nm,0.6s
**MAKZ Makanchi 54.54 312** *e*P **P** **08 29 53.5 +0.5**
MAKZ pmax pmax
comp=Z,15nm,1.0s
**MAKZ Makanchi 54.54 312** *e*P **P** **08 29 53.5 +0.5**
comp=Z,15nm,1.0s
**NVS Novosibirsk 54.72 322** *e*P **P** **08 29 54.3 +0.2**
**FORT Forrest 55.43 196** *e*P **P** **08 29 58.8 -0.7**
comp=Z,508nm,0.8s
**KURK Kurchatov 57.00 317** *i*P **P** **08 30 10.2 -0.4**
KURK pmax pmax
comp=Z,13nm,1.1s
**KURK Kurchatov 57.00 317** *e*P **P** **08 30 09.8 -0.8**
comp=Z,17nm,1.1s
**CAN Canberra 58.08 175** *e*P **P** **08 30 17.5 -0.8**
CAN pmax pmax
comp=Z,47nm,1.7s
**CAN Canberra 58.08 175** *e*P **P** **08 30 17.5 -0.8**
comp=Z,47nm,1.7s
**BPAW Bear Paw Mtn. 58.88 28** *e*P **P** **08 30 23.3 -0.2**
comp=Z,7.6nm,1.4s
BPAW *e*pP **pP** **08 30 38.2 +1.9**
**KSH Kashi 59.05 303** P **P** **08 30 29.1 +3.9**
KSH PcP **PcP** **08 31 19.4 +5.6**
KSH PP **PP** **08 32 40.1 +4.2**
KSH ScP **ScP** **08 35 19.1 +8.2**
KSH S **S** **08 38 31.3 +2.2**
KSH ScS **ScS** **08 40 16.5 +4.7**
KSH SS **SS** **08 42 24.6 +1.3**
KSH pmax pmax
comp=Z,4.0nm,0.6s
KSH pmax pmax
comp=Z,73nm,4.3s
KSH LR LR
comp=Z,130nm,5.2s
KSH LR LR
comp=Z,100nm,5.4s
KSH LR LR
comp=Z,140nm,7.2s
**TKM2 Tokmak 2 59.07 307** P **P** **08 30 26.8 +1.3**
SNR=12
**KZA Kyzart 59.38 306** P **P** **08 30 29.6 +1.7**
SNR=7.0
**KBK Karagaybulak 59.56 307** P **P** **08 30 30.1 +1.2**
SNR=7.3
**FRU Bishkek 59.80 307** *e*P **P** **08 30 30.0 -0.3**
**COLD Coldfoot 59.88 24** P **P** **08 30 29.9 -0.5**
comp=Z,14nm,1.1s
COLD *ep*P **pP** **08 30 45.4 +2.3**
COLD *es*P **sP** **08 30 52.2 +3.9**
**AAK Ala-Archa 59.90 307** *e*P **P** **08 30 31.0 -0.1**
AAK pmax pmax
comp=Z,6.0nm,1.0s
**AAK Ala-Archa 59.90 307** *e*P **P** **08 30 31.0 -0.1**
comp=Z,6.0nm,1.0s
**UCH Uchtor 59.92 307** P **P** **08 30 33.3 +1.7**
SNR=16
**AML Almayashu 60.53 307** P **P** **08 30 37.3 +1.5**
SNR=9.8
**ILAR Eielson Array 60.75 27** P **P** **08 30 35.0 -1.3**
comp=Z,1.7nm,0.7s,baz=257,slow=5.5,SNR=24
ILAR pP **pP** **08 30 49.8 +0.6**
comp=Z,4.7nm,0.8s,baz=259,slow=5.8,SNR=19
ILAR sP **sP** **08 30 55.4 +1.1**
comp=Z,5.3nm,0.8s,baz=257,slow=5.7,SNR=14
ILAR LR LR 08 52 47.5
comp=Z,43nm,21.9s,baz=270,slow=32
**NWAO Narrogin (SRO) 61.00 205** P **P** **08 30 37.0 -1.4**
comp=Z,4.2nm,0.5s,baz=289,slow=8.9,SNR=5.2
**BVA0 Borovoye Array 62.15 319** *i*P **P** **08 30 45.8 -0.2**
BVA0 pmax pmax
comp=Z,23nm,0.7s
**BRVK Borovoye 62.21 319** *di*P **P** **08 30 46.7 +0.3**
BRVK pmax pmax
comp=Z,27nm,1.0s
**BRVK Borovoye 62.21 319** *e*P **P** **08 30 46.2 -0.2**
comp=Z,24nm,0.8s
**KK31 Karatay Array 62.77 308** *i*P **P** **08 30 50.5 +0.1**
KK31 pmax pmax
comp=Z,12nm,0.9s
**KKAR Karatay Array 62.77 308** *e*P **P** **08 30 50.6 +0.2**
KKAR pmax pmax
comp=Z,7.0nm,0.7s
**KKAR Karatay Array 62.77 308** *e*P **P** **08 30 50.6 +0.2**
comp=Z,7.4nm,0.7s
**KBL Kabul 65.26 299** *e*P **P** **08 31 07.6 +0.5**
KBL pmax pmax
comp=Z,12nm,0.9s
**KBL Kabul 65.26 299** *e*P **P** **08 31 07.6 +0.5**
comp=Z,12nm,0.9s
**INK Inuvik 66.28 24** P **P** **08 31 12.3 -0.5**
comp=Z,3.1nm,0.8s,baz=295,slow=7.3,SNR=16
INK pP **pP** **08 31 26.6 +1.0**
comp=Z,5.6nm,0.8s,baz=272,slow=5.2,SNR=12
INK sP **sP** **08 31 32.8 +2.0**
comp=Z,5.0nm,0.9s,baz=266,slow=6.0,SNR=6.4
**INK Inuvik 66.28 24** *e*P **P** **08 31 12.1 -0.6**
INK *e**PP **pP** **08 31 26.6 +1.0**
INK pmax pmax
comp=Z,9.0nm,1.0s
**INK Inuvik 66.28 24** *e*P **P** **08 31 12.1 -0.6**
comp=Z,8.8nm,1.0s
INK *ep*P **pP** **08 31 26.6 +1.0**
INK *es*P **sP** **08 31 32.9 +2.1**
**SVE Sverdlovsk 67.46 324** *e*P **P** **08 31 20.9 +0.4**
SVE pmax pmax
comp=Z,21nm,0.9s
**URZ Urewera 68.38 152** P **P** **08 31 24.7 -1.7**
comp=Z,2.6nm,0.3s,baz=306,slow=8.7,SNR=7.3
**ARU Arti 68.65 324** P **P** **08 31 26.7 -1.3**
comp=Z,5.8nm,0.2s,baz=78,slow=3.6,SNR=13
ARU LR LR 09 04 07.5
comp=Z,64nm,19.0s,baz=103,slow=38
**ARU Arti 68.65 324** *di*P **P** **08 31 26.7 -1.3**
ARU 08 31 50.1
ARU S **S** **08 40 28.6 +1.1**
ARU SS **SS** **08 44 51.7 -0.3**
ARU pmax pmax
comp=Z,24nm,1.2s
**ARU Arti 68.65 324** *e*P **P** **08 31 27.4 -0.6**
comp=Z,18nm,1.0s
**AB31 Akbulak array 69.10 316** P **P** **08 31 30.0 -0.9**
AB31 pmax pmax
comp=Z,4.0nm,0.5s
**ABKAR Akbulak array 69.10 316** *e*P **P** **08 31 29.7 -1.1**
comp=Z,76nm,0.5s
**AKTO Aktyubinsk 70.08 317** LR LR 09 03 09.0
comp=Z,68nm,21.0s,slow=36
**AKTO Aktyubinsk 70.08 317** P **P** **08 31 34.8 -2.2**
AKTO pmax pmax
comp=Z,4.0nm,0.9s
**RPZ Rata Peaks 70.83 159** P **P** **08 31 39.1 -2.3**
comp=Z,18nm,0.8s,baz=217,slow=6.4,SNR=10
**GEYT Alibeck 73.04 304** P **P** **08 31 54.5 -0.6**
comp=Z,1.3nm,0.4s,baz=88,slow=5.0,SNR=4.3
GEYT LR LR 09 06 08.8
comp=Z,39nm,20.7s,baz=50,slow=38
**YKA Yellowknife Ar 75.17 28** P **P** **08 32 06.2 -0.6**
comp=Z,1.5nm,0.7s,baz=292,slow=5.8,SNR=19
YKA pP **pP** **08 32 21.7 +1.7**
comp=Z,2.7nm,0.7s,baz=292,slow=5.7,SNR=15
**TMCR Tamitsa 76.25 334** *e*P **P** **08 32 12.3 -0.7**
TMCR pmax pmax
comp=Z,31nm,1.0s
**APA Apatity 76.49 338** ⇑*i*P **P** **08 32 13.6 -0.8**
APA pmax pmax
comp=Z,10.0nm,0.6s
APA MLR MLR
comp=Z,300nm,13.0s
**PPT2 Papeete2 76.54 116** *e*LR LR 08 55 49.7
comp=Z,93nm,27.0s
**KLMR Klimovskoe 76.96 331** *e*P **P** **08 32 14.8 -2.3**
KLMR pmax pmax
comp=Z,12nm,1.3s
**ARCES ARCESS Array B 77.99 342** P **P** **08 32 22.2 -0.6**
comp=Z,6.4nm,0.6s,baz=70,slow=8.2,SNR=31
ARCES LR LR 09 11 34.0
comp=Z,72nm,20.9s,baz=58,slow=39
**TBI Tubuai 79.50 121** *e*LR LR 08 57 15.2
comp=Z,93nm,31.2s
**VRH Novokhopyorsk 79.68 321** *e*P **P** **08 32 29.2 -3.1**
VRH pmax pmax
comp=Z,10.0nm,0.8s
**LPSR Galich'ya Gora 80.68 323** *e*P **P** **08 32 37.1 -0.6**
LPSR pmax pmax
comp=Z,8.0nm,0.6s
**OBN Obninsk 80.82 326** LR LR 09 11 01.5
comp=Z,118nm,18.7s,baz=88,slow=38
**OBN Obninsk 80.82 326** *e*P **P** **08 32 37.7 -0.7**
OBN *i* 08 32 54.4
OBN *e*S **S** **08 42 47.6 +4.5**
OBN *e*SS **SS** **08 48 05.9 +9.4**
OBN pmax pmax
comp=Z,3.0nm,0.7s
OBN MLR MLR
comp=Z,115nm,18.0s
**VSR Storozhevoye 81.14 322** *e*P **P** **08 32 38.8 -1.4**
VSR pmax pmax
comp=Z,10.0nm,1.0s
**MFID Camas Ranch 81.75 46** P **P** **08 32 42.2 -1.6**
comp=Z,11nm,1.0s
**KBZ Khabaz 81.96 314** P **P** **08 32 44.2 -0.4**
comp=Z,4.6nm,0.8s,baz=101,slow=3.0,SNR=5.3
KBZ LR LR 09 13 27.0
comp=Z,63nm,18.9s,baz=112,slow=39
**NVAR Mina Array Bea 81.99 52** P **P** **08 32 44.1 -1.1**
comp=Z,1.7nm,0.7s,baz=272,slow=5.8,SNR=11
NVAR pP **pP** **08 33 01.0 +2.5**
comp=Z,7.0nm,1.0s,baz=271,slow=5.3,SNR=4.9
NVAR sP **sP** **08 33 05.9 +2.4**
comp=Z,7.1nm,0.9s,baz=273,slow=5.1,SNR=9.6
NVAR LR LR 09 01 44.5
comp=Z,57nm,20.2s,baz=276,slow=30
**KVAR Kislovodsk Arr 82.00 314** LR LR 09 11 59.8
comp=Z,41nm,20.9s,slow=38

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **KIV** | **Kislovodsk** | **82.00** | **314** | *e*P | | **P** | **08 32 44.7** | **-0.4** |
| KIV | | | | pmax | pmax | | | | |
| | comp=Z,8.0nm,1.0s | | | | | | | | |
| KIV | | | | MLR | MLR | | | | |
| | comp=Z,57nm,19.0s | | | | | | | | |
| **FINES** | **FINESS Array B** | **82.37** | **335** | P | | **P** | **08 32 45.0** | **-1.4** |
| | comp=Z,2.7nm,0.3s,baz=69,slow=4.8,SNR=47 | | | | | | | | |
| FINES | | | | pP | | **pP** | **08 33 00.9** | **+1.2** |
| | comp=Z,2.4nm,0.5s,baz=76,slow=5.9,SNR=3.4 | | | | | | | | |
| FINES | | | | LR | LR | | 09 11 51.2 | | |
| | comp=Z,21nm,18.5s,baz=45,slow=37 | | | | | | | | |
| **FFC** | **Flin Flon** | **84.54** | **32** | *e*P | | **P** | **08 32 57.0** | **-0.8** |
| FFC | | | | *e**PP | | **pP** | **08 33 12.1** | **+1.0** |
| FFC | | | | pmax | pmax | | | | |
| | comp=Z,9.0nm,1.0s | | | | | | | | |
| **FFC** | **Flin Flon** | **84.54** | **32** | *e*P | | **P** | **08 32 57.0** | **-0.8** |
| | comp=Z,8.9nm,1.0s | | | | | | | | |
| FFC | | | | *e*pP | | **pP** | **08 33 12.1** | **+1.0** |
| FFC | | | | *e*sP | | **sP** | **08 33 19.1** | **+3.0** |
| **RLMT** | **Red Lodge** | **85.27** | **43** | *e*P | | **P** | **08 33 01.9** | **0.0** |
| | comp=Z,6.4nm,0.6s | | | | | | | | |
| **PDAR** | **Pinedale Array** | **86.18** | **45** | P | | **P** | **08 33 05.1** | **-1.4** |
| | comp=Z,0.5nm,0.6s,baz=279,slow=1.7,SNR=5.9 | | | | | | | | |
| PDAR | | | | LR | LR | | 09 03 43.1 | | |
| | comp=Z,74nm,20.1s,baz=299,slow=30 | | | | | | | | |
| **AKASG** | **Malin Array Be** | **86.88** | **325** | P | | **P** | **08 33 07.6** | **-1.8** |
| | comp=Z,0.4nm,0.4s,baz=55,slow=5.0,SNR=6.4 | | | | | | | | |
| AKASG | | | | LR | LR | | 09 14 55.7 | | |
| | comp=Z,78nm,20.2s,baz=300,slow=38 | | | | | | | | |
| **KIEV** | **Kiev** | **86.89** | **325** | *e*P | | **P** | **08 33 09.3** | **-0.2** |
| KIEV | | | | pmax | pmax | | | | |
| | comp=Z,5.0nm,1.1s | | | | | | | | |
| **NB2** | **NORSAR Subarra** | **88.06** | **339** | P | | **P** | **08 33 13.0** | **-1.9** |
| | comp=Z,1.1nm,0.5s,baz=54,slow=5.1 | | | | | | | | |
| **NOA** | **NORSAR Array B** | **88.06** | **339** | P | | **P** | **08 33 13.1** | **-1.9** |
| | comp=Z,1.3nm,0.6s,baz=45,slow=4.7,SNR=5.6 | | | | | | | | |
| NOA | | | | pP | | **pP** | **08 33 29.6** | **+1.2** |
| | comp=Z,2.1nm,0.9s,baz=48,slow=4.8,SNR=4.0 | | | | | | | | |
| NOA | | | | PP | | **PP** | **08 36 40.6** | **-0.7** |
| | comp=Z,2.3nm,0.9s,baz=44,slow=8.0,SNR=3.4 | | | | | | | | |
| NOA | | | | LR | LR | | 09 16 15.0 | | |
| | comp=Z,66nm,20.2s,baz=40,slow=38 | | | | | | | | |
| **RAYN** | **Ar Rayn** | **88.20** | **295** | *e*P | | **P** | **08 33 16.6** | **+0.2** |
| | comp=Z,4.1nm,0.8s | | | | | | | | |
| **BR101** | **Keskin Array S** | **89.94** | **314** | *e*P | | **P** | **08 33 22.8** | **-1.6** |
| **BRTR** | **Keskin Array B** | **89.94** | **314** | P | | **P** | **08 33 22.8** | **-1.6** |
| | comp=Z,0.7nm,0.7s,baz=88,slow=3.5,SNR=3.0 | | | | | | | | |
| **ULM** | **Lac du Bonnet** | **90.16** | **34** | LR | | LR | 09 15 10.9 | | |
| | comp=Z,25nm,19.1s,baz=340,slow=36 | | | | | | | | |
| **BR231** | **Keskin MP Arra** | **90.46** | **314** | *e*P | | **P** | **08 33 30.3** | **+3.6** |
| **ANMO** | **Albuquerque** | **92.06** | **51** | *e*P | | **P** | **08 33 34.3** | **-0.1** |
| ANMO | | | | pmax | pmax | | | | |
| | comp=Z,1.0nm,1.0s | | | | | | | | |
| **KHC** | **Kasperske Hory** | **95.72** | **330** | *e*P | | P | 08 33 57.7 | +7.0 |
| **KHC** | **Kasperske Hory** | **95.72** | **330** | *e*P | | P | 08 33 57.7 | +7.0 |
| **GERES** | **GERESS Array B** | **95.87** | **329** | LR | | LR | 09 18 55.1 | | |
| | comp=Z,44nm,20.7s,baz=72,slow=37 | | | | | | | | |
| **TXAR** | **Lajitas Array** | **96.92** | **54** | P | | **P** | **08 33 57.3** | **+0.6** |
| | comp=Z,0.1nm,0.5s,baz=325,slow=4.4,SNR=3.1 | | | | | | | | |
| TXAR | | | | LR | | LR | 09 09 42.6 | | |
| | comp=Z,14nm,21.6s,baz=0.0,slow=30 | | | | | | | | |
| **SCHQ** | **Schefferville** | **98.28** | **17** | LR | | LR | 09 23 27.5 | | |
| | comp=Z,15nm,19.5s,baz=318,slow=38 | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **128.43** | **310** | PKP | | **PKPdf** | **08 39 30.8** | **-1.4** |
| | comp=Z,0.4nm,0.7s,baz=28,slow=2.1,SNR=4.7 | | | | | | | | |
| **PLCA** | **Paso Flores** | **146.09** | **130** | PKPbc | | **PKPab** | **08 40 04.3** | **-1.2** |
| | comp=Z,13nm,0.7s,baz=268,slow=3.9,SNR=31 | | | | | | | | |
| **ROC1** | **El Roble** | **147.78** | **116** | *e*PKPdf | | **PKPab** | **08 40 17.0** | **+4.3** |
| **HOPE** | **Hope Point** | **148.63** | **180** | *e*PKPbc | | **PKPbc** | **08 40 10.3** | **-1.0** |
| **LPAZ** | **La Paz** | **149.27** | **83** | PKP | | **PKPdf** | **08 40 10.6** | **+0.1** |
| | comp=Z,6.5nm,0.6s,baz=329,slow=2.2,SNR=11 | | | | | | | | |
| LPAZ | | | | PKPbc | | **PKPbc** | **08 40 14.4** | **-0.5** |
| | comp=Z,6.5nm,0.6s,baz=281,slow=2.9,SNR=29 | | | | | | | | |
| **CPUP** | **Villa Florida** | **160.50** | **104** | PKPab | | **PKPab** | **08 41 05.4** | **-0.9** |
| | comp=Z,1.2nm,0.8s,baz=270,slow=3.0,SNR=3.4 | | | | | | | | |
| **BDFB** | **Brasilia** | **166.75** | **59** | *e*PKIKP | | PKPdf | 08 40 40.5 | +9.4 |
| **BDFB** | **Brasilia** | **166.75** | **59** | *e*PKPdf | | PKPdf | 08 40 40.5 | +9.4 |

*NEIC* ***21*** *08:26:35.0±0.0, 17.°17N×93.°99W, h181*km*, MD4.1(MEX), After MEX.*

**MEX 21 08:26:35.1±0.4, 17.°16N×93.°99W, h181km±4km, MD4.1, Chiapas**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TGIG** | | **0.91** | **114** | *i* P | Pn | 08 27 01.1 | -1.3 |
| TGIG | | | | *e*S | Sn | 08 27 21.1 | -2.2 |
| **TGIG** | | **0.91** | **114** | *i* P | Pn | 08 27 01.1 | -1.3 |
| TGIG | | | | *e*S | Sn | 08 27 21.1 | -2.2 |
| **TUIG** | **Tuzandepetl** | **0.96** | **335** | *i* P | Pn | 08 27 01.1 | -1.5 |
| TUIG | | | | *i* S | Sn | 08 27 21.3 | -2.6 |
| **TUIG** | **Tuzandepetl** | **0.96** | **335** | *i* P | Pn | 08 27 01.1 | -1.5 |
| TUIG | | | | *i* S | Sn | 08 27 21.3 | -2.6 |
| **PCIG** | | **1.63** | **153** | *e*P | Pn | 08 27 06.7 | -1.7 |
| PCIG | | | | *e*S | Sn | 08 27 32.2 | -2.0 |
| **PCIG** | | **1.63** | **153** | *e*P | Pn | 08 27 06.7 | -1.7 |
| PCIG | | | | *e*S | Sn | 08 27 32.2 | -2.0 |
| **CCIG** | **Comitan** | **1.98** | **116** | *i* P | Pn | 08 27 11.2 | -1.0 |
| CCIG | | | | *i* S | Sn | 08 27 38.7 | -2.2 |
| **CCIG** | **Comitan** | **1.98** | **116** | *i* P | Pn | 08 27 11.2 | -1.0 |
| CCIG | | | | *i* S | Sn | 08 27 38.7 | -2.2 |
| **VHO** | **Vista Hermosa** | **2.62** | **268** | *e*P | Pn | 08 27 18.3 | -1.2 |
| VHO | | | | *e*S | Sn | 08 27 52.1 | -1.8 |
| **VHO** | **Vista Hermosa** | **2.62** | **268** | *e*P | Pn | 08 27 18.3 | -1.2 |
| VHO | | | | *e*S | Sn | 08 27 52.1 | -1.8 |

**IDC 21 08:32:28.9±2.4, 11.°54N×138.°94E, h0km, mb3.4/4, mb1 3.7/4, mb1mx3.4/40, mbtmp3.4/4, Error ellipse: s-maj=296.6km s-min=24.6km az=105.0, Western Caroline Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **31.61** | **188** | P | P | 08 38 52.9 | -0.8 |
| | 0.2nm,0.5s,baz=7.8,slow=9.6,SNR=4.7 | | | | | | |
| **ASAR** | **Alice Springs** | **35.34** | **188** | P | P | 08 39 26.6 | +0.5 |
| | 0.3nm,0.7s,baz=18,slow=12,SNR=6.6 | | | | | | |
| **ILAR** | **Eielson Array** | **72.89** | **26** | P | P | 08 43 58.9 | -0.7 |
| | 0.2nm,0.5s,baz=248,slow=5.7,SNR=6.8 | | | | | | |
| **YKA** | **Yellowknife Ar** | **87.30** | **26** | P | P | 08 45 18.3 | +0.9 |
| | 0.2nm,0.5s,baz=291,slow=5.0,SNR=3.7 | | | | | | |

**KRSC 21 08:41:25.8±1.2, 51.°07N×158.°52E, h59km±17km, ML3.6, Near east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KDTR** | **Khodutka, Kamc** | **0.79** | **339** | *i* P | Pn | 08 41 42.4 | +1.4 |
| KDTR | | | | *i* S | Sn | 08 41 53.4 | +1.2 |
| **PAU** | **Pauzhetka** | **1.14** | **291** | *e*P | Pn | 08 41 47.5 | +1.9 |
| PAU | | | | *e*S | Sn | 08 42 02.5 | +2.1 |
| **RUS** | **Russkaya** | **1.36** | **360** | *e*P | Pn | 08 41 50.1 | +1.6 |
| RUS | | | | *e*S | Sn | 08 42 07.0 | +1.4 |
| **ASAK** | **Asacha** | **1.37** | **344** | *e*P | Pn | 08 41 50.7 | +2.0 |
| **MTVR** | **Mutnovka** | **1.43** | **352** | *e*P | Pn | 08 41 51.7 | +2.1 |
| MTVR | | | | *e*S | Sn | 08 42 09.5 | +2.1 |
| **SKR** | **Severo-Kuril's** | **1.57** | **257** | *e*P | Pn | 08 41 52.3 | +0.9 |
| SKR | | | | *e*S | Sn | 08 42 12.0 | +1.3 |
| **KRMR** | **Karymshinskiy** | **1.77** | **352** | *e*P | Pn | 08 41 57.1 | +3.0 |
| KRMR | | | | *e*S | Sn | 08 42 19.2 | +3.6 |
| **PET** | **Petropavlovsk** | **1.95** | **2** | *e*P | Pn | 08 41 58.7 | +2.1 |
| PET | | | | *e*S | Sn | 08 42 22.2 | +2.3 |
| **DALK** | **Dalny** | **1.96** | **4** | *e*P | Pn | 08 41 58.3 | +1.6 |
| DALK | | | | *e*S | Sn | 08 42 22.2 | +2.0 |
| **APC** | **Apacha** | **2.04** | **336** | *e*P | Pn | 08 42 00.1 | +2.4 |
| APC | | | | *e*S | Sn | 08 42 24.7 | +2.7 |
| **UGLR** | **Uglovaya** | **2.15** | **5** | *e*P | Pn | 08 42 02.7 | +3.4 |
| **NLC** | **Nalytchevo** | **2.16** | **13** | *e*P | Pn | 08 42 01.9 | +2.6 |
| NLC | | | | *e*S | Sn | 08 42 26.0 | +1.0 |
| **AVH** | **Avacha** | **2.20** | **3** | *e*P | Pn | 08 42 03.1 | +3.1 |
| **SDLR** | **Sedlovina** | **2.22** | **6** | *e*P | Pn | 08 42 02.7 | +2.4 |
| **KOK** | **Koryaka** | **2.22** | **2** | *e*P | Pn | 08 42 03.4 | +3.1 |
| **SPN** | **Mys Shipunski** | **2.23** | **24** | *e*P | Pn | 08 42 02.9 | +2.6 |
| SPN | | | | *e*S | Sn | 08 42 28.5 | +1.9 |
| **KRER** | **Koryakskii** | **2.24** | **3** | *e*P | Pn | 08 42 02.0 | +1.4 |
| **KRX** | **Arik** | **2.29** | **2** | *e*P | Pn | 08 42 04.7 | +3.4 |
| **GNL** | **Ganaly** | **2.65** | **353** | *e*P | Pn | 08 42 09.5 | +3.4 |
| GNL | | | | *e*S | Sn | 08 42 40.0 | +2.9 |
| **KBTR** | **Krutoberegovo** | **5.74** | **25** | *e*P | Pn | 08 42 51.0 | +2.7 |

*ISCJB* ***21*** *08:56:15.5±0.6, 24.°44N±0.°05×122.°42E±0.°02, h56km±9km, Error ellipse: s-maj=8.1km s-min=3.0km az=174.8*
*JMA* ***21*** *08:56:15.0±0.1, 24.°45N×122.°39E, h61km±1km, M2.2*
*TAP* ***21*** *08:56:15.7, 24.°46N×122.°41E, h46km±1km, ML2.9, D*

**ISC 21 08:56:16.0±1.4, 24.°45N±0.°06×122.°42E±0.°02, h52km±14km, n22, σ0.°45/43, Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JYNG** | **Yonagunijimaku** | **0.48** | **90** | P | **Pn** | **08 56 27.1** | **-0.1** |
| JYNG | | | | S | **Sn** | **08 56 35.8** | **+0.5** |
| **TWC** | **Suao** | **0.54** | **287** | P | **Pn** | **08 56 27.6** | **-0.3** |
| | baz=286 | | | | | | |
| TWC | | | | *i* S | **Sn** | **08 56 36.2** | **-0.2** |
| | baz=286 | | | | | | |
| **YOJ** | **Yonaguni jima** | **0.54** | **89** | P | **Pn** | **08 56 27.9** | **0.0** |
| YOJ | | | | *e*S | **Sn** | **08 56 37.0** | **+0.5** |
| **ENA** | **Nanau** | **0.61** | **268** | *e*P | **Pn** | **08 56 28.8** | **0.0** |
| | baz=266 | | | | | | |
| ENA | | | | *e*S | **Sn** | **08 56 38.0** | **-0.1** |
| | baz=266 | | | | | | |
| **TWE** | **Neicheng** | **0.73** | **292** | *e*P | **Pn** | **08 56 30.1** | **-0.2** |
| | baz=291 | | | | | | |
| TWE | | | | S | **Sn** | **08 56 40.5** | **-0.1** |
| | baz=291 | | | | | | |
| **ENTT** | **Nioudou** | **0.80** | **284** | *e*P | **Pn** | **08 56 31.5** | **+0.4** |
| | baz=283 | | | | | | |
| ENTT | | | | *e*S | **Sn** | **08 56 42.5** | **+0.3** |
| | baz=283 | | | | | | |
| **TWD** | **Chiawan** | **0.83** | **244** | *e*P | **Pn** | **08 56 31.5** | **-0.1** |
| | baz=242 | | | | | | |
| TWD | | | | *e*S | **Sn** | **08 56 42.8** | **-0.2** |
| | baz=242 | | | | | | |
| **NWF** | **Wu-fen Shan** | **0.84** | **317** | *e*P | **Pn** | **08 56 31.6** | **-0.2** |
| | baz=316 | | | | | | |
| NWF | | | | S | **Sn** | **08 56 42.8** | **-0.6** |
| | baz=316 | | | | | | |
| **NNS** | **Nan Shan** | **0.95** | **270** | *e*P | **Pn** | **08 56 33.2** | **-0.1** |
| | baz=268 | | | | | | |
| NNS | | | | *e*S | **Sn** | **08 56 46.4** | **+0.5** |
| | baz=268 | | | | | | |
| **NSK** | **Sanguang** | **0.99** | **283** | P | **Pn** | **08 56 34.1** | **+0.3** |
| | baz=282 | | | | | | |
| NSK | | | | S | **Sn** | **08 56 47.1** | **+0.4** |
| | baz=282 | | | | | | |
| **WHF** | **Hehuan Shan** | **1.09** | **254** | *e*P | **Pn** | **08 56 35.3** | **-0.2** |
| | baz=253 | | | | | | |
| WHF | | | | S | **Sn** | **08 56 49.7** | **-0.1** |
| | baz=253 | | | | | | |
| **IRIF** | **Iriomote-Funau** | **1.20** | **95** | P | **Pn** | **08 56 36.3** | **-0.2** |
| IRIF | | | | *e*S | **Sn** | **08 56 51.9** | **+0.1** |
| **WDT** | **Danda** | **1.36** | **240** | P | **Pn** | **08 56 39.2** | **+0.3** |
| | baz=238 | | | | | | |
| WDT | | | | S | **Sn** | **08 56 55.8** | **-0.3** |
| | baz=238 | | | | | | |
| **EHY** | **Hungye** | **1.37** | **227** | *e*P | **Pn** | **08 56 39.5** | **+0.7** |
| | baz=226 | | | | | | |
| EHY | | | | *e*S | **Sn** | **08 56 54.5** | **-1.4** |
| | baz=226 | | | | | | |
| **JKRS** | **Kuro-shima** | **1.47** | **98** | P | **Pn** | **08 56 40.3** | **+0.2** |
| JKRS | | | | S | **Sn** | **08 56 59.0** | **+0.7** |
| **SMLT** | **Sun Moon Lake** | **1.50** | **248** | *e*P | **Pn** | **08 56 41.2** | **+0.6** |
| | baz=247 | | | | | | |
| SMLT | | | | *e*S | **Sn** | **08 56 59.4** | **+0.3** |
| | baz=247 | | | | | | |
| **TWF1** | **Yuli** | **1.50** | **223** | P | **Pn** | **08 56 40.0** | **-0.5** |
| | baz=222 | | | | | | |
| TWF1 | | | | *e*S | **Sn** | **08 56 59.2** | **+0.2** |
| | baz=222 | | | | | | |
| **TYC** | **Yuchr** | **1.52** | **249** | *e*P | **Pn** | **08 56 41.5** | **+0.7** |
| | baz=248 | | | | | | |
| TYC | | | | *e*S | **Sn** | **08 56 60.0** | **+0.4** |
| | baz=248 | | | | | | |
| **JIJ** | **Ishigaki jima** | **1.58** | **93** | P | **Pn** | **08 56 41.1** | **-0.5** |
| JIJ | | | | *e*S | **Sn** | **08 57 00.2** | **-0.7** |
| **JISG** | **Ishigakijimahi** | **1.73** | **85** | P | **Pn** | **08 56 43.3** | **-0.4** |
| JISG | | | | S | **Sn** | **08 57 04.7** | **0.0** |
| **CHN4** | **Tsaushan** | **2.00** | **237** | *e*P | **Pn** | **08 56 47.3** | **-0.1** |
| | baz=236 | | | | | | |
| CHN4 | | | | *e*S | **Sn** | **08 57 10.7** | **-0.5** |
| | baz=236 | | | | | | |
| **JTJ** | **Tarama** | **2.09** | **84** | P | **Pn** | **08 56 49.0** | **+0.4** |

**IDC 21 08:59:51.8±3.2, 54.°59N×86.°63E, h0km, mb1 2.8/2, mb1mx2.6/45, mbtmp2.8/2, ML2.1/2, Error ellipse: s-maj=24.5km s-min=15.6km az=54.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **I46RU** | **ZALESOVO INFRA** | **1.24** | **239** | *i* | | 09 06 54.1 | |
| | baz=59,slow=348,SNR=1.7 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **1.24** | **239** | Pg | Pb | 09 00 16.0 | -0.1 |
| | 0.5nm,0.3s,baz=58,slow=15,SNR=4.7 | | | | | | |
| ZALV | | | | Lg | Lg | 09 00 32.0 | |
| | 1.0nm,0.3s,baz=56,slow=27,SNR=13 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **6.33** | **234** | Pn | Pn | 09 01 26.4 | +0.1 |
| | 0.0nm,0.3s,baz=51,slow=14,SNR=6.6 | | | | | | |
| KURBB | | | | Sn | Sn | 09 02 38.8 | -0.6 |
| | 0.0nm,0.3s,baz=47,slow=20,SNR=2.8 | | | | | | |
| KURBB | | | | Lg | Lg | 09 03 13.8 | |
| | 0.0nm,0.3s,baz=48,slow=31,SNR=5.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **8.28** | **201** | Pn | Pn | 09 01 54.6 | +1.5 |
| | 0.0nm,0.3s,baz=24,slow=12,SNR=2.4 | | | | | | |
| MKAR | | | | Sn | Sn | 09 03 25.0 | -2.2 |
| | 0.0nm,0.3s,baz=23,slow=27,SNR=3.3 | | | | | | |
| MKAR | | | | Lg | Lg | 09 04 18.4 | |
| | 0.0nm,0.3s,baz=20,slow=31,SNR=3.1 | | | | | | |

**MEX 21 09:03:05.5±0.6, 14.°88N×93.°12W, h30km±10km, MD3.8, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PCIG** | | **0.82** | **353** | *e*P | Pn | 09 03 18.8 | -2.3 |
| PCIG | | | | *e*S | Sb | 09 03 29.0 | -3.1 |
| **CCIG** | **Comitan** | **1.68** | **34** | *e*P | Pn | 09 03 31.7 | -1.4 |
| CCIG | | | | *i* S | Sn | 09 03 50.8 | -2.9 |
| **TGIG** | | **1.89** | **360** | *i* P | Pn | 09 03 33.5 | -2.3 |
| TGIG | | | | *i* S | Sn | 09 03 55.7 | -2.8 |

**IDC 21 09:07:30.1±3.5, 54.°20N×87.°50E, h0km, mb1 2.6/1, mb1mx2.5/45, mbtmp2.6/1, ML2.5/1, Error ellipse: s-maj=29.7km s-min=18.2km az=53.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **I46RU** | **ZALESOVO INFRA** | **1.60** | **262** | *i* | | 09 18 53.8 | |
| | baz=80,slow=345,SNR=21 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **1.60** | **262** | Pg | Pn | 09 07 57.8 | -1.8 |
| | 0.5nm,0.3s,baz=82,slow=20,SNR=7.1 | | | | | | |
| ZALV | | | | Lg | Lg | 09 08 21.1 | |
| | 1.3nm,0.3s,baz=78,slow=27,SNR=7.0 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **6.55** | **240** | Pn | Pn | 09 09 08.3 | +0.7 |
| | baz=54,slow=14 | | | | | | |
| **MKAR** | **Makanchi Array** | **8.12** | **206** | Pn | Pn | 09 09 30.7 | +1.5 |
| | 0.1nm,0.3s,baz=29,slow=14,SNR=3.5 | | | | | | |
| MKAR | | | | Sn | Sn | 09 11 00.9 | -0.8 |
| | 0.1nm,0.3s,baz=26,slow=24,SNR=3.1 | | | | | | |

**IDC 21 09:17:19.6±7.5, 14.°74S×178.°41W, h0km, mb3.8/3, mb1 4.1/3, mb1mx3.6/26, mbtmp3.8/3, Error ellipse: s-maj=338.7km s-min=34.4km az=140.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **45.28** | **256** | P | P | 09 25 39.1 | -0.4 |
| | 0.2nm,0.4s,baz=92,slow=7.6,SNR=4.8 | | | | | | |
| **ASAR** | **Alice Springs** | **45.72** | **251** | P | P | 09 25 43.1 | +0.1 |
| | 2.9nm,0.3s,baz=84,slow=8.7,SNR=62 | | | | | | |
| **ILAR** | **Eielson Array** | **82.81** | **13** | P | P | 09 29 45.4 | 0.0 |
| | 0.2nm,0.5s,baz=231,slow=6.2,SNR=3.9 | | | | | | |

**IDC 21 09:19:26.1±2.9, 54.°48N×87.°02E, h0km, mb1 3.0/2, mb1mx2.9/40, mbtmp3.0/2, ML2.5/2, Error ellipse: s-maj=24.6km s-min=18.9km az=43.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **I46RU** | **ZALESOVO INFRA** | **1.40** | **249** | *i* | | 09 26 48.1 | |
| | baz=68,slow=348,SNR=2.9 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **1.40** | **249** | Pg | Pn | 09 19 50.3 | -2.6 |
| | 0.7nm,0.3s,baz=66,slow=17,SNR=15 | | | | | | |
| ZALV | | | | Lg | Lg | 09 20 10.8 | |
| | 1.3nm,0.3s,baz=68,slow=25,SNR=9.3 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **6.46** | **237** | Pn | Pn | 09 21 03.1 | +0.7 |
| | 0.1nm,0.3s,baz=54,slow=14,SNR=7.1 | | | | | | |
| KURBB | | | | Sn | Sn | 09 22 16.9 | +0.2 |
| | 0.0nm,0.3s,baz=99,slow=5.9,SNR=3.3 | | | | | | |
| KURBB | | | | Lg | Lg | 09 22 50.6 | |
| | baz=62,slow=36,SNR=3.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **8.26** | **203** | Pn | Pn | 09 21 28.6 | +1.4 |
| | 0.1nm,0.3s,baz=26,slow=13,SNR=5.7 | | | | | | |

*IDC* ***21*** *09:21:09.2±1.3, 19.°19S×177.°56W, h544km±14km, mb3.7/16, mb1 3.8/20, mb1mx3.7/31, mbtmp4.6/20, Error ellipse: s-maj=13.8km s-min=9.6km az=136.0*
*NEIC* ***21*** *09:21:12.2±0.7, 19.°37S×177.°71W, h577km±8km, mb4.2/37, Error ellipse: s-maj=10.0km s-min=5.7km az=123.0*

**ISC 21 09:21:09.5±0.4, 19.°34S±0.°07×177.°44W±0.°07, h550km, n122, σ1°61/133, mb4.2/53, 7C, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MSVF** | **Nonsavu** | **4.57** | **290** | *e*P | **P** | **09 22 38.5** | **+2.5** |
| MSVF | | | | *e*S | **S** | **09 23 52.0** | **+5.7** |
| **AFI** | **Afiamalu** | **7.65** | **46** | P | **P** | **09 23 03.8** | **-0.1** |
| | 13nm,0.3s,baz=219,slow=6.5,SNR=24 | | | | | | |
| AFI | | | | S | **S** | **09 24 34.7** | **-3.0** |
| | 9.3nm,0.3s,baz=35,slow=23,SNR=8.5 | | | | | | |
| **AFI** | **Afiamalu** | **7.65** | **46** | *e*P | **P** | **09 23 03.2** | **-0.8** |
| AFI | | | | *e*S | **S** | **09 24 33.0** | **-4.7** |
| **DZM** | **Mont Dzumac** | **15.33** | **257** | P | **P** | **09 24 22.4** | **-0.1** |
| | 0.5nm,0.3s,baz=76,slow=17,SNR=4.8 | | | | | | |
| **DZM** | **Mont Dzumac** | **15.33** | **257** | *e*P | **P** | **09 24 24.3** | **+1.8** |
| | 24nm,1.3s | | | | | | |
| **RAR** | **Rarotonga** | **16.68** | **99** | P | **P** | **09 24 37.0** | **+1.7** |
| | 1.1nm,0.3s,baz=276,slow=9.2,SNR=4.8 | | | | | | |
| **URZ** | **Urewera** | **19.44** | **193** | P | **P** | **09 24 59.4** | **-1.0** |
| | 3.1nm,0.3s,baz=7.1,slow=7.4,SNR=15 | | | | | | |
| URZ | | | | S | **S** | **09 28 01.8** | **-5.8** |
| | 0.5nm,0.3s,baz=47,slow=21,SNR=7.8 | | | | | | |
| **URZ** | **Urewera** | **19.44** | **193** | *e*P | **P** | **09 24 59.5** | **-0.8** |
| | 18nm,0.8s | | | | | | |
| **THZ** | **Tophouse** | **23.82** | **198** | *e*P | **P** | **09 25 40.2** | **+0.6** |
| | 49nm,1.9s | | | | | | |
| **KHZ** | **Kahutara** | **24.24** | **196** | *e*P | **P** | **09 25 42.9** | **-0.4** |
| | 29nm,1.4s | | | | | | |
| **OXZ** | **Oxford** | **25.50** | **198** | *e*P | **P** | **09 25 53.9** | **-0.6** |
| | 35nm,1.5s | | | | | | |
| **RPZ** | **Rata Peaks** | **26.16** | **199** | P | **P** | **09 26 01.7** | **+1.4** |
| | 5.7nm,0.6s,baz=43,slow=0.8,SNR=7.1 | | | | | | |
| **MLZ** | **Mavora Lakes** | **28.59** | **202** | *e*P | **P** | **09 26 21.9** | **+0.4** |
| | 8.6nm,0.5s | | | | | | |
| **DCZ** | **Deep Cove** | **29.02** | **203** | *e*P | **P** | **09 26 25.1** | **-0.1** |
| | 11nm,0.7s | | | | | | |
| **WHZ** | **Wether Hill Ro** | **29.11** | **201** | *e*P | **P** | **09 26 26.3** | **+0.3** |
| | 42nm,0.6s | | | | | | |
| **CTA** | **Charters Tower** | **34.15** | **263** | P | **P** | **09 27 09.1** | **-0.3** |
| | 15nm,0.5s,baz=95,slow=7.9 | | | | | | |
| **PMG** | **Port Moresby** | **35.62** | **281** | P | **P** | **09 27 20.8** | **-0.8** |
| | 12nm,0.8s,baz=79,slow=5.2,SNR=4.9 | | | | | | |
| **STKA** | **Stephens Creek** | **38.78** | **243** | P | **P** | **09 27 47.6** | **+0.3** |
| | 6.3nm,0.7s,baz=88,slow=8.8,SNR=12 | | | | | | |
| **STKA** | **Stephens Creek** | **38.78** | **243** | *e*P | **P** | **09 27 46.5** | **-0.8** |
| | 1.8nm,0.8s | | | | | | |
| **AS01** | **Alice Springs** | **45.27** | **256** | *e*P | **P** | **09 28 37.5** | **-1.0** |
| AS01 | | | | *e*PcP | **PcP** | **09 30 05.9** | **-0.9** |
| **WB2** | **Warramunga Arr** | **45.29** | **261** | *e*P | **P** | **09 28 36.9** | **-1.8** |
| **WRAB** | **Tennant Creek** | **45.29** | **261** | *e*P | **P** | **09 28 36.4** | **-2.3** |
| | 11nm,1.0s | | | | | | |
| **WRA** | **Warramunga Arr** | **45.30** | **261** | P | **P** | **09 28 37.2** | **-1.6** |
| | 4.3nm,0.3s,baz=97,slow=7.7,SNR=131 | | | | | | |
| WRA | | | | PcP | **PcP** | **09 30 06.3** | **-0.6** |
| | 1.9nm,0.5s,baz=93,slow=3.9,SNR=9.1 | | | | | | |
| **AS31** | **Alice Springs** | **45.31** | **256** | *e*P | **P** | **09 28 37.9** | **-1.0** |
| | 3.1nm,0.9s | | | | | | |
| AS31 | | | | *e*S | **S** | **09 34 37.4** | **-2.4** |
| **ASAR** | **Alice Springs** | **45.31** | **256** | P | **P** | **09 28 38.0** | **-0.8** |
| | 7.9nm,0.7s,baz=88,slow=7.9,SNR=82 | | | | | | |
| ASAR | | | | PcP | **PcP** | **09 30 06.2** | **-0.7** |
| | 4.2nm,0.7s,baz=100,slow=3.8,SNR=14 | | | | | | |
| **MBWA** | **Marble Bar** | **58.63** | **257** | *e*P | **P** | **09 30 13.4** | **-1.2** |
| | 14nm,0.4s | | | | | | |
| **VNDA** | **Vanda** | **59.11** | **185** | P | **P** | **09 30 19.0** | **+2.2** |
| | 2.8nm,0.6s,baz=21,slow=9.3,SNR=19 | | | | | | |
| **VNDA** | **Vanda** | **59.11** | **185** | *e*P | **P** | **09 30 18.3** | **+1.6** |
| | 16nm,1.6s | | | | | | |
| **QSPA** | **South Pole Qui** | **70.72** | **180** | *e*P | **P** | **09 31 31.6** | **+1.5** |
| | 109nm,1.1s | | | | | | |
| **PETK** | **Petropavlovsk-** | **75.29** | **345** | P | **P** | **09 31 55.0** | **-1.2** |
| | 4.5nm,0.9s,baz=164,slow=7.0,SNR=3.1 | | | | | | |
| **AFDM** | **Forest Hills D** | **78.42** | **42** | *e*P | **P** | **09 32 15.2** | **+1.5** |
| | 3.3nm,1.0s | | | | | | |
| **MDPB** | **Devils Postpil** | **78.86** | **44** | *e*P | **P** | **09 32 17.7** | **+1.4** |
| | 3.9nm,0.9s | | | | | | |
| **PNTR** | **Pine Nut** | **79.37** | **42** | *e*P | **P** | **09 32 20.5** | **+1.5** |
| | 8.0nm,0.8s | | | | | | |
| **YERR** | **Yerington** | **79.54** | **42** | *e*P | **P** | **09 32 21.1** | **+1.3** |
| | 5.0nm,0.6s | | | | | | |
| **NVAR** | **Mina Array Bea** | **79.82** | **43** | P | **P** | **09 32 22.3** | **+1.0** |
| | 1.5nm,0.7s,baz=223,slow=8.7,SNR=13 | | | | | | |
| **LDFC** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | comp=Z,5.4nm,1.3s,baz=293,slow=4.7,SNR=3.2 | | | | | | | |
| **VNA2** | **Neumayer--Watz** | **89.71** | **177** | P | | **P** | 09 33 09.4 | **+0.6** |
| | baz=180,slow=3.7 | | | | | | | |
| **VNA1** | **Neumayer--Stat** | **89.93** | **176** | P | | **P** | 09 33 10.3 | **+0.5** |
| **CMAR** | **Chiang Mai Arr** | **90.23** | **289** | P | | **P** | 09 33 13.2 | **+1.0** |
| | comp=Z,2.1nm,0.7s,baz=116,slow=3.3,SNR=11 | | | | | | | |
| **ROC1** | **El Roble** | **92.64** | **126** | *e*P | | P | 09 33 29.1 | +5.6 |
| | comp=Z,20nm,0.5s | | | | | | | |
| **YKA** | **Yellowknife Ar** | **95.24** | **25** | P | | **P** | 09 33 33.6 | **-0.5** |
| | comp=Z,0.4nm,0.8s,baz=247,slow=4.3,SNR=5.9 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **109.92** | **321** | PKiKP | | **PKiKP** | 09 38 36.4 | **-1.8** |
| | comp=Z,0.6nm,0.3s,baz=42,slow=0.2,SNR=3.7 | | | | | | | |
| **MKAR** | **Makanchi Array** | **110.79** | **314** | PKiKP | | **PKiKP** | 09 38 38.5 | **-1.7** |
| | comp=Z,1.0nm,0.5s,baz=182,slow=0.7,SNR=23 | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **113.55** | **318** | PKiKP | | **PKiKP** | 09 38 43.5 | **-1.7** |
| | comp=Z,1.5nm,0.7s,baz=96,slow=1.7,SNR=13 | | | | | | | |
| **BOSA** | **Boshof** | **127.53** | **205** | PKP | | **PKPdf** | 09 39 12.6 | **-0.5** |
| | comp=Z,2.3nm,0.6s,baz=138,slow=2.2,SNR=6.7 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **127.88** | **350** | PKP | | **PKPdf** | 09 39 11.5 | **-0.7** |
| | comp=Z,2.0nm,0.5s,baz=0.0,slow=1.4,SNR=22 | | | | | | | |
| **FINES** | **FINESS Array B** | **134.81** | **344** | PKP | | **PKPdf** | 09 39 24.0 | **-1.4** |
| | comp=Z,1.8nm,0.8s,baz=1.7,slow=4.7,SNR=4.1 | | | | | | | |
| **NB2** | **NORSAR Subarra** | **137.89** | **354** | PKP | | **PKPdf** | 09 39 32.1 | **+0.8** |
| | comp=Z,1.1nm,0.7s,baz=17,slow=2.6 | | | | | | | |
| **NOA** | **NORSAR Array B** | **137.89** | **354** | PKP | | **PKPdf** | 09 39 31.4 | **+0.1** |
| | comp=Z,0.8nm,0.8s,baz=13,slow=4.0,SNR=3.8 | | | | | | | |
| **AKASG** | **Malin Array Be** | **142.25** | **332** | PKhKP | | PKPpre | 09 39 34.3 | |
| | comp=Z,1.5nm,0.4s,baz=42,slow=4.3,SNR=12 | | | | | | | |
| AKASG | | | | PKP | | **PKPdf** | 09 39 40.9 | **+1.5** |
| | comp=Z,0.8nm,0.5s,baz=25,slow=2.8,SNR=4.1 | | | | | | | |
| **BUR08** | **Bucovina Ar. S** | **146.29** | **332** | *e*PKPbc | | **PKPbc** | 09 39 49.2 | **+0.3** |
| **BRTR** | **Keskin Array B** | **146.44** | **314** | PKPbc | | **PKPbc** | 09 39 48.7 | **+1.5** |
| | comp=Z,4.5nm,0.7s,baz=138,slow=5.2,SNR=17 | | | | | | | |
| **STHS** | **Stebnicka Huta** | **146.46** | **338** | *e*PKP | | **PKPab** | 09 39 51.5 | **-0.2** |
| **CRVS** | **Cervenica-Dubn** | **146.81** | **337** | *e*PKP | | **PKPbc** | 09 39 51.7 | **+1.6** |
| **CLL** | **Collm** | **147.05** | **348** | *i* PKPbc | | **PKPbc** | 09 39 50.2 | **-0.4** |
| | comp=Z,16nm,1.0s | | | | | | | |
| **CLL** | **Collm** | **147.05** | **348** | *e*PKPbc | | **PKPbc** | 09 39 50.2 | **-0.4** |
| **UPC** | **Upice** | **147.11** | **344** | ⇑*e*PKP | | **PKPbc** | 09 39 50.8 | **-0.1** |
| **DPC** | **Dobruska-Polom** | **147.18** | **344** | ⇑*e*PKP | | **PKPbc** | 09 39 51.2 | **+0.1** |
| DPC | | | | *e*PKPAB | | **PKPab** | 09 39 54.8 | **+0.2** |
| DPC | | | | *e*pPKP | | **pPKPab** | 09 42 05.3 | **+7.0** |
| **BRG** | **Berggiesshubel** | **147.27** | **347** | *i* PKP | | **PKPdf** | 09 39 47.8 | **-0.2** |
| | comp=Z,3.1nm,0.8s | | | | | | | |
| BRG | | | | *i* | | | 09 39 50.8 | |
| | comp=Z,6.7nm,0.8s | | | | | | | |
| **KRLC** | **Kraliky** | **147.30** | **343** | ⇑*e*PKP | | **PKPbc** | 09 39 50.8 | **-0.6** |
| **PVCC** | **Panska Ves** | **147.45** | **346** | ⇑*e*PKP | | **PKPbc** | 09 39 51.9 | **+0.2** |
| **PRU** | **Pruhonice** | **147.96** | **345** | ⇑*e*PKP | | **PKPbc** | 09 39 52.8 | **-0.2** |
| **GQDC** | **GO Pecny, Ondr** | **147.97** | **345** | ⇑*e*PKP | | **PKPbc** | 09 39 53.0 | **-0.1** |
| **VYHS** | **Vyhne** | **148.07** | **339** | *e*PKP | | **PKPbc** | 09 39 53.4 | **0.0** |
| **BCLA** | **Clavier** | **148.91** | **357** | PKP | | **PKPdf** | 09 39 51.6 | **+0.9** |
| **KHC** | **Kasperske Hory** | **148.98** | **346** | ⇑*e*PKP | | **PKPbc** | 09 39 55.1 | **-0.6** |
| KHC | | | | *e*PKPAB | | **PKPab** | 09 40 01.9 | **-0.1** |
| **KHC** | **Kasperske Hory** | **148.98** | **346** | *e*PKPbc | | **PKPbc** | 09 39 55.4 | **-0.3** |
| KHC | | | | *e*PKPab | | **PKPab** | 09 40 02.1 | **+0.1** |
| **GEC2** | **GERESS Array S** | **149.22** | **346** | *e*PKPbc | | **PKPbc** | 09 39 56.1 | **-0.2** |
| **GERES** | **GERESS Array B** | **149.22** | **346** | PKPbc | | **PKPbc** | 09 39 55.8 | **-0.5** |
| | comp=Z,5.3nm,0.8s,baz=42,slow=2.2,SNR=22 | | | | | | | |
| **DOU** | **Dourbes** | **149.27** | **357** | PKPbc | | **PKPbc** | 09 39 56.1 | **-0.1** |
| **CONA** | **Conrad Observa** | **149.50** | **342** | *i* PKPbc | | **PKPbc** | 09 39 56.6 | **-0.4** |
| | comp=Z,10nm,0.8s | | | | | | | |
| **WLF** | **Walferdange** | **149.61** | **355** | PKPbc | | **PKPbc** | 09 39 57.5 | **+0.4** |
| **MOA** | **Molln** | **150.01** | **344** | *e*PKPbc | | **PKPbc** | 09 39 57.4 | **-0.7** |
| | comp=Z,4.0nm,0.6s | | | | | | | |
| **ARSA** | **Arzberg** | **150.21** | **342** | *e*PKPbc | | **PKPbc** | 09 39 57.7 | **-1.0** |
| | comp=Z,8.9nm,1.4s | | | | | | | |
| **BFO** | **Black Forest** | **150.70** | **352** | *e*PKPbc | | **PKPbc** | 09 39 59.4 | **-0.4** |
| **SOKA** | **Soboth** | **150.87** | **342** | *e*PKPbc | | **PKPbc** | 09 39 59.0 | **-1.3** |
| | comp=Z,5.8nm,0.8s | | | | | | | |
| **WATA** | **Walderalm** | **151.12** | **347** | *i* PKPbc | | **PKPbc** | 09 40 00.1 | **-0.8** |
| | comp=Z,7.2nm,0.5s | | | | | | | |
| **RETA** | **Reutte** | **151.14** | **348** | *e*PKPbc | | **PKPbc** | 09 39 59.9 | **-0.9** |
| | comp=Z,2.8nm,0.5s | | | | | | | |
| **OBKA** | **Obir** | **151.16** | **343** | *i* PKPbc | | **PKPbc** | 09 39 59.5 | **-1.4** |
| | comp=Z,4.4nm,0.8s | | | | | | | |
| **WTTA** | **Wattenberg** | **151.18** | **347** | *e*PKPbc | | **PKPbc** | 09 40 00.3 | **-0.7** |
| | comp=Z,11nm,0.6s | | | | | | | |
| **MOTA** | **Moosalm** | **151.21** | **348** | *e*PKPbc | | **PKPbc** | 09 40 00.2 | **-0.8** |
| | comp=Z,6.6nm,0.7s | | | | | | | |
| **MYKA** | **Terra Mystica** | **151.30** | **344** | *e*PKPbc | | **PKPbc** | 09 39 59.6 | **-1.6** |
| | comp=Z,8.4nm,0.6s | | | | | | | |
| **ABTA** | **Abfaltersbach** | **151.47** | **346** | *e*PKPbc | | **PKPbc** | 09 40 00.4 | **-1.2** |
| | comp=Z,14nm,0.6s | | | | | | | |
| **DAVA** | **Damuels** | **151.49** | **350** | *i* PKiKP | | **PKPbc** | 09 40 01.7 | **0.0** |
| | comp=Z,8.3nm,1.0s | | | | | | | |
| **FETA** | **Feichten** | **151.59** | **348** | *e*PKPbc | | **PKPbc** | 09 40 01.3 | **-0.7** |
| | comp=Z,8.5nm,0.8s | | | | | | | |
| **LJU** | **Ljubljana** | **151.59** | **342** | *i* PKPbc | | **PKPbc** | 09 40 00.9 | **-0.8** |
| **CRNS** | **Crni Vrh** | **151.64** | **343** | *e*PKPbc | | **PKPbc** | 09 40 00.7 | **-1.2** |
| **BOJS** | **Bojanci** | **151.87** | **341** | *i* PKPbc | | **PKPbc** | 09 40 01.9 | **-0.5** |
| **FUORN** | **Ofenpass-Fuorn** | **152.06** | **349** | *e*PKPbc | | **PKPbc** | 09 40 03.1 | **0.0** |
| **TORD** | **Torodi Ar. Bea** | **173.79** | **172** | PKP | | **PKPdf** | 09 40 14.9 | **-2.0** |
| | comp=Z,1.7nm,0.9s,baz=33,slow=0.3,SNR=9.3 | | | | | | | |
| TORD | | | | PKPab | | **PKPab** | 09 41 51.5 | **+0.7** |
| | comp=Z,0.8nm,0.6s,baz=179,slow=3.9,SNR=5.0 | | | | | | | |

*DDA* ***21*** *09:22:17.3,39.48N×36.65E,h15km,Ml3.7*
*ISK* ***21*** *09:22:17.0,39.51N×36.65E,h5km,ML3.6*
*CSEM* ***21*** *09:22:18.3±0.1,39.50N×36.68E,h2km,ML3.7, Error ellipse: s-maj=2.7km s-min=2.6km az=160.0*

**ISC 21 09:22:18.1**±1.1,**39.49N**±0.01×**36.70E**±0.02,**h2**km±9km, **n113,σ1♀05/158,8C-3D,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CUALT** | **Altinyayla-SIV** | **0.22** | **167** | ⇑*i*P | **Pg** | **09 22 22.3** | **-0.1** |
| CUALT | | | | *i* S | **Sg** | **09 22 26.4** | **+1.2** |
| **CUALT** | **Altinyayla-SIV** | **0.22** | **167** | P | **Pg** | **09 22 22.3** | **-0.1** |
| CUALT | | | | S | **Sg** | **09 22 26.4** | **+1.2** |
| **CUSAR** | **Sarkisla-SIVAS** | **0.36** | **259** | ⇑*i*P | **Pg** | **09 22 24.4** | **-0.6** |
| CUSAR | | | | *i* S | **Sg** | **09 22 30.1** | **+0.5** |
| **CUSAR** | **Sarkisla-SIVAS** | **0.36** | **259** | P | **Pg** | **09 22 24.4** | **-0.6** |
| CUSAR | | | | S | **Sg** | **09 22 30.1** | **+0.5** |
| **SVSK** | **Karacayir** | **0.49** | **28** | *e*PG | **Pg** | **09 22 27.6** | **+0.1** |
| SVSK | | | | *e*SG | **Sb** | **09 22 35.4** | **-1.6** |
| **SVSK** | **Karacayir** | **0.49** | **28** | *e*Pg | **Pg** | **09 22 27.6** | **+0.1** |
| SVSK | | | | *e*Sg | **Sb** | **09 22 35.4** | **-1.6** |
| **SCER** | **sogukcermik** | **0.50** | **42** | ⇓*i*P | **Pg** | **09 22 27.5** | **-0.2** |
| SCER | | | | *i* S | **Sb** | **09 22 35.8** | **-1.8** |
| **SCER** | **sogukcermik** | **0.50** | **42** | P | **Pg** | **09 22 27.5** | **-0.2** |
| SCER | | | | S | **Sb** | **09 22 35.8** | **-1.8** |
| **CUKAN** | **kangal_SIVAS** | **0.62** | **106** | ⇓*i*P | **Pg** | **09 22 29.7** | **-0.3** |
| CUKAN | | | | *i* S | **Sb** | **09 22 40.8** | **-0.2** |
| **CUKAN** | **kangal_SIVAS** | **0.62** | **106** | P | **Pg** | **09 22 29.7** | **-0.3** |
| CUKAN | | | | S | **Sb** | **09 22 40.8** | **-0.2** |
| **TOKA** | **Tokat** | **0.85** | **349** | ⇑*i*P | **Pg** | **09 22 33.4** | **-1.0** |
| **TOKA** | **Tokat** | **0.85** | **349** | P | **Pg** | **09 22 33.4** | **-1.0** |
| **CUGUR** | **Gurin_S¨VAS** | **0.88** | **149** | *i* P | **Pg** | **09 22 34.2** | **-0.8** |
| CUGUR | | | | *i* S | **Sb** | **09 22 46.7** | **-1.8** |
| **CUGUR** | **Gurin_S¨VAS** | **0.88** | **149** | P | **Pg** | **09 22 34.2** | **-0.8** |
| CUGUR | | | | S | **Sb** | **09 22 46.7** | **-1.8** |
| **BNN** | **Bunyan** | **0.92** | **226** | *e*PG | **Pg** | **09 22 34.8** | **-0.9** |
| BNN | | | | *e*SG | **Sg** | **09 22 49.1** | **+1.6** |
| **BNN** | **Bunyan** | **0.92** | **226** | *e*Pg | **Pg** | **09 22 34.8** | **-0.9** |
| BNN | | | | *e*Sg | **Sg** | **09 22 49.2** | **+1.6** |
| **CUZAR** | **Zara_SIVAS** | **0.92** | **64** | *i* P | **Pg** | **09 22 35.7** | **-0.1** |
| CUZAR | | | | *i* S | **Sn** | **09 22 49.9** | **-2.1** |
| **CUZAR** | **Zara_SIVAS** | **0.92** | **64** | P | **Pg** | **09 22 35.7** | **-0.1** |
| CUZAR | | | | S | **Sn** | **09 22 49.9** | **-2.1** |
| **RSDY** | **Resadiye-TOKAT** | **1.03** | **28** | *e*PG | **Pg** | **09 22 37.3** | **-0.6** |
| **RSDY** | **Resadiye-TOKAT** | **1.03** | **28** | *e*Pg | **Pg** | **09 22 37.3** | **-0.6** |
| **YOZ** | **Yozgat** | **1.07** | **279** | *e*PG | **Pg** | **09 22 37.6** | **-1.1** |
| **YOZ** | **Yozgat** | **1.07** | **279** | *e*Pg | **Pg** | **09 22 37.6** | **-1.1** |
| **SARI** | **SarD1z-Kayseri** | **1.10** | **191** | *e*PN | **Pg** | **09 22 39.5** | **+0.3** |
| **DARE** | **Darende-Malaty** | **1.10** | **146** | *e*PN | **Pn** | **09 22 40.0** | **-0.6** |
| **DARE** | **Darende-Malaty** | **1.10** | **146** | *e*Pn | **Pn** | **09 22 40.0** | **-0.6** |
| **HEKM** | **Malatya_Hekimh** | **1.15** | **121** | ⇑*i*P | **Pg** | **09 22 39.0** | **-1.3** |
| HEKM | | | | *i* S | **Sn** | **09 22 56.9** | **-1.0** |
| **HEKM** | **Malatya_Hekimh** | **1.15** | **121** | P | **Pg** | **09 22 39.0** | **-1.3** |
| HEKM | | | | S | **Sn** | **09 22 56.9** | **-1.0** |
| **ERBA** | **Erbaa** | **1.19** | **2** | ⇑*i*P | **Pg** | **09 22 40.2** | **-0.8** |
| ERBA | | | | *i* S | **Sg** | **09 22 57.4** | **+0.9** |
| **ERBA** | **Erbaa** | **1.19** | **2** | P | **Pg** | **09 22 40.2** | **-0.8** |
| ERBA | | | | S | **Sg** | **09 22 57.4** | **+0.9** |
| **ELBS** | **KAHRAMANMARAS** | **1.21** | **164** | *i* P | **Pg** | **09 22 40.2** | **-1.1** |
| ELBS | | | | *i* S | **Sn** | **09 22 59.2** | **+0.1** |
| **ELBS** | **KAHRAMANMARAS** | **1.21** | **164** | P | **Pg** | **09 22 40.2** | **-1.1** |
| ELBS | | | | S | **Sn** | **09 22 59.2** | **+0.1** |
| **SUSE** | **Susehri** | **1.36** | **58** | ⇓*i*P | **Pg** | **09 22 43.8** | **-0.5** |
| SUSE | | | | *i* S | **Sn** | **09 23 04.0** | **+0.9** |
| **SUSE** | **Susehri** | **1.36** | **58** | P | **Pg** | **09 22 43.8** | **-0.5** |
| SUSE | | | | S | **Sn** | **09 23 04.0** | **+0.9** |
| **KEMA** | **Kemaliye** | **1.41** | **98** | *i* P | **Pg** | **09 22 43.9** | **-1.2** |
| KEMA | | | | *i* S | **Sn** | **09 23 04.7** | **+0.7** |
| **KEMA** | **Kemaliye** | **1.41** | **98** | P | **Pg** | **09 22 43.9** | **-1.2** |
| KEMA | | | | S | **Sn** | **09 23 04.7** | **+0.7** |
| **ILIC** | **ilic-Erzincan** | **1.45** | **91** | *e*PN | **Pb** | **09 22 45.9** | **0.0** |
| **ILIC** | **ilic-Erzincan** | **1.45** | **91** | *e*Pn | **Pb** | **09 22 45.9** | **0.0** |
| **COAL** | **Corum-Alaca** | **1.52** | **301** | *i* P | **Pn** | **09 22 45.3** | **-1.2** |
| COAL | | | | *i* S | **Sn** | **09 23 08.4** | **+1.5** |
| **COAL** | **Corum-Alaca** | **1.52** | **301** | P | **Pn** | **09 22 45.3** | **-1.2** |
| COAL | | | | S | **Sn** | **09 23 08.4** | **+1.5** |
| **AKCD** | **Akcadag** | **1.53** | **141** | *i* P | **Pb** | **09 22 46.4** | **-0.8** |
| AKCD | | | | *i* S | **Sn** | **09 23 08.4** | **+1.4** |
| **AKCD** | **Akcadag** | **1.53** | **141** | P | **Pb** | **09 22 46.4** | **-0.8** |
| AKCD | | | | S | **Sn** | **09 23 08.4** | **+1.4** |
| **SAIM** | **ADANA** | **1.58** | **198** | *i* P | **Pn** | **09 22 47.0** | **-0.2** |
| SAIM | | | | *i* S | **Sg** | **09 23 10.3** | **+1.4** |
| **SAIM** | **ADANA** | **1.58** | **198** | P | **Pn** | **09 22 47.0** | **-0.2** |
| SAIM | | | | S | **Sg** | **09 23 10.3** | **+1.4** |
| **AVNS** | **Nevsehir-Avano** | **1.59** | **245** | *i* P | **Pn** | **09 22 46.4** | **-0.9** |
| AVNS | | | | *i* S | **Sn** | **09 23 09.1** | **+0.6** |
| **AVNS** | **Nevsehir-Avano** | **1.59** | **245** | P | **Pn** | **09 22 46.4** | **-0.9** |
| AVNS | | | | S | **Sn** | **09 23 09.1** | **+0.6** |
| **REFA** | **Refahiye_ERZ¨** | **1.60** | **93** | *i* P | **Pg** | **09 22 48.2** | **-0.6** |
| REFA | | | | *i* S | **Sg** | **09 23 13.9** | **+4.2** |
| **REFA** | **Refahiye_ERZ¨** | **1.60** | **93** | P | **Pg** | **09 22 48.2** | **-0.6** |
| **KVT** | **Kavak** | **1.67** | **343** | *e*PN | **Pn** | **09 22 48.1** | **-0.3** |
| **KVT** | **Kavak** | **1.67** | **343** | *e*Pn | **Pn** | **09 22 48.1** | **-0.3** |
| **YAHY** | **KAYSERI_Yahyal** | **1.74** | **217** | *i* P | **Pn** | **09 22 49.1** | **-0.3** |
| YAHY | | | | *i* S | **Sb** | **09 23 13.9** | **+1.5** |
| **YAHY** | **KAYSERI_Yahyal** | **1.74** | **217** | P | **Pn** | **09 22 49.1** | **-0.3** |
| YAHY | | | | S | **Sb** | **09 23 13.9** | **+0.9** |
| **HAVZ** | **Havza** | **1.75** | **335** | ⇑*i*P | **Pn** | **09 22 49.6** | **+0.1** |
| HAVZ | | | | *i* S | **Sb** | **09 23 15.2** | **+1.8** |
| **HAVZ** | **Havza** | **1.75** | **335** | P | **Pn** | **09 22 49.6** | **+0.1** |
| **MALT** | **Malatya** | **1.79** | **130** | *e*PN | **Pb** | **09 22 50.7** | **-0.9** |
| **MALT** | **Malatya** | **1.79** | **130** | *e*Pn | **Pb** | **09 22 50.7** | **-0.9** |
| **CDAG** | **Cicekdag** | **1.80** | **275** | ⇑*i*P | **Pn** | **09 22 49.9** | **-0.4** |
| CDAG | | | | *i* S | **Sn** | **09 23 14.8** | **+1.1** |
| **CDAG** | **Cicekdag** | **1.80** | **275** | P | **Pn** | **09 22 49.9** | **-0.4** |
| CDAG | | | | S | **Sn** | **09 23 14.8** | **+1.1** |
| **CTAK** | **Corum_Osmancik** | **1.87** | **309** | ⇑*i*P | **Pn** | **09 22 52.3** | **+1.1** |
| CTAK | | | | *i* S | **Sg** | **09 23 19.3** | **+1.2** |
| **CTAK** | **Corum_Osmancik** | **1.87** | **309** | P | **Pn** | **09 22 52.3** | **+1.1** |
| **SAMS** | **Samsun-Alacam** | **1.91** | **348** | *i* P | **Pn** | **09 22 51.9** | **+0.2** |
| SAMS | | | | *i* S | **Sn** | **09 23 17.3** | **+1.0** |
| **SAMS** | **Samsun-Alacam** | **1.91** | **348** | P | **Pn** | **09 22 51.9** | **+0.2** |
| SAMS | | | | S | **Sn** | **09 23 17.3** | **+1.0** |
| **ANDN** | **Andirin** | **1.92** | **188** | *i* P | **Pb** | **09 22 53.2** | **-0.7** |
| ANDN | | | | *i* S | **Sg** | **09 23 20.3** | **+0.4** |
| **ANDN** | **Andirin** | **1.92** | **188** | P | **Pb** | **09 22 53.2** | **-0.7** |
| ANDN | | | | S | **Sg** | **09 23 20.3** | **+0.4** |
| **KMRS** | **Kahramanmaras** | **1.98** | **175** | *e*PN | **Pn** | **09 22 53.4** | **+0.7** |
| **KMRS** | **Kahramanmaras** | **1.98** | **175** | *e*Pn | **Pn** | **09 22 53.4** | **+0.7** |
| **EZC** | **Erzincan** | **2.07** | **82** | *e*Pn | **Pg** | **09 22 58.7** | **+0.9** |
| **ESPY** | **Espiye-Giresun** | **2.11** | **47** | *e*PN | **Pn** | **09 22 55.1** | **+0.6** |
| **ESPY** | **Espiye-Giresun** | **2.11** | **47** | *e*Pn | **Pn** | **09 22 55.1** | **+0.6** |
| **KOZT** | **Kozan** | **2.12** | **199** | *e*PN | **Pn** | **09 22 55.2** | **+0.7** |
| **KOZT** | **Kozan** | **2.12** | **199** | *e*Pn | **Pn** | **09 22 55.2** | **+0.7** |
| **PTK** | **Pertek** | **2.18** | **105** | *e*PN | **Pb** | **09 22 56.3** | **-2.0** |
| **PTK** | **Pertek** | **2.18** | **105** | *e*Pn | **Pb** | **09 22 56.3** | **-2.0** |
| **KAMT** | **Kaman** | **2.31** | **268** | *e*PN | **Pn** | **09 22 57.3** | **0.0** |
| **KAMT** | **Kaman** | **2.31** | **268** | *e*Pn | **Pn** | **09 22 57.3** | **0.0** |
| **SVRC** | **Sivrice-ELAZID** | **2.32** | **118** | *e*PN | **Pb** | **09 22 58.4** | **-2.3** |
| **SVRC** | **Sivrice-ELAZID** | **2.32** | **118** | *e*Pn | **Pb** | **09 22 58.4** | **-2.3** |
| **ERZN** | **Erzincan** | **2.34** | **87** | *e*PN | **Pn** | **09 22 58.7** | **+1.0** |
| **GAZ** | **Gaziantep** | **2.35** | **170** | *e*PN | **Pn** | **09 22 58.6** | **+0.9** |
| **GAZ** | **Gaziantep** | **2.35** | **170** | *e*Pn | **Pn** | **09 22 58.6** | **+0.9** |
| **DIKM** | **Dikmen** | **2.42** | **334** | *e*PN | **Pn** | **09 22 59.0** | **+0.3** |
| **DIKM** | **Dikmen** | **2.42** | **334** | *e*Pn | **Pn** | **09 22 59.0** | **+0.3** |
| **SERE** | **Sereflikochisa** | **2.49** | **258** | *e*PN | **Pn** | **09 22 59.9** | **+0.1** |
| **SERE** | **Sereflikochisa** | **2.49** | **258** | *e*Pn | **Pn** | **09 22 59.9** | **+0.1** |
| **KARA** | **Karaisali** | **2.57** | **211** | *e*PN | **Pn** | **09 23 01.6** | **+0.8** |
| **KARA** | **Karaisali** | **2.57** | **211** | *e*Pn | **Pn** | **09 23 01.6** | **+0.8** |
| **CEYT** | **Ceyhan** | **2.58** | **197** | *e*PN | **Pn** | **09 23 01.7** | **+0.8** |
| **CEYT** | **Ceyhan** | **2.58** | **197** | *e*Pn | **Pn** | **09 23 01.7** | **+0.8** |
| **URFA** | **Urfa** | **2.64** | **140** | *e*PN | **Pn** | **09 23 02.9** | **+1.2** |
| **URFA** | **Urfa** | **2.64** | **140** | *e*Pn | **Pn** | **09 23 02.9** | **+1.2** |
| **SNOP** | **Sinop** | **2.77** | **336** | *e*PN | **Pn** | **09 23 03.9** | **+0.4** |
| **SNOP** | **Sinop** | **2.77** | **336** | *e*Pn | **Pn** | **09 23 03.9** | **+0.4** |
| **KTUT** | **Trabzon** | **2.79** | **57** | *e*PN | **Pn** | **09 23 04.9** | **+1.2** |
| **KTUT** | **Trabzon** | **2.79** | **57** | *e*Pn | **Pn** | **09 23 04.9** | **+1.2** |
| **SULT** | **Sultanhani-AKS** | **2.80** | **244** | *e*PN | **Pn** | **09 23 04.5** | **+0.5** |
| **SULT** | **Sultanhani-AKS** | **2.80** | **244** | *e*Pn | **Pn** | **09 23 04.5** | **+0.5** |
| **BAYT** | **Ayd¨–ntepe-Bay** | **2.80** | **70** | *e*PN | **Pn** | **09 23 04.9** | **+0.9** |
| **BAYT** | **Ayd¨–ntepe-Bay** | **2.80** | **70** | *e*Pn | **Pn** | **09 23 04.9** | **+0.9** |
| **AFSR** | **Af¨ar-Bala (A** | **2.81** | **270** | *e*PN | **Pn** | **09 23 04.3** | **+0.3** |
| **AFSR** | **Af¨ar-Bala (A** | **2.81** | **270** | *e*Pn | **Pn** | **09 23 04.3** | **+0.3** |
| **YEDI** | **Yedisu-Bingol** | **2.98** | **90** | *e*PN | **Pn** | **09 23 07.9** | **+1.4** |
| **YEDI** | **Yedisu-Bingol** | **2.98** | **90** | *e*Pn | **Pn** | **09 23 07.9** | **+1.4** |
| **BINT** | **Bingol** | **3.01** | **101** | *e*Pn | **Pb** | **09 23 09.9** | **-2.6** |
| **LOD** | **Lodumlu** | **3.06** | **279** | *e*PN | **Pn** | **09 23 08.0** | **+0.4** |
| **LOD** | **Lodumlu** | **3.06** | **279** | *e*Pn | **Pn** | **09 23 08.0** | **+0.4** |
| **KRTS** | **Karatas** | **3.09** | **200** | *e*PN | **Pn** | **09 23 08.8** | **+1.0** |
| **KRTS** | **Karatas** | **3.09** | **200** | *e*Pn | **Pn** | **09 23 08.8** | **+1.0** |
| **DYBB** | **Diyarbakir** | **3.10** | **119** | *e*PN | **Pn** | **09 23 09.6** | **+1.5** |
| **CHBY** | **Cihanbeyli** | **3.10** | **254** | *e*PN | **Pn** | **09 23 08.6** | **+0.5** |
| **CHBY** | **Cihanbeyli** | **3.10** | **254** | *e*Pn | **Pn** | **09 23 08.6** | **+0.5** |
| **BNGB** | **Bing¶ll** | **3.13** | **98** | *e*PN | **Pn** | **09 23 09.9** | **+1.4** |
| **DIY** | **Diyarbakir** | **3.19** | **119** | *e*Pn | **Pn** | **09 23 09.6** | **+0.3** |
| **BZK** | **Bozkurt** | **3.21** | **321** | *e*PN | **Pn** | **09 23 10.0** | **+0.5** |
| **BZK** | **Bozkurt** | **3.21** | **321** | *e*Pn | **Pn** | **09 23 10.0** | **+0.5** |

**MEX 21 09:24:03.8**±0.4,**15.88N×92.87W,h27**km±15km**, MD3.6, Mexico-Guatemala border region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PCIG** | | **0.38** | **243** | *e*P | Pb | 09 24 10.6 | -1.5 |
| PCIG | | | | *e*S | Sb | 09 24 16.1 | -1.7 |
| **CCIG** | **Comitan** | **0.81** | **60** | *e*P | Pb | 09 24 16.9 | -2.5 |
| CCIG | | | | *i* S | Sb | 09 24 26.8 | -3.2 |
| **TGIG** | | **0.93** | **345** | *e*P | Pn | 09 24 18.4 | -2.7 |
| TGIG | | | | *e*S | Sb | 09 24 30.2 | -3.1 |

**IDC 21 09:25:27.6**±3.3,**17.48S×172.47W,h0**km**,mb4.0**/2, **mb1 4.3**/2,**mb1mx3.6**/33,**mbtmp4.0**/2,**Error ellipse: s-maj=311.1km s-min=68.3km az=168.0,Tonga Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **50.27** | **258** | P | P | 09 34 26.2 | 0.0 |
| | 1.0nm,0.7s,baz=96,slow=7.5,SNR=10 | | | | | | |
| **ASAR** | **Alice Springs** | **50.35** | **254** | P | P | 09 34 26.7 | -0.1 |
| | 2.7nm,0.8s,baz=91,slow=8.7,SNR=18 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **172.91** | **127** | PKP | PKPdf | 09 45 39.1 | -0.7 |
| | 0.8nm,1.1s,baz=236,slow=1.6,SNR=3.5 | | | | | | |

*NNC* ***21*** *09:41:45.3±2.9,53.40N×87.82E,h1km±24km,mb3.6, mpv3.2,Error ellipse: s-maj=27.7km s-min=14.6km az=83.0*

**IDC 21 09:41:45.9**±2.4,**53.56N×87.82E,h0**km**,mb1 3.4**/3, **mb1mx3.0**/49,**mbtmp3.4**/3,**ML3.2**/3,**5C-4D,Error ellipse: s-maj=21.2km s-min=13.3km az=60.0,Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **I46RU** | **ZALESOVO INFRA** | **1.83** | **284** | *i* | | 09 56 00.0 | |
| | baz=97,slow=347,SNR=5.9 | | | | | | |
| **ZAA0** | **Zalesovo Array** | **1.83** | **284** | ⇓Pn | Pn | 09 42 17.6 | -1.0 |
| | 1.4nm,0.5s | | | | | | |
| ZAA0 | | | | ⇓Sn | Sb | 09 42 43.9 | +0.3 |
| | 8.9nm,0.7s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **1.83** | **284** | Pn | Pn | 09 42 17.6 | -0.9 |
| | 5.5nm,0.3s,baz=99,slow=16,SNR=37 | | | | | | |
| ZALV | | | | Lg | Lg | 09 42 44.3 | |
| | 11nm,0.3s,baz=104,slow=22,SNR=17 | | | | | | |
| **KURK** | **Kurchatov** | **6.34** | **247** | ⇑Pn | Pn | 09 43 21.0 | +0.5 |
| | 3.6nm,1.1s | | | | | | |
| KURK | | | | ⇓Sn | Sn | 09 44 31.4 | -2.2 |
| | 2.1nm,0.7s | | | | | | |
| KURK | | | | ⇑Lg | Lg | 09 45 04.1 | |
| | 20nm,1.2s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **6.44** | **247** | Pn | Pn | 09 43 22.4 | +0.5 |
| | 0.4nm,0.3s,baz=62,slow=14,SNR=16 | | | | | | |
| KURBB | | | | Sn | Sn | 09 44 34.0 | -2.0 |
| | 0.1nm,0.3s,baz=68,slow=27,SNR=3.3 | | | | | | |
| KURBB | | | | Lg | Lg | 09 45 09.7 | |
| | 0.2nm,0.3s,baz=63,slow=31,SNR=11 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **6.44** | **247** | ⇑Pn | Pn | 09 43 21.8 | -0.1 |
| | 3.8nm,0.4s | | | | | | |
| KURBB | | | | ⇓Sn | Sn | 09 44 33.5 | -2.4 |
| | 5.2nm,0.5s | | | | | | |
| KURBB | | | | ⇑Lg | Lg | 09 45 08.8 | |
| | 17nm,1.1s | | | | | | |
| **MK31** | **Makanchi Array** | **7.64** | **210** | Pn | Pn | 09 43 36.2 | -2.2 |
| | 0.5nm,0.3s,baz=29,slow=14,SNR=19 | | | | | | |
| MK31 | | | | ⇑Sn | Sn | 09 45 03.3 | -2.4 |
| | 0.1nm,0.1s,baz=168,slow=10,SNR=2.6 | | | | | | |
| MK31 | | | | Lg | Lg | 09 45 44.4 | |
| | 0.1nm,0.1s,baz=3.9,slow=10,SNR=3.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **7.64** | **210** | Pn | Pn | 09 43 39.6 | +1.2 |
| | 0.4nm,0.3s,baz=30,slow=14,SNR=21 | | | | | | |
| MKAR | | | | Sn | Sn | 09 45 06.2 | +0.5 |
| | 0.3nm,0.3s,baz=32,slow=28,SNR=4.9 | | | | | | |
| MKAR | | | | Lg | Lg | 09 45 46.6 | |
| | 0.2nm,0.3s,baz=29,slow=27,SNR=4.4 | | | | | | |
| **BV

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| IACM | | | | S | Sn | 09 44 22.9 | -0.5 |
| **IACM** | **Heraklion** | **0.85** | **233** | P | Pn | 09 44 08.4 | +1.1 |
| IACM | | | | S | Sn | 09 44 22.9 | -0.5 |
| **IDI** | **Anoyia** | **0.99** | **238** | P | Pn | 09 44 09.2 | +0.6 |
| | comp=N,86nm,0.3s,baz=349,slow=7.9,SNR=1226 | | | | | | |
| IDI | | | | S | Sn | 09 44 25.1 | -0.6 |
| | comp=N,670nm,0.3s,baz=288,slow=20,SNR=55 | | | | | | |
| **IDI** | **Anoyia** | **0.99** | **238** | P | Pn | 09 44 08.8 | +0.2 |
| IDI | | | | S | Sn | 09 44 23.3 | -2.4 |
| IDI | | | | AML | AML | 09 44 25.4 | |
| | comp=E,9958μm,0.5s | | | | | | |
| IDI | | | | AML | AML | 09 44 26.9 | |
| | comp=N,7984μm,0.3s | | | | | | |
| **IDI** | **Anoyia** | **0.99** | **238** | P | Pn | 09 44 09.2 | +0.6 |
| IDI | | | | S | Sn | 09 44 24.6 | -1.1 |
| **IDI** | **Anoyia** | **0.99** | **238** | P | Pn | 09 44 09.2 | +0.6 |
| IDI | | | | S | Sn | 09 44 24.6 | -1.1 |
| **IDI** | **Anoyia** | **0.99** | **238** | P | Pn | 09 44 09.2 | +0.6 |
| IDI | | | | S | Sn | 09 44 24.6 | -1.1 |
| **KARP** | **Karpathos** | **1.06** | **105** | *e*PG | Pn | 09 44 10.9 | +1.7 |
| KARP | | | | *e*SG | Sn | 09 44 26.7 | -0.1 |
| **KARP** | **Karpathos** | **1.06** | **105** | P | Pn | 09 44 09.8 | +0.6 |
| KARP | | | | S | Sn | 09 44 25.2 | -1.6 |
| **KARP** | **Karpathos** | **1.06** | **105** | P | Pn | 09 44 10.2 | +1.0 |
| **KARP** | **Karpathos** | **1.06** | **105** | *e*Pg | Pn | 09 44 10.9 | +1.7 |
| KARP | | | | *e*Sg | Sn | 09 44 26.7 | -0.1 |
| **KARP** | **Karpathos** | **1.06** | **105** | *e*Pn | Pn | 09 44 10.1 | +0.8 |
| KARP | | | | *e*Sn | Sn | 09 44 26.6 | -0.2 |
| **KARP** | **Karpathos** | **1.06** | **105** | P | Pn | 09 44 10.2 | +1.0 |
| KARP | | | | S | Sn | 09 44 26.4 | -0.4 |
| **SIVA** | **Sivas** | **1.20** | **228** | P | Pn | 09 44 13.4 | +2.7 |
| SIVA | | | | S | Sn | 09 44 31.4 | +2.0 |
| SIVA | | | | AML | AML | 09 44 34.1 | |
| | comp=E,14401μm,0.5s | | | | | | |
| SIVA | | | | AML | AML | 09 44 35.3 | |
| | comp=N,10596μm,0.9s | | | | | | |
| **SIVA** | **Sivas** | **1.20** | **228** | P | Pn | 09 44 12.6 | +1.9 |
| SIVA | | | | S | Sn | 09 44 30.1 | +0.7 |
| **SIVA** | **Sivas** | **1.20** | **228** | P | Pn | 09 44 12.6 | +1.9 |
| SIVA | | | | S | Sn | 09 44 30.1 | +0.7 |
| **SIVA** | **Sivas** | **1.20** | **228** | P | Pn | 09 44 12.6 | +1.9 |
| SIVA | | | | S | Sn | 09 44 30.1 | +0.7 |
| **APE** | **Apeiranthos** | **1.28** | **346** | *e*PN | Pn | 09 44 11.8 | +0.3 |
| **APE** | **Apeiranthos** | **1.28** | **346** | ⇓*i*P | Pn | 09 44 12.2 | +0.7 |
| APE | | | | S | Sn | 09 44 30.3 | -0.7 |
| **APE** | **Apeiranthos** | **1.28** | **346** | *d i*P | Pn | 09 44 12.1 | +0.6 |
| **APE** | **Apeiranthos** | **1.28** | **346** | P | Pn | 09 44 12.2 | +0.7 |
| APE | | | | S | Sn | 09 44 29.5 | -1.5 |
| APE | | | | AML | AML | 09 44 30.6 | |
| | comp=E,2927μm,0.5s | | | | | | |
| APE | | | | AML | AML | 09 44 30.8 | |
| | comp=N,3109μm,0.5s | | | | | | |
| **APE** | **Apeiranthos** | **1.28** | **346** | *e*Pn | Pn | 09 44 11.8 | +0.3 |
| **APE** | **Apeiranthos** | **1.28** | **346** | P | Pn | 09 44 12.2 | +0.7 |
| APE | | | | S | Sn | 09 44 29.8 | -1.2 |
| **APE** | **Apeiranthos** | **1.28** | **346** | P | Pn | 09 44 12.2 | +0.7 |
| APE | | | | S | Sn | 09 44 29.8 | -1.2 |
| **APE** | **Apeiranthos** | **1.28** | **346** | P | Pn | 09 44 12.2 | +0.7 |
| APE | | | | S | Sn | 09 44 29.8 | -1.2 |
| **VAM** | **Vamos** | **1.45** | **254** | P | Pn | 09 44 14.2 | +0.8 |
| VAM | | | | S | Sn | 09 44 33.8 | -0.4 |
| **VAM** | **Vamos** | **1.45** | **254** | P | Pn | 09 44 13.8 | +0.4 |
| VAM | | | | S | Sn | 09 44 32.7 | -1.5 |
| **VAM** | **Vamos** | **1.45** | **254** | P | Pn | 09 44 14.2 | +0.8 |
| VAM | | | | S | Sn | 09 44 33.8 | -0.4 |
| **VAM** | **Vamos** | **1.45** | **254** | P | Pn | 09 44 14.2 | +0.8 |
| VAM | | | | S | Sn | 09 44 33.8 | -0.4 |
| **VAM** | **Vamos** | **1.45** | **254** | P | Pn | 09 44 14.2 | +0.8 |
| VAM | | | | S | Sn | 09 44 33.8 | -0.4 |
| **MHLO** | **Agia Marina, M** | **1.49** | **306** | P | Pn | 09 44 15.1 | +1.3 |
| MHLO | | | | S | Sn | 09 44 35.5 | +0.5 |
| **MHLO** | **Agia Marina, M** | **1.49** | **306** | P | Pn | 09 44 14.8 | +1.0 |
| MHLO | | | | S | Sn | 09 44 35.5 | +0.5 |
| **MHLO** | **Agia Marina, M** | **1.49** | **306** | P | Pn | 09 44 14.8 | +1.0 |
| MHLO | | | | S | Sn | 09 44 34.7 | -0.3 |
| **MHLA** | **Plaka, Milos I** | **1.51** | **308** | P | Pn | 09 44 15.8 | +1.8 |
| **MHLA** | **Plaka, Milos I** | **1.51** | **308** | P | Pn | 09 44 15.9 | +1.8 |
| **IMMV** | **Iera Moni Meta** | **1.61** | **258** | P | Pn | 09 44 16.3 | +1.1 |
| IMMV | | | | S | Sn | 09 44 35.8 | -1.5 |
| IMMV | | | | AML | AML | 09 44 41.2 | |
| | comp=N,14619μm,0.5s | | | | | | |
| IMMV | | | | AML | AML | 09 44 41.5 | |
| | comp=E,14386μm,0.3s | | | | | | |
| **IMMV** | **Iera Moni Meta** | **1.61** | **258** | P | Pn | 09 44 16.3 | +1.1 |
| IMMV | | | | S | Sn | 09 44 37.1 | -0.3 |
| **IMMV** | **Iera Moni Meta** | **1.61** | **258** | P | Pn | 09 44 16.3 | +1.1 |
| IMMV | | | | S | Sn | 09 44 37.1 | -0.3 |
| **BODT** | **Bodrum** | **1.68** | **42** | *e*PN | Pn | 09 44 16.2 | +0.3 |
| **BODT** | **Bodrum** | **1.68** | **42** | *e*Pn | Pn | 09 44 16.2 | +0.3 |
| **BDRM** | **Kayabasi** | **1.75** | **45** | *i* P | Pn | 09 44 17.8 | +1.0 |
| BDRM | | | | *i* S | Sn | 09 44 41.0 | +0.6 |
| **BDRM** | **Kayabasi** | **1.75** | **45** | P | Pn | 09 44 17.8 | +1.0 |
| BDRM | | | | S | Sn | 09 44 41.0 | +0.6 |
| **SERI** | **Serifos** | **1.76** | **320** | P | Pn | 09 44 18.0 | +1.1 |
| SERI | | | | S | Sn | 09 44 38.1 | -2.5 |
| SERI | | | | AML | AML | 09 44 39.9 | |
| | comp=N,4100μm,0.5s | | | | | | |
| SERI | | | | AML | AML | 09 44 40.2 | |
| | comp=E,5064μm,0.5s | | | | | | |
| **SERI** | **Serifos** | **1.76** | **320** | P | Pn | 09 44 18.0 | +1.1 |
| SERI | | | | S | Sn | 09 44 38.1 | -2.5 |
| **GVD** | **Gavdhos** | **1.78** | **237** | P | Pn | 09 44 18.8 | +1.5 |
| GVD | | | | S | Sn | 09 44 41.3 | +0.3 |
| GVD | | | | AML | AML | 09 44 50.2 | |
| | comp=E,3721μm,0.6s | | | | | | |
| GVD | | | | AML | AML | 09 44 53.1 | |
| | comp=N,3746μm,0.5s | | | | | | |
| **GVD** | **Gavdhos** | **1.78** | **237** | P | Pn | 09 44 18.7 | +1.5 |
| GVD | | | | S | Sn | 09 44 42.6 | +1.6 |
| **GVD** | **Gavdhos** | **1.78** | **237** | P | Pn | 09 44 18.7 | +1.5 |
| GVD | | | | S | Sn | 09 44 42.6 | +1.6 |
| **GVD** | **Gavdhos** | **1.78** | **237** | P | Pn | 09 44 18.7 | +1.5 |
| GVD | | | | S | Sn | 09 44 42.6 | +1.6 |
| **ARG** | **Arkhangelos** | **1.84** | **77** | P | Pn | 09 44 19.0 | +1.1 |
| ARG | | | | S | Sn | 09 44 41.6 | -0.6 |
| **ARG** | **Arkhangelos** | **1.84** | **77** | P | Pn | 09 44 18.8 | +0.9 |
| ARG | | | | S | Sn | 09 44 40.5 | -1.7 |
| ARG | | | | AML | AML | 09 44 42.4 | |
| | comp=E,4827μm,0.4s | | | | | | |
| ARG | | | | AML | AML | 09 44 43.0 | |
| | comp=N,3425μm,0.2s | | | | | | |
| **ARG** | **Arkhangelos** | **1.84** | **77** | P | Pn | 09 44 18.8 | +0.9 |
| ARG | | | | S | Sn | 09 44 41.6 | -0.6 |
| **ARG** | **Arkhangelos** | **1.84** | **77** | P | Pn | 09 44 19.0 | +1.1 |
| ARG | | | | S | Sn | 09 44 41.6 | -0.6 |
| **ARG** | **Arkhangelos** | **1.84** | **77** | P | Pn | 09 44 19.0 | +1.1 |
| ARG | | | | S | Sn | 09 44 41.6 | -0.6 |
| **SMG** | **Samos** | **2.02** | **21** | P | Pn | 09 44 21.0 | +0.9 |
| **SMG** | **Samos** | **2.02** | **21** | P | Pn | 09 44 21.0 | +0.9 |
| **SMG** | **Samos** | **2.02** | **21** | P | Pn | 09 44 21.1 | +0.9 |
| **SMG** | **Samos** | **2.02** | **21** | P | Pn | 09 44 21.1 | +0.9 |
| **MRSB** | **Marmaris-Mugla** | **2.05** | **64** | *e*PN | Pn | 09 44 21.4 | +0.9 |
| **MRSB** | **Marmaris-Mugla** | **2.05** | **64** | *e*Pn | Pn | 09 44 21.4 | +0.9 |
| **KUSD** | **Kusadasi-Aydin** | **2.31** | **28** | *e*PN | Pn | 09 44 23.1 | -0.6 |
| **KUSD** | **Kusadasi-Aydin** | **2.31** | **28** | *e*Pn | Pn | 09 44 23.1 | -0.6 |
| **DGB** | **¨zmir** | **2.36** | **19** | *i* P | Pn | 09 44 25.1 | +0.9 |
| DGB | | | | *i* S | Sn | 09 44 54.1 | +0.4 |
| **KYTH** | **Kithira** | **2.36** | **282** | P | Pn | 09 44 24.1 | -0.2 |
| KYTH | | | | AML | AML | 09 44 54.1 | |
| | comp=E,8533μm,0.6s | | | | | | |
| KYTH | | | | AML | AML | 09 44 54.4 | |
| | comp=N,9712μm,0.4s | | | | | | |
| **KYTH** | **Kithira** | **2.36** | **282** | P | Pn | 09 44 24.9 | +0.6 |
| **KYTH** | **Kithira** | **2.36** | **282** | P | Pn | 09 44 24.9 | +0.6 |
| **TURN** | **Turunc** | **2.42** | **63** | *e*PN | Pn | 09 44 22.0 | -3.0 |
| **TURN** | **Turunc** | **2.42** | **63** | *i* P | Pn | 09 44 22.2 | -2.8 |
| TURN | | | | *i* S | Sn | 09 44 46.0 | -8.9 |
| **TURN** | **Turunc** | **2.42** | **63** | P | Pn | 09 44 22.2 | -2.8 |
| **AYDN** | **Tasoluk** | **2.42** | **40** | *i* P | Pn | 09 44 26.7 | +1.6 |
| **AYDN** | **Tasoluk** | **2.42** | **40** | P | Pn | 09 44 26.7 | +1.6 |
| **DALY** | **Dalyan (Mu¨la** | **2.43** | **65** | *e*PN | Pn | 09 44 26.8 | +1.6 |
| **DALY** | **Dalyan (Mu¨la** | **2.43** | **65** | *i* P | Pn | 09 44 26.7 | +1.6 |
| DALY | | | | *i* S | Sn | 09 44 54.6 | -0.6 |
| **DALY** | **Dalyan (Mu¨la** | **2.43** | **65** | P | Pn | 09 44 26.7 | +1.6 |
| DALY | | | | S | Sn | 09 44 54.6 | -0.6 |
| **ZEY** | **¨zmir** | **2.46** | **11** | *i* P | Pn | 09 44 25.9 | +0.4 |
| **KARY** | **Karystos** | **2.50** | **332** | P | Pn | 09 44 27.5 | +1.5 |
| **KARY** | **Karystos** | **2.50** | **332** | P | Pn | 09 44 27.4 | +1.3 |
| **KARY** | **Karystos** | **2.50** | **332** | P | Pn | 09 44 27.4 | +1.3 |
| **CHOS** | **Chios island** | **2.56** | **3** | *e*PN | Pn | 09 44 27.4 | +0.5 |
| **CHOS** | **Chios island** | **2.56** | **3** | *e*Pn | Pn | 09 44 27.5 | +0.5 |
| **CHOS** | **Chios island** | **2.56** | **3** | P | Pn | 09 44 27.7 | +0.8 |
| **CHOS** | **Chios island** | **2.56** | **3** | P | Pn | 09 44 27.7 | +0.8 |
| **VLI** | **Veliai** | **2.56** | **291** | P | Pn | 09 44 26.5 | -0.4 |
| VLI | | | | AML | AML | 09 44 57.0 | |
| | comp=N,10677μm,0.3s | | | | | | |
| VLI | | | | AML | AML | 09 44 57.6 | |
| | comp=E,5891μm,0.3s | | | | | | |
| **VLI** | **Veliai** | **2.56** | **291** | P | Pn | 09 44 27.2 | +0.4 |
| **VLI** | **Veliai** | **2.56** | **291** | P | Pn | 09 44 27.2 | +0.4 |
| **VLI** | **Veliai** | **2.56** | **291** | P | Pn | 09 44 27.2 | +0.4 |
| **URLA** | **Izmir** | **2.59** | **12** | *e*PN | Pn | 09 44 27.8 | +0.5 |
| **URLA** | **Izmir** | **2.59** | **12** | *i* P | Pn | 09 44 27.9 | +0.7 |
| **URLA** | **Izmir** | **2.59** | **12** | *e*Pn | Pn | 09 44 27.8 | +0.5 |
| **VLY** | **Voula,Athens** | **2.64** | **321** | P | Pn | 09 44 28.9 | +1.1 |
| **VLY** | **Voula,Athens** | **2.64** | **321** | P | Pn | 09 44 28.6 | +0.7 |
| **VLY** | **Voula,Athens** | **2.64** | **321** | P | Pn | 09 44 28.6 | +0.7 |
| **VLY** | **Voula,Athens** | **2.64** | **321** | P | Pn | 09 44 28.6 | +0.7 |
| **FETY** | **Fethiye** | **2.69** | **72** | *e*PN | Pn | 09 44 29.0 | +0.4 |
| **FETY** | **Fethiye** | **2.69** | **72** | *e*Pn | Pn | 09 44 29.0 | +0.4 |
| **FETY** | **Fethiye** | **2.69** | **72** | P | Pn | 09 44 29.3 | +0.7 |
| **KRND** | **KRANIDI** | **2.71** | **306** | P | Pn | 09 44 29.6 | +0.8 |
| KRND | | | | S | Sn | 09 45 01.4 | -0.3 |
| **KRND** | **KRANIDI** | **2.71** | **306** | P | Pn | 09 44 29.6 | +0.8 |
| KRND | | | | S | Sn | 09 45 01.4 | -0.3 |
| **DID** | **Didima** | **2.73** | **309** | P | Pn | 09 44 29.0 | 0.0 |
| **DID** | **Didima** | **2.73** | **309** | P | Pn | 09 44 29.6 | +0.6 |
| DID | | | | S | Sn | 09 45 02.0 | -0.1 |
| **DID** | **Didima** | **2.73** | **309** | P | Pn | 09 44 29.6 | +0.6 |
| **DID** | **Didima** | **2.73** | **309** | P | Pn | 09 44 29.6 | +0.6 |
| DID | | | | S | Sn | 09 45 02.0 | -0.1 |
| **ATHU** | **Athens Univers** | **2.73** | **322** | P | Pn | 09 44 30.2 | +1.2 |
| ATHU | | | | AML | AML | 09 45 02.1 | |
| | comp=E,752μm,1.0s | | | | | | |
| ATHU | | | | S | Sn | 09 45 02.2 | -0.1 |
| ATHU | | | | AML | AML | 09 45 03.4 | |
| | comp=N,1013μm,1.4s | | | | | | |
| **ATHU** | **Athens Univers** | **2.73** | **322** | P | Pn | 09 44 30.2 | +1.2 |
| ATHU | | | | S | Sn | 09 45 02.2 | -0.1 |
| **ATHU** | **Athens Univers** | **2.73** | **322** | P | Pn | 09 44 30.3 | +1.2 |
| **ATHU** | **Athens Univers** | **2.73** | **322** | P | Pn | 09 44 30.3 | +1.2 |
| **PTL** | **Penteli** | **2.76** | **324** | P | Pn | 09 44 30.9 | +1.5 |
| PTL | | | | S | Sn | 09 45 01.6 | -1.3 |
| PTL | | | | AML | AML | 09 45 03.1 | |
| | comp=N,808μm,0.6s | | | | | | |
| PTL | | | | AML | AML | 09 45 03.7 | |
| | comp=E,1444μm,0.6s | | | | | | |
| **PTL** | **Penteli** | **2.76** | **324** | P | Pn | 09 44 30.5 | +1.1 |
| PTL | | | | S | Sn | 09 45 01.6 | -1.3 |
| **PTL** | **Penteli** | **2.76** | **324** | P | Pn | 09 44 30.5 | +1.1 |
| **PTL** | **Penteli** | **2.76** | **324** | P | Pn | 09 44 30.5 | +1.1 |
| **ATH** | **Athens Observa** | **2.77** | **321** | P | Pn | 09 44 31.0 | +1.5 |
| ATH | | | | S | Sn | 09 45 01.4 | -1.7 |
| ATH | | | | AML | AML | 09 45 03.8 | |
| | comp=E,1942μm,0.7s | | | | | | |
| ATH | | | | AML | AML | 09 45 04.3 | |
| | comp=N,2011μm,0.5s | | | | | | |
| **ATH** | **Athens Observa** | **2.77** | **321** | P | Pn | 09 44 31.0 | +1.5 |
| ATH | | | | S | Sn | 09 45 01.4 | -1.7 |
| **TAVA** | **DENIZLI_Tavas** | **2.92** | **55** | *i* P | Pn | 09 44 32.6 | +1.0 |
| **TAVA** | **DENIZLI_Tavas** | **2.92** | **55** | P | Pn | 09 44 32.6 | +1.0 |
| **KSL** | **Kastellorizon** | **3.00** | **83** | P | Pn | 09 44 32.2 | -0.2 |
| **KSL** | **Kastellorizon** | **3.00** | **83** | P | Pn | 09 44 33.3 | +0.8 |
| **KSL** | **Kastellorizon** | **3.00** | **83** | P | Pn | 09 44 33.3 | +0.8 |
| **KSL** | **Kastellorizon** | **3.00** | **83** | P | Pn | 09 44 33.3 | +0.8 |
| **AKAS** | **Kas** | **3.02** | **81** | *e*PN | Pn | 09 44 33.7 | +0.8 |
| **AKAS** | **Kas** | **3.02** | **81** | *i* P | Pn | 09 44 33.7 | +0.8 |
| **AKAS** | **Kas** | **3.02** | **81** | P | Pn | 09 44 33.7 | +0.8 |
| AKAS | | | | *e*Sn | Sn | 09 45 09.3 | +0.1 |
| **AKAS** | **Kas** | **3.02** | **81** | *e*Pn | Pn | 09 44 33.7 | +0.8 |
| AKAS | | | | *e*Sn | Sn | 09 45 09.3 | +0.1 |
| **DYR** | **Agios Nikonas** | **3.04** | **289** | P | Pn | 09 44 30.8 | -2.2 |
| **DYR** | **Agios Nikonas** | **3.04** | **289** | P | Pn | 09 44 30.8 | -2.2 |
| **EREA** | **Eretria** | **3.04** | **329** | P | Pn | 09 44 34.2 | +1.2 |
| **EREA** | **Eretria** | **3.04** | **329** | P | Pn | 09 44 34.2 | +1.2 |
| **VILL** | **Villia** | **3.13** | **319** | P | Pn | 09 44 35.3 | +1.1 |
| VILL | | | | S | Sn | 09 45 12.5 | +1.1 |
| **VILL** | **Villia** | **3.13** | **319** | P | Pn | 09 44 35.4 | +1.2 |
| **DNZL** | **Cakiroluk** | **3.13** | **53** | *i* P | Pn | 09 44 36.1 | +1.7 |
| **DNZL** | **Cakiroluk** | **3.13** | **53** | P | Pn | 09 44 36.1 | +1.7 |
| **DENT** | **Denizli** | **3.16** | **52** | *e*PN | Pn | 09 44 35.5 | +0.8 |
| **DENT** | **Denizli** | **3.16** | **52** | *e*Pn | Pn | 09 44 35.5 | +0.8 |
| **GLHS** | **Gihisar (BURDU** | **3.18** | **64** | *e*PN | Pn | 09 44 36.0 | +1.0 |
| **GLHS** | **Gihisar (BURDU** | **3.18** | **64** | *e*Pn | Pn | 09 44 36.0 | +1.0 |
| **VIL2** | **Platees** | **3.19** | **319** | P | Pn | 09 44 35.3 | +0.4 |
| VIL2 | | | | S | Sn | 09 45 12.5 | -0.3 |
| VIL2 | | | | AML | AML | 09 45 13.1 | |
| | comp=N,1078μm,1.1s | | | | | | |
| VIL2 | | | | AML | AML | 09 45 17.5 | |
| | comp=E,994μm,0.9s | | | | | | |
| **LOUT** | **Loutraki** | **3.19** | **313** | P | Pn | 09 44 35.6 | +0.6 |
| **LOUT** | **Loutraki** | **3.19** | **313** | P | Pn | 09 44 35.6 | +0.6 |
| **LOUT** | **Loutraki** | **3.19** | **313** | P | Pn | 09 44 35.9 | +0.9 |
| **CAND** | **Candarli** | **3.21** | **13** | *e*PN | Pn | 09 44 36.1 | +0.9 |
| **LTK** | **Loutraki** | **3.22** | **314** | P | Pn | 09 44 35.3 | -0.1 |
| **LTK** | **Loutraki** | **3.22** | **314** | P | Pn | 09 44 36.1 | +0.7 |
| **LTK** | **Loutraki** | **3.22** | **314** | P | Pn | 09 44 36.1 | +0.7 |
| **LTK** | **Loutraki** | **3.22** | **314** | P | Pn | 09 44 36.1 | +0.7 |
| **VLX** | **Vlachokerasia** | **3.23** | **300** | P | Pn | 09 44 35.0 | -0.7 |
| **VLX** | **Vlachokerasia** | **3.23** | **300** | P | Pn | 09 44 36.0 | +0.4 |
| **VLX** | **Vlachokerasia** | **3.23** | **300** | P | Pn | 09 44 36.0 | +0.4 |
| **VLX** | **Vlachokerasia** | **3.23** | **300** | P | Pn | 09 44 36.0 | +0.4 |
| **GOLH** | **Golhisar** | **3.26** | **63** | *i* P | Pn | 09 44 37.2 | +1.2 |
| **GOLH** | **Golhisar** | **3.26** | **63** | P | Pn | 09 44 37.2 | +1.2 |
| **ELL** | **Elmali** | **3.36** | **73** | *e*PN | Pn | 09 44 38.7 | +1.3 |
| **ELL** | **Elmali** | **3.36** | **73** | *e*Pn | Pn | 09 44 38.7 | +1.3 |
| **SIGR** | **SIGRI** | **3.38** | **359** | *e*PN | Pn | 09 44 38.2 | +0.7 |
| **SIGR** | **SIGRI** | **3.38** | **359** | *e*Pn | Pn | 09 44 38.2 | +0.7 |
| **MANT** | **Manisa** | **3.40** | **38** | *e*Pn | Pn | 09 44 39.4 | +1.4 |
| **MANT** | **Manisa** | **3.40** | **38** | *e*Pn | Pn | 09 44 39.4 | +1.4 |
| **THAL** | **Thalero** | **3.41** | **311** | P | Pn | 09 44 38.0 | +0.2 |
| **THAL** | **Thalero** | **3.41** | **311** | P | Pn | 09 44 38.7 | +0.8 |
| **THAL** | **Thalero** | **3.41** | **311** | P | Pn | 09 44 38.7 | +0.8 |
| **PROD** | **Prodromos** | **3.42** | **316** | P | Pn | 09 44 38.1 | +0.1 |
| **PROD** | **Prodromos** | **3.42** | **316** | P | Pn | 09 44 38.1 | +0.1 |
| **KULA** | **Kula-Manisa** | **3.47** | **38** | *e*PN | Pn | 09 44 39.2 | +0.5 |
| **KULA** | **Kula-Manisa** | **3.47** | **38** | *e*Pn | Pn | 09 44 39.3 | +0.5 |
| **ITM** | **Ithomi** | **3.48** | **294** | P | Pn | 09 44 39.0 | +0.2 |
| **ITM** | **Ithomi** | **3.48** | **294** | P | Pn | 09 44 39.0 | +0.2 |
| **ITM** | **Ithomi** | **3.48** | **294** | P | Pn | 09 44 39.0 | +1.2 |
| **ITM** | **Ithomi** | **3.48** | **294** | P | Pn | 09 44 40.0 | +1.2 |
| **PYL** | **PYLOS** | **3.53** | **289** | P | Pn | 09 44 39.1 | -0.3 |
| **PYL** | **PYLOS** | **3.53** | **289** | P | Pn | 09 44 39.1 | -0.3 |
| **PYL** | **PYLOS** | **3.53** | **289** | P | Pn | 09 44 39.1 | -0.3 |
| **GUR** | **Goura** | **3.55** | **307** | P | Pn | 09 44 38.8 | -1.1 |
| **GUR** | **Goura** | **3.55** | **307** | P | Pn | 09 44 40.0 | +0.1 |
| **GUR** | **Goura** | **3.55** | **307** | P | Pn | 09 44 40.0 | +0.1 |
| **GUR** | **Goura** | **3.55** | **307** | P | Pn | 09 44 40.0 | +0.1 |
| **LKR** | **Lokris** | **3.65** | **321** | P | Pn | 09 44 41.5 | +0.4 |
| **LKR** | **Lokris** | **3.65** | **321** | P | Pn | 09 44 41.5 | +0.4 |
| **LKR** | **Lokris** | **3.65** | **321** | P | Pn | 09 44 42.0 | +0.9 |
| **LKR** | **Lokris** | **3.65** | **321** | P | Pn | 09 44 42.0 | +0.9 |
| **MES3** | **Kyparissia** | **3.70** | **294** | P | Pn | 09 44 42.3 | +0.7 |
| **MES3** | **Kyparissia** | **3.70** | **294** | P | Pn | 09 44 42.3 | +0.7 |
| **SMIA** | **Simia** | **3.73** | **326** | P | Pn | 09 44 43.8 | +1.7 |
| **SMIA** | **Simia** | **3.73** | **326** | P | Pn | 09 44 43.7 | +1.6 |
| **SMIA** | **Simia** | **3.73** | **326** | P | Pn | 09 44 43.7 | +1.6 |
| **DSF** | **Desfina** | **3.74** | **315** | P | Pn | 09 44 41.5 | +0.8 |
| **DSF** | **Desfina** | **3.74** | **315** | P | Pn | 09 44 43.2 | +0.9 |
| **DSF** | **Desfina** | **3.74** | **315** | P | Pn | 09 44 43.2 | +0.9 |
| **DSF** | **Desfina** | **3.74** | **315** | P | Pn | 09 44 43.2 | +0.9 |
| **KLV** | **Kalavryta, Ach** | **3.74** | **307** | P | Pn | 09 44 40.9 | -1.4 |
| **KLV** | **Kalavryta, Ach** | **3.74** | **307** | P | Pn | 09 44 42.3 | 0.0 |
| **KLV** | **Kalavryta, Ach** | **3.74** | **307** | P | Pn | 09 44 42.3 | 0.0 |
| **KLV** | **Kalavryta, Ach** | **3.74** | **307** | P | Pn | 09 44 42.3 | 0.0 |
| **KORT** | **Korkueli** | **3.77** | **71** | *e*PN | Pn | 09 44 44.3 | +1.6 |
| **KORT** | **Korkueli** | **3.77** | **71** | *i* P | Pn | 09 44 44.4 | +1.6 |
| **KORT** | **Korkueli** | **3.77** | **71** | *e*Pn | Pn | 09 44 44.3 | +1.6 |
| **BRDR** | **BURDUR-Merkez** | **3.82** | **59** | *i* P | Pn | 09 44 44.4 | +1.0 |
| **BRDR** | **BURDUR-Merkez** | **3.82** | **59** | P | Pn | 09 44 44.4 | +1.0 |
| **KHAL** | **Karahalli** | **3.83** | **47** | *i* P | Pn | 09 44 44.7 | +1.2 |
| **KHAL** | **Karahalli** | **3.83** | **47** | P | Pn | 09 44 44.7 | +1.2 |
| **SKIA** | **Skiathos** | **3.86** | **331** | P | Pn | 09 44 45.3 | +1.4 |
| **SKIA** | **Skiathos** | **3.86** | **331** | P | Pn | 09 44 45.3 | +1.4 |
| **SKIA** | **Skiathos** | **3.86** | **331** | P | Pn | 09 44 45.3 | +1.4 |
| **KALE** | **Kalithea** | **3.96** | **312** | P | Pn | 09 44 43.7 | -1.4 |
| **KALE** | **Kalithea** | **3.96** | **312** | P | Pn | 09 44 45.2 | +0.1 |
| **KALE** | **Kalithea** | **3.96** | **312** | P | Pn | 09 44 45.2 | +0.1 |
| **KALE** | **Kalithea** | **3.96** | **312** | P | Pn | 09 44 45.2 | +0.1 |
| **LAKA** | **Lakka** | **3.96** | **309** | P | Pn | 09 44 44.0 | -1.3 |
| **LAKA** | **Lakka** | **3.96** | **309** | P | Pn | 09 44 45.4 | +0.2 |
| **LAKA** | **Lakka** | **3.96** | **309** | P | Pn | 09 44 45.4 | +0.2 |
| **ANTB** | **Antalya** | **3.98** | **73** | *e*PN | Pn | 09 44 46.8 | +1.4 |
| **ANTB** | **Antalya** | **3.98** | **73** | *e*Pn | Pn | 09 44 46.8 | +1.4 |
| **DRO** | **Drossia** | **3.98** | **304** | P | Pn | 09 44 45.1 | -0.2 |
| **DRO** | **Drossia** | **3.98** | **304** | P | Pn | 09 44 45.2 | -0.2 |
| **DRO** | **Drossia** | **3.98** | **304** | P | Pn | 09 44 45.2 | -0.2 |
| **BOZC** | **Bozcaada** | **4.01** | **2** | *e*PN | Pn | 09 44 46.5 | +0.7 |
| **BOZC** | **Bozcaada** | **4.01** | **2** | *e*Pn | Pn | 09 44 46.5 | +0.7 |
| **SERG** | **Sergoula** | **4.02** | **311** | P | Pn | 09 44 46.0 | 0.0 |
| **SERG** | **Sergoula** | **4.02** | **311** | P | Pn | 09 44 46.0 | 0.0 |
| **BCK** | **Bucak** | **4.10** | **65** | *e*PN | Pn | 09 44 47.9 | +0.8 |
| **BCK** | **Bucak** | **4.10** | **65** | *e*Pn | Pn | 09 44 47.9 | +0.8 |
| **EFP** | **Efpalio** | **4.12** | **310** | P | Pn | 09 44 46.7 | -1.0 |
| **EFP** | **Efpalio** | **4.12** | **310** | P | Pn | 09 44 47.5 | +0.2 |
| **EFP** | **Efpalio** | **4.12** | **310** | P | Pn | 09 44 47.5 | +0.2 |
| **XOR** | **Xorichti** | **4.14** | **329** | P | Pn | 09 44 48.7 | +1.1 |
| **XOR** | **Xorichti** | **4.14** | **329** | P | Pn | 09 44 48.7 | +1.1 |
| **XOR** | **Xorichti** | **4.14** | **329** | P | Pn | 09 44 48.7 | +1.1 |
| **RLS** | **Riolos of Patr** | **4.20** | **303** | P | Pn | 09 44 49.6 | +1.4 |
| **RLS** | **Riolos of Patr** | **4.20** | **303** | P | Pn | 09 44 49.7 | +1.4 |
| **RLS** | **Riolos of Patr** | **4.20** | **303** | P | Pn | 09 44 49.7 | +1.4 |
| **RLS** | **Riolos of Patr** | **4.20** | **303** | P | Pn | 09 44 49.7 | +1.4 |
| **AGG** | **Agios Georgios** | **4.28** | **319** | *e*P | Pn | 09 44 50.6 | +1.2 |
| **AGG** | **Agios Georgios** | **4.28** | **319** | P | Pn | 09 44 50.0 | +0.6 |
| **AGG** | **Agios Georgios** | **4.28** | **319** | *e*Pn | Pn | 09 44 50.6 | +1.2 |
| **AGG** | **Agios Georgios** | **4.28** | **319** | *e*Pn | Pn | 09 44 50.6 | +1.2 |
| **AGG** | **Agios Georgios** | **4.28** | **319** | P | Pn | 09 44 50.0 | +0.6 |
| **FYTO** | **Fytoko, Volos** | **4.29** | **328** | P | Pn | 09 44 50.2 | +0.7 |
| **FYTO** | **Fytoko, Volos** | **4.29** | **328** | P | Pn | 09 44 50.2 | +0.7 |
| **FYTO** | **Fytoko, Volos** | **4.29** | **328** | P | Pn | 09 44 50.2 | +0.7 |
| **SUTC** | **Sutluce-Ispart** | **4.41** | **67** | *e*PN | Pn | 09 44 53.1 | +1.8 |
| **SUTC** | **Sutluce-Ispart** | **4.41** | **67** | *e*Pn | Pn | 09 44 53.1 | +1.8 |
| **EVR** | **Evrytania** | **4.49** | **315** | P | Pn | 09 44 52.6 | +0.2 |
| **EVR** | **Evrytania** | **4.49** | **315** | P | Pn | 09 44 52.6 | +0.2 |
| **EVR** | **Evrytania** | **4.49** | **315** | P | Pn | 09 44 53.1 | +0.8 |
| **EVR** | **Evrytania** | **4.49** | **315** | P | Pn | 09 44 53.1 | +0.8 |
| **GELI** | **Tayfur-Gelibol** | **4.59** | **5** | *e*PN | Pn | 09 44 54.2 | +0.7 |
| **GELI** | **Tayfur-Gelibol** | **4.59** | **5** | *e*Pn | Pn | 09 44 54.2 | +0.7 |
| **PDO** | **Prodromos** | **4.68** | **308** | P | Pn | 09 44 53.8 | -0.9 |
| **PDO** | **Prodromos** | **4.68** | **308** | P | Pn | 09 44 55.1 | +0.4 |
| **PDO** | **Prodromos** | **4.68** | **308** | P | Pn | 09 44 55.1 | +0.4 |
| **KRBG** | **Karabiga-Canak** | **4.69** | **13** | *e*PN | Pn | 09 44 55.2 | +0.3 |
| **KRBG** | **Karabiga-Canak** | **4.69** | **13** | *e*Pn | Pn | 09 44 55.2 | +0.3 |
| **THL** | **Klokotos Trika** | **4.85** | **322** | P | Pn | 09 44 57.4 | +0.5 |
| **THL** | **Klokotos Trika** | **4.85** | **322** | P | Pn | 09 44 57.4 | +0.5 |
| **VLS** | **Valsamata** | **4.86** | **300** | P | Pn | 09 44 56.2 | -1.0 |
| **VLS**

comp=N,4.9nm,0.3s,baz=330,slow=20,SNR=9.9
**ASF Jabal al Asfar 9.82 109 P Pn 09 46 03.3 -0.8**
comp=N,1.3nm,0.3s,baz=283,slow=18,SNR=3.0
ASF S **Sn 09 47 50.1 -2.5**
comp=N,0.5nm,0.3s,baz=115,slow=17,SNR=4.1
**TR2 Tor 2 9.94 136 P Pn 09 46 03.9 -1.7**
baz=135
**TR2 Tor 2 9.94 136 P Pn 09 46 03.9 -1.7**
**TEKS Tekeris 9.98 333** *e*Pn **Pn 09 46 04.2 -1.9**
**BZS Buzias 10.31 343**⇑*i*P **Pn 09 46 11.0 +0.6**
**HHRG Al Ghardaqah 10.78 141 P Pn 09 46 17.3 +0.4**
baz=141
**HHRG Al Ghardaqah 10.78 141 P Pn 09 46 17.3 +0.4**
**NVLJ Novalja 12.13 319** *e*Pn **Pn 09 46 30.5 -4.0**
NVLJ Sn Sn 09 48 36.4 -12
**PSZ Piszkesteto 12.88 342** *e*P **Pn 09 46 46.9 +2.5**
**PSZ Piszkesteto 12.88 342** *e*P **Pn 09 46 46.9 +2.5**
**PSZ Piszkesteto 12.88 342** *e*Pn **Pn 09 46 46.9 +2.5**
**SOKA Soboth 13.57 326** *e*Pn **Pn 09 46 50.9 -2.4**
comp=N,2.2nm,0.4s
**OBKA Obir 13.66 325** *e*Pn **Pn 09 46 51.8 -2.7**
comp=N,4.1nm,0.5s
**ARSA Arzberg 13.80 329** *e*Pn **Pn 09 46 55.4 -0.8**
comp=N,5.9nm,0.6s
**MYKA Terra Mystica 14.19 323** *e*Pn **Pn 09 46 59.1 -2.0**
comp=N,2.4nm,0.5s
**CONA Conrad Observa 14.21 331** *e*Pn **Pn 09 47 02.0 +0.5**
comp=N,3.5nm,0.9s
**MOA Molln 14.80 328** *e*Pn **Pn 09 47 09.2 +0.3**
comp=N,3.3nm,0.5s
**ABTA Abfaltersbach 14.83 321** *e*Pn **Pn 09 47 07.2 -2.1**
comp=N,9.6nm,0.5s
**KIEV Kiev 15.06 8** *e*P **Pn 09 47 13.7 +1.7**
KIEV pmax pmax
comp=Z,7.0nm,0.8s
**KIEV Kiev 15.06 8** *e*P **P 09 47 14.3 +0.1**
**KIEV Kiev 15.06 8** *e*P **P 09 47 14.3 +0.1**
**OJC Ojcow 15.06 345** *e*P **P 09 47 18.2 +3.9**
OJC pmax pmax
comp=Z,23nm,0.6s
**OJC Ojcow 15.06 345** *e*Pn **P 09 47 18.1 +3.9**
comp=Z,22nm,0.6s
**AKASG Malin Array Be 15.06 8** P **Pn 09 47 12.8 +0.7**
comp=Z,2.2nm,0.3s,baz=197,slow=11,SNR=16
AKASG S **Sn 09 50 02.6 +3.9**
baz=187,slow=21,SNR=4.4
**MORC Moravsky Berou 15.22 339**⇑*i*P **Pn 09 47 13.9 -0.3**
**MORC Moravsky Berou 15.22 339** *e*P **Pn 09 47 14.6 +0.4**
**MORC Moravsky Berou 15.22 339** *e*Pn **Pn 09 47 14.2 0.0**
**MORC Moravsky Berou 15.22 339** *e*P **Pn 09 47 14.6 +0.4**
**MORC Moravsky Berou 15.22 339** *e*P **Pn 09 47 14.6 +0.4**
**WTTA Wattenberg 15.62 321** *i*Pn **Pn 09 47 20.2 +0.9**
comp=Z,3.6nm,0.4s
**WATA Walderalm 15.70 322** *e*Pn **Pn 09 47 20.5 +0.3**
comp=Z,5.2nm,0.4s
**KRLC Kraliky 15.71 338** *e*P **Pn 09 47 18.0 -2.3**
**KRLC Kraliky 15.71 338** *e*P **Pn 09 47 18.0 -2.3**
**GEA0 GERESS Array S 15.80 329** *e*P **Pn 09 47 22.0 +0.6**
**GEA0 GERESS Array S 15.80 329** *e*P **Pn 09 47 22.0 +0.6**
**GEC2 GERESS Array S 15.81 329** *e*P **Pn 09 47 22.0 +0.6**
**GEC2 GERESS Array S 15.81 329** *e*Pn **Pn 09 47 22.0 +0.6**
**GEC2 GERESS Array S 15.81 329** *e*Pn **Pn 09 47 22.1 +0.6**
**GERES GERESS Array B 15.81 329** P **Pn 09 47 20.8 -0.7**
comp=Z,0.6nm,0.3s,baz=144,slow=12,SNR=10.0
**FETA Feichten 15.93 319** *e*P **Pn 09 47 24.2 +1.1**
comp=Z,7.3nm,0.6s,SNR=9.4
**MOTA Moosalm 15.94 321** *e*Pn **Pn 09 47 23.8 +0.6**
comp=Z,10nm,0.9s
**KHC Kasperske Hory 16.08 330** *e*P **Pn 09 47 24.7 -0.1**
**KHC Kasperske Hory 16.08 330** *e*P **Pn 09 47 24.7 -0.1**
**KHC Kasperske Hory 16.08 330** *e*P **Pn 09 47 25.0 +0.2**
**KHC Kasperske Hory 16.08 330** *e*P **Pn 09 47 24.9 +0.2**
**DPC Dobruska-Polom 16.10 337** *e*P **Pn 09 47 24.9 -0.1**
**DPC Dobruska-Polom 16.10 337** *e*P **Pn 09 47 24.9 -0.1**
**DPC Dobruska-Polom 16.10 337** *e*P **Pn 09 47 24.9 -0.1**
**RETA Reutte 16.21 321** *e*P **Pn 09 47 27.3 +0.9**
comp=Z,4.3nm,0.4s
**DAVOX Davos/Dischmat 16.24 317** P **Pn 09 47 27.7 +0.7**
comp=Z,0.9nm,0.3s,baz=124,slow=16,SNR=6.4
**GOPC GO Pecny, Ondr 16.25 334** *e*P **Pn 09 47 26.3 -0.5**
**GOPC GO Pecny, Ondr 16.25 334** *e*P **Pn 09 47 26.3 -0.5**
**GOPC GO Pecny, Ondr 16.25 334** *e*P **Pn 09 47 26.3 -0.5**
**UPC Upice 16.33 337** *e*P **Pn 09 47 27.6 -0.2**
**UPC Upice 16.33 337** *e*P **Pn 09 47 27.6 -0.2**
**UPC Upice 16.33 337** *e*P **Pn 09 47 27.6 -0.2**
**TUE Stuetta 16.36 316** *e*Pn **P 09 47 31.3 +2.3**
**TUE Stuetta 16.36 316** *e*Pn **P 09 47 31.3 +2.3**
**PRU Pruhonice 16.40 333** *e*P **Pn 09 47 28.9 +0.3**
**PRU Pruhonice 16.40 333** *e*P **Pn 09 47 28.9 +0.3**
**PRU Pruhonice 16.40 333** *e*P **Pn 09 47 28.9 +0.3**
**DAVA Damuels 16.55 319** *i*P **P 09 47 31.7 +0.7**
comp=Z,5.2nm,0.4s,SNR=4.1
**BNI Bardonecchia 17.27 308** *e*P **Pn 09 47 41.0 +1.6**
**BNI Bardonecchia 17.27 308** *e*P **Pn 09 47 41.0 +1.6**
**BNI Bardonecchia 17.27 308** *e*Pn **Pn 09 47 41.3 +2.0**
**BNI Bardonecchia 17.27 308** *e*P **Pn 09 47 41.0 +1.6**
BNI *e*Pn **Pn 09 47 41.4 +2.0**
**BRG Berggiesshubel 17.34 334**⇑*i*P **P 09 47 40.2 +0.7**
comp=Z,7.4nm,0.9s
**BRG Berggiesshubel 17.34 334***i*P **P 09 47 40.2 +0.7**
BRG pmax pmax
comp=Z,7.0nm,0.9s
**BRG Berggiesshubel 17.34 334** *i*P **P 09 47 40.2 +0.7**
comp=Z,7.0nm,0.9s
**SENIN Lac Senin/Sane 17.50 313** *e*P **P 09 47 41.6 +0.1**
**SENIN Lac Senin/Sane 17.50 313** *e*P **P 09 47 41.6 +0.1**
SENIN *e*Pn **Pn 09 47 41.8 -0.4**
**BFO Black Forest 18.02 319** *e*P **P 09 47 47.9 +1.0**
**BFO Black Forest 18.02 319** *e*P **P 09 47 47.9 +1.0**
**BFO Black Forest 18.02 319** *e*Pn **Pn 09 47 48.9 +0.7**
**BFO Black Forest 18.02 319** *e*P **P 09 47 47.9 +1.0**
BFO *e*Pn **Pn 09 47 48.9 +0.7**
**CLL Collm 18.04 333** *i*P **P 09 47 48.0 +0.9**
CLL pmax pmax
comp=Z,8.0nm,0.8s
**CLL Collm 18.04 333** *i*P **P 09 47 48.0 +0.9**
comp=Z,8.0nm,0.8s
CLL *i* 09 47 58.0
**CLL Collm 18.04 333** *e*P **P 09 47 47.8 +0.7**
comp=Z,6.1nm,0.8s
**CLL Collm 18.04 333** *e*P **P 09 47 47.9 +0.7**
comp=Z,6.1nm,0.8s
**MAK Makhachkala 18.12 60** *e*P **Pn 09 47 50.7 +1.2**
MAK *e*S **Sn 09 51 13.3 +1.0**
MAK pmax pmax
comp=Z,434nm,1.2s
MAK MLR MLR
comp=Z,294nm,17.0s
**MAK Makhachkala 18.12 60** *e*P **Pn 09 47 50.7 +1.2**
comp=Z,434nm,1.2s
**SSB Saint Sauveur 18.74 307** *e*P **P 09 47 56.0 +1.1**
SSB pmax pmax
comp=Z,18nm,1.2s
**SSB Saint Sauveur 18.74 307** *e*P **P 09 47 56.0 +1.1**
comp=Z,18nm,1.2s
**SSB Saint Sauveur 18.74 307** *e*P **P 09 47 56.0 +1.1**
comp=Z,18nm,1.2s
**KLNR Kaliningrad 19.19 350** *e*P **P 09 48 00.1 +0.5**
KLNR pmax pmax
comp=Z,41nm,1.0s
**KLNR Kaliningrad 19.19 350** *e*P **P 09 48 00.1 +0.5**
comp=Z,41nm,1.0s
**MEM Membach 20.61 322** P **P 09 48 15.8 +0.7**
comp=Z,15nm,1.1s
**MEM Membach 20.61 322** P **P 09 48 15.7 +0.7**
comp=Z,15nm,1.1s
**RAYN Ar Rayn 20.93 121** *e*P **P 09 48 19.3 +0.6**
comp=Z,16nm,1.9s
**RAYN Ar Rayn 20.93 121** *e*P **P 09 48 19.3 +0.6**
comp=Z,16nm,1.9s
**DOU Dourbes 21.04 319** P **P 09 48 16.6 -3.0**
**ES19 SONSECA Array 23.83 288** *e*P **P 09 48 47.8 +0.4**
**ES19 SONSECA Array 23.83 288** *e*P **P 09 48 47.8 +0.4**
**ESDC Sonseca Array 23.88 288** P **P 09 48 48.3 +0.5**
comp=Z,6.0nm,0.6s,baz=79,slow=9.8,SNR=33
**ESLA Sonseca Array 23.88 288** *e*P **P 09 48 48.3 +0.4**
comp=Z,9.3nm,0.8s
**ESLA Sonseca Array 23.88 288** *e*P **P 09 48 48.3 +0.4**
comp=Z,9.3nm,0.8s
**MDT Midelt 25.34 272** P **P 09 49 02.6 +1.3**
comp=Z,3.3nm,0.7s,baz=78,slow=8.7,SNR=7.6
**HFS Hagfors 25.58 346** P **P 09 49 01.7 -1.2**
comp=Z,0.9nm,0.4s,baz=147,slow=11,SNR=6.7
**FINES FINESS Array B 25.64 0** P **P 09 49 02.3 -1.2**
comp=Z,1.1nm,0.3s,baz=162,slow=10,SNR=16

**NOA NORSAR Array B 26.92 344** P **P 09 49 13.8 -1.2**
comp=Z,0.6nm,0.7s,baz=165,slow=6.8,SNR=4.3
**EKA Eskdalemuir Ar 27.86 324** P **P 09 49 23.2 -0.2**
comp=Z,2.3nm,0.4s,baz=131,slow=11,SNR=18
**EKA Eskdalemuir Ar 27.86 324** P **P 09 49 23.3 -0.2**
EKA pmax pmax
comp=Z,3.0nm,0.4s
**EKA Eskdalemuir Ar 27.86 324** P **P 09 49 23.3 -0.2**
comp=Z,3.0nm,0.4s
**TORD Torodi Ar. Bea 31.38 230** P **P 09 49 56.2 +1.3**
comp=Z,1.2nm,0.4s,baz=37,slow=9.0,SNR=23
**ARCES ARCESS Array B 33.77 360** P **P 09 50 14.1 -1.1**
comp=Z,2.3nm,0.6s,baz=182,slow=9.0,SNR=9.3
**BRVK Borovoye 35.39 47** *e*P **P 09 50 33.3 +3.9**
**DBIC Dimbokro 40.46 232** P **P 09 51 12.7 +0.4**
comp=Z,2.4nm,0.5s,baz=17,slow=6.4,SNR=4.8
**SPITS Spitsbergen Ar 42.66 357** P **P 09 51 29.0 -0.5**
baz=146,slow=8.0
**SPITS Spitsbergen Ar 42.66 357** P **P 09 51 29.0 -0.5**
**SPITS Spitsbergen Ar 42.66 357** P **P 09 51 29.0 -0.5**
**MKAR Makanchi Array 42.90 57** P **P 09 51 32.9 +1.0**
comp=Z,1.0nm,0.5s,baz=268,slow=8.1,SNR=16
**ZALV Zalesovo Beam 44.11 47** P **P 09 51 41.4 +0.1**
comp=Z,0.7nm,0.5s,baz=262,slow=8.8,SNR=3.8
**WMQ Urumqi 47.15 60** P **P 09 52 07.8 +2.3**
WMQ pmax pmax
comp=Z,12nm,0.7s
WMQ pmax pmax
comp=Z,150nm,3.7s
WMQ LR LR
comp=N,35nm,18.5s
WMQ LR LR
comp=E,80nm,17.5s
WMQ LR LR
comp=Z,44nm,20.1s
**SONM Songino Array 58.59 51** P **P 09 53 30.7 +1.1**
comp=Z,0.3nm,0.5s,baz=297,slow=6.3,SNR=2.7
**SCHQ Schefferville 63.08 320** P **P 09 53 59.8 +0.2**
comp=Z,4.2nm,0.5s,baz=65,slow=4.7,SNR=21
**BOSA Boshof 64.09 181** P **P 09 54 08.3 +1.7**
**HHC Hu-ho-hao-te 64.76 57** *e*P **P 09 54 12.3 +1.3**
HHC S **S 10 02 40.1 -1.5**
HHC sS sS 10 03 33.3 -1.4
HHC ScS **SKSac 10 03 50.6 -3.0**
**HHC Hu-ho-hao-te 64.76 57** SS SS 10 06 54.6 +0.1
HHC pmax pmax
comp=Z,20nm,1.0s
HHC pmax pmax
comp=Z,39nm,5.4s
**CMAR Chiang Mai Arr 65.89 84** P **P 09 54 19.1 +0.6**
comp=Z,0.8nm,0.3s,baz=307,slow=8.9,SNR=5.3
**YKA Yellowknife Ar 77.00 342** P **P 09 55 24.3 -0.1**
comp=Z,0.2nm,0.3s,baz=29,slow=5.2,SNR=13
**KSRS Korea Array 77.40 53** P **P 09 55 26.4 -0.7**
comp=Z,1.1nm,0.6s,baz=324,slow=4.8,SNR=4.8
**ILAR Eielson Array 79.58 357** P **P 09 55 37.7 -0.9**
comp=Z,0.2nm,0.6s,baz=338,slow=4.0,SNR=4.4
**ULM Lac du Bonnet 80.10 326** P **P 09 55 41.1 -0.5**
comp=Z,1.8nm,0.5s,baz=66,slow=5.2,SNR=5.9
**ASAR Alice Springs 117.57 100** PKP **PKPdf 10 02 17.2 0.0**
comp=Z,0.2nm,0.4s,baz=294,slow=1.5,SNR=4.9

**NNC 21 10:02:53.0**±1.0,**36.78N**×70.94E,**h151**km±12km,**mb2.8, mpv3.6,7C-5D,Error ellipse: s-maj=9.6km s-min=4.7km az=159.0,Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DZET** | **Dzherino** | **2.63** | **321** | ⇑P | Pn | 10 03 35.4 | -0.4 |
| | 22nm,0.3s | | | | | | |
| DZET | | | | ⇑S | Sn | 10 04 09.5 | +0.7 |
| | 141nm,0.5s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **3.80** | **31** | ⇓P | Pn | 10 03 50.8 | -0.1 |
| | 4.5nm,0.3s | | | | | | |
| SFK | | | | ⇓S | Sn | 10 04 36.5 | +0.7 |
| | 17nm,0.3s | | | | | | |
| **MNAS** | **Manas** | **5.83** | **11** | ⇓P | Pn | 10 04 17.3 | -0.1 |
| | 2.4nm,0.6s | | | | | | |
| MNAS | | | | ⇑S | Sn | 10 05 23.6 | +0.1 |
| | 20nm,1.2s | | | | | | |
| **KK31** | **Karatay Array** | **6.33** | **357** | ⇓P | Pn | 10 04 24.0 | +0.1 |
| | 2.5nm,0.3s,baz=181,slow=12,SNR=70 | | | | | | |
| KK31 | | | | ⇑S | Sn | 10 05 35.9 | +0.7 |
| | 6.2nm,0.7s,baz=174,slow=19,SNR=11 | | | | | | |
| **AAK** | **Ala-Archa** | **6.46** | **24** | P | Pn | 10 04 26.6 | +0.7 |
| | 1.8nm,0.3s | | | | | | |
| AAK | | | | ⇓S | Sn | 10 05 38.2 | -0.4 |
| | 3.9nm,0.7s | | | | | | |
| **TKM2** | **Tokmak 2** | **7.10** | **29** | ⇑P | Pn | 10 04 35.1 | +0.6 |
| | 1.2nm,0.5s | | | | | | |
| TKM2 | | | | ⇑S | Sn | 10 05 55.4 | +1.3 |
| | 1.9nm,0.7s | | | | | | |
| **AB31** | **Akbulak array** | **14.82** | **331** | ⇑P | Pn | 10 06 14.9 | +0.1 |
| | 0.8nm,0.6s | | | | | | |

*ISK **21** 10:08:16.8,36°.93N×39°.24E,h9km,ML2.3*
*ISCJB **21** 10:08:18.8±1.0,37°.00N±0°.08×39°.20E±0°.05,h10km,Error ellipse: s-maj=12.1km s-min=5.6km az=167.4*
*CSEM **21** 10:08:18.6±0.8,36°.99N×39°.26E,h10km,ML2.3,Error ellipse: s-maj=22.3km s-min=9.3km az=158.0*
*DDA **21** 10:08:19.7,37°.04N×39°.28E,h7km,Ml3.0*
**ISC 21 10:08:18.9**±1.2,**36°.98N**±0°.08×**39°.23E**±0°.04,**h10**km,**n19, σ1°.00/26,Jordan-Syria region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SURC** | **SANLIURFA_SURC** | **0.51** | **258** | *i*P | **Pb** | **10 08 30.8** | **+0.8** |
| **SURC** | **SANLIURFA_SURC** | **0.51** | **258** | P | **Pb** | **10 08 30.8** | **+0.8** |
| **URFA** | **Urfa** | **0.56** | **324** | *e*PG | **Pg** | **10 08 29.1** | **-0.7** |
| **URFA** | **Urfa** | **0.56** | **324** | *e*Pg | **Pg** | **10 08 29.2** | **-0.7** |
| **MAZI** | **Mazidag** | **1.08** | **63** | *e*PN | **Pb** | **10 08 38.3** | **-1.5** |
| MAZI | | | | *e*SN | **Sg** | **10 08 53.9** | **+0.2** |
| **MAZI** | **Mazidag** | **1.08** | **63** | *e*Pn | **Pb** | **10 08 38.3** | **-1.5** |
| MAZI | | | | *e*Sn | **Sg** | **10 08 53.9** | **+0.2** |
| **DIYA** | **Diyarbakir** | **1.18** | **37** | *i*P | **Pb** | **10 08 42.5** | **+1.1** |
| DIYA | | | | *i*S | **Sb** | **10 08 56.3** | **-0.4** |
| **DIYA** | **Diyarbakir** | **1.18** | **37** | P | **Pb** | **10 08 42.5** | **+1.1** |
| DIYA | | | | S | **Sb** | **10 08 56.3** | **-0.4** |
| **DIY** | **Diyarbakir** | **1.21** | **41** | *e*Pn | **Pn** | **10 08 41.1** | **-0.8** |
| **DYBB** | **Diyarbakir** | **1.21** | **36** | *e*PN | **Pn** | **10 08 41.1** | **-0.9** |
| **MARD** | **Mardin** | **1.28** | **75** | *i*P | **Pn** | **10 08 43.3** | **+0.3** |
| MARD | | | | *i*S | **Sb** | **10 09 00.8** | **+1.1** |
| **SVRC** | **Sivrice-ELAZID** | **1.40** | **2** | *e*PN | **Pn** | **10 08 43.9** | **-0.7** |
| **SVRC** | **Sivrice-ELAZID** | **1.40** | **2** | *e*Pn | **Pn** | **10 08 43.9** | **-0.7** |
| **MALT** | **Malatya** | **1.47** | **335** | *e*PN | **Pn** | **10 08 45.0** | **-0.7** |
| **MALT** | **Malatya** | **1.47** | **335** | *e*Pn | **Pn** | **10 08 45.0** | **-0.7** |
| **GAZ** | **Gaziantep** | **1.63** | **277** | *e*PN | **Pn** | **10 08 46.6** | **-1.1** |
| **GAZ** | **Gaziantep** | **1.63** | **277** | *e*Pn | **Pn** | **10 08 46.6** | **-1.1** |
| **HANI** | **Diyarbakir_Han** | **1.70** | **33** | *i*P | **Pn** | **10 08 48.5** | **-0.2** |
| HANI | | | | *i*S | **Sn** | **10 09 12.4** | **+1.7** |
| **HANI** | **Diyarbakir_Han** | **1.70** | **33** | P | **Pn** | **10 08 48.5** | **-0.2** |
| HANI | | | | S | **Sn** | **10 09 12.4** | **+1.7** |

*ISK **21** 10:17:43.3,38°.64N×43°.08E,h5km,MD2.3,ML2.3*
*ISCJB **21** 10:17:44.5±0.6,38°.67N±0°.03×43°.11E±0°.04,h13km±6km, Error ellipse: s-maj=6.0km s-min=5.5km az=35.6*
*CSEM **21** 10:17:44.4±0.2,38°.67N×43°.09E,h5km,MD2.3,Error ellipse: s-maj=4.6km s-min=4.1km az=49.0*
*DDA **21** 10:17:44.6,38°.69N×43°.15E,h7km,Md2.5*
**ISC 21 10:17:44.4**±1.0,**38°.66N**±0°.03×**43°.09E**±0°.04,**h13**km±11km, **n19,σ0°.48/33,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.24** | **105** | *e*PG | **Pg** | **10 17 49.6** | **0.0** |
| VANB | | | | *e*SG | **Sg** | **10 17 53.9** | **+0.8** |
| **VANB** | **Van** | **0.24** | **105** | *e*Pg | **Pg** | **10 17 49.6** | **0.0** |
| VANB | | | | *e*Sg | **Sg** | **10 17 53.9** | **+0.8** |
| **TVAN** | **Van** | **0.28** | **118** | *i*P | **Pg** | **10 17 49.7** | **-0.6** |
| TVAN | | | | *i*S | **Sg** | **10 17 54.1** | **-0.2** |
| **TVAN** | **Van** | **0.28** | **118** | P | **Pg** | **10 17 49.7** | **-0.6** |
| TVAN | | | | S | **Sg** | **10 17 54.1** | **-0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.33** | **298** | *i*P | **Pb** | **10 17 52.1** | **-0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.33** | **298** | P | **Pb** | **10 17 52.1** | **-0.1** |
| **GEVA** | **Gevas** | **0.35** | **185** | *i*P | **Pg** | **10 17 51.1** | **-0.4** |
| GEVA | | | | *i*S | **Sb** | **10 17 58.5** | **+0.5** |
| **GEVA** | **Gevas** | **0.35** | **185** | P | **Pg** | **10 17 51.1** | **-0.4** |
| GEVA | | | | S | **Sb** | **10 17 58.5** | **+0.5** |
| **VMUR** | **Van-Muradiye** | **0.50** | **48** | *i*P | **Pg** | **10 17 54.0** | **-0.3** |
| VMUR | | | | *i*S | **Sg** | **10 18 01.2** | **+0.2** |
| **VMUR** | **Van-Muradiye** | **0.50** | **48** | P | **Pg** | **10 17 54.0** | **-0.3** |
| VMUR | | | | S | **Sg** | **10 18 01.2** | **+0.2** |
| **TUTA** | **Tutak** | **0.77** | **344** | *i*P | **Pg** | **10 17 59.3** | **-0.2** |
| **TUTA** | **Tutak** | **0.77** | **344** | P | **Pg** | **10 17 59.3** | **-0.2** |
| **CLDR** | **Caldiran** | **0.80** | **53** | *e*PG | **Pg** | **10 17 59.6** | **-0.5** |
| CLDR | | | | *e*SG | **Sb** | **10 18 11.7** | **+0.4** |
| **CLDR** | **Caldiran** | **0.80** | **53** | *i*P | **Pg** | **10 17 59.5** | **-0.5** |
| CLDR | | | | *i*S | **Sg** | **10 18 10.3** | **-0.4** |
| **CLDR** | **Caldiran** | **0.80** | **53** | P | **Pg** | **10 17 59.5** | **-0.5** |
| CLDR | | | | S | **Sg** | **10 18 10.3** | **-0.4** |
| CLDR | | | | *e*Sg | **Sb** | **10 18 11.7** | **+0.4** |
| **AGRB** | **Hanur-Agry** | **0.92** | **355** | *e*PG | **Pg** | **10 18 01.7** | **-0.5** |
| AGRB | | | | *e*SG | **Sb** | **10 18 15.3** | **+0.7** |
| **AGRB** | **Hanur-Agry** | **0.92** | **355** | *e*Pg | **Pg** | **10 18 01.7** | **-0.5** |
| AGRB | | | | *e*Sg | **Sb** | **10 18 15.3** | **+0.7** |
| **EKAR** | **Karacoban** | **1.00** | **307** | *i*P | **Pg** | **10 18 03.4** | **-0.4** |
| **EKAR** | **Karacoban** | **1.00** | **307** | P | **Pg** | **10 18 03.4** | **-0.4** |

*IDC **21** 10:19:40.2±1.0,3°.31S×135°.60E,h0km,mb3.8/5, mb1 4.0/6,mb1mx3.6/33,mbtmp3.8/6,ML3.5/1,MS3.0/1, Ms1 3.0/1,ms1mx2.3/26,Error ellipse: s-maj=51.3km s-min=25.0km az=83.0*
**ISC 21 10:19:41.4**±1.0,**3.88S**±0°.09×**135°.7E**±0°.2,**h22**km,**n9, σ2°.00/11,mb3.8/4,Irian Jaya region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **16.02** | **184** | P | **P** | **10 23 29.0** | **+0.2** |
| | 0.1nm,0.3s,baz=4.7,slow=13,SNR=3.9 | | | | | | |
| WRA | | | | Sn | **Sn** | **10 26 21.3** | **-1.3** |
| | 0.2nm,0.3s,baz=2.6,slow=22,SNR=4.1 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **17.20** | **214** | P | **P** | **10 23 45.7** | **+3.7** |
| | 0.1nm,0.3s,baz=34,slow=11,SNR=3.6 | | | | | | |
| FITZ | | | | S | **Sn** | **10 26 48.3** | **-3.1** |
| | 0.2nm,0.3s,baz=283,slow=19,SNR=5.6 | | | | | | |
| **ASAR** | **Alice Springs** | **19.74** | **185** | P | Pn | 10 24 17.9 | +6.4 |
| | 5.5nm,0.7s,baz=7.8,slow=11,SNR=37 | | | | | | |
| ASAR | | | | S | **Sn** | **10 27 53.0** | **+0.2** |
| | 0.6nm,0.9s,baz=12,slow=25,SNR=3.4 | | | | | | |
| ASAR | | | | LR | LR | 10 32 31.6 | |
| | comp=Z,44nm,20.3s,baz=22,slow=38 | | | | | | |
| **MKAR** | **Makanchi Array** | **68.89** | **324** | P | **P** | **10 30 44.6** | **+0.1** |
| | 0.6nm,0.5s,baz=113,slow=7.8,SNR=8.5 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **72.95** | **326** | P | **P** | **10 31 08.0** | **-1.2** |
| | 0.1nm,0.3s,baz=124,slow=5.0,SNR=3.4 | | | | | | |
| **BVAR** | **Borovoye Array** | **78.55** | **326** | P | **P** | **10 31 40.8** | **-0.4** |
| | 0.4nm,0.6s,baz=120,slow=5.7,SNR=3.1 | | | | | | |
| **ILAR** | **Eielson Array** | **88.16** | **25** | P | **P** | **10 32 29.1** | **-1.3** |
| | 0.3nm,0.4s,baz=262,slow=4.3,SNR=5.9 | | | | | | |
| **CPUP** | **Villa Florida** | **147.44** | **158** | PKPbc | **PKPab** | **10 39 28.3** | **+1.9** |
| | 1.0nm,0.6s,baz=203,slow=7.7,SNR=5.1 | | | | | | |
| **LPAZ** | **La Paz** | **149.10** | **131** | PKPbc | **PKPab** | **10 39 33.8** | **-0.3** |
| | 0.7nm,0.8s,baz=236,slow=3.6,SNR=3.6 | | | | | | |

*ISK **21** 10:20:08.9,38°.91N×43°.55E,h5km,ML2.1*
*CSEM **21** 10:20:09.6±0.3,38°.95N×43°.53E,h15km,MD2.6,Error ellipse: s-maj=8.1km s-min=6.7km az=98.0*
*DDA **21** 10:20:09.9,38°.95N×43°.54E,h13km,Md2.6*
*ISCJB **21** 10:20:10.6±0.8,38°.94N±0°.03×43°.56E±0°.06,h15km±8km, Error ellipse: s-maj=8.1km s-min=5.6km az=8.2*
**ISC 21 10:20:09.3**±0.9,**38°.94N**±0°.03×**43°.56E**±0°.04,**h15**km±5km, **n17,σ0°.81/30,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VMUR** | **Van-Muradiye** | **0.05** | **12** | *i*P | **Pg** | **10 20 12.1** | **-0.3** |
| VMUR | | | | *i*S | **Sg** | **10 20 14.7** | **+0.4** |
| **VMUR** | **Van-Muradiye** | **0.05** | **12** | P | **Pg** | **10 20 12.1** | **-0.3** |
| VMUR | | | | S | **Sg** | **10 20 14.7** | **+0.4** |
| **CLDR** | **Caldiran** | **0.34** | **54** | *e*PG | **Pb** | **10 20 17.3** | **0.0** |
| CLDR | | | | *e*SG | **Sb** | **10 20 23.6** | **+0.9** |
| **CLDR** | **Caldiran** | **0.34** | **54** | *i*P | **Pb** | **10 20 17.3** | **0.0** |
| CLDR | | | | *i*S | **Sb** | **10 20 23.1** | **+0.4** |
| **CLDR** | **Caldiran** | **0.34** | **54** | P | **Pb** | **10 20 17.3** | **0.0** |
| CLDR | | | | S | **Sb** | **10 20 23.0** | **+0.4** |
| **VANB** | **Van** | **0.37** | **201** | *e*PG | **Pb** | **10 20 18.1** | **+0.4** |
| VANB | | | | *e*SG | **Sb** | **10 20 24.8** | **+1.5** |
| **VANB** | **Van** | **0.37** | **201** | *e*Pg | **Pb** | **10 20 18.1** | **+0.4** |
| VANB | | | | *e*Sg | **Sb** | **10 20 24.8** | **+1.5** |
| **TVAN** | **Van** | **0.43** | **196** | *i*P | **Pb** | **10 20 18.4** | **-0.4** |
| TVAN | | | | *i*S | **Sb** | **10 20 26.1** | **+1.0** |
| **TVAN** | **Van** | **0.43** | **196** | P | **Pb** | **10 20 18.4** | **-0.4** |
| TVAN | | | | S | **Sb** | **10 20 26.1** | **+1.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.67** | **259** | *i*P | **Pg** | **10 20 21.8** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.67** | **259** | P | **Pg** | **10 20 21.8** | **-0.6** |
| **TUTA** | **Tutak** | **0.74** | **309** | *i*P | **Pg** | **10 20 23.9** | **+0.2** |
| TUTA | | | | *i*S | **Sb** | **10 20 35.0** | **+1.0** |
| **TUTA** | **Tutak** | **0.74** | **309** | P | **Pg** | **10 20 24.0** | **+0.2** |
| TUTA | | | | S | **Sb** | **10 20 35.0** | **+1.0** |
| **AGRB** | **Hanur-Agry** | **0.77** | **325** | *e*PG | **Pn** | **10 20 25.4** | **-0.4** |
| AGRB | | | | *e*SG | **Sn** | **10 20 37.4** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **0.77** | **325** | *e*Pg | **Pn** | **10 20 25.4** | **-0.4** |
| AGRB | | | | *e*Sg | **Sn** | **10 20 37.4** | **+0.1** |
| **EKAR** | **Karacoban** | **1.20** | **285** | *i*P | **Pn** | **10 20 30.2** | **-1.6** |
| **EKAR** | **Karacoban** | **1.20** | **285** | P | **Pn** | **10 20 30.2** | **-1.6** |

**KRNET 21 10:25:42.7**±0.1,**40°.81N**×**78°.62E**,**mb2.5,12C-2D, Southern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PRZ** | **Przheval'sk** | **1.69** | **355**⇑ | *e*P | Pn | 10 26 13.9 | +0.3 |
| | baz=354 | | | | | | |
| PRZ | | | | ⇑*i*S | Sn | 10 26 36.0 | 0.0 |
| | baz=354 | | | | | | |
| **ULHL** | **Ulahol** | **2.29** | **310**⇑ | *i*P | Pg | 10 26 27.9 | +1.3 |
| | baz=291 | | | | | | |
| ULHL | | | | ⇑*i*S | Sn | 10 26 51.8 | +0.8 |
| | baz=291 | | | | | | |
| **PDGK** | **Podgornoye** | **2.60** | **14**⇓ | *i*P | Pn | 10 26 27.3 | +1.1 |
| | baz=14 | | | | | | |
| PDGK | | | | ⇓*i*S | Sn | 10 26 59.9 | +1.3 |
| | baz=14 | | | | | | |
| **BOOM** | **Boomskoye usch** | **2.62** | **311**⇑ | *i*P | Pn | 10 26 27.5 | +1.0 |
| | baz=311 | | | | | | |
| BOOM | | | | ⇑*i*S | Sn | 10 27 00.2 | +1.2 |
| | baz=311 | | | | | | |
| **KZA** | **Kyzart** | **2.83** | **298**⇑ | *i*P | Pg | 10 26 37.8 | +0.8 |
| | baz=282 | | | | | | |
| KZA | | | | ⇑*i*S | Sb | 10 27 08.8 | -1.0 |
| | baz=282 | | | | | | |
| **TKM2** | **Tokmak 2** | **3.09** | **314**⇑ | *i*P | Pb | 10 26 38.5 | -0.2 |
| | baz=303 | | | | | | |
| TKM2 | | | | ⇑*i*S | Sn | 10 27 10.1 | -0.7 |
| | baz=303 | | | | | | |
| **SFK** | **Sufi-Kurgan** | **3.98** | **260**⇑ | *i*P | Pn | 10 26 46.0 | +0.7 |
| | baz=260 | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | baz=68 | | | | | | | | |
| AML | | | | ⇑*i*S | | **Sb** | **10 48 45.9** | **-1.2** |
| | baz=68 | | | | | | | | |
| **SFK** | **Sufi-Kurgan** | **2.21** | **122** | ⇑*i*P | | **Pg** | **10 48 22.0** | **+0.5** |
| | baz=126 | | | | | | | | |
| SFK | | | | ⇑*i*S | | **Sg** | **10 48 50.2** | **0.0** |
| | baz=126 | | | | | | | | |
| **MRKS** | **Merke** | **2.23** | **46** | *e*P | | **Pb** | **10 48 21.2** | **+1.1** |
| | 5.6nm,0.3s | | | | | | | | |
| MRKS | | | | *e*S | | **Sg** | **10 48 50.6** | **-0.2** |
| | 6.1nm,0.3s | | | | | | | | |
| **EKS2** | **Erkin-Say** | **2.50** | **54** | ⇑*i*P | | **Pb** | **10 48 23.2** | **-1.5** |
| | baz=57 | | | | | | | | |
| EKS2 | | | | ⇑*i*S | | **Sn** | **10 48 52.9** | **+1.1** |
| | baz=57 | | | | | | | | |
| **UCH** | **Uchtor** | **2.78** | **67** | ⇑*i*P | | **Pb** | **10 48 27.7** | **-2.0** |
| | baz=71 | | | | | | | | |
| UCH | | | | ⇑*i*S | | **Sn** | **10 49 00.7** | **+1.4** |
| | baz=71 | | | | | | | | |
| **AAK** | **Ala-Archa** | **2.94** | **60** | ⇑*i*P | | **Pb** | **10 48 29.6** | **-2.6** |
| | baz=63 | | | | | | | | |
| AAK | | | | ⇑*i*S | | **Sn** | **10 49 03.3** | **+0.5** |
| | baz=63 | | | | | | | | |
| **AAK** | **Ala-Archa** | **2.94** | **60** | ⇓Pg | | **Pb** | **10 48 33.5** | **+1.4** |
| | 1.7nm,0.5s | | | | | | | | |
| AAK | | | | ⇑Lg | | Lg | 10 49 11.7 | | |
| | 1.7nm,0.5s | | | | | | | | |
| **TKM2** | **Tokmak 2** | **3.79** | **62** | ⇓Pg | | **Pb** | **10 48 48.0** | **+1.3** |
| | 1.6nm,0.8s | | | | | | | | |
| TKM2 | | | | ⇑Lg | | Lg | 10 49 39.4 | | |
| | 0.7nm,0.4s | | | | | | | | |
| **DGS** | **Degeres** | **4.05** | **58** | *e*P | | **Pg** | **10 48 55.1** | **-1.6** |
| | 2.0nm,0.5s | | | | | | | | |
| DGS | | | | *e*S | | **Sg** | **10 49 49.4** | **+0.2** |
| | 2.3nm,0.2s | | | | | | | | |

**WEL 21 10:57:18.7±0.7, 37°23S×179°82E, h33km, ML3.5/11, 1D, Error ellipse: s-maj=8.0km s-min=7.7km az=90.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MXZ** | **Matakaoa Point** | **1.25** | **254** | PN | Pn | 10 57 39.0 | -0.8 |
| MXZ | | | | AML | AML | 10 57 56.5 | |
| MXZ | | | | AML | AML | 10 57 57.0 | |
| **WMGZ** | **Waiomatatini S** | **1.26** | **242** | PN | Pn | 10 57 39.2 | -0.8 |
| WMGZ | | | | SN | Sn | 10 57 54.5 | -1.4 |
| WMGZ | | | | AML | AML | 10 57 55.6 | |
| **PUZ** | **Puketiti** | **1.50** | **236** | PN | Pn | 10 57 42.5 | -0.8 |
| PUZ | | | | SN | Sn | 10 58 00.5 | -1.2 |
| PUZ | | | | AML | AML | 10 58 02.4 | |
| **PKGZ** | **Pakihiroa** | **1.53** | **244** | PN | Pn | 10 57 43.0 | -0.7 |
| PKGZ | | | | SN | Sn | 10 58 01.4 | -1.2 |
| PKGZ | | | | AML | AML | 10 58 02.2 | |
| **HAZ** | **Te Kaha** | **1.70** | **252** | ⇓PN | Pn | 10 57 46.3 | +0.3 |
| HAZ | | | | AML | AML | 10 58 08.0 | |
| HAZ | | | | AML | AML | 10 58 11.8 | |
| **TWGZ** | **Tauwhareparae** | **1.74** | **237** | PN | Pn | 10 57 46.1 | -0.5 |
| TWGZ | | | | SN | Sn | 10 58 07.0 | -0.6 |
| TWGZ | | | | AML | AML | 10 58 08.2 | |
| **CNGZ** | **Carnagh Statio** | **1.79** | **225** | PN | Pn | 10 57 47.0 | -0.2 |
| **RUGZ** | **Raukumara Rang** | **1.85** | **246** | PN | Pn | 10 57 48.2 | 0.0 |
| **TKGZ** | **Te Karaka** | **1.97** | **232** | PN | Pn | 10 57 49.0 | -0.8 |
| TKGZ | | | | AML | AML | 10 58 13.0 | |
| TKGZ | | | | AML | AML | 10 58 13.0 | |
| **MWZ** | **Matawai** | **2.12** | **238** | PN | Pn | 10 57 51.4 | -0.5 |
| MWZ | | | | AML | AML | 10 58 22.0 | |
| MWZ | | | | AML | AML | 10 58 25.1 | |
| **RIGZ** | **Rimuhau** | **2.19** | **227** | PN | Pn | 10 57 52.1 | -0.8 |
| RIGZ | | | | AML | AML | 10 58 19.9 | |
| RIGZ | | | | AML | AML | 10 58 20.4 | |
| **RAGZ** | **Rawiri** | **2.28** | **236** | PN | Pn | 10 57 53.8 | -0.4 |
| RAGZ | | | | AML | AML | 10 58 20.2 | |
| RAGZ | | | | AML | AML | 10 58 20.5 | |
| **URZ** | **Urewera** | **2.38** | **244** | PN | Pn | 10 57 55.6 | +0.2 |
| URZ | | | | AML | AML | 10 58 23.3 | |
| URZ | | | | AML | AML | 10 58 23.6 | |
| **MUGZ** | **Murupara** | **2.72** | **242** | PN | Pn | 10 57 59.4 | -0.6 |
| **MTHZ** | **Maungataniwha** | **2.86** | **235** | PN | Pn | 10 58 01.3 | -0.7 |
| **ARHZ** | **Aropaoanui** | **3.01** | **227** | PN | Pn | 10 58 03.0 | -1.0 |
| ARHZ | | | | SN | Sn | 10 58 37.6 | -1.4 |
| **NMHZ** | **Naumai** | **3.02** | **231** | PN | Pn | 10 58 03.3 | -0.9 |
| **BKZ** | **Black Stump Fm** | **3.26** | **233** | PN | Pn | 10 58 06.2 | -1.2 |
| **MCHZ** | **McNeill Hill** | **3.30** | **227** | PN | Pn | 10 58 07.1 | -1.0 |
| **KAHZ** | **Kahuranaki** | **3.45** | **221** | PN | Pn | 10 58 07.9 | -2.2 |
| **KWHZ** | **Kaweka Forest** | **3.45** | **230** | PN | Pn | 10 58 09.0 | -1.2 |
| KWHZ | | | | SN | Sn | 10 58 47.0 | -3.0 |
| **BHHZ** | **Black Hill Sta** | **3.72** | **232** | PN | Pn | 10 58 12.7 | -1.1 |
| **BFZ** | **Birch Farm** | **4.43** | **218** | PN | Pn | 10 58 19.4 | -4.2 |
| **MRZ** | **Mangatainoka R** | **4.76** | **223** | PN | Pn | 10 58 24.6 | -3.5 |

*ISK **21** 11:02:51.4, 39°05N×29°05E, h5km, ML2.2*
*ISCJB **21** 11:02:52.1±0.5, 39°06N±0°03×29°03E±0°04, h4km±7km, Error ellipse: s-maj=6.0km s-min=4.9km az=154.8*
*CSEM **21** 11:02:52.1±0.1, 39°07N×29°02E, h2km, ML2.2, Error ellipse: s-maj=1.9km s-min=1.4km az=112.0*
*DDA **21** 11:02:52.2, 39°05N×29°02E, h7km, Ml2.5*
**ISC 21 11:02:52.1±0.9, 39°05N±0°03×29°04E±0°03, h5km±9km, n24, σ0°45/34, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SIMA** | **Simav-Kutahya** | **0.05** | **304** | *e*Pg | **Pg** | **11 02 53.2** | **-0.3** |
| **SIMA** | **Simav-Kutahya** | **0.05** | **304** | *e*Pg | **Pg** | **11 02 53.2** | **-0.3** |
| **DEMI** | **Demirci** | **0.25** | **268** | *i*P | **Pg** | **11 02 57.2** | **+0.2** |
| DEMI | | | | *i*S | **Sg** | **11 03 00.8** | **+0.4** |
| **DEMI** | **Demirci** | **0.25** | **268** | P | **Pg** | **11 02 57.2** | **+0.2** |
| DEMI | | | | S | **Sg** | **11 03 00.8** | **+0.4** |
| **GDZ** | **Gediz** | **0.35** | **84** | *i*P | **Pg** | **11 02 59.2** | **+0.3** |
| GDZ | | | | *i*S | **Sg** | **11 03 04.3** | **+0.8** |
| **GDZ** | **Gediz** | **0.35** | **84** | P | **Pg** | **11 02 59.2** | **+0.3** |
| GDZ | | | | S | **Sg** | **11 03 04.3** | **+0.8** |
| **TVSB** | **Tavsanli** | **0.51** | **40** | *e*PG | **Pg** | **11 03 01.9** | **-0.1** |
| **TVSB** | **Tavsanli** | **0.51** | **40** | *e*Pg | **Pg** | **11 03 01.9** | **-0.1** |
| **KULA** | **Kula-Manisa** | **0.61** | **209** | *e*PG | **Pg** | **11 03 03.8** | **-0.1** |
| KULA | | | | *e*SG | **Sg** | **11 03 12.9** | **+1.0** |
| **KULA** | **Kula-Manisa** | **0.61** | **209** | *e*Pg | **Pg** | **11 03 03.8** | **-0.1** |
| KULA | | | | *e*Sg | **Sg** | **11 03 12.9** | **+1.0** |
| **MANT** | **Manisa** | **0.68** | **214** | *i*P | **Pg** | **11 03 05.3** | **+0.2** |
| MANT | | | | *i*S | **Sg** | **11 03 14.4** | **+0.5** |
| **MANT** | **Manisa** | **0.68** | **214** | P | **Pg** | **11 03 05.3** | **+0.2** |
| MANT | | | | S | **Sg** | **11 03 14.4** | **+0.5** |
| **KHAL** | **Karahalli** | **0.77** | **152** | *i*P | **Pb** | **11 03 07.5** | **-0.5** |
| KHAL | | | | *i*S | **Sb** | **11 03 18.3** | **-0.6** |
| **KHAL** | **Karahalli** | **0.77** | **152** | P | **Pb** | **11 03 07.6** | **-0.5** |
| KHAL | | | | S | **Sb** | **11 03 18.3** | **-0.6** |
| **CAVI** | **Cavuskoy** | **1.30** | **28** | *e*PN | **Pn** | **11 03 16.9** | **-0.2** |
| **CAVI** | **Cavuskoy** | **1.30** | **28** | *e*Pn | **Pn** | **11 03 16.9** | **-0.2** |
| **KCTX** | **Karacabey (Bur** | **1.32** | **337** | *e*PN | **Pb** | **11 03 17.4** | **-0.1** |
| **KCTX** | **Karacabey (Bur** | **1.32** | **337** | *e*Pn | **Pb** | **11 03 17.4** | **-0.1** |
| **GONE** | **Gonen-Balikesi** | **1.44** | **314** | *e*PN | **Pn** | **11 03 19.0** | **+0.1** |
| **GONE** | **Gonen-Balikesi** | **1.44** | **314** | *e*Pn | **Pn** | **11 03 19.0** | **+0.1** |
| **ARMT** | **Armutlu** | **1.52** | **355** | *e*PN | **Pn** | **11 03 20.1** | **+0.1** |
| **ARMT** | **Armutlu** | **1.52** | **355** | *e*Pn | **Pn** | **11 03 20.1** | **+0.1** |
| **YLV** | **Yalova** | **1.53** | **10** | *e*PN | **Pn** | **11 03 20.3** | **0.0** |
| **YLV** | **Yalova** | **1.53** | **10** | *e*Pn | **Pn** | **11 03 20.3** | **0.0** |

*ISCJB **21** 11:17:21.9±0.4, 39°09N±0°02×29°07E±0°03, h6km±4km, Error ellipse: s-maj=3.9km s-min=3.7km az=179.5*
*DDA **21** 11:17:21.9, 39°11N×29°04E, h10km, Ml3.0*
*ISK **21** 11:17:21.1, 39°06N×29°12E, h7km, ML2.4*
*CSEM **21** 11:17:22.0±0.1, 39°09N×29°08E, h8km, ML2.4, Error ellipse: s-maj=3.1km s-min=2.6km az=76.0*
**ISC 21 11:17:21.9±0.9, 39°09N±0°02×29°09E±0°02, h7km±7km, n46, σ0°59/68, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SIMA** | **Simav-Kutahya** | **0.09** | **266** | *e*PG | **Pg** | **11 17 24.0** | **0.0** |
| SIMA | | | | *e*SG | **Sg** | **11 17 26.0** | **+0.5** |
| **SIMA** | **Simav-Kutahya** | **0.09** | **266** | *e*Pg | **Pg** | **11 17 24.0** | **0.0** |
| SIMA | | | | *e*Sg | **Sg** | **11 17 26.0** | **+0.5** |
| **DEMI** | **Demirci** | **0.30** | **261** | *i*P | **Pg** | **11 17 27.8** | **0.0** |
| DEMI | | | | *i*S | **Sg** | **11 17 31.4** | **-0.3** |
| **DEMI** | **Demirci** | **0.30** | **261** | P | **Pg** | **11 17 27.8** | **0.0** |
| DEMI | | | | S | **Sg** | **11 17 31.4** | **-0.3** |
| **GDZ** | **Gediz** | **0.30** | **90** | *i*P | **Pb** | **11 17 29.1** | **-0.6** |
| GDZ | | | | *i*S | **Sb** | **11 17 34.1** | **-0.9** |
| **GDZ** | **Gediz** | **0.30** | **90** | P | **Pb** | **11 17 29.1** | **-0.6** |
| GDZ | | | | S | **Sb** | **11 17 34.1** | **-0.9** |
| **TVSB** | **Tavsanli** | **0.46** | **38** | *e*PG | **Pg** | **11 17 30.6** | **-0.2** |
| TVSB | | | | *e*SG | **Sg** | **11 17 37.5** | **+0.7** |
| **TVSB** | **Tavsanli** | **0.46** | **38** | *e*Pg | **Pg** | **11 17 30.6** | **-0.2** |
| TVSB | | | | *e*Sg | **Sg** | **11 17 37.5** | **+0.7** |
| **KULA** | **Kula-Manisa** | **0.67** | **211** | *e*PG | **Pg** | **11 17 34.3** | **-0.4** |
| KULA | | | | *e*SG | **Sg** | **11 17 43.7** | **+0.3** |
| **KULA** | **Kula-Manisa** | **0.67** | **211** | *e*Pg | **Pg** | **11 17 34.3** | **-0.4** |
| KULA | | | | *e*Sg | **Sg** | **11 17 43.7** | **+0.3** |
| **MANT** | **Manisa** | **0.73** | **215** | *i*P | **Pg** | **11 17 36.1** | **+0.2** |
| MANT | | | | *i*S | **Sg** | **11 17 45.4** | **0.0** |
| **MANT** | **Manisa** | **0.73** | **215** | P | **Pg** | **11 17 36.1** | **+0.2** |
| MANT | | | | S | **Sg** | **11 17 45.4** | **0.0** |
| **KHAL** | **Karahalli** | **0.78** | **156** | *i*P | **Pb** | **11 17 38.1** | **+0.2** |
| KHAL | | | | *i*S | **Sb** | **11 17 49.1** | **+0.3** |
| **KHAL** | **Karahalli** | **0.78** | **156** | P | **Pb** | **11 17 38.1** | **+0.2** |
| KHAL | | | | S | **Sb** | **11 17 49.1** | **+0.3** |
| **KHL** | **Karahalli** | **0.83** | **156** | *e*PG | **Pg** | **11 17 37.0** | **-0.9** |
| KHL | | | | *e*SG | **Sg** | **11 17 48.6** | **-0.1** |
| **KHL** | **Karahalli** | **0.83** | **156** | *e*Pg | **Pg** | **11 17 37.0** | **-0.9** |
| KHL | | | | *e*Sg | **Sg** | **11 17 48.7** | **-0.1** |
| **ORLT** | **Orhaneli** | **0.97** | **351** | *e*PG | **Pg** | **11 17 40.6** | **+0.1** |
| **ORLT** | **Orhaneli** | **0.97** | **351** | *e*Pg | **Pg** | **11 17 40.6** | **+0.1** |
| **BALB** | **Balikesir** | **1.09** | **301** | *e*PN | **Pn** | **11 17 43.4** | **-0.2** |
| **BALB** | **Balikesir** | **1.09** | **301** | *e*Pn | **Pn** | **11 17 43.4** | **-0.2** |
| **KZIL** | **AFYON_Kizioren** | **1.17** | **135** | *i*P | **Pn** | **11 17 45.1** | **+0.3** |
| KZIL | | | | *i*S | **Sn** | **11 18 02.9** | **+1.9** |
| **KZIL** | **AFYON_Kizioren** | **1.17** | **135** | P | **Pn** | **11 17 45.1** | **+0.3** |
| KZIL | | | | S | **Sn** | **11 18 02.9** | **+1.9** |
| **IGD** | **Bursa** | **1.18** | **4** | *i*P | **Pb** | **11 17 43.8** | **-0.8** |
| IGD | | | | *i*S | **Sb** | **11 18 00.5** | **+0.4** |
| **CAVI** | **Cavuskoy** | **1.25** | **27** | *e*PN | **Pn** | **11 17 45.6** | **-0.3** |
| **CAVI** | **Cavuskoy** | **1.25** | **27** | *e*Pn | **Pn** | **11 17 45.6** | **-0.3** |
| **SHUT** | **Suhut-Afyon** | **1.26** | **115** | *e*PN | **Pn** | **11 17 45.0** | **-1.0** |
| **SHUT** | **Suhut-Afyon** | **1.26** | **115** | *e*Pn | **Pn** | **11 17 45.0** | **-1.0** |
| **MDNY** | **Mudanya-Bursa** | **1.29** | **353** | *e*PN | **Pb** | **11 17 46.5** | **0.0** |
| **MDNY** | **Mudanya-Bursa** | **1.29** | **353** | *e*Pn | **Pb** | **11 17 46.5** | **0.0** |
| **KCTX** | **Karacabey (Bur** | **1.30** | **334** | *e*PN | **Pg** | **11 17 46.9** | **0.0** |
| **KCTX** | **Karacabey (Bur** | **1.30** | **334** | *e*Pn | **Pg** | **11 17 46.9** | **0.0** |
| **BALY** | **Balya** | **1.31** | **300** | *i*P | **Pn** | **11 17 46.4** | **-0.3** |
| BALY | | | | *i*S | **Sb** | **11 18 02.8** | **-1.2** |
| **BALY** | **Balya** | **1.31** | **300** | P | **Pn** | **11 17 46.4** | **-0.3** |
| BALY | | | | S | **Sb** | **11 18 02.8** | **-1.2** |
| **ADVT** | **Abdulvahap** | **1.43** | **20** | *e*PN | **Pn** | **11 17 48.3** | **0.0** |
| **ADVT** | **Abdulvahap** | **1.43** | **20** | *e*Pn | **Pn** | **11 17 48.3** | **0.0** |
| **GONE** | **Gonen-Balikesi** | **1.45** | **312** | *e*PN | **Pb** | **11 17 48.9** | **-0.3** |
| **GONE** | **Gonen-Balikesi** | **1.45** | **312** | *e*Pn | **Pb** | **11 17 48.9** | **-0.3** |
| **ARMT** | **Armutlu** | **1.49** | **353** | *e*PN | **Pb** | **11 17 49.4** | **-0.4** |
| **ARMT** | **Armutlu** | **1.49** | **353** | *e*Pn | **Pb** | **11 17 49.4** | **-0.4** |
| **YLV** | **Yalova** | **1.49** | **8** | *e*PN | **Pn** | **11 17 49.3** | **+0.1** |
| **YLV** | **Yalova** | **1.49** | **8** | *e*Pn | **Pn** | **11 17 49.3** | **+0.1** |
| **EDC** | **Edincik** | **1.57** | **323** | *e*PN | **Pb** | **11 17 50.7** | **-0.6** |
| **EDC** | **Edincik** | **1.57** | **323** | *e*Pn | **Pb** | **11 17 50.7** | **-0.6** |
| **GULT** | **Gulveren** | **1.73** | **39** | *e*PN | **Pn** | **11 17 52.5** | **0.0** |
| **GULT** | **Gulveren** | **1.73** | **39** | *e*Pn | **Pn** | **11 17 52.5** | **0.0** |
| **BAYC** | **CANAKKALE_Bayr** | **2.08** | **289** | *i*P | **Pg** | **11 18 01.9** | **+0.2** |
| BAYC | | | | *i*S | **Sb** | **11 18 25.3** | **-0.6** |

**IDC 21 11:23:10.6±4.9, 6°12S×148°80E, h107km±50km, mb3.3/3, mb1 3.3/5, mb1mx3.0/36, mbtmp3.5/5, Error ellipse: s-maj=93.8km s-min=29.2km az=134.0, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **3.65** | **206** | P | Pn | 11 24 07.0 | +1.8 |
| | 1.0nm,0.3s,baz=18,slow=13,SNR=3.8 | | | | | | |
| PMG | | | | S | Sn | 11 24 47.1 | -0.2 |
| | 3.0nm,0.3s,baz=24,slow=19,SNR=5.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **19.65** | **224** | P | P | 11 27 31.6 | +0.4 |
| | 0.1nm,0.3s,baz=48,slow=11,SNR=4.2 | | | | | | |
| **ASAR** | **Alice Springs** | **22.58** | **218** | P | P | 11 28 02.6 | +0.3 |
| | 0.4nm,0.4s,baz=54,slow=8.8,SNR=12 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **25.55** | **240** | P | P | 11 28 29.3 | -0.4 |
| | 1.9nm,0.9s,baz=55,slow=10,SNR=4.0 | | | | | | |
| **ILAR** | **Eielson Array** | **84.89** | **23** | P | P | 11 35 33.1 | -0.2 |
| | 0.4nm,0.6s,baz=239,slow=5.0,SNR=8.5 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **146.86** | **285** | PKPbc | PKPbc | 11 42 40.9 | -0.7 |
| | 0.2nm,0.3s,baz=82,slow=3.3,SNR=4.1 | | | | | | |

*CSEM **21** 11:43:07.8, 39°12N×27°54E, h7km, ML2.1, Suspected Mining explosion.*
**DDA 21 11:43:07.8, 39°12N×27°54E, h7km, Ml2.1, Suspected Mining explosion., Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AKHS** | **Akhisar** | **0.32** | **138** | *i*P | Pg | 11 43 13.8 | -0.3 |
| AKHS | | | | *i*S | Sb | 11 43 19.8 | -1.4 |
| **AKHS** | **Akhisar** | **0.32** | **138** | P | Pg | 11 43 13.8 | -0.2 |
| AKHS | | | | S | Sb | 11 43 19.8 | -1.4 |
| **BALY** | **Balya** | **0.62** | **6** | *i*P | Pg | 11 43 17.4 | -2.4 |
| BALY | | | | *i*S | Sn | 11 43 32.4 | -1.0 |
| **BALY** | **Balya** | **0.62** | **6** | P | Pg | 11 43 17.4 | -2.4 |
| BALY | | | | S | Sn | 11 43 32.4 | -1.0 |
| **DEMI** | **Demirci** | **0.92** | **94** | *i*P | Pg | 11 43 25.6 | +0.2 |
| DEMI | | | | *i*S | Sb | 11 43 39.0 | +0.6 |
| **DEMI** | **Demirci** | **0.92** | **94** | P | Pg | 11 43 25.6 | +0.2 |
| DEMI | | | | S | Sb | 11 43 39.0 | +0.5 |
| **BAYC** | **CANAKKALE_Bayr** | **0.99** | **309** | *i*P | Pn | 11 43 28.0 | -0.1 |
| BAYC | | | | *i*S | Sn | 11 43 44.2 | +1.9 |
| **BAYC** | **CANAKKALE_Bayr** | **0.99** | **309** | P | Pn | 11 43 28.0 | -0.1 |
| BAYC | | | | S | Sn | 11 43 44.2 | +1.9 |
| **MANT** | **Manisa** | **1.01** | **128** | *i*P | Pg | 11 43 26.5 | -0.7 |
| MANT | | | | *i*S | Sn | 11 43 43.2 | +0.1 |
| **MANT** | **Manisa** | **1.01** | **128** | P | Pg | 11 43 26.5 | -0.7 |
| MANT | | | | S | Sn | 11 43 43.2 | +0.1 |

*SOME **21** 11:44:25.6, 39°43N×71°28E, h5km*
*NNC **21** 11:44:26.7±0.7, 39°59N×71°31E, h0km, mb3.5, mpv3.2, Error ellipse: s-maj=10.4km s-min=5.6km az=152.0*
**ISC 21 11:44:24.3±1.5, 39°34N±0°07×71°31E±0°04, h10km, n15, σ2°23/20, 7C-3D, Tajikistan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SFK** | **Sufi-Kurgan** | **1.82** | **68** | ⇑Pn | **Pb** | **11 44 58.2** | **+0.4** |
| | 6.5nm,0.3s | | | | | | |
| SFK | | | | ⇓Sn | **Sg** | **11 45 22.9** | **+0.1** |
| | 63nm,0.4s | | | | | | |
| **DZET** | **Dzherino** | **2.01** | **255** | ⇑Pn | **Pg** | **11 45 03.6** | **+0.9** |
| | 13nm,0.4s | | | | | | |
| DZET | | | | ⇑Lg | Lg | 11 45 31.5 | |
| | 55nm,0.4s | | | | | | |
| **IUG** | **Iuzhnay** | **2.97** | **341** | *e*P | **Pg** | **11 45 22.9** | **+1.7** |
| | 50nm,0.3s | | | | | | |
| IUG | | | | *e*S | **Sg** | **11 46 03.4** | **+3.7** |
| | 50nm,0.7s | | | | | | |
| **MNAS** | **Manas** | **3.27** | **16** | ⇓Pg | **Pb** | **11 45 23.6** | **+1.0** |
| | 4.4nm,0.6s | | | | | | |
| MNAS | | | | ⇑Lg | Lg | 11 46 03.1 | |
| | 8.1nm,0.5s | | | | | | |
| **AML** | **Almayashu** | **3.33** | **32** | P | **Pb** | **11 45 23.9** | **+0.3** |
| | SNR=14 | | | | | | |
| **MRKS** | **Merke** | **3.70** | **22** | *e*P | **Pb** | **11 45 30.9** | **+1.1** |
| | 6.1nm,0.6s | | | | | | |
| MRKS | | | | *e*S | **Sb** | **11 46 17.1** | **+2.5** |
| | 12nm,0.5s | | | | | | |
| **UCH** | **Uchtor** | **3.77** | **39** | P | **Pb** | **11 45 30.9** | **-0.4** |
| | SNR=8.0 | | | | | | |
| **KK31** | **Karatay Array** | **3.81** | **351** | ⇑Pg | **Pb** | **11 45 30.2** | **-1.4** |
| | 1.6nm,0.3s,baz=160,slow=11,SNR=35 | | | | | | |
| KK31 | | | | ⇓Lg | Lg | 11 46 21.5 | |
| | 2.7nm,0.3s,baz=168,slow=22,SNR=4.9 | | | | | | |
| **BRLS** | **Borolday** | **3.85** | **344** | *e*P | **Pb** | **11 45 29.5** | **-2.9** |
| | 1.9nm,0.3s | | | | | | |
| BRLS | | | | *e*S | **Sb** | **11 46 13.9** | **-5.1** |
| | 2.5nm,0.4s | | | | | | |
| **KZA** | **Kyzart** | **4.05** | **46** | P | **Pb** | **11 45 35.2** | **-0.8** |
| | SNR=6.0 | | | | | | |
| **AAK** | **Ala-Archa** | **4.08** | **35** | ⇑Pg | **Pb** | **11 45 37.8** | **+1.5** |
| | 3.3nm,0.5s | | | | | | |
| AAK | | | | ⇑Lg | Lg | 11 46 29.5 | |
| | 9.1nm,0.8s | | | | | | |
| **AAK** | **Ala-Archa** | **4.08** | **35** | P | **Pb** | **11 45 34.4** | **-1.9** |
| | SNR=6.9 | | | | | | |
| **KBK** | **Karagaybulak** | **4.31** | **39** | P | **Pb** | **11 45 39.3** | **-0.8** |
| | SNR=6.6 | | | | | | |
| **CHMS** | **Chumysh** | **4.48** | **34** | P | **Pb** | **11 45 39.7** | **-3.4** |
| | SNR=5.6 | | | | | | |
| **DGS** | **Degeres** | **5.15** | **39** | *e*P | **Pg** | **11 46 01.6** | **-1.3** |
| | 0.9nm,0.6s | | | | | | |
| DGS | | | | *e*S | **Sg** | **11 47 10.7** | **+1.2** |
| | 4.8nm,0.7s | | | | | | |

*DDA **21** 11:51:09.8, 38°86N×26°30E, h27km, Ml3.4*
*CSEM **21** 11:51:10.8±0.1, 38°86N×26°31E, h12km, ML2.7, Error ellipse: s-maj=2.6km s-min=1.9km az=86.0*
*ISK **21** 11:51:10.3, 38°86N×26°32E, h15km, ML3.0*
*ISCJB **21** 11:51:10.5±0.4, 38°86N±0°02×26°30E±0°03, h11km±3km, Error ellipse: s-maj=3.9km s-min=2.6km az=162.3*
*ATH **21** 11:51:10.5, 38°88N×26°28E, h28km±1km, ML2.7/2, Error ellipse: s-maj=2.8km s-min=1.2km az=266.0*
*THE **21** 11:51:11.2, 38°87N×26°30E, h7km, ML2.6/7, Error ellipse: s-maj=1.4km s-min=0.5km az=263.0*
**ISC 21 11:51:10.7±0.9, 38°87N±0°02×26°31E±0°02, h15km±8km, n98, σ0°53/133, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PRK** | **Paraskevi** | **0.38** | **356** | P | **Pg** | **11 51 18.3** | **-0.1** |
| PRK | | | | S | **Sb** | **11 51 24.3** | **-0.7** |
| PRK | | | | AML | AML | 11 51 24.8 | |
| | comp=E,2701μm,0.5s | | | | | | |
| PRK | | | | AML | AML | 11 51 25.0 | |
| | comp=N,3647μm,0.5s | | | | | | |
| **PRK** | **Paraskevi** | **0.38** | **356** | P | **Pg** | **11 51 18.6** | **+0.1** |
| PRK | | | | S | **Sb** | **11 51 24.3** | **-0.7** |
| **PRK** | **Paraskevi** | **0.38** | **356** | P | **Pg** | **11 51 18.6** | **+0.1** |
| PRK | | | | S | **Sg** | **11 51 23.9** | **+0.2** |
| **CAND** | **Candarli** | **0.40** | **77** | *e*PG | **Pg** | **11 51 18.6** | **-0.2** |
| CAND | | | | *e*SG | **Sg** | **11 51 24.6** | **+0.4** |
| **SIGR** | **SIGRI** | **0.49** | **315** | *e*PG | **Pb** | **11 51 20.8** | **-0.3** |
| SIGR | | | | *e*SG | **Sb** | **11 51 28.4** | **+0.2** |
| **SIGR** | **SIGRI** | **0.49** | **315** | P | **Pb** | **11 51 21.3** | **+0.2** |
| SIGR | | | | S | **Sb** | **11 51 28.1** | **0.0** |
| SIGR | | | | AML | AML | 11 51 32.6 | |
| | comp=E,1704μm,0.2s | | | | | | |
| SIGR | | | | AML | AML | 11 51 33.6 | |
| | comp=N,1522μm,0.2s | | | | | | |
| **SIGR** | **SIGRI** | **0.49** | **315** | P | **Pb** | **11 51 21.3** | **+0.2** |
| SIGR | | | | S | **Sb** | **11 51 28.1** | **0.0** |
| **SIGR** | **SIGRI** | **0.49** | **315** | P | **Pb** | **11 51 20.8** | **-0.3** |
| SIGR | | | | S | **Sb** | **11 51 28.2** | **0.0** |
| **CHOS** | **Chios island** | **0.52** | **202** | *e*PG | **Pb** | **11 51 21.1** | **-0.5** |
| CHOS | | | | *e*SG | **Sb** | **11 51 28.8** | **-0.1** |
| **CHOS** | **Chios island** | **0.52** | **202** | P | **Pb** | **11 51 21.4** | **-0.2** |
| **CHOS** | **Chios island** | **0.52** | **202** | *e*Pg | **Pb** | **11 51 21.1** | **-0.5** |
| **CHOS** | **Chios island** | **0.52** | **202** | P | **Pb** | **11 51 21.4** | **-0.2** |
| CHOS | | | | S | **Sb** | **11 51 28.7** | **-0.2** |
| **CHOS** | **Chios island** | **0.52** | **202** | P | **Pb** | **11 51 21.3** | **-0.3** |
| CHOS | | | | S | **Sb** | **11 51 28.7** | **-0.2** |
| **URLA** | **Izmir** | **0.55** | **156** | *e*PG | **Pg** | **11 51 21.5** | **-0.1** |
| URLA | | | | *e*SG | **Sb** | **11 51 29.4** | **-0.5** |
| **URLA** | **Izmir** | **0.55** | **156** | *i*P | **Pg** | **11 51 21.4** | **-0.1** |
| URLA | | | | *i*S | **Sb** | **11 51 29.4** | **-0.5** |
| **URLA** | **Izmir** | **0.55** | **156** | *e*Pg | **Pg** | **11 51 21.5** | **-0.1** |
| URLA | | | | S | **Sb** | **11 51 29.4** | **-0.5** |
| **ZEV** | **¯zmir** | **0.64** | **166** | *i*P | **Pg** | **11 51 23.1** | **-0.2** |
| ZEV | | | | *i*S | **Sb** | **11 51 32.0** | **-0.4** |
| **BAYC** | **CANAKKALE_Bayr** | **0.90** | **12** | *i*P | **Pb** | **11 51 27.4** | **-0.6** |
| BAYC | | | | *i*S | **Sb** | **11 51 39.4** | **-0.4** |
| **DGB** | **¯zmir** | **0.93** | **151** | *i*P | **Pb** | **11 51 28.0** | **-0.6** |
| DGB | | | | *i*S | **Sb** | **11 51 40.4** | **-0.3** |
| **EZN** | **Ezine** | **0.96** | **1** | *e*PG | **Pn** | **11 51 29.3** | **-0.4** |
| **EZN** | **Ezine** | **0.96** | **1** | *e*Pg | **Pn** | **11 51 29.3** | **-0.4** |
| **BOZC** | **Bozcaada** | **0.99** | **349** | *e*PG | **Pn** | **11 51 30.1** | **-0.1** |
| **BOZC** | **Bozcaada** | **0.99** | **349** | *i*P | **Pn** | **11 51 29.9** | **-0.4** |
| BOZC | | | | *i*S | **Sg** | **11 51 43.3** | **+0.3** |
| **BOZC** | **Bozcaada** | **0.99** | **349** | *e*Pg | **Pn** | **11 51 30.1** | **-0.1** |
| **AKS** | **Akhisar** | **1.18** | **89** | *e*PN | **Pn** | **11 51 32.4** | **-0.3** |
| **AKS** | **Akhisar** | **1.18** | **89** | *e*Pn | **Pn** | **11 51 32.4** | **-0.3** |
| **AKHS** | **Akhisar** | **1.18** | **89** | *i*P | **Pg** | **11 51 33.0** | **-0.5** |
| AKHS | | | | *i*S | **Sg** | **11 51 49.1** | **+0.3** |
| **AKHS** | **Akhisar** | **1.18** | **89** | P | **Pg** | **11 51 33.0** | **-0.5** |
| AKHS | | | | S | **Sg** | **11 51 49.1** | **+0.3** |
| **SMG** | **Samos** | **1.23** | **160** | P | **Pg** | **11 51 34.7** | **+0.3** |
| **SMG** | **Samos** | **1.23** | **160** | P | **Pg** | **11 51 34.7** | **+0.3** |
| SMG | | | | S | **Sg** | **11 51 51.6** | **+1.2** |
| **SMG** | **Samos** | **1.23** | **160** | P | **P

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| SBT2 | Guzelce-Avcila | 2.63 | 40 | *e*Pn | Pn | 11 51 53.5 | +0.9 |
| SBT5 | Esenkoy-Cinarc | 2.66 | 48 | *e*PN | Pn | 11 51 53.8 | +0.8 |
| SBT5 | Esenkoy-Cinarc | 2.66 | 48 | *e*Pn | Pn | 11 51 53.8 | +0.8 |
| TURN | Turunc | 2.69 | 137 | *e*PN | Pn | 11 51 52.7 | -0.9 |

*ISCJB* ***21*** *11:56:33.9±0.8, 4.°43S±0.°07×144.°23E±0.°09, h110km, mb3.6/7, Error ellipse: s-maj=13.5km s-min=9.1km az=164.6*

*IDC* ***21*** *11:56:39.2±2.4, 4.°64S×144.°25E, h149km±25km, mb3.4/7, mb1 3.6/9, mb1mx3.4/38, mbtmp3.9/9, Error ellipse: s-maj=27.9km s-min=11.2km az=100.0*

**ISC 21 11:56:35.8±0.9, 4.°53S±0.°09×144.°1E±0.°1, h110km, n11, σ1°34/13, mb3.8/7, Near north coast of New Guinea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PMG** | **Port Moresby** | **5.73** | **148** | P | **Pn** | **11 57 59.6** | **+1.0** |
| | 1.8nm,0.3s,baz=305,slow=12,SNR=5.9 | | | | | | |
| PMG | | | | S | **Sn** | **11 59 02.5** | **-0.6** |
| | 3.5nm,0.3s,baz=134,slow=22,SNR=6.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **18.02** | **211** | P | **Pn** | **12 00 38.9** | **-0.3** |
| | 0.3nm,0.3s,baz=31,slow=11,SNR=11 | | | | | | |
| WRA | | | | S | **S** | **12 03 56.5** | **-2.9** |
| | 0.1nm,0.3s,baz=28,slow=22,SNR=3.7 | | | | | | |
| **ASAR** | **Alice Springs** | **21.40** | **206** | P | **P** | **12 01 15.8** | **+0.8** |
| | 1.7nm,0.8s,baz=34,slow=9.8,SNR=16 | | | | | | |
| ASAR | | | | S | **S** | **12 05 05.5** | **-0.8** |
| | 0.6nm,0.9s,baz=23,slow=17,SNR=4.3 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **22.51** | **232** | P | **P** | **12 01 27.4** | **+0.9** |
| | 5.2nm,0.6s,baz=67,slow=8.3,SNR=16 | | | | | | |
| **STKA** | **Stephens Creek** | **27.30** | **185** | P | **P** | **12 02 11.1** | **+0.9** |
| | 1.7nm,0.7s,baz=346,slow=8.7,SNR=4.2 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **49.99** | **299** | P | **P** | **12 05 20.7** | **+1.5** |
| | 0.5nm,0.3s,baz=116,slow=6.1,SNR=4.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **74.52** | **321** | P | **P** | **12 08 02.2** | **-0.3** |
| | 0.5nm,0.7s,baz=106,slow=7.7,SNR=6.3 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **76.23** | **328** | P | **P** | **12 08 11.3** | **-0.7** |
| | 0.8nm,0.5s,baz=106,slow=5.4,SNR=4.9 | | | | | | |
| **ILAR** | **Eielson Array** | **85.30** | **24** | P | **P** | **12 08 58.8** | **-1.4** |
| | 0.4nm,0.7s,baz=260,slow=5.1,SNR=5.3 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **141.89** | **285** | PKhKP | PKPpre | 12 15 49.8 | |
| | 0.4nm,0.6s,baz=69,slow=3.1,SNR=2.5 | | | | | | |
| **DBIC** | **Dimbokro** | **149.00** | **275** | PKPbc | **PKPbc** | **12 16 11.5** | **-0.6** |
| | 1.8nm,0.6s,baz=117,slow=2.3,SNR=4.6 | | | | | | |

*IDC* ***21*** *12:21:14.8±3.3, 37.°71N×72.°41E, h107km±26km, mb3.3/7, mb1 3.5/14, mb1mx3.2/57, mbtmp3.7/14, Error ellipse: s-maj=31.2km s-min=20.6km az=163.0*

*ISCJB* ***21*** *12:21:16.1±0.4, 37.°96N±0.°03×72.°34E±0.°05, h119km, mb3.4/7, Error ellipse: s-maj=6.1km s-min=3.6km az=10.3*

*KRNET* ***21*** *12:21:18.8±0.1, 38.°32N×71.°88E, mb3.5*

*NNC* ***21*** *12:21:20.1±1.3, 38.°16N×72.°20E, h130km±11km, mb3.2, mpv3.8, Error ellipse: s-maj=11.4km s-min=4.0km az=153.0*

**ISC 21 12:21:15.8±0.6, 37.°90N±0.°05×72.°30E±0.°05, h119km, n51, σ2°48/69, mb3.4/7, 20C-13D, Tajikistan**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SFK** | **Sufi-Kurgan** | **2.31** | **23** | ⇓*i*P | **Pn** | **12 21 55.8** | **+2.5** |
| | baz=36 | | | | | | |
| SFK | | | | ⇓*i*S | **Sn** | **12 22 22.9** | **+0.8** |
| | baz=36 | | | | | | |
| **SFK** | **Sufi-Kurgan** | **2.31** | **23** | ⇓P | **Pn** | **12 21 55.8** | **+2.5** |
| | 12nm,0.2s | | | | | | |
| SFK | | | | ⇓S | **Sn** | **12 22 23.5** | **+1.4** |
| | 38nm,0.2s | | | | | | |
| **DZET** | **Dzherino** | **2.88** | **289** | ⇑P | **Pn** | **12 22 02.6** | **+2.0** |
| | 5.0nm,0.2s | | | | | | |
| DZET | | | | ⇓S | **Sn** | **12 22 37.1** | **+2.0** |
| | 165nm,0.4s | | | | | | |
| **ARSB** | **Arslanbob** | **3.46** | **8** | ⇑*i*P | **Pn** | **12 22 09.8** | **+1.5** |
| | baz=15 | | | | | | |
| ARSB | | | | ⇑*i*S | **Sn** | **12 22 46.3** | **-2.6** |
| | baz=15 | | | | | | |
| **ARK** | **Arkit** | **3.91** | **356** | ⇑*i*P | **Pn** | **12 22 14.7** | **+0.6** |
| | baz=1.0 | | | | | | |
| ARK | | | | ⇑*i*S | **Sn** | **12 22 54.9** | **-4.4** |
| | baz=1.0 | | | | | | |
| **TOKL** | **Toktogul** | **4.06** | **6** | ⇑*i*P | **Pn** | **12 22 18.1** | **+1.9** |
| | baz=12 | | | | | | |
| TOKL | | | | ⇑*i*S | **Sn** | **12 23 00.5** | **-2.5** |
| | baz=12 | | | | | | |
| **CEP** | **Cherat** | **4.08** | **185** | P | **Pn** | **12 22 19.4** | **+2.9** |
| CEP | | | | S | **Sn** | **12 23 07.0** | **+3.4** |
| **CHCP** | **Chirah Chowk** | **4.30** | **169** | P | **Pn** | **12 22 22.5** | **+3.1** |
| **AML** | **Almayashu** | **4.36** | **14** | ⇓*i*P | **Pn** | **12 22 22.1** | **+1.6** |
| | baz=19 | | | | | | |
| AML | | | | ⇓*i*S | **Sn** | **12 23 08.5** | **-2.2** |
| | baz=19 | | | | | | |
| **AML** | **Almayashu** | **4.36** | **14** | P | **Pn** | **12 22 22.4** | **+1.9** |
| | SNR=45 | | | | | | |
| **MNAS** | **Manas** | **4.59** | **2** | ⇑*i*P | **Pn** | **12 22 23.7** | **+0.4** |
| | baz=6.0 | | | | | | |
| MNAS | | | | ⇑*i*S | **Sn** | **12 23 11.2** | **-4.5** |
| | baz=6.0 | | | | | | |
| **MNAS** | **Manas** | **4.59** | **2** | ⇑P | **Pn** | **12 22 25.2** | **+1.9** |
| | 15nm,0.5s | | | | | | |
| MNAS | | | | ⇓S | **Sn** | **12 23 15.1** | **-0.6** |
| | 15nm,0.5s | | | | | | |
| **UCH** | **Uchtor** | **4.64** | **21** | ⇑*i*P | **Pn** | **12 22 26.2** | **+1.8** |
| | baz=26 | | | | | | |
| UCH | | | | ⇑*i*S | **Sn** | **12 23 16.4** | **-1.2** |
| | baz=26 | | | | | | |
| **UCH** | **Uchtor** | **4.64** | **21** | P | **Pn** | **12 22 26.1** | **+1.8** |
| | SNR=11 | | | | | | |
| **EKS2** | **Erkin-Say** | **4.89** | **13** | ⇓*i*P | **Pn** | **12 22 29.3** | **+1.9** |
| | baz=18 | | | | | | |
| EKS2 | | | | ⇓*i*S | **Sn** | **12 23 20.8** | **-2.2** |
| | baz=18 | | | | | | |
| **EKS2** | **Erkin-Say** | **4.89** | **13** | P | **Pn** | **12 22 29.7** | **+2.3** |
| | SNR=38 | | | | | | |
| **AAK** | **Ala-Archa** | **5.02** | **19** | P | **Pn** | **12 22 31.5** | **+2.3** |
| | 2.7nm,0.3s,baz=175,slow=6.7,SNR=35 | | | | | | |
| AAK | | | | S | **Sn** | **12 23 27.0** | **+0.8** |
| | 2.9nm,0.3s,baz=128,slow=23,SNR=21 | | | | | | |
| **AAK** | **Ala-Archa** | **5.02** | **19** | ⇓*i*P | **Pn** | **12 22 31.4** | **+2.3** |
| | baz=24 | | | | | | |
| AAK | | | | ⇓*i*S | **Sn** | **12 23 24.7** | **-1.5** |
| | baz=24 | | | | | | |
| **AAK** | **Ala-Archa** | **5.02** | **19** | ⇑P | **Pn** | **12 22 31.1** | **+2.0** |
| | 4.4nm,0.5s | | | | | | |
| AAK | | | | ⇑S | **Sn** | **12 23 26.0** | **-0.3** |
| | 12nm,0.6s | | | | | | |
| **AAK** | **Ala-Archa** | **5.02** | **19** | P | **Pn** | **12 22 31.3** | **+2.2** |
| | SNR=12 | | | | | | |
| **THW** | **Thamme Wali** | **5.11** | **185** | P | **Pn** | **12 22 31.4** | **+1.1** |
| **ULHL** | **Ulahol** | **5.29** | **34** | P | **Pn** | **12 22 33.7** | **+0.9** |
| | SNR=8.9 | | | | | | |
| **KK31** | **Karatay Array** | **5.38** | **346** | P | **Pn** | **12 22 35.7** | **+1.9** |
| | 27nm,0.3s,baz=167,slow=15,SNR=346 | | | | | | |
| KK31 | | | | ⇑S | **Sn** | **12 23 33.4** | **-1.2** |
| | 15nm,0.3s,baz=309,slow=41,SNR=4.8 | | | | | | |
| **CHMS** | **Chumysh** | **5.43** | **19** | P | **Pn** | **12 22 36.6** | **+2.2** |
| | SNR=5.2 | | | | | | |
| **TKM2** | **Tokmak 2** | **5.61** | **26** | ⇑P | **Pn** | **12 22 38.7** | **+1.5** |
| | 4.4nm,1.1s | | | | | | |
| TKM2 | | | | ⇑S | **Sn** | **12 23 38.9** | **-1.6** |
| | 5.1nm,0.8s | | | | | | |
| **SARP** | **Sargodha** | **5.97** | **177** | P | **Pn** | **12 22 42.7** | **+0.8** |
| **SDNR** | **Sundarnagar** | **7.45** | **148** | *e*P | **Pn** | **12 23 00.0** | **-1.9** |
| **GEYT** | **Alibeck** | **11.21** | **275** | P | **Pn** | **12 23 52.0** | **-0.6** |
| | 1.2nm,0.3s,baz=100,slow=10.0,SNR=3.3 | | | | | | |
| GEYT | | | | S | **Sn** | **12 25 52.9** | **-3.0** |
| | 0.9nm,0.3s,baz=98,slow=11,SNR=3.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **11.55** | **37** | P | **Pn** | **12 23 56.9** | **-0.1** |
| | 0.1nm,0.3s,baz=228,slow=16,SNR=4.7 | | | | | | |
| **PYUN** | **Piuthan** | **13.25** | **134** | *e*P | **Pn** | **12 24 15.3** | **-4.3** |
| | 14nm,0.3s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **13.47** | **17** | P | **Pn** | **12 24 22.9** | **+0.9** |
| | 0.1nm,0.3s,baz=207,slow=10,SNR=10 | | | | | | |
| **KOLN** | **Koldanda** | **13.85** | **134** | *e*P | **Pn** | **12 24 23.1** | **-4.2** |
| | 16nm,0.6s | | | | | | |
| **GKN** | **Gorkha** | **14.29** | **130** | *e*P | Pn | 12 24 28.3 | -4.5 |
| **AB31** | **Akbulak array** | **14.44** | **326** | ⇓P | **Pn** | **12 24 35.0** | **+0.6** |
| | 7.1nm,0.6s | | | | | | |
| AB31 | | | | ⇑S | **Sn** | **12 27 09.9** | **-3.9** |
| | 1.7nm,0.6s | | | | | | |
| **KKN** | **Kakani** | **14.84** | **129** | *e*P | Pn | 12 24 34.3 | -5.5 |
| **PKIN** | **Phulchoki** | **15.06** | **129** | *e*P | **Pn** | **12 24 38.1** | **-4.6** |
| | 13nm,0.5s | | | | | | |
| **PKI** | **Pulchoki** | **15.07** | **129** | *e*P | **Pn** | **12 24 37.9** | **-5.0** |
| **GUN** | **Gumba** | **15.12** | **127** | *e*P | **Pn** | **12 24 38.7** | **-4.9** |
| | 14nm,0.4s | | | | | | |
| **BVAR** | **Borovoye Array** | **15.19** | **356** | P | **Pn** | **12 24 44.4** | **+0.6** |
| | 0.3nm,0.3s,baz=157,slow=10.0,SNR=6.4 | | | | | | |
| **JIRN** | **Jiri** | **15.49** | **127** | *e*P | **Pn** | **12 24 43.7** | **-4.5** |
| | 141nm,0.3s | | | | | | |
| **AKTO** | **Aktyubinsk** | **16.15** | **325** | P | **P** | **12 24 58.3** | **+1.5** |
| | 0.8nm,0.3s,baz=134,slow=14,SNR=21 | | | | | | |
| **AKTO** | **Aktyubinsk** | **16.15** | **325** | ⇑P | **P** | **12 24 58.1** | **+1.3** |
| | 5.5nm,0.7s | | | | | | |
| AKTO | | | | ⇑S | **Sn** | **12 27 51.4** | **-3.7** |
| | 1.1nm,0.7s | | | | | | |
| **RAMN** | **Ramite** | **16.25** | **128** | *e*P | **Pn** | **12 24 52.0** | **-5.5** |
| | 14nm,0.3s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **18.21** | **24** | P | **P** | **12 25 19.8** | **+0.4** |
| | 0.3nm,0.3s,baz=227,slow=11,SNR=7.2 | | | | | | |
| **SONM** | **Songino Array** | **26.70** | **57** | P | **P** | **12 26 45.8** | **+2.0** |
| | 0.3nm,0.4s,baz=243,slow=9.5,SNR=2.6 | | | | | | |
| **FINES** | **FINESS Array B** | **36.93** | **325** | P | **P** | **12 28 15.2** | **+2.4** |
| | 1.1nm,0.8s,baz=119,slow=11,SNR=3.5 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **66.79** | **269** | P | **P** | **12 31 56.2** | **+1.3** |
| | 0.3nm,0.6s,baz=37,slow=4.8,SNR=4.6 | | | | | | |
| **INK** | **Inuvik** | **72.36** | **10** | P | **P** | **12 32 29.9** | **+1.7** |
| | 0.4nm,0.4s,baz=324,slow=4.6,SNR=6.6 | | | | | | |
| **ILAR** | **Eielson Array** | **73.15** | **16** | P | **P** | **12 32 33.1** | **+0.2** |
| | 0.3nm,0.9s,baz=316,slow=7.6,SNR=3.7 | | | | | | |
| **YKA** | **Yellowknife Ar** | **79.80** | **3** | P | **P** | **12 33 11.6** | **+1.2** |
| | 0.4nm,0.4s,baz=350,slow=5.4,SNR=17 | | | | | | |
| **WRA** | **Warramunga Arr** | **81.86** | **123** | P | **P** | **12 33 21.0** | **-1.0** |
| | 0.4nm,0.8s,baz=321,slow=4.8,SNR=4.2 | | | | | | |

*CSEM* ***21*** *12:24:12.4±0.2, 44.°26N×22.°13E, h1km, ML1.4, Error ellipse: s-maj=4.4km s-min=3.3km az=48.0, Mining explosion.*

**BEO 21 12:24:13.7±0.6, 44.°24N×22.°13E, h0km, M1.4/4, Mining explosion., Romania**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KUBS** | **Kucevo** | **0.37** | **298** | *e*Pg | Pg | 12 24 19.0 | -1.8 |
| KUBS | | | | *e*Sg | Sg | 12 24 24.9 | -0.7 |
| **KUBS** | **Kucevo** | **0.37** | **298** | *e*Pg | Pg | 12 24 19.0 | -1.8 |
| KUBS | | | | *e*Sg | Sg | 12 24 24.9 | -0.7 |
| **ZAGS** | **Zajecar** | **0.43** | **170** | *e*Pg | Pg | 12 24 20.6 | -1.4 |
| ZAGS | | | | *e*Sg | Sg | 12 24 27.8 | +0.2 |
| **ZAGS** | **Zajecar** | **0.43** | **170** | *e*Pg | Pg | 12 24 20.6 | -1.4 |
| ZAGS | | | | *e*Sg | Sg | 12 24 27.8 | +0.2 |
| **BOVS** | **Bovan** | **0.68** | **207** | *e*Pg | Pg | 12 24 25.2 | -1.5 |
| BOVS | | | | *e*Sg | Sg | 12 24 35.2 | -0.2 |
| **BOVS** | **Bovan** | **0.68** | **207** | *e*Pg | Pg | 12 24 25.2 | -1.5 |
| BOVS | | | | *e*Sg | Sg | 12 24 35.2 | -0.2 |
| **ZAPS** | **Zavoj** | **1.03** | **159** | *e*Pg | Pg | 12 24 32.9 | -0.6 |
| ZAPS | | | | *e*Sg | Sg | 12 24 47.0 | +0.2 |
| **GRUS** | **Gruza** | **1.08** | **251** | *e*Pg | Pg | 12 24 33.7 | -0.7 |
| GRUS | | | | *e*Sg | Sg | 12 24 47.4 | -0.9 |
| **GRUS** | **Gruza** | **1.08** | **251** | *e*Pg | Pg | 12 24 33.7 | -0.7 |
| GRUS | | | | *e*Sg | Sg | 12 24 47.4 | -0.9 |
| **TRUS** | **Trudelj** | **1.24** | **270** | *e*Pg | Pg | 12 24 36.8 | -0.6 |
| TRUS | | | | *e*Sg | Sg | 12 24 53.9 | +0.4 |
| **TRUS** | **Trudelj** | **1.24** | **270** | *e*Pg | Pg | 12 24 36.8 | -0.6 |
| TRUS | | | | *e*Sg | Sg | 12 24 53.9 | +0.4 |
| **SELS** | **Selova** | **1.26** | **216** | *e*Pg | Pg | 12 24 36.0 | -1.8 |
| SELS | | | | *e*Sg | Sg | 12 24 53.1 | -0.9 |
| **DIVS** | **Divibare** | **1.54** | **265** | *e*Pg | Pn | 12 24 42.2 | -0.4 |
| DIVS | | | | *e*Sg | Sg | 12 25 03.2 | -0.1 |
| **DIVS** | **Divibare** | **1.54** | **265** | *e*Pg | Pn | 12 24 42.2 | -0.4 |
| DIVS | | | | *e*Sg | Sg | 12 25 03.2 | -0.1 |
| **IVAS** | **Ivanjica** | **1.58** | **246** | *e*Pg | Pn | 12 24 42.6 | -0.4 |
| IVAS | | | | *e*Sg | Sn | 12 25 03.8 | -0.3 |
| **IVAS** | **Ivanjica** | **1.58** | **246** | *e*Pg | Pn | 12 24 42.6 | -0.4 |
| IVAS | | | | *e*Sg | Sn | 12 25 03.8 | -0.3 |

**BUC 21 12:24:26.9±1.1, 46.°33N×23.°14E, h2km±8km, MD2.4/2, 11C-4D, Error ellipse: s-maj=4.0km s-min=3.0km az=329.0, Romania**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CJR** | **Cluj-Napoca** | **0.50** | **39** | ⇓*i*P | Pb | 12 24 37.5 | -0.9 |
| **CJR** | **Cluj-Napoca** | **0.50** | **39** | S | Sb | 12 24 45.1 | -1.0 |
| **CJR** | **Cluj-Napoca** | **0.50** | **39** | ⇓*i*P | Pb | 12 24 37.5 | -0.9 |
| CJR | | | | *i* S | Sb | 12 24 45.1 | -1.0 |
| **DRGR** | | **0.55** | **327** | ⇑*i*P | Pb | 12 24 38.9 | -0.4 |
| **DRGR** | | **0.55** | **327** | ⇑*i*P | Pb | 12 24 38.9 | -0.4 |
| DRGR | | | | *i* S | Sb | 12 24 47.3 | -0.3 |
| **LOT** | **Lotru** | **0.98** | **153** | ⇑*i*P | Pb | 12 24 46.8 | +0.1 |
| **LOT** | **Lotru** | **0.98** | **153** | ⇑*i*P | Pb | 12 24 46.8 | +0.1 |
| **SIRR** | **Siria** | **1.03** | **267** | ⇑*i*P | Pn | 12 24 47.9 | -0.4 |
| **SIRR** | **Siria** | **1.03** | **267** | ⇑*i*P | Pn | 12 24 47.9 | -0.4 |
| SIRR | | | | *i* S | Sn | 12 25 03.5 | +0.2 |
| **SIRR** | **Siria** | **1.03** | **267** | ⇑*i*P | Pn | 12 24 47.9 | -0.4 |
| **BZS** | **Buzias** | **1.28** | **237** | ⇓*i*P | Pn | 12 24 52.7 | +1.0 |
| **BZS** | **Buzias** | **1.28** | **237** | ⇓*i*P | Pn | 12 24 52.7 | +1.0 |
| BZS | | | | *i* S | Sn | 12 25 11.3 | +1.9 |
| **ARR** | **Arges** | **1.42** | **132** | ⇑*i*P | Pg | 12 24 54.8 | +0.7 |
| **ARR** | **Arges** | **1.42** | **132** | S | Sn | 12 25 15.4 | +2.5 |
| **ARR** | **Arges** | **1.42** | **132** | ⇑*i*P | Pg | 12 24 54.8 | +0.7 |
| ARR | | | | *i* S | Sn | 12 25 15.4 | +2.5 |
| **ARR** | **Arges** | **1.42** | **132** | S | Sn | 12 25 15.4 | +2.5 |
| **VOIR** | | **1.60** | **123** | ⇑*i*P | Pg | 12 24 58.1 | +0.5 |
| **VOIR** | | **1.60** | **123** | ⇑*i*P | Pg | 12 24 58.1 | +0.5 |

*KRNET* ***21*** *12:31:40.1±0.1, 40.°76N×72.°37E, h23km, mb2.2*

*SOME* ***21*** *12:31:41.2, 40.°87N×72.°32E, h0km*

*NNC* ***21*** *12:31:41.0±2.0, 40.°76N×72.°43E, h14km±17km, mb2.9, mpv2.2, Error ellipse: s-maj=19.8km s-min=6.3km az=59.0*

**ISC 21 12:31:40.2±1.3, 40.°79N±0.°04×72.°39E±0.°04, h1km±11km, n18, σ0°73/33, 27C-2D, Kyrgyzstan**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ARSB** | **Arslanbob** | **0.70** | **40** | ⇑*i*P | **Pg** | **12 31 54.1** | **+0.4** |
| | baz=38 | | | | | | |
| ARSB | | | | ⇑*i*S | **Sg** | **12 32 04.3** | **+1.5** |
| | baz=38 | | | | | | |
| **ARK** | **Arkit** | **1.06** | **343** | ⇑*i*P | **Pg** | **12 32 00.5** | **0.0** |
| | baz=344 | | | | | | |
| ARK | | | | ⇑*i*S | **Sb** | **12 32 14.8** | **-1.1** |
| | baz=344 | | | | | | |
| **SFK** | **Sufi-Kurgan** | **1.15** | **132** | ⇑*i*P | **Pg** | **12 32 01.9** | **-0.4** |
| | baz=130 | | | | | | |
| SFK | | | | ⇑*i*S | **Sg** | **12 32 17.4** | **+0.1** |
| | baz=130 | | | | | | |
| **SFK** | **Sufi-Kurgan** | **1.15** | **132** | ⇑P | **Pg** | **12 32 01.8** | **-0.6** |
| | 0.8nm,0.3s | | | | | | |
| SFK | | | | ⇑S | **Sg** | **12 32 17.3** | **+0.1** |
| | 5.2nm,0.2s | | | | | | |
| **TOKL** | **Toktogul** | **1.21** | **17** | ⇑*i*P | **Pg** | **12 32 03.4** | **0.0** |
| | baz=18 | | | | | | |
| TOKL | | | | ⇑*i*S | **Sn** | **12 32 20.8** | **-0.7** |
| | baz=18 | | | | | | |
| **AML** | **Almayashu** | **1.66** | **36** | ⇑*i*P | **Pn** | **12 32 11.0** | **+0.1** |
| | baz=35 | | | | | | |
| AML | | | | ⇑*i*S | **Sn** | **12 32 33.1** | **-0.1** |
| | baz=35 | | | | | | |
| **MNAS** | **Manas** | **1.70** | **3** | ⇑*i*P | **Pn** | **12 32 11.5** | **+0.3** |
| | baz=3.0 | | | | | | |
| MNAS | | | | ⇑*i*S | **Sb** | **12 32 34.0** | **-0.4** |
| | baz=3.0 | | | | | | |
| **MNAS** | **Manas** | **1.70** | **3** | ⇑P | **Pb** | **12 32 11.8** | **-0.6** |
| | 0.8nm,0.4s | | | | | | |
| MNAS | | | | ⇑S | **Sg** | **12 32 34.4** | **-0.5** |
| | 5.1nm,0.4s | | | | | | |
| **MRKS** | **Merke** | **2.05** | **18** | *e*P | **Pb** | **12 32 18.4** | **0.0** |
| | 3.0nm,0.3s | | | | | | |
| MRKS | | | | *e*S | **Sg** | **12 32 45.6** | **-0.7** |
| | 8.9nm,0.4s | | | | | | |
| **EKS2** | **Erkin-Say** | **2.14** | **29** | ⇑*i*P | **Pn** | **12 32 18.4** | **+1.1** |
| | baz=29 | | | | | | |
| EKS2 | | | | ⇑*i*S | **Sb** | **12 32 45.6** | **-1.5** |
| | baz=29 | | | | | | |
| **UCH** | **Uchtor** | **2.15** | **47** | ⇑*i*P | **Pn** | **12 32 18.5** | **+0.8** |
| | baz=47 | | | | | | |
| UCH | | | | ⇑*i*S | **Sn** | **12 32 45.7** | **+0.5** |
| | baz=47 | | | | | | |
| **IUG** | **Iuzhnay** | **2.23** | **308** | *e*P | **Pb** | **12 32 21.4** | **-0.1** |
| | 4.7nm,0.2s | | | | | | |
| IUG | | | | *e*S | **Sb** | **12 32 50.2** | **+0.6** |
| | 19nm,0.3s | | | | | | |
| **AAK** | **Ala-Archa** | **2.43** | **40** | ⇑*i*P | **Pn** | **12 32 21.9** | **+0.6** |
| | baz=40 | | | | | | |
| AAK | | | | ⇑*i*S | **Sn** | **12 32 52.4** | **+0.7** |
| | baz=40 | | | | | | |
| **AAK** | **Ala-Archa** | **2.43** | **40** | ⇑Pg | **Pg** | **12 32 26.6** | **-0.3** |
| | 0.8nm,0.4s | | | | | | |
| AAK | | | | ⇑Lg | Lg | 12 32 57.9 | |
| | 4.0nm,0.6s | | | | | | |
| **KZA** | **Kyzart** | **2.51** | **58** | ⇑*i*P | **Pn** | **12 32 23.4** | **+0.8** |
| | baz=58 | | | | | | |
| KZA | | | | ⇑*i*S | **Sn** | **12 32 54.2** | **+0.2** |
| | baz=58 | | | | | | |
| **KK31** | **Karatay Array** | **2.70** | **329** | ⇓Pg | **Pb** | **12 32 30.4** | **+1.0** |
| | 0.2nm,0.2s,baz=138,slow=16 | | | | | | |
| KK31 | | | | ⇑Sn | **Sn** | **12 32 57.2** | **-1.0** |
| | 0.6nm,0.3s,baz=147,slow=29 | | | | | | |
| KK31 | | | | Lg | Lg | 12 33 07.1 | |
| **TKM2** | **Tokmak 2** | **3.21** | **47** | ⇓Lg | Lg | 12 33 21.7 | |
| | 2.5nm,0.8s | | | | | | |
| **DGS** | **Degeres** | **3.52** | **45** | *e*P | **Pg** | **12 32 46.6** | **-1.0** |
| | 1.1nm,0.7s | | | | | | |
| DGS | | | | *e*S | **Sg** | **12 33 33.7** | **+0.4** |
| | 2.5nm,0.7s | | | | | | |

*IDC* ***21*** *12:33:23.9±1.4, 22.°75S×175.°39W, h0km, mb3.8/7, mb1 4.2/8, mb1mx4.0/25, mbtmp3.9/8, ML4.6/1, MS3.4/2, Ms1 3.4/2, ms1mx2.7/24, Error ellipse: s-maj=64.0km s-min=21.0km az=148.0*

*ISCJB* ***21*** *12:33:28.3±1.0, 22.°6S±0.°2×175.°5W±0.°2, h34km, mb3.8/7, MS3.1/1, Error ellipse: s-maj=35.1km s-min=10.9km az=36.9*

**ISC 21 12:33:29.2±1.1, 22.°7S±0.°2×175.°4W±0.°2, h34km, n12, σ0°81/11, mb3.8/7, Tonga Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **6.88** | **199** | LR | LR | 12 36 53.9 | |
| | comp=Z,348nm,19.0s,baz=135,slow=31 | | | | | | |
| **AFI** | **Afiamalu** | **9.42** | **22** | Pn | **Pn** | **12 35 41.5** | **-1.2** |
| | 5.3nm,0.3s,baz=300,slow=14,SNR=9.9 | | | | | | |
| AFI | | | | Sn | **Sn** | **12 37 28.5** | **+1.0** |
| | 1.8nm,0.3s,baz=118,slow=18,SNR=2.7 | | | | | | |
| **RPZ** | **Rata Peaks** | **23.74** | **205** | LR | LR | 12 47 20.2 | |
| | comp=Z,69nm,19.3s,baz=17,slow=35 | | | | | | |
| **ASAR** | **Alice Springs** | **46.39** | **258** | P | **P** | **12 41 53.3** | **+0.5** |
| | 0.6nm,0.8s,baz=96,slow=6.8,SNR=4.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **46.71** | **264** | P | **P** | **12 41 54.4** | **-0.8** |
| | 0.8nm,0.6s,baz=93,slow=8.4,SNR=14 | | | | | | |
| **NVAR** | **Mina Array Bea** | **81.02** | **42** | P | **P** | **12 45 41.7** | **+0.8** |
| | 0.6nm,0.6s,baz=222,slow=8.0,SNR=6.5 | | | | | | |
| **TXAR** | **Lajitas Array** | **86.25** | **56** | P | **P** | **12 46 07.3** | **-0.5** |
| | 0.6nm,1.0s,baz=215,slow=8.8,SNR=5.1 | | | | | | |
| **PDAR** | **Pinedale Array** | **88.95** | **42** | P | **P** | **12 46 20.7** | **+0.1** |
| | 0.2nm,0.5s,baz=204,slow=2.0,SNR=2.9 | | | | | | |
| **ILAR** | **Eielson Array** | **89.96** | **12** | P | **P** | **12 46 25.1** | **+0.5** |
| | 0.8nm,1.1s,baz=206,slow=6.0,SNR=4.2 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **93.11** | **289** | P | **P** | **12 46 40.7** | **+0.4** |
| | 1.0nm,0.7s,baz=127,slow=3.3,SNR=6.7 | | | | | | |
| **AKASG** | **Malin Array Be** | **146.11** | **332** | PKPbc | **PKPdf** | **12 53 04.9** | **+0.3** |
| | 0.2nm,0.3s,baz=42,slow=4.0,SNR=4.2 | | | | | | |
| **BRTR** | **Keskin Array B** | **150.11** | **311** | PKPbc | **PKPbc** | **12 53 16.1** | **-0.7** |
| | 0.8nm,0.8s,baz=40,slow=2.5,SNR=3.2 | | | | | | |

*NIED* ***21*** *12:40:00, 37.°40N×141.°30E, h68km, Mw3.6 Best double couple: M0=2.78000×10^14 NP1:φ=34.00000°, δ=34.00000°, λ=-92.00000°. NP2:φ=217.00000°, δ=56.00000°, λ=-88.00000°.*

*IDC* ***21*** *12:40:45.4±2.4, 37.°76N×141.°13E, h0km, mb3.4/2, mb1 3.5/3, mb1mx3.2/37, mbtmp3.2/3, ML3.1/1, Error ellipse: s-maj=42.7km s-min=38.1km az=50.0*

*ISCJB* ***21*** *12:40:46.1±1.1, 37.°36N±0.°04×141.°40E±0.°07, h22km±5km, mb3.3/2, Error ellipse: s-maj=9.8km s-min=5.1km az=21.3*

*JMA* ***21*** *12:40:47.6±0.1, 37.°36N×141.°28E, h36km±1km, M3.7*

*JMA Felt II J1.*

**ISC 21 12:40:46.2±1.7, 37.°35N±0.°04×141.°33E±0.°08, h26km±12km, n20, σ1°01/25, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JFK** | **Kawauchi** | **0.36** | **272** | P | **Pn** | **12 40 55.7** | **-0.1** |
| JFK | | | | S | **Sn** | **12 41 01.1** | **-1.0** |
| **ONAJ** | **Iwakimizuishiy** | **0.49** | **240** | P | **Pn** | **12 40 57.5** | **-0.1** |
| ONAJ | | | | S | **Sb** | **12 41 04.2** | **+0.8** |
| **JMM** | **Marumori** | **0.67** | **320** | P | **Pn** | **12 40 59.8** | **-0.2** |
| JMM | | | | S | **Sb** | **12 41 08.5** | **+0.3** |
| **JFT** | **Otama** | **0.81** | **282** | P | **Pn** | **12 41 02.6** | **+0.7** |
| JFT | | | | S | **Sn** | **12 41 13.0** | **-0.1** |
| **JHO** | **Hitachi** | **0.96** | **220** | P | **Pb** | **12 41 03.9** | **-0.3** |
| JHO | | | | S | **Sb** | **12 41 15.5** | **-1.0** |
| **JIO** | **Ouri** | **1.10** | **1** | P | **Pn** | **12 41 06.2** | **+0.3** |
| JIO | | | | S | **Sb** | **12 41 19.5** | **-1.0** |
| **JOU** | **Okura** | **1.14** | **333** | P | **Pb** | **12 41 07.4** | **+0.1** |
| JOU | | | | S | **Sb** | **12 41 22.0** | **+0.3** |
| **JSB** | **Shiboa** | **1.19** | **252** | P | **Pb** | **12 41 08.5** | **+0.3** |
| JSB | | | | S | **Sb** | **12 41 24.0** | **+0.8** |
| **JFY** | **Yanaizu** | **1.30** | **273** | P | **Pb** | **12 41 09.5** | **-0.5** |
| JFY | | | | S | **Sb** | **12 41 25.9** | **-0.3** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **BBAL** | **Bala** | **1.29** | **326** | P | **Pn** | 13 15 12.3 | -0.3 |
| **YOZ** | **Yozgat** | **1.53** | **40** | *e*PN | **Pn** | 13 15 16.5 | +0.6 |
| **YOZ** | **Yozgat** | **1.53** | **40** | *e*Pn | **Pn** | 13 15 16.5 | +0.6 |
| **KIZT** | **Kizilcal** | **1.75** | **284** | *e*PN | **Pn** | 13 15 19.1 | +0.2 |
| **KIZT** | **Kizilcal** | **1.75** | **284** | *e*Pn | **Pn** | 13 15 19.1 | +0.2 |

**IDC 21 13:33:44.9±59.0, 22°46S×179°38W, h0km, mb3.9/3, mb1 4.1/3, mb1mx3.6/31, mbtmp3.9/3, Error ellipse: s-maj=1063.0km s-min=160.0km az=85.0, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **STKA** | **Stephens Creek** | **35.81** | **246** | P | P | 13 40 44.6 | -1.5 |
| | 1.7nm,0.8s,baz=80,slow=12,SNR=4.1 | | | | | | |
| **ASAR** | **Alice Springs** | **42.85** | **259** | P | P | 13 41 45.5 | +0.3 |
| | 1.8nm,0.7s,baz=97,slow=7.3,SNR=45 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.10** | **264** | P | P | 13 41 47.5 | +0.4 |
| | 0.7nm,0.6s,baz=96,slow=8.5,SNR=16 | | | | | | |

*SOME **21** 13:34:11.8, 39°28N×72°78E, h0km*
*KRNET **21** 13:34:13.8±0.1, 39°17N×73°26E, mb3.5*
*NNC **21** 13:34:14.5±1.1, 39°36N×72°98E, h0km, mb3.8, mpv3.5, Error ellipse: s-maj=13.3km s-min=4.5km az=140.0*
*ISCJB **21** 13:34:15.4±0.9, 39°30N±0°05×72°97E±0°06, h10km, Error ellipse: s-maj=7.8km s-min=6.1km az=150.2*

**ISC 21 13:34:12.5±1.2, 39°30N±0°06×73°03E±0°03, h10km, n43, σ2°55/72, 35C-16D, Tajikistan-Xinjiang border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SFK** | **Sufi-Kurgan** | **0.80** | **27** | ⇑*i*P | **Pb** | **13 34 28.7** | **+0.1** |
| | baz=12 | | | | | | |
| SFK | | | | ⇑*i*S | **Sb** | **13 34 40.8** | **+1.2** |
| | baz=12 | | | | | | |
| **SFK** | **Sufi-Kurgan** | **0.80** | **27** | ⇑P | **Pb** | **13 34 28.7** | **+0.1** |
| | 44nm,0.3s | | | | | | |
| SFK | | | | ⇑S | **Sb** | **13 34 40.8** | **+1.2** |
| | 123nm,0.3s | | | | | | |
| **ARSB** | **Arslanbob** | **2.02** | **359** | ⇑*i*P | **Pb** | **13 34 49.6** | **+0.2** |
| | baz=354 | | | | | | |
| ARSB | | | | ⇑*i*S | **Sg** | **13 35 17.3** | **-0.2** |
| | baz=354 | | | | | | |
| **ARK** | **Arkit** | **2.63** | **342** | ⇑*i*P | **Pb** | **13 34 58.1** | **-1.6** |
| | baz=340 | | | | | | |
| ARK | | | | ⇑*i*S | **Sb** | **13 35 32.0** | **0.0** |
| | baz=340 | | | | | | |
| **TOKL** | **Toktogul** | **2.64** | **357** | ⇑*e*P | **Pb** | **13 34 58.7** | **-1.2** |
| | baz=354 | | | | | | |
| TOKL | | | | ⇑*i*S | **Sb** | **13 35 31.9** | **-0.6** |
| | baz=354 | | | | | | |
| **AML** | **Almayashu** | **2.88** | **10** | ⇑*i*P | **Pb** | **13 35 02.5** | **-1.6** |
| | baz=6.0 | | | | | | |
| AML | | | | ⇑*i*S | **Sb** | **13 35 37.8** | **-1.7** |
| | baz=6.0 | | | | | | |
| **AML** | **Almayashu** | **2.88** | **10** | P | **Pb** | **13 35 03.5** | **-0.6** |
| | SNR=117 | | | | | | |
| **NRN** | **Naryn** | **3.11** | **46** | ⇑*i*P | **Pb** | **13 35 05.7** | **-2.4** |
| | baz=42 | | | | | | |
| NRN | | | | ⇑*i*S | **Sb** | **13 35 43.8** | **-2.5** |
| | baz=42 | | | | | | |
| **UCH** | **Uchtor** | **3.14** | **21** | ⇓*i*P | **Pb** | **13 35 06.0** | **-2.6** |
| | baz=17 | | | | | | |
| UCH | | | | ⇓*i*S | **Sb** | **13 35 44.4** | **-2.6** |
| | baz=17 | | | | | | |
| **UCH** | **Uchtor** | **3.14** | **21** | P | **Pb** | **13 35 07.7** | **-0.9** |
| | SNR=22 | | | | | | |
| **MNAS** | **Manas** | **3.21** | **353** | ⇑*i*P | **Pb** | **13 35 06.5** | **-3.1** |
| | baz=350 | | | | | | |
| MNAS | | | | ⇑*i*S | **Sb** | **13 35 45.3** | **-3.6** |
| | baz=350 | | | | | | |
| **MNAS** | **Manas** | **3.21** | **353** | ⇑Pn | **Pb** | **13 35 07.4** | **-2.2** |
| | 2.7nm,0.4s | | | | | | |
| MNAS | | | | ⇑Pg | **Pg** | **13 35 12.3** | **-1.7** |
| | 5.0nm,0.4s | | | | | | |
| MNAS | | | | ⇑Lg | Lg | 13 35 53.1 | |
| | 14nm,0.3s | | | | | | |
| **KZA** | **Kyzart** | **3.25** | **31** | ⇑*i*P | **Pb** | **13 35 08.0** | **-2.5** |
| | baz=27 | | | | | | |
| KZA | | | | ⇑*i*S | **Sb** | **13 35 47.6** | **-2.6** |
| | baz=27 | | | | | | |
| **KZA** | **Kyzart** | **3.25** | **31** | P | **Pb** | **13 35 09.5** | **-1.0** |
| | SNR=15 | | | | | | |
| **DZET** | **Dzherino** | **3.31** | **263** | ⇓Pn | **Pb** | **13 35 07.8** | **-3.5** |
| | 13nm,0.6s | | | | | | |
| DZET | | | | ⇑Pg | **Pg** | **13 35 15.8** | **-0.1** |
| | 32nm,0.5s | | | | | | |
| DZET | | | | ⇑Lg | Lg | 13 35 58.6 | |
| | 98nm,0.5s | | | | | | |
| **EKS2** | **Erkin-Say** | **3.41** | **9** | ⇓*i*P | **Pb** | **13 35 09.6** | **-3.4** |
| | baz=6.0 | | | | | | |
| EKS2 | | | | ⇓*i*S | **Sb** | **13 35 50.7** | **-3.8** |
| | baz=6.0 | | | | | | |
| **EKS2** | **Erkin-Say** | **3.41** | **9** | P | **Pb** | **13 35 11.1** | **-1.9** |
| | SNR=11 | | | | | | |
| **MRKS** | **Merke** | **3.45** | **2** | *e*P | **Pg** | **13 35 16.0** | **-2.5** |
| | 35nm,0.4s | | | | | | |
| MRKS | | | | *e*S | **Sg** | **13 36 00.2** | **-3.0** |
| | 31nm,0.2s | | | | | | |
| **AAK** | **Ala-Archa** | **3.52** | **18** | ⇑*i*P | **Pb** | **13 35 11.1** | **-3.8** |
| | baz=15 | | | | | | |
| AAK | | | | ⇑*i*S | **Sn** | **13 35 52.7** | **+3.7** |
| | baz=15 | | | | | | |
| **AAK** | **Ala-Archa** | **3.52** | **18** | ⇑Pn | **Pb** | **13 35 11.3** | **-3.6** |
| | 8.9nm,0.5s | | | | | | |
| AAK | | | | ⇑Lg | Lg | 13 36 04.2 | |
| | 43nm,1.1s | | | | | | |
| **AAK** | **Ala-Archa** | **3.52** | **18** | P | **Pb** | **13 35 13.2** | **-1.7** |
| | SNR=19 | | | | | | |
| **IUG** | **Iuzhnay** | **3.65** | **322** | *e*P | **Pb** | **13 35 17.0** | **-0.1** |
| | 20nm,0.2s | | | | | | |
| IUG | | | | *e*S | **Sb** | **13 36 01.4** | **0.0** |
| | 65nm,0.4s | | | | | | |
| **KBK** | **Karagaybulak** | **3.66** | **23** | ⇑*e*P | **Pb** | **13 35 13.3** | **-4.0** |
| | baz=20 | | | | | | |
| KBK | | | | ⇑*i*S | **Sn** | **13 35 56.8** | **+4.3** |
| | baz=20 | | | | | | |
| **KBK** | **Karagaybulak** | **3.66** | **23** | P | **Pb** | **13 35 16.0** | **-1.2** |
| | SNR=27 | | | | | | |
| **ULHL** | **Ulahol** | **3.82** | **39** | ⇓*i*P | **Pb** | **13 35 15.6** | **-4.5** |
| | baz=35 | | | | | | |
| ULHL | | | | ⇓*i*S | **Sn** | **13 36 00.7** | **+4.0** |
| | baz=35 | | | | | | |
| **ULHL** | **Ulahol** | **3.82** | **39** | P | **Pb** | **13 35 17.8** | **-2.3** |
| | SNR=19 | | | | | | |
| **CHMS** | **Chumysh** | **3.92** | **19** | P | **Pb** | **13 35 18.4** | **-3.3** |
| | SNR=6.1 | | | | | | |
| **TKM2** | **Tokmak 2** | **4.11** | **27** | ⇑Pn | **Pn** | **13 35 19.4** | **+3.9** |
| | 3.5nm,0.5s | | | | | | |
| TKM2 | | | | ⇓Pg | **Pg** | **13 35 29.9** | **-1.2** |
| | 6.1nm,0.7s | | | | | | |
| TKM2 | | | | ⇓Lg | Lg | 13 36 23.2 | |
| | 14nm,0.8s | | | | | | |
| **TKM2** | **Tokmak 2** | **4.11** | **27** | P | **Pb** | **13 35 21.4** | **-3.5** |
| | SNR=8.7 | | | | | | |
| **USP** | **Ospenovka** | **4.12** | **15** | ⇓*i*P | **Pn** | **13 35 19.4** | **+3.9** |
| | baz=12 | | | | | | |
| USP | | | | ⇓*i*S | **Sn** | **13 36 07.2** | **+3.5** |
| | baz=12 | | | | | | |
| **USP** | **Ospenovka** | **4.12** | **15** | P | **Pb** | **13 35 20.9** | **-4.2** |
| | SNR=6.9 | | | | | | |
| **KK31** | **Karatay Array** | **4.25** | **334** | ⇑Pn | **Pn** | **13 35 19.1** | **+1.8** |
| | 1.7nm,0.3s,baz=150,slow=13,SNR=23 | | | | | | |
| KK31 | | | | ⇑Sn | **Sn** | **13 36 09.1** | **+2.2** |
| | 18nm,0.5s,baz=150,slow=24,SNR=11 | | | | | | |
| **BMNS** | **Besmoynak** | **4.29** | **27** | *e*P | **Pg** | **13 35 33.1** | **-1.6** |
| | 24nm,0.5s | | | | | | |
| BMNS | | | | *e*S | **Sg** | **13 36 31.6** | **+1.2** |
| | 38nm,0.7s | | | | | | |
| **KST** | **Kastek** | **4.35** | **30** | ⇓*i*P | **Pb** | **13 35 24.9** | **-4.1** |
| | 3.0nm,0.6s | | | | | | |
| KST | | | | ⇓*i*S | **Sb** | **13 36 17.4** | **-4.2** |
| | 15nm,0.6s | | | | | | |
| **DGS** | **Degeres** | **4.45** | **27** | *e*P | **Pg** | **13 35 36.4** | **-1.3** |
| | 7.6nm,0.5s | | | | | | |
| DGS | | | | *e*S | **Sg** | **13 36 36.4** | **+1.1** |
| | 17nm,0.7s | | | | | | |
| **MDOK** | **Medeo** | **4.91** | **37** | Pn | **Pn** | **13 35 29.6** | **+3.2** |
| MDOK | | | | Pg | **Pg** | **13 35 44.2** | **-2.3** |
| MDOK | | | | Lg | Lg | 13 36 50.7 | |
| **MDOK** | **Medeo** | **4.91** | **37** | *e*P | **Pg** | **13 35 44.1** | **-2.3** |
| | 9.3nm,0.5s | | | | | | |
| MDOK | | | | ⇓*i*S | **Sg** | **13 36 51.0** | **+1.0** |
| | 11nm,0.6s | | | | | | |
| **KOTS** | **Kotyrbulak** | **4.99** | **37** | *e*P | **Pg** | **13 35 47.4** | **-0.6** |
| KOTS | | | | *e*S | **Sg** | **13 36 54.8** | **+2.1** |
| **KURS** | **Kuram** | **5.70** | **41** | *e*P | **Pg** | **13 35 59.2** | **-2.3** |
| KURS | | | | *e*S | **Sg** | **13 37 15.2** | **-0.1** |
| **UZB** | **Uzynbulak** | **5.93** | **48** | *e*P | **Pg** | **13 36 03.5** | **-2.5** |
| | 1.8nm,0.6s | | | | | | |
| UZB | | | | ⇓*i*S | **Sg** | **13 37 23.6** | **+0.8** |
| | 4.1nm,0.7s | | | | | | |
| **PDGK** | **Podgornoye** | **6.31** | **48** | ⇑Pn | **Pn** | **13 35 49.2** | **+3.5** |
| | 2.8nm,0.8s | | | | | | |
| PDGK | | | | ⇑Lg | Lg | 13 37 36.2 | |
| | 8.1nm,0.9s | | | | | | |
| **AB31** | **Akbulak array** | **13.65** | **321** | ⇑Pn | **Pn** | **13 37 25.1** | **-0.9** |
| | 0.3nm,0.4s | | | | | | |
| **AKTO** | **Aktyubinsk** | **15.37** | **321** | ⇓Pn | **Pn** | **13 37 49.2** | **-0.1** |
| | 2.2nm,0.6s | | | | | | |

*NIED **21** 13:36:00, 38°50N×133°90E, h460km, Mw4.0 Best double couple: M0 1.19000×10^15 NP1:φs292.00000°, δ31.00000°, λ-14.00000°. NP2:φs34.00000°, δ83.00000°, λ-120.00000°.*
*BJI **21** 13:36:07.0, 38°38N×133°61E, h431km, mb4.4/24, mB4.5/17*
*JMA **21** 13:36:08.5±0.3, 38°52N×133°88E, h461km±4km, M3.6*
*ISCJB **21** 13:36:08.0±0.2, 38°67N±0°04×133°77E±0°03, h447km, mb3.8/22, Error ellipse: s-maj=5.1km s-min=3.3km az=5.5*
*IDC **21** 13:36:09.0±0.7, 38°53N×133°76E, h450km±12km, mb3.2/15, mb1 3.2/20, mb1mx3.0/59, mbtmp4.0/20, Error ellipse: s-maj=18.8km s-min=14.3km az=161.0*
*NEIC **21** 13:36:08.8±0.4, 38°51N×133°80E, h452km±6km, mb4.4/5, Error ellipse: s-maj=9.8km s-min=7.8km az=141.0*

**ISC 21 13:36:08.8±0.6, 38°65N±0°07×133°80E±0°06, h447km, n72, σ1°26/81, mb3.8/22, Sea of Japan**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JKG** | **Kaga** | **3.11** | **139** | P | **P** | **13 37 16.5** | **0.0** |
| **JKSM** | **Kasumi** | **3.13** | **167** | P | **P** | **13 37 16.3** | **-0.4** |
| **JTT** | **Ttatey** | **3.47** | **125** | P | **P** | **13 37 19.8** | **+0.5** |
| **JSD** | **Sado** | **3.56** | **98** | P | **P** | **13 37 20.6** | **+0.6** |
| **JWT** | **Wachi** | **3.59** | **159** | P | **P** | **13 37 20.4** | **0.0** |
| **MJB9** | **Matsu-Tunnel** | **4.08** | **120** | *e*P | **P** | **13 37 24.3** | **-0.3** |
| **MAT** | **Matsushiro** | **4.08** | **120** | P | **P** | **13 37 24.0** | **-0.6** |
| MAT | | | | S | **S** | **13 38 25.4** | **-0.8** |
| **MAJO** | **Matsushiro** | **4.08** | **120** | *e*P | **P** | **13 37 24.2** | **-0.4** |
| **MJAR** | **Matsushiro Arr** | **4.09** | **120** | P | **P** | **13 37 24.8** | **+0.2** |
| | 3.0nm,0.3s,baz=300,slow=8.5,SNR=32 | | | | | | |
| MJAR | | | | S | **S** | **13 38 26.8** | **+0.5** |
| | baz=326,slow=18,SNR=2.3 | | | | | | |
| **JNG** | **Nsakai** | **4.09** | **122** | P | **P** | **13 37 24.6** | **-0.1** |
| JNG | | | | S | **S** | **13 38 27.8** | **+1.4** |
| **KSRS** | **Korea Array** | **4.79** | **257** | P | **P** | **13 37 31.8** | **+0.9** |
| | 0.4nm,0.3s,baz=72,slow=9.1,SNR=8.0 | | | | | | |
| **KSAR** | **Wonju Array Be** | **4.82** | **257** | P | **P** | **13 37 31.8** | **+0.5** |
| **JRY** | **Ryogami san** | **4.84** | **121** | P | **P** | **13 37 32.1** | **+0.5** |
| **JIE** | **Ise** | **4.85** | **150** | P | **P** | **13 37 31.4** | **-0.3** |
| **JFT** | **Otama** | **5.28** | **100** | P | **P** | **13 37 36.1** | **+0.3** |
| **JRG** | **Rokugo** | **5.38** | **80** | P | **P** | **13 37 37.0** | **+0.3** |
| JRG | | | | *e*S | **S** | **13 38 47.5** | **-0.9** |
| **JOD2** | **Odawara 2** | **5.42** | **127** | P | **P** | **13 37 37.8** | **+0.6** |
| **JMM** | **Marumori** | **5.56** | **96** | P | **P** | **13 37 38.3** | **-0.2** |
| **USRK** | **Ussuriysk Ar.** | **5.71** | **347** | P | **P** | **13 37 42.1** | **+2.2** |
| | 12nm,0.3s,baz=170,slow=9.8,SNR=187 | | | | | | |
| **JMK** | **Ichinoseki** | **5.81** | **85** | P | **P** | **13 37 41.9** | **+0.9** |
| JMK | | | | *e*S | **S** | **13 38 54.1** | **-2.2** |
| **JTO** | **Tosashimizu** | **5.83** | **188** | P | **P** | **13 37 40.9** | **-0.5** |
| **JNU** | **Nakatsue** | **6.00** | **204** | P | **P** | **13 37 42.6** | **-0.6** |
| | 1.6nm,0.3s,baz=83,slow=1.7,SNR=16 | | | | | | |
| **JNU** | **Nakatsue** | **6.00** | **204** | *e*P | **P** | **13 37 42.0** | **-1.1** |
| **JOT** | **Ohata** | **6.20** | **62** | P | **P** | **13 37 46.7** | **+1.7** |
| **JKB** | **Kayabe** | **6.41** | **57** | P | **P** | **13 37 49.3** | **+2.2** |
| JKB | | | | *e*S | **S** | **13 39 09.1** | **+1.5** |
| **MDJ** | **Mudanjiang** | **6.75** | **334** | *e*P | **P** | **13 37 52.1** | **+1.5** |
| **JHJ** | **Hachijo jima 2** | **7.35** | **137** | S | **S** | **13 39 24.9** | **-1.2** |
| | 3.7nm,0.3s,baz=246,slow=20,SNR=4.4 | | | | | | |
| **JSJ** | **Shimokoshiki** | **7.71** | **207** | P | **P** | **13 38 01.8** | **+0.6** |
| **ERM** | **Erimo** | **7.90** | **62** | *e*P | **P** | **13 38 03.0** | **0.0** |
| **JCH** | **Churui** | **8.28** | **58** | *e*S | **S** | **13 39 40.1** | **-4.2** |
| **ASAJ** | **Asahikawa** | **8.58** | **48** | P | **P** | **13 38 11.0** | **+0.7** |
| | 0.9nm,0.3s,baz=235,slow=5.8,SNR=11 | | | | | | |
| ASAJ | | | | S | **S** | **13 39 46.0** | **-4.2** |
| | 0.3nm,0.3s,baz=37,slow=19,SNR=5.6 | | | | | | |
| **JTKR** | **Abashiri--Toko** | **9.28** | **52** | *e*S | **S** | **13 40 01.9** | **-2.3** |
| **NEM2** | **Nemuro 2** | **10.18** | **59** | S | **S** | **13 40 18.2** | **-4.1** |
| **KLR** | **Kul'dur** | **10.68** | **353** | P | **P** | **13 38 34.8** | **+1.7** |
| | 0.0nm,0.3s,baz=190,slow=4.3,SNR=16 | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **17.23** | **284** | *e*P | **P** | **13 39 43.8** | **+0.1** |
| HHC | | | | S | **S** | **13 42 37.4** | **-3.6** |
| HHC | | | | ScS | **ScS** | **13 50 34.0** | **+1.1** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,19nm,1.0s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,56nm,5.1s | | | | | | |
| **XAN** | **Xi'an** | **20.53** | **265** | P | **P** | **13 40 14.1** | **-1.2** |
| XAN | | | | pmax | pmax | | |
| | comp=Z,14nm,0.7s | | | | | | |
| XAN | | | | pmax | pmax | | |
| | comp=Z,95nm,3.9s | | | | | | |
| **ENH** | **Enshi** | **21.67** | **255** | *e*P | **P** | **13 40 24.2** | **-1.5** |
| | 14nm,0.6s | | | | | | |
| **SONM** | **Songino Array** | **21.88** | **304** | P | **P** | **13 40 27.9** | **+0.5** |
| | 1.7nm,0.5s,baz=107,slow=8.6,SNR=14 | | | | | | |
| **GTA** | **Gaotai** | **26.32** | **282** | *e*P | **P** | **13 41 06.3** | **-0.9** |
| GTA | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.9s | | | | | | |
| **KMI** | **Kunming** | **29.46** | **252** | P | **P** | **13 41 33.8** | **-1.3** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.9s | | | | | | |
| **WMQ** | **Urumqi** | **34.70** | **294** | P | **P** | **13 42 18.9** | **-0.7** |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,14nm,0.7s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,200nm,4.7s | | | | | | |
| **CHTO** | **Chiang Mai** | **36.09** | **247** | *e*P | **P** | **13 42 31.5** | **0.0** |
| | 4.4nm,0.8s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **36.32** | **246** | P | **P** | **13 42 32.5** | **-0.9** |
| | 0.8nm,0.4s,baz=44,slow=7.4,SNR=6.3 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **36.34** | **311** | P | **P** | **13 42 33.3** | **+0.2** |
| | 0.6nm,0.3s,baz=94,slow=8.5,SNR=4.1 | | | | | | |
| **MK31** | **Makanchi Array** | **38.11** | **299** | *e*P | **P** | **13 42 48.0** | **+0.1** |
| **MKAR** | **Makanchi Array** | **38.11** | **299** | P | **P** | **13 42 47.8** | **-0.1** |
| | 1.4nm,0.7s,baz=85,slow=9.8,SNR=11 | | | | | | |
| **MKAR** | **Makanchi Array** | **38.11** | **299** | *e*P | **P** | **13 42 48.0** | **+0.2** |
| | 17nm,1.0s | | | | | | |
| **TAPN** | **Taplejung** | **39.89** | **268** | *e*P | **P** | **13 43 02.4** | **-0.5** |
| **KURK** | **Kurchatov** | **40.15** | **306** | *e*P | **P** | **13 43 04.3** | **+0.1** |
| | 8.5nm,1.1s | | | | | | |
| **ODAN** | **Odare** | **40.37** | **267** | *e*P | **P** | **13 43 06.2** | **-0.5** |
| **JIRN** | **Jiri** | **40.93** | **269** | *e*P | **P** | **13 43 11.9** | **+0.6** |
| | 42nm,0.4s | | | | | | |
| **RAMN** | **Ramite** | **40.95** | **268** | *e*P | **P** | **13 43 11.0** | **-0.3** |
| | 9.1nm,0.7s | | | | | | |
| **GUN** | **Gumba** | **41.06** | **270** | *e*P | **P** | **13 43 12.0** | **-0.3** |
| | 17nm,0.4s | | | | | | |
| **KKN** | **Kakani** | **41.58** | **270** | *e*P | **P** | **13 43 16.2** | **-0.2** |
| | 19nm,0.6s | | | | | | |
| **PKI** | **Pulchoki** | **41.58** | **269** | *e*P | **P** | **13 43 15.8** | **-0.7** |
| | 5.0nm,0.5s | | | | | | |
| **PKIN** | **Phulchoki** | **41.59** | **269** | *e*P | **P** | **13 43 16.7** | **+0.2** |
| | 13nm,0.8s | | | | | | |
| **DANN** | **Dangsing** | **42.51** | **272** | *e*P | **P** | **13 43 24.2** | **+0.3** |
| **KOLN** | **Koldanda** | **42.91** | **271** | *e*P | **P** | **13 43 26.5** | **-0.4** |
| **PYUN** | **Piuthan** | **43.23** | **272** | *e*P | **P** | **13 43 29.2** | **-0.2** |
| | 18nm,0.6s | | | | | | |
| **BVAR** | **Borovoye Array** | **44.98** | **310** | P | **P** | **13 43 41.5** | **-0.9** |
| | 0.6nm,0.4s,baz=101,slow=7.5,SNR=7.0 | | | | | | |
| **ARU** | **Arti** | **51.10** | **316** | P | **P** | **13 44 28.3** | **0.0** |
| | 2.5nm,0.6s,baz=94,slow=6.5,SNR=5.0 | | | | | | |
| **ABKAR** | **Akbulak array** | **52.23** | **307** | *e*P | **P** | **13 44 36.5** | **-0.2** |
| | 33nm,0.4s | | | | | | |
| **AKTO** | **Akbulak** | **53.05** | **309** | P | **P** | **13 44 43.1** | **+0.5** |
| | 1.5nm,0.6s,baz=76,slow=16,SNR=5.0 | | | | | | |
| **INK** | **Inuvik** | **55.69** | **27** | P | **P** | **13 45 02.0** | **+1.2** |
| | 0.5nm,0.9s,baz=191,slow=5.2,SNR=2.5 | | | | | | |
| **GEYT** | **Alibeck** | **57.73** | **295** | P | **P** | **13 45 15.9** | **+0.3** |
| | 1.8nm,0.5s,baz=8.5,slow=3.0,SNR=4.4 | | | | | | |
| **ARCES** | **ARCESS Array B** | **60.28** | **337** | P | **P** | **13 45 32.5** | **+0.2** |
| | 2.5nm,0.9s,baz=45,slow=12,SNR=4.0 | | | | | | |
| **FINES** | **FINESS Array B** | **64.47** | **330** | P | **P** | **13 46 00.5** | **+0.8** |
| | 2.7nm,0.6s,baz=77,slow=5.2,SNR=15 | | | | | | |
| **AKASG** | **Malin Array Be** | **69.22** | **319** | P | **P** | **13 46 29.0** | **-0.4** |
| | 0.3nm,0.3s,baz=49,slow=6.5,SNR=5.2 | | | | | | |
| **NB2** | **NORSAR Subarra** | **70.24** | **334** | P | **P** | **13 46 36.1** | **+0.8** |
| | comp=Z,1.7nm,0.6s,baz=44,slow=6.2 | | | | | | |
| **NOA** | **NORSAR Array B** | **70.24** | **334** | P | **P** | **13 46 35.2** | **-0.1** |
| | comp=Z,1.4nm,0.6s,baz=43,slow=6.0,SNR=7.1 | | | | | | |
| **BRTR** | **Keskin Array B** | **73.18** | **308** | P | **P** | **13 46 53.6** | **+0.5** |
| | comp=Z,0.6nm,0.7s,baz=46,slow=4.2,SNR=2.8 | | | | | | |
| **GERES** | **GERESS Array B** | **78.02** | **324** | P | **P** | **13 47 21.5** | **+1.5** |
| | comp=Z,0.2nm,0.3s,baz=48,slow=3.1,SNR=2.3 | | | | | | |

*CSEM **21** 13:36:13.4, 33°78N×35°76E, h4km, ML3.0*
*NSSC **21** 13:36:13.3±0.7, 33°80N×35°74E, h18km±7km, ML1.8*
*GRAL **21** 13:36:13.4±0.3, 33°78N×35°76E, h4km±10km, MD3.0*

**ISC 21 13:36:11.7±0.9, 33°79N±0°03×35°77E±0°04, h18km±8km, n16, σ0°39/27, Jordan-Syria region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **BHL** | **Bhannes** | **0.15** | **320** | *e*P | **Pb** | **13 36 16.2** | **+0.2** |
| **BHL** | **Bhannes** | **0.15** | **320** | *e*P | **Pb** | **13 36 16.2** | **+0.2** |
| **DQRL** | **Deir Qamar** | **0.19** | **243** | *e*P | **Pg** | **13 36 16.7** | **+0.3** |
| DQRL | | | | *e*S | **Sg** | **13 36 19.1** | **-0.6** |
| **DQRL** | **Deir Qamar** | **0.19** | **243** | *e*P | **Pg** | **13 36 16.7** | **+0.3** |
| DQRL | | | | *e*S | **Sg** | **13 36 19.1** | **-0.6** |
| **QRWL** | **Qaraoun** | **0.25** | **196** | *e*P | **Pg** | **13 36 17.7** | **+0.3** |
| QRWL | | | | *e*S | **Sg** | **13 36 21.1** | **-0.3** |
| **QRWL** | **Qaraoun** | **0.25** | **196** | *e*P | **Pg** | **13 36 17.7** | **+0.3** |
| QRWL | | | | *e*S | **Sg** | **13 36 21.1** | **-0.3** |
| **RCY** | **Rachaya** | **0.30** | **169** | *e*P | **Pb** | **13 36 18.8** | **+0.1** |
| RCY | | | | *e*S | **Sg** | **13 36 22.6** | **-0.1** |
| **RCY** | **Rachaya** | **0.30** | **169** | *e*P | **Pb** | **13 36 18.8** | **+0.1** |
| RCY | | | | *e*S | **Sg** | **13 36 22.6** | **-0.1** |
| **BRBR** | **Barbar** | **0.41** | **158** | *e*P | **Pb** | **13 36 20.9** | **+0.3** |
| BRBR | | | | *e*S | **Sb** | **13 36 26.8** | **+0.3** |
| BRBR | | | | AML | AML | 13 36 30.2 | |
| | comp=E,132nm,0.4s | | | | | | |
| BRBR | | | | AML | AML | 13 36 30.3 | |
| | comp=N,130nm,0.6s | | | | | | |
| **HWQ** | **Hawqa** | **0.51** | **17** | *e*P | **Pb** | **13 36 22.8** | **+0.6** |
| **HWQ** | **Hawqa** | **0.51** | **17** | *e*P | **Pb** | **13 36 22.8** | **+0.6** |
| **MARH** | **Ras Al Marh** | **0.64** | **68** | *e*P | **Pn** | **13 36 26.1** | **-0.1** |
| MARH | | | | *e*S | **Sb** | **13 36 33.5** | **+0.2** |
| MARH | | | | AML | AML | 13 36 38.9 | |
| | comp=N,62nm,0.5s | | | | | | |
| MARH | | | | AML | AML | 13 36 45.5 | |
| | comp=E,75nm,0.4s | | | | | | |
| **FKH** | **Fakeheh** | **0.70** | **50** | *e*P | **Pb** | **13 36 26.2** | **+0.8** |
| **HAWK** | **Haweek** | **0.90** | **36** | *e*P | **Pg** | **13 36 29.2** | **0.0** |
| HAWK | | | | *e*S | **Sb** | **13 36 40.0** | **-0.5** |
| HAWK | | | | AML | AML | 13 36 49.5 | |
| | comp=N,24nm,0.5s | | | | | | |
| HAWK | | | | AML | AML | 13 36 52.7 | |
| | comp=E,26nm,0.5s | | | | | | |
| **ROOS** | **tl_alroos** | **1.32** | **73** | *e*P | **Pg** | **13 36 36.8** | **-0.4** |
| ROOS | | | | *e*S | **Sb** | **13 36 52.3** | **-0.3** |
| ROOS | | | | AML | AML | 13 37 04.4 | |
| | comp=E,34nm,0.5s | | | | | | |
| ROOS | | | | AML | AML | 13 37 09.5 | |
| | comp=N,24nm,0.4s | | | | | | |
| **SALA** | **Sala** | **1.35** | **143** | *e*P | **Pb** | **13 36 36.8** | **+0.3** |
| SALA | | | | *e*S | **Sn** | **13 36 53.2** | **-0.2** |
| SALA | | | | AML | AML | 13 37 05.3 | |
| | comp=N,32nm,0.4s | | | | | | |
| SALA | | | | AML | AML | 13 37 08.7 | |
| | comp=E,2.0nm,0.5s | | | | | | |

*BJI **21** 13:37:12.8, 33°21S×178°98W, h7km, mb5.4/36, mB5.8/41, Ms5.3/37, Ms7 5.0/36*
*IDC **21** 13:37:13.7±0.3, 33°06S×178°96W, h0km, mb5.5/27, mb1 5.5/28, mb1mx5.5/30, mbtmp5.5/28, ML6.1/2, MS5.0/29, Ms1 5.0/29, ms1mx5.0/33, Error ellipse: s-maj=13.8km s-min=13.4km az=2.0*
*NEIC **21** 13:37:14.8±0.1, 33°17S×179°02W, h10km, mb5.6/8, MS5.4/128, MW5.5, Error ellipse: s-maj=4.4km s-min=3.2km az=151.0, Moment Tensor Solution. s30 Moment tensor: Scale 10^17Nm; Mrr2.03; Mθθ-1.18; Mφφ-0.85; Mrθ-0.07; Mθφ0.18; Mφr-1.09; Best double couple: M0 2.10000×10^17 NP1:φs148.00000°, δ59.00000°, λ106.00000°. NP2:φs298.00000°, δ35.00000°, λ65.00000°. Principal axes: T 2.4000, Plg71.0000°, Azm96.0000°; N -1.0600, Plg14.0000°, Azm319.0000°; P -1.3400, Plg12.0000°, Azm226.0000°;*
*GCMT **21** 13:37:14.8±0.1, 33°19S×178°66W, h30km, MW5.7/134, Moment Tensor Solution. s120,c205; s134,c318; Duration: 1s7 Moment tensor: Scale 10^17Nm; Mrr3.65±.05; Mθθ-1.72±.04; Mφφ-1.92±.04; Mrθ-0.23±.08; Mθφ2.73±.03; Mφr-1.24±.08; Best double couple: M0 4.33300×10^17 NP1:φs153.00000°, δ53.00000°, λ113.00000°. NP2:φs298.00000°, δ43.00000°, λ63.00000°. Principal axes: T 4.0480, Plg71.0000°, Azm121.0000°; N 0.5810, Plg18.0000°, Azm319.0000°; P -4.6180, Plg5.0000°, Azm227.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*
*ISCJB **21** 13:37:17.4±0.1, 33°24S±0°02×179°06W±0°03, h33km, mb5.5/65, MS5.2/180 Error ellipse: s-maj=3.7km s-min=1.7km az=37.7*
*MOS **21** 13:37:17.6±0.9, 33°06S×178°93W, h33km, mb6.0/24, MS5.2/45, Error ellipse: s-maj=9.2km s-min=7.5km az=80.7*
*WEL **21** 13:37:18.8±0.1, 33°13S×178°90W, h33km, ML6.0/130, Mw5.7*
*WEL Felt from Auckland to Bay of Plenty, maximum reported intensity MM 4.*

**ISC 21 13:37:18.5±0.4, 33°12S±0°03×178°76W±0°03, h35km±1km, h35km:pP-P, n1246, σ1°68/1203, mb5.6/62, MS5.3/181, 32C-22D, South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **3.93** | **11** | Pn | **Pn** | **13 38 14.8** | **-1.4** |
| | 2μm,0.3s,baz=68,slow=8.9,SNR=69 | | | | | | |
| RAO | | | | Sn | **S

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **OPRZ** | **Ohinepanea** | **6.06 218** | PN | **Pn** | **13 38 44.4** | **-1.2** |
| OPRZ | | | AML | AML | 13 39 57.7 | |
| OPRZ | | | AML | AML | 13 39 58.3 | |
| **MARZ** | **Manawahe** | **6.11 216** | PN | **Pn** | **13 38 44.9** | **-1.4** |
| MARZ | | | AML | AML | 13 38 52.1 | |
| MARZ | | | AML | AML | 13 39 01.3 | |
| **URZ** | **Urewera** | **6.13 212** | *e*Pn | **Pn** | **13 38 45.2** | **-1.3** |
| | 425nm,0.3s,baz=301,slow=3.4,SNR=664 | | | | | |
| URZ | | | Sn | **Sn** | **13 39 55.1** | **-0.2** |
| | 548nm,0.3s,baz=253,slow=11,SNR=8.8 | | | | | |
| **URZ** | **Urewera** | **6.13 212** | *e*Pn | **Pn** | **13 38 44.6** | **-1.9** |
| URZ | | | *e*Sn | **Sn** | **13 39 55.5** | **+0.1** |
| **URZ** | **Urewera** | **6.13 212** | PN | **Pn** | **13 38 44.2** | **-2.3** |
| URZ | | | AML | AML | 13 39 57.8 | |
| URZ | | | AML | AML | 13 40 04.3 | |
| **TGRZ** | **Tauranga** | **6.13 220** | PN | **Pn** | **13 38 46.5** | **-0.1** |
| TGRZ | | | AML | AML | 13 38 50.5 | |
| TGRZ | | | AML | AML | 13 39 08.4 | |
| **EDRZ** | **Edgecumbe** | **6.18 215** | *e*PN | **Pn** | **13 38 45.7** | **-1.6** |
| EDRZ | | | AML | AML | 13 39 05.3 | |
| EDRZ | | | AML | AML | 13 40 26.4 | |
| **RAGZ** | **Rawiri** | **6.20 209** | PN | **Pn** | **13 38 44.5** | **-3.0** |
| RAGZ | | | AML | AML | 13 40 01.8 | |
| RAGZ | | | AML | AML | 13 40 02.1 | |
| **WIAZ** | **Waiheke Island** | **6.21 232** | *e*PN | **Pn** | **13 38 50.0** | **+2.4** |
| WIAZ | | | AML | AML | 13 39 02.9 | |
| WIAZ | | | AML | AML | 13 39 07.0 | |
| **RIGZ** | **Rimuhau** | **6.24 206** | PN | **Pn** | **13 38 44.6** | **-3.5** |
| RIGZ | | | AML | AML | 13 40 00.4 | |
| RIGZ | | | AML | AML | 13 40 00.5 | |
| **LIRZ** | **Lichensteins R** | **6.27 218** | PN | **Pn** | **13 38 48.2** | **-0.3** |
| LIRZ | | | AML | AML | 13 39 14.8 | |
| LIRZ | | | AML | AML | 13 39 15.5 | |
| **ABAZ** | **Army Bay** | **6.30 235** | *e*PN | **Pn** | **13 38 51.9** | **+3.0** |
| **MKRZ** | **Makatiti** | **6.33 216** | PN | **Pn** | **13 38 50.2** | **+0.7** |
| MKRZ | | | AML | AML | 13 39 02.0 | |
| MKRZ | | | AML | AML | 13 39 04.9 | |
| **WCZ** | **Waipu Caves** | **6.34 242** | PN | **Pn** | **13 38 53.1** | **+3.6** |
| WCZ | | | AML | AML | 13 39 06.4 | |
| WCZ | | | AML | AML | 13 39 19.3 | |
| **MTAZ** | **Motutapu** | **6.36 233** | *e*PN | **Pn** | **13 38 52.3** | **+2.7** |
| **KARZ** | **Kaharoa** | **6.36 218** | PN | **Pn** | **13 38 48.9** | **-0.8** |
| KARZ | | | AML | AML | 13 39 07.7 | |
| KARZ | | | AML | AML | 13 39 08.2 | |
| **OMRZ** | **Omania** | **6.36 217** | *e*PN | **Pn** | **13 38 48.6** | **-1.1** |
| OMRZ | | | AML | AML | 13 39 13.6 | |
| OMRZ | | | AML | AML | 13 39 25.4 | |
| **TARZ** | **Mount Tarawera** | **6.39 216** | PN | **Pn** | **13 38 49.5** | **-0.7** |
| TARZ | | | AML | AML | 13 39 09.1 | |
| TARZ | | | AML | AML | 13 39 11.5 | |
| **KMRZ** | **Kaimai** | **6.39 221** | PN | **Pn** | **13 38 50.4** | **+0.2** |
| **PRGZ** | **Paritu Road** | **6.39 204** | PN | **Pn** | **13 38 46.8** | **-3.3** |
| PRGZ | | | AML | AML | 13 40 04.1 | |
| PRGZ | | | AML | AML | 13 40 05.4 | |
| **ETAZ** | **East Tamaki Re** | **6.43 232** | PN | **Pn** | **13 38 53.4** | **+2.7** |
| **NGRZ** | **Ngongotaha** | **6.45 218** | PN | **Pn** | **13 38 50.2** | **-0.8** |
| **MUGZ** | **Murupara** | **6.46 213** | PN | **Pn** | **13 38 48.2** | **-2.8** |
| **RRRZ** | **Republican Roa** | **6.47 215** | PN | **Pn** | **13 38 49.1** | **-2.1** |
| RRRZ | | | AML | AML | 13 40 11.4 | |
| RRRZ | | | AML | AML | 13 40 23.9 | |
| **SNGZ** | **Shannon Statio** | **6.47 208** | PN | **Pn** | **13 38 48.4** | **-2.8** |
| SNGZ | | | AML | AML | 13 40 08.9 | |
| SNGZ | | | AML | AML | 13 40 10.9 | |
| **HLRZ** | **Highlands Stat** | **6.48 216** | PN | **Pn** | **13 38 50.8** | **-0.6** |
| HLRZ | | | AML | AML | 13 39 16.9 | |
| HLRZ | | | AML | AML | 13 39 18.2 | |
| **RTZ** | **Ruatahuna** | **6.48 211** | PN | **Pn** | **13 38 48.6** | **-2.8** |
| **UTU** | **Utuhina** | **6.50 218** | *e*PN | **Pn** | **13 38 51.3** | **-0.3** |
| UTU | | | AML | AML | 13 39 13.0 | |
| UTU | | | AML | AML | 13 39 14.4 | |
| **HBAZ** | **Herne Bay Bore** | **6.51 233** | PN | **Pn** | **13 38 56.0** | **+4.3** |
| **KBAZ** | **Karaka Road Bo** | **6.54 231** | PN | **Pn** | **13 38 55.1** | **+2.9** |
| **KNZ** | **Kokohu** | **6.55 205** | PN | **Pn** | **13 38 48.4** | **-4.0** |
| KNZ | | | AML | AML | 13 40 57.8 | |
| KNZ | | | AML | AML | 13 41 10.6 | |
| **TOZ** | **Tahuroa Road** | **6.56 224** | PN | **Pn** | **13 38 53.4** | **+0.9** |
| TOZ | | | AML | AML | 13 39 12.3 | |
| TOZ | | | AML | AML | 13 39 12.3 | |
| **RVAZ** | **Riverhead Bore** | **6.57 234** | *e*PN | **Pn** | **13 38 55.9** | **+3.4** |
| **HSRZ** | **Hossack Road** | **6.58 217** | *e*PN | **Pn** | **13 38 52.3** | **-0.4** |
| HSRZ | | | AML | AML | 13 39 12.7 | |
| HSRZ | | | AML | AML | 13 39 19.2 | |
| **MHGZ** | **Mahia Peninsul** | **6.59 203** | PN | **Pn** | **13 38 49.2** | **-3.7** |
| MHGZ | | | AML | AML | 13 40 16.3 | |
| MHGZ | | | AML | AML | 13 40 16.9 | |
| **HRRZ** | **Handcock Road** | **6.62 216** | PN | **Pn** | **13 38 51.7** | **-1.6** |
| HRRZ | | | AML | AML | 13 39 14.0 | |
| HRRZ | | | AML | AML | 13 39 20.8 | |
| **PRRZ** | **Plateau Road** | **6.65 215** | PN | **Pn** | **13 38 51.7** | **-2.0** |
| PRRZ | | | AML | AML | 13 39 32.3 | |
| PRRZ | | | AML | AML | 13 40 21.9 | |
| **WTAZ** | **Waiatarua** | **6.66 233** | *e*PN | **Pn** | **13 38 57.0** | **+3.2** |
| **OUZ** | **Omahuta** | **6.67 250** | *e*Pn | **Pn** | **13 38 57.4** | **+3.4** |
| **OUZ** | **Omahuta** | **6.67 250** | PN | **Pn** | **13 38 57.4** | **+3.4** |
| OUZ | | | AML | AML | 13 38 59.0 | |
| OUZ | | | AML | AML | 13 39 15.1 | |
| **GRRZ** | **Galatos Road** | **6.68 217** | PN | **Pn** | **13 38 53.5** | **-0.5** |
| GRRZ | | | AML | AML | 13 39 13.3 | |
| GRRZ | | | AML | AML | 13 39 49.9 | |
| **AWAZ** | **Awhitu Peninsu** | **6.68 232** | *e*PN | **Pn** | **13 38 56.3** | **+2.1** |
| **ALRZ** | **Allen Road** | **6.73 215** | PN | **Pn** | **13 38 52.7** | **-2.1** |
| ALRZ | | | AML | AML | 13 40 12.9 | |
| ALRZ | | | AML | AML | 13 40 40.2 | |
| **MTHZ** | **Maungataniwha** | **6.74 211** | PN | **Pn** | **13 38 52.4** | **-2.5** |
| **WHHZ** | **Waihua** | **6.77 207** | PN | **Pn** | **13 38 52.4** | **-2.9** |
| WHHZ | | | AML | AML | 13 40 19.4 | |
| WHHZ | | | AML | AML | 13 40 26.3 | |
| **WPRZ** | **Whakapapatarin** | **6.78 216** | PN | **Pn** | **13 38 53.9** | **-1.6** |
| WPRZ | | | AML | AML | 13 39 02.2 | |
| WPRZ | | | AML | AML | 13 39 15.1 | |
| **MRHZ** | **Matea Rd** | **6.91 213** | PN | **Pn** | **13 38 54.7** | **-2.6** |
| MRHZ | | | AML | AML | 13 39 16.8 | |
| MRHZ | | | AML | AML | 13 40 26.4 | |
| **KUTZ** | **Kaahu Road** | **6.93 218** | PN | **Pn** | **13 38 56.5** | **-1.1** |
| KUTZ | | | AML | AML | 13 39 06.7 | |
| KUTZ | | | AML | AML | 13 39 16.2 | |
| **NMHZ** | **Naumai** | **6.96 210** | PN | **Pn** | **13 38 54.6** | **-3.4** |
| NMHZ | | | AML | AML | 13 40 16.3 | |
| NMHZ | | | AML | AML | 13 40 17.8 | |
| **TLZ** | **Tolley Road** | **6.96 220** | PN | **Pn** | **13 38 57.1** | **-0.9** |
| TLZ | | | AML | AML | 13 39 13.2 | |
| TLZ | | | AML | AML | 13 39 33.7 | |
| **WHTZ** | **Whakaora** | **7.00 216** | PN | **Pn** | **13 38 58.5** | **0.0** |
| **ARHZ** | **Aropaoanui** | **7.02 208** | PN | **Pn** | **13 38 55.1** | **-3.6** |
| ARHZ | | | AML | AML | 13 40 17.5 | |
| ARHZ | | | AML | AML | 13 40 18.1 | |
| **HATZ** | **Hinemaiaia** | **7.11 214** | PN | **Pn** | **13 38 59.2** | **-0.8** |
| HATZ | | | AML | AML | 13 39 17.7 | |
| HATZ | | | AML | AML | 13 39 33.3 | |
| **WATZ** | **Wairara** | **7.14 217** | PN | **Pn** | **13 38 59.0** | **-1.4** |
| WATZ | | | AML | AML | 13 39 40.0 | |
| WATZ | | | AML | AML | 13 40 47.7 | |
| **BKZ** | **Black Stump Fm** | **7.15 211** | *e*Pn | **Pn** | **13 38 57.6** | **-2.9** |
| BKZ | | | *e*Sn | **Sn** | **13 40 18.6** | **-2.0** |
| **BKZ** | **Black Stump Fm** | **7.15 211** | PN | **Pn** | **13 38 56.7** | **-3.8** |
| BKZ | | | AML | AML | 13 40 21.0 | |
| BKZ | | | AML | AML | 13 40 22.1 | |
| **RATZ** | **Rangitukua** | **7.24 216** | PN | **Pn** | **13 38 59.9** | **-1.9** |
| RATZ | | | AML | AML | 13 39 28.4 | |
| RATZ | | | AML | AML | 13 39 28.8 | |
| **RITZ** | **Rihia Road** | **7.29 215** | PN | **Pn** | **13 39 00.6** | **-1.9** |
| RITZ | | | AML | AML | 13 39 27.5 | |
| RITZ | | | AML | AML | 13 40 38.0 | |
| **MCHZ** | **McNeill Hill** | **7.30 209** | PN | **Pn** | **13 38 59.3** | **-3.3** |
| MCHZ | | | AML | AML | 13 40 26.3 | |
| MCHZ | | | AML | AML | 13 41 02.0 | |
| **CKHZ** | **Cape Kidnapper** | **7.33 206** | PN | **Pn** | **13 38 58.7** | **-4.3** |
| CKHZ | | | AML | AML | 13 40 23.6 | |
| CKHZ | | | AML | AML | 13 40 24.5 | |
| **KATZ** | **Kakaramea** | **7.36 216** | PN | **Pn** | **13 39 02.1** | **-1.5** |
| KATZ | | | AML | AML | 13 39 16.7 | |
| KATZ | | | AML | AML | 13 39 29.9 | |
| **KWHZ** | **Kaweka Forest** | **7.39 210** | PN | **Pn** | **13 38 59.8** | **-4.1** |
| KWHZ | | | AML | AML | 13 40 26.6 | |
| KWHZ | | | AML | AML | 13 40 28.0 | |
| **HIZ** | **Hauiti** | **7.47 222** | *e*Pn | **Pn** | **13 39 04.8** | **-0.2** |
| **HIZ** | **Hauiti** | **7.47 222** | PN | **Pn** | **13 39 04.7** | **-0.2** |
| HIZ | | | AML | AML | 13 39 23.9 | |
| HIZ | | | AML | AML | 13 39 27.4 | |
| **KRVZ** | **Karewarewa** | **7.48 216** | PN | **Pn** | **13 39 03.1** | **-2.1** |
| KRVZ | | | AML | AML | 13 39 26.1 | |
| KRVZ | | | AML | AML | 13 40 31.3 | |
| **OTVZ** | **Oturere** | **7.53 215** | PN | **Pn** | **13 39 02.4** | **-3.4** |
| OTVZ | | | AML | AML | 13 39 44.2 | |
| OTVZ | | | AML | AML | 13 40 44.0 | |
| **WTVZ** | **West Tongariro** | **7.53 216** | PN | **Pn** | **13 39 03.4** | **-2.4** |
| WTVZ | | | AML | AML | 13 39 28.0 | |
| WTVZ | | | AML | AML | 13 39 37.3 | |
| **KAHZ** | **Kahuranaki** | **7.53 207** | PN | Pn | 13 39 01.2 | -4.6 |
| KAHZ | | | AML | AML | 13 40 28.9 | |
| KAHZ | | | AML | AML | 13 40 29.3 | |
| **NGZ** | **Ngauruhoe** | **7.57 215** | PN | **Pn** | **13 39 04.1** | **-2.3** |
| NGZ | | | AML | AML | 13 39 32.9 | |
| NGZ | | | AML | AML | 13 40 46.1 | |
| **TWVZ** | **Taurewa** | **7.57 217** | PN | **Pn** | **13 39 04.4** | **-2.0** |
| TWVZ | | | AML | AML | 13 39 18.7 | |
| TWVZ | | | AML | AML | 13 39 35.9 | |
| **KRHZ** | **Kereru** | **7.60 210** | PN | **Pn** | **13 39 02.4** | **-4.3** |
| KRHZ | | | AML | AML | 13 40 32.8 | |
| KRHZ | | | AML | AML | 13 40 34.3 | |
| **BHHZ** | **Black Hill Sta** | **7.60 212** | PN | **Pn** | **13 39 03.0** | **-3.8** |
| BHHZ | | | AML | AML | 13 40 30.9 | |
| BHHZ | | | AML | AML | 13 40 32.4 | |
| **TUVZ** | **Tukino** | **7.61 215** | PN | **Pn** | **13 39 04.5** | **-2.5** |
| TUVZ | | | AML | AML | 13 39 31.4 | |
| TUVZ | | | AML | AML | 13 40 38.8 | |
| **FWVZ** | **Far West T-bar** | **7.65 215** | PN | **Pn** | **13 39 05.5** | **-2.2** |
| FWVZ | | | AML | AML | 13 40 38.0 | |
| FWVZ | | | AML | AML | 13 40 45.7 | |
| **DRZ** | **Dome Shelter** | **7.66 215** | PN | **Pn** | **13 39 06.9** | **-1.0** |
| DRZ | | | AML | AML | 13 39 28.6 | |
| DRZ | | | AML | AML | 13 40 55.6 | |
| **MOVZ** | **Moawhango** | **7.68 214** | PN | **Pn** | **13 39 04.1** | **-3.8** |
| MOVZ | | | AML | AML | 13 40 32.5 | |
| MOVZ | | | AML | AML | 13 40 38.2 | |
| **WNVZ** | **Wahianoa** | **7.69 215** | PN | **Pn** | **13 39 05.2** | **-2.9** |
| **TRVZ** | **Turoa** | **7.69 215** | PN | **Pn** | **13 39 06.1** | **-2.1** |
| TRVZ | | | AML | AML | 13 41 07.6 | |
| TRVZ | | | AML | AML | 13 41 12.2 | |
| **PXZ** | **Pawanui** | **7.74 206** | PN | Pn | 13 39 03.3 | -5.3 |
| PXZ | | | AML | AML | 13 40 31.8 | |
| PXZ | | | AML | AML | 13 40 31.9 | |
| PXZ | | | AML | AML | 13 40 32.1 | |
| PXZ | | | AML | AML | 13 40 32.1 | |
| **PKVZ** | **Pokaka** | **7.78 216** | PN | **Pn** | **13 39 07.5** | **-1.7** |
| PKVZ | | | AML | AML | 13 41 01.1 | |
| PKVZ | | | AML | AML | 13 41 12.5 | |
| **MTVZ** | **Mangateitei** | **7.79 215** | PN | **Pn** | **13 39 06.4** | **-3.0** |
| MTVZ | | | AML | AML | 13 40 52.3 | |
| MTVZ | | | AML | AML | 13 40 52.3 | |
| **PNHZ** | **Pukenui** | **7.90 209** | PN | Pn | 13 39 05.9 | -4.9 |
| PNHZ | | | AML | AML | 13 40 37.4 | |
| PNHZ | | | AML | AML | 13 40 38.5 | |
| **WPHZ** | **Waipukurau** | **7.93 208** | PN | Pn | 13 39 06.6 | -4.7 |
| WPHZ | | | AML | AML | 13 40 49.8 | |
| WPHZ | | | AML | AML | 13 40 52.7 | |
| **VRZ** | **Vera Road** | **7.96 219** | PN | **Pn** | **13 39 10.6** | **-1.0** |
| VRZ | | | AML | AML | 13 39 38.1 | |
| VRZ | | | AML | AML | 13 39 48.4 | |
| **PRHZ** | **Porangahau** | **8.03 206** | PN | Pn | 13 39 07.1 | -5.5 |
| PRHZ | | | AML | AML | 13 40 39.8 | |
| PRHZ | | | AML | AML | 13 40 41.3 | |
| **TSZ** | **Takapari Road** | **8.12 210** | PN | Pn | 13 39 08.8 | -5.1 |
| TSZ | | | AML | AML | 13 40 42.5 | |
| TSZ | | | AML | AML | 13 40 46.9 | |
| **DVHZ** | **Dannevirke** | **8.24 208** | PN | Pn | 13 39 09.8 | -5.6 |
| DVHZ | | | AML | AML | 13 40 46.7 | |
| DVHZ | | | AML | AML | 13 40 53.4 | |
| **ANWZ** | **Angora Road** | **8.26 206** | PN | Pn | 13 39 10.3 | -5.4 |
| ANWZ | | | AML | AML | 13 40 46.2 | |
| ANWZ | | | AML | AML | 13 40 46.7 | |
| **DREZ** | **Durham Road** | **8.31 221** | PN | **Pn** | **13 39 16.7** | **+0.3** |
| **WAZ** | **Wanganui** | **8.31 215** | PN | **Pn** | **13 39 13.4** | **-3.2** |
| WAZ | | | AML | AML | 13 41 06.8 | |
| WAZ | | | AML | AML | 13 41 13.3 | |
| **LREZ** | **Lake Rotokare** | **8.39 219** | PN | **Pn** | **13 39 17.0** | **-0.6** |
| LREZ | | | AML | AML | 13 39 38.2 | |
| LREZ | | | AML | AML | 13 39 43.6 | |
| **NEZ** | **North Egmont** | **8.42 221** | *e*PN | **Pn** | **13 39 18.3** | **+0.3** |
| **PKE** | **Pukeiti** | **8.43 222** | PN | **Pn** | **13 39 18.7** | **+0.5** |
| PKE | | | AML | AML | 13 39 52.8 | |
| PKE | | | AML | AML | 13 39 54.4 | |
| **PREZ** | **Palmer Road** | **8.44 221** | PN | **Pn** | **13 39 19.1** | **+0.8** |
| PREZ | | | AML | AML | 13 39 51.1 | |
| PREZ | | | AML | AML | 13 39 51.5 | |
| **POWZ** | **Post Office Ro** | **8.48 210** | PN | **Pn** | **13 39 14.3** | **-4.5** |
| POWZ | | | AML | AML | 13 40 52.6 | |
| POWZ | | | AML | AML | 13 40 54.2 | |
| **KHEZ** | **Kahui Hut** | **8.48 221** | PN | **Pn** | **13 39 19.0** | **+0.1** |
| **OHWZ** | **Ohakea** | **8.52 212** | PN | **Pn** | **13 39 15.7** | **-3.6** |
| **PRWZ** | **Pori Road** | **8.53 208** | PN | Pn | 13 39 14.4 | -5.1 |
| PRWZ | | | AML | AML | 13 40 52.0 | |
| PRWZ | | | AML | AML | 13 40 52.4 | |
| **BFZ** | **Birch Farm** | **8.54 206** | *e*Pn | Pn | 13 39 14.5 | -5.1 |
| BFZ | | | *e*Sn | **Sn** | **13 40 48.9** | **-5.7** |
| **BFZ** | **Birch Farm** | **8.54 206** | PN | Pn | 13 39 13.4 | -6.1 |
| BFZ | | | AML | AML | 13 40 51.8 | |
| BFZ | | | AML | AML | 13 40 51.8 | |
| BFZ | | | AML | AML | 13 40 52.6 | |
| BFZ | | | AML | AML | 13 40 52.6 | |
| **NWEZ** | **Newall Road** | **8.55 222** | PN | **Pn** | **13 39 20.5** | **+0.7** |
| **NMEZ** | **Namu Road** | **8.64 221** | PN | **Pn** | **13 39 20.7** | **-0.3** |
| **CPWZ** | **Castlepoint** | **8.75 206** | PN | Pn | 13 39 17.2 | -5.3 |
| CPWZ | | | AML | AML | 13 40 56.0 | |
| CPWZ | | | AML | AML | 13 41 04.4 | |
| **TIWZ** | **Tintock** | **8.76 208** | PN | Pn | 13 39 17.1 | -5.5 |
| TIWZ | | | AML | AML | 13 40 58.3 | |
| TIWZ | | | AML | AML | 13 40 58.4 | |
| **MRZ** | **Mangatainoka R** | **8.78 209** | PN | Pn | 13 39 16.8 | -6.2 |
| MRZ | | | AML | AML | 13 40 58.6 | |
| MRZ | | | AML | AML | 13 41 00.6 | |
| **HOWZ** | **Holdsworth Sta** | **9.01 209** | PN | Pn | 13 39 19.7 | -6.3 |
| HOWZ | | | AML | AML | 13 41 00.4 | |
| HOWZ | | | AML | AML | 13 41 00.9 | |
| **TMWZ** | **Te Maipa** | **9.04 207** | PN | Pn | 13 39 19.6 | -6.9 |
| TMWZ | | | AML | AML | 13 41 01.4 | |
| TMWZ | | | AML | AML | 13 41 02.8 | |
| **OGWZ** | **Otaki Gorge** | **9.08 211** | PN | Pn | 13 39 21.3 | -5.7 |
| OGWZ | | | AML | AML | 13 41 04.0 | |
| OGWZ | | | AML | AML | 13 41 04.8 | |
| **KIW** | **Kapiti Island** | **9.23 211** | PN | Pn | 13 39 22.5 | -6.6 |
| KIW | | | AML | AML | 13 41 09.5 | |
| KIW | | | AML | AML | 13 41 10.0 | |
| **MTW** | **Mount Morrison** | **9.23 208** | PN | Pn | 13 39 22.7 | -6.4 |
| MTW | | | AML | AML | 13 41 05.1 | |
| MTW | | | AML | AML | 13 41 06.1 | |
| **CAW** | **Cannon Point** | **9.37 210** | PN | Pn | 13 39 23.6 | -7.3 |
| CAW | | | AML | AML | 13 41 11.4 | |
| CAW | | | AML | AML | 13 41 12.7 | |
| **TRWZ** | **Traveller** | **9.37 207** | PN | Pn | 13 39 23.7 | -7.2 |
| TRWZ | | | AML | AML | 13 41 08.7 | |
| TRWZ | | | AML | AML | 13 41 13.9 | |
| **PAWZ** | **Paruwai Farm** | **9.45 208** | PN | Pn | 13 39 25.4 | -6.7 |
| PAWZ | | | AML | AML | 13 41 11.3 | |
| PAWZ | | | AML | AML | 13 41 12.5 | |
| **MSWZ** | **Moikau Station** | **9.55 208** | PN | Pn | 13 39 27.1 | -6.4 |
| MSWZ | | | AML | AML | 13 41 13.3 | |
| MSWZ | | | AML | AML | 13 41 13.4 | |
| **WEL** | **Wellington** | **9.64 210** | PN | Pn | 13 39 28.0 | -6.7 |
| WEL | | | AML | AML | 13 41 15.9 | |
| WEL | | | AML | AML | 13 41 15.9 | |
| WEL | | | AML | AML | 13 41 16.7 | |
| WEL | | | AML | AML | 13 41 16.7 | |
| **DUWZ** | **D'Urville Isla** | **9.64 215** | PN | Pn | 13 39 28.2 | -6.5 |
| **PLWZ** | **Palliser** | **9.68 208** | PN | Pn | 13 39 28.5 | -6.7 |
| PLWZ | | | AML | AML | 13 41 14.7 | |
| PLWZ | | | AML | AML | 13 41 14.9 | |
| **SNZO** | **South Karori** | **9.69 211** | *e*Pn | Pn | 13 39 29.2 | -6.1 |
| **BHW** | **Baring Head** | **9.70 210** | PN | Pn | 13 39 29.1 | -6.3 |
| BHW | | | AML | AML | 13 41 19.3 | |
| BHW | | | AML | AML | 13 41 19.6 | |
| **TCW** | **Tory Channel** | **9.79 213** | PN | Pn | 13 39 30.1 | -6.7 |
| TCW | | | AML | AML | 13 41 18.7 | |
| TCW | | | AML | AML | 13 41 21.6 | |
| **TUWZ** | **Tuamarina** | **10.12 213** | PN | Pn | 13 39 33.7 | -7.6 |
| TUWZ | | | AML | AML | 13 41 28.4 | |
| TUWZ | | | AML | AML | 13 41 29.2 | |
| **NNZ** | **Nelson** | **10.22 216** | PN | Pn | 13 39 35.8 | -6.8 |
| NNZ | | | AML | AML | 13 41 31.2 | |
| NNZ | | | AML | AML | 13 41 31.2 | |
| NNZ | | | AML | AML | 13 41 31.8 | |
| NNZ | | | AML | AML | 13 41 31.8 | |
| **CMWZ** | **Cape Campbell** | **10.26 211** | PN | Pn | 13 39 37.8 | -5.4 |
| CMWZ | | | AML | AML | 13 41 39.0 | |
| CMWZ | | | AML | AML | 13 41 48.1 | |
| **QRZ** | **Quartz Range** | **10.37 220** | PN | Pn | 13 39 38.4 | -6.2 |
| QRZ | | | AML | AML | 13 41 37.3 | |
| QRZ | | | AML | AML | 13 41 37.3 | |
| QRZ | | | AML | AML | 13 41 44.0 | |
| QRZ | | | AML | AML | 13 41 44.0 | |
| **BSWZ** | **Blackbirch Sta** | **10.38 212** | PN | Pn | 13 39 38.7 | -6.1 |
| BSWZ | | | AML | AML | 13 41 35.7 | |
| BSWZ | | | AML | AML | 13 41 39.0 | |
| **CTZ** | **Chatham Island** | **10.73 172** | PN | **Pn** | **13 39 45.8** | **-3.7** |
| **THZ** | **Tophouse** | **10.87 215** | *e*Pn | Pn | 13 39 44.5 | -7.0 |
| **THZ** | **Tophouse** | **10.87 215** | PN | Pn | 13 39 44.3 | -7.2 |
| THZ | | | AML | AML | 13 41 45.9 | |
| THZ | | | AML | AML | 13 41 46.9 | |
| **KHZ** | **Kahutara** | **11.09 211** | *e*Pn | Pn | 13 39 47.0 | -7.5 |
| **KHZ** | **Kahutara** | **11.09 211** | PN | Pn | 13 39 47.2 | -7.3 |
| KHZ | | | AML | AML | 13 41 51.3 | |
| KHZ | | | AML | AML | 13 41 57.1 | |
| KHZ | | | AML | AML | 13 41 57.6 | |
| KHZ | | | AML | AML | 13 41 57.6 | |
| **DSZ** | **Denniston Nort** | **11.41 218** | PN | Pn | 13 39 52.0 | -6.9 |
| DSZ | | | AML | AML | 13 42 00.1 | |
| DSZ | | | AML | AML | 13 42 00.1 | |
| DSZ | | | AML | AML | 13 42 00.8 | |
| DSZ | | | AML | AML | 13 42 00.9 | |
| **LTZ** | **Lake Taylor** | **11.95 214** | *e*Pn | Pn | 13 39 58.1 | -8.2 |
| **LTZ** | **Lake Taylor** | **11.95 214** | PN | Pn | 13 39 57.3 | -9.1 |
| LTZ | | | AML | AML | 13 42 12.4 | |
| **INZ** | **Inchbonnie** | **12.31 216** | PN | Pn | 13 40 02.8 | -8.3 |
| **CRLZ** | **Canterbury Las** | **12.43 210** | *e*Pn | Pn | 13 40 05.3 | -7.4 |
| **CRLZ** | **Canterbury Las** | **12.43 210** | PN | Pn | 13 40 05.1 | -7.6 |
| CRLZ | | | AML | AML | 13 42 21.9 | |
| CRLZ | | | AML | AML | 13 42 34.6 | |
| **OXZ** | **Oxford** | **12.48 213** | PN | Pn | 13 40 03.8 | -10 |
| OXZ | | | AML | AML | 13 42 19.7 | |
| OXZ | | | AML | AML | 13 42 19.8 | |
| OXZ | | | AML | AML | 13 42 21.3 | |
| OXZ | | | AML | AML | 13 42 21.3 | |
| **MQZ** | **McQueen's Vall** | **12.52 210** | PN | Pn | 13 40 05.1 | -8.9 |
| MQZ | | | AML | AML | 13 42 22.1 | |
| MQZ | | | AML | AML | 13 42 22.9 | |
| **WVZ** | **Waitaha Valley** | **12.91 217** | PN | Pn | 13 40 11.5 | -7.9 |
| WVZ | | | AML | AML | 13 42 34.7 | |
| WVZ | | | AML | AML | 13 42 34.8 | |
| **RPZ** | **Rata Peaks** | **13.24 214** | Pn | Pn | 13 40 16.1 | -7.8 |
| | 32nm,0.3s,baz=33,slow=1.2,SNR=217 | | | | | |
| RPZ | | | Sn | Sn | 13 42 35.6 | -14 |
| | 48nm,0.3s,baz=317,slow=17,SNR=14 | | | | | |
| RPZ | | | ScP | **ScP** | **13 49 23.9** | **+0.5** |
| | 0.3nm,0.3s,baz=318,slow=3.4,SNR=5.1 | | | | | |
| **RPZ** | **Rata Peaks** | **13.24 214** | PN | Pn | 13 40 15.6 | -8.3 |
| RPZ | | | AML | AML | 13 42 39.1 | |
| RPZ | | | AML | AML | 13 42 39.4 | |
| **FOZ** | **Fox Glacier** | **13.71 217** | PN | Pn | 13 40 21.3 | -9.0 |
| FOZ | | | AML | AML | 13 42 49.0 | |
| FOZ | | | AML | AML | 13 42 55.1 | |
| **LBZ** | **Lake Benmore** | **14.15 214** | PN | Pn | 13 40 28.2 | -8.2 |
| LBZ | | | AML | AML | 13 43 01.2 | |
| LBZ | | | AML | AML | 13 43 02.5 | |
| **ODZ** | **Otahua Downs** | **14.45 211** | PN | Pn | 13 40 31.6 | -8.9 |
| ODZ | | | AML | AML | 13 43 08.1 | |
| ODZ | | | AML | AML | 13 43 11.1 | |
| **JCZ** | **Jackson Bay** | **14.62 218** | PN | Pn | 13 40 33.1 | -10 |
| JCZ | | | AML | AML | 13 40 50.3 | |
| JCZ | | | AML | AML | 13 43 12.1 | |
| **WKZ** | **Wanaka** | **15.04 215** | PN | Pn | 13 40 39.8 | -8.6 |
| WKZ | | | AML | AML | 13 43 31.5 | |
| WKZ | | | AML | AML | 13 43 40.7 | |
| **HHSZ** | **Highcliff Hill** | **15.14 210** | PN | Pn | 13 40 42.6 | -7.1 |
| **EAZ** | **Earnscleugh** | **15.20 214** | PN | Pn | 13 40 41.4 | -9.0 |
| EAZ | | | AML | AML | 13 43 26.4 | |
| EAZ | | | AML | AML | 13 43 41.3 | |
| **MSVF** | **Nonsavu** | **15.59 349** | *e*P | **Pn** | **13 40 56.2** | **+0.5** |
| **MSVF** | **Nonsavu** | **15.59 349** | *e*Pn | **Pn** | **13 40 56.2** | **+0.5** |
| **TUZ** | **Tuapeka** | **15.61 211** | PN | Pn | 13 40 48.1 | -7.7 |
| TUZ | | | AML | AML | 13 41 15.0 | |
| TUZ | | | AML | AML | 13 44 01.9 | |
| **MLZ** | **Mavora Lakes** | **15.87 216** | PN | Pn | 13 40 51.3 | -7.9 |
| MLZ | | | AML | AML | 13 41 05.6 | |
| MLZ | | | AML | AML | 13 41 07.1 | |
| **SYZ** | **Scrubby Hill** | **16.28 211** | PN | Pn | 13 40 57.3 | -7.0 |
| SYZ | | | AML | AML | 13 44 11.5 | |
| SYZ | | | AML | AML | 13 44 32.7 | |
| **WHZ** | **Wether Hill Ro** | **16.34 215** | PN | Pn | 13 40 55.8 | -9.2 |
| WHZ | | | AML | AML | 13 41 09.4 | |
| WHZ | | | AML | AML | 13 43 54.0 | |
| **DCZ** | **Deep Cove** | **16.42 217** | PN | Pn | 13 40 57.8 | -8.3 |
| DCZ | | | AML | AML | 13 41 10.8 | |
| DCZ | | | AML | AML | 13 41 26.8 | |
| **APZ** | **The Paps** | **17.01 213** | PN | Pn | 13 41 06.2 | -7.5 |
| APZ | | | AML | AML | 13 41 14.7 | |
| APZ | | | AML | AML | 13 41 15.1 | |
| **DZM** | **Mont Dzumac** | **17.10 306** | Pn | **P** | **13 41 20.3** | **+4.0** |
| | 0.9nm,0.3s,baz=124,slow=16,SNR=18 | | | | | |
| DZM | | | LR | LR | 13 46 32.5 | |
| | comp=Z,14µm,21.2s,baz=144,slow=33 | | | | | |
| DZM | | | ScP | **ScP** | **13 49 31.9** | **+1.0** |
| | 0.2nm,0.3s,baz=133,slow=9.1,SNR=4.2 | | | | | |
| **DZM** | **Mont Dzumac** | **17.10 306** | *e*P | **P** | **13 41 21.0** | **+4.6** |
| | 585nm,1.2s | | | | | |
| DZM | | | *e*LQ | LQ | 13 44 30.3 | |
| | 11µm,30.0s | | | | | |
| DZM | | | *e*LR | LR | 13 45 17.7 | |
| | 22µm,24.1s | | | | | |
| **DZM** | **Mont Dzumac** | **17.10 306** | *e*P | **P** | **13 41 17.1** | **+0.7** |
| DZM | | | ScP | **ScP** | **13 49 31.9** | **+1.0** |
| **PYZ** | **Puysegur Point** | **17.15 216** | *e*Pn | Pn | 13 41 07.5 | -7.8 |
| **PYZ** | **Puysegur Point** | **17.15 216** | PN | Pn | 13 41 07.1 | -8.2 |
| PYZ | | | AML | AML | 13 41 19.3 | |
| **LHI** | **Lord Howe Isla** | **18.81 269** | P | **Pn** | **13 41 37.7** | **+1.9** |
| | baz=19,SNR=15 | | | | | |
| **AFI** | **Afiamalu** | **20.16 20** | P | **P** | **13 41 48.2** | **-1.7** |
| | 105nm,0.8s,baz=84,slow=15,SNR=12 | | | | | |
| AFI | | | S | **S** | **13 45 26.9** | **-7.6** |
| | 143nm,0.7s,baz=208,slow=23,SNR=6.5 | | | | | |
| **AFI** | **Afiamalu** | **20.16 

baz=27,SNR=45
**EIDS Eidsvold 27.36 278** *e*P **P 13 43 02.0 +1.6**
**TBI Tubuai 27.51 77** *e*P **P 13 43 03.9 +2.1**
comp=Z,131nm,1.1s
TBI *e*S **S 13 47 38.4 -2.1**
comp=Z,2μm,31.5s
TBI *e*LQ LQ 13 48 28.0
comp=Z,8μm,29.4s
TBI *e*LR LR 13 49 45.6
comp=Z,8μm,28.0s,baz=246
**TBI Tubuai 27.51 77** *e*T T 14 11 43.3
comp=Z,137nm,0.3s
**TAU Tasmania Unive 28.29 240** *e*P **P 13 43 09.1 +0.6**
TAU MLR MLR
comp=Z,8μm,20.0s
**TAU Tasmania Unive 28.29 240** *e*P **P 13 43 09.1 +0.6**
TAU LR LR
comp=Z,8μm,20.0s
**MOO Moorlands 28.31 241** P **P 13 43 10.1 +1.3**
baz=28,SNR=35
**RMQ Roma 28.87 275** P **P 13 43 17.2 +3.3**
baz=29,SNR=92
**TOO Toolangi 29.38 251** P **P 13 43 20.2 +1.8**
baz=30,SNR=36
**CMSA Cobar Meteorol 29.99 263** P **P 13 43 25.7 +1.8**
baz=30,SNR=91
**PAE Paea 30.39 67** *e*P **P 13 43 29.9 +2.5**
comp=Z,5.3nm,0.7s
**PAE Paea 30.39 67** *e*T T 14 15 17.8
comp=Z,32nm,0.2s
**PPT2 Papeete2 30.44 67** *e*P **P 13 43 30.7 +2.8**
comp=Z,65nm,1.0s
PPT2 *e*S **S 13 48 24.5 -2.3**
comp=Z,2μm,26.8s
PPT2 *e*LQ LQ 13 49 36.2
comp=Z,7μm,24.0s
PPT2 *e*LR LR 13 51 16.3
comp=Z,7μm,24.0s,baz=231
**PPT2 Papeete2 30.44 67** *e*T T 14 15 22.2
comp=Z,48nm,0.3s
**PPT Papeete 30.45 67** P **P 13 43 30.3 +2.3**
comp=Z,31nm,0.7s,baz=104,slow=8.1,SNR=4.1
PPT LR LR 13 52 30.3
comp=Z,3μm,20.3s,baz=239,slow=30
**TVO Taravao 30.58 67** *e*T T 14 15 31.8
comp=Z,4.1nm,0.3s
**TIAR Tiarei 30.64 67** *e*P **P 13 43 32.3 +2.7**
comp=Z,40nm,0.8s
**TIAR Tiarei 30.64 67** *e*T T 14 15 35.9
comp=Z,7.3nm,0.2s
**HNR Honiara 30.68 315** *e*P **P 13 43 30.0 0.0**
**HNR Honiara 30.68 315** P **P 13 43 31.7 +1.7**
comp=Z,184nm,0.7s,baz=154,slow=1.8,SNR=19
**HNR Honiara 30.68 315** *e*P **P 13 43 30.0 0.0**
HNR MLR MLR
comp=Z,1μm,20.0s
**HNR Honiara 30.68 315** *e*P **P 13 43 30.0 0.0**
HNR LR LR
comp=Z,1μm,20.0s
**ARPS Mount Arapiles 32.34 252** P **P 13 43 46.2 +1.7**
baz=32,SNR=16
**QLP Quilpie 32.63 272** P **P 13 43 48.6 +1.5**
baz=33,SNR=44
**PMOR Pomariorio Ree 33.28 65** *e*T T 14 18 54.0
comp=Z,19nm,0.3s
**STKA Stephens Creek 33.32 261** P **P 13 43 54.4 +1.3**
comp=Z,26nm,0.9s,baz=94,slow=9.8,SNR=31
STKA ScP **ScP 13 50 12.1 -4.3**
comp=Z,10.0nm,0.9s,baz=79,slow=5.3,SNR=4.7
STKA PKiKP **PKiKP 13 53 60.0 -0.1**
comp=Z,3.0nm,0.7s,baz=13,slow=2.8,SNR=4.8
STKA LR LR 13 56 42.0
comp=Z,5μm,18.6s,baz=102,slow=35
**STKA Stephens Creek 33.32 261** P **P 13 43 54.6 +1.5**
baz=33,SNR=20
**STKA Stephens Creek 33.32 261** *e*P **P 13 43 53.9 +0.8**
**STKA Stephens Creek 33.32 261** *e*P **P 13 43 53.9 +0.8**
STKA ScP **ScP 13 50 12.1 -4.3**
STKA PKiKP **PKiKP 13 53 60.0 -0.1**
**VAH Vaihoa 33.34 65** *e*P **P 13 43 55.9 +2.5**
comp=Z,80nm,0.9s
**VAH Vaihoa 33.34 65** *e*T T 14 18 58.6
comp=Z,108nm,0.2s
**CTA Charters Tower 33.70 284** S **S 13 49 17.9 +0.3**
comp=Z,32nm,1.2s,baz=301,slow=17,SNR=9.2
CTA LR LR 13 55 27.6
comp=Z,2μm,21.6s,baz=116,slow=33
**CTAO Charters Tower 33.70 284** *e*P **P 13 43 58.1 +1.5**
CTAO MLR MLR
comp=Z,4μm,22.0s
**CTAO Charters Tower 33.70 284** *e*P **P 13 43 58.0 +1.5**
CTAO LR LR
comp=Z,4μm,22.0s
**TARA Tarawa 35.18 345** PFAKE 13 44 20.0 +11
TARA LR LR
comp=Z,265nm,20.0s
**MTSU Mount Surprise 36.27 285** P **P 13 44 19.4 +0.7**
baz=36,SNR=64
**BBOO Buckleboo 37.68 258** P **P 13 44 30.6 +0.1**
baz=38,SNR=48
**BBOO Buckleboo 37.68 258** *e*P **P 13 44 29.9 -0.7**
**QIS Mount Isa 38.96 278** P **P 13 44 42.3 +0.9**
baz=39,SNR=54
**PMG Port Moresby 39.27 299** S **S 13 50 40.8 -1.8**
comp=Z,7.0nm,0.8s,baz=23,slow=7.5,SNR=3.1
PMG LR LR 13 58 31.3
comp=Z,3μm,20.1s,baz=148,slow=33
**PMG Port Moresby 39.27 299** *e*P **P 13 44 45.0 +1.0**
PMG S **S 13 50 40.8 -1.8**
**PMG Port Moresby 39.27 299** *e*P **P 13 44 45.0 +1.0**
PMG S **S 13 50 40.8 -1.8**
**COEN Coen 39.48 290** P **P 13 44 46.1 +0.3**
baz=39,SNR=48
**COEN Coen 39.48 290** *e*P **P 13 44 43.8 -2.1**
**RABL Rabaul 39.56 310** *e*P **P 13 44 44.7 -1.7**
**RKT Rikitea 39.64 87** *e*S **S 13 50 46.8 -1.3**
comp=Z,1μm,28.8s
RKT *e*LR LR 13 55 34.6
comp=Z,8μm,24.2s
**RKT Rikitea 39.64 87** *e*T T 14 26 53.2
comp=Z,7.2nm,0.2s
**AS01 Alice Springs 42.35 270** *e*P **P 13 45 09.4 -0.1**
**AS31 Alice Springs 42.39 270** *e*P **P 13 45 10.0 +0.2**
**ASAR Alice Springs 42.39 270** P **P 13 45 10.0 +0.2**
comp=Z,136nm,0.9s,baz=110,slow=7.3,SNR=385
ASAR S **S 13 51 25.1 -4.1**
comp=Z,30nm,0.8s,baz=116,slow=15,SNR=26
ASAR PKiKP **PKiKP 13 54 07.1 -0.7**
comp=Z,2.9nm,0.7s,baz=95,slow=1.1,SNR=5.7
ASAR LR LR 14 02 23.0
comp=Z,3μm,18.0s,baz=132,slow=36
**PTCN Pitcairn Islan 42.96 92** PFAKE 13 45 30.0 +16
PTCN LR LR
comp=Z,4μm,19.0s
**TAOE Nuku Hiva Isla 43.02 65** *e*S **S 13 51 36.0 -2.4**
comp=Z,2μm,26.9s
TAOE *e*LR LR 13 56 51.7
comp=Z,4μm,27.1s
**WB2 Warramunga Arr 43.62 275** *e*P **P 13 45 18.7 -1.0**
**WRAB Tennant Creek 43.62 275** *c i*P **P 13 45 17.6 -2.1**
WRAB pmax pmax
comp=Z,324nm,1.0s
**WRAB Tennant Creek 43.62 275** *e*P **P 13 45 18.4 -1.3**
WRAB LR LR
comp=Z,2μm,19.0s
**WRA Warramunga Arr 43.63 275** P **P 13 45 19.9 +0.2**
comp=Z,96nm,0.6s,baz=115,slow=7.7,SNR=638
WRA ScP **ScP 13 50 53.4 -2.3**
comp=Z,9.5nm,1.0s,baz=115,slow=4.0,SNR=6.1
WRA S **S 13 51 40.5 -6.7**
comp=Z,7.4nm,0.7s,baz=118,slow=14,SNR=6.1
WRA PKiKP **PKiKP 13 54 08.2 -0.8**
comp=Z,3.8nm,0.7s,baz=137,slow=0.3,SNR=7.8
WRA LR LR 14 03 27.0
comp=Z,2μm,18.1s,baz=135,slow=36
**FORT Forrest 44.78 258** P **P 13 45 28.3 -0.6**
baz=45,SNR=54
**FORT Forrest 44.78 258** *e*P **P 13 45 27.8 -1.1**
**SBA Scott Base 45.28 184** *e*P **P 13 45 33.6 +1.4**
SBA MLR MLR
comp=Z,2μm,21.0s
**SBA Scott Base 45.28 184** *e*P **P 13 45 33.6 +1.4**
SBA LR LR
comp=Z,2μm,21.0s
**VNDA Vanda 45.33 186** P **P 13 45 35.8 +3.2**
comp=Z,5.5nm,0.7s,baz=0.3,slow=7.8,SNR=35
VNDA ScP **ScP 13 51 03.1 +1.5**
comp=Z,8.2nm,1.0s,baz=346,slow=3.6,SNR=3.5
**VNDA Vanda 45.33 186** *e*P **P 13 45 34.2 +1.6**
**VNDA Vanda 45.33 186** *e*P **P 13 45 34.2 +1.6**
VNDA ScP **ScP 13 51 03.1 +1.5**
**WRKA Warakurna 46.56 266** P **P 13 45 42.3 -0.7**
baz=47,SNR=242
**JAY Jayapura 48.63 300** P **P 13 45 58.6 -0.6**
**KDU Kakadu 48.81 283** P **P 13 46 00.8 +0.2**
baz=49,SNR=10
**GENI Genyem 48.97 300** P **P 13 46 00.6 -1.1**
**KMBL Kambalda 49.64 255** P **P 13 46 05.9 -0.9**
baz=50,SNR=25
**MTN Manton Dam 49.83 282** P **P 13 46 08.4 +0.1**
baz=50,SNR=45
**MTN Manton Dam 49.83 282** *e*P **P 13 46 07.2 -1.1**
**KNRA Kununurra 50.33 277** P **P 13 46 12.2 +0.1**
baz=50,SNR=28
**JOHN Johnston Islan 50.35 12** PFAKE 13 46 20.0 +7.9
JOHN LR LR
comp=Z,211nm,19.0s
**FITZ Fitzroy Crossi 51.76 272** S **S 13 53 38.7 -4.0**
comp=Z,7.8nm,1.1s,baz=24,slow=21,SNR=6.8
**RKGY Rocky Gully 52.55 249** P **P 13 46 27.7 -0.8**
baz=53,SNR=10
**NWAO Narrogin (SRO) 52.87 251** LR LR 14 05 14.5
comp=Z,2μm,21.9s,baz=324,slow=32
**NWAO Narrogin (SRO) 52.87 251** *e*P **P 13 46 29.6 -1.4**
NWAO pmax pmax
comp=Z,90nm,1.5s
**NWAO Narrogin (SRO) 52.87 251** *e*P **P 13 46 29.1 -1.9**
**BAKI Biak 52.91 297** P **P 13 46 31.1 -0.3**
BAKI pP **sP 13 46 46.0 +0.2**
**WAKE Wake Island 53.94 343** PFAKE 13 46 50.0 +11
WAKE LR LR
comp=Z,3μm,20.0s
**MEEK Meekatharra 53.99 259** P **P 13 46 38.0 -1.3**
baz=54,SNR=58
**MUN Mundaring 54.01 252** P **P 13 46 38.2 -1.1**
baz=54,SNR=16
**FAKI Fak Fak 54.73 293** P **P 13 46 42.8 -1.9**
FAKI pP **sP 13 46 57.0 -2.2**
**FAKI Fak Fak 54.73 293** *e*P **P 13 46 43.7 -1.0**
**MORW Morawa 55.18 255** P **P 13 46 46.7 -1.1**
baz=55,SNR=21
**MBWA Marble Bar 55.33 266** *e*P **P 13 46 47.7 -1.3**
MBWA LR LR
comp=Z,2μm,19.0s
**SWI Sorong 56.79 294** P **P 13 46 59.6 +0.1**
comp=Z,101nm,0.8s,comp=Z,2μm
**POHA Pohakuloa 57.08 26** *e*P **P 13 47 03.5 +1.9**
comp=Z,156nm,0.9s
POHA LR LR
comp=Z,3μm,20.0s
**SOEI Soe 57.15 280** P **P 13 47 03.9 +1.7**
comp=Z,335nm,0.9s,comp=Z,2μm
**SOEI Soe 57.15 280** *e*P **P 13 47 02.8 +0.5**
**HPAH Hawaii Prepara 57.26 26** *e*P **P 13 47 04.0 +1.3**
**KIP Kipapa 57.74 23** *e*P **P 13 47 07.4 +1.4**
KIP pmax pmax
comp=Z,220nm,1.2s
**KIP Kipapa 57.74 23** *e*P **P 13 47 07.1 +1.1**
**GUMO Guam 57.99 317** LR LR 14 09 35.7
comp=Z,1μm,21.3s,baz=124,slow=34
**GIRL Giralia 59.27 262** P **P 13 47 17.1 +0.3**
baz=59,SNR=8.6
**RPN Rapa Nui 59.37 104** P **P 13 47 18.8 +1.3**
comp=Z,46nm,0.6s,baz=117,slow=2.3,SNR=4.1
RPN LR LR 14 06 31.4
comp=Z,1μm,21.2s,baz=194,slow=30
**MMRI Maumere 59.44 280** P **P 13 47 17.8 -0.3**
comp=Z,224nm,1.1s,comp=Z,3μm
**MMRI Maumere 59.44 280** *e*P **P 13 47 17.0 -1.1**
**EDFI Ende, Flores 59.83 280** P **P 13 47 20.4 -0.5**
comp=Z,50nm,0.9s,comp=Z,906nm
**LBMI Labuha 59.84 291** P **P 13 47 19.8 -1.1**
**PALU Palau 59.92 303** P **P 13 47 20.9 -0.5**
baz=60,SNR=3.3
**SANI Sanana 60.17 289** P **P 13 47 22.6 -0.5**
**TNTI Ternate 60.83 292** *e*P **P 13 47 26.3 -1.2**
**MIDW Midway 61.02 1** *e*P **P 13 47 28.1 -0.3**
MIDW LR LR
comp=Z,5μm,19.0s
**KDI Kendari 61.76 285** P **P 13 47 33.4 -0.5**
**PLAI Plampang 63.03 277** P **P 13 47 41.1 -1.3**
**LUWI Luwuk 63.34 288** P **P 13 47 43.9 -0.5**
**LUWI Luwuk 63.34 288** *e*P **P 13 47 42.8 -1.7**
**KMSI Cibinong 63.36 290** P **P 13 47 43.8 -0.7**
**KAPI Kappang 63.49 282** *e*P **P 13 47 45.0 -0.4**
comp=Z,35nm,0.8s
KAPI LR LR
comp=Z,673nm,20.0s
**KAPI Kappang 63.49 282** P **P 13 47 45.9 +0.4**
SNR=5.7
KAPI P **P 13 47 45.9 +0.4**
SNR=5.7
**KAPI Kappang 63.49 282** P **P 13 47 45.9 +0.4**
SNR=5.7
**SPSI Sidrap Palu 64.07 283** P **P 13 47 48.1 -1.2**
**APSI Ampana 64.32 287** P **P 13 47 50.6 -0.3**
**TTSI Tana Toraja 64.56 284** P **P 13 47 51.0 -1.4**
**MRSI Marisa 64.92 288** P **P 13 47 53.1 -1.7**
**PCI Palu 65.78 286** P **P 13 48 00.6 +0.2**
**DAV Davao City (W) 66.21 296** PFAKE 13 48 10.0 +6.9
DAV LR LR
comp=Z,524nm,22.0s
**JAGI Jajag, Banyuwa 66.25 275** P **P 13 48 03.7 +0.3**
comp=Z,121nm,1.1s,comp=Z,1μm
**JAGI Jajag, Banyuwa 66.25 275** *e*P **P 13 48 00.9 -2.5**
**MPSI Mapaga 66.47 287** P **P 13 48 04.4 -0.4**
**ABJI Asem Bagus 66.54 276** P **P 13 48 10.5 +5.3**
**MAW Mawson 69.54 201** P **P 13 48 24.5 +1.2**
comp=Z,65nm,0.8s,baz=127,slow=7.7,SNR=25
MAW LR LR 14 18 02.3
comp=Z,2μm,21.3s,baz=110,slow=35
**MAW Mawson 69.54 201** P **P 13 48 25.8 +2.6**
baz=70,SNR=14
**MAW Mawson 69.54 201** *e*P **P 13 48 21.4 -1.8**
**PMSA Palmer Station 70.06 156** *e*P **P 13 48 25.9 -0.6**
PMSA LR LR
comp=Z,1μm,19.0s
**CBIJ Chichi jima 70.45 323** *e*P **P 13 48 28.3 -1.0**
**JCJ Chichijima 70.45 323** P **P 13 48 28.2 -1.2**
comp=Z,58nm,0.6s,baz=198,slow=3.2,SNR=5.5
JCJ LR LR 14 15 12.9
comp=Z,492nm,21.8s,baz=140,slow=32
**MYLDM Lahad Datu 70.48 290** *e*P **P 13 48 28.7 -1.2**
**CISI Cisompet, Garu 72.04 273** *e*P **P 13 48 35.8 -3.6**
**KKM Kota Kinabalu 72.81 289** *e*P **P 13 48 42.3 -1.7**
KKM LR LR
comp=Z,586nm,19.0s
**SBUM Sibu 73.91 284** *e*P **P 13 48 48.3 -2.1**
**USHA Ushuaia 74.04 146** P **P 13 48 51.4 +0.9**
comp=Z,184nm,1.0s,baz=239,slow=5.7,SNR=13
**SYO Syowa Base 74.32 193** ‖ *i*P **P 13 48 51.0 -0.9**
**SYO Syowa Base 74.32 193** ‖ *i*pP **P 13 48 54.4 +2.5**
**KSM Kuching 74.92 282** *e*P **P 13 48 53.5 -2.8**
KSM LR LR
comp=Z,731nm,19.0s
**SNAA Sanae 75.46 179** P **P 13 48 59.7 +1.1**
**SNAA Sanae 75.46 179** *c i*P **P 13 48 55.9 -2.6**
**SNAA Sanae 75.46 179** *e*P **P 13 48 59.5 +0.9**
**VNA3 Neumayer Olymp 75.64 176** P **P 13 49 00.6 +1.1**
**VNA2 Neumayer--Watz 76.06 177** P **P 13 49 03.3 +1.4**
baz=170,slow=5.0
**NVL N'lazarevskaya 76.13 184** *e*P **P 13 49 03.6 +1.3**
NVL *e* 13 51 56.2
NVL *e*S **S 13 58 43.1 -0.1**
NVL MLR MLR
comp=Z,2μm,25.0s
**CHRN Cochrane 76.18 138** *e*P **P 13 49 04.0 +1.1**
**VNA1 Neumayer--Stat 76.30 177** P **P 13 49 04.7 +1.5**
**PAF Port-aux-Franc 77.61 219** PFAKE 13 49 20.0 +9.0
PAF LR LR
comp=Z,4μm,20.0s
**COCO West Island 78.81 263** PFAKE 13 49 30.0 +12
COCO LR LR
comp=Z,1μm,20.0s
**INU Inuyama 79.72 325** *e*P **P 13 49 22.4 -0.2**
**MJAR Matsushiro Arr 80.12 326** P **P 13 49 23.1 -1.7**
comp=Z,9.3nm,0.8s,baz=155,slow=5.1,SNR=21
MJAR LR LR 14 21 50.1
comp=Z,294nm,20.2s,baz=155,slow=34
**MAJO Matsushiro 80.12 326** *e*P **P 13 49 24.3 -0.5**
**MAJO Matsushiro 80.12 326** *e*P **P 13 49 24.0 -0.8**
MAJO LR LR
comp=Z,852nm,21.0s
**MAT Matsushiro 80.12 326** P **P 13 49 23.3 -1.5**
MAT S **S 13 59 23.6 -3.3**
**MJB9 Matsu-Tunnel 80.12 326** *e*P **P 13 49 24.2 -0.6**
**SSLB Suanglung 80.62 306** *e*P **P 13 49 26.0 -1.8**
**EFI East Falkland 80.86 147** *e*P **P 13 49 29.7 +1.0**
**EFI East Falkland 80.86 147** *e*P **P 13 49 28.9 +0.2**
EFI LR LR
comp=Z,2μm,22.0s
**YHNB Yeheng 80.93 307** PFAKE 13 49 40.0 +11
YHNB LR LR
comp=Z,1μm,22.0s
**PLCA Paso Flores 81.13 133** P **P 13 49 31.9 +1.5**
comp=Z,40nm,1.0s,baz=253,slow=6.0,SNR=32
PLCA LR LR 14 22 04.6
comp=Z,339nm,18.1s,baz=274,slow=33
**PLCA Paso Flores 81.13 133** *e*P **P 13 49 32.0 +1.5**
**PLCA Paso Flores 81.13 133** *e*P **P 13 49 31.5 +1.0**
**JNU Nakatsue 81.17 319** *e*P **P 13 49 29.7 -0.8**
**ERM Erimo 82.56 332** *d i*P **P 13 49 37.5 0.0**
ERM pmax pmax
comp=Z,83nm,0.8s
**ERM Erimo 82.56 332** *e*P **P 13 49 38.8 +1.3**
ERM LR LR
comp=Z,2μm,22.0s
**H06S1 SOCORRO T 82.72 62** P **P 13 49 41.2 +2.3**
**H06E1 SOCORRO T-PHAS 82.77 62** P **P 13 49 39.5 +0.4**
**YUK Yuzh-Kuril'sk 83.29 335** *e*P **P 13 49 41.7 +0.4**
YUK *e* 13 52 50.9
YUK *e*S **S 14 00 00.0 +0.8**
YUK pmax pmax
comp=N,57nm,1.2s
YUK pmax pmax
comp=E,64nm,1.2s
YUK pmax pmax
comp=Z,156nm,1.2s
YUK pmax pmax
comp=Z,422nm,3.1s
**GO05 HualaæØ 83.62 128** *e*P **P 13 49 43.4 -0.2**
**KUR Kuril'sk 83.66 337** *e*P **P 13 49 45.6 +2.5**
KUR *e*S **S 14 00 05.9 +3.0**
KUR MLR MLR
comp=N,509nm,15.0s
KUR MLR MLR
comp=Z,639nm,15.0s
**IPM Ipoh 84.26 279** *e*P **P 13 49 45.0 -2.0**
**ASAJ Asahikawa 84.56 333** P **P 13 49 49.1 +1.3**
comp=Z,34nm,0.8s,baz=211,slow=7.3,SNR=33
**ASAJ Asahikawa 84.56 333** *e*P **P 13 49 48.6 +0.8**
**KULM Kulim 85.02 280** PFAKE 13 50 00.0 +9.2
KULM LR LR
comp=Z,906nm,20.0s
**ATKA Atka Island 85.06 3** *e*P **P 13 49 49.8 -0.2**
**PSI Prapat 85.08 277** *e*P **P 13 49 49.1 -2.3**
**PSI Prapat 85.08 277** *e*P **P 13 49 49.1 -2.3**
**GSI Gunungsitoli 85.39 275** *e*P **P 13 49 51.6 -1.2**
**SSE Sheshan 85.42 312** P **P 13 49 52.0 -0.4**
SSE S **S 14 00 20.1 -0.9**
SSE pmax pmax
comp=Z,18nm,0.7s
SSE pmax pmax
comp=Z,200nm,4.1s
SSE LR LR
comp=Z,210nm,25.6s
SSE LR LR
comp=Z,240nm,25.4s
SSE LR LR
comp=Z,260nm,25.4s
**ROC1 El Roble 85.43 127** *i*P P 13 50 01.0 +8.0
**TJN Taejon 85.52 319** *e*P **P 13 49 51.7 -1.0**
**PEL Peldehue 85.56 127** *e*P **P 13 49 53.8 +0.4**
**PEL Peldehue 85.56 127** *e*P **P 13 49 53.3 -0.1**
**QIZ Qiongzhong 85.58 296** P **P 13 49 52.8 -0.7**
QIZ sP **PcP 13 49 59.8 +3.4**
QIZ PP **PP 13 53 11.8 -1.0**
QIZ S **S 14 00 25.8 +2.6**
QIZ SS **SS 14 06 00.8 +0.7**
QIZ LR LR
comp=Z,540nm,30.9s
**QIZ Qiongzhong 85.58 296** PFAKE 13 50 00.0 +6.5
QIZ LR LR
comp=Z,497nm,22.0s
**KSRS Korea Array 86.01 320** P **P 13 49 55.2 +0.1**
comp=Z,6.6nm,0.5s,baz=138,slow=5.8,SNR=22
KSRS LR LR 14 26 49.3
comp=Z,231nm,18.6s,baz=138,slow=35
**KS15 Wonju Array Si 86.02 320** *e*P **P 13 49 54.6 -0.6**
**KSAR Wonju Array Be 86.02 320** P **P 13 49 55.2 0.0**
**KSAR Wonju Array Be 86.02 320** P **P 13 49 55.2 0.0**
**KS01 Wonju Array Si 86.04 320** *e*P **P 13 49 54.9 -0.4**
**NIKH Nikolski High 86.17 6** *e*P **P 13 49 55.8 +0.2**
**SNCC San Nicolas Is 86.39 46** P **P 13 49 59.6 +2.4**
baz=226
**LPIG La Paz 86.52 58** P **P 13 50 00.3 +2.4**
comp=Z,28nm,0.3s,baz=104,slow=1.8,SNR=7.1
**INCN Inchon 86.73 319** PFAKE 13 50 10.0 +11
INCN LR LR
comp=Z,575nm,20.0s
**SCI2 San Clemente I 86.81 47** P **P 13 50 01.3 +2.1**
baz=227
**AAGR Agrelo 86.83 128** *i*P **P 13 50 01.5 +1.8**
**SCZ2 Santa Cruz Isl 86.84 46** P **P 13 50 01.9 +2.5**
baz=226
**YSS Yuzh-Sakhalins 86.92 335** *o*eP **P 13 50 04.4 +1.0**
YSS *e**SP **sP 13 50 15.2 +0.9**
YSS *e* 14 00 21.6
YSS *e*S **S 14 00 38.2 +3.3**
YSS *e*PS **PnS 14 01 29.0 -9.2**
YSS *e*SS **SS 14 06 18.0 -0.8**
YSS pmax pmax
comp=Z,600nm,2.9s
YSS pmax pmax
comp=Z,90nm,0.9s
YSS MLR MLR
comp=Z,500nm,19.0s
YSS MLR MLR
comp=E,500nm,21.0s
**YSS Yuzh-Sakhalins 86.92 335** *e*P **P 13 49 59.7 +0.4**
YSS LR LR
comp=Z,521nm,20.0s
**AUSP Uspallata 86.98 127** *i*P **P 13 50 02.8 +2.1**
**HOPE Hope Point 87.06 159** *e*P **P 13 50 01.2 +1.0**
HOPE LR LR
comp=Z,1μm,20.0s
**SBC Santa Barbara 87.11 45** P **P 13 50 02.9 +2.3**
baz=226
**ASAL Salagasta 87.13 127** *i*P **P 13 50 02.5 +1.3**
**CIS Catalina Islan 87.17 47** P **P 13 50 03.0 +1.9**
baz=227,SNR=7.4
**SRIG Santa Rosalia 87.18 55** *e*P **P 13 50 01.7 +0.5**
**UNV Unalaska Valle 87.26 7** *e*P **P 13 50 01.1 +0.3**
**BLG Laguna Peak, P 87.26 46** P **P 13 50 03.5 +2.0**
baz=226
**RTLS Leoncito 87.30 127** *i*P **P 13 50 03.8 +1.5**
**PKM Mcpherson Peak 87.35 45** P **P 13 50 04.6 +2.5**
baz=226
**FMP Fort Macarthur 87.46 47** P **P 13 50 04.5 +2.2**
baz=227
**NJ2 Nanjing 87.53 311** *e*P **P 13 50 02.5 -0.2**
NJ2 pmax pmax
comp=Z,24nm,0.6s
**SMMC Simmler 87.54 44** P **P 13 50 05.5 +2.7**
baz=226
**109C Camp Elliot, M 87.63 48** P **P 13 50 05.3 +2.1**
baz=228
**PAGB Antelope Grade 87.68 44** *e*P **P 13 50 04.1 +0.7**
**PMPB Monarch Peak 87.70 43** *e*P **P 13 50 04.9 +1.4**
**SAO San Andreas Ge 87.72 43** *e*P **P 13 50 03.3 -0.3**
**SAO San Andreas Ge 87.72 43** *e*P **P 13 50 03.3 -0.3**
**BAR Barrett 87.76 48** *e*P **P 13 50 05.7 +1.8**
**RTCV Cerro Valdivia 87.77 127** *i*P **P 13 50 05.1 +0.9**
**DECC Green Verdugo 87.80 46** P **P 13 50 06.0 +1.9**
baz=227
**OSI Osito Audit: C 87.81 46** P **P 13 50 06.4 +2.3**
baz=227,SNR=6.1
**OSI Osito Audit: C 87.81 46** *e*P **P 13 50 06.0 +1.9**
**PASC Pasadena Art C 87.84 46** *e*P **P 13 50 05.2 +1.1**
**MCCM Marconi Confer 87.90 41** *e*P **P 13 50 05.0 +0.7**
**MWC Mount Wilson 87.95 46** *e*P **P 13 50 06.3 +1.4**
**MWC Mount Wilson 87.95 46** *e*P **P 13 50 06.3 +1.4**
**TRQA Tornquist 87.97 135** *e*P **P 13 50 05.2 +0.1**
TRQA LR LR
comp=Z,564nm,19.0s
**PET Petropavlovsk 88.02 347** *e*P **P 13 50 02.6 -1.9**

PET eS S 14 00 43.2 -2.0
PET ePS PnS 14 01 48.6 -2.5
PET eSS SS 14 06 32.0 -2.6
PET eSSS SSS 14 10 09.3
PET pmax pmax
comp=Z,47nm,1.6s
PET pmax pmax
comp=Z,300nm,16.3s
**PET Petropavlovsk 88.02 347** eP P 13 50 04.9 +0.5
PET LR LR
comp=Z,1µm,22.0s
**LCO Las Campanas 88.02 124** eP P 13 50 06.2 +0.4
LCO LR LR
comp=Z,1µm,22.0s
**MURC Murrieta 88.06 47** P P 13 50 07.6 +2.3
baz=228,SNR=33
**MONP2 Monument Peak 88.06 48** P P 13 50 08.0 +2.5
baz=228,SNR=34
**IKP In-Ko-Pah, Jac 88.10 49** P P 13 50 08.0 +2.5
baz=228,SNR=24
**ARVC Arvin 88.10 45** P P 13 50 07.7 +2.3
baz=227,SNR=30
**RTLL Cerro Villicun 88.14 127** *i* P P 13 50 06.8 +0.8
**BFSC Mount Baldy Ra 88.20 47** P P 13 50 08.3 +2.2
baz=227,SNR=62
**PEA0B Petropavlovsk- 88.29 346** eP P 13 50 06.2 +0.3
**PETK Petropavlovsk- 88.29 346** P P 13 50 06.4 +0.6
comp=Z,55nm,0.9s,baz=118,slow=5.7,SNR=37
PETK PKiKP **PKiKP** 13 55 08.0 +0.9
comp=Z,3.1nm,0.8s,baz=108,slow=4.7,SNR=4.2
PETK LR LR 14 23 28.8
comp=Z,1µm,21.6s,baz=157,slow=32
**PETK Petropavlovsk- 88.29 346** eP P 13 50 06.1 +0.3
**PETK Petropavlovsk- 88.29 346** eP P 13 50 06.1 +0.3
PETK PKiKP **PKiKP** 13 55 08.0 +0.9
**PAYG Puerto Ayora 88.36 90** eP P 13 50 07.7 +0.5
PAYG LR LR
comp=Z,853nm,19.0s
**AMOG MOGNA 88.37 126** *i* P P 13 50 08.4 +1.3
**HOPS Hopland Field 88.41 40** eP P 13 50 08.9 +2.2
**EDW2 Edwards Air Fo 88.44 46** P P 13 50 09.6 +2.5
baz=227,SNR=92
**VES Vestal, Richgr 88.44 45** P P 13 50 09.1 +2.1
baz=226,SNR=36
**SWSC Sam W. Stewart 88.49 49** P P 13 50 09.7 +2.4
baz=228,SNR=17
**PFO Pinyon Flats O 88.52 48** P P 13 50 10.0 +2.4
comp=Z,53nm,0.9s,baz=248,slow=3.4,SNR=60
**PFO Pinyon Flats O 88.52 48** P P 13 50 10.0 +2.4
baz=228,SNR=42
**PFO Pinyon Flats O 88.52 48** eP P 13 50 08.5 +0.9
PFO MLR MLR
comp=Z,2µm,20.0s
**PFO Pinyon Flats O 88.52 48** eP P 13 50 08.5 +0.9
PFO LR LR
comp=Z,2µm,20.0s
**XPFO Piæon Flat 88.52 48** eP P 13 50 08.3 +0.7
**FALS False Pass 88.61 9** P P 13 50 08.6 +1.3
comp=Z,110nm,1.0s
**BBRC Big Bear Solar 88.67 47** P P 13 50 10.8 +2.4
baz=228,SNR=7.7
**ISA Isabella, Lake 88.68 45** P P 13 50 10.6 +2.3
baz=227,SNR=50
**SKNT Sakolnakorn 88.89 291** P P 13 50 12.4 +2.9
comp=Z,35nm,2.3s
**KMRM Mail Ridge 88.95 39** eP P 13 50 11.3 +1.9
**LRMC Laurel Mtn Rad 89.03 46** P P 13 50 12.1 +2.2
baz=227,SNR=71
**RRX Edison Barstow 89.03 46** P P 13 50 12.1 +2.3
baz=228,SNR=8.1
**BELC Belle Mtn. Jos 89.06 48** P P 13 50 12.9 +2.7
baz=228,SNR=57
**USRK Ussuriysk Ar. 89.08 327** P P 13 50 10.0 +0.2
comp=Z,27nm,0.8s,baz=137,slow=3.6,SNR=37
USRK LR LR 14 26 49.6
comp=Z,482nm,19.7s,baz=132,slow=34
**HSIG 89.14 54** eP P 13 50 12.0 +1.6
**GLA Glamis 89.17 49** P P 13 50 13.5 +3.0
baz=229,SNR=37
**GLA Glamis 89.17 49** eP P 13 50 13.1 +2.5
**GLA Glamis 89.17 49** eP P 13 50 13.1 +2.5
**BC3 Big Chuckawall 89.17 48** P P 13 50 13.4 +2.8
baz=229,SNR=63
**CMB Columbia Colle 89.21 42** eP P 13 50 12.2 +1.6
**CMB Columbia Colle 89.21 42** eP P 13 50 12.2 +1.6
**AGUA GUANDACOL 89.26 125** *i* P P 13 50 13.2 +1.8
**HEC Hector,Ludlow 89.41 47** P P 13 50 14.0 +2.4
baz=228,SNR=18
**KHMM Horse Mountain 89.42 38** eP P 13 50 13.7 +2.0
**GSC Goldstone, Bar 89.44 46** P P 13 50 14.0 +2.2
baz=228,SNR=62
**GSC Goldstone, Bar 89.44 46** eP P 13 50 13.7 +1.9
**GSC Goldstone, Bar 89.44 46** eP P 13 50 13.7 +1.9
**KHON Khomkaen 89.44 290** P P 13 50 15.8 +3.7
comp=Z,11nm,0.7s
**CWC Cottonwood Cre 89.44 45** P P 13 50 13.9 +2.0
baz=227
**SDPT Sand Point 89.50 10** eP P 13 50 12.5 +1.1
**AFDM Forest Hills D 89.52 41** eP P 13 50 12.9 +0.8
**MPMC Manual Prospec 89.53 45** P P 13 50 14.6 +2.2
baz=227,SNR=51
**DAC Darwin (Calif) 89.62 45** eP P 13 50 14.2 +1.4
**DAC Darwin (Calif) 89.62 45** eP P 13 50 14.2 +1.4
**ORV Oroville 89.66 41** eP P 13 50 14.0 +1.4
**ORV Oroville 89.66 41** eP P 13 50 14.0 +1.4
**113A Mohawk Valley, 89.66 50** eP P 13 50 14.9 +2.1
**MDPB Devils Postpil 89.68 43** eP P 13 50 14.8 +1.7
**IRM Iron Mountain 89.70 48** P P 13 50 15.8 +2.9
baz=229,SNR=136
**TIN Tinemaha, Big 89.77 44** P P 13 50 15.5 +2.1
baz=227
**GMRC Granite Mounta 89.79 47** P P 13 50 16.1 +2.5
baz=228,SNR=53
**KRMB Red Mountain 89.80 38** eP P 13 50 15.7 +2.3
**MLAC Mammoth, Mammo 89.82 43** P P 13 50 15.9 +2.2
baz=227,SNR=15
**Y12C Blythe 89.82 49** P P 13 50 16.2 +2.7
baz=229,SNR=40
**Y12C Blythe 89.82 49** eP P 13 50 15.6 +2.1
**WDC Whiskeytown Da 89.83 39** eP P 13 50 15.0 +1.6
**WDC Whiskeytown Da 89.83 39** eP P 13 50 15.0 +1.6
**VCA Vinchina 89.92 125** *i* P P 13 50 16.6 +2.1
**O03D Paynes Creek 90.02 40** P P 13 50 16.0 +1.6
baz=225,SNR=28
**N02D Trinity Center 90.03 39** P P 13 50 16.8 +2.4
baz=224,SNR=27
**TUQ Turquoise Moun 90.06 47** P P 13 50 17.2 +2.4
baz=228,SNR=5.6
**WAKR Walker 90.07 42** eP P 13 50 16.5 +1.7
**PHET Kaeng Krachan 90.08 285** P P 13 50 16.8 +1.7
comp=Z,7.9nm,0.9s
**SHOC Shoshone, Teco 90.16 46** P P 13 50 17.2 +2.1
baz=228,SNR=10.0
**NONG Nongkai 90.17 291** P P 13 50 16.6 +1.1
comp=Z,98nm,0.9s,comp=Z,9µm
**FURC Furnace Creek, 90.18 45** P P 13 50 17.3 +2.2
baz=228,SNR=17
**SPIA Saint Paul Isl 90.24 5** eP P 13 50 16.6 +1.8
**GRAC Grapevine Rang 90.24 45** P P 13 50 17.7 +2.2
baz=227
**M02C Callahan 90.25 39** P P 13 50 18.1 +2.7
baz=224,SNR=22
**TYV Tymovskoe 90.29 337** eP P 13 50 15.6 +0.4
TYV pmax pmax
comp=Z,400nm,3.8s
TYV pmax pmax
comp=Z,71nm,0.8s
**LDFC Landfair 90.33 47** eP P 13 50 18.6 +2.6
**PNTR Pine Nut 90.39 42** eP P 13 50 18.1 +1.7
**L02D Cave Junction, 90.41 38** P P 13 50 18.5 +2.5
baz=224,SNR=7.5
**PDMCI Parker Dam,Lak 90.42 48** P P 13 50 19.0 +2.7
baz=229,SNR=36
**NEE2 Needles Airpor 90.43 48** P P 13 50 19.1 +2.7
baz=229,SNR=5.2
**MDJ Mudanjiang 90.50 326** P P 13 50 17.8 +1.4
MDJ pP PcP 13 50 21.0 +3.5
MDJ sP pP 13 50 22.4 -5.0
MDJ pmax pmax
comp=Z,28nm,0.8s
MDJ pmax pmax
comp=Z,170nm,6.6s
MDJ LR LR
comp=Z,400nm,16.1s
MDJ LR LR
comp=Z,270nm,20.1s
MDJ LR LR
comp=Z,630nm,26.2s
**MDJ Mudanjiang 90.50 326** eP P 13 50 17.2 +0.8
**BEKR Beckworth 90.51 41** eP P 13 50 18.1 +1.3
**YERR Yerington 90.52 42** eP P 13 50 18.3 +1.4
**LGBM Gray Butte 90.56 39** eP P 13 50 19.2 +2.0
**KEBM Edson Butte 90.56 37** eP P 13 50 19.4 +2.6
**YBH Yreka Blue Hor 90.57 38** P P 13 50 19.1 +2.1
comp=Z,34nm,1.0s,baz=157,slow=2.1,SNR=31
YBH LR LR 14 26 11.6
comp=Z,743nm,19.0s,baz=244,slow=32
**YBH Yreka Blue Hor 90.57 38** eP P 13 50 18.7 +1.8
**YBH Yreka Blue Hor 90.57 38** eP P 13 50 18.7 +1.8
**NV01 Mina Array Sit 90.67 43** eP P 13 50 19.0 +1.3
**NVAR Mina Array Bea 90.67 43** P P 13 50 19.5 +1.8
comp=Z,41nm,0.8s,baz=219,slow=8.0,SNR=239
NVAR PKKPbc **PKKPbc** 14 07 44.4 -0.3
comp=Z,0.4nm,0.6s,baz=66,slow=5.0,SNR=3.6
NVAR PKPPKP **P'P'df** 14 15 50.0 -0.3
comp=Z,0.4nm,0.7s,baz=94,slow=2.7,SNR=3.8
NVAR LR LR 14 23 33.7
comp=Z,1µm,21.0s,baz=226,slow=31
**MOIG Morelia 90.68 67** eP P 13 50 19.7 +1.5
**TCA Tanti 90.72 129** *i* P P 13 50 19.1 +1.0
**CHGN Chignik 90.74 11** eP P 13 50 18.2 +1.0
**NV11 Mina Array Sit 90.76 43** eP P 13 50 19.3 +1.4
**TPNV Topopah Spring 90.87 45** P P 13 50 20.8 +2.2
baz=228,SNR=45
**TPNV Topopah Spring 90.87 45** eP P 13 50 20.0 +1.4
**TPNV Topopah Spring 90.87 45** eP P 13 50 20.0 +1.4
**Y14A Wickenburg 90.90 49** eP P 13 50 20.6 +2.0
**PAHR Pah Rah Range 90.94 42** eP P 13 50 20.2 +1.4
**M04C Macdoel 91.06 39** P P 13 50 21.1 +1.9
baz=225,SNR=19
**HUMO Hull Mountain 91.07 38** eP P 13 50 21.2 +2.0
**W13A Hualapai Mount 91.10 48** eP P 13 50 21.8 +2.0
**HABR Khabarovsk 91.11 331** *de*P P 13 50 18.4 -0.7
HABR *e**PP **pP** 13 50 28.1 -2.0
HABR *e**SP **sP** 13 50 32.2 -1.8
HABR *e* 13 53 54.8
HABR *e*PPP PPP 13 55 53.2
HABR *e*S **SKSac** 14 00 46.4 -1.7
HABR *e* 14 01 16.4
HABR *e*SS **SS** 14 07 19.1 -0.6
HABR *e*SSS SSS 14 10 57.2
HABR MLR MLR
comp=Z,497nm,19.0s
**SHPR Sheep Range 91.23 46** eP P 13 50 21.9 +1.7
**TUC Tucson 91.31 52** P P 13 50 23.5 +2.9
baz=231
**TUC Tucson 91.31 52** eP P 13 50 22.6 +2.0
TUC MLR MLR
comp=Z,1µm,20.0s
**TUC Tucson 91.31 52** eP P 13 50 22.6 +2.0
TUC LR LR
comp=Z,1µm,20.0s
**TIA Tai'an 91.35 313** eP P 13 50 20.8 +0.2
TIA pmax pmax
comp=Z,20nm,1.1s
**ZAIG Zacatecas 91.40 64** eP P 13 50 23.6 +2.1
**TLIG Tlapa 91.53 70** eP P 13 50 24.8 +2.7
**I03D Drain, OR 91.66 37** P P 13 50 24.0 +2.2
baz=224,SNR=17
**UTHA Uthaitani 91.69 287** P P 13 50 24.6 +2.0
**K04D Chiloquin, OR 91.70 38** P P 13 50 24.1 +1.9
baz=225,SNR=9.9
**319A Douglas 91.73 53** eP P 13 50 24.6 +1.9
**CYA Choya 91.75 126** *i* P P 13 50 24.0 +1.1
**CN2 Changchun 91.92 323** eP P 13 50 22.8 -0.2
CN2 eS S 14 01 29.6 +7.8
CN2 SS SS 14 07 36.8 +5.2
CN2 pmax pmax
comp=Z,10.0nm,0.8s
CN2 pmax pmax
comp=Z,200nm,4.0s
CN2 LR LR
comp=Z,300nm,19.0s
CN2 LR LR
comp=Z,400nm,19.0s
CN2 LR LR
comp=Z,300nm,18.0s
**J04D Umpqua Nationa 91.96 38** P P 13 50 25.6 +2.1
baz=225,SNR=45
**MOD Modoc Plateau 91.96 40** eP P 13 50 24.8 +1.4
**R11A Troy Canyon, C 92.19 45** P P 13 50 26.2 +1.6
baz=228,SNR=15
**R11A Troy Canyon, C 92.19 45** eP P 13 50 25.9 +1.3
**I04A Tendick Farm, 92.20 37** P P 13 50 25.9 +1.5
baz=224,SNR=37
**X16A Lo Mia Camp, P 92.21 50** eP P 13 50 26.9 +2.0
**COR Corvallis 92.32 36** eP P 13 50 26.8 +2.0
**COR Corvallis 92.32 36** eP P 13 50 26.8 +2.0
**GYA Guiyang 92.34 300** P P 13 50 24.4 -1.2
GYA PP PP 13 54 10.3 +3.4
GYA SKS **SKSac** 14 00 58.8 +2.3
GYA S S 14 01 26.6 -0.1
GYA SS SS 14 07 41.4 +2.9
GYA pmax pmax
comp=Z,20nm,0.8s
GYA pmax pmax
comp=Z,140nm,7.2s
GYA LR LR
comp=Z,520nm,21.2s
GYA LR LR
comp=Z,540nm,21.0s
**IRO Indian Ridge 92.43 37** eP P 13 50 27.4 +1.8
**J05D Fort Rock, OR 92.44 38** P P 13 50 27.6 +1.9
baz=225,SNR=14
**OHAK Old Harbor 92.54 14** eP P 13 50 26.4 +0.9
**ENH Enshi 92.61 305** eP P 13 50 25.2 -1.4
ENH LR LR
comp=Z,372nm,20.0s
**BMN Battle Mountai 92.64 42** eP P 13 50 28.1 +1.4
**BMN Battle Mountai 92.64 42** eP P 13 50 28.1 +1.4
**LCMT Little Creek M 92.73 47** eP P 13 50 28.9 +1.8
**G03D McMinnville, O 92.79 36** P P 13 50 29.1 +2.1
baz=224
**NKL Nikolayevsk 92.87 337** eP P 13 50 27.0 -0.1
NKL *e* 13 50 41.5
NKL *e* 14 00 54.0
NKL *e* 14 01 34.0
NKL pmax pmax
comp=N,13nm,1.0s
NKL pmax pmax
comp=Z,300nm,1.0s
NKL MLR MLR
comp=N,500nm,18.0s
NKL MLR MLR
comp=E,350nm,18.0s
NKL MLR MLR
comp=Z,500nm,18.0s
**WUAZ Wupatki 92.94 49** P P 13 50 30.7 +2.5
baz=231
**WUAZ Wupatki 92.94 49** eP P 13 50 30.1 +1.9
WUAZ LR LR
comp=Z,1µm,19.0s
**U15A North Rim 92.94 48** eP P 13 50 30.4 +2.1
**H04A Detroit Lake 92.95 37** eP P 13 50 29.1 +1.3
**CCUT Cedar City 93.00 46** eP P 13 50 30.6 +2.1
**KLR Kul'dur 93.06 330** *c* iP P 13 50 28.1 0.0
**FSA Cafayete 93.10 124** *i* P P 13 50 31.3 +1.9
**I05D Terrebonne, OR 93.13 37** P P 13 50 30.8 +2.1
baz=225
**KDAK Kodiak Island 93.20 14** P P 13 50 29.9 +1.3
comp=Z,15nm,1.0s,baz=217,slow=11,SNR=3.2
**KDAK Kodiak Island 93.20 14** eP P 13 50 28.9 +0.4
KDAK MLR MLR
comp=Z,829nm,20.0s
**KDAK Kodiak Island 93.20 14** eP P 13 50 28.9 +0.4
KDAK LR LR
comp=Z,829nm,20.0s
**SZCU Shurtz Canyon 93.20 46** eP P 13 50 31.5 +2.1
**WVOR Wild Horse Val 93.22 40** eP P 13 50 30.3 +1.1
WVOR MLR MLR
comp=Z,2µm,19.0s
**WVOR Wild Horse Val 93.22 40** eP P 13 50 30.3 +1.1
WVOR LR LR
comp=Z,2µm,19.0s
**X18A Snowflake 93.24 50** eP P 13 50 31.7 +2.1
**NNA Nana 93.29 106** PFAKE 13 50 40.0 +10
NNA LR LR
comp=Z,933nm,19.0s
**PSUT Pine Spring 93.34 45** eP P 13 50 32.2 +2.2
**121A Cookes Peak, D 93.44 53** P P 13 50 32.9 +2.4
baz=233
**F04D Rainier, OR 93.54 35** P P 13 50 32.9 +2.5
baz=224
**E03A Lebam 93.61 35** eP P 13 50 31.8 +1.1
**CM01 Chiang Mai Arr 93.66 289** eP P 13 50 31.0 -0.7
**CMAR Chiang Mai Arr 93.69 290** P P 13 50 32.3 +0.5
comp=Z,1.5nm,0.8s,baz=143,slow=3.2,SNR=13
CMAR PP PP 13 54 17.1 -0.4
comp=Z,8.7nm,1.0s,baz=138,slow=6.4,SNR=16
CMAR LR LR 14 35 32.6
comp=Z,294nm,19.4s,baz=156,slow=37
**PB01 IPOC Station P 93.70 118** eP P 13 50 32.7 +0.7
**W18A Petrified Fore 93.74 50** P P 13 50 34.1 +2.2
baz=232
**W18A Petrified Fore 93.74 50** eP P 13 50 33.5 +1.6
**G05D Wamic, OR 93.78 37** P P 13 50 33.4 +1.8
baz=225
**CMMT Chiang Mai 93.88 290** P PP 13 54 20.2 +1.2
comp=Z,0.1nmcomp=Z,18nm,1.9s
**CHTO Chiang Mai 93.89 290** P PP 13 54 20.3 +1.3
comp=Z,0.3nmcomp=Z,93nm,2.0s
**CHTO Chiang Mai 93.89 290** eP P 13 50 35.3 +2.6
CHTO MLR MLR
comp=Z,396nm,19.0s
**CHTO Chiang Mai 93.89 290** eP P 13 50 35.3 +2.6
CHTO LR LR
comp=Z,396nm,19.0s
**I07A Izee 93.89 38** eP P 13 50 33.9 +1.6
**J08A Circle Bar Ran 93.94 39** eP P 13 50 33.8 +1.3
**MTPU Mount Pierson 94.03 47** eP P 13 50 35.4 +2.0
**G06A Carlson Farm, 94.11 37** eP P 13 50 34.4 +1.2
**MSU Marysvale 94.34 46** eP P 13 50 35.7 +1.1
**MSU Marysvale 94.34 46** eP P 13 50 35.6 +1.1
**PB11 IPOC Station P 94.35 117** eP P 13 50 35.6 +0.4
**TX31 Lajitas Ar. Si 94.39 58** eP P 13 50 36.1 +1.1
**TXAR Lajitas Array 94.39 58** P P 13 50 36.7 +1.8
comp=Z,11nm,0.9s,baz=208,slow=7.0,SNR=80
TXAR PKKPbc **PKKPbc** 14 07 34.1 -0.3
comp=Z,1.4nm,0.7s,baz=97,slow=3.9,SNR=13
TXAR LR LR 14 27 19.1
comp=Z,663nm,18.1s,baz=0.0,slow=32
**BJI Beijing 94.41 316** P P 13 50 35.4 +0.8
BJI SKS **SKSac** 14 01 06.0 -0.9
BJI S **ScS** 14 01 47.3 +2.1
BJI sS **pS** 14 01 56.6 -1.5
BJI SS **SS** 14 08 10.9 +3.5
BJI pmax pmax
comp=Z,16nm,1.1s
BJI pmax pmax
comp=Z,170nm,4.1s
BJI LR LR
comp=Z,460nm,22.9s
BJI LR LR
comp=Z,600nm,20.7s
BJI LR LR
comp=Z,990nm,26.8s
**KMI Kunming 94.47 297** P P 13 50 38.4 +2.9
KMI S **S** 14 01 44.9 -0.8
KMI sS pS 14 01 56.8 -3.1
KMI SS **SS** 14 08 06.3 -2.9
KMI pmax pmax
comp=Z,15nm,0.5s
KMI pmax pmax
comp=Z,110nm,5.2s
KMI LR LR
comp=Z,220nm,19.6s
KMI LR LR
comp=Z,290nm,20.6s
KMI LR LR
comp=Z,390nm,27.8s
**MNTX Cornudas Mount 94.58 55** P P 13 50 37.2 +1.6
baz=234
**MNTX Cornudas Mount 94.58 55** eP P 13 50 36.5 +0.9
MNTX LR LR
comp=Z,875nm,19.0s
**LON Longmire 94.60 35** eP P 13 50 36.0 +0.6
**LON Longmire 94.60 35** eP P 13 50 36.0 +0.6
**ATAH Atahualpa 94.75 102** P P 13 50 39.9 +2.5
comp=Z,8.2nm,1.0s,baz=305,slow=12,SNR=3.6
ATAH PP PP 13 54 27.3 +1.4
comp=Z,2.7nm,0.4s,baz=36,slow=21,SNR=3.6
**MNMC Minye Minye 94.78 116** eP P 13 50 37.8 +0.5
**D05A Enumclaw 94.83 35** eP P 13 50 37.8 +1.5
**F07A Phinny Hill Vi 94.93 37** eP P 13 50 38.1 +1.3
**AZAP Zapla 94.93 123** *i* P P 13 50 38.7 +0.8
**LNIG Linares 94.94 64** eP P 13 50 38.3 +0.8
**Y22D IRIS PASSCAL I 94.95 52** P P 13 50 39.4 +2.0
baz=233
**Y22E IRIS PASSCAL I 94.95 52** P P 13 50 39.4 +2.0
baz=233
**LAZ Ladron 95.00 52** eP P 13 50 38.7 +1.0
**G08A Pilot Rock 95.01 38** eP P 13 50 38.6 +1.2
**DUG Dugway, Tooele 95.03 45** P P 13 50 39.0 +1.4
baz=230
**DUG Dugway, Tooele 95.03 45** eP P 13 50 38.1 +0.5
DUG MLR MLR
comp=Z,1µm,19.0s
**DUG Dugway, Tooele 95.03 45** eP P 13 50 38.1 +0.5
DUG LR LR
comp=Z,1µm,19.0s
**PGC Sidney 95.18 33** eP P 13 50 39.5 +1.6
comp=Z,17nm,0.8s
**BNM Barren Site 95.19 52** eP P 13 50 39.3 +0.7
**Q16A Castle Valley 95.20 46** eP P 13 50 39.8 +1.3
**LPM Los Pinos Moun 95.28 52** eP P 13 50 39.7 +0.7
**NLU North Lily Min 95.31 45** eP P 13 50 39.4 +0.4
**BGU Big Grassy Mou 95.37 44** eP P 13 50 39.8 +0.6
**MFID Camas Ranch 95.41 41** eP P 13 50 40.4 +1.1
**HAWA Hanford 95.47 37** eP P 13 50 40.6 +1.3
HAWA LR LR
comp=Z,2µm,19.0s
**LTY Liberty 95.51 36** eP P 13 50 40.4 +0.8
**B05A Bryant 95.54 34** P P 13 50 41.2 +1.7
baz=225
**BMO Blue Mountains 95.57 39** eP P 13 50 40.7 +0.8
BMO MLR MLR
comp=Z,2µm,19.0s
**BMO Blue Mountains 95.57 39** eP P 13 50 40.7 +0.8
BMO LR LR
comp=Z,2µm,19.0s
**A04D Lummi Island 95.58 34** P P 13 50 41.6 +1.9
baz=224
**MPU Maple Canyon 95.61 45** eP P 13 50 41.5 +1.2
**DGPR DIGLIPUR 95.69 282** eP P 13 50 39.4 -1.6
DGPR AMS AMS 14 44 15.9
comp=Z,172nm,0.0s
**SRU San Rafael Swe 95.72 47** eP P 13 50 41.3 +0.4
**SRU San Rafael Swe 95.72 47** eP P 13 50 41.3 +0.4
**MA2 Magadan 95.74 345** LR LR 14 32 03.9
comp=Z,617nm,19.2s,baz=168,slow=34
**MA2 Magadan 95.74 345** eP P 13 50 39.4 -0.8
**ANMO Albuquerque 95.77 52** P P 13 50 42.5 +1.3
baz=233
**ANMO Albuquerque 95.77 52** eP P 13 50 41.5 +0.2
ANMO MLR MLR
comp=Z,1µm,19.0s
**ANMO Albuquerque 95.77 52** eP P 13 50 41.5 +0.2
ANMO LR LR
comp=Z,1µm,19.0s
**BBB Bella Bella 95.79 29** LR LR 14 25 06.9
comp=Z,976nm,21.8s,baz=198,slow=30
**MVCO Mesa Verde 95.81 49** P P 13 50 42.8 +1.4
baz=232
**MVCO Mesa Verde 95.81 49** eP P 13 50 42.2 +0.8
MVCO LR LR
comp=Z,2µm,19.0s
**P17A Butcher Ranch, 95.81 46** eP P 13 50 42.2 +0.9
**C06D Leavenworth 95.87 35** P P 13 50 43.0 +1.9
baz=226
**YJA Yavi 95.91 121** *i* P P 13 50 43.9 +1.3
**SPUT South Promonto 95.95 44** eP P 13 50 43.0 +1.1
**PV05 Paradox Valley 95.96 48** eP P 13 50 44.1 +2.0
**CTU Camp Tracy 95.97 45** eP P 13 50 43.2 +1.2
**B06A Marblemount 96.01 34** eP P 13 50 43.1 +1.5
**PV10 Paradox Valley 96.18 48** eP P 13 50 41.9 -1.1
**P18A Preston Nutter 96.21 46** eP P 13 50 44.0 +0.8
**E09A Wood Farm, Sta 96.26 37** eP P 13 50 43.8 +0.9
**PV04 Paradox Valley 96.28 48** eP P 13 50 43.6 +0.2
**HLID Hailey 96.28 41** P P 13 50 45.1 +1.8
baz=230
**HLID Hailey 96.28 41** eP P 13 50 44.7 +1.4
HLID LR LR
comp=Z,1µm,21.0s
**PV01 Paradox Valley 96.33 48** eP P 13 50 44.8 +1.0
**F10A Beach Ranch, E 96.36 38** eP P 13 50 44.0 +0.5

TCUT Toone Canyon 96.44 45 eP P 13 50 45.6 +1.4
GAMB Gambell 96.73 3 eP P 13 50 45.7 +1.1
833A Chaparral WMA, 96.90 61 P P 13 50 47.7 +1.4
baz=236
B08A Colville Reser 96.92 35 eP P 13 50 46.2 +0.3
CD2 Chengdu 96.99 302 eP P 13 50 46.8 +0.1
CD2 PP PP 13 54 43.5 +0.5
CD2 SKS SKSac 14 01 20.0 -1.2
CD2 S S 14 02 05.5 -1.4
CD2 sS pS 14 02 21.4 +0.3
CD2 SS SS 14 08 44.8 +0.4
CD2 pmax pmax
comp=Z,30nm,0.6s
CD2 pmax pmax
comp=Z,230nm,7.4s
CD2 LR LR
comp=Z,370nm,16.1s
CD2 LR LR
comp=Z,600nm,21.8s
C09A Chrisman Ranch 97.06 36 eP Pdif 13 50 47.0 +0.4
S22A 4UR Ranch, Cre 97.19 49 P Pdif 13 50 49.7 +1.9
baz=234
S22A 4UR Ranch, Cre 97.19 49 eP Pdif 13 50 48.9 +1.1
LLLB Lillooet 97.30 33 eP Pdif 13 50 48.9 +1.3
WRAK Wrangell Islan 97.51 24 PFAKE 13 51 00.0 +12
WRAK LR LR
comp=Z,1µm,20.0s
KVTX Kingsville 97.58 62 PFAKE 13 51 00.0 +11
KVTX LR LR
comp=Z,1µm,20.0s
LPAZ La Paz 97.61 115 P Pdif 13 50 51.6 +1.0
comp=Z,4.8nm,0.8s,baz=206,slow=3.6,SNR=18
LPAZ PP PP 13 54 48.1 +0.1
comp=Z,3.4nm,1.1s,baz=234,slow=8.5,SNR=8.5
LPAZ LR LR 14 26 57.4
comp=Z,350nm,21.8s,baz=218,slow=30
LPAZ La Paz 97.61 115 eP Pdif 13 50 51.0 +0.4
LPAZ 13 54 48.1
LPAZ La Paz 97.61 115 eP Pdif 13 50 51.0 +0.3
LPAZ PP PP 13 54 48.1 +0.1
AHID Auburn Hatcher 97.65 43 eP Pdif 13 50 50.6 +1.0
AHID LR LR
comp=Z,1µm,20.0s
HHC Hu-ho-hao-te 97.66 314 eP Pdif 13 50 51.0 +1.4
HHC SKS SKSac 14 01 26.8 +2.5
HHC S S 14 02 12.9 +0.6
HHC sS pS 14 02 21.0 -5.5
HHC SS SS 14 08 57.6 +3.9
HHC pmax pmax
comp=Z,16nm,1.1s
HHC pmax pmax
comp=Z,51nm,5.4s
HHC LR LR
comp=Z,130nm,18.0s
HHC LR LR
comp=Z,370nm,16.5s
HHC LR LR
comp=Z,570nm,20.8s
MSTX Muleshoe 97.68 54 P Pdif 13 50 51.0 +1.2
baz=235
MSTX Muleshoe 97.68 54 eP Pdif 13 50 50.6 +0.8
O20A White River Ci 97.74 47 P Pdif 13 50 51.4 +1.3
baz=233
JCT Junction City 97.80 59 P Pdif 13 50 51.3 +0.9
baz=236
JCT Junction City 97.80 59 eP Pdif 13 50 51.3 +0.9
JCT MLR MLR
comp=Z,1µm,19.0s
JCT Junction City 97.80 59 eP Pdif 13 50 51.2 +0.9
JCT LR LR
comp=Z,1µm,19.0s
NEW Newport 97.95 36 LR LR 14 26 06.8
comp=Z,1µm,21.8s,baz=222,slow=30
NEW Newport 97.95 36 Pdiff Pdif 13 50 52.3 +1.7
baz=228
NEW Newport 97.95 36 eP Pdif 13 50 51.2 +0.6
NEW Newport 97.95 36 eP Pdif 13 50 51.2 +0.6
SMCO Snowmass 97.95 48 eP Pdif 13 50 52.8 +1.5
MCMT McKenzie Canyo 97.95 41 eP Pdif 13 50 52.3 +1.3
SDCO Great Sand Dun 98.04 50 Pdiff Pdif 13 50 52.9 +1.3
baz=234
SDCO Great Sand Dun 98.04 50 eP Pdif 13 50 52.6 +1.0
SDCO LR LR
comp=Z,895nm,19.0s
REDW Red Top Meadow 98.16 43 eP Pdif 13 50 53.0 +1.1
TPAW Teton Pass 98.18 43 eP Pdif 13 50 52.6 +0.6
FXWY Fox Creek 98.23 43 eP Pdif 13 50 53.4 +1.2
SNOW Snow King Moun 98.28 43 eP Pdif 13 50 53.7 +1.3
T25A Trinidad 98.40 51 Pdiff Pdif 13 50 54.7 +1.6
baz=235
T25A Trinidad 98.40 51 eP Pdif 13 50 54.3 +1.2
DLMT Dillon 98.43 41 eP Pdif 13 50 54.4 +1.4
IMW Indian Meadow 98.44 43 eP Pdif 13 50 54.2 +1.0
MOOW Moose Ponds 98.46 43 eP Pdif 13 50 54.3 +1.1
SEY Seymchan 98.48 347 P P 13 50 51.8 -0.6
comp=Z,8.0nm,0.8s,baz=149,slow=5.0,SNR=23
SEY LR LR 14 31 44.6
comp=Z,676nm,19.5s,baz=148,slow=33
SEY Seymchan 98.48 347 i P P 13 50 51.2 -1.3
BW06 Boulder Array 98.54 44 Pdiff Pdif 13 50 54.8 +1.2
baz=232
BW06 Boulder Array 98.54 44 eP P 13 50 53.6 0.0
BW06 LR LR
comp=Z,1µm,19.0s
PD31 Pinedale Array 98.54 44 eP P 13 50 53.7 0.0
PDAR Pinedale Array 98.54 44 P Pdif 13 50 54.2 +0.6
comp=Z,3.5nm,0.7s,baz=204,slow=3.4,SNR=33
PDAR PP PP 13 54 57.0 +2.0
comp=Z,0.5nm,0.8s,baz=242,slow=3.8,SNR=2.5
PDAR PKiKP PKiKP 13 55 26.4 +1.1
comp=Z,1.3nm,1.0s,baz=231,slow=5.7,SNR=2.5
PDAR PKKPbc PKKPbc 14 07 20.9 -2.9
comp=Z,1.4nm,0.7s,baz=80,slow=5.3,SNR=8.7
PDAR LR LR 14 30 14.9
comp=Z,1µm,18.8s,baz=243,slow=32
MSO Missoula 98.64 39 Pdiff Pdif 13 50 55.5 +1.7
baz=230
MSO Missoula 98.64 39 eP Pdif 13 50 54.6 +0.8
JTS JuntasAbangare 98.71 83 PFAKE 13 51 10.0 +15
JTS LR LR
comp=Z,1µm,19.0s
QLMT Earthquake Lak 98.74 42 eP Pdif 13 50 56.0 +1.5
YPP Pitchstone Pla 98.75 42 eP Pdif 13 50 56.0 +1.4
OTAV Otavalo 98.77 95 PFAKE 13 51 10.0 +14
OTAV LR LR
comp=Z,516nm,19.0s
CPUP Villa Florida 98.79 129 P Pdif 13 50 55.6 +0.7
comp=Z,2.1nm,0.8s,baz=265,slow=5.1,SNR=5.4
CPUP PP PP 13 54 54.1 -1.8
comp=Z,0.6nm,0.4s,baz=243,slow=11,SNR=3.5
CPUP PKKPbc PKKPbc 14 07 21.2 -0.4
comp=Z,2.4nm,0.7s,baz=50,slow=3.1,SNR=7.0
CPUP LR LR 14 27 16.8
comp=Z,851nm,21.9s,baz=232,slow=30
CPUP Villa Florida 98.79 129 eP Pdif 13 50 55.4 +0.4
CPUP PP PP 13 54 54.1 -1.8
CPUP PKKPbc PKKPbc 14 07 21.2 -0.4
LRM Limekiln Ridge 98.80 40 eP Pdif 13 50 55.8 +1.1
YHB Horse Butte 98.83 42 eP Pdif 13 50 56.4 +1.6
YFT Old Faithful 98.84 42 eP Pdif 13 50 57.1 +2.2
TRF Thorofare Moun 98.88 13 eP Pdif 13 50 55.5 +0.9
YMR Madison River 98.90 42 eP Pdif 13 50 56.8 +1.6
AMTX Amarillo 98.94 54 Pdiff Pdif 13 50 56.7 +1.3
baz=236
H17A Grant Village 98.95 42 Pdiff Pdif 13 50 56.6 +1.1
baz=232
H17A Grant Village 98.95 42 eP Pdif 13 50 57.5 +2.0
Q24A Divide 98.98 49 Pdiff Pdif 13 50 57.6 +1.8
baz=235
YHH Holmes Hill 99.04 42 eP Pdif 13 50 57.8 +1.9
ABTX Abilene, Hawle 99.10 57 Pdiff Pdif 13 50 57.5 +1.4
baz=236
ABTX Abilene, Hawle 99.10 57 eP Pdif 13 50 56.8 +0.7
RND Reindeer 99.11 13 eP Pdif 13 50 56.6 +1.2
RND Reindeer 99.11 13 eP Pdif 13 50 56.6 +1.2
BOZ Bozeman (W) 99.11 41 Pdiff Pdif 13 50 57.9 +2.0
baz=232
BOZ Bozeman (W) 99.11 41 eP Pdif 13 50 57.2 +1.2
BOZ MLR MLR
comp=Z,1µm,22.0s
BOZ Bozeman (W) 99.11 41 eP Pdif 13 50 57.2 +1.2
BOZ LR LR
comp=Z,1µm,22.0s
LKWY Lake 99.16 42 PFAKE 13 51 10.0 +14
LKWY LR LR
comp=Z,2µm,20.0s
ISCO Idaho Springs 99.17 48 Pdiff Pdif 13 50 58.3 +1.7
baz=234
ISCO Idaho Springs 99.17 48 PFAKE 13 51 10.0 +13
ISCO LR LR
comp=Z,1µm,19.0s
MCK McKinley 99.39 13 eP Pdif 13 50 57.4 +0.8
MCK McKinley 99.39 13 eP Pdif 13 50 57.4 +0.8
N23A Red Feather La 99.60 47 Pdiff Pdif 13 50 59.7 +1.3
baz=234
LZH Lanzhou 99.82 307 eP Pdif 13 50 56.5 -2.9
LZH PP PP 13 55 03.0 -1.7
LZH eS S 14 02 28.8 -2.2
LZH sS ScS 14 02 37.4 +6.4
LZH SS SS 14 09 19.4 -4.9
LZH pmax pmax
comp=Z,22nm,1.0s
LZH pmax pmax
comp=Z,99nm,4.4s
LZH LR LR
comp=Z,1µm,16.2s
LZH LR LR
comp=Z,1µm,16.0s
LZH LR LR
comp=Z,1µm,17.7s
WALA Waterton Lakes 100.08 37 ePdif Pdif 13 51 00.0 -0.1
RLMT Red Lodge 100.14 42 Pdiff Pdif 13 51 02.4 +1.8
baz=233
RLMT Red Lodge 100.14 42 ePdif Pdif 13 51 00.4 -0.2
RLMT LR LR
comp=Z,1µm,21.0s
MLY Manley 100.25 12 ePdif Pdif 13 51 00.7 +0.3
K22A Casper 100.27 46 Pdiff Pdif 13 51 03.0 +1.7
baz=234
K22A Casper 100.27 46 ePdif Pdif 13 51 01.8 +0.6
CCB Clear Creek Bu 100.43 13 ePdif Pdif 13 51 01.9 +0.8
COLA College 100.63 13 eP Pdif 13 51 01.7 -0.3
COLA pmax pmax
comp=Z,23nm,0.9s
COLA MLR MLR
comp=Z,1µm,20.0s
COLA College 100.63 13 ePdif Pdif 13 51 01.7 -0.3
comp=Z,23nm,0.9s
COLA LR LR
comp=Z,1µm,20.0s
IMAR Indian Mountai 100.66 10 ePdif Pdif 13 51 02.8 +0.7
ILAR Eielson Array 100.72 13 P Pdif 13 51 02.9 +0.5
comp=Z,3.4nm,0.8s,baz=218,slow=5.1,SNR=20
ILAR PP PP 13 55 05.2 -5.4
comp=Z,7.3nm,1.2s,baz=222,slow=6.9,SNR=5.0
ILAR PKiKP PKiKP 13 55 29.3 +1.1
comp=Z,1.7nm,0.7s,baz=305,slow=2.5,SNR=12
ILAR PKKPbc PKKPbc 14 07 16.8 -1.3
comp=Z,0.4nm,0.5s,baz=20,slow=2.3,SNR=7.4
ILB Eielson Array 100.72 13 ePdif Pdif 13 51 02.9 +0.5
WMOK Wichita Mounta 100.85 56 Pdiff Pdif 13 51 05.0 +1.2
baz=237
WMOK Wichita Mounta 100.85 56 PFAKE 13 51 20.0 +16
WMOK LR LR
comp=Z,890nm,20.0s
BILL Bilibino 101.48 354 eP Pdif 13 51 05.4 -0.3
BILL eSS SS 14 09 55.2 +9.5
BILL pmax pmax
comp=Z,11nm,0.9s
BILL MLR MLR
comp=Z,921nm,20.0s
U32A Winter Ranch, 101.58 54 Pdiff Pdif 13 51 09.2 +2.1
baz=237
EGMT Eagleton 101.61 40 Pdiff Pdif 13 51 08.9 +1.9
baz=233
EGMT Eagleton 101.61 40 PFAKE 13 51 20.0 +13
EGMT LR LR
comp=Z,2µm,19.0s
Z36A Blue Ridge 101.72 58 Pdiff Pdif 13 51 09.2 +1.5
baz=238
EGAK Eagle 101.92 15 PFAKE 13 51 20.0 +12
EGAK LR LR
comp=Z,1µm,20.0s
OGNE Ogallala 102.07 49 PFAKE 13 51 20.0 +11
OGNE LR LR
comp=Z,1µm,19.0s
NATX Nacogdoches 102.20 60 PFAKE 13 51 20.0 +10
NATX LR LR
comp=Z,1µm,20.0s
BCIP Isla Barro Col 102.39 87 PFAKE 13 51 20.0 +8.9
BCIP LR LR
comp=Z,2µm,20.0s
CBKS Cedar Bluff 102.40 52 PFAKE 13 51 20.0 +9.4
CBKS LR LR
comp=Z,1µm,21.0s
RSSD Black Hills 102.60 45 Pdiff Pdif 13 51 13.4 +1.8
baz=236
RSSD Black Hills 102.60 45 eP Pdif 13 51 11.5 -0.1
RSSD Black Hills 102.60 45 ePdif Pdif 13 51 11.5 -0.1
LAO LASA Array 102.78 42 Pdiff Pdif 13 51 13.9 +1.7
baz=235
LAO LASA Array 102.78 42 ePdif Pdif 13 51 12.7 +0.6
comp=Z,8.3nm,1.0s
LAO LR LR
comp=Z,937nm,20.0s
SHL Shillong 103.00 292 eP Pdif 13 51 11.5 -2.3
YAK Yakutsk 103.51 338 PKKPbc PKKPbc 14 07 08.9 -0.7
comp=Z,8.1nm,0.7s,baz=298,slow=1.4,SNR=6.4
YAK PKKP 14 07 28.6
comp=Z,3.4nm,0.3s,baz=274,slow=1.1,SNR=5.6
ULN Ulaanbaatar 104.36 318 PFAKE 13 51 30.0 +11
ULN LR LR
comp=Z,443nm,20.0s
MIAR Mount Ida 104.41 58 PFAKE 13 51 30.0 +10
MIAR LR LR
comp=Z,865nm,20.0s
KSU1 Kansas State U 104.62 53 PFAKE 13 51 30.0 +10
KSU1 LR LR
comp=Z,1µm,19.0s
SONM Songino Array 104.72 318 Pdiff Pdif 13 51 20.3 -0.5
comp=Z,0.6nm,0.9s,baz=150,slow=3.2,SNR=2.9
SONM PKiKP PKiKP 13 55 36.8 +0.6
comp=Z,1.4nm,0.9s,baz=120,slow=2.1,SNR=4.6
SONM PKKP PKKPab 14 07 25.1 +4.4
comp=Z,3.5nm,1.0s,baz=303,slow=5.0,SNR=5.2
SAML Samuel 105.90 112 ePdif Pdif 13 51 27.6 +0.8
comp=Z,3.5nm,1.1s
SAML LR LR
comp=Z,643nm,19.0s
VIS Vishakhapatnam 105.94 281 eP Pdif 13 51 26.6 -0.1
TRD Trivandrum 106.54 269 AMS AMS 14 36 37.1
comp=Z,1µm,27.2s
INK Inuvik 106.57 16 Pdiff Pdif 13 51 29.5 +1.1
comp=Z,0.9nm,0.8s,baz=227,slow=3.8,SNR=4.3
INK PKiKP PKiKP 13 55 39.0 +0.3
comp=Z,4.9nm,0.8s,baz=217,slow=1.9,SNR=11
INK PP PP 13 55 53.5 -0.7
comp=Z,4.4nm,0.8s,baz=181,slow=6.8,SNR=5.3
INK PKKP PKKPdf 14 07 13.8 +0.7
comp=Z,3.2nm,0.9s,baz=29,slow=9.5,SNR=6.5
BOK Bokaro 106.85 288 eP Pdif 13 51 29.7 -1.0
BOK AMB AMB 13 53 43.4
comp=Z,29nm,1.9s
ECSD EROS Data Cent 106.95 49 PFAKE 13 55 50.0
ECSD LR LR
comp=Z,1µm,19.0s
TAPN Taplejung 107.13 292 eP PKiKP 13 55 42.2 +0.7
comp=Z,29nm,1.0s
ODAN Odare 107.14 291 eP PKiKP 13 55 41.5 0.0
comp=Z,19nm,0.8s
BRAL Brewton 107.55 64 PFAKE 13 55 50.0
BRAL LR LR
comp=Z,697nm,19.0s
RAMN Ramite 107.80 291 eP PKiKP 13 55 42.4 -0.3
YKA Yellowknife Ar 108.17 26 Pdiff Pdif 13 51 36.2 +0.6
comp=Z,0.4nm,0.8s,baz=233,slow=4.3,SNR=6.8
YKA PKiKP PKiKP 13 55 41.8 -0.1
comp=Z,2.3nm,0.7s,baz=243,slow=1.4,SNR=21
YKA PP PP 13 56 05.8 -0.3
comp=Z,1.6nm,0.6s,baz=259,slow=1.7,SNR=6.8
YKA PKKPbc PKKPbc 14 06 53.2 -2.0
comp=Z,4.2nm,0.8s,baz=44,slow=3.3,SNR=32
YKA PKKPab PKKPab 14 07 03.3 -1.2
comp=Z,1.6nm,0.7s,baz=44,slow=3.3,SNR=7.2
YKA PKPPKP P'P'df 14 15 21.4 +5.7
comp=Z,0.5nm,0.9s,baz=59,slow=2.2,SNR=3.6
SCIA State Center 108.26 52 PFAKE 13 56 00.0
SCIA LR LR
comp=Z,1µm,19.0s
TLY Talaya 108.26 320 PKKPbc PKKPbc 14 06 53.5 -1.2
comp=Z,1.4nm,0.5s,baz=225,slow=2.9,SNR=2.3
TLY Talaya 108.26 320 PKKPbc PKKPbc 14 06 53.5 -1.2
TLY LR LR
comp=Z,315nm,20.0s
JIRN Jiri 108.46 291 eP PKiKP 13 55 43.3 -0.8
MTDJ Mount Denham 108.93 80 PFAKE 13 56 00.0
MTDJ LR LR
comp=Z,2µm,20.0s
PKI Pulchoki 109.03 291 eP PKiKP 13 55 44.1 -1.0
KKN Kakani 109.23 291 eP PKiKP 13 55 45.2 -0.1
FFC Flin Flon 109.37 37 PFAKE 13 56 00.0
FFC LR LR
comp=Z,973nm,19.0s
AGMN Agassiz Nation 109.61 45 PFAKE 13 56 00.0
AGMN LR LR
comp=Z,1µm,20.0s
HYB Hyderabad 109.74 278 eP Pdif 13 51 41.8 -1.9
SDV Santo Domingo 109.97 92 PFAKE 13 56 00.0
SDV LR LR
comp=Z,1µm,20.0s
HDIL Hopedale 110.26 54 PFAKE 13 56 00.0
HDIL LR LR
comp=Z,913nm,19.0s
ULM Lac du Bonnet 110.50 43 PKiKP PKiKP 13 55 46.2 -0.5
comp=Z,2.0nm,0.8s,baz=284,slow=4.2,SNR=3.3
ULM PKKPbc PKKPbc 14 06 45.3 -2.0
comp=Z,1.5nm,0.8s,baz=53,slow=5.1,SNR=2.7
ULM PKKPab PKKPab 14 06 55.8 +0.9
comp=Z,2.7nm,0.8s,baz=68,slow=7.0,SNR=3.5
KOLN Koldanda 110.54 290 eP PKiKP 13 55 45.6 -2.2
MNGI Mangalore 110.62 272 eP PKiKP 13 55 46.2 -1.7
JFWS Jewell Farm 110.67 52 PFAKE 13 56 00.0
JFWS LR LR
comp=Z,1µm,19.0s
TIXI Tiksi 110.71 344 i PKiKP PKiKP 13 55 44.9 -1.5
PYUN Piuthan 111.17 290 eP PKiKP 13 55 47.9 -1.1
GOGA Godfrey 111.28 63 PFAKE 13 56 00.0
GOGA LR LR
comp=Z,1µm,20.0s
GTBY Guantanamo Bay 111.75 80 PFAKE 13 56 00.0
GTBY LR LR
comp=Z,767nm,20.0s
ABPO Ambohimpanom 112.05 227 PFAKE 13 56 00.0
ABPO LR LR
comp=Z,797nm,20.0s
EYMN Ely 112.07 46 PFAKE 13 56 00.0
EYMN LR LR
comp=Z,932nm,19.0s
SUR Sutherland 112.28 198 PFAKE 13 56 00.0
SUR LR LR
comp=Z,2µm,19.0s
PTGA Pitinga 113.41 107 PFAKE 13 56 10.0
PTGA LR LR
comp=Z,29µm,20.0s
BHPL Bhopal 113.43 283 eP PKiKP 13 55 53.9 +0.7
NHSC New Hope 113.63 65 PFAKE 13 56 10.0
NHSC LR LR
comp=Z,678nm,19.0s
POO Poona 114.19 277 eP PKiKP 13 55 52.2 -2.6
WMQ Urumqi 114.38 308 PKP PKPdf 13 55 53.4 -1.0
WMQ PP PP 13 56 55.9 +4.6
WMQ SKS SKSdf 14 02 59.3 -4.5
WMQ SS SS 14 12 42.3 +0.8
WMQ AMB AMB
comp=Z,140nm,11.8s
WMQ LR LR
comp=Z,300nm,23.7s
WMQ LR LR
comp=Z,600nm,30.9s
WMQ LR LR
comp=Z,580nm,28.5s
SDDR Presa de Saban 114.47 83 PFAKE 13 56 10.0 +15
SDDR LR LR
comp=Z,785nm,19.0s
ACSO Alum Creek Sta 114.49 57 PFAKE 13 56 10.0 +15
ACSO LR LR
comp=Z,1µm,20.0s
BOSA Boshof 114.51 203 PKP PKPdf 13 55 56.1 +0.7
comp=Z,12nm,0.9s,baz=128,slow=3.5,SNR=16
BOSA PP PP 13 56 50.7 -0.2
comp=Z,12nm,0.9s,baz=153,slow=8.4,SNR=6.0
BOSA PKKPab PKKPab 14 06 40.9 -2.3
comp=Z,9.7nm,0.9s,baz=340,slow=3.5,SNR=11
AAM Ann Arbor 114.84 55 PFAKE 13 56 10.0 +15
AAM LR LR
comp=Z,860nm,19.0s
BLA Blacksburg 115.13 61 PFAKE 13 56 10.0 +14
BLA LR LR
comp=Z,755nm,19.0s
GLMI Grayling 115.17 52 PFAKE 13 56 10.0 +14
GLMI LR LR
comp=Z,1µm,19.0s
F46A Macinaw City C 115.43 51 PKiKP PKiKP 13 55 57.0 +0.8
baz=248
DDI Dehra Dun 116.02 290 eP PKPdf 13 55 57.1 -0.8
CNNC Cliffs of the 116.23 64 PFAKE 13 56 10.0 +12
CNNC LR LR
comp=Z,815nm,20.0s
MSEY Mahe Island 116.41 245 PFAKE 13 56 10.0 +11
MSEY LR LR
comp=Z,978nm,20.0s
DGZ Jazzator, Alta 116.73 313 c i PKiKP PKPdf 13 55 58.0 -0.8
N54A Moraine State 116.88 57 PKiKP PKPdf 13 55 59.4 +0.1
baz=248
SMLA Simla 117.05 291 eP PKPdf 13 55 59.2 -0.6
O56A Blue Knob Stat 117.63 58 PKiKP PKPdf 13 56 01.0 +0.3
baz=249
CBN Corbin Frederi 117.74 61 PFAKE 13 56 10.0 +9.1
CBN LR LR
comp=Z,1µm,20.0s
DHRM DHARAMSHALA 118.17 292 eP PKPdf 13 56 01.3 -1.0
SJG San Juan 118.35 86 PFAKE 13 56 10.0 +7.3
SJG LR LR
comp=Z,599nm,19.0s
MK01 Makanchi Array 118.99 309 ePKPdf PKPdf 13 56 02.1 -1.0
MK31 Makanchi Array 119.00 309 i PKiKP PKPdf 13 56 02.4 -0.7
MK31 pmax pmax
comp=Z,26nm,0.8s
MK31 Makanchi Array 119.00 309 ePKPdf PKPdf 13 56 02.1 -1.1
MKAR Makanchi Array 119.00 309 PKP PKPdf 13 56 02.3 -0.8
comp=Z,23nm,0.8s,baz=64,slow=2.8,SNR=106
MKAR SKiKP SKiKP 13 59 34.8 -1.5
comp=Z,4.4nm,1.1s,baz=101,slow=2.9,SNR=3.7
MKAR PKKPbc PKKPbc 14 06 18.3 +0.4
comp=Z,3.0nm,0.8s,baz=276,slow=2.2,SNR=3.7
MKAR Makanchi Array 119.00 309 ePKiKP PKPdf 13 56 02.1 -1.1
GRGR Grenville 119.18 94 PFAKE 13 56 20.0 +16
GRGR LR LR
comp=Z,785nm,20.0s
MAKZ Makanchi 119.21 309 ePKiKP PKPdf 13 56 02.3 -1.2
MAKZ Makanchi 119.21 309 ePKPdf PKPdf 13 56 02.3 -1.2
ZAA0 Zalesovo Array 119.61 317 ePKPdf PKPdf 13 56 02.8 -1.2
ZALV Zalesovo Beam 119.61 317 PKP PKPdf 13 56 03.1 -0.9
comp=Z,24nm,0.8s,baz=162,slow=1.4,SNR=79
ZALV Zalesovo Beam 119.61 317 ePKiKP PKPdf 13 56 02.6 -1.4
ZALV Zalesovo Beam 119.61 317 ePKPdf PKPdf 13 56 02.6 -1.4
BINY Binghamton 120.12 57 PFAKE 13 56 20.0 +15
BINY LR LR
comp=Z,2µm,19.0s
NVS Novosibirsk 120.75 318 ||| i PKiKP PKPdf 13 56 05.9 -0.3
NVS e 13 57 37.0
NVS e 14 02 59.9
NVS pmax pmax
comp=N,8.0nm,0.7s
NVS pmax pmax
comp=E,17nm,1.2s
FDF Fort de France 120.92 92 PFAKE 13 56 20.0 +12
FDF LR LR
comp=Z,784nm,19.0s
KSH Kashi 121.04 299 ePKP PKPdf 13 56 08.0 +0.6
KSH PP PP 13 57 42.0 +4.2
KSH PKS PKSdf 13 59 44.0 -0.2
KSH SKS SKSdf 14 03 18.9 +2.0
KSH SKKS SKKSac 14 04 33.8 -0.4
KSH LR LR
comp=Z,98nm,5.2s
KSH LR LR
comp=Z,76nm,4.8s
KSH LR LR
comp=Z,360nm,17.0s
LONY Lake Ozonia 121.84 55 PFAKE 13 56 20.0 +11
LONY LR LR
comp=Z,1µm,19.0s
KZA Kyzart 122.36 302 P PKPdf 13 56 10.4 +0.2
SNR=26
TKM2 Tokmak 2 122.36 303 P PKPdf 13 56 09.5 -0.5

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | SNR=45 | | | | | | |
| **KURK** | **Kurchatov** | **122.44** | **313**c | *i*PKIKP | **PKPdf** | **13 56 08.9** | **-0.6** |
| KURK | | | | pmax | pmax | | |
| | comp=Z,303nm,0.8s | | | | | | |
| **KURK** | **Kurchatov** | **122.44** | **313** | *e*PKPdf | **PKPdf** | **13 56 08.5** | **-1.0** |
| KURK | | | | *e* | | 13 59 44.0 | |
| KURK | | | | LR | LR | | |
| | comp=Z,862nm,22.0s | | | | | | |
| **KURK** | **Kurchatov** | **122.44** | **313** | PKPdf | **PKPdf** | **13 56 09.0** | **-0.5** |
| | SNR=30 | | | | | | |
| **KURK** | **Kurchatov** | **122.44** | **313** | P | **PKPdf** | **13 56 09.0** | **-0.5** |
| | SNR=30 | | | | | | |
| **KURK** | **Kurchatov** | **122.44** | **313** | P | **PKPdf** | **13 56 09.0** | **-0.5** |
| | SNR=30 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **122.47** | **313** | SKiKP | **SKiKP** | **13 59 44.0** | **+1.1** |
| | comp=Z,4.6nm,1.0s,baz=112,slow=1.8,SNR=5.7 | | | | | | |
| **KBK** | **Karagaybulak** | **122.74** | **303** | P | **PKPdf** | **13 56 10.6** | **-0.1** |
| | SNR=40 | | | | | | |
| **UCH** | **Uchtor** | **122.92** | **302** | P | **PKPdf** | **13 56 11.8** | **+0.4** |
| | SNR=58 | | | | | | |
| **CHMS** | **Chumysh** | **122.98** | **303** | P | **PKPdf** | **13 56 10.6** | **-0.3** |
| | SNR=38 | | | | | | |
| **FRU** | **Bishkek** | **123.02** | **303**⇑ | *i*PKIKP | **PKPdf** | **13 56 11.0** | **0.0** |
| FRU | | | | *e* | | 13 56 26.0 | |
| FRU | | | | pmax | pmax | | |
| | comp=Z,70nm,1.0s | | | | | | |
| **AAK** | **Ala-Archa** | **123.06** | **303** | PKP | **PKPdf** | **13 56 11.0** | **-0.2** |
| | comp=Z,20nm,0.8s,baz=45,slow=1.4,SNR=7.5 | | | | | | |
| **AAK** | **Ala-Archa** | **123.06** | **303**c | *i*PKIKP | **PKPdf** | **13 56 07.7** | **-3.6** |
| **AAK** | **Ala-Archa** | **123.06** | **303** | P | **PKPdf** | **13 56 11.1** | **-0.2** |
| | SNR=27 | | | | | | |
| **AAK** | **Ala-Archa** | **123.06** | **303** | *e*PKPdf | **PKPdf** | **13 56 10.8** | **-0.5** |
| AAK | | | | LR | LR | | |
| | comp=Z,388nm,19.0s | | | | | | |
| **AAK** | **Ala-Archa** | **123.06** | **303** | PKPdf | **PKPdf** | **13 56 11.3** | **0.0** |
| | SNR=15 | | | | | | |
| **AAK** | **Ala-Archa** | **123.06** | **303** | P | **PKPdf** | **13 56 11.3** | **0.0** |
| | SNR=15 | | | | | | |
| **AAK** | **Ala-Archa** | **123.06** | **303** | P | **PKPdf** | **13 56 11.3** | **0.0** |
| | SNR=15 | | | | | | |
| **USP** | **Ospenovka** | **123.23** | **303** | P | **PKPdf** | **13 56 10.9** | **-0.5** |
| | SNR=38 | | | | | | |
| **AML** | **Almayashu** | **123.48** | **302** | P | **PKPdf** | **13 56 12.2** | **-0.2** |
| | SNR=86 | | | | | | |
| **EKS2** | **Erkin-Say** | **123.57** | **302** | P | **PKPdf** | **13 56 12.0** | **-0.2** |
| | SNR=30 | | | | | | |
| **KBL** | **Kabul** | **124.66** | **292** | *e*PKIKP | **PKPdf** | **13 56 14.2** | **-0.5** |
| **KBL** | **Kabul** | **124.66** | **292** | *e*PKPdf | **PKPdf** | **13 56 14.2** | **-0.5** |
| **BBSR** | **BB Station** | **125.41** | **71** | PFAKE | | 13 56 30.0 | +14 |
| BBSR | | | | LR | LR | | |
| | comp=Z,519nm,21.0s | | | | | | |
| **LSZ** | **Lusaka** | **125.42** | **212** | *e*PKIKP | **PKPdf** | **13 56 16.7** | **+0.1** |
| LSZ | | | | MLR | MLR | | |
| | comp=Z,2μm,20.0s | | | | | | |
| **LSZ** | **Lusaka** | **125.42** | **212** | *e*PKPdf | **PKPdf** | **13 56 16.7** | **+0.1** |
| LSZ | | | | LR | LR | | |
| | comp=Z,2μm,20.0s | | | | | | |
| **PKME** | **Peaks-Kenny Pk** | **125.63** | **55** | *e*PKPdf | **PKPdf** | **13 56 16.2** | **+0.3** |
| PKME | | | | LR | LR | | |
| | comp=Z,1μm,19.0s | | | | | | |
| **KK31** | **Karatay Array** | **126.00** | **302** | PKIKP | **PKPdf** | **13 56 16.5** | **-0.2** |
| KK31 | | | | pmax | pmax | | |
| | comp=Z,34nm,0.8s | | | | | | |
| **KKAR** | **Karatay Array** | **126.00** | **302** | *e*PKIKP | **PKPdf** | **13 56 16.3** | **-0.4** |
| **KKAR** | **Karatay Array** | **126.00** | **302** | *e*PKPdf | **PKPdf** | **13 56 16.3** | **-0.4** |
| **DZET** | **Dzherino** | **126.11** | **297** | PKIKP | **PKPdf** | **13 56 16.3** | **-0.9** |
| DZET | | | | pmax | pmax | | |
| | comp=Z,35nm,1.0s | | | | | | |
| **TULEG** | **Thule** | **126.57** | **16** | *e*PKPdf | **PKPdf** | **13 56 16.5** | **-0.3** |
| **PQI** | **Presque Isle** | **126.80** | **54** | *e*PKPdf | **PKPdf** | **13 56 17.6** | **-0.4** |
| **RCBR** | **Riachuelo** | **127.64** | **131** | PKP | **PKPdf** | **13 56 21.7** | **+0.9** |
| | comp=Z,22nm,1.0s,baz=116,slow=5.4,SNR=4.0 | | | | | | |
| **RCBR** | **Riachuelo** | **127.64** | **131** | *e*PKPdf | **PKPdf** | **13 56 21.4** | **+0.6** |
| RCBR | | | | LR | LR | | |
| | comp=Z,862nm,19.0s | | | | | | |
| **BVA0** | **Borovoye Array** | **127.87** | **314** | *i* PKIKP | **PKPdf** | **13 56 18.7** | **-1.2** |
| BVA0 | | | | pmax | pmax | | |
| | comp=Z,67nm,0.9s | | | | | | |
| **BRVK** | **Borovoye** | **127.94** | **314**d | *i*PKIKP | **PKPdf** | **13 56 19.1** | **-0.9** |
| **BRVK** | **Borovoye** | **127.94** | **314** | *e*PKPdf | **PKPdf** | **13 56 19.4** | **-0.6** |
| BRVK | | | | LR | LR | | |
| | comp=Z,324nm,22.0s | | | | | | |
| **BRVK** | **Borovoye** | **127.94** | **314** | PKPdf | **PKPdf** | **13 56 20.0** | **0.0** |
| | SNR=32 | | | | | | |
| **BRVK** | **Borovoye** | **127.94** | **314** | P | **PKPdf** | **13 56 20.0** | **0.0** |
| | SNR=32 | | | | | | |
| **BRVK** | **Borovoye** | **127.94** | **314** | P | **PKPdf** | **13 56 20.0** | **0.0** |
| | SNR=32 | | | | | | |
| **SCHQ** | **Schefferville** | **128.68** | **43** | PKP | **PKPdf** | **13 56 20.9** | **-0.5** |
| | comp=Z,19nm,1.2s,baz=360,slow=0.9,SNR=5.6 | | | | | | |
| **SCHQ** | **Schefferville** | **128.68** | **43** | *e*PKPdf | **PKPdf** | **13 56 21.1** | **-0.3** |
| **LMN** | **Caledonia Moun** | **128.84** | **55** | *e*PKPdf | **PKPdf** | **13 56 21.8** | **-0.2** |
| **KULLO** | **Kullorsuaq** | **129.90** | **17** | *i* PKIKP | **PKPdf** | **13 56 23.9** | **+0.7** |
| KULLO | | | | pmax | pmax | | |
| | comp=Z,36nm,1.0s | | | | | | |
| **KULLO** | **Kullorsuaq** | **129.90** | **17** | *i* P | **PKPdf** | **13 56 23.9** | **+0.7** |
| | comp=Z,36nm,1.0s | | | | | | |
| **SHEL** | **Horse Pasture** | **130.74** | **171** | PFAKE | | 13 56 40.0 | +13 |
| SHEL | | | | LR | LR | | |
| | comp=Z,561nm,19.0s | | | | | | |
| **HATD** | **Hatta, Dubai** | **131.73** | **275** | P | **SKPbc** | **13 59 47.8** | **-3.4** |
| | SNR=5.2 | | | | | | |
| **ASHO** | **Ashiyiah** | **131.74** | **275** | P | **SKPbc** | **13 59 47.4** | **-3.8** |
| | SNR=7.4 | | | | | | |
| **KMBO** | **Kilima Mbogo** | **131.91** | **232** | PKP | **PKPdf** | **13 56 30.4** | **+1.2** |
| | comp=Z,9.5nm,0.8s,baz=104,slow=3.3,SNR=20 | | | | | | |
| KMBO | | | | SKPbc | **SKPbc** | **13 59 51.3** | **-1.2** |
| | comp=Z,42nm,1.0s,baz=80,slow=3.1,SNR=29 | | | | | | |
| **KMBO** | **Kilima Mbogo** | **131.91** | **232** | PKIKP | **PKPdf** | **13 56 30.4** | **+1.2** |
| KMBO | | | | MLR | MLR | | |
| | comp=Z,1μm,20.0s | | | | | | |
| **KMBO** | **Kilima Mbogo** | **131.91** | **232** | PKP | **PKPdf** | **13 56 30.4** | **+1.2** |
| KMBO | | | | SKPbc | **SKPbc** | **13 59 51.3** | **-1.2** |
| KMBO | | | | LR | LR | | |
| | comp=Z,1μm,20.0s | | | | | | |
| **NAZ** | **Nazwa, Dubai** | **132.19** | **275** | P | **SKPbc** | **13 59 49.6** | **-3.2** |
| | SNR=8.5 | | | | | | |
| **SVE** | **Sverdlovsk** | **133.56** | **319** | *i* PKIKP | **PKPdf** | **13 56 30.7** | **+0.1** |
| SVE | | | | pmax | pmax | | |
| | comp=Z,67nm,1.0s | | | | | | |
| SVE | | | | MLR | MLR | | |
| | comp=Z,919nm,23.0s | | | | | | |
| **KBS** | **Kingsbay** | **133.87** | **357** | *e*PKIKP | **PKPdf** | **13 56 30.6** | **0.0** |
| KBS | | | | MLR | MLR | | |
| | comp=Z,872nm,20.0s | | | | | | |
| **KBS** | **Kingsbay** | **133.87** | **357** | *e*P | **PKPdf** | **13 56 31.1** | **+0.5** |
| **KBS** | **Kingsbay** | **133.87** | **357** | *e*PKPdf | **PKPdf** | **13 56 30.6** | **0.0** |
| KBS | | | | LR | LR | | |
| | comp=Z,872nm,20.0s | | | | | | |
| **GEYT** | **Alibeck** | **134.07** | **293** | PKhKP | PKPpre | 13 56 23.6 | |
| | comp=Z,1.8nm,0.5s,baz=196,slow=2.6,SNR=4.0 | | | | | | |
| GEYT | | | | PKP | **PKPdf** | **13 56 32.5** | **+0.3** |
| | comp=Z,15nm,0.7s,baz=212,slow=1.4,SNR=29 | | | | | | |
| GEYT | | | | SKPbc | **SKPbc** | **13 59 57.0** | **-1.9** |
| | comp=Z,7.9nm,0.8s,baz=225,slow=1.9,SNR=7.6 | | | | | | |
| **AB31** | **Akbulak array** | **134.14** | **309** | PKIKP | **PKPdf** | **13 56 30.6** | **-1.3** |
| AB31 | | | | pmax | pmax | | |
| | comp=Z,32nm,1.0s | | | | | | |
| **ABKAR** | **Akbulak array** | **134.14** | **309** | *e*PKPdf | **PKPdf** | **13 56 31.5** | **-0.4** |
| **SPA0** | **Spitsbergen Ar** | **134.36** | **356** | *e*P | **PKPdf** | **13 56 32.1** | **+0.6** |
| SPA0 | | | | *i* | | 13 56 47.3 | |
| SPA0 | | | | *e* | | 13 59 59.7 | |
| **SPA0** | **Spitsbergen Ar** | **134.36** | **356** | *e*PKPdf | **PKPdf** | **13 56 31.6** | **+0.1** |
| **SFJD** | **Kangerlussuaq** | **134.73** | **26** | PFAKE | | 13 56 40.0 | +7.6 |
| SFJD | | | | LR | LR | | |
| | comp=Z,1μm,20.0s | | | | | | |
| **ARU** | **Arti** | **134.74** | **319** | SKPbc | **SKPbc** | **13 59 59.5** | **-0.8** |
| | comp=Z,22nm,0.8s,baz=90,slow=1.3,SNR=14 | | | | | | |
| **ARU** | **Arti** | **134.74** | **319** | *e*PKIKP | **PKPdf** | **13 56 32.6** | **-0.2** |
| ARU | | | | MLR | MLR | | |
| | comp=Z,623nm,20.0s | | | | | | |
| **ARU** | **Arti** | **134.74** | **319** | *e*PKPdf | **PKPdf** | **13 56 32.6** | **-0.2** |
| ARU | | | | SKPbc | **SKPbc** | **13 59 59.5** | **-0.8** |
| ARU | | | | LR | LR | | |
| | comp=Z,623nm,20.0s | | | | | | |
| **DAG** | **Danmarks Havn** | **135.31** | **6** | *i* PKIKP | **PKPdf** | **13 56 32.2** | **-1.1** |
| DAG | | | | pmax | pmax | | |
| | comp=Z,15nm,0.8s | | | | | | |
| **DAG** | **Danmarks Havn** | **135.31** | **6** | *i* P | **PKPdf** | **13 56 32.2** | **-1.1** |
| | comp=Z,15nm,0.8s | | | | | | |
| **AKTO** | **Aktyubinsk** | **135.41** | **310** | SKPbc | **SKPbc** | **14 00 05.1** | **+2.5** |
| | comp=Z,9.0nm,0.9s,baz=90,slow=2.5,SNR=8.4 | | | | | | |
| **AKTO** | **Aktyubinsk** | **135.41** | **310** | PKIKP | **PKPdf** | **13 56 33.5** | **-0.8** |
| AKTO | | | | pmax | pmax | | |
| | comp=Z,29nm,0.9s | | | | | | |
| **SUMG** | **Summit** | **135.49** | **16** | *e*PKIKP | **PKPdf** | **13 56 34.4** | **+0.1** |
| **SUMG** | **Summit** | **135.49** | **16** | *i* P | **PKPdf** | **13 56 32.5** | **-1.8** |
| | comp=Z,49nm,1.4s | | | | | | |
| **SUMG** | **Summit** | **135.49** | **16** | *e*PKPdf | **PKPdf** | **13 56 34.4** | **+0.1** |
| **ATD** | **Arta Tunnel** | **136.30** | **250** | SKPbc | **SKPbc** | **14 00 07.8** | **+1.2** |
| | comp=Z,10nm,0.8s,baz=267,slow=3.6,SNR=4.4 | | | | | | |
| **RAYN** | **Ar Rayn** | **140.12** | **268** | *e*PKPpre | PKPpre | 13 56 38.5 | |
| RAYN | | | | LR | LR | | |
| | comp=Z,660nm,19.0s | | | | | | |
| **LVZ** | **Lovozero** | **140.22** | **341** | PFAKE | | 13 56 50.0 | +7.4 |
| LVZ | | | | LR | LR | | |
| | comp=Z,1μm,21.0s | | | | | | |
| **HAMF** | **Hammerfest** | **140.48** | **348** | *e*P | **PKPdf** | **13 56 45.3** | **+2.3** |
| **KEV** | **Kevo** | **140.62** | **346** | PFAKE | | 13 57 00.0 | +17 |
| KEV | | | | LR | LR | | |
| | comp=Z,804nm,21.0s | | | | | | |
| **ARCES** | **ARCESS Array B** | **141.09** | **347** | PKhKP | PKPpre | 13 56 37.8 | |
| | comp=Z,33nm,1.0s,baz=20,slow=0.6,SNR=40 | | | | | | |
| ARCES | | | | PKP | **PKPdf** | **13 56 44.5** | **+0.4** |
| | comp=Z,12nm,0.6s,baz=82,slow=1.9,SNR=24 | | | | | | |
| ARCES | | | | SKP | | 14 00 19.6 | |
| | comp=Z,18nm,0.9s,baz=29,slow=2.8,SNR=8.0 | | | | | | |
| **ARCES** | **ARCESS Array B** | **141.09** | **347** | *e*PKPpre | PKPpre | 13 56 37.1 | |
| ARCES | | | | PKP | **PKPdf** | **13 56 44.5** | **+0.4** |
| ARCES | | | | SKP | | 14 00 19.6 | |
| **ARE0** | **ARCESS Array S** | **141.09** | **347** | *e*P | PKPpre | 13 56 37.5 | |
| **ARE0** | **ARCESS Array S** | **141.09** | **347** | *e*PKPpre | PKPpre | 13 56 37.3 | |
| **TMCR** | **Tamitsa** | **141.56** | **335** | *e*PKIKP | **PKPdf** | **13 56 43.0** | **-2.1** |
| TMCR | | | | pmax | pmax | | |
| | comp=Z,29nm,1.0s | | | | | | |
| **KTK1** | **Kautokeino** | **141.97** | **347** | *e*P | PKPpre | 13 56 40.8 | |
| **TRO** | **Tromso** | **142.12** | **350** | *e*P | PKPpre | 13 56 42.9 | |
| **MAK** | **Makhachkala** | **142.67** | **299** | *e*P | **Pdif** | **13 54 05.9** | **-3.6** |
| MAK | | | | *i* | | 13 56 48.1 | |
| MAK | | | | *e* | | 13 59 52.3 | |
| MAK | | | | *e*SS | SS | 14 18 28.0 | -3.5 |
| MAK | | | | *e*SSS | SSS | 14 23 49.4 | |
| MAK | | | | pmax | pmax | | |
| | comp=Z,132nm,0.8s | | | | | | |
| **KLMR** | **Klimovskoe** | **142.82** | **330** | *e*PKHKP | PKPpre | 13 56 39.8 | |
| KLMR | | | | pmax | pmax | | |
| | comp=Z,45nm,0.8s | | | | | | |
| KLMR | | | | MLR | MLR | | |
| | comp=Z,280nm,22.0s | | | | | | |
| **STEI** | **Steigen** | **144.22** | **351** | *e*P | PKPbc | 13 56 48.2 | +0.3 |
| **LOF** | **Lofoten** | **144.24** | **352** | *e*P | **PKPab** | **13 56 48.0** | **+0.4** |
| **GNI** | **Garni** | **144.67** | **294** | PKP | **PKPdf** | **13 56 51.5** | **-0.1** |
| | comp=Z,35nm,1.0s,baz=45,slow=1.4,SNR=2.7 | | | | | | |
| **GNI** | **Garni** | **144.67** | **294** | *i* PKIKP | **PKPab** | **13 56 48.5** | **-1.8** |
| **GNI** | **Garni** | **144.67** | **294** | *e*PKPdf | **PKPab** | **13 56 50.0** | **-0.3** |
| GNI | | | | LR | LR | | |
| | comp=Z,612nm,20.0s | | | | | | |
| **GNI** | **Garni** | **144.67** | **294** | PKPdf | **PKPdf** | **13 56 51.9** | **+0.3** |
| | SNR=7.1 | | | | | | |
| **GNI** | **Garni** | **144.67** | **294** | P | **PKPdf** | **13 56 51.9** | **+0.3** |
| | SNR=7.1 | | | | | | |
| **GNI** | **Garni** | **144.67** | **294** | P | **PKPdf** | **13 56 51.9** | **+0.3** |
| | SNR=7.1 | | | | | | |
| **BORG** | **Borgarnes** | **145.46** | **17** | PKPbc | **PKPab** | **13 56 53.3** | **+1.1** |
| | comp=Z,127nm,1.0s,baz=332,slow=2.0,SNR=3.3 | | | | | | |
| **BORG** | **Borgarnes** | **145.46** | **17** | *e*PKIKP | **PKPab** | **13 56 53.1** | **+0.9** |
| **BORG** | **Borgarnes** | **145.46** | **17** | *e*PKPdf | **PKPab** | **13 56 53.1** | **+0.9** |
| **NCK** | **Nalchik** | **145.52** | **300** | *i* PKIKP | **PKPdf** | **13 56 52.2** | **-0.5** |
| **VRH** | **Novokhopyorsk** | **145.52** | **314** | *e*PKP2 | **PKPdf** | **13 56 51.2** | **-1.2** |
| VRH | | | | pmax | pmax | | |
| | comp=Z,220nm,0.7s | | | | | | |
| **AKH** | **Akhalkalaki** | **145.65** | **296**⇑ | *i*P | **PKPdf** | **13 56 53.1** | **-0.1** |
| **GOF** | **Gofitskoye** | **145.79** | **303**⇑ | *i*PKP2 | **PKPdf** | **13 56 53.5** | **+0.4** |
| GOF | | | | pmax | pmax | | |
| | comp=Z,190nm,0.9s | | | | | | |
| **KONS** | **Konsvik** | **145.85** | **352** | *e*P | **PKPbc** | **13 56 53.3** | **+0.2** |
| KONS | | | | *i* | | 13 57 10.7 | |
| **MOR8** | **Moi Rana** | **145.98** | **350** | *e*P | **PKPdf** | **13 56 52.7** | **-0.2** |
| **KBZ** | **Khabaz** | **146.01** | **300** | PKPbc | **PKPdf** | **13 56 54.0** | **+0.6** |
| | comp=Z,26nm,0.9s,baz=96,slow=3.2,SNR=29 | | | | | | |
| KBZ | | | | SKPbc | **SKiKP** | **14 00 36.1** | **+5.0** |
| | comp=Z,9.7nm,1.0s,baz=85,slow=2.2,SNR=3.7 | | | | | | |
| **STOK** | **Stokkvaagen** | **146.02** | **352** | *e*P | **PKPbc** | **13 56 54.0** | **+0.3** |
| STOK | | | | *i* | | 13 57 09.6 | |
| **KIV** | **Kislovodsk** | **146.15** | **301** | *i* PKIKP | **PKPdf** | **13 56 51.9** | **-2.0** |
| KIV | | | | pmax | pmax | | |
| | comp=Z,35nm,1.0s | | | | | | |
| **KIV** | **Kislovodsk** | **146.15** | **301** | *e*PKPdf | **PKPdf** | **13 56 54.1** | **+0.2** |
| KIV | | | | LR | LR | | |
| | comp=Z,618nm,21.0s | | | | | | |
| **KIV** | **Kislovodsk** | **146.15** | **301** | PKPab | **PKPab** | **13 56 55.7** | **+0.1** |
| | SNR=6.8 | | | | | | |
| **KIV** | **Kislovodsk** | **146.15** | **301** | P | **PKPab** | **13 56 55.7** | **+0.1** |
| | SNR=6.8 | | | | | | |
| **MOS** | **Moscow** | **146.16** | **323** | *i* PKP2 | **PKPbc** | **13 56 54.5** | **+0.1** |
| MOS | | | | *e* | | 14 00 12.9 | |
| MOS | | | | pmax | pmax | | |
| | comp=Z,410nm,0.9s | | | | | | |
| MOS | | | | pmax | pmax | | |
| | comp=Z,591nm,1.0s | | | | | | |
| **NEY** | **Neytrino** | **146.17** | **300** | *i* PKP2 | **PKPbc** | **13 56 55.0** | **-0.1** |
| **LPSR** | **Galich'ya Gora** | **146.72** | **317** | *e*PKP2 | **PKPdf** | **13 56 54.9** | **+0.5** |
| LPSR | | | | pmax | pmax | | |
| | comp=Z,240nm,0.8s | | | | | | |
| **ARTV** | **Artvin** | **146.83** | **296** | *e*PKPdf | **PKPdf** | **13 56 55.5** | **+0.2** |
| **VORR** | **Voronezh** | **146.88** | **315** | PKIKP | **PKPdf** | **13 56 53.0** | **-1.7** |
| VORR | | | | pmax | pmax | | |
| | comp=Z,750nm,1.8s | | | | | | |
| **OBN** | **Obninsk** | **146.98** | **322**c | *i*PKIKP | **PKPdf** | **13 56 54.6** | **-0.1** |
| OBN | | | | *e*SS | SS | 14 19 19.5 | 0.0 |
| OBN | | | | pmax | pmax | | |
| | comp=Z,215nm,0.9s | | | | | | |
| OBN | | | | MLR | MLR | | |
| | comp=Z,804nm,21.0s | | | | | | |
| **OBN** | **Obninsk** | **146.98** | **322** | *e*PKPdf | **PKPdf** | **13 56 54.6** | **-0.1** |
| OBN | | | | LR | LR | | |
| | comp=Z,840nm,20.0s | | | | | | |
| **VSR** | **Storozhevoye** | **147.05** | **315** | *e*PKIKP | **PKPdf** | **13 56 54.8** | **-0.2** |
| VSR | | | | pmax | pmax | | |
| | comp=Z,180nm,0.9s | | | | | | |
| **PUL** | **Pulkovo** | **147.16** | **333**c | *i*PKP2 | **PKPbc** | **13 56 57.4** | **+0.2** |
| PUL | | | | pmax | pmax | | |
| | comp=Z,620nm,0.7s | | | | | | |
| **FIA1** | **FINESS Array S** | **147.44** | **338** | *e*PKPdf | **PKPdf** | **13 56 55.2** | **-0.2** |
| FIA1 | | | | *e*PKPdf | **PKPbc** | **13 56 55.5** | **-2.5** |
| FIA1 | | | | *e*PKPbc | **PKPab** | **13 56 57.7** | **-2.2** |
| **FINES** | **FINESS Array B** | **147.45** | **338** | PKPbc | **PKPbc** | **13 56 58.1** | **+0.2** |
| | comp=Z,344nm,0.8s,baz=96,slow=4.1,SNR=531 | | | | | | |
| FINES | | | | PP | **PP** | **14 00 24.8** | **+0.7** |
| | comp=Z,5.0nm,0.8s,baz=29,slow=3.2,SNR=2.3 | | | | | | |
| FINES | | | | SKPbc | **SKiKP** | **14 00 35.2** | **+1.6** |
| | comp=Z,16nm,1.1s,baz=64,slow=6.6,SNR=4.7 | | | | | | |
| **MARD** | **Mardin** | **147.59** | **289** | *e*PKPdf | **PKPdf** | **13 56 55.9** | **-0.7** |
| MARD | | | | *e*PKPbc | **PKPbc** | **13 56 58.9** | **-0.4** |
| **SOC** | **Sochi** | **148.32** | **301** | *i* PKP2 | **PKPbc** | **13 56 59.8** | **-1.0** |
| SOC | | | | pmax | pmax | | |
| | comp=Z,32nm,0.6s | | | | | | |
| **TBLU** | **Trondheim** | **149.32** | **352** | *e*P | **PKPdf** | **13 56 58.7** | **+0.3** |
| **VSU** | **Vasula** | **149.41** | **334** | *i* PKP2 | **PKPbc** | **13 57 02.9** | **-0.2** |
| **ANN** | **Anapa** | **149.78** | **303** | *e*PKIKP | **PKPdf** | **13 56 57.1** | **-2.6** |
| ANN | | | | *i* | | 13 57 04.3 | |
| ANN | | | | pmax | pmax | | |
| | comp=Z,262nm,0.9s | | | | | | |
| **ASF** | **Jabal al Asfar** | **150.05** | **278** | PKP | **PKPdf** | **13 57 01.0** | **+0.3** |
| | comp=Z,5.7nm,0.7s,baz=75,slow=1.8,SNR=9.5 | | | | | | |
| ASF | | | | PKPbc | **PKPbc** | **13 57 06.2** | **+0.5** |
| | comp=Z,25nm,1.0s,baz=106,slow=0.5,SNR=22 | | | | | | |
| **MOL** | **Molde** | **150.26** | **354** | *e*P | **PKPbc** | **13 57 03.0** | **-2.0** |
| MOL | | | | *e* | | 13 57 07.8 | |
| **DOMB** | **Dombas** | **150.63** | **352** | *e*P | **PKPbc** | **13 57 06.1** | **+0.1** |
| DOMB | | | | *i* | | 13 57 13.1 | |
| **AKN** | **Aaknes** | **150.69** | **354** | *e*P | **PKPdf** | **13 57 01.2** | **+0.6** |
| AKN | | | | *e* | | 13 57 07.2 | |
| **MARH** | **Ras Al Marh** | **150.71** | **282** | *e*P | **PKPdf** | **13 57 03.0** | **+1.1** |
| **HAWK** | **Haweek** | **150.84** | **283** | *e*P | **PKPdf** | **13 57 01.9** | **0.0** |
| **TCHB** | **Talchebab** | **150.91** | **279** | *e*P | **PKPdf** | **13 57 01.6** | **-0.3** |
| **BRBR** | **Barbar** | **151.05** | **280** | *e*P | **PKPdf** | **13 56 57.8** | **-4.5** |
| **SACV** | **Santiago Islan** | **151.12** | **123** | *e*PKPbc | **PKPbc** | **13 57 08.0** | **-0.5** |
| SACV | | | | LR | LR | | |
| | comp=Z,354nm,21.0s | | | | | | |
| **NC303** | **NORSAR Array S** | **151.12** | **350** | *e*PKPdf | **PKPdf** | **13 57 01.2** | **-0.1** |
| NC303 | | | | *e*PKPbc | **PKPbc** | **13 57 07.2** | **0.0** |
| **NC204** | **NORSAR Array S** | **151.16** | **350** | *e*PKPdf | **PKPdf** | **13 57 01.1** | **-0.3** |
| NC204 | | | | *e*PKPbc | **PKPbc** | **13 57 07.2** | **-0.1** |
| NC204 | | | | *e*PKPab | **PKPab** | **13 57 14.8** | **-0.4** |
| **NC405** | **NORSAR Array S** | **151.18** | **349** | *e*PKPdf | **PKPdf** | **13 57 00.5** | **-0.9** |
| NC405 | | | | *e*PKPbc | **PKPbc** | **13 57 07.2** | **-0.2** |
| NC405 | | | | *e*PKPab | **PKPab** | **13 57 15.2** | **0.0** |
| **NB201** | **NORSAR Array S** | **151.30** | **350** | *e*PKPbc | **PKPbc** | **13 57 07.6** | **0.0** |
| NB201 | | | | *e*PKPab | **PKPab** | **13 57 15.5** | **-0.2** |
| **NB2** | **NORSAR Subarra** | **151.32** | **350** | PKP | **PKPbc** | **13 57 07.6** | **-0.1** |
| | comp=Z,86nm,0.7s,baz=17,slow=2.6 | | | | | | |
| **NB2** | **NORSAR Subarra** | **151.32** | **350** | PKP | **PKPbc** | **13 57 07.6** | **-0.1** |
| | baz=17,slow=2.6 | | | | | | |
| **NOA** | **NORSAR Array B** | **151.32** | **350** | PKPbc | **PKPbc** | **13 57 07.9** | **+0.2** |
| | comp=Z,23nm,0.7s,baz=22,slow=4.7,SNR=162 | | | | | | |
| **NBO02** | **NORSAR Array S** | **151.37** | **350** | *e*PKPdf | **PKPdf** | **13 57 01.5** | **-0.2** |
| NBO02 | | | | *e*PKPbc | **PKPbc** | **13 57 07.7** | **0.0** |
| **NBO00** | **NORSAR Array S** | **151.40** | **350** | *e*PKPdf | **PKPdf** | **13 57 01.8** | **0.0** |
| NBO00 | | | | *e*PKPbc | **PKPbc** | **13 57 07.8** | **0.0** |
| **FOO** | **Floro** | **151.40** | **356** | *e*P | **PKPbc** | **13 57 08.3** | **+0.5** |
| **IZAR** | **Zarasai** | **151.47** | **330** | *e*P | **PKPbc** | **13 57 08.6** | **+0.5** |
| IZAR | | | | IAmb | IAmb | 13 57 10.2 | |
| | comp=Z,133nm,1.0s | | | | | | |
| **IDID** | **Didziasalis** | **151.55** | **329** | *e*P | **PKPbc** | **13 57 08.8** | **+0.5** |
| IDID | | | | IAmb | IAmb | 13 57 10.3 | |
| | comp=Z,154nm,0.9s | | | | | | |
| **MICGM** | **Minsk** | **151.55** | **327**⇑ | *e*P | **PKPbc** | **13 57 08.0** | **-0.3** |
| MICGM | | | | PM | | 13 57 10.0 | |
| | comp=Z,1.3nm,0.8s | | | | | | |
| **MNK** | **Minsk** | **151.55** | **327**⇑ | *e*PKIKP | **PKPbc** | **13 57 08.0** | **-0.3** |
| MNK | | | | pmax | pmax | | |
| | comp=Z,1μm,0.8s | | | | | | |
| **NAO01** | **NORSAR Array S** | **151.56** | **350** | *e*PKPdf | **PKPdf** | **13 57 02.0** | **0.0** |
| NAO01 | | | | *e*PKPbc | **PKPbc** | **13 57 08.3** | **+0.1** |
| NAO01 | | | | *e*PKPab | **PKPab** | **13 57 16.6** | **-0.2** |
| **NC602** | **NORSAR Array S** | **151.56** | **349** | *e*P | **PKPdf** | **13 57 01.9** | **-0.1** |
| NC602 | | | | *e* | | 13 57 08.4 | |
| **NC602** | **NORSAR Array S** | **151.56** | **349** | *e*PKPdf | **PKPdf** | **13 57 01.7** | **-0.3** |
| NC602 | | | | *e*PKPbc | **PKPbc** | **13 57 07.9** | **-0.3** |
| **IIGN** | **Ignalina** | **151.75** | **329** | *e*P | **PKPbc** | **13 57 09.2** | **+0.5** |
| IIGN | | | | IAmb | IAmb | 13 57 10.8 | |
| | comp=Z,145nm,0.8s | | | | | | |
| **HFS** | **Hagfors** | **151.76** | **347** | PKP | **PKPdf** | **13 57 01.7** | **-0.6** |
| | comp=Z,20nm,0.8s,baz=107,slow=1.5,SNR=28 | | | | | | |
| HFS | | | | PKPbc | **PKPbc** | **13 57 08.3** | **-0.4** |
| | comp=Z,74nm,0.7s,baz=94,slow=4.3,SNR=106 | | | | | | |
| **HYA** | **Hoyanger** | **151.76** | **355** | *e*P | **PKPbc** | **13 57 09.3** | **+0.7** |
| **NACGM** | **Naroch** | **151.80** | **328** | *e*P | **PKPdf** | **13 57 02.0** | **-0.5** |
| NACGM | | | | PM | | 13 57 11.0 | |
| | comp=Z,2.9nm,1.0s | | | | | | |
| NACGM | | | | *e*LR | LR | 14 58 38.0 | |
| **SUE** | **Sulen** | **151.96** | **356** | *e*P | **PKPbc** | **13 57 09.5** | **+0.5** |
| **SIM** | **Simferopol'** | **152.05** | **305** | *e*PKIKP | **PKPbc** | **13 57 10.3** | **+0.5** |
| SIM | | | | pmax | pmax | | |
| | comp=Z,111nm,0.8s | | | | | | |
| **OSL** | **Oslo** | **152.45** | **350** | *e* | **PKPbc** | **13 57 10.7** | **+0.6** |
| **ASK** | **Askoy** | **152.51** | **356** | *e*P | **PKPbc** | **13 57 10.9** | **+0.6** |
| ASK | | | | *i* | | 13 57 26.3 | |
| **BER** | **Bergen** | **152.60** | **356** | *e*P | **PKPbc** | **13 57 11.1** | **+0.6** |
| **LIC** | **Lamto** | **152.61** | **166** | *e*PKIKP | **PKPdf** | **13 57 04.6** | **-0.4** |
| | comp=Z,550nm,0.8s | | | | | | |
| **KIC** | **Kosan Boka** | **152.80** | **167** | *e*PKIKP | **PKPdf** | **13 57 05.0** | **-0.3** |
| | comp=Z,482nm,0.8s | | | | | | |
| **KONO** | **Kongsberg** | **152.89** | **351** | *e*PKIKP | **PKPbc** | **13 57 11.3** | **+0.1** |
| KONO | | | | *e* | | 13 57 22.4 | |
| **KONO** | **Kongsberg** | **152.89** | **351** | *e*P | **PKPbc** | **13 57 11.4** | **+0.2** |
| KONO | | | | *i* | | 13 57 22.6 | |
| **KONO** | **Kongsberg** | **152.89** | **351** | *e*PKPbc | **PKPbc** | **13 57 11.3** | **+0.1** |
| KONO | | | | *e*PKPab | **pPKPbc** | **13 57 22.4** | **-0.1** |
| **ODD1** | **Odda** | **152.97** | **354** | *e*P | **PKPdf** | **13 57 05.7** | **+1.6** |
| ODD1 | | | | *e* | | 13 57 12.1 | |
| **AKASG** | **Malin Array Be** | **153.00** | **319** | PKP | **PKPdf** | **13 57 03.5** | **-0.9** |
| | comp=Z,5.7nm,0.9s,baz=61,slow=2.1,SNR=14 | | | | | | |
| AKASG | | | | PKPbc | **PKPbc** | **13 57 11.6** | **-0.1** |
| | comp=Z,86nm,0.8s,baz=50,slow=2.6,SNR=114 | | | | | | |
| **AKBB** | **Malin Array Si** | **153.00** | **319** | *e*PKIKP | **PKPdf** | **13 57 03.0** | **-1.4** |
| AKBB | | | | *e* | | 13 57 11.3 | |
| **AKBB** | **Malin Array Si** | **153.00** | **319** | *e*PKPdf | **PKPdf** | **13 57 03.0** | **-1.4** |
| AKBB | | | | *e*PKPbc | **PKPbc** | **13 57 11.3** | **-0.4** |
| **KIEV** | **Kiev** | **153.01** | **319** | *e*PKIKP | **PKPdf** | **13 57 03.0** | **-1.4** |
| KIEV | | | | *e* | | 13 57 11.5 | |
| KIEV | | | | MLR | MLR | | |
| | comp=Z,605nm,21.0s | | | | | | |
| **KIEV** | **Kiev** | **153.01** | **319** | *e*PKPdf | **PKPdf** | **13 57 03.0** | **-1.4** |
| KIEV | | | | *e*PKPbc | **PKPbc** | **13 57 11.5** | **-0.2** |
| KIEV | | | | LR | LR | | |
| | comp=Z,605nm,21.0s | | | | | | |
| **TIC** | **Toumodi** | **153.02** | **166** | *e*PKIKP | **PKPdf** | **13 57 05.0** | **-0.6** |
| **ILGA** | **Ilgaz** | **153.03** | **296** | *e*PKPbc | **PKPbc** | **13 57 12.2** | **-0.3** |
| **AK11** | **Malin Array Si** | **153.04** | **319** | *e*PKPdf | **PKPdf** | **13 57 03.2** | **-1.2** |
| AK11 | | | | *e*PKPbc | **PKPbc** | **13 57 11.5** | **-0.3** |
| **DBIC** | **Dimbokro** | **153.08** | **167** | PKP | **PKPdf** | **13 57 06.7** | **+1.1** |
| | comp=Z,33nm,0.8s,baz=158,slow=1.6,SNR=49 | | | | | | |
| DBIC | | | | PKPbc | **PKiKP** | **13 57 13.8** | **+0.6** |
| | comp=Z,91nm,0.7s,baz=160,slow=2.8,SNR=46 | | | | | | |
| **DBIC** | **Dimbokro** | **153.08** | **167** | *e*PKIKP | **PKPdf** | **13 57 06.0** | **+0.3** |
| DBIC | | | | *e* | | 13 57 13.8 | |
| **DBIC** | **Dimbokro** | **153.08** | **167** | *e*PKPdf | **PKPdf** | **13 57 06.0** | **+0.3** |
| DBIC | | | | *e*PKPbc | **PKiKP** | **13 57 13.8** | **+0.6** |
| **BR131** | **Keskin Array S** | **153.21** | **294** | *e*PKPdf | **PKPdf** | **13 57 03.7** | **-1.6** |
| BR131 | | | | *e*PKPbc | **PKPbc** | **13 57 12.2** | **-0.5** |
| **BRTR** | **Keskin Array B** | **153.21** | **294** | PKP | **PKPdf** | **13 57 04.5** | **-0.7** |
| | comp=Z,5.6nm,1.0s,baz=140,slow=4.0,SNR=21 | | | | | | |
| BRTR | | | | PKPbc | **PKPbc** | **13 57 12.6** | **-0.2** |
| | comp=Z,18nm,0.7s,baz=133,slow=4.2,SNR=37 | | | | | | |
| **CSS** | **Mathiatis** | **153.40** | **283** | *e*PKPbc | **PKPbc** | **13 57 12.6** | **-0.5** |
| CSS | | | | LR | LR | | |
| | comp=Z,274nm,22.0s | | | | | | |
| **BLS5** | **Blasjo** | **153.46** | **354** | *e*P | **PKPdf** | **13 57 07.6** | **+2.7** |
| BLS5 | | | | *e* | | 13 57 13.6 | |
| BLS5 | | | | *i* | | 13 57 25.5 | |
| **KMY** | **Karmoy** | **153.77** | **355** | *e*P | **PKPbc** | **13 57 13.9** | **+0.8** |
| KMY | | | | *i* | | 13 57 26.6 | |
| **ANTO** | **Ankara** | **153.84** | **294** | *e*PKIKP | **PKPdf** | **13 57 05.3** | **-0.8** |
| ANTO | | | | *e* | | 13 57 13.9 | |
| ANTO | | | | MLR | MLR | | |
| | comp=Z,566nm,21.0s | | | | | | |
| **ANTO** | **Ankara** | **153.84** | **294** | *e*PKPdf | **PKPdf** | **13 57 05.3** | **-0.8** |
| ANTO | | | | *e*PKPbc | **PKPbc** | **13 57 13.9** | **-0.1** |
| ANTO | | | | LR | LR | | |
| | comp=Z,566nm,21.0s | | | | | | |
| **ANTO** | **Ankara** | **153.84** | **294** | PKPdf | **PKPdf** | **13 57 07.4** | **+1.3** |
| | SNR=7.9 | | | | | | |
| **ANTO** | **Ankara** | **153.84** | **294** | P | **PKPdf** | **13 57 07.4** | **+1.3** |
| | SNR=7.9 | | | | | | |
| **ANTO** | **Ankara** | **153.84** | **294** | P | **PKPdf** | **13 57 07.4** | **+1.3** |
| | SNR=7.9 | | | | | | |
| **BR231** | **Keskin MP Arra** | **153.86** | **294** | *e*PKPdf | **PKPdf** | **13 57 04.5** | **-1.7** |
| BR231 | | | | *e*PKPbc | **PKPbc** | **13 57 12.5** | **-1.6** |
| **SUW** | **Suwalki** | **153.95** | **330** | *e*PKP | **PKPbc** | **13 57 14.3** | **+0.7** |
| **SUW** | **Suwalki** | **153.95** | **330** | *e*PKIKP | **PKPbc** | **13 57 14.3** | **+0.7** |
| **HOMB** | **Homborsund** | **154.37** | **351** | *e*P | **PKPbc** | **13 57 15.1** | **+0.7** |
| **SNART** | **Snartemo** | **154.46** | **353** | *e*P | **PKPbc** | **13 57 15.5** | **+0.9** |
| SNART | | | | *i* | | 13 57 29.5 | |
| **SORM** | **Soroca** | **154.71** | **314**⇓ | *i*P | **PKPdf** | **13 57 06.7** | **-0.2** |
| **SORM** | **Soroca** | **154.71** | **314** | ⇓PKIKP | **PKPdf** | **13 57 06.7** | **-0.2** |
| **LEOM** | **Leova** | **155.48** | **311**⇓ | *i*P | PKPdf | 13 57 17.8 | +10 |
| **LEOM** | **Leova** | **155.48** | **311** | ⇓PKIKP | PKPdf | 13 57 17.8 | +10 |
| **BBTS** | **Babate** | **155.54** | **134** | PKP | **PKPdf** | **13 57 10.4** | **+1.4** |
| | comp=Z,87nm,1.2s,baz=220,slow=1.2,SNR=4.4 | | | | | | |
| **BSD** | **Bornholm Skovb** | **156.01** | **340** | *i* PKIKP | PKPdf | 13 57 18.2 | +10 |
| BSD | | | | *i* | | 13 57 34.9 | |
| **BSD** | **Bornholm Skovb** | **156.01** | **340** | *i* P | PKPdf | 13 57 18.2 | +10 |
| BSD | | | | *i* | | 13 57 34.9 | |
| **BSD** | **Bornholm Skovb** | **156.01** | **340** | *i* P | PKPdf | 13 57 18.3 | +10 |
| **CFR** | **Carcaliu** | **156.03** | **308**⇓ | *i*P | PKPdf | 13 57 18.7 | +10 |
| **CFR** | **Carcaliu** | **156.03** | **308** | ⇓PKIKP | PKPdf | 13 57 18.7 | +10 |
| **TIRR** | **Tirgusor** | **156.09** | **306**⇑ | *i*P | **PKPdf** | **13 57 10.6** | **+1.7** |
| **TIRR** | **Tirgusor** | **156.09** | **306** | ⇑PKIKP | **PKPdf** | **13 57 10.6** | **+1.7** |
| **LVV** | **L'vov** | **156.27** | **321** | *e*PKIKP | **PKPdf** | **13 57 05.1** | **-3.9** |
| **HARR** | **Harsova** | **156.34** | **307**⇓ | *i*P | **PKPdf** | **13 57 16.0** | **+6.8** |
| **HARR** | **Harsova** | **156.34** | **307** | ⇓PKIKP | **PKPdf** | **13 57 16.0** | **+6.8** |
| **TESR** | **Tescani** | **156.47** | **312**⇑ | *i*P | **PKPdf** | **13 57 09.6** | **+0.3** |
| **BEL** | **Belsk** | **156.52** | **329** | *e*PKP | PKPdf | 13 57 20.4 | +11 |
| **BEL** | **Belsk** | **156.52** | **329** | *e*PKIKP | PKPdf | 13 57 20.4 | +11 |
| **BURAR** | **Bucovina Array** | **156.82** | **316**⇑ | *i*P | **PKPdf** | **13 57 12.3** | **+2.4** |
| **BURAR** | **Bucovina Array** | **156.82** | **316** | ⇑PKIKP | **PKPdf** | **13 57 12.3** | **+2.4** |
| **BUR04** | **Bucovina Ar. S** | **156.82** | **316** | *e*PKPdf | **PKPdf** | **13 57 07.8** | **-2.1** |
| **MANT** | **Manisa** | **157.25** | **291** | *e*PKPdf | **PKPdf** | **13 57 10.1** | **-0.8** |
| **MLR** | **Muntele Rosu** | **157.34** | **310** | PKP | **PKPdf** | **13 57 10.2** | **-0.4** |
| | comp=Z,2.3nm,1.1s,baz=337,slow=5.5,SNR=6.0 | | | | | | |
| **MLR** | **Muntele Rosu** | **157.34** | **310**⇑ | *i*P | **PKPdf** | **13 57 10.3** | **-0.4** |
| **MLR** | **Muntele Rosu** | **157.34** | **310** | *e*PKPdf | **PKPdf** | **13 57 09.8** | **-0.8** |
| **DOPR** | **Dopca** | **157.49** | **312**⇑ | *i*P | **PKPdf** | **13 57 11.1** | **+0.4** |
| **EKA** | **Eskdalemuir Ar** | **157.58** | **7** | PKP | **PKPdf** | **13 57 10.2** | **-0.3** |
| | comp=Z,2.9nm,0.8s,baz=27,slow=2.1,SNR=7.3 | | | | | | |
| EKA | | | | PKPab | **PKPab** | **13 57 42.6** | **+0.1** |
| | comp=Z,23nm,0.8s,baz=357,slow=3.3,SNR=16 | | | | | | |
| EKA | | | | PP | **PP** | **14 01 19.2** | **-2.2** |
| | comp=Z,6.9nm,1.1s,baz=7.8,slow=5.7,SNR=4.4 | | | | | | |
| **ESK** | **Eskdalemuir** | **157.59** | **7** | PFAKE | | 13 57 20.0 | +10 |
| ESK | | | | LR | LR | | |

comp=Z,1µm,20.0s
**CMLA Cha da Macela 157.74 70** PFAKE 13 57 20.0 +8.7
CMLA LR LR
comp=Z,1µm,20.0s
**UZH Uzhgorod 157.90 321** *e*PKIKP **PKPdf 13 57 08.5 -2.5**
UZH *i* 13 57 17.7
**VOIR 157.94 311** ⇓*i*P **PKPdf 13 57 12.4 +1.1**
**VOIR 157.94 311** ⇓PKIKP **PKPdf 13 57 12.4 +1.1**
**STHS Stebnicka Huta 157.95 323** *e*PKIKP **PKPdf 13 57 11.5 +0.3**
**STHS Stebnicka Huta 157.95 323** *e*PKP **PKPdf 13 57 13.5 +0.3**
STHS *e* 13 57 46.0
**OJC Ojcow 158.10 327** *e*PKP **PKPdf 13 57 11.6 +0.3**
**OJC Ojcow 158.10 327** *e*PKIKP **PKPdf 13 57 11.6 +0.3**
**OJC Ojcow 158.10 327** *e*PKPdf **PKPdf 13 57 10.7 -0.6**
**CRVS Cervenica-Dubn 158.16 322** *e*PKIKP **PKPdf 13 57 11.0 -0.4**
CRVS *e* 13 57 46.2
**CRVS Cervenica-Dubn 158.16 322** *e*PKP **PKPdf 13 57 11.0 -0.4**
CRVS *e* 13 57 46.2
**ARR Arges 158.23 311** ⇓*i*P **PKPdf 13 57 11.6 -0.1**
**NIE Niedzica 158.41 325** *e*PKP **PKPdf 13 57 12.1 +0.4**
**NIE Niedzica 158.41 325** *e*PKIKP **PKPdf 13 57 12.1 +0.4**
**DRGR 158.71 316** ⇓*i*P **PKPdf 13 57 11.9 -0.3**
**DRGR 158.71 316** ⇓PKIKP **PKPdf 13 57 11.9 -0.3**
**KECS Kecovo 158.93 322** *e*PKP2 **PKPab 13 57 49.2 +0.5**
**KECS Kecovo 158.93 322** *e*PKP **PKPab 13 57 49.2 +0.5**
**LANS Liptovska Anna 158.99 325** *e*PKIKP **PKPdf 13 57 13.5 +1.1**
**LANS Liptovska Anna 158.99 325** *e*PKP **PKPdf 13 57 13.5 +1.1**
LANS *e* 13 57 51.1
**OKC Ostrava-Krasne 159.12 328** *e*PKPDF **PKPdf 13 57 12.7 +0.2**
OKC *e*PKPAB **PKPab 13 57 50.2 +0.8**
OKC AMS AMS 15 09 50.0
comp=Z,600nm,21.8s
**OKC Ostrava-Krasne 159.12 328** *e*PKIKP **PKPdf 13 57 12.7 +0.2**
OKC *e* 13 57 50.2
OKC MLR MLR
comp=Z,600nm,21.8s
**KSP Ksiaz 159.12 332** *e*PKP **PKPdf 13 57 12.9 +0.4**
**KSP Ksiaz 159.12 332** *e*PKIKP **PKPdf 13 57 12.9 +0.4**
**MORC Moravsky Berou 159.43 329** ⇓*i*P **PKPdf 13 57 13.4 +0.5**
**MORC Moravsky Berou 159.43 329** ⇓PKIKP **PKPdf 13 57 13.4 +0.5**
**MORC Moravsky Berou 159.43 329** *e*PKPdf **PKPdf 13 57 12.2 -0.8**
**UPC Upice 159.50 332** *e*PKPDF **PKPdf 13 57 13.0 +0.1**
UPC *e*PKPAB **PKPab 13 57 55.0 +3.9**
UPC AMS AMS 15 06 20.0
comp=Z,800nm,21.3s
**UPC Upice 159.50 332** *e*PKIKP **PKPdf 13 57 13.0 +0.1**
UPC MLR MLR
comp=Z,800nm,21.3s
**DPC Dobruska-Polom 159.50 332** *e*PKPDF **PKPdf 13 57 12.8 -0.2**
DPC *e*PKPAB **PKPab 13 57 51.5 +0.4**
DPC AMS AMS 15 10 40.0
comp=Z,600nm,21.0s
**DPC Dobruska-Polom 159.50 332** *e*PKIKP **PKPdf 13 57 12.8 -0.2**
DPC *e* 13 57 51.5
DPC MLR MLR
comp=Z,600nm,21.0s
**KRLC Kraliky 159.53 330** *e*PKPDF **PKPdf 13 57 13.2 +0.2**
**KRLC Kraliky 159.53 330** *e*PKIKP **PKPdf 13 57 13.2 +0.2**
**PSZ Piszkesteto 159.59 322** ⇑*i*P **PKPdf 13 57 13.5 +0.3**
**PSZ Piszkesteto 159.59 322** ⇑PKIKP **PKPdf 13 57 13.5 +0.3**
**PSZ Piszkesteto 159.59 322** *e*PKPdf **PKPdf 13 57 12.7 -0.6**
PSZ LR LR
comp=Z,603nm,20.0s
**VYHS Vyhne 159.75 324** *e*PKIKP **PKPdf 13 57 12.5 -0.8**
VYHS *e* 13 57 52.4
**VYHS Vyhne 159.75 324** *e*PKP **PKPdf 13 57 12.5 -0.8**
VYHS *e* 13 57 52.4
**SANT Santorini 159.85 286** PFAKE 13 57 20.0 +6.2
SANT LR LR
comp=Z,474nm,20.0s
**HERR Herculane 159.85 312** ⇑*i*P **PKPdf 13 57 14.6 +1.1**
**CLL Collm 159.89 338** *i* PKIKP **PKPdf 13 57 12.6 -0.7**
CLL *i* 13 57 52.4
CLL pmax pmax
comp=Z,25nm,1.5s
CLL pmax pmax
comp=Z,48nm,1.0s
CLL MLR MLR
comp=Z,600nm,21.5s
**CLL Collm 159.89 338** *i* PKPdf **PKPdf 13 57 12.6 -0.7**
comp=Z,25nm,1.5s
CLL *i* PKPdiff **sPKPdf 13 57 26.8 -1.8**
CLL *i* PKPab **PKPab 13 57 52.4 -0.3**
comp=Z,48nm,1.0s
CLL *e*SS SS 14 21 42.0 +2.1
CLL L L 15 12 00.0
comp=Z,600nm,21.5s
**BRG Berggiesshubel 159.96 336** *i* PKP **PKPdf 13 57 13.7 +0.3**
comp=Z,176nm,2.5s
BRG *i* 13 57 27.8
comp=Z,95nm,2.1s
BRG *i* 13 57 52.9
comp=Z,33nm,1.4s
BRG *e* 13 58 08.3
comp=Z,29nm,1.0s
**BRG Berggiesshubel 159.96 336** *i* PKIKP **PKPdf 13 57 13.7 +0.3**
BRG *i* 13 57 27.8
BRG *i* 13 57 52.9
BRG pmax pmax
comp=Z,176nm,2.5s
BRG pmax pmax
comp=Z,95nm,2.1s
BRG pmax pmax
comp=Z,33nm,1.4s
BRG pmax pmax
comp=Z,29nm,1.0s
**BZS Buzias 159.97 314** ⇑*i*P **PKPdf 13 57 13.8 +0.2**
**BZS Buzias 159.97 314** ⇑PKIKP **PKPdf 13 57 13.8 +0.2**
**PVCC Panska Ves 160.03 334** *e*PKPDF **PKPdf 13 57 13.6 +0.1**
PVCC AMS AMS 15 08 00.0
comp=Z,800nm,21.0s
**PVCC Panska Ves 160.03 334** *e*PKIKP **PKPdf 13 57 13.6 +0.1**
PVCC MLR MLR
comp=Z,800nm,21.0s
**TOA0 Torodi Ar. Sit 160.11 181** *e*PKPdf **PKPdf 13 57 14.6 -0.1**
**TORD Torodi Ar. Bea 160.11 181** PKP **PKPdf 13 57 15.0 +0.3**
comp=Z,12nm,1.0s,baz=306,slow=0.2,SNR=54
TORD PKPab **PKPab 13 57 55.3 +0.8**
comp=Z,58nm,0.9s,baz=174,slow=3.5,SNR=27
TORD PP **PP 14 01 30.2 -4.9**
comp=Z,4.2nm,1.0s,baz=199,slow=4.4,SNR=4.2
**VRAC Vranov 160.19 329** PKP **PKPdf 13 57 13.1 -0.7**
comp=Z,4.2nm,0.5s,baz=22,slow=2.1,SNR=8.7
VRAC PKPab **PKPab 13 57 54.9 +0.7**
comp=Z,8.1nm,0.7s,baz=68,slow=3.2,SNR=5.9
**VTS Vitosha 160.29 305** ⇑*i*P **PKPdf 13 57 13.6 -0.7**
**VTS Vitosha 160.29 305** ⇑PKIKP **PKPdf 13 57 13.6 -0.7**
**VTS Vitosha 160.29 305** *e*PKPdf **PKPdf 13 57 13.4 -0.9**
**CWF Charnwood Fore 160.31 5** *e*PKPdf **PKPdf 13 57 12.3 -1.4**
CWF *e*PKPab **PKPab 13 57 54.0 -0.4**
**IDI Anoyia 160.33 283** PKP **PKPdf 13 57 15.1 +0.6**
comp=Z,24nm,0.9s,baz=64,slow=4.1,SNR=6.9
**MDVR Moldovita 160.33 312** ⇓*i*P **PKPdf 13 57 13.5 -0.6**
**GOPC GO Pecny, Ondr 160.45 333** *e*PKPDF **PKPdf 13 57 13.7 -0.3**
GOPC *e*PKPAB **PKPab 13 57 55.0 -0.2**
GOPC AMS AMS 15 12 40.0
comp=Z,800nm,21.0s
**GOPC GO Pecny, Ondr 160.45 333** *e*PKIKP **PKPdf 13 57 13.7 -0.3**
GOPC *e* 13 57 55.0
GOPC MLR MLR
comp=Z,800nm,21.0s
**PRU Pruhonice 160.48 334** *e*PKPDF **PKPdf 13 57 13.3 -0.7**
PRU ⇑*e*PKP **sPKPdf 13 57 28.3 -1.0**
PRU *e*PKPAB **PKPab 13 57 55.1 -0.2**
PRU AMS AMS 15 09 10.0
comp=Z,800nm,19.0s
**PRU Pruhonice 160.48 334** *e*PKIKP **PKPdf 13 57 13.3 -0.7**
PRU *e* 13 57 28.3
PRU *e* 13 57 55.1
PRU MLR MLR
comp=Z,800nm,19.0s
**WTSB Winterswijk 160.74 350** *e*PKPdf **PKPab 13 57 56.1 -0.2**
comp=Z,32nm,0.9s
**KOWA Kowa 160.85 164** *e*PKPdf **PKPdf 13 57 15.8 +0.3**
**NKC Novy Kostel 161.00 337** AMS AMS 15 09 30.0
comp=Z,1µm,21.5s
**KHC Kasperske Hory 161.54 334** *e*PKPDF **PKPdf 13 57 14.5 -0.8**
KHC ⇑*e*PKP **pPKPdf 13 57 26.8 +0.2**
KHC *e*PKPAB **PKPab 13 57 59.2 -0.8**
KHC AMS AMS 15 11 50.0
comp=Z,700nm,19.9s
**KHC Kasperske Hory 161.54 334** *e*PKIKP **PKPdf 13 57 14.5 -0.8**
KHC *e* 13 57 26.8
KHC *e* 13 57 59.2
KHC MLR MLR
comp=Z,700nm,19.9s
**KHC Kasperske Hory 161.54 334** *e*PKPdf **PKPdf 13 57 14.2 -1.1**
**CONA Conrad Observa 161.55 328** *i* PKPdf **PKPdf 13 57 14.6 -0.8**
comp=Z,9.1nm,0.9s,SNR=9.6
CONA *i* PKPab **PKPab 13 58 01.2 +1.0**
comp=Z,21nm,1.0s
**GEC2 GERESS Array S 161.73 333** *e*PKIKP **PKPdf 13 57 14.7 -0.9**
**GEC2 GERESS Array S 161.73 333** *e*PKPdf **PKPdf 13 57 14.7 -0.9**
**GERES GERESS Array B 161.73 333** PKP **PKPdf 13 57 15.2 -0.3**
comp=Z,6.5nm,0.8s,baz=90,slow=1.3,SNR=28
**GEA0 GERESS Array S 161.74 333** *e*PKPdf **PKPdf 13 57 14.4 -1.1**
**GRFO Grafenberg 161.86 339** *e*PKP2 **PKPab 13 58 01.4 +0.1**
**GRFO Grafenberg 161.86 339** *e*PKPab **PKPab 13 58 01.4 +0.1**
**AGG Agios Georgios 161.98 295** *e*PKIKP **PKPdf 13 57 15.1 -1.0**
**AGG Agios Georgios 161.98 295** *e*PKPdf **PKPdf 13 57 15.1 -1.0**
**HGN Heimansgroeve 162.04 350** *e*PKPdf **PKPab 13 58 00.9 -1.1**
comp=Z,102nm,0.9s
**BEBN Eben Emael 162.04 351** PKPab **PKPab 13 58 02.2 +0.2**
**MEM Membach 162.18 350** PKP **PKPdf 13 57 15.7 -0.1**
MEM PKPab **PKPab 13 58 02.7 0.0**
**ARSA Arzberg 162.20 327** *i* PKPdf **PKPdf 13 57 15.1 -0.9**
comp=Z,9.5nm,0.9s,SNR=5.7
ARSA *i* PKPab **PKPab 13 58 03.7 +0.7**
comp=Z,11nm,1.1s
**MOA Molln 162.30 330** *i* PKPdf **PKPdf 13 57 15.4 -0.7**
comp=Z,11nm,0.9s,SNR=5.1
**KOGS Kog 162.43 324** *i* PKPdf **PKPdf 13 57 15.4 -0.8**
KOGS *e* 13 58 18.6
**BCLA Clavier 162.46 351** PKP **PKPdf 13 57 15.5 -0.6**
BCLA PKPab **PKPab 13 58 03.7 -0.2**
**SNF Seneffe 162.48 354** PKPab **PKPab 13 58 04.3 +0.3**
**PERS Pernice 162.84 326** *i* PKPdf **PKPdf 13 57 15.4 -1.3**
**SOKA Soboth 162.85 326** *i* PKPdf **PKPdf 13 57 16.3 -0.5**
comp=Z,14nm,1.0s,SNR=13
**DOU Dourbes 162.86 353** PKPab **PKPab 13 58 05.6 0.0**
**PDG Podgorica 163.02 308** ⇑*i*P **PKPdf 13 57 16.9 0.0**
**TIR Tirane 163.07 304** PFAKE 13 57 30.0 +13
TIR LR LR
comp=Z,922nm,19.0s
**WLF Walferdange 163.07 349** PKP **PKPdf 13 57 17.4 +0.7**
WLF PKPab **PKPab 13 58 07.2 +0.6**
**WLF Walferdange 163.07 349** *e*PKIKP **PKPdf 13 57 16.4 -0.3**
WLF *e* 13 58 06.0
WLF MLR MLR
comp=Z,863nm,20.0s
**WLF Walferdange 163.07 349** *e*PKPdf **PKPdf 13 57 16.4 -0.3**
WLF *e*PKPab **PKPab 13 58 06.0 -0.6**
WLF LR LR
comp=Z,863nm,20.0s
**LANF Langenberg 163.41 345** PKP **PKPdf 13 57 16.7 -0.4**
**MYKA Terra Mystica 163.52 329** *i* PKPdf **PKPdf 13 57 17.2 -0.1**
comp=Z,9.4nm,1.0s
**LJU Ljubljana 163.56 326** *e*PKPdf **PKPdf 13 57 16.8 -0.5**
**BOJS Bojanci 163.59 323** *e*PKPdf **PKPdf 13 57 17.0 -0.4**
**WTTA Wattenberg 163.82 334** *i* PKPdf **PKPdf 13 57 17.0 -0.7**
comp=Z,19nm,1.4s
**BFO Black Forest 163.90 343** *e*PKIKP **PKPdf 13 57 17.1 -0.5**
BFO *e* 13 58 10.1
BFO MLR MLR
comp=Z,760nm,20.0s
**BFO Black Forest 163.90 343** *e*PKPdf **PKPdf 13 57 17.1 -0.5**
BFO *e*PKPab **PKPab 13 58 10.1 -0.2**
BFO LR LR
comp=Z,760nm,20.0s
**ABTA Abfaltersbach 163.90 331** *i* PKPdf **PKPdf 13 57 16.8 -1.0**
comp=Z,11nm,0.9s,SNR=6.2
**RETA Reutte 163.94 336** *i* PKPdf **PKPdf 13 57 17.1 -0.7**
comp=Z,8.8nm,1.0s
**MOTA Mosalm 163.94 335** *i* PKPdf **PKPdf 13 57 17.1 -0.8**
comp=Z,7.7nm,0.9s,SNR=5.7
**ECH Echery 164.28 345** PKP **PKPdf 13 57 17.2 -0.7**
**ECH Echery 164.28 345** *e*PKIKP **PKPdf 13 57 17.4 -0.5**
ECH *e* 13 58 11.6
ECH MLR MLR
comp=Z,1µm,21.0s
**ECH Echery 164.28 345** *e*PKPdf **PKPdf 13 57 17.4 -0.5**
ECH *e*PKPab **PKPab 13 58 11.6 -0.4**
ECH LR LR
comp=Z,1µm,21.0s
**FETA Feichten 164.35 335** *i* PKPdf **PKPdf 13 57 17.8 -0.4**
comp=Z,17nm,1.0s,SNR=7.6
**THEF They Montfort 164.49 348** PKP **PKPdf 13 57 17.8 -0.3**
**PMOZ Porto Moniz, M 164.52 86** *e*LR LR 14 54 04.2
comp=Z,509nm,22.0s
**MOF Molkenrain 164.63 345** PKP **PKPdf 13 57 18.2 -0.1**
**DAVOX Davos/Dischmat 164.85 337** PKP **PKPdf 13 57 18.3 -0.4**
comp=Z,12nm,0.8s,baz=198,slow=3.5,SNR=16
DAVOX PKPab **PKPab 13 58 14.0 -0.8**
comp=Z,11nm,0.8s,baz=52,slow=2.8,SNR=5.1
**FUORN Ofenpass-Fuorn 164.86 336** *e*PKPdf **PKPdf 13 57 17.9 -0.9**
**PMPS Porto Santo 165.27 85** *e*PKPdf **PKPdf 13 57 22.0 +2.8**
**TUE Stuetta 165.29 337** *e*PKPdf **PKPdf 13 57 18.5 -0.6**
TUE *e*PKPab **PKPab 13 58 15.7 -1.1**
TUE LR LR
comp=Z,976nm,22.0s
**SENIN Lac Senin/Sane 165.99 342** *e*PKPab **PKPab 13 58 19.2 -0.6**
**TIP Timpagrande 166.09 300** PFAKE 13 57 30.0 +10
TIP LR LR
comp=Z,1µm,22.0s
**CUC Castrocucco 166.43 304** PFAKE 13 57 30.0 +10
CUC LR LR
comp=Z,829nm,20.0s
**AQU L'Aquila 166.69 317** PFAKE 13 57 30.0 +10
AQU LR LR
comp=Z,1µm,21.0s
**VLC Villacollemand 166.88 330** PFAKE 13 57 30.0 +10
VLC LR LR
comp=Z,993nm,22.0s
**CEL Celeste 167.03 297** PFAKE 13 57 30.0 +9.4
CEL LR LR
comp=Z,771nm,19.0s
**PYM Petit Puy Mans 167.31 354** PKP **PKPdf 13 57 21.5 +0.9**
**BNI Bardonecchia 167.37 342** *e*PKIKP **PKPdf 13 57 20.3 -0.4**
BNI MLR MLR
comp=Z,2µm,22.0s
**BNI Bardonecchia 167.37 342** *e*PKPdf **PKPdf 13 57 20.3 -0.4**
BNI LR LR
comp=Z,2µm,22.0s
**SSB Saint Sauveur 167.59 349** *e*PKIKP **PKPdf 13 57 20.5 -0.2**
SSB *e* 13 58 25.4
SSB MLR MLR
comp=Z,1µm,20.0s
**SSB Saint Sauveur 167.59 349** *e*PKPdf **PKPdf 13 57 20.5 -0.2**
SSB *e*PKPab **PKPab 13 58 25.4 -1.3**
SSB LR LR
comp=Z,1µm,20.0s
**LBL Lubilhac 167.81 353** PKP **PKPdf 13 57 22.6 +1.7**
**PGAV Gavieira, Arco 168.40 38** *e*PKPdf **PKPdf 13 57 23.1 +1.6**
**PGAV Gavieira, Arco 168.40 38** *e*LR LR 15 00 37.5
comp=Z,542nm,20.0s
**TAM Tamanrasset 169.03 201** *e*PKIKP **PKPdf 13 57 23.1 +0.6**
TAM MLR MLR
comp=Z,729nm,20.0s
**TAM Tamanrasset 169.03 201** *e*PKPdf **PKPdf 13 57 23.1 +0.6**
TAM LR LR
comp=Z,729nm,20.0s
**POLO Lamas de Olo 169.07 39** *e*PKPdf **PKPdf 13 57 23.4 +1.5**
**POLO Lamas de Olo 169.07 39** *e*PKPab **PKPab 13 58 33.9 +0.4**
**PVRL Vila Real 169.18 39** *e*PKPdf **PKPdf 13 57 23.4 +1.5**
**PVRL Vila Real 169.18 39** *e*PKPab **PKPab 13 58 34.9 +0.9**
**PBRG Braganca 169.27 34** *e*PKPab **PKPab 13 58 34.8 +0.5**
**PVIS Viseu 169.48 41** *e*PKPdf **PKPdf 13 57 23.5 +1.4**
**PVIS Viseu 169.48 41** *e*PKPab **PKPab 13 58 35.6 +0.3**
**PCAS Casmilo, Conde 169.56 46** *e*PKPab **PKPab 13 58 36.3 +0.6**
**MVO Moncorvo 169.62 37** *e*PKPdf **PKPdf 13 57 23.6 +1.4**
**MVO Moncorvo 169.62 37** *e*PKPab **PKPab 13 58 36.5 +0.6**
**MVO Moncorvo 169.62 37** *e*LR LR 15 00 57.5
comp=Z,638nm,20.0s
**MTE Manteigas 169.89 42** *e*PKPdf **PKPdf 13 57 23.3 +0.9**
MTE *e*PKPab **PKPab 13 58 35.8 -1.4**
MTE LR LR
comp=Z,1µm,20.0s
**MTE Manteigas 169.89 42** *e*PKPdf **PKPdf 13 57 23.7 +1.3**
**MTE Manteigas 169.89 42** *e*PKPab **PKPab 13 58 37.6 +0.4**
**MTE Manteigas 169.89 42** *e*LR LR 15 01 50.4
comp=Z,1µm,18.0s
**LIS Lisbon 169.90 54** *e*P **PKPdf 13 57 22.4 0.0**
LIS AMS AMS 15 23 31.7
comp=N,973nm,18.4s
**LIS Lisbon 169.90 54** *e*PKIKP **PKPdf 13 57 22.3 0.0**
**PCBR Castelo Branco 170.30 44** *e*PKPdf **PKPdf 13 57 23.6 +1.1**
**PCBR Castelo Branco 170.30 44** *e*PKPab **PKPab 13 58 39.0 +0.1**
**PMTG Montargil 170.32 50** *e*PKPab **PKPab 13 58 39.1 +0.1**
**PMRV Marv??o 170.62 45** *e*PKPdf **PKPdf 13 57 24.1 +1.3**
**PMRV Marv??o 170.62 45** *e*PKPab **PKPab 13 58 40.6 +0.2**
**PMRV Marv??o 170.62 45** A A 15 25 59.1
comp=N,835nm,18.0s
**PTEO Sao Teotonio 170.74 59** *e*PKPdf **PKPdf 13 57 24.8 +1.9**
**PTEO Sao Teotonio 170.74 59** *e*PKPab **PKPab 13 58 41.9 +0.9**
**PESTR Estremoz 170.84 49** *e*PKPdf **PKPdf 13 57 24.4 +1.5**
**PESTR Estremoz 170.84 49** *e*PKPab **PKPab 13 58 41.9 +0.5**
**PFVI Vila Bisbo 170.84 61** *e*PKPdf **PKPdf 13 57 24.5 +1.5**
**PFVI Vila Bisbo 170.84 61** *e*PKPdf **PKPdf 13 57 25.1 +2.2**
**PFVI Vila Bisbo 170.84 61** *e*PKPab **PKPab 13 58 42.5 +1.0**
**MORF Marmelete 170.90 60** *e*P **PKPdf 13 57 23.1 0.0**
MORF *e*PP **PP 14 02 33.4 +0.7**
MORF AMS AMS 15 05 54.3
comp=Z,698nm,18.0s
**MORF Marmelete 170.90 60** *e*PKIKP **PKPdf 13 57 23.0 0.0**
MORF *e* 14 02 33.4
**MORF Marmelete 170.90 60** *e*PKPdf **PKPdf 13 57 24.7 +1.7**
**MORF Marmelete 170.90 60** *e*PKPab **PKPab 13 58 42.5 +0.7**
**MESJ Messejana 170.97 56** *e*P **PKPdf 13 57 23.1 +0.1**
MESJ *e*PP **PP 14 02 33.8 +1.0**
MESJ AMS AMS 15 21 26.5
comp=Z,622nm,21.0s
**MESJ Messejana 170.97 56** *e*PKIKP **PKPdf 13 57 23.1 +0.1**
MESJ *e* 14 02 33.7
**MESJ Messejana 170.97 56** *e*PKPdf **PKPdf 13 57 24.9 +1.9**
**MESJ Messejana 170.97 56** *e*PKPab **PKPab 13 58 42.5 +0.5**
**PCVE Castro Verde 171.19 57** *e*PKPdf **PKPdf 13 57 24.9 +1.8**
**PCVE Castro Verde 171.19 57** *e*PKPab **PKPab 13 58 43.7 +0.7**
**PBDV Barranco-do-Ve 171.44 59** *e*PKPdf **PKPdf 13 57 25.2 +1.9**
**PBDV Barranco-do-Ve 171.44 59** *e*PKPab **PKPab 13 58 45.4 +1.2**
**PVAQ Vaqueiros 171.52 57** *e*PKPdf **PKPdf 13 57 25.1 +1.8**
**PVAQ Vaqueiros 171.52 57** *e*LR LR 15 03 21.3
comp=Z,764nm,20.0s
**PBAR Barrancos 171.59 51** *e*PKPdf **PKPdf 13 57 24.9 +1.6**
**PBAR Barrancos 171.59 51** *e*PKPab **PKPab 13 58 45.6 +0.9**
**PAB San Pablo 172.17 34** *e*PKIKP **PKPdf 13 57 24.5 +0.9**
PAB MLR MLR
comp=Z,1µm,22.0s
**PAB San Pablo 172.17 34** *e*PKPdf **PKPdf 13 57 24.5 +0.9**
PAB LR LR
comp=Z,1µm,22.0s
**ESDC Sonseca Array 172.23 31** PKP **PKPdf 13 57 24.9 +1.2**
comp=Z,8.5nm,1.1s,baz=345,slow=2.6,SNR=24
ESDC PKPab **PKPab 13 58 48.4 +0.9**
comp=Z,17nm,0.8s,baz=315,slow=4.3,SNR=28
ESDC PP **PP 14 02 38.2 -0.2**
comp=Z,1.9nm,0.9s,baz=314,slow=3.5,SNR=4.3
**ESLA Sonseca Array 172.23 31** *e*PKPdf **PKPdf 13 57 24.5 +0.9**
ESLA *e*PKPab **PKPab 13 58 48.4 +0.9**
**ES19 SONSECA Array 172.24 31** *e*PKPdf **PKPdf 13 57 24.3 +0.7**
ES19 *e*PKPab **PKPab 13 58 48.0 +0.5**
**KEST Kesra 172.81 293** PKP **PKPdf 13 57 25.6 +1.5**
comp=Z,16nm,0.8s,baz=271,slow=6.6,SNR=6.2
**RTC Rabat Centre 173.19 81** PFAKE 13 57 40.0 +16
RTC LR LR
comp=Z,4µm,19.0s
**MDT Midelt 175.07 92** PKP **PKPdf 13 57 26.9 +2.0**
comp=Z,15nm,0.9s,baz=38,slow=0.6,SNR=25
MDT PP **PP 14 02 53.7 0.0**
comp=Z,2.1nm,1.0s,baz=256,slow=7.7,SNR=3.4

---

*BJI **21** 13:59:42.8,36˝.54N×70˝.91E,h189km,mb4.4/34,mB4.6/20*
*ISCJB **21** 13:59:42.1±0.3,36˝.48N±0˝.02×70˝.88E±0˝.03,h193km±3km, mb4.3/69, Error ellipse: s-maj=4.2km s-min=2.7km az=154.2*
*MOS **21** 13:59:42.2±0.9,36˝.46N×70˝.88E,h196km,mb4.6/24, Error ellipse: s-maj=8.0km s-min=4.8km az=92.4*
*IDC **21** 13:59:44.3±0.7,36˝.43N×70˝.93E,h202km±6km,mb3.9/28, mb1 4.1/32,mb1mx3.9/54,mbtmp4.5/32,MS3.3/1, Ms1 3.3/1,ms1mx2.6/46, Error ellipse: s-maj=9.6km s-min=7.6km az=19.0*
*NEIC **21** 13:59:44.1±0.2,36˝.49N×70˝.86E,mb4.6/26, Error ellipse: s-maj=5.3km s-min=4.7km az=195.0*
*NNC **21** 13:59:46.9±1.1,36˝.85N×70˝.75E,h192km±8km,mb3.7, mpv4.8,Error ellipse: s-maj=11.7km s-min=5.4km az=161.0*

**ISC 21 13:59:43.2±0.4,36˝.50N±0˝.03×70˝.90E±0˝.03,h195km±3km, h195km;pP-P,n216,σ1s91/268,mb4.5/72,14C-20D,Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC h m s | ISC |
| **KBL** | **Kabul** | **2.47** | **218** | *e*PN | **Pn** | **14 00 26.6** | **-0.1** |
| **KBL** | **Kabul** | **2.47** | **218** | *e*Pn | **Pn** | **14 00 26.6** | **-0.1** |
| **CEP** | **Cherat** | **2.79** | **162** | P | **Pn** | **14 00 31.5** | **+1.2** |
| CEP | | | | S | **Sn** | **14 01 07.0** | **0.0** |
| **DZET** | **Dzherino** | **2.83** | **325** | ⇓P | **Pn** | **14 00 30.1** | **-0.5** |
| DZET | 291nm,0.3s | | | | | | |
| | 697nm,0.5s | | | ⇓S | **Sn** | **14 01 04.2** | **-3.6** |
| **DZET** | **Dzherino** | **2.83** | **325** | PN | **Pn** | **14 00 30.1** | **-0.5** |
| DZET | | | | pmax | pmax | | |
| | comp=Z,291nm,0.3s | | | | | | |
| **CHCP** | **Chirah Chowk** | **3.43** | **145** | ⇓P | **Pn** | **14 00 39.4** | **+1.6** |
| **THW** | **Thamme Wali** | **3.76** | **169** | ⇓P | **Pn** | **14 00 42.5** | **+0.7** |
| **SRNI** | **Srinagar** | **4.02** | **125** | *ex* | x | 14 01 25.0 | |
| SRNI | | | | *e*S | **Sn** | **14 01 28.0** | **-5.4** |
| **SFK** | **Sufi-Kurgan** | **4.07** | **29** | ⇓P | **Pn** | **14 00 46.8** | **+1.1** |
| | comp=Z,96nm,0.3s | | | | | | |
| SFK | | | | ⇓S | **Sn** | **14 01 33.7** | **-1.2** |
| | comp=Z,1µm,0.5s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **4.07** | **29** | PN | **Pn** | **14 00 46.7** | **+1.0** |
| **SARP** | **Sargodha** | **4.79** | **162** | ⇓P | **Pn** | **14 00 54.8** | **0.0** |
| **JMU** | **Jammu** | **5.01** | **138** | *ex* | x | 14 01 35.0 | |
| JMU | | | | *e*S | **Sn** | **14 01 53.0** | **-3.1** |
| **KSH** | **Kashi** | **5.01** | **51** | P | **Pn** | **14 00 54.6** | **-3.1** |
| KSH | | | | S | Sn | 14 01 46.8 | -10 |
| KSH | | | | smax | smax | | |
| | comp=Z,3µm,0.4s | | | | | | |
| KSH | | | | smax | smax | | |
| | comp=Z,1µm,0.5s | | | | | | |
| **THN** | **Thein Dam** | **5.68** | **134** | *e*P | **Pn** | **14 01 06.2** | **0.0** |
| THN | | | | *e*S | **Sn** | **14 02 08.0** | **-3.7** |
| **AML** | **Almayashu** | **6.03** | **20** | P | **Pn** | **14 01 11.3** | **+0.3** |
| | SNR=452 | | | | | | |
| **MNAS** | **Manas** | **6.11** | **11** | ⇑P | **Pn** | **14 01 11.9** | **0.0** |
| | comp=Z,77nm,0.6s | | | | | | |
| MNAS | | | | ⇓S | **Sn** | **14 02 19.4** | **-2.5** |
| | comp=Z,453nm,0.8s | | | | | | |
| **MNAS** | **Manas** | **6.11** | **11** | PN | **Pn** | **14 01 11.8** | **0.0** |
| MNAS | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.3s | | | | | | |
| **DHRM** | **DHARAMSHALA** | **6.15** | **132** | *e*P | **Pn** | **14 01 13.3** | **+0.7** |
| DHRM | | | | *e*S | **Sn** | **14 02 21.5** | **-1.7** |
| **PONG** | **Pong** | **6.17** | **136** | *e*P | **Pn** | **14 01 12.0** | **-0.5** |
| PONG | | | | *e*S | **Sn** | **14 02 20.0** | **-3.1** |
| **UCH** | **Uchtor** | **6.37** | **25** | P | **Pn** | **14 01 16.0** | **+0.5** |
| | SNR=55 | | | | | | |
| **JWA** | **Jwalamukhi** | **6.45** | **134** | *e*P | **Pn** | **14 01 16.0** | **-0.2** |
| JWA | | | | *e*S | **Sn** | **14 02 25.0** | **-4.7** |
| **KZA** | **Kyzart** | **6.51** | **30** | P | **Pn** | **14 01 17.1** | **-0.2** |
| | SNR=28 | | | | | | |
| **EKS2** | **Erkin-Say** | **6.55** | **19** | P | **Pn** | **14 01 18.1** | **+0.7** |
| | SNR=14 | | | | | | |
| **KK31** | **Karatay Array** | **6.61** | **358** | ⇓P | **Pn** | **14 01 17.7** | **-0.4** |
| | comp=Z,32nm,0.4s | | | | | | |
| KK31 | | | | ⇓S | **Sn** | **14 02 28.3** | **-5.1** |
| | comp=Z,90nm,0.5s,baz=191,slow=24,SNR=9.3 | | | | | | |
| **KK31** | **Karatay Array** | **6.61** | **358** | PN | **Pn** | **14 01 17.7** | **-0.4** |
| KK31 | | | | pmax | pmax | | |
| | comp=Z,32nm,0.4s | | | | | | |
| **KKAR** | **Karatay Array** | **6.61** | **358** | *e*PN | **Pn** | **14 01 17.9** | **-0.3** |
| **KKAR** | **Karatay Array** | **6.61** | **358** | *e*Pn | **Pn** | **14 01 17.9** | **-0.3** |
| **AAK** | **Ala-Archa** | **6.73** | **23** | P | **Pn** | **14 01 20.5** | **+0.6** |
| | comp=Z,11nm,0.3s,baz=161,slow=5.0,SNR=87 | | | | | | |
| AAK | | | | S | **Sn** | **14 02 32.9** | **-3.7** |
| | comp=Z,7.3nm,0.3s,baz=170,slow=20,SNR=4.8 | | | | | | |
| **AAK** | **Ala-Archa** | **6.73** | **23** | ⇓P | **Pn** | **14 01 20.2** | **+0.2** |
| | comp=Z,21nm,0.6s | | | | | | |
| AAK | | | | ⇓S | **Sn** | **14 02 35.1** | **-1.5** |
| | comp=Z,187nm,0.9s | | | | | | |
| **AAK** | **Ala-Archa** | **6.73** | **23** | *d*PN | **Pn** | **14 01 20.4** | **+0.5** |
| **AAK** | **Ala-Archa** | **6.73** | **23** | P | **Pn** | **14 01 20.6** | **+0.6** |
| | SNR=36 | | | | | | |
| **AAK** | **Ala-Archa** | **6.73** | **23** | P | **Pn** | **14 01 20.6** | **+0.7** |
| | SNR=8.4 | | | | | | |
| **BHK** | **Bhakra** | **6.83** | **136** | *e*P | **Pn** | **14 01 19.0** | **-2.2** |
| BHK | | | | *ex* | x | 14 02 18.4 | |
| **KBK** | **Karagaybulak** | **6.90** | **26** | P | **Pn** | **14 01 23.1** | **+0.9** |

SNR=16
**FRU Bishkek 6.95 23** ⇓*i*PN **Pn 14 01 23.0 +0.4**
FRU *i* S **Sn 14 02 43.0 +1.5**
FRU pmax pmax
comp=Z,70nm,1.0s
FRU smax smax
comp=N,620nm,1.9s
**ULHL Ulahol 7.08 34** P **Pn 14 01 25.2 +0.8**
SNR=22
**CHMS Chumysh 7.14 23** P **Pn 14 01 25.4 +0.3**
SNR=19
**USP Ospenovka 7.31 21** P **Pn 14 01 27.3 0.0**
SNR=24
**TKM2 Tokmak 2 7.37 28** ⇑P **Pn 14 01 28.3 0.0**
TKM2 ⇑S **Sn 14 02 48.4 -3.3**
comp=N,86nm,0.8s
**TKM2 Tokmak 2 7.37 28** P **Pn 14 01 28.8 +0.5**
SNR=59
**SMLA Simla 7.47 134** *e*P **Pn 14 01 29.4 -0.1**
SMLA *e*S **Sn 14 02 49.9 -4.0**
SMLA AML AML 14 02 54.3
comp=N,2μm,0.6s
SMLA AML AML 14 02 55.2
comp=E,2μm,0.3s
**MDOK Medeo 8.16 33** ⇑P **Pn 14 01 39.0 +0.4**
MDOK ⇑S **Sn 14 03 08.6 -1.9**
**DDI Dehra Dun 8.58 134** *e*P **Pn 14 01 44.2 +0.1**
DDI *e*S **Sn 14 03 15.0 -5.4**
DDI AML AML 14 03 17.9
comp=E,1μm,0.7s
DDI AML AML 14 03 17.9
comp=N,2μm,0.2s
**NDI New Delhi 9.43 144** *e*P **Pn 14 01 55.0 -0.2**
NDI *ex* **Sn 14 03 32.0 -8.7**
**PDGK Podgornoye 9.49 41** ⇓P **Pn 14 01 56.4 +0.5**
comp=N,18nm,1.0s
**PDGK Podgornoye 9.49 41** P **Pn 14 01 56.3 +0.4**
**GEYT Alibeck 10.30 282** P **Pn 14 02 04.0 -2.3**
comp=N,3.3nm,0.3s,baz=111,slow=11,SNR=33
GEYT S **Sn 14 03 54.3 -6.9**
comp=N,2.0nm,0.3s,baz=93,slow=15,SNR=3.0
**PTH Pithoragarh 10.44 129** *e*P **Pn 14 02 06.5 -1.9**
PTH *e*S **Sn 14 03 57.3 -7.7**
**MAKZ Makanchi 13.20 35** ⇓P **Pn 14 02 43.0 -0.3**
comp=N,23nm,0.8s
**MAKZ Makanchi 13.20 35** *e*P **Pn 14 02 43.0 -0.3**
**MAKZ Makanchi 13.20 35** *e*Pn **Pn 14 02 43.0 -0.3**
**PYUN Piuthan 13.21 126** *e*P **Pn 14 02 41.9 -1.7**
comp=N,214nm,0.5s
**MK01 Makanchi Array 13.33 36** *e*Pn **Pn 14 02 44.7 -0.2**
**MK31 Makanchi Array 13.34 36** ⇓P **Pn 14 02 44.5 -0.5**
comp=N,9.5nm,0.7s,baz=221,slow=9.1,SNR=56
**MK31 Makanchi Array 13.34 36** *e*P **Pn 14 02 44.9 -0.1**
**MK31 Makanchi Array 13.34 36** *e*Pn **Pn 14 02 44.9 -0.1**
**MKAR Makanchi Array 13.34 36** P **Pn 14 02 45.2 +0.3**
comp=N,0.5nm,0.3s,baz=220,slow=9.3,SNR=21
MKAR LR LR 14 07 40.4
comp=N,135nm,21.9s,baz=250,slow=36
**MKAR Makanchi Array 13.34 36** *e*Pn **Pn 14 02 44.8 -0.2**
**DANN Dangsing 13.55 123** *e*P **Pn 14 02 47.2 -0.9**
**KOLN Koldanda 13.83 125** *e*P **Pn 14 02 50.3 -1.1**
comp=N,146nm,0.5s
**BHPL Bhopal 14.36 155** *e*P **P 14 03 01.0 +1.5**
BHPL *ex* S 14 05 28.8 -10
**GKN Gorkha 14.37 122** *e*P **Pn 14 02 57.4 -0.6**
**WMQ Urumqi 14.77 55** P **P 14 03 03.3 -0.4**
WMQ sP sP 14 03 54.3
WMQ S **S 14 05 45.4 -1.8**
WMQ pmax pmax
comp=N,61nm,1.1s
WMQ pmax pmax
comp=N,510nm,4.1s
WMQ LR LR
comp=N,140nm,15.5s
WMQ LR LR
comp=N,150nm,22.7s
WMQ LR LR
comp=N,130nm,21.3s
**DMN Daman 14.94 122** *e*P **Pn 14 03 04.7 -0.5**
comp=N,351nm,0.8s
**KKN Kakani 14.94 121** *e*P **Pn 14 03 04.3 -0.9**
comp=N,349nm,0.6s
**AB31 Akbulak array 15.05 331** ⇑P **Pn 14 03 05.0 -1.1**
comp=N,8.4nm,0.6s
**AB31 Akbulak array 15.05 331** P **Pn 14 03 04.9 -1.1**
AB31 S **S 14 05 43.5 -10**
AB31 pmax pmax
comp=Z,8.0nm,0.6s
AB31 smax smax
comp=N,9.0nm,0.7s
**ABKAR Akbulak array 15.05 331** *e*Pn **Pn 14 03 05.0 -1.0**
**KURBB Kurchatov Arra 15.15 19** P **Pn 14 03 05.7 -1.5**
comp=N,0.2nm,0.3s,baz=208,slow=10,SNR=16
**KURBB Kurchatov Arra 15.15 19** ⇓P **P 14 03 08.1 +0.2**
comp=N,7.7nm,0.8s
**PKIN Phulchoki 15.16 122** *e*P **Pn 14 03 08.0 +0.2**
comp=N,590nm,0.5s
**PKI Pulchoki 15.17 122** *e*P **Pn 14 03 07.7 -0.3**
comp=N,1μm,0.7s
**KURK Kurchatov 15.26 19** *i* P **P 14 03 09.2 +0.2**
KURK pmax pmax
comp=Z,23nm,1.0s
**KURK Kurchatov 15.26 19** *e*Pn **Pn 14 03 08.7 +0.1**
comp=Z,6.5nm,0.8s
**GUN Gumba 15.28 120** *e*P **Pn 14 03 09.3 -0.2**
comp=Z,150nm,0.4s
**JIRN Jiri 15.65 120** *e*P **Pn 14 03 13.5 -0.5**
**RAMN Ramite 16.38 121** *e*P **P 14 03 22.1 +0.2**
comp=Z,348nm,0.6s
**BVA0 Borovoye Array 16.53 359** P **P 14 03 23.2 +0.1**
comp=Z,8.6nm,0.8s,baz=161,slow=11,SNR=33
**BVAR Borovoye Array 16.53 359** P **Pn 14 03 24.6 +0.7**
comp=Z,1.5nm,0.3s,baz=159,slow=9.6,SNR=22
BVAR S **Sn 14 06 28.2 -1.4**
comp=Z,0.3nm,0.3s,baz=158,slow=21,SNR=7.1
**BRVK Borovoye 16.57 359** *e*P **Pn 14 03 24.5 +0.2**
BRVK pmax pmax
comp=Z,20nm,1.0s
**BRVK Borovoye 16.57 359** *e*P **Pn 14 03 24.5 +0.2**
comp=Z,20nm,1.0s
**AKTO Aktyubinsk 16.74 330** P **Pn 14 03 26.6 +0.2**
comp=Z,5.7nm,0.3s,baz=140,slow=9.7,SNR=71
AKTO S **S 14 06 29.4 -0.7**
comp=Z,0.7nm,0.3s,baz=162,slow=19,SNR=3.7
**AKTO Aktyubinsk 16.74 330** ⇑P **Pn 14 03 26.6 +0.2**
comp=Z,59nm,0.7s
**NGP Nagpur 16.86 153** *e*P **Pn 14 03 28.4 +0.3**
NGP *ex* x 14 06 25.8
**TAPN Taplejung 16.91 118** *e*P **Pn 14 03 29.4 +0.4**
comp=Z,310nm,0.5s
**ODAN Odare 16.99 120** *e*P **Pn 14 03 29.7 -0.1**
comp=Z,268nm,0.6s
**DGZ Jazzator, Alta 17.83 37***c i*P **P 14 03 38.4 +0.9**
DGZ pmax pmax
comp=Z,9.0nm,0.9s
**BOK Bokaro 18.09 130** *e*P **Pn 14 03 43.4 +0.8**
**LSA Lhasa 18.25 106** *e*P **Pn 14 03 45.8 +0.9**
LSA pmax pmax
comp=Z,55nm,0.8s
**LSA Lhasa 18.25 106** *e*P **Pn 14 03 45.8 +0.9**
comp=Z,55nm,0.8s
**MAK Makhachkala 19.09 297** *e*P **P 14 03 48.9 -2.1**
MAK *e*S **S 14 07 16.8 -0.1**
MAK pmax pmax
comp=Z,193nm,1.2s
**ZAA0 Zalesovo Array 19.95 25** ⇓P **P 14 04 01.3 +1.1**
comp=Z,1.5nm,0.6s
**ZAA0 Zalesovo Array 19.95 25** *e*P **P 14 04 01.2 +1.1**
comp=Z,11nm,0.6s
**ZALV Zalesovo Beam 19.95 25** P **P 14 04 01.2 +1.1**
comp=Z,7.0nm,0.3s,baz=220,slow=12,SNR=49
ZALV S **S 14 07 31.1 -2.5**
comp=Z,3.0nm,0.6s,baz=224,slow=16,SNR=3.2
**ZALV Zalesovo Beam 19.95 25** P **P 14 04 01.3 +1.1**
ZALV S **S 14 07 31.1 -2.5**
ZALV pmax pmax
comp=Z,14nm,0.6s
ZALV smax smax
comp=N,3.0nm,0.6s
**HYB Hyderabad 20.18 158** *i* P **P 14 04 04.0 +1.1**
**HYB Hyderabad 20.18 158** *e*P **P 14 04 04.7 +1.8**
**NVS Novosibirsk 20.21 21** ⇑*i*P **P 14 04 04.7 +1.8**
NVS *e**PP **pP 14 04 30.6 -4.8**
NVS *i* S **S 14 07 39.0 +0.3**
NVS pmax pmax
comp=N,5.0nm,0.6s
NVS pmax pmax
comp=E,4.0nm,0.6s
NVS pmax pmax
comp=Z,7.0nm,0.6s
NVS smax smax
comp=N,14nm,1.4s
NVS smax smax
comp=E,15nm,1.2s
**GNI Garni 20.82 288** P **P 14 04 12.1 +2.3**
comp=E,8.2nm,0.6s,baz=215,slow=7.3,SNR=5.5
**GNI Garni 20.82 288** *e*P **P 14 04 09.7 0.0**
GNI pmax pmax
comp=Z,62nm,1.1s
**GNI Garni 20.82 288** *e*P **P 14 04 09.8 0.0**
comp=Z,44nm,1.1s
**SHL Shillong 20.98 115** *ex* **P 14 04 08.3 -3.2**
**SVE Sverdlovsk 21.48 344**⇑*e*P **P 14 04 17.5 +1.3**
SVE pmax pmax
comp=Z,34nm,1.1s
**ARU Arti 21.61 341** P **P 14 04 18.7 +1.1**
comp=Z,20nm,0.8s,baz=152,slow=3.8,SNR=15
**ARU Arti 21.61 341***d i*P **P 14 04 18.8 +1.2**
ARU 14 04 46.0
ARU S **S 14 08 09.0 +5.3**
ARU pmax pmax
comp=Z,53nm,1.2s
**ARU Arti 21.61 341** *e*P **P 14 04 18.1 +0.4**
comp=Z,35nm,0.9s
**NCK Nalchik 21.99 297** *e*P **P 14 04 21.5 -0.1**
NCK pmax pmax
comp=Z,13nm,0.9s
**KBZ Khabaz 22.53 297** P **P 14 04 28.0 +1.4**
comp=Z,3.0nm,0.9s,baz=104,slow=12,SNR=3.3
**GOF Gofitskoye 22.68 301**⇑*e*P **P 14 04 29.5 +1.6**
GOF pmax pmax
comp=Z,31nm,0.9s
**KVAR Kislovodsk Arr 22.71 298** P **P 14 04 30.6 +2.2**
comp=Z,4.6nm,0.5s,baz=157,slow=7.7,SNR=2.3
**KIV Kislovodsk 22.72 298** *e*P **P 14 04 28.0 -0.4**
KIV pmax pmax
comp=Z,8.0nm,1.1s
KIV MLR MLR
comp=Z,71nm,14.0s
**GTA Gaotai 22.94 74** *e*P **P 14 04 33.3 +2.8**
GTA pmax pmax
comp=Z,12nm,1.4s
**RAYN Ar Rayn 25.42 246** *e*P **P 14 04 52.9 -0.2**
comp=Z,17nm,1.0s
**VSR Storozhevoye 26.95 313** *e*P **P 14 05 06.4 +0.1**
VSR pmax pmax
comp=Z,30nm,1.0s
**CD2 Chengdu 27.81 92** P **P 14 05 17.3 +3.0**
CD2 pP pP 14 05 57.1 +3.3
CD2 pmax pmax
comp=Z,20nm,1.0s
**SONM Songino Array 28.40 55** P **P 14 05 21.0 +1.5**
comp=Z,1.9nm,0.8s,baz=258,slow=9.7,SNR=13
**SONM Songino Array 28.40 55** P **P 14 05 21.0 +1.5**
**ULN Ulaanbaatar 28.84 55** *i* P **P 14 05 24.6 +1.2**
ULN pmax pmax
comp=Z,2.0nm,0.9s
**KMI Kunming 29.47 104** P **P 14 05 32.3 +3.0**
KMI pmax pmax
comp=Z,13nm,0.6s
**OBN Obninsk 29.89 319** P **P 14 05 31.8 -0.5**
comp=Z,42nm,0.4s,baz=98,slow=19,SNR=5.1
**OBN Obninsk 29.89 319** *i* P **P 14 05 32.5 +0.2**
OBN *e**PP **pP 14 06 08.9 -3.2**
OBN *e* 14 06 38.0
OBN pmax pmax
comp=Z,22nm,0.9s
**CHTO Chiang Mai 30.29 118** P **P 14 05 40.2 +3.9**
comp=Z,59nm,1.1s
**CHTO Chiang Mai 30.29 118** *e*P **P 14 05 38.3 +2.0**
CHTO pmax pmax
comp=Z,7.0nm,1.1s
**CHTO Chiang Mai 30.29 118** *e*P **P 14 05 38.3 +2.0**
comp=Z,6.8nm,1.1s
**CMMT Chiang Mai 30.29 118** P **P 14 05 40.2 +3.9**
comp=Z,5.3nm,1.0s
**PALK Pallekele 30.43 161** *i* P **P 14 05 36.2 -1.4**
**CM31 Chiang Mai Arr 30.52 119** *e*P **P 14 05 39.7 +1.4**
**CMAR Chiang Mai Arr 30.52 119** P **P 14 05 40.0 +1.7**
comp=Z,5.5nm,0.8s,baz=300,slow=8.2,SNR=35
**CM01 Chiang Mai Arr 30.56 119** *e*P **P 14 05 39.4 +0.8**
**KLMR Klimovskoe 31.45 331** *e*P **P 14 05 42.6 -3.3**
KLMR pmax pmax
comp=Z,21nm,1.1s
**HHC Hu-ho-hao-te 31.84 70** *e*P **P 14 05 51.3 +1.5**
HHC S **S 14 10 45.1 -0.7**
HHC sS ScP 14 11 59.8 -0.8
HHC SS **SnSn 14 12 53.5 -5.1**
HHC ScS **ScS 14 15 57.0 -2.4**
HHC pmax pmax
comp=Z,9.0nm,1.0s
HHC pmax pmax
comp=Z,40nm,5.4s
**GYA Guiyang 31.94 98**⇑*i*P **P 14 05 52.8 +2.0**
GYA pP pP 14 06 33.6 +2.8
GYA sP sP 14 06 58.4 +5.2
GYA PP **PP 14 07 07.0 0.0**
GYA PcP **PcP 14 08 37.8 +1.5**
GYA S **S 14 10 48.3 +0.6**
GYA sS ScP 14 12 02.3 +1.1
GYA pmax pmax
comp=Z,10.0nm,0.8s
**ENH Enshi 32.65 90** *e*P **P 14 05 57.8 +0.9**
comp=Z,9.6nm,0.9s
**AKASG Malin Array Be 32.89 309** P **P 14 05 59.2 +0.7**
comp=Z,6.3nm,0.8s,baz=81,slow=6.9,SNR=24
AKASG pP **pP 14 06 41.2 +2.6**
comp=Z,1.7nm,0.7s,baz=81,slow=7.4,SNR=1.7
**AKBB Malin Array Si 32.89 309** *e*P **P 14 05 58.2 -0.4**
AKBB pmax pmax
comp=Z,20nm,1.5s
**AKBB Malin Array Si 32.89 309** *e*P **P 14 05 58.1 -0.4**
comp=Z,20nm,1.5s
**KIEV Kiev 32.90 309** *e*P **P 14 05 58.3 -0.4**
KIEV pmax pmax
comp=Z,19nm,1.5s
**KIEV Kiev 32.90 309** *e*P **P 14 05 58.3 -0.4**
comp=Z,19nm,1.5s
**AK11 Malin Array Si 32.92 309** *e*P **P 14 05 58.6 -0.3**
**PBKT Sadao Pong 33.22 119** P **P 14 06 05.1 +3.3**
comp=Z,15nm,0.9s,comp=Z,1μm
**SRDT SRDT 33.49 124** P **P 14 06 06.7 +2.5**
comp=Z,75nm,1.0s
**TMCR Tamitsa 34.02 335** *e*P **P 14 06 09.2 +1.0**
TMCR pmax pmax
comp=Z,28nm,1.0s
**MLR Muntele Rosu 34.71 299** P **P 14 06 16.9 +2.3**
comp=Z,2.6nm,0.8s,baz=120,slow=4.1,SNR=13
**MLR Muntele Rosu 34.71 299** *e*P **P 14 06 15.7 +1.1**
comp=Z,17nm,1.0s
**IDID Didziasalis 35.28 316** *e*P **P 14 06 20.3 +1.2**
IDID IAmb IAmb 14 06 21.7
comp=Z,11nm,1.0s
**BJI Beijing 35.43 70** P **P 14 06 19.5 -1.1**
BJI S **S 14 11 40.0 -0.8**
BJI sS **sS 14 12 51.8 -0.7**
BJI pmax pmax
comp=Z,8.0nm,2.0s
BJI LR LR
comp=Z,500nm,25.6s
BJI LR LR
comp=Z,420nm,21.4s
**IIGN Ignalina 35.58 316** *e*P **P 14 06 22.8 +1.1**
IIGN IAmb IAmb 14 06 24.3
comp=Z,8.8nm,0.7s
**IZAR Zarasai 35.66 317** *e*P **P 14 06 23.7 +1.4**
IZAR IAmb IAmb 14 06 24.9
comp=Z,11nm,0.8s
**LVZ Lovozero 37.43 338***ce*P **P 14 06 37.5 +0.3**
LVZ pmax pmax
comp=Z,26nm,1.0s
**FIA1 FINESS Array S 37.44 326** *e*P **P 14 06 37.4 +0.1**
comp=Z,18nm,0.8s
**FINES FINESS Array B 37.44 326** P **P 14 06 38.5 +1.2**
comp=Z,14nm,0.8s,baz=121,slow=9.1,SNR=28
**QIZ Qiongzhong 38.29 106** P **P 14 06 45.6 +0.6**
QIZ pP **pP 14 07 27.1 +1.1**
QIZ S **S 14 12 24.1 -0.5**
QIZ sS **sS 14 13 37.4 +0.5**
QIZ SS **SS 14 15 18.3 -3.3**
QIZ pmax pmax
comp=Z,290nm,4.3s
**NJ2 Nanjing 39.55 82** *e*P **P 14 06 56.3 +1.0**
NJ2 pmax pmax
comp=Z,10.0nm,0.9s
**MORC Moravsky Berou 40.30 306** *e*P **P 14 07 01.5 +0.2**
MORC pmax pmax
comp=Z,15nm,0.7s
**MORC Moravsky Berou 40.30 306** *e*P **P 14 07 01.5 +0.2**
comp=Z,14nm,0.7s
**VRAC Vranov 40.94 306** P **P 14 07 06.8 +0.4**
comp=Z,1.6nm,0.4s,baz=118,slow=5.9,SNR=4.2
**ARCES ARCESS Array B 41.12 338** P **P 14 07 08.8 +1.1**
comp=Z,15nm,0.8s,baz=113,slow=7.9,SNR=31
**ARCES ARCESS Array B 41.12 338** *e*P **P 14 07 08.4 +0.8**
**ARCES ARCESS Array B 41.12 338** *e*P **P 14 07 08.4 +0.8**
**PSI Prapat 42.33 136** P **P 14 07 17.1 -1.2**
comp=Z,7.0nm,0.7s,baz=305,slow=7.8,SNR=4.6
**BRG Berggiesshubel 42.56 308** *i* P **P 14 07 20.4 +0.8**
comp=Z,12nm,1.3s
comp=Z,750nm,15.7s
comp=N,310nm,20.5s
comp=E,485nm,20.5s
**BRG Berggiesshubel 42.56 308** *i* P **P 14 07 20.4 +0.8**
BRG pmax pmax
comp=Z,12nm,1.3s
BRG MLR MLR
comp=Z,750nm,15.7s
BRG MLR MLR
comp=N,310nm,20.5s
BRG MLR MLR
comp=E,485nm,20.5s
**GERES GERESS Array B 42.87 305** P **P 14 07 22.8 +0.6**
comp=E,0.5nm,0.5s,baz=71,slow=9.5,SNR=3.7
**CLL Collm 43.13 309** *i* P **P 14 07 24.8 +0.7**
**CLL Collm 43.13 309** *i* P **P 14 07 24.8 +0.7**
**YAK Yakutsk 44.02 35** P **P 14 07 31.4 +0.4**
comp=E,3.4nm,0.3s,baz=294,slow=3.8,SNR=3.7
**YAK Yakutsk 44.02 35** P **P 14 07 31.4 +0.4**
YAK *e**PP **pP 14 08 15.9 +2.9**
**YAK Yakutsk 44.02 35** P **P 14 07 31.4 +0.4**
YAK *e*pP **pP 14 08 15.9 +2.9**
**NC405 NORSAR Array S 44.10 323** *e*P **P 14 07 32.0 +0.2**
**NC303 NORSAR Array S 44.28 323** *e*P **P 14 07 33.7 +0.6**
**NB201 NORSAR Array S 44.30 323** *e*P **P 14 07 33.4 +0.1**
**NB2 NORSAR Subarra 44.34 323** P **P 14 07 33.7 +0.1**
comp=Z,13nm,0.7s,baz=96,slow=7.9
**NOA NORSAR Array B 44.34 323** P **P 14 07 34.0 +0.4**
comp=Z,13nm,0.8s,baz=96,slow=7.8,SNR=36
NOA pP **pP 14 08 17.8 +2.1**
comp=Z,1.7nm,0.7s,baz=95,slow=8.0,SNR=1.8
**NBO02 NORSAR Array S 44.51 323** *e*P **P 14 07 35.0 0.0**
**NBO00 NORSAR Array S 44.55 323** *e*P **P 14 07 35.1 -0.2**
**NC204 NORSAR Array S 44.58 323** *e*P **P 14 07 35.2 -0.3**
**KLR Kul'dur 45.21 54** P **P 14 07 41.6 +1.0**
comp=Z,0.1nm,0.4s,baz=297,slow=4.5,SNR=3.0
**DAVOX Davos/Dischmat 45.70 303** P **P 14 07 44.9 +0.1**
comp=Z,3.3nm,0.6s,baz=107,slow=12,SNR=4.6
**TIXI Tiksi 45.81 22***c i*P **P 14 07 46.1 +1.1**
TIXI pmax pmax
comp=Z,6.0nm,0.9s
**TIXI Tiksi 45.81 22** *e*P **P 14 07 45.8 +0.8**
comp=Z,8.9nm,0.4s
TIXI *e*pP **pP 14 08 29.8 +2.6**
**SENIN Lac Senin/Sane 47.52 303** *e*P **P 14 07 58.3 -0.6**
comp=Z,7.2nm,0.9s
**KMBO Kilima Mbogo 48.77 227** P **P 14 08 10.2 +1.4**
comp=Z,3.1nm,0.6s,baz=33,slow=12,SNR=8.7
**ESDC Sonseca Array 57.39 298** P **P 14 09 12.1 +0.8**
comp=Z,1.2nm,0.6s,baz=65,slow=7.8,SNR=6.1
**BILL Bilibino 58.65 26** *i* P **P 14 09 21.2 +1.7**
BILL *e**PP **pP 14 10 05.0 +1.2**
BILL pmax pmax
comp=Z,4.0nm,0.9s
**CBIJ Chichi jima 60.08 77** P **P 14 09 30.5 +0.6**
**JCJ Chichijima 60.08 77** P **P 14 09 30.5 +0.6**
comp=Z,87nm,1.0s,baz=243,slow=9.0
**LSZ Lusaka 65.39 226** *e*P **P 14 10 04.7 -0.5**
LSZ pmax pmax
comp=Z,7.0nm,0.9s
**LSZ Lusaka 65.39 226** *e*P **P 14 10 04.7 -0.5**
comp=Z,7.2nm,0.9s
**TOA0 Torodi Ar. Sit 65.64 269** *e*P **P 14 10 04.8 -2.0**
comp=Z,10nm,0.6s
**TORD Torodi Ar. Bea 65.64 269** P **P 14 10 05.6 -1.1**
comp=Z,9.5nm,0.5s,baz=50,slow=6.1,SNR=107
**KOWA Kowa 69.49 273** *e*P **P 14 10 28.6 -2.2**
comp=Z,22nm,1.6s
**COLD Coldfoot 72.00 16** *e*P **P 14 10 45.6 +0.5**
comp=Z,6.9nm,1.0s
COLD *e*pP **pP 14 11 33.4 +2.1**
**IMAR Indian Mountai 72.20 18** *e*P **P 14 10 46.5 +0.1**
**INK Inuvik 73.92 9** P **P 14 10 57.8 +1.4**
comp=Z,5.6nm,0.6s,baz=354,slow=7.1,SNR=52
**INK Inuvik 73.92 9** *e*P **P 14 10 57.4 +1.1**
INK pmax pmax
comp=Z,7.0nm,0.6s
**INK Inuvik 73.92 9** *e*P **P 14 10 57.4 +1.1**
comp=Z,6.8nm,0.6s
**COLA College 74.50 16** *e*P **P 14 11 00.0 +0.2**
COLA pmax pmax
comp=Z,7.0nm,0.6s
**COLA College 74.50 16** *e*P **P 14 11 00.0 +0.2**
comp=Z,6.9nm,0.6s
**ILAR Eielson Array 74.81 16** P **P 14 11 02.0 +0.4**
comp=Z,1.2nm,0.6s,baz=301,slow=4.7,SNR=23
ILAR pP **pP 14 11 50.1 +2.1**
comp=Z,1.4nm,0.9s,baz=316,slow=5.1,SNR=4.7
**DHY Denali Highway 76.16 17** *e*P **P 14 11 09.8 +0.3**
comp=Z,53nm,1.8s
**BOSA Boshof 77.69 220** P **P 14 11 18.6 +0.2**
comp=Z,9.3nm,0.8s,baz=24,slow=6.5,SNR=12
**BOSA Boshof 77.69 220** *e*P **P 14 11 18.2 -0.2**
comp=Z,12nm,0.9s
**KDAK Kodiak Island 79.23 22** *i* P **P 14 11 27.3 +1.0**
**YKW3 Yellowknife Ar 81.19 3** *e*P **P 14 11 36.4 -0.2**
comp=Z,12nm,1.3s
**YKA Yellowknife Ar 81.25 3** P **P 14 11 37.8 +0.8**
comp=Z,2.4nm,0.6s,baz=351,slow=5.4,SNR=44
YKA pP **pP 14 12 27.2 +3.0**
comp=Z,1.5nm,0.6s,baz=350,slow=5.6,SNR=5.9
**WRA Warramunga Arr 82.06 122** P **P 14 11 41.4 -0.5**
comp=Z,2.8nm,0.4s,baz=325,slow=5.0,SNR=62
**WRAB Tennant Creek 82.06 122** *e*P **P 14 11 40.8 -1.1**
WRAB pmax pmax
comp=Z,3.0nm,0.8s
**SCHQ Schefferville 82.07 337** P **P 14 11 42.5 +1.0**
comp=Z,4.1nm,0.7s,baz=51,slow=19,SNR=4.4
**AS31 Alice Springs 84.32 125** *e*P **P 14 11 52.7 -0.7**
comp=Z,1.1nm,0.7s
**ASAR Alice Springs 84.32 125** P **P 14 11 52.9 -0.5**
comp=Z,3.2nm,0.6s,baz=312,slow=4.8,SNR=64
ASAR pP **pP 14 12 41.9 +0.9**
comp=Z,1.9nm,0.8s,baz=322,slow=5.7,SNR=5.9
**AS01 Alice Springs 84.35 125** *e*P **P 14 11 52.7 -0.8**
**FFC Flin Flon 88.94 356** *i* P **P 14 12 16.8 +1.5**
**CTA Charters Tower 90.61 115** P **P 14 12 20.4 -3.2**
comp=Z,5.7nm,0.7s,baz=0.0,slow=0.0,SNR=5.5
**ULM Lac du Bonnet 92.84 352** P **P 14 12 33.7 +0.2**
comp=Z,2.3nm,0.8s,baz=197,slow=16,SNR=3.7
**CPUP Villa Florida 135.13 268** PKP **PKPdf 14 18 38.6 -0.9**
comp=Z,1.3nm,0.5s,baz=142,slow=2.1,SNR=4.9
**PLCA Paso Flores 149.75 250** PKPbc **PKPbc 14 19 10.2 +0.3**
comp=Z,6.4nm,0.8s,baz=160,slow=1.1,SNR=7.9

*IDC* ***21*** *14:02:14.8±1.6,36°.49N×30°.36E, h0km, mb4.1/3, mb1 4.0/7, mb1mx3.6/44, mbtmp3.9/7, ML3.7/4, Error ellipse: s-maj=27.7km s-min=24.3km az=56.0*
*ISK* ***21*** *14:02:19.5,36°.37N×30°.47E, h24km, ML3.4*
*CSEM* ***21*** *14:02:19.5±0.1,36°.31N×30°.47E, h20km, ML3.4, Error ellipse: s-maj=3.6km s-min=2.3km az=29.0*
*ISCJB* ***21*** *14:02:19.2±0.5,36°.27N±0°.02×30°.47E±0°.02, h28km±4km, mb4.0/3, Error ellipse: s-maj=3.9km s-min=2.7km az=30.1*
*DDA* ***21*** *14:02:19.3,36°.32N×30°.49E, h52km, Ml3.7*
*NIC* ***21*** *14:02:20.4±0.5,36°.52N×30°.61E, h25km, ML3.3*
**ISC 21 14:02:19.8±1.0,36°.31N±0°.03×30°.48E±0°.02,h30km±9km, n113,σ1$28/164,mb4.0/3,1D,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **ANTB** | **Antalya** | **0.60** | **13** | *e*Pg | | **Pb** | **14 02 31.2** | **-0.7** |
| ANTB | | | | *e*Sg | | **Sb** | **14 02 39.7** | **-0.5** |
| **ANTB** | **Antalya** | **0.60** | **13** | *e*Pg | | **Pb** | **14 02 31.2** | **-0.7** |
| ANTB | | | | *e*Sg | | **Sb** | **14 02 39.7** | **-0.5** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **ELL** | **Elmali** | **0.64** | **314** | *e*PG | **Pb** | **14 02 31.7** | **-0.8** |
| ELL | | | | *e*SG | **Sb** | **14 02 40.9** | **-0.3** |
| **ELL** | **Elmali** | **0.64** | **314** | *e*Pg | **Pb** | **14 02 31.7** | **-0.8** |
| ELL | | | | *e*Sg | **Sb** | **14 02 40.9** | **-0.3** |
| **KORT** | **Korkueli** | **0.70** | **351** | *e*PG | **Pb** | **14 02 32.6** | **-1.0** |
| **KORT** | **Korkueli** | **0.70** | **351** | *i* P | **Pb** | **14 02 32.4** | **-1.1** |
| KORT | | | | *i* S | **Sb** | **14 02 43.7** | **+0.7** |
| **KORT** | **Korkueli** | **0.70** | **351** | *e*Pg | **Pb** | **14 02 32.6** | **-1.0** |
| KORT | | | | S | **Sb** | **14 02 43.7** | **+0.7** |
| **AKAS** | **Kas** | **0.71** | **264** | *e*PG | **Pb** | **14 02 34.2** | **+0.4** |
| **AKAS** | **Kas** | **0.71** | **264** | *i* P | **Pb** | **14 02 34.3** | **+0.4** |
| AKAS | | | | *i* S | **Sn** | **14 02 45.9** | **+1.9** |
| **AKAS** | **Kas** | **0.71** | **264** | *e*Pg | **Pb** | **14 02 34.2** | **+0.4** |
| AKAS | | | | S | **Sn** | **14 02 45.9** | **+1.9** |
| **KEPZ** | **Antalya-Kepez** | **1.08** | **56** | *i* P | **Pn** | **14 02 39.3** | **+0.3** |
| KEPZ | | | | *i* S | **Sn** | **14 02 54.0** | **+1.0** |
| **KEPZ** | **Antalya-Kepez** | **1.08** | **56** | P | **Pn** | **14 02 39.3** | **+0.3** |
| KEPZ | | | | S | **Sn** | **14 02 54.0** | **+1.0** |
| **BCK** | **Bucak** | **1.15** | **4** | *e*PN | **Pn** | **14 02 39.8** | **-0.2** |
| **BCK** | **Bucak** | **1.15** | **4** | *e*Pn | **Pn** | **14 02 39.8** | **-0.2** |
| **GLHS** | **Glhisar (BURDU** | **1.16** | **317** | *e*PN | **Pn** | **14 02 39.8** | **-0.3** |
| **GLHS** | **Glhisar (BURDU** | **1.16** | **317** | *e*Pn | **Pn** | **14 02 39.8** | **-0.3** |
| **FETY** | **Fethiye** | **1.17** | **286** | *e*PN | **Pn** | **14 02 40.5** | **+0.3** |
| **FETY** | **Fethiye** | **1.17** | **286** | P | **Pn** | **14 02 40.6** | **+0.3** |
| FETY | | | | S | **Sn** | **14 02 56.3** | **+1.1** |
| **GOLH** | **Golhisar** | **1.18** | **322** | *i* P | **Pn** | **14 02 41.4** | **+0.9** |
| GOLH | | | | *i* S | **Sb** | **14 02 58.3** | **+1.6** |
| **GOLH** | **Golhisar** | **1.18** | **322** | P | **Pn** | **14 02 41.4** | **+0.9** |
| GOLH | | | | S | **Sb** | **14 02 58.3** | **+1.6** |
| **SUTC** | **Sutluce-Ispart** | **1.24** | **19** | *e*PN | **Pn** | **14 02 40.6** | **-0.6** |
| **SUTC** | **Sutluce-Ispart** | **1.24** | **19** | *e*Pn | **Pn** | **14 02 40.6** | **-0.6** |
| **BRDR** | **BURDUR-Merkez** | **1.42** | **346** | *i* P | **Pn** | **14 02 44.9** | **+1.2** |
| BRDR | | | | *i* S | **Sb** | **14 03 05.6** | **+2.0** |
| **BRDR** | **BURDUR-Merkez** | **1.42** | **346** | P | **Pn** | **14 02 44.9** | **+1.2** |
| BRDR | | | | S | **Sb** | **14 03 05.6** | **+2.0** |
| **GAZI** | **Gazipasa** | **1.48** | **92** | *i* P | **Pn** | **14 02 44.8** | **+0.3** |
| GAZI | | | | *i* S | **Sn** | **14 03 04.1** | **+1.2** |
| **GAZI** | **Gazipasa** | **1.48** | **92** | P | **Pn** | **14 02 44.8** | **+0.3** |
| GAZI | | | | S | **Sn** | **14 03 04.1** | **+1.2** |
| **DALY** | **Dalyan (Mu˘la** | **1.56** | **290** | *e*PN | **Pn** | **14 02 45.9** | **+0.5** |
| **DALY** | **Dalyan (Mu˘la** | **1.56** | **290** | *i* P | **Pn** | **14 02 45.8** | **+0.3** |
| DALY | | | | *i* S | **Sn** | **14 03 06.0** | **+1.4** |
| **DALY** | **Dalyan (Mu˘la** | **1.56** | **290** | *e*Pn | **Pn** | **14 02 45.9** | **+0.5** |
| DALY | | | | S | **Sn** | **14 03 06.0** | **+1.4** |
| **TURN** | **Turunc** | **1.61** | **291** | *e*PN | **Pb** | **14 02 50.4** | **+1.5** |
| **TURN** | **Turunc** | **1.61** | **291** | *i* P | **Pb** | **14 02 50.6** | **+1.7** |
| **TURN** | **Turunc** | **1.61** | **291** | P | **Pb** | **14 02 50.6** | **+1.7** |
| **BAGO** | **Egridir - ISPA** | **1.70** | **8** | *i* P | **Pn** | **14 02 48.2** | **+0.7** |
| BAGO | | | | *i* S | **Sn** | **14 03 09.7** | **+1.5** |
| **TAVA** | **DENIZLI_Tavas** | **1.71** | **313** | *i* P | **Pn** | **14 02 48.1** | **+0.5** |
| TAVA | | | | *i* S | **Sn** | **14 03 09.9** | **+1.4** |
| **TAVA** | **DENIZLI_Tavas** | **1.71** | **313** | P | **Pn** | **14 02 48.1** | **+0.5** |
| TAVA | | | | S | **Sn** | **14 03 09.9** | **+1.4** |
| **DNZL** | **Cakiroluk** | **1.79** | **321** | *i* P | Pn | 14 02 51.4 | +2.5 |
| DNZL | | | | *i* S | **Sn** | **14 03 12.8** | **+2.0** |
| **DNZL** | **Cakiroluk** | **1.79** | **321** | P | Pn | 14 02 51.4 | +2.5 |
| DNZL | | | | S | **Sn** | **14 03 12.8** | **+2.0** |
| **DENT** | **Denizli** | **1.85** | **322** | *e*PN | **Pn** | **14 02 49.8** | **+0.2** |
| **DENT** | **Denizli** | **1.85** | **322** | *e*Pn | **Pn** | **14 02 49.8** | **+0.2** |
| **MRSB** | **Marmaris-Mugla** | **1.89** | **283** | *e*PN | **Pn** | **14 02 50.9** | **+0.9** |
| **MRSB** | **Marmaris-Mugla** | **1.89** | **283** | *e*Pn | **Pn** | **14 02 50.9** | **+0.9** |
| **KZIL** | **AFYON_Kizioren** | **1.96** | **352** | *i* P | **Pn** | **14 02 51.8** | **+0.6** |
| KZIL | | | | *i* S | **Sn** | **14 03 18.4** | **+3.5** |
| **KZIL** | **AFYON_Kizioren** | **1.96** | **352** | P | **Pn** | **14 02 51.8** | **+0.6** |
| KZIL | | | | S | **Sn** | **14 03 18.4** | **+3.5** |
| **AKMC** | **Akamas** | **1.98** | **130** | P | **Pn** | **14 02 52.2** | **+0.9** |
| **AKMC** | **Akamas** baz=317 | **1.98** | **130** | P | **Pn** | **14 02 52.2** | **+0.9** |
| **ERMK** | **Ermenek** | **1.99** | **80** | *i* P | **Pn** | **14 02 53.0** | **+1.4** |
| ERMK | | | | *i* S | **Sb** | **14 03 21.9** | **+2.1** |
| **ERMK** | **Ermenek** | **1.99** | **80** | P | **Pn** | **14 02 53.0** | **+1.4** |
| ERMK | | | | S | **Sb** | **14 03 21.9** | **+2.1** |
| **DOGA** | **KONYA_Doganhis** | **2.03** | **28** | *i* P | **Pn** | **14 02 53.6** | **+1.5** |
| DOGA | | | | *i* S | **Sn** | **14 03 18.0** | **+1.5** |
| **DOGA** | **KONYA_Doganhis** | **2.03** | **28** | P | **Pn** | **14 02 53.6** | **+1.5** |
| DOGA | | | | S | **Sn** | **14 03 18.0** | **+1.5** |
| **ALFC** | **Alefka** | **2.07** | **123** | P | **Pn** | **14 02 52.8** | **+0.2** |
| ALFC | | | | S | **Sn** | **14 03 18.0** | **+0.6** |
| **ALFC** | **Alefka** baz=310 | **2.07** | **123** | P | **Pn** | **14 02 52.8** | **+0.2** |
| ALFC | | | | S | **Sn** | **14 03 18.0** | **+0.6** |
| **PPCY** | **Paphos** | **2.08** | **133** | P | **Pn** | **14 02 52.6** | **-0.1** |
| **PPCY** | **Paphos** baz=319 | **2.08** | **133** | P | **Pn** | **14 02 52.6** | **-0.1** |
| **KMER** | **Konya-Meram** | **2.10** | **45** | *i* P | **Pn** | **14 02 54.3** | **+1.3** |
| KMER | | | | *i* S | **Sn** | **14 03 21.0** | **+2.8** |
| **KMER** | **Konya-Meram** | **2.10** | **45** | P | **Pn** | **14 02 54.3** | **+1.3** |
| KMER | | | | S | **Sn** | **14 03 21.0** | **+2.8** |
| **KHAL** | **Karahalli** | **2.20** | **339** | *i* P | **Pn** | **14 02 54.7** | **+0.2** |
| KHAL | | | | *i* S | **Sn** | **14 03 21.2** | **+0.4** |
| **KHAL** | **Karahalli** | **2.20** | **339** | P | **Pn** | **14 02 54.7** | **+0.2** |
| KHAL | | | | S | **Sn** | **14 03 21.2** | **+0.4** |
| **KONT** | **Konya--Tatoy** | **2.22** | **42** | *e*PN | **Pn** | **14 02 55.4** | **+0.8** |
| **KONT** | **Konya--Tatoy** | **2.22** | **42** | *i* P | **Pn** | **14 02 56.3** | **+1.7** |
| KONT | | | | *i* S | **Sn** | **14 03 24.0** | **+3.0** |
| **KONT** | **Konya--Tatoy** | **2.22** | **42** | *e*Pn | **Pn** | **14 02 55.4** | **+0.8** |
| **SHUT** | **Suhut-Afyon** | **2.24** | **1** | *e*PN | **Pn** | **14 02 55.4** | **+0.4** |
| **SHUT** | **Suhut-Afyon** | **2.24** | **1** | *e*Pn | **Pn** | **14 02 55.4** | **+0.4** |
| **LEF** | **Lefka** | **2.29** | **121** | *e*PN | **Pn** | **14 02 57.0** | **+1.4** |
| **LEF** | **Lefka** | **2.29** | **121** | P | **Pn** | **14 02 55.2** | **-0.4** |
| **LEF** | **Lefka** | **2.29** | **121** | *e*Pn | **Pn** | **14 02 57.0** | **+1.4** |
| LEF | | | | S | **Sn** | **14 03 21.6** | **-1.2** |
| **TEVE** | **Tevekalti-Mers** | **2.39** | **86** | *e*PN | **Pn** | **14 02 58.4** | **+1.3** |
| **TEVE** | **Tevekalti-Mers** | **2.39** | **86** | *e*Pn | **Pn** | **14 02 58.4** | **+1.3** |
| **BOLV** | **Bolvadin** | **2.43** | **9** | *i* P | **Pn** | **14 02 59.0** | **+1.4** |
| BOLV | | | | *i* S | **Sn** | **14 03 27.7** | **+1.2** |
| **BOLV** | **Bolvadin** | **2.43** | **9** | P | **Pn** | **14 02 59.0** | **+1.4** |
| BOLV | | | | S | **Sn** | **14 03 27.7** | **+1.2** |
| **AKKU** | **Akkuyu-Mersin** | **2.49** | **93** | *e*PN | **Pn** | **14 02 59.7** | **+1.5** |
| **AKKU** | **Akkuyu-Mersin** | **2.49** | **93** | *e*Pn | **Pn** | **14 02 59.7** | **+1.5** |
| **SZAC** | **Souni** | **2.50** | **128** | P | **Pn** | **14 02 59.5** | **+1.1** |
| **SZAC** | **Souni** baz=314 | **2.50** | **128** | P | **Pn** | **14 02 59.5** | **+1.1** |
| **BDRM** | **Kayabasi** | **2.56** | **288** | *i* P | **Pn** | **14 02 59.3** | **+0.1** |
| BDRM | | | | *i* S | **Sn** | **14 03 29.2** | **-0.1** |
| **BDRM** | **Kayabasi** | **2.56** | **288** | P | **Pn** | **14 02 59.3** | **+0.1** |
| BDRM | | | | S | **Sn** | **14 03 29.2** | **-0.1** |
| **KDHN** | **Kadinhani** | **2.56** | **30** | *i* P | **Pn** | **14 02 59.8** | **+0.4** |
| KDHN | | | | *i* S | **Sn** | **14 03 30.1** | **+0.5** |
| **KDHN** | **Kadinhani** | **2.56** | **30** | P | **Pn** | **14 02 59.8** | **+0.4** |
| KDHN | | | | S | **Sn** | **14 03 30.1** | **+0.5** |
| **KEBE** | **Keben-Mersin** | **2.61** | **86** | *e*PN | **Pn** | **14 03 01.3** | **+1.3** |
| **KEBE** | **Keben-Mersin** | **2.61** | **86** | *e*Pn | **Pn** | **14 03 01.3** | **+1.3** |
| **KULA** | **Kula-Manisa** | **2.63** | **327** | *e*PN | **Pn** | **14 03 01.0** | **+0.6** |
| **KULA** | **Kula-Manisa** | **2.63** | **327** | *e*Pn | **Pn** | **14 03 01.0** | **+0.6** |
| **BODT** | **Bodrum** | **2.66** | **287** | *e*PN | **Pn** | **14 03 01.0** | **+0.4** |
| **BODT** | **Bodrum** | **2.66** | **287** | *e*Pn | **Pn** | **14 03 01.0** | **+0.4** |
| **MANT** | **Manisa** | **2.66** | **325** | *i* P | **Pn** | **14 03 00.2** | **-0.7** |
| MANT | | | | *i* S | **Sn** | **14 03 31.2** | **-1.1** |
| **MANT** | **Manisa** | **2.66** | **325** | P | **Pn** | **14 03 00.2** | **-0.7** |
| MANT | | | | S | **Sn** | **14 03 31.2** | **-1.1** |
| **LFK** | **Lefkose** | **2.69** | **112** | *e*PN | **Pn** | **14 03 02.8** | **+1.8** |
| **LFK** | **Lefkose** | **2.69** | **112** | *e*Pn | **Pn** | **14 03 02.8** | **+1.8** |
| **KIZT** | **Kizilcal** | **2.80** | **23** | *e*PN | **Pn** | **14 03 03.5** | **+0.9** |
| **KIZT** | **Kizilcal** | **2.80** | **23** | *e*Pn | **Pn** | **14 03 03.5** | **+0.9** |
| **KARP** | **Karpathos** | **2.80** | **255** | *e*PN | **Pn** | **14 03 04.1** | **+1.5** |
| **KARP** | **Karpathos** | **2.80** | **255** | *e*Pn | **Pn** | **14 03 04.1** | **+1.5** |
| **KIZK** | **Mersin** | **2.96** | **86** | *e*PN | **Pn** | **14 03 06.4** | **+1.7** |
| **SIMA** | **Simav-Kutahya** | **3.01** | **337** | *e*PN | **Pn** | **14 03 06.0** | **+0.4** |
| **SIMA** | **Simav-Kutahya** | **3.01** | **337** | *e*Pn | **Pn** | **14 03 06.0** | **+0.4** |
| **DEMI** | **Demirci** | **3.07** | **333** | *i* P | **Pn** | **14 03 05.8** | **-0.5** |
| DEMI | | | | *i* S | **Sn** | **14 03 42.0** | **0.0** |
| **DEMI** | **Demirci** | **3.07** | **333** | P | **Pn** | **14 03 05.8** | **-0.5** |
| DEMI | | | | S | **Sn** | **14 03 42.0** | **0.0** |
| **PHNC** | **Paralimni** | **3.17** | **113** | P | **Pn** | **14 03 06.8** | **-0.9** |
| **PHNC** | **Paralimni** baz=299 | **3.17** | **113** | P | **Pn** | **14 03 06.8** | **-0.9** |
| **ESKT** | **Eskisehir** | **3.22** | **5** | *e*PN | **Pn** | **14 03 09.3** | **+0.9** |
| **ESKT** | **Eskisehir** | **3.22** | **5** | *e*Pn | **Pn** | **14 03 09.3** | **+0.9** |
| **TVSB** | **Tavsanli** | **3.24** | **346** | *e*PN | **Pn** | **14 03 09.4** | **+0.7** |
| **TVSB** | **Tavsanli** | **3.24** | **346** | *e*Pn | **Pn** | **14 03 09.4** | **+0.7** |
| **DGB** | **˙zmir** | **3.36** | **302** | *i* P | **Pn** | **14 03 09.5** | **-0.7** |
| DGB | | | | *i* S | **Sn** | **14 03 45.5** | **-3.6** |
| **ANTO** | **Ankara** SNR=15 | **3.99** | **26** | P | Pb | 14 03 26.0 | -3.5 |
| **APE** | **Apeiranthos** | **4.05** | **282** | ⇓*i*P | **Pn** | **14 03 20.0** | **+0.2** |
| APE | | | | S | **Sn** | **14 04 04.6** | **-1.7** |
| **BRTR** | **Keskin Array B** 1.9nm,0.3s,baz=218,slow=15,SNR=34 | **4.22** | **35** | Pn | **Pn** | **14 03 22.6** | **+0.3** |
| BRTR | | | | Pg | | 14 03 34.5 | |
| | 2.5nm,0.3s,baz=210,slow=18,SNR=10.0 | | | | | | |
| BRTR | | | | Sn | **Sn** | **14 04 10.8** | **+0.1** |
| | 5.8nm,0.3s,baz=206,slow=25,SNR=13 | | | | | | |
| **IDI** | **Anoyia** 6.4nm,0.3s,baz=79,slow=13,SNR=29 | **4.66** | **259** | Pn | **Pn** | **14 03 27.9** | **-0.3** |
| IDI | | | | Pg | | 14 03 42.6 | |
| | 3.4nm,0.3s,baz=41,slow=11,SNR=5.9 | | | | | | |
| IDI | | | | Sn | **Sn** | **14 04 18.8** | **-2.5** |
| | 8.9nm,0.3s,baz=231,slow=15,SNR=7.5 | | | | | | |
| **MMAI** | **Mount Meron Ar** 3.9nm,0.3s,baz=308,slow=12,SNR=14 | **5.22** | **128** | Pn | **Pn** | **14 03 36.6** | **+0.7** |
| MMAI | | | | Sn | **Sn** | **14 04 33.4** | **-1.8** |
| | 6.8nm,0.3s,baz=304,slow=26,SNR=7.1 | | | | | | |
| **ASF** | **Jabal al Asfar** 0.4nm,0.3s,baz=150,slow=20,SNR=1.3 | **6.73** | **126** | Sn | **Sn** | **14 05 13.5** | **+1.2** |
| **EIL** | **Elat** 0.8nm,0.3s,baz=336,slow=16,SNR=2.3 | **7.61** | **149** | Pn | **Pn** | **14 04 08.7** | **0.0** |
| EIL | | | | Sn | **Sn** | **14 05 30.8** | **-3.1** |
| | 0.8nm,0.3s,baz=15,slow=14,SNR=5.2 | | | | | | |
| **GEYT** | **Alibeck** 2.2nm,0.5s,baz=266,slow=8.1,SNR=1.1 | **22.07** | **77** | P | **P** | **14 07 12.6** | **+0.3** |
| **FINES** | **FINESS Array B** 2.3nm,0.6s,baz=156,slow=11,SNR=3.5 | **25.31** | **355** | P | **P** | **14 07 40.0** | **-3.5** |
| **ARCES** | **ARCESS Array B** 2.7nm,0.7s,baz=177,slow=3.6,SNR=1.9 | **33.39** | **357** | P | **P** | **14 08 52.1** | **-3.2** |

**KRSC 21 14:02:48.0±1.5, 50.98N×158.13E, h48km±20km, ML3.8, East of Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **KDTR** | **Khodutka, Kamc** | **0.84** | **358** | *i* P | | Pn | 14 03 05.2 | +1.7 |
| KDTR | | | | *i* S | | Sn | 14 03 15.8 | +1.1 |
| **SKR** | **Severo-Kuril's** | **1.31** | **258** | *e*P | | Pn | 14 03 10.2 | +0.3 |
| SKR | | | | *e*S | | Sn | 14 03 25.6 | -0.7 |
| **ASAK** | **Asacha** | **1.42** | **354** | *e*P | | Pn | 14 03 13.6 | +2.1 |
| ASAK | | | | *e*S | | Sn | 14 03 29.9 | +0.9 |
| **RUS** | **Russkaya** | **1.48** | **9** | *e*P | | Pn | 14 03 14.1 | +1.9 |
| RUS | | | | *e*S | | Sn | 14 03 32.0 | +1.7 |
| **MTVR** | **Mutnovka** | **1.51** | **1** | *e*P | | Pn | 14 03 15.2 | +2.4 |
| MTVR | | | | *e*S | | Sn | 14 03 33.1 | +1.7 |
| **GRL** | **Gorelyy** | **1.58** | **359** | *e*P | | Pn | 14 03 16.4 | +2.7 |
| GRL | | | | *e*S | | Sn | 14 03 34.8 | +1.8 |
| **KRMR** | **Karymshinskiy** | **1.86** | **360** | *e*P | | Pn | 14 03 20.5 | +3.1 |
| KRMR | | | | *e*S | | Sn | 14 03 43.5 | +3.9 |
| **APC** | **Apacha** | **2.04** | **343** | P | | Pn | 14 03 22.1 | +2.2 |
| **PET** | **Petropavlovsk** | **2.08** | **9** | *e*P | | Pn | 14 03 23.1 | +2.7 |
| PET | | | | *e*S | | Sn | 14 03 47.1 | +2.1 |
| **DALK** | **Dalny** | **2.09** | **10** | *e*P | | Pn | 14 03 23.3 | +2.7 |
| DALK | | | | *e*S | | Sn | 14 03 47.6 | +2.2 |
| **UGLR** | **Uglovaya** | **2.28** | **10** | *e*P | | Pn | 14 03 26.6 | +3.4 |
| **AVH** | **Avacha** | **2.32** | **9** | *e*P | | Pn | 14 03 27.6 | +3.8 |
| **NLC** | **Nalytchevo** | **2.32** | **18** | P | | Pn | 14 03 25.9 | +2.2 |
| NLC | | | | *e*S | | Sn | 14 03 51.3 | +0.3 |
| **KOK** | **Koryaka** | **2.34** | **7** | P | | Pn | 14 03 27.9 | +3.8 |
| **SDLR** | **Sedlovina** | **2.35** | **11** | *e*P | | Pn | 14 03 27.1 | +2.8 |
| **KRER** | **Koryakskii** | **2.36** | **9** | P | | Pn | 14 03 28.6 | +4.1 |
| **KRX** | **Arik** | **2.41** | **7** | *e*P | | Pn | 14 03 29.1 | +4.0 |
| KRX | | | | *e*S | | Sn | 14 03 56.3 | +2.9 |
| **SPN** | **Mys Shipunski** | **2.42** | **28** | *e*P | | Pn | 14 03 28.4 | +3.3 |
| SPN | | | | *e*S | | Sn | 14 03 56.3 | +2.7 |
| **GNL** | **Ganaly** | **2.73** | **358** | *e*P | | Pn | 14 03 33.1 | +3.7 |
| **KBTR** | **Krutoberegovo** | **5.94** | **26** | P | | Pn | 14 04 18.0 | +4.7 |
| KBTR | | | | S | | Sn | 14 05 24.3 | +4.4 |
| **BKI** | **Bering** | **6.34** | **45** | *e*P | | Pn | 14 04 22.1 | +3.3 |

**IDC 21 14:03:53.5±2.5, 16.77S×178.36W, h0km, mb3.7/5, mb1 4.0/5, mb1mx3.7/33, mbtmpg3.7/5, Error ellipse: s-maj=140.2km s-min=28.2km az=144.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **STKA** | **Stephens Creek** 1.8nm,0.7s,baz=67,slow=9.9,SNR=6.5 | **39.23** | **240** | P | | P | 14 11 24.6 | +0.8 |
| **WRA** | **Warramunga Arr** 0.4nm,0.6s,baz=95,slow=8.1,SNR=2.4 | **44.90** | **258** | P | | P | 14 12 09.5 | -0.8 |
| **ASAR** | **Alice Springs** 2.1nm,0.5s,baz=88,slow=8.0,SNR=36 | **45.16** | **253** | P | | P | 14 12 11.8 | -0.5 |
| **ILAR** | **Eielson Array** 0.5nm,1.0s,baz=212,slow=3.2,SNR=2.4 | **84.77** | **13** | P | | P | 14 16 29.4 | +0.2 |
| **PDAR** | **Pinedale Array** 0.1nm,0.6s,baz=229,slow=8.2,SNR=1.6 | **86.50** | **43** | P | | P | 14 16 38.5 | -0.2 |

**MAN 21 14:14:54, 11.17N×124.67E, h13km, mb4.1, ML2.9, MS2.6, 1D, Leyte**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **OCLP** | **Ormoc** | **0.13** | **208** | *e*P | | Pb | 14 14 58.9 | +0.5 |
| OCLP | | | | *e*S | | Sb | 14 15 06.8 | +5.6 |
| **PLP** | **Palo** | **0.30** | **90** | ⇓*e*P | | Pb | 14 15 01.5 | +0.2 |
| PLP | | | | *e*S | | Sn | 14 15 11.1 | +0.6 |
| **MSLP** | **Maasin** | **1.04** | **170** | *e*P | | Pn | 14 15 15.2 | +0.9 |

*ISCJB **21** 14:58:45.8±0.5, 50.14N±0.03×19.07E±0.03, h0km, Error ellipse: s-maj=4.8km s-min=2.2km az=14.4*
*CSEM **21** 14:58:46.8±0.3, 50.13N×19.10E, h2km, ML3.0/6, Error ellipse: s-maj=7.4km s-min=3.4km az=12.0*
*IPEC **21** 14:58:47.1±0.2, 50.15N×19.12E, h1km±1km, ML2.3/3, Error ellipse: s-maj=2.7km s-min=1.1km az=165.0*
*PRU **21** 14:58:47.8, 50.13N×19.08E, h0km*
*WAR **21** 14:58:47.0, 50.10N×19.21E, h1km, Mw2.6*

**ISC 21 14:58:47.0±0.8, 50.10N±0.03×19.13E±0.02, h0km, n48, σ0°79/77, 6C-5D, Poland**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **OJC** | **Ojcow** | **0.45** | **74** | *e*Pg | | **Pg** | **14 58 54.5** | **-1.0** |
| OJC | | | | *e*Sg | | **Sg** | **14 59 00.9** | **-0.4** |
| **OJC** | **Ojcow** | **0.45** | **74** | *e*Pg | | **Pg** | **14 58 54.5** | **-1.0** |
| OJC | | | | *e*Sg | | **Sg** | **14 59 00.9** | **-0.4** |
| **OJC** | **Ojcow** | **0.45** | **74** | *e*Pg | | **Pg** | **14 58 54.5** | **-1.0** |
| OJC | | | | *e*Sg | | **Sg** | **14 59 00.9** | **-0.4** |
| **OKC** | **Ostrava-Krasne** comp=Z,47nm,0.5s | **0.69** | **248** | *e*PG | | **Pb** | **14 59 01.1** | **-0.7** |
| OKC | | | | *e*SG | | **Sg** | **14 59 08.6** | **-0.3** |
| **OKC** | **Ostrava-Krasne** 47nm,0.5s | **0.69** | **248** | Pg | | **Pb** | **14 59 01.1** | **-0.7** |
| OKC | | | | Sg | | **Sg** | **14 59 08.6** | **-0.3** |
| **LANS** | **Liptovska Anna** | **0.97** | **167** | *e*Pg | | **Pg** | **14 59 06.0** | **+0.4** |
| LANS | | | | *e*Sg | | **Sb** | **14 59 19.9** | **-0.2** |
| **LANS** | **Liptovska Anna** | **0.97** | **167** | *e*PG | | **Pg** | **14 59 06.0** | **+0.4** |
| LANS | | | | *e*SG | | **Sb** | **14 59 19.9** | **-0.2** |
| **NIE** | **Niedzica** | **1.02** | **131** | *e*Pg | | **Pg** | **14 59 06.4** | **0.0** |
| NIE | | | | *e*Sg | | **Sb** | **14 59 21.9** | **+0.5** |
| **NIE** | **Niedzica** | **1.02** | **131** | *e*Pg | | **Pg** | **14 59 06.4** | **0.0** |
| NIE | | | | *e*Sg | | **Sb** | **14 59 21.9** | **+0.5** |
| **NIE** | **Niedzica** | **1.02** | **131** | *e*Pg | | **Pg** | **14 59 06.4** | **0.0** |
| NIE | | | | *e*Sg | | **Sb** | **14 59 21.9** | **+0.5** |
| **MORC** | **Moravsky Berou** | **1.07** | **253** | *i* P | | **Pb** | **14 59 08.6** | **+0.2** |
| **MORC** | **Moravsky Berou** | **1.07** | **253** | *e*Pg | | **Pb** | **14 59 08.2** | **-0.2** |
| **MORC** | **Moravsky Berou** | **1.07** | **253** | ⇓*i*P | | **Pb** | **14 59 08.6** | **+0.2** |
| MORC | | | | *e*Sg | | **Sg** | **14 59 20.8** | **-0.6** |
| MORC | 67nm,0.4s | | | S | | **Sb** | **14 59 22.6** | **-0.4** |
| **KRLC** | **Kraliky** comp=Z,7.6nm,0.3s | **1.51** | **270** | *e*SG | | **Sg** | **14 59 34.4** | **-1.1** |
| **KRLC** | **Kraliky** 7.6nm,0.3s | **1.51** | **270** | Sg | | **Sg** | **14 59 34.4** | **-1.1** |
| **STHS** | **Stebnicka Huta** | **1.53** | **116** | *e*Pn | | **Pb** | **14 59 16.2** | **0.0** |
| **STHS** | **Stebnicka Huta** | **1.53** | **116** | *e*PN | | **Pb** | **14 59 16.2** | **0.0** |
| STHS | | | | *e*SN | | **Sn** | **14 59 38.7** | **+2.5** |
| STHS | | | | *e*LG | | Lg | 14 59 44.2 | |
| **VYHS** | **Vyhne** | **1.62** | **187** | *e*Pg | | **Pn** | **14 59 16.3** | **-0.5** |
| VYHS | | | | *e*Sn | | **Sn** | **14 59 37.5** | **-0.8** |
| **VYHS** | **Vyhne** | **1.62** | **187** | *e*PG | | **Pn** | **14 59 16.2** | **-0.5** |
| VYHS | | | | *e*SN | | **Sn** | **14 59 37.5** | **-0.8** |
| VYHS | | | | *e*LG | | Lg | 14 59 39.5 | |
| **DPC** | **Dobruska-Polom** comp=Z,24nm,0.3s | **1.82** | **279** | *e*PG | | **Pn** | **14 59 19.4** | **-0.2** |
| DPC | | | | *e*SG | | **Sn** | **14 59 43.6** | **+0.2** |
| **DPC** | **Dobruska-Polom** 24nm,0.3s | **1.82** | **279** | Pg | | **Pn** | **14 59 19.4** | **-0.2** |
| DPC | | | | Sg | | **Sn** | **14 59 43.6** | **+0.2** |
| **VRAC** | **Vranov** | **1.83** | **245** | ⇓*i*P | | **Pn** | **14 59 20.2** | **+0.6** |
| **VRAC** | **Vranov** | **1.83** | **245** | S | | **Sg** | **14 59 45.0** | **-0.6** |
| **VRAC** | **Vranov** | **1.83** | **245** | *e*Pn | | **Pn** | **14 59 20.1** | **+0.5** |
| VRAC | | | | *e*Sg | | **Sb** | **14 59 44.8** | **+0.2** |
| | 20nm,0.3s | | | | | | | |
| **KECS** | **Kecovo** | **1.84** | **151** | *e*Sn | | **Sn** | **14 59 43.2** | **-0.6** |
| **KECS** | **Kecovo** | **1.84** | **151** | *e* | | **Pn** | **14 59 18.7** | **-1.1** |
| **KECS** | **Kecovo** | **1.84** | **151** | *e*SN | | **Sn** | **14 59 43.2** | **-0.6** |
| KECS | | | | *e*LG | | Lg | 14 59 51.5 | |
| **CRVS** | **Cervenica-Dubn** | **1.93** | **127** | *e*Pn | | **Pb** | **14 59 22.8** | **-0.3** |
| CRVS | | | | *e*Sn | | **Sg** | **14 59 48.8** | **-0.3** |
| **CRVS** | **Cervenica-Dubn** | **1.93** | **127** | *e*PN | | **Pb** | **14 59 22.8** | **-0.3** |
| CRVS | | | | *e*SN | | **Sg** | **14 59 48.8** | **-0.3** |
| **KSP** | **Ksiaz** | **1.96** | **293** | *e*Pg | | **Pg** | **14 59 24.7** | **+0.2** |
| KSP | | | | *e*Sg | | **Sg** | **14 59 50.4** | **+0.5** |
| **KSP** | **Ksiaz** | **1.96** | **293** | *e*Pg | | **Pg** | **14 59 24.7** | **+0.2** |
| KSP | | | | *e*Sg | | **Sg** | **14 59 50.4** | **+0.5** |
| **KSP** | **Ksiaz** | **1.96** | **293** | *e*Pg | | **Pg** | **14 59 24.7** | **+0.2** |
| KSP | | | | *e*Sg | | **Sg** | **14 59 50.4** | **+0.5** |
| **UPC** | **Upice** | **2.04** | **283** | *e*SG | | **Sg** | **14 59 52.0** | **-0.5** |
| **UPC** | **Upice** | **2.04** | **283** | Sg | | **Sg** | **14 59 52.0** | **-0.5** |
| **KRUC** | **Moravsky** | **2.06** | **241** | *e*Pn | | **Pn** | **14 59 23.1** | **+0.3** |
| KRUC | | | | *e*Sg | | **Sg** | **14 59 52.3** | **-0.8** |
| | 14nm,0.3s | | | | | | | |
| **PSZ** | **Piszkesteto** | **2.24** | **167** | ⇓*i*P | | **Pn** | **14 59 26.6** | **+1.3** |
| **PSZ** | **Piszkesteto** | **2.24** | **167** | ⇓*i*P | | **Pn** | **14 59 26.6** | **+1.3** |
| PSZ | | | | S | | **Sb** | **14 59 56.2** | **-0.3** |
| **PRU** | **Pruhonice** | **2.96** | **270** | *e*SG | | **Sg** | **15 00 19.8** | **-2.2** |
| **PRU** | **Pruhonice** | **2.96** | **270** | Sg | | **Sg** | **15 00 19.8** | **-2.2** |
| **KHC** | **Kasperske Hory** | **3.74** | **257** | *e*PN | | **Pn** | **14 59 46.0** | **+0.1** |
| KHC | | | | *e*PG | | **Pb** | **14 59 56.0** | **+2.2** |
| KHC | | | | *e*SN | | **Sn** | **15 00 31.0** | **+0.4** |
| KHC | | | | *e*SG | | **Sg** | **15 00 45.6** | **-1.4** |
| **KHC** | **Kasperske Hory** | **3.74** | **257** | Pn | | **Pn** | **14 59 46.0** | **+0.1** |
| **DRGR** | | **4.08** | **143** | ⇑*i*P | | **Pn** | **14 59 50.7** | **+0.1** |
| **DRGR** | | **4.08** | **143** | ⇑*i*P | | **Pn** | **14 59 50.7** | **+0.1** |
| DRGR | | | | S | | **Sn** | **15 00 40.8** | **+1.8** |
| **CLL** | **Collm** | **4.08** | **290** | *e*Sg | | **Sg** | **15 00 58.0** | **+0.1** |
| **BURAR** | **Bucovina Array** | **4.72** | **119** | ⇑*i*P | | **Pn** | **14 59 59.9** | **+0.4** |
| **BURAR** | **Bucovina Array** | **4.72** | **119** | ⇑*i*P | | **Pn** | **14 59 59.9** | **+0.4** |
| **BZS** | **Buzias** | **4.79** | **159** | ⇑*i*P | | **Pn** | **15 00 00.3** | **0.0** |
| **BZS** | **Buzias** | **4.79** | **159** | ⇑*i*P | | **Pn** | **15 00 00.3** | **0.0** |

**TAP 21 15:14:17.5, 22.15N×121.79E, h159km, ML3.5, 6C-2D, C, Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **LAY** | **

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SMG | | | | S | Sg | 15 32 17.2 | +0.4 | |
| **SMG** | **Samos** | **0.39** | **227** | P | Pg | 15 32 11.4 | -0.3 | |
| SMG | | | | S | Sg | 15 32 17.3 | +0.5 | |
| **ZEY** | **˜zmir** | **0.60** | **296** | *i* P | Pg | 15 32 15.4 | -0.4 | |
| ZEY | | | | *i* S | Sg | 15 32 23.9 | +0.3 | |
| **URLA** | **Izmir** | **0.61** | **309** | *e*PG | Pg | 15 32 15.8 | +0.1 | |
| URLA | | | | *e*SG | Sb | 15 32 25.2 | -0.6 | |
| **URLA** | **Izmir** | **0.61** | **309** | *i* P | Pg | 15 32 15.6 | -0.2 | |
| URLA | | | | *i* S | Sg | 15 32 23.9 | +0.2 | |
| **URLA** | **Izmir** | **0.61** | **309** | P | Pg | 15 32 15.6 | -0.2 | |
| **URLA** | **Izmir** | **0.61** | **309** | *e*Pg | Pg | 15 32 15.9 | +0.1 | |
| URLA | | | | S | Sg | 15 32 23.9 | +0.2 | |
| **AYDN** | **Tasoluk** | **0.63** | **120** | *i* P | Pg | 15 32 16.3 | +0.2 | |
| AYDN | | | | *i* S | Sg | 15 32 24.9 | +0.6 | |
| **AYDN** | **Tasoluk** | **0.63** | **120** | P | Pg | 15 32 16.3 | +0.2 | |
| AYDN | | | | S | Sg | 15 32 24.9 | +0.6 | |
| **BODT** | **Bodrum** | **0.92** | **174** | *e*PG | Pg | 15 32 21.3 | -0.4 | |
| **BODT** | **Bodrum** | **0.92** | **174** | *e*Pg | Pg | 15 32 21.3 | -0.4 | |
| **BDRM** | **Kayabasi** | **0.93** | **168** | *i* P | Pg | 15 32 20.9 | -1.0 | |
| BDRM | | | | *i* S | Sb | 15 32 35.1 | 0.0 | |
| **BDRM** | **Kayabasi** | **0.93** | **168** | P | Pg | 15 32 20.9 | -1.0 | |
| BDRM | | | | S | Sb | 15 32 35.1 | 0.0 | |
| **CHOS** | **Chios island** | **0.99** | **295** | *e*PG | Pg | 15 32 23.1 | 0.0 | |
| CHOS | | | | *e*SG | Sb | 15 32 36.7 | 0.0 | |
| **CHOS** | **Chios island** | **0.99** | **295** | P | Pb | 15 32 23.3 | -0.2 | |
| CHOS | | | | S | Sg | 15 32 36.2 | +0.3 | |
| CHOS | | | | AML | AML | 15 32 40.0 | | |
| | comp=E,2108µm,0.2s | | | | | | | |
| CHOS | | | | AML | AML | 15 32 40.5 | | |
| | comp=N,1859µm,0.4s | | | | | | | |
| **CHOS** | **Chios island** | **0.99** | **295** | P | Pb | 15 32 23.3 | -0.2 | |
| CHOS | | | | S | Sb | 15 32 37.1 | +0.3 | |
| **CHOS** | **Chios island** | **0.99** | **295** | P | Pg | 15 32 22.6 | -0.4 | |
| CHOS | | | | S | Sb | 15 32 37.1 | +0.3 | |
| **AKHS** | **Akhisar** | **1.02** | **28** | *i* P | Pg | 15 32 23.0 | -0.7 | |
| AKHS | | | | *i* S | Sb | 15 32 38.0 | +0.3 | |
| **AKHS** | **Akhisar** | **1.02** | **28** | P | Pg | 15 32 23.0 | -0.7 | |
| AKHS | | | | S | Sb | 15 32 38.0 | +0.3 | |
| **AKS** | **Akhisar** | **1.02** | **28** | *e*PG | Pg | 15 32 23.2 | -0.5 | |
| **AKS** | **Akhisar** | **1.02** | **28** | *e*Pg | Pg | 15 32 23.2 | -0.5 | |
| **CAND** | **Candarli** | **1.02** | **343** | *e*PG | Pb | 15 32 23.8 | -0.3 | |
| **MANT** | **Manisa** | **1.19** | **64** | *i* P | Pg | 15 32 26.2 | -0.7 | |
| MANT | | | | *i* S | Sg | 15 32 40.4 | -1.9 | |
| **MANT** | **Manisa** | **1.19** | **64** | P | Pg | 15 32 26.2 | -0.7 | |
| MANT | | | | S | Sg | 15 32 40.4 | -1.9 | |
| **KULA** | **Kula-Manisa** | **1.27** | **65** | *e*PN | Pn | 15 32 28.3 | 0.0 | |
| **KULA** | **Kula-Manisa** | **1.27** | **65** | *e*Pn | Pn | 15 32 28.3 | 0.0 | |
| **TAVA** | **DENIZLI_Tavas** | **1.46** | **110** | *i* P | Pn | 15 32 30.2 | -0.6 | |
| **TAVA** | **DENIZLI_Tavas** | **1.46** | **110** | P | Pn | 15 32 30.2 | -0.6 | |
| **PRK** | **Paraskevi** | **1.46** | **331** | P | Pn | 15 32 30.9 | +0.1 | |
| PRK | | | | S | Sg | 15 32 51.0 | 0.0 | |
| PRK | | | | AML | AML | 15 32 54.2 | | |
| | comp=N,1946µm,0.5s | | | | | | | |
| PRK | | | | AML | AML | 15 32 55.4 | | |
| | comp=E,2962µm,0.7s | | | | | | | |
| **PRK** | **Paraskevi** | **1.46** | **331** | P | Pn | 15 32 30.9 | +0.1 | |
| PRK | | | | S | Sg | 15 32 51.0 | 0.0 | |
| **PRK** | **Paraskevi** | **1.46** | **331** | P | Pn | 15 32 30.9 | +0.1 | |
| PRK | | | | S | Sb | 15 32 49.9 | -0.3 | |
| **MRSB** | **Marmaris-Mugla** | **1.49** | **147** | *e*PN | Pn | 15 32 31.6 | +0.4 | |
| **MRSB** | **Marmaris-Mugla** | **1.49** | **147** | *e*Pn | Pn | 15 32 31.6 | +0.4 | |
| **DNZL** | **Cakiroluk** | **1.49** | **101** | *i* P | Pg | 15 32 32.5 | -0.2 | |
| DNZL | | | | *i* S | Sg | 15 32 54.2 | +2.2 | |
| **DNZL** | **Cakiroluk** | **1.49** | **101** | P | Pg | 15 32 32.5 | -0.2 | |
| DNZL | | | | S | Sg | 15 32 54.2 | +2.2 | |
| **TURN** | **Turunc** | **1.57** | **134** | *e*PN | Pn | 15 32 31.1 | -1.2 | |
| **TURN** | **Turunc** | **1.57** | **134** | *i* P | Pn | 15 32 29.5 | -2.8 | |
| **TURN** | **Turunc** | **1.57** | **134** | P | Pn | 15 32 29.5 | -2.8 | |
| **TURN** | **Turunc** | **1.57** | **134** | *e*Pn | Pn | 15 32 31.1 | -1.2 | |
| **DEMI** | **Demirci** | **1.60** | **48** | *i* P | Pn | 15 32 33.1 | +0.3 | |
| DEMI | | | | *i* S | Sn | 15 32 53.1 | -0.6 | |
| **DEMI** | **Demirci** | **1.60** | **48** | P | Pn | 15 32 33.1 | +0.3 | |
| DEMI | | | | S | Sn | 15 32 53.1 | -0.6 | |
| **APE** | **Apeiranthos** | **1.60** | **236** | *e*PN | Pn | 15 32 33.4 | +0.6 | |
| **APE** | **Apeiranthos** | **1.60** | **236** | P | Pb | 15 32 33.8 | -0.2 | |
| APE | | | | S | Sg | 15 32 57.3 | +1.7 | |
| APE | | | | AML | AML | 15 33 01.2 | | |
| | comp=N,302µm,0.3s | | | | | | | |
| APE | | | | AML | AML | 15 33 01.8 | | |
| | comp=E,324µm,0.3s | | | | | | | |
| **APE** | **Apeiranthos** | **1.60** | **236** | *e*Pn | Pn | 15 32 33.4 | +0.6 | |
| **APE** | **Apeiranthos** | **1.60** | **236** | P | Pb | 15 32 33.8 | -0.2 | |
| **APE** | **Apeiranthos** | **1.60** | **236** | P | Pn | 15 32 31.0 | -1.8 | |
| **SIGR** | **SIGRI** | **1.62** | **320** | *e*PN | Pb | 15 32 33.5 | -0.6 | |
| **SIGR** | **SIGRI** | **1.62** | **320** | P | Pb | 15 32 34.0 | -0.2 | |
| SIGR | | | | S | Sg | 15 32 55.5 | -0.5 | |
| SIGR | | | | AML | AML | 15 32 59.3 | | |
| | comp=N,1098µm,0.7s | | | | | | | |
| SIGR | | | | AML | AML | 15 32 59.5 | | |
| | comp=E,816µm,0.5s | | | | | | | |
| **SIGR** | **SIGRI** | **1.62** | **320** | *e*Pn | Pb | 15 32 33.6 | -0.6 | |
| **SIGR** | **SIGRI** | **1.62** | **320** | P | Pb | 15 32 34.0 | -0.2 | |
| SIGR | | | | S | Sg | 15 32 55.5 | -0.5 | |
| **SIGR** | **SIGRI** | **1.62** | **320** | P | Pn | 15 32 31.9 | -1.1 | |
| SIGR | | | | S | Sn | 15 32 54.5 | +0.4 | |
| **DALY** | **Dalyan (Mu˘la** | **1.64** | **135** | *e*PN | Pn | 15 32 33.7 | +0.4 | |
| **DALY** | **Dalyan (Mu˘la** | **1.64** | **135** | *e*Pn | Pn | 15 32 33.7 | +0.4 | |
| **BALB** | **Balikesir** | **1.74** | **18** | *e*PN | Pb | 15 32 35.5 | -0.8 | |
| **BALB** | **Balikesir** | **1.74** | **18** | *e*Pn | Pb | 15 32 35.5 | -0.8 | |
| **SIMA** | **Simav-Kutahya** | **1.78** | **51** | *e*PN | Pn | 15 32 36.0 | +0.6 | |
| **SIMA** | **Simav-Kutahya** | **1.78** | **51** | *e*Pn | Pn | 15 32 36.0 | +0.6 | |
| **BAYC** | **CANAKKALE_Bayr** | **1.83** | **344** | *i* P | Pn | 15 32 34.8 | -1.2 | |
| **BAYC** | **CANAKKALE_Bayr** | **1.83** | **344** | P | Pn | 15 32 34.8 | -1.2 | |
| **ARG** | **Arkhangelos** | **1.91** | **157** | P | Pn | 15 32 39.5 | +0.3 | |
| ARG | | | | S | Sb | 15 33 04.1 | +0.9 | |
| ARG | | | | AML | AML | 15 33 12.8 | | |
| | comp=N,298µm,0.5s | | | | | | | |
| ARG | | | | AML | AML | 15 33 13.9 | | |
| | comp=E,262µm,0.5s | | | | | | | |
| **ARG** | **Arkhangelos** | **1.91** | **157** | P | Pb | 15 32 39.5 | +0.3 | |
| ARG | | | | S | Sb | 15 33 04.1 | +0.9 | |
| **EZN** | **Ezine** | **1.97** | **340** | *e*PN | Pn | 15 32 38.7 | +1.0 | |
| **EZN** | **Ezine** | **1.97** | **340** | *e*Pn | Pn | 15 32 38.7 | +1.0 | |
| **DST** | **Dursunbey** | **1.97** | **34** | *e*PN | Pn | 15 32 38.7 | +0.9 | |
| **DST** | **Dursunbey** | **1.97** | **34** | *e*Pn | Pn | 15 32 38.7 | +0.9 | |
| **BOZC** | **Bozcaada** | **2.06** | **335** | *e*PN | Pn | 15 32 39.8 | +0.7 | |
| **BOZC** | **Bozcaada** | **2.06** | **335** | *e*Pn | Pn | 15 32 39.8 | +0.7 | |
| **THR2** | **Thira island,** | **2.08** | **223** | P | Pg | 15 32 42.9 | -0.9 | |
| **THR2** | **Thira island,** | **2.08** | **223** | P | Pg | 15 32 42.9 | -0.9 | |
| **THR8** | **Santorini-Mono** | **2.08** | **222** | P | Pb | 15 32 42.1 | 0.0 | |
| **THR8** | **Santorini-Mono** | **2.08** | **222** | P | Pb | 15 32 42.1 | 0.0 | |
| **SANT** | **Santorini** | **2.12** | **221** | P | Pb | 15 32 43.4 | +0.6 | |
| **SANT** | **Santorini** | **2.12** | **221** | P | Pb | 15 32 43.4 | +0.6 | |
| **THR3** | **Thira Island,** | **2.12** | **223** | P | Pb | 15 32 42.6 | -0.1 | |
| **THR3** | **Thira Island,** | **2.12** | **223** | P | Pb | 15 32 42.7 | -0.1 | |
| **THR5** | **Thira Island,** | **2.15** | **224** | P | Pb | 15 32 42.6 | -0.6 | |
| **THR5** | **Thira Island,** | **2.15** | **224** | P | Pb | 15 32 42.6 | -0.6 | |
| **SAP1** | **Santorini-Akro** | **2.16** | **222** | P | Pb | 15 32 43.8 | +0.3 | |
| **SAP1** | **Santorini-Akro** | **2.16** | **222** | P | Pb | 15 32 43.8 | +0.3 | |
| **THR6** | **Thira Island,** | **2.16** | **222** | P | Pb | 15 32 43.4 | -0.1 | |
| **THR6** | **Thira Island,** | **2.16** | **222** | P | Pb | 15 32 43.4 | -0.1 | |
| **SKY** | **Skiros Island** | **2.26** | **294** | P | Pn | 15 32 43.2 | +1.3 | |
| **SKY** | **Skiros Island** | **2.26** | **294** | P | Pn | 15 32 43.2 | +1.3 | |
| **TVSB** | **Tavsanli** | **2.30** | **50** | *e*PN | Pn | 15 32 43.4 | +0.9 | |
| **TVSB** | **Tavsanli** | **2.30** | **50** | *e*Pn | Pn | 15 32 43.4 | +0.9 | |
| **KRBG** | **Karabiga-Canak** | **2.41** | **2** | *e*PN | Pn | 15 32 45.2 | +1.3 | |
| **KRBG** | **Karabiga-Canak** | **2.41** | **2** | *e*Pn | Pn | 15 32 45.2 | +1.3 | |
| **KARP** | **Karpathos** | **2.43** | **181** | P | Pb | 15 32 46.7 | -1.3 | |
| **KARP** | **Karpathos** | **2.43** | **181** | P | Pb | 15 32 46.7 | -1.3 | |
| **KCTX** | **Karacabey (Bur** | **2.46** | **21** | *e*PN | Pn | 15 32 45.4 | +0.9 | |
| **KCTX** | **Karacabey (Bur** | **2.46** | **21** | *e*Pn | Pn | 15 32 45.4 | +0.9 | |
| **GELI** | **Tayfur-Gelibol** | **2.48** | **347** | *e*PN | Pn | 15 32 45.8 | +1.0 | |
| **GELI** | **Tayfur-Gelibol** | **2.48** | **347** | *e*Pn | Pn | 15 32 45.8 | +1.0 | |
| **MHLA** | **Plaka, Milos I** | **2.53** | **242** | P | Pb | 15 32 48.1 | -1.7 | |
| **MHLA** | **Plaka, Milos I** | **2.53** | **242** | P | Pb | 15 32 48.1 | -1.7 | |
| **KSL** | **Kastellorizon** | **2.64** | **133** | P | Pn | 15 32 49.3 | +2.2 | |
| **RKY** | **Sarkoy-Tekirda** | **2.71** | **360** | *e*PN | Pn | 15 32 49.1 | +1.1 | |
| **RKY** | **Sarkoy-Tekirda** | **2.71** | **360** | *e*Pn | Pn | 15 32 49.1 | +1.1 | |
| **ERIK** | **Erikli-Kesan** | **2.74** | **349** | *e*PN | Pn | 15 32 49.5 | +1.1 | |
| **ERIK** | **Erikli-Kesan** | **2.74** | **349** | *e*Pn | Pn | 15 32 49.5 | +1.1 | |
| **ENEZ** | **Enez** | **2.87** | **344** | *e*PN | Pn | 15 32 51.4 | +1.2 | |
| **ENEZ** | **Enez** | **2.87** | **344** | *e*Pn | Pn | 15 32 51.4 | +1.2 | |
| **ARMT** | **Armutlu** | **2.89** | **26** | *e*PN | Pn | 15 32 51.6 | +1.1 | |
| **ARMT** | **Armutlu** | **2.89** | **26** | *e*Pn | Pn | 15 32 51.6 | +1.1 | |
| **SBT3** | **Marmara-Eregli** | **2.96** | **11** | *e*PN | Pn | 15 32 53.0 | +1.7 | |
| **SBT3** | **Marmara-Eregli** | **2.96** | **11** | *e*Pn | Pn | 15 32 53.0 | +1.7 | |
| **CAVI** | **Cavuskoy** | **3.03** | **42** | *e*PN | Pn | 15 32 53.6 | +1.2 | |
| **CAVI** | **Cavuskoy** | **3.03** | **42** | *e*Pn | Pn | 15 32 53.6 | +1.2 | |
| **ALN** | **Alexandroupoli** | **3.05** | **343** | *e*PN | Pn | 15 32 53.9 | +1.3 | |
| **ALN** | **Alexandroupoli** | **3.05** | **343** | *e*Pn | Pn | 15 32 53.9 | +1.3 | |
| **SBT2** | **Guzelce-Avcila** | **3.07** | **19** | *e*PN | Pn | 15 32 54.3 | +1.5 | |
| **SBT2** | **Guzelce-Avcila** | **3.07** | **19** | *e*Pn | Pn | 15 32 54.3 | +1.5 | |
| **YLV** | **Yalova** | **3.09** | **32** | *e*PN | Pn | 15 32 54.5 | +1.3 | |
| **YLV** | **Yalova** | **3.09** | **32** | *e*Pn | Pn | 15 32 54.5 | +1.3 | |
| **ADVT** | **Abdulvahap** | **3.15** | **38** | *e*PN | Pn | 15 32 55.4 | +1.4 | |
| **ADVT** | **Abdulvahap** | **3.15** | **38** | *e*Pn | Pn | 15 32 55.4 | +1.4 | |
| **BUY** | **Buyukada** | **3.23** | **27** | *e*PN | Pn | 15 32 56.6 | +1.4 | |
| **BUY** | **Buyukada** | **3.23** | **27** | *e*Pn | Pn | 15 32 56.6 | +1.4 | |
| **CTKS** | **Kestanelik-??a** | **3.41** | **17** | *e*PN | Pn | 15 32 58.6 | +1.0 | |
| **CTKS** | **Kestanelik-??a** | **3.41** | **17** | *e*Pn | Pn | 15 32 58.6 | +1.0 | |

**MEX 21 15:49:52.7±0.5, 15°.92N×97°.41W, h16km±15km, MD3.6, Near coast of Oaxaca**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **PNIG** | **Pinotepa** | **0.83** | **304** | *e*P | Pb | 15 50 05.6 | -3.3 |
| PNIG | | | | *e*S | Sb | 15 50 16.4 | -3.5 |
| **VHO** | **Vista Hermosa** | **1.31** | **29** | *e*P | Pn | 15 50 13.1 | -3.5 |
| VHO | | | | *e*S | Sb | 15 50 28.2 | -5.6 |
| **TLIG** | **Tlapa** | **1.97** | **326** | *e*P | Pn | 15 50 22.4 | -3.2 |
| TLIG | | | | *e*S | Sn | 15 50 45.4 | -4.7 |

**IDC 21 16:09:23.8±10.0, 4°.99S×118°.56E, h0km, mb3.3/3, mb1 3.6/3, mb1mx3.3/27, mbtmp3.4/3, Error ellipse: s-maj=262.1km s-min=150.8km az=38.0, Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **21.38** | **135** | P | P | 16 14 12.1 | -1.0 |
| | 0.2nm,0.5s,baz=308,slow=11,SNR=6.4 | | | | | | |
| **ASAR** | **Alice Springs** | **23.74** | **143** | P | P | 16 14 38.5 | +0.5 |
| | 0.3nm,0.5s,baz=319,slow=8.6,SNR=15 | | | | | | |
| **STKA** | **Stephens Creek** | **34.37** | **144** | P | P | 16 16 12.7 | +0.1 |
| | 1.5nm,0.8s,baz=307,slow=15,SNR=2.1 | | | | | | |

**DJA 21 16:26:46.3±0.3, 0°.N±3°×12°.0E±°, h45km±7km, M4.0/6, mB4.9/1, mb4.3/2, MLv3.9/6, Mw(mB)4.2/1, Minahassa Peninsula, Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **MPSI** | **Mapaga** | **0.32** | **310** | P | Pn | 16 26 57.8 | +2.6 |
| MPSI | | | | S | Sn | 16 27 03.9 | +2.5 |
| **PCI** | **Palu** | **1.07** | **196** | P | Pn | 16 27 05.0 | +0.1 |
| PCI | | | | S | Sn | 16 27 19.4 | +0.7 |
| **APSI** | **Ampana** | **1.83** | **124** | P | Pn | 16 27 15.8 | +0.5 |
| APSI | | | | S | Sn | 16 27 37.4 | +0.2 |
| **MRSI** | **Marisa** | **1.83** | **79** | P | Pn | 16 27 15.7 | +0.4 |
| MRSI | | | | S | Sn | 16 27 36.5 | -0.9 |
| **SGKI** | **Sangatta, Kali** | **2.62** | **256** | S | Sn | 16 27 56.5 | -0.3 |
| **LUWI** | **Luwuk** | **2.88** | **114** | P | Pn | 16 27 30.3 | +0.6 |
| **SMKI** | **Samarinda** | **2.99** | **259** | P | Pn | 16 27 32.5 | +1.3 |
| SMKI | | | | S | Sn | 16 28 05.7 | -0.1 |
| **KBKI** | **Kotabaru** | **5.23** | **229** | P | Pn | 16 28 00.9 | -1.1 |

*ISCJB **21** 16:31:36.3±0.4, 7°.19S×0°.06×129°.35E±0°.05, h100km, mb4.2/7, Error ellipse: s-maj=8.7km s-min=6.4km az=40.1*
*IDC **21** 16:31:37.9±4.6, 7°.14S×129°.44E, h96km±46km, mb3.9/7, mb1 4.1/10, mb1mx3.8/38, mbtmp4.3/10, Error ellipse: s-maj=39.0km s-min=19.1km az=58.0*
*NEIC **21** 16:31:42.8±2.0, 7°.30S×129°.24E, h140km±22km, mb4.6/4, Error ellipse: s-maj=21.4km s-min=10.0km az=208.0*

**ISC 21 16:31:38.0±0.6, 7°.30S±0°.07×129°.47E±0°.07, h100km, n30, σ2°.33/31, mb4.2/7, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **SOEI** | **Soe** | **5.70** | **244** | *e*Pn | Pn | 16 33 03.9 | +3.6 |
| | 48nm,0.6s | | | | | | |
| SOEI | | | | *e*Sn | Sn | 16 34 02.0 | -2.5 |
| **FITZ** | **Fitzroy Crossi** | **11.37** | **199** | P | Pn | 16 34 18.2 | +0.9 |
| | 1.7nm,0.3s,baz=34,slow=11,SNR=25 | | | | | | |
| FITZ | | | | S | Sn | 16 36 14.2 | -8.3 |
| | 3.8nm,0.3s,baz=75,slow=23,SNR=7.4 | | | | | | |
| **WRAB** | **Tennant Creek** | **13.43** | **160** | *e*Pn | Pn | 16 34 45.0 | +0.5 |
| | 12nm,0.8s | | | | | | |
| **WRA** | **Warramunga Arr** | **13.43** | **160** | P | Pn | 16 34 45.0 | +0.5 |
| | 1.7nm,0.3s,baz=338,slow=13,SNR=62 | | | | | | |
| WRA | | | | S | Sn | 16 37 06.3 | -6.1 |
| | 6.1nm,0.3s,baz=334,slow=23,SNR=13 | | | | | | |
| **COEN** | **Coen** | **15.00** | **117** | *e*P | P | 16 35 08.3 | +0.5 |
| | 15nm,0.6s | | | | | | |
| **ASAR** | **Alice Springs** | **16.83** | **166** | P | P | 16 35 30.6 | +2.6 |
| | 2.8nm,0.3s,baz=342,slow=9.2,SNR=249 | | | | | | |
| ASAR | | | | S | Sn | 16 38 27.9 | -6.6 |
| | 1.6nm,0.3s,baz=352,slow=29,SNR=6.9 | | | | | | |
| **PMG** | **Port Moresby** | **17.62** | **98** | P | Pn | 16 35 42.8 | +5.5 |
| | 0.6nm,0.3s,baz=276,slow=5.7,SNR=6.2 | | | | | | |
| PMG | | | | S | Sn | 16 38 48.6 | -5.2 |
| | 0.5nm,0.3s,baz=218,slow=15,SNR=2.6 | | | | | | |
| **CTA** | **Charters Tower** | **20.65** | **130** | P | Pn | 16 36 14.4 | +1.4 |
| | 3.7nm,0.7s,baz=293,slow=8.8,SNR=5.9 | | | | | | |
| **CTAO** | **Charters Tower** | **20.65** | **130** | *e*P | Pn | 16 36 14.5 | +1.5 |
| | 20nm,0.6s | | | | | | |
| **STKA** | **Stephens Creek** | **26.95** | **157** | P | P | 16 37 12.4 | +2.3 |
| | 2.9nm,0.4s,baz=332,slow=8.8,SNR=17 | | | | | | |
| **PSI** | **Prapat** | **32.09** | **287** | P | P | 16 37 55.9 | -0.1 |
| | 2.5nm,0.4s,baz=227,slow=1.6,SNR=5.7 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **39.52** | **311** | P | P | 16 38 59.1 | -0.2 |
| | 2.6nm,0.7s,baz=138,slow=7.2,SNR=25 | | | | | | |
| **CHTO** | **Chiang Mai** | **39.74** | **311** | *e*P | P | 16 39 00.3 | -0.7 |
| **USRK** | **Ussuriysk Ar.** | **51.30** | **2** | P | P | 16 40 31.5 | -0.4 |
| | 1.4nm,0.6s,baz=165,slow=6.0,SNR=3.0 | | | | | | |
| **ODAN** | **Odare** | **53.06** | **311** | *e*P | P | 16 40 44.4 | -1.1 |
| | 23nm,0.5s | | | | | | |
| **TAPN** | **Taplejung** | **53.09** | **312** | *e*P | P | 16 40 44.7 | -1.1 |
| | 18nm,0.4s | | | | | | |
| **RAMN** | **Ramite** | **53.69** | **311** | *e*P | P | 16 40 49.4 | -0.7 |
| | 43nm,0.6s | | | | | | |
| **JIRN** | **Jiri** | **54.39** | **312** | *e*P | P | 16 40 54.2 | -1.1 |
| | 138nm,0.6s | | | | | | |
| **GUN** | **Gumba** | **54.75** | **312** | *e*P | P | 16 40 56.8 | -1.1 |
| | 28nm,0.5s | | | | | | |
| **PKI** | **Pulchoki** | **54.92** | **311** | *e*P | P | 16 40 57.7 | -1.4 |
| | 12nm,0.5s | | | | | | |
| **PKIN** | **Phulchoki** | **54.93** | **311** | *e*P | P | 16 40 58.6 | -0.5 |
| | 12nm,0.6s | | | | | | |
| **KKN** | **Kakani** | **55.13** | **311** | *e*P | P | 16 40 59.4 | -1.1 |
| | 13nm,0.5s | | | | | | |
| **DMN** | **Daman** | **55.17** | **311** | *e*P | P | 16 40 59.7 | -1.1 |
| | 8.7nm,0.5s | | | | | | |
| **GKN** | **Gorkha** | **55.73** | **311** | *e*P | P | 16 41 03.5 | -1.2 |
| **KOLN** | **Koldanda** | **56.39** | **310** | *e*P | P | 16 41 08.5 | -1.0 |
| **PYUN** | **Piuthan** | **57.02** | **310** | *e*P | P | 16 41 13.0 | -0.9 |
| **SONM** | **Songino Array** | **58.56** | **342** | P | P | 16 41 24.1 | -0.1 |
| | 0.9nm,0.6s,baz=160,slow=7.1,SNR=7.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **68.19** | **327** | P | P | 16 42 27.0 | -0.6 |
| | 1.4nm,0.4s,baz=114,slow=8.4,SNR=62 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **71.62** | **334** | P | P | 16 42 46.4 | -2.0 |
| | 2.1nm,0.6s,baz=130,slow=4.9,SNR=9.7 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **128.35** | **281** | PKP | PKPdf | 16 50 33.7 | -0.3 |
| | 0.3nm,0.5s,baz=90,slow=2.9,SNR=2.4 | | | | | | |

*IDC **21** 16:32:48.5±1.1, 17°.97S×172°.71W, h0km, mb4.2/8, mb1 4.4/9, mb1mx4.1/37, mbtmp4.2/9, ML3.7/1, MS3.2/2, Ms1 3.2/2, ms1mx2.7/30, Error ellipse: s-maj=45.7km s-min=19.2km az=135.0*
*ISCJB **21** 16:32:52.8±0.9, 17°.5S±0°.1×173°.1W±0°.2, h28km, mb4.3/10, MS3.1/1, Error ellipse: s-maj=30.6km s-min=8.5km az=32.7*
*NEIC **21** 16:32:56.4±2.3, 17°.40S×173°.11W, h43km±20km, mb4.8/1, Error ellipse: s-maj=34.2km s-min=13.1km az=136.0*

**ISC 21 16:32:53.7±0.9, 17°.6S±0°.1×173°.0W±0°.2, h28km, n19, σ1°.70/16, mb4.4/10, Tonga Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **AFI** | **Afiamalu** | **3.85** | **17** | P | Pn | 16 33 52.2 | +1.0 |
| | 4.6nm,0.3s,baz=192,slow=14,SNR=4.6 | | | | | | |
| AFI | | | | S | Sn | 16 34 34.4 | -1.2 |
| | 32nm,0.3s,baz=153,slow=21,SNR=12 | | | | | | |
| **AFI** | **Afiamalu** | **3.85** | **17** | *e*Pn | Pn | 16 33 51.3 | +0.1 |
| AFI | | | | S | Sn | 16 34 34.4 | -1.2 |
| **RAR** | **Rarotonga** | **12.94** | **108** | LR | LR | 16 39 10.7 | |
| | comp=Z,104nm,18.1s,baz=277,slow=30 | | | | | | |
| **DZM** | **Mont Dzumac** | **19.88** | **254** | *e*LR | LR | 16 42 55.9 | |
| | 199nm,25.2s | | | | | | |
| **PPT2** | **Papeete2** | **22.28** | **94** | *e*LR | LR | 16 42 21.7 | |
| | 164nm,24.2s | | | | | | |
| **PPT** | **Papeete** | **22.29** | **93** | LR | LR | 16 43 31.2 | |
| | comp=Z,71nm,21.0s,baz=284,slow=29 | | | | | | |
| **URZ** | **Urewera** | **22.34** | **201** | P | P | 16 37 44.7 | -4.6 |
| | 10nm,0.7s,baz=6.3,slow=3.4,SNR=6.0 | | | | | | |
| **TBI** | **Tubuai** | **22.73** | **108** | *e*LR | LR | 16 42 36.4 | |
| | 137nm,29.0s | | | | | | |
| **RPZ** | **Rata Peaks** | **29.33** | **204** | P | P | 16 38 57.0 | +3.0 |
| | 3.4nm,0.5s,baz=2.7,slow=5.2,SNR=5.6 | | | | | | |
| **CTA** | **Charters Tower** | **38.62** | **260** | P | P | 16 40 14.2 | -0.7 |
| | 7.8nm,0.8s,baz=79,slow=12,SNR=7.6 | | | | | | |
| **STKA** | **Stephens Creek** | **43.34** | **242** | P | P | 16 40 52.9 | -0.8 |
| | 2.2nm,0.7s,baz=68,slow=5.3,SNR=4.0 | | | | | | |
| **WRAB** | **Tennant Creek** | **49.78** | **259** | *e*P | P | 16 41 44.7 | +0.4 |
| | 6.0nm,0.6s | | | | | | |
| **WRA** | **Warramunga Arr** | **49.79** | **259** | P | P | 16 41 44.9 | +0.5 |
| | 5.3nm,0.7s,baz=96,slow=8.1,SNR=10 | | | | | | |
| **ASAR** | **Alice Springs** | **49.87** | **254** | P | P | 16 41 45.2 | +0.2 |
| | 10nm,0.7s,baz=89,slow=8.6,SNR=17 | | | | | | |
| **TXAR** | **Lajitas Array** | **81.49** | **56** | P | P | 16 45 08.4 | -0.5 |
| | 0.3nm,0.9s,baz=248,slow=7.4,SNR=3.9 | | | | | | |
| **ILAR** | **Eielson Array** | **84.52** | **11** | P | P | 16 45 24.5 | +0.8 |
| | 1.5nm,1.0s,baz=211,slow=3.5,SNR=8.0 | | | | | | |
| **YKA** | **Yellowknife Ar** | **91.94** | **23** | P | P | 16 45 59.0 | -0.3 |
| | 0.7nm,1.0s,baz=256,slow=2.5,SNR=4.8 | | | | | | |
| **CLL** | **Colln** | **146.04** | **353** | *e*PKPbc | PKPab | 16 52 32.0 | +0.6 |
| **BRTR** | **Keskin Array B** | **148.12** | **319** | PKPbc | PKPbc | 16 52 38.0 | +0.7 |
| | 1.6nm,0.9s,baz=11,slow=1.3,SNR=3.7 | | | | | | |

*ISCJB **21** 16:35:57.9±1.3, 7°.53N±0°.04×82°.04W±0°.04, h1km±8km, mb4.5/77, MS3.8/20, Error ellipse: s-maj=8.3km s-min=3.4km az=40.9*
*IDC **21** 16:35:59.7±0.8, 7°.52N×82°.08W, h0km, mb4.2/15, mb1 4.4/17, mb1mx4.2/39, mbtmp4.2/17, ML3.2/2, MS3.7/22, Ms1 3.7/22, ms1mx3.6/35, Error ellipse: s-maj=29.7km s-min=13.8km az=38.0*
*BJI **21** 16:36:00.8, 7°.60N×82°.00W, h10km, mB5.1/2, Ms4.8/2, Ms7 4.5/2*
*GCMT **21** 16:36:01.0±0.3, 7°.45N×82°.26W, h19km±1km, MW4.8/78, Moment Tensor Solution. s16,c19; s78,c101; Duration: 0 Moment tensor: Scale 10^16^Nm; M_rr 0.07±.10; M_θθ 0.19±.09; M_θφ -0.25±.11; M_rθ 0.04±.17; M_φφ 2.09±.08; M_φr 0.36±.18; Best double couple: M_o 2.13400×10^16^ NP1:φ_s 3.00000°, δ89.00000°, λ170.00000°. NP2: φ_s 93.00000°, δ80.00000°, λ1.00000°. Principal axes: T 2.1060, Plg8.0000°, Azm318.0000°; N 0.0550, Plg80.0000°, Azm177.0000°; P -2.1620, Plg6.0000°, Azm48.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*CASC **21** 16:36:01.1±2.0, 7°.42N×82°.35W, h9km±14km, MD3.9, mb4.6(NEIC)*
*NEIC **21** 16:36:01.0±0.2, 7°.56N×82°.03W, h10km, mb4.6/65, Error ellipse: s-maj=8.0km s-min=3.4km az=220.0*
*NEIC Felt at Canoa.*

**ISC 21 16:35:59.0±1.4, 7°.40N±0°.05×82°.16W±0°.04, h1km±8km, n274, σ1°.39/279, mb4.5/77, MS3.8/21, 7C-4D, South of Panama**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **TBS2** | | **1.47** | **341** | *e*P | Pn | 16 36 25.7 | -1.2 |
| TBS2 | | | | *e*S | Sn | 16 36 47.6 | +0.8 |
| **BRU2** | **Volcan** | **1.48** | **339** | *e*P | Pn | 16 36 26.0 | -1.1 |
| BRU2 | | | | *e*S | Sg | 16 36 46.3 | -0.5 |
| **AZU** | **Azuero** | **1.91** | **78** | ‖ *i*P | Pb | 16 36 34.7 | 0.0 |
| **PNME** | **Penonome** | **2.12** | **59** | ‖ *i*P | Pb | 16 36 38.5 | +0.3 |
| PN

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| JCT | Junction City<br>baz=140 | 28.30 327 | P | P | 16 41 54.2 | -0.1 |
| WHTX | Lake Whitney,<br>baz=146 | 28.32 332 | P | P | 16 41 53.9 | -0.6 |
| MIAR | Mount Ida<br>baz=156 | 28.99 340 | P | P | 16 41 59.8 | -0.6 |
| MNMC | Minye Minye<br>12nm,0.9s | 29.12 155 | *e*P | P | 16 42 02.7 | +0.7 |
| W41B | Gary Mavity, V<br>baz=159 | 29.16 343 | P | P | 16 42 01.3 | -0.5 |
| W39A | Magazine<br>baz=156 | 29.66 341 | P | P | 16 42 06.0 | -0.3 |
| PB11 | IPOC Station P<br>12nm,0.8s | 29.66 156 | *e*P | P | 16 42 08.9 | +2.3 |
| V41A | Mountainview<br>baz=159 | 29.70 343 | P | P | 16 42 06.1 | -0.6 |
| Y35A | Marietta<br>baz=149 | 29.75 335 | P | P | 16 42 07.2 | +0.1 |
| TXAR | Lajitas Array<br>1.9nm,0.9s,baz=138,slow=10.0,SNR=11 | 29.77 320 | P | P | 16 42 08.1 | +0.7 |
| TXAR | | | LR | LR | 16 56 48.5 | |
| | comp=Z,89nm,18.5s,baz=0.0,slow=42 | | | | | |
| TX31 | Lajitas Ar. Si | 29.77 320 | *e*P | P | 16 42 07.4 | 0.0 |
| ABTX | Abilene, Hawle<br>baz=143 | 29.90 329 | P | P | 16 42 07.8 | -0.7 |
| U42A | Revenden<br>baz=162 | 29.99 345 | P | P | 16 42 08.8 | -0.4 |
| H06E1 | SOCORRO T-PHAS<br>SNR=7.0 | 30.16 295 | T | T | 17 13 45.2 | |
| U40A | Yellville<br>baz=158 | 30.44 343 | P | P | 16 42 12.5 | -0.7 |
| T43A | Greenville<br>baz=164 | 30.46 347 | P | P | 16 42 12.8 | -0.6 |
| V38A | Canehill<br>baz=155 | 30.47 340 | P | P | 16 42 13.2 | -0.3 |
| T42A | Van Buren<br>baz=162 | 30.60 346 | P | P | 16 42 13.8 | -0.8 |
| U38A | Gravette<br>baz=156 | 30.99 341 | P | P | 16 42 17.4 | -0.6 |
| T40A | Mansfield<br>baz=160 | 31.08 344 | P | P | 16 42 18.4 | -0.4 |
| T39A | Clever<br>baz=158 | 31.21 343 | P | P | 16 42 19.6 | -0.4 |
| SIV | San Ignacio<br>4.3nm,0.7s,baz=310,slow=7.9,SNR=8.1 | 31.24 138 | P | P | 16 42 20.6 | +0.1 |
| SIV | | | LR | LR | 16 56 18.7 | |
| | comp=Z,235nm,18.2s,baz=1.5,slow=39 | | | | | |
| S40A | Lebanon<br>baz=160 | 31.50 344 | P | P | 16 42 22.7 | +0.2 |
| T38A | Diamond<br>baz=156 | 31.50 341 | P | P | 16 42 22.2 | -0.4 |
| R43A | Red Bud<br>baz=165 | 31.54 348 | P | P | 16 42 22.1 | -0.7 |
| CCM | Cathedral Cave<br>baz=162 | 31.61 346 | P | P | 16 42 22.7 | -0.8 |
| CCM | Cathedral Cave<br>5.4nm,0.8s | 31.61 346 | *e*P | P | 16 42 22.3 | -1.2 |
| T37A | Cheneyville 18<br>baz=155 | 31.79 340 | P | P | 16 42 24.5 | -0.6 |
| S39A | Bolivar<br>baz=158 | 31.81 343 | P | P | 16 42 24.5 | -0.8 |
| R41A | Rosebud<br>baz=162 | 31.87 346 | P | P | 16 42 25.0 | -0.8 |
| T35A | Sooner Cattle<br>baz=152 | 32.16 338 | P | P | 16 42 27.5 | -0.8 |
| Q42A | Golden Eagle<br>baz=164 | 32.27 348 | P | P | 16 42 28.1 | -1.2 |
| R39A | Chumby, Stover<br>baz=159 | 32.31 344 | P | P | 16 42 28.7 | -1.0 |
| S37A | Fort Scott<br>baz=156 | 32.34 341 | P | P | 16 42 29.4 | -0.5 |
| R38A | Fenwick Farm,<br>baz=158 | 32.44 343 | P | P | 16 42 30.5 | -0.3 |
| MNTX | Cornudas Mount<br>baz=133,SNR=8.1 | 32.46 321 | P | P | 16 42 31.1 | +0.1 |
| MNTX | Cornudas Mount<br>7.1nm,1.0s | 32.46 321 | *e*P | P | 16 42 30.8 | -0.3 |
| Q41A | Truxton<br>baz=163 | 32.47 347 | P | P | 16 42 30.7 | -0.3 |
| S36A | Lake Cedric, C<br>baz=154 | 32.56 340 | P | P | 16 42 31.6 | -0.3 |
| MSTX | Muleshoe<br>baz=139 | 32.58 327 | P | P | 16 42 32.1 | -0.2 |
| MSTX | Muleshoe<br>6.7nm,0.9s | 32.58 327 | *e*P | P | 16 42 31.6 | -0.7 |
| ACSO | Alum Creek Sta<br>baz=178 | 32.70 359 | P | P | 16 42 32.3 | -0.8 |
| Q40A | Laux Farm, Aux<br>baz=161 | 32.70 346 | P | P | 16 42 32.5 | -0.6 |
| S35A | Otter Creek Ra<br>baz=153 | 32.77 339 | P | P | 16 42 33.5 | -0.3 |
| P39B | Salisbury<br>baz=160 | 33.34 345 | P | P | 16 42 37.9 | -0.8 |
| R34A | Isabella, Hill<br>baz=152 | 33.66 338 | P | P | 16 42 40.7 | -0.8 |
| P38A | Dawn<br>baz=159 | 33.67 344 | P | P | 16 42 40.9 | -0.7 |
| P36A | Good Intent, A<br>baz=156 | 34.16 342 | P | P | 16 42 45.0 | -0.8 |
| P35A | Duane Minner,<br>baz=155 | 34.33 341 | P | P | 16 42 46.8 | -0.5 |
| 121A | Cookes Peak, D<br>baz=131,SNR=5.0 | 34.53 320 | P | P | 16 42 51.4 | +2.1 |
| N39A | Derby Farms, D<br>baz=162 | 34.59 346 | P | P | 16 42 48.6 | -0.9 |
| N38A | Joes South For<br>baz=160 | 34.69 345 | P | P | 16 42 49.6 | -0.8 |
| 319A | Douglas<br>33nm,1.1s | 34.79 317 | *e*P | P | 16 42 50.7 | -0.8 |
| ANMO | Albuquerque<br>6.3nm,0.9s,baz=330,slow=9.1,SNR=12 | 35.36 324 | P | P | 16 42 56.9 | +0.4 |
| ANMO | Albuquerque<br>baz=135 | 35.36 324 | P | P | 16 42 56.9 | +0.4 |
| ANMO | Albuquerque<br>7.2nm,0.9s | 35.36 324 | *e*P | P | 16 42 55.9 | -0.6 |
| LAZ | Ladron | 35.38 323 | *e*P | P | 16 42 53.6 | -3.1 |
| T25A | Trinidad<br>baz=140 | 35.86 329 | P | P | 16 43 01.2 | +0.4 |
| T25A | Trinidad<br>7.2nm,1.0s | 35.86 329 | *e*P | P | 16 43 00.2 | -0.6 |
| TUC | Tucson<br>baz=126 | 36.37 317 | P | P | 16 43 06.3 | +1.2 |
| TUC | Tucson<br>10nm,1.1s | 36.37 317 | *e*P | P | 16 43 05.4 | +0.3 |
| SDCO | Great Sand Dun<br>baz=139,SNR=5.8 | 36.88 328 | P | P | 16 43 09.8 | +0.2 |
| SDCO | Great Sand Dun<br>20nm,1.8s | 36.88 328 | *e*P | P | 16 43 09.4 | -0.2 |
| X18A | Snowflake<br>17nm,1.1s | 37.20 320 | *e*P | P | 16 43 11.5 | -0.7 |
| J36A | Seneca 1, Swea<br>baz=160 | 37.35 345 | P | P | 16 43 12.1 | -1.1 |
| W18A | Petrified Fore<br>baz=131,SNR=6.2 | 37.45 321 | P | P | 16 43 15.6 | +1.2 |
| W18A | Petrified Fore<br>25nm,1.1s | 37.45 321 | P | P | 16 43 15.6 | +1.2 |
| S22A | 4UR Ranch, Cre<br>baz=137 | 37.59 327 | P | P | 16 43 14.9 | -0.7 |
| S22A | 4UR Ranch, Cre<br>6.4nm,1.1s | 37.59 327 | *e*P | P | 16 43 15.6 | -0.1 |
| Q24A | Divide<br>baz=140 | 37.64 330 | P | P | 16 43 16.6 | +0.5 |
| X16A | Lo Mia Camp, P<br>11nm,0.9s | 38.08 319 | *e*P | P | 16 43 20.3 | +0.6 |
| MVCO | Mesa Verde<br>baz=134 | 38.13 325 | P | P | 16 43 20.7 | +0.6 |
| ISCO | Idaho Springs<br>baz=140 | 38.51 331 | P | P | 16 43 23.2 | -0.2 |
| F43A | Flat Rock, Esc<br>baz=172 | 38.53 354 | P | P | 16 43 23.8 | +0.7 |
| WUAZ | Wupatki<br>baz=129,SNR=8.7 | 38.73 320 | P | P | 16 43 26.9 | +1.8 |
| WUAZ | Wupatki<br>19nm,1.0s | 38.73 320 | *e*P | P | 16 43 26.0 | +0.9 |
| H35A | Sunnyside Ranc<br>baz=160 | 38.76 346 | P | P | 16 43 23.9 | -1.2 |
| Y14A | Wickenburg<br>42nm,0.9s | 38.83 317 | *e*P | P | 16 43 27.1 | +1.2 |
| PV05 | Paradox Valley | 39.08 325 | *e*P | P | 16 43 28.2 | +0.2 |
| H33A | Prehn Over Nor<br>baz=157 | 39.25 344 | P | P | 16 43 28.1 | -1.1 |
| H32A | Carlson Farm,<br>baz=155 | 39.29 343 | P | P | 16 43 28.3 | -1.2 |
| F38A | Pierce - Schro<br>baz=164 | 39.33 349 | P | P | 16 43 28.4 | -1.3 |
| GLA | Glamis<br>baz=123,SNR=9.2 | 39.59 315 | P | P | 16 43 33.7 | +1.5 |
| GLA | Glamis | 39.59 315 | *e*P | P | 16 43 32.5 | +0.3 |
| | 14nm,0.9s | | | | | |
| PDMCI | Parker Dam,Lak<br>baz=125,SNR=7.4 | 39.81 317 | P | P | 16 43 35.5 | +1.5 |
| U15A | North Rim<br>26nm,1.5s | 39.88 321 | *e*P | P | 16 43 35.8 | +1.0 |
| O20A | White River Ci<br>baz=137 | 40.09 328 | P | P | 16 43 37.0 | +0.5 |
| W13A | Hualapai Mount<br>20nm,1.3s | 40.10 318 | *e*P | P | 16 43 37.1 | +0.5 |
| E36A | McGregor<br>baz=163 | 40.13 348 | P | P | 16 43 35.0 | -1.4 |
| F33A | 5 Mile Ranch,<br>baz=158 | 40.20 345 | P | P | 16 43 35.3 | -1.8 |
| SWSC | Sam W. Stewart<br>baz=122 | 40.22 314 | P | P | 16 43 37.6 | +0.2 |
| IKP | In-Ko-Pah, Jac<br>baz=121 | 40.29 313 | P | P | 16 43 39.3 | +1.2 |
| BC3 | Big Chuckawall<br>baz=123 | 40.36 315 | P | P | 16 43 39.9 | +1.2 |
| SRU | San Rafael Swe<br>10nm,0.8s | 40.59 325 | *e*P | P | 16 43 40.9 | +0.3 |
| MONP2 | Monument Peak<br>baz=121 | 40.64 313 | P | P | 16 43 42.0 | +0.9 |
| LCMT | Little Creek M<br>10nm,1.3s | 40.84 321 | *e*P | P | 16 43 43.9 | +1.3 |
| MTPU | Mount Pierson<br>20nm,1.8s | 40.84 323 | *e*P | P | 16 43 43.9 | +0.9 |
| LDFC | Landfair<br>16nm,1.1s | 40.91 317 | *e*P | P | 16 43 45.2 | +2.1 |
| BELC | Belle Mtn. Jos<br>baz=122 | 40.92 315 | P | P | 16 43 44.5 | +1.1 |
| PFO | Pinyon Flats O<br>4.4nm,0.8s,baz=105,slow=6.5,SNR=5.3 | 41.04 314 | P | P | 16 43 46.2 | +1.9 |
| PFO | Pinyon Flats O<br>baz=122 | 41.04 314 | P | P | 16 43 45.7 | +1.3 |
| SZCU | Shurtz Canyon<br>8.4nm,1.2s | 41.11 322 | *e*P | P | 16 43 45.9 | +1.0 |
| GMRC | Granite Mounta<br>baz=124 | 41.12 316 | P | P | 16 43 45.0 | 0.0 |
| MSU | Marysvale | 41.15 323 | *e*P | P | 16 43 46.1 | +0.8 |
| CCUT | Cedar City<br>11nm,1.6s | 41.25 321 | *e*P | P | 16 43 47.9 | +1.8 |
| RSSD | Black Hills<br>baz=146 | 41.27 336 | P | P | 16 43 46.4 | +0.3 |
| CPUP | Villa Florida<br>comp=Z,115nm,18.1s,baz=338,slow=39 | 41.29 145 | LR | LR | 17 02 53.3 | |
| MURC | Murrieta<br>baz=121 | 41.56 314 | P | P | 16 43 49.5 | +0.9 |
| HEC | Hector,Ludlow<br>baz=123,SNR=5.6 | 41.61 316 | P | P | 16 43 50.4 | +1.5 |
| BBRC | Big Bear Solar<br>baz=122 | 41.71 315 | P | P | 16 43 49.9 | -0.1 |
| SHPR | Sheep Range<br>10nm,1.1s | 41.76 319 | *e*P | P | 16 43 50.8 | +0.5 |
| SHOC | Shoshone, Teco<br>baz=124 | 42.15 317 | P | P | 16 43 55.1 | +1.8 |
| GSC | Goldstone, Bar<br>baz=123 | 42.19 316 | P | P | 16 43 55.6 | +1.9 |
| BFSC | Mount Baldy Ra<br>baz=121 | 42.22 314 | P | P | 16 43 55.9 | +1.9 |
| C31A | Landman Farms,<br>baz=156,SNR=6.7 | 42.38 344 | P | P | 16 43 53.7 | -1.3 |
| TCUT | Toone Canyon<br>12nm,1.0s | 42.47 327 | *e*P | P | 16 43 56.2 | +0.1 |
| DUG | Dugway, Tooele<br>baz=132 | 42.63 325 | P | P | 16 43 57.5 | +0.2 |
| B32A | Ashes, Strandq<br>baz=158 | 42.64 346 | P | P | 16 43 55.9 | -1.1 |
| PDAR | Pinedale Array<br>0.9nm,0.7s,baz=134,slow=10,SNR=5.0 | 42.70 330 | P | P | 16 43 57.5 | -0.3 |
| PDAR | | | PcP | PcP | 16 45 50.4 | +0.6 |
| | 0.5nm,0.7s,baz=160,slow=5.5,SNR=2.9 | | | | | |
| PDAR | | | LR | LR | 17 04 16.7 | |
| | comp=Z,101nm,18.1s,baz=134,slow=40 | | | | | |
| PDAR | Pinedale Array | 42.70 330 | *e*P | P | 16 43 57.0 | -0.9 |
| PDAR | | | PcP | PcP | 16 45 50.4 | +0.6 |
| TPNV | Topopah Spring<br>baz=125,SNR=14 | 42.73 319 | P | P | 16 44 00.1 | +2.0 |
| TPNV | Topopah Spring<br>13nm,1.0s | 42.73 319 | *e*P | P | 16 44 00.0 | +1.8 |
| EDW2 | Edwards Air Fo<br>baz=121 | 42.79 315 | P | P | 16 43 59.4 | +0.9 |
| A33A | Warroad<br>baz=160 | 42.88 347 | P | P | 16 43 57.5 | -1.4 |
| LRMC | Laurel Mtn Rad<br>baz=122 | 42.88 316 | P | P | 16 44 00.8 | +1.4 |
| MDND | Maddock<br>baz=154 | 42.96 343 | P | P | 16 43 58.9 | -0.7 |
| MPMC | Manual Prospec<br>baz=123 | 43.06 317 | P | P | 16 44 01.7 | +0.7 |
| R11A | Troy Canyon, C<br>baz=127,SNR=16 | 43.12 321 | P | P | 16 44 03.0 | +1.6 |
| R11A | Troy Canyon, C<br>11nm,1.0s | 43.12 321 | *e*P | P | 16 44 02.7 | +1.3 |
| SPUT | South Promonto<br>10nm,1.4s | 43.17 326 | *e*P | P | 16 44 01.5 | -0.2 |
| BGU | Big Grassy Mou<br>5.4nm,1.1s | 43.24 325 | *e*P | P | 16 44 02.2 | 0.0 |
| ARVC | Arvin<br>baz=120 | 43.50 315 | P | P | 16 44 05.8 | +1.6 |
| SCZ2 | Santa Cruz Isl<br>baz=119 | 43.52 313 | P | P | 16 44 05.0 | +0.6 |
| CWC | Cottonwood Cre<br>baz=122 | 43.67 317 | P | P | 16 44 07.4 | +1.6 |
| REDW | Red Top Meadow<br>7.1nm,1.0s | 43.78 330 | *e*P | P | 16 44 06.2 | -0.4 |
| MOOW | Moose Ponds<br>4.1nm,1.1s | 44.01 330 | *e*P | P | 16 44 07.8 | -0.7 |
| VES | Vestal, Richgr<br>baz=121 | 44.05 315 | P | P | 16 44 10.3 | +1.7 |
| FXWY | Fox Creek<br>4.0nm,1.3s | 44.07 330 | *e*P | P | 16 44 08.2 | -0.7 |
| PKM | Mcpherson Peak<br>baz=119 | 44.08 314 | P | P | 16 44 09.8 | +0.6 |
| IMW | Indian Meadow<br>3.2nm,0.8s | 44.21 330 | *e*P | P | 16 44 09.5 | -0.6 |
| ULM | Lac du Bonnet<br>4.7nm,0.7s,baz=159,slow=9.6,SNR=10 | 44.22 347 | P | P | 16 44 08.0 | -1.8 |
| ULM | | | LR | LR | 17 04 01.7 | |
| | comp=Z,43nm,20.4s,baz=216,slow=38 | | | | | |
| ULM | Lac du Bonnet<br>7.4nm,0.9s | 44.22 347 | *e*P | P | 16 44 07.5 | -2.3 |
| LAO | LASA Array<br>baz=144 | 44.26 336 | P | P | 16 44 10.6 | +0.4 |
| RLMT | Red Lodge<br>baz=140,SNR=5.3 | 44.33 333 | P | P | 16 44 10.5 | -0.5 |
| RLMT | Red Lodge<br>5.0nm,0.8s | 44.33 333 | *e*P | P | 16 44 09.9 | -1.1 |
| NV11 | Mina Array Sit<br>1.4nm,1.0s | 44.82 319 | *e*P | P | 16 44 15.7 | +0.8 |
| YHH | Holmes Hill<br>11nm,1.7s | 44.82 331 | *e*P | P | 16 44 14.6 | -0.5 |
| NV01 | Mina Array Sit | 44.91 319 | *e*P | P | 16 44 16.4 | +0.6 |
| NVAR | Mina Array Bea<br>8.0nm,0.8s,baz=131,slow=7.1,SNR=52 | 44.91 319 | P | P | 16 44 17.6 | +1.8 |
| NVAR | | | LR | LR | 17 05 28.2 | |
| | comp=Z,122nm,20.6s,baz=126,slow=40 | | | | | |
| MDPB | Devils Postpil<br>13nm,1.2s | 44.99 318 | *e*P | P | 16 44 16.1 | -0.3 |
| BMN | Battle Mountai<br>37nm,1.0s | 45.39 322 | *e*P | P | 16 44 19.5 | 0.0 |
| WAKR | Walker<br>21nm,1.4s | 45.69 318 | *e*P | P | 16 44 22.8 | +0.8 |
| HLID | Hailey<br>baz=132,SNR=8.4 | 45.77 327 | P | P | 16 44 22.7 | +0.2 |
| HLID | Hailey<br>4.9nm,0.8s | 45.77 327 | *e*P | P | 16 44 23.0 | +0.5 |
| BOZ | Bozeman (W)<br>baz=137 | 45.79 331 | P | P | 16 44 22.9 | +0.4 |
| BOZ | Bozeman (W)<br>3.2nm,0.8s | 45.79 331 | *e*P | P | 16 44 22.6 | +0.1 |
| YERR | Yerington<br>9.2nm,1.0s | 45.83 319 | *e*P | P | 16 44 23.9 | +0.9 |
| PAHR | Pah Rah Range<br>18nm,1.2s | 46.32 320 | *e*P | P | 16 44 27.4 | +0.6 |
| LRM | Limekiln Ridge | 46.35 331 | *e*P | P | 16 44 26.8 | -0.3 |
| MFID | Camas Ranch<br>5.4nm,1.1s | 46.44 326 | *e*P | P | 16 44 28.0 | +0.3 |
| WVOR | Wild Horse Val<br>33nm,1.1s | 47.44 323 | *e*P | P | 16 44 35.7 | +0.2 |
| ORV | Oroville<br>24nm,1.4s | 47.61 318 | *e*P | P | 16 44 37.9 | +1.2 |
| MSO | Missoula<br>baz=135 | 47.79 331 | P | P | 16 44 38.5 | +0.3 |
| J08A | Circle Bar Ran<br>10nm,1.3s | 47.90 324 | *e*P | P | 16 44 39.6 | +0.6 |
| RCBR | Riachuelo<br>comp=Z,113nm,19.6s,baz=296,slow=36 | 47.99 105 | LR | LR | 17 04 21.6 | |
| MOD | Modoc Plateau<br>6.9nm,0.9s | 48.13 322 | *e*P | P | 16 44 40.9 | 0.0 |
| BMO | Blue Mountains<br>3.7nm,1.1s | 48.18 327 | *e*P | P | 16 44 40.5 | -0.8 |
| O03D | Paynes Creek<br>baz=122 | 48.20 319 | P | P | 16 44 42.3 | +0.9 |
| F10A | Beach Ranch, E<br>4.9nm,0.8s | 48.87 328 | *e*P | P | 16 44 47.1 | +0.6 |
| SCHQ | Schefferville<br>comp=Z,108nm,21.7s,baz=154,slow=36 | 48.87 12 | LR | LR | 17 05 29.0 | |
| I07A | Izee<br>8.2nm,1.2s | 48.94 325 | *e*P | P | 16 44 47.5 | +0.5 |
| M04C | Macdoel<br>baz=123,SNR=5.3 | 49.02 321 | P | P | 16 44 47.6 | -0.1 |
| N02D | Trinity Center<br>baz=121 | 49.14 319 | P | P | 16 44 48.1 | -0.5 |
| G08A | Pilot Rock<br>2.9nm,0.8s | 49.37 326 | *e*P | P | 16 44 49.8 | -0.5 |
| K04D | Chiloquin, OR<br>baz=124 | 49.43 322 | P | P | 16 44 51.6 | +0.8 |
| M02C | Callahan<br>baz=122 | 49.45 320 | P | P | 16 44 51.1 | +0.1 |
| J05D | Fort Rock, OR<br>baz=124 | 49.49 323 | P | P | 16 44 51.5 | +0.1 |
| YBH | Yreka Blue Hor<br>6.1nm,1.1s,baz=101,slow=5.6,SNR=5.7 | 49.54 320 | P | P | 16 44 51.0 | -0.7 |
| YBH | Yreka Blue Hor | 49.54 320 | P | P | 16 44 51.0 | -0.7 |
| E09A | Wood Farm, Sta<br>6.0nm,0.9s | 49.70 328 | *e*P | P | 16 44 52.4 | -0.3 |
| J04D | Umpqua Nationa<br>baz=124,SNR=6.1 | 49.99 322 | P | P | 16 44 55.5 | +0.3 |
| C09A | Chrisman Ranch<br>4.8nm,0.9s | 50.61 329 | *e*P | P | 16 44 59.2 | -0.3 |
| G05D | Wamic, OR<br>baz=126 | 50.66 325 | P | P | 16 45 01.9 | +1.8 |
| H04A | Detroit Lake<br>14nm,0.9s | 50.85 324 | *e*P | P | 16 45 01.3 | -0.1 |
| G03D | McMinnville, O<br>baz=124 | 51.78 324 | P | P | 16 45 09.3 | +0.9 |
| YKA | Yellowknife Ar<br>2.0nm,0.9s,baz=134,slow=7.2,SNR=22 | 59.88 343 | P | P | 16 46 05.4 | -0.8 |
| YKW3 | Yellowknife Ar<br>4.1nm,1.0s | 59.93 343 | *e*P | P | 16 46 05.0 | -1.6 |
| TULEG | Thule<br>34nm,2.0s | 69.49 3 | *e*P | P | 16 47 07.8 | -0.9 |
| INK | Inuvik<br>9.7nm,1.3s | 69.58 342 | *e*P | P | 16 47 09.9 | +0.5 |
| IL1 | Eielson Array | 72.72 336 | *e*P | P | 16 47 28.4 | -0.2 |
| ILAR | Eielson Array<br>0.9nm,0.7s,baz=112,slow=4.4,SNR=13 | 72.72 336 | P | P | 16 47 28.6 | 0.0 |
| ILAR | | | LR | LR | 17 23 13.8 | |
| | comp=Z,58nm,18.9s,baz=111,slow=39 | | | | | |
| ESDC | Sonseca Array<br>1.1nm,0.6s,baz=275,slow=5.1,SNR=7.3 | 76.24 51 | P | P | 16 47 50.9 | +1.3 |
| ESDC | | | LR | LR | 17 15 16.1 | |
| | comp=Z,19nm,19.8s,baz=155,slow=31 | | | | | |
| ES19 | SONSECA Array | 76.29 51 | *e*P | P | 16 47 49.7 | -0.2 |
| DBIC | Dimbokro<br>comp=Z,37nm,20.9s,baz=240,slow=34 | 76.63 85 | LR | LR | 17 19 03.0 | |
| TORD | Torodi Ar. Bea<br>0.7nm,0.9s,baz=297,slow=3.8,SNR=3.4 | 82.40 78 | P | P | 16 48 22.8 | -0.8 |
| TORD | | | LR | LR | 17 23 41.4 | |
| | comp=Z,33nm,21.6s,baz=350,slow=35 | | | | | |
| NOA | NORSAR Array B<br>1.0nm,0.9s,baz=276,slow=5.0,SNR=2.5 | 85.22 29 | P | P | 16 48 37.9 | +0.7 |
| DAVOX | Davos/Dischmat<br>comp=Z,36nm,18.4s,baz=274,slow=34 | 86.06 44 | LR | LR | 17 24 21.0 | |
| HFS | Hagfors<br>comp=Z,51nm,21.8s,slow=32 | 86.56 30 | LR | LR | 17 22 11.1 | |
| CLL | Collm | 87.50 39 | *e*(P) | P | 16 48 46.0 | -2.6 |
| GERES | GERESS Array B<br>comp=Z,58nm,19.9s,baz=271,slow=31 | 88.33 41 | LR | LR | 17 22 05.8 | |
| SONM | Songino Array<br>0.1nm,0.3s,baz=359,slow=5.8,SNR=2.4 | 124.49 353 | PKP | PKPdf | 16 55 01.0 | +0.5 |
| WMQ | Urumqi | 128.20 9 | *e*PKP | PKPdf | 16 55 06.6 | -1.0 |
| WMQ | | | LR | LR | | |
| | comp=E,110nm,22.3s | | | | | |
| KSH | Kashi | 129.12 22 | *e*PKP | PKPdf | 16 55 12.3 | +2.7 |
| KSH | | | PP | PP | 16 57 23.1 | +6.9 |
| KSH | | | PKS | PKSdf | 16 58 47.3 | +1.0 |
| KSH | | | SKS | SKSdf | 17 02 22.3 | -0.5 |
| KSH | | | SKKS | SKKSac | 17 04 14.1 | -2.0 |
| KSH | | | SS | SS | 17 14 38.3 | +1.6 |
| HHC | Hu-ho-hao-te | 130.36 346 | *e*PKP | PKPdf | 16 55 13.0 | +1.1 |
| HHC | | | PP | PP | 16 57 29.0 | +4.9 |
| HHC | | | SKS | SKSdf | 17 02 23.1 | -1.9 |
| HHC | | | SKKS | SKKSac | 17 04 21.0 | -2.6 |
| HHC | | | SS | SS | 17 14 52.0 | +0.5 |
| HHC | | | AMB | AMB | | |
| | comp=Z,18nm,5.1s | | | | | |
| HHC | | | LR | LR | | |
| | comp=N,37nm,17.1s | | | | | |
| HHC | | | LR | LR | | |
| | comp=E,97nm,19.0s | | | | | |
| STKA | Stephens Creek<br>2.7nm,0.9s,baz=266,slow=23,SNR=2.9 | 132.58 233 | PKP | PKPdf | 16 55 18.3 | +2.1 |
| NJ2 | Nanjing | 135.94 334 | *e*PKP | PKPdf | 16 55 22.8 | +0.3 |
| ASAR | Alice Springs<br>1.1nm,0.7s,baz=110,slow=2.7,SNR=6.7 | 141.82 241 | PKhKP | PKPpre | 16 55 31.1 | |
| WRA | Warrannunga Arr<br>1.0nm,0.8s,baz=294,slow=0.8,SNR=7.3 | 142.50 247 | PKhKP | PKPpre | 16 55 31.4 | |
| H01W1 | Cape Leeuwin H<br>baz=146 | 148.79 206 | T | T | 19 42 51.9 | |
| H01W2 | Cape Leeuwin H<br>baz=146,SNR=4.0 | 148.79 206 | T | T | 19 42 57.3 | |
| H01W3 | Cape Leeuwin H<br>baz=146 | 148.81 206 | T | T | 19 42 55.9 | |
| QIZ | Qiongzhong | 151.20 336 | PKPbc | PKPdf | 16 55 46.1 | -3.2 |
| QIZ | | | PP | PP | 16 59 32.5 | +0.8 |
| QIZ | | | SS | SS | 17 18 54.4 | -0.9 |
| QIZ | | | LR | LR | | |
| | comp=Z,46nm,18.1s | | | | | |
| CMAR | Chiang Mai Arr<br>0.5nm,0.4s,baz=324,slow=2.3,SNR=5.5 | 154.29 358 | PKPbc | PKPbc | 16 56 03.4 | +1.3 |
| CMAR | | | PKPab | PKPab | 16 56 15.4 | -0.3 |
| | 0.6nm,0.5s,baz=353,slow=6.4,SNR=3.0 | | | | | |

*NEIC* ***21*** *16:38:32.4±0.0, 17°.22N×94°.98W, h113km, MD4.0(MEX), After MEX.*

**MEX 21 16:38:32.4±0.6, 17°.22N×94°.98W, h113km±11km, MD4.0, Chiapas**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TUIG | Tuzandepetl | 0.97 | 33 | *e*P | Pn | 16 38 52.3 | -1.2 |
| TUIG | | | | *i* S | Sn | 16 39 07.9 | -1.6 |
| TUIG | Tuzandepetl | 0.97 | 33 | *e*P | Pn | 16 38 52.3 | -1.2 |
| TUIG | | | | *i* S | Sn | 16 39 07.9 | -1.6 |
| VHO | Vista Hermosa | 1.68 | 265 | *e*P | Pn | 16 39 00.9 | -0.9 |
| VHO | | | | *e*S | Sn | 16 39 22.6 | -1.6 |
| VHO | Vista Hermosa | 1.68 | 265 | *e*P | Pn | 16 39 00.9 | -0.9 |
| VHO | | | | *e*S | Sn | 16 39 22.6 | -1.6 |
| PCIG | | 2.26 | 131 | *e*P | Pn | 16 39 07.8 | -1.1 |
| PCIG | | | | *e*S | Sn | 16 39 34.8 | -2.0 |
| PCIG | | 2.26 | 131 | *e*P | Pn | 16 39 07.8 | -1.1 |
| PCIG | | | | *e*S | Sn | 16 39 34.8 | -2.0 |
| TPIG | Tehuac#an | 2.56 | 298 | *e*P | Pn | 16 39 11.3 | -1.6 |
| TPIG | | | | *e*S | Sn | 16 39 42.6 | -1.5 |
| TPIG | Tehuac#an | 2.56 | 298 | *e*P | Pn | 16 39 11.3 | -1.6 |
| TPIG | | | | *e*S | Sn | 16 39 42.6 | -1.5 |
| PNIG | Pinotepa | 3.13 | 255 | *i* P | Pn | 16 39 16.9 | -3.3 |
| PNIG | | | | *i* S | Sn | 16 39 52.8 | -4.2 |
| PNIG | Pinotepa | 3.13 | 255 | *i* P | Pn | 16 39 16.9 | -3.3 |
| PNIG | | | | *i* S | Sn | 16 39 52.8 | -4.2 |
| TLIG | Tlapa | 3.44 | 276 | *e*P | Pn | 16 39 23.7 | -0.8 |
| TLIG | | | | *i* S | Sn | 16 40 01.7 | -3.1 |
| TLIG | Tlapa | 3.44 | 276 | *e*P | Pn | 16 39 23.7 | -0.8 |
| TLIG | | | | *i* S | Sn | 16 40 01.7 | -3.1 |

*ISCJB* ***21*** *16:48:25.2±0.5, 50°.13N±0°.04×19°.04E±0°.03, h0km, Error ellipse: s-maj=5.2km s-min=2.3km az=13.5*
*IPEC* ***21*** *16:48:26.5±0.2, 50°.10N×19°.16E, h2km±1km, ML1.9/3, Error ellipse: s-maj=2.8km s-min=1.1km az=163.0*
*CSEM* ***21*** *16:48:26.2±0.3, 50°.13N×19°.08E, h2km, ML2.6/6, Error ellipse: s-maj=7.1km s-min=3.1km az=9.0*
*PRU* ***21*** *16:48:27.0, 50°.13N×19°.07E, h0km*
*WAR* ***21*** *16:48:27.2, 50°.10N×19°.21E, h1km, Mw2.5*

**ISC 21 16:48:26.2±0.8, 50°.08N±0°.04×19°.12E±0°.02, h0km, n35, σ0s85/62, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **OJC** | **Ojcow** | **0.46** | **72** | *e*Pg | **Pg** | **16 48 34.7** | **-0.3** |
| OJC | | | | *e*Sg | **Sg** | **16 48 40.4** | **-0.5** |
| **OJC** | **Ojcow** | **0.46** | **72** | *e*Pg | **Pg** | **16 48 34.7** | **-0.3** |
| OJC | | | | *e*Sg | **Sg** | **16 48 40.4** | **-0.5** |
| **OJC** | **Ojcow** | **0.46** | **72** | *e*Pg | **Pg** | **16 48 34.7** | **-0.3** |
| OJC | | | | *e*Sg | **Sg** | **16 48 40.4** | **-0.5** |
| **OKC** | **Ostrava-Krasne** | **0.67** | **249** | *e*PG | **Pg** | **16 48 39.1** | **0.0** |
| OKC | | | | *e*SG | **Sg** | **16 48 48.4** | **+0.6** |
| | comp=Z,33nm,0.5s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **0.67** | **249** | Pg | **Pg** | **16 48 39.1** | **0.0** |
| OKC | | | | Sg | **Sg** | **16 48 48.4** | **+0.6** |
| | 33nm,0.5s | | | | | | |
| **LANS** | **Liptovska Anna** | **0.96** | **166** | *e*Pg | **Pb** | **16 48 45.7** | **0.0** |
| LANS | | | | *e*Sg | **Sb** | **16 48 59.2** | **+0.3** |
| **LANS** | **Liptovska Anna** | **0.96** | **166** | *e*PG | **Pb** | **16 48 45.7** | **0.0** |
| LANS | | | | *e*SG | **Sb** | **16 48 59.2** | **+0.3** |
| **NIE** | **Niedzica** | **1.01** | **130** | *e*Pg | **Pg** | **16 48 46.0** | **+0.5** |
| NIE | | | | *e*Sg | **Sn** | **16 49 01.7** | **-0.9** |
| **NIE** | **Niedzica** | **1.01** | **130** | *e*Pg | **Pg** | **16 48 46.0** | **+0.5** |
| NIE | | | | *e*Sg | **Sn** | **16 49 01.7** | **-0.9** |
| **NIE** | **Niedzica** | **1.01** | **130** | *e*Pg | **Pg** | **16 48 46.0** | **+0.5** |
| NIE | | | | *e*Sg | **Sn** | **16 49 01.7** | **-0.9** |
| **MORC** | **Moravsky Berou** | **1.06** | **254** | *e*Pg | **Pb** | **16 48 47.7** | **+0.2** |
| | baz=72 | | | | | | |
| MORC | | | | *e*Sg | **Sg** | **16 49 00.8** | **+0.4** |
| **KRLC** | **Kraliky** | **1.51** | **271** | *e*PG | **Pn** | **16 48 53.8** | **-0.7** |
| KRLC | | | | *e*SG | **Sg** | **16 49 14.4** | **-0.2** |
| | comp=Z,4.5nm,0.5s | | | | | | |
| **KRLC** | **Kraliky** | **1.51** | **271** | Pg | **Pn** | **16 48 53.8** | **-0.7** |
| KRLC | | | | Sg | **Sg** | **16 49 14.4** | **-0.2** |
| | 4.5nm,0.5s | | | | | | |
| **STHS** | **Stebnicka Huta** | **1.53** | **115** | *e*Pn | **Pg** | **16 48 55.8** | **+0.3** |
| STHS | | | | *e*Sn | **Sn** | **16 49 17.9** | **+2.6** |
| **STHS** | **Stebnicka Huta** | **1.53** | **115** | *e*PN | **Pg** | **16 48 55.8** | **+0.3** |
| STHS | | | | *e*SN | **Sn** | **16 49 17.9** | **+2.6** |
| STHS | | | | *e*LG | Lg | 16 49 22.0 | |
| **VYHS** | **Vyhne** | **1.60** | **187** | *e*Pg | **Pn** | **16 48 55.7** | **0.0** |
| VYHS | | | | *e*Sn | **Sn** | **16 49 17.1** | **+0.1** |
| **VYHS** | **Vyhne** | **1.60** | **187** | *e*PG | **Pn** | **16 48 55.7** | **0.0** |
| VYHS | | | | *e*SN | **Sn** | **16 49 17.1** | **+0.1** |
| VYHS | | | | *e*LG | Lg | 16 49 17.4 | |
| **VRAC** | **Vranov** | **1.81** | **246** | *e*Pn | **Pn** | **16 48 59.2** | **+0.5** |
| VRAC | | | | *e*Sg | **Sg** | **16 49 24.2** | **-0.2** |
| | 16nm,0.6s,baz=64 | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.82** | **280** | *e*PG | **Pn** | **16 48 59.0** | **+0.2** |
| DPC | | | | *e*SG | **Sb** | **16 49 23.8** | **+0.1** |
| | comp=Z,17nm,0.7s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.82** | **280** | Pg | **Pn** | **16 48 59.0** | **+0.2** |
| DPC | | | | Sg | **Sb** | **16 49 23.8** | **+0.1** |
| | 17nm,0.7s | | | | | | |
| **KECS** | **Kecovo** | **1.83** | **150** | *e*Pn | **Pn** | **16 48 58.4** | **-0.5** |
| KECS | | | | *e*Sn | **Sn** | **16 49 22.3** | **-0.5** |
| **KECS** | **Kecovo** | **1.83** | **150** | *e*PN | **Pn** | **16 48 58.4** | **-0.5** |
| KECS | | | | *e*SN | **Sn** | **16 49 22.3** | **-0.5** |
| KECS | | | | *e*LG | Lg | 16 49 27.9 | |
| **CRVS** | **Cervenica-Dubn** | **1.93** | **127** | *e*Pn | **Pg** | **16 49 02.8** | **-0.3** |
| CRVS | | | | *e*Sn | **Sg** | **16 49 27.8** | **-0.3** |
| **CRVS** | **Cervenica-Dubn** | **1.93** | **127** | *e*PN | **Pg** | **16 49 02.8** | **-0.3** |
| CRVS | | | | *e*SN | **Sg** | **16 49 27.8** | **-0.3** |
| **UPC** | **Upice** | **2.04** | **283** | *e*SG | **Sg** | **16 49 31.0** | **-0.7** |
| **UPC** | **Upice** | **2.04** | **283** | Sg | **Sg** | **16 49 31.0** | **-0.7** |
| **KRUC** | **Moravsky** | **2.05** | **241** | *e*Pn | **Pn** | **16 49 02.4** | **+0.5** |
| | baz=59 | | | | | | |
| KRUC | | | | *e*Sg | **Sg** | **16 49 31.7** | **-0.2** |
| | 5.2nm,0.4s,baz=59 | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **2.80** | **268** | *e*SG | **Sg** | **16 49 55.5** | **-0.7** |
| **GOPC** | **GO Pecny, Ondr** | **2.80** | **268** | Sg | **Sg** | **16 49 55.5** | **-0.7** |
| **PRU** | **Pruhonice** | **2.95** | **270** | *e*SG | **Sg** | **16 49 59.1** | **-2.0** |
| | comp=Z,13nm,0.9s | | | | | | |
| **PRU** | **Pruhonice** | **2.95** | **270** | Sg | **Sg** | **16 49 59.1** | **-2.0** |
| | 13nm,0.9s | | | | | | |
| **BRG** | **Berggiesshubel** | **3.40** | **285** | SG | **Sg** | **16 50 16.8** | **+1.4** |
| | 6.8nm,0.6s | | | | | | |
| **KHC** | **Kasperske Hory** | **3.73** | **257** | *e*PN | **Pn** | **16 49 25.0** | **0.0** |
| KHC | | | | *e*PG | **Pg** | **16 49 37.5** | **-0.1** |
| KHC | | | | *e*SG | **Sg** | **16 50 23.3** | **-2.6** |
| | comp=Z,12nm,1.0s | | | | | | |
| **KHC** | **Kasperske Hory** | **3.73** | **257** | Pn | **Pn** | **16 49 25.0** | **0.0** |
| **CLL** | **Collm** | **4.08** | **290** | *e*Sg | **Sg** | **16 50 39.0** | **+1.8** |

*ISCJB **21** 16:54:53.5±0.2,21°.58S±0°.03×66°.68W±0°.03,h226km±2km, mb4.2/40, Error ellipse: s-maj=5.8km s-min=3.6km az=42.6*
*SJA **21** 16:54:53.8±0.6,21°.52S×66°.54W,h235km±5km,ML4.1, MW3.7*
*NEIC **21** 16:54:53.1±0.5,21°.59S×66°.50W,h210km±4km,mb4.3/31, Error ellipse: s-maj=7.3km s-min=5.6km az=69.0*
*GUC **21** 16:54:54.9±0.5,21°.52S×67°.18W,h263km±8km,ML4.9*
*IDC **21** 16:54:55.7±0.6,21°.52S×66°.46W,h234km±5km,mb3.9/10, mb1 4.0/15,mb1mx3.9/29,mbtmp4.5/15, Error ellipse: s-maj=14.7km s-min=11.1km az=78.0*

**ISC 21 16:54:54.6±0.5,21°.57S±0°.04×66°.70W±0°.04,h228km±4km, n98,σ1°69/129,mb4.3/40,1C,Southern Bolivia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **YJA** | **Yavi** | **1.26** | **119** | *e*P | **Pn** | **16 55 29.5** | **-0.1** |
| YJA | | | | *e*S | **S** | **16 55 55.8** | **-1.0** |
| YJA | | | | IAML | | 16 55 56.7 | |
| | comp=Z,2μm,0.4s | | | | | | |
| **HJA** | **Humahuaca** | **2.02** | **144** | *e*P | **Pn** | **16 55 36.3** | **+0.3** |
| HJA | | | | *e*S | **S** | **16 56 07.2** | **-1.1** |
| HJA | | | | IAML | | 16 56 09.5 | |
| | comp=Z,2μm,0.5s | | | | | | |
| **PB09** | **IPOC Station P** | **2.38** | **264** | *e*P | **Pn** | **16 55 39.4** | **+0.2** |
| PB09 | | | | *e*S | **S** | **16 56 14.5** | **+0.4** |
| **PB01** | **IPOC Station P** | **2.65** | **281** | *e*Pn | **Pn** | **16 55 41.5** | **-0.6** |
| **PB01** | **IPOC Station P** | **2.65** | **281** | *e*P | **Pn** | **16 55 41.4** | **-0.6** |
| PB01 | | | | *e*S | **S** | **16 56 17.1** | **-2.1** |
| PB01 | | | | IAML | | 16 56 18.7 | |
| | comp=N,2μm,0.2s | | | | | | |
| **PB08** | **IPOC Station P** | **2.70** | **301** | *e*P | **Pn** | **16 55 43.3** | **+0.3** |
| PB08 | | | | *e*S | **S** | **16 56 19.8** | **-0.8** |
| PB08 | | | | IAML | | 16 56 21.7 | |
| | comp=E,1μm,0.8s | | | | | | |
| **PB06** | **IPOC Station P** | **2.90** | **246** | *e*P | **Pn** | **16 55 44.1** | **-0.7** |
| PB06 | | | | *e*S | **S** | **16 56 22.4** | **-1.7** |
| **PB07** | **IPOC Station P** | **2.97** | **266** | *e*P | **Pn** | **16 55 45.0** | **-0.7** |
| PB07 | | | | *e*S | **S** | **16 56 23.1** | **-2.5** |
| PB07 | | | | IAML | | 16 56 23.9 | |
| | comp=E,1μm,0.4s | | | | | | |
| **PB02** | **IPOC Station P** | **2.99** | **274** | *e*P | **Pn** | **16 55 45.0** | **-0.8** |
| PB02 | | | | *e*S | **S** | **16 56 23.0** | **-2.9** |
| PB02 | | | | IAML | | 16 56 25.6 | |
| | comp=E,2μm,0.5s | | | | | | |
| **ASTB** | **Santa Barbara** | **3.15** | **139** | *e*P | **Pn** | **16 55 47.0** | **-0.7** |
| ASTB | | | | *e*S | **S** | **16 56 26.4** | **-2.9** |
| ASTB | | | | IAML | | 16 56 30.1 | |
| **PB04** | **IPOC Station P** | **3.29** | **256** | *e*Pn | **Pn** | **16 55 48.4** | **-0.9** |
| **PB04** | **IPOC Station P** | **3.29** | **256** | *e*P | **Pn** | **16 55 48.5** | **-0.9** |
| PB04 | | | | *e*S | **S** | **16 56 29.3** | **-2.9** |
| PB04 | | | | IAML | | 16 56 31.2 | |
| | comp=N,1μm,0.2s | | | | | | |
| **PB11** | **IPOC Station P** | **3.30** | **302** | *e*Pn | **Pn** | **16 55 48.8** | **-0.6** |
| **PB11** | **IPOC Station P** | **3.30** | **302** | *e*P | **Pn** | **16 55 48.8** | **-0.6** |
| PB11 | | | | *e*S | **S** | **16 56 29.9** | **-2.5** |
| **SLA** | **San Lorenzo** | **3.33** | **161** | *e*P | **Pn** | **16 55 50.2** | **+0.5** |
| SLA | | | | IAML | | 16 55 52.2 | |
| | comp=Z,155nm,0.4s | | | | | | |
| SLA | | | | *e*S | **S** | **16 56 31.7** | **-1.4** |
| **ALOL** | **LOMAS DE OLMED** | **3.36** | **132** | *e*P | **Pn** | **16 55 49.0** | **-1.0** |
| ALOL | | | | *e*S | **S** | **16 56 30.0** | **-3.5** |
| **MNMC** | **Minye Minye** | **3.64** | **311** | *e*Pn | **Pn** | **16 55 53.5** | **-0.1** |
| **MNMC** | **Minye Minye** | **3.64** | **311** | *e*P | **Pn** | **16 55 53.5** | **-0.1** |
| MNMC | | | | *e*S | **S** | **16 56 38.0** | **-1.8** |
| **PSGC** | **Pisagua** | **3.76** | **301** | *e*P | **Pn** | **16 55 53.0** | **-1.7** |
| PSGC | | | | *e*S | **S** | **16 56 37.7** | **-4.3** |
| PSGC | | | | IAML | | 16 56 39.7 | |
| | comp=N,1μm,0.7s | | | | | | |
| **ANCH** | **Antofagasta** | **4.02** | **238** | *e*P | **Pn** | **16 55 57.3** | **-0.4** |
| **PB10** | **IPOC Station P** | **4.06** | **241** | *e*Pn | **Pn** | **16 55 57.2** | **-1.0** |
| **PB10** | **IPOC Station P** | **4.06** | **241** | *e*P | **Pn** | **16 55 56.9** | **-1.3** |
| PB10 | | | | *e*S | **S** | **16 56 44.1** | **-4.2** |
| **PB16** | **IPOC Station P** | **4.16** | **320** | *e*P | **Pn** | **16 56 00.7** | **+0.6** |
| PB16 | | | | *e*S | **S** | **16 56 50.8** | **-0.8** |
| **PB12** | **IPOC Station P** | **4.50** | **310** | *e*P | **Pn** | **16 56 01.6** | **-2.1** |
| PB12 | | | | *e*S | **S** | **16 56 53.2** | **-5.1** |
| **FSA** | **Cafayete** | **4.57** | **172** | *e*P | **Pn** | **16 56 05.3** | **+0.6** |
| FSA | | | | IAML | | 16 56 07.9 | |
| | comp=Z,65nm,0.4s | | | | | | |
| **PB14** | **IPOC Station P** | **4.57** | **228** | *e*P | **Pn** | **16 56 03.8** | **-0.9** |
| PB14 | | | | *e*S | **S** | **16 56 56.0** | **-4.1** |
| **AHML** | **Horco Molle** | **5.34** | **167** | *e*P | **Pn** | **16 56 14.0** | **-0.1** |
| **LPAZ** | **La Paz** | **5.42** | **345** | P | **Pn** | **16 56 16.1** | **+0.4** |
| | comp=Z,22nm,0.3s,baz=84,slow=2.9,SNR=352 | | | | | | |
| LPAZ | | | | S | **S** | **16 57 18.2** | **-1.7** |
| | comp=Z,2.2nm,0.3s,baz=305,slow=18,SNR=8.0 | | | | | | |
| **VCA** | **Vinchina** | **7.27** | **191** | *e*P | **Pn** | **16 56 38.7** | **0.0** |
| **SIV** | **San Ignacio** | **7.69** | **45** | P | **Pn** | **16 56 42.1** | **-2.0** |
| | comp=Z,25nm,0.3s,baz=259,slow=9.5,SNR=182 | | | | | | |
| SIV | | | | S | S | 16 57 54.9 | -17 |
| | comp=Z,2.4nm,0.3s,baz=235,slow=15,SNR=4.8 | | | | | | |
| **LCO** | **Las Campanas** | **8.25** | **205** | *e*Pn | **Pn** | **16 56 48.8** | **-2.5** |
| **CPUP** | **Villa Florida** | **9.79** | **121** | P | **Pn** | **16 57 08.4** | **-2.4** |
| | comp=Z,0.3nm,0.3s,baz=302,slow=12,SNR=12 | | | | | | |
| CPUP | | | | S | S | 16 58 39.3 | -22 |
| | comp=Z,0.5nm,0.3s,baz=294,slow=13,SNR=3.7 | | | | | | |
| **CPUP** | **Villa Florida** | **9.79** | **121** | *e*Pn | **Pn** | **16 57 08.7** | **-2.1** |
| CPUP | | | | S | S | 16 58 39.3 | -22 |
| **ROC1** | **El Roble** | **11.99** | **198** | *e*Pn | **P** | **16 57 43.1** | **+0.5** |
| **SAML** | **Samuel** | **12.99** | **16** | *e*Pn | **Pn** | **16 57 50.0** | **-1.2** |
| **NNA** | **Nana** | **13.60** | **313** | P | **P** | **16 57 60.0** | **-0.4** |
| | comp=Z,2.3nm,0.3s,baz=133,slow=15,SNR=3.0 | | | | | | |
| **TRQA** | **Tornquist** | **16.93** | **167** | *e*P | **P** | **16 58 34.2** | **-2.7** |
| | comp=Z,8.8nm,0.6s | | | | | | |
| **ATAH** | **Atahualpa** | **18.26** | **320** | P | **P** | **16 58 51.1** | **-0.9** |
| | comp=Z,0.5nm,0.3s,baz=188,slow=14,SNR=2.4 | | | | | | |
| **PLCA** | **Paso Flores** | **19.39** | **189** | P | **P** | **16 59 03.5** | **0.0** |
| | comp=Z,1.4nm,0.3s,baz=26,slow=9.1,SNR=21 | | | | | | |
| **PLCA** | **Paso Flores** | **19.39** | **189** | *e*P | **P** | **16 59 03.2** | **-0.3** |
| | comp=Z,12nm,0.6s | | | | | | |
| **PTGA** | **Pitinga** | **21.73** | **18** | P | **P** | **16 59 25.0** | **-3.0** |
| | comp=Z,8.4nm,0.3s,baz=355,slow=23,SNR=17 | | | | | | |
| **PTGA** | **Pitinga** | **21.73** | **18** | *e*P | **P** | **16 59 25.2** | **-2.8** |
| | comp=Z,11nm,0.6s | | | | | | |
| **RUSC** | **La Rusia** | **28.00** | **346** | *e*P | **P** | **17 00 24.8** | **-0.3** |
| | comp=Z,3.3nm,0.4s | | | | | | |
| **USHA** | **Ushuaia** | **33.24** | **182** | P | **P** | **17 01 11.1** | **+1.0** |
| | comp=Z,14nm,0.5s,baz=344,slow=7.4,SNR=6.1 | | | | | | |
| **RCBR** | **Riachuelo** | **33.66** | **67** | P | **P** | **17 01 12.6** | **-1.7** |
| | comp=Z,4.7nm,0.7s,baz=212,slow=11,SNR=4.6 | | | | | | |
| **JCT** | **Junction City** | **60.74** | **327** | *e*P | **P** | **17 04 43.1** | **+0.7** |
| | comp=Z,4.5nm,0.4s | | | | | | |
| **TXAR** | **Lajitas Array** | **61.88** | **323** | P | **P** | **17 04 50.8** | **+0.7** |
| | comp=Z,0.7nm,0.6s,baz=149,slow=8.2,SNR=10 | | | | | | |
| **MNTX** | **Cornudas Mount** | **64.64** | **324** | *e*P | **P** | **17 05 07.9** | **-0.2** |
| | comp=Z,3.3nm,1.1s | | | | | | |
| **MSTX** | **Muleshoe** | **65.04** | **327** | *e*P | **P** | **17 05 11.0** | **+0.2** |
| | comp=Z,9.3nm,0.8s | | | | | | |
| **LIC** | **Lamto** | **66.44** | **73** | *e*PKP1 | **P** | **17 05 19.8** | **-0.1** |
| | comp=Z,29nm,1.1s | | | | | | |
| **319A** | **Douglas** | **66.62** | **321** | *e*P | **P** | **17 05 21.9** | **+1.1** |
| | comp=Z,8.3nm,0.8s | | | | | | |
| **TIC** | **Toumodi** | **66.63** | **72** | *e*PKP1 | **P** | **17 05 19.9** | **-1.3** |
| **KIC** | **Kosan Boka** | **66.75** | **73** | *e*PKP1 | **P** | **17 05 20.5** | **-1.4** |
| | comp=Z,12nm,0.8s | | | | | | |
| **DBIC** | **Dimbokro** | **66.79** | **72** | P | **P** | **17 05 21.3** | **-0.9** |
| | comp=Z,3.4nm,0.5s,baz=211,slow=5.5,SNR=5.4 | | | | | | |
| DBIC | | | | pP | **pP** | **17 06 15.4** | **+0.6** |
| | comp=Z,6.9nm,0.9s,baz=182,slow=6.3,SNR=5.0 | | | | | | |
| **DBIC** | **Dimbokro** | **66.79** | **72** | *e*P | **P** | **17 05 20.4** | **-1.8** |
| | comp=Z,8.6nm,0.9s | | | | | | |
| DBIC | | | | pP | **pP** | **17 06 15.4** | **+0.6** |
| **ANMO** | **Albuquerque** | **67.70** | **325** | *e*P | **P** | **17 05 28.6** | **+0.9** |
| | comp=Z,2.5nm,0.8s | | | | | | |
| **QSPA** | **South Pole Qui** | **68.63** | **180** | *e*P | **P** | **17 05 34.5** | **+1.6** |
| | comp=Z,12nm,0.9s | | | | | | |
| **SDCO** | **Great Sand Dun** | **69.37** | **328** | *e*P | **P** | **17 05 39.3** | **+1.3** |
| | comp=Z,6.3nm,1.1s | | | | | | |
| **X16A** | **Lo Mia Camp, P** | **70.06** | **322** | *e*P | **P** | **17 05 43.8** | **+1.5** |
| | comp=Z,2.2nm,0.8s | | | | | | |
| **MVCO** | **Mesa Verde** | **70.49** | **326** | *e*P | **P** | **17 05 46.3** | **+1.5** |
| | comp=Z,31nm,2.0s | | | | | | |
| **WUAZ** | **Wupatki** | **70.81** | **323** | *e*P | **P** | **17 05 48.6** | **+1.9** |
| | comp=Z,4.2nm,0.9s | | | | | | |
| **KOWA** | **Kowa** | **71.17** | **65** | *e*P | **P** | **17 05 47.8** | **-1.2** |
| | comp=Z,6.3nm,0.9s | | | | | | |
| **U15A** | **North Rim** | **71.98** | **323** | *e*P | **P** | **17 05 56.1** | **+2.3** |
| | comp=Z,4.4nm,0.8s | | | | | | |
| **LCMT** | **Little Creek M** | **72.94** | **323** | *e*P | **P** | **17 06 01.4** | **+2.1** |
| | comp=Z,3.4nm,0.8s | | | | | | |
| **SRU** | **San Rafael Swe** | **72.97** | **326** | *e*P | **P** | **17 06 00.8** | **+1.3** |
| | comp=Z,5.5nm,0.7s | | | | | | |
| **MTPU** | **Mount Pierson** | **73.08** | **324** | *e*P | **P** | **17 06 02.2** | **+1.8** |
| | comp=Z,7.2nm,0.7s | | | | | | |
| **P18A** | **Preston Nutter** | **73.21** | **326** | *e*P | **P** | **17 06 02.6** | **+1.6** |
| | comp=Z,5.8nm,0.7s | | | | | | |
| **CCUT** | **Cedar City** | **73.38** | **323** | *e*P | **P** | **17 06 04.2** | **+2.2** |
| | comp=Z,6.1nm,0.8s | | | | | | |
| **MSU** | **Marysvale** | **73.42** | **324** | *e*P | **P** | **17 06 03.8** | **+1.7** |
| **TPNV** | **Topopah Spring** | **74.63** | **321** | *e*P | **P** | **17 06 11.0** | **+1.9** |
| | comp=Z,3.4nm,0.8s | | | | | | |
| **DAC** | **Darwin (Calif)** | **74.98** | **320** | *e*P | **P** | **17 06 12.9** | **+1.7** |
| | comp=Z,3.6nm,0.7s | | | | | | |
| **PD31** | **Pinedale Array** | **75.21** | **329** | *e*P | **P** | **17 06 13.0** | **+0.6** |
| **PDAR** | **Pinedale Array** | **75.21** | **329** | P | **P** | **17 06 13.2** | **+0.9** |
| | comp=Z,9.9nm,0.5s,baz=123,slow=8.0,SNR=14 | | | | | | |
| **PDAR** | **Pinedale Array** | **75.21** | **329** | *e*P | **P** | **17 06 12.8** | **+0.5** |
| **TOA0** | **Torodi Ar. Sit** | **75.45** | **69** | *e*P | **P** | **17 06 12.9** | **-1.1** |
| **TORD** | **Torodi Ar. Bea** | **75.45** | **69** | P | **P** | **17 06 13.1** | **-0.9** |
| | comp=Z,5.9nm,0.4s,baz=255,slow=5.5,SNR=68 | | | | | | |
| TORD | | | | pP | **pP** | **17 07 08.4** | **+0.4** |
| | comp=Z,8.8nm,0.7s,baz=250,slow=5.7,SNR=12 | | | | | | |
| **SYO** | **Syowa Base** | **75.71** | **159** | *e*P | **P** | **17 06 14.2** | **-0.4** |
| **AHID** | **Auburn Hatcher** | **75.97** | **328** | *e*P | **P** | **17 06 18.0** | **+1.4** |
| | comp=Z,5.5nm,0.6s | | | | | | |
| **ULM** | **Lac du Bonnet** | **76.02** | **341** | P | **P** | **17 06 16.2** | **-0.3** |
| | comp=Z,4.0nm,0.5s,baz=160,slow=6.7,SNR=11 | | | | | | |
| **IMW** | **Indian Meadow** | **76.73** | **329** | *e*P | **P** | **17 06 22.8** | **+1.8** |
| | comp=Z,3.2nm,0.7s | | | | | | |
| **NVAR** | **Mina Array Bea** | **76.83** | **321** | P | **P** | **17 06 23.4** | **+1.8** |
| | comp=Z,1.2nm,0.8s,baz=155,slow=7.5,SNR=6.7 | | | | | | |
| **RLMT** | **Red Lodge** | **76.86** | **331** | *e*P | **P** | **17 06 22.9** | **+1.3** |
| | comp=Z,3.7nm,0.6s | | | | | | |
| **VNDA** | **Vanda** | **77.14** | **190** | P | **P** | **17 06 25.1** | **+2.6** |
| | comp=Z,1.2nm,0.8s,baz=164,slow=4.3,SNR=5.5 | | | | | | |
| **YHH** | **Hones Hill** | **77.35** | **329** | *e*P | **P** | **17 06 26.2** | **+1.8** |
| | comp=Z,3.3nm,0.7s | | | | | | |
| **PNTR** | **Pine Nut** | **78.03** | **321** | *e*P | **P** | **17 06 30.3** | **+2.1** |
| | comp=Z,6.0nm,0.8s | | | | | | |
| **HLID** | **Hailey** | **78.21** | **327** | *e*P | **P** | **17 06 30.8** | **+1.7** |
| | comp=Z,2.7nm,0.7s | | | | | | |
| **BMO** | **Blue Mountains** | **80.60** | **326** | *e*P | **P** | **17 06 43.2** | **+1.4** |
| | comp=Z,9.0nm,1.5s | | | | | | |
| **YKA** | **Yellowknife Ar** | **91.94** | **340** | P | **P** | **17 07 37.3** | **+0.7** |
| | comp=Z,1.8nm,0.5s,baz=129,slow=4.5,SNR=58 | | | | | | |
| YKA | | | | pP | **pP** | **17 08 35.4** | **+2.8** |
| | comp=Z,0.9nm,0.9s,baz=131,slow=4.7,SNR=4.8 | | | | | | |
| **ASAR** | **Alice Springs** | **130.77** | **205** | PKP | **PKPdf** | **17 13 39.5** | **+0.2** |
| | comp=Z,1.3nm,0.5s,baz=132,slow=1.8,SNR=26 | | | | | | |
| ASAR | | | | SKPbc | **SKPbc** | **17 16 42.0** | **+0.2** |
| | comp=Z,1.3nm,0.9s,baz=144,slow=3.2,SNR=8.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **133.90** | **208** | PKP | **PKPdf** | **17 13 46.0** | **+0.7** |
| | comp=Z,2.4nm,0.7s,baz=154,slow=1.8,SNR=34 | | | | | | |
| WRA | | | | SKPbc | **SKPbc** | **17 16 52.8** | **0.0** |
| | comp=Z,2.0nm,0.8s,baz=149,slow=3.3,SNR=13 | | | | | | |
| **KURK** | **Kurchatov** | **140.24** | **34** | PKP | **PKPdf** | **17 13 56.6** | **+0.6** |
| **KURBB** | **Kurchatov Arra** | **140.24** | **35** | PKP | **PKPdf** | **17 13 56.6** | **+0.6** |
| | comp=Z,0.4nm,0.5s,baz=298,slow=2.8,SNR=2.8 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **141.11** | **27** | PKP | **PKPdf** | **17 13 58.4** | **+1.0** |
| | comp=Z,1.4nm,0.4s,baz=297,slow=1.7,SNR=7.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **144.46** | **38** | PKP | **PKPab** | **17 14 03.4** | **+0.8** |
| | comp=Z,3.9nm,0.7s,baz=337,slow=2.7,SNR=21 | | | | | | |
| **KLR** | **Kul'dur** | **148.74** | **336** | PKPbc | **PKPbc** | **17 14 15.0** | **+0.2** |
| | baz=59,slow=5.9 | | | | | | |
| **SONM** | **Songino Array** | **153.21** | **10** | PKP | **PKPdf** | **17 14 19.2** | **+1.5** |
| | comp=Z,1.4nm,0.8s,baz=228,slow=0.8,SNR=8.2 | | | | | | |
| SONM | | | | PKPbc | **PKPbc** | **17 14 26.3** | **+0.9** |
| | comp=Z,2.6nm,0.8s,baz=331,slow=1.6,SNR=11 | | | | | | |
| SONM | | | | pPKPbc | **pPKPbc** | **17 15 26.5** | **+2.7** |
| | comp=Z,1.9nm,0.8s,baz=293,slow=1.6,SNR=5.2 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **153.71** | **310** | PKPbc | **PKPbc** | **17 14 26.5** | **-0.2** |
| | comp=Z,0.6nm,0.4s,baz=20,slow=1.0,SNR=4.1 | | | | | | |
| MJAR | | | | PKPab | **PKPab** | **17 14 41.6** | **+1.1** |
| | comp=Z,0.5nm,0.5s,baz=68,slow=5.4,SNR=3.4 | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **160.72** | **4** | *e*PKP | **PKPdf** | **17 14 25.5** | **-2.0** |
| HHC | | | | PP | **PP** | **17 18 55.3** | **+2.4** |
| HHC | | | | SKS | **SKSdf** | **17 21 06.8** | **-4.1** |

*ISCJB **21** 16:58:04.0±1.3,51°.42N±0°.05×16°.15E±0°.06,h0km, Error ellipse: s-maj=8.4km s-min=3.9km az=28.5*
*CSEM **21** 16:58:04.2±1.0,51°.46N×16°.16E,h1km,ML2.7/5, Error ellipse: s-maj=13.7km s-min=6.7km az=16.0*
*PRU **21** 16:58:05.8,51°.41N×16°.19E,h0km*
*WAR **21** 16:58:05.8,51°.44N×16°.19E,h1km,Mw2.1*

**ISC 21 16:58:05.7±1.8,51°.43N±0°.08×16°.20E±0°.05,h0km,n23, σ0°68/38,Poland**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KSP** | **Ksiaz** | **0.59** | **174** | *e*Pg | **Pg** | **16 58 17.0** | **0.0** |
| KSP | | | | *e*Sg | **Sg** | **16 58 25.1** | **+0.4** |
| **KSP** | **Ksiaz** | **0.59** | **174** | *e*Pg | **Pg** | **16 58 17.0** | **0.0** |
| KSP | | | | *e*Sg | **Sg** | **16 58 25.1** | **+0.4** |
| **KSP** | **Ksiaz** | **0.59** | **174** | *e*Pg | **Pg** | **16 58 17.0** | **0.0** |
| KSP | | | | *e*Sg | **Sg** | **16 58 25.1** | **+0.4** |
| **UPC** | **Upice** | **0.93** | **188** | *e*PG | **Pg** | **16 58 22.9** | **-0.7** |
| UPC | | | | *e*SG | **Sg** | **16 58 35.4** | **-0.3** |
| | comp=Z,14nm,0.4s | | | | | | |
| **UPC** | **Upice** | **0.93** | **188** | Pg | **Pg** | **16 58 22.9** | **-0.7** |
| UPC | | | | Sg | **Sg** | **16 58 35.4** | **-0.3** |
| | 14nm,0.4s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.08** | **176** | *e*PG | **Pg** | **16 58 25.6** | **-0.9** |
| DPC | | | | *e*SG | **Sg** | **16 58 39.7** | **-0.8** |
| | comp=Z,3.8nm,0.2s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.08** | **176** | Pg | **Pg** | **16 58 25.6** | **-0.9** |
| DPC | | | | Sg | **Sg** | **16 58 39.7** | **-0.8** |
| | 3.8nm,0.2s | | | | | | |
| **PVCC** | **Panska Ves** | **1.37** | **229** | *e*PG | **Pg** | **16 58 31.5** | **-0.5** |
| PVCC | | | | *e*SG | **Sg** | **16 58 48.9** | **-0.9** |
| | comp=Z,27nm,0.2s | | | | | | |
| **PVCC** | **Panska Ves** | **1.37** | **229** | Pg | **Pg** | **16 58 31.5** | **-0.5** |
| PVCC | | | | Sg | **Sg** | **16 58 48.9** | **-0.9** |
| | 27nm,0.2s | | | | | | |
| **KRLC** | **Kraliky** | **1.41** | **165** | *e*SG | **Sg** | **16 58 50.5** | **-0.4** |
| **KRLC** | **Kraliky** | **1.41** | **165** | Sg | **Sg** | **16 58 50.5** | **-0.4** |
| **BRG** | **Berggiesshubel** | **1.53** | **249** | PG | **Pn** | **16 58 34.5** | **+0.2** |
| BRG | | | | SG | **Sg** | **16 58 54.6** | **-0.2** |
| | 4.7nm,0.4s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **1.77** | **211** | *e*SG | **Sb** | **16 59 02.1** | **+0.4** |
| **GOPC** | **GO Pecny, Ondr** | **1.77** | **211** | Sg | **Sb** | **16 59 02.1** | **+0.4** |
| **PRU** | **Pruhonice** | **1.79** | **217** | *e*PG | **Pn** | **16 58 38.0** | **+0.1** |
| PRU | | | | *e*SG | **Sb** | **16 59 01.9** | **-0.4** |
| | comp=Z,3.8nm,0.4s | | | | | | |
| **PRU** | **Pruhonice** | **1.79** | **217** | Pg | **Pn** | **16 58 38.0** | **+0.1** |
| PRU | | | | Sg | **Sb** | **16 59 01.9** | **-0.4** |
| | 3.8nm,0.4s | | | | | | |
| **CLL** | **Collm** | **2.01** | **268** | *i* Pg | **Pb** | **16 58 43.2** | **+0.1** |
| CLL | | | | *i* Sg | **Sg** | **16 59 10.1** | **-0.2** |
| **OKC** | **Ostrava-Krasne** | **2.02** | **141** | *e*SG | **Sg** | **16 59 10.3** | **-0.3** |
| **OKC** | **Ostrava-Krasne** | **2.02** | **141** | Sg | **Sg** | **16 59 10.3** | **-0.3** |
| **NKC** | **Novy Kostel** | **2.67** | **245** | *e*SG | **Sg** | **16 59 31.3** | **0.0** |
| | comp=Z,5.2nm,0.3s | | | | | | |
| **NKC** | **Novy Kostel** | **2.67** | **245** | Sg | **Sg** | **16 59 31.3** | **0.0** |
| | 5.2nm,0.3s | | | | | | |
| **KHC** | **Kasperske Hory** | **2.85** | **217** | *e*PG | **Pb** | **16 58 57.6** | **+0.1** |
| KHC | | | | *e*SG | **Sb** | **16 59 35.0** | **+2.0** |
| **KHC** | **Kasperske Hory** | **2.85** | **217** | Pg | **Pb** | **16 58 

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **TASB** | **TASBURUN-IGDIR** | **1.50** | **31** | *e*Pn | **Pn** | **17 07 30.8** | **+0.6** |
| **HYR** | **Heyderabad** | **1.61** | **51** | ⇓P | **Pb** | **17 07 33.0** | **-0.4** |
| | SNR=198 | | | | | | |
| HYR | | | | ⇑S | **Sg** | **17 08 01.9** | **+6.0** |
| **HYR** | **Heyderabad** | **1.61** | **51** | P | **Pb** | **17 07 33.0** | **-0.4** |
| | SNR=198 | | | | | | |
| **BNGL** | **BINGOL** | **1.65** | **279** | ⇑*i*P | **Pn** | **17 07 32.7** | **+0.3** |
| BNGL | | | | *i*S | **Sg** | **17 07 56.2** | **-0.7** |
| **HOMI** | **Horasan** | **1.69** | **323** | ⇓*i*P | **Pn** | **17 07 33.5** | **+0.6** |
| HOMI | | | | *i*S | **Sg** | **17 07 59.5** | **+1.2** |
| **DIGO** | **Kars** | **1.71** | **4** | ⇓*i*P | **Pn** | **17 07 34.1** | **+0.8** |
| DIGO | | | | *i*S | **Sg** | **17 07 58.4** | **-0.6** |
| **DIGO** | **Kars** | **1.71** | **4** | P | **Pn** | **17 07 34.1** | **+0.8** |
| DIGO | | | | S | **Sg** | **17 07 58.4** | **-0.6** |
| **BTMN** | **Batman** | **1.75** | **243** | ⇑*i*P | **Pn** | **17 07 34.1** | **+0.5** |
| BTMN | | | | *i*S | **Sg** | **17 07 58.6** | **-1.5** |
| **BTMN** | **Batman** | **1.75** | **243** | P | **Pn** | **17 07 34.1** | **+0.5** |
| BTMN | | | | S | **Sg** | **17 07 58.6** | **-1.5** |
| **NAX** | **Nakhchivan** | **1.83** | **74** | ⇑P | **Pb** | **17 07 36.1** | **-1.0** |
| | SNR=92 | | | | | | |
| NAX | | | | ⇑S | **Sg** | **17 08 05.3** | **+2.6** |
| **NAX** | **Nakhchivan** | **1.83** | **74** | P | **Pb** | **17 07 36.0** | **-1.0** |
| **NAX** | **Nakhchivan** | **1.83** | **74** | P | **Pb** | **17 07 36.0** | **-1.0** |
| **GNI** | **Garni** | **1.86** | **39** | Pg | **Pb** | **17 07 36.7** | **-0.9** |
| | 70nm,0.3s,baz=247,slow=2.8,SNR=330 | | | | | | |
| GNI | | | | Lg | Lg | 17 08 04.6 | |
| | 69nm,0.3s,baz=217,slow=20,SNR=9.4 | | | | | | |
| **GNI** | **Garni** | **1.86** | **39** | *d*iP | **Pn** | **17 07 36.5** | **+1.3** |
| GNI | | | | pmax | pmax | | |
| | comp=Z,1μm,0.6s | | | | | | |
| **GNI** | **Garni** | **1.86** | **39** | *e*Pn | **Pn** | **17 07 36.3** | **+1.1** |
| GNI | | | | *e*Sn | **Sg** | **17 08 04.6** | **+0.9** |
| **GNI** | **Garni** | **1.86** | **39** | *e*Pn | **Pn** | **17 07 36.3** | **+1.1** |
| GNI | | | | *e*Sn | **Sg** | **17 08 04.6** | **+0.9** |
| **ERZM** | **Erzurum** | **1.88** | **310** | ⇓*i*P | **Pn** | **17 07 36.7** | **+1.1** |
| ERZM | | | | *i*S | **Sg** | **17 08 08.2** | **+3.8** |
| **ERZM** | **Erzurum** | **1.88** | **310** | P | **Pn** | **17 07 36.7** | **+1.1** |
| **KARS** | **Kars** | **1.92** | **357** | *e*PN | **Pn** | **17 07 36.8** | **+0.6** |
| **KARS** | **Kars** | **1.92** | **357** | P | **Pb** | **17 07 36.8** | **-0.9** |
| **KARS** | **Kars** | **1.92** | **357** | *e*Pn | **Pn** | **17 07 36.8** | **+0.6** |
| **KARS** | **Kars** | **1.92** | **357** | P | **Pb** | **17 07 37.8** | **-0.9** |
| **SBZ** | **Shahbuz** | **1.94** | **68** | ⇓P | **Pn** | **17 07 37.3** | **+1.0** |
| | SNR=244 | | | | | | |
| SBZ | | | | ⇓S | **Sg** | **17 08 08.2** | **+2.0** |
| **SBZ** | **Shahbuz** | **1.94** | **68** | P | **Pn** | **17 07 37.3** | **+1.0** |
| | SNR=244 | | | | | | |
| **ECAT** | **Cat-ERZURUM** | **1.97** | **298** | *i*P | **Pn** | **17 07 37.5** | **+0.6** |
| ECAT | | | | *i*S | **Sg** | **17 08 06.2** | **-1.2** |
| **ECAT** | **Cat-ERZURUM** | **1.97** | **298** | P | **Pn** | **17 07 37.5** | **+0.6** |
| ECAT | | | | S | **Sg** | **17 08 06.2** | **-1.2** |
| **SENK** | **Senkaya-Erzuru** | **1.97** | **340** | *e*PN | **Pn** | **17 07 37.6** | **+0.7** |
| **SENK** | **Senkaya-Erzuru** | **1.97** | **340** | *e*Pn | **Pn** | **17 07 37.6** | **+0.7** |
| **EAK** | **Akyaka** | **2.00** | **8** | ⇓*i*P | **Pb** | **17 07 38.8** | **-1.2** |
| EAK | | | | *i*S | **Sg** | **17 08 12.1** | **+3.8** |
| **EAK** | **Akyaka** | **2.00** | **8** | P | **Pb** | **17 07 38.8** | **-1.2** |
| **BNGB** | **Bing˜ll** | **2.01** | **279** | *e*PN | **Pn** | **17 07 38.2** | **+0.9** |
| **BINT** | **Bingol** | **2.15** | **275** | P | **Pn** | **17 07 39.8** | **+0.6** |
| **BINT** | **Bingol** | **2.15** | **275** | *e*Pn | **Pn** | **17 07 38.2** | **-1.0** |
| **BINT** | **Bingol** | **2.15** | **275** | P | **Pn** | **17 07 39.8** | **+0.6** |
| **ORD** | **Ordubad** | **2.17** | **83** | P | **Pn** | **17 07 40.9** | **+1.4** |
| | SNR=12 | | | | | | |
| **YEDI** | **Yedisu-Bingol** | **2.22** | **290** | *e*PN | **Pn** | **17 07 41.1** | **+0.9** |
| **YEDI** | **Yedisu-Bingol** | **2.22** | **290** | *e*Pn | **Pn** | **17 07 41.1** | **+0.9** |
| **HANI** | **Diyarbakir_Han** | **2.24** | **263** | *i*P | **Pn** | **17 07 41.2** | **+0.8** |
| HANI | | | | *i*S | **Sb** | **17 08 13.2** | **+1.6** |
| **HANI** | **Diyarbakir_Han** | **2.24** | **263** | P | **Pn** | **17 07 41.2** | **+0.8** |
| HANI | | | | S | **Sb** | **17 08 13.2** | **+1.6** |
| **MARD** | **Mardin** | **2.38** | **235** | ⇑*i*P | **Pn** | **17 07 42.8** | **+0.4** |
| MARD | | | | *i*S | **Sb** | **17 08 16.3** | **+0.5** |
| **MARD** | **Mardin** | **2.38** | **235** | *e*Pn | **Pn** | **17 07 42.9** | **+0.4** |
| **MARD** | **Mardin** | **2.38** | **235** | *e*Pn | **Pn** | **17 07 42.9** | **+0.4** |
| **DDEM** | **Demirkent** | **2.46** | **333** | *i*P | **Pb** | **17 07 46.4** | **-1.5** |
| DDEM | | | | *i*S | **Sg** | **17 08 22.6** | **-0.5** |
| **DDEM** | **Demirkent** | **2.46** | **333** | P | **Pb** | **17 07 46.4** | **-1.5** |
| **KOPT** | **Kop Dagi** | **2.49** | **303** | *i*P | **Pb** | **17 07 48.0** | **-0.5** |
| KOPT | | | | *i*S | **Sg** | **17 08 24.6** | **+0.6** |
| **KOPT** | **Kop Dagi** | **2.49** | **303** | P | **Pb** | **17 07 48.0** | **-0.5** |
| **KOPT** | **Kop Dagi** | **2.49** | **303** | *e*Pn | **Pb** | **17 07 48.7** | **+0.2** |
| **KOPT** | **Kop Dagi** | **2.49** | **303** | *e*Pn | **Pb** | **17 07 48.7** | **+0.2** |
| **DIY** | **Diyarbakir** | **2.50** | **252** | *e*Pn | **Pn** | **17 07 45.9** | **+1.9** |
| **MAZI** | **Mazidag** | **2.52** | **241** | *e*PN | **Pn** | **17 07 45.9** | **+1.5** |
| **MAZI** | **Mazidag** | **2.52** | **241** | *e*Pn | **Pn** | **17 07 45.9** | **+1.5** |
| **DYBB** | **Diyarbakir** | **2.54** | **254** | *e*PN | **Pn** | **17 07 45.9** | **+1.3** |
| **DIYA** | **Diyarbakir** | **2.57** | **253** | *i*P | **Pn** | **17 07 46.5** | **+1.6** |
| DIYA | | | | *i*S | **Sb** | **17 08 21.4** | **+0.3** |
| **DIYA** | **Diyarbakir** | **2.57** | **253** | P | **Pn** | **17 07 46.5** | **+1.6** |
| **BGD** | **Bogdanovka** | **2.57** | **6** | P | **Pn** | **17 07 47.2** | **+2.1** |
| **DAGI** | **Agillar** | **2.58** | **337** | *i*P | **Pb** | **17 07 49.5** | **-0.3** |
| DAGI | | | | *i*S | **Sg** | **17 08 24.8** | **-1.9** |
| **ARTV** | **Artvin** | **2.67** | **338** | *i*P | **Pn** | **17 07 47.6** | **+1.1** |
| ARTV | | | | *i*S | **Sg** | **17 08 27.9** | **-1.9** |
| **ARTV** | **Artvin** | **2.67** | **338** | *e*Pn | **Pn** | **17 07 47.3** | **+0.8** |
| **ARTV** | **Artvin** | **2.67** | **338** | P | **Pn** | **17 07 47.6** | **+1.1** |
| **ARTV** | **Artvin** | **2.67** | **338** | *e*Pn | **Pn** | **17 07 47.4** | **+0.8** |
| **AKH** | **Akhalkalaki** | **2.71** | **4** | *e*PN | **Pn** | **17 07 48.2** | **+1.2** |
| **AKH** | **Akhalkalaki** | **2.71** | **4** | P | **Pb** | **17 07 52.9** | **+0.8** |
| **AKH** | **Akhalkalaki** | **2.71** | **4** | *e*Pn | **Pn** | **17 07 48.2** | **+1.2** |
| **KBSD** | **Kabsdagh** | **2.73** | **232** | *e*P | **Pn** | **17 07 48.0** | **+0.9** |
| KBSD | | | | *e*S | **Sn** | **17 08 18.2** | **-1.5** |
| KBSD | | | | AML | AML | 17 08 39.6 | |
| | comp=N,2μm,0.6s | | | | | | |
| KBSD | | | | AML | AML | 17 08 41.6 | |
| | comp=E,1μm,0.6s | | | | | | |
| **GDB** | **GEDABAY** | **2.80** | **43** | ⇓P | **Pn** | **17 07 49.7** | **+1.5** |
| | SNR=33 | | | | | | |
| GDB | | | | ⇑S | **Sb** | **17 08 30.4** | **+2.6** |
| **GDB** | **GEDABAY** | **2.80** | **43** | P | **Pn** | **17 07 49.7** | **+1.5** |
| | SNR=33 | | | | | | |
| **EPOS** | **Posof** | **2.82** | **352** | *i*P | **Pb** | **17 07 53.1** | **-0.9** |
| EPOS | | | | *i*S | **Sg** | **17 08 39.2** | **+4.7** |
| **EPOS** | **Posof** | **2.82** | **352** | P | **Pb** | **17 07 53.1** | **-0.9** |
| **ERZN** | **Erzincan** | **2.87** | **289** | *e*PN | **Pn** | **17 07 50.3** | **+1.2** |
| **QZX** | **Qazax, Azerbai** | **2.87** | **34** | ⇓P | **Pn** | **17 07 50.2** | **+1.2** |
| | SNR=4.0 | | | | | | |
| QZX | | | | ⇑S | **Sb** | **17 08 31.4** | **+1.8** |
| **QZX** | **Qazax, Azerbai** | **2.87** | **34** | P | **Pn** | **17 07 50.2** | **+1.2** |
| | SNR=4.0 | | | | | | |
| **BAYT** | **Ayd¯–ntepe-Bay** | **2.92** | **306** | *e*PN | **Pn** | **17 07 51.3** | **+1.4** |
| **BAYT** | **Ayd¯–ntepe-Bay** | **2.92** | **306** | *e*Pn | **Pn** | **17 07 51.3** | **+1.4** |
| **BCA** | **Borcka** | **3.00** | **336** | *e*PN | **Pn** | **17 07 52.1** | **+1.3** |
| **BCA** | **Borcka** | **3.00** | **336** | *e*Pn | **Pn** | **17 07 52.1** | **+1.3** |
| **PTK** | **Pertek** | **3.01** | **275** | *e*PN | **Pn** | **17 07 52.6** | **+1.5** |
| **PTK** | **Pertek** | **3.01** | **275** | *e*Pn | **Pn** | **17 07 52.6** | **+1.5** |
| **GANJ** | **Ganja** | **3.07** | **50** | ⇓P | **Pn** | **17 07 53.3** | **+1.4** |
| | SNR=41 | | | | | | |
| GANJ | | | | ⇑S | **Sb** | **17 08 37.1** | **+1.6** |
| **GANJ** | **Ganja** | **3.07** | **50** | P | **Pn** | **17 07 53.2** | **+1.4** |
| **GANJ** | **Ganja** | **3.07** | **50** | P | **Pn** | **17 07 53.2** | **+1.4** |
| **SVRC** | **Sivrice-ELAZID** | **3.10** | **265** | *e*PN | **Pn** | **17 07 54.0** | **+1.7** |
| **SVRC** | **Sivrice-ELAZID** | **3.10** | **265** | *e*Pn | **Pn** | **17 07 54.0** | **+1.7** |
| **TBLG** | **Delisi** | **3.23** | **20** | *e*PN | **Pn** | **17 07 55.6** | **+1.6** |
| **TBLG** | **Delisi** | **3.23** | **20** | P | **Pb** | **17 08 00.6** | **-0.3** |
| **TBLG** | **Delisi** | **3.23** | **20** | *e*Pn | **Pn** | **17 07 55.7** | **+1.6** |
| **SFNV** | **Sufian** | **3.37** | **228** | *e*P | **Pn** | **17 07 57.0** | **+1.0** |
| SFNV | | | | *e*S | **Sn** | **17 08 33.3** | **-2.4** |
| SFNV | | | | AML | AML | 17 08 58.3 | |
| | comp=E,558nm,0.8s | | | | | | |
| SFNV | | | | AML | AML | 17 09 02.7 | |
| | comp=N,1μm,0.5s | | | | | | |
| **BRDA** | **Brd** | **3.43** | **62** | ⇑P | **Pn** | **17 07 58.1** | **+1.4** |
| | SNR=7.8 | | | | | | |
| BRDA | | | | ⇑S | **Sb** | **17 08 45.4** | **-0.2** |
| **BRDA** | **Brd** | **3.43** | **62** | P | **Pn** | **17 07 58.1** | **+1.4** |
| | SNR=7.8 | | | | | | |
| **KTUT** | **Trabzon** | **3.51** | **312** | *e*PN | **Pn** | **17 07 59.4** | **+1.7** |
| **KTUT** | **Trabzon** | **3.51** | **312** | *e*Pn | **Pn** | **17 07 59.4** | **+1.7** |
| **DDFL** | **Dedoflistskaro** | **3.52** | **38** | P | **Pg** | **17 08 09.1** | **-2.2** |
| **MZRK** | **Al-Mazaregh** | **3.53** | **216** | *e*P | **Pn** | **17 07 59.6** | **+1.5** |
| MZRK | | | | *e*S | **Sn** | **17 08 36.0** | **-3.6** |
| MZRK | | | | AML | AML | 17 09 01.1 | |
| | comp=E,1μm,0.6s | | | | | | |
| MZRK | | | | AML | AML | 17 09 01.2 | |
| | comp=N,1μm,0.8s | | | | | | |
| **MNGR** | **Mingechevir, A** | **3.62** | **54** | ⇓P | **Pn** | **17 08 00.7** | **+1.4** |
| | SNR=6.5 | | | | | | |
| MNGR | | | | ⇑S | **Sb** | **17 08 50.4** | **-0.7** |
| **MNGR** | **Mingechevir, A** | **3.62** | **54** | P | **Pn** | **17 08 00.6** | **+1.4** |
| **MNGR** | **Mingechevir, A** | **3.62** | **54** | P | **Pn** | **17 08 00.6** | **+1.4** |
| **URFA** | **Urfa** | **3.70** | **251** | *e*PN | **Pn** | **17 08 02.5** | **+1.9** |
| **URFA** | **Urfa** | **3.70** | **251** | *e*Pn | **Pn** | **17 08 02.5** | **+1.9** |
| **ILIC** | **ilic-Erzincan** | **3.71** | **283** | *e*PN | **Pn** | **17 08 02.4** | **+1.8** |
| **ILIC** | **ilic-Erzincan** | **3.71** | **283** | *e*Pn | **Pn** | **17 08 02.4** | **+1.8** |
| **ZRD** | **Zardab** | **3.79** | **64** | ⇓P | **Pn** | **17 08 02.8** | **+1.2** |
| | SNR=6.7 | | | | | | |
| ZRD | | | | ⇓S | **Sb** | **17 08 54.1** | **-1.9** |
| **ZRD** | **Zardab** | **3.79** | **64** | P | **Pn** | **17 08 02.8** | **+1.2** |
| | SNR=6.7 | | | | | | |
| **MALT** | **Malatya** | **3.79** | **266** | *e*PN | **Pn** | **17 08 03.7** | **+1.9** |
| **MALT** | **Malatya** | **3.79** | **266** | *e*Pn | **Pn** | **17 08 03.7** | **+1.9** |
| **ONI** | **Oni** | **3.88** | **2** | P | **Pb** | **17 08 12.8** | **+0.7** |
| **ZKTA** | **Zakatala** | **3.91** | **40** | ⇓P | **Pn** | **17 08 04.5** | **+1.1** |
| | SNR=8.2 | | | | | | |
| ZKTA | | | | ⇓S | **Sb** | **17 08 57.7** | **-1.9** |
| **ZKTA** | **Zakatala** | **3.91** | **40** | P | **Pn** | **17 08 04.5** | **+1.1** |
| **ZKTA** | **Zakatala** | **3.91** | **40** | P | **Pn** | **17 08 04.5** | **+1.1** |
| **SEKA** | **Sheki** | **3.94** | **49** | ⇑P | **Pn** | **17 08 05.9** | **+2.1** |
| | SNR=12 | | | | | | |
| SEKA | | | | ⇑S | **Sb** | **17 08 59.8** | **-0.7** |
| **SEKA** | **Sheki** | **3.94** | **49** | P | **Pn** | **17 08 05.9** | **+2.1** |
| **SEKA** | **Sheki** | **3.94** | **49** | P | **Pn** | **17 08 05.9** | **+2.1** |
| | SNR=12 | | | | | | |
| **LRK** | **Lerik** | **4.00** | **89** | ⇓P | **Pn** | **17 08 04.5** | **-0.2** |
| | SNR=9.2 | | | | | | |
| LRK | | | | ⇓S | **Sb** | **17 08 57.3** | **-5.0** |
| **LRK** | **Lerik** | **4.00** | **89** | P | **Pn** | **17 08 04.5** | **-0.2** |
| | SNR=9.2 | | | | | | |
| **GLBA** | **Clilabad** | **4.06** | **81** | ⇓P | **Pn** | **17 08 05.8** | **+0.5** |
| | SNR=5.9 | | | | | | |
| GLBA | | | | ⇓S | **Sb** | **17 08 59.5** | **-4.3** |
| **GLBA** | **Clilabad** | **4.06** | **81** | P | **Pn** | **17 08 05.8** | **+0.5** |
| | SNR=5.9 | | | | | | |
| **CHVG** | **Ch'k'valeri** | **4.10** | **348** | *e*PN | **Pn** | **17 08 08.5** | **+2.5** |
| **CHVG** | **Ch'k'valeri** | **4.10** | **348** | P | **Pg** | **17 08 20.9** | **-1.6** |
| **CHVG** | **Ch'k'valeri** | **4.10** | **348** | *e*Pn | **Pn** | **17 08 08.5** | **+2.5** |
| **ESPY** | **Espiye-Giresun** | **4.11** | **304** | *e*PN | **Pn** | **17 08 08.3** | **+2.2** |
| **ESPY** | **Espiye-Giresun** | **4.11** | **304** | *e*Pn | **Pn** | **17 08 08.3** | **+2.2** |
| **KDMR** | **Kurdemir** | **4.18** | **65** | ⇑P | **Pn** | **17 08 08.1** | **+1.2** |
| | SNR=3.2 | | | | | | |
| KDMR | | | | ⇓S | **Sb** | **17 09 03.7** | **-3.5** |
| **KDMR** | **Kurdemir** | **4.18** | **65** | P | **Pn** | **17 08 08.1** | **+1.2** |
| | SNR=3.2 | | | | | | |
| **SAAT** | **Saatly** | **4.19** | **72** | ⇓P | **Pn** | **17 08 08.0** | **+0.9** |
| | SNR=5.8 | | | | | | |
| SAAT | | | | ⇑S | **Sb** | **17 09 03.0** | **-4.6** |
| **SAAT** | **Saatly** | **4.19** | **72** | P | **Pn** | **17 08 08.0** | **+0.9** |
| | SNR=5.8 | | | | | | |
| **QBL** | **Gabala** | **4.19** | **56** | ⇑P | **Pn** | **17 08 08.6** | **+1.3** |
| | SNR=6.7 | | | | | | |
| QBL | | | | ⇑S | **Sb** | **17 09 04.4** | **-3.3** |
| **QBL** | **Gabala** | **4.19** | **56** | P | **Pn** | **17 08 08.6** | **+1.3** |
| | SNR=6.7 | | | | | | |
| **LKRN** | **Lenkeran, Azer** | **4.34** | **88** | ⇓P | **Pn** | **17 08 09.2** | **0.0** |
| | SNR=3.7 | | | | | | |
| LKRN | | | | ⇓S | **Sb** | **17 09 05.8** | **-6.1** |
| **LKRN** | **Lenkeran, Azer** | **4.34** | **88** | P | **Pn** | **17 08 09.2** | **0.0** |
| **LKRN** | **Lenkeran, Azer** | **4.34** | **88** | P | **Pn** | **17 08 09.2** | **0.0** |
| | SNR=3.7 | | | | | | |
| **IML** | **Ismayilli** | **4.35** | **60** | ⇓P | **Pn** | **17 08 10.6** | **+1.2** |
| IML | | | | ⇓S | **Sb** | **17 09 08.2** | **-4.0** |
| **IML** | **Ismayilli** | **4.35** | **60** | P | **Pn** | **17 08 10.6** | **+1.2** |
| **ASTR** | **Astara** | **4.36** | **90** | ⇓P | **Pn** | **17 08 09.3** | **-0.1** |
| | SNR=5.3 | | | | | | |
| ASTR | | | | ⇑S | **Sn** | **17 09 05.9** | **+6.0** |
| **ASTR** | **Astara** | **4.36** | **90** | P | **Pn** | **17 08 09.3** | **-0.1** |
| | SNR=5.3 | | | | | | |
| ASTR | | | | S | **Sn** | **17 09 05.9** | **+6.0** |
| **XNQ** | **Khinaliq** | **4.50** | **55** | ⇓P | **Pn** | **17 08 13.3** | **+1.6** |
| | SNR=4.4 | | | | | | |
| XNQ | | | | ⇑S | **Sb** | **17 09 12.4** | **-4.5** |
| **XNQ** | **Khinaliq** | **4.50** | **55** | P | **Pn** | **17 08 13.3** | **+1.6** |
| | SNR=4.4 | | | | | | |
| **NEY** | **Neytrino** | **4.55** | **355** | *e*P | **Pn** | **17 08 16.0** | **+3.7** |
| **NEY** | **Neytrino** | **4.55** | **355** | *e*P | **Pn** | **17 08 16.0** | **+3.7** |
| **PQL** | **Pirkuli** | **4.63** | **62** | ⇓P | **Pn** | **17 08 14.5** | **+1.2** |
| | SNR=3.0 | | | | | | |
| PQL | | | | ⇓P | **Pn** | **17 08 14.5** | **+1.2** |
| | SNR=3.0 | | | | | | |
| PQL | | | | ⇓S | **Sb** | **17 09 15.0** | **-5.3** |
| PQL | | | | ⇓S | **Sb** | **17 09 15.0** | **-5.3** |
| **PQL** | **Pirkuli** | **4.63** | **62** | P | **Pn** | **17 08 14.5** | **+1.2** |
| | SNR=3.0 | | | | | | |
| **ALIB** | **Äli-Bayra** | **4.65** | **73** | ⇑P | **Pn** | **17 08 14.3** | **+0.9** |
| ALIB | | | | ⇑S | **Sb** | **17 09 14.8** | **-5.9** |
| **ALIB** | **Äli-Bayra** | **4.65** | **73** | P | **Pn** | **17 08 14.3** | **+0.9** |
| **QSAR** | **Qusar** | **4.77** | **52** | ⇓P | **Pn** | **17 08 16.5** | **+1.3** |
| | SNR=3.0 | | | | | | |
| QSAR | | | | ⇓S | **Sb** | **17 09 18.7** | **-5.6** |
| **QSAR** | **Qusar** | **4.77** | **52** | P | **Pn** | **17 08 16.5** | **+1.3** |
| | SNR=3.0 | | | | | | |
| **GBS** | **Qobustan** | **4.77** | **66** | ⇑P | **Pn** | **17 08 16.3** | **+1.1** |
| GBS | | | | ⇓S | **Sb** | **17 09 18.4** | **-6.1** |
| **GBS** | **Qobustan** | **4.77** | **66** | P | **Pn** | **17 08 16.3** | **+1.1** |
| **NCK** | **Nalchik** | **4.79** | **3** | *e*P | **Pn** | 17 08 20.3 | +4.8 |
| **NCK** | **Nalchik** | **4.79** | **3** | *e*P | **Pn** | 17 08 20.3 | +4.8 |
| **QUBA** | **Quba, Azerbaij** | **4.83** | **55** | ⇑P | **Pn** | **17 08 17.4** | **+1.4** |
| QUBA | | | | ⇓S | **Sb** | **17 09 20.1** | **-5.9** |
| **QUBA** | **Quba, Azerbaij** | **4.83** | **55** | P | **Pn** | **17 08 17.4** | **+1.4** |
| **ATGJ** | **Altiaghaj** | **4.89** | **62** | ⇑P | **Pn** | **17 08 18.1** | **+1.2** |
| ATGJ | | | | ⇓S | **Sb** | **17 09 21.6** | **-6.4** |
| **ATGJ** | **Altiaghaj** | **4.89** | **62** | P | **Pn** | **17 08 18.1** | **+1.2** |
| **GROC** | **Groznyy** | **4.89** | **23** | *e*P | **Pn** | **17 08 15.8** | **-1.0** |
| GROC | | | | *e*S | **Sn** | **17 09 15.3** | **+2.2** |
| GROC | | | | pmax | pmax | | |
| | comp=Z,79nm,1.2s | | | | | | |
| GROC | | | | smax | smax | | |
| | comp=E,181nm,1.6s | | | | | | |
| GROC | | | | smax | smax | | |
| | comp=E,64nm,1.6s | | | | | | |
| **GROC** | **Groznyy** | **4.89** | **23** | *e*P | **Pn** | **17 08 15.8** | **-1.0** |
| | comp=E,79nm,1.2s | | | | | | |
| GROC | | | | *e*S | **Sn** | **17 09 15.3** | **+2.2** |
| **KBZ** | **Khabaz** | **5.03** | **357** | Pn | **Pn** | **17 08 22.7** | **+4.1** |
| | comp=E,0.2nm,0.3s,baz=166,slow=11,SNR=5.7 | | | | | | |
| KBZ | | | | Pg | **Pg** | **17 08 37.9** | **-2.2** |
| | comp=E,0.3nm,0.3s,baz=183,slow=16,SNR=7.8 | | | | | | |
| KBZ | | | | LR | LR | 17 10 58.2 | |
| | comp=E,221nm,20.6s,baz=200,slow=46 | | | | | | |
| **KIV** | **Kislovodsk** | **5.26** | **356** | *e*P | **Pn** | **17 08 26.4** | **+4.4** |
| KIV | | | | pmax | pmax | | |
| | comp=Z,11nm,1.1s | | | | | | |
| KIV | | | | MLR | MLR | | |
| | comp=Z,89nm,7.0s | | | | | | |
| **KIV** | **Kislovodsk** | **5.26** | **356** | *e*Pn | **Pn** | **17 08 25.1** | **+3.1** |
| **KIV** | **Kislovodsk** | **5.26** | **356** | *e*P | **Pn** | **17 08 26.4** | **+4.4** |
| | comp=Z,89nm,7.0s | | | | | | |
| **KIV** | **Kislovodsk** | **5.26** | **356** | *e*Pn | **Pn** | **17 08 25.1** | **+3.1** |
| **KVAR** | **Kislovodsk Arr** | **5.26** | **356** | Pn | **Pn** | **17 08 25.1** | **+3.1** |
| | baz=221,slow=17,SNR=2.6 | | | | | | |
| KVAR | | | | LR | LR | 17 10 55.5 | |
| | comp=Z,363nm,21.6s,baz=192,slow=44 | | | | | | |
| **TOKA** | **Tokat** | **5.47** | **289** | *e*Pn | **Pn** | **17 08 27.4** | **+2.7** |
| **TOKA** | **Tokat** | **5.47** | **289** | *e*Pn | **Pn** | **17 08 27.4** | **+2.7** |
| **BHD** | **Baghdad** | **5.50** | **170** | *e*Pn | **Pn** | **17 08 25.0** | **-0.2** |
| | SNR=3.0 | | | | | | |
| **SOC** | **Sochi** | **5.55** | **333** | *e*P | **Pn** | **17 08 27.2** | **+1.4** |
| SOC | | | | *e* | | 17 09 28.9 | |
| SOC | | | | MLR | MLR | | |
| | comp=Z,443nm,12.0s | | | | | | |
| **SOC** | **Sochi** | **5.55** | **333** | *e*P | **Pn** | **17 08 27.2** | **+1.4** |
| | comp=Z,443nm,12.0s | | | | | | |
| **RTB** | **Rutbah** | **6.14** | **204** | *e*Pn | **Pn** | **17 08 34.0** | **0.0** |
| | SNR=3.0 | | | | | | |
| **GOF** | **Gofitskoye** | **6.35** | **359** | ⇑*e*P | Pb | 17 08 45.5 | -8.5 |
| GOF | | | | pmax | pmax | | |
| | comp=Z,29nm,1.3s | | | | | | |
| **MARH** | **Ras Al Marh** | **7.17** | **231** | *e*P | **Pn** | **17 08 49.4** | **+1.0** |
| MARH | | | | *e*S | **Sn** | **17 10 06.0** | **-3.7** |
| MARH | | | | AML | AML | 17 10 56.3 | |
| | comp=N,83nm,0.7s | | | | | | |
| MARH | | | | AML | AML | 17 10 59.4 | |
| | comp=E,156nm,0.7s | | | | | | |
| **BR101** | **Keskin Array S** | **7.52** | **281** | *e*Pn | **Pn** | **17 08 54.9** | **+1.9** |
| **BR101** | **Keskin Array S** | **7.52** | **281** | *e*Pn | **Pn** | **17 08 54.9** | **+1.9** |
| **BRTR** | **Keskin Array B** | **7.52** | **281** | Pn | **Pn** | **17 08 54.9** | **+1.9** |
| | comp=E,0.1nm,0.3s,baz=109,slow=14,SNR=6.2 | | | | | | |
| **BRBR** | **Barbar** | **7.92** | **230** | *e*P | **Pn** | **17 08 59.7** | **+1.2** |
| BRBR | | | | *e*S | **Sn** | **17 10 22.5** | **-5.4** |
| BRBR | | | | AML | AML | 17 11 36.9 | |
| | comp=N,63nm,0.7s | | | | | | |
| BRBR | | | | AML | AML | 17 11 41.3 | |
| | comp=E,59nm,0.8s | | | | | | |
| **SALA** | **Sala** | **7.98** | **223** | *e*P | **Pn** | **17 09 00.3** | **+0.9** |
| SALA | | | | AML | AML | 17 11 38.0 | |
| | comp=N,73nm,0.7s | | | | | | |
| SALA | | | | AML | AML | 17 11 49.5 | |
| | comp=E,3.9nm,0.7s | | | | | | |
| **NSR** | **Nassriya** | **8.04** | **162** | *e*Pn | **Pn** | **17 09 00.0** | **0.0** |
| | SNR=3.0 | | | | | | |
| **ASF** | **Jabal al Asfar** | **8.32** | **220** | Pn | **Pn** | **17 09 03.0** | **-0.9** |
| | comp=E,0.8nm,0.3s,baz=39,slow=2.1,SNR=2.8 | | | | | | |
| ASF | | | | Lg | Lg | 17 11 26.6 | |
| | comp=E,0.6nm,0.3s,baz=57,slow=17,SNR=3.9 | | | | | | |
| **ASF** | **Jabal al Asfar** | **8.32** | **220** | *e*P | **Pn** | **17 09 03.0** | **-0.9** |
| **MMAI** | **Mount Meron Ar** | **8.52** | **231** | Pn | **Pn** | **17 09 08.7** | **+2.1** |
| | comp=E,1.1nm,0.3s,baz=68,slow=15,SNR=4.0 | | | | | | |
| MMAI | | | | Lg | Lg | 17 11 33.5 | |
| | comp=E,1.2nm,0.3s,baz=42,slow=47,SNR=4.0 | | | | | | |
| **VRH** | **Novokhopyorsk** | **12.54** | **356** | *e*P | **Pn** | **17 10 04.5** | **+2.9** |
| VRH | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.0s | | | | | | |
| **VRH** | **Novokhopyorsk** | **12.54** | **356** | *e*P | **Pn** | **17 10 04.5** | **+2.9** |
| | comp=Z,8.0nm,1.0s | | | | | | |
| **VSR** | **Storozhevoye** | **12.83** | **348** | *e*P | **Pn** | **17 10 06.3** | **+0.7** |
| VSR | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.9s | | | | | | |
| **VSR** | **Storozhevoye** | **12.83** | **348** | *e*P | **Pn** | **17 10 06.3** | **+0.7** |
| | comp=Z,7.0nm,0.9s | | | | | | |
| **LPSR** | **Galich'ya Gora** | **14.21** | **349** | *e*P | **Pn** | **17 10 25.1** | **+0.7** |
| LPSR | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| **MLR** | **Muntele Rosu** | **14.50** | **303** | Pn | **Pn** | **17 10 28.8** | **+0.3** |
| | comp=Z,0.1nm,0.3s,baz=138,slow=12,SNR=2.8 | | | | | | |
| **MLR** | **Muntele Rosu** | **14.50** | **303** | ⇑*i*P | **P** | **17 10 33.2** | **-1.9** |
| **MLR** | **Muntele Rosu** | **14.50** | **303** | ⇑P | **P** | **17 10 33.2** | **-1.9** |
| **DOPR** | **Dopca** | **15.04** | **305** | ⇓*i*P | **P** | **17 10 43.1** | **+2.1** |
| **DOPR** | **Dopca** | **15.04** | **305** | ⇓*i*P | **P** | **17 10 43.1** | **+2.1** |
| **IDI** | **Idnoyia** | **15.05** | **263** | LR | LR | 17 16 49.2 | |
| | comp=Z,32nm,20.9s,baz=86,slow=39 | | | | | | |
| **VOIR** | | **15.07** | **302** | ⇑*i*P | **P** | **17 10 44.8** | **+3.4** |
| **VOIR** | | **15.07** | **302** | ⇑P | **P** | **17 10 44.8** | **+3.4** |
| **VOIR** | | **15.07** | **302** | P | **P** | **17 10 44.8** | **+3.4** |
| **RAYN** | **Ar Rayn** | **15.26** | **172** | *e*Pn | **Pn** | **17 10 35.0** | **-3.8** |
| | comp=Z,14nm,1.2s | | | | | | |
| **AKASG** | **Malin Array Be** | **15.55** | **325** | Pn | **Pn** | **17 10 40.4** | **-2.0** |
| | comp=Z,0.3nm,0.3s,baz=136,slow=12,SNR=5.6 | | | | | | |
| **AKBB** | **Malin Array Si** | **15.55** | **325** | *e*P | **Pn** | **17 10 42.6** | **+0.2** |
| AKBB | | | | pmax | pmax | | |
| | comp=Z,11nm,0.9s | | | | | | |
| **AKBB** | **Malin Array Si** | **15.55** | **325** | *e*Pn | **Pn** | **17 10 42.6** | **+0.2** |
| | comp=Z,10nm,0.9s | | | | | | |
| **AKBB** | **Malin Array Si** | **15.55** | **325** | *e*Pn | **Pn** | **17 10 42.6** | **+0.2** |
| | comp=Z,10nm,0.9s | | | | | | |
| **KIEV** | **Kiev** | **15.56** | **325** | *e*P | **Pn** | **17 10 42.7** | **+0.3** |
| KIEV | | | | pmax | pmax | | |
| | comp=Z,11nm,0.9s | | | | | | |
| **KIEV** | **Kiev** | **15.56** | **325** | *e*Pn | **Pn

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | comp=Z,6.0nm,0.9s | | | | | | | | | |
| **BVAR** | **Borovoye Array** | **23.53** | **44** | P | | **P** | **17 12 13.7** | **+0.5** |
| | comp=Z,1.4nm,0.7s,baz=252,slow=9.0,SNR=9.7 | | | | | | | | | |
| **KHC** | **Kasperske Hory** | **23.62** | **306** | *e*P | | **P** | **17 12 13.0** | **-1.2** |
| **KHC** | **Kasperske Hory** | **23.62** | **306** | *e*P | | **P** | **17 12 13.0** | **-1.2** |
| **KHC** | **Kasperske Hory** | **23.62** | **306** | *e*P | | **P** | **17 12 14.5** | **+0.3** |
| | comp=Z,2.6nm,1.2s | | | | | | | | | |
| **KHC** | **Kasperske Hory** | **23.62** | **306** | *e*P | | **P** | **17 12 14.5** | **+0.3** |
| | comp=Z,2.6nm,1.2s | | | | | | | | | |
| **AAK** | **Ala-Archa** | **23.96** | **71** | P | | **P** | **17 12 18.9** | **+1.3** |
| | comp=Z,0.7nm,0.5s,baz=242,slow=10,SNR=5.0 | | | | | | | | | |
| AAK | | | | LR | | LR | 17 23 57.7 | | | |
| | comp=Z,54nm,18.5s,baz=265,slow=42 | | | | | | | | | |
| **AAK** | **Ala-Archa** | **23.96** | **71** | *e*P | | **P** | **17 12 17.7** | **+0.1** |
| AAK | | | | pmax | | pmax | | | | |
| | comp=Z,3.0nm,1.2s | | | | | | | | | |
| **FRU** | **Bishkek** | **24.05** | **70** | *e*P | | **P** | **17 12 19.0** | **+0.7** |
| FRU | | | | pmax | | pmax | | | | |
| | comp=Z,40nm,2.0s | | | | | | | | | |
| **FRU** | **Bishkek** | **24.05** | **70** | *e*P | | **P** | **17 12 19.0** | **+0.7** |
| | comp=Z,40nm,2.0s | | | | | | | | | |
| **WATA** | **Walderalm** | **24.56** | **301** | *i* P | | **P** | **17 12 24.1** | **+1.0** |
| | comp=Z,6.7nm,1.0s | | | | | | | | | |
| **WATA** | **Walderalm** | **24.56** | **301** | P | | **P** | **17 12 24.1** | **+1.0** |
| | comp=Z,6.7nm,1.0s | | | | | | | | | |
| **CLL** | **Collm** | **24.61** | **311** | *e*P | | **P** | **17 12 22.0** | **-1.3** |
| CLL | | | | pmax | | pmax | | | | |
| | comp=Z,5.0nm,1.0s | | | | | | | | | |
| **CLL** | **Collm** | **24.61** | **311** | *e*(P) | | **P** | **17 12 22.0** | **-1.3** |
| | comp=Z,5.0nm,1.0s | | | | | | | | | |
| **MOTA** | **Moosalm** | **24.88** | **301** | *i* P | | **P** | **17 12 26.2** | **+0.2** |
| | comp=Z,5.0nm,0.7s | | | | | | | | | |
| **MOTA** | **Moosalm** | **24.88** | **301** | P | | **P** | **17 12 26.2** | **+0.2** |
| | comp=Z,5.0nm,0.7s | | | | | | | | | |
| **FIA0** | **FINESS Array S** | **25.12** | **341** | *e*P | | **P** | **17 12 27.7** | **-0.1** |
| **FIA0** | **FINESS Array S** | **25.12** | **341** | *e*P | | **P** | **17 12 27.7** | **-0.1** |
| **FIA0** | **FINESS Array S** | **25.12** | **341** | *e*P | | **P** | **17 12 27.7** | **-0.1** |
| **FIA1** | **FINESS Array S** | **25.12** | **341** | *e*P | | **P** | **17 12 26.8** | **-1.0** |
| | comp=Z,30nm,1.3s | | | | | | | | | |
| **FINES** | **FINESS Array B** | **25.12** | **341** | P | | **P** | **17 12 27.7** | **-0.1** |
| | comp=Z,5.1nm,0.9s,baz=156,slow=10,SNR=6.8 | | | | | | | | | |
| **FINES** | **FINESS Array B** | **25.12** | **341** | *e*P | | **P** | **17 12 27.2** | **-0.6** |
| FINES | | | | pmax | | pmax | | | | |
| | comp=Z,5.0nm,0.9s | | | | | | | | | |
| **GRFO** | **Grafenberg** | **25.25** | **306** | *e*P | | **P** | **17 12 30.5** | **+1.4** |
| GRFO | | | | pmax | | pmax | | | | |
| | comp=Z,22nm,1.2s | | | | | | | | | |
| **GRFO** | **Grafenberg** | **25.25** | **306** | *e*P | | **P** | **17 12 30.5** | **+1.4** |
| | comp=Z,22nm,1.2s | | | | | | | | | |
| **GRFO** | **Grafenberg** | **25.25** | **306** | *e*P | | **P** | **17 12 30.5** | **+1.4** |
| | comp=Z,22nm,1.2s | | | | | | | | | |
| **DAVOX** | **Davos/Dischmat** | **25.64** | **299** | P | | **P** | **17 12 32.8** | **-0.1** |
| | comp=Z,2.6nm,0.6s,baz=90,slow=10,SNR=4.1 | | | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **27.52** | **53** | P | | **P** | **17 12 50.7** | **+1.1** |
| | comp=Z,1.5nm,0.5s,baz=262,slow=9.0,SNR=18 | | | | | | | | | |
| KURBB | | | | PcP | | **PcP** | **17 16 05.6** | **-1.7** | | |
| | comp=Z,0.4nm,0.4s,baz=256,slow=3.7,SNR=4.1 | | | | | | | | | |
| **KURK** | **Kurchatov** | **27.60** | **53** | *e*P | | **P** | **17 12 50.7** | **+0.4** |
| KURK | | | | e | | | 17 16 05.6 | | | |
| **KURK** | **Kurchatov** | **27.60** | **53** | *e*P | | **P** | **17 12 50.7** | **+0.4** |
| **KURK** | **Kurchatov** | **27.60** | **53** | *e*P | | **P** | **17 12 50.7** | **+0.4** |
| KURK | | | | *e*PcP | | **PcP** | **17 16 05.6** | **-1.9** | | |
| **HFS** | **Hagfors** | **28.38** | **329** | P | | **P** | **17 12 56.6** | **-0.5** |
| | comp=Z,3.1nm,0.7s,baz=128,slow=9.3,SNR=7.1 | | | | | | | | | |
| **MK32** | **Makanchi Array** | **29.55** | **61** | *e*P | | **P** | **17 13 08.7** | **+0.9** |
| **MK32** | **Makanchi Array** | **29.55** | **61** | *e*P | | **P** | **17 13 08.7** | **+0.9** |
| **MKAR** | **Makanchi Array** | **29.55** | **61** | P | | **P** | **17 13 08.7** | **+0.9** |
| | comp=Z,1.2nm,0.7s,baz=266,slow=8.7,SNR=8.0 | | | | | | | | | |
| MKAR | | | | LR | | LR | 17 26 56.6 | | | |
| | comp=Z,49nm,20.4s,baz=292,slow=40 | | | | | | | | | |
| **MK01** | **Makanchi Array** | **29.56** | **61** | *e*P | | **P** | **17 13 08.7** | **+0.9** |
| **MK01** | **Makanchi Array** | **29.56** | **61** | *e*P | | **P** | **17 13 08.7** | **+0.9** |
| **NB200** | **NORSAR Array S** | **29.90** | **329** | *e*P | | **P** | **17 13 09.7** | **-1.0** |
| **NOA** | **NORSAR Array B** | **29.90** | **329** | P | | **P** | **17 13 09.7** | **-1.0** |
| | comp=Z,0.4nm,0.5s,baz=126,slow=8.9,SNR=3.3 | | | | | | | | | |
| NOA | | | | LR | | LR | 17 27 37.3 | | | |
| | comp=Z,39nm,18.1s,baz=250,slow=41 | | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **31.98** | **48** | P | | **P** | **17 13 30.8** | **+1.7** |
| | comp=Z,0.5nm,0.5s,baz=253,slow=9.8,SNR=3.6 | | | | | | | | | |
| **ZAA1** | **Zalesovo Array** | **31.98** | **48** | *e*P | | **P** | **17 13 30.8** | **+1.7** |
| **ZAA1** | **Zalesovo Array** | **31.98** | **48** | *e*P | | **P** | **17 13 30.8** | **+1.7** |
| **ARA0** | **ARCESS Array S** | **32.32** | **348** | *e*P | | **P** | **17 13 31.6** | **-0.2** |
| **ARA0** | **ARCESS Array S** | **32.32** | **348** | *e*P | | **P** | **17 13 31.6** | **-0.2** |
| **ARCES** | **ARCESS Array B** | **32.32** | **348** | P | | **P** | **17 13 31.6** | **-0.2** |
| | comp=Z,2.3nm,0.8s,baz=156,slow=9.3,SNR=11 | | | | | | | | | |
| **PYUN** | **Piuthan** | **34.60** | **96** | *e*P | | **P** | **17 13 53.1** | **+0.7** |
| **DANN** | **Dangsing** | **35.08** | **95** | *e*P | | **P** | **17 13 58.0** | **+1.3** |
| **KOLN** | **Koldanda** | **35.23** | **96** | *e*P | | **P** | **17 13 58.5** | **+0.7** |
| | comp=Z,17nm,1.0s | | | | | | | | | |
| **ESDC** | **Sonseca Array** | **36.26** | **287** | P | | **P** | **17 14 05.2** | **-1.2** |
| | comp=Z,0.7nm,0.5s,baz=64,slow=8.8,SNR=6.7 | | | | | | | | | |
| **DMN** | **Daman** | **36.48** | **95** | *e*P | | **P** | **17 14 09.5** | **+0.9** |
| **KKN** | **Kakani** | **36.53** | **95** | *e*P | | **P** | **17 14 09.4** | **+0.4** |
| **PKIN** | **Phulchoki** | **36.72** | **95** | *e*P | | **P** | **17 14 11.6** | **+0.9** |
| **PKI** | **Pulchoki** | **36.73** | **95** | *e*P | | **P** | **17 14 11.4** | **+0.5** |
| **GUN** | **Gumba** | **36.94** | **94** | *e*P | | **P** | **17 14 13.2** | **+0.5** |
| | comp=Z,44nm,1.1s | | | | | | | | | |
| **JIRN** | **Jiri** | **37.30** | **94** | *e*P | | **P** | **17 14 16.1** | **+0.3** |
| **RAMN** | **Ramite** | **37.96** | **95** | *e*P | | **P** | **17 14 21.6** | **+0.4** |
| | comp=Z,15nm,0.6s | | | | | | | | | |
| **ODAN** | **Odare** | **38.62** | **94** | *e*P | | **P** | **17 14 27.6** | **+0.9** |
| | comp=Z,16nm,0.7s | | | | | | | | | |
| **TAPN** | **Taplejung** | **38.63** | **93** | *e*P | | **P** | **17 14 27.5** | **+0.6** |
| | comp=Z,7.0nm,0.5s | | | | | | | | | |
| **GTA** | **Gaotai** | **43.31** | **70** | *e*P | | **P** | **17 15 06.5** | **+1.3** |
| GTA | | | | pP | | pP | 17 15 10.8 | +0.7 | | |
| GTA | | | | sP | | sP | 17 15 14.1 | +2.1 | | |
| GTA | | | | pmax | | pmax | | | | |
| | comp=Z,4.0nm,1.1s | | | | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **44.66** | **247** | *e*P | | **P** | **17 15 14.3** | **-1.8** |
| **TOA1** | **Torodi Ar. Sit** | **44.66** | **247** | *e*P | | **P** | **17 15 14.3** | **-1.8** |
| **TOA0** | **Torodi Ar. Sit** | **44.66** | **247** | *e*P | | **P** | **17 15 14.0** | **-2.1** |
| **TOA0** | **Torodi Ar. Sit** | **44.66** | **247** | *e*P | | **P** | **17 15 14.0** | **-2.1** |
| **TORD** | **Torodi Ar. Bea** | **44.66** | **247** | P | | **P** | **17 15 14.3** | **-1.8** |
| | comp=Z,1.3nm,1.0s,baz=50,slow=7.8,SNR=7.0 | | | | | | | | | |
| **ULN** | **Ulaanbaatar** | **46.14** | **57** | *i* P | | **P** | **17 15 28.1** | **+0.4** |
| ULN | | | | pmax | | pmax | | | | |
| | comp=Z,2.0nm,0.8s | | | | | | | | | |
| **ULN** | **Ulaanbaatar** | **46.14** | **57** | *i* P | | **P** | **17 15 28.1** | **+0.4** |
| | comp=Z,2.0nm,0.8s | | | | | | | | | |
| **CM31** | **Chiang Mai Arr** | **52.09** | **96** | *e*P | | **P** | **17 16 12.6** | **-0.8** |
| **CM31** | **Chiang Mai Arr** | **52.09** | **96** | *e*P | | **P** | **17 16 12.6** | **-0.8** |
| **CMAR** | **Chiang Mai Arr** | **52.09** | **96** | P | | **P** | **17 16 12.6** | **-0.8** |
| | comp=Z,3.0nm,0.9s,baz=299,slow=8.4,SNR=20 | | | | | | | | | |
| CMAR | | | | LR | | LR | 17 42 38.5 | | | |
| | comp=Z,15nm,18.8s,baz=5.0,slow=41 | | | | | | | | | |
| **TIXI** | **Tiksi** | **52.44** | **23** | *i* P | | **P** | **17 16 15.7** | **+0.5** |
| TIXI | | | | pmax | | pmax | | | | |
| | comp=Z,5.0nm,1.7s | | | | | | | | | |
| **TIXI** | **Tiksi** | **52.44** | **23** | *i* P | | **P** | **17 16 15.7** | **+0.5** |
| | comp=Z,5.0nm,1.7s | | | | | | | | | |
| **SEY** | **Seymchan** | **64.13** | **29** | P | | **P** | **17 17 38.2** | **+1.2** |
| | comp=Z,2.7nm,0.8s,baz=284,slow=7.6,SNR=7.6 | | | | | | | | | |
| **KSAR** | **Wonju Array Be** | **64.21** | **62** | P | | **P** | **17 17 38.1** | **+0.1** |
| **KSAR** | **Wonju Array Be** | **64.21** | **62** | P | | **P** | **17 17 38.1** | **+0.1** |
| **KSAR** | **Wonju Array Be** | **64.21** | **62** | P | | **P** | **17 17 38.0** | **+0.1** |
| **KSRS** | **Korea Array** | **64.23** | **62** | P | | **P** | **17 17 38.0** | **-0.1** |
| | comp=Z,4.0nm,0.9s,baz=280,slow=6.8,SNR=7.8 | | | | | | | | | |
| **BOSA** | **Boshof** | **69.05** | **197** | P | | **P** | **17 18 08.4** | **-0.5** |
| | comp=Z,2.5nm,0.9s,baz=41,slow=4.3,SNR=4.0 | | | | | | | | | |
| **ILAR** | **Eielson Array** | **76.55** | **4** | P | | **P** | **17 18 53.2** | **+0.3** |
| | comp=Z,0.2nm,0.6s,baz=343,slow=4.9,SNR=3.4 | | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **77.58** | **350** | P | | **P** | **17 18 58.6** | **-0.1** |
| | comp=Z,0.3nm,0.7s,baz=16,slow=6.1,SNR=7.7 | | | | | | | | | |

*ISCJB **21** 17:09:32.7±0.8, 11°.5N±0°.1×141°.9E±0°.1, h49km, mb3.6/8, Error ellipse: s-maj=19.2km s-min=10.3km az=138.5*
*IDC **21** 17:09:37.0±3.4, 11°.51N×142°.07E, h75km±34km, mb3.3/8, mb1 3.5/9, mb1mx3.3/48, mbtmp3.6/9, Error ellipse: s-maj=32.5km s-min=16.6km az=103.0*
**ISC 21 17:09:34.5±1.0, 11°.5N±0°.1×141°.9E±0°.1, h49km, n9, σ1§18/10, mb3.6/8, Western Caroline Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GUMO** | **Guam** | **3.53** | **54** | P | **Pn** | **17 10 26.4** | **-0.5** |
| | 4.6nm,0.3s,baz=232,slow=20,SNR=4.1 | | | | | | |
| GUMO | | | | S | **Sn** | **17 11 08.8** | **+1.4** |
| | 1.7nm,0.3s,baz=187,slow=17,SNR=1.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **32.13** | **194** | P | **P** | **17 15 57.2** | **-0.3** |
| | 0.6nm,0.6s,baz=10.0,slow=9.2,SNR=5.8 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **33.69** | **347** | P | **P** | **17 16 11.1** | **+0.2** |
| | 2.6nm,0.7s,baz=166,slow=9.6,SNR=5.7 | | | | | | |
| **ASAR** | **Alice Springs** | **35.83** | **193** | P | **P** | **17 16 30.6** | **+1.0** |
| | 0.2nm,0.5s,baz=15,slow=14,SNR=5.2 | | | | | | |
| **KLR** | **Kul'dur** | **38.55** | **349** | P | **P** | **17 16 51.6** | **-0.8** |
| | 0.2nm,0.7s,baz=162,slow=9.6,SNR=5.4 | | | | | | |
| **SONM** | **Songino Array** | **46.86** | **328** | P | **P** | **17 18 01.7** | **+1.7** |
| | 0.3nm,0.6s,baz=133,slow=8.1,SNR=2.3 | | | | | | |
| **BVAR** | **Borovoye Array** | **69.80** | **322** | P | **P** | **17 20 39.3** | **-0.5** |
| | 0.4nm,0.4s,baz=102,slow=7.9,SNR=5.8 | | | | | | |
| **ILAR** | **Eielson Array** | **71.66** | **25** | P | **P** | **17 20 49.3** | **-1.6** |
| | 0.7nm,0.6s,baz=247,slow=6.2,SNR=20 | | | | | | |
| **YKA** | **Yellowknife Ar** | **86.01** | **27** | P | **P** | **17 22 09.7** | **+0.2** |
| | 0.2nm,0.5s,baz=295,slow=5.3,SNR=4.8 | | | | | | |

*MOS **21** 17:17:48.6±0.8, 46°.57N×146°.11E, h314km, mb4.0/8, Error ellipse: s-maj=13.6km s-min=7.5km az=87.5*
*SKHL **21** 17:17:49.7±0.6, 46°.25N×146°.07E, h321km±1km, mb4.4/2, msh4.5/3*
*ISCJB **21** 17:17:49.5±0.3, 46°.33N±0°.04×146°.20E±0°.06, h330km±3km, mb3.8/27, Error ellipse: s-maj=6.6km s-min=5.9km az=139.2*
*JMA **21** 17:17:50.7±0.4, 45°.98N×146°.36E, h348km, M3.9*
*IDC **21** 17:17:50.8±0.9, 46°.51N×146°.14E, h322km±10km, mb3.3/19, mb1 3.5/25, mb1mx3.4/44, mbtmp4.1/25, Error ellipse: s-maj=12.2km s-min=9.8km az=137.0*
*NEIC **21** 17:17:50.3±0.5, 46°.48N×146°.40E, h309km±7km, mb4.3/10, Error ellipse: s-maj=17.6km s-min=10.2km az=161.0*
**ISC 21 17:17:50.4±0.6, 46°.30N±0°.05×146°.10E±0°.05, h328km±5km, n116, σ1§84/143, mb3.8/27, 2C-2D, Northwest of Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KUR** | **Kuril'sk** | **1.63** | **130** | *i* PN | **Pn** | **17 18 37.1** | **0.0** |
| KUR | | | | *e*S | **S** | **17 19 13.3** | **-1.2** |
| KUR | | | | pmax | pmax | | |
| | comp=N,27nm,0.4s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=E,18nm,0.4s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=Z,42nm,0.4s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=N,40nm,0.4s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,85nm,0.4s | | | | | | |
| **KUR** | **Kuril'sk** | **1.63** | **130** | *e*P | **Pn** | **17 18 37.1** | **0.0** |
| KUR | | | | AMB | AMB | 17 18 37.6 | |
| | comp=E,20nm,0.5s | | | | | | |
| KUR | | | | AMB | AMB | 17 18 37.6 | |
| | comp=E,11nm,0.5s | | | | | | |
| KUR | | | | AMB | AMB | 17 18 37.6 | |
| | comp=E,73nm,0.5s | | | | | | |
| KUR | | | | AMB | AMB | 17 18 37.9 | |
| | comp=E,182nm,2.0s | | | | | | |
| KUR | | | | *e*S | **S** | **17 19 13.0** | **-1.5** |
| KUR | | | | A | A | 17 19 14.8 | |
| | comp=E,72nm,0.5s | | | | | | |
| KUR | | | | A | A | 17 19 14.8 | |
| | comp=E,94nm,0.5s | | | | | | |
| KUR | | | | A | A | 17 19 22.0 | |
| | comp=E,450nm,3.0s | | | | | | |
| KUR | | | | A | A | 17 19 22.0 | |
| | comp=E,480nm,3.0s | | | | | | |
| **LAGR** | **Lagunnoye** | **2.25** | **186** | *e*PN | **Pn** | **17 18 41.5** | **-0.1** |
| LAGR | | | | S | **S** | **17 19 24.0** | **+1.4** |
| **LAGR** | **Lagunnoye** | **2.25** | **186** | *e*P | **Pn** | **17 18 41.5** | **-0.1** |
| LAGR | | | | *e*S | **S** | **17 19 24.0** | **+1.4** |
| **YUK** | **Yuzh-Kuril'sk** | **2.27** | **184** | *d* PN | **Pn** | **17 18 42.0** | **+0.2** |
| YUK | | | | *e*S | **S** | **17 19 25.3** | **+2.4** |
| YUK | | | | pmax | pmax | | |
| | comp=N,122nm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=E,85nm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=Z,258nm,0.2s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,345nm,0.5s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=E,325nm,0.5s | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **2.27** | **184** | *e*P | **Pn** | **17 18 42.0** | **+0.2** |
| YUK | | | | AMB | AMB | 17 18 45.3 | |
| | comp=E,122nm,0.2s | | | | | | |
| YUK | | | | AMB | AMB | 17 18 45.3 | |
| | comp=E,86nm,0.2s | | | | | | |
| YUK | | | | AMB | AMB | 17 18 45.3 | |
| | comp=E,258nm,0.2s | | | | | | |
| YUK | | | | *e*S | **S** | **17 19 21.5** | **-1.4** |
| YUK | | | | A | A | 17 19 24.3 | |
| | comp=E,1μm,3.0s | | | | | | |
| YUK | | | | A | A | 17 19 31.0 | |
| | comp=E,345nm,0.5s | | | | | | |
| YUK | | | | A | A | 17 19 31.0 | |
| | comp=E,325nm,0.5s | | | | | | |
| **GRPR** | **Tuman** | **2.31** | **186** | *i* PN | **Pn** | **17 18 42.3** | **+0.1** |
| GRPR | | | | S | **S** | **17 19 23.8** | **+0.2** |
| **GRPR** | **Tuman** | **2.31** | **186** | *e*P | **Pn** | **17 18 42.3** | **+0.1** |
| GRPR | | | | *e*S | **S** | **17 19 23.8** | **+0.2** |
| **YSS** | **Yuzh-Sakhalins** | **2.40** | **287** | *e*PN | **Pn** | **17 18 45.9** | **+3.2** |
| YSS | | | | *e*S | **S** | **17 19 24.9** | **+0.3** |
| YSS | | | | pmax | pmax | | |
| | comp=Z,30nm,0.4s | | | | | | |
| YSS | | | | smax | smax | | |
| | comp=N,50nm,1.4s | | | | | | |
| YSS | | | | smax | smax | | |
| | comp=E,60nm,0.9s | | | | | | |
| YSS | | | | smax | smax | | |
| | comp=E,400nm,3.9s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **2.40** | **287** | *e*P | **Pn** | **17 18 43.2** | **+0.5** |
| YSS | | | | AMB | AMB | 17 18 47.0 | |
| | comp=E,26nm,0.4s | | | | | | |
| YSS | | | | *e*S | **S** | **17 19 23.9** | **-0.7** |
| YSS | | | | A | A | 17 19 26.6 | |
| | comp=E,50nm,1.0s | | | | | | |
| YSS | | | | A | A | 17 19 26.6 | |
| | comp=E,60nm,1.0s | | | | | | |
| YSS | | | | A | A | 17 19 27.0 | |
| | comp=E,400nm,4.0s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **2.40** | **287** | *e*Pn | **Pn** | **17 18 44.4** | **+1.7** |
| **JRA** | **Rausu** | **2.46** | **197** | P | **Pn** | **17 18 43.6** | **+0.3** |
| **SHO** | **Shikotan** | **2.48** | **168** | *e* PN | **Pn** | **17 18 41.5** | **-2.0** |
| SHO | | | | *e*S | **S** | **17 19 21.4** | **-4.6** |
| SHO | | | | pmax | pmax | | |
| | comp=N,69nm,0.2s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=Z,199nm,0.2s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=E,57nm,0.1s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=N,684nm,0.2s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=E,1μm,0.3s | | | | | | |
| **SHO** | **Shikotan** | **2.48** | **168** | *e*P | **Pn** | **17 18 41.8** | **-1.7** |
| SHO | | | | AMB | AMB | 17 18 42.2 | |
| | comp=E,171nm,0.2s | | | | | | |
| SHO | | | | *e*S | **S** | **17 19 22.0** | **-4.0** |
| SHO | | | | A | A | 17 19 23.5 | |
| | comp=E,720nm,0.5s | | | | | | |
| SHO | | | | A | A | 17 19 23.5 | |
| | comp=E,110nm,0.5s | | | | | | |
| **GLVR** | **Golovnino** | **2.59** | **189** | *e*PN | **Pn** | **17 18 44.4** | **0.0** |
| GLVR | | | | *e*S | **S** | **17 19 29.1** | **+1.4** |
| **GLVR** | **Golovnino** | **2.59** | **189** | *e*P | **Pn** | **17 18 44.4** | **0.0** |
| GLVR | | | | *e*S | **S** | **17 19 29.1** | **+1.4** |
| **JTKR** | **Abashiri--Toko** | **2.79** | **215** | P | **Pn** | **17 18 47.5** | **+1.3** |
| JTKR | | | | *e*S | **S** | **17 19 31.9** | **+0.9** |
| **JSE** | **Soyaes** | **2.81** | **243** | P | **Pn** | **17 18 48.0** | **+1.7** |
| **NEM2** | **Nemuro 2** | **2.94** | **185** | P | **Pn** | **17 18 46.0** | **-1.6** |
| NEM2 | | | | *e*S | **S** | **17 19 29.4** | **-4.1** |
| **JWK2** | **Keihoku** | **3.10** | **253** | P | **Pn** | **17 18 51.5** | **+2.5** |
| **ASAJ** | **Asahikawa** | **3.30** | **230** | P | **Pn** | **17 18 53.2** | **+2.2** |
| | comp=E,19nm,0.3s,baz=62,slow=9.0,SNR=284 | | | | | | |
| ASAJ | | | | S | **S** | **17 19 41.8** | **+2.2** |
| | comp=E,0.9nm,0.3s,baz=114,slow=20,SNR=3.0 | | | | | | |
| **ASAJ** | **Asahikawa** | **3.30** | **230** | *e*Pn | **Pn** | **17 18 52.7** | **+1.7** |
| **JKK2** | **Kamakawa 2** | **3.39** | **226** | P | **Pn** | **17 18 53.4** | **+1.5** |
| **JAR** | **Ashorobuto** | **3.43** | **210** | P | **Pn** | **17 18 53.1** | **+0.8** |
| JAR | | | | *e*S | **S** | **17 19 42.3** | **+0.3** |
| **JAK** | **Akkeshi** | **3.45** | **197** | P | **Pn** | **17 18 51.6** | **-0.9** |
| JAK | | | | *e*S | **S** | **17 19 39.2** | **-3.1** |
| **UGL** | **Uglegorsk** | **3.90** | **317** | PN | **Pn** | **17 18 52.1** | **-4.8** |
| UGL | | | | *e*S | **S** | **17 19 43.5** | **-6.8** |
| **UGL** | **Uglegorsk** | **3.90** | **317** | *e*P | **Pn** | **17 18 57.2** | **+0.3** |
| UGL | | | | AMB | AMB | 17 18 58.0 | |
| | comp=E,84nm,0.4s | | | | | | |
| UGL | | | | AMB | AMB | 17 19 06.5 | |
| | comp=E,122nm,3.0s | | | | | | |
| **JFR** | **Furan** | **4.01** | **220** | P | **Pn** | **17 18 59.4** | **+1.2** |
| **JCH** | **Churui** | **4.17** | **209** | P | **Pn** | **17 18 59.3** | **-0.6** |
| JCH | | | | *e*S | **S** | **17 19 51.7** | **-4.2** |
| **JNBK** | **Urakawa-nobuka** | **4.68** | **212** | P | **Pn** | **17 19 04.5** | **-1.0** |
| **ERM** | **Erimo** | **4.78** | **207** | *d* iPN | **Pn** | **17 19 06.4** | **-0.1** |
| **ERM** | **Erimo** | **4.78** | **207** | *e*P | **Pn** | **17 19 06.4** | **-0.1** |
| **ERM** | **Erimo** | **4.78** | **207** | *e*Pn | **Pn** | **17 19 06.8** | **+0.3** |
| **JEW** | **Eniwo** | **4.79** | **226** | P | **Pn** | **17 19 08.4** | **+1.7** |
| JEW | | | | *e*S | **S** | **17 20 07.8** | **-0.5** |
| **JKB** | **Kayabe** | **5.72** | **221** | P | **Pn** | **17 19 16.9** | **-0.3** |
| JKB | | | | *e*S | **S** | **17 20 22.3** | **-5.2** |
| **JOT** | **Ohata** | **6.12** | **218** | P | **Pn** | **17 19 20.9** | **-1.0** |
| JOT | | | | *e*S | **S** | **17 20 30.1** | **-5.9** |
| **JOSM** | **Okushiri--Mats** | **6.36** | **231** | P | **Pn** | **17 19 25.8** | **+1.1** |
| **JANG** | **Nango** | **6.80** | **211** | P | **Pn** | **17 19 28.6** | **-1.3** |
| JANG | | | | *e*S | S | 17 20 43.5 | -7.1 |
| **JOM** | **Ohasama** | **7.68** | **209** | P | **Pn** | **17 19 39.1** | **-1.3** |
| JOM | | | | *e*S | **S** | **17 21 05.8** | **-4.0** |
| **HABR** | **Khabarovsk** | **7.81** | **290** | *e*PN | **Pn** | **17 19 38.9** | **-2.9** |
| HABR | | | | *e*S | **S** | **17 21 08.9** | **-3.5** |
| HABR | | | | pmax | pmax | | |
| | comp=N,6.0nm,0.9s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=E,8.0nm,0.9s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=Z,17nm,0.9s | | | | | | |
| HABR | | | | MLR | MLR | | |
| | comp=Z,26nm,15.0s | | | | | | |
| **HABR** | **Khabarovsk** | **7.81** | **290** | *e*P | **Pn** | **17 19 38.9** | **-2.9** |
| **JMK** | **Ichinoseki** | **8.17** | **208** | P | **Pn** | **17 19 45.6** | **-0.7** |
| JMK | | | | *e*S | **S** | **17 21 17.1** | **-3.6** |
| **KLR** | **Kul'dur** | **10.10** | **292** | P | **P** | **17 20 11.2** | **-0.5** |
| | comp=Z,0.0nm,0.3s,baz=113,slow=14,SNR=7.8 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **10.17** | **263** | P | **P** | **17 20 12.8** | **+0.3** |
| | comp=Z,3.7nm,0.3s,baz=70,slow=13,SNR=38 | | | | | | |
| **EKMR** | **Ekimchan** | **10.88** | **313** | *e*P | **P** | **17 20 18.9** | **-1.4** |
| EKMR | | | | AMB | AMB | 17 20 21.9 | |
| | comp=Z,12nm,0.5s | | | | | | |
| **MJA0** | **Matsu Arr-Jizo** | **11.38** | **214** | *e*PN | **Pn** | **17 20 27.4** | **+2.3** |
| MJA0 | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.3s | | | | | | |
| **MJAR** | **Matsushiro Arr** | **11.40** | **214** | P | **Pn** | **17 20 27.0** | **+1.8** |
| | comp=Z,0.6nm,0.3s,baz=20,slow=12,SNR=9.7 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **11.40** | **214** | *e*P | **Pn** | **17 20 27.4** | **+2.1** |
| **MDJ** | **Mudanjiang** | **11.72** | **268** | *e*Pn | **P** | **17 20 31.5** | **+1.7** |
| **MA2** | **Magadan** | **13.59** | **10** | P | **Pn** | **17 20 51.2** | **+0.1** |
| | comp=Z,0.8nm,0.3s,baz=189,slow=9.8,SNR=11 | | | | | | |
| **BMKR** | **Bomnak** | **13.81** | **314** | *e*P | **Pn** | **17 20 53.5** | **-0.2** |
| BMKR | | | | AMB | AMB | 17 20 56.3 | |
| | comp=Z,11nm,0.5s | | | | | | |
| **KSRS** | **Korea Array** | **16.14** | **243** | P | **P** | **17 21 20.9** | **+2.6** |
| | comp=Z,0.3nm,0.3s,baz=48,slow=11,SNR=7.4 | | | | | | |
| **SEY** | **Seymchan** | **17.05** | **10** | P | **P** | **17 21 26.5** | **-1.4** |
| | comp=Z,0.9nm,0.3s,baz=179,slow=14,SNR=22 | | | | | | |
| **YAK** | **Yakutsk** | **18.37** | **335** | P | **P** | **17 21 40.6** | **-1.4** |
| | comp=Z,0.0nm,0.3s,baz=24,slow=3.3,SNR=17 | | | | | | |
| **YAK** | **Yakutsk** | **18.37** | **335** | *e*P | **P** | **17 21 40.4** | **-1.7** |
| | comp=Z,14nm,0.6s | | | | | | |
| **BILL** | **Bilibino** | **24.15** | **18** | *e*P | **P** | **17 22 35.1** | **-2.1** |
| **BILL** | **Bilibino** | **24.15** | **18** | *e*P | **P** | **17 22 35.1** | **-2.1** |
| **ULN** | **Ulaanbaatar** | **26.45** | **288** | *e*P | **P** | **17 22 59.3** | **+1.1** |
| ULN | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.6s | | | | | | |
| **ULN** | **Ulaanbaatar** | **26.45** | **288** | *e*P | **P** | **17 22 59.3** | **+1.1** |
| **ULN** | **Ulaanbaatar** | **26.45** | **288** | *e*P | **P** | **17 22 59.3** | **+1.1** |
| | comp=Z,2.5nm,0.6s | | | | | | |
| **SONA1** | **Songino Array** | **26.88** | **288** | *e*P | **P** | **17 23 06.4** | **+4.3** |
| **SONM** | **Songino Array** | **26.89** | **288** | P | **P** | **17 23 04.1** | **+2.0** |
| | comp=Z,1.5nm,0.6s,baz=93,slow=7.2,SNR=11 | | | | | | |
| **IMAR** | **Indian Mountai** | **36.99** | **36** | *e*P | **P** | **17 24 27.8** | **-1.2** |
| **RSO** | **Redoubt South** | **37.65** | **45** | *e*P | **P** | **17 24 37.9** | **+3.1** |
| **SPU** | **Mount Spurr** | **37.92** | **44** | *e*P | **P** | **17 24 37.4** | **+0.6** |
| **KDAK** | **Kodiak Island** | **38.12** | **50** | P | **P** | **17 24 38.1** | **-0.2** |
| | comp=Z,13nm,1.1s,baz=220,slow=1.9,SNR=12 | | | | | | |
| **KDAK** | **Kodiak Island** | **38.12** | **50** | P | **P** | **17 24 38.1** | **-0.2** |
| KDAK | | | | pmax | pmax | | |
| | comp=Z,16nm,1.1s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **38.91** | **304** | P

comp=Z,1.0nm,0.7s,baz=298,slow=3.9,SNR=12

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **TXAR** | **Lajitas Array** | **81.84** | **56** | *e*P | | **P** | **17 29 34.8** | **+1.2** |
| TXAR | | | | pmax | pmax | | | |

comp=Z,1.0nm,0.7s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **OXZ** | **Oxford** | **92.16** | **161** | *e*pP | | pP | 17 31 38.6 | -1.4 |
| **MQZ** | **McQueen's Vall** | **92.66** | **161** | *e*pP | | pP | 17 31 39.8 | -2.4 |
| **TORD** | **Torodi Ar. Bea** | **112.73** | **322** | PKiKP | | **PKiKP** | **17 35 47.6** | **-0.9** |

comp=Z,0.2nm,0.3s,baz=10,slow=1.8,SNR=4.3

*IDC **21** 17:27:56.0±1.6, 36.69N×66.86E, h0km, mb3.3/3, mb1 3.5/8, mb1mx3.3/44, mbtmp3.5/8, ML3.3/5, Error ellipse: s-maj=27.2km s-min=17.8km az=143.0*
*ISCJB **21** 17:27:58.2±1.0, 37.15N±0.07×66.74E±0.06, h10km, mb3.4/2, Error ellipse: s-maj=11.0km s-min=6.5km az=165.1*
*NNC **21** 17:28:03.3±1.4, 37.27N×66.85E, h10km±6km, mb4.0, mpv3.8, Error ellipse: s-maj=11.3km s-min=6.7km az=3.0*

**ISC 21 17:28:00.9±1.5, 37.2N±0.1×66.79E±0.0, h10km, n17, σ1§92/26, 9C-11D, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **SFK** | **Sufi-Kurgan** | **5.97** | **60** | ⇓P | n | **Pn** | **17 29 32.0** | **+2.5** |
| SFK | 2.1nm,0.5s | | | ⇓S | n | **Sn** | **17 30 39.0** | **+1.0** |
| SFK | 11nm,0.5s | | | ⇑Lg | | Lg | 17 31 09.5 | |
| **KK31** | 24nm,1.0s<br>**Karatay Array** | **6.56** | **25** | Pn | | **Pn** | **17 29 38.9** | **+1.5** |
| KK31 | 1.6nm,0.5s,baz=308,slow=50,SNR=20 | | | ⇑Pg | | Pg | 17 30 01.7 | -4.7 |
| KK31 | 8.6nm,0.9s | | | ⇓Sn | | **Sn** | **17 30 54.4** | **+2.1** |
| KK31 | 6.4nm,0.8s,baz=206,slow=21,SNR=8.9 | | | ⇓Lg | | Lg | 17 31 28.4 | |
| **MNAS** | 14nm,0.7s<br>**Manas** | **6.88** | **38** | ⇓Pn | | **Pn** | **17 29 43.0** | **+1.0** |
| MNAS | 4.7nm,0.6s | | | ⇑Sn | | **Sn** | **17 31 02.3** | **+1.9** |
| MNAS | 6.5nm,0.6s | | | ⇓Lg | | Lg | 17 31 39.7 | |
| **GEYT** | 22nm,1.0s<br>**Alibeck** | **6.93** | **279** | Pn | | **Pn** | **17 29 42.5** | **0.0** |
| GEYT | 0.5nm,0.3s,baz=104,slow=12,SNR=3.4 | | | Sn | | Sn | 17 30 54.4 | -6.9 |
| **AAK** | 0.5nm,0.3s,baz=101,slow=23,SNR=3.3<br>**Ala-Archa** | **8.04** | **45** | Pn | | **Pn** | **17 29 58.7** | **+0.8** |
| AAK | 1.0nm,0.3s,baz=194,slow=11,SNR=25 | | | Sn | | **Sn** | **17 31 26.2** | **-2.8** |
| **AAK** | 0.1nm,0.3s,baz=315,slow=20,SNR=1.4<br>**Ala-Archa** | **8.04** | **45** | ⇑Pn | | **Pn** | **17 29 58.7** | **+0.8** |
| AAK | 3.9nm,0.6s | | | ⇓Sn | | **Sn** | **17 31 29.6** | **+0.7** |
| AAK | 6.8nm,1.1s | | | ⇑Lg | | Lg | 17 32 16.7 | |
| **TKM2** | 8.6nm,0.8s<br>**Tokmak 2** | **8.85** | **47** | ⇓Pn | | **Pn** | **17 30 08.7** | **-0.3** |
| TKM2 | 4.9nm,0.7s | | | ⇓Pg | | Pg | 17 30 41.6 | -8.7 |
| TKM2 | 3.7nm,0.8s | | | ⇑Sn | | **Sn** | **17 31 50.6** | **+1.6** |
| TKM2 | 5.5nm,0.7s | | | ⇑Lg | | Lg | 17 32 41.8 | |
| **AB31** | 8.5nm,1.1s<br>**Akbulak array** | **13.04** | **340** | ⇓Pn | | **Pn** | **17 31 07.3** | **+1.1** |
| AB31 | 1.1nm,0.7s | | | ⇑Sn | | **Sn** | **17 33 31.7** | **+0.5** |
| **AKTO** | 2.1nm,1.0s<br>**Aktyubinsk** | **14.66** | **337** | Pn | | **Pn** | **17 31 27.9** | **-0.3** |
| AKTO | 0.1nm,0.3s,baz=161,slow=18,SNR=2.0 | | | Sn | | **Sn** | **17 34 07.6** | **-3.1** |
| **AKTO** | 0.1nm,0.3s,baz=90,slow=19,SNR=1.6<br>**Aktyubinsk** | **14.66** | **337** | ⇑Pn | | **Pn** | **17 31 30.9** | **+2.6** |
| AKTO | 2.7nm,0.8s | | | ⇓Sn | | **Sn** | **17 34 12.6** | **+1.9** |
| **MKAR** | 4.3nm,1.8s<br>**Makanchi Array** | **14.98** | **45** | Pn | | **Pn** | **17 31 31.6** | **-0.9** |
| **KURBB** | 0.0nm,0.3s,baz=227,slow=13,SNR=3.1<br>**Kurchatov Arra** | **15.85** | **28** | Pn | | **Pn** | **17 31 45.6** | **+1.7** |
| KURBB | baz=220,slow=11,SNR=5.0 | | | Lg | | Lg | 17 36 33.0 | |
| **BVA0** | 0.0nm,0.3s,baz=217,slow=29,SNR=4.2<br>**Borovoye Array** | **16.04** | **8** | Pn | | **Pn** | **17 31 47.3** | **+0.9** |
| **BVAR** | 2.4nm,0.7s,baz=177,slow=11,SNR=22<br>**Borovoye Array** | **16.04** | **8** | Pn | | **Pn** | **17 31 44.0** | **-2.3** |
| BVAR | 0.1nm,0.3s,baz=182,slow=10,SNR=3.9 | | | Sn | | **Sn** | **17 34 39.7** | **-4.4** |
| **ZALV** | 0.3nm,0.3s,baz=153,slow=42,SNR=4.1<br>**Zalesovo Beam** | **20.88** | **31** | P | | **P** | **17 32 42.5** | **-0.5** |
| **TORD** | 0.9nm,0.6s,baz=218,slow=12,SNR=5.5<br>**Torodi Ar. Bea** | **62.38** | **266** | P | | P | 17 38 21.4 | -2.7 |
| **YKA** | 0.5nm,0.9s,baz=46,slow=5.8,SNR=2.9<br>**Yellowknife Ar** | **80.65** | **1** | P | | **P** | **17 40 11.8** | **-1.7** |

0.1nm,0.4s,baz=354,slow=5.8,SNR=2.8

**SJA 21 18:02:32.7±1.0, 29.48S×71.73W, h50km, ML4.5, MW3.6, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **AGUA** | **GUANDACOL** | **2.82** | **91** | *e*P | | Pn | 18 03 17.0 | +1.6 |
| AGUA | | | | *e*S | | Sn | 18 03 51.4 | +3.2 |
| **RTLS** | **Leoncito** | **3.12** | **138** | *e*P | | Pn | 18 03 22.7 | +3.1 |
| RTLS | | | | *e*S | | Sn | 18 03 59.7 | +3.9 |
| **AMOG** | **MOGNA** | **3.15** | **118** | *e*P | | Pn | 18 03 22.0 | +2.1 |
| AMOG | | | | *e*S | | Sn | 18 03 58.6 | +2.2 |
| AMOG | | | | IAML | | | 18 04 06.3 | |

comp=Z,1μm,0.3s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **AUSP** | **Uspallata** | **3.39** | **144** | *e*P | | Pn | 18 03 27.0 | +3.5 |
| AUSP | | | | *e*S | | Sn | 18 04 05.5 | +2.9 |
| **ACLC** | **CERRO LA CRUZ** | **4.16** | **90** | *e*P | | Pn | 18 03 33.7 | -0.2 |
| ACLC | | | | *e*S | | Sn | 18 04 21.4 | 0.0 |
| **APLL** | **PUNTA DE LOS L** | **4.60** | **103** | *e*P | | Pn | 18 03 39.6 | -0.2 |

*ISCJB **21** 18:12:12.4±1.1, 36.93N±0.05×71.4E±0.1, h100km, Error ellipse: s-maj=17.1km s-min=5.5km az=162.9*
*NNC **21** 18:12:20.1±2.1, 37.49N×71.24E, h131km±50km, mb2.8, mpv3.7, Error ellipse: s-maj=27.4km s-min=16.5km az=73.0*

**ISC 21 18:12:11.9±1.2, 37.03N±0.07×71.1E±0.1, h100km, n22, σ2§62/28, 3C-6D, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **SFK** | **Sufi-Kurgan** | **3.51** | **31** | ⇓P | | **Pn** | **18 13 07.3** | **+2.7** |
| SFK | 9.4nm,0.3s | | | ⇑S | | **Sn** | **18 13 45.9** | **+0.5** |
| **AML** | 34nm,0.4s<br>**Almayashu** | **5.46** | **20** | P | | **Pn** | **18 13 33.5** | **+2.3** |
| **MNAS** | SNR=150<br>**Manas** | **5.55** | **10** | ⇓P | | **Pn** | **18 13 34.8** | **+2.6** |
| MNAS | 5.0nm,0.5s | | | ⇓S | | **Sn** | **18 14 32.8** | **-1.9** |
| **UCH** | 7.7nm,0.3s<br>**Uchtor** | **5.81** | **26** | P | | **Pn** | **18 13 37.8** | **+1.9** |
| **THN** | SNR=10<br>**Thein Dam** | **5.93** | **139** | *e*P | | **Pn** | **18 13 41.6** | **+4.4** |
| THN | | | | *e*S | | **Sn** | **18 14 43.0** | **-0.8** |
| **KZA** | **Kyzart** | **5.96** | **31** | P | | **Pn** | **18 13 39.2** | **+1.3** |
| **EKS2** | SNR=7.6<br>**Erkin-Say** | **5.98** | **19** | P | | **Pn** | **18 13 40.6** | **+2.6** |
| **KK31** | SNR=13<br>**Karatay Array** | **6.09** | **356** | P | | **Pn** | **18 13 43.2** | **+3.9** |
| KK31 | 1.2nm,0.3s,baz=176,slow=15,SNR=36 | | | ⇑S | | **Sn** | **18 14 46.0** | **-1.5** |
| **AAK** | 2.4nm,0.3s,baz=140,slow=26,SNR=10<br>**Ala-Archa** | **6.17** | **24** | ⇓P | | **Pn** | **18 13 43.0** | **+2.5** |
| AAK | 7.9nm,0.4s | | | ⇓S | | **Sn** | **18 14 47.9** | **-1.8** |
| **AAK** | 10nm,0.8s<br>**Ala-Archa** | **6.17** | **24** | P | | **Pn** | **18 13 43.1** | **+2.5** |
| **KBK** | SNR=26<br>**Karagaybulak** | **6.34** | **26** | P | | **Pn** | **18 13 45.1** | **+2.2** |
| **CHMS** | SNR=5.6<br>**Chumysh** | **6.57** | **24** | P | | **Pn** | **18 13 48.0** | **+2.0** |
| **USP** | SNR=16<br>**Ospenovka** | **6.74** | **21** | P | | **Pn** | **18 13 50.2** | **+2.0** |
| **TKM2** | SNR=12<br>**Tokmak 2** | **6.81** | **29** | P | | **Pn** | **18 13 51.0** | **+1.8** |
| **PYUN** | SNR=15<br>**Piuthan** | **13.37** | **128** | *e*P | | **Pn** | **18 15 16.7** | **-1.1** |
| **KOLN** | 8.6nm,0.3s<br>**Koldanda** | **13.99** | **128** | *e*P | | **Pn** | **18 15 23.1** | **-2.7** |
| **AB31** | 3.6nm,0.3s<br>**Akbulak array** | **14.68** | **330** | ⇓P | | **P** | **18 15 37.8** | **-0.1** |
| AB31 | 0.2nm,0.3s | | | ⇑S | | **Sn** | **18 18 13.0** | **-3.1** |
| **KKN** | 0.9nm,0.6s<br>**Kakani** | **15.06** | **124** | *e*P | | **Pn** | **18 15 35.6** | **-4.0** |
| **DMN** | **Daman** | **15.07** | **125** | *e*P | | **Pn** | **18 15 35.3** | **-4.4** |
| **PKI** | **Pulchoki** | **15.29** | **124** | *e*P | | **Pn** | **18 15 39.9** | **-2.8** |
| **RAMN** | **Ramite** | **16.50** | **123** | *e*P | | **Pn** | **18 15 56.6** | **-1.0** |
| **TAPN** | **Taplejung** | **17.00** | **120** | *e*P | | **P** | **18 16 06.0** | **+1.9** |

6.0nm,0.5s

*IDC **21** 18:16:36.6±4.1, 8.76S×124.10E, h51km±40km, mb3.9/11, mb1 4.1/13, mb1mx3.9/38, mbtmp4.3/13, ML4.6/2, Error ellipse: s-maj=30.3km s-min=16.6km az=64.0*
*ISCJB **21** 18:16:39.3±0.3, 8.95S±0.03×124.30E±0.03, h100km, mb4.3/16, Error ellipse: s-maj=4.9km s-min=3.7km az=25.4*
*NEIC **21** 18:16:41.3±0.8, 8.90S×124.24E, h102km±9km, mb4.3/8, Error ellipse: s-maj=14.1km s-min=7.2km az=225.0*
*DJA **21** 18:16:44.5±0.3, 9°S±3'×12'4E±', h70km±11km, M4.5/13, mb4.5/13, mB5.1/5, MLv4.5/13, Mw(mB)4.4/5*

**ISC 21 18:16:41.1±0.5, 9.02S±0.05×124.25E±0.05, h100km, n73, σ1§66/77, mb4.2/16, Timor region**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **SOEI** | **Soe** | **0.73** | **179** | P | | **Pn** | **18 17 02.0** | **+3.0** |
| **SOEI** | **Soe** | **0.73** | **179** | *e*Pn | | **Pn** | **18 17 01.8** | **+2.8** |
| **MMRI** | **Maumere** | **2.03** | **281** | P | | **Pn** | **18 17 14.7** | **+0.7** |
| MMRI | | | | S | | **Sn** | **18 17 39.1** | **-0.1** |
| **MMRI** | **Maumere** | **2.03** | **281** | *e*Pn | | **Pn** | **18 17 14.7** | **+0.7** |
| **EDFI** | **Ende, Flores** | **2.54** | **276** | P | | **Pn** | **18 17 21.8** | **+0.9** |
| EDFI | | | | S | | **Sn** | **18 17 49.8** | **-1.7** |
| **BASI** | **Baing, Sumba** | **3.81** | **251** | P | | **Pn** | **18 17 38.9** | **+1.1** |
| **BBSI** | **Bau Bau** | **3.88** | **334** | P | | **Pn** | **18 17 38.9** | **+0.1** |
| BBSI | | | | S | | **Sn** | **18 18 22.8** | **-0.6** |
| **WSI** | **Waingapu** | **3.96** | **260** | P | | **Pn** | **18 17 40.2** | **+0.5** |
| WSI | | | | S | | **Sn** | **18 18 25.3** | **+0.2** |
| **KDI** | **Kendari** | **5.28** | **342** | P | | **Pn** | **18 17 57.9** | **+0.2** |
| **PLAI** | **Plampang** | **6.40** | **271** | P | | **Pn** | **18 18 13.9** | **+1.0** |
| **SAUI** | **Saumlaki** | **7.05** | **82** | P | | Pn | 18 18 29.6 | +7.9 |

100nm,0.7s,0.7nm

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SAUI | | | | S | | **Sn** | **18 19 40.1** | **-0.2** |

100nm,0.7s,0.7nm

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **SANI** | **Sanana** | **7.14** | **14** | P | | **Pn** | **18 18 24.9** | **+2.0** |
| SANI | 18nm,0.7s,0.1nm | | | S | | **Sn** | **18 19 41.4** | **-1.1** |

18nm,0.7s,0.1nm

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **MTN** | **Manton Dam** | **7.75** | **120** | *e*Pn | | **Pn** | **18 18 32.5** | **+1.2** |
| **LUWI** | **Luwuk** | **8.06** | **349** | P | | **Pn** | **18 18 37.7** | **+2.2** |
| **APSI** | **Ampana** | **8.46** | **342** | P | | **Pn** | **18 18 42.7** | **+1.8** |

26nm,0.7s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **DNP** | **Denpasar** | **8.94** | **271** | P | | **Pn** | **18 18 50.2** | **+2.8** |
| **SRBI** | **Singaraja** | **8.99** | **275** | P | | **Pn** | **18 18 51.5** | **+3.4** |
| **FITZ** | **Fitzroy Crossi** | **9.13** | **172** | P | | **Pn** | **18 18 49.4** | **-0.6** |

4.0nm,0.3s,baz=4.6,slow=9.4,SNR=90

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| FITZ | | | | S | | **Sn** | **18 20 25.5** | **-5.5** |

27nm,0.3s,baz=193,slow=2.8,SNR=20

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **PCI** | **Palu** | **9.18** | **331** | P | | **Pn** | **18 18 53.5** | **+2.8** |

16nm,0.7s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **KMSI** | **Cibinong** | **9.53** | **358** | P | | Pn | 18 18 59.9 | +4.4 |

30nm,0.9s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **FAKI** | **Fak Fak** | **10.00** | **53** | P | | Pn | 18 19 06.7 | +4.9 |

38nm,1.4s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **JAGI** | **Jajag, Banyuwa** | **10.00** | **272** | P | | **Pn** | **18 19 04.7** | **+2.9** |

20nm,1.4s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **MPSI** | **Mapaga** | **10.26** | **335** | P | | **Pn** | **18 19 08.0** | **+2.6** |

7.4nm,0.9s,642nm

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **GMJI** | **Gumukmas** | **10.71** | **273** | P | | **Pn** | **18 19 15.1** | **+3.6** |

27nm,1.3s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **PCJI** | **Pacitan** | **12.96** | **273** | P | | **Pn** | **18 19 41.1** | **-0.4** |

38nm,0.9s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **UGM** | **Wanagama** | **13.62** | **274** | P | | **Pn** | **18 19 51.5** | **+1.2** |
| **WR1** | **Warramunga Arr** | **14.60** | **139** | *e*Pn | | **Pn** | **18 20 00.8** | **-1.9** |
| WR1 | | | | *e*Sn | | Sn | 18 22 32.3 | -11 |
| **WRA** | **Warramunga Arr** | **14.60** | **139** | P | | **Pn** | **18 20 00.8** | **-1.9** |

2.2nm,0.3s,baz=321,slow=14,SNR=90

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| WRA | | | | S | | Sn | 18 22 32.3 | -11 |

6.0nm,0.3s,baz=314,slow=23,SNR=21

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **WRAB** | **Tennant Creek** | **14.60** | **139** | *e*Pn | | **Pn** | **18 20 01.3** | **-1.4** |
| **WB2** | **Warramunga Arr** | **14.60** | **139** | *e*Pn | | **Pn** | **18 20 01.2** | **-1.7** |
| **CISI** | **Cisompet, Garu** | **16.33** | **274** | *e*Pn | | **Pn** | **18 20 24.4** | **-0.2** |

81nm,1.5s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **AS31** | **Alice Springs** | **17.25** | **149** | *e*P | | **P** | **18 20 36.2** | **+0.5** |

7.7nm,0.6s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **ASAR** | **Alice Springs** | **17.25** | **149** | P | | **P** | **18 20 36.5** | **+0.8** |

2.0nm,0.3s,baz=323,slow=11,SNR=104

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| ASAR | | | | S | | Sn | 18 23 37.2 | -11 |

2.4nm,0.3s,baz=325,slow=25,SNR=11

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **AS01** | **Alice Springs** | **17.27** | **149** | *e*P | | **P** | **18 20 37.4** | **+1.3** |
| **COEN** | **Coen** | **19.18** | **107** | *e*P | | **Pn** | **18 20 59.7** | **+0.8** |

7.7nm,0.6s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **FORT** | **Forrest** | **21.94** | **171** | *e*P | | **P** | **18 21 28.7** | **+2.1** |

723nm,1.6s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **22.61** | **93** | *e*P | | **P** | **18 21 34.8** | **+1.0** |

11nm,0.8s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **CTA** | **Charters Tower** | **23.94** | **120** | P | | **P** | **18 21 48.6** | **+2.5** |

7.5nm,0.7s,baz=304,slow=13,SNR=7.0

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **STKA** | **Stephens Creek** | **27.87** | **147** | P | | **P** | **18 22 24.5** | **+3.1** |

3.3nm,0.7s,baz=326,slow=12,SNR=7.3

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **CM01** | **Chiang Mai Arr** | **36.97** | **318** | *e*P | | **P** | **18 23 41.6** | **+0.7** |
| **CMAR** | **Chiang Mai Arr** | **37.00** | **318** | P | | **P** | **18 23 39.8** | **-1.4** |

1.9nm,0.6s,baz=134,slow=7.7,SNR=13

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **CHTO** | **Chiang Mai** | **37.26** | **318** | *e*P | | **P** | **18 23 42.9** | **-0.5** |

2.8nm,0.7s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **KSAR** | **Wonju Array Be** | **46.34** | **4** | P | | **P** | **18 24 56.0** | **-1.1** |
| **KSRS** | **Korea Array** | **46.36** | **4** | P | | **P** | **18 24 56.0** | **-1.2** |

0.9nm,0.8s,baz=184,slow=9.1,SNR=3.4

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **MJAR** | **Matsushiro Arr** | **47.18** | **15** | P | | **P** | **18 25 02.3** | **-1.4** |

2.6nm,0.7s,baz=189,slow=9.2,SNR=8.1

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **LSA** | **Lhasa** | **49.97** | **322** | *e*P | | **P** | **18 25 25.1** | **-0.7** |

3.7nm,0.6s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **ODAN** | **Odare** | **50.50** | **316** | *e*P | | **P** | **18 25 28.5** | **-1.1** |

8.3nm,0.6s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **TAPN** | **Taplejung** | **50.60** | **317** | *e*P | | **P** | **18 25 29.5** | **-0.9** |

11nm,0.3s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **RAMN** | **Ramite** | **51.10** | **316** | *e*P | | **P** | **18 25 33.6** | **-0.5** |

19nm,0.6s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **JIRN** | **Jiri** | **51.84** | **316** | *e*P | | **P** | **18 25 38.6** | **-1.1** |
| **GUN** | **Gumba** | **52.21** | **316** | *e*P | | **P** | **18 25 41.5** | **-0.9** |

9.0nm,0.4s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **PKI** | **Pulchoki** | **52.32** | **315** | *e*P | | **P** | **18 25 41.7** | **-1.5** |

6.7nm,0.2s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **PKIN** | **Phulchoki** | **52.33** | **315** | *e*P | | **P** | **18 25 42.6** | **-0.6** |

9.4nm,0.4s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **KKN** | **Kakani** | **52.54** | **315** | *e*P | | **P** | **18 25 43.8** | **-0.9** |
| **DMN** | **Daman** | **52.55** | **315** | *e*P | | **P** | **18 25 44.0** | **-0.9** |
| **GKN** | **Gorkha** | **53.12** | **315** | *e*P | | **P** | **18 25 47.7** | **-1.2** |
| **USRK** | **Ussuriysk Ar.** | **53.43** | **7** | P | | **P** | **18 25 50.0** | **-0.7** |

2.2nm,0.6s,baz=189,slow=6.9,SNR=5.0

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **MDJ** | **Mudanjiang** | **53.60** | **5** | *e*P | | **P** | **18 25 51.6** | **-0.3** |

16nm,0.9s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **KOLN** | **Koldanda** | **53.71** | **314** | *e*P | | **P** | **18 25 52.3** | **-1.0** |
| **DANN** | **Dangsing** | **53.95** | **315** | *e*P | | **P** | **18 25 54.3** | **-0.8** |
| **PYUN** | **Piuthan** | **54.34** | **314** | *e*P | | **P** | **18 25 57.0** | **-0.9** |

25nm,0.5s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **SONA0** | **Songino Array** | **58.78** | **346** | *e*P | | **P** | **18 26 27.4** | **-1.4** |
| **SONM** | **Songino Array** | **58.78** | **346** | P | | **P** | **18 26 27.4** | **-1.4** |

0.8nm,0.6s,baz=164,slow=8.9,SNR=6.8

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **MK32** | **Makanchi Array** | **66.95** | **330** | *e*P | | **P** | **18 27 21.9** | **-1.1** |
| **MKAR** | **Makanchi Array** | **66.95** | **330** | P | | **P** | **18 27 21.9** | **-1.1** |

2.3nm,0.6s,baz=133,slow=7.8,SNR=22

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **PETK** | **Petropavlovsk-** | **68.12** | **21** | P | | **P** | **18 27 29.8** | **-0.3** |

4.1nm,0.9s,baz=223,slow=2.7,SNR=4.8

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **PEA1** | **Petropavlovsk-** | **68.12** | **21** | *e*P | | **P** | **18 27 29.8** | **-0.3** |
| **ZALV** | **Zalesovo Beam** | **71.01** | **337** | P | | **P** | **18 27 45.6** | **-2.2** |

2.1nm,0.6s,baz=137,slow=4.0,SNR=10

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **ZAA1** | **Zalesovo Array** | **71.02** | **337** | *e*P | | **P** | **18 27 45.6** | **-2.3** |
| **GEYT** | **Alibeck** | **77.25** | **312** | P | | **P** | **18 28 24.3** | **-0.4** |

1.2nm,0.7s,baz=100,slow=6.0,SNR=3.4

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **TORD** | **Torodi Ar. Bea** | **123.58** | **280** | PKP | | **PKPdf** | **18 35 28.2** | **+0.4** |

0.5nm,0.6s,baz=78,slow=2.8,SNR=4.1

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **TOA1** | **Torodi Ar. Sit** | **123.58** | **280** | *e*PKPdf | | **PKPdf** | **18 35 28.2** | **+0.3** |
| **CPUP** | **Villa Florida** | **144.83** | **178** | PKPbc | | **PKPdf** | **18 36 08.6** | **+1.5** |

1.9nm,0.5s,baz=153,slow=6.8,SNR=7.4

*IDC **21** 18:31:52.9±2.5, 52.22N×170.42E, h0km, mb3.5/6, mb1 3.8/7, mb1mx3.4/42, mbtmp3.6/7, ML3.3/1, Error ellipse: s-maj=67.3km s-min=32.0km az=175.0*
*MOS **21** 18:31:53.3±0.7, 51.88N×170.22E, h37km, mb4.0/2, Error ellipse: s-maj=13.1km s-min=5.4km az=41.6*
*KRSC **21** 18:31:59.5±1.8, 52.09N×169.42E, h68km±38km, ML4.3*

**ISC 21 18:31:55.2±0.9, 51.93N±0.07×169.95E±0.06, h35km, n76, σ2§71/128, mb3.5/6, South of Aleutian Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **BKI** | **Bering** | **4.05** | **326** | P | | **Pn** | **18 32 55.8** | **+1.2** |
| BKI | | | | S | | **Sn** | **18 33 41.3** | **+0.6** |
| **BKI** | **Bering** | **4.05** | **326** | *e*P | | **Pn** | **18 32 55.8** | **+1.2** |
| BKI | | | | *e*S | | **Sn** | **18 33 41.3** | **+0.6** |
| **KBTR** | **Krutoberegovo** | **6.00** | **318** | P | | **Pn** | **18 33 22.3** | **+0.9** |
| KBTR | | | | S | | **Sn** | **18 34 25.7** | **-3.1** |
| **KBTR** | **Krutoberegovo** | **6.00** | **318** | *e*P | | **Pn** | **18 33 22.3** | **+0.9** |
| KBTR | | | | *e*S | | **Sn** | **18 34 25.7** | **-3.1** |
| **KBG** | **Krutoberegovo** | **6.08** | **318** | P | | **Pn** | **18 33 24.7** | **+2.3** |
| KBG | | | | S | | **Sn** | **18 34 30.6** | **-0.1** |
| **KBG** | **Krutoberegovo** | **6.08** | **318** | *e*P | | **Pn** | **18 33 24.7** | **+2.3** |
| KBG | | | | *e*S | | **Sn** | **18 34 30.6** | **-0.1** |
| **SPN** | **Mys Shipunski** | **6.17** | **285** | P | | **Pn** | **18 33 26.7** | **+2.9** |
| SPN | | | | S | | **Sn** | **18 34 31.3** | **-1.8** |
| **SPN** | **Mys Shipunski** | **6.17** | **285** | *e*P | | **Pn** | **18 33 26.7** | **+2.9** |
| SPN | | | | *e*S | | **Sn** | **18 34 31.3** | **-1.8** |
| **NLC** | **Nalytchevo** | **6.59** | **285** | P | | **Pn** | **18 33 32.1** | **+2.6** |
| NLC | | | | S | | **Sn** | **18 34 42.2** | **-1.1** |
| **NLC** | **Nalytchevo** | **6.59** | **285** | *e*P | | **Pn** | **18 33 32.1** | **+2.6** |
| NLC | | | | *e*S | | **Sn** | **18 34 42.2** | **-1.1** |
| **KII** | **Karymskiy** | **6.68** | **293** | P | | **Pn** | **18 33 33.4** | **+2.5** |
| **KII** | **Karymskiy** | **6.68** | **293** | *e*P | | **Pn** | **18 33 33.4** | **+2.5** |
| **TUMR** | **Tumrok** | **6.73** | **304** | P | | **Pn** | **18 33 34.7** | **+3.1** |
| TUMR | | | | S | | **Sn** | **18 34 45.2** | **-1.8** |
| **TUMR** | **Tumrok** | **6.73** | **304** | *e*P | | **Pn** | **18 33 34.7** | **+3.1** |
| TUMR | | | | *e*S | | **Sn** | **18 34 45.2** | **-1.8** |
| **ZLN** | **Zelenaya** | **6.77** | **311** | P | | **Pn** | **18 33 35.5** | **+3.4** |
| ZLN | | | | S | | **Sn** | **18 34 45.9** | **-2.0** |
| **ZLN** | **Zelenaya** | **6.77** | **311** | *e*P | | **Pn** | **18 33 35.5** | **+3.4** |
| ZLN | | | | *e*S | | **Sn** | **18 34 45.9** | **-2.0** |
| **SMKR** | **Semkarok** | **6.81** | **316** | P | | **Pn** | **18 33 35.9** | **+3.3** |
| SMKR | | | | S | | **Sn** | **18 34 47.6** | **-1.3** |
| **SMKR** | **Semkarok** | **6.81** | **316** | *e*P | | **Pn** | **18 33 35.9** | **+3.3** |
| SMKR | | | | *e*S | | **Sn** | **18 34 47.6** | **-1.3** |
| **CIRR** | **Tsirk** | **6.85** | **311** | P | | **Pn** | **18 33 36.8** | **+3.6** |
| CIRR | | | | S | | **Sn** | **18 34 48.1** | **-1.9** |
| **CIRR** | **Tsirk** | **6.85** | **311** | *e*P | | **Pn** | **18 33 36.8** | **+3.6** |
| CIRR | | | | *e*S | | **Sn** | **18 34 48.1** | **-1.9** |
| **BZMR** | **Bezymyannaya** | **6.88** | **309** | S | | **Sn** | **18 34 47.6** | **-3.0** |
| **SDLR** | **Sedlovina** | **6.88** | **286** | P | | **Pn** | **18 33 37.1** | **+3.5** |
| SDLR | | | | S | | **Sn** | **18 34 48.8** | **-1.8** |
| **SDLR** | **Sedlovina** | **6.88** | **286** | *e*P | | **Pn** | **18 33 37.1** | **+3.5** |
| SDLR | | | | *e*S | | **Sn** | **18 34 48.8** | **-1.8** |
| **UGLR** | **Uglovaya** | **6.91** | **285** | P | | **Pn** | **18 33 37.7** | **+3.8** |
| UGLR | | | | S | | **Sn** | **18 34 48.7** | **-2.6** |
| **UGLR** | **Uglovaya** | **6.91** | **285** | *e*P | | **Pn** | **18 33 37.7** | **+3.8** |
| UGLR | | | | *e*S | | **Sn** | **18 34 48.7** | **-2.6** |
| **KMNR** | **Kamenistaya** | **6.91** | **308** | P | | **Pn** | **18 33 37.2** | **+3.2** |
| KMNR | | | | S | | **Sn** | **18 34 48.6** | **-2.7** |
| **KMNR** | **Kamenistaya** | **6.91** | **308** | *e*P | | **Pn** | **18 33 37.2** | **+3.2** |
| KMNR | | | | *e*S | | **Sn** | **18 34 48.6** | **-2.7** |
| **BDR** | **Baidarnaya** | **6.91** | **316** | P | | **Pn** | **18 33 37.1** | **+3.1** |
| BDR | | | | S | | **Sn** | **18 34 49.8** | **-1.6** |
| **BDR** | **Baidarnaya** | **6.91** | **316** | P | | **Pn** | **18 33 37.1** | **+3.1** |
| BDR | | | | *e*S | | **

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| HOPE | Hope Point | 6.71 | 277 | *e*Pn | Pn | 18 36 19.3 | +0.3 |
| VNA1 | Neumayer--Stat | 16.73 | 160 | P | P | 18 38 37.7 | +0.7 |
| VNA3 | Neumayer Olymp | 16.98 | 163 | P | Pn | 18 38 38.0 | +0.1 |
| VNA2 | Neumayer--Watz | 17.12 | 160 | P | Pn | 18 38 40.0 | +0.4 |
| | baz=326,slow=14 | | | | | | |
| SNAA | Sanae | 18.63 | 158 | P | Pn | 18 38 58.6 | +0.4 |
| SNAA | Sanae | 18.63 | 158 | P | P | 18 38 57.9 | -0.1 |
| | 0.6nm,0.3s,baz=292,slow=10,SNR=39 | | | | | | |
| SNAA | Sanae | 18.63 | 158 | *e*P | Pn | 18 38 58.5 | +0.2 |
| | 70nm,1.7s | | | | | | |
| PMSA | Palmer Station | 21.04 | 229 | *e*P | P | 18 39 23.7 | -0.5 |
| | 54nm,1.0s | | | | | | |
| USHA | Ushuaia | 24.43 | 254 | LR | LR | 18 47 56.3 | |
| | comp=Z,982nm,18.6s,baz=76,slow=33 | | | | | | |
| TRQA | Tornquist | 30.28 | 290 | *e*P | P | 18 40 51.9 | +0.2 |
| | 12nm,0.8s | | | | | | |
| SYO | Syowa Base | 31.13 | 141↓ | *e*P | P | 18 40 57.4 | -1.4 |
| QSPA | South Pole Qui | 34.58 | 180 | *e*P | P | 18 41 29.1 | -0.2 |
| | 13nm,1.0s | | | | | | |
| CPUP | Villa Florida | 37.48 | 308 | P | P | 18 41 53.8 | -0.4 |
| | 3.6nm,0.6s,baz=146,slow=7.1,SNR=13 | | | | | | |
| CPUP | | | | LR | LR | 18 57 19.6 | |
| | comp=Z,62nm,19.1s,baz=201,slow=36 | | | | | | |
| CPUP | Villa Florida | 37.48 | 308 | *e*P | P | 18 41 53.8 | -0.4 |
| | 4.9nm,0.8s | | | | | | |
| PEL | Peldehue | 38.65 | 286 | *e*P | P | 18 42 03.4 | -0.7 |
| | 125nm,1.8s | | | | | | |
| ROC1 | El Roble | 38.95 | 286 | *e*P | P | 18 42 14.6 | +7.7 |
| | 19nm,0.6s | | | | | | |
| MAW | Mawson | 39.75 | 143 | P | P | 18 42 12.9 | +0.1 |
| | 3.3nm,0.5s,baz=225,slow=6.6,SNR=5.2 | | | | | | |
| MAW | Mawson | 39.75 | 143 | *e*P | P | 18 42 12.9 | +0.1 |
| | 10nm,1.8s | | | | | | |
| BOSA | Boshof | 44.73 | 74 | P | P | 18 42 54.0 | 0.0 |
| | 2.4nm,0.8s,baz=228,slow=5.3,SNR=3.5 | | | | | | |
| BOSA | | | | LR | LR | 18 57 53.2 | |
| | comp=Z,205nm,18.8s,baz=233,slow=31 | | | | | | |
| VNDA | Vanda | 47.00 | 182 | P | P | 18 43 12.3 | +1.1 |
| | 2.8nm,0.6s,baz=186,slow=5.1,SNR=14 | | | | | | |
| VNDA | | | | LR | LR | 19 03 27.1 | |
| | comp=Z,45nm,19.8s,baz=174,slow=37 | | | | | | |
| VNDA | Vanda | 47.00 | 182 | *e*P | P | 18 43 12.4 | +1.2 |
| H10S2 | ASCENSION HYDR | 47.32 | 14 | T | T | 19 34 21.4 | |
| | baz=186,slow=74 | | | | | | |
| H10S3 | ASCENSION HYDR | 47.32 | 14 | T | T | 19 34 21.8 | |
| | baz=186,slow=74 | | | | | | |
| H10S1 | ASCENSION HYDR | 47.34 | 14 | T | T | 19 34 22.8 | |
| | baz=186,slow=74 | | | | | | |
| PB01 | IPOC Station P | 47.76 | 298 | *e*P | P | 18 43 18.2 | +0.4 |
| | 14nm,0.7s | | | | | | |
| LBTB | Lobatse | 47.77 | 71 | P | P | 18 43 18.4 | +0.5 |
| | 5.0nm,0.7s,baz=217,slow=5.9,SNR=7.7 | | | | | | |
| LBTB | Lobatse | 47.77 | 71 | *e*P | P | 18 43 18.4 | +0.5 |
| | 33nm,1.8s | | | | | | |
| PB11 | IPOC Station P | 48.92 | 299 | *e*P | P | 18 43 27.1 | +0.3 |
| | 26nm,1.2s | | | | | | |
| MNMC | Minye Minye | 49.42 | 299 | *e*P | P | 18 43 30.5 | -0.4 |
| | 12nm,0.8s | | | | | | |
| LPAZ | La Paz | 51.14 | 303 | P | P | 18 43 45.0 | +0.7 |
| | 11nm,0.8s,baz=143,slow=5.4,SNR=38 | | | | | | |
| LPAZ | La Paz | 51.14 | 303 | *e*P | P | 18 43 45.0 | +0.7 |
| | 16nm,0.8s | | | | | | |
| LIC | Lamto | 63.88 | 22 | *e*P | P | 18 45 13.2 | -0.1 |
| | 29nm,1.1s | | | | | | |
| KIC | Kosan Boka | 64.07 | 23 | *e*P | P | 18 45 15.4 | +0.9 |
| | 23nm,1.1s | | | | | | |
| TIC | Toumodi | 64.29 | 22 | *e*P | P | 18 45 16.1 | +0.1 |
| DBIC | Dimbokro | 64.35 | 22 | P | P | 18 45 17.0 | +0.7 |
| | 2.6nm,0.7s,baz=181,slow=8.7,SNR=5.7 | | | | | | |
| DBIC | | | | LR | LR | 19 06 33.2 | |
| | comp=Z,87nm,19.2s,baz=158,slow=30 | | | | | | |
| TOA0 | Torodi Ar. Sit | 72.16 | 27 | *e*P | P | 18 46 06.2 | +1.0 |
| TORD | Torodi Ar. Bea | 72.16 | 27 | P | P | 18 46 06.1 | +0.8 |
| | 8.9nm,0.7s,baz=196,slow=6.4,SNR=71 | | | | | | |
| TORD | | | | LR | LR | 19 12 34.8 | |
| | comp=Z,48nm,18.5s,baz=235,slow=32 | | | | | | |
| TOA1 | Torodi Ar. Sit | 72.16 | 27 | *e*P | P | 18 46 06.1 | +0.8 |
| KMBO | Kilima Mbogo | 73.80 | 67 | LR | LR | 19 16 12.8 | |
| | comp=Z,53nm,18.5s,baz=91,slow=34 | | | | | | |
| THZ | Tophouse | 81.74 | 194 | *e*P | P | 18 47 00.1 | +1.0 |
| | 14nm,0.9s | | | | | | |
| ASAR | Alice Springs | 98.98 | 161 | P | P | 18 48 20.4 | -0.9 |
| | 0.6nm,0.7s,baz=190,slow=3.7,SNR=14 | | | | | | |
| AS31 | Alice Springs | 98.98 | 161 | *e*P | P | 18 48 20.4 | -1.0 |
| | 1.3nm,1.1s | | | | | | |
| WR1 | Warramunga Arr | 102.69 | 160 | *e*Pdif | Pdif | 18 48 37.1 | -0.8 |
| WRA | Warramunga Arr | 102.69 | 160 | P | Pdif | 18 48 37.1 | -0.8 |
| | 0.3nm,0.8s,baz=202,slow=4.4,SNR=3.3 | | | | | | |
| PDAR | Pinedale Array | 121.15 | 301 | PKP | PKPdf | 18 53 31.8 | -1.3 |
| | 0.3nm,0.6s,baz=140,slow=4.8,SNR=3.8 | | | | | | |
| FIA0 | FINESS Array S | 123.50 | 27 | *e*PKPdf | PKPdf | 18 53 36.2 | -0.4 |
| FINES | FINESS Array B | 123.50 | 27 | PKP | PKPdf | 18 53 36.2 | -0.4 |
| | 8.7nm,1.2s,baz=0.0,slow=5.7,SNR=4.4 | | | | | | |
| CM01 | Chiang Mai Arr | 124.06 | 108 | *e*PKPdf | PKPdf | 18 53 39.0 | 0.0 |
| CM31 | Chiang Mai Arr | 124.08 | 108 | *e*PKPdf | PKPdf | 18 53 39.1 | +0.1 |
| CMAR | Chiang Mai Arr | 124.08 | 108 | PKP | PKPdf | 18 53 39.1 | +0.1 |
| | 1.4nm,0.9s,baz=234,slow=3.8,SNR=7.8 | | | | | | |
| ABKAR | Akbulak array | 126.19 | 54 | *e*PKPdf | PKPdf | 18 53 41.5 | -0.6 |
| ARA0 | ARCESS Array S | 130.16 | 21 | *e*PKPdf | PKPdf | 18 53 48.1 | -0.9 |
| ARCES | ARCESS Array B | 130.16 | 21 | PKP | PKPdf | 18 53 48.2 | -0.9 |
| | 3.0nm,0.8s,baz=207,slow=1.4,SNR=5.8 | | | | | | |
| JCW | Jim Creek | 131.11 | 298 | *e*PKPpre | PKPpre | 18 53 43.0 | |
| MK32 | Makanchi Array | 135.65 | 70 | *e*PKPdf | PKPdf | 18 53 58.7 | -1.4 |
| MKAR | Makanchi Array | 135.65 | 70 | PKP | PKPdf | 18 53 58.7 | -1.4 |
| | 0.5nm,0.8s,baz=279,slow=2.2,SNR=2.8 | | | | | | |
| YKA | Yellowknife Ar | 136.69 | 317 | PKP | PKPdf | 18 54 01.4 | -0.1 |
| | 1.0nm,0.7s,baz=123,slow=2.3,SNR=14 | | | | | | |
| ZALV | Zalesovo Beam | 141.14 | 62 | PKP | PKPdf | 18 54 10.8 | +0.9 |
| | 0.7nm,0.7s,baz=198,slow=0.5,SNR=4.3 | | | | | | |
| ZAA1 | Zalesovo Array | 141.15 | 62 | *e*PKPdf | PKPdf | 18 54 10.8 | +0.9 |
| DOT | Dot Lake | 149.30 | 310 | *e*PKPbc | PKPbc | 18 54 28.3 | +0.2 |
| SONA0 | Songino Array | 149.52 | 84 | *e*PKPbc | PKPbc | 18 54 28.9 | -0.3 |
| SONM | Songino Array | 149.52 | 84 | PKPbc | PKPbc | 18 54 28.9 | -0.3 |
| | 1.4nm,0.5s,baz=220,slow=3.9,SNR=25 | | | | | | |
| SONA1 | Songino Array | 149.53 | 84 | *e*PKPbc | PKPbc | 18 54 29.0 | -0.3 |
| IL1 | Eielson Array | 150.74 | 312 | *e*PKPbc | PKPbc | 18 54 31.1 | -0.4 |
| ILAR | Eielson Array | 150.74 | 312 | PKPbc | PKPbc | 18 54 31.3 | -0.2 |
| | 4.4nm,0.8s,baz=128,slow=1.6,SNR=39 | | | | | | |
| ILB | Eielson Array | 150.74 | 312 | *e*PKPbc | PKPbc | 18 54 31.5 | 0.0 |
| RND | Reindeer | 151.35 | 309 | *e*PKPbc | PKPbc | 18 54 33.7 | +0.7 |
| MCK | McKinley | 151.44 | 309 | *e*PKPbc | PKPbc | 18 54 33.8 | +0.6 |
| COLD | Coldfoot | 152.36 | 317 | *e*PKPbc | PKPbc | 18 54 35.0 | -0.1 |
| BPAW | Bear Paw Mtn. | 152.40 | 310 | *e*PKPbc | PKPbc | 18 54 35.4 | +0.1 |
| RSO | Redoubt South | 152.53 | 302 | *e*PKPbc | PKPbc | 18 54 35.4 | -0.6 |
| IMAR | Indian Mountai | 153.73 | 314 | *e*PKPbc | PKPbc | 18 54 38.1 | 0.0 |

**MEX 21 18:36:09.1±0.5, 17°81.N×99°93.W, h57km±5km, MD3.6, Guerrero**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MEIG | Mezcala | 0.32 | 69 | *e*P | Pn | 18 36 18.2 | -1.0 |
| MEIG | | | | *e*S | Sn | 18 36 24.6 | -1.9 |
| PLIG | Platanillo | 0.71 | 35 | *e*P | Pn | 18 36 22.2 | -1.2 |
| PLIG | | | | *e*S | Sn | 18 36 31.9 | -1.9 |
| CAIG | El Cayaco | 0.82 | 203 | *e*P | Pn | 18 36 23.1 | -1.7 |
| CAIG | | | | *i* S | Sn | 18 36 34.3 | -1.9 |
| YAIG | Yautepec | 1.33 | 38 | *e*P | Pn | 18 36 29.8 | -1.8 |
| YAIG | | | | *e*S | Sn | 18 36 46.2 | -2.2 |
| ZIIG | Zihuatanejo | 1.48 | 262 | *e*P | Pn | 18 36 32.0 | -1.3 |
| ZIIG | | | | *e*S | Sn | 18 36 48.5 | -3.1 |

*CSEM **21** 18:36:38.5±0.1, 43°.81N×12°.65E, h40km, ML2.6/15, Error ellipse: s-maj=3.3km s-min=2.7km az=179.0*
*ROM **21** 18:36:38.4±0.1, 43°.81N×12°.63E, h37km±1km, Md2.3/27, Ml2.2/22, Error ellipse: s-maj=2.0km s-min=1.5km az=7.0*

**ISC 21 18:36:35.8±1.1, 43°.95N±0°.03×12°.79E±0°.03, h18km±8km, n62, σ0°76/92, Central Italy**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PESA | Pesaro | 0.04 | 104 | Pg | Pg | 18 36 46.2 | +7.3 |
| | 235nm,0.2s | | | | | | |
| PESA | Pesaro | 0.04 | 104 | Pg | Pg | 18 36 46.2 | +7.3 |
| | 235nm,0.2s | | | | | | |
| FSSB | Fossombrone | 0.26 | 181 | Pg | Pn | 18 36 45.3 | +0.5 |
| FSSB | | | | Sg | Sn | 18 36 50.8 | +0.4 |
| | 380nm,0.2s | | | | | | |
| FSSB | Fossombrone | 0.26 | 181 | Pg | Pn | 18 36 45.3 | +0.5 |
| FSSB | | | | Sg | Sn | 18 36 50.8 | +0.4 |
| | 380nm,0.2s | | | | | | |
| MPAG | Monte Paganucc | 0.32 | 184 | Pg | Pn | 18 36 45.6 | -0.1 |
| MPAG | | | | Sg | Sn | 18 36 51.3 | -0.7 |
| | 389nm,0.4s | | | | | | |
| CPGN | Carpegna, Ital | 0.37 | 246 | Pg | Pn | 18 36 46.3 | -0.1 |
| | 161nm,0.4s | | | | | | |
| CPGN | Carpegna, Ital | 0.37 | 246 | Pg | Pn | 18 36 46.3 | -0.1 |
| | 161nm,0.4s | | | | | | |
| FRON | Frontone | 0.43 | 186 | Pg | Pn | 18 36 46.4 | -0.8 |
| FRON | | | | Sg | Sn | 18 36 53.0 | -1.7 |
| | 156nm,0.4s | | | | | | |
| FRON | Frontone | 0.43 | 186 | Pg | Pn | 18 36 46.4 | -0.8 |
| FRON | | | | Sg | Sn | 18 36 53.0 | -1.7 |
| | 156nm,0.4s | | | | | | |
| PIEI | Pieia | 0.45 | 204 | Pg | Pb | 18 36 46.0 | +0.7 |
| PIEI | | | | Sg | Sb | 18 36 52.2 | +0.5 |
| | 216nm,0.1s | | | | | | |
| PIEI | Pieia | 0.45 | 204 | Pg | Pb | 18 36 46.0 | +0.7 |
| PIEI | | | | Sg | Sb | 18 36 52.2 | +0.5 |
| | 216nm,0.1s | | | | | | |
| ARVD | Arcevia | 0.47 | 166 | Pg | Pn | 18 36 47.5 | -0.1 |
| ARVD | | | | Sg | Sn | 18 36 55.2 | -0.3 |
| | 62nm,0.2s | | | | | | |
| ARVD | Arcevia | 0.47 | 166 | Pg | Pn | 18 36 47.5 | -0.1 |
| ARVD | | | | Sg | Sn | 18 36 55.2 | -0.3 |
| | 62nm,0.2s | | | | | | |
| PARC | Parchiule | 0.50 | 233 | Pg | Pb | 18 36 46.8 | +0.7 |
| PARC | | | | Sg | Sb | 18 36 53.8 | +0.8 |
| | 52nm,0.1s | | | | | | |
| PARC | Parchiule | 0.50 | 233 | Pg | Pb | 18 36 46.8 | +0.7 |
| PARC | | | | Sg | Sb | 18 36 53.8 | +0.8 |
| | 52nm,0.1s | | | | | | |
| SSFR | Montelago di S | 0.51 | 180 | Pg | Pn | 18 36 47.4 | -0.9 |
| SSFR | | | | Sg | Sb | 18 36 54.6 | +1.1 |
| | 401nm,0.2s | | | | | | |
| SSFR | Montelago di S | 0.51 | 180 | Pg | Pn | 18 36 47.4 | -0.9 |
| SSFR | | | | Sg | Sb | 18 36 54.6 | +1.1 |
| | 401nm,0.2s | | | | | | |
| ATPC | Poggio Castell | 0.53 | 207 | Pg | Pb | 18 36 46.9 | +0.3 |
| ATPC | | | | Sg | Sb | 18 36 53.9 | 0.0 |
| | 191nm,0.4s | | | | | | |
| ATPC | Poggio Castell | 0.53 | 207 | Pg | Pb | 18 36 46.9 | +0.3 |
| ATPC | | | | Sg | Sb | 18 36 53.9 | 0.0 |
| | 191nm,0.4s | | | | | | |
| BADI | Badiali | 0.59 | 222 | Pg | Pb | 18 36 47.8 | +0.2 |
| BADI | | | | Sg | Sg | 18 36 55.5 | +0.1 |
| | 83nm,0.2s | | | | | | |
| BADI | Badiali | 0.59 | 222 | Pg | Pb | 18 36 47.8 | +0.2 |
| BADI | | | | Sg | Sg | 18 36 55.5 | +0.1 |
| | 83nm,0.2s | | | | | | |
| ATVO | AVT- Monte Val | 0.63 | 206 | Pg | Pb | 18 36 48.4 | +0.1 |
| ATVO | | | | Sg | Sg | 18 36 56.8 | +0.1 |
| | 125nm,0.5s | | | | | | |
| ATVO | AVT- Monte Val | 0.63 | 206 | Pg | Pb | 18 36 48.4 | +0.1 |
| ATVO | | | | Sg | Sg | 18 36 56.8 | +0.1 |
| | 125nm,0.5s | | | | | | |
| CING | Cingoli | 0.65 | 153 | Pg | Pn | 18 36 50.9 | +0.7 |
| CING | | | | Sg | Sn | 18 37 01.0 | +1.0 |
| | 69nm,0.3s | | | | | | |
| CING | Cingoli | 0.65 | 153 | Pg | Pn | 18 36 50.9 | +0.7 |
| CING | | | | Sg | Sn | 18 37 01.0 | +1.0 |
| | 69nm,0.3s | | | | | | |
| ATMC | Monte Cedrone | 0.66 | 221 | Pg | Pg | 18 36 48.9 | 0.0 |
| ATMC | | | | Sg | Sg | 18 36 57.7 | 0.0 |
| | 70nm,0.5s | | | | | | |
| ATMC | Monte Cedrone | 0.66 | 221 | Pg | Pg | 18 36 48.9 | 0.0 |
| ATMC | | | | Sg | Sg | 18 36 57.7 | 0.0 |
| | 70nm,0.5s | | | | | | |
| SFI | Santa Sofia | 0.68 | 266 | Pg | Pn | 18 36 50.7 | +0.1 |
| | 37nm,0.5s | | | | | | |
| SFI | Santa Sofia | 0.68 | 266 | Pg | Pn | 18 36 50.7 | +0.1 |
| | 37nm,0.5s | | | | | | |
| CRE | Caprese Michel | 0.69 | 242 | Pg | Pb | 18 36 49.9 | +0.5 |
| | 65nm,0.8s | | | | | | |
| CRE | Caprese Michel | 0.69 | 242 | Pg | Pb | 18 36 49.9 | +0.5 |
| | 65nm,0.8s | | | | | | |
| SNTG | Esanatoglia | 0.70 | 171 | Pg | Pn | 18 36 50.3 | -0.6 |
| SNTG | | | | Sg | Sn | 18 37 00.8 | -0.6 |
| | 87nm,0.3s | | | | | | |
| SNTG | Esanatoglia | 0.70 | 171 | Pg | Pn | 18 36 50.3 | -0.6 |
| SNTG | | | | Sg | Sn | 18 37 00.8 | -0.6 |
| | 87nm,0.3s | | | | | | |
| AOI | Ancona | 0.71 | 124 | Pg | Pn | 18 36 53.3 | +2.2 |
| AOI | Ancona | 0.71 | 124 | Pg | Pn | 18 36 53.3 | +2.2 |
| MURB | Monte Urbino | 0.71 | 196 | Pg | Pb | 18 36 50.1 | +0.3 |
| | 310nm,0.4s | | | | | | |
| MURB | Monte Urbino | 0.71 | 196 | Pg | Pb | 18 36 50.1 | +0.3 |
| | 310nm,0.4s | | | | | | |
| ASQU | Asqua | 0.74 | 258 | Pg | Pb | 18 36 51.3 | +1.1 |
| ASQU | Asqua | 0.74 | 258 | Pg | Pb | 18 36 51.3 | +1.1 |
| ATCC | AVT- Casa Cast | 0.77 | 188 | Pg | Pb | 18 36 50.9 | +0.2 |
| ATCC | | | | Sg | Sb | 18 37 01.6 | +0.7 |
| | 159nm,0.5s | | | | | | |
| ATCC | AVT- Casa Cast | 0.77 | 188 | Pg | Pb | 18 36 50.9 | +0.2 |
| ATCC | | | | Sg | Sb | 18 37 01.6 | +0.7 |
| | 159nm,0.5s | | | | | | |
| ATTE | AVT- Monte Tez | 0.82 | 203 | Pg | Pg | 18 36 51.7 | 0.0 |
| ATTE | | | | Sg | Sb | 18 37 01.7 | -0.5 |
| ATTE | AVT- Monte Tez | 0.82 | 203 | Pg | Pg | 18 36 51.7 | 0.0 |
| ATTE | | | | Sg | Sb | 18 37 01.7 | -0.5 |
| CAFI | Castiglion Fio | 0.86 | 224 | Pg | Pb | 18 36 52.0 | -0.2 |
| CAFI | Castiglion Fio | 0.86 | 224 | Pg | Pb | 18 36 52.0 | -0.2 |
| VMG | Vicchio | 0.90 | 271 | Pg | Pn | 18 36 54.7 | +1.1 |
| VMG | Vicchio | 0.90 | 271 | Pg | Pn | 18 36 54.7 | +1.1 |
| FDMO | Fiordimonte | 0.94 | 166 | Pg | Pn | 18 36 54.1 | -0.1 |
| | 39nm,0.2s | | | | | | |
| FDMO | Fiordimonte | 0.94 | 166 | Pg | Pn | 18 36 54.1 | -0.1 |
| | 39nm,0.2s | | | | | | |
| CESI | CESI - Serrava | 0.95 | 175 | Pg | Pn | 18 36 53.9 | -0.4 |
| | 25nm,0.4s | | | | | | |
| CESI | CESI - Serrava | 0.95 | 175 | Pg | Pn | 18 36 53.9 | -0.4 |
| | 25nm,0.4s | | | | | | |
| NRCA | Norcia | 1.14 | 168 | Pg | Pg | 18 36 57.2 | -0.7 |
| | 34nm,0.1s | | | | | | |
| NRCA | Norcia | 1.14 | 168 | Pg | Pg | 18 36 57.2 | -0.7 |
| | 34nm,0.1s | | | | | | |
| MGAB | Montegabbione | 1.15 | 206 | Pg | Pn | 18 36 55.9 | -1.1 |
| MGAB | Montegabbione | 1.15 | 206 | Pg | Pn | 18 36 55.9 | -1.1 |
| NVLJ | Novalja | 1.62 | 67 | *e*Pn | Pg | 18 37 06.8 | -0.2 |
| NVLJ | | | | Sn | Sg | 18 37 27.7 | -0.3 |
| NVLJ | Novalja | 1.62 | 67 | *e*Pn | Pg | 18 37 06.7 | -0.2 |
| NVLJ | | | | Sn | Sg | 18 37 27.6 | -0.3 |
| OBKA | Obir | 2.84 | 25 | *e*Sn | Sb | 18 37 58.8 | -1.9 |
| | 0.7nm,0.2s | | | | | | |
| OBKA | Obir | 2.84 | 25 | Sn | Sb | 18 37 58.8 | -1.9 |
| | 0.7nm,0.2s | | | | | | |
| STON | Ston | 3.74 | 105 | Sn | Sn | 18 38 15.9 | -0.2 |
| STON | Ston | 3.74 | 105 | Sn | Sn | 18 38 15.9 | -0.2 |

*NIED **21** 18:51:00,28°.40N×130°.60E, h77km, Mw4.2 Best double couple: M0 2.53000×10^15 NP1:φs 290.00000°, δ25.00000°, λ 16.00000°. NP2:φs 186.00000°, δ83.00000°, λ 115.00000°.*
*JMA **21** 18:51:58.9±0.1, 28°.41N×130°.62E, h56km±1km, MJ3.7*
*IDC **21** 18:52:02.1±2.8, 28°.54N×130°.65E, h45km±28km, mb3.6/8, mb1 3.7/11, mb1mx3.5/45, mbtmp3.7/11, ML3.1/3, MS3.0/2, Ms1 3.0/2, ms1mx2.6/18, Error ellipse: s-maj=35.4km s-min=16.4km az=76.0*

**ISC 21 18:51:56.7±3.1, 28°.43N±0°.04×130°.62E±0°.05, h9km±20km, n31, σ1°36/42, mb4.0/8, Ryukyu Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JZK | Kikaishima | 0.58 | 259 | P | Pn | 18 52 11.5 | +0.4 |
| JZK | | | | *e*S | Sn | 18 52 21.1 | +0.3 |
| JAM | Amami Oshima | 0.90 | 269 | P | Pn | 18 52 15.4 | 0.0 |
| JAM | | | | S | Sb | 18 52 27.6 | +1.2 |
| JAMN | Amaminishikomi | 1.29 | 262 | P | Pn | 18 52 21.1 | +0.3 |
| JAMN | | | | S | Sb | 18 52 37.7 | 0.0 |
| JTAJ | Takarajima | 1.44 | 300 | P | Pn | 18 52 22.8 | -0.1 |
| JTAJ | | | | S | Sb | 18 52 40.5 | -1.6 |
| JNN | Nakanoshima | 1.55 | 335 | P | Pb | 18 52 24.9 | -0.7 |
| JTK | Tokunoshima | 1.61 | 247 | P | Pn | 18 52 25.9 | +0.7 |
| JTK | | | | S | Sn | 18 52 45.7 | -0.4 |
| JYAK | Yakushimahirau | 1.81 | 357 | P | Pb | 18 52 29.2 | -0.7 |
| JYAK | | | | S | Sb | 18 52 50.4 | -2.2 |
| JKC | Kuchinoerabu | 2.06 | 350 | P | Pb | 18 52 32.8 | -1.4 |
| JKC | | | | S | Sn | 18 52 56.6 | -0.6 |
| JOKE | Okinoerabujima | 2.10 | 240 | P | Pn | 18 52 32.4 | +0.3 |
| JTN | Tanegashima 3 | 2.24 | 8 | P | Pb | 18 52 35.1 | -2.2 |
| JTN | | | | S | Sn | 18 53 00.9 | -0.8 |
| JOW | Kunigami | 2.62 | 233 | P | Pn | 18 52 39.4 | +0.2 |
| JMZ | Minamidaito 2 | 2.65 | 168 | P | Pn | 18 52 39.7 | +0.1 |
| JMZ | | | | *e*S | Sn | 18 53 09.5 | -2.4 |
| JIH | Iheya | 2.73 | 240 | P | Pn | 18 52 40.8 | +0.1 |
| JIH | | | | *e*S | Sn | 18 53 11.5 | -2.3 |
| JTSR | Tashiro 2 | 2.74 | 5 | P | Pn | 18 52 42.5 | +1.7 |
| JTSR | | | | S | Sn | 18 53 13.5 | -0.6 |
| JNTH | Nagotoyohara | 2.99 | 231 | P | Pn | 18 52 44.3 | 0.0 |
| JNTH | | | | S | Sn | 18 53 17.4 | -2.8 |
| JJT2 | Tamagusuku 2 | 3.43 | 229 | P | Pn | 18 52 50.6 | +0.4 |
| JKE | Kume jima 2 | 4.00 | 239 | P | Pn | 18 52 58.1 | -0.1 |
| JNU | Nakatsue | 4.68 | 3 | P | Pn | 18 53 09.2 | +1.6 |
| | 2.1nm,0.3s,baz=4.9,slow=22,SNR=28 | | | | | | |
| JNU | | | | S | Sn | 18 53 59.6 | -2.4 |
| | 1.6nm,0.3s,baz=81,slow=22,SNR=7.6 | | | | | | |
| KSRS | Korea Array | 9.28 | 347 | P | Pn | 18 54 13.6 | +3.0 |
| | 0.1nm,0.3s,baz=161,slow=13,SNR=3.3 | | | | | | |
| MJAR | Matsushiro Arr | 10.31 | 36 | P | Pn | 18 54 27.7 | +2.9 |
| | 0.2nm,0.3s,baz=263,slow=11,SNR=2.6 | | | | | | |
| KLR | Kul'dur | 20.79 | 2 | P | P | 18 56 38.2 | +0.3 |
| | 0.1nm,0.6s,baz=211,slow=6.4,SNR=5.0 | | | | | | |
| SONM | Songino Array | 26.99 | 322 | LR | LR | 19 09 10.2 | |
| | comp=Z,34nm,18.3s,baz=217,slow=38 | | | | | | |
| PETK | Petropavlovsk- | 31.72 | 31 | LR | LR | 19 10 37.0 | |
| | comp=Z,21nm,20.6s,baz=101,slow=35 | | | | | | |
| MKAR | Makanchi Array | 41.72 | 310 | P | P | 18 59 45.8 | -0.1 |
| | 0.5nm,0.9s,baz=92,slow=10,SNR=3.0 | | | | | | |
| ZALV | Zalesovo Beam | 41.85 | 321 | P | P | 18 59 46.4 | -0.3 |
| | 0.5nm,0.4s,baz=114,slow=9.6,SNR=3.6 | | | | | | |
| WRA | Warramunga Arr | 48.22 | 175 | P | P | 19 00 38.7 | +0.9 |
| | 1.6nm,0.6s,baz=354,slow=8.3,SNR=21 | | | | | | |
| ASAR | Alice Springs | 51.89 | 176 | P | P | 19 01 06.6 | +1.0 |
| | 1.1nm,0.5s,baz=11,slow=11,SNR=35 | | | | | | |
| ILAR | Eielson Array | 61.50 | 29 | P | P | 19 02 13.2 | -0.2 |
| | 0.5nm,0.9s,baz=275,slow=5.6,SNR=4.9 | | | | | | |
| ARCES | ARCESS Array B | 68.74 | 339 | P | P | 19 03 01.0 | +0.5 |
| | 1.2nm,0.7s,baz=75,slow=12,SNR=4.1 | | | | | | |
| FINES | FINESS Array B | 72.00 | 331 | P | P | 19 03 19.9 | -0.5 |
| | 1.7nm,0.9s,baz=54,slow=4.9,SNR=8.3 | | | | | | |
| BRTR | Keskin Array B | 77.36 | 308 | P | P | 19 03 52.8 | +0.7 |
| | 1.1nm,0.9s,baz=71,slow=5.4,SNR=5.6 | | | | | | |

*IDC **21** 19:02:57.8±1.9, 43°.47N×105°.31W, h0km, mb3.9/2, mb1 3.9/5, mb1mx3.5/42, mbtmp3.8/5, ML3.1/2, Error ellipse: s-maj=45.4km s-min=8.4km az=153.0*
*ISCJB **21** 19:02:58.9±0.4, 43°.71N±0°.03×105°.25W±0°.04, h0km, mb4.1/2, Error ellipse: s-maj=4.4km s-min=4.0km az=7.4*
*NEIC **21** 19:03:00.3±0.3, 43°.69N×105°.22W, h0km, ML3.3, Error ellipse: s-maj=3.2km s-min=3.2km az=95.0, Suspected Mining explosion.*
*NEIC 69 km [43 miles] SSE of Gillette.*

**ISC 21 19:02:59.5±0.6, 43.72N±0°.04×105°.18W±0°.03, h0km, n75, σ1°69/75, Wyoming**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RSSD | Black Hills | 0.92 | 64 | *e*Pg | Pb | 19 03 19.4 | +0.9 |
| K22A | Casper | 1.45 | 223 | P | Pn | 19 03 24.9 | -2.2 |
| | baz=42 | | | | | | |
| K22A | Casper | 1.45 | 223 | *e*Pn | Pn | 19 03 24.7 | -2.4 |
| PHWY | Pilot Hill | 2.42 | 185 | *e*Pn | Pn | 19 03 40.7 | +0.1 |
| RWWY | Rawlins | 2.52 | 217 | *e*Pn | Pn | 19 03 42.9 | +1.1 |
| N23A | Red Feather La | 2.87 | 192 | P | Pn | 19 03 47.4 | +0.6 |
| | baz=11 | | | | | | |
| N23A | Red Feather La | 2.87 | 192 | *e*Pn | Pn | 19 03 47.4 | +0.6 |
| LAO | LASA Array | 3.06 | 346 | *e*Pn | Pn | 19 03 50.6 | +1.4 |
| RLMT | Red Lodge | 3.25 | 297 | *e*Pn | Pn | 19 03 52.6 | +0.8 |
| BW06 | Boulder Array | 3.33 | 255 | *e*Pn | Pn | 19 03 52.8 | -0.3 |
| PD31 | Pinedale Array | 3.33 | 255 | *e*Pn | Pn | 19 03 53.0 | -0.1 |
| PD31 | | | | *e*Lg | Lg | 19 04 36.8 | |
| PDAR | Pinedale Array | 3.33 | 255 | Pn | Pn | 19 03 52.9 | -0.2 |
| | 11nm,0.3s,baz=81,slow=16,SNR=81 | | | | | | |
| PDAR | | | | Lg | Lg | 19 04 36.8 | |
| | 53nm,0.3s,baz=76,slow=30,SNR=14 | | | | | | |
| OGNE | Ogallala | 3.62 | 139 | *e*Pn | Pn | 19 03 59.1 | +2.2 |
| GCMT | Greyclift | 3.81 | 305 | *e*Pn | Pn | 19 04 00.7 | +1.1 |
| LKWY | Lake | 3.85 | 285 | *e*Pn | Pn | 19 03 59.6 | -0.6 |
| ISCO | Idaho Springs | 3.93 | 185 | *e*Pn | Pn | 19 04 02.6 | +1.3 |
| CRMT | Chrome Mountai | 3.95 | 298 | *e*Pn | Pn | 19 04 02.4 | +0.8 |
| H17A | Grant Village | 3.95 | 282 | P | Pn | 19 04 03.2 | +1.7 |
| | baz=98 | | | | | | |
| H17A | Grant Village | 3.95 | 282 | *e*Pn | Pn | 19 04 03.6 | +2.1 |
| MOOW | Moose Ponds | 4.03 | 272 | *e*Pn | Pn | 19 04 03.2 | +0.6 |
| SNOW | Snow King Moun | 4.06 | 268 | *e*Pn | Pn | 19 04 03.9 | +0.8 |
| YPP | Pitchstone Pla | 4.09 | 280 | *e*Pn | Pn | 19 04 03.8 | +0.2 |
| YFT | Old Faithful | 4.14 | 282 | *e*Pb | Pb | 19 04 13.7 | +0.4 |
| IMW | Indian Meadow | 4.17 | 274 | *e*Pb | Pb | 19 04 14.1 | +0.2 |
| TPAW | Teton Pass | 4.20 | 269 | *e*Pn | Pn | 19 04 03.0 | -2.0 |
| YHH | Holmes Hill | 4.21 | 287 | *e*Pn | Pn | 19 04 07.0 | +1.8 |
| FXWY | Fox Creek | 4.24 | 271 | *e*Pn | Pn | 19 04 06.2 | +0.7 |
| O20A | White River Ci | 4.24 | 214 | P | Pn | 19 04 05.7 | +0.2 |
| | baz=31 | | | | | | |
| O20A | White River Ci | 4.24 | 214 | *e*Pn | Pn | 19 04 06.1 | +0.6 |
| AHID | Auburn Hatcher | 4.43 | 260 | *e*Pn | Pn | 19 04 09.2 | +1.2 |
| YHB | Horse Butte | 4.44 | 286 | *e*Pn | Pn | 19 04 08.6 | +0.2 |
| Q24A | Divide | 4.75 | 180 | *e*Pn | Pn | 19 04 14.0 | +1.5 |

*ellipse: s-maj=3.9km s-min=3.7km az=129.0,Suspected Mining explosion.*
*NEIC 62 km [38 miles] SSE of Gillette.*
**ISC 21 19:08:29.8**±0.9,**43.78N**±0.06×**105.18W**±0.05,**h0**km,**n50,** σ1**00**/46,**Wyoming**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **RSSD** | **Black Hills** | **0.89** | **67** | *e*Pb | | **Pb** | **19 08 48.7** | **+0.5** |
| **K22A** | **Casper** | **1.50** | **222** | P | | **Pn** | **19 08 56.5** | **-1.6** |
| | baz=40 | | | | | | | |
| **K22A** | **Casper** | **1.50** | **222** | *e*Pn | | **Pn** | **19 08 56.1** | **-2.0** |
| **PHWY** | **Pilot Hill** | **2.49** | **185** | *e*Pn | | **Pn** | **19 09 12.0** | **+0.1** |
| **RWWY** | **Rawlins** | **2.58** | **216** | *e*Pn | | **Pn** | **19 09 14.2** | **+1.2** |
| **N23A** | **Red Feather La** | **2.94** | **191** | P | | **Pn** | **19 09 19.3** | **+1.2** |
| | baz=11 | | | | | | | |
| **N23A** | **Red Feather La** | **2.94** | **191** | *e*Pn | | **Pn** | **19 09 19.1** | **+1.0** |
| **LAO** | **LASA Array** | **3.00** | **346** | *e*Pn | | **Pn** | **19 09 19.3** | **+0.7** |
| **RLMT** | **Red Lodge** | **3.22** | **296** | *e*Pn | | **Pn** | **19 09 21.8** | **0.0** |
| **BW06** | **Boulder Array** | **3.36** | **254** | *e*Pn | | **Pn** | **19 09 23.9** | **+0.2** |
| **PD31** | **Pinedale Array** | **3.36** | **254** | *e*Pn | | **Pn** | **19 09 23.6** | **-0.1** |
| PD31 | | | | eLg | | Lg | 19 10 09.4 | |
| **PDAR** | **Pinedale Array** | **3.36** | **254** | Pn | | **Pn** | **19 09 24.1** | **+0.4** |
| | 18nm,0.3s,baz=77,slow=16,SNR=27 | | | | | | | |
| PDAR | | | | Lg | | Lg | 19 10 09.4 | |
| | 18nm,0.3s,baz=77,slow=30,SNR=18 | | | | | | | |
| **PDAR** | **Pinedale Array** | **3.36** | **254** | *e*Pn | | **Pn** | **19 09 23.2** | **-0.5** |
| PDAR | | | | Lg | | Lg | 19 10 09.4 | |
| **OGNE** | **Ogallala** | **3.67** | **140** | *e*Pn | | **Pn** | **19 09 28.7** | **+0.8** |
| **GCMT** | **Greycliff** | **3.78** | **304** | *e*Pn | | **Pn** | **19 09 29.4** | **0.0** |
| **ISCO** | **Idaho Springs** | **4.00** | **185** | *e*Pn | | **Pn** | **19 09 33.9** | **+1.4** |
| **MOOW** | **Moose Ponds** | **4.04** | **271** | *e*Pn | | **Pn** | **19 09 34.1** | **+1.1** |
| **SNOW** | **Snow King Moun** | **4.06** | **267** | *e*Pn | | **Pn** | **19 09 34.3** | **+0.9** |
| **REDW** | **Red Top Meadow** | **4.15** | **266** | *e*Pn | | **Pn** | **19 09 35.3** | **+0.7** |
| **IMW** | **Indian Meadow** | **4.17** | **274** | *e*Pn | | **Pn** | **19 09 33.3** | **+1.4** |
| **YHH** | **Holmes Hill** | **4.20** | **286** | *e*Pn | | **Pn** | **19 09 36.0** | **+0.7** |
| **TPAW** | **Teton Pass** | **4.20** | **268** | *e*Pn | | **Pn** | **19 09 36.5** | **+1.1** |
| **FXWY** | **Fox Creek** | **4.25** | **270** | *e*Pn | | **Pn** | **19 09 36.7** | **+0.8** |
| **O20A** | **White River Ci** | **4.30** | **213** | P | | **Pn** | **19 09 37.0** | **+0.3** |
| | baz=31 | | | | | | | |
| **O20A** | **White River Ci** | **4.30** | **213** | *e*Pn | | **Pn** | **19 09 37.7** | **+1.0** |
| **AHID** | **Auburn Hatcher** | **4.45** | **259** | *e*Pn | | **Pn** | **19 09 40.7** | **+2.0** |
| **QLMT** | **Earthquake Lak** | **4.61** | **285** | *e*Sg | | **Sg** | **19 10 58.5** | **+0.6** |
| **EGMT** | **Eagleton** | **5.31** | **325** | *e*Pn | | **Pn** | **19 09 51.0** | **+0.6** |
| **TCUT** | **Toone Canyon** | **5.33** | **242** | *e*Pn | | **Pn** | **19 09 52.0** | **+1.2** |
| **MLI** | **Malad Range** | **5.40** | **253** | *e*Pn | | **Pn** | **19 09 52.1** | **+0.3** |
| **HRY** | **Holter Researc** | **5.54** | **304** | *e*Pn | | **Pn** | **19 09 53.6** | **+0.1** |
| **LRM** | **Limekiln Ridge** | **5.56** | **294** | *e*Pn | | **Pn** | **19 09 55.1** | **+1.0** |
| **P18A** | **Preston Nutter** | **5.62** | **224** | *e*Pn | | **Pn** | **19 09 55.8** | **+0.9** |
| **MDND** | **Maddock** | **5.63** | **42** | *e*Pn | | **Pn** | **19 09 55.4** | **+0.7** |
| **JLL** | **Jordanelle** | **5.64** | **238** | *e*Pn | | **Pn** | **19 09 55.3** | **+0.2** |
| **P17A** | **Butcher Ranch,** | **5.99** | **226** | *e*Pn | | **Pn** | **19 10 01.6** | **+1.7** |
| **SDCO** | **Great Sand Dun** | **6.04** | **182** | *e*Pn | | **Pn** | **19 10 01.0** | **+0.4** |
| **MPU** | **Maple Canyon** | **6.12** | **234** | *e*Pn | | **Pn** | **19 10 02.5** | **+0.9** |
| **SRU** | **San Rafael Swe** | **6.16** | **223** | *e*Pn | | **Pn** | **19 10 02.8** | **+0.6** |
| **S22A** | **4UR Ranch, Cre** | **6.16** | **192** | *e*Pn | | **Pn** | **19 10 03.8** | **+1.5** |
| **Q16A** | **Castle Valley** | **6.63** | **225** | *e*Pn | | **Pn** | **19 10 09.6** | **+0.9** |
| **MMU** | **Miners Mountai** | **7.25** | **222** | *e*Pn | | **Pn** | **19 10 16.8** | **-0.4** |
| **I10CA** | **LAC DU BONNET** | **8.96** | **41** | *i* | | | 20 06 30.0 | |
| | baz=219,slow=322,SNR=2.1 | | | | | | | |
| **ULM** | **Lac du Bonnet** | **9.06** | **41** | Pn | | **Pn** | **19 10 41.4** | **-0.4** |
| | 1.1nm,0.3s,baz=226,slow=12,SNR=7.7 | | | | | | | |
| ULM | | | | Pg | | | 19 11 11.4 | |
| | 0.5nm,0.3s,baz=225,slow=17,SNR=2.3 | | | | | | | |
| ULM | | | | Lg | | Lg | 19 13 11.1 | |
| | 0.5nm,0.3s,baz=24,slow=10.0,SNR=2.6 | | | | | | | |
| **NEW** | **Newport** | **9.44** | **302** | LR | | LR | 19 14 57.0 | |
| | comp=Z,110nm,19.6s,baz=140,slow=41 | | | | | | | |
| **TXAR** | **Lajitas Array** | **14.47** | **175** | LR | | LR | 19 17 58.6 | |
| | comp=Z,59nm,19.0s,baz=0.0,slow=40 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **19.54** | **347** | P | | **P** | **19 12 58.9** | **+0.3** |
| | 0.1nm,0.3s,baz=163,slow=9.9,SNR=5.1 | | | | | | | |
| **ARA0** | **ARCESS Array S** | **61.35** | **18** | *e*P | | **P** | **19 18 45.3** | **-1.5** |
| **ARCES** | **ARCESS Array B** | **61.35** | **18** | P | | **P** | **19 18 45.3** | **-1.5** |
| | 2.0nm,0.9s,baz=330,slow=8.3,SNR=3.3 | | | | | | | |
| **GEYT** | **Alibeck** | **97.27** | **13** | LR | | LR | 20 10 51.8 | |
| | comp=Z,39nm,18.1s,baz=280,slow=38 | | | | | | | |

*IDC **21** 19:13:42.5±0.5,56.65N×154.94W,h0km,mb4.3/28, mb1 4.5/30,mb1mx4.4/53,mbtmp4.3/30,ML4.1/2,MS3.4/18, Ms1 3.4/18,ms1mx3.2/56,Error ellipse: s-maj=14.6km s-min=9.5km az=0.0*
*BJI **21** 19:13:44.0,56.70N×154.90W,h10km,mb4.4/16, mB4.9/11,Ms4.9/5,Ms7 4.7/5*
*MOS **21** 19:13:45.5±0.8,56.75N×154.93W,h30km,mb4.8/32, Error ellipse: s-maj=10.9km s-min=5.0km az=85.5*
*ISCJB **21** 19:13:47.7±0.3,56.76N±0.02×154.71W±0.03,h49km±2km, mb4.5/122,MS3.4/20,Error ellipse: s-maj=3.7km s-min=2.5km az=4.8*
*NEIC **21** 19:13:48.1±0.0,56.59N×154.57W,h33km,mb4.6/79, ML4.3(AEIC),After AEIC.*
**ISC 21 19:13:48.7**±0.6,**56.74N**±0.05×**154.57W**±0.03,**h42**km±5km, **n623,** σ1**28**/642,**mb4.5**/125,**MS3.4**/20,**11C-14D,Kodiak Island region**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **OHAK** | **Old Harbor** | **0.85** | **55** | *e*Pn | | **Pn** | **19 14 04.3** | **+0.1** |
| OHAK | | | | S | | **Sn** | **19 14 16.5** | **+1.1** |
| **PLK4** | **Peulik 4** | **1.32** | **313** | P | | **Pn** | **19 14 10.9** | **+0.2** |
| **PLK3** | **Peulik 3** | **1.32** | **316** | P | | **Pn** | **19 14 11.2** | **+0.5** |
| **CAHL** | **Cahill** | **1.37** | **344** | P | | **Pn** | **19 14 12.0** | **+0.6** |
| **KJL** | **Kejulik** | **1.42** | **338** | P | | **Pn** | **19 14 12.8** | **+0.7** |
| **KDAK** | **Kodiak Island** | **1.50** | **45** | Pn | | **Pn** | **19 14 13.1** | **0.0** |
| | 165nm,0.3s,baz=220,slow=11,SNR=548 | | | | | | | |
| KDAK | | | | Lg | | Lg | 19 14 37.9 | |
| | 350nm,0.3s,baz=37,slow=11,SNR=20 | | | | | | | |
| KDAK | | | | LR | | LR | 19 15 04.9 | |
| | comp=Z,1μm,18.5s,baz=214,slow=48 | | | | | | | |
| **KDAK** | **Kodiak Island** | **1.50** | **45** | *e*P | | **Pn** | **19 14 13.1** | **0.0** |
| KDAK | | | | S | | **Sn** | **19 14 32.2** | **+0.8** |
| **KDAK** | **Kodiak Island** | **1.50** | **45** | *e*Pn | | **Pn** | **19 14 13.1** | **0.0** |
| KDAK | | | | S | | **Sn** | **19 14 32.2** | **+0.8** |
| KDAK | | | | Lg | | Lg | 19 14 37.9 | |
| **ACHA** | **Angle Creek He** | **1.53** | **345** | P | | **Pn** | **19 14 14.3** | **+0.8** |
| ACHA | | | | S | | **Sn** | **19 14 33.9** | **+1.6** |
| **ANCK** | **Angle Creek** | **1.54** | **342** | P | | **Pn** | **19 14 14.5** | **+0.7** |
| **KABU** | **Katmai Buttres** | **1.58** | **346** | P | | **Pn** | **19 14 15.9** | **+1.6** |
| KABU | | | | S | | **Sn** | **19 14 37.8** | **+4.2** |
| **PLWL** | **Peulik Whale M** | **1.62** | **324** | *e*Pn | | **Pn** | **19 14 15.1** | **+0.4** |
| **KELA** | **Mount Kelaz** | **1.81** | **340** | P | | **Pn** | **19 14 18.1** | **+0.6** |
| **KAPH** | **Katmai Pasha** | **1.86** | **4** | P | | **Pn** | **19 14 20.0** | **+1.8** |
| KAPH | | | | S | | **Sn** | **19 14 44.5** | **+4.0** |
| **ANNE** | **Aniakchak Nort** | **1.93** | **277** | P | | **Pn** | **19 14 18.1** | **-0.9** |
| **KAHC** | **Katmai Hardscr** | **1.93** | **353** | P | | **Pn** | **19 14 20.0** | **+0.9** |
| **ANPK** | **Aniakchak Peak** | **1.96** | **274** | P | | **Pn** | **19 14 18.9** | **-0.5** |
| **FOPK** | **Fourpeaked Vol** | **2.10** | **16** | P | | **Pn** | **19 14 22.4** | **+1.0** |
| **FOSS** | **Fourpeaked Sta** | **2.12** | **12** | *e*Pn | | **Pn** | **19 14 23.0** | **+1.4** |
| **CHGN** | **Chignik** | **2.18** | **260** | S | | **Sn** | **19 14 46.0** | **-2.0** |
| **CDD** | **Cape Douglas** | **2.25** | **12** | P | | **Pn** | **19 14 24.7** | **+1.3** |
| **VNSG** | **Veniaminof 6** | **2.58** | **258** | P | | **Pn** | **19 14 26.1** | **-1.9** |
| **VNHG** | **Veniaminof 1** | **2.60** | **260** | P | | **Pn** | **19 14 27.4** | **-0.9** |
| **AUI** | **Augustine Isla** | **2.67** | **13** | P | | **Pn** | **19 14 30.9** | **+1.8** |
| **AUW** | **Augustine West** | **2.70** | **12** | P | | **Pn** | **19 14 31.4** | **+1.9** |
| **CNPM** | **China Poot** | **3.30** | **31** | *e*Pn | | **Pn** | **19 14 38.6** | **+0.8** |
| CNPM | | | | S | | **Sn** | **19 15 17.3** | **+1.5** |
| **HOM** | **Homer** | **3.31** | **27** | *e*Pn | | **Pn** | **19 14 38.8** | **+0.9** |
| **ILS** | **Iliamna Low So** | **3.32** | **13** | P | | **Pn** | **19 14 39.5** | **+1.3** |
| **IVE** | **Iliamna Volcan** | **3.38** | **13** | P | | **Pn** | **19 14 40.4** | **+1.4** |
| **SDPT** | **Sand Point** | **3.59** | **250** | *e*Pn | | **Pn** | **19 14 40.2** | **-1.6** |
| SDPT | | | | S | | **Sn** | **19 15 20.2** | **-2.7** |
| **BRLK** | **Bradley Lake** | **3.60** | **31** | *e*Pn | | **Pn** | **19 14 42.0** | **+0.1** |
| **RED** | **Redoubt Volcan** | **3.81** | **14** | P | | **Pn** | **19 14 46.1** | **+1.3** |
| **RDJH** | **Redoubt Jeurge** | **3.97** | **13** | P | | **Pn** | **19 14 48.9** | **+1.8** |
| **DFR** | **Drift River** | **3.98** | **14** | P | | **Pn** | **19 14 48.7** | **+1.4** |
| **SEW** | **Seward** | **4.31** | **36** | *e*Pn | | **Pn** | **19 14 51.1** | **-0.5** |
| **PS4A** | **Pavlof South-4** | **4.32** | **254** | P | | **Pn** | **19 14 50.3** | **-1.5** |
| **SVW2** | **Sparrevohn** | **4.40** | **354** | *e*Pn | | **Pn** | **19 14 53.6** | **+0.7** |
| **SLKM** | **Skilak Lake** | **4.41** | **29** | *e*P | | **Pn** | **19 14 53.6** | **+0.6** |
| **SLKM** | **Skilak Lake** | **4.41** | **29** | *e*Pn | | **Pn** | **19 14 53.6** | **+0.6** |
| **CKL** | **Chakachamna La** | **4.61** | **14** | P | | **Pn** | **19 14 57.0** | **+1.1** |
| **DT1** | **Dutton Round H** | **4.64** | **253** | *e*Pn | | **Pn** | **19 14 54.1** | **-2.0** |
| **SPU** | **Mount Spurr** | **4.64** | **15** | *e*Pn | | **Pn** | **19 14 57.4** | **+1.2** |
| **SPWE** | **Spurr West** | **4.66** | **12** | P | | **Pn** | **19 14 58.2** | **+1.7** |
| **SPCP** | **Crater Peak Br** | **4.71** | **14** | P | | **Pn** | **19 14 58.4** | **+1.1** |
| **SPCG** | **Spurr Capps Gl** | **4.75** | **15** | P | | **Pn** | **19 14 59.1** | **+1.3** |
| **STLK** | **Strandline Lak** | **4.97** | **15** | P | | **Pn** | **19 15 02.0** | **+1.2** |
| **RC01** | **Rabbit Creek A** | **5.03** | **28** | *e*Pn | | **Pn** | **19 15 02.4** | **+0.9** |
| **SUA** | **Susitna One** | **5.13** | **21** | *e*Pn | | **Pn** | **19 15 04.6** | **+1.6** |
| **FALS** | **False Pass** | **5.34** | **253** | *e*Pn | | **Pn** | **19 15 04.6** | **-1.1** |
| **SKT** | **Skwentna** | **5.48** | **15** | *e*Pn | | **Pn** | **19 15 09.0** | **+1.3** |
| **ISLZ** | **Isanotski Laza** | **5.55** | **252** | P | | **Pn** | **19 15 06.8** | **-1.9** |
| **PMR** | **Palmer** | **5.61** | **28** | *e*P | | **Pn** | **19 15 10.0** | **+0.6** |
| **PMR** | **Palmer** | **5.61** | **28** | *e*Pn | | **Pn** | **19 15 10.0** | **+0.6** |
| **GHO** | **Glory Hole Cre** | **5.81** | **27** | *e*Pn | | **Pn** | **19 15 12.8** | **+0.5** |
| **EYAK** | **Cordova Ski Ar** | **5.98** | **47** | *e*Pn | | **Pn** | **19 15 15.2** | **+0.7** |
| **SML** | **Sawmill** | **6.00** | **30** | *e*P | | **Pn** | **19 15 15.9** | **+1.0** |
| **SML** | **Sawmill** | **6.00** | **30** | *e*Pn | | **Pn** | **19 15 15.8** | **+1.0** |
| **TT01** | **Tatalina** | **6.23** | **354** | *e*Pn | | **Pn** | **19 15 18.9** | **+1.0** |
| **PPLA** | **Purkeypile** | **6.29** | **10** | *e*Pn | | **Pn** | **19 15 20.4** | **+1.5** |
| **SCM** | **Sheep Creek Mo** | **6.31** | **33** | *e*P | | **Pn** | **19 15 19.6** | **+0.5** |
| **SCM** | **Sheep Creek Mo** | **6.31** | **33** | *e*Pn | | **Pn** | **19 15 19.6** | **+0.5** |
| **DIV** | **Divide** | **6.33** | **42** | *e*Pn | | **Pn** | **19 15 19.3** | **-0.1** |
| **RAGM** | **Ragged Mountai** | **6.33** | **51** | *e*Pn | | **Pn** | **19 15 18.7** | **-0.8** |
| **KLU** | **Klutina** | **6.52** | **39** | *e*Pn | | **Pn** | **19 15 21.8** | **-0.2** |
| **BMRM** | **Bremner River** | **6.68** | **47** | *e*Pn | | **Pn** | **19 15 23.3** | **-0.9** |
| **TRF** | **Thorofare Moun** | **7.06** | **16** | *e*Pn | | **Pn** | **19 15 30.1** | **+0.6** |
| **KTH** | **Kantishna Hill** | **7.07** | **13** | *e*Pn | | **Pn** | **19 15 30.6** | **+1.0** |
| **KULT** | **Kultieth River** | **7.13** | **56** | *e*Pn | | **Pn** | **19 15 29.3** | **-1.1** |
| **DHY** | **Denali Highway** | **7.31** | **27** | *e*Pn | | **Pn** | **19 15 33.6** | **+0.7** |
| **UNV** | **Unalaska Valle** | **7.40** | **252** | *e*Pn | | **Pn** | **19 15 34.1** | **+0.1** |
| **HARP** | **HAARP** | **7.42** | **36** | *e*Pn | | **Pn** | **19 15 34.5** | **+0.2** |
| **MSW** | **Makushin Switc** | **7.52** | **253** | *e*Pn | | **Pn** | **19 15 33.5** | **-2.1** |
| **MCK** | **McKinley** | **7.55** | **19** | *e*P | | **Pn** | **19 15 36.6** | **+0.6** |
| **MCK** | **McKinley** | **7.55** | **19** | *e*Pn | | **Pn** | **19 15 36.6** | **+0.6** |
| **BPAW** | **Bear Paw Mtn.** | **7.59** | **12** | *e*Pn | | **Pn** | **19 15 37.3** | **+0.7** |
| **PAX** | **Paxson** | **7.74** | **32** | *e*P | | **Pn** | **19 15 41.2** | **+2.5** |
| **PAX** | **Paxson** | **7.74** | **32** | *e*Pn | | **Pn** | **19 15 41.2** | **+2.5** |
| **RKAV** | **Rock Avalanche** | **7.78** | **57** | *e*Pn | | **Pn** | **19 15 38.1** | **-1.3** |
| **PCA** | **Pinnacle** | **8.23** | **60** | *e*Pn | | **Pn** | **19 15 46.0** | **+0.6** |
| **MENT** | **Mentasta** | **8.26** | **37** | *e*Pn | | **Pn** | **19 15 47.9** | **+2.1** |
| **MLY** | **Manley** | **8.52** | **11** | *e*Pn | | **Pn** | **19 15 48.8** | **+0.4** |
| **PNL** | **Peninsula** | **8.53** | **64** | *e*Pn | | **Pn** | **19 15 48.0** | **-1.5** |
| **HDA** | **Harding Lake** | **8.55** | **23** | *e*Pn | | **Pn** | **19 15 51.2** | **+1.5** |
| **SPIA** | **Saint Paul Isl** | **8.58** | **279** | *e*Pn | | **Pn** | **19 15 50.0** | **-0.1** |
| **CCB** | **Clear Creek Bu** | **8.59** | **20** | *e*Pn | | **Pn** | **19 15 49.3** | **-1.0** |
| **DOT** | **Dot Lake** | **8.67** | **33** | *e*Pn | | **Pn** | **19 15 53.2** | **+1.8** |
| **COLA** | **College** | **8.79** | **19** | *e*P | | **Pn** | **19 15 52.7** | **-0.2** |
| **COLA** | **College** | **8.79** | **19** | *e*Pn | | **Pn** | **19 15 52.7** | **-0.2** |
| **MDM** | **Murphy Dome** | **8.80** | **18** | *e*Pn | | **Pn** | **19 15 54.0** | **+0.9** |
| **IL1** | **Eielson Array** | **8.88** | **22** | *e*Pn | | **Pn** | **19 15 54.6** | **+0.4** |
| **ILAR** | **Eielson Array** | **8.88** | **22** | Pn | | **Pn** | **19 15 53.5** | **-0.8** |
| | 0.8nm,0.3s,baz=218,slow=14,SNR=38 | | | | | | | |
| ILAR | | | | Sn | | **Sn** | **19 17 26.5** | **-6.4** |
| | 1.2nm,0.3s,baz=196,slow=25,SNR=2.6 | | | | | | | |
| ILAR | | | | LR | | LR | 19 19 42.4 | |
| | comp=Z,385nm,18.4s,baz=220,slow=40 | | | | | | | |
| **ILB** | **Eielson Array** | **8.88** | **22** | *e*Sn | | **Sn** | **19 17 26.5** | **-6.4** |
| **IM3** | **Indian Mountai** | **9.28** | **2** | P | | **Pn** | **19 16 00.0** | **+0.3** |
| **IMAR** | **Indian Mountai** | **9.28** | **2** | *e*Pn | | **Pn** | **19 16 00.0** | **+0.3** |
| **EGAK** | **Eagle** | **10.37** | **34** | *e*Pn | | **Pn** | **19 16 16.1** | **+1.5** |
| **DAWY** | **Dawson** | **10.47** | **39** | *e*Pn | | **Pn** | **19 16 17.4** | **+1.4** |
| **COLD** | **Coldfoot** | **10.72** | **9** | *e*Pn | | **Pn** | **19 16 19.5** | **+0.2** |
| **FYU** | **Fort Yukon** | **10.79** | **20** | *e*Pn | | **Pn** | **19 16 22.0** | **+1.6** |
| **WHY** | **Whitehorse** | **10.95** | **61** | *e*Pn | | **Pn** | **19 16 22.6** | **-0.1** |
| **INK** | **Inuvik** | **15.01** | **31** | Pn | | **Pn** | **19 17 18.9** | **+1.3** |
| | 0.4nm,0.3s,baz=229,slow=11,SNR=14 | | | | | | | |
| INK | | | | Sn | | **S** | **19 20 16.8** | **-1.8** |
| | baz=25,slow=29,SNR=5.8 | | | | | | | |
| **INK** | **Inuvik** | **15.01** | **31** | *e*P | | **Pn** | **19 17 19.4** | **+1.8** |
| INK | | | | pmax | pmax | | | |
| | comp=Z,13nm,0.7s | | | | | | | |
| **INK** | **Inuvik** | **15.01** | **31** | *e*Pn | | **Pn** | **19 17 19.4** | **+1.8** |
| | comp=Z,13nm,0.7s | | | | | | | |
| INK | | | | *e*S | | **S** | **19 20 16.8** | **-1.8** |
| **BBB** | **Bella Bella** | **15.99** | **95** | Pn | | **P** | **19 17 33.4** | **0.0** |
| | comp=Z,0.6nm,0.3s,baz=286,slow=7.4,SNR=4.7 | | | | | | | |
| **YKW3** | **Yellowknife Ar** | **20.73** | **57** | *e*P | | **P** | **19 18 25.8** | **+0.6** |
| | comp=Z,12nm,0.8s | | | | | | | |
| **YKA** | **Yellowknife Ar** | **20.74** | **57** | P | | **P** | **19 18 26.2** | **+0.9** |
| | comp=Z,11nm,0.7s,baz=271,slow=10.0,SNR=176 | | | | | | | |
| YKA | | | | PcP | | **PcP** | **19 22 32.9** | **-0.2** |
| | comp=Z,0.9nm,0.6s,baz=279,slow=1.7,SNR=9.3 | | | | | | | |
| YKA | | | | LR | | LR | 19 26 30.2 | |
| | comp=Z,11nm,19.9s,baz=180,slow=37 | | | | | | | |
| **YKB5** | **Yellowknife Ar** | **20.74** | **57** | *e*P | | **P** | **19 18 25.0** | **-0.4** |
| YKB5 | | | | *e*PcP | | **PcP** | **19 22 32.6** | **-0.5** |
| **BILL** | **Bilibino** | **20.94** | **318** | *i*/*e* | P | **P** | **19 18 26.6** | **-0.9** |
| BILL | | | | | | | 19 18 44.9 | |
| BILL | | | | pmax | | pmax | | |
| | comp=Z,11nm,1.2s | | | | | | | |
| BILL | | | | MLR | | MLR | | |
| | comp=Z,147nm,17.0s | | | | | | | |
| **B05A** | **Bryant** | **21.34** | **100** | P | | **P** | **19 18 33.8** | **+2.0** |
| | baz=305 | | | | | | | |
| **C06D** | **Leavenworth** | **22.19** | **99** | P | | **P** | **19 18 42.9** | **+1.9** |
| | baz=306 | | | | | | | |
| **LON** | **Longmire** | **22.40** | **103** | *e*P | | **P** | **19 18 44.4** | **+1.0** |
| LON | | | | pmax | | pmax | | |
| | comp=Z,8.0nm,1.0s | | | | | | | |
| **LON** | **Longmire** | **22.40** | **103** | *e*P | | **P** | **19 18 44.4** | **+1.0** |
| | comp=Z,7.6nm,1.0s | | | | | | | |
| **LTY** | **Liberty** | **22.71** | **100** | *e*P | | **P** | **19 18 48.3** | **+1.6** |
| | comp=Z,14nm,1.3s | | | | | | | |
| **B08A** | **Colville Reser** | **22.79** | **97** | *e*P | | **P** | **19 18 49.3** | **+1.8** |
| | comp=Z,12nm,0.8s | | | | | | | |
| **H04A** | **Detroit Lake** | **23.54** | **107** | *e*P | | **P** | **19 18 57.4** | **+2.4** |
| | comp=Z,35nm,1.4s | | | | | | | |
| **G05D** | **Wamic, OR** | **23.63** | **105** | P | | **P** | **19 18 57.8** | **+2.0** |
| | baz=311 | | | | | | | |
| **D08A** | **Wollman Farm,** | **23.78** | **99** | *e*P | | **P** | **19 18 58.6** | **+1.5** |
| | comp=Z,48nm,1.9s | | | | | | | |
| **HAWA** | **Hanford** | **23.86** | **101** | *e*P | | **P** | **19 18 59.5** | **+1.7** |
| | comp=Z,7.2nm,0.8s | | | | | | | |
| **F07A** | **Phinny Hill Vi** | **23.95** | **102** | *e*P | | **P** | **19 19 01.0** | **+2.2** |
| | comp=Z,16nm,0.8s | | | | | | | |
| **I04A** | **Tendick Farm,** | **24.04** | **109** | P | | **P** | **19 19 01.2** | **+1.6** |
| | baz=314 | | | | | | | |
| **NEW** | **Newport** | **24.05** | **95** | P | | **P** | **19 19 01.2** | **+1.6** |
| | comp=Z,5.4nm,0.9s,baz=311,slow=7.9,SNR=5.1 | | | | | | | |
| **NEW** | **Newport** | **24.05** | **95** | P | | **P** | **19 19 01.3** | **+1.6** |
| | baz=304 | | | | | | | |
| **NEW** | **Newport** | **24.05** | **95** | *e*P | | **P** | **19 19 01.6** | **+1.9** |
| NEW | | | | pmax | | pmax | | |
| | comp=Z,6.0nm,0.9s | | | | | | | |
| **NEW** | **Newport** | **24.05** | **95** | *e*P | | **P** | **19 19 01.6** | **+1.9** |
| | comp=Z,6.4nm,0.9s | | | | | | | |
| **I05D** | **Terrebonne, OR** | **24.22** | **107** | P | | **P** | **19 19 03.3** | **+2.0** |
| | baz=312 | | | | | | | |
| **E09A** | **Wood Farm, Sta** | **24.53** | **99** | *e*P | | **P** | **19 19 05.9** | **+1.9** |
| | comp=Z,12nm,0.8s | | | | | | | |
| **J04D** | **Umpqua Nationa** | **24.58** | **109** | P | | **P** | **19 19 06.8** | **+2.1** |
| | baz=314 | | | | | | | |
| **L02D** | **Cave Junction,** | **24.59** | **113** | P | | **P** | **19 19 06.8** | **+2.2** |
| | baz=317 | | | | | | | |
| **HUMO** | **Hull Mountain** | **24.59** | **112** | *e*P | | **P** | **19 19 06.0** | **+1.4** |
| | comp=Z,14nm,1.0s | | | | | | | |
| **G08A** | **Pilot Rock** | **24.86** | **102** | *e*P | | **P** | **19 19 08.9** | **+1.7** |
| | comp=Z,5.6nm,0.8s | | | | | | | |
| **J05D** | **Fort Rock, OR** | **25.00** | **108** | P | | **P** | **19 19 11.0** | **+2.5** |
| | baz=314,SNR=6.0 | | | | | | | |
| **YBH** | **Yreka Blue Hor** | **25.35** | **113** | P | | **P** | **19 19 13.0** | **+1.4** |
| | comp=Z,2.4nm,0.7s,baz=332,slow=4.8,SNR=4.1 | | | | | | | |
| YBH | | | | LR | | LR | 19 26 48.9 | |
| | comp=Z,116nm,19.3s,baz=304,slow=31 | | | | | | | |
| **F10A** | **Beach Ranch, E** | **25.37** | **99** | *e*P | | **P** | **19 19 13.6** | **+1.8** |
| | comp=Z,9.5nm,0.8s | | | | | | | |
| **I07A** | **Izee** | **25.37** | **105** | *e*P | | **P** | **19 19 14.1** | **+2.3** |
| | comp=Z,7.6nm,1.0s | | | | | | | |
| **WALA** | **Waterton Lakes** | **25.38** | **90** | *e*P | | **P** | **19 19 13.0** | **+1.2** |
| | comp=Z,7.9nm,0.9s | | | | | | | |
| **M04C** | **Macdoel** | **25.76** | **112** | P | | **P** | **19 19 17.5** | **+2.1** |
| | baz=316 | | | | | | | |
| **JTMT** | **Jette** | **25.91** | **93** | *e*P | | **P** | **19 19 18.7** | **+2.0** |
| | comp=Z,18nm,1.0s | | | | | | | |
| **N02D** | **Trinity Center** | **25.92** | **114** | P | | **P** | **19 19 18.2** | **+1.5** |
| | baz=318 | | | | | | | |
| **BMO** | **Blue Mountains** | **26.04** | **101** | *e*P | | **P** | **19 19 19.9** | **+2.0** |
| BMO | | | | pmax | | pmax | | |
| | comp=Z,3.0nm,0.8s | | | | | | | |
| **BMO** | **Blue Mountains** | **26.04** | **101** | *e*P | | **P** | **19 19 19.9** | **+2.0** |
| | comp=Z,2.7nm,0.8s | | | | | | | |
| **J08A** | **Circle Bar Ran** | **26.41** | **105** | *e*P | | **P** | **19 19 22.8** | **+1.5** |
| | comp=Z,6.0nm,0.7s | | | | | | | |
| **MOD** | **Modoc Plateau** | **26.47** | **109** | *e*P | | **P** | **19 19 23.5** | **+1.7** |
| | comp=Z,3.6nm,0.8s | | | | | | | |
| **MSO** | **Missoula** | **26.64** | **94** | P | | **P** | **19 19 24.1** | **+0.8** |
| | baz=307 | | | | | | | |
| **SEY** | **Seymchan** | **26.67** | **305** | P | | **P** | **19 19 21.4** | **-1.9** |
| | comp=Z,0.6nm,0.5s,baz=60,slow=16,SNR=3.6 | | | | | | | |
| **LRDM** | **Redding Peak** | **26.93** | **113** | *e*PcP | | **PcP** | **19 22 45.0** | **-1.8** |
| **WVOR** | **Wild Horse Val** | **26.96** | **107** | *e*P | | **P** | **19 19 28.6** | **+2.4** |
| WVOR | | | | pmax | | pmax | | |
| | comp=Z,9.0nm,1.1s | | | | | | | |
| **WVOR** | **Wild Horse Val** | **26.96** | **107** | *e*P | | **P** | **19 19 28.6** | **+2.4** |
| | comp=Z,9.1nm,1.1s | | | | | | | |
| **PEA1** | **Petropavlovsk-** | **27.22** | **283** | *e*P | | **P** | **19 19 27.2** | **-1.1** |
| **PETK** | **Petropavlovsk-** | **27.22** | **283** | P | | **P** | **19 19 27.2** | **-1.1** |
| | comp=Z,4.3nm,0.4s,baz=76,slow=12,SNR=32 | | | | | | | |
| PETK | | | | LR | | LR | 19 29 48.8 | |
| | comp=Z,48nm,21.4s,baz=91,slow=36 | | | | | | | |
| **EGMT** | **Eagleton** | **28.25** | **89** | P | | **P** | **19 19 38.4** | **+0.8** |
| | baz=305,SNR=6.5 | | | | | | | |
| **EGMT** | **Eagleton** | **28.25** | **89** | *e*P | | **P** | **19 19 38.9** | **+1.3** |
| | comp=Z,33nm,1.4s | | | | | | | |
| **HLID** | **Hailey** | **28.45** | **100** | P | | **P** | **19 19 40.9** | **+1.3** |
| | baz=312 | | | | | | | |
| **HLID** | **Hailey** | **28.45** | **100** | *e*P | | **P** | **19 19 41.6** | **+2.0** |
| | comp=Z,2.4nm,0.6s | | | | | | | |
| **RES** | **Resolute Bay** | **28.54** | **29** | P | | **P** | **19 19 40.9** | **+1.0** |
| | comp=Z,1.0nm,0.5s,baz=259,slow=8.8,SNR=5.7 | | | | | | | |
| **PAHR** | **Pah Rah Range** | **28.55** | **112** | *e*P | | **P** | **19 19 42.6** | **+2.1** |
| | comp=Z,5.3nm,1.0s | | | | | | | |
| **BOZ** | **Bozeman (W)** | **28.66** | **94** | P | | **P** | **19 19 42.4** | **+1.0** |
| | baz=308 | | | | | | | |
| **YHB** | **Horse Butte** | **29.44** | **95** | *e*P | | **P** | **19 19 50.4** | **+2.1** |
| | comp=Z,7.7nm,1.0s | | | | | | | |
| **YHH** | **Holmes Hill** | **29.60** | **95** | *e*P | | **P** | **19 19 52.0** | **+2.1** |
| | comp=Z,12nm,1.1s | | | | | | | |
| **YMR** | **Madison River** | **29.62** | **95** | *e*P | | **P** | **19 19 52.2** | **+2.3** |
| | comp=Z,26nm,1.3s | | | | | | | |
| **KVN** | **Kaiserville** | **29.70** | **111** | *e*P | | **P** | **19 19 52.7** | **+2.0** |
| KVN | | | | pmax | | pmax | | |
| | comp=Z,5.0nm

baz=315
GLA **Glamis** 36.02 114 P P 19 20 47.1 +1.4
baz=323
MVCO **Mesa Verde** 36.13 103 P P 19 20 47.9 +1.1
baz=318
B34A **Aery, Baudette** 36.22 77 P P 19 20 47.8 +0.6
baz=306
G32A **Webster** 36.65 83 P P 19 20 51.4 +0.5
baz=309
Q24A **Divide** 36.67 98 eP P 19 20 53.4 +1.9
baz=315
Q24A **Divide** 36.67 98 eP P 19 20 53.8 +2.2
comp=Z,7.8nm,0.7s
D34A **Park Rapids** 36.77 79 P P 19 20 52.8 +0.9
baz=307
B35A **Bob, Littlefor** 36.79 77 P P 19 20 52.7 +0.6
baz=306
YAK **Yakutsk** 36.88 310 eP P 19 20 49.5 -3.1
C35A **Jirik Farms, M** 37.05 78 P P 19 20 54.4 +0.1
baz=307
E34A **Wadena** 37.13 80 P P 19 20 55.4 +0.4
baz=308
H32A **Carlson Farm,** 37.16 84 P P 19 20 56.3 +1.0
baz=310
G33A **Ortonville** 37.27 83 P P 19 20 56.9 +0.7
baz=309
SDCO **Great Sand Dun** 37.36 99 P P 19 20 59.0 +1.7
baz=317,SNR=5.9
SDCO **Great Sand Dun** 37.36 99 eP P 19 20 58.8 +1.5
comp=Z,5.7nm,1.0s
D35A **Remer** 37.39 78 P P 19 20 58.0 +0.9
baz=308
H33A **Prehn Over Nor** 37.43 83 P P 19 20 58.0 +0.5
baz=310
I32A **Karley and Nic** 37.46 85 P P 19 20 58.1 +0.3
baz=310
E35A **Pequot Lakes** 37.52 79 P P 19 20 59.0 +0.7
baz=308
C36A **Pine Crest Far** 37.63 77 P P 19 20 59.8 +0.7
baz=307
D36A **Goodland** 37.81 78 P P 19 21 01.5 +0.8
baz=308
H34A **Spellman Lake,** 37.97 83 P P 19 21 02.8 +0.7
baz=310
C37A **Embarrass** 38.00 76 P P 19 21 02.9 +0.7
baz=307
K32A **Verdigre** 38.08 87 P P 19 21 03.8 +0.7
baz=312
ECSD **EROS Data Cent** 38.11 85 P P 19 21 03.9 +0.6
baz=311
D37A **Cotton** 38.22 77 P P 19 21 04.8 +0.7
baz=308
EYMN **Ely** 38.23 76 P P 19 21 05.0 +0.8
baz=307,SNR=7.7
EYMN **Ely** 38.23 76 eP P 19 21 05.5 +1.2
comp=Z,26nm,0.8s
MHTCO **State Highway** 38.25 99 eP P 19 21 06.6 +1.8
comp=Z,17nm,1.1s
T25A **Trinidad** 38.39 99 P P 19 21 07.7 +1.7
baz=317
T25A **Trinidad** 38.39 99 eP P 19 21 08.2 +2.2
comp=Z,8.2nm,0.8s
F36A **Milaca** 38.43 80 P P 19 21 06.7 +0.7
baz=309
C38A **Sawbill Land.** 38.49 76 P P 19 21 07.3 +0.9
baz=308
TUC **Tucson** 38.67 110 P P 19 21 09.6 +1.4
baz=322
G36A **St. Michael** 38.71 81 P P 19 21 09.2 +0.9
baz=310
ANMO **Albuquerque** 38.92 103 LR LR 19 37 37.5
comp=Z,18nm,20.4s,baz=146,slow=37
ANMO **Albuquerque** 38.92 103 P P 19 21 11.6 +1.2
baz=319
ANMO **Albuquerque** 38.92 103 eP P 19 21 11.6 +1.2
ANMO pmax pmax
comp=Z,2.0nm,0.6s
ANMO **Albuquerque** 38.92 103 eP P 19 21 11.6 +1.2
comp=Z,2.0nm,0.6s
F37A **Hinrichs Farm,** 39.01 79 P P 19 21 11.4 +0.7
baz=309
E38A **The Farm, Brul** 39.03 77 P P 19 21 11.5 +0.6
baz=309
H36A **Jessenland, He** 39.03 82 P P 19 21 12.1 +1.1
baz=310
C39A **Grand Marais** 39.04 75 P P 19 21 11.7 +0.7
baz=308
K34A **Le Mars** 39.09 85 P P 19 21 12.5 +1.0
baz=312
M33A **Taylor Creek F** 39.23 88 P P 19 21 13.6 +0.8
baz=313
F38A **Pierce - Schro** 39.26 78 P P 19 21 14.2 +1.3
baz=309
H37A **Dierke Farm, C** 39.58 81 P P 19 21 16.3 +0.7
baz=310
N33A **J Bar K, Exete** 39.66 89 P P 19 21 16.6 +0.3
baz=313
I37A **Lemond, Waseca** 39.69 82 P P 19 21 17.2 +0.7
baz=311
E39A **Mellen** 39.71 77 P P 19 21 17.3 +0.7
baz=309
CBKS **Cedar Bluff** 39.75 93 P P 19 21 18.5 +1.4
baz=315
G38A **Ridgeland** 39.78 79 P P 19 21 17.9 +0.7
baz=310
F39A **Loretta** 39.81 78 P P 19 21 18.3 +0.8
baz=309
H38A **Maiden Rock** 39.87 80 P P 19 21 19.1 +1.2
baz=310
E40A **Wakefield** 40.02 76 P P 19 21 20.7 +1.5
baz=309
J37A **Redenius Farm,** 40.07 83 P P 19 21 20.0 +0.3
baz=311
G39A **Holcombe** 40.07 79 P P 19 21 20.2 +0.6
baz=310
M35A **Neola** 40.13 87 P P 19 21 20.6 +0.4
baz=313
F40A **Park Falls** 40.23 77 P P 19 21 21.7 +0.7
baz=310
I38A **Scanlan Farm,** 40.25 81 P P 19 21 21.8 +0.6
baz=311
D41A **Chassel** 40.34 75 P P 19 21 22.9 +1.1
baz=309
K37A **Belmond** 40.38 83 P P 19 21 22.2 -0.1
baz=312
O34A **Beatrice** 40.47 89 P P 19 21 23.6 +0.7
baz=314
E41A **Kenton** 40.51 76 P P 19 21 24.1 +0.9
baz=309
G40A **Rib Lake** 40.61 78 P P 19 21 24.8 +0.7
baz=310
J38A **Wedel Dairy, R** 40.65 82 P P 19 21 25.2 +0.7
baz=312
L37A **Phoenix Point,** 40.75 84 P P 19 21 25.3 0.0
baz=312
I39A **Houston** 40.81 81 P P 19 21 26.2 +0.4
baz=311
F41A **Three Lakes** 40.89 77 P P 19 21 27.1 +0.6
baz=310
H40A **Chili** 40.92 79 P P 19 21 27.3 +0.6
baz=311
K38A **Parkersburg** 40.94 83 P P 19 21 27.4 +0.6
baz=312
J39A **Decorah** 41.06 81 P P 19 21 27.7 -0.1
baz=312
E42A **Champion** 41.09 75 P P 19 21 28.7 +0.7
baz=310
L38A **Oak Wood Farm,** 41.17 84 P P 19 21 29.2 +0.4
baz=312
Q34A **Chapman** 41.21 90 P P 19 21 29.8 +0.7
baz=315
KSU1 **Kansas State U** 41.27 90 P P 19 21 29.9 +0.4
baz=315
I40A **Norwalk** 41.28 80 P P 19 21 30.2 +0.5
baz=311
P35A **Duane Minner,** 41.29 89 P P 19 21 30.1 +0.3
baz=314
H41A **Junction City** 41.33 78 P P 19 21 30.5 +0.5
baz=311
K39A **Oelwein** 41.38 82 P P 19 21 30.4 -0.1
baz=312
F42A **Maple Grove Fa** 41.40 76 P P 19 21 31.2 +0.7
baz=310
N37A **Lee Faris, Mou** 41.43 86 P P 19 21 31.1 +0.2
baz=314
R34A **Isabella, Hill** 41.48 91 P P 19 21 31.9 +0.5
baz=315
M38A **Pleasantville** 41.54 85 P P 19 21 32.0 +0.2
baz=313
J40A **Soldiers Grove** 41.54 81 P P 19 21 31.9 +0.1
baz=312
I41A **Arkdale** 41.58 79 P P 19 21 32.7 +0.6
baz=311
G42A **Mountain** 41.58 77 P P 19 21 32.9 +0.8
baz=310
E43A **Lone Tree Farm** 41.61 75 P P 19 21 33.1 +0.9
baz=310
MSTX **Muleshoe** 41.64 101 P P 19 21 33.8 +1.0
baz=319
MSTX **Muleshoe** 41.64 101 eP P 19 21 34.3 +1.5
comp=Z,9.9nm,0.8s
P36A **Good Intent, A** 41.68 88 P P 19 21 33.4 +0.5
baz=314
L39A **Vinton** 41.71 83 P P 19 21 33.3 +0.1
baz=313
K40A **Colesburg** 41.79 82 P P 19 21 34.0 +0.1
baz=312
F43A **Flat Rock, Esc** 41.87 75 P P 19 21 34.7 +0.3
baz=310
N38A **Joes South For** 41.95 85 P P 19 21 35.6 +0.5
baz=314
J41A **Loganville** 41.96 80 P P 19 21 35.4 +0.2
baz=312
G43A **Wallace** 41.97 76 P P 19 21 36.0 +0.8
baz=311
MNTX **Cornudas Mount** 41.98 105 P P 19 21 37.2 +1.7
baz=321,SNR=6.0
MNTX **Cornudas Mount** 41.98 105 eP P 19 21 37.6 +2.1
comp=Z,8.1nm,1.1s
H42A **Shiocton** 42.00 78 P P 19 21 36.3 +0.8
baz=311
M39A **Webster** 42.06 84 P P 19 21 36.3 +0.3
baz=313
JFWS **Jewell Farm** 42.13 81 P P 19 21 36.2 -0.4
baz=312
F44A **Big Bay de Noc** 42.17 75 P P 19 21 36.9 0.0
baz=310
L40A **Anamosa** 42.18 82 P P 19 21 37.1 +0.1
baz=313
I42A **Draeger Farm,** 42.20 79 P P 19 21 37.7 +0.5
baz=312
N39A **Derby Farms, D** 42.29 85 P P 19 21 37.7 -0.2
baz=314
K41A **Shullsburg** 42.31 81 P P 19 21 37.9 -0.1
baz=312
T34A **McClaskey Farm** 42.44 93 P P 19 21 39.5 +0.4
baz=316
H43A **Windswept, Lux** 42.44 77 P P 19 21 39.6 +0.6
baz=311
S35A **Otter Creek Ra** 42.44 91 P P 19 21 39.4 +0.3
baz=316
J42A **Columbus** 42.47 79 P P 19 21 39.3 0.0
baz=312
L41A **Preston** 42.57 82 P P 19 21 40.0 -0.1
baz=313
E45A **Wooded Hills,** 42.59 73 P P 19 21 40.8 +0.6
baz=310
P38A **Dawn** 42.59 87 P P 19 21 40.8 +0.4
baz=314
I43A **Langenfeld Bro** 42.62 78 P P 19 21 40.9 +0.4
baz=312
O39A **Kirksville** 42.70 85 P P 19 21 41.2 0.0
baz=314
K42A **Prairie Point,** 42.72 80 P P 19 21 41.6 +0.2
baz=312
N40A **Mertquake, Sal** 42.79 84 P P 19 21 42.0 +0.1
baz=314
S36A **Lake Cedric, C** 42.81 90 P P 19 21 42.0 -0.1
baz=316
J43A **Natural Harves** 42.81 79 P P 19 21 42.2 +0.1
baz=312
F45A **CMU Biological** 42.84 74 P P 19 21 42.7 +0.4
baz=311
KLR **Kul'dur** 42.97 293 P P 19 21 42.1 -1.2
comp=Z,0.2nm,0.5s,baz=48,slow=8.7,SNR=12
Q38A **Cooks Store, C** 43.02 88 P P 19 21 43.7 -0.1
baz=315
P39B **Salisbury** 43.12 86 P P 19 21 44.6 -0.1
baz=315
T36A **Boggs Farm, Ca** 43.13 91 P P 19 21 44.7 0.0
baz=316
O40A **La Belle** 43.16 85 P P 19 21 44.9 -0.1
baz=314
S37A **Fort Scott** 43.20 90 P P 19 21 44.8 -0.6
baz=316
WMOK **Wichita Mounta** 43.24 96 P P 19 21 46.8 +1.1
baz=318
WMOK **Wichita Mounta** 43.24 96 eP P 19 21 47.0 +1.3
WMOK pmax pmax
comp=Z,9.0nm,0.8s
WMOK **Wichita Mounta** 43.24 96 eP P 19 21 47.0 +1.3
comp=Z,8.9nm,0.8s
Q39A **Willow Grove F** 43.31 87 P P 19 21 46.0 -0.2
baz=315
N41A **Harden Midland** 43.31 84 P P 19 21 45.8 -0.3
baz=314
K43A **Burlington** 43.32 80 P P 19 21 46.2 +0.1
baz=313
R38A **Fenwick Farm,** 43.41 89 P P 19 21 45.9 -1.0
baz=316
L43A **Garden Prairie** 43.45 80 P P 19 21 47.3 +0.1
baz=313
P40A **Paris** 43.48 86 P P 19 21 47.3 -0.2
baz=315
T37A **Cheneyville 18** 43.61 90 P P 19 21 48.6 -0.1
baz=316
N42A **Yates City** 43.67 83 P P 19 21 49.0 0.0
baz=314
SUMG **Summit** 43.72 23 i P P 19 21 50.4 +0.8
SUMG pmax pmax
comp=Z,6.0nm,1.1s
SUMG **Summit** 43.72 23 i P P 19 21 50.4 +0.8
comp=Z,5.6nm,1.1s
R39A **Chumby, Stover** 43.79 88 P P 19 21 49.3 -0.7
baz=316
S38A **Stockton** 43.80 89 P P 19 21 49.4 -0.7
baz=316
Q40A **Laux Farm, Aux** 43.84 86 P P 19 21 50.4 -0.1
baz=315
M43A **Waltham Townsh** 43.84 81 P P 19 21 50.2 -0.2
baz=314
DAG **Danmarks Havn** 43.87 13 i P P 19 21 50.3 +0.1
DAG pmax pmax
comp=Z,7.0nm,0.7s
DAG **Danmarks Havn** 43.87 13 i P P 19 21 50.3 +0.1
comp=Z,6.9nm,0.7s
P41A **Bay, Barry** 43.92 85 P P 19 21 50.9 -0.1
baz=315
W35A **Tecumseh** 43.98 94 P P 19 21 51.6 0.0
baz=318
T38A **Diamond** 44.02 90 P P 19 21 51.5 -0.4
baz=316
S39A **Bolivar** 44.08 89 P P 19 21 51.5 -0.9
baz=316
R40A **Maddies Statio** 44.23 87 P P 19 21 53.2 -0.4
baz=316
HDIL **Hopedale** 44.27 83 P P 19 21 53.6 -0.3
baz=314
HDIL **Hopedale** 44.27 83 eP P 19 21 54.2 +0.4
comp=Z,32nm,0.8s
Q41A **Truxton** 44.33 86 P P 19 21 53.3 -1.1
baz=315
SFJD **Kangerlussuaq** 44.34 33 i P P 19 21 55.3 +1.2
SFJD pmax pmax
comp=Z,23nm,1.2s
SFJD **Kangerlussuaq** 44.34 33 i P P 19 21 55.3 +1.2
comp=Z,23nm,1.2s
W36A **Wetumka** 44.34 94 P P 19 21 54.4 -0.1
baz=318
ABTX **Abilene, Hawle** 44.36 99 P P 19 21 55.2 +0.5
baz=320
ABTX **Abilene, Hawle** 44.36 99 eP P 19 21 55.9 +1.1
comp=Z,17nm,0.6s
M44A **Midewin, Midew** 44.37 81 P P 19 21 54.5 -0.2
baz=314
P42A **Winchester** 44.37 84 P P 19 21 54.3 -0.4
baz=315
V37A **Hulbert** 44.39 92 P P 19 21 54.5 -0.3
baz=317
U38A **Gravette** 44.40 91 P P 19 21 54.2 -0.8
baz=317
O43A **Sugar Creek Fa** 44.45 83 P P 19 21 54.9 -0.3
baz=314
T39A **Clever** 44.53 89 P P 19 21 55.2 -0.8
baz=316
S40A **Lebanon** 44.60 88 P P 19 21 55.8 -0.7
baz=316
R41A **Rosebud** 44.72 86 P P 19 21 57.1 -0.3
baz=316
N44A **Piper City** 44.73 81 P P 19 21 57.2 -0.3
baz=314
Q42A **Golden Eagle** 44.74 85 P P 19 21 57.9 +0.3
baz=315
TX31 **Lajitas Ar. Si** 44.75 106 eP P 19 21 59.2 +1.3
LTX **Lajitas** 44.75 106 eP P 19 21 59.3 +1.3
LTX e 19 23 39.6
LTX **Lajitas** 44.75 106 eP P 19 21 59.3 +1.3
LTX ePcP PcP 19 23 39.6 +0.1
TXAR **Lajitas Array** 44.75 106 P P 19 21 59.3 +1.3
comp=Z,4.4nm,0.8s,baz=313,slow=5.9,SNR=48
TXAR PcP PcP 19 23 39.6 +0.1
comp=Z,0.9nm,0.6s,baz=179,slow=0.7,SNR=6.2
TXAR LR LR 19 39 18.2
comp=Z,66nm,19.2s,baz=0.0,slow=34
W37B **Quinton** 44.78 93 P P 19 21 58.8 +0.8
baz=318
P43A **Skaggs, Pawnee** 44.78 84 P P 19 21 57.8 -0.1
baz=315
V38A **Canehill** 44.81 91 P P 19 21 58.0 -0.3
baz=317
Y35A **Marietta** 44.82 95 P P 19 21 59.5 +1.2
baz=319
T40A **Mansfield** 44.91 88 P P 19 21 57.7 -1.3
baz=316
U39A **Green Forest** 44.94 90 P P 19 21 58.4 -0.9
baz=317
CCM **Cathedral Cave** 44.97 87 P P 19 21 59.0 -0.4
baz=316
S41A **Jillco Farms,** 45.02 87 P P 19 21 59.3 -0.6
baz=316
N45A **Kentland** 45.04 81 P P 19 22 00.1 +0.2
baz=314
R42A **Luebbering** 45.05 86 P P 19 21 59.7 -0.4
baz=316
Q43A **New Douglas** 45.18 84 P P 19 22 01.3 +0.2
baz=315
X37A **Clayton** 45.22 93 P P 19 22 01.9 +0.4
baz=318
X37A **Clayton** 45.22 93 eP P 19 22 02.6 +1.1
comp=Z,6.6nm,0.8s
Y36A **Durant** 45.23 95 P P 19 22 02.4 +0.8
baz=319
V39A **Pettigrew** 45.25 91 P P 19 22 01.6 -0.2
baz=317
U40A **Yellville** 45.31 90 P P 19 22 01.2 -1.0
baz=317
W38A **Poteau** 45.34 92 P P 19 22 01.7 -0.7
baz=318
O45A **Potomac** 45.34 82 P P 19 22 02.4 +0.1
baz=314
P44A **Sand Creek, Wi** 45.40 83 P P 19 22 02.7 -0.1
baz=315
T41A **Mountain View** 45.41 88 P P 19 22 02.0 -0.9
baz=316
S42A **Caledonia** 45.42 86 P P 19 22 02.0 -1.0
baz=316
VLDQ **Val d'Or** 45.43 66 eP P 19 22 01.9 -1.1
comp=Z,23nm,1.4s
R43A **Red Bud** 45.53 85 P P 19 22 03.7 -0.2
baz=316
Y37A **Hugo** 45.54 94 P P 19 22 04.9 +0.9
baz=318
Q44A **Meyer Farm, Va** 45.58 84 P P 19 22 03.7 -0.6
baz=315
Z36A **Blue Ridge** 45.63 95 P P 19 22 03.7 -1.0
baz=319
W39A **Magazine** 45.65 91 P P 19 22 04.7 -0.1
baz=318
V40A **Witts Springs** 45.73 90 P P 19 22 04.8 -0.8
baz=317
BOD **Bodaibo** 45.76 312 eP P 19 22 03.3 -2.2
BOD pmax pmax
comp=Z,6.0nm,1.0s
T42A **Van Buren** 45.79 87 P P 19 22 04.8 -1.2
baz=316
U41A **Viola** 45.83 89 P P 19 22 05.6 -0.7
baz=317
P45A **Graceland, Par** 45.84 82 P P 19 22 06.4 +0.1
baz=315
JCT **Junction City** 45.93 101 P P 19 22 07.9 +0.8
baz=321,SNR=11
JCT **Junction City** 45.93 101 eP P 19 22 08.4 +1.2
JCT pmax pmax
comp=Z,28nm,0.7s
JCT **Junction City** 45.93 101 eP P 19 22 08.4 +1.2
comp=Z,28nm,0.7s
S43A **Fulton Ridge,** 45.96 86 P P 19 22 06.9 -0.3
baz=316
X39A **Fountain Ranch** 45.97 92 P P 19 22 07.8 +0.3
baz=318
WHTX **Lake Whitney,** 46.04 98 P P 19 22 08.2 +0.3
baz=320
Q45A **Warren Harvey,** 46.06 83 P P 19 22 08.0 0.0
baz=315
P46A **Rosedale** 46.07 82 P P 19 22 07.9 -0.2
baz=315
V41A **Mountainview** 46.11 89 P P 19 22 07.3 -1.2
baz=317
SCHQ **Schefferville** 46.11 53 P P 19 22 08.7 +0.3
comp=Z,10nm,0.8s,baz=293,slow=10,SNR=11
O47A **Sheridan** 46.19 80 P P 19 22 08.6 -0.5
baz=315
T43A **Greenville** 46.19 87 P P 19 22 08.8 -0.3
baz=316
OLIL **Olney** 46.21 83 eP P 19 22 09.6 +0.4
comp=Z,43nm,0.8s
MIAR **Mount Ida** 46.24 92 P P 19 22 10.1 +0.5
baz=318
MIAR **Mount Ida** 46.24 92 eP P 19 22 10.1 +0.5
MIAR pmax pmax
comp=Z,7.0nm,0.8s
MIAR **Mount Ida** 46.24 92 eP P 19 22 10.1 +0.5
comp=Z,7.2nm,0.8s
P47A **Martinsville** 46.67 81 P P 19 22 12.7 -0.1
baz=315
BLO **Bloomington** 46.76 82 eP P 19 22 13.9 +0.4
BLO pmax pmax
comp=Z,55nm,0.8s
BLO **Bloomington** 46.76 82 eP P 19 22 13.9 +0.4
comp=Z,55nm,0.8s
435B **Jarrell** 46.90 99 P P 19 22 15.5 +0.7
baz=321
USIN **University of** 46.99 84 eP P 19 22 15.7 +0.3
comp=Z,51nm,0.9s
T46A **Princeton** 47.54 85 P P 19 22 19.6 0.0
baz=317
833A **Chaparral WMA,** 47.84 102 P P 19 22 22.2 +0.1
baz=322
ACSO **Alum Creek Sta** 47.92 78 P P 19 22 22.5 -0.1
baz=315
T47A **Sharon Grove** 48.01 84 P P 19 22 23.0 -0.3
baz=317
S48A **Wiedeman Farm,** 48.10 83 P P 19 22 23.8 -0.2
baz=316
MJAR **Matsushiro Arr** 48.20 275 LR LR 19 42 16.3
comp=Z,44nm,21.6s,baz=50,slow=36
WVT **Waverly** 48.24 86 P P 19 22 25.4 +0.4
baz=317
WVT **Waverly** 48.24 86 eP P 19 22 25.5 +0.4
WVT pmax pmax
comp=Z,13nm,0.8s
WVT **Waverly** 48.24 86 eP P 19 22 25.5 +0.4
comp=Z,13nm,0.8s
U47A **Clarksville** 48.31 85 P P 19 22 25.8 +0.2
baz=317
T48A **Bowling Green** 48.31 84 P P 19 22 25.8 +0.2
baz=317
HKT **Hockley** 48.49 98 eP P 19 22 28.8 +1.8
HKT pmax pmax
comp=Z,18nm,1.5s
HKT **Hockley** 48.49 98 eP P 19 22 28.8 +1.8
comp=Z,18nm,1.5s
Y44A **Strider, Charl** 48.53 90 P P 19 22 27.5 +0.2
baz=318
OXF **Oxford** 48.56 88 P P 19 22 27.8 +0.2
baz=318
U48A **Cassie Pea, Po** 48.67 84 P P 19 22 28.0 -0.4
baz=317
M54A **Oil Creek Stat** 48.80 75 P P 19 22 29.4 +0.1
baz=315
M54A **Oil Creek Stat** 48.80 75 eP P 19 22 29.5 +0.1
comp=Z,31nm,1.1s
PLAL **Pickwick Lake** 48.95 87 eP P 19 22 30.9 +0.3
comp=Z,40nm,0.4s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Y45A** | **Yeager Farm, C** | **48.97** | **89** | P | | **P** | **19 22 30.0** | **-0.7** |
| | baz=318 | | | | | | | | |
| **X46A** | **Booneville** | **48.98** | **88** | P | | **P** | **19 22 31.0** | **+0.2** |
| | baz=318 | | | | | | | | |
| **N54A** | **Moraine State** | **49.01** | **75** | P | | **P** | **19 22 30.9** | **-0.1** |
| | baz=315 | | | | | | | | |
| **V48A** | **Smith Brothers** | **49.08** | **85** | P | | **P** | **19 22 31.6** | **+0.1** |
| | baz=318 | | | | | | | | |
| **Y46A** | **Houston** | **49.34** | **88** | P | | **P** | **19 22 33.9** | **+0.4** |
| | baz=318 | | | | | | | | |
| **X47A** | **Russelville** | **49.41** | **87** | P | | **P** | **19 22 34.1** | **0.0** |
| | baz=318 | | | | | | | | |
| **244A** | **Avery, Jackson** | **49.72** | **92** | P | | **P** | **19 22 36.8** | **+0.4** |
| | baz=320 | | | | | | | | |
| **Y47A** | **UCPARC, Winfie** | **49.88** | **88** | P | | **P** | **19 22 37.7** | **0.0** |
| | baz=318 | | | | | | | | |
| **X48A** | **Hartselle** | **49.91** | **87** | P | | **P** | **19 22 37.1** | **-0.7** |
| | baz=318 | | | | | | | | |
| **245A** | **Little AP, Sta** | **50.16** | **91** | P | | **P** | **19 22 40.1** | **+0.3** |
| | baz=320 | | | | | | | | |
| **Y48A** | **Jasper** | **50.24** | **87** | P | | **P** | **19 22 40.2** | **-0.1** |
| | baz=318 | | | | | | | | |
| **X49A** | **Woodville** | **50.26** | **86** | P | | **P** | **19 22 40.2** | **-0.3** |
| | baz=318 | | | | | | | | |
| **Z47A** | **Carrollton** | **50.28** | **88** | P | | **P** | **19 22 40.6** | **-0.1** |
| | baz=319 | | | | | | | | |
| **Z48A** | **Northport** | **50.43** | **88** | P | | **P** | **19 22 41.8** | **0.0** |
| | baz=319 | | | | | | | | |
| **147A** | **Livingston** | **50.57** | **89** | P | | **P** | **19 22 43.0** | **+0.2** |
| | baz=319 | | | | | | | | |
| **X50A** | **Fort Payne** | **50.67** | **85** | P | | **P** | **19 22 43.3** | **-0.4** |
| | baz=318 | | | | | | | | |
| **Y49A** | **Blount Mountai** | **50.70** | **87** | P | | **P** | **19 22 43.5** | **-0.4** |
| | baz=319 | | | | | | | | |
| **LRAL** | **Lakeview Retre** | **51.00** | **88** | P | | **P** | **19 22 45.5** | **-0.6** |
| | baz=319 | | | | | | | | |
| **Z49A** | **Columbiana** | **51.13** | **87** | P | | **P** | **19 22 46.6** | **-0.5** |
| | baz=319 | | | | | | | | |
| **BRAL** | **Brewton** | **52.38** | **89** | P | | **P** | **19 22 56.8** | **+0.3** |
| | baz=320 | | | | | | | | |
| **KMSC** | **Kings Mountain** | **52.52** | **81** | P | | **P** | **19 22 57.2** | **-0.2** |
| | baz=318 | | | | | | | | |
| **KSRS** | **Korea Array** | **53.12** | **284** | P | | **P** | **19 23 01.2** | **-0.5** |
| | comp=Z,0.9nm,0.6s,baz=35,slow=7.6,SNR=3.3 | | | | | | | | |
| KSRS | | | | LR | | LR | 19 45 25.6 | | |
| | comp=Z,18nm,21.1s,baz=75,slow=36 | | | | | | | | |
| **KSAR** | **Wonju Array Be** | **53.15** | **284** | P | | **P** | **19 23 01.2** | **-0.8** |
| **KSAR** | **Wonju Array Be** | **53.15** | **284** | P | | **P** | **19 23 01.2** | **-0.8** |
| **JCJ** | **Chichijima** | **53.19** | **264** | LR | | LR | 19 42 25.1 | | |
| | comp=Z,29nm,20.3s,baz=113,slow=32 | | | | | | | | |
| **ARA0** | **ARCESS Array S** | **54.03** | **360** | *e*P | | **P** | **19 23 07.7** | **-0.3** |
| **ARCES** | **ARCESS Array B** | **54.03** | **360** | P | | **P** | **19 23 07.7** | **-0.3** |
| | comp=Z,1.6nm,0.6s,baz=27,slow=6.6,SNR=11 | | | | | | | | |
| **TIGA** | **Tifton** | **54.08** | **86** | P | | **P** | **19 23 08.9** | **-0.1** |
| | baz=320 | | | | | | | | |
| **SONA1** | **Songino Array** | **56.04** | **307** | *e*P | | **P** | **19 23 22.8** | **-0.2** |
| **SONA0** | **Songino Array** | **56.06** | **307** | *e*P | | **P** | **19 23 23.2** | **0.0** |
| **SONM** | **Songino Array** | **56.06** | **307** | P | | **P** | **19 23 23.2** | **0.0** |
| | comp=Z,3.0nm,0.6s,baz=42,slow=6.4,SNR=28 | | | | | | | | |
| SONM | | | | LR | | LR | 19 49 14.1 | | |
| | comp=Z,83nm,20.1s,baz=9.5,slow=38 | | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **58.97** | **298** | *e*P | | P | 19 23 51.4 | +7.7 | |
| HHC | | | | S | | S | 19 31 56.1 | +9.2 | |
| HHC | | | | ScS | | **ScS** | **19 33 38.9** | **+8.9** | |
| **HHC** | **Hu-ho-hao-te** | **58.97** | **298** | SS | | SS | 19 35 50.8 | +11 | |
| HHC | | | | pmax | | pmax | | | |
| | comp=Z,15nm,1.2s | | | | | | | | |
| HHC | | | | pmax | | pmax | | | |
| | comp=Z,100nm,5.4s | | | | | | | | |
| HHC | | | | LR | | LR | | | |
| | comp=N,110nm,15.9s | | | | | | | | |
| HHC | | | | LR | | LR | | | |
| | comp=E,110nm,15.3s | | | | | | | | |
| HHC | | | | LR | | LR | | | |
| | comp=Z,65nm,15.9s | | | | | | | | |
| **ZAA1** | **Zalesovo Array** | **59.51** | **324** | *e*P | | **P** | **19 23 46.9** | **-0.2** |
| **ZAA0** | **Zalesovo Array** | **59.52** | **324** | *e*P | | **P** | **19 23 47.2** | **+0.1** |
| | comp=Z,5.9nm,1.3s | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **59.52** | **324** | P | | **P** | **19 23 46.9** | **-0.2** |
| | comp=Z,1.7nm,0.5s,baz=37,slow=6.5,SNR=11 | | | | | | | | |
| ZALV | | | | LR | | LR | 19 51 08.4 | | |
| | comp=Z,46nm,19.2s,baz=68,slow=38 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **59.52** | **324** | *e*P | | **P** | **19 23 46.8** | **-0.4** |
| **ZALV** | **Zalesovo Beam** | **59.52** | **324** | *e*P | | **P** | **19 23 46.8** | **-0.4** |
| **NB2** | **NORSAR Subarra** | **62.03** | **8** | P | | **P** | **19 24 04.4** | **+0.2** |
| | comp=Z,2.1nm,0.6s,baz=351,slow=6.9 | | | | | | | | |
| **NB200** | **NORSAR Array S** | **62.03** | **8** | *e*P | | **P** | **19 24 04.7** | **+0.5** |
| **NOA** | **NORSAR Array B** | **62.03** | **8** | P | | **P** | **19 24 04.7** | **+0.5** |
| | comp=Z,2.1nm,0.5s,baz=352,slow=6.7,SNR=11 | | | | | | | | |
| **FIA0** | **FINESS Array S** | **62.15** | **360** | *e*P | | **P** | **19 24 05.0** | **+0.1** |
| **FIA0** | **FINESS Array S** | **62.15** | **360** | *e*P | | **P** | **19 24 05.0** | **+0.1** |
| **FINES** | **FINESS Array B** | **62.15** | **360** | P | | **P** | **19 24 05.0** | **+0.1** |
| | comp=Z,2.4nm,0.5s,baz=14,slow=7.9,SNR=26 | | | | | | | | |
| **KLMR** | **Klimovskoe** | **62.22** | **352** | *e*P | | P | 19 23 54.3 | -11 | |
| KLMR | | | | pmax | | pmax | | | |
| | comp=Z,20nm,2.0s | | | | | | | | |
| **ARU** | **Arti** | **64.05** | **340** | *c i*P | | **P** | **19 24 16.5** | **-1.1** |
| ARU | | | | | | | 19 24 49.3 | | |
| ARU | | | | | | | 19 26 38.0 | | |
| ARU | | | | S | | **S** | **19 32 50.0** | **-0.6** |
| ARU | | | | SS | | **SS** | **19 36 55.4** | **-3.3** |
| ARU | | | | pmax | | pmax | | | |
| | comp=Z,6.0nm,1.0s | | | | | | | | |
| **ARU** | **Arti** | **64.05** | **340** | *e*P | | **P** | **19 24 17.1** | **-0.5** |
| | comp=Z,13nm,1.4s | | | | | | | | |
| **KURK** | **Kurchatov** | **64.26** | **326** | *i* P | | **P** | **19 24 18.5** | **-0.5** |
| KURK | | | | pmax | | pmax | | | |
| | comp=Z,25nm,2.5s | | | | | | | | |
| **KURK** | **Kurchatov** | **64.26** | **326** | *e*P | | **P** | **19 24 18.9** | **-0.1** |
| | comp=Z,2.8nm,0.6s | | | | | | | | |
| **BRVK** | **Borovoye** | **64.56** | **332** | *i* P | | **P** | **19 24 20.1** | **-0.9** |
| BRVK | | | | pmax | | pmax | | | |
| | comp=Z,34nm,2.5s | | | | | | | | |
| **BRVK** | **Borovoye** | **64.56** | **332** | *e*P | | **P** | **19 24 20.9** | **0.0** |
| | comp=Z,4.8nm,0.8s | | | | | | | | |
| **VSU** | **Vasula** | **65.14** | **359** | *i* P | | **P** | **19 24 24.2** | **-0.4** |
| VSU | | | | pmax | | pmax | | | |
| | comp=Z,53nm,1.7s | | | | | | | | |
| **GTA** | **Gaotai** | **65.62** | **305** | *e*P | | **P** | **19 24 26.8** | **-1.4** |
| GTA | | | | pP | | pP | 19 24 31.3 | -9.1 | |
| GTA | | | | sP | | sP | 19 24 34.3 | -11 | |
| GTA | | | | pmax | | pmax | | | |
| | comp=Z,2.0nm,0.6s | | | | | | | | |
| **MK31** | **Makanchi Array** | **66.46** | **321** | *e*P | | **P** | **19 24 32.9** | **-0.5** |
| **MK31** | **Makanchi Array** | **66.46** | **321** | *e*P | | **P** | **19 24 32.9** | **-0.5** |
| **MK32** | **Makanchi Array** | **66.46** | **321** | *e*P | | **P** | **19 24 32.8** | **-0.6** |
| **MKAR** | **Makanchi Array** | **66.46** | **321** | P | | **P** | **19 24 32.8** | **-0.6** |
| | comp=Z,1.5nm,0.5s,baz=38,slow=7.3,SNR=26 | | | | | | | | |
| MKAR | | | | LR | | LR | 19 56 03.1 | | |
| | comp=Z,53nm,20.0s,baz=17,slow=38 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **66.46** | **321** | *e*P | | **P** | **19 24 32.9** | **-0.5** |
| | comp=Z,28nm,1.4s | | | | | | | | |
| **MK01** | **Makanchi Array** | **66.48** | **321** | *e*P | | **P** | **19 24 32.9** | **-0.6** |
| **WMQ** | **Urumqi** | **67.03** | **316** | P | | **P** | **19 24 35.5** | **-1.6** |
| WMQ | | | | pmax | | pmax | | | |
| | comp=Z,17nm,0.9s | | | | | | | | |
| WMQ | | | | pmax | | pmax | | | |
| | comp=Z,160nm,4.3s | | | | | | | | |
| WMQ | | | | LR | | LR | | | |
| | comp=Z,69nm,19.5s | | | | | | | | |
| WMQ | | | | LR | | LR | | | |
| | comp=Z,61nm,15.9s | | | | | | | | |
| WMQ | | | | LR | | LR | | | |
| | comp=Z,72nm,21.1s | | | | | | | | |
| **LPSR** | **Galich'ya Gora** | **70.45** | **351** | *e*P | | **P** | **19 24 57.3** | **-0.9** |
| LPSR | | | | pmax | | pmax | | | |
| | comp=Z,10.0nm,0.9s | | | | | | | | |
| **ABKAR** | **Akbulak array** | **70.55** | **337** | *e*P | | **P** | **19 24 58.6** | **-0.2** |
| | comp=Z,54nm,0.6s | | | | | | | | |
| **VRH** | **Novokhopyorsk** | **71.58** | **349** | *e*P | | **P** | **19 25 03.6** | **-1.4** |
| VRH | | | | pmax | | pmax | | | |
| | comp=Z,7.0nm,0.7s | | | | | | | | |
| **VSR** | **Storozhevoye** | **71.81** | **351** | *e*P | | **P** | **19 25 05.3** | **-1.1** |
| VSR | | | | pmax | | pmax | | | |
| | comp=Z,10.0nm,0.6s | | | | | | | | |
| **CLL** | **Collm** | **71.83** | **8** | *e*P | | **P** | **19 25 07.0** | **+0.5** |
| **CLL** | **Collm** | **71.83** | **8** | *e*P | | **P** | **19 25 07.0** | **+0.5** |
| **PVCC** | **Panska Ves** | **72.72** | **7** | *e*P | | **P** | **19 25 12.8** | **+1.0** |
| **PVCC** | **Panska Ves** | **72.72** | **7** | *e*P | | **P** | **19 25 12.8** | **+1.0** |
| **AAK** | **Ala-Archa** | **72.73** | **324** | *e*P | | **P** | **19 25 12.2** | **-0.1** |
| AAK | | | | pmax | | pmax | | | |
| | comp=Z,3.0nm,0.9s | | | | | | | | |
| **AAK** | **Ala-Archa** | **72.73** | **324** | *e*P | | **P** | **19 25 12.8** | **+0.5** |
| | comp=Z,5.5nm,0.9s | | | | | | | | |
| **NKC** | **Novy Kostel** | **72.85** | **9** | *e*P | | **P** | **19 25 13.7** | **+1.0** |
| **NKC** | **Novy Kostel** | **72.85** | **9** | *e*P | | **P** | **19 25 13.7** | **+1.0** |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **AKASG** | **Malin Array Be** | **72.88** | **357** | P | | **P** | **19 25 12.2** | **-0.5** |
| | comp=Z,1.8nm,0.4s,baz=5.9,slow=5.8,SNR=11 | | | | | | | | |
| **AKBB** | **Malin Array Si** | **72.88** | **357** | *e*P | | **P** | **19 25 12.6** | **-0.2** |
| AKBB | | | | pmax | | pmax | | | |
| | comp=Z,7.0nm,0.6s | | | | | | | | |
| **AKBB** | **Malin Array Si** | **72.88** | **357** | *e*P | | **P** | **19 25 12.6** | **-0.2** |
| | comp=Z,6.8nm,0.6s | | | | | | | | |
| **KIEV** | **Kiev** | **72.88** | **357** | *e*P | | **P** | **19 25 11.6** | **-1.2** |
| KIEV | | | | pmax | | pmax | | | |
| | comp=Z,7.0nm,1.1s | | | | | | | | |
| **KIEV** | **Kiev** | **72.88** | **357** | *e*P | | **P** | **19 25 12.3** | **-0.4** |
| | comp=Z,6.8nm,0.6s | | | | | | | | |
| **DPC** | **Dobruska-Polom** | **73.01** | **6** | *e*P | | **P** | **19 25 14.3** | **+0.7** |
| DPC | | | | *e*pP | | **pP** | **19 25 26.1** | **+0.1** |
| **DPC** | **Dobruska-Polom** | **73.01** | **6** | *e*P | | **P** | **19 25 14.3** | **+0.7** |
| DPC | | | | *e* | | | 19 25 26.1 | | |
| **PRU** | **Pruhonice** | **73.25** | **7** | *e*P | | **P** | **19 25 15.7** | **+0.7** |
| **PRU** | **Pruhonice** | **73.25** | **7** | *e*P | | **P** | **19 25 15.7** | **+0.7** |
| **GOPC** | **GO Pecny, Ondr** | **73.34** | **7** | *e*P | | **P** | **19 25 18.2** | **+2.6** |
| **GOPC** | **GO Pecny, Ondr** | **73.34** | **7** | *e*P | | **P** | **19 25 18.2** | **+2.6** |
| **KKAR** | **Karatay Array** | **73.55** | **327** | *e*P | | **P** | **19 25 16.8** | **-0.1** |
| KKAR | | | | pmax | | pmax | | | |
| | comp=Z,28nm,0.6s | | | | | | | | |
| **KKAR** | **Karatay Array** | **73.55** | **327** | *e*P | | **P** | **19 25 16.8** | **-0.1** |
| | comp=Z,28nm,0.6s | | | | | | | | |
| **MORC** | **Moravsky Berou** | **73.65** | **5** | ⇑*i*P | | **P** | **19 25 17.4** | **0.0** |
| **MORC** | **Moravsky Berou** | **73.65** | **5** | ⇑P | | **P** | **19 25 17.4** | **0.0** |
| **KHC** | **Kasperske Hory** | **74.03** | **8** | *e*P | | **P** | **19 25 20.8** | **+1.1** |
| KHC | | | | *e*pP | | **pP** | **19 25 33.4** | **+1.4** |
| **KHC** | **Kasperske Hory** | **74.03** | **8** | *e*P | | **P** | **19 25 20.8** | **+1.1** |
| KHC | | | | *e* | | | 19 25 33.4 | | |
| **KHC** | **Kasperske Hory** | **74.03** | **8** | *e*P | | **P** | **19 25 21.1** | **+1.4** |
| | comp=Z,1.8nm,1.0s | | | | | | | | |
| **VRAC** | **Vranov** | **74.06** | **6** | ⇑*i*P | | **P** | **19 25 20.8** | **+1.0** |
| **VRAC** | **Vranov** | **74.06** | **6** | ⇑P | | **P** | **19 25 20.8** | **+1.0** |
| **STHS** | **Stebnicka Huta** | **74.15** | **3** | *e*P | | **P** | **19 25 21.6** | **+1.3** |
| STHS | | | | pmax | | pmax | | | |
| | comp=Z,5.0nm,0.7s | | | | | | | | |
| **STHS** | **Stebnicka Huta** | **74.15** | **3** | *e*P | | **P** | **19 25 21.6** | **+1.3** |
| **GEC2** | **GERESS Array S** | **74.33** | **8** | *e*P | | **P** | **19 25 21.9** | **+0.4** |
| GEC2 | | | | pmax | | pmax | | | |
| | comp=Z,6.0nm,1.3s | | | | | | | | |
| **GEC2** | **GERESS Array S** | **74.33** | **8** | *e*P | | **P** | **19 25 21.9** | **+0.4** |
| | comp=Z,5.8nm,1.3s | | | | | | | | |
| **GERES** | **GERESS Array B** | **74.33** | **8** | P | | **P** | **19 25 21.9** | **+0.4** |
| | comp=Z,1.4nm,0.5s,baz=357,slow=4.9,SNR=15 | | | | | | | | |
| **GEA0** | **GERESS Array S** | **74.34** | **8** | *e*P | | **P** | **19 25 21.9** | **+0.5** |
| **LANS** | **Liptovska Anna** | **74.36** | **4** | *e*P | | **P** | **19 25 22.9** | **+1.3** |
| **LANS** | **Liptovska Anna** | **74.36** | **4** | *e*P | | **P** | **19 25 22.9** | **+1.3** |
| **VYHS** | **Vyhne** | **74.99** | **5** | *e*P | | **P** | **19 25 25.4** | **+0.2** |
| VYHS | | | | pmax | | pmax | | | |
| | comp=Z,3.0nm,1.2s | | | | | | | | |
| **VYHS** | **Vyhne** | **74.99** | **5** | *e*P | | **P** | **19 25 25.4** | **+0.2** |
| **KSH** | **Kashi** | **75.05** | **322** | P | | **P** | **19 25 29.1** | **+3.3** |
| KSH | | | | pP | | pP | 19 25 39.1 | +0.9 | |
| KSH | | | | PcP | | **sP** | **19 25 43.5** | **+0.5** |
| KSH | | | | PP | | **PP** | **19 28 20.0** | **+6.6** |
| KSH | | | | S | | **S** | **19 35 02.8** | **+2.2** |
| KSH | | | | SKS | | **SKSac** | **19 35 30.9** | **-0.5** |
| KSH | | | | ScS | | **ScS** | **19 35 35.3** | **+0.5** |
| KSH | | | | pmax | | pmax | | | |
| | comp=Z,4.0nm,0.8s | | | | | | | | |
| KSH | | | | pmax | | pmax | | | |
| | comp=Z,77nm,4.4s | | | | | | | | |
| KSH | | | | LR | | LR | | | |
| | comp=Z,75nm,5.7s | | | | | | | | |
| KSH | | | | LR | | LR | | | |
| | comp=Z,70nm,4.4s | | | | | | | | |
| KSH | | | | LR | | LR | | | |
| | comp=Z,130nm,4.3s | | | | | | | | |
| **KECS** | **Kecovo** | **75.06** | **3** | *e*P | | **P** | **19 25 26.1** | **+0.5** |
| KECS | | | | pmax | | pmax | | | |
| | comp=Z,2.0nm,0.7s | | | | | | | | |
| **KECS** | **Kecovo** | **75.06** | **3** | *e*P | | **P** | **19 25 26.1** | **+0.5** |
| **CONA** | **Conrad Observa** | **75.39** | **7** | *i* pP | | **P** | **19 25 28.8** | **+1.2** |
| | comp=Z,2.6nm,0.8s | | | | | | | | |
| **SORM** | **Soroca** | **75.46** | **358** | ⇓*i*P | | **P** | **19 25 27.3** | **-0.6** |
| **SORM** | **Soroca** | **75.46** | **358** | ⇓P | | **P** | **19 25 27.3** | **-0.6** |
| **FETA** | **Feichten** | **75.88** | **10** | *i* pP | | **P** | **19 25 31.6** | **+1.1** |
| | comp=Z,5.4nm,0.9s | | | | | | | | |
| **KMI** | **Kunming** | **75.96** | **294** | P | | P | 19 25 37.8 | +6.4 | |
| KMI | | | | pmax | | pmax | | | |
| | comp=Z,10.0nm,0.7s | | | | | | | | |
| **BUR08** | **Bucovina Ar. S** | **75.98** | **0** | *e*P | | **P** | **19 25 31.1** | **+0.1** |
| **BURAR** | **Bucovina Array** | **76.01** | **0** | ⇓*i*P | | **P** | **19 25 31.0** | **-0.2** |
| **BURAR** | **Bucovina Array** | **76.01** | **0** | ⇓P | | **P** | **19 25 31.0** | **-0.2** |
| **SOKA** | **Soboth** | **76.58** | **7** | *i* pP | | **P** | **19 25 35.6** | **+1.2** |
| | comp=Z,7.8nm,1.4s | | | | | | | | |
| **OBKA** | **Obir** | **76.72** | **8** | *i* pP | | **P** | **19 25 36.1** | **+0.9** |
| | comp=Z,7.9nm,0.6s | | | | | | | | |
| **DRGR** | | **76.81** | **2** | ⇓*i*P | | **P** | **19 25 35.8** | **+0.1** |
| **DRGR** | | **76.81** | **2** | ⇓P | | **P** | **19 25 35.8** | **+0.1** |
| **TESR** | **Tescani** | **77.11** | **359** | ⇓*i*P | | P | 19 25 50.8 | +14 | |
| **DOPR** | **Dopca** | **77.66** | **0** | ⇓*i*P | | **P** | **19 25 40.9** | **+0.5** |
| **RAR** | **Rarotonga** | **77.77** | **185** | LR | | LR | 19 53 07.1 | | |
| | comp=Z,50nm,20.5s,baz=162,slow=30 | | | | | | | | |
| **BZS** | **Buzias** | **77.96** | **3** | ⇑*i*P | | **P** | **19 25 41.8** | **-0.2** |
| **BZS** | **Buzias** | **77.96** | **3** | ⇑P | | **P** | **19 25 41.8** | **-0.2** |
| **MLR** | **Muntele Rosu** | **78.14** | **360** | ⇓*i*P | | **P** | **19 25 42.7** | **-0.5** |
| **MLR** | **Muntele Rosu** | **78.14** | **360** | ⇓P | | **P** | **19 25 42.7** | **-0.5** |
| **VOIR** | | **78.19** | **0** | ⇑*i*P | | **P** | **19 25 44.7** | **+1.3** |
| **VOIR** | | **78.19** | **0** | ⇑P | | **P** | **19 25 44.7** | **+1.3** |
| **CFR** | **Carcaliu** | **78.42** | **358** | ⇓*i*P | | **P** | **19 25 45.0** | **+0.4** |
| **CFR** | **Carcaliu** | **78.42** | **358** | ⇓P | | **P** | **19 25 45.0** | **+0.4** |
| **KIV** | **Kislovodsk** | **78.63** | **347** | *e*P | | **P** | **19 25 44.4** | **-1.5** |
| KIV | | | | pmax | | pmax | | | |
| | comp=Z,13nm,1.0s | | | | | | | | |
| **KIV** | **Kislovodsk** | **78.63** | **347** | *e*P | | **P** | **19 25 46.5** | **+0.6** |
| | comp=Z,11nm,0.8s | | | | | | | | |
| **MDVR** | **Moldovita** | **78.80** | **3** | ⇓*i*P | | P | 19 25 38.8 | -7.9 | |
| **KBZ** | **Khabaz** | **78.82** | **347** | P | | **P** | **19 25 47.8** | **+1.1** |
| | comp=Z,7.1nm,0.9s,baz=334,slow=5.1,SNR=11 | | | | | | | | |
| **NCK** | **Nalchik** | **78.97** | **347** | *i* P | | **P** | **19 25 47.6** | **0.0** |
| NCK | | | | pmax | | pmax | | | |
| | comp=Z,13nm,0.8s | | | | | | | | |
| **TIRR** | **Tirgusor** | **79.14** | **358** | ⇑*i*P | | P | 19 25 38.5 | -10 | |
| **TIRR** | **Tirgusor** | **79.14** | **358** | ⇑P | | P | 19 25 38.5 | -10 | |
| **ES19** | **SONSECA Array** | **80.77** | **23** | *e*P | | **P** | **19 25 58.6** | **+1.1** |
| **ESDC** | **Sonseca Array** | **80.78** | **23** | P | | **P** | **19 25 58.5** | **+0.9** |
| | comp=Z,1.9nm,0.5s,baz=339,slow=5.2,SNR=17 | | | | | | | | |
| **TAPN** | **Taplejung** | **81.18** | **307** | *e*P | | **P** | **19 25 59.8** | **-0.4** |
| **GEYT** | **Alibeck** | **81.71** | **334** | P | | **P** | **19 26 03.2** | **+0.7** |
| | comp=Z,1.5nm,0.6s,baz=324,slow=7.3,SNR=3.9 | | | | | | | | |
| **PKI** | **Pulchoki** | **81.98** | **309** | *e*P | | **P** | **19 26 03.9** | **-0.6** |
| | comp=Z,6.3nm,0.5s | | | | | | | | |
| **PKIN** | **Phulchoki** | **81.98** | **309** | *e*P | | **P** | **19 26 04.3** | **-0.1** |
| **DANN** | **Dangsing** | **82.00** | **311** | *e*P | | **P** | **19 26 04.9** | **+0.4** |
| **DMN** | **Daman** | **82.08** | **309** | *e*P | | **P** | **19 26 04.7** | **-0.2** |
| **PYUN** | **Piuthan** | **82.54** | **311** | *e*P | | **P** | **19 26 06.9** | **-0.3** |
| **KOLN** | **Koldanda** | **82.57** | **311** | *e*P | | **P** | **19 26 06.6** | **-0.8** |
| **CM31** | **Chiang Mai Arr** | **83.44** | **294** | *e*P | | **P** | **19 26 11.1** | **-0.7** |
| **CMAR** | **Chiang Mai Arr** | **83.44** | **294** | P | | **P** | **19 26 10.8** | **-1.0** |
| | comp=Z,1.9nm,0.6s,baz=10,slow=5.4,SNR=26 | | | | | | | | |
| CMAR | | | | LR | | LR | 20 04 46.6 | | |
| | comp=Z,10nm,21.9s,baz=50,slow=37 | | | | | | | | |
| **CM01** | **Chiang Mai Arr** | **83.47** | **294** | *e*P | | **P** | **19 26 11.0** | **-0.8** |
| **BR231** | **Keskin MP Arra** | **83.58** | **354** | *e*P | | **P** | **19 26 13.7** | **+1.4** |
| **BR101** | **Keskin Array S** | **83.65** | **354** | *e*P | | **P** | **19 26 12.9** | **+0.3** |
| **BRTR** | **Keskin Array B** | **83.65** | **354** | P | | **P** | **19 26 13.0** | **+0.3** |
| | comp=Z,1.6nm,0.8s,baz=46,slow=2.6,SNR=7.5 | | | | | | | | |
| **BRTR** | **Keskin Array B** | **83.65** | **354** | *i* P | | **P** | **19 26 13.1** | **+0.4** |
| BRTR | | | | pmax | | pmax | | | |
| | comp=Z,2.0nm,0.8s | | | | | | | | |
| **WR1** | **Warramunga Arr** | **96.60** | **244** | *e*P | | **P** | **19 27 11.3** | **-2.6** |
| | comp=Z,34nm,1.9s | | | | | | | | |
| **WRA** | **Warramunga Arr** | **96.60** | **244** | P | | **P** | **19 27 11.3** | **-2.6** |
| | comp=Z,0.2nm,0.6s,baz=34,slow=5.8,SNR=4.5 | | | | | | | | |
| **ASAR** | **Alice Springs** | **99.96** | **242** | P | | **Pdif** | **19 27 27.8** | **-1.2** |
| | comp=Z,0.6nm,1.0s,baz=8.6,slow=2.9,SNR=3.5 | | | | | | | | |
| **BOSA** | **Boshof** | **151.89** | **0** | PKPbc | | **PKPbc** | **19 33 37.0** | **-1.6** |
| | comp=Z,4.9nm,1.0s,baz=310,slow=6.8,SNR=3.7 | | | | | | | | |

*IDC **21** 19:17:41.2±1.0, 36°.30N×143°.50E, h0km, mb3.8/5, mb1 3.9/9, mb1mx3.6/54, mbtmp3.9/9, ML3.7/4, MS2.2/2, Ms1 2.2/2, ms1mx2.1/42, Error ellipse: s-maj=36.5km s-min=17.9km az=98.0*
*ISCJB **21** 19:17:44.4±0.7, 36°.42N±0°.04×143°.26E±0°.06, h29km, mb3.8/5, Error ellipse: s-maj=6.7km s-min=6.2km az=26.3*
*JMA **21** 19:17:46.7±0.2, 36°.46N×143°.19E, h75km, M3.4*
**ISC 21 19:17:44.6±0.9, 36°.38N±0°.05×143°.37E±0°.08, h29km, n24, σ1s98/32, mb3.7/5, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **ONAJ** | **Iwakimizuishiy** | **2.19** | **290** | P | | **Pn** | **19 18 19.4** | **+0.4** |
| ONAJ | | | | S | | **Sn** | **19 18 44.3** | **-0.9** |
| **JFK** | **Kawauchi** | **2.23** | **297** | P | | **Pn** | **19 18 19.8** | **+0.2** |
| JFK | | | | S | | **Sn** | **19 18 44.8** | **-1.4** |
| **JHO** | **Hitachi** | **2.27** | **277** | P | | **Pn** | **19 18 20.5** | **+0.4** |
| **JFT** | **Otama** | **2.68** | **296** | P | | **Pn** | **19 18 27.1** | **+1.3** |
| **JMK** | **Ichinoseki** | **3.08** | **327** | P | | **Pn** | **19 18 31.3** | **+0.1** |
| JMK | | | | S | | **Sn** | **19 19 05.5** | **-1.6** |
| **JAG** | **Ashikaga** | **3.16** | **272** | P | | **Pn** | **19 18 33.5** | **+1.1** |
| JAG | | | | *e*S | | **Sn** | **19 19 08.2** | **-0.9** |
| **JYK** | **Kaneyama** | **3.48** | **318** | P | | **Pn** | **19 18 37.7** | **+0.9** |
| JYK | | | | *e*S | | **Sn** | **19 19 15.6** | **-1.4** |
| **JOM** | **Ohasama** | **3.50** | **333** | P | | **Pn** | **19 18 37.2** | **+0.3** |
| JOM | | | | S | | **Sn** | **19 19 15.7** | **-1.6** |
| **JRY** | **Ryogami san** | **3.63** | **266** | P | | **Pn** | **19 18 39.9** | **+1.0** |
| JRY | | | | S | | **Sn** | **19 19 18.8** | **-2.0** |
| **JOD2** | **Odawara 2** | **3.66** | **253** | P | | **Pn** | **19 18 40.7** | **+1.5** |
| JOD2 | | | | S | | **Sn** | **19 19 20.4** | **-1.0** |
| **MJAR** | **Matsushiro Arr** | **4.17** | **274** | Pn | | **Pn** | **19 18 47.9** | **+1.7** |
| | 1.3nm,0.3s,baz=93,slow=8.6,SNR=13 | | | | | | | |
| MJAR | | | | Sn | | **Sn** | **19 19 30.3** | **-3.6** |
| | 0.6nm,0.3s,baz=97,slow=16,SNR=2.7 | | | | | | | |
| MJAR | | | | LR | | LR | 19 20 38.5 | |
| | comp=Z,24nm,21.9s,baz=95,slow=42 | | | | | | | |
| **MAT** | **Matsushiro** | **4.17** | **274** | P | | **Pn** | **19 18 48.4** | **+2.2** |
| MAT | | | | S | | **Sn** | **19 19 31.9** | **-2.0** |
| **JHJ** | **Hachijo jima 2** | **4.40** | **223** | Pn | | **Pn** | **19 18 49.4** | **0.0** |
| | 7.3nm,0.3s,baz=84,slow=24,SNR=13 | | | | | | | |
| JHJ | | | | Sn | | **Sn** | **19 19 35.3** | **-4.3** |
| | 26nm,0.3s,baz=53,slow=23,SNR=6.5 | | | | | | | |
| **ASAJ** | **Asahikawa** | **7.75** | **356** | Pn | | **Pn** | **19 19 34.5** | **-0.8** |
| | 2.0nm,0.3s,baz=214,slow=15,SNR=26 | | | | | | | |
| ASAJ | | | | Sn | | **Sn** | **19 20 56.7** | **-5.3** |
| | 0.2nm,0.3s,baz=162,slow=20,SNR=3.5 | | | | | | | |
| **JCJ** | **Chichijima** | **9.31** | **187** | Pn | | **Pn** | **19 19 54.2** | **-2.7** |
| | 1.6nm,0.3s,baz=128,slow=19,SNR=2.5 | | | | | | | |
| JCJ | | | | Sn | | Sn | 19 21 29.7 | -11 | |
| | 6.2nm,0.3s,baz=303,slow=20,SNR=6.0 | | | | | | | |
| **KSRS** | **Korea Array** | **12.41** | **280** | LR | | LR | 19 24 56.4 | |
| | comp=Z,18nm,20.3s,baz=70,slow=35 | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **26.47** | **122** | T | | T | 19 50 42.7 | |
| | baz=308 | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **26.48** | **123** | T | | T | 19 50 42.2 | |
| | baz=308 | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **26.48** | **122** | T | | T | 19 50 44.1 | |
| | baz=308 | | | | | | | |
| **ILAR** | **Eielson Array** | **49.20** | **32** | P | | **P** | **19 26 31.6** | **+1.8** |
| | 0.5nm,0.8s,baz=257,slow=7.7,SNR=5.2 | | | | | | | |
| **WRA** | **Warramunga Arr** | **56.67** | **190** | P | | **P** | **19 27 25.8** | **+0.5** |
| | 0.5nm,0.6s,baz=7.4,slow=7.0,SNR=8.1 | | | | | | | |
| **ASAR** | **Alice Springs** | **60.39** | **190** | P | | **P** | **19 27 51.9** | **+0.7** |
| | 0.4nm,0.8s,baz=3.3,slow=6.7,SNR=8.3 | | | | | | | |
| **FINES** | **FINESS Array B** | **70.11** | **333** | P | | P | **19 28 55.9** | **+2.1** |
| | 2.1nm,0.9s,baz=77,slow=3.0,SNR=2.8 | | | | | | | |
| **NOA** | **NORSAR Array B** | **75.38** | **338** | P | | **P** | **19 29 26.9** | **+1.8** |
| | 1.7nm,0.9s,baz=38,slow=5.6,SNR=3.1 | | | | | | | |

**MEX 21 19:18:24.1±0.5, 16°.33N×98°.04W, h5km, MD3.6, Near coast of Guerrero**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **PNI

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **SONM** | **Songino Array** | **36.10** | **319** | P | **P** | **19 50 07.7** | **+1.8** |
| | 0.4nm,0.5s,baz=131,slow=8.3,SNR=3.8 | | | | | | | |
| **SEY** | **Seymchan** | **39.14** | **8** | P | **P** | **19 50 32.4** | **+1.3** |
| | 3.5nm,0.4s,baz=188,slow=8.7,SNR=27 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **39.76** | **270** | P | **P** | **19 50 38.5** | **+1.6** |
| | 0.7nm,0.6s,baz=61,slow=7.5,SNR=13 | | | | | | | |
| **WRA** | **Warramunga Arr** | **44.69** | **189** | P | **P** | **19 51 14.4** | **-2.1** |
| | 0.7nm,0.3s,baz=7.2,slow=8.6,SNR=46 | | | | | | | |
| **TAPN** | **Taplejung** | **47.99** | **286** | *e*P | **P** | **19 51 45.4** | **+2.7** |
| | 4.3nm,0.4s | | | | | | | |
| **ODAN** | **Odare** | **48.35** | **285** | *e*P | **P** | **19 51 47.0** | **+1.5** |
| | 7.0nm,0.5s | | | | | | | |
| **JIRN** | **Jiri** | **49.27** | **286** | *e*P | **P** | **19 51 54.5** | **+1.9** |
| **GUN** | **Gumba** | **49.50** | **287** | *e*P | **P** | **19 51 56.3** | **+2.0** |
| | 13nm,0.3s | | | | | | | |
| **PKI** | **Pulchoki** | **49.97** | **286** | *e*P | **P** | **19 51 59.0** | **+1.1** |
| | 3.3nm,0.4s | | | | | | | |
| **PKIN** | **Phulchoki** | **49.98** | **286** | *e*P | **P** | **19 51 59.0** | **+1.1** |
| **KKN** | **Kakani** | **50.04** | **287** | *e*P | **P** | **19 52 00.6** | **+2.3** |
| | 4.3nm,0.3s | | | | | | | |
| **DMN** | **Daman** | **50.22** | **286** | *e*P | **P** | **19 52 01.5** | **+1.8** |
| | 7.3nm,0.4s | | | | | | | |
| **GKN** | **Gorkha** | **50.57** | **287** | *e*P | **P** | **19 52 04.4** | **+2.2** |
| **ZALV** | **Zalesovo Beam** | **50.96** | **321** | P | **P** | **19 52 04.0** | **-0.5** |
| | 0.5nm,0.3s,baz=108,slow=6.8,SNR=4.3 | | | | | | | |
| **DANN** | **Dangsing** | **51.27** | **288** | *e*P | **P** | **19 52 09.8** | **+2.2** |
| **KOLN** | **Koldanda** | **51.51** | **287** | *e*P | **P** | **19 52 10.9** | **+1.6** |
| **MKAR** | **Makanchi Array** | **51.55** | **311** | P | **P** | **19 52 09.7** | **+0.6** |
| | 3.2nm,0.4s,baz=87,slow=9.8,SNR=118 | | | | | | | |
| **PYUN** | **Piuthan** | **51.98** | **287** | *e*P | **P** | **19 52 14.5** | **+1.7** |
| | 11nm,0.4s | | | | | | | |
| **STKA** | **Stephens Creek** | **56.05** | **180** | P | **P** | **19 52 39.8** | **-2.0** |
| | 1.9nm,0.9s,baz=14,slow=4.2,SNR=2.5 | | | | | | | |
| **KDAK** | **Kodiak Island** | **56.92** | **36** | P | **P** | **19 52 47.6** | **0.0** |
| | 4.7nm,0.8s,baz=311,slow=3.8,SNR=6.1 | | | | | | | |
| **ILAR** | **Eielson Array** | **60.37** | **28** | P | **P** | **19 53 10.9** | **-0.5** |
| | 0.4nm,0.4s,baz=255,slow=5.3,SNR=7.2 | | | | | | | |
| **INK** | **Inuvik** | **65.72** | **24** | P | **P** | **19 53 46.7** | **+0.1** |
| | 0.9nm,0.4s,baz=303,slow=5.9,SNR=9.6 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **74.80** | **28** | P | **P** | **19 54 41.5** | **-0.4** |
| | 0.6nm,0.4s,baz=294,slow=6.0,SNR=15 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **75.73** | **341** | P | **P** | **19 54 46.2** | **-1.0** |
| | 2.0nm,0.8s,baz=81,slow=7.7,SNR=7.0 | | | | | | | |
| **KBZ** | **Khabaz** | **79.20** | **313** | P | **P** | **19 55 06.9** | **0.0** |
| | 2.8nm,0.9s,baz=157,slow=7.7,SNR=4.1 | | | | | | | |
| **FINES** | **FINESS Array B** | **79.92** | **334** | P | **P** | **19 55 09.1** | **-1.3** |
| | 0.6nm,0.3s,baz=75,slow=6.0,SNR=8.9 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **125.65** | **309** | PKP | **PKPdf** | **20 02 01.8** | **-1.2** |
| | 0.2nm,0.4s,baz=63,slow=1.2,SNR=8.0 | | | | | | | |

*ISCJB **21** 19:44:50.3±0.5, 44.74N±0.08×146.84E±0.07, h188km±4km, mb3.6/11, Error ellipse: s-maj=13.7km s-min=7.0km az=154.7*
*MOS **21** 19:44:51.5±0.8, 43.62N×148.12E, h42km, mb4.2/1, Error ellipse: s-maj=36.3km s-min=19.7km az=36.4*
*SKHL **21** 19:44:51.4±0.4, 43.58N×148.20E, h36km±1km, mb4.5/2*
*IDC **21** 19:44:52.3±1.6, 44.99N×146.58E, h183km±14km, mb3.3/11, mb1 3.5/13, mb1mx3.3/46, mbtmp3.8/13, Error ellipse: s-maj=21.9km s-min=15.7km az=147.0*
*JMA **21** 19:44:52.4±0.3, 44.66N×146.82E, h177km±4km, M3.4*

**ISC 21 19:44:51.0±0.8, 44°67N±0°09×146°88E±0°07, h188km±6km, n40,σ1§37/57, mb3.4/11, 3C, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **KUR** | **Kuril'sk** | **0.90** | **51** | *c* | *i* | P | **Pn** | **19 45 18.2** | **-0.5** |
| KUR | | | | | | *e*S | **Sn** | **19 45 38.4** | **-1.9** |
| KUR | | | | | | pmax | pmax | | |
| | comp=Z,47nm,0.4s | | | | | | | | |
| KUR | | | | | | pmax | pmax | | |
| | comp=N,43nm,0.3s | | | | | | | | |
| KUR | | | | | | pmax | pmax | | |
| | comp=E,31nm,0.4s | | | | | | | | |
| KUR | | | | | | smax | smax | | |
| | comp=N,101nm,0.6s | | | | | | | | |
| KUR | | | | | | smax | smax | | |
| | comp=E,97nm,0.3s | | | | | | | | |
| **KUR** | **Kuril'sk** | **0.90** | **51** | *e* | P | **Pn** | | **19 45 18.1** | **-0.6** |
| KUR | | | | | AMB | AMB | | 19 45 22.5 | |
| | comp=E,43nm,0.3s | | | | | | | | |
| KUR | | | | | AMB | AMB | | 19 45 22.5 | |
| | comp=E,31nm,0.3s | | | | | | | | |
| KUR | | | | | AMB | AMB | | 19 45 22.5 | |
| | comp=E,47nm,0.3s | | | | | | | | |
| KUR | | | | | *e*S | **Sn** | | **19 45 37.8** | **-2.5** |
| KUR | | | | | A | A | | 19 45 38.9 | |
| | comp=E,176nm,0.2s | | | | | | | | |
| KUR | | | | | A | A | | 19 45 38.9 | |
| | comp=E,115nm,0.2s | | | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **0.97** | **229** | *c* | *i* | P | **Pn** | **19 45 19.4** | **+0.2** |
| YUK | | | | | *i* | S | **Sn** | **19 45 40.7** | **-0.3** |
| YUK | | | | | | pmax | pmax | | |
| | comp=N,47nm,0.2s | | | | | | | | |
| YUK | | | | | | pmax | pmax | | |
| | comp=E,63nm,0.2s | | | | | | | | |
| YUK | | | | | | pmax | pmax | | |
| | comp=Z,367nm,0.2s | | | | | | | | |
| YUK | | | | | | smax | smax | | |
| | comp=N,657nm,0.2s | | | | | | | | |
| YUK | | | | | | smax | smax | | |
| | comp=E,1μm,0.6s | | | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **0.97** | **229** | | *i* | P | **Pn** | **19 45 19.4** | **+0.2** |
| YUK | | | | | | AMB | AMB | 19 45 21.4 | |
| | comp=E,47nm,0.2s | | | | | | | | |
| YUK | | | | | | AMB | AMB | 19 45 21.4 | |
| | comp=E,63nm,0.2s | | | | | | | | |
| YUK | | | | | | AMB | AMB | 19 45 21.4 | |
| | comp=E,367nm,0.2s | | | | | | | | |
| YUK | | | | | *i* | S | **Sn** | **19 45 40.7** | **-0.3** |
| YUK | | | | | | A | A | 19 45 46.0 | |
| | comp=E,657nm,0.4s | | | | | | | | |
| YUK | | | | | | A | A | 19 45 46.0 | |
| | comp=E,120nm,0.4s | | | | | | | | |
| **LAGR** | **Lagunnoye** | **1.00** | **232** | *e* | P | N | **Pn** | **19 45 19.4** | **0.0** |
| LAGR | | | | | | *e*S | **Sn** | **19 45 42.4** | **+1.0** |
| **LAGR** | **Lagunnoye** | **1.00** | **232** | *e* | P | **Pn** | | **19 45 19.4** | **0.0** |
| LAGR | | | | | | *e*S | **Sn** | **19 45 42.4** | **+1.0** |
| **GRPR** | **Tuman** | **1.04** | **230** | *c* | *i* | PN | **Pn** | **19 45 19.2** | **-0.6** |
| GRPR | | | | | | *e*S | **Sn** | **19 45 42.6** | **+0.6** |
| **GRPR** | **Tuman** | **1.04** | **230** | | *i* | P | **Pn** | **19 45 19.2** | **-0.6** |
| GRPR | | | | | | *e*S | **Sn** | **19 45 42.6** | **+0.6** |
| **GLVR** | **Golovnino** | **1.35** | **227** | *e* | PN | | **Pn** | **19 45 22.9** | **+0.6** |
| GLVR | | | | | | *e*S | **Sn** | **19 45 47.3** | **+0.9** |
| **GLVR** | **Golovnino** | **1.35** | **227** | *e* | P | | **Pn** | **19 45 22.9** | **+0.6** |
| GLVR | | | | | | *e*S | **Sn** | **19 45 47.3** | **+0.9** |
| **JRA** | **Rausu** | **1.46** | **240** | | P | | **Pn** | **19 45 23.3** | **+0.1** |
| JRA | | | | | | *e*S | **Sn** | **19 45 47.6** | **-0.5** |
| **NEM2** | **Nemuro 2** | **1.54** | **213** | | P | | **Pn** | **19 45 23.9** | **-0.1** |
| NEM2 | | | | | | *e*S | **Sn** | **19 45 47.9** | **-1.6** |
| **JNK** | **Nakash** | **1.90** | **236** | | P | | **Pn** | **19 45 28.1** | **+0.6** |
| **JTKR** | **Abashiri--Toko** | **2.25** | **253** | | P | | **Pn** | **19 45 31.3** | **+0.1** |
| JTKR | | | | | | *e*S | **Sn** | **19 46 01.7** | **-0.8** |
| **JAK** | **Akkeshi** | **2.30** | **224** | | P | | **Pn** | **19 45 32.3** | **+0.4** |
| JAK | | | | | | *e*S | **Sn** | **19 46 02.4** | **-1.2** |
| **JMP** | **Maruseppu** | **2.61** | **256** | | P | | **Pn** | **19 45 35.5** | **+0.1** |
| JMP | | | | | | *e*S | **Sn** | **19 46 09.5** | **-0.5** |
| **JAR** | **Ashorobuto** | **2.63** | **240** | | P | | **Pn** | **19 45 37.2** | **+1.6** |
| **JSE** | **Soyaes** | **3.07** | **277** | | P | | **Pn** | **19 45 40.5** | **-0.2** |
| **JKK2** | **Kamakawa 2** | **3.07** | **256** | | P | | **Pn** | **19 45 41.5** | **+0.7** |
| JKK2 | | | | | | *e*S | **Sn** | **19 46 20.4** | **+0.6** |
| **ASAJ** | **Asahikawa** | **3.12** | **261** | | P | | **Pn** | **19 45 42.2** | **+0.8** |
| | comp=E,11nm,0.3s,baz=72,slow=11,SNR=138 | | | | | | | | |
| ASAJ | | | | | | S | **Sn** | **19 46 18.4** | **-2.4** |
| | baz=52,slow=19,SNR=1.8 | | | | | | | | |
| **JCH** | **Churui** | **3.28** | **232** | | P | | **Pn** | **19 45 43.8** | **+0.5** |
| JCH | | | | | | *e*S | **Sn** | **19 46 21.9** | **-2.3** |
| **JFR** | **Furan** | **3.44** | **246** | | P | | **Pn** | **19 45 46.5** | **+1.1** |
| **JWK2** | **Keihoku** | **3.59** | **282** | | P | | **Pn** | **19 45 48.1** | **+1.0** |
| **YSS** | **Yuzh-Sakhalins** | **3.68** | **310** | *e* | PN | | Pn | 19 46 07.2 | +19 |
| **YSS** | **Yuzh-Sakhalins** | **3.68** | **310** | *e* | P | | Pn | 19 46 07.2 | +19 |
| **JNBK** | **Urakawa-nobuka** | **3.84** | **233** | | P | | **Pn** | **19 45 49.9** | **-0.4** |
| JNBK | | | | | | *e*S | **Sn** | **19 46 32.5** | **-4.2** |
| **JEW** | **Eniwo** | **4.34** | **247** | | *e*S | | **Sn** | **19 46 49.2** | **+1.2** |
| **JKB** | **Kayabe** | **5.09** | **239** | | P | | **Pn** | **19 46 05.8** | **-0.5** |
| JKB | | | | | | *e*S | **Sn** | **19 47 01.0** | **-4.5** |
| **USRK** | **Ussuriysk Ar.** | **10.66** | **273** | | P | | **Pn** | **19 47 16.7** | **-2.1** |
| | comp=E,0.3nm,0.3s,baz=88,slow=13,SNR=3.9 | | | | | | | | |
| **SONM** | **Songino Array** | **27.95** | **291** | | P | | **P** | **19 50 24.3** | **+0.5** |
| | comp=E,0.4nm,0.5s,baz=86,slow=10,SNR=4.3 | | | | | | | | |
| **ILAR** | **Eielson Array** | **40.86** | **37** | | P | | **P** | **19 52 15.6** | **+1.7** |
| | comp=E,0.8nm,0.8s,baz=273,slow=9.8,SNR=8.8 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **43.99** | **297** | | P | | **P** | **19 52 39.7** | **+0.3** |
| | comp=E,0.3nm,0.3s,baz=74,slow=8.9,SNR=4.6 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **INK** | **Inuvik** | **45.71** | **31** | P | **P** | **19 52 52.6** | **+0.1** |
| | comp=E,1.2nm,0.3s,baz=297,slow=9.4,SNR=18 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **55.15** | **34** | P | **P** | **19 54 04.9** | **+1.6** |
| | comp=E,0.3nm,0.4s,baz=302,slow=7.0,SNR=6.8 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **58.32** | **339** | P | **P** | **19 54 22.9** | **-2.6** |
| | comp=E,2.5nm,1.0s,baz=42,slow=7.2,SNR=4.0 | | | | | | | |
| **GEYT** | **Alibeck** | **63.83** | **298** | P | **P** | **19 55 04.1** | **+1.0** |
| | comp=E,0.6nm,0.4s,baz=83,slow=4.6,SNR=4.0 | | | | | | | |
| **FINES** | **FINESS Array B** | **63.97** | **333** | P | **P** | **19 55 02.1** | **-1.5** |
| | comp=E,1.3nm,0.5s,baz=38,slow=7.0,SNR=15 | | | | | | | |
| **WRA** | **Warramunga Arr** | **65.31** | **193** | P | P | 19 55 15.8 | +3.0 | |
| | comp=E,0.2nm,0.4s,baz=9.1,slow=6.6,SNR=4.0 | | | | | | | |
| **NOA** | **NORSAR Array B** | **68.67** | **339** | P | **P** | **19 55 32.6** | **-0.9** |
| | comp=E,0.6nm,0.7s,baz=44,slow=6.6,SNR=4.7 | | | | | | | |
| **GERES** | **GERESS Array B** | **78.26** | **331** | P | **P** | **19 56 30.2** | **+0.4** |
| | comp=E,0.2nm,0.4s,baz=38,slow=6.8,SNR=4.1 | | | | | | | |

*MOS **21** 19:49:49.4±2.1, 49.62N×157.06E, h49km, mb4.3/1, Error ellipse: s-maj=44.7km s-min=6.7km az=82.3*

**KRSC 21 19:49:49.4±1.6, 49.62N×157.06E, h49km±27km, ML4.2, East of Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **SKR** | **Severo-Kuril's** | **1.22** | **331** | | *e* | PN | Pn | 19 50 10.0 | -0.1 |
| SKR | | | | | | *e*S | Sn | 19 50 24.7 | -0.7 |
| SKR | | | | | | pmax | pmax | | |
| | comp=Z,139nm,0.6s | | | | | | | | |
| SKR | | | | | | smax | smax | | |
| | comp=N,314nm,0.1s | | | | | | | | |
| SKR | | | | | | smax | smax | | |
| | comp=E,420nm,0.2s | | | | | | | | |
| **SKR** | **Severo-Kuril's** | **1.22** | **331** | | *e* | P | Pn | 19 50 09.9 | -0.2 |
| SKR | | | | | | *e*S | Sn | 19 50 25.0 | -0.4 |
| **PAU** | **Pauzhetka** | **1.85** | **355** | | | PN | Pn | 19 50 21.2 | +2.5 |
| PAU | | | | | | S | Sn | 19 50 43.9 | +3.0 |
| **PAU** | **Pauzhetka** | **1.85** | **355** | | *e* | P | Pn | 19 50 21.2 | +2.5 |
| PAU | | | | | | *e*S | Sn | 19 50 43.9 | +3.0 |
| **KDTR** | **Khodutka, Kamc** | **2.28** | **16** | | *e* | P | Pn | 19 50 27.8 | +3.3 |
| KDTR | | | | | | *e*S | Sn | 19 50 55.1 | +3.7 |
| **ASAK** | **Asacha** | **2.81** | **11** | | PN | | Pn | 19 50 35.8 | +3.9 |
| ASAK | | | | | S | | Sn | 19 51 09.3 | +4.7 |
| **ASAK** | **Asacha** | **2.81** | **11** | | *e* | P | Pn | 19 50 35.8 | +3.9 |
| ASAK | | | | | | *e*S | Sn | 19 51 09.3 | +4.7 |
| **MTVR** | **Mutnovka** | **2.95** | **13** | | PN | | Pn | 19 50 37.6 | +3.8 |
| MTVR | | | | | S | | Sn | 19 51 12.0 | +4.0 |
| **MTVR** | **Mutnovka** | **2.95** | **13** | | *e* | P | Pn | 19 50 37.6 | +3.8 |
| MTVR | | | | | | *e*S | Sn | 19 51 12.0 | +4.0 |
| **RUS** | **Russkaya** | **2.96** | **18** | | PN | | Pn | 19 50 37.0 | +3.2 |
| RUS | | | | | S | | Sn | 19 51 11.2 | +3.2 |
| **RUS** | **Russkaya** | **2.96** | **18** | | *e* | P | Pn | 19 50 37.0 | +3.2 |
| RUS | | | | | | *e*S | Sn | 19 51 11.2 | +3.2 |
| **KRMR** | **Karymshinskiy** | **3.28** | **11** | | PN | | Pn | 19 50 42.4 | +4.2 |
| KRMR | | | | | S | | Sn | 19 51 20.9 | +5.0 |
| **KRMR** | **Karymshinskiy** | **3.28** | **11** | | *e* | P | Pn | 19 50 42.4 | +4.2 |
| KRMR | | | | | | *e*S | Sn | 19 51 20.9 | +5.0 |
| **DALK** | **Dalny** | **3.57** | **17** | | PN | | Pn | 19 50 45.4 | +3.2 |
| DALK | | | | | S | | Sn | 19 51 26.7 | +3.6 |
| **DALK** | **Dalny** | **3.57** | **17** | | *e* | P | Pn | 19 50 45.4 | +3.2 |
| DALK | | | | | | *e*S | Sn | 19 51 26.7 | +3.6 |
| **UGLR** | **Uglovaya** | **3.76** | **16** | | PN | | Pn | 19 50 48.4 | +3.5 |
| **UGLR** | **Uglovaya** | **3.76** | **16** | | *e* | P | Pn | 19 50 48.4 | +3.5 |
| **AVH** | **Avacha** | **3.79** | **15** | | PN | | Pn | 19 50 49.9 | +4.5 |
| AVH | | | | | S | | Sn | 19 51 33.8 | +5.1 |
| **AVH** | **Avacha** | **3.79** | **15** | | *e* | P | Pn | 19 50 49.9 | +4.5 |
| AVH | | | | | | *e*S | Sn | 19 51 33.8 | +5.1 |
| **SDLR** | **Sedlovina** | **3.83** | **17** | | PN | | Pn | 19 50 49.4 | +3.5 |
| **SDLR** | **Sedlovina** | **3.83** | **17** | | *e* | P | Pn | 19 50 49.4 | +3.5 |
| **KRX** | **Arik** | **3.87** | **14** | | PN | | Pn | 19 50 50.3 | +3.9 |
| **KRX** | **Arik** | **3.87** | **14** | | *e* | P | Pn | 19 50 50.3 | +3.9 |
| **SPN** | **Mys Shipunski** | **3.94** | **27** | | PN | | Pn | 19 50 51.2 | +3.9 |
| SPN | | | | | S | | Sn | 19 51 36.7 | +4.5 |
| **SPN** | **Mys Shipunski** | **3.94** | **27** | | *e* | P | Pn | 19 50 51.2 | +3.9 |
| SPN | | | | | | *e*S | Sn | 19 51 36.7 | +4.5 |
| **GNL** | **Ganaly** | **4.11** | **7** | | PN | | Pn | 19 50 53.8 | +4.0 |
| **GNL** | **Ganaly** | **4.11** | **7** | | *e* | P | Pn | 19 50 53.8 | +4.0 |
| **KBTR** | **Krutoberegovo** | **7.46** | **26** | | PN | | Pn | 19 51 38.4 | +3.0 |
| **KBTR** | **Krutoberegovo** | **7.46** | **26** | | *e* | P | Pn | 19 51 38.4 | +3.0 |

**IDC 21 19:53:05.3±1.7, 0.69N×123.26E, h0km, mb3.6/3, mb1 3.8/4, mb1mx3.4/38, mbtmp3.7/4, ML4.4/1, Error ellipse: s-maj=167.3km s-min=25.3km az=66.0, Minahassa Peninsula, Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **18.82** | **173** | | | P | P | 19 57 26.9 | +0.1 |
| | 0.9nm,0.3s,baz=1.1,slow=10,SNR=25 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **23.20** | **153** | | | P | P | 19 58 09.0 | -5.1 |
| | 0.5nm,1.0s,baz=327,slow=11,SNR=6.1 | | | | | | | | |
| **ASAR** | **Alice Springs** | **26.33** | **158** | | | P | P | 19 58 43.0 | -0.2 |
| | 0.4nm,0.5s,baz=328,slow=9.2,SNR=11 | | | | | | | | |
| **STKA** | **Stephens Creek** | **36.75** | **153** | | | P | P | 20 00 14.8 | 0.0 |
| | 1.3nm,0.7s,baz=322,slow=12,SNR=3.6 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **58.17** | **328** | | | P | P | 20 03 01.1 | -0.1 |
| | 0.2nm,0.5s,baz=124,slow=8.6,SNR=5.1 | | | | | | | | |

*ISCJB **21** 20:03:30.8±0.5, 35.05N±0.05×140.25E±0.07, h37km±5km, mb3.6/9, Error ellipse: s-maj=11.0km s-min=6.5km az=152.5*
*JMA **21** 20:03:32.2±0.1, 35.15N×140.20E, h15km±1km, M3.2 Broadband fault plane solution: P waves. NP1: ϕs239.00000°, δ89.00000°, λ-65.00000°. NP2: ϕs331.00000°, δ25.00000°, λ-177.00000°. Principal axes: T Plg39.0000°, Azm306.0000°; N Plg25.0000°, Azm58.0000°; P Plg41.0000°, Azm172.0000°;*
*JMA Felt II J1.*
*IDC **21** 20:03:33.8±1.8, 35.01N×140.15E, h50km±17km, mb3.3/9, mb1 3.6/11, mb1mx3.4/46, mbtmp3.7/11, ML3.7/2, MS2.1/1, Ms1 2.1/1, ms1mx1.9/24 Error ellipse: s-maj=24.0km s-min=6.9km az=72.0*

**ISC 21 20:03:31.1±0.9, 35.12N±0.05×140.17E±0.07, h26km±6km, n24,σ1§02/22, mb3.7/9, 3C, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **KTR** | **Katsuura** | **0.12** | **74** | ⇑ | P | | **Pb** | **20 03 35.3** | **-0.7** |
| **BSO4** | **Boso 4** | **0.18** | **132** | ⇑ | P | | **Pb** | **20 03 36.8** | **+0.3** |
| **TATJ** | **Tateyama 2** | **0.24** | **250** | | P | | **Pn** | **20 03 38.6** | **-0.4** |
| TATJ | | | | | | *e*S | **Sb** | **20 03 42.9** | **+1.2** |
| **BSO3** | **Boso 3** | **0.42** | **138** | | P | | **Pn** | **20 03 40.6** | **-0.6** |
| **JYT** | **Yasato** | **1.11** | **1** | ⇑ | P | | **Pb** | **20 03 51.5** | **-0.1** |
| **JHJ** | **Hachijo jima 2** | **2.02** | **189** | | P | | **Pn** | **20 04 03.2** | **-0.1** |
| | 28nm,0.3s,baz=149,slow=23,SNR=17 | | | | | | | | |
| JHJ | | | | | | S | **Sn** | **20 04 27.3** | **-0.5** |
| | 45nm,0.3s,baz=68,slow=23,SNR=4.6 | | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **2.14** | **312** | | P | | **Pn** | **20 04 06.4** | **+1.3** |
| | 4.7nm,0.3s,baz=146,slow=14,SNR=42 | | | | | | | | |
| MJAR | | | | | | S | **Sb** | **20 04 34.2** | **-1.0** |
| | 5.4nm,0.3s,baz=130,slow=18,SNR=7.0 | | | | | | | | |
| MJAR | | | | | | LR | LR | 20 04 38.3 | |
| | comp=Z,42nm,21.1s,baz=135,slow=30 | | | | | | | | |
| **MAT** | **Matsushiro** | **2.14** | **312** | | P | | **Pn** | **20 04 06.5** | **+1.4** |
| MAT | | | | | | *e*S | **Sb** | **20 04 33.3** | **-2.0** |
| **JCJ** | **Chichijima** | **8.18** | **167** | | P | | **Pn** | **20 05 27.4** | **-0.7** |
| | 4.3nm,0.3s,baz=252,slow=20,SNR=3.4 | | | | | | | | |
| JCJ | | | | | | S | Sn | 20 06 51.2 | -8.5 |
| | 0.5nm,0.3s,baz=300,slow=20,SNR=1.8 | | | | | | | | |
| **SONM** | **Songino Array** | **28.08** | **307** | | P | | **P** | **20 09 19.8** | **-0.8** |
| | 0.2nm,0.5s,baz=81,slow=10,SNR=2.9 | | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.12** | **116** | | T | | T | 20 38 47.0 | |
| | baz=309,slow=75,SNR=147 | | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.13** | **116** | | T | | T | 20 38 46.9 | |
| | baz=309,slow=75,SNR=126 | | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.14** | **116** | | T | | T | 20 38 47.7 | |
| | baz=309,slow=75,SNR=99 | | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.75** | **118** | | T | | T | 20 39 33.2 | |
| | baz=311,slow=76,SNR=41 | | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.75** | **118** | | T | | T | 20 39 34.5 | |
| | baz=311,slow=76,SNR=48 | | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.77** | **118** | | T | | T | 20 39 36.3 | |
| | baz=311,slow=76,SNR=42 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.49** | **314** | | P | | **P** | **20 11 24.1** | **+0.2** |
| | 0.9nm,0.6s,baz=117,slow=8.5,SNR=4.6 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **44.31** | **304** | | P | | **P** | **20 11 39.6** | **+0.9** |
| | 1.3nm,0.7s,baz=91,slow=9.7,SNR=11 | | | | | | | | |
| **ILAR** | **Eielson Array** | **51.65** | **31** | | P | | **P** | **20 12 36.7** | **+1.5** |
| | 0.5nm,0.9s,baz=249,slow=6.7,SNR=4.9 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **55.03** | **187** | P | **P** | **20 12 59.5** | **-0.9** |
| | 0.7nm,0.6s,baz=1.6,slow=7.6,SNR=14 | | | | | | | |
| **ASAR** | **Alice Springs** | **58.76** | **187** | P | **P** | **20 13 26.6** | **-0.3** |
| | 0.5nm,0.9s,baz=13,slow=7.9,SNR=5.8 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **65.97** | **29** | P | **P** | **20 14 14.3** | **-0.3** |
| | 0.2nm,0.7s,baz=305,slow=6.6,SNR=4.1 | | | | | | | |
| **FINES** | **FINESS Array B** | **70.04** | **332** | P | **P** | **20 14 39.6** | **-0.6** |
| | 0.8nm,0.7s,baz=44,slow=8.2,SNR=2.6 | | | | | | | |
| **PDAR** | **Pinedale Array** | **79.73** | **45** | P | **P** | **20 15 38.2** | **+1.2** |
| | 0.6nm,0.6s,baz=297,slow=8.0,SNR=5.5 | | | | | | | |

*NIED **21** 20:10:00, 37.00N×141.20E, h14km, Mw4.4 Best double couple: M₀4.46000×10¹⁵ NP1:ϕs209.00000°, δ52.00000°, λ-129.00000°. NP2:ϕs82.00000°, δ53.00000°, λ-51.00000°.*
*IDC **21** 20:10:26.3±0.4, 37.04N×141.04E, h0km, mb4.5/29, mb1 4.6/33, mb1mx4.5/46, mbtmp4.5/33, ML4.2/3, MS3.6/18, Ms1 3.6/18, ms1mx3.4/42, Error ellipse: s-maj=14.1km s-min=10.2km az=104.0*
*BJI **21** 20:10:28.6, 36.74N×141.05E, h31km, mb4.6/24, mB4.8/14, Ms4.3/11, Ms7 4.0/11*
*ISCJB **21** 20:10:29.4±0.5, 37.01N±0.02×141.15E±0.03, h30km±3km, mb4.7/108, MS3.7/18, Error ellipse: s-maj=4.8km s-min=3.4km az=38.6*
*JMA **21** 20:10:29.5±0.1, 36.98N×141.16E, h30km±1km, M4.6*
*JMA Felt III J1.*
*MOS **21** 20:10:31.6±0.9, 37.37N×141.01E, h32km, mb4.9/36, Error ellipse: s-maj=7.7km s-min=5.3km az=92.4*
*NEIC **21** 20:10:33.4±0.6, 37.04N×141.01E, h48km±5km, mb4.8/72, Error ellipse: s-maj=4.7km s-min=3.6km az=136.0*
*NEIC Recorded [3 JMA] in Fukushima and Ibaraki.*

**ISC 21 20:10:30.5±0.7, 37.02N±0.03×141.17E±0.04, h31km±4km, n293,σ1§69/312, mb4.7/114, MS3.7/18, 11C-20D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **ONAJ** | **Iwakimizuishiy** | **0.31** | **286** | | | P | **Pb** | **20 10 37.0** | **-1.2** |
| ONAJ | | | | | | S | **Sb** | **20 10 42.1** | **-1.3** |
| **JFK** | **Kawauchi** | **0.42** | **326** | | | P | **Pb** | **20 10 38.8** | **-1.0** |
| JFK | | | | | | S | **Sb** | **20 10 45.1** | **-1.0** |
| **JHO** | **Hitachi** | **0.63** | **230** | | | P | **Pb** | **20 10 41.0** | **-2.1** |
| JHO | | | | | | *e*S | **Sb** | **20 10 49.4** | **-2.3** |
| **JFT** | **Otama** | **0.83** | **307** | | | P | **Pb** | **20 10 45.7** | **-0.8** |
| JFT | | | | | | *e*S | **Sn** | **20 10 57.0** | **-0.3** |
| **JMM** | **Marumori** | **0.90** | **341** | | | P | **Pn** | **20 10 46.0** | **-1.0** |
| JMM | | | | | | *e*S | **Sn** | **20 10 58.0** | **-0.9** |
| **JSB** | **Shiboa** | **1.00** | **268** | | | P | **Pb** | **20 10 48.5** | **-0.8** |
| JSB | | | | | | S | **Sb** | **20 11 01.7** | **-0.5** |
| **JYT** | **Yasato** | **1.11** | **225** | | | P | **Pn** | **20 10 48.3** | **-1.6** |
| JYT | | | | | | *e*S | **Sn** | **20 11 01.9** | **-2.3** |
| **JFY** | **Yanaizu** | **1.23** | **289** | | | P | **Pb** | **20 10 51.9** | **-1.3** |
| JFY | | | | | | S | **Sb** | **20 11 08.0** | **-0.7** |
| **MJAR** | **Matsushiro Arr** | **2.42** | **260** | | | Pn | **Pn** | **20 11 07.7** | **-0.3** |
| | 25nm,0.3s,baz=337,slow=16,SNR=155 | | | | | | | | |
| MJAR | | | | | | Sn | **Sb** | **20 11 39.2** | **-3.7** |
| | 76nm,0.3s,baz=328,slow=20,SNR=6.5 | | | | | | | | |
| **MAJO** | **Matsushiro** | **2.42** | **260** | *d* | *i* | P | **Pn** | **20 11 09.2** | **+1.2** |
| **MAJO** | **Matsushiro** | **2.42** | **260** | *e* | | Pn | **Pn** | **20 11 09.3** | **+1.2** |
| **MAT** | **Matsushiro** | **2.42** | **260** | | | P | **Pn** | **20 11 09.3** | **+1.3** |
| MAT | | | | | | S | **Sb** | **20 11 39.7** | **-3.2** |
| **MJB9** | **Matsu-Tunnel** | **2.43** | **260** | *e* | | Pn | **Pn** | **20 11 09.3** | **+1.3** |
| **INU** | **Inuyama** | **3.75** | **245** | *e* | | Pn | **Pn** | **20 11 28.2** | **+2.0** |
| **JHJ** | **Hachijo jima 2** | **4.05** | **197** | | | Pn | **Pn** | **20 11 30.6** | **+0.2** |
| | 76nm,0.3s,baz=306,slow=21,SNR=49 | | | | | | | | |
| JHJ | | | | | | Sn | **Sn** | **20 12 16.5** | **-0.3** |
| | 172nm,0.3s,baz=235,slow=22,SNR=7.4 | | | | | | | | |
| **JHJ2** | **Mitsune** | **4.05** | **196** | *e* | | Pn | **Pn** | **20 11 30.1** | **-0.3** |
| **ERM** | **Erimo** | **5.22** | **17** | *c* | *e* | P | **Pn** | **20 11 44.7** | **-1.7** |
| ERM | | | | | | pmax | pmax | | |
| | comp

MA2 **Magadan** 23.41 12⇓*i*P P 20 15 37.7 +1.2
YAK **Yakutsk** 26.04 348 P P 20 16 00.2 -0.4
comp=Z,22nm,0.5s,baz=224,slow=1.3,SNR=10
YAK **Yakutsk** 26.04 348 *e*P P 20 16 00.5 -0.2
YAK *e* 20 16 35.7
YAK *e*S S 20 20 27.0 -2.4
YAK *e**SS sS 20 20 46.4 +2.2
YAK pmax pmax
comp=N,6.0nm,1.1s
YAK pmax pmax
comp=Z,44nm,1.1s
YAK pmax pmax
comp=E,6.0nm,1.1s
YAK pmax pmax
comp=Z,21nm,1.2s
YAK pmax pmax
comp=N,13nm,1.5s
YAK pmax pmax
comp=E,10.0nm,1.4s
YAK smax smax
comp=N,46nm,1.8s
YAK smax smax
comp=E,50nm,2.2s
**YAK** **Yakutsk** 26.04 348 *e*P P 20 16 00.5 -0.2
comp=E,44nm,0.8s
**SEY** **Seymchan** 26.84 11 P P 20 16 06.8 -1.0
comp=E,3.7nm,0.6s,baz=184,slow=11,SNR=14
**SEY** **Seymchan** 26.84 11 *i*P P 20 16 08.6 +0.7
**ENH** **Enshi** 27.14 265 *e*P P 20 16 10.4 -0.6
comp=E,9.8nm,0.8s
**ULN** **Ulaanbaatar** 27.20 304 *i*P P 20 16 11.0 -0.5
ULN pmax pmax
comp=Z,4.0nm,0.9s
**ULN** **Ulaanbaatar** 27.20 304 *e*P P 20 16 11.3 -0.2
comp=Z,4.6nm,0.8s
**BOD** **Bodaibo** 27.44 328 *e*P P 20 16 12.9 -0.4
BOD pmax pmax
comp=Z,6.0nm,1.6s
**SONA1** **Songino Array** 27.63 304 *e*P P 20 16 15.6 +0.3
**SONA0** **Songino Array** 27.63 304 *e*P P 20 16 13.6 -1.8
SONA0 *e*PcP PcP 20 19 32.7 +0.6
**SONM** **Songino Array** 27.63 304 P P 20 16 13.5 -1.8
comp=Z,4.8nm,0.6s,baz=105,slow=8.5,SNR=36
SONM PcP PcP 20 19 32.7 +0.6
comp=Z,0.9nm,0.5s,baz=118,slow=2.5,SNR=7.1
SONM LR LR 20 27 34.9
comp=Z,89nm,18.6s,baz=90,slow=37
**H11N2** **WAKE ISLAND Hy** 28.31 120 T T 20 46 09.1
baz=313,slow=75,SNR=861
**H11N1** **WAKE ISLAND Hy** 28.32 120 T T 20 46 08.5
baz=313,slow=75,SNR=1055
**H11N3** **WAKE ISLAND Hy** 28.33 120 T T 20 46 13.6
baz=313,slow=75,SNR=1649
**H11S1** **WAKE ISLAND Hy** 29.02 123 T T 20 47 02.5
baz=314,slow=75,SNR=2073
**H11S3** **WAKE ISLAND Hy** 29.02 123 T T 20 47 00.8
baz=314,slow=75,SNR=1334
**H11S2** **WAKE ISLAND Hy** 29.03 123 T T 20 47 00.8
baz=314,slow=75,SNR=987
**ZAK** **Zakamensk** 30.12 308 *e*P P 20 16 42.6 +5.2
ZAK pmax pmax
comp=Z,3.0nm,1.0s
**TLY** **Talaya** 30.19 311 LR LR 20 29 26.1
comp=Z,140nm,18.1s,baz=114,slow=38
**GTA** **Gaotai** 32.38 287 *e*P P 20 16 56.9 -0.5
GTA pmax pmax
comp=Z,3.0nm,0.7s
**BILL** **Bilibino** 34.10 17⇑*e*P P 20 17 12.5 +0.6
BILL *i* 20 17 20.0
BILL pmax pmax
comp=Z,5.0nm,1.0s
BILL MLR MLR
comp=Z,76nm,15.0s
**TIXI** **Tiksi** 35.28 353 P P 20 17 21.9 -0.1
comp=Z,1.2nm,0.4s,baz=161,slow=4.3,SNR=4.4
**TIXI** **Tiksi** 35.28 353*ce*P P 20 17 21.2 -0.8
TIXI pmax pmax
comp=Z,5.0nm,1.7s
**MYLDM** **Lahad Datu** 37.88 219 *e*P P 20 17 47.5 +2.8
comp=Z,35nm,1.5s
**DGZ** **Jazzator, Alta** 40.24 306*d*/P P 20 18 05.5 +1.1
DGZ pmax pmax
comp=Z,6.0nm,0.7s
**CM31** **Chiang Mai Arr** 41.30 255 *e*P P 20 18 13.3 0.0
**CMAR** **Chiang Mai Arr** 41.30 255 P P 20 18 13.3 0.0
comp=Z,1.2nm,0.8s,baz=43,slow=9.0,SNR=4.5
CMAR LR LR 20 37 25.4
comp=Z,106nm,18.6s,baz=54,slow=39
**CM01** **Chiang Mai Arr** 41.31 255 *e*P P 20 18 14.3 +0.8
**ZAA0** **Zalesovo Array** 41.78 312 *e*P P 20 18 17.1 +0.3
comp=Z,9.7nm,1.0s
**ZAA1** **Zalesovo Array** 41.78 312 *e*P P 20 18 17.0 +0.2
ZAA1 *e*PcP PcP 20 20 12.8 +0.3
**ZALV** **Zalesovo Beam** 41.78 312 P P 20 18 17.0 +0.2
comp=Z,6.3nm,0.7s,baz=98,slow=6.9,SNR=28
ZALV PcP PcP 20 20 12.8 +0.3
comp=Z,1.5nm,0.4s,baz=119,slow=2.5,SNR=4.5
ZALV LR LR 20 36 06.8
comp=Z,38nm,19.0s,baz=70,slow=37
**LSA** **Lhasa** 42.02 275 *e*P P 20 18 20.4 +0.8
LSA pmax pmax
comp=Z,6.0nm,0.9s
**LSA** **Lhasa** 42.02 275 *e*P P 20 18 20.4 +0.8
comp=Z,5.7nm,0.9s
**MK01** **Makanchi Array** 43.96 302 *e*P P 20 18 35.0 +0.4
**MK31** **Makanchi Array** 43.96 302 *e*P P 20 18 35.0 +0.3
**MK31** **Makanchi Array** 43.96 302 *e*P P 20 18 35.0 +0.3
**MK32** **Makanchi Array** 43.96 302 *e*P P 20 18 35.1 +0.4
MK32 *e*PP PcP 20 20 21.2 +1.1
**MKAR** **Makanchi Array** 43.96 302 P P 20 18 35.1 +0.4
comp=Z,4.3nm,0.6s,baz=88,slow=10.0,SNR=51
MKAR PcP PcP 20 20 21.2 +1.1
comp=Z,1.5nm,0.8s,baz=84,slow=5.4,SNR=3.4
MKAR LR LR 20 37 48.9
comp=Z,68nm,18.4s,baz=86,slow=37
**MKAR** **Makanchi Array** 43.96 302 *e*P P 20 18 35.0 +0.4
MKAR 20 20 21.2
MKAR pmax pmax
comp=Z,35nm,0.7s
**MKAR** **Makanchi Array** 43.96 302 *e*P P 20 18 35.0 +0.3
comp=Z,34nm,0.7s
MKAR PcP PcP 20 20 21.2 +1.1
**MAKZ** **Makanchi** 44.17 302 *e*P P 20 18 36.9 +0.6
MAKZ pmax pmax
comp=Z,8.0nm,0.9s
**MAKZ** **Makanchi** 44.17 302 *e*P P 20 18 36.9 +0.6
comp=Z,8.1nm,0.9s
**SVW2** **Sparrevohn** 45.65 37 *e*P P 20 18 50.0 +2.1
comp=Z,16nm,1.0s
**TAPN** **Taplejung** 45.75 274 *e*P P 20 18 49.8 +0.4
comp=Z,7.7nm,0.5s
**KURK** **Kurchatov** 45.79 308*d*/P P 20 18 48.8 -0.3
KURK pmax pmax
comp=Z,65nm,1.0s
**KURK** **Kurchatov** 45.79 308 *e*P P 20 18 49.2 +0.2
comp=Z,25nm,1.0s
**ODAN** **Odare** 46.22 273 *e*P P 20 18 53.4 +0.3
comp=Z,12nm,0.6s
**IMAR** **Indian Mountai** 46.76 31 *e*P P 20 18 58.2 +1.6
IMAR *e*PcP PcP 20 20 31.4 +2.0
**RAMN** **Ramite** 46.81 274 *e*P P 20 18 57.9 +0.2
comp=Z,38nm,0.8s
**JIRN** **Jiri** 46.82 275 *e*P P 20 18 59.4 +1.4
**GUN** **Gumba** 46.96 276 *e*P P 20 18 59.5 +0.5
comp=Z,13nm,0.6s
**KDAK** **Kodiak Island** 47.24 42 *i*P P 20 19 01.6 +1.3
**KDAK** **Kodiak Island** 47.24 42 *e*P P 20 19 01.7 +1.4
comp=Z,178nm,1.9s
**PKI** **Pulchoki** 47.48 275 *e*P P 20 19 03.0 -0.1
**KKN** **Kakani** 47.49 276 *e*P P 20 19 03.4 +0.4
comp=Z,12nm,0.5s
**PKIN** **Phulchoki** 47.49 275 *e*P P 20 19 03.5 +0.4
**DMN** **Daman** 47.71 276 *e*P P 20 19 04.9 +0.1
**KTH** **Kantishna Hill** 47.87 34 *e*P P 20 19 07.8 +2.5
comp=Z,14nm,0.9s
**MLY** **Manley** 47.97 32 *e*P P 20 19 08.3 +2.4
comp=Z,9.8nm,0.8s
**TRF** **Thorofare Moun** 48.16 34 *e*P P 20 19 09.3 +1.7
comp=Z,55nm,1.9s
**COLD** **Coldfoot** 48.26 29 *e*P P 20 19 10.4 +2.3
comp=Z,19nm,1.8s
**DANN** **Dangsing** 48.46 277 *e*P P 20 19 11.6 +1.0
**RND** **Reindeer** 48.80 34 *e*P P 20 19 13.4 +0.9
RND pmax pmax
comp=Z,8.0nm,0.7s
**RND** **Reindeer** 48.80 34 *e*P P 20 19 13.4 +0.9
comp=Z,8.0nm,0.7s
**KOLN** **Koldanda** 48.84 277 *e*P P 20 19 14.0 +0.6
**PYUN** **Piuthan** 49.18 277 *e*P P 20 19 16.6 +0.6
**CCB** **Clear Creek Bu** 49.22 33 *e*P P 20 19 17.1 +1.6
comp=Z,36nm,2.0s
**IL1** **Eielson Array** 49.61 32 *e*P P 20 19 19.8 +1.2
**ILAR** **Eielson Array** 49.61 32 P P 20 19 19.6 +1.0
comp=Z,8.4nm,0.7s,baz=267,slow=6.0,SNR=114
**ILB** **Eielson Array** 49.61 32 *e*P P 20 19 19.9 +1.4
**KSH** **Kashi** 50.23 294 *e*P P 20 19 29.6 +5.8
KSH PcP PcP 20 20 43.1 +0.5
KSH PP PP 20 21 29.1 +10
KSH S S 20 26 37.8 +3.7
KSH SS SS 20 30 10.1 +2.7
KSH pmax pmax
comp=Z,3.0nm,0.7s
KSH pmax pmax
comp=Z,220nm,4.5s
KSH LR LR
comp=Z,99nm,5.4s
KSH LR LR
comp=Z,78nm,5.5s
KSH LR LR
comp=Z,190nm,5.7s
**AAK** **Ala-Archa** 50.32 298 *e*P P 20 19 23.2 -1.3
AAK pmax pmax
comp=Z,1.0nm,1.0s
**AAK** **Ala-Archa** 50.32 298 *e*P P 20 19 25.5 +1.0
comp=Z,3.0nm,0.8s
**MTN** **Manton Dam** 50.49 193 *e*P P 20 19 26.2 +0.6
comp=Z,44nm,1.3s
**BRVK** **Borovoye** 50.49 312 *e*P P 20 19 26.5 +1.1
BRVK pmax pmax
comp=Z,5.0nm,0.8s
**BRVK** **Borovoye** 50.49 312 *e*P P 20 19 26.5 +1.1
comp=Z,5.2nm,0.8s
**COEN** **Coen** 50.74 177 *e*P P 20 19 27.5 0.0
comp=Z,15nm,0.9s
**DOT** **Dot Lake** 50.93 34 *e*P P 20 19 29.6 +1.1
comp=Z,15nm,0.7s
**PSI** **Prapat** 51.62 239 P P 20 19 34.7 +0.3
comp=Z,2.9nm,0.4s,baz=353,slow=16,SNR=3.6
**PSI** **Prapat** 51.62 239 *e*P P 20 19 34.7 +0.3
PSI pmax pmax
comp=Z,11nm,1.2s
**PSI** **Prapat** 51.62 239 *e*P P 20 19 34.7 +0.3
comp=Z,11nm,1.2s
**EGAK** **Eagle** 52.06 32 *e*P P 20 19 38.2 +1.3
comp=Z,10.0nm,1.1s
**KKAR** **Karatay Array** 52.96 300 *e*P P 20 19 45.4 +1.4
KKAR pmax pmax
comp=Z,29nm,0.7s
**KKAR** **Karatay Array** 52.96 300 *e*P P 20 19 45.4 +1.4
comp=Z,29nm,0.7s
**GSI** **Gunungsitoli** 53.62 239 *e*P P 20 19 50.3 +1.2
comp=Z,56nm,1.3s
**INK** **Inuvik** 54.49 27 *e*P P 20 19 56.4 +1.7
INK pmax pmax
comp=Z,13nm,1.3s
**INK** **Inuvik** 54.49 27 *e*P P 20 19 56.4 +1.7
comp=Z,14nm,1.3s
**SVE** **Sverdlovsk** 55.03 319 *e*P P 20 20 05.2 +6.4
SVE pmax pmax
comp=Z,15nm,1.1s
**ARU** **Arti** 56.24 318*c*/P P 20 20 07.2 -0.4
ARU 20 21 04.7
ARU 20 22 08.0
ARU S S 20 27 53.4 -1.6
ARU SS SS 20 31 31.9 -9.4
ARU pmax pmax
comp=Z,10.0nm,0.7s
**ARU** **Arti** 56.24 318 *e*P P 20 20 07.1 -0.4
comp=Z,9.7nm,0.7s
**FITZ** **Fitzroy Crossi** 56.75 198 P P 20 20 11.7 +0.2
comp=Z,3.7nm,0.8s,baz=19,slow=6.1,SNR=8.6
**WRAB** **Tennant Creek** 57.01 188 *e*P P 20 20 13.4 +0.1
WRAB pmax pmax
comp=Z,25nm,1.0s
**WRAB** **Tennant Creek** 57.01 188 *e*P P 20 20 13.4 +0.1
comp=Z,25nm,1.0s
**WB2** **Warramunga Arr** 57.02 188 *e*P P 20 20 13.2 -0.2
**WR1** **Warramunga Arr** 57.02 188 *e*P P 20 20 13.2 -0.2
comp=Z,22nm,0.9s
WR1 *e*PcP PcP 20 21 08.4 +0.2
**WRA** **Warramunga Arr** 57.02 188 P P 20 20 13.2 -0.2
comp=Z,5.4nm,0.5s,baz=4.6,slow=7.4,SNR=137
WRA PcP PcP 20 21 08.4 +0.2
comp=Z,1.5nm,0.6s,baz=2.1,slow=4.1,SNR=4.6
**KBL** **Kabul** 57.24 291 *e*P P 20 20 15.8 +0.6
KBL pmax pmax
comp=Z,12nm,1.2s
**KBL** **Kabul** 57.24 291 *e*P P 20 20 15.8 +0.6
comp=Z,12nm,1.2s
**ABKAR** **Akbulak array** 57.80 310 *e*P P 20 20 18.6 -0.1
comp=Z,44nm,0.4s
**AS01** **Alice Springs** 60.74 188 *e*P P 20 20 39.1 -0.1
**AS31** **Alice Springs** 60.74 188 *e*P P 20 20 39.5 +0.2
comp=Z,4.1nm,0.9s
**ASAR** **Alice Springs** 60.75 188 P P 20 20 39.6 +0.3
comp=Z,2.7nm,0.6s,baz=17,slow=7.4,SNR=34
**GEYT** **Alibeck** 63.67 299 P P 20 20 58.1 -0.8
comp=Z,4.2nm,0.6s,baz=48,slow=4.4,SNR=11
**YKW3** **Yellowknife Ar** 63.88 30 *e*P P 20 21 00.3 +0.5
comp=Z,3.3nm,0.7s
**YKA** **Yellowknife Ar** 63.92 30 P P 20 21 01.0 +1.0
comp=Z,2.2nm,0.7s,baz=304,slow=6.8,SNR=47
**YKA** **Yellowknife Ar** 63.92 30 P P 20 21 01.0 +1.0
**YKA** **Yellowknife Ar** 63.92 30 P P 20 21 01.0 +1.0
**YKB5** **Yellowknife Ar** 63.92 30 *e*P P 20 20 59.5 -0.5
**ARA0** **ARCESS Array S** 63.94 339 *e*P P 20 20 59.9 -0.3
**ARCES** **ARCESS Array B** 63.94 339 P P 20 20 59.9 -0.3
comp=Z,6.3nm,0.8s,baz=46,slow=6.7,SNR=12
**VRH** **Novokhopyorsk** 67.46 318 *e*P P 20 21 22.7 -0.3
VRH pmax pmax
comp=Z,10.0nm,0.6s
**OBN** **Obninsk** 67.99 323 *i*P P 20 21 24.6 -1.7
OBN pmax pmax
comp=Z,5.0nm,1.0s
OBN MLR MLR
comp=Z,94nm,15.0s
**LPSR** **Galich'ya Gora** 68.19 320 *e*P P 20 21 27.3 -0.3
LPSR pmax pmax
comp=Z,10.0nm,0.6s
**MAK** **Makhachkala** 68.31 308 *e*P P 20 21 26.3 -2.3
MAK *e* 20 23 56.1
MAK *e*S S 20 30 23.6 -3.8
MAK pmax pmax
comp=Z,401nm,1.4s
MAK MLR MLR
comp=Z,134nm,14.0s
**STKA** **Stephens Creek** 68.54 180 P P 20 21 30.3 +0.4
comp=Z,2.0nm,0.6s,baz=330,slow=8.3,SNR=8.6
STKA LR LR 20 50 50.8
comp=Z,36nm,21.8s,baz=24,slow=35
**STKA** **Stephens Creek** 68.54 180 *e*P P 20 21 30.3 +0.4
STKA pmax pmax
comp=Z,4.0nm,1.6s
**STKA** **Stephens Creek** 68.54 180 *e*P P 20 21 30.3 +0.4
comp=Z,4.4nm,1.6s
**FORT** **Forrest** 68.55 192 *e*P P 20 21 30.3 +0.3
comp=Z,332nm,0.8s
**FIA1** **FINESS Array S** 68.73 332 *e*P P 20 21 31.0 +0.1
**FIA0** **FINESS Array S** 68.74 332 *e*P P 20 21 30.9 0.0
**FIA0** **FINESS Array S** 68.74 332 *e*P P 20 21 30.9 0.0
**FINES** **FINESS Array B** 68.74 332 P P 20 21 30.9 0.0
comp=Z,6.8nm,0.6s,baz=46,slow=8.6,SNR=28
FINES LR LR 20 52 18.4
comp=Z,60nm,18.2s,baz=338,slow=37
**FINES** **FINESS Array B** 68.74 332 *i*P P 20 21 31.2 +0.3
FINES pmax pmax
comp=Z,7.0nm,0.6s
**VSR** **Storozhevoye** 68.81 319 *e*P P 20 21 30.9 -0.7
VSR pmax pmax
comp=Z,10.0nm,0.7s
**F07A** **Phinny Hill Vi** 69.97 47 *e*P P 20 21 41.5 +2.7
comp=Z,8.3nm,0.8s
**E09A** **Wood Farm, Sta** 70.67 46 *e*P P 20 21 45.4 +2.3
comp=Z,6.1nm,0.9s
**KBZ** **Khabaz** 70.76 311 P P 20 21 44.0 +0.3
comp=Z,3.9nm,0.8s,baz=105,slow=4.0,SNR=7.3
KBZ LR LR 20 55 42.7
comp=Z,38nm,18.1s,baz=54,slow=38
**KBZ** **Khabaz** 70.76 311 P P 20 21 44.0 +0.3
KBZ pmax pmax
comp=Z,4.0nm,0.8s
KBZ MLR MLR
comp=Z,38nm,18.2s
**KIV** **Kislovodsk** 70.77 311 *e*P P 20 21 44.3 +0.4
KIV pmax pmax
comp=Z,24nm,1.1s
KIV MLR MLR
comp=Z,46nm,18.0s
**KIV** **Kislovodsk** 70.77 311 *e*P P 20 21 44.9 +1.0
comp=Z,25nm,1.1s
**WALA** **Waterton Lakes** 71.58 42 *e*P P 20 21 50.7 +2.0
comp=Z,29nm,1.8s
**BMO** **Blue Mountains** 72.08 47 *e*P P 20 21 53.6 +1.8
BMO pmax pmax
comp=Z,6.0nm,1.1s
**BMO** **Blue Mountains** 72.08 47 *e*P P 20 21 53.6 +1.8
comp=Z,6.3nm,1.1s
**J08A** **Circle Bar Ran** 72.23 49 *e*P P 20 21 53.5 +0.8
comp=Z,8.5nm,0.6s
**IZAR** **Zarasai** 72.31 327 *e*P P 20 21 53.5 +0.7
IZAR IAmb IAmb 20 22 02.7
comp=Z,6.7nm,0.7s
**IDID** **Didziasalis** 72.38 327 *e*P P 20 21 53.9 +0.7
IDID IAmb IAmb 20 21 54.8
comp=Z,4.5nm,0.8s
**ISAL** **Salakas** 72.48 327 *e*P P 20 21 54.5 +0.7
ISAL IAmb IAmb 20 21 56.9
comp=Z,13nm,1.3s
**IIGN** **Ignalina** 72.58 327 *e*P P 20 21 55.1 +0.7
IIGN IAmb IAmb 20 21 56.0
comp=Z,4.6nm,0.7s
**FFC** **Flin Flon** 73.82 33 *e*P P 20 22 02.8 +1.0
FFC pmax pmax
comp=Z,8.0nm,0.9s
**FFC** **Flin Flon** 73.82 33 *e*P P 20 22 02.8 +1.0
comp=Z,8.2nm,0.9s
**HFS** **Hagfors** 74.02 336 P P 20 22 02.8 0.0
comp=Z,1.8nm,0.5s,baz=64,slow=6.6,SNR=4.3
**CMB** **Columbia Colle** 74.04 54 *e*P P 20 22 05.3 +1.9
CMB pmax pmax
comp=Z,16nm,1.4s
**CMB** **Columbia Colle** 74.04 54 *e*P P 20 22 05.3 +1.9
comp=Z,16nm,1.4s
**NB2** **NORSAR Subarra** 74.12 337 P P 20 22 03.7 +0.2
comp=Z,3.7nm,0.6s,baz=41,slow=6.2
**NB200** **NORSAR Array S** 74.12 337 *e*P P 20 22 03.7 +0.2
**NOA** **NORSAR Array B** 74.12 337 P P 20 22 03.7 +0.2
comp=Z,3.4nm,0.7s,baz=40,slow=5.9,SNR=15
NOA LR LR 20 57 36.4
comp=Z,78nm,20.4s,baz=345,slow=38
**AKASG** **Malin Array Be** 74.19 322 P P 20 22 04.0 0.0
comp=Z,4.7nm,0.5s,baz=46,slow=6.3,SNR=21
AKASG LR LR 20 56 44.5
comp=Z,46nm,19.8s,baz=335,slow=38
**AKBB** **Malin Array Si** 74.19 322 *e*P P 20 22 04.3 +0.3
AKBB pmax pmax
comp=Z,9.0nm,1.0s
**AKBB** **Malin Array Si** 74.19 322 *e*P P 20 22 04.3 +0.3
comp=Z,8.7nm,1.0s
**KIEV** **Kiev** 74.20 322 *e*P P 20 22 03.9 -0.2
KIEV pmax pmax
comp=Z,7.0nm,0.9s
**KIEV** **Kiev** 74.20 322 *e*P P 20 22 03.9 -0.2
comp=Z,7.0nm,0.9s
**LRM** **Limekiln Ridge** 74.29 44 *e*P P 20 22 06.5 +1.5
**DLMT** **Dillon** 74.49 45 *e*P P 20 22 02.4 -3.7
comp=Z,6.0nm,0.7s
**KVN** **Kaiserville** 74.92 52 *e*P P 20 22 11.1 +2.4
KVN pmax pmax
comp=Z,9.0nm,1.1s
**KVN** **Kaiserville** 74.92 52 *e*P P 20 22 11.1 +2.4
comp=Z,9.2nm,1.1s
**NV01** **Mina Array Sit** 75.15 53 *e*P P 20 22 12.0 +1.9
**NVAR** **Mina Array Bea** 75.15 53 P P 20 22 12.0 +1.9
comp=Z,2.9nm,0.8s,baz=284,slow=5.5,SNR=13
**H17A** **Grant Village** 76.22 45 *e*P P 20 22 19.6 +3.4
comp=Z,14nm,1.3s
**SORM** **Soroca** 76.28 321⇓*i*P P 20 22 14.5 -1.5
**SORM** **Soroca** 76.28 321⇓P P 20 22 14.5 -1.5
**R11A** **Troy Canyon, C** 76.92 52 *e*P P 20 22 22.1 +2.0
comp=Z,9.1nm,1.2s
**TPNV** **Topopah Spring** 77.34 53 *e*P P 20 22 24.7 +2.2
TPNV pmax pmax
comp=Z,8.0nm,1.0s
**TPNV** **Topopah Spring** 77.34 53 *e*P P 20 22 24.7 +2.2
comp=Z,8.3nm,1.0s
**DUG** **Dugway, Tooele** 77.51 49 *e*P P 20 22 25.2 +1.8
DUG pmax pmax
comp=Z,15nm,1.4s
**DUG** **Dugway, Tooele** 77.51 49 *e*P P 20 22 25.1 +1.8
comp=Z,15nm,1.4s
**PD31** **Pinedale Array** 77.82 45 *e*P P 20 22 26.6 +1.5
**PDAR** **Pinedale Array** 77.82 45 P P 20 22 26.6 +1.5
comp=Z,1.7nm,0.5s,baz=300,slow=2.0,SNR=4.2
**BUR08** **Bucovina Ar. S** 78.19 322 *e*P P 20 22 28.0 +1.0
**BUR04** **Bucovina Ar. S** 78.20 322 *e*P P 20 22 27.9 +0.9
**BURAR** **Bucovina Array** 78.20 322⇓*i*P P 20 22 27.9 +0.9
**BURAR** **Bucovina Array** 78.20 322⇓P P 20 22 27.9 +0.9
**TESR** **Tescani** 78.22 320⇓*i*P P 20 22 27.8 +0.8
**SHPR** **Sheep Range** 78.31 53 *e*P P 20 22 29.6 +1.7
comp=Z,4.7nm,1.1s
**ODBI** **Odobesti** 78.51 319⇓*i*P P 20 22 30.3 +1.7
**BR101** **Keskin Array S** 78.72 311 *e*P P 20 22 30.4 +0.4
**BRTR** **Keskin Array B** 78.72 311 P P 20 22 30.4 +0.4
comp=Z,2.3nm,0.9s,baz=104,slow=4.5,SNR=5.9
BRTR LR LR 20 59 28.2
comp=Z,14nm,20.3s,baz=62,slow=37
**CCUT** **Cedar City** 78.80 51 *e*P P 20 22 32.3 +1.6
comp=Z,4.3nm,1.1s
**STHS** **Stebnicka Huta** 78.86 325 *e*P P 20 22 32.1 +1.6
STHS pmax pmax
comp=Z,4.0nm,1.0s
**STHS** **Stebnicka Huta** 78.86 325 *e*P P 20 22 32.1 +1.6
**MSU** **Marysvale** 78.94 50 *e*P P 20 22 32.5 +1.1
**MSU** **Marysvale** 78.94 50 *e*P P 20 22 32.5 +1.1
**OJC** **Ojcow** 78.94 326 *e*P P 20 22 32.1 +1.1
**OJC** **Ojcow** 78.94 326 *e*P P 20 22 32.0 +1.1
OJC pmax pmax
comp=Z,7.0nm,0.9s
**OJC** **Ojcow** 78.94 326 *e*P P 20 22 32.0 +1.1
comp=Z,6.7nm,0.9s
**CRVS** **Cervenica-Dubn** 79.12 324 *e*P P 20 22 34.0 +2.1
**CRVS** **Cervenica-Dubn** 79.12 324 *e*P P 20 22 34.0 +2.1
**BR231** **Keskin MP Arra** 79.16 312 *e*P P 20 22 31.9 -0.5
**PFO** **Pinyon Flats O** 79.21 56 *e*P P 20 22 34.7 +1.9
PFO pmax pmax
comp=Z,14nm,1.4s
**PFO** **Pinyon Flats O** 79.21 56 *e*P P 20 22 34.7 +1.9
comp=Z,14nm,1.4s
**LCMT** **Little Creek M** 79.21 52 *e*P P 20 22 34.2 +1.4
comp=Z,9.9nm,1.2s
**XPFO** **Piæon Flat** 79.21 56 *e*P P 20 22 33.9 +1.1
comp=Z,16nm,1.5s
**MTPU** **Mount Pierson** 79.23 50 *e*P P 20 22 34.2 +1.1
comp=Z,3.2nm,0.9s
**MLR** **Muntele Rosu** 79.27 320⇑*i*P P 20 22 38.0 +5.1
**MLR** **Muntele Rosu** 79.27 320⇑P P 20 22 38.0 +5.1
**ULM** **Lac du Bonnet** 79.62 33 P P 20 22 34.4 -0.2
comp=Z,3.2nm,0.7s,baz=320,slow=2.5,SNR=4.7
**VOIR** 79.77 320⇓*i*P P 20 22 36.9 +1.3
**VOIR** 79.77 320⇓P P 20 22 36.9 +1.3
**LANS** **Liptovska Anna** 79.86 325 *e*P P 20 22 38.1 +2.1
**LANS** **Liptovska Anna** 79.86 325 *e*P P 20 22 38.1 +2.1
**W13A** **Hualapai Mount** 79.98 54 *e*P P 20 22 39.2 +2.1
comp=Z,16nm,1.8s
**DRGR** 80.01 322⇑*i*P P 20 22 37.5 +0.7
**DRGR** 80.01 322⇑P P 20 22 37.5 +0.7
**ARR** **Arges** 80.03 320⇑*i*P P 20 22 38.5 +1.5
**U15A** **North Rim** 80.17 52 *e*P P 20 22 39.7 +1.5
comp=Z,12nm,1.5s
**MORC** **Moravsky Berou** 80.26 327⇓*i*P P 20 22 38.8 +0.7
**MORC** **Moravsky Berou** 80.26 327⇓P P 20 22 38.8 +0.7
**MORC** **Moravsky Berou** 80.26 327 *e*P P 20 22 39.2 +1.1
comp=Z,18nm,1.1s
**RAYN** **Ar Rayn** 80.48 292 *e*P P 20 22 39.9 +0.1
comp=Z,6.3nm,0.9s
**PSZ** **Piszkesteto** 80.56 324⇓*i*P P 20 22 35.8 -4.0
**PSZ** **Piszkesteto** 80.56 324⇓P P 20 22 35.8 -4.0
**PV10** **Paradox Valley** 80.93 48 *e*P P 20 22 42.8 +0.6
**CLL** **Collm** 81.01 330 *e*P P 20 22 42.7 +0.7
CLL pmax pmax
comp=Z,6.0nm,0.9s
**CLL** **Collm** 81.01 330 *i*P P 20 22 42.8 +0.7
comp=Z,7.0nm,1.0s
**CLL** **Collm** 81.01 330 *e*P P 20 22 42.7 +0.7
comp=Z,5.8nm,0.9s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **PV05** | **Paradox Valley** | **81.09** | **49** | *e*P | | **P** | **20 22 45.5** | **+2.5** |
| **WUAZ** | **Wupatki** | **81.32** | **52** | *e*P | | **P** | **20 22 46.2** | **+2.0** |
| | comp=Z,8.5nm,1.1s | | | | | | | |
| **BZS** | **Buzias** | **81.38** | **322** | ⇓*i*P | | **P** | **20 22 41.3** | **-2.8** |
| **BZS** | **Buzias** | **81.38** | **322** | ⇓P | | **P** | **20 22 41.3** | **-2.8** |
| **MDVR** | **Moldovita** | **81.92** | **321** | ⇑*i*P | | P | 20 22 38.0 | -9.1 |
| **X16A** | **Lo Mia Camp, P** | **81.98** | **53** | *e*P | | **P** | **20 22 49.5** | **+1.7** |
| | comp=Z,3.3nm,0.8s | | | | | | | |
| **CONA** | **Conrad Observa** | **82.38** | **326** | *i* pP | | **P** | **20 22 50.9** | **+1.4** |
| | comp=Z,4.8nm,1.2s | | | | | | | |
| **KHC** | **Kasperske Hory** | **82.45** | **328** | *e*P | | **P** | **20 22 50.0** | **+0.2** |
| KHC | | | | *e*sP | | sP | 20 23 10.0 | +6.8 |
| **KHC** | **Kasperske Hory** | **82.45** | **328** | *e*P | | **P** | **20 22 50.0** | **+0.2** |
| **KHC** | **Kasperske Hory** | **82.45** | **328** | *e*P | | **P** | **20 22 50.5** | **+0.8** |
| | comp=Z,1.0nm,0.7s | | | | | | | |
| **GEC2** | **GERESS Array S** | **82.62** | **328** | *e*P | | **P** | **20 22 51.1** | **+0.4** |
| GEC2 | | | | pmax | | pmax | | |
| | comp=Z,13nm,1.8s | | | | | | | |
| **GEC2** | **GERESS Array S** | **82.62** | **328** | *e*P | | **P** | **20 22 51.1** | **+0.4** |
| | comp=Z,13nm,1.8s | | | | | | | |
| **GERES** | **GERESS Array B** | **82.62** | **328** | P | | **P** | **20 22 51.1** | **+0.4** |
| | comp=Z,1.0nm,0.4s,baz=41,slow=6.0,SNR=12 | | | | | | | |
| GERES | | | | LR | | LR | 21 04 17.2 | |
| | comp=Z,38nm,19.0s,baz=12,slow=39 | | | | | | | |
| **GEA0** | **GERESS Array S** | **82.63** | **328** | *e*P | | **P** | **20 22 51.0** | **+0.3** |
| **VTS** | **Vitosha** | **82.70** | **319** | ⇓*i*P | | **P** | **20 22 52.8** | **+1.5** |
| **VTS** | **Vitosha** | **82.70** | **319** | ⇓P | | **P** | **20 22 52.8** | **+1.5** |
| **SOKA** | **Soboth** | **83.70** | **326** | *i* pP | | **P** | **20 22 57.2** | **+0.9** |
| | comp=Z,7.1nm,0.9s | | | | | | | |
| **ANMO** | **Albuquerque** | **84.75** | **50** | *ce*P | | **P** | **20 23 04.7** | **+2.7** |
| ANMO | | | | pmax | | pmax | | |
| | comp=Z,6.0nm,1.7s | | | | | | | |
| **ANMO** | **Albuquerque** | **84.75** | **50** | *e*P | | **P** | **20 23 03.6** | **+1.6** |
| | comp=Z,7.0nm,1.2s | | | | | | | |
| **BNM** | **Barren Site** | **85.17** | **50** | *e*P | | **P** | **20 23 06.3** | **+2.1** |
| **BFO** | **Black Forest** | **85.22** | **331** | *i* P | | **P** | **20 23 05.5** | **+1.6** |
| **SCHQ** | **Schefferville** | **85.41** | **16** | P | | **P** | **20 23 05.7** | **+1.1** |
| | comp=Z,11nm,1.1s,baz=7.4,slow=3.0,SNR=4.4 | | | | | | | |
| **SCHQ** | **Schefferville** | **85.41** | **16** | *e*P | | **P** | **20 23 06.0** | **+1.4** |
| | comp=Z,74nm,1.9s | | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **90.28** | **52** | *e*P | | **P** | **20 23 30.0** | **+1.3** |
| **LTX** | **Lajitas** | **90.28** | **52** | *e*P | | **P** | **20 23 30.3** | **+1.6** |
| **LTX** | **Lajitas** | **90.28** | **52** | *e*P | | **P** | **20 23 30.3** | **+1.6** |
| **TXAR** | **Lajitas Array** | **90.28** | **52** | P | | **P** | **20 23 30.3** | **+1.7** |
| | comp=Z,2.0nm,0.5s,baz=305,slow=3.1,SNR=32 | | | | | | | |
| **CPCT** | **Cooper Cave** | **96.33** | **36** | *e*P | | **P** | **20 23 54.1** | **-2.1** |
| | comp=Z,8.9nm,0.9s | | | | | | | |
| **ESDC** | **Sonseca Array** | **97.22** | **334** | LR | | LR | 21 11 51.9 | |
| | comp=Z,40nm,18.8s,baz=305,slow=38 | | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **117.20** | **315** | *e*PKPdf | | **PKPdf** | **20 29 12.9** | **-0.3** |
| **TORD** | **Torodi Ar. Bea** | **117.20** | **315** | PKP | | **PKPdf** | **20 29 12.9** | **-0.3** |
| | comp=Z,0.6nm,0.5s,baz=14,slow=1.4,SNR=11 | | | | | | | |
| **DBIC** | **Dimbokro** | **126.17** | **317** | PKP | | **PKPdf** | **20 29 30.1** | **-0.3** |
| | comp=Z,2.6nm,0.6s,baz=54,slow=3.6,SNR=6.9 | | | | | | | |
| **LPAZ** | **La Paz** | **146.87** | **59** | PKPbc | | **PKPab** | **20 30 11.8** | **-0.4** |
| | comp=Z,5.8nm,0.6s,baz=315,slow=3.1,SNR=21 | | | | | | | |
| **LPAZ** | **La Paz** | **146.87** | **59** | *e*PKP2 | | **PKPab** | **20 30 12.0** | **-0.2** |
| **LPAZ** | **La Paz** | **146.87** | **59** | *e*PKPbc | | **PKPab** | **20 30 12.0** | **-0.2** |
| **MNMC** | **Minye Minye** | **147.73** | **65** | *e*PKPbc | | **PKPab** | **20 30 13.7** | **-1.5** |
| **PLCA** | **Paso Flores** | **155.10** | **108** | PKPab | | **PKPab** | **20 30 46.1** | **+1.1** |
| | comp=Z,2.4nm,1.0s,baz=255,slow=3.3,SNR=2.9 | | | | | | | |

**MEX 21 20:19:51.1**±0.4,**14°.51N**×**92°.68W**,**h92**km±8km,**MD3.6, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **PCIG** | | **1.30** | **336** | *e*P | | Pn | 20 20 13.6 | -0.9 |
| PCIG | | | | *e*S | | Sn | 20 20 30.0 | -2.1 |
| **CCIG** | **Comitan** | **1.83** | **16** | *e*P | | Pn | 20 20 20.2 | -1.2 |
| CCIG | | | | *i* S | | Sn | 20 20 42.9 | -1.6 |

*ISCJB **21** 20:21:23.9±0.5,35°.05N±0°.04×140°.22E±0°.05,h32km±4km, mb3.5/3,Error ellipse: s-maj=7.5km s-min=6.2km az=167.8*
*JMA **21** 20:21:24.9±0.1,35°.11N×140°.21E,h20km±1km,M2.8*
*JMA Felt I J1.*
*IDC **21** 20:21:25.2±1.3,34°.58N×138°.82E,h0km,mb3.5/3, mb1 3.6/3,mb1mx3.3/52,mbtmp3.5/3,Error ellipse: s-maj=42.8km s-min=16.1km az=66.0*
**ISC 21 20:21:24.2**±0.9,**35°.08N**±0°.04×**140°.21E**±0°.05,**h26**km±6km, **n21**,σ**0s57**/21,**mb3.5**/3,**Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **KTR** | **Katsuura** | **0.11** | **49** | P | | **Pb** | **20 21 28.7** | **-0.4** |
| KTR | | | | *e*S | | **Sb** | **20 21 32.0** | **-0.3** |
| **BSO4** | **Boso 4** | **0.13** | **129** | P | | **Pb** | **20 21 29.6** | **+0.5** |
| **TATJ** | **Tateyama 2** | **0.27** | **261** | P | | **Pb** | **20 21 31.2** | **+0.4** |
| TATJ | | | | *e*S | | **Sb** | **20 21 35.8** | **+0.5** |
| **JCN** | **Nagara** | **0.34** | **359** | P | | **Pb** | **20 21 31.7** | **-0.2** |
| **BSO3** | **Boso 3** | **0.37** | **138** | P | | **Pn** | **20 21 33.4** | **-0.3** |
| **BSO1** | **Boso 1** | **0.76** | **124** | P | | **Pb** | **20 21 38.9** | **+0.5** |
| BSO1 | | | | X | | | 20 21 50.9 | |
| **JOD2** | **Odawara 2** | **0.94** | **282** | P | | **Pn** | **20 21 40.6** | **-1.2** |
| **JHH** | **Hanno** | **1.08** | **316** | P | | **Pn** | **20 21 43.4** | **-0.4** |
| **JYT** | **Yasato** | **1.15** | **359** | P | | **Pn** | **20 21 44.6** | **-0.1** |
| JYT | | | | *e*S | | **Sb** | **20 22 00.3** | **+0.3** |
| **JHJ** | **Hachijo jima 2** | **1.98** | **190** | Pn | | **Pn** | **20 21 56.1** | **-0.1** |
| | 27nm,0.3s,baz=329,slow=21,SNR=3.1 | | | | | | | |
| JHJ | | | | Sn | | **Sn** | **20 22 19.4** | **-0.7** |
| | 25nm,0.3s,baz=279,slow=20,SNR=10 | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **2.19** | **313** | Pn | | **Pn** | **20 21 59.6** | **+0.6** |
| | 2.2nm,0.3s,baz=155,slow=14,SNR=36 | | | | | | | |
| MJAR | | | | Sn | | **Sn** | **20 22 25.8** | **+0.5** |
| | 2.5nm,0.3s,baz=126,slow=13,SNR=5.3 | | | | | | | |
| **MAT** | **Matsushiro** | **2.19** | **313** | P | | **Pn** | **20 21 59.9** | **+0.9** |
| MAT | | | | *e*S | | **Sb** | **20 22 29.3** | **-0.6** |
| **H11N2** | **WAKE ISLAND Hy** | **28.07** | **116** | T | | T | 20 56 37.5 | |
| | baz=309,slow=75,SNR=24 | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.08** | **116** | T | | T | 20 56 39.5 | |
| | baz=309,slow=75,SNR=23 | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.09** | **116** | T | | T | 20 56 41.2 | |
| | baz=309,slow=75,SNR=22 | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.70** | **118** | T | | T | 20 57 31.1 | |
| | baz=310,slow=75,SNR=11 | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.70** | **118** | T | | T | 20 57 30.5 | |
| | baz=310,slow=75,SNR=7.6 | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.72** | **118** | T | | T | 20 57 30.9 | |
| | baz=310,slow=75,SNR=10 | | | | | | | |
| **MKAR** | **Makanchi Array** | **44.36** | **304** | P | | **P** | **20 29 32.9** | **+0.5** |
| | 0.3nm,0.6s,baz=92,slow=9.5,SNR=3.3 | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **46.46** | **309** | P | | **P** | **20 29 49.0** | **+0.1** |
| | 0.7nm,0.4s,baz=83,slow=7.8,SNR=8.6 | | | | | | | |
| **WRA** | **Warramunga Arr** | **55.00** | **187** | P | | **P** | **20 30 53.1** | **-0.4** |
| | 0.2nm,0.4s,baz=1.8,slow=7.6,SNR=6.9 | | | | | | | |

*ISCJB **21** 20:42:15.4±0.5,42°.11N±0°.03×7°.88W±0°.04,h27km±4km, Error ellipse: s-maj=5.4km s-min=3.8km az=32.8*
*INMG **21** 20:42:15.6±1.6,42°.14N×7°.88W,h5km±3km,MD2.5,ML2.5, Error ellipse: s-maj=2.7km s-min=1.8km az=106.0*
*CSEM **21** 20:42:15.5,42°.14N×7°.88W,h6km,ML2.4*
*MDD **21** 20:42:15.5±0.3,42°.14N×7°.88W,h6km±4km,mbLg2.4/9, Error ellipse: s-maj=4.2km s-min=2.7km az=103.0, PRXIMO*
*MDD EMS: II INTENSIDAD MAXIMA.*
*IGIL **21** 20:42:16.6,42°.15N×7°.89W,h11km,ML1.9*
**ISC 21 20:42:14.6**±1.0,**42°.14N**±0°.02×**7°.90W**±0°.03,**h17**km±7km, **n64**,σ**1s35**/119,**6C-1D,Spain**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **ELOB** | **Lobios** | **0.29** | **204** | ⇑Pg | | **Pg** | **20 42 21.2** | **+0.2** |
| | 45nm,0.1s,SNR=18 | | | | | | | |
| ELOB | | | | Lg | | Lg | 20 42 25.5 | |
| | 82nm,0.1s,SNR=5.0 | | | | | | | |
| **ELOB** | **Lobios** | **0.29** | **204** | Pg | | **Pg** | **20 42 21.2** | **+0.2** |
| | 45nm,0.1s,SNR=18 | | | | | | | |
| ELOB | | | | Lg | | Lg | 20 42 25.5 | |
| | 82nm,0.1s,SNR=5.0 | | | | | | | |
| **PGAV** | **Gavieira, Arco** | **0.33** | **239** | ⇑*i*Pg | | **Pg** | **20 42 21.9** | **+0.4** |
| PGAV | | | | *e*Sg | | **Sg** | **20 42 26.8** | **+0.5** |
| PGAV | | | | A | | A | 20 42 27.4 | |
| | 232nm,0.3s | | | | | | | |
| **EAGO** | **Agolada(Pontev** | **0.68** | **348** | ⇑Pg | | **Pg** | **20 42 28.0** | **0.0** |
| | 1.7nm,0.1s,SNR=18 | | | | | | | |
| EAGO | | | | Lg | | Lg | 20 42 37.4 | |
| | 142nm,0.1s,SNR=7.9 | | | | | | | |
| **EAGO** | **Agolada(Pontev** | **0.68** | **348** | Pg | | **Pg** | **20 42 28.0** | **0.0** |
| | 1.7nm,0.1s,SNR=18 | | | | | | | |
| EAGO | | | | Lg | | Lg | 20 42 37.4 | |
| | 142nm,0.1s,SNR=7.9 | | | | | | | |
| **POLO** | **Lamas de Olo** | **0.77** | **174** | *e*P | | **Pg** | **20 42 29.7** | **+0.1** |
| POLO | | | | *e*S | | **Sg** | **20 42 39.9** | **+0.2** |
| POLO | | | | A | | A | 20 42 43.1 | |
| | 58nm,0.2s | | | | | | | |
| **PVRL** | **Vila Real** | **0.87** | **171** | *e*P | | **Pg** | **20 42 31.6** | **+0.1** |
| PVRL | | | | *e*S | | **Sb** | **20 42 43.5** | **+0.9** |
| PVRL | | | | A | | A | 20 42 46.1 | |
| | 202nm,0.1s | | | | | | | |
| **ECAL** | **Calabor** | **0.89** | **102** | ⇑Pg | | **Pg** | **20 42 31.5** | **-0.4** |
| | 13nm,0.1s,SNR=18 | | | | | | | |
| ECAL | | | | Lg | | Lg | 20 42 42.9 | |
| | 38nm,0.1s,SNR=5.0 | | | | | | | |
| **ECAL** | **Calabor** | **0.89** | **102** | Pg | | **Pg** | **20 42 31.5** | **-0.4** |
| | 13nm,0.1s,SNR=18 | | | | | | | |
| ECAL | | | | Lg | | Lg | 20 42 42.9 | |
| | 38nm,0.1s,SNR=5.0 | | | | | | | |
| **PBRG** | **Braganca** | **0.92** | **111** | *e*P | | **Pg** | **20 42 32.0** | **-0.6** |
| PBRG | | | | *e*S | | **Sb** | **20 42 44.6** | **+0.4** |
| PBRG | | | | A | | A | 20 42 46.9 | |
| | 104nm,0.2s | | | | | | | |
| **PTO** | **Porto** | **1.13** | **208** | *e*P | | **Pb** | **20 42 36.6** | **+1.0** |
| PTO | | | | *e*S | | **Sb** | **20 42 51.5** | **+1.5** |
| PTO | | | | A | | A | 20 42 54.0 | |
| | 140nm,0.1s | | | | | | | |
| **EMAZ** | **Mazaricos** | **1.14** | **316** | Pg | | **Pb** | **20 42 36.3** | **+0.4** |
| | 0.2nm,0.0s,SNR=7.9 | | | | | | | |
| EMAZ | | | | Lg | | Lg | 20 42 51.8 | |
| | 12nm,0.1s,SNR=7.9 | | | | | | | |
| **EMAZ** | **Mazaricos** | **1.14** | **316** | Pg | | **Pb** | **20 42 36.3** | **+0.4** |
| | 0.2nm,0.0s,SNR=7.9 | | | | | | | |
| EMAZ | | | | Lg | | Lg | 20 42 51.8 | |
| | 12nm,0.1s,SNR=7.9 | | | | | | | |
| **MVO** | **Moncorvo** | **1.17** | **146** | ⇓Pg | | **Pb** | **20 42 36.8** | **+0.4** |
| | 10nm,0.3s,SNR=18 | | | | | | | |
| MVO | | | | Lg | | Lg | 20 42 52.7 | |
| | 5.7nm,0.1s,SNR=9.9 | | | | | | | |
| **MVO** | **Moncorvo** | **1.17** | **146** | Pg | | **Pb** | **20 42 36.8** | **+0.4** |
| | 10nm,0.3s,SNR=18 | | | | | | | |
| MVO | | | | Lg | | Lg | 20 42 52.7 | |
| | 5.7nm,0.1s,SNR=9.9 | | | | | | | |
| **MVO** | **Moncorvo** | **1.17** | **146** | *e*P | | **Pb** | **20 42 36.8** | **+0.4** |
| MVO | | | | *e*S | | **Sn** | **20 42 52.6** | **+0.8** |
| MVO | | | | A | | A | 20 42 54.0 | |
| | 63nm,0.2s | | | | | | | |
| **EPON** | **Pontenova** | **1.31** | **25** | ⇑Pn | | **Pn** | **20 42 38.2** | **0.0** |
| | 1.4nm,0.1s,SNR=18 | | | | | | | |
| EPON | | | | Pg | | **Pg** | **20 42 39.6** | **-0.4** |
| | 14nm,0.1s,SNR=7.9 | | | | | | | |
| EPON | | | | Lg | | Lg | 20 42 56.9 | |
| | 10nm,0.1s,SNR=5.0 | | | | | | | |
| **EPON** | **Pontenova** | **1.31** | **25** | Pn | | **Pn** | **20 42 38.2** | **0.0** |
| | 1.4nm,0.1s,SNR=18 | | | | | | | |
| **PVIS** | **Viseu** | **1.42** | **180** | *e*Pn | | **Pn** | **20 42 40.6** | **+0.9** |
| PVIS | | | | *e*Sg | | **Sg** | **20 43 01.0** | **+0.6** |
| PVIS | | | | A | | A | 20 43 01.9 | |
| | 153nm,0.1s | | | | | | | |
| **MTE** | **Manteigas** | **1.75** | **171** | *e*Pg | | **Pg** | **20 42 48.0** | **-0.3** |
| MTE | | | | *e*Sg | | **Sg** | **20 43 10.3** | **-0.8** |
| MTE | | | | A | | A | 20 43 13.0 | |
| | 38nm,0.5s | | | | | | | |
| **COI** | **Coimbra** | **1.96** | **192** | *e*Sg | | **Sg** | **20 43 17.3** | **-0.5** |
| **PCAS** | **Casmilo, Conde** | **2.13** | **193** | *e*Pn | | **Pn** | **20 42 51.8** | **+2.4** |
| PCAS | | | | *e*Sg | | **Sg** | **20 43 23.3** | **+0.2** |
| PCAS | | | | A | | A | 20 43 24.2 | |
| | 14nm,0.5s | | | | | | | |
| **EARI** | **Arriondas** | **2.30** | **59** | Pn | | **Pn** | **20 42 53.0** | **+1.2** |
| | 0.1nm,0.1s,SNR=4.0 | | | | | | | |
| EARI | | | | Pg | | **Pg** | **20 42 57.7** | **-1.0** |
| | 1.9nm,0.2s,SNR=4.0 | | | | | | | |
| EARI | | | | Sn | | **Sn** | **20 43 20.3** | **+0.6** |
| | 4.4nm,0.3s,SNR=5.0 | | | | | | | |
| EARI | | | | Lg | | Lg | 20 43 27.1 | |
| | 1.2nm,0.1s,SNR=5.0 | | | | | | | |
| **EARI** | **Arriondas** | **2.30** | **59** | Pn | | **Pn** | **20 42 53.0** | **+1.2** |
| | 0.1nm,0.1s,SNR=4.0 | | | | | | | |
| **PCBR** | **Castelo Branco** | **2.31** | **172** | *e*Pn | | **Pn** | **20 42 53.5** | **+1.6** |
| PCBR | | | | *e*Sg | | **Sb** | **20 43 26.9** | **+2.7** |
| PCBR | | | | A | | A | 20 43 32.9 | |
| | 14nm,0.5s | | | | | | | |
| **EPLA** | **Plasencia** | **2.48** | **146** | Pn | | **Pn** | **20 42 55.6** | **+1.3** |
| | 0.2nm,0.1s,SNR=14 | | | | | | | |
| EPLA | | | | Sn | | **Sn** | **20 43 24.2** | **0.0** |
| | 1.4nm,0.3s,SNR=5.7 | | | | | | | |
| EPLA | | | | Lg | | Lg | 20 43 33.8 | |
| | 3.1nm,0.1s,SNR=5.0 | | | | | | | |
| **EPLA** | **Plasencia** | **2.48** | **146** | Pn | | **Pn** | **20 42 55.6** | **+1.3** |
| | 0.2nm,0.1s,SNR=14 | | | | | | | |
| EPLA | | | | Sn | | **Sn** | **20 43 24.2** | **0.0** |
| | 1.4nm,0.3s,SNR=5.7 | | | | | | | |
| EPLA | | | | Lg | | Lg | 20 43 33.8 | |
| | 3.1nm,0.1s,SNR=5.0 | | | | | | | |
| **PTOM** | **Tomar** | **2.54** | **189** | *e*Pg | | **Pg** | **20 43 03.5** | **+0.1** |
| PTOM | | | | *e*Sg | | **Sg** | **20 43 35.2** | **-1.2** |
| PTOM | | | | A | | A | 20 43 40.7 | |
| | 22nm,0.5s | | | | | | | |
| **PMRV** | **Marv??o** | **2.73** | **172** | *e*Pn | | **Pn** | **20 42 59.1** | **+1.4** |
| PMRV | | | | *e*Sg | | **Sg** | **20 43 42.2** | **-0.2** |
| PMRV | | | | A | | A | 20 43 44.9 | |
| | 22nm,0.5s | | | | | | | |
| **PMTG** | **Montargil** | **3.07** | **185** | *e*Pn | | **Pn** | **20 43 03.2** | **+0.8** |
| PMTG | | | | *e*Sn | | **Sn** | **20 43 38.8** | **+0.1** |
| PMTG | | | | *e*Sg | | **Sg** | **20 43 51.4** | **-1.9** |
| PMTG | | | | A | | A | 20 43 54.9 | |
| | 7.4nm,0.3s | | | | | | | |
| **GUD** | **Guadarrama** | **3.19** | **117** | Pn | | **Pn** | **20 43 06.0** | **+1.9** |
| | 0.3nm,0.1s,SNR=11 | | | | | | | |
| GUD | | | | Sn | | **Sn** | **20 43 41.6** | **-0.1** |
| | 0.1nm,0.2s,SNR=7.9 | | | | | | | |
| GUD | | | | Lg | | Lg | 20 43 53.8 | |
| | 3.2nm,0.2s,SNR=5.0 | | | | | | | |
| **GUD** | **Guadarrama** | **3.19** | **117** | Pn | | **Pn** | **20 43 06.0** | **+1.9** |
| | 0.3nm,0.1s,SNR=11 | | | | | | | |
| GUD | | | | Sn | | **Sn** | **20 43 41.6** | **-0.1** |
| | 0.1nm,0.2s,SNR=7.9 | | | | | | | |
| GUD | | | | Lg | | Lg | 20 43 53.8 | |
| | 3.2nm,0.2s,SNR=5.0 | | | | | | | |
| **PESTR** | **Estremoz** | **3.27** | **176** | *e*Pn | | **Pn** | **20 43 06.4** | **+1.3** |
| PESTR | | | | *e*Sn | | **Sn** | **20 43 44.2** | **+0.5** |
| PESTR | | | | *e*Sg | | **Sg** | **20 43 58.1** | **-1.6** |
| PESTR | | | | A | | A | 20 43 59.5 | |
| | 12nm,0.4s | | | | | | | |
| **PMAFR** | **Mafra** | **3.35** | **199** | Pn | | **Pn** | **20 43 07.4** | **+1.3** |
| | 1.7nm,0.1s,SNR=7.9 | | | | | | | |
| PMAFR | | | | Sn | | **Sn** | **20 43 44.2** | **-1.3** |
| | 0.8nm,0.3s,SNR=7.9 | | | | | | | |
| PMAFR | | | | Lg | | Lg | 20 44 00.3 | |
| | 2.1nm,0.1s,SNR=7.9 | | | | | | | |
| **PMAFR** | **Mafra** | **3.35** | **199** | Pn | | **Pn** | **20 43 07.4** | **+1.3** |
| | 1.7nm,0.1s,SNR=7.9 | | | | | | | |
| PMAFR | | | | Sn | | **Sn** | **20 43 44.2** | **-1.3** |
| | 0.8nm,0.3s,SNR=7.9 | | | | | | | |
| PMAFR | | | | Lg | | Lg | 20 44 00.3 | |
| | 2.1nm,0.1s,SNR=7.9 | | | | | | | |
| **PMAFR** | **Mafra** | **3.35** | **199** | *e*Pn | | **Pn** | **20 43 07.7** | **+1.6** |
| PMAFR | | | | *e*Sg | | **Sg** | **20 44 00.7** | **-1.4** |
| PMAFR | | | | A | | A | 20 44 04.0 | |
| | 16nm,0.7s | | | | | | | |
| **EBAD** | **Badajoz** | **3.44** | **168** | Pn | | **Pn** | **20 43 08.5** | **+1.0** |
| | 0.5nm,0.1s,SNR=13 | | | | | | | |
| EBAD | | | | Sn | | **Sn** | **20 43 47.5** | **-0.3** |
| | 4.2nm,0.2s,SNR=6.7 | | | | | | | |
| EBAD | | | | Lg | | Lg | 20 44 03.5 | |
| | 3.2nm,0.2s,SNR=5.0 | | | | | | | |
| **EBAD** | **Badajoz** | **3.44** | **168** | Pn | | **Pn** | **20 43 08.5** | **+1.0** |
| | 0.5nm,0.1s,SNR=13 | | | | | | | |
| EBAD | | | | Sn | | **Sn** | **20 43 47.5** | **-0.3** |
| | 4.2nm,0.2s,SNR=6.7 | | | | | | | |
| EBAD | | | | Lg | | Lg | 20 44 03.5 | |
| | 3.2nm,0.2s,SNR=5.0 | | | | | | | |
| **ELAN** | **Lanestosa** | **3.47** | **70** | Pn | | **Pn** | **20 43 10.1** | **+2.3** |
| | 0.2nm,0.1s,SNR=5.5 | | | | | | | |
| ELAN | | | | Sn | | **Sn** | **20 43 48.4** | **-0.1** |
| | 0.7nm,0.2s,SNR=5.0 | | | | | | | |
| ELAN | | | | Lg | | Lg | 20 44 05.0 | |
| | 0.1nm,0.1s,SNR=5.0 | | | | | | | |
| **ELAN** | **Lanestosa** | **3.47** | **70** | Pn | | **Pn** | **20 43 10.1** | **+2.3** |
| | 0.2nm,0.1s,SNR=5.5 | | | | | | | |
| ELAN | | | | Sn | | **Sn** | **20 43 48.4** | **-0.1** |
| | 0.7nm,0.2s,SNR=5.0 | | | | | | | |
| ELAN | | | | Lg | | Lg | 20 44 05.0 | |
| | 0.1nm,0.1s,SNR=5.0 | | | | | | | |
| **EVO** | **Evora** | **3.60** | **181** | *e*Pn | | **Pn** | **20 43 10.9** | **+1.3** |
| EVO | | | | *e*Sn | | **Sn** | **20 43 51.4** | **-0.3** |
| EVO | | | | *e*Sg | | **Sg** | **20 44 06.9** | **-3.3** |
| EVO | | | | A | | A | 20 44 11.5 | |
| | 9.1nm,0.4s | | | | | | | |
| **ESDC** | **Sonseca Array** | **3.86** | **128** | Pn | | **Pn** | **20 43 14.4** | **+1.1** |
| | 0.2nm,0.2s,baz=310,slow=13,SNR=4.1 | | | | | | | |
| ESDC | | | | Sn | | **Sn** | **20 43 57.8** | **-0.5** |
| | 0.4nm,0.3s,baz=310,slow=24,SNR=4.5 | | | | | | | |
| ESDC | | | | Lg | | Lg | 20 44 16.5 | |
| | 1.0nm,0.3s,baz=315,slow=30,SNR=8.3 | | | | | | | |
| **ESDC** | **Sonseca Array** | **3.86** | **128** | Pn | | **Pn** | **20 43 14.4** | **+1.1** |
| | 0.2nm,0.2s,SNR=4.1 | | | | | | | |
| ESDC | | | | Sn | | **Sn** | **20 43 57.8** | **-0.5** |
| | 0.4nm,0.3s,SNR=4.5 | | | | | | | |
| ESDC | | | | Lg | | Lg | 20 44 16.5 | |
| | 1.0nm,0.3s,SNR=8.3 | | | | | | | |
| **PBAR** | **Barrancos** | **4.01** | **170** | *e*Pn | | **Pn** | **20 43 16.6** | **+1.4** |
| PBAR | | | | *e*Sn | | **Sn** | **20 44 01.5** | **-0.3** |
| PBAR | | | | *e*Sg | | **Sg** | **20 44 19.5** | **-3.8** |
| PBAR | | | | A | | A | 20 44 27.9 | |
| | 12nm,0.5s | | | | | | | |
| **PNCL** | **Nicolau / Gran** | **4.05** | **187** | *e*Pn | | **Pn** | **20 43 16.9** | **+1.2** |
| PNCL | | | | *e*Sn | | **Sn** | **20 44 02.0** | **-0.7** |
| PNCL | | | | *e*Sg | | **Sg** | **20 44 22.6** | **-2.0** |
| PNCL | | | | A | | A | 20 44 34.0 | |
| | 2.3nm,0.9s | | | | | | | |
| **MESJ** | **Messejana** | **4.30** | **183** | *e*P | | **Pn** | **20 43 20.4** | **+1.2** |
| MESJ | | | | *e*S | | **Sn** | **20 44 06.7** | **-2.2** |
| MESJ | | | | AML | | AML | 20 44 08.1 | |
| | comp=E,2.1nm,0.4s | | | | | | | |
| **MESJ** | **Messejana** | **4.30** | **183** | ⇑*e*Pn | | **Pn** | **20 43 20.4** | **+1.2** |
| MESJ | | | | *e*Sn | | **Sn** | **20 44 07.7** | **-1.2** |
| MESJ | | | | *e*Sg | | **Sg** | **20 44 30.6** | **-2.0** |
| MESJ | | | | A | | A | 20 44 42.7 | |
| | comp=E,3.9nm,0.7s | | | | | | | |
| **EMIN** | **Mina Concepcio** | **4.46** | **167** | Pn | | **Pn** | **20 43 22.7** | **+1.3** |
| | comp=E,0.4nm,0.2s,SNR=7.9 | | | | | | | |
| EMIN | | | | Sn | | **Sn** | **20 44 11.0** | **-2.0** |
| | comp=E,0.4nm,0.3s,SNR=7.9 | | | | | | | |
| EMIN | | | | Lg | | Lg | 20 44 36.4 | |
| | comp=E,0.1nm,0.1s,SNR=7.9 | | | | | | | |
| **EMIN** | **Mina Concepcio** | **4.46** | **167** | Pn | | **Pn** | **20 43 22.7** | **+1.3** |
| | comp=E,0.4nm,0.2s,SNR=7.9 | | | | | | | |
| EMIN | | | | Sn | | **Sn** | **20 44 11.0** | **-2.0** |
| | comp=E,0.4nm,0.3s,SNR=7.9 | | | | | | | |
| EMIN | | | | Lg | | Lg | 20 44 36.4 | |
| | comp=E,0.1nm,0.1s,SNR=7.9 | | | | | | | |
| **ECAB** | **El Cabril** | **4.48** | **154** | Pn | | **Pn** | **20 43 22.7** | **+1.0** |
| | comp=E,2µm,97.6s,SNR=8.4 | | | | | | | |
| ECAB | | | | Sn | | **Sn** | **20 44 11.8** | **-1.6** |
| | comp=E,0.7nm,0.3s,SNR=10 | | | | | | | |
| ECAB | | | | Lg | | Lg | 20 44 35.3 | |
| | comp=E,0.0nm,0.1s,SNR=5.0 | | | | | | | |
| **ECAB** | **El Cabril** | **4.48** | **154** | Pn | | **Pn** | **20 43 22.7** | **+1.0** |
| | comp=E,2µm,97.6s,SNR=8.4 | | | | | | | |
| ECAB | | | | Sn | | **Sn** | **20 44 11.8** | **-1.6** |
| | comp=E,0.7nm,0.3s,SNR=10 | | | | | | | |
| ECAB | | | | Lg | | Lg | 20 44 35.3 | |
| | SNR=5.0 | | | | | | | |
| **PCVE** | **Castro Verde** | **4.50** | **181** | *e*Pn | | **Pn** | **20 43 23.0** | **+1.0** |
| PCVE | | | | *e*Sn | | **Sn** | **20 44 13.0** | **-0.9** |
| PCVE | | | | A | | A | 20 44 41.0 | |
| | comp=E,2.7nm,0.6s | | | | | | | |
| **ETOR** | **Torete** | **4.58** | **105** | Pn | | **Pn** | **20 43 24.3** | **+1.1** |
| | comp=E,0.6nm,0.1s,SNR=7.9 | | | | | | | |
| ETOR | | | | Pg | | **Pb** | **20 43 37.4** | **+2.8** |
| | comp=E,0.5nm,1.1s,SNR=4.0 | | | | | | | |
| ETOR | | | | Lg | | Lg | 20 44 39.0 | |
| | comp=E,0.0nm,0.0s,SNR=7.9 | | | | | | | |
| **ETOR** | **Torete** | **4.58** | **105** | Pn | | **Pn** | **20 43 24.3** | **+1.1** |
| | comp=E,0.6nm,0.1s,SNR=7.9 | | | | | | | |
| **ETOR** | **Torete** | **4.58** | **105** | Pg | | **Pb** | **20 43 37.4** | **+2.8** |
| | comp=E,0.5nm,1.1s,SNR=4.0 | | | | | | | |
| ETOR | | | | Lg | | Lg | 20 44 39.0 | |
| | SNR=7.9 | | | | | | | |
| **EGRO** | **El Granado** | **4.61** | **176** | Pn | | **Pn** | **20 43 25.0** | **+1.6** |
| | comp=E,0.3nm,0.3s,SNR=7.9 | | | | | | | |
| EGRO | | | | Sn | | **Sn** | **20 44 14.5** | **-2.0** |
| | SNR=7.9 | | | | | | | |
| EGRO | | | | Lg | | Lg | 20 44 41.4 | |
| | comp=E,0.2nm,0.1s,SNR=7.9 | | | | | | | |
| **EGRO** | **El Granado** | **4.61** | **176** | Pn | | **Pn** | **20 43 25.0** | **+1.6** |
| | comp=E,0.3nm,0.3s,SNR=7.9 | | | | | | | |
| EGRO | | | | Sn | | **Sn** | **20 44 14.5** | **-2.0** |
| | SNR=7.9 | | | | | | | |
| EGRO | | | | Lg | | Lg | 20 44 41.4 | |
| | comp=E,0.2nm,0.1s,SNR=7.9 | | | | | | | |
| **EADA** | **Adamuz** | **4.71** | **146** | Pn | | **Pn** | **20 43 25.8** | **+0.9** |
| | comp=E,0.2nm,0.1s,SNR=7.9 | | | | | | | |
| EADA | | | | Sn | | **Sn** | **20 44 17.4** | **-1.7** |
| | comp=E,0.8nm,0.1s,SN

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| PKGZ | | | | AML | AML | 20 58 52.5 | | |
| PKGZ | | | | AML | AML | 20 58 53.3 | | |
| **CNGZ** | **Carnagh Statio** | **1.41 236** | | Pn | **Pn** | **20 58 34.8** | **0.0** | |
| **CNGZ** | **Carnagh Statio** | **1.41 236** | | PN | **Pn** | **20 58 34.8** | **0.0** | |
| CNGZ | | | | AML | AML | 20 59 00.6 | | |
| CNGZ | | | | AML | AML | 20 59 01.7 | | |
| **TWGZ** | **Tauwhareparae** | **1.44 251** | | Pn | **Pn** | **20 58 34.9** | **-0.4** | |
| TWGZ | | | | Sn | **Sn** | **20 58 56.2** | **+3.0** | |
| **TWGZ** | **Tauwhareparae** | **1.44 251** | ⇓PN | | **Pn** | **20 58 34.9** | **-0.4** | |
| TWGZ | | | | SN | **Sn** | **20 58 56.2** | **+3.0** | |
| TWGZ | | | | AML | AML | 20 58 57.5 | | |
| **HAZ** | **Te Kaha** | **1.52 268** | | PN | **Pn** | **20 58 35.1** | **-1.3** | |
| HAZ | | | | AML | AML | 20 58 58.2 | | |
| HAZ | | | | AML | AML | 20 58 58.2 | | |
| HAZ | | | | AML | AML | 20 59 02.0 | | |
| **RUGZ** | **Raukumara Rang** | **1.62 261** | | PN | **Pn** | **20 58 36.6** | **-1.3** | |
| **TKGZ** | **Te Karaka** | **1.63 243** | | Pn | **Pn** | **20 58 37.7** | **-0.2** | |
| **TKGZ** | **Te Karaka** | **1.63 243** | | PN | **Pn** | **20 58 37.7** | **-0.2** | |
| TKGZ | | | | AML | AML | 20 59 02.2 | | |
| TKGZ | | | | AML | AML | 20 59 02.4 | | |
| **RIGZ** | **Rimuhau** | **1.82 236** | ⇑PN | | **Pn** | **20 58 40.2** | **-0.3** | |
| RIGZ | | | | AML | AML | 20 59 08.0 | | |
| RIGZ | | | | AML | AML | 20 59 08.7 | | |
| **MWZ** | **Matawai** | **1.83 250** | | Pn | **Pn** | **20 58 39.6** | **-1.0** | |
| **MWZ** | **Matawai** | **1.83 250** | | PN | **Pn** | **20 58 39.6** | **-1.0** | |
| MWZ | | | | AML | AML | 20 59 05.7 | | |
| MWZ | | | | AML | AML | 20 59 06.0 | | |
| **PRGZ** | **Paritu Road** | **1.87 229** | | Pn | **Pn** | **20 58 40.9** | **-0.3** | |
| **PRGZ** | **Paritu Road** | **1.87 229** | ⇑PN | | **Pn** | **20 58 40.9** | **-0.3** | |
| PRGZ | | | | AML | AML | 20 59 09.2 | | |
| PRGZ | | | | AML | AML | 20 59 11.5 | | |
| **RAGZ** | **Rawiri** | **1.97 246** | | Pn | **Pn** | **20 58 42.1** | **-0.4** | |
| **RAGZ** | **Rawiri** | **1.97 246** | | PN | **Pn** | **20 58 42.1** | **-0.4** | |
| RAGZ | | | | AML | AML | 20 59 09.5 | | |
| RAGZ | | | | AML | AML | 20 59 14.6 | | |
| **MHGZ** | **Mahia Peninsul** | **2.01 224** | | Pn | **Pn** | **20 58 42.7** | **-0.4** | |
| **MHGZ** | **Mahia Peninsul** | **2.01 224** | | PN | **Pn** | **20 58 42.7** | **-0.4** | |
| MHGZ | | | | AML | AML | 20 59 12.7 | | |
| MHGZ | | | | AML | AML | 20 59 13.6 | | |
| **KNZ** | **Kokohu** | **2.06 230** | | Pn | **Pn** | **20 58 42.8** | **-0.9** | |
| **KNZ** | **Kokohu** | **2.06 230** | | PN | **Pn** | **20 58 42.8** | **-0.9** | |
| KNZ | | | | AML | AML | 20 59 13.8 | | |
| KNZ | | | | AML | AML | 20 59 28.9 | | |
| **URZ** | **Urewera** | **2.12 254** | | P | **Pn** | **20 58 43.8** | **-0.7** | |
| URZ | 81nm,0.3s,baz=42,slow=3.5,SNR=254 | | | S | **Sn** | **20 59 11.6** | **+1.9** | |
| | 116nm,0.3s,baz=180,slow=20,SNR=27 | | | | | | | |
| **URZ** | **Urewera** | **2.12 254** | | Pn | **Pn** | **20 58 43.6** | **-0.9** | |
| **URZ** | **Urewera** | **2.12 254** | | PN | **Pn** | **20 58 43.6** | **-0.9** | |
| URZ | | | | AML | AML | 20 59 13.3 | | |
| URZ | | | | AML | AML | 20 59 13.8 | | |
| **SNGZ** | **Shannon Statio** | **2.15 239** | | Pn | **Pn** | **20 58 44.9** | **0.0** | |
| **SNGZ** | **Shannon Statio** | **2.15 239** | | PN | **Pn** | **20 58 44.7** | **-0.2** | |
| SNGZ | | | | AML | AML | 20 59 17.4 | | |
| SNGZ | | | | AML | AML | 20 59 24.4 | | |
| **WHRZ** | **Whale Island** | **2.17 265** | | PN | **Pn** | **20 58 44.0** | **-1.2** | |
| **RTZ** | **Ruatahuna** | **2.33 246** | ⇓PN | | **Pn** | **20 58 47.3** | **-0.1** | |
| **WHHZ** | **Waihua** | **2.37 234** | | PN | **Pn** | **20 58 47.9** | **0.0** | |
| WHHZ | | | | AML | AML | 20 59 20.5 | | |
| WHHZ | | | | AML | AML | 20 59 25.8 | | |
| **MUGZ** | **Murupara** | **2.44 251** | | PN | **Pn** | **20 58 48.2** | **-0.7** | |
| **MTHZ** | **Maungataniwha** | **2.52 242** | | PN | **Pn** | **20 58 49.7** | **-0.4** | |
| **TARZ** | **Mount Tarawera** | **2.58 257** | | Pn | **Pn** | **20 58 50.1** | **-0.8** | |
| **TARZ** | **Mount Tarawera** | **2.58 257** | | PN | **Pn** | **20 58 50.1** | **-0.8** | |
| TARZ | | | | AML | AML | 20 59 24.2 | | |
| TARZ | | | | AML | AML | 20 59 25.4 | | |
| **ARHZ** | **Aropaoanui** | **2.63 233** | | Pn | **Pn** | **20 58 51.4** | **-0.1** | |
| **ARHZ** | **Aropaoanui** | **2.63 233** | | PN | **Pn** | **20 58 51.4** | **-0.1** | |
| ARHZ | | | | AML | AML | 20 59 28.6 | | |
| ARHZ | | | | AML | AML | 20 59 30.5 | | |
| **NMHZ** | **Naumai** | **2.66 238** | | Pn | **Pn** | **20 58 51.9** | **-0.1** | |
| **NMHZ** | **Naumai** | **2.66 238** | ⇓PN | | **Pn** | **20 58 51.9** | **-0.1** | |
| NMHZ | | | | AML | AML | 20 59 28.2 | | |
| NMHZ | | | | AML | AML | 20 59 35.4 | | |
| **ALRZ** | **Allen Road** | **2.78 251** | | Pn | **Pn** | **20 58 53.3** | **-0.3** | |
| **ALRZ** | **Allen Road** | **2.78 251** | | PN | **Pn** | **20 58 53.5** | **-0.1** | |
| ALRZ | | | | AML | AML | 20 59 29.2 | | |
| ALRZ | | | | AML | AML | 20 59 40.2 | | |
| **CKHZ** | **Cape Kidnapper** | **2.83 226** | | Pn | **Pn** | **20 58 53.6** | **-0.5** | |
| **CKHZ** | **Cape Kidnapper** | **2.83 226** | ⇓PN | | **Pn** | **20 58 53.6** | **-0.5** | |
| CKHZ | | | | AML | AML | 20 59 33.3 | | |
| CKHZ | | | | AML | AML | 20 59 46.3 | | |
| **BKZ** | **Black Stump Fm** | **2.91 239** | | Pn | **Pn** | **20 58 54.5** | **-0.8** | |
| **BKZ** | **Black Stump Fm** | **2.91 239** | | PN | **Pn** | **20 58 54.5** | **-0.8** | |
| BKZ | | | | AML | AML | 20 59 32.5 | | |
| BKZ | | | | AML | AML | 20 59 33.4 | | |
| **MCHZ** | **McNeill Hill** | **2.92 233** | | Pn | **Pn** | **20 58 55.1** | **-0.4** | |
| **MCHZ** | **McNeill Hill** | **2.92 233** | ⇓PN | | **Pn** | **20 58 55.1** | **-0.4** | |
| MCHZ | | | | AML | AML | 20 59 36.6 | | |
| MCHZ | | | | AML | AML | 20 59 43.9 | | |
| **PXZ** | **Pawanui** | **3.21 223** | | Pn | **Pn** | **20 58 58.0** | **-1.4** | |
| **PXZ** | **Pawanui** | **3.21 223** | | PN | **Pn** | **20 58 58.0** | **-1.4** | |
| PXZ | | | | AML | AML | 20 59 41.2 | | |
| PXZ | | | | AML | AML | 20 59 41.3 | | |
| **KRHZ** | **Kereru** | **3.24 233** | | PN | **Pn** | **20 58 58.7** | **-1.2** | |
| KRHZ | | | | AML | AML | 20 59 40.4 | | |
| KRHZ | | | | AML | AML | 20 59 41.8 | | |
| **KUZ** | **Kuaotunu** | **3.32 286** | | Pn | **Pn** | **20 58 57.5** | **-3.5** | |
| **KUZ** | **Kuaotunu** | **3.32 286** | | PN | **Pn** | **20 58 57.5** | **-3.5** | |
| KUZ | | | | AML | AML | 20 59 51.8 | | |
| **BHHZ** | **Black Hill Sta** | **3.36 237** | | Pn | **Pn** | **20 59 00.8** | **-0.8** | |
| **BHHZ** | **Black Hill Sta** | **3.36 237** | | PN | **Pn** | **20 59 00.7** | **-0.8** | |
| BHHZ | | | | AML | AML | 20 59 43.0 | | |
| BHHZ | | | | AML | AML | 20 59 43.1 | | |
| **WPHZ** | **Waipukurau** | **3.46 226** | | PN | **Pn** | **20 59 00.6** | **-2.3** | |
| WPHZ | | | | AML | AML | 20 59 46.2 | | |
| WPHZ | | | | AML | AML | 20 59 46.6 | | |
| **KRVZ** | **Karewarewa** | **3.48 245** | | Pn | **Pn** | **20 59 02.3** | **-0.9** | |
| **KRVZ** | **Karewarewa** | **3.48 245** | | PN | **Pn** | **20 59 02.2** | **-1.0** | |
| KRVZ | | | | AML | AML | 20 59 51.5 | | |
| KRVZ | | | | AML | AML | 20 59 59.3 | | |
| **OTVZ** | **Oturere** | **3.49 244** | | Pn | **Pn** | **20 59 02.4** | **-1.0** | |
| **OTVZ** | **Oturere** | **3.49 244** | | PN | **Pn** | **20 59 02.4** | **-1.0** | |
| OTVZ | | | | AML | AML | 20 59 45.1 | | |
| OTVZ | | | | AML | AML | 20 59 51.2 | | |
| **PRHZ** | **Porangahau** | **3.50 222** | | Pn | **Pn** | **20 59 01.9** | **-1.5** | |
| **PRHZ** | **Porangahau** | **3.50 222** | | PN | **Pn** | **20 59 01.9** | **-1.5** | |
| PRHZ | | | | AML | AML | 20 59 48.1 | | |
| PRHZ | | | | AML | AML | 20 59 52.0 | | |
| **PNHZ** | **Pukenui** | **3.51 230** | | Pn | **Pn** | **20 59 02.0** | **-1.5** | |
| **PNHZ** | **Pukenui** | **3.51 230** | ⇓PN | | **Pn** | **20 59 02.0** | **-1.5** | |
| PNHZ | | | | AML | AML | 20 59 49.3 | | |
| PNHZ | | | | AML | AML | 20 59 51.5 | | |
| **MOVZ** | **Moawhango** | **3.53 240** | | Pn | **Pn** | **20 59 03.7** | **-0.2** | |
| **MOVZ** | **Moawhango** | **3.53 240** | | PN | **Pn** | **20 59 03.7** | **-0.2** | |
| MOVZ | | | | AML | AML | 20 59 48.9 | | |
| MOVZ | | | | AML | AML | 20 59 49.5 | | |
| **NGZ** | **Ngauruhoe** | **3.54 244** | | Pn | **Pn** | **20 59 03.1** | **-0.9** | |
| **NGZ** | **Ngauruhoe** | **3.54 244** | | PN | **Pn** | **20 59 03.1** | **-0.9** | |
| NGZ | | | | AML | AML | 20 59 52.6 | | |
| NGZ | | | | AML | AML | 20 59 53.8 | | |
| **TUVZ** | **Tukino** | **3.54 243** | | Pn | **Pn** | **20 59 02.4** | **-1.6** | |
| **TUVZ** | **Tukino** | **3.54 243** | | PN | **Pn** | **20 59 02.4** | **-1.6** | |
| **WNVZ** | **Wahianoa** | **3.60 242** | | Pn | **Pn** | **20 59 03.8** | **-1.1** | |
| **WNVZ** | **Wahianoa** | **3.60 242** | ⇓PN | | **Pn** | **20 59 03.8** | **-1.1** | |
| **TRVZ** | **Turoa** | **3.62 243** | | Pn | **Pn** | **20 59 04.2** | **-1.1** | |
| **TRVZ** | **Turoa** | **3.62 243** | | PN | **Pn** | **20 59 04.2** | **-1.1** | |
| TRVZ | | | | AML | AML | 20 59 53.9 | | |
| TRVZ | | | | AML | AML | 20 59 54.6 | | |
| **GRZ** | **Great Barrier** | **3.70 292** | | PN | **Pn** | **20 59 03.2** | **-3.0** | |
| GRZ | | | | AML | AML | 20 59 08.9 | | |
| **TSZ** | **Takapari Road** | **3.74 230** | | Pn | **Pn** | **20 59 05.0** | **-1.8** | |
| **TSZ** | **Takapari Road** | **3.74 230** | | PN | **Pn** | **20 59 05.0** | **-1.8** | |
| TSZ | | | | AML | AML | 20 59 51.2 | | |
| TSZ | | | | AML | AML | 20 59 53.5 | | |
| **DVHZ** | **Dannevirke** | **3.77 226** | | Pn | **Pn** | **20 59 05.2** | **-2.0** | |
| **DVHZ** | **Dannevirke** | **3.77 226** | | PN | **Pn** | **20 59 05.2** | **-2.0** | |
| DVHZ | | | | AML | AML | 20 59 53.0 | | |
| DVHZ | | | | AML | AML | 20 59 57.0 | | |
| **HIZ** | **Hauiti** | **3.91 257** | | Pn | **Pn** | **20 59 08.6** | **-0.4** | |
| **HIZ** | **Hauiti** | **3.91 257** | | PN | **Pn** | **20 59 08.6** | **-0.4** | |
| HIZ | | | | AML | AML | 20 59 56.4 | | |
| **BFZ** | **Birch Farm** | **4.00 221** | | Pn | **Pn** | **20 59 07.3** | **-2.9** | |
| **BFZ** | **Birch Farm** | **4.00 221** | | PN | **Pn** | **20 59 07.3** | **-2.9** | |
| BFZ | | | | AML | AML | 20 59 57.4 | | |
| BFZ | | | | AML | AML | 21 00 00.8 | | |
| **PRWZ** | **Pori Road** | **4.06 225** | | Pn | **Pn** | **20 59 09.1** | **-2.0** | |
| **PRWZ** | **Pori Road** | **4.06 225** | | PN | **Pn** | **20 59 09.0** | **-2.0** | |
| PRWZ | | | | AML | AML | 21 00 00.8 | | |
| PRWZ | | | | AML | AML | 21 00 02.4 | | |
| **POWZ** | **Post Office Ro** | **4.07 228** | | Pn | **Pn** | **20 59 09.8** | **-1.4** | |
| **POWZ** | **Post Office Ro** | **4.07 228** | | PN | **Pn** | **20 59 09.8** | **-1.4** | |
| POWZ | | | | AML | AML | 21 00 00.0 | | |
| POWZ | | | | AML | AML | 21 00 00.8 | | |
| **WAZ** | **Wanganui** | **4.21 240** | | Pn | **Pn** | **20 59 12.8** | **-0.4** | |
| **WAZ** | **Wanganui** | **4.21 240** | | PN | **Pn** | **20 59 12.8** | **-0.4** | |
| WAZ | | | | AML | AML | 21 00 05.5 | | |
| WAZ | | | | AML | AML | 21 00 17.0 | | |
| **TIWZ** | **Tintock** | **4.26 223** | | Pn | **Pn** | **20 59 11.6** | **-2.2** | |
| **TIWZ** | **Tintock** | **4.26 223** | | PN | **Pn** | **20 59 11.6** | **-2.2** | |
| TIWZ | | | | AML | AML | 21 00 07.3 | | |
| TIWZ | | | | AML | AML | 21 00 12.4 | | |
| **MRZ** | **Mangatainoka R** | **4.35 226** | | Pn | **Pn** | **20 59 12.6** | **-2.4** | |
| **MRZ** | **Mangatainoka R** | **4.35 226** | | PN | **Pn** | **20 59 12.6** | **-2.4** | |
| MRZ | | | | AML | AML | 21 00 06.2 | | |
| MRZ | | | | AML | AML | 21 00 06.5 | | |
| **TMWZ** | **Te Maipa** | **4.49 220** | | Pn | **Pn** | **20 59 13.6** | **-3.5** | |
| **TMWZ** | **Te Maipa** | **4.49 220** | | PN | **Pn** | **20 59 13.6** | **-3.5** | |
| TMWZ | | | | AML | AML | 21 00 08.9 | | |
| TMWZ | | | | AML | AML | 21 00 11.1 | | |
| **HOWZ** | **Holdsworth Sta** | **4.54 224** | | Pn | **Pn** | **20 59 14.9** | **-2.8** | |
| **HOWZ** | **Holdsworth Sta** | **4.54 224** | | PN | **Pn** | **20 59 14.9** | **-2.8** | |
| HOWZ | | | | AML | AML | 21 00 09.8 | | |
| HOWZ | | | | AML | AML | 21 00 12.3 | | |
| **OGWZ** | **Otaki Gorge** | **4.69 227** | | Pn | **Pn** | **20 59 17.3** | **-2.3** | |
| **OGWZ** | **Otaki Gorge** | **4.69 227** | | PN | **Pn** | **20 59 17.2** | **-2.5** | |
| OGWZ | | | | AML | AML | 21 00 14.7 | | |
| OGWZ | | | | AML | AML | 21 00 15.7 | | |
| **MTW** | **Mount Morrison** | **4.73 222** | | Pn | **Pn** | **20 59 17.2** | **-3.1** | |
| **MTW** | **Mount Morrison** | **4.73 222** | | PN | **Pn** | **20 59 18.0** | **-2.3** | |
| MTW | | | | AML | AML | 21 00 16.0 | | |
| MTW | | | | AML | AML | 21 00 17.1 | | |
| **KIW** | **Kapiti Island** | **4.87 228** | | Pn | **Pn** | **20 59 19.6** | **-2.6** | |
| **KIW** | **Kapiti Island** | **4.87 228** | | PN | **Pn** | **20 59 19.5** | **-2.6** | |
| KIW | | | | AML | AML | 21 00 18.3 | | |
| **PAWZ** | **Paruwai Farm** | **4.93 221** | | Pn | **Pn** | **20 59 19.3** | **-3.8** | |
| **PAWZ** | **Paruwai Farm** | **4.93 221** | | PN | **Pn** | **20 59 19.3** | **-3.8** | |
| PAWZ | | | | AML | AML | 21 00 20.7 | | |
| PAWZ | | | | AML | AML | 21 00 20.8 | | |
| **CAW** | **Cannon Point** | **4.94 225** | | Pn | **Pn** | **20 59 20.7** | **-2.4** | |
| **CAW** | **Cannon Point** | **4.94 225** | | PN | **Pn** | **20 59 20.7** | **-2.4** | |
| CAW | | | | AML | AML | 21 00 21.3 | | |
| CAW | | | | AML | AML | 21 00 23.4 | | |
| **PLWZ** | **Palliser** | **5.16 220** | | Pn | **Pn** | **20 59 22.5** | **-3.6** | |
| **PLWZ** | **Palliser** | **5.16 220** | | PN | **Pn** | **20 59 22.5** | **-3.6** | |
| PLWZ | | | | AML | AML | 21 00 25.1 | | |
| PLWZ | | | | AML | AML | 21 00 28.3 | | |
| **DUWZ** | **D'Urville Isla** | **5.44 234** | | Pn | **Pn** | **20 59 27.0** | **-3.1** | |
| **DUWZ** | **D'Urville Isla** | **5.44 234** | | PN | **Pn** | **20 59 27.0** | **-3.1** | |
| **TCW** | **Tory Channel** | **5.46 229** | | Pn | **Pn** | **20 59 28.3** | **-2.0** | |
| **TCW** | **Tory Channel** | **5.46 229** | | PN | **Pn** | **20 59 28.3** | **-2.0** | |
| TCW | | | | AML | AML | 21 00 32.9 | | |
| TCW | | | | AML | AML | 21 00 33.5 | | |
| **QRZ** | **Quartz Range** | **6.38 239** | | Pn | **Pn** | **20 59 40.5** | **-2.3** | |
| **QRZ** | **Quartz Range** | **6.38 239** | | PN | **Pn** | **20 59 40.4** | **-2.3** | |
| QRZ | | | | AML | AML | 21 00 53.5 | | |
| QRZ | | | | AML | AML | 21 00 53.6 | | |
| **THZ** | **Tophouse** | **6.62 230** | | Pn | **Pn** | **20 59 42.2** | **-4.0** | |
| **THZ** | **Tophouse** | **6.62 230** | | PN | **Pn** | **20 59 42.2** | **-4.0** | |
| THZ | | | | AML | AML | 21 01 04.0 | | |
| THZ | | | | AML | AML | 21 01 07.3 | | |
| **CTZ** | **Chatham Island** | **6.63 156** | | Pn | **Pn** | **20 59 46.6** | **+0.4** | |
| **CTZ** | **Chatham Island** | **6.63 156** | | PN | **Pn** | **20 59 46.6** | **+0.4** | |
| **RPZ** | **Rata Peaks** | **8.89 225** | | P | **Pn** | **21 00 14.2** | **-2.9** | |
| RPZ | 0.6nm,0.3s,baz=72,slow=6.4,SNR=5.7 | | | S | **Sn** | **21 01 49.9** | **-5.9** | |
| | 1.2nm,0.3s,baz=296,slow=4.2,SNR=4.0 | | | | | | | |
| **DZM** | **Mont Dzumac** | **19.34 320** | | LR | LR | 21 08 51.8 | | |
| | comp=Z,61nm,18.3s,baz=322,slow=33 | | | | | | | |
| **STKA** | **Stephens Creek** | **31.68 269** | | LR | LR | 21 17 23.4 | | |
| | comp=Z,40nm,18.5s,baz=32,slow=37 | | | | | | | |
| **ASAR** | **Alice Springs** | **41.40 276** | | P | **P** | **21 05 52.8** | **+0.3** | |
| | 3.2nm,0.8s,baz=122,slow=8.1,SNR=30 | | | | | | | |
| **WRA** | **Warramunga Arr** | **43.05 281** | | P | **P** | **21 06 05.2** | **-0.7** | |
| | 1.1nm,0.5s,baz=123,slow=7.0,SNR=45 | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **50.89 277** | | P | **P** | **21 07 06.9** | **-0.1** | |
| | 2.3nm,0.8s,baz=117,slow=6.8,SNR=2.4 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **94.06 290** | | P | P | 21 11 26.1 | +2.3 | |
| | 0.3nm,0.7s,baz=142,slow=4.6,SNR=3.0 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **145.22 344** | | PKPbc | **PKPbc** | **21 17 43.0** | **+1.7** | |
| | 2.6nm,0.8s,baz=350,slow=2.1,SNR=9.6 | | | | | | | |
| **FINES** | **FINESS Array B** | **151.12 334** | | PKPbc | **PKPbc** | **21 17 57.7** | **+0.4** | |
| | 0.8nm,0.7s,baz=45,slow=6.5,SNR=4.9 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **155.47 185** | | PKPab | **PKPab** | **21 18 28.1** | **+3.3** | |
| | 0.8nm,0.8s,baz=164,slow=3.0,SNR=6.1 | | | | | | | |

*IDC **21** 21:06:25.5±1.7, 44°.32N×105°.54W, h0km, mb1 3.4/2, mb1mx3.1/43, mbtmp3.2/2, ML2.4/2, Error ellipse: s-maj=53.5km s-min=8.8km az=144.0*
*ISCJB **21** 21:06:26.3±0.5, 44°.47N×105°.44W×0°.05, h0km, Error ellipse: s-maj=5.7km s-min=4.7km az=137.1*
*NEIC **21** 21:06:27.6±0.6, 44°.47N×105°.46W, h0km, MN2.7, Error ellipse: s-maj=8.4km s-min=6.9km az=40.0, Suspected Mining explosion.*
*NEIC 20 km [12 miles] N of Gillette.*

**ISC 21 21:06:26.8±0.8, 44°.54N±0°.03×105°.51W±0°.04, h0km, n16, σ1s64/30, Wyoming**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | | Op ISC | h m s ISC |
| **RSSD** | **Black Hills** | **1.14** | **111** | *e*Pg | **Pg** | **21 06 47.8** | **-0.7** |
| RSSD | | | | *e*S | **Sg** | **21 07 01.9** | **-1.3** |
| **K22A** | **Casper** | **2.03** | **202** | *e*Pn | **Pn** | **21 07 01.9** | **-0.5** |
| K22A | | | | *e*S | **Sn** | **21 07 28.1** | **-0.4** |
| **LAO** | **LASA Array** | **2.20** | **347** | *e*Pn | **Pn** | **21 07 05.7** | **+0.3** |
| LAO | | | | *e*S | **Sb** | **21 07 35.6** | **+0.2** |
| **RLMT** | **Red Lodge** | **2.74** | **284** | *e*Pn | **Pn** | **21 07 12.9** | **+0.7** |
| RLMT | | | | *e*S | **Sb** | **21 07 49.3** | **-1.6** |
| **BW06** | **Boulder Array** | **3.44** | **240** | *e*Pn | **Pn** | **21 07 22.4** | **+0.7** |
| BW06 | | | | *e*Pg | **Pb** | **21 07 29.6** | **+1.0** |
| BW06 | | | | *e*S | **Sb** | **21 08 09.5** | **-1.5** |
| **PDAR** | **Pinedale Array** | **3.44** | **240** | Pn | **Pn** | **21 07 21.4** | **-0.4** |
| | baz=68,slow=17,SNR=3.4 | | | | | | |
| PDAR | | | | Pg | **Pb** | **21 07 28.9** | **+0.3** |
| | 4.6nm,0.3s,baz=68,slow=18,SNR=13 | | | | | | |
| PDAR | | | | Lg | Lg | 21 08 08.4 | |
| | 4.4nm,0.3s,baz=53,slow=32,SNR=10 | | | | | | |
| **LKWY** | **Lake** | **3.50** | **272** | *e*Pn | **Pn** | **21 07 23.3** | **+0.6** |
| **H17A** | **Grant Village** | **3.63** | **269** | *e*Pn | **Pn** | **21 07 26.9** | **+2.4** |
| H17A | | | | *e*S | **Sn** | **21 08 09.6** | **+1.4** |
| **AHID** | **Auburn Hatcher** | **4.43** | **248** | *e*Pn | **Pn** | **21 07 36.0** | **+0.6** |
| AHID | | | | *e*Pg | **Pb** | **21 07 45.5** | **-0.1** |
| AHID | | | | *e*S | **Sb** | **21 08 41.9** | **+2.3** |
| **BOZ** | **Bozeman (W)** | **4.46** | **286** | *e*Pn | **Pb** | **21 07 44.2** | **-1.9** |
| BOZ | | | | *e*S | **Sb** | **21 08 37.8** | **-2.7** |
| **EGMT** | **Eagleton** | **4.56** | **321** | *e*Pn | **Pn** | **21 07 38.5** | **+1.5** |
| EGMT | | | | *e*S | **Sn** | **21 08 35.2** | **+4.4** |
| **ISCO** | **Idaho Springs** | **4.74** | **181** | *e*Pn | **Pn** | **21 07 40.3** | **+0.5** |
| ISCO | | | | *e*Pg | **Pb** | **21 07 52.6** | **+1.7** |
| ISCO | | | | *e*S | **Sb** | **21 08 51.4** | **+2.8** |
| **O20A** | **White River Ci** | **4.85** | **206** | *e*Pn | **Pn** | **21 07 41.7** | **+0.5** |
| O20A | | | | *e*S | **Sn** | **21 08 35.9** | **-2.3** |
| **I10CA** | **LAC DU BONNET** | **8.56** | **45** | *i* | | 22 00 40.0 | |
| | baz=224,slow=326,SNR=1.2 | | | | | | |
| **ULM** | **Lac du Bonnet** | **8.67** | **45** | Pn | **Pn** | **21 08 32.7** | **-0.7** |
| | 0.2nm,0.3s,baz=236,slow=8.3,SNR=4.9 | | | | | | |
| ULM | | | | Lg | Lg | 21 10 60.0 | |
| | 0.3nm,0.3s,baz=304,slow=22,SNR=3.3 | | | | | | |
| **YKA** | **Yellowknife Ar** | **18.74** | **347** | P | **Pn** | **21 10 46.8** | **-0.3** |
| | 0.0nm,0.3s,baz=174,slow=11,SNR=3.7 | | | | | | |

*ISCJB **21** 21:29:49.4±1.2, 37°.19N±0°.07×71°.2E±0°.1, h88km, Error ellipse: s-maj=12.7km s-min=9.3km az=163.9*
*NNC **21** 21:29:54.4±3.5, 37°.41N×71°.18E, h111km±88km, mb2.6, mpv3.1, Error ellipse: s-maj=35.5km s-min=27.4km az=78.0*

**ISC 21 21:29:49.2±1.3, 37°.08N±0°.08×71°.2E±0°.1, h88km, n6, σ2s22/12, 4C-6D, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | | Op ISC | h m s ISC |
| **SFK** | **Sufi-Kurgan** | **3.43** | **31** | ⇑P | **Pn** | **21 30 42.4** | **+1.8** |
| | 0.6nm,0.1s | | | | | | |
| SFK | | | | ⇑S | **Sn** | **21 31 21.2** | **+0.8** |
| | 7.9nm,0.2s | | | | | | |
| **MNAS** | **Manas** | **5.49** | **10** | ⇓P | **Pn** | **21 31 10.1** | **+1.5** |
| | 1.2nm,0.5s | | | | | | |
| MNAS | | | | ⇑S | **Sn** | **21 32 08.7** | **-1.7** |
| | 10nm,0.6s | | | | | | |
| **THN** | **Thein Dam** | **5.93** | **140** | *e*P | **Pn** | **21 31 15.5** | **+1.1** |
| THN | | | | *e*S | **Sn** | **21 32 17.5** | **-3.4** |
| **KK31** | **Karatay Array** | **6.04** | **355** | ⇓P | **Pn** | **21 31 18.2** | **+2.3** |
| | 0.7nm,0.3s,baz=183,slow=14 | | | | | | |
| KK31 | | | | ⇓S | **Sn** | **21 32 21.5** | **-2.1** |
| | 2.3nm,0.3s,baz=173,slow=22 | | | | | | |
| **AAK** | **Ala-Archa** | **6.09** | **23** | ⇓P | **Pn** | **21 31 17.4** | **+0.6** |
| | 1.5nm,0.4s | | | | | | |
| AAK | | | | ⇓S | **Sn** | **21 32 23.7** | **-1.4** |
| | 3.1nm,0.6s | | | | | | |
| **AB31** | **Akbulak array** | **14.67** | **330** | ⇓P | **Pn** | **21 33 13.2** | **+1.2** |
| | 0.3nm,0.5s | | | | | | |
| AB31 | | | | ⇑S | **Sn** | **21 35 50.5** | **-3.1** |
| | 1.9nm,0.8s | | | | | | |

*NIED **21** 21:31:00, 36°.50N×144°.20E, h56km, Mw3.7 Best double couple: M0 3.72000×10^14 NP1:φs338.00000°, δ21.00000°, λ152.00000°. NP2:φs94.00000°, δ80.00000°, λ71.00000°.*

**JMA 21 21:31:21.1±0.3, 36°.48N×144°.21E, h81km, M3.7, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | | Op ISC | h m s ISC |
| **ONAJ** | **Iwakimizuishiy** | **2.81** | **284** | P | | Pn | 21 32 04.8 | +0.9 |
| ONAJ | | | | *e*S | | Sn | 21 32 37.6 | +0.8 |
| **JFK** | **Kawauchi** | **2.81** | **289** | P | | Pn | 21 32 05.1 | +1.1 |
| JFK | | | | S | | Sn | 21 32 38.2 | +1.2 |
| **JHO** | **Hitachi** | **2.94** | **274** | P | | Pn | 21 32 06.3 | +0.7 |
| JHO | | | | *e*S | | Sn | 21 32 40.3 | +0.5 |
| **JFT** | **Otama** | **3.27** | **290** | P | | Pn | 21 32 12.1 | +2.0 |
| **JMK** | **Ichinoseki** | **3.42** | **317** | P | | Pn | 21 32 13.1 | +1.0 |
| **JOM** | **Ohasama** | **3.77** | **323** | P | | Pn | 21 32 17.9 | +1.0 |
| JOM | | | | S | | Sn | 21 33 00.8 | +0.6 |
| **JAG** | **Ashikaga** | **3.83** | **271** | P | | Pn | 21 32 19.1 | +1.3 |
| **JRY** | **Ryogami san** | **4.32** | **265** | P | | Pn | 21 32 25.6 | +1.3 |
| JRY | | | | *e*S | | Sn | 21 33 13.4 | 0.0 |
| **JOD2** | **Odawara 2** | **4.33** | **255** | P | | Pn | 21 32 26.1 | +1.5 |
| JOD2 | | | | S | | Sn | 21 33 15.4 | +1.5 |
| **JHJ2** | **Mitsune** | **4.94** | **228** | P | | Pn | 21 32 30.8 | -2.0 |
| JHJ2 | | | | *e*S | | Sn | 21 33 24.9 | -3.6 |
| **JOT** | **Ohata** | **5.48** | **334** | P | | Pn | 21 32 41.0 | +0.9 |
| **JKB** | **Kayabe** | **5.94** | **336** | P | | Pn | 21 32 47.1 | +0.7 |
| JKB | | | | *e*S | | Sn | 21 33 51.5 | -1.4 |
| **JCH** | **Churui** | **6.16** | **354** | P | | Pn | 21 32 47.7 | -1.7 |
| JCH | | | | *e*S | | Sn | 21 33 54.3 | -4.1 |

**IDC 21 21:32:13.6±1.9, 0°.28N×126°.45E, h0km, mb3.2/3, mb1 3.5/3, mb1mx3.2/43, mbtmp3.3/3, Error ellipse: s-maj=158.3km s-min=25.7km az=65.0, Northern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | | Op ISC | h m s ISC |
| **WRA** | **Warramunga Arr** | **21.53** | **159** | P | | P | 21 37 04.4 | -0.2 |
| | 0.4nm,0.4s,baz=338,slow=10,SNR=13 | | | | | | | |
| **ASAR** | **Alice Springs** | **24.88** | **164** | P | | P | 21 37 38.5 | +0.2 |
| | 0.4nm,0.6s,baz=345,slow=7.3,SNR=11 | | | | | | | |
| **MKAR** | **Makanchi Array** | **60.24** | **327** | P | | P | 21 42 23.7 | -0.1 |
| | 0.1nm,0.4s,baz=121,slow=8.1,SNR=5.9 | | | | | | | |

*IDC **21** 22:10:42.6±0.4, 0°.02N×125°.97E, h0km, mb4.6/27, mb1 4.6/28, mb1mx4.6/42, mbtmp4.6/28, ML3.9/1, MS3.8/19, Ms1 3.8/19, ms1mx3.6/39, Error ellipse: s-maj=19.9km s-min=10.9km az=81.0*
*BJI **21** 22:10:45.4, 0°.44S×125°.95E, h50km, mb4.9/53, mB5.0/40, Ms4.6/29, Ms7 4.3/27*
*MOS **21** 22:10:45.6±1.1, 0°.05N×126°.02E, h33km, mb5.1/33, Error ellipse: s-maj=12.4km s-min=5.9km az=111.6*
*ISCJB **21** 22:10:45.7±0.5, 0°.03N±0°.03×126°.12E±0°.03, h35km±5km, mb4.8/91, MS4.0/27, Error ellipse: s-maj=4.8km s-min=4.7km az=15.0*
*DJA **21** 22:10:47.8±0.3, 0°.N±2°×12°.6E±°, h38km±3km, M4.6/24, mb4.9/24, mB5.2/12, MLv4.6/12, Mw(

comp=Z,21nm,0.8s
**MBWA Marble Bar 21.96 196** *e*P **P 22 15 37.9 -0.8**
comp=Z,66nm,1.4s
**KASI Kota Agung 22.28 255** P **P 22 15 41.3 -1.0**
KASI pP **pP 22 15 52.1 +0.5**
**PMG Port Moresby 22.95 115** P **P 22 15 50.7 +1.4**
comp=Z,6.9nm,0.6s,baz=288,slow=7.5,SNR=4.3
PMG LR LR 22 27 15.6
comp=Z,187nm,20.3s,baz=315,slow=43
**PMG Port Moresby 22.95 115** *e*P **P 22 15 49.9 +0.6**
PMG pmax pmax
comp=Z,13nm,0.8s
**PMG Port Moresby 22.95 115** *e*P **P 22 15 49.9 +0.6**
comp=Z,13nm,0.8s
**AS31 Alice Springs 24.73 163** *e*P **P 22 16 06.2 0.0**
comp=Z,8.8nm,0.8s
**ASAR Alice Springs 24.73 163** P **P 22 16 06.5 +0.3**
comp=Z,8.1nm,0.7s,baz=356,slow=14,SNR=44
ASAR PcP **PcP 22 19 42.9 +0.2**
comp=Z,2.1nm,0.9s,baz=350,slow=3.1,SNR=4.6
**QIZ Qiongzhong 24.73 321** P **P 22 16 07.3 +1.1**
QIZ S **S 22 20 28.8 +2.6**
QIZ pmax pmax
comp=Z,24nm,2.1s
QIZ pmax pmax
comp=Z,280nm,3.9s
QIZ LR LR
comp=Z,570nm,17.5s
**AS01 Alice Springs 24.75 163** *e*P **P 22 16 05.1 -1.2**
**IPM Ipoh 25.46 280** *e*P **P 22 16 11.5 -1.4**
comp=Z,20nm,1.0s
**PDSI Padang 25.67 268** P **P 22 16 14.4 -0.5**
comp=Z,29nm,1.1s
**PSI Prapat 27.32 276** *e*P **P 22 16 28.5 -1.4**
PSI pmax pmax
comp=Z,9.0nm,1.0s
**PSI Prapat 27.32 276** *e*P **P 22 16 28.5 -1.4**
comp=Z,8.6nm,1.0s
**CHAI Chaiyaphum 28.57 305** P **P 22 16 41.2 +0.4**
comp=Z,5.1nm,0.9s
**UTHA Uthaitani 30.53 302** P **P 22 16 59.0 +0.8**
comp=Z,3.5nm,0.8s
**FORT Forrest 30.69 177** *e*P **P 22 16 58.2 -1.2**
comp=Z,173nm,0.7s
**CM01 Chiang Mai Arr 32.34 306** *e*P **P 22 17 12.5 -1.7**
**CMAR Chiang Mai Arr 32.38 306** P **P 22 17 12.8 -1.6**
comp=Z,1.2nm,0.3s,baz=132,slow=7.4,SNR=8.3
CMAR PcP **PcP 22 20 02.9 +1.1**
comp=Z,1.0nm,0.3s,baz=150,slow=1.7,SNR=8.4
CMAR LR LR 22 31 21.6
comp=Z,139nm,21.6s,baz=125,slow=38
**CMAR Chiang Mai Arr 32.38 306** *ce*P **P 22 17 13.3 -1.1**
CMAR pmax pmax
comp=Z,1.0nm,0.3s
**CHTO Chiang Mai 32.56 307** P **P 22 17 15.7 -0.4**
**CHTO Chiang Mai 32.56 307** *e*P **P 22 17 14.2 -1.9**
CHTO pmax pmax
comp=Z,13nm,1.4s
**CHTO Chiang Mai 32.56 307** *e*P **P 22 17 14.2 -1.9**
comp=Z,13nm,1.4s
**NJ2 Nanjing 32.59 348** *e*P **P 22 17 17.8 +1.8**
NJ2 pmax pmax
comp=Z,7.0nm,0.6s
**JNU Nakatsue 33.22 7** P **P 22 17 21.3 -0.4**
comp=Z,11nm,0.9s,baz=270,slow=17,SNR=4.4
**JNU Nakatsue 33.22 7** P **P 22 17 21.3 -0.4**
comp=Z,13nm,1.0s
**KMI Kunming 33.67 320** P **P 22 17 26.6 +0.7**
KMI pmax pmax
comp=Z,12nm,0.9s
KMI LR LR
comp=Z,270nm,16.3s
KMI LR LR
comp=Z,200nm,18.2s
KMI LR LR
comp=Z,260nm,24.4s
**NWAO Narrogin (SRO) 33.83 193** P **P 22 17 26.4 -0.5**
comp=Z,7.8nm,0.9s,baz=326,slow=7.3,SNR=2.8
NWAO LR LR 22 33 55.7
comp=Z,105nm,18.7s,baz=320,slow=41
**BBOO Buckleboo 33.98 165** *e*P **P 22 17 28.0 -0.2**
comp=Z,57nm,1.4s
**ENH Enshi 33.99 334** *e*P **P 22 17 27.1 -1.3**
comp=Z,14nm,0.8s
**STKA Stephens Creek 34.95 157** P **P 22 17 36.5 -0.1**
comp=Z,9.4nm,0.9s,baz=318,slow=7.8,SNR=11
STKA LR LR 22 34 40.6
comp=Z,192nm,19.1s,baz=344,slow=41
**STKA Stephens Creek 34.95 157** *e*P **P 22 17 35.6 -1.0**
STKA pmax pmax
comp=Z,2.0nm,0.9s
**STKA Stephens Creek 34.95 157** *e*P **P 22 17 35.6 -1.0**
comp=Z,2.3nm,0.9s
**HNR Honiara 34.96 107** LR LR 22 32 09.8
comp=Z,140nm,21.6s,baz=269,slow=37
**INU Inuyama 36.58 15** *e*P **P 22 17 49.8 -0.8**
comp=Z,22nm,1.0s
**KSAR Wonju Array Be 37.27 2** P **P 22 17 57.6 +1.2**
**KSAR Wonju Array Be 37.27 2** P **P 22 17 57.5 +1.2**
**KSRS Korea Array 37.28 2** P **P 22 17 57.5 +1.1**
comp=Z,7.8nm,0.7s,baz=181,slow=9.6,SNR=18
**KS01 Wonju Array Si 37.30 2** *e*P **P 22 17 59.0 +2.4**
**CD2 Chengdu 37.34 327** *e*P **P 22 17 57.0 -0.1**
CD2 pP sP 22 18 10.6 -0.9
CD2 PP **PnPn 22 19 26.5 +2.9**
CD2 S **S 22 23 42.8 0.0**
CD2 sS ScP 22 24 00.8 +0.1
CD2 pmax pmax
comp=Z,50nm,0.9s
CD2 pmax pmax
comp=Z,140nm,8.5s
CD2 LR LR
comp=Z,470nm,19.9s
CD2 LR LR
comp=Z,340nm,15.2s
**XAN Xi'an 37.48 336** P **P 22 17 56.8 -1.6**
XAN pmax pmax
comp=Z,11nm,1.1s
XAN pmax pmax
comp=Z,87nm,6.0s
**MAJO Matsushiro 38.02 16** *e*P **P 22 18 01.4 -1.4**
MAJO pmax pmax
comp=Z,9.0nm,1.0s
**MAT Matsushiro 38.02 16** P **P 22 18 01.2 -1.6**
**MJAR Matsushiro Arr 38.02 16** P **P 22 18 01.2 -1.6**
comp=Z,5.7nm,0.9s,baz=186,slow=8.5,SNR=12
**BJT Baijiatuao 40.83 348** *e*P **P 22 18 25.6 -0.5**
BJT pmax pmax
comp=Z,11nm,0.7s
**BJT Baijiatuao 40.83 348** *e*P **P 22 18 25.6 -0.5**
comp=Z,11nm,0.7s
**BJI Beijing 40.84 348** P **P 22 18 25.8 -0.5**
BJI sS **sS 22 24 55.5 +3.5**
BJI pmax pmax
comp=Z,18nm,1.1s
BJI pmax pmax
comp=Z,190nm,4.6s
BJI LR LR
comp=Z,120nm,10.5s
**LZH Lanzhou 41.42 332** *e*P **P 22 18 30.9 -0.4**
LZH PcP **PcP 22 20 32.6 +3.6**
LZH *e*S **S 22 24 44.3 0.0**
LZH SS **SS 22 27 48.4 -1.0**
LZH pmax pmax
comp=Z,44nm,1.2s
LZH pmax pmax
comp=Z,220nm,4.5s
LZH LR LR
comp=Z,1μm,13.4s
LZH LR LR
comp=Z,1μm,14.1s
LZH LR LR
comp=Z,1μm,15.4s
**HHC Hu-ho-hao-te 42.73 344** *e*P **P 22 18 45.1 +3.3**
HHC S **S 22 25 07.3 +4.0**
HHC sS sS 22 25 23.6 +3.4
HHC SS **SS 22 28 12.9 -2.0**
HHC pmax pmax
comp=Z,9.0nm,1.1s
HHC pmax pmax
comp=Z,120nm,5.5s
HHC LR LR
comp=Z,210nm,15.3s
HHC LR LR
comp=Z,100nm,16.3s
HHC LR LR
comp=Z,180nm,17.1s
**USRK Ussuriysk Ar. 44.29 6** P **P 22 18 54.3 +0.1**
comp=Z,14nm,0.9s,baz=194,slow=7.0,SNR=11
**LSA Lhasa 44.50 315** *e*P **P 22 18 56.5 -0.2**
LSA pmax pmax
comp=Z,6.0nm,0.7s
**LSA Lhasa 44.50 315** *e*P **P 22 18 56.5 -0.2**
comp=Z,5.9nm,0.7s
**MDJ Mudanjiang 44.51 4** P **P 22 18 58.8 +2.9**
MDJ pmax pmax
comp=Z,24nm,0.9s
MDJ pmax pmax
comp=Z,84nm,7.0s
**MDJ Mudanjiang 44.51 4** *e*P **P 22 18 57.0 +1.1**
comp=Z,26nm,1.1s
**DZM Mont Dzumac 45.01 122** LR LR 22 38 44.4
comp=Z,100nm,19.3s,baz=339,slow=37
**DZM Mont Dzumac 45.01 122** *e*LR LR 22 31 46.0
comp=Z,203nm,24.1s
**TAPN Taplejung 45.80 310** *e*P **P 22 19 07.2 +0.3**
comp=Z,17nm,0.9s
**ODAN Odare 45.80 309** *e*P **P 22 19 07.0 +0.1**
comp=Z,28nm,0.9s
**GTA Gaotai 45.99 331** *e*P **P 22 19 07.6 -0.4**
GTA PcP **PcP 22 20 45.4 +1.1**
GTA S **S 22 25 52.0 +1.1**
GTA SS **SS 22 29 10.8 -5.4**
GTA pmax pmax
comp=Z,5.0nm,0.9s
GTA pmax pmax
comp=Z,88nm,6.9s
GTA LR LR
comp=Z,190nm,18.1s
GTA LR LR
comp=Z,220nm,15.2s
GTA LR LR
comp=Z,430nm,18.1s
**ASAJ Asahikawa 46.29 16** P **P 22 19 10.6 +0.6**
comp=Z,7.7nm,0.7s,baz=241,slow=27,SNR=6.5
**RAMN Ramite 46.47 308** *e*P **P 22 19 11.8 -0.3**
**JIRN Jiri 47.13 309** *e*P **P 22 19 17.8 +0.4**
comp=Z,163nm,0.8s
**GUN Gumba 47.49 309** *e*P **P 22 19 19.6 -0.6**
**PKI Pulchoki 47.69 308** *e*P **P 22 19 20.7 -1.0**
**KKN Kakani 47.90 309** *e*P **P 22 19 23.5 +0.3**
comp=Z,22nm,0.9s
**DMN Daman 47.95 308** *e*P **P 22 19 23.8 +0.2**
comp=Z,36nm,1.0s
**YSS Yuzh-Sakhalins 48.95 15** *i*P **P 22 19 29.2 -1.5**
YSS pmax pmax
comp=Z,15nm,1.0s
**KOLN Koldanda 49.21 308** *e*P **P 22 19 32.1 -1.2**
comp=Z,42nm,0.8s
**KLR Kul'dur 49.25 5** *e*P **P 22 19 32.0 -1.0**
**DANN Dangsing 49.34 308** *e*P **P 22 19 34.9 +0.5**
**HIA Hailar 49.36 354** *i*P **P 22 19 32.4 -1.4**
HIA pmax pmax
comp=Z,23nm,1.0s
**HIA Hailar 49.36 354** *e*P **P 22 19 33.3 -0.5**
comp=Z,20nm,0.9s
**PYUN Piuthan 49.84 308** *e*P **P 22 19 37.1 -1.0**
comp=Z,46nm,0.7s
**ULN Ulaanbaatar 50.45 343** *e*P **P 22 19 41.8 -0.5**
ULN pmax pmax
comp=Z,21nm,1.3s
**ULN Ulaanbaatar 50.45 343** *e*P **P 22 19 41.8 -0.5**
comp=Z,21nm,1.3s
**SONM Songino Array 50.61 343** P **P 22 19 42.7 -0.8**
comp=Z,10nm,0.8s,baz=158,slow=7.9,SNR=46
SONM PcP **PcP 22 21 02.3 +1.5**
comp=Z,1.5nm,0.7s,baz=142,slow=5.0,SNR=2.4
SONM LR LR 22 43 19.6
comp=Z,108nm,21.4s,baz=128,slow=39
**SONA1 Songino Array 50.62 343** *e*P **P 22 19 43.0 -0.5**
**ZAK Zakamensk 53.82 342** *e*P **P 22 20 03.6 -3.6**
ZAK *e* 22 21 10.5
ZAK pmax pmax
comp=Z,6.0nm,1.0s
ZAK pmax pmax
comp=Z,5.0nm,1.3s
**NKL Nikolayevsk 54.31 11** *e*P **P 22 20 11.0 +0.4**
**TLY Talaya 54.85 343** *e*P **P 22 20 15.5 +0.9**
TLY *e*S **S 22 27 56.9 +3.5**
TLY pmax pmax
comp=Z,18nm,1.3s
TLY MLR MLR
comp=Z,90nm,15.0s
**WMQ Urumqi 55.43 327** P **P 22 20 18.8 -0.2**
WMQ pP pP 22 20 31.0 +1.4
WMQ sP sP 22 20 35.6 +1.9
WMQ S **S 22 28 03.0 +1.4**
WMQ pmax pmax
comp=Z,41nm,1.3s
WMQ pmax pmax
comp=Z,360nm,3.7s
WMQ LR LR
comp=Z,160nm,22.7s
WMQ LR LR
comp=Z,290nm,22.7s
WMQ LR LR
comp=Z,320nm,27.3s
**MOY Mondy 55.65 341** *e*P **P 22 20 21.8 +1.3**
MOY pmax pmax
comp=Z,33nm,1.8s
**THN Thein Dam 57.37 309** *e*P **P 22 20 32.0 -0.9**
**HVS Khovu-Aksy 57.84 336** *e*P **P 22 20 35.6 -0.5**
HVS pmax pmax
comp=Z,30nm,1.0s
**BOD Bodaibo 58.42 352** *e*P **P 22 20 39.7 -0.1**
BOD pmax pmax
comp=Z,19nm,1.4s
**PETK Petropavlovsk- 59.07 22** P **P 22 20 45.0 +0.5**
comp=Z,8.3nm,0.9s,baz=145,slow=2.2,SNR=7.2
**PETK Petropavlovsk- 59.07 22** *e*P **P 22 20 46.0 +1.5**
**PETK Petropavlovsk- 59.07 22** *e*P **P 22 20 46.0 +1.5**
**DGZ Jazzator, Alta 59.52 332** *e*P **P 22 20 46.9 -1.0**
DGZ pmax pmax
comp=Z,3.0nm,0.9s
**MK01 Makanchi Array 60.24 327** *e*P **P 22 20 51.6 -1.1**
**KSH Kashi 60.27 317** *e*P **P 22 20 55.8 +2.7**
KSH pP sP 22 21 07.5 -0.3
KSH PcP **PcP 22 21 41.8 +3.5**
KSH PP **PP 22 23 13.0 +6.7**
KSH S **S 22 29 04.3 -0.9**
KSH ScS SKKSac 22 30 39.0 -2.3
KSH SS **SS 22 33 03.6 +0.5**
KSH pmax pmax
comp=Z,4.0nm,0.7s
KSH LR LR
comp=Z,91nm,5.3s
KSH LR LR
comp=Z,110nm,6.1s
KSH LR LR
comp=Z,150nm,5.5s
**MK31 Makanchi Array 60.27 327** *e*P **P 22 20 52.1 -0.8**
**MK31 Makanchi Array 60.27 327** *e*P **P 22 20 52.0 -0.8**
**MKAR Makanchi Array 60.27 327** P **P 22 20 52.1 -0.8**
comp=Z,14nm,0.9s,baz=124,slow=7.3,SNR=64
MKAR LR LR 22 48 29.3
comp=Z,228nm,19.5s,baz=130,slow=38
**MKAR Makanchi Array 60.27 327** *ce*P **P 22 20 52.0 -0.8**
MKAR pmax pmax
comp=Z,15nm,0.9s
**MAKZ Makanchi 60.45 327** *e*P **P 22 20 53.6 -0.5**
**MAKZ Makanchi 60.45 327** *e*P **P 22 20 53.6 -0.5**
**YAK Yakutsk 61.90 2** *e*P **P 22 21 02.9 -0.7**
YAK *i* *PP **pP 22 21 10.8 -3.4**
YAK *e* 22 21 43.6
YAK *e* 22 23 24.2
YAK *e*PPP PPP 22 24 44.7
YAK *e*S **S 22 29 24.3 -0.6**
YAK *e*SS **sS 22 29 41.4 -1.0**
YAK *e*SS **SS 22 33 25.8 -1.8**
YAK pmax pmax
comp=Z,31nm,0.8s
YAK pmax pmax
comp=N,6.0nm,1.1s
YAK pmax pmax
comp=E,4.0nm,1.0s
YAK pmax pmax
comp=Z,97nm,2.8s
YAK pmax pmax
comp=N,64nm,3.8s
YAK pmax pmax
comp=E,42nm,3.3s
YAK smax smax
comp=N,54nm,3.9s
YAK smax smax
comp=E,46nm,3.6s
**YAK Yakutsk 61.90 2** *e*P **P 22 21 03.5 -0.1**
comp=E,18nm,0.6s
**TKM2 Tokmak 2 62.14 320** P **P 22 21 05.2 -0.7**
SNR=12
**MA2 Magadan 62.42 14** *i*P **P 22 21 06.1 -1.0**
**KBK Karagaybulak 62.43 320** P **P 22 21 10.0 +2.2**
SNR=7.2
**UCH Uchtor 62.51 319** P **P 22 21 07.7 -0.9**
SNR=11
**AAK Ala-Archa 62.72 319** *e*P **P 22 21 09.2 -0.5**
AAK pmax pmax
comp=Z,7.0nm,1.0s
**AAK Ala-Archa 62.72 319** P **P 22 21 11.3 +1.7**
SNR=6.1
**AAK Ala-Archa 62.72 319** *e*P **P 22 21 10.0 +0.4**
comp=Z,13nm,1.3s
**FRU Bishkek 62.73 320** *e*P **P 22 21 10.0 +0.4**
**AML Almayashu 63.01 319** P **P 22 21 11.7 -0.2**
SNR=13
**USP Ospenovka 63.01 320** P **P 22 21 10.0 -1.5**
SNR=12
**EKS2 Erkin-Say 63.19 319** P **P 22 21 12.6 -0.2**
SNR=9.5
**KBL Kabul 63.33 309** *e*P **P 22 21 11.9 -2.1**
**KBL Kabul 63.33 309** *e*P **P 22 21 11.9 -2.1**
**ZALV Zalesovo Beam 63.61 334** P **P 22 21 14.0 -1.1**
comp=Z,4.6nm,0.9s,baz=118,slow=5.9,SNR=16
ZALV LR LR 22 50 27.1
comp=Z,81nm,19.8s,baz=70,slow=38
**KURK Kurchatov 64.54 329** *d*P **P 22 21 20.7 -0.6**
KURK pmax pmax
comp=Z,52nm,0.7s
**KURK Kurchatov 64.54 329** *e*P **P 22 21 20.0 -1.3**
comp=Z,114nm,0.9s
**NVS Novosibirsk 64.90 334**⇑ *i*P **P 22 21 22.4 -1.1**
NVS pmax pmax
comp=N,12nm,1.6s
NVS pmax pmax
comp=E,17nm,1.6s
NVS pmax pmax
comp=Z,32nm,1.6s
**KKAR Karatay Array 65.54 318** *e*P **P 22 21 26.9 -1.1**
KKAR pmax pmax
comp=Z,10.0nm,0.9s
**KKAR Karatay Array 65.54 318** *e*P **P 22 21 26.9 -1.1**
comp=Z,9.9nm,0.9s
**SEY Seymchan 65.75 13** P **P 22 21 29.2 +0.3**
comp=Z,6.3nm,0.8s,baz=220,slow=4.7,SNR=19
**BRVK Borovoye 70.17 328** *d*P **P 22 21 56.3 -0.6**
BRVK pmax pmax
comp=Z,42nm,1.2s
**BRVK Borovoye 70.17 328** *e*P **P 22 21 56.4 -0.5**
comp=Z,21nm,0.9s
**TIXI Tiksi 71.53 1** LR LR 22 54 52.5
comp=Z,54nm,21.6s,baz=193,slow=37
**TIXI Tiksi 71.53 1** *i*P **P 22 22 04.3 -0.5**
TIXI pmax pmax
comp=Z,12nm,1.2s
**GEYT Alibeck 72.75 310** P **P 22 22 12.6 -0.3**
comp=Z,4.2nm,0.7s,baz=142,slow=5.6,SNR=9.9
**BILL Bilibino 73.27 15** *e*P **P 22 22 14.9 -0.3**
BILL *i* 22 22 30.7
BILL pmax pmax
comp=Z,2.0nm,1.1s
**ABKAR Akbulak array 74.63 322** *e*P **P 22 22 22.3 -1.3**
comp=Z,9.7nm,0.8s
**SVE Sverdlovsk 76.79 329**⇓ *i*P **P 22 22 35.8 0.0**
SVE pmax pmax
comp=Z,34nm,0.9s
**ARU Arti 77.73 328** *d*P **P 22 22 39.8 -1.2**
ARU S **S 22 32 30.9 +0.1**
ARU pmax pmax
comp=Z,24nm,1.0s
**ARU Arti 77.73 328** *e*P **P 22 22 39.9 -1.2**
comp=Z,21nm,0.9s
**VNDA Vanda 79.86 173** LR LR 22 58 03.4
comp=Z,39nm,19.9s,baz=332,slow=36
**MAW Mawson 80.09 200** P **P 22 22 52.8 -1.0**
comp=Z,4.6nm,0.8s,baz=60,slow=5.7,SNR=4.5
MAW LR LR 22 55 48.6
comp=Z,44nm,19.9s,baz=60,slow=34
**RAYN Ar Rayn 81.38 294** *e*P **P 22 23 00.4 -1.3**
comp=Z,7.6nm,0.6s
**GNI Garni 83.39 310** *e*P **P 22 23 09.9 -2.1**
GNI pmax pmax
comp=Z,35nm,1.0s
**GNI Garni 83.39 310** *e*P **P 22 23 13.5 +1.5**
comp=Z,60nm,0.8s
**AKH Akhalkalaki 84.44 311**⇑ *i*P **P 22 23 18.0 +0.6**
**NCK Nalchik 84.55 314** *e*P **P 22 23 17.4 -0.3**
NCK pmax pmax
comp=Z,10.0nm,1.0s
**PPT Papeete 84.58 108** LR LR 23 00 23.0
comp=Z,30nm,19.5s,baz=332,slow=35
**PPT2 Papeete2 84.58 108** *e*LR LR 22 50 07.0
comp=Z,96nm,26.2s
**TBI Tubuai 84.88 113** *e*LR LR 22 50 15.3
comp=Z,153nm,32.8s
**KBZ Khabaz 85.07 314** P **P 22 23 20.4 +0.2**
comp=Z,8.0nm,0.9s,baz=135,slow=4.6,SNR=8.5
**NEY Neytrino 85.16 313** *e*P **P 22 23 20.0 -1.0**
NEY pmax pmax
comp=Z,3.0nm,1.0s
**KIV Kislovodsk 85.24 314** *e*P **P 22 23 20.3 -0.9**
KIV pmax pmax
comp=Z,13nm,1.1s
KIV MLR MLR
comp=Z,56nm,19.0s
**VRH Novokhopyorsk 86.46 321** *e*P **P 22 23 25.9 -1.0**
VRH pmax pmax
comp=Z,30nm,1.3s
**VSR Storozhevoye 88.06 321** *e*P **P 22 23 33.1 -1.6**
VSR pmax pmax
comp=Z,10.0nm,1.2s
**LPSR Galich'ya Gora 88.27 322** *e*P **P 22 23 34.7 -0.9**
LPSR pmax pmax
comp=Z,10.0nm,0.8s
**KLMR Klimovskoe 88.31 331** *e*P **P 22 23 32.2 -3.5**
KLMR pmax pmax
comp=Z,29nm,1.6s
**ILAR Eielson Array 88.69 25** P **P 22 23 37.3 -0.1**
comp=Z,0.8nm,0.8s,baz=245,slow=5.2,SNR=4.7
**SYO Syowa Base 88.77 201**⇑ *e*P **P 22 23 37.0 -0.7**
**KMBO Kilima Mbogo 88.87 269** P **P 22 23 39.9 +0.3**
comp=Z,5.5nm,1.0s,baz=57,slow=7.2,SNR=8.3
**KMBO Kilima Mbogo 88.87 269** *e*P **P 22 23 40.4 +0.7**
**KMBO Kilima Mbogo 88.87 269** *e*P **P 22 23 40.4 +0.7**
**OBN Obninsk 89.72 325** *i*P **P 22 23 40.0 -2.4**
OBN pmax pmax
comp=Z,11nm,1.0s
OBN MLR MLR
comp=Z,89nm,18.0s
**BRTR Keskin Array B 91.90 310** P **P 22 23 52.2 -0.9**
comp=Z,1.2nm,0.7s,baz=146,slow=6.7,SNR=6.6
**BRTR Keskin Array B 91.90 310** *ce*P **P 22 23 51.7 -1.4**
BRTR pmax pmax
comp=Z,1.0nm,0.7s
**ARCES ARCESS Array B 93.69 340** P **P 22 24 01.9 +1.4**
comp=Z,4.4nm,0.8s,baz=97,slow=7.4,SNR=5.3
**INK Inuvik 93.81 22** P **P 22 24 01.4 +0.3**
comp=Z,4.0nm,1.1s,baz=309,slow=7.4,SNR=6.9
**AKASG Malin Array Be 94.36 321** P **P 22 24 02.6 -1.3**
comp=Z,0.3nm,0.4s,baz=69,slow=5.1,SNR=3.0
AKASG LR LR 23 10 16.1
comp=Z,29nm,21.2s,baz=340,slow=38
**KIEV Kiev 94.37 321** *i*P **P 22 24 03.7 -0.3**
KIEV pmax pmax
comp=Z,3.0nm,1.0s
**FINES FINESS Array B 94.78 332** P **P 22 24 05.1 -0.6**
comp=Z,1.5nm,0.8s,baz=57,slow=5.1,SNR=3.3
FINES LR LR 23 10 01.9
comp=Z,67nm,20.3s,baz=78,slow=38
**VSU Vasula 94.89 329** *e*P **P 22 24 04.9 -1.3**
VSU pmax pmax
comp=Z,20nm,1.0s
**TESR Tescani 96.51 317**⇓ *i*P **P 22 24 13.0 -0.9**
**BURAR Bucovina Array 97.33 318**⇑ *i*P **P 22 24 17.1 -0.7**
**BURAR Bucovina Array 97.33 318**⇑ P **P 22 24 17.1 -0.7**
**DOPR Dopca 97.44 316**⇑ *i*P Pdif 22 24 20.5 +2.2
**LSZ Lusaka 97.66 255** P **P 22 24 19.0 -0.9**
LSZ pmax pmax
comp=Z,1.0nm,0.6s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **LSZ** | **Lusaka** | **97.66** | **255** | P | **P** | | **22 24 19.0** | **-0.9** |
| | comp=Z,1.3nm,0.6s | | | | | | | |
| **VOIR** | | **97.75** | **316** | ⇑*i*P | Pdif | | 22 24 32.9 | +13 |
| **KLNR** | **Kaliningrad** | **99.16** | **325** | *e*P | **Pdif** | | **22 24 25.0** | **-0.6** |
| KLNR | | | | pmax | pmax | | | |
| | comp=Z,19nm,1.1s | | | | | | | |
| **BOSA** | **Boshof** | **99.55** | **241** | P | **Pdif** | | **22 24 28.3** | **+0.1** |
| | comp=Z,1.5nm,0.8s,baz=102,slow=4.6,SNR=3.9 | | | | | | | |
| BOSA | | | | LR | LR | | 23 03 56.6 | |
| | comp=Z,76nm,21.9s,baz=48,slow=32 | | | | | | | |
| **CRVS** | **Cervenica-Dubn** | **99.59** | **320** | *e*P | **Pdif** | | **22 24 27.6** | **-0.1** |
| **CRVS** | **Cervenica-Dubn** | **99.59** | **320** | *e*PDIFF | **Pdif** | | **22 24 27.6** | **-0.1** |
| **YKA** | **Yellowknife Ar** | **103.10** | **25** | Pdiff | **Pdif** | | **22 24 43.6** | **+0.6** |
| | comp=Z,0.4nm,0.8s,baz=301,slow=4.9,SNR=5.1 | | | | | | | |
| YKA | | | | PKiKP | **PKiKP** | | **22 29 03.6** | **+1.0** |
| | comp=Z,0.2nm,0.6s,baz=306,slow=1.7,SNR=4.9 | | | | | | | |
| **ULM** | **Lac du Bonnet** | **118.47** | **29** | PKP | **PKPdf** | | **22 29 31.8** | **-0.1** |
| | comp=Z,2.2nm,0.8s,baz=238,slow=5.8,SNR=5.0 | | | | | | | |
| **ANMO** | **Albuquerque** | **119.93** | **49** | *i* PKiKP | **PKPdf** | | **22 29 34.0** | **-1.5** |
| ANMO | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,1.2s | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **123.41** | **286** | PKP | **PKPdf** | | **22 29 41.8** | **-0.6** |
| | comp=Z,3.4nm,0.8s,baz=65,slow=1.4,SNR=18 | | | | | | | |
| TORD | | | | PKKPbc | **PKKPab** | | **22 39 32.9** | **+1.2** |
| | comp=Z,0.9nm,0.7s,baz=285,slow=4.0,SNR=5.6 | | | | | | | |
| **TXAR** | **Lajitas Array** | **124.30** | **54** | PKP | **PKPdf** | | **22 29 44.7** | **+0.8** |
| | comp=Z,0.7nm,0.9s,baz=215,slow=1.5,SNR=8.3 | | | | | | | |
| **CPUP** | **Villa Florida** | **153.64** | **173** | PKP | **PKPdf** | | **22 30 36.9** | **+0.8** |
| | comp=Z,1.3nm,0.8s,baz=343,slow=7.6,SNR=3.7 | | | | | | | |
| CPUP | | | | PKPbc | **PKiKP** | | **22 30 44.3** | **+0.4** |
| | comp=Z,5.9nm,1.0s,baz=143,slow=1.3,SNR=11 | | | | | | | |
| **LPAZ** | **La Paz** | **158.58** | **140** | PKP | **PKPdf** | | **22 30 45.0** | **+1.5** |
| | comp=Z,2.6nm,0.9s,baz=37,slow=1.8,SNR=8.3 | | | | | | | |

*CSEM **21** 22:21:49.6±0.6,51.43N×16.17E,h1km,ML2.3/4, Error ellipse: s-maj=8.6km s-min=4.5km az=13.0*
*PRU **21** 22:21:50.6,51.41N×16.19E,h0km*
**ISC 21 22:21:50.7±2.2, 51.40N±0.09×16.16E±0.06, h0km, n20, σ0s58/36, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KSP** | **Ksiaz** | **0.56** | **171** | *e*Pg | **Pg** | **22 22 01.5** | **+0.1** |
| KSP | | | | *e*Sg | **Sg** | **22 22 09.3** | **+0.7** |
| **KSP** | **Ksiaz** | **0.56** | **171** | *e*Pg | **Pg** | **22 22 01.5** | **+0.1** |
| KSP | | | | *e*Sg | **Sg** | **22 22 09.3** | **+0.7** |
| **UPC** | **Upice** | **0.89** | **186** | *e*PG | **Pg** | **22 22 07.7** | **-0.1** |
| UPC | | | | *e*SG | **Sg** | **22 22 20.3** | **+1.0** |
| | comp=Z,9.1nm,0.2s | | | | | | |
| **UPC** | **Upice** | **0.89** | **186** | Pg | **Pg** | **22 22 07.7** | **-0.1** |
| UPC | | | | Sg | **Sg** | **22 22 20.3** | **+1.0** |
| | 9.1nm,0.2s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.05** | **174** | *e*PG | **Pg** | **22 22 10.3** | **-0.5** |
| DPC | | | | *e*SG | **Sg** | **22 22 25.1** | **+0.7** |
| **DPC** | **Dobruska-Polom** | **1.05** | **174** | Pg | **Pg** | **22 22 10.3** | **-0.5** |
| DPC | | | | Sg | **Sg** | **22 22 25.1** | **+0.7** |
| **PVCC** | **Panska Ves** | **1.33** | **230** | *e*PG | **Pg** | **22 22 16.0** | **-0.1** |
| PVCC | | | | *e*SG | **Sb** | **22 22 34.3** | **+0.3** |
| | comp=Z,16nm,0.3s | | | | | | |
| **PVCC** | **Panska Ves** | **1.33** | **230** | Pg | **Pg** | **22 22 16.0** | **-0.1** |
| PVCC | | | | Sg | **Sb** | **22 22 34.3** | **+0.3** |
| | 16nm,0.3s | | | | | | |
| **KRLC** | **Kraliky** | **1.38** | **163** | *e*PG | **Pg** | **22 22 16.5** | **-0.6** |
| KRLC | | | | *e*SG | **Sg** | **22 22 34.8** | **-0.1** |
| | comp=Z,0.6nm,0.3s | | | | | | |
| **KRLC** | **Kraliky** | **1.38** | **163** | Pg | **Pg** | **22 22 16.5** | **-0.6** |
| KRLC | | | | Sg | **Sg** | **22 22 34.8** | **-0.1** |
| | 0.6nm,0.3s | | | | | | |
| **BRG** | **Berggiesshubel** | **1.49** | **250** | PG | **Pb** | **22 22 18.9** | **-0.3** |
| BRG | | | | SG | **Sn** | **22 22 39.1** | **+0.2** |
| | 3.4nm,0.6s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **1.72** | **211** | *e*PG | **Pb** | **22 22 22.9** | **-0.3** |
| GOPC | | | | *e*SG | **Sb** | **22 22 45.7** | **+0.4** |
| **GOPC** | **GO Pecny, Ondr** | **1.72** | **211** | Pg | **Pb** | **22 22 22.9** | **-0.3** |
| GOPC | | | | Sg | **Sb** | **22 22 45.7** | **+0.4** |
| **PRU** | **Pruhonice** | **1.74** | **217** | *e*PG | **Pb** | **22 22 23.2** | **-0.3** |
| PRU | | | | *e*SG | **Sb** | **22 22 45.9** | **-0.1** |
| **PRU** | **Pruhonice** | **1.74** | **217** | Pg | **Pb** | **22 22 23.2** | **-0.3** |
| PRU | | | | Sg | **Sb** | **22 22 45.9** | **-0.1** |
| **CLL** | **Collm** | **1.98** | **269** | *i* Pg | **Pb** | **22 22 27.6** | **0.0** |
| CLL | | | | *i* | | 22 22 31.4 | |
| CLL | | | | *i* Sg | **Sg** | **22 22 54.6** | **+0.3** |
| **NKC** | **Novy Kostel** | **2.63** | **245** | *e*SG | **Sg** | **22 23 15.6** | **+0.6** |
| | comp=Z,0.6nm,0.3s | | | | | | |
| **NKC** | **Novy Kostel** | **2.63** | **245** | Sg | **Sg** | **22 23 15.6** | **+0.6** |
| | 0.6nm,0.3s | | | | | | |
| **KHC** | **Kasperske Hory** | **2.81** | **217** | *e*SG | **Sg** | **22 23 19.4** | **-1.4** |
| **KHC** | **Kasperske Hory** | **2.81** | **217** | Sg | **Sg** | **22 23 19.4** | **-1.4** |

*ISCJB **21** 22:23:19.3±1.3,25.4S±0.1×179.8E±0.2,h493km,mb3.7/6, Error ellipse: s-maj=23.9km s-min=14.4km az=170.6*
*IDC **21** 22:23:21.2±6.8,25.47S×179.87E,h510km±77km,mb3.3/6, mb1 3.5/7,mb1mx3.2/34,mbtmp4.2/7, Error ellipse: s-maj=63.6km s-min=27.8km az=11.0*
**ISC 21 22:23:20.0±1.3, 25.5S±0.1×179.9E±0.2, h493km, n8, σ0s79/9, mb3.8/6, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **URZ** | **Urewera** | **12.99** | **190** | P | **P** | **22 26 09.3** | **+0.4** |
| | 1.4nm,0.3s,baz=315,slow=4.3,SNR=7.8 | | | | | | |
| URZ | | | | S | **S** | **22 28 27.7** | **-0.5** |
| | 0.3nm,0.3s,baz=162,slow=20,SNR=4.0 | | | | | | |
| **CTA** | **Charters Tower** | **31.43** | **273** | P | **P** | **22 29 01.0** | **+0.7** |
| | 3.7nm,0.6s,baz=96,slow=7.0,SNR=7.0 | | | | | | |
| **STKA** | **Stephens Creek** | **34.09** | **250** | P | **P** | **22 29 23.0** | **+0.3** |
| | 0.6nm,0.5s,baz=82,slow=11,SNR=4.4 | | | | | | |
| **ASAR** | **Alice Springs** | **41.72** | **262** | P | **P** | **22 30 25.1** | **-0.2** |
| | 2.0nm,0.6s,baz=104,slow=8.4,SNR=19 | | | | | | |
| **WRA** | **Warramunga Arr** | **42.24** | **268** | P | **P** | **22 30 28.5** | **-0.9** |
| | 2.3nm,0.6s,baz=99,slow=6.9,SNR=20 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **50.64** | **267** | P | **P** | **22 31 32.9** | **-0.3** |
| | 5.9nm,1.0s,baz=94,slow=7.3,SNR=10 | | | | | | |
| **TXAR** | **Lajitas Array** | **91.32** | **58** | P | **P** | **22 35 33.1** | **+0.3** |
| | 0.4nm,0.8s,baz=232,slow=4.4,SNR=4.0 | | | | | | |
| **BRTR** | **Keskin Array B** | **148.42** | **305** | PKPbc | **PKPbc** | **22 42 09.5** | **-1.3** |
| | 0.6nm,0.8s,baz=146,slow=2.8,SNR=2.9 | | | | | | |

**IDC 21 22:28:02.7±1.0, 11.41N×142.69E, h0km, mb3.5/6, mb1 3.8/6, mb1mx3.6/41, mbtmp3.5/6, Error ellipse: s-maj=45.1km s-min=21.7km az=96.0, South of Mariana Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **32.22** | **195** | P | P | 22 34 31.3 | -1.5 |
| | 0.7nm,0.9s,baz=10.0,slow=9.7,SNR=4.6 | | | | | | |
| **ASAR** | **Alice Springs** | **35.91** | **194** | P | P | 22 35 05.6 | +0.8 |
| | 0.2nm,0.5s,baz=20,slow=11,SNR=4.1 | | | | | | |
| **SONM** | **Songino Array** | **47.34** | **327** | P | P | 22 36 36.3 | -2.1 |
| | 0.3nm,0.5s,baz=134,slow=8.2,SNR=3.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **61.60** | **317** | P | P | 22 38 23.8 | +1.6 |
| | 0.2nm,0.8s,baz=101,slow=7.5,SNR=2.6 | | | | | | |
| **ILAR** | **Eielson Array** | **71.44** | **25** | P | P | 22 39 24.4 | -0.3 |
| | 0.8nm,0.6s,baz=246,slow=6.1,SNR=11 | | | | | | |
| **YKA** | **Yellowknife Ar** | **85.76** | **27** | P | P | 22 40 44.4 | +0.7 |
| | 0.5nm,0.8s,baz=291,slow=5.3,SNR=5.4 | | | | | | |

**JMA 21 22:29:09.8, 35.02N×137.87E, h11km±1km, M2.5, 3C-1D Broadband fault plane solution: P waves. NP1: φs150.00000°, δ79.00000°, λ-90.00000°. NP2: φs330.00000°, δ11.00000°, λ-90.00000°. Principal axes: T Plg34.0000°, Azm240.0000°; N Plg0.0000°, Azm150.0000°; P Plg56.0000°, Azm60.0000°; Eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HMMJ** | **Hamamatsu 2** | **0.20** | **217** | ⇓P | Pg | 22 29 14.0 | -0.1 |
| HMMJ | | | | S | Sg | 22 29 16.8 | -0.3 |
| **JHMK** | **Hamakita** | **0.22** | **204** | P | Pg | 22 29 14.1 | -0.3 |
| JHMK | | | | S | Sg | 22 29 17.1 | -0.4 |
| **SHZ3** | **Shizuoka 3** | **0.28** | **81** | ⇑P | Pg | 22 29 15.4 | -0.2 |
| SHZ3 | | | | S | Sg | 22 29 19.5 | 0.0 |
| **JNY** | **Yasuok** | **0.34** | **359** | ⇑P | Pg | 22 29 16.7 | +0.1 |
| JNY | | | | S | Sg | 22 29 21.6 | +0.4 |
| **TK04** | **Tokai 4** | **0.63** | **180** | P | Pb | 22 29 22.5 | -0.3 |
| **JYN** | **Shimob** | **0.73** | **49** | ⇑P | Pg | 22 29 23.5 | -0.4 |
| JYN | | | | S | Sg | 22 29 33.7 | +0.2 |
| **JOD2** | **Odawara 2** | **1.03** | **76** | S | Sg | 22 29 42.4 | -0.6 |
| **MAT** | **Matsushiro** | **1.54** | **10** | P | Pn | 22 29 37.1 | -0.2 |
| MAT | | | | S | Sn | 22 29 57.6 | +0.2 |

*ISCJB **21** 22:35:41.7±0.5,52.93S±0.07×10.5E±0.2,h10km, mb4.2/12 Error ellipse: s-maj=18.2km s-min=10.5km az=8.0*
*IDC **21** 22:35:42.0±0.6,52.90S×10.61E,h0km,mb4.2/12, mb1 4.3/13,mb1mx4.2/23,mbtmp4.2/13,ML4.2/1,MS3.2/1, Ms1 3.2/1,ms1mx2.6/18, Error ellipse: s-maj=21.4km s-min=17.3km az=87.0*
**ISC 21 22:35:43.5±0.6, 52.93S±0.09×10.6E±0.1, h10km, n28, σ0s79/22, mb4.3/12, 1C, Southwest of Africa**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VNA1** | **Neumayer--Stat** | **19.72** | **199** | P | **P** | **22 40 10.2** | **-2.5** |
| **SNAA** | **Sanae** | **19.72** | **193** | P | **Pn** | **22 40 14.8** | **+0.5** |
| **SNAA** | **Sanae** | **19.72** | **193** | P | **P** | **22 40 13.2** | **+0.4** |
| | 0.7nm,0.3s,baz=23,slow=10,SNR=38 | | | | | | |
| SNAA | | | | LR | LR | 22 45 40.3 | |
| | comp=Z,67nm,20.1s,baz=305,slow=30 | | | | | | |
| **VNA2** | **Neumayer--Watz** | **19.78** | **197** | P | **Pn** | **22 40 15.2** | **+0.3** |
| | baz=18,slow=15 | | | | | | |
| **VNA3** | **Neumayer Olymp** | **20.47** | **199** | P | **P** | **22 40 20.8** | **-0.1** |
| **SYO** | **Syowa Base** | **21.05** | **151** | ⇑*i*P | **P** | **22 40 26.6** | **-0.6** |
| **BOSA** | **Boshof** | **26.61** | **30** | P | **P** | **22 41 21.8** | **-0.1** |
| | 3.8nm,1.0s,baz=180,slow=10,SNR=3.3 | | | | | | |
| **LSZ** | **Lusaka** | **40.06** | **27** | P | **P** | **22 43 18.8** | **-0.2** |
| | 0.9nm,0.7s,baz=73,slow=17,SNR=3.4 | | | | | | |
| **VNDA** | **Vanda** | **48.59** | **172** | P | **P** | **22 44 27.1** | **+0.7** |
| | 6.1nm,0.8s,baz=235,slow=6.3,SNR=13 | | | | | | |
| **CPUP** | **Villa Florida** | **56.26** | **270** | P | **P** | **22 45 23.2** | **-0.7** |
| | 3.8nm,0.7s,baz=138,slow=5.8,SNR=12 | | | | | | |
| **DBIC** | **Dimbokro** | **60.80** | **342** | P | **P** | **22 45 55.5** | **0.0** |
| | 3.3nm,1.0s,baz=142,slow=7.4,SNR=3.9 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **66.25** | **351** | P | **P** | **22 46 31.4** | **-0.1** |
| | 0.9nm,0.7s,baz=187,slow=5.7,SNR=6.4 | | | | | | |
| **H08N3** | **Diego Garcia H** | **67.39** | **69** | T | T | 00 00 57.1 | |
| | baz=214 | | | | | | |
| **H08N1** | **Diego Carcia H** | **67.40** | **69** | T | T | 00 00 55.9 | |
| | baz=214 | | | | | | |
| **H08N2** | **Diego Garcia H** | **67.41** | **69** | T | T | 00 00 58.1 | |
| | baz=214 | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **70.32** | **122** | T | T | 00 04 25.5 | |
| | baz=219,slow=75,SNR=7.0 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **70.34** | **122** | T | T | 00 04 26.5 | |
| | baz=219,slow=75,SNR=8.2 | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **70.34** | **122** | T | T | 00 04 26.6 | |
| | baz=219,slow=75,SNR=10.0 | | | | | | |
| **LPAZ** | **La Paz** | **70.39** | **269** | P | **P** | **22 46 59.0** | **+0.6** |
| | 5.1nm,0.8s,baz=147,slow=5.0,SNR=16 | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **73.46** | **123** | P | **P** | **22 47 15.7** | **-0.2** |
| | 5.9nm,0.8s,baz=115,slow=6.2,SNR=3.4 | | | | | | |
| **STKA** | **Stephens Creek** | **85.39** | **140** | P | **P** | **22 48 21.3** | **+0.3** |
| | 2.6nm,0.7s,baz=184,slow=2.8,SNR=6.2 | | | | | | |
| **ASAR** | **Alice Springs** | **89.27** | **130** | P | **P** | **22 48 40.2** | **+0.4** |
| | 0.7nm,0.9s,baz=216,slow=4.6,SNR=3.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **92.67** | **128** | P | **P** | **22 48 55.1** | **-0.5** |
| | 0.4nm,0.8s,baz=211,slow=4.4,SNR=3.5 | | | | | | |
| **BRTR** | **Keskin Array B** | **94.42** | **18** | P | **P** | **22 49 03.5** | **+0.4** |
| | 0.2nm,0.6s,baz=191,slow=10.0,SNR=3.8 | | | | | | |
| **TXAR** | **Lajitas Array** | **127.23** | **271** | PKP | **PKPdf** | **22 54 49.3** | **+1.5** |
| | 0.1nm,0.6s,baz=133,slow=5.3,SNR=2.6 | | | | | | |
| **SONM** | **Songino Array** | **129.01** | **60** | PKP | **PKPdf** | **22 54 49.9** | **-0.8** |
| | 0.4nm,0.6s,baz=209,slow=2.6,SNR=2.9 | | | | | | |
| **TIXI** | **Tiksi** | **147.76** | **32** | PKPbc | **PKPbc** | **22 55 26.6** | **-0.2** |
| | 3.5nm,0.8s,baz=52,slow=2.4,SNR=7.4 | | | | | | |
| **YKA** | **Yellowknife Ar** | **150.10** | **310** | PKPbc | **PKPbc** | **22 55 32.7** | **-0.2** |
| | 0.8nm,0.7s,baz=91,slow=2.7,SNR=17 | | | | | | |

*ISCJB **21** 22:43:06.4±0.5,38.73N±0.02×40.00E±0.03,h0km±5km, Error ellipse: s-maj=4.3km s-min=3.0km az=139.8*
*CSEM **21** 22:43:06.3±0.1,38.75N×40.00E,h2km, ML2.2, Error ellipse: s-maj=3.9km s-min=2.5km az=51.0*
*ISK **21** 22:43:06.3,38.75N×39.99E,h9km, ML2.2*
*DDA **21** 22:43:06.3,38.74N×40.01E,h7km, Ml2.8*
**ISC 21 22:43:06.5±1.0, 38.74N±0.02×40.00E±0.02, h9km±9km, n33, σ0s56/57, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HANI** | **Diyarbakir_Han** | **0.45** | **136** | *i* P | **Pg** | **22 43 15.2** | **-0.2** |
| HANI | | | | *i* S | **Sg** | **22 43 21.6** | **+0.2** |
| **HANI** | **Diyarbakir_Han** | **0.45** | **136** | P | **Pg** | **22 43 15.2** | **-0.2** |
| HANI | | | | S | **Sg** | **22 43 21.6** | **+0.2** |
| **PTK** | **Pertek** | **0.49** | **288** | *e*PG | **Pg** | **22 43 15.9** | **-0.3** |
| PTK | | | | *e*SG | **Sg** | **22 43 23.5** | **+0.8** |
| **PTK** | **Pertek** | **0.49** | **288** | *e*Pg | **Pg** | **22 43 15.9** | **-0.3** |
| PTK | | | | *e*Sg | **Sg** | **22 43 23.5** | **+0.8** |
| **TNCL** | **Tunceli-Merkez** | **0.51** | **317** | *i* P | **Pg** | **22 43 16.4** | **-0.2** |
| TNCL | | | | *i* S | **Sg** | **22 43 24.2** | **+0.9** |
| **TNCL** | **Tunceli-Merkez** | **0.51** | **317** | P | **Pg** | **22 43 16.4** | **-0.2** |
| TNCL | | | | S | **Sg** | **22 43 24.2** | **+0.9** |
| **BNGB** | **Bingˆ¶l** | **0.59** | **65** | *e*PG | **Pg** | **22 43 18.2** | **+0.2** |
| BNGB | | | | *e*SG | **Sb** | **22 43 26.8** | **-0.8** |
| **SVRC** | **Sivrice-ELAZID** | **0.65** | **236** | *e*PG | **Pg** | **22 43 19.4** | **+0.3** |
| SVRC | | | | *e*SG | **Sb** | **22 43 29.0** | **-0.4** |
| **SVRC** | **Sivrice-ELAZID** | **0.65** | **236** | *e*Pg | **Pg** | **22 43 19.4** | **+0.3** |
| SVRC | | | | *e*Sg | **Sb** | **22 43 29.0** | **-0.4** |
| **DYBB** | **Diyarbakir** | **0.80** | **172** | *e*PG | **Pb** | **22 43 22.3** | **-0.3** |
| DYBB | | | | *e*SG | **Sb** | **22 43 33.9** | **+0.4** |
| **YEDI** | **Yedisu-Bingol** | **0.82** | **31** | *e*PG | **Pg** | **22 43 22.3** | **0.0** |
| **YEDI** | **Yedisu-Bingol** | **0.82** | **31** | *e*Pg | **Pg** | **22 43 22.3** | **0.0** |
| **DIYA** | **Diyarbakir** | **0.82** | **173** | *i* P | **Pb** | **22 43 22.8** | **-0.3** |
| DIYA | | | | *i* S | **Sb** | **22 43 35.0** | **+0.8** |
| **DIYA** | **Diyarbakir** | **0.82** | **173** | P | **Pb** | **22 43 22.8** | **-0.3** |
| DIYA | | | | S | **Sb** | **22 43 35.0** | **+0.8** |
| **DIY** | **Diyarbakir** | **0.86** | **168** | *e*Pg | **Pg** | **22 43 22.3** | **-0.8** |
| DIY | | | | *e*Sg | **Sg** | **22 43 33.9** | **-0.5** |
| **ERZN** | **Erzincan** | **0.87** | **346** | *e*PG | **Pb** | **22 43 23.4** | **-0.5** |
| **BNGL** | **BINGOL** | **0.93** | **76** | *i* P | **Pb** | **22 43 24.9** | **-0.1** |
| BNGL | | | | *i* S | **Sn** | **22 43 40.9** | **+1.4** |
| **EUZM** | **Uzumlu** | **0.99** | **347** | *i* P | **Pg** | **22 43 25.4** | **-0.2** |
| EUZM | | | | *i* S | **Sn** | **22 43 41.3** | **+0.3** |
| **EUZM** | **Uzumlu** | **0.99** | **347** | P | **Pg** | **22 43 25.4** | **-0.2** |
| EUZM | | | | S | **Sn** | **22 43 41.3** | **+0.3** |
| **KEMA** | **Kemaliye** | **1.28** | **295** | *i* P | **Pn** | **22 43 29.4** | **-1.3** |
| KEMA | | | | *i* S | **Sn** | **22 43 48.8** | **+0.6** |
| **KEMA** | **Kemaliye** | **1.28** | **295** | P | **Pn** | **22 43 29.4** | **-1.3** |
| KEMA | | | | S | **Sn** | **22 43 48.8** | **+0.6** |
| **MALT** | **Malatya** | **1.30** | **251** | *e*PN | **Pb** | **22 43 31.3** | **+0.1** |
| **MALT** | **Malatya** | **1.30** | **251** | *e*Pn | **Pb** | **22 43 31.3** | **+0.1** |
| **BTMN** | **Batman** | **1.31** | **130** | *i* P | **Pn** | **22 43 31.1** | **0.0** |
| BTMN | | | | *i* S | **Sn** | **22 43 49.3** | **+0.4** |
| **BTMN** | **Batman** | **1.31** | **130** | P | **Pn** | **22 43 31.1** | **0.0** |
| BTMN | | | | S | **Sn** | **22 43 49.3** | **+0.4** |
| **MAZI** | **Mazidag** | **1.33** | **164** | *e*PN | **Pn** | **22 43 31.3** | **-0.1** |
| **MAZI** | **Mazidag** | **1.33** | **164** | *e*Pn | **Pn** | **22 43 31.3** | **-0.1** |
| **KELT** | **Kelkit** | **1.52** | **338** | *i* P | **Pb** | **22 43 34.5** | **-0.5** |
| KELT | | | | *i* S | **Sg** | **22 43 56.1** | **+0.7** |
| **KELT** | **Kelkit** | **1.52** | **338** | P | **Pb** | **22 43 34.5** | **-0.5** |
| KELT | | | | S | **Sg** | **22 43 56.1** | **+0.7** |
| **URFA** | **Urfa** | **1.59** | **216** | *e*PN | **Pb** | **22 43 35.9** | **-0.3** |
| **URFA** | **Urfa** | **1.59** | **216** | *e*Pn | **Pb** | **22 43 35.9** | **-0.3** |
| **SRTM** | **Siirt_Merkez** | **1.69** | **116** | *i* P | **Pn** | **22 43 36.6** | **+0.3** |
| SRTM | | | | *i* S | **Sg** | **22 44 00.3** | **-0.6** |
| **SRTM** | **Siirt_Merkez** | **1.69** | **116** | P | **Pn** | **22 43 36.6** | **+0.3** |
| SRTM | | | | S | **Sg** | **22 44 00.3** | **-0.6** |

*CSEM **21** 22:54:15.4±0.2,38.62N×39.64E,h5km, ML2.3, Error ellipse: s-maj=5.9km s-min=4.1km az=47.0*
*DDA **21** 22:54:15.6,38.63N×39.68E,h7km, Ml2.8*
*ISK **21** 22:54:15.0,38.60N×39.65E,h4km, ML2.3*
**ISC 21 22:54:15.5±1.0, 38.59N±0.02×39.65E±0.02, h13km±9km, n32, σ1s04/52, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SVRC** | **Sivrice-ELAZID** | **0.34** | **232** | *e*PG | **Pg** | **22 54 22.5** | **0.0** |
| SVRC | | | | *e*SG | **Sb** | **22 54 28.2** | **-0.8** |
| **SVRC** | **Sivrice-ELAZID** | **0.34** | **232** | *e*Pg | **Pg** | **22 54 22.5** | **0.0** |
| SVRC | | | | *e*Sg | **Sb** | **22 54 28.2** | **-0.8** |
| **PTK** | **Pertek** | **0.36** | **326** | *e*PG | **Pg** | **22 54 22.7** | **-0.2** |
| PTK | | | | *e*SG | **Sb** | **22 54 28.5** | **-1.1** |
| **PTK** | **Pertek** | **0.36** | **326** | *e*Pg | **Pg** | **22 54 22.7** | **-0.2** |
| PTK | | | | *e*Sg | **Sb** | **22 54 28.5** | **-1.1** |
| **TNCL** | **Tunceli-Merkez** | **0.53** | **351** | *i* P | **Pg** | **22 54 24.7** | **-1.3** |
| TNCL | | | | *i* S | **Sb** | **22 54 33.9** | **-0.6** |
| **TNCL** | **Tunceli-Merkez** | **0.53** | **351** | P | **Pg** | **22 54 24.7** | **-1.3** |
| TNCL | | | | S | **Sb** | **22 54 33.8** | **-0.6** |
| **HANI** | **Diyarbakir_Han** | **0.61** | **106** | *i* P | **Pg** | **22 54 27.3** | **-0.3** |
| HANI | | | | *i* S | **Sn** | **22 54 41.3** | **+1.4** |
| **HANI** | **Diyarbakir_Han** | **0.61** | **106** | P | **Pg** | **22 54 27.3** | **-0.3** |
| **DYBB** | **Diyarbakir** | **0.74** | **149** | *e*PG | **Pb** | **22 54 30.1** | **-0.3** |
| DYBB | | | | *e*SG | **Sb** | **22 54 41.1** | **+0.6** |
| **DIYA** | **Diyarbakir** | **0.76** | **151** | *i* P | **Pn** | **22 54 31.9** | **-0.2** |
| DIYA | | | | *i* S | **Sn** | **22 54 42.9** | **-0.6** |
| **DIYA** | **Diyarbakir** | **0.76** | **151** | P | **Pn** | **22 54 31.9** | **-0.2** |
| DIYA | | | | S | **Sn** | **22 54 42.9** | **-0.6** |
| **DIY** | **Diyarbakir** | **0.83** | **147** | *e*Pg | **Pg** | **22 54 30.1** | **-1.5** |
| DIY | | | | *e*Sg | **Sg** | **22 54 41.1** | **-1.4** |
| **BNGB** | **Bingˆ¶l** | **0.90** | **63** | *e*PG | **Pb** | **22 54 32.8** | **-0.3** |
| BNGB | | | | *e*SG | **Sn** | **22 54 45.8** | **-1.1** |
| **MALT** | **Malatya** | **1.00** | **254** | *e*PG | **Pg** | **22 54 34.0** | **-0.8** |
| **MALT** | **Malatya** | **1.00** | **254** | *e*Pg | **Pg** | **22 54 34.0** | **-0.8** |
| **YEDI** | **Yedisu-Bingol** | **1.10** | **39** | *e*PN | **Pn** | **22 54 36.6** | **-0.2** |
| **YEDI** | **Yedisu-Bingol** | **1.10** | **39** | *e*Pn | **Pn** | **22 54 36.6** | **-0.2** |
| **KEMA** | **Kemaliye** | **1.13** | **307** | *i* P | **Pb** | **22 54 36.0** | **-1.0** |
| KEMA | | | | *i* S | **Sn** | **22 54 54.8** | **+2.3** |
| **KEMA** | **Kemaliye** | **1.13** | **307** | P | **Pb** | **22 54 36.0** | **-1.0** |
| KEMA | | | | S | **Sn** | **22 54 54.8** | **+2.3** |
| **ILIC** | **ilic-Erzincan** | **1.20** | **316** | *e*PN | **Pg** | **22 54 38.8** | **+0.1** |
| **ILIC** | **ilic-Erzincan** | **1.20** | **316** | *e*Pn | **Pg** | **22 54 38.8** | **+0.1** |
| **BNGL** | **BINGOL** | **1.23** | **72** | *i* P | **Pg** | **22 54 41.5** | **+2.3** |
| BNGL | | | | *i* S | Sn | 22 55 05.0 | +10 |
| **MAZI** | **Mazidag** | **1.29** | **151** | *e*PN | **Pg** | **22 54 40.5** | **+0.1** |
| **MAZI** | **Mazidag** | **1.29** | **151** | *e*Pn | **Pg** | **22 54 40.5** | **+0.1** |
| **URFA** | **Urfa** | **1.32** | **210** | *e*PN | **Pg** | **22 54 41.2** | **+0.3** |
| **URFA** | **Urfa** | **1.32** | **210** | *e*Pn | **Pg** | **22 54 41.2** | **+0.3** |
| **AKCD** | **Akcadag** | **1.39** | **258** | *i* P | **Pg** | **22 54 41.5** | **-0.7** |
| AKCD | | | | *i* S | **Sg** | **22 55 02.5** | **+2.2** |
| **AKCD** | **Akcadag** | **1.39** | **258** | P | **Pg** | **22 54 41.5** | **-0.7** |
| AKCD | | | | S | **Sg** | **22 55 02.5** | **+2.2** |
| **BTMN** | **Batman** | **1.46** | **118** | *i* P | **Pg** | **22 54 43.0** | **-0.5** |
| BTMN | | | | *i* S | **Sg** | **22 55 03.7** | **+1.3** |
| **BTMN** | **Batman** | **1.46** | **118** | P | **Pg** | **22 54 43.0** | **-0.5** |
| BTMN | | | | S | **Sg** | **22 55 03.7** | **+1.3** |
| **SRTM** | **Siirt_Merkez** | **1.89** | **108** | *i* P | **Pb** | **22 54 49.6** | **-0.3** |
| SRTM | | | | *i* S | **Sg** | **22 55 17.0** | **+0.8** |
| **SRTM** | **Siirt_Merkez** | **1.89** | **108** | P | **Pb** | **22 54 49.6** | **-0.3** |
| SRTM | | | | S | **Sg** | **22 55 17.0** | **+0.8** |

*ISCJB **21** 22:57:21.5±0.6,43.86N±0.05×105.30W±0.05,h0km, Error ellipse: s-maj=8.0km s-min=5.1km az=159.1*
*IDC **21** 22:57:21.2±2.3,43.50N×105.35W,h0km,mb1 3.2/3, mb1mx3.0/48,mbtmp2.9/3,ML2.4/2, Error ellipse: s-maj=47.8km s-min=9.5km az=152.0*
*NEIC **21** 22:57:23.2±0.8,43.76N×105.35W,h0km,MN2.3, Error ellipse: s-maj=14.1km s-min=9.3km az=172.0, Suspected Mining explosion.*
*NEIC 60 km [37 miles] SSE of Gillette.*
**ISC 21 22:57:22.2±0.9, 43.81N±0.05×105.34W±0.05, h0km, n9, σ1s23/15, Wyoming**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RSSD** | **Black Hills** | **0.99** | **71** | *e*Pg | **Pb** | **22 57 42.2** | **-0.3** |
| RSSD | | | | *e*S | **Sg** | **22 57 52.6** | **-1.6** |
| **K22A** | **Casper** | **1.44** | **217** | *e*Pn | **Pn** | **22 57 48.3** | **-1.4** |
| K22A | | | | *e*S | **Sb** | **22 58 09.3** | **+0.2** |
| **RLMT** | **Red Lodge** | **3.10** | **296** | *e*Pn | **Pn** | **22 58 13.4** | **+0.8** |
| RLMT | | | | *e*S | **Sn** | **22 58 50.5** | **0.0** |
| **BW06** | **Boulder Array** | **3.25** | **253** | *e*Pn | **Pn** | **22 58 16.0** | **+1.4** |
| BW06 | | | | *e*S | **Sb** | **22 58 59.5** | **-1.6** |
| **PDAR** |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **AUSP** | **Uspallata** | **3.29** | **40** | *e*P | | **Pn** | **23 27 11.6** | **+2.5** |
| **RTLS** | **Leoncito** | **3.67** | **37** | *e*P | | **Pn** | **23 27 17.0** | **+2.6** |
| RTLS | | | | *e*S | | Sn | 23 28 10.9 | +14 |
| **RTCV** | **Cerro Valdivia** | **4.03** | **45** | *e*P | | **Pn** | **23 27 20.1** | **+1.1** |
| **RTLL** | **Cerro Villicun** | **4.47** | **41** | *e*P | | **Pn** | **23 27 26.0** | **+0.9** |
| RTLL | | | | IAML | | | 23 28 29.3 | |
| | comp=Z,158nm,0.5s | | | | | | | |
| **ACAN** | **Cantantal** | **4.64** | **59** | *e*P | | **Pn** | **23 27 27.9** | **+0.4** |
| **AMOG** | **MOGNA** | **4.77** | **38** | *e*P | | **Pn** | **23 27 30.1** | **+0.9** |
| AMOG | | | | *e*S | | Sn | 23 28 33.9 | +11 |
| **LCO** | **Las Campanas** | **5.83** | **10** | *e*Pn | | **Pn** | **23 27 43.5** | **-0.5** |
| | comp=Z,29nm,0.8s | | | | | | | |
| LCO | | | | *e*S | | **Sn** | **23 28 49.2** | **-0.6** |
| **AGUA** | **GUANDACOL** | **6.00** | **29** | *e*P | | **Pn** | **23 27 46.3** | **+0.1** |
| **PLCA** | **Paso Flores** | **6.04** | **170** | P | | **Pn** | **23 27 48.4** | **+1.7** |
| | comp=Z,1.7nm,0.3s,baz=355,slow=11,SNR=30 | | | | | | | |
| PLCA | | | | Lg | | Lg | 23 29 27.0 | |
| | comp=Z,0.8nm,0.3s,baz=288,slow=20,SNR=3.2 | | | | | | | |
| PLCA | | | | LR | | LR | 23 30 07.0 | |
| | comp=Z,126nm,18.8s,baz=332,slow=38 | | | | | | | |
| **APLL** | **PUNTA DE LOS L** | **6.28** | **47** | *e*P | | **Pn** | **23 27 48.3** | **-1.6** |
| APLL | | | | *e*S | | **Sn** | **23 29 03.0** | **+2.5** |
| APLL | | | | IAML | | | 23 29 13.1 | |
| | comp=Z,25nm,0.6s | | | | | | | |
| **ACLC** | **CERRO LA CRUZ** | **6.78** | **39** | *e*P | | **Pn** | **23 27 54.8** | **-2.1** |
| **TRQA** | **Tornquist** | **8.62** | **115** | *e*Pn | | **Pn** | **23 28 22.8** | **+0.7** |
| **CPUP** | **Villa Florida** | **15.09** | **60** | P | | **P** | **23 29 57.2** | **+2.5** |
| | comp=Z,0.1nm,0.3s,baz=257,slow=19,SNR=3.9 | | | | | | | |
| **LPAZ** | **La Paz** | **18.71** | **11** | P | | **Pn** | **23 30 36.5** | **+0.3** |
| | comp=Z,0.2nm,0.3s,baz=182,slow=7.5,SNR=9.7 | | | | | | | |
| **SIV** | **San Ignacio** | **21.07** | **30** | P | | **P** | **23 30 58.9** | **-1.7** |
| | comp=Z,3.8nm,0.8s,baz=226,slow=14,SNR=15 | | | | | | | |
| **SNAA** | **Sanae** | **50.82** | **158** | P | | **P** | **23 35 14.8** | **-0.9** |
| | comp=Z,2.0nm,0.9s,baz=228,slow=7.6,SNR=6.4 | | | | | | | |
| **QSPA** | **South Pole Qui** | **55.46** | **180** | *e*P | | **P** | **23 35 50.8** | **+0.7** |
| **TXAR** | **Lajitas Array** | **70.47** | **331** | P | | **P** | **23 37 30.9** | **+0.8** |
| | comp=Z,0.3nm,0.5s,baz=155,slow=8.4,SNR=7.0 | | | | | | | |
| TXAR | | | | pP | | **pP** | **23 37 43.3** | **+0.9** |
| | comp=Z,0.8nm,0.5s,baz=156,slow=8.8,SNR=12 | | | | | | | |
| **DBIC** | **Dimbokro** | **75.30** | **71** | P | | **P** | **23 37 57.6** | **-1.3** |
| | comp=Z,11nm,1.2s,baz=152,slow=3.5,SNR=5.3 | | | | | | | |
| **BOSA** | **Boshof** | **79.59** | **118** | P | | **P** | **23 38 21.8** | **-1.2** |
| | comp=Z,2.4nm,0.6s,baz=234,slow=3.6,SNR=6.7 | | | | | | | |
| BOSA | | | | pP | | **pP** | **23 38 35.0** | **-0.5** |
| | comp=Z,1.7nm,0.5s,baz=253,slow=6.6,SNR=1.7 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **84.35** | **70** | P | | **P** | **23 38 46.6** | **-1.3** |
| | comp=Z,1.7nm,0.8s,baz=268,slow=3.6,SNR=10 | | | | | | | |
| TORD | | | | pP | | **pP** | **23 39 00.4** | **-0.1** |
| | comp=Z,1.1nm,0.7s,baz=263,slow=3.4,SNR=6.2 | | | | | | | |
| **WRA** | **Warramunga Arr** | **120.15** | **209** | pPKP | | pPKPdf | 23 45 18.9 | -0.9 |
| | comp=Z,0.2nm,0.6s,baz=157,slow=1.6,SNR=1.5 | | | | | | | |
| **H11S2** | **WAKE ISLAND Hyd** | **25.89** | **268** | T | | T | 02 03 50.2 | |
| | baz=119,slow=75,SNR=7.2 | | | | | | | |
| **H11S1** | **WAKE ISLAND Hyd** | **25.90** | **269** | T | | T | 02 03 51.5 | |
| | baz=119,slow=75,SNR=16 | | | | | | | |
| **H11S3** | **WAKE ISLAND Hyd** | **25.91** | **268** | T | | T | 02 03 49.9 | |
| | baz=119,slow=75,SNR=9.0 | | | | | | | |
| **H11N3** | **WAKE ISLAND Hyd** | **26.32** | **270** | T | | T | 02 04 21.4 | |
| | baz=116,slow=78,SNR=9.2 | | | | | | | |
| **H11N1** | **WAKE ISLAND Hyd** | **26.33** | **270** | T | | T | 02 04 21.6 | |
| | baz=116,slow=78,SNR=19 | | | | | | | |
| **H11N2** | **WAKE ISLAND Hyd** | **26.34** | **270** | T | | T | 02 04 21.7 | |
| | baz=116,slow=78,SNR=9.0 | | | | | | | |
| **AAK** | **Ala-Archa** | **152.74** | **63** | PKPbc | | **PKPbc** | **23 46 12.1** | **0.0** |
| | comp=Z,1.8nm,0.7s,baz=200,slow=6.0,SNR=7.1 | | | | | | | |
| AAK | | | | pPKPbc | | **pPKPbc** | **23 46 25.4** | **+0.3** |
| | comp=Z,1.5nm,0.6s,baz=192,slow=2.7,SNR=3.7 | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **153.33** | **44** | PKPbc | | **PKPbc** | **23 46 11.1** | **-1.8** |
| | comp=Z,0.5nm,1.0s,baz=296,slow=5.1,SNR=5.4 | | | | | | | |
| KURBB | | | | pPKPbc | | **pPKPbc** | **23 46 25.5** | **-0.5** |
| | comp=Z,0.2nm,0.5s,baz=298,slow=3.1,SNR=2.8 | | | | | | | |
| **KURK** | **Kurchatov** | **153.35** | **44** | PKPbc | | **PKPbc** | **23 46 11.1** | **-1.8** |
| KURK | | | | pPKPbc | | **pPKPbc** | **23 46 25.5** | **-0.5** |

**MAN 21 23:29:00.9±10.0N×125.7°77.7E,h75km±5km,mb3.9,ML2.6,MS2.2,**
**Mindanao**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **BUTP** | **Butuan** | **0.19** | **229** | *e*P | | Pn | 23 29 11.7 | +0.5 |
| BUTP | | | | *e*S | | Sn | 23 29 22.6 | +3.3 |
| **SCPH** | **Surigao** | **0.74** | **338** | *e*P | | Pn | 23 29 18.0 | +2.3 |
| SCPH | | | | *e*S | | Sn | 23 29 34.0 | +6.7 |
| **BUKP** | **Musuan** | **1.40** | **210** | *e*P | | Pn | 23 29 25.6 | +1.7 |

**IDC 22 00:07:38.0±2.4,28.35S×178.00W,h0km,mb4.0/3,**
**mb1 4.2/3,mb1mx3.8/26,mbtmp4.0/3,MS3.0/2,Ms1 3.1/2,**
**ms1mx2.7/19,Error ellipse: s-maj=53.7km**
**s-min=19.7km az=66.0,Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **0.90** | **175** | Pn | | Pn | 00 07 58.2 | +0.2 |
| | 120nm,0.3s,baz=83,slow=6.3,SNR=6.7 | | | | | | | |
| RAO | | | | Sn | | Sn | 00 08 11.5 | -0.2 |
| | 234nm,0.3s,baz=84,slow=9.3,SNR=9.4 | | | | | | | |
| **URZ** | **Urewera** | **10.69** | **201** | Sn | | Sn | 00 11 52.2 | -21 |
| | 1.4nm,0.3s,baz=223,slow=20,SNR=7.8 | | | | | | | |
| **STKA** | **Stephens Creek** | **34.99** | **254** | P | | P | 00 14 31.8 | -0.4 |
| | 1.8nm,0.8s,baz=69,slow=14,SNR=3.0 | | | | | | | |
| **ASAR** | **Alice Springs** | **43.26** | **265** | P | | P | 00 15 41.1 | -0.4 |
| | 1.1nm,0.6s,baz=97,slow=8.2,SNR=13 | | | | | | | |
| ASAR | | | | LR | | LR | 00 33 48.1 | |
| | comp=Z,33nm,19.3s,baz=110,slow=36 | | | | | | | |
| **WRA** | **Warramunga Arr** | **44.06** | **270** | P | | P | 00 15 48.3 | +0.3 |
| | 2.2nm,0.8s,baz=107,slow=8.0,SNR=9.7 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **92.72** | **289** | LR | | LR | 01 02 23.5 | |
| | comp=Z,4.0nm,19.4s,baz=5.0,slow=35 | | | | | | | |
| **AKASG** | **Malin Array Be** | **149.65** | **325** | PKPbc | | PKPbc | 00 27 29.0 | -0.3 |
| | 0.8nm,0.6s,baz=44,slow=2.8,SNR=4.9 | | | | | | | |

*KRNET **22** 00:09:01.3±0.1,43.03N×78.31E,mb2.2*
*NNC **22** 00:09:01.7±2.3,43.32N×78.23E,h0km,mb2.3,mpv2.1,*
*Error ellipse: s-maj=110.4km s-min=11.8km az=173.0*
**SOME 22 00:09:00.7,43.12N×78.22E,h15km,17C-8D,Lake**
**Issyk-Kul region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ZHN** | **Zhinishke** | **0.17** | **72** | *e*P | | Pg | 00 09 05.1 | +0.1 |
| | 29nm,0.0s | | | | | | | |
| ZHN | | | | *e*S | | Sg | 00 09 07.8 | -0.1 |
| | 233nm,0.1s | | | | | | | |
| **UZB** | **Uzynbulak** | **0.59** | **87** | *e*P | | Pb | 00 09 12.6 | -0.2 |
| | 15nm,0.1s | | | | | | | |
| UZB | | | | *e*S | | Sg | 00 09 20.6 | +0.4 |
| | 107nm,0.1s | | | | | | | |
| **PRZ** | **Przheval'sk** | **0.65** | **168** | ⇓*i*P | | Pb | 00 09 14.1 | +0.3 |
| | baz=168 | | | | | | | |
| PRZ | | | | ⇓*i*S | | Sn | 00 09 24.8 | -0.8 |
| | baz=168 | | | | | | | |
| **MDOK** | **Medeo** | **0.86** | **273** | P | | Pg | 00 09 16.7 | -0.7 |
| MDOK | | | | S | | Sg | 00 09 27.7 | -1.0 |
| **MDOK** | **Medeo** | **0.86** | **273** | *e*P | | Pg | 00 09 16.7 | -0.7 |
| | 2.8nm,0.2s | | | | | | | |
| MDOK | | | | *e*S | | Sg | 00 09 28.0 | -0.7 |
| | 11nm,0.2s | | | | | | | |
| **TNSS** | **Tian-Shan** | **0.93** | **266** | *e*P | | Pb | 00 09 18.4 | -0.4 |
| | 4.5nm,0.3s | | | | | | | |
| TNSS | | | | *e*S | | Sg | 00 09 30.9 | -0.2 |
| | 13nm,0.2s | | | | | | | |
| **PDGK** | **Podgornoye** | **0.95** | **77** | ⇑*i*P | | Pb | 00 09 18.7 | -0.3 |
| | baz=70 | | | | | | | |
| PDGK | | | | ⇑*i*S | | Sb | 00 09 31.4 | -0.1 |
| | baz=70 | | | | | | | |
| **PDGK** | **Podgornoye** | **0.95** | **77** | ⇑*i*P | | Pb | 00 09 17.8 | -1.2 |
| | baz=82 | | | | | | | |
| PDGK | | | | ⇑*i*S | | Sb | 00 09 31.3 | -0.2 |
| | baz=82 | | | | | | | |
| **PDGK** | **Podgornoye** | **0.95** | **77** | ⇑P | | Pb | 00 09 17.7 | -1.4 |
| | 2.2nm,0.4s | | | | | | | |
| PDGK | | | | ⇓S | | Sb | 00 09 31.2 | -0.3 |
| | 4.0nm,0.4s | | | | | | | |
| **MTBS** | **Maitube** | **1.31** | **271** | *e*P | | Pb | 00 09 25.1 | +0.1 |
| | 2.6nm,0.1s | | | | | | | |
| MTBS | | | | *e*S | | Sn | 00 09 42.1 | +0.3 |
| | 11nm,0.2s | | | | | | | |
| **KST** | **Kastek** | **1.65** | **268** | *e*P | | Pb | 00 09 30.9 | 0.0 |
| | 1.4nm,0.1s | | | | | | | |
| KST | | | | *e*S | | Sg | 00 09 52.9 | -1.0 |
| | 8.8nm,0.4s | | | | | | | |
| **DJR** | **Jarkent** | **1.67** | **43** | *e*P | | Pb | 00 09 30.8 | -0.3 |
| | 3.7nm,0.2s | | | | | | | |
| DJR | | | | *e*S | | Sb | 00 09 53.0 | +1.1 |
| | 4.7nm,0.2s | | | | | | | |
| **ULHL** | **Ulahol** | **1.70** | **240** | ⇑*i*P | | Pg | 00 09 32.6 | -0.7 |
| | baz=243 | | | | | | | |
| ULHL | | | | ⇑*i*S | | Sg | 00 09 55.0 | -0.4 |
| | baz=243 | | | | | | | |
| **BOOM** | **Boomskoye usch** | **1.79** | **250** | ⇑*i*P | | Pb | 00 09 32.9 | -0.4 |
| | baz=247 | | | | | | | |
| BOOM | | | | ⇑*i*S | | Sb | 00 09 56.6 | +1.0 |
| | baz=247 | | | | | | | |
| **TKM2** | **Tokmak 2** | **1.93** | **265** | ⇑*i*P | | Pb | 00 09 36.3 | +0.6 |
| | baz=268 | | | | | | | |
| TKM2 | | | | ⇑*i*S | | Sg | 00 10 02.2 | -0.7 |
| | baz=268 | | | | | | | |
| **TKM2** | **Tokmak 2** | **1.93** | **265** | ⇑Pn | | Pb | 00 09 36.0 | +0.2 |
| | 0.1nm,0.2s | | | | | | | |
| TKM2 | | | | ⇓Sn | | Sg | 00 10 02.1 | -0.8 |
| | 1.0nm,0.2s | | | | | | | |
| **KAPS** | **Kapalarasan** | **2.32** | **20** | *e*P | | Pb | 00 09 42.1 | -0.1 |
| | 1.1nm,0.2s | | | | | | | |
| KAPS | | | | *e*S | | Sb | 00 10 12.0 | +1.3 |
| | 12nm,0.2s | | | | | | | |
| **NRN** | **Naryn** | **2.35** | **225** | ⇑*i*P | | Pb | 00 09 41.9 | -1.1 |
| | baz=228 | | | | | | | |
| NRN | | | | ⇑*i*S | | Sb | 00 10 11.8 | -0.2 |
| | baz=228 | | | | | | | |
| **KZA** | **Kyzart** | **2.42** | **246** | ⇓*i*P | | Pb | 00 09 44.3 | 0.0 |
| | baz=248 | | | | | | | |
| KZA | | | | ⇓*i*S | | Sb | 00 10 14.9 | +0.8 |
| | baz=248 | | | | | | | |
| **AAK** | **Ala-Archa** | **2.78** | **261** | ⇓Pn | | Pb | 00 09 51.3 | +1.1 |
| | 0.5nm,0.3s | | | | | | | |
| AAK | | | | ⇑Sn | | Sg | 00 10 28.9 | -1.1 |
| | 2.4nm,0.6s | | | | | | | |
| **MNAS** | **Manas** | **4.25** | **263** | ⇑Lg | | Lg | 00 11 13.3 | |
| | 0.7nm,0.8s | | | | | | | |
| **MK31** | **Makanchi Array** | **4.68** | **37** | ⇑Pn | | Pn | 00 10 14.1 | +3.3 |
| | baz=171,slow=13,SNR=6.9 | | | | | | | |
| MK31 | | | | ⇓Lg | | Lg | 00 11 24.0 | |
| | 0.2nm,0.4s,baz=222,slow=29,SNR=5.0 | | | | | | | |

*IDC **22** 00:25:24.0±14.0,56.9S×28.45W,h0km,mb4.0/1,*
*mb1 4.0/1,mb1mx3.6/19,mbtmp4.0/1,Error ellipse:*
*s-maj=916.8km s-min=67.9km az=144.0*
**ISC 22 00:25:20.2±1.5,58.9S±0.2×25.6W±0.5,h10km,n6,σ0s65/6,**
**South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VNA3** | **Neumayer Olymp** | **14.04** | **158** | P | | **Pn** | **00 28 39.0** | **+0.1** |
| **VNA2** | **Neumayer--Watz** | **14.26** | **155** | P | | **Pn** | **00 28 41.3** | **-0.6** |
| | baz=319,slow=14 | | | | | | | |
| **SNAA** | **Sanae** | **15.82** | **153** | P | | **Pn** | **00 29 03.6** | **+0.8** |
| **TORD** | **Torodi Ar. Bea** | **75.15** | **28** | P | | **P** | **00 37 02.3** | **0.0** |
| | 1.0nm,0.7s,baz=194,slow=6.5,SNR=7.5 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **138.80** | **315** | PKP | | **PKPdf** | **00 44 45.2** | **+0.3** |
| | 0.8nm,0.6s,baz=128,slow=2.3,SNR=19 | | | | | | | |
| **ILAR** | **Eielson Array** | **152.56** | **307** | PKPbc | | **PKPbc** | **00 45 14.8** | **-0.3** |
| | 1.8nm,0.9s,baz=90,slow=0.4,SNR=14 | | | | | | | |

**IDC 22 00:31:25.2±2.5,3.75N×126.82E,h0km,mb3.4/3,**
**mb1 3.6/3,mb1mx3.4/33,mbtmp3.4/3,Error ellipse:**
**s-maj=213.5km s-min=27.8km az=66.0,Talaud Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **24.68** | **163** | P | | P | 00 36 46.1 | -1.9 |
| | 1.0nm,0.6s,baz=342,slow=10,SNR=9.4 | | | | | | | |
| **ASAR** | **Alice Springs** | **28.12** | **166** | P | | P | 00 37 21.0 | +2.0 |
| | 0.2nm,0.3s,baz=336,slow=11,SNR=4.0 | | | | | | | |
| **MKAR** | **Makanchi Array** | **57.59** | **325** | P | | P | 00 41 16.7 | -0.2 |
| | 0.1nm,0.4s,baz=123,slow=6.5,SNR=4.0 | | | | | | | |

**IDC 22 00:35:45.5±13.0,17.38S×178.76W,h549km±158km,**
**mb2.7/4,mb1 3.0/4,mb1mx2.8/28,mbtmp3.6/4,Error**
**ellipse: s-maj=119.5km s-min=46.8km az=164.0,Fiji**
**Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **44.40** | **259** | P | | P | 00 43 07.8 | -0.2 |
| | 0.3nm,0.5s,baz=96,slow=7.0,SNR=9.1 | | | | | | | |
| **ASAR** | **Alice Springs** | **44.61** | **254** | P | | P | 00 43 09.4 | -0.2 |
| | 1.3nm,0.6s,baz=86,slow=8.7,SNR=18 | | | | | | | |
| **ILAR** | **Eielson Array** | **85.45** | **13** | P | | P | 00 47 24.5 | -0.3 |
| | 0.9nm,1.1s,baz=225,slow=5.1,SNR=4.8 | | | | | | | |
| **TXAR** | **Lajitas Array** | **86.00** | **58** | P | | P | 00 47 28.5 | +0.1 |
| | 0.2nm,0.6s,baz=203,slow=6.5,SNR=3.2 | | | | | | | |
| **GERES** | **GERESS Array B** | **147.02** | **345** | PKPbc | | PKPbc | 00 54 26.2 | -0.7 |
| | 0.3nm,0.5s,baz=61,slow=6.2,SNR=3.3 | | | | | | | |

**GUC 22 00:41:20.3±0.6,42.03S×73.43W,h37km±3km,ML3.9,2C,**
**Southern Chile**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PMCH** | **Puerto Montt** | **0.67** | **37** | *e*P | | Pn | 00 41 34.5 | +1.2 |
| PMCH | | | | *i* S | | Sn | 00 41 44.4 | +1.9 |
| **GO07** | **Milladeo Hill,** | **1.10** | **189** | *e*P | | Pn | 00 41 39.8 | +0.6 |
| GO07 | | | | *i* S | | Sn | 00 41 54.3 | +1.2 |
| GO07 | | | | IAML | | | 00 41 54.4 | |
| | comp=E,5μm,0.4s | | | | | | | |
| **VLCH** | **Valdivia** | **2.23** | **4** | *e*P | | Pn | 00 41 55.9 | +1.3 |
| VLCH | | | | *i* S | | Sn | 00 42 22.8 | +2.0 |
| **PLCA** | **Paso Flores** | **2.52** | **60** | ⇑*i*P | | Pn | 00 42 00.1 | +1.3 |
| **TMU** | **Temuco** | **3.35** | **111** | ⇑*i*P | | Pn | 00 42 11.7 | +1.7 |
| TMU | | | | IAML | | | 00 42 56.4 | |
| | comp=N,232nm,0.8s | | | | | | | |

*ISCJB **22** 00:55:12.8±0.6,22.00N±0.05×99.23E±0.09,h9km,*
*mb3.4/5,Error ellipse: s-maj=13.2km s-min=5.9km*
*az=23.4*
*IDC **22** 00:55:13.6±1.0,21.95N×99.16E,h0km,mb3.5/5,*
*mb1 3.7/6,mb1mx3.5/32,mbtmp3.5/6,ML3.8/1,MS2.8/1,*
*Ms1 2.8/1,ms1mx2.3/32,Error ellipse: s-maj=41.1km*
*s-min=15.9km az=79.0*
*BJI **22** 00:55:15.4,21.98N×99.05E,h5km,ML3.7/6,Ms3.7/2*
**ISC 22 00:55:14.6±0.9,21.96N±0.06×99.1E±0.1,h9km,n12,**
**σ0s95/14,mb3.4/5,Myanmar-China border region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CHTO** | **Chiang Mai** | **3.13** | **183** | P | | **Pn** | **00 56 04.2** | **+0.1** |
| **CMMT** | **Chiang Mai** | **3.13** | **183** | P | | **Pn** | **00 56 04.1** | **-0.1** |
| CMMT | | | | S | | **Sg** | **00 56 55.1** | **-0.1** |
| **CMAR** | **Chiang Mai Arr** | **3.48** | **183** | Pn | | **Pn** | **00 56 09.2** | **+0.1** |
| | 2.2nm,0.3s,baz=356,slow=13,SNR=12 | | | | | | | |
| CMAR | | | | Pg | | **Pg** | **00 56 20.7** | **-0.6** |
| | 30nm,0.3s,baz=356,slow=18,SNR=261 | | | | | | | |
| CMAR | | | | Lg | | Lg | 00 57 05.2 | |
| | 28nm,0.3s,baz=16,slow=26,SNR=11 | | | | | | | |
| **PHRA** | **Phrae** | **3.59** | **163** | P | | **Pn** | **00 56 11.4** | **+0.9** |
| **KMI** | **Kunming** | **4.58** | **46** | Pg | | **Pg** | **00 56 41.4** | **-0.9** |
| KMI | | | | Sg | | **Sg** | **00 57 41.9** | **+0.2** |
| KMI | | | | smax | | smax | | |
| | comp=N,59nm,0.7s | | | | | | | |
| KMI | | | | smax | | smax | | |
| | comp=E,37nm,0.5s | | | | | | | |
| KMI | | | | LR | | LR | | |
| | comp=N,640nm,8.9s | | | | | | | |
| KMI | | | | LR | | LR | | |
| | comp=E,510nm,7.0s | | | | | | | |
| **BRDH** | **Bariadhala** | **6.96** | **277** | LR | | LR | 01 00 40.3 | |
| | comp=Z,3nm,18.9s,baz=315,slow=47 | | | | | | | |
| **WMQ** | **Urumqi** | **23.78** | **339** | *e*P | | **P** | **01 00 25.4** | **-2.1** |
| **SONM** | **Songino Array** | **26.47** | **11** | P | | **P** | **01 00 53.7** | **+1.6** |
| | 0.6nm,0.7s,baz=193,slow=5.8,SNR=4.5 | | | | | | | |
| **MKAR** | **Makanchi Array** | **28.28** | **335** | P | | **P** | **01 01 08.1** | **-0.2** |
| | 0.5nm,0.7s,baz=153,slow=9.7,SNR=5.4 | | | | | | | |
| **WRA** | **Warramunga Arr** | **54.02** | **138** | P | | **P** | **01 04 39.1** | **-0.4** |
| | 0.5nm,0.7s,baz=326,slow=7.7,SNR=4.5 | | | | | | | |
| **ASAR** | **Alice Springs** | **56.58** | **141** | P | | **P** | **01 04 58.0** | **+0.1** |
| | 0.2nm,0.5s,baz=317,slow=6.8,SNR=4.5 | | | | | | | |
| **GERES** | **GERESS Array B** | **70.85** | **316** | P | | **P** | **01 06 32.7** | **+0.8** |
| | 0.4nm,0.8s,baz=92,slow=4.9,SNR=3.5 | | | | | | | |

*ISCJB **22** 01:21:05.4±0.7,11.18N±0.1×142.12E±0.09,h42km,*
*mb3.9/11,MS2.9/4,Error ellipse: s-maj=17.1km*
*s-min=9.7km az=144.4*
*IDC **22** 01:21:10.3±3.0,11.80N×142.33E,h75km±30km,mb3.6/11,*
*mb1 3.8/12,mb1mx3.6/43,mbtmp3.9/12,MS3.0/4,*
*Ms1 3.0/4,ms1mx2.6/30,Error ellipse: s-maj=28.5km*
*s-min=16.3km az=102.0*
**ISC 22 01:21:07.2±0.9,11.8N±0.1×142.1E±0.1,h42km,n16,**
**σ0s99/13,mb4.0/11,MS2.8/4,South of Mariana Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GUMO** | **Guam** | **3.21** | **56** | P | | **Pn** | **01 21 55.7** | **+0.6** |
| | 12nm,0.3s,baz=245,slow=17,SNR=3.2 | | | | | | | |
| GUMO | | | | S | | **Sn** | **01 22 32.2** | **+0.1** |
| | 7.4nm,0.3s,baz=162,slow=20,SNR=2.1 | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **24.89** | **352** | LR | | LR | 01 36 08.9 | |
| | comp=Z,21nm,18.8s,baz=130,slow=36 | | | | | | | |
| **KSRS** | **Korea Array** | **28.56** | **336** | LR | | LR | 01 38 21.0 | |
| | comp=Z,23nm,18.9s,baz=158,slow=36 | | | | | | | |
| **WRA** | **Warramunga Arr** | **32.46** | **194** | P | | **P** | **01 27 33.7** | **0.0** |
| | 0.5nm,0.7s,baz=16,slow=9.5,SNR=1.9 | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **33.45** | **347** | P | | **P** | **01 27 43.9** | **+1.7** |
| | 1.3nm,0.6s,baz=180,slow=11,SNR=3.8 | | | | | | | |
| **ASAR** | **Alice Springs** | **36.15** | **193** | P | | **P** | **01 28 06.7** | **+1.0** |
| | 0.5nm,0.9s,baz=20,slow=12,SNR=4.4 | | | | | | | |
| **KLR** | **Kul'dur** | **38.30** | **349** | P | | **P** | **01 28 23.7** | **+0.1** |
| | 0.2nm,0.5s,baz=182,slow=6.4,SNR=9.8 | | | | | | | |
| **PETK** | **Petropavlovsk-** | **43.05** | **14** | LR | | LR | 01 46 46.3 | |
| | comp=Z,12nm,19.7s,baz=134,slow=36 | | | | | | | |
| **SONM** | **Songino Array** | **46.72** | **327** | P | | **P** | **01 29 33.0** | **+0.8** |
| | 0.9nm,0.5s,baz=137,slow=6.6,SNR=16 | | | | | | | |
| **MKAR** | **Makanchi Array** | **60.95** | **317** | P | | **P** | **01 31 16.6** | **+0.4** |
| | 2.7nm,0.9s,baz=94,slow=8.0,SNR=8.6 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **61.55** | **326** | P | | **P** | **01 31 19.5** | **-0.5** |
| | 1.3nm,0.4s,baz=109,slow=7.3,SNR=7.6 | | | | | | | |
| **ILAR** | **Eielson Array** | **71.32** | **25** | P | | **P** | **01 32 21.1** | **-1.2** |
| | 0.6nm,0.5s,baz=245,slow=5.3,SNR=14 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **85.66** | **27** | P | | **P** | **01 33 40.9** | **-0.4** |
| | 0.2nm,0.5s,baz=290,slow=5.0,SNR=3.3 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **87.95** | **342** | P | | **P** | **01 33 51.5** | **-0.9** |
| | 3.1nm,1.1s,baz=79,slow=6.3,SNR=6.6 | | | | | | | |
| **FINES** | **FINESS Array B** | **91.64** | **334** | P | | **P** | **01 34 08.2** | **-1.5** |
| | 1.4nm,0.5s,baz=74,slow=4.5,SNR=14 | | | | | | | |
| **AKASG** | **Malin Array Be** | **94.92** | **324** | LR | | LR | 02 20 23.6 | |
| | comp=Z,14nm,18.4s,baz=265,slow=37 | | | | | | | |

**MEX 22 01:35:49.7±1.0,16.75N×99.10W,h8km±9km,MD3.5,Near**
**coast of Guerrero**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ACX** | **Acapulco** | **0.74** | **280** | *e*P | | Pg | 01 35 59.2 | -4.8 |
| ACX | | | | *e*S | | Sg | 01 36 08.9 | -4.8 |
| **ACP2** | **Acapulco** | **0.77** | **280** | *e*P | | Pg | 01 36 02.4 | -2.1 |
| ACP2 | | | | *e*S | | Sg | 01 36 12.8 | -1.7 |
| **TLIG** | **Tlapa** | **0.96** | **32** | *e*P | | Pg | 01 36 05.3 | -2.8 |
| TLIG | | | | *e*S | | Sg | 01 36 17.8 | -2.8 |
| **PNIG** | **Pinotepa** | **0.99** | **111** | *e*P | | Pg | 01 36 06.2 | -2.6 |
| PNIG | | | | *e*S | | Sg | 01 36 19.1 | -2.6 |
| **CAIG** | **El Cayaco** | **1.16** | **285** | *e*P | | Pg | 01 36 08.4 | -3.6 |
| CAIG | | | | *e*S | | Sg | 01 36 23.4 | -3.7 |
| **MEIG** | **Mezcala** | **1.27** | **337** | *e*P | | Pn | 01 36 10.3 | -3.6 |
| MEIG | | | | *e*S | | Sb | 01 36 26.5 | -4.2 |
| **PLIG** | **Platanillo** | **1.68** | **347** | *e*P | | Pn | 01 36 17.0 | -2.5 |
| PLIG | | | | *e*S | | Sn | 01 36 37.2 | -4.1 |
| **ZIIG** | **Zihuatanejo** | **2.42** | **291** | *e*P | | Pn | 01 36 27.2 | -2.4 |
| ZIIG | | | | *e*S | | Sn | 01 36 59.5 | 0.0 |

*IDC **22** 01:38:57.1±3.5,37.05N×72.04E,h64km±29km,mb3.6/13,*
*mb1 3.8/18,mb1mx3.6/40,mbtmp4.0/18,ML3.8/5,MS3.6/1,*
*Ms1 3.6/1,ms1mx2.3/35,Error ellipse: s-maj=27.2km*
*s-min=16.3km az=172.0*
*ISCJB **22** 01:38:59.0±0.2,37.07N±0.02×72.16E±0.04,h100km,*
*mb4.0/20,Error ellipse: s-maj=4.1km s-min=2.9km*
*az=168.1*
*NNC **22** 01:38:59.4±3.3,37.46N×71.61E,h0km,mb4.6,mpv4.2,*
*Error ellipse: s-maj=31.7km s-min=24.3km az=132.0*
*NEIC **22** 01:39:00.9±0.8,37.24N×72.05E,h94km±7km,mb4.4/12,*
*Error ellipse: s-maj=9.0km s-min=5.8km az=149.0*
**ISC 22 01:39:00.3±0.5,37.08N±0.04×72.16E±0.05,h100km,n108,**
**σ2s07/121,mb4.0/20,9C-10D,Tajikistan**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SFK** | **Sufi-Kurgan** | **3.11** | **19** | ⇑P | | **Pn** | **01 39 49.8** | **+2.1** |
| | 30nm,0.4s | | | | | | | |
| SFK | | | | ⇓S | | **Sn** | **01 40 26.2** | **+2.0** |
| | 74nm,0.3s | | | | | | | |
| **CEP** | **Cherat** | **3.26** | **184** | P | | **Pn** | **01 39 53.4** | **+3.8** |
| **CHCP** | **Chirah Chowk** | **3.53** | **165** | P | | **Pn** | **01 39 58.0** | **+4.8** |
| CHCP | | | | S | | **Sn** | **01 40 39.0** | **+4.9** |
| **KBL** | **Kabul** | **3.58** | **226** | *e*Pn | | **Pn** | **01 39 56.3** | **+2.2** |
| KBL | | | | *e*Sn | | **Sn** | **01 40 35.8** | **+0.2** |
| **THW** | **Thamme Wali** | **4.29** | **185** | P | | **Pn** | **01 40 06.2** | **+2.7** |
| **SARP** | **Sargodha** | **5.17** | **175** | P | | **Pn** | **01 40 17.3** | **+2.1** |
| **AML** | **Almayashu** | **5.18** | **13** | P | | **Pn** | **01 40 16.3** | **+0.5** |
| | SNR=69 | | | | | | | |
| **MNAS** | **Manas** | **5.41** | **3** | ⇑P | | **Pn** | **

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **MK31** | **Makanchi Array** | **12.28** | **35** | ⇓P | | **Pn** | **01 41 51.8** | **+0.2** |
| | comp=N,5.7nm,0.8s,baz=220,slow=12,SNR=20 | | | | | | | |
| **MK31** | **Makanchi Array** | **12.28** | **35** | *e*Pn | | **Pn** | **01 41 49.3** | **-2.3** |
| **MK32** | **Makanchi Array** | **12.28** | **35** | *e*Pn | | **Pn** | **01 41 51.3** | **-0.3** |
| **MKAR** | **Makanchi Array** | **12.28** | **35** | P | | **Pn** | **01 41 51.3** | **-0.3** |
| | comp=N,0.2nm,0.3s,baz=223,slow=15,SNR=32 | | | | | | | |
| **MKAR** | **Makanchi Array** | **12.28** | **35** | *e*Pn | | **Pn** | **01 41 49.9** | **-1.7** |
| **PYUN** | **Piuthan** | **12.78** | **131** | *e*P | | **Pn** | **01 41 57.1** | **-1.4** |
| | comp=N,21nm,0.3s | | | | | | | |
| **KOLN** | **Koldanda** | **13.39** | **131** | *e*P | | **Pn** | **01 42 05.2** | **-1.3** |
| | comp=N,15nm,0.3s | | | | | | | |
| **GKN** | **Gorkha** | **13.87** | **127** | *e*P | | **Pn** | **01 42 11.7** | **-1.0** |
| | comp=N,1.0nm,0.3s | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **14.29** | **17** | P | | Pn | 01 42 14.9 | -2.8 |
| | comp=N,0.1nm,0.3s,baz=206,slow=12,SNR=9.9 | | | | | | | |
| KURBB | | | | S | | **Sn** | **01 44 58.6** | **+3.6** |
| | baz=203,slow=19,SNR=2.5 | | | | | | | |
| **KURK** | **Kurchatov** | **14.39** | **17** | *e*Pn | | **Pn** | **01 42 18.7** | **-0.4** |
| KURK | | | | S | | **Sn** | **01 44 58.6** | **+1.0** |
| KURK | | | | *e*S | | S | **01 45 07.6** | **-3.1** |
| **KKN** | **Kakani** | **14.43** | **126** | *e*P | | **Pn** | **01 42 18.6** | **-1.3** |
| | comp=N,7.7nm,0.2s | | | | | | | |
| **PKIN** | **Phulchoki** | **14.65** | **127** | *e*P | | **Pn** | **01 42 21.4** | **-1.4** |
| | comp=N,7.5nm,0.3s | | | | | | | |
| **PKI** | **Pulchoki** | **14.66** | **127** | *e*P | | **Pn** | **01 42 21.6** | **-1.4** |
| | comp=N,6.6nm,0.2s | | | | | | | |
| **GUN** | **Gumba** | **14.74** | **124** | *e*P | | **Pn** | **01 42 22.5** | **-1.5** |
| | comp=N,16nm,0.4s | | | | | | | |
| **AB31** | **Akbulak array** | **15.06** | **328** | ⇓P | | Pn | 01 42 23.0 | -4.6 |
| | comp=N,1.7nm,0.3s | | | | | | | |
| **ABKAR** | **Akbulak array** | **15.06** | **328** | *e*Pn | | **Pn** | **01 42 23.5** | **-4.1** |
| ABKAR | | | | *e*Sn | | Sn | 01 44 57.3 | -16 |
| **JIRN** | **Jiri** | **15.11** | **124** | *e*P | | **Pn** | **01 42 27.2** | **-1.6** |
| | comp=N,224nm,0.3s | | | | | | | |
| **JBP** | **Jabalpur** | **15.42** | **152** | *e*P | | **Pn** | **01 42 35.1** | **+2.8** |
| JBP | | | | *ex* | | **Sn** | **01 45 13.6** | **-9.1** |
| **RAMN** | **Ramite** | **15.86** | **125** | *e*P | | **Pn** | **01 42 35.6** | **-2.4** |
| | comp=N,14nm,0.4s | | | | | | | |
| **BVA0** | **Borovoye Array** | **15.99** | **356** | ⇑P | | **Pn** | **01 42 36.5** | **-2.8** |
| | comp=N,2.9nm,0.5s,baz=168,slow=12,SNR=47 | | | | | | | |
| **BVAR** | **Borovoye Array** | **15.99** | **356** | P | | **Pn** | **01 42 36.6** | **-2.7** |
| | comp=N,1.8nm,0.3s,baz=162,slow=11,SNR=19 | | | | | | | |
| BVAR | | | | S | | **Sn** | **01 45 39.7** | **+3.6** |
| | baz=174,slow=16,SNR=4.1 | | | | | | | |
| **BRVK** | **Borovoye** | **16.03** | **356** | *e*Pn | | **Pn** | **01 42 37.5** | **-2.2** |
| | comp=N,9.8nm,0.9s | | | | | | | |
| **ODAN** | **Odare** | **16.44** | **124** | *e*P | | **Pn** | **01 42 42.6** | **-2.6** |
| | comp=N,16nm,0.5s | | | | | | | |
| **AKTO** | **Aktyubinsk** | **16.77** | **327** | P | | **Pn** | **01 42 46.6** | **-2.2** |
| | comp=N,8.2nm,0.3s,baz=139,slow=8.8,SNR=78 | | | | | | | |
| AKTO | | | | S | | Sn | 01 45 39.3 | -16 |
| | comp=N,0.2nm,0.3s,baz=192,slow=19,SNR=6.0 | | | | | | | |
| **AKTO** | **Aktyubinsk** | **16.77** | **327** | ⇑P | | **Pn** | **01 42 46.4** | **-2.4** |
| | comp=N,23nm,0.5s | | | | | | | |
| **UOSS** | **Minazif** | **18.23** | **233** | *e*P | | **P** | **01 43 07.1** | **+1.4** |
| | comp=N,17nm,1.2s | | | | | | | |
| **ZAA0** | **Zalesovo Array** | **19.01** | **23** | *e*P | | **P** | **01 43 14.5** | **+0.6** |
| | comp=N,6.9nm,0.6s | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **19.01** | **23** | P | | **P** | **01 43 14.4** | **+0.5** |
| | comp=N,1.2nm,0.3s,baz=219,slow=10,SNR=16 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **19.01** | **23** | *e*P | | **P** | **01 43 14.1** | **+0.1** |
| **ZAA1** | **Zalesovo Array** | **19.01** | **23** | *e*P | | **P** | **01 43 14.4** | **+0.4** |
| **ARU** | **Arti** | **21.41** | **339** | P | | **P** | **01 43 39.3** | **-0.5** |
| | comp=N,6.8nm,0.7s,baz=124,slow=6.6,SNR=16 | | | | | | | |
| **ARU** | **Arti** | **21.41** | **339** | *e*P | | **P** | **01 43 39.7** | **0.0** |
| | comp=N,8.4nm,0.7s | | | | | | | |
| **GNI** | **Garni** | **21.61** | **287** | *e*P | | **P** | **01 43 41.8** | **-0.6** |
| | comp=N,17nm,1.3s | | | | | | | |
| **RAYN** | **Ar Rayn** | **26.58** | **247** | *e*P | | **P** | **01 44 30.2** | **+1.0** |
| | comp=N,4.2nm,1.1s | | | | | | | |
| **SONA0** | **Songino Array** | **27.24** | **56** | *e*P | | **P** | **01 44 37.0** | **+2.0** |
| **SONM** | **Songino Array** | **27.24** | **56** | P | | **P** | **01 44 37.0** | **+2.0** |
| | comp=N,1.9nm,0.9s,baz=260,slow=9.2,SNR=10.0 | | | | | | | |
| **SONA1** | **Songino Array** | **27.25** | **56** | *e*P | | **P** | **01 44 36.5** | **+1.5** |
| **ASF** | **Jabal al Asfar** | **29.32** | **271** | LR | | LR | 01 59 39.5 | |
| | comp=N,109nm,19.6s,baz=214,slow=42 | | | | | | | |
| **BR101** | **Keskin Array S** | **30.15** | **287** | *e*P | | **P** | **01 45 01.6** | **+0.7** |
| **BRTR** | **Keskin Array B** | **30.15** | **287** | P | | **P** | **01 45 01.6** | **+0.7** |
| | comp=N,0.9nm,0.8s,baz=92,slow=9.3,SNR=6.3 | | | | | | | |
| **AKASG** | **Malin Array Be** | **33.31** | **308** | P | | **P** | **01 45 28.5** | **+0.2** |
| | comp=N,1.0nm,0.6s,baz=78,slow=7.0,SNR=4.3 | | | | | | | |
| **AKBB** | **Malin Array Si** | **33.31** | **308** | *e*P | | **P** | **01 45 28.5** | **+0.2** |
| | comp=N,12nm,1.6s | | | | | | | |
| **MLR** | **Muntele Rosu** | **35.32** | **299** | ⇑*i*P | | **P** | **01 45 48.7** | **+2.9** |
| **MLR** | **Muntele Rosu** | **35.32** | **299** | *e*P | | **P** | **01 45 47.2** | **+1.4** |
| | comp=N,15nm,1.5s | | | | | | | |
| **BURAR** | **Bucovina Array** | **35.76** | **302** | ⇑*i*P | | **P** | **01 45 50.5** | **+1.0** |
| **BUR04** | **Bucovina Ar. S** | **35.76** | **302** | *e*P | | **P** | **01 45 48.7** | **-0.8** |
| **BUR08** | **Bucovina Ar. S** | **35.77** | **302** | *e*P | | **P** | **01 45 50.7** | **+1.1** |
| **VOIR** | | **35.95** | **299** | ⇑*i*P | | **P** | **01 45 52.8** | **+1.6** |
| **FIA1** | **FINESS Array S** | **37.53** | **325** | *e*P | | **P** | **01 46 04.4** | **+0.2** |
| **FIA0** | **FINESS Array S** | **37.53** | **325** | *e*P | | **P** | **01 46 04.6** | **+0.4** |
| **FINES** | **FINESS Array B** | **37.53** | **325** | P | | **P** | **01 46 04.6** | **+0.4** |
| | comp=N,1.9nm,0.4s,baz=121,slow=9.1,SNR=29 | | | | | | | |
| **ARA0** | **ARCESS Array S** | **40.97** | **337** | *e*P | | **P** | **01 46 33.4** | **+0.6** |
| **ARCES** | **ARCESS Array B** | **40.97** | **337** | P | | **P** | **01 46 33.4** | **+0.6** |
| | comp=N,1.5nm,0.4s,baz=111,slow=7.8,SNR=34 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **40.97** | **337** | *e*P | | **P** | **01 46 33.6** | **+0.8** |
| **NC303** | **NORSAR Array S** | **44.42** | **323** | *e*P | | **P** | **01 47 01.1** | **+0.3** |
| **NB201** | **NORSAR Array S** | **44.44** | **323** | *e*P | | **P** | **01 47 00.8** | **-0.2** |
| **NB2** | **NORSAR Subarra** | **44.48** | **323** | P | | **P** | **01 47 01.4** | **+0.1** |
| | comp=Z,2.0nm,0.9s,baz=94,slow=7.9 | | | | | | | |
| **NB200** | **NORSAR Array S** | **44.48** | **323** | *e*P | | **P** | **01 47 01.3** | **0.0** |
| **NOA** | **NORSAR Array B** | **44.48** | **323** | P | | **P** | **01 47 01.3** | **0.0** |
| | comp=Z,1.2nm,0.7s,baz=94,slow=7.6,SNR=4.8 | | | | | | | |
| **NBO02** | **NORSAR Array S** | **44.66** | **323** | *e*P | | **P** | **01 47 03.4** | **+0.8** |
| **NBO00** | **NORSAR Array S** | **44.69** | **323** | *e*P | | **P** | **01 47 02.9** | **-0.1** |
| **VLC** | **Villacollemand** | **46.45** | **299** | *e*P | | P | 01 47 14.3 | -2.7 |
| | comp=Z,14nm,1.1s | | | | | | | |
| **SENIN** | **Lac Senin/Sane** | **48.06** | **303** | *e*P | | **P** | **01 47 29.8** | **+0.1** |
| | comp=Z,28nm,1.9s | | | | | | | |
| **ESDC** | **Sonseca Array** | **58.01** | **298** | P | | **P** | **01 48 43.2** | **+0.5** |
| | comp=Z,0.5nm,0.5s,baz=58,slow=7.3,SNR=8.2 | | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **66.66** | **269** | *e*P | | **P** | **01 49 39.7** | **-0.9** |
| **TORD** | **Torodi Ar. Bea** | **66.66** | **269** | P | | **P** | **01 49 39.7** | **-0.9** |
| | comp=Z,0.7nm,0.9s,baz=49,slow=5.3,SNR=4.8 | | | | | | | |
| **INK** | **Inuvik** | **73.18** | **10** | P | | **P** | **01 50 20.6** | **+1.0** |
| | comp=Z,0.9nm,0.6s,baz=339,slow=5.9,SNR=5.9 | | | | | | | |
| **INK** | **Inuvik** | **73.18** | **10** | *e*P | | **P** | **01 50 20.6** | **+1.0** |
| | comp=Z,13nm,1.7s | | | | | | | |
| **ILAR** | **Eielson Array** | **73.96** | **16** | P | | **P** | **01 50 24.4** | **+0.1** |
| | comp=Z,0.7nm,0.9s,baz=332,slow=5.6,SNR=5.8 | | | | | | | |
| **ILB** | **Eielson Array** | **73.96** | **16** | *e*P | | **P** | **01 50 24.4** | **+0.1** |
| **YKA** | **Yellowknife Ar** | **80.62** | **3** | P | | **P** | **01 51 02.4** | **+0.9** |
| | comp=Z,0.3nm,0.5s,baz=350,slow=5.4,SNR=8.3 | | | | | | | |
| **YKB5** | **Yellowknife Ar** | **80.62** | **3** | *e*P | | **P** | **01 51 02.4** | **+0.9** |
| **WR1** | **Warramunga Arr** | **81.51** | **123** | *e*P | | **P** | **01 51 08.2** | **+1.3** |
| | comp=Z,29nm,1.8s | | | | | | | |
| **WRA** | **Warramunga Arr** | **81.51** | **123** | P | | **P** | **01 51 08.2** | **+1.3** |
| | comp=Z,0.3nm,0.4s,baz=320,slow=4.7,SNR=4.9 | | | | | | | |

**MEX 22 01:46:34.4±0.9, 14°13N×92°50W, h8km±171km, MD3.8, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PCIG** | | **1.71** | **336** | *e*P | Pn | 01 47 01.0 | -3.6 |
| PCIG | | | | *e*S | Sn | 01 47 22.0 | -4.7 |
| **CCIG** | **Comitan** | **2.17** | **9** | *e*P | Pn | 01 47 10.6 | -0.4 |
| CCIG | | | | *e*S | Sg | 01 47 43.9 | -0.4 |

*ISK **22** 02:40:35.8, 39°.09N×29°.09E, h6km, MD2.5*
*ISCJB **22** 02:40:36.2±0.5, 39°.12N±0°.03×29°.02E±0°.03, h3km±5km, Error ellipse: s-maj=4.8km s-min=3.6km az=146.9*
*CSEM **22** 02:40:36.4±0.1, 39°.12N×29°.02E, h5km, MD2.5, Error ellipse: s-maj=2.2km s-min=1.8km az=118.0*
*DDA **22** 02:40:36.2, 39°.13N×29°.02E, h7km, Ml2.8*

**ISC 22 02:40:36.3±0.9, 39°.12N±0°.02×29°.02E±0°.02, h9km±6km, n34, σ0s32/52, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SIMA** | **Simav-Kutahya** | **0.05** | **221** | *e*PG | **Pg** | **02 40 38.3** | **+0.1** |
| **SIMA** | **Simav-Kutahya** | **0.05** | **221** | *e*Pg | **Pg** | **02 40 38.3** | **+0.1** |
| **DEMI** | **Demirci** | **0.25** | **253** | *i* P | **Pg** | **02 40 41.6** | **+0.2** |
| DEMI | | | | *i* S | **Sg** | **02 40 44.9** | **+0.1** |
| **DEMI** | **Demirci** | **0.25** | **253** | P | **Pg** | **02 40 41.6** | **+0.2** |
| DEMI | | | | S | **Sg** | **02 40 44.9** | **+0.1** |
| **GDZ** | **Gediz** | **0.36** | **94** | *i* P | **Pg** | **02 40 43.7** | **+0.2** |
| GDZ | | | | *i* S | **Sg** | **02 40 48.6** | **+0.4** |
| **GDZ** | **Gediz** | **0.36** | **94** | P | **Pg** | **02 40 43.7** | **+0.2** |
| GDZ | | | | S | **Sg** | **02 40 48.7** | **+0.4** |
| **TVSB** | **Tavsanli** | **0.48** | **46** | *e*PG | **Pg** | **02 40 45.4** | **-0.2** |
| TVSB | | | | *e*SG | **Sg** | **02 40 51.9** | **0.0** |
| **TVSB** | **Tavsanli** | **0.48** | **46** | *e*Pg | **Pg** | **02 40 45.4** | **-0.2** |
| TVSB | | | | *e*Sg | **Sg** | **02 40 51.9** | **0.0** |
| **KULA** | **Kula-Manisa** | **0.67** | **205** | *e*PG | **Pg** | **02 40 49.1** | **-0.1** |
| KULA | | | | *e*SG | **Sg** | **02 40 58.1** | **+0.2** |
| **KULA** | **Kula-Manisa** | **0.67** | **205** | *e*Pg | **Pg** | **02 40 49.1** | **-0.1** |
| KULA | | | | *e*Sg | **Sg** | **02 40 58.1** | **+0.2** |
| **MANT** | **Manisa** | **0.72** | **210** | *i* P | **Pg** | **02 40 50.3** | **0.0** |
| MANT | | | | *i* S | **Sg** | **02 40 59.3** | **-0.5** |
| **MANT** | **Manisa** | **0.72** | **210** | P | **Pg** | **02 40 50.3** | **0.0** |
| MANT | | | | S | **Sg** | **02 40 59.3** | **-0.5** |
| **KHAL** | **Karahalli** | **0.83** | **154** | *i* P | **Pb** | **02 40 52.8** | **-0.2** |
| KHAL | | | | *i* S | **Sg** | **02 41 03.4** | **+0.2** |
| **KHAL** | **Karahalli** | **0.83** | **154** | P | **Pb** | **02 40 52.8** | **-0.2** |
| KHAL | | | | S | **Sg** | **02 41 03.4** | **+0.2** |
| **AKHS** | **Akhisar** | **0.97** | **256** | *i* P | **Pb** | **02 40 55.2** | **-0.2** |
| AKHS | | | | *i* S | **Sb** | **02 41 08.1** | **-0.2** |
| **BALB** | **Balikesir** | **1.03** | **301** | *e*PN | **Pn** | **02 40 57.2** | **+0.3** |
| **BALB** | **Balikesir** | **1.03** | **301** | *e*Pn | **Pn** | **02 40 57.2** | **+0.3** |
| **IGD** | **Bursa** | **1.15** | **7** | *i* P | **Pb** | **02 40 57.7** | **-0.8** |
| IGD | | | | *i* S | **Sn** | **02 41 14.2** | **-0.5** |
| **KZIL** | **AFYON_Kizioren** | **1.23** | **134** | *i* P | **Pg** | **02 41 00.6** | **+0.7** |
| KZIL | | | | *i* S | **Sn** | **02 41 17.0** | **+0.4** |
| **KZIL** | **AFYON_Kizioren** | **1.23** | **134** | P | **Pg** | **02 41 00.6** | **+0.7** |
| KZIL | | | | S | **Sn** | **02 41 17.0** | **+0.4** |
| **MDNY** | **Mudanya-Bursa** | **1.25** | **355** | *e*PN | **Pg** | **02 41 00.7** | **+0.3** |
| **MDNY** | **Mudanya-Bursa** | **1.25** | **355** | *e*Pn | **Pg** | **02 41 00.7** | **+0.3** |
| **CAVI** | **Cavuskoy** | **1.25** | **30** | *e*PN | **Pg** | **02 41 00.5** | **0.0** |
| **CAVI** | **Cavuskoy** | **1.25** | **30** | *e*Pn | **Pg** | **02 41 00.5** | **0.0** |
| **KCTX** | **Karacabey (Bur** | **1.26** | **336** | *e*PN | **Pg** | **02 41 00.9** | **+0.4** |
| **KCTX** | **Karacabey (Bur** | **1.26** | **336** | *e*Pn | **Pg** | **02 41 00.9** | **+0.4** |
| **SHUT** | **Suhut-Afyon** | **1.32** | **115** | *e*PN | **Pn** | **02 41 00.6** | **-0.5** |
| **SHUT** | **Suhut-Afyon** | **1.32** | **115** | *e*Pn | **Pn** | **02 41 00.6** | **-0.5** |
| **BORA** | **Eskisehir** | **1.34** | **55** | *i* P | **Pb** | **02 41 01.7** | **-0.1** |
| BORA | | | | *i* S | **Sg** | **02 41 19.5** | **-0.1** |
| **BORA** | **Eskisehir** | **1.34** | **55** | P | **Pb** | **02 41 01.7** | **-0.1** |
| BORA | | | | S | **Sg** | **02 41 19.5** | **-0.1** |
| **ARMT** | **Armutlu** | **1.45** | **355** | *e*PN | **Pb** | **02 41 03.7** | **+0.1** |
| **ARMT** | **Armutlu** | **1.45** | **355** | *e*Pn | **Pb** | **02 41 03.7** | **+0.1** |
| **YLV** | **Yalova** | **1.47** | **10** | *e*PN | **Pb** | **02 41 04.0** | **+0.1** |
| **YLV** | **Yalova** | **1.47** | **10** | *e*Pn | **Pb** | **02 41 04.1** | **+0.1** |

*NIED **22** 02:58:00, 37°.60N×142°.10E, h14km, Mw3.9 Best double couple: M0 7.02000×10^14 NP1:φs127.00000°, δ43.00000°, λ-99.00000°. NP2:φs320.00000°, δ48.00000°, λ-82.00000°.*
*IDC **22** 02:58:13.0±0.7, 37°.56N×142°.12E, h0km, mb3.8/14, mb1 4.0/17, mb1mx3.9/36, mbtmp3.8/17, ML3.8/3, MS2.8/5, Ms1 2.8/5, ms1mx2.6/42, Error ellipse: s-maj=19.8km s-min=14.8km az=110.0*
*ISCJB **22** 02:58:13.7±1.0, 37°.59N±0°.03×142°.17E±0°.05, h16km±6km, mb4.1/21, MS2.8/2, Error ellipse: s-maj=6.7km s-min=4.5km az=20.8*
*JMA **22** 02:58:15.8±0.1, 37°.60N×142°.06E, h30km±3km, M4.0*
*NEIC **22** 02:58:18.4±0.9, 37°.57N×142°.19E, h37km±8km, mb4.8/8, Error ellipse: s-maj=9.5km s-min=6.8km az=120.0*

**ISC 22 02:58:15.2±3.4, 37°.62N±0°.04×142°.05E±0°.07, h14km±20km, n68, σ1s35/70, mb4.2/21, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JFK** | **Kawauchi** | **0.97** | **255** | P | **Pb** | **02 58 33.3** | **-0.5** |
| JFK | | | | S | **Sb** | **02 58 45.5** | **-1.0** |
| **JIO** | **Ouri** | **1.00** | **327** | P | **Pb** | **02 58 34.2** | **-0.2** |
| JIO | | | | *e*S | **Sb** | **02 58 46.7** | **-0.7** |
| **JMM** | **Marumori** | **1.03** | **284** | P | **Pb** | **02 58 34.5** | **-0.3** |
| JMM | | | | *e*S | **Sb** | **02 58 47.6** | **-0.5** |
| **ONAJ** | **Iwakimizuishiy** | **1.12** | **243** | P | **Pb** | **02 58 35.4** | **-1.0** |
| ONAJ | | | | *e*S | **Sb** | **02 58 48.9** | **-2.0** |
| **JFT** | **Otama** | **1.36** | **266** | P | **Pn** | **02 58 40.2** | **+0.3** |
| JFT | | | | S | **Sn** | **02 58 57.3** | **-0.5** |
| **JMK** | **Ichinoseki** | **1.48** | **334** | P | **Pn** | **02 58 41.4** | **-0.1** |
| JMK | | | | *e*S | **Sn** | **02 58 59.5** | **-1.2** |
| **JYK** | **Kaneyama** | **1.86** | **315** | P | **Pn** | **02 58 47.1** | **+0.4** |
| **JFY** | **Yanaizu** | **1.88** | **264** | P | **Pn** | **02 58 47.5** | **+0.6** |
| JFY | | | | *e*S | **Sn** | **02 59 11.0** | **+0.6** |
| **JOM** | **Ohasama** | **1.95** | **342** | P | **Pn** | **02 58 47.8** | **-0.1** |
| JOM | | | | *e*S | **Sn** | **02 59 11.2** | **-0.9** |
| **JRG** | **Rokugo** | **2.10** | **328** | P | **Pn** | **02 58 50.7** | **+0.8** |
| JRG | | | | *e*S | **Sn** | **02 59 16.6** | **+0.8** |
| **JNS** | **Sasagawa** | **2.18** | **276** | P | **Pn** | **02 58 52.2** | **+1.2** |
| **MJAR** | **Matsushiro Arr** | **3.25** | **252** | Pn | **Pn** | **02 59 07.2** | **+1.3** |
| | 6.4nm,0.3s,baz=113,slow=7.2,SNR=32 | | | | | | |
| MJAR | | | | Sn | **Sn** | **02 59 45.4** | **+1.0** |
| | 4.3nm,0.3s,baz=79,slow=9.1,SNR=4.9 | | | | | | |
| **MAJO** | **Matsushiro** | **3.25** | **252** | *e*Pn | **Pn** | **02 59 08.0** | **+2.1** |
| **MAT** | **Matsushiro** | **3.25** | **252** | P | **Pn** | **02 59 07.2** | **+1.3** |
| MAT | | | | *e*S | **Sn** | **02 59 47.4** | **+3.0** |
| **MJB9** | **Matsu-Tunnel** | **3.26** | **252** | *e*Pn | **Pn** | **02 59 08.5** | **+2.6** |
| **ERM** | **Erimo** | **4.47** | **11** | *e*Pn | **Pn** | **02 59 22.2** | **-0.4** |
| ERM | | | | *e*Sn | **Sn** | **03 00 12.2** | **-2.3** |
| **INU** | **Inuyama** | **4.64** | **242** | *e*Pn | **Pn** | **02 59 28.0** | **+3.0** |
| **JHJ2** | **Mitsune** | **4.85** | **203** | *e*Pn | **Pn** | **02 59 27.1** | **-0.7** |
| JHJ2 | | | | *e*Sn | **Sn** | **03 00 17.4** | **-6.4** |
| **JHJ** | **Hachijo jima 2** | **4.85** | **203** | Pn | **Pn** | **02 59 27.2** | **-0.6** |
| | 25nm,0.3s,baz=313,slow=14,SNR=13 | | | | | | |
| JHJ | | | | Sn | **Sn** | **03 00 21.4** | **-2.4** |
| | 40nm,0.3s,baz=43,slow=23,SNR=5.6 | | | | | | |
| **ASAJ** | **Asahikawa** | **6.51** | **3** | Pn | **Pn** | **02 59 51.1** | **+0.6** |
| | 1.3nm,0.3s,baz=163,slow=17,SNR=2.6 | | | | | | |
| ASAJ | | | | Sn | **Sn** | **03 01 03.0** | **-1.5** |
| | baz=319,slow=19,SNR=2.6 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **10.06** | **314** | LR | LR | 03 04 43.9 | |
| | comp=Z,100nm,18.4s,baz=121,slow=39 | | | | | | |
| **KSRS** | **Korea Array** | **11.22** | **273** | LR | LR | 03 05 14.4 | |
| | comp=Z,28nm,20.6s,baz=95,slow=37 | | | | | | |
| **KS01** | **Wonju Array Si** | **11.24** | **274** | *e*Pn | Pn | 03 01 00.8 | +5.3 |
| KS01 | | | | *e*Sn | Sn | 03 02 43.6 | -17 |
| **KS15** | **Wonju Array Si** | **11.25** | **273** | *e*Pn | Pn | 03 01 00.5 | +4.9 |
| KS15 | | | | *e*Sn | Sn | 03 02 44.4 | -17 |
| **PETK** | **Petropavlovsk-** | **18.93** | **30** | LR | LR | 03 08 48.5 | |
| | comp=Z,14nm,20.6s,baz=149,slow=34 | | | | | | |
| **SEY** | **Seymchan** | **26.12** | **11** | P | **P** | **03 03 50.3** | **+1.8** |
| | 0.8nm,0.4s,baz=200,slow=4.5,SNR=2.4 | | | | | | |
| **SONA1** | **Songino Array** | **27.88** | **303** | *e*P | **P** | **03 04 03.5** | **-1.2** |
| **SONA0** | **Songino Array** | **27.89** | **303** | *e*P | **P** | **03 04 05.4** | **+0.7** |
| **SONM** | **Songino Array** | **27.89** | **303** | P | **P** | **03 04 05.4** | **+0.7** |
| | 1.9nm,0.8s,baz=102,slow=8.6,SNR=11 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.02** | **123** | T | T | 03 33 35.2 | |
| | baz=315,slow=75,SNR=125 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.03** | **123** | T | T | 03 33 36.7 | |
| | baz=315,slow=75,SNR=110 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.04** | **123** | T | T | 03 33 37.4 | |
| | baz=315,slow=75,SNR=94 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.76** | **125** | T | T | 03 34 29.7 | |
| | baz=317,slow=76,SNR=103 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.76** | **125** | T | T | 03 34 29.8 | |
| | baz=317,slow=76,SNR=118 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.78** | **125** | T | T | 03 34 31.0 | |
| | baz=317,slow=76,SNR=86 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **41.90** | **312** | *e*P | **P** | **03 06 05.5** | **+0.5** |
| **ZALV** | **Zalesovo Beam** | **41.90** | **312** | P | **P** | **03 06 05.5** | **+0.5** |
| | 1.0nm,0.6s,baz=94,slow=6.9,SNR=4.6 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **42.13** | **255** | LR | LR | 03 26 29.6 | |
| | comp=Z,7.5nm,19.8s,baz=340,slow=40 | | | | | | |
| **MK01** | **Makanchi Array** | **44.24** | **302** | *e*P | **P** | **03 06 24.4** | **+0.4** |
| **MK31** | **Makanchi Array** | **44.24** | **302** | *e*P | **P** | **03 06 24.7** | **+0.7** |
| **MK32** | **Makanchi Array** | **44.24** | **302** | *e*P | **P** | **03 06 24.6** | **+0.5** |
| **MKAR** | **Makanchi Array** | **44.24** | **302** | P | **P** | **03 06 24.5** | **+0.5** |
| | 1.3nm,0.8s,baz=84,slow=9.8,SNR=12 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.24** | **302** | *e*P | **P** | **03 06 24.7** | **+0.7** |
| | 8.0nm,0.8s | | | | | | |
| **KURK** | **Kurchatov** | **45.97** | **308** | *e*P | **P** | **03 06 38.1** | **+0.4** |
| | 3.8nm,0.8s | | | | | | |
| **PPLA** | **Purkeypile** | **46.40** | **35** | *e*P | **P** | **03 06 43.4** | **+2.3** |
| | 48nm,2.0s | | | | | | |
| **BRLK** | **Bradley Lake** | **47.09** | **40** | *e*P | **P** | **03 06 45.1** | **-1.3** |
| | 92nm,1.8s | | | | | | |
| **ILAR** | **Eielson Array** | **48.73** | **33** | P | **P** | **03 06 58.9** | **-0.1** |
| | 0.3nm,0.8s,baz=257,slow=6.3,SNR=5.1 | | | | | | |
| **ILB** | **Eielson Array** | **48.73** | **33** | *e*P | **P** | **03 06 58.9** | **-0.1** |
| **WB2** | **Warramunga Arr** | **57.71** | **189** | *e*P | **P** | **03 08 04.3** | **-1.1** |
| | 20nm,1.6s | | | | | | |
| **WR1** | **Warramunga Arr** | **57.71** | **189** | *e*P | **P** | **03 08 04.9** | **-0.6** |
| | 36nm,2.0s | | | | | | |
| **WRA** | **Warramunga Arr** | **57.71** | **189** | P | **P** | **03 08 04.9** | **-0.6** |
| | 2.5nm,0.7s,baz=5.7,slow=7.2,SNR=32 | | | | | | |
| **SPITS** | **Spitsbergen Ar** | **60.05** | **349** | LR | LR | 03 37 03.6 | |
| | comp=Z,13nm,18.1s,baz=180,slow=39 | | | | | | |
| **AS31** | **Alice Springs** | **61.44** | **189** | *e*P | **P** | **03 08 31.0** | **-0.2** |
| | 3.3nm,1.6s | | | | | | |
| **ASAR** | **Alice Springs** | **61.44** | **189** | P | **P** | **03 08 31.0** | **-0.2** |
| | 1.4nm,0.7s,baz=11,slow=5.8,SNR=17 | | | | | | |
| **YKA** | **Yellowknife Ar** | **63.05** | **30** | P | **P** | **03 08 41.7** | **+0.2** |
| | 0.2nm,0.6s,baz=302,slow=6.2,SNR=3.5 | | | | | | |
| **YKB5** | **Yellowknife Ar** | **63.05** | **30** | *e*P | **P** | **03 08 41.7** | **+0.2** |
| **FIA0** | **FINESS Array S** | **68.53** | **332** | *e*P | **P** | **03 09 17.1** | **+0.2** |
| **FINES** | **FINESS Array B** | **68.53** | **332** | P | **P** | **03 09 17.1** | **+0.2** |
| | 1.0nm,0.4s,baz=38,slow=7.0,SNR=8.9 | | | | | | |
| **NB2** | **NORSAR Subarra** | **73.84** | **337** | P | **P** | **03 09 49.5** | **+0.3** |
| | comp=Z,0.9nm,0.6s,baz=39,slow=6.5 | | | | | | |
| **NB200** | **NORSAR Array S** | **73.84** | **337** | *e*P | **P** | **03 09 49.2** | **0.0** |
| **NOA** | **NORSAR Array B** | **73.84** | **337** | P | **P** | **03 09 49.2** | **0.0** |
| | comp=Z,0.9nm,0.7s,baz=39,slow=6.2,SNR=3.1 | | | | | | |
| **AKASG** | **Malin Array Be** | **74.15** | **322** | P | **P** | **03 09 50.8** | **-0.2** |
| | comp=Z,0.6nm,0.4s,baz=47,slow=6.0,SNR=5.0 | | | | | | |
| **AKBB** | **Malin Array Si** | **74.15** | **322** | *e*P | **P** | **03 09 50.8** | **-0.2** |
| | comp=Z,11nm,1.5s | | | | | | |
| **PD31** | **Pinedale Array** | **76.90** | **46** | *e*P | **P** | **03 10 07.0** | **-0.3** |
| **PDAR** | **Pinedale Array** | **76.90** | **46** | P | **P** | **03 10 07.0** | **-0.3** |
| | comp=Z,0.2nm,0.6s,baz=305,slow=3.2,SNR=2.6 | | | | | | |
| **GERES** | **GERESS Array B** | **82.48** | **328** | P | **P** | **03 10 37.4** | **+0.1** |
| | comp=Z,0.2nm,0.3s,baz=30,slow=6.8,SNR=3.1 | | | | | | |
| **LTX** | **Lajitas** | **89.36** | **53** | *e*P | **P** | **03 11 11.9** | **+0.2** |
| **TXAR** | **Lajitas Array** | **89.36** | **53** | P | **P** | **03 11 11.9** | **+0.2** |
| | comp=Z,0.2nm,0.4s,baz=300,slow=2.7,SNR=5.4 | | | | | | |

*CSEM **22** 03:17:06.0, 38°.71N×29°.33W, h10km, ML2.1*
**PDA 22 03:17:06.0±1.5, 38°.71N×29°.33W, h10km, ML2.1, Error ellipse: s-maj=12.8km s-min=12.3km az=91.0, Azores Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PCED** | **Cedros** | **0.49** | **99** | *e*P | Pg | 03 17 14.5 | -1.1 |
| PCED | | | | *e*S | Sg | 03 17 20.6 | -1.6 |
| PCED | | | | A | A | 03 17 21.3 | |
| | 36nm,0.1s | | | | | | |
| **PCED** | **Cedros** | **0.49** | **99** | *e*P | Pg | 03 17 14.5 | -1.1 |
| PCED | | | | *e*S | Sg | 03 17 20.6 | -1.6 |
| **CALA** | **

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | baz=5.0 | | | | | | | |
| ENA | | | | *eS* | **Sn** | **03 28 34.0** | **+1.0** |
| | baz=5.0 | | | | | | | |
| **ESF** | **Shoufeng Towns** | **0.33** | **222** | *eP* | **Pn** | **03 28 26.6** | **+0.1** |
| | baz=219 | | | | | | | |
| **ESL** | **Shilin** | **0.41** | **224** | *eP* | **Pn** | **03 28 26.4** | **-1.0** |
| | baz=218 | | | | | | | |
| ESL | | | | *eS* | **Sn** | **03 28 33.5** | **-1.3** |
| | baz=218 | | | | | | | |
| **WHF** | **Hehuan Shan** | **0.44** | **274**⇑ | *iP* | **Pn** | **03 28 27.8** | **-0.3** |
| | baz=273 | | | | | | | |
| WHF | | | | *eS* | **Sn** | **03 28 35.5** | **-0.5** |
| | baz=273 | | | | | | | |
| **TEGC** | **Jichi Village** | **0.45** | **205** | *eP* | **Pn** | **03 28 28.3** | **+0.5** |
| | baz=195 | | | | | | | |
| **NNS** | **Nan Shan** | **0.47** | **314** | P | **Pn** | **03 28 27.9** | **-0.3** |
| | baz=319 | | | | | | | |
| NNS | | | | S | **Sn** | **03 28 35.7** | **-0.4** |
| | baz=319 | | | | | | | |
| **TWC** | **Suao** | **0.50** | **11** | P | **Pn** | **03 28 28.9** | **+0.5** |
| | baz=14 | | | | | | | |
| TWC | | | | *eS* | **Sn** | **03 28 37.6** | **+1.1** |
| | baz=14 | | | | | | | |
| **TWT** | **Tachien** | **0.54** | **285** | P | **Pn** | **03 28 29.1** | **0.0** |
| | baz=282 | | | | | | | |
| TWT | | | | *eS* | **Sn** | **03 28 37.6** | **0.0** |
| | baz=282 | | | | | | | |
| **ENTT** | **Nioudou** | **0.55** | **342** | P | **Pn** | **03 28 29.0** | **0.0** |
| | baz=352 | | | | | | | |
| ENTT | | | | *eS* | **Sn** | **03 28 37.4** | **-0.1** |
| | baz=352 | | | | | | | |
| **TWE** | **Neicheng** | **0.61** | **353** | *eP* | **Pn** | **03 28 29.7** | **-0.1** |
| | baz=356 | | | | | | | |
| TWE | | | | S | **Sn** | **03 28 38.8** | **0.0** |
| | baz=356 | | | | | | | |
| **NSK** | **Sanguang** | **0.66** | **328** | *eP* | **Pn** | **03 28 30.2** | **-0.3** |
| | baz=339 | | | | | | | |
| NSK | | | | *eS* | **Sn** | **03 28 39.5** | **-0.7** |
| | baz=339 | | | | | | | |
| **EHY** | **Hungye** | **0.72** | **213** | *eP* | **Pn** | **03 28 30.9** | **-0.3** |
| | baz=207 | | | | | | | |
| **SMLT** | **Sun Moon Lake** | **0.81** | **254** | P | **Pn** | **03 28 32.1** | **-0.3** |
| | baz=247 | | | | | | | |
| SMLT | | | | *eS* | **Sn** | **03 28 43.9** | **+0.4** |
| | baz=247 | | | | | | | |
| **TYC** | **Yuchr** | **0.84** | **256** | *eP* | **Pn** | **03 28 32.4** | **-0.3** |
| | baz=250 | | | | | | | |
| TYC | | | | *eS* | **Sn** | **03 28 44.7** | **+0.6** |
| | baz=250 | | | | | | | |
| **NSTT** | **Nanjuang** | **0.85** | **307** | *eP* | **Pn** | **03 28 32.5** | **-0.4** |
| | baz=309 | | | | | | | |
| NSTT | | | | *eS* | **Sn** | **03 28 44.4** | **-0.1** |
| | baz=309 | | | | | | | |
| **TWF1** | **Yuli** | **0.86** | **209** | *eP* | **Pn** | **03 28 31.3** | **-1.7** |
| | baz=210 | | | | | | | |
| **TWA** | **Mucha** | **0.88** | **350** | *eP* | **Pn** | **03 28 33.1** | **-0.1** |
| | baz=344 | | | | | | | |
| TWA | | | | *eS* | **Sn** | **03 28 44.3** | **-0.7** |
| | baz=344 | | | | | | | |
| **TWB1** | **Santiao Chiao** | **0.92** | **14** | *eP* | **Pn** | **03 28 34.0** | **+0.3** |
| | baz=30 | | | | | | | |
| TWB1 | | | | *eS* | **Sn** | **03 28 46.2** | **+0.2** |
| | baz=30 | | | | | | | |
| **TWQ1** | **Liyutan** | **0.92** | **285**⇑ | *eP* | **Pn** | **03 28 33.6** | **-0.2** |
| | baz=285 | | | | | | | |
| TWQ1 | | | | S | **Sn** | **03 28 45.7** | **-0.4** |
| | baz=285 | | | | | | | |
| **NSY** | **Sanyi** | **0.95** | **289** | *eP* | **Pn** | **03 28 33.9** | **-0.3** |
| | baz=289 | | | | | | | |
| NSY | | | | *eS* | **Sn** | **03 28 46.8** | **0.0** |
| | baz=289 | | | | | | | |
| **NWF** | **Wu-fen Shan** | **0.95** | **2** | *eP* | **Pn** | **03 28 34.1** | **-0.2** |
| | baz=352 | | | | | | | |
| NWF | | | | *eS* | **Sn** | **03 28 46.4** | **-0.5** |
| | baz=352 | | | | | | | |
| **YUS** | **Yu-Shan** | **0.96** | **230** | *eP* | **Pn** | **03 28 34.5** | **-0.3** |
| | baz=219 | | | | | | | |
| YUS | | | | *eS* | **Sn** | **03 28 46.4** | **-1.2** |
| | baz=219 | | | | | | | |
| **TCU** | **Taichung** | **0.98** | **272** | *eP* | **Pn** | **03 28 34.5** | **-0.1** |
| | baz=271 | | | | | | | |
| TCU | | | | S | **Sn** | **03 28 47.3** | **-0.1** |
| | baz=271 | | | | | | | |
| **HSN** | **Hsinchu** | **0.99** | **314** | *eP* | **Pn** | **03 28 34.3** | **-0.4** |
| | baz=330 | | | | | | | |
| HSN | | | | *eS* | **Sn** | **03 28 47.4** | **-0.2** |
| | baz=330 | | | | | | | |
| **NCU** | **National Centr** | **0.99** | **329** | *eP* | **Pn** | **03 28 34.3** | **-0.5** |
| | baz=332 | | | | | | | |
| NCU | | | | *eS* | **Sn** | **03 28 47.8** | **0.0** |
| | baz=332 | | | | | | | |
| **WNT** | **Mingjian** | **1.00** | **257** | *eP* | **Pn** | **03 28 35.4** | **+0.5** |
| | baz=255 | | | | | | | |
| WNT | | | | *eS* | **Sn** | **03 28 48.7** | **+0.8** |
| | baz=255 | | | | | | | |
| **TWS1** | **Kuangyinshan** | **1.03** | **343** | *eP* | **Pn** | **03 28 34.9** | **-0.4** |
| | baz=356 | | | | | | | |
| TWS1 | | | | *eS* | **Sn** | **03 28 48.5** | **0.0** |
| | baz=356 | | | | | | | |
| **ALS** | **Alishan** | **1.05** | **235** | *eP* | **Pn** | **03 28 35.9** | **0.0** |
| | baz=225 | | | | | | | |
| ALS | | | | *eS* | **Sn** | **03 28 50.1** | **+0.4** |
| | baz=225 | | | | | | | |
| **CHN5** | **Tsauling** | **1.11** | **242** | *eP* | **Pn** | **03 28 36.5** | **+0.1** |
| | baz=231 | | | | | | | |
| CHN5 | | | | *eS* | **Sn** | **03 28 51.8** | **+1.1** |
| | baz=231 | | | | | | | |
| **ELDTW** | **Lidau** | **1.14** | **216** | *eP* | **Pn** | **03 28 35.6** | **-1.3** |
| | baz=206 | | | | | | | |
| ELDTW | | | | S | **Sn** | **03 28 49.8** | **-1.6** |
| | baz=206 | | | | | | | |
| **WGK** | **Gukeng** | **1.17** | **249** | *eP* | **Pn** | **03 28 37.4** | **+0.3** |
| | baz=247 | | | | | | | |
| WGK | | | | *eS* | **Sn** | **03 28 52.6** | **+0.6** |
| | baz=247 | | | | | | | |
| **CHN2** | **Minshiung** | **1.30** | **244** | *eP* | **Pn** | **03 28 40.0** | **+1.1** |
| | baz=233 | | | | | | | |
| CHN2 | | | | *eS* | **Sn** | **03 28 57.0** | **+1.8** |
| | baz=233 | | | | | | | |
| **CHN4** | **Tsaushan** | **1.30** | **235** | P | **Pn** | **03 28 39.4** | **+0.5** |
| | baz=232 | | | | | | | |
| CHN4 | | | | S | **Sn** | **03 28 56.4** | **+1.1** |
| | baz=232 | | | | | | | |
| **WTP** | **Ta-pu** | **1.35** | **230** | *eP* | **Pn** | **03 28 39.9** | **+0.2** |
| | baz=228 | | | | | | | |
| WTP | | | | *eS* | **Sn** | **03 28 57.5** | **+1.0** |
| | baz=228 | | | | | | | |
| **CHY** | **Chiayi** | **1.36** | **243** | *eP* | **Pn** | **03 28 40.6** | **+0.9** |
| | baz=231 | | | | | | | |
| CHY | | | | *eS* | **Sn** | **03 28 57.8** | **+1.2** |
| | baz=231 | | | | | | | |
| **TWG** | **Pinlang** | **1.43** | **206** | *eP* | **Pn** | **03 28 39.4** | **-1.3** |
| | baz=194 | | | | | | | |
| TWG | | | | *eS* | **Sn** | **03 28 55.4** | **-3.0** |
| | baz=194 | | | | | | | |
| **TWK** | **Hsinying** | **1.43** | **234** | *eP* | **Pn** | **03 28 41.0** | **+0.3** |
| | baz=232 | | | | | | | |
| TWK | | | | *eS* | **Sn** | **03 28 59.1** | **+0.7** |
| | baz=232 | | | | | | | |
| **CHN1** | **Nanshi** | **1.45** | **231** | *eP* | **Pn** | **03 28 41.4** | **+0.4** |
| | baz=229 | | | | | | | |
| CHN1 | | | | *eS* | **Sn** | **03 28 59.5** | **+0.6** |
| | baz=229 | | | | | | | |
| **WSF** | **Szhu** | **1.48** | **252** | *eP* | **Pn** | **03 28 41.8** | **+0.5** |
| | baz=261 | | | | | | | |
| WSF | | | | *eS* | **Sn** | **03 28 60.0** | **+0.5** |
| | baz=261 | | | | | | | |
| **SGST** | **Jiashian** | **1.48** | **226** | *eP* | **Pn** | **03 28 41.7** | **+0.3** |
| | baz=224 | | | | | | | |
| SGST | | | | *eS* | **Sn** | **03 29 00.6** | **+1.0** |
| | baz=224 | | | | | | | |
| **CHN8** | **Yiju** | **1.60** | **242** | *eP* | **Pn** | **03 28 43.2** | **+0.2** |
| | baz=240 | | | | | | | |
| CHN8 | | | | *eS* | **Sn** | **03 29 02.2** | **-0.4** |
| | baz=240 | | | | | | | |
| **SSD** | **Sandimen** | **1.70** | **217** | *eP* | **Pn** | **03 28 45.8** | **+1.3** |
| | baz=226 | | | | | | | |
| SSD | | | | S | **Sn** | **03 29 05.9** | **+0.8** |
| | baz=226 | | | | | | | |
| **IRIF** | **Iriomote-Funau** | **1.82** | **83** | P | **Pn** | **03 28 45.8** | **-0.2** |
| IRIF | | | | *eS* | **Sn** | **03 29 07.9** | **-0.1** |
| **EAST** | **Anshuo** | **1.91** | **206** | *eP* | **Pn** | **03 28 49.2** | **+1.9** |
| | baz=196 | | | | | | | |
| **SCZT** | **Fangliau** | **2.02** | **211** | *eP* | **Pn** | **03 28 50.0** | **+1.2** |
| | baz=222 | | | | | | | |
| SCZT | | | | *eS* | **Sn** | **03 29 12.6** | **-0.2** |
| | baz=222 | | | | | | | |
| **JKRS** | **Kuro-shima** | **2.07** | **86** | P | **Pn** | **03 28 49.9** | **+0.5** |
| JKRS | | | | *eS* | **Sn** | **03 29 14.7** | **+0.7** |
| **WDGT** | **Dungji** | **2.09** | **246** | *eP* | **Pn** | **03 28 48.5** | **-1.3** |
| | baz=245 | | | | | | | |
| WDGT | | | | *eS* | **Sn** | **03 29 12.9** | **-1.7** |
| | baz=245 | | | | | | | |
| **JIJ** | **Ishigaki jima** | **2.20** | **83** | P | **Pn** | **03 28 51.1** | **-0.1** |
| JIJ | | | | S | **Sn** | **03 29 16.5** | **-0.8** |
| **JISG** | **Ishigakijimahi** | **2.38** | **78** | P | **Pn** | **03 28 53.1** | **-0.6** |
| JISG | | | | *eS* | **Sn** | **03 29 20.8** | **-1.0** |
| **JTJ** | **Tarama** | **2.74** | **78** | P | **Pn** | **03 28 58.8** | **+0.1** |
| JTJ | | | | S | **Sn** | **03 29 31.6** | **+1.0** |

**IDC 22 04:02:34.8±1.7, 27°.23S×177°.07W, h0km, mb3.6/3, mb1 4.0/4, mb1mx3.8/19, mbtmp3.7/4, ML4.5/1, MS3.1/1, Ms1 3.1/1, ms1mx2.5/16, Error ellipse: s-maj=48.8km s-min=33.6km az=145.0, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **2.15** | **200** | Pn | Pn | 04 03 11.7 | -0.2 |
| | 143nm,0.3s,baz=198,slow=20,SNR=3.8 | | | | | | |
| **ASAR** | **Alice Springs** | **44.19** | **263** | P | P | 04 10 45.4 | -0.4 |
| | 0.4nm,0.5s,baz=98,slow=7.0,SNR=7.0 | | | | | | |
| ASAR | | | | LR | LR | 04 28 46.2 | |
| | comp=Z,23nm,18.5s,baz=92,slow=36 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.90** | **268** | P | P | 04 10 51.8 | +0.3 |
| | 0.7nm,0.8s,baz=108,slow=7.9,SNR=5.5 | | | | | | |
| **TXAR** | **Lajitas Array** | **89.99** | **57** | P | P | 04 15 36.8 | +0.2 |
| | 0.4nm,0.9s,baz=210,slow=5.2,SNR=4.4 | | | | | | |
| **FINES** | **FINESS Array B** | **142.43** | **342** | PKP | PKPdf | 04 22 06.5 | -2.4 |
| | 1.2nm,0.9s,baz=126,slow=2.4,SNR=5.0 | | | | | | |

**MAN 22 04:35:31, 13°.58N×120°.69E, h114km, mb4.5, ML3.3, MS3.2, 1C-1D, Mindoro**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PGP** | **Puerto Galera** | **0.27** | **106**⇓ | *eP* | Pn | 04 35 48.5 | +1.4 |
| PGP | | | | *i* | Sn | 04 36 01.5 | +2.3 |
| **LUBP** | **Lubang** | **0.46** | **290** | *eP* | Pn | 04 35 49.8 | +1.8 |
| LUBP | | | | *eS* | Sn | 04 36 03.5 | +2.7 |
| **BOAC** | **Boac** | **1.13** | **96** | *eP* | Pn | 04 35 54.7 | +0.9 |
| **SJMP** | **San Jose** | **1.19** | **159** | *eP* | Pn | 04 35 55.5 | +0.9 |
| SJMP | | | | *eS* | Sn | 04 36 13.6 | +1.3 |
| **BUSP** | **Coron** | **1.64** | **197** | *eP* | Pn | 04 36 00.7 | +1.0 |
| BUSP | | | | *eS* | Sn | 04 36 22.9 | +1.3 |
| **GQP** | **Guinayangan** | **1.74** | **79**⇑ | *eP* | Pn | 04 36 02.0 | +1.1 |
| GQP | | | | *eS* | Sn | 04 36 28.4 | +4.7 |
| **OTRP** | **Odiongan** | **1.77** | **133** | *eP* | Pn | 04 36 01.6 | +0.3 |
| **BALP** | **Baler** | **2.31** | **22** | *eP* | Pn | 04 36 09.2 | +1.0 |
| **ENPP** | **El Nido** | **2.66** | **208** | *eP* | Pn | 04 36 13.4 | +0.7 |

*ISCJB **22** 04:49:29.8±0.6, 36°.94N±0°.02×21°.51E±0°.03, h5km±3km, Error ellipse: s-maj=4.7km s-min=3.2km az=145.8*
*ATH **22** 04:49:30.0, 36°.97N×21°.55E, h18km, ML3.2/17, Error ellipse: s-maj=1.1km s-min=0.6km az=64.0*
*CSEM **22** 04:49:30.2±0.2, 36°.96N×21°.53E, h5km, ML3.5, Error ellipse: s-maj=4.3km s-min=2.6km az=51.0*
*THE **22** 04:49:30.9, 37°.00N×21°.58E, h0km, ML3.1/20, Error ellipse: s-maj=1.0km s-min=0.4km az=231.0*
**ISC 22 04:49:31.0±0.9, 36°.98N±0°.02×21°.56E±0°.03, h12km±6km, n138, s0°84/202, Southern Greece**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PYL** | **PYLOS** | **0.16** | **119** | P | **Pg** | **04 49 34.7** | **-0.1** |
| PYL | | | | S | **Sg** | **04 49 37.0** | **-0.4** |
| PYL | | | | AML | AML | 04 49 37.6 | |
| | comp=N,66108μm,0.2s | | | | | | |
| PYL | | | | AML | AML | 04 49 37.7 | |
| | comp=E,56425μm,0.2s | | | | | | |
| **PYL** | **PYLOS** | **0.16** | **119** | P | **Pg** | **04 49 34.6** | **-0.1** |
| PYL | | | | S | **Sg** | **04 49 37.0** | **-0.4** |
| **PYL** | **PYLOS** | **0.16** | **119** | P | **Pg** | **04 49 34.6** | **-0.1** |
| PYL | | | | S | **Sg** | **04 49 37.2** | **-0.2** |
| **MES2** | **Methoni** | **0.19** | **142** | P | **Pg** | **04 49 35.5** | **+0.3** |
| MES2 | | | | S | **Sg** | **04 49 37.9** | **-0.1** |
| MES2 | | | | AML | AML | 04 49 38.5 | |
| | comp=E,18788μm,0.2s | | | | | | |
| MES2 | | | | AML | AML | 04 49 38.6 | |
| | comp=N,57206μm,0.3s | | | | | | |
| **MES2** | **Methoni** | **0.19** | **142** | P | **Pg** | **04 49 35.5** | **+0.3** |
| MES2 | | | | S | **Sg** | **04 49 37.9** | **-0.1** |
| **MES3** | **Kyparissia** | **0.29** | **18** | P | **Pg** | **04 49 36.9** | **0.0** |
| MES3 | | | | S | **Sg** | **04 49 41.5** | **+0.6** |
| **MES3** | **Kyparissia** | **0.29** | **18** | P | **Pg** | **04 49 36.9** | **0.0** |
| MES3 | | | | S | **Sg** | **04 49 41.5** | **+0.6** |
| **ITM** | **Ithomi** | **0.36** | **55** | P | **Pg** | **04 49 37.6** | **-0.6** |
| ITM | | | | S | **Sg** | **04 49 42.8** | **-0.1** |
| ITM | | | | AML | AML | 04 49 43.4 | |
| | comp=N,9721μm,0.3s | | | | | | |
| ITM | | | | AML | AML | 04 49 45.7 | |
| | comp=E,7499μm,0.3s | | | | | | |
| **ITM** | **Ithomi** | **0.36** | **55** | P | **Pg** | **04 49 37.6** | **-0.6** |
| ITM | | | | S | **Sg** | **04 49 43.0** | **0.0** |
| **ITM** | **Ithomi** | **0.36** | **55** | P | **Pg** | **04 49 37.6** | **-0.6** |
| ITM | | | | S | **Sg** | **04 49 42.3** | **-0.7** |
| **AMT** | **Artemida-Makis** | **0.57** | **12** | P | **Pg** | **04 49 42.1** | **-0.1** |
| AMT | | | | S | **Sg** | **04 49 49.9** | **+0.2** |
| AMT | | | | AML | AML | 04 49 52.6 | |
| | comp=N,14110μm,0.6s | | | | | | |
| AMT | | | | AML | AML | 04 49 55.2 | |
| | comp=E,9847μm,0.5s | | | | | | |
| **AMT** | **Artemida-Makis** | **0.57** | **12** | P | **Pg** | **04 49 41.7** | **-0.4** |
| AMT | | | | S | **Sg** | **04 49 49.5** | **-0.2** |
| **AMT** | **Artemida-Makis** | **0.57** | **12** | P | **Pg** | **04 49 41.8** | **-0.4** |
| AMT | | | | S | **Sg** | **04 49 49.5** | **-0.2** |
| **DYR** | **Agios Nikonas** | **0.65** | **109** | P | **Pg** | **04 49 43.0** | **-0.8** |
| DYR | | | | S | **Sg** | **04 49 51.9** | **-0.4** |
| DYR | | | | AML | AML | 04 49 56.5 | |
| | comp=E,2771μm,0.4s | | | | | | |
| DYR | | | | AML | AML | 04 49 56.5 | |
| | comp=N,2718μm,0.3s | | | | | | |
| **DYR** | **Agios Nikonas** | **0.65** | **109** | P | **Pg** | **04 49 42.9** | **-0.8** |
| DYR | | | | S | **Sg** | **04 49 51.5** | **-0.8** |
| **VLX** | **Vlachokerasia** | **0.76** | **59** | P | **Pg** | **04 49 45.4** | **-0.4** |
| VLX | | | | S | **Sb** | **04 49 56.6** | **-0.1** |
| VLX | | | | AML | AML | 04 49 57.8 | |
| | comp=N,5793μm,0.5s | | | | | | |
| VLX | | | | AML | AML | 04 49 58.6 | |
| | comp=E,7177μm,0.7s | | | | | | |
| **VLX** | **Vlachokerasia** | **0.76** | **59** | P | **Pg** | **04 49 45.4** | **-0.4** |
| VLX | | | | S | **Sb** | **04 49 56.6** | **-0.1** |
| **VLX** | **Vlachokerasia** | **0.76** | **59** | P | **Pg** | **04 49 45.0** | **-0.8** |
| VLX | | | | S | **Sg** | **04 49 55.5** | **-0.3** |
| **DRO** | **Drossia** | **0.98** | **7** | P | **Pg** | **04 49 48.9** | **-1.1** |
| DRO | | | | S | **Sb** | **04 50 03.3** | **+0.2** |
| DRO | | | | AML | AML | 04 50 09.0 | |
| | comp=N,3865μm,0.5s | | | | | | |
| DRO | | | | AML | AML | 04 50 12.4 | |
| | comp=E,4329μm,0.4s | | | | | | |
| **DRO** | **Drossia** | **0.98** | **7** | P | **Pg** | **04 49 49.1** | **-0.9** |
| DRO | | | | S | **Sb** | **04 50 03.2** | **+0.2** |
| **DRO** | **Drossia** | **0.98** | **7** | P | **Pg** | **04 49 48.9** | **-1.1** |
| DRO | | | | S | **Sb** | **04 50 03.2** | **+0.2** |
| **RLS** | **Riolos of Patr** | **1.08** | **356** | P | **Pg** | **04 49 51.1** | **-0.8** |
| RLS | | | | S | **Sb** | **04 50 06.5** | **+0.7** |
| RLS | | | | AML | AML | 04 50 13.4 | |
| | comp=E,1180μm,0.5s | | | | | | |
| RLS | | | | AML | AML | 04 50 15.1 | |
| | comp=N,1127μm,0.4s | | | | | | |
| **RLS** | **Riolos of Patr** | **1.08** | **356** | P | **Pg** | **04 49 51.1** | **-0.8** |
| RLS | | | | S | **Sb** | **04 50 06.5** | **+0.7** |
| **RLS** | **Riolos of Patr** | **1.08** | **356** | P | **Pg** | **04 49 50.9** | **-1.0** |
| RLS | | | | S | **Sb** | **04 50 06.6** | **+0.7** |
| **VLI** | **Veliai** | **1.13** | **103** | P | **Pg** | **04 49 52.0** | **-0.8** |
| VLI | | | | S | **Sb** | **04 50 07.6** | **+0.4** |
| VLI | | | | AML | AML | 04 50 14.4 | |
| | comp=E,1529μm,0.6s | | | | | | |
| VLI | | | | AML | AML | 04 50 14.7 | |
| | comp=N,1204μm,0.8s | | | | | | |
| **VLI** | **Veliai** | **1.13** | **103** | P | **Pg** | **04 49 52.0** | **-0.8** |
| VLI | | | | S | **Sb** | **04 50 07.6** | **+0.4** |
| **VLI** | **Veliai** | **1.13** | **103** | P | **Pg** | **04 49 51.8** | **-1.0** |
| VLI | | | | S | **Sn** | **04 50 08.3** | **+0.1** |
| **GUR** | **Goura** | **1.14** | **33** | P | **Pg** | **04 49 50.7** | **-2.3** |
| GUR | | | | S | **Sb** | **04 50 08.7** | **+1.0** |
| GUR | | | | AML | AML | 04 50 12.9 | |
| | comp=N,4173μm,0.5s | | | | | | |
| GUR | | | | AML | AML | 04 50 15.8 | |
| | comp=E,2690μm,0.4s | | | | | | |
| **GUR** | **Goura** | **1.14** | **33** | P | **Pg** | **04 49 52.1** | **-0.9** |
| GUR | | | | S | **Sb** | **04 50 08.4** | **+0.7** |
| **GUR** | **Goura** | **1.14** | **33** | P | **Pg** | **04 49 51.5** | **-1.5** |
| GUR | | | | S | **Sb** | **04 50 08.3** | **+0.6** |
| **KLV** | **Kalavryta, Ach** | **1.17** | **23** | P | **Pg** | **04 49 51.1** | **-2.4** |
| KLV | | | | S | **Sb** | **04 50 09.2** | **+0.9** |
| KLV | | | | AML | AML | 04 50 14.6 | |
| | comp=E,1194μm,0.6s | | | | | | |
| KLV | | | | AML | AML | 04 50 15.8 | |
| | comp=N,894μm,0.4s | | | | | | |
| **KLV** | **Kalavryta, Ach** | **1.17** | **23** | P | **Pg** | **04 49 52.1** | **-1.4** |
| KLV | | | | S | **Sb** | **04 50 08.8** | **+0.5** |
| **KLV** | **Kalavryta, Ach** | **1.17** | **23** | P | **Pg** | **04 49 52.1** | **-1.4** |
| KLV | | | | S | **Sb** | **04 50 08.8** | **+0.5** |
| **AXS** | **Araxos** | **1.23** | **353** | P | **Pg** | **04 49 53.7** | **-0.9** |
| **AXS** | **Araxos** | **1.23** | **353** | P | **Pg** | **04 49 53.7** | **-0.9** |
| **KFL** | **Anninata** | **1.29** | **332** | P | **Pn** | **04 49 53.7** | **-1.2** |
| **KFL** | **Anninata** | **1.29** | **332** | P | **Pn** | **04 49 54.3** | **-0.6** |
| **KFL** | **Anninata** | **1.29** | **332** | P | **Pn** | **04 49 54.3** | **-0.6** |
| **LAKA** | **Lakka** | **1.30** | **15** | P | **Pn** | **04 49 54.9** | **-0.3** |
| LAKA | | | | S | **Sg** | **04 50 12.2** | **-0.9** |
| **LAKA** | **Lakka** | **1.30** | **15** | P | **Pn** | **04 49 54.9** | **-0.3** |
| LAKA | | | | S | **Sn** | **04 50 13.5** | **+0.9** |
| **LAKA** | **Lakka** | **1.30** | **15** | P | **Pn** | **04 49 54.8** | **-0.4** |
| LAKA | | | | S | **Sn** | **04 50 13.5** | **+0.9** |
| **UPR** | **University Cam** | **1.32** | **8** | P | **Pg** | **04 49 55.8** | **-0.6** |
| **UPR** | **University Cam** | **1.32** | **8** | P | **Pg** | **04 49 55.8** | **-0.6** |
| **KRND** | **KRANIDI** | **1.33** | **72** | P | **Pn** | **04 49 56.4** | **-0.3** |
| **KRND** | **KRANIDI** | **1.33** | **72** | P | **Pn** | **04 49 55.6** | **+0.1** |
| KRND | | | | S | **Sn** | **04 50 14.8** | **+1.7** |
| **KRND** | **KRANIDI** | **1.33** | **72** | P | **Pn** | **04 49 55.6** | **+0.1** |
| KRND | | | | S | **Sn** | **04 50 14.8** | **+1.7** |
| **THAL** | **Thalero** | **1.38** | **39** | P | **Pb** | **04 49 56.5** | **-0.2** |
| THAL | | | | S | **Sg** | **04 50 14.8** | **-0.5** |
| THAL | | | | AML | AML | 04 50 22.4 | |
| | comp=E,4480μm,0.5s | | | | | | |
| THAL | | | | AML | AML | 04 50 25.2 | |
| | comp=N,2692μm,0.4s | | | | | | |
| **THAL** | **Thalero** | **1.38** | **39** | P | **Pb** | **04 49 56.5** | **-0.2** |
| THAL | | | | S | **Sg** | **04 50 14.8** | **-0.5** |
| **THAL** | **Thalero** | **1.38** | **39** | P | **Pn** | **04 49 56.0** | **-0.1** |
| THAL | | | | S | **Sn** | **04 50 16.0** | **+1.8** |
| **KYTH** | **Kithira** | **1.39** | **120** | P | **Pn** | **04 49 55.7** | **-0.6** |
| KYTH | | | | S | **Sn** | **04 50 15.3** | **+0.7** |
| KYTH | | | | AML | AML | 04 50 20.4 | |
| | comp=E,780μm,0.4s | | | | | | |
| KYTH | | | | AML | AML | 04 50 25.9 | |
| | comp=N,1214μm,0.6s | | | | | | |
| **KYTH** | **Kithira** | **1.39** | **120** | P | **Pg** | **04 49 57.0** | **-0.7** |
| KYTH | | | | S | **Sn** | **04 50 16.7** | **+2.1** |
| **VLS** | **Valsamata** | **1.43** | **328** | P | **Pn** | **04 49 55.4** | **-1.5** |
| VLS | | | | S | **Sg** | **04 50 17.0** | **0.0** |
| VLS | | | | AML | AML | 04 50 23.1 | |
| | comp=E,384μm,0.2s | | | | | | |
| VLS | | | | AML | AML | 04 50 23.9 | |
| | comp=N,600μm,0.4s | | | | | | |
| **VLS** | **Valsamata** | **1.43** | **328** | P | **Pn** | **04 49 56.2** | **-0.6** |
| VLS | | | | S | **Sg** | **04 50 17.0** | **0.0** |
| **VLS** | **Valsamata** | **1.43** | **328** | P | **Pn** | **04 49 56.2** | **-0.6** |
| VLS | | | | S | **Sg** | **04 50 17.8** | **+0.8** |
| **TRIZ** | **Trizonia** | **1.45** | **16** | P | **Pn** | **04 49 57.1** | **+0.1** |
| TRIZ | | | | S | **Sn** | **04 50 16.8** | **+0.9** |
| **TRIZ** | **Trizonia** | **1.45** | **16** | P | **Pn** | **04 49 57.1** | **+0.1** |
| TRIZ | | | | S | **Sn** | **04 50 16.8** | **+0.9** |
| **EFP** | **Efpalio** | **1.48** | **11** | P | **Pb** | **04 49 58.1** | **-0.3** |
| **EFP** | **Efpalio** | **1.48** | **11** | P | **Pn** | **04 49 57.8** | **+0.4** |
| EFP | | | | S | **Sg** | **04 50 18.8** | **+0.3** |
| **EFP** | **Efpalio** | **1.48** | **11** | P | **Pn** | **04 49 57.8** | **+0.4** |
| EFP | | | | S | **Sg** | **04 50 18.8** | **+0.3** |
| **KALE** | **Kalithea** | **1.49** | **18** | P | **Pn** | **04 49 57.8** | **+0.1** |
| KALE | | | | S | **Sg** | **04 50 19.1** | **+0.1** |
| KALE | | | | AML | AML | 04 50 26.0 | |
| | comp=E,758μm,0.4s | | | | | | |
| KALE | | | | AML | AML | 04 50 28.9 | |
| | comp=N,1370μm,0.4s | | | | | | |
| **KALE** | **Kalithea** | **1.49** | **18** | P | **Pn** | **04 49 58.0** | **+0.3** |
| KALE | | | | S | **Sg** | **04 50 19.0** | **+0.1** |
| **KALE** | **Kalithea** | **1.49** | **18** | P | **Pn** | **04 49 58.0** | **+0.3** |
| KALE | | | | S | **Sg** | **04 50 19.0** | **+0.1** |
| **SERG** | **Sergoula** | **1.49** | **15** | P | **Pb** | **04 49 58.4** | **-0.3** |
| **SERG** | **Sergoula** | **1.49** | **15** | P | **Pn** | **04 49 57.9** | **+0.2** |
| SERG | | | | S | **Sg** | **04 50 19.0** | **0.0** |
| **SERG** | **Sergoula** | **1.49** | **15** | P | **Pg** | **04 49 57.9** | **+0.2** |
| SERG | | | | S | **Sg** | **04 50 19.0** | **0.0** |
| **LOUT** | **Loutraki** | **1.51** | **48** | P | **Pg** | **04 49 59.7** | **-0.3** |
| **LOUT** | **Loutraki** | **1.51** | **48** | P | **Pn** | **04 49 58.4** | **+0.4** |
| LOUT | | | | S | **Sg** | **04 50 19.6** | **-0.1** |
| **LOUT** | **Loutraki** | **1.51** | **48** | P | **Pn** | **04 49 58.4** | **+0.4** |
| LOUT | | | | S | **Sg** | **04 50 19.6** | **-0.1** |
| **LTK** | **Loutraki** | **1.53** | **46** | P | **Pn** | **04 49 58.8** | **+0.6** |
| LTK | | | | S | **Sg** | **04 50 19.6** | **-0.7** |
| LTK | | | | AML | AML | 04 50 25.1 | |
| | comp=E,839μm,0.6s | | | | | | |
| LTK | | | | AML | AML | 04 50 27.5 | |
| | comp=N,554μm,0.6s | | | | | | |
| **LTK** | **Loutraki** | **1.53** | **46** | P | **Pn** | **04 49 58.8** | **+0.6** |
| LTK | | | | S | **Sg** | **04 50 19.6** | **-0.7** |
| **LTK** | **Loutraki** | **1.53** | **46** | P | **Pn** | **04 49 58.2** | **0.0** |
| **DSF** | **Desfina** | **1.62** | **28** | P | **Pb** | **04 50 01.1** | **+0.1** |
| **DSF** | **Desfina** | **1.62** | **28** | P | **Pb** | **04 50 00.4** | **-0.6** |
| DSF | | | | S | **Sb** | **04 50 22.4** | **+0.9** |
| **DSF** | **Desfina** | **1.62** | **28** | P | **Pb** | **04 50 00.4** | **-0.6** |
| DSF | | | | S | **Sb** | **04 50 22.4** | **+0.9** |
| **PVO** | **Paravola** | **1.64** | **359** | P | **Pb** | **04 50 00.8** | **-0.4** |
| **PVO** | **Paravola** | **1.64** | **359** | P | **Pb** | **04 50 00.8** | **-0.4** |
| **PDO** | **Prodromos** | **1.65** | **350** | P | **Pb** | **04 50 01.2** | **-0.1** |
| **PDO** | **Prodromos** | **1.65** | **350** | P | **Pn** | **04 49 59.9** | **+0.1** |
| **PDO** | **Prodromos** | **1.65** | **350** | P | **Pn** | **04 49 59.9** | **+0.1** |
| **PROD** | **Prodromos** | **1.67** | **39** | P | **Pn** | **04 49 59.2** | **-0.8** |
| **PROD** | **Prodromos** | **1.67** | **39** | P | **Pn** | **04 49 59.2** | **-0.8** |
| **VILL** | **Villia** | **1.83** | **49** | P | **Pn** | **04 50 02.5** | **+0.1** |
| VILL | | | | S | **Sb** | **04 50 27.1** | **-0.2** |
| **VILL** | **Villia** | **1.83** | **49** | P | **Pn** | **04 50 02.5** | **+0.1** |
| VILL | | | | S | **Sb** | **04 50 27.1** | **-0.2** |
| **VIL2** | **Platees** | **1.83** | **47** | P | **Pn** | **04 50 01.9** | **-0.4** |
| VIL2 | | | | S | **Sn** | **04 50 26.8** | **+1.2** |
| VIL2 | | | | AML | AML | 04 50 34.7 | |
| | comp=N,957μm,0.6s | | | | | | |
| VIL2 | | | | AML | AML | 04 50 37.6 | |
| | comp=E,512μm,0.6s | | | | | | |
| **LKD2** | **Lefkada island** | **1.95** | **339** | P | **Pb** | **04 50 05.5** | **-1.0** |
| **LKD2** | **Lefkada island** | **1.95

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| IDI | Anoyia | 3.18 | 121 | P | Pn | 04 50 21.3 | +0.4 |
| LIT | Litokhoron | 3.21 | 13 | P | Pn | 04 50 21.9 | +0.7 |
| LIT | Litokhoron | 3.21 | 13 | P | Pn | 04 50 22.0 | +0.7 |
| KZN | Kozani | 3.33 | 3 | P | Pn | 04 50 22.9 | -0.2 |
| KZN | Kozani | 3.33 | 3 | P | Pn | 04 50 22.9 | -0.2 |
| NEST | Nestorio | 3.46 | 353 | P | Pn | 04 50 27.7 | +2.9 |
| NEST | Nestorio | 3.46 | 353 | P | Pn | 04 50 27.7 | +2.9 |
| KNT | Kendrikon | 4.31 | 14 | P | Pn | 04 50 37.1 | +0.7 |
| KNT | Kendrikon | 4.31 | 14 | P | Pn | 04 50 37.1 | +0.7 |
| BARS | Barje | 5.84 | 2 | eP | Pn | 04 50 57.4 | 0.0 |
| BOVS | Bovan | 6.65 | 1 | eP | Pn | 04 51 07.1 | -1.5 |
| ZAGS | Zajecar | 6.85 | 4 | eP | Pn | 04 51 10.6 | -0.7 |
| GRUS | Gruza | 6.94 | 355 | eP | Pn | 04 51 11.3 | -1.2 |
| DIVS | Divibare | 7.21 | 351 | eP | Pn | 04 51 14.8 | -1.6 |

*CASC* **22** *04:50:16.5±0.9, 14°.61N×92°.21W, h52km, ML4.3, mb4.7(NEIC)*
*MEX* **22** *04:50:17.2±0.7, 13°.89N×92°.32W, h20km±165km, MD4.7*
*ISCJB* **22** *04:50:18.6±0.2, 14°.18N±0°.02×92°.02W±0°.02, h51km, mb4.7/141, MS4.0/27, Error ellipse: s-maj=4.1km s-min=2.4km az=38.1*
*NEIC* **22** *04:50:20.0±0.2, 14°.07N×91°.95W, mb4.7/149, MD4.7(MEX), Error ellipse: s-maj=7.1km s-min=3.9km az=48.0*
*NEIC Felt at San Salvador, El Salvador.*
*BJI* **22** *04:50:20.7, 14°.10N×92°.10W, h49km, mB5.1/4, Ms5.1/3, Ms7 5.0/4*
*IDC* **22** *04:50:22.1±3.6, 14°.18N×91°.83W, h75km±32km, mb4.0/22, mb1 4.2/23, mb1mx4.1/47, mbtmp4.3/23, MS4.0/28, Ms1 4.0/28, ms1mx3.9/45, Error ellipse: s-maj=24.6km s-min=9.3km az=56.0*
**ISC 22 04:50:18.8±0.7, 14°.06N±0°.06×92°.11W±0°.05, h47km±5km, n568, σ1§47/584, mb4.7/143, MS4.0/27, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| IXG | Ixpaco | 1.61 | 86 | eP | Pn | 04 50 45.4 | +0.4 |
| PCIG | | 1.96 | 327 | eP | Pn | 04 50 47.2 | -2.4 |
| PCIG | | | | eS | Sn | 04 51 10.4 | -2.6 |
| PCIG | | 1.96 | 327 | ePn | Pn | 04 50 47.2 | -2.4 |
| PCIG | | | | eSn | Sn | 04 51 10.4 | -2.6 |
| CUS1 | Cusmapa | 2.10 | 94 | eP | Pn | 04 50 52.3 | +0.7 |
| CUS1 | | | | eS | Sn | 04 51 19.4 | +2.8 |
| CCIG | Comitan | 2.21 | 359 | eP | Pn | 04 50 55.4 | +2.1 |
| CCIG | | | | eS | Sn | 04 51 21.7 | +2.2 |
| CCIG | Comitan | 2.21 | 359 | ePn | Pn | 04 50 55.4 | +2.1 |
| CCIG | | | | eSn | Sn | 04 51 21.7 | +2.2 |
| RTR | El Retiro | 2.40 | 93 | eP | Pn | 04 50 56.9 | +1.1 |
| MONT | Ecomontaæa | 2.40 | 94 | eP | Pn | 04 50 56.6 | +0.7 |
| SBLS | San Blas | 2.42 | 95 | eP | Pn | 04 50 57.3 | +1.1 |
| SBLS | | | | eS | Sn | 04 51 28.5 | +3.7 |
| SNJE | San Jose | 2.44 | 94 | eP | Pn | 04 50 57.1 | +0.8 |
| COLS | Colinas | 2.76 | 98 | eP | Pn | 04 51 02.0 | +1.3 |
| COLS | | | | eS | Sn | 04 51 37.7 | +4.9 |
| UEES | San Salvador | 2.80 | 96 | eP | Pn | 04 51 01.9 | +0.6 |
| UEES | comp=Z,2µm,0.6s | | | IAML | | 04 51 42.1 | |
| SNET | Serv Nac Est T | 2.82 | 97 | eP | Pn | 04 51 02.0 | +0.6 |
| SNET | comp=Z,2µm,0.3s | | | IAML | | 04 51 40.3 | |
| OPAM | San Salvador | 2.84 | 96 | eP | Pn | 04 51 03.2 | +1.4 |
| OPAM | comp=Z,2µm,0.3s | | | IAML | | 04 51 44.3 | |
| UESS | San Salvador | 2.84 | 97 | eS | Sn | 04 51 39.2 | +4.3 |
| TGBT | Tuxtla Gutierr | 2.87 | 341 | eP | Pn | 04 51 01.3 | -0.7 |
| TGBT | | | | eS | Sn | 04 51 34.3 | -1.0 |
| SOYA | Soyapango | 2.89 | 97 | eP | Pn | 04 51 03.8 | +1.3 |
| SOYA | comp=Z,3µm,0.3s | | | IAML | | 04 51 47.7 | |
| LFRS | El Faro | 2.99 | 98 | eP | Pn | 04 51 05.0 | +1.1 |
| LBRS | Las Brisas | 2.99 | 96 | eP | Pn | 04 51 04.0 | +0.1 |
| SNVI | San Vicente | 3.21 | 98 | eP | Pn | 04 51 08.7 | +1.8 |
| CMIG | Matias Romero | 4.03 | 319 | P | Pn | 04 51 16.7 | -1.4 |
| CMIG | comp=Z,29nm,0.3s,baz=141,slow=13,SNR=387 | | | S | Sn | 04 52 03.4 | -0.7 |
| CMIG | comp=Z,72nm,0.3s,baz=119,slow=20,SNR=6.4 | | | LR | LR | 04 53 18.8 | |
| LCND | comp=Z,3µm,18.6s,baz=136,slow=43 La Ca¯–ada | 4.17 | 100 | eP | Pn | 04 51 20.9 | +1.0 |
| TUIG | Tuzandepetl | 4.54 | 331 | ePn | Pn | 04 51 24.7 | -0.3 |
| TGUH | Tegucigalpa,Un | 4.69 | 89 | ePn | Pn | 04 51 28.5 | +1.3 |
| SCIG | Sabancuy | 4.96 | 10 | ePn | Pn | 04 51 31.7 | +0.9 |
| SCIG | | | | eSn | Sn | 04 52 24.3 | -2.7 |
| LVIG | Laguna Verde | 6.98 | 324 | ePn | Pn | 04 51 54.9 | -3.7 |
| LVIG | | | | eSn | Sn | 04 53 04.8 | -12 |
| TLIG | Tlapa | 7.13 | 300 | ePn | Pn | 04 51 57.9 | -2.7 |
| TLIG | | | | eSn | Sn | 04 53 21.5 | +1.1 |
| MYIG | MØrida | 7.23 | 18 | ePn | Pn | 04 52 01.6 | -0.3 |
| MYIG | | | | eSn | Sn | 04 53 18.7 | -4.0 |
| JTS | JuntasAbangare | 7.93 | 117 | ePn | Pn | 04 52 12.4 | +0.7 |
| JTS | comp=Z,46nm,0.6s | | | eSn | Sn | 04 53 38.1 | -2.1 |
| MOIG | Morelia | 10.33 | 304 | ePn | Pn | 04 52 46.4 | +1.7 |
| LNIG | Linares | 12.82 | 328 | ePn | Pn | 04 53 17.3 | -1.2 |
| ZAIG | Zacatecas | 13.17 | 313 | ePn | Pn | 04 53 23.4 | -0.2 |
| 833A | Chaparral WMA, | 15.73 | 336 | P | Pn | 04 53 57.2 | -0.1 |
| HKT | baz=153,SNR=14 Hockley | 16.19 | 348 | ePn | Pn | 04 54 00.7 | -2.3 |
| 442A | comp=Z,36nm,1.4s Mamou | 16.58 | 359 | P | Pn | 04 54 08.3 | +0.3 |
| 444A | baz=178 Pine Grove | 16.63 | 4 | P | P | 04 54 10.4 | 0.0 |
| 443A | baz=184 Delano Plantat | 16.63 | 1 | P | P | 04 54 11.1 | +0.6 |
| 441A | baz=181 DeRidder | 16.64 | 357 | P | P | 04 54 11.5 | +0.9 |
| 445A | baz=176 Amite | 16.68 | 5 | P | P | 04 54 11.6 | +0.6 |
| 446A | baz=185 Poplarville | 16.85 | 8 | P | Pn | 04 54 11.2 | -0.1 |
| 447A | baz=189 Lucedale | 16.96 | 10 | P | P | 04 54 14.1 | 0.0 |
| 341A | baz=191 Kurthwood | 17.23 | 357 | P | Pn | 04 54 15.4 | -0.7 |
| 342A | baz=176 Flagon Creek P | 17.24 | 359 | P | P | 04 54 17.9 | +0.7 |
| 448A | baz=179 Bay Minette | 17.24 | 12 | P | Pn | 04 54 16.4 | +0.1 |
| 345A | baz=194 Thompson Farm, | 17.28 | 6 | P | Pn | 04 54 17.1 | +0.4 |
| 344A | baz=186 Westbrook Farm | 17.36 | 4 | P | Pn | 04 54 18.5 | +0.7 |
| 435B | baz=184,SNR=6.4 Jarrell | 17.39 | 344 | P | Pn | 04 54 18.4 | +0.2 |
| 346A | baz=162 Big Creek Wild | 17.42 | 8 | P | P | 04 54 19.3 | +0.1 |
| 347A | baz=188 Saraland | 17.57 | 10 | P | P | 04 54 22.1 | +1.2 |
| BRAL | baz=191 Brewton | 17.66 | 14 | P | P | 04 54 22.9 | +1.1 |
| BRAL | baz=196 Brewton | 17.66 | 14 | ePn | P | 04 54 25.5 | +3.7 |
| 348A | comp=Z,133nm,1.3s Jackson | 17.70 | 12 | P | P | 04 54 22.7 | +0.4 |
| 243A | baz=193 Waterproof | 17.75 | 2 | P | P | 04 54 23.6 | +0.8 |
| NATX | baz=182 Nacogdoches | 17.78 | 353 | P | P | 04 54 23.8 | +0.7 |
| NATX | baz=171 Nacogdoches | 17.78 | 353 | ePn | P | 04 54 27.3 | +4.2 |
| JCT | comp=Z,26nm,0.9s Junction City | 17.82 | 338 | P | Pn | 04 54 23.2 | -0.2 |
| JCT | baz=154 Junction City | 17.82 | 338 | eP | P | 04 54 25.5 | +1.8 |
| 241A | comp=Z,23nm,1.3s Mo Tay, Goldon | 17.90 | 358 | P | P | 04 54 25.4 | +0.9 |
| 242A | baz=177,SNR=5.7 Grayson | 17.92 | 360 | P | P | 04 54 25.4 | +0.6 |
| 244A | baz=179 Avery, Jackson | 17.95 | 4 | P | P | 04 54 25.5 | +0.4 |
| 240A | baz=184 Hunter Patters | 17.96 | 355 | P | P | 04 54 25.9 | +0.7 |
| 245A | baz=174 Little AP, Sta | 18.01 | 6 | P | Pn | 04 54 26.5 | +0.8 |
| HPIG | baz=186 | 18.02 | 317 | eP | Pn | 04 54 27.2 | +1.2 |
| HELC | comp=Z,30nm,1.3s Santa Helena | 18.09 | 114 | eP | P | 04 54 27.5 | +0.4 |
| HELC | Santa Helena | 18.09 | 114 | eP | P | 04 54 25.2 | -1.9 |
| | comp=Z,37nm,1.2s | | | | | | |
| HELC | | | | eSn | Sn | 04 57 39.0 | -9.3 |
| VBMS | Vicksburg | 18.14 | 4 | P | P | 04 54 27.4 | +0.3 |
| VBMS | baz=184 Vicksburg | 18.14 | 4 | eP | Pn | 04 54 27.7 | +0.5 |
| 237A | comp=Z,61nm,0.9s Washetta, Mont | 18.18 | 350 | P | Pn | 04 54 29.2 | +1.4 |
| 247A | baz=168 Quitman | 18.20 | 10 | P | Pn | 04 54 28.6 | +0.6 |
| 248A | baz=190 Dixon Mills | 18.39 | 12 | P | P | 04 54 28.5 | -1.4 |
| 142A | baz=193 Monroe | 18.41 | 0 | P | P | 04 54 30.6 | +0.5 |
| 141A | baz=180 Papa Simpson, | 18.48 | 358 | P | Pn | 04 54 32.0 | +0.6 |
| WHTX | baz=177 Lake Whitney, | 18.51 | 346 | P | Pn | 04 54 32.9 | +1.0 |
| WHTX | baz=163 Lake Whitney, | 18.51 | 346 | eP | Pn | 04 54 35.3 | +3.5 |
| 140A | comp=Z,104nm,1.8s Cam and Jess, | 18.55 | 356 | P | Pn | 04 54 33.0 | +0.8 |
| 144A | baz=175 Alexander Plac | 18.55 | 4 | P | Pn | 04 54 32.6 | +0.3 |
| 145A | baz=185 Houston Renfro | 18.57 | 6 | P | Pn | 04 54 32.7 | +0.2 |
| 143A | baz=186 Socs Landing, | 18.57 | 2 | P | P | 04 54 32.2 | +0.3 |
| LTX | baz=182 Lajitas | 18.59 | 327 | eP | Pn | 04 54 34.2 | +1.3 |
| LTX | | | | ePcP | PcP | 04 59 00.3 | +0.2 |
| TXAR | Lajitas Array | 18.59 | 327 | P | Pn | 04 54 34.2 | +1.3 |
| TXAR | comp=Z,0.3nm,0.3s,baz=146,slow=9.1,SNR=43 | | | PcP | PcP | 04 59 00.3 | +0.2 |
| TX31 | comp=Z,0.0nm,0.3s,baz=152,slow=4.0,SNR=5.6 Lajitas Ar. Si | 18.59 | 327 | eP | Pn | 04 54 34.9 | +1.9 |
| 139A | Bunkhouse Ranc | 18.66 | 354 | P | P | 04 54 33.4 | +0.6 |
| 146A | baz=173 Union | 18.70 | 8 | P | Pn | 04 54 34.2 | 0.0 |
| 138A | baz=189 Matatall Enter | 18.72 | 352 | P | Pn | 04 54 35.1 | +0.8 |
| 137A | baz=170 Heron Place, G | 18.75 | 350 | P | P | 04 54 33.5 | -0.4 |
| 136A | baz=168 Ennis | 18.77 | 348 | P | P | 04 54 34.5 | +0.4 |
| 147A | baz=166 Livingston | 18.86 | 10 | P | Pn | 04 54 36.3 | +0.3 |
| PTBC | baz=191 PUERTO BERRIO, | 18.89 | 112 | eP | P | 04 54 36.5 | +0.9 |
| NORC | Norcasia | 18.95 | 115 | eP | P | 04 54 36.5 | +0.2 |
| TIGA | Tifton | 18.99 | 23 | P | Pn | 04 54 38.1 | +0.5 |
| TIGA | baz=206 Tifton | 18.99 | 23 | eP | Pn | 04 54 37.7 | +0.1 |
| Z43A | comp=Z,103nm,1.3s Armstrong Fami | 19.09 | 2 | P | Pn | 04 54 39.6 | +0.9 |
| Z41A | baz=182 Richland Creek | 19.13 | 358 | P | P | 04 54 38.9 | +0.9 |
| Z42A | baz=178,SNR=5.9 Norrel Spur, H | 19.13 | 0 | P | P | 04 54 38.8 | +0.7 |
| Z40A | baz=180 Long Farm, Mag | 19.15 | 357 | P | P | 04 54 37.8 | -0.4 |
| Z39A | baz=176 Irene McRaven, | 19.19 | 355 | P | P | 04 54 39.5 | +0.8 |
| Z44A | baz=173 Pea Ridge, Bel | 19.20 | 4 | P | P | 04 54 39.6 | +0.9 |
| OTAV | baz=184 Otavalo | 19.27 | 134 | eP | P | 04 54 40.9 | +0.8 |
| Z46A | comp=Z,8.0nm,1.1s Louisville | 19.27 | 8 | P | P | 04 54 39.6 | 0.0 |
| LRAL | baz=189 Lakeview Retre | 19.46 | 13 | P | Pn | 04 54 42.8 | -0.4 |
| LRAL | baz=194 Lakeview Retre | 19.46 | 13 | eP | Pn | 04 54 42.8 | -0.4 |
| Z36A | comp=Z,32nm,0.9s Blue Ridge | 19.53 | 349 | P | P | 04 54 43.4 | +1.0 |
| WLAR | baz=167 White Oak Lake | 19.57 | 358 | eP | Pn | 04 54 44.2 | -0.2 |
| Z48A | comp=Z,188nm,1.5s Northport | 19.68 | 11 | P | P | 04 54 44.0 | 0.0 |
| Y42A | baz=193 Garnett, Star | 19.70 | 1 | P | P | 04 54 44.7 | +0.5 |
| ABTX | baz=180 Abilene, Hawle | 19.72 | 341 | P | Pn | 04 54 46.1 | -0.2 |
| ABTX | baz=158 Abilene, Hawle | 19.72 | 341 | eP | Pn | 04 54 46.2 | -0.1 |
| Y41A | comp=Z,19nm,0.8s Eaglette Beard | 19.74 | 359 | P | P | 04 54 45.9 | +1.2 |
| CCAR | baz=178 Cane Creek | 19.78 | 1 | eP | P | 04 54 46.3 | +1.3 |
| Y43A | comp=Z,337nm,1.9s Makayla and Ka | 19.80 | 3 | P | P | 04 54 46.2 | +0.9 |
| PRAC | baz=183 Prado | 19.86 | 120 | eP | P | 04 54 48.0 | +1.8 |
| Y45A | comp=Z,162nm,1.9s Yeager Farm, C | 19.86 | 6 | P | P | 04 54 46.7 | +0.8 |
| LPIG | baz=187,SNR=5.2 La Paz | 19.87 | 303 | LR | LR | 05 02 10.0 | |
| Y39A | comp=Z,383nm,19.0s,baz=128,slow=35 Lockesburg | 19.88 | 355 | P | P | 04 54 46.0 | -0.2 |
| Y40A | baz=174,SNR=6.7 Okolona | 19.90 | 357 | P | P | 04 54 47.6 | +1.2 |
| Y38A | baz=176 Idabel | 19.93 | 354 | P | P | 04 54 46.3 | -0.4 |
| Y46A | baz=172,SNR=12 Houston | 19.96 | 8 | P | P | 04 54 47.2 | +0.2 |
| Y37A | baz=189,SNR=6.6 Hugo | 20.09 | 351 | P | P | 04 54 48.4 | -0.1 |
| Y36A | baz=170,SNR=12 Durant | 20.12 | 350 | P | P | 04 54 50.0 | +1.2 |
| Y47A | baz=168 UCPARC, Winfie | 20.13 | 10 | P | P | 04 54 49.2 | +0.2 |
| Y35A | baz=192 Marietta | 20.26 | 348 | P | P | 04 54 50.2 | -0.1 |
| Y48A | baz=166,SNR=12 Jasper | 20.27 | 12 | P | P | 04 54 51.5 | +1.0 |
| X40A | baz=194 Basin Creek Fa | 20.35 | 358 | P | P | 04 54 52.5 | +1.2 |
| X41A | baz=178 Kaden, Bauxite | 20.35 | 359 | P | P | 04 54 52.3 | +1.0 |
| RUSC | baz=178 La Rusia | 20.40 | 112 | eP | P | 04 54 53.0 | +0.4 |
| RUSC | La Rusia | 20.40 | 112 | eP | P | 04 54 54.2 | +1.6 |
| X42A | comp=Z,15nm,1.0s Stuttgart | 20.41 | 1 | P | P | 04 54 53.1 | +1.2 |
| X45A | baz=181 UM Field Stati | 20.43 | 6 | P | P | 04 54 52.8 | +0.7 |
| MIAR | baz=187 Mount Ida | 20.44 | 357 | P | P | 04 54 52.5 | +0.2 |
| MIAR | baz=176,SNR=8.0 Mount Ida | 20.44 | 357 | eP | P | 04 54 52.3 | 0.0 |
| X39A | comp=Z,82nm,1.2s Fountain Ranch | 20.45 | 355 | P | P | 04 54 52.3 | -0.1 |
| FLOC | baz=174,SNR=6.5 Florencia | 20.45 | 126 | eP | P | 04 54 53.9 | +1.2 |
| OXF | Oxford | 20.51 | 6 | P | P | 04 54 53.2 | +0.1 |
| OXF | baz=187 Oxford | 20.51 | 6 | eP | P | 04 54 53.0 | 0.0 |
| UALR | comp=Z,65nm,1.0s University of | 20.63 | 359 | eP | Pn | 04 54 57.0 | 0.0 |
| X37A | comp=Z,73nm,0.8s Clayton | 20.66 | 352 | P | P | 04 54 54.6 | 0.0 |
| X37A | baz=171 Clayton | 20.66 | 352 | eP | P | 04 54 55.4 | +0.8 |
| X46A | comp=Z,170nm,1.8s Booneville | 20.66 | 8 | P | P | 04 54 52.9 | -1.7 |
| X38A | baz=189,SNR=5.9 Whitesboro | 20.67 | 354 | P | P | 04 54 54.5 | -0.2 |
| X35A | baz=172,SNR=20 Drake | 20.73 | 349 | P | P | 04 54 55.0 | -0.4 |
| X35A | baz=166 Drake | 20.73 | 349 | eP | P | 04 54 55.2 | -0.2 |
| X47A | comp=Z,21nm,0.9s Russelville | 20.73 | 10 | P | P | 04 54 54.9 | -0.6 |
| X36A | baz=191 Centrahoma | 20.78 | 350 | P | P | 04 54 54.9 | -1.1 |
| GOGA | baz=168,SNR=10.0 Godfrey | 20.81 | 21 | eP | Pn | 04 54 59.1 | -0.1 |
| X48A | comp=Z,27nm,0.9s Hartselle | 20.82 | 12 | P | P | 04 54 56.0 | -0.4 |
| | baz=194 | | | | | | |
| SJAC | San Juan de Ar | 20.88 | 119 | eP | P | 04 54 58.3 | +0.9 |
| W41B | Gary Mavity, V | 21.03 | 360 | P | P | 04 54 58.5 | -0.1 |
| X49A | baz=179,SNR=8.6 Woodville | 21.03 | 13 | P | P | 04 54 57.8 | -0.8 |
| W38A | baz=195 Poteau | 21.04 | 354 | P | P | 04 55 00.5 | +1.8 |
| W40A | baz=173 Ferguson Farm, | 21.06 | 358 | P | P | 04 55 01.2 | +2.2 |
| W40A | baz=177 Ferguson Farm, | 21.06 | 358 | eP | P | 04 55 01.7 | +2.7 |
| X301 | comp=Z,35nm,0.9s Greenbrier Sit | 21.09 | 359 | eP | P | 04 55 05.9 | +6.6 |
| W39A | comp=Z,32nm,1.1s Magazine | 21.10 | 356 | P | P | 04 55 00.0 | +0.6 |
| X50A | baz=175 Fort Payne | 21.14 | 15 | P | P | 04 54 59.0 | -0.9 |
| WHAR | baz=197,SNR=7.9 Wooly Hollow | 21.14 | 360 | eP | P | 04 55 01.8 | +1.9 |
| PLAL | comp=Z,24nm,1.3s Pickwick Lake | 21.15 | 9 | eP | P | 04 55 01.2 | +1.3 |
| W37B | comp=Z,24nm,1.0s Quinton | 21.20 | 352 | P | P | 04 54 59.4 | -1.2 |
| W37B | baz=171,SNR=8.8 Quinton | 21.20 | 352 | eP | P | 04 55 01.2 | +0.7 |
| W36A | comp=Z,23nm,0.9s Wetumka | 21.32 | 351 | P | P | 04 55 00.5 | -1.2 |
| W36A | baz=169,SNR=5.7 Wetumka | 21.32 | 351 | eP | P | 04 55 01.6 | -0.1 |
| MNTX | comp=Z,88nm,1.5s Cornudas Mount | 21.36 | 328 | P | P | 04 54 52.6 | +0.3 |
| MNTX | baz=142,SNR=21 Cornudas Mount | 21.36 | 328 | eP | P | 04 55 02.9 | +0.6 |
| W35A | comp=Z,29nm,1.1s Tecumseh | 21.44 | 349 | P | P | 04 55 01.9 | -1.2 |
| W35A | baz=167,SNR=16 Tecumseh | 21.44 | 349 | eP | P | 04 55 02.1 | -1.0 |
| WMOK | comp=Z,58nm,1.0s Wichita Mounta | 21.46 | 345 | P | P | 04 55 02.4 | -0.9 |
| WMOK | baz=162,SNR=7.7 Wichita Mounta | 21.46 | 345 | eP | P | 04 55 02.9 | -0.4 |
| V41A | comp=Z,38nm,1.4s Mountainview | 21.64 | 360 | P | P | 04 55 05.3 | +0.2 |
| SDV | baz=180 Santo Domingo | 21.66 | 101 | P | P | 04 55 05.0 | -0.7 |
| SDV | comp=Z,7.2nm,0.8s,baz=266,slow=5.1,SNR=7.5 | | | LR | LR | 05 04 43.8 | |
| SDV | comp=Z,325nm,18.8s,baz=265,slow=40 | | | | | | |
| SDV | Santo Domingo | 21.66 | 101 | eP | P | 04 55 05.1 | -0.7 |
| SDV | Santo Domingo | 21.66 | 101 | eP | P | 04 55 07.9 | +2.2 |
| V40A | comp=Z,32nm,0.9s Witts Springs | 21.67 | 358 | P | P | 04 55 05.5 | 0.0 |
| V42A | baz=178 Cord | 21.67 | 2 | P | P | 04 55 04.9 | -0.6 |
| V39A | baz=182 Pettigrew | 21.73 | 357 | P | P | 04 55 05.4 | -0.8 |
| SWET | baz=176 Sewanee | 21.79 | 14 | eP | P | 04 55 07.0 | +0.1 |
| V38A | comp=Z,46nm,1.1s Canehill | 21.81 | 355 | P | P | 04 55 07.1 | 0.0 |
| OK020 | baz=174 N3440 Road, Me | 21.82 | 349 | eP | P | 04 55 05.9 | -1.1 |
| OK021 | comp=Z,116nm,1.5s N3530 Road, Sp | 21.85 | 350 | eP | P | 04 55 06.8 | -0.6 |
| V37A | comp=Z,88nm,1.4s Hulbert | 21.91 | 353 | P | P | 04 55 08.1 | +0.1 |
| V36A | baz=172 Jenks | 21.91 | 352 | P | P | 04 55 08.9 | +0.9 |
| V36A | baz=170 Jenks | 21.91 | 352 | eP | P | 04 55 15.8 | +7.8 |
| HODGE | comp=Z,19nm,0.9s Hodges | 21.98 | 22 | eP | P | 04 55 10.2 | +1.4 |
| TUL1 | comp=Z,55nm,1.3s Leonard | 22.01 | 352 | P | P | 04 55 09.4 | +0.3 |
| TUL1 | baz=170 Leonard | 22.01 | 352 | eP | P | 04 55 08.0 | -1.1 |
| V35A | comp=Z,37nm,1.2s Meyer Ranch, C | 22.03 | 350 | P | P | 04 55 08.0 | -1.3 |
| V35A | baz=167,SNR=6.2 Meyer Ranch, C | 22.03 | 350 | eP | P | 04 55 08.2 | -1.1 |
| MSTX | comp=Z,68nm,1.3s Muleshoe | 22.06 | 336 | P | P | 04 55 09.1 | -0.7 |
| MSTX | baz=151,SNR=8.9 Muleshoe | 22.06 | 336 | eP | P | 04 55 09.9 | +0.1 |
| V48A | comp=Z,84nm,1.5s Smith Brothers | 22.11 | 11 | P | P | 04 55 09.1 | -1.1 |
| U41A | baz=193,SNR=7.6 Viola | 22.20 | 0 | P | P | 04 55 11.5 | +0.4 |
| U42A | baz=180 Revenden | 22.22 | 2 | P | P | 04 55 10.9 | -0.4 |
| U40A | baz=182 Yellville | 22.22 | 358 | P | P | 04 55 11.2 | -0.2 |
| U39A | baz=178 Green Forest | 22.27 | 357 | P | P | 04 55 11.2 | -0.8 |
| U43A | baz=176,SNR=6.9 Rector | 22.27 | 4 | P | P | 04 55 12.3 | +0.3 |
| WVT | baz=184 Waverly | 22.31 | 9 | P | P | 04 55 11.7 | -0.7 |
| WVT | baz=191 Waverly | 22.31 | 9 | eP | P | 04 55 11.8 | -0.6 |
| U44B | comp=Z,17nm,1.0s Burton Farm, H | 22.33 | 6 | P | P | 04 55 11.4 | -1.1 |
| CPCT | baz=187 Cooper Cave | 22.37 | 16 | eP | P | 04 55 13.3 | +0.3 |
| U38A | comp=Z,57nm,1.4s Gravette | 22.38 | 355 | P | P | 04 55 12.5 | -0.6 |
| U45A | baz=174 Rockin P Farm, | 22.40 | 7 | P | P | 04 55 11.4 | -1.9 |
| U37A | baz=188 Salina | 22.42 | 354 | P | P | 04 55 12.1 | -1.5 |
| AMTX | baz=172,SNR=6.3 Amarillo | 22.47 | 339 | P | P | 04 55 13.3 | -0.9 |
| AMTX | baz=155 Amarillo | 22.47 | 339 | eP | P | 04 55 13.2 | -0.9 |
| U36A | comp=Z,87nm,1.4s Oologah | 22.48 | 352 | P | P | 04 55 13.2 | -1.0 |
| U46A | baz=170 Springville | 22.49 | 8 | P | P | 04 55 13.3 | -0.9 |
| U35A | baz=190,SNR=8.6 Pawnee | 22.61 | 350 | P | P | 04 55 14.1 | -1.4 |
| U35A | baz=168 Pawnee | 22.61 | 350 | eP | P | 04 55 14.2 | -1.3 |
| PBMO | comp=Z,35nm,1.0s Poplar Bluff | 22.68 | 3 | eP | P | 04 55 14.8 | -1.5 |
| U47A | comp=Z,29nm,1.1s Clarksville | 22.71 | 10 | P | P | 04 55 15.0 | -1.6 |
| TKL | baz=192 Tuckaleechee C | 22.78 | 18 | P | P | 04 55 16.8 | -0.6 |
| TKL | comp=Z,5.8nm,0.8s,baz=187,slow=7.4,SNR=8.5 Tuckaleechee C | 22.78 | 18 | eP | P | 04 55 18.5 | +1.1 |
| T41A | comp=Z,58nm,1.3s Mountain View | 22.89 | 1 | P | P | 04 55 17.7 | -0.8 |
| T42A | baz=180 Van Buren | 22.90 | 2 | P | P | 04 55 17.1 | -1.4 |
| T39A | baz=182 Clever | 22.90 | 357 | P | P | 04 55 16.8 | -1.8 |
| U48A | baz=176 Cassie Pea, Po | 22.91 | 12 | P | P | 04 55 17.7 | -1.0 |
| T38A | baz=194 Diamond | 22.97 | 356 | P | P | 04 55 19.1 | -0.2 |
| T43A | baz=174 Greenville | 22.99 | 4 | P | P | 04 55 18.3 | -1.2 |
| T40A | baz=184 Mansfield | 23.00 | 359 | P | P | 04 55 18.3 | -1.4 |
| T44A | baz=179 Benton | 23.05 | 5 | P | P | 04 55 18.5 | -1.6 |
| U32A | baz=186 Winter Ranch, | 23.07 | 346 | P | P | 04 55 20.1 | -0.3 |
| T45A | baz=162 Paducah | 23.08 | 7 | P | P | 04 55 19.6 | -0.8 |
| T35A | baz=188 Sooner Cattle | 23.10 | 351 | P | P | 04 55 19.0 | -1.7 |
| T37A | baz=169,SNR=5.5 Cheneyville 18 | 23.11 | 354 | P | P | 04 55 19.8 | -0.9 |
| KMSC | baz=173 Kings Mountain | 23.14 | 23 | P | P | 04 55 19.9 | -1.1 |
| KMSC | baz=207 Kings Mountain | 23.14 | 23 | eP | P | 04 55 20.9 | -0.1 |
| KMSC | | | | ePP | pP | 04 55 31.9 | -0.5 |
| T36A | Boggs Farm, Ca | 23.16 | 352 | P | P | 04 55 19.7 | -1.4 |
| T46A | baz=170 Princeton | 23.20 | 9 | P | P | 04 55 19.9 | -1.7 |
| T47A | baz=190,SNR=8.7 Sharon Grove | 23.27 | 10 | P | P | 04 55 20.9 | -1.4 |
| 121A | baz=192,SNR=8.5 Cookes Peak, D | 23.30 | 325 | P | P | 04 55 23.9 | +1.0 |
| 121A | baz=138,SNR=12 Cookes Peak, D | 23.30 | 325 | eP | P | 04 55 23.4 | +0.6 |
| | comp=Z,25nm,0.9s | | | | | | |

T34A **McClaskey Farm** 23.32 350 P P 04 55 20.6 -2.2
baz=167,SNR=6.4
319A **Douglas** 23.35 320 *e*P P 04 55 24.8 +1.5
comp=Z,94nm,1.7s
S41A **Jillco Farms,** 23.44 1 P P 04 55 22.6 -1.3
baz=180
S40A **Lebanon** 23.45 359 P P 04 55 23.1 -0.9
baz=179
S43A **Fulton Ridge,** 23.49 4 P P 04 55 23.0 -1.4
baz=185
T48A **Bowling Green** 23.52 12 P P 04 55 23.2 -1.4
baz=194
S38A **Stockton** 23.53 356 P P 04 55 23.1 -1.7
baz=175
S39A **Bolivar** 23.56 358 P P 04 55 23.6 -1.5
baz=177
S42A **Caledonia** 23.65 3 P P 04 55 24.3 -1.6
baz=183
S44A **Carbondale** 23.68 6 P P 04 55 25.0 -1.2
baz=186,SNR=7.1
SIUC **Southern Illin** 23.70 6 *e*P P 04 55 25.8 -0.5
comp=Z,43nm,1.0s
S37A **Fort Scott** 23.73 355 P P 04 55 25.1 -1.5
baz=173
S45A **Carrier Mills** 23.73 7 P P 04 55 25.0 -1.6
baz=188
S36A **Lake Cedric, C** 23.77 353 P P 04 55 25.1 -1.9
baz=171
S35A **Otter Creek Ra** 23.83 352 P P 04 55 26.2 -1.3
baz=170
S46A **Don Dixon Farm** 23.86 9 P P 04 55 26.7 -1.1
baz=190
CCM **Cathedral Cave** 23.92 2 P P 04 55 27.4 -1.0
baz=182
CCM **Cathedral Cave** 23.92 2 *e*P P 04 55 28.0 -0.4
comp=Z,12nm,1.0s
BNM **Barren Site** 23.94 329 *e*P P 04 55 31.0 +2.1
S34A **Willow Spring** 23.97 350 P P 04 55 28.3 -0.5
baz=168
Y22D **IRIS PASSCAL I** 24.03 329 P P 04 55 30.7 +1.1
baz=142
Y22D **IRIS PASSCAL I** 24.03 329 *e*P P 04 55 33.9 +4.2
comp=Z,133nm,1.5s
Y22E **IRIS PASSCAL I** 24.03 329 P P 04 55 30.7 +1.1
baz=142
LPM **Los Pinos Moun** 24.07 329 *e*P P 04 55 32.3 +2.3
R38A **Fenwick Farm,** 24.09 357 P P 04 55 28.6 -1.3
baz=175,SNR=6.9
S48A **Wiedeman Farm,** 24.11 12 P P 04 55 29.5 -0.7
baz=194
USIN **University of** 24.14 9 *e*P P 04 55 30.3 -0.1
USIN *epP* *pP* 04 55 44.4 +1.7
R40A **Maddies Statio** 24.14 360 P P 04 55 30.2 -0.2
baz=179
R41A **Rosebud** 24.15 1 P P 04 55 30.1 -0.4
baz=181
R42A **Luebbering** 24.16 3 P P 04 55 30.3 -0.2
baz=183
R39A **Chumby, Stover** 24.18 358 P P 04 55 30.2 -0.6
baz=177
R43A **Red Bud** 24.20 4 P P 04 55 30.3 -0.6
baz=185
R44A **Waltonville** 24.24 6 P P 04 55 31.5 +0.2
baz=187
R36A **Gordon, Harris** 24.36 354 P P 04 55 32.9 +0.4
baz=172
R45A **Skylar, Fairfi** 24.38 7 P P 04 55 32.7 +0.2
baz=189
LAZ **Ladron** 24.40 329 *e*P P 04 55 35.0 +1.9
R46A **Gibon Southern** 24.40 9 P P 04 55 32.7 -0.1
baz=190
R35A **Emporia Munici** 24.44 352 P P 04 55 32.4 -0.8
baz=170
ANMO **Albuquerque** 24.50 331 P P 04 55 35.2 +1.2
comp=Z,3.3nm,0.6s,baz=332,slow=11,SNR=14
ANMO **Albuquerque** 24.50 331 P P 04 55 35.4 +1.4
baz=144
ANMO **Albuquerque** 24.50 331 *e*P P 04 55 35.5 +1.5
comp=Z,31nm,1.6s
R34A **Isabella, Hill** 24.57 350 P P 04 55 34.0 -0.4
baz=168
WCI **Wyandotte Cave** 24.62 11 P P 04 55 33.3 -1.5
baz=193
WCI **Wyandotte Cave** 24.62 11 *e*P P 04 55 34.0 -0.8
comp=Z,30nm,0.8s
R47A **Wooly Knot Far** 24.65 11 P P 04 55 34.1 -0.9
baz=193
Q42A **Golden Eagle** 24.80 3 P P 04 55 35.8 -0.6
baz=183
Q37A **Longview Farm,** 24.81 356 P P 04 55 36.6 +0.1
baz=174
Q41A **Truxton** 24.81 2 P P 04 55 36.7 +0.2
baz=182
OLIL **Olney** 24.84 7 *e*P P 04 55 36.0 -0.7
OLIL *epP* *pP* 04 55 49.7 +0.6
Q40A **Laux Farm, Aux** 24.84 0 P P 04 55 36.2 -0.6
baz=180
Q38A **Cooks Store, C** 24.84 357 P P 04 55 35.8 -1.0
baz=176,SNR=5.7
CELP **Cerrillos** 24.85 77 *e*P P 04 55 33.2 -3.8
R48A **Northridge Ran** 24.87 12 P P 04 55 36.7 -0.3
baz=194
Q43A **New Douglas** 24.88 4 P P 04 55 37.1 0.0
baz=185
Q44A **Meyer Farm, Va** 24.90 6 P P 04 55 37.1 -0.2
baz=187
Q39A **Willow Grove F** 24.90 358 P P 04 55 36.2 -1.2
baz=178
TUC **Tucson** 24.93 320 P P 04 55 38.0 +0.3
baz=132
TUC **Tucson** 24.93 320 *e*P P 04 55 39.3 +1.6
comp=Z,19nm,1.2s
Q35A **Mercer Eighty,** 24.95 353 P P 04 55 37.6 -0.1
baz=171
Q45A **Warren Harvey,** 24.99 7 P P 04 55 37.3 -0.8
baz=189
ATAH **Atahualpa** 25.07 146 P P 04 55 40.9 +1.4
comp=Z,21nm,0.8s,baz=348,slow=4.8,SNR=12
ATAH LR LR 05 04 15.3
comp=Z,328nm,18.8s,baz=295,slow=33
Q34A **Chapman** 25.13 351 P P 04 55 38.9 -0.5
baz=169
SJG **San Juan** 25.26 77 LR LR 05 06 13.5
comp=Z,427nm,18.4s,baz=250,slow=38
Q47A **Bedord North L** 25.29 10 P P 04 55 40.2 -0.7
baz=193
P39B **Salisbury** 25.34 359 P P 04 55 40.4 -0.9
baz=178
P40A **Paris** 25.38 0 P P 04 55 41.5 -0.1
baz=180
T25A **Trinidad** 25.47 337 P P 04 55 43.8 +1.0
baz=151,SNR=11
T25A **Trinidad** 25.47 337 *e*P P 04 55 44.9 +2.0
comp=Z,25nm,1.3s
P42A **Winchester** 25.48 3 P P 04 55 41.0 -1.6
baz=184
P44A **Sand Creek, Wi** 25.50 6 P P 04 55 42.1 -0.6
baz=188
P38A **Dawn** 25.50 357 P P 04 55 41.2 -1.5
baz=176
P37A **Lathrop** 25.51 356 P P 04 55 42.5 -0.3
baz=175
P41A **Barry, Barry** 25.54 2 P P 04 55 43.1 0.0
baz=182
CBKS **Cedar Bluff** 25.57 346 P P 04 55 44.1 +0.7
baz=162
CBKS **Cedar Bluff** 25.57 346 *e*P P 04 55 45.4 +1.9
comp=Z,17nm,0.9s
MHTCO **State Highway** 25.57 336 *e*P P 04 55 45.8 +2.1
comp=Z,38nm,1.6s
P43A **Skaggs, Pawnee** 25.59 5 P P 04 55 43.2 -0.4
baz=185
P35A **Duane Minner,** 25.61 353 P P 04 55 43.4 -0.3
baz=171
P36A **Good Intent, A** 25.61 354 P P 04 55 43.5 -0.3
baz=173
P45A **Graceland, Par** 25.66 8 P P 04 55 44.0 -0.2
baz=189
P34A **Walnut Farm, R** 25.73 352 P P 04 55 44.3 -0.5
baz=169
P46A **Rosedale** 25.83 9 P P 04 55 44.1 -1.6
baz=191
P47A **Martinsville** 25.85 10 P P 04 55 44.9 -1.1
baz=193
O40A **La Belle** 25.97 0 P P 04 55 46.4 -0.5
baz=180
O41A **Passleys Farm,** 25.98 2 P P 04 55 46.6 -0.6
baz=182

X18A **Snowflake** 25.99 325 *e*P P 04 55 49.6 +2.1
comp=Z,6.8nm,0.8s
O37A **Wolven Farm, M** 26.07 356 P P 04 55 48.4 +0.5
baz=175
O36A **Bolckow** 26.10 355 P P 04 55 48.5 +0.3
baz=173
O39A **Kirksville** 26.10 359 P P 04 55 48.5 +0.3
baz=179
O44A **Mansfield** 26.19 6 P P 04 55 48.8 -0.2
baz=188
W18A **Petrified Fore** 26.31 326 P P 04 55 48.8 -1.6
baz=138
O35A **Humboldt** 26.32 353 P P 04 55 48.9 -1.3
baz=171
O34A **Beatrice** 26.34 352 P P 04 55 49.2 -1.1
baz=170
O33A **Hebron** 26.36 351 P P 04 55 50.1 -0.5
baz=168
O45A **Potomac** 26.38 8 P P 04 55 49.1 -1.6
baz=189,SNR=5.1
SDCO **Great Sand Dun** 26.43 336 P P 04 55 51.2 -0.4
baz=149,SNR=9.0
SDCO **Great Sand Dun** 26.43 336 *e*P P 04 55 53.2 +1.6
comp=Z,10nm,1.3s
HDIL **Hopedale** 26.52 5 P P 04 55 50.9 -1.0
baz=186
KSCO **Kaye Shedlock'** 26.54 341 P P 04 55 51.3 -1.1
baz=156
SFIN **Lafayette** 26.59 9 P P 04 55 51.6 -1.0
baz=190
SFIN **Lafayette** 26.59 9 *e*P P 04 55 51.3 -1.2
SFIN *epP* *pP* 04 56 05.7 +0.8
N37A **Lee Faris, Mou** 26.67 356 P P 04 55 54.4 +1.1
baz=175
N39A **Derby Farms, D** 26.72 359 P P 04 55 53.7 -0.1
baz=179
N42A **Yates City** 26.73 4 P P 04 55 53.7 -0.2
baz=184
X16A **Lo Mia Camp, P** 26.77 323 *e*P P 04 55 56.0 +1.5
comp=Z,6.2nm,1.0s
X16A *ePcP* *PcP* 04 59 18.5 +1.7
N44A **Piper City** 26.86 7 P P 04 55 54.3 -0.8
baz=188
N43A **Stutzman Famil** 26.91 5 P P 04 55 53.9 -1.6
baz=186
S22A **4UR Ranch, Cre** 26.98 334 P P 04 55 57.2 +0.7
baz=147,SNR=13
S22A **4UR Ranch, Cre** 26.98 334 *e*P P 04 55 58.5 +2.0
comp=Z,56nm,1.9s
N33A **J Bar K, Exete** 26.99 351 P P 04 55 56.3 +0.1
baz=168
PCRV **Puerto La Cruz** 27.13 95 LR LR 05 07 57.0
comp=Z,162nm,22.0s,baz=279,slow=39
113A **Mohawk Valley,** 27.14 317 *e*P P 04 55 59.1 +1.5
113A *epP* *pP* 04 56 10.8 +0.8
N46A **Monticello** 27.15 9 P P 04 55 56.8 -0.8
baz=191
M40A **Post Highland** 27.25 1 P P 04 55 58.4 -0.1
baz=181
ACSO **Alum Creek Sta** 27.28 15 P P 04 55 58.5 -0.3
baz=199
M38A **Pleasantville** 27.28 358 P P 04 55 58.3 -0.5
baz=177
M37A **Trindle Farm,** 27.30 357 P P 04 55 58.3 -0.7
baz=176
MVCO **Mesa Verde** 27.30 331 P P 04 56 00.5 +1.2
baz=143,SNR=19
MVCO **Mesa Verde** 27.30 331 *e*P P 04 56 01.2 +1.9
comp=Z,20nm,0.9s
Y14A **Wickenburg** 27.40 320 *e*P P 04 56 01.5 +1.5
comp=Z,86nm,1.7s
WUAZ **Wupatki** 27.51 324 P P 04 56 02.6 +1.4
baz=136
WUAZ **Wupatki** 27.51 324 *e*P P 04 56 03.1 +1.9
comp=Z,4.4nm,0.9s
M45A **Boilermakers S** 27.56 8 P P 04 56 01.1 -0.2
baz=190
M46A **Old House Fiel** 27.71 9 P P 04 56 02.4 -0.2
baz=192
L42A **Oliver, Polo** 27.93 4 P P 04 56 04.8 +0.3
baz=185
L41A **Preston** 27.95 3 P P 04 56 04.5 -0.3
baz=183
GLA **Glamis** 28.02 316 P P 04 56 06.3 +0.7
baz=127
GLA **Glamis** 28.02 316 *e*P P 04 56 07.2 +1.6
comp=Z,20nm,1.4s
PV01 **Paradox Valley** 28.08 332 *e*P P 04 56 08.7 +2.4
SMCO **Snowmass** 28.25 335 *e*P P 04 56 09.5 +1.5
comp=Z,12nm,1.5s
ISCO **Idaho Springs** 28.26 338 P P 04 56 08.3 +0.3
baz=151
PV05 **Paradox Valley** 28.28 331 *e*P P 04 56 10.1 +2.1
PDMCI **Parker Dam,Lak** 28.35 319 P P 04 56 08.8 +0.4
baz=130
PV04 **Paradox Valley** 28.44 332 *e*P P 04 56 10.3 +0.9
PV10 **Paradox Valley** 28.49 331 *e*P P 04 56 11.2 +1.2
SWSC **Sam W. Stewart** 28.61 315 P P 04 56 11.4 +0.6
baz=125
PV09 **Paradox Valley** 28.63 331 *e*P P 04 56 13.9 +2.6
U15A **North Rim** 28.68 325 *e*P P 04 56 13.9 +2.2
comp=Z,6.0nm,1.0s
BC3 **Big Chuckawall** 28.80 317 P P 04 56 13.3 +0.7
baz=127,SNR=6.4
IRM **Iron Mountain** 28.90 318 P P 04 56 14.2 +0.7
baz=128
J39A **Decorah** 29.18 1 P P 04 56 14.8 -0.9
baz=180
PFO **Pinyon Flats O** 29.45 316 P P 04 56 18.4 0.0
baz=125
LDFC **Landfair** 29.46 319 *e*P P 04 56 21.1 +2.7
comp=Z,15nm,1.0s
109C **Camp Elliot, M** 29.49 314 P P 04 56 17.7 -0.8
baz=124
O20A **White River Ci** 29.58 334 P P 04 56 20.2 +0.7
baz=147
GMRC **Granite Mounta** 29.62 318 P P 04 56 21.2 +1.2
baz=128
SRU **San Rafael Swe** 29.78 330 *e*P P 04 56 25.0 +3.7
comp=Z,16nm,1.3s
MTPU **Mount Pierson** 29.80 327 *e*P P 04 56 24.7 +3.0
comp=Z,20nm,1.6s
Q16A **Castle Valley** 29.94 329 *e*P P 04 56 25.1 +2.4
comp=Z,15nm,1.1s
SZCU **Shurtz Canyon** 29.96 325 *e*P P 04 56 25.5 +2.5
comp=Z,9.5nm,0.9s
NNA **Nana** 29.98 149 LR LR 05 06 11.9
comp=Z,254nm,21.6s,baz=316,slow=32
P18A **Preston Nutter** 30.05 331 *e*P P 04 56 26.0 +2.1
comp=Z,17nm,1.6s
CCUT **Cedar City** 30.08 325 *e*P P 04 56 26.7 +2.6
comp=Z,8.1nm,1.0s
HEC **Hector,Ludlow** 30.09 318 P P 04 56 24.7 +0.7
baz=127
P17A **Butcher Ranch,** 30.16 331 *e*P P 04 56 27.2 +2.5
comp=Z,10nm,0.8s
TMUT **Trail Mountain** 30.25 330 *e*P P 04 56 29.2 +3.5
comp=Z,13nm,0.9s
N59A **State Game Lan** 30.32 25 P P 04 56 25.0 -0.9
baz=212
SHPR **Sheep Range** 30.41 321 *e*P P 04 56 28.7 +1.8
comp=Z,6.0nm,1.0s
H38A **Maiden Rock** 30.52 360 P P 04 56 26.8 -0.7
baz=179
H32A **Carlson Farm,** 30.68 353 P P 04 56 28.6 -0.5
baz=170
G38A **Ridgeland** 31.01 0 P P 04 56 31.2 -0.7
baz=180
MPU **Maple Canyon** 31.02 330 *e*P P 04 56 34.4 +2.1
comp=Z,10nm,0.9s
SPMN **Nine on St.** 31.07 359 P P 04 56 32.1 -0.3
baz=178
DCU **Deer Creek Res** 31.28 331 *e*P P 04 56 32.4 -2.2
LRMC **Laurel Mtn Rad** 31.36 317 P P 04 56 35.7 +0.4
baz=126
JLU **Jordanelle** 31.39 331 *e*P P 04 56 38.1 +2.5
comp=Z,15nm,1.5s
MPMC **Manual Prospec** 31.58 318 P P 04 56 37.1 -0.2
baz=127,SNR=6.3
CTU **Camp Tracy** 31.60 331 *e*P P 04 56 40.0 +2.6
comp=Z,8.1nm,0.9s
RSSD **Black Hills** 31.65 344 P P 04 56 37.5 -0.3
baz=157
DUG **Dugway, Tooele** 31.74 329 *e*P P 04 56 42.5 +4.0
comp=Z,6.5nm,1.0s
TCUT **Toone Canyon** 31.78 332 *e*P P 04 56 41.2 +2.2
comp=Z,52nm,1.3s
DAC **Darwin (Calif)** 31.78 319 *e*P P 04 56 40.2 +1.2
comp=Z,14nm,1.4s
R11A **Troy Canyon, C** 31.90 324 P P 04 56 40.6 +0.6
baz=133
R11A **Troy Canyon, C** 31.90 324 *e*P P 04 56 42.2 +2.2
comp=Z,5.5nm,1.1s
ISA **Isabella, Lake** 31.99 317 *e*PcP PcP 04 59 31.2 +1.2
CWC **Cottonwood Cre** 32.20 318 P P 04 56 43.6 +0.9
baz=127
PD31 **Pinedale Array** 32.33 336 *e*P P 04 56 44.1 +0.4
PD31 *ePcP* *PcP* 04 59 30.3 -0.6
PDAR **Pinedale Array** 32.33 336 P P 04 56 44.1 +0.4
comp=Z,0.4nm,0.5s,baz=130,slow=9.5,SNR=5.2
PDAR PcP PcP 04 59 30.3 -0.6
comp=Z,1.9nm,1.1s,baz=164,slow=3.6,SNR=4.6
PDAR LR LR 05 12 12.4
comp=Z,216nm,19.8s,baz=164,slow=40
BGU **Big Grassy Mou** 32.40 330 *e*P P 04 56 48.0 +3.7
comp=Z,8.7nm,0.8s
VES **Vestal, Richgr** 32.50 317 P P 04 56 46.0 +0.9
baz=125
SADO **Sadowa** 32.54 17 P P 04 56 43.4 -1.9
comp=Z,4.3nm,0.5s,baz=227,slow=10,SNR=5.6
SADO LR LR 05 11 11.3
comp=Z,281nm,20.4s,baz=192,slow=39
SADO **Sadowa** 32.54 17 *e*P P 04 56 43.4 -1.9
comp=Z,70nm,1.8s
RCTC **Rector, Farmer** 32.87 317 P P 04 56 49.5 +1.1
baz=125
AHID **Auburn Hatcher** 32.96 334 *e*P P 04 56 50.6 +1.3
comp=Z,23nm,1.4s
REDW **Red Top Meadow** 33.35 335 *e*P P 04 56 53.8 +1.1
comp=Z,50nm,1.4s
SNOW **Snow King Moun** 33.39 335 *e*P P 04 56 54.5 +1.4
comp=Z,20nm,0.8s
NV11 **Mina Array Sit** 33.47 321 *e*P P 04 56 55.8 +2.0
comp=Z,1.0nm,1.0s
TPAW **Teton Pass** 33.49 335 *e*P P 04 56 55.7 +1.7
comp=Z,31nm,1.4s
NV01 **Mina Array Sit** 33.56 321 *e*P P 04 56 56.3 +1.7
NV01 *ePcP* *PcP* 04 59 35.0 +0.6
NVAR **Mina Array Bea** 33.56 321 P P 04 56 56.4 +1.7
comp=Z,7.0nm,0.8s,baz=137,slow=8.7,SNR=37
NVAR PcP PcP 04 59 34.5 +0.1
comp=Z,2.6nm,0.8s,baz=129,slow=3.9,SNR=7.4
NVAR LR LR 05 12 04.6
comp=Z,523nm,19.6s,baz=104,slow=39
MOOW **Moose Ponds** 33.62 335 *e*P P 04 56 56.2 +1.1
comp=Z,17nm,1.6s
FXWY **Fox Creek** 33.65 335 *e*P P 04 56 56.6 +1.3
comp=Z,10nm,1.4s
IMW **Indian Meadow** 33.83 335 *e*P P 04 56 58.2 +1.3
comp=Z,16nm,1.4s
IMW *ePcP* *PcP* 04 59 36.1 +1.0
KVN **Kaiserville** 33.84 322 *e*P P 04 56 59.0 +2.0
comp=Z,10nm,1.0s
C31A **Landman Farms,** 33.96 353 P P 04 56 56.4 -1.3
baz=170
H17A **Grant Village** 34.09 336 *e*P P 04 57 02.5 +3.3
comp=Z,10nm,0.4s
RLMT **Red Lodge** 34.22 338 P P 04 57 00.2 0.0
baz=149
BMN **Battle Mountai** 34.24 325 *e*P P 04 57 02.5 +2.1
comp=Z,9.9nm,1.0s
MDND **Maddock** 34.26 351 P P 04 57 00.2 -0.1
baz=167
WAKR **Walker** 34.30 320 *e*P P 04 57 03.6 +2.6
WAKR *epP* *pP* 04 57 16.7 +3.2
YERR **Yerington** 34.48 321 *e*P P 04 57 04.8 +2.3
comp=Z,13nm,1.2s
YHH **Holmes Hill** 34.53 336 *e*P P 04 57 04.8 +1.7
comp=Z,16nm,1.7s
B31A **Greenbush Farm** 34.57 353 P P 04 57 03.1 +0.1
baz=170
LAO **LASA Array** 34.62 343 P P 04 57 03.7 +0.2
baz=155
LAO **LASA Array** 34.62 343 *e*P P 04 57 04.2 +0.7
comp=Z,4.9nm,0.8s
CMB **Columbia Colle** 34.62 319 *e*P P 04 57 04.9 +1.3
comp=Z,9.0nm,1.3s
PNTR **Pine Nut** 34.76 321 *e*P P 04 57 07.8 +2.8
comp=Z,66nm,1.8s
QLMT **Earthquake Lak** 34.80 336 *e*P P 04 57 08.0 +2.8
A33A **Warroad** 34.89 356 P P 04 57 05.1 -0.5
baz=174
PAHR **Pah Rah Range** 35.02 322 *e*P P 04 57 09.4 +2.2
comp=Z,6.7nm,1.0s
PTGA **Pitinga** 35.06 112 P P 04 57 06.9 -0.7
comp=Z,8.7nm,0.8s,baz=301,slow=8.8,SNR=13
PTGA **Pitinga** 35.06 112 *e*P P 04 57 07.6 0.0
comp=Z,8.9nm,0.8s
HLID **Hailey** 35.08 331 P P 04 57 08.3 +0.7
baz=140,SNR=13
HLID **Hailey** 35.08 331 *e*P P 04 57 09.3 +1.7
comp=Z,7.9nm,0.8s
MCMT **McKenzie Canyo** 35.38 334 *e*P P 04 57 12.5 +2.2
BOZ **Bozeman (W)** 35.51 336 P P 04 57 11.9 +0.6
baz=146
BOZ **Bozeman (W)** 35.51 336 *e*P P 04 57 12.8 +1.5
comp=Z,19nm,1.9s
MFID **Camas Ranch** 35.64 330 *e*P P 04 57 15.5 +3.1
comp=Z,12nm,1.3s
DLMT **Dillon** 35.70 335 *e*P P 04 57 14.5 +1.5
comp=Z,22nm,1.4s
BEKR **Beckworth** 35.71 321 *e*P P 04 57 15.1 +2.1
comp=Z,15nm,1.3s
LRM **Limekiln Ridge** 36.02 336 *e*P P 04 57 17.3 +1.5
ORV **Oroville** 36.22 320 *e*P P 04 57 19.4 +2.1
comp=Z,8.8nm,1.4s
ULM **Lac du Bonnet** 36.23 356 PcP PcP 04 59 40.8 -0.8
comp=Z,3.7nm,0.7s,baz=208,slow=2.3,SNR=6.0
WVOR **Wild Horse Val** 36.39 326 *e*P P 04 57 20.2 +1.4
comp=Z,11nm,0.9s
HRY **Holter Researc** 36.51 337 *e*P P 04 57 21.0 +1.2
SAML **Samuel** 36.69 127 *e*P P 04 57 20.0 -1.5
comp=Z,13nm,1.0s
O03D **Paynes Creek** 36.84 321 P P 04 57 23.2 +0.6
baz=127
EGMT **Eagleton** 36.90 340 P P 04 57 22.8 -0.3
baz=150
EGMT **Eagleton** 36.90 340 *e*P P 04 57 23.7 +0.6
comp=Z,25nm,1.6s
J08A **Circle Bar Ran** 36.94 327 *e*P P 04 57 25.1 +1.7
comp=Z,25nm,0.6s
MOD **Modoc Plateau** 36.96 324 *e*P P 04 57 24.9 +1.2
comp=Z,12nm,1.3s
BMO **Blue Mountains** 37.42 330 *e*P P 04 57 27.9 +0.4
comp=Z,16nm,1.5s
MSO **Missoula** 37.44 335 P P 04 57 28.1 +0.4
baz=143,SNR=6.7
MSO **Missoula** 37.44 335 *e*P P 04 57 28.6 +1.0
comp=Z,19nm,1.4s
M04C **Macdoel** 37.77 323 P P 04 57 30.7 +0.1
baz=128
I07A **Izee** 37.98 327 *e*P P 04 57 33.5 +1.3
comp=Z,9.7nm,1.2s
F10A **Beach Ranch, E** 38.21 331 *e*P P 04 57 35.0 +0.8
comp=Z,32nm,0.8s
YBH **Yreka Blue Hor** 38.26 322 LR LR 05 15 39.0
comp=Z,284nm,18.8s,baz=148,slow=40
LPAZ **La Paz** 38.34 141 P P 04 57 35.5 -0.6
comp=Z,3.6nm,0.8s,baz=324,slow=9.0,SNR=13
LPAZ PcP PcP 04 59 49.2 -0.2
comp=Z,2.5nm,1.0s,baz=333,slow=2.3,SNR=5.0
LPAZ LR LR 05 12 52.5
comp=Z,189nm,20.3s,baz=324,slow=35
LPAZ **La Paz** 38.34 141 *e*P P 04 57 36.0 -0.2
comp=Z,5.1nm,0.9s
LPAZ *ePcP* *PcP* 04 59 49.8 +0.4
J05D **Fort Rock, OR** 38.38 325 P P 04 57 35.6 -0.1
baz=130
G08A **Pilot Rock** 38.55 329 *e*P P 04 57 37.5 +0.4
comp=Z,16nm,1.9s
G08A *ePcP* *PcP* 04 59 50.0 +1.0
E09A **Wood Farm, Sta** 39.04 331 *e*P P 04 57 42.1 +1.1
comp=Z,16nm,1.4s
I05D **Terrebonne, OR** 39.12 326 P P 04 57 42.2 +0.4
baz=131
I04A **Tendick Farm,** 39.36 325 P P 04 57 43.6 -0.2
baz=129
G05D **Wamic, OR** 39.72 327 P P 04 57 48.1 +1.5
baz=132
MNMC **Minye Minye** 39.74 146 *e*P P 04 57 48.0 +0.6
comp=Z,34nm,1.2s
D08A **Wollman Farm,** 39.80 331 *e*P P 04 57 50.8 +3.5
comp=Z,34nm,2.0s
H04A **Detroit Lake** 39.81 326 *e*P P 04 57 48.5 +1.0
comp=Z,23nm,1.1s
I03D **Drain, OR** 39.83 324 P P 04 57 47.9 +0.3

baz=128
**NEW Newport 39.90 334** LR LR 05 17 18.5
comp=Z,218nm,18.6s,baz=138,slow=40
**NEW Newport 39.90 334** P **P** **04 57 48.3 +0.1**
baz=140
**NEW Newport 39.90 334** *e*P **P** **04 57 50.2 +2.1**
comp=Z,5.5nm,1.0s
**C09A Chrisman Ranch 40.05 332** *e*P **P** **04 57 50.5 +1.1**
comp=Z,9.9nm,0.8s
**PB11 IPOC Station P 40.22 146** *e*P **P** **04 57 51.4 +0.2**
comp=Z,26nm,1.0s
**LTY Liberty 40.78 330** *e*P **P** **04 57 56.2 +0.8**
comp=Z,37nm,1.7s
**LON Longmire 40.99 329** *e*P **P** **04 57 58.4 +1.1**
comp=Z,9.1nm,0.9s
**D05A Enumclaw 41.38 329** *e*P **P** **04 58 02.0 +1.7**
comp=Z,20nm,1.0s
**B06A Marblemount 42.05 331** *e*P **P** **04 58 09.8 +4.0**
comp=Z,13nm,0.7s
**B05A Bryant 42.17 330** P **P** **04 58 06.5 -0.3**
baz=134
**A04D Lummi Island 42.78 330** P **P** **04 58 12.2 +0.5**
baz=133
**SIV San Ignacio 42.80 133** P **P** **04 58 11.9 -0.5**
comp=Z,20nm,0.7s,baz=314,slow=9.0,SNR=49
SIV PcP **PcP** **05 00 02.7 -0.4**
comp=Z,3.2nm,0.8s,baz=353,slow=3.0,SNR=3.9
**PGC Sidney 43.09 330** *e*P **P** **04 58 15.3 +1.1**
comp=Z,25nm,1.0s
**LLLB Lillooet 43.72 333** *e*P **P** **04 58 21.1 +1.7**
comp=Z,52nm,1.8s
**RPN Rapa Nui 44.22 202** LR LR 05 12 44.7
comp=Z,163nm,18.9s,baz=44,slow=30
**SCHQ Schefferville 45.21 20** LR LR 05 19 30.5
comp=Z,418nm,18.2s,baz=218,slow=39
**YKA Yellowknife Ar 50.95 347** P **P** **04 59 14.8 -0.5**
comp=Z,4.2nm,0.7s,baz=149,slow=7.6,SNR=58
YKA PcP **PcP** **05 00 30.8 -0.2**
comp=Z,2.1nm,0.8s,baz=146,slow=4.2,SNR=9.6
YKA LR LR 05 24 13.5
comp=Z,20nm,18.8s,baz=180,slow=40
**YKB5 Yellowknife Ar 50.95 347** *e*P **P** **04 59 14.8 -0.5**
YKB5 *e*PcP **PcP** **05 00 30.8 -0.2**
**YKW3 Yellowknife Ar 51.01 347** *e*P **P** **04 59 15.4 -0.4**
comp=Z,8.2nm,0.9s
**CPUP Villa Florida 52.49 140** P **P** **04 59 25.4 -2.0**
comp=Z,5.7nm,0.9s,baz=324,slow=10,SNR=15
CPUP PcP **PcP** **05 00 36.5 -1.0**
comp=Z,2.6nm,0.9s,baz=294,slow=7.1,SNR=4.0
CPUP LR LR 05 22 58.8
comp=Z,94nm,18.4s,baz=325,slow=37
**DLBC Dease Lake 52.56 336** *e*P **P** **04 59 29.9 +2.4**
comp=Z,18nm,1.0s
**TAOE Nuku Hiva Isla 52.82 247** *e*LR LR 05 14 28.6
comp=Z,154nm,24.7s
**TAOE Nuku Hiva Isla 52.82 247** *e*T T 05 56 00.2
comp=Z,26nm,0.2s
**RKT Rikitea 55.90 229** *e*T T 05 59 49.3
comp=Z,5.7nm,0.3s
**PLCA Paso Flores 58.06 161** LR LR 05 20 27.0
comp=Z,224nm,18.0s,baz=334,slow=31
**INK Inuvik 60.35 344** P **P** **05 00 22.6 0.0**
comp=Z,9.9nm,1.0s,baz=119,slow=8.2,SNR=20
**INK Inuvik 60.35 344** *e*P **P** **05 00 22.9 +0.3**
comp=Z,13nm,1.0s
**RES Resolute Bay 60.64 359** P **P** **05 00 22.9 -1.6**
comp=Z,0.5nm,0.5s,baz=181,slow=8.6,SNR=6.6
**KLU Klutina 60.88 334** *e*P **P** **05 00 27.9 +1.4**
comp=Z,47nm,1.6s
**DOT Dot Lake 61.13 336** *e*P **P** **05 00 29.2 +1.2**
comp=Z,105nm,1.9s
**PAX Paxson 61.36 335** *e*P **P** **05 00 30.4 +0.7**
comp=Z,30nm,1.6s
**RC01 Rabbit Creek A 62.39 332** *e*P **P** **05 00 37.5 +0.9**
comp=Z,33nm,1.3s
**KDAK Kodiak Island 62.61 328** P **P** **05 00 38.5 +0.4**
comp=Z,5.8nm,0.7s,baz=112,slow=8.5
**KDAK Kodiak Island 62.61 328** *e*P **P** **05 00 38.5 +0.4**
comp=Z,175nm,2.0s
**IL1 Eielson Array 62.75 337** *e*P **P** **05 00 38.6 -0.3**
**ILAR Eielson Array 62.75 337** P **P** **05 00 39.0 +0.2**
comp=Z,3.3nm,1.0s,baz=132,slow=4.6,SNR=28
ILAR LR LR 05 30 11.6
comp=Z,178nm,19.4s,baz=135,slow=38
**ILB Eielson Array 62.75 337** *e*P **P** **05 00 39.1 +0.2**
**RND Reindeer 62.93 335** *e*P **P** **05 00 41.3 +1.1**
comp=Z,25nm,1.0s
**SUA Susitna One 62.98 333** *e*P **P** **05 00 41.6 +0.9**
comp=Z,47nm,1.8s
**MCK McKinley 63.10 335** *e*P **P** **05 00 41.9 +0.6**
comp=Z,15nm,1.2s
**SPU Mount Spurr 63.47 332** *e*P **P** **05 00 44.4 +0.6**
**TRF Thorofare Mtn 63.54 335** *e*P **P** **05 00 45.1 +0.7**
comp=Z,16nm,1.0s
**RSO Redoubt South 63.55 331** *e*P **P** **05 00 45.1 +0.5**
**KTH Kantishna Hill 63.84 335** *e*P **P** **05 00 46.5 +0.2**
comp=Z,70nm,2.0s
**BPAW Bear Paw Mtn. 64.08 335** *e*P **P** **05 00 47.9 +0.1**
comp=Z,10.0nm,1.0s
**MLY Manley 64.34 336** *e*P **P** **05 00 50.0 +0.5**
comp=Z,13nm,1.0s
**PPT Papeete 64.82 243** LR LR 05 21 20.5
comp=Z,133nm,20.4s,baz=340,slow=28
**PPT2 Papeete2 64.83 243** *e*LR LR 05 20 06.0
comp=Z,147nm,24.8s
**COLD Coldfoot 65.04 339** *e*P **P** **05 00 55.4 +1.5**
comp=Z,14nm,1.4s
**TBI Tubuai 67.29 237** *e*LR LR 05 21 30.1
comp=Z,152nm,25.5s
**USHA Ushuaia 71.50 166** LR LR 05 27 02.3
comp=Z,340nm,18.7s,baz=268,slow=31
**ESDC Sonseca Array 79.76 52** P **P** **05 02 19.9 -2.4**
comp=Z,0.5nm,0.7s,baz=295,slow=5.9,SNR=5.6
**ES19 SONSECA Array 79.81 52** *e*P **P** **05 02 20.5 -2.0**
**SPITS Spitsbergen Ar 80.05 11** P **P** **05 02 22.2 -0.8**
comp=Z,13nm,1.1s,baz=271,slow=7.4,SNR=5.4
**NOA NORSAR Array B 84.15 28** LR LR 05 41 07.8
comp=Z,47nm,18.5s,baz=280,slow=36
**DBIC Dimbokro 85.75 84** LR LR 05 38 31.0
comp=Z,58nm,20.4s,baz=262,slow=34
**ARA0 ARCESS Array S 86.12 18** *e*P **P** **05 02 53.4 -1.0**
**ARCES ARCESS Array B 86.12 18** P **P** **05 02 53.4 -1.0**
comp=Z,2.3nm,0.9s,baz=307,slow=5.3,SNR=6.9
**SEY Seymchan 88.66 336** P **P** **05 03 07.2 +0.4**
comp=Z,1.1nm,0.5s,baz=89,slow=5.7,SNR=4.0
SEY LR LR 05 48 37.1
comp=Z,148nm,18.4s,baz=122,slow=39
**GERES GERESS Array B 89.63 39** P **P** **05 03 11.6 -0.2**
comp=Z,0.3nm,0.6s,baz=270,slow=3.9,SNR=3.2
GERES LR LR 05 39 46.8
comp=Z,59nm,21.8s,baz=278,slow=33
**TIXI Tiksi 90.18 348** *e*P **P** **05 03 13.6 -0.2**
comp=Z,102nm,0.2s
**TOA1 Torodi Ar. Sit 90.46 76** *e*P **P** **05 03 15.0 -1.2**
TOA1 *e* 05 41 09.6
**TORD Torodi Ar. Bea 90.47 76** P **P** **05 03 15.0 -1.2**
comp=Z,0.3nm,0.5s,baz=305,slow=5.1,SNR=3.7
TORD LR LR 05 41 09.6
comp=Z,67nm,21.2s,baz=245,slow=34
**FINES FINESS Array B 90.49 25** LR LR 05 44 43.7
comp=Z,35nm,18.8s,baz=266,slow=36
**MA2 Magadan 91.00 333** LR LR 05 47 18.2
comp=Z,28nm,18.4s,baz=76,slow=38
**SONA0 Songinо Array 116.21 346** *e*PKPdf **PKPdf** **05 08 56.7 -0.6**
**SONM Songino Array 116.21 346** PKP **PKPdf** **05 08 56.7 -0.6**
comp=Z,0.5nm,0.9s,baz=8.5,slow=2.9,SNR=3.3
**MK32 Makanchi Array 119.22 4** *e*PKPdf **PKPdf** **05 09 03.5 +0.5**
**MKAR Makanchi Array 119.22 4** PKP **PKPdf** **05 09 03.5 +0.5**
comp=Z,0.2nm,0.5s,baz=6.4,slow=3.1,SNR=3.3
**BOSA Boshof 120.47 115** PKP **PKPdf** **05 09 05.6 -0.4**
comp=Z,5.8nm,0.8s,baz=285,slow=12,SNR=8.6
**HHC Hu-ho-hao-te 121.13 339** *e*PKP **PKPdf** **05 09 09.9 +3.0**
**WMQ Urumqi 122.41 0** PKP **PKPdf** **05 09 10.8 +1.6**
WMQ LR LR
comp=Z,120nm,22.3s
WMQ LR LR
comp=Z,97nm,22.3s
WMQ LR LR
comp=Z,130nm,24.3s
**NJ2 Nanjing 125.39 328** *e*PKP **PKPdf** **05 09 17.1 +1.9**
**KSH Kashi 125.56 11** PKP **PKPdf** **05 09 18.8 +3.3**
KSH sPKP 05 09 32.8
KSH PP PP 05 11 14.0 +8.3
KSH PKS **PKSdf** **05 12 53.4 +1.2**
KSH SKS **SKSdf** **05 16 25.5 +1.7**
KSH SKKS **SKKSac** **05 18 01.4 -0.1**
KSH SS **SS** **05 28 06.3 +5.6**
KSH AMB AMB
comp=Z,62nm,4.1s
KSH LR LR
comp=Z,160nm,5.1s
**LZH Lanzhou 127.90 344** *e*PKP **PKPdf** **05 09 26.4 +6.3**
LZH sPKP 05 09 40.0
**STKA Stephens Creek 127.99 240** PKP **PKPdf** **05 09 19.6 -0.5**
comp=Z,4.6nm,0.9s,baz=36,slow=3.3,SNR=8.8
**STKA Stephens Creek 127.99 240** *e*PKPdf **PKPdf** **05 09 20.0 -0.1**
**WR1 Warramunga Arr 135.31 256** *e*PKPdf **PKPdf** **05 09 33.6 -0.6**
**WRA Warramunga Arr 135.31 256** PKP **PKPdf** **05 09 33.6 -0.6**
comp=Z,1.8nm,0.9s,baz=82,slow=1.4,SNR=7.2
**AS31 Alice Springs 135.58 250** *e*PKPdf **PKPdf** **05 09 33.2 -1.5**
**ASAR Alice Springs 135.58 250** PKP **PKPdf** **05 09 33.2 -1.5**
comp=Z,1.2nm,0.9s,baz=98,slow=2.5,SNR=7.8
**KMI Kunming 138.45 339** PKP **PKPdf** **05 09 39.3 -1.0**
**CM31 Chiang Mai Arr 145.91 341** *e*PKPdf **PKPab** **05 09 54.8 +0.3**
**CMAR Chiang Mai Arr 145.91 341** PKPbc **PKPdf** **05 09 54.0 +0.6**
comp=Z,8.2nm,0.8s,baz=345,slow=4.1,SNR=49

*IDC **22** 04:59:00.8±0.8, 36°.53N×141°.13E, h0km, mb3.7/10, mb1 3.8/13, mb1mx3.7/55, mbtmp3.7/13, ML3.6/3, MS2.2/2, Ms1 2.2/2, ms1mx2.1/40, Error ellipse: s-maj=20.6km s-min=15.7km az=106.0*
*NIED **22** 04:59:00, 36°.60N×141°.10E, h5km, Mw3.7 Best double couple: M0=4.37000×10^14 NP1:φs=33.00000°, δ=43.00000°, λ=-31.00000°. NP2:φs=146.00000°, δ=69.00000°, λ=-129.00000°.*
*ISCJB **22** 04:59:01.7±1.2, 36°.52N±0°.04×141°.24E±0°.06, h18km±7km, mb3.6/10, Error ellipse: s-maj=9.3km s-min=6.2km az=26.6*
*JMA **22** 04:59:03.3±0.1, 36°.53N×141°.12E, h29km±1km, M3.8*
*JMA Felt I J1.*

**ISC 22 04:59:01.2±1.9, 36°.53N±0°.05×141°.16E±0°.06, h3km±12km, n27, σ0s54/26, mb3.7/10, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JHO** | **Hitachi** | **0.49** | **280** | P | **Pb** | **04 59 12.5** | **+0.1** |
| JHO | | | | S | **Sb** | **04 59 19.0** | **-1.0** |
| **ONAJ** | **Iwakimizuishiy** | **0.65** | **333** | P | **Pb** | **04 59 15.3** | **+0.1** |
| ONAJ | | | | S | **Sb** | **04 59 24.3** | **-0.3** |
| **JYT** | **Yasato** | **0.84** | **250** | P | **Pb** | **04 59 18.3** | **-0.1** |
| JYT | | | | S | **Sb** | **04 59 29.5** | **-0.5** |
| **JFK** | **Kawauchi** | **0.87** | **345** | P | **Pg** | **04 59 18.5** | **+0.5** |
| **JFT** | **Otama** | **1.19** | **326** | P | **Pg** | **04 59 24.4** | **+0.3** |
| JFT | | | | S | **Sg** | **04 59 39.2** | **-0.4** |
| **MJAR** | **Matsushiro Arr** | **2.38** | **271** | Pn | **Pn** | **04 59 41.5** | **+0.3** |
| | 9.0nm,0.3s,baz=96,slow=9.5,SNR=39 | | | | | | |
| MJAR | | | | Sn | **Sn** | **05 00 11.4** | **+0.6** |
| | 12nm,0.3s,baz=224,slow=16,SNR=7.0 | | | | | | |
| **MAT** | **Matsushiro** | **2.38** | **271** | P | **Pn** | **04 59 41.3** | **+0.1** |
| MAT | | | | *e*S | **Sn** | **05 00 11.2** | **+0.3** |
| **JHJ** | **Hachijo jima 2** | **3.58** | **199** | Pn | **Pn** | **04 59 57.5** | **-0.2** |
| | 5.5nm,0.3s,baz=78,slow=20,SNR=2.5 | | | | | | |
| JHJ | | | | Sn | **Sn** | **05 00 41.1** | **+0.7** |
| | 7.8nm,0.3s,baz=66,slow=20,SNR=3.3 | | | | | | |
| **ASAJ** | **Asahikawa** | **7.66** | **8** | Pn | **Pn** | **05 00 53.0** | **-0.7** |
| | 1.9nm,0.3s,baz=18,slow=20,SNR=3.4 | | | | | | |
| **KSRS** | **Korea Array** | **10.63** | **279** | LR | LR | 05 05 33.5 | |
| | comp=Z,18nm,21.3s,baz=90,slow=37 | | | | | | |
| **KLR** | **Kul'dur** | **14.44** | **335** | LR | LR | 05 07 41.0 | |
| | comp=Z,8.8nm,21.2s,baz=154,slow=36 | | | | | | |
| **SONM** | **Songino Array** | **27.91** | **305** | P | **P** | **05 04 53.1** | **+0.6** |
| | 0.3nm,0.4s,baz=100,slow=11,SNR=2.9 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.07** | **120** | T | T | 05 34 16.0 | |
| | baz=312,slow=75,SNR=115 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.07** | **120** | T | T | 05 34 16.6 | |
| | baz=312,slow=75,SNR=142 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.08** | **120** | T | T | 05 34 17.3 | |
| | baz=312,slow=75,SNR=105 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.76** | **122** | T | T | 05 35 08.1 | |
| | baz=314,slow=76,SNR=353 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.76** | **122** | T | T | 05 35 07.9 | |
| | baz=314,slow=76,SNR=213 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.77** | **122** | T | T | 05 35 09.9 | |
| | baz=314,slow=76,SNR=198 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.11** | **313** | P | **P** | **05 06 54.1** | **-0.2** |
| | 0.7nm,0.4s,baz=92,slow=9.0,SNR=3.3 | | | | | | |
| **ILAR** | **Eielson Array** | **50.03** | **32** | P | **P** | **05 07 57.2** | **+0.6** |
| | 0.8nm,0.7s,baz=267,slow=6.0,SNR=11 | | | | | | |
| **WRA** | **Warramunga Arr** | **56.53** | **188** | P | **P** | **05 08 44.5** | **-0.4** |
| | 0.6nm,0.5s,baz=3.4,slow=7.4,SNR=9.3 | | | | | | |
| **ASAR** | **Alice Springs** | **60.26** | **188** | P | **P** | **05 09 11.1** | **+0.2** |
| | 0.2nm,0.5s,baz=16,slow=11,SNR=2.8 | | | | | | |
| **YKA** | **Yellowknife Ar** | **64.35** | **30** | P | **P** | **05 09 38.2** | **+0.4** |
| | 0.3nm,0.7s,baz=304,slow=6.7,SNR=5.3 | | | | | | |
| **FINES** | **FINESS Array B** | **69.17** | **322** | P | **P** | **05 10 08.3** | **-0.3** |
| | 1.4nm,0.7s,baz=35,slow=7.0,SNR=4.0 | | | | | | |
| **AKASG** | **Malin Array Be** | **74.58** | **322** | P | **P** | **05 10 40.3** | **-1.0** |
| | 0.1nm,0.3s,baz=46,slow=6.2,SNR=5.1 | | | | | | |
| **NOA** | **NORSAR Array B** | **74.58** | **337** | P | **P** | **05 10 40.8** | **-0.4** |
| | 0.8nm,0.6s,baz=41,slow=6.0,SNR=3.2 | | | | | | |
| **PDAR** | **Pinedale Array** | **78.17** | **45** | P | **P** | **05 11 03.0** | **+0.8** |
| | 0.3nm,0.7s,baz=270,slow=1.8,SNR=2.7 | | | | | | |

**IDC 22 05:09:35.8±2.2, 26°.58N×143°.91E, h0km, mb3.7/4, mb1 3.9/4, mb1mx3.4/51, mbtmp3.7/4, Error ellipse: s-maj=53.2km s-min=22.1km az=58.0, Bonin Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JCJ** | **Chichijima** | **1.62** | **289** | Pn | Pn | 05 10 05.9 | +0.2 |
| | 5.2nm,0.3s,baz=274,slow=22,SNR=8.3 | | | | | | |
| JCJ | | | | Sn | Sn | 05 10 26.7 | -0.6 |
| | 40nm,0.3s,baz=292,slow=21,SNR=7.6 | | | | | | |
| **SONM** | **Songino Array** | **36.15** | **316** | P | P | 05 16 40.0 | +0.1 |
| | 0.5nm,0.8s,baz=117,slow=7.7,SNR=4.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **47.17** | **192** | P | P | 05 18 09.2 | -1.0 |
| | 0.7nm,1.0s,baz=16,slow=8.7,SNR=4.1 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **47.83** | **204** | P | P | 05 18 16.1 | +0.8 |
| | 2.0nm,0.7s,baz=37,slow=5.1,SNR=3.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **51.99** | **310** | P | P | 05 18 46.6 | -0.2 |
| | 0.7nm,0.8s,baz=93,slow=8.8,SNR=4.8 | | | | | | |

**IDC 22 05:14:58.7±3.5, 29°.94S×138°.96E, h0km, mb1 3.0/3, mb1mx2.9/31, mbtmp2.8/3, ML2.7/3, Error ellipse: s-maj=132.2km s-min=16.3km az=48.0, South Australia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **STKA** | **Stephens Creek** | **2.97** | **131** | Pn | Pn | 05 15 47.8 | +0.6 |
| | 0.4nm,0.3s,baz=310,slow=16,SNR=7.2 | | | | | | |
| STKA | | | | Sn | Sn | 05 16 22.6 | -1.0 |
| | 0.9nm,0.3s,baz=285,slow=16,SNR=3.8 | | | | | | |
| STKA | | | | Lg | Lg | 05 16 33.1 | |
| | 2.4nm,0.3s,baz=352,slow=14,SNR=8.8 | | | | | | |
| **ASAR** | **Alice Springs** | **7.71** | **323** | Pn | Pn | 05 16 51.5 | -0.9 |
| | 0.1nm,0.3s,baz=149,slow=12,SNR=6.9 | | | | | | |
| ASAR | | | | Sn | Sn | 05 18 17.6 | -2.9 |
| | 0.1nm,0.3s,baz=147,slow=22,SNR=2.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **10.80** | **336** | Pn | Pn | 05 17 36.0 | +1.2 |
| | 0.1nm,0.3s,baz=154,slow=13,SNR=5.9 | | | | | | |
| WRA | | | | Sn | Sn | 05 19 36.4 | 0.0 |
| | 0.1nm,0.3s,baz=148,slow=22,SNR=3.1 | | | | | | |

**TRN 22 05:20:48.0, 11°.18N×59°.34W, h69km, MD4.0, North Atlantic Ocean**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TOSP** | **Speyside** | **1.18** | **276** | *e*P | Pn | 05 21 09.9 | +1.2 |
| TOSP | | | | *e*S | Sn | 05 21 25.6 | +1.3 |
| **BOT** | **Bacolet** | **1.35** | **269** | *e*P | Pn | 05 21 12.9 | +1.9 |
| BOT | | | | *e*S | Sn | 05 21 30.3 | +2.0 |
| **TBH** | **Brigand Hill** | **1.83** | **248** | *e*P | Pn | 05 21 18.6 | +1.2 |
| TBH | | | | *e*S | Sn | 05 21 41.5 | +1.8 |
| **TRN** | **Trinidad (W)** | **2.09** | **256** | *e*P | Pn | 05 21 21.6 | +0.6 |
| TRN | | | | *e*S | Sn | 05 21 46.7 | +0.7 |
| **TCE** | **Chacachacare** | **2.42** | **259** | *e*P | Pn | 05 21 27.0 | +1.7 |
| **GRGR** | **Grenville** | **2.46** | **293** | *e*P | Pn | 05 21 28.1 | +2.3 |
| GRGR | | | | *e*S | Sn | 05 21 55.7 | +0.9 |
| **SVCV** | **St. Vincent, C** | **2.73** | **320** | *e*P | Pn | 05 21 31.5 | +2.0 |
| SVCV | | | | *e*S | Sn | 05 22 01.9 | +0.5 |
| **SVB** | **Belmont** | **2.79** | **318** | *e*P | Pn | 05 21 32.2 | +1.8 |
| SVB | | | | *e*S | Sn | 05 22 04.9 | +1.8 |
| **SVV** | **Soufriere Volc** | **2.81** | **319** | *e*P | Pn | 05 21 32.0 | +1.4 |
| SVV | | | | *e*S | Sn | 05 22 04.4 | +1.0 |
| **MCLT** | **Moule a Chique** | **2.96** | **328** | *e*P | Pn | 05 21 35.1 | +2.4 |
| MCLT | | | | *e*S | Sn | 05 22 08.0 | +0.9 |

**JMA 22 05:41:31.3±0.1, 37°.20N×141°.43E, h36km±1km, M3.5, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JFK** | **Kawauchi** | **0.47** | **291** | P | Pn | 05 41 41.3 | -0.2 |
| JFK | | | | S | Sn | 05 41 48.0 | -0.7 |
| **ONAJ** | **Iwakimizuishiy** | **0.51** | **259** | P | Pn | 05 41 41.9 | -0.3 |
| ONAJ | | | | S | Sn | 05 41 49.1 | -0.7 |
| **JMM** | **Marumori** | **0.84** | **323** | P | Pn | 05 41 46.4 | -0.1 |
| JMM | | | | *e*S | Sn | 05 41 56.9 | -0.7 |
| **JHO** | **Hitachi** | **0.91** | **230** | P | Pn | 05 41 47.1 | -0.4 |
| JHO | | | | *e*S | Sn | 05 41 58.6 | -0.8 |
| **JFT** | **Otama** | **0.93** | **290** | P | Pn | 05 41 48.7 | +0.9 |
| JFT | | | | *e*S | Sn | 05 42 00.9 | +1.0 |
| **JIO** | **Ouri** | **1.25** | **357** | P | Pn | 05 41 52.3 | 0.0 |
| JIO | | | | *e*S | Sn | 05 42 07.1 | -0.8 |
| **JFY** | **Yanaizu** | **1.39** | **279** | P | Pn | 05 41 55.6 | +1.4 |
| JFY | | | | *e*S | Sn | 05 42 13.8 | +2.5 |
| **JYS** | **Shirataka** | **1.49** | **314** | P | Pn | 05 41 57.4 | +1.9 |
| JYS | | | | *e*S | Sn | 05 42 16.5 | +2.8 |
| **MAT** | **Matsushiro** | **2.67** | **257** | P | Pn | 05 42 14.2 | +2.5 |
| MAT | | | | *e*S | Sn | 05 42 46.8 | +4.0 |

**IDC 22 05:44:08.2±5.3, 5°.68S×151°.41E, h44km±47km, mb3.7/5, mb1 4.0/6, mb1mx3.5/41, mbtmp4.0/6, ML2.3/1, MS3.1/5, Ms1 3.1/5, ms1mx2.8/34, Error ellipse: s-maj=135.8km s-min=29.3km az=132.0, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PMG** | **Port Moresby** | **5.61** | **228** | P | Pn | 05 45 30.1 | +1.0 |
| | 5.6nm,0.3s,baz=45,slow=10,SNR=9.9 | | | | | | |
| PMG | | | | S | Sn | 05 46 30.2 | -2.1 |
| | 7.5nm,0.3s,baz=141,slow=23,SNR=3.7 | | | | | | |
| PMG | | | | LR | LR | 05 46 56.7 | |
| | comp=Z,26nm,18.8s,baz=0.0,slow=30 | | | | | | |
| **HNR** | **Honiara** | **9.25** | **114** | LR | LR | 05 49 12.5 | |
| | comp=Z,62nm,21.4s,baz=206,slow=33 | | | | | | |
| **WRA** | **Warramunga Arr** | **21.83** | **228** | P | P | 05 48 56.2 | -0.8 |
| | 1.4nm,0.5s,baz=54,slow=10,SNR=13 | | | | | | |
| **ASAR** | **Alice Springs** | **24.57** | **222** | P | P | 05 49 24.2 | -0.1 |
| | 2.4nm,0.8s,baz=54,slow=9.3,SNR=18 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **28.02** | **242** | P | P | 05 49 55.1 | -0.3 |
| | 1.7nm,0.3s,baz=43,slow=8.2,SNR=11 | | | | | | |
| FITZ | | | | LR | LR | 06 02 05.3 | |
| | comp=Z,65nm,20.0s,baz=22,slow=38 | | | | | | |
| **ILAR** | **Eielson Array** | **83.49** | **22** | P | P | 05 56 30.1 | -0.8 |
| | 1.0nm,0.8s,baz=252,slow=4.8,SNR=17 | | | | | | |
| **BBB** | **Bella Bella** | **88.63** | **37** | LR | LR | 06 29 55.0 | |
| | comp=Z,23nm,20.6s,baz=138,slow=31 | | | | | | |
| **YBH** | **Yreka Blue Hor** | **90.67** | **48** | LR | LR | 06 28 47.9 | |
| | comp=Z,21nm,20.3s,baz=324,slow=30 | | | | | | |
| **YKA** | **Yellowknife Ar** | **96.84** | **28** | P | P | 05 57 34.8 | +0.6 |
| | 0.2nm,0.6s,baz=271,slow=5.1,SNR=3.6 | | | | | | |
| **GERES** | **GERESS Array B** | **124.06** | **328** | PKP | PKPdf | 06 03 02.5 | +0.4 |
| | 0.3nm,0.5s,baz=101,slow=1.0,SNR=4.4 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **149.24** | **286** | PKPbc | PKPbc | 06 03 53.0 | -0.2 |
| | 2.0nm,0.8s,baz=68,slow=3.0,SNR=13 | | | | | | |

*IDC **22** 06:07:20.4±0.8, 37°.01N×24°.29W, h0km, mb4.0/22, mb1 4.2/22, mb1mx4.0/52, mbtmp4.0/22, MS3.2/13, Ms1 3.2/13, ms1mx3.0/39, Error ellipse: s-maj=21.8km s-min=15.4km az=0.0*
*NEIC **22** 06:07:21.9±0.5, 37°.06N×24°.33W, h10km, mb4.0/5, ML4.1(SVSA), Error ellipse: s-maj=12.3km s-min=7.3km az=185.0*
*CSEM **22** 06:07:23.2±0.2, 37°.12N×24°.45W, h20km, mb4.0/5, Error ellipse: s-maj=7.0km s-min=2.9km az=9.0*
*PDA **22** 06:07:24.2±1.4, 36°.96N×24°.34W, h10km, ML4.1, Error ellipse: s-maj=7.3km s-min=5.4km az=60.0*

**ISC 22 06:07:21.4±1.3, 37°.13N±0°.04×24°.39W±0°.04, h9km±8km, n116, σ1s62/111, mb4.1/27, MS3.2/11, 3C, Azores Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PSMN** | **Pico do Norte,** | **0.56** | **257** | ↑*i*P | **Pb** | **06 07 33.3** | **0.0** |
| PSMN | | | | *e*S | **Sg** | **06 07 40.8** | **+1.4** |
| PSMN | | | | A | A | 06 07 50.2 | |
| | 3μm,0.6s | | | | | | |
| **PSMN** | **Pico do Norte,** | **0.56** | **257** | ↑*i*P | **Pb** | **06 07 33.3** | **0.0** |
| PSMN | | | | *e*S | **Sg** | **06 07 40.8** | **+1.4** |
| | 3μm,0.6s | | | | | | |
| **PSMA** | **Santa Maria** | **0.61** | **258** | ↑*i*P | **Pg** | **06 07 33.8** | **+0.7** |
| PSMA | | | | *e*S | **Sg** | **06 07 42.1** | **+1.1** |
| PSMA | | | | A | A | 06 07 51.2 | |
| | 3μm,0.4s | | | | | | |
| **BART** | **Pico Bartolome** | **0.90** | **316** | *e*P | **Pb** | **06 07 39.7** | **+0.5** |
| BART | | | | *e*S | **Sb** | **06 07 52.4** | **+1.0** |
| BART | | | | A | A | 06 07 57.4 | |
| | 1μm,0.3s | | | | | | |
| **BART** | **Pico Bartolome** | **0.90** | **316** | *e*P | **Pb** | **06 07 39.7** | **+0.5** |
| BART | | | | *e*S | **Sb** | **06 07 52.4** | **+1.0** |
| | 1μm,0.3s | | | | | | |
| **PCALD** | **Caldeiras da R** | **1.10** | **308** | *e*P | **Pn** | **06 07 43.1** | **+0.1** |
| PCALD | | | | *e*S | **Sg** | **06 07 56.7** | **-0.1** |
| PCALD | | | | A | A | 06 08 08.4 | |
| | 608nm,0.5s | | | | | | |
| **PCALD** | **Caldeiras da R** | **1.10** | **308** | *e*P | **Pn** | **06 07 43.1** | **+0.1** |
| PCALD | | | | *e*S | **Sg** | **06 07 56.7** | **-0.1** |
| | 608nm,0.5s | | | | | | |
| **CMLA** | **Cha da Macela** | **1.11** | **305** | *e*P | **Pg** | **06 07 42.6** | **0.0** |
| CMLA | | | | *e*S | **Sg** | **06 07 56.8** | **-0.2** |
| CMLA | | | | A | A | 06 08 07.7 | |
| | 2μm,0.3s | | | | | | |
| **CMLA** | **Cha da Macela** | **1.11** | **305** | *e*P | **Pg** | **06 07 42.6** | **0.0** |
| CMLA | | | | *e*S | **Sg** | **06 07 56.8** | **-0.2** |
| | 2μm,0.3s | | | | | | |
| **CMLA** | **Cha da Macela** | **1.11** | **305** | *e*Pn | **Pg** | **06 07 42.4** | **-0.2** |
| **GRON** | **Grota Negra** | **1.11** | **305** | *e*P | **Pg** | **06 07 41.9** | **-0.9** |
| GRON | | | | *e*S | **Sg** | **06 07 55.0** | **-2.2** |
| GRON | | | | A | A | 06 08 07.3 | |
| | 244nm,0.4s | | | | | | |
| **PDA** | **Ponta Delgada** | **1.19** | **302** | *e*P | **Pb** | **06 07 43.5** | **-0.6** |
| PDA | | | | *e*S | **Sg** | **06 07 58.5** | **-1.1** |
| PDA | | | | A | A | 06 08 01.2 | |
| | 528nm,0.6s | | | | | | |
| **PDA** | **Ponta Delgada** | **1.19** | **302** | *e*P | **Pb** | **06 07 43.5** | **-0.6** |
| PDA | | | | *e*S | **Sg** | **06 07 58.5** | **-1.1** |
| | 528nm,0.6s | | | | | | |
| **PSET** | **Sete Cidades** | **1.27** | **304** | *e*P | **Pn** | **06 07 45.0** | **-0.4** |
| PSET | | | | *e*S | **Sb** | **06 08 00.9** | **-1.0** |
| PSET | | | | A | A | 06 08 03.3 | |
| | 966nm,0.6s | | | | | | |
| **PSET** | **Sete Cidades** | **1.27** | **304** | *e*P | **Pn** | **06 07 45.0** | **-0.4** |
| PSET | | | | *e*S | **Sb** | **06 08 00.9** | **-1.0** |
| | 966nm,0.6s | | | | | | |
| **ADH** | **Angra Heroismo** | **2.72** | **305** | *e*P | **Pn** | **06 08 05.8** | **+0.5** |
| ADH | | | | *e*S | **Sn** | **06 08 36.3** | **-2.0** |
| ADH | | | | A | A | 06 08 46.5 | |
| | 199nm,0.4s | | | | | | |
| **ADH** | **Angra Heroismo** | **2.72** | **305** | *e*P | **Pn** | **06 08 05.8** | **+0.5** |
| ADH | | | | *e*S | **Sn** | **06 08 36.3** | **-2.0** |
| | 199nm,0.4s | | | | | | |
| **PID** | **Ribeirinha** | **3.23** | **295** | *e*P | **Pn** | **06 08 12.3** | **-0.1** |
| PID | | | | *e*S | **Sn** | **06 08 48.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **PCAN** | **Candelaria** | **3.51** | **294** | *eP* | **Pn** | **06 08 16.4** | **+0.2** |
| PCAN | | | | *eS* | **Sn** | **06 08 55.3** | **-2.5** |
| PCAN | | | | A | A | 06 09 04.4 | |
| | 234nm,0.4s | | | | | | |
| **PCAN** | **Candelaria** | **3.51** | **294** | *eP* | **Pn** | **06 08 16.4** | **+0.2** |
| PCAN | | | | *eS* | **Sn** | **06 08 55.3** | **-2.5** |
| | 234nm,0.4s | | | | | | |
| **HOR** | **Horta** | **3.64** | **294** | *eP* | **Pn** | **06 08 18.0** | **+0.1** |
| HOR | | | | *eS* | **Sn** | **06 08 58.0** | **-2.9** |
| HOR | | | | A | A | 06 09 01.4 | |
| | 155nm,0.5s | | | | | | |
| **HOR** | **Horta** | **3.64** | **294** | *eP* | **Pn** | **06 08 18.0** | **+0.1** |
| HOR | | | | *eS* | **Sn** | **06 08 58.0** | **-2.9** |
| | 155nm,0.5s | | | | | | |
| **CALA** | **Caldeira** | **3.71** | **294** | *eP* | **Pn** | **06 08 18.8** | **-0.2** |
| CALA | | | | *eS* | **Sn** | **06 09 00.0** | **-2.9** |
| **CALA** | **Caldeira** | **3.71** | **294** | *eP* | **Pn** | **06 08 18.8** | **-0.2** |
| CALA | | | | *eS* | **Sn** | **06 09 00.0** | **-2.9** |
| **PCED** | **Cedros** | **3.73** | **295** | *eP* | **Pn** | **06 08 19.3** | **+0.2** |
| PCED | | | | *eS* | **Sn** | **06 09 00.0** | **-3.2** |
| PCED | | | | A | A | 06 09 07.3 | |
| | 100nm,0.5s | | | | | | |
| **PCED** | **Cedros** | **3.73** | **295** | *eP* | **Pn** | **06 08 19.3** | **+0.2** |
| PCED | | | | *eS* | **Sn** | **06 09 00.0** | **-3.2** |
| | 100nm,0.5s | | | | | | |
| **PMOZ** | **Porto Moniz, M** | **7.30** | **124** | *eP* | **Pn** | **06 09 04.2** | **-4.1** |
| PMOZ | | | | *eS* | Sn | 06 10 17.1 | -14 |
| PMOZ | | | | A | A | 06 10 28.5 | |
| | 68nm,0.6s | | | | | | |
| **PMAR** | **Madeira** | **7.55** | **123** | *eP* | **Pn** | **06 09 07.7** | **-4.1** |
| PMAR | | | | *eS* | Sn | 06 10 22.0 | -16 |
| PMAR | | | | A | A | 06 10 31.7 | |
| | 71nm,0.3s | | | | | | |
| **FUL** | **Funchal** | **7.61** | **124** | *eP* | **Pn** | **06 09 08.5** | **-3.9** |
| **PMPS** | **Porto Santo** | **7.75** | **119** | *eP* | **Pn** | **06 09 09.7** | **-4.7** |
| PMPS | | | | A | A | 06 10 27.6 | |
| | 14nm,0.7s | | | | | | |
| **PMAFR** | **Mafra** | **12.05** | **77** | *eS* | Sn | 06 12 11.9 | -16 |
| PMAFR | | | | A | A | 06 12 16.8 | |
| | 21nm,0.5s | | | | | | |
| **PFVI** | **Vila Bisbo** | **12.42** | **85** | *eS* | Sn | 06 12 17.4 | -20 |
| **PTEO** | **Sao Teotonio** | **12.48** | **83** | *eS* | Sn | 06 12 19.2 | -19 |
| PTEO | | | | A | A | 06 12 33.1 | |
| | 12nm,0.6s | | | | | | |
| **MORF** | **Marmelete** | **12.55** | **84** | *eS* | Sn | 06 12 21.4 | -19 |
| MORF | | | | A | A | 06 12 25.5 | |
| | 3.9nm,0.7s | | | | | | |
| **PNCL** | **Nicolau / Gran** | **12.62** | **81** | *eS* | Sn | 06 12 21.8 | -20 |
| PNCL | | | | A | A | 06 12 27.9 | |
| | 11nm,0.7s | | | | | | |
| **PCAS** | **Casmilo, Conde** | **12.77** | **72** | *eS* | Sn | 06 12 28.1 | -17 |
| PCAS | | | | A | A | 06 12 32.4 | |
| | 4.8nm,0.5s | | | | | | |
| **PTOM** | **Tomar** | **12.78** | **74** | *eS* | Sn | 06 12 28.1 | -18 |
| PTOM | | | | A | A | 06 12 32.6 | |
| | 7.5nm,0.3s | | | | | | |
| **MESJ** | **Messejana** | **12.87** | **82** | *eS* | Sn | 06 12 29.7 | -18 |
| MESJ | | | | A | A | 06 12 35.9 | |
| | 8.8nm,0.6s | | | | | | |
| **PMTG** | **Montargil** | **12.88** | **76** | *eS* | Sn | 06 12 30.0 | -18 |
| PMTG | | | | A | A | 06 12 42.7 | |
| | 3.3nm,0.5s | | | | | | |
| **PCVE** | **Castro Verde** | **13.02** | **83** | *eS* | Sn | 06 12 32.2 | -19 |
| PCVE | | | | A | A | 06 12 44.5 | |
| | 4.1nm,0.6s | | | | | | |
| **EVO** | **Evora** | **13.02** | **79** | *eS* | Sn | 06 12 32.5 | -19 |
| EVO | | | | A | A | 06 12 44.4 | |
| | 4.4nm,0.6s | | | | | | |
| **PBDV** | **Barranco-do-Ve** | **13.13** | **85** | *eS* | Sn | 06 12 36.8 | -17 |
| PBDV | | | | A | A | 06 12 44.2 | |
| | 3.4nm,0.7s | | | | | | |
| **PBEJ** | **Beja** | **13.14** | **81** | *eS* | Sn | 06 12 35.2 | -19 |
| **PVAQ** | **Vaqueiros** | **13.29** | **84** | *eS* | Sn | 06 12 39.1 | -19 |
| PVAQ | | | | A | A | 06 12 44.2 | |
| | 4.0nm,0.4s | | | | | | |
| **PVIS** | **Viseu** | **13.33** | **69** | *eS* | Sn | 06 12 40.6 | -19 |
| PVIS | | | | A | A | 06 12 47.5 | |
| | 4.8nm,0.4s | | | | | | |
| **PGAV** | **Gavieira, Arco** | **13.34** | **64** | *eS* | Sn | 06 12 39.4 | -20 |
| PGAV | | | | A | A | 06 12 45.6 | |
| | 10nm,0.4s | | | | | | |
| **PESTR** | **Estremoz** | **13.37** | **77** | *eS* | Sn | 06 12 41.3 | -19 |
| PESTR | | | | A | A | 06 12 49.2 | |
| | 4.4nm,0.6s | | | | | | |
| **PCBR** | **Castelo Branco** | **13.52** | **73** | *eS* | Sn | 06 12 45.8 | -18 |
| PCBR | | | | A | A | 06 12 59.8 | |
| | 3.5nm,0.2s | | | | | | |
| **POLO** | **Lamas de Olo** | **13.54** | **67** | *eS* | Sn | 06 12 45.1 | -19 |
| POLO | | | | A | A | 06 12 57.5 | |
| | 2.2nm,0.6s | | | | | | |
| **MTE** | **Manteigas** | **13.54** | **71** | *ePn* | **Pn** | **06 10 34.3** | **+0.5** |
| | 9.1nm,0.6s | | | | | | |
| **MTE** | **Manteigas** | **13.54** | **71** | *ePn* | **Pn** | **06 10 34.3** | **+0.5** |
| | 9.2nm,0.6s | | | | | | |
| MTE | | | | *eSn* | Sn | 06 12 44.3 | -20 |
| **MTE** | **Manteigas** | **13.54** | **71** | *eS* | Sn | 06 12 46.1 | -18 |
| MTE | | | | A | A | 06 12 56.7 | |
| | 8.5nm,0.5s | | | | | | |
| **PMRV** | **Marv??o** | **13.55** | **75** | *eS* | Sn | 06 12 47.1 | -17 |
| PMRV | | | | A | A | 06 12 51.7 | |
| | 3.6nm,0.5s | | | | | | |
| **PVRL** | **Vila Real** | **13.57** | **67** | *eS* | Sn | 06 12 46.9 | -18 |
| **PBAR** | **Barrancos** | **13.79** | **80** | *eS* | Sn | 06 12 51.3 | -19 |
| PBAR | | | | A | A | 06 12 57.8 | |
| | 9.1nm,0.4s | | | | | | |
| **MVO** | **Moncorvo** | **14.06** | **68** | *eS* | Sn | 06 12 57.7 | -19 |
| MVO | | | | A | A | 06 13 02.0 | |
| | 7.7nm,0.3s | | | | | | |
| **PBRG** | **Braganca** | **14.40** | **66** | *eS* | Sn | 06 13 05.5 | -20 |
| PBRG | | | | A | A | 06 13 10.1 | |
| | 4.6nm,0.5s | | | | | | |
| **ESDC** | **Sonseca Array** | **16.21** | **75** | Sn | Sn | 06 13 49.7 | -20 |
| | 0.3nm,0.3s,baz=268,slow=24,SNR=3.4 | | | | | | |
| ESDC | | | | LR | LR | 06 16 06.9 | |
| | comp=Z,72nm,20.8s,baz=280,slow=33 | | | | | | |
| **MDT** | **Midelt** | **16.76** | **99** | Pn | **Pn** | **06 11 12.6** | **-3.9** |
| | 0.5nm,0.3s,baz=262,slow=2.7,SNR=12 | | | | | | |
| MDT | | | | Sn | Sn | 06 14 00.8 | -22 |
| | 0.4nm,0.3s,baz=171,slow=12,SNR=7.0 | | | | | | |
| MDT | | | | LR | LR | 06 16 15.6 | |
| | comp=Z,82nm,21.4s,baz=300,slow=32 | | | | | | |
| **EKA** | **Eskdalemuir Ar** | **23.23** | **32** | P | **P** | **06 12 28.6** | **-0.1** |
| | 3.4nm,0.8s,baz=232,slow=7.5,SNR=7.2 | | | | | | |
| **BNI** | **Bardonecchia** | **24.60** | **61** | *eP* | **P** | **06 12 42.0** | **0.0** |
| | 0.4nm,0.3s | | | | | | |
| **BNI** | **Bardonecchia** | **24.60** | **61** | *eP* | **P** | **06 12 42.0** | **0.0** |
| | 0.4nm,0.3s | | | | | | |
| **WLF** | **Walferdange** | **25.30** | **51** | *eP* | **P** | **06 12 48.5** | **+0.4** |
| | 13nm,1.2s | | | | | | |
| **WLF** | **Walferdange** | **25.30** | **51** | *eP* | **P** | **06 12 48.5** | **+0.4** |
| | 13nm,1.2s | | | | | | |
| **DAVOX** | **Davos/Dischmat** | **27.06** | **58** | LR | LR | 06 23 34.5 | |
| | comp=Z,62nm,18.6s,baz=266,slow=36 | | | | | | |
| **GERES** | **GERESS Array B** | **29.92** | **55** | LR | LR | 06 24 58.0 | |
| | comp=Z,21nm,18.7s,baz=244,slow=35 | | | | | | |
| **TIP** | **Timpagrande** | **32.23** | **74** | *eP* | **P** | **06 13 48.9** | **-1.2** |
| | 1.6nm,0.5s | | | | | | |
| **TIP** | **Timpagrande** | **32.23** | **74** | *eP* | **P** | **06 13 48.9** | **-1.2** |
| | 1.6nm,0.5s | | | | | | |
| **NOA** | **NORSAR Array B** | **32.72** | **32** | P | **P** | **06 13 55.0** | **+0.9** |
| | 1.5nm,0.9s,baz=245,slow=12,SNR=3.1 | | | | | | |
| NOA | | | | LR | LR | 06 24 58.2 | |
| | comp=Z,52nm,21.8s,baz=240,slow=32 | | | | | | |
| **NOA** | **NORSAR Array B** | **32.72** | **32** | P | **P** | **06 13 55.0** | **+0.9** |
| **TORD** | **Torodi Ar. Bea** | **33.37** | **129** | P | **P** | **06 13 59.5** | **-0.7** |
| | 1.9nm,0.7s,baz=316,slow=7.6,SNR=12 | | | | | | |
| **DBIC** | **Dimbokro** | **35.16** | **145** | LR | LR | 06 28 05.6 | |
| | comp=Z,25nm,18.3s,baz=2.5,slow=36 | | | | | | |
| **FINES** | **FINESS Array B** | **39.51** | **36** | LR | LR | 06 29 34.0 | |
| | comp=Z,21nm,19.1s,baz=240,slow=34 | | | | | | |
| **TIRR** | **Tirgusor** | **40.05** | **62** | *eP* | **P** | **06 14 56.1** | **-0.7** |
| | 1.0nm,0.6s | | | | | | |
| **TIRR** | **Tirgusor** | **40.05** | **62** | *eP* | **P** | **06 14 56.1** | **-0.7** |
| | 1.0nm,0.6s | | | | | | |
| **AKASG** | **Malin Array Be** | **40.06** | **53** | P | **P** | **06 14 56.3** | **-0.6** |
| | 0.5nm,0.6s,baz=264,slow=9.0,SNR=3.8 | | | | | | |
| AKASG | | | | LR | LR | 06 30 52.7 | |
| | comp=Z,9.3nm,19.0s,baz=290,slow=35 | | | | | | |
| **ARCES** | **ARCESS Array B** | **41.95** | **24** | P | **P** | **06 15 12.4** | **+0.2** |
| | 2.3nm,0.7s,baz=251,slow=7.4,SNR=5.8 | | | | | | |
| **BRTR** | **Keskin Array B** | **44.85** | **68** | P | **P** | **06 15 36.4** | **+0.2** |
| | 1.6nm,0.7s,baz=281,slow=6.7,SNR=8.4 | | | | | | |
| BRTR | | | | LR | LR | 06 34 57.1 | |
| | comp=Z,21nm,18.1s,baz=266,slow=37 | | | | | | |
| **H10N2** | **ASCENSION HYDR** | **45.67** | **166** | T | T | 07 04 28.8 | |
| | baz=348,slow=75,SNR=15 | | | | | | |
| **H10N3** | **ASCENSION HYDR** | **45.68** | **166** | T | T | 07 04 34.4 | |
| | baz=348,slow=75,SNR=15 | | | | | | |
| **H10N1** | **ASCENSION HYDR** | **45.69** | **166** | T | T | 07 04 08.4 | |
| | baz=348,slow=75,SNR=19 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **46.73** | **167** | T | T | 07 05 23.8 | |
| | baz=349,slow=75,SNR=17 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **46.73** | **167** | T | T | 07 05 24.7 | |
| | baz=349,slow=75,SNR=4.5 | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **46.74** | **167** | T | T | 07 05 25.5 | |
| | baz=349,slow=75,SNR=4.4 | | | | | | |
| **RES** | **Resolute Bay** | **49.44** | **341** | P | **P** | **06 16 13.5** | **+2.2** |
| | 4.5nm,0.9s,baz=112,slow=7.0,SNR=11 | | | | | | |
| **KBZ** | **Khabaz** | **50.38** | **60** | P | **P** | **06 16 20.6** | **+1.8** |
| | 6.1nm,0.8s,baz=276,slow=8.5,SNR=10 | | | | | | |
| **YKA** | **Yellowknife Ar** | **57.94** | **327** | P | **P** | **06 17 14.6** | **+1.0** |
| | 0.4nm,0.8s,baz=71,slow=6.9,SNR=6.2 | | | | | | |
| YKA | | | | PcP | **PcP** | **06 18 05.0** | **-0.7** |
| | 0.3nm,0.8s,baz=78,slow=4.5,SNR=3.4 | | | | | | |
| **AKTO** | **Aktyubinsk** | **58.02** | **48** | P | **P** | **06 17 15.1** | **+0.6** |
| | 0.8nm,0.5s,baz=284,slow=11,SNR=4.1 | | | | | | |
| **INK** | **Inuvik** | **62.58** | **337** | P | **P** | **06 17 46.2** | **+0.9** |
| | 1.3nm,0.8s,baz=44,slow=7.4,SNR=5.3 | | | | | | |
| **PDAR** | **Pinedale Array** | **62.86** | **304** | P | **P** | **06 17 49.0** | **+1.1** |
| | 0.5nm,0.8s,baz=64,slow=7.1,SNR=3.5 | | | | | | |
| **SIV** | **San Ignacio** | **63.13** | **220** | LR | LR | 06 44 51.6 | |
| | comp=Z,28nm,18.1s,baz=350,slow=36 | | | | | | |
| **GEYT** | **Alibeck** | **63.23** | **61** | P | **P** | **06 17 49.7** | **-0.6** |
| | 2.1nm,0.7s,baz=347,slow=5.9,SNR=3.4 | | | | | | |
| **BVAR** | **Borovoye Array** | **63.98** | **42** | P | **P** | **06 17 55.8** | **+1.0** |
| | 0.6nm,0.6s,baz=336,slow=6.5,SNR=4.9 | | | | | | |
| **TXAR** | **Lajitas Array** | **64.99** | **289** | P | **P** | **06 18 03.6** | **+1.6** |
| | 1.9nm,0.9s,baz=76,slow=7.1,SNR=20 | | | | | | |
| **KKAR** | **Karatay Array** | **68.95** | **51** | *eP* | **P** | **06 18 26.8** | **-0.1** |
| | 0.8nm,0.6s | | | | | | |
| **KKAR** | **Karatay Array** | **68.95** | **51** | *eP* | **P** | **06 18 26.8** | **-0.1** |
| | 0.8nm,0.6s | | | | | | |
| **ILAR** | **Eielson Array** | **68.96** | **337** | P | **P** | **06 18 28.4** | **+1.8** |
| | 0.6nm,0.8s,baz=44,slow=5.4,SNR=7.2 | | | | | | |
| **NNA** | **Nana** | **69.36** | **236** | LR | LR | 06 42 43.1 | |
| | comp=Z,39nm,20.7s,baz=316,slow=31 | | | | | | |
| **KURK** | **Kurchatov** | **69.54** | **41** | P | **P** | **06 18 31.1** | **+0.8** |
| **KURK** | **Kurchatov** | **69.54** | **41** | P | **P** | **06 18 31.1** | **+0.8** |
| **KURBB** | **Kurchatov Arra** | **69.54** | **42** | P | **P** | **06 18 31.1** | **+0.7** |
| | 2.3nm,0.8s,baz=307,slow=6.6,SNR=16 | | | | | | |
| **CPUP** | **Villa Florida** | **70.32** | **211** | P | **P** | **06 18 35.0** | **-0.3** |
| | 1.2nm,0.7s,baz=234,slow=18,SNR=3.2 | | | | | | |
| CPUP | | | | LR | LR | 06 46 25.8 | |
| | comp=Z,28nm,20.2s,baz=14,slow=33 | | | | | | |
| **CPUP** | **Villa Florida** | **70.32** | **211** | P | **P** | **06 18 35.0** | **-0.3** |
| **ZALV** | **Zalesovo Beam** | **70.77** | **36** | P | **P** | **06 18 38.7** | **+0.9** |
| | 2.8nm,0.7s,baz=301,slow=6.9,SNR=8.1 | | | | | | |
| ZALV | | | | LR | LR | 06 50 09.8 | |
| | comp=Z,22nm,18.1s,baz=58,slow=36 | | | | | | |
| **AAK** | **Ala-Archa** | **71.67** | **50** | P | **P** | **06 18 44.6** | **+0.8** |
| | 1.2nm,0.5s,baz=191,slow=4.5,SNR=4.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **73.80** | **43** | P | **P** | **06 18 56.6** | **+0.5** |
| | 2.6nm,0.8s,baz=308,slow=6.0,SNR=10 | | | | | | |
| **SONM** | **Songino Array** | **84.70** | **31** | P | **P** | **06 19 56.8** | **+1.0** |
| | 1.5nm,0.9s,baz=316,slow=4.1,SNR=8.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **154.75** | **53** | PKPab | **PKPab** | **06 27 38.1** | **-0.2** |
| | 0.3nm,0.6s,baz=323,slow=3.8,SNR=8.1 | | | | | | |
| **ASAR** | **Alice Springs** | **157.03** | **60** | PKPab | **PKPab** | **06 27 48.3** | **+0.2** |
| | 0.5nm,0.8s,baz=339,slow=5.0,SNR=3.4 | | | | | | |

**KRNET 22 06:16:03.9±0.1, 41°.36N×72°.92E, h7km, mb2.0, 10C-4D, Kyrgyzstan**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **ARSB** | **Arslanbob** | **0.06** | **126** | ⇑ | *iP* | | Pg | 06 16 05.0 | -0.7 |
| | baz=246 | | | | | | | | |
| ARSB | | | | ⇑ | *iS* | | Sg | 06 16 08.2 | +1.2 |
| | baz=246 | | | | | | | | |
| **TOKL** | **Toktogul** | **0.58** | **356** | ⇓ | *iP* | | Pg | 06 16 11.1 | -4.1 |
| | baz=329 | | | | | | | | |
| TOKL | | | | ⇓ | *iS* | | Sg | 06 16 20.0 | -2.9 |
| | baz=329 | | | | | | | | |
| **ARK** | **Arkit** | **0.84** | **302** | ⇓ | *iP* | | Pg | 06 16 19.9 | -0.3 |
| | baz=290 | | | | | | | | |
| ARK | | | | ⇓ | *iS* | | Sn | 06 16 34.6 | -0.5 |
| | baz=290 | | | | | | | | |
| **AML** | **Almayashu** | **0.97** | **36** | ⇑ | *iP* | | Pb | 06 16 23.1 | -0.1 |
| | baz=36 | | | | | | | | |
| AML | | | | ⇑ | *iS* | | Sb | 06 16 36.5 | +0.1 |
| | baz=36 | | | | | | | | |
| **MNAS** | **Manas** | **1.17** | **345** | ⇑ | *iP* | | Pb | 06 16 26.6 | 0.0 |
| | baz=345 | | | | | | | | |
| MNAS | | | | ⇑ | *iS* | | Sn | 06 16 44.0 | +0.8 |
| | baz=345 | | | | | | | | |
| **SFK** | **Sufi-Kurgan** | **1.41** | **162** | ⇑ | *iP* | | Pn | 06 16 26.9 | -3.4 |
| | baz=173 | | | | | | | | |
| SFK | | | | ⇑ | *iS* | | Sb | 06 16 46.8 | -2.2 |
| | baz=173 | | | | | | | | |
| **UCH** | **Uchtor** | **1.47** | **53** | ⇑ | *iP* | | Pg | 06 16 32.4 | +0.2 |
| | baz=53 | | | | | | | | |
| UCH | | | | ⇑ | *iS* | | Sg | 06 16 53.4 | +2.0 |
| | baz=53 | | | | | | | | |

*IDC **22** 06:26:17.4±0.9, 44°.36N×80°.85E, h0km, mb3.7/3, mb1 3.6/9, mb1mx3.3/54, mbtmp3.4/9, ML3.1/6, Error ellipse: s-maj=14.7km s-min=9.6km az=126.0*
*SOME **22** 06:26:17.7, 44°.43N×80°.98E, h10km*
*NNC **22** 06:26:19.3±0.9, 44°.43N×80°.87E, h0km, mb3.7, mpv3.4, Error ellipse: s-maj=18.0km s-min=3.9km az=123.0*

**ISC 22 06:26:18.1±1.4, 44°.44N±0°.04×81°.06E±0°.04, h3km±10km, n44, σ1s76/62, mb3.6/3, 12C-11D, Northern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **DJR** | **Jarkent** | **0.91** | **264** | *eP* | | | **Pg** | **06 26 34.4** | **-1.2** |
| | 212nm,0.2s | | | | | | | | |
| DJR | | | | *eS* | | | **Sg** | **06 26 45.8** | **-1.6** |
| | 174nm,0.2s | | | | | | | | |
| **KTMS** | **Ketmen** | **1.11** | **207** | *eP* | | | **Pg** | **06 26 39.2** | **-0.2** |
| | 95nm,0.1s | | | | | | | | |
| KTMS | | | | *eS* | | | **Sg** | **06 26 54.4** | **+0.6** |
| | 91nm,0.4s | | | | | | | | |
| **KAPS** | **Kapalarasan** | **1.48** | **306** | *eP* | | | **Pn** | **06 26 44.2** | **-1.4** |
| | 20nm,0.2s | | | | | | | | |
| KAPS | | | | *eS* | | | **Sn** | **06 27 03.9** | **-1.5** |
| | 38nm,0.3s | | | | | | | | |
| **PDGK** | **Podgornoye** | **1.58** | **226** | ⇑ | P | | **Pn** | **06 26 46.4** | **-0.7** |
| | 56nm,0.4s | | | | | | | | |
| PDGK | | | | ⇑ | S | | **Sn** | **06 27 07.0** | **-1.1** |
| | 90nm,0.5s | | | | | | | | |
| **SHLS** | **Shalkode** | **1.72** | **223** | *eP* | | | **Pn** | **06 26 45.6** | **-3.4** |
| | 81nm,0.2s | | | | | | | | |
| SHLS | | | | *eS* | | | **Sn** | **06 27 06.1** | **-5.5** |
| | 132nm,0.3s | | | | | | | | |
| **TDK** | **Taldyqorghan** | **1.97** | **288** | ⇑ | *iP* | | **Pn** | **06 26 53.6** | **+1.2** |
| | 213nm,0.4s | | | | | | | | |
| TDK | | | | *eS* | | | **Sb** | **06 27 19.2** | **-0.4** |
| | 348nm,0.6s | | | | | | | | |
| **KURS** | **Kuram** | **2.29** | **247** | *eP* | | | **Pb** | **06 26 59.3** | **-0.7** |
| KURS | | | | *eS* | | | **Sb** | **06 27 28.9** | **+0.2** |
| **ARXS** | **Arharly** | **2.33** | **266** | *eP* | | | **Pb** | **06 27 00.2** | **-0.4** |
| | 269nm,0.2s | | | | | | | | |
| ARXS | | | | *eS* | | | **Sb** | **06 27 30.4** | **+0.6** |
| | 257nm,0.3s | | | | | | | | |
| **SATY** | **Saty** | **2.36** | **235** | *eP* | | | **Pn** | **06 26 59.5** | **+1.7** |
| | 202nm,0.2s | | | | | | | | |
| SATY | | | | *eS* | | | **Sb** | **06 27 29.9** | **-1.0** |
| | 353nm,0.2s | | | | | | | | |
| **MAKZ** | **Makanchi** | **2.46** | **15** | ⇓ | Pn | | **Pb** | **06 27 02.1** | **-0.7** |
| | 5.3nm,0.3s | | | | | | | | |
| MAKZ | | | | ⇑ | Lg | | Lg | 06 27 35.4 | |
| | 21nm,0.4s | | | | | | | | |
| **MKAR** | **Makanchi Array** | **2.51** | **20** | | Pn | | **Pn** | **06 27 02.7** | **+2.9** |
| | 12nm,0.3s,baz=206,slow=16,SNR=359 | | | | | | | | |
| MKAR | | | | | Sn | | **Sb** | **06 27 36.6** | **+1.5** |
| | 14nm,0.3s,baz=198,slow=24,SNR=17 | | | | | | | | |
| **MK31** | **Makanchi Array** | **2.51** | **20** | ⇑ | Pn | | **Pb** | **06 27 03.0** | **-0.8** |
| | 2.9nm,0.2s,baz=199,slow=13,SNR=641 | | | | | | | | |
| MK31 | | | | ⇓ | Lg | | Lg | 06 27 37.9 | |
| | 24nm,0.5s,baz=200,slow=24,SNR=3.5 | | | | | | | | |
| **CHKK** | **Chushkaly** | **2.98** | **260** | *eP* | | | **Pb** | **06 27 11.4** | **-0.5** |
| | 64nm,0.2s | | | | | | | | |
| CHKK | | | | *eS* | | | **Sb** | **06 27 49.6** | **+0.9** |
| | 352nm,0.2s | | | | | | | | |
| **KOTS** | **Kotyrbulak** | **3.10** | **249** | *eP* | | | **Pb** | **06 27 13.0** | **-0.8** |
| KOTS | | | | *eS* | | | **Sb** | **06 27 52.2** | **+0.2** |
| **MDOK** | **Medeo** | **3.17** | **248** | ⇓ | Pn | | **Pn** | **06 27 09.4** | **+0.5** |
| MDOK | | | | ⇓ | Lg | | Lg | 06 27 56.8 | |
| **MDOK** | **Medeo** | **3.17** | **248** | *eP* | | | **Pb** | **06 27 13.9** | **-1.1** |
| | 64nm,0.2s | | | | | | | | |
| MDOK | | | | *eS* | | | **Sb** | **06 27 53.4** | **-0.7** |
| | 34nm,0.4s | | | | | | | | |
| **TNSS** | **Tian-Shan** | **3.29** | **246** | *eP* | | | **Pb** | **06 27 16.0** | **-1.2** |
| | 50nm,0.2s | | | | | | | | |
| TNSS | | | | *eS* | | | **Sb** | **06 27 58.2** | **+0.3** |
| | 83nm,0.7s | | | | | | | | |
| **MTBS** | **Maitube** | **3.60** | **250** | *eP* | | | **Pb** | **06 27 20.6** | **-1.7** |
| | 74nm,0.2s | | | | | | | | |
| MTBS | | | | *eS* | | | **Sb** | **06 28 07.3** | **+1.0** |
| | 57nm,0.3s | | | | | | | | |
| **KST** | **Kastek** | **3.94** | **251** | *eP* | | | **Pb** | **06 27 29.1** | **+0.8** |
| | 17nm,0.3s | | | | | | | | |
| KST | | | | *eS* | | | **Sb** | **06 28 20.4** | **+4.0** |
| | 56nm,0.3s | | | | | | | | |
| **DGS** | **Degeres** | **4.00** | **254** | *eP* | | | **Pb** | **06 27 30.2** | **+0.9** |
| | 39nm,0.2s | | | | | | | | |
| DGS | | | | *eS* | | | **Sb** | **06 28 21.8** | **+3.7** |
| | 48nm,0.3s | | | | | | | | |
| **ZSN** | **Zaisan** | **4.02** | **40** | *eP* | | | **Pb** | **06 27 27.9** | **-1.5** |
| | 2.7nm,0.2s | | | | | | | | |
| ZSN | | | | *eS* | | | **Sb** | **06 28 18.5** | **+0.1** |
| | 9.1nm,0.6s | | | | | | | | |
| **ULHL** | **Ulahol** | **4.14** | **240** | ⇓ | P | | **Pn** | **06 27 24.1** | **+1.8** |
| | 3.4nm,0.2s,SNR=20 | | | | | | | | |
| **TKM2** | **Tokmak 2** | **4.24** | **251** | ⇓ | Pn | | **Pn** | **06 27 24.4** | **+0.7** |
| | 0.8nm,0.3s | | | | | | | | |
| TKM2 | | | | ⇑ | Pg | | **Pb** | **06 27 34.2** | **+0.8** |
| | 27nm,0.5s | | | | | | | | |
| TKM2 | | | | ⇓ | Lg | | Lg | 06 28 30.4 | |
| | 28nm,0.5s | | | | | | | | |
| **TKM2** | **Tokmak 2** | **4.24** | **251** | ⇓ | P | | **Pn** | **06 27 24.5** | **+0.8** |
| | SNR=15 | | | | | | | | |
| **KBK** | **Karagaybulak** | **4.78** | **250** | P | | | **Pn** | **06 27 32.7** | **+1.6** |
| | SNR=8.2 | | | | | | | | |
| **CHMS** | **Chumysh** | **4.79** | **255** | ⇑ | P | | **Pn** | **06 27 31.8** | **+0.7** |
| | 8.8nm,0.2s,SNR=8.1 | | | | | | | | |
| **KZA** | **Kyzart** | **4.85** | **243** | P | | | **Pb** | **06 27 47.3** | **+3.4** |
| | SNR=8.0 | | | | | | | | |
| **USP** | **Ospenovka** | **4.88** | **258** | P | | | **Pn** | **06 27 33.0** | **+0.6** |
| | SNR=7.2 | | | | | | | | |
| **AAK** | **Ala-Archa** | **5.10** | **252** | Pn | | | **Pn** | **06 27 36.1** | **+0.7** |
| | 0.7nm,0.3s,baz=86,slow=8.0,SNR=7.9 | | | | | | | | |
| AAK | | | | Pg | | | **Pb** | **06 27 46.7** | **-1.2** |
| | 4.5nm,0.3s,baz=102,slow=6.2,SNR=20 | | | | | | | | |
| AAK | | | | Lg | | | Lg | 06 28 58.2 | |
| | 1.5nm,0.3s,baz=17,slow=22,SNR=8.7 | | | | | | | | |
| **AAK** | **Ala-Archa** | **5.10** | **252** | P | | | **Pb** | **06 27 48.7** | **+0.8** |
| | SNR=5.7 | | | | | | | | |
| **UCH** | **Uchtor** | **5.26** | **247** | P | | | **Pb** | **06 27 53.5** | **+2.7** |
| | SNR=15 | | | | | | | | |
| **EKS2** | **Erkin-Say** | **5.58** | **254** | P | | | **Pn** | **06 27 43.0** | **+0.9** |
| | SNR=5.3 | | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **6.42** | **345** | Pn | | | **Pn** | **06 27 54.6** | **+1.2** |
| | 0.2nm,0.3s,baz=174,slow=11,SNR=10 | | | | | | | | |
| KURBB | | | | Lg | | | Lg | 06 29 42.6 | |
| | 0.3nm,0.3s,baz=188,slow=26,SNR=10 | | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **6.42** | **345** | ⇑ | Lg | | Lg | 06 29 46.2 | |
| | 40nm,0.6s | | | | | | | | |
| **KURK** | **Kurchatov** | **6.49** | **346** | ⇑ | Lg | | Lg | 06 29 47.6 | |
| | 17nm,0.8s | | | | | | | | |
| **MNAS** | **Manas** | **6.52** | **256** | ⇓ | Pg | | **Pb** | **06 28 15.1** | **+3.0** |
| | 2.2nm,0.5s | | | | | | | | |
| MNAS | | | | ⇑ | Lg | | Lg | 06 29 37.3 | |
| | 5.1nm,0.7s | | | | | | | | |
| **SFK** | **Sufi-Kurgan** | **7.14** | **234** | ⇓ | Pn | | **Pn** | **06 28 05.1** | **+1.5** |
| | 0.3nm,0.3s | | | | | | | | |
| SFK | | | | ⇑ | Lg | | Lg | 06 30 06.9 | |
| | 3.3nm,0.8s | | | | | | | | |
| **KK31** | **Karatay Array** | **7.75** | **264** | ⇑ | Pg | | **Pb** | **06 28 36.9** | **+3.9** |
| | 0.3nm,0.3s,baz=74,slow=17,SNR=6.4 | | | | | | | | |
| KK31 | | | | ⇓ | Lg | | Lg | 06 30 20.3 | |
| | 3.3nm,0.5s,baz=68,slow=30,SNR=9.2 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **9.83** | **13** | Pn | | | **Pn** | **06 28 40.1** | **-0.1** |
| | 0.4nm,0.3s,baz=201,slow=11,SNR=5.4 | | | | | | | | |
| **BVAR** | **Borovoye Array** | **11.10** | **324** | Pn | | | **Pn** | **06 28 56.2** | **-1.3** |
| | 0.1nm,0.3s,baz=123,slow=10,SNR=2.8 | | | | | | | | |
| BVAR | | | | Lg | | | Lg | 06 32 08.2 | |
| | 0.2nm,0.3s,baz=137,slow=19,SNR=5.1 | | | | | | | | |
| **SONM** | **Songino Array** | **17.86** | **70** | P | | | **P** | **06 30 30.7** | **+2.4** |
| | 0.1nm,0.3s,baz=250,slow=8.7,SNR=3.5 | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **73.35** | **272** | P | | | **P** | **06 37 50.9** | **-0.4** |
| | 0.2nm,0.4s,baz=44,slow=5.4,SNR=5.2 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **80.42** | **130** | P | | | **P** | **06 38 31.5** | **+0.5** |
| | 0.8nm,1.1s,baz=332,slow=5.1,SNR=4.7 | | | | | | | | |
| **ASAR** | **Alice Springs** | **83.21** | **133** | P | | | **P** | **06 38 45.5** | **-0.2** |
| | 0.3nm,0.4s,baz=323,slow=4.8,SNR=6.3 | | | | | | | | |

**IDC 22 06:29:04.6±10.0, 5°.90S×154°.36E, h175km±75km, mb3.6/2, mb1 3.9/3, mb1mx3.1/39, mbtmp4.2/3, Error ellipse: s-maj=112.8km s-min=53.9km az=113.0, Bougainville-Solomon Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **7.94** | **244** | P | | | Pn | 06 30 56.9 | -0.3 |
| | 2.9nm,0.3s,baz=64,slow=10,SNR=5.6 | | | | | | | | |
| PMG | | | | S | | | Sn |

*IDC **22** 07:07:38.8±1.2,28.91N×130.55E,h40km±8km,mb3.5/5, mb1 3.5/6,mb1mx3.2/49,mbtmp3.6/6,ML2.6/1,MS2.6/2, Ms1 2.6/2,ms1mx2.3/22,Error ellipse: s-maj=59.7km s-min=17.1km az=75.0*

**ISC 22 07:07:38.8±0.9,28.88N±0.05×130.57E±0.08,h59km,n21, σ1§37/33,mb3.8/5,Ryukyu Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JZK** | **Kikaishima** | **0.77** | **223** | P | **Pn** | **07 07 52.5** | **-1.3** |
| **JAM** | **Amami Oshima** | **0.97** | **241** | P | **Pn** | **07 07 54.8** | **-1.6** |
| JAM | | | | *eS* | **Sn** | **07 08 08.1** | **-1.2** |
| **JNN** | **Nakanoshima** | **1.14** | **328** | P | **Pn** | **07 07 57.3** | **-1.3** |
| JNN | | | | *eS* | **Sn** | **07 08 13.2** | **-0.1** |
| **JTAJ** | **Takarajima** | **1.23** | **283** | P | **Pn** | **07 07 59.3** | **-0.5** |
| JTAJ | | | | *eS* | **Sn** | **07 08 16.1** | **+0.6** |
| **JYAK** | **Yakushimahirau** | **1.36** | **358** | P | **Pn** | **07 08 00.1** | **-1.4** |
| JYAK | | | | S | **Sn** | **07 08 17.8** | **-0.8** |
| **JAMN** | **Amaminishikomi** | **1.38** | **243** | P | **Pn** | **07 08 00.8** | **-1.0** |
| JAMN | | | | S | **Sn** | **07 08 19.4** | **+0.3** |
| **JTK** | **Tokunoshima** | **1.79** | **233** | P | **Pn** | **07 08 06.8** | **-0.7** |
| JTK | | | | *eS* | **Sn** | **07 08 29.3** | **+0.1** |
| **JTN** | **Tanegashima 3** | **1.81** | **11** | P | **Pn** | **07 08 06.2** | **-1.4** |
| JTN | | | | *eS* | **Sn** | **07 08 28.6** | **-0.9** |
| **JTSR** | **Tashiro 2** | **2.30** | **8** | *eS* | **Sn** | **07 08 42.0** | **+0.4** |
| **JOKE** | **Okinoerabujima** | **2.32** | **230** | P | **Pn** | **07 08 13.8** | **-0.9** |
| JOKE | | | | *eS* | **Sn** | **07 08 41.6** | **-0.5** |
| **JNAR** | **Kushima--Naru** | **2.71** | **13** | P | **Pn** | **07 08 19.7** | **-0.2** |
| JNAR | | | | *eS* | **Sn** | **07 08 51.0** | **-0.5** |
| **JOW** | **Kunigami** | **2.88** | **225** | P | **Pn** | **07 08 20.8** | **-1.5** |
| JOW | | | | *eS* | **Sn** | **07 08 54.5** | **-1.2** |
| **JIH** | **Iheya** | **2.94** | **232** | P | **Pn** | **07 08 22.6** | **-0.5** |
| **JNU** | **Nakatsue** | **4.24** | **4** | Pn | **Pn** | **07 08 40.7** | **-0.2** |
| | 0.5nm,0.3s,baz=190,slow=13,SNR=6.4 | | | | | | |
| JNU | | | | Sn | **Sn** | **07 09 27.7** | **-1.4** |
| | 0.8nm,0.3s,baz=52,slow=19,SNR=3.2 | | | | | | |
| **KSRS** | **Korea Array** | **8.84** | **346** | LR | LR | 07 13 26.6 | |
| | comp=Z,16nm,19.9s,baz=185,slow=40 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.47** | **320** | LR | LR | 07 34 31.7 | |
| | comp=Z,18nm,21.9s,baz=70,slow=39 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **44.44** | **314** | P | **P** | **07 15 44.8** | **+1.1** |
| | 0.3nm,0.3s,baz=95,slow=8.5,SNR=2.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **48.67** | **175** | P | **P** | **07 16 18.7** | **+1.5** |
| | 0.9nm,0.9s,baz=352,slow=8.4,SNR=4.6 | | | | | | |
| WRA | | | | *pP* | **pP** | **07 16 30.7** | **-1.9** |
| | 0.4nm,0.7s,baz=354,slow=8.2,SNR=2.1 | | | | | | |
| **BVAR** | **Borovoye Array** | **49.73** | **317** | P | **P** | **07 16 27.4** | **+2.4** |
| | 0.6nm,0.5s,baz=90,slow=9.2,SNR=5.1 | | | | | | |
| BVAR | | | | *pP* | **pP** | **07 16 38.9** | **-1.5** |
| | 1.0nm,0.5s,baz=87,slow=11,SNR=5.3 | | | | | | |
| **ASAR** | **Alice Springs** | **52.34** | **176** | P | **P** | **07 16 47.4** | **+2.6** |
| | 0.6nm,0.8s,baz=0.9,slow=8.6,SNR=4.5 | | | | | | |
| **FINES** | **FINESS Array B** | **71.58** | **331** | P | **P** | **07 18 54.9** | **+1.4** |
| | 1.0nm,0.7s,baz=73,slow=2.6,SNR=4.6 | | | | | | |
| FINES | | | | *pP* | **pP** | **07 19 06.5** | **-3.2** |
| | 2.3nm,0.9s,baz=82,slow=6.6,SNR=2.4 | | | | | | |

**MAN 22 07:08:45,9.71N×125.83E,h108km,mb4.4,ML3.2,MS3.0, 1C-1D,Mindanao**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BUTP** | **Butuan** | **0.77** | **195** | *eP* | Pn | 07 09 05.4 | +1.6 |
| BUTP | | | | *eS* | Sn | 07 09 22.4 | +4.5 |
| **MSLP** | **Maasin** | **1.04** | **294** | *eP* | Pn | 07 09 06.8 | +0.4 |
| MSLP | | | | *eS* | Sn | 07 09 21.3 | -1.4 |
| **PLP** | **Palo** | **1.67** | **330** | *ePi* | Pn | 07 09 15.3 | +1.5 |
| PLP | | | | *eS* | Sn | 07 09 37.2 | +1.6 |
| **BESP** | **Borongan** | **1.92** | **349** | *eP* | Pn | 07 09 17.4 | +0.5 |
| **LLP** | **Lapu-Lapu** | **1.93** | **288** | *iP* | Pn | 07 09 18.6 | +1.6 |
| LLP | | | | *eS* | Sn | 07 09 42.5 | +1.1 |
| **BUKP** | **Musuan** | **1.97** | **203** | *eP* | Pn | 07 09 18.6 | +1.0 |
| BUKP | | | | *eS* | Sn | 07 09 43.7 | +1.2 |

**IDC 22 07:12:19.6±9.0,3.30N×124.39E,h236km±94km,mb3.3/6, mb1 3.5/6,mb1mx3.1/52,mbtmp3.9/6,Error ellipse: s-maj=76.3km s-min=19.1km az=67.0,Celebes Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **21.30** | **177** | P | P | 07 16 48.3 | +0.1 |
| | 4.9nm,0.4s,baz=352,slow=5.8,SNR=36 | | | | | | |
| **WRA** | **Warramunga Arr** | **25.08** | **157** | P | P | 07 17 22.4 | -0.4 |
| | 2.9nm,0.3s,baz=336,slow=10,SNR=55 | | | | | | |
| **ASAR** | **Alice Springs** | **28.36** | **161** | P | P | 07 17 52.1 | 0.0 |
| | 0.7nm,0.4s,baz=342,slow=7.2,SNR=11 | | | | | | |
| **STKA** | **Stephens Creek** | **38.62** | **156** | P | P | 07 19 20.6 | +0.3 |
| | 1.0nm,0.3s,baz=340,slow=8.1,SNR=5.1 | | | | | | |
| **SONM** | **Songino Array** | **47.00** | **343** | P | P | 07 20 27.6 | +0.2 |
| | 0.3nm,0.8s,baz=153,slow=9.7,SNR=2.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **56.60** | **327** | P | P | 07 21 37.4 | -0.6 |
| | 0.3nm,0.3s,baz=123,slow=7.8,SNR=4.4 | | | | | | |
| MKAR | | | | *PcP* | PcP | 07 22 31.3 | -0.2 |
| | 0.2nm,0.6s,baz=145,slow=3.5,SNR=2.8 | | | | | | |

*ISCJB **22** 07:21:09.4±0.6,60.91N±0.03×26.70E±0.07,h17km±7km, Error ellipse: s-maj=5.8km s-min=4.2km az=10.5*
*UPP **22** 07:21:09.9,60.77N×26.71E,h0km*
*CSEM **22** 07:21:09.3±0.2,60.90N×26.68E,h2km,ML2.6,Error ellipse: s-maj=4.9km s-min=3.7km az=104.0*
*NAO **22** 07:21:09.9±1.4,60.91N×26.68E,ML2.9*
*IDC **22** 07:21:10.6±1.1,60.94N×26.71E,h0km,mb1 3.2/4, mb1mx2.9/42,mbtmp3.2/4,ML3.3/4,Error ellipse: s-maj=10.6km s-min=7.0km az=80.0*
*HEL **22** 07:21:10.1±0.1,60.91N×26.69E,h2km,ML2.6*
*BER **22** 07:21:10.6±4.2,60.91N×26.70E,h0km±20km, ML2.9(NAO)*

**ISC 22 07:21:08.7±1.1,60.90N±0.02×26.78E±0.03,h13km±8km, n71,σ1§60/102,Finland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VJF** | **Virojoki** | **0.53** | **133** | P | **Pb** | **07 21 20.1** | **+0.4** |
| VJF | | | | S | **Sb** | **07 21 27.8** | **+0.6** |
| **VJF** | **Virojoki** | **0.53** | **133** | *eP* | **Pb** | **07 21 20.2** | **+0.4** |
| VJF | | | | *eS* | **Sb** | **07 21 27.9** | **+0.6** |
| VJF | | | | MSG | | 07 21 28.4 | |
| | comp=Z,178nm,0.1s | | | | | | |
| **PVF** | **Pernaja** | **0.57** | **232** | P | **Pg** | **07 21 19.8** | **-0.1** |
| PVF | | | | S | **Sg** | **07 21 26.8** | **-0.7** |
| **PVF** | **Pernaja** | **0.57** | **232** | *eP* | **Pg** | **07 21 19.9** | **-0.1** |
| PVF | | | | *eS* | **Sg** | **07 21 26.9** | **-0.7** |
| PVF | | | | MSG | | 07 21 27.7 | |
| | comp=Z,215nm,0.2s | | | | | | |
| **FIA0** | **FINESS Array S** | **0.64** | **328** | Pg | **Pg** | **07 21 21.2** | **0.0** |
| | baz=152,slow=18 | | | | | | |
| FIA0 | | | | Lg | Lg | 07 21 29.2 | |
| | baz=153,slow=37 | | | | | | |
| FIA0 | | | | Rg | Rg | 07 21 33.1 | |
| | baz=148,slow=56 | | | | | | |
| **FIA0** | **FINESS Array S** | **0.64** | **328** | Pg | **Pg** | **07 21 21.2** | **0.0** |
| | baz=152,slow=18 | | | | | | |
| FIA0 | | | | Lg | Lg | 07 21 29.2 | |
| | baz=153,slow=37 | | | | | | |
| FIA0 | | | | Rg | Rg | 07 21 33.1 | |
| | baz=148,slow=56 | | | | | | |
| **FIA0** | **FINESS Array S** | **0.64** | **328** | P | **Pg** | **07 21 21.1** | **0.0** |
| FIA0 | | | | S | **Sg** | **07 21 29.0** | **-0.6** |
| **FIA0** | **FINESS Array S** | **0.64** | **328** | *eP* | **Pg** | **07 21 21.1** | **0.0** |
| FIA0 | | | | *eS* | **Sg** | **07 21 29.0** | **-0.6** |
| FIA0 | | | | MSG | | 07 21 29.8 | |
| | comp=Z,84nm,0.1s | | | | | | |
| **FINES** | **FINESS Array B** | **0.64** | **328** | Pg | **Pg** | **07 21 21.0** | **-0.2** |
| | comp=Z,22nm,0.3s,baz=151,slow=17,SNR=641 | | | | | | |
| FINES | | | | Lg | Lg | 07 21 29.1 | |
| | comp=Z,51nm,0.3s,baz=156,slow=30,SNR=155 | | | | | | |
| FINES | | | | Rg | Rg | 07 21 31.8 | |
| | comp=Z,691nm,0.5s,baz=153,slow=35,SNR=178 | | | | | | |
| **KAF** | **Kangasniemi** | **1.24** | **350** | P | **Pn** | **07 21 31.9** | **+0.3** |
| KAF | | | | S | **Sb** | **07 21 48.1** | **+0.4** |
| **KAF** | **Kangasniemi** | **1.24** | **350** | *eP* | **Pn** | **07 21 31.9** | **+0.3** |
| KAF | | | | *eS* | **Sb** | **07 21 48.1** | **+0.4** |
| **MEF** | **Metsahovi** | **1.36** | **241** | P | **Pb** | **07 21 33.9** | **-0.1** |
| MEF | | | | S | **Sb** | **07 21 50.9** | **-0.3** |
| **MEF** | **Metsahovi** | **1.36** | **241** | *eP* | **Pb** | **07 21 33.9** | **-0.1** |
| MEF | | | | *eS* | **Sb** | **07 21 51.0** | **-0.3** |
| MEF | | | | MSG | | 07 21 57.3 | |
| | comp=Z,52nm,0.1s | | | | | | |
| **ARBE** | **Arbavere** | **1.52** | **195** | P | **Pg** | **07 21 37.3** | **-0.6** |
| ARBE | | | | S | **Sb** | **07 21 56.6** | **+0.8** |
| **ARBE** | **Arbavere** | **1.52** | **195** | *eP* | **Pg** | **07 21 37.3** | **-0.6** |
| ARBE | | | | *eS* | **Sb** | **07 21 56.7** | **+0.8** |
| **KEF** | **Keuruu** | **1.56** | **325** | P | **Pb** | **07 21 37.5** | **+0.1** |
| KEF | | | | S | **Sb** | **07 21 57.9** | **+0.8** |
| **KEF** | **Keuruu** | **1.56** | **325** | *eP* | **Pb** | **07 21 37.6** | **+0.1** |
| KEF | | | | *eS* | **Sb** | **07 21 57.9** | **+0.8** |
| KEF | | | | MSG | | 07 21 59.9 | |
| | comp=Z,53nm,0.1s | | | | | | |
| **SUF** | **Sumiainen** | **1.85** | **351** | MSG | | 07 22 09.5 | |
| | comp=Z,45nm,0.1s | | | | | | |
| **RAF** | **Rauma** | **2.45** | **275** | MSG | | 07 22 25.2 | |
| | comp=Z,84nm,0.2s | | | | | | |
| **JOF** | **Joensuu** | **2.95** | **45** | MSG | | 07 22 41.4 | |
| | comp=Z,20nm,0.2s | | | | | | |
| **GRAU** | **Graesoe** | **4.10** | **266** | P | **Pn** | **07 22 12.2** | **+1.2** |
| GRAU | | | | S | **Sn** | **07 23 00.4** | **+1.7** |
| **GRAU** | **Graesoe** | **4.10** | **266** | P | **Pn** | **07 22 12.2** | **+1.2** |
| GRAU | | | | S | **Sn** | **07 23 00.4** | **+1.7** |
| **GRAU** | **Graesoe** | **4.10** | **266** | *eP* | **Pn** | **07 22 12.2** | **+1.2** |
| GRAU | | | | *eS* | **Sn** | **07 23 00.4** | **+1.7** |
| **NRTU** | **Norrtaelje** | **4.24** | **257** | P | **Pn** | **07 22 14.0** | **+1.2** |
| NRTU | | | | S | **Sn** | **07 23 02.8** | **+0.8** |
| **NRTU** | **Norrtaelje** | **4.24** | **257** | P | **Pn** | **07 22 14.0** | **+1.2** |
| NRTU | | | | S | **Sn** | **07 23 02.9** | **+0.8** |
| **NRTU** | **Norrtaelje** | **4.24** | **257** | *eP* | **Pn** | **07 22 14.0** | **+1.2** |
| NRTU | | | | *eS* | **Sn** | **07 23 02.9** | **+0.8** |
| **FLYU** | **Flymyra** | **4.46** | **264** | P | **Pn** | **07 22 17.2** | **+1.2** |
| FLYU | | | | S | **Sn** | **07 23 08.8** | **+1.1** |
| **FLYU** | **Flymyra** | **4.46** | **264** | P | **Pn** | **07 22 17.2** | **+1.2** |
| FLYU | | | | S | **Sn** | **07 23 08.8** | **+1.1** |
| **FLYU** | **Flymyra** | **4.46** | **264** | *eP* | **Pn** | **07 22 17.2** | **+1.2** |
| FLYU | | | | *eS* | **Sn** | **07 23 08.8** | **+1.1** |
| **ARNU** | **Arnoeviken** | **4.60** | **284** | P | **Pn** | **07 22 20.5** | **+2.7** |
| **ARNU** | **Arnoeviken** | **4.60** | **284** | P | **Pn** | **07 22 20.6** | **+2.7** |
| **ARNU** | **Arnoeviken** | **4.60** | **284** | *eP* | **Pn** | **07 22 20.6** | **+2.7** |
| **IGGU** | **Iggoen** | **4.62** | **274** | P | **Pn** | **07 22 20.1** | **+2.0** |
| **IGGU** | **Iggoen** | **4.62** | **274** | P | **Pn** | **07 22 20.1** | **+2.0** |
| **IGGU** | **Iggoen** | **4.62** | **274** | *eP* | **Pn** | **07 22 20.1** | **+2.0** |
| **FIBU** | **Brunna** | **4.78** | **262** | P | **Pn** | **07 22 21.7** | **+1.4** |
| **FIBU** | **Brunna** | **4.78** | **262** | P | **Pn** | **07 22 21.7** | **+1.4** |
| **NYNU** | **Nynaeshamn** | **4.80** | **251** | P | **Pn** | **07 22 22.3** | **+1.7** |
| **NYNU** | **Nynaeshamn** | **4.80** | **251** | P | **Pn** | **07 22 22.3** | **+1.7** |
| **NYNU** | **Nynaeshamn** | **4.80** | **251** | *eP* | **Pn** | **07 22 22.3** | **+1.7** |
| **SJUU** | **Sjulsmark** | **5.18** | **335** | P | **Pn** | **07 22 28.8** | **+3.0** |
| **SJUU** | **Sjulsmark** | **5.18** | **335** | P | **Pn** | **07 22 28.9** | **+3.0** |
| **SJUU** | **Sjulsmark** | **5.18** | **335** | *eP* | **Pn** | **07 22 28.9** | **+3.0** |
| **KALU** | **Kalix** | **5.21** | **344** | P | **Pn** | **07 22 29.3** | **+3.2** |
| **KALU** | **Kalix** | **5.21** | **344** | P | **Pn** | **07 22 29.4** | **+3.2** |
| **KALU** | **Kalix** | **5.21** | **344** | *eP* | **Pn** | **07 22 29.4** | **+3.2** |
| **LILU** | **Lilltraesk** | **5.41** | **327** | P | **Pn** | **07 22 31.5** | **+2.6** |
| **LILU** | **Lilltraesk** | **5.41** | **327** | P | **Pn** | **07 22 31.5** | **+2.6** |
| **LILU** | **Lilltraesk** | **5.41** | **327** | *eP* | **Pn** | **07 22 31.5** | **+2.6** |
| **HARU** | **Harads** | **5.88** | **336** | P | **Pn** | **07 22 38.5** | **+3.1** |
| **HARU** | **Harads** | **5.88** | **336** | P | **Pn** | **07 22 38.5** | **+3.1** |
| **HARU** | **Harads** | **5.88** | **336** | *eP* | **Pn** | **07 22 38.5** | **+3.1** |
| **HFS** | **Hagfors** | **6.51** | **269** | Pn | **Pn** | **07 22 45.6** | **+1.6** |
| | baz=104,slow=12 | | | | | | |
| HFS | | | | Sn | **Sn** | **07 23 56.8** | **-1.2** |
| | baz=77,slow=22 | | | | | | |
| HFS | | | | Lg | Lg | 07 24 27.2 | |
| | baz=77,slow=28 | | | | | | |
| **HFS** | **Hagfors** | **6.51** | **269** | Pn | **Pn** | **07 22 45.6** | **+1.6** |
| | comp=Z,0.3nm,0.3s,baz=84,slow=14,SNR=11 | | | | | | |
| HFS | | | | Sn | **Sn** | **07 23 57.9** | **-0.1** |
| | comp=Z,1.6nm,0.3s,baz=86,slow=29,SNR=8.7 | | | | | | |
| HFS | | | | Lg | Lg | 07 24 29.5 | |
| | comp=Z,4.7nm,0.3s,baz=84,slow=30,SNR=7.8 | | | | | | |
| **HFS** | **Hagfors** | **6.51** | **269** | Pn | **Pn** | **07 22 45.6** | **+1.6** |
| | baz=104,slow=12 | | | | | | |
| HFS | | | | Sn | **Sn** | **07 23 56.8** | **-1.2** |
| | baz=77,slow=22 | | | | | | |
| HFS | | | | Lg | Lg | 07 24 27.2 | |
| | baz=77,slow=28 | | | | | | |
| **HFS** | **Hagfors** | **6.51** | **269** | Pn | **Pn** | **07 22 45.6** | **+1.6** |
| | SNR=50 | | | | | | |
| HFS | | | | Sn | **Sn** | **07 23 56.8** | **-1.2** |
| | SNR=50 | | | | | | |
| HFS | | | | Lg | Lg | 07 24 27.2 | |
| | SNR=50 | | | | | | |
| **APA0** | **Apatity Array** | **7.25** | **19** | Pn | **Pn** | **07 22 55.7** | **+1.5** |
| **APA0** | **Apatity Array** | **7.25** | **19** | Pn | **Pn** | **07 22 55.7** | **+1.5** |
| **APA0** | **Apatity Array** | **7.25** | **19** | Pn | **Pn** | **07 22 55.7** | **+1.5** |
| | SNR=50 | | | | | | |
| **NB2** | **NORSAR Subarra** | **7.58** | **278** | Pn | **Pn** | **07 22 59.4** | **+0.7** |
| | baz=82,slow=14 | | | | | | |
| NB2 | | | | Sn | **Sn** | **07 24 23.7** | **-0.6** |
| | baz=89,slow=22 | | | | | | |
| **NB2** | **NORSAR Subarra** | **7.58** | **278** | Pn | **Pn** | **07 22 59.4** | **+0.7** |
| | baz=82,slow=14 | | | | | | |
| NB2 | | | | Sn | **Sn** | **07 24 23.7** | **-0.6** |
| | baz=89,slow=22 | | | | | | |
| **NB2** | **NORSAR Subarra** | **7.58** | **278** | Pn | **Pn** | **07 22 59.4** | **+0.7** |
| | SNR=50 | | | | | | |
| NB2 | | | | Sn | **Sn** | **07 24 23.7** | **-0.6** |
| | SNR=50 | | | | | | |
| **NOA** | **NORSAR Array B** | **7.58** | **278** | Pn | **Pn** | **07 23 00.3** | **+1.6** |
| | comp=Z,0.5nm,0.3s,baz=96,slow=16,SNR=8.2 | | | | | | |
| NOA | | | | Sn | **Sn** | **07 24 23.1** | **-1.2** |
| | comp=Z,1.0nm,0.3s,baz=172,slow=17,SNR=4.4 | | | | | | |
| NOA | | | | Lg | Lg | 07 24 58.2 | |
| | comp=Z,3.3nm,0.3s,baz=149,slow=0.5,SNR=7.3 | | | | | | |
| **ARA0** | **ARCESS Array S** | **8.69** | **357** | Pn | **Pn** | **07 23 14.7** | **+0.8** |
| | baz=175,slow=14 | | | | | | |
| ARA0 | | | | Sn | **Sn** | **07 24 48.5** | **-3.0** |
| | baz=173,slow=22 | | | | | | |
| **ARA0** | **ARCESS Array S** | **8.69** | **357** | Pn | **Pn** | **07 23 14.7** | **+0.8** |
| | baz=175,slow=14 | | | | | | |
| ARA0 | | | | Sn | **Sn** | **07 24 48.5** | **-3.0** |
| | baz=173,slow=22 | | | | | | |
| **ARA0** | **ARCESS Array S** | **8.69** | **357** | Pn | **Pn** | **07 23 14.7** | **+0.8** |
| | SNR=50 | | | | | | |
| **ARCES** | **ARCESS Array B** | **8.69** | **357** | Pn | **Pn** | **07 23 15.0** | **+1.1** |
| | comp=Z,0.3nm,0.3s,baz=174,slow=14,SNR=23 | | | | | | |
| ARCES | | | | Sn | **Sn** | **07 24 48.8** | **-2.8** |
| | comp=Z,0.3nm,0.3s,baz=178,slow=23,SNR=3.2 | | | | | | |
| ARCES | | | | Lg | Lg | 07 25 35.4 | |
| | comp=Z,1.2nm,0.3s,baz=182,slow=26,SNR=5.2 | | | | | | |
| **AKASG** | **Malin Array Be** | **10.32** | **171** | Pn | **Pn** | **07 23 34.1** | **-2.1** |
| | comp=Z,0.6nm,0.3s,baz=352,slow=13,SNR=2.4 | | | | | | |
| AKASG | | | | Lg | Lg | 07 26 32.8 | |
| | comp=Z,0.8nm,0.3s,baz=343,slow=30,SNR=4.1 | | | | | | |
| **SPA0** | **Spitsbergen Ar** | **17.68** | **353** | P | **P** | **07 25 15.9** | **+0.9** |
| **SPA0** | **Spitsbergen Ar** | **17.68** | **353** | P | **P** | **07 25 15.9** | **+0.9** |
| **SPA0** | **Spitsbergen Ar** | **17.68** | **353** | P | **P** | **07 25 15.9** | **+0.9** |
| | SNR=47 | | | | | | |

**HEL 22 07:21:51.9±0.0,60.91N×26.69E,h2km,ML2.2,Finland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PVF** | **Pernaja** | **0.55** | **229** | *eP* | Pg | 07 22 01.5 | -0.8 |
| PVF | | | | *eS* | Sg | 07 22 07.8 | -1.6 |
| PVF | | | | MSG | | 07 22 08.3 | |
| | comp=Z,16nm,0.1s | | | | | | |
| **PVF** | **Pernaja** | **0.55** | **229** | *eP* | Pg | 07 22 01.9 | -0.4 |
| PVF | | | | *eS* | Sg | 07 22 08.9 | -0.5 |
| PVF | | | | MSG | | 07 22 09.8 | |
| | comp=Z,46nm,0.2s | | | | | | |
| **VJF** | **Virojoki** | **0.56** | **131** | *eP* | Pg | 07 22 01.5 | -1.2 |
| VJF | | | | *eS* | Sg | 07 22 09.1 | -0.9 |
| VJF | | | | MSG | | 07 22 09.7 | |
| | comp=Z,19nm,0.1s | | | | | | |
| **VJF** | **Virojoki** | **0.56** | **131** | *eP* | Pg | 07 22 02.1 | -0.5 |
| VJF | | | | *eS* | Sg | 07 22 09.9 | 0.0 |
| VJF | | | | MSG | | 07 22 10.4 | |
| | comp=Z,62nm,0.1s | | | | | | |
| **FIA0** | **FINESS Array S** | **0.61** | **331** | *eS* | Sg | 07 22 11.1 | -0.5 |

*IDC **22** 07:36:23.8±4.7,57.69S×6.92W,h0km,mb4.0/4,mb1 4.1/4, mb1mx3.8/21,mbtmp4.0/4,MS3.6/10,Ms1 3.6/10, ms1mx3.5/17,Error ellipse: s-maj=141.5km s-min=36.5km az=149.0*
*ISCJB **22** 07:36:24.5±0.9,57.48S±0.08×7.0W±0.4,h10km,mb4.1/4, MS3.8/11,Error ellipse: s-maj=33.4km s-min=11.1km az=171.8*

**ISC 22 07:36:26.5±1.1,57.5S±0.1×7.2W±0.3,h10km,n21, σ0§83/10,mb4.3/4,MS3.6/11,East of South Sandwich Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VNA1** | **Neumayer--Stat** | **13.25** | **182** | P | **Pn** | **07 39 35.4** | **+1.1** |
| **VNA2** | **Neumayer--Watz** | **13.52** | **180** | P | **Pn** | **07 39 36.9** | **-1.1** |
| | baz=353,slow=16 | | | | | | |
| **VNA3** | **Neumayer Olymp** | **13.88** | **183** | P | **Pn** | **07 39 43.2** | **+0.3** |
| **SNAA** | **Sanae** | **14.38** | **174** | P | **Pn** | **07 39 49.9** | **+0.1** |
| **MAW** | **Mawson** | **32.01** | **137** | LR | LR | 07 53 57.6 | |
| | comp=Z,46nm,19.3s,baz=240,slow=33 | | | | | | |
| **USHA** | **Ushuaia** | **33.22** | **248** | LR | LR | 07 53 15.3 | |
| | comp=Z,2μm,19.9s,baz=73,slow=30 | | | | | | |
| **BOSA** | **Boshof** | **36.68** | **52** | LR | LR | 07 56 07.5 | |
| | comp=Z,86nm,18.7s,baz=204,slow=32 | | | | | | |
| **PLCA** | **Paso Flores** | **43.05** | **265** | LR | LR | 08 00 02.5 | |
| | comp=Z,142nm,19.6s,baz=162,slow=33 | | | | | | |
| **VNDA** | **Vanda** | **45.10** | **177** | LR | LR | 08 03 26.3 | |
| | comp=Z,26nm,18.5s,baz=184,slow=36 | | | | | | |
| **CPUP** | **Villa Florida** | **47.02** | **290** | P | **P** | **07 44 57.8** | **+0.1** |
| | 1.9nm,0.8s,baz=148,slow=5.9,SNR=4.7 | | | | | | |
| CPUP | | | | LR | LR | 08 01 43.8 | |
| | comp=Z,69nm,21.8s,baz=162,slow=32 | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **48.74** | **350** | T | T | 08 37 54.0 | |
| | baz=174,slow=75,SNR=5.3 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **48.75** | **350** | T | T | 08 37 56.9 | |
| | baz=174,slow=75,SNR=6.3 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **48.76** | **350** | T | T | 08 37 56.1 | |
| | baz=174,slow=75,SNR=6.1 | | | | | | |
| **LPAZ** | **La Paz** | **60.90** | **286** | P | **P** | **07 46 40.3** | **+0.2** |
| | 2.6nm,0.9s,baz=180,slow=6.1,SNR=6.9 | | | | | | |
| LPAZ | | | | LR | LR | 08 13 37.4 | |
| | comp=Z,35nm,18.9s,baz=117,slow=37 | | | | | | |
| **DBIC** | **Dimbokro** | **63.94** | **3** | P | **P** | **07 47 00.5** | **+1.0** |
| | 3.0nm,1.0s,baz=168,slow=9.3,SNR=3.0 | | | | | | |
| **KMBO** | **Kilima Mbogo** | **66.27** | **50** | LR | LR | 08 13 22.7 | |
| | comp=Z,118nm,20.0s,baz=94,slow=34 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **70.73** | **9** | P | **P** | **07 47 42.1** | **-0.4** |
| | 0.5nm,0.7s,baz=191,slow=4.7,SNR=3.4 | | | | | | |
| TORD | | | | LR | LR | 08 12 20.4 | |
| | comp=Z,25nm,21.0s,baz=215,slow=30 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **95.12** | **136** | LR | LR | 08 29 43.8 | |
| | comp=Z,39nm,18.1s,baz=18,slow=34 | | | | | | |
| **WRA** | **Warramunga Arr** | **96.46** | **144** | LR | LR | 08 29 11.5 | |
| | comp=Z,68nm,20.9s,baz=170,slow=33 | | | | | | |
| **YKA** | **Yellowknife Ar** | **145.13** | **309** | PKPbc | **PKPbc** | **07 56 01.4** | **-0.7** |
| | 2.0nm,0.9s,baz=116,slow=1.6,SNR=21 | | | | | | |
| **ILAR** | **Eielson Array** | **159.54** | **308** | PKPab | **PKPab** | **07 57 01.2** | **-0.9** |
| | 0.5nm,1.1s,baz=92,slow=2.7,SNR=4.3 | | | | | | |

*IDC **22** 07:49:09.3±2.9,2.56S×133.07E,h0km,mb4.0/2, mb1 4.3/4,mb1mx3.7/39,mbtmp4.1/4,ML3.8/2,MS3.2/3, Ms1 3.2/3,ms1mx2.7/38,Error ellipse: s-maj=131.2km s-min=26.1km az=79.0*
*ISCJB **22** 07:49:11.7±0.7,2.57S±0.06×133.51E±0.07,h33km, mb3.6/1,MS3.4/2,Error ellipse: s-maj=10.2km s-min=7.9km az=8.5*
*DJA **22** 07:49:11.9±0.3,2.2S±2.3×13.4E±.1,h10km,M4.2/6,mb4.4/1, MLv4.2/6*

**ISC 22 07:49:13.3±1.0,2.46S±0.05×133.60E±0.06,h35km,n10, σ2§46/13,Irian Jaya region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RKPI** | **Ransiki, Papua** | **1.10** | **32** | P | **Pn** | **07 49 32.0** | **-0.3** |
| RKPI | | | | S | **Sn** | **07 49 49.1** | **+2.8** |
| **KMPI** | **Kaimana, Papua** | **1.20** | **175** | P | **Pn** | **07 49 33.1** | **-0.5** |
| KMPI | | | | S | **Sn** | **07 49 52.2** | **+3.5** |
| **FAKI** | **Fak Fak** | **1.42** | **251** | P | **Pn** | **07 49 38.4** | **+1.8** |
| FAKI | | | | S | **Sn** | **07 49 56.4** | **+2.3** |
| **SWI** | **Sorong** | **2.82** | **304** | P | **Pn** | **07 49 54.9** | **-0.9** |
| SWI | | | | S | **Sn** | **07 50 31.5** | **+2.9** |
| **SANI** | **Sanana** | **7.61** | **273** | P | **Pn** | **07 51 00.1** | **-1.7** |
| **WRA** | **Warramunga Arr** | **17.40** | **178** | P | **Pn** | **07 53 12.9** | **-0.5** |
| | 0.3nm,0.3s,baz=357,slow=12,SNR=12 | | | | | | |
| WRA | | | | S | Sn | 07 56 14.3 | -12 |
| | 0.1nm,0.3s,baz=354,slow=25,SNR=4.4 | | | | | | |
| WRA | | | | LR | LR | 08 00 45.0 | |
| | comp=Z,42nm,19.6s,baz=335,slow=40 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **17.40** | **206** | P | **Pn** | **07 53 09.0** | **-4.4** |
| | 0.3nm,0.3s,baz=42,slow=12,SNR=9.2 | | | | | | |
| FITZ | | | | S | Sn | 07 56 08.5 | -18 |
| | 0.2nm,0.3s,baz=147,slow=17,SNR=4.5 | | | | | | |
| **ASAR** | **Alice Springs** | **21.09** | **179** | P | **P** | **07 53 54.7** | **-0.1** |
| | 16nm,0.7s,baz=1.9,slow=13,SNR=64 | | | | | | |
| ASAR | | | | LR | LR | 08 03 15.9 | |
| | comp=Z,50nm,18.1s,baz=44,slow=40 | | | | | | |
| **MKAR** | **Makanchi Array** | **66.53** | **324** | P | **P** | **07 59 59.7** | **0.0** |
| | 0.2nm,0.3s,baz=107,slow=8.2,SNR=8.2 | | | | | | |
| **GEYT** | **Alibeck** | **80.09** | **309** | LR | LR | 08 40 54.3 | |
| | comp=Z,41nm,19.1s,baz=280,slow=39 | | | | | | |

*SOME **22** 08:08:28.4,48.50N×77.03E,h20km*
*NNC **22** 08:08:37.5±4.2,48.66N×77.95E,h0km,mb3.1,mpv2.7, Error ellipse: s-maj=58.9km s-min=15.4km az=74.0, Suspected Mining explosion.*

**ISC 22 08:08:37.1±1.4,48.65N±0.05×77.7E±0.2,h0km,n5, σ1§05/8,1C-4D,Eastern Kazakhstan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KURBB** | **Kurchatov Arra** | **2.04** | **15** | *i*Pn | **Pn** | **08 09 11.3** | **

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **16.35 184** | Pn | **P** | **08 22 02.7** | **-1.2** |
| | 0.5nm,0.3s,baz=7.4,slow=13,SNR=25 | | | | | | |
| WRA | | | Sn | **Sn** | **08 24 59.1** | **-2.9** |
| | 0.7nm,0.3s,baz=6.8,slow=22,SNR=6.1 | | | | | | |
| **MTSU** | **Mount Surprise** | **16.93 150** | P | **P** | **08 22 10.7** | **+0.3** |
| | baz=17,SNR=8.9 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **17.36 213** | P | **P** | **08 22 17.4** | **+2.2** |
| | 0.4nm,0.3s,baz=38,slow=9.4,SNR=12 | | | | | | |
| FITZ | | | S | **Sn** | **08 25 20.9** | **-5.8** |
| | 0.7nm,0.3s,baz=204,slow=17,SNR=6.0 | | | | | | |
| **QIS** | **Mount Isa** | **17.41 167** | P | **P** | **08 22 18.3** | **+2.6** |
| | baz=18,SNR=9.4 | | | | | | |
| **CTA** | **Charters Tower** | **19.56 148** | P | **Pn** | **08 22 41.8** | **+1.0** |
| | 0.3nm,0.3s,baz=334,slow=12,SNR=7.0 | | | | | | |
| **CTAO** | **Charters Tower** | **19.56 148** | *e*P | **Pn** | **08 22 40.7** | **-0.1** |
| | 24nm,1.1s | | | | | | |
| **AS01** | **Alice Springs** | **20.07 184** | *e*P | Pn | 08 22 48.2 | +1.5 |
| **AS31** | **Alice Springs** | **20.07 184** | *e*P | Pn | 08 22 50.2 | +3.3 |
| | 5.0nm,0.9s | | | | | | |
| **ASAR** | **Alice Springs** | **20.07 184** | P | Pn | 08 22 49.9 | +3.1 |
| | 9.3nm,0.7s,baz=8.5,slow=12,SNR=51 | | | | | | |
| ASAR | | | S | **S** | **08 26 30.2** | **+0.5** |
| | 1.8nm,0.8s,baz=4.1,slow=27,SNR=6.3 | | | | | | |
| ASAR | | | LR | LR | 08 31 38.4 | |
| | comp=Z,108nm,21.7s,baz=28,slow=40 | | | | | | |
| **STKA** | **Stephens Creek** | **28.79 169** | P | **P** | **08 24 12.5** | **+3.2** |
| | 1.3nm,0.7s,baz=354,slow=8.5,SNR=6.3 | | | | | | |
| **MYKOM** | **Kota Tinggi** | **31.99 279** | *e*P | **P** | **08 24 36.4** | **-1.4** |
| | 48nm,1.4s | | | | | | |
| **SONM** | **Songino Array** | **57.12 337** | LR | LR | 08 53 04.6 | |
| | comp=Z,31nm,19.4s,baz=44,slow=37 | | | | | | |
| **MK31** | **Makanchi Array** | **68.47 324** | ⇑Pn | **P** | **08 29 14.2** | **+0.8** |
| | 3.6nm,0.8s,baz=114,slow=8.2,SNR=31 | | | | | | |
| MK31 | | | ⇑Lg | Lg | 08 30 59.9 | |
| | 2.9nm,0.8s,baz=322,slow=25,SNR=7.4 | | | | | | |
| **MK31** | **Makanchi Array** | **68.47 324** | *e*P | **P** | **08 29 14.2** | **+0.8** |
| **MK32** | **Makanchi Array** | **68.47 324** | *e*P | **P** | **08 29 14.8** | **+1.4** |
| **MKAR** | **Makanchi Array** | **68.47 324** | P | **P** | **08 29 14.8** | **+1.4** |
| | 4.3nm,0.7s,baz=113,slow=8.3,SNR=38 | | | | | | |
| **MKAR** | **Makanchi Array** | **68.47 324** | *e*P | **P** | **08 29 14.2** | **+0.8** |
| | 19nm,0.7s | | | | | | |
| **MAKZ** | **Makanchi** | **68.66 324** | *e*P | **P** | **08 29 16.0** | **+1.4** |
| | 5.7nm,0.9s | | | | | | |
| **ZAA0** | **Zalesovo Array** | **71.02 331** | *e*P | **P** | **08 29 29.0** | **+0.1** |
| | 3.7nm,0.7s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **71.02 331** | P | **P** | **08 29 28.7** | **-0.3** |
| | 3.0nm,0.8s,baz=117,slow=5.9,SNR=8.3 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **71.03 331** | *e*P | **P** | **08 29 28.7** | **-0.3** |
| **KURK** | **Kurchatov** | **72.53 326** | *e*P | **P** | **08 29 39.3** | **+1.2** |
| **KURBB** | **Kurchatov Arra** | **72.53 326** | P | **P** | **08 29 39.3** | **+1.2** |
| | 3.9nm,1.1s,baz=116,slow=5.2,SNR=2.8 | | | | | | |
| **BVAR** | **Borovoye Array** | **78.12 326** | P | **P** | **08 30 11.1** | **+0.9** |
| | 1.7nm,0.7s,baz=104,slow=6.3,SNR=4.5 | | | | | | |
| **ILAR** | **Eielson Array** | **87.94 25** | P | **P** | **08 30 59.5** | **-1.2** |
| | 0.6nm,0.8s,baz=262,slow=4.4,SNR=5.9 | | | | | | |
| **ILB** | **Eielson Array** | **87.94 25** | *e*P | **P** | **08 30 59.5** | **-1.2** |
| **TORD** | **Torodi Ar. Bea** | **133.30 285** | PKP | **PKPdf** | **08 37 30.4** | **+2.2** |
| | 0.4nm,0.7s,baz=127,slow=3.0,SNR=3.1 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **133.30 285** | *e*PKPdf | **PKPdf** | **08 37 30.4** | **+2.2** |
| **CPUP** | **Villa Florida** | **147.85 158** | PKPbc | **PKPab** | **08 37 59.2** | **-0.2** |
| | 3.5nm,0.8s,baz=225,slow=3.7,SNR=9.2 | | | | | | |
| **LPAZ** | **La Paz** | **149.51 131** | PKPbc | **PKPab** | **08 38 05.4** | **-1.8** |
| | 1.1nm,0.7s,baz=235,slow=8.9,SNR=4.5 | | | | | | |
| **LPAZ** | **La Paz** | **149.51 131** | *e*PKPdf | **PKPbc** | **08 38 00.1** | **-2.2** |
| LPAZ | | | *e*PKPbc | **pPKPdf** | **08 38 05.2** | **-0.1** |

**NNC 22 08:27:32.9±2.4, 51°82N×75°65E, h0km, mb3.3, mpv2.9, 3C-3D, Error ellipse: s-maj=25.9km s-min=17.1km az=24.0, Suspected Mining explosion., Eastern Kazakhstan**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **KURK** | **Kurchatov** | **2.17** | **119** | ⇑Pn | | Pn | | 08 28 08.5 | -1.7 |
| | 2.7nm,0.6s | | | | | | | | |
| KURK | | | | ⇓Sn | | Sb | | 08 28 39.4 | -0.9 |
| | 6.5nm,0.7s | | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **2.17** | **122** | ⇑Pn | | Pn | | 08 28 09.2 | -1.0 |
| | 5.0nm,0.7s,baz=305,slow=18 | | | | | | | | |
| KURBB | | | | ⇑Sn | | Sb | | 08 28 39.3 | -1.1 |
| | 28nm,0.6s,baz=304,slow=28 | | | | | | | | |
| **BVA0** | **Borovoye Array** | **3.44** | **293** | ⇓Pn | | Pn | | 08 28 27.5 | -0.2 |
| | 2.2nm,1.0s,baz=119,slow=16,SNR=4.2 | | | | | | | | |
| BVA0 | | | | ⇓Sn | | Sb | | 08 29 13.2 | -3.8 |
| | 3.8nm,0.8s,baz=104,slow=24,SNR=3.7 | | | | | | | | |

*NIED* ***22*** *08:41:00, 35.60N×140.20E, h68km, Mw4.1 Best double couple: Mo1.51000×10^15 NP1:ϕs184.00000°, δ23.00000°, λ97.00000°. NP2:ϕs357.00000°, δ67.00000°, λ87.00000°.*

*NEIC* ***22*** *08:41:31.1±0.7, 35.69N×140.33E, h47km±6km, mb4.4/7, Error ellipse: s-maj=7.1km s-min=5.3km az=93.0*

*NEIC Recorded [2 JMA] in Chiba, Ibaraki, Kanagawa, Saitama, Tochigi and Tokyo.*

*ISCJB* ***22*** *08:41:32.3±0.6, 35.54N±0.04×140.10E±0.07, h74km±5km, mb4.0/21, Error ellipse: s-maj=10.5km s-min=4.8km az=148.6*

*JMA* ***22*** *08:41:33.4±0.1, 35.65N×140.11E, h64km±1km, M3.7 Broadband fault plane solution: P waves. NP1: ϕs352.00000°, δ66.00000°, λ86.00000°. NP2: ϕs182.00000°, δ24.00000°, λ99.00000°. Principal axes: T Plg69.0000°, Azm254.0000°; N Plg4.0000°, Azm354.0000°; P Plg21.0000°, Azm85.0000°;*

*JMA Felt II J1.*

*IDC* ***22*** *08:41:34.0±1.6, 35.49N×140.15E, h74km±13km, mb3.8/15, mb1 3.9/19, mb1mx3.7/50, mbtmp4.1/19, MS2.8/3, Ms1 2.9/3, ms1mx2.4/42 Error ellipse: s-maj=22.6km s-min=6.2km az=67.0*

**ISC 22 08:41:31.2±1.0, 35°66N±0°05×140°32E±0°07, h49km±9km, n67, σ1§31/69, mb4.1/21, 1C-1D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **BSO3** | **Boso 3** | **0.87** | **169** | ⇑P | | Pn | | **08 41 49.9** | **+2.9** |
| **JAG** | **Ashikaga** | **1.03** | **318** | ⇓P | | Pn | | 08 41 51.2 | +1.8 |
| **BSO1** | **Boso 1** | **1.14** | **151** | P | | Pn | | **08 41 53.4** | **+3.0** |
| **MJAR** | **Matsushiro Arr** | **1.92** | **298** | P | | Pn | | **08 42 02.5** | **+1.0** |
| | 66nm,0.3s,baz=134,slow=15,SNR=264 | | | | | | | | |
| MJAR | | | | S | | Sn | | **08 42 27.3** | **+2.9** |
| | 75nm,0.3s,baz=124,slow=20,SNR=8.0 | | | | | | | | |
| MJAR | | | | LR | | LR | | 08 42 43.0 | |
| | comp=Z,169nm,18.4s,baz=115,slow=37 | | | | | | | | |
| **MAJO** | **Matsushiro** | **1.92** | **298** | *e*Pn | | Pn | | **08 42 00.4** | **-1.0** |
| MAJO | | | | *e*Sn | | Sn | | **08 42 22.8** | **-1.6** |
| **MAT** | **Matsushiro** | **1.92** | **298** | P | | Pn | | **08 42 03.0** | **+1.5** |
| MAT | | | | S | | Sn | | **08 42 24.1** | **-0.4** |
| **MJB9** | **Matsu-Tunnel** | **1.92** | **298** | *e*Pn | | Pn | | **08 42 00.6** | **-0.9** |
| **JHJ** | **Hachijo jima 2** | **2.58** | **190** | P | | Pn | | **08 42 11.6** | **+1.2** |
| | 75nm,0.3s,baz=324,slow=24,SNR=39 | | | | | | | | |
| JHJ | | | | S | | Sn | | **08 42 39.9** | **-0.7** |
| | 244nm,0.3s,baz=247,slow=23,SNR=17 | | | | | | | | |
| **JHJ2** | **Mitsune** | **2.58** | **189** | *e*Pn | | Pn | | **08 42 11.5** | **+1.0** |
| JHJ2 | | | | *e*Sn | | Sn | | **08 42 38.7** | **-1.9** |
| **INU** | **Inuyama** | **2.71** | **264** | *e*Pn | | Pn | | **08 42 13.1** | **+0.8** |
| **ERM** | **Erimo** | **6.72** | **18** | *e*Sn | | Sn | | **08 44 20.1** | **-2.2** |
| **JNU** | **Nakatsue** | **8.20** | **255** | P | | Pn | | **08 43 28.0** | **+0.3** |
| | 0.6nm,0.3s,baz=18,slow=5.5,SNR=6.4 | | | | | | | | |
| **JNU** | **Nakatsue** | **8.20** | **255** | *e*Pn | | Pn | | **08 43 28.1** | **+0.5** |
| **ASAJ** | **Asahikawa** | **8.62** | **11** | P | | Pn | | **08 43 33.0** | **-0.4** |
| | 0.9nm,0.3s,baz=238,slow=19,SNR=2.8 | | | | | | | | |
| ASAJ | | | | S | | Sn | | **08 45 08.3** | **-0.9** |
| | 0.8nm,0.3s,baz=135,slow=20,SNR=3.4 | | | | | | | | |
| **ASAJ** | **Asahikawa** | **8.62** | **11** | *e*Pn | | Pn | | **08 43 33.6** | **+0.2** |
| ASAJ | | | | S | | Sn | | **08 45 08.3** | **-0.9** |
| **CBIJ** | **Chichi jima** | **8.69** | **169** | *e*Pn | | Pn | | **08 43 33.1** | **-1.2** |
| CBIJ | | | | S | | Sn | | 08 45 04.2 | -6.7 |
| **JCJ** | **Chichijima** | **8.69** | **169** | P | | Pn | | **08 43 33.2** | **-1.1** |
| | 15nm,0.3s,baz=320,slow=21,SNR=7.3 | | | | | | | | |
| JCJ | | | | S | | Sn | | 08 45 04.2 | -6.7 |
| | 5.7nm,0.3s,baz=288,slow=19,SNR=2.1 | | | | | | | | |
| **KSRS** | **Korea Array** | **10.13** | **284** | P | | Pn | | **08 43 57.2** | **+3.2** |
| | 0.4nm,0.3s,baz=103,slow=14,SNR=8.3 | | | | | | | | |
| KSRS | | | | LR | | LR | | 08 47 38.0 | |
| | comp=Z,69nm,19.1s,baz=105,slow=36 | | | | | | | | |
| **KS15** | **Wonju Array Si** | **10.16** | **284** | *e*Sn | | Sn | | **08 45 46.8** | **0.0** |
| **KSAR** | **Wonju Array Be** | **10.16** | **284** | P | | Pn | | **08 43 57.2** | **+2.8** |
| **YSS** | **Yuzh-Sakhalins** | **11.43** | **8** | *e*Sn | | Sn | | **08 46 15.9** | **-1.8** |
| **MDJ** | **Mudanjiang** | **12.13** | **321** | *e*Sn | | Sn | | **08 46 32.8** | **-2.1** |
| **PETK** | **Petropavlovsk-** | **21.32** | **30** | LR | | LR | | 08 53 55.3 | |
| | comp=Z,21nm,20.1s,baz=249,slow=34 | | | | | | | | |
| **SONA0** | **Songino Array** | **27.85** | **306** | *e*P | | **P** | | **08 47 15.3** | **-0.9** |
| **SONM** | **Songino Array** | **27.85** | **306** | P | | **P** | | **08 47 15.3** | **-0.9** |
| | 0.7nm,0.6s,baz=107,slow=7.8,SNR=5.5 | | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.26** | **117** | T | | T | | 09 17 12.4 | |
| | baz=308,slow=75,SNR=31 | | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.27** | **117** | T | | T | | 09 17 02.8 | |
| | baz=308,slow=75,SNR=37 | | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.28** | **117** | T | | T | | 09 17 17.0 | |
| | baz=308,slow=75,SNR=27 | | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.91** | **119** | T | | T | | 09 17 28.5 | |
| | baz=321,slow=74,SNR=25 | | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.91** | **119** | T | | T | | 09 17 59.5 | |
| | baz=321,slow=74,SNR=17 | | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.93** | **119** | T | | T | | 09 18 04.1 | |
| | baz=321,SNR=14 | | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **40.30** | **256** | LR | | LR | | 09 07 26.8 | |
| | comp=Z,12nm,18.7s,baz=260,slow=39 | | | | | | | | |
| **ZAA0** | **Zalesovo Array** | **42.20** | **314** | *e*P | | **P** | | **08 49 18.5** | **-0.6** |
| | 3.3nm,0.8s | | | | | | | | |
| **ZAA1** | **Zalesovo Array** | **42.20** | **314** | *e*P | | **P** | | **08 49 18.9** | **-0.1** |
| ZAA1 | | | | *e*PcP | | **PcP** | | **08 51 11.6** | **-0.8** |
| **ZALV** | **Zalesovo Beam** | **42.20** | **314** | P | | **P** | | **08 49 18.9** | **-0.1** |
| | 2.3nm,0.6s,baz=89,slow=7.3,SNR=8.8 | | | | | | | | |
| ZALV | | | | PcP | | **PcP** | | **08 51 11.6** | **-0.8** |
| | 1.6nm,0.5s,baz=106,slow=3.2,SNR=5.0 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.20** | **314** | *e*P | | **P** | | **08 49 18.5** | **-0.6** |
| ZALV | | | | PcP | | **PcP** | | **08 51 11.6** | **-0.8** |
| **MK01** | **Makanchi Array** | **44.11** | **303** | *e*P | | **P** | | **08 49 34.5** | **-0.2** |
| **MK31** | **Makanchi Array** | **44.11** | **303** | *e*P | | **P** | | **08 49 34.0** | **-0.7** |
| **MK32** | **Makanchi Array** | **44.11** | **303** | *e*P | | **P** | | **08 49 34.6** | **0.0** |
| **MKAR** | **Makanchi Array** | **44.11** | **303** | P | | **P** | | **08 49 34.6** | **0.0** |
| | 2.8nm,0.5s,baz=84,slow=9.3,SNR=14 | | | | | | | | |
| **MAKZ** | **Makanchi** | **44.32** | **303** | *e*P | | **P** | | **08 49 34.7** | **-1.6** |
| | 6.6nm,1.2s | | | | | | | | |
| **WB2** | **Warramunga Arr** | **55.59** | **187** | *e*P | | **P** | | **08 51 01.0** | **-1.0** |
| | 14nm,1.3s | | | | | | | | |
| **WR1** | **Warramunga Arr** | **55.59** | **187** | *e*P | | **P** | | **08 51 00.9** | **-1.1** |
| | 8.2nm,0.5s | | | | | | | | |
| **WRA** | **Warramunga Arr** | **55.59** | **187** | P | | **P** | | **08 51 00.9** | **-1.1** |
| | 5.7nm,0.5s,baz=1.3,slow=7.5,SNR=161 | | | | | | | | |
| **INK** | **Inuvik** | **56.01** | **27** | P | | **P** | | **08 51 06.5** | **+2.2** |
| | 0.3nm,0.6s,baz=243,slow=2.3,SNR=3.0 | | | | | | | | |
| **AS31** | **Alice Springs** | **59.32** | **187** | *e*P | | **P** | | **08 51 27.6** | **-0.6** |
| | 1.4nm,1.3s | | | | | | | | |
| **ASAR** | **Alice Springs** | **59.32** | **187** | P | | **P** | | **08 51 27.4** | **-0.8** |
| | 0.8nm,0.4s,baz=14,slow=9.4,SNR=25 | | | | | | | | |
| **ARA0** | **ARCESS Array S** | **64.97** | **339** | *e*P | | **P** | | **08 52 05.7** | **+0.2** |
| **ARCES** | **ARCESS Array B** | **64.97** | **339** | P | | **P** | | **08 52 05.6** | **+0.2** |
| | 2.8nm,0.8s,baz=67,slow=6.9,SNR=4.1 | | | | | | | | |
| **STKA** | **Stephens Creek** | **67.20** | **179** | P | | **P** | | **08 52 19.3** | **-0.9** |
| | 0.8nm,0.4s,baz=16,slow=9.4,SNR=5.7 | | | | | | | | |
| **STKA** | **Stephens Creek** | **67.20** | **179** | *e*P | | **P** | | **08 52 19.8** | **-0.4** |
| | 3.3nm,1.8s | | | | | | | | |
| **FIA0** | **FINESS Array S** | **69.61** | **332** | *e*P | | **P** | | **08 52 35.1** | **+0.2** |
| **FINES** | **FINESS Array B** | **69.61** | **332** | P | | **P** | | **08 52 35.1** | **+0.2** |
| | 2.5nm,0.6s,baz=60,slow=5.1,SNR=16 | | | | | | | | |
| **KBZ** | **Khabaz** | **71.12** | **311** | P | | **P** | | **08 52 44.8** | **+0.3** |
| | 0.5nm,0.4s,baz=54,slow=15,SNR=3.6 | | | | | | | | |
| **AKASG** | **Malin Array Be** | **74.83** | **322** | P | | **P** | | **08 53 06.0** | **-0.3** |
| | 1.5nm,0.4s,baz=48,slow=6.0,SNR=10 | | | | | | | | |
| **AKBB** | **Malin Array Si** | **74.83** | **322** | *e*P | | **P** | | **08 53 06.0** | **-0.4** |
| | 11nm,1.2s | | | | | | | | |
| **NB2** | **NORSAR Subarra** | **75.10** | **337** | P | | **P** | | **08 53 07.9** | **+0.1** |
| | comp=Z,1.1nm,0.5s,baz=42,slow=5.9 | | | | | | | | |
| **NB200** | **NORSAR Array S** | **75.10** | **337** | *e*P | | **P** | | **08 53 08.1** | **+0.3** |
| **NOA** | **NORSAR Array B** | **75.10** | **337** | P | | **P** | | **08 53 08.1** | **+0.3** |
| | comp=Z,2.1nm,0.8s,baz=40,slow=5.6,SNR=4.0 | | | | | | | | |
| **BR101** | **Keskin Array S** | **79.09** | **311** | *e*P | | **P** | | **08 53 31.9** | **+1.2** |
| **BRTR** | **Keskin Array B** | **79.09** | **311** | P | | **P** | | **08 53 31.9** | **+1.2** |
| | comp=Z,0.8nm,0.7s,baz=63,slow=6.6,SNR=3.5 | | | | | | | | |
| **PD31** | **Pinedale Array** | **79.26** | **45** | *e*P | | **P** | | **08 53 33.7** | **+2.0** |
| **PDAR** | **Pinedale Array** | **79.26** | **45** | P | | **P** | | **08 53 34.0** | **+2.3** |
| | comp=Z,0.4nm,0.6s,baz=226,slow=3.0,SNR=5.0 | | | | | | | | |
| **LTX** | **Lajitas** | **91.66** | **52** | *e*P | | **P** | | **08 54 33.6** | **0.0** |
| **TXAR** | **Lajitas Array** | **91.66** | **52** | P | | **P** | | **08 54 33.6** | **0.0** |
| | comp=Z,0.1nm,0.6s,baz=310,slow=4.2,SNR=2.6 | | | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **117.64** | **313** | *e*PKPdf | | **PKPdf** | | **09 00 11.9** | **-0.6** |
| **TORD** | **Torodi Ar. Bea** | **117.65** | **313** | PKP | | **PKPdf** | | **09 00 11.9** | **-0.6** |
| | comp=Z,0.4nm,0.6s,baz=55,slow=0.8,SNR=5.8 | | | | | | | | |

*IDC* ***22*** *08:50:16.8±4.6, 19.21S×168.97E, h82km±39km, mb3.8/8, mb1 4.0/9, mb1mx3.8/29, mbtmp4.2/9, MS3.2/3, Ms1 3.2/3, ms1mx2.7/31, Error ellipse: s-maj=38.7km s-min=30.7km az=134.0*

*ISCJB* ***22*** *08:50:18.5±0.7, 19.16S±0.10×168.7E±0.1, h100km, mb4.1/10, Error ellipse: s-maj=17.3km s-min=9.0km az=43.1*

*NEIC* ***22*** *08:50:20.7±1.4, 19.29S×168.79E, h114km±15km, mb4.3/3, Error ellipse: s-maj=32.8km s-min=10.4km az=158.0*

**ISC 22 08:50:19.8±0.7, 19°29S±0°1×168°7E±0°1, h100km, n33, σ1§07/31, mb4.2/10, Vanuatu Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **3.57** | **216** | P | | **Pn** | | **08 51 12.9** | **-0.4** |
| | 27nm,0.3s,baz=78,slow=8.1,SNR=1035 | | | | | | | | |
| DZM | | | | S | | Sn | | **08 51 54.5** | **-0.3** |
| | 101nm,0.3s,baz=155,slow=22,SNR=13 | | | | | | | | |
| **MSVF** | **Nonsavu** | **8.98** | **82** | *e*Pn | | **Pn** | | **08 52 27.9** | **+1.1** |
| **CTA** | **Charters Tower** | **21.17** | **264** | P | | **P** | | **08 54 59.0** | **+1.8** |
| | 3.9nm,0.6s,baz=91,slow=13,SNR=5.0 | | | | | | | | |
| **STKA** | **Stephens Creek** | **27.45** | **237** | P | | **P** | | **08 55 56.1** | **-0.4** |
| | 0.8nm,0.6s,baz=77,slow=8.9,SNR=5.3 | | | | | | | | |
| **STKA** | **Stephens Creek** | **27.45** | **237** | *e*P | | **P** | | **08 55 56.1** | **-0.4** |
| | 7.2nm,1.9s | | | | | | | | |
| **WR1** | **Warramunga Arr** | **32.37** | **263** | *e*P | | **P** | | **08 56 39.4** | **-0.7** |
| | 26nm,1.8s | | | | | | | | |
| **WRA** | **Warramunga Arr** | **32.37** | **263** | P | | **P** | | **08 56 39.4** | **-0.7** |
| | 0.4nm,0.5s,baz=82,slow=6.7,SNR=7.8 | | | | | | | | |
| **AS01** | **Alice Springs** | **32.62** | **256** | *e*P | | **P** | | **08 56 42.9** | **+0.6** |
| **AS31** | **Alice Springs** | **32.66** | **256** | *e*P | | **P** | | **08 56 42.7** | **0.0** |
| | 2.4nm,0.4s | | | | | | | | |
| **ASAR** | **Alice Springs** | **32.66** | **256** | P | | **P** | | **08 56 43.1** | **+0.5** |
| | 3.3nm,0.4s,baz=83,slow=8.6,SNR=112 | | | | | | | | |
| ASAR | | | | LR | | LR | | 09 08 50.8 | |
| | comp=Z,49nm,19.4s,baz=86,slow=34 | | | | | | | | |
| **GUMO** | **Guam** | **40.15** | **322** | LR | | LR | | 09 12 55.6 | |
| | comp=Z,24nm,21.9s,baz=106,slow=34 | | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **71.46** | **333** | P | | **P** | | **09 01 29.4** | **-0.1** |
| | 3.8nm,0.8s,baz=133,slow=8.4,SNR=4.3 | | | | | | | | |
| **PETK** | **Petropavlovsk-** | **72.62** | **353** | LR | | LR | | 09 27 20.0 | |
| | comp=Z,18nm,21.5s,baz=145,slow=31 | | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **78.03** | **294** | P | | **P** | | **09 02 09.5** | **+1.6** |
| | 1.0nm,0.3s,baz=133,slow=4.3,SNR=4.1 | | | | | | | | |
| **SONA0** | **Songino Array** | **86.88** | **323** | *e*P | | **P** | | **09 02 53.3** | **-0.1** |
| **SONM** | **Songino Array** | **86.88** | **323** | P | | **P** | | **09 02 53.3** | **-0.1** |
| | 3.9nm,0.8s,baz=148,slow=5.4,SNR=20 | | | | | | | | |
| **ILAR** | **Eielson Array** | **90.33** | **17** | P | | **P** | | **09 03 06.5** | **-2.7** |
| | 0.3nm,0.7s,baz=233,slow=4.4,SNR=6.1 | | | | | | | | |
| **MK32** | **Makanchi Array** | **101.35** | **316** | *e*Pdif | | **Pdif** | | **09 04 00.8** | **+1.0** |
| **MKAR** | **Makanchi Array** | **101.35** | **316** | P | | **Pdif** | | **09 04 00.8** | **+1.0** |
| | 0.4nm,0.5s,baz=90,slow=7.1,SNR=5.1 | | | | | | | | |
| **BOSA** | **Boshof** | **120.80** | **218** | PKP | | **PKPdf** | | **09 09 01.4** | **+0.3** |
| | 1.3nm,0.7s,baz=117,slow=2.3,SNR=3.9 | | | | | | | | |
| **ARA0** | **ARCESS Array S** | **124.89** | **345** | *e*PKPdf | | **PKPdf** | | **09 09 06.2** | **-1.3** |
| **ARCES** | **ARCESS Array B** | **124.89** | **345** | PKP | | **PKPdf** | | **09 09 06.2** | **-1.3** |
| | 6.5nm,1.1s,baz=79,slow=1.9,SNR=7.8 | | | | | | | | |
| **CONA** | **Conrad Observa** | **143.84** | **329** | *i* PKPdf | | PKPbc | | 09 09 42.9 | +1.5 |
| | comp=Z,1.7nm,0.7s,baz=48,slow=2.0,SNR=13 | | | | | | | | |
| **GERES** | **GERESS Array B** | **144.21** | **332** | PKP | | **PKPab** | | **09 09 42.4** | **+0.3** |
| | 1.7nm,0.7s,baz=48,slow=2.0,SNR=13 | | | | | | | | |
| **MOA** | **Molln** | **144.66** | **330** | *i* PKPdf | | **PKPab** | | **09 09 43.8** | **+0.1** |
| | 8.7nm,0.6s | | | | | | | | |
| **SOKA** | **Soboth** | **145.10** | **328** | *i* PKPdf | | **PKPbc** | | **09 09 44.5** | **-0.9** |
| | 9.1nm,0.6s | | | | | | | | |
| **OBKA** | **Obir** | **145.46** | **328** | *i* PKPab | | **PKPdf** | | **09 09 46.4** | **0.0** |
| | 13nm,0.9s | | | | | | | | |
| **MOTA** | **Moosalm** | **146.49** | **332** | *i* PKPab | | **PKPdf** | | **09 09 49.3** | **+1.2** |
| | 8.3nm,0.8s | | | | | | | | |
| **RETA** | **Reutte** | **146.53** | **333** | *i* PKPab | | **PKPdf** | | **09 09 49.3** | **+1.2** |
| | 2.6nm,0.5s | | | | | | | | |
| **FETA** | **Feichten** | **146.90** | **332** | *i* PKPab | | **PKPdf** | | **09 09 50.3** | **+1.5** |
| | 5.0nm,0.6s | | | | | | | | |
| **DAVA** | **Damuels** | **147.06** | **333** | *i* PKPab | | **PKPdf** | | **09 09 51.1** | **+2.0** |
| | 5.7nm,0.7s | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **166.16** | **246** | PKP | | **PKPdf** | | **09 10 13.7** | **-0.4** |
| | 0.9nm,1.0s,baz=359,slow=1.3,SNR=4.8 | | | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **166.17** | **246** | *e*PKPdf | | **PKPdf** | | **09 10 13.7** | **-0.4** |

*ISCJB* ***22*** *08:55:06.8±0.6, 50.38N±0.04×18.84E±0.03, h0km, Error ellipse: s-maj=5.6km s-min=2.4km az=20.5*

*CSEM* ***22*** *08:55:08.0±0.4, 50.37N×18.84E, h2km, ML2.6/6, Error ellipse: s-maj=8.9km s-min=3.5km az=16.0*

*PRU* ***22*** *08:55:09.0, 50.34N×18.84E, h0km*

*WAR* ***22*** *08:55:09.2, 50.36N×18.93E, h1km, Mw2.5*

**ISC 22 08:55:08.5±0.8, 50°31N±0°04×18°85E±0°02, h0km, n39, σ0§82/70, Poland**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **OJC** | **Ojcow** | **0.61** | **98** | *e*Pg | | **Pg** | | **08 55 20.1** | **-0.1** |
| OJC | | | | *e*Sg | | **Sg** | | **08 55 28.1** | **-0.1** |
| **OJC** | **Ojcow** | **0.61** | **98** | *e*Pg | | **Pg** | | **08 55 20.1** | **-0.1** |
| OJC | | | | *e*Sg | | **Sg** | | **08 55 28.1** | **-0.1** |
| **OJC** | **Ojcow** | **0.61** | **98** | *e*Pg | | **Pg** | | **08 55 20.1** | **-0.1** |
| OJC | | | | *e*Sg | | **Sg** | | **08 55 28.1** | **-0.1** |
| **OKC** | **Ostrava-Krasne** | **0.65** | **224** | *e*PG | | **Pb** | | **08 55 22.7** | **0.0** |
| OKC | | | | *e*SG | | **Sg** | | **08 55 30.9** | **+1.5** |
| | comp=Z,15nm,0.3s | | | | | | | | |
| **OKC** | **Ostrava-Krasne** | **0.65** | **224** | Pg | | **Pb** | | **08 55 22.7** | **0.0** |
| OKC | | | | Sg | | **Sg** | | **08 55 30.9** | **+1.5** |
| | 15nm,0.3s | | | | | | | | |
| **MORC** | **Moravsky Berou** | **1.00** | **238** | *e*Pg | | **Pb** | | **08 55 28.5** | **-0.1** |
| MORC | | | | *e*Sg | | **Sb** | | **08 55 43.1** | **+0.8** |
| **LANS** | **Liptovska Anna** | **1.23** | **161** | *e*Pg | | **Pn** | | **08 55 33.0** | **+0.1** |
| LANS | | | | *e*Sg | | **Sb** | | **08 55 49.3** | **+0.4** |
| **LANS** | **Liptovska Anna** | **1.23** | **161** | *e*PG | | **Pn** | | **08 55 33.0** | **+0.1** |
| LANS | | | | *e*SG | | **Sb** | | **08 55 49.3** | **+0.4** |
| **NIE** | **Niedzica** | **1.29** | **133** | *e*Pg | | **Pn** | | **08 55 34.0** | **+0.2** |
| NIE | | | | *e*Sg | | **Sb** | | **08 55 51.5** | **+0.7** |
| **NIE** | **Niedzica** | **1.29** | **133** | *e*Pg | | **Pn** | | **08 55 34.0** | **+0.2** |
| NIE | | | | *e*Sg | | **Sb** | | **08 55 51.5** | **+0.7** |
| **NIE** | **Niedzica** | **1.29** | **133** | *e*Pg | | **Pn** | | **08 55 34.0** | **+0.2** |
| NIE | | | | *e*Sg | | **Sb** | | **08 55 51.5** | **+0.7** |
| **KRLC** | **Kraliky** | **1.35** | **261** | *e*PG | | **Pg** | | **08 55 33.8** | **-0.5** |
| KRLC | | | | *e*SG | | **Sg** | | **08 55 52.1** | **+0.3** |
| | comp=Z,7.1nm,0.5s | | | | | | | | |
| **KRLC** | **Kraliky** | **1.35** | **261** | Pg | | **Pg** | | **08 55 33.8** | **-0.5** |
| KRLC | | | | Sg | | **Sg** | | **08 55 52.1** | **+0.3** |
| | 7.1nm,0.5s | | | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.62** | **272** | *e*PG | | **Pn** | | **08 55 38.3** | **0.0** |
| DPC | | | | *e*SG | | **Sg** | | **08 56 01.2** | **+0.7** |
| | comp=Z,7.4nm,0.4s | | | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.62** | **272** | Pg | | **Pn** | | **08 55 38.3** | **0.0** |
| DPC | | | | Sg | | **Sg** | | **08 56 01.2** | **+0.7** |
| | 7.4nm,0.4s | | | | | | | | |
| **KSP** | **Ksiaz** | **1.72** | **289** | *e*Pg | | **Pb** | | **08 55 40.7** | **-0.2** |
| KSP | | | | *e*Sg | | **Sg** | | **08 56 04.2** | **+0.6** |
| **KSP** | **Ksiaz** | **1.72** | **289** | *e*Pg | | **Pb** | | **08 55 40.7** | **-0.2** |
| KSP | | | | *e*Sg | | **Sg** | | **08 56 04.2** | **+0.6** |
| **KSP** | **Ksiaz** | **1.72** | **289** | *e*Pg | | **Pb** | | **08 55 40.7** | **-0.2** |
| KSP | | | | *e*Sg | | **Sg** | | **08 56 04.2** | **+0.

**mb1 4.2**/3, **mb1mx3.8**/28, **mbtmp4.0**/3, **Error ellipse: s-maj=250.9km s-min=31.9km az=157.0, Southern East Pacific Rise**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LPAZ** | **La Paz** | **55.26** | **66** | P | P | 09 16 23.6 | +0.4 |
| | 3.0nm,1.1s,baz=209,slow=6.5,SNR=3.7 | | | | | | |
| **ASAR** | **Alice Springs** | **79.65** | **243** | P | P | 09 18 56.4 | -0.4 |
| | 0.5nm,0.9s,baz=150,slow=4.9,SNR=4.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **82.51** | **246** | P | P | 09 19 13.0 | +1.0 |
| | 1.9nm,0.9s,baz=142,slow=4.6,SNR=6.9 | | | | | | |
| **SONM** | **Songino Array** | **150.91** | **274** | PKPbc | PKPbc | 09 26 40.5 | -0.7 |
| | 1.4nm,1.1s,baz=62,slow=3.2,SNR=4.6 | | | | | | |
| **GERES** | **GERESS Array B** | **151.07** | **83** | PKPbc | PKPbc | 09 26 40.6 | -0.9 |
| | 0.2nm,0.3s,baz=243,slow=4.3,SNR=4.5 | | | | | | |

*ISCJB **22** 09:08:34.9±0.8, 64°.63N×0°.03×30°.3E±0°.1, h0km, Error ellipse: s-maj=7.0km s-min=4.6km az=15.1*
*CSEM **22** 09:08:38.4, 64°.70N×30°.47E, h0km, ML1.8, Mining explosion.*
*HEL **22** 09:08:38.4±0.2, 64°.70N×30°.47E, h0km, ML1.8, Explosion*
*IDC **22** 09:08:39.7±2.6, 64°.67N×30°.25E, h0km, mb1 2.6/2, mb1mx2.6/36, mbtmp2.6/2, ML1.9/2, Error ellipse: s-maj=43.0km s-min=8.7km az=98.0*
*KOLA **22** 09:08:41.6, 64°.57N×30°.32E, h0km*

**ISC 22 09:08:36.7**±0.9, **64°.70N**±0°.03×**30°.45E**±0°.04, **h0km, n35,** σ1§**81**/47, **Finland-Karelia border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KU6** | **Riekki** | **1.35** | **350** | Pg | **Pg** | **09 09 02.6** | **+0.2** |
| KU6 | | | | Sn | **Sn** | **09 09 22.0** | **+0.7** |
| **KU6** | **Riekki** | **1.35** | **350** | PG | **Pg** | **09 09 02.6** | **+0.2** |
| KU6 | | | | MSG | | 09 09 19.4 | |
| | comp=Z,7.8nm,0.2s | | | | | | |
| KU6 | | | | SN | **Sn** | **09 09 22.0** | **+0.7** |
| **MSF** | **Maaselka** | **1.35** | **335** | Pg | **Pn** | **09 09 02.9** | **+0.2** |
| **MSF** | **Maaselka** | **1.35** | **335** | PG | **Pn** | **09 09 02.9** | **+0.2** |
| | baz=155 | | | | | | |
| **JOF** | **Joensuu** | **1.83** | **168** | Pg | **Pb** | **09 09 10.7** | **-0.3** |
| **JOF** | **Joensuu** | **1.83** | **168** | PG | **Pb** | **09 09 10.7** | **-0.3** |
| | baz=348 | | | | | | |
| **OUL** | **Oulu** | **1.98** | **283** | Pg | **Pb** | **09 09 13.2** | **-0.2** |
| OUL | | | | Sg | **Sg** | **09 09 39.7** | **-0.4** |
| **OUL** | **Oulu** | **1.98** | **283** | PG | **Pb** | **09 09 13.3** | **-0.2** |
| | baz=102 | | | | | | |
| OUL | | | | SG | **Sg** | **09 09 39.8** | **-0.4** |
| **OUF** | **Merijarvi** | **2.49** | **265** | Pg | **Pb** | **09 09 22.4** | **+0.2** |
| OUF | | | | Sg | **Sg** | **09 09 56.2** | **-0.5** |
| **OUF** | **Merijarvi** | **2.49** | **265** | PG | **Pb** | **09 09 22.5** | **+0.2** |
| OUF | | | | SG | **Sg** | **09 09 56.2** | **-0.5** |
| **SUF** | **Sumiainen** | **2.76** | **226** | Pb | **Pb** | **09 09 26.9** | **+0.1** |
| **SUF** | **Sumiainen** | **2.76** | **226** | PB | **Pb** | **09 09 26.9** | **+0.1** |
| SUF | | | | MSG | | 09 09 59.8 | |
| | comp=Z,4.4nm,0.2s | | | | | | |
| **TOF** | **Tornio** | **2.91** | **301** | Pg | **Pg** | **09 09 31.4** | **-1.0** |
| **TOF** | **Tornio** | **2.91** | **301** | PG | **Pg** | **09 09 31.4** | **-1.0** |
| **VRF** | **Varrio** | **3.08** | **354** | Pn | **Pn** | **09 09 28.5** | **+2.1** |
| **VRF** | **Varrio** | **3.08** | **354** | PN | **Pn** | **09 09 28.5** | **+2.1** |
| | baz=177 | | | | | | |
| VRF | | | | MSG | | 09 10 09.1 | |
| | comp=Z,2.0nm,0.2s | | | | | | |
| **APA0** | **Apatity Array** | **3.09** | **18** | P | **Pb** | **09 09 32.9** | **+0.5** |
| APA0 | | | | S | **Sb** | **09 10 11.3** | **+0.6** |
| **APA** | **Apatity** | **3.12** | **21** | P | **Pb** | **09 09 33.3** | **+0.4** |
| APA | | | | S | **Sb** | **09 10 12.0** | **+0.6** |
| **SGF** | **Sodankyl** | **3.18** | **332** | Pg | **Pb** | **09 09 35.5** | **+1.5** |
| **SGF** | **Sodankyl** | **3.18** | **332** | PG | **Pb** | **09 09 35.5** | **+1.5** |
| **KEF** | **Keuruu** | **3.57** | **227** | Pg | **Pb** | **09 09 42.1** | **+1.5** |
| **KEF** | **Keuruu** | **3.57** | **227** | PG | **Pb** | **09 09 42.1** | **+1.5** |
| | baz=44 | | | | | | |
| **FIA0** | **FINESS Array S** | **3.83** | **213** | Pb | **Pb** | **09 09 44.2** | **-0.8** |
| FIA0 | | | | Sg | **Sg** | **09 10 37.4** | **-2.1** |
| **FIA0** | **FINESS Array S** | **3.83** | **213** | PB | **Pb** | **09 09 44.2** | **-0.8** |
| | baz=27 | | | | | | |
| FIA0 | | | | SG | **Sg** | **09 10 37.4** | **-2.1** |
| **FINES** | **FINESS Array B** | **3.83** | **213** | Pn | **Pn** | **09 09 39.1** | **+2.3** |
| | comp=Z,0.1nm,0.3s,baz=31,slow=15,SNR=2.6 | | | | | | |
| FINES | | | | Lg | Lg | 09 10 36.9 | |
| | comp=Z,0.8nm,0.3s,baz=37,slow=29,SNR=13 | | | | | | |
| **ERTU** | **Ertsjaerv** | **3.90** | **302** | Pn | **Pn** | **09 09 41.4** | **+3.8** |
| **ERTU** | **Ertsjaerv** | **3.90** | **302** | PN | **Pn** | **09 09 41.5** | **+3.8** |
| **BURU** | **Burvik** | **3.91** | **272** | Pb | **Pb** | **09 09 45.7** | **-0.5** |
| **BURU** | **Burvik** | **3.91** | **272** | PB | **Pb** | **09 09 45.8** | **-0.5** |
| | baz=87 | | | | | | |
| **VJF** | **Virojoki** | **4.39** | **199** | Sg | **Sg** | **09 10 54.0** | **-3.5** |
| **VJF** | **Virojoki** | **4.39** | **199** | SG | **Sg** | **09 10 54.0** | **-3.5** |
| **HEF** | **Hetta** | **4.60** | **327** | Pb | **Pb** | **09 09 55.5** | **-2.6** |
| HEF | | | | Sg | **Sg** | **09 11 00.0** | **-4.3** |
| **HEF** | **Hetta** | **4.60** | **327** | PB | **Pb** | **09 09 55.5** | **-2.6** |
| HEF | | | | SG | **Sg** | **09 11 00.0** | **-4.3** |
| **ARCES** | **ARCESS Array B** | **5.22** | **341** | Pn | **Pn** | **09 09 57.2** | **+1.3** |
| | comp=Z,0.2nm,0.3s,baz=155,slow=14,SNR=24 | | | | | | |
| ARCES | | | | Sn | **Sn** | **09 10 56.5** | **-0.2** |
| | comp=Z,0.2nm,0.3s,baz=153,slow=24,SNR=1.6 | | | | | | |
| ARCES | | | | Lg | Lg | 09 11 21.8 | |
| | comp=Z,0.7nm,0.3s,baz=155,slow=26,SNR=6.6 | | | | | | |
| **I43RU** | **DUBNA INFRASON** | **8.66** | **154** | *i* | | 10 00 30.0 | |
| | baz=348,slow=330,SNR=0.9 | | | | | | |

**IDC 22 09:15:07.2**±1.9, **35°.36S**×**15°.04W**, **h0km, mb3.8**/1, **mb1 3.8**/1, **mb1mx3.4**/24, **mbtmp3.8**/1, **MS3.5**/3, **Ms1 3.5**/3, **ms1mx3.0**/17, **Error ellipse: s-maj=71.9km s-min=28.9km az=52.0, Tristan da Cunha region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **H09W1** | **TRISTAN DA CUN** | **2.79** | **129** | Pn | Pn | 09 15 53.8 | +0.7 |
| H09W1 | | | | Sn | Sn | 09 16 26.6 | -0.8 |
| **H10S2** | **ASCENSION HYDR** | **26.28** | **1** | T | T | 09 47 49.2 | |
| | baz=181,slow=75,SNR=10 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **26.29** | **1** | T | T | 09 47 53.6 | |
| | baz=181,slow=75,SNR=11 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **26.30** | **1** | T | T | 09 47 50.5 | |
| | baz=181,slow=75,SNR=10 | | | | | | |
| **H10N1** | **ASCENSION HYDR** | **27.39** | **1** | T | T | 09 49 12.3 | |
| | baz=197 | | | | | | |
| **H10N3** | **ASCENSION HYDR** | **27.40** | **1** | T | T | 09 49 13.9 | |
| | baz=197,slow=74,SNR=25 | | | | | | |
| **H10N2** | **ASCENSION HYDR** | **27.41** | **1** | T | T | 09 49 12.9 | |
| | baz=197,slow=74,SNR=3.2 | | | | | | |
| **BOSA** | **Boshof** | **34.65** | **90** | LR | LR | 09 33 49.2 | |
| | comp=Z,73nm,18.3s,baz=232,slow=32 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **50.78** | **21** | P | P | 09 24 09.0 | -0.3 |
| | 0.9nm,0.6s,baz=204,slow=8.4,SNR=6.6 | | | | | | |
| TORD | | | | LR | LR | 09 41 52.1 | |
| | comp=Z,27nm,18.7s,baz=295,slow=32 | | | | | | |
| **KMBO** | **Kilima Mbogo** | **59.26** | **67** | LR | LR | 09 49 08.3 | |
| | comp=Z,60nm,18.0s,baz=44,slow=34 | | | | | | |
| **YKA** | **Yellowknife Ar** | **124.99** | **326** | PKP | PKPdf | 09 34 07.3 | -1.1 |
| | 0.2nm,0.6s,baz=96,slow=2.2,SNR=4.8 | | | | | | |
| **ILAR** | **Eielson Array** | **138.96** | **331** | PKP | PKPdf | 09 34 34.6 | -0.1 |
| | 0.3nm,0.6s,baz=90,slow=0.9,SNR=6.8 | | | | | | |
| **SEY** | **Seymchan** | **151.31** | **12** | PKPbc | PKPbc | 09 35 02.2 | +0.4 |
| | 1.5nm,0.6s,baz=68,slow=1.3,SNR=8.0 | | | | | | |

*ISCJB **22** 09:17:36.1±1.0, 54°.3S±0°.3×120°.1W±0°.3, h10km, mb4.0/5, MS3.9/14, Error ellipse: s-maj=41.0km s-min=22.1km az=159.9*
*IDC **22** 09:17:36.8±0.9, 54°.41S×120°.05W, h0km, mb4.1/5, mb1 4.3/5, mb1mx3.9/27, mbtmp4.1/5, MS3.9/14, Ms1 3.9/14, ms1mx3.9/19, Error ellipse: s-maj=48.7km s-min=24.3km az=165.0*

**ISC 22 09:17:38.3**±1.0, **54°.4S**±0°.3×**120°.0W**±0°.2, **h10km, n35,** σ1§**18**/9, **mb4.2**/5, **MS4.0**/14, **Southern East Pacific Rise**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RPN** | **Rapa Nui** | **28.33** | **20** | LR | LR | 09 30 59.7 | |
| | comp=Z,92nm,20.1s,baz=196,slow=28 | | | | | | |
| **USHA** | **Ushuaia** | **29.33** | **112** | LR | LR | 09 32 49.4 | |
| | comp=Z,598nm,18.7s,baz=228,slow=31 | | | | | | |
| **RKT** | **Rikitea** | **33.17** | **334** | *e*LR | LR | 09 33 11.6 | |
| | 594nm,25.2s | | | | | | |
| **RKT** | **Rikitea** | **33.17** | **334** | *e*T | T | 09 58 59.1 | |
| | 2.0nm,0.3s | | | | | | |
| **VNDA** | **Vanda** | **35.15** | **202** | LR | LR | 09 35 01.6 | |
| | comp=Z,83nm,20.4s,baz=93,slow=30 | | | | | | |
| **PLCA** | **Paso Flores** | **35.30** | **88** | LR | LR | 09 35 04.4 | |
| | comp=Z,173nm,21.1s,baz=314,slow=30 | | | | | | |
| **TBI** | **Tubuai** | **38.01** | **313** | *e*LR | LR | 09 35 24.7 | |
| | 359nm,26.5s,baz=165 | | | | | | |
| **TBI** | **Tubuai** | **38.01** | **313** | *e*T | T | 10 05 09.0 | |
| | 4.9nm,0.3s | | | | | | |
| **PPT2** | **Papeete2** | **43.20** | **317** | *e*LR | LR | 09 37 48.5 | |
| | 528nm,25.5s,baz=160 | | | | | | |
| **PPT** | **Papeete** | **43.22** | **317** | LR | LR | 09 39 03.0 | |
| | comp=Z,194nm,19.1s,baz=166,slow=30 | | | | | | |
| **RAR** | **Rarotonga** | **44.65** | **302** | LR | LR | 09 39 40.0 | |
| | comp=Z,71nm,20.9s,baz=128,slow=30 | | | | | | |
| **URZ** | **Urewera** | **44.76** | **264** | LR | LR | 09 41 43.2 | |
| | comp=Z,69nm,18.6s,baz=118,slow=32 | | | | | | |
| **SNAA** | **Sanae** | **46.79** | **157** | P | **P** | **09 26 07.9** | **+0.5** |
| | 2.2nm,1.0s,baz=188,slow=4.8,SNR=4.1 | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **48.17** | **333** | *e*LR | LR | 09 40 03.2 | |
| | 319nm,24.6s | | | | | | |
| **CPUP** | **Villa Florida** | **53.22** | **85** | P | **P** | **09 26 56.1** | **-0.6** |
| | 1.6nm,0.8s,baz=248,slow=7.1,SNR=3.1 | | | | | | |
| CPUP | | | | LR | LR | 09 46 38.9 | |
| | comp=Z,302nm,18.2s,baz=218,slow=33 | | | | | | |
| **LPAZ** | **La Paz** | **55.05** | **67** | P | **P** | **09 27 10.8** | **0.0** |
| | 4.8nm,1.1s,baz=199,slow=4.4,SNR=8.6 | | | | | | |
| LPAZ | | | | LR | LR | 09 44 38.3 | |
| | comp=Z,196nm,21.9s,baz=168,slow=29 | | | | | | |
| **MAW** | **Mawson** | **58.33** | **181** | LR | LR | 09 52 48.3 | |
| | comp=Z,64nm,18.1s,baz=231,slow=36 | | | | | | |
| **DZM** | **Mont Dzumac** | **62.83** | **270** | *e*LR | LR | 09 46 41.8 | |
| | 158nm,22.6s | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **79.62** | **223** | T | T | 10 58 10.2 | |
| | baz=150,slow=76,SNR=6.0 | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **79.62** | **223** | T | T | 10 58 10.4 | |
| | baz=150,slow=76,SNR=10 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **79.63** | **223** | T | T | 10 58 11.6 | |
| | baz=150,slow=76,SNR=8.6 | | | | | | |
| **ASAR** | **Alice Springs** | **79.92** | **243** | P | **P** | **09 29 46.3** | **-1.1** |
| | 0.6nm,0.9s,baz=136,slow=5.2,SNR=4.5 | | | | | | |
| ASAR | | | | LR | LR | 10 00 37.1 | |
| | comp=Z,102nm,18.8s,baz=143,slow=32 | | | | | | |
| **WRA** | **Warramunga Arr** | **82.73** | **246** | P | **P** | **09 30 01.7** | **-0.7** |
| | 2.3nm,0.9s,baz=146,slow=4.8,SNR=9.2 | | | | | | |
| WRA | | | | LR | LR | 10 01 34.3 | |
| | comp=Z,65nm,20.9s,baz=130,slow=32 | | | | | | |
| **NVAR** | **Mina Array Bea** | **92.44** | **1** | LR | LR | 10 02 53.9 | |
| | comp=Z,80nm,19.2s,baz=252,slow=29 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **95.50** | **294** | T | T | 11 17 46.9 | |
| | baz=143,slow=76,SNR=35 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **95.52** | **294** | T | T | 11 17 39.8 | |
| | baz=143,slow=76,SNR=22 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **95.52** | **294** | T | T | 11 17 24.3 | |
| | baz=143,slow=76,SNR=26 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **96.40** | **295** | T | T | 11 18 24.4 | |
| | baz=145,slow=76,SNR=7.2 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **96.41** | **295** | T | T | 11 18 30.7 | |
| | baz=145,slow=76,SNR=8.4 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **96.42** | **295** | T | T | 11 18 28.8 | |
| | baz=145,slow=76,SNR=6.3 | | | | | | |
| **PDAR** | **Pinedale Array** | **97.17** | **8** | LR | LR | 10 07 30.6 | |
| | comp=Z,54nm,19.1s,baz=218,slow=31 | | | | | | |
| **SONM** | **Songino Array** | **150.59** | **277** | PKPbc | **PKPbc** | **09 37 31.9** | **+2.3** |
| | 0.7nm,0.7s,baz=132,slow=1.0,SNR=4.4 | | | | | | |
| **GERES** | **GERESS Array B** | **151.15** | **82** | PKPbc | **PKPbc** | **09 37 31.3** | **+0.5** |
| | 1.0nm,1.0s,baz=201,slow=2.6,SNR=3.5 | | | | | | |
| **BRTR** | **Keskin Array B** | **157.41** | **119** | PKPab | **PKPab** | **09 38 03.5** | **-0.5** |
| | 1.3nm,1.0s,baz=197,slow=4.5,SNR=4.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **163.98** | **251** | PKPab | **PKPab** | **09 38 33.7** | **-0.3** |
| | 0.7nm,0.8s,baz=104,slow=6.1,SNR=3.1 | | | | | | |

*TIR **22** 09:39:56.7±2.0, 41°.77N×20°.51E, h32km±9km, ML3.0*
*ATH **22** 09:39:57.1, 41°.75N×20°.64E, h14km±4km, ML2.2/4, Error ellipse: s-maj=5.3km s-min=1.6km az=200.0*
*PDG **22** 09:39:57.4±0.1, 41°.82N×20°.63E, h12km, ML2.8/9, Error ellipse: s-maj=0.3km s-min=0.3km az=0.0*
*SKO **22** 09:39:57.2, 41°.73N×20°.63E, h24km, M2.0, ML2.9*
*CSEM **22** 09:39:57.2±0.2, 41°.78N×20°.60E, h10km, ML3.0, Error ellipse: s-maj=4.9km s-min=3.0km az=55.0*
*BEO **22** 09:39:59.2±0.3, 41°.81N×20°.70E, h7km±5km, M2.2/5*

**ISC 22 09:39:57.7**±0.9, **41°.77N**±0°.02×**20°.62E**±0°.02, **h18km**±5km, **n60,** σ1§**09**/108, **12C-10D, Albania**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PHP** | **Peshkopia** | **0.16** | **237** | *i* Pg | **Pg** | **09 40 03.4** | **+1.3** |
| PHP | | | | *i* Sg | **Sg** | **09 40 06.8** | **+1.8** |
| **PUK** | **Puka** | **0.61** | **297** | *i* Pg | **Pg** | **09 40 08.3** | **-1.5** |
| PUK | | | | *i* SG | **Sg** | **09 40 16.9** | **-1.0** |
| **PUK** | **Puka** | **0.61** | **297** | *i* Pg | **Pg** | **09 40 08.3** | **-1.5** |
| | SNR=108 | | | | | | |
| PUK | | | | *i* Sg | **Sg** | **09 40 16.9** | **-1.0** |
| | SNR=108 | | | | | | |
| **KRUS** | **Krusevo** | **0.62** | **130** | ⇑*i* Pg | **Pg** | **09 40 09.4** | **-0.6** |
| KRUS | | | | *i* Sg | **Sb** | **09 40 18.7** | **+0.3** |
| KRUS | | | | *e*Lg | Lg | 09 40 20.3 | |
| | comp=N,31nm,0.3s | | | | | | |
| KRUS | | | | *e*Lg | Lg | 09 40 20.5 | |
| | comp=E,34nm,0.2s | | | | | | |
| **SKO** | **Skopje** | **0.65** | **72** | ⇑*i* Pg | **Pb** | **09 40 10.5** | **0.0** |
| SKO | | | | *i* Sg | **Sb** | **09 40 20.1** | **+1.0** |
| SKO | | | | *e*Lg | Lg | 09 40 20.4 | |
| | comp=N,40nm,0.5s | | | | | | |
| SKO | | | | *e*Lg | Lg | 09 40 20.5 | |
| | comp=E,30nm,0.3s | | | | | | |
| **OHR** | **Ohrid** | **0.67** | **168** | ⇑*i* Pg | **Pg** | **09 40 10.0** | **-0.9** |
| OHR | | | | *i* Sg | **Sb** | **09 40 20.5** | **+0.6** |
| OHR | | | | *e*Lg | Lg | 09 40 20.7 | |
| | comp=N,249nm,0.3s | | | | | | |
| OHR | | | | *e*Lg | Lg | 09 40 20.7 | |
| | comp=E,644nm,0.6s | | | | | | |
| **TIR** | **Tirane** | **0.71** | **234** | *i* PG | **Pb** | **09 40 11.3** | **-0.2** |
| TIR | | | | *i* SG | **Sg** | **09 40 18.9** | **-2.0** |
| **TIR** | **Tirane** | **0.71** | **234** | *e*Pg | **Pn** | **09 40 13.3** | **+0.5** |
| TIR | | | | *e*Sg | **Sn** | **09 40 24.1** | **+0.9** |
| **TIR** | **Tirane** | **0.71** | **234** | P | **Pg** | **09 40 10.4** | **-1.1** |
| TIR | | | | S | **Sg** | **09 40 20.0** | **-0.9** |
| TIR | | | | AML | AML | 09 40 24.8 | |
| | comp=E,375μm,0.5s | | | | | | |
| TIR | | | | AML | AML | 09 40 25.0 | |
| | comp=N,248μm,0.3s | | | | | | |
| **TIR** | **Tirane** | **0.71** | **234** | P | **Pg** | **09 40 10.4** | **-1.1** |
| **TIR** | **Tirane** | **0.71** | **234** | *i* Pg | **Pb** | **09 40 11.3** | **-0.2** |
| | SNR=102 | | | | | | |
| TIR | | | | *i* Sg | **Sg** | **09 40 18.9** | **-2.0** |
| | SNR=102 | | | | | | |
| TIR | | | | S | **Sg** | **09 40 20.0** | **-0.9** |
| **BCI** | **Bajram Curri** | **0.72** | **326** | *i* PG | **Pg** | **09 40 11.0** | **-0.9** |
| BCI | | | | *i* SG | **Sg** | **09 40 20.6** | **-1.0** |
| **BCI** | **Bajram Curri** | **0.72** | **326** | *i* Pg | **Pg** | **09 40 11.0** | **-0.9** |
| | SNR=101 | | | | | | |
| BCI | | | | *i* Sg | **Sg** | **09 40 20.6** | **-1.0** |
| | SNR=101 | | | | | | |
| **BIA** | **Bitola** | **0.92** | **144** | ⇑*i* Pg | **Pb** | **09 40 15.1** | **0.0** |
| **PVY** | **Plav** | **0.96** | **329** | ⇓*i* Pg | **Pg** | **09 40 14.4** | **-2.0** |
| PVY | | | | *e*Sg | **Sb** | **09 40 29.1** | **+0.8** |
| **PVY** | **Plav** | **0.96** | **329** | ⇓*i* Pg | **Pg** | **09 40 14.4** | **-2.0** |
| **ULC** | **Ulcinj** | **1.04** | **281** | ⇑*i* Pg | **Pg** | **09 40 16.7** | **-1.2** |
| ULC | | | | *e*Sg | **Sn** | **09 40 33.0** | **+1.3** |
| **ULC** | **Ulcinj** | **1.04** | **281** | ⇑*i* Pg | **Pg** | **09 40 16.7** | **-1.2** |
| ULC | | | | *e*Sg | **Sn** | **09 40 33.0** | **+1.3** |
| **FNA** | **Florina** | **1.14** | **150** | P | **Pb** | **09 40 17.9** | **-1.0** |
| FNA | | | | S | **Sb** | **09 40 33.2** | **-0.2** |
| FNA | | | | AML | AML | 09 40 36.7 | |
| | comp=E,458μm,0.3s | | | | | | |
| FNA | | | | AML | AML | 09 40 37.5 | |
| | comp=N,417μm,0.4s | | | | | | |
| **FNA** | **Florina** | **1.14** | **150** | P | **Pb** | **09 40 17.9** | **-1.0** |
| FNA | | | | S | **Sb** | **09 40 33.2** | **-0.2** |
| **DRME** | **Dracevica, Mon** | **1.15** | **292** | ⇓*i* Pg | **Pb** | **09 40 18.6** | **-0.4** |
| DRME | | | | *e*Sg | **Sn** | **09 40 36.2** | **+2.0** |
| **DRME** | **Dracevica, Mon** | **1.15** | **292** | ⇓*i* Pg | **Pb** | **09 40 18.6** | **-0.4** |
| DRME | | | | *e*Sg | **Sn** | **09 40 36.2** | **+2.0** |
| **KBN** | **Korca** | **1.15** | **174** | *i* PG | **Pn** | **09 40 19.9** | **+0.9** |
| KBN | | | | *i* SG | **Sn** | **09 40 35.8** | **+1.4** |
| **KBN** | **Korca** | **1.15** | **174** | *i* Pg | **Pn** | **09 40 19.9** | **+0.9** |
| | SNR=92 | | | | | | |
| KBN | | | | *i* Sg | **Sn** | **09 40 35.8** | **+1.4** |
| | SNR=92 | | | | | | |
| **PDG** | **Podgorica** | **1.21** | **303** | ⇓*i* Pg | **Pn** | **09 40 19.4** | **-0.3** |
| PDG | | | | *e*Sg | **Sn** | **09 40 39.5** | **+3.8** |
| **TTG** | **Podgorica** | **1.21** | **303** | ⇓*i* Pg | **Pn** | **09 40 19.4** | **-0.3** |
| TTG | | | | *e*Sg | **Sn** | **09 40 38.2** | **+2.5** |
| **BEY** | **Berane** | **1.23** | **334** | *e*Pg | **Pn** | **09 40 19.5** | **-0.6** |
| BEY | | | | *e*Sg | **Sn** | **09 40 37.9** | **+1.7** |
| **IVA** | **Berane** | **1.23** | **334** | *e*Pg | **Pn** | **09 40 19.5** | **-0.6** |
| IVA | | | | *e*Sg | **Sn** | **09 40 37.9** | **+1.7** |
| **KOME** | **Kolasin** | **1.35** | **323** | *e*Pg | **Pn** | **09 40 22.0** | **+0.2** |
| KOME | | | | *e*Sg | **Sg** | **09 40 42.5** | **+1.0** |
| **KOME** | **Kolasin** | **1.35** | **323** | *e*Pg | **Pn** | **09 40 22.0** | **+0.2** |
| KOME | | | | *e*Sg | **Sg** | **09 40 42.5** | **+1.0** |
| **BUM** | **Brajici-Budva** | **1.39** | **293** | ⇑*i* Pg | **Pn** | **09 40 22.8** | **+0.5** |
| BUM | | | | *e*Sg | **Sg** | **09 40 44.4** | **+1.7** |
| **BUM** | **Brajici-Budva** | **1.39** | **293** | ⇑*i* Pg | **Pn** | **09 40 22.8** | **+0.5** |
| **NEST** | **Nestorio** | **1.39** | **166** | P | **Pb** | **09 40 23.3** | **0.0** |
| NEST | | | | S | **Sn** | **09 40 41.6** | **+1.3** |
| NEST | | | | AML | AML | 09 40 47.2 | |
| | comp=E,180μm,0.3s | | | | | | |
| NEST | | | | AML | AML | 09 40 47.6 | |
| | comp=N,145μm,0.7s | | | | | | |
| **NEST** | **Nestorio** | **1.39** | **166** | P | **Pb** | **09 40 23.3** | **0.0** |
| NEST | | | | S | **Sn** | **09 40 41.6** | **+1.3** |
| **CEME** | **Cevo** | **1.48** | **302** | ⇓*i* Pg | **Pn** | **09 40 24.2** | **+0.6** |
| CEME | | | | *e*Sg | **Sg** | **09 40 46.6** | **+1.0** |
| **CEME** | **Cevo** | **1.48** | **302** | ⇓*i* Pg | **Pn** | **09 40 24.2** | **+0.6** |
| **SELS** | **Selova** | **1.50** | **14** | *e*Pg | **Pb** | **09 40 24.8** | **-0.2** |
| SELS | | | | *e*Sg | **Sg** | **09 40 45.4** | **-0.6** |
| **VAY** | **Valandovo** | **1.53** | **106** | *e*Pg | **Pb** | **09 40 25.5** | **-0.1** |
| VAY | | | | *e*Sg | **Sg** | **09 40 46.8** | **-0.3** |
| **VAY** | **Valandovo** | **1.53** | **106** | *e*Pg | **Pb** | **09 40 25.5** | **-0.1** |
| VAY | | | | *e*Sg | **Sg** | **09 40 46.8** | **-0.3** |
| **SJES** | **Sjenica** | **1.56** | **342** | *e*Pg | **Pg** | **09 40 26.9** | **-0.9** |
| SJES | | | | *e*Sg | **Sg** | **09 40 48.3** | **+0.1** |
| **GRG** | **Griva** | **1.57** | **121** | P | **Pb** | **09 40 26.2** | **0.0** |
| **GRG** | **Griva** | **1.57** | **121** | P | **Pb** | **09 40 26.2** | **0.0** |
| **NKME** | **Niksic** | **1.59** | **309** | *e*Pg | **Pb** | **09 40 26.1** | **-0.5** |
| NKME | | | | *e*Sg | **Sg** | **09 40 48.8** | **-0.1** |
| **NKME** | **Niksic** | **1.59** | **309** | *e*Pg | **Pb** | **09 40 26.1** | **-0.5** |
| NKME | | | | *e*Sg | **Sg** | **09 40 48.8** | **-0.1** |
| **NKY** | **Niksic** | **1.59** | **311** | ⇓*i* Pg | **Pb** | **09 40 26.5** | **-0.2** |
| NKY | | | | *e*Sg | **Sg** | **09 40 48.7** | **-0.5** |
| **NKY** | **Niksic** | **1.59** | **311** | ⇓*i* Pg | **Pb** | **09 40 26.5** | **-0.2** |
| NKY | | | | *e*Sg | **Sg** | **09 40 48.7** | **-0.5** |
| **PENT** | **Pentalofos** | **1.62** | **166** | P | **Pg** | **09 40 27.8** | **-1.1** |
| PENT | | | | S | **Sg** | **09 40 48.6** | **-1.4** |
| PENT | | | | AML | AML | 09 40 55.5 | |
| | comp=E,101μm,0.6s | | | | | | |
| PENT | | | | AML | AML | 09 40 58.9 | |
| | comp=N,112μm,0.5s | | | | | | |
| **PENT** | **Pentalofos** | **1.62** | **166** | P | **Pg** | **09 40 27.8** | **-1.1** |
| PENT | | | | S | **Sg** | **09 40 48.6** | **-1.4** |
| **HCY** | **Herceg Novi** | **1.72** | **294** | ⇑*i* Pn | **Pn** | **09 40 28.0** | **+1.2** |
| HCY | | | | *e*Sn | **Sg** | **09 40 52.4** | **-0.7** |
| **HCY** | **Herceg Novi** | **1.72** | **294** | ⇑*i* Pn | **Pn** | **09 40 28.0** | **+1.2** |
| **PLE** | **Pljevlja** | **1.80** | **330** | ⇑*i* Pn | **Pn** | **09 40 28.6** | **+0.6** |
| PLE | | | | *e*Sn | **Sb** | **09 40 53.6** | **+1.0** |
| **PLE** | **Pljevlja** | **1.80** | **330** | ⇑*i* Pn | **Pn** | **09 40 28.6** | **+0.6** |
| PLE | | | | *e*Sn | **Sb** | **09 40 53.6** | **+1.0** |
| **KNT** | **Kendrikon** | **1.82** | **109** | P | **Pb** | **09 40 29.6** | **-0.8** |
| **KNT** | **Kendrikon** | **1.82** | **109** | P | **Pb** | **09 40 29.6** | **-0.8** |
| **IVAS** | **Ivanjica** | **1.84** | **349** | *e*Pn | **Pg** | **09 40 31.6** | **-1.4** |
| IVAS | | | | *e*Sn | **Sb** | **09 40 53.5** | **0.0** |
| **IVAS** | **Ivanjica** | **1.84** | **349** | *e*Pn | **Pg** | **09 40 31.6** | **-1.4** |
| IVAS | | | | *e*Sn | **Sb** | **09 40 53.5** | **0.0** |
| **KPRO** | **Kipourio** | **1.90** | **162** | P | **Pn** | **09 40 30.6** | **+1.3** |
| **KPRO** | **Kipourio** | **1.90** | **162** | P | **Pn** | **09 40 30.6** | **+1.3** |
| **STON** | **Ston** | **2.43** | **298** | *e*Pn | **Pb** | **09 40 40.3** | **-0.6** |
| STON | | | | Sn | **Sb** | **09 41 09.9** | **-0.5** |
| **STON** | **Ston** | **2.43** | **298** | *e*Pn | **Pb** | **09 40 40.2** | **-0.6** |

*NIED **22** 09:40:00, 36°.70N×140°.90E, h65km, Mw3.7 Best double couple: M0 3.82000×10^14 NP1: φ=231.00000°, δ=31.00000°, λ=127.00000°. NP2: φ=10.00000°, δ=66.00000°, λ=70.00000°.*
*ISCJB **22** 09:40:12.0±0.8, 36°.61N±0°.04×141°.05E±0°.08, h46km±8km, mb3.4/6, Error ellipse: s-maj=11.5km s-min=6.1km az=18.9*
*JMA **22** 09:40:13.2±0.1, 36°.64N×140°.93E, h49km±1km, M3.8*
*JMA Felt II J1.*
*IDC **22** 09:40:16.2±2.5, 36°.60N×140°.62E, h76km±25km, mb3.0/6, mb1 3.4/7, mb1mx3.2/40, mbtmp3.4/7, Error ellipse: s-maj=30.7km s-min=14.6km az=82.0*

**ISC 22 09:40:13.0**±1.2, **36°.65N**±0°.05×**141°.00E**±0°.08, **h41km**±11km, **n20,** σ1§**14**/22, **mb3.5**/6, **Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JHO** | **Hitachi** | **0.35** | **264** | P | **Pn** | **09 40 22.2** | **+0.3** |
| JHO | | | | S | **Sn** | **09 40 28.2** | **+0.1** |
| **ONAJ** | **Iwakimizuishiy** | **0.48** | **340**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **KEPZ** | **Antalya-Kepez** | **0.40** | **213** | *i* P | **Pb** | **10** | **20** | **50.3** | **-0.8** |
| KEPZ | | | | *i* S | **Sb** | **10** | **20** | **58.5** | **+0.8** |
| **KEPZ** | **Antalya-Kepez** | **0.40** | **213** | P | **Pb** | **10** | **20** | **50.3** | **-0.8** |
| KEPZ | | | | S | **Sb** | **10** | **20** | **58.5** | **+0.8** |
| **KMER** | **Konya-Meram** | **0.66** | **36** | *i* P | **Pg** | **10** | **20** | **53.5** | **-0.4** |
| **KMER** | **Konya-Meram** | **0.66** | **36** | P | **Pg** | **10** | **20** | **53.5** | **-0.4** |
| **SUTC** | **Sutluce-Ispart** | **0.74** | **290** | *e*PG | **Pg** | **10** | **20** | **55.2** | **0.0** |
| SUTC | | | | *e*SG | **Sg** | **10** | **21** | **05.2** | **+0.5** |
| **SUTC** | **Sutluce-Ispart** | **0.74** | **290** | *e*Pg | **Pg** | **10** | **20** | **55.2** | **0.0** |
| SUTC | | | | *e*Sg | **Sg** | **10** | **21** | **05.3** | **+0.5** |
| **KONT** | **Konya--Tatoy** | **0.81** | **28** | *e*PG | **Pg** | **10** | **20** | **56.4** | **-0.3** |
| KONT | | | | *e*SG | **Sg** | **10** | **21** | **08.0** | **+0.8** |
| **KONT** | **Konya--Tatoy** | **0.81** | **28** | *i* P | **Pg** | **10** | **20** | **56.3** | **-0.4** |
| KONT | | | | *i* S | **Sg** | **10** | **21** | **07.0** | **-0.2** |
| **KONT** | **Konya--Tatoy** | **0.81** | **28** | *e*Pg | **Pg** | **10** | **20** | **56.4** | **-0.3** |
| KONT | | | | *e*Sg | **Sg** | **10** | **21** | **08.0** | **+0.8** |
| **DOGA** | **KONYA_Doganhis** | **0.89** | **350** | *i* P | **Pg** | **10** | **20** | **57.5** | **-0.6** |
| DOGA | | | | *i* S | **Sg** | **10** | **21** | **10.4** | **+0.8** |
| **DOGA** | **KONYA_Doganhis** | **0.89** | **350** | P | **Pg** | **10** | **20** | **57.5** | **-0.6** |
| DOGA | | | | S | **Sg** | **10** | **21** | **10.4** | **+0.8** |
| **ERMK** | **Ermenek** | **1.02** | **125** | *i* P | **Pg** | **10** | **21** | **00.6** | **-0.1** |
| ERMK | | | | *i* S | **Sn** | **10** | **21** | **18.1** | **0.0** |
| **ERMK** | **Ermenek** | **1.02** | **125** | P | **Pg** | **10** | **21** | **00.6** | **-0.1** |
| ERMK | | | | S | **Sn** | **10** | **21** | **18.1** | **0.0** |
| **GAZI** | **Gazipasa** | **1.06** | **160** | *i* P | **Pb** | **10** | **21** | **02.1** | **-0.3** |
| **GAZI** | **Gazipasa** | **1.06** | **160** | P | **Pb** | **10** | **21** | **02.1** | **-0.3** |
| **BAGO** | **Egridir - ISPA** | **1.15** | **312** | *i* P | **Pg** | **10** | **21** | **03.3** | **+0.2** |
| BAGO | | | | *i* S | **Sn** | **10** | **21** | **21.8** | **+0.8** |
| **KORT** | **Korkueli** | **1.24** | **260** | *e*PN | **Pg** | **10** | **21** | **04.2** | **-0.6** |
| **KORT** | **Korkueli** | **1.24** | **260** | *e*Pn | **Pg** | **10** | **21** | **04.3** | **-0.6** |
| **TEVE** | **Tevekalti-Mers** | **1.49** | **122** | *e*PN | **Pn** | **10** | **21** | **08.7** | **-0.6** |
| **TEVE** | **Tevekalti-Mers** | **1.49** | **122** | *e*Pn | **Pn** | **10** | **21** | **08.7** | **-0.6** |
| **KIZT** | **Kizilcal** | **1.64** | **0** | *e*PN | **Pn** | **10** | **21** | **11.0** | **-0.4** |
| **KIZT** | **Kizilcal** | **1.64** | **0** | *e*Pn | **Pn** | **10** | **21** | **11.0** | **-0.4** |
| **KEBE** | **Keben-Mersin** | **1.67** | **117** | *e*PN | **Pn** | **10** | **21** | **11.6** | **-0.2** |
| **KEBE** | **Keben-Mersin** | **1.67** | **117** | *e*Pn | **Pn** | **10** | **21** | **11.6** | **-0.2** |
| **AKKU** | **Akkuyu-Mersin** | **1.72** | **128** | *e*PN | **Pn** | **10** | **21** | **12.3** | **-0.1** |
| **AKKU** | **Akkuyu-Mersin** | **1.72** | **128** | *e*Pn | **Pn** | **10** | **21** | **12.3** | **-0.1** |
| **KERG** | **Konya-Eregli** | **1.81** | **84** | *i* P | **Pb** | **10** | **21** | **14.8** | **-0.4** |
| KERG | | | | *i* S | **Sg** | **10** | **21** | **40.1** | **+0.9** |
| **KERG** | **Konya-Eregli** | **1.81** | **84** | P | **Pb** | **10** | **21** | **14.8** | **-0.4** |

**IDC 22 10:32:08.8±3.2, 25°34S×67°73W, h0km, mb3.9/1, mb1 3.9/3, mb1mx3.6/29, mbtmp3.8/3, ML3.7/2, Error ellipse: s-maj=92.5km s-min=50.3km az=83.0, Catamarca Province**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LPAZ** | **La Paz** | **9.52** | **358** | Pn | Pn | 10 34 27.9 | +0.2 |
| | 0.5nm,0.3s,baz=165,slow=6.6,SNR=17 | | | | | | |
| **SIV** | **San Ignacio** | **11.61** | **34** | Pn | Pn | 10 34 55.7 | -0.2 |
| | 0.3nm,0.3s,baz=221,slow=13,SNR=3.4 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **77.85** | **69** | P | P | 10 44 08.8 | +0.1 |
| | 0.5nm,0.4s,baz=242,slow=6.2,SNR=4.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **148.36** | **41** | PKPbc | PKPbc | 10 51 56.3 | -0.7 |
| | 0.5nm,0.6s,baz=318,slow=3.5,SNR=5.7 | | | | | | |

*DDA **22** 10:44:53.0,39°37N×40°63E, h7km, Md2.4*
*CSEM **22** 10:44:53.0±0.5, 39°46N×40°58E, h5km, MD2.5, Error ellipse: s-maj=16.4km s-min=7.5km az=141.0*
*ISK **22** 10:44:55.8, 39°33N×40°34E, h4km, MD2.5*
**ISC 22 10:44:49.5±1.1, 39°71N±0°05×40°62E±0°05, h10km, n15, σ2°08/19, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **YEDI** | **Yedisu-Bingol** | **0.28** | **192** | *e*PG | Pn | 10 45 00.1 | +0.2 |
| YEDI | | | | *e*SG | **Sb** | **10 45 03.8** | **+2.2** |
| **YEDI** | **Yedisu-Bingol** | **0.28** | **192** | *e*Pg | Pn | 10 45 00.1 | +0.2 |
| YEDI | | | | *e*Sg | **Sb** | **10 45 03.8** | **+2.2** |
| **ERZM** | **Erzurum** | **0.61** | **71** | *i* P | Pn | 10 45 08.0 | +3.5 |
| ERZM | | | | *i* S | **Sn** | **10 45 17.1** | **+2.6** |
| **ERZM** | **Erzurum** | **0.61** | **71** | P | Pn | 10 45 08.0 | +3.5 |
| ERZM | | | | S | **Sn** | **10 45 17.1** | **+2.6** |
| **ERZN** | **Erzincan** | **0.70** | **260** | *e*PG | **Pn** | **10 45 07.2** | **+1.5** |
| **BNGB** | **Bing¨¶l** | **0.72** | **176** | *e*PG | **Pn** | **10 45 05.1** | **-0.8** |
| BNGB | | | | *e*SG | **Sg** | **10 45 11.6** | **-1.3** |
| **BAYT** | **Ayd¨–ntepe-Bay** | **0.78** | **332** | *e*PG | **Sn** | **10 45 17.1** | **-1.4** |
| **BAYT** | **Ayd¨–ntepe-Bay** | **0.78** | **332** | *e*Pg | **Sn** | **10 45 17.1** | **-1.4** |
| **BINT** | **Bingol** | **0.84** | **187** | *e*Pg | **Pb** | **10 45 05.1** | **-1.2** |
| BINT | | | | *e*Sg | **Sg** | **10 45 11.6** | **-5.1** |
| **BNGL** | **BINGOL** | **0.86** | **151** | *i* P | **Pb** | **10 45 04.3** | **-2.4** |
| **EZC** | **Erzincan** | **0.98** | **273** | *e*Pg | **Pg** | **10 45 07.2** | **-1.2** |
| **TNCL** | **Tunceli-Merkez** | **1.02** | **235** | *i* P | **Pn** | **10 45 10.9** | **+0.8** |
| TNCL | | | | *i* S | **Sg** | **10 45 22.1** | **-0.5** |
| **TNCL** | **Tunceli-Merkez** | **1.02** | **235** | P | **Pn** | **10 45 10.9** | **+0.8** |
| TNCL | | | | S | **Sg** | **10 45 22.1** | **-0.5** |
| **PTK** | **Pertek** | **1.25** | **230** | *e*PG | **Pn** | **10 45 12.8** | **-0.5** |
| **PTK** | **Pertek** | **1.25** | **230** | *e*Pg | **Pn** | **10 45 12.8** | **-0.5** |

**IDC 22 11:08:28.6±2.2, 35°48S×15°09W, h0km, mb4.0/1, mb1 4.0/1, mb1mx3.4/32, mbtmp4.0/1, MS3.5/5, Ms1 3.5/5, ms1mx3.2/18, Error ellipse: s-maj=69.9km s-min=22.1km az=50.0, Tristan da Cunha region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **H09N1** | **TRISTAN DA CUN** | **2.75** | **126** | Pn | Pn | 11 09 14.6 | +0.8 |
| | SNR=25 | | | | | | |
| H09N1 | | | | Sn | Sn | 11 09 46.9 | -0.9 |
| H09N1 | | | | T | T | 11 12 20.6 | |
| | SNR=34 | | | | | | |
| **H09W1** | **TRISTAN DA CUN** | **2.75** | **127** | Pn | Pn | 11 09 14.4 | +0.5 |
| H09W1 | | | | Sn | Sn | 11 09 47.9 | 0.0 |
| | SNR=31 | | | | | | |
| H09W1 | | | | T | T | 11 12 33.1 | |
| | SNR=178 | | | | | | |
| **BOSA** | **Boshof** | **34.70** | **90** | LR | LR | 11 26 27.8 | |
| | comp=Z,52nm,21.3s,baz=212,slow=31 | | | | | | |
| **CPUP** | **Villa Florida** | **37.14** | **272** | LR | LR | 11 27 56.5 | |
| | comp=Z,70nm,18.2s,baz=176,slow=31 | | | | | | |
| **PLCA** | **Paso Flores** | **43.34** | **246** | LR | LR | 11 33 35.4 | |
| | comp=Z,47nm,19.1s,baz=30,slow=35 | | | | | | |
| **LPAZ** | **La Paz** | **50.78** | **278** | LR | LR | 11 37 16.2 | |
| | comp=Z,52nm,18.9s,baz=54,slow=34 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **50.91** | **21** | P | P | 11 17 31.6 | -0.1 |
| | 1.7nm,0.8s,baz=200,slow=8.1,SNR=12 | | | | | | |
| **KMBO** | **Kilima Mbogo** | **59.35** | **67** | LR | LR | 11 42 18.6 | |
| | comp=Z,71nm,18.0s,baz=91,slow=34 | | | | | | |
| **YKA** | **Yellowknife Ar** | **125.06** | **326** | PKP | PKPdf | 11 27 29.2 | -0.7 |
| | 0.2nm,0.8s,baz=95,slow=2.5,SNR=5.1 | | | | | | |
| **ILAR** | **Eielson Array** | **139.04** | **331** | PKP | PKPdf | 11 27 56.7 | +0.4 |
| | 0.3nm,0.8s,baz=0.0,slow=0.1,SNR=5.0 | | | | | | |

**IDC 22 11:17:08.3±2.1, 33°13S×178°50W, h0km, mb4.1/3, mb1 4.2/4, mb1mx3.8/36, mbtmp4.0/4, ML3.6/1, MS3.3/3, Ms1 3.2/3, ms1mx2.7/25, Error ellipse: s-maj=51.2km s-min=33.4km az=127.0, South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **URZ** | **Urewera** | **6.25** | **214** | Pn | Pn | 11 18 42.6 | +0.9 |
| | 1.4nm,0.3s,baz=265,slow=5.4,SNR=16 | | | | | | |
| URZ | | | | Sn | Sn | 11 19 52.1 | -1.7 |
| | 2.8nm,0.3s,baz=259,slow=23,SNR=6.8 | | | | | | |
| URZ | | | | LR | LR | 11 21 25.0 | |
| | comp=Z,156nm,18.6s,baz=24,slow=41 | | | | | | |
| **DZM** | **Mont Dzumac** | **17.28** | **306** | LR | LR | 11 26 12.2 | |
| | comp=Z,124nm,19.0s,baz=204,slow=32 | | | | | | |
| **STKA** | **Stephens Creek** | **33.54** | **261** | LR | LR | 11 36 16.9 | |
| | comp=Z,48nm,19.6s,baz=26,slow=34 | | | | | | |
| **CTA** | **Charters Tower** | **33.92** | **284** | P | P | 11 23 54.6 | +1.3 |
| | 1.4nm,0.5s,baz=119,slow=13,SNR=3.9 | | | | | | |
| **ASAR** | **Alice Springs** | **42.62** | **270** | P | P | 11 25 06.2 | -0.4 |
| | 1.1nm,0.6s,baz=108,slow=7.6,SNR=23 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.85** | **275** | P | P | 11 25 15.8 | -0.8 |
| | 1.7nm,0.5s,baz=114,slow=7.9,SNR=26 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **122.64** | **313** | PKP | PKPdf | 11 36 04.5 | -1.0 |
| | 0.2nm,0.5s,baz=95,slow=2.3,SNR=3.0 | | | | | | |
| **FINES** | **FINESS Array B** | **147.53** | **338** | PKPbc | PKPbc | 11 36 53.5 | -0.2 |
| | 1.3nm,0.6s,baz=19,slow=3.1,SNR=4.0 | | | | | | |

**IDC 22 11:33:01.8±1.8, 0°51N×124°33E, h0km, mb3.3/3, mb1 3.5/3, mb1mx3.3/44, mbtmp3.3/3, Error ellipse: s-maj=190.5km s-min=25.8km az=63.0, Minahassa Peninsula, Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **22.57** | **155** | P | P | 11 38 03.2 | -0.8 |
| | 0.5nm,0.3s,baz=332,slow=11,SNR=21 | | | | | | |
| **ASAR** | **Alice Springs** | **25.77** | **159** | P | P | 11 38 35.3 | +0.7 |
| | 0.3nm,0.4s,baz=344,slow=11,SNR=9.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **58.89** | **327** | P | P | 11 43 02.5 | -0.1 |
| | 0.1nm,0.4s,baz=119,slow=7.1,SNR=4.7 | | | | | | |

*ISCJB **22** 11:40:57.8±0.5, 50°24N±0°04×19°18E±0°03, h0km, Error ellipse: s-maj=5.8km s-min=2.3km az=19.8*
*CSEM **22** 11:40:59.0±0.4, 50°25N×19°23E, h2km, ML3.0/7, Error ellipse: s-maj=9.9km s-min=3.9km az=15.0*
*PRU **22** 11:40:59.9, 50°23N×19°21E, h0km*
*WAR **22** 11:41:00.0, 50°18N×19°36E, h1km, Mw2.7*
**ISC 22 11:40:59.5±0.8, 50°17N±0°03×19°29E±0°02, h0km, n39, σ0892/69, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OJC** | **Ojcow** | **0.33** | **81** | *e*Pg | **Pg** | **11 41 05.4** | **-0.5** |
| OJC | | | | *e*Sg | **Sg** | **11 41 09.9** | **-0.2** |
| **OJC** | **Ojcow** | **0.33** | **81** | *e*Pg | **Pg** | **11 41 05.4** | **-0.5** |
| OJC | | | | *e*Sg | **Sg** | **11 41 09.9** | **-0.2** |
| **OJC** | **Ojcow** | **0.33** | **81** | *e*Pg | **Pg** | **11 41 05.4** | **-0.5** |
| OJC | | | | *e*Sg | **Sg** | **11 41 09.9** | **-0.2** |
| **OKC** | **Ostrava-Krasne** | **0.81** | **246** | *e*PG | **Pg** | **11 41 15.2** | **+0.2** |
| OKC | | | | *e*SG | **Sb** | **11 41 27.5** | **-0.4** |
| | comp=Z,31nm,0.4s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **0.81** | **246** | Pg | **Pg** | **11 41 15.2** | **+0.2** |
| OKC | | | | Sg | **Sb** | **11 41 27.5** | **-0.4** |
| | 31nm,0.4s | | | | | | |
| **NIE** | **Niedzica** | **1.00** | **139** | *e*Pg | **Pb** | **11 41 19.9** | **+0.2** |
| NIE | | | | *e*Sg | **Sb** | **11 41 33.3** | **-0.1** |
| **NIE** | **Niedzica** | **1.00** | **139** | *e*Pg | **Pb** | **11 41 19.9** | **+0.2** |
| NIE | | | | *e*Sg | **Sb** | **11 41 33.3** | **-0.1** |
| **NIE** | **Niedzica** | **1.00** | **139** | *e*Pg | **Pb** | **11 41 19.9** | **+0.2** |
| NIE | | | | *e*Sg | **Sb** | **11 41 33.3** | **-0.1** |
| **LANS** | **Liptovska Anna** | **1.03** | **173** | *e*Pg | **Pg** | **11 41 19.5** | **+0.3** |
| LANS | | | | *e*Sg | **Sb** | **11 41 34.2** | **0.0** |
| **LANS** | **Liptovska Anna** | **1.03** | **173** | *e*PG | **Pg** | **11 41 19.5** | **+0.3** |
| LANS | | | | *e*SG | **Sb** | **11 41 34.2** | **0.0** |
| **MORC** | **Moravsky Berou** | **1.20** | **251** | *e*Pg | **Pg** | **11 41 22.2** | **-0.2** |
| MORC | | | | *e*Sg | **Sg** | **11 41 38.3** | **+0.4** |
| **STHS** | **Stebnicka Huta** | **1.47** | **120** | *e*Pg | **Pb** | **11 41 28.0** | **+0.2** |
| STHS | | | | *e*Sn | **Sn** | **11 41 48.6** | **+1.2** |
| **STHS** | **Stebnicka Huta** | **1.47** | **120** | *e*PG | **Pb** | **11 41 28.0** | **+0.2** |
| STHS | | | | *e*SN | **Sn** | **11 41 48.5** | **+1.2** |
| STHS | | | | *e*LG | Lg | 11 41 49.9 | |
| **KRLC** | **Kraliky** | **1.62** | **268** | *e*PG | **Pn** | **11 41 28.7** | **-0.7** |
| KRLC | | | | *e*SG | **Sn** | **11 41 49.6** | **-1.3** |
| | comp=Z,10nm,0.5s | | | | | | |
| **KRLC** | **Kraliky** | **1.62** | **268** | Pg | **Pn** | **11 41 28.7** | **-0.7** |
| KRLC | | | | Sg | **Sn** | **11 41 49.6** | **-1.3** |
| | 10nm,0.5s | | | | | | |
| **VYHS** | **Vyhne** | **1.70** | **190** | *e*Pg | **Pn** | **11 41 29.8** | **-0.7** |
| VYHS | | | | *e*Sn | **Sn** | **11 41 52.1** | **-0.9** |
| **VYHS** | **Vyhne** | **1.70** | **190** | *e*PG | **Pn** | **11 41 29.8** | **-0.7** |
| VYHS | | | | *e*SN | **Sn** | **11 41 52.1** | **-0.9** |
| VYHS | | | | *e*LG | Lg | 11 41 55.1 | |
| **KECS** | **Kecovo** | **1.86** | **155** | *e*Pn | **Pg** | **11 41 35.0** | **-0.2** |
| KECS | | | | *e*Sn | **Sg** | **11 41 59.3** | **0.0** |
| **KECS** | **Kecovo** | **1.86** | **155** | *e*PN | **Pg** | **11 41 35.0** | **-0.2** |
| KECS | | | | *e*SN | **Sg** | **11 41 59.3** | **0.0** |
| KECS | | | | *e*LG | Lg | 11 42 05.7 | |
| **CRVS** | **Cervenica-Dubn** | **1.90** | **131** | *e*Sn | **Sg** | **11 42 01.3** | **+0.8** |
| **CRVS** | **Cervenica-Dubn** | **1.90** | **131** | *e*SN | **Sg** | **11 42 01.3** | **+0.8** |
| **DPC** | **Dobruska-Polom** | **1.91** | **277** | *e*PG | **Pn** | **11 41 32.9** | **-0.5** |
| DPC | | | | *e*SG | **Sn** | **11 41 58.6** | **+0.4** |
| | comp=Z,23nm,0.4s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.91** | **277** | Pg | **Pn** | **11 41 32.9** | **-0.5** |
| DPC | | | | Sg | **Sn** | **11 41 58.6** | **+0.4** |
| | 23nm,0.4s | | | | | | |
| **VRAC** | **Vranov** | **1.95** | **245** | *e*Pn | **Pn** | **11 41 34.1** | **+0.2** |
| VRAC | | | | *e*Sg | **Sb** | **11 42 01.4** | **+0.6** |
| **KSP** | **Ksiaz** | **2.03** | **291** | *e*Pg | **Pg** | **11 41 39.0** | **+0.6** |
| KSP | | | | *e*Sg | **Sg** | **11 42 04.4** | **-0.3** |
| **KSP** | **Ksiaz** | **2.03** | **291** | *e*Pg | **Pg** | **11 41 39.0** | **+0.6** |
| KSP | | | | *e*Sg | **Sg** | **11 42 04.4** | **-0.3** |
| **KSP** | **Ksiaz** | **2.03** | **291** | *e*Pg | **Pg** | **11 41 39.0** | **+0.6** |
| KSP | | | | *e*Sg | **Sg** | **11 42 04.4** | **-0.3** |
| **UPC** | **Upice** | **2.13** | **280** | *e*SG | **Sb** | **11 42 05.4** | **-0.5** |
| | comp=Z,12nm,0.5s | | | | | | |
| **UPC** | **Upice** | **2.13** | **280** | Sg | **Sb** | **11 42 05.4** | **-0.5** |
| | 12nm,0.5s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **2.91** | **267** | *e*PG | **Pb** | **11 41 52.6** | **+0.2** |
| GOPC | | | | *e*SG | **Sb** | **11 42 30.0** | **+1.5** |
| | comp=Z,8.8nm,0.5s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **2.91** | **267** | Pg | **Pb** | **11 41 52.6** | **+0.2** |
| GOPC | | | | Sg | **Sb** | **11 42 30.0** | **+1.5** |
| | 8.8nm,0.5s | | | | | | |
| **PVCC** | **Panska Ves** | **3.04** | **279** | *e*SG | **Sg** | **11 42 35.1** | **-2.2** |
| | comp=Z,22nm,0.7s | | | | | | |
| **PVCC** | **Panska Ves** | **3.04** | **279** | Sg | **Sg** | **11 42 35.1** | **-2.2** |
| | 22nm,0.7s | | | | | | |
| **PRU** | **Pruhonice** | **3.06** | **268** | *e*SG | **Sb** | **11 42 34.9** | **+2.1** |
| | comp=Z,9.5nm,0.4s | | | | | | |
| **PRU** | **Pruhonice** | **3.06** | **268** | Sg | **Sb** | **11 42 34.9** | **+2.1** |
| | 9.5nm,0.4s | | | | | | |
| **BRG** | **Berggiesshubel** | **3.48** | **284** | PG | **Pg** | **11 42 07.9** | **+1.6** |
| BRG | | | | SG | **Sg** | **11 42 49.2** | **-2.2** |
| | 7.6nm,0.5s | | | | | | |
| **KHC** | **Kasperske Hory** | **3.85** | **257** | *e*PN | **Pn** | **11 42 00.1** | **0.0** |
| KHC | | | | *e*PG | **Pg** | **11 42 12.6** | **-0.8** |
| KHC | | | | *e*SG | **Sb** | **11 42 58.5** | **+2.9** |
| | comp=Z,6.6nm,0.4s | | | | | | |
| **KHC** | **Kasperske Hory** | **3.85** | **257** | Pn | **Pn** | **11 42 00.1** | **0.0** |
| **CLL** | **Collm** | **4.15** | **288** | *e*Sg | **Sg** | **11 43 13.0** | **+0.1** |

**MEX 22 11:43:30.0±0.9, 27°21N×111°18W, h16km±42km, MD3.5, Gulf of California**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GUYB** | **Guaymas** | **0.74** | **22** | *e*P | Pg | 11 43 41.4 | -3.1 |
| **SRIG** | **Santa Rosalia** | **0.95** | **277** | *e*P | Pb | 11 43 44.8 | -3.2 |
| SRIG | | | | *i* S | Sb | 11 43 56.3 | -4.0 |
| **HSIG** | | **1.81** | **6** | *e*P | Pn | 11 43 57.9 | -2.7 |
| HSIG | | | | *i* S | Sn | 11 44 18.3 | -4.9 |

*BJI **22** 12:11:43.9, 10°14S×107°93E, h20km, mb5.2/66, mB5.1/45, Ms4.7/44, Ms7 4.5/42*
*IDC **22** 12:11:50.6±0.4, 9°05S×107°81E, h0km, mb4.8/28, mb1 4.8/29, mb1mx4.8/40, mbtmp4.8/29, ML4.2/1, MS4.0/17, Ms1 4.0/17, ms1mx3.7/39, Error ellipse: s-maj=15.5km s-min=10.7km az=70.0*
*MOS **22** 12:11:53.6±1.0, 9°00S×107°83E, h30km, mb5.4/33, Error ellipse: s-maj=12.7km s-min=6.2km az=109.0*
*KLM **22** 12:11:54.3, 9°24S×107°63E, h23km, mb5.2*
*ISCJB **22** 12:11:55.3±0.5, 9°10S±0°03×107°78E±0°02, h47km±4km, mb5.1/96, MS4.1/28, Error ellipse: s-maj=5.1km s-min=2.8km az=30.2*
*NEIC **22** 12:11:56.6±0.8, 9°11S×107°77E, h41km±6km, mb5.1/39, Error ellipse: s-maj=7.5km s-min=4.5km az=222.0*
*DJA **22** 12:11:56.5±0.2, 9°S±2°×10°8E±°, h41km±3km, M5.1/36, mb5.3/36, mB5.5/25, MLv5.3/25, Mw(mB)5.0/25*
**ISC 22 12:11:55.1±0.4, 9°19S±0°04×107°71E±0°04, h29km±2km, h29km:pP-P, n473, σ1°55/497, mb5.1/95, MS4.1/28, 12C-5D, South of Jawa**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CISI** | **Cisompet, Garu** | **1.63** | **4** | P | **Pn** | **12 12 21.8** | **-0.1** |
| CISI | | | | S | **Sn** | **12 12 40.7** | **-1.2** |
| **CISI** | **Cisompet, Garu** | **1.63** | **4** | *e*Pn | **Pn** | **12 12 22.0** | **+0.1** |
| CISI | | | | *e*Sn | **Sb** | **12 12 43.8** | **-0.9** |
| **CNJI** | **Cibinong** | **1.95** | **343** | P | **Pn** | **12 12 25.8** | **-0.5** |
| CNJI | | | | S | **Sn** | **12 12 48.6** | **-1.3** |
| **KPJI** | **Karang Pucung** | **2.21** | **33** | P | **Pn** | **12 12 30.9** | **+1.1** |
| **SKJI** | **Sukabumi** | **2.45** | **332** | P | **Pn** | **12 12 33.0** | **-0.2** |
| SKJI | | | | S | **Sn** | **12 13 01.7** | **-0.5** |
| **UGM** | **Wanagama** | **3.06** | **66** | P | **Pn** | **12 12 41.0** | **-0.6** |
| UGM | | | | S | **Sn** | **12 13 15.8** | **-1.4** |
| **UGM** | **Wanagama** | **3.06** | **66** | ⇑P | **Pn** | **12 12 41.9** | **+0.3** |
| **UGM** | **Wanagama** | **3.06** | **66** | *e*Pn | **Pn** | **12 12 41.6** | **+0.1** |
| **TNG** | **Tangerang** | **3.18** | **341** | P | **Pn** | **12 12 44.0** | **+0.8** |
| **SBJI** | **Serang** | **3.43** | **333** | P | **Pn** | **12 12 47.7** | **+1.1** |
| SBJI | | | | S | **Sn** | **12 13 25.9** | **-0.4** |
| **SMRI** | **Semarang** | **3.44** | **52** | P | **Pn** | **12 12 48.5** | **+1.7** |
| **SMRI** | **Semarang** | **3.44** | **52** | *e*Pn | **Pn** | **12 12 48.9** | **+2.1** |
| **PCJI** | **Pacitan** | **3.57** | **74** | P | **Pn** | **12 12 48.8** | **+0.3** |
| PCJI | | | | S | **Sn** | **12 13 28.0** | **-1.8** |
| **PWJI** | **Pagerwojo** | **4.21** | **74** | P | **Pn** | **12 12 57.7** | **+0.3** |
| PWJI | | | | S | **Sn** | **12 13 43.6** | **-2.0** |
| **UWJI** | **Ujung Watu** | **4.23** | **50** | P | **Pn** | **12 12 58.7** | **+1.1** |
| UWJI | | | | S | **Sn** | **12 13 46.3** | **+0.3** |
| **BLSI** | **Bandar Lampung** | **4.51** | **327** | P | **Pn** | **12 13 01.4** | **-0.2** |
| BLSI | | | | S | **Sn** | **12 13 52.5** | **-0.6** |
| **TBJI** | **Tambak Boyo** | **4.73** | **60** | P | **Pn** | **12 13 05.5** | **+1.0** |
| **KASI** | **Kota Agung** | **4.84** | **320** | P | **Pn** | **12 13 06.5** | **+0.5** |
| **KLI** | **Kotabumi** | **5.15** | **326** | P | **Pn** | **12 13 10.7** | **+0.5** |
| | 193nm,0.7s,5μm1.5nm | | | | | | |
| **GRJI** | **Gresik** | **5.24** | **65** | P | **Pn** | **12 13 13.0** | **+1.5** |
| | 680nm,0.4s,14μm3.7nm | | | | | | |
| GRJI | | | | S | **Sn** | **12 14 10.3** | **-0.6** |
| | 680nm,0.4s,14μm3.7nm | | | | | | |
| **LWLI** | **Liwa** | **5.50** | **319** | P | **Pn** | **12 13 17.3** | **+2.0** |
| | 207nm,0.7s,7μm3.7nm | | | | | | |
| LWLI | | | | S | **Sn** | **12 14 15.4** | **-2.3** |
| | 207nm,0.7s,7μm3.7nm | | | | | | |
| **GMJI** | **Gumukmas** | **5.74** | **81** | P | **Pn** | **12 13 20.5** | **+2.1** |
| | 385nm,0.8s,10μm1.8nm | | | | | | |
| GMJI | | | | S | **Sn** | **12 14 22.5** | **-0.9** |
| | 385nm,0.8s,10μm1.8nm | | | | | | |
| **BWJI** | **Bawean** | **5.92** | **56** | S | **Sn** | **12 14 26.4** | **-1.4** |
| **BLJI** | **Banyuglugur** | **6.00** | **77** | P | **Pn** | **12 13 23.6** | **+1.7** |
| BLJI | | | | S | **Sn** | **12 14 28.4** | **-1.3** |
| **JAGI** | **Jajag, Banyuwa** | **6.41** | **84** | P | **Pn** | **12 13 28.0** | **+0.4** |
| | 686nm,0.7s,15μm3.1nm | | | | | | |
| **JAGI** | **Jajag, Banyuwa** | **6.41** | **84** | *e*Pn | **Pn** | **12 13 28.2** | **+0.6** |
| JAGI | | | | *e*Sn | **Sn** | **12 14 36.5** | **-3.4** |
| **KMMI** | **Kalianget** | **6.55** | **72** | P | **Pn** | **12 13 27.8** | **-1.7** |
| | 110nm,0.7s,2μm0.5nm | | | | | | |
| **ABJI** | **Asem Bagus** | **6.60** | **78** | P | **Pn** | **12 13 31.3** | **+1.1** |
| ABJI | | | | S | **Sn** | **12 14 41.6** | **-3.0** |
| **MNAI** | **Manna** | **6.73** | **315** | P | **Pn** | **12 13 31.7** | **-0.3** |
| | 351nm,1.1s,2.0nm | | | | | | |
| **MNAI** | **Manna** | **6.73** | **315** | *e*Pn | **Pn** | **12 13 32.1** | **+0.1** |
| **PPBI** | **Pangkal Pinang** | **7.15** | **347** | P | **Pn** | **12 13 39.1** | **+1.2** |
| | 0.5nm,0.6s,788nm0.0nm | | | | | | |
| **DNP** | **Denpasar** | **7.43** | **87** | P | **Pn** | **12 13 43.2** | **+1.6** |
| | 974nm,0.4s,9.5nm | | | | | | |
| **SRBI** | **Singaraja** | **7.50** | **82** | P | **Pn** | **12 13 43.8** | **+1.2** |
| | 204nm,0.6s,3μm1.1nm | | | | | | |
| **PBKI** | **Pangkalan Bun** | **7.55** | **32** | P | **Pn** | **12 13 44.2** | **+0.9** |
| **MASI** | **Maura Aman, Be** | **8.10** | **318** | P | **Pn** | **12 13 50.9** | **0.0** |
| | 217nm,0.9s | | | | | | |
| **STKI** | **Sintang** | **9.93** | **22** | P | **Pn** | **12 14 17.0** | **+1.0** |
| **PLAI** | **Plampang** | **9.95** | **89** | P | **Pn** | **12 14 15.6** | **-0.7** |
| | 416nm,0.7s,4μm | | | | | | |
| **KBKI** | **Kotabaru** | **10.24** | **56** | P | **Pn** | **12 14 21.6** | **+1.4** |
| **KSM** | **Kuching** | **10.90** | **14** | ⇑P | **Pn** | **12 14 31.1** | **+1.8** |
| **KSM** | **Kuching** | **10.90** | **14** | *e*Pn | **Pn** | **12 14 30.0** | **+0.7** |
| **PDSI** | **Padang** | **10.94** | **318** | P | **Pn** | **12 14 26.6** | **-3.2** |
| **WBSI** | **Waikabubak, Su** | **11.54** | **93** | P | **Pn** | **12 14 49.0** | **+11** |
| WBSI | | | | S | Sn | 12 16 33.6 | -12 |
| **BKNI** | **Bangkinang** | **11.55** | **325** | *e*Pn | **Pn** | **12 14 37.4** | **-0.8** |
| **SISI** | **Saibi** | **11.60** | **312** | P | **Pn** | **12 14 35.2** | **-3.6** |
| **KGM** | **Kluang** | **11.96** | **338** | ⇓P | **Pn** | **12 14 44.7** | **+1.0** |
| **SBUM** | **Sibu** | **12.41** | **21** | *e*Pn | **Pn** | **12 14 53.0** | **+3.1** |
| **KAPI** | **Kappang** | **12.65** | **72** | *e*Pn | **Pn** | **12 14 53.7** | **+0.5** |
| **SPSI** | **Sidrap Palu** | **13.05** | **67** | P | **Pn** | **12 14 58.7** | **0.0** |
| | 32nm,0.9s,777nm | | | | | | |
| **TTSI** | **Tana Toraja** | **13.49** | **64** | P | **Pn** | **12 15 05.4** | **+0.6** |
| | 135nm,0.9s,1μm | | | | | | |
| **EDFI** | **Ende, Flores** | **13.82** | **89** | P | **Pn** | **12 15 06.9**

**WRA Warramunga Arr 27.86 116** P **P** **12 17 42.3 -0.2**
2.8nm,0.4s,baz=288,slow=10,SNR=68
WRA PcP **PcP** **12 20 58.6 +0.5**
1.1nm,0.6s,baz=303,slow=1.9,SNR=4.5
WRA S S 12 22 54.8 +31
0.7nm,0.8s,baz=284,slow=26,SNR=2.7
**WRAB Tennant Creek 27.86 115** *i* P **P** **12 17 42.1 -0.4**
**WRAB Tennant Creek 27.86 115** *eP* **P** **12 17 42.3 -0.2**
11nm,0.8s
**WB2 Warramunga Arr 27.87 116** *eP* **P** **12 17 40.3 -2.2**
WB2 *eP* **P** **12 17 41.5 -1.1**
**QIZ Qiongzhong 28.12 4** P **P** **12 17 45.1 +0.4**
QIZ sP **pP** **12 17 54.6 +1.3**
QIZ S **S** **12 22 32.8 +4.7**
QIZ LR LR
comp=E,690nm,15.2s
QIZ LR LR
comp=Z,610nm,15.1s
**CM01 Chiang Mai Arr 28.76 343** *eP* **P** **12 17 50.3 -0.1**
**CMAR Chiang Mai Arr 28.80 343** P **P** **12 17 49.1 -1.6**
3.1nm,0.6s,baz=180,slow=8.6,SNR=25
CMAR LR LR 12 31 08.8
comp=Z,409nm,18.2s,baz=178,slow=40
**ASAR Alice Springs 28.88 123** P **P** **12 17 51.6 0.0**
4.3nm,0.8s,baz=300,slow=7.4,SNR=62
ASAR PcP **PcP** **12 21 01.6 +0.9**
1.2nm,0.5s,baz=315,slow=2.2,SNR=5.8
ASAR S S 12 23 20.6 +40
0.4nm,0.7s,baz=285,slow=23,SNR=2.8
ASAR LR LR 12 30 26.6
comp=Z,235nm,19.7s,baz=298,slow=39
**AS31 Alice Springs 28.88 123** *eP* **P** **12 17 50.5 -1.1**
2.6nm,0.7s
**AS01 Alice Springs 28.92 123** *eP* **P** **12 17 51.2 -0.7**
**CHTO Chiang Mai 29.14 343** *eP* **P** **12 17 54.0 +0.2**
CHTO pmax pmax
comp=Z,22nm,1.2s
**CHTO Chiang Mai 29.14 343** *eP* **P** **12 17 54.0 +0.2**
comp=Z,22nm,1.2s
**KMI Kunming 34.45 352** P **P** **12 18 42.8 +2.2**
KMI pP pP 12 18 48.6 -0.6
KMI S **S** **12 24 13.6 +6.3**
KMI pmax pmax
comp=Z,15nm,0.5s
KMI pmax pmax
comp=Z,160nm,3.1s
KMI LR LR
comp=Z,330nm,12.9s
KMI LR LR
comp=Z,750nm,17.6s
KMI LR LR
comp=Z,1µm,14.7s
**H08S2 Diego Garcia H 34.86 270** T T 12 55 28.0
baz=95,slow=74
**H08S3 Diego Garcia H 34.87 270** T T 12 55 32.9
baz=95,slow=74
**H08S1 Diego Carcia H 34.88 270** T T 12 55 31.1
baz=95
**COEN Coen 35.04 101** P **P** **12 18 46.5 +0.8**
baz=35,SNR=9.1
**COEN Coen 35.04 101** *eP* **P** **12 18 46.0 +0.3**
COEN *ep*P **sP** **12 18 58.2 +0.3**
**BBOO Buckleboo 35.19 136** P **P** **12 18 46.7 -0.1**
baz=35,SNR=46
**BBOO Buckleboo 35.19 136** *eP* **P** **12 18 46.0 -0.8**
comp=Z,21nm,0.6s
**SSLB Suanglung 35.24 21** *eP* **P** **12 18 46.2 -1.0**
comp=Z,28nm,0.9s
**GYA Guiyang 35.45 358**⇑ *iP* **P** **12 18 48.9 -0.2**
GYA pP pP 12 18 58.6 +0.8
GYA PP **PP** **12 20 13.4 +3.4**
GYA S **S** **12 24 27.0 +4.4**
GYA sS sS 12 24 38.6 +1.8
GYA SS **SnSn** **12 26 49.6 +6.1**
GYA pmax pmax
comp=Z,20nm,0.8s
GYA pmax pmax
comp=Z,120nm,5.0s
GYA LR LR
comp=Z,620nm,17.4s
GYA LR LR
comp=Z,580nm,17.8s
GYA LR LR
comp=Z,560nm,17.6s
**QLP Quilpie 38.64 121** P **P** **12 19 17.7 +1.5**
baz=39,SNR=7.4
**STKA Stephens Creek 38.68 131** P **P** **12 19 16.9 +0.5**
comp=Z,17nm,0.7s,baz=304,slow=7.8,SNR=59
STKA PcP **PcP** **12 21 27.5 -0.7**
comp=Z,2.5nm,0.5s,baz=0.0,slow=4.0,SNR=3.0
STKA LR LR 12 35 59.2
comp=Z,222nm,20.1s,baz=331,slow=37
**STKA Stephens Creek 38.68 131** P **P** **12 19 17.0 +0.5**
baz=39,SNR=49
**STKA Stephens Creek 38.68 131** *eP* **P** **12 19 17.0 +0.5**
STKA 12 21 27.5
STKA pmax pmax
comp=Z,5.0nm,0.8s
**STKA Stephens Creek 38.68 131** *eP* **P** **12 19 17.0 +0.5**
comp=Z,4.6nm,0.8s
STKA PcP **PcP** **12 21 27.5 -0.7**
**HYB Hyderabad 39.10 312** *i* P **P** **12 19 20.0 -0.2**
**ENH Enshi 39.27 2** *eP* **P** **12 19 21.0 -0.4**
comp=Z,36nm,0.9s
**WHN Wuhan 40.02 9** P **P** **12 19 28.1 +0.6**
**CD2 Chengdu 40.05 355** *eP* **P** **12 19 27.9 0.0**
CD2 pP pP 12 19 34.0 -2.6
CD2 sP sP 12 19 37.5 -2.6
CD2 S **S** **12 25 36.6 +4.5**
CD2 SS **SS** **12 28 31.1 +0.9**
CD2 pmax pmax
comp=Z,20nm,0.7s
CD2 LR LR
comp=Z,500nm,16.1s
CD2 LR LR
comp=Z,570nm,13.3s
CD2 LR LR
comp=Z,500nm,17.1s
**ODAN Odare 40.90 332** *eP* **P** **12 19 35.1 -0.1**
comp=Z,204nm,0.7s
**TAPN Taplejung 41.17 332** *eP* **P** **12 19 37.6 +0.1**
comp=Z,213nm,0.8s
**ARPS Mount Arapiles 41.34 137** P **P** **12 19 39.4 +0.9**
baz=41,SNR=8.6
**RAMN Ramite 41.35 331** *eP* **P** **12 19 38.6 -0.3**
comp=Z,79nm,0.7s
**CMSA Cobar Meteorol 41.66 128** P **P** **12 19 42.1 +0.8**
baz=42,SNR=30
**LSA Lhasa 41.82 338** P **P** **12 19 43.3 +0.3**
LSA pmax pmax
comp=Z,41nm,0.8s
**LSA Lhasa 41.82 338** *eP* **P** **12 19 42.6 -0.4**
LSA pmax pmax
comp=Z,30nm,0.9s
**LSA Lhasa 41.82 338** *eP* **P** **12 19 42.6 -0.4**
comp=Z,30nm,0.9s
**JIRN Jiri 42.14 331** *eP* **P** **12 19 45.2 -0.4**
comp=Z,2µm,0.7s
**NJ2 Nanjing 42.37 14** *eP* **P** **12 19 47.3 +0.5**
NJ2 pmax pmax
comp=Z,35nm,0.9s
**PKI Pulchoki 42.45 330** *eP* **P** **12 19 47.3 -0.7**
comp=Z,81nm,0.8s
**PKIN Phulchoki 42.46 330** *eP* **P** **12 19 47.6 -0.4**
comp=Z,57nm,0.8s
**GUN Gumba 42.50 331** *eP* **P** **12 19 48.0 -0.5**
comp=Z,287nm,0.7s
**DMN Daman 42.63 330** *eP* **P** **12 19 49.6 +0.2**
comp=Z,202nm,0.8s
**KKN Kakani 42.70 330** *eP* **P** **12 19 49.5 -0.4**
comp=Z,174nm,0.9s
**XAN Xi'an 43.01 1** P **P** **12 19 51.1 -1.0**
XAN sP pP 12 20 00.4 -0.4
XAN S **S** **12 26 15.0 -0.8**
XAN pmax pmax
comp=Z,120nm,0.7s
XAN pmax pmax
comp=Z,200nm,5.3s
XAN LR LR
comp=Z,460nm,17.7s
XAN LR LR
comp=Z,360nm,15.2s
XAN LR LR
comp=Z,930nm,16.3s
**GKN Gorkha 43.19 330** *eP* **P** **12 19 53.9 +0.1**
comp=Z,0.8nm,0.2s
**POO Poona 43.30 310** *eP* P 12 19 49.0 -5.7
**KOLN Koldanda 43.53 328** *eP* **P** **12 19 57.0 +0.4**
comp=Z,241nm,0.8s
**DANN Dangsing 43.91 329** *eP* **P** **12 20 00.1 +0.3**
comp=Z,11nm,0.8s
**PYUN Piuthan 44.11 328** *eP* **P** **12 20 01.4 +0.1**
comp=Z,110nm,0.7s
**LZH Lanzhou 45.18 356** *eP* **P** **12 20 09.4 -0.2**
LZH pP pP 12 20 16.5 -1.9
LZH sP sP 12 20 20.6 -1.4
LZH pmax pmax
comp=Z,150nm,1.4s
LZH pmax pmax
comp=Z,240nm,4.0s
LZH LR LR
comp=Z,240nm,10.3s
LZH LR LR
comp=Z,340nm,15.0s
LZH LR LR
comp=Z,390nm,19.9s
**CAN Canberra 45.73 131** *eP* **P** **12 20 14.7 +0.7**
CAN pmax pmax
comp=Z,12nm,0.7s
**CAN Canberra 45.73 131** *eP* **P** **12 20 14.7 +0.7**
comp=Z,12nm,0.7s
**TIA Tai'an 46.02 11**⇑ P **P** **12 20 14.8 -1.3**
TIA pmax pmax
comp=Z,80nm,0.7s
**JNU Nakatsue 47.51 27** P **P** **12 20 26.2 -1.6**
comp=Z,11nm,0.7s,baz=316,slow=3.5,SNR=7.8
**GTA Gaotai 48.90 352** P **P** **12 20 39.0 +0.4**
GTA pP pP 12 20 46.3 -1.2
GTA sP sP 12 20 49.8 -1.2
GTA PcP **PcP** **12 22 03.5 +0.8**
GTA S **S** **12 27 43.0 +2.3**
GTA SS **SS** **12 31 10.3 -1.7**
GTA pmax pmax
comp=Z,51nm,1.0s
GTA pmax pmax
comp=Z,150nm,6.2s
GTA LR LR
comp=Z,270nm,15.4s
GTA LR LR
comp=Z,300nm,17.3s
GTA LR LR
comp=Z,250nm,17.3s
**BJT Baijiatuau 49.58 9** *eP* **P** **12 20 43.3 -0.3**
BJT pmax pmax
comp=Z,68nm,0.8s
**BJT Baijiatuau 49.58 9** *eP* **P** **12 20 43.3 -0.3**
comp=Z,68nm,0.8s
**BTO Baotou 49.59 2** *eP* **P** **12 20 42.8 -1.0**
**HHC Hu-ho-hao-te 49.91 4** *eP* **P** **12 20 45.8 -0.5**
HHC S **S** **12 27 59.8 +5.0**
HHC pmax pmax
comp=Z,40nm,0.9s
HHC pmax pmax
comp=Z,79nm,7.4s
HHC LR LR
comp=Z,400nm,17.2s
HHC LR LR
comp=Z,250nm,13.6s
HHC LR LR
comp=Z,260nm,13.9s
**KSAR Wonju Array Be 50.09 21** P **P** **12 20 47.1 -0.4**
**KSAR Wonju Array Be 50.09 21** P **P** **12 20 47.0 -0.4**
**KSRS Korea Array 50.11 21** P **P** **12 20 47.0 -0.6**
comp=Z,8.8nm,0.8s,baz=229,slow=6.5,SNR=15
KSRS LR LR 12 43 12.3
comp=Z,45nm,18.3s,baz=228,slow=38
**KS01 Wonju Array Si 50.12 21** *eP* **P** **12 20 46.6 -1.1**
**HNR Honiara 51.51 95** LR LR 12 46 52.9
comp=Z,46nm,18.1s,baz=218,slow=41
**MAJO Matsushiro 53.77 30** *eP* **P** **12 21 12.7 -2.3**
MAJO pmax pmax
comp=Z,27nm,0.9s
**MAJO Matsushiro 53.77 30** *eP* **P** **12 21 12.7 -2.3**
comp=Z,27nm,0.9s
**MAT Matsushiro 53.77 30** P **P** **12 21 11.5 -3.5**
**MJAR Matsushiro Arr 53.77 30** P **P** **12 21 12.4 -2.6**
comp=Z,13nm,0.7s,baz=209,slow=7.9,SNR=22
**MJB9 Matsu-Tunnel 53.77 30** *eP* **P** **12 21 12.8 -2.3**
comp=Z,27nm,0.9s
**CN2 Changchun 55.15 16** *eP* **P** **12 21 23.3 -1.5**
CN2 pmax pmax
comp=Z,10.0nm,0.7s
**WMQ Urumqi 55.80 343** P **P** **12 21 30.3 +0.6**
WMQ pP pP 12 21 36.3 -2.4
WMQ sP sP 12 21 40.1 -2.1
WMQ S **S** **12 29 16.4 +1.5**
WMQ SS **SS** **12 33 02.5 +1.4**
WMQ pmax pmax
comp=Z,130nm,1.3s
WMQ pmax pmax
comp=Z,310nm,3.8s
WMQ LR LR
comp=Z,440nm,19.3s
WMQ LR LR
comp=Z,500nm,19.3s
WMQ LR LR
comp=Z,280nm,19.3s
**KSH Kashi 56.70 331** P **P** **12 21 34.5 -1.7**
KSH pP pP 12 21 42.8 -2.5
KSH PcP **PcP** **12 22 30.3 -1.8**
KSH PP **PP** **12 23 46.1 +3.4**
KSH S **S** **12 29 23.3 -3.8**
KSH ScS **ScS** **12 31 16.5 -7.2**
KSH pmax pmax
comp=Z,14nm,0.7s
KSH LR LR
comp=Z,120nm,5.0s
KSH LR LR
comp=Z,100nm,6.7s
KSH LR LR
comp=Z,190nm,5.6s
**SONM Songino Array 56.78 359** P **P** **12 21 36.6 0.0**
comp=Z,29nm,0.6s,baz=175,slow=8.2,SNR=161
SONM LR LR 12 48 39.0
comp=Z,369nm,19.1s,baz=176,slow=39
**SONA1 Songino Array 56.80 359** *eP* **P** **12 21 35.2 -1.5**
**ULN Ulaanbaatar 56.80 359** *eP* **P** **12 21 36.6 -0.2**
ULN pmax pmax
comp=Z,51nm,0.7s
**ULN Ulaanbaatar 56.80 359** *eP* **P** **12 21 36.6 -0.2**
comp=Z,51nm,0.7s
**KBL Kabul 56.85 322** *eP* **P** **12 21 38.4 +0.9**
KBL pmax pmax
comp=Z,13nm,0.8s
**KBL Kabul 56.85 322** *eP* **P** **12 21 38.4 +0.9**
comp=Z,13nm,0.8s
**MDJ Mudanjiang 57.09 18** P **P** **12 21 39.9 +1.2**
MDJ pP pP 12 21 46.1 -1.7
MDJ sP sP 12 21 48.5 -2.7
MDJ PcP **PcP** **12 22 32.8 -0.6**
MDJ PP **PP** **12 23 50.3 +4.4**
MDJ ScP **ScP** **12 26 29.3 -1.9**
MDJ S **S** **12 29 34.4 +2.6**
MDJ SS **SS** **12 33 28.1 +6.9**
MDJ pmax pmax
comp=Z,9.0nm,1.3s
MDJ pmax pmax
comp=Z,180nm,4.5s
MDJ LR LR
comp=Z,69nm,22.2s
MDJ LR LR
comp=Z,44nm,18.6s
MDJ LR LR
comp=Z,77nm,22.6s
**USRK Ussuriysk Ar. 57.51 21** P **P** **12 21 40.5 -1.2**
comp=Z,12nm,0.7s,baz=193,slow=7.3,SNR=16
**DZM Mont Dzumac 57.68 110** LR LR 12 46 09.6
comp=Z,78nm,21.5s,baz=226,slow=36
**DZM Mont Dzumac 57.68 110** *e*LR LR 12 38 46.5
comp=Z,157nm,22.1s
**PDGK Podgornoye 58.24 336** P **P** **12 21 46.8 -0.2**
PDGK pmax pmax
comp=Z,26nm,0.9s
**SFK Sufi-Kurgan 58.30 330** P **P** **12 21 47.5 -0.1**
SFK pmax pmax
comp=Z,37nm,0.8s
**ULHL Ulahol 58.73 333** P **P** **12 21 49.2 -1.4**
SNR=8.0
**KZA Kyzart 59.05 332** P **P** **12 21 52.7 -0.3**
SNR=12
**OPO Ambohidratompo 59.26 254** P **P** **12 21 55.5 +0.8**
comp=Z,5.7nm,1.0s,baz=160,slow=8.9,SNR=3.8
**ZAK Zakamensk 59.45 357** *eP* **P** **12 21 53.2 -2.0**
ZAK pmax pmax
comp=Z,12nm,1.1s
**TKM2 Tokmak 2 59.56 333** P **P** **12 21 55.6 -0.7**
TKM2 pmax pmax
comp=Z,16nm,0.7s
**TKM2 Tokmak 2 59.56 333** P **P** **12 21 55.9 -0.3**
SNR=34
**KBK Karagaybulak 59.64 332** P **P** **12 21 56.9 +0.1**
SNR=14
**AML Almayashu 59.82 331** P **P** **12 21 57.7 -0.6**
SNR=11
**AAK Ala-Archa 59.84 332** *i* P **P** **12 21 56.6 -1.5**
AAK pmax pmax
comp=Z,5.0nm,1.0s
**AAK Ala-Archa 59.84 332** P **P** **12 21 58.0 -0.2**
SNR=6.9
**AAK Ala-Archa 59.84 332** *eP* **P** **12 21 57.8 -0.4**
comp=Z,15nm,1.4s
**DZET Dzherino 59.90 325** P **P** **12 21 56.5 -2.1**
DZET pmax pmax
comp=Z,19nm,0.8s
**FRU Bishkek 59.93 332** *eP* **P** **12 21 57.5 -1.1**
FRU *e* 12 22 45.0
**MK01 Makanchi Array 60.15 340** *eP* **P** **12 21 59.8 -0.2**
**MK31 Makanchi Array 60.17 340** *i* P **P** **12 21 59.9 -0.3**
MK31 pmax pmax
comp=Z,45nm,0.6s
**MK31 Makanchi Array 60.17 340** *eP* **P** **12 22 00.1 -0.1**
**MKAR Makanchi Array 60.17 340** P **P** **12 22 00.0 -0.2**
comp=Z,69nm,0.6s,baz=145,slow=7.8,SNR=511
MKAR LR LR 12 52 32.9
comp=Z,142nm,18.7s,baz=136,slow=41
**MKAR Makanchi Array 60.17 340** *eP* **P** **12 22 00.0 -0.2**
MKAR pmax pmax
comp=Z,416nm,0.6s
**MKAR Makanchi Array 60.17 340** *eP* **P** **12 22 00.0 -0.2**
comp=Z,416nm,0.6s
**EKS2 Erkin-Say 60.19 332** P **P** **12 22 00.8 +0.3**
SNR=16
**MAKZ Makanchi 60.29 340** *eP* **P** **12 22 00.3 -0.7**
MAKZ pmax pmax
comp=Z,10.0nm,0.6s
**MAKZ Makanchi 60.29 340** *eP* **P** **12 22 00.3 -0.7**
comp=Z,10nm,0.6s
**USP Ospenovka 60.33 333** P **P** **12 22 00.9 -0.4**
SNR=6.8
**MOY Mondy 60.88 355** *eP* **P** **12 22 05.5 +0.4**
MOY pmax pmax
comp=Z,37nm,1.9s
**ASAJ Asahikawa 61.75 28** P **P** **12 22 08.2 -2.8**
comp=Z,11nm,0.5s,baz=259,slow=6.2,SNR=16
**ASAJ Asahikawa 61.75 28** *eP* **P** **12 22 09.6 -1.3**
comp=Z,14nm,0.9s
**KLR Kul'dur 61.88 18** P **P** **12 22 10.2 -1.6**
comp=Z,1.5nm,0.5s,baz=206,slow=5.3,SNR=100
**KKAR Karatay Array 62.10 330** *eP* **P** **12 22 12.9 -0.4**
KKAR pmax pmax
comp=Z,32nm,0.8s
**KKAR Karatay Array 62.10 330** *eP* **P** **12 22 12.9 -0.4**
comp=Z,32nm,0.8s
**YSS Yuzh-Sakhalins 64.01 26**⇓ *eP* **P** **12 22 25.1 -0.8**
YSS *e* 12 22 34.5
YSS pmax pmax
comp=Z,70nm,1.1s
**YSS Yuzh-Sakhalins 64.01 26** *eP* **P** **12 22 24.5 -1.4**
comp=Z,107nm,1.1s
**RPZ Rata Peaks 64.50 134** LR LR 12 50 07.1
comp=Z,206nm,19.1s,baz=252,slow=36
**KURK Kurchatov 64.78 340** *c iP* **P** **12 22 30.8 -0.1**
KURK pmax pmax
comp=Z,209nm,1.0s
**KURK Kurchatov 64.78 340** *eP* **P** **12 22 30.9 +0.1**
comp=Z,62nm,1.0s
**MAW Mawson 65.49 197** P **P** **12 22 36.1 +0.9**
comp=Z,15nm,0.6s,baz=41,slow=7.6,SNR=9.5
MAW LR LR 12 47 03.0
comp=Z,79nm,18.3s,baz=60,slow=32
**MAW Mawson 65.49 197** P **P** **12 22 36.4 +1.2**
baz=66,SNR=6.2
**MAW Mawson 65.49 197** *eP* **P** **12 22 35.9 +0.6**
MAW pmax pmax
comp=Z,4.0nm,0.7s
**MAW Mawson 65.49 197** *eP* **P** **12 22 35.9 +0.6**
comp=Z,3.5nm,0.7s
**ZAA0 Zalesovo Array 65.81 345** *eP* **P** **12 22 36.5 -0.9**
comp=Z,20nm,0.9s
**ZALV Zalesovo Beam 65.81 345** P **P** **12 22 36.6 -0.9**
comp=Z,13nm,0.6s,baz=125,slow=3.7,SNR=57
ZALV LR LR 12 53 42.9
comp=Z,110nm,18.2s,baz=72,slow=38
**ZALV Zalesovo Beam 65.81 345** *eP* **P** **12 22 36.4 -1.1**
**ZALV Zalesovo Beam 65.81 345** *eP* **P** **12 22 36.4 -1.1**
**GEYT Alibeck 65.86 319** P **P** **12 22 38.3 +0.1**
comp=Z,16nm,0.6s,baz=176,slow=5.7,SNR=13
**BOD Bodaibo 66.97 4** *eP* **P** **12 22 43.8 -1.0**
BOD pmax pmax
comp=Z,19nm,1.7s
**NVS Novosibirsk 67.02 345** *eP* **P** **12 22 44.0 -1.2**
NVS *e* 12 22 55.6
NVS pmax pmax
comp=Z,11nm,1.2s
NVS pmax pmax
comp=N,4.0nm,1.0s
NVS pmax pmax
comp=E,5.0nm,1.2s
**NKL Nikolayevsk 68.15 21** *eP* **P** **12 22 51.8 -0.5**
NKL pmax pmax
comp=N,22nm,1.0s
NKL pmax pmax
comp=E,17nm,1.0s
NKL pmax pmax
comp=Z,47nm,1.0s
**URZ Urewera 68.21 127** LR LR 12 54 23.8
comp=Z,84nm,19.8s,baz=285,slow=37
**RAYN Ar Rayn 68.92 300** *eP* **P** **12 22 58.6 +0.7**
comp=Z,13nm,1.1s
**BVA0 Borovoye Array 69.64 337** P **P** **12 23 00.9 -0.8**
BVA0 pmax pmax
comp=Z,31nm,0.7s
**BRVK Borovoye 69.71 337** *c iP* **P** **12 23 01.9 -0.2**
BRVK pmax pmax
comp=Z,72nm,0.8s
**BRVK Borovoye 69.71 337** *eP* **P** **12 23 02.0 0.0**
comp=Z,26nm,0.6s
**KMBO Kilima Mbogo 70.53 272** P **P** **12 23 09.4 +1.1**
comp=Z,1.1nm,0.3s,baz=51,slow=9.3,SNR=5.4
KMBO LR LR 12 48 48.2
comp=Z,141nm,20.8s,baz=95,slow=31
**AB31 Akbulak array 71.64 329** P **P** **12 23 16.6 +2.7**
AB31 pmax pmax
comp=Z,65nm,0.8s
**YAK Yakutsk 73.04 11** *c iP* **P** **12 23 20.7 -1.2**
YAK *e* 12 23 32.8
YAK *e**PP **sP** **12 23 35.8 +1.2**
YAK *e* 12 25 59.9
YAK *e*PPP PPP 12 27 48.3
YAK *e*S **S** **12 32 43.0 -4.0**
YAK *e**SS **SKSac** **12 33 17.5 -7.8**
YAK *e* 12 33 31.7
YAK pmax pmax
comp=Z,90nm,0.9s
YAK pmax pmax
comp=N,9.0nm,0.9s
YAK pmax pmax
comp=E,6.0nm,1.0s
YAK pmax pmax
comp=Z,148nm,4.9s
YAK pmax pmax
comp=N,61nm,4.0s
YAK pmax pmax
comp=E,23nm,3.0s
YAK smax smax
comp=N,107nm,4.6s
YAK smax smax
comp=E,63nm,5.1s
**YAK Yakutsk 73.04 11** *eP* **P** **12 23 20.8 -1.2**
comp=E,110nm,0.7s
**AKTO Aktyubinsk 73.35 329** P **P** **12 23 25.9 +1.8**
AKTO pmax pmax
comp=Z,15nm,0.8s
**VNDA Vanda 73.70 169** P **P** **12 23 25.9 +0.1**
comp=Z,6.6nm,0.8s,baz=322,slow=6.1,SNR=15
VNDA LR LR 12 51 00.1
comp=Z,32nm,20.5s,baz=282,slow=32
**VNDA Vanda 73.70 169** *eP* **P** **12 23 26.2 +0.4**

VNDA pmax pmax
comp=Z,10.0nm,1.0s
**VNDA Vanda 73.70 169** *e*P **P 12 23 26.2 +0.4**
comp=Z,9.8nm,1.0s
**SYO Syowa Base 73.70 200**‖ *e*X **P 12 23 23.7 -2.2**
**PETK Petropavlovsk- 75.16 29** P **P 12 23 34.0 -0.6**
comp=Z,15nm,0.7s,baz=136,slow=1.6,SNR=25
**PETK Petropavlovsk- 75.16 29** *e*P **P 12 23 33.8 -0.8**
**PETK Petropavlovsk- 75.16 29** *e*P **P 12 23 33.8 -0.8**
**SVE Sverdlovsk 76.28 336**‖ *i*P **P 12 23 41.6 +0.7**
SVE pmax pmax
comp=Z,30nm,0.8s
**MA2 Magadan 76.67 21** *d i*P **P 12 23 43.1 +0.1**
**ARU Arti 76.89 334** P **P 12 23 44.5 +0.2**
comp=Z,11nm,0.5s,baz=101,slow=2.9,SNR=17
**ARU Arti 76.89 334** *c i*P **P 12 23 44.0 -0.3**
ARU 12 23 56.4
ARU 12 26 33.6
ARU S **S 12 33 31.1 +1.0**
ARU SS **SS 12 38 21.9 -5.3**
ARU pmax pmax
comp=Z,13nm,0.7s
**ARU Arti 76.89 334** *e*P **P 12 23 44.2 -0.1**
comp=Z,18nm,1.0s
**LSZ Lusaka 77.59 256** *e*P **P 12 23 50.1 +0.8**
LSZ *e**PP **sP 12 24 02.4 +0.3**
**LSZ Lusaka 77.59 256** *e*P **P 12 23 50.1 +0.8**
LSZ *e*pP **sP 12 24 02.4 +0.3**
**MARD Mardin 77.72 311** *e*P **P 12 23 48.6 -1.1**
MARD *e*PcP **pP 12 23 57.3 -1.6**
**NEY Neytrino 78.65 318**‖ *e*P **P 12 23 55.5 +0.8**
NEY pmax pmax
comp=Z,1.0nm,0.8s
**KBZ Khabaz 78.73 318** P **P 12 23 55.3 +0.4**
comp=Z,7.3nm,0.9s,baz=155,slow=4.5,SNR=15
**KIV Kislovodsk 78.97 318** *e*P **P 12 23 55.1 -1.2**
KIV pmax pmax
comp=Z,7.0nm,0.9s
**BOSA Boshof 79.07 243** P **P 12 23 57.5 +0.2**
comp=Z,7.8nm,1.2s,baz=180,slow=1.0,SNR=3.1
BOSA LR LR 12 53 14.5
comp=Z,200nm,19.7s,baz=114,slow=31
**SEY Seymchan 79.62 19**‖ *i*P **P 12 23 59.3 0.0**
**SOC Sochi 80.80 317** *e*P **P 12 24 02.2 -3.9**
SOC *e*S **S 12 34 07.9 -4.5**
SOC *e*SSS SSS 12 42 43.6
**QSPA South Pole Qui 80.81 180** *e*P **P 12 24 06.3 +0.3**
comp=Z,42nm,1.6s
QSPA *e*pP **sP 12 24 18.0 -0.8**
**TIXI Tiksi 81.88 7** *e*P **P 12 24 10.1 -1.1**
TIXI pmax pmax
comp=Z,27nm,0.8s
**TIXI Tiksi 81.88 7** *e*P **P 12 24 10.1 -1.1**
comp=Z,27nm,0.8s
**VRH Novokhopyorsk 82.56 325** *e*P **P 12 24 14.9 -0.3**
VRH *e**PP **PcP 12 24 19.2 -1.0**
VRH pmax pmax
comp=Z,10.0nm,0.7s
**CSS Mathiatis 82.65 307** *e*P **P 12 24 16.0 -0.2**
CSS *e*pP **pP 12 24 24.9 -0.6**
**BR131 Keskin Array S 83.80 312** *e*P **P 12 24 22.8 +0.7**
**BRTR Keskin Array B 83.80 312** P **P 12 24 22.2 +0.1**
comp=Z,3.0nm,0.9s,baz=138,slow=7.6,SNR=12
**VSR Storozhevoye 84.04 324** *e*P **P 12 24 22.0 -0.9**
VSR *e**PP **PcP 12 24 27.1 +0.4**
VSR pmax pmax
comp=Z,10.0nm,0.7s
**BR231 Keskin MP Arra 84.47 312** *e*P **P 12 24 23.1 -2.3**
**LPSR Galich'ya Gora 84.71 325** *e*P **P 12 24 26.2 0.0**
LPSR *e**PP **PcP 12 24 30.7 +1.1**
LPSR pmax pmax
comp=Z,10.0nm,1.0s
**MOS Moscow 86.60 328** *e*P **P 12 24 33.6 -1.9**
MOS *e* 12 27 56.7
MOS *e*PPP PPP 12 29 51.7
MOS pmax pmax
comp=Z,25nm,0.7s
**OBN Obninsk 86.93 327** *e*P **P 12 24 36.0 -1.1**
OBN *e* 12 28 00.5
OBN pmax pmax
comp=Z,11nm,1.0s
**BILL Bilibino 87.32 19** *c i*P **P 12 24 38.3 -0.5**
BILL *e* 12 28 06.1
BILL pmax pmax
comp=Z,7.0nm,0.7s
BILL MLR MLR
comp=Z,62nm,19.0s
**KLMR Klimovskoe 87.64 333** *e*P **P 12 24 39.4 -1.0**
KLMR pmax pmax
comp=Z,31nm,1.7s
**SNAA Sanae 87.66 197** P **P 12 24 41.6 +1.0**
**SNAA Sanae 87.66 197** *e*P **P 12 24 41.7 +1.1**
SNAA pmax pmax
comp=Z,15nm,1.1s
**SNAA Sanae 87.66 197** *e*P **P 12 24 41.7 +1.1**
comp=Z,15nm,1.1s
**VNA2 Neumayer--Watz 89.31 197** P **P 12 24 49.6 +1.3**
baz=96,slow=3.4
**VNA1 Neumayer--Stat 89.69 197** P **P 12 24 51.2 +1.1**
**VNA3 Neumayer Olymp 89.81 197** P **P 12 24 52.0 +1.3**
**AKASG Malin Array Be 89.83 321** P **P 12 24 49.7 -1.3**
comp=Z,0.2nm,0.2s,baz=81,slow=5.7,SNR=4.0
**KWP Kalwaria Pacla 93.70 320** *e*P **P 12 25 07.2 -1.9**
KWP pmax pmax
comp=Z,115nm,0.5s
**KWP Kalwaria Pacla 93.70 320** *e*P **P 12 25 07.2 -1.9**
comp=Z,114nm,0.5s
**FINES FINESS Array B 94.02 332** P **P 12 25 08.7 -1.5**
comp=Z,2.7nm,1.0s,baz=116,slow=6.3,SNR=2.6
**ARCES ARCESS Array B 95.82 339** P **P 12 25 18.0 -0.3**
comp=Z,0.6nm,0.3s,baz=111,slow=5.4,SNR=11
**TBI Tubuai 97.99 115** *e*LR LR 12 57 23.9
comp=Z,134nm,25.0s
**PPT2 Papeete2 99.19 110** *e*LR LR 12 58 01.0
comp=Z,118nm,24.8s
**GERES GERESS Array B 99.48 318** P **Pdif 12 25 37.8 +2.5**
comp=Z,0.3nm,0.5s,baz=114,slow=6.5,SNR=2.9
**HFS Hagfors 99.90 330** P **Pdif 12 25 37.3 +0.5**
comp=Z,3.3nm,1.0s,baz=228,slow=1.7,SNR=9.1
**ILAR Eielson Array 104.82 25** PKKPbc PKKPbc 12 41 42.6 -2.0
comp=Z,0.5nm,0.7s,baz=120,slow=1.3,SNR=5.0
ILAR PKKP **PKKPdf 12 41 53.5 -1.0**
comp=Z,0.4nm,0.9s,baz=122,slow=1.7,SNR=4.2
**TAOE Nuku Hiva Isla 110.09 103** *e*LR LR 13 03 05.9
comp=Z,71nm,23.5s
**YKA Yellowknife Ar 118.65 21** PKP **PKPdf 12 30 39.1 -0.9**
comp=Z,0.4nm,0.8s,baz=309,slow=1.4,SNR=6.8
YKA PKKPbc **PKKPbc 12 40 56.6 -1.9**
comp=Z,0.1nm,0.7s,baz=122,slow=5.0,SNR=5.2
**NVAR Mina Array Bea 129.55 47** PKP **PKPdf 12 31 01.9 -0.1**
comp=Z,0.2nm,0.3s,baz=243,slow=4.0,SNR=2.9
**PLCA Paso Flores 130.30 182** PKP **PKPdf 12 31 04.1 +0.9**
comp=Z,1.7nm,0.8s,baz=352,slow=2.2,SNR=4.6
**PDAR Pinedale Array 133.31 38** PKP **PKPdf 12 31 10.3 +1.4**
comp=Z,0.3nm,0.6s,baz=126,slow=2.0,SNR=3.6
**CPUP Villa Florida 141.82 202** PKP **PKPdf 12 31 26.2 +1.4**
comp=Z,1.3nm,0.6s,baz=80,slow=2.3,SNR=4.2
**Q34A Chapman 143.06 33** P PKPbc 12 31 23.1 -0.4
baz=317
**KSU1 Kansas State U 143.10 32** P PKPbc 12 31 23.4 -0.1
baz=318
**L40A Anamosa 143.26 24** P PKPbc 12 31 23.5 -0.3
baz=328
**R34A Isabella, Hill 143.34 34** P PKPbc 12 31 24.7 +0.5
baz=316
**P36A Good Intent, A 143.44 30** P PKPbc 12 31 24.2 -0.2
baz=320
**Q35A Mercer Eighty, 143.59 32** P PKPbc 12 31 24.8 -0.2
baz=318
**S34A Willow Spring 143.84 34** P PKPbc 12 31 25.6 -0.1
baz=316
**P37A Lathrop 143.88 29** P PKPab 12 31 25.4 +0.3
baz=321
**L42A Oliver, Polo 143.91 22** P PKPbc 12 31 26.1 +0.3
baz=330
**L43A Garden Prairie 144.09 21** P **PKPab 12 31 25.4 -0.4**
baz=332
**N40A Mertquake, Sal 144.10 25** P PKPbc 12 31 26.3 -0.1
baz=326
**M41A Milan 144.11 24** P **PKPab 12 31 25.5 -0.4**
baz=328
**O39A Kirksville 144.20 27** P PKPbc 12 31 26.6 -0.1
baz=324
**P38A Dawn 144.25 29** P PKPbc 12 31 26.8 -0.1
baz=322,SNR=8.4
**R36A Gordon, Harris 144.26 32** P **PKPab 12 31 26.5 -0.1**
baz=318,SNR=6.8
**T34A McCloskey Farm 144.28 35** P **PKPab 12 31 26.9 +0.2**
baz=315
**S35A Otter Creek Ra 144.30 34** P PKPbc 12 31 27.1 -0.1
baz=317,SNR=7.7
**M42A Sheffield 144.35 23** P **PKPab 12 31 26.8 0.0**
baz=330
**TXAR Lajitas Array 144.43 51** PKP **PKPdf 12 31 29.0 -0.4**
comp=Z,2.4nm,0.7s,baz=259,slow=2.0,SNR=36
**N41A Harden Midland 144.55 25** P **PKPab 12 31 27.2 -0.4**
baz=327,SNR=5.6
**O40A La Belle 144.60 26** P **PKPab 12 31 27.9 +0.1**
baz=325,SNR=11
**S36A Lake Cedric, C 144.66 33** P PKPbc 12 31 28.3 0.0
baz=318,SNR=20
**M43A Waltham Townsh 144.66 22** P PKPbc 12 31 28.1 0.0
baz=331,SNR=7.9
**P39B Salisbury 144.72 28** P **PKPab 12 31 28.3 0.0**
baz=323,SNR=14
**Q38A Cooks Store, C 144.73 29** P **PKPab 12 31 28.0 -0.3**
baz=322,SNR=10
**T35A Sooner Cattle 144.74 35** P PKPbc 12 31 28.9 +0.3
baz=316,SNR=16
**N42A Yates City 144.78 24** P **PKPab 12 31 28.3 -0.1**
baz=329,SNR=8.3
**WMOK Wichita Mounta 144.86 40** P PKPbc 12 31 29.5 +0.5
baz=310,SNR=44
**WMOK Wichita Mounta 144.86 40** *e*PKIKP PKPbc 12 31 29.3 +0.3
**WMOK Wichita Mounta 144.86 40** *e*PKPdf PKPbc 12 31 29.3 +0.3
**T36A Boggs Farm, Ca 144.99 34** P **PKPdf 12 31 29.8 -0.3**
baz=317,SNR=19
**U35A Pawnee 145.00 36** P **PKPdf 12 31 30.0 -0.1**
baz=315,SNR=23
**P40A Paris 145.01 27** P **PKPbc 12 31 29.5 +0.2**
baz=324,SNR=18
**N43A Stutzman Famil 145.01 23** P **PKPbc 12 31 29.2 0.0**
baz=330
**O41A Passleys Farm, 145.03 25** P **PKPbc 12 31 29.3 0.0**
baz=327,SNR=19
**M44A Midewin, Midew 145.04 21** P **PKPab 12 31 29.4 +0.1**
baz=332,SNR=7.9
**S37A Fort Scott 145.04 32** P **PKPbc 12 31 29.4 0.0**
baz=319,SNR=26
**R38A Fenwick Farm, 145.19 31** P **PKPbc 12 31 29.3 -0.7**
baz=320,SNR=14
**O42A Bath 145.30 24** P **PKPbc 12 31 29.9 -0.3**
baz=328
**M45A Boilermakers S 145.31 20** P **PKPdf 12 31 30.4 0.0**
baz=333
**P41A Barry, Barry 145.32 26** P **PKPab 12 31 30.4 0.0**
baz=326,SNR=14
**V35A Meyer Ranch, C 145.36 36** P **PKPdf 12 31 31.0 +0.3**
baz=314,SNR=6.5
**Q40A Laux Farm, Aux 145.43 28** P **PKPdf 12 31 30.8 +0.1**
baz=324,SNR=19
**T37A Cheneyville 18 145.46 33** P **PKPdf 12 31 30.9 +0.1**
baz=318,SNR=11
**R39A Chumby, Stover 145.51 29** P **PKPdf 12 31 30.9 -0.1**
baz=322,SNR=19
**O43A Sugar Creek Fa 145.53 23** P **PKPdf 12 31 30.9 0.0**
baz=329
**N44A Piper City 145.53 21** P **PKPab 12 31 31.1 0.0**
baz=332
**U36A Oologah 145.55 35** P **PKPab 12 31 31.3 -0.1**
baz=316
**M46A Old House Fiel 145.59 19** P **PKPab 12 31 31.5 +0.1**
baz=335
**ABTX Abilene, Hawle 145.60 43** P **PKPab 12 31 32.3 +0.5**
baz=307
**ABTX Abilene, Hawle 145.60 43** *e*PKPdf **PKPab 12 31 31.8 0.0**
**S38A Stockton 145.61 31** P **PKPdf 12 31 30.9 -0.2**
baz=320,SNR=15
**N45A Kentland 145.70 21** P **PKPab 12 31 31.7 -0.1**
baz=333
**P42A Winchester 145.70 25** P **PKPdf 12 31 31.2 +0.1**
baz=327,SNR=6.9
**W35A Tecumseh 145.76 37** P **PKPab 12 31 32.3 +0.1**
baz=313,SNR=8.3
**Q41A Truxton 145.84 27** P **PKPdf 12 31 31.4 0.0**
baz=325
**S39A Bolivar 145.86 30** P **PKPdf 12 31 31.7 +0.2**
baz=321,SNR=11
**T38A Diamond 145.86 32** P **PKPbc 12 31 32.1 -0.1**
baz=319,SNR=12
**TUL1 Leonard 145.86 35** P **PKPdf 12 31 31.6 0.0**
baz=316
**TUL1 Leonard 145.86 35** *e*PKPdf **PKPdf 12 31 31.5 0.0**
**V36A Jenks 145.86 36** P **PKPbc 12 31 32.3 +0.1**
baz=315,SNR=7.1
**U37A Salina 145.88 34** P **PKPbc 12 31 32.4 +0.2**
baz=317,SNR=5.1
**R40A Maddies Static 145.90 29** P **PKPbc 12 31 32.1 -0.1**
baz=323,SNR=22
**N46A Monticello 145.92 20** P **PKPbc 12 31 32.3 +0.2**
baz=334
**O44A Mansfield 145.97 22** P **PKPbc 12 31 32.3 0.0**
baz=331
**P43A Skaggs, Pawnee 145.99 24** P **PKPbc 12 31 32.5 0.0**
baz=328
**W36A Wetumka 146.15 37** P **PKPbc 12 31 33.1 0.0**
baz=314
**O45A Potomac 146.16 21** P **PKPbc 12 31 33.0 +0.1**
baz=332
**Q42A Golden Eagle 146.18 26** P **PKPbc 12 31 33.1 +0.1**
baz=326
**X35A Drake 146.21 38** P **PKPbc 12 31 33.5 +0.2**
baz=312,SNR=10.0
**V37A Hulbert 146.25 35** P **PKPbc 12 31 33.3 0.0**
baz=316,SNR=11
**U38A Gravette 146.26 33** P **PKPbc 12 31 33.3 -0.1**
baz=318,SNR=9.5
**SFIN Lafayette 146.26 21** P **PKPbc 12 31 33.3 +0.2**
baz=333
**SFIN Lafayette 146.26 21** *e*PKPdf **PKPdf 12 31 32.4 +0.3**
**R41A Rosebud 146.31 28** P **PKPbc 12 31 33.5 +0.1**
baz=324,SNR=18
**S40A Lebanon 146.34 30** P **PKPbc 12 31 33.4 -0.2**
baz=322,SNR=14
**T39A Clever 146.35 31** P **PKPbc 12 31 33.3 -0.2**
baz=320,SNR=8.3
**X36A Centrahoma 146.47 38** P **PKPbc 12 31 33.9 -0.1**
baz=313
**P44A Sand Creek, Wi 146.50 23** P **PKPbc 12 31 34.2 +0.2**
baz=330,SNR=5.1
**Q43A New Douglas 146.51 25** P **PKPbc 12 31 33.9 -0.1**
baz=328
**CCM Cathedral Cave 146.57 28** P **PKPbc 12 31 34.2 0.0**
baz=324
**CCM Cathedral Cave 146.57 28** *e*PKP2 **PKPbc 12 31 33.8 -0.4**
**CCM Cathedral Cave 146.57 28** *e*PKPdf **PKPbc 12 31 33.8 -0.4**
**R42A Luebbering 146.59 27** P **PKPbc 12 31 34.0 -0.2**
baz=325,SNR=12
**W37B Quinton 146.62 36** P **PKPbc 12 31 34.3 -0.1**
baz=315,SNR=6.5
**V38A Canehill 146.67 34** P **PKPbc 12 31 34.4 -0.2**
baz=318,SNR=15
**T40A Mansfield 146.68 30** P **PKPbc 12 31 34.2 -0.4**
baz=322
**O47A Sheridan 146.70 20** P **PKPbc 12 31 34.2 -0.3**
baz=334
**S41A Jillco Farms, 146.71 29** P **PKPbc 12 31 34.5 -0.1**
baz=323,SNR=16
**JCT Junction City 146.72 47** P **PKPbc 12 31 35.5 +0.5**
baz=304
**JCT Junction City 146.72 47** *e*PKP2 **PKPab 12 31 35.6 -0.5**
**JCT Junction City 146.72 47** *e*PKPdf **PKPab 12 31 35.6 -0.5**
**P45A Graceland, Par 146.78 22** P **PKPbc 12 31 34.6 -0.1**
baz=331
**U39A Green Forest 146.78 32** P **PKPbc 12 31 34.5 -0.4**
baz=320,SNR=11
**Q44A Meyer Farm, Va 146.83 24** P **PKPbc 12 31 34.6 -0.3**
baz=329
**P46A Rosedale 146.90 21** P **PKPbc 12 31 34.5 -0.6**
baz=332
**BINY Binghamton 146.96 5** *e*PKPdf **PKPbc 12 31 34.4 -0.9**
**Y36A Durant 146.96 38** P **PKPbc 12 31 35.0 -0.4**
baz=313
**R43A Red Bud 146.97 26** P **PKPbc 12 31 34.9 -0.5**
baz=327,SNR=10.0
**S42A Caledonia 147.01 28** P **PKPbc 12 31 35.4 -0.1**
baz=325,SNR=16
**X37A Clayton 147.04 36** P **PKPbc 12 31 35.7 0.0**
baz=315
**V39A Pettigrew 147.10 33** P **PKPbc 12 31 35.6 -0.3**
baz=319
**U40A Yellville 147.13 31** P **PKPbc 12 31 35.4 -0.4**
baz=320,SNR=9.2
**T41A Mountain View 147.14 29** P **PKPbc 12 31 35.6 -0.2**
baz=323
**M54A Oil Creek Stat 147.16 10** P **PKPbc 12 31 35.8 0.0**
baz=346
**Q45A Warren Harvey, 147.18 23** P **PKPbc 12 31 36.2 +0.3**
baz=330
**W38A Poteau 147.19 35** P **PKPbc 12 31 36.2 +0.1**
baz=317
**Z36A Blue Ridge 147.29 39** P **PKPbc 12 31 36.7 +0.3**
baz=312
**X38A Whitesboro 147.30 36** P **PKPbc 12 31 36.5 +0.1**
baz=316
**P47A Martinsville 147.34 20** P **PKPbc 12 31 36.2 -0.1**
baz=334
**R44A Waltonville 147.36 25** P **PKPbc 12 31 36.5 +0.1**
baz=328
**WHTX Lake Whitney, 147.46 42** P **PKPbc 12 31 36.6 -0.3**
baz=309
**WHTX Lake Whitney, 147.46 42** *e*PKPdf **PKPdf 12 31 34.3 0.0**
**T42A Van Buren 147.47 29** P **PKPbc 12 31 36.9 +0.1**
baz=324
**S43A Fulton Ridge, 147.50 27** P **PKPbc 12 31 36.2 -0.7**
baz=326
**W39A Magazine 147.50 34** P **PKPbc 12 31 36.4 -0.5**
baz=318
**V40A Witts Springs 147.56 32** P **PKPbc 12 31 36.6 -0.5**
baz=320
**U41A Viola 147.61 30** P **PKPbc 12 31 36.9 -0.3**
baz=322
**N54A Moraine State 147.63 11** P **PKPbc 12 31 36.8 -0.3**
baz=346
**R45A Skylar, Fairfi 147.65 24** P **PKPbc 12 31 36.8 -0.4**
baz=330
**ACSO Alum Creek Sta 147.65 15** P **PKPbc 12 31 36.9 -0.3**
baz=340
**ACSO Alum Creek Sta 147.65 15** *e*PKPdf **PKPbc 12 31 36.3 -0.9**
**S44A Carbondale 147.75 26** P **PKPbc 12 31 37.1 -0.4**
baz=327
**136A Ennis 147.75 41** P **PKPbc 12 31 38.2 +0.5**
baz=311
**Q47A Bedord North L 147.78 21** P **PKPbc 12 31 37.4 -0.1**
baz=333
**T43A Greenville 147.80 28** P **PKPbc 12 31 37.6 -0.1**
baz=325
**X39A Fountain Ranch 147.82 35** P **PKPbc 12 31 38.0 +0.2**
baz=317
**W40A Ferguson Farm, 147.90 33** P **PKPbc 12 31 38.0 0.0**
baz=319
**V41A Mountainview 147.93 31** P **PKPbc 12 31 37.8 -0.3**
baz=321
**U42A Revenden 147.94 30** P **PKPbc 12 31 38.0 0.0**
baz=323
**R46A Gibon Southern 148.02 23** P **PKPbc 12 31 38.0 -0.2**
baz=331
**S45A Carrier Mills 148.05 25** P **PKPbc 12 31 38.4 +0.1**
baz=328
**236A Katherine and 148.06 41** P **PKPbc 12 31 38.0 -0.5**
baz=310
**MIAR Mount Ida 148.10 35** P **PKPbc 12 31 39.0 +0.4**
baz=317
**MIAR Mount Ida 148.10 35** *e*PKP2 **PKPbc 12 31 37.5 -1.1**
**MIAR Mount Ida 148.10 35** *e*PKPdf **PKPbc 12 31 37.5 -1.1**
**T44A Benton 148.11 27** P **PKPbc 12 31 38.7 +0.2**
baz=326
**833A Chaparral WMA, 148.18 50** P **PKPbc 12 31 39.0 0.0**
baz=302
**Y39A Lockesburg 148.24 36** P **PKPbc 12 31 38.8 -0.1**
baz=316
**N59A State Game Lan 148.25 5** P **PKPbc 12 31 39.2 +0.4**
baz=353
**V42A Cord 148.30 30** P **PKPbc 12 31 38.8 -0.2**
baz=322
**R47A Wooly Knot Far 148.31 22** P **PKPbc 12 31 38.6 -0.4**
baz=332
**W41B Gary Mavity, V 148.35 32** P **PKPbc 12 31 38.8 -0.4**
baz=320
**S46A Don Dixon Farm 148.40 24** P **PKPbc 12 31 38.9 -0.3**
baz=330
**R48A Northridge Ran 148.45 21** P **PKPbc 12 31 39.5 +0.1**
baz=334
**WCI Wyandotte Cave 148.46 21** P **PKPbc 12 31 39.5 +0.1**
baz=333
**WCI Wyandotte Cave 148.46 21** *e*PKIKP **PKPdf 12 31 35.6 -0.2**
**WCI Wyandotte Cave 148.46 21** *e*PKPdf **PKPdf 12 31 35.6 -0.2**
**138A Matatall Enter 148.54 39** P **PKPbc 12 31 40.6 +0.9**
baz=313
**O56A Blue Knob Stat 148.55 9** P **PKPbc 12 31 40.2 +0.6**
baz=348
**U44A Portageville 148.55 27** P **PKPbc 12 31 40.4 +0.8**
baz=326
**X41A Kaden, Bauxite 148.72 33** P **PKPbc 12 31 40.1 0.0**
baz=319
**T46A Princeton 148.88 25** P **PKPbc 12 31 40.9 +0.4**
baz=329
**139A Bunkhouse Ranc 148.95 38** P **PKPbc 12 31 40.3 -0.5**
baz=314
**S48A Wiedeman Farm, 149.05 22** P **PKPbc 12 31 41.0 +0.1**
baz=333
**Z40A Long Farm, Mag 149.13 36** P **PKPbc 12 31 41.5 +0.3**
baz=316
**T47A Sharon Grove 149.24 24** P **PKPbc 12 31 41.6 +0.2**
baz=330
**U46A Springville 149.34 26** P **PKPbc 12 31 41.9 +0.3**
baz=328
**T48A Bowling Green 149.41 23** P **PKPbc 12 31 42.0 +0.2**
baz=332
**U47A Clarksville 149.64 24** P **PKPbc 12 31 42.6 +0.2**
baz=330
**WVT Waverly 149.68 25** P **PKPbc 12 31 42.8 +0.3**
baz=328
**U48A Cassie Pea, Po 149.88 23** P **PKPbc 12 31 43.1 +0.1**
baz=331
**241A Mo Tay, Goldon 150.30 37** P **PKPbc 12 31 44.3 +0.1**
baz=316
**V48A Smith Brothers 150.44 24** P **PKPbc 12 31 43.5 -0.9**
baz=330
**341A Kurthwood 150.63 38** P **PKPbc 12 31 43.4 -1.6**
baz=314
**X48A Hartselle 151.44 26** P **PKPbc 12 31 45.1 -1.6**
baz=328
**145A Houston Renfro 151.55 32** P **PKPbc 12 31 44.8 -2.2**
baz=321
**146A Union 151.98 31** P **PKPbc 12 31 45.8 -2.3**
baz=323
**444A Pine Grove 152.53 36** P **PKPbc 12 31 46.3 -3.0**
baz=318
**LRAL Lakeview Retre 152.66 28** P **PKPbc 12 31 46.4 -3.2**
baz=327
**247A Quitman 152.68 31** P **PKPdf 12 31 45.8 +3.2**
baz=323
**446A Poplarville 153.25 34** P **PKPbc 12 31 48.3 -2.6**
baz=320
**448A Bay Minette 153.95 32** P **PKPbc 12 31 49.0 -3.4**
baz=323
**BRAL Brewton 154.17 30** P **PKPbc 12 31 49.6 -3.3**
baz=325
**LPAZ La Paz 154.35 189** PKPbc **PKPbc 12 31 56.6 +2.2**
comp=Z,2.5nm,0.6s,baz=215,slow=6.5,SNR=8.8

*NEIC* ***22*** *12:15:56.6±0.0, 47.°67S×165.°04E, h43km, ML4.1(WEL), After WEL.*

**WEL 22 12:16:02.3±0.8, 47.°44S×165.°34E, h33km, ML4.0/10, 3D, Error ellipse: s-maj=8.1km s-min=5.2km az=90.0, Off west coast of South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **PYZ** | **Puysegur Point** | **1.57** | **36** | Pn | Pn | Pn | Pn | 12 16 27.0 | -0.9 |
| **PYZ** | **Puysegur Point** | **1.57** | **36** | ‖PN | Pn | Pn | Pn | 12 16 27.0 | -0.9 |
| PYZ | | | | SN | Sn | Sn | Sn | 12 16 46.3 | -0.7 |
| PYZ | | | | AML | AML | AML | AML | 12 16 52.7 | |
| PYZ | | | | AML | AML | AML | AML | 12 16 52.7 | |
| PYZ | | | | AML | AML | AML | AML | 12 16 58.6 | |
| **APZ** | **The Paps** | **1.91** | **72** | Pn | Pn | Pn | Pn | 12 16 31.0 | -1.5 |
| **APZ** | **The Paps** | **1.91** | **72** | ‖PN | Pn | Pn | Pn | 12 16 31.0 | -1.5 |
| APZ | | | | SN | Sn | Sn | Sn | 12 16 53.0 | -2.3 |
| APZ | | | | AML | AML | AML | AML | 12 16 54.0 | |
| **DCZ** | **Deep Cove** | **2.34** | **33** | Pn | Pn | Pn | Pn | 12 16 37.5 | -0.9 |
| DCZ | | | | SN | Sn | Sn | Sn | 12 17 08.8 | +2.9 |
| **DCZ** | **Deep Cove** | **2.34** | **33** | PN | Pn | Pn | Pn | 12 16 37.5 | -0.9 |
| DCZ | | | | AML | AML | AML | AML | 12 17 18.9 | |
| DCZ | | | | AML | AML | AML | AML | 12 17 20.4 | |
| **WHZ** | **Wether Hill Ro** | **2.37** | **50** | Pn | Pn | Pn | Pn | 12 16 37.9 | -0.9 |
| **WHZ** | **Wether Hill Ro** | **2.37** | **50** | PN | Pn | Pn | Pn | 12 16 37.9 | -0.9 |
| WHZ | | | | SN | Sn | Sn | Sn | 12 17 05.3 | -1.4 |
| WHZ | | | | AML | AML | AML | AML | 12 17 09.5 | |
| **SYZ** | **Scrubby Hill** | **2.75** | **72** | Pn | Pn | Pn | Pn | 12 16 43.5 | -0.5 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **SYZ** | **Scrubby Hill** | **2.75** | **72** | PN | Pn | 12 16 43.5 | -0.5 |
| SYZ | | | | SN | Sn | 12 17 16.0 | -0.1 |
| SYZ | | | | AML | AML | 12 17 19.1 | |
| SYZ | | | | AML | AML | 12 17 19.2 | |
| SYZ | | | | AML | AML | 12 17 19.3 | |
| **MLZ** | **Mavora Lakes** | **2.83** | **44** | Pn | Pn | 12 16 45.4 | +0.3 |
| **MLZ** | **Mavora Lakes** | **2.83** | **44** | PN | Pn | 12 16 45.4 | +0.3 |
| MLZ | | | | AML | AML | 12 17 21.4 | |
| MLZ | | | | AML | AML | 12 17 25.4 | |
| **TUZ** | **Tuapeka** | **3.30** | **65** | Pn | Pn | 12 16 51.0 | -0.6 |
| **TUZ** | **Tuapeka** | **3.30** | **65** | PN | Pn | 12 16 51.0 | -0.6 |
| TUZ | | | | AML | AML | 12 17 30.9 | |
| TUZ | | | | AML | AML | 12 17 30.9 | |
| TUZ | | | | AML | AML | 12 17 31.3 | |
| TUZ | | | | AML | AML | 12 17 31.5 | |
| **EAZ** | **Earnscleugh** | **3.52** | **53** | Pn | Pn | 12 16 54.0 | -0.8 |
| **EAZ** | **Earnscleugh** | **3.52** | **53** | *e*PN | Pn | 12 16 53.9 | -0.8 |
| EAZ | | | | AML | AML | 12 17 36.9 | |
| EAZ | | | | AML | AML | 12 17 39.2 | |
| **WKZ** | **Wanaka** | **3.65** | **46** | Pn | Pn | 12 16 57.6 | +1.1 |
| **WKZ** | **Wanaka** | **3.65** | **46** | PN | Pn | 12 16 57.6 | +1.1 |
| WKZ | | | | AML | AML | 12 17 46.4 | |
| WKZ | | | | AML | AML | 12 17 47.6 | |
| **HHSZ** | **Highcliff Hill** | **3.94** | **69** | Pn | Pn | 12 17 00.1 | -0.3 |
| **HHSZ** | **Highcliff Hill** | **3.94** | **69** | PN | Pn | 12 17 00.1 | -0.3 |
| **JCZ** | **Jackson Bay** | **4.14** | **37** | Pn | Pn | 12 17 04.7 | +1.5 |
| **JCZ** | **Jackson Bay** | **4.14** | **37** | PN | Pn | 12 17 04.7 | +1.5 |
| JCZ | | | | AML | AML | 12 18 06.5 | |
| JCZ | | | | AML | AML | 12 18 08.0 | |
| **ODZ** | **Otahua Downs** | **4.39** | **59** | Pn | Pn | 12 17 04.2 | -2.4 |
| **ODZ** | **Otahua Downs** | **4.39** | **59** | ⇓PN | Pn | 12 17 04.2 | -2.4 |
| **LBZ** | **Lake Benmore** | **4.55** | **50** | Pn | Pn | 12 17 07.6 | -1.2 |
| **LBZ** | **Lake Benmore** | **4.55** | **50** | PN | Pn | 12 17 07.6 | -1.2 |
| **FOZ** | **Fox Glacier** | **5.01** | **40** | Pn | Pn | 12 17 15.3 | +0.2 |
| **FOZ** | **Fox Glacier** | **5.01** | **40** | PN | Pn | 12 17 15.3 | +0.2 |
| **RPZ** | **Rata Peaks** | **5.47** | **49** | PN | Pn | 12 17 18.8 | -2.7 |
| **DSZ** | **Denniston Nort** | **7.32** | **41** | Pn | Pn | 12 17 46.2 | -0.8 |
| **DSZ** | **Denniston Nort** | **7.32** | **41** | *e*PN | Pn | 12 17 45.5 | -1.5 |
| **THZ** | **Tophouse** | **7.83** | **46** | Pn | Pn | 12 17 52.6 | -1.3 |
| **THZ** | **Tophouse** | **7.83** | **46** | *e*PN | Pn | 12 17 52.6 | -1.3 |
| **QRZ** | **Quartz Range** | **8.39** | **41** | Pn | Pn | 12 18 00.7 | -0.8 |
| **QRZ** | **Quartz Range** | **8.39** | **41** | *e*PN | Pn | 12 18 00.5 | -0.9 |

**IDC 22 12:20:56.2±1.2, 26°26.26N×143°03.04E, h0km, mb3.5/5, mb1 3.6/5, mb1mx3.3/41, mbtmp3.5/5, Error ellipse: s-maj=44.1km s-min=24.2km az=88.0, Bonin Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SONM** | **Songino Array** | **35.85** | **317** | P | P | 12 27 57.9 | +0.2 |
| | 0.8nm,0.7s,baz=125,slow=8.4,SNR=4.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **46.70** | **191** | P | P | 12 29 27.1 | +0.2 |
| | 0.4nm,0.3s,baz=13,slow=8.4,SNR=8.5 | | | | | | |
| **ASAR** | **Alice Springs** | **50.41** | **191** | P | P | 12 29 55.0 | -0.6 |
| | 0.2nm,0.8s,baz=7.0,slow=6.7,SNR=3.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **51.60** | **310** | P | P | 12 30 03.9 | -0.4 |
| | 0.7nm,0.8s,baz=97,slow=8.7,SNR=4.9 | | | | | | |
| **ILAR** | **Eielson Array** | **58.08** | **28** | P | P | 12 30 50.9 | -0.1 |
| | 0.1nm,0.3s,baz=270,slow=6.3,SNR=4.3 | | | | | | |

*CSEM **22** 12:26:57.9±0.2, 39.18N×28.97E, h8km, ML2.7, Error ellipse: s-maj=4.6km s-min=3.7km az=119.0*
*ISK **22** 12:26:57.4, 39.20N×28.91E, h5km, ML2.7*
*DDA **22** 12:26:58.1, 39.17N×28.99E, h9km, Md2.7*

**ISC 22 12:26:58.1±0.8, 39°17.17N±0.03×28°29.96E±0.02, h12km±6km, n47, σ0.71, 60, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SIMA** | **Simav-Kutahya** | **0.09** | **170** | *e*PG | **Pg** | **12 27 01.0** | **+0.1** |
| SIMA | | | | *e*SG | **Sg** | **12 27 02.5** | **-0.4** |
| **SIMA** | **Simav-Kutahya** | **0.09** | **170** | *e*Pg | **Pg** | **12 27 01.0** | **+0.1** |
| SIMA | | | | *e*Sg | **Sg** | **12 27 02.5** | **-0.4** |
| **DEMI** | **Demirci** | **0.23** | **236** | *i* P | **Pb** | **12 27 04.0** | **-0.4** |
| DEMI | | | | *i* S | **Sg** | **12 27 07.6** | **+1.2** |
| **DEMI** | **Demirci** | **0.23** | **236** | P | **Pb** | **12 27 04.0** | **-0.4** |
| DEMI | | | | S | **Sg** | **12 27 07.6** | **+1.2** |
| **GDZ** | **Gediz** | **0.41** | **102** | *i* P | **Pg** | **12 27 05.4** | **-0.9** |
| **GDZ** | **Gediz** | **0.41** | **102** | P | **Pg** | **12 27 05.4** | **-0.9** |
| **TVSB** | **Tavsanli** | **0.47** | **54** | *e*PG | **Pg** | **12 27 07.2** | **-0.3** |
| **TVSB** | **Tavsanli** | **0.47** | **54** | *e*Pg | **Pg** | **12 27 07.2** | **-0.3** |
| **KULA** | **Kula-Manisa** | **0.70** | **200** | *e*PG | **Pg** | **12 27 11.6** | **-0.1** |
| **KULA** | **Kula-Manisa** | **0.70** | **200** | *e*Pg | **Pg** | **12 27 11.6** | **-0.1** |
| **MANT** | **Manisa** | **0.75** | **205** | P | **Pg** | **12 27 12.6** | **-0.1** |
| **MANT** | **Manisa** | **0.75** | **205** | P | **Pg** | **12 27 12.6** | **-0.1** |
| **ORLT** | **Orhaneli** | **0.87** | **357** | *e*PG | **Pg** | **12 27 14.0** | **-1.0** |
| **ORLT** | **Orhaneli** | **0.87** | **357** | *e*Pg | **Pg** | **12 27 14.0** | **-1.0** |
| **KHAL** | **Karahalli** | **0.90** | **153** | *i* P | **Pg** | **12 27 14.8** | **-0.8** |
| **KHAL** | **Karahalli** | **0.90** | **153** | P | **Pg** | **12 27 14.8** | **-0.8** |
| **AKHS** | **Akhisar** | **0.94** | **252** | *i* P | **Pn** | **12 27 17.2** | **-0.1** |
| AKHS | | | | *i* S | **Sn** | **12 27 30.3** | **-0.4** |
| **AKHS** | **Akhisar** | **0.94** | **252** | P | **Pn** | **12 27 17.2** | **-0.1** |
| AKHS | | | | S | **Sn** | **12 27 30.3** | **-0.4** |
| **AKS** | **Akhisar** | **0.94** | **252** | *e*PG | **Pg** | **12 27 15.1** | **-1.2** |
| **AKS** | **Akhisar** | **0.94** | **252** | *e*Pg | **Pg** | **12 27 15.1** | **-1.2** |
| **BALB** | **Balikesir** | **0.96** | **299** | *e*PG | **Pg** | **12 27 15.1** | **-1.6** |
| **BALB** | **Balikesir** | **0.96** | **299** | *e*Pg | **Pg** | **12 27 15.1** | **-1.6** |
| **IGD** | **Bursa** | **1.10** | **10** | *i* P | **Pg** | **12 27 19.3** | **-0.1** |
| IGD | | | | *i* S | **Sg** | **12 27 34.0** | **+0.2** |
| **BALY** | **Balya** | **1.18** | **299** | *i* P | **Pg** | **12 27 21.5** | **+0.6** |
| BALY | | | | *i* S | **Sn** | **12 27 37.4** | **+0.7** |
| **BALY** | **Balya** | **1.18** | **299** | P | **Pg** | **12 27 21.5** | **+0.6** |
| BALY | | | | S | **Sn** | **12 27 37.4** | **+0.7** |
| **KCTX** | **Karacabey (Bur** | **1.19** | **337** | *e*PN | **Pb** | **12 27 19.7** | **-1.0** |
| **KCTX** | **Karacabey (Bur** | **1.19** | **337** | *e*Pn | **Pb** | **12 27 19.7** | **-1.0** |
| **MDNY** | **Mudanya-Bursa** | **1.20** | **357** | *e*PN | **Pn** | **12 27 19.7** | **-1.0** |
| **MDNY** | **Mudanya-Bursa** | **1.20** | **357** | *e*Pn | **Pn** | **12 27 19.7** | **-1.0** |
| **CAVI** | **Cavuskoy** | **1.23** | **33** | *e*PN | **Pb** | **12 27 21.4** | **0.0** |
| CAVI | | | | *e*SN | **Sn** | **12 27 38.7** | **+0.8** |
| **CAVI** | **Cavuskoy** | **1.23** | **33** | *e*Pn | **Pb** | **12 27 21.4** | **0.0** |
| CAVI | | | | *e*Sn | **Sn** | **12 27 38.7** | **+0.8** |
| **GONE** | **Gonen-Balikesi** | **1.32** | **312** | *e*PN | **Pn** | **12 27 22.4** | **0.0** |
| **GONE** | **Gonen-Balikesi** | **1.32** | **312** | *e*Pn | **Pn** | **12 27 22.4** | **0.0** |
| **ADVT** | **Abdulvahap** | **1.39** | **25** | *e*PN | **Pb** | **12 27 23.7** | **-0.4** |
| **ADVT** | **Abdulvahap** | **1.39** | **25** | *e*Pn | **Pb** | **12 27 23.7** | **-0.4** |
| **ARMT** | **Armutlu** | **1.39** | **357** | *e*PN | **Pn** | **12 27 23.7** | **+0.2** |
| **ARMT** | **Armutlu** | **1.39** | **357** | *e*Pn | **Pn** | **12 27 23.7** | **+0.2** |
| **YLV** | **Yalova** | **1.43** | **13** | *e*PN | **Pb** | **12 27 24.4** | **-0.3** |
| **YLV** | **Yalova** | **1.43** | **13** | *e*Pn | **Pb** | **12 27 24.4** | **-0.3** |
| **SBT5** | **Esenkoy-Cinarc** | **1.46** | **358** | *e*PN | **Pn** | **12 27 24.6** | **+0.3** |
| **SBT5** | **Esenkoy-Cinarc** | **1.46** | **358** | *e*Pn | **Pn** | **12 27 24.6** | **+0.3** |
| **GEYV** | **SAKARYA_Geyve** | **1.66** | **38** | *i* P | **Pb** | **12 27 29.2** | **+0.5** |
| **GEYV** | **SAKARYA_Geyve** | **1.66** | **38** | P | **Pb** | **12 27 29.2** | **+0.5** |
| **GULT** | **Gulveren** | **1.73** | **43** | *e*PN | **Pn** | **12 27 28.9** | **+0.7** |
| **GULT** | **Gulveren** | **1.73** | **43** | *e*Pn | **Pn** | **12 27 29.0** | **+0.7** |
| **BAYC** | **CANAKKALE_Bayr** | **1.95** | **288** | *i* P | **Pg** | **12 27 36.5** | **+0.9** |
| BAYC | | | | *i* S | **Sg** | **12 28 01.3** | **+0.4** |
| **BAYC** | **CANAKKALE_Bayr** | **1.95** | **288** | P | **Pg** | **12 27 36.5** | **+0.9** |
| BAYC | | | | S | **Sg** | **12 28 01.3** | **+0.4** |

**IDC 22 12:33:38.7±2.0, 1°40N×126°51E, h0km, mb3.3/3, mb1 3.5/3, mb1mx3.3/35, mbtmp3.4/3, Error ellipse: s-maj=166.1km s-min=24.7km az=66.0, Northern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **22.56** | **160** | P | P | 12 38 40.8 | +0.1 |
| | 0.5nm,0.4s,baz=339,slow=10,SNR=18 | | | | | | |
| **ASAR** | **Alice Springs** | **25.93** | **164** | P | P | 12 39 12.7 | -0.3 |
| | 0.3nm,0.7s,baz=344,slow=7.9,SNR=6.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **59.34** | **326** | P | P | 12 43 42.8 | +0.1 |
| | 0.3nm,0.5s,baz=115,slow=6.8,SNR=3.6 | | | | | | |

**PRU 22 12:36:31.5, 50.44N×19.39E, h0km, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OJC** | **Ojcow** | **0.34** | **130** | *e*Pg | Pg | 12 36 37.9 | -0.2 |
| OJC | | | | *e*Sg | Sg | 12 36 42.4 | 0.0 |
| **KRLC** | **Kraliky** | **1.71** | **259** | *e*SG | Sn | 12 37 24.9 | -0.4 |
| **DPC** | **Dobruska-Polom** | **1.96** | **269** | *e*SG | Sg | 12 37 34.2 | -0.4 |

**KRSC 22 12:45:16.1±1.5, 49.18N×156.36E, h40km±17km, ML3.9, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SKR** | **Severo-Kuril's** | **1.51** | **354** | *e*P | Pn | 12 45 41.2 | +0.6 |
| SKR | | | | *e*S | Sn | 12 45 59.9 | +0.8 |
| **PAU** | **Pauzhetka** | **2.31** | **7** | *e*P | Pn | 12 45 54.1 | +2.6 |
| PAU | | | | *e*S | Sn | 12 46 22.1 | +3.4 |
| **KDTR** | **Khodutka, Kamc** | **2.85** | **22** | *e*P | Pn | 12 46 02.1 | +3.1 |
| KDTR | | | | *e*S | Sn | 12 46 37.0 | +5.0 |
| **ASAK** | **Asacha** | **3.35** | **16** | *e*P | Pn | 12 46 10.6 | +4.6 |
| **MTVR** | **Mutnovka** | **3.50** | **19** | *e*P | Pn | 12 46 12.7 | +4.6 |
| MTVR | | | | *e*S | Sn | 12 46 52.7 | +4.4 |
| **RUS** | **Russkaya** | **3.53** | **22** | *e*P | Pn | 12 46 12.1 | +3.8 |
| RUS | | | | *e*S | Sn | 12 46 53.2 | +4.4 |
| **KRMR** | **Karymshinskiy** | **3.82** | **16** | *e*S | Sn | 12 47 01.8 | +5.9 |
| **PET** | **Petropavlovsk** | **4.11** | **20** | *e*S | Sn | 12 47 08.5 | +5.4 |
| **AVH** | **Avacha** | **4.35** | **19** | *e*P | Pn | 12 46 25.2 | +5.5 |
| **SDLR** | **Sedlovina** | **4.40** | **20** | *e*P | Pn | 12 46 23.9 | +3.5 |
| **SPN** | **Mys Shipunski** | **4.55** | **29** | *e*P | Pn | 12 46 25.8 | +3.5 |
| SPN | | | | *e*S | Sn | 12 47 19.0 | +5.1 |
| **GNL** | **Ganaly** | **4.63** | **12** | *e*P | Pn | 12 46 27.2 | +3.7 |

*NIED **22** 12:56:00, 39.80N×143.60E, h17km, Mw4.5 Best double couple: M0 6.70000×10^15 NP1:φ=199.00000°, δ=29.00000°, λ=82.00000°. NP2:φ=28.00000°, δ=61.00000°, λ=94.00000°.*
*IDC **22** 12:56:26.5±0.5, 39.73N×143.40E, h0km, mb4.1/27, mb1 4.2/30, mb1mx4.1/46, mbtmp4.1/30, ML3.9/3, MS3.8/22, Ms1 3.9/22, ms1mx3.6/42, Error ellipse: s-maj=15.2km s-min=11.6km az=101.0*
*JMA **22** 12:56:27.0±0.2, 39.80N×143.59E, h27km, M4.4*
*ISCJB **22** 12:56:27.7±1.0, 39.79N±0.03×143.54E±0.04, h22km±7km, mb4.4/58, MS4.1/29, Error ellipse: s-maj=6.2km s-min=3.0km az=39.1*
*MOS **22** 12:56:29.9±1.3, 39.81N×143.54E, h38km, mb4.7/15, Error ellipse: s-maj=8.8km s-min=5.4km az=90.0*
*NEIC **22** 12:56:32.2±0.7, 39.78N×143.34E, h38km±6km, mb4.6/12, Error ellipse: s-maj=8.0km s-min=4.7km az=114.0*
*BJI **22** 12:56:33.0, 39.84N×142.73E, h28km, mb4.6/47, mB4.8/31, Ms4.4/32, Ms7 4.2/31*

**ISC 22 12:56:30.7±0.6, 39.78N±0.04×143.40E±0.05, h29km±3km, h29km:pP-P, n161, σ2.09/182, mb4.5/57, MS4.1/29, 8C-3D, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JTH** | **Tanohata** | **1.19** | **278** | P | **Pn** | **12 56 50.2** | **-1.3** |
| JTH | | | | *e*S | **Sn** | **12 57 07.2** | **+0.4** |
| **MIYJ** | **Miyakonagasawa** | **1.24** | **261** | P | **Pn** | **12 56 51.2** | **-0.9** |
| MIYJ | | | | *e*S | **Sb** | **12 57 08.7** | **-0.3** |
| **JANG** | **Nango** | **1.56** | **293** | P | **Pn** | **12 56 55.3** | **-1.3** |
| JANG | | | | *e*S | **Sn** | **12 57 16.1** | **+0.2** |
| **JOM** | **Ohasama** | **1.66** | **260** | P | **Pn** | **12 56 57.7** | **-0.2** |
| JOM | | | | S | **Sn** | **12 57 19.2** | **+1.0** |
| **JMK** | **Ichinoseki** | **1.88** | **245** | P | **Pn** | **12 57 00.2** | **-0.7** |
| JMK | | | | S | **Sn** | **12 57 24.8** | **+1.1** |
| **ERM** | **Erimo** | **2.24** | **355** | *e*P | **Pn** | **12 57 06.6** | **+0.7** |
| **ERM** | **Erimo** | **2.24** | **355** | *e*Pn | **Pn** | **12 57 07.0** | **+1.1** |
| **JOT** | **Ohata** | **2.41** | **313** | P | **Pn** | **12 57 07.9** | **-0.2** |
| JOT | | | | *e*S | **Sn** | **12 57 38.0** | **+1.4** |
| **JYK** | **Kaneyama** | **2.51** | **251** | P | **Pn** | **12 57 09.5** | **-0.1** |
| **JNBK** | **Urakawa-nobuka** | **2.55** | **349** | P | **Pn** | **12 57 10.3** | **+0.2** |
| **JKB** | **Kayabe** | **2.77** | **320** | P | **Pn** | **12 57 14.4** | **+1.2** |
| **JCH** | **Churui** | **2.83** | **359** | P | **Pn** | **12 57 13.4** | **-0.7** |
| JCH | | | | *e*S | **Sn** | **12 57 46.0** | **-1.2** |
| **JFT** | **Otama** | **3.29** | **228** | P | **Pn** | **12 57 20.0** | **-0.4** |
| JFT | | | | *e*S | **Sn** | **12 57 59.6** | **+1.0** |
| **JAK** | **Akkeshi** | **3.36** | **16** | P | **Pn** | **12 57 19.6** | **-1.7** |
| JAK | | | | *e*S | **Sn** | **12 57 58.2** | **-2.0** |
| **JAR** | **Ashorobuto** | **3.53** | **4** | P | **Pn** | **12 57 22.3** | **-1.3** |
| JAR | | | | *e*S | **Sn** | **12 58 02.5** | **-1.8** |
| **GLVR** | **Golovnino** | **4.26** | **21** | P | **Pn** | **12 57 32.3** | **-1.4** |
| GLVR | | | | *e*S | **Sn** | **12 58 20.6** | **-1.8** |
| **ASAJ** | **Asahikawa** | **4.38** | **352** | Pn | **Pn** | **12 57 36.3** | **+1.1** |
| ASAJ | 3.6nm,0.3s,baz=174,slow=11,SNR=15 | | | Sn | **Sn** | **12 58 28.6** | **+3.3** |
| | 7.6nm,0.3s,baz=206,slow=21,SNR=3.7 | | | | | | |
| **ASAJ** | **Asahikawa** | **4.38** | **352** | *e*Pn | **Pn** | **12 57 35.8** | **+0.5** |
| ASAJ | | | | *e*Sn | **Sn** | **12 58 30.7** | **+5.4** |
| **GRPR** | **Tuman** | **4.57** | **22** | *e*P | **Pn** | **12 57 36.7** | **-1.2** |
| GRPR | | | | *e*S | **Sn** | **12 58 28.4** | **-1.6** |
| **LAGR** | **Lagunnoye** | **4.63** | **22** | *e*P | **Pn** | **12 57 37.4** | **-1.3** |
| LAGR | | | | *e*S | **Sn** | **12 58 29.6** | **-1.9** |
| **YUK** | **Yuzh-Kuril'sk** | **4.63** | **23** | *e*P | **Pn** | **12 57 36.4** | **-2.4** |
| YUK | | | | *e*S | **Sn** | **12 58 28.0** | **-3.6** |
| YUK | | | | pmax | pmax | | |
| | comp=Z,219nm,0.8s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=N,169nm,0.4s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=E,101nm,0.6s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,564nm,0.6s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=E,815nm,0.6s | | | | | | |
| **SHO** | **Shikotan** | **4.83** | **31** | *e*P | **Pn** | **12 57 38.8** | **-2.6** |
| SHO | | | | *e*S | **Sn** | **12 58 32.1** | **-4.2** |
| SHO | | | | pmax | pmax | | |
| | comp=Z,117nm,0.6s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=E,28nm,0.8s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=N,241nm,0.4s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=E,619nm,0.4s | | | | | | |
| **MJAR** | **Matsushiro Arr** | **5.21** | **233** | Pn | **Pn** | **12 57 47.4** | **+0.6** |
| | comp=E,3.6nm,0.3s,baz=42,slow=12,SNR=64 | | | | | | |
| MJAR | | | | LR | LR | 13 00 01.1 | |
| | comp=E,769nm,19.5s,baz=40,slow=42 | | | | | | |
| **MAJO** | **Matsushiro** | **5.21** | **233** | ⇑*i*P | **Pn** | **12 57 47.2** | **+0.4** |
| **MAJO** | **Matsushiro** | **5.21** | **233** | *e*Pn | **Pn** | **12 57 47.7** | **+0.9** |
| **MAT** | **Matsushiro** | **5.21** | **233** | P | **Pn** | **12 57 47.1** | **+0.3** |
| MAT | | | | *e*S | **Sn** | **12 58 48.3** | **+2.4** |
| **MJB9** | **Matsu-Tunnel** | **5.21** | **233** | *e*Pn | **Pn** | **12 57 47.7** | **+0.9** |
| **KUR** | **Kuril'sk** | **6.37** | **30** | *d i*P | **Pn** | **12 58 01.2** | **-1.4** |
| KUR | | | | pmax | pmax | | |
| | comp=Z,72nm,0.4s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=N,11nm,0.2s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=E,34nm,0.3s | | | | | | |
| KUR | | | | MLR | MLR | | |
| | comp=Z,470nm,15.0s | | | | | | |
| KUR | | | | MLR | MLR | | |
| | comp=N,611nm,12.0s | | | | | | |
| **INU** | **Inuyama** | **6.72** | **231** | *e*Pn | **Pn** | **12 58 09.1** | **+1.6** |
| **YSS** | **Yuzh-Sakhalins** | **7.19** | **356** | *e*P | Pn | 12 58 23.0 | +9.2 |
| YSS | | | | MLR | MLR | | |
| | comp=Z,900nm,16.0s | | | | | | |
| YSS | | | | MLR | MLR | | |
| | comp=N,700nm,12.0s | | | | | | |
| YSS | | | | MLR | MLR | | |
| | comp=E,500nm,12.0s | | | | | | |
| **JHJ** | **Hachijo jima 2** | **7.25** | **205** | Pn | **Pn** | **12 58 12.5** | **-2.3** |
| JHJ | comp=E,12nm,0.3s,baz=313,slow=22,SNR=7.6 | | | Sn | **Sn** | **12 59 29.2** | **-7.0** |
| | comp=E,20nm,0.3s,baz=37,slow=22,SNR=6.8 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **9.57** | **301** | Pn | **Pn** | **12 58 50.9** | **+4.3** |
| | comp=E,0.7nm,0.3s,baz=97,slow=16,SNR=7.6 | | | | | | |
| USRK | | | | LR | LR | 13 02 30.7 | |
| | comp=E,716nm,18.7s,baz=116,slow=38 | | | | | | |
| **HABR** | **Khabarovsk** | **10.56** | **328** | *de*P | **Pn** | **12 58 58.5** | **-1.5** |
| HABR | | | | *e*S | **Sn** | **13 00 56.9** | **-0.3** |
| HABR | | | | pmax | pmax | | |
| | comp=Z,19nm,1.3s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=E,4.0nm,0.6s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=N,13nm,1.3s | | | | | | |
| HABR | | | | MLR | MLR | | |
| | comp=Z,484nm,15.0s | | | | | | |
| **MDJ** | **Mudanjiang** | **11.32** | **300** | P | **Pn** | **12 59 06.5** | **-4.0** |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,13nm,2.2s | | | | | | |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,240nm,3.8s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=Z,550nm,13.2s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=Z,550nm,13.6s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=Z,830nm,15.0s | | | | | | |

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KSRS** | **Korea Array** | **12.33** | **264** | Pn | Pn | 12 59 29.0 | +4.7 |
| | comp=Z,0.4nm,0.3s,baz=72,slow=13,SNR=7.6 | | | | | | |
| KSRS | | | | LR | LR | 13 03 52.4 | |
| | comp=Z,609nm,18.1s,baz=76,slow=36 | | | | | | |
| **KS15** | **Wonju Array Si** | **12.36** | **264** | *e*Pn | **Pn** | **12 59 22.5** | **-2.2** |
| KS15 | | | | *e*Pn | P | 12 59 28.3 | -8.2 |
| **KSAR** | **Wonju Array Be** | **12.36** | **264** | P | **Pn** | **12 59 29.0** | **+4.3** |
| **KSAR** | **Wonju Array Be** | **12.36** | **264** | Pn | **Pn** | **12 59 29.0** | **+4.3** |
| **KLR** | **Kul'dur** | **12.57** | **323** | Pn | **Pn** | **12 59 28.5** | **+0.9** |
| | comp=Z,0.0nm,0.3s,baz=110,slow=23,SNR=4.3 | | | | | | |
| KLR | | | | LR | LR | 13 04 39.8 | |
| | comp=Z,75nm,18.0s,baz=128,slow=39 | | | | | | |
| **KLR** | **Kul'dur** | **12.57** | **323** | ⇑*e*P | **Pn** | **12 59 27.6** | **0.0** |
| **INCN** | **Inchon** | **13.31** | **265** | *e*Pn | **Pn** | **12 59 41.5** | **+3.8** |
| **CN2** | **Changchun** | **13.98** | **293** | *e*P | **P** | **12 59 53.5** | **-1.0** |
| **PETK** | **Petropavlovsk-** | **16.54** | **32** | LR | LR | 13 08 03.6 | |
| | comp=Z,166nm,18.2s,baz=214,slow=42 | | | | | | |
| **MA2** | **Magadan** | **20.36** | **11** | P | **P** | **13 01 04.5** | **-0.2** |
| | comp=Z,7.9nm,0.5s,baz=196,slow=9.6,SNR=11 | | | | | | |
| MA2 | | | | LR | LR | 13 08 15.9 | |
| | comp=Z,155nm,21.1s,baz=163,slow=35 | | | | | | |
| **TIA** | **Tai'an** | **20.99** | **269** | *e*P | **P** | **13 01 10.0** | **-1.7** |
| TIA | | | | pmax | pmax | | |
| | comp=Z,20nm,1.0s | | | | | | |
| **NJ2** | **Nanjing** | **21.28** | **256** | *e*P | **P** | **13 01 15.5** | **+0.7** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,15nm,0.5s | | | | | | |
| **YOJ** | **Yonaguni jima** | **22.97** | **234** | *e*P | **P** | **13 01 32.3** | **-0.6** |
| YOJ | | | | pmax | pmax | | |
| | comp=Z,500nm,1.4s | | | | | | |
| **YOJ** | **Yonaguni jima** | **22.97** | **234** | *e*P | **P** | **13 01 32.3** | **-0.6** |
| | comp=Z,500nm,1.4s | | | | | | |
| **TATO** | **Taipei** | **23.58** | **238** | *e*P | **P** | **13 01 40.0** | **+0.9** |
| | comp=Z,506nm,1.6s | | | | | | |
| **YAK** | **Yakutsk** | **23.80** | **344** | P | **P** | **13 01 39.6** | **-1.1** |
| | comp=Z,7.6nm,0.5s,baz=150,slow=0.8,SNR=5.6 | | | | | | |
| **YAK** | **Yakutsk** | **23.80** | **344** | *e*P | **P** | **13 01 39.0** | **-1.7** |
| YAK | | | | *e**PP | **pP** | **13 01 46.6** | **-2.4** |
| YAK | | | | *e*PPP | PPP | 13 02 12.7 | |
| YAK | | | | *e* | | 13 05 28.8 | |
| YAK | | | | *e*S | **S** | **13 05 52.0** | **-2.3** |
| YAK | | | | *e*SSS | SSS | 13 06 41.5 | |
| YAK | | | | *e* | | 13 12 49.0 | |
| YAK | | | | pmax | pmax | | |
| | comp=Z,15nm,1.1s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,9.0nm,1.3s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,4.0nm,1.3s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=Z,101nm,3.0s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,19nm,1.9s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,19nm,1.6s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=N,31nm,2.1s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=E,49nm,3.7s | | | | | | |
| YAK | | | | MLR | MLR | | |
| | comp=Z,175nm,18.0s | | | | | | |
| YAK | | | | MLR | MLR | | |
| | comp=N,509nm,18.0s | | | | | | |
| YAK | | | | MLR | MLR | | |
| | comp=E,173nm,17.0s | | | | | | |
| **YAK** | **Yakutsk** | **23.80** | **344** | *e*P | **P** | **13 01 40.9** | **+0.1** |
| | comp=E,15nm,0.7s | | | | | | |
| **SEY** | **Seymchan** | **23.81** | **10** | P | **P** | **13 01 41.0** | **+0.2** |
| | comp=E,5.9nm,0.6s,baz=191,slow=9.5,SNR=28 | | | | | | |
| **SEY** | **Seymchan** | **23.81** | **10** | *ce*P | **P** | **13 01 40.7** | **-0.1** |
| **HHC** | **Hu-ho-hao-te** | **24.23** | **283** | *e*P | **P** | **13 01 43.8** | **-1.4** |
| HHC | | | | S | **S** | **13 05 51.8** | **-10** |
| HHC | | | | pmax | pmax | | |
| | comp=E,10.0nm,1.0s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=E,91nm,8.6s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=E,220nm,13.9s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=E,540nm,17.5s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=E,670nm,16.7s | | | | | | |
| **WHN** | **Wuhan** | **25.38** | **258** | ⇓*i*P | **P** | **13 01 56.0** | **+0.5** |
| WHN | | | | pP | **pP** | **13 02 04.5** | **+0.7** |
| WHN | | | | pmax | pmax | | |
| | comp=E,56nm,0.8s | | | | | | |
| **GUMO** | **Guam** | **26.12** | **177** | LR | LR | 13 11 08.9 | |
| | comp=E,92nm,21.6s,baz=65,slow=34 | | | | | | |
| **BOD** | **Bodaibo** | **26.15** | **323** | *e*P | **P** | **13 02 01.7** | **-0.5** |
| BOD | | | | pmax | pmax | | |
| | comp=Z,17nm,1.2s | | | | | | |
| **ULN** | **Ulaanbaatar** | **27.24** | **299** | *ce*P | **P** | **13 02 12.0** | **-0.4** |
| ULN | | | | pmax | pmax | | |
| | comp=Z,14nm,1.2s | | | | | | |
| **ULN** | **Ulaanbaatar** | **27.24** | **299** | *e*P | **P** | **13 02 12.5** | **+0.1** |
| | comp=Z,12nm,1.1s | | | | | | |
| **SONA1** | **Songino Array** | **27.68** | **299** | *e*P | **P** | **13 02 16.8** | **+0.6** |
| **SONM** | **Songino Array** | **27.68** | **299** | P | **P** | **13 02 17.0** | **+0.7** |
| | comp=Z,4.0nm,0.7s,baz=90,slow=9.1,SNR=23 | | | | | | |
| SONM | | | | LR | LR | 13 13 56.0 | |
| | comp=Z,488nm,19.1s,baz=131,slow=38 | | | | | | |
| **XAN** | **Xi'an** | **28.04** | **269** | P | **P** | **13 02 19.3** | **-0.2** |
| XAN | | | | pP | pP | 13 02 28.3 | +0.4

comp=Z,650nm,16.2s
**QIZ Qiongzhong 35.50 244** P **P** **13 03 26.5 +1.4**
QIZ sP **sP** **13 03 39.4 +2.4**
QIZ S **S** **13 08 56.1 -2.6**
QIZ sS **sS** **13 09 10.8 -1.9**
QIZ ScS **ScS** **13 13 42.0 -0.6**
QIZ LR LR
comp=Z,360nm,12.2s
**KMI Kunming 36.97 259** P **P** **13 03 37.9 +0.1**
KMI pmax pmax
comp=Z,14nm,0.5s
**WMQ Urumqi 41.06 294** P **P** **13 04 12.3 +0.6**
WMQ pP sP 13 04 22.6 -1.1
WMQ sP pP 13 04 25.5 +5.2
WMQ S **S** **13 10 17.9 -4.6**
WMQ pmax pmax
comp=Z,36nm,0.9s
WMQ pmax pmax
comp=Z,400nm,5.3s
WMQ LR LR
comp=Z,210nm,15.3s
WMQ LR LR
comp=Z,160nm,16.3s
WMQ LR LR
comp=Z,170nm,18.3s
**ZAA0 Zalesovo Array 41.28 310** *e*P **P** **13 04 12.4 -0.8**
comp=Z,5.7nm,0.6s
**ZALV Zalesovo Beam 41.28 310** P **P** **13 04 13.6 +0.4**
comp=Z,5.3nm,0.5s,baz=95,slow=7.8,SNR=27
ZALV PcP **PcP** **13 06 11.1 -0.3**
comp=Z,1.2nm,0.7s,baz=78,slow=2.8,SNR=3.6
ZALV LR LR 13 22 18.5
comp=Z,173nm,18.1s,baz=70,slow=38
**ZALV Zalesovo Beam 41.28 310** *e*P **P** **13 04 12.3 -1.0**
ZALV 13 06 11.1
**ZALV Zalesovo Beam 41.28 310** *e*P **P** **13 04 12.2 -1.0**
ZALV PcP **PcP** **13 06 11.1 -0.3**
**NVS Novosibirsk 42.13 312** *e*P **P** **13 04 20.5 +0.3**
**IMAR Indian Mountai 43.50 32** *e*P P 13 04 36.8 +5.7
**CMAR Chiang Mai Arr 43.73 254** P **P** **13 04 34.0 +0.4**
comp=Z,0.7nm,0.4s,baz=43,slow=8.4,SNR=5.5
CMAR LR LR 13 24 00.8
comp=Z,69nm,19.2s,baz=52,slow=38
**CMAR Chiang Mai Arr 43.73 254** P **P** **13 04 34.0 +0.4**
**MK01 Makanchi Array 44.04 300** *e*P **P** **13 04 35.7 -0.1**
**MK31 Makanchi Array 44.04 300** *e*P **P** **13 04 35.3 -0.5**
**MK31 Makanchi Array 44.04 300** *e*P **P** **13 04 35.3 -0.5**
**MKAR Makanchi Array 44.04 300** P **P** **13 04 36.2 +0.4**
comp=Z,2.9nm,0.7s,baz=83,slow=9.5,SNR=25
MKAR LR LR 13 23 53.2
comp=Z,246nm,18.9s,baz=60,slow=37
**MKAR Makanchi Array 44.04 300** *e*P **P** **13 04 35.5 -0.3**
MKAR pmax pmax
comp=Z,27nm,0.7s
**MKAR Makanchi Array 44.04 300** *e*P **P** **13 04 35.5 -0.3**
comp=Z,27nm,0.7s
**MAKZ Makanchi 44.25 300** *e*P **P** **13 04 37.6 +0.2**
MAKZ pmax pmax
comp=Z,8.0nm,1.2s
**MAKZ Makanchi 44.25 300** *e*P **P** **13 04 37.6 +0.2**
comp=Z,8.3nm,1.2s
**KURK Kurchatov 45.52 306**⇑ *i*P **P** **13 04 46.8 -0.7**
KURK pmax pmax
comp=Z,97nm,2.5s
**KURK Kurchatov 45.52 306** *e*P **P** **13 04 47.5 0.0**
comp=Z,12nm,1.0s
**KURBB Kurchatov Arra 45.60 306** P **P** **13 04 47.9 -0.2**
comp=Z,5.9nm,0.8s,baz=81,slow=8.5,SNR=26
**ILAR Eielson Array 46.35 34** P **P** **13 04 54.6 +0.8**
comp=Z,0.7nm,0.7s,baz=265,slow=6.5,SNR=10
**ILB Eielson Array 46.35 34** *e*P P 13 04 59.0 +5.2
**IL1 Eielson Array 46.35 34** *e*P P 13 04 59.3 +5.5
**TAPN Taplejung 47.34 273** *e*P **P** **13 05 02.8 +0.3**
**ODAN Odare 47.84 272** *e*P **P** **13 05 05.8 -0.4**
comp=Z,18nm,0.7s
**RAMN Ramite 48.40 273** *e*P **P** **13 05 10.8 +0.2**
comp=Z,30nm,0.7s
**GUN Gumba 48.47 274** *e*P **P** **13 05 11.6 +0.3**
comp=Z,33nm,0.6s
**KKN Kakani 48.99 275** *e*P **P** **13 05 15.6 +0.5**
comp=Z,33nm,0.7s
**PKI Pulchoki 49.00 274** *e*P **P** **13 05 15.4 +0.1**
**PKIN Phulchoki 49.01 274** *e*P **P** **13 05 15.5 +0.2**
**DMN Daman 49.22 274** *e*P **P** **13 05 17.1 +0.2**
**DANN Dangsing 49.88 276** *e*P **P** **13 05 23.3 +1.3**
**BVAR Borovoye Array 49.92 311** P **P** **13 05 22.1 +0.6**
comp=Z,2.5nm,0.5s,baz=68,slow=8.4,SNR=12
**BRVK Borovoye 49.97 311** *ce*P **P** **13 05 22.8 +0.9**
BRVK pmax pmax
comp=Z,9.0nm,1.2s
**BRVK Borovoye 49.97 311** *e*P **P** **13 05 23.0 +1.0**
comp=Z,7.4nm,1.1s
**KOLN Koldanda 50.29 275** *e*P **P** **13 05 25.4 +0.4**
comp=Z,42nm,1.2s
**PYUN Piuthan 50.60 276** *e*P **P** **13 05 27.8 +0.5**
comp=Z,56nm,1.1s
**AAK Ala-Archa 50.60 297** P **P** **13 05 27.2 +0.1**
comp=Z,1.6nm,0.5s,baz=103,slow=6.0,SNR=4.8
**AAK Ala-Archa 50.60 297** *e*P **P** **13 05 27.2 +0.1**
AAK pmax pmax
comp=Z,4.0nm,1.0s
**AAK Ala-Archa 50.60 297** *e*P **P** **13 05 27.2 +0.1**
comp=Z,4.3nm,1.0s
**KSH Kashi 50.75 293** P **P** **13 05 32.5 +4.3**
KSH pP sP 13 05 42.8 +2.4
KSH PcP **PcP** **13 06 50.4 +5.4**
KSH PP **PP** **13 07 29.6 +5.4**
KSH S **S** **13 12 41.8 -0.2**
KSH ScS **ScS** **13 15 17.3 +0.3**
KSH SS **SS** **13 16 13.4 -2.9**
KSH pmax pmax
comp=Z,3.0nm,0.4s
KSH LR LR
comp=Z,73nm,4.6s
KSH LR LR
comp=Z,89nm,4.6s
KSH LR LR
comp=Z,220nm,11.2s
**INK Inuvik 51.24 28** P **P** **13 05 31.2 0.0**
comp=Z,0.9nm,0.5s,baz=311,slow=7.2,SNR=8.4
**SVE Sverdlovsk 54.15 318** *e*P **P** **13 05 54.6 +1.7**
SVE pmax pmax
comp=Z,11nm,1.2s
SVE MLR MLR
comp=Z,544nm,15.0s
**ARU Arti 55.36 318** *c i*P **P** **13 06 02.5 +0.8**
ARU 13 08 02.1
ARU S **S** **13 13 48.2 +4.2**
ARU SS **SS** **13 17 30.5 +2.4**
ARU pmax pmax
comp=Z,15nm,1.7s
ARU MLR MLR
comp=Z,404nm,16.0s
**ABKAR Akbulak array 57.39 309** *e*P **P** **13 06 16.5 +0.2**
comp=Z,42nm,0.6s
**FITZ Fitzroy Crossi 59.92 200** P **P** **13 06 33.3 -0.8**
comp=Z,1.3nm,0.7s,baz=315,slow=1.4,SNR=4.1
**WRA Warramunga Arr 60.01 190** P **P** **13 06 34.6 -0.1**
comp=Z,1.2nm,0.9s,baz=8.3,slow=6.9,SNR=6.6
**YKA Yellowknife Ar 60.66 31** P **P** **13 06 39.8 +1.1**
comp=Z,0.2nm,0.6s,baz=300,slow=6.4,SNR=4.1
**ARCES ARCESS Array B 61.98 339** P **P** **13 06 46.4 -1.2**
comp=Z,1.9nm,0.9s,baz=357,slow=9.7,SNR=3.6
ARCES LR LR 13 36 57.8
comp=Z,116nm,18.9s,baz=48,slow=39
**KLMR Klimovskoe 62.28 328** *e*P **P** **13 06 48.8 -0.9**
KLMR pmax pmax
comp=Z,18nm,1.6s
**AS01 Alice Springs 63.73 190** *e*P P 13 07 04.7 +5.0
**ASAR Alice Springs 63.73 190** P **P** **13 06 59.6 -0.1**
comp=Z,0.4nm,0.7s,baz=356,slow=5.2,SNR=8.3
**GEYT Alibeck 63.88 299** P **P** **13 07 01.6 +0.7**
comp=Z,1.7nm,0.5s,baz=62,slow=6.8,SNR=3.5
GEYT LR LR 13 37 45.0
comp=Z,85nm,18.1s,baz=280,slow=39
**OBN Obninsk 66.84 323** *e*P **P** **13 07 19.7 +0.2**
OBN *e* 13 07 51.0
OBN *e* 13 09 45.7
OBN *e*PPP PPP 13 11 20.6
OBN pmax pmax
comp=Z,5.0nm,1.3s
**FINES FINESS Array B 67.11 332** P **P** **13 07 21.9 +0.8**
comp=Z,2.9nm,0.6s,baz=41,slow=8.8,SNR=10.0
FINES LR LR 13 39 44.4
comp=Z,248nm,18.1s,baz=30,slow=39
**FINES FINESS Array B 67.11 332** P **P** **13 07 22.0 +0.8**

**MAK Makhachkala 68.00 308** *e*P **P** **13 07 25.3 -1.8**
MAK *e* 13 09 58.7
MAK *e*S **S** **13 16 24.3 0.0**
MAK *e*SS **SS** **13 20 49.3 +3.3**
MAK pmax pmax
comp=Z,140nm,1.1s
MAK MLR MLR
comp=Z,150nm,14.0s
**KIV Kislovodsk 70.29 311** *e*P **P** **13 07 43.0 +1.6**
KIV pmax pmax
comp=Z,16nm,1.1s
KIV MLR MLR
comp=Z,200nm,18.0s
**KBZ Khabaz 70.30 311** P **P** **13 07 42.6 +1.3**
comp=Z,3.8nm,0.8s,baz=355,slow=3.1,SNR=7.6
**STKA Stephens Creek 71.31 182** P **P** **13 07 46.9 -0.5**
comp=Z,0.6nm,0.5s,baz=323,slow=12,SNR=2.3
**WSAR Wadi Sarin 71.66 285** LR LR 13 43 25.4
comp=Z,39nm,18.2s,baz=56,slow=39
**NV01 Mina Array Sit 72.11 55** *e*P P 13 07 59.2 +6.5
**NVAR Mina Array Bea 72.11 55** P **P** **13 07 54.3 +1.5**
comp=Z,0.5nm,0.6s,baz=296,slow=11,SNR=3.3
**NB2 NORSAR Subarra 72.25 338** P **P** **13 07 52.9 0.0**
comp=Z,1.6nm,0.8s,baz=38,slow=6.2
**NOA NORSAR Array B 72.25 338** P **P** **13 07 52.8 -0.1**
comp=Z,2.8nm,0.8s,baz=37,slow=6.1,SNR=6.9
NOA LR LR 13 43 42.1
comp=Z,92nm,18.5s,baz=35,slow=39
**LKWY Lake 73.02 46** *e*P P 13 08 02.7 +4.6
LKWY pmax pmax
comp=Z,4.0nm,0.6s
**LKWY Lake 73.02 46** *e*P P 13 08 02.7 +4.6
comp=Z,4.1nm,0.6s
**AKASG Malin Array Be 73.08 323** P **P** **13 07 57.7 -0.3**
comp=Z,1.5nm,0.5s,baz=44,slow=6.0,SNR=7.4
AKASG LR LR 13 44 13.0
comp=Z,55nm,18.2s,baz=35,slow=39
**KIEV Kiev 73.09 323** *i*P **P** **13 07 57.4 -0.6**
KIEV pmax pmax
comp=Z,3.0nm,0.8s
**FRB Frobisher Bay 73.74 14** LR LR 13 43 44.8
comp=Z,88nm,18.8s,baz=186,slow=38
**PDAR Pinedale Array 74.64 47** P **P** **13 08 08.2 +0.6**
comp=Z,0.4nm,0.6s,baz=286,slow=2.8,SNR=4.7
**BUR04 Bucovina Ar. S 77.11 322** *e*P **P** **13 08 22.7 +1.2**
**STHS Stebnicka Huta 77.60 326** *e*P **P** **13 08 26.2 +2.2**
**STHS Stebnicka Huta 77.60 326** *e*P **P** **13 08 26.2 +2.2**
**PV10 Paradox Valley 77.81 50** *e*P P 13 08 30.3 +4.6
**BRTR Keskin Array B 78.19 312** LR LR 13 48 08.4
comp=Z,45nm,19.5s,baz=56,slow=40
**X16A Lo Mia Camp, P 78.93 54** *e*P P 13 08 37.8 +5.9
comp=Z,12nm,1.8s
**CLL Collm 79.48 331** *i*P **P** **13 08 35.2 +0.9**
CLL pmax pmax
comp=Z,4.0nm,1.0s
**KHC Kasperske Hory 81.01 329** *e*P **P** **13 08 44.1 +1.5**
KHC *e*PCP **pP** **13 08 50.1 -1.7**
**KHC Kasperske Hory 81.01 329** *e*P **P** **13 08 44.1 +1.5**
**GERES GERESS Array B 81.19 329** P **P** **13 08 43.6 0.0**
comp=Z,0.4nm,0.5s,baz=37,slow=6.9,SNR=4.4
GERES LR LR 13 47 05.9
comp=Z,68nm,19.0s,baz=9.5,slow=37
**PPT Papeete 84.50 118** LR LR 13 38 51.7
comp=Z,56nm,22.0s,baz=316,slow=30
**TXAR Lajitas Array 87.23 54** P **P** **13 09 15.5 +0.8**
comp=Z,0.1nm,0.5s,baz=281,slow=4.0,SNR=3.9
**ESDC Sonseca Array 95.49 335** LR LR 13 58 55.9
comp=Z,69nm,18.2s,baz=350,slow=39

**MAN 22 13:50:26,14.19N×121.39E,h21km,mb3.7,ML2.5,MS2.0, 1C,Luzon**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op ISC | h m s | ISC |
| **TGY** | **Tagaytay City** | **0.45** | **259** | ⇑ *i*P | Pn | 13 50 37.1 | -0.2 |
| TGY | | | | *i* S | Sn | 13 50 45.7 | +1.0 |
| **BOAC** | **Boac** | **0.85** | **149** | *e*P | Pb | 13 50 41.4 | -0.7 |
| BOAC | | | | *e*S | Sn | 13 50 55.7 | +1.1 |
| **BALP** | **Baler** | **1.55** | **7** | *e*P | Pn | 13 50 52.7 | +0.3 |
| **SJMP** | **San Jose** | **1.74** | **189** | *e*P | Pb | 13 50 57.3 | +0.1 |

**MAN 22 13:52:57,14.20N×121.39E,h22km,mb3.9,ML2.7,MS2.4, 3C,Luzon**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op ISC | h m s | ISC |
| **TGY** | **Tagaytay City** | **0.45** | **258** | ⇑ *i*P | Pb | 13 53 07.2 | +0.9 |
| TGY | | | | *i* S | Sn | 13 53 15.3 | -0.4 |
| **PGP** | **Puerto Galera** | **0.81** | **212** | ⇑ *e*P | Pb | 13 53 12.4 | -0.1 |
| PGP | | | | *i* S | Sn | 13 53 24.6 | 0.0 |
| **BOAC** | **Boac** | **0.85** | **149** | *e*P | Pb | 13 53 13.1 | -0.1 |
| BOAC | | | | *e*S | Sn | 13 53 25.8 | +0.3 |
| **GQP** | **Guinayangan** | **1.06** | **106** | ⇑ *e*P | Pn | 13 53 15.3 | -1.2 |
| GQP | | | | *e*S | Sb | 13 53 29.8 | -0.4 |
| **AUQP** | **San Andres** | **1.52** | **125** | *e*P | Pb | 13 53 30.1 | +5.6 |
| AUQP | | | | *e*S | Sb | 13 53 49.5 | +6.1 |
| **BALP** | **Baler** | **1.55** | **7** | *e*P | Pn | 13 53 22.7 | -0.5 |
| BALP | | | | *e*S | Sb | 13 53 43.7 | -0.4 |
| **SJMP** | **San Jose** | **1.75** | **189** | *e*P | Pb | 13 53 27.8 | -0.6 |
| SJMP | | | | *e*S | Sb | 13 53 54.3 | +4.4 |

**IDC 22 13:58:27.6±4.6,4.81S×102.86E,h0km,mb3.5/4, mb1 3.6/4,mb1mx3.4/28,mbtmp3.5/4,Error ellipse: s-maj=199.3km s-min=26.5km az=52.0,Southern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op ISC | h m s | ISC |
| **CMAR** | **Chiang Mai Arr** | **23.44** | **351** | P | P | 14 03 40.0 | +1.3 |
| | 0.5nm,0.5s,baz=185,slow=9.6,SNR=4.5 | | | | | | |
| **H08S2** | **Diego Garcia H** | **30.31** | **263** | T | T | 14 35 10.7 | |
| | baz=88,slow=76,SNR=34 | | | | | | |
| **H08S3** | **Diego Garcia H** | **30.32** | **263** | T | T | 14 35 10.9 | |
| | baz=88,slow=76,SNR=50 | | | | | | |
| **H08S1** | **Diego Garcia H** | **30.33** | **263** | T | T | 14 35 12.2 | |
| | baz=88,slow=76,SNR=20 | | | | | | |
| **WRA** | **Warramunga Arr** | **34.13** | **119** | P | P | 14 05 14.6 | +0.1 |
| | 0.4nm,0.9s,baz=306,slow=8.6,SNR=2.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **54.52** | **343** | P | P | 14 07 56.2 | -1.1 |
| | 0.3nm,0.5s,baz=164,slow=8.3,SNR=5.1 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **60.47** | **348** | P | P | 14 08 38.9 | -0.2 |
| | 0.4nm,0.4s,baz=165,slow=6.0,SNR=2.9 | | | | | | |
| **TXAR** | **Lajitas Array** | **145.00** | **43** | PKPbc | PKPab | 14 18 05.7 | -1.3 |
| | 0.2nm,0.7s,baz=262,slow=0.6,SNR=3.3 | | | | | | |

**TRN 22 14:07:03.6,11.02N×62.26W,h96km,MD3.5,2C, Windward Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op ISC | h m s | ISC |
| **TCE** | **Chacachacare** | **0.59** | **123** | *e*P | Pn | 14 07 19.4 | -0.3 |
| TCE | | | | *e*S | Sn | 14 07 31.9 | +0.1 |
| **TRN** | **Trinidad (W)** | **0.92** | **114** | ⇑ *i*P | Pn | 14 07 22.9 | 0.0 |
| TRN | | | | *e*S | Sn | 14 07 36.9 | -0.4 |
| **TPP** | **Pointe-a-Pierr** | **1.06** | **131** | *e*P | Pn | 14 07 25.1 | +0.7 |
| TPP | | | | *e*S | Sn | 14 07 40.0 | 0.0 |
| **GRGR** | **Grenville** | **1.25** | **28** | *e*P | Pn | 14 07 26.6 | -0.1 |
| GRGR | | | | *e*S | Sn | 14 07 43.7 | -0.4 |
| **TBH** | **Brigand Hill** | **1.28** | **114** | ⇑ *i*P | Pn | 14 07 27.2 | +0.1 |
| TBH | | | | *e*S | Sn | 14 07 44.5 | -0.3 |
| **GRSS** | **Sisters** | **1.42** | **26** | *e*P | Pn | 14 07 29.2 | +0.5 |
| GRSS | | | | *e*S | Sn | 14 07 47.3 | -0.4 |
| **TOSP** | **Speyside** | **1.71** | **81** | *e*P | Pn | 14 07 31.9 | -0.4 |
| TOSP | | | | *e*S | Sn | 14 07 53.9 | -0.3 |
| **FCV** | **Fort Charlotte** | **2.34** | **25** | *e*P | Pn | 14 07 41.7 | +1.1 |
| **SVB** | **Belmont** | **2.44** | **24** | *e*P | Pn | 14 07 42.6 | +0.7 |
| SVB | | | | *e*S | Sn | 14 08 10.6 | -0.7 |
| **SVCV** | **St. Vincent, C** | **2.49** | **26** | *e*S | Sn | 14 08 11.4 | -0.9 |
| **SVV** | **Soufriere Volc** | **2.50** | **24** | *e*P | Pn | 14 07 42.0 | -0.7 |
| **SSV** | **Crater Summit** | **2.52** | **24** | *e*P | Pn | 14 07 42.6 | -0.3 |

**IDC 22 14:16:44.7±46.0,16.36S×176.06W,h0km,mb3.8/3, mb1 4.0/3,mb1mx3.6/30,mbtmp3.8/3,Error ellipse: s-maj=868.1km s-min=159.3km az=78.0,Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op ISC | h m s | ISC |
| **STKA** | **Stephens Creek** | **41.34** | **240** | P | P | 14 24 33.2 | +0.7 |
| | 0.6nm,0.5s,baz=83,slow=8.1,SNR=3.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **47.13** | **258** | P | P | 14 25 18.4 | -0.7 |
| | 0.3nm,0.6s,baz=97,slow=7.6,SNR=12 | | | | | | |
| **ASAR** | **Alice Springs** | **47.38** | **253** | P | P | 14 25 20.8 | -0.3 |
| | 2.0nm,0.5s,baz=88,slow=8.1,SNR=33 | | | | | | |

**MAN 22 14:22:06,9.62N×121.97E,h8km,mb4.6,ML3.4,MS3.3, 2C-2D,Sulu Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op ISC | h m s | ISC |
| **JAP** | **San Jose, Anti** | **1.12** | **359** | ‖ *e*P | Pn | 14 22 36.7 | +8.7 |
| **GUIM** | **Jordan** | **1.17** | **32** | *e*P | Pb | 14 22 27.2 | -1.3 |
| **SNPH** | **Sibulan** | **1.28** | **102** | ‖ *i*P | Pb | 14 22 30.4 | -0.1 |
| SNPH | | | | *i* S | Sn | 14 22 48.0 | +0.3 |
| **DCPH** | **Dipolog City** | **1.71** | **127** | ⇑ *e*P | Pn | 14 22 36.7 | +0.6 |
| DCPH | | | | *e*S | Sb | 14 22 59.9 | +0.4 |
| **RCP** | **Roxas** | **2.07** | **22** | ⇑ *e*P | Pn | 14 22 42.5 | +1.3 |
| RCP | | | | *e*S | Sb | 14 23 08.9 | -1.0 |
| **PAGZ** | **Pagadian** | **2.25** | **141** | *e*P | Pn | 14 22 44.5 | +1.0 |
| PAGZ | | | | *e*S | Sn | 14 23 12.9 | +1.4 |
| **MSLP** | **Maasin** | **2.90** | **80** | *e*P | Pn | 14 22 53.9 | +1.5 |
| MSLP | | | | *e*S | Sn | 14 23 29.8 | +2.3 |
| **BUKP** | **Musuan** | **3.52** | **119** | *e*P | Pn | 14 23 03.2 | +2.1 |

**IDC 22 14:25:17.8±14.0,2.12S×148.93E,h0km,mb3.6/4, mb1 3.8/4,mb1mx3.4/28,mbtmp3.6/4,MS2.9/1,Ms1 3.1/1, ms1mx2.3/30,Error ellipse: s-maj=228.1km s-min=92.4km az=28.0,Admiralty Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **22.74** | **218** | P | P | 14 30 21.6 | -0.2 |
| | 0.9nm,0.9s,baz=44,slow=9.5,SNR=5.4 | | | | | | |
| **ASAR** | **Alice Springs** | **25.89** | **213** | P | P | 14 30 51.1 | -0.7 |
| | 0.5nm,0.9s,baz=21,slow=8.0,SNR=3.3 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **27.83** | **234** | P | P | 14 31 09.6 | +0.4 |
| | 2.9nm,1.0s,baz=43,slow=7.9,SNR=3.0 | | | | | | |
| **STKA** | **Stephens Creek** | **30.39** | **192** | P | P | 14 31 32.2 | +0.4 |
| | 0.8nm,0.9s,baz=28,slow=15,SNR=1.9 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **53.26** | **295** | LR | LR | 14 58 26.5 | |
| | comp=Z,9.4nm,18.1s,baz=166,slow=37 | | | | | | |

**IDC 22 14:27:19.8±1.9,21.30S×67.40W,h232km±20km,mb3.0/3, mb1 3.2/6,mb1mx3.0/28,mbtmp3.6/6,Error ellipse: s-maj=28.5km s-min=17.7km az=97.0,Chile-Bolivia border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op ISC | h m s | ISC |
| **LPAZ** | **La Paz** | **5.03** | **352** | P | Pn | 14 28 36.1 | -0.1 |
| | 0.5nm,0.3s,baz=157,slow=3.9,SNR=7.6 | | | | | | |
| **SIV** | **San Ignacio** | **7.99** | **50** | P | Pn | 14 29 13.2 | +0.1 |
| | 2.7nm,0.3s,baz=239,slow=12,SNR=20 | | | | | | |
| SIV | | | | S | S | 14 30 52.3 | +8.4 |
| | baz=323,slow=20,SNR=2.5 | | | | | | |
| **PLCA** | **Paso Flores** | **19.56** | **187** | P | P | 14 31 30.3 | 0.0 |
| | 0.2nm,0.3s,baz=16,slow=15,SNR=3.7 | | | | | | |
| **PDAR** | **Pinedale Array** | **74.65** | **329** | P | P | 14 38 34.1 | +0.1 |
| | 0.1nm,0.5s,baz=126,slow=9.1,SNR=2.4 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **75.96** | **70** | P | P | 14 38 41.8 | 0.0 |
| | 0.5nm,0.4s,baz=251,slow=5.8,SNR=9.1 | | | | | | |
| **YKA** | **Yellowknife Ar** | **91.47** | **340** | P | P | 14 39 59.2 | -0.1 |
| | 0.1nm,0.5s,baz=127,slow=5.1,SNR=5.1 | | | | | | |

*GUC **22** 14:29:33.9±0.6,32.66S×71.66W,h59km±18km,ML3.3*
*SJA **22** 14:29:42.6±0.9,32.49S×71.40W,h35km±12km,ML3.1, MW3.8*
**ISC 22 14:29:34.9±4.3,33.2S±0.1×72.1W±0.2,h52km±36km,n14, σ2s20/23,Off coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op ISC | h m s | ISC |
| **ROC1** | **El Roble** | **0.95** | **79** | *i* P | **Pn** | **14 29 55.5** | **+3.3** |
| ROC1 | | | | *i* S | **Sn** | **14 30 05.0** | **+0.1** |
| **ROCH** | **El Roble** | **0.95** | **79** | *e*P | **Pn** | **14 29 55.3** | **+3.0** |
| ROCH | | | | *i* S | **Sn** | **14 30 04.0** | **-1.1** |
| ROCH | | | | IAML | | 14 30 08.0 | |
| | comp=E,1μm,0.4s | | | | | | |
| **RCDM** | **Rinconada Maip** | **1.15** | **107** | *e*P | **Pn** | **14 29 54.2** | **-0.5** |
| RCDM | | | | *i* S | **Sn** | **14 30 09.6** | **+0.2** |
| RCDM | | | | IAML | | 14 30 11.1 | |
| | comp=E,1μm,0.3s | | | | | | |
| **PEL** | **Peldehue** | **1.21** | **89** | *e*P | **Pn** | **14 29 52.4** | **-3.2** |
| PEL | | | | *i* S | **Sn** | **14 30 06.7** | **-4.2** |
| PEL | | | | IAML | | 14 30 09.7 | |
| | comp=E,2μm,0.2s | | | | | | |
| **ANTU** | **Antumapu** | **1.31** | **108** | *e*P | **Pn** | **14 29 56.7** | **-0.2** |
| ANTU | | | | *i* S | **Sn** | **14 30 13.7** | **+0.4** |
| ANTU | | | | IAML | | 14 30 17.3 | |
| | comp=E,1μm,0.4s | | | | | | |
| **FCH** | **Farellones** | **1.54** | **97** | *e*P | **Pn** | **14 29 59.0** | **-1.4** |
| FCH | | | | *i* S | **Sn** | **14 30 16.8** | **-2.7** |
| FCH | | | | IAML | | 14 30 19.0 | |
| | comp=N,890nm,0.2s | | | | | | |
| **SJCH** | **San Jose de Ma** | **1.56** | **108** | *e*P | **Pn** | **14 30 00.3** | **+0.1** |
| SJCH | | | | *i* S | **Sn** | **14 30 19.8** | **+0.4** |
| SJCH | | | | IAML | | 14 30 23.2 | |
| | comp=E,640nm,1.1s | | | | | | |
| **AUSP** | **Uspallata** | **2.49** | **69** | *e*P | **Pn** | **14 30 12.2** | **-1.1** |
| AUSP | | | | *e*S | **Sn** | **14 30 40.3** | **-2.3** |
| **ARCO** | **CERRO ARCO** | **2.70** | **84** | *e*P | **Pn** | **14 30 17.7** | **+1.6** |
| ARCO | | | | IAML | | 14 30 23.8 | |
| | comp=Z,116nm,0.5s | | | | | | |
| ARCO | | | | *i* S | **Sn** | **14 30 50.2** | **+2.6** |
| **RTLS** | **Leoncito** | **2.75** | **61** | *e*P | **Pn** | **14 30 15.5** | **-1.3** |
| RTLS | | | | IAML | | 14 30 25.8 | |
| | comp=Z,69nm,0.3s | | | | | | |
| **AAGR** | **Agrelo** | **2.77** | **89** | *e*P | **Pn** | **14 30 19.8** | **+3.0** |
| AAGR | | | | *i* S | Sn | 14 30 55.2 | +6.1 |
| **ASAL** | **Salagasta** | **2.83** | **79** | *i* P | **Pn** | **14 30 19.1** | **+1.5** |
| ASAL | | | | *i* S | **Sn** | **14 30 52.8** | **+2.3** |
| **RTCV** | **Cerro Valdivia** | **3.29** | **68** | *e*P | **Pn** | **14 30 23.8** | **-0.3** |
| **VCA** | **Vinchina** | **5.55** | **38** | IAML | | 14 32 19.7 | |
| | comp=Z,53nm,0.4s | | | | | | |

*IDC **22** 14:58:48.3±1.4,8.32S×127.56E,h0km,mb3.9/2, mb1 3.9/5,mb1mx3.6/35,mbtmp3.8/5,ML3.7/3,Error ellipse: s-maj=83.2km s-min=22.9km az=71.0*
*ISCJB **22** 14:59:03.9±0.9,9.78S±0.05×122.01E±0.06,h50km, mb3.9/2,Error ellipse: s-maj=9.2km s-min=5.6km az=42.4*
*DJA **22** 14:59:06.9±0.8,10°S±3°×12°2E±°,h25km±8km,M3.6/6, MLv3.6/6*
**ISC 22 14:59:03.9±1.0,9.81S±0.06×122.06E±0.06,h50km,n11, σ1s64/17,Savu Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op ISC | h m s | ISC |
| **EDFI** | **Ende, Flores** | **1.11** | **341** | P | **Pn** | **14 59 23.0** | **-0.2** |
| EDFI | | | | S | **Sn** | **14 59 36.3** | **-1.2** |
| **MMRI** | **Maumere** | **1.18** | **9** | P | **Pn** | **14 59 25.2** | **+1.2** |
| MMRI | | | | S | **Sn** | **14 59 40.2** | **+1.2** |
| **BASI** | **Baing, Sumba** | **1.51** | **254** | P | **Pn** | **14 59 29.8** | **+1.2** |
| BASI | | | | S | **Sn** | **14 59 48.4** | **+1.3** |
| **WSI** | **Waingapu** | **1.74** | **274** | P | **Pn** | **14 59 33.4** | **+1.8** |
| WSI | | | | S | **Sn** | **14 59 51.5** | **-1.2** |
| **SOEI** | **Soe** | **2.18** | **89** | P | Pn | 14 59 45.0 | +7.1 |
| **WBSI** | **Waikabubak, Su** | **2.63** | **273** | P | **Pn** | **14 59 45.6** | **+1.7** |
| WBSI | | | | S | **Sn** | **15 00 14.1** | **-0.6** |
| **PLAI** | **Plampang** | **4.33** | **283** | P | **Pn** | **15 00 08.3** | **+1.0** |
| PLAI | | | | S | **Sn** | **15 00 55.4** | **-1.2** |
| **KDI** | **Kendari** | **5.84** | **6** | S | **Sn** | **15 01 34.9** | **+1.3** |
| **FITZ** | **Fitzroy Crossi** | **8.95** | **158** | Pn | **Pn** | **15 01 12.4** | **+1.7** |
| | 0.3nm,0.3s,baz=22,slow=5.4,SNR=16 | | | | | | |
| FITZ | | | | | Sn | **15 02 46.9** | **-3.2** |
| | 0.5nm,0.3s,baz=180,slow=24,SNR=34 | | | | | | |
| **MKAR** | **Makanchi Array** | **66.57** | **331** | P | **P** | **15 09 48.4** | **-0.5** |
| | 0.8nm,0.6s,baz=128,slow=7.3,SNR=9.9 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **70.89** | **338** | P | **P** | **15 10 13.3** | **-2.2** |
| | 0.5nm,0.4s,baz=147,slow=7.6,SNR=3.2 | | | | | | |

**IDC 22 15:04:16.3±55.0,16.01S×175.48W,h0km,mb3.8/3, mb1 4.0/3,mb1mx3.6/39,mbtmp3.8/3,Error ellipse: s-maj=1044.0km s-min=175.2km az=78.0,Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op ISC | h m s | ISC |
| **STKA** | **Stephens Creek** | **41.99** | **240** | P | P | 15 12 10.1 | +0.6 |

1.2nm,0.9s,baz=71,slow=8.3,SNR=3.7
**WRA Warramunga Arr 47.75 257** P P 15 12 54.7 -0.9
0.2nm,0.3s,baz=95,slow=8.0,SNR=13
**ASAR Alice Springs 48.01 252** P P 15 12 57.6 +0.1
1.5nm,0.4s,baz=89,slow=7.8,SNR=85

*GUC **22** 15:06:27.8±0.8, 45.70S×76.78W, h36km±21km, ML3.9*
*IDC **22** 15:06:31.0±0.8, 45.98S×76.37W, h0km, mb4.1/7, mb1 4.3/9, mb1mx4.2/21, mbtmp4.1/9, ML4.2/2, MS4.3/10, Ms1 4.2/10, ms1mx4.0/20, Error ellipse: s-maj=30.9km s-min=20.7km az=81.0*
*GCMT **22** 15:06:32.6±0.3, 46.06S×76.64W, h28km±1km, MW5.0/82, Moment Tensor Solution. s24,c31; s82,c101; Duration: 0 Moment tensor: Scale $10^{16}$Nm; $M_{rr}$-0.45±.17; $M_{\theta\theta}$2.78±.17; $M_{\phi\phi}$-2.33±.16; $M_{r\theta}$0.62±.21; $M_{r\phi}$-3.47±.12; $M_{\theta\phi}$-1.75±.27; Best double couple: M○4.69700×$10^{16}$ NP1:$\phi_s$341.00000°, $\delta$87.00000°, $\lambda$-24.00000°. NP2: $\phi_s$72.00000°, $\delta$66.00000°, $\lambda$-177.00000°. Principal axes: T 4.8820, Plg15.0000°, Azm29.0000°; N -0.3740, Plg66.0000°, Azm155.0000°; P -4.5110, Plg18.0000°, Azm294.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*NEIC **22** 15:06:32.6±4.8, 46.01S×76.35W, h14km±28km, mb5.1/42 Error ellipse: s-maj=16.9km s-min=7.8km az=81.0*
*ISCJB **22** 15:06:33.9±0.3, 45.99S±0.04×76.12W±0.0, h33km, mb5.0/47, MS4.2/8, Error ellipse: s-maj=9.8km s-min=4.8km az=160.8*
*BJI **22** 15:06:41.0, 45.90S×75.60W, h33km, mB5.1/6, Ms5.4/6, Ms7 5.1/6*
**ISC 22 15:06:33.4±0.6, 45°88S±0'.05×76°11W±0'.08, h12km±3km, h12km:pP-P, n123, σ2°09/132, mb5.1/47, MS4.2/8, 1C, Off coast of southern Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CHRN** | **Cochrane** | **2.79** | **121** | *e*Pn | **Pn** | **15 07 17.1** | **-0.7** |
| **CHRN** | **Cochrane** | **2.79** | **121** | *e*P | **Pn** | **15 07 18.1** | **+0.3** |
| CHRN | | | | *i* S | **Sb** | **15 07 57.3** | **+0.1** |
| CHRN | | | | IAML | | 15 08 11.2 | |
| | comp=N,111nm,1.3s | | | | | | |
| **GO07** | **Milladeo Hill,** | **3.27** | **33** | *e*P | **Pn** | **15 07 22.1** | **-2.3** |
| GO07 | | | | *i* S | **Sn** | **15 08 00.3** | **-2.9** |
| GO07 | | | | IAML | | 15 08 21.5 | |
| | comp=E,359nm,1.9s | | | | | | |
| **GO09** | **Cerro Castillo** | **5.95** | **156** | *e*Pn | **Pn** | **15 07 59.3** | **-1.9** |
| **GO09** | **Cerro Castillo** | **5.95** | **156** | *e*P | **Pn** | **15 07 59.6** | **-1.6** |
| GO09 | | | | *e*S | **Sn** | **15 09 07.7** | **-1.4** |
| **PLCA** | **Paso Flores** | **6.55** | **40** | Pn | **Pn** | **15 08 10.5** | **+1.0** |
| | comp=E,0.4nm,0.3s,baz=245,slow=8.8,SNR=13 | | | | | | |
| PLCA | | | | LR | LR | 15 10 47.4 | |
| | comp=E,4μm,20.6s,baz=242,slow=38 | | | | | | |
| **USHA** | **Ushuaia** | **10.21** | **154** | Pn | **Pn** | **15 08 59.4** | **-0.1** |
| | comp=E,17nm,0.3s,baz=312,slow=14,SNR=2.2 | | | | | | |
| USHA | | | | LR | LR | 15 12 42.0 | |
| | comp=E,6μm,18.7s,baz=304,slow=36 | | | | | | |
| **GO05** | **HualaæØ** | **11.31** | **18** | *e*Pn | **Pn** | **15 09 12.0** | **-2.8** |
| **TRQA** | **Tornquist** | **13.09** | **58** | *e*Pn | **Pn** | **15 09 40.5** | **+1.4** |
| **ROC1** | **El Roble** | **13.47** | **19** | *e*Pn | **Pn** | **15 09 43.1** | **-1.4** |
| **CPUP** | **Villa Florida** | **24.61** | **44** | P | **P** | **15 11 54.5** | **+1.1** |
| | comp=E,6.5nm,0.9s,baz=220,slow=9.0,SNR=14 | | | | | | |
| CPUP | | | | LR | LR | 15 22 17.7 | |
| | comp=E,1μm,19.1s,baz=216,slow=38 | | | | | | |
| **CPUP** | **Villa Florida Isla** | **24.61** | **44** | *e*P | **P** | **15 11 54.5** | **+1.1** |
| | comp=E,66nm,1.5s | | | | | | |
| **PB01** | **IPOC Station P** | **25.36** | **15** | *e*P | **P** | **15 12 01.4** | **+1.1** |
| | comp=E,24nm,1.1s | | | | | | |
| **HOPE** | **Hope Point** | **26.48** | **123** | *e*P | **P** | **15 12 09.0** | **-1.1** |
| | comp=E,38nm,1.1s | | | | | | |
| **MNMC** | **Minye Minye** | **27.21** | **14** | *e*P | **P** | **15 12 18.6** | **+1.3** |
| | comp=E,22nm,1.1s | | | | | | |
| **LPAZ** | **La Paz** | **30.25** | **15** | P | **P** | **15 12 45.6** | **+0.9** |
| | comp=E,2.2nm,0.8s,baz=188,slow=6.3,SNR=9.0 | | | | | | |
| **LPAZ** | **La Paz** | **30.25** | **15** | *e*P | **P** | **15 12 46.1** | **+1.4** |
| | comp=E,49nm,1.8s | | | | | | |
| **SAML** | **Samuel** | **38.44** | **21** | *e*P | **P** | **15 13 55.2** | **+0.3** |
| | comp=E,16nm,1.0s | | | | | | |
| **VNA3** | **Neumayer Olymp** | **39.88** | **152** | P | **P** | **15 14 09.5** | **+3.1** |
| **VNA1** | **Neumayer--Stat** | **40.32** | **152** | P | **P** | 15 14 16.5 | +6.4 |
| **VNA2** | **Neumayer--Watz** | **40.61** | **152** | P | **P** | **15 14 11.6** | **-0.9** |
| | baz=274,slow=8.4 | | | | | | |
| **SNAA** | **Sanae** | **42.06** | **153** | P | **P** | **15 14 22.8** | **-1.7** |
| **SNAA** | **Sanae** | **42.06** | **153** | P | **P** | **15 14 23.1** | **-1.4** |
| | comp=E,2.5nm,0.9s,baz=41,slow=20,SNR=5.4 | | | | | | |
| **SNAA** | **Sanae** | **42.06** | **153** | *e*P | **P** | **15 14 22.8** | **-1.7** |
| | comp=E,28nm,1.6s | | | | | | |
| **QSPA** | **South Pole Qui** | **44.37** | **180** | *e*P | **P** | **15 14 40.5** | **-2.7** |
| | comp=E,19nm,1.4s | | | | | | |
| **OTAV** | **Otavalo** | **45.97** | **357** | *e*P | **P** | **15 14 57.1** | **+0.3** |
| | comp=E,17nm,1.3s | | | | | | |
| **PTGA** | **Pitinga** | **47.15** | **22** | *e*P | **P** | **15 15 05.7** | **+0.1** |
| | comp=E,12nm,1.1s | | | | | | |
| **TUMC** | **Tumaco** | **47.56** | **356** | *e*P | **P** | **15 15 10.8** | **+2.1** |
| | comp=E,108nm,0.8s | | | | | | |
| **PRAC** | **Prado** | **49.39** | **2** | *e*P | **P** | **15 15 22.4** | **-0.4** |
| | comp=E,100nm,1.9s | | | | | | |
| **RUSC** | **La Rusia** | **51.61** | **4** | *e*P | **P** | **15 15 41.8** | **+1.6** |
| | comp=E,9.2nm,1.4s | | | | | | |
| **HELC** | **Santa Helena** | **51.84** | **1** | *e*P | **P** | **15 15 40.2** | **-1.6** |
| | comp=E,12nm,0.9s | | | | | | |
| **VNDA** | **Vanda** | **51.84** | **194** | LR | LR | 15 35 43.7 | |
| | comp=E,88nm,18.3s,baz=134,slow=34 | | | | | | |
| **VNDA** | **Vanda** | **51.84** | **194** | *e*P | **P** | **15 15 38.3** | **-2.4** |
| **SYO** | **Syowa Base** | **56.06** | **157↑** | *e*P | **P** | **15 16 08.8** | **-2.7** |
| **MAW** | **Mawson** | **62.68** | **164** | LR | LR | 15 42 57.0 | |
| | comp=E,405nm,22.0s,baz=235,slow=35 | | | | | | |
| **MAW** | **Mawson** | **62.68** | **164** | *e*P | **P** | **15 15 53.6** | **-3.7** |
| | comp=E,7.4nm,1.5s | | | | | | |
| **GDHS** | **Morne Mazeau,** | **63.21** | **15** | *e*P | **P** | **15 15 58.6** | **-2.8** |
| | comp=E,223nm,1.2s | | | | | | |
| **SEUS** | **St. Eustatius** | **64.19** | **14** | *e*P | **P** | **15 17 07.0** | **-0.7** |
| | comp=E,351nm,1.0s | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **65.69** | **283** | *e*LR | LR | 15 37 08.4 | |
| | comp=E,117nm,28.3s | | | | | | |
| **BOSA** | **Boshof** | **77.30** | **118** | P | **P** | **15 18 28.4** | **+0.5** |
| | comp=E,2.9nm,0.9s,baz=331,slow=5.8,SNR=2.4 | | | | | | |
| **BOSA** | **Boshof** | **77.30** | **118** | *e*P | **P** | **15 18 26.9** | **-1.0** |
| | comp=E,34nm,1.3s | | | | | | |
| **LTX** | **Lajitas** | **78.93** | **336** | *e*P | **P** | **15 18 35.7** | **-0.8** |
| **TX31** | **Lajitas Ar. Si** | **78.93** | **336** | *e*P | **P** | **15 18 36.2** | **-0.4** |
| **TXAR** | **Lajitas Array** | **78.93** | **336** | P | **P** | **15 18 35.7** | **-0.8** |
| | comp=E,1.2nm,1.0s,baz=145,slow=4.6,SNR=6.8 | | | | | | |
| **JCT** | **Junction City** | **78.98** | **339** | *e*P | **P** | **15 18 35.0** | **-1.8** |
| | comp=E,21nm,1.1s | | | | | | |
| **GOGA** | **Godfrey** | **79.20** | **354** | *e*P | **P** | **15 18 36.6** | **-1.2** |
| | comp=E,30nm,1.4s | | | | | | |
| **LBTB** | **Lobatse** | **80.08** | **116** | *e*P | **P** | **15 18 44.0** | **+0.7** |
| | comp=E,46nm,1.3s | | | | | | |
| **SWET** | **Sewanee** | **81.21** | **352** | *e*P | **P** | **15 18 47.1** | **-1.5** |
| | comp=E,53nm,1.6s | | | | | | |
| **DBIC** | **Dimbokro** | **81.93** | **72** | P | **P** | **15 18 53.7** | **+0.7** |
| | comp=E,1.2nm,0.6s,baz=158,slow=2.1,SNR=2.3 | | | | | | |
| DBIC | | | | LR | LR | 15 52 40.9 | |
| | comp=E,70nm,18.0s,baz=196,slow=34 | | | | | | |
| **DBIC** | **Dimbokro** | **81.93** | **72** | *e*P | **P** | **15 18 53.5** | **+0.5** |
| | comp=E,21nm,1.6s | | | | | | |
| **X35A** | **Drake** | **82.11** | **343** | *e*P | **P** | **15 18 51.2** | **-2.2** |
| | comp=E,21nm,1.3s | | | | | | |
| **WHAR** | **Wooly Hollow** | **82.11** | **347** | *e*P | **P** | **15 18 56.1** | **+2.8** |
| | comp=E,32nm,1.3s | | | | | | |
| **WVT** | **Waverly** | **82.32** | **350** | *e*P | **P** | **15 18 53.3** | **-1.1** |
| | comp=E,35nm,1.5s | | | | | | |
| **319A** | **Douglas** | **82.56** | **332** | *e*P | **P** | **15 18 56.2** | **+0.2** |
| | comp=E,11nm,1.0s | | | | | | |
| **MSTX** | **Muleshoe** | **83.06** | **338** | *e*P | **P** | **15 18 56.5** | **-2.0** |
| | comp=E,17nm,1.3s | | | | | | |
| **JSRW** | **J. Sargeant Re** | **83.21** | **359** | *e*P | **P** | **15 18 57.2** | **-1.8** |
| **V36A** | **Jenks** | **83.24** | **344** | *e*P | **P** | **15 18 57.9** | **-1.3** |
| | comp=E,34nm,1.1s | | | | | | |
| **FVM** | **French Village** | **84.47** | **349** | *e*P | **P** | **15 19 03.9** | **-1.6** |
| | comp=E,36nm,1.6s | | | | | | |
| **CCM** | **Cathedral Cave** | **84.66** | **348** | *e*P | **P** | **15 19 04.5** | **-1.9** |
| | comp=E,55nm,1.4s | | | | | | |
| **LAZ** | **Ladron** | **84.69** | **335** | *e*P | **P** | **15 19 04.8** | **-2.2** |
| **ANMO** | **Albuquerque** | **85.00** | **335** | *e*P | **P** | **15 19 07.7** | **-0.8** |
| | comp=E,8.7nm,1.2s | | | | | | |
| **X18A** | **Snowflake** | **85.68** | **333** | *e*P | **P** | **15 19 12.2** | **+0.4** |
| | comp=E,24nm,1.8s | | | | | | |
| **T25A** | **Trinidad** | **86.48** | **338** | *e*P | **P** | **15 19 13.6** | **-2.3** |
| | comp=E,24nm,1.4s | | | | | | |
| **MHTCO** | **State Highway** | **86.55** | **337** | *e*P | **P** | **15 19 14.8** | **-1.3** |
| | comp=E,17nm,1.3s | | | | | | |
| **WUAZ** | **Wupatki** | **87.05** | **332** | *e*P | **P** | **15 19 19.1** | **+0.5** |
| | comp=E,18nm,1.4s | | | | | | |
| **S22A** | **4UR Ranch, Cre** | **87.71** | **336** | *e*P | **P** | **15 19 20.1** | **-1.8** |
| | comp=E,12nm,1.3s | | | | | | |
| **U15A** | **North Rim** | **88.18** | **332** | *e*P | **P** | **15 19 23.1** | **-1.1** |
| | comp=E,6.9nm,1.1s | | | | | | |
| **Q24A** | **Divide** | **88.39** | **338** | *e*P | **P** | **15 19 26.9** | **+1.8** |
| | comp=E,13nm,1.2s | | | | | | |
| **SHPR** | **Sheep Range** | **89.24** | **329** | *e*P | **P** | **15 19 28.1** | **-0.8** |
| | comp=E,13nm,1.2s | | | | | | |
| **JFWS** | **Jewell Farm** | **89.30** | **350** | *e*P | **P** | **15 19 28.9** | **+0.1** |
| | comp=E,45nm,1.3s | | | | | | |
| **CCUT** | **Cedar City** | **89.56** | **331** | *e*P | **P** | **15 19 31.3** | **+0.7** |
| | comp=E,13nm,1.4s | | | | | | |
| **MSU** | **Marysvale** | **90.04** | **332** | *e*P | **P** | **15 19 33.1** | **+0.3** |
| **TOA0** | **Torodi Ar. Sit** | **91.03** | **72** | *e*P | **P** | **15 19 36.8** | **-0.9** |
| **TORD** | **Torodi Ar. Bea** | **91.03** | **72** | P | **P** | **15 19 41.0** | **+3.4** |
| | comp=E,1.7nm,1.1s,baz=211,slow=4.6,SNR=6.6 | | | | | | |
| TORD | | | | LR | LR | 15 56 37.1 | |
| | comp=E,81nm,20.0s,baz=265,slow=33 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **91.03** | **72** | *e*P | **P** | **15 19 41.0** | **+3.4** |
| **ECSD** | **EROS Data Cent** | **91.07** | **345** | *e*P | **P** | **15 19 39.0** | **+1.9** |
| | comp=E,12nm,1.1s | | | | | | |
| **MDPB** | **Devils Postpil** | **91.67** | **327** | *e*P | **P** | 15 19 49.3 | +8.9 |
| | comp=E,21nm,1.0s | | | | | | |
| **DZM** | **Mont Dzumac** | **91.80** | **235** | LR | LR | 15 51 32.9 | |
| | comp=E,85nm,18.6s,baz=278,slow=30 | | | | | | |
| **DZM** | **Mont Dzumac** | **91.80** | **235** | *e*LR | LR | 15 49 18.9 | |
| | comp=E,315nm,28.4s | | | | | | |
| **PDAR** | **Pinedale Array** | **93.14** | **336** | P | **P** | **15 19 46.7** | **-0.4** |
| | comp=E,0.4nm,0.7s,baz=162,slow=5.6,SNR=3.3 | | | | | | |
| PDAR | | | | LR | LR | 15 57 50.6 | |
| | comp=E,56nm,18.2s,baz=140,slow=33 | | | | | | |
| **STKA** | **Stephens Creek** | **95.40** | **212** | LR | LR | 15 56 08.6 | |
| | comp=E,102nm,18.1s,baz=206,slow=31 | | | | | | |
| **H11S2** | **WAKE ISLAND Hyl** | **21.90** | **264** | T | T | 17 38 33.5 | |
| | baz=135 | | | | | | |
| **H11S1** | **WAKE ISLAND Hyl** | **21.91** | **264** | T | T | 17 38 39.3 | |
| | baz=135 | | | | | | |
| **H11S3** | **WAKE ISLAND Hyl** | **21.91** | **264** | T | T | 17 38 35.3 | |
| | baz=135 | | | | | | |
| **GERES** | **GERESS Array B** | **122.39** | **51** | PKP | **PKPdf** | **15 25 29.6** | **+1.9** |
| | comp=E,0.6nm,0.8s,baz=304,slow=0.5,SNR=4.4 | | | | | | |
| **H11N3** | **WAKE ISLAND Hyl** | **22.58** | **265** | T | T | 17 39 26.7 | |
| | baz=137 | | | | | | |
| **H11N1** | **WAKE ISLAND Hyl** | **22.59** | **265** | T | T | 17 39 29.2 | |
| | baz=137 | | | | | | |
| **SUA** | **Susitna One** | **122.60** | **327** | *e*Pdif | **Pdif** | **15 21 59.1** | **+1.1** |
| **H11N2** | **WAKE ISLAND Hyl** | **22.60** | **265** | T | T | 17 39 30.8 | |
| | baz=137 | | | | | | |
| **ILAR** | **Eielson Array** | **123.22** | **331** | PKP | **PKPdf** | **15 25 29.6** | **+0.8** |
| | comp=E,0.7nm,1.0s,baz=207,slow=1.3,SNR=5.0 | | | | | | |
| **VYHS** | **Vyhne** | **125.06** | **54** | *e*PKP | **PKPdf** | **15 25 38.4** | **+5.7** |
| **BUR04** | **Bucovina Ar. S** | **128.30** | **58** | *e*PKPpre | PKPpre | 15 25 25.9 | |
| BUR04 | | | | *e*PKPdf | **PKPdf** | **15 25 38.3** | **-0.7** |
| **BR231** | **Keskin MP Arra** | **129.10** | **70** | *e*PKPpre | PKPpre | 15 25 28.4 | |
| BR231 | | | | *e*PKPdf | **PKiKP** | **15 25 41.3** | **-0.3** |
| **BR101** | **Keskin Array S** | **129.61** | **70** | *e*PKPdf | **PKPdf** | **15 25 43.5** | **+1.6** |
| **BRTR** | **Keskin Array B** | **129.61** | **70** | PKP | **PKPdf** | **15 25 43.5** | **+1.6** |
| | comp=E,2.5nm,1.0s,baz=282,slow=1.1,SNR=6.0 | | | | | | |
| **AKASG** | **Malin Array Be** | **132.05** | **56** | PKP | **PKPdf** | **15 25 45.6** | **-0.3** |
| | comp=E,0.1nm,0.3s,baz=246,slow=2.1,SNR=2.4 | | | | | | |
| **PETK** | **Petropavlovsk-** | **145.04** | **302** | PKP | **PKPdf** | **15 26 09.1** | **-0.5** |
| | comp=E,3.9nm,0.8s,baz=82,slow=11,SNR=5.0 | | | | | | |
| **PETK** | **Petropavlovsk-** | **145.04** | **302** | *e*PKPbc | **PKPbc** | **15 26 07.6** | **-1.5** |
| **PEA1** | **Petropavlovsk-** | **145.04** | **302** | *e*PKPbc | **PKPdf** | **15 26 09.1** | **-0.5** |
| **GEYT** | **Alibeck** | **145.42** | **87** | PKPbc | **PKPdf** | **15 26 10.0** | **-0.9** |
| | comp=E,6.2nm,1.0s,baz=242,slow=8.1,SNR=5.9 | | | | | | |
| **SEY** | **Seymchan** | **148.00** | **320** | PKPbc | **PKPdf** | **15 26 14.6** | **+0.3** |
| | comp=E,6.0nm,1.1s,baz=137,slow=5.5,SNR=3.8 | | | | | | |
| **ARU** | **Arti** | **150.21** | **53** | *e*PKPdf | **PKPdf** | **15 26 19.7** | **+1.6** |
| ARU | | | | *e*PKPbc | **pPKPbc** | **15 26 28.0** | **+0.6** |
| **TIXI** | **Tiksi** | **151.56** | **344** | *e*PKPbc | **PKPbc** | **15 26 26.1** | **+0.2** |
| **CM01** | **Chiang Mai Arr** | **152.31** | **170** | *e*PKPbc | **PKPbc** | **15 26 26.7** | **-2.6** |
| CM01 | | | | *e*PKPab | **pPKPab** | **15 26 43.1** | **-0.1** |
| **CM31** | **Chiang Mai Arr** | **152.35** | **170** | *e*PKPdf | **PKPdf** | **15 26 20.4** | **-2.2** |
| CM31 | | | | *e*PKPbc | **sPKPdf** | **15 26 27.9** | **-0.3** |
| **CMAR** | **Chiang Mai Arr** | **152.35** | **170** | PKPbc | **PKPbc** | **15 26 26.9** | **-2.4** |
| | comp=E,2.0nm,1.1s,baz=202,slow=3.1,SNR=6.1 | | | | | | |
| **CHTO** | **Chiang Mai** | **152.70** | **170** | *e*PKPdf | **PKPdf** | **15 26 19.3** | **-3.8** |
| CHTO | | | | *e*PKPbc | **pPKPdf** | **15 26 27.2** | **0.0** |
| CHTO | | | | *e*PKPab | **pPKPbc** | **15 26 34.4** | **+0.1** |
| **KSH** | **Kashi** | **158.59** | **97** | *e*PKP | **PKPdf** | **15 26 34.8** | **+4.3** |
| KSH | | | | pPKP | sPKPdf | 15 26 45.8 | +10 |
| KSH | | | | PP | **PP** | **15 30 51.4** | **+4.7** |
| KSH | | | | SKS | **SKSdf** | **15 33 34.4** | **-1.4** |
| KSH | | | | SKKS | **SKKSac** | **15 37 34.6** | **-0.3** |
| KSH | | | | SS | **SS** | **15 50 44.8** | **-3.9** |
| KSH | | | | LR | LR | | |
| | comp=E,100nm,6.0s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,86nm,3.9s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,140nm,6.8s | | | | | | |
| **AAK** | **Ala-Archa** | **158.75** | **88** | *e*PKPdf | **PKPdf** | **15 26 28.7** | **-1.9** |
| AAK | | | | *e*PKPab | **PKPab** | **15 27 07.1** | **+0.7** |
| **KMI** | **Kunming** | **159.27** | **177** | PKP | **PKPdf** | **15 26 35.4** | **+3.6** |
| **GYA** | **Guiyang** | **160.49** | **187** | *e*PKP | **PKPdf** | **15 26 36.5** | **+3.5** |
| GYA | | | | PKPab | **sPKPab** | **15 27 20.8** | **+1.1** |
| GYA | | | | PKS | **PKSdf** | **15 30 07.4** | **+0.8** |
| GYA | | | | PP | **PP** | **15 31 02.6** | **+6.9** |
| GYA | | | | AMB | AMB | | |
| | comp=E,120nm,8.2s | | | | | | |
| **NJ2** | **Nanjing** | **161.99** | **225** | *e*PKP | **PKPdf** | **15 26 39.5** | **+5.2** |
| **KURK** | **Kurchatov** | **162.54** | **65** | *e*PKPdf | **PKPdf** | **15 26 35.6** | **+1.4** |
| KURK | | | | *e*PKPab | **PKPab** | **15 27 20.2** | **-2.3** |
| **MK32** | **Makanchi Array** | **165.06** | **79** | *e*PKPab | **PKPab** | **15 27 32.9** | **-0.8** |
| **MKAR** | **Makanchi Array** | **165.06** | **79** | PKPab | **PKPab** | **15 27 32.9** | **-0.8** |
| | comp=E,0.3nm,0.7s,baz=273,slow=5.5,SNR=2.7 | | | | | | |
| **MK01** | **Makanchi Array** | **165.06** | **79** | *e*PKPdf | **PKPdf** | **15 26 32.5** | **-4.3** |
| MK01 | | | | *e*PKPab | **pPKPab** | **15 27 35.9** | **-2.0** |
| **ZAA1** | **Zalesovo Array** | **165.33** | **50** | *e*PKPdf | **PKPdf** | **15 26 37.5** | **+0.9** |
| ZAA1 | | | | *e*PKPab | **PKPab** | **15 27 33.4** | **-1.2** |
| **ZAA0** | **Zalesovo Array** | **165.34** | **50** | *e*PKPdf | **PKPdf** | **15 26 33.5** | **-3.1** |
| ZAA0 | | | | *e*PKPab | **PKPab** | **15 27 33.3** | **-1.3** |
| **ZALV** | **Zalesovo Beam** | **165.34** | **50** | PKP | **PKPdf** | **15 26 37.5** | **+0.9** |
| | comp=E,2.4nm,1.0s,baz=270,slow=2.5,SNR=9.2 | | | | | | |
| ZALV | | | | PKPab | **PKPab** | **15 27 33.4** | **-1.2** |
| | comp=E,0.4nm,0.5s,baz=300,slow=3.2,SNR=2.7 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **165.34** | **50** | *e*PKPdf | **PKPdf** | **15 26 33.4** | **-3.2** |
| ZALV | | | | PKPab | **PKPab** | **15 27 33.4** | **-1.2** |
| ZALV | | | | *e*PKPab | **sPKPab** | **15 27 40.0** | **-0.2** |
| **WMQ** | **Urumqi** | **168.32** | **94** | PKP | **PKPdf** | **15 26 43.4** | **+4.0** |
| WMQ | | | | LR | LR | | |
| | comp=E,150nm,21.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,170nm,23.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,140nm,22.5s | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **172.48** | **231** | *e*PKP | **PKPdf** | **15 26 46.4** | **+4.6** |
| **GTA** | **Gaotai** | **172.87** | **154** | *e*PKP | **PKPdf** | **15 26 45.6** | **+3.5** |
| GTA | | | | pPKP | sPKPdf | 15 26 56.3 | +8.6 |
| GTA | | | | sPKP | | 15 27 00.1 | |

**DJA 22 15:23:19.0±2.0, 0°N±4°×100°E±°, h24km±20km, M3.8/7, MLv3.8/7, Northern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **BKNI** | **Bangkinang** | **1.39** | **90** | P | Pn | 15 23 41.9 | -1.0 |
| BKNI | | | | S | Sn | 15 24 00.9 | +0.4 |
| **PBSI** | **Pulau Batu** | **1.42** | **254** | P | Pn | 15 23 42.0 | -1.4 |
| PBSI | | | | S | Sb | 15 24 02.5 | -0.1 |
| **PDSI** | **Padang** | **1.48** | **147** | P | Pb | 15 23 45.3 | -0.5 |
| **SISI** | **Saibi** | **1.74** | **199** | P | Pn | 15 23 47.9 | +0.2 |
| SISI | | | | S | Sb | 15 24 12.4 | +0.7 |
| **SDSI** | **Sungai Dareh** | **2.18** | **125** | P | Pn | 15 23 54.0 | +0.3 |
| **GSI** | **Gunungsitoli** | **2.29** | **295** | P | Pn | 15 23 54.5 | -0.8 |
| **KCSI** | **Kotacane, Aceh** | **3.69** | **329** | P | Pn | 15 24 14.0 | -0.5 |
| **TPTI** | | **3.82** | **320** | P | Pn | 15 24 15.7 | -0.6 |

*ISCJB **22** 15:37:11.3±1.1, 29.27S±0.03×71.58W±0.0, h45km±11km, mb4.0/2, Error ellipse: s-maj=13.6km s-min=5.5km az=5.1*
*GUC **22** 15:37:11.1±0.5, 29.34S×71.28W, h58km±4km, ML4.2*
*IDC **22** 15:37:11.5±1.7, 30.02S×71.23W, h38km±7km, mb3.9/2, mb1 3.7/4, mb1mx3.5/24, mbtmp3.9/4, ML3.6/2, MS3.1/1, Ms1 3.1/1, ms1mx2.7/15, Error ellipse: s-maj=65.0km s-min=54.6km az=122.0*
*SJA **22** 15:37:12.3±1.2, 29.44S×71.32W, h10km±40km, ML3.8, MW3.8*
**ISC 22 15:37:11.3±1.1, 29°30S±0'.04×71°6W±0'.1, h42km±8km, n26, σ1°66/25, 2C, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **LSCH** | **La Serena** | **0.67** | **155** | *e*P | **Pn** | **15 37 24.1** | **-0.3** |
| LSCH | | | | *i* S | **Sn** | **15 37 32.8** | **-0.9** |
| **LCO** | **Las Campanas** | **0.81** | **69** | *i* P | **Pn** | **15 37 25.7** | **-0.9** |
| LCO | | | | *i* S | **Sn** | **15 37 36.0** | **-1.7** |
| LCO | | | | IAML | | 15 37 37.1 | |
| | comp=Z,6μm,0.2s | | | | | | |
| **LCO** | **Las Campanas** | **0.81** | **69↑** | *i* P | **Pn** | **15 37 25.7** | **-0.9** |
| LCO | | | | *i* S | **Sn** | **15 37 36.1** | **-1.6** |
| LCO | | | | IAML | | 15 37 36.5 | |
| | comp=E,15μm,0.4s | | | | | | |
| **VACH** | **Vallenar** | **1.01** | **45↑** | *i* P | **Pn** | **15 37 28.6** | **-0.5** |
| VACH | | | | *i* S | **Sn** | **15 37 41.7** | **-0.5** |
| **TLL** | **Tololo Astrono** | **1.09** | **143** | *e*P | **Pn** | **15 37 29.7** | **-0.7** |
| TLL | | | | *i* S | **Sn** | **15 37 44.0** | **-0.4** |
| TLL | | | | IAML | | 15 37 45.3 | |
| | comp=E,22μm,0.5s | | | | | | |
| **GO03** | **Copiap** | **2.07** | **35** | *e*P | **Pn** | **15 37 43.4** | **-0.2** |
| GO03 | | | | *i* S | **Sn** | **15 38 08.6** | **+0.4** |
| GO03 | | | | IAML | | 15 38 17.5 | |
| | comp=N,2μm,0.4s | | | | | | |
| **CPCH** | **Copiapo** | **2.21** | **29** | *e*P | **Pn** | **15 37 45.9** | **+0.3** |
| CPCH | | | | *e*S | **Sn** | **15 38 12.4** | **+0.7** |
| **AGUA** | **GUANDACOL** | **2.69** | **95** | *e*P | Pn | 15 37 55.8 | +3.5 |
| **VCA** | **Vinchina** | **3.00** | **80** | *e*P | Pn | 15 38 00.8 | +4.3 |
| VCA | | | | IAML | | 15 38 03.8 | |
| | comp=Z,620nm,0.3s | | | | | | |
| **AMOG** | **MOGNA** | **3.13** | **122** | *e*P | Pn | 15 38 00.9 | +2.7 |
| **RTLS** | **Leoncito** | **3.17** | **142** | *e*P | Pn | 15 38 02.1 | +3.2 |
| RTLS | | | | IAML | | 15 38 58.8 | |
| | comp=Z,278nm,0.4s | | | | | | |
| **RTLL** | **Cerro Villicun** | **3.35** | **128** | *i* P | Pn | 15 38 03.5 | +2.1 |
| RTLL | | | | IAML | | 15 38 52.4 | |
| | comp=Z,256nm,0.4s | | | | | | |
| **RTLL** | **Cerro Villicun** | **3.35** | **128** | *i* P | Pn | 15 38 03.4 | +2.1 |
| RTLL | | | | *i* S | **Sn** | **15 38 42.5** | **+2.6** |
| **AUSP** | **Uspallata** | **3.47** | **148** | *e*P | Pn | 15 38 06.4 | +3.3 |
| AUSP | | | | *e*S | Sn | 15 38 51.3 | +8.2 |
| **RTCV** | **Cerro Valdivia** | **3.65** | **135** | *e*P | Pn | 15 38 08.2 | +2.8 |
| RTCV | | | | *e*S | Sn | 15 38 53.7 | +6.5 |
| **ACLC** | **CERRO LA CRUZ** | **4.03** | **93** | *i* P | Pn | 15 38 12.5 | +1.7 |
| ACLC | | | | *e*S | **Sn** | **15 38 58.5** | **+1.7** |
| **APLL** | **PUNTA DE LOS L** | **4.51** | **105** | *i* P | Pn | 15 38 18.6 | +1.3 |
| APLL | | | | IAML | | 15 39 32.3 | |
| | comp=Z,62nm,0.7s | | | | | | |
| **CYA** | **Choya** | **5.13** | **82** | *e*P | Pn | 15 38 28.0 | +2.3 |
| CYA | | | | IAML | | 15 38 31.5 | |
| | comp=Z,59nm,0.6s | | | | | | |
| **TCA** | **Tanti** | **6.36** | **110** | IAML | | 15 40 32.6 | |
| | comp=Z,41nm,0.6s | | | | | | |
| **CPUP** | **Villa Florida** | **12.95** | **80** | LR | LR | 15 45 44.1 | |
| | comp=Z,77nm,19.5s,baz=231,slow=40 | | | | | | |
| **LPAZ** | **La Paz** | **13.33** | **14** | Pn | **P** | **15 40 27.9** | **+0.4** |
| | comp=Z,0.1nm,0.3s,baz=202,slow=7.5,SNR=2.3 | | | | | | |
| **SIV** | **San Ignacio** | **16.40** | **38** | Pn | **P** | **15 41 03.9** | **+2.9** |
| | comp=Z,0.2nm,0.3s,baz=223,slow=11,SNR=3.0 | | | | | | |
| **DBIC** | **Dimbokro** | **73.33** | **72** | P | **P** | **15 48 38.8** | **-0.3** |
| | comp=Z,1.0nm,0.4s,baz=233,slow=7.6,SNR=2.5 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **82.24** | **70** | P | **P** | **15 49 28.8** | **+0.1** |
| | comp=Z,1.0nm,0.7s,baz=255,slow=4.3,SNR=5.3 | | | | | | |
| TORD | | | | pP | **pP** | **15 49 41.8** | **+0.6** |
| | comp=Z,1.1nm,0.8s,baz=244,slow=4.7,SNR=4.7 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **149.98** | **28** | PKPbc | **PKPab** | **15 56 57.8** | **-4.8** |
| | comp=Z,0.6nm,0.4s,baz=302,slow=5.4,SNR=4.5 | | | | | | |
| ZALV | | | | pPKPbc | **pPKPbc** | **15 57 09.2** | **-0.6** |
| | comp=Z,2.4nm,0.6s,baz=300,slow=2.4,SNR=7.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **153.19** | **42** | PKPbc | **PKPbc** | **15 57 06.7** | **+2.2** |
| | comp=Z,0.1nm,0.5s,baz=303,slow=2.9,SNR=6.0 | | | | | | |
| MKAR | | | | pPKPbc | **pPKPbc** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **KECS** | **Kecovo** | **1.82** | **149** | *e*SN | **Sb** | **16 13 29.7** | **+0.5** |
| KECS | | | | *e*LG | Lg | 16 13 33.7 | |
| **CRVS** | **Cervenica-Dubn** | **1.94** | **125** | *e*Pn | **Pb** | **16 13 08.5** | **+0.6** |
| **CRVS** | **Cervenica-Dubn** | **1.94** | **125** | *e*PN | **Pb** | **16 13 08.5** | **+0.6** |
| **KSP** | **Ksiaz** | **1.95** | **295** | *e*Pg | **Pg** | **16 13 10.4** | **+1.4** |
| KSP | | | | *e*Sg | **Sg** | **16 13 34.2** | **0.0** |
| **KSP** | **Ksiaz** | **1.95** | **295** | *e*Pg | **Pg** | **16 13 10.4** | **+1.4** |
| KSP | | | | *e*Sg | **Sg** | **16 13 34.2** | **0.0** |
| **KSP** | **Ksiaz** | **1.95** | **295** | *e*Pg | **Pg** | **16 13 10.4** | **+1.4** |
| KSP | | | | *e*Sg | **Sg** | **16 13 34.2** | **0.0** |
| **UPC** | **Upice** | **2.02** | **284** | *e*SG | **Sn** | **16 13 33.4** | **+0.5** |
| | comp=Z,6.8nm,0.5s | | | | | | |
| **UPC** | **Upice** | **2.02** | **284** | Sg | **Sn** | **16 13 33.4** | **+0.5** |
| | 6.8nm,0.5s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **2.77** | **269** | *e*PG | **Pg** | **16 13 23.5** | **-1.3** |
| GOPC | | | | *e*SG | **Sb** | **16 13 58.0** | **+1.4** |
| | comp=Z,5.8nm,0.5s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **2.77** | **269** | Pg | **Pg** | **16 13 23.5** | **-1.3** |
| GOPC | | | | Sg | **Sb** | **16 13 58.0** | **+1.4** |
| | 5.8nm,0.5s | | | | | | |
| **PRU** | **Pruhonice** | **2.92** | **271** | *e*SG | **Sb** | **16 14 02.5** | **+1.6** |
| | comp=Z,3.9nm,0.4s | | | | | | |
| **PRU** | **Pruhonice** | **2.92** | **271** | Sg | **Sb** | **16 14 02.5** | **+1.6** |
| | 3.9nm,0.4s | | | | | | |
| **PVCC** | **Panska Ves** | **2.93** | **281** | *e*SG | **Sg** | **16 14 05.0** | **-0.7** |
| | comp=Z,12nm,0.3s | | | | | | |
| **PVCC** | **Panska Ves** | **2.93** | **281** | Sg | **Sg** | **16 14 05.0** | **-0.7** |
| | 12nm,0.3s | | | | | | |
| **BRG** | **Berggiesshubel** | **3.38** | **286** | SG | **Sg** | **16 14 18.4** | **-1.9** |
| | 4.4nm,0.6s | | | | | | |
| **KHC** | **Kasperske Hory** | **3.69** | **258** | *e*PN | **Pn** | **16 13 30.5** | **+0.4** |
| KHC | | | | *e*PG | **Pg** | **16 13 40.8** | **-1.6** |
| KHC | | | | *e*SG | **Sg** | **16 14 27.7** | **-2.5** |
| | comp=Z,4.2nm,0.5s | | | | | | |
| **KHC** | **Kasperske Hory** | **3.69** | **258** | Pn | **Pn** | **16 13 30.5** | **+0.4** |
| **CLL** | **Collm** | **4.06** | **290** | *e*Sg | **Sg** | **16 14 43.0** | **+0.9** |
| **NKC** | **Novy Kostel** | **4.26** | **275** | *e*SG | **Sg** | **16 14 46.1** | **-2.6** |
| **NKC** | **Novy Kostel** | **4.26** | **275** | Sg | **Sg** | **16 14 46.1** | **-2.6** |

*NIED* ***22*** *16:13:00.36°.80N×140°.60E.h8km.Mw3.5 Best double couple: M₀1.88000×10¹⁴ NP1:φs313.00000°,δ39.00000°, λ-92.00000°. NP2:φs136.00000°,δ51.00000°, λ-88.00000°.*

*ISCJB* ***22*** *16:13:35.0±0.6,36°.74N±0°.03×140°.64E±0°.05,h18km±5km, mb3.5/2,Error ellipse: s-maj=7.6km s-min=4.2km az=35.4*

*IDC* ***22*** *16:13:34.1±1.7,36°.69N×140°.65E,h0km,mb3.4/2, mb1 3.7/3,mb1mx3.2/42,mbtmp3.5/3,ML3.7/1,Error ellipse: s-maj=30.5km s-min=27.2km az=62.0*

*JMA* ***22*** *16:13:35.9,36°.79N×140°.55E,h9km±1km,M3.8 Broadband fault plane solution: P waves. NP1: φs154.00000°,δ58.00000°,λ-61.00000°. NP2: φs288.00000°,δ42.00000°,λ-128.00000°. Principal axes: T Plg9.0000°, Azm224.0000°; N Plg24.0000°, Azm318.0000°; P Plg64.0000°, Azm115.0000°;*

*JMA Felt II J1.*

**ISC 22 16:13:35.6±1.0,36°.78N±0°.03×140°.56E±0°.04,h11km±8km, n21,σ0ˢ74/25,9C,Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JHO** | **Hitachi** | **0.17** | **178** | ⇑P | **Pg** | **16 13 39.5** | **+0.3** |
| JHO | | | | S | **Sg** | **16 13 42.0** | **+0.2** |
| **ONAJ** | **Iwakimizuishiy** | **0.38** | **30** | ⇑P | **Pg** | **16 13 43.2** | **+0.1** |
| ONAJ | | | | S | **Sg** | **16 13 49.0** | **+0.8** |
| **JSB** | **Shiboa** | **0.55** | **291** | ⇑P | **Pg** | **16 13 46.8** | **+0.5** |
| JSB | | | | S | **Sg** | **16 13 54.3** | **+0.8** |
| **JYT** | **Yasato** | **0.62** | **208** | ⇑P | **Pb** | **16 13 47.7** | **-0.8** |
| **JFK** | **Kawauchi** | **0.64** | **23** | ⇑P | **Pg** | **16 13 47.7** | **-0.4** |
| JFK | | | | S | **Sg** | **16 13 56.1** | **-0.4** |
| **JFT** | **Otama** | **0.76** | **347** | ⇑P | **Pg** | **16 13 50.1** | **-0.2** |
| JFT | | | | S | **Sg** | **16 14 00.2** | **-0.1** |
| **JFY** | **Yanaizu** | **0.93** | **313** | P | **Pg** | **16 13 53.3** | **-0.2** |
| **JAG** | **Ashikaga** | **0.96** | **249** | ⇑P | **Pg** | **16 13 53.1** | **-0.9** |
| JAG | | | | S | **Sg** | **16 14 06.2** | **-0.3** |
| **JKT** | **Katashina** | **1.05** | **270** | ⇑P | **Pg** | **16 13 55.2** | **-0.7** |
| JKT | | | | S | **Sg** | **16 14 08.8** | **-0.8** |
| **JMM** | **Marumori** | **1.10** | **10** | ⇑P | **Pg** | **16 13 55.7** | **-1.1** |
| JMM | | | | S | **Sg** | **16 14 10.8** | **-0.4** |
| **MJAR** | **Matsushiro Arr** | **1.91** | **264** | Pn | **Pn** | **16 14 08.5** | **+0.4** |
| | 22nm,0.3s,baz=87,slow=15,SNR=139 | | | | | | |
| MJAR | | | | Sn | **Sn** | **16 14 33.5** | **+1.4** |
| | 31nm,0.3s,baz=82,slow=29,SNR=18 | | | | | | |
| **MAT** | **Matsushiro** | **1.91** | **264** | P | **Pn** | **16 14 08.4** | **+0.3** |
| MAT | | | | S | **Sn** | **16 14 33.6** | **+1.5** |
| **ASAJ** | **Asahikawa** | **7.50** | **11** | Pn | **Pn** | **16 15 25.5** | **+0.6** |
| | 1.1nm,0.3s,baz=211,slow=18,SNR=8.0 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.61** | **119** | T | T | 16 49 16.9 | |
| | baz=312,slow=75,SNR=48 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.62** | **119** | T | T | 16 49 17.6 | |
| | baz=312,slow=75,SNR=46 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.63** | **119** | T | T | 16 49 18.4 | |
| | baz=312,slow=75,SNR=36 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.30** | **121** | T | T | 16 50 09.8 | |
| | baz=314,slow=75,SNR=92 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.30** | **121** | T | T | 16 50 09.1 | |
| | baz=314,slow=75,SNR=80 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.32** | **121** | T | T | 16 50 10.3 | |
| | baz=314,slow=75,SNR=65 | | | | | | |
| **WRA** | **Warramunga Arr** | **56.72** | **187** | P | **P** | **16 23 18.6** | **-0.8** |
| | 0.4nm,0.5s,baz=4.5,slow=7.3,SNR=9.2 | | | | | | |
| **ASAR** | **Alice Springs** | **60.44** | **187** | P | **P** | **16 23 45.4** | **0.0** |
| | 0.2nm,0.7s,baz=18,slow=6.4,SNR=2.7 | | | | | | |

*IDC* ***22*** *16:23:27.9±1.3,1°.37N×126°.85E,h0km,mb3.8/5, mb1 4.0/6,mb1mx3.6/40,mbtmp3.8/6,ML3.8/1,Error ellipse: s-maj=98.9km s-min=18.6km az=70.0*

*ISCJB* ***22*** *16:23:37.4±0.3,1°.35N±0°.04×127°.06E±0°.06,h103km, mb4.8/33,Error ellipse: s-maj=9.1km s-min=5.0km az=156.5*

*NEIC* ***22*** *16:23:37.2±0.7,1°.39N×127°.13E,h83km±7km,mb5.0/24, Error ellipse: s-maj=10.0km s-min=5.2km az=64.0*

**ISC 22 16:23:38.8±0.5,1°.32N±0°.06×127°.05E±0°.07,h103km,n54, σ1ˢ52/56,mb4.9/33,1D,Halmahera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TNTI** | **Ternate** | **0.63** | **150** | *e*Pn | **Pn** | **16 23 52.2** | **-3.7** |
| TNTI | | | | *e*Sn | **Sn** | **16 24 05.4** | **-3.3** |
| **LUWI** | **Luwuk** | **4.88** | **241** | *e*Pn | **Pn** | **16 24 48.9** | **-1.0** |
| LUWI | | | | *e*Sn | **Sn** | **16 25 41.6** | **-3.7** |
| **FAKI** | **Fak Fak** | **6.69** | **129** | *e*Pn | **Pn** | **16 25 15.8** | **+1.3** |
| **MYLDM** | **Lahad Datu** | **9.36** | **294** | *e*Pn | **Pn** | **16 25 50.6** | **-0.2** |
| **SOEI** | **Soe** | **11.34** | **194** | *e*Pn | **Pn** | **16 26 16.3** | **-1.6** |
| **KKM** | **Kota Kinabalu** | **11.79** | **294** | *e*Pn | **Pn** | **16 26 23.6** | **-0.2** |
| **MTN** | **Manton Dam** | **14.64** | **164** | *e*Pn | **Pn** | **16 26 59.7** | **-1.2** |
| **FITZ** | **Fitzroy Crossi** | **19.35** | **184** | P | **P** | **16 27 56.6** | **+0.3** |
| | 0.2nm,0.3s,baz=18,slow=11,SNR=9.1 | | | | | | |
| **WRAB** | **Tennant Creek** | **22.30** | **162** | *e*P | **P** | **16 28 28.5** | **+0.5** |
| | 23nm,1.7s | | | | | | |
| **WR1** | **Warramunga Arr** | **22.30** | **162** | *e*P | **P** | **16 28 28.5** | **+0.5** |
| | 8.8nm,1.0s | | | | | | |
| **WRA** | **Warramunga Arr** | **22.30** | **162** | P | **P** | **16 28 28.5** | **+0.5** |
| | 2.5nm,0.5s,baz=339,slow=11,SNR=74 | | | | | | |
| **WB2** | **Warramunga Arr** | **22.31** | **162** | *e*P | **P** | **16 28 27.4** | **-0.6** |
| **YULB** | **Yu-li** | **22.64** | **346** | *e*P | **P** | **16 28 31.3** | **-0.2** |
| | 135nm,1.9s | | | | | | |
| **TPUB** | **Ta-pu** | **22.72** | **345** | *e*P | **P** | **16 28 29.1** | **-3.2** |
| | 154nm,1.6s | | | | | | |
| **YOJ** | **Yonaguni jima** | **23.34** | **351** | *e*P | **P** | **16 28 37.0** | **-1.1** |
| | 222nm,0.5s | | | | | | |
| **MBWA** | **Marble Bar** | **23.46** | **197** | *e*P | **P** | **16 28 39.9** | **+0.7** |
| | 25nm,1.3s | | | | | | |
| **ANA2** | **Anatahan** | **23.68** | **50** | *e*P | **P** | **16 28 41.1** | **-0.2** |
| **MNAI** | **Manna** | **24.73** | **257** | *e*P | **P** | **16 28 54.5** | **+3.6** |
| | 270nm,1.2s | | | | | | |
| **AS31** | **Alice Springs** | **25.71** | **165** | *e*P | **P** | **16 29 01.1** | **+1.5** |
| | 1.2nm,0.6s | | | | | | |
| **ASAR** | **Alice Springs** | **25.71** | **165** | P | **P** | **16 29 00.8** | **+1.1** |
| | 1.4nm,0.5s,baz=346,slow=8.9,SNR=25 | | | | | | |
| **AS01** | **Alice Springs** | **25.72** | **165** | *e*P | **P** | **16 29 00.6** | **+0.8** |
| **FORT** | **Forrest** | **31.93** | **178** | *e*P | **P** | **16 29 54.0** | **-0.8** |
| | 96nm,0.9s | | | | | | |
| **BBOO** | **Buckleboo** | **34.99** | **167** | *e*P | **P** | **16 30 22.8** | **+1.4** |
| | 37nm,1.9s | | | | | | |
| **STKA** | **Stephens Creek** | **35.78** | **159** | P | **P** | **16 30 29.5** | **+1.4** |
| | 0.5nm,0.3s,baz=354,slow=9.4,SNR=4.5 | | | | | | |
| **STKA** | **Stephens Creek** | **35.78** | **159** | *e*P | **P** | **16 30 29.0** | **+0.9** |
| | 2.2nm,1.6s | | | | | | |
| **KS15** | **Wonju Array Si** | **35.96** | **1** | *e*P | **P** | **16 30 28.4** | **-1.1** |
| **KS01** | **Wonju Array Si** | **35.99** | **1** | *e*P | **P** | **16 30 28.3** | **-1.6** |
| **ARMA** | **Armidale** | **39.30** | **145** | *e*P | **P** | **16 30 58.8** | **+0.8** |
| | 47nm,1.7s | | | | | | |
| **CAN** | **Canberra** | **41.83** | **153** | *e*P | **P** | **16 31 21.0** | **+2.3** |
| | 29nm,1.6s | | | | | | |
| **LSA** | **Lhasa** | **44.29** | **313** | *e*P | **P** | **16 31 39.5** | **+0.4** |
| | 8.0nm,1.8s | | | | | | |
| **SONA0** | **Songino Array** | **49.67** | **342** | *e*P | **P** | **16 32 21.3** | **+1.0** |
| **SONM** | **Songino Array** | **49.67** | **342** | P | **P** | **16 32 21.3** | **+1.0** |
| | 0.6nm,0.7s,baz=153,slow=8.7,SNR=3.8 | | | | | | |
| **SONA1** | **Songino Array** | **49.68** | **342** | *e*P | **P** | **16 32 21.8** | **+1.4** |
| **LBZ** | **Lake Benmore** | **59.52** | **145** | *e*P | **P** | **16 33 32.4** | **+1.0** |
| | 16nm,1.4s | | | | | | |
| **THZ** | **Tophouse** | **59.62** | **142** | *e*P | **P** | **16 33 33.8** | **+1.7** |
| | 16nm,1.2s | | | | | | |
| **RPZ** | **Rata Peaks** | **59.62** | **144** | *e*P | **P** | **16 33 32.7** | **+0.6** |
| | 14nm,1.3s | | | | | | |
| **MK01** | **Makanchi Array** | **59.69** | **326** | *e*P | **P** | **16 33 33.9** | **+1.3** |
| **MK31** | **Makanchi Array** | **59.71** | **326** | *e*P | **P** | **16 33 33.6** | **+0.9** |
| **MK32** | **Makanchi Array** | **59.71** | **326** | *e*P | **P** | **16 33 33.1** | **+0.4** |
| **MKAR** | **Makanchi Array** | **59.71** | **326** | P | **P** | **16 33 33.1** | **+0.4** |
| | 1.0nm,0.8s,baz=130,slow=7.4,SNR=8.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **59.71** | **326** | *e*P | **P** | **16 33 33.5** | **+0.8** |
| | 6.5nm,0.8s | | | | | | |
| **MAKZ** | **Makanchi** | **59.90** | **326** | *e*P | **P** | **16 33 34.4** | **+0.4** |
| | 14nm,2.0s | | | | | | |
| **KHZ** | **Kahutara** | **60.37** | **142** | *e*P | **P** | **16 33 37.9** | **+0.7** |
| | 25nm,1.4s | | | | | | |
| **URZ** | **Urewera** | **60.58** | **136** | *e*P | **P** | **16 33 39.1** | **+0.4** |
| | 13nm,1.1s | | | | | | |
| **BKZ** | **Black Stump Fm** | **60.60** | **137** | *e*P | **P** | **16 33 40.2** | **+1.3** |
| | 22nm,1.5s | | | | | | |
| **RAO** | **Raoul Island** | **60.69** | **125** | *e*P | **P** | **16 33 37.5** | **-2.1** |
| | 1μm,1.5s | | | | | | |
| **KURK** | **Kurchatov** | **63.94** | **328** | *e*P | **P** | **16 34 02.0** | **+1.1** |
| | 3.3nm,0.7s | | | | | | |
| **PAF** | **Port-aux-Franc** | **70.10** | **216** | *e*P | **P** | **16 34 41.0** | **+1.1** |
| | 817nm,1.9s | | | | | | |
| **ATKA** | **Atka Island** | **70.30** | **34** | *e*P | **P** | **16 34 41.3** | **+0.3** |
| | 157nm,1.6s | | | | | | |
| **MSEY** | **Mahe Island** | **71.75** | **265** | *e*P | **P** | **16 34 50.0** | **-0.7** |
| | 56nm,1.5s | | | | | | |
| **HON** | **Honolulu** | **75.50** | **68** | *e*P | **P** | **16 35 10.4** | **-2.0** |
| | 656nm,1.7s | | | | | | |
| **OPA** | **Opana** | **75.52** | **68** | *e*P | **P** | **16 35 11.1** | **-1.5** |
| | 643nm,1.9s | | | | | | |
| **VNDA** | **Vanda** | **81.01** | **173** | *e*P | **P** | **16 35 43.2** | **+1.5** |
| | 30nm,1.8s | | | | | | |
| **SYO** | **Syowa Base** | **90.31** | **201** | ⇓*e*P | **P** | **16 36 29.0** | **+1.2** |

*ISCJB* ***22*** *16:41:15.4±0.2,19°.49S±0°.03×69°.11W±0°.04,h112km±2km, mb4.6/88,Error ellipse: s-maj=6.3km s-min=3.6km az=151.0*

*GUC* ***22*** *16:41:16.8±0.8,19°.58S×69°.33W,h107km±5km,ML5.0*

*NEIC* ***22*** *16:41:16.0±0.0,19°.58S×69°.33W,h107km,mb4.7/76, After GUC.*

*NEIC Felt [IV] at Camina and Mamina; [III] at Huara, La Tirana and Pica.*

*SCB* ***22*** *16:41:17.7±0.5,19°.37S×68°.90W,h118km,Ml4.0/1,Error ellipse: s-maj=18.7km s-min=4.6km az=64.0*

*IDC* ***22*** *16:41:17.4±0.5,19°.52S×69°.05W,h112km±3km,mb4.3/16, mb1 4.4/20,mb1mx4.4/30,mbtmp4.7/20,MS3.4/6, Ms1 3.4/6,ms1mx3.1/29,Error ellipse: s-maj=12.3km s-min=10.8km az=67.0*

*BJI* ***22*** *16:41:18.0,19°.60S×69°.30W,h107km,mB5.1/8*

**ISC 22 16:41:16.9±0.3,19°.60S±0°.03×69°.25W±0°.04,h111km±3km, h111kmːpP-P,n416,σ1ˢ24/469,mb4.6/88,8C,Northern Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PB11** | **IPOC Station P** | **0.42** | **247** | *e*Pn | **Pn** | **16 41 32.5** | **-1.1** |
| PB11 | | | | *e*Sn | **Sn** | **16 41 45.4** | **-0.7** |
| **PB11** | **IPOC Station P** | **0.42** | **247** | *e*P | **Pn** | **16 41 33.1** | **-0.4** |
| PB11 | | | | *i* S | **Sn** | **16 41 45.4** | **-0.7** |
| **PB08** | **IPOC Station P** | **0.55** | **171** | *e*P | **Pn** | **16 41 34.8** | **+0.1** |
| PB08 | | | | *i* S | **Sn** | **16 41 47.9** | **-0.1** |
| PB08 | | | | IAML | | 16 41 48.5 | |
| | comp=E,82μm,0.2s | | | | | | |
| **MNMC** | **Minye Minye** | **0.57** | **324** | *e*Pn | **Pn** | **16 41 33.5** | **-1.2** |
| MNMC | | | | *e*Sn | **Sn** | **16 41 46.6** | **-1.4** |
| **MNMC** | **Minye Minye** | **0.57** | **324** | *e*P | **Pn** | **16 41 34.3** | **-0.4** |
| MNMC | | | | *i* S | **Sn** | **16 41 47.0** | **-1.0** |
| MNMC | | | | IAML | | 16 41 47.7 | |
| | comp=E,122μm,0.5s | | | | | | |
| **PSGC** | **Pisagua** | **0.83** | **270** | *e*P | **Pn** | **16 41 36.0** | **-0.6** |
| PSGC | | | | *i* S | **Sn** | **16 41 50.1** | **-1.3** |
| **PB16** | **IPOC Station P** | **1.28** | **349** | ⇑*i*P | **Pn** | **16 41 42.0** | **+0.2** |
| PB16 | | | | *i* S | **Sn** | **16 42 00.5** | **-0.2** |
| PB16 | | | | IAML | | 16 42 01.9 | |
| | comp=E,47μm,0.6s | | | | | | |
| **PB12** | **IPOC Station P** | **1.42** | **314** | *e*P | **Pn** | **16 41 42.1** | **-0.8** |
| PB12 | | | | *i* S | **Sn** | **16 42 01.1** | **-1.5** |
| PB12 | | | | IAML | | 16 42 05.9 | |
| | comp=E,23μm,0.5s | | | | | | |
| **PB01** | **IPOC Station P** | **1.46** | **189** | *e*Pn | **Pn** | **16 41 43.6** | **+0.2** |
| PB01 | | | | *e*Sn | **Sn** | **16 42 03.9** | **+0.4** |
| **PB01** | **IPOC Station P** | **1.46** | **189** | *e*P | **Pn** | **16 41 43.8** | **+0.4** |
| PB01 | | | | *i* S | **Sn** | **16 42 03.9** | **+0.4** |
| PB01 | | | | IAML | | 16 42 05.0 | |
| | comp=E,20μm,0.4s | | | | | | |
| **BBOJ** | **La Paz, Jacaqu** | **2.79** | **21** | ⇑*i*Pn | **Pn** | **16 42 02.3** | **+1.5** |
| **PB04** | **IPOC Station P** | **2.85** | **197** | *e*Pn | **Pn** | **16 42 01.5** | **+0.3** |
| PB04 | | | | *e*Sn | **Sn** | **16 42 28.0** | **-7.1** |
| **BBOD** | **La Paz, Gloria** | **3.01** | **12** | ⇑*i*Pn | **Pn** | **16 42 05.3** | **+1.7** |
| BBOD | | | | ⇑*i*Sn | **Sn** | **16 42 39.5** | **0.0** |
| | comp=E,248nm,0.5s | | | | | | |
| **BBOE** | **La Paz, Chanca** | **3.02** | **24** | ⇑*i*Pn | **Pn** | **16 42 05.4** | **+1.6** |
| **LPAZ** | **La Paz** | **3.46** | **18** | P | **Pn** | **16 42 10.4** | **+0.8** |
| | comp=E,20nm,0.3s,baz=194,slow=8.3,SNR=566 | | | | | | |
| LPAZ | | | | S | **Sn** | **16 42 49.4** | **-0.9** |
| | comp=E,9.6nm,0.3s,baz=289,slow=7.2,SNR=4.0 | | | | | | |
| LPAZ | | | | LR | LR | 16 43 41.8 | |
| | comp=E,248nm,18.1s,baz=227,slow=43 | | | | | | |
| **LPAZ** | **La Paz** | **3.46** | **18** | ⇑*i*Pn | **Pn** | **16 42 11.3** | **+1.6** |
| **LPAZ** | **La Paz** | **3.46** | **18** | *e*Pn | **Pn** | **16 42 11.0** | **+1.4** |
| LPAZ | | | | S | **Sn** | **16 42 49.4** | **-0.9** |
| **LPAZ** | **La Paz** | **3.46** | **18** | *i* P | **Pn** | **16 42 11.4** | **+1.8** |
| LPAZ | | | | *i* S | **Sn** | **16 42 46.3** | **-4.0** |
| **BBOB** | **La Paz, Bander** | **3.60** | **17** | ⇑*i*Pn | **Pn** | **16 42 12.5** | **+1.1** |
| **MOCB** | **Mochara** | **3.76** | **117** | *e*Pn | **Pn** | **16 42 15.8** | **+3.3** |
| **PB10** | **IPOC Station P** | **4.08** | **197** | *e*Pn | **Pn** | **16 42 17.4** | **-0.1** |
| PB10 | | | | *e*Sn | **Sn** | **16 43 02.8** | **-1.5** |
| **YJA** | **Yavi** | **4.33** | **127** | *i* P | **Pn** | **16 42 23.6** | **+2.5** |
| **HJA** | **Humahuaca** | **5.07** | **136** | *i* P | **Pn** | **16 42 33.4** | **+2.4** |
| HJA | | | | IAML | | 16 42 36.0 | |
| | comp=Z,221nm,0.5s | | | | | | |
| HJA | | | | *i* S | **Sn** | **16 43 33.5** | **+4.8** |
| **AZAP** | **Zapla** | **6.02** | **141** | *e*P | **Pn** | **16 42 44.0** | **+0.2** |
| AZAP | | | | IAML | | 16 42 47.7 | |
| | comp=Z,106nm,0.5s | | | | | | |
| **SLA** | **San Lorenzo** | **6.17** | **146** | *e*P | **Pn** | **16 42 47.1** | **+1.4** |
| SLA | | | | IAML | | 16 42 49.9 | |
| | comp=Z,148nm,0.6s | | | | | | |
| **ASTB** | **Santa Barbara** | **6.21** | **135** | *e*P | **Pn** | **16 42 46.5** | **+0.2** |
| ASTB | | | | *e*S | **Sn** | **16 43 52.8** | **-3.3** |
| **ALOL** | **LOMAS DE OLMED** | **6.45** | **132** | *e*P | **Pn** | **16 42 48.8** | **-0.6** |
| ALOL | | | | *e*S | **Sn** | **16 43 59.7** | **-1.9** |
| **FSA** | **Cafayete** | **7.15** | **156** | *e*P | **Pn** | **16 43 00.4** | **+1.4** |
| FSA | | | | IAML | | 16 43 04.7 | |
| | comp=Z,11nm,0.5s | | | | | | |
| **AHML** | **Horco Molle** | **8.01** | **154** | IAML | | 16 43 14.7 | |
| | comp=Z,21nm,0.4s | | | | | | |
| **SIV** | **San Ignacio** | **8.57** | **67** | P | **Pn** | **16 43 15.2** | **-3.1** |
| | comp=Z,43nm,0.3s,baz=265,slow=12,SNR=501 | | | | | | |
| **SIV** | **San Ignacio** | **8.57** | **67** | *e*P | **Pn** | **16 43 15.1** | **-3.1** |
| **LCO** | **Las Campanas** | **9.46** | **188** | *e*Pn | **Pn** | **16 43 27.9** | **-2.6** |
| **NNA** | **Nana** | **10.52** | **315** | P | **Pn** | **16 43 44.4** | **-0.3** |
| | comp=Z,1.6nm,0.3s,baz=163,slow=14,SNR=2.3 | | | | | | |
| NNA | | | | S | Sn | 16 45 51.9 | +11 |
| | comp=Z,1.9nm,0.3s,baz=233,slow=15,SNR=2.9 | | | | | | |
| **NNA** | **Nana** | **10.52** | **315** | *e*Pn | **Pn** | **16 43 43.0** | **-1.7** |
| **SAML** | **Samuel** | **12.10** | **30** | *e*Pn | **Pn** | **16 44 01.8** | **-4.0** |
| **CPUP** | **Villa Florida** | **12.86** | **124** | P | **Pn** | **16 44 13.7** | **-1.9** |
| | comp=Z,2.5nm,0.3s,baz=304,slow=11,SNR=63 | | | | | | |
| **ROC1** | **El Roble** | **13.42** | **186** | *e*P | **P** | **16 44 28.4** | **-0.1** |
| **ATAH** | **Atahualpa** | **15.24** | **323** | P | **P** | **16 44 50.9** | **+1.8** |
| | comp=Z,0.5nm,0.3s,baz=172,slow=7.1,SNR=3.3 | | | | | | |
| **GO05** | **HualaæØ** | **15.54** | **188** | *e*Pn | **Pn** | **16 44 50.0** | **+0.1** |
| | comp=Z,103nm,1.9s | | | | | | |
| **TRQA** | **Tornquist** | **19.45** | **163** | *e*P | **P** | **16 45 35.5** | **+0.7** |
| | comp=Z,119nm,2.0s | | | | | | |
| **BDFB** | **Brasilia** | **20.61** | **82** | P | **P** | **16 45 46.7** | **-0.9** |
| | comp=Z,58nm,0.5s,baz=38,slow=9.8,SNR=30 | | | | | | |
| **PTGA** | **Pitinga** | **20.84** | **27** | P | **P** | **16 45 46.7** | **-3.2** |
| | comp=Z,25nm,0.4s,baz=190,slow=10,SNR=66 | | | | | | |
| **PTGA** | **Pitinga** | **20.84** | **27** | *e*P | **P** | **16 45 47.1** | **-2.8** |
| | comp=Z,29nm,0.5s | | | | | | |
| **PLCA** | **Paso Flores** | **21.10** | **183** | P | **P** | **16 45 53.3** | **+0.7** |
| | comp=Z,28nm,0.9s,baz=22,slow=11,SNR=28 | | | | | | |
| PLCA | | | | LR | LR | 16 55 10.6 | |
| | comp=Z,68nm,20.5s,baz=71,slow=39 | | | | | | |
| **PLCA** | **Paso Flores** | **21.10** | **183** | *e*P | **P** | **16 45 53.9** | **+1.3** |
| | comp=Z,37nm,0.9s | | | | | | |
| **TUMC** | **Tumaco** | **23.23** | **335** | *e*P | **P** | **16 46 13.8** | **-0.8** |
| | comp=Z,247nm,0.9s | | | | | | |
| **PRAC** | **Prado** | **23.82** | **346** | *e*P | **P** | **16 46 20.1** | **+0.2** |
| | comp=Z,42nm,1.7s | | | | | | |
| **RUSC** | **La Rusia** | **25.61** | **351** | *e*P | **P** | **16 46 36.6** | **0.0** |
| | comp=Z,8.2nm,0.8s | | | | | | |
| **HELC** | **Santa Helena** | **26.36** | **346** | *e*P | **P** | **16 46 43.1** | **-0.2** |
| | comp=Z,16nm,0.6s | | | | | | |
| **SDV** | **Santo Domingo** | **28.34** | **357** | P | **P** | **16 46 59.8** | **-1.0** |
| | comp=Z,2.0nm,0.4s,baz=180,slow=10,SNR=3.5 | | | | | | |
| **SDV** | **Santo Domingo** | **28.34** | **357** | *e*P | **P** | **16 47 00.5** | **-0.2** |
| | comp=Z,12nm,1.2s | | | | | | |
| **GO09** | **Cerro Castillo** | **31.70** | **184** | *e*P | **P** | **16 47 30.2** | **+0.3** |
| | comp=Z,44nm,1.4s | | | | | | |
| **FDF** | **Fort de France** | **35.03** | **14** | *e*P | **P** | **16 47 58.0** | **-1.2** |
| | comp=Z,120nm,1.1s | | | | | | |
| **RCBR** | **Riachuelo** | **35.19** | **72** | P | **P** | **16 47 59.1** | **-1.6** |
| | comp=Z,18nm,0.5s,baz=247,slow=8.3,SNR=18 | | | | | | |
| **MGAN** | **Managua** | **35.71** | **331** | *e*P | **P** | **16 48 05.3** | **+0.3** |
| | comp=Z,0.1nm,0.9s | | | | | | |
| **CELP** | **Cerrillos** | **37.53** | **4** | *e*P | **P** | **16 48 20.4** | **0.0** |
| **SJG** | **San Juan** | **37.60** | **5** | *e*P | **P** | **16 48 20.9** | **0.0** |
| | comp=Z,84nm,1.6s | | | | | | |
| **STVI** | **Saint Thomas** | **37.95** | **7** | *e*P | **P** | **16 48 23.1** | **-0.8** |
| | comp=Z,56nm,1.1s | | | | | | |
| **TBVI** | **Tortola** | **38.05** | **7** | *e*P | **P** | **16 48 23.7** | **-1.1** |
| **CCIG** | **Comitan** | **42.16** | **326** | *e*P | **P** | **16 49 00.2** | **+1.2** |
| | comp=Z,73nm,2.0s | | | | | | |
| **HOPE** | **Hope Point** | **42.69** | **152** | *e*P | **P** | **16 49 04.6** | **+2.0** |
| | comp=Z,29nm,1.1s | | | | | | |
| **CMIG** | **Matias Romero** | **44.32** | **324** | P | **P** | **16 49 16.8** | **+0.7** |
| | comp=Z,4.9nm,0.7s,baz=121,slow=6.6,SNR=11 | | | | | | |
| CMIG | | | | LR | LR | 17 06 41.2 | |
| | comp=Z,47nm,18.4s,baz=158,slow=34 | | | | | | |
| **ZAIG** | **Zacatecas** | **53.22** | **321** | *e*P | **P** | **16 50 26.4** | **+2.0** |
| | comp=Z,11nm,0.9s | | | | | | |
| **LRAL** | **Lakeview Retre** | **55.02** | **342** | P | **P** | **16 50 35.4** | **-1.5** |
| | baz=160 | | | | | | |
| **833A** | **Chaparral WMA,** | **55.85** | **328** | P | **P** | **16 50 43.7** | **+0.7** |
| | baz=145 | | | | | | |
| **X50A** | **Fort Payne** | **55.98** | **344** | P | **P** | **16 50 42.6** | **-1.3** |
| | baz=161 | | | | | | |
| **Z44A** | **Pea Ridge, Bel** | **56.34** | **339** | P | **P** | **16 50 46.0** | **-0.4** |
| | baz=156 | | | | | | |
| **X48A** | **Hartselle** | **56.36** | **342** | P | **P** | **16 50 45.7** | **-0.8** |
| | baz=160 | | | | | | |
| **NATX** | **Nacogdoches** | **56.58** | **334** | P | **P** | **16 50 48.6** | **+0.4** |
| | baz=151 | | | | | | |
| **141A** | **Papa Simpson,** | **56.63** | **336** | P | **P** | **16 50 48.4** | **-0.1** |
| | baz=153 | | | | | | |
| **X47A** | **Russelville** | **56.66** | **342** | P | **P** | **16 50 47.7** | **-0.9** |
| | baz=159 | | | | | | |
| **SWET** | **Sewanee** | **56.77** | **344** | *e*P | **P** | **16 50 49.2** | **-0.3** |
| SWET | | | | *e*pP | **pP** | **16 51 15.8** | **-0.4** |
| **140A** | **Cam and Jess,** | **56.92** | **335** | P | **P** | **16 50 52.2** | **+1.7** |
| | baz=153 | | | | | | |
| **435B** | **Jarrell** | **57.02** | **331** | P | **P** | **16 50 52.1** | **+0.8** |
| | baz=148 | | | | | | |
| **237A** | **Washetta, Mont** | **57.27** | **333** | P | **P** | **16 50 54.8** | **+1.7** |
| | baz=150 | | | | | | |
| **Z40A** | **Long Farm, Mag** | **57.40** | **336** | P | **P** | **16 50 55.4** | **+1.6** |
| | baz=153 | | | | | | |
| **138A** | **Matatall Enter** | **57.55** | **334** | P | **P** | **16 50 56.3** | **+1.4** |
| | baz=151 | | | | | | |
| **236A** | **Katherine and** | **57.58** | **333** | P | **P** | **16 50 56.5** | **+1.3** |
| | baz=149 | | | | | | |
| **W45A** | **

baz=154
T42A Van Buren 59.98 340 P P 16 51 11.0 -0.7
baz=156
S44A Carbondale 60.02 342 P P 16 51 12.2 +0.3
baz=158
SIUC Southern Illin 60.03 342 eP P 16 51 10.9 -1.1
SIUC e 16 51 38.9
V38A Canehill 60.09 337 P P 16 51 12.3 -0.2
baz=153,SNR=6.7
W36A Wetumka 60.16 335 P P 16 51 12.9 -0.1
baz=151
W36A Wetumka 60.16 335 eP P 16 51 12.9 -0.1
comp=Z,18nm,0.8s
T41A Mountain View 60.21 339 P P 16 51 13.1 -0.2
baz=156
U39A Green Forest 60.21 338 P P 16 51 13.0 -0.3
baz=154
HHAR Hobbs 60.29 337 eP P 16 51 13.6 -0.3
comp=Z,8.8nm,1.0s
R45A Skylar, Fairfi 60.30 343 P P 16 51 13.0 -0.8
baz=159
V37A Hulbert 60.38 336 P P 16 51 14.7 +0.2
baz=152,SNR=6.1
R44A Waltonville 60.48 342 P P 16 51 14.7 -0.4
baz=159
S42A Caledonia 60.56 340 P P 16 51 14.5 -1.2
baz=157
T40A Mansfield 60.56 339 P P 16 51 15.4 -0.3
baz=155
U38A Gravette 60.59 337 P P 16 51 15.7 -0.2
baz=153
V36A Jenks 60.61 335 P P 16 51 16.1 +0.1
baz=151,SNR=6.4
V36A Jenks 60.61 335 eP P 16 51 16.1 +0.1
comp=Z,25nm,0.8s
V36A e 16 51 43.4
FVM French Village 60.64 341 eP P 16 51 15.8 -0.4
comp=Z,18nm,0.8s
FVM e 16 51 42.4
S41A Jillco Farms, 60.70 340 P P 16 51 16.2 -0.4
baz=156
T39A Clever 60.75 338 P P 16 51 16.9 -0.1
baz=154
R43A Red Bud 60.76 341 P P 16 51 16.5 -0.4
baz=158
U37A Salina 60.84 336 P P 16 51 17.6 0.0
baz=152,SNR=7.0
ACSO Alum Creek Sta 60.88 348 P P 16 51 17.3 -0.5
baz=165
V35A Meyer Ranch, C 60.95 334 P P 16 51 17.9 -0.4
baz=150
S40A Lebanon 60.96 339 P P 16 51 18.0 -0.4
baz=155
CCM Cathedral Cave 60.96 340 P P 16 51 18.2 -0.2
baz=156
CCM Cathedral Cave 60.96 340 eP P 16 51 18.4 0.0
comp=Z,44nm,1.9s
R42A Luebbering 61.03 341 P P 16 51 18.3 -0.5
baz=157
N54A Moraine State 61.07 351 P P 16 51 18.7 -0.4
baz=169
Q44A Meyer Farm, Va 61.07 342 P P 16 51 18.2 -0.9
baz=159
T38A Diamond 61.09 337 P P 16 51 19.1 -0.1
baz=153,SNR=6.7
R41A Rosebud 61.23 340 P P 16 51 19.6 -0.6
baz=156,SNR=5.3
P45A Graceland, Par 61.31 344 P P 16 51 19.7 -0.9
baz=160
S39A Bolivar 61.33 338 P P 16 51 20.6 -0.3
baz=154,SNR=7.1
T37A Cheneyville 18 61.39 337 P P 16 51 21.3 0.0
baz=152,SNR=15
U35A Pawnee 61.44 335 P P 16 51 21.7 +0.1
baz=150
U35A Pawnee 61.44 335 eP P 16 51 21.7 +0.1
comp=Z,35nm,0.9s
S38A Stockton 61.48 338 P P 16 51 21.7 -0.1
baz=154
R40A Maddies Statio 61.51 340 P P 16 51 21.6 -0.4
baz=155
Q42A Golden Eagle 61.53 341 P P 16 51 22.0 -0.2
baz=157
O47A Sheridan 61.58 345 P P 16 51 21.3 -1.2
baz=162
MNTX Cornudas Mount 61.66 325 P P 16 51 22.9 -0.3
baz=141
MNTX Cornudas Mount 61.66 325 eP P 16 51 23.0 -0.3
comp=Z,4.4nm,1.1s
T36A Boggs Farm, Ca 61.70 336 P P 16 51 23.5 +0.1
baz=152,SNR=6.2
Q41A Truxton 61.78 341 P P 16 51 23.3 -0.6
baz=157,SNR=5.8
R39A Chumby, Stover 61.79 339 P P 16 51 24.3 +0.4
baz=155
T35A Sooner Cattle 61.82 335 P P 16 51 24.5 +0.3
baz=151
P43A Skaggs, Pawnee 61.90 342 P P 16 51 24.1 -0.5
baz=158
S37A Fort Scott 61.92 337 P P 16 51 24.8 0.0
baz=153,SNR=8.3
VNA3 Neumayer Olymp 61.97 162 P P 16 51 26.2 +1.4
R38A Fenwick Farm, 61.97 338 P P 16 51 24.8 -0.3
baz=154,SNR=5.6
O45A Potomac 61.98 344 P P 16 51 24.1 -1.1
baz=160
O44A Mansfield 62.09 343 P P 16 51 24.5 -1.3
baz=160
P42A Winchester 62.09 342 P P 16 51 25.3 -0.6
baz=158
MSTX Muleshoe 62.11 329 P P 16 51 26.6 +0.2
baz=144
MSTX Muleshoe 62.11 329 eP P 16 51 26.2 -0.2
comp=Z,15nm,0.9s
MSTX epP pP 16 51 54.1 +0.6
VNA1 Neumayer--Stat 62.17 161 P P 16 51 28.7 +2.6
S36A Lake Cedric, C 62.17 337 P P 16 51 27.0 +0.4
baz=152
T34A McClaskey Farm 62.18 335 P P 16 51 26.9 +0.3
baz=150
AMTX Amarillo 62.33 330 P P 16 51 27.6 -0.1
baz=145
P41A Barry, Barry 62.39 341 P P 16 51 27.6 -0.3
baz=157
S35A Otter Creek Ra 62.41 336 P P 16 51 28.4 +0.3
baz=151,SNR=7.5
Q39A Willow Grove F 62.43 339 P P 16 51 27.7 -0.4
baz=155,SNR=5.6
VNA2 Neumayer--Watz 62.54 161 P P 16 51 30.4 +1.8
baz=317,slow=37
P40A Paris 62.56 340 P P 16 51 28.8 -0.3
baz=156
Q38A Cooks Store, C 62.57 339 P P 16 51 28.9 -0.2
baz=154,SNR=7.9
N44A Piper City 62.60 344 P P 16 51 28.3 -1.0
baz=160
R36A Gordon, Harris 62.67 337 P P 16 51 29.6 -0.3
baz=152,SNR=5.1
O41A Passleys Farm, 62.74 341 P P 16 51 29.3 -0.9
baz=157
P39B Salisbury 62.75 340 P P 16 51 29.8 -0.5
baz=155
Q37A Longview Farm, 62.78 338 P P 16 51 30.4 -0.2
baz=153
R35A Emporia Munici 62.93 336 P P 16 51 31.7 +0.1
baz=152
N43A Stutzman Famil 63.01 343 P P 16 51 31.0 -1.0
baz=159,SNR=5.1
P38A Dawn 63.13 339 P P 16 51 32.4 -0.5
baz=154
N42A Yates City 63.15 342 P P 16 51 32.3 -0.6
baz=158
Q36A Arnold C. Orve 63.22 337 P P 16 51 32.5 -1.0
baz=152
N41A Harden Midland 63.27 342 P P 16 51 33.0 -0.8
baz=157
R34A Isabella, Hill 63.31 336 P P 16 51 34.1 0.0
baz=150
Q35A Mercer Eighty, 63.34 337 P P 16 51 34.1 -0.2
baz=152
P37A Lathrop 63.38 338 P P 16 51 34.1 -0.4
baz=154
M43A Waltham Townsh 63.42 344 P P 16 51 34.1 -0.6
baz=159
O38A Galt 63.56 339 P P 16 51 34.7 -0.9
baz=155
319A Douglas 63.60 322 eP P 16 51 37.5 +1.2
comp=Z,8.0nm,0.8s

121A Cookes Peak, D 63.61 324 P P 16 51 35.8 -0.6
baz=139
N40A Mertquake, Sal 63.66 341 P P 16 51 36.2 0.0
baz=157
Q34A Chapman 63.73 336 P P 16 51 36.8 0.0
baz=151
O37A Wolven Farm, M 63.83 339 P P 16 51 37.6 +0.2
baz=154
P35A Duane Minner, 63.92 337 P P 16 51 33.6 -4.5
baz=152
N39A Derby Farms, D 63.93 341 P P 16 51 32.7 -5.4
baz=156
L43A Garden Prairie 64.06 344 P P 16 51 38.3 -0.6
baz=160
O36A Bolckow 64.08 338 P P 16 51 38.6 -0.4
baz=153
N38A Joes South For 64.09 340 P P 16 51 39.3 +0.2
baz=155
SNAA Sanae 64.17 161 P P 16 51 40.5 +1.1
SNAA Sanae 64.17 161 eP P 16 51 40.0 +0.6
comp=Z,6.1nm,1.0s
P34A Walnut Farm, R 64.24 337 P P 16 51 40.6 +0.4
baz=151
M39A Webster 64.38 341 P P 16 51 40.7 -0.3
baz=156
N37A Lee Faris, Mou 64.38 339 P P 16 51 41.0 -0.1
baz=154
L41A Preston 64.43 343 P P 16 51 41.0 -0.4
baz=158
K43A Burlington 64.44 345 P P 16 51 41.0 -0.4
baz=160
L40A Anamosa 64.63 342 P P 16 51 42.7 +0.1
baz=157
M38A Pleasantville 64.64 340 P P 16 51 42.6 -0.2
baz=155
N36A Muff Farm, Cla 64.69 339 P P 16 51 43.2 +0.2
baz=153
ANMO Albuquerque 64.74 327 P P 16 51 44.0 +0.3
baz=141
K42A Prairie Point, 64.77 344 P P 16 51 43.3 -0.2
baz=159
K41A Shullsburg 64.87 343 P P 16 51 43.7 -0.5
baz=158
L39A Vinton 64.92 341 P P 16 51 44.4 0.0
baz=156
O33A Hebron 64.98 336 P P 16 51 45.2 +0.2
baz=151
J43A Natural Harves 65.10 345 P P 16 51 45.3 -0.3
baz=160
JFWS Jewell Farm 65.14 343 P P 16 51 45.7 -0.2
baz=158
K40A Colesburg 65.19 342 P P 16 51 46.0 -0.2
baz=157
L38A Oak Wood Farm, 65.22 341 P P 16 51 45.7 -0.8
baz=156
N34A Lincoln 65.25 338 P P 16 51 46.5 -0.2
baz=152
K39A Oelwein 65.41 342 P P 16 51 47.5 -0.1
baz=157
T25A Trinidad 65.45 330 P P 16 51 48.5 +0.2
baz=144
J41A Loganville 65.50 343 P P 16 51 48.2 0.0
baz=159
L36A Harris Buss Farm 65.73 339 P P 16 51 50.0 +0.2
baz=154
M34A Aspy Farms, Fr 65.86 338 P P 16 51 49.9 -0.7
baz=152
J39A Decorah 65.94 342 P P 16 51 50.5 -0.6
baz=157
K37A Belmond 66.00 341 P P 16 51 51.1 -0.3
baz=155
I41A Arkdale 66.10 344 P P 16 51 51.6 -0.5
baz=159
L34A Svendsen Farm, 66.20 338 P P 16 51 52.6 -0.1
baz=152
I39A Houston 66.36 343 P P 16 51 53.7 -0.1
baz=157
J37A Redenius Farm, 66.47 341 P P 16 51 54.2 -0.2
baz=155
H40A Chili 66.77 344 P P 16 51 56.0 -0.2
baz=158
I38A Scanlan Farm, 66.77 342 P P 16 51 56.2 -0.1
baz=154
I37A Lemond, Waseca 67.06 341 P P 16 51 58.0 -0.1
baz=155
Q24A Divide 67.26 330 P P 16 52 00.7 +0.7
baz=143
Q24A Divide 67.26 330 eP P 16 52 00.7 +0.7
comp=Z,8.1nm,0.9s
H38A Maiden Rock 67.33 342 P P 16 51 59.8 -0.1
baz=157
I35A Creekview Farm 67.41 340 P P 16 52 00.7 +0.3
baz=154
H37A Dierke Farm, C 67.43 342 P P 16 52 00.1 -0.4
baz=156
F41A Three Lakes 67.48 345 P P 16 52 00.7 -0.1
baz=160
MVCO Mesa Verde 67.54 327 P P 16 52 02.2 +0.5
baz=140
G39A Holcombe 67.59 343 P P 16 51 59.1 -2.4
baz=158
J33A Davis 67.59 338 P P 16 52 01.5 -0.1
baz=152
G38A Ridgeland 67.67 343 P P 16 52 01.5 -0.5
baz=157
H36A Jessenland, He 67.73 341 P P 16 52 02.9 +0.5
baz=155
WUAZ Wupatki 67.82 324 P P 16 52 04.4 +1.1
baz=137
WUAZ Wupatki 67.82 324 eP P 16 52 04.7 +1.3
comp=Z,8.2nm,1.0s
ECSD EROS Data Cent 67.84 339 P P 16 52 03.3 +0.2
baz=152
E42A Champion 67.85 346 P P 16 52 04.2 +1.1
baz=161
F40A Park Falls 67.90 344 P P 16 52 03.6 +0.2
baz=159
H35A Sunnyside Ranc 68.12 341 P P 16 52 05.0 +0.2
baz=154
ISCO Idaho Springs 68.14 331 P P 16 52 06.4 +0.9
baz=143
ISCO Idaho Springs 68.14 331 eP P 16 52 06.2 +0.7
comp=Z,9.3nm,1.1s
LIC Lamto 68.17 75 eP P 16 52 04.5 -1.3
comp=Z,36nm,0.6s
SMCO Snowmass 68.30 329 eP P 16 52 08.1 +1.6
comp=Z,3.9nm,0.8s
E40A Wakefield 68.34 345 P P 16 52 06.4 +0.2
baz=159
TIC Toumodi 68.35 74 eP P 16 52 05.7 -1.3
F37A Hinrichs Farm, 68.39 343 P P 16 52 06.6 +0.2
baz=156
KIC Kosan Boka 68.49 75 eP P 16 52 06.7 -1.1
comp=Z,79nm,0.7s
DBIC Dimbokro 68.51 74 P P 16 52 07.0 -0.9
comp=Z,32nm,0.7s,baz=224,slow=6.6,SNR=45
DBIC LR LR 17 21 58.2
comp=Z,32nm,18.1s,baz=192,slow=36
DBIC Dimbokro 68.51 74 eP P 16 52 06.8 -1.1
comp=Z,38nm,0.8s
H32A Carlson Farm, 68.80 339 P P 16 52 09.2 +0.1
baz=152
G34A Benson 68.86 340 P P 16 52 09.2 -0.2
baz=153
E38A The Farm, Brul 68.91 344 P P 16 52 09.7 0.0
baz=158
MONP2 Monument Peak 68.96 319 P P 16 52 10.5 -0.1
baz=132
U15A North Rim 68.99 324 eP P 16 52 12.9 +2.1
comp=Z,5.8nm,0.9s
IRM Iron Mountain 69.04 320 P P 16 52 11.0 +0.2
baz=134
G33A Ortonville 69.07 340 P P 16 52 10.7 0.0
baz=153
N23A Red Feather La 69.17 331 P P 16 52 12.6 +0.9
baz=143
N23A Red Feather La 69.17 331 eP P 16 52 12.7 +0.9
comp=Z,6.3nm,0.8s
PHWY Pilot Hill 69.28 332 eP P 16 52 13.2 +0.8
comp=Z,4.2nm,0.6s
PFO Pinyon Flats O 69.47 319 P P 16 52 14.6 +1.0
baz=133
F33A 5 Mile Ranch, 69.60 340 P P 16 52 13.9 -0.1
baz=153
O20A White River Ci 69.66 329 P P 16 52 15.2 +0.5
baz=141
O20A White River Ci 69.66 329 eP P 16 52 15.7 +1.0
comp=Z,36nm,1.8s

GMRC Granite Mounta 69.78 321 P P 16 52 16.8 +1.3
baz=134
SRU San Rafael Swe 70.02 327 eP P 16 52 18.0 +1.0
comp=Z,6.6nm,0.8s
MTPU Mount Pierson 70.10 325 eP P 16 52 19.1 +1.4
comp=Z,20nm,2.0s
Q16A Castle Valley 70.21 326 eP P 16 52 19.1 +1.0
comp=Z,4.7nm,0.7s
HEC Hector,Ludlow 70.22 320 P P 16 52 18.9 +0.8
baz=133
F31A Hecla 70.26 339 P P 16 52 17.1 -0.9
baz=151
P18A Preston Nutter 70.26 327 eP P 16 52 19.7 +1.2
comp=Z,34nm,1.8s
TUQ Turquoise Moun 70.38 321 P P 16 52 19.0 -0.2
baz=133
CCUT Cedar City 70.39 324 eP P 16 52 20.6 +1.3
comp=Z,8.1nm,0.9s
P17A Butcher Ranch, 70.40 327 eP P 16 52 20.0 +0.8
comp=Z,10nm,1.0s
MSU Marysvale 70.44 325 eP P 16 52 21.4 +1.8
C35A Jirik Farms, M 70.58 343 P P 16 52 19.6 -0.3
baz=155
QSPA South Pole Qui 70.58 180 eP P 16 52 21.3 +1.3
comp=Z,6.0nm,0.7s
BFSC Mount Baldy Ra 70.63 319 P P 16 52 20.0 -0.7
baz=132
SHPR Sheep Range 70.67 322 eP P 16 52 23.1 +2.1
comp=Z,5.3nm,0.9s
K22A Casper 70.83 332 P P 16 52 22.6 +0.9
baz=143
RSSD Black Hills 70.96 334 P P 16 52 24.0 +1.4
baz=146
RSSD Black Hills 70.96 334 eP P 16 52 23.1 +0.6
comp=Z,7.4nm,0.7s
SNCC San Nicolas Is 71.16 317 P P 16 52 25.3 +1.6
baz=130
EDW2 Edwards Air Fo 71.26 319 P P 16 52 25.7 +1.3
baz=132
TPNV Topopah Spring 71.61 322 P P 16 52 28.1 +1.5
baz=134
TPNV Topopah Spring 71.61 322 eP P 16 52 27.4 +0.8
comp=Z,12nm,1.2s
AGMN Agassiz Nation 71.66 342 P P 16 52 26.2 -0.2
baz=154
AGMN Agassiz Nation 71.66 342 eP P 16 52 25.9 -0.5
comp=Z,21nm,1.6s
MPMC Manual Prospec 71.74 320 P P 16 52 28.7 +1.3
baz=132
DAC Darwin (Calif) 71.95 321 eP P 16 52 30.1 +1.5
comp=Z,4.7nm,0.9s
B32A Ashes, Strandq 71.95 341 P P 16 52 28.2 0.0
baz=153
DUG Dugway, Tooele 72.01 326 P P 16 52 30.3 +1.4
baz=137
DUG Dugway, Tooele 72.01 326 eP P 16 52 30.3 +1.4
comp=Z,4.6nm,0.9s
ISA Isabella, Lake 72.07 320 P P 16 52 30.1 +0.8
baz=132
A33A Warroad 72.10 342 P P 16 52 28.0 -1.0
baz=154
R11A Troy Canyon, C 72.20 323 P P 16 52 31.7 +1.6
baz=134
R11A Troy Canyon, C 72.20 323 eP P 16 52 32.0 +1.9
comp=Z,6.1nm,1.3s
BW06 Boulder Array 72.31 330 P P 16 52 31.1 +0.3
baz=140
BW06 Boulder Array 72.31 330 eP P 16 52 31.1 +0.3
comp=Z,6.5nm,1.4s
PD31 Pinedale Array 72.31 330 eP P 16 52 30.6 -0.2
PDAR Pinedale Array 72.31 330 P P 16 52 31.0 +0.3
comp=Z,0.8nm,0.6s,baz=118,slow=6.9,SNR=7.9
PDAR Pinedale Array 72.31 330 eP P 16 52 30.6 -0.2
CWC Cottonwood Cre 72.35 320 P P 16 52 32.0 +1.0
baz=132
PKM Mcpherson Peak 72.40 318 P P 16 52 32.7 +1.4
baz=130
MDND Maddock 72.45 339 P P 16 52 31.9 +0.7
baz=150
MDND Maddock 72.45 339 eP P 16 52 31.5 +0.3
comp=Z,39nm,0.8s
KOWA Kowa 72.56 67 eP P 16 52 31.4 -1.1
comp=Z,9.3nm,0.6s
VES Vestal, Richgr 72.56 319 P P 16 52 34.0 +1.9
baz=131
AHID Auburn Hatcher 73.05 329 eP P 16 52 34.8 -0.3
ULM Lac du Bonnet 73.42 343 P P 16 52 36.1 -0.6
comp=Z,3.4nm,0.5s,baz=145,slow=7.2,SNR=9.7
ULM pP pP 16 53 04.7 0.0
comp=Z,2.8nm,0.6s,baz=171,slow=5.8,SNR=3.9
TPAW Teton Pass 73.53 330 eP P 16 52 38.8 +0.8
comp=Z,4.2nm,0.8s
FXWY Fox Creek 73.67 330 eP P 16 52 39.9 +1.2
comp=Z,3.2nm,0.9s
NV01 Mina Array Sit 73.81 322 eP P 16 52 41.0 +1.3
NV01 epP pP 16 53 09.0 +1.4
NVAR Mina Array Bea 73.81 322 P P 16 52 40.7 +1.1
comp=Z,2.7nm,0.8s,baz=161,slow=7.3,SNR=9.6
NVAR pP pP 16 53 09.1 +1.5
comp=Z,1.1nm,0.6s,baz=158,slow=6.2,SNR=3.9
RLMT Red Lodge 74.00 332 P P 16 52 42.2 +1.6
baz=141
RLMT Red Lodge 74.00 332 eP P 16 52 41.9 +1.3
comp=Z,37nm,1.7s
H17A Grant Village 74.04 330 P P 16 52 41.9 +1.0
baz=140
H17A Grant Village 74.04 330 eP P 16 52 42.0 +1.1
comp=Z,3.3nm,0.7s
KVN Kaiserville 74.11 322 eP P 16 52 42.8 +1.5
comp=Z,7.2nm,1.1s
YHH Holmes Hill 74.46 331 eP P 16 52 44.9 +1.5
comp=Z,7.8nm,0.8s
YHH epP pP 16 53 13.2 +1.8
YHB Horse Butte 74.59 330 eP P 16 52 46.2 +2.1
comp=Z,9.9nm,0.8s
HLID Hailey 75.27 328 P P 16 52 50.0 +2.1
baz=136
HLID Hailey 75.27 328 eP P 16 52 50.0 +2.1
comp=Z,6.8nm,0.9s
PAHR Pah Rah Range 75.29 322 eP P 16 52 49.9 +1.8
PAHR epP pP 16 53 17.0 +0.9
MSJ Mission San Jo 75.36 319 eP P 16 52 52.6 +4.2
MCMT McKenzie Canyo 75.43 330 eP P 16 52 50.5 +1.6
BOZ Bozeman (W) 75.43 331 P P 16 52 49.8 +1.1
baz=139
DLMT Dillon 75.71 330 eP P 16 52 51.5 +1.2
comp=Z,3.8nm,0.8s
MFID Camas Ranch 75.89 327 eP P 16 52 53.1 +1.7
comp=Z,10.0nm,1.1s
ORV Oroville 76.43 321 eP P 16 52 56.1 +1.7
comp=Z,10nm,1.0s
EGMT Eagleton 76.46 333 P P 16 52 55.4 +1.0
baz=141
EGMT Eagleton 76.46 333 eP P 16 52 54.9 +0.4
comp=Z,16nm,1.1s
TOA0 Torodi Ar. Sit 77.02 71 eP P 16 52 56.7 -1.5
TOA0 epP pP 16 53 25.5 -0.9
TOA1 Torodi Ar. Sit 77.02 71 eP P 16 52 56.9 -1.4
TOA1 epP pP 16 53 26.2 -0.2
TOA1 e 17 26 09.3
TORD Torodi Ar. Bea 77.02 71 P P 16 52 56.9 -1.4
comp=Z,10nm,0.5s,baz=252,slow=5.3,SNR=97
TORD pP pP 16 53 26.2 -0.2
comp=Z,18nm,0.9s,baz=251,slow=5.4,SNR=7.3
TORD LR LR 17 26 09.3
comp=Z,36nm,19.5s,baz=240,slow=35
O03D Paynes Creek 77.08 321 P P 16 52 59.0 +0.8
baz=130
MSO Missoula 77.42 330 P P 16 53 00.7 +0.8
baz=137
BMO Blue Mountains 77.65 327 eP P 16 53 01.9 +0.7
comp=Z,4.9nm,0.8s
BMO epP pP 16 53 30.6 +1.2
N02D Trinity Center 78.04 322 P P 16 53 05.1 +1.7
baz=129
M04C Macdoel 78.05 323 P P 16 53 04.7 +1.1
baz=130
JTMT Jette 78.25 331 eP P 16 53 05.8 +1.2
comp=Z,4.4nm,0.9s
I07A Izee 78.28 326 eP P 16 53 06.2 +1.5
comp=Z,5.7nm,1.1s
SYO Syowa Base 78.39 160⇧ eP P 16 53 00.4 -4.4
E09A Wood Farm, Sta 79.23 328 eP P 16 53 10.9 +1.1
comp=Z,9.0nm,1.1s
I05D Terrebonne, OR 79.43 325 P P 16 53 12.6 +1.6
baz=131
I04A Tendick Farm, 79.67 324 P P 16 53 13.2 +0.9

baz=130
C09A Chrisman Ranch 80.18 329 eP P 16 53 16.1 +1.3
comp=Z,12nm,0.9s
LTY Liberty 81.01 327 eP P 16 53 20.5 +1.2
comp=Z,40nm,2.0s
B06A Marblemount 82.25 328 eP P 16 53 26.4 +0.7
comp=Z,14nm,0.8s
B05A Bryant 82.39 327 P P 16 53 26.7 +0.2
baz=131
TAM Tamanrasset 84.25 63 eP P 16 53 36.9 0.0
TAM epP pP 16 54 07.0 +1.6
BOSA Boshof 84.62 118 P P 16 53 38.1 -0.6
comp=Z,1.6nm,0.5s,baz=219,slow=6.2,SNR=6.3
BOSA LR LR 17 28 00.0
comp=Z,20nm,18.0s,baz=168,slow=33
ESDC Sonseca Array 84.71 45 P P 16 53 36.9 -1.8
comp=Z,0.3nm,0.3s,baz=244,slow=5.4,SNR=3.1
ESDC pP pP 16 54 07.5 +0.2
comp=Z,0.6nm,0.5s,baz=247,slow=5.7,SNR=1.4
ES19 SONSECA Array 84.76 45 eP P 16 53 38.7 -0.2
ES19 epP pP 16 54 07.5 0.0
MAW Mawson 86.23 163 P P 16 53 46.9 +1.2
comp=Z,3.8nm,0.8s,baz=227,slow=7.7,SNR=4.0
YKA Yellowknife Ar 89.30 341 P P 16 54 00.8 +0.6
comp=Z,11nm,0.7s,baz=134,slow=4.7,SNR=206
YKA pP pP 16 54 29.3 +0.3
comp=Z,4.5nm,0.6s,baz=133,slow=4.9,SNR=10
YKW3 Yellowknife Ar 89.35 341 eP P 16 54 00.8 +0.4
comp=Z,14nm,0.8s
YKW3 epP pP 16 54 29.4 +0.1
PEA1 Petropavlovsk- 130.85 324 ePKPdf PKPdf 17 00 16.1 +1.1
PETK Petropavlovsk- 130.85 324 PKP PKPdf 17 00 16.1 +1.1
comp=Z,3.5nm,0.9s,baz=97,slow=12,SNR=3.5
AS01 Alice Springs 131.41 209 ePKPdf PKPdf 17 00 16.4 -0.7
AS01 epPKPdf pPKPdf 17 00 47.0 -0.2
ASAR Alice Springs 131.43 209 PKP PKPdf 17 00 17.6 +0.5
comp=Z,0.9nm,0.5s,baz=130,slow=1.6,SNR=16
ASAR pPKP pPKPdf 17 00 47.5 +0.2
comp=Z,0.8nm,0.5s,baz=128,slow=1.8,SNR=4.4
AS31 Alice Springs 131.43 209 ePKPdf PKPdf 17 00 16.9 -0.3
AS31 epPKPdf pPKPdf 17 00 46.9 -0.4
WB2 Warramunga Arr 134.41 212 ePKPpre PKPpre 17 00 12.3
WB2 ePKPdf PKPdf 17 00 23.3 +0.5
WR1 Warramunga Arr 134.41 212 ePKPdf PKPdf 17 00 23.4 +0.5
WR1 epPKPdf pPKPdf 17 00 52.7 -0.3
WRA Warramunga Arr 134.41 212 PKP PKPdf 17 00 23.4 +0.5
comp=Z,2.0nm,0.7s,baz=158,slow=1.7,SNR=24
WRA pPKP pPKPdf 17 00 52.7 -0.3
comp=Z,0.7nm,0.5s,baz=148,slow=1.6,SNR=3.0
FITZ Fitzroy Crossi 139.79 202 PKP PKPdf 17 00 33.0 +0.2
comp=Z,3.5nm,1.0s,baz=270,slow=8.1,SNR=4.0
ZAA1 Zalesovo Array 140.36 24 ePKPpre PKPpre 17 00 29.8
ZAA1 ePKPdf PKPdf 17 00 33.4 +0.7
ZAA1 epPKPdf pPKPdf 17 01 04.0 +1.2
ZALV Zalesovo Beam 140.36 24 PKhKP PKPpre 17 00 29.8
comp=Z,1.4nm,0.6s,baz=324,slow=3.2,SNR=6.9
ZALV PKP PKPdf 17 00 33.4 +0.7
comp=Z,1.4nm,0.6s,baz=325,slow=2.3,SNR=6.9
ZALV pPKP pPKPdf 17 01 04.0 +1.2
comp=Z,2.4nm,0.7s,baz=326,slow=3.9,SNR=3.9
ZALV Zalesovo Beam 140.36 24 ePKPdf PKPdf 17 00 33.1 +0.4
ZALV pPKP pPKPdf 17 01 04.0 +1.2
KSH Kashi 144.12 49 ePKP PKPdf 17 00 40.8 +0.8
KSH pPKP pPKPdf 17 01 06.8 -3.4
KSH PP PP 17 03 58.1 +2.6
KSH SKS SKSdf 17 07 39.0 -0.6
KSH SKKS SKKSac 17 10 36.9 -0.9
KSH SS SS 17 22 32.3 +0.5
KSH LR LR
comp=Z,160nm,4.9s
MK32 Makanchi Array 144.26 34 ePKPdf PKPdf 17 00 39.6 -0.3
MKAR Makanchi Array 144.26 34 PKP PKPdf 17 00 39.6 -0.3
comp=Z,0.8nm,0.6s,baz=306,slow=3.0,SNR=6.3
WMQ Urumqi 149.09 33 PKPbc PKPdf 17 00 47.5 -0.7
WMQ LR LR
comp=Z,150nm,17.9s
WMQ LR LR
comp=Z,200nm,17.7s
WMQ LR LR
comp=Z,140nm,16.3s
USRK Ussuriysk Ar. 149.74 329 PKPbc PKPbc 17 00 55.0 +1.1
comp=Z,8.1nm,0.8s,baz=21,slow=2.1,SNR=9.3
MJAR Matsushiro Arr 150.62 311 PKPbc PKPbc 17 00 56.9 +0.7
comp=Z,4.5nm,0.7s,baz=79,slow=1.3,SNR=12
MJAR pPKPbc pPKPbc 17 01 26.3 0.0
comp=Z,4.7nm,0.8s,baz=112,slow=1.1,SNR=5.6
SONA0 Songino Array 151.61 6 ePKPdf PKPdf 17 00 53.2 +1.1
SONA0 ePKPbc PKiKP 17 00 59.3 +0.5
SONA0 e 17 01 29.0
SONM Songino Array 151.61 6 PKP PKPdf 17 00 53.2 +1.1
comp=Z,0.6nm,0.6s,baz=22,slow=1.6,SNR=4.2
SONM PKPbc PKiKP 17 00 59.3 +0.5
comp=Z,5.0nm,0.7s,baz=307,slow=1.4,SNR=26
SONM pPKPbc pPKPbc 17 01 29.0 +0.6
comp=Z,1.8nm,0.5s,baz=306,slow=1.4,SNR=3.7
PYUN Piuthan 153.28 66 eP PKPab 17 01 18.3 +3.2
comp=Z,11nm,0.4s
KKN Kakani 155.32 66 eP PKPab 17 01 22.8 -1.0
comp=Z,11nm,0.5s
PKIN Phulchoki 155.47 66 eP PKPab 17 01 22.3 -2.3
comp=Z,3.8nm,0.5s
PKI Pulchoki 155.49 66 eP PKPab 17 01 23.0 -1.7
comp=Z,4.0nm,0.5s
JIRN Jiri 156.14 66 eP PKPab 17 01 24.4 -3.1
RAMN Ramite 156.66 67 eP PKPab 17 01 26.1 -3.6
comp=Z,12nm,0.6s
ODAN Odare 157.37 67 eP PKPab 17 01 27.6 -5.1
comp=Z,7.5nm,0.6s
TAPN Taplejung 157.52 66 eP PKPab 17 01 27.0 -6.4
HHC Hu-ho-hao-te 158.81 358 ePKP PKPdf 17 01 01.9 -0.1
NJ2 Nanjing 165.62 331 ePKP PKPdf 17 01 10.6 +1.7
CMAR Chiang Mai Arr 168.77 94 PKPab PKPab 17 02 22.6 -0.1
comp=Z,0.9nm,0.7s,baz=263,slow=6.0,SNR=9.4
KMI Kunming 170.77 52 PKP PKPdf 17 01 12.4 -0.5
GYA Guiyang 172.20 28 ePKP PKPdf 17 01 12.8 -0.6
GYA PKPab PKPab 17 02 38.4 +0.9
GYA PKSdf PKSdf 17 04 43.6 -2.4
GYA PP PP 17 06 30.0 +2.1
GYA AMB AMB
comp=Z,120nm,8.0s

*SOME **22** 16:53:36.8,42°.87N×82°.37E,h15km*
**ISC 22 16:53:35.7±3.1,42°.8N±0°.1×82°.3E±0°.1,h10km,n6,**
**σ1s95/12,4C,Northern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| KTMS | Ketmen | 1.55 | 296 | eP | Pb | 16 54 06.0 | +1.5 |
| | 9.4nm,0.2s | | | | | | |
| KTMS | | | | eS | Sb | 16 54 26.4 | +2.1 |
| | 6.5nm,0.1s | | | | | | |
| SHLS | Shalkode | 2.09 | 282 | eP | Pn | 16 54 09.9 | -0.9 |
| | 8.0nm,0.2s | | | | | | |
| SHLS | | | | eS | Sn | 16 54 33.8 | -3.2 |
| | 5.1nm,0.3s | | | | | | |
| PDGK | Podgornoye | 2.10 | 286 | ⇑Pn | Pb | 16 54 14.6 | +0.6 |
| | 0.8nm,0.4s | | | | | | |
| PDGK | | | | ⇑Sn | Sb | 16 54 43.2 | +3.0 |
| | 4.5nm,0.5s | | | | | | |
| DJR | Jarkent | 2.38 | 312 | eP | Pb | 16 54 19.2 | +0.6 |
| | 2.1nm,0.1s | | | | | | |
| DJR | | | | eS | Sb | 16 54 48.8 | +0.8 |
| | 4.5nm,0.4s | | | | | | |
| KAPS | Kapalarasan | 3.27 | 321 | eP | Pb | 16 54 34.2 | +0.4 |
| | 0.8nm,0.5s | | | | | | |
| KAPS | | | | eS | Sb | 16 55 14.4 | +0.7 |
| | 2.8nm,0.5s | | | | | | |
| MK31 | Makanchi Array | 4.02 | 0 | ⇑Pn | Pb | 16 54 48.4 | +1.8 |
| | 1.3nm,1.1s,baz=176,slow=15,SNR=6.5 | | | | | | |
| MK31 | | | | ⇑Sn | Sg | 16 55 43.1 | -1.7 |
| | 1.0nm,0.6s,baz=185,slow=25,SNR=4.8 | | | | | | |

**IDC 22 16:58:31.3±6.9,12°.48S×169°.27E,h0km,mb3.6/3,**
**mb1 3.9/3,ms1mx3.4/44,mbtmp3.6/3,MS4.5/1,Ms1 4.5/1,**
**ms1mx2.8/25,Error ellipse: s-maj=344.0km**
**s-min=34.5km az=140.0,Santa Cruz Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| RAO | Raoul Island | 20.51 | 146 | LR | LR | 17 09 41.0 | |
| | comp=Z,1μm,21.1s,baz=158,slow=33 | | | | | | |
| WRA | Warramunga Arr | 34.30 | 253 | P | P | 17 05 19.6 | -0.1 |
| | 0.2nm,0.4s,baz=86,slow=8.8,SNR=8.4 | | | | | | |
| ASAR | Alice Springs | 35.32 | 247 | P | P | 17 05 28.4 | -0.1 |
| | 0.5nm,0.4s,baz=68,slow=8.3,SNR=18 | | | | | | |
| ILAR | Eielson Array | 83.80 | 17 | P | P | 17 11 02.2 | 0.0 |
| | 0.6nm,1.0s,baz=240,slow=5.1,SNR=4.2 | | | | | | |

**IDC 22 17:02:44.5±2.2,14°.79N×147°.21E,h0km,mb3.6/4,**
**mb1 3.7/5,mb1mx3.4/47,mbtmp3.6/5,ML3.5/1,MS3.8/1,**
**Ms1 3.8/1,ms1mx2.5/37,Error ellipse: s-maj=47.4km**
**s-min=26.9km az=101.0,Mariana Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| GUMO | Guam | 2.57 | 243 | Pn | Pn | 17 03 28.2 | +0.9 |
| | 10.0nm,0.3s,baz=98,slow=14,SNR=3.3 | | | | | | |
| GUMO | | | | Sn | Sn | 17 03 58.6 | -0.8 |
| | 11nm,0.3s,baz=234,slow=19,SNR=3.3 | | | | | | |
| CTA | Charters Tower | 34.67 | 182 | LR | LR | 17 22 42.6 | |
| | comp=Z,172nm,21.5s,baz=192,slow=35 | | | | | | |
| WRA | Warramunga Arr | 36.77 | 200 | P | P | 17 09 53.7 | -0.3 |
| | 0.6nm,0.9s,baz=23,slow=9.0,SNR=3.2 | | | | | | |
| CMAR | Chiang Mai Arr | 46.29 | 281 | P | P | 17 11 12.7 | +0.3 |
| | 0.5nm,0.8s,baz=80,slow=7.1,SNR=4.5 | | | | | | |
| SONM | Songino Array | 47.10 | 323 | P | P | 17 11 18.1 | -0.3 |
| | 0.4nm,0.6s,baz=129,slow=8.4,SNR=3.5 | | | | | | |
| MKAR | Makanchi Array | 62.22 | 315 | P | P | 17 13 08.0 | -0.1 |
| | 0.4nm,0.4s,baz=89,slow=8.4,SNR=12 | | | | | | |

**JMA 22 17:25:25.2,38°.20N×141°.76E,h55km,M3.5,Near east**
**coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| JIO | Ouri | 0.41 | 308 | P | Pn | 17 25 35.8 | 0.0 |
| JIO | | | | eS | Sn | 17 25 43.4 | -0.1 |
| JMK | Ichinoseki | 0.86 | 331 | P | Pn | 17 25 41.6 | +0.4 |
| JMK | | | | eS | Sn | 17 25 53.1 | +0.1 |
| JOU | Okura | 0.88 | 281 | P | Pn | 17 25 41.7 | +0.2 |
| JOU | | | | eS | Sn | 17 25 53.7 | +0.3 |
| OFUJ | Ofunato | 0.88 | 355 | P | Pn | 17 25 41.4 | -0.1 |
| OFUJ | | | | eS | Sn | 17 25 53.2 | -0.3 |
| JFK | Kawauchi | 1.09 | 220 | P | Pn | 17 25 44.1 | -0.2 |
| JFK | | | | eS | Sn | 17 25 58.0 | -0.4 |
| JYK | Kaneyama | 1.31 | 304 | P | Pn | 17 25 47.6 | +0.4 |
| JYK | | | | eS | Sn | 17 26 04.3 | +0.6 |
| JFT | Otama | 1.32 | 239 | P | Pn | 17 25 47.9 | +0.6 |
| JFT | | | | eS | Sn | 17 26 04.2 | +0.4 |
| JOM | Ohasama | 1.32 | 344 | P | Pn | 17 25 47.9 | +0.5 |
| JOM | | | | eS | Sn | 17 26 04.5 | +0.5 |
| JYS | Shirataka | 1.33 | 271 | P | Pn | 17 25 48.0 | +0.5 |
| JYS | | | | eS | Sn | 17 26 05.2 | +0.9 |
| JRG | Rokugo | 1.48 | 324 | P | Pn | 17 25 50.5 | +0.9 |
| JRG | | | | eS | Sn | 17 26 09.5 | +1.6 |
| JFY | Yanaizu | 1.81 | 245 | P | Pn | 17 25 54.8 | +0.8 |
| JFY | | | | eS | Sn | 17 26 16.6 | +0.7 |

*IDC **22** 17:26:15.2±1.2,14°.16N×121°.61E,h0km,mb3.5/5,*
*mb1 3.8/5,mb1mx3.4/55,mbtmp3.6/5,MS2.8/2,Ms1 2.8/2,*
*ms1mx2.4/34,Error ellipse: s-maj=22.4km s-min=10.7km*
*az=3.0*
*MAN **22** 17:26:17,14°.19N×121°.42E,h11km,mb4.4,ML3.2,MS3.0*
*ISCJB **22** 17:26:18.6±0.6,14°.22N±0°.03×121°.43E±0°.03,h22km±7km,*
*mb3.6/5,MS2.6/2,Error ellipse: s-maj=5.6km s-min=5.0km*
*az=43.3*
**ISC 22 17:26:17.3±1.3,14°.16N±0°.04×121°.47E±0°.03,h12km±10km,**
**n25,σ1s18/30,mb3.6/5,3C,Luzon**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| TGY | Tagaytay City | 0.52 | 264 | Pg | Pb | 17 26 28.0 | -0.5 |
| | 2μm,0.3s,baz=78,slow=2.6,SNR=156 | | | | | | |
| TGY | | | | Lg | Lg | 17 26 36.5 | |
| | 3μm,0.3s,baz=217,slow=20,SNR=32 | | | | | | |
| TGY | Tagaytay City | 0.52 | 264 | ⇑P | Pb | 17 26 27.9 | -0.5 |
| TGY | | | | *i* S | Sb | 17 26 36.7 | +0.7 |
| BOAC | Boac | 0.78 | 152 | eP | Pn | 17 26 33.2 | -1.0 |
| BOAC | | | | eS | Sn | 17 26 47.3 | +1.5 |
| PGP | Puerto Galera | 0.82 | 218 | ⇑eP | Pg | 17 26 33.1 | -0.2 |
| PGP | | | | *i* S | Sb | 17 26 44.8 | +0.2 |
| GQP | Guinayangan | 0.98 | 105 | ⇑eP | Pn | 17 26 36.2 | -0.6 |
| GQP | | | | eS | Sn | 17 26 50.5 | -0.1 |
| LUBP | Lubang | 1.26 | 251 | eP | Pn | 17 26 39.5 | -1.2 |
| LUBP | | | | eS | Sg | 17 26 57.3 | -0.7 |
| AUQP | San Andres | 1.43 | 125 | eP | Pg | 17 26 46.4 | +1.6 |
| AUQP | | | | eS | Sg | 17 27 11.6 | +8.1 |
| PCPH | Palayan | 1.44 | 345 | eP | Pn | 17 26 41.6 | -1.6 |
| PCPH | | | | eS | Sb | 17 27 01.2 | -1.3 |
| BALP | Baler | 1.58 | 4 | eP | Pn | 17 26 44.0 | -1.1 |
| SJMP | San Jose | 1.72 | 192 | eP | Pg | 17 26 49.6 | -0.7 |
| SJMP | | | | eS | Sg | 17 27 14.9 | +2.3 |
| OTRP | Odiongan | 1.86 | 163 | eP | Pg | 17 26 51.4 | -1.6 |
| SCZP | Santa Cruz | 2.21 | 317 | eP | Pn | 17 26 53.9 | +0.2 |
| BUSP | Coron | 2.47 | 210 | eP | Pn | 17 26 58.2 | +0.8 |
| PVCP | Virac | 2.66 | 102 | eP | Pb | 17 27 04.2 | -0.7 |
| BOLP | Bolinao | 2.67 | 326 | eP | Pn | 17 27 01.3 | +1.1 |
| CAUP | Cauayan | 2.79 | 7 | eP | Pn | 17 27 02.1 | +0.3 |
| ABRA | Dolores | 3.55 | 348 | eP | Pn | 17 27 13.6 | +1.4 |
| APYP | Conner | 3.69 | 357 | eP | Pn | 17 27 15.5 | +1.3 |
| CMAR | Chiang Mai Arr | 22.04 | 284 | P | P | 17 31 14.1 | +2.1 |
| | 0.8nm,0.6s,baz=90,slow=8.4,SNR=7.5 | | | | | | |
| KSRS | Korea Array | 23.90 | 13 | LR | LR | 17 42 23.4 | |
| | comp=Z,20nm,18.2s,baz=125,slow=41 | | | | | | |
| PSI | Prapat | 24.96 | 245 | LR | LR | 17 40 40.7 | |
| | comp=Z,19nm,20.2s,baz=3.0,slow=34 | | | | | | |
| SONM | Songino Array | 35.84 | 343 | P | P | 17 33 16.2 | -0.7 |
| | 0.7nm,0.6s,baz=163,slow=10,SNR=4.9 | | | | | | |
| WRA | Warramunga Arr | 36.17 | 159 | P | P | 17 33 18.5 | -1.4 |
| | 0.6nm,0.6s,baz=337,slow=9.5,SNR=4.7 | | | | | | |
| ASAR | Alice Springs | 39.51 | 162 | P | P | 17 33 47.6 | -0.4 |
| | 0.9nm,0.8s,baz=336,slow=7.2,SNR=18 | | | | | | |
| MKAR | Makanchi Array | 46.12 | 323 | P | P | 17 34 41.8 | +0.3 |
| | 0.8nm,0.9s,baz=129,slow=8.0,SNR=4.7 | | | | | | |

*ISK **22** 17:32:12.2,38°.72N×43°.33E,h5km,ML2.5*
*CSEM **22** 17:32:13.5±0.2,38°.73N×43°.35E,h2km,ML2.5,Error*
*ellipse: s-maj=4.9km s-min=3.6km az=108.0*
*DDA **22** 17:32:13.1,38°.69N×43°.34E,h7km,Ml3.2*
**ISC 22 17:32:13.4±1.0,38°.73N±0°.02×43°.35E±0°.03,h6km±9km,**
**n32,σ0s69/51,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| VANB | Van | 0.14 | 166 | ePG | Pg | 17 32 17.1 | +0.7 |
| VANB | Van | 0.14 | 166 | ePg | Pg | 17 32 17.1 | +0.7 |
| TVAN | Van | 0.21 | 167 | *i* P | Pg | 17 32 17.0 | -0.6 |
| TVAN | | | | *i* S | Sg | 17 32 21.0 | +0.5 |
| TVAN | Van | 0.21 | 167 | P | Pg | 17 32 17.0 | -0.6 |
| TVAN | | | | S | Sg | 17 32 21.0 | +0.5 |
| ERCV | ERCIS-VAN | 0.29 | 359 | ePG | Pg | 17 32 19.3 | +0.1 |
| ERCV | | | | eSG | Sb | 17 32 25.0 | -1.3 |
| ERCV | ERCIS-VAN | 0.29 | 359 | ePg | Pg | 17 32 19.3 | +0.1 |
| VMUR | Van-Muradiye | 0.31 | 35 | *i* P | Pg | 17 32 19.7 | +0.1 |
| VMUR | | | | *i* S | Sb | 17 32 26.5 | -0.5 |
| VMUR | Van-Muradiye | 0.31 | 35 | P | Pg | 17 32 19.7 | +0.1 |
| VMUR | | | | S | Sb | 17 32 26.5 | -0.5 |
| GEVA | Gevas | 0.48 | 208 | *i* P | Pg | 17 32 21.6 | -1.1 |
| GEVA | Gevas | 0.48 | 208 | P | Pg | 17 32 21.6 | -1.1 |
| ADCV | BITLIS_Adilcev | 0.49 | 279 | *i* P | Pg | 17 32 23.2 | +0.3 |
| ADCV | BITLIS_Adilcev | 0.49 | 279 | P | Pg | 17 32 23.2 | +0.3 |
| CLDR | Caldiran | 0.60 | 47 | ePG | Pg | 17 32 25.3 | +0.2 |
| CLDR | | | | eSG | Sb | 17 32 34.9 | -0.6 |
| CLDR | Caldiran | 0.60 | 47 | *i* P | Pg | 17 32 24.7 | -0.4 |
| CLDR | | | | *i* S | Sb | 17 32 35.3 | -0.2 |
| CLDR | Caldiran | 0.60 | 47 | P | Pg | 17 32 24.7 | -0.4 |
| CLDR | Caldiran | 0.60 | 47 | ePg | Pg | 17 32 25.3 | +0.2 |
| CLDR | | | | eSg | Sb | 17 32 34.9 | -0.6 |
| CLDR | | | | S | Sb | 17 32 35.3 | -0.2 |
| TUTA | Tutak | 0.79 | 328 | *i* P | Pg | 17 32 28.1 | -0.5 |
| TUTA | | | | *i* S | Sb | 17 32 40.2 | -0.5 |
| TUTA | Tutak | 0.79 | 328 | P | Pg | 17 32 28.1 | -0.5 |
| TUTA | | | | S | Sb | 17 32 40.2 | -0.5 |
| AGRB | Hanur-Agry | 0.89 | 342 | ePG | Pg | 17 32 30.3 | -0.2 |
| AGRB | | | | eSG | Sb | 17 32 43.5 | 0.0 |
| AGRB | Hanur-Agry | 0.89 | 342 | ePg | Pg | 17 32 30.3 | -0.2 |
| AGRB | | | | eSg | Sb | 17 32 43.5 | 0.0 |
| EKAR | Karacoban | 1.13 | 298 | *i* P | Pn | 17 32 35.6 | -0.4 |
| EKAR | Karacoban | 1.13 | 298 | P | Pn | 17 32 35.6 | -0.4 |
| EATA | Eleskirt | 1.31 | 330 | *i* P | Pg | 17 32 38.3 | -0.3 |
| EATA | | | | *i* S | Sn | 17 32 57.9 | +1.4 |
| EATA | Eleskirt | 1.31 | 330 | P | Pg | 17 32 38.3 | -0.3 |
| EATA | | | | S | Sn | 17 32 57.9 | +1.4 |
| SRTM | Siirt_Merkez | 1.34 | 237 | *i* P | Pg | 17 32 39.1 | 0.0 |
| SRTM | | | | *i* S | Sn | 17 32 59.0 | +2.0 |
| SRTM | Siirt_Merkez | 1.34 | 237 | P | Pg | 17 32 39.2 | 0.0 |
| SRTM | | | | S | Sn | 17 32 59.0 | +2.0 |
| SIRT | Sirnak | 1.42 | 210 | ePN | Pg | 17 32 40.7 | 0.0 |
| SIRT | Sirnak | 1.42 | 210 | ePn | Pg | 17 32 40.7 | 0.0 |
| CUKT | Cukurca | 1.50 | 172 | ePN | Pg | 17 32 41.9 | -0.3 |
| CUKT | Cukurca | 1.50 | 172 | ePn | Pg | 17 32 41.9 | -0.3 |
| BTMN | Batman | 1.84 | 243 | *i* P | Pb | 17 32 46.8 | -0.7 |
| BTMN | | | | *i* S | Sg | 17 33 12.5 | +0.1 |
| BTMN | Batman | 1.84 | 243 | P | Pb | 17 32 46.8 | -0.7 |
| BTMN | | | | S | Sg | 17 33 12.5 | +0.1 |

*GUC **22** 17:34:14.6±0.5,26°.83S×71°.18W,h87km±33km,ML3.7*
*ISCJB **22** 17:34:15.0±2.1,26°.76S±0°.03×71°.3W±0°.1,h26km±15km,*
*mb3.5/1,Error ellipse: s-maj=18.8km s-min=5.5km*
*az=174.4*
*IDC **22** 17:34:31.4±4.5,25°.93S×68°.20W,h0km,mb3.6/1,*
*mb1 3.8/2,mb1mx3.4/33,mbtmp3.7/2,ML3.8/1,MS2.6/1,*
*Ms1 2.8/1,ms1mx2.4/25,Error ellipse: s-maj=141.9km*
*s-min=57.8km az=69.0*
**ISC 22 17:34:15.7±3.8,26°.78S±0°.04×71°.2W±0°.2,h10km±20km,**
**n10,σ2s18/15,1D,Off coast of northern Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| CPCH | Copiapo | 0.95 | 128 | ⇓*i* P | Pg | 17 34 34.0 | +0.2 |
| CPCH | | | | *i* S | Sg | 17 34 46.4 | +0.2 |
| GO03 | Copiap | 1.18 | 134 | eP | Pg | 17 34 38.2 | -0.1 |
| GO03 | | | | eS | Sg | 17 34 53.4 | -0.3 |
| GO03 | | | | IAML | | 17 34 54.7 | |
| | comp=E,2μm,0.4s | | | | | | |
| VACH | Vallenar | 1.83 | 168 | eP | Pn | 17 34 46.5 | -0.8 |
| VACH | | | | eS | Sn | 17 35 07.7 | -3.0 |
| PB14 | IPOC Station P | 2.25 | 19 | eP | Pn | 17 34 52.7 | -0.6 |
| PB14 | | | | *i* S | Sn | 17 35 19.5 | -1.9 |
| PB14 | | | | IAML | | 17 35 21.3 | |
| | comp=N,533nm,0.1s | | | | | | |
| LCO | Las Campanas | 2.27 | 169 | eP | Pn | 17 34 52.2 | -1.4 |
| LCO | | | | *i* S | Sn | 17 35 19.5 | -2.2 |
| LCO | | | | IAML | | 17 35 20.6 | |
| | comp=E,314nm,0.6s | | | | | | |
| PB10 | IPOC Station P | 3.30 | 10 | eP | Pn | 17 35 05.9 | -1.5 |
| PB10 | | | | eS | Sn | 17 35 43.1 | -3.6 |
| TLL | Tololo Astrono | 3.40 | 174 | IAML | | 17 36 12.2 | |
| | comp=N,220nm,0.7s | | | | | | |
| LPAZ | La Paz | 10.82 | 16 | Pn | Pn | 17 36 51.4 | +0.1 |
| | comp=N,0.4nm,0.3s,baz=181,slow=2.4,SNR=6.7 | | | | | | |
| LPAZ | | | | LR | LR | 17 40 52.0 | |
| | comp=N,36nm,19.3s,baz=248,slow=40 | | | | | | |
| TORD | Torodi Ar. Bea | 81.08 | 70 | P | P | 17 46 33.7 | +2.1 |
| | comp=N,0.3nm,0.5s,baz=248,slow=4.7,SNR=4.6 | | | | | | |
| MKAR | Makanchi Array | 151.07 | 39 | PKPbc | PKPab | 17 54 20.0 | +3.4 |
| | comp=N,0.6nm,0.6s,baz=303,slow=1.8,SNR=6.6 | | | | | | |

*ATH **22** 17:35:16.6,39°.96N×27°.79E,h23km±6km,ML3.2/8,Error*
*ellipse: s-maj=7.9km s-min=1.6km az=78.0*
*DDA **22** 17:35:17.2,40°.00N×27°.76E,h24km,Ml3.9*
*ISCJB **22** 17:35:17.8±0.3,40°.00N±0°.01×27°.74E±0°.02,h8km±2km,*
*Error ellipse: s-maj=2.5km s-min=2.3km az=10.7*
*ISK **22** 17:35:17.7,39°.99N×27°.76E,h5km,ML3.6*
*IASPEI **22** 17:35:18.0±0.9,40°.00N±0°.02×27°.76E±0°.02,h12km±6km,*
*Error ellipse: s-maj=2.5km s-min=2.4km az=165.4,GT5*
*selection from ISC bulletin GT5 identified by Bond¨ jr and*
*McLaughlin (2009) selection criteria Bond¨ jr and*
*McLaughlin, A new ground truth data set for seismic*
*studies, Seism. Res. Let., 80, 465-472,*
*2009*
*CSEM **22** 17:35:18.1±0.1,39°.99N×27°.73E,h8km,ML3.6,Error*
*ellipse: s-maj=1.9km s-min=1.7km az=13.0*
**ISC 22 17:35:18.1±0.8,40°.00N±0°.01×27°.76E±0°.01,h14km±6km,**
**n156,σ0s83/203,7C,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| GONE | Gonen-Balikesi | 0.07 | 307 | ePG | Pg | 17 35 20.4 | -0.5 |
| GONE | Gonen-Balikesi | 0.07 | 307 | ePg | Pg | 17 35 20.4 | -0.5 |
| BALY | Balya | 0.28 | 203 | *i* P | Pb | 17 35 24.3 | -0.7 |
| BALY | | | | *i* S | Sb | 17 35 29.0 | -0.6 |
| BALY | Balya | 0.28 | 203 | P | Pb | 17 35 24.3 | -0.7 |
| BALY | | | | S | Sb | 17 35 29.0 | -0.6 |
| KNL | Bal¨–kesir | 0.32 | 326 | *i* P | Pg | 17 35 25.0 | +0.3 |
| KNL | | | | *i* S | Sg | 17 35 30.2 | +1.0 |
| EDC | Edincik | 0.35 | 13 | ePG | Pg | 17 35 25.2 | 0.0 |
| EDC | Edincik | 0.35 | 13 | ePg | Pg | 17 35 25.3 | 0.0 |
| BALB | Balikesir | 0.37 | 166 | ePG | Pg | 17 35 25.2 | -0.3 |
| BALB | | | | eSG | Sg | 17 35 30.5 | -0.2 |
| BALB | Balikesir | 0.37 | 166 | ePg | Pg | 17 35 25.3 | -0.3 |
| BALB | | | | eSg | Sg | 17 35 30.5 | -0.2 |
| KCTX | Karacabey (Bur | 0.53 | 60 | ePG | Pb | 17 35 28.1 | -1.0 |
| KCTX | | | | eSG | Sb | 17 35 35.1 | -1.4 |
| KCTX | Karacabey (Bur | 0.53 | 60 | ePg | Pb | 17 35 28.1 | -1.0 |
| KCTX | | | | eSg | Sb | 17 35 35.2 | -1.4 |
| KRBG | Karabiga-Canak | 0.53 | 318 | ePG | Pb | 17 35 28.4 | -0.7 |
| KRBG | Karabiga-Canak | 0.53 | 318 | ePg | Pb | 17 35 28.4 | -0.7 |
| DST | Dursunbey | 0.77 | 121 | ePG | Pb | 17 35 32.8 | -0.5 |
| DST | | | | eSG | Sg | 17 35 44.1 | +0.9 |
| DST | Dursunbey | 0.77 | 121 | ePg | Pb | 17 35 32.8 | -0.5 |
| DST | | | | eSg | Sg | 17 35 44.1 | +0.9 |
| RKY | Sarkoy-Tekirda | 0.82 | 327 | ePG | Pb | 17 35 33.9 | -0.1 |
| RKY | Sarkoy-Tekirda | 0.82 | 327 | ePg | Pb | 17 35 33.9 | -0.1 |
| LPK | Lapseki | 0.85 | 296 | ePG | Pb | 17 35 34.4 | -0.2 |
| LPK | Lapseki | 0.85 | 296 | ePg | Pb | 17 35 34.4 | -0.2 |
| ORLT | Orhaneli | 0.87 | 87 | ePG | Pb | 17 35 35.3 | +0.3 |
| ORLT | Orhaneli | 0.87 | 87 | ePg | Pb | 17 35 35.3 | +0.3 |
| SBT3 | Marmara-Eregli | 0.90 | 10 | ePG | Pb | 17 35 36.0 | +0.7 |
| SBT3 | Marmara-Eregli | 0.90 | 10 | ePg | Pb | 17 35 36.0 | +0.7 |
| MDNY | Mudanya-Bursa | 0.94 | 67 | ePG | Pb | 17 35 36.2 | +0.2 |
| MDNY | Mudanya-Bursa | 0.94 | 67 | ePg | Pb | 17 35 36.2 | +0.2 |
| BAYC | CANAKKALE_Bayr | 0.97 | 255 | *i* P | Pb | 17 35 36.1 | -0.6 |
| BAYC | | | | *i* S | Sb | 17 35 49.1 | -0.2 |
| BAYC | CANAKKALE_Bayr | 0.97 | 255 | P | Pb | 17 35 36.1 | -0.6 |
| BAYC | | | | S | Sb | 17 35 49.1 | -0.2 |
| TKR | Tekirdag | 1.00 | 350 | ePG | Pn | 17 35 38.2 | +0.5 |
| TKR | Tekirdag | 1.00 | 350 | ePg | Pn | 17 35 38.2 | +0.5 |
| ARMT | Armutlu | 1.01 | 56 | ePG | Pb | 17 35 37.1 | -0.3 |
| ARMT | Armutlu | 1.01 | 56 | ePg | Pb | 17 35 37.1 | -0.3 |
| SBT2 | Guzelce-Avcila | 1.05 | 33 | ePG | Pn | 17 35 38.4 | +0.2 |
| SBT2 | Guzelce-Avcila | 1.05 | 33 | ePg | Pn | 17 35 38.4 | +0.2 |
| SBT5 | Esenkoy-Cinarc | 1.06 | 53 | ePG | Pn | 17 35 38.9 | +0.5 |
| SBT5 | Esenkoy-Cinarc | 1.06 | 53 | ePg | Pn | 17 35 38.9 | +0.5 |
| GELI | Tayfur-Gelibol | 1.06 | 292 | ePG | Pb | 17 35 38.0 | -0.2 |
| GELI | Tayfur-Gelibol | 1.06 | 292 | ePg | Pb | 17 35 38.0 | -0.2 |
| EZN | Ezine | 1.12 | 261 | ePN | Pb | 

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **SIMA** | **Simav-Kutahya** | **1.32** | **134** | *e*Pn | | **Pb** | **17 35 42.8** | **+0.2** |
| **BOZC** | **Bozcaada** | **1.32** | **264** | *e*PN | | **Pb** | **17 35 43.4** | **+0.7** |
| **BOZC** | **Bozcaada** | **1.32** | **264** | *i* P | | **Pn** | **17 35 42.2** | **+0.1** |
| BOZC | | | | *i* S | | **Sb** | **17 36 00.4** | **+0.9** |
| BOZC | | | | *i* S | | **Sg** | **17 36 00.8** | **+0.1** |
| **BOZC** | **Bozcaada** | **1.32** | **264** | *e*Pn | | **Pb** | **17 35 43.4** | **+0.7** |
| **BUY** | **Buyukada** | **1.34** | **50** | *e*PN | | **Pb** | **17 35 43.2** | **+0.3** |
| **BUY** | **Buyukada** | **1.34** | **50** | *i* P | | **Pb** | **17 35 43.1** | **+0.2** |
| BUY | | | | *i* S | | **Sg** | **17 36 01.7** | **+0.5** |
| **BUY** | **Buyukada** | **1.34** | **50** | *e*Pn | | **Pb** | **17 35 43.2** | **+0.3** |
| BUY | | | | S | | **Sg** | **17 36 01.7** | **+0.5** |
| **YLV** | **Yalova** | **1.35** | **65** | *e*PN | | **Pb** | **17 35 43.4** | **+0.1** |
| **YLV** | **Yalova** | **1.35** | **65** | *e*Pn | | **Pb** | **17 35 43.4** | **+0.1** |
| **CTKS** | **Kestanelik-??a** | **1.36** | **24** | *e*PN | | **Pb** | **17 35 44.1** | **+0.9** |
| **CTKS** | **Kestanelik-??a** | **1.36** | **24** | *e*Pn | | **Pb** | **17 35 44.1** | **+0.9** |
| **PRK** | **Paraskevi** | **1.38** | **237** | P | | **Pn** | **17 35 43.0** | **+0.2** |
| PRK | | | | S | | **Sg** | **17 36 02.2** | **-0.2** |
| PRK | | | | AML | AML | | 17 36 07.7 | |
| | comp=N,2121µm,0.6s | | | | | | | |
| PRK | | | | AML | AML | | 17 36 10.1 | |
| | comp=E,2961µm,1.0s | | | | | | | |
| **PRK** | **Paraskevi** | **1.38** | **237** | P | | **Pn** | **17 35 43.0** | **+0.2** |
| PRK | | | | S | | **Sg** | **17 36 02.2** | **-0.2** |
| **TVSB** | **Tavsanli** | **1.42** | **112** | *e*PN | | **Pn** | **17 35 43.9** | **+0.3** |
| **TVSB** | **Tavsanli** | **1.42** | **112** | *e*Pn | | **Pn** | **17 35 43.9** | **+0.3** |
| **ENEZ** | **Enez** | **1.43** | **301** | *e*PN | | **Pb** | **17 35 44.8** | **+0.3** |
| **ENEZ** | **Enez** | **1.43** | **301** | *e*Pn | | **Pb** | **17 35 44.8** | **+0.3** |
| **GADA** | **Gvkgeada** | **1.44** | **278** | *e*PN | | **Pn** | **17 35 44.4** | **+0.7** |
| **GADA** | **Gvkgeada** | **1.44** | **278** | *e*Pn | | **Pn** | **17 35 44.4** | **+0.7** |
| **KAVV** | **Kandilli-Istan** | **1.45** | **43** | *e*PN | | **Pb** | **17 35 45.0** | **+0.2** |
| **KAVV** | **Kandilli-Istan** | **1.45** | **43** | *e*Pn | | **Pb** | **17 35 45.0** | **+0.2** |
| **ISK** | **Istanbul-Kandi** | **1.45** | **43** | *e*PN | | **Pb** | **17 35 44.9** | **+0.1** |
| **ISK** | **Istanbul-Kandi** | **1.45** | **43** | *e*Pn | | **Pb** | **17 35 44.9** | **+0.1** |
| **CTYL** | **Yalikoy Yolu** | **1.52** | **15** | *e*PN | | **Pn** | **17 35 45.5** | **+0.6** |
| **CTYL** | **Yalikoy Yolu** | **1.52** | **15** | *e*Pn | | **Pn** | **17 35 45.5** | **+0.6** |
| **ADVT** | **Abdulvahap** | **1.57** | **74** | *e*PN | | **Pb** | **17 35 46.9** | **0.0** |
| **ADVT** | **Abdulvahap** | **1.57** | **74** | *e*Pn | | **Pb** | **17 35 46.9** | **0.0** |
| **KLYT** | **Kilyos** | **1.58** | **38** | *e*PN | | **Pb** | **17 35 47.4** | **+0.3** |
| **KLYT** | **Kilyos** | **1.58** | **38** | *e*Pn | | **Pb** | **17 35 47.4** | **+0.3** |
| **ALN** | **Alexandroupoli** | **1.58** | **305** | *e*PN | | **Pb** | **17 35 47.5** | **+0.4** |
| **ALN** | **Alexandroupoli** | **1.58** | **305** | P | | **Pn** | **17 35 45.3** | **-0.4** |
| ALN | | | | S | | **Sg** | **17 36 09.3** | **+0.2** |
| ALN | | | | AML | AML | | 17 36 09.3 | |
| | comp=E,797µm,0.5s | | | | | | | |
| ALN | | | | AML | AML | | 17 36 10.2 | |
| | comp=N,688µm,0.3s | | | | | | | |
| **ALN** | **Alexandroupoli** | **1.58** | **305** | P | | **Pn** | **17 35 45.3** | **-0.4** |
| **ALN** | **Alexandroupoli** | **1.58** | **305** | *e*Pn | | **Pb** | **17 35 47.5** | **+0.4** |
| ALN | | | | S | | **Sg** | **17 36 09.3** | **+0.2** |
| **CAVI** | **Cavuskoy** | **1.61** | **82** | *e*PN | | **Pb** | **17 35 48.0** | **+0.5** |
| **CAVI** | **Cavuskoy** | **1.61** | **82** | *e*Pn | | **Pb** | **17 35 48.0** | **+0.5** |
| **GDZ** | **Gediz** | **1.61** | **124** | *i* P | | **Pn** | **17 35 46.4** | **+0.2** |
| GDZ | | | | *i* S | | **Sg** | **17 36 10.2** | **+0.2** |
| **GDZ** | **Gediz** | **1.61** | **124** | P | | **Pn** | **17 35 46.4** | **+0.2** |
| GDZ | | | | S | | **Sg** | **17 36 10.2** | **+0.2** |
| **MANT** | **Manisa** | **1.63** | **157** | *i* P | | **Pn** | **17 35 46.6** | **+0.1** |
| MANT | | | | *i* S | | **Sg** | **17 36 09.8** | **-0.8** |
| **MANT** | **Manisa** | **1.63** | **157** | P | | **Pn** | **17 35 46.6** | **+0.1** |
| MANT | | | | S | | **Sg** | **17 36 09.8** | **-0.8** |
| **PHSR** | **Pinarhisar** | **1.64** | **354** | *e*PN | | **Pb** | **17 35 48.4** | **+0.4** |
| **PHSR** | **Pinarhisar** | **1.64** | **354** | *e*Pn | | **Pb** | **17 35 48.4** | **+0.4** |
| **KULA** | **Kula-Manisa** | **1.64** | **155** | *e*PN | | **Pb** | **17 35 47.7** | **-0.5** |
| **KULA** | **Kula-Manisa** | **1.64** | **155** | *e*Pn | | **Pb** | **17 35 47.7** | **-0.5** |
| **HRT** | **Hereke** | **1.67** | **60** | *e*PN | | **Pb** | **17 35 48.4** | **-0.2** |
| **HRT** | **Hereke** | **1.67** | **60** | *e*Pn | | **Pb** | **17 35 48.4** | **-0.2** |
| **SIGR** | **SIGRI** | **1.67** | **242** | P | | **Pn** | **17 35 47.1** | **+0.2** |
| SIGR | | | | S | | **Sn** | **17 36 07.1** | **-1.0** |
| SIGR | | | | AML | AML | | 17 36 13.6 | |
| | comp=E,1692µm,0.5s | | | | | | | |
| SIGR | | | | AML | AML | | 17 36 15.8 | |
| | comp=N,1356µm,0.3s | | | | | | | |
| **SIGR** | **SIGRI** | **1.67** | **242** | P | | **Pn** | **17 35 47.1** | **+0.2** |
| SIGR | | | | S | | **Sn** | **17 36 07.1** | **-1.0** |
| **SMTH** | **Samothraki Isl** | **1.77** | **286** | P | | **Pn** | **17 35 48.6** | **+0.3** |
| SMTH | | | | S | | **Sb** | **17 36 12.9** | **+0.5** |
| SMTH | | | | AML | AML | | 17 36 15.1 | |
| | comp=N,1067µm,0.4s | | | | | | | |
| SMTH | | | | AML | AML | | 17 36 16.4 | |
| | comp=E,1058µm,0.4s | | | | | | | |
| **SMTH** | **Samothraki Isl** | **1.77** | **286** | P | | **Pn** | **17 35 48.6** | **+0.3** |
| SMTH | | | | S | | **Sb** | **17 36 12.9** | **+0.5** |
| **SILT** | **Sile** | **1.84** | **51** | *e*PN | | **Pb** | **17 35 51.7** | **+0.3** |
| **SILT** | **Sile** | **1.84** | **51** | *e*Pn | | **Pb** | **17 35 51.7** | **+0.3** |
| **URLA** | **Izmir** | **1.87** | **209** | *e*PN | | **Pb** | **17 35 51.8** | **-0.3** |
| **URLA** | **Izmir** | **1.87** | **209** | *i* P | | **Pb** | **17 35 52.9** | **+0.8** |
| URLA | | | | *i* S | | **Sg** | **17 36 21.4** | **+3.1** |
| **URLA** | **Izmir** | **1.87** | **209** | *e*Pn | | **Pb** | **17 35 51.8** | **-0.3** |
| **URLA** | **Izmir** | **1.87** | **209** | P | | **Pb** | **17 35 52.9** | **+0.8** |
| **LIA** | **Limnos Island** | **1.98** | **268** | P | | **Pn** | **17 35 51.3** | **+0.1** |
| LIA | | | | S | | **Sn** | **17 36 15.6** | **-0.2** |
| LIA | | | | AML | AML | | 17 36 21.4 | |
| | comp=N,928µm,0.4s | | | | | | | |
| LIA | | | | AML | AML | | 17 36 27.9 | |
| | comp=E,917µm,0.6s | | | | | | | |
| **LIA** | **Limnos Island** | **1.98** | **268** | P | | **Pn** | **17 35 51.3** | **+0.1** |
| LIA | | | | S | | **Sn** | **17 36 15.6** | **-0.2** |
| **EDRB** | **Edirne** | **2.00** | **338** | *e*PN | | **Pb** | **17 35 53.3** | **-0.8** |
| **EDRB** | **Edirne** | **2.00** | **338** | *e*Pn | | **Pb** | **17 35 53.3** | **-0.8** |
| **RDO** | **Rodhopi** | **2.04** | **305** | P | | **Pn** | **17 35 52.3** | **+0.3** |
| RDO | | | | S | | **Sn** | **17 36 17.9** | **+0.6** |
| RDO | | | | AML | AML | | 17 36 24.3 | |
| | comp=E,516µm,0.6s | | | | | | | |
| RDO | | | | AML | AML | | 17 36 24.9 | |
| | comp=N,376µm,0.4s | | | | | | | |
| **RDO** | **Rodhopi** | **2.04** | **305** | P | | **Pn** | **17 35 52.3** | **+0.3** |
| RDO | | | | S | | **Sn** | **17 36 17.9** | **+0.6** |
| **SPNC** | **Sapanca-Adapaz** | **2.06** | **70** | *e*PN | | **Pb** | **17 35 54.0** | **-1.3** |
| **SPNC** | **Sapanca-Adapaz** | **2.06** | **70** | *e*Pn | | **Pb** | **17 35 54.0** | **-1.3** |
| **CHOS** | **Chios island** | **2.09** | **220** | P | | **Pn** | **17 35 51.9** | **-0.8** |
| CHOS | | | | S | | **Sn** | **17 36 19.5** | **+1.0** |
| CHOS | | | | AML | AML | | 17 36 30.9 | |
| | comp=E,704µm,0.3s | | | | | | | |
| CHOS | | | | AML | AML | | 17 36 34.2 | |
| | comp=N,756µm,0.7s | | | | | | | |
| **CHOS** | **Chios island** | **2.09** | **220** | P | | **Pn** | **17 35 51.9** | **-0.8** |
| CHOS | | | | S | | **Sn** | **17 36 19.5** | **+1.0** |
| **GULT** | **Gulveren** | **2.15** | **78** | *e*PN | | **Pb** | **17 35 56.0** | **-0.8** |
| **GULT** | **Gulveren** | **2.15** | **78** | *e*Pn | | **Pb** | **17 35 56.0** | **-0.8** |
| **SMG** | **Samos** | **2.40** | **198** | P | | **Pn** | **17 35 57.1** | **+0.1** |
| SMG | | | | S | | **Sn** | **17 36 25.5** | **-0.7** |
| SMG | | | | AML | AML | | 17 36 43.2 | |
| | comp=N,509µm,0.5s | | | | | | | |
| SMG | | | | AML | AML | | 17 36 44.9 | |
| | comp=E,354µm,0.6s | | | | | | | |
| **SMG** | **Samos** | **2.40** | **198** | P | | **Pn** | **17 35 57.1** | **+0.1** |
| SMG | | | | S | | **Sn** | **17 36 25.5** | **-0.7** |
| **ESKT** | **Eskisehir** | **2.43** | **100** | *e*PN | | **Pb** | **17 35 59.4** | **+1.9** |
| **ESKT** | **Eskisehir** | **2.43** | **100** | *e*Pn | | **Pn** | **17 35 59.4** | **+1.9** |
| **SHUT** | **Suhut-Afyon** | **2.60** | **123** | *e*Pn | | **Pn** | **17 36 00.8** | **+0.9** |
| **SHUT** | **Suhut-Afyon** | **2.60** | **123** | *e*Pn | | **Pn** | **17 36 00.8** | **+0.9** |
| **KAVA** | **Kavala** | **2.67** | **293** | P | | **Pn** | **17 36 00.5** | **-0.1** |
| **KAVA** | **Kavala** | **2.67** | **293** | P | | **Pn** | **17 36 00.5** | **-0.1** |
| **MDUB** | **Mudurnu** | **2.67** | **79** | *e*PN | | **Pn** | **17 36 03.2** | **+2.5** |
| **MDUB** | **Mudurnu** | **2.67** | **79** | *e*Pn | | **Pn** | **17 36 03.2** | **+2.5** |
| **SVRH** | **Sivrihisar-ESK** | **2.95** | **100** | *e*PN | | **Pn** | **17 36 06.8** | **+2.2** |
| **SVRH** | **Sivrihisar-ESK** | **2.95** | **100** | *e*Pn | | **Pn** | **17 36 06.8** | **+2.2** |
| **KIZT** | **Kizilcal** | **3.38** | **108** | *e*PN | | **Pn** | **17 36 11.6** | **+1.1** |
| **KIZT** | **Kizilcal** | **3.38** | **108** | *e*Pn | | **Pn** | **17 36 11.6** | **+1.1** |
| **KNT** | **Kendrikon** | **3.88** | **289** | P | | **Pn** | **17 36 17.6** | **+0.3** |
| **KNT** | **Kendrikon** | **3.88** | **289** | P | | **Pn** | **17 36 17.6** | **+0.3** |
| **VTS** | **Vitosha** | **4.29** | **308** | ⇑*i*P | | **Pb** | **17 36 34.3** | **+0.9** |
| **VTS** | **Vitosha** | **4.29** | **308** | S | | **Sg** | **17 37 31.9** | **-4.1** |
| **AGG** | **Agios Georgios** | **4.31** | **259** | P | | **Pn** | **17 36 23.6** | **+0.3** |
| **AGG** | **Agios Georgios** | **4.31** | **259** | P | | **Pn** | **17 36 23.6** | **+0.3** |
| **ZAGS** | **Zajecar** | **5.61** | **315** | *e*P | | **Pn** | **17 36 41.0** | **0.0** |
| **MLR** | **Muntele Rosu** | **5.64** | **347** | ⇑*i*P | | **Pn** | **17 36 41.9** | **+0.3** |
| **MLR** | **Muntele Rosu** | **5.64** | **347** | ⇑*i*P | | **Pn** | **17 36 41.9** | **+0.3** |
| **VOIR** | | **5.79** | **341** | ⇑*i*P | | **Pn** | **17 36 44.5** | **+1.0** |
| **VOIR** | | **5.79** | **341** | ⇑*i*P | | **Pn** | **17 36 44.5** | **+1.0** |
| **BOVS** | **Bovan** | **5.80** | **311** | *e*P | | **Pn** | **17 36 44.5** | **+0.9** |
| **DOPR** | **Dopca** | **6.21** | **345** | ⇑*i*P | | **Pn** | **17 36 49.4** | **+0.1** |
| **DOPR** | **Dopca** | **6.21** | **345** | ⇑*i*P | | **Pn** | **17 36 49.4** | **+0.1** |
| DOPR | | | | S | | **Sn** | **17 37 59.0** | **-1.1** |
| **IVAS** | **Ivanjica** | **6.71** | **305** | *e*P | | **Pn** | **17 36 56.7** | **+0.5** |

*ISCJB **22** 17:50:31.7±0.5, 50°33′N±0′.03×18°.76E±0′.03, h0km, Error ellipse: s-maj=4.8km s-min=2.3km az=18.7*
*CSEM **22** 17:50:33.0±0.3, 50°32′N×18°.80E, h2km, ML2.9/6, Error ellipse: s-maj=7.3km s-min=2.9km az=13.0*

*PRU **22** 17:50:34.3, 50°.25N×18°.76E, h0km*
*WAR **22** 17:50:34.2, 50°.27N×18°.83E, h1km, Mw2.9*

**ISC 22 17:50:33.2**±0.8, **50°23N**±0′.04×**18°.76E**±0′.02, **h0km, n51,**
**σ1º14/91, 8C, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RAC** | **Raciborz** | **0.39** | **248** | *e*Pg | **Pb** | **17 50 43.7** | **+0.6** |
| RAC | | | | *e*Sg | **Sb** | **17 50 50.4** | **+0.8** |
| **OKC** | **Ostrava-Krasne** | **0.56** | **225** | *e*PG | **Pb** | **17 50 46.1** | **+0.2** |
| OKC | | | | *e*SG | **Sb** | **17 50 53.4** | **-1.0** |
| | comp=Z,41nm,0.4s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **0.56** | **225** | Pg | **Pb** | **17 50 46.1** | **+0.2** |
| OKC | | | | Sg | **Sb** | **17 50 53.4** | **-1.0** |
| | 41nm,0.4s | | | | | | |
| **OJC** | **Ojcow** | **0.67** | **91** | *e*Pg | **Pg** | **17 50 46.1** | **+0.1** |
| OJC | | | | *e*Sg | **Sg** | **17 50 55.0** | **+0.4** |
| **OJC** | **Ojcow** | **0.67** | **91** | *e*Pg | **Pg** | **17 50 46.1** | **+0.1** |
| OJC | | | | *e*Sg | **Sg** | **17 50 55.0** | **+0.4** |
| **OJC** | **Ojcow** | **0.67** | **91** | *e*Pg | **Pg** | **17 50 46.1** | **+0.1** |
| OJC | | | | *e*Sg | **Sg** | **17 50 55.0** | **+0.4** |
| **MORC** | **Moravsky Berou** | **0.91** | **240** | ⇑*i*P | **Pb** | **17 50 52.0** | **+0.1** |
| **MORC** | **Moravsky Berou** | **0.91** | **240** | *e*Pg | **Pb** | **17 50 51.9** | **+0.1** |
| MORC | | | | *e*Sg | **Sb** | **17 51 05.1** | **+0.6** |
| **LANS** | **Liptovska Anna** | **1.18** | **157** | *e*Pg | **Pn** | **17 50 57.0** | **0.0** |
| LANS | | | | *e*Sg | **Sn** | **17 51 13.2** | **-0.5** |
| **LANS** | **Liptovska Anna** | **1.18** | **157** | *e*PG | **Pn** | **17 50 57.0** | **0.0** |
| LANS | | | | *e*SG | **Sn** | **17 51 13.2** | **-0.5** |
| **KRLC** | **Kraliky** | **1.28** | **264** | *e*PG | **Pg** | **17 50 57.8** | **0.0** |
| KRLC | | | | *e*SG | **Sb** | **17 51 14.9** | **-0.4** |
| | comp=Z,9.3nm,0.5s | | | | | | |
| **KRLC** | **Kraliky** | **1.28** | **264** | Pg | **Pg** | **17 50 57.8** | **0.0** |
| KRLC | | | | Sg | **Sb** | **17 51 14.9** | **-0.4** |
| | 9.3nm,0.5s | | | | | | |
| **NIE** | **Niedzica** | **1.29** | **129** | *e*Pg | **Pb** | **17 50 58.5** | **+0.1** |
| NIE | | | | *e*Sg | **Sn** | **17 51 16.4** | **-0.1** |
| **NIE** | **Niedzica** | **1.29** | **129** | *e*Pg | **Pb** | **17 50 58.5** | **+0.1** |
| NIE | | | | *e*Sg | **Sn** | **17 51 16.4** | **-0.1** |
| **NIE** | **Niedzica** | **1.29** | **129** | *e*Pg | **Pb** | **17 50 58.5** | **+0.1** |
| NIE | | | | *e*Sg | **Sn** | **17 51 16.4** | **-0.1** |
| **DPC** | **Dobruska-Polom** | **1.57** | **275** | *e*PG | **Pn** | **17 51 02.7** | **+0.3** |
| DPC | | | | *e*SG | **Sg** | **17 51 24.2** | **+0.6** |
| | comp=Z,24nm,0.5s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.57** | **275** | Pg | **Pn** | **17 51 02.7** | **+0.3** |
| DPC | | | | Sg | **Sg** | **17 51 24.2** | **+0.6** |
| | 24nm,0.5s | | | | | | |
| **VRAC** | **Vranov** | **1.68** | **237** | ⇑*i*P | **Pg** | **17 51 05.4** | **0.0** |
| **VRAC** | **Vranov** | **1.68** | **237** | ⇑*i*P | **Sg** | **17 51 05.4** | **0.0** |
| VRAC | | | | *e*Sg | **Sg** | **17 51 28.2** | **+1.0** |
| **KSP** | **Ksiaz** | **1.69** | **292** | *i* Pg | **Pg** | **17 51 06.0** | **+0.4** |
| KSP | | | | *e*Sg | **Sg** | **17 51 28.2** | **+0.8** |
| **KSP** | **Ksiaz** | **1.69** | **292** | ⇑*i*Pg | **Pg** | **17 51 06.0** | **+0.4** |
| KSP | | | | *e*Sg | **Sg** | **17 51 28.2** | **+0.8** |
| **KSP** | **Ksiaz** | **1.69** | **292** | *i* Pg | **Pg** | **17 51 06.0** | **+0.4** |
| KSP | | | | *e*Sg | **Sg** | **17 51 28.2** | **+0.8** |
| **VYHS** | **Vyhne** | **1.74** | **178** | *e*Pn | **Pn** | **17 51 05.0** | **+0.3** |
| VYHS | | | | *e*Sn | **Sn** | **17 51 25.7** | **-1.9** |
| **VYHS** | **Vyhne** | **1.74** | **178** | *e*PN | **Pn** | **17 51 05.0** | **+0.3** |
| VYHS | | | | *e*SN | **Sn** | **17 51 25.7** | **-1.9** |
| VYHS | | | | *e*LG | Lg | 17 51 34.1 | |
| **UPC** | **Upice** | **1.78** | **280** | *e*PG | **Pg** | **17 51 07.4** | **+0.1** |
| UPC | | | | *e*SG | **Sg** | **17 51 31.3** | **+0.9** |
| | comp=Z,15nm,0.4s | | | | | | |
| **UPC** | **Upice** | **1.78** | **280** | Pg | **Pg** | **17 51 07.4** | **+0.1** |
| UPC | | | | Sg | **Sg** | **17 51 31.3** | **+0.9** |
| | 15nm,0.4s | | | | | | |
| **STHS** | **Stebnicka Huta** | **1.80** | **116** | *e*Pn | **Pb** | **17 51 06.9** | **-0.2** |
| **STHS** | **Stebnicka Huta** | **1.80** | **116** | *e*PN | **Pb** | **17 51 06.9** | **-0.2** |
| STHS | | | | *e*LG | Lg | 17 51 38.8 | |
| **KECS** | **Kecovo** | **2.08** | **147** | *e*Pn | **Pn** | **17 51 09.6** | **+0.2** |
| KECS | | | | *e*Sn | **Sn** | **17 51 34.7** | **-1.3** |
| **KECS** | **Kecovo** | **2.08** | **147** | *e*PN | **Pn** | **17 51 09.6** | **+0.2** |
| KECS | | | | *e*SN | **Sn** | **17 51 34.7** | **-1.3** |
| KECS | | | | *e*LG | Lg | 17 51 44.1 | |
| **CRVS** | **Cervenica-Dubn** | **2.21** | **126** | *e*Pg | **Pb** | **17 51 14.5** | **+0.5** |
| **CRVS** | **Cervenica-Dubn** | **2.21** | **126** | *e*PG | **Pb** | **17 51 14.5** | **+0.5** |
| **GOPC** | **GO Pecny, Ondr** | **2.58** | **264** | *e*PG | **Pb** | **17 51 20.6** | **+0.3** |
| GOPC | | | | *e*SG | **Sg** | **17 51 54.4** | **-1.6** |
| | comp=Z,17nm,0.6s | | | | | | |
| **PVCC** | **Panska Ves** | **2.70** | **278** | *e*PG | **Pg** | **17 51 24.7** | **-0.2** |
| PVCC | | | | *e*SG | **Sg** | **17 52 00.5** | **+0.6** |
| | comp=Z,15nm,0.4s | | | | | | |
| **PVCC** | **Panska Ves** | **2.70** | **278** | Pg | **Pg** | **17 51 24.7** | **-0.2** |
| PVCC | | | | Sg | **Sg** | **17 52 00.5** | **+0.6** |
| | 15nm,0.4s | | | | | | |
| **PRU** | **Pruhonice** | **2.73** | **266** | *e*PN | **Pb** | **17 51 21.2** | **-1.6** |
| PRU | | | | *e*PG | **Pg** | **17 51 24.6** | **-0.8** |
| PRU | | | | *e*SN | **Sn** | **17 51 51.6** | **-0.3** |
| PRU | | | | *e*SG | **Sg** | **17 51 59.1** | **-1.7** |
| | comp=Z,7.5nm,0.6s | | | | | | |
| **PRU** | **Pruhonice** | **2.73** | **266** | Pg | **Pg** | **17 51 24.6** | **-0.8** |
| PRU | | | | Sn | **Sn** | **17 51 51.6** | **-0.3** |
| **CONA** | **Conrad Observa** | **2.99** | **221** | *e*Pn | **Pn** | **17 51 23.4** | **+1.5** |
| | 0.2nm,0.1s | | | | | | |
| CONA | | | | Sn | **Sn** | **17 51 58.4** | **-0.1** |
| | 4.1nm,0.4s | | | | | | |
| **CONA** | **Conrad Observa** | **2.99** | **221** | Pn | **Pn** | **17 51 23.4** | **+1.5** |
| | 0.2nm,0.1s | | | | | | |
| **BRG** | **Berggiesshubel** | **3.14** | **284** | PG | **Pg** | **17 51 32.7** | **-0.6** |
| BRG | | | | SG | **Sg** | **17 52 14.3** | **+0.3** |
| | 8.1nm,0.5s | | | | | | |
| **KHC** | **Kasperske Hory** | **3.54** | **254** | *e*PN | **Pn** | **17 51 31.3** | **+1.8** |
| KHC | | | | *e*PG | **Pg** | **17 51 40.3** | **-0.8** |
| KHC | | | | *ex* | x | 17 52 23.2 | |
| KHC | | | | *e*SG | **Sg** | **17 52 25.1** | **-1.8** |
| | comp=Z,12nm,0.4s | | | | | | |
| **KHC** | **Kasperske Hory** | **3.54** | **254** | Pn | **Pn** | **17 51 31.3** | **+1.8** |
| **ARSA** | **Arzberg** | **3.67** | **217** | Sg | **Sg** | **17 52 38.3** | **+7.1** |
| | 1.8nm,0.3s | | | | | | |
| **MOA** | **Molln** | **3.80** | **233** | *e*Pn | **Pg** | **17 51 45.2** | **-0.8** |
| | 0.7nm,0.3s | | | | | | |
| MOA | | | | *i* Sg | **Sg** | **17 52 34.1** | **-1.0** |
| | 5.3nm,0.4s | | | | | | |
| **CLL** | **Collm** | **3.81** | **289** | *i* Pg | **Pg** | **17 51 45.7** | **-0.5** |
| CLL | | | | *i* Sg | **Sg** | **17 52 38.0** | **+2.5** |
| | comp=Z,8.0nm,1.0s | | | | | | |
| **NKC** | **Novy Kostel** | **4.05** | **272** | *e*PG | **Pg** | **17 51 48.9** | **-1.9** |
| NKC | | | | *e*SG | **Sg** | **17 52 42.0** | **-1.3** |
| | comp=Z,11nm,0.5s | | | | | | |
| **NKC** | **Novy Kostel** | **4.05** | **272** | Sg | **Sg** | **17 52 42.0** | **-1.3** |
| | comp=Z,11nm,0.5s | | | | | | |
| **DRGR** | | **4.33** | **141** | ⇑*i*P | **Pn** | **17 51 40.1** | **-0.2** |
| **DRGR** | | **4.33** | **141** | ⇑*i*P | **Pn** | **17 51 40.1** | **-0.2** |
| **BURAR** | **Bucovina Array** | **5.00** | **119** | ⇑*i*P | **Pn** | **17 51 49.9** | **+0.4** |
| **BURAR** | **Bucovina Array** | **5.00** | **119** | ⇑*i*P | **Pn** | **17 51 49.9** | **+0.4** |

*IDC **22** 18:04:08.6±0.6, 16°.90S×173°.39W, h0km, mb4.4/12, mb1 4.6/14, mb1mx4.4/32, mbtmp4.4/14, ML3.8/2, MS3.1/6, Ms1 3.1/6, ms1mx2.9/28, Error ellipse: s-maj=26.4km s-min=14.8km az=143.0*
*NEIC **22** 18:04:12.5±3.5, 16°.97S×173°.40W, h24km±25km, mb4.8/14, Error ellipse: s-maj=15.9km s-min=8.2km az=146.0*
*ISCJB **22** 18:04:13.7±0.3, 17°.04S±0′.07×173°.38W±0′.06, h52km, mb4.5/24, MS3.1/4, Error ellipse: s-maj=11.8km s-min=6.5km az=150.6*

**ISC 22 18:04:15.2**±0.4, **16°.98S**±0′.06×**173°.30W**±0′.07, **h52km, n88,**
**σ1º28/87, mb4.5/24, MS2.9/4, 7C-1D, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AFI** | **Afiamalu** | **3.39** | **26** | Pn | **Pn** | **18 05 06.6** | **+0.9** |
| | 33nm,0.3s,baz=140,slow=1.7,SNR=24 | | | | | | |
| AFI | | | | Sn | **Sn** | **18 05 41.7** | **-3.1** |
| | 96nm,0.3s,baz=65,slow=22,SNR=11 | | | | | | |
| AFI | | | | LR | LR | 18 06 19.7 | |
| | comp=Z,176nm,20.5s,baz=243,slow=39 | | | | | | |
| **AFI** | **Afiamalu** | **3.39** | **26** | *e*Pn | **Pn** | **18 05 05.8** | **+0.1** |
| AFI | | | | *e* | | 18 05 06.1 | |
| AFI | | | | Sn | **Sn** | **18 05 41.7** | **-3.1** |
| **NIUE** | **Niue** | **3.82** | **124** | P | **Pn** | **18 05 11.0** | **-0.5** |
| | baz=3.8,SNR=202 | | | | | | |
| **RAR** | **Rarotonga** | **13.46** | **110** | Pn | **Pn** | **18 07 22.4** | **-1.1** |
| | 3.2nm,0.3s,baz=256,slow=8.2,SNR=11 | | | | | | |
| **RAR** | **Rarotonga** | **13.46** | **110** | *e*Pn | **Pn** | **18 07 22.5** | **-1.0** |
| **DZM** | **Mont Dzumac** | **19.75** | **252** | P | **P** | **18 08 40.8** | **-0.2** |
| | 0.4nm,0.3s,baz=82,slow=18,SNR=4.7 | | | | | | |
| DZM | | | | S | S | 18 11 55.6 | -25 |
| | 0.2nm,0.3s,baz=36,slow=11,SNR=12 | | | | | | |
| DZM | | | | LR | LR | 18 14 58.0 | |
| | comp=Z,138nm,21.6s,baz=38,slow=33 | | | | | | |
| **DZM** | **Mont Dzumac** | **19.75** | **252** | *e*P | **Pn** | **18 08 44.1** | **+1.2** |
| | 2.0nm,0.3s | | | | | | |
| DZM | | | | *e*LR | LR | 18 14 15.8 | |
| | 223nm,27.7s | | | | | | |
| **DZM** | **Mont Dzumac** | **19.75** | **252** | *e*P | **P** | **18 08 40.8** | **-0.2** |
| | 104nm,2.0s | | | | | | |
| DZM | | | | S | S | 18 11 55.6 | -25 |
| **PPT2** | **Papeete2** | **22.66** | **95** | *e*LR | LR | 18 14 20.0 | |
| | 179nm,29.0s | | | | | | |
| **PPT** | **Papeete** | **22.66** | **95** | LR | LR | 18 15 50.3 | |
| | comp=Z,28nm,18.8s,baz=228,slow=31 | | | | | | |
| **URZ** | **Urewera** | **22.81** | **200** | P | **P** | **18 09 14.7** | **+1.1** |
| | 25nm,0.5s,baz=74,slow=3.1,SNR=20 | | | | | | |
| **HNR** | **Honiara** | **27.08** | **283** | LR | LR | 18 17 56.0 | |
| | comp=Z,19nm,19.3s,baz=94,slow=31 | | | | | | |
| **RPZ** | **Rata Peaks** | **29.77** | **203** | P | **P** | **18 10 17.8** | **+0.9** |
| | 5.0nm,0.6s,baz=333,slow=1.4,SNR=6.5 | | | | | | |
| **MLZ** | **Mavora Lakes** | **32.29** | **205** | *e*P | **P** | **18 10 38.8** | **-0.3** |
| | 7.2nm,0.9s | | | | | | |
| **ARMA** | **Armidale** | **34.64** | **241** | P | **P** | **18 10 60.0** | **+0.2** |
| | baz=35,SNR=6.8 | | | | | | |
| **CNB** | **Canberra Magne** | **37.88** | **234** | P | **P** | **18 11 27.2** | **-0.3** |
| | baz=38,SNR=4.7 | | | | | | |
| **PMG** | **Port Moresby** | **39.17** | **276** | P | **P** | **18 11 38.2** | **-0.2** |
| | 4.3nm,0.6s,baz=17,slow=14,SNR=3.1 | | | | | | |
| **CMSA** | **Cobar Meteorol** | **39.86** | **241** | P | **P** | **18 11 43.4** | **-0.6** |
| | baz=40,SNR=20 | | | | | | |
| **QLP** | **Quilpie** | **40.42** | **249** | P | **P** | **18 11 47.7** | **-1.0** |
| | baz=40,SNR=7.3 | | | | | | |
| **TOO** | **Toolangi** | **41.56** | **232** | P | **P** | **18 11 57.2** | **-0.8** |
| | baz=42,SNR=4.2 | | | | | | |
| **STKA** | **Stephens Creek** | **43.35** | **241** | P | **P** | **18 12 12.2** | **-0.4** |
| | 18nm,1.2s,baz=82,slow=9.5,SNR=12 | | | | | | |
| **STKA** | **Stephens Creek** | **43.35** | **241** | P | **P** | **18 12 12.4** | **-0.1** |
| | baz=43,SNR=6.4 | | | | | | |
| **STKA** | **Stephens Creek** | **43.35** | **241** | *e*P | **P** | **18 12 11.8** | **-0.7** |
| | 3.7nm,1.3s | | | | | | |
| **ARPS** | **Mount Arapiles** | **44.14** | **234** | P | **P** | **18 12 18.2** | **-0.5** |
| | baz=44 | | | | | | |
| **BBOO** | **Buckleboo** | **48.12** | **241** | P | **P** | **18 12 49.7** | **-0.4** |
| | baz=48,SNR=23 | | | | | | |
| **BBOO** | **Buckleboo** | **48.12** | **241** | *e*P | **P** | **18 12 49.3** | **-0.9** |
| | 11nm,0.7s | | | | | | |
| **WB2** | **Warramunga Arr** | **49.59** | **258** | *e*P | **P** | **18 13 00.5** | **-1.1** |
| | 7.4nm,0.6s | | | | | | |
| **WRAB** | **Tennant Creek** | **49.59** | **258** | *e*P | **P** | **18 13 00.4** | **-1.2** |
| | 6.9nm,0.6s | | | | | | |
| **WR1** | **Warramunga Arr** | **49.60** | **258** | *e*P | **P** | **18 13 00.2** | **-1.5** |
| | 8.6nm,0.6s | | | | | | |
| **WRA** | **Warramunga Arr** | **49.60** | **258** | P | **P** | **18 13 00.2** | **-1.5** |
| | 4.4nm,0.5s,baz=95,slow=7.1,SNR=177 | | | | | | |
| **AS01** | **Alice Springs** | **49.69** | **253** | *e*P | **P** | **18 13 01.4** | **-0.9** |
| **AS31** | **Alice Springs** | **

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **RTLL** | **Cerro Villicun** | **0.70** | **86** | *i* P | | **Pn** | **18 07 35.3** | **-0.5** |
| RTLL | | | | IAML | | | 18 07 35.4 | |
| | comp=Z,691nm,0.2s | | | | | | | |
| RTLL | | | | *e*S | | **Sn** | **18 07 49.5** | **+0.5** |
| **RTLL** | **Cerro Villicun** | **0.70** | **86** | *e*P | | **Pn** | **18 07 35.1** | **-0.6** |
| RTLL | | | | *i* S | | **Sn** | **18 07 49.5** | **+0.5** |
| RTLL | | | | IAML | | | 18 07 50.4 | |
| | comp=E,3μm,0.6s | | | | | | | |
| **RTCV** | **Cerro Valdivia** | **0.81** | **127** | *i* P | | **Pn** | **18 07 36.3** | **-0.4** |
| RTCV | | | | *i* S | | **Sn** | **18 07 50.9** | **+0.2** |
| **AMOG** | **MOGNA** | **0.81** | **58** | *i* P | | **Pn** | **18 07 37.0** | **+0.1** |
| AMOG | | | | *e*S | | **Sn** | **18 07 51.7** | **+0.8** |
| **AUSP** | **Uspallata** | **0.85** | **185** | *i* P | | **Pn** | **18 07 36.3** | **-1.1** |
| AUSP | | | | *i* S | | **Sn** | **18 07 50.8** | **-1.1** |
| **TLL** | **Tololo Astrono** | **1.77** | **312** | *e*P | | **Pn** | **18 07 46.9** | **-1.2** |
| TLL | | | | *i* S | | **Sn** | **18 08 10.3** | **-0.5** |
| TLL | | | | IAML | | | 18 08 12.8 | |
| | comp=N,221nm,0.7s | | | | | | | |
| **ACAN** | **Cantantal** | **2.01** | **117** | *i* P | | **Pn** | **18 07 50.2** | **-0.6** |
| **AGUA** | **GUANDACOL** | **2.01** | **20** | *i* P | | **Pn** | **18 07 51.9** | **+1.0** |
| AGUA | | | | *i* S | | **Sn** | **18 08 18.5** | **+2.5** |
| **FCH** | **Farellones** | **2.12** | **203** | *e*P | | Pn | 18 07 47.8 | -4.8 |
| FCH | | | | *i* S | | **Sn** | **18 08 18.8** | **-0.1** |
| **ROCH** | **El Roble** | **2.16** | **222** | *e*P | | **Pn** | **18 07 53.8** | **+0.8** |
| ROCH | | | | *i* S | | **Sn** | **18 08 22.9** | **+3.3** |
| **APLL** | **PUNTA DE LOS L** | **2.57** | **68** | *e*P | | **Pn** | **18 07 57.7** | **-0.5** |
| APLL | | | | *i* S | | **Sn** | **18 08 29.2** | **+0.1** |
| APLL | | | | IAML | | | 18 08 31.3 | |
| | comp=Z,41nm,0.4s | | | | | | | |
| **LMEL** | **Las Melosas** | **2.58** | **197** | *i* S | | **Sn** | **18 08 30.2** | **+0.8** |
| LMEL | | | | IAML | | | 18 08 37.9 | |
| | comp=N,100nm,0.2s | | | | | | | |
| **LCO** | **Las Campanas** | **2.65** | **332** | *e*P | | **Pn** | **18 07 57.5** | **-2.0** |
| LCO | | | | IAML | | | 18 08 32.2 | |
| | comp=E,109nm,0.3s | | | | | | | |
| **TCA** | **Tanti** | **4.02** | **91** | *e*P | | **Pn** | **18 08 16.1** | **-1.6** |
| TCA | | | | IAML | | | 18 09 03.5 | |
| | comp=Z,26nm,0.6s | | | | | | | |
| **CYA** | **Choya** | **4.21** | **47** | IAML | | | 18 09 39.5 | |
| | comp=Z,8.8nm,0.5s | | | | | | | |

*ISCJB **22** 18:11:57.7±0.4,67.07N±0.02×20.89E±0.09,h0km,Error ellipse: s-maj=5.1km s-min=2.9km az=175.2*
*UPP **22** 18:11:58.8±0.1,67.07N×20.94E,h0km,ML2.1*
*HEL **22** 18:11:58.1±0.3,67.03N×20.64E,h0km,ML2.2,Explosion*
*IDC **22** 18:12:00.6±0.8,67.05N×21.42E,h0km,mb1 3.3/5, mb1mx3.0/47,mbtmp3.3/5,ML2.5/5,Error ellipse: s-maj=14.9km s-min=6.9km az=110.0*

**ISC 22 18:11:59.2±0.8,67.07N±0.03×20.91E±0.04,h0km,n33, σ1§09/46,Sweden**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ERTU** | **Ertsjaerv** | **0.72** | **135** | P | **Pg** | **18 12 12.2** | **-0.8** |
| **ERTU** | **Ertsjaerv** | **0.72** | **135** | PG | **Pg** | **18 12 12.0** | **-1.0** |
| | baz=305 | | | | | | |
| ERTU | | | | SG | **Sg** | **18 12 22.2** | **-0.1** |
| **PAJU** | **Pajala** | **0.86** | **92** | P | **Pg** | **18 12 14.8** | **-0.9** |
| **HARU** | **Harads** | **0.91** | **178** | P | **Pg** | **18 12 15.7** | **-0.8** |
| **RATU** | **Laukkuluspa** | **0.91** | **327** | P | **Pg** | **18 12 16.1** | **-0.5** |
| **KUA** | **Kurravaara** | **0.92** | **346** | P | **Pg** | **18 12 16.0** | **-0.7** |
| **LANU** | **Lannavaara** | **1.07** | **22** | P | **Pg** | **18 12 18.6** | **-1.0** |
| **LANU** | **Lannavaara** | **1.07** | **22** | PG | **Pg** | **18 12 18.4** | **-1.2** |
| LANU | | | | SB | **Sb** | **18 12 34.9** | **-0.1** |
| **NIKU** | **Nikkaluokta** | **1.08** | **319** | P | **Pg** | **18 12 19.0** | **-0.8** |
| **KALU** | **Kalix** | **1.56** | **140** | P | **Pn** | **18 12 27.1** | **-1.0** |
| **KALU** | **Kalix** | **1.56** | **140** | PG | **Pn** | **18 12 27.1** | **-1.0** |
| | baz=318 | | | | | | |
| KALU | | | | SN | **Sg** | **18 12 51.2** | **+2.0** |
| **SJUU** | **Sjulsmark** | **1.59** | **170** | P | **Pn** | **18 12 27.8** | **-0.7** |
| **TOF** | **Tornio** | **1.69** | **125** | PG | **Pn** | **18 12 29.4** | **-0.4** |
| TOF | | | | SN | **Sg** | **18 12 53.2** | **-0.1** |
| **HEF** | **Hetta** | **1.70** | **37** | PG | **Pn** | **18 12 29.5** | **-0.6** |
| | baz=223 | | | | | | |
| HEF | | | | MSG | | 18 12 51.8 | |
| | comp=Z,16nm,0.2s | | | | | | |
| HEF | | | | SG | **Sb** | **18 12 52.6** | **-0.7** |
| **LILU** | **Lilltraesk** | **1.84** | **194** | P | **Pn** | **18 12 31.9** | **-0.1** |
| **KIF** | **Kilpisjarvi** | **1.94** | **359** | PG | **Pb** | **18 12 34.7** | **-0.7** |
| KIF | | | | MSG | | 18 12 58.2 | |
| | comp=Z,22nm,0.2s | | | | | | |
| KIF | | | | SG | **Sg** | **18 13 01.4** | **-0.2** |
| **SGF** | **Sodankyl** | **2.21** | **78** | PB | **Pn** | **18 12 37.4** | **+0.3** |
| SGF | | | | SG | **Sb** | **18 13 08.1** | **+0.2** |
| **BURU** | **Burvik** | **2.50** | **175** | P | **Pn** | **18 12 41.6** | **+0.6** |
| **BURU** | **Burvik** | **2.50** | **175** | PG | **Pn** | **18 12 41.8** | **+0.8** |
| **SVAU** | **Svanoeiden** | **2.65** | **193** | P | **Pn** | **18 12 43.4** | **+0.4** |
| **OUL** | **Oulu** | **2.84** | **132** | PN | **Pn** | **18 12 45.4** | **-0.3** |
| | baz=317 | | | | | | |
| OUL | | | | SG | **Sb** | **18 13 25.8** | **-0.3** |
| **ARE0** | **ARCESS Array S** | **3.01** | **32** | PN | **Pn** | **18 12 47.9** | **-0.1** |
| ARE0 | | | | SN | **Sn** | **18 13 26.7** | **+2.0** |
| **ARCES** | **ARCESS Array B** | **3.01** | **32** | Pn | **Pn** | **18 12 48.1** | **+0.2** |
| | comp=Z,0.8nm,0.3s,baz=209,slow=14,SNR=59 | | | | | | |
| ARCES | | | | Sn | **Sn** | **18 13 26.8** | **+2.2** |
| | comp=Z,1.0nm,0.3s,baz=219,slow=24,SNR=12 | | | | | | |
| ARCES | | | | Lg | Lg | 18 13 31.3 | |
| | comp=Z,1.6nm,0.3s,baz=215,slow=28,SNR=4.8 | | | | | | |
| **OUF** | **Merijarvi** | **3.14** | **148** | PB | **Pn** | **18 12 50.2** | **+0.4** |
| | baz=332 | | | | | | |
| **UMAU** | **Umeaa** | **3.20** | **182** | PB | **Pn** | **18 12 51.0** | **+0.4** |
| **VRF** | **Varrio** | **3.42** | **75** | PN | **Pn** | **18 12 55.0** | **+1.3** |
| **MSF** | **Maaselka** | **3.46** | **106** | PN | **Pn** | **18 12 54.6** | **+0.4** |
| | baz=294 | | | | | | |
| **KU6** | **Riekki** | **3.74** | **102** | PN | **Pn** | **18 12 58.5** | **+0.4** |
| **VAF** | **Ylistaro** | **4.11** | **169** | PB | **Pn** | **18 13 04.1** | **+1.0** |
| | baz=348 | | | | | | |
| **FINES** | **FINESS Array B** | **6.08** | **156** | Pn | **Pn** | **18 13 30.8** | **+0.7** |
| | comp=Z,0.1nm,0.3s,baz=342,slow=13,SNR=6.8 | | | | | | |
| FINES | | | | Sn | **Sn** | **18 14 40.3** | **0.0** |
| | comp=Z,0.2nm,0.3s,baz=345,slow=28,SNR=3.7 | | | | | | |
| FINES | | | | Lg | Lg | 18 15 08.6 | |
| | comp=Z,0.2nm,0.3s,baz=338,slow=26,SNR=2.1 | | | | | | |
| **NOA** | **NORSAR Array B** | **7.39** | **220** | Pn | **Pn** | **18 13 51.7** | **+3.5** |
| | comp=Z,0.1nm,0.3s,baz=32,slow=12,SNR=1.5 | | | | | | |
| NOA | | | | Sn | **Sn** | **18 15 11.1** | **-1.6** |
| | comp=Z,0.1nm,0.3s,baz=140,slow=23,SNR=2.9 | | | | | | |
| NOA | | | | Lg | Lg | 18 15 50.9 | |
| | comp=Z,0.2nm,0.3s,baz=125,slow=18,SNR=2.4 | | | | | | |
| **HFS** | **Hagfors** | **7.66** | **208** | Pn | **Pn** | **18 13 51.3** | **-0.5** |
| | comp=Z,0.1nm,0.3s,baz=29,slow=13,SNR=2.0 | | | | | | |
| HFS | | | | Sn | **Sn** | **18 15 16.8** | **-2.5** |
| | comp=Z,0.1nm,0.3s,baz=33,slow=24,SNR=1.9 | | | | | | |
| **SPITS** | **Spitsbergen Ar** | **11.24** | **355** | Pn | **Pn** | **18 14 42.1** | **+1.3** |
| | baz=174,slow=14,SNR=1.8 | | | | | | |

**WEL 22 18:20:06.3±0.6,37.37S×179.85W,h33km,ML3.5/8,Error ellipse: s-maj=7.4km s-min=5.8km az=0.0,East of North Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WMGZ** | **Waiomatatini S** | **1.45** | **251** | PN | Pn | 18 20 29.9 | -0.3 |
| WMGZ | | | | SN | Sn | 18 20 47.1 | -0.9 |
| WMGZ | | | | AML | AML | 18 20 47.2 | |
| **PUZ** | **Puketiti** | **1.66** | **244** | PN | Pn | 18 20 32.2 | -0.9 |
| PUZ | | | | SN | Sn | 18 20 51.6 | -1.6 |
| PUZ | | | | AML | AML | 18 20 53.3 | |
| **PKGZ** | **Pakihiroa** | **1.73** | **252** | PN | Pn | 18 20 33.5 | -0.6 |
| PKGZ | | | | AML | AML | 18 20 53.4 | |
| PKGZ | | | | AML | AML | 18 20 53.4 | |
| **CNGZ** | **Carnagh Statio** | **1.90** | **234** | PN | Pn | 18 20 36.4 | +0.1 |
| **TWGZ** | **Tauwhareparae** | **1.90** | **244** | PN | Pn | 18 20 35.7 | -0.7 |
| TWGZ | | | | SN | Sn | 18 20 58.3 | -0.9 |
| TWGZ | | | | AML | AML | 18 20 58.8 | |
| **HAZ** | **Te Kaha** | **1.92** | **258** | PN | Pn | 18 20 36.3 | -0.4 |
| HAZ | | | | SN | Sn | 18 20 57.9 | -1.8 |
| HAZ | | | | AML | AML | 18 21 00.2 | |
| **RUGZ** | **Raukumara Rang** | **2.05** | **252** | PN | Pn | 18 20 38.1 | -0.4 |
| **MWZ** | **Matawai** | **2.29** | **244** | PN | Pn | 18 20 40.9 | -0.9 |
| MWZ | | | | AML | AML | 18 21 07.3 | |
| **RIGZ** | **Rimuhau** | **2.31** | **234** | PN | Pn | 18 20 41.5 | -0.6 |
| RIGZ | | | | AML | AML | 18 21 10.6 | |
| RIGZ | | | | AML | AML | 18 21 10.9 | |
| **URZ** | **Urewera** | **2.57** | **249** | PN | Pn | 18 20 45.5 | -0.1 |
| URZ | | | | AML | AML | 18 21 15.0 | |
| **ARHZ** | **Aropaoanui** | **3.12** | **232** | PN | Pn | 18 20 53.3 | +0.1 |

*ISK **22** 18:25:55.3,38.73N×43.23E,h5km,MD2.5*

*ISCJB **22** 18:25:56.8±0.4,38.74N±0.02×43.24E±0.04,h6km±7km, Error ellipse: s-maj=5.4km s-min=4.0km az=11.0*
*CSEM **22** 18:25:56.4±0.2,38.74N×43.23E,h2km,MD2.5,Error ellipse: s-maj=4.6km s-min=3.4km az=118.0*
*DDA **22** 18:25:56.2,38.74N×43.24E,h7km,Md2.8*

**ISC 22 18:25:56.5±1.1,38.74N±0.02×43.24E±0.03,h10km±8km, n26,σ0§69/43,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.19** | **140** | *e*PG | **Pg** | **18 26 01.0** | **+0.4** |
| **VANB** | **Van** | **0.19** | **140** | *e*Pg | **Pg** | **18 26 01.0** | **+0.4** |
| **TVAN** | **Van** | **0.25** | **147** | *i* P | **Pg** | **18 26 00.9** | **-0.8** |
| TVAN | | | | *i* S | **Sg** | **18 26 05.5** | **+0.3** |
| **TVAN** | **Van** | **0.25** | **147** | P | **Pg** | **18 26 00.9** | **-0.8** |
| TVAN | | | | S | **Sg** | **18 26 05.5** | **+0.3** |
| **ERCV** | **ERCIS-VAN** | **0.29** | **16** | *e*PG | **Pg** | **18 26 02.1** | **-0.4** |
| ERCV | | | | *e*SG | **Sb** | **18 26 08.0** | **-1.0** |
| **ERCV** | **ERCIS-VAN** | **0.29** | **16** | *e*Pg | **Pg** | **18 26 02.1** | **-0.4** |
| ERCV | | | | *e*Sg | **Sb** | **18 26 08.0** | **-1.0** |
| **VMUR** | **Van-Muradiye** | **0.36** | **46** | *i* P | **Pg** | **18 26 03.7** | **-0.1** |
| VMUR | | | | *i* S | **Sb** | **18 26 10.4** | **-0.6** |
| **VMUR** | **Van-Muradiye** | **0.36** | **46** | P | **Pg** | **18 26 03.7** | **-0.1** |
| VMUR | | | | S | **Sb** | **18 26 10.4** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.41** | **280** | *i* P | **Pg** | **18 26 04.6** | **0.0** |
| ADCV | | | | *i* S | **Sb** | **18 26 12.2** | **-0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.41** | **280** | P | **Pg** | **18 26 04.6** | **0.0** |
| ADCV | | | | S | **Sb** | **18 26 12.2** | **-0.1** |
| **GEVA** | **Gevas** | **0.45** | **198** | *i* P | **Pg** | **18 26 04.2** | **-1.1** |
| GEVA | | | | *i* S | **Sb** | **18 26 12.3** | **-1.1** |
| **GEVA** | **Gevas** | **0.45** | **198** | P | **Pg** | **18 26 04.2** | **-1.1** |
| GEVA | | | | S | **Sb** | **18 26 12.3** | **-1.1** |
| **CLDR** | **Caldiran** | **0.67** | **53** | *e*PG | **Pg** | **18 26 09.8** | **+0.3** |
| CLDR | | | | *e*SG | **Sb** | **18 26 19.9** | **+0.1** |
| **CLDR** | **Caldiran** | **0.67** | **53** | *i* P | **Pg** | **18 26 08.6** | **-0.9** |
| CLDR | | | | *i* S | **Sb** | **18 26 19.6** | **-0.2** |
| **CLDR** | **Caldiran** | **0.67** | **53** | P | **Pg** | **18 26 08.6** | **-0.9** |
| **CLDR** | **Caldiran** | **0.67** | **53** | *e*Pg | **Pg** | **18 26 09.8** | **+0.3** |
| CLDR | | | | S | **Sb** | **18 26 19.6** | **-0.2** |
| **TUTA** | **Tutak** | **0.74** | **334** | *i* P | **Pg** | **18 26 10.2** | **-0.7** |
| TUTA | | | | *i* S | **Sb** | **18 26 21.3** | **-0.6** |
| **TUTA** | **Tutak** | **0.74** | **334** | P | **Pg** | **18 26 10.2** | **-0.7** |
| TUTA | | | | S | **Sb** | **18 26 21.3** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **0.86** | **347** | *e*PG | **Pg** | **18 26 12.5** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **0.86** | **347** | *e*Pg | **Pg** | **18 26 12.5** | **-0.6** |
| **SRTM** | **Siirt_Merkez** | **1.27** | **235** | *i* P | **Pn** | **18 26 20.7** | **+0.2** |
| SRTM | | | | *i* S | **Sn** | **18 26 39.0** | **+1.3** |
| **SRTM** | **Siirt_Merkez** | **1.27** | **235** | P | **Pn** | **18 26 20.7** | **+0.2** |
| SRTM | | | | S | **Sn** | **18 26 39.0** | **+1.3** |
| **SIRT** | **Sirnak** | **1.39** | **207** | *e*PN | **Pg** | **18 26 23.0** | **-0.2** |
| **SIRT** | **Sirnak** | **1.39** | **207** | *e*Pn | **Pg** | **18 26 23.0** | **-0.2** |
| **CUKT** | **Cukurca** | **1.52** | **169** | *e*PN | **Pg** | **18 26 25.1** | **-0.6** |
| **CUKT** | **Cukurca** | **1.52** | **169** | *e*Pn | **Pg** | **18 26 25.1** | **-0.6** |

**IDC 22 18:25:57.1±3.0,33.10S×178.71W,h0km,mb3.6/2, mb1 4.0/3,mb1mx3.7/24,mbtmp3.8/3,ML4.3/1,Error ellipse: s-maj=70.3km s-min=45.3km az=120.0,South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **URZ** | **Urewera** | **6.17** | **212** | Pn | Pn | 18 27 28.6 | -0.8 |
| | 7.1nm,0.3s,baz=270,slow=3.6,SNR=88 | | | | | | |
| URZ | | | | Sn | Sn | 18 28 35.2 | -5.4 |
| | 5.2nm,0.3s,baz=245,slow=19,SNR=4.9 | | | | | | |
| **RPZ** | **Rata Peaks** | **13.28** | **214** | Pn | Pn | 18 28 58.8 | -8.0 |
| | 0.6nm,0.3s,baz=24,slow=20,SNR=4.3 | | | | | | |
| RPZ | | | | Sn | Sn | 18 31 20.1 | -15 |
| | 0.7nm,0.3s,baz=117,slow=21,SNR=7.9 | | | | | | |
| **ASAR** | **Alice Springs** | **42.44** | **270** | P | P | 18 33 53.2 | -0.6 |
| | 0.3nm,0.6s,baz=111,slow=7.8,SNR=8.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.67** | **275** | P | P | 18 34 04.4 | +0.5 |
| | 0.4nm,0.3s,baz=115,slow=8.0,SNR=30 | | | | | | |
| **FINES** | **FINESS Array B** | **147.44** | **338** | PKPbc | PKPbc | 18 45 41.3 | -0.8 |
| | 3.2nm,1.0s,baz=61,slow=6.5,SNR=5.7 | | | | | | |

*MDD **22** 18:26:00.7±1.6,35.14N×12.03W,h28km±18km,mb4.7/13, Error ellipse: s-maj=12.4km s-min=8.0km az=91.0, PRXIMO*
*CNRM **22** 18:26:03.8,35.21N×11.67W,h30km,MD3.2*
*INMG **22** 18:26:03.6±0.9,35.23N×11.91W,h24km±22km,ML2.9, Error ellipse: s-maj=16.4km s-min=3.7km az=59.0*
*CSEM **22** 18:26:03.1±0.4,35.23N×11.74W,h30km,ML3.2/14,Error ellipse: s-maj=9.6km s-min=5.8km az=82.0*
*IGIL **22** 18:26:03.0,35.23N×11.90W,h22km,ML2.9*

**ISC 22 18:26:00.3±3.3,35.4N±0.1×11.8W±0.1,h10km,n104, σ1§75/148,9C-1D,Azores-Cape St. Vincent Ridge**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PFVI** | **Vila Bisbo** | **2.99** | **54** | ⇑Pn | **Pn** | **18 26 49.6** | **+1.9** |
| | 63nm,0.1s,SNR=18 | | | | | | |
| PFVI | | | | Sn | **Sn** | **18 27 23.9** | **+0.3** |
| | 20nm,0.3s,SNR=9.8 | | | | | | |
| **PFVI** | **Vila Bisbo** | **2.99** | **54** | Pn | **Pn** | **18 26 49.6** | **+1.9** |
| | 63nm,0.1s,SNR=18 | | | | | | |
| PFVI | | | | Sn | **Sn** | **18 27 23.9** | **+0.3** |
| | 20nm,0.3s,SNR=9.8 | | | | | | |
| **PFVI** | **Vila Bisbo** | **2.99** | **54** | ⇑*i*Pn | **Pn** | **18 26 49.6** | **+1.9** |
| PFVI | | | | *e*Sn | **Sn** | **18 27 24.3** | **+0.7** |
| PFVI | | | | A | A | 18 27 24.9 | |
| | 37nm,0.2s | | | | | | |
| **MORF** | **Marmelete** | **3.20** | **52** | *e*P | **Pn** | **18 26 52.6** | **+1.9** |
| MORF | | | | *e*S | **Sn** | **18 27 28.8** | **-0.2** |
| MORF | | | | AML | AML | 18 27 30.7 | |
| | comp=N,48nm,0.2s | | | | | | |
| **MORF** | **Marmelete** | **3.20** | **52** | Pn | **Pn** | **18 26 52.6** | **+1.9** |
| MORF | | | | Sn | **Sn** | **18 27 28.8** | **-0.2** |
| | comp=N,48nm,0.2s | | | | | | |
| **MORF** | **Marmelete** | **3.20** | **52** | Pn | **Pn** | **18 26 52.6** | **+1.9** |
| MORF | | | | Sn | **Sn** | **18 27 28.8** | **-0.2** |
| | comp=N,48nm,0.2s | | | | | | |
| **MORF** | **Marmelete** | **3.20** | **52** | ⇑*e*Pn | **Pn** | **18 26 52.6** | **+1.9** |
| MORF | | | | *e*Sn | **Sn** | **18 27 29.0** | **0.0** |
| MORF | | | | A | A | 18 27 33.6 | |
| | comp=N,36nm,0.2s | | | | | | |
| **PTEO** | **Sao Teotonio** | **3.30** | **48** | ⇑*e*Pn | **Pn** | **18 26 54.0** | **+2.0** |
| PTEO | | | | *e*Sn | **Sn** | **18 27 31.9** | **+0.5** |
| PTEO | | | | A | A | 18 27 33.4 | |
| | comp=N,19nm,0.3s | | | | | | |
| **PBDV** | **Barranco-do-Ve** | **3.66** | **58** | *e*Pn | **Pn** | **18 26 58.8** | **+1.9** |
| PBDV | | | | *e*Sn | **Sn** | **18 27 39.9** | **-0.2** |
| PBDV | | | | A | A | 18 27 46.5 | |
| | comp=N,9.5nm,0.3s | | | | | | |
| **PCVE** | **Castro Verde** | **3.79** | **53** | *e*Pn | **Pn** | **18 27 00.8** | **+2.1** |
| PCVE | | | | *e*Sn | **Sn** | **18 27 43.9** | **+0.5** |
| PCVE | | | | A | A | 18 27 46.3 | |
| | comp=N,14nm,0.6s | | | | | | |
| **PNCL** | **Nicolau / Gran** | **3.80** | **43** | ⇑*i*Pn | **Pn** | **18 27 00.7** | **+1.9** |
| PNCL | | | | *e*Sn | **Sn** | **18 27 43.8** | **+0.2** |
| PNCL | | | | A | A | 18 27 46.3 | |
| | comp=N,18nm,0.1s | | | | | | |
| **MESJ** | **Messejana** | **3.80** | **49** | *e*P | **Pn** | **18 27 00.6** | **+1.8** |
| MESJ | | | | *e*S | **Sn** | **18 27 42.9** | **-0.7** |
| MESJ | | | | AML | AML | 18 27 45.0 | |
| | comp=E,18nm,0.2s | | | | | | |
| **MESJ** | **Messejana** | **3.80** | **49** | Pn | **Pn** | **18 27 00.6** | **+1.8** |
| MESJ | | | | Sn | **Sn** | **18 27 42.9** | **-0.7** |
| | comp=E,18nm,0.2s | | | | | | |
| **MESJ** | **Messejana** | **3.80** | **49** | Pn | **Pn** | **18 27 00.6** | **+1.8** |
| MESJ | | | | Sn | **Sn** | **18 27 42.9** | **-0.7** |
| | comp=E,18nm,0.2s | | | | | | |
| **MESJ** | **Messejana** | **3.80** | **49** | ⇑*i*Pn | **Pn** | **18 27 00.7** | **+1.8** |
| MESJ | | | | *e*Sn | **Sn** | **18 27 43.4** | **-0.2** |
| MESJ | | | | A | A | 18 27 47.7 | |
| | comp=E,11nm,0.2s | | | | | | |
| **PVAQ** | **Vaqueiros** | **3.88** | **58** | ⇑*e*Pn | **Pn** | **18 27 01.8** | **+1.8** |
| PVAQ | | | | *e*Sn | **Sn** | **18 27 45.2** | **-0.5** |
| PVAQ | | | | A | A | 18 27 49.4 | |
| | comp=E,18nm,0.1s | | | | | | |
| **PMAFR** | **Mafra** | **4.10** | **29** | ⇑Pn | **Pn** | **18 27 04.8** | **+1.8** |
| | comp=E,5.1nm,0.2s,SNR=18 | | | | | | |
| PMAFR | | | | Sn | **Sn** | **18 27 51.3** | **+0.2** |
| | comp=E,26nm,0.3s,SNR=24 | | | | | | |
| **PMAFR** | **Mafra** | **4.10** | **29** | Pn | **Pn** | **18 27 04.8** | **+1.8** |
| | comp=E,5.1nm,0.2s,SNR=18 | | | | | | |
| PMAFR | | | | Sn | **Sn** | **18 27 51.3** | **+0.2** |
| | comp=E,26nm,0.3s,SNR=24 | | | | | | |
| **PMAFR** | **Mafra** | **4.10** | **29** | *e*Pn | **Pn** | **18 27 04.8** | **+1.8** |
| PMAFR | | | | *e*Sn | **Sn** | **18 27 51.2** | **+0.2** |
| PMAFR | | | | A | A | 18 27 52.0 | |
| | comp=E,40nm,0.7s | | | | | | |
| **EGRO** | **El Granado** | **4.11** | **57** | ⇑Pn | **Pn** | **18 27 04.8** | **+1.7** |
| | comp=E,13nm,0.1s,SNR=18 | | | | | | |
| EGRO | | | | Sn | **Sn** | **18 27 50.4** | **-0.8** |
| | comp=E,3.3nm,0.3s | | | | | | |
| **EGRO** | **El Granado** | **4.11** | **57** | Pn | **Pn** | **18 27 04.8** | **+1.7** |
| | comp=E,13nm,0.1s,SNR=18 | | | | | | |
| EGRO | | | | Sn | **Sn** | **18 27 50.4** | **-0.8** |
| | comp=E,3.3nm,0.3s | | | | | | |
| **PBEJ** | **Beja** | **4.13** | **49** | *e*Pn | **Pn** | **18 27 05.0** | **+1.5** |
| PBEJ | | | | *e*Sn | **Sn** | **18 27 51.3** | **-0.6** |
| PBEJ | | | | A | A | 18 27 54.6 | |
| | comp=E,11nm,0.3s | | | | | | |
| **RTC** | **Rabat Centre** | **4.33** | **107** | Pn | Pn | 18 27 03.0 | -3.2 |
| RTC | | | | Sn | Sn | 18 27 49.0 | -7.8 |
| **RTC** | **Rabat Centre** | **4.33** | **107** | *e*P | Pn | 18 27 03.0 | -3.2 |
| RTC | | | | *i* S | Sn | 18 27 49.0 | -7.8 |
| **EVO** | **Evora** | **4.38** | **43** | *e*Pn | **Pn** | **18 27 08.8** | **+1.9** |
| EVO | | | | *e*Sn | **Sn** | **18 27 57.6** | **-0.4** |
| EVO | | | | A | A | 18 28 04.8 | |
| | comp=E,23nm,0.1s | | | | | | |
| **PMPS** | **Porto Santo** | **4.39** | **239** | *e*Pn | Pn | 18 26 59.4 | -7.6 |
| PMPS | | | | *e*Sn | Sn | 18 27 41.9 | -16 |
| PMPS | | | | A | A | 18 27 46.7 | |
| | comp=E,15nm,0.2s | | | | | | |
| **PMTG** | **Montargil** | **4.67** | **37** | *e*Pn | **Pn** | **18 27 12.5** | **+1.7** |
| PMTG | | | | *e*Sn | **Sn** | **18 28 04.6** | **-0.4** |
| PMTG | | | | A | A | 18 28 06.0 | |
| | comp=E,6.3nm,0.1s | | | | | | |
| **PBAR** | **Barrancos** | **4.75** | **53** | *e*Pn | **Pn** | **18 27 13.5** | **+1.6** |
| PBAR | | | | *e*Sn | **Sn** | **18 28 06.1** | **-0.9** |
| PBAR | | | | A | A | 18 28 08.3 | |
| | comp=E,13nm,0.3s | | | | | | |
| **EMIN** | **Mina Concepcio** | **4.78** | **59** | ⇓Pn | **Pn** | **18 27 13.8** | **+1.4** |
| | comp=E,2.8nm,0.1s,SNR=18 | | | | | | |
| EMIN | | | | Sn | **Sn** | **18 28 07.3** | **-0.6** |
| | comp=E,1.4nm,0.4s | | | | | | |
| **EMIN** | **Mina Concepcio** | **4.78** | **59** | Pn | **Pn** | **18 27 13.8** | **+1.4** |
| | comp=E,2.8nm,0.1s,SNR=18 | | | | | | |
| EMIN | | | | Sn | **Sn** | **18 28 07.3** | **-0.6** |
| | comp=E,1.4nm,0.4s | | | | | | |
| **PESTR** | **Estremoz** | **4.85** | **43** | *e*Pn | **Pn** | **18 27 14.6** | **+1.2** |
| PESTR | | | | *e*Sn | **Sn** | **18 28 08.8** | **-0.8** |
| PESTR | | | | A | A | 18 28 12.0 | |
| | comp=E,5.4nm,0.9s | | | | | | |
| **PMAR** | **Madeira** | **4.98** | **239** | *e*Pn | Pn | 18 27 07.9 | -7.4 |
| PMAR | | | | *e*Sn | Sn | 18 27 57.7 | -15 |
| PMAR | | | | A | A | 18 28 00.8 | |
| | comp=E,29nm,0.2s | | | | | | |
| **PTOM** | **Tomar** | **5.02** | **32** | *e*Pn | **Pn** | **18 27 17.9** | **+2.2** |
| PTOM | | | | *e*Sn | **Sn** | **18 28 12.8** | **-0.9** |
| PTOM | | | | A | A | 18 28 16.4 | |
| | comp=E,13nm,0.1s | | | | | | |
| **ESPR** | **Espera** | **5.06** | **71** | Pn | **Pn** | **18 27 17.7** | **+1.5** |
| | comp=E,9.2nm,0.2s,SNR=30 | | | | | | |
| ESPR | | | | Sn | **Sn** | **18 28 14.1** | **-0.6** |
| | comp=E,3.1nm,0.3s,SNR=4.8 | | | | | | |
| **ESPR** | **Espera** | **5.06** | **71** | Pn | **Pn** | **18 27 17.7** | **+1.5** |
| | comp=E,9.2nm,0.2s,SNR=30 | | | | | | |
| ESPR | | | | Sn | **Sn** | **18 28 14.1** | **-0.6** |
| | comp=E,3.1nm,0.3s,SNR=4.8 | | | | | | |
| **EBAD** | **Badajoz** | **5.11** | **48** | Pn | **Pn** | **18 27 18.2** | **+1.3** |
| | comp=E,8.2nm,0.1s,SNR=70 | | | | | | |
| EBAD | | | | Sn | **Sn** | **18 28 14.4** | **-1.6** |
| | comp=E,0.8nm,0.3s,SNR=4.6 | | | | | | |
| **EBAD** | **Badajoz** | **5.11** | **48** | Pn | **Pn** | **18 27 18.2** | **+1.3** |
| | comp=E,8.2nm,0.1s,SNR=70 | | | | | | |
| EBAD | | | | Sn | **Sn** | **18 28 14.4** | **-1.6** |
| | comp=E,0.8nm,0.3s,SNR=4.6 | | | | | | |
| **PMOZ** | **Porto Moniz, M** | **5.13** | **242** | Pn | Pn | 18 27 11.2 | -6.1 |
| | comp=E,7.4nm,0.2s,SNR=7.9 | | | | | | |
| **PMOZ** | **Porto Moniz, M** | **5.13** | **242** | *e*Pn | Pn | 18 27 11.7 | -5.6 |
| **EJIF** | **Jimena Fronter** | **5.27** | **77** | Pn | **Pn** | **18 27 21.1** | **+1.9** |
| | comp=E,3.0nm,0.2s,SNR=7.9 | | | | | | |
| EJIF | | | | Sn | **Sn** | **18 28 19.2** | **-0.8** |
| | comp=E,1.2nm,0.2s,SNR=7.9 | | | | | | |
| **EJIF** | **Jimena Fronter** | **5.27** | **77** | Pn | **Pn** | **18 27 21.1** | **+1.9** |
| | comp=E,3.0nm,0.2s,SNR=7.9 | | | | | | |
| EJIF | | | | Sn | **Sn** | **18 28 19.2** | **-0.8** |
| | comp=E,1.2nm,0.2s,SNR=7.9 | | | | | | |
| **ECEU** | **Ceuta** | **5.28** | **83** | Pn | **Pn** | **18 27 19.8** | **+0.5** |
| | comp=E,1.7nm,0.1s,SNR=7.9 | | | | | | |
| **ECEU** | **Ceuta** | **5.28** | **83** | Pn | **Pn** | **18 27 19.8** | **+0.5** |
| | comp=E,1.7nm,0.1s,SNR=7.9 | | | | | | |
| **OUK** | **Oukaimeden** | **5.33** | **140** | Pn | Pn | 18 27 18.0 | -2.2 |
| OUK | | | | Sn | Sn | 18 28 12.0 | -10 |
| **OUK** | **Oukaimeden** | **5.33** | **140** | *i* P | Pn | 18 27 18.0 | -2.2 |
| OUK | | | | *i* S | Sn | 18 28 12.0 | -10 |
| **PCAS** | **Casmilo, Conde** | **5.35** | **29**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **CFUE** | **Fuerteventura** | **6.96** | **195** | Sn | Sn | 18 28 43.6 | -18 |
| | comp=E,0.5nm,0.2s,SNR=7.9 | | | | | | |
| **ZFT** | **Errachidia** | **7.08** | **116** | Pn | Pn | 18 27 43.0 | -1.1 |
| ZFT | | | | Sn | Sn | 18 28 56.0 | -8.7 |
| **ZFT** | **Errachidia** | **7.08** | **116** | *i* P | Pn | 18 27 43.0 | -1.1 |
| **ELOB** | **Lobios** | **7.11** | **23** | Pn | **Pn** | **18 27 46.0** | **+1.6** |
| | comp=E,0.5nm,0.1s,SNR=7.9 | | | | | | |
| ELOB | | | | Sn | **Sn** | **18 29 01.9** | **-3.4** |
| | comp=E,1.7nm,0.1s,SNR=7.9 | | | | | | |
| **ELOB** | **Lobios** | **7.11** | **23** | Pn | **Pn** | **18 27 46.0** | **+1.6** |
| | comp=E,0.5nm,0.1s,SNR=7.9 | | | | | | |
| **PGAV** | **Gavieira, Arco** | **7.13** | **22** | *e*Pn | **Pn** | **18 27 46.6** | **+1.9** |
| PGAV | | | | *e*Sn | **Sn** | **18 29 03.5** | **-2.4** |
| PGAV | | | | A | A | 18 29 08.8 | |
| | comp=E,2.6nm,0.3s | | | | | | |
| **CFTV** | **Fuerteventura** | **7.21** | **196** | Pn | Pn | 18 27 35.5 | -10 |
| | comp=E,0.0nm,0.2s,SNR=7.9 | | | | | | |
| CFTV | | | | Sn | Sn | 18 28 49.1 | -19 |
| | comp=E,0.2nm,0.1s,SNR=7.9 | | | | | | |
| **EBER** | **Berja** | **7.39** | **76** | Pn | **Pn** | **18 27 48.9** | **+0.5** |
| | comp=E,0.5nm,0.2s,SNR=7.9 | | | | | | |
| **EBER** | **Berja** | **7.39** | **76** | Pn | **Pn** | **18 27 48.9** | **+0.5** |
| | comp=E,0.5nm,0.2s,SNR=7.9 | | | | | | |
| **EQES** | **Quesada** | **7.45** | **69** | Pn | **Pn** | **18 27 49.8** | **+0.7** |
| | comp=E,0.7nm,0.2s,SNR=7.9 | | | | | | |
| EQES | | | | Sn | **Sn** | **18 29 10.1** | **-3.6** |
| | comp=E,0.2nm,0.1s,SNR=7.9 | | | | | | |
| **EQES** | **Quesada** | **7.45** | **69** | Pn | **Pn** | **18 27 49.8** | **+0.7** |
| | comp=E,0.7nm,0.2s,SNR=7.9 | | | | | | |
| **PBRG** | **Braganca** | **7.54** | **30** | *e*Sn | **Sn** | **18 29 13.0** | **-2.9** |
| PBRG | | | | A | A | 18 29 17.2 | |
| | comp=E,3.0nm,0.4s | | | | | | |
| **ESDC** | **Sonseca Array** | **7.58** | **53** | Pn | **Pn** | **18 27 52.2** | **+1.4** |
| | comp=E,0.8nm,0.3s,baz=237,slow=13,SNR=13 | | | | | | |
| **ESDC** | **Sonseca Array** | **7.58** | **53** | Pn | **Pn** | **18 27 52.2** | **+1.4** |
| | comp=E,0.8nm,0.3s,SNR=13 | | | | | | |
| **ECAL** | **Calabor** | **7.66** | **30** | Pn | **Pn** | **18 27 53.5** | **+1.6** |
| | comp=E,0.8nm,0.2s,SNR=7.9 | | | | | | |
| ECAL | | | | Sn | **Sn** | **18 29 15.7** | **-3.1** |
| | comp=E,1.8nm,0.2s,SNR=7.9 | | | | | | |
| **ECAL** | **Calabor** | **7.66** | **30** | Pn | **Pn** | **18 27 53.5** | **+1.6** |
| | comp=E,0.8nm,0.2s,SNR=7.9 | | | | | | |
| **EMAZ** | **Mazaricos** | **7.87** | **16** | Sn | **Sn** | **18 29 17.8** | **-6.0** |
| | comp=E,0.3nm,0.2s,SNR=7.9 | | | | | | |
| **SESP** | **Santiago Espad** | **7.94** | **67** | Pn | **Pn** | **18 27 56.1** | **+0.2** |
| | comp=E,1.1nm,0.1s,SNR=7.9 | | | | | | |
| SESP | | | | Sn | **Sn** | **18 29 23.1** | **-2.7** |
| | comp=E,4.0nm,0.1s,SNR=7.9 | | | | | | |
| **SESP** | **Santiago Espad** | **7.94** | **67** | Pn | **Pn** | **18 27 56.1** | **+0.2** |
| | comp=E,1.1nm,0.1s,SNR=7.9 | | | | | | |
| SESP | | | | Sn | **Sn** | **18 29 23.1** | **-2.7** |
| | comp=E,4.0nm,0.1s,SNR=7.9 | | | | | | |
| **EAGO** | **Agolada(Pontev** | **7.95** | **20** | Pn | **Pn** | **18 27 57.7** | **+1.8** |
| | comp=E,0.6nm,0.1s,SNR=7.9 | | | | | | |
| EAGO | | | | Sn | **Sn** | **18 29 21.9** | **-4.0** |
| | comp=E,0.6nm,0.2s,SNR=7.9 | | | | | | |
| **EAGO** | **Agolada(Pontev** | **7.95** | **20** | Pn | **Pn** | **18 27 57.7** | **+1.8** |
| | comp=E,0.6nm,0.1s,SNR=7.9 | | | | | | |
| **GUD** | **Guadarrama** | **8.01** | **47** | Pn | **Pn** | **18 27 58.3** | **+1.4** |
| | comp=E,0.8nm,0.2s,SNR=6.9 | | | | | | |
| GUD | | | | Sn | **Sn** | **18 29 25.3** | **-2.4** |
| | comp=E,0.3nm,0.2s,SNR=7.9 | | | | | | |
| **GUD** | **Guadarrama** | **8.01** | **47** | Pn | **Pn** | **18 27 58.3** | **+1.4** |
| | comp=E,0.8nm,0.2s,SNR=6.9 | | | | | | |
| **TBT** | **Taburiente** | **8.45** | **219** | Sn | Sn | 18 29 14.3 | -24 |
| | comp=E,1.1nm,0.3s,SNR=7.9 | | | | | | |
| **EPON** | **Pontenova** | **8.71** | **23** | Pn | **Pn** | **18 28 07.7** | **+1.3** |
| | comp=E,0.3nm,0.1s,SNR=7.9 | | | | | | |
| EPON | | | | Sn | **Sn** | **18 29 41.7** | **-2.9** |
| | comp=E,1.8nm,0.4s,SNR=7.9 | | | | | | |
| **EPON** | **Pontenova** | **8.71** | **23** | Pn | **Pn** | **18 28 07.7** | **+1.3** |
| | comp=E,0.3nm,0.1s,SNR=7.9 | | | | | | |
| **ETOB** | **Tobarra** | **8.85** | **65** | Pn | **Pn** | **18 28 08.5** | **+0.3** |
| | comp=E,0.7nm,0.1s,SNR=7.9 | | | | | | |
| ETOB | | | | Sn | **Sn** | **18 29 44.6** | **-3.4** |
| | comp=E,0.7nm,0.1s,SNR=7.9 | | | | | | |
| **ETOB** | **Tobarra** | **8.85** | **65** | Pn | **Pn** | **18 28 08.5** | **+0.3** |
| | comp=E,0.7nm,0.1s,SNR=7.9 | | | | | | |
| **ETOR** | **Torete** | **9.42** | **52** | Pn | **Pn** | **18 28 17.9** | **+1.8** |
| | comp=E,1.5nm,0.2s,SNR=7.9 | | | | | | |
| ETOR | | | | Sn | **Sn** | **18 29 58.6** | **-3.5** |
| | comp=E,0.2nm,0.2s,SNR=7.9 | | | | | | |
| **ETOR** | **Torete** | **9.42** | **52** | Pn | **Pn** | **18 28 17.9** | **+1.8** |
| | comp=E,1.5nm,0.2s,SNR=7.9 | | | | | | |
| **EMOS** | **Mosqueruela** | **10.26** | **58** | Pn | **Pn** | **18 28 30.7** | **+3.0** |
| | comp=E,0.4nm,0.2s,SNR=7.9 | | | | | | |
| EMOS | | | | Sn | **Sn** | **18 30 22.7** | **-0.2** |
| | comp=E,0.1nm,0.2s,SNR=7.9 | | | | | | |
| **EMOS** | **Mosqueruela** | **10.26** | **58** | Pn | **Pn** | **18 28 30.7** | **+3.0** |
| | comp=E,0.4nm,0.2s,SNR=7.9 | | | | | | |
| EMOS | | | | Sn | **Sn** | **18 30 22.7** | **-0.2** |
| | comp=E,0.1nm,0.2s,SNR=7.9 | | | | | | |
| **IELO** | **Elcoad** | **11.09** | **45** | Pn | **Pn** | **18 28 41.4** | **+2.4** |
| | comp=E,0.3nm,0.1s,SNR=7.9 | | | | | | |
| **IELO** | **Elcoad** | **11.09** | **45** | Pn | **Pn** | **18 28 41.3** | **+2.4** |
| | comp=E,0.3nm,0.1s,SNR=7.9 | | | | | | |

*ISK* ***22*** *18:47:01.4, 38.˚68N×43.˚18E, h2km, MD2.4*
*ISCJB* ***22*** *18:47:03.4±0.4, 38.˚70N±0.˚02×43.˚25E±0.˚04, h8km±6km, Error ellipse: s-maj=5.4km s-min=3.9km az=15.6*
*CSEM* ***22*** *18:47:03.0±0.2, 38.˚69N×43.˚23E, h8km, MD2.4, Error ellipse: s-maj=4.7km s-min=3.7km az=120.0*
*DDA* ***22*** *18:47:03.2, 38.˚68N×43.˚26E, h7km, Ml3.2*

**ISC 22 18:47:03.3±1.0, 38.˚69N±0.˚02×43.˚22E±0.˚03, h8km±9km, n26, σ0˚74/43, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.16** | **125** | *e*Pg | **Pg** | **18 47 07.1** | **+0.3** |
| **VANB** | **Van** | **0.16** | **125** | *e*Pg | **Pg** | **18 47 07.1** | **+0.3** |
| **TVAN** | **Van** | **0.22** | **137** | *i* P | **Pg** | **18 47 07.1** | **-0.7** |
| TVAN | | | | *i* S | **Sg** | **18 47 10.9** | **+0.1** |
| **TVAN** | **Van** | **0.22** | **137** | P | **Pg** | **18 47 07.1** | **-0.7** |
| TVAN | | | | S | **Sg** | **18 47 10.9** | **+0.1** |
| **ERCV** | **ERCIS-VAN** | **0.34** | **16** | *e*PG | **Pg** | **18 47 09.5** | **-0.7** |
| ERCV | | | | *e*SG | **Sg** | **18 47 15.5** | **+0.7** |
| **ERCV** | **ERCIS-VAN** | **0.34** | **16** | *e*Pg | **Pg** | **18 47 09.5** | **-0.7** |
| ERCV | | | | *e*Sg | **Sg** | **18 47 15.5** | **+0.7** |
| **GEVA** | **Gevas** | **0.40** | **198** | *i* P | **Pg** | **18 47 10.1** | **-1.0** |
| GEVA | | | | *i* S | **Sb** | **18 47 17.9** | **-1.0** |
| **GEVA** | **Gevas** | **0.40** | **198** | P | **Pg** | **18 47 10.1** | **-1.0** |
| GEVA | | | | S | **Sb** | **18 47 17.9** | **-1.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.40** | **287** | *i* P | **Pg** | **18 47 11.1** | **-0.1** |
| ADCV | | | | *i* S | **Sb** | **18 47 18.6** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.40** | **287** | P | **Pg** | **18 47 11.1** | **-0.1** |
| ADCV | | | | S | **Sb** | **18 47 18.6** | **-0.6** |
| **VMUR** | **Van-Muradiye** | **0.41** | **42** | *i* P | **Pg** | **18 47 11.2** | **-0.2** |
| VMUR | | | | *i* S | **Sb** | **18 47 18.5** | **-0.9** |
| **VMUR** | **Van-Muradiye** | **0.41** | **42** | P | **Pg** | **18 47 11.2** | **-0.2** |
| VMUR | | | | S | **Sb** | **18 47 18.5** | **-0.9** |
| **CLDR** | **Caldiran** | **0.71** | **50** | *e*PG | **Pg** | **18 47 16.6** | **-0.4** |
| CLDR | | | | *e*SG | **Sb** | **18 47 27.7** | **-0.4** |
| **CLDR** | **Caldiran** | **0.71** | **50** | *i* P | **Pg** | **18 47 16.1** | **-0.9** |
| CLDR | | | | *i* S | **Sb** | **18 47 27.5** | **-0.6** |
| **CLDR** | **Caldiran** | **0.71** | **50** | P | **Pg** | **18 47 16.1** | **-0.9** |
| **CLDR** | **Caldiran** | **0.71** | **50** | *e*Pg | **Pg** | **18 47 16.6** | **-0.4** |
| CLDR | | | | S | **Sb** | **18 47 27.5** | **-0.6** |
| **TUTA** | **Tutak** | **0.78** | **336** | *i* P | **Pg** | **18 47 17.5** | **-0.9** |
| **TUTA** | **Tutak** | **0.78** | **336** | P | **Pg** | **18 47 17.5** | **-0.9** |
| **AGRB** | **Hanur-Agry** | **0.90** | **349** | *e*PG | **Pg** | **18 47 19.7** | **-1.0** |
| AGRB | | | | *e*SG | **Sg** | **18 47 32.9** | **+0.4** |
| **AGRB** | **Hanur-Agry** | **0.90** | **349** | *e*Pg | **Pg** | **18 47 19.7** | **-1.0** |
| AGRB | | | | *e*Sg | **Sg** | **18 47 32.9** | **+0.4** |
| **EKAR** | **Karacoban** | **1.06** | **303** | *i* P | **Pb** | **18 47 24.3** | **+0.2** |
| **EKAR** | **Karacoban** | **1.06** | **303** | P | **Pb** | **18 47 24.3** | **+0.2** |
| **SRTM** | **Siirt_Merkez** | **1.23** | **236** | *i* P | **Pn** | **18 47 27.2** | **+0.2** |
| SRTM | | | | *i* S | **Sn** | **18 47 45.3** | **+1.5** |
| **SRTM** | **Siirt_Merkez** | **1.23** | **236** | P | **Pn** | **18 47 27.2** | **+0.2** |
| SRTM | | | | S | **Sn** | **18 47 45.3** | **+1.5** |
| **CUKT** | **Cukurca** | **1.47** | **168** | *e*PN | **Pn** | **18 47 30.2** | **0.0** |
| **CUKT** | **Cukurca** | **1.47** | **168** | *e*Pn | **Pn** | **18 47 30.2** | **0.0** |

**KRNET 22 18:50:02.4±0.1, 39.˚66N×73.˚50E, mb2.1, 8C-8D, Tajikistan-Xinjiang border region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SFK** | **Sufi-Kurgan** | **0.35** | **360** | ⇓*i*P | Pg | 18 50 09.5 | +0.3 |
| | baz=360 | | | | | | |
| SFK | | | | ⇓*i*S | Sg | 18 50 14.7 | +1.0 |
| | baz=360 | | | | | | |
| **SFK** | **Sufi-Kurgan** | **0.35** | **360** | ⇓*i*P | Pg | 18 50 09.1 | -0.1 |
| | baz=338 | | | | | | |
| SFK | | | | ⇓*i*S | Sb | 18 50 16.6 | -1.3 |
| | baz=338 | | | | | | |
| **ARSB** | **Arslanbob** | **1.71** | **347** | ⇑*i*P | Pn | 18 50 34.1 | +0.5 |
| | baz=342 | | | | | | |
| ARSB | | | | ⇑*i*S | Sg | 18 50 59.6 | +2.3 |
| | baz=342 | | | | | | |
| **TOKL** | **Toktogul** | **2.33** | **348** | ⇓*i*P | Pn | 18 50 42.6 | +0.5 |
| | baz=345 | | | | | | |
| TOKL | | | | ⇓*i*S | Sb | 18 51 15.1 | +0.5 |
| | baz=345 | | | | | | |
| **ARK** | **Arkit** | **2.43** | **332** | ⇑*i*P | Pn | 18 50 44.6 | +1.0 |
| | baz=329 | | | | | | |
| ARK | | | | ⇑*i*S | Sb | 18 51 18.0 | +0.2 |
| | baz=329 | | | | | | |
| **AML** | **Almayashu** | **2.47** | **3** | ⇑*i*P | Pb | 18 50 46.6 | -1.4 |
| | baz=3.0 | | | | | | |
| AML | | | | ⇑*i*S | Sb | 18 51 18.3 | -0.8 |
| | baz=3.0 | | | | | | |
| **NRN** | **Naryn** | **2.60** | **46** | ⇑*i*P | Pn | 18 50 47.6 | +1.6 |
| | baz=46 | | | | | | |
| NRN | | | | ⇑*i*S | Sb | 18 51 21.1 | -1.6 |
| | baz=46 | | | | | | |
| **UCH** | **Uchtor** | **2.68** | **16** | ⇓*i*P | Pn | 18 50 49.1 | +1.9 |
| | baz=16 | | | | | | |
| UCH | | | | ⇓*i*S | Sb | 18 51 23.3 | -1.7 |
| | baz=16 | | | | | | |

*IDC* ***22*** *18:58:42.6±1.5, 6.˚44S×153.˚06E, h0km, mb3.6/6, mb1 3.9/7, mb1mx3.6/31, mbtmp3.7/7, ML2.2/1, MS2.9/1, Ms1 2.9/1, ms1mx2.3/36, Error ellipse: s-maj=56.5km s-min=23.0km az=120.0*
*ISCJB* ***22*** *18:58:46.5±1.1, 6.˚4S±0.˚2×152.˚9E±0.˚2, h31km, mb3.5/6, MS2.7/1, Error ellipse: s-maj=32.6km s-min=12.5km az=141.2*

**ISC 22 18:58:47.7±1.3, 6.˚5S±0.˚2×153.˚0E±0.˚2, h31km, n8, σ0˚91/9, mb3.5/6, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PMG** | **Port Moresby** | **6.45** | **243** | Pn | **Pn** | **19 00 21.3** | **+0.7** |
| | 3.3nm,0.3s,baz=122,slow=7.5,SNR=7.9 | | | | | | |
| PMG | | | | Sn | **Sn** | **19 01 32.7** | **-0.5** |
| | 0.7nm,0.3s,baz=331,slow=19,SNR=1.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **22.51** | **232** | P | **P** | **19 03 46.2** | **+1.2** |
| | 1.1nm,0.9s,baz=56,slow=11,SNR=4.5 | | | | | | |
| **ASAR** | **Alice Springs** | **25.07** | **225** | P | **P** | **19 04 09.8** | **+0.3** |
| | 0.7nm,0.7s,baz=63,slow=8.8,SNR=10.0 | | | | | | |
| ASAR | | | | LR | LR | 19 13 12.4 | |
| | comp=Z,25nm,20.5s,baz=65,slow=35 | | | | | | |
| **STKA** | **Stephens Creek** | **27.42** | **201** | P | **P** | **19 04 30.9** | **+0.2** |
| | 0.8nm,0.6s,baz=24,slow=12,SNR=2.4 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **29.05** | **244** | P | **P** | **19 04 44.2** | **-1.2** |
| | 2.4nm,1.0s,baz=86,slow=6.9,SNR=2.5 | | | | | | |
| **SONM** | **Songino Array** | **67.82** | **328** | P | **P** | **19 09 43.6** | **+0.7** |
| | 0.5nm,0.8s,baz=104,slow=6.1,SNR=2.4 | | | | | | |
| **ILAR** | **Eielson Array** | **83.63** | **22** | P | **P** | **19 11 12.8** | **0.0** |
| | 0.2nm,0.5s,baz=242,slow=5.1,SNR=5.0 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **150.94** | **285** | PKPbc | **PKPbc** | **19 18 37.5** | **-0.9** |
| | 0.3nm,0.6s,baz=54,slow=2.9,SNR=3.8 | | | | | | |

*ISCJB* ***22*** *19:03:23.7±0.4, 4.˚85S±0.˚04×129.˚45E±0.˚04, h200km, mb3.8/8, Error ellipse: s-maj=6.2km s-min=4.7km az=154.3*
*DJA* ***22*** *19:03:27.1±0.3, 5.˚5S±3.˚×12.˚9E±.˚, h203km±3km, M4.2/12, mB5.4/1, mb4.4/6, MLv4.2/12, Mw(mB)4.8/1*
*IDC* ***22*** *19:03:30.2±3.5, 4.˚95S×129.˚28E, h269km±36km, mb3.6/8, mb1 3.6/11, mb1mx3.3/42, mbtmp4.3/11, Error ellipse: s-maj=36.4km s-min=10.0km az=76.0*

**ISC 22 19:03:24.6±0.7, 4.˚76S±0.˚06×129.˚48E±0.˚05, h200km, n24, σ2˚32/32, mb3.9/8, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **BNDI** | **Bandanaira** | **0.48** | **61** | P | **Pn** | **19 03 56.0** | **+4.4** |
| BNDI | | | | S | **Sn** | **19 04 16.8** | **+4.3** |
| **MSAI** | **Masohi** | **1.51** | **338** | P | **Pn** | **19 04 00.8** | **+2.4** |
| MSAI | | | | S | **Sn** | **19 04 26.3** | **+1.6** |
| **AAI** | **Ambon** | **1.67** | **310** | P | **Pn** | **19 04 02.8** | **+2.9** |
| AAI | | | | S | **Sn** | **19 04 29.9** | **+2.7** |
| **FAKI** | **Fak Fak** | **3.31** | **57** | P | **Pn** | **19 04 20.4** | **+2.4** |
| FAKI | | | | S | **Sn** | **19 05 00.7** | **+1.0** |
| **SAUI** | **Saumlaki** | **3.68** | **151** | P | **Pn** | **19 04 25.2** | **+2.7** |
| **SWI** | **Sorong** | **4.25** | **25** | P | **Pn** | **19 04 30.9** | **+1.3** |
| SWI | | | | S | **Sn** | **19 05 19.7** | **-1.1** |
| **KMPI** | **Kaimana, Papua** | **4.35** | **76** | P | **Pn** | **19 04 33.5** | **+2.7** |
| KMPI | | | | S | **Sn** | **19 05 23.9** | **+1.1** |
| **SANI** | **Sanana** | **4.40** | **308** | P | **Pn** | **19 04 32.4** | **+0.9** |
| SANI | | | | S | **Sn** | **19 05 23.9** | **-0.2** |
| **LBMI** | **Labuha** | **4.54** | **334** | P | **Pn** | **19 04 35.0** | **+1.7** |
| LBMI | | | | S | **Sn** | **19 05 27.2** | **-0.2** |
| **RKPI** | **Ransiki, Papua** | **5.69** | **56** | P | **Pn** | **19 04 50.3** | **+2.4** |
| | 542nm,0.7s,7μm2.2nm | | | | | | |
| **SOEI** | **Soe** | **7.17** | **226** | P | **Pn** | **19 05 10.3** | **+3.1** |
| | 17nm,0.6s | | | | | | |
| **MMRI** | **Maumere** | **8.16** | **241** | P | **Pn** | **19 05 23.7** | **+3.6** |
| | 16nm,0.6s | | | | | | |
| **MRSI** | **Marisa** | **9.15** | **304** | P | **Pn** | **19 05 34.6** | **+1.6** |
| | 9.1nm,0.9s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **13.79** | **196** | P | Pn | 19 06 30.8 | -1.2 |
| | 1.6nm,0.3s,baz=19,slow=9.8,SNR=41 | | | | | | |
| FITZ | | | | S | S | 19 08 51.0 | -15 |
| | 0.1nm,0.3s,baz=0.0,slow=4.0,SNR=2.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **15.82** | **163** | P | **P** | **19 06 55.0** | **-1.6** |
| | 1.2nm,0.3s,baz=338,slow=13,SNR=58 | | | | | | |
| WRA | | | | S | S | 19 09 44.9 | -7.4 |
| | 0.9nm,0.3s,baz=338,slow=23,SNR=8.3 | | | | | | |
| **ASAR** | **Alice Springs** | **19.28** | **168** | P | **P** | **19 07 34.7** | **+0.3** |
| | 2.2nm,0.3s,baz=349,slow=12,SNR=108 | | | | | | |
| ASAR | | | | S | **S** | **19 10 57.0** | **-5.0** |
| | 0.5nm,0.3s,baz=346,slow=21,SNR=20 | | | | | | |
| **STKA** | **Stephens Creek** | **29.27** | **159** | P | **P** | **19 09 07.4** | **-0.8** |
| | 0.6nm,0.4s,baz=341,slow=12,SNR=4.6 | | | | | | |
| **SONM** | **Songino Array** | **56.16** | **341** | P | **P** | **19 12 43.0** | **-0.7** |
| | 1.0nm,1.0s,baz=161,slow=11,SNR=4.5 | | | | | | |
| **PETK** | **Petropavlovsk-** | **62.37** | **19** | P | **P** | **19 13 25.9** | **0.0** |
| | 1.4nm,0.5s,baz=162,slow=5.6,SNR=5.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **66.08** | **327** | P | **P** | **19 13 49.2** | **-1.0** |
| | 1.0nm,0.4s,baz=114,slow=8.6,SNR=26 | | | | | | |
| **YAK** | **Yakutsk** | **66.60** | **0** | P | **P** | **19 13 51.8** | **-1.3** |
| | 4.4nm,0.3s,baz=340,slow=3.0,SNR=7.4 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **69.36** | **334** | P | **P** | **19 14 09.2** | **-1.2** |
| | 0.9nm,0.5s,baz=132,slow=6.6,SNR=4.1 | | | | | | |
| **SEY** | **Seymchan** | **69.71** | **11** | P | **P** | **19 14 12.6** | **+0.2** |
| | 3.5nm,0.6s,baz=203,slow=5.5,SNR=27 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **70.34** | **328** | P | **P** | **19 14 15.4** | **-1.1** |
| | 1.2nm,0.5s,baz=132,slow=5.3,SNR=7.4 | | | | | | |

*SOME* ***22*** *19:05:40.5, 44.˚47N×83.˚02E, h15km*
*NNC* ***22*** *19:05:43.0±6.6, 44.˚32N×83.˚14E, h0km, mb2.6, mpv2.3, Error ellipse: s-maj=71.0km s-min=19.8km az=117.0*

**ISC 22 19:05:35.5±4.2, 44.˚1N±0.˚1×83.˚6E±0.˚2, h20km, n6, σ2˚44/12, 4C-2D, Northern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KTMS** | **Ketmen** | **2.48** | **255** | *e*P | **Pb** | **19 06 20.5** | **+1.0** |
| | 3.1nm,0.1s | | | | | | |
| KTMS | | | | *e*S | **Sb** | **19 06 49.0** | **-0.7** |
| | 25nm,0.2s | | | | | | |
| **DJR** | **Jarkent** | **2.77** | **275** | *e*P | **Pb** | **19 06 23.7** | **-0.8** |
| | 2.0nm,0.2s | | | | | | |
| DJR | | | | *e*S | **Sn** | **19 06 54.4** | **+2.5** |
| | 6.3nm,0.2s | | | | | | |
| **MK31** | **Makanchi Array** | **2.82** | **341** | ⇑Pn | **Pb** | **19 06 24.1** | **-1.1** |
| | baz=184,slow=13,SNR=16 | | | | | | |
| MK31 | | | | ⇓Sn | **Sb** | **19 06 56.3** | **-3.0** |
| | 0.4nm,0.2s,baz=162,slow=24,SNR=12 | | | | | | |
| **MAKZ** | **Makanchi** | **2.92** | **337** | ⇑Pn | **Pb** | **19 06 29.1** | **+2.2** |
| | 0.7nm,0.7s | | | | | | |
| MAKZ | | | | ⇑Sn | **Sb** | **19 07 00.4** | **-1.7** |
| | 1.5nm,0.5s | | | | | | |
| **PDGK** | **Podgornoye** | **3.12** | **256** | ⇓Pn | **Pb** | **19 06 28.9** | **-1.4** |
| | 0.7nm,0.4s | | | | | | |
| PDGK | | | | ⇑Sn | **Sb** | **19 07 05.4** | **-2.5** |
| | 2.6nm,0.4s | | | | | | |
| **KAPS** | **Kapalarasan** | **3.26** | **292** | *e*P | **Pb** | **19 06 31.3** | **-1.5** |
| | 0.6nm,0.3s | | | | | | |
| KAPS | | | | *e*S | **Sn** | **19 07 08.0** | **+4.1** |
| | 4.2nm,0.4s | | | | | | |

*NIED* ***22*** *19:13:00, 42.˚40N×145.˚20E, h32km, Mw4.3 Best double couple: M0 3.75000×10^15 NP1:φ0=241.00000°, δ30.00000°, λ112.00000°. NP2:φ0=35.00000°, δ62.00000°, λ78.00000°.*
*ISCJB* ***22*** *19:13:58.9±0.6, 42.˚41N±0.˚03×145.˚23E±0.˚04, h40km±4km, mb4.3/50, MS3.8/5, Error ellipse: s-maj=6.3km s-min=3.9km az=139.6*
*SKHL* ***22*** *19:13:59.4±0.5, 42.˚34N×145.˚41E, h63km±3km, mb4.8/3*
*JMA* ***22*** *19:13:59.5, 42.˚45N×145.˚21E, h44km±1km, M4.1*
*JMA Felt I J1.*
*MOS* ***22*** *19:13:59.4±1.1, 42.˚47N×145.˚14E, h45km, mb4.7/16, Error ellipse: s-maj=8.7km s-min=6.3km az=89.7*
*NEIC* ***22*** *19:14:00.4±0.5, 42.˚47N×145.˚15E, h34km±3km, mb4.6/15, Error ellipse: s-maj=8.5km s-min=5.0km az=148.0*
*NEIC Recorded [1 JMA] in eastern Hokkaido.*
*BJI* ***22*** *19:14:00.2, 42.˚55N×145.˚28E, h57km, mb4.5/30, mB4.9/16, Ms4.4/12, Ms7 4.1/10*
*IDC* ***22*** *19:14:02.5±2.4, 42.˚48N×145.˚11E, h51km±19km, mb3.8/22, mb1 4.0/25, mb1mx3.9/47, mbtmp4.1/25, ML4.0/3, MS3.3/8, Ms1 3.3/8, ms1mx3.1/49, Error ellipse: s-maj=15.3km s-min=14.4km az=150.0*

**ISC 22 19:14:00.9±0.5, 42.˚49N±0.˚06×145.˚25E±0.˚04, h37km±1km, n178, σ1˚35/195, mb4.4/50, MS3.8/5, 6C-2D, Hokkaido region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JAK** | **Akkeshi** | **0.65** | **321** | P | **Pn** | **19 14 12.5** | **-1.2** |
| JAK | | | | *e*S | **Sn** | **19 14 23.0** | **+0.2** |
| **NEM2** | **Nemuro 2** | **0.95** | **22** | P | **Pn** | **19 14 17.2** | **-0.5** |
| NEM2 | | | | *e*S | **Sn** | **19 14 30.2** | **+0.2** |
| **JOB** | **Onbets** | **1.12** | **292** | P | **Pn** | **19 14 19.0** | **-1.1** |
| **JNK** | **Nakash** | **1.17** | **341** | *e*S | **Sn** | **19 14 35.4** | **+0.1** |
| **JAR** | **Ashorobuto** | **1.36** | **307** | P | **Pn** | **19 14 22.1** | **-1.2** |
| **JCH** | **Churui** | **1.40** | **276** | P | **Pn** | **19 14 23.2** | **-0.7** |
| **JRA** | **Rausu** | **1.45** | **356** | P | **Pn** | **19 14 24.3** | **-0.3** |
| JRA | | | | *e*S | **Sn** | **19 14 43.4** | **+1.0** |
| **MYR** | **Moyori** | **1.47** | **263** | *e*P | **Pn** | **19 14 24.2** | **-0.6** |
| **GRPR** | **Tuman** | **1.55** | **14** | *i* PN | **Pn** | **19 14 26.0** | **0.0** |
| GRPR | | | | *e*S | **Sn** | **19 14 45.6** | **+0.8** |
| **GRPR** | **Tuman** | **1.55** | **14** | *e*P | **Pn** | **19 14 26.0** | **0.0** |
| GRPR | | | | *e*S | **Sn** | **19 14 45.6** | **+0.8** |
| **YUK** | **Yuzh-Kuril'sk** | **1.61** | **16** | *e*PN | **Pn** | **19 14 27.1** | **+0.4** |
| YUK | | | | *i* S | **Sn** | **19 14 47.0** | **+0.8** |
| YUK | | | | pmax | pmax | | |
| | comp=Z,671nm,0.3s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=E,145nm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=N,280nm,0.1s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=E,2μm,0.5s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,2μm,0.9s | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **1.61** | **16** | *e*P | **Pn** | **19 14 27.1** | **+0.4** |
| YUK | | | | AMB | AMB | 19 14 30.0 | |
| | comp=N,281nm,0.2s | | | | | | |
| YUK | | | | AMB | AMB | 19 14 30.0 | |
| | comp=N,145nm,0.2s | | | | | | |
| YUK | | | | AMB | AMB | 19 14 30.0 | |
| | comp=N,672nm,0.2s | | | | | | |
| YUK | | | | *i* S | **Sn** | **19 14 46.6** | **+0.4** |
| YUK | | | | A | A | 19 14 59.3 | |
| | comp=N,2μm,0.7s | | | | | | |
| YUK | | | | A | A | 19 14 59.3 | |
| | comp=N,2μm,0.7s | | | | | | |
| **ERM** | **Erimo** | **1.62** | **254** | *ce*PN | **Pn** | **19 14 27.3** | **+0.4** |
| ERM | | | | pmax | pmax | | |
| | comp=Z,246nm,1.0s | | | | | | |
| **ERM** | **Erimo** | **1.62** | **254** | *e*P | **Pn** | **19 14 27.3** | **+0.4** |
| **ERM** | **Erimo** | **1.62** | **254** | *e*Pn | **Pn** | **19 14 27.0** | **+0.1** |
| **SHO** | **Shikotan** | **1.80** | **39** | *e*PN | **Pn** | **19 14 29.4** | **0.0** |
| SHO | | | | *i* S | **Sn** | **19 14 51.1** | **+0.2** |
| SHO | | | | pmax | pmax | | |
| | comp=Z,333nm,0.7s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=N,123nm,0.4s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=E,203nm,0.8s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=E,1μm,0.5s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=E,2.0nm,0.8s | | | | | | |
| **SHO** | **Shikotan** | **1.80** | **39** | *e*P | **Pn** | **19 14 29.4** | **0.0** |
| SHO | | | | AMB | AMB | 19 14 40.2 | |
| | comp=E,333nm,0.7s | | | | | | |
| SHO | | | | *i* S | **Sn** | **19 14 51.1** | **+0.2** |
| SHO | | | | A | A | 19 15 19.4 | |
| | comp=E,1μm,0.5s | | | | | | |
| SHO | | | | A | A | 19 15 19.4 | |
| | comp=E,2μm,0.5s | | | | | | |
| **JKA** | **Kamikawa-asahi** | **2.53** | **311** | *e*P | **Pn** | **19 14 40.4** | **+1.0** |
| **ASAJ** | **Asahikawa** | **2.53** | **311** | P | **Pn** | **19 14 40.4** | **+0.9** |
| | comp=E,62nm,0.3s,baz=162,slow=11,SNR=186 | | | | | | |
| ASAJ | | | | S | **

comp=Z,51nm,18.1s,baz=196,slow=41
**SEY Seymchan 20.91 9** P **P 19 18 36.2 -3.5**
comp=Z,2.0nm,0.8s,baz=205,slow=17,SNR=8.3
**YAK Yakutsk 21.66 340** *e*P **P 19 18 46.2 -1.6**
YAK *e**PP **pP 19 18 59.2 +1.7**
YAK *e* 19 19 14.3
YAK *e*S **S 19 22 46.3 +1.0**
YAK *e*SS **SnSn 19 23 07.4 -3.3**
YAK *e* 19 30 03.6
YAK pmax pmax
comp=Z,6.0nm,0.9s
YAK pmax pmax
comp=Z,102nm,3.9s
YAK pmax pmax
comp=N,70nm,3.7s
YAK pmax pmax
comp=E,157nm,3.6s
YAK smax smax
comp=N,131nm,3.4s
YAK smax smax
comp=E,88nm,4.4s
**YAK Yakutsk 21.66 340** *e*P **P 19 18 46.5 -1.3**
**NJ2 Nanjing 23.36 252** *e*P **P 19 19 05.3 -0.6**
NJ2 pmax pmax
comp=E,8.0nm,0.5s
**HHC Hu-ho-hao-te 25.13 278** *e*P **P 19 19 23.1 +0.8**
HHC S **S 19 23 41.3 -3.3**
HHC pmax pmax
comp=E,13nm,0.7s
HHC pmax pmax
comp=E,170nm,8.6s
HHC LR LR
comp=E,140nm,13.6s
HHC LR LR
comp=E,120nm,12.3s
**ULN Ulaanbaatar 27.26 295**⇑ *i*P **P 19 19 42.6 +1.0**
ULN pmax pmax
comp=Z,8.0nm,0.9s
**ULN Ulaanbaatar 27.26 295** *e*P **P 19 19 42.6 +1.0**
**SONA1 Songino Array 27.70 295** *e*P **P 19 19 45.3 -0.2**
**SONA0 Songino Array 27.70 295** *e*P **P 19 19 44.5 -1.0**
**SONM Songino Array 27.70 295** P **P 19 19 44.5 -1.0**
comp=Z,7.7nm,0.8s,baz=84,slow=6.8,SNR=16
SONM LR LR 19 31 10.3
comp=Z,114nm,18.8s,baz=78,slow=37
**BILL Bilibino 27.96 17** *e*P **P 19 19 46.4 -1.1**
BILL pmax pmax
comp=Z,1.0nm,1.1s
**BILL Bilibino 27.96 17** *e*P **P 19 19 46.4 -1.1**
**H11N2 WAKE ISLAND Hy 29.13 134** T T 19 51 02.6
baz=327,slow=76,SNR=326
**H11N1 WAKE ISLAND Hy 29.14 134** T T 19 51 08.8
baz=327,slow=76,SNR=277
**H11N3 WAKE ISLAND Hy 29.15 134** T T 19 51 04.5
baz=327,slow=76,SNR=240
**ZAK Zakamensk 29.65 300** *e*P **P 19 20 02.0 -0.8**
ZAK pmax pmax
comp=Z,5.0nm,1.2s
**ZAK Zakamensk 29.65 300** *e*P **P 19 20 02.0 -0.8**
**H11S1 WAKE ISLAND Hy 30.05 136** T T 19 52 14.6
baz=328,slow=76,SNR=460
**H11S3 WAKE ISLAND Hy 30.05 136** T T 19 52 14.1
baz=328,slow=76,SNR=264
**H11S2 WAKE ISLAND Hy 30.06 136** T T 19 52 20.8
baz=328,slow=76,SNR=271
**TIK Tiksi 30.32 350** *e*P **P 19 20 08.6 +0.3**
**TIXI Tiksi 30.34 350** *i* P **P 19 20 08.6 +0.2**
TIXI pmax pmax
comp=Z,1.0nm,1.1s
**LZH Lanzhou 32.43 273** *e*P **P 19 20 26.8 -0.7**
LZH pP sP 19 20 42.3 -0.3
LZH sP pP 19 20 49.8 +12
LZH pmax pmax
comp=Z,15nm,1.3s
**KMI Kunming 38.88 257** P **P 19 21 23.1 +0.1**
KMI pmax pmax
comp=Z,8.0nm,0.5s
**IMAR Indian Mountai 40.47 33** *e*P **P 19 21 36.4 +1.0**
**ZAA1 Zalesovo Array 40.66 308** *e*P **P 19 21 36.5 -0.7**
ZAA1 *e*PcP **PcP 19 23 38.4 +0.1**
**ZAA0 Zalesovo Array 40.66 308** *e*P **P 19 21 36.6 -0.5**
comp=Z,7.7nm,1.0s
**ZALV Zalesovo Beam 40.66 308** P **P 19 21 36.5 -0.7**
comp=Z,5.5nm,0.8s,baz=90,slow=7.7,SNR=16
ZALV PcP **PcP 19 23 38.4 +0.1**
comp=Z,2.1nm,0.8s,baz=55,slow=2.5,SNR=6.0
ZALV LR LR 19 39 53.8
comp=Z,106nm,18.1s,baz=70,slow=38
**ZALV Zalesovo Beam 40.66 308** P **P 19 21 36.5 -0.7**
ZALV 19 23 38.4
ZALV pmax pmax
comp=Z,5.0nm,0.8s
ZALV pmax pmax
comp=Z,2.0nm,0.8s
ZALV MLR MLR
comp=Z,106nm,18.1s
**ZALV Zalesovo Beam 40.66 308** *e*P **P 19 21 36.0 -1.1**
ZALV PcP **PcP 19 23 38.4 +0.1**
**WMQ Urumqi 41.27 292** P **P 19 21 43.1 +0.7**
WMQ pP sP 19 21 56.9 -0.8
WMQ sP pP 19 22 03.3 +10
WMQ pmax pmax
comp=Z,19nm,0.9s
WMQ LR LR
comp=Z,93nm,20.5s
WMQ LR LR
comp=Z,210nm,22.3s
WMQ LR LR
comp=Z,140nm,21.3s
**NVS Novosibirsk 41.44 309** *e*P **P 19 21 42.4 -1.1**
**NVS Novosibirsk 41.44 309** *e*P **P 19 21 42.4 -1.1**
**IL1 Eielson Array 43.33 35** *e*P **P 19 21 59.4 +0.6**
**ILAR Eielson Array 43.33 35** P **P 19 21 59.4 +0.6**
comp=Z,2.5nm,0.8s,baz=266,slow=6.1,SNR=20
**ILB Eielson Array 43.33 35** *e*P **P 19 21 59.9 +1.1**
**MK31 Makanchi Array 43.95 298** *e*P **P 19 22 03.5 -0.5**
**MK31 Makanchi Array 43.95 298** *e*P **P 19 22 03.5 -0.5**
**MK32 Makanchi Array 43.95 298** *e*P **P 19 22 03.2 -0.8**
**MKAR Makanchi Array 43.95 298** P **P 19 22 03.2 -0.8**
comp=Z,3.3nm,0.9s,baz=78,slow=8.5,SNR=16
**MKAR Makanchi Array 43.95 298** *e*P **P 19 22 03.5 -0.5**
MKAR pmax pmax
comp=Z,19nm,0.9s
**MKAR Makanchi Array 43.95 298** *e*P **P 19 22 03.5 -0.5**
**MKAR Makanchi Array 43.95 298** *e*P **P 19 22 03.5 -0.5**
comp=Z,18nm,0.9s
**MK01 Makanchi Array 43.95 298** *e*P **P 19 22 03.0 -1.0**
**MAKZ Makanchi 44.15 298** *e*P **P 19 22 04.8 -0.9**
MAKZ pmax pmax
comp=Z,5.0nm,1.1s
**MAKZ Makanchi 44.15 298** *e*P **P 19 22 04.8 -0.9**
comp=Z,4.7nm,1.1s
**RAGM Ragged Mountai 44.82 41** *e*P **P 19 22 11.0 +0.1**
comp=Z,306nm,0.6s
**LSA Lhasa 44.84 272** *e*P **P 19 22 09.1 -2.8**
LSA pmax pmax
comp=Z,3.0nm,0.9s
**LSA Lhasa 44.84 272** *e*P **P 19 22 12.1 +0.2**
**LSA Lhasa 44.84 272** *e*P **P 19 22 09.1 -2.8**
comp=Z,3.4nm,0.9s
**KURK Kurchatov 45.09 305** *d i*P **P 19 22 11.7 -1.4**
KURK pmax pmax
comp=Z,52nm,1.2s
**KURK Kurchatov 45.09 305** *e*P **P 19 22 11.7 -1.4**
**KURK Kurchatov 45.09 305** *e*P **P 19 22 12.3 -0.7**
comp=Z,13nm,1.0s
KURK *e*PcP **PcP 19 23 54.1 +0.9**
**KURBB Kurchatov Arra 45.17 304** P **P 19 22 12.8 -0.9**
comp=Z,7.0nm,0.8s,baz=75,slow=8.7,SNR=31
KURBB PcP **PcP 19 23 54.1 +0.6**
comp=Z,0.6nm,0.2s,baz=64,slow=4.3,SNR=2.8
**CM31 Chiang Mai Arr 45.83 253** *e*P **P 19 22 18.6 -0.7**
**CMAR Chiang Mai Arr 45.83 253** P **P 19 22 20.0 +0.7**
comp=Z,0.4nm,0.6s,baz=46,slow=7.3,SNR=4.4
**INK Inuvik 48.19 30** P **P 19 22 37.4 +0.3**
comp=Z,2.9nm,0.7s,baz=287,slow=6.3,SNR=16
**INK Inuvik 48.19 30** *e*P **P 19 22 37.6 +0.5**
INK pmax pmax
comp=Z,4.0nm,0.9s
**INK Inuvik 48.19 30** *e*P **P 19 22 38.1 +1.0**
**INK Inuvik 48.19 30** *e*P **P 19 22 37.6 +0.5**
comp=Z,3.9nm,0.9s
**TAPN Taplejung 48.65 271** *e*P **P 19 22 41.6 0.0**
comp=Z,9.5nm,0.9s
**ODAN Odare 49.16 271** *e*P **P 19 22 44.5 -0.9**

**BRVK Borovoye 49.28 310** *e*P **P 19 22 44.8 -0.9**
BRVK pmax pmax
comp=Z,18nm,0.8s
**BRVK Borovoye 49.28 310** *e*P **P 19 22 44.8 -0.9**
**BRVK Borovoye 49.28 310** *e*P **P 19 22 45.1 -0.6**
comp=Z,6.9nm,0.9s
**JIRN Jiri 49.60 273** *e*P **P 19 22 48.5 -0.4**
**RAMN Ramite 49.70 272** *e*P **P 19 22 48.8 -0.7**
comp=Z,12nm,0.6s
**GUN Gumba 49.70 273** *e*P **P 19 22 49.1 -0.5**
comp=Z,14nm,0.5s
**KKN Kakani 50.20 273** *e*P **P 19 22 52.9 -0.4**
comp=Z,13nm,0.9s
**DMN Daman 50.43 273** *e*P **P 19 22 54.6 -0.5**
**DANN Dangsing 51.02 275** *e*P **P 19 22 59.9 +0.4**
**KSH Kashi 51.03 291** P **P 19 23 03.4 +4.1**
KSH pP sP 19 23 17.8 +3.1
KSH PcP **PcP 19 24 18.6 +3.7**
KSH PP **PP 19 25 01.8 +6.0**
KSH S **S 19 30 16.1 +2.1**
KSH ScS **ScS 19 32 45.9 -1.0**
KSH SS **SS 19 33 51.0 +2.1**
KSH pmax pmax
comp=Z,2.0nm,0.7s
KSH pmax pmax
comp=Z,92nm,4.6s
KSH LR LR
comp=Z,140nm,7.2s
KSH LR LR
comp=Z,130nm,4.4s
KSH LR LR
comp=Z,240nm,8.5s
**KOLN Koldanda 51.45 274** *e*P **P 19 23 02.4 -0.3**
**PYUN Piuthan 51.72 275** *e*P **P 19 23 04.4 -0.3**
**SVE Sverdlovsk 53.11 317** *e*P **P 19 23 13.9 -0.4**
SVE pmax pmax
comp=Z,11nm,0.9s
**SVE Sverdlovsk 53.11 317** *e*P **P 19 23 13.9 -0.4**
**ARU Arti 54.32 317** P **P 19 23 22.2 -0.9**
comp=Z,4.9nm,0.6s,baz=70,slow=1.3,SNR=11
**ARU Arti 54.32 317** *c i*P **P 19 23 21.6 -1.6**
ARU *e**PP **pP 19 23 35.5 +1.2**
ARU 19 25 20.0
ARU S **S 19 30 58.8 +0.7**
ARU SS **SS 19 34 38.3 -1.6**
ARU pmax pmax
comp=Z,10.0nm,1.0s
**ARU Arti 54.32 317** *e*P **P 19 23 21.6 -1.6**
**AKTO Aktyubinsk 57.30 311** P **P 19 23 45.7 +1.0**
comp=Z,0.6nm,0.3s,baz=60,slow=16,SNR=2.5
**YKA Yellowknife Ar 57.62 33** P **P 19 23 46.9 +0.3**
comp=Z,1.9nm,0.8s,baz=304,slow=6.9,SNR=34
**YKA Yellowknife Ar 57.62 33** P **P 19 23 47.0 +0.3**
**YKA Yellowknife Ar 57.62 33** *e*P **P 19 23 47.0 +0.3**
**KBL Kabul 58.31 290** *e*P **P 19 23 50.9 -1.3**
KBL pmax pmax
comp=Z,5.0nm,1.0s
**KBL Kabul 58.31 290** *e*P **P 19 23 50.9 -1.3**
comp=Z,5.1nm,1.0s
**ARA0 ARCESS Array S 59.94 339** *e*P **P 19 24 05.6 +2.8**
**ARCES ARCESS Array B 59.94 339** P **P 19 24 05.6 +2.8**
comp=Z,4.6nm,1.0s,baz=45,slow=9.0,SNR=3.7
**WR1 Warramunga Arr 62.93 192** *e*P **P 19 24 22.8 -0.6**
comp=Z,30nm,1.9s
**WRA Warramunga Arr 62.93 192** P **P 19 24 22.8 -0.6**
comp=Z,0.4nm,0.6s,baz=13,slow=7.1,SNR=4.1
**GEYT Ailbeck 63.82 298** P **P 19 24 28.8 -0.6**
comp=Z,3.7nm,0.9s,baz=50,slow=4.5,SNR=11
**E08A Dider Farm, El 64.16 50** *e*pP pP 19 24 44.0 +1.4
**FIA1 FINESS Array S 65.36 333** *e*P **P 19 24 38.4 -0.5**
**FIA0 FINESS Array S 65.36 333** *e*P **P 19 24 38.1 -0.8**
**FIA0 FINESS Array S 65.36 333** *e*P **P 19 24 38.1 -0.8**
**FINES FINESS Array B 65.36 333** P **P 19 24 38.1 -0.8**
comp=Z,6.7nm,0.7s,baz=43,slow=7.3,SNR=33
**FINES FINESS Array B 65.36 333** *i* P **P 19 24 38.5 -0.4**
FINES pmax pmax
comp=Z,7.0nm,0.7s
**FINES FINESS Array B 65.36 333** *e*P **P 19 24 38.5 -0.4**
**OBN Obninsk 65.50 323** *e*P **P 19 24 38.3 -1.6**
OBN pmax pmax
comp=Z,17nm,1.7s
**OBN Obninsk 65.50 323** *e*P **P 19 24 38.3 -1.6**
**ASAR Alice Springs 66.65 191** P **P 19 24 48.1 +0.5**
comp=Z,0.5nm,1.0s,baz=358,slow=5.6,SNR=4.1
**BOZ Bozeman (W) 68.82 47** *e*P **P 19 25 00.7 -0.7**
BOZ pmax pmax
comp=Z,3.0nm,0.8s
**BOZ Bozeman (W) 68.82 47** *e*P **P 19 25 00.7 -0.7**
**BOZ Bozeman (W) 68.82 47** *e*P **P 19 25 00.7 -0.7**
comp=Z,2.8nm,0.8s
**NV01 Mina Array Sit 69.43 56** *e*P **P 19 25 05.9 +0.6**
**NVAR Mina Array Bea 69.43 56** P **P 19 25 07.3 +2.0**
comp=Z,1.0nm,0.9s,baz=304,slow=4.9,SNR=2.9
**KIV Kislovodsk 69.56 311** *e*P **P 19 25 06.0 +0.1**
KIV pmax pmax
comp=Z,7.0nm,1.0s
KIV MLR MLR
comp=Z,108nm,17.0s
**KIV Kislovodsk 69.56 311** *e*P **P 19 25 06.0 +0.1**
**KIV Kislovodsk 69.56 311** *e*P **P 19 25 07.2 +1.3**
comp=Z,6.7nm,0.9s
**KBZ Khabaz 69.59 311** P **P 19 25 06.3 +0.4**
comp=Z,4.0nm,0.9s,baz=29,slow=5.9,SNR=11
**H17A Grant Village 70.16 48** *e*P **P 19 25 09.4 -0.4**
comp=Z,3.6nm,0.9s
**SFJD Kangerlussuaq 70.17 7** *e*pP pP 19 25 19.0 -1.5
**NB2 NORSAR Subarra 70.27 338** P **P 19 25 09.2 -0.7**
comp=Z,2.2nm,0.6s,baz=33,slow=6.5
**NB200 NORSAR Array S 70.27 338** *e*P **P 19 25 09.2 -0.7**
**NOA NORSAR Array B 70.27 338** P **P 19 25 09.2 -0.7**
comp=Z,2.4nm,1.2s,baz=34,slow=6.4,SNR=6.6
**AKASG Malin Array Be 71.76 323** P **P 19 25 18.4 -0.6**
comp=Z,0.6nm,0.3s,baz=40,slow=5.9,SNR=9.2
**AKBB Malin Array Si 71.76 323** *e*P **P 19 25 18.4 -0.6**
AKBB pmax pmax
comp=Z,5.0nm,1.0s
**AKBB Malin Array Si 71.76 323** *e*P **P 19 25 18.4 -0.6**
comp=Z,4.5nm,1.0s
**PD31 Pinedale Array 71.79 48** *e*P **P 19 25 20.5 +0.8**
**PDAR Pinedale Array 71.79 48** P **P 19 25 20.5 +0.8**
comp=Z,0.6nm,0.6s,baz=237,slow=2.2,SNR=6.8
**SRU San Rafael Swe 73.66 52** *e*pP pP 19 25 40.6 -1.6
**MARD Mardin 75.00 307** *e*P **P 19 25 36.4 -2.1**
comp=Z,23nm,0.7s
**PV10 Paradox Valley 75.01 52** *e*P **P 19 25 40.8 +2.0**
**BUR04 Bucovina Ar. S 75.81 323** *e*P **P 19 25 42.7 -0.3**
**BR101 Keskin Array S 77.39 313** *e*P **P 19 25 52.0 -0.1**
**BRTR Keskin Array B 77.39 313** P **P 19 25 52.0 -0.1**
comp=Z,1.2nm,0.8s,baz=79,slow=5.1,SNR=4.9
**BRTR Keskin Array B 77.39 313** *c e*P **P 19 25 52.5 +0.4**
BRTR pmax pmax
comp=Z,1.0nm,0.7s
**CLL Collm 77.78 332** *e*P **P 19 25 54.0 +0.2**
**TUC Tucson 78.06 57** *e*PcP **PcP 19 26 05.1 -0.3**
**GERES GERESS Array B 79.57 330** P **P 19 26 02.0 -1.9**
comp=Z,0.2nm,0.3s,baz=42,slow=6.0,SNR=4.2
**GERES GERESS Array B 79.57 330** P **P 19 26 02.0 -1.9**
**GERES GERESS Array B 79.57 330** *e*P **P 19 26 02.0 -1.9**
**PMOR Pomariorio Ree 83.81 117** *e*T T 20 58 47.7
comp=Z,7.3nm,0.2s
**LTX Lajitas 84.51 55** *e*P **P 19 26 31.6 +1.4**
**LTX Lajitas 84.51 55** *e*P **P 19 26 31.6 +1.4**
**TXAR Lajitas Array 84.51 55** P **P 19 26 31.6 +1.4**
comp=Z,0.2nm,0.5s,baz=283,slow=8.2,SNR=2.2
**PPT2 Papeete2 84.60 120** *e*LR LR 19 53 04.1
comp=Z,53nm,22.0s
**HODGE Hodges 92.13 38** *e*P **P 19 27 05.6 -0.7**
comp=Z,6.0nm,0.7s

*IDC* ***22*** *19:14:18.9±0.9, 38.97N×110.80E, h0km, mb3.6/7, mb1 3.9/8, mb1mx3.6/51, mbtmp3.7/8, ML3.0/1, Error ellipse: s-maj=25.5km s-min=16.3km az=59.0*
*ISCJB* ***22*** *19:14:21.9±0.7, 39.0N±0.1×110.8E±0.2, h33km, mb3.8/8, Error ellipse: s-maj=19.9km s-min=13.2km az=145.0*
**ISC 22 19:14:23.9±0.9, 39.0N±0.1×110.7E±0.2, h35km, n9, σ0.9 99/9, mb3.8/8, Western Nei Mongol**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SONM** | **Songino Array** | **9.37** | **342** | Pn | **Pn** | **19 16 35.7** | **-0.7** |
| | 0.2nm,0.3s,baz=157,slow=13,SNR=25 | | | | | | |
| SONM | | | | Lg | Lg | 19 19 16.8 | |
| | 0.2nm,0.3s,baz=162,slow=30,SNR=5.0 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **21.83** | **88** | P | **P** | **19 19 12.9** | **-0.2** |
| | 0.9nm,0.6s,baz=290,slow=9.1,SNR=2.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **22.15** | **300** | P | **P** | **19 19 16.0** | **-0.5** |
| | 2.5nm,1.0s,baz=95,slow=12,SNR=13 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **22.89** | **210** | P | **P** | **19 19 24.4** | **-0.2** |
| | 4.4nm,0.8s,baz=14,slow=9.5,SNR=44 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **23.09** | **319** | P | **P** | **19 19 26.8** | **+0.6** |
| | 0.3nm,0.3s,baz=106,slow=11,SNR=3.9 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **25.42** | **308** | P | **P** | **19 19 49.5** | **+1.6** |
| | 4.5nm,0.2s,baz=106,slow=9.9,SNR=4.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **62.67** | **155** | P | **P** | **19 24 45.8** | **+0.8** |
| | 1.2nm,0.9s,baz=356,slow=7.4,SNR=4.7 | | | | | | |
| **ASAR** | **Alice Springs** | **66.02** | **157** | P | **P** | **19 25 05.7** | **-1.2** |
| | 0.6nm,0.6s,baz=353,slow=6.4,SNR=6.6 | | | | | | |
| **YKA** | **Yellowknife Ar** | **72.49** | **20** | P | **P** | **19 25 47.0** | **+0.5** |
| | 0.7nm,0.8s,baz=326,slow=5.7,SNR=6.9 | | | | | | |

*ISCJB* ***22*** *19:21:16.1±0.9, 0.00S±0.03×97.17E±0.02, h8km±5km, mb4.7/80, MS4.6/19, Error ellipse: s-maj=5.0km s-min=3.3km az=41.8*
*BJI* ***22*** *19:21:16.9, 0.22S×97.32E, h23km, mb4.7/58, mB5.1/47, Ms4.9/44, Ms7 4.6/42*
*DJA* ***22*** *19:21:18.7±0.8, 0°S±2°×97°E±°, h21km±8km, M5.0/18, mb5.2/8, mB5.3/6, MLv5.0/18, Mw(mB)4.7/6*
*NEIC* ***22*** *19:21:20.6±1.9, 0.03N×97.23E, h26km±13km, mb5.0/29, Error ellipse: s-maj=7.5km s-min=4.4km az=49.0*
*MOS* ***22*** *19:21:20.1±1.0, 0.10N×97.26E, h33km, mb4.9/21, Error ellipse: s-maj=10.9km s-min=6.1km az=100.4*
*IDC* ***22*** *19:21:21.6±5.6, 0.04N×97.28E, h33km±42km, mb4.1/26, mb1 4.2/29, mb1mx4.2/47, mbtmp4.3/29, ML4.0/3, MS4.0/7, Ms1 4.0/7, ms1mx3.6/32, Error ellipse: s-maj=18.2km s-min=13.1km az=48.0*
*KLM* ***22*** *19:21:25.5, 0.30N×97.28E, h49km, mb5.0*
**ISC 22 19:21:19.5±0.5, 0.01S±0.04×97.14E±0.04, h20km±3km, h21km; pP-P, n239, σ1.9 62/268, mb4.8/80, MS4.7/20, 10C-13D, Southwest of Sumatera**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PBSI** | **Pulau Batu** | **1.15** | **92** | P | **Pn** | **19 21 39.6** | **-0.7** |
| PBSI | | | | S | **Sb** | **19 21 54.0** | **-1.0** |
| **GSI** | **Gunungsitoli** | **1.38** | **19** | P | **Pn** | **19 21 42.2** | **-1.3** |
| GSI | | | | S | **Sb** | **19 22 01.6** | **-0.1** |
| **GSI** | **Gunungsitoli** | **1.38** | **19** | *e*Pn | **Pn** | **19 21 42.3** | **-1.3** |
| **SISI** | **Saibi** | **2.35** | **124** | P | **Pn** | **19 21 55.9** | **-1.0** |
| SISI | | | | S | **Sn** | **19 22 24.1** | **-1.1** |
| **SNSI** | **Sinabang, Aceh** | **2.54** | **341** | P | **Pn** | **19 22 00.0** | **+0.5** |
| SNSI | | | | S | **Sn** | **19 22 26.5** | **-3.3** |
| **TPTI** | | **3.25** | **1** | P | **Pn** | **19 22 07.0** | **-2.3** |
| TPTI | | | | S | **Sn** | **19 22 45.0** | **-2.4** |
| **PSI** | **Prapat** | **3.32** | **33** | Pn | **Pn** | **19 22 08.4** | **-1.9** |
| | 9.6nm,0.3s,baz=187,slow=8.8,SNR=48 | | | | | | |
| PSI | | | | Sn | Sn | 19 22 33.4 | -16 |
| | 12nm,0.3s,baz=186,slow=6.9,SNR=13 | | | | | | |
| **PDSI** | **Padang** | **3.44** | **105** | P | **Pn** | **19 22 10.7** | **-1.3** |
| PDSI | | | | S | **Sn** | **19 22 50.5** | **-1.8** |
| **KCSI** | **Kotacane, Aceh** | **3.57** | **10** | P | **Pn** | **19 22 12.0** | **-1.7** |
| KCSI | | | | S | **Sn** | **19 22 53.4** | **-1.8** |
| **TSI** | **Tuntungan** | **3.77** | **22** | P | **Pn** | **19 22 15.9** | **-0.5** |
| TSI | | | | S | **Sn** | **19 23 00.5** | **+0.3** |
| **BKNI** | **Bangkinang** | **3.92** | **85** | P | **Pn** | **19 22 18.6** | **+0.1** |
| **BKNI** | **Bangkinang** | **3.92** | **85** | *e*Pn | **Pn** | **19 22 18.1** | **-0.4** |
| **PPSI** | **Pulau Pagai** | **3.97** | **134** | P | **Pn** | **19 22 18.1** | **-1.1** |
| PPSI | | | | S | **Sn** | **19 23 01.1** | **-4.0** |
| **MLSI** | **Meulaboh, Aceh** | **4.31** | **350** | P | **Pn** | **19 22 22.6** | **-1.3** |
| MLSI | | | | S | **Sn** | **19 23 14.2** | **+0.6** |
| **SDSI** | **Sungai Dareh** | **4.39** | **102** | P | **Pn** | **19 22 25.7** | **+0.7** |
| SDSI | | | | S | **Sn** | **19 23 16.1** | **+0.5** |
| **LHMI** | **Lhok Sumawe** | **5.21** | **358** | P | **Pn** | **19 22 35.6** | **-0.6** |
| **FRIM** | **Kepong** | **5.53** | **54** | ⇑P | **Pn** | **19 22 40.5** | **-0.1** |
| **IPM** | **Ipoh** | **5.92** | **41** | ⇓P | **Pn** | **19 22 46.5** | **+0.5** |
| **IPM** | **Ipoh** | **5.92** | **41** | *e*Pn | **Pn** | **19 22 45.8** | **-0.2** |
| **MASI** | **Maura Aman, Be** | **5.97** | **121** | P | **Pn** | **19 22 46.5** | **-0.3** |
| **KULM** | **Kulim** | **6.33** | **34** | ⇑P | **Pn** | **19 22 51.0** | **-0.6** |
| **KULM** | **Kulim** | **6.33** | **34** | *e*Pn | **Pn** | **19 22 50.2** | **-1.4** |
| **KGM** | **Kluang** | **6.50** | **72** | ⇓P | **Pn** | **19 22 54.3** | **+0.2** |
| **MYKOM** | **Kota Tinggi** | **6.95** | **75** | ⇑P | **Pn** | **19 23 00.6** | **+0.4** |
| **MYKOM** | **Kota Tinggi** | **6.95** | **75** | *e*Pn | **Pn** | **19 22 59.8** | **-0.4** |
| **MNAI** | **Manna** | **7.25** | **127** | P | **Pn** | **19 23 03.9** | **-0.4** |
| **MNAI** | **Manna** | **7.25** | **127** | *e*Pn | **Pn** | **19 23 03.1** | **-1.2** |
| **DSRI** | **Dabo** | **7.46** | **94** | P | **Pn** | **19 23 06.6** | **-0.6** |
| **KTGM** | **Kuala Trenggan** | **8.00** | **48** | ⇓P | **Pn** | **19 23 14.7** | **+0.1** |
| **LWLI** | **Liwa** | **8.52** | **126** | P | **Pn** | **19 23 21.2** | **-0.6** |
| | 258nm,0.8s,4μm | | | | | | |
| **KLI** | **Kotabumi** | **9.10** | **122** | P | Pn | 19 23 41.4 | +12 |
| **KASI** | **Kota Agung** | **9.17** | **127** | P | **Pn** | **19 23 29.7** | **-0.9** |
| | 97nm,0.9s | | | | | | |
| **BLSI** | **Bandar Lampung** | **9.69** | **123** | P | Pn | 19 23 47.6 | +10 |
| **KPJI** | **Karang Pucung** | **13.83** | **122** | P | **Pn** | **19 24 34.2** | **-0.3** |
| **BTM** | **Bintulu** | **16.26** | **79** | ⇓P | **P** | **19 25 09.5** | **-0.2** |
| **PALK** | **Pallekele** | **17.91** | **294** | P | **P** | **19 25 29.4** | **+1.2** |
| | 0.3nm,0.3s,baz=117,slow=7.2,SNR=2.8 | | | | | | |
| PALK | | | | LR | LR | 19 30 34.5 | |
| | comp=Z,431nm,21.5s,baz=116,slow=31 | | | | | | |
| **PALK** | **Pallekele** | **17.91** | **294** | *e*P | **P** | **19 25 29.4** | **+1.2** |
| PALK | | | | pmax | pmax | | |
| | comp=Z,31nm,0.9s | | | | | | |
| **PALK** | **Pallekele** | **17.91** | **294** | *e*Pn | **P** | **19 25 29.4** | **+1.2** |
| | comp=Z,31nm,0.9s | | | | | | |
| **CM01** | **Chiang Mai Arr** | **18.40** | **5** | *e*P | **P** | **19 25 32.1** | **-1.3** |
| **CM31** | **Chiang Mai Arr** | **18.44** | **5** | *e*P | **P** | **19 25 32.9** | **-0.9** |
| **CMAR** | **Chiang Mai Arr** | **18.44** | **5** | P | **P** | **19 25 32.9** | **-1.0** |
| | comp=Z,0.5nm,0.3s,baz=195,slow=10,SNR=66 | | | | | | |
| CMAR | | | | LR | LR | 19 33 48.3 | |
| | comp=Z,257nm,18.2s,baz=186,slow=41 | | | | | | |
| **CHTO** | **Chiang Mai** | **18.79** | **5** | *e*P | **P** | **19 25 37.2** | **-0.5** |
| CHTO | | | | pmax | pmax | | |
| | comp=Z,22nm,1.0s | | | | | | |
| **CHTO** | **Chiang Mai** | **18.79** | **5** | *e*P | **P** | **19 25 37.2** | **-0.5** |
| | comp=Z,22nm,1.0s | | | | | | |
| **KKM** | **Kota Kinabalu** | **19.97** | **72** | ⇑P | **Pn** | **19 25 52.0** | **-0.6** |
| **KKM** | **Kota Kinabalu** | **19.97** | **72** | *e*P | **P** | **19 25 51.5** | **+0.7** |
| | comp=Z,472nm,1.5s | | | | | | |
| **SDKM** | **Sandakan** | **20.80** | **74** | ⇑P | **P** | **19 25 59.9** | **+0.1** |
| **KDM** | **Kudat** | **20.82** | **70** | ⇑P | **P** | **19 26 00.0** | **+0.1** |
| **TSM** | **Tawau** | **21.15** | **78** | ⇓P | **P** | **19 26 03.9** | **+0.4** |
| **MDRS** | **Chennai** | **21.19** | **308** | *e*P | **P** | **19 26 03.7** | **-0.2** |
| **TRD** | **Trivandrum** | **21.81** | **293** | *e*P | **P** | **19 26 11.5** | **+0.9** |
| **MYLDM** | **Lahad Datu** | **21.95** | **76** | ⇓P | **P** | **19 26 13.8** | **+1.7** |
| **MYLDM** | **Lahad Datu** | **21.95** | **76** | *e*P | **P** | **19 26 13.2** | **+1.1** |
| | comp=Z,66nm,1.1s | | | | | | |
| **VIS** | **Vishakhapatnam** | **22.25** | **323** | *e*P | **P** | **19 26 16.5** | **+1.3** |
| VIS | | | | *i* P | **pP** | **19 26 16.6** | **-4.4** |
| VIS | | | | AMB | AMB | 19 26 25.0 | |
| | comp=Z,44nm,0.6s | | | | | | |
| **QIZ** | **Qiongzhong** | **22.66** | **33** | P | **P** | **19 26 20.1** | **+0.5** |
| QIZ | | | | sP | **sP** | **19 26 27.8** | **-0.3** |
| QIZ | | | | S | **S** | **19 30 27.1** | **+0.2** |
| QIZ | | | | sS | Sn | 19 30 38.5 | -2.7 |
| QIZ | | | | pmax | pmax | | |
| | comp=Z,250nm,4.7s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=Z,1μm,14.6s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=Z,1μm,13.1s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=Z,1μm,11.0s | | | | | | |
| **HYB** | **Hyderabad** | **25.19** | **314** | *e*P | **P** | **19 26 46.0** | **+2.1** |
| **KMI** | **Kunming** | **25.57** | **12** | P | **P** | **19 26 49.3** | **+1.8** |
| KMI | | | | pP | sP | 19 26 56.8 | +0.6 |
| KMI | | | | sP | pP | 19 27 01.3 | +7.7 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,28nm,1.3s | | | | | | |
| KMI | | | | pmax | pmax | | |
| | comp=Z,190nm,7.0s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,870nm,11.1s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,1μm,11.1s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,1μm,12.5s | | | | | | |
| **LUWI** | **Luwuk** | **25.66** | **92** | *e*P | **P** | **19 26 48.7** | **+0.5** |
| | comp=Z,151nm,1.1s | | | | | | |
| **H08S2** | **Diego Garcia H** | **25.71** | **252** | T | T | 19 53 25.4 | |
| | baz=73,slow=75,SNR=382 | | | | | | |
| **H08S3** | **Diego Garcia H** | **25.72** | **252** | T | T | 19 53 36.9 | |
| | baz=73,slow=75,SNR=1249 | | | | | | |
| **H08S1** | **Diego Garcia H** | **25.73** | **252** | T | T | 19 53 26.8 | |
| | baz=73,slow=75,SNR=106 | | | | | | |
| **SHL** | **Shillong** | **25.93** | **349** | *e*P | **P** | **19 26 51.6** | **+1.0** |
| SHL | | | | AMB | AMB | 19 27 01.5 | |
| | comp=Z,38nm,1.1s | | | | | | |

| Sta | Name | Dist | Az | Phase | ISC | Time | Res |
|---|---|---|---|---|---|---|---|
| BOK | Bokaro | 26.06 | 336 | eP | P | 19 26 52.1 | +0.4 |
| BOK | | | | AMB | AMB | 19 27 02.6 | |
| | comp=Z,27nm,0.7s | | | | | | |
| NGP | Nagpur | 27.47 | 321 | eP | P | 19 27 04.4 | -0.1 |
| NGP | | | | AMB | AMB | 19 27 15.9 | |
| | comp=Z,13nm,5.3s | | | | | | |
| GOA | Goa | 27.70 | 305 | eP | P | 19 27 07.5 | +0.9 |
| GOA | | | | AMB | AMB | 19 27 08.6 | |
| | comp=Z,30nm,0.8s | | | | | | |
| GYA | Guiyang | 27.87 | 19⇑ | iP | P | 19 27 08.0 | -0.1 |
| GYA | | | | PP | PnPn | 19 28 00.3 | +5.3 |
| GYA | | | | PcP | PcP | 19 30 25.6 | +1.7 |
| GYA | | | | S | S | 19 31 51.3 | +0.6 |
| GYA | | | | sS | sS | 19 32 05.0 | +4.1 |
| GYA | | | | SS | SnSn | 19 33 12.4 | +7.5 |
| GYA | | | | ScP | ScP | 19 34 02.8 | -1.0 |
| GYA | | | | ScS | ScS | 19 37 55.0 | -1.2 |
| GYA | | | | pmax | pmax | | |
| | comp=Z,20nm,0.8s | | | | | | |
| GYA | | | | pmax | pmax | | |
| | comp=Z,130nm,5.0s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,1μm,12.8s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,1μm,11.5s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,1μm,13.2s | | | | | | |
| ODAN | Odare | 28.31 | 341 | eP | P | 19 27 12.9 | +0.7 |
| | comp=Z,45nm,0.9s | | | | | | |
| RAMN | Ramite | 28.66 | 340 | eP | P | 19 27 16.4 | +1.1 |
| TAPN | Taplejung | 28.67 | 342 | eP | P | 19 27 16.5 | +1.1 |
| | comp=Z,100nm,0.9s | | | | | | |
| POO | Poona | 29.37 | 310 | eP | P | 19 27 24.3 | +2.8 |
| JIRN | Jiri | 29.45 | 340 | eP | P | 19 27 23.7 | +1.3 |
| | comp=Z,524nm,1.1s | | | | | | |
| PKI | Pulchoki | 29.65 | 339 | eP | P | 19 27 25.3 | +1.2 |
| | comp=Z,76nm,1.2s | | | | | | |
| PKIN | Phulchoki | 29.66 | 339 | eP | P | 19 27 25.0 | +0.8 |
| | comp=Z,63nm,1.3s | | | | | | |
| GUN | Gumba | 29.79 | 340 | eP | P | 19 27 27.0 | +1.6 |
| DMN | Daman | 29.79 | 338 | eP | P | 19 27 27.1 | +1.8 |
| | comp=Z,50nm,1.1s | | | | | | |
| KKN | Kakani | 29.89 | 339 | eP | P | 19 27 27.0 | +0.8 |
| | comp=Z,43nm,0.9s | | | | | | |
| BHPL | Bhopal | 30.02 | 322 | eP | P | 19 27 26.6 | -0.6 |
| LSA | Lhasa | 30.09 | 350 | P | P | 19 27 29.0 | +0.8 |
| LSA | | | | pP | sP | 19 27 37.1 | +0.1 |
| LSA | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.4s | | | | | | |
| LSA | | | | LR | LR | | |
| | comp=Z,370nm,21.1s | | | | | | |
| LSA | | | | LR | LR | | |
| | comp=Z,2μm,21.1s | | | | | | |
| LSA | | | | LR | LR | | |
| | comp=Z,730nm,16.9s | | | | | | |
| LSA | Lhasa | 30.09 | 350 | eP | P | 19 27 29.3 | +1.1 |
| LSA | | | | pmax | pmax | | |
| | comp=Z,19nm,0.9s | | | | | | |
| LSA | Lhasa | 30.09 | 350 | eP | P | 19 27 29.3 | +1.1 |
| | comp=Z,18nm,0.9s | | | | | | |
| KOLN | Koldanda | 30.52 | 336 | eP | P | 19 27 33.0 | +1.2 |
| | comp=Z,41nm,0.7s | | | | | | |
| PYUN | Piuthan | 31.07 | 335 | eP | P | 19 27 37.3 | +0.7 |
| | comp=Z,37nm,0.9s | | | | | | |
| CD2 | Chengdu | 31.39 | 11 | eP | P | 19 27 41.5 | +2.3 |
| CD2 | | | | pP | sP | 19 27 48.6 | +0.7 |
| CD2 | | | | sP | pP | 19 27 53.8 | +8.4 |
| CD2 | | | | PP | PnPn | 19 28 42.3 | +0.2 |
| CD2 | | | | S | S | 19 32 39.5 | -6.2 |
| CD2 | | | | SS | SnSn | 19 34 30.5 | +0.2 |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,200nm,6.6s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,1μm,10.4s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,2μm,13.3s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,890nm,11.4s | | | | | | |
| ENH | Enshi | 32.33 | 20 | eP | P | 19 27 46.9 | -0.5 |
| | comp=Z,22nm,0.8s | | | | | | |
| SSLB | Suanglung | 33.08 | 43 | eP | P | 19 27 54.9 | +0.8 |
| | comp=Z,35nm,0.9s | | | | | | |
| WHN | Wuhan | 34.51 | 27 | ⇓P | P | 19 28 07.4 | +1.0 |
| WHN | | | | sP | sP | 19 28 17.0 | +1.8 |
| DDI | Dehra Dun | 35.21 | 331 | eP | P | 19 28 12.2 | -0.3 |
| XAN | Xi'an | 35.63 | 17 | P | P | 19 28 15.5 | -0.6 |
| XAN | | | | S | S | 19 33 47.4 | -4.0 |
| XAN | | | | pmax | pmax | | |
| | comp=Z,34nm,1.3s | | | | | | |
| XAN | | | | pmax | pmax | | |
| | comp=Z,110nm,6.4s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,480nm,10.8s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,930nm,12.2s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,1μm,12.0s | | | | | | |
| SMLA | Simla | 36.30 | 330 | eP | P | 19 28 21.5 | -0.3 |
| LZH | Lanzhou | 36.45 | 9 | eP | P | 19 28 24.1 | +0.9 |
| LZH | | | | pP | sP | 19 28 32.0 | 0.0 |
| LZH | | | | sP | pP | 19 28 34.8 | +5.3 |
| LZH | | | | eS | S | 19 34 06.6 | +2.4 |
| LZH | | | | sS | sS | 19 34 17.5 | +3.0 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,40nm,1.2s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,260nm,4.6s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,570nm,14.9s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,1μm,13.9s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,1μm,16.2s | | | | | | |
| DHRM | DHARAMSHALA | 37.64 | 330 | eP | P | 19 28 34.9 | +1.4 |
| NJ2 | Nanjing | 37.93 | 31 | eP | P | 19 28 36.6 | +1.0 |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,15nm,0.5s | | | | | | |
| THN | Thein Dam | 38.08 | 330 | eP | P | 19 28 38.0 | +1.1 |
| H01W3 | Cape Leeuwin H | 38.16 | 157 | T | T | 20 09 10.1 | |
| | baz=333,slow=76,SNR=56 | | | | | | |
| H01W2 | Cape Leeuwin H | 38.17 | 157 | T | T | 20 09 03.1 | |
| | baz=333,slow=76,SNR=58 | | | | | | |
| H01W1 | Cape Leeuwin H | 38.18 | 157 | T | T | 20 09 08.8 | |
| | baz=333,slow=76,SNR=62 | | | | | | |
| GTA | Gaotai | 39.31 | 3 | eP | P | 19 28 47.6 | +0.3 |
| GTA | | | | pP | pP | 19 28 54.4 | +0.8 |
| GTA | | | | sP | sP | 19 28 58.0 | +1.9 |
| GTA | | | | S | S | 19 34 48.4 | +1.0 |
| GTA | | | | sS | sS | 19 34 58.3 | +0.6 |
| GTA | | | | SS | SS | 19 37 35.3 | -6.1 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.2s | | | | | | |
| GTA | | | | pmax | pmax | | |
| | comp=Z,110nm,7.6s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,450nm,12.6s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,320nm,12.4s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,400nm,10.5s | | | | | | |
| TIA | Tai'an | 40.54 | 25 | eP | P | 19 28 57.5 | +0.1 |
| TIA | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.9s | | | | | | |
| WRA | Warramunga Arr | 41.46 | 121 | P | P | 19 29 04.9 | -0.4 |
| | comp=Z,11nm,0.6s,baz=302,slow=8.9,SNR=56 | | | | | | |
| WR1 | Warramunga Arr | 41.47 | 121 | eP | P | 19 29 04.9 | -0.4 |
| | comp=Z,14nm,0.8s | | | | | | |
| WRAB | Tennant Creek | 41.47 | 121c | iP | P | 19 29 05.2 | -0.1 |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,19nm,0.9s | | | | | | |
| WRAB | Tennant Creek | 41.47 | 121 | eP | P | 19 29 05.6 | +0.2 |
| | comp=Z,15nm,0.6s | | | | | | |
| WB2 | Warramunga Arr | 41.48 | 121 | eP | P | 19 29 05.5 | +0.1 |
| | comp=Z,14nm,0.6s | | | | | | |
| HHC | Hu-ho-hao-te | 42.73 | 16 | eP | P | 19 29 18.4 | +3.0 |
| HHC | | | | S | S | 19 35 40.4 | +2.2 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,14nm,0.9s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,170nm,8.6s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,300nm,14.8s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,280nm,12.3s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,430nm,13.5s | | | | | | |
| ASAR | Alice Springs | 42.73 | 126 | P | P | 19 29 16.1 | +0.4 |
| | comp=Z,6.0nm,0.7s,baz=296,slow=7.7,SNR=28 | | | | | | |
| ASAR | | | | LR | LR | 19 49 43.6 | |
| | comp=Z,150nm,20.2s,baz=302,slow=40 | | | | | | |
| AS31 | Alice Springs | 42.73 | 126 | eP | P | 19 29 16.6 | +1.0 |
| | comp=Z,2.7nm,0.8s | | | | | | |
| AS01 | Alice Springs | 42.77 | 126 | eP | P | 19 29 15.1 | -0.8 |
| BJT | Baijiatuau | 43.46 | 21 | eP | P | 19 29 22.1 | +0.9 |
| BJT | | | | pmax | pmax | | |
| | comp=Z,46nm,1.1s | | | | | | |
| BJT | Baijiatuau | 43.46 | 21 | eP | P | 19 29 22.1 | +0.9 |
| | comp=Z,46nm,1.1s | | | | | | |
| BJI | Beijing | 43.48 | 21 | P | P | 19 29 22.8 | +1.5 |
| BJI | | | | S | S | 19 35 51.8 | +2.9 |
| BJI | | | | pmax | pmax | | |
| | comp=Z,37nm,1.2s | | | | | | |
| BJI | | | | pmax | pmax | | |
| | comp=Z,300nm,6.1s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,1μm,23.6s | | | | | | |
| KSH | Kashi | 43.84 | 336 | P | P | 19 29 24.3 | -0.1 |
| KSH | | | | pP | sP | 19 29 33.8 | +0.5 |
| KSH | | | | PP | PP | 19 31 07.4 | +0.6 |
| KSH | | | | PcP | PcP | 19 31 10.8 | +0.1 |
| KSH | | | | S | S | 19 35 50.1 | -4.5 |
| KSH | | | | SS | SS | 19 38 58.9 | -12 |
| KSH | | | | ScS | ScS | 19 39 16.4 | -6.5 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.0s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,100nm,3.7s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,140nm,7.2s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,130nm,4.4s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,240nm,7.9s | | | | | | |
| WMQ | Urumqi | 44.45 | 350 | P | P | 19 29 30.9 | +1.7 |
| WMQ | | | | pP | sP | 19 29 37.8 | -0.2 |
| WMQ | | | | sP | pP | 19 29 45.5 | +10 |
| WMQ | | | | S | S | 19 36 03.3 | +0.2 |
| WMQ | | | | SS | SS | 19 39 14.0 | -8.8 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,25nm,1.3s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,400nm,4.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,210nm,28.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,220nm,24.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,230nm,28.7s | | | | | | |
| JNU | Nakatsue | 45.76 | 41 | eP | P | 19 29 40.2 | +0.5 |
| | comp=Z,18nm,1.0s | | | | | | |
| KS15 | Wonju Array Si | 46.85 | 34 | eP | P | 19 29 48.2 | 0.0 |
| KSAR | Wonju Array Be | 46.85 | 34 | P | P | 19 29 48.2 | 0.0 |
| KSAR | Wonju Array Be | 46.85 | 34 | P | P | 19 29 48.2 | 0.0 |
| KS01 | Wonju Array Si | 46.88 | 34 | eP | P | 19 29 48.3 | -0.1 |
| KSRS | Korea Array | 46.88 | 34 | P | P | 19 29 48.2 | -0.2 |
| | comp=Z,8.8nm,0.8s,baz=221,slow=7.9,SNR=18 | | | | | | |
| AAK | Ala-Archa | 47.08 | 337 | P | P | 19 29 50.7 | +0.5 |
| | comp=Z,0.6nm,0.5s,baz=156,slow=10.0,SNR=3.5 | | | | | | |
| AAK | | | | LR | LR | 19 52 26.0 | |
| | comp=Z,162nm,19.0s,baz=124,slow=40 | | | | | | |
| FRU | Bishkek | 47.20 | 337 | eP | P | 19 29 59.0 | +8.1 |
| SONA0 | Songino Array | 48.33 | 8 | eP | P | 19 30 00.5 | +0.8 |
| SONM | Songino Array | 48.33 | 8 | P | P | 19 30 00.5 | +0.8 |
| | comp=Z,6.1nm,0.7s,baz=193,slow=9.5,SNR=33 | | | | | | |
| SONA1 | Songino Array | 48.34 | 8 | eP | P | 19 30 00.4 | +0.6 |
| MK01 | Makanchi Array | 48.37 | 346 | eP | P | 19 30 00.4 | +0.5 |
| MK31 | Makanchi Array | 48.39 | 346 | eP | P | 19 30 01.1 | +1.0 |
| MK31 | Makanchi Array | 48.39 | 346 | eP | P | 19 30 01.1 | +1.0 |
| MK32 | Makanchi Array | 48.39 | 346 | eP | P | 19 30 00.8 | +0.7 |
| MKAR | Makanchi Array | 48.39 | 346 | P | P | 19 30 00.8 | +0.7 |
| | comp=Z,5.5nm,0.6s,baz=158,slow=7.7,SNR=36 | | | | | | |
| MKAR | Makanchi Array | 48.39 | 346 | eP | P | 19 30 01.1 | +1.0 |
| MKAR | | | | pmax | pmax | | |
| | comp=Z,119nm,0.6s | | | | | | |
| MKAR | Makanchi Array | 48.39 | 346 | eP | P | 19 30 01.1 | +1.0 |
| | comp=Z,119nm,0.6s | | | | | | |
| ULN | Ulaanbaatar | 48.46 | 9 | eP | P | 19 30 01.7 | +1.0 |
| ULN | | | | pmax | pmax | | |
| | comp=Z,23nm,1.4s | | | | | | |
| ULN | Ulaanbaatar | 48.46 | 9 | eP | P | 19 30 01.7 | +1.0 |
| | comp=Z,23nm,1.4s | | | | | | |
| MAKZ | Makanchi | 48.48 | 346 | eP | P | 19 30 01.2 | +0.5 |
| MAKZ | | | | pmax | pmax | | |
| | comp=Z,11nm,0.7s | | | | | | |
| MAKZ | Makanchi | 48.48 | 346 | eP | P | 19 30 01.2 | +0.5 |
| | comp=Z,11nm,0.7s | | | | | | |
| KKAR | Karatay Array | 49.11 | 334 | eP | P | 19 30 06.6 | +1.0 |
| KKAR | | | | pmax | pmax | | |
| | comp=Z,148nm,1.5s | | | | | | |
| KKAR | Karatay Array | 49.11 | 334 | eP | P | 19 30 06.5 | +1.0 |
| | comp=Z,148nm,1.5s | | | | | | |
| CN2 | Changchun | 50.41 | 26 | eP | P | 19 30 15.6 | +0.1 |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.7s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,2μm,12.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,900nm,12.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,2μm,17.0s | | | | | | |
| ZAK | Zakamensk | 50.48 | 5 | eP | P | 19 30 15.7 | -0.3 |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.1s | | | | | | |
| MOY | Mondy | 51.59 | 3 | eP | P | 19 30 25.1 | +0.7 |
| GEYT | Alibeck | 52.10 | 321 | P | P | 19 30 29.0 | +0.6 |
| | comp=Z,0.5nm,0.4s,baz=127,slow=9.3,SNR=3.0 | | | | | | |
| STKA | Stephens Creek | 52.60 | 131 | P | P | 19 30 31.6 | -0.6 |
| | comp=Z,6.8nm,0.7s,baz=308,slow=6.6,SNR=18 | | | | | | |
| STKA | | | | LR | LR | 19 54 51.8 | |
| | comp=Z,210nm,20.6s,baz=264,slow=38 | | | | | | |
| STKA | Stephens Creek | 52.60 | 131 | eP | P | 19 30 32.9 | +0.7 |
| STKA | Stephens Creek | 52.60 | 131 | eP | P | 19 30 32.9 | +0.7 |
| MJAR | Matsushiro Arr | 52.63 | 42 | P | P | 19 30 29.7 | -2.5 |
| | comp=Z,5.9nm,1.0s,baz=231,slow=7.7,SNR=6.6 | | | | | | |
| HIA | Hailar | 52.80 | 18⇓ | iP | P | 19 30 33.8 | +0.5 |
| HIA | | | | pmax | pmax | | |
| | comp=Z,11nm,0.9s | | | | | | |
| KURBB | Kurchatov Arra | 52.88 | 345 | P | P | 19 30 33.3 | -0.4 |
| | comp=Z,2.9nm,0.7s,baz=167,slow=7.0,SNR=8.8 | | | | | | |
| KURK | Kurchatov | 52.94 | 345c | iP | P | 19 30 34.8 | +0.6 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.9s | | | | | | |
| KURK | Kurchatov | 52.94 | 345 | eP | P | 19 30 33.3 | -0.9 |
| MDJ | Mudanjiang | 52.95 | 29 | P | P | 19 30 36.0 | +1.5 |
| MDJ | | | | pP | sP | 19 30 42.3 | -1.1 |
| MDJ | | | | sP | pP | 19 30 45.0 | +4.1 |
| MDJ | | | | PP | PP | 19 32 34.8 | +0.5 |
| MDJ | | | | S | S | 19 38 05.3 | +2.5 |
| MDJ | | | | ScS | ScS | 19 40 22.1 | -1.1 |
| MDJ | | | | SS | SS | 19 41 44.3 | +2.1 |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.4s | | | | | | |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,190nm,4.2s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=Z,2μm,15.6s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=Z,940nm,12.5s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=Z,2μm,15.8s | | | | | | |
| USRK | Ussuriysk Ar. | 53.84 | 31 | P | P | 19 30 41.1 | +0.2 |
| | comp=Z,20nm,0.9s,baz=228,slow=6.2,SNR=17 | | | | | | |
| ZAA0 | Zalesovo Array | 54.73 | 351 | eP | P | 19 30 48.0 | +0.7 |
| | comp=Z,42nm,1.0s | | | | | | |
| ZALV | Zalesovo Beam | 54.73 | 351 | P | P | 19 30 48.0 | +0.7 |
| | comp=Z,8.7nm,0.3s,baz=170,slow=6.4,SNR=60 | | | | | | |
| ZALV | Zalesovo Beam | 54.73 | 351 | eP | P | 19 30 47.6 | +0.3 |
| ZALV | Zalesovo Beam | 54.73 | 351 | eP | P | 19 30 47.6 | +0.3 |
| ZAA1 | Zalesovo Array | 54.74 | 351 | eP | P | 19 30 48.0 | +0.7 |
| RAYN | Ar Rayn | 55.27 | 299 | eP | P | 19 30 52.5 | +0.6 |
| | comp=Z,6.4nm,0.9s | | | | | | |
| NVS | Novosibirsk | 55.85 | 350 | eP | P | 19 30 55.2 | -0.1 |
| NVS | | | | eS | S | 19 38 42.7 | +1.2 |
| NVS | | | | pmax | pmax | | |
| | comp=Z,23nm,1.2s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=N,18nm,1.1s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=E,14nm,1.2s | | | | | | |
| NVS | | | | smax | smax | | |
| | comp=N,6.0nm,1.4s | | | | | | |
| NVS | | | | smax | smax | | |
| | comp=E,22nm,1.8s | | | | | | |
| KLR | Kul'dur | 57.36 | 26⇑ | eP | P | 19 31 06.4 | +0.2 |
| BVAR | Borovoye Array | 57.37 | 341 | P | P | 19 31 05.9 | -0.3 |
| | comp=E,1.0nm,0.5s,baz=132,slow=6.2,SNR=8.0 | | | | | | |
| BRVK | Borovoye | 57.43 | 341d | iP | P | 19 31 06.4 | -0.2 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.4s | | | | | | |
| BRVK | Borovoye | 57.43 | 341 | eP | P | 19 31 06.8 | +0.2 |
| | comp=Z,7.8nm,0.9s | | | | | | |
| BOD | Bodaibo | 59.20 | 10 | eP | P | 19 31 17.9 | -1.0 |
| BOD | | | | pmax | pmax | | |
| | comp=Z,16nm,1.8s | | | | | | |
| ARMA | Armidale | 59.88 | 126 | eP | P | 19 31 23.1 | -1.2 |
| | comp=Z,56nm,1.8s | | | | | | |
| KMBO | Kilima Mbogo | 59.89 | 269 | P | P | 19 31 26.8 | +2.0 |
| | comp=Z,0.8nm,0.2s,baz=68,slow=15,SNR=3.0 | | | | | | |
| KMBO | | | | LR | LR | 19 53 57.4 | |
| | comp=Z,113nm,18.9s,baz=91,slow=33 | | | | | | |
| KMBO | Kilima Mbogo | 59.89 | 269 | eP | P | 19 31 26.8 | +2.0 |
| KMBO | | | | pmax | pmax | | |
| | comp=Z,18nm,1.7s | | | | | | |
| KMBO | Kilima Mbogo | 59.89 | 269 | eP | P | 19 31 26.8 | +2.0 |
| | comp=Z,18nm,1.7s | | | | | | |
| SVE | Sverdlovsk | 63.78 | 339 | eP | P | 19 31 50.2 | +0.3 |
| SVE | | | | pmax | pmax | | |
| | comp=Z,22nm,1.2s | | | | | | |
| ARU | Arti | 64.27 | 337d | iP | P | 19 31 53.0 | -0.1 |
| ARU | | | | S | S | 19 40 30.5 | +0.8 |
| ARU | | | | SS | SS | 19 44 35.0 | -4.5 |
| ARU | | | | pmax | pmax | | |
| | comp=Z,18nm,2.5s | | | | | | |
| ARU | Arti | 64.27 | 337 | eP | P | 19 31 52.8 | -0.3 |
| | comp=Z,25nm,1.5s | | | | | | |
| NCK | Nalchik | 64.38 | 320 | iP | P | 19 31 53.8 | -0.4 |
| NEY | Neytrino | 64.84 | 319 | iP | P | 19 31 55.3 | -2.1 |
| NEY | | | | pmax | pmax | | |
| | comp=Z,1.0nm,1.0s | | | | | | |
| KBZ | Khabaz | 64.94 | 320 | P | P | 19 32 00.3 | +2.6 |
| | comp=Z,1.0nm,0.8s,baz=102,slow=9.3,SNR=2.9 | | | | | | |
| KIV | Kislovodsk | 65.18 | 320 | eP | P | 19 31 59.2 | -0.2 |
| KIV | | | | pmax | pmax | | |
| | comp=Z,12nm,1.1s | | | | | | |
| KIV | Kislovodsk | 65.18 | 320 | eP | P | 19 31 59.5 | 0.0 |
| | comp=Z,16nm,1.2s | | | | | | |
| YAK | Yakutsk | 66.59 | 16 | P | P | 19 32 07.8 | -0.2 |
| | comp=Z,19nm,0.8s,baz=286,slow=1.6,SNR=20 | | | | | | |
| YAK | Yakutsk | 66.59 | 16 | eP | P | 19 32 07.3 | -0.7 |
| YAK | | | | e*PP | pP | 19 32 14.0 | -0.6 |
| YAK | | | | e | | 19 32 33.3 | |
| YAK | | | | e | | 19 34 43.3 | |
| YAK | | | | ePPP | PPP | 19 36 08.8 | |
| YAK | | | | eS | S | 19 40 58.8 | +0.9 |
| YAK | | | | e | | 19 42 02.5 | |
| YAK | | | | pmax | pmax | | |
| | comp=Z,28nm,0.9s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,9.0nm,1.1s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,10.0nm,1.2s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=Z,112nm,5.8s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,90nm,5.9s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,112nm,4.1s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=N,136nm,4.7s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=E,97nm,4.1s | | | | | | |
| YAK | | | | MLR | MLR | | |
| | comp=Z,863nm,17.0s | | | | | | |
| YAK | | | | MLR | MLR | | |
| | comp=N,1μm,17.0s | | | | | | |
| YAK | | | | MLR | MLR | | |
| | comp=E,364nm,16.0s | | | | | | |
| YAK | Yakutsk | 66.59 | 16 | eP | P | 19 32 07.7 | -0.3 |
| | comp=E,38nm,1.0s | | | | | | |
| VRH | Novokhopyorsk | 69.08 | 326 | eP | P | 19 32 23.8 | -0.1 |
| VRH | | | | e*PP | pP | 19 32 30.8 | +0.2 |
| VRH | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.8s | | | | | | |
| BR101 | Keskin Array S | 69.88 | 313 | eP | P | 19 32 28.9 | -0.3 |
| BRTR | Keskin Array B | 69.88 | 313 | P | P | 19 32 28.9 | -0.3 |
| | comp=Z,1.4nm,0.9s,baz=136,slow=7.1,SNR=4.1 | | | | | | |
| BRTR | Keskin Array B | 69.88 | 313 | iP | P | 19 32 31.7 | +2.4 |
| BRTR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.9s | | | | | | |
| VSR | Storozhevoye | 70.52 | 326 | eP | P | 19 32 32.8 | 0.0 |
| VSR | | | | e*PP | pP | 19 32 39.3 | -0.1 |
| VSR | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.7s | | | | | | |
| BR231 | Keskin MP Arra | 70.55 | 313 | eP | P | 19 32 32.5 | -0.9 |
| LPSR | Galich'ya Gora | 71.26 | 327 | eP | P | 19 32 38.0 | +0.7 |
| LPSR | | | | e*PP | pP | 19 32 44.1 | +0.2 |
| LPSR | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.1s | | | | | | |
| MA2 | Magadan | 72.44 | 25 | iP | P | 19 32 42.8 | -1.4 |
| PETK | Petropavlovsk- | 72.77 | 33 | P | P | 19 32 45.1 | -1.3 |
| | comp=Z,2.6nm,0.8s,baz=181,slow=7.4,SNR=3.7 | | | | | | |
| PEA1 | Petropavlovsk- | 72.78 | 33 | eP | P | 19 32 45.1 | -1.3 |
| OBN | Obninsk | 73.61 | 329⇓ | eP | P | 19 32 52.4 | +1.2 |
| OBN | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.2s | | | | | | |
| BOSA | Boshof | 74.12 | 240 | P | P | 19 32 55.5 | +0.5 |
| | comp=Z,2.6nm,0.8s,baz=75,slow=11,SNR=4.0 | | | | | | |
| BOSA | | | | LR | LR | 19 59 18.4 | |
| | comp=Z,108nm,20.7s,baz=45,slow=31 | | | | | | |
| TIXI | Tiksi | 74.38 | 10 | P | P | 19 32 54.3 | -1.1 |
| | comp=Z,4.1nm,0.5s,baz=177,slow=2.8,SNR=9.4 | | | | | | |
| TIXI | Tiksi | 74.38 | 10⇓ | iP | P | 19 32 54.2 | -1.2 |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.0s | | | | | | |
| TIXI | Tiksi | 74.38 | 10 | eP | P | 19 32 54.8 | -0.6 |
| | comp=Z,14nm,1.2s | | | | | | |
| KLMR | Klimovskoe | 74.81 | 335 | eP | P | 19 32 57.7 | -0.4 |
| KLMR | | | | pmax | pmax | | |
| | comp=Z,18nm,1.3s | | | | | | |
| SEY | Seymchan | 74.89 | 23 | iP | P | 19 32 57.8 | -0.7 |
| AKASG | Malin Array Be | 76.17 | 323 | P | P | 19 33 05.8 | -0.3 |
| | comp=Z,1.8nm,0.7s,baz=85,slow=5.6,SNR=6.4 | | | | | | |
| AKBB | Malin Array Si | 76.17 | 323 | eP | P | 19 33 05.9 | -0.3 |
| AKBB | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.7s | | | | | | |
| AKBB | Malin Array Si | 76.17 | 323 | eP | P | 19 33 05.8 | -0.3 |
| | comp=Z,7.1nm,0.7s | | | | | | |
| KIEV | Kiev | 76.18 | 323 | iP | P | 19 33 04.4 | -1.8 |
| KIEV | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.2s | | | | | | |
| BUR04 | Bucovina Ar. S | 77.89 | 319 | eP | P | 19 33 16.8 | +0.8 |
| BUR08 | Bucovina Ar. S | 77.90 | 319 | eP | P | 19 33 17.4 | +1.2 |
| NACGM | Naroch | 78.81 | 326 | e | P | 19 33 28.0 | +7.2 |
| NACGM | | | | eLR | LR | 20 26 46.0 | |
| APA | Apatity | 80.23 | 340⇓ | iP | P | 19 33 24.0 | -4.3 |
| APA | | | | MLR | MLR | | |
| | comp=Z,300nm,12.0s | | | | | | |
| SUW | Suwalki | 80.62 | 325 | eP | P | 19 33 38.6 | +8.0 |
| SUW | Suwalki | 80.62 | 325 | eP | P | 19 33 38.6 | +8.0 |
| FIA0 | FINESS Array S | 81.03 | 333 | eP | P | 19 33 33.1 | +0.4 |
| FIA0 | FINESS Array S | 81.03 | 333 | eP | P | 19 33 33.1 | +0.4 |
| FINES | FINESS Array B | 81.03 | 333 | P | P | 19 33 33.1 | +0.4 |
| | comp=Z,1.0nm,0.7s,baz=90,slow=7.6,SNR=5.9 | | | | | | |
| FINES | FINESS Array B | 81.03 | 333 | iP | P | 19 33 34.2 | +1.5 |
| FINES | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.7s | | | | | | |
| BKZ | Black Stump Fm | 81.74 | 129 | eP | P | 19 33 37.7 | +0.7 |
| | comp=Z,21nm,1.2s | | | | | | |
| BILL | Bilibino | 82.31 | 21 | eP | P | 19 33 40.1 | +0.8 |
| BILL | | | | e | | 19 36 46.7 | |
| BILL | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.9s | | | | | | |
| OKC | Ostrava-Krasne | 82.90 | 320 | epP | pP | 19 33 51.0 | +1.5 |
| ARA0 | ARCESS Array S | 83.64 | 340 | eP | P | 19 33 46.4 | +0.2 |
| ARCES | ARCESS Array B | 83.64 | 340 | P | P | 19 33 46.4 | +0.2 |
| | comp=Z,4.1nm,1.0s,baz=100,slow=5.4,SNR=8.9 | | | | | | |
| DPC | Dobruska-Polom | 84.14 | 321 | epP | pP | 19 33 54.9 | -1.1 |
| DPC | | | | ex | x | 19 34 04.2 | |
| GEC2 | GERESS Array S | 85.67 | 319 | eP | P | 19 33 58.4 | +1.4 |
| GEC2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.3s | | | | | | |
| GEC2 | GERESS Array S | 85.67 | 319 | eP | P | 19 33 58.4 | +1.4 |
| | comp=Z,9.6nm,1.3s | | | | | | |
| GERES | GERESS Array B | 85.67 | 319 | P | P | 19 33 58.4 | +1.4 |

comp=Z,0.2nm,0.3s,baz=94,slow=3.9,SNR=3.9
**BRG Berggiesshubel 85.70 321** *e*(P) P 19 34 05.9 +9.0
comp=Z,20nm,1.9s
**BRG Berggiesshubel 85.70 321** *e*P P 19 34 05.9 +8.9
BRG pmax pmax
comp=Z,20nm,1.9s
**NB200 NORSAR Array S 88.02 331** *e*P **P** **19 34 08.4 +0.2**
**NOA NORSAR Array B 88.02 331** P **P** **19 34 08.4 +0.2**
comp=Z,0.9nm,0.9s,baz=94,slow=4.9,SNR=2.3
**TORD Torodi Ar. Bea 95.30 283** P **P** **19 34 44.4 +1.6**
comp=Z,0.2nm,0.5s,baz=102,slow=4.6,SNR=4.7
**TOA1 Torodi Ar. Sit 95.30 283** *e*P **P** **19 34 44.4 +1.5**
**IMAR Indian Mountai 97.71 23** *e*P Pdif 19 34 53.0 +0.2
**YKA Yellowknife Ar 113.27 15** PP PP 19 40 44.9 -0.2
comp=Z,0.4nm,1.0s,baz=321,slow=6.2,SNR=4.0
**PD31 Pinedale Array 131.15 26** *e*PKPdf **PKPdf** **19 40 26.4 -4.3**
**PDAR Pinedale Array 131.15 26** PKP **PKPdf** **19 40 28.9 -1.8**
comp=Z,0.3nm,0.6s,baz=298,slow=1.9,SNR=2.7
**CPUP Villa Florida 144.07 221** PKP PKPbc 19 40 53.2 +0.8
comp=Z,2.0nm,0.8s,baz=180,slow=4.8,SNR=5.3
**CPUP Villa Florida 144.07 221** *e*PKIKP **PKPdf** **19 40 53.5 -1.0**
**CPUP Villa Florida 144.07 221** *e*PKPdf **PKPdf** **19 40 53.5 -1.0**
**MIAR Mount Ida 144.21 15** *e*PKIKP PKPbc 19 40 53.0 +0.4
**MIAR Mount Ida 144.21 15** *e*PKPdf PKPbc 19 40 53.0 +0.3
**LTX Lajitas 144.72 32** *e*PKIKP **PKPdf** **19 40 55.5 -0.2**
**LTX Lajitas 144.72 32** *e*PKPdf **PKPdf** **19 40 55.5 -0.2**
**TX31 Lajitas Ar. Si 144.72 32** *e*PKPdf PKPbc 19 40 54.8 +0.3
TX31 *e*PKPdf **PKPdf** **19 40 55.5 -0.2**
**TXAR Lajitas Array 144.72 32** PKP **PKPdf** **19 40 55.5 -0.2**
comp=Z,6.2nm,1.0s,baz=268,slow=2.1,SNR=29
**BG3 Lake Jocassee 145.20 0** *e*PKPbc **PKPbc** **19 40 54.5 -1.3**
**JCT Junction City 145.68 26** *e*PKP2 **PKPdf** **19 40 57.4 +0.1**
**JCT Junction City 145.68 26** *e*PKPdf **PKPdf** **19 40 57.4 +0.1**
**LNIG Linares 150.50 32** *e*PKPbc **PKPbc** **19 41 10.4 -0.2**

---

*ISCJB **22** 19:35:60.0±0.8,30.7S±0.1×179.2W±0.2,h250km,mb3.0/2, Error ellipse: s-maj=24.5km s-min=9.4km az=27.4*
*IDC **22** 19:36:00.7±0.9,30.70S×179.29W,h235km±12km,mb2.8/2, mb1 3.1/3,mb1mx2.9/36,mbtmp3.6/3,Error ellipse: s-maj=33.1km s-min=16.7km az=117.0*
**ISC 22 19:36:00.8±0.9,30.7S±0.1×179.1W±0.2,h250km,n8, σ1ŝ95/10,Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **1.79** | **36** | P | | **Pn** | **19 36 39.6** | **-1.9** |
| | 107nm,0.3s,baz=246,slow=20,SNR=3.3 | | | | | | | |
| RAO | | | | S | | **S** | **19 37 12.9** | **-0.6** |
| | 48nm,0.3s,baz=60,slow=20,SNR=2.6 | | | | | | | |
| **URZ** | **Urewera** | **8.15** | **201** | P | | **Pn** | **19 37 55.5** | **-0.4** |
| | 0.4nm,0.3s,baz=266,slow=6.9,SNR=4.2 | | | | | | | |
| URZ | | | | S | | **S** | **19 39 25.8** | **-2.8** |
| | 1.9nm,0.3s,baz=265,slow=23,SNR=9.4 | | | | | | | |
| **ASAR** | **Alice Springs** | **42.12** | **268** | P | | **P** | **19 43 29.4** | **+0.4** |
| | 0.3nm,0.6s,baz=105,slow=7.3,SNR=4.9 | | | | | | | |
| **WRA** | **Warramunga Arr** | **43.14** | **273** | P | | **P** | **19 43 37.2** | **+0.1** |
| | 0.2nm,0.3s,baz=111,slow=8.0,SNR=9.1 | | | | | | | |
| **VNA3** | **Neumayer Olymp** | **78.06** | **177** | P | | **P** | **19 47 32.5** | **+1.0** |
| **VNA2** | **Neumayer--Watz** | **78.48** | **177** | P | | **P** | **19 47 36.7** | **+2.9** |
| | baz=167,slow=3.8 | | | | | | | |
| **FINES** | **FINESS Array B** | **145.09** | **339** | PKPbc | | **PKPdf** | **19 55 07.4** | **-0.2** |
| | 1.5nm,0.5s,baz=48,slow=3.2,SNR=10 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **162.51** | **183** | PKPab | | **PKPab** | **19 56 24.6** | **+2.2** |
| | 0.2nm,0.5s,baz=161,slow=3.6,SNR=5.9 | | | | | | | |

---

*NIED **22** 19:39:00,24.0N×122.5OE,h41km,Mw5.0 Best double couple: M0 3.19000×10^16 NP1:φs358.00000°,δ66.00000°, λ176.00000°. NP2:φs90.00000°,δ87.00000°,λ24.00000°.*
*IDC **22** 19:39:53.7±0.5,24.17N×122.76E,h0km,mb4.4/26, mb1 4.5/26,mb1mx4.4/44,mbtmp4.4/26,MS4.2/23, Ms1 4.3/23,ms1mx4.2/32,Error ellipse: s-maj=16.4km s-min=11.8km az=77.0*
*ISCJB **22** 19:39:57.9±0.2,23.95N±0.02×122.68E±0.01,h33km, mb4.6/61,MS4.3/31,Error ellipse: s-maj=2.5km s-min=1.6km az=154.8*
*JMA **22** 19:39:58.4±0.2,23.98N×122.54E,h28km±5km,M4.7*
*JMA Felt I J1.*
*BJI **22** 19:39:58.0,24.10N×122.40E,h9km,mb4.5/36,mB4.9/41, ML4.7/4,Ms4.7/54,Ms7 4.6/52*
*MOS **22** 19:39:58.0±1.1,24.23N×122.65E,h33km,mb4.9/15,Error ellipse: s-maj=10.8km s-min=6.6km az=120.1*
*TAP **22** 19:39:58.4,23.97N×122.60E,h27km,ML5.0,C*
*GCMT **22** 19:39:59.5±0.3,23.83N×122.50E,h36km,MW4.9/69, Moment Tensor Solution. s40,c46; s69,c103; Duration: 0 Moment tensor: Scale 10^16Nm; Mrr=2.57±.14; Mθθ=2.45±.08; Mφφ=0.12±.09; Mrθ=1.38±.07; Mθφ=0.51±.06; Mφr=0.36±.09; Best double couple: M0=2.93000×10^16 NP1:φs90.00000°,δ59.00000°,λ78.00000°. NP2: φs293.00000°,δ33.00000°,λ110.00000°. Principal axes: T 2.9980, Plg73.0000°, Azm329.0000°; N -0.1340, Plg11.0000°, Azm96.0000°; P -2.8630, Plg14.0000°, Azm189.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*NEIC **22** 19:39:59.5±0.6,24.09N×122.62E,h38km±5km,mb4.9/24 Error ellipse: s-maj=5.8km s-min=5.4km az=123.0*
*NEIC Felt at Taipei. Recorded [2 TAP] in Yilan and [1 TAP] in Changhua, Hualien, Taitung and Yunlin. Recorded [1 JMA] on Yonaguni-jima, Ryukyu Islands.*
**ISC 22 19:39:57.8±0.7,23.99N±0.02×122.62E±0.02,h27km,4km, n295,σ1ŝ75/379,mb4.6/61,MS4.4/31,24C-18D,Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **JYNG** | **Yonagunijimaku** | **0.55** | **33** | P | | **Pn** | **19 40 10.2** | **+0.4** |
| JYNG | | | | S | | **Sn** | **19 40 17.9** | **-0.1** |
| **YOJ** | **Yonaguni jima** | **0.59** | **37** | *i*P | | **Pn** | **19 40 11.0** | **+0.7** |
| | baz=43 | | | | | | | |
| YOJ | | | | *i*S | | **Sn** | **19 40 19.4** | **+0.3** |
| | baz=43 | | | | | | | |
| **YOJ** | **Yonaguni jima** | **0.59** | **37** | *e*P | | **Pn** | **19 40 11.1** | **+0.7** |
| **YOJ** | **Yonaguni jima** | **0.59** | **37** | P | | **Pn** | **19 40 11.0** | **+0.7** |
| YOJ | | | | S | | **Sn** | **19 40 19.0** | **-0.1** |
| **YOJ** | **Yonaguni jima** | **0.59** | **37** | *e*Pn | | **Pn** | **19 40 11.1** | **+0.8** |
| **EHP** | **Heping Village** | **0.86** | **292** | *e*P | | **Pb** | **19 40 15.2** | **+1.1** |
| | baz=294 | | | | | | | |
| **ENA** | **Nanau** | **0.91** | **299** | *i*P | | **Pb** | **19 40 15.4** | **+0.4** |
| | baz=301 | | | | | | | |
| **HWA** | **Hwalien** | **0.93** | **269** | *e*P | | **Pn** | **19 40 14.6** | **-0.4** |
| | baz=257 | | | | | | | |
| **TWC** | **Suao** | **0.94** | **311** | *i*P | | **Pb** | **19 40 15.7** | **+0.3** |
| | baz=313 | | | | | | | |
| TWC | | | | *e*S | | **Sb** | **19 40 27.1** | **-0.4** |
| | baz=313 | | | | | | | |
| **TWD** | **Chiawan** | **0.94** | **276** | *e*P | | **Pn** | **19 40 14.9** | **-0.3** |
| | baz=277 | | | | | | | |
| TWD | | | | *e*S | | **Sn** | **19 40 26.8** | **-0.9** |
| | baz=277 | | | | | | | |
| **NACB** | **Ninganchiao** | **0.95** | **281** | *e*Pn | | **Pn** | **19 40 15.0** | **-0.4** |
| **ESF** | **Shoufeng Towns** | **1.02** | **264** | *e*P | | **Pn** | **19 40 16.5** | **+0.2** |
| | baz=265 | | | | | | | |
| **TEGC** | **Jichi Village** | **1.03** | **254** | *e*P | | **Pn** | **19 40 16.8** | **+0.4** |
| | baz=255 | | | | | | | |
| **IRIF** | **Iriomote-Funau** | **1.07** | **71** | P | | **Pb** | **19 40 18.9** | **+1.2** |
| IRIF | | | | S | | **Sb** | **19 40 33.9** | **+2.6** |
| **HATJ** | **Hateruma jima** | **1.09** | **86** | P | | **Pb** | **19 40 19.3** | **+1.4** |
| HATJ | | | | *e*S | | **Sb** | **19 40 34.7** | **+3.0** |
| **ESL** | **Shilin** | **1.10** | **261** | *i*P | | **Pn** | **19 40 16.7** | **-0.7** |
| | baz=262 | | | | | | | |
| **ILA** | **Ilan** | **1.11** | **314** | P | | **Pb** | **19 40 19.1** | **+0.8** |
| | baz=307 | | | | | | | |
| ILA | | | | *e*S | | **Sb** | **19 40 35.5** | **+3.2** |
| | baz=307 | | | | | | | |
| **TWE** | **Neicheng** | **1.13** | **310** | *i*P | | **Pb** | **19 40 19.1** | **+0.4** |
| | baz=312 | | | | | | | |
| TWE | | | | S | | **Sb** | **19 40 35.4** | **+2.3** |
| | baz=312 | | | | | | | |
| **ENTT** | **Nioudou** | **1.16** | **304** | P | | **Pb** | **19 40 19.4** | **+0.2** |
| | baz=291 | | | | | | | |
| ENTT | | | | S | | **Sb** | **19 40 34.4** | **+0.6** |
| | baz=291 | | | | | | | |
| **TWB1** | **Santiao Chiao** | **1.17** | **331** | *i*P | | **Pb** | **19 40 19.5** | **+0.2** |
| | baz=348 | | | | | | | |
| TWB1 | | | | *e*S | | **Sb** | **19 40 34.8** | **+0.8** |
| | baz=348 | | | | | | | |
| **NNS** | **Nan Shan** | **1.22** | **292** | *i*P | | **Pn** | **19 40 19.9** | **+0.7** |
| | baz=280 | | | | | | | |
| NNS | | | | *e*S | | **Sn** | **19 40 35.0** | **+0.1** |
| | baz=280 | | | | | | | |
| **WHF** | **Hehuan Shan** | **1.25** | **277** | P | | **Pn** | **19 40 19.9** | **+0.1** |
| | baz=278 | | | | | | | |
| WHF | | | | *e*S | | **Sn** | **19 40 35.2** | **-0.7** |
| | baz=278 | | | | | | | |
| **EHY** | **Hungye** | **1.28** | **248** | *i*P | | **Pn** | **19 40 19.8** | **-0.1** |
| | baz=249 | | | | | | | |
| EHY | | | | *e*S | | **Sn** | **19 40 35.0** | **-1.2** |
| | baz=249 | | | | | | | |
| **JKRS** | **Kuro-shima** | **1.29** | **79** | P | | **Pb** | **19 40 22.4** | **+0.9** |
| JKRS | | | | S | | **Sb** | **19 40 40.7** | **+3.0** |
| **NWF** | **Wu-fen Shan** | **1.32** | **325** | *i*P | | **Pb** | **19 40 21.8** | **-0.2** |
| | baz=326 | | | | | | | |
| NWF | | | | S | | **Sb** | **19 40 40.6** | **+2.0** |
| | baz=326 | | | | | | | |
| **YHNB** | **Yeheng** | **1.32** | **301** | *e*Pn | | **Pb** | **19 40 21.6** | **-0.4** |
| **NSK** | **Sanguang** | **1.34** | **301** | *i*P | | **Pb** | **19 40 21.9** | **-0.4** |
| | baz=289 | | | | | | | |
| **TWT** | **Tachien** | **1.34** | **282** | *e*P | | **Pn** | **19 40 21.8** | **+0.8** |
| | baz=270 | | | | | | | |
| TWT | | | | *e*S | | **Sn** | **19 40 38.5** | **+0.5** |
| | baz=270 | | | | | | | |
| **YULB** | **Yu-li** | **1.35** | **244** | *e*Pn | | **Pn** | **19 40 20.7** | **-0.2** |
| **TWA** | **Mucha** | **1.36** | **316** | *e*P | | **Pb** | **19 40 22.8** | **+0.1** |
| | baz=318 | | | | | | | |
| TWA | | | | *e*S | | **Sb** | **19 40 40.8** | **+1.1** |
| | baz=318 | | | | | | | |
| **TWF1** | **Yuli** | **1.37** | **243** | P | | **Pn** | **19 40 20.9** | **-0.2** |
| | baz=231 | | | | | | | |
| **TATO** | **Taipei** | **1.42** | **314** | *e*Pn | | **Pb** | **19 40 23.2** | **-0.4** |
| **JIJ** | **Ishigaki jima** | **1.44** | **75** | P | | **Pb** | **19 40 23.7** | **-0.3** |
| JIJ | | | | S | | **Sb** | **19 40 42.2** | **+0.3** |
| **TAP1** | **Taipei** | **1.45** | **316** | *e*P | | **Pb** | **19 40 23.3** | **-0.7** |
| | baz=317 | | | | | | | |
| TAP1 | | | | S | | **Sb** | **19 40 44.2** | **+2.2** |
| | baz=317 | | | | | | | |
| **TAP** | **Taipei** | **1.46** | **316** | *e*P | | **Pn** | **19 40 23.2** | **+0.9** |
| | baz=317 | | | | | | | |
| TAP | | | | *e*S | | **Sb** | **19 40 44.2** | **+1.9** |
| | baz=317 | | | | | | | |
| **SSLB** | **Suanglung** | **1.54** | **263** | *e*Pn | | **Pn** | **19 40 23.6** | **+0.1** |
| **TWS1** | **Kuangyinshan** | **1.56** | **316** | *e*P | | **Pb** | **19 40 24.8** | **-1.1** |
| | baz=334 | | | | | | | |
| TWS1 | | | | *e*S | | **Sb** | **19 40 46.9** | **+1.7** |
| | baz=334 | | | | | | | |
| **SMLT** | **Sun Moon Lake** | **1.58** | **266** | P | | **Pn** | **19 40 25.0** | **+1.0** |
| | baz=267 | | | | | | | |
| SMLT | | | | *e*S | | **Sn** | **19 40 42.8** | **-0.8** |
| | baz=267 | | | | | | | |
| **TWY** | **Chenhua** | **1.58** | **324** | *e*P | | **Pb** | **19 40 25.8** | **-0.5** |
| | baz=325 | | | | | | | |
| TWY | | | | *e*S | | **Sb** | **19 40 47.3** | **+1.4** |
| | baz=325 | | | | | | | |
| **YUS** | **Yu-Shan** | **1.61** | **252** | P | | **Pn** | **19 40 25.4** | **+0.6** |
| | baz=253 | | | | | | | |
| YUS | | | | *e*S | | **Sn** | **19 40 43.5** | **-1.4** |
| | baz=253 | | | | | | | |
| **NSTT** | **Nanjuang** | **1.61** | **294** | *i*P | | **Pb** | **19 40 26.5** | **-0.4** |
| | baz=295 | | | | | | | |
| NSTT | | | | *e*S | | **Sb** | **19 40 46.5** | **-0.2** |
| | baz=295 | | | | | | | |
| **TYC** | **Yuchr** | **1.61** | **267** | P | | **Pn** | **19 40 25.7** | **+1.2** |
| | baz=268 | | | | | | | |
| TYC | | | | *e*S | | **Sn** | **19 40 44.7** | **+0.3** |
| | baz=268 | | | | | | | |
| **NCU** | **National Centr** | **1.63** | **307** | *e*P | | **Pb** | **19 40 26.2** | **-0.9** |
| | baz=308 | | | | | | | |
| NCU | | | | *e*S | | **Sb** | **19 40 47.9** | **+0.5** |
| | baz=308 | | | | | | | |
| **JISG** | **Ishigakijimahi** | **1.65** | **69** | P | | **Pb** | **19 40 26.7** | **-0.9** |
| JISG | | | | *e*S | | **Sb** | **19 40 48.2** | **+0.2** |
| **ELDTW** | **Lidau** | **1.67** | **242** | *i*P | | **Pn** | **19 40 25.1** | **-0.2** |
| | baz=242 | | | | | | | |
| **PCYT** | **Pengchaiyu** | **1.71** | **343** | P | | **Pb** | **19 40 27.4** | **-1.0** |
| | baz=344 | | | | | | | |
| **HSN** | **Hsinchu** | **1.71** | **299** | *e*P | | **Pn** | **19 40 26.7** | **+1.0** |
| | baz=301 | | | | | | | |
| **TWQ1** | **Liyutan** | **1.72** | **282** | *i*P | | **Pb** | **19 40 28.3** | **-0.5** |
| | baz=283 | | | | | | | |
| TWQ1 | | | | *e*S | | **Sb** | **19 40 49.2** | **-0.8** |
| | baz=283 | | | | | | | |
| **ALS** | **Alishan** | **1.73** | **254** | *i*P | | **Pn** | **19 40 27.5** | **+1.2** |
| | baz=255 | | | | | | | |
| ALS | | | | *e*S | | **Sn** | **19 40 47.6** | **-0.1** |
| | baz=255 | | | | | | | |
| **NSY** | **Sanyi** | **1.75** | **284** | *e*P | | **Pb** | **19 40 28.8** | **-0.4** |
| | baz=285 | | | | | | | |
| NSY | | | | *e*S | | **Sb** | **19 40 51.2** | **+0.4** |
| | baz=285 | | | | | | | |
| **WNT** | **Mingjian** | **1.77** | **267** | *e*P | | **Pb** | **19 40 29.0** | **-0.6** |
| | baz=267 | | | | | | | |
| WNT | | | | *e*S | | **Sn** | **19 40 50.4** | **+2.1** |
| | baz=267 | | | | | | | |
| **TCU** | **Taichung** | **1.78** | **275** | P | | **Pb** | **19 40 29.2** | **-0.6** |
| | baz=276 | | | | | | | |
| TCU | | | | S | | **Sb** | **19 40 51.1** | **-0.7** |
| | baz=276 | | | | | | | |
| **CHN5** | **Tsauling** | **1.82** | **258** | *i*P | | **Pn** | **19 40 29.1** | **+1.7** |
| | baz=258 | | | | | | | |
| **TTN** | **Taitung** | **1.83** | **228** | *e*P | | **Pn** | **19 40 27.8** | **+0.4** |
| | baz=218 | | | | | | | |
| **TWG** | **Pinlang** | **1.84** | **231** | *i*P | | **Pn** | **19 40 27.2** | **-0.4** |
| | baz=222 | | | | | | | |
| TWG | | | | *e*S | | **Sn** | **19 40 47.6** | **-2.3** |
| | baz=222 | | | | | | | |
| **TWG** | **Pinlang** | **1.84** | **231** | *e*Pn | | **Pn** | **19 40 26.9** | **-0.7** |
| **STYT** | **Tauyuan** | **1.90** | **245** | *i*P | | **Pn** | **19 40 29.4** | **+0.9** |
| | baz=236 | | | | | | | |
| STYT | | | | *e*S | | **Sn** | **19 40 51.0** | **-0.4** |
| | baz=236 | | | | | | | |
| **WGK** | **Gukeng** | **1.91** | **261** | *i*P | | **Pn** | **19 40 30.7** | **+2.2** |
| | baz=262 | | | | | | | |
| WGK | | | | *e*S | | **Sb** | **19 40 54.5** | **-0.9** |
| | baz=262 | | | | | | | |
| **TPUB** | **Ta-pu** | **1.95** | **250** | *e*Pn | | **Pn** | **19 40 30.6** | **+1.5** |
| **CHN4** | **Tsaushan** | **1.96** | **251** | *i*P | | **Pn** | **19 40 31.4** | **+2.1** |
| | baz=242 | | | | | | | |
| CHN4 | | | | S | | **Sn** | **19 40 55.1** | **+2.0** |
| | baz=242 | | | | | | | |
| **WTP** | **Ta-pu** | **1.98** | **248** | *i*P | | **Pn** | **19 40 31.3** | **+1.7** |
| | baz=239 | | | | | | | |
| WTP | | | | *e*S | | **Sn** | **19 40 54.8** | **+1.3** |
| | baz=239 | | | | | | | |
| **JTJ** | **Tarama** | **2.01** | **71** | P | | **Pb** | **19 40 31.8** | **-1.8** |
| **CHN2** | **Minshiung** | **2.02** | **257** | *e*P | | **Pb** | **19 40 32.7** | **-1.0** |
| | baz=258 | | | | | | | |
| CHN2 | | | | *e*S | | **Sb** | **19 40 57.8** | **-0.6** |
| | baz=258 | | | | | | | |
| **ECL** | **Taimali** | **2.07** | **228** | *i*P | | **Pn** | **19 40 30.1** | **-0.6** |
| | baz=240 | | | | | | | |
| **CHY** | **Chiayi** | **2.07** | **257** | *e*P | | **Pn** | **19 40 32.8** | **+2.0** |
| | baz=258 | | | | | | | |
| CHY | | | | *e*S | | **Sn** | **19 40 57.6** | **+2.0** |
| | baz=258 | | | | | | | |
| **SGST** | **Jiashian** | **2.08** | **245** | P | | **Pn** | **19 40 32.7** | **+1.8** |
| | baz=245 | | | | | | | |
| SGST | | | | *e*S | | **Sn** | **19 40 58.2** | **+2.4** |
| | baz=245 | | | | | | | |
| **CHN1** | **Nanshi** | **2.08** | **248** | *i*P | | **Pn** | **19 40 33.1** | **+2.2** |
| | baz=249 | | | | | | | |
| CHN1 | | | | *e*S | | **Sn** | **19 40 58.9** | **+3.0** |
| | baz=249 | | | | | | | |
| **TWK** | **Hsinying** | **2.08** | **250** | P | | **Pn** | **19 40 33.1** | **+2.1** |
| | baz=251 | | | | | | | |
| TWK | | | | *e*S | | **Sn** | **19 40 58.5** | **+2.4** |
| | baz=251 | | | | | | | |
| **WTCT** | **Ta-ch'eng** | **2.14** | **267** | *e*P | | **Pn** | **19 40 34.0** | **+2.2** |
| | baz=268 | | | | | | | |
| WTCT | | | | *e*S | | **Sb** | **19 41 00.7** | **-1.4** |
| | baz=268 | | | | | | | |
| **LAY** | **Lan-yu** | **2.18** | **207** | *e*P | | **Pn** | **19 40 31.0** | **-1.3** |
| | baz=206 | | | | | | | |
| LAY | | | | *e*S | | **Sn** | **19 40 54.9** | **-3.4** |
| | baz=206 | | | | | | | |
| **SSD** | **Sandimen** | **2.21** | **236** | *e*P | | **Pn** | **19 40 33.0** | **+0.4** |
| | baz=228 | | | | | | | |
| **WSF** | **Szhu** | **2.22** | **261** | *e*P | | **Pn** | **19 40 35.3** | **+2.5** |
| | baz=262 | | | | | | | |
| WSF | | | | S | | **Sn** | **19 41 02.3** | **+2.9** |
| | baz=262 | | | | | | | |
| **CHN3** | **Shinhua** | **2.26** | **247** | *e*P | | **Pb** | **19 40 36.3** | **-1.6** |
| | baz=247 | | | | | | | |
| CHN3 | | | | *e*S | | **Sb** | **19 41 04.5** | **-1.0** |
| | baz=247 | | | | | | | |
| **TAW** | **Tawu** | **2.27** | **225** | *e*P | | **Pn** | **19 40 33.2** | **-0.3** |
| | baz=235 | | | | | | | |
| **EAST** | **Anshuo** | **2.28** | **226** | P | | **Pn** | **19 40 33.5** | **-0.2** |
| | baz=226 | | | | | | | |
| **CHN8** | **Yiju** | **2.30** | **254** | *e*P | | **Pn** | **19 40 33.9** | **0.0** |
| | baz=255 | | | | | | | |
| CHN8 | | | | *e*S | | **Sn** | **19 41 03.5** | **+2.2** |
| | baz=255 | | | | | | | |
| **SGLT** | **Jiouru** | **2.33** | **238** | *e*P | | **Pb** | **19 40 37.4** | **-1.6** |
| | baz=234 | | | | | | | |
| SGLT | | | | *e*S | | **Sb** | **19 41 06.9** | **-0.5** |
| | baz=234 | | | | | | | |
| **TWM1** | **Shoushan** | **2.33** | **241** | P | | **Pb** | **19 40 37.6** | **-1.5** |
| | baz=241 | | | | | | | |
| TWM1 | | | | *e*S | | **Sb** | **19 41 06.8** | **-0.7** |
| | baz=241 | | | | | | | |
| **SCLT** | **Jiali** | **2.37** | **250** | *e*P | | **Pn** | **19 40 37.8** | **+3.0** |
| | baz=251 | | | | | | | |
| SCLT | | | | *e*S | | **Sn** | **19 41 06.3** | **+3.3** |
| | baz=251 | | | | | | | |
| **TAI1** | **Yung-k'ang** | **2.39** | **247** | *e*P | | **Pn** | **19 40 37.9** | **+2.7** |
| | baz=248 | | | | | | | |
| TAI1 | | | | *e*S | | **Sn** | **19 41 05.7** | **+2.2** |
| | baz=248 | | | | | | | |
| **SCZT** | **Fangliau** | **2.44** | **229** | *e*P | | **Pn** | **19 40 37.0** | **+1.1** |
| | baz=222 | | | | | | | |
| **JIRB** | **Irabujima** | **2.47** | **70** | P | | **Pn** | **19 40 38.4** | **+2.1** |
| JIRB | | | | *e*S | | **Sn** | **19 41 07.6** | **+2.0** |
| **KAU** | **Kaohsiung** | **2.55** | **237** | *e*P | | **Pb** | **19 40 41.1** | **-1.9** |
| | baz=251 | | | | | | | |
| **JIKM** | **Ikemajima** | **2.57** | **68** | P | | **Pn** | **19 40 40.2** | **+2.6** |
| **JMJ** | **Miyako jima 2** | **2.57** | **71** | *e*P | | **Pb** | **19 40 41.0** | **-2.2** |
| | baz=70 | | | | | | | |
| **JMJ** | **Miyako jima 2** | **2.57** | **71** | P | | **Pn** | **19 40 40.4** | **+2.8** |
| JMJ | | | | *e*S | | **Sb** | **19 41 12.8** | **-1.6** |
| **TSEB** | **Hengchuen, Pin** | **2.62** | **218** | *e*P | | **Pn** | **19 40 40.0** | **+1.7** |
| | baz=218 | | | | | | | |
| **HEN** | **Hengchun** | **2.63** | **222** | P | | **Pn** | **19 40 39.2** | **+0.8** |
| | baz=222 | | | | | | | |
| HEN | | | | *e*S | | **Sn** | **19 41 09.1** | **-0.3** |
| | baz=222 | | | | | | | |
| **TWK1** | **Hengchun** | **2.64** | **220** | *e*P | | **Pn** | **19 40 39.0** | **+0.5** |
| | baz=219 | | | | | | | |
| TWK1 | | | | S | | **Sn** | **19 41 09.5** | **-0.1** |
| | baz=219 | | | | | | | |
| **TWP** | **Hsiaoliuchiu** | **2.64** | **232** | *e*P | | **Pn** | **19 40 41.8** | **+3.2** |
| | baz=247 | | | | | | | |
| **JOGS** | **Gusukube** | **2.65** | **73** | P | | **Pb** | **19 40 42.1** | **-2.5** |
| JOGS | | | | *e*S | | **Sb** | **19 41 13.6** | **-3.2** |
| **WDGT** | **Dungji** | **2.81** | **256** | *e*P | | **Pn** | **19 40 41.8** | **+0.9** |
| | baz=256 | | | | | | | |
| WDGT | | | | *e*S | | **Sn** | **19 41 13.4** | **-0.5** |
| | baz=256 | | | | | | | |
| **PNG** | **Penghu** | **2.84** | **262** | *e*P | | **Pn** | **19 40 42.6** | **+1.3** |
| | baz=262 | | | | | | | |
| PNG | | | | *e*S | | **Sn** | **19 41 14.7** | **0.0** |
| | baz=262 | | | | | | | |
| **QZH** | **Quanzhou** | **3.79** | **285** | Pn | | **Pn** | **19 40 54.6** | **+0.2** |
| QZH | | | | Sn | | **Sn** | **19 41 35.8** | **-2.3** |
| QZH | | | | LR | | LR | | |
| | comp=N,6μm,6.1s | | | | | | | |
| QZH | | | | LR | | LR | | |
| | comp=E,5μm,8.6s | | | | | | | |
| QZH | | | | LR | | LR | | |
| | comp=Z,6μm,13.8s | | | | | | | |
| **KNM** | **Kinmen** | **3.85** | **277** | *e*P | | **Pn** | **19 40 57.0** | **+1.9** |
| | baz=277 | | | | | | | |
| **JKE** | **Kume jima 2** | **4.43** | **58** | P | | **Pn** | **19 41 04.9** | **+1.6** |
| **JNTH** | **Nagotoyohara** | **5.50** | **62** | P | | **Pn** | **19 41 18.7** | **+0.8** |
| **JOW** | **Kunigami** | **5.84** | **60** | *e*P | | **Pn** | **19 41 23.3** | **+0.7** |
| | baz=62 | | | | | | | |
| **JOW** | **Kunigami** | **5.84** | **60** | P | | **Pn** | **19 41 23.1** | **+0.4** |
| **JOKE** | **Okinoerabujima** | **6.33** | **57** | P | | **Pn** | **19 41 29.1** | **-0.3** |
| **JTK** | **Tokunoshima** | **6.84** | **55** | P | | **Pn** | **19 41 36.2** | **-0.1** |
| **SSE** | **Sheshan** | **7.19** | **350** | Pn | | **Pn** | **19 41 42.0** | **+0.9** |
| SSE | | | | Sn | | **Sn** | **19 43 02.9** | **+1.0** |
| SSE | | | | LR | | LR | | |
| | comp=N,3μm,14.0s | | | | | | | |
| SSE | | | | LR | | LR | | |
| | comp=E,520nm,14.0s | | | | | | | |
| SSE | | | | LR | | LR | | |
| | comp=Z,4μm,13.3s | | | | | | | |
| **JAMN** | **Amaminishikomi** | **7.25** | **53** | P | | **Pn** | **19 41 41.5** | **-0.5** |
| **JAM** | **Amami Oshima** | **7.66** | **53** | P | | **Pn** | **19 41 47.0** | **-0.6** |
| **NJ2** | **Nanjing** | **8.69** | **338** | *e*P | | **Pn** | **19 42 02.6** | **+0.9** |
| NJ2 | | | | S | | **Sn** | **19 43 38.4** | **-0.4** |
| NJ2 | | | | pmax | | pmax | | |
| | comp=Z,42nm,0.5s | | | | | | | |
| NJ2 | | | | pmax | | pmax | | |
| | comp=Z,320nm,6.0s | | | | | | | |
| NJ2 | | | | smax | | smax | | |
| | comp=N,190nm,1.0s | | | | | | | |
| NJ2 | | | | smax | | smax | | |
| | comp=E,160nm,1.2s | | | | | | | |
| NJ2 | | | | LR | | LR | | |
| | comp=N,5μm,13.6s | | | | | | | |
| NJ2 | | | | LR | | LR | | |
| | comp=E,2μm,13.6s | | | | | | | |
| NJ2 | | | | LR | | LR | | |
| | comp=Z,5μm,14.1s | | | | | | | |
| **WHN** | **Wuhan** | **9.83** | **313** | *e*P | | **Pn** | **19 42 20.8** | **+3.4** |
| WHN | | | | S | | **Sn** | **19 44 13.3** | **+6.5** |
| WHN | | | | LR | | LR | | |
| | comp=N,5μm,6.8s | | | | | | | |
| WHN | | | | LR | | LR | | |
| | comp=E,2μm,6.3s | | | | | | | |
| WHN | | | | LR | | LR | | |
| | comp=Z,7μm,16.3s | | | | | | | |
| **TGY** | **Tagaytay City** | **9.96** | **189** | LR | | LR | 19 46 20.8 | |
| | comp=Z,1μm,20.5s,baz=310,slow=38 | | | | | | | |
| **JNU** | **Nakatsue** | **11.63** | **37** | Pn | | **Pn** | **19 42 44.8** | **+2.7** |
| | 0.5nm,0.3s,baz=0.7,slow=5.3,SNR=4.9 | | | | | | | |
| JNU | | | | LR | | LR | 19 48 07.8 | |
| | comp=Z,9.2nm,18.1s,baz=211,slow=43 | | | | | | | |
| **QIZ** | **Qiongzhong** | **12.87** | **250** | P | | **Pn** | **19 42 58.3** | **-0.8** |
| QIZ | | | | S | | **Sn** | **19 45 23.8** | **+2.3** |
| QIZ | | | | LR | | LR | | |
| | comp=N,1μm,18.9s | | | | | | | |
| QIZ | | | | LR | | LR | | |
| | comp=E,920nm,17.8s | | | | | | | |
| QIZ | | | | LR | | LR | | |
| | comp=Z,1μm,16.1s | | | | | | | |
| **KS15** | **Wonju Array Si** | **14.15** | **17** | *e*Pn | | **P** | **19 43 21.6** | **-2.0** |
| **KSAR** | **Wonju Array Be** | **14.15** | **17** | P | | **P** | **19 43 21.1** | **-2.5** |
| **KSAR** | **Wonju Array Be** | **14.15** | **17** | Pn | | **P** | **19 43 21.1** | **-2.5** |
| **KSRS** | **Korea Array** | **14.17** | **17** | Pn | | **P** | **19 43 21.1** | **-2.7** |
| | 6.6nm,0.3s,baz=196,slow=11,SNR=77 | | | | | | | |
| **KS01** | **Wonju Array Si** | **14.18** | **17** | *e*Pn | | **P** | **19 43 21.8** | **-2.2** |
| **GYA** | **Guiyang** | **14.65** | **283** | P | | **P** | **19 43 31.8** | **+2.4** |
| GYA | | | | PP | | **PnPn** | **19 43 36.4** | **+5.0** |
| GYA | | | | S | | **Sn** | **19 46 05.8** | **+0.9** |
| GYA | | | | SS | | **SnSn** | **19 46 15.6** | **-1.9** |
| GYA | | | | pmax | | pmax | | |
| | comp=Z,20nm,0.8s | | | | | | | |
| GYA | | | | pmax | | pmax | | |
| | comp=Z,120nm,4.8s | | | | | | | |
| GYA | | | | LR | | LR | | |
| | comp=N,940nm,10.8s | | | | | | | |
| GYA | | | | LR | | LR | | |
| | comp=E,2μm,16.1s | | | | | | | |
| GYA | | | | LR | | LR | | |
| | comp=Z,2μm,13.9s | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CD2 | | | | | LR | LR | | | |
| | comp=Z,2µm,15.2s | | | | | | | | |
| **KMI** | **Kunming** | **18.12** | **278** | | P | **P** | **19 44 09.5** | **+1.5** | |
| KMI | | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,0.5s | | | | | | | | |
| KMI | | | | | LR | LR | | | |
| | comp=Z,650nm,13.6s | | | | | | | | |
| KMI | | | | | LR | LR | | | |
| | comp=Z,2µm,14.7s | | | | | | | | |
| KMI | | | | | LR | LR | | | |
| | comp=Z,2µm,13.6s | | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **18.35** | **43** | | P | **Pn** | **19 44 10.1** | **-0.2** | |
| | comp=Z,0.3nm,0.3s,baz=232,slow=9.4,SNR=4.9 | | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **19.20** | **334** | | *e*P | **Pn** | **19 44 21.5** | **+0.8** | |
| HHC | | | | | S | **Sn** | **19 47 49.8** | **-5.3** | |
| HHC | | | | | pmax | pmax | | | |
| | comp=Z,24nm,1.1s | | | | | | | | |
| HHC | | | | | pmax | pmax | | | |
| | comp=Z,150nm,7.5s | | | | | | | | |
| HHC | | | | | LR | LR | | | |
| | comp=Z,2µm,14.9s | | | | | | | | |
| HHC | | | | | LR | LR | | | |
| | comp=Z,1µm,15.3s | | | | | | | | |
| HHC | | | | | LR | LR | | | |
| | comp=Z,3µm,14.9s | | | | | | | | |
| **LZH** | **Lanzhou** | **20.20** | **311** | | *e*P | Pn | 19 44 32.4 | -0.2 | |
| LZH | | | | | pP | pP | 19 44 38.5 | +0.5 | |
| LZH | | | | | sP | sP | 19 44 40.9 | -0.6 | |
| LZH | | | | | *e*S | **S** | **19 48 13.3** | **-2.8** | |
| LZH | | | | | pmax | pmax | | | |
| | comp=Z,43nm,1.3s | | | | | | | | |
| LZH | | | | | pmax | pmax | | | |
| | comp=Z,210nm,5.1s | | | | | | | | |
| LZH | | | | | LR | LR | | | |
| | comp=Z,610nm,10.9s | | | | | | | | |
| LZH | | | | | LR | LR | | | |
| | comp=Z,1µm,11.5s | | | | | | | | |
| LZH | | | | | LR | LR | | | |
| | comp=Z,2µm,14.4s | | | | | | | | |
| **MDJ** | **Mudanjiang** | **21.35** | **14** | | P | **P** | **19 44 43.5** | **+0.7** | |
| MDJ | | | | | pmax | pmax | | | |
| | comp=Z,270nm,4.6s | | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **21.57** | **19** | | P | **P** | **19 44 42.5** | **-2.7** | |
| | comp=Z,6.6nm,0.6s,baz=207,slow=11,SNR=12 | | | | | | | | |
| **CHTO** | **Chiang Mai** | **22.62** | **261** | | *e*P | **P** | **19 44 58.9** | **+2.2** | |
| CHTO | | | | | pmax | pmax | | | |
| | comp=Z,12nm,1.1s | | | | | | | | |
| **CHTO** | **Chiang Mai** | **22.62** | **261** | | *e*P | **P** | **19 44 58.9** | **+2.2** | |
| | comp=Z,12nm,1.1s | | | | | | | | |
| **CM01** | **Chiang Mai Arr** | **22.73** | **260** | | *e*P | **P** | **19 44 59.4** | **+1.5** | |
| **CM31** | **Chiang Mai Arr** | **22.73** | **261** | | *e*P | **P** | **19 44 59.5** | **+1.7** | |
| **CMAR** | **Chiang Mai Arr** | **22.73** | **261** | | P | **P** | **19 44 59.5** | **+1.7** | |
| | comp=Z,1.0nm,0.7s,baz=64,slow=8.1,SNR=11 | | | | | | | | |
| CMAR | | | | | PcP | **PcP** | **19 48 50.6** | **+1.1** | |
| | comp=Z,0.5nm,0.6s,baz=39,slow=0.8,SNR=4.8 | | | | | | | | |
| CMAR | | | | | LR | LR | 19 54 56.2 | | |
| | comp=Z,330nm,18.1s,baz=74,slow=39 | | | | | | | | |
| **GUMO** | **Guam** | **23.43** | **112** | | LR | LR | 19 52 19.2 | | |
| | comp=Z,406nm,21.3s,baz=292,slow=32 | | | | | | | | |
| **GTA** | **Gaotai** | **24.66** | **314** | | *e*P | **P** | **19 45 16.3** | **-0.1** | |
| GTA | | | | | pP | pP | 19 45 23.6 | -0.8 | |
| GTA | | | | | sP | sP | 19 45 27.3 | -0.5 | |
| GTA | | | | | S | **S** | **19 49 38.6** | **+2.2** | |
| GTA | | | | | sS | sS | 19 49 49.3 | -0.2 | |
| GTA | | | | | pmax | pmax | | | |
| | comp=Z,210nm,7.1s | | | | | | | | |
| GTA | | | | | LR | LR | | | |
| | comp=Z,490nm,12.8s | | | | | | | | |
| GTA | | | | | LR | LR | | | |
| | comp=Z,950nm,15.2s | | | | | | | | |
| GTA | | | | | LR | LR | | | |
| | comp=Z,1µm,14.3s | | | | | | | | |
| **ASAJ** | **Asahikawa** | **25.89** | **34** | | P | **P** | **19 45 25.2** | **-2.2** | |
| | comp=Z,9.0nm,0.6s,baz=227,slow=6.9,SNR=6.4 | | | | | | | | |
| **KLR** | **Kul'dur** | **26.20** | **14** | | P | **P** | **19 45 29.3** | **-0.7** | |
| | comp=Z,0.3nm,0.6s,baz=224,slow=7.3,SNR=12 | | | | | | | | |
| KLR | | | | | PcP | **PcP** | **19 48 57.1** | **+0.7** | |
| | comp=Z,0.2nm,0.6s,baz=157,slow=3.9,SNR=9.6 | | | | | | | | |
| **KLR** | **Kul'dur** | **26.20** | **14** | *ce* | P | **P** | **19 45 27.9** | **-2.1** | |
| **ULN** | **Ulaanbaatar** | **26.85** | **336** | *ce* | P | **P** | **19 45 35.1** | **-1.1** | |
| ULN | | | | | pmax | pmax | | | |
| | comp=Z,11nm,1.7s | | | | | | | | |
| **ULN** | **Ulaanbaatar** | **26.85** | **336** | | *e*P | **P** | **19 45 35.3** | **-0.8** | |
| | comp=Z,8.0nm,1.1s | | | | | | | | |
| **SONA0** | **Songino Array** | **27.07** | **336** | | *e*P | **P** | **19 45 37.5** | **-0.6** | |
| SONA0 | | | | | *e*PcP | **PcP** | **19 48 58.0** | **-0.8** | |
| **SONM** | **Songino Array** | **27.07** | **336** | | P | **P** | **19 45 37.5** | **-0.6** | |
| | comp=Z,3.4nm,0.5s,baz=154,slow=11,SNR=21 | | | | | | | | |
| SONM | | | | | PcP | **PcP** | **19 48 58.0** | **-0.8** | |
| | comp=Z,0.8nm,0.5s,baz=172,slow=5.9,SNR=5.1 | | | | | | | | |
| SONM | | | | | LR | LR | 19 57 32.7 | | |
| | comp=Z,1µm,20.2s,baz=164,slow=39 | | | | | | | | |
| **SONA1** | **Songino Array** | **27.08** | **336** | | *e*P | **P** | **19 45 37.4** | **-0.8** | |
| **BRDH** | **Bariadhala** | **28.45** | **274** | | LR | LR | 19 58 31.8 | | |
| | comp=Z,336nm,18.2s,baz=115,slow=39 | | | | | | | | |
| **LSA** | **Lhasa** | **28.59** | **288** | | *e*P | **P** | **19 45 53.5** | **+1.2** | |
| LSA | | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,0.8s | | | | | | | | |
| **LSA** | **Lhasa** | **28.59** | **288** | | *e*P | **P** | **19 45 53.5** | **+1.2** | |
| | comp=Z,4.1nm,0.8s | | | | | | | | |
| **PSI** | **Prapat** | **31.11** | **231** | | LR | LR | 19 59 21.1 | | |
| | comp=Z,368nm,18.2s,baz=55,slow=37 | | | | | | | | |
| **TAPN** | **Taplejung** | **31.58** | **284** | | *e*P | **P** | **19 46 20.2** | **+1.6** | |
| | comp=Z,12nm,0.5s | | | | | | | | |
| **ODAN** | **Odare** | **31.89** | **283** | | *e*P | **P** | **19 46 22.5** | **+1.3** | |
| | comp=Z,18nm,0.8s | | | | | | | | |
| **RAMN** | **Ramite** | **32.59** | **283** | | *e*P | **P** | **19 46 28.9** | **+1.5** | |
| | comp=Z,14nm,0.5s | | | | | | | | |
| **JIRN** | **Jiri** | **32.92** | **284** | | *e*P | **P** | **19 46 31.6** | **+1.2** | |
| **GUN** | **Gumba** | **33.19** | **285** | | *e*P | **P** | **19 46 33.9** | **+1.2** | |
| **PKI** | **Pulchoki** | **33.62** | **284** | | *e*P | **P** | **19 46 37.1** | **+0.6** | |
| **PKIN** | **Phulchoki** | **33.63** | **284** | | *e*P | **P** | **19 46 37.0** | **+0.5** | |
| | comp=Z,3.6nm,0.4s | | | | | | | | |
| **KKN** | **Kakani** | **33.72** | **285** | | *e*P | **P** | **19 46 38.0** | **+0.8** | |
| | comp=Z,8.6nm,0.5s | | | | | | | | |
| **DMN** | **Daman** | **33.88** | **284** | | *e*P | **P** | **19 46 39.5** | **+0.8** | |
| **WMQ** | **Urumqi** | **34.74** | **313** | | P | **P** | **19 46 46.4** | **+0.7** | |
| WMQ | | | | | pP | pP | 19 46 53.5 | -0.3 | |
| WMQ | | | | | sP | sP | 19 46 57.5 | +0.4 | |
| WMQ | | | | | S | **S** | **19 52 15.3** | **+1.0** | |
| WMQ | | | | | ScS | **ScS** | **19 57 05.8** | **0.0** | |
| WMQ | | | | | pmax | pmax | | | |
| | comp=Z,21nm,1.1s | | | | | | | | |
| WMQ | | | | | pmax | pmax | | | |
| | comp=Z,260nm,5.1s | | | | | | | | |
| **DANN** | **Dangsing** | **35.04** | **286** | | *e*P | **P** | **19 46 49.2** | **+0.4** | |
| **KOLN** | **Koldanda** | **35.21** | **285** | | *e*P | **P** | **19 46 51.1** | **+1.0** | |
| | comp=Z,8.1nm,0.7s | | | | | | | | |
| **PYUN** | **Piuthan** | **35.73** | **285** | | *e*P | **P** | **19 46 55.5** | **+0.9** | |
| | comp=Z,12nm,0.5s | | | | | | | | |
| **YAK** | **Yakutsk** | **38.33** | **5** | | P | **P** | **19 47 13.2** | **-2.7** | |
| | comp=Z,10nm,0.6s,baz=234,slow=0.4,SNR=11 | | | | | | | | |
| **YAK** | **Yakutsk** | **38.33** | **5** | | *e*P | **P** | **19 47 13.0** | **-2.9** | |
| YAK | | | | | *e**PP | **pP** | **19 47 22.0** | **-2.1** | |
| YAK | | | | | *e* | | 19 48 41.3 | | |
| YAK | | | | | *e* | | 19 49 28.4 | | |
| YAK | | | | | *e*S | **S** | **19 53 04.5** | **-3.9** | |
| YAK | | | | | *e**SS | **sS** | **19 53 21.5** | **-0.4** | |
| YAK | | | | | *e*SS | **SnSn** | **19 55 45.0** | **-10** | |
| YAK | | | | | *e*SSS | SSS | 19 56 17.3 | | |
| YAK | | | | | *e* | | 19 57 16.7 | | |
| YAK | | | | | pmax | pmax | | | |
| | comp=Z,5.0nm,0.7s | | | | | | | | |
| YAK | | | | | pmax | pmax | | | |
| | comp=N,2.0nm,0.9s | | | | | | | | |
| YAK | | | | | pmax | pmax | | | |
| | comp=Z,99nm,4.1s | | | | | | | | |
| YAK | | | | | pmax | pmax | | | |
| | comp=N,52nm,3.1s | | | | | | | | |
| YAK | | | | | pmax | pmax | | | |
| | comp=E,133nm,4.0s | | | | | | | | |
| YAK | | | | | smax | smax | | | |
| | comp=N,21nm,3.0s | | | | | | | | |
| YAK | | | | | smax | smax | | | |
| | comp=E,64nm,3.8s | | | | | | | | |
| **YAK** | **Yakutsk** | **38.33** | **5** | | *e*P | **P** | **19 47 13.6** | **-2.3** | |
| | comp=E,14nm,0.7s | | | | | | | | |
| **PETK** | **Petropavlovsk-** | **39.30** | **33** | | P | **P** | **19 47 22.5** | **-1.7** | |
| | comp=E,1.2nm,0.6s,baz=205,slow=3.0,SNR=2.9 | | | | | | | | |
| **PEA1** | **Petropavlovsk-** | **39.30** | **33** | | *e*P | **P** | **19 47 22.5** | **-1.7** | |
| **MK01** | **Makanchi Array** | **39.38** | **315** | | *e*P | **P** | **19 47 24.8** | **-0.2** | |
| **MK31** | **Makanchi Array** | **39.39** | **316** | | *e*P | **P** | **19 47 25.0** | **-0.1** | |
| MK31 | | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,0.5s | | | | | | | | |
| **MK31** | **Makanchi Array** | **39.39** | **316** | | *e*P | **P** | **19 47 25.2** | **+0.1** | |
| **MK32** | **Makanchi Array** | **39.39** | **316** | | *e*P | **P** | **19 47 25.1** | **0.0** | |
| MK32 | | | | | *e*PcP | **PcP** | **19 49 32.1** | **-1.0** | |
| **MKAR** | **Makanchi Array** | **39.39** | **316** | | P | **P** | **19 47 25.1** | **0.0** | |
| | comp=Z,4.0nm,0.4s,baz=97,slow=9.5,SNR=124 | | | | | | | | |
| MKAR | | | | | PcP | **PcP** | **19 49 32.1** | **-1.0** | |
| | comp=Z,1.4nm,0.8s,baz=117,slow=2.2,SNR=3.8 | | | | | | | | |
| MKAR | | | | | LR | LR | 20 03 48.9 | | |
| | comp=Z,266nm,18.3s,baz=98,slow=36 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **39.39** | **316** | | *e*P | **P** | **19 47 25.2** | **0.0** | |
| | comp=Z,44nm,0.5s | | | | | | | | |
| MKAR | | | | | PcP | **PcP** | **19 49 32.1** | **-1.0** | |
| **MAKZ** | **Makanchi** | **39.60** | **315** | | *e*P | **P** | **19 47 27.0** | **+0.2** | |
| MAKZ | | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,0.5s | | | | | | | | |
| **MAKZ** | **Makanchi** | **39.60** | **315** | | *e*P | **P** | **19 47 27.0** | **+0.2** | |
| | comp=Z,7.4nm,0.5s | | | | | | | | |
| **PDGK** | **Podgornoye** | **40.22** | **309** | | P | **P** | **19 47 32.4** | **+0.2** | |
| PDGK | | | | | pmax | pmax | | | |
| | comp=Z,13nm,0.6s | | | | | | | | |
| **ZAA0** | **Zalesovo Array** | **41.12** | **327** | | *e*P | **P** | **19 47 37.9** | **-1.4** | |
| | comp=Z,6.4nm,0.6s | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.12** | **327** | | P | **P** | **19 47 37.9** | **-1.4** | |
| | comp=Z,6.4nm,0.5s,baz=116,slow=8.1,SNR=34 | | | | | | | | |
| ZALV | | | | | PcP | **PcP** | **19 49 37.9** | **-0.5** | |
| | comp=Z,2.4nm,0.5s,baz=119,slow=4.2,SNR=6.3 | | | | | | | | |
| ZALV | | | | | LR | LR | 20 05 51.3 | | |
| | comp=Z,554nm,21.9s,baz=68,slow=38 | | | | | | | | |
| **ZAA1** | **Zalesovo Array** | **41.12** | **327** | | *e*P | **P** | **19 47 37.9** | **-1.4** | |
| ZAA1 | | | | | *e*PcP | **PcP** | **19 49 37.9** | **-0.6** | |
| **FITZ** | **Fitzroy Crossi** | **41.94** | **176** | | P | **P** | **19 47 46.5** | **+0.2** | |
| | comp=Z,2.0nm,0.7s,baz=5.1,slow=6.2,SNR=12 | | | | | | | | |
| **KSH** | **Kashi** | **42.10** | **303** | | P | **P** | **19 47 52.0** | **+4.3** | |
| KSH | | | | | pP | pP | 19 47 57.9 | +1.9 | |
| KSH | | | | | PP | **PP** | **19 49 32.9** | **+7.5** | |
| KSH | | | | | PcP | **PcP** | **19 49 47.0** | **+4.9** | |
| KSH | | | | | S | **S** | **19 54 11.3** | **+5.5** | |
| KSH | | | | | SS | **SS** | **19 57 13.9** | **+0.2** | |
| KSH | | | | | ScS | **ScS** | **19 57 50.9** | **+2.3** | |
| KSH | | | | | pmax | pmax | | | |
| | comp=Z,12nm,0.6s | | | | | | | | |
| KSH | | | | | LR | LR | | | |
| | comp=Z,160nm,6.8s | | | | | | | | |
| KSH | | | | | LR | LR | | | |
| | comp=Z,160nm,7.6s | | | | | | | | |
| KSH | | | | | LR | LR | | | |
| | comp=Z,300nm,11.7s | | | | | | | | |
| **ULHL** | **Ulahol** | **42.32** | **307** | | P | **P** | **19 47 51.5** | **+1.9** | |
| | SNR=6.4 | | | | | | | | |
| **NVS** | **Novosibirsk** | **42.38** | **327** | | *e*P | **P** | **19 47 49.0** | **-0.6** | |
| **TKM2** | **Tokmak 2** | **42.92** | **308** | | P | **P** | **19 47 55.2** | **+0.8** | |
| TKM2 | | | | | pmax | pmax | | | |
| | comp=Z,15nm,1.0s | | | | | | | | |
| **TKM2** | **Tokmak 2** | **42.92** | **308** | | P | **P** | **19 47 56.0** | **+1.5** | |
| | SNR=19 | | | | | | | | |
| **KZA** | **Kyzart** | **43.02** | **307** | | P | **P** | **19 47 57.2** | **+1.7** | |
| | SNR=7.0 | | | | | | | | |
| **KURK** | **Kurchatov** | **43.08** | **320** | *ce* | P | **P** | **19 47 54.8** | **-0.5** | |
| KURK | | | | | pmax | pmax | | | |
| | comp=Z,32nm,0.6s | | | | | | | | |
| **KURK** | **Kurchatov** | **43.08** | **320** | *e* | PcP | **PcP** | **19 49 44.8** | **-0.1** | |
| **KURBB** | **Kurchatov Arra** | **43.10** | **320** | | P | **P** | **19 47 55.1** | **-0.4** | |
| | comp=Z,2.7nm,0.5s,baz=108,slow=7.9,SNR=15 | | | | | | | | |
| KURBB | | | | | PcP | **PcP** | **19 49 44.8** | **-0.2** | |
| | comp=Z,1.5nm,0.5s,baz=106,slow=3.5,SNR=3.9 | | | | | | | | |
| **KBK** | **Karagaybulak** | **43.34** | **307** | | P | **P** | **19 47 59.4** | **+1.6** | |
| | SNR=12 | | | | | | | | |
| **UCH** | **Uchtor** | **43.59** | **307** | | P | **P** | **19 48 01.9** | **+1.8** | |
| | SNR=18 | | | | | | | | |
| **FRU** | **Bishkek** | **43.61** | **308** | | *e*P | **P** | **19 47 59.0** | **-0.8** | |
| **AAK** | **Ala-Archa** | **43.67** | **307** | | P | **P** | **19 48 01.2** | **+0.8** | |
| | comp=Z,2.4nm,0.5s,baz=156,slow=4.2,SNR=13 | | | | | | | | |
| **AAK** | **Ala-Archa** | **43.67** | **307** | | P | **P** | **19 48 01.1** | **+0.7** | |
| AAK | | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,1.3s | | | | | | | | |
| **AAK** | **Ala-Archa** | **43.67** | **307** | | P | **P** | **19 48 01.7** | **+1.3** | |
| | SNR=5.5 | | | | | | | | |
| **SEY** | **Seymchan** | **43.72** | **19** | | PcP | **PcP** | **19 49 47.4** | **+0.6** | |
| | comp=Z,1.1nm,0.5s,baz=196,slow=7.4,SNR=8.4 | | | | | | | | |
| **SFK** | **Sufi-Kurgan** | **44.05** | **303** | | P | **P** | **19 48 05.1** | **+1.5** | |
| SFK | | | | | pmax | pmax | | | |
| | comp=Z,17nm,0.6s | | | | | | | | |
| **AML** | **Almayashu** | **44.17** | **306** | | P | **P** | **19 48 06.5** | **+1.7** | |
| | SNR=16 | | | | | | | | |
| **EKS2** | **Erkin-Say** | **44.19** | **307** | | P | **P** | **19 48 05.8** | **+1.2** | |
| | SNR=6.1 | | | | | | | | |
| **WRAB** | **Tennant Creek** | **45.13** | **164** | *ce* | P | **P** | **19 48 15.3** | **+3.3** | |
| WRAB | | | | | pmax | pmax | | | |
| | comp=Z,16nm,2.5s | | | | | | | | |
| **WRAB** | **Tennant Creek** | **45.13** | **164** | | *e*P | **P** | **19 48 13.4** | **+1.4** | |
| | comp=Z,20nm,1.4s | | | | | | | | |
| **WR1** | **Warramunga Arr** | **45.14** | **164** | | *e*P | **P** | **19 48 13.1** | **+0.9** | |
| | comp=Z,31nm,1.6s | | | | | | | | |
| **WRA** | **Warramunga Arr** | **45.14** | **164** | | P | **P** | **19 48 13.1** | **+0.9** | |
| | comp=Z,3.1nm,0.6s,baz=346,slow=8.7,SNR=44 | | | | | | | | |
| **WB2** | **Warramunga Arr** | **45.14** | **164** | | *e*P | **P** | **19 48 12.7** | **+0.6** | |
| **KKAR** | **Karatay Array** | **46.63** | **307** | | *e*P | **P** | **19 48 24.7** | **+0.9** | |
| KKAR | | | | | pmax | pmax | | | |
| | comp=Z,111nm,0.4s | | | | | | | | |
| **KKAR** | **Karatay Array** | **46.63** | **307** | | *e*P | **P** | **19 48 24.7** | **+0.9** | |
| | comp=Z,111nm,0.4s | | | | | | | | |
| **KBL** | **Kabul** | **47.43** | **296** | | *e*P | **P** | **19 48 31.6** | **+1.2** | |
| KBL | | | | | pmax | pmax | | | |
| | comp=Z,14nm,0.8s | | | | | | | | |
| **KBL** | **Kabul** | **47.43** | **296** | | *e*P | **P** | **19 48 31.6** | **+1.2** | |
| | comp=Z,14nm,0.8s | | | | | | | | |
| **TIXI** | **Tiksi** | **47.82** | **3** | | P | **P** | **19 48 30.9** | **-1.6** | |
| | comp=Z,3.1nm,0.6s,baz=185,slow=3.4,SNR=7.3 | | | | | | | | |
| **AS31** | **Alice Springs** | **48.62** | **166** | | *e*P | **P** | **19 48 41.2** | **+1.8** | |
| | comp=Z,2.3nm,0.6s | | | | | | | | |
| **ASAR** | **Alice Springs** | **48.62** | **166** | | P | **P** | **19 48 41.7** | **+2.4** | |
| | comp=Z,2.1nm,0.5s,baz=354,slow=14,SNR=42 | | | | | | | | |
| **AS01** | **Alice Springs** | **48.63** | **166** | | *e*P | **P** | **19 48 40.4** | **+1.0** | |
| **BVA0** | **Borovoye Array** | **48.66** | **321** | | *i* P | **P** | **19 48 38.6** | **-0.7** | |
| BVA0 | | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,0.6s | | | | | | | | |
| **BRVK** | **Borovoye** | **48.73** | **321** | *ce* | P | **P** | **19 48 39.1** | **-0.7** | |
| BRVK | | | | | pmax | pmax | | | |
| | comp=Z,9.0nm,0.8s | | | | | | | | |
| **BRVK** | **Borovoye** | **48.73** | **321** | | *e*P | **P** | **19 48 39.5** | **-0.3** | |
| | comp=Z,26nm,1.8s | | | | | | | | |
| **AB31** | **Akbulak array** | **54.51** | **314** | | P | **P** | **19 49 23.0** | **-0.1** | |
| AB31 | | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,0.5s | | | | | | | | |
| **ABKAR** | **Akbulak array** | **54.51** | **314** | | *e*P | **P** | **19 49 23.3** | **+0.2** | |
| | comp=Z,78nm,0.5s | | | | | | | | |
| **SVE** | **Sverdlovsk** | **54.98** | **324** | | *e*P | **P** | **19 49 25.6** | **-0.8** | |
| **GEYT** | **Alibeck** | **56.02** | **301** | | P | **P** | **19 49 36.1** | **+1.8** | |
| | comp=Z,12nm,0.6s,baz=71,slow=2.6,SNR=62 | | | | | | | | |
| GEYT | | | | | LR | LR | 20 17 56.5 | | |
| | comp=Z,240nm,19.1s,baz=45,slow=41 | | | | | | | | |
| **ARU** | **Arti** | **56.05** | **323** | *d* | *i*P | **P** | **19 49 34.5** | **+0.4** | |
| ARU | | | | | | | 19 50 30.1 | | |
| ARU | | | | | S | **S** | **19 57 20.7** | **-0.1** | |
| ARU | | | | | SS | **SS** | **20 01 09.5** | **+2.6** | |
| ARU | | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,0.6s | | | | | | | | |
| **ARU** | **Arti** | **56.05** | **323** | | *e*P | **P** | **19 49 33.1** | **-1.0** | |
| | comp=Z,6.5nm,0.5s | | | | | | | | |
| **STKA** | **Stephens Creek** | **58.44** | **161** | | P | **P** | **19 49 51.4** | **+0.1** | |
| | comp=Z,2.2nm,0.7s,baz=336,slow=5.8,SNR=7.8 | | | | | | | | |
| **STKA** | **Stephens Creek** | **58.44** | **161** | | *e*P | **P** | **19 49 52.9** | **+1.7** | |
| STKA | | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.8s | | | | | | | | |
| **STKA** | **Stephens Creek** | **58.44** | **161** | | *e*P | **P** | **19 49 52.9** | **+1.7** | |
| | comp=Z,1.4nm,0.8s | | | | | | | | |
| **DZM** | **Mont Dzumac** | **62.55** | **134** | | *e*LR | LR | 20 09 03.5 | | |
| | comp=Z,574nm,24.6s | | | | | | | | |
| **MAK** | **Makhachkala** | **63.45** | **308** | | *e*P | **P** | **19 50 22.9** | **-2.3** | |
| MAK | | | | | *e* | | 19 52 43.2 | | |
| MAK | | | | | *e*S | **S** | **19 58 51.2** | **-5.3** | |
| MAK | | | | | pmax | pmax | | | |
| | comp=Z,81nm,1.1s | | | | | | | | |
| MAK | | | | | MLR | MLR | | | |
| | comp=Z,135nm,15.0s | | | | | | | | |
| **KBZ** | **Khabaz** | **66.62** | **309** | | P | **P** | **19 50 45.5** | **-0.3** | |
| | comp=Z,1.9nm,0.7s,baz=105,slow=1.6,SNR=6.1 | | | | | | | | |
| KBZ | | | | | LR | LR | 20 23 29.9 | | |
| | comp=Z,178nm,18.9s,baz=66,slow=39 | | | | | | | | |
| **KIV** | **Kislovodsk** | **66.73** | **309** | | *e*P | **P** | **19 50 48.9** | **+2.2** | |
| KIV | | | | | *e*S | **S** | **19 59 42.7** | **+5.7** | |
| KIV | | | | | pmax | pmax | | | |
| | comp=Z,8.0nm,1.1s | | | | | | | | |
| KIV | | | | | MLR | MLR | | | |
| | comp=Z,184nm,17.0s | | | | | | | | |
| **KIV** | **Kislovodsk** | **66.73** | **309** | | *e*P | **P** | **19 50 47.4** | **+0.7** | |
| | comp=Z,30nm,1.6s | | | | | | | | |
| **RND** | **Reindeer** | **68.18** | **29** | | *e*P | **P** | **19 50 55.9** | **+0.4** | |
| RND | | | | | pmax | pmax | | | |
| | comp=Z,66nm,1.9s | | | | | | | | |
| **RND** | **Reindeer** | **68.18** | **29** | | *e*P | **P** | **19 50 55.9** | **+0.4** | |
| | comp=Z,66nm,1.9s | | | | | | | | |
| **ILAR** | **Eielson Array** | **68.78** | **27** | | P | **P** | **19 50 57.9** | **-1.2** | |
| | comp=Z,0.7nm,0.6s,baz=261,slow=5.2,SNR=18 | | | | | | | | |
| ILAR | | | | | LR | LR | 20 24 04.4 | | |
| | comp=Z,105nm,18.0s,baz=306,slow=39 | | | | | | | | |
| **ILB** | **Eielson Array** | **68.78** | **27** | | *e*P | **P** | **19 50 57.9** | **-1.2** | |
| **RAYN** | **Ar Rayn** | **69.66** | **287** | | *e*P | **P** | **19 51 05.8** | **+0.4** | |
| | comp=Z,4.7nm,1.1s | | | | | | | | |
| **ARA0** | **ARCESS Array S** | **70.21** | **338** | | *e*P | **P** | **19 51 06.7** | **-1.1** | |
| **ARCES** | **ARCESS Array B** | **70.21** | **338** | | P | **P** | **19 51 06.7** | **-1.1** | |
| | comp=Z,2.1nm,0.8s,baz=79,slow=7.4,SNR=7.8 | | | | | | | | |
| ARCES | | | | | LR | LR | 20 26 58.2 | | |
| | comp=Z,180nm,18.2s,baz=79,slow=40 | | | | | | | | |
| **FIA0** | **FINESS Array S** | **72.27** | **330** | | *e*P | **P** | **19 51 19.7** | **-0.7** | |
| **FIA0** | **FINESS Array S** | **72.27** | **330** | | *e*P | **P** | **19 51 19.7** | **-0.7** | |
| **FINES** | **FINESS Array B** | **72.27** | **330** | | P | **P** | **19 51 19.7** | **-0.7** | |
| | comp=Z,3.1nm,0.4s,baz=55,slow=5.7,SNR=44 | | | | | | | | |
| FINES | | | | | LR | LR | 20 26 32.3 | | |
| | comp=Z,707nm,18.6s,baz=76,slow=39 | | | | | | | | |
| **AKASG** | **Malin Array Be** | **73.88** | **319** | | P | **P** | **19 51 29.1** | **-1.0** | |
| | comp=Z,2.6nm,0.6s,baz=60,slow=6.9,SNR=11 | | | | | | | | |
| AKASG | | | | | LR | LR | 20 27 16.9 | | |
| | comp=Z,147nm,18.6s,baz=90,slow=38 | | | | | | | | |
| **AKBB** | **Malin Array Si** | **73.88** | **319** | | *e*P | **P** | **19 51 29.2** | **-1.0** | |
| AKBB | | | | | pmax | pmax | | | |
| | comp=Z,18nm,1.7s | | | | | | | | |
| **AKBB** | **Malin Array Si** | **73.88** | **319** | | *e*P | **P** | **19 51 29.1** | **-1.0** | |
| | comp=Z,18nm,1.7s | | | | | | | | |
| **BR101** | **Keskin Array S** | **74.34** | **307** | | *e*P | **P** | **19 51 33.8** | **+0.5** | |
| **BR131** | **Keskin Array S** | **74.34** | **307** | | *e*P | **P** | **19 51 34.0** | **+0.8** | |
| **BRTR** | **Keskin Array B** | **74.34** | **307** | | P | **P** | **19 51 33.8** | **+0.5** | |
| | comp=Z,3.3nm,0.5s,baz=120,slow=3.0,SNR=25 | | | | | | | | |
| BRTR | | | | | LR | LR | 20 26 55.9 | | |
| | comp=Z,74nm,18.9s,baz=78,slow=38 | | | | | | | | |
| **BR231** | **Keskin MP Arra** | **74.93** | **307** | | *e*P | **P** | **19 51 34.2** | **-2.5** | |
| **KWP** | **Kalwaria Pacla** | **78.18** | **319** | | *e*P | **P** | **19 51 55.0** | **+0.3** | |
| KWP | | | | | pmax | pmax | | | |
| | comp=Z,493nm,1.9s | | | | | | | | |
| **KWP** | **Kalwaria Pacla** | **78.18** | **319** | | *e*P | **P** | **19 51 55.0** | **+0.3** | |
| | comp=Z,493nm,1.9s | | | | | | | | |
| **NB2** | **NORSAR Subarra** | **79.00** | **333** | | P | **P** | **19 51 58.4** | **-0.7** | |
| | comp=Z,1.4nm,0.5s,baz=52,slow=6.2 | | | | | | | | |
| **NB200** | **NORSAR Array S** | **79.00** | **333** | | *e*P | **P** | **19 51 58.3** | **-0.7** | |
| **NOA** | **NORSAR Array B** | **79.00** | **333** | | P | **P** | **19 51 58.3** | **-0.7** | |
| | comp=Z,1.7nm,0.5s,baz=69,slow=6.7,SNR=10 | | | | | | | | |
| NOA | | | | | LR | LR | 20 30 27.8 | | |
| | comp=Z,346nm,20.4s,baz=70,slow=38 | | | | | | | | |
| **VYHS** | **Vyhne** | **80.97** | **319** | | *e*P | **P** | **19 52 11.1** | **+1.2** | |
| **VYHS** | **Vyhne** | **80.97** | **319** | | *e*P | **P** | **19 52 11.1** | **+1.2** | |
| **DPC** | **Dobruska-Polom** | **81.60** | **322** | | *e*P | **P** | **19 52 14.9** | **+1.6** | |
| **DPC** | **Dobruska-Polom** | **81.60** | **322** | | *e*P | **P** | **19 52 14.9** | **+1.6** | |
| **PVCC** | **Panska Ves** | **82.51** | **322** | | AMS | AMS | 20 33 50.0 | | |
| | comp=Z,400nm,15.0s | | | | | | | | |
| **YKW3** | **Yellowknife Ar** | **82.59** | **23** | | *e*P | **P** | **19 52 17.9** | **-0.2** | |
| | comp=Z,5.3nm,0.6s | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **82.63** | **23** | | P | **P** | **19 52 18.3** | **-0.1** | |
| | comp=Z,3.4nm,0.6s,baz=310,slow=5.1,SNR=88 | | | | | | | | |
| YKA | | | | | LR | LR | 20 31 18.0 | | |
| | comp=Z,8.3nm,21.2s,baz=0.0,slow=37 | | | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **82.68** | **322** | | AMS | AMS | 20 34 10.0 | | |
| | comp=Z,300nm,17.4s | | | | | | | | |
| **CLL** | **Collm** | **82.99** | **323** | | *i* P | **P** | **19 52 20.9** | **+0.5** | |
| CLL | | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,1.6s | | | | | | | | |
| CLL | | | | | MLR | MLR | | | |
| | comp=Z,500nm,17.8s | | | | | | | | |
| **CLL** | **Collm** | **82.99** | **323** | | *i* P | **P** | **19 52 20.9** | **+0.5** | |
| | comp=Z,10.0nm,1.6s | | | | | | | | |
| **KHC** | **Kasperske Hory** | **83.75** | **321** | | *e*P | **P** | **19 52 25.6** | **+1.1** | |
| **KHC** | **Kasperske Hory** | **83.75** | **321** | | *e*P | **P** | **19 52 25.6** | **+1.1** | |
| **GEC2** | **GERESS Array S** | **83.82** | **321** | | *e*P | **P** | **19 52 25.0** | **+0.1** | |
| GEC2 | | | | | pmax | pmax | | | |
| | comp=Z,18nm,1.9s | | | | | | | | |
| **GEC2** | **GERESS Array S** | **83.82** | **321** | | *e*P | **P** | **19 52 24.9** | **+0.1** | |
| | comp=Z,18nm,1.9s | | | | | | | | |
| **GERES** | **GERESS Array B** | **83.82** | **321** | | P | **P** | **19 52 24.9** | **+0.1** | |
| | comp=Z,1.7nm,0.6s,baz=56,slow=5.5,SNR=17 | | | | | | | | |
| GERES | | | | | LR | LR | 20 33 52.5 | | |
| | comp=Z,262nm,18.7s,baz=64,slow=39 | | | | | | | | |
| **GERES** | **GERESS

*az=144.0*
*IDC **22** 20:46:39.5±0.6,56.02S×27.79W,h121km±5km,mb4.1/9, mb1 4.2/10,mb1mx4.1/19,mbtmp4.5/10,Error ellipse: s-maj=20.1km s-min=14.1km az=62.0*
*NEIC **22** 20:46:40.9±1.3,56.06S×27.91W,h136km±11km,mb4.8/9, Error ellipse: s-maj=11.7km s-min=7.8km az=54.0*

**ISC 22 20:46:40.2±0.6,56.02S±0.09×27.9W±0.1,h130km±5km, h130km:pP-P,n65,σ1♀08/76,mb4.5/12,South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **HOPE** | **Hope Point** | **5.24** | **286** | *e*Pn | **Pn** | **20 47 56.3** | **-0.1** |
| **VNA1** | **Neumayer--Stat** | **16.96** | **157** | P | **Pn** | **20 50 29.9** | **+0.6** |
| **VNA3** | **Neumayer Olymp** | **17.14** | **160** | P | **Pn** | **20 50 31.5** | **0.0** |
| **VNA2** | **Neumayer--Watz** | **17.36** | **157** | P | **Pn** | **20 50 34.1** | **+0.1** |
| | baz=314,slow=14 | | | | | | |
| **SNAA** | **Sanae** | **18.92** | **156** | P | **P** | **20 50 50.9** | **+0.3** |
| **SNAA** | **Sanae** | **18.92** | **156** | P | **P** | **20 50 50.9** | **+0.3** |
| | 15nm,0.3s,baz=38,slow=19,SNR=425 | | | | | | |
| SNAA | | | | PcP | **PcP** | **20 55 11.2** | **+0.8** |
| | 0.4nm,0.3s,baz=251,slow=4.7,SNR=7.3 | | | | | | |
| **SNAA** | **Sanae** | **18.92** | **156** | *e*P | **P** | **20 50 50.8** | **+0.3** |
| | 33nm,0.4s | | | | | | |
| SNAA | | | | *e*PcP | **PcP** | **20 55 11.2** | **+0.8** |
| **USHA** | **Ushuaia** | **22.82** | **256** | P | **P** | **20 51 29.3** | **-2.3** |
| | 56nm,0.9s,baz=113,slow=6.1,SNR=3.3 | | | | | | |
| **QSPA** | **South Pole Qui** | **34.23** | **180** | *e*P | **P** | **20 53 14.5** | **+1.4** |
| | 7.8nm,0.6s | | | | | | |
| **CPUP** | **Villa Florida** | **36.51** | **312** | P | **P** | **20 53 32.6** | **-0.1** |
| | 3.2nm,0.6s,baz=147,slow=7.5,SNR=9.8 | | | | | | |
| **CPUP** | **Villa Florida** | **36.51** | **312** | *e*P | **P** | **20 53 32.8** | **0.0** |
| | 3.6nm,0.7s | | | | | | |
| **MAW** | **Mawson** | **40.40** | **144** | P | **P** | **20 54 04.5** | **-0.3** |
| | 3.4nm,0.6s,baz=225,slow=8.0,SNR=6.5 | | | | | | |
| **MAW** | **Mawson** | **40.40** | **144** | *e*P | **P** | **20 54 05.0** | **+0.2** |
| | 10nm,2.0s | | | | | | |
| **BOSA** | **Boshof** | **46.33** | **76** | P | **P** | **20 54 53.1** | **+0.1** |
| | 2.2nm,0.8s,baz=225,slow=11,SNR=3.0 | | | | | | |
| **PB01** | **IPOC Station P** | **46.57** | **301** | *e*P | **P** | **20 54 55.7** | **+0.8** |
| | 20nm,0.6s | | | | | | |
| **VNDA** | **Vanda** | **46.58** | **183** | P | **P** | **20 54 55.6** | **+1.5** |
| | 2.9nm,0.5s,baz=186,slow=7.6,SNR=16 | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **48.09** | **18** | T | T | 21 47 16.5 | |
| | baz=189 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **48.09** | **18** | T | T | 21 47 16.9 | |
| | baz=189 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **48.10** | **18** | T | T | 21 47 23.2 | |
| | baz=189 | | | | | | |
| **MNMC** | **Minye Minye** | **48.26** | **303** | *e*P | **P** | **20 55 09.2** | **+1.0** |
| | 24nm,0.5s | | | | | | |
| **LPAZ** | **La Paz** | **50.05** | **306** | P | **P** | **20 55 23.1** | **+0.9** |
| | 6.5nm,0.5s,baz=125,slow=5.1,SNR=26 | | | | | | |
| **LPAZ** | **La Paz** | **50.05** | **306** | *e*P | **P** | **20 55 23.2** | **+1.0** |
| | 7.3nm,0.6s | | | | | | |
| **DBIC** | **Dimbokro** | **65.30** | **25** | P | **P** | **20 57 08.7** | **+0.7** |
| | 1.5nm,0.6s,baz=184,slow=7.1,SNR=3.8 | | | | | | |
| **DBIC** | **Dimbokro** | **65.30** | **25** | *e*P | **P** | **20 57 08.7** | **+0.7** |
| | 26nm,1.6s | | | | | | |
| **TOA0** | **Torodi Ar. Sit** | **73.22** | **30** | *e*P | **P** | **20 57 57.5** | **+0.8** |
| TOA0 | | | | *e*pP | **pP** | **20 58 27.5** | **-1.4** |
| **TORD** | **Torodi Ar. Bea** | **73.22** | **30** | P | **P** | **20 57 57.5** | **+0.8** |
| | 3.7nm,0.4s,baz=200,slow=6.1,SNR=74 | | | | | | |
| TORD | | | | pP | **pP** | **20 58 28.5** | **-0.5** |
| | 1.4nm,0.5s,baz=200,slow=6.7,SNR=4.2 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **73.22** | **30** | *e*P | **P** | **20 57 57.5** | **+0.7** |
| TOA1 | | | | *e*pP | **pP** | **20 58 28.5** | **-0.5** |
| **STKA** | **Stephens Creek** | **91.99** | **171** | P | **P** | **20 59 33.5** | **-0.5** |
| | 0.5nm,0.3s,baz=159,slow=11,SNR=3.0 | | | | | | |
| **ASAR** | **Alice Springs** | **99.13** | **163** | P | **Pdif** | **21 00 06.2** | **-0.4** |
| | 1.4nm,0.8s,baz=183,slow=3.8,SNR=13 | | | | | | |
| ASAR | | | | PP | **PP** | **21 04 07.7** | **-1.9** |
| | 0.6nm,0.8s,baz=192,slow=6.5,SNR=4.4 | | | | | | |
| **AS31** | **Alice Springs** | **99.13** | **163** | *e*P | **Pdif** | **21 00 06.2** | **-0.4** |
| | 4.0nm,1.8s | | | | | | |
| **AS01** | **Alice Springs** | **99.14** | **163** | *e*P | **Pdif** | **21 00 05.8** | **-0.9** |
| **WR1** | **Warramunga Arr** | **102.85** | **163** | *e*Pdif | **Pdif** | **21 00 22.5** | **-0.7** |
| WR1 | | | | *e*PKKPbc | **PKKPbc** | **21 16 19.9** | **+2.0** |
| **WRA** | **Warramunga Arr** | **102.85** | **163** | P | **Pdif** | **21 00 22.5** | **-0.7** |
| | 0.3nm,0.4s,baz=197,slow=4.4,SNR=7.4 | | | | | | |
| WRA | | | | PKKPbc | **PKKPbc** | **21 16 19.9** | **+2.0** |
| | 0.3nm,0.3s,baz=359,slow=2.9,SNR=12 | | | | | | |
| **W13A** | **Hualapai Mount** | **116.22** | **294** | *e*PKPdf | **PKPdf** | **21 05 09.3** | **+1.7** |
| **WMUT** | **West Mountain** | **119.04** | **299** | *e*PKPdf | **PKPdf** | **21 05 13.5** | **+0.6** |
| **NB200** | **NORSAR Array S** | **120.72** | **21** | *e*PKPdf | **PKPdf** | **21 05 15.1** | **-0.1** |
| **NOA** | **NORSAR Array B** | **120.72** | **21** | PKP | **PKPdf** | **21 05 15.1** | **-0.1** |
| | 0.6nm,0.7s,baz=160,slow=3.1,SNR=4.5 | | | | | | |
| **NV01** | **Mina Array Sit** | **121.04** | **294** | *e*PKPdf | **PKPdf** | **21 05 17.0** | **+0.2** |
| **NVAR** | **Mina Array Bea** | **121.04** | **294** | PKP | **PKPdf** | **21 05 17.3** | **+0.5** |
| | 0.4nm,0.6s,baz=222,slow=2.3,SNR=2.9 | | | | | | |
| **MANU** | **Manus Island** | **122.00** | **174** | *e*PKPdf | **PKPdf** | **21 05 17.0** | **-2.2** |
| **FIA0** | **FINESS Array S** | **124.54** | **28** | *e*PKPdf | **PKPdf** | **21 05 22.1** | **-0.3** |
| **FINES** | **FINESS Array B** | **124.54** | **28** | PKP | **PKPdf** | **21 05 22.1** | **-0.3** |
| | 2.4nm,0.5s,baz=172,slow=1.4,SNR=30 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **125.43** | **111** | PKP | **PKPdf** | **21 05 25.1** | **-0.5** |
| | 0.6nm,0.7s,baz=231,slow=3.5,SNR=6.8 | | | | | | |
| **ARA0** | **ARCESS Array S** | **131.06** | **22** | *e*PKPdf | **PKPdf** | **21 05 34.6** | **-0.1** |
| ARA0 | | | | *ep*PKPdf | **pPKPdf** | **21 06 08.1** | **-1.5** |
| **ARCES** | **ARCESS Array B** | **131.06** | **22** | PKP | **PKPdf** | **21 05 34.6** | **-0.1** |
| | 1.6nm,0.5s,baz=217,slow=3.3,SNR=30 | | | | | | |
| ARCES | | | | pPKP | **pPKPdf** | **21 06 08.1** | **-1.5** |
| | 3.1nm,0.8s,baz=337,slow=20,SNR=2.3 | | | | | | |
| **BVAR** | **Borovoye Array** | **135.09** | **58** | PKP | **PKPdf** | **21 05 42.7** | **-0.1** |
| | 0.9nm,0.6s,baz=195,slow=2.4,SNR=6.9 | | | | | | |
| **YKA** | **Yellowknife Ar** | **135.90** | **318** | PKP | **PKPdf** | **21 05 42.5** | **-1.5** |
| | 1.6nm,0.6s,baz=127,slow=2.3,SNR=26 | | | | | | |
| YKA | | | | pPKP | **pPKPdf** | **21 06 16.6** | **-2.2** |
| | 0.3nm,0.7s,baz=136,slow=2.1,SNR=1.4 | | | | | | |
| **MK32** | **Makanchi Array** | **137.24** | **72** | *e*PKPdf | **PKPdf** | **21 05 45.4** | **-1.6** |
| MK32 | | | | *e*SKPbc | **SKPbc** | **21 09 05.4** | **-2.5** |
| **MKAR** | **Makanchi Array** | **137.24** | **72** | PKP | **PKPdf** | **21 05 45.4** | **-1.6** |
| | 0.3nm,0.7s,baz=212,slow=1.4,SNR=4.8 | | | | | | |
| MKAR | | | | SKPbc | **SKPbc** | **21 09 05.4** | **-2.5** |
| | 0.3nm,0.8s,baz=269,slow=1.5,SNR=4.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **142.70** | **64** | PKhKP | PKPpre | 21 05 52.8 | |
| | 0.6nm,0.3s,baz=229,slow=3.5,SNR=4.0 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **142.70** | **64** | *e*PKPpre | PKPpre | 21 05 52.8 | |
| **INK** | **Inuvik** | **145.54** | **321** | PKPbc | **PKPdf** | **21 06 01.5** | **+0.4** |
| | baz=213,slow=11 | | | | | | |
| **INK** | **Inuvik** | **145.54** | **321** | *e*PKPdf | **PKPbc** | **21 06 01.7** | **+0.1** |
| **RAGM** | **Ragged Mountai** | **147.57** | **304** | *e*PKPbc | **PKPbc** | **21 06 07.5** | **-0.2** |
| **DOT** | **Dot Lake** | **148.34** | **310** | *e*PKPbc | **PKPbc** | **21 06 10.4** | **+0.8** |
| **ILAR** | **Eielson Array** | **149.81** | **312** | PKPbc | **PKPbc** | **21 06 13.2** | **0.0** |
| | 11nm,0.7s,baz=130,slow=2.9,SNR=123 | | | | | | |
| ILAR | | | | pPKPbc | **pPKPdf** | **21 06 44.1** | **+0.8** |
| | 1.8nm,0.8s,baz=132,slow=1.5,SNR=3.0 | | | | | | |
| **ILB** | **Eielson Array** | **149.81** | **312** | *e*PKPbc | **PKPbc** | **21 06 13.2** | **0.0** |
| **CCB** | **Clear Creek Bu** | **150.17** | **311** | *e*PKPbc | **PKPbc** | **21 06 13.9** | **-0.2** |
| **MDM** | **Murphy Dome** | **150.41** | **312** | *e*PKPbc | **PKPbc** | **21 06 14.5** | **-0.2** |
| **SUA** | **Susitna One** | **150.72** | **304** | *e*PKPab | **PKPab** | **21 06 23.7** | **+0.4** |
| **SONA0** | **Songino Array** | **151.10** | **87** | PKPbc | **PKPbc** | **21 06 16.9** | **-0.1** |
| SONA0 | | | | *ep*PKPdf | **pPKPdf** | **21 06 48.2** | **+2.2** |
| **SONM** | **Songino Array** | **151.10** | **87** | PKPbc | **PKPbc** | **21 06 16.9** | **-0.1** |
| | 8.1nm,0.5s,baz=222,slow=3.7,SNR=141 | | | | | | |
| SONM | | | | pPKPbc | **pPKPdf** | **21 06 48.2** | **+2.2** |
| | 1.4nm,0.6s,baz=219,slow=3.6,SNR=4.3 | | | | | | |
| **SONA1** | **Songino Array** | **151.12** | **87** | *e*PKPbc | **PKPbc** | **21 06 16.9** | **-0.1** |
| **PPLA** | **Purkeypile** | **151.72** | **307** | *e*PKPbc | **PKPbc** | **21 06 18.3** | **+0.4** |
| **IMAR** | **Indian Mountai** | **152.84** | **313** | *e*PKPbc | **PKPbc** | **21 06 20.5** | **+0.4** |

*ISCJB **22** 20:49:55.0±0.5,36.43N±0.04×70.98E±0.06,h188km, Error ellipse: s-maj=7.5km s-min=4.8km az=150.2*
*IDC **22** 20:49:55.5±6.7,36.58N×70.87E,h129km±53km,mb1 3.0/6, mb1mx2.7/56,mbtmp3.6/6,Error ellipse: s-maj=79.6km s-min=20.5km az=153.0*
*NNC **22** 20:49:59.7±1.1,36.79N×70.85E,h124km±22km,mb3.0, mpv3.7,Error ellipse: s-maj=14.0km s-min=9.2km az=110.0*

**ISC 22 20:49:55.1±0.8,36.44N±0.07×70.99E±0.07,h188km,n32, σ2♀13/40,7C-4D,Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SFK** | **Sufi-Kurgan** | **4.08** | **28** | ⇓P | **Pn** | **20 50 57.0** | **-0.6** |
| | 3.4nm,0.2s | | | | | | |
| SFK | | | | ⇑S | **Sn** | **20 51 43.0** | **-3.7** |
| | 45nm,0.3s | | | | | | |
| **THN** | **Thein Dam** | **5.59** | **134** | *e*P | **Pn** | **20 51 15.5** | **-1.3** |
| THN | | | | *e*S | **Sn** | **20 52 17.7** | **-3.5** |
| **AML** | **Almayashu** | **6.05** | **19** | P | **Pn** | **20 51 22.4** | **-0.8** |
| | SNR=26 | | | | | | |
| **MNAS** | **Manas** | **6.15** | **10** | ⇑P | **Pn** | **20 51 23.8** | **-0.3** |
| | 4.4nm,0.6s | | | | | | |
| MNAS | | | | ⇓S | **Sn** | **20 52 30.0** | **-4.6** |
| | 11nm,0.5s | | | | | | |
| **UCH** | **Uchtor** | **6.39** | **24** | P | **Pn** | **20 51 28.7** | **+1.1** |
| | SNR=10 | | | | | | |
| **EKS2** | **Erkin-Say** | **6.57** | **18** | P | **Pn** | **20 51 31.6** | **+1.9** |
| | SNR=18 | | | | | | |
| **KK31** | **Karatay Array** | **6.66** | **357** | P | **Pn** | **20 51 30.8** | **+0.1** |
| | 1.0nm,0.3s,baz=191,slow=18,SNR=23 | | | | | | |
| KK31 | | | | ⇓S | **Sn** | **20 52 42.7** | **-3.8** |
| | 5.7nm,0.5s,baz=182,slow=25,SNR=3.5 | | | | | | |
| **AAK** | **Ala-Archa** | **6.75** | **23** | P | **Pn** | **20 51 31.8** | **-0.3** |
| | 1.6nm,0.3s,baz=169,slow=6.1,SNR=26 | | | | | | |
| AAK | | | | S | **Sn** | **20 52 45.4** | **-3.4** |
| | 0.9nm,0.3s,baz=107,slow=23,SNR=12 | | | | | | |
| **AAK** | **Ala-Archa** | **6.75** | **23** | ⇑P | **Pn** | **20 51 33.3** | **+1.2** |
| | 3.0nm,0.5s | | | | | | |
| AAK | | | | ⇑S | **Sn** | **20 52 45.7** | **-3.1** |
| | 10nm,0.7s | | | | | | |
| **AAK** | **Ala-Archa** | **6.75** | **23** | P | **Pn** | **20 51 33.5** | **+1.4** |
| | SNR=7.0 | | | | | | |
| **KBK** | **Karagaybulak** | **6.92** | **25** | P | **Pn** | **20 51 36.2** | **+1.9** |
| | SNR=8.0 | | | | | | |
| **USP** | **Ospenovka** | **7.33** | **21** | P | **Pn** | **20 51 40.1** | **+0.6** |
| | SNR=6.7 | | | | | | |
| **TKM2** | **Tokmak 2** | **7.38** | **27** | ⇑P | **Pn** | **20 51 41.6** | **+1.2** |
| | 8.4nm,0.6s | | | | | | |
| TKM2 | | | | ⇑S | **Sn** | **20 53 02.2** | **-1.5** |
| **TKM2** | **Tokmak 2** | **7.38** | **27** | P | **Pn** | **20 51 41.8** | **+1.5** |
| | SNR=15 | | | | | | |
| **GEYT** | **Alibeck** | **10.38** | **282** | P | **Pn** | **20 52 19.0** | **-0.5** |
| | 0.2nm,0.3s,baz=120,slow=8.5,SNR=2.7 | | | | | | |
| GEYT | | | | S | **Sn** | **20 54 12.4** | **-2.6** |
| | 0.5nm,0.3s,baz=125,slow=12,SNR=4.7 | | | | | | |
| **PYUN** | **Piuthan** | **13.12** | **126** | *e*P | **Pn** | **20 52 54.1** | **-0.6** |
| **MKAR** | **Makanchi Array** | **13.34** | **36** | P | **Pn** | **20 52 59.1** | **+1.9** |
| | 0.1nm,0.3s,baz=208,slow=17,SNR=2.3 | | | | | | |
| **KOLN** | **Koldanda** | **13.73** | **125** | *e*P | **Pn** | **20 53 02.5** | **+0.1** |
| **GKN** | **Gorkha** | **14.28** | **122** | *e*P | **Pn** | **20 53 09.7** | **+0.6** |
| **DMN** | **Daman** | **14.85** | **122** | *e*P | **Pn** | **20 53 16.7** | **+0.4** |
| **KKN** | **Kakani** | **14.85** | **121** | *e*P | **Pn** | **20 53 16.6** | **+0.3** |
| **PKIN** | **Phulchoki** | **15.07** | **122** | *e*P | **Pn** | **20 53 19.7** | **+0.7** |
| | 5.1nm,0.5s | | | | | | |
| **PKI** | **Pulchoki** | **15.08** | **122** | *e*P | **Pn** | **20 53 20.0** | **+0.8** |
| **AB09** | **Akbulak array** | **15.14** | **331** | ⇓P | **P** | **20 53 22.2** | **+2.1** |
| | 0.3nm,0.4s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **15.18** | **19** | P | **P** | **20 53 23.6** | **+3.1** |
| | 0.0nm,0.3s,baz=205,slow=11,SNR=4.1 | | | | | | |
| **GUN** | **Gumba** | **15.19** | **120** | *e*P | **Pn** | **20 53 21.4** | **+0.8** |
| | 5.1nm,0.4s | | | | | | |
| **JIRN** | **Jiri** | **15.56** | **120** | *e*P | **Pn** | **20 53 26.1** | **+1.0** |
| | 70nm,0.4s | | | | | | |
| **BVAR** | **Borovoye Array** | **16.59** | **359** | P | **Pn** | **20 53 39.7** | **+2.9** |
| | 0.2nm,0.3s,baz=165,slow=12,SNR=4.3 | | | | | | |
| **TAPN** | **Taplejung** | **16.82** | **118** | *e*P | **Pn** | **20 53 42.4** | **+2.2** |
| | 5.4nm,0.5s | | | | | | |
| **AKTO** | **Aktyubinsk** | **16.83** | **330** | ⇑P | **Pn** | **20 53 43.5** | **+3.8** |
| | 0.7nm,0.8s | | | | | | |
| **ODAN** | **Odare** | **16.90** | **120** | *e*P | **Pn** | **20 53 43.6** | **+2.6** |
| | 5.0nm,0.6s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **19.97** | **24** | P | **Pn** | **20 54 15.8** | **-1.0** |
| | 0.6nm,0.3s,baz=216,slow=12,SNR=10 | | | | | | |

*CSEM **22** 20:56:15.2±0.2,38.78N×43.25E,h5km,MD2.6,Error ellipse: s-maj=5.4km s-min=4.3km az=109.0*
*DDA **22** 20:56:15.0,38.77N×43.21E,h7km,Ml2.9*
*ISK **22** 20:56:15.1,38.78N×43.25E,h7km,MD2.6*

**ISC 22 20:56:15.8±1.1,38.77N±0.02×43.25E±0.03,h19km±2km, n30,σ1♀16/39,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.21** | **148** | *e*PG | **Pg** | **20 56 21.3** | **+0.2** |
| VANB | | | | *e*SG | **Sg** | **20 56 26.1** | **+1.3** |
| **VANB** | **Van** | **0.21** | **148** | *e*Pg | **Pg** | **20 56 21.3** | **+0.2** |
| **ERCV** | **ERCIS-VAN** | **0.26** | **16** | *e*PG | **Pg** | **20 56 20.5** | **-1.4** |
| **ERCV** | **ERCIS-VAN** | **0.26** | **16** | *e*Pg | **Pg** | **20 56 20.5** | **-1.4** |
| **TVAN** | **Van** | **0.27** | **153** | *i* P | **Pg** | **20 56 20.2** | **-1.9** |
| TVAN | | | | *i* S | **Sb** | **20 56 26.1** | **-0.2** |
| **TVAN** | **Van** | **0.27** | **153** | P | **Pg** | **20 56 20.2** | **-1.9** |
| TVAN | | | | S | **Sb** | **20 56 26.1** | **-0.2** |
| **VMUR** | **Van-Muradiye** | **0.33** | **49** | *i* P | **Pg** | **20 56 21.8** | **-1.3** |
| VMUR | | | | *i* S | **Sb** | **20 56 28.3** | **+0.1** |
| **VMUR** | **Van-Muradiye** | **0.33** | **49** | P | **Pg** | **20 56 21.8** | **-1.3** |
| VMUR | | | | S | **Sb** | **20 56 28.3** | **+0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.41** | **275** | *i* P | **Pg** | **20 56 23.4** | **-1.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.41** | **275** | P | **Pg** | **20 56 23.4** | **-1.1** |
| **GEVA** | **Gevas** | **0.48** | **198** | *i* P | **Pg** | **20 56 23.8** | **-1.9** |
| **GEVA** | **Gevas** | **0.48** | **198** | P | **Pg** | **20 56 23.8** | **-1.9** |
| **CLDR** | **Caldiran** | **0.64** | **54** | *e*PG | **Pg** | **20 56 28.0** | **-0.6** |
| CLDR | | | | *e*SG | **Sb** | **20 56 37.1** | **+0.1** |
| **CLDR** | **Caldiran** | **0.64** | **54** | *i* P | **Pg** | **20 56 26.4** | **-2.2** |
| **CLDR** | **Caldiran** | **0.64** | **54** | P | **Pg** | **20 56 26.4** | **-2.2** |
| **CLDR** | **Caldiran** | **0.64** | **54** | *e*Pg | **Pg** | **20 56 28.0** | **-0.6** |
| CLDR | | | | *e*Sg | **Sb** | **20 56 37.1** | **+0.1** |
| **TUTA** | **Tutak** | **0.71** | **332** | *i* P | **Pg** | **20 56 28.6** | **-1.4** |
| **TUTA** | **Tutak** | **0.71** | **332** | P | **Pg** | **20 56 28.6** | **-1.4** |
| **AGRB** | **Hanur-Agry** | **0.83** | **346** | *e*PG | **Pb** | **20 56 31.4** | **-0.3** |
| AGRB | | | | *e*SG | **Sb** | **20 56 43.3** | **+0.8** |
| **AGRB** | **Hanur-Agry** | **0.83** | **346** | *e*Pg | **Pb** | **20 56 31.4** | **-0.3** |
| AGRB | | | | *e*Sg | **Sb** | **20 56 43.3** | **+0.8** |
| **EKAR** | **Karacoban** | **1.04** | **298** | *i* P | **Pn** | **20 56 36.6** | **+1.0** |
| **EKAR** | **Karacoban** | **1.04** | **298** | P | **Pn** | **20 56 36.6** | **+1.0** |
| **SRTM** | **Siirt_Merkez** | **1.30** | **234** | *i* P | **Pn** | **20 56 39.5** | **+0.5** |
| **SRTM** | **Siirt_Merkez** | **1.30** | **234** | P | **Pn** | **20 56 39.5** | **+0.5** |
| **SIRT** | **Sirnak** | **1.42** | **207** | *e*PN | **Pb** | **20 56 42.0** | **+0.3** |
| **SIRT** | **Sirnak** | **1.42** | **207** | *e*Pn | **Pb** | **20 56 42.0** | **+0.3** |
| **TASB** | **TASBURUN-IGDIR** | **1.43** | **32** | *e*PN | **Pn** | **20 56 41.8** | **+0.9** |
| **TASB** | **TASBURUN-IGDIR** | **1.43** | **32** | *e*Pn | **Pn** | **20 56 41.8** | **+0.9** |
| **CUKT** | **Cukurca** | **1.55** | **169** | *e*PN | **Pb** | **20 56 44.2** | **+0.3** |
| **CUKT** | **Cukurca** | **1.55** | **169** | *e*Pn | **Pb** | **20 56 44.2** | **+0.3** |

*ISCJB **22** 21:00:45.1±0.6,49.75S±0.1×110.5E±0.1,h10km,mb4.5/14, MS3.2/4,Error ellipse: s-maj=19.1km s-min=13.0km az=172.4*
*IDC **22** 21:00:46.2±1.8,49.55S×110.50E,h0km,mb4.1/3, mb1 4.4/3,mb1mx3.9/22,mbtmp4.1/3,MS3.2/4,Ms1 3.2/4, ms1mx2.8/26,Error ellipse: s-maj=51.3km s-min=45.7km az=124.0*
*NEIC **22** 21:00:47.2±0.4,49.71S×110.49E,h10km,mb4.4/8,Error ellipse: s-maj=14.1km s-min=10.1km az=172.0*

**ISC 22 21:00:47.1±0.7,49.7S±0.2×110.5E±0.1,h10km,n23, σ0♀77/19,mb4.3/14,MS3.2/4,Southeast Indian Ridge**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **H01W2** | **Cape Leeuwin H** | **15.06** | **12** | T | T | 21 19 36.3 | |
| | baz=189,slow=74,SNR=14 | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **15.07** | **12** | T | T | 21 19 39.5 | |
| | baz=189,slow=74,SNR=10 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **15.07** | **12** | T | T | 21 19 39.5 | |
| | baz=189,slow=74,SNR=13 | | | | | | |
| **TAU** | **Tasmania Unive** | **26.14** | **89** | P | **P** | **21 06 21.5** | **+0.3** |
| | 1.8nm,0.7s | | | | | | |
| **MAW** | **Mawson** | **29.50** | **215** | LR | LR | 21 16 23.5 | |
| | comp=Z,57nm,20.2s,baz=57,slow=32 | | | | | | |
| **ASAR** | **Alice Springs** | **31.82** | **44** | P | **P** | **21 07 11.4** | **-0.5** |
| | 2.6nm,0.7s,baz=209,slow=8.2,SNR=41 | | | | | | |
| ASAR | | | | LR | LR | 21 19 01.7 | |
| | comp=Z,30nm,20.5s,baz=164,slow=35 | | | | | | |
| **WRA** | **Warramunga Arr** | **35.28** | **41** | P | **P** | **21 07 41.6** | **-0.5** |
| | 2.4nm,0.6s,baz=208,slow=9.9,SNR=27 | | | | | | |
| **WRAB** | **Tennant Creek** | **35.30** | **41** | *e*P | **P** | **21 07 41.5** | **-0.6** |
| | 2.2nm,0.6s | | | | | | |
| **SNAA** | **Sanae** | **50.17** | **202** | *e*P | **P** | **21 09 40.8** | **-1.5** |
| | 71nm,0.8s | | | | | | |
| **KSM** | **Kuching** | **51.00** | **360** | P | **P** | **21 09 48.6** | **-0.4** |
| | 1.9nm,0.7s | | | | | | |
| **DGAR** | **Diego Garcia** | **52.81** | **310** | P | **P** | **21 10 02.3** | **-0.3** |
| | 26nm,1.0s | | | | | | |
| **RAO** | **Raoul Island** | **56.71** | **97** | *e*P | **P** | **21 10 31.0** | **+0.2** |
| | 217nm,0.6s | | | | | | |
| **HNR** | **Honiara** | **57.32** | **63** | P | **P** | **21 10 35.4** | **+0.2** |
| **ABPO** | **Ambohimpanom** | **58.48** | **278** | P | **P** | **21 10 43.9** | **+0.4** |
| | 5.3nm,0.8s | | | | | | |
| **MSEY** | **Mahe Island** | **64.37** | **295** | P | **P** | **21 11 23.5** | **+0.2** |
| | 22nm,0.7s | | | | | | |
| **BOSA** | **Boshof** | **65.80** | **254** | LR | LR | 21 35 45.7 | |
| | comp=Z,30nm,18.6s,baz=245,slow=32 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **68.64** | **348** | P | **P** | **21 11 49.9** | **-0.5** |
| | 0.9nm,0.8s,baz=193,slow=5.8,SNR=8.3 | | | | | | |
| CMAR | | | | LR | LR | 21 37 45.9 | |
| | comp=Z,16nm,21.7s,baz=162,slow=32 | | | | | | |
| **CHTO** | **Chiang Mai** | **69.00** | **348** | P | **P** | **21 11 52.2** | **-0.3** |
| | 0.5nm,0.4s | | | | | | |
| **AFI** | **Afiamalu** | **71.61** | **90** | *e*P | **P** | **21 12 09.6** | **+0.8** |
| | 2.4nm,0.5s | | | | | | |
| **LSZ** | **Lusaka** | **73.55** | **266** | P | **P** | **21 12 21.7** | **+1.2** |
| | 0.3nm,0.8s | | | | | | |
| **MIDW** | **Midway** | **100.50** | **59** | *e*Pdif | **Pdif** | **21 14 35.1** | **+0.7** |
| **TXAR** | **Lajitas Array** | **147.12** | **115** | PKPbc | **PKPbc** | **21 20 29.6** | **-0.6** |
| | 0.6nm,0.8s,baz=198,slow=5.6,SNR=5.7 | | | | | | |
| **YKA** | **Yellowknife Ar** | **152.45** | **45** | PKPbc | **PKPbc** | **21 20 43.6** | **+1.5** |
| | 0.1nm,0.6s,baz=299,slow=2.5,SNR=2.7 | | | | | | |
| YKA | | | | PKPab | **PKPab** | **21 20 51.8** | **-0.7** |
| | 0.4nm,0.8s,baz=276,slow=3.9,SNR=6.1 | | | | | | |

*IDC **22** 21:21:48.1±5.3,36.13N×70.50E,h177km±54km,mb3.4/4, mb1 3.3/9,mb1mx2.9/56,mbtmp3.8/9,Error ellipse: s-maj=55.5km s-min=36.8km az=129.0*
*ISCJB **22** 21:21:52.3±0.6,36.53N±0.04×70.47E±0.09,h213km, mb3.6/3,Error ellipse: s-maj=10.0km s-min=4.9km az=161.5*
*NNC **22** 21:21:55.3±9.5,36.85N×69.85E,h103km±249km,mb3.1, mpv3.7,Error ellipse: s-maj=95.4km s-min=70.7km az=151.0*

**ISC 22 21:21:52.9±0.8,36.53N±0.07×70.56E±0.09,h213km,n33, σ1♀28/38,mb3.8/3,3C-4D,Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SFK** | **Sufi-Kurgan** | **4.18** | **33** | ⇑P | **Pn** | **21 22 57.9** | **+0.4** |
| | 2.9nm,0.3s | | | | | | |
| SFK | | | | ⇓S | **S** | **21 23 48.1** | **0.0** |
| | 31nm,0.4s | | | | | | |
| **THN** | **Thein Dam** | **5.90** | **132** | *e*P | **Pn** | **21 23 18.6** | **-0.5** |
| THN | | | | *e*S | **S** | **21 24 2.0** | **-3.2** |
| **AML** | **Almayashu** | **6.10** | **22** | P | **Pn** | **21 23 22.3** | **+0.4** |
| | SNR=71 | | | | | | |
| **UCH** | **Uchtor** | **6.46** | **27** | P | **Pn** | **21 23 27.3** | **+0.7** |
| | SNR=22 | | | | | | |
| **KK31** | **Karatay Array** | **6.56** | **360** | ⇓P | **Pn** | **21 23 27.5** | **-0.1** |
| | 1.4nm,0.2s,baz=182,slow=12,SNR=39 | | | | | | |
| KK31 | | | | ⇑S | **S** | **21 24 38.9** | **-3.8** |
| | 2.5nm,0.4s,baz=190,slow=26,SNR=5.3 | | | | | | |
| **EKS2** | **Erkin-Say** | **6.61** | **21** | P | **Pn** | **21 23 28.9** | **+0.7** |
| | SNR=7.0 | | | | | | |
| **KZA** | **Kyzart** | **6.62** | **32** | P | **Pn** | **21 23 29.5** | **+0.8** |
| | SNR=7.6 | | | | | | |
| **AAK** | **Ala-Archa** | **6.81** | **25** | P | **Pn** | **21 23 31.2** | **+0.3** |
| | 1.8nm,0.3s,baz=188,slow=5.7,SNR=41 | | | | | | |
| AAK | | | | S | **S** | **21 24 46.9** | **-1.8** |
| | 1.1nm,0.3s,baz=353,slow=21,SNR=24 | | | | | | |
| **AAK** | **Ala-Archa** | **6.81** | **25** | ⇑P | **Pn** | **21 23 31.1** | **+0.3** |
| | 4.7nm,0.6s | | | | | | |
| AAK | | | | ⇓S | **S** | **21 24 46.8** | **-2.0** |
| | 18nm,0.7s | | | | | | |
| **AAK** | **Ala-Archa** | **6.81** | **25** | P | **Pn** | **21 23 31.9** | **+1.0** |
| | SNR=13 | | | | | | |
| **KBK** | **Karagaybulak** | **6.99** | **28** | P | **Pn** | **21 23 34.4** | **+1.2** |
| | SNR=6.8 | | | | | | |
| **CHMS** | **Chumysh** | **7.22** | **25** | P | **Pn** | **21 23 36.6** | **+0.6** |
| | SNR=5.6 | | | | | | |
| **USP** | **Ospenovka** | **7.38** | **23** | P | **Pn** | **21 23 38.3** | **+0.2** |
| | SNR=5.5 | | | | | | |
| **TKM2** | **Tokmak 2** | **7.47** | **30** | P | **Pn** | **21 23 40.2** | **+0.8** |
| | SNR=8.2 | | | | | | |
| **PYUN** | **Piuthan** | **13.45**

*ISCJB **22** 21:38:03.0±0.6,43.°30N±0.°06×144.°44E±0.°05, h122km±4km, mb3.4/3, Error ellipse: s-maj=9.9km s-min=5.3km az=156.8*
*MOS **22** 21:38:02.5±0.6,43.°25N×144.°54E, h135km, mb4.0/1, Error ellipse: s-maj=39.3km s-min=26.4km az=140.2*
*JMA **22** 21:38:03.9±0.1,43.°32N×144.°44E, h120km±1km, M3.0*
**ISC 22 21:38:03.6**±1.0,**43°29N**±0.°06×**144°45E**±0.°04,**h121**km±7km, **n25**,σ0°**73**/**32**,**mb3.4**/**3**,**Hokkaido region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JAK** | **Akkeshi** | **0.35** | **148** | P | **Pn** | **21 38 21.0** | **+0.1** |
| JAK | | | | *e*S | **Sn** | **21 38 34.0** | **+0.2** |
| **JNK** | **Nakash** | **0.35** | **34** | P | **Pn** | **21 38 20.8** | **-0.1** |
| JNK | | | | *e*S | **Sn** | **21 38 33.5** | **-0.5** |
| **JAR** | **Ashorobuto** | **0.49** | **271** | P | **Pn** | **21 38 22.0** | **+0.4** |
| JAR | | | | *e*S | **Sn** | **21 38 35.0** | **-0.2** |
| **JOB** | **Onbets** | **0.59** | **229** | P | **Pn** | **21 38 22.8** | **+0.6** |
| JOB | | | | *e*S | **Sn** | **21 38 36.5** | **+0.2** |
| **JTKR** | **Abashiri--Toko** | **0.78** | **330** | P | **Pn** | **21 38 23.7** | **0.0** |
| JTKR | | | | *e*S | **Sn** | **21 38 38.1** | **-0.8** |
| **JRA** | **Rausu** | **0.81** | **37** | P | **Pn** | **21 38 24.1** | **+0.2** |
| **GLVR** | **Golovnino** | **0.90** | **60** | *e*PN | **Pn** | **21 38 25.6** | **+0.9** |
| GLVR | | | | *e*S | **Sn** | **21 38 41.1** | **+0.4** |
| **NEM2** | **Nemuro 2** | **0.95** | **85** | P | **Pn** | **21 38 25.1** | **-0.1** |
| NEM2 | | | | *e*S | **Sn** | **21 38 40.3** | **-1.2** |
| **JCH** | **Churui** | **1.04** | **230** | P | **Pn** | **21 38 26.6** | **+0.5** |
| JCH | | | | *e*S | **Sn** | **21 38 42.7** | **-0.5** |
| **JMP** | **Maruseppu** | **1.06** | **313** | P | **Pn** | **21 38 26.2** | **-0.2** |
| JMP | | | | *e*S | **Sn** | **21 38 42.3** | **-1.3** |
| **GRPR** | **Tuman** | **1.19** | **54** | *e*PN | **Pn** | **21 38 28.0** | **+0.4** |
| GRPR | | | | *e*S | **Sn** | **21 38 46.7** | **+0.8** |
| **YUK** | **Yuzh-Kuril'sk** | **1.27** | **54** | *e*PN | **Pn** | **21 38 29.0** | **+0.6** |
| YUK | | | | *e*S | **Sn** | **21 38 46.6** | **-0.7** |
| YUK | | | | *p*max | *p*max | | |
| | comp=Z,336nm,0.8s | | | | | | |
| YUK | | | | *p*max | *p*max | | |
| | comp=N,208nm,0.4s | | | | | | |
| YUK | | | | *p*max | *p*max | | |
| | comp=E,189nm,0.4s | | | | | | |
| YUK | | | | *s*max | *s*max | | |
| | comp=N,488nm,0.3s | | | | | | |
| YUK | | | | *s*max | *s*max | | |
| | comp=E,266nm,0.3s | | | | | | |
| **JKK2** | **Kamakawa 2** | **1.36** | **296** | P | **Pn** | **21 38 29.7** | **+0.2** |
| **ASAJ** | **Asahikawa** | **1.57** | **302** | P | **Pn** | **21 38 32.6** | **+0.7** |
| **JNBK** | **Urakawa-nobuka** | **1.61** | **232** | P | **Pn** | **21 38 32.2** | **-0.1** |
| JNBK | | | | *e*S | **Sn** | **21 38 52.6** | **-1.5** |
| **SHO** | **Shikotan** | **1.83** | **71** | *i* PN | **Pn** | **21 38 34.8** | **-0.1** |
| SHO | | | | *e*S | **Sn** | **21 38 56.9** | **-1.9** |
| SHO | | | | *p*max | *p*max | | |
| | comp=E,117nm,1.0s | | | | | | |
| SHO | | | | *p*max | *p*max | | |
| | comp=Z,281nm,1.0s | | | | | | |
| SHO | | | | *p*max | *p*max | | |
| | comp=N,45nm,0.4s | | | | | | |
| SHO | | | | *s*max | *s*max | | |
| | comp=E,288nm,0.4s | | | | | | |
| SHO | | | | *s*max | *s*max | | |
| | comp=N,103nm,0.2s | | | | | | |
| **SONM** | **Songino Array** | **26.84** | **293** | P | **P** | **21 43 33.4** | **+0.7** |
| | comp=N,0.5nm,0.4s,baz=90,slow=8.0,SNR=5.6 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy 30.12** | **134** | | T | T | 22 15 23.0 | |
| | baz=328,slow=75,SNR=16 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy 30.13** | **134** | | T | T | 22 15 27.4 | |
| | baz=328,slow=75,SNR=13 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy 30.14** | **134** | | T | T | 22 15 27.7 | |
| | baz=328,slow=75,SNR=13 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy 31.04** | **136** | | T | T | 22 16 29.6 | |
| | baz=328,slow=76,SNR=31 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy 31.04** | **136** | | T | T | 22 16 33.8 | |
| | baz=328,slow=76,SNR=27 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy 31.05** | **136** | | T | T | 22 16 36.1 | |
| | baz=328,slow=76,SNR=18 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.05** | **297** | P | **P** | **21 45 51.4** | **+0.2** |
| | comp=N,0.1nm,0.7s,baz=72,slow=9.4,SNR=4.8 | | | | | | |
| **FINES** | **FINESS Array B** | **64.37** | **332** | P | **P** | **21 48 25.9** | **-0.2** |
| | comp=N,1.7nm,0.6s,baz=46,slow=8.0,SNR=16 | | | | | | |

**IDC 22 21:38:26.6**±2.1,**5°88S**×**129°69E**,**h0**km,**mb3.6**/2, **mb1 4.3**/5,**mb1mx3.8**/28,**mbtmpg4.1**/5,**ML4.1**/3,**Error ellipse: s-maj=81.7km s-min=25.0km az=72.0**,**Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **FITZ** | **Fitzroy Crossi** | **12.78** | **198** | Pn | Pn | 21 41 30.1 | +0.3 |
| | 0.7nm,0.3s,baz=25,slow=11,SNR=19 | | | | | | |
| FITZ | | | | Sn | Sn | 21 43 37.4 | -15 |
| | 0.6nm,0.3s,baz=49,slow=19,SNR=3.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **14.70** | **163** | Pn | Pn | 21 41 56.2 | +0.2 |
| | 0.4nm,0.3s,baz=339,slow=13,SNR=9.6 | | | | | | |
| WRA | | | | Sn | Sn | 21 44 25.1 | -15 |
| | 0.5nm,0.3s,baz=338,slow=23,SNR=7.0 | | | | | | |
| **ASAR** | **Alice Springs** | **18.15** | **168** | P | Pn | 21 42 40.0 | -0.3 |
| | 4.7nm,0.3s,baz=341,slow=9.6,SNR=189 | | | | | | |
| ASAR | | | | S | Sn | 21 45 49.8 | -14 |
| | 0.3nm,0.3s,baz=354,slow=28,SNR=4.9 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **38.78** | **309** | P | P | 21 45 54.3 | +0.9 |
| | 0.3nm,0.3s,baz=129,slow=7.4,SNR=5.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.12** | **327** | P | P | 21 49 21.6 | -0.7 |
| | 0.2nm,0.4s,baz=118,slow=7.6,SNR=8.2 | | | | | | |

*ISCJB **22** 21:38:42.7±0.7,41.°13N±0.°04×48.°91E±0.°07, h24km±6km, Error ellipse: s-maj=10.5km s-min=3.5km az=146.3*
*CSEM **22** 21:38:43.6±0.3,41.°16N×48.°85E, h20km, mb4.0, Error ellipse: s-maj=13.6km s-min=3.9km az=55.0*
*MOS **22** 21:38:48.6±3.0,41.°53N×48.°69E, h20km, mb4.0/1, Error ellipse: s-maj=24.7km s-min=7.3km az=134.7*
*TEH **22** 21:38:53.5,40.°05N×48.°88E, h16km, ML3.1*
**ISC 22 21:38:43.3**±1.4,**41°17N**±0.°04×**48°84E**±0.°06,**h18**km±4km, **n47**,σ1°**20**/**78**,**1C-2D**,**Eastern Caucasus**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KSMR** | **Kasumkent** | **0.69** | **309** | ⇑*i* PG | **Pg** | **21 38 57.5** | **+0.6** |
| KSMR | | | | *i* S | **Sg** | **21 39 07.0** | **+1.0** |
| KSMR | | | | *p*max | *p*max | | |
| | comp=Z,754nm,0.2s | | | | | | |
| **KSMR** | **Kasumkent** | **0.69** | **309** | *i* Pg | **Pg** | **21 38 57.5** | **+0.6** |
| | comp=Z,754nm,0.2s | | | | | | |
| KSMR | | | | *i* Sg | **Sg** | **21 39 07.0** | **+1.0** |
| **AKT** | **Akhty** | **0.89** | **291** | *i* PG | **Pb** | **21 39 00.1** | **-0.2** |
| AKT | | | | *e*S | **Sb** | **21 39 11.2** | **-0.6** |
| AKT | | | | *p*max | *p*max | | |
| | comp=Z,283nm,0.2s | | | | | | |
| **AKT** | **Akhty** | **0.89** | **291** | *i* Pg | **Pb** | **21 39 00.1** | **-0.2** |
| | comp=Z,283nm,0.2s | | | | | | |
| AKT | | | | *e*Sg | **Sb** | **21 39 11.2** | **-0.6** |
| **DRN** | **Derbent** | **0.94** | **336** | *i* PG | **Pb** | **21 39 00.7** | **-0.3** |
| DRN | | | | *e*S | **Sb** | **21 39 12.9** | **-0.2** |
| DRN | | | | *p*max | *p*max | | |
| | comp=Z,302nm,0.4s | | | | | | |
| **DRN** | **Derbent** | **0.94** | **336** | *i* Pg | **Pb** | **21 39 00.7** | **-0.3** |
| | comp=Z,302nm,0.4s | | | | | | |
| DRN | | | | *e*Sg | **Sb** | **21 39 12.9** | **-0.2** |
| **URKR** | **Urkarakh** | **1.34** | **318** | ⇓*i* PG | **Pn** | **21 39 06.0** | **-1.2** |
| URKR | | | | *i* S | **Sn** | **21 39 23.5** | **-1.2** |
| URKR | | | | *p*max | *p*max | | |
| | comp=Z,556nm,0.1s | | | | | | |
| **URKR** | **Urkarakh** | **1.34** | **318** | *i* Pg | **Pn** | **21 39 06.0** | **-1.2** |
| | comp=Z,556nm,0.1s | | | | | | |
| URKR | | | | *i* Sg | **Sn** | **21 39 23.5** | **-1.2** |
| **KMKR** | **Kumukh** | **1.62** | **307** | *e*PG | **Pn** | **21 39 11.0** | **-0.1** |
| KMKR | | | | *e*S | **Sn** | **21 39 32.0** | **+0.4** |
| KMKR | | | | *p*max | *p*max | | |
| | comp=Z,44nm,0.3s | | | | | | |
| **KMKR** | **Kumukh** | **1.62** | **307** | *e*Pg | **Pn** | **21 39 11.0** | **-0.1** |
| | comp=Z,44nm,0.3s | | | | | | |
| KMKR | | | | *e*Sg | **Sn** | **21 39 32.0** | **+0.4** |
| **GNBR** | **Gunib** | **1.86** | **312** | ⇓*i* PG | **Pn** | **21 39 14.8** | **+0.6** |
| GNBR | | | | *i* S | **Sb** | **21 39 39.0** | **-0.6** |
| GNBR | | | | *p*max | *p*max | | |
| | comp=Z,14nm,0.1s | | | | | | |
| **GNBR** | **Gunib** | **1.86** | **312** | *i* Pg | **Pn** | **21 39 14.8** | **+0.6** |
| | comp=Z,14nm,0.1s | | | | | | |
| GNBR | | | | *i* Sg | **Sb** | **21 39 39.0** | **-0.6** |
| **ARKR** | **Arakani** | **1.98** | **317** | *e*PN | **Pn** | **21 39 16.0** | **0.0** |
| ARKR | | | | *e*S | **Sb** | **21 39 42.0** | **-1.3** |
| **ARKR** | **Arakani** | **1.98** | **317** | *e*Pn | **Pn** | **21 39 16.0** | **0.0** |
| ARKR | | | | *e*Sg | **Sb** | **21 39 42.0** | **-1.3** |
| **MAK** | **Makhachkala** | **2.04** | **331** | *e*PN | **Pn** | **21 39 15.7** | **-1.1** |
| MAK | | | | *e* | | 21 39 44.4 | |
| MAK | | | | *p*max | *p*max | | |
| | comp=Z,39nm,0.3s | | | | | | |
| MAK | | | | *s*max | *s*max | | |
| | comp=N,281nm,0.4s | | | | | | |
| MAK | | | | *s*max | *s*max | | |
| | comp=E,265nm,0.5s | | | | | | |
| **MAK** | **Makhachkala** | **2.04** | **331** | *e*Pn | **Pn** | **21 39 15.7** | **-1.1** |
| | comp=E,39nm,0.3s | | | | | | |
| MAK | | | | *e*Sg | **Sb** | **21 39 44.4** | **-0.5** |
| | comp=E,281nm,0.4s | | | | | | |
| **UNCR** | **Uncukul** | **2.17** | **316** | *e*PN | **Pn** | **21 39 19.3** | **+0.8** |
| UNCR | | | | *e*S | **Sn** | **21 39 46.0** | **+1.1** |
| UNCR | | | | *p*max | *p*max | | |
| | comp=Z,36nm,0.2s | | | | | | |
| **UNCR** | **Uncukul** | **2.17** | **316** | *e*Pn | **Pn** | **21 39 19.3** | **+0.8** |
| | comp=Z,36nm,0.2s | | | | | | |
| UNCR | | | | *e*Sg | **Sn** | **21 39 46.0** | **+1.1** |
| **KRNR** | **Karanay** | **2.19** | **320** | *e*PN | **Pn** | **21 39 19.5** | **+0.6** |
| KRNR | | | | *e*S | **Sn** | **21 39 46.5** | **+0.9** |
| KRNR | | | | *p*max | *p*max | | |
| | comp=Z,24nm,0.3s | | | | | | |
| **KRNR** | **Karanay** | **2.19** | **320** | *e*Pn | **Pn** | **21 39 19.5** | **+0.6** |
| | comp=Z,24nm,0.3s | | | | | | |
| KRNR | | | | *e*Sg | **Sn** | **21 39 46.5** | **+0.9** |
| **BTLR** | **Botlikh** | **2.46** | **308** | PN | **Pn** | **21 39 22.4** | **-0.1** |
| BTLR | | | | S | **Sg** | **21 39 59.8** | **-2.5** |
| **BTLR** | **Botlikh** | **2.46** | **308** | Pn | **Pn** | **21 39 22.4** | **-0.1** |
| BTLR | | | | Sb | **Sg** | **21 39 59.8** | **-2.5** |
| **DLMR** | **Dylym** | **2.51** | **320** | *e*PN | **Pn** | **21 39 24.0** | **+0.8** |
| DLMR | | | | *e*S | **Sb** | **21 40 00.0** | **+1.6** |
| **DLMR** | **Dylym** | **2.51** | **320** | *e*Pn | **Pn** | **21 39 24.0** | **+0.8** |
| DLMR | | | | *e*Sb | **Sb** | **21 40 00.0** | **+1.6** |
| **GROC** | **Groznyy** | **3.04** | **313** | PN | **Pb** | **21 39 36.6** | **-0.2** |
| GROC | | | | *e*S | **Sb** | **21 40 16.5** | **+3.0** |
| GROC | | | | *p*max | *p*max | | |
| | comp=Z,19nm,0.4s | | | | | | |
| GROC | | | | *s*max | *s*max | | |
| | comp=N,69nm,1.1s | | | | | | |
| GROC | | | | *s*max | *s*max | | |
| | comp=N,32nm,1.0s | | | | | | |
| **GROC** | **Groznyy** | **3.04** | **313** | Pn | **Pb** | **21 39 36.6** | **-0.2** |
| | comp=N,19nm,0.4s | | | | | | |
| GROC | | | | *e*Sb | **Sb** | **21 40 16.5** | **+3.0** |
| | comp=N,32nm,1.0s | | | | | | |
| **IHRS** | **Heris** | **3.17** | **207** | *e*Pn | **Pn** | **21 39 33.4** | **+0.9** |
| IHRS | | | | *e*AMB | AMB | 21 39 34.6 | |
| | comp=Z,332nm,0.1s | | | | | | |
| IHRS | | | | *e*Sg | **Sn** | **21 40 08.9** | **-1.0** |
| **IHRS** | **Heris** | **3.17** | **207** | *e*Pn | **Pn** | **21 39 33.4** | **+0.9** |
| IHRS | | | | *e*Sg | **Sn** | **21 40 08.9** | **-1.0** |
| **KMGR** | **Komgaron** | **3.50** | **304** | PN | **Pb** | **21 39 43.9** | **-0.9** |
| KMGR | | | | S | **Sg** | **21 40 35.9** | **0.0** |
| **KMGR** | **Komgaron** | **3.50** | **304** | Pn | **Pb** | **21 39 43.9** | **-0.9** |
| KMGR | | | | Sg | **Sg** | **21 40 35.9** | **0.0** |
| **LACR** | **Lac** | **3.77** | **298** | PN | **Pb** | **21 39 50.6** | **+1.3** |
| LACR | | | | S | **Sg** | **21 40 42.2** | **-2.1** |
| **LACR** | **Lac** | **3.77** | **298** | Pn | **Pb** | **21 39 50.6** | **+1.3** |
| LACR | | | | Sb | **Sg** | **21 40 42.2** | **-2.1** |
| **IGZV** | **Ghazvin** | **4.90** | **167** | *e*Pn | **Pn** | **21 39 53.7** | **-2.5** |
| IGZV | | | | *e*AMB | AMB | 21 40 53.9 | |
| | comp=Z,244nm,0.1s | | | | | | |
| **IGZV** | **Ghazvin** | **4.90** | **167** | *e*Pn | **Pn** | **21 39 53.7** | **-2.5** |
| **IPRN** | **Peran** | **5.63** | **150** | *e*Sn | Sn | 21 40 59.9 | -11 |
| IPRN | | | | *e*Pn | **Pn** | **21 40 06.4** | **+0.2** |
| IPRN | | | | *e*AMB | AMB | 21 41 12.6 | |
| | comp=Z,475nm,0.1s | | | | | | |
| **IMHD** | **Mahdasht** | **5.66** | **165** | *e*AMB | AMB | 21 40 08.7 | |
| | comp=Z,309nm,0.1s | | | | | | |
| IMHD | | | | *e*Pn | **Pn** | **21 40 08.4** | **+1.8** |
| **IMHD** | **Mahdasht** | **5.66** | **165** | *e*Pn | **Pn** | **21 40 08.4** | **+1.8** |
| **IRAZ** | **Razeghan** | **5.82** | **171** | *e*AMB | AMB | 21 40 57.1 | |
| | comp=Z,55nm,0.1s | | | | | | |
| IRAZ | | | | *e*Pn | **Pn** | **21 40 07.0** | **-1.9** |
| **IGLO** | **Ghaloghah** | **6.08** | **139** | *e*Pn | **Pn** | **21 40 11.8** | **-0.6** |
| IGLO | | | | *e*AMB | AMB | 21 41 29.3 | |
| | comp=Z,208nm,0.1s | | | | | | |
| **IGLO** | **Ghaloghah** | **6.08** | **139** | *e*Pn | **Pn** | **21 40 11.8** | **-0.6** |
| **IDMV** | **Damavand** | **6.12** | **155** | *e*Pn | **Pn** | **21 40 13.2** | **+0.1** |
| IDMV | | | | *e*AMB | AMB | 21 40 15.8 | |
| | comp=Z,109nm,0.1s | | | | | | |
| **IDMV** | **Damavand** | **6.12** | **155** | *e*Pn | **Pn** | **21 40 13.2** | **+0.1** |
| **IFIR** | **Firoozkooh** | **6.32** | **150** | *e*Pn | **Pn** | **21 40 16.8** | **+1.0** |
| IFIR | | | | *e*AMB | AMB | 21 40 19.0 | |
| | comp=Z,167nm,0.1s | | | | | | |
| **IFIR** | **Firoozkooh** | **6.32** | **150** | *e*Pn | **Pn** | **21 40 16.8** | **+1.0** |
| **ISHM** | **Shahmirzad** | **6.39** | **145** | *e*Pn | **Pn** | **21 40 17.9** | **+1.1** |
| ISHM | | | | *e*AMB | AMB | 21 41 30.8 | |
| | comp=Z,260nm,0.2s | | | | | | |
| **IANJ** | **Anjilo** | **6.95** | **143** | *e*Pn | **Pn** | **21 40 25.5** | **+1.1** |
| IANJ | | | | *e*AMB | AMB | 21 40 30.3 | |
| | comp=Z,44nm,0.1s | | | | | | |
| **IANJ** | **Anjilo** | **6.95** | **143** | *e*Pn | **Pn** | **21 40 25.5** | **+1.1** |

*CSEM **22** 21:45:31.8±0.2,38.°74N×43.°42E, h8km, MD2.5, Error ellipse: s-maj=6.4km s-min=4.6km az=110.0*
*ISK **22** 21:45:31.2,38.°72N×43.°39E, h8km, MD2.5*
*ISCJB **22** 21:45:32.1±0.5,38.°73N±0.°03×43.°45E±0.°05, h14km±5km, Error ellipse: s-maj=6.6km s-min=4.4km az=16.9*
*DDA **22** 21:45:32.1,38.°73N×43.°39E, h7km, Md2.7*
**ISC 22 21:45:32.1**±0.9,**38°73N**±0.°03×**43°41E**±0.°04,**h15**km±7km, **n27**,σ0°**84**/**38**,**Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.14** | **187** | *e*PG | **Pg** | **21 45 35.9** | **-0.1** |
| **VANB** | **Van** | **0.14** | **187** | *e*Pg | **Pg** | **21 45 35.9** | **-0.1** |
| **TVAN** | **Van** | **0.20** | **181** | *i* P | **Pg** | **21 45 35.7** | **-1.3** |
| TVAN | | | | *i* S | **Sg** | **21 45 40.5** | **+0.3** |
| **TVAN** | **Van** | **0.20** | **181** | P | **Pg** | **21 45 35.7** | **-1.3** |
| TVAN | | | | S | **Sg** | **21 45 40.5** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.29** | **26** | *i* P | **Pg** | **21 45 37.7** | **-0.6** |
| VMUR | | | | *i* S | **Sb** | **21 45 43.7** | **0.0** |
| **VMUR** | **Van-Muradiye** | **0.29** | **26** | P | **Pg** | **21 45 37.7** | **-0.6** |
| VMUR | | | | S | **Sb** | **21 45 43.7** | **0.0** |
| **ERCV** | **ERCIS-VAN** | **0.29** | **349** | *e*PG | **Pg** | **21 45 37.7** | **-0.7** |
| **ERCV** | **ERCIS-VAN** | **0.29** | **349** | *e*Pg | **Pg** | **21 45 37.7** | **-0.7** |
| **GEVA** | **Gevas** | **0.50** | **214** | *i* P | Pg | 21 45 34.7 | -7.4 |
| **ADCV** | **BITLIS_Adilcev** | **0.54** | **278** | *i* P | **Pb** | **21 45 42.8** | **-0.6** |
| ADCV | | | | *i* S | **Sn** | **21 45 53.2** | **-1.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.54** | **278** | P | **Pb** | **21 45 42.8** | **-0.6** |
| **CLDR** | **Caldiran** | **0.57** | **44** | *e*PG | **Pg** | **21 45 43.2** | **-0.2** |
| CLDR | | | | *e*SG | **Sg** | **21 45 51.8** | **+0.8** |
| **CLDR** | **Caldiran** | **0.57** | **44** | *i* P | **Pg** | **21 45 41.6** | **-1.8** |
| CLDR | | | | *i* S | **Sb** | **21 45 52.6** | **+0.7** |
| **CLDR** | **Caldiran** | **0.57** | **44** | P | **Pg** | **21 45 41.6** | **-1.8** |
| **CLDR** | **Caldiran** | **0.57** | **44** | *e*Pg | **Pg** | **21 45 43.2** | **-0.2** |
| CLDR | | | | *e*Sg | **Sg** | **21 45 51.8** | **+0.8** |
| CLDR | | | | S | **Sb** | **21 45 52.6** | **+0.7** |
| **TUTA** | **Tutak** | **0.81** | **325** | *i* P | **Pg** | **21 45 47.1** | **-0.9** |
| TUTA | | | | *i* S | **Sb** | **21 45 59.7** | **+0.7** |
| **TUTA** | **Tutak** | **0.81** | **325** | P | **Pg** | **21 45 47.1** | **-0.9** |
| **AGRB** | **Hanur-Agry** | **0.90** | **339** | *e*PG | **Pg** | **21 45 48.7** | **-1.0** |
| AGRB | | | | *e*SG | **Sb** | **21 46 02.5** | **+1.0** |
| **AGRB** | **Hanur-Agry** | **0.90** | **339** | *e*Pg | **Pg** | **21 45 48.7** | **-1.0** |
| AGRB | | | | *e*Sg | **Sb** | **21 46 02.5** | **+1.0** |
| **EATA** | **Eleskirt** | **1.34** | **328** | *i* P | **Pb** | **21 45 57.1** | **+0.1** |
| **EATA** | **Eleskirt** | **1.34** | **328** | P | **Pb** | **21 45 57.1** | **+0.1** |
| **SRTM** | **Siirt_Merkez** | **1.39** | **238** | *i* P | **Pg** | **21 45 58.7** | **-0.1** |
| **SRTM** | **Siirt_Merkez** | **1.39** | **238** | P | **Pg** | **21 45 58.7** | **-0.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.41** | **27** | *e*PN | **Pn** | **21 45 58.0** | **+0.8** |
| **TASB** | **TASBURUN-IGDIR** | **1.41** | **27** | *e*Pn | **Pn** | **21 45 58.0** | **+0.8** |
| **CUKT** | **Cukurca** | **1.49** | **174** | *e*PN | **Pn** | **21 45 58.9** | **+0.5** |
| **CUKT** | **Cukurca** | **1.49** | **174** | *e*Pn | **Pn** | **21 45 58.9** | **+0.5** |

*ISK **22** 21:49:40.0,38.°66N×43.°22E, h5km, MD2.7*
*CSEM **22** 21:49:41.4±0.3,38.°65N×43.°25E, h2km, MD2.7, Error ellipse: s-maj=5.8km s-min=5.4km az=119.0*
*DDA **22** 21:49:41.2,38.°64N×43.°25E, h7km, Ml2.7*
**ISC 22 21:49:41.5**±1.0,**38°66N**±0.°02×**43°23E**±0.°03,**h7**km±10km, **n32**,σ0°**67**/**45**,**Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.14** | **117** | *e*PG | **Pg** | **21 49 44.6** | **+0.1** |
| **VANB** | **Van** | **0.14** | **117** | *e*Pg | **Pg** | **21 49 44.6** | **+0.1** |
| **TVAN** | **Van** | **0.19** | **134** | *i* P | **Pg** | **21 49 44.3** | **-1.1** |
| TVAN | | | | *i* S | **Sg** | **21 49 48.6** | **+0.5** |
| **TVAN** | **Van** | **0.19** | **134** | P | **Pg** | **21 49 44.3** | **-1.1** |
| TVAN | | | | S | **Sg** | **21 49 48.6** | **+0.5** |
| **GEVA** | **Gevas** | **0.37** | **201** | *i* P | **Pg** | **21 49 48.1** | **-0.7** |
| **GEVA** | **Gevas** | **0.37** | **201** | P | **Pg** | **21 49 48.1** | **-0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.42** | **291** | *i* P | **Pg** | **21 49 49.4** | **-0.4** |
| ADCV | | | | *i* S | **Sb** | **21 49 57.9** | **-0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.42** | **291** | P | **Pg** | **21 49 49.4** | **-0.4** |
| ADCV | | | | S | **Sb** | **21 49 57.9** | **-0.2** |
| **VMUR** | **Van-Muradiye** | **0.42** | **39** | *i* P | **Pg** | **21 49 49.3** | **-0.5** |
| VMUR | | | | *i* S | **Sb** | **21 49 57.6** | **-0.5** |
| **VMUR** | **Van-Muradiye** | **0.42** | **39** | P | **Pg** | **21 49 49.3** | **-0.5** |
| VMUR | | | | S | **Sb** | **21 49 57.6** | **-0.5** |
| **CLDR** | **Caldiran** | **0.72** | **48** | *e*PG | **Pg** | **21 49 55.2** | **-0.2** |
| CLDR | | | | *e*SG | **Sb** | **21 50 06.4** | **-0.3** |
| **CLDR** | **Caldiran** | **0.72** | **48** | *i* P | **Pg** | **21 49 54.7** | **-0.7** |
| CLDR | | | | *i* S | **Sb** | **21 50 06.9** | **+0.2** |
| **CLDR** | **Caldiran** | **0.72** | **48** | P | **Pg** | **21 49 54.7** | **-0.7** |
| **CLDR** | **Caldiran** | **0.72** | **48** | *e*Pg | **Pg** | **21 49 55.2** | **-0.2** |
| CLDR | | | | *e*Sg | **Sb** | **21 50 06.4** | **-0.3** |
| **TUTA** | **Tutak** | **0.81** | **336** | *i* P | **Pg** | **21 49 56.0** | **-1.2** |
| TUTA | | | | *i* S | **Sg** | **21 50 08.1** | **+0.4** |
| **TUTA** | **Tutak** | **0.81** | **336** | P | **Pg** | **21 49 56.0** | **-1.2** |
| TUTA | | | | S | **Sg** | **21 50 08.1** | **+0.4** |
| **AGRB** | **Hanur-Agry** | **0.93** | **349** | *e*PG | **Pg** | **21 49 58.9** | **-0.6** |
| AGRB | | | | *e*SG | **Sb** | **21 50 12.6** | **-0.2** |
| **AGRB** | **Hanur-Agry** | **0.93** | **349** | *e*Pg | **Pg** | **21 49 58.9** | **-0.6** |
| AGRB | | | | *e*Sg | **Sb** | **21 50 12.6** | **-0.2** |
| **EKAR** | **Karacoban** | **1.09** | **304** | *i* P | **Pn** | **21 50 04.8** | **+1.4** |
| **EKAR** | **Karacoban** | **1.09** | **304** | P | **Pn** | **21 50 04.8** | **+1.4** |
| **SRTM** | **Siirt_Merkez** | **1.23** | **237** | *i* P | **Pn** | **21 50 06.0** | **+0.9** |
| **SRTM** | **Siirt_Merkez** | **1.23** | **237** | P | **Pn** | **21 50 06.0** | **+0.9** |
| **EATA** | **Eleskirt** | **1.33** | **335** | *i* P | **Pn** | **21 50 06.1** | **-0.7** |
| **EATA** | **Eleskirt** | **1.33** | **335** | P | **Pn** | **21 50 06.1** | **-0.7** |
| **CUKT** | **Cukurca** | **1.44** | **168** | *e*PN | **Pb** | **21 50 08.4** | **-0.3** |
| **CUKT** | **Cukurca** | **1.44** | **168** | *e*Pn | **Pb** | **21 50 08.4** | **-0.3** |
| **TASB** | **TASBURUN-IGDIR** | **1.54** | **30** | *e*PN | **Pb** | **21 50 10.3** | **0.0** |
| **TASB** | **TASBURUN-IGDIR** | **1.54** | **30** | *e*Pn | **Pb** | **21 50 10.3** | **0.0** |
| **DIGO** | **Kars** | **1.76** | **4** | *i* P | **Pg** | **21 50 15.2** | **0.0** |
| **DIGO** | **Kars** | **1.76** | **4** | P | **Pg** | **21 50 15.2** | **0.0** |
| **SENK** | **Senkaya-Erzuru** | **2.02** | **341** | *e*PN | **Pn** | **21 50 16.9** | **+0.8** |
| **SENK** | **Senkaya-Erzuru** | **2.02** | **341** | *e*Pn | **Pn** | **21 50 16.9** | **+0.8** |

**WEL 22 22:00:16.9**±0.2,**37°90S**×**176°55E**,**h134**km±2km,**ML3.6**/28, **18C-4D**,**Error ellipse: s-maj=2.2km s-min=2.1km az=90.0**,**North Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **LIRZ** | **Lichensteins R** | **0.17** | **231** | PN | Pn | 22 00 34.3 | -0.8 |
| LIRZ | | | | SN | Sn | 22 00 49.5 | +0.5 |
| **TARZ** | **Mount Tarawera** | **0.34** | **186** | PN | Pn | 22 00 36.7 | +0.9 |
| **URZ** | **Urewera** | **0.57** | **130** | ⇑PN | Pn | 22 00 36.8 | +0.1 |
| URZ | | | | SN | Sn | 22 00 51.9 | +0.1 |
| URZ | | | | AML | AML | 22 00 53.0 | |
| **MUGZ** | **Murupara** | **0.60** | **164** | ⇓PN | Pn | 22 00 37.4 | +0.4 |
| MUGZ | | | | SN | Sn | 22 00 52.9 | +0.6 |
| **RTZ** | **Ruatahuna** | **0.79** | **155** | ⇑PN | Pn | 22 00 38.6 | +0.1 |
| RTZ | | | | SN | Sn | 22 00 54.6 | -0.2 |
| **MWZ** | **Matawai** | **0.89** | **120** | PN | Pn | 22 00 39.3 | +0.2 |
| MWZ | | | | SN | Sn | 22 00 55.9 | -0.1 |
| MWZ | | | | AML | AML | 22 00 57.9 | |
| **RUGZ** | **Raukumara Rang** | **0.89** | **95** | ⇓PN | Pn | 22 00 38.6 | -0.7 |
| RUGZ | | | | SN | Sn | 22 00 55.0 | -1.3 |
| **RAGZ** | **Rawiri** | **0.91** | **132** | PN | Pn | 22 00 39.6 | +0.3 |
| RAGZ | | | | SN | Sn | 22 00 56.2 | -0.3 |
| RAGZ | | | | AML | AML | 22 01 00.5 | |
| **MRHZ** | **Matea Rd** | **0.94** | **186** | PN | Pn | 22 00 39.4 | -0.3 |
| MRHZ | | | | AML | AML | 22 00 57.7 | |
| MRHZ | | | | AML | AML | 22 00 58.2 | |
| **MTHZ** | **Maungataniwha** | **0.98** | **167** | ⇑PN | Pn | 22 00 40.0 | 0.0 |
| MTHZ | | | | SN | Sn | 22 00 57.6 | 0.0 |
| **HAZ** | **Te Kaha** | **0.98** | **82** | PN | Pn | 22 00 40.0 | 0.0 |
| HAZ | | | | SN | Sn | 22 00 56.9 | -0.5 |
| HAZ | | | | AML | AML | 22 00 57.5 | |
| HAZ | | | | AML | AML | 22 01 21.5 | |
| HAZ | | | | AML | AML | 22 01 49.1 | |
| **SNGZ** | **Shannon Statio** | **1.08** | **145** | ⇑PN | Pn | 22 00 41.2 | +0.3 |
| SNGZ | | | | SN | Sn | 22 00 58.4 | -0.8 |
| SNGZ | | | | AML | AML | 22 01 00.3 | |
| **TKGZ** | **Te Karaka** | **1.16** | **118** | AML | AML | 22 01 01.3 | |
| TKGZ | | | | AML | AML | 22 01 04.3 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| TUWZ | | | | AML | AML | 22 02 00.6 | |
| **THZ** | **Tophouse** | **4.77** | **215** | PN | Pn | 22 01 23.5 | -3.5 |
| **KHZ** | **Kahutara** | **5.07** | **206** | PN | Pn | 22 01 26.3 | -4.6 |
| **MQZ** | **McQueen's Vall** | **6.51** | **206** | PN | Pn | 22 01 44.0 | -6.3 |

*IDC **22** 22:13:46.4±1.2,54.27S×140.42E,h0km,mb3.7/4, mb1 3.9/4,mb1mx3.7/26,mbtmp3.8/4,MS3.4/5,Ms1 3.4/5, ms1mx3.0/29,Error ellipse: s-maj=40.7km s-min=31.1km az=102.0*

**ISC 22 22:13:47.2**±1.3,**54.4S**±0.2×**140.3E**±0.2,**h10**km,**n14,** σ1§**04**/9,**mb3.8**/4,**MS3.2**/5,**West of Macquarie Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **STKA** | **Stephens Creek** | **22.48** | **3** | P | **P** | **22 18 47.7** | **+1.1** |
| | 5.5nm,0.9s,baz=178,slow=14,SNR=7.5 | | | | | | |
| STKA | | | | LR | LR | 22 26 17.2 | |
| | comp=Z,81nm,18.0s,baz=205,slow=34 | | | | | | |
| **RPZ** | **Rata Peaks** | **22.61** | **75** | P | **P** | **22 18 47.6** | **-0.3** |
| | 2.2nm,0.4s,baz=307,slow=5.1,SNR=3.1 | | | | | | |
| RPZ | | | | LR | LR | 22 25 12.8 | |
| | comp=Z,82nm,20.3s,baz=232,slow=30 | | | | | | |
| **VNDA** | **Vanda** | **24.52** | **169** | LR | LR | 22 28 16.3 | |
| | comp=Z,53nm,18.6s,baz=316,slow=35 | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **26.67** | **306** | T | T | 22 47 26.8 | |
| | baz=141,slow=74,SNR=5.4 | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **26.68** | **306** | T | T | 22 47 27.8 | |
| | baz=141,slow=74,SNR=5.7 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **26.69** | **306** | T | T | 22 47 25.2 | |
| | baz=141,slow=74,SNR=4.0 | | | | | | |
| **ASAR** | **Alice Springs** | **31.02** | **349** | P | **P** | **22 20 04.6** | **-0.3** |
| | 0.3nm,0.7s,baz=166,slow=10,SNR=3.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **34.65** | **350** | P | **P** | **22 20 35.9** | **-0.7** |
| | 0.8nm,0.9s,baz=169,slow=7.5,SNR=6.6 | | | | | | |
| WRA | | | | PcP | **PcP** | **22 23 10.4** | **-0.3** |
| | 0.8nm,0.8s,baz=179,slow=2.2,SNR=4.8 | | | | | | |
| **MAW** | **Mawson** | **37.10** | **218** | LR | LR | 22 34 40.7 | |
| | comp=Z,57nm,19.0s,baz=66,slow=34 | | | | | | |
| **PMG** | **Port Moresby** | **45.16** | **10** | LR | LR | 22 40 14.6 | |
| | comp=Z,116nm,22.0s,baz=28,slow=35 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **127.67** | **234** | PKP | **PKPdf** | **22 32 52.6** | **0.0** |
| | 0.3nm,0.8s,baz=147,slow=3.4,SNR=2.9 | | | | | | |
| **GERES** | **GERESS Array B** | **147.07** | **283** | PKPbc | **PKPab** | **22 33 29.9** | **-1.1** |
| | 0.8nm,0.9s,baz=143,slow=2.1,SNR=5.0 | | | | | | |
| **ARCES** | **ARCESS Array B** | **147.71** | **323** | PKPbc | **PKPbc** | **22 33 30.2** | **-0.2** |
| | 1.9nm,0.7s,baz=92,slow=4.7,SNR=2.9 | | | | | | |
| **ESDC** | **Sonseca Array** | **151.93** | **253** | PKPbc | **PKPbc** | **22 33 43.5** | **+1.8** |
| | 0.2nm,0.4s,baz=108,slow=2.1,SNR=7.8 | | | | | | |

**IDC 22 22:40:59.8**±2.0,**6.95S**×**128.92E**,**h0**km,**mb3.4**/1, **mb1 4.0**/4,**mb1mx3.5**/35,**mbtmp3.8**/4,**ML3.8**/3,**Error ellipse: s-maj=80.7km s-min=27.8km az=75.0,Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **FITZ** | **Fitzroy Crossi** | **11.54** | **196** | Pn | Pn | 22 43 44.8 | -1.1 |
| | 0.7nm,0.3s,baz=20,slow=11,SNR=20 | | | | | | |
| FITZ | | | | Sn | Sn | 22 45 40.3 | -15 |
| | 1.0nm,0.3s,baz=126,slow=22,SNR=7.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **13.94** | **158** | Pn | Pn | 22 44 19.9 | +1.1 |
| | 0.4nm,0.3s,baz=338,slow=13,SNR=22 | | | | | | |
| WRA | | | | Sn | Sn | 22 46 40.6 | -14 |
| | 1.0nm,0.3s,baz=345,slow=21,SNR=11 | | | | | | |
| **ASAR** | **Alice Springs** | **17.29** | **164** | P | Pn | 22 45 03.0 | +0.1 |
| | 0.4nm,0.3s,baz=343,slow=9.2,SNR=52 | | | | | | |
| ASAR | | | | S | Sn | 22 47 59.9 | -16 |
| | 0.1nm,0.3s,baz=345,slow=25,SNR=4.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.60** | **327** | P | P | 22 51 58.5 | 0.0 |
| | 0.2nm,0.4s,baz=118,slow=7.7,SNR=6.2 | | | | | | |

**IDC 22 22:47:00.3**±1.0,**23.80N**×**141.98E**,**h0**km,**mb3.6**/5, **mb1 3.9**/5,**mb1mx3.4**/41,**mbtmp3.6**/5,**MS2.9**/4,**Ms1 2.9**/4, **ms1mx2.6**/39,**Error ellipse: s-maj=54.1km s-min=22.6km az=103.0,Volcano Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GUMO** | **Guam** | **10.52** | **164** | LR | LR | 22 53 02.3 | |
| | comp=Z,46nm,19.5s,baz=90,slow=34 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **13.11** | **346** | LR | LR | 22 54 26.0 | |
| | comp=Z,83nm,20.0s,baz=150,slow=34 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **23.48** | **95** | T | T | 23 16 56.5 | |
| | baz=285,slow=75,SNR=69 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **23.48** | **95** | T | T | 23 17 00.0 | |
| | baz=285,slow=75,SNR=63 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **23.50** | **95** | T | T | 23 17 09.0 | |
| | baz=285,slow=75,SNR=56 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **23.62** | **98** | T | T | 23 17 07.1 | |
| | baz=288,slow=75,SNR=135 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **23.63** | **98** | T | T | 23 17 26.3 | |
| | baz=288,slow=75,SNR=129 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **23.64** | **98** | T | T | 23 17 11.0 | |
| | baz=288,slow=75,SNR=105 | | | | | | |
| **PETK** | **Petropavlovsk-** | **31.60** | **18** | LR | LR | 23 08 33.4 | |
| | comp=Z,11nm,19.1s,baz=196,slow=41 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **40.38** | **271** | LR | LR | 23 10 16.3 | |
| | comp=Z,19nm,21.1s,baz=90,slow=35 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.11** | **190** | P | P | 22 55 10.7 | +0.1 |
| | 1.3nm,0.6s,baz=8.8,slow=8.2,SNR=13 | | | | | | |
| **ASAR** | **Alice Springs** | **47.83** | **190** | P | P | 22 55 39.3 | -0.6 |
| | 0.5nm,0.9s,baz=11,slow=10,SNR=5.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **52.47** | **312** | P | P | 22 56 15.2 | +0.1 |
| | 0.3nm,0.6s,baz=95,slow=7.2,SNR=2.5 | | | | | | |
| **ILAR** | **Eielson Array** | **60.69** | **28** | P | P | 22 57 12.0 | -1.2 |
| | 0.7nm,0.7s,baz=251,slow=5.3,SNR=11 | | | | | | |
| **YKA** | **Yellowknife Ar** | **75.12** | **28** | P | P | 22 58 45.7 | +1.6 |
| | 0.2nm,0.6s,baz=293,slow=5.9,SNR=4.0 | | | | | | |

*NIED **22** 23:06:00,42.60N×144.80E,h38km,Mw3.7 Best double couple: M○4.50000×10^14 NP1:φ○145.00000°,δ19.00000°, λ-40.00000°. NP2:φ○274.00000°,δ78.00000°, λ-104.00000°.*
*MOS **22** 23:06:49.3±0.9,42.45N×144.80E,h61km,mb4.2/1,Error ellipse: s-maj=18.2km s-min=8.9km az=72.0*
*ISCJB **22** 23:06:49.4±0.6,42.49N±0.05×144.79E±0.05,h54km±5km, mb3.7/10,Error ellipse: s-maj=8.5km s-min=4.2km az=149.3*
*SKHL **22** 23:06:50.6±0.0,42.45N×144.84E,h63km±2km,mb4.3/2*
*JMA **22** 23:06:50.5±0.1,42.58N×144.77E,h52km±1km,M3.9 JMA Felt I J1.*
*IDC **22** 23:06:51.6±2.9,42.47N×144.65E,h60km±24km,mb3.3/8, mb1 3.6/10,mb1mx3.4/42,mbtmp3.6/10,ML3.9/2,MS2.9/1, Ms1 2.9/1,ms1mx2.4/23,Error ellipse: s-maj=23.7km s-min=17.5km az=91.0*
*NEIC **22** 23:06:52.0±1.0,42.45N×144.70E,h64km±9km,mb4.3/2, Error ellipse: s-maj=12.0km s-min=8.9km az=109.0*

**ISC 22 23:06:50.5**±1.1,**42.52N**±0.06×**144.77E**±0.04,**h45**km±10km, **n50**,σ0§**91**/64,**mb3.7**/10,**4C-4D**,**Hokkaido region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JAK** | **Akkeshi** | **0.48** | **353** | ⇓P | **Pn** | **23 07 00.7** | **-0.5** |
| JAK | | | | *e*S | **Sn** | **23 07 08.3** | **-0.4** |
| **JOB** | **Onbets** | **0.79** | **299** | ⇓P | **Pn** | **23 07 05.1** | **-0.1** |
| JOB | | | | *e*S | **Sn** | **23 07 16.1** | **+0.1** |
| **JCH** | **Churui** | **1.05** | **276** | ⇑P | **Pn** | **23 07 09.0** | **+0.3** |
| JCH | | | | *e*S | **Sn** | **23 07 22.4** | **+0.2** |
| **JNK** | **Nakash** | **1.06** | **358** | P | **Pn** | **23 07 08.0** | **-1.0** |
| **JAR** | **Ashorobuto** | **1.07** | **317** | ⇓P | **Pn** | **23 07 08.5** | **-0.5** |
| JAR | | | | *e*S | **Sn** | **23 07 22.3** | **-0.5** |
| **NEM2** | **Nemuro 2** | **1.10** | **40** | ⇑P | **Pn** | **23 07 09.0** | **-0.5** |
| NEM2 | | | | *e*S | **Sn** | **23 07 22.6** | **-0.9** |
| **ERM** | **Erimo** | **1.30** | **248** | *e*Pn | **Pn** | **23 07 13.6** | **+1.4** |
| ERM | | | | *e* | | 23 07 27.7 | |
| **ERM** | **Erimo** | **1.30** | **248** | *e*Pn | **Pn** | **23 07 13.6** | **+1.4** |
| ERM | | | | *e*Sn | **Sn** | **23 07 27.7** | **-0.7** |
| **GLVR** | **Golovnino** | **1.33** | **24** | *i* PN | **Pn** | **23 07 12.7** | **+0.1** |
| GLVR | | | | *e*S | **Sn** | **23 07 29.3** | **+0.1** |
| **GLVR** | **Golovnino** | **1.33** | **24** | *i* P | **Pn** | **23 07 12.7** | **+0.1** |
| GLVR | | | | *e*S | **Sn** | **23 07 29.3** | **+0.1** |
| **JRA** | **Rausu** | **1.44** | **10** | ⇑P | **Pn** | **23 07 13.8** | **-0.3** |
| JRA | | | | *e*S | **Sn** | **23 07 30.9** | **-0.8** |
| **JNBK** | **Urakawa-nobuka** | **1.52** | **261** | P | **Pn** | **23 07 15.4** | **+0.3** |
| **HRK** | **Horoka** | **1.53** | **309** | *e*P | **Pn** | **23 07 15.4** | **0.0** |
| HRK | | | | *e*S | **Sn** | **23 07 33.8** | **-0.4** |
| **JTKR** | **Abashiri--Toko** | **1.58** | **337** | ⇑P | **Pn** | **23 07 16.5** | **+0.5** |
| **GRPR** | **Tuman** | **1.64** | **26** | *e*PN | **Pn** | **23 07 17.0** | **+0.1** |
| GRPR | | | | *e*S | **Sn** | **23 07 36.4** | **-0.3** |
| **GRPR** | **Tuman** | **1.64** | **26** | *e*P | **Pn** | **23 07 17.0** | **+0.1** |
| GRPR | | | | *e*S | **Sn** | **23 07 36.4** | **-0.3** |
| **LAGR** | **Lagunnoye** | **1.70** | **25** | *i* PN | **Pn** | **23 07 17.9** | **+0.2** |
| LAGR | | | | *e*S | **Sn** | **23 07 38.8** | **+0.6** |
| **LAGR** | **Lagunnoye** | **1.70** | **25** | *i* P | **Pn** | **23 07 17.9** | **+0.2** |
| LAGR | | | | *e*S | **Sn** | **23 07 38.8** | **+0.6** |
| **YUK** | **Yuzh-Kuril'sk** | **1.71** | **27** | *i* PN | **Pn** | **23 07 17.7** | **-0.1** |
| YUK | | | | *i* S | **Sn** | **23 07 39.0** | **+0.6** |
| YUK | | | | pmax | pmax | | |
| | comp=Z,968nm,0.3s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=E,400nm,0.4s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=N,339nm,0.5s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,2μm,0.5s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=E,2μm,0.4s | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **1.71** | **27** | *i* P | **Pn** | **23 07 17.7** | **-0.1** |
| YUK | | | | AMB | AMB | 23 07 18.6 | |
| | comp=E,340nm,0.2s | | | | | | |
| YUK | | | | AMB | AMB | 23 07 18.6 | |
| | comp=E,97nm,0.2s | | | | | | |
| YUK | | | | *i* S | **Sn** | **23 07 39.0** | **+0.6** |
| YUK | | | | A | A | 23 07 42.0 | |
| | comp=E,160nm,0.2s | | | | | | |
| YUK | | | | A | A | 23 07 42.0 | |
| | comp=E,180nm,0.2s | | | | | | |
| **JBT2** | **Biratori 2** | **1.80** | **279** | P | **Pn** | **23 07 18.7** | **-0.3** |
| **JMP** | **Maruseppu** | **1.81** | **326** | P | **Pn** | **23 07 19.6** | **+0.4** |
| JMP | | | | *e*S | **Sn** | **23 07 41.1** | **+0.2** |
| **JKA** | **Kamikawa-asahi** | **2.25** | **316** | *e*P | **Pn** | **23 07 26.7** | **+1.5** |
| **ASAJ** | **Asahikawa** | **2.25** | **316** | P | **Pn** | **23 07 26.7** | **+1.5** |
| | comp=E,43nm,0.3s,baz=138,slow=12,SNR=42 | | | | | | |
| ASAJ | | | | S | **Sn** | **23 07 53.2** | **+1.5** |
| | comp=E,50nm,0.3s,baz=27,slow=33,SNR=23 | | | | | | |
| **KUR** | **Kuril'sk** | **3.51** | **38** | ⇓*i* PN | **Pn** | **23 07 44.3** | **+1.8** |
| KUR | | | | *e*S | **Sn** | **23 08 26.9** | **+4.1** |
| KUR | | | | pmax | pmax | | |
| | comp=Z,94nm,0.6s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=N,120nm,0.3s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,64nm,0.4s | | | | | | |
| **KUR** | **Kuril'sk** | **3.51** | **38** | *e*P | **Pn** | **23 07 43.9** | **+1.4** |
| KUR | | | | AMB | AMB | 23 07 44.6 | |
| | comp=E,23nm,0.3s | | | | | | |
| KUR | | | | *e*S | **Sn** | **23 08 24.0** | **+1.2** |
| KUR | | | | A | A | 23 08 26.9 | |
| | comp=E,165nm,0.5s | | | | | | |
| KUR | | | | A | A | 23 08 26.9 | |
| | comp=E,99nm,0.5s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **4.66** | **343** | *e*P | **Pn** | **23 08 00.1** | **+1.9** |
| **MJAR** | **Matsushiro Arr** | **7.83** | **222** | P | **Pn** | **23 08 41.9** | **0.0** |
| | comp=E,0.4nm,0.3s,baz=27,slow=14,SNR=7.5 | | | | | | |
| MJAR | | | | LR | LR | 23 12 08.9 | |
| | comp=E,76nm,19.5s,baz=300,slow=41 | | | | | | |
| **MDJ** | **Mudanjiang** | **11.21** | **286** | *e*Pn | **Pn** | **23 09 28.9** | **+0.9** |
| | comp=E,0.5nm,0.4s | | | | | | |
| **SONM** | **Songino Array** | **27.37** | **294** | P | **P** | **23 12 31.0** | **-0.4** |
| | comp=E,1.0nm,0.8s,baz=90,slow=8.6,SNR=3.2 | | | | | | |
| **SONM** | **Songino Array** | **27.37** | **294** | P | **P** | **23 12 31.0** | **-0.4** |
| **H11N2** | **WAKE ISLAND Hy** | **29.41** | **134** | T | T | 23 43 59.5 | |
| | baz=327,slow=76,SNR=251 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **29.42** | **134** | T | T | 23 44 01.7 | |
| | baz=327,slow=76,SNR=234 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **29.43** | **134** | T | T | 23 44 02.1 | |
| | baz=327,slow=76,SNR=228 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **30.32** | **135** | T | T | 23 45 12.1 | |
| | baz=328,slow=76,SNR=572 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **30.32** | **135** | T | T | 23 45 12.1 | |
| | baz=328,slow=76,SNR=324 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **30.34** | **135** | T | T | 23 45 13.0 | |
| | baz=328,slow=76,SNR=312 | | | | | | |
| **COLA** | **College** | **43.08** | **35** | P | **P** | **23 14 45.9** | **+0.3** |
| **COLA** | **College** | **43.08** | **35** | *e*P | **P** | **23 14 45.9** | **+0.3** |
| **COLA** | **College** | **43.08** | **35** | P | **P** | **23 14 45.9** | **+0.3** |
| | comp=E,2.7nm,0.6s | | | | | | |
| **ILAR** | **Eielson Array** | **43.50** | **35** | P | **P** | **23 14 49.2** | **+0.2** |
| | comp=E,1.0nm,0.8s,baz=265,slow=7.2,SNR=9.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.62** | **298** | P | **P** | **23 14 49.8** | **-0.4** |
| | comp=E,0.2nm,0.5s,baz=83,slow=11,SNR=4.9 | | | | | | |
| **KURK** | **Kurchatov** | **44.78** | **304** | *e*P | **P** | **23 14 59.3** | **-0.2** |
| **KURK** | **Kurchatov** | **44.78** | **304** | *e*P | **P** | **23 14 59.3** | **-0.2** |
| **KURK** | **Kurchatov** | **44.78** | **304** | *e*P | **P** | **23 14 59.3** | **-0.2** |
| | comp=E,3.6nm,0.6s | | | | | | |
| **INK** | **Inuvik** | **48.33** | **30** | P | **P** | **23 15 27.7** | **+0.7** |
| | comp=E,0.4nm,0.4s,baz=233,slow=6.7,SNR=3.5 | | | | | | |
| **YKA** | **Yellowknife Ar** | **57.78** | **33** | P | **P** | **23 16 36.7** | **+0.1** |
| | comp=E,0.2nm,0.6s,baz=303,slow=7.0,SNR=4.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **62.89** | **191** | P | **P** | **23 17 10.5** | **-1.5** |
| | comp=E,0.5nm,0.7s,baz=6.8,slow=6.8,SNR=5.4 | | | | | | |
| **FINES** | **FINESS Array B** | **65.17** | **332** | P | **P** | **23 17 25.9** | **-0.5** |
| | comp=E,1.7nm,0.8s,baz=46,slow=8.2,SNR=7.5 | | | | | | |
| **NOA** | **NORSAR Array B** | **70.10** | **338** | P | **P** | **23 17 57.0** | **-0.6** |
| | comp=E,0.7nm,0.8s,baz=34,slow=6.4,SNR=2.6 | | | | | | |

*NIED **22** 23:18:00,39.50N×144.00E,h11km,Mw3.8 Best double couple: M○4.84000×10^14 NP1:φ○179.00000°,δ35.00000°, λ61.00000°. NP2:φ○33.00000°,δ60.00000°,λ109.00000°.*
*JMA **22** 23:18:53.7±0.2,39.47N×143.98E,h10km,M4.1*
*ISCJB **22** 23:18:54.9±0.9,39.43N±0.04×143.89E±0.10,h11km, mb3.7/6,Error ellipse: s-maj=11.7km s-min=4.4km az=25.8*
*IDC **22** 23:18:54.4±2.2,39.40N×144.07E,h0km,mb3.7/6, mb1 3.7/8,mb1mx3.5/64,mbtmp3.7/8,ML3.5/2,MS2.5/2, Ms1 2.5/2,ms1mx2.3/50,Error ellipse: s-maj=55.6km s-min=22.5km az=80.0*

**ISC 22 23:18:56.7**±1.2,**39.47N**±0.06×**143.79E**±0.09,**h11**km,**n25,** σ1§**29**/31,**mb3.7**/6,**Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MIYJ** | **Miyakonagasawa** | **1.53** | **275** | P | **Pn** | **23 19 23.5** | **-0.4** |
| MIYJ | | | | *e*S | **Sn** | **23 19 44.7** | **+1.0** |
| **JTH** | **Tanohata** | **1.56** | **288** | P | **Pn** | **23 19 23.9** | **-0.4** |
| **OFUJ** | **Ofunato** | **1.69** | **258** | P | **Pn** | **23 19 25.7** | **-0.4** |
| **JOM** | **Ohasama** | **1.93** | **271** | P | **Pn** | **23 19 29.7** | **+0.2** |
| **JANG** | **Nango** | **1.97** | **298** | P | **Pn** | **23 19 29.6** | **-0.4** |
| **JMK** | **Ichinoseki** | **2.06** | **256** | P | **Pn** | **23 19 31.2** | **0.0** |
| **JYK** | **Kaneyama** | **2.72** | **259** | P | **Pn** | **23 19 40.9** | **+0.6** |
| **JNBK** | **Urakawa-nobuka** | **2.92** | **345** | P | **Pb** | **23 19 45.2** | **-3.5** |
| JNBK | | | | *e*S | **Sn** | **23 20 19.5** | **+1.4** |
| **JCH** | **Churui** | **3.16** | **354** | P | **Pn** | **23 19 47.6** | **+1.2** |
| JCH | | | | *e*S | **Sn** | **23 20 23.4** | **-0.7** |
| **JKB** | **Kayabe** | **3.20** | **320** | P | **Pb** | **23 19 51.7** | **-1.8** |
| **JFT** | **Otama** | **3.33** | **235** | P | **Pn** | **23 19 48.7** | **0.0** |
| JFT | | | | *e*S | **Sn** | **23 20 27.7** | **-0.6** |
| **JAK** | **Akkeshi** | **3.59** | **11** | *e*S | **Sn** | **23 20 33.7** | **-1.0** |
| **JAR** | **Ashorobuto** | **3.83** | **360** | P | **Pn** | **23 19 55.8** | **+0.3** |
| JAR | | | | *e*S | **Sn** | **23 20 38.5** | **-2.0** |
| **ASAJ** | **Asahikawa** | **4.73** | **350** | Pn | **Pn** | **23 20 09.2** | **+1.2** |
| | 1.2nm,0.3s,baz=202,slow=5.4,SNR=2.8 | | | | | | |
| ASAJ | | | | Sn | **Sn** | **23 21 04.7** | **+1.9** |
| | 3.0nm,0.3s,baz=240,slow=20,SNR=4.2 | | | | | | |
| **MAT** | **Matsushiro** | **5.28** | **238** | P | **Pn** | **23 20 16.6** | **+1.0** |
| MAT | | | | *e*S | **Sn** | **23 21 15.7** | **-0.8** |
| **MJAR** | **Matsushiro Arr** | **5.28** | **238** | Pn | **Pn** | **23 20 17.3** | **+1.7** |
| | 2.2nm,0.3s,baz=33,slow=14,SNR=18 | | | | | | |
| **KSRS** | **Korea Array** | **12.60** | **266** | Pn | **P** | **23 22 06.6** | **-0.7** |
| | 0.2nm,0.3s,baz=78,slow=12,SNR=4.6 | | | | | | |
| KSRS | | | | LR | LR | 23 26 05.8 | |
| | comp=Z,23nm,18.4s,baz=92,slow=34 | | | | | | |
| **KLR** | **Kul'dur** | **13.00** | **323** | Pn | **P** | **23 22 13.4** | **+1.6** |
| | 0.0nm,0.3s,baz=150,slow=7.4,SNR=4.6 | | | | | | |
| **PETK** | **Petropavlovsk-** | **16.65** | **30** | LR | LR | 23 28 40.6 | |
| | comp=Z,18nm,21.2s,baz=156,slow=35 | | | | | | |
| **SONM** | **Songino Array** | **28.09** | **300** | P | **P** | **23 24 49.0** | **+0.6** |
| | 0.3nm,0.5s,baz=99,slow=8.7,SNR=3.9 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.71** | **310** | P | **P** | **23 26 46.7** | **+1.4** |
| | 1.0nm,0.4s,baz=94,slow=8.3,SNR=5.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.46** | **300** | P | **P** | **23 27 08.1** | **+0.5** |
| | 0.9nm,0.8s,baz=82,slow=9.9,SNR=4.6 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **46.02** | **306** | P | **P** | **23 27 20.9** | **+0.9** |
| | 0.9nm,0.6s,baz=80,slow=8.2,SNR=6.4 | | | | | | |
| **BVAR** | **Borovoye Array** | **50.35** | **311** | P | **P** | **23 27 54.9** | **+1.5** |
| | 0.5nm,0.4s,baz=77,slow=7.7,SNR=5.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **59.75** | **190** | P | **P** | **23 29 00.7** | **-0.9** |
| | 0.6nm,1.0s,baz=8.9,slow=6.9,SNR=2.5 | | | | | | |

*GUC **22** 23:19:59.4±0.5,37.84S×74.19W,h5km±20km,ML3.9*

*SJA **22** 23:20:00.2±1.0,37.60S×74.03W,h2km±27km,ML3.3, MW4.1*

**ISC 22 23:20:02.6**±2.8,**37.65S**±0.08×**74.0W**±0.1,**h10**km,**n9,** σ1§**28**/15,**Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **COCH** | **Cobquecura** | **1.78** | **32** | *e*P | **Pb** | **23 20 33.7** | **-1.7** |
| COCH | | | | *e*S | **Sg** | **23 20 59.7** | **-0.2** |
| **COCH** | **Cobquecura** | **1.78** | **32** | *e*P | **Pn** | **23 20 33.4** | **0.0** |
| COCH | | | | *i* S | **Sg** | **23 20 59.9** | **0.0** |
| COCH | | | | IAML | | 23 21 02.3 | |
| | comp=N,937nm,0.5s | | | | | | |
| **CCHI** | **Chillan** | **1.83** | **56** | *e*P | **Pb** | **23 20 35.4** | **-0.8** |
| CCHI | | | | *e*S | **Sg** | **23 21 00.7** | **-0.8** |
| **CCHI** | **Chillan** | **1.83** | **56** | *e*P | **Pb** | **23 20 34.8** | **-1.4** |
| CCHI | | | | *i* S | **Sg** | **23 21 00.9** | **-0.6** |
| CCHI | | | | IAML | | 23 21 08.5 | |
| | comp=N,136nm,0.6s | | | | | | |
| CCHI | | | | IAML | | 23 21 13.2 | |
| | comp=N,4μm,0.8s | | | | | | |
| **CANA** | **Caviahue** | **2.31** | **97** | *e*P | **Pb** | **23 20 43.4** | **-1.1** |
| CANA | | | | *e*S | **Sb** | **23 21 14.3** | **+1.1** |
| CANA | | | | IAML | | 23 21 28.8 | |
| | comp=Z,219nm,0.8s | | | | | | |
| **GO05** | **HualaæØ** | **3.10** | **33** | *e*P | **Pn** | **23 20 52.6** | **+1.0** |
| GO05 | | | | *e*S | **Sb** | **23 21 38.4** | **+2.6** |
| **GO05** | **HualaæØ** | **3.10** | **33** | *e*P | **Pn** | **23 20 52.6** | **+1.0** |
| GO05 | | | | *i* S | **Sb** | **23 21 35.3** | **-0.5** |
| GO05 | | | | IAML | | 23 21 44.5 | |
| | comp=E,682nm,0.7s | | | | | | |
| **PLCA** | **Paso Flores** | **4.06** | **140** | IAML | | 23 22 20.7 | |
| | comp=Z,220nm,0.9s | | | | | | |
| **LMEL** | **Las Melosas** | **4.87** | **40** | *e*P | **Pn** | **23 21 17.5** | **+1.4** |

*ISCJB **22** 23:21:45.6±0.6,26.39N±0.04×94.87W±0.04,h10km, mb3.7/4,Error ellipse: s-maj=6.4km s-min=4.9km az=4.6*
*IDC **22** 23:21:46.4±1.1,26.31N×95.02W,h0km,mb3.4/3, mb1 3.9/6,mb1mx3.5/55,mbtmp3.6/6,ML4.0/3,Error ellipse: s-maj=25.4km s-min=21.1km az=90.0*

**ISC 22 23:21:46.4**±0.7,**26.40N**±0.05×**95.05W**±0.06,**h10**km,**n150,** σ2§**57**/171,**mb3.6**/4,**Gulf of Mexico**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **541A** | **Lake Charles** | **4.00** | **24** | P | **Pn** | **23 22 49.4** | **+1.7** |
| | baz=204 | | | | | | |
| 541A | | | | S | **Sn** | **23 23 35.4** | **+0.7** |
| | baz=204 | | | | | | |
| **833A** | **Chaparral WMA,** | **4.31** | **297** | P | **Pn** | **23 22 54.7** | **+2.6** |
| | baz=108,SNR=14 | | | | | | |
| 833A | | | | S | **Sn** | **23 23 37.1** | **-5.3** |
| | baz=108 | | | | | | |
| **441A** | **DeRidder** | **4.64** | **20** | P | **Pn** | **23 22 58.0** | **+1.5** |
| | baz=200 | | | | | | |
| 441A | | | | S | **Sn** | **23 23 48.7** | **-1.7** |
| | baz=200 | | | | | | |
| **435B** | **Jarrell** | **4.91** | **334** | P | **Pn** | **23 23 04.4** | **+4.2** |
| | baz=147,SNR=9.5 | | | | | | |
| 435B | | | | S | **Sn** | **23 23 52.4** | **-4.6** |
| | baz=147 | | | | | | |
| **341A** | **Kurthwood** | **5.19** | **18** | P | **Pn** | **23 23 07.3** | **+3.2** |
| | baz=198 | | | | | | |
| 341A | | | | S | **Sn** | **23 24 00.0** | **-4.0** |
| | baz=198 | | | | | | |
| **NATX** | **Nacogdoches** | **5.36** | **4** | P | **Pn** | **23 23 10.3** | **+3.9** |
| | baz=181,SNR=14 | | | | | | |
| NATX | | | | S | **Sn** | **23 24 05.3** | **-2.8** |
| | baz=181 | | | | | | |
| **342A** | **Flagon Creek P** | **5.51** | **25** | P | **Pn** | **23 23 11.5** | **+3.0** |
| | baz=206 | | | | | | |
| 342A | | | | S | **Sn** | **23 24 11.2** | **-0.6** |
| | baz=206 | | | | | | |
| **237A** | **Washetta, Mont** | **5.62** | **353** | P | **Pn** | **23 23 14.1** | **+4.0** |
| | baz=169,SNR=7.5 | | | | | | |
| 237A | | | | S | **Sn** | **23 24 11.1** | **-3.6** |
| | baz=169 | | | | | | |
| **343A** | **Vidalia** | **5.73** | **31** | P | **Pn** | **23 23 12.6** | **+1.1** |
| | baz=213 | | | | | | |
| **236A** | **Katherine and** | **5.73** | **347** | P | **Pn** | **23 23 15.2** | **+3.7** |
| | baz=163 | | | | | | |
| 236A | | | | S | **Sn** | **23 24 14.6** | **-2.8** |
| | baz=163 | | | | | | |
| **JCT** | **Junction City** | **5.83** | **315** | S | **Sn** | **23 24 14.2** | **-5.8** |
| | baz=128 | | | | | | |
| **241A** | **Mo Tay, Goldon** | **5.91** | **18** | S | **Sn** | **23 24 16.5** | **-5.2** |
| | baz=198 | | | | | | |
| **WHTX** | **Lake Whitney,** | **5.96** | **340** | P | **Pn** | **23 23 18.9** | **+4.2** |
| | baz=154 | | | | | | |
| **445A** | **Amite** | **5.99** | **43** | P | **Pn** | **23 23 17.5** | **+2.5** |
| | baz=226 | | | | | | |
| **242A** | **Grayson** | **6.19** | **23** | P | **Pn** | **23 23 20.2** | **+2.4** |
| | baz=204,SNR=6.7 | | | | | | |
| 242A | | | | S | **Sn** | **23 24 24.5** | **-4.1** |
| | baz=204 | | | | | | |
| **136A** | **Ennis** | **6.19** | **348** | P | **Pn** | **23 23 21.3** | **+3.4** |
| | baz=164,SNR=11 | | | | | | |
| 136A | | | | S | **Sn** | **23 24 23.7** | **-5.0** |
| | baz=164 | | | | | | |
| **137A** | **Heron Place, G** | **6.21** | **355** | P | **Pn** | **23 23 21.9** | **+3.8** |
| | baz=171 | | | | | | |
| 137A | | | | S | **Sn** | **23 24 25.3** | **-3.8** |
| | baz=171 | | | | | | |
| **138A** | **Matatall Enter** | **6.24** | **360** | P | **Pn** | **23 23 22.2** | **+3.7** |
| | baz=177

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | baz=232 | | | | | | |
| 145A | **Houston Renfro** | 7.63 | 35 | P | Pn | 23 23 38.5 | +1.0 |
| | baz=217 | | | | | | |
| Y35A | **Marietta** | 7.68 | 348 | P | Pn | 23 23 41.9 | +3.6 |
| | baz=164,SNR=17 | | | | | | |
| Y40A | **Okolona** | 7.74 | 11 | P | Pn | 23 23 40.9 | +1.7 |
| | baz=190 | | | | | | |
| Y41A | **Eaglette Beard** | 7.75 | 15 | P | Pn | 23 23 40.9 | +1.6 |
| | baz=195 | | | | | | |
| Z44A | **Pea Ridge, Bel** | 7.94 | 29 | P | Pn | 23 23 42.9 | +1.0 |
| | baz=211,SNR=8.7 | | | | | | |
| 247A | **Quitman** | 7.96 | 43 | P | Pn | 23 23 42.9 | +0.7 |
| | baz=228 | | | | | | |
| 348A | **Jackson** | 8.02 | 50 | P | Pn | 23 23 43.8 | +0.9 |
| | baz=235 | | | | | | |
| 146A | **Union** | 8.12 | 39 | P | Pn | 23 23 45.1 | +0.8 |
| | baz=222 | | | | | | |
| X35A | **Drake** | 8.15 | 349 | P | Pn | 23 23 47.7 | +3.0 |
| | baz=165,SNR=22 | | | | | | |
| TXAR | **Lajitas Array** | 8.17 | 293 | Pn | Pn | 23 23 46.9 | +1.9 |
| | 0.6nm,0.3s,baz=111,slow=14,SNR=31 | | | | | | |
| TXAR | | | | Sn | Sn | 23 25 09.8 | -7.7 |
| | 1.4nm,0.3s,baz=217,slow=14,SNR=9.8 | | | | | | |
| X37A | **Clayton** | 8.17 | 358 | P | Pn | 23 23 48.1 | +3.0 |
| | baz=176,SNR=26 | | | | | | |
| MIAR | **Mount Ida** | 8.22 | 9 | P | Pn | 23 23 47.5 | +1.7 |
| | baz=188,SNR=12 | | | | | | |
| X36A | **Centrahoma** | 8.22 | 352 | P | Pn | 23 23 48.4 | +2.6 |
| | baz=169,SNR=10 | | | | | | |
| X38A | **Whitesboro** | 8.25 | 1 | P | Pn | 23 23 49.0 | +2.9 |
| | baz=179,SNR=18 | | | | | | |
| X40A | **Basin Creek Fa** | 8.29 | 13 | P | Pn | 23 23 48.1 | +1.4 |
| | baz=193 | | | | | | |
| Y43A | **Makayla and Ka** | 8.30 | 24 | P | Pn | 23 23 47.9 | +1.1 |
| | baz=206 | | | | | | |
| Z45A | **Winona** | 8.36 | 33 | P | Pn | 23 23 48.5 | +0.8 |
| | baz=215 | | | | | | |
| 248A | **Dixon Mills** | 8.54 | 47 | P | Pn | 23 23 50.6 | +0.4 |
| | baz=231 | | | | | | |
| 147A | **Livingston** | 8.60 | 42 | P | Pn | 23 23 51.8 | +0.9 |
| | baz=226 | | | | | | |
| Z46A | **Louisville** | 8.60 | 37 | P | Pn | 23 23 52.5 | +1.5 |
| | baz=220,SNR=10 | | | | | | |
| Y44A | **Strider, Charl** | 8.62 | 28 | P | Pn | 23 23 52.4 | +1.2 |
| | baz=210 | | | | | | |
| X42A | **Stuttgart** | 8.65 | 19 | P | Pn | 23 23 53.3 | +1.8 |
| | baz=200 | | | | | | |
| W38A | **Poteau** | 8.66 | 3 | P | Pn | 23 23 55.3 | +3.6 |
| | baz=181,SNR=25 | | | | | | |
| W37B | **Quinton** | 8.72 | 358 | P | Pn | 23 23 55.2 | +2.6 |
| | baz=176,SNR=7.4 | | | | | | |
| W36A | **Wetumka** | 8.77 | 354 | P | Pn | 23 23 55.8 | +2.5 |
| | baz=171,SNR=13 | | | | | | |
| W39A | **Magazine** | 8.84 | 7 | P | Pn | 23 23 56.8 | +2.6 |
| | baz=186,SNR=17 | | | | | | |
| Y45A | **Yeager Farm, C** | 8.84 | 31 | P | Pn | 23 23 55.1 | +0.9 |
| | baz=214 | | | | | | |
| X43A | **Marvell** | 8.86 | 23 | P | Pn | 23 23 55.6 | +1.2 |
| | baz=204 | | | | | | |
| W35A | **Tecumseh** | 8.87 | 350 | P | Pn | 23 23 57.1 | +2.5 |
| | baz=167,SNR=10.0 | | | | | | |
| WMOK | **Wichita Mounta** | 8.91 | 340 | P | Pn | 23 23 58.8 | +3.5 |
| | baz=155 | | | | | | |
| W40A | **Ferguson Farm,** | 8.93 | 11 | P | Pn | 23 23 57.8 | +2.3 |
| | baz=190,SNR=7.5 | | | | | | |
| W41B | **Gary Mavity, V** | 9.07 | 15 | P | Pn | 23 23 59.0 | +1.6 |
| | baz=195 | | | | | | |
| Z47A | **Carrollton** | 9.10 | 40 | P | Pn | 23 23 58.4 | +0.8 |
| | baz=224,SNR=6.7 | | | | | | |
| X44A | **Crenshaw** | 9.12 | 26 | P | Pn | 23 23 58.6 | +0.6 |
| | baz=209 | | | | | | |
| Y46A | **Houston** | 9.19 | 34 | P | Pn | 23 23 59.5 | +0.6 |
| | baz=218,SNR=8.1 | | | | | | |
| CMIG | **Matias Romero** | 9.26 | 179 | Pn | Pn | 23 24 01.5 | +1.5 |
| | 1.0nm,0.3s,baz=4.6,slow=12,SNR=6.2 | | | | | | |
| CMIG | | | | Sn | Sn | 23 25 38.0 | -6.3 |
| | 1.5nm,0.3s,baz=147,slow=20,SNR=12 | | | | | | |
| X45A | **UM Field Stati** | 9.37 | 30 | P | Pn | 23 24 01.3 | -0.2 |
| | baz=213 | | | | | | |
| V36A | **Jenks** | 9.39 | 356 | P | Pn | 23 24 03.8 | +2.1 |
| | baz=173,SNR=6.8 | | | | | | |
| OXF | **Oxford** | 9.44 | 30 | P | Pn | 23 24 02.5 | +0.1 |
| | baz=212 | | | | | | |
| V38A | **Canehill** | 9.45 | 3 | P | Pn | 23 24 04.2 | +1.6 |
| | baz=182,SNR=9.2 | | | | | | |
| V37A | **Hulbert** | 9.46 | 360 | P | Pn | 23 24 04.8 | +2.2 |
| | baz=178,SNR=19 | | | | | | |
| V35A | **Meyer Ranch, C** | 9.46 | 351 | P | Pn | 23 24 04.5 | +1.8 |
| | baz=168 | | | | | | |
| V39A | **Pettigrew** | 9.49 | 7 | P | Pn | 23 24 05.1 | +1.9 |
| | baz=186,SNR=14 | | | | | | |
| TUL1 | **Leonard** | 9.51 | 356 | P | Pn | 23 24 05.4 | +2.1 |
| | baz=174,SNR=6.7 | | | | | | |
| Z48A | **Northport** | 9.52 | 41 | P | Pn | 23 24 03.8 | +0.2 |
| | baz=226 | | | | | | |
| V40A | **Witts Springs** | 9.57 | 11 | P | Pn | 23 24 05.1 | +0.8 |
| | baz=191,SNR=7.9 | | | | | | |
| LRAL | **Lakeview Retre** | 9.63 | 45 | P | Pn | 23 24 05.2 | +0.1 |
| | baz=230 | | | | | | |
| V41A | **Mountainview** | 9.68 | 14 | P | Pn | 23 24 07.2 | +1.4 |
| | baz=195 | | | | | | |
| Y47A | **UCPARC, Winfie** | 9.73 | 38 | P | Pn | 23 24 07.1 | +0.7 |
| | baz=222 | | | | | | |
| V42A | **Cord** | 9.89 | 18 | P | Pn | 23 24 10.2 | +1.6 |
| | baz=199,SNR=7.5 | | | | | | |
| U37A | **Salina** | 9.98 | 360 | P | Pn | 23 24 11.7 | +1.9 |
| | baz=178 | | | | | | |
| U36A | **Oologah** | 9.98 | 357 | P | Pn | 23 24 11.8 | +1.9 |
| | baz=175 | | | | | | |
| Z49A | **Columbiana** | 10.03 | 46 | P | Pn | 23 24 11.4 | +0.9 |
| | baz=231 | | | | | | |
| U35A | **Pawnee** | 10.05 | 352 | P | Pn | 23 24 12.8 | +2.0 |
| | baz=169 | | | | | | |
| W45A | **Hickory Valley** | 10.08 | 29 | P | Pn | 23 24 11.7 | +0.5 |
| | baz=211 | | | | | | |
| U40A | **Yellville** | 10.11 | 10 | P | Pn | 23 24 13.1 | +1.5 |
| | baz=190 | | | | | | |
| Y48A | **Jasper** | 10.13 | 40 | P | Pn | 23 24 12.0 | +0.1 |
| | baz=225 | | | | | | |
| X47A | **Russelville** | 10.20 | 36 | P | Pn | 23 24 13.1 | +0.3 |
| | baz=220,SNR=7.2 | | | | | | |
| U41A | **Viola** | 10.27 | 14 | P | Pn | 23 24 14.9 | +1.1 |
| | baz=195 | | | | | | |
| U42A | **Revenden** | 10.45 | 17 | P | Pn | 23 24 17.5 | +1.3 |
| | baz=198 | | | | | | |
| T35A | **Sooner Cattle** | 10.56 | 354 | P | Pn | 23 24 19.6 | +1.8 |
| | baz=171,SNR=7.6 | | | | | | |
| X48A | **Hartselle** | 10.59 | 39 | P | Pn | 23 24 17.9 | -0.3 |
| | baz=223 | | | | | | |
| T38A | **Diamond** | 10.63 | 3 | P | Pn | 23 24 20.2 | +1.5 |
| | baz=182,SNR=6.4 | | | | | | |
| T36A | **Boggs Farm, Ca** | 10.66 | 356 | P | Pn | 23 24 20.9 | +1.8 |
| | baz=174,SNR=9.6 | | | | | | |
| V45A | **Humboldt** | 10.68 | 28 | P | Pn | 23 24 19.3 | -0.1 |
| | baz=211 | | | | | | |
| T37A | **Cheneyville 18** | 10.70 | 1 | P | Pn | 23 24 21.4 | +1.8 |
| | baz=179 | | | | | | |
| T34A | **McClaskey Farm** | 10.75 | 351 | P | Pn | 23 24 22.4 | +2.1 |
| | baz=168 | | | | | | |
| T40A | **Mansfield** | 10.94 | 11 | P | Pn | 23 24 24.1 | +1.1 |
| | baz=191 | | | | | | |
| T41A | **Mountain View** | 10.98 | 14 | P | Pn | 23 24 25.0 | +1.5 |
| | baz=195 | | | | | | |
| X49A | **Woodville** | 11.05 | 41 | P | Pn | 23 24 24.5 | +0.1 |
| | baz=226 | | | | | | |
| T42A | **Van Buren** | 11.12 | 17 | P | Pn | 23 24 26.5 | +1.0 |
| | baz=198 | | | | | | |
| S38A | **Stockton** | 11.24 | 5 | P | Pn | 23 24 28.9 | +1.7 |
| | baz=184,SNR=5.9 | | | | | | |
| S35A | **Otter Creek Ra** | 11.30 | 355 | P | Pn | 23 24 29.5 | +1.5 |
| | baz=172 | | | | | | |
| S36A | **Lake Cedric, C** | 11.30 | 358 | P | Pn | 23 24 29.7 | +1.7 |
| | baz=176,SNR=18 | | | | | | |
| S37A | **Fort Scott** | 11.33 | 1 | P | Pn | 23 24 29.8 | +1.4 |
| | baz=180,SNR=6.2 | | | | | | |
| S39A | **Bolivar** | 11.36 | 7 | P | Pn | 23 24 30.0 | +1.3 |
| | baz=187 | | | | | | |
| S40A | **Lebanon** | 11.38 | 10 | P | Pn | 23 24 30.4 | +1.5 |
| | baz=191 | | | | | | |
| T43A | **Greenville** | 11.40 | 20 | P | Pn | 23 24 30.5 | +1.3 |
| | baz=202 | | | | | | |
| S34A | **Willow Spring** | 11.41 | 352 | P | Pn | 23 24 31.0 | +1.6 |
| | baz=169 | | | | | | |
| X50A | **Fort Payne** | 11.42 | 43 | P | Pn | 23 24 29.5 | 0.0 |
| | baz=228 | | | | | | |
| WVT | **Waverly** | 11.50 | 31 | P | Pn | 23 24 30.7 | +0.1 |
| | baz=214 | | | | | | |
| U46A | **Springville** | 11.53 | 29 | P | Pn | 23 24 31.5 | +0.4 |
| | baz=212 | | | | | | |
| V48A | **Smith Brothers** | 11.68 | 35 | P | Pn | 23 24 33.5 | +0.3 |
| | baz=220 | | | | | | |
| R38A | **Fenwick Farm,** | 11.80 | 4 | P | Pn | 23 24 36.4 | +1.7 |
| | baz=184 | | | | | | |
| S42A | **Caledonia** | 11.90 | 17 | P | Pn | 23 24 38.1 | +2.0 |
| | baz=198 | | | | | | |
| R36A | **Gordon, Harris** | 11.90 | 358 | P | Pn | 23 24 37.6 | +1.4 |
| | baz=177 | | | | | | |
| T45A | **Paducah** | 11.91 | 26 | P | Pn | 23 24 36.8 | +0.5 |
| | baz=209 | | | | | | |
| U47A | **Clarksville** | 12.00 | 32 | P | Pn | 23 24 37.4 | -0.1 |
| | baz=216 | | | | | | |
| R34A | **Isabella, Hill** | 12.01 | 352 | P | Pn | 23 24 39.0 | +1.3 |
| | baz=169 | | | | | | |
| R40A | **Maddies Statio** | 12.09 | 11 | P | Pn | 23 24 39.8 | +1.1 |
| | baz=191 | | | | | | |
| Q35A | **Mercer Eighty,** | 12.46 | 356 | P | Pn | 23 24 44.7 | +1.0 |
| | baz=174,SNR=9.7 | | | | | | |
| S45A | **Carrier Mills** | 12.51 | 24 | P | Pn | 23 24 44.5 | 0.0 |
| | baz=208 | | | | | | |
| Q36A | **Arnold C. Orve** | 12.54 | 359 | P | Pn | 23 24 45.9 | +1.1 |
| | baz=177 | | | | | | |
| Q34A | **Chapman** | 12.59 | 353 | P | Pn | 23 24 46.6 | +1.0 |
| | baz=171 | | | | | | |
| P37A | **Lathrop** | 13.17 | 2 | P | Pn | 23 24 54.5 | +1.1 |
| | baz=182 | | | | | | |
| P34A | **Walnut Farm, R** | 13.20 | 354 | P | Pn | 23 24 54.5 | +0.6 |
| | baz=172 | | | | | | |
| TKL | **Tuckaleechee C** | 13.36 | 44 | Pn | Pn | 23 24 55.3 | -0.7 |
| | 0.7nm,0.3s,baz=231,slow=13,SNR=7.4 | | | | | | |
| TKL | | | | Sn | Sn | 23 27 17.7 | -7.0 |
| | 0.4nm,0.3s,baz=349,slow=16,SNR=3.3 | | | | | | |
| N35A | **Tabor** | 14.44 | 358 | P | Pn | 23 25 10.5 | -0.2 |
| | baz=177 | | | | | | |
| BGNE | **Belgrade** | 15.19 | 351 | P | Pn | 23 25 20.7 | -0.3 |
| | baz=168 | | | | | | |
| ECSD | **EROS Data Cent** | 17.34 | 356 | P | Pn | 23 25 47.6 | -0.9 |
| | baz=174,SNR=8.3 | | | | | | |
| I37A | **Lemond, Waseca** | 17.63 | 4 | P | Pn | 23 25 48.4 | -3.7 |
| | baz=184 | | | | | | |
| SADO | **Sadowa** | 22.37 | 31 | P | P | 23 26 46.8 | +2.2 |
| | 3.3nm,0.6s,baz=246,slow=10.0,SNR=2.8 | | | | | | |
| YKA | **Yellowknife Ar** | 38.37 | 346 | P | P | 23 29 10.2 | +2.8 |
| | 0.2nm,0.7s,baz=147,slow=8.4,SNR=3.7 | | | | | | |
| NNA | **Nana** | 42.06 | 153 | P | P | 23 29 38.4 | -0.1 |
| | 13nm,0.7s,baz=242,slow=17,SNR=4.3 | | | | | | |
| ILAR | **Eielson Array** | 50.43 | 334 | P | P | 23 30 47.1 | +3.3 |
| | 0.2nm,0.7s,baz=119,slow=7.3,SNR=3.2 | | | | | | |
| WRA | **Warramunga Arr** | 134.36 | 267 | PKP | PKPdf | 23 41 06.2 | +0.9 |
| | 0.3nm,0.9s,baz=78,slow=2.3,SNR=3.4 | | | | | | |
| ASAR | **Alice Springs** | 135.77 | 262 | PKP | PKPdf | 23 41 10.9 | +3.0 |
| | 0.3nm,0.6s,baz=97,slow=3.9,SNR=2.7 | | | | | | |

*IDC* ***22*** *23:26:16.8±0.6, 41.77N×19.30E, h0km, mb3.9/17, mb1 4.0/30, mb1mx3.8/66, mbtmp3.8/30, ML3.6/11, MS2.9/4, Ms1 2.9/4, ms1mx2.5/51, Error ellipse: s-maj=10.1km s-min=9.6km az=8.0*

*ATH* ***22*** *23:26:17.7, 41.77N×19.17E, h15km±2km, ML3.8/5, Error ellipse: s-maj=4.0km s-min=1.3km az=171.0*

*THE* ***22*** *23:26:18.4, 41.80N×19.20E, h0km±1km, ML3.7/11, Error ellipse: s-maj=2.5km s-min=0.6km az=266.0*

*PRU* ***22*** *23:26:18.1, 41.50N×19.23E, h11km, M4.0*

*LDG* ***22*** *23:26:18.9±0.1, 41.81N×19.25E, h15km, Ml4.0/12, Error ellipse: s-maj=1.9km s-min=1.6km az=7.0*

*TIR* ***22*** *23:26:18.1±2.2, 41.86N×19.35E, h29km±24km, ML3.9*

*ROM* ***22*** *23:26:18.4±0.1, 41.78N×19.28E, h10km, Ml3.8/29, Error ellipse: s-maj=2.1km s-min=1.3km az=95.0*

*PDG* ***22*** *23:26:19.2±0.5, 41.82N×19.28E, h15km, ML3.8/11, Error ellipse: s-maj=0.4km s-min=0.5km az=0.0*

*NEIC* ***22*** *23:26:19.0±0.0, 41.81N×19.27E, h15km, mb4.0/1, ML3.9(PDG), After PDG.*

*BEO* ***22*** *23:26:19.6±0.5, 41.77N×19.21E, h12km±3km, M3.2/1*

*MOS* ***22*** *23:26:19.4±1.6, 41.76N×19.15E, h35km, mb4. 1/6, Error ellipse: s-maj=6.3km s-min=4.3km az=106.9*

*CSEM* ***22*** *23:26:19.3±0.1, 41.79N×19.26E, h10km, ML3.9/9, Error ellipse: s-maj=1.9km s-min=1.6km az=64.0*

**ISC 22 23:26:18.6±0.8, 41.79N±0.01×19.31E±0.02, h12km±5km, n556, σ1§55/712, mb4.0/17, 41C-36D, Albania**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **ULC** | **Ulcinj** | **0.18** | **345** | | | ⇑ *i* | Pg | 23 26 23.0 | +0.3 |
| ULC | | | | | | *e* | Sg | 23 26 25.8 | +0.2 |
| **ULC** | **Ulcinj** | **0.18** | **345** | | | P | Pg | 23 26 23.0 | +0.3 |
| ULC | | | | | | *e* | Sg | 23 26 25.8 | +0.2 |
| **DRME** | **Dracevica, Mon** | **0.41** | **347** | | | ⇓ *i* | Pg | 23 26 26.6 | -0.2 |
| DRME | | | | | | *e* | Sg | 23 26 30.6 | +0.3 |
| **DRME** | **Dracevica, Mon** | **0.41** | **347** | | | ⇓ *i* | Pg | 23 26 26.6 | -0.2 |
| DRME | | | | | | *e* | Sg | 23 26 33.2 | +0.9 |
| **PUK** | **Puka** | **0.51** | **59** | | | *i* | PG | 23 26 28.4 | -0.1 |
| PUK | | | | | | *i* | SG | 23 26 36.5 | -0.3 |
| **PUK** | **Puka** | **0.51** | **59** | | | *i* | Pg | 23 26 28.4 | -0.1 |
| | SNR=115 | | | | | | | | |
| PUK | | | | | | *i* | Sg | 23 26 36.5 | -0.3 |
| | SNR=115 | | | | | | | | |
| **BUM** | **Brajici-Budva** | **0.60** | **329** | | | ⇑ *i* | Pg | 23 26 30.5 | +0.2 |
| BUM | | | | | | *e* | Sg | 23 26 39.0 | -0.5 |
| **BUM** | **Brajici-Budva** | **0.60** | **329** | | | ⇑ *i* | Pg | 23 26 30.5 | +0.2 |
| BUM | | | | | | *e* | Sg | 23 26 39.0 | -0.5 |
| **TIR** | **Tirane** | **0.60** | **136** | | | *i* | PG | 23 26 30.6 | +0.3 |
| TIR | | | | | | *i* | SG | 23 26 40.1 | +0.6 |
| **TIR** | **Tirane** | **0.60** | **136** | | | *e* | Pg | 23 26 31.8 | +0.7 |
| TIR | | | | | | *e* | Sg | 23 26 42.2 | -0.5 |
| **TIR** | **Tirane** | **0.60** | **136** | | | P | Pn | 23 26 30.7 | +0.3 |
| | 6µm,0.6s | | | | | | | | |
| **TIR** | **Tirane** | **0.60** | **136** | | | ⇓ *i* | P | 23 26 30.6 | +0.3 |
| TIR | | | | | | S | Sb | 23 26 39.8 | +0.3 |
| **TIR** | **Tirane** | **0.60** | **136** | | | *e* | P | 23 26 31.1 | 0.0 |
| TIR | | | | | | *e* | | 23 26 40.3 | |
| **TIR** | **Tirane** | **0.60** | **136** | | | P | Pg | 23 26 30.5 | +0.3 |
| TIR | | | | | | S | Sb | 23 26 40.3 | +0.7 |
| TIR | | | | | | AML | AML | 23 26 44.0 | |
| | comp=E,24279µm,0.3s | | | | | | | | |
| TIR | | | | | | AML | AML | 23 26 45.2 | |
| | comp=N,19177µm,0.4s | | | | | | | | |
| **TIR** | **Tirane** | **0.60** | **136** | | | *i* | Pg | 23 26 30.6 | +0.3 |
| | SNR=102 | | | | | | | | |
| TIR | | | | | | *i* | Sg | 23 26 40.1 | +0.6 |
| | SNR=102 | | | | | | | | |
| **TIR** | **Tirane** | **0.60** | **136** | | | P | Pg | 23 26 30.7 | +0.3 |
| | comp=N,6µm,0.6s | | | | | | | | |
| **TIR** | **Tirane** | **0.60** | **136** | | | *e* | P | 23 26 31.1 | 0.0 |
| **TIR** | **Tirane** | **0.60** | **136** | | | *e* | Pg | 23 26 31.8 | +0.7 |
| TIR | | | | | | *e* | Sg | 23 26 40.2 | +0.6 |
| **TIR** | **Tirane** | **0.60** | **136** | | | *e* | P | 23 26 31.1 | 0.0 |
| TIR | | | | | | *e* | Sg | 23 26 40.2 | +0.7 |
| **PDG** | **Podgorica** | **0.65** | **356** | | | *e* | Pg | 23 26 30.5 | -0.6 |
| PDG | | | | | | *e* | Sg | 23 26 41.8 | +1.1 |
| **PDG** | **Podgorica** | **0.65** | **356** | | | P | Pg | 23 26 30.5 | -0.6 |
| PDG | | | | | | S | Sb | 23 26 40.8 | +0.1 |
| | comp=N,2µm,0.5s | | | | | | | | |
| **PDG** | **Podgorica** | **0.65** | **356** | | | ⇓ *i* | Pg | 23 26 30.5 | -0.6 |
| PDG | | | | | | *e* | Sg | 23 26 40.5 | -0.2 |
| PDG | | | | | | Sn | Sb | 23 26 40.8 | +0.1 |
| | comp=N,2µm,0.5s | | | | | | | | |
| **PDG** | **Podgorica** | **0.65** | **356** | | | P | Pg | 23 26 30.4 | -0.6 |
| PDG | | | | | | S | Sg | 23 26 40.3 | +0.7 |
| **TTG** | **Podgorica** | **0.65** | **356** | | | ⇓ *i* | Pg | 23 26 30.5 | -0.6 |
| TTG | | | | | | *e* | Sg | 23 26 40.5 | -0.2 |
| **BCI** | **Bajram Curri** | **0.81** | **44** | | | *i* | PG | 23 26 33.4 | -0.9 |
| BCI | | | | | | *i* | SG | 23 26 42.1 | -2.7 |
| **BCI** | **Bajram Curri** | **0.81** | **44** | | | *i* | Pg | 23 26 33.4 | -0.9 |
| | SNR=99 | | | | | | | | |
| BCI | | | | | | *i* | Sg | 23 26 42.1 | -2.7 |
| | SNR=99 | | | | | | | | |
| **CEME** | **Cevo** | **0.81** | **339** | | | ⇑ *i* | Pg | 23 26 33.9 | -0.4 |
| CEME | | | | | | *e* | Sg | 23 26 46.2 | +0.5 |
| **CEME** | **Cevo** | **0.81** | **339** | | | ⇑ *i* | Pg | 23 26 33.9 | -0.4 |
| CEME | | | | | | *e* | Sg | 23 26 46.2 | +0.5 |
| **PHP** | **Peshkopia** | **0.85** | **96** | | | *i* | PG | 23 26 35.4 | +0.1 |
| PHP | | | | | | *i* | SG | 23 26 47.2 | +0.4 |
| **PHP** | **Peshkopia** | **0.85** | **96** | | | *i* | Pg | 23 26 35.4 | +0.1 |
| | SNR=95 | | | | | | | | |
| PHP | | | | | | *i* | Sg | 23 26 47.2 | +0.4 |
| | SNR=95 | | | | | | | | |
| **HCY** | **Herceg Novi** | **0.90** | **318** | | | ⇑ *i* | Pg | 23 26 35.4 | -0.5 |
| HCY | | | | | | *e* | Sg | 23 26 49.0 | -0.9 |
| **HCY** | **Herceg Novi** | **0.90** | **318** | | | ⇑ *i* | Pg | 23 26 35.4 | -0.5 |
| HCY | | | | | | *e* | Sb | 23 26 48.6 | +0.6 |
| **PVY** | **Plav** | **0.94** | **31** | | | ⇓ *i* | Pg | 23 26 36.0 | -0.8 |
| PVY | | | | | | *e* | Sn | 23 26 51.2 | 0.0 |
| **NKME** | **Niksic** | **1.01** | **345** | | | ⇓ *i* | Pg | 23 26 37.5 | -0.6 |
| NKME | | | | | | *e* | Sn | 23 26 53.1 | +0.2 |
| **NKME** | **Niksic** | **1.01** | **345** | | | ⇓ *i* | Pg | 23 26 37.5 | -0.6 |
| NKME | | | | | | *e* | Sn | 23 26 53.1 | +0.2 |
| **NKY** | **Niksic** | **1.05** | **347** | | | ⇑ *i* | Pg | 23 26 38.5 | -0.3 |
| NKY | | | | | | *e* | Sn | 23 26 54.3 | +0.4 |
| **NKY** | **Niksic** | **1.05** | **347** | | | ⇑ *i* | Pg | 23 26 38.5 | -0.3 |
| NKY | | | | | | *e* | Sn | 23 26 54.3 | +0.4 |
| **KOME** | **Kolasin** | **1.07** | **8** | | | ⇓ *i* | Pg | 23 26 38.4 | -0.8 |
| KOME | | | | | | *e* | Sn | 23 26 55.2 | +0.8 |
| **KOME** | **Kolasin** | **1.07** | **8** | | | ⇓ *i* | Pg | 23 26 38.4 | -0.8 |
| KOME | | | | | | *e* | Sn | 23 26 55.2 | +0.8 |
| **PEJK** | **Peje** | **1.12** | **40** | | | P | Pb | 23 26 38.7 | -1.2 |
| **BEY** | **Berane** | **1.17** | **22** | | | P | Pb | 23 26 40.0 | -0.7 |
| BEY | | | | | | *e* | Sn | 23 26 58.6 | +1.9 |
| **IVA** | **Berane** | **1.17** | **22** | | | ⇓ *i* | Pg | 23 26 40.1 | -0.7 |
| IVA | | | | | | *e* | Sn | 23 26 58.6 | +1.9 |
| **TREB** | **Trebinje** | **1.17** | **323** | | | *e* | Pg | 23 26 41.0 | -0.1 |
| TREB | | | | | | *e* | Sn | 23 26 56.9 | +0.2 |
| **TREB** | **Trebinje** | **1.17** | **323** | | | *e* | Pg | 23 26 41.0 | -0.1 |
| TREB | | | | | | *e* | Sn | 23 26 56.9 | +0.2 |
| **ZATK** | **Zatriq** | **1.18** | **55** | | | P | Pn | 23 26 40.1 | -0.9 |
| **BRY** | **Bratogost** | **1.25** | **333** | | | ⇑ *i* | Pg | 23 26 42.8 | +0.1 |
| BRY | | | | | | *e* | Sg | 23 27 01.7 | +2.7 |
| **BRY** | **Bratogost** | **1.25** | **333** | | | ⇑ *i* | Pg | 23 26 42.8 | +0.1 |
| BRY | | | | | | *e* | Sg | 23 27 00.1 | +1.1 |
| **OHR** | **Ohrid** | **1.31** | **121** | | | *e* | Pn | 23 26 43.3 | +0.2 |
| **UPM** | **Unac-Piva** | **1.45** | **348** | | | ⇑ *i* | Pg | 23 26 45.8 | +0.2 |
| UPM | | | | | | *e* | Sg | 23 27 06.3 | +1.1 |
| **UPM** | **Unac-Piva** | **1.45** | **348** | | | ⇑ *i* | Pg | 23 26 45.8 | +0.2 |
| **UPM** | **Unac-Piva** | **1.45** | **348** | | | *e* | Pn | 23 26 46.3 | -0.1 |
| **UPM** | **Unac-Piva** | **1.45** | **348** | | | P | Pg | 23 26 46.3 | +0.1 |
| UPM | | | | | | *e* | Sn | 23 27 05.7 | +0.5 |
| UPM | | | | | | *e* | Sg | 23 27 06.3 | +1.1 |
| **KRUS** | **Krusevo** | **1.51** | **105** | | | *e* | Pn | 23 26 46.0 | +0.4 |
| **PLE** | **Pljevlja** | **1.54** | **2** | | | ⇑ *i* | Pg | 23 26 47.1 | -0.1 |
| PLE | | | | | | *e* | Sg | 23 27 08.8 | +0.5 |
| **PLE** | **Pljevlja** | **1.54** | **2** | | | ⇑ *i* | Pg | 23 26 47.1 | -0.1 |
| PLE | | | | | | *e* | Sg | 23 27 08.8 | +0.5 |
| **SJES** | **Sjenica** | **1.55** | **18** | | | *e* | Pn | 23 26 47.1 | -0.2 |
| SJES | | | | | | *e* | Sn | 23 27 09.1 | +0.5 |
| **SJES** | **Sjenica** | **1.55** | **18** | | | *e* | Pn | 23 26 47.1 | -0.2 |
| SJES | | | | | | *e* | Sn | 23 27 09.1 | +0.5 |
| **SKO** | **Skopje** | **1.60** | **83** | | | P | Pb | 23 26 48.8 | +0.7 |
| SKO | | | | | | S | Sg | 23 27 12.3 | +2.2 |
| **SKO** | **Skopje** | **1.60** | **83** | | | P | Pb | 23 26 48.8 | +0.7 |
| SKO | | | | | | S | Sg | 23 27 12.3 | +2.2 |
| **SKO** | **Skopje** | **1.60** | **83** | | | *e* | Pn | 23 26 48.5 | +0.4 |
| **KBN** | **Korca** | **1.61** | **136** | | | *i* | PG | 23 26 49.7 | +0.2 |
| **KBN** | **Korca** | **1.61** | **136** | | | *i* | Pg | 23 26 49.7 | +0.2 |
| | SNR=91 | | | | | | | | |
| **STON** | **Ston** | **1.61** | **313** | | | *e* | Pn | 23 26 48.0 | -0.3 |
| STON | | | | | | *e* | Sn | 23 27 10.8 | +0.3 |
| **STON** | **Ston** | **1.61** | **313** | | | *e* | Pn | 23 26 47.9 | -0.3 |
| STON | | | | | | *e* | Sn | 23 27 10.7 | +0.3 |
| **SMRK** | **Smrekonice** | **1.62** | **47** | | | P | Pb | 23 26 49.0 | +0.5 |
| SMRK | | | | | | S | Sg | 23 27 13.4 | +2.6 |
| **MESG** | **Mesagne** | **1.63** | **223** | | | Pn | Pn | 23 26 46.9 | -0.1 |
| | comp=N,2µm,0.5s | | | | | | | | |
| **MESG** | **Mesagne** | **1.63** | **223** | | | Pn | Pn | 23 26 46.9 | -0.1 |
| | comp=N,2µm,0.5s | | | | | | | | |
| **BIA** | **Bitola** | **1.70** | **116** | | | P | Pb | 23 26 49.6 | -0.2 |
| BIA | | | | | | S | Sg | 23 27 15.0 | +1.8 |
| **BIA** | **Bitola** | **1.70** | **116** | | | P | Pb | 23 26 49.6 | -0.2 |
| BIA | | | | | | S | Sg | 23 27 15.0 | +1.8 |
| **BIA** | **Bitola** | **1.70** | **116** | | | *e* | Pg | 23 26 51.0 | -0.2 |
| **FASA** | **Fasano** | **1.76** | **237** | | | *e* | Pn | 23 26 49.4 | +0.5 |
| **CGL1** | **Ceglie Messapi** | **1.79** | **231** | | | *e* | Pg | 23 26 52.6 | -0.2 |
| **SCTE** | **Santa Cesarea** | **1.83** | **201** | | | Pn | Pb | 23 26 50.9 | -1.0 |
| | comp=N,465nm,0.6s | | | | | | | | |
| **SCTE** | **Santa Cesarea** | **1.83** | **201** | | | Pn | Pb | 23 26 50.9 | -1.0 |
| | comp=N,465nm,0.6s | | | | | | | | |
| **FNA** | **Florina** | **1.85** | **122** | | | P | Pb | 23 26 53.0 | +0.6 |
| FNA | | | | | | AML | AML | 23 27 22.3 | |
| | comp=E,4383µm,0.6s | | | | | | | | |
| FNA | | | | | | AML | AML | 23 27 24.4 | |
| | comp=N,5141µm,0.9s | | | | | | | | |
| **FNA** | **Florina** | **1.85** | **122** | | | P | Pb | 23 26 51.7 | -0.7 |
| FNA | | | | | | S | Sg | 23 27 18.3 | +0.2 |
| **FNA** | **Florina** | **1.85** | **122** | | | P | Pb | 23 26 51.7 | -0.7 |
| FNA | | | | | | S | Sg | 23 27 18.3 | +0.2 |
| **IVAS** | **Ivanjica** | **1.89** | **19** | | | *e* | Pn | 23 26 52.4 | -0.7 |
| IVAS | | | | | | *e* | Sn | 23 27 16.8 | +0.1 |
| **IVAS** | **Ivanjica** | **1.89** | **19** | | | *e* | Pb | 23 26 52.4 | -0.7 |
| IVAS | | | | | | *e* | Sn | 23 27 16.8 | +0.1 |
| **NEST** | **Nestorio** | **1.90** | **136** | | | P | Pb | 23 26 54.1 | +0.9 |
| **NEST** | **Nestorio** | **1.90** | **136** | | | P | Pb | 23 26 53.4 | +0.2 |
| NEST | | | | | | S | Sg | 23 27 18.9 | -0.7 |
| **NEST** | **Nestorio** | **1.90** | **136** | | | P | Pb | 23 26 53.4 | +0.2 |
| NEST | | | | | | S | Sg | 23 27 18.9 | -0.7 |
| **BAI** | **Bari** | **1.95** | **250** | | | *i* | Pn | 23 26 51.6 | +0.2 |
| **SELS** | **Selova** | **1.96** | **42** | | | *e* | Pn | 23 26 53.0 | +1.3 |
| SELS | | | | | | *e* | Sn | 23 27 18.4 | -0.2 |
| **SELS** | **Selova** | **1.96** | **42** | | | *e* | Pn | 23 26 53.0 | +1.3 |
| SELS | | | | | | *e* | Sn | 23 27 18.4 | -0.2 |
| **NOCI** | **Noci** | **1.96** | **240** | | | Pn | Pn | 23 26 51.6 | -0.1 |
| **NOCI** | **Noci** | **1.96** | **240** | | | P | Pn | 23 26 51.5 | -0.1 |
| **NOCI** | **Noci** | **1.96** | **240** | | | Pn | Pn | 23 26 51.6 | -0.1 |
| **TAR1** | **Taranto** | **1.98** | **231** | | | *e* | Pg | 23 26 56.2 | -0.3 |
| **MASS** | **Massafra** | **2.00** | **236** | | | *e* |

JAN Janina 2.43 151 P Pn 23 27 00.1 +2.0
JAN S Sb 23 27 31.6 -0.5
JAN Janina 2.43 151 P Pn 23 27 00.1 +2.0
JAN S Sb 23 27 31.6 -0.5
MRVN Minervino Murg 2.45 254 Pn Pn 23 26 58.3 -0.1
MRVN Minervino Murg 2.45 254 Pn Pn 23 26 58.3 -0.1
GRG Griva 2.47 109 P Pn 23 27 00.7 +2.1
GRG Griva 2.47 109 P Pn 23 27 00.7 +2.1
GRG Griva 2.47 109 P Pn 23 27 00.8 +2.1
VAY Valandovo 2.49 100 ePn Pb 23 27 01.2 -2.0
VAY eSn Sb 23 27 32.5 -1.3
VAY Valandovo 2.49 100 P Pn 23 27 01.1 +2.2
VAY eSn Sb 23 27 32.5 -1.3
VAY Valandovo 2.49 100 P Pn 23 27 01.1 +2.2
MS1 Monte Sant'Ang 2.52 269 ePn Pn 23 26 59.3 -0.1
MSAG Monte S. Angel 2.54 269 Pn Pn 23 26 59.6 -0.1
MSAG Monte S. Angel 2.54 269 Pn Pn 23 26 59.6 -0.1
BOVS Bovan 2.56 43 ePn Pn 23 27 01.4 +1.6
BOVS Bovan 2.56 43 ePn Pn 23 27 01.4 +1.6
TRUS Trudelj 2.57 18 ePn Pn 23 27 01.4 +1.5
TRUS Trudelj 2.57 18 ePn Pn 23 27 01.4 +1.5
ACER Acerenza 2.73 250 Pn Pn 23 27 02.5 +0.3
ACER Acerenza 2.73 250 Pn Pn 23 27 02.5 +0.3
TEKS Tekeris 2.77 3 ePn Pn 23 27 04.0 +1.3
TEKS Tekeris 2.77 3 ePn Pn 23 27 04.0 +1.3
TEKS eSn Sn 23 27 37.9 +1.8
KNT Kendrikon 2.77 102 P Pn 23 27 04.5 +1.7
KNT Kendrikon 2.77 102 P Pn 23 27 04.5 +1.7
KNT S Sb 23 27 40.8 -1.0
KNT Kendrikon 2.77 102 P Pn 23 27 05.0 +2.3
KNT S Sb 23 27 40.8 -1.0
SVIS Svilajnac 2.84 29 ePn Pn 23 27 06.4 +2.6
ZAPS Zavoj 2.87 58 ePn Pb 23 27 07.2 -2.6
ZAPS Zavoj 2.87 58 ePn Pb 23 27 07.2 -2.6
SCHR S. Chirico Rap 2.92 238 Pn Pn 23 27 05.7 +0.9
LIT Litokhoron 2.94 124 P Pn 23 27 07.8 +2.7
LIT Litokhoron 2.94 124 P Pn 23 27 07.6 +2.5
LIT Litokhoron 2.94 124 P Pn 23 27 07.6 +2.5
ZAGS Zajecar 2.96 46 ePn Pn 23 27 06.8 +1.5
ZAGS Zajecar 2.96 46 ePn Pn 23 27 06.8 +1.5
DSL Palaion Diasel 2.98 152 P Pn 23 27 07.3 +1.6
DSL Palaion Diasel 2.98 152 P Pn 23 27 07.3 +1.6
DSL S Sn 23 27 44.5 +3.2
DSL Palaion Diasel 2.98 152 P Pn 23 27 07.4 +1.7
DSL S Sn 23 27 44.5 +3.2
PIPA Pietrapaola 2.98 220 Pn Pn 23 27 05.5 -0.2
comp=N,195nm,0.5s
PIPA Pietrapaola 2.98 220 Pn Pn 23 27 05.5 -0.2
comp=N,195nm,0.5s
THE Thessaloniki 2.99 111 P Pn 23 27 06.5 +0.8
THE Thessaloniki 2.99 111 P Pn 23 27 06.5 +0.8
VTS Vitosha 3.01 73⇓iP Pn 23 27 08.5 +2.3
VTS Vitosha 3.01 73 S Sn 23 27 45.5 +3.3
VTS Vitosha 3.01 73 P Pn 23 27 08.4 +2.3
VTS S Sb 23 27 45.8 -3.1
VTS Vitosha 3.01 73 P Pn 23 27 08.4 +2.3
VTS S Sb 23 27 45.8 -3.1
THL Klokotos Trika 3.03 136 P Pn 23 27 07.8 +1.6
THL Klokotos Trika 3.03 136 P Pn 23 27 07.8 +1.6
THL S Sb 23 27 46.5 -2.7
THL Klokotos Trika 3.03 136 P Pn 23 27 07.9 +1.6
THL S Sb 23 27 46.5 -2.7
MRLC Muro Lucano 3.06 252 Pn Pn 23 27 06.7 0.0
MRLC Muro Lucano 3.06 252 Pn Pn 23 27 06.7 0.0
SIRI Monte Sirino - 3.06 240 Pn Pn 23 27 07.9 +1.1
SIRI Monte Sirino - 3.06 240 Pn Pn 23 27 07.9 +1.1
DOB Doboj 3.08 344 ePn Pn 23 27 08.0 +1.1
DOB eSn Sn 23 27 45.5 +1.9
T0711 Rotonda (PZ) 3.08 234 Pn Pn 23 27 07.6 +0.5
comp=N,291nm,0.7s
MTSN Montesano sull 3.09 242 Pn Pn 23 27 07.2 0.0
MTSN Montesano sull 3.09 242 Pn Pn 23 27 07.2 0.0
HORT Hortiatis 3.10 111 P Pn 23 27 08.1 +0.8
HORT Hortiatis 3.10 111 P Pn 23 27 08.1 +0.8
SLCN Sala Consilina 3.11 245 Pn Pn 23 27 08.2 +0.7
comp=N,352nm,0.6s
SLCN Sala Consilina 3.11 245 Pn Pn 23 27 08.2 +0.7
comp=N,352nm,0.6s
KUBS Kucevo 3.15 33 ePn Pn 23 27 08.0 +0.1
KUBS Kucevo 3.15 33 ePn Pn 23 27 08.0 +0.1
LKD2 Lefkada island 3.17 161 P Pn 23 27 07.9 -0.3
LKD2 Lefkada island 3.17 161 P Pn 23 27 08.7 +0.5
LKD2 Lefkada island 3.17 161 P Pn 23 27 08.7 +0.5
CUC Castrocucco 3.20 237 Pn Pn 23 27 09.3 +0.6
comp=N,182nm,0.6s
CUC Castrocucco 3.20 237 P Pn 23 27 10.0 +1.3
CUC Castrocucco 3.20 237 ePn Pn 23 27 09.2 +0.6
CUC Castrocucco 3.20 237 P Pn 23 27 10.0 +1.3
CUC Castrocucco 3.20 237 ePn Pn 23 27 09.2 +0.6
TIP Timpagrande 3.25 218 Pn Pn 23 27 09.1 -0.3
comp=N,111nm,0.6s
TIP Timpagrande 3.25 218 P Pn 23 27 08.7 -0.7
TIP Timpagrande 3.25 218 P Pn 23 27 08.9 -0.5
TIP Timpagrande 3.25 218 ePn Pn 23 27 09.2 -0.3
TIP Timpagrande 3.25 218 ePn Pn 23 27 09.2 -0.3
TIP Timpagrande 3.25 218 P Pn 23 27 08.9 -0.5
MGR Morigerati 3.29 241 Pn Pn 23 27 11.0 +1.2
comp=N,228nm,0.7s
MGR Morigerati 3.29 241 Pn Pn 23 27 11.0 +1.2
comp=N,228nm,0.7s
CDRU Civita di Ruta 3.29 248 Pn Pn 23 27 09.9 -0.1
comp=N,84nm,0.2s
CDRU Civita di Ruta 3.29 248 Pn Pn 23 27 09.9 -0.1
comp=N,84nm,0.2s
BLY Banja Luka 3.34 333 Pn Pn 23 27 12.3 +1.7
BLY Banja Luka 3.34 333 ePn Pn 23 27 12.1 +1.5
BLY eSn Sn 23 27 52.1 +1.9
CMPR Campora 3.37 245 Pn Pn 23 27 12.5 +1.5
comp=N,136nm,0.3s
CMPR Campora 3.37 245 Pn Pn 23 27 12.5 +1.5
comp=N,136nm,0.3s
FGSL Fruska Gora 3.39 6 ePn Pn 23 27 12.0 +0.7
FRGS Fruska Gora 3.39 6 ePn Pn 23 27 12.0 +0.7
SERS Sersale 3.40 217 Pn Pn 23 27 10.8 -0.7
comp=N,137nm,0.6s
SERS Sersale 3.40 217 Pn Pn 23 27 10.8 -0.7
comp=N,137nm,0.6s
CET2 Cetraro 3.41 230 Pn Pn 23 27 12.3 +0.8
comp=N,451nm,0.7s
CET2 Cetraro 3.41 230 Pn Pn 23 27 12.3 +0.8
comp=N,451nm,0.7s
BULG Bulgheria - Ca 3.43 241 Pn Pn 23 27 12.4 +0.5
comp=N,215nm,0.4s
BULG Bulgheria - Ca 3.43 241 Pn Pn 23 27 12.4 +0.5
comp=N,215nm,0.4s
EVR Evrytania 3.44 146 P Pn 23 27 15.4 +3.3
EVR Evrytania 3.44 146 P Pn 23 27 14.5 +2.4
EVR Evrytania 3.44 146 P Pn 23 27 14.5 +2.4
MDVR Moldovita 3.47 30⇑iP Pn 23 27 13.7 +1.3
MDVR Moldovita 3.47 30⇑iP Pn 23 27 13.7 +1.3
MDVR S Sn 23 27 55.1 +1.6
PDO Prodromos 3.49 155 P Pn 23 27 12.6 -0.1
PDO Prodromos 3.49 155 P Pn 23 27 13.6 +0.9
PDO Prodromos 3.49 155 P Pn 23 27 13.6 +0.9
PVO Paravola 3.59 151 P Pn 23 27 15.3 +1.3
PVO Paravola 3.59 151 P Pn 23 27 15.3 +1.3
PVO Paravola 3.59 151 P Pn 23 27 15.6 +1.6
AGG Agios Georgios 3.60 139 P Pn 23 27 15.9 +1.7
AGG S Sn 23 27 59.9 +3.3
AGG Agios Georgios 3.60 139 P Pn 23 27 15.9 +1.7
AGG S Sn 23 27 59.9 +3.3
FYTO Fytoko, Volos 3.64 129 P Pn 23 27 18.8 +4.0
FYTO Fytoko, Volos 3.64 129 P Pn 23 27 18.8 +4.0
PAOL Paolisi 3.65 260 Pn Pn 23 27 15.7 +0.9
comp=N,102nm,0.6s
PAOL Paolisi 3.65 260 Pn Pn 23 27 15.7 +0.9
comp=N,102nm,0.6s
GRI Girifalco 3.69 218 Pn Pn 23 27 14.2 -1.3
comp=N,127nm,0.7s
GRI Girifalco 3.69 218 Pn Pn 23 27 14.2 -1.3
comp=N,127nm,0.7s
DJES Djerdap 3.71 38 ePn Pn 23 27 17.8 +2.1
DJES eSn Sn 23 28 01.2 +1.8
VLS Valsamata 3.74 164 P Pn 23 27 14.3 -1.8
VLS Valsamata 3.74 164 P Pn 23 27 15.9 -0.2
VLS Valsamata 3.74 164 P Pn 23 27 15.9 -0.2
UDBI Udbina 3.77 318 iPn Pn 23 27 18.7 +2.1
UDBI Sn Sn 23 28 02.9 +2.0
UDBI Udbina 3.77 318 iPn Pn 23 27 18.7 +2.1
UDBI Sn Sn 23 28 02.9 +2.0
MIDA Miranda 3.79 269 Pn Pn 23 27 17.3 +0.5
comp=N,135nm,0.4s

MIDA Miranda 3.79 269 Pn Pn 23 27 17.3 +0.5
comp=N,135nm,0.4s
VAGA Valle Agricola 3.82 266 Pn Pn 23 27 18.6 +1.3
comp=N,226nm,0.5s
VAGA Valle Agricola 3.82 266 Pn Pn 23 27 18.6 +1.3
comp=N,226nm,0.5s
BANR Banloc 3.83 20⇓iP Pn 23 27 18.6 +1.3
BANR Banloc 3.83 20⇓iP Pn 23 27 18.6 +1.3
BANR S Sn 23 28 04.2 +2.0
HERR Herculane 3.83 35⇓iP Pn 23 27 19.0 +1.6
KFL Anninata 3.84 162 P Pn 23 27 16.5 -1.0
KFL Anninata 3.84 162 P Pn 23 27 16.5 -1.0
EFP Efpalio 3.90 148 P Pn 23 27 19.8 +1.5
EFP Efpalio 3.90 148 P Pn 23 27 19.8 +1.5
SERG Sergoula 3.97 147 P Pn 23 27 22.4 +3.1
SERG Sergoula 3.97 147 P Pn 23 27 21.1 +1.8
SERG Sergoula 3.97 147 P Pn 23 27 21.1 +1.8
TRIZ Trizonia 4.02 147 P Pn 23 27 22.7 +2.8
TRIZ Trizonia 4.02 147 P Pn 23 27 22.7 +2.8
KALE Kalithea 4.03 146 P Pn 23 27 22.1 +2.0
KALE Kalithea 4.03 146 P Pn 23 27 22.1 +2.0
SRE Strehaia 4.05 43⇑iP Pn 23 27 22.7 +2.4
SRE Strehaia 4.05 43⇑iP Pn 23 27 22.7 +2.4
RLS Riolos of Patr 4.08 155 P Pn 23 27 22.1 +1.3
RLS Riolos of Patr 4.08 155 P Pn 23 27 22.0 +1.3
LAKA Lakka 4.09 149 P Pn 23 27 21.7 +0.7
LAKA Lakka 4.09 149 P Pn 23 27 21.7 +0.7
MODR Mondragone 4.13 263 Pn Pn 23 27 21.9 +0.4
comp=N,82nm,0.7s
MODR Mondragone 4.13 263 Pn Pn 23 27 21.9 +0.4
comp=N,82nm,0.7s
DSF Desfina 4.18 143 P Pn 23 27 22.9 +0.8
DSF Desfina 4.18 143 P Pn 23 27 23.0 +0.8
BZS Buzias 4.18 23⇓iP Pn 23 27 23.2 +1.1
BZS Buzias 4.18 23⇓iP Pn 23 27 23.2 +1.1
BZS S Sn 23 28 10.8 0.0
POFI Posta Fibreno 4.19 271 Pn Pn 23 27 23.1 +0.8
comp=N,98nm,0.7s
POFI Posta Fibreno 4.19 271 Pn Pn 23 27 23.1 +0.8
comp=N,98nm,0.7s
DRO Drossia 4.25 153 P Pn 23 27 24.3 +1.2
DRO Drossia 4.25 153 P Pn 23 27 24.3 +1.2
NVLJ Novalja 4.27 312 ePn Pn 23 27 24.1 +0.7
NVLJ Sn Sn 23 28 13.9 +0.9
NVLJ Novalja 4.27 312 ePn Pn 23 27 24.0 +0.7
NVLJ Sn Sn 23 28 13.9 +0.9
AQU L'Aquila 4.43 279 eP Pn 23 27 26.0 +0.4
AQU e 23 28 14.3
AQU L'Aquila 4.43 279 ePn Pn 23 27 26.0 +0.4
AQU eS Sn 23 28 14.3 -2.9
AQU L'Aquila 4.43 279 ePn Pn 23 27 26.0 +0.4
AQU eSn Sn 23 28 14.3 -2.9
T0104 Madonna delle 4.48 279 Pn Pn 23 27 27.5 +1.2
GUR Goura 4.50 148 P Pn 23 27 27.1 +0.5
GUR Goura 4.50 148 P Pn 23 27 27.1 +0.5
AMT Artemida-Makis 4.63 156 P Pn 23 27 28.5 +0.1
AMT Artemida-Makis 4.63 156 P Pn 23 27 28.5 +0.1
NRCA Norcia 4.71 285 Pn Pn 23 27 30.4 +0.9
comp=N,223nm,0.5s
NRCA Norcia 4.71 285 Pn Pn 23 27 30.4 +0.9
comp=N,223nm,0.5s
RDO Rodhopi 4.72 96 P Pn 23 27 30.8 +1.2
RDO Rodhopi 4.72 96 P Pn 23 27 30.8 +1.2
CERT Cerreto 4.73 274 Pn Pn 23 27 30.6 +0.9
comp=N,61nm,0.6s
CERT Cerreto 4.73 274 Pn Pn 23 27 30.6 +0.9
comp=N,61nm,0.6s
OZLJ Ozalj 4.73 325 iPn Pn 23 27 31.1 +1.4
OZLJ Sn Sn 23 28 23.4 -1.1
OZLJ Ozalj 4.73 325 iPn Pn 23 27 31.1 +1.4
OZLJ Sn Sn 23 28 23.3 -1.1
SIRR Siria 4.79 20⇑iP Pn 23 27 31.9 +1.4
SIRR Siria 4.79 20⇑iP Pn 23 27 31.9 +1.4
SIRR S Sn 23 28 25.1 -0.8
TRIP Tripoli 4.83 151 P Pn 23 27 33.1 +2.0
TRIP Tripoli 4.83 151 P Pn 23 27 33.1 +2.0
DEV Deva 4.85 31⇓iP Pn 23 27 32.9 +1.6
DEV Deva 4.85 31⇓iP Pn 23 27 32.9 +1.6
DEV S Sn 23 28 28.5 +1.1
LOT Lotru 4.89 40⇓iP Pn 23 27 34.0 +2.1
LOT Lotru 4.89 40⇓iP Pn 23 27 34.0 +2.1
LOT S Sn 23 28 30.5 +2.0
CRES Cresnjev 4.91 327 iPn Pn 23 27 33.0 +0.9
CRES eSn Sn 23 28 26.2 -2.6
CRES Cresnjev 4.91 327⇑iPn Pn 23 27 33.0 +0.9
CRES eSn Sn 23 28 26.2 -2.6
VLX Vlachokerasia 5.01 151 P Pn 23 27 35.7 +2.1
VLX Vlachokerasia 5.01 151 P Pn 23 27 35.7 +2.1
BEHE Becsehely 5.03 340⇑ePn Pn 23 27 35.7 +2.0
BEHE eSn Sn 23 28 33.3 +1.6
BEHE Becsehely 5.03 340 ePn Pn 23 27 34.4 +0.7
BEHE eSn Sn 23 28 33.3 +1.6
ITM Ithomi 5.03 155 P Pn 23 27 32.8 -1.0
ITM Ithomi 5.03 155 P Pn 23 27 32.8 -1.0
CESX Cesi 5.07 282 Pn Pn 23 27 35.4 +1.1
comp=N,87nm,0.5s
CESX Cesi 5.07 282 Pn Pn 23 27 35.4 +1.1
comp=N,87nm,0.5s
ALN Alexandroupoli 5.15 98 P Pn 23 27 36.7 +1.3
ALN Alexandroupoli 5.15 98 P Pn 23 27 36.7 +1.3
FRON Frontone 5.15 292 Pn Pn 23 27 36.1 +0.6
comp=N,92nm,0.6s
FRON Frontone 5.15 292 Pn Pn 23 27 36.1 +0.6
comp=N,92nm,0.6s
MPAG Monte Paganucc 5.17 293 Pn Pn 23 27 36.4 +0.7
comp=N,114nm,0.7s
MPAG Monte Paganucc 5.17 293 Pn Pn 23 27 36.4 +0.7
comp=N,114nm,0.7s
VLY Voula,Athens 5.23 137 P Pn 23 27 37.9 +1.4
VLY Voula,Athens 5.23 137 P Pn 23 27 37.9 +1.4
DID Didima 5.24 143 P Pn 23 27 37.4 +0.7
DID Didima 5.24 143 P Pn 23 27 37.4 +0.7
ARR Arges 5.27 45⇓iP Pn 23 27 40.1 +2.9
ARR Arges 5.27 45⇓iP Pn 23 27 40.1 +2.9
ARR S Sn 23 28 41.5 +3.7
PIEI Pieia 5.29 292 Pn Pn 23 27 37.8 +0.4
comp=N,53nm,0.5s
PIEI Pieia 5.29 292 Pn Pn 23 27 37.8 +0.4
comp=N,53nm,0.5s
CEY Cerknica 5.30 320⇑iPn Pn 23 27 38.5 +0.9
CEY eSn Sn 23 28 38.1 -0.4
ATVO AVT- Monte Val 5.34 290 Pn Pn 23 27 39.6 +1.5
ATVO AVT- Monte Val 5.34 290 Pn Pn 23 27 39.6 +1.5
MGAB Montegabbione 5.45 284 Pn Pn 23 27 40.6 +1.0
comp=N,110nm,0.5s
MGAB Montegabbione 5.45 284 Pn Pn 23 27 40.6 +1.0
comp=N,110nm,0.5s
LJU Ljubljana 5.48 323 ePn Pn 23 27 41.3 +1.3
LJU eSn Sn 23 28 41.9 -1.0
BADI Badiali 5.49 291 Pn Pn 23 27 42.3 +2.2
comp=N,133nm,0.6s
BADI Badiali 5.49 291 Pn Pn 23 27 42.3 +2.2
comp=N,133nm,0.6s
PARC Parchiule 5.53 292 Pn Pn 23 27 41.7 +1.0
PARC Parchiule 5.53 292 Pn Pn 23 27 41.7 +1.0
VOIR 5.54 47⇑iP Pn 23 27 43.2 +2.3
VOIR 5.54 47⇑iP Pn 23 27 43.2 +2.3
DRGR 5.57 25⇑iP Pn 23 27 43.1 +1.8
DRGR 5.57 25 S Sn 23 28 43.8 -1.4
DRGR 5.57 25⇑iP Pn 23 27 43.1 +1.8
CSKK Csˆ‡kako 5.63 353⇓ePn Pn 23 27 45.3 +3.3
CSKK eSn Sn 23 28 48.7 +2.2
CSKK Csˆ‡kako 5.63 353⇓ePn Pn 23 27 45.3 +3.3
CSKK eSn Sn 23 28 48.7 +2.2
BUD Budapest 5.70 358⇑ePn Pn 23 27 44.3 +1.3
BUD eS Sn 23 28 46.1 -2.2
BUD Budapest 5.70 358⇑ePn Pn 23 27 44.3 +1.3
VAE Valguarnera 5.73 223 Pn Pn 23 27 44.5 +1.1
comp=N,0.5nm,0.3s,baz=131,slow=18,SNR=1.8
VAE Sn Sn 23 28 52.3 +3.2
comp=N,0.6nm,0.3s,baz=29,slow=19,SNR=2.3
SOKA Soboth 5.77 329 iPn Pn 23 27 45.0 +0.9
comp=N,1.9nm,0.3s
SOKA iSn Sn 23 28 48.9 -1.4
comp=N,12nm,0.7s
SOKA Soboth 5.77 329 Pn Pn 23 27 45.0 +0.9
comp=N,1.9nm,0.3s
SOKA Sn Sn 23 28 48.9 -1.4
comp=N,12nm,0.7s
OBKA Obir 5.83 326 iPn Pn 23 27 45.9 +1.0
comp=N,4.3nm,0.4s
OBKA eSn Sn 23 28 51.2 -0.5
comp=N,42nm,0.8s

OBKA Obir 5.83 326 Pn Pn 23 27 45.9 +1.0
comp=N,4.3nm,0.4s
OBKA Sn Sn 23 28 51.2 -0.5
comp=N,42nm,0.8s
SECR 5.90 54⇑iP Pn 23 27 48.9 +3.2
SECR 5.90 54⇑iP Pn 23 27 48.9 +3.2
DOPR Dopca 6.06 44⇓iP Pn 23 27 50.2 +2.2
DOPR Dopca 6.06 44⇓iP Pn 23 27 50.2 +2.2
MLR Muntele Rosu 6.07 50 Pn Pn 23 27 51.0 +2.8
comp=N,0.7nm,0.3s,baz=168,slow=18,SNR=18
MLR Sn Sn 23 28 59.5 +1.8
comp=N,0.8nm,0.3s,baz=197,slow=19,SNR=5.3
MLR Muntele Rosu 6.07 50⇓iP Pn 23 27 51.0 +2.8
ARSA Arzberg 6.10 335 Pn Pn 23 27 50.0 +1.5
comp=N,1.4nm,0.2s
ARSA Arzberg 6.10 335 Pn Pn 23 27 50.0 +1.5
comp=N,1.4nm,0.2s
PSZ Piszkesteto 6.15 4⇓iP Pn 23 27 50.5 +1.3
PSZ Piszkesteto 6.15 4 eP Pn 23 27 50.0 +0.8
PSZ e 23 28 59.3
PSZ pmax pmax
comp=Z,34nm,0.8s
PSZ Piszkesteto 6.15 4⇑ePn Pn 23 27 50.5 +1.3
PSZ eS Sn 23 28 57.8 -1.6
PSZ Piszkesteto 6.15 4 eP Pn 23 27 50.0 +0.8
comp=Z,34nm,0.8s
PSZ eS Sn 23 28 59.3 -0.1
PSZ Piszkesteto 6.15 4 ePn Pn 23 27 50.0 +0.8
comp=Z,34nm,0.8s
PSZ eSn Sn 23 28 59.2 -0.1
ACOM Acomizza, Ital 6.33 321 Pn Pn 23 27 52.1 +0.3
comp=Z,250nm,2.7s
ACOM Acomizza, Ital 6.33 321 Pn Pn 23 27 52.1 +0.3
comp=Z,250nm,2.7s
MYKA Terra Mystica 6.33 322 iPn Pn 23 27 52.3 +0.7
comp=Z,2.7nm,0.3s
MYKA iSn Sn 23 29 02.8 -1.0
comp=Z,8.4nm,0.3s
MYKA Terra Mystica 6.33 322 Pn Pn 23 27 52.3 +0.7
comp=Z,2.7nm,0.3s
MYKA Sn Sn 23 29 02.8 -1.0
comp=Z,8.4nm,0.3s
CONA Conrad Observa 6.61 339 ePn Pn 23 27 58.2 +2.6
comp=Z,2.6nm,0.5s
CONA Conrad Observa 6.61 339 Pn Pn 23 27 58.2 +2.6
comp=Z,2.6nm,0.5s
VYHS Vyhne 6.72 357 eP Pn 23 28 00.5 +3.5
VYHS e 23 29 12.6
VYHS Vyhne 6.72 357 eP Pn 23 28 00.5 +3.5
VYHS eS Sn 23 29 12.6 -0.8
VYHS Vyhne 6.72 357 ePN Pn 23 28 00.5 +3.5
VYHS eSN Sn 23 29 12.6 -0.8
TRPA Tarpa 6.74 19⇑ePn Pn 23 27 58.9 +1.6
TRPA ex x 23 29 12.5
TRPA Tarpa 6.74 19⇑ePn Pn 23 27 58.9 +1.6
KECS Kecovo 6.75 7 eP Pn 23 27 59.5 +2.1
KECS e 23 29 11.9
KECS Kecovo 6.75 7 eP Pn 23 27 59.5 +2.1
KECS Kecovo 6.75 7 ePN Pn 23 27 59.5 +2.1
KECS eSN Sn 23 29 11.9 -2.2
SMOL Smolenice 6.86 349 eP Pn 23 28 04.3 +5.4
SMOL e 23 29 17.9
SMOL Smolenice 6.86 349 eS Sn 23 29 17.9 +1.1
SMOL Smolenice 6.86 349 ePN Pn 23 28 04.3 +5.4
SMOL eSN Sn 23 29 17.9 +1.1
CVDA Cernavoda 6.88 65⇓iP Pn 23 28 01.3 +2.1
CVDA Cernavoda 6.88 65⇓iP Pn 23 28 01.3 +2.1
ABTA Abfaltersbach 6.96 318 iPn Pn 23 28 00.5 +0.2
comp=Z,1.7nm,0.2s,SNR=8.9
ABTA eSn Sn 23 29 17.6 -1.8
comp=Z,22nm,0.5s
ABTA Abfaltersbach 6.96 318 Pn Pn 23 28 00.5 +0.2
comp=Z,1.7nm,0.2s,SNR=8.9
ABTA Sn Sn 23 29 17.6 -1.8
comp=Z,22nm,0.5s
MOA Molln 7.04 331 ePn Pn 23 28 03.6 +2.2
comp=Z,1.8nm,0.2s
MOA Sn Sn 23 29 23.7 +2.3
comp=Z,15nm,0.7s
MOA Molln 7.04 331 Pn Pn 23 28 03.6 +2.2
comp=Z,1.8nm,0.2s
MOA Sn Sn 23 29 23.7 +2.3
comp=Z,15nm,0.7s
UZH Uzhgorod 7.16 16 eP Pn 23 28 04.3 +1.3
UZH eS Sn 23 29 23.9 -0.3
UZH Uzhgorod 7.16 16 eP Pn 23 28 04.3 +1.3
UZH eS Sn 23 29 23.9 -0.3
CRVS Cervenica-Dubn 7.28 11 eP Pn 23 28 06.7 +2.1
CRVS e 23 29 26.1
CRVS Cervenica-Dubn 7.28 11 eP Pn 23 28 06.7 +2.1
CRVS Cervenica-Dubn 7.28 11 ePN Pn 23 28 06.7 +2.1
CRVS eSN Sn 23 29 26.1 -1.0
LANS Liptovska Anna 7.37 1 eP Pn 23 28 12.3 +6.4
LANS e 23 29 29.5
LANS Liptovska Anna 7.37 1 eS Sn 23 29 29.5 +0.1
LANS Liptovska Anna 7.37 1 ePN Pn 23 28 12.3 +6.4
LANS eSN Sn 23 29 29.5 +0.1
APPI Appiano 7.47 312 Pn Pn 23 28 08.0 +0.7
comp=Z,218nm,3.1s
APPI Appiano 7.47 312 Pn Pn 23 28 08.0 +0.7
comp=Z,218nm,3.1s
ABSI Aberstueckl 7.57 313 Pn Pn 23 28 09.0 +0.2
comp=Z,28nm,0.6s
ABSI Aberstueckl 7.57 313 Pn Pn 23 28 09.0 +0.2
comp=Z,28nm,0.6s
PGF Pioggiola 7.70 279 eP Pn 23 28 11.7 +1.2
PGF Pioggiola 7.70 279 eP Pn 23 28 11.7 +1.2
PGF Pioggiola 7.70 279 eP Pn 23 28 11.7 +1.2
PGF Pioggiola 7.70 279 eP Pn 23 28 11.7 +1.2
TLCR 7.70 61⇓iP Pn 23 28 13.5 +3.0
TLCR 7.70 61⇓iP Pn 23 28 13.5 +3.0
WTTA Wattenberg 7.75 318 ePn Pn 23 28 12.0 +0.8
comp=Z,2.4nm,0.2s
WTTA eSn Sn 23 29 36.9 -2.1
comp=Z,16nm,0.5s
WTTA Wattenberg 7.75 318 Pn Pn 23 28 12.0 +0.8
comp=Z,2.4nm,0.2s
STHS Stebnicka Huta 7.75 9 eP Pn 23 28 13.6 +2.4
STHS e 23 29 43.2
STHS Stebnicka Huta 7.75 9 eP Pn 23 28 13.6 +2.4
STHS eS Sn 23 29 43.2 +4.4
STHS Stebnicka Huta 7.75 9 ePN Pn 23 28 13.6 +2.4
STHS eSN Sn 23 29 43.2 +4.4
VRAC Vranov 7.76 347 Pn Pn 23 28 13.3 +2.0
comp=Z,0.1nm,0.3s,baz=182,slow=12,SNR=4.0
VRAC Sn Sn 23 29 40.6 +1.5
comp=Z,0.2nm,0.3s,baz=83,slow=16,SNR=2.8
VRAC LR LR 23 30 49.1
comp=Z,46nm,19.5s,baz=157,slow=35
VRAC Vranov 7.76 347⇓iP Pn 23 28 13.3 +2.0
IDI Anoyia 7.82 144 Pn Pn 23 28 11.8 -0.5
comp=Z,0.9nm,0.3s,baz=302,slow=5.4,SNR=12
IDI Sn Sn 23 29 34.8 -6.0
comp=Z,1.9nm,0.3s,baz=90,slow=20,SNR=4.9
IDI LR LR 23 32 05.3
comp=Z,135nm,18.0s,baz=348,slow=45
WATA Walderalm 7.83 318 ePn Pn 23 28 13.3 +1.0
comp=Z,0.2nm,0.1s,SNR=6.1
WATA iSn Sn 23 29 42.0 +1.2
comp=Z,12nm,0.5s
WATA Walderalm 7.83 318 Pn Pn 23 28 13.3 +1.0
comp=Z,0.2nm,0.1s,SNR=6.1
WATA Sn Sn 23 29 42.0 +1.2
comp=Z,12nm,0.5s
FETA Feichten 8.07 313 iPn Pn 23 28 17.8 +2.2
comp=Z,1.0nm,0.4s
FETA iSn Sn 23 29 47.4 +0.6
comp=Z,6.2nm,0.7s
FETA Feichten 8.07 313 Pn Pn 23 28 17.8 +2.2
comp=Z,1.0nm,0.4s
FETA Sn Sn 23 29 47.4 +0.6
comp=Z,6.2nm,0.7s
MOTA Moosalm 8.07 316 iPn Pn 23 28 16.7 +1.0
comp=Z,2.4nm,0.3s,SNR=7.4
MOTA Moosalm 8.07 316 Pn Pn 23 28 16.7 +1.0
comp=Z,2.4nm,0.3s,SNR=7.4
MORC Moravsky Berou 8.09 352⇑iP Pn 23 28 17.6 +1.8
MORC Moravsky Berou 8.09 352 eP Pn 23 28 16.2 +0.4
MORC pmax pmax
comp=Z,10.0nm,0.7s
MORC Moravsky Berou 8.09 352 eP Pn 23 28 16.2 +0.4
comp=Z,10.0nm,0.7s
MORC Moravsky Berou 8.09 352 ePn Pn 23 28 16.2 +0.4
comp=Z,10nm,0.7s
GERES GERESS Array B 8.09 333 Pn Pn 23 28 16.6 +0.8

comp=Z,0.5nm,0.3s,baz=151,slow=14,SNR=17
GERES Sn **Sn** **23 29 44.8 -2.4**
comp=Z,0.5nm,0.3s,baz=159,slow=22,SNR=3.2
GERES LR LR 23 32 19.1
comp=Z,93nm,19.8s,baz=92,slow=45
**OKC Ostrava-Krasne 8.09 355**⇑ *e*SN **Sn** **23 29 47.1 -0.1**
**OKC Ostrava-Krasne 8.09 355** Sn **Sn** **23 29 47.1 -0.1**
**RETA Reutte 8.34 316** *e*Pn **Pn** **23 28 20.5 +1.2**
comp=Z,1.8nm,0.3s
RETA *e*Sn **Sn** **23 29 53.4 0.0**
comp=Z,8.1nm,0.4s
**RETA Reutte 8.34 316** Pn **Pn** **23 28 20.5 +1.2**
comp=Z,1.8nm,0.3s
RETA Sn **Sn** **23 29 53.4 0.0**
comp=Z,8.1nm,0.4s
**KHC Kasperske Hory 8.37 333**⇑ *e*PN **Pn** **23 28 20.2 +0.5**
KHC *ex* x 23 28 30.4
KHC *ex* x 23 28 39.3
KHC *e*SN **Sn** **23 29 53.4 -0.8**
KHC *ex* x 23 30 07.0
**KHC Kasperske Hory 8.37 333** *e*P **Pn** **23 28 20.2 +0.5**
KHC *e* 23 29 53.4
**KHC Kasperske Hory 8.37 333** Pn **Pn** **23 28 20.2 +0.5**
KHC Sn **Sn** **23 29 53.4 -0.8**
**KHC Kasperske Hory 8.37 333** *e*Pn **Pn** **23 28 19.9 +0.2**
comp=Z,8.4nm,1.7s
**DAVOX Davos/Dischmat 8.40 310** Pn **Pn** **23 28 21.4 +1.1**
comp=Z,1.1nm,0.3s,baz=132,slow=14,SNR=12
DAVOX Sn **Sn** **23 29 54.2 -0.9**
comp=Z,0.9nm,0.3s,baz=324,slow=10,SNR=3.3
**KRLC Kraliky 8.47 349**⇑ *e*SN **Sn** **23 30 01.5 +4.9**
**DAVA Damuels 8.69 312** *e*Pn **Pn** **23 28 26.5 +2.3**
comp=Z,1.6nm,0.2s
DAVA *i* Sn **Sn** **23 29 60.0 -2.1**
comp=Z,13nm,0.6s
**DAVA Damuels 8.69 312** Pn **Pn** **23 28 26.5 +2.3**
comp=Z,1.6nm,0.2s
**DPC Dobruska-Polom 8.81 347**⇑ *e*SN **Sn** **23 30 07.6 +2.7**
**DPC Dobruska-Polom 8.81 347** Sn **Sn** **23 30 07.6 +2.7**
**SBF Sospel 8.97 287** *e*Pn **Pn** **23 28 24.4 -3.5**
**SBF Sospel 8.97 287** *e*P **Pn** **23 28 30.8 +2.9**
SBF *e*Sn Sn 23 29 58.3 -11
comp=Z,86nm,1.4s
**SBF Sospel 8.97 287** *e*P **Pn** **23 28 24.4 -3.5**
SBF *e* 23 29 58.3
**SBF Sospel 8.97 287** *e*P **Pn** **23 28 30.8 +2.9**
**SBF Sospel 8.97 287** *e*Pn **Pn** **23 28 24.4 -3.5**
SBF *e*Sn Sn 23 29 58.3 -11
**FRF La Foret Royal 9.49 285** *e*Pn **Pn** **23 28 31.5 -3.6**
**FRF La Foret Royal 9.49 285** *e*P **Pn** **23 28 37.0 +1.9**
**FRF La Foret Royal 9.49 285** *e*P **Pn** **23 28 37.0 +1.9**
**FRF La Foret Royal 9.49 285** *e*P **Pn** **23 28 37.0 +1.9**
**FRF La Foret Royal 9.49 285** *e*P **Pn** **23 28 37.0 +1.9**
**LMR La Mourre 9.57 284** *e*Pn **Pn** **23 28 32.1 -4.0**
**LMR La Mourre 9.57 284** *e*P **Pn** **23 28 38.5 +2.4**
**LMR La Mourre 9.57 284** *e*P **Pn** **23 28 38.5 +2.4**
**LMR La Mourre 9.57 284** *e*P **Pn** **23 28 38.5 +2.4**
**LMR La Mourre 9.57 284** *e*P **Pn** **23 28 38.5 +2.4**
**MBDF Montbardon 9.61 292** *e*Pn **Pn** **23 28 38.9 -2.9**
**MBDF Montbardon 9.61 292** *e*P **Pn** **23 28 38.9 +2.1**
MBDF *e*Sn Sn 23 30 13.7 -11
comp=Z,9.0nm,0.5s
**MBDF Montbardon 9.61 292** *e*P **Pn** **23 28 33.9 -2.9**
MBDF *e* 23 30 13.7
**MBDF Montbardon 9.61 292** *e*P **Pn** **23 28 38.9 +2.1**
**MBDF Montbardon 9.61 292** *e*Pn **Pn** **23 28 33.9 -2.9**
MBDF *e*Sn Sn 23 30 13.7 -11
**BRG Berggiesshubel 9.81 340** *e*(P) **Pn** **23 28 40.6 +1.2**
comp=Z,3.7nm,0.9s
**BRG Berggiesshubel 9.81 340** *e*P **Pn** **23 28 40.6 +1.2**
BRG pmax pmax
comp=Z,4.0nm,0.9s
**BRG Berggiesshubel 9.81 340** *e*P **Pn** **23 28 40.6 +1.2**
comp=Z,4.0nm,0.9s
**LPG La Plagne 9.83 296** *e*P **Pn** **23 28 41.3 +1.4**
LPG *e*Sn Sn 23 30 19.8 -10
comp=Z,4.7nm,0.3s
**LPG La Plagne 9.83 296** *e*P **Pn** **23 28 41.3 +1.4**
LPG *e* 23 30 19.8
**LPG La Plagne 9.83 296** *e*P **Pn** **23 28 41.3 +1.4**
**LPG La Plagne 9.83 296** *e*P **Pn** **23 28 41.3 +1.4**
LPG *e*Sn Sn 23 30 19.8 -10
**LPL La Plagne 9.85 296** *e*P **Pn** **23 28 41.5 +1.4**
LPL *e*Sn Sn 23 30 19.9 -11
comp=Z,13nm,0.5s
**LPL La Plagne 9.85 296** *e*P **Pn** **23 28 41.5 +1.4**
LPL *e* 23 30 19.9
**LPL La Plagne 9.85 296** *e*P **Pn** **23 28 41.5 +1.4**
**LPL La Plagne 9.85 296** *e*P **Pn** **23 28 41.5 +1.4**
LPL *e*Sn Sn 23 30 19.9 -11
**BFO Black Forest 10.15 314** *e*P **Pn** **23 28 43.4 -0.6**
**BFO Black Forest 10.15 314** *e*P **Pn** **23 28 43.4 -0.6**
**BFO Black Forest 10.15 314** *e*Pn **Pn** **23 28 43.4 -0.6**
**ORIF Oris-en-Rattie 10.27 292** *e*Pn **Pn** **23 28 42.1 -3.7**
**ORIF Oris-en-Rattie 10.27 292** *e*P **Pn** **23 28 47.6 +1.8**
ORIF *e*Sn Sn 23 30 29.9 -11
comp=Z,7.3nm,0.6s
**ORIF Oris-en-Rattie 10.27 292** *e*P **Pn** **23 28 47.6 +1.8**
**ORIF Oris-en-Rattie 10.27 292** *e*P **Pn** **23 28 47.6 +1.8**
**ORIF Oris-en-Rattie 10.27 292** *e*P **Pn** **23 28 47.6 +1.8**
ORIF *e*Sn Sn 23 30 29.9 -11
**SMRF Simiane la Rot 10.32 287** *e*P **Pn** **23 28 48.8 +2.4**
**SMRF Simiane la Rot 10.32 287** *e*P **Pn** **23 28 48.8 +2.4**
**SMRF Simiane la Rot 10.32 287** *e*P **Pn** **23 28 48.8 +2.4**
**CABF La Chapelle 10.64 301** *e*Pn **Pn** **23 28 48.6 -2.3**
**CABF La Chapelle 10.64 301** *e*P **Pn** **23 28 48.6 -2.3**
**CABF La Chapelle 10.64 301** *e*Pn **Pn** **23 28 48.6 -2.3**
**HINF Hinteralfeld 10.70 308** *e*Pn **Pn** **23 28 50.1 -1.5**
HINF *e*Sn Sn 23 30 40.7 -11
comp=Z,11nm,0.6s
**HINF Hinteralfeld 10.70 308** *e*P **Pn** **23 28 50.1 -1.5**
**HINF Hinteralfeld 10.70 308** *e*Pn **Pn** **23 28 50.1 -1.5**
**HINF Hinteralfeld 10.70 308** *e*Pn **Pn** **23 28 50.1 -1.5**
HINF *e*Sn Sn 23 30 40.7 -11
**CDF Champ du Feu 10.77 312** *e*Pn **Pn** **23 28 50.0 -2.6**
CDF *e*Sn Sn 23 30 41.9 -11
comp=Z,0.6nm,0.3s
**CDF Champ du Feu 10.77 312** *e*P **Pn** **23 28 50.0 -2.6**
**CDF Champ du Feu 10.77 312** *e*Pn **Pn** **23 28 50.0 -2.6**
CDF *e*Sn Sn 23 30 41.9 -11
**BRTR Keskin Array B 11.07 96** Pn **Pn** **23 28 57.8 +1.0**
comp=Z,0.1nm,0.3s,baz=294,slow=14,SNR=2.9
**HAU Haudompre 11.09 308** *e*Pn **Pn** **23 28 53.2 -3.7**
HAU *e*Sn Sn 23 30 49.2 -12
comp=Z,10nm,0.5s
**HAU Haudompre 11.09 308** *e*P **Pn** **23 28 53.2 -3.7**
**HAU Haudompre 11.09 308** *e*Pn **Pn** **23 28 53.2 -3.7**
HAU *e*Sn Sn 23 30 49.2 -12
**VIVF Saint-Julien-l 11.10 291** *e*Pn **Pn** **23 28 53.6 -3.4**
**VIVF Saint-Julien-l 11.10 291** *e*P **Pn** **23 28 59.5 +2.5**
**VIVF Saint-Julien-l 11.10 291** *e*P **Pn** **23 28 59.5 +2.5**
**VIVF Saint-Julien-l 11.10 291** *e*P **Pn** **23 28 59.5 +2.5**
**VIVF Saint-Julien-l 11.10 291** *e*P **Pn** **23 28 59.5 +2.5**
**KIEV Kiev 11.23 34** *i* P **Pn** **23 29 00.4 +1.6**
KIEV pmax pmax
comp=Z,5.0nm,1.2s
**KIEV Kiev 11.23 34** *i* P **Pn** **23 29 00.4 +1.6**
comp=Z,5.0nm,1.2s
**AKASG Malin Array Be 11.24 34** Pn **Pn** **23 29 01.0 +2.1**
comp=Z,0.2nm,0.3s,baz=225,slow=14,SNR=7.3
**SFTF Sexfontaines 11.96 307** *e*Sn Sn 23 31 10.0 -12
comp=Z,6.1nm,0.3s
**SMF Signal de Mont 12.11 299** *e*Pn **Pn** **23 29 08.6 -2.3**
SMF *e*Sn Sn 23 31 14.2 -12
comp=Z,12nm,0.5s
**SMF Signal de Mont 12.11 299** *e*P **Pn** **23 29 08.6 -2.3**
**SMF Signal de Mont 12.11 299** *e*Pn **Pn** **23 29 08.6 -2.3**
SMF *e*Sn Sn 23 31 14.2 -12
**LOR Lormes 12.31 302** *e*Pn **Pn** **23 29 12.7 -0.8**
**LOR Lormes 12.31 302** *e*P **Pn** **23 29 12.7 -0.8**
**LOR Lormes 12.31 302** *e*Pn **Pn** **23 29 12.7 -0.8**
**LOR Lormes 12.31 302** *e*Pn **Pn** **23 29 12.7 -0.8**
**AVF Avril sur Loir 12.47 299** *e*Pn **Pn** **23 29 14.0 -1.8**
**AVF Avril sur Loir 12.47 299** *e*P **Pn** **23 29 14.0 -1.8**
**AVF Avril sur Loir 12.47 299** *e*Pn **Pn** **23 29 14.0 -1.8**
**AVF Avril sur Loir 12.47 299** *e*Pn **Pn** **23 29 14.0 -1.8**
**BGF Bois d'Agland 12.74 298** *e*Pn **Pn** **23 29 17.1 -2.4**
BGF *e*Sn Sn 23 31 28.3 -13
comp=Z,12nm,0.6s
**BGF Bois d'Agland 12.74 298** *e*P **Pn** **23 29 17.1 -2.4**
**BGF Bois d'Agland 12.74 298** *e*Pn **Pn** **23 29 17.1 -2.4**
BGF *e*Sn Sn 23 31 28.3 -13
**CAF Calviac 12.94 290** *e*Sn Sn 23 31 32.0 -14
comp=Z,1.8nm,0.2s
**ANN Anapa 13.54 71** *e*P **Pn** **23 29 28.2 -2.1**
ANN *e*S **Sn** **23 31 58.6 -2.1**
ANN pmax pmax
comp=Z,34nm,1.1s
**MMAI Mount Meron Ar 15.48 119** Pn **Pn** **23 29 57.0 +0.3**
comp=Z,0.1nm,0.3s,baz=305,slow=10,SNR=2.3
**NEY Neytrino 17.32 77** *i* P **P** **23 30 22.7 +1.1**
NEY pmax pmax
comp=Z,1.0nm,1.2s
**NEY Neytrino 17.32 77** *i* P **P** **23 30 22.7 +1.1**
comp=Z,1.0nm,1.2s
**VSU Vasula 17.34 13** *i* P **Pn** **23 30 20.9 +0.7**
VSU pmax pmax
comp=Z,105nm,2.2s
**VSU Vasula 17.34 13** *i* P **Pn** **23 30 20.9 +0.7**
comp=Z,105nm,2.2s
**KBZ Khabaz 17.42 76** P **P** **23 30 22.9 +0.3**
comp=Z,0.1nm,0.3s,baz=280,slow=7.1,SNR=5.4
**OBN Obninsk 17.51 35**⇓ *e*P **Pn** **23 30 22.7 +0.4**
OBN pmax pmax
comp=Z,16nm,1.5s
**ESDC Sonseca Array 17.76 271** P **P** **23 30 26.8 +0.5**
comp=Z,0.1nm,0.3s,baz=72,slow=12,SNR=5.4
**HFS Hagfors 18.70 351** P **P** **23 30 35.8 -0.7**
comp=Z,0.3nm,0.3s,baz=177,slow=13,SNR=7.7
**GNI Garni 19.26 86** P **P** **23 30 43.0 0.0**
comp=Z,0.2nm,0.3s,baz=270,slow=20,SNR=3.2
GNI LR LR 23 38 58.4
comp=Z,22nm,18.2s,baz=290,slow=40
**GNI Garni 19.26 86** P **P** **23 30 43.0 0.0**
**GNI Garni 19.26 86** P **P** **23 30 43.0 0.0**
**NB2 NORSAR Subarra 19.90 348** P **P** **23 30 48.9 -0.8**
comp=Z,1.8nm,0.8s,baz=162,slow=11
**NB2 NORSAR Subarra 19.90 348** P **P** **23 30 48.9 -0.8**
comp=Z,1.8nm,0.8s,SNR=4.2
**NOA NORSAR Array B 19.90 348** P **P** **23 30 49.2 -0.5**
comp=Z,0.2nm,0.3s,baz=156,slow=11,SNR=4.0
**EKA Eskdalemuir Ar 20.00 320** P **P** **23 30 50.8 +0.1**
comp=Z,2.7nm,0.5s,baz=113,slow=9.2,SNR=6.4
**FINES FINESS Array B 20.11 9** P **P** **23 30 51.1 -0.8**
comp=Z,1.7nm,0.5s,baz=176,slow=11,SNR=9.9
**FINES FINESS Array B 20.11 9** *i* P **P** **23 30 50.5 -1.4**
FINES pmax pmax
comp=Z,2.0nm,0.5s
**ARU Arti 29.11 46** P **P** **23 32 17.8 -1.1**
**GEYT Alibeck 29.87 84** P **P** **23 32 25.7 -0.2**
comp=Z,1.2nm,0.7s,baz=264,slow=8.1,SNR=3.8
**TORD Torodi Ar. Bea 32.39 213** P **P** **23 32 48.4 +0.2**
comp=Z,1.1nm,1.0s,baz=14,slow=7.6,SNR=6.0
TORD PcP **PcP** **23 35 35.1 -0.6**
comp=Z,0.5nm,0.7s,baz=354,slow=1.3,SNR=3.8
**BRVK Borovoye 35.56 54** *e*P **P** **23 33 15.5 +0.1**
BRVK pmax pmax
comp=Z,1.0nm,0.4s
**BRVK Borovoye 35.56 54** *e*P **P** **23 33 15.5 +0.1**
comp=Z,0.9nm,0.4s
**BRVK Borovoye 35.56 54** *e*P **P** **23 33 15.5 +0.1**
comp=Z,0.9nm,0.4s
**BVAR Borovoye Array 35.62 54** P **P** **23 33 16.4 +0.5**
comp=Z,4.7nm,0.8s,baz=271,slow=7.0,SNR=36
**AAK Ala-Archa 40.26 70** P **P** **23 33 55.7 +0.3**
comp=Z,0.7nm,0.6s,baz=247,slow=7.7,SNR=3.3
**KURBB Kurchatov Arra 40.93 57** P **P** **23 33 60.0 -0.6**
comp=Z,0.9nm,0.7s,baz=283,slow=9.7,SNR=3.1
**KURK Kurchatov 40.97 56** P **P** **23 34 00.0 -0.9**
**KURK Kurchatov 40.97 56** P **P** **23 33 60.0 -0.9**
**DBIC Dimbokro 41.03 318** P **P** **23 34 02.0 +0.3**
comp=Z,1.6nm,0.6s,baz=26,slow=10,SNR=3.6
**ZALV Zalesovo Beam 44.05 51** P **P** **23 34 25.4 -0.6**
comp=Z,2.1nm,0.6s,baz=283,slow=9.5,SNR=12
**MKAR Makanchi Array 44.29 61** P **P** **23 34 27.9 -0.2**
comp=Z,1.4nm,0.4s,baz=281,slow=7.5,SNR=37
**SONM Songino Array 58.92 52** P **P** **23 36 17.3 -0.2**
comp=Z,1.5nm,0.8s,baz=293,slow=9.4,SNR=9.7
**BILL Bilibino 67.71 13** *e*P **P** **23 37 17.8 +2.6**
BILL pmax pmax
comp=Z,1.0nm,0.9s
**BILL Bilibino 67.71 13** *e*P **P** **23 37 17.8 +2.6**
comp=Z,1.0nm,0.9s
**YKA Yellowknife Ar 69.69 339** P **P** **23 37 27.4 -0.2**
comp=Z,0.6nm,0.7s,baz=34,slow=5.6,SNR=11
**BOSA Boshof 70.26 174** P **P** **23 37 31.6 0.0**
comp=Z,5.2nm,1.1s,baz=5.8,slow=8.6,SNR=4.5
**ULM Lac du Bonnet 72.26 322** P **P** **23 37 43.3 -0.2**
comp=Z,2.0nm,0.7s,baz=39,slow=6.6,SNR=4.2
**ILAR Eielson Array 73.23 354** P **P** **23 37 49.1 +0.2**
comp=Z,0.4nm,0.6s,baz=359,slow=5.1,SNR=8.6
**PDAR Pinedale Array 84.06 325** P **P** **23 38 49.5 +0.2**
comp=Z,0.6nm,0.7s,baz=50,slow=8.0,SNR=5.2
**COCO West Island 88.93 107** *i* P **P** **23 39 14.0 +0.9**
**COCO West Island 88.93 107** *i* P **P** **23 39 14.0 +0.9**
**TXAR Lajitas Array 91.83 313** P **P** **23 39 27.4 +0.6**
comp=Z,0.8nm,0.9s,baz=66,slow=3.1,SNR=6.3

*IDC* ***22*** *23:31:10.5±0.8, 34.°34S×72.°24W, h0km, mb3.8/4, mb1 4.0/7, mb1mx3.8/24, mbtmp3.8/7, ML3.9/3, MS3.3/5, Ms1 3.3/5, ms1mx3.0/19, Error ellipse: s-maj=30.6km s-min=25.7km az=107.0*
*ISCJB* ***22*** *23:31:12.7±1.1, 34.°27S±0.°03×72.°39W±0.°05, h25km±9km, mb4.1/8, MS3.5/2, Error ellipse: s-maj=8.3km s-min=4.5km az=28.2*
*SJA* ***22*** *23:31:12.8±0.8, 34.°41S×72.°45W, h18km±5km, ML4.1, MW4.2*
*GUC* ***22*** *23:31:14.6±0.7, 34.°33S×72.°22W, h23km±5km, ML4.0*
*NEIC* ***22*** *23:31:14.0±0.0, 34.°33S×72.°22W, h23km, mb4.3/5, ML4.0(GUC), After GUC.*
*NEIC Felt [III] at Litueche and Pichilemu and [II] at Navidad, San Antonio and San Bernardo.*
**ISC 22 23:31:11.5±1.7, 34.°28S±0.°04×72.°34W±0.°06, h7km±11km, n59, σ1s58/64, mb4.2/8, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **GO05** | **HualaæØ** | **0.80** | **155** | *e*P | | **Pg** | | **23 31 27.8** | **+0.8** |
| GO05 | | | | *e*S | | **Sg** | | **23 31 37.6** | **+0.3** |
| **GO05** | **HualaæØ** | **0.80** | **155** | *e*P | | **Pg** | | **23 31 27.7** | **+0.8** |
| GO05 | | | | *i* S | | **Sg** | | **23 31 37.5** | **+0.1** |
| GO05 | | | | IAML | | | | 23 31 40.7 | |
| comp=E,8μm,0.2s | | | | | | | | | |
| **ANTU** | **Antumapu** | **1.59** | **64** | *e*P | | **Pn** | | **23 31 40.1** | **0.0** |
| ANTU | | | | *i* S | | **Sn** | | **23 31 59.2** | **-1.7** |
| ANTU | | | | IAML | | | | 23 32 03.2 | |
| comp=N,5μm,0.4s | | | | | | | | | |
| **CLCH** | **Cerro Calan** | **1.74** | **60** | *e*P | | **Pn** | | **23 31 42.8** | **+0.6** |
| CLCH | | | | *i* S | | **Sn** | | **23 32 04.2** | **-0.6** |
| CLCH | | | | IAML | | | | 23 32 18.1 | |
| comp=N,4μm,0.6s | | | | | | | | | |
| **PEL** | **Peldehue** | **1.79** | **51** | *e*P | | **Pn** | | **23 31 43.7** | **+0.8** |
| PEL | | | | *i* S | | **Sn** | | **23 32 05.1** | **-0.7** |
| PEL | | | | IAML | | | | 23 32 12.4 | |
| comp=E,3μm,0.4s | | | | | | | | | |
| **LMEL** | **Las Melosas** | **1.83** | **77** | *e*P | | **Pn** | | **23 31 44.0** | **+0.5** |
| LMEL | | | | *i* S | | **Sn** | | **23 32 05.5** | **-1.5** |
| LMEL | | | | IAML | | | | 23 32 09.3 | |
| comp=N,6μm,0.7s | | | | | | | | | |
| **COCH** | **Cobquecura** | **1.88** | **191** | *e*P | | **Pn** | | **23 31 43.9** | **-0.2** |
| COCH | | | | *e*S | | **Sn** | | **23 32 07.2** | **-0.9** |
| **COCH** | **Cobquecura** | **1.88** | **191** | *e*P | | **Pn** | | **23 31 43.8** | **-0.3** |
| COCH | | | | *i* S | | **Sn** | | **23 32 08.0** | **-0.1** |
| **FCH** | **Farellones** | **1.96** | **62** | *e*P | | **Pn** | | **23 31 45.9** | **+0.5** |
| FCH | | | | *i* S | | **Sn** | | **23 32 10.1** | **-0.2** |
| FCH | | | | IAML | | | | 23 32 18.5 | |
| comp=E,3μm,1.2s | | | | | | | | | |
| **CCHI** | **Chillan** | **2.33** | **175** | *e*P | | **Pn** | | **23 31 51.7** | **+1.5** |
| CCHI | | | | *e*S | | **Sn** | | **23 32 19.5** | **+0.3** |
| **CCHI** | **Chillan** | **2.33** | **175** | *e*P | | **Pn** | | **23 31 51.3** | **+1.1** |
| CCHI | | | | *i* S | | **Sn** | | **23 32 19.4** | **+0.3** |
| CCHI | | | | IAML | | | | 23 32 34.3 | |
| comp=E,97nm,0.5s | | | | | | | | | |
| CCHI | | | | IAML | | | | 23 32 34.3 | |
| comp=E,3μm,0.6s | | | | | | | | | |
| **AAGR** | **Agrelo** | **3.16** | **69** | *e*P | | **Pb** | | **23 32 06.8** | **-1.3** |
| **ARCO** | **CERRO ARCO** | **3.19** | **64** | *e*P | | **Pn** | | **23 32 05.9** | **+3.7** |
| ARCO | | | | IAML | | | | 23 32 15.2 | |
| comp=Z,272nm,0.4s | | | | | | | | | |
| **AUSP** | **Uspallata** | **3.21** | **51** | *e*P | | **Pn** | | **23 32 05.5** | **+2.8** |
| AUSP | | | | *e*S | | **Sb** | | **23 32 49.1** | **+0.5** |
| **ASAL** | **Salagasta** | **3.38** | **61** | *e*P | | **Pn** | | **23 32 08.5** | **+3.7** |
| ASAL | | | | *e*S | | **Sg** | | **23 32 57.6** | **-2.5** |
| **RTLS** | **Leoncito** | **3.56** | **47** | *e*P | | **Pn** | | **23 32 10.3** | **+2.9** |
| RTLS | | | | *e*S | | **Sb** | | **23 32 58.9** | **+0.4** |
| RTLS | | | | IAML | | | | 23 33 11.4 | |

comp=Z,308nm,0.6s
**CANA Caviahue 3.75 164** *e*P Pn 23 32 15.2 +5.3
CANA *e*S **Sg** **23 33 10.2 -1.6**
**RTCV Cerro Valdivia 4.00 54** *e*P **Pn** **23 32 16.1 +2.8**
RTCV *e*S **Sb** **23 33 15.9 +5.0**
**RTLL Cerro Villicun 4.39 49** *e*P **Pn** **23 32 20.7 +2.1**
RTLL *e*S **Sb** **23 33 19.7 -2.4**
RTLL IAML 23 33 28.4
comp=Z,148nm,0.4s
**AMOG MOGNA 4.65 45** *e*P **Pn** **23 32 24.2 +1.9**
**ACAN Cantantal 4.76 67** *e*P **Pn** **23 32 26.1 +2.5**
**LCO Las Campanas 5.44 15** *e*Pn **Pn** **23 32 33.4 +0.2**
LCO *e*Sn **Sn** **23 33 35.9 -0.3**
**AGUA GUANDACOL 5.79 35** *e*P **Pn** **23 32 39.9 +2.0**
**APLL PUNTA DE LOS L 6.26 53** *e*P **Pn** **23 32 44.4 +0.1**
APLL IAML 23 34 10.8
comp=Z,35nm,0.5s
**VCA Vinchina 6.56 34** IAML 23 34 46.9
comp=Z,104nm,0.6s
**PLCA Paso Flores 6.60 168** Pn **Pn** **23 32 49.9 +0.9**
comp=Z,0.4nm,0.3s,baz=8.4,slow=11,SNR=4.6
PLCA Lg Lg 23 34 33.0
comp=Z,0.2nm,0.3s,baz=36,slow=19,SNR=2.4
PLCA LR LR 23 35 42.8
comp=Z,164nm,18.1s,baz=332,slow=42
**ACLC CERRO LA CRUZ 6.67 45** *e*P **Pn** **23 32 49.9 -0.1**
**TCA Tanti 7.15 68** IAML 23 35 19.4
comp=Z,29nm,0.6s
**CYA Choya 8.07 46** IAML 23 35 36.0
comp=Z,17nm,0.6s
CYA IAML 23 35 36.1
comp=Z,17nm,0.6s
**TRQA Tornquist 9.19 117** Pn **Pn** **23 33 23.7 -0.7**
**AHML Horco Molle 9.61 41** IAML 23 35 32.3
comp=Z,8.3nm,0.6s
**CPUP Villa Florida 15.18 63** Pn **Pn** **23 34 45.6 -0.8**
comp=Z,0.1nm,0.3s,baz=237,slow=17,SNR=2.2
CPUP Lg Lg 23 39 11.7
comp=Z,0.1nm,0.3s,baz=176,slow=13,SNR=2.9
CPUP LR LR 23 40 31.9
comp=Z,44nm,20.0s,baz=226,slow=37
**LPAZ La Paz 18.31 13** P **Pn** **23 35 27.7 +1.0**
comp=Z,0.5nm,0.3s,baz=199,slow=8.9,SNR=11
LPAZ LR LR 23 43 24.3
comp=Z,60nm,20.7s,baz=94,slow=40
**USHA Ushuaia 20.73 174** LR LR 23 45 10.7
comp=Z,441nm,19.2s,baz=146,slow=41
**SIV San Ignacio 20.84 32** P **P** **23 35 53.8 -0.1**
comp=Z,2.4nm,0.5s,baz=220,slow=11,SNR=9.7
**NNA Nana 22.57 348** LR LR 23 42 36.1
comp=Z,70nm,19.8s,baz=176,slow=30
**NNA Nana 22.57 348** Pn **P** **23 36 10.2 -2.2**
**SDV Santo Domingo 42.96 2** P **P** **23 39 10.5 -1.0**
comp=Z,1.8nm,0.3s
**JTS JuntasAbangare 45.91 343** P **P** **23 39 35.7 +0.8**
comp=Z,3.2nm,0.8s
**SJG San Juan 52.43 7** P **P** **23 40 24.0 -0.8**
comp=Z,29nm,1.4s
**TXAR Lajitas Array 69.86 331** P **P** **23 42 24.2 +1.2**
comp=Z,0.5nm,0.5s,baz=156,slow=8.7,SNR=14
**OXF Oxford 70.28 345** *e*P **P** **23 42 25.4 +0.1**
comp=Z,1.2nm,0.6s
**WMOK Wichita Mounta 72.99 337** *e*P **P** **23 42 42.1 +0.4**
comp=Z,1.0nm,0.5s
**PDAR Pinedale Array 83.90 333** P **P** **23 43 42.5 +0.5**
comp=Z,0.3nm,0.7s,baz=156,slow=4.6,SNR=3.2
**TORD Torodi Ar. Bea 84.54 70** P **P** **23 43 44.9 -0.8**
comp=Z,0.7nm,0.7s,baz=236,slow=4.5,SNR=4.6
**WRA Warramunga Arr 120.39 209** PKP **PKPdf** **23 50 03.2 -1.0**
comp=Z,0.5nm,0.5s,baz=157,slow=1.7,SNR=14
**ARCES ARCESS Array B 124.37 25** PKP **PKPdf** **23 50 09.8 -0.4**
comp=Z,1.1nm,1.2s,baz=250,slow=1.8,SNR=3.6
**H11S2 WAKE ISLAND Hyl 25.51 269** T T 02 08 46.0
baz=120,slow=75,SNR=7.2
**H11S1 WAKE ISLAND Hyl 25.53 269** T T 02 08 45.8
baz=120,slow=75,SNR=7.3
**H11S3 WAKE ISLAND Hyl 25.53 269** T T 02 08 44.2
baz=120,slow=75,SNR=4.5
**H11N3 WAKE ISLAND Hyl 25.93 271** T T 02 09 09.1
baz=117
**H11N1 WAKE ISLAND Hyl 25.95 271** T T 02 09 10.2
baz=117,SNR=12
**H11N2 WAKE ISLAND Hyl 25.95 271** T T 02 09 08.8
baz=117
**BVAR Borovoye Array 147.66 43** PKPbc **PKPdf** **23 50 56.8 +3.3**
comp=Z,1.3nm,0.6s,baz=324,slow=2.3,SNR=7.2
**AAK Ala-Archa 152.86 62** PKPbc **PKPbc** **23 51 09.4 +0.1**
comp=Z,0.8nm,0.6s,baz=190,slow=12,SNR=3.4
**KURBB Kurchatov Arra 153.25 44** PKPbc **PKPbc** **23 51 09.7 0.0**
comp=Z,2.2nm,0.3s,baz=272,slow=2.9,SNR=13
**KURK Kurchatov 153.25 43** PKPbc **PKPbc** **23 51 09.7 0.0**
**ZALV Zalesovo Beam 154.60 32** PKPbc **PKPbc** **23 51 12.2 -0.3**
comp=Z,1.2nm,0.6s,baz=306,slow=4.1,SNR=5.1
**MKAR Makanchi Array 157.14 49** PKPab **PKPab** **23 51 38.0 -0.5**
comp=Z,0.4nm,0.6s,baz=297,slow=1.0,SNR=4.3

*NIED* ***22*** *23:32:00, 39.°50N×143.°90E, h11km, Mw3.8 Best double couple: M0 4.77000×10^14 NP1:φ8 168.00000°, δ38.00000°, λ45.00000°. NP2:φ8 40.00000°, δ64.00000°, λ119.00000°.*
*JMA* ***22*** *23:32:51.9±0.3, 39.°48N×143.°95E, h12km, M4.1*
*ISCJB* ***22*** *23:32:52.2±1.0, 39.°44N±0.°05×144.°0E±0.°1, h11km, mb3.5/5, Error ellipse: s-maj=14.0km s-min=4.6km az=23.1*
*IDC* ***22*** *23:32:52.4±2.5, 39.°42N×144.°04E, h0km, mb3.6/5, mb1 3.6/7, mb1mx3.4/47, mbtmp3.6/7, ML3.4/2, Error ellipse: s-maj=58.9km s-min=25.0km az=84.0*
**ISC 22 23:32:54.8±1.2, 39.°49N±0.°07×143.°9E±0.°1, h11km, n21, σ1s73/26, mb3.6/5, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **MIYJ** | **Miyakonagasawa** | **1.60** | **274** | P | | **Pn** | | **23 33 21.1** | **-1.9** |
| **JTH** | **Tanohata** | **1.62** | **287** | P | | **Pn** | | **23 33 21.3** | **-2.0** |
| **OFUJ** | **Ofunato** | **1.76** | **257** | P | | **Pn** | | **23 33 23.4** | **-1.9** |
| **JOM** | **Ohasama** | **2.00** | **270** | P | | **Pn** | | **23 33 27.3** | **-1.3** |
| **JANG** | **Nango** | **2.02** | **297** | P | | **Pn** | | **23 33 27.1** | **-1.8** |
| **JMK** | **Ichinoseki** | **2.13** | **256** | P | | **Pn** | | **23 33 28.8** | **-1.6** |
| **JYK** | **Kaneyama** | **2.79** | **259** | P | | **Pn** | | **23 33 38.6** | **-0.9** |
| **JNBK** | **Urakawa-nobuka** | **2.92** | **343** | P | | **Pn** | | **23 33 42.8** | **+1.6** |
| JNBK | | | | *e*S | | **Sn** | | **23 34 17.8** | **+1.6** |
| **JCH** | **Churui** | **3.15** | **353** | P | | **Pn** | | **23 33 45.7** | **+1.3** |
| JCH | | | | *e*S | | **Sn** | | **23 34 21.2** | **-0.7** |
| **JFT** | **Otama** | **3.40** | **236** | P | | **Pn** | | **23 33 47.0** | **-0.9** |
| **JAK** | **Akkeshi** | **3.56** | **10** | *e*S | | **Sn** | | **23 34 31.4** | **-0.6** |
| **JAR** | **Ashorobuto** | **3.81** | **359** | P | | **Pn** | | **23 33 53.4** | **0.0** |
| JAR | | | | *e*S | | **Sn** | | **23 34 36.3** | **-1.9** |
| **NEM2** | **Nemuro 2** | **4.12** | **19** | *e*S | | **Sn** | | **23 34 44.2** | **-1.6** |
| **ASAJ** | **Asahikawa** | **4.73** | **349** | Pn | | **Pn** | | **23 34 07.1** | **+1.1** |
| ASAJ | | | | Sn | | **Sn** | | **23 35 02.6** | **+1.8** |
| 1.9nm,0.3s,baz=254,slow=33,SNR=3.4 | | | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **5.36** | **239** | Pn | | **Pn** | | **23 34 14.9** | **+0.2** |
| 1.8nm,0.3s,baz=37,slow=11,SNR=15 | | | | | | | | | |
| **MAT** | **Matsushiro** | **5.36** | **239** | P | | **Pn** | | **23 34 14.6** | **-0.1** |
| MAT | | | | *e*S | | **Sn** | | **23 35 21.7** | **+5.3** |
| **SONM** | **Songino Array** | **28.15** | **300** | P | | **P** | | **23 38 47.2** | **+0.1** |
| 0.5nm,0.8s,baz=103,slow=8.9,SNR=4.1 | | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.75** | **310** | P | | **P** | | **23 40 44.4** | **+0.6** |
| 0.7nm,0.5s,baz=101,slow=7.3,SNR=3.6 | | | | | | | | | |
| **MKAR** | **Makanchi Array** | **44.51** | **300** | P | | **P** | | **23 41 06.3** | **+0.1** |
| 0.5nm,0.8s,baz=89,slow=7.5,SNR=3.6 | | | | | | | | | |
| **BVAR** | **Borovoye Array** | **50.39** | **311** | P | | **P** | | **23 41 52.2** | **+0.4** |
| 0

*NEIC* ***22*** *23:42:59.8±0.3,31.87N×86.39E,h35km,mb4.7/26,Error ellipse: s-maj=8.1km s-min=5.5km az=46.0*
*GCMT* ***22*** *23:42:59.8±0.4,31.76N×86.54E,h26km±1km,MW4.9/66, Moment Tensor Solution. s13,c13; s66,c88; Duration: 0 Moment tensor: Scale 10^16 Nm; Mrr=0.37±.21; Mθθ=1.56±.13; Mφφ 1.93±.14; Mrθ=0.65±.29; Mφθ 1.48±.10; Mrφ=0.10±.22; Best double couple: Mo2.39900×10^16 NP1:φs337.00000°,δ75.00000°,λ-15.00000°. NP2: φs337.00000°,δ75.00000°,λ-169.00000°. Principal axes: T 2.4790, Plg3.0000°, Azm291.0000°; N -0.1580, Plg71.0000°, Azm28.0000°; P -2.3200, Plg18.0000°, Azm200.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*NDI* ***22*** *23:42:59.9±3.1,31.64N×86.37E,h35km, mb4.6, mb4.7(NEIC)*
**ISC 22 23:42:57.0±0.3, 31.75N±0.03×86.26E±0.03, h10km, n181, σ2s 40/184, mb4.4/55, MS4.0/33, 1C-1D, Xizang**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GUN** | **Gumba** | **3.84** | **185** | *e*Pn | **Pn** | **23 43 58.6** | **+2.1** |
| GUN | | | | *e*Sn | **Sb** | **23 44 52.5** | **+0.7** |
| | 398nm,0.7s | | | | | | |
| **GKN** | **Gorkha** | **3.99** | **201** | *e*Pn | **Pn** | **23 44 00.5** | **+2.1** |
| GKN | | | | *e*Sn | **Sb** | **23 44 55.2** | **-0.7** |
| **DANN** | **Dangsing** | **4.02** | **213** | *e*Pn | **Pn** | **23 44 01.3** | **+2.4** |
| **KKN** | **Kakani** | **4.04** | **192** | *e*Pn | **Pn** | **23 44 01.3** | **+2.2** |
| KKN | | | | *e*Sn | **Sb** | **23 44 56.5** | **-0.8** |
| | 334nm,1.1s | | | | | | |
| **JIRN** | **Jiri** | **4.08** | **181** | *e*Pn | **Pn** | **23 44 02.1** | **+2.3** |
| **PKIN** | **Phulchoki** | **4.23** | **190** | *e*Pn | **Pn** | **23 44 03.6** | **+1.9** |
| **PKIN** | **Phulchoki** | **4.23** | **190** | *e*Pn | **Pn** | **23 44 03.9** | **+2.2** |
| PKIN | | | | *e*Sn | **Sb** | **23 45 01.2** | **-1.6** |
| | 394nm,0.6s | | | | | | |
| **PKI** | **Pulchoki** | **4.23** | **190** | *e*Pn | **Pn** | **23 44 03.6** | **+1.8** |
| PKI | | | | *e*Sn | **Sb** | **23 45 00.8** | **-2.2** |
| | 107nm,0.5s | | | | | | |
| **DMN** | **Daman** | **4.25** | **194** | *e*Pn | **Pn** | **23 44 04.6** | **+2.6** |
| DMN | | | | *e*Sn | **Sb** | **23 45 01.7** | **-1.7** |
| | 814nm,1.2s | | | | | | |
| **TAPN** | **Taplejung** | **4.57** | **164** | *e*Pn | **Pn** | **23 44 07.7** | **+1.3** |
| TAPN | | | | *e*Sn | **Sn** | **23 45 06.6** | **+6.9** |
| | 344nm,0.7s | | | | | | |
| **KOLN** | **Koldanda** | **4.59** | **211** | *e*Pn | **Pn** | **23 44 08.1** | **+1.4** |
| KOLN | | | | *e*Sn | Sn | 23 45 09.4 | +9.2 |
| | 918nm,1.7s | | | | | | |
| **PYUN** | **Piuthan** | **4.61** | **219** | *e*Pn | **Pn** | **23 44 08.4** | **+1.4** |
| **LSA** | **Lhasa** | **4.68** | **115** | Pg | **Pn** | **23 44 08.8** | **+0.6** |
| LSA | | | | Sg | **Sn** | **23 45 11.3** | **+8.4** |
| **LSA** | **Lhasa** | **4.68** | **115** | *e*P | **Pn** | **23 44 09.2** | **+1.0** |
| **LSA** | **Lhasa** | **4.68** | **115** | *e*Pn | **Pn** | **23 44 09.2** | **+1.0** |
| **RAMN** | **Ramite** | **4.79** | **176** | *e*Pn | **Pn** | **23 44 09.8** | **+0.3** |
| **ODAN** | **Odare** | **4.97** | **168** | *e*Pn | **Pn** | **23 44 12.5** | **+0.5** |
| **DDI** | **Dehra Dun** | **7.18** | **261** | *e*P | **Pn** | **23 44 44.2** | **+2.1** |
| DDI | | | | *ex* | **Sn** | **23 46 08.9** | **+5.1** |
| **SMLA** | **Simla** | **7.79** | **268** | *e*P | **Pn** | **23 44 50.7** | **+0.3** |
| SMLA | | | | *ex* | **Sn** | **23 46 21.7** | **+3.0** |
| **SHL** | **Shillong** | **7.90** | **140** | *e*P | Pn | 23 44 49.5 | -2.6 |
| **BOK** | **Bokaro** | **7.93** | **182** | *e*P | **Pn** | **23 44 51.2** | **-1.3** |
| **NDI** | **New Delhi** | **8.40** | **251** | *ex* | **Sn** | **23 46 37.0** | **+3.3** |
| **DHRM** | **DHARAMSHALA** | **8.47** | **276** | *e*P | **Pn** | **23 45 01.3** | **+1.4** |
| DHRM | | | | *ex* | **Sn** | **23 46 39.0** | **+3.2** |
| **THN** | **Thein Dam** | **8.97** | **277** | *e*P | **Pn** | **23 45 07.0** | **+0.4** |
| THN | | | | *ex* | **Sn** | **23 46 46.0** | **-1.6** |
| **JBP** | **Jabalpur** | **10.20** | **215** | *e*P | **Pn** | **23 45 24.4** | **+0.9** |
| JBP | | | | *ex* | **Sn** | **23 47 16.1** | **-1.9** |
| **BRDH** | **Bariadhala** | **10.23** | **151** | Sn | **Sn** | **23 47 18.0** | **-0.7** |
| | 17nm,0.3s,baz=216,slow=20,SNR=5.7 | | | | | | |
| BRDH | | | | LR | LR | 23 49 33.3 | |
| | comp=Z,170nm,19.0s,baz=340,slow=40 | | | | | | |
| **KSH** | **Kashi** | **11.39** | **316** | P | **Pn** | **23 45 41.4** | **+1.5** |
| KSH | | | | pP | | 23 45 47.6 | |
| KSH | | | | PP | **PnPn** | **23 45 51.3** | **+3.6** |
| KSH | | | | S | **Sn** | **23 47 46.1** | **-1.3** |
| KSH | | | | SS | **SnSn** | **23 48 00.8** | **+1.4** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.7s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,88nm,2.0s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,970nm,9.9s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,1μm,8.3s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,950nm,8.3s | | | | | | |
| **BHPL** | **Bhopal** | **11.54** | **225** | *e*P | **Pn** | **23 45 40.7** | **-1.2** |
| **WMQ** | **Urumqi** | **12.10** | **5** | P | **Pn** | **23 45 49.1** | **-0.4** |
| WMQ | | | | pP | | 23 45 52.5 | |
| WMQ | | | | sP | | 23 45 56.4 | |
| WMQ | | | | PP | **PnPn** | **23 45 58.3** | **+0.9** |
| WMQ | | | | S | **Sn** | **23 48 08.8** | **+4.2** |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,25nm,1.7s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,390nm,3.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,2μm,13.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,1μm,14.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,1μm,13.9s | | | | | | |
| **NGP** | **Nagpur** | **12.37** | **213** | *e*P | **Pn** | **23 45 51.8** | **-1.5** |
| NGP | | | | *ex* | **Sn** | **23 48 10.0** | **-1.2** |
| **CHLP** | **Challavanipeta** | **13.34** | **189** | *e*P | Pn | 23 46 04.1 | -2.3 |
| CHLP | | | | *e*S | **Sn** | **23 48 36.8** | **+1.9** |
| **GTA** | **Gaotai** | **13.41** | **52** | *e*P | Pn | 23 46 13.8 | +6.3 |
| GTA | | | | pP | P | 23 46 18.3 | +1.2 |
| GTA | | | | sP | | 23 46 21.3 | |
| GTA | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.9s | | | | | | |
| **VIS** | **Vishakhapatnam** | **14.22** | **191** | *e*P | Pn | 23 46 14.7 | -3.8 |
| VIS | | | | AMB | AMB | 23 46 31.8 | |
| | comp=Z,24nm,1.9s | | | | | | |
| **RPR** | **Rampur** | **14.29** | **208** | *e*P | Pn | 23 46 17.1 | -2.5 |
| RPR | | | | *e*S | **Sn** | **23 48 51.9** | **-6.3** |
| **AAK** | **Ala-Archa** | **14.33** | **323** | Pn | Pn | 23 46 25.7 | +5.6 |
| | comp=Z,0.1nm,0.3s,baz=118,slow=14,SNR=5.4 | | | | | | |
| AAK | | | | LR | LR | 23 52 01.0 | |
| | comp=Z,525nm,19.4s,baz=124,slow=38 | | | | | | |
| **AAK** | **Ala-Archa** | **14.33** | **323** | *e*P | **Pn** | **23 46 19.9** | **-0.2** |
| **AAK** | **Ala-Archa** | **14.33** | **323** | *e*Pn | **Pn** | **23 46 19.9** | **-0.2** |
| **FRU** | **Bishkek** | **14.41** | **323** | *e*P | **Pn** | **23 46 23.0** | **+1.9** |
| **SRSP** | **Sriramsagar** | **14.63** | **211** | *e*P | Pn | 23 46 19.8 | -4.3 |
| SRSP | | | | *e*S | **Sn** | **23 49 07.4** | **+1.0** |
| **KBL** | **Kabul** | **14.69** | **286** | *e*P | **Pn** | **23 46 24.6** | **-0.4** |
| KBL | | | | *e* | | 23 49 06.3 | |
| **KBL** | **Kabul** | **14.69** | **286** | *e*Pn | **Pn** | **23 46 24.6** | **-0.4** |
| KBL | | | | *e*Sn | **Sn** | **23 49 06.3** | **-1.6** |
| **CD2** | **Chengdu** | **14.98** | **89** | *e*P | **Pn** | **23 46 32.4** | **+3.5** |
| CD2 | | | | sP | P | 23 46 39.4 | +4.9 |
| CD2 | | | | S | Sn | 23 49 07.8 | -7.2 |
| CD2 | | | | SS | **SnSn** | **23 49 21.9** | **-5.7** |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=N,6μm,11.9s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=E,2μm,10.7s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,2μm,9.5s | | | | | | |
| **PVM** | **Polavaram** | **15.04** | **197** | *e*P | **Pn** | **23 46 25.2** | **-4.5** |
| PVM | | | | *e*S | **Sn** | **23 49 09.4** | **-6.9** |
| **LZH** | **Lanzhou** | **15.23** | **69** | *e*P | **Pn** | **23 46 33.9** | **+1.7** |
| LZH | | | | pP | P | 23 46 39.1 | +1.8 |
| LZH | | | | sP | pP | 23 46 42.1 | +2.0 |
| LZH | | | | *e*S | **Sn** | **23 49 20.4** | **-0.6** |
| LZH | | | | sS | S | 23 49 28.3 | -10 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,34nm,1.3s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,130nm,4.7s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,3μm,10.8s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,2μm,9.1s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,2μm,11.0s | | | | | | |
| **MK01** | **Makanchi Array** | **15.30** | **350** | *e*Pn | **Pn** | **23 46 30.4** | **-2.7** |
| **MK31** | **Makanchi Array** | **15.33** | **350** | *e*P | **Pn** | **23 46 32.3** | **-1.1** |
| **MK31** | **Makanchi Array** | **15.33** | **350** | *e*Pn | **Pn** | **23 46 32.2** | **-1.1** |
| **MKAR** | **Makanchi Array** | **15.33** | **350** | Pn | **Pn** | **23 46 29.5** | **-3.9** |
| | baz=164,slow=14,SNR=5.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **15.33** | **350** | *e*Pn | **Pn** | **23 46 32.2** | **-1.1** |
| | comp=Z,91nm,1.3s | | | | | | |
| **MAKZ** | **Makanchi** | **15.39** | **349** | *e*P | **Pn** | **23 46 32.6** | **-1.6** |
| MAKZ | | | | pmax | pmax | | |
| | comp=Z,13nm,1.1s | | | | | | |
| **MAKZ** | **Makanchi** | **15.39** | **349** | *e*Pn | **Pn** | **23 46 32.6** | **-1.6** |
| | comp=Z,13nm,1.1s | | | | | | |
| **HYBB** | **Hyderabad (bro** | **15.89** | **208** | *e*Pn | **Pn** | **23 46 42.0** | **+1.1** |
| HYBB | | | | *e*S | **Sn** | **23 49 33.5** | **-3.6** |
| **HYB** | **Hyderabad** | **15.89** | **208** | *i* P | **Pn** | **23 46 41.0** | **+0.2** |
| HYB | | | | *e*S | **Sn** | **23 49 30.0** | **-7.1** |
| **HYB** | **Hyderabad** | **15.89** | **208** | *e*P | **Pn** | **23 46 42.2** | **+1.4** |
| HYB | | | | AMB | AMB | 23 46 45.5 | |
| | comp=Z,32nm,1.8s | | | | | | |
| **KMI** | **Kunming** | **15.93** | **110** | P | **Pn** | **23 46 44.3** | **+2.8** |
| KMI | | | | pP | pP | 23 46 50.0 | +2.0 |
| KMI | | | | PP | **PnPn** | **23 46 58.9** | **+8.9** |
| KMI | | | | S | **Sn** | **23 49 39.0** | **+0.8** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.7s | | | | | | |
| KMI | | | | pmax | pmax | | |
| | comp=Z,150nm,4.6s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=N,580nm,10.2s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=E,680nm,9.8s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,790nm,11.2s | | | | | | |
| **KLRI** | **Killari** | **16.18** | **215** | *e*P | Pn | 23 46 39.9 | -4.8 |
| KLRI | | | | *e*S | **Sn** | **23 49 37.8** | **-6.5** |
| **NJS** | **Nagarjunasagar** | **16.40** | **204** | *e*P | **Pn** | **23 46 49.1** | **+1.8** |
| NJS | | | | *e*S | **Sn** | **23 49 44.6** | **-4.8** |
| **KKAR** | **Karatay Array** | **16.84** | **317** | *e*P | **Pn** | **23 46 52.6** | **-0.3** |
| KKAR | | | | pmax | pmax | | |
| | comp=Z,24nm,1.0s | | | | | | |
| **KKAR** | **Karatay Array** | **16.84** | **317** | *e*Pn | **Pn** | **23 46 52.6** | **-0.3** |
| | comp=Z,24nm,1.0s | | | | | | |
| **SRLM** | **Srisailam** | **16.96** | **205** | *e*P | **Pn** | **23 46 55.3** | **+0.8** |
| **CHTO** | **Chiang Mai** | **17.23** | **135** | *e*P | **Pn** | **23 46 57.9** | **0.0** |
| CHTO | | | | pmax | pmax | | |
| | comp=Z,16nm,0.9s | | | | | | |
| **CHTO** | **Chiang Mai** | **17.23** | **135** | *e*Pn | **Pn** | **23 46 57.9** | **0.0** |
| | comp=Z,16nm,0.9s | | | | | | |
| **POO** | **Poona** | **17.29** | **223** | *e*P | **Pn** | **23 46 58.5** | **-0.1** |
| POO | | | | AMB | AMB | 23 47 05.7 | |
| | comp=Z,42nm,1.8s | | | | | | |
| **CM31** | **Chiang Mai Arr** | **17.51** | **136** | *e*Pn | **Pn** | **23 47 02.0** | **+0.7** |
| **CMAR** | **Chiang Mai Arr** | **17.51** | **136** | P | **Pn** | **23 46 58.1** | **-3.2** |
| | comp=Z,0.3nm,0.3s,baz=324,slow=11,SNR=25 | | | | | | |
| CMAR | | | | LR | LR | 23 53 33.1 | |
| | comp=Z,390nm,18.1s,baz=333,slow=37 | | | | | | |
| **CM01** | **Chiang Mai Arr** | **17.54** | **136** | *e*Pn | **Pn** | **23 47 00.0** | **-1.7** |
| **GYA** | **Guiyang** | **18.59** | **101** | *i* P | P | 23 47 09.6 | -4.9 |
| GYA | | | | S | **Sn** | **23 50 38.9** | **-3.8** |
| GYA | | | | SS | **SnSn** | **23 51 03.0** | **+6.6** |
| GYA | | | | pmax | pmax | | |
| | comp=Z,30nm,0.8s | | | | | | |
| GYA | | | | pmax | pmax | | |
| | comp=Z,120nm,5.0s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,840nm,16.8s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,2μm,17.1s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,1μm,17.0s | | | | | | |
| **URV** | **Uravakonda** | **18.64** | **208** | *e*P | **P** | **23 47 14.1** | **-0.9** |
| **SKHT** | **Srikalahasti** | **18.91** | **200** | *e*P | **P** | **23 47 18.2** | **+0.3** |
| **XAN** | **Xi'an** | **19.17** | **77** | P | P | 23 47 15.5 | -5.2 |
| XAN | | | | S | Sn | 23 50 42.9 | -14 |
| XAN | | | | LR | LR | | |
| | comp=Z,990nm,17.6s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,370nm,16.2s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,2μm,11.9s | | | | | | |
| **DGPR** | **DIGLIPUR** | **19.48** | **160** | *e*P | **P** | **23 47 22.5** | **-1.6** |
| DGPR | | | | AMB | AMB | 23 47 33.1 | |
| | comp=Z,67nm,1.8s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **19.71** | **345** | P | **P** | **23 47 24.4** | **-2.0** |
| | comp=Z,0.2nm,0.3s,baz=158,slow=10,SNR=24 | | | | | | |
| **GOA** | **Goa** | **19.76** | **218** | *ex* | **Pn** | **23 47 29.7** | **+1.0** |
| **KURK** | **Kurchatov** | **19.78** | **346** | P | **P** | **23 47 24.4** | **-2.8** |
| **KURK** | **Kurchatov** | **19.78** | **346** | *e*P | **P** | **23 47 26.1** | **-1.0** |
| | comp=Z,57nm,1.3s | | | | | | |
| **ENH** | **Enshi** | **19.96** | **88** | *e*P | **P** | **23 47 29.8** | **+0.3** |
| | comp=Z,53nm,1.9s | | | | | | |
| **SONM** | **Songino Array** | **22.20** | **38** | P | **P** | **23 47 51.3** | **-2.2** |
| | comp=Z,4.4nm,1.1s,baz=226,slow=12,SNR=18 | | | | | | |
| SONM | | | | LR | LR | 23 57 25.7 | |
| | comp=Z,310nm,21.9s,baz=219,slow=40 | | | | | | |
| **ZAA0** | **Zalesovo Array** | **22.21** | **358** | *e*P | **P** | **23 47 53.4** | **0.0** |
| | comp=Z,22nm,1.4s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **22.21** | **358** | P | **P** | **23 47 52.8** | **-0.6** |
| | comp=Z,7.4nm,0.9s,baz=180,slow=7.6,SNR=22 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **22.21** | **358** | *e*P | **P** | **23 47 51.9** | **-1.5** |
| **ZALV** | **Zalesovo Beam** | **22.21** | **358** | *e*P | **P** | **23 47 51.9** | **-1.5** |
| **SONA1** | **Songino Array** | **22.21** | **38** | *e*P | **P** | **23 47 52.2** | **-1.5** |
| **HHC** | **Hu-ho-hao-te** | **22.27** | **59** | *e*P | **P** | **23 47 54.3** | **0.0** |
| HHC | | | | S | S | 23 51 50.5 | -8.8 |
| HHC | | | | sS | pS | 23 52 03.3 | -0.3 |
| HHC | | | | SS | **SnSn** | **23 52 32.6** | **+6.2** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,22nm,0.7s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,100nm,7.4s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,990nm,17.7s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,460nm,11.8s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,390nm,13.1s | | | | | | |
| **ZAK** | **Zakamensk** | **22.51** | **29** | *e*P | **P** | **23 47 54.7** | **-2.1** |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.3s | | | | | | |
| **ULN** | **Ulaanbaatar** | **22.57** | **39** | *e*P | **P** | **23 47 54.9** | **-2.6** |
| ULN | | | | pmax | pmax | | |
| | comp=Z,11nm,1.2s | | | | | | |
| **ULN** | **Ulaanbaatar** | **22.57** | **39** | *e*P | **P** | **23 47 54.9** | **-2.6** |
| | comp=Z,11nm,1.2s | | | | | | |
| **MOY** | **Mondy** | **22.66** | **24** | *e*P | **P** | **23 47 59.0** | **+0.7** |
| MOY | | | | pmax | pmax | | |
| | comp=Z,29nm,2.0s | | | | | | |
| **NVS** | **Novosibirsk** | **23.18** | **356** | *e*P | **P** | **23 48 03.8** | **+0.2** |
| NVS | | | | pmax | pmax | | |
| | comp=Z,14nm,1.6s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=N,6.0nm,1.1s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=E,7.0nm,1.2s | | | | | | |
| **GEYT** | **Alibeck** | **23.85** | **293** | P | **P** | **23 48 10.8** | **+0.3** |
| | comp=E,4.6nm,0.9s,baz=123,slow=5.5,SNR=12 | | | | | | |
| **WHN** | **Wuhan** | **24.05** | **85** | P | **P** | **23 48 12.3** | **-0.1** |
| WHN | | | | LR | LR | | |
| | comp=E,3μm,12.4s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=E,3μm,12.9s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=E,2μm,13.1s | | | | | | |
| **BVAR** | **Borovoye Array** | **24.17** | **336** | P | **P** | **23 48 13.2** | **-0.1** |
| | comp=E,1.5nm,0.7s,baz=141,slow=7.3,SNR=9.2 | | | | | | |
| **BRVK** | **Borovoye** | **24.23** | **336** | *e*P | **P** | **23 48 11.9** | **-2.0** |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,30nm,1.8s | | | | | | |
| **BRVK** | **Borovoye** | **24.23** | **336** | *e*P | **P** | **23 48 11.9** | **-2.0** |
| | comp=Z,30nm,1.8s | | | | | | |
| **QIZ** | **Qiongzhong** | **24.73** | **115** | P | **P** | **23 48 19.8** | **+1.2** |
| QIZ | | | | S | **S** | **23 52 42.0** | **+1.3** |
| QIZ | | | | LR | LR | | |
| | comp=Z,620nm,12.1s | | | | | | |
| **PALK** | **Pallekele** | **24.90** | **193** | P | **P** | **23 48 19.9** | **-0.3** |
| | comp=Z,16nm,0.9s,baz=282,slow=1.9,SNR=3.7 | | | | | | |
| PALK | | | | LR | LR | 23 58 25.6 | |
| | comp=Z,292nm,21.4s,baz=296,slow=37 | | | | | | |
| **BJT** | **Baijiatuau** | **25.51** | **63** | *e*P | **P** | **23 48 24.1** | **-1.5** |
| **BJT** | **Baijiatuau** | **25.51** | **63** | *e*P | **P** | **23 48 24.1** | **-1.5** |
| **BJI** | **Beijing** | **25.52** | **63** | P | **P** | **23 48 23.8** | **-1.8** |
| BJI | | | | S | **S** | **23 52 51.6** | **-1.5** |
| BJI | | | | pmax | pmax | | |
| | comp=Z,11nm,1.2s | | | | | | |
| BJI | | | | pmax | pmax | | |
| | comp=Z,76nm,3.6s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,1μm,10.2s | | | | | | |
| **WSAR** | **Wadi Sarin** | **25.88** | **258** | P | **P** | **23 48 30.4** | **+1.3** |
| | comp=Z,6.4nm,0.8s,baz=96,slow=7.1,SNR=5.9 | | | | | | |
| WSAR | | | | LR | LR | 23 59 51.4 | |
| | comp=Z,160nm,19.2s,baz=106,slow=39 | | | | | | |
| **NJ2** | **Nanjing** | **27.62** | **81** | *e*P | **P** | **23 48 45.3** | **+0.6** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,13nm,0.3s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,890nm,9.2s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,570nm,7.1s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,1μm,5.2s | | | | | | |
| **AKTO** | **Aktyubinsk** | **28.05** | **320** | P | **P** | **23 48 48.1** | **-0.3** |
| | comp=Z,1.0nm,0.7s,baz=125,slow=5.7,SNR=4.0 | | | | | | |
| AKTO | | | | LR | LR | 00 00 39.8 | |
| | comp=Z,355nm,18.4s,baz=123,slow=38 | | | | | | |
| **IPM** | **Ipoh** | **30.47** | **150** | *e*P | **P** | **23 49 11.9** | **+1.8** |
| | comp=Z,24nm,1.2s | | | | | | |
| **PSI** | **Prapat** | **31.17** | **155** | *e*P | **P** | **23 49 18.6** | **+2.1** |
| PSI | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.5s | | | | | | |
| **PSI** | **Prapat** | **31.17** | **155** | *e*P | **P** | **23 49 18.6** | **+2.1** |
| | comp=Z,7.2nm,0.5s | | | | | | |
| **ARU** | **Arti** | **31.30** | **330** | P | **P** | **23 49 16.4** | **-0.7** |
| | comp=Z,4.2nm,0.9s,baz=98,slow=3.8,SNR=5.9 | | | | | | |
| **ARU** | **Arti** | **31.30** | **330** | P | **P** | **23 49 17.3** | **+0.3** |
| **ARU** | **Arti** | **31.30** | **330** | *e*P | **P** | **23 49 15.8** | **-1.2** |
| | comp=Z,5.2nm,0.9s | | | | | | |
| **GSI** | **Gunungsitoli** | **32.12** | **158** | *e*P | **P** | **23 49 26.7** | **+2.1** |
| | comp=Z,139nm,1.9s | | | | | | |
| **MAK** | **Makhachkala** | **32.51** | **301** | *e*P | **P** | **23 49 27.6** | **-0.2** |
| MAK | | | | *e*S | **S** | **23 54 39.9** | **-2.9** |
| MAK | | | | pmax | pmax | | |
| | comp=Z,99nm,1.1s | | | | | | |
| MAK | | | | MLR | MLR | | |
| | comp=Z,692nm,14.0s | | | | | | |
| **GNI** | **Garni** | **34.38** | **296** | LR | LR | 00 05 47.2 | |
| | comp=Z,339nm,20.8s,baz=89,slow=40 | | | | | | |
| **KSAR** | **Wonju Array Be** | **34.53** | **69** | P | P | 23 49 41.2 | -4.3 |
| **KSAR** | **Wonju Array Be** | **34.53** | **69** | P | P | 23 49 41.2 | -4.3 |
| **KS01** | **Wonju Array Si** | **34.53** | **69** | *e*P | **P** | **23 49 45.0** | **-0.6** |
| **KSRS** | **Korea Array** | **34.56** | **69** | P | P | 23 49 41.2 | -4.5 |
| | comp=Z,3.3nm,0.7s,baz=273,slow=9.6,SNR=8.0 | | | | | | |
| KSRS | | | | LR | LR | 00 03 21.9 | |
| | comp=Z,122nm,20.6s,baz=275,slow=36 | | | | | | |
| **KBZ** | **Khabaz** | **35.93** | **302** | LR | LR | 00 07 06.2 | |
| | comp=Z,560nm,18.2s,baz=86,slow=40 | | | | | | |
| **RAYN** | **Ar Rayn** | **36.85** | **268** | *e*P | **P** | **23 50 06.6** | **+0.9** |
| | comp=Z,4.6nm,1.2s | | | | | | |
| **JNU** | **Nakatsue** | **37.47** | **76** | *e*P | **P** | **23 50 10.0** | **-0.8** |
| | comp=Z,16nm,1.1s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **37.67** | **57** | LR | LR | 00 07 20.0 | |
| | comp=Z,185nm,18.6s,baz=262,slow=39 | | | | | | |
| **KLR** | **Kul'dur** | **38.10** | **49** | LR | LR | 00 06 24.8 | |
| | comp=Z,28nm,18.1s,baz=261,slow=37 | | | | | | |
| **MNAI** | **Manna** | **39.28** | **153** | *e*P | **P** | **23 50 28.8** | **+2.7** |
| | comp=Z,421nm,1.4s | | | | | | |
| **ASF** | **Jabal al Asfar** | **41.58** | **284** | LR | LR | 00 11 04.6 | |
| | comp=Z,147nm,21.3s,baz=29,slow=40 | | | | | | |
| **OBN** | **Obninsk** | **41.82** | **319** | *e*P | **P** | **23 50 46.1** | **-0.5** |
| OBN | | | | *e* | | 23 52 24.5 | |
| OBN | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.0s | | | | | | |
| **MJAR** | **Matsushiro Arr** | **42.84** | **69** | P | P | 23 50 51.8 | -3.5 |
| | comp=Z,5.0nm,1.0s,baz=279,slow=10,SNR=6.4 | | | | | | |
| MJAR | | | | LR | LR | 00 09 44.6 | |
| | comp=Z,179nm,18.1s,baz=265,slow=38 | | | | | | |
| **BR131** | **Keskin Array S** | **42.92** | **296** | *e*P | **P** | **23 50 56.0** | **-0.1** |
| **BRTR** | **Keskin Array B** | **42.92** | **296** | LR | LR | 00 12 29.1 | |
| | comp=Z,83nm,20.4s,baz=100,slow=41 | | | | | | |
| **ANTO** | **Ankara** | **43.55** | **296** | *e*P | **P** | **23 51 01.3** | **+0.2** |
| ANTO | | | | pmax | pmax | | |
| | comp=Z,37nm,1.8s | | | | | | |
| **ANTO** | **Ankara** | **43.55** | **296** | *e*P | **P** | **23 51 01.3** | **+0.2** |
| | comp=Z,37nm,1.8s | | | | | | |
| **ATD** | **Arta Tunnel** | **44.72** | **253** | *e*P | **P** | **23 51 11.5** | **+0.8** |
| | comp=Z,26nm,1.4s | | | | | | |
| **AKASG** | **Malin Array Be** | **45.66** | **312** | P | **P** | **23 51 16.1** | **-1.5** |
| | comp=Z,0.3nm,0.4s,baz=76,slow=7.8,SNR=2.7 | | | | | | |
| AKASG | | | | LR | LR | 00 11 32.3 | |
| | comp=Z,210nm,21.0s,baz=0.0,slow=38 | | | | | | |
| **TIXI** | **Tiksi** | **45.95** | **17** | *e*P | **P** | **23 51 18.4** | **-1.2** |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.0s | | | | | | |
| **TIXI** | **Tiksi** | **45.95** | **17** | *e*P | **P** | **23 51 18.4** | **-1.2** |
| | comp=Z,7.4nm,1.0s | | | | | | |
| **FINES** | **FINESS Array B** | **48.48** | **326** | P | **P** | **23 51 38.5** | **-1.1** |
| | comp=Z,2.0nm,0.8s,baz=119,slow=8.1,SNR=4.9 | | | | | | |
| **KARP** | **Karpathos** | **48.71** | **291** | *e*P | **P** | **23 51 42.5** | **+0.8** |
| | comp=Z,29nm,1.0s | | | | | | |
| **SANT** | **Santorini** | **49.86** | **293** | *e*P | **P** | **23 51 50.8** | **+0.2** |
| | comp=Z,218nm,1.4s | | | | | | |
| **ARCES** | **ARCESS Array B** | **50.46** | **337** | P | **P** | **23 51 54.0** | **-0.6** |
| | comp=Z,5.2nm,0.9s,baz=96,slow=6.5,SNR=5.3 | | | | | | |
| ARCES | | | | LR | LR | 00 14 46.1 | |
| | comp=Z,312nm,18.6s,baz=102,slow=38 | | | | | | |
| **ARCES** | **ARCESS Array B** | **50.46** | **337** | P | **P** | **23 51 54.0** | **-0.6** |
| ARCES | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.0s | | | | | | |
| ARCES | | | | MLR | MLR | | |
| | comp=Z,312nm,18.6s | | | | | | |
| **ARCES** | **ARCESS Array B** | **50.46** | **337** | *e*P | **P** | **23 51 54.4** | **-0.2** |
| **OJC** | **Ojcow** | **51.69** | **311** | *e*P | **P** | **23 52 03.7** | **-0.4** |
| OJC | | | | pmax | pmax | | |
| | comp=Z,29nm,1.9s | | | | | | |
| **OJC** | **Ojcow** | **51.69** | **311** | *e*P | **P** | **23 52 03.7** | **-0.4** |
| | comp=Z,28nm,1.9s | | | | | | |
| **PSZ** | **Piszkesteto** | **51.88** | **308** | *e*P | **P** | **23 52 05.4** | **-0.3** |
| PSZ | | | | pmax | pmax | | |
| | comp=Z,26nm,2.0s | | | | | | |
| **PSZ** | **Piszkesteto** | **51.88** | **308** | *e*P | **P** | **23 52 05.4** | **-0.3** |
| | comp=Z,26nm,2.0s | | | | | | |
| **MORC** | **Moravsky Berou** | **53.19** | **311** | *e*P | **P** | **23 52 16.0** | **+0.8** |
| MORC | | | | pmax | pmax | | |
| | comp=Z,25nm,1.3s | | | | | | |
| **MORC** | **Moravsky Berou** | **53.19** | **311** | *e*P | **P** | **23 52 16.0** | **+0.8** |
| | comp=Z,25nm,1.3s | | | | | | |
| **VRAC** | **Vranov** | **53.86** | **311** | P | P | 23 52 17.3 | -2.9 |
| | comp=Z,1.2nm,0.6s,baz=31,slow=19,SNR=2.2 | | | | | | |
| **BLY** | **Banja Luka** | **54.25** | **305** | *e*P | **P** | **23 52 24.1** | **+1.1** |
| | comp=Z,100nm,2.

comp=Z,46nm,21.9s,slow=39
**IL1 Eielson Array 75.28 21** *e*P **P 23 54 37.9 -2.0**
**ILAR Eielson Array 75.28 21** P P 23 54 37.4 -2.5
comp=Z,1.3nm,1.0s,baz=286,slow=4.5,SNR=7.0
ILAR PP **PP 23 57 25.6 -2.2**
comp=Z,0.9nm,1.0s,baz=304,slow=6.4,SNR=4.5
ILAR LR LR 00 32 09.0
comp=Z,113nm,18.8s,baz=340,slow=39
**TOA0 Torodi Ar. Sit 78.64 278** *e*P **P 23 54 59.9 +0.3**
**TORD Torodi Ar. Bea 78.64 278** P P 23 54 56.7 -2.9
comp=Z,2.2nm,1.0s,baz=62,slow=4.1,SNR=10
TORD LR LR 00 32 46.3
comp=Z,80nm,19.3s,baz=50,slow=38
**STKA Stephens Creek 82.13 135** P P 23 55 13.0 -4.9
comp=Z,2.6nm,0.9s,baz=171,slow=16,SNR=3.9
STKA LR LR 00 36 10.7
comp=Z,52nm,19.3s,baz=11,slow=39
**STKA Stephens Creek 82.13 135** *e*P **P 23 55 16.8 -1.1**
comp=Z,4.3nm,0.9s
**BOSA Boshof 83.47 231** LR LR 00 29 47.3
comp=Z,15nm,21.0s,baz=67,slow=34
**YKA Yellowknife Ar 84.59 10** P P 23 55 26.3 -3.9
comp=Z,1.0nm,0.7s,baz=336,slow=5.0,SNR=14
YKA LR LR 00 35 12.5
comp=Z,6.9nm,20.5s,baz=0.0,slow=37
**DBIC Dimbokro 87.48 276** P P 23 55 43.0 -2.4
comp=Z,6.2nm,1.0s,baz=71,slow=6.8,SNR=5.5
DBIC LR LR 00 39 24.3
comp=Z,192nm,19.6s,baz=38,slow=39
**DBIC Dimbokro 87.48 276** P P 23 55 43.0 -2.4
DBIC pmax pmax
comp=Z,6.0nm,1.0s
**DBIC Dimbokro 87.48 276** *e*P **P 23 55 46.1 +0.8**
comp=Z,15nm,1.2s
**SCHQ Schefferville 90.71 345** LR LR 00 41 48.5
comp=Z,55nm,18.2s,baz=324,slow=39
**ULM Lac du Bonnet 98.34 1** LR LR 00 45 35.5
comp=Z,61nm,19.3s,baz=44,slow=38
**CPUP Villa Florida 147.81 270** PKPbc **PKPdf 00 02 39.3 -0.3**
comp=Z,4.9nm,1.0s,baz=111,slow=3.5,SNR=7.8
**LPAZ La Paz 152.09 297** PKPbc **PKPdf 00 02 52.4 +5.0**
comp=Z,2.1nm,0.9s,baz=65,slow=3.4,SNR=6.2

*ISK **22** 23:43:17.7, 38°.53N×43°.10E, h5km, MD2.8*
*DDA **22** 23:43:17.8, 38°.52N×43°.04E, h7km, Ml2.9*
*CSEM **22** 23:43:18.0±0.2, 38°.49N×43°.07E, h2km, ML2.9, Error ellipse: s-maj=4.6km s-min=4.2km az=141.0*
**ISC 22 23:43:18.2±1.0, 38°.53N±0°.02×43°.08E±0°.02, h7km±9km, n37, σ1§04/67, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GEVA** | **Gevas** | **0.21** | **184** | *i* P | **Pg** | **23 43 21.9** | **-0.5** |
| GEVA | | | | *i* S | **Sg** | **23 43 26.5** | **+1.1** |
| **GEVA** | **Gevas** | **0.21** | **184** | P | **Pg** | **23 43 21.9** | **-0.5** |
| GEVA | | | | S | **Sg** | **23 43 26.5** | **+1.1** |
| **VANB** | **Van** | **0.25** | **74** | *e*PG | **Pg** | **23 43 23.2** | **0.0** |
| VANB | | | | *e*SG | **Sb** | **23 43 28.1** | **-1.8** |
| **VANB** | **Van** | **0.25** | **74** | *e*Pg | **Pg** | **23 43 23.2** | **0.0** |
| VANB | | | | *e*Sg | **Sb** | **23 43 28.1** | **-1.8** |
| **TVAN** | **Van** | **0.26** | **89** | *i* P | **Pg** | **23 43 23.2** | **-0.1** |
| TVAN | | | | *i* S | **Sb** | **23 43 28.6** | **-1.5** |
| **TVAN** | **Van** | **0.26** | **89** | P | **Pg** | **23 43 23.2** | **-0.1** |
| TVAN | | | | S | **Sb** | **23 43 28.6** | **-1.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.40** | **316** | *i* P | **Pg** | **23 43 26.1** | **+0.2** |
| ADCV | | | | *i* S | **Sb** | **23 43 33.4** | **-0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.40** | **316** | P | **Pg** | **23 43 26.1** | **+0.2** |
| ADCV | | | | S | **Sb** | **23 43 33.4** | **-0.7** |
| **ERCV** | **ERCIS-VAN** | **0.53** | **22** | *e*PG | **Pb** | **23 43 29.1** | **-0.9** |
| ERCV | | | | *e*SG | **Sb** | **23 43 37.1** | **-0.9** |
| **ERCV** | **ERCIS-VAN** | **0.53** | **22** | *e*Pg | **Pb** | **23 43 29.1** | **-0.9** |
| ERCV | | | | *e*Sg | **Sb** | **23 43 37.1** | **-0.9** |
| **VMUR** | **Van-Muradiye** | **0.60** | **40** | *i* P | **Pg** | **23 43 30.0** | **+0.2** |
| VMUR | | | | *i* S | **Sb** | **23 43 41.1** | **+1.1** |
| **VMUR** | **Van-Muradiye** | **0.60** | **40** | P | **Pg** | **23 43 30.0** | **+0.2** |
| VMUR | | | | S | **Sb** | **23 43 41.1** | **+1.1** |
| **CLDR** | **Caldiran** | **0.90** | **46** | *e*PG | **Pg** | **23 43 35.5** | **0.0** |
| CLDR | | | | *e*SG | **Sb** | **23 43 49.1** | **+0.5** |
| **CLDR** | **Caldiran** | **0.90** | **46** | *e*Pg | **Pg** | **23 43 35.5** | **0.0** |
| CLDR | | | | *e*Sg | **Sb** | **23 43 49.1** | **+0.5** |
| **TUTA** | **Tutak** | **0.90** | **347** | *i* P | **Pg** | **23 43 34.8** | **-0.7** |
| TUTA | | | | *i* S | **Sb** | **23 43 48.7** | **+0.1** |
| **TUTA** | **Tutak** | **0.90** | **347** | P | **Pg** | **23 43 34.8** | **-0.7** |
| TUTA | | | | S | **Sb** | **23 43 48.7** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **1.05** | **356** | *e*PG | **Pb** | **23 43 38.8** | **0.0** |
| AGRB | | | | *e*SG | **Sn** | **23 43 54.2** | **-0.4** |
| **AGRB** | **Hanur-Agry** | **1.05** | **356** | *e*Pg | **Pb** | **23 43 38.8** | **0.0** |
| AGRB | | | | *e*Sg | **Sn** | **23 43 54.2** | **-0.4** |
| **SRTM** | **Siirt_Merkez** | **1.05** | **240** | *i* P | **Pg** | **23 43 37.0** | **-1.4** |
| SRTM | | | | *i* S | **Sn** | **23 43 56.5** | **+1.9** |
| **SRTM** | **Siirt_Merkez** | **1.05** | **240** | P | **Pg** | **23 43 37.0** | **-1.4** |
| **EKAR** | **Karacoban** | **1.08** | **313** | *i* P | **Pn** | **23 43 40.6** | **+0.6** |
| EKAR | | | | *i* S | **Sn** | **23 43 55.2** | **-0.1** |
| **EKAR** | **Karacoban** | **1.08** | **313** | P | **Pn** | **23 43 40.6** | **+0.6** |
| EKAR | | | | S | **Sn** | **23 43 55.2** | **-0.1** |
| **SIRT** | **Sirnak** | **1.14** | **206** | *e*PN | **Pn** | **23 43 40.8** | **+0.1** |
| SIRT | | | | *e*SN | **Sn** | **23 43 57.6** | **+0.9** |
| **SIRT** | **Sirnak** | **1.14** | **206** | *e*Pn | **Pn** | **23 43 40.8** | **+0.1** |
| SIRT | | | | *e*Sn | **Sn** | **23 43 57.6** | **+0.9** |
| **CUKT** | **Cukurca** | **1.34** | **162** | *e*PN | **Pg** | **23 43 44.5** | **+0.6** |
| **CUKT** | **Cukurca** | **1.34** | **162** | *e*Pn | **Pg** | **23 43 44.5** | **+0.6** |
| **EATA** | **Eleskirt** | **1.41** | **341** | *i* P | **Pn** | **23 43 43.5** | **-1.1** |
| EATA | | | | *i* S | **Sn** | **23 44 05.5** | **+1.8** |
| **EATA** | **Eleskirt** | **1.41** | **341** | P | **Pn** | **23 43 43.5** | **-1.1** |
| EATA | | | | S | **Sn** | **23 44 05.5** | **+1.8** |
| **VRTB** | **Varto-Mus** | **1.42** | **297** | *e*PN | **Pg** | **23 43 47.4** | **+0.1** |
| VRTB | | | | *e*SN | **Sn** | **23 44 06.1** | **+2.5** |
| **VRTB** | **Varto-Mus** | **1.42** | **297** | *i* P | **Pn** | **23 43 43.5** | **-1.1** |
| VRTB | | | | *i* S | **Sn** | **23 44 05.5** | **+1.9** |
| **VRTB** | **Varto-Mus** | **1.42** | **297** | P | **Pn** | **23 43 43.5** | **-1.1** |
| **VRTB** | **Varto-Mus** | **1.42** | **297** | *e*Pn | **Pg** | **23 43 45.5** | **+0.1** |
| VRTB | | | | S | **Sn** | **23 44 05.5** | **+1.9** |
| VRTB | | | | *e*Sn | **Sn** | **23 44 06.1** | **+2.5** |
| **BNGL** | **BINGOL** | **1.57** | **286** | *i* P | **Pb** | **23 43 47.4** | **-0.3** |
| BNGL | | | | *i* S | **Sn** | **23 44 06.8** | **-0.5** |
| **BNGB** | **Bingˆll** | **1.93** | **285** | *e*PN | **Pb** | **23 43 53.1** | **-0.8** |
| **BINT** | **Bingol** | **2.06** | **281** | *e*Pn | **Pn** | **23 43 53.1** | **-0.2** |
| **YEDI** | **Yedisu-Bingol** | **2.17** | **296** | *e*PN | **Pb** | **23 43 57.1** | **-0.9** |
| **YEDI** | **Yedisu-Bingol** | **2.17** | **296** | *e*Pn | **Pb** | **23 43 57.1** | **-0.9** |

*BJI **22** 23:50:14.2, 16°.12S×174°.23W, h11km, mb4.9/10, mB5.4/2, Ms4.9/2, Ms7 4.8/4*
*ISCJB **22** 23:50:28.7±0.3, 16°.02S±0°.05×174°.17W±0°.06, h115km, mb4.7/58, Error ellipse: s-maj=8.8km s-min=5.9km az=39.2*
*NEIC **22** 23:50:31.7±1.0, 15°.93S×174°.01W, h140km±10km, mb4.7/38, Error ellipse: s-maj=10.2km s-min=8.5km az=135.0*
*IDC **22** 23:50:33.6±0.6, 16°.20S×174°.16W, h137km±5km, mb4.0/17, mb1 4.2/19, mb1mx4.0/34, mbtmp4.4/19, MS3.1/5, Ms1 3.1/5, ms1mx2.9/24, Error ellipse: s-maj=16.9km s-min=10.9km az=142.0*
**ISC 22 23:50:30.8±0.4, 16°.09S±0°.07×174°.08W±0°.06, h115km, n86, σ2§58/88, mb4.7/58, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **AFI** | **Afiamalu** | **3.11** | **46** | P | **Pn** | **23 51 18.2** | **-0.2** |
| | 345nm,0.3s,baz=66,slow=1.2,SNR=176 | | | | | | |
| AFI | | | | S | **Sn** | **23 51 51.0** | **-4.2** |
| | 827nm,0.3s,baz=36,slow=23,SNR=28 | | | | | | |
| AFI | | | | LR | LR | 23 52 02.8 | |
| | comp=Z,232nm,21.9s,baz=73,slow=28 | | | | | | |
| **MSVF** | **Nonsavu** | **7.71** | **257** | *e*Pn | **Pn** | **23 52 23.5** | **+3.1** |
| | 28nm,0.8s | | | | | | |
| **FUNA** | **Funafuti** | **9.98** | **318** | *e*P | **Pn** | **23 52 50.2** | **-0.9** |
| **RAO** | **Raoul Island** | **13.57** | **194** | *e*P | **P** | **23 53 45.5** | **+2.0** |
| **RAR** | **Rarotonga** | **14.48** | **113** | P | **Pn** | **23 53 51.6** | **+1.3** |
| | 1.4nm,0.3s,baz=193,slow=14,SNR=2.7 | | | | | | |
| RAR | | | | LR | LR | 23 58 46.0 | |
| | comp=Z,45nm,19.0s,baz=278,slow=34 | | | | | | |
| **RAR** | **Rarotonga** | **14.48** | **113** | *e*Pn | **Pn** | **23 53 49.9** | **-0.4** |
| **DZM** | **Mont Dzumac** | **19.34** | **249** | P | **P** | **23 54 47.1** | **-0.3** |
| | 0.4nm,0.3s,baz=233,slow=20,SNR=3.7 | | | | | | |
| DZM | | | | LR | LR | 00 02 10.1 | |
| | comp=Z,58nm,18.4s,baz=18,slow=36 | | | | | | |
| **DZM** | **Mont Dzumac** | **19.34** | **249** | *e*P | **P** | **23 54 48.3** | **+0.9** |
| | 38nm,0.9s | | | | | | |
| **OUZ** | **Omahuta** | **22.01** | **208** | *e*P | **P** | **23 55 17.6** | **+1.8** |
| | 40nm,1.5s | | | | | | |
| **URZ** | **Urewera** | **23.41** | **198** | P | **P** | **23 55 29.6** | **+0.2** |
| | 5.5nm,0.4s,baz=270,slow=3.9,SNR=7.3 | | | | | | |
| URZ | | | | LR | LR | 00 03 47.4 | |
| | comp=Z,39nm,19.5s,baz=24,slow=34 | | | | | | |
| **URZ** | **Urewera** | **23.41** | **198** | *e*P | **P** | **23 55 30.1** | **+0.7** |
| | 12nm,0.8s | | | | | | |
| **PPT** | **Papeete** | **23.50** | **97** | P | **P** | **23 55 32.5** | **+2.0** |
| | 44nm,0.9s,baz=227,slow=19,SNR=2.6 | | | | | | |
| **HIZ** | **Hauiti** | **24.36** | **201** | *e*P | **P** | **23 55 39.6** | **+1.5** |
| | 108nm,1.4s | | | | | | |
| **BKZ** | **Black Stump Fm** | **24.43** | **198** | *e*P | **P** | **23 55 39.5** | **+0.7** |
| | 7.1nm,0.7s | | | | | | |
| **HNR** | **Honiara** | **26.16** | **281** | LR | LR | 00 04 28.5 | |
| | comp=Z,94nm,21.9s,baz=147,slow=32 | | | | | | |
| **THZ** | **Tophouse** | **27.93** | **201** | *e*P | **P** | **23 56 11.3** | **+1.0** |
| | 11nm,0.9s | | | | | | |
| **KHZ** | **Kahutara** | **28.30** | **200** | *e*P | **P** | **23 56 14.1** | **+0.7** |
| | 26nm,1.4s | | | | | | |
| **LHI** | **Lord Howe Isla** | **28.87** | **233** | *e*P | **P** | **23 56 18.2** | **-0.4** |
| | 117nm,1.0s | | | | | | |
| **LTZ** | **Lake Taylor** | **29.05** | **201** | *e*P | **P** | **23 56 20.3** | **+0.1** |
| | 10nm,0.7s | | | | | | |
| **OXZ** | **Oxford** | **29.61** | **201** | *e*P | **P** | **23 56 24.7** | **-0.3** |
| | 16nm,0.6s | | | | | | |
| **RPZ** | **Rata Peaks** | **30.30** | **202** | P | **P** | **23 56 31.0** | **-0.2** |
| | 5.8nm,0.6s,baz=338,slow=1.8,SNR=5.7 | | | | | | |
| **RPZ** | **Rata Peaks** | **30.30** | **202** | *e*P | **P** | **23 56 31.6** | **+0.5** |
| | 24nm,1.6s | | | | | | |
| **FOZ** | **Fox Glacier** | **30.60** | **203** | *e*P | **P** | **23 56 33.7** | **0.0** |
| | 13nm,0.7s | | | | | | |
| **LBZ** | **Lake Benmore** | **31.19** | **202** | *e*P | **P** | **23 56 39.1** | **+0.1** |
| | 13nm,1.4s | | | | | | |
| **ODZ** | **Otahua Downs** | **31.60** | **201** | *e*P | **P** | **23 56 41.9** | **-0.6** |
| | 22nm,1.8s | | | | | | |
| **WKZ** | **Wanaka** | **32.00** | **203** | *e*P | **P** | **23 56 46.8** | **+0.7** |
| | 10.0s | | | | | | |
| **MLZ** | **Mavora Lakes** | **32.80** | **203** | *e*P | **P** | **23 56 52.5** | **-0.6** |
| | 12nm,0.8s | | | | | | |
| **JOHN** | **Johnston Islan** | **32.92** | **8** | *e*P | P | 23 56 45.2 | -9.1 |
| | 248nm,1.0s | | | | | | |
| **DCZ** | **Deep Cove** | **33.25** | **204** | *e*P | **P** | **23 56 57.5** | **+0.6** |
| | 8.7nm,1.0s | | | | | | |
| **WHZ** | **Wether Hill Ro** | **33.30** | **203** | *e*P | **P** | **23 56 58.1** | **+0.7** |
| | 30nm,1.2s | | | | | | |
| **EIDS** | **Eidsvold** | **33.78** | **248** | *e*P | **P** | **23 57 00.4** | **-1.5** |
| | 24nm,0.8s | | | | | | |
| **ARMA** | **Armidale** | **34.43** | **239** | *e*P | **P** | **23 57 06.8** | **-0.7** |
| | 48nm,1.9s | | | | | | |
| **CTAO** | **Charters Tower** | **37.85** | **258** | *e*P | **P** | **23 57 34.3** | **-2.4** |
| | 26nm,1.1s | | | | | | |
| **CAN** | **Canberra** | **38.09** | **233** | *e*P | **P** | **23 57 37.9** | **-0.7** |
| | 7.6nm,0.8s | | | | | | |
| **PMG** | **Port Moresby** | **38.34** | **275** | P | **P** | **23 57 41.4** | **+0.6** |
| | 11nm,0.6s,baz=91,slow=4.0,SNR=6.2 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **39.23** | **330** | T | T | 00 38 28.2 | |
| | baz=149,slow=74 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **39.24** | **330** | T | T | 00 38 33.7 | |
| | baz=149 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **39.25** | **330** | T | T | 00 39 00.7 | |
| | baz=149,slow=74 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **40.20** | **332** | T | T | 00 39 40.6 | |
| | baz=146 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **40.20** | **332** | T | T | 00 39 41.4 | |
| | baz=146 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **40.21** | **332** | T | T | 00 39 42.0 | |
| | baz=146 | | | | | | |
| **PTCN** | **Pitcairn Islan** | **41.98** | **110** | *e*P | P | 23 58 05.1 | -5.6 |
| | 123nm,0.7s | | | | | | |
| **TAU** | **Tasmania Unive** | **42.37** | **223** | *e*P | **P** | **23 58 13.1** | **-0.6** |
| | 134nm,1.9s | | | | | | |
| **STKA** | **Stephens Creek** | **43.13** | **240** | P | **P** | **23 58 19.7** | **-0.3** |
| | 14nm,0.6s,baz=89,slow=9.3,SNR=38 | | | | | | |
| **STKA** | **Stephens Creek** | **43.13** | **240** | *e*P | **P** | **23 58 18.7** | **-1.3** |
| | 4.3nm,0.9s | | | | | | |
| **MIDW** | **Midway** | **44.16** | **356** | *e*P | P | 23 58 20.4 | -7.7 |
| | 584nm,1.9s | | | | | | |
| **BBOO** | **Buckleboo** | **47.90** | **240** | *e*P | **P** | **23 58 55.5** | **-2.1** |
| | 18nm,0.7s | | | | | | |
| **WB2** | **Warramunga Arr** | **49.04** | **257** | *e*P | **P** | **23 59 04.0** | **-2.5** |
| | 12nm,1.1s | | | | | | |
| **WRAB** | **Tennant Creek** | **49.04** | **257** | *e*P | **P** | **23 59 03.1** | **-3.4** |
| | 14nm,1.1s | | | | | | |
| **WRA** | **Warramunga Arr** | **49.05** | **257** | P | **P** | **23 59 05.2** | **-1.4** |
| | 4.3nm,0.6s,baz=92,slow=6.5,SNR=34 | | | | | | |
| WRA | | | | PcP | **PcP** | **00 00 28.8** | **0.0** |
| | 2.1nm,0.6s,baz=92,slow=3.5,SNR=7.5 | | | | | | |
| **AS01** | **Alice Springs** | **49.23** | **252** | *e*P | **P** | **23 59 06.6** | **-1.4** |
| **AS31** | **Alice Springs** | **49.28** | **252** | *e*P | **P** | **23 59 07.2** | **-1.1** |
| | 5.5nm,0.8s | | | | | | |
| **ASAR** | **Alice Springs** | **49.28** | **252** | P | **P** | **23 59 07.2** | **-1.1** |
| | 20nm,0.6s,baz=88,slow=7.9,SNR=160 | | | | | | |
| ASAR | | | | PcP | **PcP** | **00 00 29.6** | **+0.1** |
| | 2.0nm,0.7s,baz=95,slow=4.9,SNR=4.9 | | | | | | |
| **FORT** | **Forrest** | **54.52** | **243** | *e*P | **P** | **23 59 45.0** | **-2.0** |
| | 222nm,1.1s | | | | | | |
| **SOEI** | **Soe** | **60.24** | **268** | *e*P | **P** | **00 00 29.6** | **+1.9** |
| | 24nm,0.6s | | | | | | |
| **VNDA** | **Vanda** | **62.62** | **186** | P | **P** | **00 00 41.8** | **-0.6** |
| | 2.3nm,0.8s,baz=85,slow=16,SNR=7.5 | | | | | | |
| **JAGI** | **Jajag, Banyuwa** | **70.26** | **267** | *e*P | P | 00 01 26.8 | -5.4 |
| | 10nm,0.8s | | | | | | |
| **PETK** | **Petropavlovsk-** | **73.09** | **343** | P | **P** | **00 01 48.7** | **+0.4** |
| | 1.2nm,0.6s,baz=120,slow=8.5,SNR=3.4 | | | | | | |
| **MDPB** | **Devils Postpil** | **74.32** | **42** | *e*P | P | 00 01 51.1 | -5.0 |
| | 12nm,0.9s | | | | | | |
| **NVAR** | **Mina Array Bea** | **75.28** | **42** | P | **P** | **00 02 02.6** | **+1.1** |
| | 2.4nm,0.9s,baz=228,slow=9.5,SNR=6.6 | | | | | | |
| NVAR | | | | pP | **pP** | **00 02 35.2** | **+4.6** |
| | 1.8nm,0.8s,baz=233,slow=10,SNR=3.2 | | | | | | |
| **NJ2** | **Nanjing** | **80.06** | **307** | *e*P | **P** | **00 02 23.8** | **-4.2** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,19nm,0.5s | | | | | | |
| **B08A** | **Colville Reser** | **80.51** | **34** | *e*P | **P** | **00 02 27.3** | **-2.8** |
| | 28nm,1.3s | | | | | | |
| **P17A** | **Butcher Ranch,** | **80.83** | **44** | *e*P | **P** | **00 02 28.6** | **-3.6** |
| | 8.6nm,0.7s | | | | | | |
| **TXAR** | **Lajitas Array** | **81.54** | **56** | P | **P** | **00 02 37.6** | **+1.5** |
| | 2.1nm,1.0s,baz=224,slow=6.5,SNR=11 | | | | | | |
| TXAR | | | | pP | **pP** | **00 03 10.9** | **+5.4** |
| | 1.0nm,1.0s,baz=226,slow=2.4,SNR=3.1 | | | | | | |
| **SEY** | **Seymchan** | **83.02** | **345** | P | P | **00 02 43.9** | **+1.1** |
| | 0.8nm,0.3s,baz=21,slow=21,SNR=4.0 | | | | | | |
| **PDAR** | **Pinedale Array** | **83.22** | **42** | P | P | **00 02 45.1** | **+0.5** |
| | 1.1nm,0.6s,baz=219,slow=3.6,SNR=11 | | | | | | |
| PDAR | | | | pP | **pP** | **00 03 19.7** | **+5.6** |
| | 1.5nm,0.9s,baz=204,slow=3.3,SNR=3.8 | | | | | | |
| **ILAR** | **Eielson Array** | **83.25** | **11** | P | P | **00 02 44.8** | **+0.7** |
| | 0.9nm,0.9s,baz=229,slow=5.8,SNR=13 | | | | | | |
| ILAR | | | | pP | **sP** | **00 03 19.9** | **-5.8** |
| | 0.8nm,0.9s,baz=243,slow=6.1,SNR=3.3 | | | | | | |
| **CHRN** | **Cochrane** | **85.92** | **138** | *e*P | P | **00 02 54.0** | **-4.0** |
| | 13nm,0.7s | | | | | | |
| **WHTX** | **Lake Whitney,** | **87.49** | **56** | *e*P | P | 00 02 58.6 | -7.2 |
| | 8.1nm,0.8s | | | | | | |
| **GYA** | **Guiyang** | **87.79** | **298** | *e*P | P | **00 03 05.3** | **-2.3** |
| GYA | | | | PP | **PP** | **00 06 32.6** | **-2.5** |
| GYA | | | | SKS | **SKSac** | **00 13 30.8** | **+5.2** |
| GYA | | | | S | **ScS** | **00 13 45.4** | **-1.8** |
| GYA | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.0s | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **89.02** | **313** | *e*P | P | **00 03 09.9** | **-3.1** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,13nm,0.9s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,160nm,7.4s | | | | | | |
| **KMI** | **Kunming** | **90.74** | **296** | P | P | **00 03 20.3** | **-1.2** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.8s | | | | | | |
| **YKA** | **Yellowknife Ar** | **90.99** | **24** | P | P | **00 03 23.0** | **+1.5** |
| | 0.2nm,0.8s,baz=238,slow=4.5,SNR=3.3 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **92.21** | **288** | P | P | **00 03 28.9** | **+0.7** |
| | 1.3nm,0.4s,baz=125,slow=2.3,SNR=5.0 | | | | | | |
| **SNAA** | **Sanae** | **92.25** | **177** | *e*P | P | **00 03 24.3** | **-3.2** |
| | 9.9nm,1.6s | | | | | | |
| **LZH** | **Lanzhou** | **93.11** | **307** | *e*P | P | **00 03 28.4** | **-3.8** |
| LZH | | | | pP | PcP | 00 03 36.9 | +4.2 |
| LZH | | | | sP | pP | 00 03 40.3 | -22 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,13nm,1.2s | | | | | | |
| **SONM** | **Songino Array** | **94.92** | **318** | P | P | **00 03 41.3** | **+1.1** |
| | 0.3nm,0.7s,baz=113,slow=3.7,SNR=2.4 | | | | | | |
| **KSH** | **Kashi** | **115.36** | **306** | *e*PKP | **PKPdf** | **00 09 00.1** | **+0.7** |
| KSH | | | | PP | **PP** | **00 10 07.3** | **+5.1** |
| KSH | | | | PKS | **PKSdf** | **00 12 36.3** | **+0.2** |
| KSH | | | | SKS | **SKSdf** | **00 16 11.3** | **+10** |
| KSH | | | | SKKS | **SKKSac** | **00 17 00.3** | **+8.0** |
| KSH | | | | SS | SS | 00 26 04.3 | +12 |
| KSH | | | | AMB | AMB | | |
| | comp=Z,40nm,3.1s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,170nm,5.1s | | | | | | |
| **ARCES** | **ARCESS Array B** | **125.20** | **352** | PKP | **PKPdf** | **00 09 16.9** | **-0.3** |
| | 3.0nm,0.9s,baz=66,slow=2.2,SNR=3.9 | | | | | | |
| **FINES** | **FINESS Array B** | **132.47** | **347** | PKP | **PKPdf** | **00 09 31.8** | **+0.6** |
| | 2.2nm,1.0s,baz=23,slow=4.5,SNR=4.0 | | | | | | |
| **KMBO** | **Kilima Mbogo** | **144.65** | **244** | PKP | **PKPdf** | **00 09 55.0** | **-0.3** |
| | 2.8nm,0.6s,baz=56,slow=5.3,SNR=12 | | | | | | |
| **BRTR** | **Keskin Array B** | **146.27** | **320** | PKPbc | **PKPbc** | **00 09 58.6** | **+0.2** |
| | 2.2nm,0.7s,baz=110,slow=1.9,SNR=9.9 | | | | | | |
| BRTR | | | | pPKPbc | pPKPab | 00 10 34.8 | +5.0 |
| | 2.0nm,0.9s,baz=160,slow=22,SNR=1.1 | | | | | | |
| **KHC** | **Kasperske Hory** | **146.46** | **351** | *e*PKP | **PKPab** | **00 10 00.0** | **+0.4** |
| KHC | | | | *ex* | x | 00 10 36.5 | |
| **GERES** | **GERESS Array B** | **146.72** | **351** | PKPbc | **PKPdf** | **00 09 58.2** | **+0.7** |
| | 0.3nm,0.4s,baz=20,slow=3.1,SNR=4.4 | | | | | | |
| GERES | | | | pPKPbc | **sPKPdf** | **00 10 36.3** | **-4.4** |
| | 0.2nm,0.4s,baz=347,slow=4.0,SNR=1.7 | | | | | | |
| **MMAI** | **Mount Meron Ar** | **148.48** | **308** | PKPbc | **PKPbc** | **00 10 05.1** | **+0.4** |
| | 3.8nm,0.7s,baz=77,slow=7.6,SNR=7.0 | | | | | | |
| **DAVOX** | **Davos/Dischmat** | **149.22** | **355** | PKPbc | **PKPbc** | **00 10 06.3** | **+0.1** |
| | 1.5nm,0.6s,baz=250,slow=5.3,SNR=5.8 | | | | | | |

**KRSC 23 00:05:33.6±1.3, 52°.07N×159°.88E, h24km±22km, ML3.7, Off east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RUS** | **Russkaya** | **0.91** | **294** | *i* P | **Pb** | **00 05 50.6** | **-0.1** |
| RUS | | | | S | Sb | 00 06 02.2 | -0.3 |
| **SPN** | **Mys Shipunski** | **1.03** | **5** | *e*P | Pb | 00 05 54.1 | +1.4 |
| SPN | | | | S | Sn | 00 06 08.6 | +2.4 |
| **MTVR** | **Mutnovka** | **1.12** | **292** | *e*P | Pb | 00 05 54.2 | -0.1 |
| MTVR | | | | *e*S | Sb | 00 06 08.5 | 0.0 |
| **KDTR** | **Khodutka, Kamc** | **1.15** | **257** | *e*P | Pn | 00 05 54.2 | +0.1 |
| KDTR | | | | *e*S | Sn | 00 06 08.5 | -0.5 |
| **NLC** | **Nalytchevo** | **1.15** | **344** | *e*P | Pn | 00 05 54.3 | +0.2 |
| NLC | | | | *e*S | Sb | 00 06 09.4 | +0.2 |
| **DALK** | **Dalny** | **1.18** | **325** | *e*P | Pb | 00 05 55.2 | -0.1 |
| **PET** | **Petropavlovsk** | **1.21** | **322** | *e*P | Pn | 00 05 55.4 | +0.4 |
| PET | | | | *e*S | Sb | 00 06 10.9 | -0.1 |
| **ASAK** | **Asacha** | **1.26** | **285** | *i* P | Pb | 00 05 56.6 | 0.0 |
| ASAK | | | | *e*S | Sb | 00 06 13.0 | +0.6 |
| **UGLR** | **Uglovaya** | **1.31** | **331** | *i* P | Pb | 00 05 57.3 | -0.2 |
| **KRMR** | **Karymshinskiy** | **1.31** | **306** | *e*P | Pn | 00 05 56.9 | +0.5 |
| **SDLR** | **Sedlovina** | **1.35** | **334** | *i* P | Pn | 00 05 57.6 | +0.5 |
| **SMAR** | **Somma** | **1.36** | **332** | *e*P | Pb | 00 05 58.0 | -0.5 |
| **AVH** | **Avacha** | **1.38** | **330** | *e*P | Pb | 00 05 58.5 | -0.3 |
| **KRER** | **Koryakskii** | **1.41** | **331** | *e*P | Pb | 00 05 58.9 | -0.5 |
| **KOK** | **Koryaka** | **1.44** | **329** | P | Pb | 00 05 59.9 | +0.2 |
| **KRX** | **Arik** | **1.49** | **330** | *e*P | Pb | 00 06 01.1 | +0.5 |
| **APC** | **Apacha** | **1.87** | **298** | *e*P | Pb | 00 06 06.1 | -0.9 |
| APC | | | | *e*S | Sb | 00 06 30.4 | +0.5 |
| **PAU** | **Pauzhetka** | **2.00** | **254** | *e*P | Pb | 00 06 08.5 | -0.7 |
| **GNL** | **Ganaly** | **2.00** | **325** | *e*P | Pn | 00 06 07.6 | +1.5 |
| **TUMR** | **Tumrok** | **3.22** | **3** | *e*P | Pn | 00 06 25.5 | +2.7 |
| **KBTR** | **Krutoberegovo** | **4.49** | **21** | *e*P | Pn | 00 06 42.7 | +2.6 |

**IDC 23 00:51:02.7±1.0, 21°.96S×148°.71E, h0km, mb1 3.4/4, mb1mx3.3/29, mbtmp3.3/4, ML3.0/3, Error ellipse: s-maj=10.4km s-min=8.2km az=104.0, Queensland**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CTA** | **Charters Tower** | **2.96** | **309** | Pn | Pn | 00 51 51.0 | 0.0 |
| | 2.3nm,0.3s,baz=131,slow=17,SNR=14 | | | | | | |
| CTA | | | | Sn | Sn | 00 52 29.6 | +2.4 |
| | 9.3nm,0.3s,baz=49,slow=19,SNR=24 | | | | | | |
| **STKA** | **Stephens Creek** | **11.74** | **211** | Pn | Pn | 00 53 50.3 | -1.2 |
| | 0.1nm,0.3s,baz=38,slow=17,SNR=4.8 | | | | | | |
| STKA | | | | Sn | Sn | 00 56 01.1 | -2.2 |
| | 0.1nm,0.3s,baz=262,slow=24,SNR=3.5 | | | | | | |
| STKA | | | | Lg | Lg | 00 57 18.7 | |
| | 0.2nm,0.3s,baz=297,slow=21,SNR=5.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **13.58** | **276** | Pn | Pn | 00 54 16.4 | -0.3 |
| | 0.0nm,0.3s,baz=100,slow=13,SNR=3.5 | | | | | | |
| WRA | | | | Sn | Sn | 00 56 49.4 | +0.9 |
| | 0.1nm,0.3s,baz=102,slow=23,SNR=4.2 | | | | | | |
| WRA | | | | Lg | Lg | 00 58 07.4 | |
| | 0.2nm,0.3s,baz=114,slow=29,SNR=7.3 | | | | | | |
| **ASAR** | **Alice Springs** | **13.76** | **260** | Pn | Pn | 00 54 20.5 | +1.3 |
| | baz=81,slow=14,SNR=4.5 | | | | | | |
| ASAR | | | | Sn | Sn | 00 56 38.6 | -14 |
| | 0.1nm,0.3s,baz=85,slow=21,SNR=5.1 | | | | | | |
|

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.24** | **248** | *e*Pg | **Pg** | **00 58 41.8** | **-0.9** |
| **CRLZ** | **Canterbury Las** | **0.24** | **248** | PG | **Pg** | **00 58 41.7** | **-1.0** |
| CRLZ | | | | SG | **Sg** | **00 58 45.7** | **-0.3** |
| CRLZ | | | | AML | AML | 00 58 46.4 | |
| CRLZ | | | | AML | AML | 00 58 46.9 | |
| **MQZ** | **McQueen's Vall** | **0.30** | **222** | *e*Pg | **Pg** | **00 58 43.2** | **-0.7** |
| **MQZ** | **McQueen's Vall** | **0.30** | **222** | ⇑PG | **Pg** | **00 58 43.1** | **-0.7** |
| MQZ | | | | SG | **Sg** | **00 58 47.9** | **+0.1** |
| **OXZ** | **Oxford** | **0.67** | **283** | *e*Pg | **Pg** | **00 58 49.2** | **-1.6** |
| **OXZ** | **Oxford** | **0.67** | **283** | ⇓P* | **Pg** | **00 58 49.2** | **-1.6** |
| OXZ | | | | AML | AML | 00 59 00.8 | |
| OXZ | | | | AML | AML | 00 59 01.4 | |
| OXZ | | | | AML | AML | 00 59 01.7 | |
| OXZ | | | | AML | AML | 00 59 05.6 | |
| **LTZ** | **Lake Taylor** | **0.85** | **325** | *e*Pg | **Pg** | **00 58 53.6** | **-0.7** |
| **LTZ** | **Lake Taylor** | **0.85** | **325** | ⇓P* | **Pg** | **00 58 53.5** | **-0.7** |
| LTZ | | | | S* | **Sg** | **00 59 05.8** | **+0.4** |
| LTZ | | | | AML | AML | 00 59 09.6 | |
| LTZ | | | | AML | AML | 00 59 11.1 | |
| **KHZ** | **Kahutara** | **1.16** | **23** | *e*Pn | **Pb** | **00 58 59.5** | **-0.8** |
| **KHZ** | **Kahutara** | **1.16** | **23** | P* | **Pb** | **00 58 59.1** | **-1.1** |
| KHZ | | | | AML | AML | 00 59 27.6 | |
| KHZ | | | | AML | AML | 00 59 27.6 | |
| KHZ | | | | AML | AML | 00 59 29.1 | |
| KHZ | | | | AML | AML | 00 59 29.1 | |
| **INZ** | **Inchbonnie** | **1.33** | **304** | P* | **Pn** | **00 59 00.2** | **-2.7** |
| **RPZ** | **Rata Peaks** | **1.38** | **260** | Pn | **Pn** | **00 59 02.9** | **-0.7** |
| RPZ | 2µm,0.3s,baz=170,slow=1.2,SNR=1003 | | | Sn | **Sb** | **00 59 20.4** | **-1.6** |
| | baz=68,slow=16 | | | | | | |
| **RPZ** | **Rata Peaks** | **1.38** | **260** | *e*Pn | **Pn** | **00 59 01.2** | **-2.5** |
| RPZ | | | | Sn | **Sb** | **00 59 20.4** | **-1.6** |
| **RPZ** | **Rata Peaks** | **1.38** | **260** | PN | **Pn** | **00 59 00.9** | **-2.8** |
| RPZ | | | | S* | **Sb** | **00 59 19.5** | **-2.5** |
| **WVZ** | **Waitaha Valley** | **1.65** | **284** | Pn | **Pn** | **00 59 05.7** | **-1.6** |
| **WVZ** | **Waitaha Valley** | **1.65** | **284** | PN | **Pn** | **00 59 05.1** | **-2.2** |
| WVZ | | | | AML | AML | 00 59 32.9 | |
| WVZ | | | | AML | AML | 00 59 40.2 | |
| **THZ** | **Tophouse** | **1.72** | **359** | *e*Pn | **Pn** | **00 59 07.1** | **-1.2** |
| **THZ** | **Tophouse** | **1.72** | **359** | ⇑PN | **Pn** | **00 59 07.0** | **-1.4** |
| THZ | | | | AML | AML | 00 59 33.9 | |
| THZ | | | | AML | AML | 00 59 34.4 | |
| **BSWZ** | **Blackbirch Sta** | **1.90** | **22** | Pn | **Pn** | **00 59 10.3** | **-0.5** |
| **BSWZ** | **Blackbirch Sta** | **1.90** | **22** | ⇓PN | **Pn** | **00 59 10.3** | **-0.5** |
| BSWZ | | | | AML | AML | 01 00 00.5 | |
| BSWZ | | | | AML | AML | 01 00 02.9 | |
| **DSZ** | **Denniston Nort** | **1.93** | **334** | Pn | **Pn** | **00 59 09.8** | **-1.4** |
| **DSZ** | **Denniston Nort** | **1.93** | **334** | PN | **Pn** | **00 59 09.6** | **-1.5** |
| DSZ | | | | AML | AML | 00 59 48.0 | |
| DSZ | | | | AML | AML | 00 59 48.0 | |
| DSZ | | | | AML | AML | 00 59 54.1 | |
| DSZ | | | | AML | AML | 00 59 54.1 | |
| **CMWZ** | **Cape Campbell** | **1.98** | **29** | Pn | **Pn** | **00 59 10.5** | **-1.3** |
| **CMWZ** | **Cape Campbell** | **1.98** | **29** | ⇑PN | **Pn** | **00 59 11.6** | **-0.2** |
| CMWZ | | | | AML | AML | 01 00 01.4 | |
| CMWZ | | | | AML | AML | 01 00 10.3 | |
| **LBZ** | **Lake Benmore** | **2.18** | **245** | *e*Pn | **Pn** | **00 59 13.0** | **-1.6** |
| **LBZ** | **Lake Benmore** | **2.18** | **245** | PN | **Pn** | **00 59 12.8** | **-1.8** |
| LBZ | | | | AML | AML | 00 59 54.2 | |
| LBZ | | | | AML | AML | 00 59 54.2 | |
| LBZ | | | | AML | AML | 00 59 58.0 | |
| LBZ | | | | AML | AML | 00 59 58.0 | |
| **TUWZ** | **Tuamarina** | **2.19** | **20** | Pn | **Pn** | **00 59 13.9** | **-0.8** |
| **TUWZ** | **Tuamarina** | **2.19** | **20** | PN | **Pn** | **00 59 13.7** | **-1.0** |
| TUWZ | | | | AML | AML | 01 00 04.2 | |
| TUWZ | | | | AML | AML | 01 00 07.6 | |
| **ODZ** | **Otahua Downs** | **2.27** | **226** | *e*Pn | **Pn** | **00 59 13.7** | **-2.1** |
| **ODZ** | **Otahua Downs** | **2.27** | **226** | ⇑PN | **Pn** | **00 59 13.6** | **-2.1** |
| ODZ | | | | AML | AML | 00 59 52.1 | |
| ODZ | | | | AML | AML | 00 59 52.1 | |
| ODZ | | | | AML | AML | 00 59 59.6 | |
| ODZ | | | | AML | AML | 00 59 59.6 | |
| **FOZ** | **Fox Glacier** | **2.27** | **268** | *e*Pn | **Pn** | **00 59 15.3** | **-0.4** |
| **FOZ** | **Fox Glacier** | **2.27** | **268** | PN | **Pn** | **00 59 14.7** | **-1.1** |
| FOZ | | | | AML | AML | 00 59 56.6 | |
| FOZ | | | | AML | AML | 00 59 56.7 | |
| FOZ | | | | AML | AML | 00 59 58.2 | |
| FOZ | | | | AML | AML | 00 59 58.3 | |
| **NNZ** | **Nelson** | **2.29** | **8** | Pn | **Pn** | **00 59 15.7** | **-0.4** |
| **NNZ** | **Nelson** | **2.29** | **8** | PN | **Pn** | **00 59 15.5** | **-0.6** |
| NNZ | | | | AML | AML | 01 00 08.9 | |
| NNZ | | | | AML | AML | 01 00 08.9 | |
| NNZ | | | | AML | AML | 01 00 10.5 | |
| NNZ | | | | AML | AML | 01 00 11.1 | |
| **TCW** | **Tory Channel** | **2.48** | **24** | Pn | **Pn** | **00 59 17.9** | **-0.9** |
| **TCW** | **Tory Channel** | **2.48** | **24** | PN | **Pn** | **00 59 17.5** | **-1.2** |
| TCW | | | | AML | AML | 01 00 02.4 | |
| TCW | | | | AML | AML | 01 00 13.0 | |
| **BHW** | **Baring Head** | **2.52** | **35** | Pn | **Pn** | **00 59 18.5** | **-0.8** |
| **BHW** | **Baring Head** | **2.52** | **35** | PN | **Pn** | **00 59 18.2** | **-1.1** |
| BHW | | | | AML | AML | 01 00 22.2 | |
| BHW | | | | AML | AML | 01 00 57.7 | |
| **SNZO** | **South Karori** | **2.54** | **32** | *e*Pn | **Pn** | **00 59 18.6** | **-0.9** |
| **PLWZ** | **Palliser** | **2.57** | **43** | Pn | **Pn** | **00 59 18.8** | **-1.3** |
| **PLWZ** | **Palliser** | **2.57** | **43** | ⇑PN | **Pn** | **00 59 18.7** | **-1.3** |
| PLWZ | | | | AML | AML | 01 00 51.8 | |
| PLWZ | | | | AML | AML | 01 00 54.1 | |
| **WEL** | **Wellington** | **2.59** | **32** | P | **Pn** | **00 59 19.7** | **-0.4** |
| **WEL** | **Wellington** | **2.59** | **32** | Pn | **Pn** | **00 59 19.7** | **-0.4** |
| **WEL** | **Wellington** | **2.59** | **32** | PN | **Pn** | **00 59 19.2** | **-0.9** |
| WEL | | | | AML | AML | 00 59 54.2 | |
| WEL | | | | AML | AML | 00 59 54.2 | |
| WEL | | | | AML | AML | 00 59 55.9 | |
| WEL | | | | AML | AML | 00 59 55.9 | |
| **QRZ** | **Quartz Range** | **2.67** | **353** | Pn | **Pn** | **00 59 20.6** | **-0.8** |
| **QRZ** | **Quartz Range** | **2.67** | **353** | PN | **Pn** | **00 59 20.1** | **-1.3** |
| QRZ | | | | AML | AML | 01 00 10.8 | |
| QRZ | | | | AML | AML | 01 00 10.9 | |
| QRZ | | | | AML | AML | 01 00 14.4 | |
| QRZ | | | | AML | AML | 01 00 14.4 | |
| **MSWZ** | **Moikau Station** | **2.69** | **40** | Pn | **Pn** | **00 59 20.5** | **-1.1** |
| **MSWZ** | **Moikau Station** | **2.69** | **40** | ⇑PN | **Pn** | **00 59 20.2** | **-1.4** |
| MSWZ | | | | AML | AML | 00 59 58.7 | |
| MSWZ | | | | AML | AML | 01 00 10.4 | |
| **DUWZ** | **D'Urville Isla** | **2.78** | **16** | Pn | **Pn** | **00 59 22.4** | **-0.5** |
| **DUWZ** | **D'Urville Isla** | **2.78** | **16** | PN | **Pn** | **00 59 22.0** | **-0.9** |
| DUWZ | | | | AML | AML | 01 00 21.5 | |
| DUWZ | | | | AML | AML | 01 00 23.6 | |
| **PAWZ** | **Paruwai Farm** | **2.80** | **42** | Pn | **Pn** | **00 59 21.6** | **-1.6** |
| **PAWZ** | **Paruwai Farm** | **2.80** | **42** | PN | **Pn** | **00 59 21.6** | **-1.6** |
| PAWZ | | | | AML | AML | 01 00 50.0 | |
| PAWZ | | | | AML | AML | 01 00 51.9 | |
| **CAW** | **Cannon Point** | **2.85** | **34** | Pn | **Pn** | **00 59 22.8** | **-1.1** |
| **CAW** | **Cannon Point** | **2.85** | **34** | PN | **Pn** | **00 59 22.5** | **-1.3** |
| CAW | | | | AML | AML | 01 00 08.5 | |
| CAW | | | | AML | AML | 01 00 38.8 | |
| **TRWZ** | **Traveller** | **2.92** | **45** | Pn | **Pn** | **00 59 23.6** | **-1.2** |
| **TRWZ** | **Traveller** | **2.92** | **45** | PN | **Pn** | **00 59 23.3** | **-1.5** |
| TRWZ | | | | AML | AML | 01 01 03.7 | |
| TRWZ | | | | AML | AML | 01 01 09.5 | |
| **HHSZ** | **Highcliff Hill** | **2.92** | **214** | Pn | **Pn** | **00 59 22.9** | **-1.9** |
| **HHSZ** | **Highcliff Hill** | **2.92** | **214** | PN | **Pn** | **00 59 22.4** | **-2.4** |
| HHSZ | | | | AML | AML | 01 00 17.9 | |
| HHSZ | | | | AML | AML | 01 00 18.5 | |
| **KIW** | **Kapiti Island** | **3.01** | **30** | Pn | **Pn** | **00 59 25.2** | **-0.7** |
| **KIW** | **Kapiti Island** | **3.01** | **30** | PN | **Pn** | **00 59 24.9** | **-1.0** |
| KIW | | | | AML | AML | 01 00 30.2 | |
| KIW | | | | AML | AML | 01 00 43.3 | |
| **MTW** | **Mount Morrison** | **3.01** | **40** | Pn | **Pn** | **00 59 24.6** | **-1.3** |
| **MTW** | **Mount Morrison** | **3.01** | **40** | PN | **Pn** | **00 59 24.3** | **-1.6** |
| MTW | | | | AML | AML | 01 00 10.6 | |
| MTW | | | | AML | AML | 01 00 22.4 | |
| **JCZ** | **Jackson Bay** | **3.06** | **257** | Pn | **Pn** | **00 59 24.8** | **-2.0** |
| **JCZ** | **Jackson Bay** | **3.06** | **257** | PN | **Pn** | **00 59 24.6** | **-2.2** |
| JCZ | | | | AML | AML | 01 00 21.7 | |
| JCZ | | | | AML | AML | 01 00 26.4 | |
| **WKZ** | **Wanaka** | **3.12** | **243** | *e*Pn | **Pn** | **00 59 25.6** | **-1.9** |
| **WKZ** | **Wanaka** | **3.12** | **243** | PN | **Pn** | **00 59 25.4** | **-2.1** |
| WKZ | | | | AML | AML | 01 00 22.5 | |
| WKZ | | | | AML | AML | 01 00 22.5 | |
| WKZ | | | | AML | AML | 01 00 22.9 | |
| WKZ | | | | AML | AML | 01 00 22.9 | |
| **EAZ** | **Earnscleugh** | **3.13** | **235** | Pn | **Pn** | **00 59 25.5** | **-2.2** |
| **EAZ** | **Earnscleugh** | **3.13** | **235** | PN | **Pn** | **00 59 25.4** | **-2.3** |
| EAZ | | | | AML | AML | 01 00 22.6 | |
| EAZ | | | | AML | AML | 01 00 22.6 | |
| EAZ | | | | AML | AML | 01 00 32.1 | |
| EAZ | | | | AML | AML | 01 00 32.1 | |
| **OGWZ** | **Otaki Gorge** | **3.14** | **33** | Pn | **Pn** | **00 59 26.5** | **-1.3** |
| **OGWZ** | **Otaki Gorge** | **3.14** | **33** | PN | **Pn** | **00 59 26.5** | **-1.3** |
| OGWZ | | | | AML | AML | 01 00 43.0 | |
| OGWZ | | | | AML | AML | 01 00 45.9 | |
| **HOWZ** | **Holdsworth Sta** | **3.22** | **37** | *e*Pn | **Pn** | **00 59 27.3** | **-1.6** |
| **HOWZ** | **Holdsworth Sta** | **3.22** | **37** | *e*PN | **Pn** | **00 59 27.3** | **-1.6** |
| HOWZ | | | | AML | AML | 01 00 08.8 | |
| HOWZ | | | | AML | AML | 01 00 12.7 | |
| **TMWZ** | **Te Maipa** | **3.23** | **44** | Pn | **Pn** | **00 59 27.8** | **-1.3** |
| **TMWZ** | **Te Maipa** | **3.23** | **44** | PN | **Pn** | **00 59 27.2** | **-1.9** |
| TMWZ | | | | AML | AML | 01 00 16.3 | |
| TMWZ | | | | AML | AML | 01 00 17.3 | |
| **TUZ** | **Tuapeka** | **3.41** | **222** | Pn | **Pn** | **00 59 29.5** | **-2.0** |
| **TUZ** | **Tuapeka** | **3.41** | **222** | PN | **Pn** | **00 59 29.5** | **-2.0** |
| TUZ | | | | AML | AML | 01 00 35.3 | |
| TUZ | | | | AML | AML | 01 00 35.3 | |
| TUZ | | | | AML | AML | 01 00 36.0 | |
| TUZ | | | | AML | AML | 01 00 36.0 | |
| **MRZ** | **Mangatainoka R** | **3.44** | **36** | Pn | **Pn** | **00 59 30.7** | **-1.2** |
| **MRZ** | **Mangatainoka R** | **3.44** | **36** | PN | **Pn** | **00 59 30.1** | **-1.8** |
| MRZ | | | | AML | AML | 01 00 18.7 | |
| MRZ | | | | AML | AML | 01 00 19.1 | |
| **TIWZ** | **Tintock** | **3.49** | **40** | Pn | **Pn** | **00 59 31.1** | **-1.5** |
| **TIWZ** | **Tintock** | **3.49** | **40** | PN | **Pn** | **00 59 31.0** | **-1.6** |
| TIWZ | | | | AML | AML | 01 00 16.5 | |
| TIWZ | | | | AML | AML | 01 00 22.5 | |
| **CPWZ** | **Castlepoint** | **3.54** | **44** | Pn | **Pn** | **00 59 32.2** | **-1.0** |
| **CPWZ** | **Castlepoint** | **3.54** | **44** | PN | **Pn** | **00 59 31.8** | **-1.4** |
| CPWZ | | | | AML | AML | 01 00 24.0 | |
| CPWZ | | | | AML | AML | 01 00 24.3 | |
| **PRWZ** | **Pori Road** | **3.70** | **39** | Pn | **Pn** | **00 59 33.6** | **-1.5** |
| **PRWZ** | **Pori Road** | **3.70** | **39** | PN | **Pn** | **00 59 33.6** | **-1.9** |
| PRWZ | | | | AML | AML | 01 01 05.3 | |
| PRWZ | | | | AML | AML | 01 01 21.1 | |
| **OHWZ** | **Ohakea** | **3.73** | **29** | PN | **Pn** | **00 59 35.9** | **0.0** |
| **BFZ** | **Birch Farm** | **3.73** | **43** | *e*Pn | **Pn** | **00 59 34.3** | **-1.7** |
| **BFZ** | **Birch Farm** | **3.73** | **43** | PN | **Pn** | **00 59 33.7** | **-2.2** |
| BFZ | | | | AML | AML | 01 00 21.2 | |
| BFZ | | | | AML | AML | 01 00 21.2 | |
| BFZ | | | | AML | AML | 01 00 25.8 | |
| BFZ | | | | AML | AML | 01 00 25.8 | |
| **POWZ** | **Post Office Ro** | **3.75** | **35** | Pn | **Pn** | **00 59 35.1** | **-1.0** |
| **POWZ** | **Post Office Ro** | **3.75** | **35** | PN | **Pn** | **00 59 34.2** | **-1.9** |
| POWZ | | | | AML | AML | 01 01 04.5 | |
| POWZ | | | | AML | AML | 01 01 18.9 | |
| **MLZ** | **Mavora Lakes** | **3.93** | **240** | *e*Pn | **Pn** | **00 59 36.2** | **-2.5** |
| **MLZ** | **Mavora Lakes** | **3.93** | **240** | PN | **Pn** | **00 59 36.1** | **-2.5** |
| MLZ | | | | AML | AML | 01 00 50.0 | |
| MLZ | | | | AML | AML | 01 01 01.7 | |
| **DVHZ** | **Dannevirke** | **4.00** | **38** | Pn | **Pn** | **00 59 37.6** | **-1.9** |
| **DVHZ** | **Dannevirke** | **4.00** | **38** | PN | **Pn** | **00 59 37.6** | **-1.9** |
| DVHZ | | | | AML | AML | 01 00 30.6 | |
| DVHZ | | | | AML | AML | 01 01 16.3 | |
| **ANWZ** | **Angora Road** | **4.01** | **42** | PN | **Pn** | **00 59 37.8** | **-2.0** |
| ANWZ | | | | AML | AML | 01 00 32.2 | |
| ANWZ | | | | AML | AML | 01 00 44.5 | |
| **WAZ** | **Wanganui** | **4.03** | **23** | Pn | **Pn** | **00 59 41.0** | **+1.0** |
| **WAZ** | **Wanganui** | **4.03** | **23** | AML | AML | 01 01 18.0 | |
| WAZ | | | | AML | AML | 01 01 35.5 | |
| **SYZ** | **Scrubby Hill** | **4.07** | **220** | Pn | **Pn** | **00 59 38.8** | **-1.7** |
| **SYZ** | **Scrubby Hill** | **4.07** | **220** | PN | **Pn** | **00 59 38.8** | **-1.7** |
| SYZ | | | | AML | AML | 01 01 06.1 | |
| SYZ | | | | AML | AML | 01 01 06.1 | |
| SYZ | | | | AML | AML | 01 01 07.0 | |
| SYZ | | | | AML | AML | 01 01 07.0 | |
| **TSZ** | **Takapari Road** | **4.11** | **35** | Pn | **Pn** | **00 59 39.0** | **-1.5** |
| **TSZ** | **Takapari Road** | **4.11** | **35** | *e*PN | **Pn** | **00 59 39.0** | **-2.1** |
| TSZ | | | | AML | AML | 01 00 34.7 | |
| TSZ | | | | AML | AML | 01 01 23.7 | |
| **NMEZ** | **Namu Road** | **4.13** | **10** | Pn | **Pn** | **00 59 43.0** | **+1.7** |
| **NMEZ** | **Namu Road** | **4.13** | **10** | PN | **Pn** | **00 59 41.8** | **+0.5** |
| **LREZ** | **Lake Rotokare** | **4.17** | **16** | *e*PN | **Pn** | **00 59 42.9** | **+0.9** |
| LREZ | | | | AML | AML | 01 01 24.7 | |
| LREZ | | | | AML | AML | 01 01 28.8 | |
| **PREZ** | **Palmer Road** | **4.24** | **13** | Pn | **Pn** | **00 59 44.5** | **+1.6** |
| **PREZ** | **Palmer Road** | **4.24** | **13** | *e*PN | **Pn** | **00 59 43.5** | **+0.6** |
| PREZ | | | | AML | AML | 01 01 13.9 | |
| PREZ | | | | AML | AML | 01 01 29.4 | |
| **PRHZ** | **Porangahau** | **4.24** | **42** | Pn | **Pn** | **00 59 41.1** | **-1.9** |
| **PRHZ** | **Porangahau** | **4.24** | **42** | PN | **Pn** | **00 59 40.7** | **-2.3** |
| PRHZ | | | | AML | AML | 01 00 43.6 | |
| PRHZ | | | | AML | AML | 01 01 57.7 | |
| **KHEZ** | **Kahui Hut** | **4.26** | **11** | Pn | **Pn** | **00 59 44.4** | **+1.1** |
| **KHEZ** | **Kahui Hut** | **4.26** | **11** | PN | **Pn** | **00 59 43.9** | **+0.6** |
| **WHZ** | **Wether Hill Ro** | **4.29** | **234** | *e*Pn | **Pn** | **00 59 41.3** | **-2.3** |
| **WHZ** | **Wether Hill Ro** | **4.29** | **234** | PN | **Pn** | **00 59 40.6** | **-3.1** |
| WHZ | | | | AML | AML | 01 01 07.3 | |
| WHZ | | | | AML | AML | 01 01 11.5 | |
| **NEZ** | **North Egmont** | **4.30** | **12** | Pn | **Pn** | **00 59 44.6** | **+0.8** |
| **NEZ** | **North Egmont** | **4.30** | **12** | *e*PN | **Pn** | **00 59 43.1** | **-0.8** |
| **WPHZ** | **Waipukurau** | **4.31** | **39** | Pn | **Pn** | **00 59 42.4** | **-1.5** |
| **WPHZ** | **Waipukurau** | **4.31** | **39** | *e*PN | **Pn** | **00 59 42.0** | **-1.9** |
| WPHZ | | | | AML | AML | 01 00 47.4 | |
| WPHZ | | | | AML | AML | 01 01 45.0 | |
| **PNHZ** | **Pukenui** | **4.33** | **36** | Pn | **Pn** | **00 59 42.3** | **-1.9** |
| **PNHZ** | **Pukenui** | **4.33** | **36** | *e*PN | **Pn** | **00 59 42.0** | **-2.2** |
| PNHZ | | | | AML | AML | 01 01 37.2 | |
| PNHZ | | | | AML | AML | 01 01 38.2 | |
| **PKE** | **Pukeiti** | **4.36** | **11** | Pn | **Pn** | **00 59 45.2** | **+0.6** |
| **PKE** | **Pukeiti** | **4.36** | **11** | *e*PN | **Pn** | **00 59 45.1** | **+0.5** |
| PKE | | | | AML | AML | 01 00 41.9 | |
| PKE | | | | AML | AML | 01 00 43.8 | |
| **DREZ** | **Durham Road** | **4.40** | **13** | Pn | **Pn** | **00 59 46.3** | **+1.2** |
| **MTVZ** | **Mangateitei** | **4.52** | **26** | Pn | **Pn** | **00 59 48.1** | **+1.3** |
| **MTVZ** | **Mangateitei** | **4.52** | **26** | *e*PN | **Pn** | **00 59 47.8** | **+1.0** |
| MTVZ | | | | AML | AML | 01 01 25.6 | |
| MTVZ | | | | AML | AML | 01 01 32.4 | |
| **MHEZ** | **Mangahewa** | **4.53** | **14** | Pn | **Pn** | **00 59 48.3** | **+1.4** |
| **MHEZ** | **Mangahewa** | **4.53** | **14** | *e*PN | **Pn** | **00 59 47.7** | **+0.8** |
| **PXZ** | **Pawanui** | **4.53** | **42** | Pn | **Pn** | **00 59 44.8** | **-2.1** |
| **PXZ** | **Pawanui** | **4.53** | **42** | AML | AML | 01 00 50.5 | |
| PXZ | | | | AML | AML | 01 00 50.5 | |
| PXZ | | | | AML | AML | 01 00 53.7 | |
| PXZ | | | | AML | AML | 01 03 04.4 | |
| **PKVZ** | **Pokaka** | **4.57** | **24** | Pn | **Pn** | **00 59 47.7** | **+0.2** |
| **PKVZ** | **Pokaka** | **4.57** | **24** | PN | **Pn** | **00 59 47.5** | **0.0** |
| PKVZ | | | | AML | AML | 01 01 22.6 | |
| PKVZ | | | | AML | AML | 01 01 48.3 | |
| **VRZ** | **Vera Road** | **4.57** | **18** | Pn | **Pn** | **00 59 48.2** | **+0.5** |
| **VRZ** | **Vera Road** | **4.57** | **18** | PN | **Pn** | **00 59 47.6** | **+0.1** |
| VRZ | | | | AML | AML | 01 01 31.9 | |
| VRZ | | | | AML | AML | 01 01 39.5 | |
| **DCZ** | **Deep Cove** | **4.58** | **242** | *e*Pn | **Pn** | **00 59 45.3** | **-2.3** |
| **DCZ** | **Deep Cove** | **4.58** | **242** | *e*PN | **Pn** | **00 59 44.7** | **-2.9** |
| DCZ | | | | AML | AML | 01 01 10.2 | |
| DCZ | | | | AML | AML | 01 01 10.2 | |
| DCZ | | | | AML | AML | 01 01 11.1 | |
| DCZ | | | | AML | AML | 01 01 11.1 | |
| **MOVZ** | **Moawhango** | **4.59** | **28** | Pn | **Pn** | **00 59 46.9** | **-1.0** |
| **MOVZ** | **Moawhango** | **4.59** | **28** | PN | **Pn** | **00 59 46.5** | **-1.3** |
| MOVZ | | | | AML | AML | 01 01 32.7 | |
| MOVZ | | | | AML | AML | 01 01 46.5 | |
| **WNVZ** | **Wahianoa** | **4.61** | **27** | Pn | **Pn** | **00 59 48.0** | **-0.2** |
| **WNVZ** | **Wahianoa** | **4.61** | **27** | PN | **Pn** | **00 59 46.8** | **-1.3** |
| **TRVZ** | **Turoa** | **4.62** | **26** | Pn | **Pn** | **00 59 48.2** | **-0.1** |
| **TRVZ** | **Turoa** | **4.62** | **26** | *e*PN | **Pn** | **00 59 47.3** | **-1.0** |
| TRVZ | | | | AML | AML | 01 01 03.3 | |
| TRVZ | | | | AML | AML | 01 01 30.2 | |
| **KRHZ** | **Kereru** | **4.62** | **35** | PN | **Pn** | **00 59 46.0** | **-2.2** |
| KRHZ | | | | AML | AML | 01 00 46.6 | |
| KRHZ | | | | AML | AML | 01 01 03.1 | |
| **BHHZ** | **Black Hill Sta** | **4.63** | **32** | Pn | **Pn** | **00 59 47.4** | **-0.9** |
| **BHHZ** | **Black Hill Sta** | **4.63** | **32** | PN | **Pn** | **00 59 46.2** | **-2.1** |
| BHHZ | | | | AML | AML | 01 00 51.8 | |
| BHHZ | | | | AML | AML | 01 00 55.0 | |
| **DRZ** | **Dome Shelter** | **4.65** | **26** | Pn | **Pn** | **00 59 50.1** | **+1.3** |
| **DRZ** | **Dome Shelter** | **4.65** | **26** | AML | AML | 01 00 54.0 | |
| DRZ | | | | AML | AML | 01 01 00.5 | |
| **WHVZ** | **Whangaehu Hut** | **4.65** | **26** | Pn | **Pn** | **00 59 48.6** | **-0.1** |
| **WHVZ** | **Whangaehu Hut** | **4.65** | **26** | *e*PN | **Pn** | **00 59 48.4** | **-0.4** |
| WHVZ | | | | AML | AML | 01 01 39.5 | |
| WHVZ | | | | AML | AML | 01 02 09.4 | |
| **FWVZ** | **Far West T-bar** | **4.66** | **26** | Pn | **Pn** | **00 59 48.7** | **-0.2** |
| **FWVZ** | **Far West T-bar** | **4.66** | **26** | *e*PN | **Pn** | **00 59 48.0** | **-0.9** |
| FWVZ | | | | AML | AML | 01 00 49.5 | |
| FWVZ | | | | AML | AML | 01 00 54.1 | |
| **TUVZ** | **Tukino** | **4.68** | **27** | Pn | **Pn** | **00 59 48.7** | **-0.4** |
| **TUVZ** | **Tukino** | **4.68** | **27** | *e*PN | **Pn** | **00 59 48.5** | **-0.6** |
| TUVZ | | | | AML | AML | 01 00 55.2 | |
| TUVZ | | | | AML | AML | 01 02 16.8 | |
| **KAHZ** | **Kahuranaki** | **4.72** | **40** | Pn | **Pn** | **00 59 47.3** | **-2.4** |
| **KAHZ** | **Kahuranaki** | **4.72** | **40** | *e*PN | **Pn** | **00 59 47.0** | **-2.7** |
| KAHZ | | | | AML | AML | 01 00 48.5 | |
| KAHZ | | | | AML | AML | 01 01 58.0 | |
| **NGZ** | **Ngauruhoe** | **4.75** | **26** | Pn | **Pn** | **00 59 49.4** | **-0.7** |
| **NGZ** | **Ngauruhoe** | **4.75** | **26** | *e*PN | **Pn** | **00 59 49.2** | **-0.9** |
| NGZ | | | | AML | AML | 01 01 29.1 | |
| NGZ | | | | AML | AML | 01 01 42.2 | |
| **OTVZ** | **Oturere** | **4.78** | **26** | Pn | **Pn** | **00 59 49.9** | **-0.6** |
| **OTVZ** | **Oturere** | **4.78** | **26** | PN | **Pn** | **00 59 49.3** | **-1.2** |
| OTVZ | | | | AML | AML | 01 01 39.8 | |
| OTVZ | | | | AML | AML | 01 01 56.8 | |
| **TWVZ** | **Taurewa** | **4.80** | **24** | Pn | **Pn** | **00 59 50.2** | **-0.5** |
| **TWVZ** | **Taurewa** | **4.80** | **24** | *e*PN | **Pn** | **00 59 49.7** | **-1.0** |
| TWVZ | | | | AML | AML | 01 01 31.6 | |
| TWVZ | | | | AML | AML | 01 01 45.6 | |
| **WTVZ** | **West Tongariro** | **4.80** | **26** | Pn | **Pn** | **00 59 50.0** | **-0.7** |
| **WTVZ** | **West Tongariro** | **4.80** | **26** | PN | **Pn** | **00 59 49.7** | **-1.0** |
| WTVZ | | | | AML | AML | 01 01 47.2 | |
| WTVZ | | | | AML | AML | 01 02 08.3 | |
| **KWHZ** | **Kaweka Forest** | **4.83** | **34** | *e*PN | **Pn** | **00 59 48.9** | **-2.2** |
| KWHZ | | | | AML | AML | 01 00 53.3 | |
| KWHZ | | | | AML | AML | 01 01 34.7 | |
| **KRVZ** | **Karewarewa** | **4.84** | **26** | Pn | **Pn** | **00 59 51.0** | **-0.2** |
| **KRVZ** | **Karewarewa** | **4.84** | **26** | *e*PN | **Pn** | **00 59 50.1** | **-1.1** |
| KRVZ | | | | AML | AML | 01 01 38.1 | |
| KRVZ | | | | AML | AML | 01 01 57.8 | |
| **APZ** | **The Paps** | **4.84** | **225** | Pn | **Pn** | **00 59 48.8** | **-2.4** |
| **APZ** | **The Paps** | **4.84** | **225** | PN | **Pn** | **00 59 48.8** | **-2.4** |
| APZ | | | | AML | AML | 01 01 18.2 | |
| APZ | | | | AML | AML | 01 01 20.6 | |
| **CKHZ** | **Cape Kidnapper** | **4.93** | **41** | Pn | **Pn** | **00 59 51.7** | **-0.6** |
| **CKHZ** | **Cape Kidnapper** | **4.93** | **41** | *e*PN | **Pn** | **00 59 49.9** | **-2.5** |
| CKHZ | | | | AML | AML | 01 00 56.3 | |
| CKHZ | | | | AML | AML | 01 02 02.3 | |
| **MCHZ** | **McNeill Hill** | **4.93** | **36** | Pn | **Pn** | **00 59 51.3** | **-1.0** |
| **MCHZ** | **McNeill Hill** | **4.93** | **36** | *e*PN | **Pn** | **00 59 50.1** | **-2.2** |
| MCHZ | | | | AML | AML | 01 01 54.6 | |
| MCHZ | | | | AML | AML | 01 02 03.4 | |
| **KATZ** | **Kakaramea** | **4.96** | **26** | Pn | **Pn** | **00 59 52.9** | **0.0** |
| **KATZ** | **Kakaramea** | **4.96** | **26** | PN | **Pn** | **00 59 52.9** | **0.0** |
| KATZ | | | | AML | AML | 01 01 45.6 | |
| KATZ | | | | AML | AML | 01 01 46.7 | |
| **RITZ** | **Rihia Road** | **5.01** | **27** | Pn | **Pn** | **00 59 53.8** | **+0.2** |
| **RITZ** | **Rihia Road** | **5.01** | **27** | PN | **Pn** | **00 59 53.8** | **+0.2** |
| RITZ | | | | AML | AML | 01 01 56.8 | |
| RITZ | | | | AML | AML | 01 01 59.6 | |
| **BKZ** | **Black Stump Fm** | **5.08** | **33** | *e*Pn | **Pn** | **00 59 52.7** | **-1.8** |
| **BKZ** | **Black Stump Fm** | **5.08** | **33** | *e*PN | **Pn** | **00 59 52.1** | **-2.4** |
| BKZ | | | | AML | AML | 01 01 54.1 | |
| BKZ | | | | AML | AML | 01 02 17.5 | |
| **RATZ** | **Rangitukua** | **5.09** | **26** | Pn | **Pn** | **00 59 55.1** | **+0.5** |
| **RATZ** | **Rangitukua** | **5.09** | **26** | AML | AML | 01 01 58.3 | |
| RATZ | | | | AML | AML | 01 02 03.5 | |
| **HIZ** | **Hauiti** | **5.17** | **17** | *e*Pn | **Pn** | **00 59 55.7** | **-0.1** |
| **HIZ** | **Hauiti** | **5.17** | **17** | *e*PN | **Pn** | **00 59 55.3** | **-0.4** |
| HIZ | | | | AML | AML | 01 01 15.9 | |
| HIZ | | | | AML | AML | 01 01 42.6 | |
| **PYZ** | **Puysegur Point** | **5.19** | **237** | *e*Pn | **Pn** | **00 59 53.2** | **-2.8** |
| **PYZ** | **Puysegur Point** | **5.19** | **237** | PN | **Pn** | **00 59 52.2** | **-3.8** |
| PYZ | | | | AML | AML | 01 01 31.6 | |
| PYZ | | | | AML | AML | 01 01 31.6 | |
| PYZ | | | | AML | AML | 01 01 43.3 | |
| PYZ | | | | AML | AML | 01 01 43.4 | |
| **ARHZ** | **Aropaoanui** | **5.21** | **37** | *e*PN | **Pn** | **00 59 55.0** | **-1.2** |
| ARHZ | | | | AML | AML | 01 01 00.7 | |
| ARHZ | | | | AML | AML | 01 01 01.1 | |
| **WATZ** | **Wairara** | **5.22** | **25** | Pn | **Pn** | **00 59 56.3** | **-0.1** |
| **WATZ** | **Wairara** | **5.22** | **25** | *e*PN | **Pn** | **00 59 55.2** | **-1.3** |
| WATZ | | | | AML | AML | 01 01 59.2 | |
| WATZ | | | | AML | AML | 01 02 02.0 | |
| **NMHZ** | **

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| OPRZ | **Ohinepanea** | **6.27** | **27** | *e*PN | **Pn** | **01 00 08.1** | **-2.7** |
| OPRZ | | | | AML | AML | 01 02 46.8 | |
| OPRZ | | | | AML | AML | 01 04 14.4 | |
| CNGZ | **Carnagh Statio** | **6.39** | **40** | Pn | **Pn** | **01 00 10.4** | **-2.0** |
| CNGZ | **Carnagh Statio** | **6.39** | **40** | PN | **Pn** | **01 00 09.6** | **-2.9** |
| CNGZ | | | | AML | AML | 01 01 31.9 | |
| CNGZ | | | | AML | AML | 01 01 42.4 | |
| TWGZ | **Tauwhareparae** | **6.54** | **38** | Pn | **Pn** | **01 00 12.4** | **-2.2** |
| TWGZ | **Tauwhareparae** | **6.54** | **38** | *e*PN | **Pn** | **01 00 12.1** | **-2.5** |
| TWGZ | | | | AML | AML | 01 01 32.5 | |
| TWGZ | | | | AML | AML | 01 01 35.9 | |
| AWAZ | **Awhitu Peninsu** | **6.54** | **12** | PN | **Pn** | **01 00 14.5** | **-0.1** |
| KBAZ | **Karaka Road Bo** | **6.55** | **14** | Pn | **Pn** | **01 00 15.3** | **+0.6** |
| RUGZ | **Raukumara Rang** | **6.59** | **35** | *e*PN | **Pn** | **01 00 12.8** | **-2.5** |
| WTAZ | **Waiatarua** | **6.66** | **11** | Pn | **Pn** | **01 00 17.0** | **+0.7** |
| WTAZ | **Waiatarua** | **6.66** | **11** | PN | **Pn** | **01 00 16.3** | **0.0** |
| ETAZ | **East Tamaki Re** | **6.70** | **14** | Pn | **Pn** | **01 00 16.6** | **-0.1** |
| ETAZ | **East Tamaki Re** | **6.70** | **14** | PN | **Pn** | **01 00 16.6** | **-0.1** |
| PUZ | **Puketiti** | **6.75** | **39** | Pn | **Pn** | **01 00 14.4** | **-3.0** |
| PUZ | **Puketiti** | **6.75** | **39** | PN | **Pn** | **01 00 13.5** | **-3.9** |
| PUZ | | | | AML | AML | 01 01 37.3 | |
| PUZ | | | | AML | AML | 01 01 40.5 | |
| HAZ | **Te Kaha** | **6.81** | **34** | PN | **Pn** | **01 00 16.0** | **-2.2** |
| HAZ | | | | AML | AML | 01 01 45.4 | |
| HAZ | | | | AML | AML | 01 01 45.8 | |
| HAZ | | | | AML | AML | 01 01 46.8 | |
| HAZ | | | | AML | AML | 01 01 46.9 | |
| PKGZ | **Pakihiroa** | **6.82** | **37** | AML | AML | 01 01 36.7 | |
| PKGZ | | | | AML | AML | 01 01 38.8 | |
| RVAZ | **Riverhead Bore** | **6.82** | **11** | Pn | **Pn** | **01 00 18.9** | **+0.5** |
| RVAZ | **Riverhead Bore** | **6.82** | **11** | PN | **Pn** | **01 00 18.3** | **-0.1** |
| MTAZ | **Motutapu** | **6.86** | **13** | Pn | **Pn** | **01 00 18.9** | **+0.1** |
| MTAZ | **Motutapu** | **6.86** | **13** | PN | **Pn** | **01 00 18.6** | **-0.2** |
| WIAZ | **Waiheke Island** | **6.89** | **15** | PN | **Pn** | **01 00 18.3** | **-1.0** |
| WIAZ | | | | AML | AML | 01 00 59.8 | |
| WIAZ | | | | AML | AML | 01 01 40.4 | |
| WMGZ | **Waiomatatini S** | **7.03** | **38** | Pn | **Pn** | **01 00 18.4** | **-2.8** |
| WMGZ | **Waiomatatini S** | **7.03** | **38** | PN | **Pn** | **01 00 18.3** | **-2.9** |
| WMGZ | | | | AML | AML | 01 01 42.1 | |
| WMGZ | | | | AML | AML | 01 01 42.3 | |
| ABAZ | **Army Bay** | **7.03** | **13** | Pn | **Pn** | **01 00 21.3** | **0.0** |
| ABAZ | **Army Bay** | **7.03** | **13** | PN | **Pn** | **01 00 21.2** | **0.0** |
| KUZ | **Kuaotunu** | **7.06** | **19** | Pn | **Pn** | **01 00 21.0** | **-0.7** |
| KUZ | **Kuaotunu** | **7.06** | **19** | PN | **Pn** | **01 00 20.7** | **-1.0** |
| KUZ | | | | AML | AML | 01 02 48.5 | |
| KUZ | | | | AML | AML | 01 03 06.6 | |
| MXZ | **Matakaoa Point** | **7.19** | **36** | *e*Pn | **Pn** | **01 00 21.5** | **-2.0** |
| MXZ | **Matakaoa Point** | **7.19** | **36** | AML | AML | 01 01 52.5 | |
| MXZ | | | | AML | AML | 01 02 16.3 | |
| GRZ | **Great Barrier** | **7.48** | **16** | *e*PN | **Pn** | **01 00 27.3** | **-0.1** |
| GRZ | | | | AML | AML | 01 03 05.6 | |
| GRZ | | | | AML | AML | 01 03 27.1 | |
| CTZ | **Chatham Island** | **7.59** | **95** | Pn | **Pn** | **01 00 27.7** | **-1.2** |
| CTZ | **Chatham Island** | **7.59** | **95** | PN | **Pn** | **01 00 27.3** | **-1.6** |
| WCZ | **Waipu Caves** | **7.61** | **9** | Pn | **Pn** | **01 00 29.8** | **+0.5** |
| WCZ | **Waipu Caves** | **7.61** | **9** | PN | **Pn** | **01 00 29.2** | **0.0** |
| WCZ | | | | AML | AML | 01 03 33.7 | |
| WCZ | | | | AML | AML | 01 04 30.1 | |
| OUZ | **Omahuta** | **8.27** | **4** | *e*Pn | **Pn** | **01 00 36.9** | **-1.3** |
| OUZ | **Omahuta** | **8.27** | **4** | *e*PN | **Pn** | **01 00 38.4** | **+0.2** |
| OUZ | | | | AML | AML | 01 02 10.4 | |
| OUZ | | | | AML | AML | 01 02 15.3 | |
| **MCQ** | **Macquarie Isla** | **14.31** | **215** | P | **Pn** | **01 02 01.0** | **+0.3** |
| | baz=14,SNR=5.5 | | | | | | |
| **MCQ** | **Macquarie Isla** | **14.31** | **215** | *e*P | **Pn** | **01 01 58.9** | **-1.9** |
| **MCQ** | **Macquarie Isla** | **14.31** | **215** | *e*Pn | **Pn** | **01 01 58.9** | **-1.9** |
| **RAO** | **Raoul Island** | **15.98** | **30** | LR | LR | 01 08 29.7 | |
| | comp=Z,13μm,21.6s,baz=190,slow=37 | | | | | | |
| **RAO** | **Raoul Island** | **15.98** | **30** | *e*P | **Pn** | **01 02 21.7** | **-1.5** |
| RAO | | | | pmax | pmax | | |
| | comp=Z,596nm,1.1s | | | | | | |
| **RAO** | **Raoul Island** | **15.98** | **30** | *e*Pn | **Pn** | **01 02 21.7** | **-1.5** |
| | comp=Z,596nm,1.1s | | | | | | |
| **TAU** | **Tasmania Unive** | **18.66** | **263** | *e*P | **Pn** | **01 02 56.8** | **+0.2** |
| TAU | | | | pmax | pmax | | |
| | comp=Z,57nm,1.0s | | | | | | |
| **TAU** | **Tasmania Unive** | **18.66** | **263** | *e*P | **P** | **01 02 56.0** | **-0.3** |
| | comp=Z,57nm,1.0s | | | | | | |
| **MOO** | **Moorlands** | **18.85** | **264** | P | **Pn** | **01 03 00.2** | **+1.3** |
| | baz=19,SNR=8.5 | | | | | | |
| **MILA** | **Mila** | **19.21** | **281** | P | **Pn** | **01 03 04.6** | **+1.2** |
| | baz=19,SNR=9.4 | | | | | | |
| **RIV** | **Riverview** | **19.50** | **292** | P | **Pn** | **01 03 07.6** | **+0.9** |
| | baz=20,SNR=9.6 | | | | | | |
| **MGCD** | **Mangrove Creek** | **19.90** | **294** | P | **Pn** | **01 03 11.5** | **0.0** |
| | baz=20,SNR=11 | | | | | | |
| **CNB** | **Canberra Magne** | **19.91** | **286** | P | **Pn** | **01 03 11.3** | **-0.5** |
| | baz=20,SNR=15 | | | | | | |
| **CAN** | **Canberra** | **20.16** | **286** | *e*P | **P** | **01 03 12.7** | **-0.2** |
| CAN | | | | pmax | pmax | | |
| | comp=Z,130nm,1.2s | | | | | | |
| CAN | | | | MLR | MLR | | |
| | comp=Z,23μm,20.0s | | | | | | |
| **CAN** | **Canberra** | **20.16** | **286** | *e*P | **P** | **01 03 12.7** | **-0.2** |
| | comp=Z,130nm,1.2s | | | | | | |
| CAN | | | | LR | LR | | |
| | comp=Z,23μm,20.0s | | | | | | |
| **YNG** | **Young** | **21.12** | **287** | P | **P** | **01 03 24.6** | **+1.4** |
| | baz=21,SNR=24 | | | | | | |
| **ARMA** | **Armidale** | **21.37** | **301** | P | **P** | **01 03 27.0** | **+1.0** |
| | baz=21,SNR=14 | | | | | | |
| **ARMA** | **Armidale** | **21.37** | **301** | *e*P | **P** | **01 03 26.2** | **+0.3** |
| | comp=Z,144nm,1.3s | | | | | | |
| ARMA | | | | LR | LR | | |
| | comp=Z,32μm,19.0s | | | | | | |
| **TOO** | **Toolangi** | **21.62** | **276** | P | **P** | **01 03 29.2** | **+0.6** |
| | baz=22,SNR=48 | | | | | | |
| **DZM** | **Mont Dzumac** | **22.02** | **344** | P | **P** | **01 03 33.3** | **+0.3** |
| | comp=Z,63nm,0.9s,baz=139,slow=18,SNR=12 | | | | | | |
| DZM | | | | LR | LR | 01 11 10.6 | |
| | comp=Z,25μm,20.1s,baz=179,slow=34 | | | | | | |
| **DZM** | **Mont Dzumac** | **22.02** | **344** | *e*P | **P** | **01 03 33.6** | **+0.6** |
| | comp=Z,279nm,1.4s | | | | | | |
| DZM | | | | *e*S | **S** | **01 07 29.7** | **-6.6** |
| | comp=Z,7μm,23.6s | | | | | | |
| DZM | | | | *e*LR | LR | 01 08 49.2 | |
| | comp=Z,31μm,22.2s | | | | | | |
| **DZM** | **Mont Dzumac** | **22.02** | **344** | *e*P | **P** | **01 03 33.3** | **+0.3** |
| | comp=Z,91nm,1.0s | | | | | | |
| **CMSA** | **Cobar Meteorol** | **24.57** | **290** | P | **P** | **01 03 58.4** | **0.0** |
| | baz=24,SNR=22 | | | | | | |
| **ARPS** | **Mount Arapiles** | **24.61** | **275** | P | **P** | **01 03 59.2** | **+0.5** |
| | baz=25,SNR=22 | | | | | | |
| **EIDS** | **Eidsvold** | **25.40** | **308** | P | **P** | **01 04 06.7** | **+0.8** |
| | baz=25,SNR=8.5 | | | | | | |
| **EIDS** | **Eidsvold** | **25.40** | **308** | *e*P | **P** | **01 04 05.8** | **-0.2** |
| | comp=Z,74nm,1.3s | | | | | | |
| **RMQ** | **Roma** | **25.93** | **303** | P | **P** | **01 04 11.6** | **+0.8** |
| | baz=26,SNR=24 | | | | | | |
| **MSVF** | **Nonsavu** | **26.03** | **11** | *e*P | **P** | **01 04 09.7** | **-2.1** |
| MSVF | | | | pmax | pmax | | |
| | comp=Z,98nm,1.3s | | | | | | |
| MSVF | | | | MLR | MLR | | |
| | comp=Z,7μm,19.0s | | | | | | |
| **MSVF** | **Nonsavu** | **26.03** | **11** | *e*P | **P** | **01 04 09.7** | **-2.1** |
| | comp=Z,98nm,1.3s | | | | | | |
| MSVF | | | | LR | LR | | |
| | comp=Z,7μm,19.0s | | | | | | |
| **STKA** | **Stephens Creek** | **27.22** | **285** | P | **P** | **01 04 22.4** | **0.0** |
| | comp=Z,39nm,1.1s,baz=121,slow=11,SNR=26 | | | | | | |
| STKA | | | | LR | LR | 01 14 36.5 | |
| | comp=Z,15μm,18.2s,baz=116,slow=35 | | | | | | |
| **STKA** | **Stephens Creek** | **27.22** | **285** | P | **P** | **01 04 23.1** | **+0.8** |
| | baz=27,SNR=12 | | | | | | |
| **STKA** | **Stephens Creek** | **27.22** | **285** | *e*P | **P** | **01 04 21.8** | **-0.5** |
| STKA | | | | pmax | pmax | | |
| | comp=Z,20nm,1.4s | | | | | | |
| **STKA** | **Stephens Creek** | **27.22** | **285** | *e*P | **P** | **01 04 21.8** | **-0.5** |
| | comp=Z,20nm,1.4s | | | | | | |
| **QLP** | **Quilpie** | **28.73** | **297** | P | **P** | **01 04 36.7** | **+0.9** |
| | baz=29,SNR=12 | | | | | | |
| **BBOO** | **Buckleboo** | **30.67** | **278** | P | **P** | **01 04 52.9** | **-0.1** |
| | baz=31,SNR=28 | | | | | | |
| **BBOO** | **Buckleboo** | **30.67** | **278** | *e*P | **P** | **01 04 52.5** | **-0.5** |
| | comp=Z,212nm,1.3s | | | | | | |
| **RAR** | **Rarotonga** | **31.77** | **54** | P | **P** | **01 05 03.9** | **+1.2** |
| | comp=Z,22nm,0.9s,baz=249,slow=8.8,SNR=3.6 | | | | | | |
| RAR | | | | LR | LR | 01 17 50.0 | |
| | comp=Z,3μm,18.4s,baz=217,slow=36 | | | | | | |
| **AFI** | **Afiamalu** | **32.27** | **29** | LR | LR | 01 18 23.5 | |
| | comp=Z,2μm,18.5s,baz=188,slow=37 | | | | | | |
| **AFI** | **Afiamalu** | **32.27** | **29** | *e*P | **P** | **01 05 04.9** | **-2.3** |
| AFI | | | | pmax | pmax | | |
| | comp=Z,58nm,1.0s | | | | | | |
| **AFI** | **Afiamalu** | **32.27** | **29** | *e*P | **P** | **01 05 04.9** | **-2.3** |
| | comp=Z,58nm,1.0s | | | | | | |
| **CTA** | **Charters Tower** | **32.28** | **308** | P | **P** | **01 05 07.4** | **0.0** |
| | comp=Z,49nm,0.9s,baz=141,slow=11,SNR=21 | | | | | | |
| CTA | | | | LR | LR | 01 17 00.4 | |
| | comp=Z,17μm,19.8s,baz=126,slow=34 | | | | | | |
| **CTAO** | **Charters Tower** | **32.28** | **308** | *e*P | **P** | **01 05 07.6** | **+0.2** |
| CTAO | | | | pmax | pmax | | |
| | comp=Z,42nm,0.8s | | | | | | |
| CTAO | | | | MLR | MLR | | |
| | comp=Z,25μm,19.0s | | | | | | |
| **CTAO** | **Charters Tower** | **32.28** | **308** | *e*P | **P** | **01 05 07.6** | **+0.2** |
| | comp=Z,42nm,0.8s | | | | | | |
| CTAO | | | | LR | LR | | |
| | comp=Z,25μm,19.0s | | | | | | |
| **VNDA** | **Vanda** | **34.44** | **184** | P | **P** | **01 05 27.6** | **+2.0** |
| | comp=Z,12nm,1.2s,baz=348,slow=11,SNR=5.2 | | | | | | |
| VNDA | | | | LR | LR | 01 17 56.6 | |
| | comp=Z,3μm,19.7s,baz=12,slow=34 | | | | | | |
| **VNDA** | **Vanda** | **34.44** | **184** | *e*P | **P** | **01 05 25.8** | **+0.2** |
| | comp=Z,59nm,1.6s | | | | | | |
| **SBA** | **Scott Base** | **34.57** | **182** | *e*P | **P** | **01 05 27.6** | **+0.9** |
| SBA | | | | pmax | pmax | | |
| | comp=Z,109nm,1.4s | | | | | | |
| SBA | | | | MLR | MLR | | |
| | comp=Z,3μm,22.0s | | | | | | |
| **SBA** | **Scott Base** | **34.57** | **182** | *e*P | **P** | **01 05 27.6** | **+0.9** |
| | comp=Z,109nm,1.4s | | | | | | |
| SBA | | | | LR | LR | | |
| | comp=Z,3μm,22.0s | | | | | | |
| **MTSU** | **Mount Surprise** | **34.94** | **307** | P | **P** | **01 05 30.4** | **-0.1** |
| | baz=35,SNR=16 | | | | | | |
| **FUNA** | **Funafuti** | **35.25** | **11** | *e*P | **P** | **01 05 32.1** | **-1.1** |
| | comp=Z,239nm,1.6s | | | | | | |
| FUNA | | | | LR | LR | | |
| | comp=Z,4μm,19.0s | | | | | | |
| **HNR** | **Honiara** | **35.76** | **338** | *e*P | **P** | **01 05 33.0** | **-4.5** |
| **HNR** | **Honiara** | **35.76** | **338** | P | **P** | **01 05 38.3** | **+0.8** |
| | comp=Z,251nm,1.0s,baz=165,slow=8.4,SNR=5.5 | | | | | | |
| HNR | | | | LR | LR | 01 17 41.3 | |
| | comp=Z,7μm,21.1s,baz=163,slow=32 | | | | | | |
| **HNR** | **Honiara** | **35.76** | **338** | *e*P | **P** | **01 05 37.0** | **-0.6** |
| HNR | | | | pmax | pmax | | |
| | comp=Z,304nm,0.9s | | | | | | |
| **HNR** | **Honiara** | **35.76** | **338** | *e*P | **P** | **01 05 37.0** | **-0.6** |
| | comp=Z,304nm,0.9s | | | | | | |
| **QIS** | **Mount Isa** | **35.97** | **299** | P | **P** | **01 05 38.9** | **-0.5** |
| | baz=36,SNR=11 | | | | | | |
| **TBI** | **Tubuai** | **36.85** | **69** | *e*S | **S** | **01 11 33.0** | **+1.4** |
| | comp=Z,1μm,26.8s | | | | | | |
| **TBI** | **Tubuai** | **36.85** | **69** | *e*T | T | 01 44 04.9 | |
| | comp=Z,104nm,0.3s | | | | | | |
| **FORT** | **Forrest** | **37.52** | **274** | P | **P** | **01 05 52.1** | **-0.4** |
| | baz=38,SNR=23 | | | | | | |
| **FORT** | **Forrest** | **37.52** | **274** | *e*P | **P** | **01 05 51.8** | **-0.7** |
| | comp=Z,2μm,1.2s | | | | | | |
| **AS01** | **Alice Springs** | **37.58** | **289** | *e*P | **P** | **01 05 51.7** | **-1.4** |
| **AS31** | **Alice Springs** | **37.61** | **289** | *e*P | **P** | **01 05 52.5** | **-0.8** |
| | comp=Z,25nm,1.0s | | | | | | |
| **ASAR** | **Alice Springs** | **37.61** | **289** | P | **P** | **01 05 52.5** | **-0.9** |
| | comp=Z,67nm,0.9s,baz=132,slow=8.4,SNR=102 | | | | | | |
| ASAR | | | | LR | LR | 01 20 28.3 | |
| | comp=Z,14μm,20.3s,baz=141,slow=35 | | | | | | |
| **COEN** | **Coen** | **38.94** | **310** | P | **P** | **01 06 03.7** | **-0.7** |
| | baz=39,SNR=21 | | | | | | |
| **COEN** | **Coen** | **38.94** | **310** | *e*P | **P** | **01 06 03.8** | **-0.7** |
| | comp=Z,34nm,0.8s | | | | | | |
| **WB2** | **Warramunga Arr** | **39.84** | **294** | *e*P | **P** | **01 06 11.0** | **-1.1** |
| | comp=Z,83nm,0.8s | | | | | | |
| **WRAB** | **Tennant Creek** | **39.85** | **294** | *c i*P | **P** | **01 06 10.9** | **-1.2** |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,367nm,1.2s | | | | | | |
| **WRAB** | **Tennant Creek** | **39.85** | **294** | *e*P | **P** | **01 06 11.1** | **-1.0** |
| | comp=Z,80nm,0.8s | | | | | | |
| WRAB | | | | LR | LR | | |
| | comp=Z,24μm,20.0s | | | | | | |
| **WRA** | **Warramunga Arr** | **39.85** | **294** | P | **P** | **01 06 11.3** | **-0.9** |
| | comp=Z,62nm,0.8s,baz=133,slow=7.9,SNR=196 | | | | | | |
| WRA | | | | LR | LR | 01 22 25.5 | |
| | comp=Z,21μm,18.1s,baz=135,slow=36 | | | | | | |
| **WRKA** | **Warakurna** | **40.67** | **282** | P | **P** | **01 06 17.6** | **-1.4** |
| | baz=41,SNR=51 | | | | | | |
| **PMG** | **Port Moresby** | **40.70** | **319** | P | **P** | **01 06 20.0** | **+0.8** |
| | comp=Z,226nm,1.0s,baz=154,slow=4.8,SNR=20 | | | | | | |
| **PMG** | **Port Moresby** | **40.70** | **319** | *c i*P | **P** | **01 06 19.7** | **+0.5** |
| PMG | | | | pmax | pmax | | |
| | comp=Z,183nm,1.0s | | | | | | |
| **PMG** | **Port Moresby** | **40.70** | **319** | *e*P | **P** | **01 06 19.3** | **+0.1** |
| | comp=Z,263nm,0.9s | | | | | | |
| PMG | | | | LR | LR | | |
| | comp=Z,21μm,20.0s | | | | | | |
| **PAE** | **Paea** | **40.76** | **63** | *e*P | **P** | **01 06 18.8** | **-0.8** |
| | comp=Z,19nm,1.3s | | | | | | |
| **PAE** | **Paea** | **40.76** | **63** | *e*T | T | 01 48 55.2 | |
| | comp=Z,91nm,0.3s | | | | | | |
| **PPT2** | **Papeete2** | **40.82** | **63** | *e*P | **P** | **01 06 19.5** | **-0.7** |
| | comp=Z,110nm,1.3s | | | | | | |
| PPT2 | | | | *e*S | **S** | **01 12 31.4** | **-0.2** |
| | comp=Z,2μm,23.5s | | | | | | |
| PPT2 | | | | *e*LQ | LQ | 01 15 46.2 | |
| | comp=Z,7μm,33.8s | | | | | | |
| PPT2 | | | | *e*LR | LR | 01 17 28.7 | |
| | comp=Z,5μm,25.2s,baz=236 | | | | | | |
| **PPT2** | **Papeete2** | **40.82** | **63** | *e*T | T | 01 49 00.2 | |
| | comp=Z,70nm,0.3s | | | | | | |
| **PPTF** | **Pamatai, Papee** | **40.82** | **63** | *e*P | **P** | **01 06 19.0** | **-1.2** |
| | comp=Z,100nm,1.1s | | | | | | |
| **PPT** | **Papeete** | **40.83** | **63** | LR | LR | 01 19 08.8 | |
| | comp=Z,2μm,21.8s,baz=234,slow=30 | | | | | | |
| **PPT** | **Papeete** | **40.83** | **63** | *e*P | **P** | **01 06 17.8** | **-2.5** |
| **PPT** | **Papeete** | **40.83** | **63** | *e*P | **P** | **01 06 17.8** | **-2.5** |
| **TVO** | **Taravao** | **40.89** | **63** | *e*T | T | 01 49 05.0 | |
| | comp=Z,9.7nm,0.3s | | | | | | |
| **KMBL** | **Kambalda** | **41.70** | **269** | P | **P** | **01 06 27.1** | **-0.2** |
| | baz=42,SNR=16 | | | | | | |
| **KNTN** | **Kanton** | **42.77** | **23** | *e*P | **P** | **01 06 35.1** | **-1.0** |
| | comp=Z,127nm,1.1s | | | | | | |
| **RABL** | **Rabaul** | **43.23** | **329** | *e*P | **P** | **01 06 40.3** | **+0.4** |
| | comp=Z,731nm,0.9s | | | | | | |
| **VAH** | **Vaihoa** | **43.81** | **62** | *e*T | T | 01 52 43.6 | |
| | comp=Z,38nm,0.2s | | | | | | |
| **PMOR** | **Pomariorio Ree** | **43.81** | **62** | *e*P | **P** | **01 06 45.0** | **+0.5** |
| | comp=Z,148nm,1.1s | | | | | | |
| **PMOR** | **Pomariorio Ree** | **43.81** | **62** | *e*T | T | 01 52 43.4 | |
| | comp=Z,32nm,0.3s | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **44.28** | **264** | P | **P** | **01 06 47.8** | **-0.4** |
| | comp=Z,97nm,1.1s,baz=349,slow=8.0,SNR=8.9 | | | | | | |
| NWAO | | | | LR | LR | 01 21 26.4 | |
| | comp=Z,5μm,21.9s,baz=344,slow=31 | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **44.28** | **264** | P | **P** | **01 06 48.6** | **+0.4** |
| | baz=44,SNR=16 | | | | | | |
| NWAO | | | | P | **P** | **01 06 48.6** | **+0.4** |
| | baz=44,SNR=16 | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **44.28** | **264** | *e*P | **P** | **01 06 48.8** | **+0.6** |
| NWAO | | | | pmax | pmax | | |
| | comp=Z,203nm,1.3s | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **44.28** | **264** | *e*P | **P** | **01 06 48.8** | **+0.6** |
| | comp=Z,203nm,1.3s | | | | | | |
| **KLBR** | **Kellerberrin** | **44.59** | **266** | P | **P** | **01 06 51.1** | **+0.4** |
| | baz=44,SNR=22 | | | | | | |
| **TARA** | **Tarawa** | **44.64** | **360** | *e*P | **P** | **01 06 50.5** | **-0.6** |
| | comp=Z,256nm,1.1s | | | | | | |
| TARA | | | | LR | LR | | |
| | comp=Z,419nm,19.0s | | | | | | |
| **MUN** | **Mundaring** | **45.51** | **265** | P | **P** | **01 06 58.7** | **+0.8** |
| | baz=46,SNR=15 | | | | | | |
| **BLDU** | **Ballidu** | **45.87** | **267** | P | **P** | **01 07 01.5** | **+0.6** |
| | baz=46,SNR=10 | | | | | | |
| **KDU** | **Kakadu** | **46.36** | **299** | P | **P** | **01 07 05.2** | **+0.4** |
| | baz=46,SNR=5.1 | | | | | | |
| **KNRA** | **Kununurra** | **46.60** | **293** | P | **P** | **01 07 06.4** | **-0.3** |
| | baz=47,SNR=22 | | | | | | |
| **QSPA** | **South Pole Qui** | **46.64** | **180** | *e*P | **P** | **01 07 08.2** | **+1.5** |
| | comp=Z,641nm,0.9s | | | | | | |
| QSPA | | | | LR | LR | | |
| | comp=Z,3μm,21.0s | | | | | | |
| **MEEK** | **Meekatharra** | **46.70** | **273** | P | **P** | **01 07 07.1** | **-0.4** |
| | baz=47,SNR=19 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **47.05** | **287** | P | **P** | **01 07 09.3** | **-0.9** |
| | comp=Z,32nm,0.9s,baz=156,slow=8.8,SNR=20 | | | | | | |
| **MTN** | **Manton Dam** | **47.10** | **297** | P | **P** | **01 07 10.6** | **-0.1** |
| | baz=47,SNR=21 | | | | | | |
| **MTN** | **Manton Dam** | **47.10** | **297** | *e*P | **P** | **01 07 10.5** | **-0.1** |
| | comp=Z,107nm,0.8s | | | | | | |
| **MORW** | **Morawa** | **47.20** | **268** | P | **P** | **01 07 11.7** | **+0.4** |
| | baz=47,SNR=18 | | | | | | |
| **MIR** | **Mirnyy** | **47.20** | **212** | *e*P | **P** | **01 07 12.5** | **+1.7** |
| MIR | | | | *i* | | 01 07 13.0 | |
| MIR | | | | *e* | | 01 09 05.0 | |
| MIR | | | | pmax | pmax | | |
| | comp=Z,14nm,2.0s | | | | | | |
| MIR | | | | pmax | pmax | | |
| | comp=Z,2μm,4.0s | | | | | | |
| MIR | | | | MLR | MLR | | |
| | comp=Z,5μm,12.0s | | | | | | |
| **RKT** | **Rikitea** | **47.20** | **82** | *e*S | **S** | **01 14 01.0** | **-3.5** |
| | comp=Z,3μm,27.5s | | | | | | |
| RKT | | | | *e*LQ | LQ | 01 18 27.4 | |
| | comp=Z,6μm,30.0s | | | | | | |
| RKT | | | | *e*LR | LR | 01 20 31.3 | |
| | comp=Z,9μm,24.0s | | | | | | |
| **RKT** | **Rikitea** | **47.20** | **82** | *e*T | T | 01 57 03.8 | |
| | comp=Z,5.7nm,0.3s | | | | | | |
| **MBWA** | **Marble Bar** | **49.23** | **279** | *e*P | **P** | **01 07 26.3** | **-0.7** |
| | comp=Z,57nm,1.1s | | | | | | |
| MBWA | | | | LR | LR | | |
| | comp=Z,24μm,20.0s | | | | | | |
| **PTCN** | **Pitcairn Islan** | **49.55** | **88** | *e*P | **P** | **01 07 27.1** | **-2.4** |
| | comp=Z,198nm,1.0s | | | | | | |
| PTCN | | | | LR | LR | | |
| | comp=Z,5μm,22.0s | | | | | | |
| **JAY** | **Jayapura** | **49.83** | **316** | P | **P** | **01 07 31.2** | **-0.5** |
| **SAUI** | **Saumlaki** | **50.70** | **302** | *e*P | **P** | **01 07 37.2** | **-1.0** |
| | comp=Z,226nm,0.7s | | | | | | |
| **PATS** | **Pohnpei** | **51.81** | **341** | *e*P | **P** | **01 07 46.2** | **-0.3** |
| | comp=Z,301nm,1.2s | | | | | | |
| **KWAJ** | **Kwajalein Atol** | **52.26** | **353** | *e*P | **P** | **01 07 48.8** | **-1.0** |
| KWAJ | | | | pmax | pmax | | |
| | comp=Z,637nm,1.2s | | | | | | |
| **KWAJ** | **Kwajalein Atol** | **52.26** | **353** | *e*P | **P** | **01 07 48.8** | **-1.0** |
| | comp=Z,637nm,1.2s | | | | | | |
| **GIRL** | **Giralia** | **52.28** | **274** | P | **P** | **01 07 50.3** | **+0.2** |
| | baz=52,SNR=4.7 | | | | | | |
| **KMPI** | **Kaimana, Papua** | **52.68** | **307** | P | **P** | **01 07 57.1** | **+4.0** |
| **BAKI** | **Biak** | **53.37** | **312** | P | **P** | **01 07 57.8** | **-0.3** |
| **TAOE** | **Nuku Hiva Isla** | **53.41** | **64** | *e*S | **S** | **01 15 30.5** | **-0.7** |
| | comp=Z,3μm,24.8s | | | | | | |
| TAOE | | | | *e*LQ | LQ | 01 21 04.2 | |
| | comp=Z,4μm,24.6s | | | | | | |
| TAOE | | | | *e*LR | LR | 01 23 17.0 | |
| | comp=Z,4μm,23.3s,baz=223 | | | | | | |
| **SOEI** | **Soe** | **53.89** | **294** | P | **P** | **01 08 03.0** | **+0.9** |
| | comp=Z,142nm,1.3s,comp=Z,3μm | | | | | | |
| **SOEI** | **Soe** | **53.89** | **294** | *e*P | **P** | **01 08 01.0** | **-1.1** |
| | comp=Z,171nm,1.1s | | | | | | |
| **FAKI** | **Fak Fak** | **54.13** | **307** | P | **P** | **01 08 05.8** | **+2.1** |
| **FAKI** | **Fak Fak** | **54.13** | **307** | *e*P | **P** | **01 08 02.1** | **-1.6** |
| | comp=Z,93nm,1.0s | | | | | | |
| **MSAI** | **Masohi** | **55.78** | **303** | P | **P** | **01 08 17.5** | **+1.9** |
| **AAI** | **Ambon** | **55.96** | **302** | P | **P** | **01 08 15.9** | **-1.1** |
| **BASI** | **Baing, Sumba** | **56.05** | **290** | P | **P** | **01 08 17.1** | **-0.5** |
| | comp=Z,268nm,1.2s,comp=Z,4μm | | | | | | |
| **MMRI** | **Maumere** | **56.07** | **293** | P | **P** | **01 08 16.1** | **-1.7** |
| **EDFI** | **Ende, Flores** | **56.35** | **292** | P | **P** | **01 08 19.4** | **-0.5** |
| | comp=Z,74nm,1.3s,comp=Z,2μm | | | | | | |
| **SWI** | **Sorong** | **56.37** | **307** | P | **P** | **01 08 19.7** | **-0.1** |
| | comp=Z,159nm,1.4s,comp=Z,3μm | | | | | | |
| **WSI** | **Waingapu** | **56.63** | **290** | P | **P** | **01 08 22.3** | **+0.5** |
| | comp=Z,468nm,0.5s,comp=Z,22μm | | | | | | |
| **WBSI** | **Waikabubak, Su** | **57.27** | **289** | P | **P** | **01 08 27.0** | **+0.6** |
| | comp=Z,90nm,1.3s,comp=Z,4μm | | | | | | |
| **MAW** | **Mawson** | **57.47** | **205** | P | **P** | **01 08 27.8** | **+0.8** |
| | comp=Z,32nm,0.9s,baz=118,slow=9.7,SNR=28 | | | | | | |
| MAW | | | | LR | LR | 01 32 20.4 | |
| | comp=Z,4μm,18.6s,baz=107,slow=35 | | | | | | |
| **MAW** | **Mawson** | **57.47** | **205** | P | **P** | **01 08 28.1** | **+1.1** |
| | baz=57,SNR=18 | | | | | | |
| **MAW** | **Mawson** | **57.47** | **205** | *e*P | **P** | **01 08 28.4** | **+1.4** |
| MAW | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.0s | | | | | | |
| **MAW** | **Mawson** | **57.47** | **205** | *e*P | **P** | **01 08 28.4** | **+1.4** |
| | comp=Z,9.9nm,1.0s | | | | | | |
| **SANI** | **Sanana** | **58.60** | **301** | P | **P** | **01 08 36.3** | **+0.7** |
| | comp=Z,62nm,1.1s,comp=Z,2μm | | | | | | |
| **LBMI** | **Labuha** | **58.78** | **304** | P | **P** | **01 08 36.3** | **-0.6** |
| | comp=Z,134nm,1.2s,comp=Z,3μm | | | | | | |
| **PLAI** | **Plampang** | **58.97** | **289** | P | **P** | **01 08 39.9** | **+1.7** |
| **KDI** | **Kendari** | **59.29** | **297** | P | **P** | **01 08 40.7** | **+0.3** |
| | comp=Z,33nm,2.9s,comp=Z,2μm | | | | | | |
| **KAPI** | **Kappang** | **60.39** | **293** | *e*P | **P** | **01 08 47.0** | **-0.9** |
| | comp=Z,136nm,1.4s | | | | | | |
| KAPI | | | | LR | LR | | |
| | comp=Z,6μm,19.0s | | | | | | |
| **SPSI** | **Sidrap Palu** | **61.15** | **294** | P | **P** | **01 08 55.2** | **+2.0** |
| **SRBI** | **Singaraja** | **61.27** | **287** | P | **P** | **01 08 56.8** | **+2.8** |
| **LUWI** | **Luwuk** | **61.41** | **299** | P | **P** | **01 08 58.7** | **+3.8** |
| **LUWI** | **Luwuk** | **61.41** | **299** | *e*P | **P** | **01 08 53.7** | **-1.2** |
| | comp=Z,217nm,1.1s | | | | | | |
| **JAGI** | **Jajag, Banyuwa** | **61.73** | **286** | P | **P** | **01 08 59.3** | **+2.2** |
| **JAGI** | **Jajag, Banyuwa** | **61.73** | **286** | *e*P | **P** | **01 08 56.9** | **-0.2** |
| | comp=Z,164nm,1.4s | | | | | | |
| **TTSI** | **Tana Toraja** | **61.80** | **295** | P | **P** | **01 08 59.2** | **+1.6** |
| | comp=Z,39nm,1.3s,comp=Z,1μm | | | | | | |
| **JOHN** | **Johnston Islan** | **62.04** | **19** | PFAKE | | 01 09 10.0 | +11 |
| JOHN | | | | LR | LR | | |
| | comp=Z,219nm,21.0s | | | | | | |
| **ABJI** | **Asem Bagus** | **62.15** | **287** | P | **P** | **01 09 02.1** | **+2.2** |
| **GUMO** | **Guam** | **62.33** | **329** | PFAKE | | 01 09 10.0 | +9.1 |
| GUMO | | | | LR | LR

MYLDM **Lahad Datu** 68.89 300 ⇓P **P** 01 09 43.6 +0.1
POHA **Pohakuloa** 69.28 32 PFAKE 01 10 00.0 +14
POHA LR LR
comp=Z,2µm,19.0s
STKI **Sintang** 69.69 291 P **P** 01 09 49.9 +1.4
comp=Z,90nm,1.3s,comp=Z,14µm
SDKM **Sandakan** 70.07 299 ⇑P **P** 01 09 50.2 -0.6
KASI **Kota Agung** 70.62 281 P **P** 01 09 55.0 +0.8
comp=Z,98nm,1.3s,comp=Z,2µm
KLI **Kotabumi** 70.82 282 P **P** 01 09 57.2 +1.8
BTM **Bintulu** 70.91 294 ⇑P **P** 01 09 56.2 +0.3
KKM **Kota Kinabalu** 71.00 298 ⇓P **P** 01 09 56.8 +0.2
KKM **Kota Kinabalu** 71.00 298 *e*P **P** 01 09 55.7 -0.9
comp=Z,149nm,1.5s
KKM LR LR
comp=Z,5µm,21.0s
LWLI **Liwa** 71.28 281 P **P** 01 10 00.5 +2.1
KSM **Kuching** 71.51 291 ⇓P **P** 01 09 59.6 -0.1
KSM **Kuching** 71.51 291 *e*P **P** 01 09 59.4 -0.3
comp=Z,41nm,0.9s
KSM LR LR
comp=Z,4µm,22.0s
COCO **West Island** 71.65 271 PFAKE 01 10 10.0 +10
COCO LR LR
comp=Z,3µm,19.0s
PPBI **Pangkal Pinang** 71.80 285 P **P** 01 10 03.8 +2.4
MIDW **Midway** 71.90 9 PFAKE 01 10 10.0 +8.5
MIDW LR LR
comp=Z,3µm,22.0s
MASI **Maura Aman, Be** 73.88 281 P **P** 01 10 14.0 +0.2
comp=Z,312nm,1.2s,comp=Z,6µm
EFI **East Falkland** 75.44 150 PFAKE 01 10 30.0 +7.8
EFI LR LR
comp=Z,5µm,21.0s
MYKOM **Kota Tinggi** 76.20 286 ⇓P **P** 01 10 27.5 +0.4
MYKOM **Kota Tinggi** 76.20 286 *e*P **P** 01 10 27.5 +0.4
comp=Z,135nm,1.4s
PDSI **Padang** 76.70 282 P **P** 01 10 28.6 -1.4
comp=Z,13nm,0.4s,comp=Z,6µm
KGM **Kluang** 76.73 286 ⇓P **P** 01 10 29.5 -0.6
BKNI **Bangkinang** 77.15 283 *e*P **P** 01 10 31.6 -0.9
comp=Z,45nm,0.7s
SISI **Saibi** 77.39 280 P **P** 01 10 37.2 +3.4
PLCA **Paso Flores** 78.53 136 P **P** 01 10 41.2 +1.3
comp=Z,4.7nm,0.7s,baz=241,slow=5.0,SNR=7.6
PLCA LR LR 01 39 04.4
comp=Z,4µm,18.8s,baz=232,slow=31
FRIM **Kepong** 78.79 285 ⇓P **P** 01 10 41.9 +0.4
KTGM **Kuala Trenggan** 79.22 288 ⇓P **P** 01 10 44.4 +0.5
HOPE **Hope Point** 79.41 163 PFAKE 01 11 00.0 +16
HOPE LR LR
comp=Z,3µm,21.0s
IPM **Ipoh** 80.09 286 ⇓P **P** 01 10 48.6 -0.1
IPM **Ipoh** 80.09 286 *e*P **P** 01 10 48.4 -0.3
comp=Z,112nm,1.5s
GSI **Gunungsitoli** 80.30 281 P **P** 01 10 51.0 +1.2
comp=Z,184nm,1.2s,comp=Z,4µm
GSI **Gunungsitoli** 80.30 281 *e*P **P** 01 10 50.5 +0.7
comp=Z,324nm,1.4s
PSI **Prapat** 80.39 283 *e*P **P** 01 10 49.0 -1.4
PSI pmax pmax
comp=Z,122nm,1.5s
PSI **Prapat** 80.39 283 *e*P **P** 01 10 49.0 -1.4
comp=Z,122nm,1.5s
KULM **Kulim** 80.92 286 *e*P **P** 01 10 52.7 -0.4
comp=Z,236nm,1.7s
KULM LR LR
comp=Z,7µm,21.0s
TSI **Tuntungan** 81.13 283 P **P** 01 10 58.3 +4.1
KCSI **Kotacane, Aceh** 81.71 283 P **P** 01 10 56.7 -0.6
comp=Z,63nm,1.3s,comp=Z,1µm
TPTI 81.94 282 P **P** 01 11 01.5 +3.0
YHNB **Yeheng** 82.70 314 PFAKE 01 11 10.0 +7.7
YHNB LR LR
comp=Z,3µm,21.0s
TATO **Taipei** 82.89 314 PFAKE 01 11 10.0 +6.9
TATO LR LR
comp=Z,3µm,20.0s
MLSI **Meulaboh, Aceh** 83.20 282 P **P** 01 11 09.4 +4.3
QZH **Quanzhou** 84.40 312 ⇓*i*P **P** 01 11 14.1 +3.2
QZH S **S** 01 21 41.0 +3.7
QZH LR LR
comp=Z,2µm,15.2s
QZH LR LR
comp=Z,1µm,9.8s
QZH LR LR
comp=Z,3µm,35.7s
TRQA **Tornquist** 84.80 140 PFAKE 01 11 20.0 +7.0
TRQA LR LR
comp=Z,7µm,20.0s
QIZ **Qiongzhong** 84.87 302 P **P** 01 11 14.5 +1.1
QIZ PP **PP** 01 14 31.8 +1.6
QIZ S **S** 01 21 45.9 +3.6
QIZ pmax pmax
comp=Z,54nm,2.5s
QIZ pmax pmax
comp=Z,530nm,6.4s
QIZ LR LR
comp=Z,1µm,19.8s
QIZ LR LR
comp=Z,2µm,24.1s
QIZ **Qiongzhong** 84.87 302 PFAKE 01 11 20.0 +6.6
QIZ LR LR
comp=Z,2µm,20.0s
JNU **Nakatsue** 85.38 326 *e*P **P** 01 11 15.8 +0.1
comp=Z,18nm,0.8s
MJAR **Matsushiro Arr** 85.68 333 P **P** 01 11 16.7 -0.5
comp=Z,9.6nm,1.0s,baz=165,slow=6.2,SNR=12
MAJO **Matsushiro** 85.68 333 PFAKE 01 11 30.0 +13
MAJO LR LR
comp=Z,3µm,20.0s
MAT **Matsushiro** 85.68 333 P **P** 01 11 18.1 +1.0
MAT S **SKSac** 01 21 38.0 -4.6
LCO **Las Campanas** 87.27 128 PFAKE 01 11 40.0 +14
LCO LR LR
comp=Z,2µm,21.0s
SSE **Sheshan** 88.04 318 P **P** 01 11 29.8 +1.1
SSE sP **sP** 01 11 35.5 +3.6
SSE PP **PP** 01 14 58.3 +2.6
SSE S **S** 01 22 12.0 -0.6
SSE pmax pmax
comp=Z,54nm,0.8s
SSE pmax pmax
comp=Z,460nm,6.8s
SSE LR LR
comp=Z,1µm,24.5s
SSE LR LR
comp=Z,2µm,24.5s
SSE LR LR
comp=Z,2µm,25.0s
NJ2 **Nanjing** 89.97 317 *e*P **P** 01 11 38.3 +0.6
NJ2 SKS **SKSac** 01 22 12.3 +3.6
NJ2 S **ScS** 01 22 35.0 +0.2
NJ2 SS **SS** 01 28 32.8 +3.3
NJ2 pmax pmax
comp=Z,24nm,0.5s
NJ2 pmax pmax
comp=Z,780nm,4.1s
NJ2 LR LR
comp=Z,2µm,15.7s
NJ2 LR LR
comp=Z,1µm,15.2s
NJ2 LR LR
comp=Z,3µm,20.6s
KSRS **Korea Array** 90.33 326 P **P** 01 11 40.5 +1.2
comp=Z,20nm,0.8s,baz=146,slow=5.7,SNR=20
KS15 **Wonju Array Si** 90.33 326 *e*P **P** 01 11 41.0 +1.7
KSAR **Wonju Array Be** 90.33 326 P **P** 01 11 40.5 +1.2
KSAR **Wonju Array Be** 90.33 326 P **P** 01 11 40.5 +1.2
KS01 **Wonju Array Si** 90.36 326 *e*P **P** 01 11 38.7 -0.7
INCN **Inchon** 90.89 325 PFAKE 01 11 50.0 +8.1
INCN LR LR
comp=Z,3µm,20.0s
CM01 **Chiang Mai Arr** 91.41 294 *e*P **P** 01 11 45.1 +0.3
CMAR **Chiang Mai Arr** 91.44 294 P **P** 01 11 45.4 +0.4
comp=Z,12nm,1.0s,baz=149,slow=2.9,SNR=26
CHTO **Chiang Mai** 91.70 294 *e*P **P** 01 11 46.7 +0.6
CHTO pmax pmax
comp=Z,65nm,1.8s
CHTO MLR MLR
comp=Z,1µm,21.0s
CHTO **Chiang Mai** 91.70 294 *e*P **P** 01 11 46.7 +0.6
comp=Z,65nm,1.8s
CHTO LR LR
comp=Z,1µm,21.0s

GYA **Guiyang** 92.36 305 ⇑*i*P **P** 01 11 51.9 +2.7
GYA PP **PP** 01 15 34.3 +3.9
GYA SKS **SKSac** 01 22 23.0 0.0
GYA SS **SS** 01 29 09.8 +5.3
GYA pmax pmax
comp=Z,20nm,1.0s
GYA pmax pmax
comp=Z,170nm,6.4s
GYA LR LR
comp=Z,3µm,20.8s
GYA LR LR
comp=Z,2µm,21.1s
GYA LR LR
comp=Z,2µm,21.4s
DGAR **Diego Garcia** 92.49 257 PFAKE 01 12 00.0 +10
DGAR LR LR
comp=Z,3µm,21.0s
ENH **Enshi** 93.58 309 PFAKE 01 12 10.0 +15
ENH LR LR
comp=Z,1µm,22.0s
RER **Riviere de l'E** 93.69 236 PFAKE 01 12 10.0 +14
RER LR LR
comp=Z,2µm,20.0s
KMI **Kunming** 93.78 301 P **P** 01 11 59.0 +3.1
KMI PP **PP** 01 15 41.8 +0.2
KMI SKS **SKSac** 01 22 34.5 +3.4
KMI S **ScS** 01 23 10.9 +3.5
KMI pmax pmax
comp=Z,25nm,0.7s
KMI pmax pmax
comp=Z,380nm,4.3s
KMI LR LR
comp=Z,990nm,23.1s
KMI LR LR
comp=Z,1µm,30.4s
KMI LR LR
comp=Z,3µm,29.4s
YSS **Yuzh-Sakhalins** 93.93 340 PFAKE 01 12 10.0 +14
YSS LR LR
comp=Z,1µm,20.0s
TIA **Tai'an** 94.16 318 ⇓P **P** 01 11 57.9 +0.8
TIA S **S** 01 23 12.6 +4.4
TIA SS **SS** 01 29 26.8 -2.9
TIA pmax pmax
comp=Z,30nm,1.2s
TIA pmax pmax
comp=Z,830nm,5.0s
TIA LR LR
comp=Z,2µm,25.0s
TIA LR LR
comp=Z,1µm,25.0s
TIA LR LR
comp=Z,3µm,26.0s
PAYG **Puerto Ayora** 94.47 95 PFAKE 01 12 10.0 +11
PAYG LR LR
comp=Z,4µm,19.0s
USRK **Ussuriysk Ar.** 94.64 332 P **P** 01 12 01.7 +2.7
comp=Z,2.9nm,0.9s,baz=156,slow=4.6,SNR=2.9
SKR **Severo-Kuril's** 94.92 349 *e*SSS SSS 01 33 13.1
MDJ **Mudanjiang** 95.85 330 P **P** 01 12 05.4 +0.8
MDJ S **S** 01 23 24.4 +1.9
MDJ SS **SS** 01 29 55.9 +2.4
MDJ pmax pmax
comp=Z,11nm,1.4s
MDJ pmax pmax
comp=Z,260nm,3.6s
MDJ LR LR
comp=Z,990nm,25.8s
MDJ LR LR
comp=Z,700nm,34.4s
MDJ LR LR
comp=Z,2µm,29.1s
MDJ **Mudanjiang** 95.85 330 PFAKE 01 12 20.0 +15
MDJ LR LR
comp=Z,2µm,22.0s
NNA **Nana** 96.01 113 PFAKE 01 12 20.0 +14
NNA LR LR
comp=Z,3µm,20.0s
CPUP **Villa Florida** 96.61 136 P **P** 01 12 07.6 -1.1
comp=Z,1.2nm,0.6s,baz=207,slow=9.0,SNR=2.3
CN2 **Changchun** 96.71 327 *e*P **P** 01 12 09.4 +0.9
CN2 *e*sP sP 01 12 16.4 +4.7
CN2 *e*S **S** 01 23 28.3 -1.6
CN2 pmax pmax
comp=Z,10.0nm,0.6s
CN2 pmax pmax
comp=Z,200nm,3.0s
CN2 LR LR
comp=Z,2µm,23.0s
CN2 LR LR
comp=Z,800nm,23.0s
CN2 LR LR
comp=Z,1µm,24.0s
XAN **Xi'an** 96.73 311 P **P** 01 12 10.3 +1.4
XAN SKS **SKSac** 01 22 46.4 +0.4
XAN S **S** 01 23 28.8 -1.9
XAN SS **SS** 01 30 06.0 -0.5
XAN pmax pmax
comp=Z,7.0nm,0.9s
XAN pmax pmax
comp=Z,240nm,13.8s
XAN LR LR
comp=Z,660nm,30.6s
XAN LR LR
comp=Z,950nm,33.2s
XAN LR LR
comp=Z,2µm,30.2s
PET **Petropavlovsk** 96.91 351 *e*P P 01 12 03.2 -5.9
PET *e*S S 01 23 18.4 -13
PET *e*PS **PS** 01 24 53.8 +0.2
PET pmax pmax
comp=Z,100nm,12.0s
PET MLR MLR
comp=Z,1µm,22.0s
PET **Petropavlovsk** 96.91 351 PFAKE 01 12 20.0 +11
PET LR LR
comp=Z,1µm,20.0s
PETK **Petropavlovsk-** 97.11 351 P **P** 01 12 10.0 -0.1
comp=Z,2.9nm,0.8s,baz=145,slow=3.5,SNR=3.0
PETK **Petropavlovsk-** 97.11 351 P **P** 01 12 10.0 -0.1
CD2 **Chengdu** 97.36 306 P Pdif 01 12 12.4 +0.5
CD2 PP **PP** 01 16 10.5 +1.4
CD2 SKS **SKSac** 01 22 49.9 +0.5
CD2 S **S** 01 23 34.5 -1.8
CD2 sS sS 01 23 42.0 +1.7
CD2 SS **SS** 01 30 10.6 -4.8
CD2 pmax pmax
comp=Z,320nm,9.5s
CD2 LR LR
comp=Z,2µm,22.0s
CD2 LR LR
comp=Z,2µm,18.0s
CD2 LR LR
comp=Z,2µm,20.9s
BJI **Beijing** 97.65 320 P Pdif 01 12 14.8 +1.9
BJI PP **PP** 01 16 13.0 +1.9
BJI S **S** 01 23 42.3 +4.2
BJI pmax pmax
comp=Z,9.0nm,0.7s
BJI pmax pmax
comp=Z,310nm,4.7s
BJI LR LR
comp=Z,1µm,29.6s
BJI LR LR
comp=Z,1µm,24.9s
BJI LR LR
comp=Z,3µm,29.9s
LPAZ **La Paz** 98.46 122 P Pdif 01 12 20.0 +2.0
comp=Z,1.2nm,0.9s,baz=225,slow=5.7,SNR=4.1
TRIS **Tristan da Cun** 99.68 176 PFAKE 01 12 30.0 +7.7
TRIS LR LR
comp=Z,1µm,20.0s
PFO **Pinyon Flats O** 100.15 53 PFAKE 01 12 40.0 +16
PFO LR LR
comp=Z,2µm,19.0s
SUR **Sutherland** 100.31 204 PFAKE 01 12 40.0 +15
SUR LR LR
comp=Z,2µm,20.0s
ABPO **Ambohimpanom** 100.36 231 PFAKE 01 12 40.0 +14
ABPO LR LR
comp=Z,504nm,22.0s
HHC **Hu-ho-hao-te** 100.50 317 *e*P **Pdif** 01 12 25.6 -0.1
HHC S **Sdif** 01 23 59.0 -3.4
HHC pmax pmax
comp=Z,8.0nm,1.1s
HHC pmax pmax
comp=Z,310nm,9.7s
HHC LR LR
comp=Z,1µm,19.7s
HHC LR LR
comp=Z,930nm,22.3s
HHC LR LR
comp=Z,2µm,21.7s
LZH **Lanzhou** 101.05 310 *e*P **Pdif** 01 12 28.8 +0.4
LZH PP **PP** 01 16 40.5 +3.1
LZH SKS **SKSac** 01 23 05.4 -2.5
LZH S SKKSac 01 24 04.5 +21
LZH sS sS 01 24 12.8 +1.4
LZH SS **SS** 01 31 07.5 +0.3
LZH pmax pmax
comp=Z,32nm,1.4s
LZH pmax pmax
comp=Z,290nm,8.0s
LZH LR LR
comp=Z,910nm,16.3s
LZH LR LR
comp=Z,1µm,18.0s
LZH LR LR
comp=Z,2µm,19.8s
SKHT **Srikalahasti** 101.63 278 *e*PP PP 01 16 41.4 -0.3
CHLP **Challavanipeta** 101.70 284 *e*PP PP 01 16 41.3 -0.9
NVAR **Mina Array Bea** 102.56 49 Pdiff **Pdif** 01 12 40.3 +5.2
comp=Z,0.3nm,0.4s,baz=223,slow=6.0,SNR=2.5
PVM **Polavaram** 102.59 282 *e*PP PP 01 16 48.5 -0.4
TUC **Tucson** 102.63 57 PFAKE 01 12 50.0 +15
TUC LR LR
comp=Z,2µm,19.0s
ADKI **Addanki** 102.84 280 *e*PP PP 01 16 50.1 -0.6
HIA **Hailar** 103.44 327 PFAKE 01 12 50.0 +12
HIA LR LR
comp=Z,1µm,21.0s
OTAV **Otavalo** 103.60 103 PFAKE 01 12 50.0 +9.3
OTAV LR LR
comp=Z,1µm,19.0s
SRLM **Srisailam** 103.78 279 *e*PP PP 01 16 55.6 -2.3
NJS **Nagarjunasagar** 103.79 280 *e*PP PP 01 16 55.1 -2.7
URV **Uravakonda** 104.20 277 *e*PP PP 01 16 58.0 -3.0
LSA **Lhasa** 104.33 297 PFAKE 01 12 50.0 +6.5
LSA LR LR
comp=Z,1µm,21.0s
WUAZ **Wupatki** 104.47 55 PFAKE 01 13 00.0 +16
WUAZ LR LR
comp=Z,1µm,21.0s
HYBB **Hyderabad (bro** 104.90 280 *e*PP PP 01 17 05.2 -1.0
KDAK **Kodiak Island** 104.93 18 PFAKE 01 13 00.0 +15
KDAK LR LR
comp=Z,866nm,20.0s
TXAR **Lajitas Array** 105.14 64 Pdiff **Pdif** 01 12 45.3 -1.3
comp=Z,0.3nm,1.0s,baz=249,slow=4.7,SNR=2.3
TXAR PP **PP** 01 17 12.6 +4.6
comp=Z,0.4nm,0.8s,baz=186,slow=5.4,SNR=3.9
TXAR PKKPbc **PKKPbc** 01 28 23.6 -3.1
comp=Z,0.3nm,0.8s,baz=46,slow=2.6,SNR=2.4
WVOR **Wild Horse Val** 105.24 46 PFAKE 01 17 10.0
WVOR LR LR
comp=Z,2µm,20.0s
RPR **Rampur** 105.31 282 *e*PP PP 01 17 08.4 -0.8
MNTX **Cornudas Mount** 105.60 61 PFAKE 01 17 10.0
MNTX LR LR
comp=Z,2µm,19.0s
JTS **JuntasAbangare** 105.79 91 PFAKE 01 17 10.0
JTS LR LR
comp=Z,3µm,20.0s
SRSP **Sriramsagar** 106.03 281 *e*PP PP 01 17 16.9 +2.3
MSEY **Mahe Island** 106.20 247 PFAKE 01 17 10.0
MSEY LR LR
comp=Z,2µm,20.0s
KLRI **Killari** 106.72 279 *e*Pdif **Pdif** 01 12 50.2 -3.6
KLRI *e*PP **PP** 01 17 18.8 -0.9
DUG **Dugway, Tooele** 106.83 50 PFAKE 01 17 20.0
DUG LR LR
comp=Z,1µm,19.0s
ANMO **Albuquerque** 107.07 58 PFAKE 01 17 20.0
ANMO LR LR
comp=Z,2µm,19.0s
SAML **Samuel** 107.16 121 PFAKE 01 17 20.0
SAML LR LR
comp=Z,1µm,20.0s
MVCO **Mesa Verde** 107.32 55 PFAKE 01 17 20.0
MVCO LR LR
comp=Z,1µm,20.0s
HAWA **Hanford** 107.60 42 PFAKE 01 17 20.0
HAWA LR LR
comp=Z,2µm,19.0s
BMO **Blue Mountains** 107.63 44 PFAKE 01 17 20.0
BMO LR LR
comp=Z,3µm,20.0s
KVTX **Kingsville** 107.83 69 PFAKE 01 17 20.0
KVTX LR LR
comp=Z,1µm,19.0s
ULN **Ulaanbaatar** 107.86 320 PFAKE 01 17 20.0
ULN LR LR
comp=Z,2µm,21.0s
SONM **Songino Array** 108.15 319 Pdiff **Pdif** 01 13 02.7 +3.1
comp=Z,0.6nm,0.8s,baz=122,slow=5.2,SNR=4.0
SONM PKiKP **PKiKP** 01 17 07.2 +1.1
comp=Z,0.5nm,0.9s,baz=130,slow=2.3,SNR=2.5
SONM PKKPbc **PKKPbc** 01 28 19.6 +1.6
comp=Z,0.7nm,0.8s,baz=320,slow=2.0,SNR=4.5
HLID **Hailey** 108.25 47 PFAKE 01 17 20.0
HLID LR LR
comp=Z,946nm,20.0s
JCT **Junction City** 108.43 65 PFAKE 01 17 20.0
JCT LR LR
comp=Z,2µm,20.0s
BCIP **Isla Barro Col** 108.75 95 PFAKE 01 17 20.0
BCIP LR LR
comp=Z,2µm,20.0s
SDCO **Great Sand Dun** 109.47 56 PFAKE 01 17 20.0
SDCO LR LR
comp=Z,1µm,19.0s
AHID **Auburn Hatcher** 109.51 49 PFAKE 01 17 20.0
AHID LR LR
comp=Z,2µm,20.0s
WRAK **Wrangell Islan** 109.66 29 PFAKE 01 17 20.0
WRAK LR LR
comp=Z,2µm,19.0s
NEW **Newport** 110.08 42 PFAKE 01 17 20.0
NEW LR LR
comp=Z,3µm,19.0s
BW06 **Boulder Array** 110.37 50 PFAKE 01 17 20.0
BW06 LR LR
comp=Z,1µm,20.0s
PDAR **Pinedale Array** 110.37 50 PP PP 01 17 52.8 +6.6
comp=Z,2.4nm,1.0s,baz=232,slow=7.3,SNR=7.3
ISCO **Idaho Springs** 110.72 55 PFAKE 01 17 20.0
ISCO LR LR
comp=Z,1µm,20.0s
YAK **Yakutsk** 110.78 340 PFAKE 01 17 20.0
YAK LR LR
comp=Z,1µm,21.0s
LKWY **Lake** 111.07 48 PFAKE 01 17 20.0
LKWY LR LR
comp=Z,2µm,20.0s
BOZ **Bozeman (W)** 111.09 47 PFAKE 01 17 20.0
BOZ LR LR
comp=Z,1µm,19.0s
BILL **Bilibino** 111.31 357 ⇑*i*PKIKP **PKiKP** 01 17 12.3 +1.0
BILL *e* 01 24 22.9
BILL *i*SS SS 01 33 42.0 +16
BILL pmax pmax
comp=Z,7.0nm,1.8s
BILL MLR MLR
comp=Z,1µm,19.0s
WMOK **Wichita Mounta** 111.78 62 PFAKE 01 17 20.0
WMOK LR LR
comp=Z,2µm,19.0s
RLMT **Red Lodge** 112.05 48 PFAKE 01 17 20.0
RLMT LR LR
comp=Z,2µm,20.0s
COLA **College** 112.29 17 PFAKE 01 17 20.0
COLA LR LR
comp=Z,2µm,20.0s
ILAR **Eielson Array** 112.41 17 PKiKP **PKiKP** 01 17 12.8 -0.7
comp=Z,4.1nm,0.8s,baz=218,slow=4.2,SNR=24
ILAR PKKPab **PKKPab** 01 28 11.2 +2.6
comp=Z,1.3nm,0.8s,baz=12,slow=3.7,SNR=11
NATX **Nacogdoches** 112.66 67 PFAKE 01 17 30.0
NATX LR LR
comp=Z,1µm,21.0s
LSZ **Lusaka** 113.21 217 PFAKE 01 17 30.0

LSZ LR LR
comp=Z,1μm,20.0s
**OGNE Ogallala 113.57 55** PFAKE 01 17 30.0
OGNE LR LR
comp=Z,1μm,20.0s
**EGMT Eagleton 113.64 46** PFAKE 01 17 30.0
EGMT LR LR
comp=Z,2μm,20.0s
**CBKS Cedar Bluff 113.68 58** PFAKE 01 17 30.0
CBKS LR LR
comp=Z,1μm,19.0s
**EGAK Eagle 113.74 20** PFAKE 01 17 30.0
EGAK LR LR
comp=Z,1μm,19.0s
**COLD Coldfoot 113.89 15** *e*PKP **PKiKP 01 17 16.6 +0.4**
**RSSD Black Hills 114.34 52** *e*PKIKP PKPdf 01 17 18.2 +0.1
**RSSD Black Hills 114.34 52** *e*PKP PKPdf 01 17 18.2 +0.1
**LAO LASA Array 114.69 48** PFAKE 01 17 30.0 +12
LAO LR LR
comp=Z,872nm,19.0s
**MIAR Mount Ida 115.07 65** PFAKE 01 17 30.0 +11
MIAR LR LR
comp=Z,1μm,20.0s
**SDV Santo Domingo 115.18 102** PFAKE 01 17 30.0 +9.4
SDV LR LR
comp=Z,2μm,20.0s
**WMQ Urumqi 115.43 307** PKP **PKPdf 01 17 19.3 -0.7**
WMQ PP **PP 01 18 25.8 +3.7**
WMQ PKS **PKSdf 01 20 54.6 -2.0**
WMQ SKKS 01 25 18.1
WMQ SS **SS 01 34 21.3 +0.1**
WMQ AMB AMB
comp=Z,830nm,5.1s
WMQ LR LR
comp=Z,2μm,22.3s
WMQ LR LR
comp=Z,2μm,24.5s
WMQ LR LR
comp=Z,3μm,25.3s
**PTGA Pitinga 115.49 118** PFAKE 01 17 30.0 +9.0
PTGA LR LR
comp=Z,41μm,21.0s
**MTDJ Mount Denham 116.39 89** PFAKE 01 17 30.0 +7.4
MTDJ LR LR
comp=Z,2μm,19.0s
**BRAL Brewton 117.50 72** PFAKE 01 17 40.0 +16
BRAL LR LR
comp=Z,894nm,19.0s
**INK Inuvik 118.41 20** PKP **PKPdf 01 17 24.3 -0.5**
comp=Z,8.2nm,0.7s,baz=205,slow=1.0,SNR=48
**INK Inuvik 118.41 20** *e*PKIKP **PKPdf 01 17 24.0 -0.8**
**INK Inuvik 118.41 20** *e*PKPdf **PKPdf 01 17 24.0 -0.8**
**ECSD EROS Data Cent 118.46 56** *e*PKPdf **PKPdf 01 17 25.3 -0.4**
ECSD LR LR
comp=Z,1μm,19.0s
**TIXI Tiksi 119.00 345** PKP **PKPdf 01 17 24.5 -1.4**
comp=Z,14nm,0.9s,baz=135,slow=1.4,SNR=10
**TIXI Tiksi 119.00 345**⇑ *i*PKIKP **PKPdf 01 17 24.3 -1.6**
TIXI pmax pmax
comp=Z,17nm,1.0s
**TIXI Tiksi 119.00 345** PKP **PKPdf 01 17 24.5 -1.4**
TIXI LR LR
comp=Z,1μm,20.0s
**ZSN Zaisan 119.14 309** *i* PKP **PKPdf 01 17 25.6 -1.3**
comp=Z,18nm,1.7s
ZSN *e*PP **PP 01 18 47.1 -0.7**
**GTBY Guantanamo Bay 119.23 90** PFAKE 01 17 40.0 +12
GTBY LR LR
comp=Z,2μm,20.0s
**SCIA State Center 119.53 59** PFAKE 01 17 40.0 +12
SCIA LR LR
comp=Z,2μm,19.0s
**SHLS Shalkode 119.97 303** *e*PKP **PKPdf 01 17 26.3 -2.5**
**KSH Kashi 120.19 297** PKP **PKPdf 01 17 29.6 +0.2**
KSH PP **PP 01 19 00.8 +5.5**
KSH PKS **PKSdf 01 21 05.3 -0.8**
KSH SKS **SKSdf 01 24 40.3 -1.4**
KSH SKKS **SKKSac 01 25 52.5 -2.5**
KSH SS **SS 01 35 26.1 +2.8**
KSH AMB AMB
comp=Z,190nm,5.9s
KSH LR LR
comp=Z,210nm,10.6s
KSH LR LR
comp=Z,230nm,6.9s
KSH LR LR
comp=Z,600nm,9.5s
**UZB Uzynbulak 120.24 302** *i* PKP **PKPdf 01 17 27.3 -2.1**
comp=Z,69nm,0.7s
UZB *i* PP **PP 01 18 52.8 -2.9**
**MKAR Makanchi Array 120.25 307** PKP **PKPdf 01 17 28.2 -0.9**
comp=Z,12nm,0.9s,baz=195,slow=1.8,SNR=26
**YKA Yellowknife Ar 120.36 31** PKP **PKPdf 01 17 28.1 -0.7**
comp=Z,7.3nm,0.7s,baz=242,slow=1.7,SNR=86
YKA PKKPbc **PKKPab 01 27 34.9 +0.7**
comp=Z,1.1nm,0.8s,baz=46,slow=4.8,SNR=12
**KMBO Kilima Mbogo 120.48 234** PKP **PKPdf 01 17 30.0 -0.9**
comp=Z,2.8nm,0.7s,baz=36,slow=5.4,SNR=6.5
**KMBO Kilima Mbogo 120.48 234** PKIKP **PKPdf 01 17 30.0 -0.9**
KMBO MLR MLR
comp=Z,1μm,19.0s
**KMBO Kilima Mbogo 120.48 234** PKP **PKPdf 01 17 30.0 -0.9**
KMBO LR LR
comp=Z,1μm,19.0s
**SATY Saty 120.57 302** *e*PKP **PKPdf 01 17 27.9 -2.1**
comp=Z,167nm,1.0s
**ZHN Zhinishke 120.61 302** *i* PKP **PKPdf 01 17 28.1 -2.0**
comp=Z,60nm,0.6s
**SHEL Horse Pasture 120.84 181** PFAKE 01 17 40.0 +8.7
SHEL LR LR
comp=Z,686nm,19.0s
**GOGA Godfrey 121.27 72** PFAKE 01 17 40.0 +8.6
GOGA LR LR
comp=Z,864nm,20.0s
**AGMN Agassiz Nation 121.38 51** *e*PKPdf **PKPdf 01 17 30.5 -0.7**
AGMN LR LR
comp=Z,1μm,19.0s
**SDDR Presa de Saban 121.42 93** PFAKE 01 17 40.0 +7.8
SDDR LR LR
comp=Z,2μm,19.0s
**MDOK Medeo 121.47 301** *e*PKP **PKPdf 01 17 29.6 -2.2**
comp=Z,30nm,1.0s
MDOK *e*PP **PP 01 19 01.7 -2.4**
MDOK LR LR 02 10 47.8
comp=Z,607nm,22.4s
**FFC Flin Flon 121.50 43** *e*PKIKP **PKPdf 01 17 30.6 -0.6**
FFC MLR MLR
comp=Z,1μm,20.0s
**FFC Flin Flon 121.50 43** *e*PKPdf **PKPdf 01 17 30.6 -0.6**
FFC LR LR
comp=Z,1μm,20.0s
**TDK Taldyqorghan 121.60 304** *i* PKP **PKPdf 01 17 29.8 -1.9**
comp=Z,145nm,1.0s
TDK *e*PP **PP 01 19 02.2 -2.6**
**JFWS Jewell Farm 121.92 59** *e*PKIKP **PKPdf 01 17 31.8 -0.6**
JFWS MLR MLR
comp=Z,1μm,20.0s
**JFWS Jewell Farm 121.92 59** *e*PKPdf **PKPdf 01 17 31.8 -0.6**
JFWS LR LR
comp=Z,1μm,20.0s
**WCI Wyandotte Cave 121.99 66** *e*PKIKP **PKPdf 01 17 33.0 +0.3**
**WCI Wyandotte Cave 121.99 66** *e*PKPdf **PKPdf 01 17 33.0 +0.3**
**KZA Kyzart 122.02 300** P **PKPdf 01 17 33.5 +0.3**
SNR=10
**KUU Kurty 122.29 302** *i* PKP **PKPdf 01 17 30.9 -2.2**
comp=Z,150nm,1.1s
KUU *i* PP **PP 01 19 06.9 -2.5**
KUU LRM MLR 02 09 58.6
comp=Z,292nm,21.7s
**BMNS Besmoynak 122.30 301** *e*PKP **PKPdf 01 17 31.1 -2.2**
comp=Z,65nm,1.2s
**ULM Lac du Bonnet 122.38 49** PKP **PKPdf 01 17 31.6 -1.4**
comp=Z,14nm,0.9s,baz=227,slow=2.6,SNR=23
**KBK Karagaybulak 122.52 300** P **PKPdf 01 17 33.7 -0.1**
SNR=7.9
**UCH Uchtor 122.57 299** P **PKPdf 01 17 34.8 +0.5**
SNR=22
**ZALV Zalesovo Beam 122.61 315** PKP **PKPdf 01 17 31.7 -1.7**
comp=Z,5.8nm,0.8s,baz=132,slow=2.1,SNR=14
**AAK Ala-Archa 122.79 300** PKP **PKPdf 01 17 33.4 -0.9**
comp=Z,6.6nm,0.8s,baz=189,slow=2.7,SNR=8.4
**AAK Ala-Archa 122.79 300** *i* PKIKP **PKPdf 01 17 33.2 -1.1**
**AAK Ala-Archa 122.79 300** PKP **PKPdf 01 17 33.4 -0.9**
AAK LR LR
comp=Z,1μm,21.0s

**CHMS Chumysh 122.82 300** P **PKPdf 01 17 33.5 -0.7**
SNR=13
**FRU Bishkek 122.82 300** *e*PKIKP **PKPdf 01 17 33.0 -1.2**
FRU pmax pmax
comp=Z,40nm,2.0s
**WSAR Wadi Sarin 122.99 272** PKP **PKPdf 01 17 34.8 -0.3**
comp=Z,16nm,1.1s,baz=250,slow=7.1,SNR=4.0
**AML Almayashu 123.04 299** P **PKPdf 01 17 35.4 +0.2**
SNR=19
**USP Ospenovka 123.11 300** P **PKPdf 01 17 34.6 -0.2**
SNR=13
**GRTK Grand Turk 123.12 91** PFAKE 01 17 50.0 +15
GRTK LR LR
comp=Z,2μm,20.0s
**EKS2 Erkin-Say 123.26 299** P **PKPdf 01 17 36.1 +0.9**
SNR=15
**SEM Semipalatinsk 123.28 310** *i* PKP **PKPdf 01 17 33.0 -2.1**
comp=Z,220nm,1.2s
SEM LRM MLR 02 11 56.0
comp=Z,485nm,21.4s
**NHSC New Hope 123.39 74** PFAKE 01 17 50.0 +14
NHSC LR LR
comp=Z,1μm,20.0s
**EYMN Ely 123.72 54** *e*PKPdf **PKPdf 01 17 35.0 -0.7**
EYMN LR LR
comp=Z,2μm,21.0s
**GRGR Grenville 123.76 107** PFAKE 01 17 50.0 +13
GRGR LR LR
comp=Z,1μm,22.0s
**NVS Novosibirsk 123.86 316** *e*PKIKP **PKPdf 01 17 34.9 -0.8**
NVS pmax pmax
comp=Z,26nm,1.4s
NVS pmax pmax
comp=N,7.0nm,1.0s
NVS pmax pmax
comp=E,12nm,1.0s
**BTLS Baital 124.28 302** *i* PKP **PKPdf 01 17 35.0 -1.9**
comp=E,101nm,1.2s
**KURK Kurchatov 124.34 310**⇑ *i*PKIKP **PKPdf 01 17 35.1 -1.7**
KURK pmax pmax
comp=Z,165nm,1.2s
**KURK Kurchatov 124.34 310** *e*PKPdf **PKPdf 01 17 36.2 -0.6**
KURK LR LR
comp=Z,3μm,22.0s
**KURBB Kurchatov Arra 124.35 310** PKP **PKPdf 01 17 35.6 -1.2**
comp=Z,21nm,0.9s,baz=116,slow=1.9,SNR=24
**RCBR Riachuelo 124.42 144** PFAKE 01 17 50.0 +12
RCBR LR LR
comp=Z,3μm,19.0s
**SJG San Juan 124.58 98** PFAKE 01 17 50.0 +12
SJG LR LR
comp=Z,2μm,21.0s
**DZA Taraz 124.93 299** *i* PKP **PKPdf 01 17 36.1 -2.2**
comp=Z,244nm,1.0s
**IUG Iuzhnay 125.40 297** *i* PKP **PKPdf 01 17 36.7 -2.5**
IUG LR LR 02 14 30.8
comp=Z,294nm,18.2s
**BLA Blacksburg 125.41 70** PFAKE 01 17 50.0 +11
BLA LR LR
comp=Z,2μm,20.0s
**KKAR Karatay Array 125.56 298** *e*PKIKP **PKPdf 01 17 39.4 0.0**
**KKAR Karatay Array 125.56 298** *e*PKPdf **PKPdf 01 17 39.4 0.0**
**ASHO Ashiyiah 125.74 271** P **PKPdf 01 17 40.7 +0.3**
SNR=6.5
**CHM Chimkent 125.76 297** *i* PKP **PKPdf 01 17 38.6 -1.2**
**HATD Hatta, Dubai 125.77 272** P **PKPdf 01 17 40.2 -0.2**
SNR=7.5
**AAM Ann Arbor 125.81 63** PFAKE 01 17 50.0 +10
AAM LR LR
comp=Z,2μm,20.0s
**FDF Fort de France 125.90 105** PFAKE 01 17 50.0 +9.1
FDF LR LR
comp=Z,1μm,20.0s
**BBGH Gun Hill 125.92 107** PFAKE 01 17 50.0 +9.1
BBGH LR LR
comp=Z,4μm,19.0s
**BRLS Borolday 125.96 298** *i* PKP **PKPdf 01 17 38.2 -2.0**
comp=Z,17nm,1.5s
BRLS LRM MLR 02 12 40.0
comp=Z,236nm,21.8s
**CNNC Cliffs of the 126.13 73** PFAKE 01 17 50.0 +9.3
CNNC LR LR
comp=Z,1μm,19.0s
**GLMI Grayling 126.40 60** PFAKE 01 17 50.0 +9.1
GLMI LR LR
comp=Z,2μm,20.0s
**ANWB Willy Bob 127.42 101** PFAKE 01 18 00.0 +16
ANWB LR LR
comp=Z,2μm,19.0s
**CBN Corbin Frederi 128.00 70** PFAKE 01 18 00.0 +16
CBN LR LR
comp=Z,1μm,19.0s
**ASCN Ascension 128.40 171** PFAKE 01 18 00.0 +14
ASCN LR LR
comp=Z,1μm,19.0s
**SSPA Standing Stone 128.82 67** *e*PKPdf **PKPdf 01 17 45.2 -0.4**
**BVAR Borovoye Array 129.94 310** PKP **PKPdf 01 17 46.9 -0.5**
comp=Z,11nm,0.9s,baz=66,slow=3.6,SNR=20
**BRVK Borovoye 130.01 310** *c i*PKIKP **PKPdf 01 17 46.2 -1.3**
BRVK pmax pmax
comp=Z,65nm,1.2s
**BRVK Borovoye 130.01 310** PFAKE 01 18 00.0 +12
BRVK LR LR
comp=Z,945nm,21.0s
**BINY Binghamton 130.80 66** PFAKE 01 18 00.0 +11
BINY LR LR
comp=Z,2μm,21.0s
**GEYT Alibeck 131.40 287** PKP **PKPdf 01 17 51.1 +0.3**
comp=Z,8.1nm,0.9s,baz=228,slow=1.8,SNR=25
**RES Resolute Bay 131.94 21** PKP **PKPdf 01 17 49.1 -1.4**
comp=Z,7.0nm,0.7s,baz=265,slow=3.4,SNR=4.7
**RAYN Ar Rayn 132.70 263** *e*PKPdf **PKPdf 01 17 54.0 +0.3**
RAYN LR LR
comp=Z,2μm,20.0s
**LONY Lake Ozonia 132.75 64** PFAKE 01 18 00.0 +7.0
LONY LR LR
comp=Z,2μm,21.0s
**BBSR BB Station 134.04 84** PFAKE 01 18 10.0 +14
BBSR LR LR
comp=Z,970nm,19.0s
**AKTO Aktyubinsk 136.32 303** PKP **PKPdf 01 17 58.3 -1.2**
comp=Z,5.1nm,0.7s,baz=81,slow=3.1,SNR=7.9
**SVE Sverdlovsk 136.44 312**‖ *i*PKIKP **PKPdf 01 18 00.0 +0.5**
SVE pmax pmax
comp=Z,57nm,1.5s
SVE MLR MLR
comp=Z,2μm,24.0s
**PKME Peaks-Kenny Pk 136.47 65** PFAKE 01 18 10.0 +10
PKME LR LR
comp=Z,2μm,19.0s
**ARU Arti 137.48 312** PKhKP PKPpre 01 17 49.4
comp=Z,1.2nm,0.3s,baz=84,slow=8.0,SNR=2.6
ARU PKP **PKPdf 01 17 58.7 -2.7**
comp=Z,18nm,1.0s,baz=102,slow=1.3,SNR=12
**ARU Arti 137.48 312** *i* PKIKP **PKPdf 01 18 01.8 +0.4**
ARU 01 20 44.5
ARU SS SS 01 38 58.1 +2.0
**ARU Arti 137.48 312** PKP **PKPdf 01 17 58.7 -2.7**
ARU LR LR
comp=Z,2μm,22.0s
**MAK Makhachkala 140.84 289** *e*P **Pdif 01 15 19.2 -5.7**
MAK *i* 01 18 07.2
MAK *e* 01 21 05.6
MAK *e*PPP PPP 01 24 10.9
MAK *e* 01 25 18.0
MAK pmax pmax
comp=Z,78nm,1.1s
**GNI Garni 141.75 283** *c i*PKIKP **PKPdf 01 18 09.9 -0.1**
GNI pmax pmax
comp=Z,99nm,1.2s
**GNI Garni 141.75 283** *e*PKPdf **PKPdf 01 18 10.5 +0.5**
GNI LR LR
comp=Z,897nm,20.0s
**GNI Garni 141.75 283** P **PKPdf 01 18 11.2 +1.2**
SNR=6.7
**LIC Lamto 142.85 183** *e*PKP2 PKPpre 01 18 07.7
comp=Z,60nm,1.2s
**KIC Kosan Boka 142.97 184** *e*PKP2 PKPpre 01 18 08.5
comp=Z,42nm,0.8s
**AKH Akhalkalaki 143.10 285**‖ *i*P **PKPdf 01 18 12.8 +0.4**
**TIC Toumodi 143.26 183** *e*PKP2 PKPab 01 18 09.4 +0.4
**DBIC Dimbokro 143.28 184** PKhKP PKPpre 01 18 09.7
comp=Z,8.9nm,0.7s,baz=166,slow=3.2,SNR=14
**KBS Kingsbay 143.69 354** *e*P PKPbc 01 18 10.1 +0.5
**KBS Kingsbay 143.69 354** PFAKE 01 18 20.0 +7.9
KBS LR LR

comp=Z,1μm,20.0s
**ASF Jabal al Asfar 143.87 267** PKP PKPbc 01 18 12.4 +0.8
comp=Z,3.4nm,0.8s,baz=102,slow=2.5,SNR=8.1
**EIL Elat 143.93 262** PKP PKPbc 01 18 11.7 -0.1
comp=Z,17nm,0.9s,baz=146,slow=0.3,SNR=7.9
**SPA0 Spitsbergen Ar 143.97 352** *e*P PKPab 01 18 10.1 +0.1
**NEY Neytrino 144.24 287**⇑ *i*PKIKP **PKPdf 01 18 15.9 +1.6**
**KBZ Khabaz 144.27 288** PKP **PKPab 01 18 11.6 -0.4**
comp=Z,8.4nm,0.9s,baz=49,slow=3.3,SNR=15
**KIV Kislovodsk 144.48 288** *c i*PKIKP PKPbc 01 18 13.3 +0.1
KIV *e* 01 21 30.2
KIV *i* SS SS 01 40 15.4 -3.4
KIV pmax pmax
comp=Z,68nm,2.5s
**KIV Kislovodsk 144.48 288** *e*PKPdf **PKPab 01 18 12.1 -0.8**
KIV LR LR
comp=Z,1μm,19.0s
**KIV Kislovodsk 144.48 288** P PKPbc 01 18 13.3 +0.1
SNR=7.1
**GOF Gofitskoye 144.54 290**⇑ *e*PKIKP **PKPab 01 18 12.5 -0.5**
GOF pmax pmax
comp=Z,187nm,1.5s
**MMAI Mount Meron Ar 145.38 267** PKPbc **PKPab 01 18 17.1 +0.5**
comp=Z,48nm,0.7s,baz=106,slow=4.8,SNR=47
**ILULI Ilulissat 145.83 26** *i* PKP2 **PKPdf 01 18 16.0 0.0**
ILULI pmax pmax
comp=Z,130nm,0.9s
**ILULI Ilulissat 145.83 26** *i* P **PKPdf 01 18 16.0 0.0**
comp=Z,134nm,0.9s
**DAG Danmarks Havn 146.25 5**⇑ *i*PKIKP **PKPdf 01 18 16.1 -0.4**
DAG pmax pmax
comp=Z,57nm,0.8s
**DAG Danmarks Havn 146.25 5**⇑ *i*P **PKPdf 01 18 16.1 -0.4**
comp=Z,57nm,0.8s
**SOC Sochi 146.43 287** *i* PKP2 **PKPdf 01 18 17.9 +0.1**
SOC *e* 01 21 39.9
SOC *e*PPP PPP 01 24 54.0
SOC *e*SSS SSS 01 46 10.9
SOC pmax pmax
comp=Z,38nm,1.2s
SOC pmax pmax
comp=Z,45nm,1.0s
**VRH Novokhopyorsk 146.58 301** *e*PKIKP **PKPdf 01 18 17.1 -0.7**
VRH pmax pmax
comp=Z,40nm,0.8s
**BJO Bjornoya 146.72 347** *e*P **PKPbc 01 18 19.0 0.0**
**SFJD Kangerlussuaq 146.91 30** PKPbc **PKPbc 01 18 19.2 -0.6**
comp=Z,84nm,0.7s,baz=267,slow=1.5,SNR=26
**SFJD Kangerlussuaq 146.91 30** *i* PKP2 **PKPbc 01 18 18.9 -0.9**
SFJD pmax pmax
comp=Z,650nm,1.8s
**SFJD Kangerlussuaq 146.91 30** *i* P **PKPbc 01 18 18.9 -0.9**
comp=Z,647nm,1.8s
**SFJD Kangerlussuaq 146.91 30** *e*PKPbc **PKPbc 01 18 19.1 -0.7**
SFJD LR LR
comp=Z,2μm,20.0s
**LVZ Lovozero 147.17 332** *i* PKIKP **PKPdf 01 18 17.2 -1.2**
**LVZ Lovozero 147.17 332** *e*PKPbc **PKPbc 01 18 19.6 -1.0**
LVZ LR LR
comp=Z,1μm,22.0s
**SUMG Summit 147.25 17** *i* PKP2 **PKPbc 01 18 20.9 -0.3**
SUMG pmax pmax
comp=Z,130nm,1.1s
**SUMG Summit 147.25 17** *i* P **PKPbc 01 18 20.9 -0.3**
comp=Z,126nm,1.1s
**SUMG Summit 147.25 17** *e*PKPbc **PKPbc 01 18 21.0 -0.3**
**TMCR Tamitsa 147.30 325** *e*PKIKP **PKPdf 01 18 16.4 -2.2**
TMCR pmax pmax
comp=Z,143nm,1.1s
**KLMR Klimovskoe 147.44 319** *c i*PKP2 **PKPbc 01 18 20.3 -1.2**
KLMR *e* 01 21 44.7
KLMR pmax pmax
comp=Z,502nm,1.2s
**APA Apatity 147.75 332**⇑ *i*PKP2 **PKPdf 01 18 20.5 +1.2**
APA pmax pmax
comp=Z,59nm,0.7s
**CSS Mathiatis 147.83 269** *e*PKPbc **PKPbc 01 18 23.2 -0.2**
CSS LR LR
comp=Z,363nm,21.0s
**VSR Storozhevoye 148.19 301** *e*PKIKP **PKPdf 01 18 19.3 -1.2**
VSR pmax pmax
comp=Z,60nm,1.2s
**VORR Voronezh 148.19 301** *e*PKIKP **PKPdf 01 18 20.0 -0.5**
VORR pmax pmax
comp=Z,500nm,1.4s
**SACV Santiago Islan 148.25 148** PFAKE 01 18 30.0 +2.0
SACV LR LR
comp=Z,953nm,20.0s
**ANN Anapa 148.34 288** *e*PKHKP PKPpre 01 18 14.2
ANN *i* 01 18 25.9
ANN *e* 01 25 28.2
ANN pmax pmax
comp=Z,100nm,1.2s
ANN pmax pmax
comp=Z,93nm,1.3s
**LPSR Galich'ya Gora 148.41 303** *e*PKIKP **PKPdf 01 18 20.2 -0.6**
LPSR pmax pmax
comp=Z,50nm,1.2s
**KEV Kevo 148.51 338** *e*PKP2 **PKPbc 01 18 23.8 -0.3**
KEV MLR MLR
comp=Z,1μm,21.0s
**KEV Kevo 148.51 338** *e*PKPbc **PKPbc 01 18 23.8 -0.3**
KEV LR LR
comp=Z,1μm,21.0s
**HAMF Hammerfest 148.76 341** *e*P **PKPbc 01 18 23.9 -0.8**
**TORD Torodi Ar. Bea 148.84 197** PKP **PKPdf 01 18 22.5 -0.2**
comp=Z,29nm,1.0s,baz=167,slow=1.0,SNR=31
TORD PKPbc **PKPbc 01 18 26.8 +0.2**
comp=Z,40nm,1.0s,baz=153,slow=1.6,SNR=59
**ARCES ARCESS Array B 149.05 338** PKPbc **PKPbc 01 18 25.4 -0.2**
comp=Z,67nm,0.8s,baz=48,slow=1.8,SNR=55
**ARE0 ARCESS Array S 149.05 338** *e*P **PKPbc 01 18 25.4 -0.1**
**MOS Moscow 149.11 309** *e*PKIKP **PKPbc 01 18 24.2 -1.8**
MOS pmax pmax
comp=Z,327nm,2.1s
MOS pmax pmax
comp=Z,1μm,3.2s
**BRTR Keskin Array B 149.55 277** PKP **PKPdf 01 18 22.4 -0.8**
comp=Z,7.3nm,1.0s,baz=126,slow=2.0,SNR=9.1
BRTR PKPbc **PKPbc 01 18 27.6 -0.2**
comp=Z,18nm,0.7s,baz=134,slow=4.2,SNR=23
**OBN Obninsk 149.76 308** *ce*PKIKP **PKPdf 01 18 21.5 -1.3**
OBN *i* 01 18 25.5
OBN *e* 01 22 01.8
OBN *i* SS SS 01 41 18.3 +0.8
OBN pmax pmax
comp=Z,320nm,1.2s
**OBN Obninsk 149.76 308** *e*PKPbc **PKPbc 01 18 27.6 0.0**
OBN LR LR
comp=Z,1μm,20.0s
**KTK1 Kautokeino 150.00 339** *e*P **PKPbc 01 18 26.9 -1.0**
**ANTO Ankara 150.21 277** *e*PKIKP **PKPdf 01 18 24.1 -0.1**
ANTO *e* 01 18 29.2
ANTO MLR MLR
comp=Z,1μm,22.0s
**ANTO Ankara 150.21 277** *e*PKPdf **PKPdf 01 18 24.1 -0.1**
ANTO *e*PKPbc **PKPbc 01 18 29.2 -0.2**
ANTO LR LR
comp=Z,1μm,22.0s
**HEF Hetta 150.30 338** *e*P **PKPbc 01 18 27.5 -1.1**
**TRO Tromso 150.62 342** *e*P **PKPbc 01 18 32.5 +3.2**
**KIF Kilpisjarvi 150.64 340** *e*P **PKPbc 01 18 28.6 -0.7**
**SIM Simferopol' 150.67 287** *e*PKIKP **PKPbc 01 18 29.7 -0.5**
SIM *e* 01 18 39.0
SIM *e* 01 22 12.0
SIM pmax pmax
comp=Z,52nm,1.1s
SIM pmax pmax
comp=Z,300nm,14.7s
**NRS Narsarsuaq 151.22 39** *i* PKIKP **PKPbc 01 18 30.3 -0.6**
NRS pmax pmax
comp=Z,68nm,1.0s
**NRS Narsarsuaq 151.22 39** *i* P **PKPbc 01 18 30.3 -0.6**
comp=Z,68nm,1.0s
**STEI Steigen 152.79 342** *e*P **PKPbc 01 18 33.9 -0.3**
**FINES FINESS Array B 153.41 324** PKP **PKPdf 01 18 27.6 -0.6**
comp=Z,2.3nm,0.7s,baz=64,slow=3.2,SNR=5.9
FINES PKPbc **PKPbc 01 18 35.1 -0.7**
comp=Z,29nm,0.7s,baz=69,slow=3.5,SNR=49
FINES PKPab **PKPab 01 18 46.8 -1.3**
comp=Z,24nm,0.8s,baz=78,slow=3.7,SNR=11
**SANT Santorini 154.18 265** PFAKE 01 18 40.0 +1.6
SANT LR LR
comp=Z,868nm,19.0s
**VSU Vasula 154.32 318** *c i*PKIKP **PKPbc 01 18 38.7 +0.8**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| VSU | | | | pmax | pmax | | | |
| | comp=Z,152nm,1.2s | | | | | | | |
| AKASG | **Malin Array Be** | **154.46 299** | | PKP | **PKPdf** | **01 18 28.4** | **-1.7** | |
| | comp=Z,1.1nm,0.6s,baz=72,slow=2.5,SNR=7.1 | | | | | | | |
| AKASG | | | | PKPbc | **PKiKP** | **01 18 38.5** | **0.0** | |
| | comp=Z,7.7nm,0.8s,baz=72,slow=2.2,SNR=14 | | | | | | | |
| AKASG | | | | PKPab | **PKPab** | **01 18 51.2** | **-1.7** | |
| | comp=Z,19nm,0.8s,baz=72,slow=3.8,SNR=9.6 | | | | | | | |
| **KIEV** | **Kiev** | **154.47 299** | | *e*PKIKP | **PKPbc** | **01 18 35.4** | **-3.0** | |
| KIEV | | | | MLR | MLR | | | |
| | comp=Z,937nm,22.0s | | | | | | | |
| **KIEV** | **Kiev** | **154.47 299** | | *e*PKPbc | **PKPbc** | **01 18 35.4** | **-3.0** | |
| KIEV | | | | LR | LR | | | |
| | comp=Z,937nm,22.0s | | | | | | | |
| **KIS** | **Kishinev** | **154.63 291** | | *e*PKP | **PKPbc** | **01 18 36.0** | **-2.9** | |
| **KIS** | **Kishinev** | **154.63 291** | | *e*PP | PP | 01 22 30.0 | +0.1 | |
| **KIS** | **Kishinev** | **154.63 291** | | *e*PKIKP | **PKPbc** | **01 18 36.0** | **-2.9** | |
| KIS | | | | *e* | | 01 18 44.0 | | |
| KIS | | | | *e* | | 01 22 30.0 | | |
| **MICGM** | **Minsk** | **154.82 308** | | *e*P | **PKPbc** | **01 18 38.0** | **-1.1** | |
| MICGM | | | | *e* | | 01 22 53.0 | | |
| MICGM | | | | eLR | LR | 02 27 50.0 | | |
| **MNK** | **Minsk** | **154.82 308** | | *e*PKIKP | **PKPbc** | **01 18 38.0** | **-1.1** | |
| **CFR** | **Carcaliu** | **154.88 286** | ⇑ | *i*P | **PKPdf** | **01 18 28.5** | **-2.3** | |
| **CFR** | **Carcaliu** | **154.88 286** | ⇑ | PKIKP | **PKPdf** | **01 18 28.5** | **-2.3** | |
| **LEOM** | **Leova** | **154.97 289** | ⇓ | *i*P | **PKPdf** | **01 18 29.9** | **-1.0** | |
| **LEOM** | **Leova** | **154.97 289** | ⇓ | PKIKP | **PKPdf** | **01 18 29.9** | **-1.0** | |
| **SORM** | **Soroca** | **155.02 293** | ⇑ | *i*P | **PKPdf** | **01 18 29.8** | **-1.1** | |
| **SORM** | **Soroca** | **155.02 293** | ⇑ | PKIKP | **PKPdf** | **01 18 29.8** | **-1.1** | |
| **IDID** | **Didziasalis** | **155.28 310** | | *e*P | PKPdf | 01 18 39.2 | +8.2 | |
| **NACGM** | **Naroch** | **155.35 310** | | *e* | **PKPdf** | **01 18 30.0** | **-1.1** | |
| NACGM | | | | eLQ | LQ | 02 27 16.0 | | |
| **IZAR** | **Zarasai** | **155.44 312** | | *e*P | PKPdf | 01 18 40.8 | +10 | |
| **ISAL** | **Salakas** | **155.55 311** | | *e*P | PKPdf | 01 18 42.8 | +11 | |
| **IIGN** | **Ignalina** | **155.56 311** | | *e*P | PKPdf | 01 18 40.0 | +8.6 | |
| **TESR** | **Tescani** | **156.07 289** | ⇑ | *i*P | **PKPdf** | **01 18 29.5** | **-2.9** | |
| **PRAR** | **RASCA** | **156.42 291** | ⇑ | *i*P | **PKPdf** | **01 18 30.0** | **-2.8** | |
| **MLR** | **Muntele Rosu** | **156.45 286** | ⇓ | *i*P | **PKPdf** | **01 18 32.5** | **-0.6** | |
| **MLR** | **Muntele Rosu** | **156.45 286** | ⇓ | PKIKP | **PKPdf** | **01 18 32.5** | **-0.6** | |
| **TAM** | **Tamanrasset** | **156.88 211** | | *e*PKIKP | **PKPdf** | **01 18 34.9** | **+0.5** | |
| TAM | | | | MLR | MLR | | | |
| | comp=Z,1μm,20.0s | | | | | | | |
| **TAM** | **Tamanrasset** | **156.88 211** | | *e*PKPdf | **PKPdf** | **01 18 34.9** | **+0.5** | |
| TAM | | | | LR | LR | | | |
| | comp=Z,1μm,20.0s | | | | | | | |
| **DOPR** | **Dopca** | **156.89 288** | ⇓ | *i*P | **PKPdf** | **01 18 31.9** | **-1.6** | |
| **HUMR** | **Humele** | **157.00 284** | ⇑ | *i*P | **PKPdf** | **01 18 32.9** | **-0.8** | |
| **VOIR** | | **157.07 286** | ⇓ | *i*P | **PKPdf** | **01 18 36.8** | **+3.0** | |
| **VOIR** | | **157.07 286** | ⇓ | PKIKP | **PKPdf** | **01 18 36.8** | **+3.0** | |
| **BURAR** | **Bucovina Array** | **157.11 292** | ⇑ | *i*P | **PKPdf** | **01 18 30.1** | **-3.8** | |
| **ARR** | **Arges** | **157.35 286** | ⇑ | *i*P | **PKPdf** | **01 18 32.9** | **-1.3** | |
| **SUW** | **Suwalki** | **157.62 309** | | *e*PKPdf | **PKPdf** | **01 18 36.8** | **+2.7** | |
| SUW | | | | *e*PKPab | **PKPab** | **01 19 05.0** | **-1.4** | |
| SUW | | | | *e* | | 01 21 21.9 | | |
| **SUW** | **Suwalki** | **157.62 309** | | *e*PKIKP | **PKPdf** | **01 18 36.8** | **+2.7** | |
| **ARCR** | **ARCALIA** | **157.68 290** | ⇑ | *i*P | **PKPdf** | **01 18 35.0** | **+0.5** | |
| **LVV** | **L'vov** | **157.84 298** | | *e*PKIKP | **PKPdf** | **01 18 32.7** | **-1.8** | |
| **VTS** | **Vitosha** | **157.91 278** | ⇓ | *i*P | **PKPdf** | **01 18 33.8** | **-1.3** | |
| **VTS** | **Vitosha** | **157.91 278** | ⇓ | PKIKP | **PKPdf** | **01 18 33.8** | **-1.3** | |
| **LOT** | **Lotru** | **157.97 286** | ⇑ | *i*P | **PKPdf** | **01 18 32.3** | **-2.7** | |
| **KWP** | **Kalwaria Pacla** | **158.71 297** | | *e*PKP | **PKPdf** | **01 18 36.7** | **+1.1** | |
| **KWP** | **Kalwaria Pacla** | **158.71 297** | | *e*PKIKP | **PKPdf** | **01 18 36.7** | **+1.1** | |
| **DRGR** | | **158.79 289** | ⇑ | *i*P | **PKPdf** | **01 18 32.1** | **-3.8** | |
| **DRGR** | | **158.79 289** | ⇑ | PKIKP | **PKPdf** | **01 18 32.1** | **-3.8** | |
| **HERR** | **Herculane** | **158.86 284** | ⇑ | *i*P | **PKPdf** | **01 18 35.2** | **-0.7** | |
| **TRPA** | **Tarpa** | **158.91 293** | ⇓ | *e*PKPdf | **PKPdf** | **01 18 34.7** | **-1.2** | |
| **UZH** | **Uzhgorod** | **159.06 294** | | *e*PKIKP | **PKPdf** | **01 18 34.0** | **-2.0** | |
| **NB2** | **NORSAR Subarra** | **159.29 334** | | PKPdf | **PKPdf** | **01 18 34.2** | **-1.8** | |
| | comp=Z,58nm,1.7s,baz=41,slow=1.2 | | | | | | | |
| **NB2** | **NORSAR Array B** | **159.29 334** | | PKPdf | **PKPdf** | **01 18 34.2** | **-1.8** | |
| | baz=41,slow=1.2 | | | | | | | |
| **NOA** | **NORSAR Array B** | **159.29 334** | | PKP | **PKPdf** | **01 18 34.2** | **-1.8** | |
| | comp=Z,9.8nm,1.2s,baz=53,slow=1.4,SNR=4.3 | | | | | | | |
| NOA | | | | PKPab | **PKPab** | **01 19 12.6** | **-0.8** | |
| | comp=Z,14nm,0.8s,baz=43,slow=4.5,SNR=21 | | | | | | | |
| **MDVR** | **Moldovita** | **159.34 284** | ⇑ | *i*P | **PKPdf** | **01 18 33.2** | **-3.4** | |
| **BZS** | **Buzias** | **159.49 286** | ⇑ | *i*P | **PKPdf** | **01 18 34.1** | **-2.5** | |
| **BZS** | **Buzias** | **159.49 286** | ⇑ | PKIKP | **PKPdf** | **01 18 34.1** | **-2.5** | |
| **SIRR** | **Siria** | **159.50 288** | ⇑ | *i*P | **PKPdf** | **01 18 35.9** | **-0.8** | |
| **BEL** | **Belsk** | **159.56 304** | | *e*PKP | **PKPdf** | **01 18 38.3** | **+1.8** | |
| **BEL** | **Belsk** | **159.56 304** | | *e*PKIKP | **PKPdf** | **01 18 38.3** | **+1.8** | |
| **CRVS** | **Cervenica-Dubn** | **159.59 295** | | *e*PKIKP | **PKPdf** | **01 18 37.4** | **+0.7** | |
| CRVS | | | | *e* | | 01 23 01.5 | | |
| **CRVS** | **Cervenica-Dubn** | **159.59 295** | | *e*PKP | **PKPdf** | **01 18 37.4** | **+0.7** | |
| CRVS | | | | *e* | | 01 19 16.1 | | |
| CRVS | | | | *e*PP | **PP** | **01 23 01.4** | **+4.2** | |
| **STHS** | **Stebnicka Huta** | **159.68 297** | | *e*PKIKP | **PKPdf** | **01 18 38.3** | **+1.5** | |
| **STHS** | **Stebnicka Huta** | **159.68 297** | | *e*PKP | **PKPdf** | **01 18 38.3** | **+1.5** | |
| **TIR** | **Tirane** | **160.03 273** | | PFAKE | | 01 18 50.0 | +13 | |
| TIR | | | | LR | LR | | | |
| | comp=Z,2μm,22.0s | | | | | | | |
| **NIE** | **Niedzica** | **160.29 297** | | *e*PKP | **PKPdf** | **01 18 36.5** | **-1.0** | |
| NIE | | | | *e* | | 01 20 53.4 | | |
| **NIE** | **Niedzica** | **160.29 297** | | *e*PKIKP | **PKPdf** | **01 18 36.5** | **-1.0** | |
| **OJC** | **Ojcow** | **160.50 300** | | *e*PKP | **PKPdf** | **01 18 36.8** | **-0.8** | |
| **OJC** | **Ojcow** | **160.50 300** | | *e*PKIKP | **PKPdf** | **01 18 36.8** | **-0.8** | |
| **PSZ** | **Piszkesteto** | **160.70 293** | ⇓ | *e*PKPdf | **PKPdf** | **01 18 37.2** | **-0.8** | |
| **PSZ** | **Piszkesteto** | **160.70 293** | | PFAKE | | 01 18 50.0 | +12 | |
| PSZ | | | | LR | LR | | | |
| | comp=Z,2μm,20.0s | | | | | | | |
| **LANS** | **Liptovska Anna** | **160.87 296** | | *e*PKIKP | **PKPdf** | **01 18 39.8** | **+1.7** | |
| **LANS** | **Liptovska Anna** | **160.87 296** | | *e*PKP | **PKPdf** | **01 18 39.8** | **+1.7** | |
| **GKP** | **Gorka Klasztor** | **161.21 310** | | *e*PKP | **PKPdf** | **01 18 38.2** | **-0.1** | |
| **GKP** | **Gorka Klasztor** | **161.21 310** | | *e*PKIKP | **PKPdf** | **01 18 38.2** | **-0.1** | |
| **VYHS** | **Vyhne** | **161.36 295** | | *e*PKIKP | **PKPdf** | **01 18 37.5** | **-1.1** | |
| VYHS | | | | *e* | | 01 19 22.4 | | |
| **VYHS** | **Vyhne** | **161.36 295** | | *e*PKP | **PKPdf** | **01 18 37.5** | **-1.1** | |
| VYHS | | | | *e* | | 01 19 22.4 | | |
| **OKC** | **Ostrava-Krasne** | **161.61 299** | | *e*PKPDF | **PKPdf** | **01 18 38.2** | **-0.6** | |
| OKC | | | | *e*PKPAB | **PKPab** | **01 19 26.1** | **+2.2** | |
| OKC | | | | *e*PP | **PP** | **01 23 09.1** | **+1.1** | |
| OKC | | | | AMS | AMS | 02 40 50.0 | | |
| | comp=Z,2μm,22.0s | | | | | | | |
| **OKC** | **Ostrava-Krasne** | **161.61 299** | | *e*PKIKP | **PKPdf** | **01 18 38.2** | **-0.6** | |
| OKC | | | | *e* | | 01 23 09.1 | | |
| OKC | | | | MLR | MLR | | | |
| | comp=Z,2μm,22.0s | | | | | | | |
| **TIP** | **Timpagrande** | **161.62 265** | | PFAKE | | 01 18 50.0 | +11 | |
| TIP | | | | LR | LR | | | |
| | comp=Z,1μm,20.0s | | | | | | | |
| **WDD** | **Wied Dalam** | **161.74 253** | | PFAKE | | 01 18 50.0 | +11 | |
| WDD | | | | LR | LR | | | |
| | comp=Z,2μm,19.0s | | | | | | | |
| **CSKK** | **Cs˘tkako** | **161.83 291** | ⇓ | *e*PKPdf | **PKPdf** | **01 18 37.8** | **-1.4** | |
| **MORC** | **Moravsky Berou** | **162.01 299** | ⇑ | *i*P | **PKPdf** | **01 18 36.2** | **-3.1** | |
| **MORC** | **Moravsky Berou** | **162.01 299** | ⇑ | PKIKP | **PKPdf** | **01 18 36.2** | **-3.1** | |
| **MORC** | **Moravsky Berou** | **162.01 299** | | *e*PKPdf | **PKPdf** | **01 18 38.8** | **-0.6** | |
| **KRLC** | **Kraliky** | **162.43 300** | | *e*PKPDF | **PKPdf** | **01 18 38.9** | **-0.8** | |
| KRLC | | | | *e*PKPAB | **PKPab** | **01 19 27.1** | **-0.5** | |
| **KRLC** | **Kraliky** | **162.43 300** | | *e*PKIKP | **PKPdf** | **01 18 38.9** | **-0.8** | |
| KRLC | | | | *e* | | 01 19 27.1 | | |
| **KSP** | **Ksiaz** | **162.54 303** | | *e*PKPdf | **PKPdf** | **01 18 38.8** | **-1.0** | |
| KSP | | | | *e*PKPab | **PKPab** | **01 19 30.6** | **+2.7** | |
| **KSP** | **Ksiaz** | **162.54 303** | | *e*PKIKP | **PKPdf** | **01 18 38.8** | **-1.0** | |
| **CUC** | **Castrocucco** | **162.58 266** | | PFAKE | | 01 18 50.0 | +10 | |
| CUC | | | | LR | LR | | | |
| | comp=Z,785nm,20.0s | | | | | | | |
| **DPC** | **Dobruska-Polom** | **162.65 301** | | *e*PKPDF | **PKPdf** | **01 18 39.0** | **-0.9** | |
| DPC | | | | *e*PKPAB | **PKPab** | **01 19 28.8** | **+0.3** | |
| DPC | | | | *e*PP | **PP** | **01 23 14.9** | **+1.3** | |
| DPC | | | | AMS | AMS | 02 34 50.0 | | |
| | comp=Z,1μm,19.4s | | | | | | | |
| **DPC** | **Dobruska-Polom** | **162.65 301** | | *e*PKIKP | **PKPdf** | **01 18 39.0** | **-0.9** | |
| DPC | | | | *e* | | 01 23 14.9 | | |
| DPC | | | | MLR | MLR | | | |
| | comp=Z,1μm,19.4s | | | | | | | |
| **VRAC** | **Vranov** | **162.71 298** | ⇑ | *i*P | **PKPdf** | **01 18 38.0** | **-2.0** | |
| **VRAC** | **Vranov** | **162.71 298** | ⇑ | PKIKP | **PKPdf** | **01 18 38.0** | **-2.0** | |
| **UPC** | **Upice** | **162.80 302** | | *e*PKPDF | **PKPdf** | **01 18 38.8** | **-1.2** | |
| UPC | | | | *e*PKPAB | **PKPab** | **01 19 29.3** | **+0.2** | |
| UPC | | | | *e*PP | **PP** | **01 23 16.1** | **+1.8** | |
| UPC | | | | AMS | AMS | 02 37 10.0 | | |
| | comp=Z,2μm,20.5s | | | | | | | |
| **UPC** | **Upice** | **162.80 302** | | *e*PKIKP | **PKPdf** | **01 18 38.8** | **-1.2** | |
| UPC | | | | *e* | | 01 23 16.1 | | |
| UPC | | | | MLR | MLR | | | |
| | comp=Z,2μm,20.5s | | | | | | | |
| **BEHE** | **Becsehely** | **162.88 288** | ⇓ | *e*PKPdf | **PKPdf** | **01 18 39.5** | **-0.7** | |
| **SOP** | **Sopron** | **162.96 292** | ⇓ | *e*PKPdf | **PKPdf** | **01 18 40.1** | **-0.2** | |
| **CONA** | **Conrad Observa** | **163.40 294** | | *i* PKPdf | **PKPdf** | **01 18 38.5** | **-2.3** | |
| | comp=Z,14nm,1.2s | | | | | | | |
| CONA | | | | *i* PKPab | **PKPab** | **01 19 29.1** | **-2.8** | |
| | comp=Z,8.2nm,1.5s | | | | | | | |
| **CLTB** | **Caltabellotta** | **163.50 256** | | PFAKE | | 01 18 50.0 | +8.8 | |
| CLTB | | | | LR | LR | | | |
| | comp=Z,950nm,21.0s | | | | | | | |
| **PVCC** | **Panska Ves** | **163.68 303** | | *e*PKPDF | **PKPdf** | **01 18 41.4** | **+0.5** | |
| PVCC | | | | *e*PKPAB | **PKPab** | **01 19 32.9** | **-0.1** | |
| PVCC | | | | AMS | AMS | 02 39 40.0 | | |
| | comp=Z,2μm,19.4s | | | | | | | |
| **PVCC** | **Panska Ves** | **163.68 303** | | *e*PKIKP | **PKPdf** | **01 18 41.4** | **+0.5** | |
| PVCC | | | | *e* | | 01 19 32.9 | | |
| PVCC | | | | MLR | MLR | | | |
| | comp=Z,2μm,19.4s | | | | | | | |
| **ARSA** | **Arzberg** | **163.70 291** | | *i* PKPdf | **PKPdf** | **01 18 40.1** | **-0.9** | |
| **GOPC** | **GO Pecny, Ondr** | **163.72 301** | | *e*PKPDF | **PKPdf** | **01 18 41.0** | **+0.1** | |
| GOPC | | | | *e*PP | **PP** | **01 23 18.6** | **-0.6** | |
| GOPC | | | | AMS | AMS | 02 36 40.0 | | |
| | comp=Z,2μm,19.4s | | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **163.72 301** | | *e*PKIKP | **PKPdf** | **01 18 41.0** | **+0.1** | |
| GOPC | | | | *e* | | 01 23 18.6 | | |
| GOPC | | | | MLR | MLR | | | |
| | comp=Z,2μm,19.4s | | | | | | | |
| **PRU** | **Pruhonice** | **163.85 301** | | *e*PKPDF | **PKPdf** | **01 18 39.7** | **-1.3** | |
| PRU | | | | *e*PKPAB | **PKPab** | **01 19 33.7** | **0.0** | |
| PRU | | | | *e*PP | **PP** | **01 23 19.4** | **-0.5** | |
| PRU | | | | AMS | AMS | 02 37 50.0 | | |
| | comp=Z,2μm,16.5s | | | | | | | |
| **PRU** | **Pruhonice** | **163.85 301** | | *e*PKIKP | **PKPdf** | **01 18 39.7** | **-1.3** | |
| PRU | | | | *e* | | 01 19 33.7 | | |
| PRU | | | | *e* | | 01 23 19.4 | | |
| PRU | | | | MLR | MLR | | | |
| | comp=Z,2μm,16.5s | | | | | | | |
| **BRG** | **Berggiesshubel** | **163.95 305** | | PKP | **PKPdf** | **01 18 40.4** | **-0.7** | |
| | comp=Z,19nm,1.3s | | | | | | | |
| BRG | | | | *i* | | 01 19 34.4 | | |
| | comp=Z,53nm,1.8s | | | | | | | |
| BRG | | | | *i* | | 01 19 34.4 | | |
| | comp=Z,53nm,1.8s | | | | | | | |
| | comp=Z,1μm,16.6s | | | | | | | |
| | comp=N,1μm,18.8s | | | | | | | |
| | comp=E,740nm,18.8s | | | | | | | |
| **BRG** | **Berggiesshubel** | **163.95 305** | | PKIKP | **PKPdf** | **01 18 40.4** | **-0.7** | |
| BRG | | | | pmax | pmax | | | |
| | comp=Z,19nm,1.3s | | | | | | | |
| BRG | | | | pmax | pmax | | | |
| | comp=Z,53nm,1.8s | | | | | | | |
| BRG | | | | pmax | pmax | | | |
| | comp=Z,53nm,1.8s | | | | | | | |
| BRG | | | | MLR | MLR | | | |
| | comp=Z,1μm,16.6s | | | | | | | |
| BRG | | | | MLR | MLR | | | |
| | comp=N,1μm,18.8s | | | | | | | |
| BRG | | | | MLR | MLR | | | |
| | comp=E,740nm,18.8s | | | | | | | |
| **PERS** | **Pernice** | **164.02 289** | | *i* PKPdf | **PKPdf** | **01 18 40.1** | **-1.3** | |
| **SOKA** | **Soboth** | **164.07 289** | | *i* PKPdf | **PKPdf** | **01 18 40.3** | **-1.1** | |
| | comp=E,23nm,1.3s | | | | | | | |
| **VNDS** | **Vrh nad Dolski** | **164.33 287** | | *e*PKPdf | **PKPdf** | **01 18 39.8** | **-1.8** | |
| **CLL** | **Collm** | **164.35 307** | | *i* PKIKP | **PKPdf** | **01 18 41.2** | **-0.2** | |
| CLL | | | | *i* | | 01 19 35.1 | | |
| CLL | | | | pmax | pmax | | | |
| | comp=Z,16nm,1.2s | | | | | | | |
| CLL | | | | pmax | pmax | | | |
| | comp=Z,30nm,1.3s | | | | | | | |
| CLL | | | | MLR | MLR | | | |
| | comp=Z,1μm,19.1s | | | | | | | |
| **CLL** | **Collm** | **164.35 307** | | *i* PKPdf | **PKPdf** | **01 18 41.2** | **-0.2** | |
| | comp=Z,16nm,1.2s | | | | | | | |
| CLL | | | | *i* PKPab | **PKPab** | **01 19 35.1** | **-0.8** | |
| | comp=Z,30nm,1.3s | | | | | | | |
| CLL | | | | *i* PP | **PP** | **01 23 25.0** | **+2.6** | |
| | comp=Z,36nm,1.8s | | | | | | | |
| CLL | | | | *e*PPP | PPP | 01 27 14.0 | | |
| CLL | | | | *e*SS | SS | 01 44 06.0 | +12 | |
| CLL | | | | *e*SSS | SSS | 01 50 30.0 | | |
| CLL | | | | L | L | 02 44 00.0 | | |
| | comp=Z,1μm,19.1s | | | | | | | |
| **OBKA** | **Obir** | **164.42 289** | | *i* PKPdf | **PKPdf** | **01 18 42.4** | **+0.6** | |
| | comp=Z,14nm,1.1s | | | | | | | |
| **LJU** | **Ljubljana** | **164.45 287** | | *e*PKPdf | **PKPdf** | **01 18 40.1** | **-1.6** | |
| LJU | | | | *e* | | 01 19 39.8 | | |
| **GERES** | **GERESS Array B** | **164.66 298** | | PKP | **PKPdf** | **01 18 40.5** | **-1.4** | |
| | comp=Z,3.2nm,0.9s,baz=96,slow=1.0,SNR=13 | | | | | | | |
| GERES | | | | PKPab | **PKPab** | **01 19 37.1** | **-0.4** | |
| | comp=Z,2.0nm,0.8s,baz=73,slow=4.6,SNR=7.0 | | | | | | | |
| **KHC** | **Kasperske Hory** | **164.67 299** | | *e*PKPDF | **PKPdf** | **01 18 40.5** | **-1.3** | |
| KHC | | | | *e*PKPAB | **PKPab** | **01 19 37.8** | **+0.3** | |
| KHC | | | | *ex* | x | 01 19 55.5 | | |
| KHC | | | | *e*PP | **PP** | **01 23 21.7** | **-2.6** | |
| KHC | | | | AMS | AMS | 02 36 40.0 | | |
| | comp=Z,2μm,19.8s | | | | | | | |
| **KHC** | **Kasperske Hory** | **164.67 299** | | *e*PKIKP | **PKPdf** | **01 18 40.5** | **-1.3** | |
| KHC | | | | *e* | | 01 23 21.7 | | |
| KHC | | | | MLR | MLR | | | |
| | comp=Z,2μm,19.8s | | | | | | | |
| **KHC** | **Kasperske Hory** | **164.67 299** | | *e*PKPdf | **PKPdf** | **01 18 40.6** | **-1.3** | |
| **CMLA** | **Cha da Macela** | **164.88 106** | | PFAKE | | 01 18 50.0 | +7.6 | |
| CMLA | | | | LR | LR | | | |
| | comp=Z,2μm,20.0s | | | | | | | |
| **AQU** | **L'Aquila** | **164.96 273** | | PFAKE | | 01 18 50.0 | +7.7 | |
| AQU | | | | LR | LR | | | |
| | comp=Z,1μm,21.0s | | | | | | | |
| **CADS** | **Cadrg** | **165.00 288** | | *e*PKPdf | **PKPdf** | **01 18 40.2** | **-2.0** | |
| **MYKA** | **Terra Mystica** | **165.03 289** | | *i* PKPdf | **PKPdf** | **01 18 40.8** | **-1.5** | |
| | comp=Z,20nm,1.4s | | | | | | | |
| **NKC** | **Novy Kostel** | **165.06 304** | | *e*PKPDF | **PKPdf** | **01 18 43.3** | **+1.2** | |
| NKC | | | | AMS | AMS | 02 42 20.0 | | |
| | comp=Z,2μm,20.0s | | | | | | | |
| **NKC** | **Novy Kostel** | **165.06 304** | | *e*PKIKP | **PKPdf** | **01 18 43.3** | **+1.2** | |
| NKC | | | | MLR | MLR | | | |
| | comp=Z,2μm,20.0s | | | | | | | |
| **KEST** | **Kesra** | **165.18 244** | | PKP | **PKPdf** | **01 18 43.0** | **+0.2** | |
| | comp=Z,9.5nm,1.0s,baz=134,slow=2.6,SNR=3.4 | | | | | | | |
| KEST | | | | PKPab | **PKPab** | **01 19 40.4** | **+0.3** | |
| | comp=Z,20nm,0.9s,baz=186,slow=2.5,SNR=8.8 | | | | | | | |
| **ABTA** | **Abfaltersbach** | **165.80 290** | | *i* PKPdf | **PKPdf** | **01 18 41.4** | **-1.5** | |
| | comp=Z,29nm,1.2s | | | | | | | |
| **WTTA** | **Wattenberg** | **166.32 293** | | *i* PKPdf | **PKPdf** | **01 18 42.5** | **-1.0** | |
| | comp=Z,28nm,1.5s | | | | | | | |
| **MOTA** | **Moosalm** | **166.67 293** | | *i* PKPdf | **PKPdf** | **01 18 42.2** | **-1.5** | |
| | comp=Z,7.9nm,0.9s | | | | | | | |
| **PMOZ** | **Porto Moniz, M** | **166.72 140** | | eLR | LR | 02 15 57.4 | | |
| | comp=Z,747nm,18.0s | | | | | | | |
| **PMAR** | **Madeira** | **166.76 141** | | *e*PKPdf | **PKPdf** | **01 18 48.6** | **+4.3** | |
| **RETA** | **Reutte** | **166.87 294** | | *i* PKPdf | **PKPdf** | **01 18 43.8** | **0.0** | |
| | comp=Z,15nm,1.3s | | | | | | | |
| **FETA** | **Feichten** | **166.97 292** | | *i* PKPdf | **PKPdf** | **01 18 42.7** | **-1.3** | |
| | comp=Z,22nm,1.4s | | | | | | | |
| **VSL** | **Villasalto** | **167.04 258** | | PFAKE | | 01 18 50.0 | +5.9 | |
| VSL | | | | LR | LR | | | |
| | comp=Z,2μm,20.0s | | | | | | | |
| **VLC** | **Villacollemand** | **167.37 279** | | PFAKE | | 01 18 50.0 | +5.8 | |
| VLC | | | | LR | LR | | | |
| | comp=Z,2μm,21.0s | | | | | | | |
| **DAVA** | **Damuels** | **167.50 294** | | *i* PKPdf | **PKPdf** | **01 18 43.2** | **-1.1** | |
| | comp=Z,19nm,1.1s | | | | | | | |
| **DAVOX** | **Davos/Dischmat** | **167.59 291** | | PKP | **PKPdf** | **01 18 43.0** | **-1.5** | |
| | comp=Z,8.9nm,0.8s,baz=90,slow=2.0,SNR=14 | | | | | | | |
| DAVOX | | | | PKPab | **PKPab** | **01 19 49.8** | **-0.8** | |
| | comp=Z,9.1nm,0.8s,baz=92,slow=2.9,SNR=13 | | | | | | | |
| **ESK** | **Eskdalemuir** | **167.90 349** | | PFAKE | | 01 18 50.0 | +5.9 | |
| ESK | | | | LR | LR | | | |
| | comp=Z,3μm,19.0s | | | | | | | |
| **TUE** | **Stuetta** | **168.00 290** | | *e*PKPdf | **PKPdf** | **01 18 43.0** | **-1.7** | |
| TUE | | | | LR | LR | | | |
| | comp=Z,2μm,20.0s | | | | | | | |
| **BFO** | **Black Forest** | **168.23 300** | | PFAKE | | 01 19 00.0 | +15 | |
| BFO | | | | LR | LR | | | |
| | comp=Z,2μm,21.0s | | | | | | | |
| **LANF** | **Langenberg** | **168.33 303** | | PKP | **PKPdf** | **01 18 42.7** | **-2.0** | |
| **MEM** | **Membach** | **168.59 313** | | PKP | **PKPdf** | **01 18 45.0** | **+0.3** | |
| **WLF** | **Walferdange** | **169.01 309** | | PKP | **PKPdf** | **01 18 45.5** | **+0.5** | |
| **WLF** | **Walferdange** | **169.01 309** | | PFAKE | | 01 19 00.0 | +15 | |
| WLF | | | | LR | LR | | | |
| | comp=Z,3μm,22.0s | | | | | | | |
| **ECH** | **Echery** | **169.01 300** | | PKP | **PKPdf** | **01 18 44.3** | **-0.8** | |
| **ECH** | **Echery** | **169.01 300** | | PFAKE | | 01 19 00.0 | +15 | |
| ECH | | | | LR | LR | | | |
| | comp=Z,2μm,19.0s | | | | | | | |
| **MOF** | **Molkenrain** | **169.15 299** | | PKP | **PKPdf** | **01 18 43.6** | **-1.7** | |
| **DOU** | **Dourbes** | **169.63 314** | | PKP | **PKPdf** | **01 18 44.1** | **-1.3** | |
| **THEF** | **They Montfort** | **169.74 302** | | PKP | **PKPdf** | **01 18 44.3** | **-1.3** | |
| **BNI** | **Bardonecchia** | **170.01 284** | | PFAKE | | 01 19 00.0 | +14 | |
| BNI | | | | LR | LR | | | |
| | comp=Z,2μm,22.0s | | | | | | | |
| **RTC** | **Rabat Centre** | **170.52 181** | | PFAKE | | 01 19 00.0 | +14 | |
| RTC | | | | LR | LR | | | |
| | comp=Z,9μm,19.0s | | | | | | | |
| **SSB** | **Saint Sauveur** | **171.49 286** | | PFAKE | | 01 19 00.0 | +13 | |
| SSB | | | | LR | LR | | | |
| | comp=Z,2μm,19.0s | | | | | | | |
| **PYM** | **Petit Puy Mans** | **172.46 291** | | PKP | **PKPdf** | **01 18 46.7** | **-0.4** | |
| **PFVI** | **Vila Bisbo** | **173.51 167** | | *e*PKPdf | **PKPdf** | **01 18 49.5** | **+1.8** | |
| **PFVI** | **Vila Bisbo** | **173.51 167** | | eLR | LR | 02 18 48.1 | | |
| | comp=Z,2μm,20.0s | | | | | | | |
| **MORF** | **Marmelete** | **173.71 168** | | *e*P | **PKPdf** | **01 18 47.2** | **-0.6** | |
| MORF | | | | *e*PP | **PP** | **01 24 09.3** | **+0.4** | |
| MORF | | | | AMS | AMS | 02 34 32.5 | | |
| | comp=Z,2μm,18.5s | | | | | | | |
| **MORF** | **Marmelete** | **173.71 168** | | *e*PKIKP | **PKPdf** | **01 18 47.2** | **-0.6** | |
| MORF | | | | *e* | | 01 24 09.3 | | |
| **MORF** | **Marmelete** | **173.71 168** | | *e*PKPdf | **PKPdf** | **01 18 50.2** | **+2.3** | |
| **MORF** | **Marmelete** | **173.71 168** | | *e*PKPab | **PKPab** | **01 20 19.1** | **+1.5** | |
| **MORF** | **Marmelete** | **173.71 168** | | *e*PP | PP | 01 24 08.7 | -0.2 | |
| **MORF** | **Marmelete** | **173.71 168** | | eLR | LR | 02 19 16.3 | | |
| | comp=Z,2μm,20.0s | | | | | | | |
| **PBDV** | **Barranco-do-Ve** | **173.73 174** | | *e*PKPdf | **PKPdf** | **01 18 49.5** | **+1.7** | |
| **PBDV** | **Barranco-do-Ve** | **173.73 174** | | *e*PKPab | **PKPab** | **01 20 20.2** | **+2.6** | |
| **PBDV** | **Barranco-do-Ve** | **173.73 174** | | *e*PP | PP | 01 24 10.3 | +1.3 | |
| **PBDV** | **Barranco-do-Ve** | **173.73 174** | | eLR | LR | 02 22 00.6 | | |
| | comp=Z,2μm,20.0s | | | | | | | |
| **PVAQ** | **Vaqueiros** | **173.91 175** | | *e*PKPdf | **PKPdf** | **01 18 50.3** | **+2.4** | |
| **PVAQ** | **Vaqueiros** | **173.91 175** | | *e*PKPab | **PKPab** | **01 20 18.9** | **+0.6** | |
| **PVAQ** | **Vaqueiros** | **173.91 175** | | *e*PP | PP | 01 24 11.4 | +1.6 | |
| **PVAQ** | **Vaqueiros** | **173.91 175** | | *e*SS | SS | 01 45 43.4 | +16 | |
| **PVAQ** | **Vaqueiros** | **173.91 175** | | eLQ | LQ | 02 13 19.3 | | |
| PVAQ | | | | eLR | LR | 02 20 41.7 | | |
| | comp=Z,2μm,20.0s | | | | | | | |
| **PTEO** | **Sao Teotonio** | **173.94 167** | | *e*PKPdf | **PKPdf** | **01 18 48.7** | **+0.9** | |
| **PTEO** | **Sao Teotonio** | **173.94 167** | | *e*PKPab | **PKPab** | **01 20 22.7** | **+4.2** | |
| **PTEO** | **Sao Teotonio** | **173.94 167** | | *e*PP | PP | 01 24 14.8 | +4.8 | |
| **PCVE** | **Castro Verde** | **174.11 172** | | *e*PKPdf | **PKPdf** | **01 18 48.7** | **+0.8** | |
| **PCVE** | **Castro Verde** | **174.11 172** | | *e*PKPab | **PKPab** | **01 20 21.1** | **+1.9** | |
| **PCVE** | **Castro Verde** | **174.11 172** | | *e*PP | PP | 01 24 12.9 | +2.1 | |
| **PCVE** | **Castro Verde** | **174.11 172** | | eLR | LR | 02 20 54.9 | | |
| | comp=Z,2μm,20.0s | | | | | | | |
| **MESJ** | **Messejana** | **174.29 171** | | *e*P | **PKPdf** | **01 18 47.4** | **-0.6** | |
| MESJ | | | | AMS | AMS | 02 37 20.5 | | |
| | comp=Z,2μm,17.5s | | | | | | | |
| **MESJ** | **Messejana** | **174.29 171** | | *e*PKIKP | **PKPdf** | **01 18 47.4** | **-0.6** | |
| **MESJ** | **Messejana** | **174.29 171** | | *e*PKPdf | **PKPdf** | **01 18 50.7** | **+2.7** | |
| **MESJ** | **Messejana** | **174.29 171** | | *e*PKPab | **PKPab** | **01 20 24.4** | **+4.4** | |
| **MESJ** | **Messejana** | **174.29 171** | | *e*PP | PP | 01 24 10.0 | -1.7 | |
| **PNCL** | **Nicolau / Gran** | **174.52 168** | | *e*PKPdf | **PKPdf** | **01 18 50.8** | **+2.8** | |
| **PNCL** | **Nicolau /

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CRLZ | | | | | AML | AML | 01 00 31.2 | |
| CRLZ | | | | | AML | AML | 01 00 31.3 | |
| **MQZ** | **McQueen's Vall** | **0.20** | **208** | | PG | Pg | 01 00 29.7 | +0.1 |
| MQZ | | | | | SG | Sg | 01 00 32.8 | +0.4 |
| MQZ | | | | | AML | AML | 01 00 33.0 | |
| **OXZ** | **Oxford** | **0.58** | **291** | | P* | Pg | 01 00 37.0 | +0.2 |
| OXZ | | | | | AML | AML | 01 00 45.6 | |
| OXZ | | | | | AML | AML | 01 00 46.7 | |
| OXZ | | | | | AML | AML | 01 00 46.8 | |
| OXZ | | | | | AML | AML | 01 00 47.1 | |
| **LTZ** | **Lake Taylor** | **0.84** | **333** | | P* | Pg | 01 00 41.6 | -0.1 |
| LTZ | | | | | S* | Sg | 01 00 52.7 | +0.1 |
| LTZ | | | | | S* | Sb | 01 00 53.3 | -0.4 |

**WEL 23 01:00:50.1±0.2, 43°52S×172°79E, h5km, ML4.1/4, Error ellipse: s-maj=1.8km s-min=0.9km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.13** | **246** | PG | Pg | 01 00 53.6 | +0.8 |
| CRLZ | | | | SG | Sg | 01 00 54.5 | -0.1 |
| CRLZ | | | | AML | AML | 01 00 54.9 | |
| **MQZ** | **McQueen's Vall** | **0.21** | **208** | ePG | Pg | 01 00 56.4 | +2.2 |
| **OXZ** | **Oxford** | **0.58** | **289** | eP* | Pb | 01 01 02.3 | -0.5 |
| **LTZ** | **Lake Taylor** | **0.83** | **333** | P* | Pb | 01 01 07.0 | -0.1 |
| LTZ | | | | AML | AML | 01 01 08.4 | |

*ISCJB **23** 01:00:51.8±0.6, 43°.50S±0°.03×172°.95E±0°.03, h8km±3km, mb5.2/31, Error ellipse: s-maj=5.3km s-min=3.3km az=142.4*
*IDC **23** 01:00:52.3±0.6, 43°.36S×172°.97E, h0km, mb5.1/11, mb1 5.2/12, mb1mx4.8/32, mbtmp5.1/12, ML4.7/1, Error ellipse: s-maj=20.3km s-min=19.5km az=1.0*
*NEIC **23** 01:00:52.7±0.8, 43°.48S×172°.92E, h2km±4km, mb5.0/16, Error ellipse: s-maj=6.7km s-min=4.7km az=129.0*
*WEL **23** 01:00:53.9±0.1, 43°.52S×172°.83E, h8km, ML5.2/99, Error ellipse: s-maj=1.3km s-min=0.7km az=90.0*

**ISC 23 01:00:52.2±1.4, 43°.45S±0°.03×172°.94E±0°.04, h0km±8km, n237, σ1§10/198, mb5.2/30, 1C, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.26** | **242** | *e*Pg | **Pg** | **01 00 56.6** | **-0.6** |
| CRLZ | | | | *e*Sg | **Sg** | **01 00 59.4** | **-1.2** |
| **CRLZ** | **Canterbury Las** | **0.26** | **242** | PG | **Pg** | **01 00 57.3** | **+0.1** |
| CRLZ | | | | AML | AML | 01 00 59.8 | |
| CRLZ | | | | AML | AML | 01 00 59.8 | |
| CRLZ | | | | SG | **Sg** | **01 00 59.9** | **-0.8** |
| CRLZ | | | | SG | **Sg** | **01 00 59.9** | **-0.8** |
| **MQZ** | **McQueen's Vall** | **0.33** | **220** | *e*Pg | **Pg** | **01 00 58.4** | **-0.1** |
| MQZ | | | | *e*Sg | **Sg** | **01 01 02.2** | **-0.6** |
| **MQZ** | **McQueen's Vall** | **0.33** | **220** | ⇑PG | **Pg** | **01 00 58.7** | **+0.1** |
| MQZ | | | | SG | **Sg** | **01 01 02.0** | **-0.8** |
| MQZ | | | | SG | **Sg** | **01 01 02.1** | **-0.8** |
| MQZ | | | | AML | AML | 01 01 02.3 | |
| **OXZ** | **Oxford** | **0.67** | **281** | *e*Pg | **Pg** | **01 01 04.6** | **-0.5** |
| OXZ | | | | *e*Sg | **Sg** | **01 01 14.7** | **+0.9** |
| **OXZ** | **Oxford** | **0.67** | **281** | P* | **Pg** | **01 01 05.4** | **+0.3** |
| OXZ | | | | S* | **Sg** | **01 01 13.8** | **0.0** |
| OXZ | | | | S* | **Sg** | **01 01 13.8** | **0.0** |
| OXZ | | | | AML | AML | 01 01 15.8 | |
| OXZ | | | | AML | AML | 01 01 16.6 | |
| **LTZ** | **Lake Taylor** | **0.83** | **324** | *e*Pg | **Pb** | **01 01 09.7** | **+0.1** |
| LTZ | | | | *e*Sg | **Sb** | **01 01 21.4** | **+0.1** |
| **LTZ** | **Lake Taylor** | **0.83** | **324** | P* | **Pb** | **01 01 10.2** | **+0.7** |
| LTZ | | | | S* | **Sb** | **01 01 21.5** | **+0.3** |
| LTZ | | | | AML | AML | 01 01 22.8 | |
| LTZ | | | | AML | AML | 01 01 22.8 | |
| LTZ | | | | AML | AML | 01 01 24.8 | |
| **KHZ** | **Kahutara** | **1.13** | **23** | *e*Pg | **Pn** | **01 01 15.2** | **0.0** |
| **KHZ** | **Kahutara** | **1.13** | **23** | P* | **Pn** | **01 01 15.6** | **+0.4** |
| KHZ | | | | AML | AML | 01 01 33.5 | |
| KHZ | | | | AML | AML | 01 01 34.6 | |
| KHZ | | | | AML | AML | 01 01 34.6 | |
| KHZ | | | | AML | AML | 01 01 35.8 | |
| **INZ** | **Inchbonnie** | **1.32** | **303** | P* | **Pn** | **01 01 18.3** | **+0.5** |
| INZ | | | | S* | **Sg** | **01 01 34.3** | **-0.2** |
| **RPZ** | **Rata Peaks** | **1.40** | **259** | Pg | **Pn** | **01 01 18.5** | **-0.5** |
| | 1μm,0.3s,baz=107,slow=1.9,SNR=11 | | | | | | |
| RPZ | | | | Lg | Lg | 01 01 34.5 | |
| | 1μm,0.3s,baz=12,slow=20,SNR=12 | | | | | | |
| **RPZ** | **Rata Peaks** | **1.40** | **259** | *e*P* | **Pn** | **01 01 17.1** | **-1.9** |
| RPZ | | | | AML | AML | 01 01 35.5 | |
| RPZ | | | | AML | AML | 01 01 37.7 | |
| **WVZ** | **Waitaha Valley** | **1.66** | **282** | AML | AML | 01 01 43.1 | |
| WVZ | | | | AML | AML | 01 01 53.6 | |
| **THZ** | **Tophouse** | **1.69** | **359** | *e*Pn | **Pb** | **01 01 24.0** | **-0.2** |
| **THZ** | **Tophouse** | **1.69** | **359** | *e*PN | **Pn** | **01 01 23.1** | **+0.1** |
| THZ | | | | AML | AML | 01 01 49.9 | |
| THZ | | | | AML | AML | 01 01 50.8 | |
| **BSWZ** | **Blackbirch Sta** | **1.87** | **22** | PN | **Pb** | **01 01 26.6** | **-0.6** |
| BSWZ | | | | AML | AML | 01 01 53.5 | |
| BSWZ | | | | AML | AML | 01 01 54.5 | |
| **DSZ** | **Denniston Nort** | **1.90** | **333** | *e*PN | **Pn** | **01 01 26.5** | **+0.6** |
| DSZ | | | | AML | AML | 01 01 52.7 | |
| DSZ | | | | AML | AML | 01 01 53.6 | |
| DSZ | | | | AML | AML | 01 01 54.3 | |
| DSZ | | | | AML | AML | 01 01 54.3 | |
| **CMWZ** | **Cape Campbell** | **1.94** | **29** | AML | AML | 01 02 00.9 | |
| CMWZ | | | | AML | AML | 01 02 09.6 | |
| **TUWZ** | **Tuamarina** | **2.15** | **20** | AML | AML | 01 01 42.7 | |
| TUWZ | | | | AML | AML | 01 01 45.0 | |
| **LBZ** | **Lake Benmore** | **2.20** | **244** | *e*Pn | **Pn** | **01 01 29.5** | **-0.5** |
| **LBZ** | **Lake Benmore** | **2.20** | **244** | *e*PN | **Pg** | **01 01 34.3** | **-0.1** |
| LBZ | | | | AML | AML | 01 02 07.1 | |
| LBZ | | | | AML | AML | 01 02 07.1 | |
| LBZ | | | | AML | AML | 01 02 08.1 | |
| LBZ | | | | AML | AML | 01 02 08.1 | |
| **NNZ** | **Nelson** | **2.26** | **8** | *e*PN | **Pn** | **01 01 29.8** | **-1.0** |
| NNZ | | | | AML | AML | 01 02 01.3 | |
| NNZ | | | | AML | AML | 01 02 05.0 | |
| NNZ | | | | AML | AML | 01 02 05.0 | |
| NNZ | | | | AML | AML | 01 02 12.4 | |
| **FOZ** | **Fox Glacier** | **2.28** | **267** | *e*Pn | **Pn** | **01 01 31.4** | **+0.3** |
| **FOZ** | **Fox Glacier** | **2.28** | **267** | *e*PN | **Pn** | **01 01 31.7** | **+0.6** |
| FOZ | | | | SN | **Sn** | **01 01 57.5** | **-2.2** |
| FOZ | | | | AML | AML | 01 01 58.6 | |
| FOZ | | | | AML | AML | 01 01 59.0 | |
| FOZ | | | | AML | AML | 01 01 59.0 | |
| **ODZ** | **Otahua Downs** | **2.29** | **225** | *e*Pn | **Pn** | **01 01 32.5** | **+1.2** |
| **ODZ** | **Otahua Downs** | **2.29** | **225** | *e*PN | **Pb** | **01 01 35.0** | **+0.5** |
| ODZ | | | | AML | AML | 01 02 05.4 | |
| ODZ | | | | AML | AML | 01 02 06.1 | |
| ODZ | | | | AML | AML | 01 02 06.2 | |
| ODZ | | | | AML | AML | 01 02 08.3 | |
| **TCW** | **Tory Channel** | **2.45** | **24** | *e*PN | **Pn** | **01 01 33.8** | **+0.3** |
| TCW | | | | AML | AML | 01 02 08.9 | |
| TCW | | | | AML | AML | 01 02 10.0 | |
| **BHW** | **Baring Head** | **2.49** | **36** | PN | **Pn** | **01 01 34.5** | **+0.5** |
| BHW | | | | AML | AML | 01 02 07.5 | |
| BHW | | | | AML | AML | 01 02 07.7 | |
| **SNZO** | **South Karori** | **2.51** | **32** | *e*Pn | **Pn** | **01 01 34.6** | **+0.4** |
| **PLWZ** | **Palliser** | **2.54** | **43** | AML | AML | 01 02 10.6 | |
| PLWZ | | | | AML | AML | 01 02 12.8 | |
| **WEL** | **Wellington** | **2.56** | **33** | AML | AML | 01 02 08.0 | |
| WEL | | | | AML | AML | 01 02 09.7 | |
| **QRZ** | **Quartz Range** | **2.65** | **353** | AML | AML | 01 02 15.1 | |
| QRZ | | | | AML | AML | 01 02 15.2 | |
| **MSWZ** | **Moikau Station** | **2.66** | **41** | *e*PN | **Pn** | **01 01 36.3** | **0.0** |
| MSWZ | | | | AML | AML | 01 02 09.7 | |
| MSWZ | | | | AML | AML | 01 02 11.9 | |
| **DUWZ** | **D'Urville Isla** | **2.75** | **16** | *e*PN | **Pn** | **01 01 39.7** | **+2.1** |
| DUWZ | | | | AML | AML | 01 02 23.1 | |
| DUWZ | | | | AML | AML | 01 02 25.3 | |
| **PAWZ** | **Paruwai Farm** | **2.77** | **42** | AML | AML | 01 02 11.9 | |
| PAWZ | | | | AML | AML | 01 02 16.8 | |
| **HHSZ** | **Highcliff Hill** | **2.95** | **214** | *e*PN | **Pn** | **01 01 37.8** | **-2.5** |
| HHSZ | | | | AML | AML | 01 02 32.9 | |
| HHSZ | | | | AML | AML | 01 02 34.8 | |
| **MTW** | **Mount Morrison** | **2.98** | **40** | *e*PN | **Pn** | **01 01 41.0** | **+0.3** |
| MTW | | | | AML | AML | 01 02 17.5 | |
| MTW | | | | AML | AML | 01 02 20.0 | |
| **JCZ** | **Jackson Bay** | **3.08** | **257** | AML | AML | 01 02 32.0 | |
| JCZ | | | | AML | AML | 01 02 33.5 | |
| **OGWZ** | **Otaki Gorge** | **3.11** | **33** | AML | AML | 01 02 24.2 | |
| OGWZ | | | | AML | AML | 01 02 24.8 | |
| **WKZ** | **Wanaka** | **3.14** | **243** | AML | AML | 01 02 35.5 | |
| WKZ | | | | AML | AML | 01 02 37.6 | |
| WKZ | | | | AML | AML | 01 02 37.9 | |
| WKZ | | | | AML | AML | 01 02 37.9 | |
| **EAZ** | **Earnscleugh** | **3.16** | **234** | AML | AML | 01 02 17.8 | |
| EAZ | | | | AML | AML | 01 02 19.3 | |
| EAZ | | | | AML | AML | 01 02 32.0 | |
| EAZ | | | | AML | AML | 01 02 33.7 | |
| **HOWZ** | **Holdsworth Sta** | **3.19** | **38** | AML | AML | 01 02 22.5 | |
| HOWZ | | | | AML | AML | 01 02 25.9 | |
| **TMWZ** | **Te Maipa** | **3.21** | **44** | AML | AML | 01 02 23.9 | |
| TMWZ | | | | AML | AML | 01 02 24.4 | |
| **MRZ** | **Mangatainoka R** | **3.41** | **36** | *e*PN | **Pn** | **01 01 47.1** | **+0.5** |
| MRZ | | | | AML | AML | 01 02 30.8 | |
| MRZ | | | | AML | AML | 01 02 31.9 | |
| **TUZ** | **Tuapeka** | **3.44** | **222** | AML | AML | 01 02 41.5 | |
| TUZ | | | | AML | AML | 01 02 45.8 | |
| **TIWZ** | **Tintock** | **3.46** | **40** | AML | AML | 01 02 32.1 | |
| TIWZ | | | | AML | AML | 01 02 33.0 | |
| **CPWZ** | **Castlepoint** | **3.51** | **45** | AML | AML | 01 02 33.2 | |
| CPWZ | | | | AML | AML | 01 02 35.6 | |
| **PRWZ** | **Pori Road** | **3.67** | **39** | AML | AML | 01 02 38.4 | |
| PRWZ | | | | AML | AML | 01 02 40.9 | |
| **BFZ** | **Birch Farm** | **3.70** | **43** | AML | AML | 01 02 36.8 | |
| BFZ | | | | AML | AML | 01 02 37.0 | |
| **MLZ** | **Mavora Lakes** | **3.95** | **239** | AML | AML | 01 02 57.5 | |
| MLZ | | | | AML | AML | 01 02 58.8 | |
| **ANWZ** | **Angora Road** | **3.98** | **43** | AML | AML | 01 02 44.4 | |
| ANWZ | | | | AML | AML | 01 02 45.2 | |
| **WAZ** | **Wanganui** | **4.00** | **23** | AML | AML | 01 02 50.1 | |
| WAZ | | | | AML | AML | 01 02 50.9 | |
| **TSZ** | **Takapari Road** | **4.08** | **35** | AML | AML | 01 02 46.8 | |
| TSZ | | | | AML | AML | 01 02 46.9 | |
| **SYZ** | **Scrubby Hill** | **4.10** | **220** | AML | AML | 01 03 06.6 | |
| SYZ | | | | AML | AML | 01 03 09.3 | |
| **LREZ** | **Lake Rotokare** | **4.14** | **16** | AML | AML | 01 02 54.1 | |
| LREZ | | | | AML | AML | 01 03 04.8 | |
| **PREZ** | **Palmer Road** | **4.21** | **13** | AML | AML | 01 02 52.9 | |
| **PRHZ** | **Porangahau** | **4.21** | **42** | AML | AML | 01 02 52.5 | |
| PRHZ | | | | AML | AML | 01 02 53.8 | |
| **WPHZ** | **Waipukurau** | **4.28** | **39** | AML | AML | 01 02 54.8 | |
| WPHZ | | | | AML | AML | 01 02 56.0 | |
| **PNHZ** | **Pukenui** | **4.30** | **36** | AML | AML | 01 02 53.5 | |
| PNHZ | | | | AML | AML | 01 02 54.3 | |
| **WHZ** | **Wether Hill Ro** | **4.32** | **234** | AML | AML | 01 03 11.3 | |
| WHZ | | | | AML | AML | 01 03 11.4 | |
| **PKE** | **Pukeiti** | **4.33** | **11** | AML | AML | 01 02 55.1 | |
| PKE | | | | AML | AML | 01 02 55.7 | |
| **PXZ** | **Pawanui** | **4.50** | **42** | AML | AML | 01 02 55.0 | |
| PXZ | | | | AML | AML | 01 02 57.8 | |
| **VRZ** | **Vera Road** | **4.54** | **18** | AML | AML | 01 02 32.3 | |
| VRZ | | | | AML | AML | 01 03 04.7 | |
| **WNVZ** | **Wahianoa** | **4.58** | **27** | PN | **Pn** | **01 02 05.1** | **+2.2** |
| **TRVZ** | **Turoa** | **4.59** | **26** | AML | AML | 01 03 01.2 | |
| TRVZ | | | | AML | AML | 01 03 01.2 | |
| **KRHZ** | **Kereru** | **4.59** | **35** | AML | AML | 01 02 59.2 | |
| KRHZ | | | | AML | AML | 01 03 03.4 | |
| **BHHZ** | **Black Hill Sta** | **4.60** | **32** | AML | AML | 01 03 03.3 | |
| BHHZ | | | | AML | AML | 01 03 03.7 | |
| **DCZ** | **Deep Cove** | **4.61** | **242** | AML | AML | 01 02 53.3 | |
| DCZ | | | | AML | AML | 01 02 53.6 | |
| **DRZ** | **Dome Shelter** | **4.62** | **26** | AML | AML | 01 03 04.5 | |
| DRZ | | | | AML | AML | 01 03 04.7 | |
| **WHVZ** | **Whangaehu Hut** | **4.62** | **26** | PN | **Pn** | **01 02 05.2** | **+1.7** |
| WHVZ | | | | SN | **Sn** | **01 02 57.6** | **-0.3** |
| WHVZ | | | | AML | AML | 01 03 02.2 | |
| **FWVZ** | **Far West T-bar** | **4.63** | **26** | PN | **Pn** | **01 02 05.8** | **+2.2** |
| FWVZ | | | | AML | AML | 01 03 00.2 | |
| FWVZ | | | | AML | AML | 01 03 04.5 | |
| **TUVZ** | **Tukino** | **4.65** | **27** | AML | AML | 01 03 05.3 | |
| TUVZ | | | | AML | AML | 01 03 05.7 | |
| **KAHZ** | **Kahuranaki** | **4.70** | **40** | AML | AML | 01 03 03.3 | |
| KAHZ | | | | AML | AML | 01 03 03.8 | |
| **NGZ** | **Ngauruhoe** | **4.72** | **26** | AML | AML | 01 03 08.3 | |
| NGZ | | | | AML | AML | 01 03 08.4 | |
| **OTVZ** | **Oturere** | **4.75** | **26** | AML | AML | 01 03 05.4 | |
| OTVZ | | | | AML | AML | 01 03 11.6 | |
| **TWVZ** | **Taurewa** | **4.76** | **24** | *e*PN | **Pn** | **01 02 07.2** | **+1.8** |
| TWVZ | | | | AML | AML | 01 03 02.7 | |
| TWVZ | | | | AML | AML | 01 03 04.0 | |
| **WTVZ** | **West Tongariro** | **4.77** | **26** | AML | AML | 01 03 01.2 | |
| WTVZ | | | | AML | AML | 01 03 10.5 | |
| **KWHZ** | **Kaweka Forest** | **4.80** | **34** | AML | AML | 01 03 04.1 | |
| KWHZ | | | | AML | AML | 01 03 04.2 | |
| **KRVZ** | **Karewarewa** | **4.81** | **26** | AML | AML | 01 03 03.4 | |
| KRVZ | | | | AML | AML | 01 03 09.4 | |
| **APZ** | **The Paps** | **4.87** | **224** | AML | AML | 01 03 29.1 | |
| APZ | | | | AML | AML | 01 03 35.6 | |
| **CKHZ** | **Cape Kidnapper** | **4.90** | **41** | AML | AML | 01 03 07.4 | |
| CKHZ | | | | AML | AML | 01 03 09.6 | |
| **MCHZ** | **McNeill Hill** | **4.90** | **36** | AML | AML | 01 03 06.7 | |
| MCHZ | | | | AML | AML | 01 03 08.1 | |
| **BKZ** | **Black Stump Fm** | **5.05** | **33** | AML | AML | 01 03 10.6 | |
| BKZ | | | | AML | AML | 01 03 10.9 | |
| **HIZ** | **Hauiti** | **5.14** | **17** | AML | AML | 01 03 14.4 | |
| HIZ | | | | AML | AML | 01 03 16.6 | |
| **ARHZ** | **Aropaoanui** | **5.18** | **37** | AML | AML | 01 03 15.3 | |
| ARHZ | | | | AML | AML | 01 03 15.7 | |
| **PYZ** | **Puysegur Point** | **5.22** | **237** | AML | AML | 01 03 41.0 | |
| PYZ | | | | AML | AML | 01 03 41.6 | |
| **NMHZ** | **Naumai** | **5.24** | **35** | AML | AML | 01 03 16.8 | |
| NMHZ | | | | AML | AML | 01 03 18.9 | |
| **WHHZ** | **Waihua** | **5.44** | **38** | AML | AML | 01 03 20.7 | |
| WHHZ | | | | AML | AML | 01 03 22.7 | |
| **TLZ** | **Tolley Road** | **5.48** | **22** | *e*PN | **Pn** | **01 02 15.9** | **+0.7** |
| TLZ | | | | AML | AML | 01 03 25.1 | |
| TLZ | | | | AML | AML | 01 03 25.5 | |
| **ALRZ** | **Allen Road** | **5.52** | **29** | PN | **Pn** | **01 02 15.0** | **-0.7** |
| ALRZ | | | | AML | AML | 01 02 17.8 | |
| ALRZ | | | | AML | AML | 01 02 18.0 | |
| **PRRZ** | **Plateau Road** | **5.60** | **29** | PN | **Pn** | **01 02 16.4** | **-0.3** |
| PRRZ | | | | AML | AML | 01 03 24.0 | |
| PRRZ | | | | AML | AML | 01 03 27.1 | |
| **KNZ** | **Kokohu** | **5.68** | **40** | *e*PN | **Pn** | **01 02 17.4** | **-0.5** |
| KNZ | | | | AML | AML | 01 03 23.3 | |
| KNZ | | | | AML | AML | 01 03 25.7 | |
| **MHGZ** | **Mahia Peninsul** | **5.69** | **43** | AML | AML | 01 03 26.0 | |
| MHGZ | | | | AML | AML | 01 03 26.9 | |
| **SNGZ** | **Shannon Statio** | **5.73** | **37** | AML | AML | 01 03 28.1 | |
| SNGZ | | | | AML | AML | 01 03 30.0 | |
| **PRGZ** | **Paritu Road** | **5.86** | **41** | AML | AML | 01 03 27.7 | |
| PRGZ | | | | AML | AML | 01 03 32.8 | |
| **TARZ** | **Mount Tarawera** | **5.87** | **29** | AML | AML | 01 03 32.6 | |
| TARZ | | | | AML | AML | 01 03 32.8 | |
| **RIGZ** | **Rimuhau** | **5.98** | **39** | AML | AML | 01 03 32.0 | |
| RIGZ | | | | AML | AML | 01 03 34.5 | |
| **RAGZ** | **Rawiri** | **6.00** | **36** | AML | AML | 01 03 32.6 | |
| RAGZ | | | | AML | AML | 01 03 34.2 | |
| **TOZ** | **Tahuroa Road** | **6.04** | **20** | PN | **Pn** | **01 02 21.7** | **-1.0** |
| TOZ | | | | AML | AML | 01 03 35.1 | |
| TOZ | | | | AML | AML | 01 03 36.7 | |
| **URZ** | **Urewera** | **6.07** | **33** | Pn | **Pn** | **01 02 22.7** | **-0.5** |
| | 18nm,0.3s,baz=219,slow=11,SNR=1.9 | | | | | | |
| URZ | | | | Sn | **Sn** | **01 03 27.9** | **-5.5** |
| | 9.5nm,0.3s,baz=63,slow=18,SNR=1.4 | | | | | | |
| **URZ** | **Urewera** | **6.07** | **33** | AML | AML | 01 03 34.4 | |
| URZ | | | | AML | AML | 01 03 36.0 | |
| **MWZ** | **Matawai** | **6.18** | **36** | AML | AML | 01 03 37.1 | |
| MWZ | | | | AML | AML | 01 03 37.4 | |
| **CNGZ** | **Carnagh Statio** | **6.36** | **41** | AML | AML | 01 03 42.8 | |
| CNGZ | | | | AML | AML | 01 03 43.9 | |
| **TWGZ** | **Tauwhareparae** | **6.51** | **38** | *e*PN | **Pn** | **01 02 30.1** | **+0.9** |
| TWGZ | | | | AML | AML | 01 03 43.9 | |
| TWGZ | | | | AML | AML | 01 03 48.4 | |
| **AWAZ** | **Awhitu Peninsu** | **6.51** | **12** | PN | **Pn** | **01 02 29.8** | **+0.6** |
| **ETAZ** | **East Tamaki Re** | **6.67** | **14** | *e*Pn | **Pn** | **01 02 32.1** | **+0.7** |
| **PUZ** | **Puketiti** | **6.72** | **39** | AML | AML | 01 03 49.7 | |
| PUZ | | | | AML | AML | 01 03 50.2 | |
| **HAZ** | **Te Kaha** | **6.78** | **35** | AML | AML | 01 03 52.9 | |
| HAZ | | | | AML | AML | 01 03 53.3 | |
| **PKGZ** | **Pakihiroa** | **6.79** | **37** | AML | AML | 01 03 50.7 | |
| PKGZ | | | | AML | AML | 01 03 52.5 | |
| **WIAZ** | **Waiheke Island** | **6.86** | **15** | *e*PN | **Pn** | **01 02 34.6** | **+0.6** |
| WIAZ | | | | AML | AML | 01 02 37.0 | |
| WIAZ | | | | AML | AML | 01 02 40.0 | |
| **KUZ** | **Kuaotunu** | **7.03** | **19** | *e*PN | **Pn** | **01 02 35.4** | **-1.0** |
| KUZ | | | | AML | AML | 01 03 57.0 | |
| KUZ | | | | AML | AML | 01 03 58.4 | |
| **MXZ** | **Matakaoa Point** | **7.16** | **37** | *e*PN | **Pn** | **01 02 37.6** | **-0.6** |
| MXZ | | | | AML | AML | 01 04 00.7 | |
| MXZ | | | | AML | AML | 01 04 02.1 | |
| **WCZ** | **Waipu Caves** | **7.58** | **9** | AML | AML | 01 04 12.6 | |
| WCZ | | | | AML | AML | 01 04 12.8 | |
| **OUZ** | **Omahuta** | **8.24** | **4** | AML | AML | 01 04 24.0 | |
| OUZ | | | | AML | AML | 01 04 24.2 | |
| **CAN** | **Canberra** | **20.16** | **286** | P | Pn | 01 05 29.5 | -0.4 |
| | 65nm,1.3s | | | | | | |
| **ARMA** | **Armidale** | **21.36** | **300** | *e*P | **P** | **01 05 43.4** | **+2.2** |
| | 48nm,1.1s | | | | | | |
| **DZM** | **Mont Dzumac** | **22.00** | **344** | P | **P** | **01 05 48.3** | **+0.2** |
| | 42nm,1.1s,baz=129,slow=13,SNR=2.2 | | | | | | |
| **DZM** | **Mont Dzumac** | **22.00** | **344** | *e*P | **P** | **01 05 48.2** | **+0.2** |
| | 48nm,1.1s | | | | | | |
| **EIDS** | **Eidsvold** | **25.38** | **308** | *e*P | **P** | **01 06 21.4** | **+0.3** |
| | 13nm,0.8s | | | | | | |
| **MSVF** | **Nonsavu** | **26.00** | **11** | *e*P | **P** | **01 06 25.7** | **-1.2** |
| | 50nm,1.2s | | | | | | |
| **BBOO** | **Buckleboo** | **30.67** | **278** | *e*P | **P** | **01 07 08.8** | **+0.3** |
| | 77nm,1.1s | | | | | | |
| **CTA** | **Charters Tower** | **32.27** | **308** | P | **P** | **01 07 23.2** | **+0.6** |
| | 12nm,0.8s,baz=139,slow=12,SNR=3.6 | | | | | | |
| **CTAO** | **Charters Tower** | **32.27** | **308** | *e*P | **P** | **01 07 22.9** | **+0.3** |
| | 159nm,1.1s | | | | | | |
| **AS01** | **Alice Springs** | **37.58** | **289** | *e*P | **P** | **01 08 07.7** | **-0.7** |
| **AS31** | **Alice Springs** | **37.61** | **289** | *e*P | **P** | **01 08 07.6** | **-1.1** |
| | 21nm,1.3s | | | | | | |
| AS31 | | | | *e*PcP | **PcP** | **01 10 26.1** | **-0.4** |
| **ASAR** | **Alice Springs** | **37.61** | **289** | P | **P** | **01 08 07.6** | **-1.1** |
| | 46nm,1.1s,baz=132,slow=7.9,SNR=9.5 | | | | | | |
| ASAR | | | | PcP | **PcP** | **01 10 26.1** | **-0.4** |
| | 2.4nm,0.7s,baz=116,slow=4.2,SNR=4.3 | | | | | | |
| **COEN** | **Coen** | **38.92** | **310** | *e*P | **P** | **01 08 19.1** | **-0.6** |
| | 17nm,0.9s | | | | | | |
| **WB2** | **Warramunga Arr** | **39.84** | **294** | *e*P | **P** | **01 08 26.5** | **-0.9** |
| **WRAB** | **Tennant Creek** | **39.85** | **294** | *e*P | **P** | **01 08 27.2** | **-0.3** |
| | 38nm,0.8s | | | | | | |
| **WR1** | **Warramunga Arr** | **39.85** | **294** | *e*P | **P** | **01 08 26.9** | **-0.6** |
| | 46nm,0.8s | | | | | | |
| WR1 | | | | *e*PcP | **PcP** | **01 10 33.2** | **-0.3** |
| **WRA** | **Warramunga Arr** | **39.85** | **294** | P | **P** | **01 08 26.9** | **-0.6** |
| | 27nm,0.7s,baz=131,slow=7.6,SNR=9.1 | | | | | | |
| WRA | | | | PcP | **PcP** | **01 10 33.2** | **-0.3** |
| | 5.5nm,1.1s,baz=140,slow=2.7,SNR=3.1 | | | | | | |
| **PMG** | **Port Moresby** | **40.69** | **319** | P | **P** | **01 08 33.0** | **-1.4** |
| | 83nm,1.1s,baz=156,slow=4.8,SNR=6.7 | | | | | | |
| PMG | | | | PcP | **PcP** | **01 10 36.6** | **+0.4** |
| | 44nm,1.2s,baz=169,slow=4.3,SNR=3.3 | | | | | | |
| **PMG** | **Port Moresby** | **40.69** | **319** | *e*P | **P** | **01 08 34.9** | **+0.5** |
| | 189nm,1.4s | | | | | | |
| PMG | | | | PcP | **PcP** | **01 10 36.6** | **+0.4** |
| **RABL** | **Rabaul** | **43.21** | **329** | *e*P | **P** | **01 08 56.4** | **+1.3** |
| | 216nm,0.8s | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **44.29** | **264** | P | **P** | **01 09 04.2** | **+0.5** |
| | 41nm,1.1s,baz=0.6,slow=6.3,SNR=4.7 | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **44.29** | **264** | *e*P | **P** | **01 09 04.7** | **+1.1** |
| | 64nm,1.1s | | | | | | |
| **QSPA** | **South Pole Qui** | **46.67** | **180** | *e*P | **P** | **01 09 22.8** | **+0.4** |
| | 94nm,1.0s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **47.05** | **287** | P | **P** | **01 09 25.6** | **0.0** |
| | 21nm,1.0s,baz=122,slow=8.4,SNR=4.4 | | | | | | |
| **MTN** | **Manton Dam** | **47.10** | **297** | *e*P | **P** | **01 09 24.8** | **-1.2** |
| | 53nm,1.0s | | | | | | |
| **MANU** | **Manus Island** | **47.10** | **324** | *e*P | **P** | **01 09 27.7** | **+1.7** |
| | 116nm,1.2s | | | | | | |
| **MBWA** | **Marble Bar** | **49.23** | **279** | *e*P | **P** | **01 09 41.2** | **-1.3** |
| | 137nm,1.1s | | | | | | |
| **SOEI** | **Soe** | **53.89** | **294** | *e*P | **P** | **01 10 18.9** | **+1.3** |
| **MAW** | **Mawson** | **57.50** | **205** | P | **P** | **01 10 44.3** | **+1.6** |
| | 19nm,1.1s,baz=158,slow=5.3,SNR=3.8 | | | | | | |
| **MAW** | **Mawson** | **57.50** | **205** | *e*P | **P** | **01 10 44.3** | **+1.6** |
| | 8.1nm,1.3s | | | | | | |
| **SNAA** | **Sanae** | **65.14** | **181** | P | **P** | **01 11 35.5** | **+1.1** |
| | 15nm,1.1s,baz=170,slow=7.0,SNR=3.0 | | | | | | |
| **SNAA** | **Sanae** | **65.14** | **181** | *e*P | **P** | **01 11 35.5** | **+1.1** |
| | 27nm,1.2s | | | | | | |
| **KKM** | **Kota Kinabalu** | **71.00** | **298** | *e*P | **P** | **01 12 11.2** | **-0.8** |
| | 108nm,1.5s | | | | | | |
| **MYKOM** | **Kota Tinggi** | **76.20** | **286** | *e*P | **P** | **01 12 43.0** | **+0.5** |
| | 74nm,1.5s | | | | | | |
| **GSI** | **Gunungsitoli** | **80.30** | **281** | *e*P | **P** | **01 13 06.1** | **+0.8** |
| | 104nm,1.1s | | | | | | |
| **PSI** | **Prapat** | **80.39** | **283** | *e*P | **P** | **01 13 05.2** | **-0.7** |
| | 42nm,1.2s | | | | | | |
| **KULM** | **Kulim** | **80.92** | **286** | *e*P | **P** | **01 13 08.5** | **-0.1** |
| | 53nm,1.2s | | | | | | |
| **KSRS** | **Korea Array** | **90.31** | **326** | P | **P** | **01 13 55.9** | **+1.3** |
| | 13nm,1.0s,baz=149,slow=5.3,SNR=8.9 | | | | | | |
| **KS15** | **Wonju Array Si** | **90.31** | **326** | *e*P | **P** | **01 13 55.9** | **+1.2** |
| **KSAR** | **Wonju Array Be** | **90.31** | **326** | P | **P** | **01 13 55.9** | **+1.2** |
| **KS01** | **Wonju Array Si** | **90.34** | **326** | *e*P | **P** | **01 13 55.9** | **+1.1** |
| **CM01** | **Chiang Mai Arr** | **91.40** | **294** | *e*P | **P** | **01 14 01.0** | **+0.8** |
| **CM31** | **Chiang Mai Arr** | **91.44** | **294** | *e*P | **P** | **01 14 02.2** | **+1.8** |
| **CMAR** | **Chiang Mai Arr** | **91.44** | **294** | P | **P** | **01 14 02.2** | **+1.8** |
| | 2.6nm,0.7s,baz=157,slow=3.4,SNR=4.8 | | | | | | |
| **CHTO** | **Chiang Mai** | **91.69** | **294** | *e*P | **P** | **01 14 00.7** | **-0.9** |
| | 16nm,1.3s | | | | | | |
| **PASC** | **Pasadena Art C** | **99.53** | **52** | *e*P | **Pdif** | **01 14 40.6** | **+3.7** |
| | 32nm,0.6s | | | | | | |
| **ILAR** | **Eielson Array** | **112.38** | **17** | PKiKP | **PKiKP** | **01 19 27.8** | **-1.1** |
| | 1.2nm,0.7s,baz=274,slow=2.0,SNR=5.8 | | | | | | |
| ILAR | | | | PKKPab | **PKKPab** | **01 30 27.1** | **+2.8** |
| | 0.7nm,1.0s,baz=29,slow=2.1,SNR=5.2 | | | | | | |
| **ILB** | **Eielson Array** | **112.38** | **17** | *e*PKiKP | **PKiKP** | **01 19 27.8** | **-1.1** |
| ILB | | | | *e*PKKPab | **PKKPab** | **01 30 27.1** | **+2.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **SUMG** | **Summit** | **147.22** | **17** | *e*PKPdf | **PKPbc** | **01 20 36.8** | **+0.3** |
| **CSS** | **Mathiatis** | **147.84** | **269** | *e*PKPbc | **PKPbc** | **01 20 38.4** | **-0.5** |
| **TORD** | **Torodi Ar. Bea** | **148.87** | **197** | PKPbc | **PKPbc** | **01 20 41.5** | **-0.6** |
| | 26nm,1.1s,baz=163,slow=1.6,SNR=4.3 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **148.88** | **197** | *e*PKPbc | **PKPbc** | **01 20 41.5** | **-0.6** |
| **ARA0** | **ARCESS Array S** | **149.03** | **338** | *e*PKPbc | **PKPbc** | **01 20 40.8** | **-0.1** |
| **ARCES** | **ARCESS Array B** | **149.03** | **338** | PKPbc | **PKPbc** | **01 20 40.8** | **-0.1** |
| | 16nm,0.7s,baz=66,slow=3.1,SNR=6.1 | | | | | | |
| **BR101** | **Keskin Array S** | **149.55** | **277** | *e*PKPbc | **PKPbc** | **01 20 42.9** | **-0.5** |
| **BR131** | **Keskin Array S** | **149.55** | **277** | *e*PKPbc | **PKPbc** | **01 20 43.2** | **-0.1** |
| **BRTR** | **Keskin Array B** | **149.55** | **277** | PKPbc | **PKPbc** | **01 20 42.9** | **-0.5** |
| | 16nm,1.0s,baz=152,slow=4.9,SNR=6.7 | | | | | | |
| **OBN** | **Obninsk** | **149.75** | **308** | *e*PKPbc | **PKPbc** | **01 20 43.3** | **+0.2** |
| **ILGA** | **Ilgaz** | **149.94** | **280** | *e*PKPbc | **PKPbc** | **01 20 45.0** | **+0.6** |
| **BOLV** | **Bolvadin** | **151.14** | **274** | *e*PKPbc | **PKPbc** | **01 20 48.0** | **+0.9** |
| **FIA1** | **FINESS Array S** | **153.39** | **324** | *e*PKPbc | **PKPbc** | **01 20 51.9** | **+0.6** |
| **FIA0** | **FINESS Array S** | **153.39** | **324** | *e*PKPbc | **PKPbc** | **01 20 51.0** | **-0.2** |
| **FINES** | **FINESS Array B** | **153.39** | **324** | PKPbc | **PKPbc** | **01 20 51.0** | **-0.2** |
| | 12nm,0.7s,baz=64,slow=3.2,SNR=6.0 | | | | | | |
| **AKASG** | **Malin Array Be** | **154.45** | **299** | PKPbc | **PKPbc** | **01 20 53.1** | **-0.8** |
| | 6.6nm,0.8s,baz=71,slow=2.4,SNR=6.5 | | | | | | |
| **AKBB** | **Malin Array Si** | **154.45** | **299** | *e*PKPbc | **PKPbc** | **01 20 53.1** | **-0.8** |
| **KIEV** | **Kiev** | **154.46** | **299** | *e*PKPbc | **PKPbc** | **01 20 53.5** | **-0.4** |
| KIEV | | | | *e*PKPab | **PKPab** | **01 21 07.1** | **-1.3** |
| **AK11** | **Malin Array Si** | **154.49** | **299** | *e*PKPbc | **PKPbc** | **01 20 53.9** | **-0.1** |
| **TAM** | **Tamanrasset** | **156.91** | **211** | *e*PKPdf | **PKPdf** | **01 20 49.3** | **-0.6** |
| **NC204** | **NORSAR Array S** | **159.22** | **335** | *e*PKPab | **PKPab** | **01 21 29.6** | **+1.0** |
| **NB200** | **NORSAR Array S** | **159.27** | **334** | *e*PKPdf | **PKPdf** | **01 20 51.7** | **+0.3** |
| NB200 | | | | *e*PKPab | **PKPab** | **01 21 27.4** | **-1.4** |
| **NOA** | **NORSAR Array B** | **159.27** | **334** | PKP | **PKPdf** | **01 20 51.7** | **+0.3** |
| | 3.6nm,1.0s,baz=50,slow=1.2,SNR=2.5 | | | | | | |
| NOA | | | | PKPab | **PKPab** | **01 21 27.4** | **-1.4** |
| | 7.9nm,1.1s,baz=52,slow=4.3,SNR=4.2 | | | | | | |
| **NBO02** | **NORSAR Array S** | **159.37** | **335** | *e*PKPdf | **PKPdf** | **01 20 51.8** | **+0.3** |
| **PSZ** | **Piszkesteto** | **160.69** | **293** | *e*PKPdf | **PKPdf** | **01 20 53.1** | **-0.5** |
| **MORC** | **Moravsky Berou** | **162.00** | **299** | *e*PKPdf | **PKPdf** | **01 20 53.6** | **-1.2** |
| **CLL** | **Collm** | **164.34** | **307** | *e*PKPdf | **PKPdf** | **01 20 55.0** | **-1.9** |
| CLL | | | | *e*PKPab | **PKPab** | **01 21 50.0** | **-1.3** |
| | comp=Z,10.0nm,1.2s | | | | | | |
| **GRFO** | **Grafenberg** | **165.98** | **303** | *e*PKPdf | **PKPdf** | **01 20 57.6** | **-0.8** |
| **DAVOX** | **Davos/Dischmat** | **167.58** | **291** | PKPab | **PKPab** | **01 22 05.6** | **-0.4** |
| | comp=Z,3.3nm,0.7s,baz=92,slow=5.2,SNR=5.4 | | | | | | |
| **TUE** | **Stuetta** | **167.99** | **290** | *e*PKPdf | **PKPdf** | **01 20 59.3** | **-0.9** |
| **ESDC** | **Sonseca Array** | **175.57** | **213** | PKP | **PKPdf** | **01 21 05.2** | **+1.3** |
| | comp=Z,2.8nm,1.1s,baz=341,slow=1.6,SNR=4.2 | | | | | | |
| **PAB** | **San Pablo** | **175.60** | **208** | *e*PKPdf | **PKPdf** | **01 21 06.1** | **+2.2** |

**WEL 23 01:02:20.6±0.5, 43°39S×172°88E, h5km, ML3.9/4, 1C, Error ellipse: s-maj=6.1km s-min=1.4km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.26** | **226** | PG | Pg | 01 02 25.7 | 0.0 |
| CRLZ | | | | SG | Sg | 01 02 30.1 | +1.0 |
| CRLZ | | | | AML | AML | 01 02 30.4 | |
| **MQZ** | **McQueen's Vall** | **0.35** | **208** | ⇑PG | Pg | 01 02 28.1 | +0.6 |
| MQZ | | | | AML | AML | 01 02 29.1 | |
| MQZ | | | | SG | Sg | 01 02 32.1 | 0.0 |
| MQZ | | | | SG | Sb | 01 02 32.4 | -2.9 |
| **OXZ** | **Oxford** | **0.62** | **276** | *e*P* | Pg | 01 02 31.1 | -1.4 |
| OXZ | | | | AML | AML | 01 02 41.0 | |
| OXZ | | | | AML | AML | 01 02 42.0 | |
| **LTZ** | **Lake Taylor** | **0.76** | **324** | *e*P* | Pg | 01 02 35.0 | -0.1 |
| LTZ | | | | S* | Sb | 01 02 46.5 | -0.4 |

**WEL 23 01:02:57.6±0.2, 43°51S×172°81E, h9km, ML4.3/10, 2C, Error ellipse: s-maj=1.7km s-min=0.8km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.15** | **242** | ⇑PG | Pg | 01 03 01.1 | +0.2 |
| CRLZ | | | | SG | Sg | 01 03 03.2 | 0.0 |
| CRLZ | | | | SG | | 01 03 03.6 | |
| CRLZ | | | | AML | AML | 01 03 03.6 | |
| CRLZ | | | | AML | AML | 01 03 03.7 | |
| **MQZ** | **McQueen's Vall** | **0.23** | **209** | ⇑PG | Pg | 01 03 02.5 | +0.2 |
| MQZ | | | | SG | Sg | 01 03 06.0 | +0.5 |
| MQZ | | | | AML | AML | 01 03 06.1 | |
| **OXZ** | **Oxford** | **0.59** | **288** | P* | Pg | 01 03 08.9 | -0.1 |
| OXZ | | | | S* | Sg | 01 03 16.4 | -0.3 |
| OXZ | | | | AML | AML | 01 03 19.0 | |
| OXZ | | | | AML | AML | 01 03 19.0 | |
| OXZ | | | | AML | AML | 01 03 20.7 | |
| **LTZ** | **Lake Taylor** | **0.82** | **331** | P* | Pg | 01 03 13.5 | 0.0 |
| LTZ | | | | S* | Sb | 01 03 24.9 | -0.4 |
| **KHZ** | **Kahutara** | **1.22** | **27** | P* | Pn | 01 03 19.6 | -1.1 |
| KHZ | | | | AML | AML | 01 03 36.1 | |
| KHZ | | | | AML | AML | 01 03 38.4 | |
| **INZ** | **Inchbonnie** | **1.27** | **308** | P* | Pn | 01 03 21.0 | -0.4 |
| **RPZ** | **Rata Peaks** | **1.29** | **260** | *e*P* | Pg | 01 03 22.5 | +0.1 |
| RPZ | | | | AML | AML | 01 03 41.3 | |
| RPZ | | | | AML | AML | 01 03 42.1 | |
| **DSZ** | **Denniston Nort** | **1.91** | **337** | *e*PN | Pn | 01 03 29.2 | -1.1 |
| DSZ | | | | AML | AML | 01 03 52.7 | |
| DSZ | | | | AML | AML | 01 03 56.0 | |
| **LBZ** | **Lake Benmore** | **2.09** | **244** | AML | AML | 01 04 06.9 | |
| LBZ | | | | AML | AML | 01 04 07.0 | |
| **ODZ** | **Otahua Downs** | **2.19** | **225** | AML | AML | 01 04 10.5 | |
| ODZ | | | | AML | AML | 01 04 10.5 | |
| **NNZ** | **Nelson** | **2.33** | **11** | AML | AML | 01 04 10.8 | |
| NNZ | | | | AML | AML | 01 04 12.9 | |

**WEL 23 01:03:58.5±0.3, 43°47S×172°80E, h9km, ML3.8/7, Error ellipse: s-maj=3.2km s-min=1.0km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.17** | **229** | PG | Pg | 01 04 02.3 | +0.3 |
| CRLZ | | | | SG | Sg | 01 04 05.2 | +0.7 |
| CRLZ | | | | SG | | 01 04 05.2 | |
| CRLZ | | | | AML | AML | 01 04 05.4 | |
| CRLZ | | | | AML | AML | 01 04 05.8 | |
| **MQZ** | **McQueen's Vall** | **0.26** | **204** | PG | Pg | 01 04 03.8 | 0.0 |
| MQZ | | | | SG | Sg | 01 04 07.7 | +0.4 |
| MQZ | | | | AML | AML | 01 04 07.8 | |
| MQZ | | | | AML | AML | 01 04 08.2 | |
| **OXZ** | **Oxford** | **0.57** | **284** | P* | Pg | 01 04 09.4 | -0.2 |
| OXZ | | | | S* | Sg | 01 04 17.1 | 0.0 |
| OXZ | | | | AML | AML | 01 04 19.7 | |
| OXZ | | | | AML | AML | 01 04 19.7 | |
| OXZ | | | | AML | AML | 01 04 19.9 | |
| **LTZ** | **Lake Taylor** | **0.79** | **330** | P* | Pg | 01 04 13.6 | 0.0 |
| LTZ | | | | AML | AML | 01 04 26.4 | |
| **KHZ** | **Kahutara** | **1.18** | **28** | *e*P* | Pb | 01 04 19.8 | -1.2 |
| KHZ | | | | AML | AML | 01 04 38.0 | |
| KHZ | | | | AML | AML | 01 04 38.1 | |
| **RPZ** | **Rata Peaks** | **1.29** | **258** | *e*P* | Pn | 01 04 22.2 | -0.5 |
| RPZ | | | | AML | AML | 01 04 43.2 | |
| RPZ | | | | AML | AML | 01 04 44.8 | |
| **THZ** | **Tophouse** | **1.70** | **3** | AML | AML | 01 04 51.9 | |
| THZ | | | | AML | AML | 01 04 53.6 | |

**WEL 23 01:06:04.6±0.3, 43°51S×172°85E, h10km±1km, ML3.3/4, Error ellipse: s-maj=2.5km s-min=0.8km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.18** | **248** | PG | Pg | 01 06 08.8 | +0.4 |
| CRLZ | | | | SG | Sg | 01 06 11.1 | +0.1 |
| CRLZ | | | | AML | AML | 01 06 11.5 | |
| **MQZ** | **McQueen's Vall** | **0.24** | **215** | PG | Pg | 01 06 09.7 | +0.1 |
| MQZ | | | | SG | Sg | 01 06 13.6 | +0.6 |
| MQZ | | | | SG | | 01 06 13.7 | |
| **OXZ** | **Oxford** | **0.62** | **287** | *e*P* | Pg | 01 06 16.9 | +0.3 |
| OXZ | | | | S* | Sg | 01 06 24.8 | +0.1 |
| OXZ | | | | AML | AML | 01 06 28.4 | |
| **LTZ** | **Lake Taylor** | **0.84** | **330** | P* | Pg | 01 06 20.4 | -0.4 |
| LTZ | | | | S* | Sg | 01 06 31.4 | -0.4 |
| LTZ | | | | S* | Sb | 01 06 31.6 | -1.0 |

*ISCJB **23** 01:06:22.4±0.6, 43°51S±0°03×173°00E±0°03, h2km±4km, mb5.2/43, MS5.3/7, Error ellipse: s-maj=5.1km s-min=2.2km az=142.0*

*IDC **23** 01:06:24.1±0.5, 43°42S×172°96E, h0km, mb4.9/14, mb1 5.0/15, mb1mx4.7/34, mbtmp5.0/15, ML5.1/1, Error ellipse: s-maj=18.3km s-min=16.1km az=72.0*

*MOS **23** 01:06:25.1±0.9, 43°40S×172°78E, h10km, mb5.3/15, Error ellipse: s-maj=14.3km s-min=10.9km az=112.9*

*NEIC **23** 01:06:25.6±0.0, 43°47S×172°84E, h10km, mb5.3/28, ML5.3(WEL), After WEL.*

*NEIC Felt strongly in the Christchurch area.*

*BJI **23** 01:06:25.1, 43°52S×172°66E, h7km, mb5.4/16, mB5.8/18, Ms5.6/19, Ms7 5.4/19*

*GCMT **23** 01:06:25.6±0.2, 43°61S×172°69E, h12km, MW5.4/105, Moment Tensor Solution. s45,c53; s105,c172; Duration: 1s2 Moment tensor: Scale 10^17 Nm; Mrr 1.25±.03; Mθθ-0.34±.03; Mφφ-0.90±.03; Mrθ 0.56±.11; Mθφ-0.57±.02; Mφr 0.07±.11; Best double couple: Mo 1.37200×10^17 NP1:φs 49.00000°, δ55.00000°, λ110.00000°. NP2:φs 196.00000°, δ39.00000°, λ64.00000°. Principal axes: T 1.4310, Plg71.0000°, Azm8.0000°; N -0.1170, Plg16.0000°, Azm217.0000°; P -1.3130, Plg8.0000°, Azm124.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*WEL **23** 01:06:26.1±0.1, 43°48S×172°81E, h8km, ML5.5/116, Mw5.4 Error ellipse: s-maj=1.4km s-min=0.7km az=90.0*

*WEL Felt between Nelson, Otago and Wellington, maximum reported intensity MM 6.*

**ISC 23 01:06:25.4±0.8, 43°48S±0°03×172°90E±0°03, h6km±4km, n504, σ1s53/515, mb5.3/43, MS5.3/7, 18C-4D, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.22** | **244** | *e*Pg | **Pg** | **01 06 29.8** | **-0.1** |
| **CRLZ** | **Canterbury Las** | **0.22** | **244** | ⇑PG | **Pg** | **01 06 29.6** | **-0.2** |
| CRLZ | | | | SG | **Sg** | **01 06 32.8** | **0.0** |
| CRLZ | | | | AML | AML | 01 06 32.9 | |
| CRLZ | | | | AML | AML | 01 06 35.0 | |
| CRLZ | | | | AML | AML | 01 06 35.1 | |
| **MQZ** | **McQueen's Vall** | **0.29** | **218** | *e*Pg | **Pg** | **01 06 31.3** | **+0.1** |
| **MQZ** | **McQueen's Vall** | **0.29** | **218** | ⇓PG | **Pg** | **01 06 31.1** | **-0.1** |
| MQZ | | | | SG | **Sg** | **01 06 35.1** | **+0.1** |
| MQZ | | | | AML | AML | 01 06 36.4 | |
| MQZ | | | | AML | AML | 01 06 37.1 | |
| **OXZ** | **Oxford** | **0.65** | **283** | *e*Pg | **Pg** | **01 06 37.2** | **-0.7** |
| OXZ | | | | *e*Sg | **Sg** | **01 06 46.1** | **-0.2** |
| **OXZ** | **Oxford** | **0.65** | **283** | P* | **Pg** | **01 06 37.2** | **-0.7** |
| OXZ | | | | S* | **Sg** | **01 06 45.3** | **-0.9** |
| OXZ | | | | AML | AML | 01 06 46.9 | |
| OXZ | | | | AML | AML | 01 06 47.3 | |
| OXZ | | | | AML | AML | 01 06 48.4 | |
| **LTZ** | **Lake Taylor** | **0.83** | **326** | *e*Pg | **Pg** | **01 06 41.5** | **0.0** |
| **LTZ** | **Lake Taylor** | **0.83** | **326** | P* | **Pg** | **01 06 41.4** | **0.0** |
| LTZ | | | | S* | **Sg** | **01 06 52.6** | **+0.4** |
| LTZ | | | | AML | AML | 01 06 54.7 | |
| LTZ | | | | AML | AML | 01 06 56.5 | |
| **KHZ** | **Kahutara** | **1.16** | **24** | P* | **Pg** | **01 06 47.2** | **-0.4** |
| **KHZ** | **Kahutara** | **1.16** | **24** | P* | **Pg** | **01 06 47.0** | **-0.6** |
| KHZ | | | | AML | AML | 01 07 09.1 | |
| KHZ | | | | AML | AML | 01 07 09.1 | |
| KHZ | | | | AML | AML | 01 07 15.5 | |
| KHZ | | | | AML | AML | 01 07 15.5 | |
| **INZ** | **Inchbonnie** | **1.30** | **305** | P* | **Pn** | **01 06 48.2** | **-2.0** |
| **RPZ** | **Rata Peaks** | **1.36** | **259** | Pg | **Pn** | **01 06 48.4** | **-2.6** |
| | 2μm,0.3s,baz=66,slow=20,SNR=110 | | | | | | |
| RPZ | | | | Lg | Lg | 01 07 06.0 | |
| | 2μm,0.3s,baz=309,slow=13,SNR=14 | | | | | | |
| **RPZ** | **Rata Peaks** | **1.36** | **259** | Pg | **Pn** | **01 06 48.4** | **-2.6** |
| RPZ | | | | Pn | **Pb** | **01 06 48.8** | **-2.5** |
| RPZ | | | | Lg | Lg | 01 07 06.0 | |
| **RPZ** | **Rata Peaks** | **1.36** | **259** | P* | **Pn** | **01 06 48.6** | **-2.3** |
| RPZ | | | | AML | AML | 01 07 13.9 | |
| RPZ | | | | AML | AML | 01 07 17.2 | |
| **WVZ** | **Waitaha Valley** | **1.63** | **284** | Pn | **Pn** | **01 06 53.2** | **-1.4** |
| **WVZ** | **Waitaha Valley** | **1.63** | **284** | PN | **Pn** | **01 06 52.8** | **-1.8** |
| WVZ | | | | AML | AML | 01 07 18.7 | |
| WVZ | | | | AML | AML | 01 07 26.0 | |
| **THZ** | **Tophouse** | **1.71** | **0** | *e*Pn | **Pn** | **01 06 54.8** | **-1.0** |
| **THZ** | **Tophouse** | **1.71** | **0** | PN | **Pn** | **01 06 54.5** | **-1.3** |
| THZ | | | | AML | AML | 01 07 23.5 | |
| THZ | | | | AML | AML | 01 07 30.2 | |
| **BSWZ** | **Blackbirch Sta** | **1.90** | **23** | *e*Pn | **Pn** | **01 06 57.7** | **-0.7** |
| **BSWZ** | **Blackbirch Sta** | **1.90** | **23** | *e*Pn | **Pn** | **01 06 57.7** | **-0.7** |
| BSWZ | | | | AML | AML | 01 07 26.0 | |
| BSWZ | | | | AML | AML | 01 07 50.8 | |
| **DSZ** | **Denniston Nort** | **1.91** | **335** | Pn | **Pn** | **01 06 57.4** | **-1.1** |
| **DSZ** | **Denniston Nort** | **1.91** | **335** | PN | **Pn** | **01 06 57.1** | **-1.4** |
| DSZ | | | | AML | AML | 01 07 30.9 | |
| DSZ | | | | AML | AML | 01 07 30.9 | |
| DSZ | | | | AML | AML | 01 07 34.2 | |
| DSZ | | | | AML | AML | 01 07 36.0 | |
| **CMWZ** | **Cape Campbell** | **1.98** | **30** | Pn | **Pn** | **01 06 59.6** | **+0.1** |
| **CMWZ** | **Cape Campbell** | **1.98** | **30** | PN | **Pn** | **01 06 59.6** | **+0.1** |
| CMWZ | | | | AML | AML | 01 07 50.4 | |
| CMWZ | | | | AML | AML | 01 08 14.7 | |
| **LBZ** | **Lake Benmore** | **2.16** | **244** | *e*Pn | **Pn** | **01 07 00.7** | **-1.2** |
| **LBZ** | **Lake Benmore** | **2.16** | **244** | PN | **Pn** | **01 07 00.4** | **-1.6** |
| LBZ | | | | AML | AML | 01 07 40.1 | |
| LBZ | | | | AML | AML | 01 07 40.1 | |
| LBZ | | | | AML | AML | 01 07 41.1 | |
| LBZ | | | | AML | AML | 01 07 41.1 | |
| **TUWZ** | **Tuamarina** | **2.19** | **21** | Pn | **Pn** | **01 07 01.4** | **-0.9** |
| **TUWZ** | **Tuamarina** | **2.19** | **21** | PN | **Pn** | **01 07 01.4** | **-0.9** |
| TUWZ | | | | AML | AML | 01 07 52.4 | |
| TUWZ | | | | AML | AML | 01 08 00.4 | |
| **FOZ** | **Fox Glacier** | **2.25** | **268** | *e*Pn | **Pn** | **01 07 02.8** | **-0.2** |
| **FOZ** | **Fox Glacier** | **2.25** | **268** | ⇑PN | **Pn** | **01 07 02.6** | **-0.4** |
| FOZ | | | | AML | AML | 01 07 47.3 | |
| FOZ | | | | AML | AML | 01 07 47.4 | |
| FOZ | | | | AML | AML | 01 07 52.1 | |
| FOZ | | | | AML | AML | 01 07 52.2 | |
| **ODZ** | **Otahua Downs** | **2.25** | **225** | *e*Pn | **Pn** | **01 07 01.7** | **-1.5** |
| **ODZ** | **Otahua Downs** | **2.25** | **225** | ⇑PN | **Pn** | **01 07 01.5** | **-1.7** |
| ODZ | | | | AML | AML | 01 07 43.8 | |
| ODZ | | | | AML | AML | 01 07 43.8 | |
| ODZ | | | | AML | AML | 01 07 51.7 | |
| ODZ | | | | AML | AML | 01 07 51.7 | |
| **NNZ** | **Nelson** | **2.29** | **9** | Pn | **Pn** | **01 07 03.1** | **-0.5** |
| **NNZ** | **Nelson** | **2.29** | **9** | PN | **Pn** | **01 07 02.9** | **-0.6** |
| NNZ | | | | AML | AML | 01 07 48.5 | |
| NNZ | | | | AML | AML | 01 08 04.4 | |
| **TCW** | **Tory Channel** | **2.48** | **25** | Pn | **Pn** | **01 07 05.4** | **-1.0** |
| **TCW** | **Tory Channel** | **2.48** | **25** | PN | **Pn** | **01 07 05.4** | **-1.0** |
| TCW | | | | AML | AML | 01 08 01.4 | |
| TCW | | | | AML | AML | 01 08 01.5 | |
| **BHW** | **Baring Head** | **2.53** | **36** | Pn | **Pn** | **01 07 05.6** | **-1.4** |
| **BHW** | **Baring Head** | **2.53** | **36** | PN | **Pn** | **01 07 05.6** | **-1.4** |
| BHW | | | | AML | AML | 01 08 05.9 | |
| BHW | | | | AML | AML | 01 08 21.9 | |
| **SNZO** | **South Karori** | **2.54** | **32** | *e*Pn | **Pn** | **01 07 05.9** | **-1.3** |
| **PLWZ** | **Palliser** | **2.58** | **43** | Pn | **Pn** | **01 07 06.3** | **-1.4** |
| **PLWZ** | **Palliser** | **2.58** | **43** | PN | **Pn** | **01 07 06.3** | **-1.4** |
| PLWZ | | | | AML | AML | 01 08 37.0 | |
| PLWZ | | | | AML | AML | 01 08 47.6 | |
| **WEL** | **Wellington** | **2.59** | **33** | P | **Pn** | **01 07 06.8** | **-1.0** |
| **WEL** | **Wellington** | **2.59** | **33** | Pn | **Pn** | **01 07 06.8** | **-1.0** |
| **WEL** | **Wellington** | **2.59** | **33** | PN | **Pn** | **01 07 06.8** | **-1.0** |
| WEL | | | | AML | AML | 01 07 38.3 | |
| WEL | | | | AML | AML | 01 07 38.4 | |
| WEL | | | | AML | AML | 01 07 57.7 | |
| WEL | | | | AML | AML | 01 07 57.7 | |
| **QRZ** | **Quartz Range** | **2.66** | **354** | Pn | **Pn** | **01 07 08.3** | **-0.5** |
| **QRZ** | **Quartz Range** | **2.66** | **354** | PN | **Pn** | **01 07 07.8** | **-1.0** |
| QRZ | | | | AML | AML | 01 07 20.9 | |
| QRZ | | | | AML | AML | 01 07 20.9 | |
| QRZ | | | | AML | AML | 01 07 58.0 | |
| QRZ | | | | AML | AML | 01 07 58.0 | |
| **MSWZ** | **Moikau Station** | **2.69** | **41** | Pn | **Pn** | **01 07 07.7** | **-1.6** |
| **MSWZ** | **Moikau Station** | **2.69** | **41** | PN | **Pn** | **01 07 07.7** | **-1.6** |
| MSWZ | | | | AML | AML | 01 07 40.9 | |
| MSWZ | | | | AML | AML | 01 07 43.7 | |
| **DUWZ** | **D'Urville Isla** | **2.78** | **16** | Pn | **Pn** | **01 07 10.0** | **-0.5** |
| **DUWZ** | **D'Urville Isla** | **2.78** | **16** | PN | **Pn** | **01 07 09.5** | **-1.0** |
| DUWZ | | | | AML | AML | 01 08 07.8 | |
| DUWZ | | | | AML | AML | 01 08 21.0 | |
| **PAWZ** | **Paruwai Farm** | **2.81** | **43** | Pn | **Pn** | **01 07 09.2** | **-1.7** |
| **PAWZ** | **Paruwai Farm** | **2.81** | **43** | PN | **Pn** | **01 07 09.0** | **-1.9** |
| PAWZ | | | | AML | AML | 01 07 43.5 | |
| PAWZ | | | | AML | AML | 01 09 20.0 | |
| **CAW** | **Cannon Point** | **2.86** | **35** | Pn | **Pn** | **01 07 10.3** | **-1.3** |
| **CAW** | **Cannon Point** | **2.86** | **35** | PN | **Pn** | **01 07 10.2** | **-1.3** |
| CAW | | | | AML | AML | 01 07 47.3 | |
| CAW | | | | AML | AML | 01 08 17.8 | |
| **HHSZ** | **Highcliff Hill** | **2.91** | **214** | Pn | **Pn** | **01 07 10.5** | **-1.8** |
| **HHSZ** | **Highcliff Hill** | **2.91** | **214** | ⇑PN | **Pn** | **01 07 10.5** | **-1.8** |
| HHSZ | | | | AML | AML | 01 08 06.9 | |
| HHSZ | | | | AML | AML | 01 08 15.6 | |
| **TRWZ** | **Traveller** | **2.93** | **46** | Pn | **Pn** | **01 07 10.8** | **-1.7** |
| **TRWZ** | **Traveller** | **2.93** | **46** | PN | **Pn** | **01 07 10.8** | **-1.7** |
| TRWZ | | | | AML | AML | 01 07 51.4 | |
| TRWZ | | | | AML | AML | 01 07 54.0 | |
| **KIW** | **Kapiti Island** | **3.01** | **30** | Pn | **Pn** | **01 07 12.5** | **-1.1** |
| **KIW** | **Kapiti Island** | **3.01** | **30** | PN | **Pn** | **01 07 12.5** | **-1.1** |
| KIW | | | | AML | AML | 01 08 13.6 | |
| KIW | | | | AML | AML | 01 08 17.0 | |
| **MTW** | **Mount Morrison** | **3.02** | **41** | Pn | **Pn** | **01 07 11.9** | **-1.8** |
| **MTW** | **Mount Morrison** | **3.02** | **41** | PN | **Pn** | **01 07 11.9** | **-1.8** |
| MTW | | | | AML | AML | 01 07 50.3 | |
| MTW | | | | AML | AML | 01 07 52.6 | |
| **JCZ** | **Jackson Bay** | **3.04** | **257** | Pn | **Pn** | **01 07 12.7** | **-1.4** |
| **JCZ** | **Jackson Bay** | **3.04** | **257** | PN | **Pn** | **01 07 12.2** | **-1.9** |
| JCZ | | | | AML | AML | 01 08 10.9 | |
| JCZ | | | | AML | AML | 01 08 14.9 | |
| **WKZ** | **Wanaka** | **3.10** | **243** | *e*Pn | **Pn** | **01 07 13.4** | **-1.5** |
| **WKZ** | **Wanaka** | **3.10** | **243** | PN | **Pn** | **01 07 13.0** | **-1.9** |
| WKZ | | | | AML | AML | 01 08 11.2 | |
| WKZ | | | | AML | AML | 01 08 11.2 | |
| WKZ | | | | AML | AML | 01 08 14.2 | |
| WKZ | | | | AML | AML | 01 08 14.2 | |
| **EAZ** | **Earnscleugh** | **3.12** | **235** | Pn | **Pn** | **01 07 13.3** | **-1.8** |
| **EAZ** | **Earnscleugh** | **3.12** | **235** | ⇑PN | **Pn** | **01 07 13.3** | **-1.8** |
| EAZ | | | | AML | AML | 01 08 15.9 | |
| EAZ | | | | AML | AML | 01 08 15.9 | |
| EAZ | | | | AML | AML | 01 08 18.9 | |
| EAZ | | | | AML | AML | 01 08 18.9 | |
| **OGWZ** | **Otaki Gorge** | **3.15** | **33** | Pn | **Pn** | **01 07 14.1** | **-1.4** |
| **OGWZ** | **Otaki Gorge** | **3.15** | **33** | PN | **Pn** | **01 07 14.1** | **-1.4** |
| OGWZ | | | | AML | AML | 01 07 51.0 | |
| OGWZ | | | | AML | AML | 01 07 55.1 | |
| **HOWZ** | **Holdsworth Sta** | **3.23** | **38** | Pn | **Pn** | **01 07 15.1** | **-1.6** |
| **HOWZ** | **Holdsworth Sta** | **3.23** | **38** | PN | **Pn** | **01 07 15.0** | **-1.6** |
| HOWZ | | | | AML | AML | 01 07 53.1 | |
| HOWZ | | | | AML | AML | 01 07 53.8 | |
| **TMWZ** | **Te Maipa** | **3.25** | **44** | Pn | **Pn** | **01 07 15.3** | **-1.6** |
| **TMWZ** | **Te Maipa** | **3.25** | **44** | PN | **Pn** | **01 07 15.3** | **-1.6** |
| TMWZ | | | | AML | AML | 01 07 57.8 | |
| TMWZ | | | | AML | AML | 01 08 04.4 | |
| **TUZ** | **Tuapeka** | **3.40** | **222** | Pn | **Pn** | **01 07 17.4** | **-1.6** |
| **TUZ** | **Tuapeka** | **3.40** | **222** | PN | **Pn** | **01 07 17.4** | **-1.6** |
| TUZ | | | | AML | AML | 01 08 26.3 | |
| TUZ | | | | AML | AML | 01 08 26.4 | |
| TUZ | | | | AML | AML | 01 08 29.0 | |
| TUZ | | | | AML | AML | 01 08 29.1 | |
| **MRZ** | **Mangatainoka R** | **3.45** | **36** | Pn | **Pn** | **01 07 18.2** | **-1.4** |
| **MRZ** | **Mangatainoka R** | **3.45** | **36** | PN | **Pn** | **01 07 18.2** | **-1.4** |
| MRZ | | | | AML | AML | 01 08 02.0 | |
| MRZ | | | | AML | AML | 01 08 02.8 | |
| **TIWZ** | **Tintock** | **3.50** | **40** | Pn | **Pn** | **01 07 18.4** | **-1.9** |
| **TIWZ** | **Tintock** | **3.50** | **40** | PN | **Pn** | **01 07 18.4** | **-1.9** |
| TIWZ | | | | AML | AML | 01 08 02.6 | |
| TIWZ | | | | AML | AML | 01 08 05.1 | |
| **CPWZ** | **Castlepoint** | **3.55** | **45** | *e*Pn | **Pn** | **01 07 19.9** | **-1.1** |
| **CPWZ** | **Castlepoint** | **3.55** | **45** | *e*PN | **Pn** | **01 07 19.5** | **-1.5** |
| CPWZ | | | | AML | AML | 01 08 02.5 | |
| CPWZ | | | | AML | AML | 01 08 06.0 | |
| **PRWZ** | **Pori Road** | **3.71** | **39** | Pn | **Pn** | **01 07 21.6** | **-1.6** |
| **PRWZ** | **Pori Road** | **3.71** | **39** | PN | **Pn** | **01 07 21.6** | **-1.6** |
| PRWZ | | | | AML | AML | 01 08 10.8 | |
| PRWZ | | | | AML | AML | 01 09 11.8 | |
| **OHWZ** | **Ohakea** | **3.73** | **30** | PN | **Pn** | **01 07 23.5** | **0.0** |
| **BFZ** | **Birch Farm** | **3.74** | **43** | *e*Pn | **Pn** | **01 07 21.5** | **-2.2** |
| **BFZ** | **Birch Farm** | **3.74** | **43** | PN | **Pn** | **01 07 21.8** | **-1.9** |
| BFZ | | | | AML | AML | 01 08 07.8 | |
| BFZ | | | | AML | AML | 01 08 07.8 | |
| BFZ | | | | AML | AML | 01 09 04.6 | |
| BFZ | | | | AML | AML | 01 09 04.6 | |
| **POWZ** | **Post Office Ro** | **3.75** | **36** | *e*Pn | **Pn** | **01 07 22.6** | **-1.2** |
| **POWZ** | **Post Office Ro** | **3.75** | **36** | *e*PN | **Pn** | **01 07 22.6** | **-1.2** |
| POWZ | | | | AML | AML | 01 08 20.9 | |
| POWZ | | | | AML | AML | 01 08 58.0 | |
| **MLZ** | **Mavora Lakes** | **3.91** | **239** | *e*Pn | **Pn** | **01 07 24.0** | **-2.0** |
| **MLZ** | **Mavora Lakes** | **3.91** | **239** | PN | **Pn** | **01 07 23.9** | **-2.1** |
| MLZ | | | | AML | AML | 01 08 45.3 | |
| MLZ | | | | AML | AML | 01 08 53.3 | |
| **DVHZ** | **Dannevirke** | **4.00** | **39** | Pn | **Pn** | **01 07 25.1** | **-2.2** |
| **DVHZ** | **Dannevirke** | **4.00** | **39** | PN | **Pn** | **01 07 25.0** | **-2.2** |
| DVHZ | | | | AML | AML | 01 08 22.1 | |
| DVHZ | | | | AML | AML | 01 08 23.2 | |
| **ANWZ** | **Angora Road** | **4.02** | **43** | AML | AML | 01 08 16.8 | |
| ANWZ | | | | AML | AML | 01 08 20.9 | |
| **WAZ** | **Wanganui** | **4.03** | **24** | Pn | **Pn** | **01 07 28.5** | **+0.8** |
| **WAZ** | **Wanganui** | **4.03** | **24** | PN | **Pn** | **01 07 28.5** | **+0.8** |
| WAZ | | | | AML | AML | 01 09 24.3 | |
| WAZ | | | | AML | AML | 01 09 52.2 | |
| **SYZ** | **Scrubby Hill** | **4.06** | **220** | Pn | **Pn** | **01 07 26.6** |

VRZ AML AML 01 09 20.7
VRZ AML AML 01 09 21.1
**PKVZ Pokaka 4.57 25** *e*PN **Pn 01 07 34.7 -0.5**
PKVZ AML AML 01 09 07.3
PKVZ AML AML 01 09 16.5
**MOVZ Moawhango 4.60 29** Pn **Pn 01 07 34.7 -0.8**
**MOVZ Moawhango 4.60 29** PN **Pn 01 07 34.7 -0.8**
MOVZ AML AML 01 09 08.6
MOVZ AML AML 01 09 28.8
**WNVZ Wahianoa 4.62 27** Pn **Pn 01 07 35.4 -0.4**
**WNVZ Wahianoa 4.62 27** PN **Pn 01 07 35.4 -0.4**
**TRVZ Turoa 4.62 26** Pn **Pn 01 07 36.4 +0.4**
**TRVZ Turoa 4.62 26** ‖PN **Pn 01 07 36.4 +0.4**
TRVZ AML AML 01 09 20.8
TRVZ AML AML 01 09 22.8
**KRHZ Kereru 4.63 35** PN **Pn 01 07 33.7 -2.2**
KRHZ AML AML 01 08 30.3
KRHZ AML AML 01 08 37.0
**BHHZ Black Hill Sta 4.64 32** Pn **Pn 01 07 35.1 -0.9**
**BHHZ Black Hill Sta 4.64 32** PN **Pn 01 07 35.1 -0.9**
BHHZ AML AML 01 08 33.7
BHHZ AML AML 01 08 37.9
**DRZ Dome Shelter 4.65 26** Pn **Pn 01 07 37.5 +1.1**
**DRZ Dome Shelter 4.65 26** PN **Pn 01 07 37.5 +1.1**
DRZ AML AML 01 08 36.1
DRZ AML AML 01 09 24.0
**WHVZ Whangaehu Hut 4.65 27** Pn **Pn 01 07 36.0 -0.4**
**WHVZ Whangaehu Hut 4.65 27** AML AML 01 09 27.7
WHVZ AML AML 01 09 28.6
**FWVZ Far West T-bar 4.67 26** Pn **Pn 01 07 36.5 -0.1**
**FWVZ Far West T-bar 4.67 26** PN **Pn 01 07 36.5 -0.1**
FWVZ AML AML 01 09 09.6
FWVZ AML AML 01 09 29.8
**TUVZ Tukino 4.69 27** Pn **Pn 01 07 36.6 -0.2**
**TUVZ Tukino 4.69 27** PN **Pn 01 07 36.6 -0.2**
TUVZ AML AML 01 09 32.5
TUVZ AML AML 01 09 34.4
**KAHZ Kahuranaki 4.73 40** *e*Pn **Pn 01 07 34.7 -2.6**
**KAHZ Kahuranaki 4.73 40** *e*PN **Pn 01 07 34.7 -2.6**
KAHZ AML AML 01 08 35.8
KAHZ AML AML 01 09 50.7
**NGZ Ngauruhoe 4.75 26** Pn **Pn 01 07 37.6 -0.1**
**NGZ Ngauruhoe 4.75 26** PN **Pn 01 07 37.6 -0.1**
NGZ AML AML 01 09 18.9
NGZ AML AML 01 09 26.8
**OTVZ Oturere 4.79 27** Pn **Pn 01 07 37.6 -0.5**
**OTVZ Oturere 4.79 27** PN **Pn 01 07 37.6 -0.5**
OTVZ AML AML 01 09 16.4
OTVZ AML AML 01 09 18.9
**TWVZ Taurewa 4.80 24** Pn **Pn 01 07 38.0 -0.3**
**TWVZ Taurewa 4.80 24** PN **Pn 01 07 38.0 -0.3**
TWVZ AML AML 01 09 14.0
TWVZ AML AML 01 09 18.6
**WTVZ West Tongariro 4.80 26** Pn **Pn 01 07 37.6 -0.8**
**WTVZ West Tongariro 4.80 26** PN **Pn 01 07 37.6 -0.8**
WTVZ AML AML 01 09 21.0
WTVZ AML AML 01 09 31.3
**APZ The Paps 4.83 224** Pn **Pn 01 07 36.7 -2.0**
**APZ The Paps 4.83 224** PN **Pn 01 07 36.7 -2.0**
APZ AML AML 01 09 08.9
APZ AML AML 01 09 20.0
**KWHZ Kaweka Forest 4.84 34** PN **Pn 01 07 37.8 -0.9**
KWHZ AML AML 01 08 41.2
KWHZ AML AML 01 08 58.6
**KRVZ Karewarewa 4.84 26** Pn **Pn 01 07 38.7 -0.2**
**KRVZ Karewarewa 4.84 26** PN **Pn 01 07 38.7 -0.2**
KRVZ AML AML 01 09 16.7
KRVZ AML AML 01 09 54.6
**CKHZ Cape Kidnapper 4.94 41** Pn **Pn 01 07 38.0 -2.1**
**CKHZ Cape Kidnapper 4.94 41** PN **Pn 01 07 37.7 -2.4**
CKHZ AML AML 01 08 42.4
CKHZ AML AML 01 08 46.4
**MCHZ McNeill Hill 4.94 37** *e*Pn **Pn 01 07 39.0 -1.1**
**MCHZ McNeill Hill 4.94 37** *e*PN **Pn 01 07 37.8 -2.3**
MCHZ AML AML 01 09 01.8
MCHZ AML AML 01 09 48.0
**KATZ Kakaramea 4.97 26** Pn **Pn 01 07 40.4 -0.2**
**KATZ Kakaramea 4.97 26** PN **Pn 01 07 40.4 -0.2**
KATZ AML AML 01 09 33.7
KATZ AML AML 01 09 34.1
**RITZ Rihia Road 5.02 27** Pn **Pn 01 07 41.4 +0.1**
**RITZ Rihia Road 5.02 27** PN **Pn 01 07 41.3 +0.1**
**BKZ Black Stump Fm 5.08 33** Pn **Pn 01 07 40.8 -1.4**
**BKZ Black Stump Fm 5.08 33** AML AML 01 09 34.6
BKZ AML AML 01 09 45.3
**RATZ Rangitukua 5.09 26** Pn **Pn 01 07 42.1 -0.1**
**RATZ Rangitukua 5.09 26** PN **Pn 01 07 41.6 -0.6**
RATZ AML AML 01 09 48.9
RATZ AML AML 01 10 11.7
**HIZ Hauiti 5.17 17** Pn **Pn 01 07 43.2 -0.1**
**HIZ Hauiti 5.17 17** PN **Pn 01 07 43.2 -0.1**
HIZ AML AML 01 09 20.0
HIZ AML AML 01 09 31.2
**PYZ Puysegur Point 5.18 237** Pn **Pn 01 07 40.5 -2.9**
**PYZ Puysegur Point 5.18 237** PN **Pn 01 07 40.4 -3.0**
PYZ AML AML 01 09 18.4
PYZ AML AML 01 09 18.5
PYZ AML AML 01 09 26.5
PYZ AML AML 01 09 26.6
**ARHZ Aropaoanui 5.22 38** PN **Pn 01 07 43.0 -0.9**
ARHZ AML AML 01 08 47.6
ARHZ AML AML 01 08 48.7
**WATZ Wairara 5.22 25** Pn **Pn 01 07 43.3 -0.8**
**WATZ Wairara 5.22 25** PN **Pn 01 07 43.3 -0.8**
WATZ AML AML 01 09 45.8
WATZ AML AML 01 09 59.8
**NMHZ Naumai 5.27 35** Pn **Pn 01 07 43.8 -1.0**
**NMHZ Naumai 5.27 35** PN **Pn 01 07 43.8 -1.0**
NMHZ AML AML 01 08 46.4
NMHZ AML AML 01 09 42.6
**MRHZ Matea Rd 5.34 31** AML AML 01 08 45.5
MRHZ AML AML 01 08 53.1
**KUTZ Kaahu Road 5.45 25** Pn **Pn 01 07 47.1 -0.1**
**KUTZ Kaahu Road 5.45 25** *e*PN **Pn 01 07 45.9 -1.3**
KUTZ AML AML 01 10 08.2
KUTZ AML AML 01 10 19.3
**WHHZ Waihua 5.47 38** PN **Pn 01 07 45.9 -1.6**
WHHZ AML AML 01 08 55.2
WHHZ AML AML 01 08 60.0
**MTHZ Maungataniwha 5.49 34** *e*PN **Pn 01 07 45.3 -2.5**
**TLZ Tolley Road 5.52 22** Pn **Pn 01 07 47.5 -0.6**
**TLZ Tolley Road 5.52 22** PN **Pn 01 07 47.5 -0.6**
TLZ AML AML 01 08 55.6
TLZ AML AML 01 08 60.0
**ALRZ Allen Road 5.56 29** Pn **Pn 01 07 47.0 -1.6**
**ALRZ Allen Road 5.56 29** PN **Pn 01 07 46.4 -2.2**
ALRZ AML AML 01 10 25.7
ALRZ AML AML 01 10 37.3
**PRRZ Plateau Road 5.63 29** Pn **Pn 01 07 48.0 -1.6**
**PRRZ Plateau Road 5.63 29** PN **Pn 01 07 47.7 -1.9**
PRRZ AML AML 01 09 56.7
PRRZ AML AML 01 10 27.5
**GRRZ Galatos Road 5.67 26** *e*PN **Pn 01 07 48.6 -1.6**
GRRZ AML AML 01 10 06.2
GRRZ AML AML 01 10 50.1
**KNZ Kokohu 5.72 41** Pn **Pn 01 07 48.4 -2.5**
**KNZ Kokohu 5.72 41** PN **Pn 01 07 47.8 -3.0**
KNZ AML AML 01 10 18.2
KNZ AML AML 01 10 27.9
**MHGZ Mahia Peninsul 5.73 43** Pn **Pn 01 07 49.0 -2.0**
**MHGZ Mahia Peninsul 5.73 43** PN **Pn 01 07 49.0 -2.0**
MHGZ AML AML 01 08 58.4
MHGZ AML AML 01 08 59.4
**RTZ Ruatahuna 5.75 34** PN **Pn 01 07 48.5 -2.8**
**SNGZ Shannon Statio 5.76 37** Pn **Pn 01 07 49.5 -2.0**
**SNGZ Shannon Statio 5.76 37** *e*PN **Pn 01 07 48.6 -2.8**
SNGZ AML AML 01 08 56.2
SNGZ AML AML 01 08 56.5
**RRRZ Republican Roa 5.82 29** Pn **Pn 01 07 51.3 -0.9**
**RRRZ Republican Roa 5.82 29** PN **Pn 01 07 50.7 -1.5**
RRRZ AML AML 01 09 07.4
RRRZ AML AML 01 09 25.4
**PRGZ Paritu Road 5.90 41** Pn **Pn 01 07 50.8 -2.6**
**PRGZ Paritu Road 5.90 41** PN **Pn 01 07 50.8 -2.6**
PRGZ AML AML 01 08 59.5
PRGZ AML AML 01 09 09.6
**TARZ Mount Tarawera 5.91 29** *e*Pn **Pn 01 07 51.4 -2.1**
**TARZ Mount Tarawera 5.91 29** AML AML 01 09 05.0
TARZ AML AML 01 09 07.0

**RIGZ Rimuhau 6.02 39** PN **Pn 01 07 52.7 -2.3**
RIGZ AML AML 01 09 01.8
RIGZ AML AML 01 09 04.1
**RAGZ Rawiri 6.04 36** Pn **Pn 01 07 53.2 -2.1**
**RAGZ Rawiri 6.04 36** PN **Pn 01 07 53.2 -2.1**
RAGZ AML AML 01 09 07.6
RAGZ AML AML 01 09 10.4
**TOZ Tahuroa Road 6.07 20** Pn **Pn 01 07 54.5 -1.1**
**TOZ Tahuroa Road 6.07 20** PN **Pn 01 07 54.5 -1.1**
TOZ AML AML 01 10 03.3
TOZ AML AML 01 10 25.9
**EDRZ Edgecumbe 6.10 30** Pn **Pn 01 07 53.8 -2.4**
**EDRZ Edgecumbe 6.10 30** PN **Pn 01 07 53.7 -2.5**
EDRZ AML AML 01 09 05.5
EDRZ AML AML 01 09 14.1
**URZ Urewera 6.11 33** Pn **Pn 01 07 53.1 -3.1**
46nm,0.3s,baz=212,slow=7.6,SNR=59
URZ Sn **Sn 01 09 00.1 -6.3**
67nm,0.3s,baz=85,slow=18,SNR=9.5
**URZ Urewera 6.11 33** PN **Pn 01 07 52.4 -3.8**
URZ AML AML 01 09 45.8
URZ AML AML 01 10 41.6
**MARZ Manawahe 6.19 29** Pn **Pn 01 07 56.8 -0.5**
**MWZ Matawai 6.22 36** Pn **Pn 01 07 54.7 -3.1**
**MWZ Matawai 6.22 36** *e*PN **Pn 01 07 53.1 -4.7**
MWZ AML AML 01 09 10.5
MWZ AML AML 01 09 11.1
**TGRZ Tauranga 6.29 25** Pn **Pn 01 07 57.3 -1.3**
**TGRZ Tauranga 6.29 25** PN **Pn 01 07 57.1 -1.5**
TGRZ AML AML 01 10 05.1
TGRZ AML AML 01 10 30.6
**CNGZ Carnagh Statio 6.40 41** Pn **Pn 01 07 57.5 -2.8**
**CNGZ Carnagh Statio 6.40 41** *e*PN **Pn 01 07 56.6 -3.6**
CNGZ AML AML 01 10 42.9
CNGZ AML AML 01 10 55.0
**AWAZ Awhitu Peninsu 6.54 12** *e*PN **Pn 01 08 01.2 -1.0**
**TWGZ Tauwhareparae 6.55 38** Pn **Pn 01 08 00.7 -1.6**
**TWGZ Tauwhareparae 6.55 38** *e*PN **Pn 01 07 59.8 -2.5**
TWGZ AML AML 01 09 20.7
TWGZ AML AML 01 09 26.4
**RUGZ Raukumara Rang 6.59 35** PN **Pn 01 08 00.3 -2.7**
**WTAZ Waiatarua 6.66 12** Pn **Pn 01 08 05.1 +1.3**
**WTAZ Waiatarua 6.66 12** *e*PN **Pn 01 08 03.7 -0.1**
**ETAZ East Tamaki Re 6.70 14** Pn **Pn 01 08 04.2 -0.1**
**ETAZ East Tamaki Re 6.70 14** PN **Pn 01 08 04.2 -0.1**
**PUZ Puketiti 6.76 39** Pn **Pn 01 08 01.7 -3.4**
**PUZ Puketiti 6.76 39** PN **Pn 01 08 01.7 -3.4**
PUZ AML AML 01 09 22.6
PUZ AML AML 01 09 35.3
**HAZ Te Kaha 6.81 35** PN **Pn 01 08 02.1 -3.8**
HAZ AML AML 01 08 57.8
HAZ AML AML 01 09 23.8
HAZ AML AML 01 09 27.8
**RVAZ Riverhead Bore 6.82 11** Pn **Pn 01 08 06.8 +0.8**
**RVAZ Riverhead Bore 6.82 11** PN **Pn 01 08 05.6 -0.4**
**PKGZ Pakihiroa 6.83 37** *e*PN **Pn 01 08 02.9 -3.2**
PKGZ AML AML 01 09 22.4
PKGZ AML AML 01 09 23.1
**MTAZ Motutapu 6.86 14** Pn **Pn 01 08 06.3 -0.1**
**MTAZ Motutapu 6.86 14** PN **Pn 01 08 06.3 -0.1**
**WIAZ Waiheke Island 6.89 15** *e*PN **Pn 01 08 06.1 -0.9**
WIAZ AML AML 01 08 19.3
WIAZ AML AML 01 09 24.9
**ABAZ Army Bay 7.03 13** Pn **Pn 01 08 08.5 -0.3**
**ABAZ Army Bay 7.03 13** *e*PN **Pn 01 08 08.4 -0.4**
**WMGZ Waiomatatini S 7.04 38** Pn **Pn 01 08 05.9 -3.0**
**WMGZ Waiomatatini S 7.04 38** PN **Pn 01 08 05.0 -3.9**
WMGZ AML AML 01 09 26.4
WMGZ AML AML 01 09 26.4
**KUZ Kuaotunu 7.06 19** Pn **Pn 01 08 08.7 -0.6**
**KUZ Kuaotunu 7.06 19** PN **Pn 01 08 06.7 -2.6**
KUZ AML AML 01 10 40.2
KUZ AML AML 01 10 40.2
**MXZ Matakaoa Point 7.20 37** *e*Pn **Pn 01 08 09.6 -1.6**
**MXZ Matakaoa Point 7.20 37** AML AML 01 09 31.6
MXZ AML AML 01 10 40.9
**WCZ Waipu Caves 7.61 9** Pn **Pn 01 08 17.2 +0.4**
**WCZ Waipu Caves 7.61 9** PN **Pn 01 08 16.5 -0.3**
WCZ AML AML 01 10 49.4
WCZ AML AML 01 13 33.1
**CTZ Chatham Island 7.61 96** Pn **Pn 01 08 15.1 -1.7**
**CTZ Chatham Island 7.61 96** PN **Pn 01 08 14.4 -2.4**
**OUZ Omahuta 8.26 4** *e*Pn **Pn 01 08 25.7 0.0**
**TAU Tasmania Unive 18.64 263** *e*P **P 01 10 42.0 -1.7**
**TAU Tasmania Unive 18.64 263** *e*P **P 01 10 42.0 -1.7**
**CAN Canberra 20.14 286** *e*P **P 01 11 00.9 +0.7**
CAN pmax pmax
comp=Z,77nm,1.6s
**CAN Canberra 20.14 286** *e*P **P 01 11 00.9 +0.7**
comp=Z,77nm,1.6s
**ARMA Armidale 21.35 301** *e*P **P 01 11 14.1 +0.8**
comp=Z,71nm,1.4s
**DZM Mont Dzumac 22.01 344** P **P 01 11 19.8 -0.7**
comp=Z,23nm,1.1s,baz=172,slow=15,SNR=2.6
**DZM Mont Dzumac 22.01 344** *e*P **P 01 11 19.3 -1.2**
comp=Z,85nm,1.3s
**MSVF Nonsavu 26.03 11** *ce*P **P 01 11 59.4 0.0**
MSVF pmax pmax
comp=Z,52nm,1.7s
**MSVF Nonsavu 26.03 11** *e*P **P 01 11 57.4 -2.0**
comp=Z,42nm,1.1s
**STKA Stephens Creek 27.19 285** P **P 01 12 09.9 +0.2**
comp=Z,13nm,0.9s,baz=115,slow=9.9,SNR=12
**STKA Stephens Creek 27.19 285** *e*P **P 01 12 09.7 -0.1**
STKA pmax pmax
comp=Z,4.0nm,1.0s
**STKA Stephens Creek 27.19 285** *e*P **P 01 12 09.7 -0.1**
comp=Z,3.7nm,1.0s
**BBOO Buckleboo 30.64 278** *e*P **P 01 12 39.2 -1.2**
comp=Z,57nm,1.0s
**CTA Charters Tower 32.26 308** P **P 01 12 54.8 +0.1**
comp=Z,18nm,0.9s,baz=148,slow=9.7,SNR=12
**CTAO Charters Tower 32.26 308** *e*P **P 01 12 54.3 -0.4**
CTAO pmax pmax
comp=Z,18nm,0.8s
**CTAO Charters Tower 32.26 308** *e*P **P 01 12 54.3 -0.4**
comp=Z,18nm,0.8s
**SBA Scott Base 34.58 182** *e*P **P 01 13 15.3 +0.9**
**SBA Scott Base 34.58 182** *e*P **P 01 13 15.3 +0.9**
**HNR Honiara 35.75 338** P **P 01 13 25.5 +0.5**
comp=Z,58nm,0.4s,baz=92,slow=7.8,SNR=4.2
**FORT Forrest 37.50 274** *e*P **P 01 13 39.8 -0.1**
**AS01 Alice Springs 37.56 289** *e*P **P 01 13 38.9 -1.6**
**AS31 Alice Springs 37.59 289** *e*P **P 01 13 40.0 -0.8**
comp=Z,9.9nm,0.9s
**ASAR Alice Springs 37.59 289** P **P 01 13 39.6 -1.1**
comp=Z,22nm,0.8s,baz=131,slow=8.7,SNR=45
ASAR PcP **PcP 01 15 57.7 -0.9**
comp=Z,3.6nm,1.1s,baz=127,slow=4.4,SNR=2.9
**COEN Coen 38.92 310** *e*P **P 01 13 51.4 -0.6**
comp=Z,13nm,0.8s
**WB2 Warramunga Arr 39.82 294** *e*P **P 01 13 58.8 -0.8**
**WRAB Tennant Creek 39.83 294** *ce*P **P 01 14 01.3 +1.7**
WRAB pmax pmax
comp=Z,102nm,1.7s
**WRAB Tennant Creek 39.83 294** *e*P **P 01 13 58.3 -1.3**
comp=Z,47nm,0.9s
**WRA Warramunga Arr 39.83 294** P **P 01 13 58.3 -1.3**
comp=Z,28nm,0.8s,baz=132,slow=7.9,SNR=95
WRA PcP **PcP 01 16 04.9 -0.7**
comp=Z,2.5nm,0.7s,baz=134,slow=3.2,SNR=4.9
**PMG Port Moresby 40.68 319** P **P 01 14 07.0 +0.4**
comp=Z,64nm,1.0s,baz=154,slow=5.4,SNR=13
**PMG Port Moresby 40.68 319** *e*P **P 01 14 07.7 +1.1**
comp=Z,153nm,1.3s
**RABL Rabaul 43.22 329** *e*P **P 01 14 28.0 +0.6**
comp=Z,321nm,0.9s
**NWAO Narrogin (SRO) 44.26 264** P **P 01 14 35.8 +0.2**
comp=Z,31nm,1.1s,baz=324,slow=8.7,SNR=5.5
**NWAO Narrogin (SRO) 44.26 264** *e*P **P 01 14 36.4 +0.8**
NWAO pmax pmax
comp=Z,33nm,1.0s
**NWAO Narrogin (SRO) 44.26 264** *e*P **P 01 14 36.4 +0.8**
comp=Z,33nm,1.0s
**QSPA South Pole Qui 46.65 180** *e*P **P 01 14 56.5 +2.1**
comp=Z,174nm,1.6s
**MTN Manton Dam 47.08 297** *e*P **P 01 14 57.8 -0.3**
comp=Z,78nm,1.0s
**MANU Manus Island 47.10 324** *e*P **P 01 14 59.5 +1.3**
comp=Z,217nm,1.6s
**MBWA Marble Bar 49.20 279** *e*P **P 01 15 12.9 -1.6**
comp=Z,34nm,1.1s
**JAY Jayapura 49.81 316** P **P 01 15 19.0 -0.2**

comp=Z,538nm,1.3s,comp=Z,9μm
**GENI Genyem 50.02 315** P **P 01 15 33.6 +13**
**SOEI Soe 53.87 294** P **P 01 15 53.3 +3.7**
**SOEI Soe 53.87 294** *e*P **P 01 15 50.0 +0.4**
comp=Z,64nm,1.1s
**FAKI Fak Fak 54.11 307** *e*P **P 01 15 49.8 -1.4**
comp=Z,30nm,0.8s
**EDFI Ende, Flores 56.33 292** P **P 01 16 09.1 +1.7**
comp=Z,38nm,1.3s
**SWI Sorong 56.34 307** P **P 01 16 08.4 +1.1**
**MAW Mawson 57.47 205** P **P 01 16 15.9 +1.3**
comp=Z,11nm,0.9s,baz=121,slow=11,SNR=8.4
**MAW Mawson 57.47 205** *e*P **P 01 16 17.0 +2.4**
comp=Z,4.9nm,1.1s
**SANI Sanana 58.58 301** P **P 01 16 26.8 +3.7**
**KAPI Kappang 60.37 293** *e*P **P 01 16 34.6 -0.9**
comp=Z,70nm,1.5s
**LUWI Luwuk 61.38 299** *e*P **P 01 16 40.2 -2.1**
comp=Z,93nm,0.9s
**SYO Syowa Base 62.64 197** ‖*j*P **P 01 16 48.6 -1.4**
**SYO Syowa Base 62.64 197** ‖*j*pP pP 01 16 51.3 -0.8
**SYO Syowa Base 62.64 197** ‖*es*P sP 01 16 53.8 +1.0
**SNAA Sanae 65.12 181** P **P 01 17 07.3 +0.9**
**SNAA Sanae 65.12 181** P **P 01 17 07.0 +0.6**
comp=Z,6.4nm,1.0s,baz=193,slow=6.2,SNR=9.6
**SNAA Sanae 65.12 181** *ce*P **P 01 17 08.4 +1.9**
**SNAA Sanae 65.12 181** *e*P **P 01 17 06.5 0.0**
comp=Z,2μm,1.5s
**NVL N'lazarevskaya 65.25 187** *e*P **P 01 17 08.9 +1.7**
NVL *e*S S **01 25 51.4 +0.9**
NVL *e*SS SS 01 30 13.1 +11
**VNA3 Neumayer Olymp 65.58 179** P **P 01 17 11.3 +1.9**
**VNA2 Neumayer--Watz 65.91 180** P **P 01 17 12.2 +0.6**
baz=171,slow=5.2
**VNA1 Neumayer--Stat 66.18 180** P **P 01 17 15.3 +2.0**
**KKM Kota Kinabalu 70.98 298** *e*P **P 01 17 43.1 -1.0**
comp=Z,77nm,1.4s
**IPM Ipoh 80.06 286** *e*P **P 01 18 36.1 0.0**
comp=Z,20nm,0.8s
**GSI Gunungsitoli 80.28 281** *e*P **P 01 18 38.9 +1.6**
comp=Z,132nm,1.1s
**PSI Prapat 80.36 283** *e*P **P 01 18 36.9 -1.0**
PSI pmax pmax
comp=Z,27nm,1.1s
**PSI Prapat 80.36 283** *e*P **P 01 18 36.9 -1.0**
comp=Z,27nm,1.1s
**KULM Kulim 80.90 286** *e*P **P 01 18 39.5 -1.1**
comp=Z,67nm,1.4s
**TRQA Tornquist 84.82 140** *e*P **P 01 19 01.8 +1.0**
comp=Z,13nm,1.2s
**QIZ Qiongzhong 84.85 302** P **P 01 18 59.6 -1.4**
**JNU Nakatsue 85.36 326** P **P 01 19 03.1 -0.1**
comp=Z,9.2nm,0.7s,baz=180,slow=3.2,SNR=5.7
**MJAR Matsushiro Arr 85.67 333** P **P 01 19 04.8 +0.1**
comp=Z,0.8nm,0.5s,baz=128,slow=5.4,SNR=3.4
**NJ2 Nanjing 89.95 317** *e*P **P 01 19 26.4 +1.1**
NJ2 pmax pmax
comp=Z,21nm,0.8s
**KSRS Korea Array 90.31 326** P **P 01 19 27.2 +0.4**
comp=Z,9.3nm,0.9s,baz=143,slow=4.9,SNR=12
**KSAR Wonju Array Be 90.31 326** P **P 01 19 27.2 +0.4**
**KSAR Wonju Array Be 90.31 326** P **P 01 19 27.2 +0.4**
**KS01 Wonju Array Si 90.34 326** *e*P **P 01 19 26.9 -0.1**
**CM01 Chiang Mai Arr 91.39 294** *e*P **P 01 19 33.0 +0.7**
**CMAR Chiang Mai Arr 91.42 294** P **P 01 19 33.1 +0.6**
comp=Z,2.8nm,0.7s,baz=153,slow=2.9,SNR=12
**CHTO Chiang Mai 91.67 294** *e*P **P 01 19 34.6 +0.9**
CHTO pmax pmax
comp=Z,5.0nm,1.0s
**CHTO Chiang Mai 91.67 294** *e*P **P 01 19 34.6 +0.9**
comp=Z,4.8nm,1.0s
**GYA Guiyang 92.34 305** P **P 01 19 38.4 +1.7**
GYA PP **PP** 01 23 22.0 +4.2
GYA SKS **SKSac** 01 30 11.3 +0.7
GYA S **S** 01 30 41.4 +0.8
GYA pmax pmax
comp=Z,20nm,1.0s
GYA pmax pmax
comp=Z,120nm,6.6s
GYA LR LR
comp=Z,540nm,20.6s
GYA LR LR
comp=Z,490nm,21.0s
GYA LR LR
comp=Z,510nm,21.2s
**KMI Kunming 93.76 301** P **P 01 19 43.0 -0.4**
KMI pmax pmax
comp=Z,9.0nm,0.6s
**MDJ Mudanjiang 95.83 330** P **P 01 19 54.0 +1.9**
MDJ S **S** 01 31 06.4 -3.6
MDJ pmax pmax
comp=Z,11nm,1.3s
MDJ pmax pmax
comp=Z,68nm,2.6s
MDJ LR LR
comp=Z,890nm,23.0s
MDJ LR LR
comp=Z,860nm,21.4s
MDJ LR LR
comp=Z,2μm,23.4s
**CN2 Changchun 96.69 328** *e*P **P 01 19 57.4 +1.4**
CN2 *es*P sP 01 20 04.4 +5.5
CN2 *e*S **S** **01 31 16.3 -1.2**
CN2 pmax pmax
comp=Z,10.0nm,0.6s
CN2 pmax pmax
comp=Z,200nm,3.0s
CN2 LR LR
comp=Z,900nm,21.0s
CN2 LR LR
comp=Z,600nm,21.0s
CN2 LR LR
comp=Z,1μm,22.0s
**HHC Hu-ho-hao-te 100.48 317** *e*P **Pdif 01 20 17.8 +4.5**
HHC PP PP 01 24 28.3 +7.8
HHC S **Sdif** **01 31 48.8 -1.2**
HHC pmax pmax
comp=Z,12nm,1.0s
HHC pmax pmax
comp=Z,180nm,7.4s
HHC LR LR
comp=Z,750nm,18.4s
HHC LR LR
comp=Z,510nm,16.5s
HHC LR LR
comp=Z,900nm,19.7s
**LZH Lanzhou 101.03 310** *e*P **Pdif 01 20 15.0 -0.9**
LZH *e*PP **PP** **01 24 27.0 +2.2**
LZH SKS **SKSac** **01 30 54.3 -1.2**
LZH *e*S **Sdif** **01 31 49.1 -5.8**
LZH SS **SS** **01 38 54.3 -0.3**
LZH pmax pmax
comp=Z,22nm,1.5s
LZH pmax pmax
comp=Z,120nm,7.6s
LZH LR LR
comp=Z,630nm,18.3s
LZH LR LR
comp=Z,760nm,17.5s
LZH LR LR
comp=Z,930nm,19.7s
**SONM Songino Array 108.13 319** PP PP 01 25 18.0 +0.7
comp=Z,0.2nm,0.4s,baz=152,slow=6.5,SNR=5.5
**PDAR Pinedale Array 110.38 50** PP PP 01 25 43.5 +10
comp=Z,1.3nm,1.1s,baz=226,slow=8.6,SNR=4.7
**BILL Bilibino 111.30 357** *i* PKIKP **PKiKP 01 24 59.8 +0.9**
BILL *e* 01 25 39.6
BILL *i* SS SS 01 41 22.6 +9.5
BILL pmax pmax
comp=Z,5.0nm,1.5s
BILL MLR MLR
comp=Z,657nm,18.0s
**ILAR Eielson Array 112.41 17** PKiKP **PKiKP 01 25 00.0 -1.1**
comp=Z,1.8nm,1.0s,baz=290,slow=2.9,SNR=13
**WMQ Urumqi 115.41 307** PKP **PKPdf 01 25 07.6 0.0**
WMQ LR LR
comp=Z,2μm,22.3s
WMQ LR LR
comp=Z,2μm,24.3s
WMQ LR LR
comp=Z,2μm,24.9s
**INK Inuvik 118.41 20** PKP **PKPdf 01 25 11.4 -1.1**
comp=Z,4.1nm,0.6s,baz=212,slow=0.9,SNR=14
**INK Inuvik 118.41 20** *e*PKPdf **PKPdf 01 25 11.5 -0.9**
**KSH Kashi 120.16 297** PKP **PKPdf 01 25 17.5 +0.5**
KSH PP **PP** **01 26 48.5 +5.7**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| KSH | | | | PKS | **PKSdf** | **01 28 53.6** | **-0.1** | |
| KSH | | | | SKS | **SKSdf** | **01 32 28.4** | **-1.0** | |
| KSH | | | | SKKS | **SKKSac** | **01 33 40.6** | **-1.9** | |
| KSH | | | | SS | **SS** | **01 43 14.4** | **+3.7** | |
| KSH | | | | AMB | AMB | | | |
| | comp=Z,77nm,3.8s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=Z,170nm,5.8s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=Z,210nm,8.1s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=Z,420nm,9.6s | | | | | | | |
| **MK01** | **Makanchi Array** | **120.21 307** | | *e*PKPdf | **PKPdf** | **01 25 15.4** | **-1.3** | |
| **MK31** | **Makanchi Array** | **120.23 307** | | *e*PKIKP | **PKPdf** | **01 25 15.5** | **-1.2** | |
| **MK31** | **Makanchi Array** | **120.23 307** | | *e*PKPdf | **PKPdf** | **01 25 15.5** | **-1.2** | |
| **MKAR** | **Makanchi Array** | **120.23 307** | | PKP | **PKPdf** | **01 25 14.5** | **-2.2** | |
| | comp=Z,2.9nm,1.0s,baz=203,slow=2.0,SNR=12 | | | | | | | |
| **MKAR** | **Makanchi Array** | **120.23 307** | | *e*PKIKP | **PKPdf** | **01 25 15.5** | **-1.2** | |
| **MKAR** | **Makanchi Array** | **120.23 307** | | *e*PKPdf | **PKPdf** | **01 25 15.5** | **-1.2** | |
| **YKA** | **Yellowknife Ar** | **120.37 31** | | PKP | **PKPdf** | **01 25 15.7** | **-0.7** | |
| | comp=Z,3.9nm,0.8s,baz=250,slow=1.7,SNR=28 | | | | | | | |
| YKA | | | | PKKPbc | **PKKPbc** | **01 35 22.8** | **-0.8** | |
| | comp=Z,0.5nm,0.9s,baz=47,slow=4.6,SNR=6.0 | | | | | | | |
| **YKW3** | **Yellowknife Ar** | **120.41 31** | | *e*PKPdf | **PKPdf** | **01 25 15.6** | **-0.9** | |
| **MAKZ** | **Makanchi** | **120.42 307** | | *e*PKIKP | **PKPdf** | **01 25 16.8** | **-0.3** | |
| **MAKZ** | **Makanchi** | **120.42 307** | | *e*PKPdf | **PKPdf** | **01 25 16.8** | **-0.3** | |
| **FFC** | **Flin Flon** | **121.50 43** | | *e*PKIKP | **PKPdf** | **01 25 18.0** | **-0.8** | |
| FFC | | | | *e* | | 01 25 18.2 | | |
| **FFC** | **Flin Flon** | **121.50 43** | | *e*PKPdf | **PKPdf** | **01 25 18.0** | **-0.8** | |
| FFC | | | | *e*PKPdf | **PKiKP** | **01 25 18.2** | **-0.8** | |
| **JFWS** | **Jewell Farm** | **121.94 59** | | *e*PKIKP | **PKPdf** | **01 25 18.5** | **-1.6** | |
| **JFWS** | **Jewell Farm** | **121.94 59** | | *e*PKPdf | **PKPdf** | **01 25 18.5** | **-1.6** | |
| **WCI** | **Wyandotte Cave** | **122.00 66** | | *e*PKIKP | **PKPdf** | **01 25 19.9** | **-0.5** | |
| WCI | | | | *e* | | 01 25 20.4 | | |
| **WCI** | **Wyandotte Cave** | **122.00 66** | | *e*PKPdf | **PKPdf** | **01 25 19.9** | **-0.5** | |
| WCI | | | | *e*PKPdf | **PKiKP** | **01 25 20.4** | **-0.1** | |
| **KBL** | **Kabul** | **122.07 289** | | *e*PKIKP | **PKPdf** | **01 25 21.3** | **+0.4** | |
| **KBL** | **Kabul** | **122.07 289** | | *e*PKPdf | **PKPdf** | **01 25 21.3** | **+0.4** | |
| **ULM** | **Lac du Bonnet** | **122.39 49** | | PKP | **PKPdf** | **01 25 19.1** | **-1.6** | |
| | comp=Z,8.3nm,0.9s,baz=266,slow=2.2,SNR=6.0 | | | | | | | |
| **ULM** | **Lac du Bonnet** | **122.39 49** | | *e*PKPdf | **PKPdf** | **01 25 20.5** | **-0.2** | |
| **ZAA0** | **Zalesovo Array** | **122.59 315** | | *e*PKPdf | **PKPdf** | **01 25 20.3** | **-0.6** | |
| **ZALV** | **Zalesovo Beam** | **122.59 315** | | PKP | **PKPdf** | **01 25 19.0** | **-2.0** | |
| | comp=Z,1.8nm,0.6s,baz=131,slow=2.0,SNR=6.7 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **122.59 315** | | PKIKP | **PKPdf** | **01 25 19.0** | **-2.0** | |
| **AAK** | **Ala-Archa** | **122.77 300** | | PKP | **PKPdf** | **01 25 21.5** | **-0.4** | |
| | comp=Z,2.4nm,0.9s,baz=148,slow=8.4,SNR=4.3 | | | | | | | |
| **AAK** | **Ala-Archa** | **122.77 300** | | *e*PKPdf | **PKPdf** | **01 25 22.8** | **+0.9** | |
| **KURK** | **Kurchatov** | **124.32 310** | *c* | *i*PKIKP | **PKPdf** | **01 25 24.2** | **-0.2** | |
| KURK | | | | pmax | pmax | | | |
| | comp=Z,165nm,1.7s | | | | | | | |
| **KURK** | **Kurchatov** | **124.32 310** | | *e*PKPdf | **PKPdf** | **01 25 23.0** | **-1.4** | |
| KURK | | | | PP | **PP** | **01 27 10.6** | **0.0** | |
| **KURBB** | **Kurchatov Arra** | **124.32 310** | | PKP | **PKPdf** | **01 25 23.1** | **-1.3** | |
| | comp=Z,4.5nm,0.8s,baz=115,slow=1.8,SNR=20 | | | | | | | |
| KURBB | | | | PP | **PP** | **01 27 10.6** | **-0.1** | |
| | comp=Z,1.2nm,1.1s,baz=114,slow=7.3,SNR=4.5 | | | | | | | |
| **KKAR** | **Karatay Array** | **125.53 298** | | *e*PKIKP | **PKPdf** | **01 25 27.3** | **+0.3** | |
| **KKAR** | **Karatay Array** | **125.53 298** | | *e*PKPdf | **PKPdf** | **01 25 27.3** | **+0.3** | |
| **UOSS** | **Minazif** | **125.76 272** | | *e*PKPdf | **PKPdf** | **01 25 27.7** | **-0.3** | |
| **BVAR** | **Borovoye Array** | **129.92 310** | | PKP | **PKPdf** | **01 25 33.8** | **-1.2** | |
| | comp=Z,2.9nm,0.7s,baz=90,slow=1.5,SNR=11 | | | | | | | |
| **BRVK** | **Borovoye** | **129.99 310** | *c* | *i*PKIKP | **PKPdf** | **01 25 35.6** | **+0.5** | |
| BRVK | | | | pmax | pmax | | | |
| | comp=Z,52nm,1.7s | | | | | | | |
| **BRVK** | **Borovoye** | **129.99 310** | | *e*PKPdf | **PKPdf** | **01 25 34.6** | **-0.6** | |
| **GEYT** | **Alibeck** | **131.38 287** | | PKP | **PKPdf** | **01 25 37.7** | **-0.7** | |
| | comp=Z,4.5nm,1.0s,baz=132,slow=2.1,SNR=8.8 | | | | | | | |
| **RAYN** | **Ar Rayn** | **132.68 263** | | *e*PKPdf | **PKPdf** | **01 25 41.9** | **+0.6** | |
| **AKTO** | **Aktyubinsk** | **136.30 303** | | PKP | **PKPdf** | **01 25 46.5** | **-0.6** | |
| | comp=Z,2.4nm,1.0s,baz=117,slow=4.5,SNR=3.2 | | | | | | | |
| **SVE** | **Sverdlovsk** | **136.41 312** | | *e*PKIKP | **PKPdf** | **01 25 48.0** | **+0.9** | |
| **ARU** | **Arti** | **137.46 312** | | PKhKP | PKPpre | 01 25 44.1 | | |
| | comp=Z,1.0nm,0.3s,baz=270,slow=20,SNR=3.0 | | | | | | | |
| **ARU** | **Arti** | **137.46 312** | | *i*PKIKP | **PKPdf** | **01 25 51.4** | **+2.4** | |
| ARU | | | | | | 01 28 33.6 | | |
| **ARU** | **Arti** | **137.46 312** | | *e*PKPdf | **PKPdf** | **01 25 49.0** | **0.0** | |
| **GNI** | **Garni** | **141.73 283** | *c* | *i*PKIKP | **PKPdf** | **01 25 59.5** | **+1.9** | |
| GNI | | | | pmax | pmax | | | |
| | comp=Z,38nm,1.2s | | | | | | | |
| **GNI** | **Garni** | **141.73 283** | | *e*PKPdf | **PKPdf** | **01 25 58.0** | **+0.4** | |
| **LIC** | **Lamto** | **142.85 183** | | *e*PKP2 | PKPpre | 01 25 54.4 | | |
| | comp=Z,46nm,1.3s | | | | | | | |
| **LIC** | **Lamto** | **142.85 183** | | *e*P | PKPpre | 01 25 54.4 | | |
| | comp=Z,46nm,1.3s | | | | | | | |
| **KIC** | **Kosan Boka** | **142.97 184** | | *e*PKP2 | PKPpre | 01 25 55.4 | | |
| | comp=Z,32nm,1.2s | | | | | | | |
| **KIC** | **Kosan Boka** | **142.97 184** | | *e*P | PKPpre | 01 25 55.4 | | |
| | comp=Z,32nm,1.2s | | | | | | | |
| **TIC** | **Toumodi** | **143.27 183** | | *e*PKP2 | PKPab | 01 25 55.6 | -1.1 | |
| **TIC** | **Toumodi** | **143.27 183** | | *e*P | PKPbc | 01 25 57.4 | -0.5 | |
| **DBIC** | **Dimbokro** | **143.29 184** | | PKhKP | PKPpre | 01 25 56.9 | | |
| | comp=Z,3.2nm,0.6s,baz=142,slow=7.0,SNR=6.2 | | | | | | | |
| **NCK** | **Nalchik** | **143.69 288** | *c* | *i*PKIKP | **PKPdf** | **01 26 01.6** | **+0.8** | |
| **ASF** | **Jabal al Asfar** | **143.84 267** | | PKP | PKPbc | 01 25 59.7 | +0.5 | |
| | comp=Z,1.0nm,0.5s,baz=131,slow=1.4,SNR=3.9 | | | | | | | |
| **ARTV** | **Artvin** | **144.10 284** | | *e*PKPdf | **PKPdf** | **01 26 01.8** | **-0.1** | |
| **NEY** | **Neytrino** | **144.22 287** | *c* | *i*PKIKP | PKPbc | 01 26 00.6 | +0.5 | |
| NEY | | | | *i* | | 01 26 04.3 | | |
| **KBZ** | **Khabaz** | **144.24 288** | | PKP | PKPbc | 01 25 59.6 | -0.3 | |
| | comp=Z,8.4nm,1.1s,baz=130,slow=3.4,SNR=6.6 | | | | | | | |
| **KVAR** | **Kislovodsk Arr** | **144.45 288** | | PKP | PKPbc | 01 26 00.7 | -0.1 | |
| | comp=Z,8.4nm,1.1s,baz=295,slow=4.2,SNR=5.5 | | | | | | | |
| **KIV** | **Kislovodsk** | **144.46 288** | | *e*PKIKP | PKPbc | 01 26 00.6 | -0.2 | |
| KIV | | | | *e* | | 01 29 20.7 | | |
| KIV | | | | *e*PPP | PPP | 01 32 30.2 | | |
| KIV | | | | *i* SS | SS | 01 48 07.7 | +1.5 | |
| KIV | | | | *e*SSS | SSS | 01 53 36.0 | | |
| KIV | | | | pmax | pmax | | | |
| | comp=Z,39nm,2.2s | | | | | | | |
| **KIV** | **Kislovodsk** | **144.46 288** | | *e*PKPdf | PKPbc | 01 26 01.1 | +0.3 | |
| **GOF** | **Gofitskoye** | **144.52 290** | | *e*PKIKP | PKPbc | 01 26 00.8 | 0.0 | |
| GOF | | | | pmax | pmax | | | |
| | comp=Z,67nm,0.9s | | | | | | | |
| **KOPT** | **Kop Dagi** | **144.70 281** | | *e*PKPdf | **PKPdf** | **01 26 03.9** | **+0.8** | |
| **ILULI** | **Ilulissat** | **145.83 26** | | *i* PKP2 | **PKPdf** | **01 26 03.7** | **+0.1** | |
| **ILULI** | **Ilulissat** | **145.83 26** | | *i* P | **PKPdf** | **01 26 03.7** | **+0.1** | |
| **ILULI** | **Ilulissat** | **145.83 26** | | *e*PKPdf | **PKPbc** | **01 26 04.0** | **-0.2** | |
| **DAG** | **Danmarks Havn** | **146.25 5** | | *i* PKIKP | **PKPdf** | **01 26 03.5** | **-0.7** | |
| **DAG** | **Danmarks Havn** | **146.25 5** | | *i* P | **PKPdf** | **01 26 03.5** | **-0.7** | |
| **SOC** | **Sochi** | **146.41 287** | | *e*PKP2 | **PKPbc** | **01 26 06.4** | **-0.4** | |
| SOC | | | | *i* | | 01 29 34.8 | | |
| SOC | | | | *e*PPP | PPP | 01 32 42.4 | | |
| SOC | | | | *e*SS | SS | 01 48 27.1 | -1.2 | |
| SOC | | | | pmax | pmax | | | |
| | comp=Z,25nm,1.1s | | | | | | | |
| SOC | | | | pmax | pmax | | | |
| | comp=Z,19nm,0.9s | | | | | | | |
| **VRH** | **Novokhopyorsk** | **146.56 301** | | *e*PKP2 | **PKPbc** | **01 26 06.2** | **-0.7** | |
| VRH | | | | pmax | pmax | | | |
| | comp=Z,40nm,1.1s | | | | | | | |
| **SFJD** | **Kangerlussuaq** | **146.92 30** | | PKPbc | **PKPdf** | **01 26 06.3** | **+0.8** | |
| | comp=Z,27nm,0.6s,baz=253,slow=0.8,SNR=9.5 | | | | | | | |
| **SFJD** | **Kangerlussuaq** | **146.92 30** | | *e*PKP2 | **PKPdf** | **01 26 06.2** | **+0.7** | |
| **SFJD** | **Kangerlussuaq** | **146.92 30** | | *i* P | **PKPdf** | **01 26 06.3** | **+0.8** | |
| **SFJD** | **Kangerlussuaq** | **146.92 30** | | *e*PKPdf | **PKPdf** | **01 26 06.2** | **+0.7** | |
| **LVZ** | **Lovozero** | **147.16 332** | | *e*PKP2 | **PKPbc** | **01 26 07.4** | **-0.8** | |
| **LVZ** | **Lovozero** | **147.16 332** | | *e*PKPdf | **PKPbc** | **01 26 07.4** | **-0.8** | |
| **SUMG** | **Summit** | **147.25 17** | | *e*PKP2 | **PKPbc** | **01 26 08.8** | **0.0** | |
| **SUMG** | **Summit** | **147.25 17** | | *i* P | **PKPbc** | **01 26 08.9** | **+0.1** | |
| **SUMG** | **Summit** | **147.25 17** | | *e*PKPdf | **PKPbc** | **01 26 08.8** | **0.0** | |
| **TMCR** | **Tamitsa** | **147.28 325** | | *e*PKP2 | **PKPbc** | **01 26 07.4** | **-1.1** | |
| TMCR | | | | pmax | pmax | | | |
| | comp=Z,83nm,1.3s | | | | | | | |
| **KLMR** | **Klimovskoe** | **147.42 319** | | *e*PKIKP | **PKPdf** | **01 26 05.9** | **-0.6** | |
| KLMR | | | | pmax | pmax | | | |
| | comp=Z,253nm,1.4s | | | | | | | |
| **TOKA** | **Tokat** | **147.69 280** | | *e*PKPbc | **PKPab** | **01 26 11.8** | **-1.0** | |
| **CSS** | **Mathiatis** | **147.80 269** | | *e*PKPdf | **PKPdf** | **01 26 09.1** | **+1.0** | |
| **VSR** | **Storozhevoye** | **148.16 301** | | *e*PKIKP | **PKPdf** | **01 26 09.1** | **+1.0** | |
| VSR | | | | pmax | pmax | | | |
| | comp=Z,40nm,1.2s | | | | | | | |
| **LPSR** | **Galich'ya Gora** | **148.39 303** | | *e*PKP2 | **PKPbc** | **01 26 11.7** | **-0.2** | |
| LPSR | | | | pmax | pmax | | | |
| | comp=Z,40nm,1.1s | | | | | | | |
| **TOA0** | **Torodi Ar. Sit** | **148.84 197** | | *e*PKPdf | **PKPdf** | **01 26 10.8** | **+0.4** | |
| **TORD** | **Torodi Ar. Bea** | **148.84 197** | | PKP | **PKPdf** | **01 26 10.1** | **-0.2** | |
| | comp=Z,13nm,1.0s,baz=162,slow=0.8,SNR=11 | | | | | | | |
| TORD | | | | PKPbc | **sPKPdf** | **01 26 13.6** | **+0.3** | |
| | comp=Z,19nm,1.0s,baz=166,slow=2.0,SNR=32 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **149.04 338** | | PKPbc | **PKPbc** | **01 26 12.1** | **-1.0** | |
| | comp=Z,34nm,1.0s,baz=79,slow=1.5,SNR=26 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **149.04 338** | | *e*PKP2 | **PKPbc** | **01 26 12.7** | **-0.4** | |
| **ARCES** | **ARCESS Array B** | **149.04 338** | | *e*PKPbc | **PKPbc** | **01 26 12.7** | **-0.4** | |
| **ARE0** | **ARCESS Array S** | **149.04 338** | | *e*PKPbc | **PKPbc** | **01 26 13.2** | **+0.1** | |
| **MOS** | **Moscow** | **149.09 309** | | *e*PKP2 | **PKPbc** | **01 26 13.1** | **-0.5** | |
| MOS | | | | pmax | pmax | | | |
| | comp=Z,122nm,1.5s | | | | | | | |
| MOS | | | | pmax | pmax | | | |
| | comp=Z,600nm,3.1s | | | | | | | |
| **BRTR** | **Keskin Array B** | **149.52 277** | | PKPbc | **PKPbc** | **01 26 14.7** | **-0.8** | |
| | comp=Z,9.8nm,0.8s,baz=143,slow=4.4,SNR=24 | | | | | | | |
| **OBN** | **Obninsk** | **149.73 308** | *c* | *i*PKP2 | **PKPbc** | **01 26 15.2** | **0.0** | |
| OBN | | | | *e* | | 01 29 49.8 | | |
| OBN | | | | pmax | pmax | | | |
| | comp=Z,276nm,1.7s | | | | | | | |
| **OBN** | **Obninsk** | **149.73 308** | | *e*PKPbc | **PKPbc** | **01 26 15.1** | **-0.1** | |
| **ILGA** | **Ilgaz** | **149.91 280** | | *e*PKPbc | **PKPbc** | **01 26 17.8** | **+1.3** | |
| **ANTO** | **Ankara** | **150.18 277** | | *e*PKIKP | **PKPdf** | **01 26 11.4** | **-0.4** | |
| ANTO | | | | *e* | | 01 26 17.0 | | |
| **ANTO** | **Ankara** | **150.18 277** | | *e*PKPdf | **PKPdf** | **01 26 11.4** | **-0.4** | |
| ANTO | | | | *e*PKPbc | **PKPbc** | **01 26 17.0** | **+0.1** | |
| **BR231** | **Keskin MP Arra** | **150.19 277** | | *e*PKPdf | **PKPdf** | **01 26 14.3** | **+2.4** | |
| **KOWA** | **Kowa** | **151.00 186** | | *e*PKPdf | **PKPdf** | **01 26 14.9** | **+1.2** | |
| **BOLV** | **Bolvadin** | **151.11 274** | | *e*PKPbc | **PKPbc** | **01 26 20.4** | **+1.1** | |
| **SCO** | **Scoresbysund** | **151.91 11** | | *i* PKIKP | **PKPbc** | **01 26 19.8** | **-0.1** | |
| **SCO** | **Scoresbysund** | **151.91 11** | | *i* P | **PKPbc** | **01 26 19.8** | **-0.1** | |
| **KARP** | **Karpathos** | **152.56 265** | | *e*PKPab | **PKPab** | **01 26 35.1** | **+2.1** | |
| **FIA1** | **FINESS Array S** | **153.38 324** | | *e*PKPbc | **PKPbc** | **01 26 23.6** | **+0.2** | |
| **FINES** | **FINESS Array B** | **153.39 324** | | PKPbc | **PKPbc** | **01 26 22.4** | **-1.0** | |
| | comp=Z,10nm,0.6s,baz=77,slow=3.3,SNR=25 | | | | | | | |
| **AKASG** | **Malin Array Be** | **154.44 299** | | PKPbc | **PKPbc** | **01 26 25.8** | **-0.2** | |
| | comp=Z,1.4nm,0.5s,baz=71,slow=2.6,SNR=10 | | | | | | | |
| AKASG | | | | PKPab | **PKPab** | **01 26 40.3** | **-0.2** | |
| | comp=Z,7.2nm,0.8s,baz=71,slow=4.2,SNR=11 | | | | | | | |
| **AKBB** | **Malin Array Si** | **154.44 299** | | *e*PKIKP | **PKPbc** | **01 26 26.5** | **+0.5** | |
| AKBB | | | | *e* | | 01 26 40.3 | | |
| **AKBB** | **Malin Array Si** | **154.44 299** | | *e*PKPbc | **PKPbc** | **01 26 26.5** | **+0.5** | |
| AKBB | | | | *e*PKPab | **PKPab** | **01 26 40.2** | **-0.2** | |
| **KIEV** | **Kiev** | **154.45 299** | | *e*PKIKP | **PKPbc** | **01 26 25.6** | **-0.4** | |
| KIEV | | | | *e* | | 01 26 40.2 | | |
| **KIEV** | **Kiev** | **154.45 299** | | *e*PKPbc | **PKPbc** | **01 26 25.6** | **-0.4** | |
| KIEV | | | | *e*PKPab | **PKPab** | **01 26 40.2** | **-0.3** | |
| **AK11** | **Malin Array Si** | **154.47 299** | | *e*PKPbc | **PKPbc** | **01 26 25.9** | **-0.2** | |
| **KIS** | **Kishinev** | **154.60 291** | | *e*PPP | PPP | 01 25 50.0 | | |
| **NACGM** | **Naroch** | **155.33 310** | | *e* | PKPdf | 01 26 29.0 | +10 | |
| **TAM** | **Tamanrasset** | **156.87 211** | | *e*PKIKP | **PKPdf** | **01 26 24.0** | **+2.0** | |
| **TAM** | **Tamanrasset** | **156.87 211** | | *e*PKPdf | **PKPdf** | **01 26 24.0** | **+2.0** | |
| **BUR04** | **Bucovina Ar. S** | **157.09 292** | | *e*PKPdf | **PKPdf** | **01 26 20.8** | **-0.7** | |
| **NOA** | **NORSAR Array B** | **159.28 334** | | PKP | **PKPdf** | **01 26 23.6** | **0.0** | |
| | comp=Z,2.6nm,1.0s,baz=25,slow=1.4,SNR=2.7 | | | | | | | |
| NOA | | | | PKPab | **PKPab** | **01 27 00.8** | **-0.2** | |
| | comp=Z,8.5nm,0.9s,baz=44,slow=4.5,SNR=7.1 | | | | | | | |
| **CRVS** | **Cervenica-Dubn** | **159.56 295** | | *e*PKIKP | **PKPdf** | **01 26 23.4** | **-0.9** | |
| CRVS | | | | *e* | | 01 27 03.5 | | |
| CRVS | | | | *e* | | 01 30 41.6 | | |
| **CRVS** | **Cervenica-Dubn** | **159.56 295** | | *e*PKP | **PKPdf** | **01 26 23.4** | **-0.9** | |
| CRVS | | | | *e* | | 01 27 03.5 | | |
| CRVS | | | | *e*PP | **PP** | **01 30 41.6** | **-3.2** | |
| **STHS** | **Stebnicka Huta** | **159.66 297** | | *e*PKP2 | **PKPab** | **01 27 05.9** | **+2.8** | |
| **STHS** | **Stebnicka Huta** | **159.66 297** | | *e*PKP | **PKPab** | **01 27 05.9** | **+2.8** | |
| **PSZ** | **Piszkesteto** | **160.67 293** | | *e*PKIKP | **PKPdf** | **01 26 25.6** | **0.0** | |
| **PSZ** | **Piszkesteto** | **160.67 293** | | *e*PKPdf | **PKPdf** | **01 26 25.6** | **0.0** | |
| **OKC** | **Ostrava-Krasne** | **161.59 299** | | *e*PKPDF | **PKPdf** | **01 26 28.2** | **+1.8** | |
| **OKC** | **Ostrava-Krasne** | **161.59 299** | | *e*PKIKP | **PKPdf** | **01 26 28.2** | **+1.8** | |
| **MORC** | **Moravsky Berou** | **161.99 299** | | *e*PKIKP | **PKPdf** | **01 26 26.5** | **-0.5** | |
| MORC | | | | *e* | | 01 27 12.7 | | |
| **MORC** | **Moravsky Berou** | **161.99 299** | | *e*PKPdf | **PKPdf** | **01 26 26.4** | **-0.5** | |
| MORC | | | | *e*PKPab | **PKPab** | **01 27 12.7** | **-0.5** | |
| **KRLC** | **Kraliky** | **162.40 300** | | *e*PKPAB | **PKPab** | **01 27 18.3** | **+3.2** | |
| **DPC** | **Dobruska-Polom** | **162.63 301** | | *e*PKPDF | **PKPdf** | **01 26 26.8** | **-0.8** | |
| DPC | | | | *e*PKPAB | **PKPab** | **01 27 18.0** | **+1.9** | |
| **DPC** | **Dobruska-Polom** | **162.63 301** | | *e*PKIKP | **PKPdf** | **01 26 26.8** | **-0.8** | |
| DPC | | | | *e* | | 01 27 18.0 | | |
| **UPC** | **Upice** | **162.78 302** | | *e*PKPDF | **PKPdf** | **01 26 27.1** | **-0.6** | |
| **UPC** | **Upice** | **162.78 302** | | *e*PKIKP | **PKPdf** | **01 26 27.1** | **-0.6** | |
| **CONA** | **Conrad Observa** | **163.37 294** | | *i* PKPdf | **PKPdf** | **01 26 29.1** | **+0.7** | |
| | comp=Z,8.1nm,1.7s | | | | | | | |
| **PVCC** | **Panska Ves** | **163.66 303** | | *e*PKPDF | **PKPdf** | **01 26 26.0** | **-2.5** | |
| **PVCC** | **Panska Ves** | **163.66 303** | | *e*PKIKP | **PKPdf** | **01 26 26.0** | **-2.5** | |
| **BRG** | **Berggiesshubel** | **163.93 305** | | *i* PKP | **PKPab** | **01 27 22.0** | **+0.3** | |
| | comp=Z,42nm,2.0s | | | | | | | |
| **BRG** | **Berggiesshubel** | **163.93 305** | | *e*(P) | **PP** | **01 31 12.9** | **+5.1** | |
| | comp=Z,12nm,1.5s | | | | | | | |
| **BRG** | **Berggiesshubel** | **163.93 305** | | *i* PKP2 | **PKPab** | **01 27 22.0** | **+0.3** | |
| BRG | | | | pmax | pmax | | | |
| | comp=Z,42nm,2.0s | | | | | | | |
| **SOKA** | **Soboth** | **164.05 289** | | *i* PKPdf | **PKPdf** | **01 26 28.6** | **-0.5** | |
| | comp=Z,15nm,1.5s | | | | | | | |
| **CLL** | **Collm** | **164.33 307** | | *i* PKIKP | **PKPdf** | **01 26 26.9** | **-2.1** | |
| CLL | | | | *i* | | 01 27 24.1 | | |
| CLL | | | | pmax | pmax | | | |
| | comp=Z,84nm,2.7s | | | | | | | |
| CLL | | | | pmax | pmax | | | |
| | comp=Z,40nm,1.9s | | | | | | | |
| **CLL** | **Collm** | **164.33 307** | | *i* PKPdf | **PKPdf** | **01 26 26.9** | **-2.1** | |
| | comp=Z,84nm,2.7s | | | | | | | |
| CLL | | | | *i* PKPab | **PKPab** | **01 27 24.1** | **+0.7** | |
| | comp=Z,40nm,1.9s | | | | | | | |
| CLL | | | | *e*PP | PP | 01 31 02.0 | -7.9 | |
| CLL | | | | *e*SS | SS | 01 51 42.0 | +0.6 | |
| **GERES** | **GERESS Array B** | **164.64 298** | | PKPab | **PKPab** | **01 27 23.9** | **-1.2** | |
| | comp=Z,1.1nm,0.9s,baz=57,slow=3.6,SNR=5.1 | | | | | | | |
| **KHC** | **Kasperske Hory** | **164.65 299** | | *e*PKPDF | **PKPdf** | **01 26 28.7** | **-0.8** | |
| **KHC** | **Kasperske Hory** | **164.65 299** | | *e*PKIKP | **PKPdf** | **01 26 28.7** | **-0.8** | |
| **KEST** | **Kesra** | **165.17 244** | | *e*PKPab | **PKPab** | **01 27 30.6** | **+2.9** | |
| **ABTA** | **Abfaltersbach** | **165.77 290** | | *i* PKPdf | **PKPdf** | **01 26 29.5** | **-1.1** | |
| | comp=Z,15nm,1.7s | | | | | | | |
| **WTTA** | **Wattenberg** | **166.30 293** | | *i* PKPdf | **PKPdf** | **01 26 31.0** | **-0.1** | |
| | comp=Z,25nm,1.7s | | | | | | | |
| **SQTA** | **Sankt Quirin** | **166.59 293** | | *i* PKPdf | **PKPdf** | **01 26 31.9** | **+0.6** | |
| **MOTA** | **Moosalm** | **166.64 293** | | *i* PKPdf | **PKPdf** | **01 26 31.6** | **+0.3** | |
| | comp=Z,17nm,1.5s | | | | | | | |
| **FETA** | **Feichten** | **166.95 292** | | *i* PKPdf | **PKPdf** | **01 26 31.3** | **-0.3** | |
| | comp=Z,17nm,1.6s | | | | | | | |
| **DAVA** | **Damuels** | **167.47 294** | | *i* pPKPdf | **PKPdf** | **01 26 33.4** | **+1.5** | |
| | comp=Z,14nm,1.4s | | | | | | | |
| **TUE** | **Stuetta** | **167.97 290** | | *e*PKPdf | **PKPdf** | **01 26 32.8** | **+0.4** | |
| **SSB** | **Saint Sauveur** | **171.47 286** | | *e*PKP2 | **PKPab** | **01 27 54.3** | **-1.0** | |
| **SSB** | **Saint Sauveur** | **171.47 286** | | *e*PKPab | **PKPab** | **01 27 54.3** | **-1.0** | |
| **ES19** | **SONSECA Array** | **175.53 214** | | *e*PKPdf | **PKPdf** | **01 26 36.6** | **+0.6** | |
| **ESDC** | **Sonseca Array** | **175.53 213** | | PKP | **PKPdf** | **01 26 36.5** | **+0.5** | |
| | comp=Z,1.1nm,0.8s,baz=143,slow=10,SNR=6.2 | | | | | | | |
| ESDC | | | | PKPab | **PKPab** | **01 28 13.9** | **+0.6** | |
| | comp=Z,0.9nm,0.9s,baz=147,slow=4.8,SNR=2.9 | | | | | | | |

**WEL 23 01:07:20.7±0.2, 43°.45S×172°.92E, h12km±3km, ML4.5/4, Error ellipse: s-maj=2.3km s-min=0.9km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.25** | **240** | P* | Pg | 01 07 25.9 | +0.1 |
| CRLZ | | | | S* | Sg | 01 07 29.2 | -0.2 |
| CRLZ | | | | AML | AML | 01 07 29.6 | |
| CRLZ | | | | AML | AML | 01 07 30.2 | |
| CRLZ | | | | AML | AML | 01 07 30.2 | |
| **MQZ** | **McQueen's Vall** | **0.32** | **217** | P* | Pg | 01 07 27.4 | +0.3 |
| MQZ | | | | S* | Sg | 01 07 31.6 | +0.1 |
| MQZ | | | | S* | Sb | 01 07 31.7 | -1.6 |
| MQZ | | | | AML | AML | 01 07 32.1 | |
| **OXZ** | **Oxford** | **0.65** | **281** | *e*P* | Pb | 01 07 34.4 | +0.4 |
| OXZ | | | | AML | AML | 01 07 43.7 | |
| OXZ | | | | AML | AML | 01 07 43.7 | |
| OXZ | | | | AML | AML | 01 07 44.8 | |
| OXZ | | | | AML | AML | 01 07 44.9 | |
| **LTZ** | **Lake Taylor** | **0.82** | **325** | *e*P* | Pb | 01 07 37.0 | +0.1 |
| LTZ | | | | AML | AML | 01 07 49.6 | |

**WEL 23 01:07:51.7±0.1, 43°.48S×172°.82E, h8km, ML4.7/13, 1C-1D, Error ellipse: s-maj=1.3km s-min=0.5km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.17** | **235** | PG | Pg | 01 07 55.4 | +0.2 |
| CRLZ | | | | SG | Sg | 01 07 57.9 | +0.3 |
| CRLZ | | | | AML | AML | 01 07 59.0 | |
| CRLZ | | | | AML | AML | 01 07 59.1 | |
| CRLZ | | | | AML | AML | 01 07 59.4 | |
| **MQZ** | **McQueen's Vall** | **0.26** | **207** | PG | Pg | 01 07 56.6 | -0.2 |
| MQZ | | | | SG | Sg | 01 08 00.5 | +0.1 |
| MQZ | | | | AML | AML | 01 08 00.7 | |
| MQZ | | | | AML | AML | 01 08 00.7 | |
| **OXZ** | **Oxford** | **0.59** | **284** | ⇑P* | Pg | 01 08 02.9 | -0.1 |
| OXZ | | | | S* | Sg | 01 08 10.9 | +0.3 |
| OXZ | | | | AML | AML | 01 08 12.2 | |
| OXZ | | | | AML | AML | 01 08 12.8 | |
| OXZ | | | | AML | AML | 01 08 13.2 | |
| **LTZ** | **Lake Taylor** | **0.80** | **330** | ⇓P* | Pg | 01 08 07.4 | +0.4 |
| LTZ | | | | S* | Sb | 01 08 18.6 | -0.3 |
| LTZ | | | | AML | AML | 01 08 19.5 | |
| **KHZ** | **Kahutara** | **1.18** | **27** | AML | AML | 01 08 29.0 | |
| KHZ | | | | AML | AML | 01 08 32.7 | |
| **INZ** | **Inchbonnie** | **1.25** | **306** | P* | Pn | 01 08 15.2 | -0.4 |
| **RPZ** | **Rata Peaks** | **1.30** | **259** | AML | AML | 01 08 33.7 | |
| RPZ | | | | AML | AML | 01 08 36.2 | |
| **WVZ** | **Waitaha Valley** | **1.57** | **284** | AML | AML | 01 08 41.0 | |
| WVZ | | | | AML | AML | 01 08 42.8 | |
| **THZ** | **Tophouse** | **1.71** | **2** | AML | AML | 01 08 42.6 | |
| THZ | | | | AML | AML | 01 08 44.7 | |
| **DSZ** | **Denniston Nort** | **1.88** | **336** | AML | AML | 01 08 48.7 | |
| DSZ | | | | AML | AML | 01 08 48.9 | |
| **LBZ** | **Lake Benmore** | **2.11** | **244** | AML | AML | 01 09 01.1 | |
| LBZ | | | | AML | AML | 01 09 03.1 | |
| **FOZ** | **Fox Glacier** | **2.19** | **267** | AML | AML | 01 08 55.5 | |
| FOZ | | | | AML | AML | 01 08 55.7 | |
| **ODZ** | **Otahua Downs** | **2.21** | **224** | AML | AML | 01 09 02.8 | |
| ODZ | | | | AML | AML | 01 09 03.3 | |
| **NNZ** | **Nelson** | **2.29** | **11** | AML | AML | 01 08 57.9 | |
| NNZ | | | | AML | AML | 01 08 59.0 | |

**WEL 23 01:09:57.7±0.3, 43°.52S×172°.81E, h17km±3km, ML3.8/8, Error ellipse: s-maj=3.4km s-min=1.4km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.15** | **247** | P* | Pg | 01 10 01.5 | -0.3 |
| CRLZ | | | | S* | Sg | 01 10 04.6 | +0.1 |
| CRLZ | | | | AML | AML

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | baz=295 | | | | | | | | |
| **MDOK** | **Medeo** | **3.06** | **6** | *e*P | | **Pg** | **01 11 28.6** | **+0.8** |
| | 53nm,0.5s | | | | | | | | |
| MDOK | | | | *e*S | | **Sg** | **01 12 06.5** | **-0.8** |
| | 120nm,0.6s | | | | | | | | |
| **BMNS** | **Besmoynak** | **3.07** | **347** | *e*P | | **Pg** | **01 11 28.6** | **+0.6** |
| | 32nm,0.4s | | | | | | | | |
| BMNS | | | | *e*S | | **Sg** | **01 12 06.7** | **-1.1** |
| | 220nm,0.4s | | | | | | | | |
| **FRU1** | **Bishkek** | **3.08** | **331** | ⇑*e*P | | **Pb** | **01 11 23.0** | **-0.7** |
| | baz=332 | | | | | | | | |
| FRU1 | | | | ⇑*e*S | | **Sb** | **01 12 02.9** | **+1.8** |
| | baz=332 | | | | | | | | |
| **AAA** | **Alma-Ata** | **3.09** | **4** | *e*P | | **Pg** | **01 11 30.0** | **+1.6** |
| | 58nm,0.3s | | | | | | | | |
| AAA | | | | *e*S | | **Sg** | **01 12 09.1** | **+0.5** |
| | 223nm,0.6s | | | | | | | | |
| **KOTS** | **Kotyrbulak** | **3.13** | **6** | *e*P | | **Pg** | **01 11 30.8** | **+1.6** |
| KOTS | | | | *e*S | | **Sg** | **01 12 10.7** | **+0.9** |
| **DGS** | **Degeres** | **3.18** | **349** | *e*P | | **Pg** | **01 11 32.0** | **+1.8** |
| | 58nm,0.5s | | | | | | | | |
| DGS | | | | *e*S | | **Sg** | **01 12 12.8** | **+1.3** |
| | 183nm,0.6s | | | | | | | | |
| **CHMS** | **Chumysh** | **3.20** | **335** | ⇑*e*P | | **Pb** | **01 11 24.6** | **-1.2** |
| | baz=335 | | | | | | | | |
| CHMS | | | | ⇑*i*S | | **Sb** | **01 12 03.0** | **-1.7** |
| | baz=335 | | | | | | | | |
| **CHMS** | **Chumysh** | **3.20** | **335** | P | | **Pb** | **01 11 25.4** | **-0.4** |
| | SNR=46 | | | | | | | | |
| **SATY** | **Saty** | **3.22** | **24** | *e*P | | **Pg** | **01 11 32.0** | **+1.1** |
| | 31nm,0.2s | | | | | | | | |
| SATY | | | | *e*S | | **Sg** | **01 12 12.6** | **-0.2** |
| | 85nm,0.5s | | | | | | | | |
| **EKS2** | **Erkin-Say** | **3.32** | **321** | ⇑*e*P | | **Pb** | **01 11 26.3** | **-1.6** |
| | baz=322 | | | | | | | | |
| EKS2 | | | | ⇑*e*S | | **Sb** | **01 12 06.1** | **-2.1** |
| | baz=322 | | | | | | | | |
| **EKS2** | **Erkin-Say** | **3.32** | **321** | P | | **Pb** | **01 11 27.7** | **-0.2** |
| | SNR=27 | | | | | | | | |
| **UZB** | **Uzynbulak** | **3.52** | **30** | *e*P | | **Pg** | **01 11 36.4** | **-0.2** |
| | 7.7nm,0.4s | | | | | | | | |
| UZB | | | | *e*S | | **Sg** | **01 12 20.0** | **-2.1** |
| | 41nm,0.9s | | | | | | | | |
| **USP** | **Ospenovka** | **3.52** | **334** | ⇑*i*P | | **Pb** | **01 11 29.4** | **-1.9** |
| | baz=335 | | | | | | | | |
| USP | | | | ⇑*e*S | | **Sb** | **01 12 10.9** | **-3.0** |
| | baz=335 | | | | | | | | |
| **USP** | **Ospenovka** | **3.52** | **334** | P | | **Pb** | **01 11 29.8** | **-1.6** |
| | SNR=33 | | | | | | | | |
| **KURS** | **Kuram** | **3.56** | **18** | *e*P | | **Pg** | **01 11 38.5** | **+1.2** |
| KURS | | | | *e*S | | **Sg** | **01 12 23.5** | **+0.1** |
| **SHLS** | **Shalkode** | **3.70** | **34** | *e*P | | **Pg** | **01 11 43.5** | **+3.4** |
| | 13nm,0.3s | | | | | | | | |
| SHLS | | | | *e*S | | **Sg** | **01 12 32.8** | **+4.7** |
| | 102nm,0.8s | | | | | | | | |
| **CHKK** | **Chushkaly** | **3.74** | **4** | *e*P | | **Pg** | **01 11 41.5** | **+0.7** |
| | 17nm,0.3s | | | | | | | | |
| CHKK | | | | *e*S | | **Sg** | **01 12 28.6** | **-0.6** |
| | 147nm,0.3s | | | | | | | | |
| **PDGK** | **Podgornoye** | **3.85** | **33** | ⇑*e*P | | **Pb** | **01 11 32.7** | **-4.3** |
| | baz=34 | | | | | | | | |
| PDGK | | | | ⇑*i*S | | **Sb** | **01 12 18.4** | **-5.1** |
| | baz=34 | | | | | | | | |
| **PDGK** | **Podgornoye** | **3.85** | **33** | ⇑Pg | | **Pg** | **01 11 40.5** | **-2.5** |
| | 13nm,0.5s | | | | | | | | |
| PDGK | | | | ⇑Lg | | Lg | 01 12 30.9 | |
| | 107nm,0.8s | | | | | | | | |
| **MNAS** | **Manas** | **3.90** | **309** | ⇑*i*P | | **Pb** | **01 11 34.0** | **-3.8** |
| | baz=309 | | | | | | | | |
| MNAS | | | | ⇑*i*S | | **Sb** | **01 12 20.4** | **-4.6** |
| | baz=309 | | | | | | | | |
| **MNAS** | **Manas** | **3.90** | **309** | ⇓Pn | | **Pb** | **01 11 34.4** | **-3.5** |
| | 5.4nm,0.4s | | | | | | | | |
| MNAS | | | | ⇓Lg | | Lg | 01 12 33.1 | |
| | 26nm,0.7s | | | | | | | | |
| **ARXS** | **Arharly** | **4.18** | **12** | *e*P | | **Pg** | **01 11 51.0** | **+1.6** |
| | 29nm,0.6s | | | | | | | | |
| ARXS | | | | *e*S | | **Sg** | **01 12 45.1** | **+1.5** |
| | 49nm,0.7s | | | | | | | | |
| **KK31** | **Karatay Array** | **5.47** | **305** | ⇑Pn | | Pn | 01 11 55.9 | +5.8 |
| | 0.6nm,0.5s,baz=131,slow=12,SNR=12 | | | | | | | | |
| KK31 | | | | Pg | | **Pg** | **01 12 10.3** | **-3.6** |
| | 1.8nm,0.4s,baz=126,slow=15,SNR=12 | | | | | | | | |
| KK31 | | | | ⇑Lg | | Lg | 01 13 24.7 | |
| | 5.4nm,0.5s,baz=124,slow=28,SNR=4.7 | | | | | | | | |
| **MK31** | **Makanchi Array** | **7.84** | **30** | Pn | | **Pn** | **01 12 26.0** | **+3.3** |
| | 1.6nm,0.8s,baz=205,slow=28,SNR=11 | | | | | | | | |
| MK31 | | | | ⇓Pg | | Pg | 01 12 53.9 | -5.2 |
| | 0.9nm,0.6s | | | | | | | | |
| MK31 | | | | ⇓Lg | | Lg | 01 14 37.3 | |
| | 5.6nm,1.0s,baz=213,slow=27,SNR=4.0 | | | | | | | | |

**WEL 23 01:10:46.2**±0.2,**43˚50S**×**172˚79E, h14**km±2km,**ML3.6**/6, **1D, Error ellipse: s-maj=1.9km s-min=0.8km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.14** | **239** | P* | Pg | 01 10 49.8 | -0.2 |
| CRLZ | | | | S* | Sg | 01 10 52.7 | +0.3 |
| CRLZ | | | | AML | AML | 01 10 54.1 | |
| **MQZ** | **McQueen's Vall** | **0.23** | **206** | P* | Pg | 01 10 51.2 | 0.0 |
| MQZ | | | | S* | Sg | 01 10 55.2 | +0.6 |
| MQZ | | | | S* | Sb | 01 10 55.2 | -0.9 |
| MQZ | | | | AML | AML | 01 10 55.4 | |
| **OXZ** | **Oxford** | **0.58** | **287** | ⇓P* | Pg | 01 10 57.2 | -0.3 |
| OXZ | | | | S* | Sg | 01 11 05.3 | +0.1 |
| OXZ | | | | AML | AML | 01 11 07.2 | |
| OXZ | | | | AML | AML | 01 11 07.3 | |
| OXZ | | | | AML | AML | 01 11 08.3 | |
| **LTZ** | **Lake Taylor** | **0.81** | **332** | P* | Pg | 01 11 01.3 | -0.7 |
| LTZ | | | | S* | Sg | 01 11 12.8 | +0.1 |
| **KHZ** | **Kahutara** | **1.22** | **27** | PN | Pn | 01 11 07.3 | -1.4 |
| KHZ | | | | AML | AML | 01 11 25.9 | |
| KHZ | | | | AML | AML | 01 11 26.6 | |
| **INZ** | **Inchbonnie** | **1.25** | **308** | *e*PN | Pn | 01 11 08.3 | -1.0 |
| **RPZ** | **Rata Peaks** | **1.28** | **260** | PN | Pn | 01 11 09.1 | -0.5 |
| RPZ | | | | AML | AML | 01 11 28.3 | |
| RPZ | | | | AML | AML | 01 11 30.3 | |

**WEL 23 01:11:00.4**±0.2,**43˚52S**×**172˚78E, h9**km±2km,**ML3.6**/6,**1C, Error ellipse: s-maj=2.4km s-min=1.4km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.12** | **245** | ⇑PG | Pg | 01 11 03.3 | 0.0 |
| CRLZ | | | | SG | Sg | 01 11 05.6 | +0.4 |
| CRLZ | | | | AML | AML | 01 11 06.5 | |
| **MQZ** | **McQueen's Vall** | **0.21** | **206** | PG | Pg | 01 11 04.6 | 0.0 |
| MQZ | | | | SG | Sg | 01 11 08.1 | +0.6 |
| MQZ | | | | SG | | 01 11 08.2 | |
| MQZ | | | | AML | AML | 01 11 08.7 | |
| **OXZ** | **Oxford** | **0.57** | **290** | P* | Pg | 01 11 11.7 | +0.2 |
| OXZ | | | | S* | Sg | 01 11 19.1 | +0.1 |
| OXZ | | | | AML | AML | 01 11 20.9 | |
| OXZ | | | | AML | AML | 01 11 21.4 | |
| OXZ | | | | AML | AML | 01 11 21.4 | |
| **LTZ** | **Lake Taylor** | **0.83** | **333** | P* | Pg | 01 11 16.3 | 0.0 |
| LTZ | | | | AML | AML | 01 11 27.9 | |
| **KHZ** | **Kahutara** | **1.24** | **27** | P* | Pn | 01 11 21.8 | -2.0 |
| KHZ | | | | AML | AML | 01 11 40.8 | |
| KHZ | | | | AML | AML | 01 11 43.5 | |
| **INZ** | **Inchbonnie** | **1.26** | **309** | S* | Sb | 01 11 39.5 | -1.1 |
| **RPZ** | **Rata Peaks** | **1.27** | **261** | AML | AML | 01 11 41.3 | |
| RPZ | | | | AML | AML | 01 11 41.6 | |

*ISCJB **23** 01:11:21.3±0.7, 43˚54S±0˚03×172˚91E±0˚05, h14km±4km, mb4.4/6, Error ellipse: s-maj=6.9km s-min=4.8km az=33.3*
*IDC **23** 01:11:21.8±1.2, 43˚31S×172˚83E, h0km, mb3.9/2, mb1 4.2/3, mb1mx3.8/30, mbtmp4.0/3, ML4.1/1, Error ellipse: s-maj=45.4km s-min=15.7km az=158.0*
*NEIC **23** 01:11:22.6±0.0, 43˚50S×172˚85E, h10km, mb4.3/2, ML4.6(WEL), After WEL.*
*WEL **23** 01:11:23.1±0.2, 43˚52S×172˚82E, h8km, ML4.5/71, Error ellipse: s-maj=1.5km s-min=0.7km az=90.0*
**ISC 23 01:11:22.1**±1.0,**43˚53S**±0˚04×**172˚90E**±0˚04,**h12**km±6km, **n106,** σ1§19/64,**mb4.3**/6,**1C, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.21** | **257** | Pg | | **Pg** | **01 11 26.9** | **+0.2** |
| **CRLZ** | **Canterbury Las** | **0.21** | **257** | PG | | **Pg** | **01 11 26.5** | **-0.2** |
| CRLZ | | | | SG | | **Sg** | **01 11 29.5** | **-0.3** |
| CRLZ | | | | SG | | **Sg** | **01 11 29.5** | **-0.3** |
| CRLZ | | | | AML | AML | 01 11 31.2 | | |
| CRLZ | | | | AML | AML | 01 11 31.2 | | |
| **MQZ** | **McQueen's Vall** | **0.25** | **225** | *e*Pg | | **Pg** | **01 11 27.7** | **+0.3** |
| MQZ | | | | *e*Sg | | **Sg** | **01 11 31.5** | **+0.5** |
| **MQZ** | **McQueen's Vall** | **0.25** | **225** | ⇑PG | | **Pg** | **01 11 27.7** | **+0.3** |
| MQZ | | | | SG | | **Sg** | **01 11 31.3** | **+0.2** |
| MQZ | | | | AML | AML | 01 11 32.2 | | |
| **OXZ** | **Oxford** | **0.66** | **287** | *e*Pg | | **Pg** | **01 11 34.5** | **-0.5** |
| OXZ | | | | *e*Sg | | **Sb** | **01 11 43.4** | **-1.3** |
| **OXZ** | **Oxford** | **0.66** | **287** | P* | | **Pg** | **01 11 34.6** | **-0.4** |
| OXZ | | | | S* | | **Sb** | **01 11 43.5** | **-1.3** |
| OXZ | | | | AML | AML | 01 11 45.9 | | |
| OXZ | | | | AML | AML | 01 11 46.8 | | |
| OXZ | | | | AML | AML | 01 11 47.0 | | |
| **LTZ** | **Lake Taylor** | **0.88** | **328** | *e*Pn | | **Pb** | **01 11 39.2** | **-0.1** |
| LTZ | | | | *e*Sg | | **Sb** | **01 11 50.9** | **-0.2** |
| **LTZ** | **Lake Taylor** | **0.88** | **328** | P* | | **Pb** | **01 11 39.2** | **-0.1** |
| LTZ | | | | AML | AML | 01 11 52.5 | | |
| **KHZ** | **Kahutara** | **1.21** | **23** | *e*Pn | | **Pg** | **01 11 45.4** | **+0.1** |
| KHZ | | | | *e*Sn | | **Sn** | **01 12 01.0** | **0.0** |
| **KHZ** | **Kahutara** | **1.21** | **23** | P* | | **Pb** | **01 11 45.1** | **+0.3** |
| KHZ | | | | AML | AML | 01 12 04.7 | | |
| KHZ | | | | AML | AML | 01 12 05.3 | | |
| KHZ | | | | AML | AML | 01 12 11.4 | | |
| KHZ | | | | AML | AML | 01 12 11.6 | | |
| **INZ** | **Inchbonnie** | **1.34** | **306** | *e*P* | | **Pb** | **01 11 46.8** | **-0.3** |
| **RPZ** | **Rata Peaks** | **1.36** | **261** | Pg | | **Pb** | **01 11 47.3** | **-0.2** |
| | 117nm,0.3s,baz=74,slow=11,SNR=7.4 | | | | | | | |
| RPZ | | | | Lg | | Lg | 01 12 04.2 | |
| | 144nm,0.3s,baz=13,slow=17,SNR=5.3 | | | | | | | |
| **RPZ** | **Rata Peaks** | **1.36** | **261** | *e*P* | | **Pn** | **01 11 46.2** | **-0.7** |
| RPZ | | | | AML | AML | 01 12 07.3 | | |
| RPZ | | | | AML | AML | 01 12 10.1 | | |
| **WVZ** | **Waitaha Valley** | **1.65** | **285** | AML | AML | 01 12 16.4 | | |
| WVZ | | | | AML | AML | 01 12 16.9 | | |
| **THZ** | **Tophouse** | **1.77** | **0** | *e*Pn | | **Pn** | **01 11 51.6** | **-0.9** |
| THZ | | | | *e*Sn | | **Sn** | **01 12 13.8** | **-1.1** |
| **THZ** | **Tophouse** | **1.77** | **0** | PN | | **Pn** | **01 11 52.0** | **-0.5** |
| THZ | | | | AML | AML | 01 12 17.5 | | |
| THZ | | | | AML | AML | 01 12 19.6 | | |
| **BSWZ** | **Blackbirch Sta** | **1.95** | **22** | PN | | **Pn** | **01 11 55.1** | **+0.1** |
| BSWZ | | | | AML | AML | 01 12 20.9 | | |
| BSWZ | | | | AML | AML | 01 12 23.0 | | |
| **DSZ** | **Denniston Nort** | **1.96** | **335** | Pn | | **Pn** | **01 11 55.5** | **+0.4** |
| **DSZ** | **Denniston Nort** | **1.96** | **335** | PN | | **Pn** | **01 11 55.0** | **-0.2** |
| DSZ | | | | AML | AML | 01 12 21.3 | | |
| DSZ | | | | AML | AML | 01 12 23.5 | | |
| DSZ | | | | AML | AML | 01 12 28.7 | | |
| DSZ | | | | AML | AML | 01 12 30.2 | | |
| **LBZ** | **Lake Benmore** | **2.14** | **245** | *e*Pn | | **Pg** | **01 12 02.3** | **-0.9** |
| LBZ | | | | *e*Sn | | **Sg** | **01 12 32.3** | **+1.3** |
| **LBZ** | **Lake Benmore** | **2.14** | **245** | AML | AML | 01 12 34.9 | | |
| LBZ | | | | AML | AML | 01 12 35.2 | | |
| **ODZ** | **Otahua Downs** | **2.22** | **226** | *e*Pn | | **Pn** | **01 11 57.0** | **-1.7** |
| ODZ | | | | *e*Pg | | **Pg** | **01 12 04.5** | **-0.2** |
| ODZ | | | | *e*Sn | | **Sg** | **01 12 32.5** | **-1.0** |
| **ODZ** | **Otahua Downs** | **2.22** | **226** | AML | AML | 01 12 36.0 | | |
| ODZ | | | | AML | AML | 01 12 36.5 | | |
| **TUWZ** | **Tuamarina** | **2.23** | **20** | AML | AML | 01 12 35.5 | | |
| TUWZ | | | | AML | AML | 01 12 35.8 | | |
| **FOZ** | **Fox Glacier** | **2.25** | **269** | *e*Pn | | **Pn** | **01 12 00.2** | **+1.2** |
| FOZ | | | | *e*Sn | | **Sg** | **01 12 37.3** | **+3.0** |
| **FOZ** | **Fox Glacier** | **2.25** | **269** | PN | | **Pb** | **01 12 00.3** | **-2.3** |
| FOZ | | | | AML | AML | 01 12 28.7 | | |
| FOZ | | | | AML | AML | 01 12 29.6 | | |
| **NNZ** | **Nelson** | **2.34** | **9** | PN | | **Pn** | **01 12 00.7** | **+0.4** |
| NNZ | | | | AML | AML | 01 12 31.1 | | |
| NNZ | | | | AML | AML | 01 12 32.5 | | |
| **TCW** | **Tory Channel** | **2.53** | **24** | AML | AML | 01 12 35.0 | | |
| TCW | | | | AML | AML | 01 12 35.9 | | |
| **BHW** | **Baring Head** | **2.57** | **35** | AML | AML | 01 12 28.2 | | |
| BHW | | | | AML | AML | 01 12 35.0 | | |
| **SNZO** | **South Karori** | **2.59** | **32** | *e*Pn | | **Pn** | **01 12 03.7** | **-0.1** |
| **PLWZ** | **Palliser** | **2.62** | **42** | AML | AML | 01 12 37.1 | | |
| PLWZ | | | | AML | AML | 01 12 37.9 | | |
| **WEL** | **Wellington** | **2.63** | **32** | PN | | **Pn** | **01 12 04.4** | **0.0** |
| WEL | | | | AML | AML | 01 12 35.2 | | |
| WEL | | | | AML | AML | 01 12 35.8 | | |
| **QRZ** | **Quartz Range** | **2.71** | **354** | AML | AML | 01 12 17.8 | | |
| QRZ | | | | AML | AML | 01 12 42.5 | | |
| **MSWZ** | **Moikau Station** | **2.73** | **40** | AML | AML | 01 12 38.9 | | |
| MSWZ | | | | AML | AML | 01 12 39.2 | | |
| **DUWZ** | **D'Urville Isla** | **2.83** | **16** | AML | AML | 01 12 45.7 | | |
| DUWZ | | | | AML | AML | 01 12 47.2 | | |
| **PAWZ** | **Paruwai Farm** | **2.84** | **42** | AML | AML | 01 12 41.3 | | |
| PAWZ | | | | AML | AML | 01 12 46.9 | | |
| **HHSZ** | **Highcliff Hill** | **2.87** | **214** | AML | AML | 01 13 04.1 | | |
| HHSZ | | | | AML | AML | 01 13 05.0 | | |
| **CAW** | **Cannon Point** | **2.90** | **34** | AML | AML | 01 12 42.8 | | |
| CAW | | | | AML | AML | 01 12 42.8 | | |
| **JCZ** | **Jackson Bay** | **3.03** | **258** | AML | AML | 01 13 01.9 | | |
| JCZ | | | | AML | AML | 01 13 02.8 | | |
| **MTW** | **Mount Morrison** | **3.05** | **40** | AML | AML | 01 12 45.1 | | |
| MTW | | | | AML | AML | 01 12 48.6 | | |
| **KIW** | **Kapiti Island** | **3.05** | **30** | AML | AML | 01 12 46.1 | | |
| KIW | | | | AML | AML | 01 12 46.5 | | |
| **WKZ** | **Wanaka** | **3.08** | **244** | *e*Pn | | **Pg** | **01 12 20.5** | **-0.7** |
| WKZ | | | | *e*Lg | | Lg | 01 13 05.4 | |
| **WKZ** | **Wanaka** | **3.08** | **244** | AML | AML | 01 13 10.3 | | |
| WKZ | | | | AML | AML | 01 13 10.6 | | |
| **EAZ** | **Earnscleugh** | **3.09** | **235** | AML | AML | 01 13 03.3 | | |
| EAZ | | | | AML | AML | 01 13 04.2 | | |
| **OGWZ** | **Otaki Gorge** | **3.19** | **33** | SN | | **Sn** | **01 12 47.6** | **-2.5** |
| OGWZ | | | | AML | AML | 01 12 48.5 | | |
| **HOWZ** | **Holdsworth Sta** | **3.27** | **37** | AML | AML | 01 12 51.3 | | |
| HOWZ | | | | AML | AML | 01 12 53.7 | | |
| **TMWZ** | **Te Maipa** | **3.28** | **43** | AML | AML | 01 12 54.2 | | |
| TMWZ | | | | AML | AML | 01 12 55.7 | | |
| **TUZ** | **Tuapeka** | **3.36** | **223** | *e*Pn | | **Pn** | **01 12 14.6** | **+0.1** |
| TUZ | | | | AML | AML | 01 13 13.8 | | |
| TUZ | | | | AML | AML | 01 13 14.7 | | |
| **MRZ** | **Mangatainoka R** | **3.49** | **36** | AML | AML | 01 12 58.3 | | |
| MRZ | | | | AML | AML | 01 12 58.4 | | |
| **PRWZ** | **Pori Road** | **3.75** | **39** | AML | AML | 01 13 06.7 | | |
| PRWZ | | | | AML | AML | 01 13 06.9 | | |
| **BFZ** | **Birch Farm** | **3.78** | **42** | *e*Pn | | **Pn** | **01 12 19.0** | **-1.1** |
| **BFZ** | **Birch Farm** | **3.78** | **42** | PN | | **Pn** | **01 12 18.7** | **-1.4** |
| BFZ | | | | AML | AML | 01 13 04.5 | | |
| BFZ | | | | AML | AML | 01 13 05.6 | | |
| **POWZ** | **Post Office Ro** | **3.79** | **35** | AML | AML | 01 13 08.1 | | |
| POWZ | | | | AML | AML | 01 13 08.2 | | |
| **MLZ** | **Mavora Lakes** | **3.89** | **240** | AML | AML | 01 13 31.0 | | |
| MLZ | | | | AML | AML | 01 13 32.2 | | |
| **SYZ** | **Scrubby Hill** | **4.02** | **220** | AML | AML | 01 13 33.5 | | |
| SYZ | | | | AML | AML | 01 13 37.0 | | |
| **WAZ** | **Wanganui** | **4.08** | **23** | AML | AML | 01 13 18.2 | | |
| WAZ | | | | AML | AML | 01 13 20.2 | | |
| **WHZ** | **Wether Hill Ro** | **4.25** | **234** | AML | AML | 01 13 44.8 | | |
| WHZ | | | | AML | AML | 01 13 49.4 | | |
| **PRHZ** | **Porangahau** | **4.29** | **42** | AML | AML | 01 13 19.6 | | |
| PRHZ | | | | AML | AML | 01 13 20.5 | | |
| **WPHZ** | **Waipukurau** | **4.36** | **39** | AML | AML | 01 13 21.3 | | |
| WPHZ | | | | AML | AML | 01 13 22.2 | | |
| **PNHZ** | **Pukenui** | **4.37** | **35** | AML | AML | 01 13 20.9 | | |
| PNHZ | | | | AML | AML | 01 13 21.1 | | |
| **DCZ** | **Deep Cove** | **4.55** | **243** | *e*Pn | | **Pn** | **01 12 30.4** | **-0.3** |
| **DCZ** | **Deep Cove** | **4.55** | **243** | AML | AML | 01 13 22.2 | | |
| DCZ | | | | AML | AML | 01 13 24.1 | | |
| **MOVZ** | **Moawhango** | **4.64** | **28** | AML | AML | 01 13 28.8 | | |
| MOVZ | | | | AML | AML | 01 13 29.3 | | |
| **TRVZ** | **Turoa** | **4.67** | **26** | AML | AML | 01 13 29.8 | | |
| TRVZ | | | | AML | AML | 01 13 29.8 | | |
| **KRHZ** | **Kereru** | **4.67** | **35** | AML | AML | 01 13 26.8 | | |
| KRHZ | | | | AML | AML | 01 13 27.3 | | |
| **BHHZ** | **Black Hill Sta** | **4.68** | **32** | AML | AML | 01 13 27.8 | | |
| BHHZ | | | | AML | AML | 01 13 28.9 | | |
| **FWVZ** | **Far West T-bar** | **4.71** | **26** | AML | AML | 01 13 30.8 | | |
| FWVZ | | | | AML | AML | 01 13 31.6 | | |
| **TUVZ** | **Tukino** | **4.73** | **27** | AML | AML | 01 13 31.2 | | |
| TUVZ | | | | AML | AML | 01 13 31.5 | | |
| **KAHZ** | **Kahuranaki** | **4.77** | **40** | AML | AML | 01 13 30.7 | | |
| KAHZ | | | | AML | AML | 01 13 32.0 | | |
| **APZ** | **The Paps** | **4.79** | **225** | AML | AML | 01 13 52.5 | | |
| APZ | | | | AML | AML | 01 14 04.2 | | |
| **NGZ** | **Ngauruhoe** | **4.80** | **26** | AML | AML | 01 13 32.3 | | |
| NGZ | | | | AML | AML | 01 13 33.2 | | |
| **OTVZ** | **Oturere** | **4.83** | **26** | AML | AML | 01 13 31.6 | | |
| OTVZ | | | | AML | AML | 01 13 32.2 | | |
| **TWVZ** | **Taurewa** | **4.84** | **24** | AML | AML | 01 13 33.3 | | |
| **WTVZ** | **West Tongariro** | **4.85** | **26** | AML | AML | 01 13 32.5 | | |
| WTVZ | | | | AML | AML | 01 13 34.0 | | |
| **KWHZ** | **Kaweka Forest** | **4.88** | **34** | AML | AML | 01 13 38.5 | | |
| KWHZ | | | | AML | AML | 01 13 39.6 | | |
| **KRVZ** | **Karewarewa** | **4.89** | **26** | AML | AML | 01 13 33.2 | | |
| KRVZ | | | | AML | AML | 01 13 35.0 | | |
| **MCHZ** | **McNeill Hill** | **4.98** | **36** | AML | AML | 01 13 39.2 | | |
| MCHZ | | | | AML | AML | 01 13 39.6 | | |
| **RATZ** | **Rangitukua** | **5.13** | **26** | AML | AML | 01 13 43.9 | | |
| RATZ | | | | AML | AML | 01 13 44.9 | | |
| **PYZ** | **Puysegur Point** | **5.15** | **237** | *e*Pn | | **Pn** | **01 12 39.3** | **+0.3** |
| **PYZ** | **Puysegur Point** | **5.15** | **237** | AML | AML | 01 14 09.9 | | |
| PYZ | | | | AML | AML | 01 14 10.2 | | |
| **HIZ** | **Hauiti** | **5.22** | **17** | *e*Pn | | **Pn** | **01 12 40.8** | **+0.8** |
| **HIZ** | **Hauiti** | **5.22** | **17** | AML | AML | 01 13 43.1 | | |
| HIZ | | | | AML | AML | 01 13 44.1 | | |
| **ARHZ** | **Aropaoanui** | **5.26** | **37** | AML | AML | 01 13 42.4 | | |
| ARHZ | | | | AML | AML | 01 13 42.8 | | |
| **KNZ** | **Kokohu** | **5.76** | **40** | AML | AML | 01 14 05.2 | | |
| **RIGZ** | **Rimuhau** | **6.05** | **39** | AML | AML | 01 13 58.9 | | |
| RIGZ | | | | AML | AML | 01 14 00.7 | | |
| **TOZ** | **Tahuroa Road** | **6.12** | **20** | AML | AML | 01 14 02.4 | | |
| TOZ | | | | AML | AML | 01 14 05.5 | | |
| **URZ** | **Urewera** | **6.15** | **33** | Pn | | **Pn** | **01 12 51.3** | **-1.5** |
| | 5.2nm,0.3s,baz=228,slow=7.5,SNR=11 | | | | | | | |
| URZ | | | | Sn | | **Sn** | **01 13 58.0** | **-5.1** |
| | 7.4nm,0.3s,baz=88,slow=19,SNR=4.3 | | | | | | | |
| **URZ** | **Urewera** | **6.15** | **33** | AML | AML | 01 14 03.4 | | |
| URZ | | | | AML | AML | 01 14 03.9 | | |
| **MWZ** | **Matawai** | **6.26** | **36** | AML | AML | 01 14 04.9 | | |
| MWZ | | | | AML | AML | 01 14 05.6 | | |
| **PUZ** | **Puketiti** | **6.80** | **38** | AML | AML | 01 14 16.5 | | |
| PUZ | | | | AML | AML | 01 14 16.9 | | |
| **CTAO** | **Charters Tower** | **32.29** | **308** | *e*P | | **P** | **01 17 51.0** | **+0.2** |
| | 31nm,1.0s | | | | | | | |
| **ASAR** | **Alice Springs** | **37.61** | **289** | P | | **P** | **01 18 37.7** | **+0.9** |
| | 1.0nm,0.5s,baz=129,slow=7.8,SNR=9.1 | | | | | | | |
| **WRAB** | **Tennant Creek** | **39.85** | **294** | *e*P | | **P** | **01 18 55.5** | **-0.1** |
| | 2.2nm,0.5s | | | | | | | |
| **WR1** | **Warramunga Arr** | **39.85** | **294** | *e*P | | **P** | **01 18 56.3** | **+0.7** |
| | 16nm,1.4s | | | | | | | |
| **WRA** | **Warramunga Arr** | **39.85** | **294** | P | | **P** | **01 18 56.3** | **+0.7** |
| | 1.2nm,0.5s,baz=134,slow=8.0,SNR=19 | | | | | | | |
| **QSPA** | **South Pole Qui** | **46.60** | **180** | *e*P | | **P** | **01 19 52.8** | **+3.0** |
| | 10nm,1.0s | | | | | | | |
| **YKA** | **Yellowknife Ar** | **120.41** | **31** | PKP | | **PKPdf** | **01 30 11.8** | **-0.4** |
| | 0.3nm,0.8s,baz=245,slow=1.6,SNR=3.7 | | | | | | | |
| **YKB5** | **Yellowknife Ar** | **120.41** | **31** | *e*PKPdf | | **PKPdf** | **01 30 11.8** | **-0.4** |
| **TORD** | **Torodi Ar. Bea** | **148.79** | **197** | PKPbc | | **PKPab** | **01 31 12.8** | **-0.7** |
| | 1.3nm,0.8s,baz=158,slow=2.7,SNR=5.7 | | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **148.80** | **197** | *e*PKPbc | | **PKPab** | **01 31 12.8** | **-0.7** |
| **ARA0** | **ARCESS Array S** | **149.09** | **338** | *e*PKPbc | | **PKPbc** | **01 31 10.3** | **+1.4** |
| **ARCES** | **ARCESS Array B** | **149.09** | **338** | PKPbc | | **PKPbc** | **01 31 10.3** | **+1.4** |
| | 3.0nm,0.8s,baz=57,slow=3.3,SNR=5.6 | | | | | | | |
| **BR101** | **Keskin Array S** | **149.53** | **277** | *e*PKPbc | | **PKPbc** | **01 31 11.7** | **+0.5** |
| **BRTR** | **Keskin Array B** | **149.53** | **277** | PKPbc | | **PKPbc** | **01 31 11.6** | **+0.5** |
| | 0.6nm,0.7s,baz=106,slow=3.1,SNR=3.9 | | | | | | | |
| **FIA0** | **FINESS Array S** | **153.43** | **324** | *e*PKPbc | | **PKPbc** | **01 31 19.6** | **+0.4** |
| **FINES** | **FINESS Array B** | **153.43** | **324** | PKPbc | | **PKPbc** | **01 31 19.6** | **+0.4** |
| | 3.7nm,0.9s,baz=54,slow=2.4,SNR=4.7 | | | | | | | |

*IDC **23** 01:14:56.5±2.7, 43˚38S×172˚90E, h0km, mb3.5/2, mb1 3.8/3, mb1mx3.6/28, mbtmp3.6/3, ML3.5/1, Error ellipse: s-maj=74.7km s-min=17.4km az=154.0*
*ISCJB **23** 01:14:57.4±0.4, 43˚56S±0˚04×172˚97E±0˚06, h27km, mb3.5/3, Error ellipse: s-maj=8.3km s-min=2.8km az=136.1*
*NEIC **23** 01:14:57.8±0.0, 43˚53S×172˚94E, h9km, mb3.7/1, ML4.2(WEL), After WEL.*
*NEIC Felt at Christchurch.*
*WEL **23** 01:14:58.7±0.1, 43˚47S×172˚84E, h8km±1km, ML4.1/43, Error ellipse: s-maj=1.4km s-min=0.6km az=90.0*
*WEL Felt from West Coast to Canterbury, maximum reported intensity MM 5.*
**ISC 23 01:14:58.3**±0.9,**43˚51S**±0˚04×**172˚91E**±0˚04,**h27**km,**n113,** σ1§39/112,**mb3.5**/3,**5C, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.22** | **252** | Pg | **Pb** | **01 15 02.6** | **-1.8** |
| **CRLZ** | **Canterbury Las** | **0.22** | **252** | PG | **Pb** | **01 15 02.3** | **-2.1** |
| CRLZ | | | | SG | **Sb** | **01 15 05.3** | **-3.2** |
| CRLZ | | | | AML | AML | 01 15 05.8 | |
| CRLZ | | | | AML | AML | 01 15 06.4 | |
| CRLZ | | | | AML | AML | 01 15 06.4 | |
| **MQZ** | **McQueen's Vall** | **0.27** | **223** | Pg | **Pb** | **01 15 04.1** | **-1.0** |
| **MQZ** | **McQueen's Vall** | **0.27** | **223** | ⇑PG | **Pb** | **01 15 04.1** | **-1.0** |
| MQZ | | | | SG | **Sb** | **01 15 08.1** | **-1.6** |
| MQZ | | | | AML | AML | 01 15 08.1 | |
| MQZ | | | | AML | AML | 01 15 08.5 | |
| **OXZ** | **Oxford** | **0.66** | **286** | P* | **Pb** | **01 15 10.2** | **-1.1** |
| **OXZ** | **Oxford** | **0.66** | **286** | P* | **Pb** | **01 15 10.1** | **-1.1** |
| OXZ | | | | AML | AML | 01 15 20.2 | |
| OXZ | | | | AML | AML | 01 15 20.2 | |
| OXZ | | | | AML | AML | 01 15 20.6 | |
| OXZ | | | | AML | AML | 01 15 20.6 | |
| **LTZ** | **Lake Taylor** | **0.86** | **327** | P* | **Pn** | **01 15 14.4** | **-0.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **TCW** | **Tory Channel** | **2.51** | **24** | AML | AML | 01 16 10.1 | |
| **BHW** | **Baring Head** | **2.55** | **35** | Pn | **Pn** | **01 15 38.5** | **+0.6** |
| **BHW** | **Baring Head** | **2.55** | **35** | PN | **Pn** | **01 15 38.4** | **+0.6** |
| BHW | | | | AML | AML | 01 16 13.4 | |
| **SNZO** | **South Karori** | **2.57** | **32** | *e*Pn | **Pn** | **01 15 38.6** | **+0.5** |
| **PLWZ** | **Palliser** | **2.60** | **43** | Pn | **Pn** | **01 15 39.0** | **+0.4** |
| **PLWZ** | **Palliser** | **2.60** | **43** | PN | **Pn** | **01 15 39.0** | **+0.4** |
| PLWZ | | | | AML | AML | 01 16 10.6 | |
| PLWZ | | | | AML | AML | 01 16 13.1 | |
| **QRZ** | **Quartz Range** | **2.70** | **354** | Pn | **Pn** | **01 15 40.9** | **+1.0** |
| **QRZ** | **Quartz Range** | **2.70** | **354** | PN | **Pn** | **01 15 40.9** | **+1.0** |
| QRZ | | | | AML | AML | 01 15 54.6 | |
| QRZ | | | | AML | AML | 01 16 36.7 | |
| **MSWZ** | **Moikau Station** | **2.71** | **40** | Pn | **Pn** | **01 15 40.6** | **+0.4** |
| **MSWZ** | **Moikau Station** | **2.71** | **40** | PN | **Pn** | **01 15 40.6** | **+0.4** |
| MSWZ | | | | AML | AML | 01 16 12.5 | |
| MSWZ | | | | AML | AML | 01 16 12.6 | |
| **DUWZ** | **D'Urville Isla** | **2.81** | **16** | Pn | **Pb** | **01 15 45.5** | **-2.3** |
| **DUWZ** | **D'Urville Isla** | **2.81** | **16** | *e*PN | **Pn** | **01 15 42.6** | **+1.1** |
| DUWZ | | | | AML | AML | 01 16 24.6 | |
| DUWZ | | | | AML | AML | 01 16 47.6 | |
| **CAW** | **Cannon Point** | **2.88** | **34** | Pn | **Pn** | **01 15 43.0** | **+0.5** |
| **CAW** | **Cannon Point** | **2.88** | **34** | PN | **Pn** | **01 15 43.0** | **+0.5** |
| CAW | | | | AML | AML | 01 16 20.3 | |
| CAW | | | | AML | AML | 01 16 20.9 | |
| **HHSZ** | **Highcliff Hill** | **2.89** | **214** | Pn | **Pn** | **01 15 43.5** | **+0.9** |
| **HHSZ** | **Highcliff Hill** | **2.89** | **214** | ⇑PN | **Pn** | **01 15 43.4** | **+0.9** |
| HHSZ | | | | AML | AML | 01 16 39.5 | |
| HHSZ | | | | AML | AML | 01 16 52.3 | |
| **KIW** | **Kapiti Island** | **3.04** | **30** | Pn | **Pn** | **01 15 45.2** | **+0.6** |
| **KIW** | **Kapiti Island** | **3.04** | **30** | PN | **Pn** | **01 15 45.2** | **+0.6** |
| KIW | | | | AML | AML | 01 16 21.2 | |
| **MTW** | **Mount Morrison** | **3.04** | **40** | Pn | **Pn** | **01 15 44.6** | **+0.1** |
| **MTW** | **Mount Morrison** | **3.04** | **40** | PN | **Pn** | **01 15 44.6** | **+0.1** |
| MTW | | | | AML | AML | 01 16 20.4 | |
| MTW | | | | AML | AML | 01 16 20.8 | |
| **JCZ** | **Jackson Bay** | **3.04** | **258** | Pn | **Pn** | **01 15 46.2** | **+1.5** |
| **JCZ** | **Jackson Bay** | **3.04** | **258** | ⇑PN | **Pn** | **01 15 46.2** | **+1.5** |
| JCZ | | | | AML | AML | 01 16 36.1 | |
| JCZ | | | | AML | AML | 01 16 41.2 | |
| **WKZ** | **Wanaka** | **3.10** | **243** | AML | AML | 01 16 41.5 | |
| WKZ | | | | AML | AML | 01 16 41.6 | |
| WKZ | | | | AML | AML | 01 16 48.5 | |
| WKZ | | | | AML | AML | 01 16 48.5 | |
| **EAZ** | **Earnscleugh** | **3.10** | **235** | Pn | **Pn** | **01 15 46.1** | **+0.7** |
| **EAZ** | **Earnscleugh** | **3.10** | **235** | ⇑PN | **Pn** | **01 15 46.1** | **+0.7** |
| EAZ | | | | AML | AML | 01 16 40.3 | |
| EAZ | | | | AML | AML | 01 16 40.4 | |
| EAZ | | | | AML | AML | 01 16 41.6 | |
| EAZ | | | | AML | AML | 01 16 41.6 | |
| **OGWZ** | **Otaki Gorge** | **3.17** | **33** | Pn | **Pn** | **01 15 47.0** | **+0.6** |
| **OGWZ** | **Otaki Gorge** | **3.17** | **33** | PN | **Pn** | **01 15 47.0** | **+0.6** |
| OGWZ | | | | AML | AML | 01 16 26.6 | |
| OGWZ | | | | AML | AML | 01 16 26.8 | |
| **HOWZ** | **Holdsworth Sta** | **3.25** | **37** | Pn | **Pn** | **01 15 49.5** | **+2.1** |
| **HOWZ** | **Holdsworth Sta** | **3.25** | **37** | *e*PN | **Pn** | **01 15 47.8** | **+0.4** |
| HOWZ | | | | AML | AML | 01 16 25.9 | |
| HOWZ | | | | AML | AML | 01 16 26.0 | |
| **TUZ** | **Tuapeka** | **3.38** | **223** | Pn | **Pn** | **01 15 50.2** | **+1.0** |
| **TUZ** | **Tuapeka** | **3.38** | **223** | PN | **Pn** | **01 15 50.2** | **+1.0** |
| TUZ | | | | AML | AML | 01 16 50.6 | |
| TUZ | | | | AML | AML | 01 16 50.6 | |
| TUZ | | | | AML | AML | 01 16 51.6 | |
| TUZ | | | | AML | AML | 01 16 53.7 | |
| **MRZ** | **Mangatainoka R** | **3.47** | **36** | Pn | **Pn** | **01 15 50.7** | **+0.2** |
| **MRZ** | **Mangatainoka R** | **3.47** | **36** | *e*PN | **Pn** | **01 15 50.0** | **-0.5** |
| MRZ | | | | AML | AML | 01 16 34.5 | |
| MRZ | | | | AML | AML | 01 16 34.7 | |
| **PRWZ** | **Pori Road** | **3.73** | **39** | Pn | **Pn** | **01 15 55.0** | **+0.9** |
| **PRWZ** | **Pori Road** | **3.73** | **39** | AML | AML | 01 16 40.0 | |
| PRWZ | | | | AML | AML | 01 16 41.4 | |
| **BFZ** | **Birch Farm** | **3.76** | **42** | Pn | **Pn** | **01 15 54.3** | **-0.2** |
| **BFZ** | **Birch Farm** | **3.76** | **42** | PN | **Pn** | **01 15 54.3** | **-0.2** |
| BFZ | | | | SN | **Sn** | **01 16 36.6** | **-1.3** |
| BFZ | | | | AML | AML | 01 16 39.9 | |
| **MLZ** | **Mavora Lakes** | **3.90** | **240** | Pn | **Pn** | **01 15 56.9** | **+0.4** |
| **MLZ** | **Mavora Lakes** | **3.90** | **240** | PN | **Pn** | **01 15 56.5** | **0.0** |
| **SYZ** | **Scrubby Hill** | **4.04** | **220** | Pn | **Pn** | **01 15 59.6** | **+1.4** |
| **SYZ** | **Scrubby Hill** | **4.04** | **220** | ⇑PN | **Pn** | **01 15 59.6** | **+1.4** |
| SYZ | | | | AML | AML | 01 16 48.0 | |
| SYZ | | | | AML | AML | 01 16 49.3 | |
| **WHZ** | **Wether Hill Ro** | **4.27** | **234** | Pn | **Pn** | **01 16 02.0** | **+0.5** |
| **WHZ** | **Wether Hill Ro** | **4.27** | **234** | PN | **Pn** | **01 16 02.0** | **+0.5** |
| **PRHZ** | **Porangahau** | **4.27** | **42** | Pn | **Pn** | **01 16 01.2** | **-0.3** |
| **PRHZ** | **Porangahau** | **4.27** | **42** | PN | **Pn** | **01 16 01.2** | **-0.3** |
| PRHZ | | | | AML | AML | 01 16 55.1 | |
| **KHEZ** | **Kahui Hut** | **4.29** | **12** | Pn | **Pn** | **01 16 04.7** | **+2.8** |
| **KHEZ** | **Kahui Hut** | **4.29** | **12** | PN | **Pn** | **01 16 04.7** | **+2.8** |
| **NEZ** | **North Egmont** | **4.33** | **12** | Pn | **Pn** | **01 16 06.1** | **+3.7** |
| **NEZ** | **North Egmont** | **4.33** | **12** | PN | **Pn** | **01 16 06.1** | **+3.7** |
| **PKE** | **Pukeiti** | **4.39** | **11** | Pn | **Pn** | **01 16 05.6** | **+2.4** |
| **PKE** | **Pukeiti** | **4.39** | **11** | PN | **Pn** | **01 16 05.6** | **+2.4** |
| **DCZ** | **Deep Cove** | **4.56** | **243** | Pn | **Pn** | **01 16 05.8** | **+0.3** |
| **DCZ** | **Deep Cove** | **4.56** | **243** | PN | **Pn** | **01 16 05.8** | **+0.3** |
| DCZ | | | | AML | AML | 01 16 58.6 | |
| DCZ | | | | AML | AML | 01 16 59.1 | |
| **PKVZ** | **Pokaka** | **4.60** | **24** | Pn | **Pn** | **01 16 08.6** | **+2.5** |
| **VRZ** | **Vera Road** | **4.60** | **18** | Pn | **Pn** | **01 16 08.5** | **+2.5** |
| **VRZ** | **Vera Road** | **4.60** | **18** | AML | AML | 01 16 17.0 | |
| **MOVZ** | **Moawhango** | **4.62** | **28** | Pn | **Pn** | **01 16 07.3** | **+0.9** |
| **WNVZ** | **Wahianoa** | **4.64** | **27** | Pn | **Pn** | **01 16 09.0** | **+2.2** |
| **WNVZ** | **Wahianoa** | **4.64** | **27** | PN | **Pn** | **01 16 09.0** | **+2.2** |
| **TRVZ** | **Turoa** | **4.65** | **26** | Pn | **Pn** | **01 16 06.6** | **-0.4** |
| **TRVZ** | **Turoa** | **4.65** | **26** | PN | **Pn** | **01 16 06.6** | **-0.4** |
| TRVZ | | | | AML | AML | 01 16 23.1 | |
| TRVZ | | | | AML | AML | 01 17 04.1 | |
| **BHHZ** | **Black Hill Sta** | **4.66** | **32** | Pn | **Pn** | **01 16 08.3** | **+1.4** |
| **BHHZ** | **Black Hill Sta** | **4.66** | **32** | PN | **Pn** | **01 16 06.8** | **-0.1** |
| **TUVZ** | **Tukino** | **4.71** | **27** | Pn | **Pn** | **01 16 09.9** | **+2.2** |
| **TUVZ** | **Tukino** | **4.71** | **27** | PN | **Pn** | **01 16 09.9** | **+2.2** |
| **APZ** | **The Paps** | **4.81** | **225** | Pn | **Pn** | **01 16 09.7** | **+0.7** |
| **APZ** | **The Paps** | **4.81** | **225** | PN | **Pn** | **01 16 09.7** | **+0.7** |
| APZ | | | | AML | AML | 01 17 06.7 | |
| **OTVZ** | **Oturere** | **4.81** | **26** | Pn | **Pn** | **01 16 10.5** | **+1.4** |
| **OTVZ** | **Oturere** | **4.81** | **26** | PN | **Pn** | **01 16 10.5** | **+1.4** |
| OTVZ | | | | AML | AML | 01 16 41.0 | |
| **WTVZ** | **West Tongariro** | **4.83** | **26** | Pn | **Pn** | **01 16 10.9** | **+1.6** |
| **PYZ** | **Puysegur Point** | **5.17** | **237** | Pn | **Pn** | **01 16 13.6** | **-0.2** |
| **PYZ** | **Puysegur Point** | **5.17** | **237** | PN | **Pn** | **01 16 13.2** | **-0.5** |
| **HIZ** | **Hauiti** | **5.20** | **17** | Pn | **Pn** | **01 16 16.1** | **+1.7** |
| **HIZ** | **Hauiti** | **5.20** | **17** | PN | **Pn** | **01 16 16.1** | **+1.7** |
| HIZ | | | | AML | AML | 01 17 17.9 | |
| **ARHZ** | **Aropaoanui** | **5.24** | **37** | AML | AML | 01 17 17.2 | |
| ARHZ | | | | AML | AML | 01 17 17.8 | |
| **URZ** | **Urewera** | **6.13** | **33** | Pn | **Pn** | **01 16 26.3** | **-0.8** |
| | 1.1nm,0.3s,baz=217,slow=20,SNR=5.8 | | | | | | |
| URZ | | | | Sn | **Sn** | **01 17 33.3** | **-3.1** |
| | 2.0nm,0.3s,baz=142,slow=19,SNR=5.3 | | | | | | |
| **MWZ** | **Matawai** | **6.24** | **36** | Pn | **Pn** | **01 16 27.2** | **-1.4** |
| **MWZ** | **Matawai** | **6.24** | **36** | PN | **Pn** | **01 16 27.2** | **-1.4** |
| **ASAR** | **Alice Springs** | **37.61** | **289** | P | **P** | **01 22 12.7** | **+1.9** |
| | 0.4nm,0.5s,baz=127,slow=8.4,SNR=4.7 | | | | | | |
| **WRAB** | **Tennant Creek** | **39.85** | **294** | P | **P** | **01 22 31.2** | **+1.6** |
| | 1.1nm,0.6s | | | | | | |
| **WRA** | **Warramunga Arr** | **39.85** | **294** | P | **P** | **01 22 31.3** | **+1.7** |
| | 0.5nm,0.5s,baz=139,slow=7.4,SNR=9.2 | | | | | | |
| **BRTR** | **Keskin Array B** | **149.53** | **277** | PKPbc | **PKPbc** | **01 34 47.2** | **+2.3** |
| | 0.7nm,0.9s,baz=45,slow=4.3,SNR=3.3 | | | | | | |

**WEL 23 01:15:26.4±0.2, 43°.51S×172°.83E, h6km±1km, ML3.8/18, Error ellipse: s-maj=1.6km s-min=0.7km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.16** | **246** | PG | Pg | 01 15 29.7 | 0.0 |
| CRLZ | | | | SG | Sg | 01 15 32.2 | +0.2 |
| CRLZ | | | | AML | AML | 01 15 32.4 | |
| CRLZ | | | | AML | AML | 01 15 32.4 | |
| CRLZ | | | | AML | AML | 01 15 32.4 | |
| **MQZ** | **McQueen's Vall** | **0.24** | **213** | AML | AML | 01 15 15.1 | |
| MQZ | | | | AML | AML | 01 15 15.3 | |
| MQZ | | | | PG | Pg | 01 15 31.1 | +0.1 |
| MQZ | | | | SG | Sg | 01 15 34.5 | +0.3 |
| **OXZ** | **Oxford** | **0.60** | **287** | *e*P* | Pg | 01 15 37.7 | -0.3 |
| OXZ | | | | SG | Sb | 01 15 47.1 | -1.0 |
| OXZ | | | | AML | AML | 01 15 47.5 | |
| OXZ | | | | AML | AML | 01 15 48.2 | |
| OXZ | | | | AML | AML | 01 15 48.2 | |
| **LTZ** | **Lake Taylor** | **0.83** | **330** | P* | Pg | 01 15 42.8 | +0.4 |
| LTZ | | | | S* | Sb | 01 15 54.4 | -0.3 |
| **KHZ** | **Kahutara** | **1.21** | **26** | AML | AML | 01 16 06.2 | |
| KHZ | | | | AML | AML | 01 16 08.1 | |
| **RPZ** | **Rata Peaks** | **1.31** | **260** | AML | AML | 01 16 10.3 | |
| RPZ | | | | AML | AML | 01 16 10.5 | |
| **WVZ** | **Waitaha Valley** | **1.59** | **285** | AML | AML | 01 16 19.9 | |
| WVZ | | | | AML | AML | 01 16 23.6 | |
| **THZ** | **Tophouse** | **1.75** | **2** | AML | AML | 01 16 22.9 | |
| THZ | | | | AML | AML | 01 16 24.5 | |
| **DSZ** | **Denniston Nort** | **1.92** | **336** | AML | AML | 01 16 23.7 | |
| DSZ | | | | AML | AML | 01 16 24.6 | |
| DSZ | | | | AML | AML | 01 16 25.0 | |
| DSZ | | | | AML | AML | 01 16 27.7 | |
| **BSWZ** | **Blackbirch Sta** | **1.95** | **24** | AML | AML | 01 16 25.6 | |
| BSWZ | | | | AML | AML | 01 16 26.4 | |
| **LBZ** | **Lake Benmore** | **2.10** | **244** | AML | AML | 01 16 34.5 | |
| LBZ | | | | AML | AML | 01 16 35.5 | |
| **FOZ** | **Fox Glacier** | **2.19** | **268** | AML | AML | 01 16 31.3 | |
| FOZ | | | | AML | AML | 01 16 31.3 | |
| FOZ | | | | AML | AML | 01 16 31.9 | |
| FOZ | | | | AML | AML | 01 16 32.4 | |
| **NNZ** | **Nelson** | **2.33** | **10** | AML | AML | 01 16 33.7 | |
| NNZ | | | | AML | AML | 01 16 34.5 | |
| **TCW** | **Tory Channel** | **2.53** | **26** | AML | AML | 01 16 38.6 | |
| TCW | | | | AML | AML | 01 16 38.9 | |
| **BHW** | **Baring Head** | **2.59** | **36** | AML | AML | 01 16 40.7 | |

**WEL 23 01:16:06.1±0.3, 43°.53S×172°.76E, h8km±1km, ML3.2/4, 1C, Error ellipse: s-maj=2.7km s-min=1.1km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.11** | **245** | PG | Pg | 01 16 08.5 | -0.1 |
| CRLZ | | | | SG | Sg | 01 16 10.7 | +0.4 |
| CRLZ | | | | AML | AML | 01 16 10.9 | |
| CRLZ | | | | AML | AML | 01 16 11.0 | |
| CRLZ | | | | AML | AML | 01 16 11.0 | |
| **MQZ** | **McQueen's Vall** | **0.19** | **203** | ⇑PG | Pg | 01 16 10.0 | 0.0 |
| MQZ | | | | SG | Sg | 01 16 13.3 | +0.6 |
| MQZ | | | | AML | AML | 01 16 13.5 | |
| **OXZ** | **Oxford** | **0.56** | **291** | P* | Pg | 01 16 16.6 | -0.4 |
| OXZ | | | | S* | Sg | 01 16 25.1 | +0.8 |
| OXZ | | | | AML | AML | 01 16 26.6 | |
| OXZ | | | | AML | AML | 01 16 27.3 | |
| OXZ | | | | AML | AML | 01 16 27.4 | |
| **LTZ** | **Lake Taylor** | **0.83** | **334** | P* | Pg | 01 16 21.6 | -0.5 |
| LTZ | | | | S* | Sg | 01 16 33.1 | +0.3 |

**WEL 23 01:18:28.0±0.2, 43°.48S×172°.84E, h12km±1km, ML3.5/13, 1C, Error ellipse: s-maj=1.5km s-min=0.7km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.19** | **238** | ⇑PG | Pg | 01 18 32.2 | +0.1 |
| CRLZ | | | | SG | Sg | 01 18 35.4 | +0.4 |
| CRLZ | | | | SG | | 01 18 35.4 | |
| **MQZ** | **McQueen's Vall** | **0.27** | **211** | P* | Pg | 01 18 33.6 | 0.0 |
| MQZ | | | | S* | Sg | 01 18 37.9 | +0.6 |
| MQZ | | | | AML | AML | 01 18 38.0 | |
| **OXZ** | **Oxford** | **0.60** | **284** | P* | Pg | 01 18 39.3 | -0.4 |
| OXZ | | | | S* | Sg | 01 18 47.6 | -0.2 |
| OXZ | | | | S* | Sb | 01 18 47.8 | -1.2 |
| OXZ | | | | AML | AML | 01 18 49.5 | |
| OXZ | | | | AML | AML | 01 18 49.7 | |
| **LTZ** | **Lake Taylor** | **0.81** | **329** | P* | Pg | 01 18 53.0 | -0.6 |
| LTZ | | | | S* | Sg | 01 18 53.7 | -0.5 |
| **KHZ** | **Kahutara** | **1.18** | **26** | P* | Pb | 01 18 49.1 | -1.1 |
| KHZ | | | | AML | AML | 01 19 08.2 | |
| **INZ** | **Inchbonnie** | **1.27** | **306** | *e*PN | Pn | 01 18 50.2 | -1.3 |
| **RPZ** | **Rata Peaks** | **1.32** | **259** | PN | Pn | 01 18 51.4 | -0.8 |
| RPZ | | | | AML | AML | 01 19 10.8 | |
| RPZ | | | | AML | AML | 01 19 12.7 | |
| **THZ** | **Tophouse** | **1.71** | **2** | PN | Pn | 01 18 56.5 | -1.2 |
| THZ | | | | AML | AML | 01 19 20.8 | |
| THZ | | | | AML | AML | 01 19 20.9 | |
| **LBZ** | **Lake Benmore** | **2.12** | **244** | AML | AML | 01 19 37.1 | |
| LBZ | | | | AML | AML | 01 19 37.5 | |
| **FOZ** | **Fox Glacier** | **2.20** | **267** | AML | AML | 01 19 32.2 | |
| FOZ | | | | AML | AML | 01 19 32.4 | |
| **ODZ** | **Otahua Downs** | **2.23** | **224** | AML | AML | 01 19 39.9 | |
| ODZ | | | | AML | AML | 01 19 40.7 | |
| **NNZ** | **Nelson** | **2.29** | **10** | PN | Pn | 01 19 05.1 | -0.5 |
| **QRZ** | **Quartz Range** | **2.66** | **355** | *e*PN | Pn | 01 19 08.3 | -0.5 |
| QRZ | | | | AML | AML | 01 21 26.5 | |
| **CAW** | **Cannon Point** | **2.88** | **36** | PN | Pn | 01 19 12.1 | -1.7 |
| CAW | | | | AML | AML | 01 19 46.5 | |
| **TUZ** | **Tuapeka** | **3.37** | **222** | AML | AML | 01 20 20.4 | |
| TUZ | | | | AML | AML | 01 20 26.2 | |
| **SYZ** | **Scrubby Hill** | **4.03** | **219** | *e*PN | Pn | 01 19 27.7 | -1.8 |
| **APZ** | **The Paps** | **4.80** | **224** | *e*PN | Pn | 01 19 39.6 | -0.5 |
| **HIZ** | **Hauiti** | **5.19** | **18** | PN | Pn | 01 19 45.1 | -0.3 |

**WEL 23 01:21:49.6±0.6, 37°.30S×179°.85E, h33km, ML3.6/4, Error ellipse: s-maj=6.4km s-min=5.3km az=0.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WMGZ** | **Waiomatatini S** | **1.25** | **245** | SN | Sn | 01 22 25.4 | -1.1 |
| WMGZ | | | | AML | AML | 01 22 27.2 | |
| **PUZ** | **Puketiti** | **1.48** | **238** | PN | Pn | 01 22 13.1 | -0.9 |
| PUZ | | | | SN | Sn | 01 22 31.1 | -1.1 |
| PUZ | | | | AML | AML | 01 22 31.5 | |
| **HAZ** | **Te Kaha** | **1.70** | **254** | *e*PN | Pn | 01 22 16.6 | -0.4 |
| HAZ | | | | SN | Sn | 01 22 36.6 | -1.1 |
| HAZ | | | | AML | AML | 01 22 42.3 | |
| **CNGZ** | **Carnagh Statio** | **1.75** | **227** | *e*PN | Pn | 01 22 18.1 | +0.4 |
| **RUGZ** | **Raukumara Rang** | **1.84** | **248** | *e*PN | Pn | 01 22 18.2 | -0.9 |
| **URZ** | **Urewera** | **2.37** | **245** | PN | Pn | 01 22 25.7 | -0.5 |
| URZ | | | | SN | Sn | 01 22 53.0 | -1.1 |
| URZ | | | | AML | AML | 01 22 53.9 | |
| **KNZ** | **Kokohu** | **2.42** | **224** | *e*PN | Pn | 01 22 25.9 | -1.0 |
| **RTZ** | **Ruatahuna** | **2.62** | **239** | PN | Pn | 01 22 29.3 | -0.4 |
| RTZ | | | | SN | Sn | 01 22 59.3 | -1.0 |

**WEL 23 01:25:48.0±0.2, 43°.50S×172°.85E, h15km±1km, ML3.4/4, 1C-1D, Error ellipse: s-maj=1.7km s-min=0.6km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.18** | **244** | P* | Pg | 01 25 52.2 | -0.2 |
| CRLZ | | | | S* | Sg | 01 25 55.6 | +0.2 |
| CRLZ | | | | AML | AML | 01 25 56.0 | |
| **MQZ** | **McQueen's Vall** | **0.26** | **214** | ⇑P* | Pg | 01 25 53.5 | 0.0 |
| MQZ | | | | S* | Sg | 01 25 57.7 | +0.4 |
| MQZ | | | | S* | Sg | 01 25 57.7 | +0.4 |
| MQZ | | | | S* | Sb | 01 25 57.7 | -0.8 |
| **OXZ** | **Oxford** | **0.61** | **286** | P* | Pg | 01 25 59.6 | -0.5 |
| OXZ | | | | S* | Sg | 01 26 07.5 | -0.7 |
| OXZ | | | | S* | Sb | 01 26 07.9 | -1.0 |
| OXZ | | | | AML | AML | 01 26 10.4 | |
| OXZ | | | | AML | AML | 01 26 10.4 | |
| **LTZ** | **Lake Taylor** | **0.83** | **329** | ⇓P* | Pg | 01 26 03.6 | -0.5 |
| LTZ | | | | S* | Sg | 01 26 14.4 | -0.6 |
| LTZ | | | | AML | AML | 01 26 15.7 | |
| **KHZ** | **Kahutara** | **1.19** | **25** | PN | Pn | 01 26 08.8 | -1.3 |
| **INZ** | **Inchbonnie** | **1.28** | **306** | PN | Pn | 01 26 10.3 | -1.1 |
| **RPZ** | **Rata Peaks** | **1.32** | **260** | PN | Pn | 01 26 11.2 | -0.8 |
| **THZ** | **Tophouse** | **1.73** | **1** | PN | Pn | 01 26 16.5 | -1.1 |
| **DSZ** | **Denniston Nort** | **1.91** | **336** | PN | Pn | 01 26 19.3 | -0.8 |
| **ODZ** | **Otahua Downs** | **2.21** | **225** | *e*PN | Pn | 01 26 23.4 | -0.8 |
| **HHSZ** | **Highcliff Hill** | **2.88** | **213** | PN | Pn | 01 26 32.9 | -0.4 |
| **JCZ** | **Jackson Bay** | **3.00** | **257** | PN | Pn | 01 26 35.1 | +0.1 |
| **EAZ** | **Earnscleugh** | **3.08** | **234** | PN | Pn | 01 26 35.3 | -0.7 |
| **TUZ** | **Tuapeka** | **3.36** | **222** | PN | Pn | 01 26 39.4 | -0.6 |
| **SYZ** | **Scrubby Hill** | **4.02** | **220** | PN | Pn | 01 26 48.9 | -0.1 |

**WEL 23 01:26:01.3±0.2, 43°.50S×172°.83E, h8km±1km, ML3.6/4, Error ellipse: s-maj=1.5km s-min=0.6km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.17** | **243** | PG | Pg | 01 26 05.1 | +0.2 |
| CRLZ | | | | SG | Sg | 01 26 07.1 | -0.1 |
| CRLZ | | | | SG | | 01 26 07.5 | |
| **MQZ** | **McQueen's Vall** | **0.24** | **212** | PG | Pg | 01 26 06.4 | +0.2 |
| MQZ | | | | SG | Sg | 01 26 09.9 | +0.5 |
| MQZ | | | | SG | Sg | 01 26 09.9 | +0.5 |
| **OXZ** | **Oxford** | **0.60** | **286** | P* | Pg | 01 26 13.5 | +0.5 |
| OXZ | | | | AML | AML | 01 26 18.5 | |
| OXZ | | | | AML | AML | 01 26 18.6 | |
| **LTZ** | **Lake Taylor** | **0.83** | **330** | P* | Pg | 01 26 15.1 | -2.0 |
| LTZ | | | | S* | Sg | 01 26 28.5 | +0.6 |

*IDC **23** 01:25:59.1±2.6, 43°.50S×172°.89E, h0km, mb3.4/2, mb1 3.6/3, mb1mx3.6/22, mbtmp3.4/3, ML3.1/1, Error ellipse: s-maj=75.9km s-min=16.6km az=161.0*

*ISCJB **23** 01:26:00.7±0.6, 43°.56S±0°.05×173°.03E±0°.06, h27km, mb3.3/2, Error ellipse: s-maj=7.8km s-min=4.2km az=139.9*

*WEL **23** 01:26:03.8±0.2, 43°.44S×172°.83E, h21km±1km, ML3.8/28, Error ellipse: s-maj=3.8km s-min=0.8km az=90.0*

**ISC 23 01:26:02.7±1.0, 43°.52S±0°.05×172°.88E±0°.05, h27km, n57, σ0s98/46, 1C, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.19** | **253** | *e*P* | **Pn** | **01 26 09.3** | **-0.6** |
| CRLZ | | | | S* | **Sb** | **01 26 12.5** | **+0.1** |
| CRLZ | | | | AML | AML | 01 26 13.3 | |
| **MQZ** | **McQueen's Vall** | **0.25** | **221** | ⇑P* | **Pn** | **01 26 10.5** | **-0.1** |
| MQZ | | | | S* | **Sb** | **01 26 14.6** | **+1.1** |
| MQZ | | | | S* | | 01 26 14.7 | |
| MQZ | | | | S* | | 01 26 14.7 | |
| MQZ | | | | S* | | 01 26 14.8 | |
| **OXZ** | **Oxford** | **0.64** | **287** | P* | **Pn** | **01 26 17.7** | **+1.7** |
| OXZ | | | | AML | AML | 01 26 23.2 | |
| OXZ | | | | S* | **Sn** | **01 26 26.1** | **+0.8** |
| OXZ | | | | AML | AML | 01 26 27.1 | |
| OXZ | | | | AML | AML | 01 26 27.5 | |
| **LTZ** | **Lake Taylor** | **0.86** | **329** | P* | **Pn** | **01 26 17.8** | **-1.3** |
| LTZ | | | | S* | **Sb** | **01 26 29.5** | **-0.7** |
| LTZ | | | | AML | AML | 01 26 30.0 | |
| **KHZ** | **Kahutara** | **1.21** | **24** | P* | **Pn** | **01 26 23.6** | **-0.1** |
| **KHZ** | **Kahutara** | **1.21** | **24** | *e*PN | **Pn** | **01 26 23.6** | **-0.1** |
| KHZ | | | | AML | AML | 01 26 42.1 | |
| KHZ | | | | AML | AML | 01 26 42.1 | |
| KHZ | | | | AML | AML | 01 26 46.5 | |
| KHZ | | | | AML | AML | 01 26 57.5 | |
| **INZ** | **Inchbonnie** | **1.32** | **307** | P* | **Pn** | **01 26 25.0** | **-0.2** |
| **INZ** | **Inchbonnie** | **1.32** | **307** | PN | **Pn** | **01 26 25.0** | **-0.2** |
| **RPZ** | **Rata Peaks** | **1.34** | **261** | Pg | **Pn** | **01 26 24.7** | **-0.9** |
| | 32nm,0.3s,baz=166,slow=1.5,SNR=12 | | | | | | |
| RPZ | | | | Lg | Lg | 01 26 41.6 | |
| | 86nm,0.3s,baz=25,slow=15,SNR=12 | | | | | | |
| **RPZ** | **Rata Peaks** | **1.34** | **261** | P* | **Pn** | **01 26 24.5** | **-1.1** |
| **RPZ** | **Rata Peaks** | **1.34** | **261** | PN | **Pn** | **01 26 24.5** | **-1.1** |
| RPZ | | | | AML | AML | 01 26 47.8 | |
| RPZ | | | | AML | AML | 01 26 50.5 | |
| **WVZ** | **Waitaha Valley** | **1.62** | **285** | AML | AML | 01 27 01.2 | |
| WVZ | | | | AML | AML | 01 27 01.4 | |
| **THZ** | **Tophouse** | **1.76** | **1** | PN | **Pn** | **01 26 30.8** | **-0.6** |
| **THZ** | **Tophouse** | **1.76** | **1** | *e*PN | **Pn** | **01 26 31.1** | **-0.3** |
| THZ | | | | AML | AML | 01 26 55.3 | |
| THZ | | | | AML | AML | 01 27 09.2 | |
| **DSZ** | **Denniston Nort** | **1.94** | **336** | PN | **Pn** | **01 26 33.5** | **-0.4** |
| **DSZ** | **Denniston Nort** | **1.94** | **336** | *e*PN | **Pn** | **01 26 33.6** | **-0.3** |
| DSZ | | | | AML | AML | 01 27 01.2 | |
| DSZ | | | | AML | AML | 01 27 01.5 | |
| DSZ | | | | AML | AML | 01 27 11.4 | |
| DSZ | | | | AML | AML | 01 27 11.4 | |
| **BSWZ** | **Blackbirch Sta** | **1.95** | **23** | AML | AML | 01 27 20.1 | |
| BSWZ | | | | AML | AML | 01 27 24.1 | |
| **LBZ** | **Lake Benmore** | **2.13** | **245** | AML | AML | 01 27 13.7 | |
| LBZ | | | | AML | AML | 01 27 20.0 | |
| **ODZ** | **Otahua Downs** | **2.21** | **226** | AML | AML | 01 27 17.8 | |
| ODZ | | | | AML | AML | 01 27 22.9 | |
| ODZ | | | | AML | AML | 01 27 26.3 | |
| ODZ | | | | AML | AML | 01 27 26.3 | |
| **FOZ** | **Fox Glacier** | **2.23** | **269** | AML | AML | 01 27 22.8 | |
| FOZ | | | | AML | AML | 01 27 23.3 | |
| **TUWZ** | **Tuamarina** | **2.23** | **21** | AML | AML | 01 27 30.8 | |
| TUWZ | | | | AML | AML | 01 27 44.1 | |
| **NNZ** | **Nelson** | **2.33** | **9** | PN | **Pn** | **01 26 38.9** | **-0.3** |
| **NNZ** | **Nelson** | **2.33** | **9** | PN | **Pn** | **01 26 38.9** | **-0.3** |
| **TCW** | **Tory Channel** | **2.53** | **25** | AML | AML | 01 27 24.1 | |
| **PLWZ** | **Palliser** | **2.62** | **43** | PN | **Pn** | **01 26 42.5** | **-0.8** |
| **PLWZ** | **Palliser** | **2.62** | **43** | PN | **Pn** | **01 26 42.5** | **-0.8** |
| **QRZ** | **Quartz Range** | **2.70** | **354** | AML | AML | 01 26 55.0 | |
| QRZ | | | | AML | AML | 01 27 32.9 | |
| **MSWZ** | **Moikau Station** | **2.74** | **41** | PN | **Pn** | **01 26 43.9** | **-0.9** |
| **MSWZ** | **Moikau Station** | **2.74** | **41** | PN | **Pn** | **01 26 43.9** | **-0.9** |
| MSWZ | | | | AML | AML | 01 27 17.1 | |
| MSWZ | | | | AML | AML | 01 27 20.9 | |
| **HHSZ** | **Highcliff Hill** | **2.87** | **214** | AML | AML | 01 29 03.3 | |
| **CAW** | **Cannon Point** | **2.91** | **35** | AML | AML | 01 27 24.0 | |
| CAW | | | | AML | AML | 01 27 27.5 | |
| **JCZ** | **Jackson Bay** | **3.01** | **258** | *e*PN | **Pn** | **01 26 46.8** | **-1.9** |
| **JCZ** | **Jackson Bay** | **3.01** | **258** | *e*PN | **Pn** | **01 26 46.8** | **-1.9** |
| JCZ | | | | AML | AML | 01 27 43.5 | |
| JCZ | | | | AML | AML | 01 27 52.0 |

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.21** | **260** | *e*Pg | **Pg** | **01 30 30.2** | **-0.1** |
| **CRLZ** | **Canterbury Las** | **0.21** | **260** | ⇓PG | **Pg** | **01 30 30.1** | **-0.1** |
| CRLZ | | | | SG | **Sg** | **01 30 32.3** | **-1.1** |
| CRLZ | | | | AML | AML | 01 30 32.7 | |
| CRLZ | | | | AML | AML | 01 30 32.7 | |
| CRLZ | | | | AML | AML | 01 30 33.4 | |
| **MQZ** | **McQueen's Vall** | **0.25** | **228** | *e*Pg | **Pg** | **01 30 31.4** | **+0.5** |
| **MQZ** | **McQueen's Vall** | **0.25** | **228** | ⇑PG | **Pg** | **01 30 31.4** | **+0.5** |
| MQZ | | | | SG | **Sg** | **01 30 34.7** | **+0.2** |
| MQZ | | | | AML | AML | 01 30 35.0 | |
| **OXZ** | **Oxford** | **0.67** | **288** | *e*Pg | **Pg** | **01 30 38.2** | **-0.5** |
| **OXZ** | **Oxford** | **0.67** | **288** | P* | **Pg** | **01 30 38.1** | **-0.5** |
| OXZ | | | | S* | **Sg** | **01 30 46.5** | **-1.1** |
| OXZ | | | | AML | AML | 01 30 48.4 | |
| OXZ | | | | AML | AML | 01 30 48.7 | |
| OXZ | | | | AML | AML | 01 30 48.7 | |
| **LTZ** | **Lake Taylor** | **0.89** | **328** | *e*Pn | **Pb** | **01 30 43.4** | **+0.3** |
| **LTZ** | **Lake Taylor** | **0.89** | **328** | P* | **Pb** | **01 30 43.2** | **+0.1** |
| LTZ | | | | S* | **Sg** | **01 30 54.5** | **0.0** |
| **KHZ** | **Kahutara** | **1.21** | **23** | *e*Pn | **Pb** | **01 30 49.2** | **+0.6** |
| **KHZ** | **Kahutara** | **1.21** | **23** | ⇓P* | **Pn** | **01 30 48.6** | **+0.2** |
| KHZ | | | | AML | AML | 01 31 06.3 | |
| KHZ | | | | AML | AML | 01 31 06.3 | |
| KHZ | | | | AML | AML | 01 31 14.6 | |
| KHZ | | | | AML | AML | 01 31 14.6 | |
| **INZ** | **Inchbonnie** | **1.35** | **307** | P* | **Pn** | **01 30 49.0** | **-1.4** |
| **RPZ** | **Rata Peaks** | **1.36** | **262** | Pg | **Pn** | **01 30 49.7** | **-0.8** |
| | 361nm,0.3s,baz=108,slow=2.7,SNR=122 | | | | | | |
| RPZ | | | | Lg | Lg | 01 31 06.1 | |
| | 673nm,0.3s,baz=25,slow=19,SNR=30 | | | | | | |
| **RPZ** | **Rata Peaks** | **1.36** | **262** | P* | **Pn** | **01 30 48.9** | **-1.6** |
| RPZ | | | | AML | AML | 01 31 10.6 | |
| RPZ | | | | AML | AML | 01 31 14.0 | |
| **WVZ** | **Waitaha Valley** | **1.65** | **286** | Pn | **Pn** | **01 30 54.2** | **-0.4** |
| **WVZ** | **Waitaha Valley** | **1.65** | **286** | PN | **Pn** | **01 30 54.0** | **-0.6** |
| WVZ | | | | AML | AML | 01 31 22.7 | |
| WVZ | | | | AML | AML | 01 31 28.2 | |
| **THZ** | **Tophouse** | **1.77** | **360** | *e*Pn | **Pn** | **01 30 56.5** | **+0.3** |
| **THZ** | **Tophouse** | **1.77** | **360** | ⇓PN | **Pn** | **01 30 56.4** | **+0.1** |
| THZ | | | | AML | AML | 01 31 21.3 | |
| THZ | | | | AML | AML | 01 31 36.2 | |
| **BSWZ** | **Blackbirch Sta** | **1.96** | **22** | ⇑PN | **Pn** | **01 30 59.6** | **+0.9** |
| BSWZ | | | | AML | AML | 01 31 26.1 | |
| BSWZ | | | | AML | AML | 01 31 26.2 | |
| **DSZ** | **Denniston Nort** | **1.97** | **335** | Pn | **Pn** | **01 30 59.1** | **+0.2** |
| **DSZ** | **Denniston Nort** | **1.97** | **335** | PN | **Pn** | **01 30 58.9** | **0.0** |
| DSZ | | | | AML | AML | 01 31 31.2 | |
| DSZ | | | | AML | AML | 01 31 31.2 | |
| DSZ | | | | AML | AML | 01 31 38.3 | |
| DSZ | | | | AML | AML | 01 31 38.3 | |
| **LBZ** | **Lake Benmore** | **2.14** | **246** | *e*Pn | **Pn** | **01 31 01.4** | **0.0** |
| **LBZ** | **Lake Benmore** | **2.14** | **246** | PN | **Pn** | **01 31 01.4** | **0.0** |
| LBZ | | | | AML | AML | 01 31 40.4 | |
| LBZ | | | | AML | AML | 01 31 40.5 | |
| LBZ | | | | AML | AML | 01 31 40.6 | |
| LBZ | | | | AML | AML | 01 31 40.6 | |
| **ODZ** | **Otahua Downs** | **2.22** | **226** | *e*Pn | **Pn** | **01 31 02.0** | **-0.3** |
| **ODZ** | **Otahua Downs** | **2.22** | **226** | PN | **Pn** | **01 31 02.0** | **-0.3** |
| ODZ | | | | AML | AML | 01 31 38.2 | |
| ODZ | | | | AML | AML | 01 31 38.2 | |
| ODZ | | | | AML | AML | 01 31 42.2 | |
| ODZ | | | | AML | AML | 01 31 42.2 | |
| **TUWZ** | **Tuamarina** | **2.24** | **20** | PN | **Pn** | **01 31 02.9** | **+0.3** |
| TUWZ | | | | AML | AML | 01 31 15.0 | |
| TUWZ | | | | AML | AML | 01 31 15.1 | |
| **FOZ** | **Fox Glacier** | **2.25** | **269** | *e*Pn | **Pn** | **01 31 03.8** | **+1.1** |
| **FOZ** | **Fox Glacier** | **2.25** | **269** | PN | **Pn** | **01 31 03.2** | **+0.4** |
| FOZ | | | | AML | AML | 01 31 43.6 | |
| FOZ | | | | AML | AML | 01 31 43.6 | |
| FOZ | | | | AML | AML | 01 31 50.8 | |
| FOZ | | | | AML | AML | 01 31 50.8 | |
| **NNZ** | **Nelson** | **2.34** | **9** | Pn | **Pn** | **01 31 05.0** | **+0.9** |
| **NNZ** | **Nelson** | **2.34** | **9** | *e*PN | **Pn** | **01 31 04.3** | **+0.2** |
| NNZ | | | | AML | AML | 01 31 54.8 | |
| NNZ | | | | AML | AML | 01 31 54.8 | |
| NNZ | | | | AML | AML | 01 32 00.5 | |
| NNZ | | | | AML | AML | 01 32 00.6 | |
| **TCW** | **Tory Channel** | **2.54** | **24** | PN | **Pn** | **01 31 06.6** | **-0.1** |
| TCW | | | | AML | AML | 01 31 20.1 | |
| TCW | | | | AML | AML | 01 31 41.0 | |
| **BHW** | **Baring Head** | **2.58** | **35** | PN | **Pn** | **01 31 07.4** | **+0.1** |
| BHW | | | | AML | AML | 01 31 38.5 | |
| BHW | | | | AML | AML | 01 32 20.4 | |
| **SNZO** | **South Karori** | **2.59** | **31** | *e*Pn | **Pn** | **01 31 07.8** | **+0.3** |
| SNZO | | | | *e*Pg | **Pg** | **01 31 14.6** | **-0.8** |
| **PLWZ** | **Palliser** | **2.62** | **42** | PN | **Pn** | **01 31 07.8** | **-0.1** |
| PLWZ | | | | AML | AML | 01 31 44.4 | |
| PLWZ | | | | AML | AML | 01 31 55.7 | |
| **WEL** | **Wellington** | **2.64** | **32** | Pn | **Pn** | **01 31 08.6** | **+0.5** |
| **WEL** | **Wellington** | **2.64** | **32** | PN | **Pn** | **01 31 08.6** | **+0.5** |
| WEL | | | | AML | AML | 01 31 40.4 | |
| WEL | | | | AML | AML | 01 31 40.4 | |
| WEL | | | | AML | AML | 01 31 40.6 | |
| WEL | | | | AML | AML | 01 31 41.8 | |
| **QRZ** | **Quartz Range** | **2.73** | **354** | PN | **Pn** | **01 31 09.5** | **+0.2** |
| QRZ | | | | AML | AML | 01 31 21.2 | |
| QRZ | | | | AML | AML | 01 31 21.2 | |
| QRZ | | | | AML | AML | 01 31 55.5 | |
| QRZ | | | | AML | AML | 01 31 55.5 | |
| **MSWZ** | **Moikau Station** | **2.74** | **40** | PN | **Pn** | **01 31 09.1** | **-0.4** |
| MSWZ | | | | AML | AML | 01 31 42.1 | |
| MSWZ | | | | AML | AML | 01 31 44.3 | |
| **DUWZ** | **D'Urville Isla** | **2.83** | **16** | PN | **Pn** | **01 31 10.6** | **-0.2** |
| DUWZ | | | | AML | AML | 01 32 07.0 | |
| DUWZ | | | | AML | AML | 01 32 07.4 | |
| **PAWZ** | **Paruwai Farm** | **2.85** | **42** | PN | **Pn** | **01 31 10.7** | **-0.3** |
| PAWZ | | | | AML | AML | 01 31 48.7 | |
| PAWZ | | | | AML | AML | 01 31 54.7 | |
| **HHSZ** | **Highcliff Hill** | **2.87** | **214** | Pn | **Pn** | **01 31 11.0** | **-0.3** |
| **HHSZ** | **Highcliff Hill** | **2.87** | **214** | PN | **Pn** | **01 31 10.8** | **-0.5** |
| HHSZ | | | | AML | AML | 01 32 05.1 | |
| HHSZ | | | | AML | AML | 01 32 08.2 | |
| **CAW** | **Cannon Point** | **2.91** | **34** | ⇓PN | **Pn** | **01 31 12.1** | **+0.2** |
| CAW | | | | AML | AML | 01 31 46.2 | |
| CAW | | | | AML | AML | 01 31 48.7 | |
| **TRWZ** | **Traveller** | **2.96** | **45** | PN | **Pn** | **01 31 12.7** | **+0.1** |
| TRWZ | | | | AML | AML | 01 31 50.5 | |
| TRWZ | | | | AML | AML | 01 31 52.7 | |
| **JCZ** | **Jackson Bay** | **3.04** | **258** | Pn | **Pn** | **01 31 13.6** | **0.0** |
| **JCZ** | **Jackson Bay** | **3.04** | **258** | PN | **Pn** | **01 31 13.2** | **-0.5** |
| JCZ | | | | AML | AML | 01 32 10.1 | |
| JCZ | | | | AML | AML | 01 32 10.7 | |
| **MTW** | **Mount Morrison** | **3.06** | **40** | PN | **Pn** | **01 31 13.9** | **+0.1** |
| MTW | | | | AML | AML | 01 31 49.2 | |
| MTW | | | | AML | AML | 01 31 50.3 | |
| **KIW** | **Kapiti Island** | **3.06** | **30** | PN | **Pn** | **01 31 14.1** | **+0.1** |
| KIW | | | | AML | AML | 01 31 50.1 | |
| KIW | | | | AML | AML | 01 31 55.9 | |
| **WKZ** | **Wanaka** | **3.08** | **244** | *e*Pn | **Pn** | **01 31 13.9** | **-0.3** |
| **WKZ** | **Wanaka** | **3.08** | **244** | *e*PN | **Pn** | **01 31 12.9** | **-1.4** |
| WKZ | | | | AML | AML | 01 32 11.9 | |
| WKZ | | | | AML | AML | 01 32 12.0 | |
| WKZ | | | | AML | AML | 01 32 12.8 | |
| WKZ | | | | AML | AML | 01 32 12.9 | |
| **EAZ** | **Earnscleugh** | **3.09** | **236** | Pn | **Pn** | **01 31 14.1** | **-0.2** |
| **EAZ** | **Earnscleugh** | **3.09** | **236** | PN | **Pn** | **01 31 13.9** | **-0.4** |
| EAZ | | | | AML | AML | 01 32 07.8 | |
| EAZ | | | | AML | AML | 01 32 07.9 | |
| EAZ | | | | AML | AML | 01 32 12.2 | |
| EAZ | | | | AML | AML | 01 32 12.3 | |
| **OGWZ** | **Otaki Gorge** | **3.19** | **32** | PN | **Pn** | **01 31 15.4** | **-0.4** |
| OGWZ | | | | AML | AML | 01 31 53.1 | |
| OGWZ | | | | AML | AML | 01 31 57.7 | |
| **HOWZ** | **Holdsworth Sta** | **3.27** | **37** | PN | **Pn** | **01 31 16.4** | **-0.4** |
| HOWZ | | | | AML | AML | 01 31 54.7 | |
| HOWZ | | | | AML | AML | 01 31 59.1 | |
| **TMWZ** | **Te Maipa** | **3.28** | **43** | PN | **Pn** | **01 31 17.4** | **+0.4** |
| TMWZ | | | | AML | AML | 01 32 00.2 | |
| TMWZ | | | | AML | AML | 01 32 02.5 | |
| **TUZ** | **Tuapeka** | **3.36** | **223** | Pn | **Pn** | **01 31 17.8** | **-0.3** |
| **TUZ** | **Tuapeka** | **3.36** | **223** | ⇑PN | **Pn** | **01 31 17.8** | **-0.3** |
| TUZ | | | | AML | AML | 01 32 23.0 | |
| TUZ | | | | AML | AML | 01 32 23.0 | |
| TUZ | | | | AML | AML | 01 32 26.7 | |
| TUZ | | | | AML | AML | 01 32 26.7 | |
| **MRZ** | **Mangatainoka R** | **3.49** | **36** | PN | **Pn** | **01 31 19.4** | **-0.4** |
| MRZ | | | | AML | AML | 01 32 03.5 | |
| MRZ | | | | AML | AML | 01 32 07.3 | |
| **TIWZ** | **Tintock** | **3.54** | **40** | AML | AML | 01 32 03.6 | |
| TIWZ | | | | AML | AML | 01 32 04.4 | |
| **PRWZ** | **Pori Road** | **3.75** | **38** | *e*PN | **Pn** | **01 31 22.9** | **-0.5** |
| PRWZ | | | | AML | AML | 01 32 10.8 | |
| PRWZ | | | | AML | AML | 01 32 18.3 | |
| **BFZ** | **Birch Farm** | **3.78** | **42** | *e*Pn | **Pn** | **01 31 23.3** | **-0.5** |
| **BFZ** | **Birch Farm** | **3.78** | **42** | AML | AML | 01 32 08.5 | |
| BFZ | | | | AML | AML | 01 32 09.2 | |
| **POWZ** | **Post Office Ro** | **3.80** | **35** | AML | AML | 01 32 10.5 | |
| POWZ | | | | AML | AML | 01 32 19.1 | |
| **MLZ** | **Mavora Lakes** | **3.89** | **240** | *e*Pn | **Pn** | **01 31 24.7** | **-0.6** |
| **MLZ** | **Mavora Lakes** | **3.89** | **240** | ⇑PN | **Pn** | **01 31 24.5** | **-0.8** |
| MLZ | | | | AML | AML | 01 32 37.2 | |
| MLZ | | | | AML | AML | 01 32 37.9 | |
| **SYZ** | **Scrubby Hill** | **4.02** | **220** | Pn | **Pn** | **01 31 27.0** | **-0.1** |
| **SYZ** | **Scrubby Hill** | **4.02** | **220** | PN | **Pn** | **01 31 27.0** | **-0.1** |
| SYZ | | | | AML | AML | 01 32 44.1 | |
| SYZ | | | | AML | AML | 01 32 44.1 | |
| SYZ | | | | AML | AML | 01 32 48.7 | |
| SYZ | | | | AML | AML | 01 32 55.3 | |
| **DVHZ** | **Dannevirke** | **4.05** | **38** | PN | **Pn** | **01 31 27.7** | **+0.2** |
| DVHZ | | | | AML | AML | 01 32 14.6 | |
| DVHZ | | | | AML | AML | 01 32 16.1 | |
| **WAZ** | **Wanganui** | **4.09** | **23** | AML | AML | 01 32 27.9 | |
| WAZ | | | | AML | AML | 01 32 42.6 | |
| **NMEZ** | **Namu Road** | **4.18** | **10** | *e*PN | **Pn** | **01 31 31.5** | **+2.2** |
| **WHZ** | **Wether Hill Ro** | **4.25** | **235** | *e*Pn | **Pn** | **01 31 29.2** | **-1.1** |
| **WHZ** | **Wether Hill Ro** | **4.25** | **235** | PN | **Pn** | **01 31 29.0** | **-1.2** |
| WHZ | | | | AML | AML | 01 32 45.8 | |
| WHZ | | | | AML | AML | 01 32 51.6 | |
| **PRHZ** | **Porangahau** | **4.29** | **42** | *e*PN | **Pn** | **01 31 29.9** | **-1.0** |
| PRHZ | | | | AML | AML | 01 32 24.2 | |
| PRHZ | | | | AML | AML | 01 32 26.7 | |
| **PREZ** | **Palmer Road** | **4.29** | **13** | *e*PN | **Pn** | **01 31 33.3** | **+2.4** |
| PREZ | | | | AML | AML | 01 32 41.6 | |
| PREZ | | | | AML | AML | 01 32 58.1 | |
| **KHEZ** | **Kahui Hut** | **4.32** | **11** | *e*PN | **Pn** | **01 31 33.2** | **+1.9** |
| **NEZ** | **North Egmont** | **4.36** | **12** | *e*PN | **Pn** | **01 31 33.5** | **+1.7** |
| **PNHZ** | **Pukenui** | **4.38** | **35** | *e*PN | **Pn** | **01 31 31.1** | **-0.9** |
| PNHZ | | | | AML | AML | 01 32 24.3 | |
| PNHZ | | | | AML | AML | 01 32 43.1 | |
| **PKE** | **Pukeiti** | **4.42** | **11** | PN | **Pn** | **01 31 34.2** | **+1.7** |
| PKE | | | | AML | AML | 01 32 28.8 | |
| PKE | | | | AML | AML | 01 32 29.1 | |
| **DCZ** | **Deep Cove** | **4.55** | **243** | *e*Pn | **Pn** | **01 31 33.9** | **-0.5** |
| **DCZ** | **Deep Cove** | **4.55** | **243** | *e*PN | **Pn** | **01 31 33.2** | **-1.2** |
| DCZ | | | | AML | AML | 01 32 52.5 | |
| DCZ | | | | AML | AML | 01 33 05.3 | |
| **PKZ** | **Pokaka** | **4.62** | **24** | PN | **Pn** | **01 31 37.8** | **+2.4** |
| **VRZ** | **Vera Road** | **4.62** | **18** | Pn | **Pn** | **01 31 36.4** | **+1.0** |
| **VRZ** | **Vera Road** | **4.62** | **18** | PN | **Pn** | **01 31 37.1** | **+1.7** |
| VRZ | | | | AML | AML | 01 32 39.6 | |
| VRZ | | | | AML | AML | 01 32 53.0 | |
| **MOVZ** | **Moawhango** | **4.65** | **28** | PN | **Pn** | **01 31 37.5** | **+1.7** |
| MOVZ | | | | AML | AML | 01 32 32.8 | |
| MOVZ | | | | AML | AML | 01 32 33.6 | |
| **WNVZ** | **Wahianoa** | **4.67** | **27** | PN | **Pn** | **01 31 36.9** | **+0.7** |
| **KRHZ** | **Kereru** | **4.68** | **35** | PN | **Pn** | **01 31 35.0** | **-1.1** |
| KRHZ | | | | AML | AML | 01 32 32.5 | |
| KRHZ | | | | AML | AML | 01 32 33.5 | |
| **TRVZ** | **Turoa** | **4.68** | **26** | PN | **Pn** | **01 31 37.9** | **+1.5** |
| TRVZ | | | | AML | AML | 01 32 34.0 | |
| TRVZ | | | | AML | AML | 01 32 35.0 | |
| **BHHZ** | **Black Hill Sta** | **4.69** | **31** | PN | **Pn** | **01 31 36.2** | **-0.2** |
| BHHZ | | | | AML | AML | 01 32 32.4 | |
| BHHZ | | | | AML | AML | 01 32 32.9 | |
| **FWVZ** | **Far West T-bar** | **4.72** | **26** | *e*PN | **Pn** | **01 31 37.5** | **+0.6** |
| FWVZ | | | | AML | AML | 01 32 33.6 | |
| FWVZ | | | | AML | AML | 01 32 35.3 | |
| **TUVZ** | **Tukino** | **4.74** | **27** | PN | **Pn** | **01 31 38.0** | **+0.8** |
| TUVZ | | | | AML | AML | 01 32 37.4 | |
| TUVZ | | | | AML | AML | 01 32 38.8 | |
| **KAHZ** | **Kahuranaki** | **4.78** | **40** | PN | **Pn** | **01 31 38.5** | **+1.0** |
| KAHZ | | | | AML | AML | 01 32 34.8 | |
| KAHZ | | | | AML | AML | 01 32 38.0 | |
| **APZ** | **The Paps** | **4.79** | **225** | Pn | **Pn** | **01 31 37.0** | **-0.7** |
| **APZ** | **The Paps** | **4.79** | **225** | PN | **Pn** | **01 31 36.8** | **-0.9** |
| APZ | | | | AML | AML | 01 33 05.5 | |
| APZ | | | | AML | AML | 01 33 05.5 | |
| **NGZ** | **Ngauruhoe** | **4.80** | **26** | PN | **Pn** | **01 31 38.5** | **+0.5** |
| NGZ | | | | AML | AML | 01 32 36.1 | |
| NGZ | | | | AML | AML | 01 32 39.3 | |
| **OTVZ** | **Oturere** | **4.84** | **26** | PN | **Pn** | **01 31 39.3** | **+0.8** |
| OTVZ | | | | AML | AML | 01 32 38.0 | |
| OTVZ | | | | AML | AML | 01 32 39.1 | |
| **TWVZ** | **Taurewa** | **4.85** | **24** | PN | **Pn** | **01 31 39.2** | **+0.6** |
| TWVZ | | | | AML | AML | 01 33 13.8 | |
| **WTVZ** | **West Tongariro** | **4.86** | **25** | PN | **Pn** | **01 31 39.0** | **+0.3** |
| WTVZ | | | | AML | AML | 01 32 12.1 | |
| WTVZ | | | | AML | AML | 01 32 46.1 | |
| **KRVZ** | **Karewarewa** | **4.89** | **26** | *e*PN | **Pn** | **01 31 41.1** | **+1.9** |
| KRVZ | | | | AML | AML | 01 32 37.5 | |
| KRVZ | | | | AML | AML | 01 32 39.6 | |
| **MCHZ** | **McNeill Hill** | **4.98** | **36** | *e*PN | **Pn** | **01 31 40.7** | **+0.4** |
| MCHZ | | | | AML | AML | 01 32 56.7 | |
| MCHZ | | | | AML | AML | 01 32 59.2 | |
| **BKZ** | **Black Stump Fm** | **5.13** | **33** | *e*Pn | **Pn** | **01 31 38.9** | **-3.6** |
| **PYZ** | **Puysegur Point** | **5.15** | **237** | *e*Pn | **Pn** | **01 31 41.7** | **-0.9** |
| **PYZ** | **Puysegur Point** | **5.15** | **237** | *e*PN | **Pn** | **01 31 40.6** | **-2.0** |
| PYZ | | | | AML | AML | 01 33 10.3 | |
| PYZ | | | | AML | AML | 01 33 11.6 | |
| **HIZ** | **Hauiti** | **5.23** | **17** | *e*Pn | **Pn** | **01 31 44.7** | **+1.0** |
| **HIZ** | **Hauiti** | **5.23** | **17** | PN | **Pn** | **01 31 44.8** | **+1.0** |
| HIZ | | | | AML | AML | 01 32 46.3 | |
| HIZ | | | | AML | AML | 01 33 38.3 | |
| **ARHZ** | **Aropaoanui** | **5.26** | **37** | AML | AML | 01 32 46.6 | |
| ARHZ | | | | AML | AML | 01 32 47.0 | |
| **TLZ** | **Tolley Road** | **5.57** | **22** | *e*PN | **Pn** | **01 31 49.0** | **+0.5** |
| TLZ | | | | AML | AML | 01 32 02.5 | |
| TLZ | | | | AML | AML | 01 32 24.0 | |
| **TOZ** | **Tahuroa Road** | **6.13** | **20** | PN | **Pn** | **01 31 56.2** | **+0.1** |
| **URZ** | **Urewera** | **6.16** | **33** | Pn | **Pn** | **01 31 55.3** | **-1.2** |
| | 2.6nm,0.3s,baz=232,slow=8.9,SNR=8.5 | | | | | | |
| URZ | | | | Sn | **Sn** | **01 33 03.4** | **-3.4** |
| | 16nm,0.3s,baz=232,slow=20,SNR=13 | | | | | | |
| **URZ** | **Urewera** | **6.16** | **33** | *e*Pn | **Pn** | **01 31 55.6** | **-0.8** |
| URZ | | | | Sn | **Sn** | **01 33 03.4** | **-3.4** |
| **MWZ** | **Matawai** | **6.26** | **35** | PN | **Pn** | **01 31 55.7** | **-2.3** |
| MWZ | | | | SN | **Sn** | **01 33 05.0** | **-4.5** |
| MWZ | | | | AML | AML | 01 33 14.9 | |
| **CTZ** | **Chatham Island** | **7.60** | **95** | PN | **Pn** | **01 32 15.9** | **-0.3** |
| **OUZ** | **Omahuta** | **8.32** | **4** | *e*Pn | **Pn** | **01 32 27.1** | **+0.9** |
| **TAU** | **Tasmania Unive** | **18.64** | **263** | *e*P | **Pn** | **01 34 44.4** | **+0.8** |
| | 197nm,2.3s | | | | | | |
| **CAN** | **Canberra** | **20.16** | **286** | *e*P | **P** | **01 34 59.0** | **-1.0** |
| | 36nm,1.7s | | | | | | |
| **SBA** | **Scott Base** | **34.52** | **182** | *e*P | **P** | **01 37 12.5** | **-0.7** |
| **AS01** | **Alice Springs** | **37.59** | **289** | *e*P | **P** | **01 37 41.6** | **+1.4** |
| **ASAR** | **Alice Springs** | **37.62** | **289** | P | **P** | **01 37 40.9** | **+0.5** |
| | 1.4nm,0.7s,baz=129,slow=7.6,SNR=14 | | | | | | |
| **WB2** | **Warramunga Arr** | **39.85** | **294** | *e*P | **P** | **01 37 59.2** | **0.0** |
| | 7.6nm,1.1s | | | | | | |
| **WRAB** | **Tennant Creek** | **39.86** | **294** | *e*P | **P** | **01 37 59.8** | **+0.5** |
| | 8.0nm,1.1s | | | | | | |
| **WRA** | **Warramunga Arr** | **39.86** | **294** | P | **P** | **01 37 59.3** | **0.0** |
| | 2.5nm,0.8s,baz=133,slow=7.9,SNR=20 | | | | | | |
| **QSPA** | **South Pole Qui** | **46.59** | **180** | *e*P | **P** | **01 38 53.3** | **0.0** |
| **KKM** | **Kota Kinabalu** | **71.02** | **298** | *e*P | **P** | **01 41 43.0** | **-0.7** |
| **KMI** | **Kunming** | **93.80** | **301** | P | **P** | **01 43 44.9** | **+1.9** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,12nm,0.6s | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **100.53** | **317** | *e*P | **Pdif** | **01 44 13.6** | **+0.7** |
| **LZH** | **Lanzhou** | **101.07** | **310** | *e*P | **Pdif** | **01 44 15.6** | **+0.1** |
| LZH | | | | pP | pPdif | 01 44 17.3 | -2.1 |
| LZH | | | | sP | pP | 01 44 18.1 | -1.5 |
| LZH | | | | *e*PP | **PP** | **01 48 27.5** | **+2.9** |
| LZH | | | | pmax | pmax | | |
| | comp=Z,16nm,1.5s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,45nm,7.2s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=N,75nm,17.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=E,80nm,17.2s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,110nm,19.6s | | | | | | |
| **WMQ** | **Urumqi** | **115.45** | **307** | P | **PKPdf** | **01 49 07.3** | **+0.3** |
| **YKA** | **Yellowknife Ar** | **120.42** | **31** | PKP | **PKPdf** | **01 49 16.9** | **+1.1** |
| | comp=Z,0.3nm,0.8s,baz=251,slow=1.6,SNR=4.4 | | | | | | |
| **WCI** | **Wyandotte Cave** | **122.02** | **66** | *e*PKPdf | **PKPdf** | **01 49 19.0** | **-0.7** |
| **TORD** | **Torodi Ar. Bea** | **148.79** | **197** | PKPbc | **PKPab** | **01 50 16.4** | **-0.7** |
| | comp=Z,1.0nm,0.8s,baz=179,slow=2.7,SNR=6.0 | | | | | | |
| **BRTR** | **Keskin Array B** | **149.54** | **277** | PKPbc | **PKPbc** | **01 50 16.6** | **+1.8** |
| | comp=Z,0.6nm,0.6s,baz=134,slow=4.1,SNR=4.0 | | | | | | |

**WEL 23 01:31:16.2±0.3, 43°52S×172°77E, h12km±1km, ML3.4/3, Error ellipse: s-maj=2.4km s-min=1.0km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.12** | **244** | PG | Pg | 01 31 19.7 | +0.5 |
| CRLZ | | | | SG | Sg | 01 31 21.0 | -0.4 |
| CRLZ | | | | SG | | 01 31 21.3 | |
| CRLZ | | | | AML | AML | 01 31 22.0 | |
| CRLZ | | | | AML | AML | 01 31 22.4 | |
| **MQZ** | **McQueen's Vall** | **0.20** | **205** | PG | Pg | 01 31 20.6 | +0.1 |
| MQZ | | | | AML | AML | 01 31 23.7 | |
| MQZ | | | | SG | Sg | 01 31 23.9 | +0.3 |
| MQZ | | | | SG | | 01 31 24.1 | |
| **OXZ** | **Oxford** | **0.57** | **290** | S* | Sb | 01 31 35.8 | -0.3 |
| OXZ | | | | AML | AML | 01 31 37.6 | |
| OXZ | | | | AML | AML | 01 31 37.6 | |
| OXZ | | | | AML | AML | 01 31 37.9 | |

**WEL 23 01:37:07.8±0.2, 43°52S×172°82E, h11km, ML3.1/6, Error ellipse: s-maj=1.6km s-min=0.7km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.15** | **247** | PG | Pg | 01 37 11.4 | +0.1 |
| CRLZ | | | | SG | Sg | 01 37 14.0 | +0.3 |
| CRLZ | | | | AML | AML | 01 37 16.0 | |
| **MQZ** | **McQueen's Vall** | **0.22** | **212** | PG | Pg | 01 37 12.7 | +0.2 |
| MQZ | | | | SG | Sg | 01 37 16.5 | +0.8 |
| MQZ | | | | AML | AML | 01 37 16.6 | |
| **OXZ** | **Oxford** | **0.60** | **288** | P* | Pg | 01 37 19.1 | -0.3 |
| OXZ | | | | S* | Sg | 01 37 27.5 | +0.2 |
| OXZ | | | | AML | AML | 01 37 29.3 | |
| OXZ | | | | AML | AML | 01 37 29.8 | |
| OXZ | | | | AML | AML | 01 37 29.8 | |
| **LTZ** | **Lake Taylor** | **0.83** | **331** | P* | Pg | 01 37 23.3 | -0.5 |
| LTZ | | | | S* | Sg | 01 37 34.5 | -0.2 |
| LTZ | | | | S* | Sb | 01 37 34.8 | -0.8 |
| **KHZ** | **Kahutara** | **1.22** | **26** | P* | Pn | 01 37 29.6 | -1.2 |
| KHZ | | | | AML | AML | 01 37 47.4 | |
| KHZ | | | | AML | AML | 01 37 48.6 | |
| **INZ** | **Inchbonnie** | **1.28** | **308** | *e*P* | Pn | 01 37 31.1 | -0.5 |
| **RPZ** | **Rata Peaks** | **1.30** | **261** | PN | Pn | 01 37 31.0 | -0.8 |

**WEL 23 01:41:11.0±0.2, 43°49S×172°83E, h10km±1km, ML2.7/4, 1C, Error ellipse: s-maj=2.2km s-min=0.8km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.17** | **240** | PG | Pg | 01 41 15.0 | +0.3 |
| CRLZ | | | | SG | Sg | 01 41 17.8 | +0.5 |
| CRLZ | | | | AML | AML | 01 41 18.0 | |
| CRLZ | | | | AML | AML | 01 41 18.6 | |
| CRLZ | | | | AML | AML | 01 41 18.7 | |
| **MQZ** | **McQueen's Vall** | **0.25** | **210** | ⇑PG | Pg | 01 41 16.2 | +0.1 |
| MQZ | | | | SG | Sg | 01 41 20.2 | +0.7 |
| MQZ | | | | SG | Sg | 01 41 20.2 | +0.7 |
| MQZ | | | | AML | AML | 01 41 20.6 | |
| **OXZ** | **Oxford** | **0.60** | **286** | P* | Pg | 01 41 22.3 | -0.3 |
| OXZ | | | | S* | Sg | 01 41 30.6 | +0.1 |
| OXZ | | | | AML | AML | 01 41 32.4 | |
| OXZ | | | | AML | AML | 01 41 32.4 | |
| OXZ | | | | AML | AML | 01 41 32.9 | |
| **LTZ** | **Lake Taylor** | **0.82** | **330** | P* | Pg | 01 41 26.4 | -0.3 |
| LTZ | | | | S* | Sb | 01 41 37.9 | -0.4 |
| LTZ | | | | AML | AML | 01 41 39.0 | |
| **RPZ** | **Rata Peaks** | **1.31** | **260** | *e*PN | Pn | 01 41 34.1 | -1.2 |

*ISCJB **23** 01:41:36.6±0.5, 43°55S±0°03×172°98E±0°04, h14km±4km, mb3.9/4, Error ellipse: s-maj=5.5km s-min=2.9km az=137.0*
*IDC **23** 01:41:37.3±1.2, 43°34S×172°80E, h0km, mb3.9/2, mb1 4.2/3, mb1mx3.9/21, mbtmp4.0/3, ML4.1/1, Error ellipse: s-maj=45.8km s-min=15.2km az=158.0*
*NEIC **23** 01:41:38.4±0.0, 43°48S×172°93E, h5km, mb4.0/2, ML4.4(WEL), After WEL.*
*NEIC Felt in the Christchurch area.*
*WEL **23** 01:41:39.0±0.2, 43°48S×172°84E, h7km±1km, ML4.4/65, Error ellipse: s-maj=1.8km s-min=0.8km az=90.0*
*WEL Felt in the Canterbury region, maximum reported intesity MM 5.*

**ISC 23 01:41:37.3±1.1, 43°55S±0°03×172°98E±0°04, h13km±6km, n127,σ1$29/139, mb3.9/4, 3C-3D, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.26** | **263** | *e*Pg | **Pg** | **01 41 43.0** | **+0.2** |
| **CRLZ** | **Canterbury Las** | **0.26** | **263** | PG | **Pg** | **01 41 42.8** | **+0.1** |
| CRLZ | | | | SG | **Sg** | **01 41 45.5** | **-0.8** |
| CRLZ | | | | AML | AML | 01 41 46.2 | |
| CRLZ | | | | AML | AML | 01 41 46.2 | |
| CRLZ | | | | AML | AML | 01 41 46.9 | |
| **MQZ** | **McQueen's Vall** | **0.29** | **236** | *e*Pg | **Pb** | **01 41 44.2** | **-0.1** |
| MQZ | | | | *e*Sg | **Sg** | **01 41 47.9** | **+0.8** |
| **MQZ** | **McQueen's Vall** | **0.29** | **236** | ⇑PG | **Pb** | **01 41 44.2** | **-0.1** |
| MQZ | | | | SG | **Sg** | **01 41 47.9** | **+0.8** |
| MQZ | | | | AML | AML | 01 41 48.0 | |
| MQZ | | | | AML | AML | 01 41 48.1 | |
| **OXZ** | **Oxford** | **0.72** | **287** | *e*Pg | **Pg** | **01 41 50.7** | **-0.6** |
| OXZ | | | | *e*Pn | Pn | 01 41 59.2 | +6.0 |
| **OXZ** | **Oxford** | **0.72**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TUWZ | Tuamarina | 2.23 | 19 | PN | Pn | 01 42 14.6 | +0.7 |
| TUWZ | | | | AML | AML | 01 43 07.0 | |
| TUWZ | | | | AML | AML | 01 43 07.0 | |
| ODZ | Otahua Downs | 2.25 | 227 | *e*Pn | Pn | 01 42 15.0 | +0.8 |
| ODZ | | | | *e*Sn | Sg | 01 42 49.0 | -0.5 |
| ODZ | Otahua Downs | 2.25 | 227 | PN | Pn | 01 42 14.8 | +0.5 |
| ODZ | | | | AML | AML | 01 42 56.2 | |
| ODZ | | | | AML | AML | 01 43 01.3 | |
| FOZ | Fox Glacier | 2.30 | 269 | *e*Pn | Pb | 01 42 17.0 | -1.6 |
| FOZ | Fox Glacier | 2.30 | 269 | PN | Pn | 01 42 16.0 | +1.1 |
| FOZ | | | | AML | AML | 01 42 52.4 | |
| FOZ | | | | AML | AML | 01 42 52.4 | |
| FOZ | | | | AML | AML | 01 42 57.3 | |
| FOZ | | | | AML | AML | 01 42 57.3 | |
| NNZ | Nelson | 2.34 | 7 | Pn | Pn | 01 42 16.7 | +1.1 |
| NNZ | Nelson | 2.34 | 7 | PN | Pn | 01 42 16.4 | +0.8 |
| NNZ | | | | AML | AML | 01 42 45.4 | |
| NNZ | | | | AML | AML | 01 42 45.6 | |
| NNZ | | | | AML | AML | 01 43 03.0 | |
| NNZ | | | | AML | AML | 01 43 03.0 | |
| TCW | Tory Channel | 2.52 | 23 | PN | Pn | 01 42 18.3 | +0.3 |
| TCW | | | | AML | AML | 01 43 02.0 | |
| TCW | | | | AML | AML | 01 43 08.7 | |
| BHW | Baring Head | 2.55 | 34 | PN | Pn | 01 42 19.0 | +0.6 |
| BHW | | | | AML | AML | 01 43 21.7 | |
| BHW | | | | AML | AML | 01 43 33.3 | |
| SNZO | South Karori | 2.57 | 30 | *e*Pn | Pn | 01 42 19.4 | +0.7 |
| SNZO | | | | *e*Sn | Sn | 01 42 49.9 | +0.1 |
| PLWZ | Palliser | 2.59 | 41 | PN | Pn | 01 42 19.4 | +0.4 |
| PLWZ | | | | AML | AML | 01 42 51.6 | |
| PLWZ | | | | AML | AML | 01 42 52.4 | |
| WEL | Wellington | 2.62 | 31 | Pn | Pn | 01 42 20.3 | +1.0 |
| WEL | Wellington | 2.62 | 31 | PN | Pn | 01 42 20.0 | +0.7 |
| WEL | | | | AML | AML | 01 42 51.2 | |
| WEL | | | | AML | AML | 01 42 51.7 | |
| MSWZ | Moikau Station | 2.71 | 39 | ⇓PN | Pn | 01 42 21.2 | +0.6 |
| MSWZ | | | | AML | AML | 01 42 54.0 | |
| MSWZ | | | | AML | AML | 01 42 54.7 | |
| QRZ | Quartz Range | 2.74 | 353 | Pn | Pn | 01 42 21.9 | +1.0 |
| QRZ | Quartz Range | 2.74 | 353 | PN | Pn | 01 42 21.7 | +0.8 |
| QRZ | | | | AML | AML | 01 42 35.1 | |
| QRZ | | | | AML | AML | 01 42 35.1 | |
| QRZ | | | | AML | AML | 01 43 11.1 | |
| QRZ | | | | AML | AML | 01 43 11.1 | |
| PAWZ | Paruwai Farm | 2.82 | 41 | PN | Pn | 01 42 22.2 | +0.1 |
| PAWZ | | | | AML | AML | 01 42 56.0 | |
| PAWZ | | | | AML | AML | 01 43 50.4 | |
| DUWZ | D'Urville Isla | 2.83 | 15 | PN | Pn | 01 42 23.5 | +1.3 |
| DUWZ | | | | AML | AML | 01 43 20.2 | |
| DUWZ | | | | AML | AML | 01 43 25.5 | |
| CAW | Cannon Point | 2.89 | 33 | PN | Pn | 01 42 23.5 | +0.5 |
| CAW | | | | AML | AML | 01 43 00.1 | |
| CAW | | | | AML | AML | 01 43 32.5 | |
| HHSZ | Highcliff Hill | 2.89 | 215 | Pn | Pn | 01 42 23.7 | +0.7 |
| HHSZ | Highcliff Hill | 2.89 | 215 | PN | Pn | 01 42 23.7 | +0.7 |
| HHSZ | | | | AML | AML | 01 43 17.9 | |
| HHSZ | | | | AML | AML | 01 43 27.4 | |
| TRWZ | Traveller | 2.94 | 44 | PN | Pn | 01 42 24.0 | +0.3 |
| TRWZ | | | | AML | AML | 01 43 01.5 | |
| TRWZ | | | | AML | AML | 01 43 03.0 | |
| MTW | Mount Morrison | 3.03 | 39 | PN | Pn | 01 42 25.0 | 0.0 |
| MTW | | | | AML | AML | 01 43 00.5 | |
| MTW | | | | AML | AML | 01 43 01.6 | |
| KIW | Kapiti Island | 3.04 | 29 | PN | Pn | 01 42 25.7 | +0.6 |
| KIW | | | | AML | AML | 01 43 01.3 | |
| KIW | | | | AML | AML | 01 43 41.6 | |
| JCZ | Jackson Bay | 3.08 | 259 | Pn | Pn | 01 42 26.8 | +1.1 |
| JCZ | Jackson Bay | 3.08 | 259 | PN | Pn | 01 42 26.1 | +0.4 |
| JCZ | | | | AML | AML | 01 43 26.9 | |
| JCZ | | | | AML | AML | 01 43 27.6 | |
| WKZ | Wanaka | 3.12 | 244 | *e*Pn | Pn | 01 42 26.4 | +0.1 |
| WKZ | Wanaka | 3.12 | 244 | PN | Pn | 01 42 26.2 | -0.1 |
| WKZ | | | | AML | AML | 01 43 25.7 | |
| WKZ | | | | AML | AML | 01 43 25.7 | |
| WKZ | | | | AML | AML | 01 43 28.0 | |
| WKZ | | | | AML | AML | 01 43 28.0 | |
| EAZ | Earnscleugh | 3.12 | 236 | Pn | Pn | 01 42 26.5 | +0.3 |
| EAZ | Earnscleugh | 3.12 | 236 | PN | Pn | 01 42 26.5 | +0.3 |
| EAZ | | | | AML | AML | 01 43 22.4 | |
| EAZ | | | | AML | AML | 01 43 22.4 | |
| EAZ | | | | AML | AML | 01 43 27.6 | |
| EAZ | | | | AML | AML | 01 43 27.6 | |
| OGWZ | Otaki Gorge | 3.18 | 32 | PN | Pn | 01 42 27.3 | +0.3 |
| OGWZ | | | | AML | AML | 01 43 04.9 | |
| OGWZ | | | | AML | AML | 01 43 07.7 | |
| HOWZ | Holdsworth Sta | 3.25 | 36 | PN | Pn | 01 42 28.2 | +0.2 |
| HOWZ | | | | AML | AML | 01 43 06.0 | |
| HOWZ | | | | AML | AML | 01 43 07.1 | |
| TMWZ | Te Maipa | 3.25 | 43 | PN | Pn | 01 42 28.2 | +0.1 |
| TMWZ | | | | AML | AML | 01 43 14.4 | |
| TMWZ | | | | AML | AML | 01 43 14.9 | |
| TUZ | Tuapeka | 3.39 | 224 | PN | Pn | 01 42 30.3 | +0.4 |
| TUZ | | | | AML | AML | 01 43 29.0 | |
| TUZ | | | | AML | AML | 01 43 38.5 | |
| MRZ | Mangatainoka R | 3.47 | 35 | Pn | Pn | 01 42 31.1 | +0.1 |
| MRZ | Mangatainoka R | 3.47 | 35 | PN | Pn | 01 42 31.1 | +0.1 |
| MRZ | | | | AML | AML | 01 43 14.8 | |
| MRZ | | | | AML | AML | 01 43 16.4 | |
| TIWZ | Tintock | 3.51 | 39 | PN | Pn | 01 42 31.6 | 0.0 |
| TIWZ | | | | AML | AML | 01 43 14.9 | |
| TIWZ | | | | AML | AML | 01 43 15.7 | |
| PRWZ | Pori Road | 3.73 | 38 | PN | Pn | 01 42 34.6 | 0.0 |
| PRWZ | | | | AML | AML | 01 43 19.8 | |
| PRWZ | | | | AML | AML | 01 43 20.3 | |
| BFZ | Birch Farm | 3.75 | 41 | *e*Pn | Pn | 01 42 34.8 | -0.1 |
| BFZ | Birch Farm | 3.75 | 41 | PN | Pn | 01 42 34.5 | -0.4 |
| BFZ | | | | AML | AML | 01 43 20.4 | |
| BFZ | | | | AML | AML | 01 43 20.7 | |
| BFZ | | | | AML | AML | 01 43 20.8 | |
| BFZ | | | | AML | AML | 01 43 20.8 | |
| POWZ | Post Office Ro | 3.77 | 34 | *e*PN | Pn | 01 42 34.8 | -0.4 |
| POWZ | | | | AML | AML | 01 44 06.5 | |
| POWZ | | | | AML | AML | 01 44 24.8 | |
| MLZ | Mavora Lakes | 3.93 | 241 | *e*Pn | Pn | 01 42 37.5 | +0.2 |
| MLZ | Mavora Lakes | 3.93 | 241 | *e*PN | Pn | 01 42 37.0 | -0.3 |
| MLZ | | | | AML | AML | 01 43 52.7 | |
| MLZ | | | | AML | AML | 01 43 59.7 | |
| DVHZ | Dannevirke | 4.02 | 37 | PN | Pn | 01 42 38.3 | -0.3 |
| DVHZ | | | | AML | AML | 01 43 26.2 | |
| DVHZ | | | | AML | AML | 01 43 26.5 | |
| SYZ | Scrubby Hill | 4.04 | 221 | Pn | Pn | 01 42 39.9 | +1.0 |
| SYZ | Scrubby Hill | 4.04 | 221 | PN | Pn | 01 42 39.7 | +0.8 |
| SYZ | | | | AML | AML | 01 44 04.7 | |
| SYZ | | | | AML | AML | 01 44 04.7 | |
| SYZ | | | | AML | AML | 01 44 06.6 | |
| SYZ | | | | AML | AML | 01 44 06.6 | |
| WAZ | Wanganui | 4.08 | 22 | PN | Pn | 01 42 42.2 | +2.9 |
| WAZ | | | | AML | AML | 01 44 09.1 | |
| WAZ | | | | AML | AML | 01 44 10.5 | |
| NMEZ | Namu Road | 4.18 | 10 | PN | Pn | 01 42 43.3 | +2.6 |
| LREZ | Lake Rotokare | 4.22 | 15 | *e*PN | Pn | 01 42 43.4 | +2.1 |
| LREZ | | | | AML | AML | 01 43 50.3 | |
| LREZ | | | | AML | AML | 01 44 02.0 | |
| PRHZ | Porangahau | 4.26 | 41 | *e*PN | Pn | 01 42 41.4 | -0.6 |
| PRHZ | | | | AML | AML | 01 43 35.3 | |
| PRHZ | | | | AML | AML | 01 43 40.2 | |
| WHZ | Wether Hill Ro | 4.29 | 235 | *e*Pn | Pn | 01 42 42.0 | -0.2 |
| WHZ | Wether Hill Ro | 4.29 | 235 | *e*PN | Pn | 01 42 41.6 | -0.7 |
| WHZ | | | | AML | AML | 01 44 03.1 | |
| WHZ | | | | AML | AML | 01 44 05.9 | |
| KHEZ | Kahui Hut | 4.32 | 11 | *e*PN | Pn | 01 42 44.6 | +1.9 |
| PNHZ | Pukenui | 4.36 | 35 | *e*PN | Pn | 01 42 42.8 | -0.4 |
| PNHZ | | | | AML | AML | 01 43 35.4 | |
| PNHZ | | | | AML | AML | 01 43 36.3 | |
| PKE | Pukeiti | 4.41 | 10 | *e*PN | Pn | 01 42 46.4 | +2.4 |
| PKE | | | | AML | AML | 01 43 40.2 | |
| PKE | | | | AML | AML | 01 43 40.5 | |
| DCZ | Deep Cove | 4.59 | 243 | *e*Pn | Pn | 01 42 47.1 | +0.8 |
| DCZ | Deep Cove | 4.59 | 243 | PN | Pn | 01 42 46.2 | -0.2 |
| DCZ | | | | AML | AML | 01 44 19.4 | |
| DCZ | | | | AML | AML | 01 44 29.4 | |
| MOVZ | Moawhango | 4.63 | 28 | *e*PN | Pn | 01 42 47.3 | +0.3 |
| MOVZ | | | | AML | AML | 01 43 42.3 | |
| MOVZ | | | | AML | AML | 01 43 45.5 | |
| WNVZ | Wahianoa | 4.65 | 26 | PN | Pn | 01 42 48.0 | +0.6 |
| KRHZ | Kereru | 4.65 | 34 | *e*PN | Pn | 01 42 46.4 | -0.9 |
| KRHZ | | | | AML | AML | 01 43 42.6 | |
| KRHZ | | | | AML | AML | 01 43 48.3 | |
| TRVZ | Turoa | 4.66 | 25 | *e*PN | Pn | 01 42 47.8 | +0.2 |
| TRVZ | | | | AML | AML | 01 43 45.4 | |
| TRVZ | | | | AML | AML | 01 43 46.3 | |
| FWVZ | Far West T-bar | 4.70 | 25 | *e*PN | Pn | 01 42 49.8 | +1.6 |
| FWVZ | | | | AML | AML | 01 43 47.0 | |
| FWVZ | | | | AML | AML | 01 43 49.5 | |
| TUVZ | Tukino | 4.72 | 26 | *e*PN | Pn | 01 42 49.8 | +1.4 |
| TUVZ | | | | AML | AML | 01 43 50.2 | |
| NGZ | Ngauruhoe | 4.79 | 25 | PN | Pn | 01 42 50.7 | +1.4 |
| NGZ | | | | AML | AML | 01 44 35.6 | |
| NGZ | | | | AML | AML | 01 44 49.4 | |
| APZ | The Paps | 4.82 | 225 | Pn | Pn | 01 42 49.9 | +0.3 |
| APZ | The Paps | 4.82 | 225 | PN | Pn | 01 42 49.8 | +0.2 |
| APZ | | | | AML | AML | 01 44 18.9 | |
| APZ | | | | AML | AML | 01 44 20.0 | |
| OTVZ | Oturere | 4.82 | 26 | *e*PN | Pn | 01 42 50.7 | +0.9 |
| OTVZ | | | | AML | AML | 01 44 03.2 | |
| OTVZ | | | | AML | AML | 01 44 32.3 | |
| TWVZ | Taurewa | 4.84 | 23 | *e*PN | Pn | 01 42 50.9 | +1.0 |
| WTVZ | West Tongariro | 4.84 | 25 | *e*PN | Pn | 01 42 50.7 | +0.7 |
| WTVZ | | | | AML | AML | 01 44 36.8 | |
| WTVZ | | | | AML | AML | 01 44 38.2 | |
| KWHZ | Kaweka Forest | 4.86 | 33 | AML | AML | 01 43 48.9 | |
| KWHZ | | | | AML | AML | 01 44 19.8 | |
| KRVZ | Karewarewa | 4.88 | 25 | PN | Pn | 01 42 52.1 | +1.6 |
| KRVZ | | | | AML | AML | 01 44 00.8 | |
| KRVZ | | | | AML | AML | 01 44 30.5 | |
| MCHZ | McNeill Hill | 4.96 | 36 | *e*PN | Pn | 01 42 50.7 | -0.8 |
| MCHZ | | | | AML | AML | 01 44 00.9 | |
| MCHZ | | | | AML | AML | 01 44 12.2 | |
| BKZ | Black Stump Fm | 5.11 | 32 | *e*Pn | Pn | 01 42 54.3 | +0.7 |
| PYZ | Puysegur Point | 5.19 | 237 | *e*Pn | Pn | 01 42 55.7 | +1.1 |
| HIZ | Hauiti | 5.22 | 16 | *e*Pn | Pn | 01 42 57.0 | +1.9 |
| HIZ | Hauiti | 5.22 | 16 | PN | Pn | 01 42 55.9 | +0.8 |
| HIZ | | | | AML | AML | 01 43 59.2 | |
| HIZ | | | | AML | AML | 01 43 59.7 | |
| ALRZ | Allen Road | 5.59 | 28 | *e*PN | Pn | 01 42 59.6 | -0.6 |
| KNZ | Kokohu | 5.74 | 40 | Pn | Pn | 01 43 01.6 | -0.5 |
| KNZ | Kokohu | 5.74 | 40 | *e*PN | Pn | 01 43 01.2 | -0.9 |
| MHGZ | Mahia Peninsul | 5.75 | 42 | *e*PN | Pn | 01 43 02.4 | +0.1 |
| RIGZ | Rimuhau | 6.03 | 38 | *e*PN | Pn | 01 43 04.8 | -1.5 |
| URZ | Urewera | 6.14 | 32 | Pn | Pn | 01 43 06.5 | -1.2 |
| | 4.4nm,0.3s,baz=228,slow=4.6,SNR=17 | | | | | | |
| URZ | | | | Sn | Sn | 01 44 13.3 | -4.4 |
| | 5.4nm,0.3s,baz=77,slow=21,SNR=11 | | | | | | |
| URZ | Urewera | 6.14 | 32 | *e*Pn | Pn | 01 43 07.5 | -0.1 |
| URZ | | | | Sn | Sn | 01 44 13.3 | -4.4 |
| URZ | Urewera | 6.14 | 32 | *e*PN | Pn | 01 43 06.4 | -1.2 |
| URZ | | | | AML | AML | 01 44 17.3 | |
| MWZ | Matawai | 6.24 | 35 | *e*PN | Pn | 01 43 06.3 | -2.8 |
| MWZ | | | | AML | AML | 01 44 19.2 | |
| MWZ | | | | AML | AML | 01 44 21.0 | |
| RUGZ | Raukumara Rang | 6.62 | 34 | *e*PN | Pn | 01 43 13.7 | -0.7 |
| CTZ | Chatham Island | 7.55 | 95 | Pn | Pn | 01 43 28.1 | +1.1 |
| CTZ | Chatham Island | 7.55 | 95 | PN | Pn | 01 43 28.0 | +1.0 |
| CTZ | | | | SN | Sn | 01 44 45.6 | -6.8 |
| OUZ | Omahuta | 8.33 | 3 | *e*Pn | Pn | 01 43 38.0 | +0.2 |
| AS01 | Alice Springs | 37.63 | 289 | *e*P | P | 01 48 53.2 | +1.2 |
| AS31 | Alice Springs | 37.67 | 289 | *e*P | P | 01 48 52.9 | +0.6 |
| | 4.4nm,2.0s | | | | | | |
| ASAR | Alice Springs | 37.67 | 289 | P | P | 01 48 53.1 | +0.8 |
| | 1.7nm,1.0s,baz=132,slow=9.5,SNR=9.8 | | | | | | |
| WRAB | Tennant Creek | 39.91 | 294 | *e*P | P | 01 49 11.3 | +0.2 |
| | 3.6nm,0.8s | | | | | | |
| WRA | Warramunga Arr | 39.91 | 294 | P | P | 01 49 11.6 | +0.4 |
| | 1.4nm,0.7s,baz=135,slow=7.5,SNR=13 | | | | | | |
| SOEI | Soe | 53.95 | 294 | *e*P | P | 01 50 59.7 | -1.4 |
| SNAA | Sanae | 65.05 | 181 | *e*P | P | 01 52 18.1 | +1.3 |
| HHC | Hu-ho-hao-te | 100.57 | 317 | *e*P | Pdif | 01 55 26.6 | +2.2 |
| WMQ | Urumqi | 115.49 | 307 | P | PKPdf | 02 00 19.3 | +0.8 |
| YKA | Yellowknife Ar | 120.40 | 31 | PKP | PKPdf | 02 00 28.8 | +1.6 |
| | 0.3nm,0.7s,baz=257,slow=1.6,SNR=7.9 | | | | | | |
| JFWS | Jewell Farm | 121.92 | 59 | *e*PKPdf | PKPdf | 02 00 32.6 | +1.8 |
| RAYN | Ar Rayn | 132.73 | 263 | *e*PKPdf | PKPdf | 02 00 53.0 | +0.9 |
| TORD | Torodi Ar. Bea | 148.79 | 197 | PKPbc | PKPab | 02 01 27.0 | -1.5 |
| | 2.1nm,1.0s,baz=185,slow=0.8,SNR=5.6 | | | | | | |
| ARCES | ARCESS Array B | 149.12 | 338 | PKPbc | PKPbc | 02 01 24.3 | +0.3 |
| | 3.6nm,0.9s,baz=41,slow=3.9,SNR=5.4 | | | | | | |
| BRTR | Keskin Array B | 149.59 | 277 | PKPbc | PKPbc | 02 01 27.9 | +1.5 |
| | 0.7nm,0.8s,baz=139,slow=3.1,SNR=5.2 | | | | | | |
| FINES | FINESS Array B | 153.48 | 324 | PKPbc | PKPbc | 02 01 36.0 | +1.6 |
| | 2.2nm,0.9s,baz=197,slow=4.4,SNR=5.3 | | | | | | |

**WEL 23 01:44:14.1±0.1, 43°50S×172°88E, h15km±2km, ML3.7/21, Error ellipse: s-maj=1.5km s-min=0.6km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CRLZ | Canterbury Las | 0.20 | 247 | P* | Pg | 01 44 18.6 | -0.1 |
| CRLZ | | | | S* | Sg | 01 44 22.0 | +0.1 |
| CRLZ | | | | AML | AML | 01 44 22.6 | |
| MQZ | McQueen's Vall | 0.26 | 218 | P* | Pg | 01 44 19.9 | +0.1 |
| MQZ | | | | S* | Sg | 01 44 24.0 | +0.4 |
| MQZ | | | | S* | Sb | 01 44 24.2 | -0.7 |
| MQZ | | | | AML | AML | 01 44 24.4 | |
| OXZ | Oxford | 0.64 | 285 | P* | Pg | 01 44 26.0 | -0.5 |
| OXZ | | | | S* | Sg | 01 44 34.6 | -0.4 |
| OXZ | | | | AML | AML | 01 44 36.3 | |
| OXZ | | | | AML | AML | 01 44 37.3 | |
| OXZ | | | | AML | AML | 01 44 37.4 | |
| LTZ | Lake Taylor | 0.84 | 328 | P* | Pb | 01 44 29.8 | -0.7 |
| LTZ | | | | S* | Sg | 01 44 41.3 | -0.3 |
| LTZ | | | | AML | AML | 01 44 42.2 | |
| KHZ | Kahutara | 1.19 | 24 | PN | Pn | 01 44 35.3 | -0.8 |
| KHZ | | | | AML | AML | 01 44 51.4 | |
| KHZ | | | | AML | AML | 01 44 51.8 | |
| INZ | Inchbonnie | 1.30 | 306 | *e*PN | Pn | 01 44 37.5 | -0.3 |
| RPZ | Rata Peaks | 1.34 | 260 | *e*PN | Pn | 01 44 37.3 | -1.0 |
| RPZ | | | | AML | AML | 01 44 58.8 | |
| RPZ | | | | AML | AML | 01 44 58.9 | |
| WVZ | Waitaha Valley | 1.62 | 284 | *e*PN | Pn | 01 44 41.7 | -0.4 |
| WVZ | | | | AML | AML | 01 45 05.5 | |
| WVZ | | | | AML | AML | 01 45 06.8 | |
| THZ | Tophouse | 1.73 | 1 | PN | Pn | 01 44 43.1 | -0.6 |
| THZ | | | | AML | AML | 01 45 04.5 | |
| THZ | | | | AML | AML | 01 45 06.3 | |
| DSZ | Denniston Nort | 1.92 | 335 | PN | Pn | 01 44 45.9 | -0.5 |
| DSZ | | | | AML | AML | 01 44 51.6 | |
| DSZ | | | | AML | AML | 01 44 52.1 | |
| BSWZ | Blackbirch Sta | 1.93 | 23 | PN | Pn | 01 44 46.0 | -0.3 |
| BSWZ | | | | AML | AML | 01 45 11.7 | |
| BSWZ | | | | AML | AML | 01 45 13.3 | |
| LBZ | Lake Benmore | 2.14 | 245 | *e*PN | Pn | 01 44 48.9 | -0.4 |
| LBZ | | | | AML | AML | 01 45 26.4 | |
| LBZ | | | | AML | AML | 01 45 26.5 | |
| ODZ | Otahua Downs | 2.23 | 225 | *e*PN | Pn | 01 44 50.6 | +0.1 |
| ODZ | | | | AML | AML | 01 45 27.5 | |
| ODZ | | | | AML | AML | 01 45 28.4 | |
| ODZ | | | | AML | AML | 01 45 33.1 | |
| ODZ | | | | AML | AML | 01 45 33.2 | |
| FOZ | Fox Glacier | 2.23 | 268 | *e*PN | Pn | 01 44 51.5 | +1.1 |
| FOZ | | | | AML | AML | 01 45 19.5 | |
| NNZ | Nelson | 2.31 | 9 | *e*PN | Pn | 01 44 51.3 | -0.2 |
| QRZ | Quartz Range | 2.68 | 354 | *e*PN | Pn | 01 44 57.4 | +0.7 |
| QRZ | | | | AML | AML | 01 45 30.1 | |
| QRZ | | | | AML | AML | 01 45 32.3 | |
| DUWZ | D'Urville Isla | 2.80 | 16 | *e*PN | Pn | 01 45 00.9 | +2.4 |
| HHSZ | Highcliff Hill | 2.89 | 213 | PN | Pn | 01 44 59.2 | -0.3 |
| HHSZ | | | | AML | AML | 01 45 54.3 | |
| CAW | Cannon Point | 2.89 | 35 | AML | AML | 01 45 31.8 | |
| CAW | | | | AML | AML | 01 45 32.6 | |
| JCZ | Jackson Bay | 3.02 | 258 | AML | AML | 01 45 56.4 | |
| JCZ | | | | AML | AML | 01 45 56.8 | |
| KIW | Kapiti Island | 3.04 | 31 | SN | Sn | 01 45 34.8 | -2.9 |
| WKZ | Wanaka | 3.08 | 243 | AML | AML | 01 46 00.9 | |
| EAZ | Earnscleugh | 3.09 | 235 | AML | AML | 01 45 55.6 | |
| EAZ | | | | AML | AML | 01 45 57.4 | |
| TUZ | Tuapeka | 3.37 | 222 | *e*PN | Pn | 01 45 06.2 | 0.0 |
| TUZ | | | | AML | AML | 01 46 05.6 | |
| TUZ | | | | AML | AML | 01 46 06.1 | |
| BFZ | Birch Farm | 3.77 | 43 | *e*PN | Pn | 01 45 11.2 | -0.4 |
| SYZ | Scrubby Hill | 4.03 | 220 | PN | Pn | 01 45 15.5 | +0.2 |

**WEL 23 01:48:04.6±0.3, 43°52S×172°85E, h18km±2km, ML3.6/18, 3C-2D, Error ellipse: s-maj=3.1km s-min=1.2km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CRLZ | Canterbury Las | 0.17 | 252 | P* | Pg | 01 48 09.0 | -0.2 |
| CRLZ | | | | AML | AML | 01 48 12.3 | |
| CRLZ | | | | S* | Sg | 01 48 12.4 | +0.1 |
| MQZ | McQueen's Vall | 0.23 | 218 | P* | Pb | 01 48 10.3 | +0.2 |
| MQZ | | | | S* | Sg | 01 48 14.4 | +0.6 |
| MQZ | | | | AML | AML | 01 48 14.6 | |
| OXZ | Oxford | 0.62 | 288 | ⇑P* | Pb | 01 48 16.5 | -0.4 |
| OXZ | | | | S* | Sb | 01 48 25.1 | -0.2 |
| OXZ | | | | AML | AML | 01 48 26.4 | |
| OXZ | | | | AML | AML | 01 48 26.6 | |
| OXZ | | | | AML | AML | 01 48 26.6 | |
| LTZ | Lake Taylor | 0.85 | 330 | ⇓P* | Pb | 01 48 20.6 | -0.3 |
| LTZ | | | | S* | Sb | 01 48 31.8 | -0.2 |
| LTZ | | | | AML | AML | 01 48 32.7 | |
| KHZ | Kahutara | 1.21 | 25 | PN | Pn | 01 48 26.0 | -0.6 |
| KHZ | | | | AML | AML | 01 48 42.1 | |
| KHZ | | | | AML | AML | 01 48 50.2 | |
| INZ | Inchbonnie | 1.30 | 307 | PN | Pn | 01 48 27.2 | -0.7 |
| RPZ | Rata Peaks | 1.32 | 261 | PN | Pn | 01 48 28.1 | -0.1 |
| RPZ | | | | AML | AML | 01 48 49.3 | |
| RPZ | | | | AML | AML | 01 48 49.3 | |
| WVZ | Waitaha Valley | 1.61 | 285 | PN | Pn | 01 48 32.0 | 0.0 |
| WVZ | | | | AML | AML | 01 48 55.8 | |
| WVZ | | | | AML | AML | 01 49 04.8 | |
| THZ | Tophouse | 1.76 | 1 | ⇑PN | Pn | 01 48 33.6 | -0.6 |
| THZ | | | | AML | AML | 01 48 59.9 | |
| THZ | | | | AML | AML | 01 49 00.9 | |
| DSZ | Denniston Nort | 1.94 | 336 | ⇑PN | Pn | 01 48 36.6 | 0.0 |
| DSZ | | | | AML | AML | 01 49 01.2 | |
| DSZ | | | | AML | AML | 01 49 16.6 | |
| BSWZ | Blackbirch Sta | 1.96 | 23 | PN | Pn | 01 48 36.5 | -0.3 |
| BSWZ | | | | AML | AML | 01 49 20.5 | |
| LBZ | Lake Benmore | 2.11 | 245 | PN | Pn | 01 48 40.1 | +1.2 |
| LBZ | | | | AML | AML | 01 49 16.1 | |
| ODZ | Otahua Downs | 2.20 | 225 | PN | Pn | 01 48 40.8 | +0.6 |
| ODZ | | | | AML | AML | 01 49 34.4 | |
| ODZ | | | | AML | AML | 01 49 36.0 | |
| FOZ | Fox Glacier | 2.21 | 269 | PN | Pn | 01 48 41.9 | +1.6 |
| FOZ | | | | AML | AML | 01 49 10.1 | |
| FOZ | | | | AML | AML | 01 49 27.8 | |
| NNZ | Nelson | 2.33 | 10 | ⇓PN | Pn | 01 48 42.2 | +0.1 |
| TCW | Tory Channel | 2.54 | 25 | PN | Pn | 01 48 44.0 | -0.8 |
| PLWZ | Palliser | 2.64 | 43 | PN | Pn | 01 48 44.8 | -1.5 |
| QRZ | Quartz Range | 2.70 | 355 | PN | Pn | 01 48 47.4 | +0.3 |
| QRZ | | | | AML | AML | 01 48 57.8 | |
| QRZ | | | | AML | AML | 01 49 34.9 | |
| DUWZ | D'Urville Isla | 2.83 | 17 | AML | AML | 01 49 24.3 | |
| CAW | Cannon Point | 2.92 | 35 | PN | Pn | 01 48 48.9 | -1.2 |
| CAW | | | | AML | AML | 01 49 23.0 | |
| JCZ | Jackson Bay | 2.99 | 258 | PN | Pn | 01 48 52.4 | +1.2 |
| JCZ | | | | AML | AML | 01 49 45.1 | |
| EAZ | Earnscleugh | 3.06 | 235 | *e*PN | Pn | 01 48 52.3 | +0.3 |
| KIW | Kapiti Island | 3.07 | 31 | PN | Pn | 01 48 51.2 | -0.9 |
| OGWZ | Otaki Gorge | 3.21 | 33 | AML | AML | 01 49 28.7 | |
| OGWZ | | | | AML | AML | 01 49 28.7 | |
| HOWZ | Holdsworth Sta | 3.29 | 38 | PN | Pn | 01 48 54.0 | -1.1 |
| BFZ | Birch Farm | 3.80 | 43 | PN | Pn | 01 48 59.9 | -2.2 |
| WNVZ | Wahianoa | 4.67 | 27 | PN | Pn | 01 49 15.1 | +0.8 |
| APZ | The Paps | 4.77 | 224 | PN | Pn | 01 49 16.8 | +1.2 |
| OTVZ | Oturere | 4.84 | 27 | PN | Pn | 01 49 16.5 | -0.2 |
| HIZ | Hauiti | 5.23 | 18 | PN | Pn | 01 49 22.2 | +0.4 |

**WEL 23 01:48:18.7±0.4, 43°47S×172°80E, h5km, ML3.6/15, Error ellipse: s-maj=3.5km s-min=1.1km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CRLZ | Canterbury Las | 0.16 | 231 | PG | Pg | 01 48 22.3 | +0.4 |
| CRLZ | | | | SG | Sg | 01 48 25.2 | +1.1 |
| CRLZ | | | | AML | AML | 01 48 25.5 | |
| MQZ | McQueen's Vall | 0.26 | 204 | PG | Pg | 01 48 23.7 | 0.0 |
| MQZ | | | | SG | Sg | 01 48 27.7 | +0.7 |
| MQZ | | | | SG | Sb | 01 48 27.8 | -2.7 |
| MQZ | | | | SG | | 01 48 27.9 | |
| OXZ | Oxford | 0.57 | 285 | SG | Sg | 01 48 38.1 | +1.0 |
| OXZ | | | | AML | AML | 01 48 40.1 | |
| OXZ | | | | AML | AML | 01 48 40.1 | |
| OXZ | | | | AML | AML | 01 48 42.2 | |
| LTZ | Lake Taylor | 0.79 | 331 | P* | Pb | 01 48 34.4 | -0.5 |
| LTZ | | | | S* | Sb | 01 48 45.6 | -0.4 |
| LTZ | | | | AML | AML | 01 48 46.6 | |
| KHZ | Kahutara | 1.19 | 28 | AML | AML | 01 48 56.1 | |
| KHZ | | | | AML | AML | 01 48 58.5 | |
| RPZ | Rata Peaks | 1.29 | 259 | *e*P* | Pn | 01 48 42.3 | -1.1 |
| RPZ | | | | AML | AML | 01 49 01.2 | |
| RPZ | | | | AML | AML | 01 49 06.3 | |
| WVZ | Waitaha Valley | 1.56 | 284 | AML | AML | 01 49 09.2 | |
| THZ | Tophouse | 1.71 | 3 | AML | AML | 01 49 12.0 | |
| THZ | | | | AML | AML | 01 49 13.6 | |
| DSZ | Denniston Nort | 1.88 | 337 | AML | AML | 01 49 15.7 | |
| BSWZ | Blackbirch Sta | 1.93 | 25 | AML | AML | 01 49 04.0 | |
| LBZ | Lake Benmore | 2.10 | 243 | AML | AML | 01 49 32.9 | |
| LBZ | | | | AML | AML | 01 49 33.8 | |
| FOZ | Fox Glacier | 2.17 | 267 | AML | AML | 01 49 23.5 | |
| EAZ | Earnscleugh | 3.06 | 234 | AML | AML | 01 49 57.3 | |
| EAZ | | | | AML | AML | 01 50 07.9 | |
| TUZ | Tuapeka | 3.35 | 221 | AML | AML | 01 50 08.5 | |
| TUZ | | | | AML | AML | 01 50 16.2 | |

*ISCJB **23** 01:50:23.5±0.6, 43°53S±0°04×172°96E±0°05, h21km±4km, mb3.6/4, Error ellipse: s-maj=7.6km s-min=3.2km az=136.0*
*IDC **23** 01:50:23.6±1.4, 43°36S×172°76E, h0km, mb3.6/2, mb1 3.9/3, mb1mx3.7/19, mbtmp3.7/3, ML3.6/1, Error ellipse: s-maj=45.0km s-min=21.4km az=159.0*
*WEL **23** 01:50:25.3±0.2, 43°46S×172°83E, h10km±1km, ML4.1/38, Error ellipse: s-maj=1.5km s-min=1.0km az=90.0*
*WEL Felt in the Canterbury region, maximum reported intensity MM 4.*
*NEIC **23** 01:50:25.4±0.0, 43°47S×172°80E, h12km, mb3.7/2, ML4.2(WEL), After WEL.*
*NEIC Felt at Christchurch.*
**ISC 23 01:50:24.5±0.9, 43°48S±0°04×172°87E±0°03, h17km±5km, n116, σ0s91/133, mb3.6/4, 5C-2D, South Island**

| Code | Station Name | Δ° | AZ° | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CRLZ | Canterbury Las | 0.21 | 242 | Pg | Pg | 01 50 29.4 | -0.1 |
| CRLZ | | | | Sg | Sg | 01 50 32.4 | -0.4 |
| CRLZ | Canterbury Las | 0.21 | 242 | PG | Pg | 01 50 29.4 | -0.1 |
| CRLZ | | | | SG | Sg | 01 50 32.4 | -0.4 |
| CRLZ | | | | AML | AML | 01 50 32.8 | |
| CRLZ | | | | AML | AML | 01 50 33.3 | |
| CRLZ | | | | AML | AML | 01 50 33.6 | |
| MQZ | McQueen's Vall | 0.28 | 215 | P* | Pg | 01 50 30.9 | +0.3 |
| MQZ | | | | Sg | Sg | 01 50 34.9 | +0.1 |
| MQZ | McQueen's Vall | 0.28 | 215 | ⇑PG | Pg | 01 50 30.9 | +0.3 |
| MQZ | | | | SG | Sg | 01 50 34.9 | +0.1 |
| MQZ | | | | SG | Sg | 01 50 34.9 | +0.1 |
| MQZ | | | | AML | AML | 01 50 35.2 | |
| OXZ | Oxford | 0.63 | 284 | P* | Pb | 01 50 36.6 | -0.4 |
| OXZ | | | | *e*Pn | Sb | 01 50 44.7 | -0.8 |
| OXZ | Oxford | 0.63 | 284 | ⇓P* | Pb | 01 50 36.6 | -0.4 |
| OXZ | | | | S* | Sg | 01 50 44.6 | -0.7 |
| OXZ | | | | S* | Sb | 01 50 44.7 | -0.8 |
| OXZ | | | | AML | AML | 01 50 46.8 | |
| OXZ | | | | AML | AML | 01 50 46.9 | |
| LTZ | Lake Taylor | 0.82 | 327 | P* | Pn | 01 50 40.7 | -0.6 |
| LTZ | | | | *e*Sg | Sn | 01 50 52.3 | -0.9 |
| LTZ | Lake Taylor | 0.82 | 327 | ⇓P* | Pn | 01 50 40.7 | -0.6 |
| LTZ | | | | S* | Sb | 01 50 51.4 | +0.2 |
| LTZ | | | | AML | AML | 01 50 53.3 | |
| KHZ | Kahutara | 1.17 | 25 | P* | Pg | 01 50 46.8 | -0.3 |
| KHZ | Kahutara | 1.17 | 25 | P* | Pb | 01 50 46.2 | 0.0 |
| KHZ | | | | AML | AML | 01 51 10.6 | |
| KHZ | | | | AML | AML | 01 51 16.9 | |
| INZ | Inchbonnie | 1.29 | 305 | P* | Pn | 01 50 47.5 | -0.2 |
| RPZ | Rata Peaks | 1.34 | 259 | Pn | Pn | 01 50 47.6 | -0.9 |
| | 97nm,0.3s,baz=121,slow=1.6,SNR=20 | | | | | | |
| RPZ | | | | Sn | Sg | 01 51 07.5 | -0.5 |
| | 221nm,0.3s,baz=17,slow=16,SNR=5.6 | | | | | | |
| RPZ | Rata Peaks | 1.34 | 259 | Pn | Pn | 01 50 48.4 | -0.1 |
| RPZ | | | | *e*Sn | Sb | 01 51 04.7 | -1.5 |
| RPZ | Rata Peaks | 1.34 | 259 | PN | Pn | 01 50 48.3 | -0.1 |
| RPZ | | | | AML | AML | 01 51 08.4 | |
| RPZ | | | | AML | AML | 01 51 11.1 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| WVZ | Waitaha Valley | 1.61 | 284 | Pn | | Pn | 01 50 52.5 | +0.4 |
| WVZ | Waitaha Valley | 1.61 | 284 | PN | | Pn | 01 50 52.5 | +0.4 |
| WVZ | | | | AML | | AML | 01 51 23.7 | |
| WVZ | | | | AML | | AML | 01 51 24.5 | |
| THZ | Tophouse | 1.71 | 1 | Pn | | Pn | 01 50 54.1 | +0.5 |
| THZ | Tophouse | 1.71 | 1 | ⇑PN | | Pn | 01 50 54.2 | +0.5 |
| THZ | | | | AML | | AML | 01 51 18.5 | |
| THZ | | | | AML | | AML | 01 51 29.9 | |
| DSZ | Denniston Nort | 1.90 | 335 | Pn | | Pn | 01 50 56.7 | +0.5 |
| DSZ | Denniston Nort | 1.90 | 335 | PN | | Pn | 01 50 56.7 | +0.5 |
| DSZ | | | | AML | | AML | 01 51 25.2 | |
| DSZ | | | | AML | | AML | 01 51 25.3 | |
| DSZ | | | | AML | | AML | 01 51 34.6 | |
| DSZ | | | | AML | | AML | 01 51 37.3 | |
| BSWZ | Blackbirch Sta | 1.91 | 23 | Pn | | Pn | 01 50 57.2 | +1.0 |
| BSWZ | Blackbirch Sta | 1.91 | 23 | PN | | Pn | 01 50 57.2 | +1.0 |
| BSWZ | | | | AML | | AML | 01 51 25.8 | |
| BSWZ | | | | AML | | AML | 01 51 43.5 | |
| LBZ | Lake Benmore | 2.15 | 244 | Pn | | Pn | 01 51 00.1 | +0.6 |
| LBZ | Lake Benmore | 2.15 | 244 | PN | | Pn | 01 51 00.1 | +0.6 |
| LBZ | | | | AML | | AML | 01 51 37.4 | |
| LBZ | | | | AML | | AML | 01 51 37.5 | |
| LBZ | | | | AML | | AML | 01 51 38.1 | |
| LBZ | | | | AML | | AML | 01 51 38.1 | |
| TUWZ | Tuamarina | 2.19 | 21 | Pn | | Pn | 01 51 00.8 | +0.7 |
| TUWZ | Tuamarina | 2.19 | 21 | PN | | Pn | 01 51 00.8 | +0.7 |
| TUWZ | | | | AML | | AML | 01 51 42.6 | |
| TUWZ | | | | AML | | AML | 01 51 55.2 | |
| FOZ | Fox Glacier | 2.23 | 268 | Pn | | Pn | 01 51 02.2 | +1.6 |
| FOZ | Fox Glacier | 2.23 | 268 | ⇑PN | | Pn | 01 51 02.2 | +1.6 |
| FOZ | | | | AML | | AML | 01 51 30.5 | |
| FOZ | | | | AML | | AML | 01 51 30.5 | |
| FOZ | | | | AML | | AML | 01 51 38.0 | |
| FOZ | | | | AML | | AML | 01 51 57.2 | |
| ODZ | Otahua Downs | 2.24 | 225 | Pn | | Pn | 01 51 01.2 | +0.4 |
| ODZ | | | | *e*Pg | | Pg | 01 51 07.4 | -0.1 |
| ODZ | | | | *e*Sn | | Sg | 01 51 35.1 | -1.5 |
| ODZ | Otahua Downs | 2.24 | 225 | ⇑PN | | Pn | 01 51 01.2 | +0.4 |
| ODZ | | | | AML | | AML | 01 51 37.5 | |
| ODZ | | | | AML | | AML | 01 51 37.5 | |
| ODZ | | | | AML | | AML | 01 51 38.7 | |
| ODZ | | | | AML | | AML | 01 51 38.7 | |
| NNZ | Nelson | 2.29 | 10 | Pn | | Pn | 01 51 02.6 | +1.2 |
| NNZ | Nelson | 2.29 | 10 | ⇑PN | | Pn | 01 51 02.6 | +1.2 |
| NNZ | | | | AML | | AML | 01 51 48.3 | |
| NNZ | | | | AML | | AML | 01 51 51.3 | |
| TCW | Tory Channel | 2.49 | 25 | Pn | | Pn | 01 51 04.5 | +0.2 |
| TCW | Tory Channel | 2.49 | 25 | PN | | Pn | 01 51 04.5 | +0.2 |
| TCW | | | | AML | | AML | 01 51 37.0 | |
| TCW | | | | AML | | AML | 01 51 40.0 | |
| BHW | Baring Head | 2.54 | 36 | Pn | | Pn | 01 51 05.2 | +0.3 |
| BHW | Baring Head | 2.54 | 36 | PN | | Pn | 01 51 05.2 | +0.3 |
| SNZO | South Karori | 2.56 | 33 | *e*Pn | | Pn | 01 51 05.5 | +0.5 |
| PLWZ | Palliser | 2.59 | 44 | Pn | | Pn | 01 51 05.8 | +0.1 |
| PLWZ | Palliser | 2.59 | 44 | PN | | Pn | 01 51 05.8 | +0.1 |
| PLWZ | | | | AML | | AML | 01 51 36.9 | |
| PLWZ | | | | AML | | AML | 01 51 38.0 | |
| QRZ | Quartz Range | 2.66 | 354 | Pn | | Pn | 01 51 07.4 | +0.8 |
| QRZ | Quartz Range | 2.66 | 354 | PN | | Pn | 01 51 06.9 | +0.3 |
| QRZ | | | | AML | | AML | 01 51 19.7 | |
| QRZ | | | | AML | | AML | 01 51 19.7 | |
| QRZ | | | | AML | | AML | 01 52 02.2 | |
| QRZ | | | | AML | | AML | 01 52 02.2 | |
| DUWZ | D'Urville Isla | 2.79 | 17 | Pn | | Pn | 01 51 09.1 | +0.8 |
| DUWZ | D'Urville Isla | 2.79 | 17 | PN | | Pn | 01 51 09.1 | +0.8 |
| DUWZ | | | | AML | | AML | 01 52 03.2 | |
| DUWZ | | | | AML | | AML | 01 52 04.2 | |
| CAW | Cannon Point | 2.87 | 35 | Pn | | Pn | 01 51 09.6 | +0.1 |
| CAW | Cannon Point | 2.87 | 35 | PN | | Pn | 01 51 09.6 | +0.1 |
| CAW | | | | AML | | AML | 01 51 43.8 | |
| CAW | | | | AML | | AML | 01 51 45.7 | |
| HHSZ | Highcliff Hill | 2.90 | 213 | Pn | | Pn | 01 51 10.3 | +0.4 |
| HHSZ | Highcliff Hill | 2.90 | 213 | PN | | Pn | 01 51 10.3 | +0.4 |
| HHSZ | | | | AML | | AML | 01 52 05.8 | |
| HHSZ | | | | AML | | AML | 01 52 09.7 | |
| JCZ | Jackson Bay | 3.02 | 257 | PN | | Pn | 01 51 11.6 | 0.0 |
| JCZ | | | | AML | | AML | 01 52 03.8 | |
| JCZ | | | | AML | | AML | 01 52 04.4 | |
| KIW | Kapiti Island | 3.02 | 31 | Pn | | Pn | 01 51 11.9 | +0.3 |
| KIW | Kapiti Island | 3.02 | 31 | PN | | Pn | 01 51 11.9 | +0.3 |
| KIW | | | | AML | | AML | 01 51 47.4 | |
| MTW | Mount Morrison | 3.03 | 41 | Pn | | Pn | 01 51 11.4 | -0.2 |
| MTW | Mount Morrison | 3.03 | 41 | PN | | Pn | 01 51 11.3 | -0.3 |
| MTW | | | | AML | | AML | 01 51 47.4 | |
| MTW | | | | AML | | AML | 01 51 48.4 | |
| WKZ | Wanaka | 3.09 | 243 | Pn | | Pn | 01 51 12.7 | +0.2 |
| WKZ | | | | *e*Pg | | Pg | 01 51 24.5 | +0.9 |
| WKZ | Wanaka | 3.09 | 243 | PN | | Pn | 01 51 12.7 | +0.2 |
| WKZ | | | | AML | | AML | 01 52 08.9 | |
| WKZ | | | | AML | | AML | 01 52 20.8 | |
| EAZ | Earnscleugh | 3.10 | 234 | Pn | | Pn | 01 51 12.9 | +0.3 |
| EAZ | Earnscleugh | 3.10 | 234 | PN | | Pn | 01 51 12.9 | +0.3 |
| EAZ | | | | AML | | AML | 01 52 04.8 | |
| EAZ | | | | AML | | AML | 01 52 04.8 | |
| EAZ | | | | AML | | AML | 01 52 08.8 | |
| EAZ | | | | AML | | AML | 01 52 08.8 | |
| OGWZ | Otaki Gorge | 3.16 | 33 | Pn | | Pn | 01 51 13.6 | +0.2 |
| OGWZ | Otaki Gorge | 3.16 | 33 | PN | | Pn | 01 51 13.2 | -0.2 |
| OGWZ | | | | AML | | AML | 01 51 52.3 | |
| OGWZ | | | | AML | | AML | 01 51 53.5 | |
| HOWZ | Holdsworth Sta | 3.24 | 38 | Pn | | Pn | 01 51 14.8 | +0.2 |
| HOWZ | Holdsworth Sta | 3.24 | 38 | PN | | Pn | 01 51 14.5 | -0.1 |
| HOWZ | | | | AML | | AML | 01 51 53.0 | |
| HOWZ | | | | AML | | AML | 01 51 57.2 | |
| TUZ | Tuapeka | 3.39 | 222 | Pn | | Pn | 01 51 16.9 | +0.4 |
| TUZ | Tuapeka | 3.39 | 222 | PN | | Pn | 01 51 16.9 | +0.4 |
| TUZ | | | | AML | | AML | 01 52 18.3 | |
| TUZ | | | | AML | | AML | 01 52 18.5 | |
| MRZ | Mangatainoka R | 3.46 | 36 | Pn | | Pn | 01 51 17.6 | 0.0 |
| MRZ | Mangatainoka R | 3.46 | 36 | PN | | Pn | 01 51 17.1 | -0.4 |
| MRZ | | | | AML | | AML | 01 51 57.7 | |
| MRZ | | | | AML | | AML | 01 52 01.7 | |
| TIWZ | Tintock | 3.51 | 41 | SN | | Sn | 01 51 58.1 | -1.2 |
| TIWZ | | | | AML | | AML | 01 52 04.2 | |
| PRWZ | Pori Road | 3.72 | 39 | Pn | | Pn | 01 51 20.9 | -0.3 |
| PRWZ | Pori Road | 3.72 | 39 | PN | | Pn | 01 51 20.8 | -0.4 |
| PRWZ | | | | AML | | AML | 01 52 06.4 | |
| PRWZ | | | | AML | | AML | 01 52 07.8 | |
| BFZ | Birch Farm | 3.75 | 43 | Pn | | Pn | 01 51 21.1 | -0.5 |
| BFZ | | | | *e*Sn | | Sn | 01 52 03.7 | -1.7 |
| BFZ | Birch Farm | 3.75 | 43 | PN | | Pn | 01 51 21.0 | -0.6 |
| MLZ | Mavora Lakes | 3.90 | 239 | *e*Pn | | Pn | 01 51 22.9 | -0.6 |
| MLZ | Mavora Lakes | 3.90 | 239 | PN | | Pn | 01 51 23.3 | -0.3 |
| MLZ | | | | AML | | AML | 01 52 33.8 | |
| MLZ | | | | AML | | AML | 01 52 34.0 | |
| SYZ | Scrubby Hill | 4.05 | 220 | Pn | | Pn | 01 51 26.5 | +0.9 |
| SYZ | Scrubby Hill | 4.05 | 220 | PN | | Pn | 01 51 25.9 | +0.4 |
| SYZ | | | | AML | | AML | 01 52 51.4 | |
| SYZ | | | | AML | | AML | 01 52 53.4 | |
| WHZ | Wether Hill Ro | 4.26 | 234 | Pn | | Pn | 01 51 27.8 | -0.8 |
| WHZ | Wether Hill Ro | 4.26 | 234 | PN | | Pn | 01 51 27.8 | -0.8 |
| WHZ | | | | AML | | AML | 01 52 47.4 | |
| WHZ | | | | AML | | AML | 01 52 55.2 | |
| KHEZ | Kahui Hut | 4.27 | 12 | Pn | | Pn | 01 51 31.6 | +2.9 |
| KHEZ | Kahui Hut | 4.27 | 12 | PN | | Pn | 01 51 31.4 | +2.7 |
| PNHZ | Pukenui | 4.34 | 36 | AML | | AML | 01 52 22.1 | |
| PNHZ | | | | AML | | AML | 01 52 35.4 | |
| DCZ | Deep Cove | 4.55 | 242 | Pn | | Pn | 01 51 32.8 | -0.2 |
| DCZ | | | | *e*Pg | | Pg | 01 51 51.4 | -0.2 |
| DCZ | Deep Cove | 4.55 | 242 | PN | | Pn | 01 51 31.9 | -0.6 |
| DCZ | | | | AML | | AML | 01 52 53.7 | |
| DCZ | | | | AML | | AML | 01 52 57.5 | |
| MOVZ | Moawhango | 4.61 | 29 | Pn | | Pn | 01 51 34.9 | +1.5 |
| WNVZ | Wahianoa | 4.62 | 27 | Pn | | Pn | 01 51 35.5 | +1.8 |
| WNVZ | Wahianoa | 4.62 | 27 | PN | | Pn | 01 51 35.4 | +1.7 |
| KRHZ | Kereru | 4.64 | 36 | PN | | Pn | 01 51 32.5 | -1.4 |
| BHHZ | Black Hill Sta | 4.65 | 32 | Pn | | Pn | 01 51 34.1 | +0.1 |
| BHHZ | Black Hill Sta | 4.65 | 32 | *e*PN | | Pn | 01 51 33.7 | -0.3 |
| TUVZ | Tukino | 4.70 | 27 | Pn | | Pn | 01 51 36.5 | +1.8 |
| TUVZ | Tukino | 4.70 | 27 | PN | | Pn | 01 51 36.5 | +1.8 |
| KAHZ | Kahuranaki | 4.75 | 41 | Pn | | Pn | 01 51 35.7 | +0.5 |
| KAHZ | Kahuranaki | 4.75 | 41 | PN | | Pn | 01 51 35.6 | +0.3 |
| NGZ | Ngauruhoe | 4.76 | 26 | Pn | | Pn | 01 51 37.0 | +1.4 |
| NGZ | Ngauruhoe | 4.76 | 26 | PN | | Pn | 01 51 36.6 | +1.0 |
| NGZ | | | | AML | | AML | 01 52 42.5 | |
| OTVZ | Oturere | 4.79 | 27 | *e*PN | | Pn | 01 51 36.5 | +0.5 |
| TWVZ | Taurewa | 4.81 | 25 | Pn | | Pn | 01 51 37.7 | +1.5 |
| WTVZ | West Tongariro | 4.81 | 26 | Pn | | Pn | 01 51 37.5 | +1.3 |
| APZ | The Paps | 4.81 | 224 | PN | | Pn | 01 51 36.0 | -0.2 |
| KRVZ | Karewarewa | 4.85 | 26 | Pn | | Pn | 01 51 37.9 | +1.2 |
| BKZ | Black Stump Fm | 5.10 | 34 | *e*Pn | | Pn | 01 51 38.6 | -1.5 |
| PYZ | Puysegur Point | 5.16 | 236 | Pn | | Pn | 01 51 40.3 | -0.6 |
| PYZ | Puysegur Point | 5.16 | 236 | *e*PN | | Pn | 01 51 40.1 | -0.8 |
| HIZ | Hauiti | 5.18 | 17 | Pn | | Pn | 01 51 42.4 | +1.1 |
| HIZ | Hauiti | 5.18 | 17 | PN | | Pn | 01 51 42.4 | +1.1 |
| TLZ | Tolley Road | 5.53 | 22 | Pn | | Pn | 01 51 46.4 | +0.4 |
| TLZ | Tolley Road | 5.53 | 22 | PN | | Pn | 01 51 46.3 | +0.4 |
| TOZ | Tahuroa Road | 6.08 | 20 | Pn | | Pn | 01 51 53.7 | +0.2 |
| TOZ | Tahuroa Road | 6.08 | 20 | *e*PN | | Pn | 01 51 53.0 | -0.5 |
| URZ | Urewera | 6.12 | 33 | Pn | | Pn | 01 51 52.8 | -1.3 |
| URZ | | | | Sn | | Sn | 01 53 01.0 | -2.7 |
| URZ | Urewera | 6.12 | 33 | *e*Pn | | Pn | 01 51 52.0 | -2.1 |
| RUGZ | Raukumara Rang | 6.60 | 35 | PN | | Pn | 01 52 00.3 | -0.6 |
| STKA | Stephens Creek | 27.17 | 285 | *e*P | | P | 01 56 07.5 | +0.5 |
| ASAR | Alice Springs | 37.57 | 289 | P | | P | 01 57 39.2 | +1.2 |
| WRAB | Tennant Creek | 39.81 | 294 | *e*P | | P | 01 57 57.7 | +0.9 |
| WRA | Warramunga Arr | 39.81 | 294 | P | | P | 01 57 58.0 | +1.1 |
| YKA | Yellowknife Ar | 120.38 | 31 | PKP | | PKPdf | 02 09 14.9 | +1.3 |
| TORD | Torodi Ar. Bea | 148.84 | 197 | PKPbc | | PKPab | 02 10 13.8 | -1.4 |
| BRTR | Keskin Array B | 149.50 | 277 | PKPbc | | PKPbc | 02 10 14.0 | +1.4 |

2.3nm,1.5s
2.1nm,0.3s,baz=354,slow=18,SNR=4.4
0.8nm,0.6s,baz=132,slow=8.0,SNR=18
0.2nm,0.8s,baz=252,slow=1.7,SNR=5.0
0.5nm,0.8s,baz=177,slow=2.3,SNR=4.1
0.5nm,0.6s,baz=134,slow=4.2,SNR=3.8

**WEL 23 01:55:37.0±0.2, 43°.52S×172°.80E, h13km±2km, ML2.7/4, 2C-1D, Error ellipse: s-maj=2.0km s-min=0.7km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| CRLZ | Canterbury Las | 0.14 | 248 | ⇑P* | Pg | 01 55 40.4 | 0.0 |
| CRLZ | | | | S* | Sg | 01 55 43.0 | +0.1 |
| CRLZ | | | | AML | AML | 01 55 44.5 | |
| MQZ | McQueen's Vall | 0.21 | 210 | ⇑P* | Pg | 01 55 41.8 | +0.2 |
| MQZ | | | | S* | Sg | 01 55 45.5 | +0.7 |
| MQZ | | | | S* | Sb | 01 55 45.6 | -1.1 |
| MQZ | | | | AML | AML | 01 55 45.7 | |
| OXZ | Oxford | 0.59 | 289 | ⇓P* | Pg | 01 55 48.1 | -0.4 |
| OXZ | | | | S* | Sg | 01 55 56.2 | -0.1 |
| OXZ | | | | AML | AML | 01 55 58.5 | |
| LTZ | Lake Taylor | 0.83 | 332 | P* | Pg | 01 55 52.7 | -0.4 |
| LTZ | | | | S* | Sg | 01 56 03.9 | -0.1 |
| LTZ | | | | AML | AML | 01 56 05.3 | |
| KHZ | Kahutara | 1.23 | 26 | P* | Pn | 01 55 58.9 | -1.0 |
| INZ | Inchbonnie | 1.27 | 308 | PN | Pn | 01 55 59.9 | -0.7 |
| RPZ | Rata Peaks | 1.28 | 261 | PN | Pn | 01 56 00.1 | -0.6 |
| THZ | Tophouse | 1.76 | 3 | PN | Pn | 01 56 06.1 | -1.2 |
| DSZ | Denniston Nort | 1.92 | 337 | PN | Pn | 01 56 09.1 | -0.4 |
| LBZ | Lake Benmore | 2.08 | 245 | PN | Pn | 01 56 11.6 | 0.0 |
| FOZ | Fox Glacier | 2.17 | 269 | PN | Pn | 01 56 14.0 | +1.1 |
| ODZ | Otahua Downs | 2.17 | 225 | PN | Pn | 01 56 12.5 | -0.4 |
| NNZ | Nelson | 2.34 | 11 | PN | Pn | 01 56 15.1 | -0.2 |
| CAW | Cannon Point | 2.94 | 36 | PN | Pn | 01 56 21.6 | -1.8 |
| EAZ | Earnscleugh | 3.03 | 234 | *e*PN | Pn | 01 56 24.3 | -0.4 |
| MLZ | Mavora Lakes | 3.83 | 240 | *e*PN | Pn | 01 56 34.6 | -1.1 |

*ISCJB **23** 02:08:26.4±0.2, 43°.99N±0°.04×141°.40E±0°.06, h209km±2km, mb3.8/30, Error ellipse: s-maj=7.2km s-min=6.4km az=43.1*
*JMA **23** 02:08:26.7±0.2, 43°.93N×141°.47E, h213km±2km, M3.9*
*MOS **23** 02:08:26.6±1.0, 44°.12N×141°.34E, h203km, mb4.0/23, Error ellipse: s-maj=12.2km s-min=6.5km az=97.8*
*IDC **23** 02:08:27.2±0.5, 43°.99N×141°.44E, h203km±3km, mb3.7/26, mb1 3.8/31, mb1mx3.6/67, mbtmp4.2/31, Error ellipse: s-maj=14.7km s-min=9.0km az=166.0*

**ISC 23 02:08:27.6±0.6, 44°.01N±0°.05×141°.36E±0°.05, h207km±5km, n78, σ1§25/90, mb3.9/30, 7C-8D, Hokkaido region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| JHR | Hokuryu | 0.38 | 135 | ⇓P | Pn | 02 08 55.1 | -0.1 |
| JHR | | | | *e*S | S | 02 09 17.2 | +0.6 |
| JYG | Yagishiri | 0.42 | 7 | ⇓P | Pn | 02 08 55.1 | -0.1 |
| JSS | Shosan | 0.53 | 42 | ⇓P | Pn | 02 08 55.8 | +0.2 |
| JSS | | | | *e*S | S | 02 09 17.9 | +0.3 |
| JAB | Ashibetsu | 0.80 | 128 | ⇓P | Pn | 02 08 56.4 | -0.6 |
| JAB | | | | *e*S | S | 02 09 19.2 | -0.4 |
| ASAJ | Asahikawa | 0.90 | 83 | P | Pn | 02 08 56.6 | -0.8 |
| ASAJ | | | | S | S | 02 09 19.2 | -1.4 |
| JSK | Shakotan | 0.91 | 225 | P | Pn | 02 08 57.2 | -0.4 |
| JKK2 | Kamakawa 2 | 1.01 | 97 | ⇓P | Pn | 02 08 57.5 | -0.7 |
| JKK2 | | | | *e*S | S | 02 09 20.7 | -1.1 |
| JEW | Eniwo | 1.17 | 177 | ⇓P | Pn | 02 08 58.8 | -0.5 |
| JEW | | | | *e*S | S | 02 09 23.7 | 0.0 |
| JFR | Furan | 1.23 | 133 | P | Pn | 02 08 58.5 | -1.3 |
| JWK2 | Keihoku | 1.36 | 16 | P | Pn | 02 09 01.2 | +0.5 |
| JTKR | Abashiri--Toko | 1.84 | 90 | ⇑P | Pn | 02 09 04.5 | -0.6 |
| JTKR | | | | *e*S | S | 02 09 33.2 | -0.6 |
| JAH | Ashorobuto | 1.89 | 111 | ⇑P | Pn | 02 09 04.7 | -0.9 |
| JNBK | Urakawa-nobuka | 2.01 | 149 | P | Pn | 02 09 05.3 | -1.4 |
| JCH | Churui | 2.02 | 133 | P | Pn | 02 09 04.3 | -2.6 |
| JCH | | | | *e*S | S | 02 09 32.4 | -4.6 |
| JKB | Kayabe | 2.13 | 187 | ⇓P | Pn | 02 09 06.6 | -1.4 |
| JOSM | Okushiri--Mats | 2.37 | 216 | P | Pn | 02 09 09.8 | -0.7 |
| ERM | Erimo | 2.39 | 146 | *i* PN | Pn | 02 09 12.0 | +1.2 |
| JAK | Akkeshi | 2.63 | 111 | P | Pn | 02 09 10.8 | -2.6 |
| JOT | Ohata | 2.63 | 185 | P | Pn | 02 09 11.5 | -2.0 |
| JOT | | | | *e*S | S | 02 09 45.8 | -2.9 |
| JRA | Rausu | 2.72 | 90 | P | Pn | 02 09 13.9 | -0.4 |
| YSS | Yuzh-Sakhalins | 3.11 | 18 | *e*PN | Pn | 02 09 19.0 | +0.2 |
| YSS | | | | pmax | pmax | | |
| | comp=Z,90nm,0.5s | | | | | | |
| UGL | Uglegorsk | 5.10 | 5 | *e*PN | Pn | 02 09 40.6 | -2.7 |
| UGL | | | | *e*S | S | 02 10 39.0 | -3.8 |
| HABR | Khabarovsk | 6.25 | 318 | *e*PN | Pn | 02 09 55.7 | -2.3 |
| HABR | | | | *e*S | S | 02 11 06.8 | -2.8 |
| HABR | | | | pmax | pmax | | |
| | comp=Z,57nm,1.8s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=E,64nm,1.6s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=N,47nm,1.8s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=Z,59nm,1.9s | | | | | | |
| HABR | | | | MLR | MLR | | |
| | comp=Z,254nm,12.0s | | | | | | |
| USRK | Ussuriysk Ar. | 6.75 | 275 | P | Pn | 02 10 05.2 | +0.7 |
| | comp=Z,1.4nm,0.3s,baz=86,slow=14,SNR=22 | | | | | | |
| TYV | Tymovskoe | 6.92 | 7 | *e*PN | Pn | 02 09 55.9 | -11 |
| TYV | | | | pmax | pmax | | |
| | comp=Z,15nm,1.4s | | | | | | |
| MJAR | Matsushiro Arr | 7.83 | 199 | P | Pn | 02 10 17.6 | -1.2 |
| | comp=Z,1.1nm,0.3s,baz=12,slow=13,SNR=9.6 | | | | | | |
| KLR | Kul'dur | 8.42 | 312 | P | Pn | 02 10 26.6 | +0.4 |
| | comp=Z,0.0nm,0.3s,baz=118,slow=13,SNR=14 | | | | | | |
| KLR | Kul'dur | 8.42 | 312 | *i* PN | Pn | 02 10 26.5 | +0.3 |
| KSRS | Korea Array | 12.10 | 242 | P | Pn | 02 11 13.7 | +0.2 |
| | comp=Z,0.3nm,0.3s,baz=63,slow=12,SNR=4.5 | | | | | | |
| PETK | Petropavlovsk- | 14.11 | 44 | P | Pn | 02 11 38.5 | 0.0 |
| | comp=Z,0.7nm,0.3s,baz=212,slow=5.3,SNR=6.8 | | | | | | |
| MA2 | Magadan | 16.61 | 17 | P | P | 02 12 07.3 | -0.2 |
| | comp=Z,2.1nm,0.3s,baz=208,slow=10,SNR=7.5 | | | | | | |
| SEY | Seymchan | 20.01 | 15 | P | P | 02 12 43.3 | -0.9 |
| | comp=Z,2.2nm,0.3s,baz=201,slow=7.9,SNR=25 | | | | | | |
| SEY | Seymchan | 20.01 | 15 | *e*P | P | 02 12 42.4 | -1.8 |
| ULN | Ulaanbaatar | 24.05 | 291 | *i* P | P | 02 13 24.5 | +0.7 |
| ULN | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.4s | | | | | | |
| SONM | Songino Array | 24.49 | 291 | P | P | 02 13 28.5 | +0.7 |
| | comp=Z,2.0nm,0.6s,baz=81,slow=8.7,SNR=21 | | | | | | |
| DGZ | Jazzator, Alta | 36.64 | 298 | *i* P | P | 02 15 16.6 | +2.4 |
| DGZ | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.6s | | | | | | |
| ZALV | Zalesovo Beam | 37.48 | 306 | P | P | 02 15 21.6 | +0.6 |
| | comp=Z,0.7nm,0.3s,baz=89,slow=9.2,SNR=4.7 | | | | | | |
| MKAR | Makanchi Array | 40.72 | 295 | P | P | 02 15 49.0 | +1.1 |
| | comp=Z,2.3nm,0.6s,baz=83,slow=8.6,SNR=19 | | | | | | |
| MKAR | | | | PcP | PcP | 02 17 45.4 | +0.3 |
| | comp=Z,0.3nm,0.4s,baz=70,slow=4.4,SNR=4.4 | | | | | | |
| MKAR | Makanchi Array | 40.72 | 295 | *ce*P | P | 02 15 49.7 | +1.8 |
| MKAR | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.6s | | | | | | |
| KURK | Kurchatov | 41.88 | 302 | *ce*P | P | 02 15 57.5 | +0.3 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.7s | | | | | | |
| KDAK | Kodiak Island | 42.14 | 47 | P | P | 02 15 59.7 | +0.4 |
| | comp=Z,8.6nm,0.7s,baz=276,slow=9.2,SNR=7.1 | | | | | | |
| KDAK | Kodiak Island | 42.14 | 47 | *ce*P | P | 02 16 00.8 | +1.6 |
| ILAR | Eielson Array | 43.75 | 36 | P | P | 02 16 11.9 | -0.2 |
| | comp=Z,5.1nm,0.8s,baz=280,slow=9.6,SNR=65 | | | | | | |
| BVAR | Borovoye Array | 46.06 | 308 | P | P | 02 16 31.4 | +0.9 |
| | comp=Z,1.3nm,0.3s,baz=82,slow=9.4,SNR=9.4 | | | | | | |
| BRVK | Borovoye | 46.11 | 308 | *i* P | P | 02 16 30.8 | 0.0 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.1s | | | | | | |
| INK | Inuvik | 48.28 | 30 | P | P | 02 16 47.2 | 0.0 |
| | comp=Z,6.9nm,0.4s,baz=291,slow=6.2,SNR=96 | | | | | | |
| SPITS | Spitsbergen Ar | 53.69 | 348 | P | P | 02 17 26.8 | -0.6 |
| | comp=Z,6.5nm,0.9s,baz=46,slow=7.1,SNR=6.9 | | | | | | |
| RES | Resolute Bay | 55.88 | 15 | P | P | 02 17 42.6 | -0.5 |
| | comp=Z,5.6nm,0.5s,baz=303,slow=5.5,SNR=34 | | | | | | |
| ARCES | ARCESS Array B | 57.49 | 338 | P | P | 02 17 54.4 | -0.2 |
| | comp=Z,1.5nm,0.8s,baz=44,slow=8.8,SNR=5.7 | | | | | | |
| YKA | Yellowknife Ar | 57.87 | 32 | P | P | 02 17 57.2 | 0.0 |
| | comp=Z,1.4nm,0.6s,baz=305,slow=6.8,SNR=60 | | | | | | |
| YKA | | | | PcP | PcP | 02 18 47.4 | +0.2 |
| | comp=Z,0.3nm,0.4s,baz=306,slow=3.8,SNR=8.2 | | | | | | |
| FINES | FINESS Array B | 62.67 | 331 | P | P | 02 18 29.5 | -0.2 |
| | comp=Z,2.0nm,0.5s,baz=51,slow=8.7,SNR=12 | | | | | | |
| SUMG | Summit | 63.72 | 360 | *i* P | P | 02 18 37.6 | +0.6 |
| SUMG | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.4s | | | | | | |
| SUMG | Summit | 63.72 | 360 | *i* P | P | 02 18 37.6 | +0.6 |
| | comp=Z,1.9nm,0.4s | | | | | | |
| WRA | Warramunga Arr | 63.96 | 187 | P | P | 02 18 37.5 | -1.2 |
| | comp=Z,0.5nm,0.8s,baz=6.8,slow=7.4,SNR=4.2 | | | | | | |
| KVAR | Kislovodsk Arr | 66.40 | 309 | P | P | 02 18 54.5 | +0.2 |
| | comp=Z,2.7nm,0.6s,baz=214,slow=3.6,SNR=2.5 | | | | | | |
| KBZ | Khabaz | 66.43 | 309 | P | P | 02 18 55.5 | +1.2 |
| | comp=Z,1.0nm,0.7s,baz=75,slow=12,SNR=4.1 | | | | | | |
| HFS | Hagfors | 67.75 | 335 | P | P | 02 19 02.5 | +0.1 |
| | comp=Z,2.7nm,0.3s,baz=54,slow=7.3,SNR=36 | | | | | | |
| NB2 | NORSAR Subarra | 67.77 | 336 | P | P | 02 19 02.7 | +0.2 |
| | comp=Z,0.8nm,0.5s,baz=35,slow=6.5 | | | | | | |
| NOA | NORSAR Array B | 67.77 | 336 | P | P | 02 19 02.5 | 0.0 |
| | comp=Z,0.4nm,0.6s,baz=37,slow=6.5,SNR=5.6 | | | | | | |
| NOA | NORSAR Array B | 67.77 | 336 | P | P | 02 19 02.6 | 0.0 |
| NOA | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | |
| AKASG | Malin Array Be | 68.81 | 321 | P | P | 02 19 09.2 | +0.1 |
| | comp=Z,1.2nm,0.4s,baz=44,slow=6.8,SNR=6.5 | | | | | | |
| NVAR | Mina Array Bea | 70.92 | 55 | P | P | 02 19 22.7 | +0.1 |
| | comp=Z,1.3nm,0.8s,baz=290,slow=4.3,SNR=7.9 | | | | | | |
| PDAR | Pinedale Array | 72.86 | 47 | P | P | 02 19 34.0 | +0.1 |
| | comp=Z,2.7nm,0.7s,baz=281,slow=2.4,SNR=25 | | | | | | |
| STHS | Stebnicka Huta | 73.27 | 324 | *e*P | P | 02 19 37.1 | +1.1 |
| STHS | Stebnicka Huta | 73.27 | 324 | *e*P | P | 02 19 37.1 | +1.1 |
| ULM | Lac du Bonnet | 73.73 | 34 | P | P | 02 19 38.5 | -0.1 |
| | comp=Z,3.8nm,0.8s,baz=311,slow=6.6,SNR=7.7 | | | | | | |
| CLL | Collm | 75.06 | 329 | *i* P | P | 02 19 45.6 | -0.6 |
| CLL | Collm | 75.06 | 329 | *i* P | P | 02 19 45.6 | -0.6 |
| PRU | Pruhonice | 75.54 | 328 | *e*P | P | 02 19 50.0 | +1.0 |
| PRU | Pruhonice | 75.54 | 328 | *e*P | P | 02 19 50.0 | +1.0 |
| EKA | Eskdalemuir Ar | 76.56 | 340 | P | P | 02 19 54.6 | 0.0 |
| | comp=Z,0.7nm,0.4s,baz=22,slow=4.2,SNR=7.1 | | | | | | |
| EKA | Eskdalemuir Ar | 76.56 | 340 | P | P | 02 19 54.6 | 0.0 |
| EKA | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | |
| KHC | Kasperske Hory | 76.60 | 328 | *e*P | P | 02 19 55.6 | +0.5 |
| KHC | Kasperske Hory | 76.60 | 328 | *e*P | P | 02 19 55.6 | +0.5 |
| GERES | GERESS Array B | 76.79 | 328 | P | P | 02 19 56.7 | +0.6 |
| | comp=Z,2.0nm,0.3s,baz=31,slow=5.9,SNR=3.8 | | | | | | |
| DAVOX | Davos/Dischmat | 79.95 | 328 | P | P | 02 20 14.6 | +1.0 |
| | comp=Z,1.0nm,0.6s,baz=338,slow=5.4 | | | | | | |
| ANMO | Albuquerque | 80.16 | 51 | *ce*P | P | 02 20 16.7 | +1.7 |
| ANMO | | | | pmax | pmax | | |
| | comp=Z,5.0nm,2.5s | | | | | | |
| TXAR | Lajitas Array | 85.91 | 53 | P | P | 02 20 44.6 | +0.2 |
| | comp=Z,0.3nm,0.5s,baz=279,slow=3.6,SNR=7.3 | | | | | | |

*IDC **23** 02:12:30.1±0.9, 52°.73N×27°.84E, h0km, mb2.9/1, mb1 3.1/4, mb1mx2.9/56, mbtmp3.0/4, ML2.4/3, Error ellipse: s-maj=27.6km s-min=8.6km az=71.0*

**ISC 23 02:12:29.6±1.2, 52°.85N±0°.08×27°.6E±0°.2, h10km, n6, σ1§29/7, Baltic States-Belarus-Northwestern Russia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| MIGM | Minsk | 1.66 | 6 | *e* | Sg | 02 13 24.0 | +1.0 |
| MIGM | | | | *e* | | 02 14 00.0 | |
| NACGM | Naroch | 2.11 | 347 | *e* | Pg | 02 13 09.0 |

*mb1 5.2/20,mb1mx5.2/23,mbtmp5.2/20,ML5.2/1,MS5.4/19, Ms1 5.5/19,ms1mx5.3/26 Error ellipse: s-maj=13.5km s-min=10.5km az=176.0*

*WEL* ***23*** *02:18:03.6±0.1,43˚.53S×172˚.75E,h8km,ML6.1/121, Mw5.9,Error ellipse: s-maj=1.2km s-min=0.6km az=90.0*

*WEL Felt from Taranaki to Otago, maximum reported intensity MM 8.*

*NEIC* ***23*** *02:18:03.7±0.0,43˚.53S×172˚.74E,h7km,mb5.7/48,ME6.1, MS5.6/143,MW5.8,MW5.9,ML6.0(WEL),Moment Tensor Solution. s20 Moment tensor: Scale 10¹⁷Nm; Mrr1.98; Mθθ-1.62; Mϕϕ-0.36; Mrθ-2.27; Mθϕ-2.71; Mϕr-5.75; Best double couple: M₀7.00000×10¹⁷ NP1:ϕs203.00000°, δ80.00000°,λ170.00000°. NP2:ϕs87.00000°,δ22.00000°, λ153.00000°. Principal axes: T 6.6800, Plg51.0000°, Azm91.0000°; N 0.5900, Plg19.0000°, Azm206.0000°; P -7.2700, Plg33.0000°, Azm309.0000°; Broadband fault plane solution: P waves. NP1:ϕs340.00000°,δ20.00000°, λ90.00000°. NP2:ϕs160.00000°,δ70.00000°,λ90.00000°. Principal axes: T Plg65.0000°, Azm70.0000°; N Plg0.0000°, Azm0.0000°; P Plg25.0000°, Azm250.0000°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism. After WEL.*

*NEIC Felt [VII] in the Christchurch area. Felt in much of the South Island and in the southern part of the North Island.*

**ISC 23 02:18:03.3±0.2,43˚.52S±0˚.03S×172˚.90E±0˚.03,h10km,n841,**
**σ1s83/761,mb5.6/71,MS5.6/180,72C-23D,South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time h m | Res s |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.21** | **254** | *e*Pg | **Pg** | **02 18 06.0** | **-1.7** |
| **CRLZ** | **Canterbury Las** | **0.21** | **254** | ⇓PG | **Pg** | **02 18 06.2** | **-1.5** |
| CRLZ | | | | AML | AML | 02 18 09.5 | |
| CRLZ | | | | AML | AML | 02 18 11.1 | |
| **MQZ** | **McQueen's Vall** | **0.26** | **224** | *e*Pg | **Pg** | **02 18 07.7** | **-0.9** |
| **MQZ** | **McQueen's Vall** | **0.26** | **224** | ⇑PG | **Pg** | **02 18 07.6** | **-1.0** |
| MQZ | | | | SG | **Sg** | **02 18 11.3** | **-0.9** |
| MQZ | | | | SG | **Sg** | **02 18 11.3** | **-0.9** |
| **OXZ** | **Oxford** | **0.66** | **287** | *e*Pg | **Pg** | **02 18 14.3** | **-1.8** |
| **OXZ** | **Oxford** | **0.66** | **287** | ⇓P* | **Pg** | **02 18 14.2** | **-1.8** |
| OXZ | | | | AML | AML | 02 18 25.0 | |
| OXZ | | | | AML | AML | 02 18 25.1 | |
| OXZ | | | | AML | AML | 02 18 25.1 | |
| OXZ | | | | AML | AML | 02 18 29.6 | |
| **LTZ** | **Lake Taylor** | **0.87** | **328** | *e*Pg | **Pg** | **02 18 19.1** | **-1.0** |
| **LTZ** | **Lake Taylor** | **0.87** | **328** | ⇓P* | **Pg** | **02 18 19.3** | **-0.8** |
| LTZ | | | | AML | AML | 02 18 32.5 | |
| LTZ | | | | AML | AML | 02 18 34.1 | |
| **KHZ** | **Kahutara** | **1.20** | **23** | *e*Pg | **Pn** | **02 18 24.2** | **-1.9** |
| **KHZ** | **Kahutara** | **1.20** | **23** | ⇑P* | **Pn** | **02 18 24.7** | **-1.4** |
| KHZ | | | | AML | AML | 02 19 01.6 | |
| KHZ | | | | AML | AML | 02 19 01.6 | |
| KHZ | | | | AML | AML | 02 19 06.3 | |
| KHZ | | | | AML | AML | 02 19 06.3 | |
| **INZ** | **Inchbonnie** | **1.33** | **306** | ⇑P* | **Pn** | **02 18 25.6** | **-2.4** |
| **RPZ** | **Rata Peaks** | **1.36** | **261** | Pg | **Pn** | **02 18 26.4** | **-2.0** |
| | 6μm,0.3s,baz=146,slow=0.9,SNR=769 | | | | | | |
| RPZ | | | | Lg | Lg | 02 18 43.6 | |
| | 24μm,0.3s,baz=11,slow=16,SNR=23 | | | | | | |
| RPZ | | | | LR | LR | 02 18 59.3 | |
| | comp=Z,103μm,18.2s,baz=76,slow=45 | | | | | | |
| **RPZ** | **Rata Peaks** | **1.36** | **261** | *e*Pn | **Pn** | **02 18 25.6** | **-2.7** |
| RPZ | | | | Lg | Lg | 02 18 43.6 | |
| **RPZ** | **Rata Peaks** | **1.36** | **261** | ⇓P* | **Pn** | **02 18 25.7** | **-2.6** |
| **WVZ** | **Waitaha Valley** | **1.64** | **285** | Pn | **Pn** | **02 18 30.1** | **-2.1** |
| **WVZ** | **Waitaha Valley** | **1.64** | **285** | PN | **Pn** | **02 18 29.9** | **-2.3** |
| WVZ | | | | AML | AML | 02 18 59.6 | |
| WVZ | | | | AML | AML | 02 19 03.5 | |
| **THZ** | **Tophouse** | **1.75** | **0** | *e*Pn | **Pn** | **02 18 32.7** | **-1.2** |
| **THZ** | **Tophouse** | **1.75** | **0** | ⇑PN | **Pn** | **02 18 32.5** | **-1.4** |
| THZ | | | | AML | AML | 02 18 59.6 | |
| THZ | | | | AML | AML | 02 19 10.1 | |
| **BSWZ** | **Blackbirch Sta** | **1.94** | **22** | ⇑PN | **Pn** | **02 18 35.7** | **-0.7** |
| BSWZ | | | | AML | AML | 02 19 24.8 | |
| BSWZ | | | | AML | AML | 02 19 26.2 | |
| **DSZ** | **Denniston Nort** | **1.95** | **335** | ⇓PN | **Pn** | **02 18 34.9** | **-1.6** |
| DSZ | | | | AML | AML | 02 19 08.7 | |
| DSZ | | | | AML | AML | 02 19 08.7 | |
| DSZ | | | | AML | AML | 02 19 13.0 | |
| DSZ | | | | AML | AML | 02 19 13.0 | |
| **CMWZ** | **Cape Campbell** | **2.02** | **29** | ⇑PN | **Pn** | **02 18 36.9** | **-0.5** |
| CMWZ | | | | AML | AML | 02 19 29.3 | |
| CMWZ | | | | AML | AML | 02 19 45.0 | |
| **LBZ** | **Lake Benmore** | **2.15** | **245** | *e*Pn | **Pn** | **02 18 37.2** | **-2.0** |
| **LBZ** | **Lake Benmore** | **2.15** | **245** | PN | **Pn** | **02 18 37.0** | **-2.2** |
| LBZ | | | | AML | AML | 02 19 17.5 | |
| LBZ | | | | AML | AML | 02 19 17.6 | |
| LBZ | | | | AML | AML | 02 19 18.1 | |
| LBZ | | | | AML | AML | 02 19 18.2 | |
| **TUWZ** | **Tuamarina** | **2.23** | **21** | ⇑PN | **Pn** | **02 18 39.1** | **-1.2** |
| TUWZ | | | | AML | AML | 02 19 27.2 | |
| TUWZ | | | | AML | AML | 02 19 35.1 | |
| **ODZ** | **Otahua Downs** | **2.23** | **226** | *e*Pn | **Pn** | **02 18 38.5** | **-1.7** |
| **ODZ** | **Otahua Downs** | **2.23** | **226** | PN | **Pn** | **02 18 38.0** | **-2.3** |
| ODZ | | | | AML | AML | 02 19 18.7 | |
| ODZ | | | | AML | AML | 02 19 18.7 | |
| ODZ | | | | AML | AML | 02 19 18.8 | |
| ODZ | | | | AML | AML | 02 19 18.8 | |
| **FOZ** | **Fox Glacier** | **2.24** | **269** | *e*Pn | **Pn** | **02 18 39.2** | **-1.3** |
| **FOZ** | **Fox Glacier** | **2.24** | **269** | PN | **Pn** | **02 18 38.8** | **-1.7** |
| FOZ | | | | AML | AML | 02 19 21.2 | |
| FOZ | | | | AML | AML | 02 19 21.2 | |
| FOZ | | | | AML | AML | 02 19 24.1 | |
| FOZ | | | | AML | AML | 02 19 24.1 | |
| **NNZ** | **Nelson** | **2.33** | **9** | Pn | **Pn** | **02 18 40.5** | **-1.2** |
| **NNZ** | **Nelson** | **2.33** | **9** | ⇑PN | **Pn** | **02 18 40.7** | **-1.0** |
| NNZ | | | | AML | AML | 02 19 34.3 | |
| NNZ | | | | AML | AML | 02 19 34.3 | |
| NNZ | | | | AML | AML | 02 19 38.7 | |
| NNZ | | | | AML | AML | 02 19 38.7 | |
| **TCW** | **Tory Channel** | **2.52** | **24** | ⇑PN | **Pn** | **02 18 42.8** | **-1.6** |
| TCW | | | | AML | AML | 02 19 13.8 | |
| TCW | | | | AML | AML | 02 19 35.2 | |
| **BHW** | **Baring Head** | **2.56** | **35** | ⇑PN | **Pn** | **02 18 43.5** | **-1.4** |
| BHW | | | | AML | AML | 02 19 51.0 | |
| BHW | | | | AML | AML | 02 19 57.9 | |
| **SNZO** | **South Karori** | **2.58** | **32** | *e*Pn | **Pn** | **02 18 43.7** | **-1.4** |
| SNZO | | | | *e*Pg | **Pb** | **02 18 51.4** | **+1.8** |
| **PLWZ** | **Palliser** | **2.61** | **43** | ⇑PN | **Pn** | **02 18 44.0** | **-1.6** |
| PLWZ | | | | AML | AML | 02 20 20.0 | |
| PLWZ | | | | AML | AML | 02 20 34.6 | |
| **WEL** | **Wellington** | **2.63** | **32** | P | **Pn** | **02 18 44.7** | **-1.1** |
| **WEL** | **Wellington** | **2.63** | **32** | Pn | **Pn** | **02 18 44.7** | **-1.1** |
| **WEL** | **Wellington** | **2.63** | **32** | PN | **Pn** | **02 18 44.5** | **-1.3** |
| WEL | | | | AML | AML | 02 19 25.8 | |
| WEL | | | | AML | AML | 02 19 25.8 | |
| WEL | | | | AML | AML | 02 19 50.4 | |
| WEL | | | | AML | AML | 02 19 50.5 | |
| **QRZ** | **Quartz Range** | **2.71** | **354** | PN | **Pn** | **02 18 45.3** | **-1.5** |
| QRZ | | | | AML | AML | 02 19 34.3 | |
| QRZ | | | | AML | AML | 02 19 34.3 | |
| QRZ | | | | AML | AML | 02 19 34.6 | |
| QRZ | | | | AML | AML | 02 19 34.6 | |
| **MSWZ** | **Moikau Station** | **2.73** | **40** | ⇑PN | **Pn** | **02 18 45.5** | **-1.7** |
| MSWZ | | | | AML | AML | 02 19 23.4 | |
| MSWZ | | | | AML | AML | 02 19 23.7 | |
| **DUWZ** | **D'Urville Isla** | **2.82** | **16** | PN | **Pn** | **02 18 46.9** | **-1.6** |
| DUWZ | | | | AML | AML | 02 19 40.8 | |
| DUWZ | | | | AML | AML | 02 19 48.2 | |
| **PAWZ** | **Paruwai Farm** | **2.84** | **42** | ⇑PN | **Pn** | **02 18 46.8** | **-1.9** |
| PAWZ | | | | AML | AML | 02 19 23.2 | |
| PAWZ | | | | AML | AML | 02 20 17.6 | |
| **HHSZ** | **Highcliff Hill** | **2.88** | **214** | Pn | **Pn** | **02 18 47.4** | **-1.9** |
| **HHSZ** | **Highcliff Hill** | **2.88** | **214** | PN | **Pn** | **02 18 47.0** | **-2.3** |
| HHSZ | | | | AML | AML | 02 19 42.3 | |
| HHSZ | | | | AML | AML | 02 19 47.7 | |
| **CAW** | **Cannon Point** | **2.90** | **34** | ⇑PN | **Pn** | **02 18 47.9** | **-1.6** |
| CAW | | | | AML | AML | 02 19 25.4 | |
| CAW | | | | AML | AML | 02 19 59.9 | |
| **TRWZ** | **Traveller** | **2.96** | **45** | ⇑PN | **Pn** | **02 18 48.5** | **-1.8** |
| TRWZ | | | | AML | AML | 02 19 31.2 | |
| TRWZ | | | | AML | AML | 02 20 35.1 | |
| **JCZ** | **Jackson Bay** | **3.03** | **258** | Pn | **Pn** | **02 18 49.3** | **-2.1** |
| **JCZ** | **Jackson Bay** | **3.03** | **258** | PN | **Pn** | **02 18 49.0** | **-2.4** |
| JCZ | | | | AML | AML | 02 19 49.0 | |
| JCZ | | | | AML | AML | 02 19 49.2 | |
| **KIW** | **Kapiti Island** | **3.05** | **30** | ⇑PN | **Pn** | **02 18 50.2** | **-1.4** |
| KIW | | | | AML | AML | 02 20 05.9 | |
| KIW | | | | AML | AML | 02 20 21.6 | |
| **MTW** | **Mount Morrison** | **3.05** | **40** | ⇑PN | **Pn** | **02 18 49.5** | **-2.0** |
| MTW | | | | AML | AML | 02 19 31.4 | |
| MTW | | | | AML | AML | 02 20 09.0 | |
| **WKZ** | **Wanaka** | **3.08** | **244** | *e*Pn | **Pn** | **02 18 51.3** | **-0.9** |
| **WKZ** | **Wanaka** | **3.08** | **244** | PN | **Pn** | **02 18 49.3** | **-2.8** |
| WKZ | | | | AML | AML | 02 19 47.2 | |
| WKZ | | | | AML | AML | 02 19 47.3 | |
| WKZ | | | | AML | AML | 02 19 58.5 | |
| WKZ | | | | AML | AML | 02 19 58.5 | |
| **EAZ** | **Earnscleugh** | **3.09** | **235** | Pn | **Pn** | **02 18 50.1** | **-2.1** |
| **EAZ** | **Earnscleugh** | **3.09** | **235** | PN | **Pn** | **02 18 50.0** | **-2.2** |
| EAZ | | | | AML | AML | 02 19 46.3 | |
| EAZ | | | | AML | AML | 02 19 46.3 | |
| EAZ | | | | AML | AML | 02 19 46.7 | |
| EAZ | | | | AML | AML | 02 19 46.7 | |
| **OGWZ** | **Otaki Gorge** | **3.18** | **33** | ⇑PN | **Pn** | **02 18 51.8** | **-1.7** |
| OGWZ | | | | AML | AML | 02 19 34.8 | |
| OGWZ | | | | AML | AML | 02 20 06.8 | |
| **HOWZ** | **Holdsworth Sta** | **3.26** | **37** | ⇑*e*PN | **Pn** | **02 18 52.5** | **-2.0** |
| HOWZ | | | | AML | AML | 02 20 14.5 | |
| HOWZ | | | | AML | AML | 02 20 16.5 | |
| **TMWZ** | **Te Maipa** | **3.27** | **44** | PN | **Pn** | **02 18 52.4** | **-2.3** |
| TMWZ | | | | AML | AML | 02 19 42.1 | |
| TMWZ | | | | AML | AML | 02 20 47.3 | |
| **TUZ** | **Tuapeka** | **3.37** | **223** | Pn | **Pn** | **02 18 54.2** | **-1.8** |
| **TUZ** | **Tuapeka** | **3.37** | **223** | PN | **Pn** | **02 18 54.1** | **-1.9** |
| TUZ | | | | AML | AML | 02 19 55.9 | |
| TUZ | | | | AML | AML | 02 19 55.9 | |
| TUZ | | | | AML | AML | 02 19 58.5 | |
| TUZ | | | | AML | AML | 02 19 58.5 | |
| **MRZ** | **Mangatainoka R** | **3.48** | **36** | Pn | **Pn** | **02 18 55.4** | **-2.1** |
| **MRZ** | **Mangatainoka R** | **3.48** | **36** | ⇑PN | **Pn** | **02 18 55.5** | **-2.1** |
| MRZ | | | | AML | AML | 02 19 41.0 | |
| MRZ | | | | AML | AML | 02 20 20.3 | |
| **TIWZ** | **Tintock** | **3.53** | **40** | PN | **Pn** | **02 18 55.8** | **-2.4** |
| TIWZ | | | | AML | AML | 02 19 40.9 | |
| TIWZ | | | | AML | AML | 02 19 42.3 | |
| **CPWZ** | **Castlepoint** | **3.58** | **44** | PN | **Pn** | **02 18 56.8** | **-2.1** |
| CPWZ | | | | AML | AML | 02 19 45.2 | |
| CPWZ | | | | AML | AML | 02 19 46.3 | |
| **PRWZ** | **Pori Road** | **3.74** | **39** | PN | **Pn** | **02 18 58.9** | **-2.3** |
| PRWZ | | | | AML | AML | 02 20 36.0 | |
| PRWZ | | | | AML | AML | 02 20 58.2 | |
| **OHWZ** | **Ohakea** | **3.77** | **29** | PN | **Pn** | **02 19 00.7** | **-0.7** |
| **BFZ** | **Birch Farm** | **3.77** | **42** | *e*Pn | **Pn** | **02 18 59.0** | **-2.5** |
| **BFZ** | **Birch Farm** | **3.77** | **42** | ⇑PN | **Pn** | **02 18 58.9** | **-2.6** |
| BFZ | | | | AML | AML | 02 19 45.9 | |
| BFZ | | | | AML | AML | 02 19 48.6 | |
| BFZ | | | | AML | AML | 02 19 48.6 | |
| **POWZ** | **Post Office Ro** | **3.79** | **35** | ⇑PN | **Pn** | **02 18 59.5** | **-2.3** |
| POWZ | | | | AML | AML | 02 20 36.6 | |
| POWZ | | | | AML | AML | 02 20 41.3 | |
| **MLZ** | **Mavora Lakes** | **3.89** | **240** | *e*Pn | **Pn** | **02 19 00.5** | **-2.7** |
| **MLZ** | **Mavora Lakes** | **3.89** | **240** | PN | **Pn** | **02 19 00.5** | **-2.7** |
| MLZ | | | | AML | AML | 02 20 13.3 | |
| MLZ | | | | AML | AML | 02 20 20.2 | |
| **SYZ** | **Scrubby Hill** | **4.03** | **220** | Pn | **Pn** | **02 19 03.5** | **-1.5** |
| **SYZ** | **Scrubby Hill** | **4.03** | **220** | PN | **Pn** | **02 19 03.4** | **-1.6** |
| SYZ | | | | AML | AML | 02 20 31.4 | |
| SYZ | | | | AML | AML | 02 20 31.4 | |
| SYZ | | | | AML | AML | 02 20 33.8 | |
| SYZ | | | | AML | AML | 02 20 33.8 | |
| **ANWZ** | **Angora Road** | **4.05** | **42** | PN | **Pn** | **02 19 02.8** | **-2.6** |
| ANWZ | | | | AML | AML | 02 19 53.3 | |
| ANWZ | | | | AML | AML | 02 19 54.1 | |
| **WAZ** | **Wanganui** | **4.07** | **23** | Pn | **Pn** | **02 19 06.3** | **+0.7** |
| **WAZ** | **Wanganui** | **4.07** | **23** | PN | **Pn** | **02 19 05.4** | **-0.2** |
| WAZ | | | | AML | AML | 02 20 32.7 | |
| WAZ | | | | AML | AML | 02 20 58.1 | |
| **TSZ** | **Takapari Road** | **4.14** | **35** | Pn | **Pn** | **02 19 04.7** | **-2.0** |
| **TSZ** | **Takapari Road** | **4.14** | **35** | PN | **Pn** | **02 19 04.7** | **-2.0** |
| TSZ | | | | AML | AML | 02 20 37.0 | |
| TSZ | | | | AML | AML | 02 20 59.2 | |
| **NMEZ** | **Namu Road** | **4.17** | **10** | PN | **Pn** | **02 19 07.1** | **+0.2** |
| **LREZ** | **Lake Rotokare** | **4.21** | **16** | PN | **Pn** | **02 19 08.0** | **+0.5** |
| LREZ | | | | AML | AML | 02 20 28.4 | |
| LREZ | | | | AML | AML | 02 20 44.8 | |
| **WHZ** | **Wether Hill Ro** | **4.25** | **234** | *e*Pn | **Pn** | **02 19 05.1** | **-3.1** |
| **WHZ** | **Wether Hill Ro** | **4.25** | **234** | PN | **Pn** | **02 19 04.9** | **-3.3** |
| WHZ | | | | AML | AML | 02 20 30.7 | |
| WHZ | | | | AML | AML | 02 20 31.8 | |
| **PREZ** | **Palmer Road** | **4.28** | **13** | AML | AML | 02 20 24.4 | |
| PREZ | | | | AML | AML | 02 20 31.3 | |
| **PRHZ** | **Porangahau** | **4.28** | **42** | PN | **Pn** | **02 19 05.6** | **-2.9** |
| PRHZ | | | | AML | AML | 02 20 44.5 | |
| PRHZ | | | | AML | AML | 02 21 13.3 | |
| **NWEZ** | **Newall Road** | **4.30** | **10** | PN | **Pn** | **02 19 08.7** | **-0.1** |
| **KHEZ** | **Kahui Hut** | **4.30** | **12** | PN | **Pn** | **02 19 08.4** | **-0.5** |
| **NEZ** | **North Egmont** | **4.34** | **12** | PN | **Pn** | **02 19 09.0** | **-0.4** |
| **WPHZ** | **Waipukurau** | **4.35** | **39** | PN | **Pn** | **02 19 07.1** | **-2.4** |
| WPHZ | | | | AML | AML | 02 20 09.7 | |
| WPHZ | | | | AML | AML | 02 21 00.3 | |
| **PNHZ** | **Pukenui** | **4.37** | **36** | PN | **Pn** | **02 19 07.1** | **-2.7** |
| PNHZ | | | | AML | AML | 02 20 44.4 | |
| PNHZ | | | | AML | AML | 02 20 51.8 | |
| **PKE** | **Pukeiti** | **4.40** | **11** | *e*PN | **Pn** | **02 19 10.1** | **-0.1** |
| PKE | | | | AML | AML | 02 20 04.4 | |
| PKE | | | | AML | AML | 02 20 06.6 | |
| **DCZ** | **Deep Cove** | **4.55** | **243** | *e*Pn | **Pn** | **02 19 09.5** | **-2.7** |
| **DCZ** | **Deep Cove** | **4.55** | **243** | PN | **Pn** | **02 19 09.3** | **-2.9** |
| DCZ | | | | AML | AML | 02 20 37.8 | |
| DCZ | | | | AML | AML | 02 20 37.9 | |
| DCZ | | | | AML | AML | 02 20 43.4 | |
| DCZ | | | | AML | AML | 02 20 43.4 | |
| **MTVZ** | **Mangateitei** | **4.56** | **26** | PN | **Pn** | **02 19 12.0** | **-0.4** |
| MTVZ | | | | AML | AML | 02 20 41.4 | |
| MTVZ | | | | AML | AML | 02 20 41.9 | |
| **MHEZ** | **Mangahewa** | **4.56** | **14** | PN | **Pn** | **02 19 12.7** | **+0.3** |
| **PXZ** | **Pawanui** | **4.57** | **42** | Pn | **Pn** | **02 19 10.1** | **-2.4** |
| **PXZ** | **Pawanui** | **4.57** | **42** | PN | **Pn** | **02 19 10.0** | **-2.5** |
| PXZ | | | | AML | AML | 02 21 13.2 | |
| PXZ | | | | AML | AML | 02 21 13.2 | |
| PXZ | | | | AML | AML | 02 21 16.7 | |
| PXZ | | | | AML | AML | 02 21 16.7 | |
| **PKVZ** | **Pokaka** | **4.61** | **24** | PN | **Pn** | **02 19 12.2** | **-0.9** |
| PKVZ | | | | AML | AML | 02 20 41.4 | |
| PKVZ | | | | AML | AML | 02 20 49.2 | |
| **VRZ** | **Vera Road** | **4.61** | **18** | Pn | **Pn** | **02 19 12.8** | **-0.2** |
| **VRZ** | **Vera Road** | **4.61** | **18** | PN | **Pn** | **02 19 12.5** | **-0.5** |
| VRZ | | | | AML | AML | 02 20 12.0 | |
| VRZ | | | | AML | AML | 02 20 48.9 | |
| **MOVZ** | **Moawhango** | **4.63** | **29** | PN | **Pn** | **02 19 11.5** | **-2.0** |
| MOVZ | | | | AML | AML | 02 20 48.0 | |
| MOVZ | | | | AML | AML | 02 21 04.6 | |
| **WNVZ** | **Wahianoa** | **4.65** | **27** | PN | **Pn** | **02 19 12.2** | **-1.6** |
| **TRVZ** | **Turoa** | **4.66** | **26** | PN | **Pn** | **02 19 12.9** | **-1.1** |
| TRVZ | | | | AML | AML | 02 20 55.0 | |
| TRVZ | | | | AML | AML | 02 20 59.2 | |
| **KRHZ** | **Kereru** | **4.66** | **35** | PN | **Pn** | **02 19 11.2** | **-2.6** |
| KRHZ | | | | AML | AML | 02 20 07.3 | |
| KRHZ | | | | AML | AML | 02 21 04.0 | |
| **BHHZ** | **Black Hill Sta** | **4.67** | **32** | PN | **Pn** | **02 19 11.4** | **-2.5** |
| BHHZ | | | | AML | AML | 02 20 11.0 | |
| BHHZ | | | | AML | AML | 02 20 17.8 | |
| **DRZ** | **Dome Shelter** | **4.69** | **26** | PN | **Pn** | **02 19 13.4** | **-1.1** |
| DRZ | | | | AML | AML | 02 20 24.9 | |
| DRZ | | | | AML | AML | 02 20 58.7 | |
| **WHVZ** | **Whangaehu Hut** | **4.69** | **26** | PN | **Pn** | **02 19 12.9** | **-1.5** |
| WHVZ | | | | AML | AML | 02 20 52.1 | |
| WHVZ | | | | AML | AML | 02 20 55.1 | |
| **FWVZ** | **Far West T-bar** | **4.70** | **26** | PN | **Pn** | **02 19 13.2** | **-1.3** |
| FWVZ | | | | AML | AML | 02 20 44.9 | |
| FWVZ | | | | AML | AML | 02 20 53.9 | |
| **TUVZ** | **Tukino** | **4.72** | **27** | PN | **Pn** | **02 19 13.4** | **-1.4** |
| TUVZ | | | | AML | AML | 02 21 02.5 | |
| TUVZ | | | | AML | AML | 02 21 17.8 | |
| **KAHZ** | **Kahuranaki** | **4.76** | **40** | PN | **Pn** | **02 19 12.4** | **-2.8** |
| KAHZ | | | | AML | AML | 02 20 14.2 | |
| KAHZ | | | | AML | AML | 02 21 38.3 | |
| **NGZ** | **Ngauruhoe** | **4.79** | **26** | PN | **Pn** | **02 19 14.5** | **-1.2** |
| NGZ | | | | AML | AML | 02 20 58.6 | |
| NGZ | | | | AML | AML | 02 21 02.7 | |
| **APZ** | **The Paps** | **4.80** | **225** | Pn | **Pn** | **02 19 13.5** | **-2.2** |
| **APZ** | **The Paps** | **4.80** | **225** | PN | **Pn** | **02 19 13.1** | **-2.6** |
| APZ | | | | AML | AML | 02 20 46.8 | |
| APZ | | | | AML | AML | 02 20 50.9 | |
| **OTVZ** | **Oturere** | **4.82** | **26** | PN | **Pn** | **02 19 14.7** | **-1.4** |
| OTVZ | | | | AML | AML | 02 21 00.9 | |
| OTVZ | | | | AML | AML | 02 21 06.7 | |
| **TWVZ** | **Taurewa** | **4.84** | **24** | PN | **Pn** | **02 19 14.9** | **-1.4** |
| TWVZ | | | | AML | AML | 02 20 53.6 | |
| TWVZ | | | | AML | AML | 02 20 54.6 | |
| **WTVZ** | **West Tongariro** | **4.84** | **26** | PN | **Pn** | **02 19 15.0** | **-1.4** |
| WTVZ | | | | AML | AML | 02 20 46.2 | |
| WTVZ | | | | AML | AML | 02 20 52.8 | |
| **KWHZ** | **Kaweka Forest** | **4.87** | **34** | PN | **Pn** | **02 19 13.8** | **-2.9** |
| KWHZ | | | | AML | AML | 02 20 19.5 | |
| KWHZ | | | | AML | AML | 02 21 08.4 | |
| **KRVZ** | **Karewarewa** | **4.88** | **26** | PN | **Pn** | **02 19 15.3** | **-1.5** |
| KRVZ | | | | AML | AML | 02 20 48.3 | |
| KRVZ | | | | AML | AML | 02 21 06.0 | |
| **CKHZ** | **Cape Kidnapper** | **4.97** | **40** | AML | AML | 02 21 31.9 | |
| CKHZ | | | | AML | AML | 02 21 41.3 | |
| **MCHZ** | **McNeill Hill** | **4.97** | **36** | PN | **Pn** | **02 19 15.5** | **-2.5** |
| MCHZ | | | | AML | AML | 02 21 13.7 | |
| MCHZ | | | | AML | AML | 02 21 29.3 | |
| **KATZ** | **Kakaramea** | **5.00** | **26** | PN | **Pn** | **02 19 17.7** | **-0.8** |
| KATZ | | | | AML | AML | 02 20 51.8 | |
| KATZ | | | | AML | AML | 02 20 51.8 | |
| **RITZ** | **Rihia Road** | **5.05** | **27** | PN | **Pn** | **02 19 18.2** | **-1.0** |
| RITZ | | | | AML | AML | 02 19 51.2 | |
| RITZ | | | | AML | AML | 02 21 07.6 | |
| **BKZ** | **Black Stump Fm** | **5.12** | **33** | *e*Pn | **Pn** | **02 19 17.4** | **-2.7** |
| **BKZ** | **Black Stump Fm** | **5.12** | **33** | *e*PN | **Pn** | **02 19 16.9** | **-3.3** |
| BKZ | | | | AML | AML | 02 21 31.5 | |
| BKZ | | | | AML | AML | 02 21 35.2 | |
| **RATZ** | **Rangitukua** | **5.13** | **26** | PN | **Pn** | **02 19 19.1** | **-1.1** |
| RATZ | | | | AML | AML | 02 21 22.3 | |
| RATZ | | | | AML | AML | 02 21 29.7 | |
| **PYZ** | **Puysegur Point** | **5.16** | **237** | *e*Pn | **Pn** | **02 19 17.5** | **-3.1** |
| **PYZ** | **Puysegur Point** | **5.16** | **237** | PN | **Pn** | **02 19 17.0** | **-3.5** |
| PYZ | | | | AML | AML | 02 20 51.3 | |
| PYZ | | | | AML | AML | 02 20 51.3 | |
| PYZ | | | | AML | AML | 02 20 57.7 | |
| PYZ | | | | AML | AML | 02 20 57.7 | |
| **HIZ** | **Hauiti** | **5.21** | **17** | *e*Pn | **Pn** | **02 19 20.4** | **-1.0** |
| **HIZ** | **Hauiti** | **5.21** | **17** | PN | **Pn** | **02 19 20.2** | **-1.2** |
| HIZ | | | | AML | AML | 02 21 11.2 | |
| HIZ | | | | AML | AML | 02 21 18.2 | |
| **ARHZ** | **Aropaoanui** | **5.25** | **37** | PN | **Pn** | **02 19 19.2** | **-2.6** |
| ARHZ | | | | AML | AML | 02 20 25.2 | |
| ARHZ | | | | AML | AML | 02 20 27.5 | |
| **WATZ** | **Wairara** | **5.26** | **25** | PN | **Pn** | **02 19 20.4** | **-1.6** |
| WATZ | | | | AML | AML | 02 21 27.5 | |
| WATZ | | | | AML | AML | 02 21 58.7 | |
| **NMHZ** | **Naumai** | **5.31** | **35** | *e*PN | **Pn** | **02 19 19.5** | **-3.2** |
| NMHZ | | | | AML | AML | 02 21 23.2 | |
| NMHZ | | | | AML | AML | 02 21 33.5 | |
| **MRHZ** | **Matea Rd** | **5.38** | **31** | AML | AML | 02 20 26.7 | |
| MRHZ | | | | AML | AML | 02 20 32.3 | |
| **KUTZ** | **Kaahu Road** | **5.49** | **25** | PN | **Pn** | **02 19 23.9** | **-1.3** |
| KUTZ | | | | AML | AML | 02 21 33.5 | |
| KUTZ | | | | AML | AML | 02 21 50.8 | |
| **WHHZ** | **Waihua** | **5.51** | **38** | PN | **Pn** | **02 19 23.1** | **-2.2** |
| WHHZ | | | | AML | AML | 02 20 31.5 | |
| WHHZ | | | | AML | AML | 02 20 38.1 | |
| **MTHZ** | **Maungataniwha** | **5.53** | **34** | PN | **Pn** | **02 19 22.5** | **-3.2** |
| **TLZ** | **Tolley Road** | **5.55** | **22** | Pn | **Pn** | **02 19 24.7** | **-1.4** |
| **TLZ** | **Tolley Road** | **5.55** | **22** | PN | **Pn** | **02 19 24.7** | **-1.4** |
| TLZ | | | | AML | AML | 02 20 53.5 | |
| TLZ | | | | AML | AML | 02 21 19.6 | |
| **WPRZ** | **Whakapapatarin** | **5.57** | **27** | PN | **Pn** | **02 19 24.3** | **-2.0** |
| WPRZ | | | | AML | AML | 02 20 42.5 | |
| WPRZ | | | | AML | AML | 02 20 54.1 | |
| **ALRZ** | **Allen Road** | **5.59** | **29** | AML | AML | 02 21 22.6 | |
| ALRZ | | | | AML | AML | 02 22 03.7 | |
| **PRRZ** | **Plateau Road** | **5.67** | **29** | PN | **Pn** | **02 19 25.4** | **-2.2** |
| PRRZ | | | | AML | AML | 02 20 42.5 | |
| PRRZ | | | | AML | AML | 02 22 33.5 | |
| **GRRZ** | **Galatos Road** | **5.71** | **26** | PN | **Pn** | **02 19 26.6** | **-1.6** |
| GRRZ | | | | AML | AML | 02 22 03.2 | |
| GRRZ | | | | AML | AML | 02 22 04.4 | |
| **HRRZ** | **Handcock Road** | **5.73** | **28** | PN | **Pn** | **02 19 26.7** | **-1.7** |
| HRRZ | | | | AML | AML | 02 20 28.9 | |
| HRRZ | | | | AML | AML | 02 20 54.7 | |
| **KNZ** | **Kokohu** | **5.75** | **40** | Pn | **Pn** | **02 19 25.9** | **-2.9** |
| **KNZ** | **Kokohu** | **5.75** | **40** | PN | **Pn** | **02 19 25.7** | **-3.1** |
| KNZ | | | | AML | AML | 02 21 50.4 | |
| KNZ | | | | AML | AML | 02 22 13.1 | |
| **MHGZ** | **Mahia Peninsul** | **5.76** | **43** | PN | **Pn** | **02 19 26.4** | **-2.5** |
| MHGZ | | | | AML | AML | 02 20 34.9 | |
| MHGZ | | | | AML | AML | 02 21 55.9 | |
| **HSRZ** | **Hossack Road** | **5.79** | **27** | PN | **Pn** | **02 19 27.2** | **-2.0** |
| HSRZ | | | | AML | AML | 02 20 04.4 | |
| HSRZ | | | | AML | AML | 02 20 23.1 | |
| **RTZ** | **Ruatahuna** | **5.79** | **34** | PN | **Pn** | **02 19 27.1** | **-2.2** |
| **SNGZ** | **Shannon Statio** | **5.80** | **37** | *e*PN | **Pn** | **02 19 26.0** | **-3.4** |
| SNGZ | | | | AML | AML | 02 20 38.9 | |
| SNGZ | | | | AML | AML | 02 20 39.3 | |
| **MUGZ** | **Murupara** | **5.82** | **31** | *e*PN | **Pn** | **02 19 26.6** | **-3.1** |
| **RRRZ** | **Republican Roa** | **5.85** | **29** | PN | **Pn** | **02 19 28.0** | **-2.1** |
| RRRZ | | | | AML | AML | 02 20 56.1 | |
| RRRZ | | | | AML | AML | 02 21 39.4 | |
| **HLRZ** | **Highlands Stat** | **5.87** | **28** | PN | **Pn** | **02 19 29.4** | **-1.1** |
| HLRZ | | | | AML | AML | 02 20 02.9 | |
| HLRZ | | | | AML | AML | 02 20 27.7 | |
| **UTU** | **Utuhina** | **5.89** | **26** | PN | **Pn** | **02 19 29.1** | **-1.6** |
| UTU | | | | AML | AML | 02 20 39.8 | |
| UTU | | | | AML | AML | 02 21 46.2 | |
| **PRGZ** | **Paritu Road** | **5.93** | **41** | *e*PN | Pn | 02 19 27.7 | -3.6 |
| PRGZ | | | | AML | AML | 02 20 44.2 | |
| PRGZ

HAZ AML AML 02 21 13.3
**PKGZ Pakihiroa 6.86 37** PN Pn 02 19 40.4 -3.6
PKGZ AML AML 02 21 00.7
PKGZ AML AML 02 21 03.3
**RVAZ Riverhead Bore 6.86 11** PN **Pn 02 19 43.5 -0.5**
**MTAZ Motutapu 6.90 14** PN **Pn 02 19 43.8 -0.7**
**WIAZ Waiheke Island 6.93 15** PN **Pn 02 19 43.8 -1.1**
WIAZ AML AML 02 20 22.7
WIAZ AML AML 02 21 22.9
**ABAZ Army Bay 7.07 13** PN **Pn 02 19 46.2 -0.5**
**WMGZ Waiomatatini S 7.07 38** PN Pn 02 19 43.2 -3.6
WMGZ AML AML 02 21 04.2
WMGZ AML AML 02 21 08.4
**KUZ Kuaotunu 7.10 19** Pn **Pn 02 19 45.4 -1.9**
**KUZ Kuaotunu 7.10 19** *e*PN **Pn 02 19 45.0 -2.3**
KUZ AML AML 02 22 20.3
KUZ AML AML 02 24 59.5
**MXZ Matakaoa Point 7.23 36** *e*Pn **Pn 02 19 46.6 -2.5**
**MXZ Matakaoa Point 7.23 36** PN **Pn 02 19 46.5 -2.6**
MXZ AML AML 02 21 16.2
MXZ AML AML 02 21 33.5
**GRZ Great Barrier 7.52 16** *e*PN **Pn 02 19 51.5 -1.5**
GRZ AML AML 02 22 21.8
GRZ AML AML 02 23 07.6
**CTZ Chatham Island 7.61 95** Pn **Pn 02 19 52.6 -1.6**
**CTZ Chatham Island 7.61 95** PN **Pn 02 19 52.5 -1.7**
**WCZ Waipu Caves 7.65 9** Pn **Pn 02 19 54.5 -0.3**
**WCZ Waipu Caves 7.65 9** *e*PN **Pn 02 19 54.3 -0.5**
WCZ AML AML 02 23 32.1
WCZ AML AML 02 25 10.0
**OUZ Omahuta 8.30 4** *e*Pn **Pn 02 20 04.6 +0.8**
**MCQ Macquarie Isla 14.27 215** *e*P **P 02 21 29.6 -3.0**
**MCQ Macquarie Isla 14.27 215** *e*Pn **Pn 02 21 24.0 -1.3**
**RAO Raoul Island 16.02 30** LR LR 02 28 01.0
comp=Z,21µm,18.1s,baz=189,slow=37
**TAU Tasmania Unive 18.64 263** *e*P **Pn 02 22 20.7 -0.6**
TAU pmax pmax
comp=Z,682nm,1.5s
**TAU Tasmania Unive 18.64 263** *e*P **Pn 02 22 20.7 -0.6**
comp=Z,682nm,1.5s
**CAN Canberra 20.15 286** *e*P Pn 02 22 38.0 -1.6
CAN pmax pmax
comp=Z,178nm,1.3s
CAN MLR MLR
comp=Z,26µm,22.0s
**CAN Canberra 20.15 286** *e*P Pn 02 22 38.0 -1.6
comp=Z,178nm,1.3s
CAN LR LR
comp=Z,26µm,22.0s
**ARMA Armidale 21.37 301** *e*P **P 02 22 52.0 +1.0**
comp=Z,114nm,1.0s
**DZM Mont Dzumac 22.05 344** P **P 02 22 58.4 +0.1**
comp=Z,43nm,0.8s,baz=159,slow=13,SNR=11
DZM LR LR 02 30 33.7
comp=Z,23µm,19.1s,baz=178,slow=34
**DZM Mont Dzumac 22.05 344** *e*P **P 02 22 59.7 +1.4**
comp=Z,259nm,1.0s
DZM *e*S **S 02 27 00.1 -1.5**
comp=Z,9µm,23.5s
DZM *e*LR LR 02 28 21.8
comp=Z,22µm,22.0s
**DZM Mont Dzumac 22.05 344** *e*P **P 02 22 58.2 -0.1**
comp=Z,135nm,1.0s
**EIDS Eidsvold 25.40 308** *e*P **P 02 23 30.0 -0.9**
comp=Z,80nm,1.1s
**MSVF Nonsavu 26.07 11** *ce*P **P 02 23 37.5 +0.4**
MSVF pmax pmax
comp=Z,60nm,1.2s
**MSVF Nonsavu 26.07 11** *e*P **P 02 23 35.4 -1.7**
comp=Z,131nm,1.0s
MSVF LR LR
comp=Z,11µm,20.0s
**STKA Stephens Creek 27.20 285** P **P 02 23 47.0 -0.2**
comp=Z,33nm,1.0s,baz=122,slow=10,SNR=52
STKA LR LR 02 32 41.8
comp=Z,17µm,22.0s,baz=115,slow=32
**STKA Stephens Creek 27.20 285** *e*P **P 02 23 47.1 -0.1**
comp=Z,18nm,1.1s
**BBOO Buckleboo 30.65 278** *e*P **P 02 24 16.8 -1.1**
comp=Z,162nm,1.0s
**RAR Rarotonga 31.80 54** P **P 02 24 29.4 +1.4**
comp=Z,24nm,0.8s,baz=149,slow=14,SNR=4.1
**RAR Rarotonga 31.80 54** *e*P **P 02 24 26.7 -1.4**
comp=Z,79nm,1.2s
RAR LR LR
comp=Z,5µm,19.0s
**CTAO Charters Tower 32.28 308** *e*P **P 02 24 31.5 -0.8**
CTAO pmax pmax
comp=Z,44nm,0.8s
CTAO MLR MLR
comp=Z,27µm,19.0s
**CTAO Charters Tower 32.28 308** *e*P **P 02 24 31.5 -0.8**
comp=Z,44nm,0.8s
CTAO LR LR
comp=Z,27µm,19.0s
**AFI Afiamalu 32.31 29** P **P 02 24 35.6 +3.1**
comp=Z,42nm,0.8s,baz=253,slow=17,SNR=3.9
AFI LR LR 02 36 25.3
comp=Z,5µm,21.3s,baz=194,slow=34
**AFI Afiamalu 32.31 29** *e*P **P 02 24 31.5 -1.1**
AFI pmax pmax
comp=Z,65nm,1.0s
AFI MLR MLR
comp=Z,6µm,22.0s
**AFI Afiamalu 32.31 29** *e*P **P 02 24 31.5 -1.1**
comp=Z,65nm,1.0s
AFI LR LR
comp=Z,6µm,22.0s
**VNDA Vanda 34.41 184** P **P 02 24 51.5 +1.2**
comp=Z,6.5nm,1.1s,baz=3.5,slow=7.8,SNR=8.8
VNDA LR LR 02 36 40.8
comp=Z,4µm,19.4s,baz=19,slow=32
**VNDA Vanda 34.41 184** *e*P **P 02 24 50.4 +0.2**
comp=Z,69nm,1.8s
**SBA Scott Base 34.53 182** *e*P **P 02 24 54.1 +2.7**
SBA pmax pmax
comp=Z,78nm,1.3s
SBA MLR MLR
comp=Z,8µm,19.0s
**SBA Scott Base 34.53 182** *e*P **P 02 24 54.1 +2.7**
comp=Z,78nm,1.3s
SBA LR LR
comp=Z,8µm,19.0s
**FUNA Funafuti 35.29 11** PFAKE 02 25 10.0 +12
FUNA LR LR
comp=Z,9µm,20.0s
**HNR Honiara 35.79 338** *e*P P 02 24 55.0 -7.7
**HNR Honiara 35.79 338** P **P 02 25 02.2 -0.5**
comp=Z,81nm,0.4s,baz=253,slow=3.1,SNR=9.2
HNR LR LR 02 39 34.3
comp=Z,9µm,18.5s,baz=166,slow=36
**HNR Honiara 35.79 338** P **P 02 25 02.2 -0.5**
HNR pmax pmax
comp=Z,81nm,0.4s
HNR MLR MLR
comp=Z,9µm,18.5s
**HNR Honiara 35.79 338** *e*P **P 02 25 02.1 -0.6**
comp=Z,276nm,0.9s
HNR LR LR
comp=Z,9µm,19.0s
**TBI Tubuai 36.88 69** *e*S **S 02 30 56.2 -0.5**
comp=Z,1µm,24.8s
TBI *e*LQ LQ 02 33 40.9
comp=Z,7µm,24.0s
TBI *e*LR LR 02 35 08.7
comp=Z,5µm,24.8s
**TBI Tubuai 36.88 69** *e*T T 03 03 33.2
comp=Z,221nm,0.3s
**FORT Forrest 37.50 275** *e*P **P 02 25 16.9 -0.4**
comp=Z,2µm,1.3s
**AS01 Alice Springs 37.57 289** *e*P **P 02 25 15.7 -2.3**
**AS31 Alice Springs 37.60 289** *e*P **P 02 25 17.0 -1.3**
comp=Z,32nm,0.9s
**ASAR Alice Springs 37.60 289** P **P 02 25 17.2 -1.1**
comp=Z,102nm,1.1s,baz=131,slow=8.5,SNR=257
ASAR PKiKP **PKiKP 02 34 50.8 -1.4**
comp=Z,1.4nm,1.0s,baz=119,slow=0.8,SNR=4.2
ASAR LR LR 02 39 42.2
comp=Z,15µm,20.7s,baz=140,slow=35
**COEN Coen 38.94 310** *e*P **P 02 25 29.3 -0.3**
comp=Z,48nm,0.8s
**WC3 Warramunga Arr 39.81 294** *e*P **P 02 25 35.2 -1.6**
comp=Z,114nm,0.8s
**WB2 Warramunga Arr 39.84 294** *e*P **P 02 25 35.7 -1.3**
comp=Z,113nm,0.8s
**WRAB Tennant Creek 39.84 294** *ce*P **P 02 25 35.9 -1.1**
WRAB pmax pmax
comp=Z,285nm,1.7s
**WRAB Tennant Creek 39.84 294** *e*P **P 02 25 35.7 -1.4**
comp=Z,474nm,1.6s
WRAB LR LR
comp=Z,26µm,19.0s
**WRA Warramunga Arr 39.84 294** P **P 02 25 35.9 -1.2**
comp=Z,68nm,0.7s,baz=132,slow=7.6,SNR=217
WRA PKiKP **PKiKP 02 34 52.6 -1.5**
comp=Z,1.2nm,0.9s,baz=129,slow=0.2,SNR=3.9
WRA LR LR 02 41 01.8
comp=Z,21µm,20.4s,baz=135,slow=35
**PMG Port Moresby 40.71 319** P **P 02 25 45.1 +0.9**
comp=Z,201nm,0.9s,baz=149,slow=4.6,SNR=49
**PMG Port Moresby 40.71 319** ⇑*i*P **P 02 25 44.2 0.0**
PMG pmax pmax
comp=Z,1µm,1.0s
**PMG Port Moresby 40.71 319** *e*P **P 02 25 45.5 +1.2**
comp=Z,272nm,1.0s
PMG LR LR
comp=Z,19µm,20.0s
**PAE Paea 40.80 63** *e*T T 03 08 24.7
comp=Z,98nm,0.3s
**PPT2 Papeete2 40.85 63** *e*P **P 02 25 44.7 -0.8**
comp=Z,100nm,1.4s
PPT2 *e*S **S 02 31 57.5 +0.7**
comp=Z,2µm,23.8s
PPT2 *e*LQ LQ 02 35 15.6
comp=Z,7µm,28.2s
PPT2 *e*LR LR 02 37 01.0
comp=Z,2µm,21.8s
**PPT2 Papeete2 40.85 63** *e*T T 03 08 28.1
comp=Z,73nm,0.3s
**PPT Papeete 40.87 63** P **P 02 25 47.3 +1.8**
comp=Z,57nm,0.9s,baz=187,slow=15,SNR=3.3
**TVO Taravao 40.92 63** *e*P **P 02 25 44.9 -1.1**
comp=Z,19nm,1.0s
**TVO Taravao 40.92 63** *e*T T 03 08 34.0
comp=Z,22nm,0.3s
**RABL Rabaul 43.25 329** *e*P **P 02 26 05.0 0.0**
comp=Z,442nm,0.8s
**VAH Vaihoa 43.84 62** *e*T T 03 12 15.4
comp=Z,40nm,0.2s
**PMOR Pomariorio Ree 43.84 62** *e*P **P 02 26 09.0 -0.7**
comp=Z,84nm,0.9s
**PMOR Pomariorio Ree 43.84 62** *e*T T 03 12 15.1
comp=Z,32nm,0.3s
**NWAO Narrogin (SRO) 44.25 264** *e*P **P 02 26 13.8 +0.9**
NWAO pmax pmax
comp=Z,190nm,1.3s
**NWAO Narrogin (SRO) 44.25 264** *e*P **P 02 26 12.8 -0.2**
comp=Z,189nm,1.3s
NWAO LR LR
comp=Z,4µm,20.0s
**QSPA South Pole Qui 46.61 180** *e*P **P 02 26 33.3 +1.9**
comp=Z,312nm,1.1s
QSPA LR LR
comp=Z,5µm,22.0s
**MTN Manton Dam 47.10 298** *e*P **P 02 26 35.0 -0.6**
comp=Z,157nm,0.7s
**MANU Manus Island 47.13 324** *e*P **P 02 26 36.9 +1.1**
comp=Z,216nm,1.4s
**MIR Mirnyy 47.16 212**⇑*e*P **P 02 26 36.5 +1.1**
MIR *i* 02 26 37.0
MIR *i*S **S 02 33 34.0 +6.4**
MIR pmax pmax
comp=Z,16nm,1.8s
MIR pmax pmax
comp=Z,1µm,3.0s
MIR smax smax
comp=N,2µm,10.0s
MIR MLR MLR
comp=Z,8µm,13.0s
**RKT Rikitea 47.23 82** *e*S **S 02 33 27.9 -1.7**
comp=Z,4µm,28.0s
RKT *e*LQ LQ 02 38 02.2
comp=Z,8µm,30.0s
RKT *e*LR LR 02 39 57.2
comp=Z,7µm,23.2s
**RKT Rikitea 47.23 82** *e*T T 03 16 27.3
comp=Z,8.3nm,0.2s
**MBWA Marble Bar 49.21 279** *e*P **P 02 26 51.2 -0.7**
comp=Z,119nm,1.1s
MBWA LR LR
comp=Z,24µm,19.0s
**PTCN Pitcairn Islan 49.58 88** PFAKE 02 27 10.0 +15
PTCN LR LR
comp=Z,5µm,19.0s
**JAY Jayapura 49.84 316** P **P 02 26 56.5 -0.2**
**GENI Genyem 50.05 315** P **P 02 26 58.1 -0.1**
**BAKI Biak 53.37 312** P **P 02 27 23.0 -0.1**
**TAOE Nuku Hiva Isla 53.44 64** *e*S **S 02 34 54.0 -2.3**
comp=Z,2µm,25.4s
TAOE *e*LQ LQ 02 40 15.8
comp=Z,6µm,27.5s
TAOE *e*LR LR 02 42 55.1
comp=Z,2µm,22.2s
**SOEI Soe 53.88 294** P **P 02 27 28.9 +1.9**
**SOEI Soe 53.88 294** *e*P **P 02 27 28.6 +1.5**
comp=Z,217nm,1.1s
**FAKI Fak Fak 54.13 307** P **P 02 27 27.6 -1.1**
**FAKI Fak Fak 54.13 307** *e*P **P 02 27 27.3 -1.4**
comp=Z,56nm,0.7s
**MSAI Masohi 55.77 303** P **P 02 27 39.8 -0.8**
**AAI Ambon 55.96 302** P **P 02 27 41.1 -0.8**
**BASI Baing, Sumba 56.04 290** P **P 02 27 41.7 -0.8**
**MMRI Maumere 56.06 293** P **P 02 27 42.6 0.0**
**MMRI Maumere 56.06 293** *e*P **P 02 27 42.0 -0.6**
**EDFI Ende, Flores 56.34 292** P **P 02 27 44.7 -0.1**
**SWI Sorong 56.37 307** P **P 02 27 44.8 0.0**
**WBSI Waikabubak, Su 57.27 290** P **P 02 27 51.3 0.0**
**MAW Mawson 57.43 205** P **P 02 27 53.1 +1.5**
comp=Z,22nm,0.8s,baz=124,slow=9.0,SNR=27
MAW LR LR 02 51 44.7
comp=Z,6µm,18.8s,baz=112,slow=35
**MAW Mawson 57.43 205** *e*P **P 02 27 53.4 +1.7**
MAW pmax pmax
comp=Z,75nm,1.8s
**MAW Mawson 57.43 205** *e*P **P 02 27 53.4 +1.7**
comp=Z,74nm,1.8s
**BBSI Bau Bau 58.17 296** P **P 02 27 56.9 -0.6**
**SANI Sanana 58.60 301** P **P 02 28 00.6 0.0**
**LBMI Labuha 58.78 304** P **P 02 28 01.1 -0.7**
**PLAI Plampang 58.95 289** P **P 02 28 02.9 -0.2**
**TNTI Ternate 59.98 304** *e*P **P 02 28 10.2 +0.1**
**KAPI Kappang 60.38 294** *e*P **P 02 28 13.1 +0.3**
comp=Z,144nm,1.4s
KAPI LR LR
comp=Z,6µm,20.0s
**KAPI Kappang 60.38 294** P **P 02 28 14.7 +1.8**
SNR=6.8
KAPI P **P 02 28 14.7 +1.8**
SNR=6.8
**SPSI Sidrap Palu 61.15 294** P **P 02 28 18.2 +0.1**
**SRBI Singaraja 61.26 287** P **P 02 28 18.6 -0.2**
**LUWI Luwuk 61.40 299** *e*P **P 02 28 20.4 +0.7**
comp=Z,211nm,0.9s
**JAGI Jajag, Banyuwa 61.72 286** *e*P **P 02 28 20.6 -1.4**
comp=Z,68nm,1.1s
**TTSI Tana Toraja 61.80 295** P **P 02 28 22.6 +0.1**
**JOHN Johnston Islan 62.08 19** PFAKE 02 28 40.0 +16
JOHN LR LR
comp=Z,299nm,20.0s
**ABJI Asem Bagus 62.14 287** P **P 02 28 25.8 +1.0**
**APSI Ampana 62.22 298** P **P 02 28 25.4 +0.1**
**GUMO Guam 62.34 329** LR LR 02 56 02.5
comp=Z,1µm,18.1s,baz=162,slow=37
**SYO Syowa Base 62.60 197**⇓*i*P **P 02 28 25.8 -1.3**
**SYO Syowa Base 62.60 197**⇓*i*sP sP 02 28 31.4 -0.1
**BLJI Banyuglugur 62.62 286** P **P 02 28 28.2 +0.2**
**WAKE Wake Island 62.75 353** *e*P **P 02 28 28.3 -0.3**
comp=Z,295nm,0.5s
WAKE LR LR
comp=Z,5µm,21.0s
**KMMI Kalianget 62.85 287** P **P 02 28 31.0 +1.4**
**MRSI Marisa 63.09 299** P **P 02 28 30.8 -0.3**
**PMSA Palmer Station 63.26 156** *e*P **P 02 28 31.5 0.0**
PMSA LR LR
comp=Z,4µm,21.0s
**RPN Rapa Nui 63.35 103** P **P 02 28 35.6 +2.8**
comp=Z,69nm,1.1s,baz=198,slow=3.2,SNR=2.9
**RPN Rapa Nui 63.35 103** P **P 02 28 35.6 +2.8**
RPN MLR MLR
comp=Z,2µm,19.0s
**RPN Rapa Nui 63.35 103** P **P 02 28 35.6 +2.8**
RPN LR LR
comp=Z,2µm,19.0s
**SGSI Sangihe 63.40 305** P **P 02 28 33.0 -0.1**
**PWJI Pagerwojo 63.68 285** P **P 02 28 33.8 -1.3**
**GRJI Gresik 63.99 286** P **P 02 28 36.7 -0.4**
**PCJI Pacitan 64.00 284** P **P 02 28 37.0 -0.2**
**KBKI Kotabaru 64.05 292** P **P 02 28 36.6 -0.9**
**MPSI Mapaga 64.29 298** P **P 02 28 38.0 -1.1**
**TBJI Tambak Boyo 64.50 286** P **P 02 28 40.0 -0.4**
**UGM Wanagama 64.66 284** P **P 02 28 42.4 +0.8**
**SNAA Sanae 65.08 181** P **P 02 28 44.1 +0.6**
**SNAA Sanae 65.08 181**⇑*i*P **P 02 28 43.7 +0.2**
**SNAA Sanae 65.08 181** *e*P **P 02 28 43.9 +0.4**
comp=Z,195nm,1.7s
**NVL N'lazarevskaya 65.21 187** *e*P **P 02 28 45.3 +1.1**
NVL *e*S **S 02 37 26.7 -0.2**
NVL *e*SS **SS 02 41 38.6 +0.2**
**SMRI Semarang 65.32 284** P **P 02 28 45.5 -0.3**
**SMRI Semarang 65.32 284** *e*P **P 02 28 45.4 -0.5**
comp=Z,1µm,1.8s
**PAF Port-aux-Franc 65.50 225** PFAKE 02 29 00.0 +14
PAF LR LR
comp=Z,5µm,22.0s
**VNA3 Neumayer Olymp 65.53 179** P **P 02 28 47.1 +0.7**
**VNA2 Neumayer--Watz 65.87 180** P **P 02 28 49.6 +1.0**
baz=174,slow=5.9
**DAV Davao City (W) 66.08 307**⇓*e*P **P 02 28 51.0 +0.4**
**DAV Davao City (W) 66.08 307** PFAKE 02 29 00.0 +9.4
DAV LR LR
comp=Z,3µm,19.0s
**DAV Davao City (W) 66.08 307** P **P 02 28 51.9 +1.3**
SNR=5.2
**VNA1 Neumayer--Stat 66.14 180** P **P 02 28 51.4 +1.1**
**KPJI Karang Pucung 66.19 283** P **P 02 28 52.0 +0.6**
**CISI Cisompet, Garu 66.83 282** P **P 02 28 55.1 -0.5**
**CISI Cisompet, Garu 66.83 282** *e*P **P 02 28 54.9 -0.7**
**JCJI Jatiwangi 67.25 283** P **P 02 28 57.6 -0.5**
**CNJI Cibinong 67.49 282** P **P 02 28 59.7 0.0**
**SKJI Sukabumi 68.11 282** P **P 02 29 04.3 +0.7**
**TSM Tawau 68.61 299**⇓⇓P **P 02 29 06.4 -0.3**
**MYLDM Lahad Datu 68.89 300**⇑⇑P **P 02 29 09.0 +0.6**
**SBJI Serang 69.02 282** P **P 02 29 09.5 +0.2**
**PUH Pauahi 69.09 32** *e*P **P 02 29 10.8 +1.2**
**NPH North Pit 69.10 32** *e*P **P 02 29 12.1 +2.4**
**NPH North Pit 69.10 32** *e*P **P 02 29 12.1 +2.4**
**OBL Observatory Le 69.10 32** *e*P **P 02 29 10.9 +1.2**
**BYL Byron's Ledge 69.11 32** *e*P **P 02 29 10.5 +0.7**
**STCH Steam Cracks 69.14 32** *e*P **P 02 29 09.8 -0.1**
**HULD Heiheiahulu Di 69.22 32** *e*P **P 02 29 09.8 -0.5**
**POHA Pohakuloa 69.32 32** PFAKE 02 29 20.0 +8.8
POHA LR LR
comp=Z,4µm,20.0s
**STKI Sintang 69.69 291** P **P 02 29 13.8 +0.4**
**GO09 Cerro Castillo 69.97 143** *e*P **P 02 29 16.7 +2.0**
comp=Z,130nm,1.6s
**SDKM Sandakan 70.07 299**⇑⇑P **P 02 29 16.2 +0.5**
**BTM Bintulu 70.91 294**⇑⇑P **P 02 29 20.9 +0.1**
**KKM Kota Kinabalu 71.00 298**⇓⇓P **P 02 29 21.5 -0.1**
**KKM Kota Kinabalu 71.00 298** *e*P **P 02 29 20.6 -1.0**
comp=Z,118nm,1.3s
KKM LR LR
comp=Z,4µm,20.0s
**KSM Kuching 71.50 291** *e*P **P 02 29 24.1 -0.4**
comp=Z,58nm,0.9s
KSM LR LR
comp=Z,4µm,22.0s
**COCO West Island 71.62 271** PFAKE 02 29 40.0 +15
COCO LR LR
comp=Z,3µm,21.0s
**MIDW Midway 71.94 9** PFAKE 02 29 40.0 +13
MIDW LR LR
comp=Z,5µm,19.0s
**MNAI Manna 72.51 281** *e*P **P 02 29 30.0 -0.6**
comp=Z,132nm,0.8s
**EFI East Falkland 75.43 150** PFAKE 02 30 00.0 +13
EFI LR LR
comp=Z,5µm,20.0s
**MYKOM Kota Tinggi 76.19 286**⇑⇑P **P 02 29 52.0 0.0**
**MYKOM Kota Tinggi 76.19 286** *e*P **P 02 29 51.8 -0.2**
comp=Z,64nm,1.0s
**PLCA Paso Flores 78.53 136** P **P 02 30 06.2 +1.4**
comp=Z,6.9nm,0.9s,baz=242,slow=5.3,SNR=9.1
PLCA LR LR 02 58 29.6
comp=Z,3µm,18.6s,baz=237,slow=31
**PLCA Paso Flores 78.53 136** *e*P **P 02 30 06.5 +1.6**
PLCA pmax pmax
comp=Z,20nm,0.9s
**PLCA Paso Flores 78.53 136** *e*P **P 02 30 06.5 +1.6**
comp=Z,20nm,0.9s
**FRIM Kepong 78.78 285**⇓⇓P **P 02 30 06.4 0.0**
**KTGM Kuala Trenggan 79.21 288**⇑⇑P **P 02 30 08.4 -0.4**
**HOPE Hope Point 79.39 163** *e*P **P 02 30 10.4 +1.3**
comp=Z,90nm,0.9s
HOPE LR LR
comp=Z,3µm,20.0s
**IPM Ipoh 80.07 286** *e*P **P 02 30 12.8 -0.8**
comp=Z,71nm,0.9s
**GSI Gunungsitoli 80.29 281** *e*P **P 02 30 15.1 +0.4**
comp=Z,374nm,1.1s
**PSI Prapat 80.37 283** *e*P **P 02 30 13.6 -1.7**
PSI pmax pmax
comp=Z,62nm,1.1s
**PSI Prapat 80.37 283** *e*P **P 02 30 13.6 -1.7**
comp=Z,62nm,1.1s
**KULM Kulim 80.91 286** *e*P **P 02 30 18.5 +0.5**
comp=Z,71nm,1.0s
KULM LR LR
comp=Z,7µm,21.0s
**YHNB Yeheng 82.70 314** PFAKE 02 30 40.0 +13
YHNB LR LR
comp=Z,3µm,22.0s
**TATO Taipei 82.90 314** PFAKE 02 30 40.0 +12
TATO LR LR
comp=Z,4µm,20.0s
**QZH Quanzhou 84.40 312**⇓*i*P **P 02 30 38.1 +2.3**
QZH S **S 02 41 02.8 +0.9**
QZH pmax pmax
comp=Z,1µm,4.6s
QZH LR LR
comp=Z,1µm,18.0s
QZH LR LR
comp=Z,1µm,19.8s
QZH LR LR
comp=Z,3µm,29.8s
**TRQA Tornquist 84.79 140** *e*P **P 02 30 38.6 +0.7**
comp=Z,86nm,1.9s
TRQA LR LR
comp=Z,6µm,20.0s
**QIZ Qiongzhong 84.87 302** P **P 02 30 39.1 +0.7**
QIZ PP **PP 02 33 55.4 +0.2**
QIZ S **S 02 41 07.8 +0.9**
QIZ SS **SS 02 46 37.3 -2.5**
QIZ pmax pmax
comp=Z,24nm,1.3s
QIZ pmax pmax
comp=Z,870nm,11.6s
QIZ LR LR
comp=Z,1µm,21.3s
QIZ LR LR
comp=Z,2µm,18.7s
**QIZ Qiongzhong 84.87 302** PFAKE 02 30 50.0 +12
QIZ LR LR
comp=Z,2µm,20.0s
**JNU Nakatsue 85.39 326** P **P 02 30 40.0 -0.7**
comp=Z,14nm,0.9s,baz=179,slow=5.3,SNR=6.7
**JNU Nakatsue 85.39 326** *e*P **P 02 30 39.3 -1.4**
comp=Z,24nm,0.9s
**MJAR Matsushiro Arr 85.70 333** P **P 02 30 40.8 -1.3**
comp=Z,6.1nm,0.9s,baz=177,slow=4.2,SNR=4.0
MJAR LR LR 03 04 44.9
comp=Z,605nm,21.8s,baz=175,slow=33
**MAJO Matsushiro 85.70 333** *e*P **P 02 30 42.2 +0.1**
MAJO pmax pmax
comp=Z,20nm,0.9s
MAJO MLR MLR
comp=Z,2µm,19.0s
**MAJO Matsushiro 85.70 333** *e*P **P 02 30 42.2 +0.1**
comp=Z,20nm,0.9s
MAJO LR LR
comp=Z,2µm,19.0s
**MAT Matsushiro 85.70 333** P **P 02 30 44.3 +2.2**
**LCO Las Campanas 87.26 128** PFAKE 02 31 00.0 +9.4
LCO LR LR
comp=Z,3µm,19.0s
**SSE Sheshan 88.05 318** P **P 02 30 53.0 -0.7**
SSE S **S 02 41 39.3 +2.0**

SSE pmax pmax
comp=Z,30nm,0.9s
SSE pmax pmax
comp=Z,720nm,7.0s
SSE LR LR
comp=Z,1μm,25.7s
SSE LR LR
comp=Z,1μm,25.7s
SSE LR LR
comp=Z,2μm,26.2s
**NJ2 Nanjing 89.98 317** *e*P **P** **02 31 02.3 -0.4**
NJ2 SKS **SKSac** **02 41 31.1 -2.3**
NJ2 S **ScS** **02 41 57.1 -2.4**
NJ2 SS **SS** **02 47 55.3 +1.0**
NJ2 pmax pmax
comp=Z,24nm,0.6s
NJ2 pmax pmax
comp=Z,1μm,3.5s
NJ2 LR LR
comp=Z,2μm,16.3s
NJ2 LR LR
comp=Z,920nm,17.9s
NJ2 LR LR
comp=Z,3μm,20.6s
**KSRS Korea Array 90.34 326** P **P** **02 31 04.8 +0.6**
comp=Z,11nm,0.8s,baz=147,slow=5.7,SNR=21
KSRS LR LR 03 08 37.6
comp=Z,637nm,20.5s,baz=160,slow=34
**KSAR Wonju Array Be 90.35 326** P **P** **02 31 04.9 +0.6**
**KSAR Wonju Array Be 90.35 326** P **P** **02 31 04.8 +0.6**
**KS01 Wonju Array Si 90.37 326** *e*P **P** **02 31 04.9 +0.5**
**INCN Inchon 90.90 325** PFAKE 02 31 20.0 +13
INCN LR LR
comp=Z,2μm,21.0s
**WHN Wuhan 91.12 313** ⇓P **P** **02 31 09.1 +1.1**
**CM01 Chiang Mai Arr 91.40 294** *e*P **P** **02 31 09.9 +0.2**
**CMAR Chiang Mai Arr 91.44 294** P **P** **02 31 10.2 +0.4**
comp=Z,2.7nm,0.4s,baz=154,slow=3.4,SNR=17
CMAR LR LR 03 13 32.1
comp=Z,988nm,21.2s,baz=144,slow=36
**CHTO Chiang Mai 91.69 294** *e*P **P** **02 31 11.0 0.0**
CHTO pmax pmax
comp=Z,17nm,1.0s
CHTO MLR MLR
comp=Z,1μm,22.0s
**CHTO Chiang Mai 91.69 294** *e*P **P** **02 31 11.0 0.0**
comp=Z,17nm,1.0s
CHTO LR LR
comp=Z,1μm,22.0s
**CHTO Chiang Mai 91.69 294** P **P** **02 31 12.0 +0.9**
SNR=7.1
**GYA Guiyang 92.37 305**⇑ *i*P **P** **02 31 13.8 -0.3**
GYA PP **PP** **02 34 59.0 +3.7**
GYA SKS **SKSac** **02 41 48.4 +0.8**
GYA SS **SS** **02 48 32.3 +3.1**
GYA pmax pmax
comp=Z,30nm,1.0s
GYA pmax pmax
comp=Z,170nm,6.6s
GYA LR LR
comp=Z,3μm,20.8s
GYA LR LR
comp=Z,2μm,21.1s
GYA LR LR
comp=Z,2μm,21.4s
**ENH Enshi 93.58 309** *e*P **P** **02 31 18.9 -0.6**
ENH LR LR
comp=Z,2μm,20.0s
**RER Riviere de l'E 93.65 236** PFAKE 02 31 30.0 +10
RER LR LR
comp=Z,3μm,19.0s
**KMI Kunming 93.78 301** P **P** **02 31 24.0 +3.2**
KMI PP **PP** **02 35 09.4 +2.8**
KMI SKS **SKSac** **02 41 55.8 +0.1**
KMI S **ScS** **02 42 33.8 +1.9**
KMI SS **SS** **02 48 52.1 +2.4**
KMI pmax pmax
comp=Z,340nm,7.6s
KMI LR LR
comp=Z,920nm,25.6s
KMI LR LR
comp=Z,1μm,25.6s
KMI LR LR
comp=Z,3μm,29.5s
**YSS Yuzh-Sakhalins 93.95 340** PFAKE 02 31 30.0 +9.3
YSS LR LR
comp=Z,1μm,19.0s
**TIA Tai'an 94.17 318** ⇑P **P** **02 31 21.9 -0.1**
TIA PP **PP** **02 35 10.8 +1.6**
TIA S **S** **02 42 36.5 +3.6**
TIA SS **SS** **02 48 52.6 -1.9**
TIA pmax pmax
comp=Z,30nm,1.6s
TIA LR LR
comp=Z,2μm,25.0s
TIA LR LR
comp=Z,1μm,21.0s
TIA LR LR
comp=Z,3μm,26.0s
**DL2 Dalian 94.25 322** *e*P P 02 31 11.4 -11
**DL2 Dalian 94.25 322** SKS **SKSac** **02 41 56.8 -0.2**
**DL2 Dalian 94.25 322** S S 02 42 15.8 -18
DL2 pmax pmax
comp=Z,41nm,2.0s
DL2 pmax pmax
comp=Z,490nm,5.5s
DL2 LR LR
comp=N,1μm,22.6s
DL2 LR LR
comp=E,1μm,20.6s
DL2 LR LR
comp=Z,3μm,33.3s
**PAYG Puerto Ayora 94.49 95** PFAKE 02 31 40.0 +16
PAYG LR LR
comp=Z,4μm,21.0s
**USRK Ussuriysk Ar. 94.66 332** LR LR 03 09 16.8
comp=Z,1μm,21.9s,baz=143,slow=32
**SKR Severo-Kuril's 94.95 349** *e*S **S** **02 42 34.3 -4.6**
**MDJ Mudanjiang 95.87 330** P **P** **02 31 31.4 +1.8**
MDJ S **S** **02 42 52.0 +4.8**
MDJ SS **SS** **02 49 21.5 +3.1**
MDJ pmax pmax
comp=Z,10.0nm,1.7s
MDJ LR LR
comp=Z,1μm,28.6s
MDJ LR LR
comp=Z,790nm,30.5s
MDJ LR LR
comp=Z,2μm,30.5s
**MDJ Mudanjiang 95.87 330** PFAKE 02 31 40.0 +10
MDJ LR LR
comp=Z,2μm,21.0s
**NNA Nana 96.02 113** PFAKE 02 31 40.0 +8.8
NNA LR LR
comp=Z,3μm,20.0s
**CPUP Villa Florida 96.60 136** P **P** **02 31 34.1 +0.5**
comp=Z,1.7nm,0.8s,baz=192,slow=6.2,SNR=5.0
CPUP LR LR 03 09 05.3
comp=Z,2μm,19.6s,baz=210,slow=32
**CN2 Changchun 96.72 328** *e*P **P** **02 31 34.4 +0.9**
CN2 *es*P sP 02 31 41.4 +3.4
CN2 *e*S **S** **02 42 53.3 -1.4**
CN2 pmax pmax
comp=Z,10.0nm,0.6s
CN2 pmax pmax
comp=Z,200nm,3.0s
CN2 LR LR
comp=Z,500nm,22.0s
CN2 LR LR
comp=Z,700nm,22.0s
CN2 LR LR
comp=Z,1μm,22.0s
**XAN Xi'an 96.74 311** P **P** **02 31 36.5 +2.6**
XAN PP **PP** **02 35 35.8 +6.6**
XAN SKS **SKSac** **02 42 12.5 +1.9**
XAN S **S** **02 42 54.5 -0.9**
XAN SS **SS** **02 49 33.6 +2.4**
XAN pmax pmax
comp=Z,7.0nm,1.2s
XAN pmax pmax
comp=Z,360nm,13.1s
XAN LR LR
comp=Z,660nm,34.2s
XAN LR LR
comp=Z,1μm,31.0s
XAN LR LR
comp=Z,2μm,30.7s
**PET Petropavlovsk 96.94 351** *e*P P 02 31 27.3 -6.9
PET *e*S S 02 42 45.7 -10
PET *e*PS **PS** **02 44 15.8 -3.1**
PET MLR MLR
comp=Z,2μm,22.0s
**PET Petropavlovsk 96.94 351** PFAKE 02 31 50.0 +16
PET LR LR
comp=Z,1μm,19.0s
**PETK Petropavlovsk- 97.13 351** P Pdif 02 31 36.5 +1.2
comp=Z,3.7nm,0.9s,baz=168,slow=8.1,SNR=3.4
PETK LR LR 03 13 43.0
comp=Z,1μm,18.4s,baz=169,slow=34
**CD2 Chengdu 97.36 306** *e*P Pdif 02 31 37.4 +0.5
CD2 pP sP 02 31 42.3 +1.0
CD2 PP **PP** **02 35 34.1 0.0**
CD2 SKS **SKSac** **02 42 09.6 -4.4**
CD2 S **ScS** **02 43 00.9 -0.3**
CD2 SS **SS** **02 49 43.8 +3.7**
CD2 pmax pmax
comp=Z,20nm,0.6s
CD2 pmax pmax
comp=Z,440nm,9.5s
CD2 LR LR
comp=Z,1μm,18.0s
CD2 LR LR
comp=Z,2μm,19.0s
CD2 LR LR
comp=Z,2μm,24.7s
**BJT Baijiatuau 97.64 320** PFAKE 02 31 50.0 +12
BJT LR LR
comp=Z,3μm,19.0s
**BJI Beijing 97.66 320** P Pdif 02 31 39.5 +1.6
BJI S **S** **02 43 05.6 +2.8**
BJI SS **SS** **02 49 48.9 +5.0**
BJI pmax pmax
comp=Z,580nm,10.2s
BJI LR LR
comp=Z,2μm,24.4s
**LPAZ La Paz 98.46 122** P Pdif 02 31 44.1 +1.2
comp=Z,1.3nm,0.8s,baz=223,slow=5.5,SNR=3.6
LPAZ LR LR 03 06 15.4
comp=Z,2μm,21.1s,baz=190,slow=29
**BRDH Bariadhala 99.26 292** LR LR 03 19 39.2
comp=Z,2μm,19.7s,baz=135,slow=37
**TRIS Tristan da Cun 99.65 176** PFAKE 02 32 00.0 +13
TRIS LR LR
comp=Z,1μm,19.0s
**PFO Pinyon Flats O 100.18 53** PFAKE 02 32 00.0 +11
PFO LR LR
comp=Z,3μm,19.0s
**SUR Sutherland 100.27 204** PFAKE 02 32 00.0 +10
SUR LR LR
comp=Z,6μm,19.0s
**ABPO Ambohimpanom 100.32 231** PFAKE 02 32 00.0 +9.4
ABPO LR LR
comp=Z,849nm,19.0s
**HHC Hu-ho-hao-te 100.51 317** *e*P **Pdif** **02 31 51.1 +0.4**
HHC PP **PP** **02 36 01.6 +3.5**
HHC S **Sdif** **02 43 24.4 -2.7**
HHC SS **SS** **02 50 25.3 +1.2**
HHC pmax pmax
comp=Z,13nm,1.1s
HHC pmax pmax
comp=Z,160nm,8.4s
HHC LR LR
comp=Z,1μm,20.7s
HHC LR LR
comp=Z,940nm,20.7s
HHC LR LR
comp=Z,2μm,22.9s
**LZH Lanzhou 101.06 310** *e*P **Pdif** **02 31 54.1 +0.8**
LZH pP pPdif 02 31 55.8 -0.9
LZH PP **PP** **02 36 06.0 +3.6**
LZH SKS **SKSac** **02 42 31.0 -1.5**
LZH S SKKSac 02 43 29.3 +21
LZH sS pS 02 43 36.5 +0.1
LZH SS **SS** **02 50 33.0 +1.1**
LZH pmax pmax
comp=Z,30nm,1.2s
LZH pmax pmax
comp=Z,310nm,8.3s
LZH LR LR
comp=Z,1μm,17.2s
LZH LR LR
comp=Z,1μm,18.0s
LZH LR LR
comp=Z,2μm,19.7s
**SHL Shillong 101.06 295** *e*P **Pdif** **02 31 55.0 +1.4**
**NVAR Mina Array Bea 102.59 49** P **Pdif** **02 32 02.6 +2.4**
comp=Z,0.2nm,0.5s,baz=214,slow=7.5,SNR=3.2
**TUC Tucson 102.66 57** PFAKE 02 32 10.0 +10
TUC LR LR
comp=Z,2μm,20.0s
**HIA Hailar 103.46 327** PFAKE 02 32 20.0 +17
HIA LR LR
comp=Z,2μm,22.0s
**OTAV Otavalo 103.62 103** PFAKE 02 32 20.0 +14
OTAV LR LR
comp=Z,1μm,19.0s
**LSA Lhasa 104.33 297** PFAKE 02 32 20.0 +12
LSA LR LR
comp=Z,1μm,20.0s
**WUAZ Wupatki 104.51 55** PFAKE 02 32 20.0 +11
WUAZ LR LR
comp=Z,1μm,19.0s
**KDAK Kodiak Island 104.97 18** PFAKE 02 36 40.0
KDAK LR LR
comp=Z,1μm,21.0s
**TXAR Lajitas Array 105.17 64** PP PP 02 36 28.8 -4.4
comp=Z,0.3nm,0.9s,baz=270,slow=6.3,SNR=2.7
TXAR PKKPbc **PKKPbc** **02 47 51.2 -0.3**
comp=Z,0.5nm,0.9s,baz=90,slow=2.6,SNR=4.2
**WVOR Wild Horse Val 105.28 46** PFAKE 02 36 40.0
WVOR LR LR
comp=Z,3μm,19.0s
**MNTX Cornudas Mount 105.63 61** PFAKE 02 36 40.0
MNTX LR LR
comp=Z,1μm,20.0s
**JTS JuntasAbangare 105.81 91** PFAKE 02 36 40.0
JTS LR LR
comp=Z,3μm,19.0s
**MSEY Mahe Island 106.16 247** PFAKE 02 36 40.0
MSEY LR LR
comp=Z,1μm,19.0s
**DUG Dugway, Tooele 106.87 50** *e*PKP **PKiKP** **02 36 28.8 -0.1**
DUG LR LR
comp=Z,2μm,19.0s
**ANMO Albuquerque 107.10 58** PFAKE 02 36 40.0
ANMO LR LR
comp=Z,2μm,21.0s
**SAML Samuel 107.16 121** PFAKE 02 36 40.0
SAML LR LR
comp=Z,715nm,20.0s
**MVCO Mesa Verde 107.36 55** PFAKE 02 36 40.0
MVCO LR LR
comp=Z,1μm,20.0s
**HAWA Hanford 107.64 42** PFAKE 02 36 40.0
HAWA LR LR
comp=Z,2μm,19.0s
**BMO Blue Mountains 107.67 44** PFAKE 02 36 40.0
BMO LR LR
comp=Z,4μm,19.0s
**KVTX Kingsville 107.86 69** PFAKE 02 36 40.0
KVTX LR LR
comp=Z,2μm,19.0s
**ULN Ulaanbaatar 107.87 320** PFAKE 02 36 40.0
ULN LR LR
comp=Z,2μm,20.0s
**SONM Songino Array 108.16 319** PP PP 02 36 51.3 -3.6
comp=Z,0.5nm,0.3s,baz=134,slow=4.3,SNR=7.4
SONM PKKPbc **PKKPbc** **02 47 44.3 +1.4**
comp=Z,1.1nm,0.6s,baz=268,slow=2.4,SNR=5.2
**HLID Hailey 108.29 47** PFAKE 02 36 40.0
HLID LR LR
comp=Z,2μm,19.0s
**JCT Junction City 108.46 65** PFAKE 02 36 40.0
JCT LR LR
comp=Z,2μm,20.0s
**BCIP Isla Barro Col 108.77 95** PFAKE 02 36 50.0
BCIP LR LR
comp=Z,2μm,19.0s
**SDCO Great Sand Dun 109.51 56** PFAKE 02 36 50.0
SDCO LR LR
comp=Z,2μm,19.0s
**AHID Auburn Hatcher 109.55 49** PFAKE 02 36 50.0
AHID LR LR
comp=Z,2μm,19.0s
**WRAK Wrangell Islan 109.70 29** PFAKE 02 36 50.0
WRAK LR LR
comp=Z,5μm,19.0s
**NEW Newport 110.12 42** *e*PKiKP **PKiKP** **02 36 34.9 +0.3**
NEW MLR MLR
comp=Z,3μm,20.0s
**NEW Newport 110.12 42** *e*PKP **PKiKP** **02 36 34.9 +0.3**
NEW LR LR
comp=Z,3μm,20.0s
**BW06 Boulder Array 110.40 50** PFAKE 02 36 50.0
BW06 LR LR
comp=Z,2μm,20.0s
**PDAR Pinedale Array 110.40 50** PKiKP **PKiKP** **02 36 37.0 +1.4**
comp=Z,0.3nm,0.6s,baz=165,slow=3.7,SNR=2.8
PDAR PP **PP** **02 37 10.2 -1.3**
comp=Z,1.0nm,1.0s,baz=210,slow=5.2,SNR=3.6
**ISCO Idaho Springs 110.76 55** PFAKE 02 36 50.0
ISCO LR LR
comp=Z,2μm,20.0s
**YAK Yakutsk 110.80 340** PFAKE 02 36 50.0
YAK LR LR
comp=Z,1μm,19.0s
**MCK McKinley 111.10 17** *e*PKiKP **PKiKP** **02 36 34.8 -1.2**
**MCK McKinley 111.10 17** *e*PKP **PKiKP** **02 36 34.8 -1.2**
**LKWY Lake 111.11 48** PFAKE 02 36 50.0
LKWY LR LR
comp=Z,3μm,20.0s
**BOZ Bozeman (W) 111.13 47** *e*PKiKP **PKiKP** **02 36 36.7 0.0**
BOZ MLR MLR
comp=Z,2μm,19.0s
**BOZ Bozeman (W) 111.13 47** *e*PKP **PKiKP** **02 36 36.7 0.0**
BOZ LR LR
comp=Z,2μm,19.0s
**BILL Bilibino 111.34 357** *i* PKiKP **PKiKP** **02 36 35.7 -0.5**
BILL *e* 02 37 14.4
BILL *e*PPP PPP 02 39 35.4
BILL pmax pmax
comp=Z,8.0nm,2.0s
BILL MLR MLR
comp=Z,2μm,19.0s
**WMOK Wichita Mounta 111.82 62** PFAKE 02 36 50.0
WMOK LR LR
comp=Z,2μm,19.0s
**RLMT Red Lodge 112.09 48** PFAKE 02 36 50.0
RLMT LR LR
comp=Z,2μm,20.0s
**COLA College 112.33 17** *e*PKiKP **PKiKP** **02 36 37.0 -1.2**
COLA MLR MLR
comp=Z,3μm,19.0s
**COLA College 112.33 17** *e*PKP **PKiKP** **02 36 37.0 -1.2**
COLA LR LR
comp=Z,3μm,19.0s
**ILAR Eielson Array 112.45 17** PKiKP **PKiKP** **02 36 37.5 -0.9**
comp=Z,2.3nm,0.8s,baz=270,slow=2.0,SNR=17
ILAR PKKPbc **PKKPab** **02 47 31.8 -1.6**
comp=Z,1.3nm,0.9s,baz=16,slow=2.4,SNR=12
**NATX Nacogdoches 112.69 67** PFAKE 02 36 50.0
NATX LR LR
comp=Z,2μm,21.0s
**LSZ Lusaka 113.17 217** PKKPbc PKKPbc 02 47 26.4 +0.7
comp=Z,2.2nm,0.8s,baz=360,slow=1.8,SNR=6.4
**LSZ Lusaka 113.17 217** PKKPbc PKKPbc 02 47 26.4 +0.7
LSZ LR LR
comp=Z,2μm,20.0s
**OGNE Ogallala 113.61 55** PFAKE 02 36 50.0
OGNE LR LR
comp=Z,2μm,20.0s
**EGMT Eagleton 113.68 46** PFAKE 02 36 50.0
EGMT LR LR
comp=Z,2μm,19.0s
**CBKS Cedar Bluff 113.71 58** PFAKE 02 36 50.0
CBKS LR LR
comp=Z,2μm,21.0s
**EGAK Eagle 113.78 20** PFAKE 02 36 50.0
EGAK LR LR
comp=Z,2μm,20.0s
**COLD Coldfoot 113.92 15** *e*PKP **PKiKP** **02 36 40.0 -1.2**
**RSSD Black Hills 114.38 52** *e*PKiKP PKPdf 02 36 42.1 -1.0
**RSSD Black Hills 114.38 52** *e*PKP PKPdf 02 36 42.0 -1.0
**LAO LASA Array 114.72 48** PFAKE 02 37 00.0 +17
LAO LR LR
comp=Z,1μm,19.0s
**MIAR Mount Ida 115.10 65** PFAKE 02 37 00.0 +16
MIAR LR LR
comp=Z,1μm,19.0s
**SDV Santo Domingo 115.19 102** PFAKE 02 37 00.0 +14
SDV LR LR
comp=Z,2μm,20.0s
**WMQ Urumqi 115.43 307** PKP **PKPdf** **02 36 44.3 -0.6**
WMQ PP **PP** **02 37 51.1 +4.0**
WMQ PKS **PKSdf** **02 40 20.4 -1.1**
WMQ SS SS 02 53 46.0 +0.1
WMQ AMB AMB
comp=Z,730nm,6.7s
WMQ LR LR
comp=Z,2μm,24.3s
WMQ LR LR
comp=Z,2μm,27.1s
WMQ LR LR
comp=Z,2μm,24.3s
**PTGA Pitinga 115.49 118** PFAKE 02 37 00.0 +14
PTGA LR LR
comp=Z,32μm,20.0s
**KSU1 Kansas State U 115.84 60** *e*PKPdf **PKPdf** **02 36 45.2 -0.5**
KSU1 LR LR
comp=Z,1μm,19.0s
**BGNE Belgrade 116.24 57** *e*PKPdf **PKPdf** **02 36 45.8 -0.7**
**THN Thein Dam 116.31 291** *e*P **PKPdf** **02 36 44.2 -2.6**
**MTDJ Mount Denham 116.41 90** PFAKE 02 37 00.0 +12
MTDJ LR LR
comp=Z,2μm,19.0s
**BRAL Brewton 117.53 72** PFAKE 02 37 00.0 +11
BRAL LR LR
comp=Z,1μm,20.0s
**INK Inuvik 118.45 20** PKP **PKPdf** **02 36 49.1 -0.7**
comp=Z,7.0nm,0.7s,baz=138,slow=1.9,SNR=34
INK PKKPbc **PKKPbc** **02 47 09.4 +1.3**
comp=Z,1.8nm,1.0s,baz=13,slow=11,SNR=7.4
**INK Inuvik 118.45 20** *e*PKiKP **PKPdf** **02 36 48.7 -1.1**
**INK Inuvik 118.45 20** *e*PKPdf **PKPdf** **02 36 48.7 -1.1**
INK PKKPbc **PKKPbc** **02 47 09.4 +1.3**
**ECSD EROS Data Cent 118.50 56** *e*PKPdf **PKPdf** **02 36 49.3 -1.4**
ECSD LR LR
comp=Z,1μm,20.0s
**DGZ Jazzator, Alta 118.98 312** *i* PKiKP **PKPdf** **02 36 50.3 -1.4**
**TIXI Tiksi 119.02 345** *i* PKiKP **PKPdf** **02 36 48.1 -2.7**
**TIXI Tiksi 119.02 345** *e*PKPdf **PKPdf** **02 36 49.0 -1.9**
TIXI LR LR
comp=Z,1μm,20.0s
**ZSN Zaisan 119.14 309** *e*PKP **PKPdf** **02 36 51.1 -0.8**
ZSN *e*PP **PP** **02 38 11.7 -1.1**
ZSN LR LR 03 30 27.6
comp=Z,142nm,20.4s
**GTBY Guantanamo Bay 119.26 90** PFAKE 02 37 10.0 +17
GTBY LR LR
comp=Z,2μm,22.0s
**SCIA State Center 119.56 59** PFAKE 02 37 10.0 +17
SCIA LR LR
comp=Z,2μm,20.0s
**KSH Kashi 120.18 297** PKP **PKPdf** **02 36 54.5 +0.2**
KSH PP **PP** **02 38 24.6 +4.3**
KSH PKS **PKSdf** **02 40 28.4 -2.6**
KSH SKS **SKSdf** **02 44 04.6 -1.7**
KSH SKKS **SKKSac** **02 45 16.5 -3.0**
KSH SS **SS** **02 54 50.4 +2.5**
KSH AMB AMB
comp=Z,140nm,3.3s
KSH LR LR
comp=Z,200nm,8.2s
KSH LR LR
comp=Z,180nm,10.7s
KSH LR LR
comp=Z,470nm,8.9s
**UZB Uzynbulak 120.24 302** *e*PKP **PKPdf** **02 36 53.1 -1.2**
**MKAR Makanchi Array 120.26 307** PKP **PKPdf** **02 36 53.3 -0.7**
comp=Z,9.0nm,0.9s,baz=201,slow=1.7,SNR=56
**YKA Yellowknife Ar 120.40 31** PKP **PKPdf** **02 36 52.9 -0.8**
comp=Z,4.9nm,0.7s,baz=240,slow=1.7,SNR=99
YKA PKKPbc **PKKPbc** **02 47 00.3 -0.5**
comp=Z,1.3nm,0.8s,baz=49,slow=4.6,SNR=20
**KMBO Kilima Mbogo 120.44 234** PKP **PKPdf** **02 36 56.0 +0.2**
comp=Z,1.3nm,0.8s,baz=242,slow=3.4,SNR=3.9

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **KMBO** | **Kilima Mbogo** | **120.44** | **234** | *e*PKIKP | **PKPdf** | **02 36 55.4** | **-0.4** |
| KMBO | | | | MLR | MLR | | |
| | comp=Z,1μm,20.0s | | | | | | |
| **KMBO** | **Kilima Mbogo** | **120.44** | **234** | *e*PKPdf | **PKPdf** | **02 36 55.4** | **-0.4** |
| KMBO | | | | LR | LR | | |
| | comp=Z,1μm,20.0s | | | | | | |
| **SATY** | **Saty** | **120.57** | **302** | *e*PKP | **PKPdf** | **02 36 53.4** | **-1.5** |
| **ZHN** | **Zhinishke** | **120.61** | **302** | *e*PKP | **PKPdf** | **02 36 53.4** | **-1.6** |
| ZHN | | | | *e*PP | **PP** | **02 38 20.0** | **-3.2** |
| **SHEL** | **Horse Pasture** | **120.80** | **182** | PFAKE | | 02 37 10.0 | +14 |
| SHEL | | | | LR | LR | | |
| | comp=Z,2μm,19.0s | | | | | | |
| **GOGA** | **Godfrey** | **121.30** | **72** | PFAKE | | 02 37 10.0 | +14 |
| GOGA | | | | LR | LR | | |
| | comp=Z,890nm,19.0s | | | | | | |
| **HDIL** | **Hopedale** | **121.31** | **62** | PFAKE | | 02 37 10.0 | +14 |
| HDIL | | | | LR | LR | | |
| | comp=Z,2μm,19.0s | | | | | | |
| **AGMN** | **Agassiz Nation** | **121.42** | **51** | *e*PKPdf | **PKPdf** | **02 36 54.6** | **-1.6** |
| AGMN | | | | LR | LR | | |
| | comp=Z,2μm,20.0s | | | | | | |
| **SDDR** | **Presa de Saban** | **121.44** | **93** | PFAKE | | 02 37 10.0 | +13 |
| SDDR | | | | LR | LR | | |
| | comp=Z,2μm,20.0s | | | | | | |
| **FFC** | **Flin Flon** | **121.53** | **43** | *e*PKIKP | **PKPdf** | **02 36 55.4** | **-0.8** |
| FFC | | | | MLR | MLR | | |
| | comp=Z,1μm,19.0s | | | | | | |
| **FFC** | **Flin Flon** | **121.53** | **43** | *e*PKPdf | **PKPdf** | **02 36 55.4** | **-0.8** |
| FFC | | | | LR | LR | | |
| | comp=Z,1μm,19.0s | | | | | | |
| **TDK** | **Taldyqorghan** | **121.60** | **304** | *e*PKP | **PKPdf** | **02 36 55.6** | **-1.1** |
| TDK | | | | LRM | MLR | 03 28 39.9 | |
| | comp=Z,488nm,27.7s | | | | | | |
| **JFWS** | **Jewell Farm** | **121.96** | **59** | *e*PKIKP | **PKPdf** | **02 36 56.7** | **-0.7** |
| JFWS | | | | MLR | MLR | | |
| | comp=Z,2μm,20.0s | | | | | | |
| **JFWS** | **Jewell Farm** | **121.96** | **59** | *e*PKPdf | **PKPdf** | **02 36 56.7** | **-0.7** |
| JFWS | | | | LR | LR | | |
| | comp=Z,2μm,20.0s | | | | | | |
| **KZA** | **Kyzart** | **122.02** | **300** | P | **PKPdf** | **02 36 58.9** | **+0.8** |
| | SNR=5.9 | | | | | | |
| **WCI** | **Wyandotte Cave** | **122.02** | **66** | *e*PKIKP | **PKPdf** | **02 36 56.8** | **-0.9** |
| **WCI** | **Wyandotte Cave** | **122.02** | **66** | *e*PKPdf | **PKPdf** | **02 36 56.8** | **-0.9** |
| **ULM** | **Lac du Bonnet** | **122.42** | **49** | PKP | **PKPdf** | **02 36 57.0** | **-1.0** |
| | comp=Z,19nm,0.9s,baz=243,slow=1.9,SNR=27 | | | | | | |
| **ULM** | **Lac du Bonnet** | **122.42** | **49** | PKIKP | **PKPdf** | **02 36 57.0** | **-1.0** |
| **UCH** | **Uchtor** | **122.56** | **299** | P | **PKPdf** | **02 36 59.4** | **+0.2** |
| | SNR=12 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **122.62** | **315** | PKP | **PKPdf** | **02 36 56.7** | **-1.6** |
| | comp=Z,4.0nm,0.6s,baz=191,slow=2.0,SNR=8.1 | | | | | | |
| **AAK** | **Ala-Archa** | **122.79** | **300** | PKP | **PKPdf** | **02 36 58.7** | **-0.5** |
| | comp=Z,5.6nm,0.7s,baz=30,slow=2.6,SNR=6.8 | | | | | | |
| **AAK** | **Ala-Archa** | **122.79** | **300** | i*P*KIKP | **PKPdf** | **02 36 57.8** | **-1.4** |
| **AAK** | **Ala-Archa** | **122.79** | **300** | P | **PKPdf** | **02 36 59.1** | **-0.1** |
| | SNR=6.6 | | | | | | |
| **AAK** | **Ala-Archa** | **122.79** | **300** | *e*PKPdf | **PKPdf** | **02 36 58.3** | **-0.9** |
| AAK | | | | LR | LR | | |
| | comp=Z,1μm,22.0s | | | | | | |
| **FRU** | **Bishkek** | **122.81** | **300** | *e*PKIKP | **PKPdf** | **02 36 58.5** | **-0.6** |
| FRU | | | | *e* | | 02 38 38.0 | |
| FRU | | | | pmax | pmax | | |
| | comp=Z,60nm,2.0s | | | | | | |
| FRU | | | | pmax | pmax | | |
| | comp=E,700nm,20.0s | | | | | | |
| **CHMS** | **Chumysh** | **122.81** | **300** | P | **PKPdf** | **02 36 58.6** | **-0.5** |
| | SNR=8.2 | | | | | | |
| **AML** | **Almayashu** | **123.04** | **299** | P | **PKPdf** | **02 37 00.1** | **0.0** |
| | SNR=14 | | | | | | |
| **USP** | **Ospenovka** | **123.11** | **300** | P | **PKPdf** | **02 36 59.3** | **-0.4** |
| | SNR=8.1 | | | | | | |
| **GRTK** | **Grand Turk** | **123.14** | **91** | PFAKE | | 02 37 10.0 | +10 |
| GRTK | | | | LR | LR | | |
| | comp=Z,2μm,21.0s | | | | | | |
| **EKS2** | **Erkin-Say** | **123.26** | **299** | P | **PKPdf** | **02 37 00.1** | **+0.1** |
| | SNR=7.0 | | | | | | |
| **NHSC** | **New Hope** | **123.42** | **74** | PFAKE | | 02 37 10.0 | +10 |
| NHSC | | | | LR | LR | | |
| | comp=Z,769nm,20.0s | | | | | | |
| **EYMN** | **Ely** | **123.76** | **54** | *e*PKPdf | **PKPdf** | **02 36 59.8** | **-0.9** |
| EYMN | | | | LR | LR | | |
| | comp=Z,1μm,20.0s | | | | | | |
| **GRGR** | **Grenville** | **123.77** | **107** | PFAKE | | 02 37 10.0 | +8.3 |
| GRGR | | | | LR | LR | | |
| | comp=Z,1μm,21.0s | | | | | | |
| **NVS** | **Novosibirsk** | **123.87** | **316** | *e*PKIKP | **PKPdf** | **02 37 00.0** | **-0.6** |
| NVS | | | | *e* | | 02 38 45.9 | |
| NVS | | | | pmax | pmax | | |
| | comp=Z,20nm,1.6s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=N,4.0nm,0.7s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=E,12nm,1.3s | | | | | | |
| **KURK** | **Kurchatov** | **124.34** | **310** | *c* i*P*KIKP | **PKPdf** | **02 36 59.9** | **-1.7** |
| KURK | | | | pmax | pmax | | |
| | comp=Z,258nm,1.7s | | | | | | |
| **KURK** | **Kurchatov** | **124.34** | **310** | *e*PKPdf | **PKPdf** | **02 36 60.0** | **-1.7** |
| KURK | | | | LR | LR | | |
| | comp=Z,3μm,22.0s | | | | | | |
| **KURK** | **Kurchatov** | **124.34** | **310** | P | **PKPdf** | **02 37 01.2** | **-0.5** |
| | SNR=14 | | | | | | |
| **RCBR** | **Riachuelo** | **124.40** | **144** | PKP | **PKPdf** | **02 37 03.4** | **+0.3** |
| | comp=Z,14nm,0.8s,baz=198,slow=3.2 | | | | | | |
| **RCBR** | **Riachuelo** | **124.40** | **144** | *e*PKPdf | **PKPdf** | **02 37 03.6** | **+0.5** |
| RCBR | | | | LR | LR | | |
| | comp=Z,2μm,19.0s | | | | | | |
| **SJG** | **San Juan** | **124.60** | **98** | PFAKE | | 02 37 20.0 | +17 |
| SJG | | | | LR | LR | | |
| | comp=Z,2μm,20.0s | | | | | | |
| **IUG** | **Iuzhnay** | **125.40** | **297** | *e*PKP | **PKPdf** | **02 37 02.8** | **-1.4** |
| IUG | | | | *e*PP | **PP** | **02 38 52.6** | **-2.9** |
| IUG | | | | LR | LR | 03 32 58.0 | |
| | comp=Z,379nm,20.9s | | | | | | |
| **BLA** | **Blacksburg** | **125.44** | **70** | *e*PKIKP | **PKPdf** | **02 37 03.7** | **-0.6** |
| BLA | | | | MLR | MLR | | |
| | comp=Z,2μm,19.0s | | | | | | |
| **BLA** | **Blacksburg** | **125.44** | **70** | *e*PKPdf | **PKPdf** | **02 37 03.7** | **-0.6** |
| BLA | | | | LR | LR | | |
| | comp=Z,2μm,19.0s | | | | | | |
| **KKAR** | **Karatay Array** | **125.56** | **298** | *e*PKIKP | **PKPdf** | **02 37 03.2** | **-1.1** |
| **KKAR** | **Karatay Array** | **125.56** | **298** | *e*PKPdf | **PKPdf** | **02 37 03.2** | **-1.1** |
| **ASHO** | **Ashiyiah** | **125.72** | **271** | P | **PKPdf** | **02 37 05.7** | **+0.4** |
| | SNR=6.7 | | | | | | |
| **HATD** | **Hatta, Dubai** | **125.75** | **272** | P | **PKPdf** | **02 37 06.0** | **+0.7** |
| | SNR=7.2 | | | | | | |
| **AAM** | **Ann Arbor** | **125.84** | **63** | PFAKE | | 02 37 20.0 | +15 |
| AAM | | | | LR | LR | | |
| | comp=Z,2μm,20.0s | | | | | | |
| **FDF** | **Fort de France** | **125.92** | **105** | PFAKE | | 02 37 20.0 | +14 |
| FDF | | | | LR | LR | | |
| | comp=Z,1μm,19.0s | | | | | | |
| **BBGH** | **Gun Hill** | **125.93** | **107** | PFAKE | | 02 37 20.0 | +14 |
| BBGH | | | | LR | LR | | |
| | comp=Z,4μm,21.0s | | | | | | |
| **BRLS** | **Boroldaу** | **125.95** | **298** | *e*PKP | **PKPdf** | **02 37 03.9** | **-1.2** |
| BRLS | | | | LRM | MLR | 03 31 46.0 | |
| | comp=Z,154nm,21.4s | | | | | | |
| **CNNC** | **Cliffs of the** | **126.16** | **73** | PFAKE | | 02 37 20.0 | +14 |
| CNNC | | | | LR | LR | | |
| | comp=Z,2μm,20.0s | | | | | | |
| **GLMI** | **Grayling** | **126.44** | **60** | PFAKE | | 02 37 20.0 | +14 |
| GLMI | | | | LR | LR | | |
| | comp=Z,2μm,19.0s | | | | | | |
| **ANWB** | **Willy Bob** | **127.44** | **102** | PFAKE | | 02 37 20.0 | +11 |
| ANWB | | | | LR | LR | | |
| | comp=Z,2μm,22.0s | | | | | | |
| **CBN** | **Corbin Frederi** | **128.03** | **70** | PFAKE | | 02 37 20.0 | +11 |
| CBN | | | | LR | LR | | |
| | comp=Z,1μm,20.0s | | | | | | |
| **ASCN** | **Ascension** | **128.37** | **171** | PFAKE | | 02 37 20.0 | +9.3 |
| ASCN | | | | LR | LR | | |
| | comp=Z,2μm,19.0s | | | | | | |
| **BRVK** | **Borovoye** | **130.01** | **310** | *c* i*P*KIKP | **PKPdf** | **02 37 11.5** | **-1.0** |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,71nm,1.7s | | | | | | |
| **BRVK** | **Borovoye** | **130.01** | **310** | *e*PKPdf | **PKPdf** | **02 37 11.8** | **-0.7** |
| BRVK | | | | LR | LR | | |
| | comp=Z,851nm,21.0s | | | | | | |
| **BRVK** | **Borovoye** | **130.01** | **310** | P | **PKPdf** | **02 37 12.4** | **0.0** |
| | SNR=10.0 | | | | | | |
| **BINY** | **Binghamton** | **130.84** | **66** | PFAKE | | 02 37 30.0 | +16 |
| BINY | | | | LR | LR | | |
| | comp=Z,3μm,22.0s | | | | | | |
| **GEYT** | **Alibeck** | **131.39** | **287** | PKP | **PKPdf** | **02 37 15.5** | **-0.1** |
| | comp=Z,4.2nm,0.8s,baz=274,slow=3.9,SNR=12 | | | | | | |
| **RAYN** | **Ar Rayn** | **132.68** | **263** | *e*PKPdf | **PKPdf** | **02 37 18.2** | **-0.3** |
| RAYN | | | | LR | LR | | |
| | comp=Z,1μm,19.0s | | | | | | |
| **LONY** | **Lake Ozonia** | **132.78** | **64** | PFAKE | | 02 37 30.0 | +12 |
| LONY | | | | LR | LR | | |
| | comp=Z,1μm,19.0s | | | | | | |
| **BBSR** | **BB Station** | **134.06** | **84** | PFAKE | | 02 37 30.0 | +9.2 |
| BBSR | | | | LR | LR | | |
| | comp=Z,866nm,20.0s | | | | | | |
| **SVE** | **Sverdlovsk** | **136.44** | **312** | ⇓*i*PKIKP | **PKPdf** | **02 37 24.8** | **+0.4** |
| SVE | | | | pmax | pmax | | |
| | comp=Z,29nm,1.5s | | | | | | |
| SVE | | | | MLR | MLR | | |
| | comp=Z,2μm,24.0s | | | | | | |
| **PKME** | **Peaks-Kenny Pk** | **136.51** | **65** | PFAKE | | 02 37 40.0 | +15 |
| PKME | | | | LR | LR | | |
| | comp=Z,2μm,19.0s | | | | | | |
| **ARU** | **Arti** | **137.48** | **311** | *i* PKIKP | **PKPdf** | **02 37 25.4** | **-1.0** |
| **ARU** | **Arti** | **137.48** | **311** | *e*PKPpre | PKPpre | 02 37 18.8 | |
| ARU | | | | *e*PKPdf | **PKPdf** | **02 37 26.1** | **-0.2** |
| ARU | | | | LR | LR | | |
| | comp=Z,1μm,21.0s | | | | | | |
| **SCHQ** | **Schefferville** | **140.51** | **52** | PKP | **PKPdf** | **02 37 32.8** | **+0.8** |
| | comp=Z,6.1nm,0.9s,baz=274,slow=7.1,SNR=3.7 | | | | | | |
| **MAK** | **Makhachkala** | **140.83** | **289** | *i* PKIKP | **PKPdf** | **02 37 30.4** | **-2.5** |
| MAK | | | | *e* | | 02 44 46.6 | |
| MAK | | | | *e*SS | SS | 02 58 57.9 | -3.0 |
| MAK | | | | pmax | pmax | | |
| | comp=Z,108nm,1.2s | | | | | | |
| **GNI** | **Garni** | **141.74** | **283** | PKP | **PKPdf** | **02 37 35.1** | **+0.3** |
| | comp=Z,8.0nm,0.7s,baz=15,slow=2.4,SNR=6.7 | | | | | | |
| **GNI** | **Garni** | **141.74** | **283** | *e*PKIKP | **PKPdf** | **02 37 34.4** | **-0.5** |
| GNI | | | | MLR | MLR | | |
| | comp=Z,1μm,22.0s | | | | | | |
| **GNI** | **Garni** | **141.74** | **283** | *e*PKPdf | **PKPdf** | **02 37 34.4** | **-0.5** |
| GNI | | | | LR | LR | | |
| | comp=Z,1μm,22.0s | | | | | | |
| **GNI** | **Garni** | **141.74** | **283** | P | **PKPdf** | **02 37 37.3** | **+2.4** |
| | SNR=6.5 | | | | | | |
| **LIC** | **Lamto** | **142.81** | **183** | *e*PKP1 | PKPpre | 02 37 32.5 | |
| | comp=Z,99nm,1.7s | | | | | | |
| **KIC** | **Kosan Boka** | **142.93** | **184** | *e*PKP1 | PKPpre | 02 37 33.1 | |
| | comp=Z,52nm,0.8s | | | | | | |
| **AKH** | **Akhalkalaki** | **143.08** | **285** | ⇓*i*P | **PKPdf** | **02 37 37.7** | **+0.4** |
| **TIC** | **Toumodi** | **143.23** | **183** | *e*PKP1 | PKPab | 02 37 34.1 | +0.3 |
| **DBIC** | **Dimbokro** | **143.25** | **184** | PKhKP | PKPpre | 02 37 34.2 | |
| | comp=Z,7.7nm,0.8s,baz=161,slow=5.8,SNR=14 | | | | | | |
| **NCK** | **Nalchik** | **143.70** | **288** | *c* i*P*KIKP | **PKPdf** | **02 37 38.0** | **-0.1** |
| **KBS** | **Kingsbay** | **143.72** | **354** | PFAKE | | 02 37 50.0 | +13 |
| KBS | | | | LR | LR | | |
| | comp=Z,971nm,19.0s | | | | | | |
| **ASF** | **Jabal al Asfar** | **143.84** | **267** | PKP | **PKPdf** | **02 37 38.1** | **-0.7** |
| | comp=Z,11nm,0.9s,baz=93,slow=1.0,SNR=7.9 | | | | | | |
| **EIL** | **Elat** | **143.91** | **262** | PKP | PKPbc | 02 37 36.5 | -0.2 |
| | comp=Z,21nm,0.9s,baz=62,slow=0.9,SNR=7.4 | | | | | | |
| **SPITS** | **Spitsbergen Ar** | **144.00** | **352** | PKhKP | PKPpre | 02 37 34.5 | |
| | comp=Z,28nm,0.7s,baz=40,slow=4.4,SNR=29 | | | | | | |
| **NEY** | **Neytrino** | **144.23** | **287** | *c* i*P*KIKP | **PKPdf** | **02 37 38.9** | **-0.3** |
| **KBZ** | **Khabaz** | **144.26** | **288** | PKP | PKPbc | 02 37 37.5 | +0.3 |
| | comp=Z,8.0nm,0.9s,baz=134,slow=1.5,SNR=18 | | | | | | |
| **KVAR** | **Kislovodsk Arr** | **144.46** | **288** | PKP | **PKPab** | **02 37 37.5** | **-0.4** |
| | comp=Z,16nm,1.1s,baz=137,slow=0.5,SNR=9.0 | | | | | | |
| **KIV** | **Kislovodsk** | **144.47** | **288** | *c* i*P*KIKP | **PKPab** | **02 37 36.4** | **-1.4** |
| KIV | | | | *e* | | 02 40 57.2 | |
| KIV | | | | *e*PPP | PPP | 02 44 05.6 | |
| KIV | | | | pmax | pmax | | |
| | comp=Z,64nm,2.0s | | | | | | |
| **KIV** | **Kislovodsk** | **144.47** | **288** | *e*PKPdf | PKPbc | 02 37 38.1 | 0.0 |
| KIV | | | | LR | LR | | |
| | comp=Z,680nm,20.0s | | | | | | |
| **KIV** | **Kislovodsk** | **144.47** | **288** | P | **PKPab** | **02 37 37.3** | **-0.5** |
| | SNR=15 | | | | | | |
| **GOF** | **Gofitskoye** | **144.54** | **290** | ⇑*e*PKIKP | **PKPab** | **02 37 37.7** | **-0.2** |
| GOF | | | | pmax | pmax | | |
| | comp=Z,91nm,1.0s | | | | | | |
| **ILULI** | **Ilulissat** | **145.87** | **26** | ⇑*i*PKP2 | **PKPdf** | **02 37 40.8** | **-0.1** |
| **ILULI** | **Ilulissat** | **145.87** | **26** | ⇑*i*P | **PKPdf** | **02 37 40.8** | **-0.1** |
| **DAG** | **Danmarks Havn** | **146.29** | **5** | ⇑*i*PKIKP | **PKPdf** | **02 37 40.8** | **-0.7** |
| **DAG** | **Danmarks Havn** | **146.29** | **5** | ⇑*i*P | **PKPdf** | **02 37 40.8** | **-0.7** |
| **SOC** | **Sochi** | **146.42** | **287** | *e*PKP2 | **PKPdf** | **02 37 43.2** | **+0.5** |
| SOC | | | | *e* | | 02 41 06.0 | |
| SOC | | | | *e*SSS | SSS | 03 05 35.4 | |
| SOC | | | | pmax | pmax | | |
| | comp=Z,35nm,1.2s | | | | | | |
| SOC | | | | pmax | pmax | | |
| | comp=Z,36nm,1.0s | | | | | | |
| **VRH** | **Novokhopyorsk** | **146.58** | **301** | *e*PKIKP | **PKPdf** | **02 37 41.7** | **-1.0** |
| VRH | | | | pmax | pmax | | |
| | comp=Z,60nm,1.0s | | | | | | |
| **SFJD** | **Kangerlussuaq** | **146.96** | **30** | *i* PKP2 | **PKPdf** | **02 37 44.2** | **+1.4** |
| **SFJD** | **Kangerlussuaq** | **146.96** | **30** | *i* P | **PKPdf** | **02 37 44.2** | **+1.4** |
| **SFJD** | **Kangerlussuaq** | **146.96** | **30** | *e*PKPbc | **PKPdf** | **02 37 43.5** | **+0.7** |
| SFJD | | | | LR | LR | | |
| | comp=Z,3μm,19.0s | | | | | | |
| **LVZ** | **Lovozero** | **147.19** | **332** | *c* i*P*KP2 | **PKPdf** | **02 37 44.4** | **+1.1** |
| **LVZ** | **Lovozero** | **147.19** | **332** | *e*PKPbc | PKPbc | **02 37 44.6** | **-1.0** |
| LVZ | | | | LR | LR | | |
| | comp=Z,1μm,20.0s | | | | | | |
| **SUMG** | **Summit** | **147.29** | **17** | ⇑*i*PKP2 | **PKPbc** | **02 37 45.9** | **-0.3** |
| **SUMG** | **Summit** | **147.29** | **17** | ⇑*i*P | **PKPbc** | **02 37 45.9** | **-0.3** |
| **SUMG** | **Summit** | **147.29** | **17** | *e*PKPbc | PKPbc | **02 37 45.7** | **-0.5** |
| **TMCR** | **Tamitsa** | **147.31** | **325** | *e*PKIKP | **PKPdf** | **02 37 42.5** | **-1.0** |
| TMCR | | | | pmax | pmax | | |
| | comp=Z,159nm,1.4s | | | | | | |
| **KLMR** | **Klimovskoe** | **147.45** | **319** | *e*PKHKP | PKPpre | 02 37 41.6 | |
| KLMR | | | | pmax | pmax | | |
| | comp=Z,340nm,1.0s | | | | | | |
| **APA** | **Apatity** | **147.77** | **332** | ⇑*i*PKP2 | **PKPdf** | **02 37 45.3** | **+1.1** |
| APA | | | | pmax | pmax | | |
| | comp=Z,72nm,0.8s | | | | | | |
| APA | | | | MLR | MLR | | |
| | comp=Z,2μm,23.0s | | | | | | |
| **CSS** | **Mathiatis** | **147.80** | **268** | *e*PKPbc | **PKPbc** | **02 37 48.0** | **-0.3** |
| CSS | | | | LR | LR | | |
| | comp=Z,412nm,21.0s | | | | | | |
| **VSR** | **Storozhevoye** | **148.18** | **300** | *e*PKIKP | **PKPdf** | **02 37 46.8** | **+1.4** |
| VSR | | | | pmax | pmax | | |
| | comp=Z,100nm,1.4s | | | | | | |
| **VORR** | **Voronezh** | **148.19** | **301** | *e*PKIKP | **PKPdf** | **02 37 45.0** | **-0.4** |
| VORR | | | | pmax | pmax | | |
| | comp=Z,500nm,1.8s | | | | | | |
| **SACV** | **Santiago Islan** | **148.24** | **149** | PFAKE | | 02 38 00.0 | +7.1 |
| SACV | | | | LR | LR | | |
| | comp=Z,422nm,20.0s | | | | | | |
| **ANN** | **Anapa** | **148.32** | **288** | *e*PKHKP | PKPpre | 02 37 40.8 | |
| ANN | | | | *i* | | 02 37 48.5 | |
| ANN | | | | *e* | | 02 41 16.9 | |
| ANN | | | | *e* | | 02 44 50.3 | |
| ANN | | | | pmax | pmax | | |
| | comp=Z,79nm,1.5s | | | | | | |
| ANN | | | | pmax | pmax | | |
| | comp=Z,125nm,1.8s | | | | | | |
| **LPSR** | **Galich'ya Gora** | **148.41** | **303** | *e*PKP2 | **PKPbc** | **02 37 47.7** | **-1.5** |
| LPSR | | | | pmax | pmax | | |
| | comp=Z,80nm,1.2s | | | | | | |
| **KEV** | **Kevo** | **148.53** | **338** | *e*PKP2 | **PKPbc** | **02 37 48.1** | **-1.0** |
| KEV | | | | MLR | MLR | | |
| | comp=Z,1μm,22.0s | | | | | | |
| **KEV** | **Kevo** | **148.53** | **338** | *e*PKPbc | **PKPbc** | **02 37 48.0** | **-1.0** |
| KEV | | | | LR | LR | | |
| | comp=Z,1μm,22.0s | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **148.80** | **197** | PKP | **PKPdf** | **02 37 46.9** | **-0.7** |
| | comp=Z,18nm,1.0s,baz=158,slow=0.7,SNR=23 | | | | | | |
| TORD | | | | PKPbc | **PKPbc** | **02 37 51.9** | **+0.6** |
| | comp=Z,18nm,1.0s,baz=158,slow=1.2,SNR=34 | | | | | | |
| **ARCES** | **ARCESS Array B** | **149.07** | **338** | PKPbc | **PKPbc** | **02 37 50.0** | **-0.4** |
| | comp=Z,22nm,0.7s,baz=64,slow=1.8,SNR=65 | | | | | | |
| **MOS** | **Moscow** | **149.11** | **309** | *e*PKP2 | **PKPbc** | **02 37 49.4** | **-1.5** |
| MOS | | | | pmax | pmax | | |
| | comp=Z,189nm,1.1s | | | | | | |
| MOS | | | | pmax | pmax | | |
| | comp=Z,2μm,4.2s | | | | | | |
| MOS | | | | MLR | MLR | | |
| | comp=Z,2μm,23.0s | | | | | | |
| **BRTR** | **Keskin Array B** | **149.53** | **277** | PKPbc | **PKPbc** | **02 37 51.7** | **-1.0** |
| | comp=Z,14nm,0.7s,baz=134,slow=3.6,SNR=19 | | | | | | |
| **OBN** | **Obninsk** | **149.76** | **308** | *ce*PKIKP | **PKPdf** | **02 37 46.5** | **-1.3** |
| OBN | | | | *i* | | 02 37 52.0 | |
| OBN | | | | *e* | | 02 41 28.9 | |
| OBN | | | | *e* | | 02 44 49.1 | |
| OBN | | | | *i* SS | SS | 03 00 36.2 | -5.9 |
| OBN | | | | pmax | pmax | | |
| | comp=Z,28nm,1.6s | | | | | | |
| OBN | | | | pmax | pmax | | |
| | comp=Z,454nm,1.5s | | | | | | |
| **OBN** | **Obninsk** | **149.76** | **308** | *e*PKPbc | **PKPbc** | **02 37 52.0** | **-0.5** |
| OBN | | | | *e*PKPab | **PKPab** | **02 37 56.9** | **-1.1** |
| OBN | | | | LR | LR | | |
| | comp=Z,1μm,20.0s | | | | | | |
| **BBTS** | **Babate** | **150.13** | **161** | PKP | **PKPdf** | **02 37 49.6** | **0.0** |
| | comp=Z,40nm,1.0s,baz=266,slow=3.0,SNR=2.8 | | | | | | |
| BBTS | | | | PKPbc | **PKiKP** | **02 37 55.4** | **0.0** |
| | comp=Z,80nm,0.9s,baz=262,slow=1.7,SNR=9.4 | | | | | | |
| **ANTO** | **Ankara** | **150.19** | **277** | *e*PKIKP | **PKPbc** | **02 37 53.5** | **-0.7** |
| ANTO | | | | MLR | MLR | | |
| | comp=Z,807nm,22.0s | | | | | | |
| **ANTO** | **Ankara** | **150.19** | **277** | *e*PKPbc | **PKPbc** | **02 37 53.5** | **-0.7** |
| ANTO | | | | LR | LR | | |
| | comp=Z,807nm,22.0s | | | | | | |
| **ANTO** | **Ankara** | **150.19** | **277** | P | **PKPbc** | **02 37 53.3** | **-0.9** |
| | SNR=12 | | | | | | |
| **SIM** | **Simferopol'** | **150.66** | **287** | *e*PKIKP | **PKPdf** | **02 37 47.9** | **-1.7** |
| SIM | | | | pmax | pmax | | |
| | comp=Z,23nm,0.8s | | | | | | |
| SIM | | | | pmax | pmax | | |
| | comp=Z,140nm,10.5s | | | | | | |
| **NRS** | **Narsarsuaq** | **151.26** | **39** | *i* PKIKP | **PKPbc** | **02 37 55.3** | **-0.6** |
| **NRS** | **Narsarsuaq** | **151.26** | **39** | *i* P | **PKPbc** | **02 37 55.3** | **-0.6** |
| **SCO** | **Scoresbysund** | **151.95** | **11** | *i* PKIKP | **PKPbc** | **02 37 57.2** | **0.0** |
| **SCO** | **Scoresbysund** | **151.95** | **11** | *i* P | **PKPbc** | **02 37 57.2** | **0.0** |
| **FINES** | **FINESS Array B** | **153.42** | **324** | PKPbc | **PKPbc** | **02 38 00.1** | **-0.6** |
| | comp=Z,14nm,0.6s,baz=74,slow=3.6,SNR=50 | | | | | | |
| **IDI** | **Anoyia** | **154.07** | **262** | PKPbc | **PKPbc** | **02 38 03.4** | **+0.2** |
| | comp=Z,20nm,0.8s,baz=91,slow=5.0,SNR=16 | | | | | | |
| **SANT** | **Santorini** | **154.16** | **265** | PFAKE | | 02 38 10.0 | +6.8 |
| SANT | | | | LR | LR | | |
| | comp=Z,883nm,20.0s | | | | | | |
| **AKASG** | **Malin Array Be** | **154.46** | **299** | PKP | **PKPdf** | **02 37 54.4** | **-0.6** |
| | comp=Z,2.8nm,0.8s,baz=73,slow=1.0,SNR=8.7 | | | | | | |
| AKASG | | | | PKPbc | **PKPbc** | **02 38 02.9** | **-0.4** |
| | comp=Z,15nm,0.9s,baz=70,slow=2.9,SNR=16 | | | | | | |
| **KIEV** | **Kiev** | **154.47** | **299** | *c* i*P*KIKP | **PKPbc** | **02 38 02.9** | **-0.4** |
| KIEV | | | | pmax | pmax | | |
| | comp=Z,19nm,1.0s | | | | | | |
| **KIEV** | **Kiev** | **154.47** | **299** | *e*PKPbc | **PKPbc** | **02 38 02.2** | **-1.1** |
| KIEV | | | | *e*PKPab | **PKPab** | **02 38 16.2** | **-1.6** |
| KIEV | | | | LR | LR | | |
| | comp=Z,1μm,22.0s | | | | | | |
| **KIS** | **Kishinev** | **154.62** | **290** | *e*PKP | **PKPdf** | **02 37 59.0** | **+3.7** |
| KIS | | | | LRM | MLR | 03 51 00.0 | |
| | comp=Z,400nm,24.0s | | | | | | |
| **KIS** | **Kishinev** | **154.62** | **290** | *e*PKIKP | **PKPdf** | **02 37 59.0** | **+3.7** |
| **MICGM** | **Minsk** | **154.82** | **308** | *e*PKP | **PKPdf** | **02 37 54.0** | **-1.3** |
| MICGM | | | | *e*PP | PP | 02 41 22.0 | -34 |
| MICGM | | | | *e*PPP | PPP | 02 44 46.0 | |
| MICGM | | | | *e*SKKS | | 02 47 34.0 | |
| MICGM | | | | *e*PS | | 02 52 16.0 | |
| MICGM | | | | *e*LR | LR | 03 48 30.0 | |
| **MNK** | **Minsk** | **154.82** | **308** | *e*PKIKP | **PKPdf** | **02 37 54.0** | **-1.3** |
| **CFR** | **Carcaliu** | **154.87** | **286** | ⇓*i*P | **PKPbc** | **02 38 06.7** | **+2.3** |
| **CFR** | **Carcaliu** | **154.87** | **286** | ⇓*i*PKIKP | **PKPbc** | **02 38 06.7** | **+2.3** |
| **LEOM** | **Leova** | **154.96** | **289** | ⇑*i*P | **PKPdf** | **02 37 58.3** | **+2.5** |
| **LEOM** | **Leova** | **154.96** | **289** | ⇑*i*PKIKP | **PKPdf** | **02 37 58.3** | **+2.5** |
| **SORM** | **Soroca** | **155.01** | **293** | ⇓*i*P | **PKPdf** | **02 37 57.9** | **+2.1** |
| **SORM** | **Soroca** | **155.01** | **293** | ⇓*i*PKIKP | **PKPdf** | **02 37 57.9** | **+2.1** |
| **IDID** | **Didziasalis** | **155.28** | **310** | *e*P | **PKPdf** | **02 38 02.8** | **+6.9** |
| IDID | | | | IAmb | IAmb | 02 38 10.7 | |
| | comp=Z,17nm,1.2s | | | | | | |
| **NACGM** | **Naroch** | **155.36** | **309** | *e* | **PKPdf** | **02 37 57.0** | **+1.0** |
| NACGM | | | | *e*LQ | LQ | 03 46 32.0 | |
| **IZAR** | **Zarasai** | **155.44** | **312** | *e*P | **PKPdf** | **02 37 57.8** | **+1.6** |
| IZAR | | | | IAmb | IAmb | 02 38 13.6 | |
| | comp=Z,9.8nm,1.1s | | | | | | |
| **IIGN** | **Ignalina** | **155.56** | **311** | *e*P | **PKPdf** | **02 38 03.3** | **+7.0** |
| IIGN | | | | IAmb | IAmb | 02 38 11.4 | |
| | comp=Z,20nm,1.1s | | | | | | |
| **TAM** | **Tamanrasset** | **156.84** | **211** | *e*PKIKP | **PKPdf** | **02 37 59.3** | **0.0** |
| TAM | | | | MLR | MLR | | |
| | comp=Z,2μm,19.0s | | | | | | |
| **TAM** | **Tamanrasset** | **156.84** | **211** | *e*PKPdf | **PKPdf** | **02 37 59.2** | **0.0** |
| TAM | | | | *e*PKPab | **PKPab** | **02 38 28.9** | **0.0** |
| TAM | | | | LR | LR | | |
| | comp=Z,2μm,19.0s | | | | | | |
| **DOPR** | **Dopca** | **156.88** | **287** | ⇑*i*P | **PKPdf** | **02 38 05.7** | **+7.3** |
| **BURAR** | **Bucovina Array** | **157.10** | **292** | ⇑*i*P | **PKPdf** | **02 38 02.4** | **+3.6** |
| **ARR** | **Arges** | **157.34** | **286** | ⇓*i*P | **PKPdf** | **02 37 57.8** | **-1.3** |
| **ARCR** | **ARCALIA** | **157.67** | **290** | ⇑*i*P | **PKPdf** | **02 38 02.4** | **+3.0** |
| **ARCR** | **ARCALIA** | **157.67** | **290** | ⇑*i*P | **PKPdf** | **02 38 02.4** | **+3.0** |
| **LVV** | **L'vov** | **157.84** | **297** | *e*PKIKP | **PKPdf** | **02 37 57.0** | **-2.5** |
| **VTS** | **Vitosha** | **157.89** | **278** | ⇑*i*P | PKPdf | 02 38 08.2 | +8.2 |
| **VTS** | **Vitosha** | **157.89** | **278** | ⇑*i*PKIKP | PKPdf | 02 38 08.2 | +8.2 |
| **LOT** | **Lotru** | **157.96** | **286** | ⇑*i*P | **PKPdf** | **02 38 02.6** | **+2.7** |
| **CJR** | **Cluj-Napoca** | **158.17** | **289** | ⇑*i*P | PKPdf | 02 38 08.8 | +8.8 |
| **CJR** | **Cluj-Napoca** | **158.17** | **289** | ⇑*i*PKIKP | PKPdf | 02 38 08.8 | +8.8 |
| **KWP** | **Kalwaria Pacla** | **158.71** | **297** | *e*PKP | **PKPdf** | **02 37 60.0** | **-0.6** |
| **KWP** | **Kalwaria Pacla** | **158.71** | **297** | *e*PKIKP | **PKPdf** | **02 37 59

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **KSP** | **Ksiaz** | **162.54 303** | *e*PKP | **PKPdf** | **02 38 03.8** | **-0.9** | |
| **KSP** | **Ksiaz** | **162.54 303** | *e*PKIKP | **PKPdf** | **02 38 03.8** | **-0.9** | |
| **CUC** | **Castrococco** | **162.56 266** | PFAKE | | 02 38 20.0 | +15 | |
| CUC | | | LR | LR | | | |
| | comp=Z,1μm,21.0s | | | | | | |
| **DPC** | **Dobruska-Polom** | **162.65 301** | *e*PKPDF | **PKPdf** | **02 38 03.5** | **-1.4** | |
| DPC | | | *e*PKPAB | **PKPab** | **02 38 54.2** | **+0.8** | |
| DPC | | | *e*PP | **PP** | **02 42 39.5** | **+1.0** | |
| DPC | | | *ex* | x | 03 03 13.6 | | |
| **DPC** | **Dobruska-Polom** | **162.65 301** | *e*PKIKP | **PKPdf** | **02 38 03.5** | **-1.4** | |
| DPC | | | *e* | | 02 42 39.5 | | |
| **VRAC** | **Vranov** | **162.70 298** | ⇑*i*P | **PKPdf** | **02 38 08.3** | **+3.4** | |
| **VRAC** | **Vranov** | **162.70 298** | ⇑PKIKP | **PKPdf** | **02 38 08.3** | **+3.4** | |
| **UPC** | **Upice** | **162.80 302** | *e*PKPDF | **PKPdf** | **02 38 03.9** | **-1.0** | |
| UPC | | | AMS | AMS | 03 56 40.0 | | |
| | comp=Z,2μm,19.6s | | | | | | |
| **UPC** | **Upice** | **162.80 302** | *e*PKIKP | **PKPdf** | **02 38 03.9** | **-1.0** | |
| UPC | | | MLR | MLR | | | |
| | comp=Z,2μm,19.6s | | | | | | |
| **SOP** | **Sopron** | **162.95 292** | ⇑*e*PKPdf | **PKPdf** | **02 38 03.0** | **-2.2** | |
| **CONA** | **Conrad Observa** | **163.39 293** | *e*PKPdf | **PKPdf** | **02 38 03.9** | **-1.8** | |
| | comp=Z,8.9nm,1.3s | | | | | | |
| CONA | | | *i* PP | **PP** | **02 42 40.0** | **-2.7** | |
| **CLTB** | **Caltabellotta** | **163.47 256** | PFAKE | | 02 38 20.0 | +14 | |
| CLTB | | | LR | LR | | | |
| | comp=Z,1μm,20.0s | | | | | | |
| **PVCC** | **Panska Ves** | **163.68 303** | *e*PKPDF | **PKPdf** | **02 38 05.7** | **-0.1** | |
| PVCC | | | AMS | AMS | 03 52 20.0 | | |
| | comp=Z,1μm,20.4s | | | | | | |
| **PVCC** | **Panska Ves** | **163.68 303** | *e*PKIKP | **PKPdf** | **02 38 05.7** | **-0.1** | |
| PVCC | | | MLR | MLR | | | |
| | comp=Z,1μm,20.4s | | | | | | |
| **ARSA** | **Arzberg** | **163.69 291** | *i* PKPdf | **PKPdf** | **02 38 04.2** | **-1.7** | |
| | comp=Z,21nm,1.6s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **163.72 301** | AMS | AMS | 03 56 20.0 | | |
| | comp=Z,2μm,20.2s | | | | | | |
| **DOBS** | **Dobrina** | **163.78 287** | *e*PKPdf | **PKPdf** | **02 38 03.5** | **-2.5** | |
| **PRU** | **Pruhonice** | **163.85 301** | *e*PKPDF | **PKPdf** | **02 38 03.8** | **-2.1** | |
| PRU | | | *e*PKPAB | **PKPab** | **02 38 59.2** | **+0.6** | |
| PRU | | | *e*SS | SS | 03 03 19.4 | +5.8 | |
| PRU | | | AMS | AMS | 03 57 20.0 | | |
| | comp=Z,2μm,19.5s | | | | | | |
| **PRU** | **Pruhonice** | **163.85 301** | *e*PKIKP | **PKPdf** | **02 38 03.8** | **-2.1** | |
| PRU | | | MLR | MLR | | | |
| | comp=Z,2μm,19.5s | | | | | | |
| **BRG** | **Berggiesshubel** | **163.95 305** | *i* PKP | **PKPdf** | **02 38 05.9** | **-0.1** | |
| | comp=Z,18nm,1.5s | | | | | | |
| BRG | | | *i* | | 02 38 59.3 | | |
| | comp=Z,18nm,1.0s | | | | | | |
| | comp=Z,1μm,21.3s | | | | | | |
| | comp=N,1μm,20.7s | | | | | | |
| | comp=E,1μm,20.7s | | | | | | |
| **BRG** | **Berggiesshubel** | **163.95 305** | *i* PKIKP | **PKPdf** | **02 38 05.9** | **-0.1** | |
| BRG | | | pmax | pmax | | | |
| | comp=Z,18nm,1.5s | | | | | | |
| BRG | | | pmax | pmax | | | |
| | comp=Z,18nm,1.0s | | | | | | |
| BRG | | | MLR | MLR | | | |
| | comp=Z,1μm,21.3s | | | | | | |
| BRG | | | MLR | MLR | | | |
| | comp=E,1μm,20.7s | | | | | | |
| **SOKA** | **Soboth** | **164.06 289** | *i* PKPdf | **PKPdf** | **02 38 04.9** | **-1.5** | |
| | comp=E,30nm,1.2s | | | | | | |
| **CLL** | **Collm** | **164.35 307** | *i* PKIKP | **PKPdf** | **02 38 05.4** | **-0.9** | |
| CLL | | | pmax | pmax | | | |
| | comp=Z,16nm,1.1s | | | | | | |
| CLL | | | pmax | pmax | | | |
| | comp=Z,27nm,1.3s | | | | | | |
| CLL | | | MLR | MLR | | | |
| | comp=Z,2μm,18.4s | | | | | | |
| **CLL** | **Collm** | **164.35 307** | *i* PKPdf | **PKPdf** | **02 38 05.4** | **-0.9** | |
| | comp=Z,16nm,1.1s | | | | | | |
| CLL | | | *i* PKPab | **PKPab** | **02 39 00.8** | **0.0** | |
| | comp=Z,27nm,1.3s | | | | | | |
| CLL | | | *e*SS | SS | 03 03 23.0 | +4.4 | |
| CLL | | | *e*SSS | SSS | 03 09 55.0 | | |
| CLL | | | L | L | 04 04 00.0 | | |
| | comp=Z,2μm,18.4s | | | | | | |
| **LJU** | **Ljubljana** | **164.44 287** | *e*PKPdf | **PKPdf** | **02 38 04.9** | **-1.7** | |
| **MOA** | **Molln** | **164.47 294** | *i* PKPdf | **PKPdf** | **02 38 04.8** | **-1.8** | |
| | comp=Z,13nm,1.8s | | | | | | |
| **GERES** | **GERESS Array B** | **164.66 298** | PKP | **PKPdf** | **02 38 04.5** | **-2.4** | |
| | comp=Z,2.9nm,0.9s,baz=108,slow=4.3,SNR=7.9 | | | | | | |
| GERES | | | PKPab | **PKPab** | **02 39 02.7** | **+0.3** | |
| | comp=Z,1.8nm,0.8s,baz=64,slow=2.3,SNR=4.6 | | | | | | |
| **KHC** | **Kasperske Hory** | **164.67 299** | *e*PKPDF | **PKPdf** | **02 38 04.2** | **-2.5** | |
| KHC | | | *ex* | x | 02 38 09.3 | | |
| KHC | | | *ex* | x | 02 38 57.0 | | |
| KHC | | | *e*PKPAB | **pPKPab** | **02 39 04.0** | **-1.7** | |
| KHC | | | *e*PP | **PP** | **02 42 49.6** | **+0.4** | |
| KHC | | | AMS | AMS | 03 56 20.0 | | |
| | comp=Z,2μm,23.1s | | | | | | |
| **KHC** | **Kasperske Hory** | **164.67 299** | *e*PKIKP | **PKPdf** | **02 38 04.2** | **-2.5** | |
| KHC | | | *e* | | 02 38 09.3 | | |
| KHC | | | *e* | | 02 42 49.6 | | |
| KHC | | | MLR | MLR | | | |
| | comp=Z,2μm,23.1s | | | | | | |
| **KHC** | **Kasperske Hory** | **164.67 299** | *e*PKPdf | **PKPdf** | **02 38 04.3** | **-2.5** | |
| **CMLA** | **Cha da Macela** | **164.89 106** | PFAKE | | 02 38 20.0 | +13 | |
| CMLA | | | LR | LR | | | |
| | comp=Z,2μm,22.0s | | | | | | |
| **AQU** | **L'Aquila** | **164.94 273** | *e*PKP2 | **PKPab** | **02 39 03.7** | **-0.1** | |
| AQU | | | MLR | MLR | | | |
| | comp=Z,2μm,22.0s | | | | | | |
| **AQU** | **L'Aquila** | **164.94 273** | *e*PKPab | **PKPab** | **02 39 03.7** | **-0.1** | |
| AQU | | | LR | LR | | | |
| | comp=Z,2μm,22.0s | | | | | | |
| **MYKA** | **Terra Mystica** | **165.02 289** | *i* PKPdf | **PKPdf** | **02 38 06.1** | **-1.1** | |
| | comp=Z,11nm,1.7s | | | | | | |
| **NKC** | **Novy Kostel** | **165.06 304** | *e*PKPDF | **PKPdf** | **02 38 06.6** | **-0.4** | |
| NKC | | | AMS | AMS | 03 55 00.0 | | |
| | comp=Z,2μm,21.0s | | | | | | |
| **NKC** | **Novy Kostel** | **165.06 304** | *e*PKIKP | **PKPdf** | **02 38 06.6** | **-0.4** | |
| NKC | | | MLR | MLR | | | |
| | comp=Z,2μm,21.0s | | | | | | |
| **KEST** | **Kesra** | **165.15 244** | PKP | **PKPdf** | **02 38 11.5** | **+3.8** | |
| | comp=Z,12nm,1.0s,baz=226,slow=7.6,SNR=5.6 | | | | | | |
| KEST | | | PKPab | **PKPab** | **02 39 05.7** | **+0.9** | |
| | comp=Z,29nm,0.9s,baz=230,slow=1.1,SNR=9.6 | | | | | | |
| **ABTA** | **Abfaltersbach** | **165.79 290** | *i* PKPdf | **PKPdf** | **02 38 05.8** | **-2.0** | |
| | comp=Z,15nm,1.4s | | | | | | |
| **GRFO** | **Grafenberg** | **165.99 303** | *e*PKIKP | **PKPdf** | **02 38 07.6** | **-0.2** | |
| **GRFO** | **Grafenberg** | **165.99 303** | *e*PKPdf | **PKPdf** | **02 38 07.6** | **-0.2** | |
| **WTTA** | **Wattenberg** | **166.31 292** | *i* PKPdf | **PKPdf** | **02 38 07.9** | **-0.5** | |
| | comp=Z,32nm,1.9s | | | | | | |
| **MOTA** | **Moosalm** | **166.66 293** | *i* PKPdf | **PKPdf** | **02 38 07.0** | **-1.6** | |
| | comp=Z,5.6nm,0.8s | | | | | | |
| **PMOZ** | **Porto Moniz, M** | **166.70 140** | *e*LR | LR | 03 37 00.6 | | |
| | comp=Z,893nm,18.0s | | | | | | |
| **RETA** | **Reutte** | **166.86 294** | *i* PKPdf | **PKPdf** | **02 38 07.0** | **-1.7** | |
| | comp=Z,13nm,1.8s | | | | | | |
| **FETA** | **Feichten** | **166.97 292** | *i* PKPdf | **PKPdf** | **02 38 07.4** | **-1.4** | |
| | comp=Z,20nm,1.3s | | | | | | |
| **VSL** | **Villasalto** | **167.01 258** | PFAKE | | 02 38 20.0 | +11 | |
| VSL | | | LR | LR | | | |
| | comp=Z,2μm,20.0s | | | | | | |
| **VLC** | **Villacollemand** | **167.35 279** | PFAKE | | 02 38 20.0 | +11 | |
| VLC | | | LR | LR | | | |
| | comp=Z,1μm,21.0s | | | | | | |
| **DAVA** | **Damuels** | **167.49 293** | *i* PKPdf | **PKPdf** | **02 38 07.7** | **-1.6** | |
| | comp=Z,36nm,1.7s | | | | | | |
| **STU** | **Stuttgart** | **167.54 301** | *e*PKIKP | **PKPdf** | **02 38 08.0** | **-1.0** | |
| STU | | | *e* | | 02 39 14.2 | | |
| **STU** | **Stuttgart** | **167.54 301** | *e*PKPdf | **PKPdf** | **02 38 08.0** | **-1.0** | |
| STU | | | *e*PKPab | **PKPab** | **02 39 14.2** | **-0.8** | |
| **DAVOX** | **Davos/Dischmat** | **167.58 291** | PKP | **PKPdf** | **02 38 09.3** | **-0.1** | |
| | comp=Z,4.3nm,0.8s,baz=42,slow=4.6,SNR=11 | | | | | | |
| DAVOX | | | PKPab | **PKPab** | **02 39 14.9** | **-0.6** | |
| | comp=Z,16nm,0.7s,baz=104,slow=4.2,SNR=14 | | | | | | |
| **DAVOX** | **Davos/Dischmat** | **167.58 291** | PKIKP | **PKPdf** | **02 38 09.3** | **-0.1** | |
| DAVOX | | | | | 02 39 14.9 | | |
| DAVOX | | | pmax | pmax | | | |
| | comp=Z,6.0nm,0.9s | | | | | | |
| DAVOX | | | pmax | pmax | | | |
| | comp=Z,16nm,0.7s | | | | | | |
| **ESK** | **Eskdalemuir** | **167.92 349** | PFAKE | | 02 38 20.0 | +11 | |
| ESK | | | LR | LR | | | |
| | comp=Z,3μm,21.0s | | | | | | |
| **TUE** | **Stuetta** | **167.99 290** | *e*PKPdf | **PKPdf** | **02 38 08.6** | **-1.1** | |
| TUE | | | *e*PKPab | **PKPab** | **02 39 16.1** | **-1.2** | |
| TUE | | | LR | LR | | | |
| | comp=Z,2μm,20.0s | | | | | | |
| **BFO** | **Black Forest** | **168.23 299** | PFAKE | | 02 38 20.0 | +10 | |
| BFO | | | LR | LR | | | |
| | comp=Z,2μm,20.0s | | | | | | |
| **LANF** | **Langenberg** | **168.33 303** | PKP | **PKPdf** | **02 38 07.4** | **-2.2** | |
| **MEM** | **Membach** | **168.60 313** | PKP | **PKPdf** | **02 38 13.6** | **+3.9** | |
| **ECH** | **Echery** | **169.01 300** | PKP | **PKPdf** | **02 38 08.9** | **-1.1** | |
| **ECH** | **Echery** | **169.01 300** | PFAKE | | 02 38 20.0 | +10 | |
| ECH | | | LR | LR | | | |
| | comp=Z,2μm,19.0s | | | | | | |
| **WLF** | **Walferdange** | **169.01 309** | PKP | **PKPdf** | **02 38 09.4** | **-0.5** | |
| **WLF** | **Walferdange** | **169.01 309** | *e*PKIKP | **PKPdf** | **02 38 09.5** | **-0.5** | |
| WLF | | | MLR | MLR | | | |
| | comp=Z,3μm,21.0s | | | | | | |
| **WLF** | **Walferdange** | **169.01 309** | *e*PKPdf | **PKPdf** | **02 38 09.5** | **-0.5** | |
| WLF | | | LR | LR | | | |
| | comp=Z,3μm,21.0s | | | | | | |
| **BCLA** | **Clavier** | **169.08 314** | PKP | **PKPdf** | **02 38 12.6** | **+2.6** | |
| **MDT** | **Midelt** | **169.14 191** | PKP | **PKPdf** | **02 38 11.2** | **+0.5** | |
| | comp=Z,5.8nm,1.1s,baz=165,slow=0.7,SNR=11 | | | | | | |
| MDT | | | PKPab | **PKPab** | **02 39 23.0** | **+0.5** | |
| | comp=Z,6.4nm,0.9s,baz=222,slow=4.3,SNR=7.7 | | | | | | |
| **MOF** | **Molkenrain** | **169.14 298** | PKP | **PKPdf** | **02 38 07.9** | **-2.3** | |
| **DOU** | **Dourbes** | **169.64 313** | PKP | **PKPdf** | **02 38 11.4** | **+1.1** | |
| **THEF** | **They Montfort** | **169.74 302** | PKP | **PKPdf** | **02 38 08.9** | **-1.6** | |
| **BNI** | **Bardonecchia** | **170.00 284** | *e*PKIKP | **PKPdf** | **02 38 10.3** | **-0.6** | |
| BNI | | | MLR | MLR | | | |
| | comp=Z,3μm,22.0s | | | | | | |
| **BNI** | **Bardonecchia** | **170.00 284** | *e*PKPdf | **PKPdf** | **02 38 10.3** | **-0.6** | |
| BNI | | | LR | LR | | | |
| | comp=Z,3μm,22.0s | | | | | | |
| **SSB** | **Saint Sauveur** | **171.48 286** | *e*PKIKP | **PKPdf** | **02 38 10.6** | **-1.0** | |
| SSB | | | MLR | MLR | | | |
| | comp=Z,2μm,22.0s | | | | | | |
| **SSB** | **Saint Sauveur** | **171.48 286** | *e*PKPdf | **PKPdf** | **02 38 10.6** | **-1.0** | |
| SSB | | | LR | LR | | | |
| | comp=Z,2μm,22.0s | | | | | | |
| **PYM** | **Petit Puy Mans** | **172.45 291** | PKP | **PKPdf** | **02 38 11.4** | **-0.6** | |
| **MORF** | **Marmelete** | **173.68 169** | *e*P | **PKPdf** | **02 38 12.0** | **-0.8** | |
| MORF | | | AMS | AMS | 03 55 40.3 | | |
| | comp=Z,3μm,21.1s | | | | | | |
| **MORF** | **Marmelete** | **173.68 169** | *e*PKIKP | **PKPdf** | **02 38 12.0** | **-0.8** | |
| **MORF** | **Marmelete** | **173.68 169** | *e*PKPdf | **PKPdf** | **02 38 13.9** | **+1.1** | |
| **MORF** | **Marmelete** | **173.68 169** | *e*PKP | **PKPdf** | **02 38 18.2** | **+5.4** | |
| **PBDV** | **Barranco-do-Ve** | **173.70 174** | *e*PKPdf | **PKPdf** | **02 38 14.0** | **+1.3** | |
| **PBDV** | **Barranco-do-Ve** | **173.70 174** | *e*PKP | **PKPdf** | **02 38 19.1** | **+6.4** | |
| **PBDV** | **Barranco-do-Ve** | **173.70 174** | *e*PP | PP | 02 43 35.3 | +1.6 | |
| **PVAQ** | **Vaqueiros** | **173.87 175** | *e*PKPdf | **PKPdf** | **02 38 13.2** | **+0.4** | |
| **PVAQ** | **Vaqueiros** | **173.87 175** | *e*PKPab | **PKPab** | **02 39 44.3** | **+1.2** | |
| **PVAQ** | **Vaqueiros** | **173.87 175** | *e*PP | PP | 02 43 35.9 | +1.4 | |
| **PVAQ** | **Vaqueiros** | **173.87 175** | *e*LR | LR | 03 46 44.5 | | |
| | comp=Z,3μm,20.0s | | | | | | |
| **PCVE** | **Castro Verde** | **174.08 173** | *e*PKPdf | **PKPdf** | **02 38 13.6** | **+0.8** | |
| **PCVE** | **Castro Verde** | **174.08 173** | *e*PKP | **PKPdf** | **02 38 19.0** | **+6.2** | |
| **MESJ** | **Messejana** | **174.26 171** | *e*P | **PKPdf** | **02 38 12.2** | **-0.6** | |
| MESJ | | | AMS | AMS | 03 56 45.7 | | |
| | comp=Z,3μm,21.9s | | | | | | |
| **MESJ** | **Messejana** | **174.26 171** | *e*PKIKP | **PKPdf** | **02 38 12.2** | **-0.6** | |
| **MESJ** | **Messejana** | **174.26 171** | *e*PKPdf | **PKPdf** | **02 38 16.9** | **+4.0** | |
| **MESJ** | **Messejana** | **174.26 171** | *e*PKPab | **PKPab** | **02 39 45.9** | **+1.1** | |
| **MESJ** | **Messejana** | **174.26 171** | *e*PP | PP | 02 43 36.8 | +0.3 | |
| **PBEJ** | **Beja** | **174.48 174** | *e*PKP | **PKPdf** | **02 38 13.9** | **+0.9** | |
| **PNCL** | **Nicolau / Gran** | **174.49 168** | *e*PKPdf | **PKPdf** | **02 38 12.8** | **-0.1** | |
| **PNCL** | **Nicolau / Gran** | **174.49 168** | *e*PKPab | **PKPab** | **02 39 47.5** | **+1.7** | |
| **PNCL** | **Nicolau / Gran** | **174.49 168** | *e*PP | PP | 02 43 36.2 | -1.4 | |
| **PBAR** | **Barrancos** | **174.66 181** | *e*PKPdf | **PKPdf** | **02 38 13.8** | **+0.8** | |
| **PBAR** | **Barrancos** | **174.66 181** | *e*PKP | **PKPdf** | **02 38 18.9** | **+5.9** | |
| **PBAR** | **Barrancos** | **174.66 181** | *e*PP | PP | 02 43 35.9 | -2.5 | |
| **EVO** | **Evora** | **174.97 172** | *e*PKPdf | **PKPdf** | **02 38 12.3** | **-0.8** | |
| **EVO** | **Evora** | **174.97 172** | *e*PKP | **PKPdf** | **02 38 19.1** | **+6.0** | |
| **EVO** | **Evora** | **174.97 172** | *e*PP | PP | 02 43 40.5 | +0.6 | |
| **PESTR** | **Estremoz** | **175.34 175** | *e*PKPdf | **PKPdf** | **02 38 13.7** | **+0.5** | |
| **PESTR** | **Estremoz** | **175.34 175** | *e*PKP | **PKPdf** | **02 38 18.7** | **+5.5** | |
| **PESTR** | **Estremoz** | **175.34 175** | *e*PP | PP | 02 43 39.8 | -1.9 | |
| **PMTG** | **Montargil** | **175.47 169** | *e*PKPdf | **PKPdf** | **02 38 12.8** | **-0.4** | |
| **PMTG** | **Montargil** | **175.47 169** | *e*PP | PP | 02 43 43.5 | +1.2 | |
| **ESDC** | **Sonseca Array** | **175.50 213** | PKP | **PKPdf** | **02 38 13.4** | **+0.2** | |
| | comp=Z,2.3nm,0.8s,baz=356,slow=1.7,SNR=16 | | | | | | |
| ESDC | | | PKPab | **PKPab** | **02 39 49.7** | **-0.8** | |
| | comp=Z,2.0nm,0.9s,baz=156,slow=3.2,SNR=4.4 | | | | | | |
| **PAB** | **San Pablo** | **175.53 208** | *e*PKIKP | **PKPdf** | **02 38 12.5** | **-0.8** | |
| PAB | | | MLR | MLR | | | |
| | comp=Z,3μm,22.0s | | | | | | |
| **PAB** | **San Pablo** | **175.53 208** | *e*PKPdf | **PKPdf** | **02 38 12.5** | **-0.8** | |
| PAB | | | LR | LR | | | |
| | comp=Z,3μm,22.0s | | | | | | |
| **PMRV** | **Marv??o** | **175.91 177** | *e*PKPdf | **PKPdf** | **02 38 14.3** | **+1.0** | |
| **PMRV** | **Marv??o** | **175.91 177** | *e*PP | PP | 02 43 43.5 | -0.9 | |
| **PTOM** | **Tomar** | **175.98 165** | *e*PKPdf | **PKPdf** | **02 38 13.4** | **+0.1** | |
| **PTOM** | **Tomar** | **175.98 165** | *e*PKP | **PKPdf** | **02 38 18.6** | **+5.3** | |
| **PTOM** | **Tomar** | **175.98 165** | *e*PP | PP | 02 43 46.8 | +2.0 | |
| **PCBR** | **Castelo Branco** | **176.31 175** | *e*PKPdf | **PKPdf** | **02 38 14.2** | **+0.8** | |
| **PCBR** | **Castelo Branco** | **176.31 175** | *e*PKP | **PKPdf** | **02 38 19.3** | **+5.9** | |
| **PCBR** | **Castelo Branco** | **176.31 175** | *e*PKPab | **PKPab** | **02 39 55.1** | **+1.1** | |
| **PCBR** | **Castelo Branco** | **176.31 175** | *e*PP | PP | 02 43 46.3 | 0.0 | |
| **COI** | **Coimbra** | **176.55 163** | *e*PKPdf | **PKPdf** | **02 38 09.9** | **-3.5** | |
| **MTE** | **Manteigas** | **176.87 174** | *e*PKPdf | **PKPdf** | **02 38 13.3** | **-0.2** | |
| MTE | | | *e*PKPab | **PKPab** | **02 39 55.6** | **-0.8** | |
| MTE | | | LR | LR | | | |
| | comp=Z,3μm,20.0s | | | | | | |
| **MTE** | **Manteigas** | **176.87 174** | *e*PKPdf | **PKPdf** | **02 38 13.6** | **0.0** | |
| **MTE** | **Manteigas** | **176.87 174** | *e*PKP | **PKPdf** | **02 38 19.1** | **+5.5** | |
| **MTE** | **Manteigas** | **176.87 174** | *e*LR | LR | 03 42 43.4 | | |
| | comp=Z,2μm,18.0s | | | | | | |
| **PVIS** | **Viseu** | **177.14 168** | *e*PKPdf | **PKPdf** | **02 38 14.1** | **+0.5** | |
| **PVIS** | **Viseu** | **177.14 168** | *e*PP | PP | 02 43 50.7 | +0.4 | |
| **MVO** | **Moncorvo** | **177.65 181** | *e*PKPdf | **PKPdf** | **02 38 14.2** | **+0.5** | |
| **MVO** | **Moncorvo** | **177.65 181** | *e*PKP | **PKPdf** | **02 38 18.5** | **+4.8** | |
| **MVO** | **Moncorvo** | **177.65 181** | *e*LR | LR | 03 43 03.7 | | |
| | comp=Z,2μm,20.0s | | | | | | |
| **PVRL** | **Vila Real** | **177.71 168** | *e*PKPdf | **PKPdf** | **02 38 13.2** | **-0.4** | |
| **PGAV** | **Gavieira, Arco** | **178.22 151** | *e*PKPdf | **PKPdf** | **02 38 13.8** | **+0.1** | |
| **PGAV** | **Gavieira, Arco** | **178.22 151** | *e*PKP | **PKPdf** | **02 38 19.4** | **+5.7** | |
| **PGAV** | **Gavieira, Arco** | **178.22 151** | *e*PP | PP | 02 43 50.1 | -5.7 | |
| **PGAV** | **Gavieira, Arco** | **178.22 151** | *e*LR | LR | 03 43 03.1 | | |
| | comp=Z,2μm,20.0s | | | | | | |
| **PBRG** | **Braganca** | **178.27 189** | *e*PP | PP | 02 43 54.3 | -1.3 | |

**WEL 23 02:19:55.5±0.2, 43°49S×172°80E, h6km±1km, ML4.1/3, Error ellipse: s-maj=1.1km s-min=0.8km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.15** | **236** | PG | Pg | 02 19 58.9 | +0.2 |
| CRLZ | | | | SG | Sg | 02 20 01.0 | +0.2 |
| CRLZ | | | | SG | | 02 20 01.0 | |
| CRLZ | | | | AML | AML | 02 20 01.4 | |
| CRLZ | | | | AML | AML | 02 20 01.4 | |
| **MQZ** | **McQueen's Vall** | **0.24** | **206** | PG | Pg | 02 20 00.1 | -0.2 |
| MQZ | | | | AML | AML | 02 20 02.7 | |
| MQZ | | | | SG | Sg | 02 20 03.3 | -0.2 |
| MQZ | | | | SG | | 02 20 03.4 | |
| **OXZ** | **Oxford** | **0.58** | **286** | AML | AML | 02 20 06.8 | |
| OXZ | | | | AML | AML | 02 20 07.4 | |

**WEL 23 02:20:03.9±0.1, 43°49S×172°74E, h11km, ML4.1/3, 1C, Error ellipse: s-maj=1.0km s-min=0.5km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.12** | **224** | ⇑PG | Pg | 02 20 07.1 | +0.2 |
| CRLZ | | | | SG | Sg | 02 20 09.0 | 0.0 |
| CRLZ | | | | AML | AML | 02 20 09.4 | |
| CRLZ | | | | AML | AML | 02 20 09.8 | |
| CRLZ | | | | AML | AML | 02 20 09.8 | |
| **MQZ** | **McQueen's Vall** | **0.23** | **196** | PG | Pg | 02 20 08.7 | +0.1 |
| MQZ | | | | SG | Sg | 02 20 12.2 | +0.3 |
| MQZ | | | | SG | | 02 20 12.2 | |
| **OXZ** | **Oxford** | **0.54** | **287** | P* | Pg | 02 20 14.4 | +0.1 |
| OXZ | | | | S* | Sb | 02 20 22.5 | -0.6 |
| OXZ | | | | AML | AML | 02 20 24.0 | |
| OXZ | | | | AML | AML | 02 20 24.7 | |
| OXZ | | | | AML | AML | 02 20 24.7 | |

**WEL 23 02:22:19.0±0.3, 43°48S×172°81E, h9km±1km, ML4.1/6, 3D, Error ellipse: s-maj=2.9km s-min=1.6km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.17** | **234** | ⇓PG | Pg | 02 22 22.7 | +0.2 |
| CRLZ | | | | SG | Sg | 02 22 25.1 | +0.1 |
| CRLZ | | | | AML | AML | 02 22 25.3 | |
| **MQZ** | **McQueen's Vall** | **0.26** | **206** | ⇓PG | Pg | 02 22 24.2 | 0.0 |
| MQZ | | | | SG | Sg | 02 22 27.8 | +0.1 |
| MQZ | | | | SG | Sg | 02 22 27.8 | +0.1 |
| MQZ | | | | AML | AML | 02 22 27.9 | |
| **OXZ** | **Oxford** | **0.58** | **285** | ⇓P* | Pg | 02 22 30.3 | +0.1 |
| OXZ | | | | S* | Sg | 02 22 38.4 | +0.5 |
| OXZ | | | | AML | AML | 02 22 39.3 | |
| OXZ | | | | AML | AML | 02 22 40.5 | |
| OXZ | | | | AML | AML | 02 22 40.5 | |
| **INZ** | **Inchbonnie** | **1.25** | **306** | *e*P* | Pb | 02 22 42.7 | 0.0 |
| **RPZ** | **Rata Peaks** | **1.30** | **259** | P* | Pg | 02 22 43.8 | -0.1 |
| RPZ | | | | AML | AML | 02 23 00.9 | |
| RPZ | | | | AML | AML | 02 23 04.2 | |
| **DSZ** | **Denniston Nort** | **1.88** | **336** | AML | AML | 02 23 16.4 | |
| DSZ | | | | AML | AML | 02 23 17.1 | |
| **LBZ** | **Lake Benmore** | **2.10** | **243** | *e*PN | Pb | 02 22 57.6 | +0.2 |
| LBZ | | | | AML | AML | 02 23 31.3 | |
| LBZ | | | | AML | AML | 02 23 31.8 | |

**WEL 23 02:23:38.6±0.1, 43°53S×172°78E, h11km, ML4.2/7, 2C, Error ellipse: s-maj=0.9km s-min=0.6km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.12** | **250** | ⇑PG | Pg | 02 23 41.8 | +0.2 |
| CRLZ | | | | SG | Sg | 02 23 43.6 | -0.1 |
| CRLZ | | | | SG | | 02 23 43.9 | |
| CRLZ | | | | AML | AML | 02 23 44.0 | |
| CRLZ | | | | AML | AML | 02 23 44.0 | |
| **MQZ** | **McQueen's Vall** | **0.20** | **208** | ⇑PG | Pg | 02 23 43.0 | +0.2 |
| MQZ | | | | SG | Sg | 02 23 46.2 | +0.5 |
| MQZ | | | | SG | Sg | 02 23 46.2 | +0.5 |
| MQZ | | | | AML | AML | 02 23 46.3 | |
| **OXZ** | **Oxford** | **0.58** | **291** | P* | Pg | 02 23 49.8 | 0.0 |
| OXZ | | | | S* | Sg | 02 23 58.0 | +0.4 |
| OXZ | | | | S* | Sb | 02 23 58.2 | -0.8 |
| OXZ | | | | AML | AML | 02 23 59.7 | |
| OXZ | | | | AML | AML | 02 23 59.8 | |
| **KHZ** | **Kahutara** | **1.25** | **27** | P* | Pn | 02 24 01.0 | -1.0 |
| KHZ | | | | AML | AML | 02 24 20.4 | |
| KHZ | | | | AML | AML | 02 24 20.4 | |
| KHZ | | | | AML | AML | 02 24 25.7 | |
| KHZ | | | | AML | AML | 02 24 26.5 | |
| **RPZ** | **Rata Peaks** | **1.27** | **261** | P* | Pn | 02 24 01.7 | -0.6 |
| RPZ | | | | S* | Sb | 02 24 17.4 | -1.4 |
| RPZ | | | | AML | AML | 02 24 22.6 | |
| **INZ** | **Inchbonnie** | **1.27** | **309** | P* | Pn | 02 24 02.0 | -0.3 |
| **DSZ** | **Denniston Nort** | **1.93** | **338** | PN | Pn | 02 24 11.0 | -0.4 |
| DSZ | | | | AML | AML | 02 24 40.4 | |
| DSZ | | | | AML | AML | 02 24 42.4 | |
| **LBZ** | **Lake Benmore** | **2.06** | **245** | AML | AML | 02 24 45.8 | |
| LBZ | | | | AML | AML | 02 24 50.8 | |

**WEL 23 02:23:44.7±0.2, 43°47S×172°82E, h11km, ML3.9/4, Error ellipse: s-maj=1.3km s-min=0.9km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.17** | **234** | PG | Pg | 02 23 48.6 | +0.1 |
| CRLZ | | | | AML | AML | 02 23 50.5 | |
| CRLZ | | | | AML | AML | 02 23 50.5 | |
| CRLZ | | | | SG | Sg | 02 23 50.8 | -0.3 |
| CRLZ | | | | AML | AML | 02 23 51.4 | |
| **MQZ** | **McQueen's Vall** | **0.26** | **207** | PG | Pg | 02 23 50.2 | +0.2 |
| MQZ | | | | SG | Sg | 02 23 53.7 | +0.1 |
| MQZ | | | | SG | Sb | 02 23 53.7 | -2.2 |
| MQZ | | | | AML | AML | 02 23 53.7 | |
| **OXZ** | **Oxford** | **0.59** | **284** | S* | Sg | 02 24 04.3 | +0.5 |
| OXZ | | | | AML | AML | 02 24 05.5 | |
| OXZ | | | | AML | AML | 02 24 06.0 | |
| OXZ | | | | AML | AML | 02 24 06.6 | |
| **RPZ** | **Rata Peaks** | **1.30** | **259** | AML | AML | 02 24 28.1 | |
| RPZ | | | | AML | AML | 02 24 28.2 | |

**WEL 23 02:24:24.2±0.4, 43°52S×172°83E, h9km±1km, ML3.5/5, 1C, Error ellipse: s-maj=3.0km s-min=1.7km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.16** | **250** | ⇑PG | Pg | 02 24 27.8 | +0.1 |
| CRLZ | | | | SG | Sg | 02 24 30.0 | 0.0 |
| CRLZ | | | | SG | | 02 24 30.1 | |
| CRLZ | | | | AML | AML | 02 24 30.4 | |
| CRLZ | | | | AML | AML | 02 24 30.5 | |
| **MQZ** | **McQueen's Vall** | **0.23** | **214** | PG | Pg | 02 24 29.0 | +0.2 |
| MQZ | | | | SG | Sg | 02 24 32.4 | +0.5 |
| MQZ | | | | AML | AML | 02 24 32.6 | |
| **OXZ** | **Oxford** | **0.61** | **288** | P* | Pg | 02 24 36.1 | +0.1 |
| OXZ | | | | S* | Sg | 02 24 44.5 | +0.6 |
| OXZ | | | | S* | Sb | 02 24 44.6 | -1.0 |
| OXZ | | | | AML | AML | 02 24 44.6 | |
| OXZ | | | | AML | AML | 02 24 47.5 | |
| **KHZ** | **Kahutara** | **1.22** | **26** | A

| | | | | | | |
|---|---|---|---|---|---|---|
| RPZ | | | | AML | AML | 02 27 27.8 | |
| RPZ | | | | AML | AML | 02 27 29.3 | |
| **INZ** | **Inchbonnie** | **1.23** | **310** | *e*PN | Pn | 02 27 08.6 | -0.5 |
| **KHZ** | **Kahutara** | **1.26** | **29** | PN | Pn | 02 27 08.0 | -1.5 |
| KHZ | | | | AML | AML | 02 27 26.9 | |
| KHZ | | | | AML | AML | 02 27 27.3 | |
| KHZ | | | | AML | AML | 02 27 27.3 | |
| KHZ | | | | AML | AML | 02 27 27.8 | |
| **DSZ** | **Denniston Nort** | **1.91** | **339** | AML | AML | 02 27 42.8 | |
| DSZ | | | | AML | AML | 02 27 43.2 | |
| **BSWZ** | **Blackbirch Sta** | **2.00** | **26** | *e*PN | Pn | 02 27 18.5 | -1.2 |
| **LBZ** | **Lake Benmore** | **2.02** | **244** | AML | AML | 02 27 52.1 | |
| LBZ | | | | AML | AML | 02 27 55.1 | |

**WEL 23 02:28:41.0±0.2, 43°56S×172°79E, h11km, ML3.3/5, 2C, Error ellipse: s-maj=1.5km s-min=1.1km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.12** | **264** | ⇑PG | Pg | 02 28 44.0 | 0.0 |
| CRLZ | | | | SG | Sg | 02 28 46.0 | -0.1 |
| CRLZ | | | | SG | Sg | 02 28 46.1 | -0.1 |
| CRLZ | | | | SG | Sg | 02 28 46.1 | -0.1 |
| CRLZ | | | | AML | AML | 02 28 46.2 | |
| **MQZ** | **McQueen's Vall** | **0.17** | **215** | ⇑PG | Pg | 02 28 45.3 | +0.4 |
| MQZ | | | | SG | Sg | 02 28 48.2 | +0.7 |
| MQZ | | | | SG | | 02 28 48.3 | |
| MQZ | | | | AML | AML | 02 28 48.4 | |
| **OXZ** | **Oxford** | **0.60** | **293** | P* | Pg | 02 28 52.0 | -0.6 |
| OXZ | | | | AML | AML | 02 29 01.9 | |
| OXZ | | | | AML | AML | 02 29 02.5 | |
| OXZ | | | | AML | AML | 02 29 02.5 | |
| OXZ | | | | AML | AML | 02 29 03.7 | |
| **LTZ** | **Lake Taylor** | **0.87** | **334** | P* | Pg | 02 28 57.4 | -0.3 |
| LTZ | | | | AML | AML | 02 29 09.5 | |
| **KHZ** | **Kahutara** | **1.27** | **26** | P* | Pn | 02 29 03.3 | -1.3 |
| **RPZ** | **Rata Peaks** | **1.27** | **263** | P* | Pn | 02 29 03.8 | -0.9 |

**WEL 23 02:28:59.1±0.1, 43°55S×172°79E, h11km±1km, ML3.7/9, 1C-1D, Error ellipse: s-maj=1.4km s-min=1.1km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.13** | **259** | ⇓PG | Pg | 02 29 02.2 | 0.0 |
| CRLZ | | | | SG | Sg | 02 29 04.1 | -0.2 |
| CRLZ | | | | SG | | 02 29 04.2 | |
| CRLZ | | | | AML | AML | 02 29 04.4 | |
| CRLZ | | | | AML | AML | 02 29 04.4 | |
| **MQZ** | **McQueen's Vall** | **0.18** | **213** | ⇑PG | Pg | 02 29 06.2 | +0.3 |
| MQZ | | | | SG | Sg | 02 29 06.5 | +0.6 |
| MQZ | | | | AML | AML | 02 29 06.6 | |
| MQZ | | | | AML | AML | 02 29 06.6 | |
| **OXZ** | **Oxford** | **0.59** | **292** | P* | Pg | 02 29 10.0 | -0.6 |
| OXZ | | | | AML | AML | 02 29 20.7 | |
| OXZ | | | | AML | AML | 02 29 20.7 | |
| OXZ | | | | AML | AML | 02 29 20.9 | |
| OXZ | | | | AML | AML | 02 29 21.4 | |
| **LTZ** | **Lake Taylor** | **0.86** | **333** | P* | Pg | 02 29 15.6 | -0.1 |
| LTZ | | | | S* | Sg | 02 29 26.7 | -0.2 |
| LTZ | | | | AML | AML | 02 29 28.0 | |
| **KHZ** | **Kahutara** | **1.26** | **26** | P* | Pn | 02 29 21.4 | -1.3 |
| KHZ | | | | AML | AML | 02 29 40.6 | |
| **RPZ** | **Rata Peaks** | **1.27** | **262** | P* | Pn | 02 29 20.8 | -2.1 |
| RPZ | | | | AML | AML | 02 29 41.6 | |
| RPZ | | | | AML | AML | 02 29 42.3 | |
| **THZ** | **Tophouse** | **1.79** | **3** | AML | AML | 02 30 00.2 | |
| THZ | | | | AML | AML | 02 30 00.3 | |
| **DSZ** | **Denniston Nort** | **1.95** | **338** | AML | AML | 02 30 00.4 | |
| DSZ | | | | AML | AML | 02 30 04.9 | |
| **QRZ** | **Quartz Range** | **2.73** | **356** | AML | AML | 02 30 16.8 | |
| QRZ | | | | AML | AML | 02 30 18.9 | |

**WEL 23 02:29:23.2±0.2, 43°50S×172°82E, h9km±1km, ML3.8/10, 1C, Error ellipse: s-maj=2.4km s-min=0.9km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.16** | **242** | PG | Pg | 02 29 26.9 | +0.2 |
| CRLZ | | | | SG | Sg | 02 29 29.3 | +0.2 |
| CRLZ | | | | AML | AML | 02 29 29.5 | |
| CRLZ | | | | AML | AML | 02 29 29.5 | |
| CRLZ | | | | AML | AML | 02 29 29.5 | |
| **MQZ** | **McQueen's Vall** | **0.24** | **210** | PG | Pg | 02 29 28.3 | +0.2 |
| MQZ | | | | SG | Sg | 02 29 31.9 | +0.5 |
| MQZ | | | | SG | | 02 29 31.9 | |
| MQZ | | | | AML | AML | 02 29 32.1 | |
| **OXZ** | **Oxford** | **0.60** | **286** | P* | Pg | 02 29 34.4 | -0.4 |
| OXZ | | | | S* | Sg | 02 29 42.0 | -0.6 |
| OXZ | | | | S* | Sb | 02 29 42.6 | -1.8 |
| OXZ | | | | AML | AML | 02 29 44.3 | |
| OXZ | | | | AML | AML | 02 29 44.7 | |
| **LTZ** | **Lake Taylor** | **0.82** | **330** | ⇑P* | Pg | 02 29 50.2 | 0.0 |
| LTZ | | | | S* | Sb | 02 29 50.4 | -0.5 |
| **KHZ** | **Kahutara** | **1.20** | **26** | P* | Pb | 02 29 45.4 | -0.7 |
| KHZ | | | | AML | AML | 02 30 03.8 | |
| KHZ | | | | AML | AML | 02 30 07.3 | |
| **INZ** | **Inchbonnie** | **1.27** | **307** | P* | Pn | 02 29 47.1 | -0.1 |
| **RPZ** | **Rata Peaks** | **1.30** | **260** | *e*PN | Pn | 02 29 46.6 | -1.1 |
| RPZ | | | | S* | Sb | 02 30 03.1 | -1.6 |
| RPZ | | | | AML | AML | 02 30 08.2 | |
| **THZ** | **Tophouse** | **1.73** | **2** | AML | AML | 02 30 17.0 | |
| THZ | | | | AML | AML | 02 30 18.5 | |
| **DSZ** | **Denniston Nort** | **1.91** | **336** | AML | AML | 02 30 21.0 | |
| DSZ | | | | AML | AML | 02 30 21.9 | |
| **QRZ** | **Quartz Range** | **2.68** | **355** | AML | AML | 02 30 38.7 | |
| QRZ | | | | AML | AML | 02 30 40.0 | |
| **JCZ** | **Jackson Bay** | **2.98** | **257** | AML | AML | 02 28 44.3 | |
| JCZ | | | | AML | AML | 02 33 52.0 | |
| **APZ** | **The Paps** | **4.77** | **224** | PN | Pn | 02 30 34.3 | -1.0 |

**WEL 23 02:29:58.7±0.1, 43°51S×172°78E, h8km, ML3.5/6, 1D, Error ellipse: s-maj=1.2km s-min=0.7km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.14** | **239** | PG | Pg | 02 30 01.6 | 0.0 |
| CRLZ | | | | SG | Sg | 02 30 03.9 | +0.2 |
| CRLZ | | | | AML | AML | 02 30 04.2 | |
| **MQZ** | **McQueen's Vall** | **0.22** | **205** | ⇓PG | Pg | 02 30 03.1 | 0.0 |
| MQZ | | | | SG | Sg | 02 30 06.4 | +0.2 |
| MQZ | | | | SG | | 02 30 06.6 | |
| MQZ | | | | AML | AML | 02 30 06.8 | |
| **OXZ** | **Oxford** | **0.57** | **288** | P* | Pg | 02 30 09.4 | -0.3 |
| OXZ | | | | S* | Sg | 02 30 17.7 | +0.5 |
| OXZ | | | | S* | Sb | 02 30 17.7 | -1.4 |
| OXZ | | | | AML | AML | 02 30 19.9 | |
| OXZ | | | | AML | AML | 02 30 19.9 | |
| **LTZ** | **Lake Taylor** | **0.81** | **332** | P* | Pg | 02 30 14.3 | 0.0 |
| LTZ | | | | S* | Sb | 02 30 25.9 | -0.3 |
| **KHZ** | **Kahutara** | **1.22** | **27** | AML | AML | 02 30 38.9 | |
| KHZ | | | | AML | AML | 02 30 40.1 | |
| **RPZ** | **Rata Peaks** | **1.27** | **260** | AML | AML | 02 30 41.9 | |
| RPZ | | | | AML | AML | 02 30 42.8 | |

**WEL 23 02:30:11.9±0.1, 43°54S×172°80E, h8km, ML3.6/5, Error ellipse: s-maj=0.9km s-min=0.6km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.13** | **256** | PG | Pg | 02 30 15.0 | +0.1 |
| CRLZ | | | | SG | Sg | 02 30 17.1 | +0.2 |
| CRLZ | | | | SG | Sg | 02 30 17.1 | +0.2 |
| **MQZ** | **McQueen's Vall** | **0.20** | **214** | SG | Sg | 02 30 19.1 | +0.4 |
| MQZ | | | | SG | | 02 30 19.3 | |
| MQZ | | | | AML | AML | 02 30 19.4 | |
| **OXZ** | **Oxford** | **0.60** | **291** | S* | Sg | 02 30 32.1 | +0.8 |
| OXZ | | | | AML | AML | 02 30 33.4 | |
| OXZ | | | | AML | AML | 02 30 33.7 | |
| OXZ | | | | AML | AML | 02 30 33.7 | |
| **LTZ** | **Lake Taylor** | **0.85** | **333** | *e*P* | Pb | 02 30 29.2 | +0.1 |
| LTZ | | | | S* | Sg | 02 30 40.0 | +0.5 |
| **DSZ** | **Denniston Nort** | **1.94** | **337** | AML | AML | 02 31 08.9 | |
| DSZ | | | | AML | AML | 02 31 10.4 | |

**WEL 23 02:30:48.6±0.2, 43°52S×172°82E, h5km, ML3.8/10, 1C, Error ellipse: s-maj=1.6km s-min=0.6km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.15** | **248** | PG | Pg | 02 30 51.7 | 0.0 |
| CRLZ | | | | SG | Sg | 02 30 53.9 | +0.2 |
| CRLZ | | | | AML | AML | 02 30 54.0 | |
| CRLZ | | | | AML | AML | 02 30 54.0 | |
| CRLZ | | | | AML | AML | 02 30 54.0 | |
| **MQZ** | **McQueen's Vall** | **0.22** | **212** | ⇑PG | Pg | 02 30 53.0 | 0.0 |
| MQZ | | | | SG | Sg | 02 30 56.1 | +0.2 |
| MQZ | | | | SG | | 02 30 56.1 | |
| MQZ | | | | AML | AML | 02 30 56.2 | |
| **OXZ** | **Oxford** | **0.60** | **288** | P* | Pg | 02 30 59.6 | -0.5 |
| OXZ | | | | SG | Sb | 02 31 09.2 | -1.1 |
| OXZ | | | | AML | AML | 02 31 10.5 | |
| OXZ | | | | AML | AML | 02 31 10.6 | |
| OXZ | | | | AML | AML | 02 31 10.6 | |
| **LTZ** | **Lake Taylor** | **0.84** | **331** | P* | Pg | 02 31 05.1 | +0.5 |
| LTZ | | | | S* | Sb | 02 31 16.7 | -0.5 |
| **KHZ** | **Kahutara** | **1.22** | **26** | P* | Pg | 02 31 11.1 | -0.8 |
| KHZ | | | | AML | AML | 02 31 28.0 | |
| KHZ | | | | AML | AML | 02 31 31.9 | |
| **INZ** | **Inchbonnie** | **1.28** | **308** | *e*P* | Pn | 02 31 12.0 | -1.1 |
| **RPZ** | **Rata Peaks** | **1.30** | **261** | *e*P* | Pn | 02 31 11.7 | -1.6 |
| RPZ | | | | AML | AML | 02 31 28.9 | |
| RPZ | | | | AML | AML | 02 31 29.0 | |
| **THZ** | **Tophouse** | **1.75** | **2** | AML | AML | 02 31 40.8 | |
| THZ | | | | AML | AML | 02 31 42.9 | |
| **DSZ** | **Denniston Nort** | **1.92** | **337** | AML | AML | 02 31 46.6 | |
| DSZ | | | | AML | AML | 02 31 46.7 | |
| **QRZ** | **Quartz Range** | **2.70** | **355** | AML | AML | 02 32 05.7 | |
| QRZ | | | | AML | AML | 02 32 09.6 | |
| **JCZ** | **Jackson Bay** | **2.97** | **258** | AML | AML | 02 32 14.9 | |
| JCZ | | | | AML | AML | 02 32 15.1 | |

**WEL 23 02:31:20.1±0.2, 43°48S×172°80E, h9km±1km, ML3.7/8, 1C, Error ellipse: s-maj=1.7km s-min=0.8km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.16** | **232** | ⇑PG | Pg | 02 31 23.6 | +0.1 |
| CRLZ | | | | SG | Sg | 02 31 25.9 | 0.0 |
| CRLZ | | | | SG | | 02 31 26.0 | |
| CRLZ | | | | AML | AML | 02 31 26.1 | |
| CRLZ | | | | AML | AML | 02 31 26.4 | |
| **MQZ** | **McQueen's Vall** | **0.25** | **204** | PG | Pg | 02 31 25.2 | 0.0 |
| MQZ | | | | SG | Sg | 02 31 28.7 | 0.0 |
| MQZ | | | | SG | Sg | 02 31 28.7 | 0.0 |
| MQZ | | | | AML | AML | 02 31 28.9 | |
| **OXZ** | **Oxford** | **0.57** | **285** | P* | Pg | 02 31 31.0 | -0.1 |
| OXZ | | | | AML | AML | 02 31 39.5 | |
| OXZ | | | | AML | AML | 02 31 41.1 | |
| OXZ | | | | AML | AML | 02 31 41.3 | |
| OXZ | | | | AML | AML | 02 31 41.3 | |
| **LTZ** | **Lake Taylor** | **0.79** | **331** | P* | Pg | 02 31 35.6 | +0.3 |
| LTZ | | | | S* | Sb | 02 31 46.8 | -0.1 |
| **KHZ** | **Kahutara** | **1.19** | **27** | P* | Pb | 02 31 41.8 | -1.0 |
| KHZ | | | | AML | AML | 02 31 58.2 | |
| KHZ | | | | AML | AML | 02 31 58.8 | |
| **INZ** | **Inchbonnie** | **1.24** | **307** | P* | Pn | 02 31 43.2 | -0.4 |
| **RPZ** | **Rata Peaks** | **1.29** | **259** | AML | AML | 02 32 02.6 | |
| RPZ | | | | AML | AML | 02 32 02.8 | |
| **THZ** | **Tophouse** | **1.71** | **3** | AML | AML | 02 32 15.1 | |
| THZ | | | | AML | AML | 02 32 16.2 | |
| **DSZ** | **Denniston Nort** | **1.88** | **337** | AML | AML | 02 32 15.9 | |
| DSZ | | | | AML | AML | 02 32 17.8 | |

**WEL 23 02:31:52.0±0.2, 43°49S×172°81E, h7km±1km, ML3.8/11, 1D, Error ellipse: s-maj=2.2km s-min=0.9km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.16** | **238** | PG | Pg | 02 31 55.5 | +0.2 |
| CRLZ | | | | SG | Sg | 02 31 58.2 | +0.7 |
| CRLZ | | | | SG | | 02 31 58.3 | |
| CRLZ | | | | AML | AML | 02 31 58.6 | |
| CRLZ | | | | AML | AML | 02 31 58.7 | |
| **MQZ** | **McQueen's Vall** | **0.24** | **208** | PG | Pg | 02 31 56.7 | -0.1 |
| MQZ | | | | SG | Sg | 02 32 00.4 | +0.3 |
| MQZ | | | | SG | | 02 32 00.5 | |
| MQZ | | | | AML | AML | 02 32 00.6 | |
| **OXZ** | **Oxford** | **0.59** | **286** | P* | Pg | 02 32 03.1 | -0.2 |
| OXZ | | | | SG | Sg | 02 32 11.5 | +0.5 |
| OXZ | | | | AML | AML | 02 32 13.2 | |
| OXZ | | | | AML | AML | 02 32 13.2 | |
| OXZ | | | | AML | AML | 02 32 13.7 | |
| **LTZ** | **Lake Taylor** | **0.81** | **331** | ⇓P* | Pg | 02 32 07.8 | +0.3 |
| LTZ | | | | S* | Sb | 02 32 10.2 | -0.3 |
| **KHZ** | **Kahutara** | **1.20** | **27** | P* | Pg | 02 32 13.4 | -1.6 |
| KHZ | | | | AML | AML | 02 32 29.8 | |
| KHZ | | | | AML | AML | 02 32 31.4 | |
| KHZ | | | | AML | AML | 02 32 31.5 | |
| KHZ | | | | AML | AML | 02 32 31.7 | |
| **INZ** | **Inchbonnie** | **1.26** | **307** | P* | Pn | 02 32 15.6 | -0.3 |
| **RPZ** | **Rata Peaks** | **1.30** | **259** | AML | AML | 02 32 34.1 | |
| RPZ | | | | AML | AML | 02 32 36.0 | |
| **THZ** | **Tophouse** | **1.73** | **2** | *e*PN | Pb | 02 32 23.9 | -0.1 |
| THZ | | | | AML | AML | 02 32 43.0 | |
| THZ | | | | AML | AML | 02 32 45.4 | |
| **DSZ** | **Denniston Nort** | **1.90** | **337** | *e*PN | Pn | 02 32 25.0 | +0.3 |
| DSZ | | | | AML | AML | 02 32 49.0 | |
| DSZ | | | | AML | AML | 02 32 49.3 | |
| **BSWZ** | **Blackbirch Sta** | **1.94** | **24** | AML | AML | 02 32 50.1 | |
| BSWZ | | | | AML | AML | 02 32 52.0 | |
| **QRZ** | **Quartz Range** | **2.67** | **355** | AML | AML | 02 32 10.2 | |
| QRZ | | | | AML | AML | 02 33 10.5 | |
| **JCZ** | **Jackson Bay** | **2.97** | **257** | AML | AML | 02 33 30.9 | |
| JCZ | | | | AML | AML | 02 33 31.6 | |

**WEL 23 02:33:35.4±0.4, 43°51S×172°82E, h16km±4km, ML3.5/8, 1C-1D, Error ellipse: s-maj=5.5km s-min=1.5km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.16** | **247** | ⇓P* | Pg | 02 33 39.2 | -0.2 |
| CRLZ | | | | S* | Sg | 02 33 42.1 | -0.1 |
| CRLZ | | | | AML | AML | 02 33 43.0 | |
| **MQZ** | **McQueen's Vall** | **0.23** | **212** | ⇑P* | Pg | 02 33 40.6 | +0.1 |
| MQZ | | | | S* | Sb | 02 33 44.6 | -0.4 |
| MQZ | | | | S* | Sg | 02 33 44.6 | +0.5 |
| MQZ | | | | AML | AML | 02 33 44.7 | |
| **OXZ** | **Oxford** | **0.60** | **288** | P* | Pg | 02 33 46.7 | -0.5 |
| OXZ | | | | AML | AML | 02 33 56.4 | |
| OXZ | | | | AML | AML | 02 33 57.5 | |
| **LTZ** | **Lake Taylor** | **0.83** | **331** | P* | Pb | 02 33 51.0 | -0.5 |
| LTZ | | | | S* | Sb | 02 34 02.3 | -0.2 |
| **INZ** | **Inchbonnie** | **1.28** | **308** | *e*PN | Pn | 02 33 57.8 | -0.8 |
| **RPZ** | **Rata Peaks** | **1.30** | **260** | *e*PN | Pn | 02 33 58.5 | -0.4 |
| RPZ | | | | AML | AML | 02 34 19.0 | |
| RPZ | | | | AML | AML | 02 34 19.7 | |
| **THZ** | **Tophouse** | **1.75** | **2** | PN | Pn | 02 34 04.2 | -0.9 |
| THZ | | | | AML | AML | 02 34 29.1 | |
| THZ | | | | AML | AML | 02 34 30.7 | |
| **DSZ** | **Denniston Nort** | **1.92** | **337** | *e*PN | Pn | 02 34 06.4 | -1.1 |
| DSZ | | | | AML | AML | 02 34 31.1 | |
| DSZ | | | | AML | AML | 02 34 33.1 | |
| **QRZ** | **Quartz Range** | **2.69** | **355** | AML | AML | 02 34 53.4 | |
| QRZ | | | | AML | AML | 02 34 53.6 | |

*ISCJB **23** 02:34:28.5±0.8, 43°.49S±0°.04×172°.93E±0°.07, h17km, mb3.0/2, Error ellipse: s-maj=8.2km s-min=5.0km az=36.9*
*IDC **23** 02:34:28.0±1.6, 43°.36S×172°.81E, h0km, mb3.2/2, mb1 3.6/3, mb1mx3.5/21, mbtmp3.4/3, ML3.4/1, Error ellipse: s-maj=48.9km s-min=16.5km az=158.0*
*WEL **23** 02:34:29.7±0.2, 43°.49S×172°.85E, h17km±1km, ML3.9/21, Error ellipse: s-maj=1.5km s-min=0.8km az=90.0*

**ISC 23 02:34:29.1±0.9, 43°.47S±0°.04×172°.89E±0°.05, h17km, n28, σ1§35/24, 2C-1D, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.22** | **241** | ⇑P* | Pg | **02 34 34.1** | **-0.1** |
| CRLZ | | | | S* | Sg | **02 34 37.0** | **-0.7** |
| CRLZ | | | | AML | AML | 02 34 37.4 | |
| **MQZ** | **McQueen's Vall** | **0.29** | **216** | ⇑P* | Pg | **02 34 35.6** | **+0.2** |
| MQZ | | | | S* | Sb | **02 34 39.8** | **-0.8** |
| MQZ | | | | S* | Sb | **02 34 39.8** | **-0.8** |
| MQZ | | | | AML | AML | 02 34 40.0 | |
| **OXZ** | **Oxford** | **0.64** | **283** | P* | Pg | **02 34 41.1** | **-0.5** |
| OXZ | | | | S* | Sg | **02 34 49.6** | **-0.5** |
| OXZ | | | | AML | AML | 02 34 51.5 | |
| OXZ | | | | AML | AML | 02 34 51.5 | |
| OXZ | | | | AML | AML | 02 34 51.5 | |
| **LTZ** | **Lake Taylor** | **0.82** | **326** | ⇓P* | Pb | **02 34 45.3** | **+0.3** |
| LTZ | | | | S* | Sb | **02 34 56.0** | **+0.2** |
| **KHZ** | **Kahutara** | **1.15** | **25** | PN | Pn | **02 34 50.9** | **+0.4** |
| KHZ | | | | AML | AML | 02 35 10.1 | |
| KHZ | | | | AML | AML | 02 35 10.2 | |
| **INZ** | **Inchbonnie** | **1.29** | **305** | PN | Pn | **02 34 52.3** | **-0.1** |
| **RPZ** | **Rata Peaks** | **1.36** | **259** | Pg | Pn | **02 34 52.5** | **-0.8** |
| | 93nm,0.3s,baz=31,slow=0.8,SNR=6.0 | | | | | | |
| RPZ | | | | Lg | Lg | 02 35 10.6 | |
| | 110nm,0.3s,baz=41,slow=5.7,SNR=7.2 | | | | | | |
| **RPZ** | **Rata Peaks** | **1.36** | **259** | PN | Pn | **02 34 52.7** | **-0.6** |
| RPZ | | | | AML | AML | 02 35 17.0 | |
| RPZ | | | | AML | AML | 02 35 19.2 | |
| **WVZ** | **Waitaha Valley** | **1.62** | **283** | PN | Pn | **02 34 57.5** | **+0.6** |
| WVZ | | | | AML | AML | 02 35 21.7 | |
| WVZ | | | | AML | AML | 02 35 29.2 | |
| **THZ** | **Tophouse** | **1.71** | **0** | AML | AML | 02 35 20.5 | |
| THZ | | | | AML | AML | 02 35 22.9 | |
| **BSWZ** | **Blackbirch Sta** | **1.90** | **23** | AML | AML | 02 35 27.5 | |
| **DSZ** | **Denniston Nort** | **1.90** | **335** | *e*PN | Pn | **02 35 01.7** | **+0.9** |
| DSZ | | | | AML | AML | 02 35 26.2 | |
| DSZ | | | | AML | AML | 02 35 26.2 | |
| **LBZ** | **Lake Benmore** | **2.16** | **244** | AML | AML | 02 35 42.9 | |
| LBZ | | | | AML | AML | 02 35 43.8 | |
| **FOZ** | **Fox Glacier** | **2.24** | **267** | AML | AML | 02 35 34.6 | |
| FOZ | | | | AML | AML | 02 36 42.6 | |
| **ODZ** | **Otahua Downs** | **2.26** | **225** | *e*PN | Pn | **02 35 06.1** | **+0.4** |
| ODZ | | | | AML | AML | 02 35 47.2 | |
| ODZ | | | | AML | AML | 02 35 49.1 | |
| **NNZ** | **Nelson** | **2.28** | **9** | PN | Pn | **02 35 07.2** | **+1.3** |
| NNZ | | | | AML | AML | 02 35 38.7 | |
| NNZ | | | | AML | AML | 02 35 47.0 | |
| **QRZ** | **Quartz Range** | **2.65** | **354** | AML | AML | 02 35 44.9 | |
| QRZ | | | | AML | AML | 02 35 46.3 | |
| **MSWZ** | **Moikau Station** | **2.69** | **41** | AML | AML | 02 35 44.3 | |
| MSWZ | | | | AML | AML | 02 35 45.8 | |
| **CAW** | **Cannon Point** | **2.86** | **35** | AML | AML | 02 35 48.0 | |
| CAW | | | | AML | AML | 02 35 54.0 | |
| **HHSZ** | **Highcliff Hill** | **2.92** | **213** | AML | AML | 02 36 10.9 | |
| **JCZ** | **Jackson Bay** | **3.04** | **257** | AML | AML | 02 35 54.3 | |
| JCZ | | | | AML | AML | 02 35 55.1 | |
| **EAZ** | **Earnscleugh** | **3.12** | **234** | AML | AML | 02 36 08.8 | |
| EAZ | | | | AML | AML | 02 36 17.4 | |
| **OGWZ** | **Otaki Gorge** | **3.15** | **33** | PN | Pn | **02 35 18.2** | **+0.4** |
| OGWZ | | | | AML | AML | 02 35 54.0 | |
| OGWZ | | | | AML | AML | 02 35 57.7 | |
| **URZ** | **Urewera** | **6.11** | **33** | Pn | Pn | **02 35 58.0** | **-0.6** |
| | 1.0nm,0.3s,baz=219,slow=9.3,SNR=3.9 | | | | | | |
| URZ | | | | Sn | Sn | **02 37 03.0** | **-5.0** |
| | 0.8nm,0.3s,baz=306,slow=19,SNR=2.6 | | | | | | |
| **ASAR** | **Alice Springs** | **37.58** | **289** | P | P | **02 41 43.7** | **+0.9** |
| | 0.1nm,0.4s,baz=125,slow=8.1,SNR=3.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **39.82** | **294** | P | P | **02 42 02.4** | **+0.9** |
| | 0.2nm,0.5s,baz=134,slow=7.8,SNR=6.4 | | | | | | |
| **YKA** | **Yellowknife Ar** | **120.36** | **31** | PKP | **PKPdf** | **02 53 19.5** | **+1.3** |
| | 0.1nm,0.5s,baz=224,slow=1.9,SNR=4.3 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **148.85** | **197** | PKPbc | **PKPbc** | **02 54 17.8** | **+1.7** |
| | 0.4nm,0.5s,baz=161,slow=1.8,SNR=5.0 | | | | | | |

*CSEM **23** 02:36:48.0±0.3, 49°.90N×18°.46E, h1km, Error ellipse: s-maj=11.2km s-min=3.9km az=15.0*
**PRU 23 02:36:48.4, 49°.85N×18°.47E, h0km, Czech and Slovak Republics**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **OKC** | **Ostrava-Krasne** | **0.21** | **267** | *e*PG | Pg | 02 36 52.2 | -0.2 |
| OKC | | | | *e*SG | Sg | 02 36 55.6 | +0.5 |
| | comp=Z,2.9nm,0.3s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **0.21** | **267** | Pg | Pg | 02 36 52.2 | -0.2 |
| OKC | | | | Sg | Sg | 02 36 55.6 | +0.5 |
| | 2.9nm,0.3s | | | | | | |
| **MORC** | **Moravsky Berou** | **0.60** | **263** | *e*Pg | Pg | 02 36 59.9 | -0.1 |
| MORC | | | | *e*Sg | Sg | 02 37 07.6 | -0.2 |
| **DPC** | **Dobruska-Polom** | **1.47** | **291** | *e*PG | Pn | 02 37 15.6 | -0.6 |
| DPC | | | | *e*SG | Sg | 02 37 35.1 | -0.5 |
| **DPC** | **Dobruska-Polom** | **1.47** | **291** | Pg | Pn | 02 37 15.6 | -0.6 |
| DPC | | | | Sg | Sg | 02 37 35.1 | -0.5 |

*ISCJB **23** 02:39:57.8±0.6, 43°.58S±0°.03×172°.99E±0°.05, h19km±5km, mb4.2/6, Error ellipse: s-maj=7.7km s-min=3.0km az=43.6*
*NEIC **23** 02:39:57.2±0.4, 43°.59S×173°.04E, h5km, mb4.2/2, Error ellipse: s-maj=6.8km s-min=3.6km az=137.0*
*IDC **23** 02:39:57.1±1.3, 43°.48S×172°.94E, h0km, mb3.9/2, mb1 4.2/3, mb1mx3.9/22, mbtmp4.0/3, ML4.2/1, Error ellipse: s-maj=45.4km s-min=15.6km az=165.0*
*WEL **23** 02:40:00.4±0.1, 43°.49S×172°.79E, h8km, ML4.4/67, Error ellipse: s-maj=0.8km s-min=0.5km az=90.0*
**ISC 23 02:39:59.1±0.9, 43°.53S±0°.04×172°.90E±0°.04, h19km±2km, n115, σ1§10/116, mb4.2/6, 2C-5D, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.20** | **257** | *e*Pg | Pg | **02 40 03.6** | **-0.5** |
| **CRLZ** | **Canterbury Las** | **0.20** | **257** | ⇑PG | Pg | **02 40 03.7** | **-0.5** |
| CRLZ | | | | SG | **Sb** | **02 40 05.9** | **-0.6** |
| CRLZ | | | | SG | | 02 40 06.1 | |
| CRLZ | | | | AML | AML | 02 40 06.1 | |
| CRLZ | | | | AML | AML | 02 40 06.2 | |
| **MQZ** | **McQueen's Vall** | **0.25** | **225** | *e*Pg | Pb | **02 40 05.1** | **+0.3** |
| **MQZ** | **McQueen's Vall** | **0.25** | **225** | PG | Pb | **02 40 05.0** | **+0.2** |
| MQZ | | | | SG | Sg | **02 40 08.4** | **-0.3** |
| MQZ | | | | SG | **Sb** | **02 40 08.7** | **+0.2** |
| MQZ | | | | AML | AML | 02 40 09.0 | |
| **OXZ** | **Oxford** | **0.66** | **288** | *e*Pg | Pb | **02 40 11.2** | **-0.7** |
| **OXZ** | **Oxford** | **0.66** | **288** | P* | Pb | 02 40 07.3 | -4.6 |
| OXZ | | | | AML | AML | 02 40 20.7 | |
| OXZ | | | | AML | AML | 02 40 20.7 | |
| OXZ | | | | AML | AML | 02 40 24.8 | |
| OXZ | | | | AML | AML | 02 40 24.8 | |
| **LTZ** | **Lake Taylor** | **0.88** | **328** | *e*Pg | Pb | **02 40 15.9** | **+0.1** |
| **LTZ** | **Lake Taylor** | **0.88** | **328** | P* | Pb | **02 40 15.8** | **+0.1** |
| LTZ | | | | S* | **Sb** | **02 40 26.7** | **-0.3** |
| **KHZ** | **Kahutara** | **1.21** | **23** | *e*Pn | Pb | **02 40 21.5** | **+0.1** |
| **KHZ** | **Kahutara** | **1.21** | **23** | P* | Pb | **02 40 21.4** | **+0.1** |
| KHZ | | | | AML | AML | 02 40 38.9 | |
| KHZ | | | | AML | AML | 02 40 45.8 | |
| KHZ | | | | AML | AML | 02 40 45.8 | |
| KHZ | | | | AML | AML | 02 40 49.8 | |
| **INZ** | **Inchbonnie** | **1.33** | **307** | *e*P* | Pn | **02 40 20.1** | **-2.6** |
| **RPZ** | **Rata Peaks** | **1.35** | **261** | Pg | Pn | **02 40 22.8** | **-0.2** |
| | 323nm,0.3s,baz=105,slow=2.3,SNR=104 | | | | | | |
| RPZ | | | | Lg | Lg | 02 40 41.5 | |
| | 878nm,0.3s,baz=26,slow=17,SNR=25 | | | | | | |
| **RPZ** | **Rata Peaks** | **1.35** | **261** | *e*Pn | Pn | **02 40 23.3** | **+0.3** |
| RPZ | | | | Lg | Lg | 02 40 41.5 | |
| **RPZ** | **Rata Peaks** | **1.35** | **261** | *e*P* | Pn | **02 40 22.8** | **-0.2** |
| RPZ | | | | AML | AML | 02 40 41.8 | |
| RPZ | | | | AML | AML | 02 40 46.6 | |
| **WVZ** | **Waitaha Valley** | **1.64** | **285** | PN | Pn | **02 40 26.6** | **-0.3** |
| WVZ | | | | AML | AML | 02

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DSZ | | | | | AML | AML | 02 41 10.1 | |
| DSZ | | | | | AML | AML | 02 41 10.1 | |
| **LBZ** | **Lake Benmore** | **2.14** | **245** | *e*Pn | **Pn** | **Pn** | **02 40 34.8** | **+1.0** |
| **LBZ** | **Lake Benmore** | **2.14** | **245** | PN | **Pn** | **Pn** | **02 40 34.5** | **+0.7** |
| LBZ | | | | | AML | AML | 02 41 12.3 | |
| LBZ | | | | | AML | AML | 02 41 12.3 | |
| LBZ | | | | | AML | AML | 02 41 13.2 | |
| LBZ | | | | | AML | AML | 02 41 13.2 | |
| **ODZ** | **Otahua Downs** | **2.21** | **226** | *e*Pn | **Pn** | **Pn** | **02 40 35.6** | **+0.8** |
| **ODZ** | **Otahua Downs** | **2.21** | **226** | PN | **Pn** | **Pn** | **02 40 35.4** | **+0.6** |
| ODZ | | | | | AML | AML | 02 41 16.7 | |
| ODZ | | | | | AML | AML | 02 41 16.9 | |
| ODZ | | | | | AML | AML | 02 41 16.9 | |
| ODZ | | | | | AML | AML | 02 41 16.9 | |
| ODZ | | | | | AML | AML | 02 41 17.6 | |
| **TUWZ** | **Tuamarina** | **2.24** | **21** | PN | **Pn** | **Pn** | **02 40 35.8** | **+0.7** |
| TUWZ | | | | | AML | AML | 02 41 05.8 | |
| TUWZ | | | | | AML | AML | 02 41 31.8 | |
| **FOZ** | **Fox Glacier** | **2.24** | **269** | *e*Pn | **Pn** | **Pn** | **02 40 36.6** | **+1.4** |
| **FOZ** | **Fox Glacier** | **2.24** | **269** | ⇓PN | **Pn** | **Pn** | **02 40 36.7** | **+1.6** |
| FOZ | | | | | AML | AML | 02 41 04.4 | |
| FOZ | | | | | AML | AML | 02 41 04.5 | |
| FOZ | | | | | AML | AML | 02 41 18.0 | |
| FOZ | | | | | AML | AML | 02 41 18.0 | |
| **NNZ** | **Nelson** | **2.34** | **9** | ⇓PN | **Pn** | **Pn** | **02 40 37.6** | **+1.1** |
| NNZ | | | | | AML | AML | 02 41 27.6 | |
| NNZ | | | | | AML | AML | 02 41 28.5 | |
| **TCW** | **Tory Channel** | **2.53** | **24** | PN | **Pn** | **Pn** | **02 40 39.6** | **+0.4** |
| TCW | | | | | AML | AML | 02 41 11.8 | |
| TCW | | | | | AML | AML | 02 41 13.8 | |
| **BHW** | **Baring Head** | **2.58** | **35** | PN | **Pn** | **Pn** | **02 40 40.4** | **+0.6** |
| BHW | | | | | AML | AML | 02 41 11.7 | |
| BHW | | | | | AML | AML | 02 41 40.4 | |
| **SNZO** | **South Karori** | **2.59** | **32** | *e*Pn | **Pn** | **Pn** | **02 40 40.3** | **+0.3** |
| SNZO | | | | *e*Sn | **Sn** | **Sn** | **02 41 09.8** | **-1.2** |
| **PLWZ** | **Palliser** | **2.62** | **42** | PN | **Pn** | **Pn** | **02 40 40.9** | **+0.4** |
| PLWZ | | | | | AML | AML | 02 41 13.3 | |
| PLWZ | | | | | AML | AML | 02 42 15.0 | |
| **WEL** | **Wellington** | **2.64** | **32** | PN | **Pn** | **Pn** | **02 40 41.2** | **+0.6** |
| WEL | | | | | AML | AML | 02 41 13.0 | |
| WEL | | | | | AML | AML | 02 41 13.0 | |
| WEL | | | | | AML | AML | 02 41 15.5 | |
| WEL | | | | | AML | AML | 02 41 15.5 | |
| **QRZ** | **Quartz Range** | **2.72** | **354** | ⇓PN | **Pn** | **Pn** | **02 40 42.2** | **+0.5** |
| QRZ | | | | | AML | AML | 02 40 51.7 | |
| QRZ | | | | | AML | AML | 02 40 51.7 | |
| QRZ | | | | | AML | AML | 02 41 27.7 | |
| QRZ | | | | | AML | AML | 02 41 27.7 | |
| **MSWZ** | **Moikau Station** | **2.74** | **40** | PN | **Pn** | **Pn** | **02 40 42.3** | **+0.3** |
| MSWZ | | | | SN | **Sn** | **Sn** | **02 41 14.3** | **-0.3** |
| MSWZ | | | | | AML | AML | 02 41 18.3 | |
| **DUWZ** | **D'Urville Isla** | **2.83** | **16** | ⇓PN | **Pn** | **Pn** | **02 40 44.0** | **+0.6** |
| DUWZ | | | | | AML | AML | 02 41 40.6 | |
| DUWZ | | | | | AML | AML | 02 41 56.1 | |
| **PAWZ** | **Paruwai Farm** | **2.85** | **42** | PN | **Pn** | **Pn** | **02 40 43.5** | **-0.1** |
| PAWZ | | | | | AML | AML | 02 41 17.5 | |
| PAWZ | | | | | AML | AML | 02 41 28.7 | |
| **HHSZ** | **Highcliff Hill** | **2.87** | **214** | PN | **Pn** | **Pn** | **02 40 44.4** | **+0.6** |
| HHSZ | | | | | AML | AML | 02 41 38.4 | |
| HHSZ | | | | | AML | AML | 02 41 39.3 | |
| **CAW** | **Cannon Point** | **2.91** | **34** | PN | **Pn** | **Pn** | **02 40 44.7** | **+0.4** |
| CAW | | | | | AML | AML | 02 41 22.0 | |
| CAW | | | | | AML | AML | 02 41 23.3 | |
| **TRWZ** | **Traveller** | **2.97** | **45** | PN | **Pn** | **Pn** | **02 40 45.4** | **+0.2** |
| TRWZ | | | | | AML | AML | 02 41 22.5 | |
| TRWZ | | | | | AML | AML | 02 41 25.7 | |
| **JCZ** | **Jackson Bay** | **3.02** | **258** | PN | **Pn** | **Pn** | **02 40 46.9** | **+0.9** |
| JCZ | | | | | AML | AML | 02 41 48.0 | |
| JCZ | | | | | AML | AML | 02 41 52.1 | |
| **KIW** | **Kapiti Island** | **3.06** | **30** | PN | **Pn** | **Pn** | **02 40 47.0** | **+0.5** |
| KIW | | | | | AML | AML | 02 41 23.7 | |
| KIW | | | | | AML | AML | 02 41 25.3 | |
| **MTW** | **Mount Morrison** | **3.06** | **40** | PN | **Pn** | **Pn** | **02 40 46.1** | **-0.3** |
| MTW | | | | | AML | AML | 02 41 22.3 | |
| MTW | | | | | AML | AML | 02 41 22.7 | |
| **WKZ** | **Wanaka** | **3.08** | **244** | *e*Pn | **Pn** | **Pn** | **02 40 48.6** | **+1.9** |
| **WKZ** | **Wanaka** | **3.08** | **244** | PN | **Pn** | **Pn** | **02 40 47.3** | **+0.6** |
| WKZ | | | | | AML | AML | 02 41 45.7 | |
| WKZ | | | | | AML | AML | 02 41 45.8 | |
| WKZ | | | | | AML | AML | 02 41 47.2 | |
| WKZ | | | | | AML | AML | 02 41 47.2 | |
| **EAZ** | **Earnscleugh** | **3.08** | **235** | PN | **Pn** | **Pn** | **02 40 47.1** | **+0.4** |
| EAZ | | | | | AML | AML | 02 41 40.5 | |
| EAZ | | | | | AML | AML | 02 41 42.6 | |
| EAZ | | | | | AML | AML | 02 41 46.3 | |
| EAZ | | | | | AML | AML | 02 41 46.3 | |
| **OGWZ** | **Otaki Gorge** | **3.19** | **33** | PN | **Pn** | **Pn** | **02 40 48.6** | **+0.3** |
| OGWZ | | | | | AML | AML | 02 41 27.1 | |
| OGWZ | | | | | AML | AML | 02 41 29.8 | |
| **HOWZ** | **Holdsworth Sta** | **3.27** | **37** | PN | **Pn** | **Pn** | **02 40 49.2** | **-0.2** |
| HOWZ | | | | | AML | AML | 02 41 27.5 | |
| HOWZ | | | | | AML | AML | 02 41 28.0 | |
| **TMWZ** | **Te Maipa** | **3.29** | **44** | PN | **Pn** | **Pn** | **02 40 49.8** | **+0.2** |
| TMWZ | | | | | AML | AML | 02 41 29.3 | |
| TMWZ | | | | | AML | AML | 02 41 31.4 | |
| **TUZ** | **Tuapeka** | **3.36** | **223** | PN | **Pn** | **Pn** | **02 40 51.2** | **+0.6** |
| TUZ | | | | | AML | AML | 02 41 54.9 | |
| TUZ | | | | | AML | AML | 02 41 55.0 | |
| TUZ | | | | | AML | AML | 02 41 58.9 | |
| TUZ | | | | | AML | AML | 02 41 58.9 | |
| **MRZ** | **Mangatainoka R** | **3.49** | **36** | PN | **Pn** | **Pn** | **02 40 52.3** | **-0.1** |
| MRZ | | | | | AML | AML | 02 41 36.0 | |
| MRZ | | | | | AML | AML | 02 41 36.8 | |
| **TIWZ** | **Tintock** | **3.54** | **40** | SN | **Sn** | **Sn** | **02 41 33.3** | **-1.1** |
| TIWZ | | | | | AML | AML | 02 41 40.7 | |
| **PRWZ** | **Pori Road** | **3.75** | **39** | AML | AML | AML | 02 41 44.4 | |
| PRWZ | | | | | AML | AML | 02 41 45.0 | |
| **BFZ** | **Birch Farm** | **3.78** | **42** | *e*Pn | **Pn** | **Pn** | **02 40 56.8** | **+0.4** |
| **BFZ** | **Birch Farm** | **3.78** | **42** | PN | **Pn** | **Pn** | **02 40 56.0** | **-0.4** |
| BFZ | | | | | AML | AML | 02 41 40.7 | |
| BFZ | | | | | AML | AML | 02 41 40.7 | |
| BFZ | | | | | AML | AML | 02 41 42.0 | |
| BFZ | | | | | AML | AML | 02 41 42.0 | |
| **POWZ** | **Post Office Ro** | **3.80** | **35** | AML | AML | AML | 02 41 47.8 | |
| POWZ | | | | | AML | AML | 02 41 49.0 | |
| **MLZ** | **Mavora Lakes** | **3.88** | **240** | *e*Pn | **Pn** | **Pn** | **02 40 58.0** | **+0.2** |
| **MLZ** | **Mavora Lakes** | **3.88** | **240** | PN | **Pn** | **Pn** | **02 40 57.5** | **-0.2** |
| MLZ | | | | | AML | AML | 02 42 12.7 | |
| MLZ | | | | | AML | AML | 02 42 21.6 | |
| **SYZ** | **Scrubby Hill** | **4.02** | **220** | PN | **Pn** | **Pn** | **02 41 00.3** | **+0.8** |
| SYZ | | | | | AML | AML | 02 42 17.3 | |
| SYZ | | | | | AML | AML | 02 42 21.6 | |
| **WAZ** | **Wanganui** | **4.08** | **23** | PN | **Pn** | **Pn** | **02 41 02.5** | **+1.9** |
| WAZ | | | | | AML | AML | 02 41 55.6 | |
| WAZ | | | | | AML | AML | 02 42 03.4 | |
| **LREZ** | **Lake Rotokare** | **4.22** | **16** | PN | **Pn** | **Pn** | **02 41 05.0** | **+2.6** |
| LREZ | | | | | AML | AML | 02 42 04.1 | |
| LREZ | | | | | AML | AML | 02 42 48.9 | |
| **WHZ** | **Wether Hill Ro** | **4.25** | **234** | *e*Pn | **Pn** | **Pn** | **02 41 02.8** | **0.0** |
| **WHZ** | **Wether Hill Ro** | **4.25** | **234** | PN | **Pn** | **Pn** | **02 41 02.6** | **-0.1** |
| WHZ | | | | | AML | AML | 02 42 25.8 | |
| WHZ | | | | | AML | AML | 02 42 29.5 | |
| **PREZ** | **Palmer Road** | **4.29** | **13** | PN | **Pn** | **Pn** | **02 41 06.2** | **+2.8** |
| PREZ | | | | | AML | AML | 02 41 56.5 | |
| PREZ | | | | | AML | AML | 02 42 07.2 | |
| **PRHZ** | **Porangahau** | **4.29** | **42** | PN | **Pn** | **Pn** | **02 41 03.0** | **-0.4** |
| PRHZ | | | | | AML | AML | 02 41 56.7 | |
| PRHZ | | | | | AML | AML | 02 41 57.3 | |
| **KHEZ** | **Kahui Hut** | **4.32** | **12** | PN | **Pn** | **Pn** | **02 41 06.0** | **+2.2** |
| **PNHZ** | **Pukenui** | **4.38** | **36** | AML | AML | AML | 02 41 57.0 | |
| PNHZ | | | | | AML | AML | 02 41 57.1 | |
| **PKE** | **Pukeiti** | **4.41** | **11** | PN | **Pn** | **Pn** | **02 41 07.1** | **+2.1** |
| PKE | | | | | AML | AML | 02 41 09.9 | |
| PKE | | | | | AML | AML | 02 42 04.1 | |
| **DCZ** | **Deep Cove** | **4.54** | **243** | *e*Pn | **Pn** | **Pn** | **02 41 07.0** | **+0.3** |
| **DCZ** | **Deep Cove** | **4.54** | **243** | PN | **Pn** | **Pn** | **02 41 06.9** | **+0.1** |
| DCZ | | | | | AML | AML | 02 42 34.1 | |
| DCZ | | | | | AML | AML | 02 42 35.8 | |
| **VRZ** | **Vera Road** | **4.62** | **18** | PN | **Pn** | **Pn** | **02 41 09.4** | **+1.5** |
| VRZ | | | | | AML | AML | 02 42 13.1 | |
| VRZ | | | | | AML | AML | 02 42 14.3 | |
| **PKVZ** | **Pokaka** | **4.62** | **24** | PN | **Pn** | **Pn** | **02 41 09.4** | **+1.5** |
| **MOVZ** | **Moawhango** | **4.64** | **28** | PN | **Pn** | **Pn** | **02 41 08.5** | **+0.2** |
| MOVZ | | | | | AML | AML | 02 42 04.9 | |
| MOVZ | | | | | AML | AML | 02 42 05.4 | |
| **WNVZ** | **Wahianoa** | **4.66** | **27** | PN | **Pn** | **Pn** | **02 41 09.6** | **+0.9** |
| **TRVZ** | **Turoa** | **4.67** | **26** | PN | **Pn** | **Pn** | **02 41 09.4** | **+0.5** |
| TRVZ | | | | | AML | AML | 02 42 06.3 | |
| TRVZ | | | | | AML | AML | 02 42 07.8 | |
| **KRHZ** | **Kereru** | **4.68** | **35** | PN | **Pn** | **Pn** | **02 41 07.8** | **-0.9** |
| KRHZ | | | | | AML | AML | 02 42 05.6 | |
| KRHZ | | | | | AML | AML | 02 42 06.5 | |
| **BHHZ** | **Black Hill Sta** | **4.69** | **32** | PN | **Pn** | **Pn** | **02 41 09.4** | **+0.6** |
| BHHZ | | | | | AML | AML | 02 42 07.1 | |
| BHHZ | | | | | AML | AML | 02 42 07.9 | |
| **FWVZ** | **Far West T-bar** | **4.71** | **26** | *e*PN | **Pn** | **Pn** | **02 41 09.8** | **+0.4** |
| FWVZ | | | | | AML | AML | 02 42 07.0 | |
| FWVZ | | | | | AML | AML | 02 42 07.6 | |
| **TUVZ** | **Tukino** | **4.74** | **27** | PN | **Pn** | **Pn** | **02 41 10.4** | **+0.8** |
| TUVZ | | | | | AML | AML | 02 42 08.0 | |
| TUVZ | | | | | AML | AML | 02 42 08.1 | |
| **KAHZ** | **Kahuranaki** | **4.78** | **40** | AML | AML | AML | 02 42 12.2 | |
| KAHZ | | | | | AML | AML | 02 42 18.1 | |
| **APZ** | **The Paps** | **4.79** | **225** | PN | **Pn** | **Pn** | **02 41 07.8** | **-2.4** |
| APZ | | | | | AML | AML | 02 42 39.1 | |
| **NGZ** | **Ngauruhoe** | **4.80** | **26** | PN | **Pn** | **Pn** | **02 41 11.2** | **+0.7** |
| NGZ | | | | | AML | AML | 02 42 12.4 | |
| NGZ | | | | | AML | AML | 02 42 17.1 | |
| **OTVZ** | **Oturere** | **4.83** | **26** | PN | **Pn** | **Pn** | **02 41 11.6** | **+0.7** |
| OTVZ | | | | | AML | AML | 02 43 07.1 | |
| OTVZ | | | | | AML | AML | 02 43 14.1 | |
| **TWVZ** | **Taurewa** | **4.85** | **24** | PN | **Pn** | **Pn** | **02 41 11.6** | **+0.4** |
| **WTVZ** | **West Tongariro** | **4.85** | **26** | PN | **Pn** | **Pn** | **02 41 11.5** | **+0.3** |
| WTVZ | | | | | AML | AML | 02 42 41.5 | |
| WTVZ | | | | | AML | AML | 02 42 51.9 | |
| **KWHZ** | **Kaweka Forest** | **4.88** | **34** | AML | AML | AML | 02 42 08.6 | |
| KWHZ | | | | | AML | AML | 02 42 17.7 | |
| **KRVZ** | **Karewarewa** | **4.89** | **26** | PN | **Pn** | **Pn** | **02 41 12.2** | **+0.5** |
| KRVZ | | | | | AML | AML | 02 42 21.0 | |
| **MCHZ** | **McNeill Hill** | **4.98** | **36** | PN | **Pn** | **Pn** | **02 41 13.0** | **+0.1** |
| MCHZ | | | | | AML | AML | 02 42 14.7 | |
| MCHZ | | | | | AML | AML | 02 42 23.4 | |
| **BKZ** | **Black Stump Fm** | **5.13** | **33** | *e*Pn | **Pn** | **Pn** | **02 41 15.0** | **0.0** |
| **PYZ** | **Puysegur Point** | **5.14** | **237** | *e*Pn | **Pn** | **Pn** | **02 41 15.1** | **0.0** |
| **PYZ** | **Puysegur Point** | **5.14** | **237** | AML | AML | AML | 02 42 56.3 | |
| **HIZ** | **Hauiti** | **5.23** | **17** | *e*Pn | **Pn** | **Pn** | **02 41 17.0** | **+0.8** |
| **HIZ** | **Hauiti** | **5.23** | **17** | PN | **Pn** | **Pn** | **02 41 16.6** | **+0.3** |
| HIZ | | | | | AML | AML | 02 42 49.6 | |
| HIZ | | | | | AML | AML | 02 43 48.1 | |
| **KNZ** | **Kokohu** | **5.76** | **40** | PN | **Pn** | **Pn** | **02 41 22.8** | **-0.8** |
| **MHGZ** | **Mahia Peninsul** | **5.77** | **42** | PN | **Pn** | **Pn** | **02 41 24.2** | **+0.4** |
| **RIGZ** | **Rimuhau** | **6.06** | **39** | PN | **Pn** | **Pn** | **02 41 26.6** | **-1.2** |
| **TOZ** | **Tahuroa Road** | **6.12** | **20** | PN | **Pn** | **Pn** | **02 41 28.9** | **+0.4** |
| **URZ** | **Urewera** | **6.16** | **33** | Pn | **Pn** | **Pn** | **02 41 28.1** | **-0.9** |
| | 5.5nm,0.3s,baz=237,slow=5.5,SNR=20 | | | | | | | |
| URZ | | | | Sn | **Sn** | **Sn** | **02 42 34.9** | **-4.0** |
| | 7.0nm,0.3s,baz=88,slow=16,SNR=6.8 | | | | | | | |
| **URZ** | **Urewera** | **6.16** | **33** | *e*Pn | **Pn** | **Pn** | **02 41 27.4** | **-1.5** |
| URZ | | | | Sn | **Sn** | **Sn** | **02 42 34.9** | **-4.0** |
| **RUGZ** | **Raukumara Rang** | **6.64** | **35** | PN | **Pn** | **Pn** | **02 41 34.6** | **-1.1** |
| **HAZ** | **Te Kaha** | **6.86** | **34** | PN | **Pn** | **Pn** | **02 41 36.8** | **-1.8** |
| **PKGZ** | **Pakihiroa** | **6.87** | **37** | PN | **Pn** | **Pn** | **02 41 36.9** | **-2.0** |
| **WIAZ** | **Waiheke Island** | **6.94** | **15** | PN | **Pn** | **Pn** | **02 41 40.7** | **+0.9** |
| **CTZ** | **Chatham Island** | **7.61** | **95** | PN | **Pn** | **Pn** | **02 41 49.4** | **+0.5** |
| **OUZ** | **Omahuta** | **8.32** | **4** | *e*Pn | **Pn** | **Pn** | **02 41 59.4** | **+0.7** |
| **BBOO** | **Buckleboo** | **30.65** | **278** | *e*P | **P** | **P** | **02 46 13.6** | **+1.4** |
| | 35nm,1.9s | | | | | | | |
| **ASAR** | **Alice Springs** | **37.60** | **289** | P | **P** | **P** | **02 47 13.4** | **+0.7** |
| | 0.8nm,0.6s,baz=128,slow=7.6,SNR=11 | | | | | | | |
| **WRAB** | **Tennant Creek** | **39.84** | **294** | *e*Pn | **P** | **P** | **02 47 32.6** | **+1.2** |
| | 2.1nm,0.6s | | | | | | | |
| **WRA** | **Warramunga Arr** | **39.85** | **294** | P | **P** | **P** | **02 47 32.3** | **+0.8** |
| | 1.3nm,0.6s,baz=136,slow=7.7,SNR=24 | | | | | | | |
| **QSPA** | **South Pole Qui** | **46.60** | **180** | *e*P | **P** | **P** | **02 48 24.1** | **-1.6** |
| | 4.4nm,1.0s | | | | | | | |
| **TRQA** | **Tornquist** | **84.78** | **140** | *e*P | **P** | **P** | **02 52 31.5** | **-0.7** |
| | 2.6nm,0.8s | | | | | | | |
| **YKA** | **Yellowknife Ar** | **120.42** | **31** | PKP | **PKPdf** | | **02 58 49.0** | **+1.0** |
| | 0.1nm,0.5s,baz=226,slow=1.8,SNR=4.6 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **120.42** | **31** | PKP | **PKPdf** | **PKPdf** | **02 58 49.0** | **+1.0** |
| **TORD** | **Torodi Ar. Bea** | **148.79** | **197** | PKPbc | **PKPbc** | **PKPbc** | **02 59 46.0** | **+0.4** |
| | 0.5nm,1.0s,baz=135,slow=1.9,SNR=4.6 | | | | | | | |
| **BRTR** | **Keskin Array B** | **149.53** | **277** | PKPbc | **PKPbc** | **PKPbc** | **02 59 48.4** | **+1.5** |
| | 0.5nm,0.6s,baz=108,slow=1.3,SNR=3.4 | | | | | | | |
| **FINES** | **FINESS Array B** | **153.43** | **324** | PKPbc | **PKPbc** | **PKPbc** | **02 59 55.9** | **+0.9** |
| | 1.5nm,0.9s,baz=43,slow=2.7,SNR=4.8 | | | | | | | |

**WEL 23 02:41:02.3±0.1, 43°.50S×172°.79E, h10km, ML3.5/11, 2C,**
**Error ellipse: s-maj=1.3km s-min=0.7km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.14** | **238** | ⇑PG | Pg | 02 41 05.6 | +0.2 |
| CRLZ | | | | SG | Sg | 02 41 08.0 | +0.3 |
| CRLZ | | | | SG | | 02 41 08.1 | |
| CRLZ | | | | AML | AML | 02 41 08.1 | |
| CRLZ | | | | AML | AML | 02 41 08.2 | |
| **MQZ** | **McQueen's Vall** | **0.23** | **205** | ⇑PG | Pg | 02 41 07.1 | +0.1 |
| MQZ | | | | SG | Sg | 02 41 10.7 | +0.6 |
| MQZ | | | | SG | Sg | 02 41 10.7 | +0.6 |
| MQZ | | | | AML | AML | 02 41 10.9 | |
| **OXZ** | **Oxford** | **0.57** | **288** | P* | Pg | 02 41 13.2 | -0.2 |
| OXZ | | | | S* | Sg | 02 41 21.1 | +0.1 |
| OXZ | | | | AML | AML | 02 41 23.7 | |
| OXZ | | | | AML | AML | 02 41 23.8 | |
| OXZ | | | | AML | AML | 02 41 24.5 | |
| **LTZ** | **Lake Taylor** | **0.81** | **332** | P* | Pg | 02 41 18.0 | 0.0 |
| LTZ | | | | S* | Sg | 02 41 29.0 | +0.5 |
| **INZ** | **Inchbonnie** | **1.25** | **308** | P* | Pn | 02 41 25.5 | -0.4 |
| **RPZ** | **Rata Peaks** | **1.27** | **260** | AML | AML | 02 41 45.1 | |
| RPZ | | | | AML | AML | 02 41 45.8 | |
| **WVZ** | **Waitaha Valley** | **1.56** | **285** | *e*PN | Pb | 02 41 30.7 | -0.5 |
| WVZ | | | | AML | AML | 02 41 52.5 | |
| WVZ | | | | AML | AML | 02 41 53.4 | |
| **THZ** | **Tophouse** | **1.74** | **3** | *e*PN | Pn | 02 41 30.2 | -2.5 |
| THZ | | | | AML | AML | 02 41 58.8 | |
| THZ | | | | AML | AML | 02 41 60.0 | |
| **DSZ** | **Denniston Nort** | **1.90** | **337** | *e*PN | Pb | 02 41 37.3 | +0.2 |
| DSZ | | | | AML | AML | 02 41 58.7 | |
| DSZ | | | | AML | AML | 02 41 59.3 | |
| **LBZ** | **Lake Benmore** | **2.08** | **244** | AML | AML | 02 42 10.4 | |
| LBZ | | | | AML | AML | 02 42 12.1 | |
| **FOZ** | **Fox Glacier** | **2.16** | **268** | AML | AML | 02 42 06.7 | |
| **ODZ** | **Otahua Downs** | **2.18** | **224** | AML | AML | 02 42 12.4 | |
| ODZ | | | | AML | AML | 02 42 14.9 | |

*SJA 23 02:44:30.8±0.6, 37°.56S×74°.17W, h5km±10km, ML2.8, MW2.9*
*GUC 23 02:44:37.8±0.4, 37°.53S×73°.82W, h42km±2km, ML3.8*
*ISCJB 23 02:44:38.8±2.8, 37°.50S±0°.04×74°.0W±0°.2, h33km±35km,*
*Error ellipse: s-maj=30.1km s-min=6.2km az=5.8*
**ISC 23 02:44:35.7±2.4, 37°.54S±0°.04×74°.0W±0°.1, h24km±16km,**
**n10, σ1.9s5/20, 1C-1D, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CCSP** | **San Pedro de C** | **0.99** | **46** | *e*P | **Pb** | **02 44 53.6** | **-0.5** |
| CCSP | | | | *i* S | **Sb** | **02 45 05.5** | **-1.2** |
| CCSP | | | | IAML | | 02 45 09.5 | |
| | comp=N,4μm,0.5s | | | | | | |
| **PSCH** | **Puerto Saavedr** | **1.34** | **160** | ⇑*i* P | **Pn** | **02 44 59.7** | **+0.7** |
| PSCH | | | | *i* S | **Sn** | **02 45 16.5** | **+0.4** |
| **TMU** | **Temuco** | **1.62** | **138** | ⇓*i* P | **Pn** | **02 45 03.5** | **+0.7** |
| TMU | | | | *i* S | **Sn** | **02 45 22.5** | **-0.4** |
| **COCH** | **Cobquecura** | **1.70** | **35** | *e*P | **Pn** | **02 45 04.6** | **+0.7** |
| COCH | | | | *e*S | **Sb** | **02 45 29.7** | **+2.4** |
| **COCH** | **Cobquecura** | **1.70** | **35** | *e*P | **Pn** | **02 45 04.0** | **+0.1** |
| COCH | | | | *i* S | **Sn** | **02 45 24.2** | **-0.7** |
| **CCHI** | **Chillan** | **1.79** | **59** | *e*P | **Pb** | **02 45 06.8** | **-1.1** |
| CCHI | | | | *e*S | **Sb** | **02 45 33.0** | **+3.1** |
| **CCHI** | **Chillan** | **1.79** | **59** | *e*P | **Pn** | **02 45 05.2** | **0.0** |
| CCHI | | | | *e*S | **Sn** | **02 45 25.5** | **-1.6** |
| CCHI | | | | IAML | | 02 45 37.0 | |
| | comp=N,2μm,0.6s | | | | | | |
| **CANA** | **Caviahue** | **2.35** | **99** | *e*P | **Pn** | **02 45 14.2** | **+1.3** |
| CANA | | | | *e*S | **Sb** | **02 45 47.0** | **+1.0** |
| **GO05** | **HualaæØ** | **3.02** | **34** | *e*P | **Pn** | **02 45 22.6** | **+0.5** |
| GO05 | | | | *i* S | **Sn** | **02 45 56.5** | **-1.1** |
| GO05 | | | | IAML | | 02 46 14.9 | |
| | comp=E,318nm,0.5s | | | | | | |
| **PLCA** | **Paso Flores** | **4.16** | **141** | *e*P | **Pn** | **02 45 39.6** | **+1.8** |
| PLCA | | | | *e*S | **Sb** | **02 46 35.3** | **-2.9** |
| PLCA | | | | IAML | | 02 46 46.6 | |
| | comp=Z,12nm,0.4s | | | | | | |

*ISCJB 23 02:47:54.0±0.8, 43°.59S±0°.03×173°.02E±0°.04, h2km±6km,*
*mb4.4/5, MS4.5/1, Error ellipse: s-maj=6.6km s-min=2.7km*
*az=139.4*
*IDC 23 02:47:56.6±1.0, 43°.29S×172°.84E, h0km, mb4.2/2,*
*mb1 4.5/3, mb1mx4.0/26, mbtmp4.3/3, ML4.3/1, MS4.6/1,*
*Ms1 4.6/1, ms1mx3.6/22, Error ellipse: s-maj=38.4km*
*s-min=14.3km az=157.0*
*NEIC 23 02:47:57.1±0.7, 43°.43S×172°.82E, h6km±4km, mb4.4/3,*
*Error ellipse: s-maj=7.7km s-min=3.9km az=127.0*
*WEL 23 02:47:58.4±0.1, 43°.47S×172°.82E, h9km, ML4.6/86, Error*
*ellipse: s-maj=1.3km s-min=0.6km az=90.0*
**ISC 23 02:47:57.0±1.2, 43°.41S±0°.04×172°.84E±0°.04, h5km±8km,**
**n143, σ1.9s17/146, mb4.3/5, 5C-2D, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.23** | **224** | *e*Pg | **Pg** | **02 48 01.9** | **+0.4** |
| **CRLZ** | **Canterbury Las** | **0.23** | **224** | ⇓PG | **Pg** | **02 48 02.3** | **+0.8** |
| CRLZ | | | | SG | **Sg** | **02 48 04.9** | **+0.4** |
| CRLZ | | | | AML | AML | 02 48 05.2 | |
| CRLZ | | | | AML | AML | 02 48 05.2 | |
| CRLZ | | | | AML | AML | 02 48 05.7 | |
| **MQZ** | **McQueen's Vall** | **0.32** | **205** | *e*Pg | **Pg** | **02 48 03.5** | **+0.2** |
| **MQZ** | **McQueen's Vall** | **0.32** | **205** | ⇑PG | **Pg** | **02 48 03.9** | **+0.6** |
| MQZ | | | | SG | **Sg** | **02 48 07.5** | **0.0** |
| MQZ | | | | AML | AML | 02 48 07.8 | |
| MQZ | | | | AML | AML | 02 48 08.0 | |
| **OXZ** | **Oxford** | **0.59** | **278** | *e*Pg | **Pg** | **02 48 06.3** | **-2.1** |
| **OXZ** | **Oxford** | **0.59** | **278** | ⇓P* | **Pb** | **02 48 09.8** | **0.0** |
| OXZ | | | | AML | AML | 02 48 19.9 | |
| OXZ | | | | AML | AML | 02 48 19.9 | |
| OXZ | | | | AML | AML | 02 48 19.9 | |
| OXZ | | | | AML | AML | 02 48 20.0 | |
| **LTZ** | **Lake Taylor** | **0.76** | **326** | *e*Pn | **Pn** | **02 48 13.8** | **-0.6** |
| LTZ | | | | *e*Sg | **Sn** | **02 48 25.2** | **-0.9** |
| **KHZ** | **Kahutara** | **1.12** | **28** | *e*Pn | **Pn** | **02 48 19.5** | **+0.2** |
| **KHZ** | **Kahutara** | **1.12** | **28** | P* | **Pn** | **02 48 19.6** | **+0.3** |
| KHZ | | | | AML | AML | 02 48 39.5 | |
| KHZ | | | | AML | AML | 02 48 49.9 | |
| KHZ | | | | AML | AML | 02 48 57.3 | |
| KHZ | | | | AML | AML | 02 48 57.3 | |
| **RPZ** | **Rata Peaks** | **1.33** | **256** | Pg | **Pn** | **02 48 21.9** | **-0.4** |
| | 463nm,0.3s,baz=84,slow=3.0,SNR=381 | | | | | | |
| RPZ | | | | Lg | Lg | 02 48 40.2 | |
| | 1μm,0.3s,baz=191,slow=19,SNR=22 | | | | | | |
| **RPZ** | **Rata Peaks** | **1.33** | **256** | *e*Pn | **Pn** | **02 48 21.9** | **-0.4** |
| RPZ | | | | *e*Sg | **Sn** | **02 48 40.1** | **-0.3** |
| RPZ | | | | *e*Sn | **Sg** | **02 48 40.2** | **+0.4** |
| **RPZ** | **Rata Peaks** | **1.33** | **256** | PN | **Pn** | **02 48 21.4** | **-0.9** |
| RPZ | | | | AML | AML | 02 48 41.9 | |
| RPZ | | | | AML | AML | 02 48 46.0 | |
| **WVZ** | **Waitaha Valley** | **1.57** | **282** | PN | **Pn** | **02 48 25.5** | **-0.1** |
| WVZ | | | | AML | AML | 02 48 52.8 | |
| WVZ | | | | AML | AML | 02 49 03.5 | |
| **THZ** | **Tophouse** | **1.65** | **2** | *e*Pn | **Pn** | **02 48 27.0** | **+0.3** |
| **THZ** | **Tophouse** | **1.65** | **2** | PN | **Pn** | **02 48 27.4** | **+0.7** |
| THZ | | | | AML | AML | 02 48 53.6 | |
| THZ | | | | AML | AML | 02 48 53.9 | |
| **DSZ** | **Denniston Nort** | **1.83** | **335** | PN | **Pb** | **02 48 30.3** | **-0.8** |
| DSZ | | | | AML | AML | 02 49 04.9 | |
| DSZ | | | | AML | AML | 02 49 04.9 | |
| DSZ | | | | AML | AML | 02 49 06.3 | |
| DSZ | | | | AML | AML | 02 49 06.3 | |
| **BSWZ** | **Blackbirch Sta** | **1.86** | **25** | ⇑PN | **Pn** | **02 48 30.6** | **+1.1** |
| BSWZ | | | | AML | AML | 02 49 12.5 | |
| BSWZ | | | | AML | AML | 02 49 17.8 | |
| **CMWZ** | **Cape Campbell** | **1.95** | **32** | PN | **Pn** | **02 48 31.8** | **+1.1** |
| CMWZ | | | | AML | AML | 02 49 37.3 | |
| CMWZ | | | | AML | AML | 02 49 37.6 | |
| **TUWZ** | **Tuamarina** | **2.14** | **23** | ⇑PN | **Pn** | **02 48 34.1** | **+0.7** |
| TUWZ | | | | AML | AML | 02 49 23.1 | |
| TUWZ | | | | AML | AML | 02 49 23.3 | |
| **LBZ** | **Lake Benmore** | **2.15** | **242** | *e*Pn | **Pn** | **02 48 33.9** | **+0.4** |
| LBZ | | | | *e*Sn | **Sg** | **02 49 05.7** | **-0.4** |
| **LBZ** | **Lake Benmore** | **2.15** | **242** | PN | **Pn** | **02 48 33.3** | **-0.3** |
| LBZ | | | | AML | AML | 02 49 13.3 | |
| LBZ | | | | AML | AML | 02 49 13.3 | |
| LBZ | | | | AML | AML | 02 49 15.1 | |
| LBZ | | | | AML | AML | 02 49 15.1 | |
| **FOZ** | **Fox Glacier** | **2.21** | **266** | *e*Pn | **Pn** | **02 48 35.0** | **+0.8** |
| **FOZ** | **Fox Glacier** | **2.21** | **266** | PN | **Pn** | **02 48 35.0** | **+0.8** |
| FOZ | | | | AML | AML | 02 49 16.3 | |
| FOZ | | | | AML | AML | 02 49 16.3 | |
| FOZ | | | | AML | AML

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| TMWZ | | | | | AML | AML | 02 49 30.8 | |
| TMWZ | | | | | AML | AML | 02 49 37.1 | |
| **TUZ** | **Tuapeka** | **3.42** | **221** | | PN | **Pn** | **02 48 49.7** | **-1.2** |
| TUZ | | | | | AML | AML | 02 49 54.1 | |
| TUZ | | | | | AML | AML | 02 49 54.1 | |
| TUZ | | | | | AML | AML | 02 49 54.3 | |
| TUZ | | | | | AML | AML | 02 49 54.4 | |
| **MRZ** | **Mangatainoka R** | **3.42** | **37** | | PN | **Pn** | **02 48 50.4** | **-0.6** |
| MRZ | | | | | AML | AML | 02 49 34.0 | |
| MRZ | | | | | AML | AML | 02 49 34.9 | |
| **TIWZ** | **Tintock** | **3.48** | **42** | | PN | **Pn** | **02 48 51.2** | **-0.6** |
| TIWZ | | | | | AML | AML | 02 49 38.2 | |
| TIWZ | | | | | AML | AML | 02 49 38.3 | |
| **CPWZ** | **Castlepoint** | **3.54** | **46** | | PN | **Pn** | **02 48 52.3** | **-0.2** |
| CPWZ | | | | | AML | AML | 02 49 37.8 | |
| CPWZ | | | | | AML | AML | 02 49 38.0 | |
| **PRWZ** | **Pori Road** | **3.69** | **40** | ⇑ | PN | **Pn** | **02 48 54.4** | **-0.2** |
| PRWZ | | | | | AML | AML | 02 49 41.6 | |
| PRWZ | | | | | AML | AML | 02 49 44.3 | |
| **OHWZ** | **Ohakea** | **3.70** | **31** | | PN | **Pn** | **02 48 56.1** | **+1.3** |
| **BFZ** | **Birch Farm** | **3.73** | **44** | *e* | Pn | **Pn** | **02 48 54.4** | **-0.8** |
| **BFZ** | **Birch Farm** | **3.73** | **44** | | PN | **Pn** | **02 48 54.3** | **-0.9** |
| BFZ | | | | | AML | AML | 02 49 41.3 | |
| BFZ | | | | | AML | AML | 02 49 41.9 | |
| BFZ | | | | | AML | AML | 02 49 41.9 | |
| BFZ | | | | | AML | AML | 02 49 42.3 | |
| **POWZ** | **Post Office Ro** | **3.73** | **37** | | PN | **Pn** | **02 48 55.2** | **0.0** |
| POWZ | | | | | AML | AML | 02 50 23.9 | |
| POWZ | | | | | AML | AML | 02 50 30.9 | |
| **MLZ** | **Mavora Lakes** | **3.91** | **238** | *e* | Pn | **Pn** | **02 48 56.8** | **-0.9** |
| MLZ | | | | *e* | Sg | **Sg** | **02 50 03.8** | **+1.3** |
| **MLZ** | **Mavora Lakes** | **3.91** | **238** | | PN | **Pn** | **02 48 56.2** | **-1.4** |
| MLZ | | | | | AML | AML | 02 50 05.0 | |
| MLZ | | | | | AML | AML | 02 50 14.8 | |
| **WAZ** | **Wanganui** | **3.99** | **24** | | PN | **Pn** | **02 49 00.8** | **+2.0** |
| WAZ | | | | | AML | AML | 02 50 07.1 | |
| WAZ | | | | | AML | AML | 02 50 42.4 | |
| **NMEZ** | **Namu Road** | **4.07** | **11** | | PN | **Pn** | **02 49 02.6** | **+2.7** |
| **SYZ** | **Scrubby Hill** | **4.08** | **219** | | PN | **Pn** | **02 48 58.8** | **-1.3** |
| SYZ | | | | | AML | AML | 02 50 15.5 | |
| SYZ | | | | | AML | AML | 02 50 15.5 | |
| SYZ | | | | | AML | AML | 02 50 21.2 | |
| SYZ | | | | | AML | AML | 02 50 21.2 | |
| **TSZ** | **Takapari Road** | **4.08** | **36** | | AML | AML | 02 49 49.8 | |
| TSZ | | | | | AML | AML | 02 49 50.2 | |
| **LREZ** | **Lake Rotokare** | **4.12** | **17** | | AML | AML | 02 50 14.5 | |
| LREZ | | | | | AML | AML | 02 50 37.5 | |
| **KHEZ** | **Kahui Hut** | **4.21** | **13** | | PN | **Pn** | **02 49 03.8** | **+1.9** |
| **PRHZ** | **Porangahau** | **4.23** | **43** | | PN | **Pn** | **02 49 00.9** | **-1.2** |
| PRHZ | | | | | AML | AML | 02 50 02.5 | |
| PRHZ | | | | | AML | AML | 02 50 15.7 | |
| **NEZ** | **North Egmont** | **4.25** | **13** | | PN | **Pn** | **02 49 04.8** | **+2.4** |
| **WHZ** | **Wether Hill Ro** | **4.28** | **233** | *e* | Pn | **Pn** | **02 49 01.1** | **-1.7** |
| WHZ | | | | *e* | Pg | **Pg** | **02 49 16.8** | **-2.2** |
| WHZ | | | | *e* | Sg | **Sg** | **02 50 15.6** | **+1.1** |
| **WHZ** | **Wether Hill Ro** | **4.28** | **233** | | PN | **Pn** | **02 49 00.3** | **-2.5** |
| WHZ | | | | | AML | AML | 02 50 21.6 | |
| WHZ | | | | | AML | AML | 02 50 25.8 | |
| **WPHZ** | **Waipukurau** | **4.29** | **40** | *e* | PN | **Pn** | **02 49 02.2** | **-0.8** |
| WPHZ | | | | | AML | AML | 02 49 58.2 | |
| WPHZ | | | | | AML | AML | 02 50 50.2 | |
| **PKE** | **Pukeiti** | **4.30** | **12** | | PN | **Pn** | **02 49 05.5** | **+2.4** |
| PKE | | | | | AML | AML | 02 49 59.1 | |
| PKE | | | | | AML | AML | 02 50 00.6 | |
| **PNHZ** | **Pukenui** | **4.31** | **37** | *e* | PN | **Pn** | **02 49 02.2** | **-1.0** |
| PNHZ | | | | | AML | AML | 02 49 55.2 | |
| PNHZ | | | | | AML | AML | 02 50 44.7 | |
| **DREZ** | **Durham Road** | **4.34** | **14** | | PN | **Pn** | **02 49 06.0** | **+2.3** |
| **MHEZ** | **Mangahewa** | **4.47** | **15** | *e* | PN | **Pn** | **02 49 07.4** | **+2.0** |
| **VRZ** | **Vera Road** | **4.52** | **19** | | PN | **Pn** | **02 49 07.6** | **+1.5** |
| VRZ | | | | | AML | AML | 02 50 10.5 | |
| VRZ | | | | | AML | AML | 02 50 21.8 | |
| **DCZ** | **Deep Cove** | **4.56** | **241** | *e* | Pn | **Pn** | **02 49 05.2** | **-1.4** |
| **DCZ** | **Deep Cove** | **4.56** | **241** | | PN | **Pn** | **02 49 04.9** | **-1.7** |
| DCZ | | | | | AML | AML | 02 50 33.7 | |
| DCZ | | | | | AML | AML | 02 50 36.7 | |
| **MOVZ** | **Moawhango** | **4.56** | **30** | | PN | **Pn** | **02 49 06.7** | **0.0** |
| MOVZ | | | | | AML | AML | 02 50 27.8 | |
| MOVZ | | | | | AML | AML | 02 50 51.3 | |
| **WNVZ** | **Wahianoa** | **4.58** | **28** | | PN | **Pn** | **02 49 07.1** | **0.0** |
| **TRVZ** | **Turoa** | **4.59** | **27** | | PN | **Pn** | **02 49 07.7** | **+0.5** |
| TRVZ | | | | | AML | AML | 02 50 04.6 | |
| TRVZ | | | | | AML | AML | 02 51 01.1 | |
| **KRHZ** | **Kereru** | **4.61** | **36** | | PN | **Pn** | **02 49 06.1** | **-1.2** |
| KRHZ | | | | | AML | AML | 02 50 01.8 | |
| KRHZ | | | | | AML | AML | 02 50 08.8 | |
| **BHHZ** | **Black Hill Sta** | **4.61** | **33** | | PN | **Pn** | **02 49 07.2** | **-0.2** |
| BHHZ | | | | | AML | AML | 02 50 08.7 | |
| BHHZ | | | | | AML | AML | 02 50 14.5 | |
| **WHVZ** | **Whangaehu Hut** | **4.62** | **28** | | AML | AML | 02 50 05.7 | |
| WHVZ | | | | | AML | AML | 02 50 05.7 | |
| **FWVZ** | **Far West T-bar** | **4.63** | **27** | | PN | **Pn** | **02 49 08.2** | **+0.4** |
| FWVZ | | | | | AML | AML | 02 50 05.9 | |
| FWVZ | | | | | AML | AML | 02 50 57.1 | |
| **TUVZ** | **Tukino** | **4.65** | **28** | | PN | **Pn** | **02 49 08.8** | **+0.7** |
| TUVZ | | | | | AML | AML | 02 50 12.7 | |
| TUVZ | | | | | AML | AML | 02 50 45.6 | |
| **KAHZ** | **Kahuranaki** | **4.71** | **41** | *e* | PN | **Pn** | **02 49 07.5** | **-1.4** |
| KAHZ | | | | | AML | AML | 02 50 08.7 | |
| KAHZ | | | | | AML | AML | 02 50 10.0 | |
| **NGZ** | **Ngauruhoe** | **4.72** | **27** | | PN | **Pn** | **02 49 09.3** | **+0.3** |
| NGZ | | | | | AML | AML | 02 50 35.8 | |
| NGZ | | | | | AML | AML | 02 50 59.2 | |
| **OTVZ** | **Oturere** | **4.75** | **28** | | PN | **Pn** | **02 49 10.2** | **+0.8** |
| OTVZ | | | | | AML | AML | 02 50 46.4 | |
| OTVZ | | | | | AML | AML | 02 51 02.3 | |
| **TWVZ** | **Taurewa** | **4.76** | **25** | | PN | **Pn** | **02 49 09.8** | **+0.3** |
| TWVZ | | | | | AML | AML | 02 50 48.5 | |
| TWVZ | | | | | AML | AML | 02 51 07.9 | |
| **WTVZ** | **West Tongariro** | **4.77** | **27** | | AML | AML | 02 50 48.4 | |
| WTVZ | | | | | AML | AML | 02 51 02.6 | |
| **KRVZ** | **Karewarewa** | **4.80** | **27** | | PN | **Pn** | **02 49 11.4** | **+1.3** |
| KRVZ | | | | | AML | AML | 02 50 48.4 | |
| KRVZ | | | | | AML | AML | 02 51 00.2 | |
| **KWHZ** | **Kaweka Forest** | **4.81** | **35** | | PN | **Pn** | **02 49 10.1** | **0.0** |
| KWHZ | | | | | AML | AML | 02 50 08.1 | |
| KWHZ | | | | | AML | AML | 02 50 14.2 | |
| **APZ** | **The Paps** | **4.84** | **223** | | PN | **Pn** | **02 49 08.7** | **-1.9** |
| APZ | | | | | AML | AML | 02 50 48.7 | |
| APZ | | | | | AML | AML | 02 50 52.7 | |
| **MCHZ** | **McNeill Hill** | **4.91** | **37** | | PN | **Pn** | **02 49 11.7** | **+0.2** |
| MCHZ | | | | | AML | AML | 02 50 42.7 | |
| MCHZ | | | | | AML | AML | 02 51 30.7 | |
| **CKHZ** | **Cape Kidnapper** | **4.92** | **42** | | AML | AML | 02 50 11.2 | |
| CKHZ | | | | | AML | AML | 02 50 15.6 | |
| **BKZ** | **Black Stump Fm** | **5.06** | **34** | *e* | PN | **Pn** | **02 49 12.8** | **-0.8** |
| **BKZ** | **Black Stump Fm** | **5.06** | **34** | | AML | AML | 02 50 34.7 | |
| BKZ | | | | | AML | AML | 02 51 13.2 | |
| **HIZ** | **Hauiti** | **5.13** | **18** | *e* | Pn | **Pn** | **02 49 15.1** | **+0.7** |
| **HIZ** | **Hauiti** | **5.13** | **18** | | PN | **Pn** | **02 49 15.5** | **+1.1** |
| HIZ | | | | | AML | AML | 02 50 36.5 | |
| HIZ | | | | | AML | AML | 02 51 04.3 | |
| **PYZ** | **Puysegur Point** | **5.18** | **236** | *e* | Pn | **Pn** | **02 49 13.9** | **-1.2** |
| **PYZ** | **Puysegur Point** | **5.18** | **236** | *e* | PN | **Pn** | **02 49 12.0** | **-3.0** |
| PYZ | | | | | AML | AML | 02 50 47.6 | |
| PYZ | | | | | AML | AML | 02 50 53.1 | |
| **ARHZ** | **Aropaoanui** | **5.19** | **38** | *e* | PN | **Pn** | **02 49 15.0** | **-0.3** |
| ARHZ | | | | | AML | AML | 02 50 17.6 | |
| ARHZ | | | | | AML | AML | 02 50 18.3 | |
| **NMHZ** | **Naumai** | **5.25** | **36** | | AML | AML | 02 50 22.7 | |
| NMHZ | | | | | AML | AML | 02 50 27.8 | |
| **MTHZ** | **Maungataniwha** | **5.47** | **35** | *e* | PN | **Pn** | **02 49 17.8** | **-1.3** |
| **TLZ** | **Tolley Road** | **5.47** | **23** | | PN | **Pn** | **02 49 19.9** | **+0.7** |
| TLZ | | | | | AML | AML | 02 50 26.4 | |
| TLZ | | | | | AML | AML | 02 50 30.7 | |
| **ALRZ** | **Allen Road** | **5.52** | **30** | ⇑ | PN | **Pn** | **02 49 19.8** | **-0.1** |
| ALRZ | | | | | AML | AML | 02 49 23.9 | |
| **KNZ** | **Kokohu** | **5.70** | **41** | | PN | **Pn** | **02 49 20.4** | **-1.9** |
| KNZ | | | | | AML | AML | 02 50 36.7 | |
| KNZ | | | | | AML | AML | 02 51 49.7 | |
| **MHGZ** | **Mahia Peninsul** | **5.72** | **44** | | PN | **Pn** | **02 49 21.8** | **-0.7** |
| MHGZ | | | | | AML | AML | 02 50 33.3 | |
| MHGZ | | | | | AML | AML | 02 50 43.1 | |
| **RTZ** | **Ruatahuna** | **5.72** | **35** | | PN | **Pn** | **02 49 21.6** | **-1.1** |
| **SNGZ** | **Shannon Statio** | **5.74** | **38** | | PN | **Pn** | **02 49 21.8** | **-1.1** |
| SNGZ | | | | | AML | AML | 02 49 31.6 | |
| SNGZ | | | | | AML | AML | 02 49 51.1 | |
| **PRGZ** | **Paritu Road** | **5.88** | **42** | | PN | **Pn** | **02 49 23.3** | **-1.6** |
| PRGZ | | | | | AML | AML | 02 50 37.9 | |
| PRGZ | | | | | AML | AML | 02 50 44.3 | |
| **RIGZ** | **Rimuhau** | **6.00** | **40** | | PN | **Pn** | **02 49 24.8** | **-1.6** |
| RIGZ | | | | | AML | AML | 02 50 36.6 | |
| RIGZ | | | | | AML | AML | 02 50 44.5 | |
| **TOZ** | **Tahuroa Road** | **6.03** | **21** | | PN | **Pn** | **02 49 27.3** | **+0.5** |
| **URZ** | **Urewera** | **6.08** | **34** | | Pn | **Pn** | **02 49 26.4** | **-1.1** |
| | 7.0nm,0.3s,baz=236,slow=7.8,SNR=25 | | | | | | | |
| URZ | | | | | Sn | **Sn** | **02 50 34.5** | **-3.0** |
| | 9.7nm,0.3s,baz=95,slow=22.5NR=8.2 | | | | | | | |
| **URZ** | **Urewera** | **6.08** | **34** | | PN | **Pn** | **02 49 25.5** | **-2.0** |
| URZ | | | | | AML | AML | 02 50 44.2 | |
| URZ | | | | | AML | AML | 02 51 58.1 | |
| **MWZ** | **Matawai** | **6.19** | **37** | | AML | AML | 02 50 43.1 | |
| MWZ | | | | | AML | AML | 02 50 49.2 | |
| **AWAZ** | **Awhitu Peninsu** | **6.49** | **13** | | PN | **Pn** | **02 49 34.5** | **+1.3** |
| **RUGZ** | **Raukumara Rang** | **6.57** | **36** | | PN | **Pn** | **02 49 32.8** | **-1.5** |
| **PUZ** | **Puketiti** | **6.74** | **39** | *e* | PN | **Pn** | **02 49 32.7** | **-3.9** |
| **HAZ** | **Te Kaha** | **6.79** | **35** | *e* | PN | **Pn** | **02 49 35.4** | **-1.8** |
| HAZ | | | | | AML | AML | 02 50 55.9 | |
| HAZ | | | | | AML | AML | 02 50 57.2 | |
| **PKGZ** | **Pakihiroa** | **6.80** | **38** | *e* | PN | **Pn** | **02 49 35.1** | **-2.4** |
| PKGZ | | | | | AML | AML | 02 50 57.9 | |
| PKGZ | | | | | AML | AML | 02 50 59.6 | |
| **WIAZ** | **Waiheke Island** | **6.84** | **16** | *e* | PN | **Pn** | **02 49 38.5** | **+0.6** |
| **WMGZ** | **Waiomatatini S** | **7.01** | **39** | *e* | PN | **Pn** | **02 49 37.7** | **-2.6** |
| **CTZ** | **Chatham Island** | **7.66** | **96** | *e* | PN | **Pn** | **02 49 47.8** | **-1.4** |
| **HNR** | **Honiara** | **35.67** | **338** | | LR | LR | 03 07 00.5 | |
| | comp=Z,853nm,19.0s,baz=306,slow=32 | | | | | | | |
| **AS01** | **Alice Springs** | **37.50** | **289** | *e* | P | **P** | **02 55 11.9** | **+0.2** |
| **ASAR** | **Alice Springs** | **37.53** | **289** | | P | **P** | **02 55 12.2** | **+0.1** |
| | 2.3nm,0.7s,baz=131,slow=8.1,SNR=28 | | | | | | | |
| **WB2** | **Warramunga Arr** | **39.75** | **294** | *e* | P | **P** | **02 55 31.3** | **+0.6** |
| | 6.6nm,0.8s | | | | | | | |
| **WR1** | **Warramunga Arr** | **39.76** | **294** | *e* | P | **P** | **02 55 31.0** | **+0.2** |
| | 7.4nm,0.8s | | | | | | | |
| **WRA** | **Warramunga Arr** | **39.76** | **294** | | P | **P** | **02 55 31.0** | **+0.2** |
| | 3.2nm,0.6s,baz=133,slow=7.7,SNR=26 | | | | | | | |
| **QSPA** | **South Pole Qui** | **46.72** | **180** | *e* | P | **P** | **02 56 28.6** | **+1.9** |
| | 10.0nm,0.9s | | | | | | | |
| **INK** | **Inuvik** | **118.37** | **20** | | PKP | **PKPdf** | **03 06 44.0** | **-0.1** |
| | 0.7nm,0.6s,baz=178,slow=5.0,SNR=6.1 | | | | | | | |
| **MK32** | **Makanchi Array** | **120.16** | **307** | *e* | PKPdf | **PKPdf** | **03 06 48.5** | **+0.2** |
| **MKAR** | **Makanchi Array** | **120.16** | **307** | | PKP | **PKPdf** | **03 06 48.5** | **+0.2** |
| | 0.7nm,0.9s,baz=228,slow=1.7,SNR=3.6 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **120.34** | **31** | | PKP | **PKPdf** | **03 06 48.1** | **0.0** |
| | 0.7nm,0.8s,baz=248,slow=1.7,SNR=13 | | | | | | | |
| **YKB5** | **Yellowknife Ar** | **120.34** | **31** | *e* | PKPdf | **PKPdf** | **03 06 48.1** | **0.0** |
| **TORD** | **Torodi Ar. Bea** | **148.89** | **197** | | PKP | **PKPdf** | **03 07 42.5** | **+0.3** |
| | 2.4nm,1.1s,baz=155,slow=1.8,SNR=3.6 | | | | | | | |
| TORD | | | | | PKPbc | **PKPbc** | **03 07 46.4** | **+0.3** |
| | 5.0nm,1.2s,baz=166,slow=2.2,SNR=8.4 | | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **148.90** | **197** | *e* | PKPdf | **PKPdf** | **03 07 42.5** | **+0.3** |
| TOA1 | | | | *e* | PKPbc | **PKPbc** | **03 07 46.4** | **+0.3** |
| **ARA0** | **ARCESS Array S** | **148.96** | **338** | *e* | PKPbc | **PKPbc** | **03 07 44.8** | **+0.1** |
| **ARCES** | **ARCESS Array B** | **148.96** | **338** | | PKPbc | **PKPbc** | **03 07 44.8** | **+0.1** |
| | 5.5nm,0.9s,baz=85,slow=2.6,SNR=5.4 | | | | | | | |
| **BR101** | **Keskin Array S** | **149.47** | **277** | *e* | PKPbc | **PKPbc** | **03 07 47.0** | **-0.1** |
| **BRTR** | **Keskin Array B** | **149.47** | **277** | | PKPbc | **PKPbc** | **03 07 47.0** | **-0.1** |
| | 1.2nm,0.6s,baz=129,slow=2.7,SNR=7.1 | | | | | | | |
| **FIA0** | **FINESS Array S** | **153.31** | **324** | *e* | PKPbc | **PKPbc** | **03 07 54.8** | **-0.2** |
| **FINES** | **FINESS Array B** | **153.31** | **324** | | PKPbc | **PKPbc** | **03 07 54.8** | **-0.2** |
| | 1.3nm,0.6s,baz=60,slow=5.0,SNR=9.3 | | | | | | | |

**DJA 23 02:50:20.9±0.6, 3°S±4', 10°2E±°, h182km±5km, M4.1/7, mb4.7/1, MLv3.8/7, Southern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MASI** | **Maura Aman, Be** | **0.64** | **188** | P | Pn | 02 50 47.7 | +1.0 |
| MASI | | | | S | Sn | 02 51 07.6 | +1.0 |
| **SDSI** | **Sungai Dareh** | **1.80** | **330** | P | Pn | 02 50 56.4 | +0.4 |
| SDSI | | | | S | Sn | 02 51 24.3 | +1.0 |
| **MNAI** | **Manna** | **1.95** | **161** | P | Pn | 02 50 57.8 | +0.2 |
| MNAI | | | | S | Sn | 02 51 25.8 | -0.4 |
| **PPSI** | **Pulau Pagai** | **2.33** | **264** | P | Pn | 02 51 02.9 | +1.1 |
| PPSI | | | | S | Sn | 02 51 34.2 | +0.7 |
| **PDSI** | **Padang** | **2.44** | **310** | P | Pn | 02 51 03.4 | +0.3 |
| PDSI | | | | S | Sn | 02 51 36.1 | +0.1 |
| **DSRI** | **Dabo** | **3.01** | **48** | P | Pn | 02 51 09.7 | -0.1 |
| **SISI** | **Saibi** | **3.44** | **290** | P | Pn | 02 51 15.4 | +0.3 |
| SISI | | | | S | Sn | 02 51 57.7 | +0.3 |
| **PBSI** | **Pulau Batu** | **4.72** | **301** | P | Pn | 02 51 31.7 | +0.4 |
| PBSI | | | | S | Sn | 02 52 25.2 | -1.4 |
| **GSI** | **Gunungsitoli** | **6.07** | **308** | P | Pn | 02 51 49.2 | +0.3 |

**WEL 23 02:56:45.0±0.1, 43°50S×172°76E, h9km, ML3.7/17, 1C-2D, Error ellipse: s-maj=1.0km s-min=0.7km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.12** | **235** | PG | Pg | 02 56 47.9 | 0.0 |
| CRLZ | | | | SG | Sg | 02 56 50.3 | +0.4 |
| CRLZ | | | | SG | Sg | 02 56 50.3 | +0.5 |
| CRLZ | | | | AML | AML | 02 56 50.5 | |
| CRLZ | | | | AML | AML | 02 56 50.7 | |
| **MQZ** | **McQueen's Vall** | **0.22** | **202** | PG | Pg | 02 56 49.4 | 0.0 |
| MQZ | | | | SG | Sg | 02 56 52.9 | +0.5 |
| MQZ | | | | AML | AML | 02 56 53.1 | |
| MQZ | | | | AML | AML | 02 56 53.2 | |
| **OXZ** | **Oxford** | **0.56** | **288** | ⇓ P* | Pg | 02 56 55.7 | -0.1 |
| OXZ | | | | S* | Sg | 02 57 03.7 | +0.6 |
| OXZ | | | | AML | AML | 02 57 05.6 | |
| OXZ | | | | AML | AML | 02 57 05.8 | |
| OXZ | | | | AML | AML | 02 57 05.8 | |
| **LTZ** | **Lake Taylor** | **0.81** | **333** | P* | Pg | 02 57 00.7 | +0.2 |
| LTZ | | | | S* | Sb | 02 57 11.7 | -0.5 |
| LTZ | | | | AML | AML | 02 57 12.6 | |
| **KHZ** | **Kahutara** | **1.23** | **28** | P* | Pn | 02 57 06.6 | -1.7 |
| KHZ | | | | AML | AML | 02 57 32.4 | |
| KHZ | | | | AML | AML | 02 57 34.2 | |
| **INZ** | **Inchbonnie** | **1.24** | **308** | P* | Pn | 02 57 07.5 | -1.0 |
| **RPZ** | **Rata Peaks** | **1.26** | **260** | P* | Pb | 02 57 09.0 | 0.0 |
| RPZ | | | | AML | AML | 02 57 27.2 | |
| RPZ | | | | AML | AML | 02 57 28.4 | |
| **WVZ** | **Waitaha Valley** | **1.54** | **286** | AML | AML | 02 57 37.7 | |
| WVZ | | | | AML | AML | 02 57 43.6 | |
| **THZ** | **Tophouse** | **1.74** | **3** | PN | Pn | 02 57 14.0 | -1.5 |
| THZ | | | | AML | AML | 02 57 47.8 | |
| THZ | | | | AML | AML | 02 57 47.9 | |
| **DSZ** | **Denniston Nort** | **1.90** | **338** | PN | Pg | 02 57 23.7 | +2.4 |
| DSZ | | | | AML | AML | 02 57 49.6 | |
| DSZ | | | | AML | AML | 02 57 49.6 | |
| DSZ | | | | AML | AML | 02 57 54.9 | |
| DSZ | | | | AML | AML | 02 57 54.9 | |
| **BSWZ** | **Blackbirch Sta** | **1.97** | **25** | PN | Pn | 02 57 17.0 | -1.5 |
| **LBZ** | **Lake Benmore** | **2.06** | **244** | PN | Pn | 02 57 18.6 | -1.2 |
| LBZ | | | | AML | AML | 02 57 56.1 | |
| LBZ | | | | AML | AML | 02 58 00.6 | |
| **FOZ** | **Fox Glacier** | **2.15** | **268** | AML | AML | 02 58 00.7 | |
| FOZ | | | | AML | AML | 02 58 03.0 | |
| **ODZ** | **Otahua Downs** | **2.17** | **224** | AML | AML | 02 57 56.4 | |
| ODZ | | | | AML | AML | 02 57 56.4 | |
| ODZ | | | | AML | AML | 02 57 58.8 | |
| ODZ | | | | AML | AML | 02 58 03.0 | |
| **NNZ** | **Nelson** | **2.33** | **11** | PN | Pn | 02 57 22.5 | -0.9 |
| **TCW** | **Tory Channel** | **2.55** | **27** | PN | Pn | 02 57 24.8 | -1.7 |
| **PLWZ** | **Palliser** | **2.67** | **44** | PN | Pn | 02 57 25.8 | -2.4 |
| **QRZ** | **Quartz Range** | **2.68** | **356** | PN | Pn | 02 57 26.9 | -1.4 |
| QRZ | | | | AML | AML | 02 57 42.9 | |
| QRZ | | | | AML | AML | 02 58 03.4 | |
| QRZ | | | | AML | AML | 02 58 21.2 | |
| **HHSZ** | **Highcliff Hill** | **2.84** | **212** | PN | Pn | 02 57 29.0 | -1.4 |
| **JCZ** | **Jackson Bay** | **2.94** | **257** | AML | AML | 02 58 25.9 | |
| **WKZ** | **Wanaka** | **3.00** | **243** | PN | Pn | 02 57 31.7 | -1.1 |
| WKZ | | | | AML | AML | 02 58 31.4 | |
| WKZ | | | | AML | AML | 02 58 31.5 | |
| **EAZ** | **Earnscleugh** | **3.02** | **234** | ⇓ PN | Pn | 02 57 31.7 | -1.2 |
| EAZ | | | | AML | AML | 02 58 23.5 | |
| EAZ | | | | AML | AML | 02 58 25.1 | |
| **KIW** | **Kapiti Island** | **3.09** | **32** | PN | Pn | 02 57 31.9 | -2.0 |
| **TUZ** | **Tuapeka** | **3.31** | **221** | PN | Pn | 02 57 35.6 | -1.4 |
| TUZ | | | | AML | AML | 02 58 38.8 | |
| TUZ | | | | AML | AML | 02 58 45.1 | |
| **MLZ** | **Mavora Lakes** | **3.81** | **239** | ⇑ PN | Pn | 02 57 42.2 | -1.7 |
| **SYZ** | **Scrubby Hill** | **3.98** | **219** | PN | Pn | 02 57 44.9 | -1.1 |
| **WHZ** | **Wether Hill Ro** | **4.18** | **234** | PN | Pn | 02 57 46.6 | -2.4 |
| **DCZ** | **Deep Cove** | **4.47** | **242** | PN | Pn | 02 57 51.0 | -1.8 |
| **APZ** | **The Paps** | **4.74** | **224** | PN | Pn | 02 57 54.8 | -1.8 |
| **HIZ** | **Hauiti** | **5.23** | **18** | PN | Pn | 02 58 02.2 | -1.2 |

**WEL 23 02:56:53.4±0.5, 38°78S×175°32E, h218km±4km, ML3.3/9, Error ellipse: s-maj=5.7km s-min=3.2km az=90.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WNVZ** | **Wahianoa** | **0.59** | **159** | PN | Pn | 02 57 23.1 | +0.1 |
| WNVZ | | | | SN | S | 02 57 45.4 | -0.9 |
| **BHHZ** | **Black Hill Sta** | **0.91** | **141** | PN | Pn | 02 57 24.5 | 0.0 |
| BHHZ | | | | SN | S | 02 57 47.4 | -1.4 |
| **WAZ** | **Wanganui** | **1.01** | **195** | PN | Pn | 02 57 23.7 | -1.3 |
| WAZ | | | | SN | S | 02 57 48.2 | -1.5 |
| **TOZ** | **Tahuroa Road** | **1.06** | **8** | PN | Pn | 02 57 25.2 | -0.2 |
| **KHEZ** | **Kahui Hut** | **1.14** | **243** | SN | S | 02 57 51.6 | +0.3 |
| **KRHZ** | **Kereru** | **1.19** | **137** | PN | Pn | 02 57 26.4 | +0.2 |
| KRHZ | | | | SN | S | 02 57 51.3 | -0.5 |
| **WPHZ** | **Waipukurau** | **1.55** | **146** | PN | Pn | 02 57 29.4 | +0.4 |
| WPHZ | | | | SN | S | 02 57 56.5 | -0.3 |
| **PRHZ** | **Porangahau** | **1.80** | **146** | PN | Pn | 02 57 31.5 | +0.2 |
| **MRZ** | **Mangatainoka R** | **1.89** | **174** | PN | Pn | 02 57 31.0 | -1.1 |
| MRZ | | | | SN | S | 02 57 59.8 | -2.5 |
| **BFZ** | **Birch Farm** | **2.03** | **160** | PN | Pn | 02 57 32.7 | -0.7 |
| BFZ | | | | SN | S | 02 58 03.9 | -0.8 |
| **OGWZ** | **Otaki Gorge** | **2.04** | **183** | PN | Pn | 02 57 32.4 | -1.2 |
| OGWZ | | | | SN | S | 02 58 01.9 | -3.0 |
| **HOWZ** | **Holdsworth Sta** | **2.12** | **176** | PN | Pn | 02 57 33.0 | -1.4 |
| HOWZ | | | | SN | S | 02 58 03.0 | -3.3 |

**WEL 23 02:58:14.2±0.2, 43°54S×172°73E, h11km±1km, ML3.0/5, 1C-1D, Error ellipse: s-maj=3.3km s-min=1.3km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.08** | **245** | ⇑ PG | Pg | 02 58 16.7 | 0.0 |
| CRLZ | | | | SG | Sg | 02 58 18.6 | 0.0 |
| CRLZ | | | | AML | AML | 02 58 19.6 | |
| **MQZ** | **McQueen's Vall** | **0.17** | **198** | ⇓ PG | Pg | 02 58 18.2 | +0.1 |
| MQZ | | | | SG | Sg | 02 58 21.3 | +0.6 |
| MQZ | | | | SG | | 02 58 21.4 | |
| MQZ | | | | AML | AML | 02 58 21.5 | |
| **OXZ** | **Oxford** | **0.55** | **293** | P* | Pg | 02 58 24.5 | -0.3 |
| OXZ | | | | AML | AML | 02 58 25.7 | |
| OXZ | | | | AML | AML | 02 58 34.6 | |
| OXZ | | | | AML | AML | 02 58 34.6 | |
| OXZ | | | | AML | AML | 02 58 34.6 | |
| **LTZ** | **Lake Taylor** | **0.83** | **336** | P* | Pg | 02 58 29.6 | -0.6 |
| LTZ | | | | S* | Sg | 02 58 41.2 | +0.3 |
| **INZ** | **Inchbonnie** | **1.24** | **310** | P* | Pn | 02 58 37.1 | -0.3 |

**WEL 23 03:00:58.8±0.2, 43°49S×172°89E, h11km±1km, ML3.5/15, 3C-4D, Error ellipse: s-maj=2.2km s-min=1.0km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.21** | **245** | ⇑ PG | Pg | 03 01 03.4 | +0.1 |
| CRLZ | | | | SG | Sg | 03 01 06.2 | +0.3 |
| CRLZ | | | | AML | AML | 03 01 06.7 | |
| **MQZ** | **McQueen's Vall** | **0.28** | **218** | ⇑ PG | Pg | 03 01 04.7 | +0.2 |
| MQZ | | | | SG | Sg | 03 01 08.9 | +0.7 |
| MQZ | | | | AML | AML | 03 01 09.1 | |
| **OXZ** | **Oxford** | **0.64** | **284** | ⇓ P* | Pg | 03 01 10.7 | -0.5 |
| OXZ | | | | S* | Sg | 03 01 19.0 | -0.5 |
| OXZ | | | | AML | AML | 03 01 20.9 | |
| **LTZ** | **Lake Taylor** | **0.84** | **327** | ⇓ P* | Pg | 03 01 14.6 | -0.3 |
| LTZ | | | | S* | Sg | 03 01 26.2 | +0.3 |
| **KHZ** | **Kahutara** | **1.17** | **24** | P* | Pb | 03 01 19.7 | -1.5 |
| KHZ | | | | AML | AML | 03 01 56.7 | |
| **WVZ** | **Waitaha Valley** | **1.62** | **284** | PN | Pn | 03 01 27.2 | -0.1 |
| WVZ | | | | AML | AML | 03 01 59.3 | |
| WVZ | | | | AML | AML | 03 02 01.8 | |
| **THZ** | **Tophouse** | **1.73** | **0** | ⇑ PN | Pn | 03 01 27.6 | -1.2 |
| THZ | | | | AML | AML | 03 02 00.2 | |
| THZ | | | | AML | AML | 03 02 03.1 | |
| **DSZ** | **Denniston Nort** | **1.92** | **335** | PN | Pn | 03 01 30.5 | -1.0 |
| DSZ | | | | AML | AML | 03 02 02.8 | |
| DSZ | | | | AML | AML | 03 02 02.8 | |
| DSZ | | | | AML | AML | 03 02 08.2 | |
| DSZ | | | | AML | AML | 03 02 08.2 | |
| **BSWZ** | **Blackbirch Sta** | **1.92** | **23** | PN | Pn | 03 01 30.7 | -0.8 |
| **LBZ** | **Lake Benmore** | **2.15** | **244** | PN | Pn | 03 01 34.0 | -0.6 |
| LBZ | | | | AML | AML | 03 02 10.6 | |
| LBZ | | | | AML | AML | 03 02 15.9 | |
| **TUWZ** | **Tuamarina** | **2.20** | **21** | PN | Pn | 03 01 34.2 | -1.2 |
| **FOZ** | **Fox Glacier** | **2.23** | **268** | PN | Pn | 03 01 36.2 | +0.4 |
| FOZ | | | | AML | AML | 03 02 05.1 | |
| **ODZ** | **Otahua Downs** | **2.24** | **225** | PN | Pn | 03 01 35.2 | -0.7 |
|

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| MQZ | | | | | AML | AML | 03 05 16.0 | |
| **OXZ** | **Oxford** | **0.55** | **286** | ⇑P* | Pg | AML | 03 05 17.9 | -0.1 |
| OXZ | | | | | AML | AML | 03 05 27.4 | |
| OXZ | | | | | AML | AML | 03 05 27.4 | |
| **LTZ** | **Lake Taylor** | **0.79** | **333** | ⇓P* | Pg | S* | 03 05 22.8 | +0.2 |
| LTZ | | | | | S* | Sb | 03 05 33.6 | -0.4 |
| LTZ | | | | | AML | AML | 03 05 34.6 | |
| **KHZ** | **Kahutara** | **1.21** | **28** | P* | Pb | P* | 03 05 28.9 | -1.5 |
| KHZ | | | | | AML | AML | 03 05 51.2 | |
| KHZ | | | | | AML | AML | 03 06 01.1 | |
| **INZ** | **Inchbonnie** | **1.23** | **308** | P* | Pn | P* | 03 05 30.6 | -0.1 |
| **WVZ** | **Waitaha Valley** | **1.54** | **285** | AML | AML | AML | 03 06 00.8 | |
| WVZ | | | | AML | AML | AML | 03 06 05.6 | |
| **THZ** | **Tophouse** | **1.72** | **4** | PN | Pn | PN | 03 05 36.2 | -1.4 |
| THZ | | | | AML | AML | AML | 03 06 08.8 | |
| THZ | | | | AML | AML | AML | 03 06 10.0 | |
| **DSZ** | **Denniston Nort** | **1.88** | **338** | PN | Pn | PN | 03 05 38.8 | -0.8 |
| DSZ | | | | AML | AML | AML | 03 06 12.7 | |
| DSZ | | | | AML | AML | AML | 03 06 17.5 | |
| DSZ | | | | AML | AML | AML | 03 06 19.9 | |
| DSZ | | | | AML | AML | AML | 03 06 19.9 | |
| **BSWZ** | **Blackbirch Sta** | **1.95** | **25** | PN | Pn | PN | 03 05 39.3 | -1.3 |
| **LBZ** | **Lake Benmore** | **2.07** | **243** | PN | Pn | PN | 03 05 41.4 | -0.9 |
| LBZ | | | | AML | AML | AML | 03 06 16.5 | |
| LBZ | | | | AML | AML | AML | 03 06 17.7 | |
| **FOZ** | **Fox Glacier** | **2.15** | **268** | PN | Pn | PN | 03 05 43.4 | +0.2 |
| FOZ | | | | AML | AML | AML | 03 06 27.4 | |
| FOZ | | | | AML | AML | AML | 03 06 27.7 | |
| **ODZ** | **Otahua Downs** | **2.18** | **224** | PN | Pn | PN | 03 05 42.7 | -1.1 |
| ODZ | | | | AML | AML | AML | 03 06 17.0 | |
| ODZ | | | | AML | AML | AML | 03 06 17.0 | |
| ODZ | | | | AML | AML | AML | 03 06 23.4 | |
| ODZ | | | | AML | AML | AML | 03 06 23.4 | |
| **TUWZ** | **Tuamarina** | **2.23** | **23** | PN | Pn | PN | 03 05 42.8 | -1.7 |
| **NNZ** | **Nelson** | **2.31** | **12** | PN | Pn | PN | 03 05 44.6 | -0.9 |
| **QRZ** | **Quartz Range** | **2.66** | **356** | PN | Pn | PN | 03 05 49.3 | -1.1 |
| QRZ | | | | AML | AML | AML | 03 05 58.4 | |
| QRZ | | | | AML | AML | AML | 03 06 40.4 | |
| **CAW** | **Cannon Point** | **2.93** | **37** | PN | Pn | PN | 03 05 52.2 | -1.8 |
| **JCZ** | **Jackson Bay** | **2.94** | **257** | PN | Pn | PN | 03 05 54.0 | -0.3 |
| JCZ | | | | AML | AML | AML | 03 06 53.5 | |
| **WKZ** | **Wanaka** | **3.01** | **242** | PN | Pn | PN | 03 05 54.1 | -1.1 |
| WKZ | | | | AML | AML | AML | 03 06 49.2 | |
| WKZ | | | | AML | AML | AML | 03 06 52.6 | |
| **EAZ** | **Earnscleugh** | **3.03** | **234** | PN | Pn | PN | 03 05 54.0 | -1.5 |
| EAZ | | | | AML | AML | AML | 03 06 47.2 | |
| EAZ | | | | AML | AML | AML | 03 06 47.9 | |
| **TUZ** | **Tuapeka** | **3.33** | **221** | PN | Pn | PN | 03 05 58.6 | -0.9 |
| TUZ | | | | AML | AML | AML | 03 07 05.4 | |
| TUZ | | | | AML | AML | AML | 03 07 05.7 | |
| **MRZ** | **Mangatainoka R** | **3.51** | **38** | PN | Pn | PN | 03 05 59.3 | -2.8 |
| **BFZ** | **Birch Farm** | **3.82** | **44** | PN | Pn | PN | 03 06 03.5 | -2.7 |
| **MLZ** | **Mavora Lakes** | **3.82** | **239** | PN | Pn | PN | 03 06 05.0 | -1.4 |
| **SYZ** | **Scrubby Hill** | **3.99** | **219** | PN | Pn | PN | 03 06 08.2 | -0.4 |
| **KHEZ** | **Kahui Hut** | **4.29** | **13** | *e*PN | Pn | PN | 03 06 13.2 | +0.3 |
| **DCZ** | **Deep Cove** | **4.48** | **242** | PN | Pn | PN | 03 06 14.1 | -1.2 |
| **WNVZ** | **Wahianoa** | **4.67** | **28** | PN | Pn | PN | 03 06 17.4 | -0.8 |
| **APZ** | **The Paps** | **4.75** | **224** | PN | Pn | PN | 03 06 17.9 | -1.2 |
| **OTVZ** | **Oturere** | **4.84** | **28** | PN | Pn | PN | 03 06 19.4 | -1.0 |
| **HIZ** | **Hauiti** | **5.21** | **18** | PN | Pn | PN | 03 06 24.4 | -1.0 |

**IDC 23 03:10:30.5±1.1, 7.71S×128.30E, h0km, mb3.7/4, mb1 3.9/7, mb1mx3.7/37, mbtmp3.8/7, ML4.0/3, Error ellipse: s-maj=67.1km s-min=18.2km az=74.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **10.65** | **194** | Pn | Pn | 03 13 04.7 | +0.2 |
| | 0.9nm,0.3s,baz=20,slow=12,SNR=19 | | | | | | |
| FITZ | | | | Sn | Sn | 03 15 05.5 | +1.0 |
| | baz=99,slow=19 | | | | | | |
| **WRA** | **Warramunga Arr** | **13.50** | **155** | Pn | Pn | 03 13 42.1 | -1.4 |
| | 0.8nm,0.3s,baz=337,slow=13,SNR=14 | | | | | | |
| WRA | | | | Sn | Sn | 03 16 07.0 | -7.3 |
| | 0.6nm,0.3s,baz=331,slow=22,SNR=7.9 | | | | | | |
| **ASAR** | **Alice Springs** | **16.76** | **162** | Pn | Pn | 03 14 26.5 | -0.2 |
| | 0.5nm,0.3s,baz=338,slow=9.9,SNR=19 | | | | | | |
| ASAR | | | | Sn | Sn | 03 17 29.1 | -4.6 |
| | 0.2nm,0.3s,baz=342,slow=26,SNR=3.8 | | | | | | |
| **STKA** | **Stephens Creek** | **27.05** | **155** | P | P | 03 16 15.1 | +0.4 |
| | 1.3nm,0.7s,baz=331,slow=12,SNR=3.1 | | | | | | |
| **SONM** | **Songino Array** | **58.59** | **343** | P | P | 03 20 29.4 | +0.1 |
| | 0.4nm,0.4s,baz=168,slow=7.3,SNR=3.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.90** | **328** | P | P | 03 21 30.9 | 0.0 |
| | 0.2nm,0.5s,baz=123,slow=6.1,SNR=6.6 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **71.48** | **335** | P | P | 03 21 52.7 | -0.1 |
| | 0.3nm,0.3s,baz=138,slow=6.7,SNR=2.6 | | | | | | |

*ISCJB **23** 03:14:33.1±0.3, 43.56S±0.03×172.98E±0.03, h10km, mb4.3/4, Error ellipse: s-maj=5.2km s-min=2.4km az=144.2*

*IDC **23** 03:14:33.8±1.3, 43.35S×172.89E, h0km, mb3.9/2, mb1 4.1/3, mb1mx3.9/24, mbtmp3.9/3, ML3.7/1, Error ellipse: s-maj=42.7km s-min=15.1km az=157.0*

*NEIC **23** 03:14:34.4±0.0, 43.45S×172.93E, h10km, ML4.6(WEL), After WEL.*

*NEIC Felt in the Christchurch area.*

*WEL **23** 03:14:35.7±0.1, 43.48S×172.85E, h10km, ML4.4/63, Mw4.2, Error ellipse: s-maj=1.4km s-min=0.6km az=90.0*

*WEL Felt in the Canterbury region, maximum reported intensity MM 4.*

**ISC 23 03:14:34.8±0.7, 43.49S±0.03×172.91E±0.04, h10km, n119, σ0.90/111, mb4.2/4, 4C, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.23** | **249** | *e*Pg | **Pg** | **03 14 39.7** | **+0.3** |
| **CRLZ** | **Canterbury Las** | **0.23** | **249** | ⇑PG | **Pg** | **03 14 39.9** | **+0.4** |
| CRLZ | | | | SG | **Sg** | **03 14 42.8** | **+0.2** |
| CRLZ | | | | AML | AML | 03 14 42.8 | |
| CRLZ | | | | SG | | 03 14 42.8 | |
| CRLZ | | | | AML | AML | 03 14 42.9 | |
| **MQZ** | **McQueen's Vall** | **0.28** | **221** | *e*Pg | **Pg** | **03 14 41.3** | **+0.8** |
| **MQZ** | **McQueen's Vall** | **0.28** | **221** | PG | **Pg** | **03 14 41.1** | **+0.6** |
| MQZ | | | | SG | **Sg** | **03 14 45.1** | **+0.7** |
| MQZ | | | | SG | **Sg** | **03 14 45.1** | **+0.7** |
| MQZ | | | | AML | AML | 03 14 45.4 | |
| **OXZ** | **Oxford** | **0.66** | **284** | *e*Pg | **Pg** | **03 14 47.1** | **-0.4** |
| **OXZ** | **Oxford** | **0.66** | **284** | ⇑P* | **Pg** | **03 14 47.2** | **-0.4** |
| OXZ | | | | AML | AML | 03 14 56.4 | |
| OXZ | | | | AML | AML | 03 14 56.4 | |
| OXZ | | | | S* | **Sb** | **03 14 56.6** | **-1.0** |
| OXZ | | | | AML | AML | 03 14 57.3 | |
| **LTZ** | **Lake Taylor** | **0.85** | **326** | *e*Pg | **Pg** | **03 14 51.4** | **+0.1** |
| **LTZ** | **Lake Taylor** | **0.85** | **326** | P* | **Pg** | **03 14 51.4** | **+0.1** |
| LTZ | | | | S* | **Sg** | **03 15 02.4** | **0.0** |
| **KHZ** | **Kahutara** | **1.17** | **23** | *e*Pn | **Pb** | **03 14 57.4** | **+0.3** |
| **KHZ** | **Kahutara** | **1.17** | **23** | P* | **Pb** | **03 14 57.4** | **+0.3** |
| KHZ | | | | AML | AML | 03 15 16.6 | |
| KHZ | | | | AML | AML | 03 15 21.7 | |
| KHZ | | | | AML | AML | 03 15 21.7 | |
| KHZ | | | | AML | AML | 03 15 39.6 | |
| **INZ** | **Inchbonnie** | **1.32** | **305** | P* | **Pn** | **03 14 58.0** | **-1.3** |
| **RPZ** | **Rata Peaks** | **1.37** | **260** | Pg | **Pn** | **03 14 59.0** | **-1.0** |
| | 348nm,0.3s,baz=106,slow=1.9,SNR=370 | | | | | | |
| RPZ | | | | Lg | Lg | 03 15 18.0 | |
| | 847nm,0.3s,baz=3.8,slow=15,SNR=27 | | | | | | |
| **RPZ** | **Rata Peaks** | **1.37** | **260** | PN | **Pn** | **03 14 58.6** | **-1.4** |
| RPZ | | | | AML | AML | 03 15 18.3 | |
| RPZ | | | | AML | AML | 03 15 23.4 | |
| **WVZ** | **Waitaha Valley** | **1.64** | **284** | Pn | **Pn** | **03 15 03.1** | **-0.6** |
| **WVZ** | **Waitaha Valley** | **1.64** | **284** | PN | **Pn** | **03 15 03.0** | **-0.7** |
| WVZ | | | | AML | AML | 03 15 30.5 | |
| WVZ | | | | AML | AML | 03 15 31.1 | |
| **THZ** | **Tophouse** | **1.73** | **360** | *e*Pn | **Pn** | **03 15 05.2** | **+0.2** |
| **THZ** | **Tophouse** | **1.73** | **360** | PN | **Pn** | **03 15 05.0** | **0.0** |
| THZ | | | | AML | AML | 03 15 29.0 | |
| THZ | | | | AML | AML | 03 15 29.6 | |
| **BSWZ** | **Blackbirch Sta** | **1.92** | **22** | PN | **Pn** | **03 15 07.9** | **+0.5** |
| BSWZ | | | | AML | AML | 03 15 33.2 | |
| BSWZ | | | | AML | AML | 03 15 57.9 | |
| **DSZ** | **Denniston Nort** | **1.93** | **335** | Pn | **Pn** | **03 15 07.5** | **-0.3** |
| **DSZ** | **Denniston Nort** | **1.93** | **335** | PN | **Pn** | **03 15 07.4** | **-0.3** |
| DSZ | | | | AML | AML | 03 15 45.5 | |
| DSZ | | | | AML | AML | 03 15 46.0 | |
| DSZ | | | | AML | AML | 03 15 48.0 | |
| DSZ | | | | AML | AML | 03 15 48.1 | |
| **LBZ** | **Lake Benmore** | **2.16** | **245** | *e*Pn | **Pn** | **03 15 10.9** | **0.0** |
| **LBZ** | **Lake Benmore** | **2.16** | **245** | *e*PN | **Pb** | **03 15 15.0** | **+0.9** |
| LBZ | | | | AML | AML | 03 15 48.7 | |
| LBZ | | | | AML | AML | 03 15 48.7 | |
| LBZ | | | | AML | AML | 03 15 49.3 | |
| LBZ | | | | AML | AML | 03 15 49.4 | |
| **TUWZ** | **Tuamarina** | **2.20** | **21** | *e*PN | **Pn** | **03 15 11.4** | **0.0** |
| TUWZ | | | | AML | AML | 03 16 04.5 | |
| TUWZ | | | | AML | AML | 03 16 11.1 | |
| **ODZ** | **Otahua Downs** | **2.25** | **226** | *e*Pn | **Pn** | **03 15 11.5** | **-0.5** |
| **ODZ** | **Otahua Downs** | **2.25** | **226** | ⇑PN | **Pn** | **03 15 11.5** | **-0.5** |
| ODZ | | | | AML | AML | 03 15 47.7 | |
| ODZ | | | | AML | AML | 03 15 51.5 | |
| ODZ | | | | AML | AML | 03 15 56.5 | |
| ODZ | | | | AML | AML | 03 15 56.5 | |
| **FOZ** | **Fox Glacier** | **2.25** | **268** | *e*Pn | **Pn** | **03 15 13.2** | **+1.1** |
| **FOZ** | **Fox Glacier** | **2.25** | **268** | ⇑PN | **Pn** | **03 15 12.6** | **+0.5** |
| FOZ | | | | AML | AML | 03 15 55.1 | |
| FOZ | | | | AML | AML | 03 15 55.2 | |
| FOZ | | | | AML | AML | 03 15 56.1 | |
| FOZ | | | | AML | AML | 03 15 56.1 | |
| **NNZ** | **Nelson** | **2.30** | **9** | Pn | **Pn** | **03 15 13.8** | **+1.0** |
| **NNZ** | **Nelson** | **2.30** | **9** | PN | **Pn** | **03 15 13.7** | **+1.0** |
| NNZ | | | | AML | AML | 03 16 02.0 | |
| NNZ | | | | AML | AML | 03 16 03.2 | |
| **TCW** | **Tory Channel** | **2.50** | **24** | PN | **Pn** | **03 15 15.6** | **+0.1** |
| TCW | | | | AML | AML | 03 15 51.1 | |
| TCW | | | | AML | AML | 03 16 15.9 | |
| **BHW** | **Baring Head** | **2.54** | **35** | PN | **Pn** | **03 15 16.0** | **-0.1** |
| BHW | | | | AML | AML | 03 16 19.0 | |
| BHW | | | | AML | AML | 03 16 21.9 | |
| **SNZO** | **South Karori** | **2.55** | **32** | *e*Pn | **Pn** | **03 15 15.8** | **-0.5** |
| **PLWZ** | **Palliser** | **2.59** | **43** | PN | **Pn** | **03 15 16.4** | **-0.4** |
| PLWZ | | | | AML | AML | 03 15 56.6 | |
| PLWZ | | | | AML | AML | 03 16 28.1 | |
| **WEL** | **Wellington** | **2.60** | **33** | Pn | **Pn** | **03 15 17.3** | **+0.4** |
| **WEL** | **Wellington** | **2.60** | **33** | AML | AML | 03 15 49.0 | |
| WEL | | | | AML | AML | 03 15 50.6 | |
| WEL | | | | AML | AML | 03 15 53.7 | |
| WEL | | | | AML | AML | 03 15 59.1 | |
| **QRZ** | **Quartz Range** | **2.68** | **354** | Pn | **Pn** | **03 15 18.8** | **+0.8** |
| **QRZ** | **Quartz Range** | **2.68** | **354** | AML | AML | 03 15 30.5 | |
| QRZ | | | | AML | AML | 03 15 30.5 | |
| QRZ | | | | AML | AML | 03 16 10.7 | |
| QRZ | | | | AML | AML | 03 16 10.7 | |
| **MSWZ** | **Moikau Station** | **2.70** | **41** | PN | **Pn** | **03 15 17.8** | **-0.5** |
| MSWZ | | | | AML | AML | 03 15 56.8 | |
| MSWZ | | | | AML | AML | 03 16 30.6 | |
| **DUWZ** | **D'Urville Isla** | **2.79** | **16** | AML | AML | 03 16 12.2 | |
| DUWZ | | | | AML | AML | 03 16 29.8 | |
| **PAWZ** | **Paruwai Farm** | **2.81** | **42** | *e*PN | **Pn** | **03 15 19.** | **-0.8** |
| PAWZ | | | | AML | AML | 03 15 59.0 | |
| PAWZ | | | | AML | AML | 03 16 40.3 | |
| **CAW** | **Cannon Point** | **2.87** | **35** | AML | AML | 03 16 02.6 | |
| CAW | | | | AML | AML | 03 16 05.5 | |
| **HHSZ** | **Highcliff Hill** | **2.90** | **214** | Pn | **Pn** | **03 15 20.5** | **-0.6** |
| **HHSZ** | **Highcliff Hill** | **2.90** | **214** | PN | **Pn** | **03 15 20.5** | **-0.6** |
| HHSZ | | | | AML | AML | 03 16 16.2 | |
| HHSZ | | | | AML | AML | 03 16 22.6 | |
| **TRWZ** | **Traveller** | **2.93** | **45** | PN | **Pn** | **03 15 21.0** | **-0.5** |
| TRWZ | | | | AML | AML | 03 15 60.0 | |
| TRWZ | | | | AML | AML | 03 16 01.1 | |
| **KIW** | **Kapiti Island** | **3.02** | **30** | AML | AML | 03 16 08.1 | |
| KIW | | | | AML | AML | 03 16 28.4 | |
| **MTW** | **Mount Morrison** | **3.02** | **40** | PN | **Pn** | **03 15 21.9** | **-0.8** |
| MTW | | | | AML | AML | 03 16 02.0 | |
| MTW | | | | AML | AML | 03 15 02.5 | |
| **JCZ** | **Jackson Bay** | **3.04** | **258** | Pn | **Pn** | **03 15 22.4** | **-0.7** |
| **JCZ** | **Jackson Bay** | **3.04** | **258** | *e*PN | **Pn** | **03 15 22.1** | **-0.9** |
| JCZ | | | | AML | AML | 03 16 14.3 | |
| JCZ | | | | AML | AML | 03 16 17.5 | |
| **WKZ** | **Wanaka** | **3.10** | **243** | *e*Pn | **Pn** | **03 15 23.8** | **-0.1** |
| **WKZ** | **Wanaka** | **3.10** | **243** | PN | **Pn** | **03 15 23.7** | **-0.1** |
| WKZ | | | | AML | AML | 03 16 20.7 | |
| WKZ | | | | AML | AML | 03 16 20.7 | |
| WKZ | | | | AML | AML | 03 16 21.1 | |
| WKZ | | | | AML | AML | 03 16 21.1 | |
| **EAZ** | **Earnscleugh** | **3.11** | **235** | Pn | **Pn** | **03 15 23.4** | **-0.6** |
| **EAZ** | **Earnscleugh** | **3.11** | **235** | PN | **Pn** | **03 15 23.2** | **-0.7** |
| EAZ | | | | AML | AML | 03 16 14.2 | |
| EAZ | | | | AML | AML | 03 16 18.9 | |
| EAZ | | | | AML | AML | 03 16 21.8 | |
| EAZ | | | | AML | AML | 03 16 21.8 | |
| **OGWZ** | **Otaki Gorge** | **3.16** | **33** | AML | AML | 03 16 09.2 | |
| OGWZ | | | | AML | AML | 03 16 19.4 | |
| **HOWZ** | **Holdsworth Sta** | **3.24** | **38** | AML | AML | 03 16 18.9 | |
| HOWZ | | | | AML | AML | 03 16 57.1 | |
| **TMWZ** | **Te Maipa** | **3.25** | **44** | PN | **Pn** | **03 15 25.0** | **-0.9** |
| TMWZ | | | | AML | AML | 03 16 12.9 | |
| TMWZ | | | | AML | AML | 03 16 47.9 | |
| **TUZ** | **Tuapeka** | **3.39** | **222** | Pn | **Pn** | **03 15 27.3** | **-0.5** |
| **TUZ** | **Tuapeka** | **3.39** | **222** | PN | **Pn** | **03 15 27.2** | **-0.5** |
| TUZ | | | | AML | AML | 03 16 31.7 | |
| TUZ | | | | AML | AML | 03 16 33.0 | |
| TUZ | | | | AML | AML | 03 16 33.0 | |
| TUZ | | | | AML | AML | 03 16 33.4 | |
| **MRZ** | **Mangatainoka R** | **3.46** | **36** | Pn | **Pn** | **03 15 28.4** | **-0.4** |
| **MRZ** | **Mangatainoka R** | **3.46** | **36** | PN | **Pn** | **03 15 28.3** | **-0.4** |
| MRZ | | | | AML | AML | 03 16 18.8 | |
| MRZ | | | | AML | AML | 03 16 21.0 | |
| **TIWZ** | **Tintock** | **3.50** | **40** | AML | AML | 03 16 19.3 | |
| TIWZ | | | | AML | AML | 03 16 19.4 | |
| **PRWZ** | **Pori Road** | **3.72** | **39** | *e*PN | **Pn** | **03 15 32.4** | **+0.1** |
| PRWZ | | | | AML | AML | 03 16 29.2 | |
| PRWZ | | | | AML | AML | 03 16 40.9 | |
| **BFZ** | **Birch Farm** | **3.75** | **43** | *e*Pn | **Pn** | **03 15 32.0** | **-0.7** |
| **BFZ** | **Birch Farm** | **3.75** | **43** | *e*PN | **Pn** | **03 15 30.9** | **-1.8** |
| BFZ | | | | AML | AML | 03 16 22.3 | |
| BFZ | | | | AML | AML | 03 16 22.3 | |
| BFZ | | | | AML | AML | 03 16 30.9 | |
| BFZ | | | | AML | AML | 03 16 30.9 | |
| **POWZ** | **Post Office Ro** | **3.76** | **35** | PN | **Pn** | **03 15 33.1** | **+0.2** |
| POWZ | | | | AML | AML | 03 16 55.5 | |
| POWZ | | | | AML | AML | 03 16 56.4 | |
| **MLZ** | **Mavora Lakes** | **3.91** | **240** | *e*Pn | **Pn** | **03 15 34.3** | **-0.7** |
| **MLZ** | **Mavora Lakes** | **3.91** | **240** | PN | **Pn** | **03 15 33.9** | **-1.1** |
| MLZ | | | | AML | AML | 03 16 47.9 | |
| MLZ | | | | AML | AML | 03 16 49.7 | |
| **DVHZ** | **Dannevirke** | **4.01** | **38** | AML | AML | 03 16 29.8 | |
| DVHZ | | | | AML | AML | 03 16 30.6 | |
| **SYZ** | **Scrubby Hill** | **4.05** | **220** | Pn | **Pn** | **03 15 36.7** | **-0.2** |
| **SYZ** | **Scrubby Hill** | **4.05** | **220** | PN | **Pn** | **03 15 36.5** | **-0.3** |
| SYZ | | | | AML | AML | 03 16 49.3 | |
| SYZ | | | | AML | AML | 03 16 57.9 | |
| SYZ | | | | AML | AML | 03 16 57.9 | |
| SYZ | | | | AML | AML | 03 16 57.9 | |
| **PRHZ** | **Porangahau** | **4.26** | **42** | PN | **Pn** | **03 15 38.5** | **-1.2** |
| PRHZ | | | | AML | AML | 03 16 37.9 | |
| PRHZ | | | | AML | AML | 03 16 42.1 | |
| **WHZ** | **Wether Hill Ro** | **4.28** | **234** | *e*Pn | **Pn** | **03 15 38.1** | **-1.9** |
| **WHZ** | **Wether Hill Ro** | **4.28** | **234** | PN | **Pn** | **03 15 38.6** | **-1.3** |
| WHZ | | | | AML | AML | 03 17 01.8 | |
| WHZ | | | | AML | AML | 03 17 05.7 | |
| **KHEZ** | **Kahui Hut** | **4.28** | **12** | PN | **Pn** | **03 15 42.2** | **+2.1** |
| **NEZ** | **North Egmont** | **4.31** | **12** | PN | **Pn** | **03 15 42.4** | **+1.8** |
| **PNHZ** | **Pukenui** | **4.34** | **36** | AML | AML | 03 16 35.9 | |
| PNHZ | | | | AML | AML | 03 16 44.8 | |
| **PKE** | **Pukeiti** | **4.37** | **11** | AML | AML | 03 16 39.7 | |
| PKE | | | | AML | AML | 03 16 49.5 | |
| **DCZ** | **Deep Cove** | **4.57** | **242** | *e*Pn | **Pn** | **03 15 43.6** | **-0.3** |
| **DCZ** | **Deep Cove** | **4.57** | **242** | PN | **Pn** | **03 15 43.2** | **-0.7** |
| DCZ | | | | AML | AML | 03 17 03.4 | |
| DCZ | | | | AML | AML | 03 17 05.4 | |
| **VRZ** | **Vera Road** | **4.58** | **18** | Pn | **Pn** | **03 15 46.1** | **+2.0** |
| **VRZ** | **Vera Road** | **4.58** | **18** | PN | **Pn** | **03 15 46.1** | **+2.0** |
| **MOVZ** | **Moawhango** | **4.61** | **29** | PN | **Pn** | **03 15 45.5** | **+1.0** |
| MOVZ | | | | AML | AML | 03 17 05.6 | |
| **WNVZ** | **Wahianoa** | **4.63** | **27** | *e*PN | **Pn** | **03 15 46.7** | **+1.8** |
| **TRVZ** | **Turoa** | **4.64** | **26** | PN | **Pn** | **03 15 45.4** | **+0.3** |
| TRVZ | | | | AML | AML | 03 16 46.8 | |
| TRVZ | | | | AML | AML | 03 16 54.3 | |
| **KRHZ** | **Kereru** | **4.64** | **35** | PN | **Pn** | **03 15 44.5** | **-0.5** |
| KRHZ | | | | AML | AML | 03 16 46.6 | |
| KRHZ | | | | AML | AML | 03 16 51.0 | |
| **BHHZ** | **Black Hill Sta** | **4.65** | **32** | *e*PN | **Pn** | **03 15 44.6** | **-0.5** |
| BHHZ | | | | AML | AML | 03 16 50.2 | |
| **FWVZ** | **Far West T-bar** | **4.68** | **26** | PN | **Pn** | **03 15 47.4** | **+1.8** |
| FWVZ | | | | AML | AML | 03 16 53.6 | |
| FWVZ | | | | AML | AML | 03 17 23.9 | |
| **TUVZ** | **Tukino** | **4.70** | **27** | PN | **Pn** | **03 15 47.3** | **+1.4** |
| TUVZ | | | | AML | AML | 03 16 47.9 | |
| **KAHZ** | **Kahuranaki** | **4.74** | **40** | *e*PN | **Pn** | **03 15 45.0** | **-1.4** |
| KAHZ | | | | AML | AML | 03 16 47.6 | |
| KAHZ | | | | AML | AML | 03 16 51.6 | |
| **NGZ** | **Ngauruhoe** | **4.76** | **26** | PN | **Pn** | **03 15 47.9** | **+1.1** |
| **OTVZ** | **Oturere** | **4.80** | **27** | AML | AML | 03 17 32.4 | |
| OTVZ | | | | AML | AML | 03 17 32.8 | |
| **TWVZ** | **Taurewa** | **4.81** | **24** | PN | **Pn** | **03 15 48.4** | **+1.0** |
| **WTVZ** | **West Tongariro** | **4.82** | **26** | PN | **Pn** | **03 15 48.5** | **+1.0** |
| WTVZ | | | | AML | AML | 03 17 22.9 | |
| WTVZ | | | | AML | AML | 03 17 25.9 | |
| **APZ** | **The Paps** | **4.82** | **224** | Pn | **Pn** | **03 15 46.8** | **-0.6** |
| **APZ** | **The Paps** | **4.82** | **224** | PN | **Pn** | **03 15 46.4** | **-1.0** |
| APZ | | | | AML | AML | 03 17 14.2 | |
| APZ | | | | AML | AML | 03 17 23.0 | |
| **KWHZ** | **Kaweka Forest** | **4.85** | **34** | *e*PN | **Pn** | **03 15 47.5** | **-0.3** |
| KWHZ | | | | AML | AML | 03 16 52.5 | |
| KWHZ | | | | AML | AML | 03 16 53.4 | |
| **KRVZ** | **Karewarewa** | **4.85** | **26** | AML | AML | 03 16 54.5 | |
| KRVZ | | | | AML | AML | 03 17 11.6 | |
| **BKZ** | **Black Stump Fm** | **5.09** | **33** | *e*Pn | **Pn** | **03 15 51.4** | **+0.1** |
| **PYZ** | **Puysegur Point** | **5.17** | **237** | *e*Pn | **Pn** | **03 15 52.1** | **-0.2** |
| **PYZ** | **Puysegur Point** | **5.17** | **237** | AML | AML | 03 17 29.0 | |
| PYZ | | | | AML | AML | 03 17 30.9 | |
| **HIZ** | **Hauiti** | **5.19** | **17** | *e*Pn | **Pn** | **03 15 53.6** | **+1.2** |
| **HIZ** | **Hauiti** | **5.19** | **17** | PN | **Pn** | **03 15 53.3** | **+0.8** |
| HIZ | | | | AML | AML | 03 17 16.3 | |
| HIZ | | | | AML | AML | 03 17 51.8 | |
| **MTHZ** | **Maungataniwha** | **5.50** | **34** | *e*PN | **Pn** | **03 15 57.7** | **+0.9** |
| **MUGZ** | **Murupara** | **5.80** | **32** | *e*PN | **Pn** | **03 15 59.5** | **-1.4** |
| **URZ** | **Urewera** | **6.12** | **33** | Pn | **Pn** | **03 16 03.8** | **-1.5** |
| | 2.0nm,0.3s,baz=226,slow=8.2,SNR=9.4 | | | | | | |
| URZ | | | | Sn | **Sn** | **03 17 12.8** | **-2.6** |
| | 3.7nm,0.3s,baz=7.7,slow=13,SNR=3.8 | | | | | | |
| **MWZ** | **Matawai** | **6.23** | **36** | Pn | **Pn** | **03 16 05.6** | **-1.2** |
| **MWZ** | **Matawai** | **6.23** | **36** | *e*PN | **Pn** | **03 16 04.9** | **-1.9** |
| MWZ | | | | AML | AML | 03 17 15.4 | |
| MWZ | | | | AML | AML | 03 17 23.0 | |
| **RUGZ** | **Raukumara Rang** | **6.60** | **35** | PN | **Pn** | **03 16 11.2** | **-0.8** |
| **CTZ** | **Chatham Island** | **7.60** | **95** | Pn | **Pn** | **03 16 26.1** | **+0.4** |
| **CTZ** | **Chatham Island** | **7.60** | **95** | PN | **Pn** | **03 16 26.0** | **+0.4** |
| **OUZ** | **Omahuta** | **8.28** | **4** | *e*Pn | **Pn** | **03 16 35.8** | **+0.9** |
| **CTAO** | **Charters Tower** | **32.28** | **308** | P | **P** | **03 21 03.2** | **-0.5** |
| | 11nm,0.5s | | | | | | |
| **ASAR** | **Alice Springs** | **37.60** | **289** | P | **P** | **03 21 49.7** | **0.0** |
| | 1.0nm,0.7s,baz=128,slow=7.9,SNR=8.0 | | | | | | |
| **WB2** | **Warramunga Arr** | **39.84** | **294** | *e*P | **P** | **03 22 09.1** | **+0.7** |
| | 18nm,1.5s | | | | | | |
| **WRA** | **Warramunga Arr** | **39.84** | **294** | P | **P** | **03 22 08.6** | **0.0** |
| | 1.2nm,0.5s,baz=134,slow=7.8,SNR=17 | | | | | | |
| **MKAR** | **Makanchi Array** | **120.25** | **307** | PKP | **PKPdf** | **03 33 25.7** | **+0.2** |
| | 0.4nm,0.9s,baz=190,slow=2.5,SNR=2.5 | | | | | | |
| **YKA** | **Yellowknife Ar** | **120.38** | **31** | PKP | **PKPdf** | **03 33 25.5** | **+0.3** |
| | 0.2nm,0.7s,baz=255,slow=1.3,SNR=4.0 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **148.83** | **197** | PKPbc | **PKPbc** | **03 34 23.4** | **+0.5** |
| | 2.5nm,1.2s,baz=168,slow=1.9,SNR=5.2 | | | | | | |
| **BRTR** | **Keskin Array B** | **149.53** | **277** | PKPbc | **PKPbc** | **03 34 24.2** | **0.0** |
| | 0.8nm,0.7s,baz=79,slow=2.6,SNR=3.6 | | | | | | |
| **FINES** | **FINESS Array B** | **153.41** | **324** | PKPbc | **PKPbc** | **03 34 32.6** | **+0.4** |
| | 5.0nm,1.0s,baz=118,slow=2.1,SNR=3.5 | | | | | | |

**WEL 23 03:22:07.2±0.2, 43.51S×172.81E, h15km±1km, ML4.1/23, Error ellipse: s-maj=1.5km s-min=0.9km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.15** | **243** | P* | Pg | 03 22 11.0 | -0.1 |
| CRLZ | | | | S* | Sg | 03 22 13.7 | +0.1 |
| CRLZ | | | | S* | Sg | 03 22 13.7 | +0.1 |
| CRLZ | | | | AML | AML | 03 22 13.7 | |
| CRLZ | | | | AML | AML | 03 22 14.4 | |
| **MQZ** | **McQueen's Vall** | **0.23** | **210** | S* | Sg | 03 22 16.2 | +0.6 |
| MQZ | | | | AML | AML | 03 22 16.4 | |
| MQZ | | | | AML | AML | 03 22 16.5 | |
| **OXZ** | **Oxford** | **0.59** | **288** | P* | Pg | 03 22 18.2 | -0.6 |
| OXZ | | | | S* | Sg | 03 22 26.4 | -0.2 |
| OXZ | | | | AML | AML | 03 22 28.8 | |
| **LTZ** | **Lake Taylor** | **0.82** | **331** | P* | Pg | 03 22 23.0 | -0.2 |
| LTZ | | | | S* | Sg | 03 22 34.1 | 0.0 |
| LTZ | | | | AML | AML | 03 22 35.1 | |
| **KHZ** | **Kahutara** | **1.22** | **26** | PN | Pn | 03 22 28.5 | -1.1 |
| KHZ | | | | AML | AML | 03 22 48.2 | |
| KHZ | | | | AML | AML | 03 22 52.5 | |
| **INZ** | **Inchbonnie** | **1.27** | **308** | PN | Pb | 03 22 30.9 | +0.1 |
| **RPZ** | **Rata Peaks** | **1.29** | **260** | PN | Pn | 03 22 30.0 | -0.7 |
| RPZ | | | | AML | AML | 03 24 52.5 | |
| **WVZ** | **Waitaha Valley** | **1.57** | **285** | PN | Pn | 03 22 34.8 | +0.3 |
| WVZ | | | | AML | AML | 03 23 01.9 | |
| WVZ | | | | AML | AML | 03 23 03.5 | |
| **THZ** | **Tophouse** | **1.75** | **2** | *e*PN | Pn | 03 22 35.2 | -1.8 |
| THZ | | | | AML

*After WEL.*
*WEL **23** 03:24:05.3±0.1,43°.46S×172°.80E,h7km±1km,ML4.3/61, Mw4.3,Error ellipse: s-maj=1.4km s-min=0.6km az=90.0*
*WEL Felt in the Canterbury region, maximum reported intensity MM 4.*

**ISC 23 03:24:03.9**±1.0,**43°.51S**±0°.03×**172°.92E**±0°.04,**h13**km±6km, **n120,σ1**%**08/124,4C-3D,South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.22** | **253** | Pg | **Pg** | **03 24 09.0** | **+0.2** |
| CRLZ | | | | Sg | **Sg** | **03 24 11.8** | **-0.3** |
| **CRLZ** | **Canterbury Las** | **0.22** | **253** | ⇑PG | **Pg** | **03 24 08.9** | **+0.2** |
| CRLZ | | | | SG | **Sg** | **03 24 11.8** | **-0.3** |
| CRLZ | | | | AML | AML | 03 24 11.9 | |
| CRLZ | | | | AML | AML | 03 24 11.9 | |
| CRLZ | | | | AML | AML | 03 24 12.0 | |
| **MQZ** | **McQueen's Vall** | **0.28** | **224** | Pg | **Pb** | **03 24 10.4** | **-0.3** |
| **MQZ** | **McQueen's Vall** | **0.28** | **224** | ⇑PG | **Pb** | **03 24 10.4** | **-0.3** |
| MQZ | | | | SG | **Sg** | **03 24 14.3** | **+0.7** |
| MQZ | | | | AML | AML | 03 24 14.5 | |
| MQZ | | | | AML | AML | 03 24 14.6 | |
| **OXZ** | **Oxford** | **0.67** | **286** | P* | **Pg** | **03 24 16.4** | **-0.5** |
| OXZ | | | | *e*Sg | **Sg** | **03 24 25.3** | **-0.4** |
| **OXZ** | **Oxford** | **0.67** | **286** | ⇑P* | **Pg** | **03 24 16.3** | **-0.5** |
| OXZ | | | | SG | **Sg** | **03 24 24.3** | **-1.4** |
| OXZ | | | | AML | AML | 03 24 26.7 | |
| OXZ | | | | AML | AML | 03 24 26.7 | |
| OXZ | | | | AML | AML | 03 24 26.8 | |
| **LTZ** | **Lake Taylor** | **0.87** | **327** | *e*Pg | **Pg** | **03 24 20.5** | **-0.2** |
| LTZ | | | | *e*Sg | **Sg** | **03 24 31.2** | **-0.8** |
| **LTZ** | **Lake Taylor** | **0.87** | **327** | ⇓P* | **Pb** | **03 24 20.7** | **-0.1** |
| LTZ | | | | S* | **Sb** | **03 24 32.0** | **-0.3** |
| **KHZ** | **Kahutara** | **1.18** | **23** | *e*Pn | **Pn** | **03 24 25.8** | **-0.3** |
| **KHZ** | **Kahutara** | **1.18** | **23** | P* | **Pb** | **03 24 26.1** | **0.0** |
| KHZ | | | | AML | AML | 03 24 42.8 | |
| KHZ | | | | AML | AML | 03 24 44.5 | |
| KHZ | | | | AML | AML | 03 24 46.8 | |
| KHZ | | | | AML | AML | 03 24 51.0 | |
| **INZ** | **Inchbonnie** | **1.33** | **305** | P* | **Pn** | **03 24 27.1** | **-1.0** |
| **RPZ** | **Rata Peaks** | **1.37** | **261** | Pg | **Pn** | **03 24 28.0** | **-0.6** |
| | 273nm,0.3s,baz=96,slow=2.6,SNR=13 | | | | | | |
| RPZ | | | | Lg | Lg | 03 24 47.2 | |
| | 276nm,0.3s,baz=193,slow=19,SNR=5.0 | | | | | | |
| **RPZ** | **Rata Peaks** | **1.37** | **261** | P* | **Pn** | **03 24 28.0** | **-0.6** |
| RPZ | | | | AML | AML | 03 24 47.4 | |
| RPZ | | | | AML | AML | 03 24 48.9 | |
| **WVZ** | **Waitaha Valley** | **1.65** | **284** | Pn | **Pn** | **03 24 32.2** | **-0.3** |
| **WVZ** | **Waitaha Valley** | **1.65** | **284** | PN | **Pn** | **03 24 31.7** | **-0.8** |
| WVZ | | | | AML | AML | 03 25 01.8 | |
| WVZ | | | | AML | AML | 03 25 03.5 | |
| **THZ** | **Tophouse** | **1.75** | **360** | *e*Pn | **Pn** | **03 24 33.5** | **-0.4** |
| **THZ** | **Tophouse** | **1.75** | **360** | PN | **Pn** | **03 24 33.9** | **0.0** |
| THZ | | | | AML | AML | 03 24 56.3 | |
| THZ | | | | AML | AML | 03 24 58.0 | |
| **BSWZ** | **Blackbirch Sta** | **1.93** | **22** | Pn | **Pn** | **03 24 37.0** | **+0.7** |
| **BSWZ** | **Blackbirch Sta** | **1.93** | **22** | PN | **Pn** | **03 24 37.0** | **+0.7** |
| BSWZ | | | | AML | AML | 03 25 22.8 | |
| BSWZ | | | | AML | AML | 03 25 27.7 | |
| **DSZ** | **Denniston Nort** | **1.94** | **335** | PN | **Pn** | **03 24 36.5** | **0.0** |
| DSZ | | | | AML | AML | 03 25 01.5 | |
| DSZ | | | | AML | AML | 03 25 01.5 | |
| DSZ | | | | AML | AML | 03 25 01.6 | |
| DSZ | | | | AML | AML | 03 25 02.6 | |
| **LBZ** | **Lake Benmore** | **2.16** | **245** | *e*Pn | **Pn** | **03 24 40.1** | **+0.6** |
| LBZ | | | | *e*Sn | **Sg** | **03 25 12.1** | **-1.2** |
| **LBZ** | **Lake Benmore** | **2.16** | **245** | *e*PN | **Pn** | **03 24 39.5** | **0.0** |
| LBZ | | | | AML | AML | 03 25 13.6 | |
| LBZ | | | | AML | AML | 03 25 14.5 | |
| LBZ | | | | AML | AML | 03 25 17.6 | |
| LBZ | | | | AML | AML | 03 25 20.0 | |
| **TUWZ** | **Tuamarina** | **2.21** | **20** | PN | **Pn** | **03 24 40.4** | **+0.2** |
| TUWZ | | | | AML | AML | 03 25 33.0 | |
| TUWZ | | | | AML | AML | 03 25 40.2 | |
| **ODZ** | **Otahua Downs** | **2.24** | **226** | *e*Pn | **Pn** | **03 24 40.6** | **0.0** |
| ODZ | | | | *e*Sn | **Sg** | **03 25 14.7** | **-1.2** |
| **ODZ** | **Otahua Downs** | **2.24** | **226** | PN | **Pn** | **03 24 40.5** | **-0.2** |
| ODZ | | | | AML | AML | 03 25 16.8 | |
| ODZ | | | | AML | AML | 03 25 18.3 | |
| **FOZ** | **Fox Glacier** | **2.26** | **268** | *e*Pn | **Pn** | **03 24 41.2** | **+0.4** |
| **FOZ** | **Fox Glacier** | **2.26** | **268** | PN | **Pn** | **03 24 41.7** | **+0.9** |
| FOZ | | | | AML | AML | 03 25 08.9 | |
| FOZ | | | | AML | AML | 03 25 11.6 | |
| FOZ | | | | AML | AML | 03 25 14.0 | |
| FOZ | | | | AML | AML | 03 25 22.9 | |
| **NNZ** | **Nelson** | **2.31** | **9** | PN | **Pn** | **03 24 42.3** | **+0.7** |
| NNZ | | | | AML | AML | 03 25 11.5 | |
| NNZ | | | | AML | AML | 03 25 11.5 | |
| NNZ | | | | AML | AML | 03 25 12.6 | |
| NNZ | | | | AML | AML | 03 25 31.2 | |
| **TCW** | **Tory Channel** | **2.51** | **24** | PN | **Pn** | **03 24 44.3** | **0.0** |
| TCW | | | | AML | AML | 03 25 19.0 | |
| TCW | | | | AML | AML | 03 25 45.7 | |
| **BHW** | **Baring Head** | **2.55** | **35** | Pn | **Pn** | **03 24 44.8** | **0.0** |
| **BHW** | **Baring Head** | **2.55** | **35** | PN | **Pn** | **03 24 44.8** | **0.0** |
| BHW | | | | AML | AML | 03 25 50.3 | |
| BHW | | | | AML | AML | 03 26 06.3 | |
| **SNZO** | **South Karori** | **2.56** | **32** | *e*Pn | **Pn** | **03 24 45.1** | **+0.1** |
| **PLWZ** | **Palliser** | **2.60** | **43** | Pn | **Pn** | **03 24 45.4** | **-0.2** |
| **PLWZ** | **Palliser** | **2.60** | **43** | PN | **Pn** | **03 24 45.4** | **-0.2** |
| PLWZ | | | | AML | AML | 03 26 01.3 | |
| PLWZ | | | | AML | AML | 03 26 19.3 | |
| **WEL** | **Wellington** | **2.61** | **32** | AML | AML | 03 25 17.1 | |
| WEL | | | | AML | AML | 03 25 22.1 | |
| WEL | | | | AML | AML | 03 25 22.2 | |
| **QRZ** | **Quartz Range** | **2.70** | **354** | *e*PN | **Pn** | **03 24 47.7** | **+0.8** |
| QRZ | | | | AML | AML | 03 24 59.6 | |
| QRZ | | | | AML | AML | 03 25 22.1 | |
| **MSWZ** | **Moikau Station** | **2.71** | **40** | ⇓PN | **Pn** | **03 24 47.0** | **-0.2** |
| MSWZ | | | | AML | AML | 03 25 21.5 | |
| MSWZ | | | | AML | AML | 03 25 25.4 | |
| **DUWZ** | **D'Urville Isla** | **2.81** | **16** | PN | **Pn** | **03 24 48.9** | **+0.5** |
| **PAWZ** | **Paruwai Farm** | **2.82** | **42** | PN | **Pn** | **03 24 48.4** | **-0.3** |
| PAWZ | | | | AML | AML | 03 25 25.9 | |
| PAWZ | | | | AML | AML | 03 25 28.0 | |
| **CAW** | **Cannon Point** | **2.88** | **34** | Pn | **Pn** | **03 24 49.4** | **0.0** |
| **CAW** | **Cannon Point** | **2.88** | **34** | PN | **Pn** | **03 24 49.4** | **0.0** |
| CAW | | | | AML | AML | 03 25 23.4 | |
| CAW | | | | AML | AML | 03 25 31.3 | |
| **HHSZ** | **Highcliff Hill** | **2.89** | **214** | PN | **Pn** | **03 24 49.7** | **+0.1** |
| HHSZ | | | | AML | AML | 03 25 42.9 | |
| HHSZ | | | | AML | AML | 03 25 45.2 | |
| **TRWZ** | **Traveller** | **2.94** | **45** | PN | **Pn** | **03 24 49.9** | **-0.3** |
| TRWZ | | | | AML | AML | 03 25 31.1 | |
| TRWZ | | | | AML | AML | 03 25 50.9 | |
| **MTW** | **Mount Morrison** | **3.03** | **40** | ⇓PN | **Pn** | **03 24 51.1** | **-0.4** |
| MTW | | | | AML | AML | 03 25 26.7 | |
| MTW | | | | AML | AML | 03 25 27.4 | |
| **KIW** | **Kapiti Island** | **3.03** | **30** | PN | **Pn** | **03 24 51.4** | **-0.1** |
| KIW | | | | AML | AML | 03 25 30.8 | |
| KIW | | | | AML | AML | 03 25 40.9 | |
| **JCZ** | **Jackson Bay** | **3.04** | **258** | *e*PN | **Pn** | **03 24 52.0** | **+0.3** |
| JCZ | | | | AML | AML | 03 25 42.8 | |
| JCZ | | | | AML | AML | 03 25 43.7 | |
| **WKZ** | **Wanaka** | **3.10** | **243** | *e*Pn | **Pn** | **03 24 53.1** | **+0.6** |
| WKZ | | | | *e*Sg | **Sg** | **03 25 41.1** | **-2.3** |
| **WKZ** | **Wanaka** | **3.10** | **243** | *e*PN | **Pn** | **03 24 52.3** | **-0.1** |
| WKZ | | | | AML | AML | 03 25 44.4 | |
| WKZ | | | | AML | AML | 03 25 50.2 | |
| **EAZ** | **Earnscleugh** | **3.11** | **235** | PN | **Pn** | **03 24 52.4** | **-0.2** |
| EAZ | | | | AML | AML | 03 25 43.3 | |
| EAZ | | | | AML | AML | 03 25 43.6 | |
| EAZ | | | | AML | AML | 03 25 44.3 | |
| EAZ | | | | AML | AML | 03 25 44.3 | |
| **OGWZ** | **Otaki Gorge** | **3.17** | **33** | Pn | **Pn** | **03 24 53.2** | **-0.1** |
| **OGWZ** | **Otaki Gorge** | **3.17** | **33** | PN | **Pn** | **03 24 53.2** | **-0.1** |
| OGWZ | | | | AML | AML | 03 25 32.5 | |
| OGWZ | | | | AML | AML | 03 25 37.1 | |
| **HOWZ** | **Holdsworth Sta** | **3.25** | **37** | Pn | **Pn** | **03 24 54.3** | **-0.1** |
| **HOWZ** | **Holdsworth Sta** | **3.25** | **37** | PN | **Pn** | **03 24 54.3** | **-0.1** |
| HOWZ | | | | AML | AML | 03 25 34.5 | |
| HOWZ | | | | AML | AML | 03 25 35.6 | |
| **TMWZ** | **Te Maipa** | **3.26** | **44** | PN | **Pn** | **03 24 54.2** | **-0.5** |
| TMWZ | | | | AML | AML | 03 25 36.9 | |
| TMWZ | | | | AML | AML | 03 25 37.7 | |
| **TUZ** | **Tuapeka** | **3.38** | **223** | PN | **Pn** | **03 24 56.2** | **-0.2** |
| TUZ | | | | AML | AML | 03 25 56.0 | |
| TUZ | | | | AML | AML | 03 25 59.7 | |
| TUZ | | | | AML | AML | 03 26 00.6 | |
| TUZ | | | | AML | AML | 03 26 01.3 | |
| **MRZ** | **Mangatainoka R** | **3.47** | **36** | Pn | **Pn** | **03 24 57.3** | **-0.2** |
| **MRZ** | **Mangatainoka R** | **3.47** | **36** | PN | **Pn** | **03 24 57.3** | **-0.2** |
| MRZ | | | | AML | AML | 03 25 40.4 | |
| MRZ | | | | AML | AML | 03 26 24.5 | |
| **TIWZ** | **Tintock** | **3.51** | **40** | Pn | **Pn** | **03 24 59.5** | **+1.4** |
| **TIWZ** | **Tintock** | **3.51** | **40** | AML | AML | 03 25 40.8 | |
| TIWZ | | | | AML | AML | 03 25 48.4 | |
| **CPWZ** | **Castlepoint** | **3.56** | **44** | Pn | **Pn** | **03 24 59.4** | **+0.6** |
| **CPWZ** | **Castlepoint** | **3.56** | **44** | *e*PN | **Pn** | **03 24 59.1** | **+0.3** |
| CPWZ | | | | AML | AML | 03 25 44.0 | |
| CPWZ | | | | AML | AML | 03 25 46.2 | |
| **PRWZ** | **Pori Road** | **3.73** | **39** | PN | **Pn** | **03 25 00.4** | **-0.7** |
| PRWZ | | | | AML | AML | 03 25 51.5 | |
| PRWZ | | | | AML | AML | 03 26 54.2 | |
| **BFZ** | **Birch Farm** | **3.76** | **42** | *e*Pn | **Pn** | **03 25 00.2** | **-1.2** |
| BFZ | | | | *e*Sn | **Sn** | **03 25 44.1** | **-1.4** |
| **BFZ** | **Birch Farm** | **3.76** | **42** | PN | **Pn** | **03 25 00.6** | **-0.8** |
| BFZ | | | | AML | AML | 03 25 46.0 | |
| BFZ | | | | AML | AML | 03 25 46.0 | |
| BFZ | | | | AML | AML | 03 25 46.1 | |
| BFZ | | | | AML | AML | 03 25 46.1 | |
| **POWZ** | **Post Office Ro** | **3.77** | **35** | Pn | **Pn** | **03 25 02.1** | **+0.4** |
| **POWZ** | **Post Office Ro** | **3.77** | **35** | *e*PN | **Pn** | **03 25 02.0** | **+0.3** |
| POWZ | | | | AML | AML | 03 25 54.2 | |
| POWZ | | | | AML | AML | 03 26 24.5 | |
| **MLZ** | **Mavora Lakes** | **3.91** | **240** | *e*Pn | **Pn** | **03 25 03.3** | **-0.3** |
| MLZ | | | | *e*Sg | **Sg** | **03 26 08.8** | **-0.4** |
| **MLZ** | **Mavora Lakes** | **3.91** | **240** | *e*PN | **Pn** | **03 25 03.3** | **-0.3** |
| MLZ | | | | AML | AML | 03 26 11.9 | |
| MLZ | | | | AML | AML | 03 26 12.5 | |
| **DVHZ** | **Dannevirke** | **4.02** | **38** | Pn | **Pn** | **03 25 02.1** | **-3.0** |
| **DVHZ** | **Dannevirke** | **4.02** | **38** | PN | **Pn** | **03 25 02.1** | **-3.0** |
| DVHZ | | | | AML | AML | 03 25 52.3 | |
| DVHZ | | | | AML | AML | 03 25 59.7 | |
| **SYZ** | **Scrubby Hill** | **4.04** | **220** | *e*PN | **Pn** | **03 25 05.3** | **-0.1** |
| SYZ | | | | AML | AML | 03 26 16.5 | |
| SYZ | | | | AML | AML | 03 26 18.4 | |
| SYZ | | | | AML | AML | 03 26 18.4 | |
| SYZ | | | | AML | AML | 03 26 27.1 | |
| **WAZ** | **Wanganui** | **4.06** | **23** | AML | AML | 03 26 08.1 | |
| WAZ | | | | AML | AML | 03 26 20.9 | |
| **PRHZ** | **Porangahau** | **4.27** | **42** | *e*PN | **Pn** | **03 25 08.3** | **-0.2** |
| PRHZ | | | | AML | AML | 03 26 04.3 | |
| PRHZ | | | | AML | AML | 03 26 06.0 | |
| **WHZ** | **Wether Hill Ro** | **4.27** | **234** | *e*Pn | **Pn** | **03 25 09.5** | **+1.0** |
| WHZ | | | | *e*Sg | **Sg** | **03 26 20.7** | **-0.2** |
| **WHZ** | **Wether Hill Ro** | **4.27** | **234** | AML | AML | 03 26 25.4 | |
| WHZ | | | | AML | AML | 03 26 26.5 | |
| **NWEZ** | **Newall Road** | **4.29** | **10** | Pn | **Pn** | **03 25 11.3** | **+2.6** |
| **NEZ** | **North Egmont** | **4.33** | **12** | *e*PN | **Pn** | **03 25 10.9** | **+1.5** |
| **PNHZ** | **Pukenui** | **4.35** | **35** | AML | AML | 03 26 09.1 | |
| PNHZ | | | | AML | AML | 03 26 09.5 | |
| **PKE** | **Pukeiti** | **4.38** | **11** | *e*PN | **Pn** | **03 25 12.4** | **+2.2** |
| PKE | | | | AML | AML | 03 26 06.4 | |
| PKE | | | | AML | AML | 03 26 08.9 | |
| **DREZ** | **Durham Road** | **4.42** | **13** | Pn | **Pn** | **03 25 12.9** | **+2.2** |
| **DCZ** | **Deep Cove** | **4.56** | **243** | *e*Pn | **Pn** | **03 25 11.5** | **-1.1** |
| **DCZ** | **Deep Cove** | **4.56** | **243** | AML | AML | 03 26 33.2 | |
| DCZ | | | | AML | AML | 03 26 36.3 | |
| **PKVZ** | **Pokaka** | **4.59** | **24** | Pn | **Pn** | **03 25 14.8** | **+1.7** |
| **VRZ** | **Vera Road** | **4.59** | **18** | *e*PN | **Pn** | **03 25 14.6** | **+1.7** |
| VRZ | | | | AML | AML | 03 26 12.3 | |
| VRZ | | | | AML | AML | 03 26 19.0 | |
| **MOVZ** | **Moawhango** | **4.62** | **28** | AML | AML | 03 26 15.5 | |
| MOVZ | | | | AML | AML | 03 26 37.2 | |
| **WNVZ** | **Wahianoa** | **4.64** | **27** | Pn | **Pn** | **03 25 11.6** | **-2.1** |
| **WNVZ** | **Wahianoa** | **4.64** | **27** | PN | **Pn** | **03 25 15.2** | **+1.5** |
| **TRVZ** | **Turoa** | **4.65** | **26** | Pn | **Pn** | **03 25 14.9** | **+1.0** |
| **TRVZ** | **Turoa** | **4.65** | **26** | *e*PN | **Pn** | **03 25 15.1** | **+1.2** |
| TRVZ | | | | AML | AML | 03 26 15.7 | |
| **WHVZ** | **Whangaehu Hut** | **4.68** | **26** | Pn | **Pn** | **03 25 16.2** | **+1.9** |
| **WHVZ** | **Whangaehu Hut** | **4.68** | **26** | PN | **Pn** | **03 25 15.9** | **+1.6** |
| **FWVZ** | **Far West T-bar** | **4.69** | **26** | Pn | **Pn** | **03 25 13.7** | **-0.8** |
| **FWVZ** | **Far West T-bar** | **4.69** | **26** | AML | AML | 03 26 12.9 | |
| FWVZ | | | | AML | AML | 03 26 13.7 | |
| **TUVZ** | **Tukino** | **4.71** | **27** | PN | **Pn** | **03 25 16.3** | **+1.6** |
| **NGZ** | **Ngauruhoe** | **4.78** | **26** | Pn | **Pn** | **03 25 17.6** | **+1.9** |
| **OTVZ** | **Oturere** | **4.81** | **26** | *e*PN | **Pn** | **03 25 16.6** | **+0.5** |
| OTVZ | | | | AML | AML | 03 26 14.7 | |
| OTVZ | | | | AML | AML | 03 26 15.8 | |
| **APZ** | **The Paps** | **4.81** | **225** | *e*PN | **Pn** | **03 25 15.9** | **-0.2** |
| APZ | | | | AML | AML | 03 26 47.6 | |
| APZ | | | | AML | AML | 03 26 52.1 | |
| **TWVZ** | **Taurewa** | **4.82** | **24** | *e*PN | **Pn** | **03 25 16.6** | **+0.4** |
| **WTVZ** | **West Tongariro** | **4.83** | **26** | Pn | **Pn** | **03 25 18.2** | **+1.7** |
| **WTVZ** | **West Tongariro** | **4.83** | **26** | *e*PN | **Pn** | **03 25 17.5** | **+1.2** |
| WTVZ | | | | AML | AML | 03 26 21.0 | |
| WTVZ | | | | AML | AML | 03 26 52.5 | |
| **KRVZ** | **Karewarewa** | **4.86** | **26** | AML | AML | 03 26 23.8 | |
| KRVZ | | | | AML | AML | 03 26 48.1 | |
| **MCHZ** | **McNeill Hill** | **4.95** | **36** | AML | AML | 03 26 39.9 | |
| MCHZ | | | | AML | AML | 03 26 45.5 | |
| **BKZ** | **Black Stump Fm** | **5.11** | **33** | *e*Pn | **Pn** | **03 25 18.3** | **-1.8** |
| **PYZ** | **Puysegur Point** | **5.17** | **237** | *e*Pn | **Pn** | **03 25 21.8** | **+1.0** |
| **PYZ** | **Puysegur Point** | **5.17** | **237** | *e*PN | **Pn** | **03 25 19.3** | **-1.6** |
| PYZ | | | | AML | AML | 03 26 54.6 | |
| PYZ | | | | AML | AML | 03 26 56.7 | |
| **HIZ** | **Hauiti** | **5.20** | **17** | *e*Pn | **Pn** | **03 25 21.0** | **-0.3** |
| **HIZ** | **Hauiti** | **5.20** | **17** | *e*PN | **Pn** | **03 25 22.0** | **+0.6** |
| HIZ | | | | AML | AML | 03 26 25.9 | |
| HIZ | | | | AML | AML | 03 27 08.8 | |
| **URZ** | **Urewera** | **6.13** | **33** | Pn | **Pn** | **03 25 32.0** | **-2.0** |
| | 1.3nm,0.3s,baz=207,slow=16,SNR=3.2 | | | | | | |
| URZ | | | | Sn | **Sn** | **03 26 41.6** | **-2.4** |
| | 6.5nm,0.3s,baz=64,slow=17,SNR=7.7 | | | | | | |
| **MWZ** | **Matawai** | **6.24** | **36** | *e*PN | **Pn** | **03 25 33.2** | **-2.4** |
| MWZ | | | | AML | AML | 03 26 45.0 | |
| MWZ | | | | AML | AML | 03 26 57.8 | |
| **WIAZ** | **Waiheke Island** | **6.92** | **15** | PN | **Pn** | **03 25 45.8** | **+0.9** |
| **WMGZ** | **Waiomatatini S** | **7.05** | **38** | SN | **Sn** | **03 27 03.7** | **-3.0** |
| **OUZ** | **Omahuta** | **8.29** | **4** | *e*Pn | **Pn** | **03 26 05.7** | **+1.9** |
| **ASAR** | **Alice Springs** | **37.61** | **289** | P | **P** | **03 31 18.5** | **+0.1** |
| | 0.6nm,0.6s,baz=128,slow=7.6,SNR=7.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **39.85** | **294** | P | **P** | **03 31 37.3** | **+0.1** |
| | 0.7nm,0.5s,baz=136,slow=7.6,SNR=9.2 | | | | | | |
| **SYO** | **Syowa Base** | **62.61** | **197** | *e*P | **P** | **03 34 28.0** | **+0.9** |
| **YKA** | **Yellowknife Ar** | **120.39** | **31** | PKP | **PKPdf** | **03 42 54.4** | **+0.7** |
| | 0.1nm,0.3s,baz=214,slow=1.2,SNR=4.0 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **148.81** | **197** | PKPbc | **PKPbc** | **03 43 52.5** | **+1.2** |
| | 1.9nm,1.1s,baz=162,slow=1.7,SNR=6.1 | | | | | | |
| **ARCES** | **ARCESS Array B** | **149.07** | **338** | PKPbc | **PKPbc** | **03 43 50.8** | **+0.4** |
| | 4.4nm,0.9s,baz=347,slow=2.8,SNR=3.8 | | | | | | |
| **BRTR** | **Keskin Array B** | **149.54** | **277** | PKPbc | **PKPbc** | **03 43 53.4** | **+0.7** |
| | 0.5nm,0.6s,baz=141,slow=3.1,SNR=3.4 | | | | | | |
| **FINES** | **FINESS Array B** | **153.42** | **324** | PKPbc | **PKPbc** | **03 44 01.9** | **+1.1** |
| | 2.4nm,1.0s,baz=199,slow=2.9,SNR=3.5 | | | | | | |

**WEL 23 03:29:16.8**±0.1,**43°.54S**×**172°.79E,h8**km,**ML3.7**/14,**3C-1D, Error ellipse: s-maj=1.3km s-min=0.8km az=90.0,South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.13** | **253** | ⇑PG | Pg | 03 29 19.7 | +0.1 |
| CRLZ | | | | SG | Sg | 03 29 21.7 | +0.2 |
| CRLZ | | | | SG | | 03 29 21.9 | |
| CRLZ | | | | AML | AML | 03 29 21.9 | |
| CRLZ | | | | AML | AML | 03 29 22.0 | |
| **MQZ** | **McQueen's Vall** | **0.20** | **211** | PG | Pg | 03 29 20.8 | 0.0 |
| MQZ | | | | SG | Sg | 03 29 24.0 | +0.6 |
| MQZ | | | | AML | AML | 03 29 24.1 | |
| MQZ | | | | AML | AML | 03 29 24.1 | |
| **OXZ** | **Oxford** | **0.59** | **291** | ⇑P* | Pg | 03 29 27.9 | -0.2 |
| OXZ | | | | S* | Sb | 03 29 36.9 | -0.9 |
| OXZ | | | | AML | AML | 03 29 38.2 | |
| OXZ | | | | AML | AML | 03 29 38.5 | |
| OXZ | | | | AML | AML | 03 29 40.0 | |
| **LTZ** | **Lake Taylor** | **0.85** | **333** | ⇓P* | Pg | 03 29 33.1 | 0.0 |
| LTZ | | | | S* | Sg | 03 29 44.7 | +0.6 |
| **KHZ** | **Kahutara** | **1.25** | **26** | P* | Pn | 03 29 38.4 | -2.1 |
| KHZ | | | | AML | AML | 03 29 56.8 | |
| KHZ | | | | AML | AML | 03 29 58.3 | |
| KHZ | | | | AML | AML | 03 29 58.7 | |
| KHZ | | | | AML | AML | 03 29 59.8 | |
| **INZ** | **Inchbonnie** | **1.28** | **309** | P* | Pn | 03 29 39.5 | -1.5 |
| **WVZ** | **Waitaha Valley** | **1.57** | **286** | PN | Pb | 03 29 46.3 | +0.2 |
| WVZ | | | | AML | AML | 03 30 07.2 | |
| WVZ | | | | AML | AML | 03 30 09.6 | |
| **THZ** | **Tophouse** | **1.78** | **3** | PN | Pn | 03 29 46.3 | -1.6 |
| THZ | | | | AML | AML | 03 30 11.5 | |
| THZ | | | | AML | AML | 03 30 12.7 | |
| **DSZ** | **Denniston Nort** | **1.94** | **338** | PN | Pn | 03 29 48.9 | -1.2 |
| DSZ | | | | AML | AML | 03 30 14.4 | |
| DSZ | | | | AML | AML | 03 30 15.2 | |
| DSZ | | | | AML | AML | 03 30 15.2 | |
| DSZ | | | | AML | AML | 03 30 16.8 | |
| **BSWZ** | **Blackbirch Sta** | **1.99** | **24** | ⇑PN | Pn | 03 29 49.5 | -1.3 |
| **LBZ** | **Lake Benmore** | **2.06** | **245** | *e*PN | Pn | 03 29 50.9 | -0.9 |
| LBZ | | | | AML | AML | 03 30 25.7 | |
| LBZ | | | | AML | AML | 03 30 26.5 | |
| **ODZ** | **Otahua Downs** | **2.15** | **225** | PN | Pn | 03 29 52.0 | -1.0 |
| ODZ | | | | AML | AML | 03 30 26.9 | |
| ODZ | | | | AML | AML | 03 30 26.9 | |
| **FOZ** | **Fox Glacier** | **2.16** | **269** | PN | Pn | 03 29 53.5 | +0.4 |
| FOZ | | | | SN | Sn | 03 30 19.2 | -0.9 |
| **TUWZ** | **Tuamarina** | **2.27** | **22** | PN | Pn | 03 29 52.9 | -1.7 |
| **NNZ** | **Nelson** | **2.36** | **11** | PN | Pn | 03 29 55.0 | -0.9 |
| **TCW** | **Tory Channel** | **2.57** | **26** | PN | Pn | 03 29 56.9 | -1.9 |
| **BHW** | **Baring Head** | **2.63** | **37** | PN | Pn | 03 29 57.4 | -2.1 |
| **PLWZ** | **Palliser** | **2.68** | **44** | PN | Pn | 03 29 57.8 | -2.5 |
| **QRZ** | **Quartz Range** | **2.72** | **356** | PN | Pn | 03 29 59.8 | -1.0 |
| QRZ | | | | AML | AML | 03 30 36.8 | |
| **HHSZ** | **Highcliff Hill** | **2.82** | **213** | *e*PN | Pn | 03 30 00.6 | -1.6 |
| **DUWZ** | **D'Urville Isla** | **2.86** | **17** | *e*PN | Pn | 03 30 01.3 | -1.5 |
| **JCZ** | **Jackson Bay** | **2.95** | **258** | PN | Pn | 03 30 03.8 | -0.3 |
| JCZ | | | | AML | AML | 03 31 02.5 | |
| **CAW** | **Cannon Point** | **2.96** | **36** | PN | Pn | 03 30 01.7 | -2.4 |
| **EAZ** | **Earnscleugh** | **3.02** | **235** | PN | Pn | 03 30 03.4 | -1.4 |
| EAZ | | | | AML | AML | 03 30 57.0 | |
| EAZ | | | | AML | AML | 03 30 59.7 | |
| **KIW** | **Kapiti Island** | **3.10** | **31** | *e*PN | Pn | 03 30 03.5 | -2.6 |
| **MRZ** | **Mangatainoka R** | **3.55** | **37** | PN | Pn | 03 30 09.5 | -2.6 |
| **MLZ** | **Mavora Lakes** | **3.81** | **240** | PN | Pn | 03 30 14.3 | -1.5 |
| **BFZ** | **Birch Farm** | **3.84** | **43** | *e*PN | Pn | 03 30 12.7 | -3.5 |
| **SYZ** | **Scrubby Hill** | **3.96** | **220** | *e*PN | Pn | 03 30 17.1 | -0.7 |
| **KHEZ** | **Kahui Hut** | **4.34** | **13** | PN | Pn | 03 30 23.7 | +0.6 |
| **PKE** | **Pukeiti** | **4.43** | **12** | PN | Pn | 03 30 24.3 | -0.1 |
| **DCZ** | **Deep Cove** | **4.47** | **243** | *e*PN | Pn | 03 30 22.0 | -2.8 |
| **WNVZ** | **Wahianoa** | **4.71** | **28** | PN | Pn | 03 30 27.0 | -1.2 |
| **APZ** | **The Paps** | **4.73** | **224** | *e*PN | Pn | 03 30 27.4 | -1.1 |
| **TUVZ** | **Tukino** | **4.78** | **28** | *e*PN | Pn | 03 30 28.0 | -1.2 |
| **OTVZ** | **Oturere** | **4.88** | **27** | *e*PN | Pn | 03 30 28.6 | -2.0 |
| **HIZ** | **Hauiti** | **5.26** | **18** | PN | Pn | 03 30 34.3 | -1.4 |

**WEL 23 03:30:55.3**±0.1,**43°.54S**×**172°.79E,h8**km,**ML3.6**/11,**2C-1D, Error ellipse: s-maj=1.3km s-min=0.7km az=90.0,South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.13** | **254** | ⇑PG | Pg | 03 30 58.1 | +0.1 |
| CRLZ | | | | SG | Sg | 03 31 00.1 | +0.2 |
| CRLZ | | | | AML | AML | 03 31 00.4 | |
| **MQZ** | **McQueen's Vall** | **0.19** | **211** | ⇑PG | Pg | 03 30 59.3 | +0.1 |
| MQZ | | | | SG | Sg | 03 31 02.4 | +0.6 |
| MQZ | | | | SG | | 03 31 02.4 | |
| MQZ | | | | AML | AML | 03 31 02.9 | |
| **OXZ** | **Oxford** | **0.59** | **291** | P* | Pg | 03 31 06.4 | -0.3 |
| OXZ | | | | S* | Sg | 03 31 14.6 | +0.3 |
| OXZ | | | | AML | AML | 03 31 16.9 | |
| OXZ | | | | AML | AML | 03 31 17.0 | |
| OXZ | | | | AML | AML | 03 31 17.5 | |
| **LTZ** | **Lake Taylor** | **0.85** | **333** | ⇓P* | Pg | 03 31 11.6 | +0.1 |
| LTZ | | | | S* | Sg | 03 31 23.1 | +0.5 |
| **KHZ** | **Kahutara** | **1.25** | **26** | P* | Pn | 03 31 17.5 | -1.6 |
| KHZ | | | | AML | AML | 03 31 18.1 | |
| KHZ | | | | AML | AML | 03 31 37.8 | |
| KHZ | | | | AML | AML | 03 31 42.6 | |
| **RPZ** | **Rata Peaks** | **1.27** | **262** | P* | Pn | 03 31 18.0 | -1.4 |
| **THZ** | **Tophouse** | **1.78** | **3** | PN | Pn | 03 31 24.7 | -1.7 |
| THZ | | | | AML | AML | 03 31 49.9 | |
| THZ | | | | AML | AML | 03 31 50.2 | |
| **DSZ** | **Denniston Nort** | **1.94** | **338** | PN | Pn | 03 31 27.4 | -1.2 |
| DSZ | | | | AML | AML | 03 31 53.0 | |
| DSZ | | | | AML | AML | 03 31 53.8 | |
| **LBZ** | **Lake Benmore** | **2.06** | **245** | PN | Pn | 03 31 29.7 | -0.6 |
| LBZ | | | | AML | AML | 03 32 04.4 | |
| LBZ | | | | AML | AML | 03 32 06.1 | |
| **ODZ** | **Otahua Downs** | **2.15** | **225** | PN | Pn | 03 31 30.3 | -1.1 |
| ODZ | | | | AML | AML | 03 32 05.4 | |
| ODZ | | | | AML | AML | 03 32 05.4 | |
| **FOZ** | **Fox Glacier** | **2.16** | **269** | PN | Pn | 03 31 32.0 | +0.4 |
| FOZ | | | | AML | AML | 03 32 00.4 | |
| **NNZ** | **Nelson** | **2.36** | **11** | PN | Pn | 03 31 33.4 | -1.0 |
| **QRZ** | **Quartz Range** | **2.72** | **356** | *e*PN | Pn | 03 31 38

**South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.13** | **234** | *e*Pg | Pg | 03 33 43.4 | -0.1 |
| CRLZ | | | | *e*Sg | Sg | 03 33 45.6 | 0.0 |
| **CRLZ** | **Canterbury Las** | **0.13** | **234** | ⇑PG | Pg | 03 33 43.6 | +0.2 |
| CRLZ | | | | SG | Sg | 03 33 45.9 | +0.3 |
| CRLZ | | | | AML | AML | 03 33 46.1 | |
| CRLZ | | | | AML | AML | 03 33 46.5 | |
| **MQZ** | **McQueen's Vall** | **0.23** | **202** | *e*Pg | Pg | 03 33 44.9 | -0.2 |
| MQZ | | | | *e*Sg | Sg | 03 33 48.4 | +0.2 |
| **MQZ** | **McQueen's Vall** | **0.23** | **202** | ⇑PG | Pg | 03 33 45.1 | 0.0 |
| MQZ | | | | SG | Sg | 03 33 48.6 | +0.3 |
| MQZ | | | | SG | | 03 33 48.6 | |
| MQZ | | | | AML | AML | 03 33 48.9 | |
| **OXZ** | **Oxford** | **0.56** | **287** | *e*Pg | Pg | 03 33 51.0 | -0.3 |
| OXZ | | | | *e*Sg | Sg | 03 33 59.1 | +0.5 |
| **OXZ** | **Oxford** | **0.56** | **287** | ⇓P* | Pg | 03 33 51.1 | -0.2 |
| OXZ | | | | S* | Sg | 03 33 58.7 | 0.0 |
| OXZ | | | | AML | AML | 03 34 00.8 | |
| OXZ | | | | AML | AML | 03 34 00.8 | |
| OXZ | | | | AML | AML | 03 34 01.9 | |
| **LTZ** | **Lake Taylor** | **0.80** | **333** | *e*Pg | Pg | 03 33 55.6 | -0.3 |
| LTZ | | | | *e*Sg | Sg | 03 34 06.9 | +0.5 |
| **LTZ** | **Lake Taylor** | **0.80** | **333** | P* | Pg | 03 33 56.1 | +0.2 |
| LTZ | | | | S* | Sg | 03 34 06.6 | +0.3 |
| LTZ | | | | AML | AML | 03 34 07.8 | |
| **KHZ** | **Kahutara** | **1.22** | **28** | *e*Pn | Pn | 03 34 00.9 | -2.5 |
| **KHZ** | **Kahutara** | **1.22** | **28** | AML | AML | 03 34 29.3 | |
| KHZ | | | | AML | AML | 03 34 29.4 | |
| **RPZ** | **Rata Peaks** | **1.27** | **259** | AML | AML | 03 34 26.1 | |
| RPZ | | | | AML | AML | 03 34 27.5 | |
| **WVZ** | **Waitaha Valley** | **1.54** | **285** | AML | AML | 03 34 31.2 | |
| **THZ** | **Tophouse** | **1.73** | **3** | *e*Pn | Pn | 03 34 09.6 | -1.1 |
| **THZ** | **Tophouse** | **1.73** | **3** | Pn | Pn | 03 34 09.2 | -1.5 |
| THZ | | | | AML | AML | 03 34 43.4 | |
| THZ | | | | AML | AML | 03 34 47.7 | |
| **DSZ** | **Denniston Nort** | **1.89** | **337** | PN | Pn | 03 34 11.8 | -1.1 |
| DSZ | | | | AML | AML | 03 34 44.7 | |
| DSZ | | | | AML | AML | 03 34 44.8 | |
| DSZ | | | | AML | AML | 03 34 50.4 | |
| DSZ | | | | AML | AML | 03 34 50.4 | |
| **BSWZ** | **Blackbirch Sta** | **1.96** | **25** | Pn | Pn | 03 34 12.4 | -1.3 |
| **BSWZ** | **Blackbirch Sta** | **1.96** | **25** | PN | Pn | 03 34 12.4 | -1.3 |
| **LBZ** | **Lake Benmore** | **2.07** | **244** | AML | AML | 03 34 53.1 | |
| LBZ | | | | AML | AML | 03 34 54.8 | |
| **FOZ** | **Fox Glacier** | **2.15** | **268** | *e*Pn | Pn | 03 34 15.8 | -0.5 |
| **FOZ** | **Fox Glacier** | **2.15** | **268** | *e*PN | Pn | 03 34 16.6 | +0.3 |
| **ODZ** | **Otahua Downs** | **2.17** | **224** | AML | AML | 03 34 52.4 | |
| **TUWZ** | **Tuamarina** | **2.24** | **23** | Pn | Pn | 03 34 15.9 | -1.7 |
| **NNZ** | **Nelson** | **2.32** | **11** | PN | Pn | 03 34 17.6 | -1.0 |
| **TCW** | **Tory Channel** | **2.54** | **27** | Pn | Pn | 03 34 19.8 | -1.9 |
| **BHW** | **Baring Head** | **2.60** | **37** | PN | Pn | 03 34 20.4 | -2.1 |
| **SNZO** | **South Karori** | **2.61** | **34** | *e*Pn | Pn | 03 34 19.4 | -3.2 |
| **PLWZ** | **Palliser** | **2.66** | **44** | Pn | Pn | 03 34 21.1 | -2.3 |
| **QRZ** | **Quartz Range** | **2.67** | **356** | *e*PN | Pn | 03 34 22.3 | -1.2 |
| QRZ | | | | AML | AML | 03 35 09.6 | |
| **DUWZ** | **D'Urville Isla** | **2.83** | **18** | Pn | Pn | 03 34 24.8 | -0.9 |
| **DUWZ** | **D'Urville Isla** | **2.83** | **18** | *e*PN | Pn | 03 34 24.3 | -1.3 |
| **CAW** | **Cannon Point** | **2.93** | **36** | Pn | Pn | 03 34 24.9 | -2.2 |
| **CAW** | **Cannon Point** | **2.93** | **36** | *e*PN | Pn | 03 34 24.8 | -2.3 |
| **WKZ** | **Wanaka** | **3.01** | **242** | *e*Pn | Pn | 03 34 23.1 | -5.1 |
| **EAZ** | **Earnscleugh** | **3.03** | **234** | *e*PN | Pn | 03 34 27.0 | -1.4 |
| EAZ | | | | AML | AML | 03 35 20.4 | |
| EAZ | | | | AML | AML | 03 35 21.4 | |
| **KIW** | **Kapiti Island** | **3.08** | **32** | Pn | Pn | 03 34 27.1 | -2.0 |
| **TUZ** | **Tuapeka** | **3.32** | **221** | *e*PN | Pn | 03 34 31.8 | -0.7 |
| TUZ | | | | AML | AML | 03 35 30.1 | |
| **MRZ** | **Mangatainoka R** | **3.52** | **37** | *e*PN | Pn | 03 34 32.7 | -2.5 |
| **BFZ** | **Birch Farm** | **3.82** | **44** | *e*Pn | Pn | 03 34 35.3 | -4.0 |
| **MLZ** | **Mavora Lakes** | **3.82** | **239** | *e*Pn | Pn | 03 34 36.5 | -2.8 |
| **MLZ** | **Mavora Lakes** | **3.82** | **239** | *e*PN | Pn | 03 34 36.6 | -2.8 |
| **SYZ** | **Scrubby Hill** | **3.98** | **219** | *e*PN | Pn | 03 34 40.7 | -0.8 |
| **WHZ** | **Wether Hill Ro** | **4.19** | **233** | *e*Pn | Pn | 03 34 40.6 | -3.9 |
| **KHEZ** | **Kahui Hut** | **4.30** | **13** | Pn | Pn | 03 34 46.5 | +0.5 |
| **KHEZ** | **Kahui Hut** | **4.30** | **13** | *e*PN | Pn | 03 34 44.9 | -1.1 |
| **PRHZ** | **Porangahau** | **4.33** | **43** | Pn | Pn | 03 34 44.0 | -2.3 |
| **NEZ** | **North Egmont** | **4.34** | **14** | Pn | Pn | 03 34 46.6 | +0.1 |
| **NEZ** | **North Egmont** | **4.34** | **14** | *e*PN | Pn | 03 34 46.2 | -0.3 |
| **PKE** | **Pukeiti** | **4.39** | **12** | Pn | Pn | 03 34 47.3 | +0.1 |
| **DCZ** | **Deep Cove** | **4.48** | **242** | *e*Pn | Pn | 03 34 46.9 | -1.4 |
| **DCZ** | **Deep Cove** | **4.48** | **242** | *e*PN | Pn | 03 34 47.0 | -1.3 |
| **WNVZ** | **Wahianoa** | **4.68** | **28** | Pn | Pn | 03 34 49.9 | -1.3 |
| **WNVZ** | **Wahianoa** | **4.68** | **28** | *e*PN | Pn | 03 34 50.7 | -0.5 |
| **TRVZ** | **Turoa** | **4.68** | **27** | Pn | Pn | 03 34 50.2 | -1.2 |
| **TUVZ** | **Tukino** | **4.75** | **28** | Pn | Pn | 03 34 51.8 | -0.4 |
| **TUVZ** | **Tukino** | **4.75** | **28** | *e*PN | Pn | 03 34 50.8 | -1.4 |
| **APZ** | **The Paps** | **4.75** | **224** | *e*PN | Pn | 03 34 51.1 | -1.0 |
| **OTVZ** | **Oturere** | **4.85** | **28** | Pn | Pn | 03 34 51.9 | -1.6 |
| **OTVZ** | **Oturere** | **4.85** | **28** | *e*PN | Pn | 03 34 51.4 | -2.2 |
| **TWVZ** | **Taurewa** | **4.86** | **25** | Pn | Pn | 03 34 52.6 | -1.0 |
| **TWVZ** | **Taurewa** | **4.86** | **25** | *e*PN | Pn | 03 34 52.4 | -1.3 |
| **PYZ** | **Puysegur Point** | **5.09** | **236** | *e*Pn | Pn | 03 34 56.1 | -0.6 |
| **BKZ** | **Black Stump Fm** | **5.15** | **34** | *e*Pn | Pn | 03 34 53.8 | -3.9 |
| **HIZ** | **Hauiti** | **5.22** | **18** | *e*Pn | Pn | 03 34 56.4 | -2.1 |
| **HIZ** | **Hauiti** | **5.22** | **18** | *e*PN | Pn | 03 34 57.1 | -1.4 |
| **URZ** | **Urewera** | **6.18** | **34** | *e*Pn | Pn | 03 35 07.6 | -4.1 |

**WEL 23 03:34:15.8±0.3, 43°.53S×172°.76E, h14km±2km, ML3.0/5, Error ellipse: s-maj=3.3km s-min=1.2km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.11** | **247** | P* | Pg | 03 34 18.9 | -0.1 |
| CRLZ | | | | S* | Sg | 03 34 21.3 | +0.2 |
| CRLZ | | | | AML | AML | 03 34 21.4 | |
| CRLZ | | | | AML | AML | 03 34 22.0 | |
| CRLZ | | | | AML | AML | 03 34 22.0 | |
| **MQZ** | **McQueen's Vall** | **0.19** | **204** | P* | Pg | 03 34 20.3 | +0.2 |
| MQZ | | | | S* | Sg | 03 34 23.6 | +0.5 |
| MQZ | | | | S* | Sb | 03 34 23.6 | -1.0 |
| MQZ | | | | AML | AML | 03 34 24.0 | |
| **OXZ** | **Oxford** | **0.56** | **291** | P* | Pg | 03 34 26.2 | -0.7 |
| OXZ | | | | S* | Sg | 03 34 34.8 | +0.5 |
| OXZ | | | | AML | AML | 03 34 35.8 | |
| OXZ | | | | AML | AML | 03 34 36.0 | |
| OXZ | | | | AML | AML | 03 34 37.3 | |
| **LTZ** | **Lake Taylor** | **0.83** | **334** | P* | Pg | 03 34 31.6 | -0.3 |
| LTZ | | | | S* | Sg | 03 34 42.7 | -0.1 |
| LTZ | | | | AML | AML | 03 34 43.6 | |
| **RPZ** | **Rata Peaks** | **1.25** | **261** | AML | AML | 03 34 57.1 | |
| RPZ | | | | AML | AML | 03 34 57.4 | |

**WEL 23 03:35:13.9±0.3, 43°.57S×172°.76E, h13km±3km, ML3.1/7, 1C, Error ellipse: s-maj=4.1km s-min=1.4km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MQZ** | **McQueen's Vall** | **0.16** | **208** | ⇑P* | Pg | 03 35 17.8 | +0.1 |
| MQZ | | | | S* | Sg | 03 35 20.9 | +0.5 |
| MQZ | | | | S* | Sb | 03 35 20.9 | -1.0 |
| MQZ | | | | AML | AML | 03 35 21.1 | |
| **OXZ** | **Oxford** | **0.57** | **294** | P* | Pg | 03 35 24.7 | -0.4 |
| OXZ | | | | S* | Sg | 03 35 33.2 | +0.4 |
| OXZ | | | | AML | AML | 03 35 33.8 | |
| OXZ | | | | AML | AML | 03 35 34.5 | |
| OXZ | | | | AML | AML | 03 35 34.9 | |
| **LTZ** | **Lake Taylor** | **0.86** | **335** | P* | Pg | 03 35 30.0 | -0.5 |
| LTZ | | | | S* | Sg | 03 35 41.4 | -0.4 |
| LTZ | | | | AML | AML | 03 35 42.1 | |
| **RPZ** | **Rata Peaks** | **1.25** | **263** | PN | Pn | 03 35 36.2 | -0.8 |
| **INZ** | **Inchbonnie** | **1.28** | **311** | *e*PN | Pn | 03 35 37.3 | -0.1 |
| **KHZ** | **Kahutara** | **1.28** | **27** | PN | Pn | 03 35 35.8 | -1.7 |
| **THZ** | **Tophouse** | **1.81** | **4** | AML | AML | 03 35 49.5 | |
| **DSZ** | **Denniston Nort** | **1.95** | **339** | AML | AML | 03 35 54.1 | |

**WEL 23 03:48:16.2±0.3, 43°.54S×172°.76E, h12km±1km, ML2.7/3, 2C, Error ellipse: s-maj=3.1km s-min=1.2km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.11** | **250** | ⇑PG | Pg | 03 48 19.2 | +0.1 |
| CRLZ | | | | SG | Sg | 03 48 21.3 | +0.1 |
| CRLZ | | | | AML | AML | 03 48 21.5 | |
| **MQZ** | **McQueen's Vall** | **0.19** | **205** | ⇑P* | Pg | 03 48 20.5 | +0.2 |
| MQZ | | | | SG | Sg | 03 48 23.7 | +0.5 |
| MQZ | | | | SG | | 03 48 23.7 | |
| MQZ | | | | AML | AML | 03 48 23.8 | |
| **LTZ** | **Lake Taylor** | **0.84** | **334** | P* | Pg | 03 48 32.0 | -0.4 |
| LTZ | | | | S* | Sg | 03 48 42.8 | -0.5 |
| **RPZ** | **Rata Peaks** | **1.25** | **261** | *e*P* | Pn | 03 48 38.6 | -0.9 |
| RPZ | | | | S* | Sg | 03 48 56.6 | +0.1 |

*ISCJB **23** 03:50:11.2±0.5, 43°.56S±0°.03×173°.03E±0°.03, h14km±3km, mb4.8/25, MS4.3/8, Error ellipse: s-maj=5.8km s-min=2.5km az=142.0*
*BJI **23** 03:50:11.8, 43°.59S×173°.04E, h6km, mb5.2/8, mB5.6/5, Ms5.5/4, Ms7 5.2/5*
*IDC **23** 03:50:12.5±0.8, 43°.42S×172°.85E, h0km, mb4.4/5, mb1 4.5/6, mb1mx4.3/22, mbtmp4.4/6, ML4.2/1, MS4.1/7, Ms1 4.1/7, ms1mx3.9/23, Error ellipse: s-maj=31.1km s-min=13.3km az=164.0*
*WEL **23** 03:50:14.2±0.1, 43°.47S×172°.82E, h9km±1km, ML5.0/102, Mw4.7, Error ellipse: s-maj=1.4km s-min=0.7km az=90.0*
*WEL Felt from West Coast to Otago, maximum reported intensity MM 7.*
*NEIC **23** 03:50:14.5±0.0, 43°.50S×172°.77E, h11km, mb4.8/17, ML5.0(WEL), After WEL.*
*NEIC Felt in the Christchurch area.*

**ISC 23 03:50:13.3±0.8, 43°.51S±0°.03×172°.92E±0°.04, h12km±4km, n234, σ1°23/237, mb4.8/25, MS4.0/8, 4C-3D, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.23** | **253** | *e*Pg | **Pg** | **03 50 18.2** | **+0.1** |
| **CRLZ** | **Canterbury Las** | **0.23** | **253** | PG | **Pg** | **03 50 18.0** | **-0.1** |
| CRLZ | | | | SG | **Sg** | **03 50 20.9** | **-0.5** |
| CRLZ | | | | SG | | 03 50 21.2 | |
| CRLZ | | | | AML | AML | 03 50 21.5 | |
| CRLZ | | | | AML | AML | 03 50 23.1 | |
| **MQZ** | **McQueen's Vall** | **0.28** | **225** | *e*Pg | **Pg** | **03 50 19.5** | **+0.5** |
| **MQZ** | **McQueen's Vall** | **0.28** | **225** | ⇑PG | **Pg** | **03 50 19.4** | **+0.4** |
| MQZ | | | | SG | **Sg** | **03 50 23.4** | **+0.6** |
| MQZ | | | | SG | **Sg** | **03 50 23.4** | **+0.6** |
| **OXZ** | **Oxford** | **0.67** | **286** | *e*Pg | **Pg** | **03 50 25.3** | **-1.0** |
| **OXZ** | **Oxford** | **0.67** | **286** | ⇓P* | **Pg** | **03 50 25.3** | **-1.0** |
| OXZ | | | | S* | **Sg** | **03 50 34.0** | **-1.1** |
| OXZ | | | | AML | AML | 03 50 38.9 | |
| OXZ | | | | AML | AML | 03 50 38.9 | |
| OXZ | | | | AML | AML | 03 50 40.7 | |
| **LTZ** | **Lake Taylor** | **0.87** | **327** | *e*Pg | **Pg** | **03 50 29.7** | **-0.4** |
| **LTZ** | **Lake Taylor** | **0.87** | **327** | ⇓P* | **Pg** | **03 50 29.6** | **-0.4** |
| LTZ | | | | S* | **Sg** | **03 50 40.8** | **-0.7** |
| LTZ | | | | AML | AML | 03 50 47.2 | |
| LTZ | | | | AML | AML | 03 50 47.2 | |
| LTZ | | | | AML | AML | 03 50 47.4 | |
| **KHZ** | **Kahutara** | **1.18** | **23** | *e*Pn | **Pb** | **03 50 35.1** | **-0.5** |
| **KHZ** | **Kahutara** | **1.18** | **23** | ⇑P* | **Pb** | **03 50 35.0** | **-0.5** |
| KHZ | | | | AML | AML | 03 50 57.3 | |
| KHZ | | | | AML | AML | 03 50 59.1 | |
| KHZ | | | | AML | AML | 03 50 59.1 | |
| KHZ | | | | AML | AML | 03 50 59.9 | |
| **INZ** | **Inchbonnie** | **1.34** | **305** | P* | **Pn** | **03 50 36.2** | **-1.5** |
| **RPZ** | **Rata Peaks** | **1.37** | **261** | Pg | **Pn** | **03 50 37.2** | **-1.0** |
| | 309nm,0.3s,baz=107,slow=2.0,SNR=590 | | | | | | |
| RPZ | | | | Lg | Lg | 03 50 55.3 | |
| | 1μm,0.3s,baz=14,slow=17,SNR=22 | | | | | | |
| **RPZ** | **Rata Peaks** | **1.37** | **261** | PN | **Pn** | **03 50 36.9** | **-1.3** |
| RPZ | | | | AML | AML | 03 51 01.4 | |
| RPZ | | | | AML | AML | 03 51 02.1 | |
| **WVZ** | **Waitaha Valley** | **1.65** | **285** | Pn | **Pn** | **03 50 41.1** | **-0.9** |
| **WVZ** | **Waitaha Valley** | **1.65** | **285** | PN | **Pn** | **03 50 41.2** | **-0.9** |
| WVZ | | | | AML | AML | 03 51 17.5 | |
| WVZ | | | | AML | AML | 03 51 18.4 | |
| **THZ** | **Tophouse** | **1.75** | **360** | *e*Pn | **Pn** | **03 50 43.1** | **-0.3** |
| **THZ** | **Tophouse** | **1.75** | **360** | ⇑PN | **Pn** | **03 50 43.0** | **-0.5** |
| THZ | | | | AML | AML | 03 51 10.0 | |
| THZ | | | | AML | AML | 03 51 15.3 | |
| **BSWZ** | **Blackbirch Sta** | **1.93** | **22** | PN | **Pn** | **03 50 46.0** | **+0.2** |
| BSWZ | | | | AML | AML | 03 51 10.9 | |
| BSWZ | | | | AML | AML | 03 51 19.2 | |
| **DSZ** | **Denniston Nort** | **1.95** | **335** | Pn | **Pn** | **03 50 45.6** | **-0.5** |
| **DSZ** | **Denniston Nort** | **1.95** | **335** | PN | **Pn** | **03 50 45.5** | **-0.6** |
| DSZ | | | | AML | AML | 03 51 19.9 | |
| DSZ | | | | AML | AML | 03 51 19.9 | |
| DSZ | | | | AML | AML | 03 51 24.8 | |
| DSZ | | | | AML | AML | 03 51 24.8 | |
| **CMWZ** | **Cape Campbell** | **2.00** | **29** | PN | **Pn** | **03 50 47.2** | **+0.3** |
| CMWZ | | | | AML | AML | 03 51 45.8 | |
| CMWZ | | | | AML | AML | 03 51 59.5 | |
| **LBZ** | **Lake Benmore** | **2.16** | **245** | *e*Pn | **Pn** | **03 50 49.2** | **+0.1** |
| **LBZ** | **Lake Benmore** | **2.16** | **245** | PN | **Pn** | **03 50 48.7** | **-0.4** |
| LBZ | | | | AML | AML | 03 51 29.3 | |
| LBZ | | | | AML | AML | 03 51 29.3 | |
| LBZ | | | | AML | AML | 03 51 37.6 | |
| LBZ | | | | AML | AML | 03 51 37.6 | |
| **TUWZ** | **Tuamarina** | **2.21** | **20** | PN | **Pn** | **03 50 49.3** | **-0.4** |
| TUWZ | | | | AML | AML | 03 51 41.7 | |
| TUWZ | | | | AML | AML | 03 51 47.5 | |
| **ODZ** | **Otahua Downs** | **2.24** | **226** | *e*Pn | **Pn** | **03 50 49.6** | **-0.5** |
| **ODZ** | **Otahua Downs** | **2.24** | **226** | PN | **Pn** | **03 50 49.7** | **-0.5** |
| ODZ | | | | AML | AML | 03 51 30.9 | |
| ODZ | | | | AML | AML | 03 51 30.9 | |
| ODZ | | | | AML | AML | 03 51 31.7 | |
| ODZ | | | | AML | AML | 03 51 31.8 | |
| **FOZ** | **Fox Glacier** | **2.26** | **268** | *e*Pn | **Pn** | **03 50 50.9** | **+0.5** |
| **FOZ** | **Fox Glacier** | **2.26** | **268** | PN | **Pn** | **03 50 50.5** | **+0.1** |
| FOZ | | | | AML | AML | 03 51 35.0 | |
| FOZ | | | | AML | AML | 03 51 35.0 | |
| FOZ | | | | AML | AML | 03 51 37.3 | |
| FOZ | | | | AML | AML | 03 51 37.3 | |
| **NNZ** | **Nelson** | **2.32** | **9** | Pn | **Pn** | **03 50 51.4** | **+0.2** |
| **NNZ** | **Nelson** | **2.32** | **9** | PN | **Pn** | **03 50 51.1** | **-0.1** |
| NNZ | | | | AML | AML | 03 51 43.8 | |
| NNZ | | | | AML | AML | 03 51 43.8 | |
| NNZ | | | | AML | AML | 03 51 52.0 | |
| NNZ | | | | AML | AML | 03 51 52.0 | |
| **TCW** | **Tory Channel** | **2.51** | **24** | PN | **Pn** | **03 50 53.5** | **-0.4** |
| TCW | | | | AML | AML | 03 51 42.4 | |
| TCW | | | | AML | AML | 03 51 44.9 | |
| **BHW** | **Baring Head** | **2.55** | **35** | PN | **Pn** | **03 50 53.8** | **-0.6** |
| BHW | | | | AML | AML | 03 52 15.6 | |
| BHW | | | | AML | AML | 03 52 16.2 | |
| **SNZO** | **South Karori** | **2.56** | **32** | *e*Pn | **Pn** | **03 50 54.3** | **-0.3** |
| SNZO | | | | *e*Sg | **Sb** | **03 51 31.5** | **+0.9** |
| **PLWZ** | **Palliser** | **2.59** | **42** | PN | **Pn** | **03 50 54.4** | **-0.7** |
| PLWZ | | | | AML | AML | 03 51 31.4 | |
| PLWZ | | | | AML | AML | 03 51 31.9 | |
| **WEL** | **Wellington** | **2.61** | **32** | Pn | **Pn** | **03 50 55.1** | **-0.1** |
| **WEL** | **Wellington** | **2.61** | **32** | PN | **Pn** | **03 50 55.1** | **-0.1** |
| WEL | | | | AML | AML | 03 51 31.5 | |
| WEL | | | | AML | AML | 03 51 31.5 | |
| WEL | | | | AML | AML | 03 51 31.7 | |
| WEL | | | | AML | AML | 03 51 31.7 | |
| **QRZ** | **Quartz Range** | **2.70** | **354** | Pn | **Pn** | **03 50 56.6** | **+0.1** |
| **QRZ** | **Quartz Range** | **2.70** | **354** | PN | **Pn** | **03 50 56.6** | **+0.1** |
| QRZ | | | | AML | AML | 03 51 08.7 | |
| QRZ | | | | AML | AML | 03 51 08.7 | |
| QRZ | | | | AML | AML | 03 51 51.3 | |
| QRZ | | | | AML | AML | 03 51 51.3 | |
| **MSWZ** | **Moikau Station** | **2.71** | **40** | PN | **Pn** | **03 50 55.8** | **-0.8** |
| MSWZ | | | | AML | AML | 03 51 34.5 | |
| MSWZ | | | | AML | AML | 03 51 34.7 | |
| **DUWZ** | **D'Urville Isla** | **2.81** | **16** | PN | **Pn** | **03 50 57.5** | **-0.5** |
| DUWZ | | | | AML | AML | 03 51 53.0 | |
| DUWZ | | | | AML | AML | 03 52 08.3 | |
| **PAWZ** | **Paruwai Farm** | **2.82** | **42** | PN | **Pn** | **03 50 57.2** | **-1.0** |
| PAWZ | | | | AML | AML | 03 51 36.5 | |
| PAWZ | | | | AML | AML | 03 51 39.5 | |
| **CAW** | **Cannon Point** | **2.88** | **34** | PN | **Pn** | **03 50 58.2** | **-0.7** |
| CAW | | | | AML | AML | 03 51 40.9 | |
| CAW | | | | AML | AML | 03 51 42.3 | |
| **HHSZ** | **Highcliff Hill** | **2.90** | **214** | Pn | **Pn** | **03 50 58.8** | **-0.4** |
| **HHSZ** | **Highcliff Hill** | **2.90** | **214** | PN | **Pn** | **03 50 58.8** | **-0.4** |
| HHSZ | | | | AML | AML | 03 51 54.6 | |
| HHSZ | | | | AML | AML | 03 52 10.2 | |
| **TRWZ** | **Traveller** | **2.94** | **45** | PN | **Pn** | **03 50 58.9** | **-0.9** |
| TRWZ | | | | AML | AML | 03 51 42.3 | |
| TRWZ | | | | AML | AML | 03 51 43.0 | |
| **MTW** | **Mount Morrison** | **3.03** | **40** | PN | **Pn** | **03 50 59.9** | **-1.1** |
| MTW | | | | AML | AML | 03 51 41.7 | |
| MTW | | | | AML | AML | 03 52 24.2 | |
| **KIW** | **Kapiti Island** | **3.03** | **30** | PN | **Pn** | **03 51 00.6** | **-0.5** |
| KIW | | | | AML | AML | 03 52 09.4 | |
| KIW | | | | AML | AML | 03 52 17.0 | |
| **JCZ** | **Jackson Bay** | **3.05** | **258** | Pn | **Pn** | **03 51 00.6** | **-0.7** |
| **JCZ** | **Jackson Bay** | **3.05** | **258** | PN | **Pn** | **03 51 00.5** | **-0.8** |
| JCZ | | | | AML | AML | 03 52 02.7 | |
| JCZ | | | | AML | AML | 03 52 03.2 | |
| **WKZ** | **Wanaka** | **3.10** | **244** | *e*Pn | **Pn** | **03 51 02.1** | **+0.1** |
| **WKZ** | **Wanaka** | **3.10** | **244** | PN | **Pn** | **03 51 01.4** | **-0.6** |
| WKZ | | | | AML | AML | 03 52 01.3 | |
| WKZ | | | | AML | AML | 03 52 01.3 | |
| WKZ | | | | AML | AML | 03 52 11.7 | |
| WKZ | | | | AML | AML | 03 52 11.7 | |
| **EAZ** | **Earnscleugh** | **3.11** | **235** | Pn | **Pn** | **03 51 01.5** | **-0.6** |
| **EAZ** | **Earnscleugh** | **3.11** | **235** | PN | **Pn** | **03 51 00.8** | **-1.3** |
| EAZ | | | | AML | AML | 03 52 00.1 | |
| EAZ | | | | AML | AML | 03 52 00.1 | |
| EAZ | | | | AML | AML | 03 52 01.9 | |
| EAZ | | | | AML | AML | 03 52 01.9 | |
| **OGWZ** | **Otaki Gorge** | **3.17** | **33** | PN | **Pn** | **03 51 02.3** | **-0.6** |
| OGWZ | | | | AML | AML | 03 51 50.4 | |
| OGWZ | | | | AML | AML | 03 52 25.9 | |
| **HOWZ** | **Holdsworth Sta** | **3.25** | **37** | PN | **Pn** | **03 51 02.8** | **-1.2** |
| HOWZ | | | | AML | AML | 03 51 49.7 | |
| HOWZ | | | | AML | AML | 03 51 50.2 | |
| **TMWZ** | **Te Maipa** | **3.26** | **44** | PN | **Pn** | **03 51 02.9** | **-1.3** |
| TMWZ | | | | AML | AML | 03 51 48.1 | |
| TMWZ | | | | AML | AML | 03 51 51.1 | |
| **TUZ** | **Tuapeka** | **3.39** | **223** | Pn | **Pn** | **03 51 05.5** | **-0.4** |
| **TUZ** | **Tuapeka** | **3.39** | **223** | PN | **Pn** | **03 51 05.3** | **-0.5** |
| TUZ | | | | AML | AML | 03 52 09.7 | |
| TUZ | | | | AML | AML | 03 52 09.8 | |
| TUZ | | | | AML | AML | 03 52 10.5 | |
| TUZ | | | | AML | AML | 03 52 10.5 | |
| **MRZ** | **Mangatainoka R** | **3.47** | **36** | Pn | **Pn** | **03 51 06.0** | **-1.0** |
| **MRZ** | **Mangatainoka R** | **3.47** | **36** | PN | **Pn** | **03 51 05.8** | **-1.2** |
| MRZ | | | | AML | AML | 03 51 53.8 | |
| MRZ | | | | AML | AML | 03 51 57.2 | |
| **TIWZ** | **Tintock** | **3.51** | **40** | AML | AML | 03 51 54.5 | |
| TIWZ | | | | AML | AML | 03 51 56.8 | |
| **CPWZ** | **Castlepoint** | **3.56** | **44** | AML | AML | 03 51 56.3 | |
| CPWZ | | | | AML | AML | 03 51 59.1 | |
| **PRWZ** | **Pori Road** | **3.73** | **39** | *e*PN | **Pn** | **03 51 09.6** | **-1.0** |
| PRWZ | | | | AML | AML | 03 51 59.2 | |
| PRWZ | | | | AML | AML | 03 52 07.3 | |
| **OHWZ** | **Ohakea** | **3.75** | **29** | *e*PN | **Pn** | **03 51 11.5** | **+0.6** |
| **BFZ** | **Birch Farm** | **3.76** | **42** | *e*Pn | **Pn** | **03 51 09.8** | **-1.2** |
| **BFZ** | **Birch Farm** | **3.76** | **42** | PN | **Pn** | **03 51 09.7** | **-1.3** |
| BFZ | | | | AML | AML | 03 52 00.4 | |
| BFZ | | | | AML | AML | 03 52 00.4 | |
| BFZ | | | | AML | AML | 03 52 09.8 | |
| BFZ | | | | AML | AML | 03 52 09.8 | |
| **POWZ** | **Post Office Ro** | **3.77** | **35** | *e*PN | **Pn** | **03 51 10.7** | **-0.5** |
| POWZ | | | | AML | AML | 03 52 56.4 | |
| POWZ | | | | AML | AML | 03 53 03.7 | |
| **MLZ** | **Mavora Lakes** | **3.91** | **240** | *e*Pn | **Pn** | **03 51 12.4** | **-0.7** |
| **MLZ** | **Mavora Lakes** | **3.91** | **240** | PN | **Pn** | **03 51 12.0** | **-1.1** |
| MLZ | | | | AML | AML | 03 52 25.2 | |
| MLZ | | | | AML | AML | 03 52 30.9 | |
| **DVHZ** | **Dannevirke** | **4.02** | **38** | PN | **Pn** | **03 51 13.3** | **-1.4** |
| DVHZ | | | | AML | AML | 03 52 12.0 | |
| DVHZ | | | | AML | AML | 03 52 17.0 | |
| **SYZ** | **Scrubby Hill** | **4.04** | **220** | Pn | **Pn** | **03 51 14.9** | **0.0** |
| **SYZ** | **Scrubby Hill** | **4.04** | **220** | PN | **Pn** | **03 51 14.9** | **0.0** |
| SYZ | | | | AML | AML | 03 52 35.2 | |
| SYZ | | | | AML | AML | 03 52 35.3 | |
| SYZ | | | | AML | AML | 03 52 36.2 | |
| SYZ | | | | AML | AML | 03 52 36.3 | |
| **WAZ** | **Wanganui** | **4.06** | **23** | Pn | **Pn** | **03 51 16.4** | **+1.3** |
| **WAZ** | **Wanganui** | **4.06** | **23** | *e*PN | **Pn** | **03 51 15.9** | **+0.8** |
| WAZ | | | | AML | AML | 03 52 49.0 | |
| WAZ | | | | AML | AML | 03 53 02.7 | |
| **TSZ** | **Takapari Road** | **4.13** | **34** | Pn | **Pn** | **03 51 15.4** | **-0.8** |
| **TSZ** | **Takapari Road** | **4.13** | **34** | *e*PN | **Pn** | **03 51 14.7** | **-1.5** |
| TSZ | | | | AML | AML | 03 52 48.1 | |
| TSZ | | | | AML | AML | 03 53 24.1 | |
| **NMEZ** | **Namu Road** | **4.16** | **10** | *e*PN | **Pn** | **03 51 18.2** | **+1.7** |
| **LREZ** | **Lake Rotokare** | **4.20** | **16** | *e*PN | **Pn** | **03 51 18.6** | **+1.5** |
| LREZ | | | | AML | AML | 03 52 53.0 | |
| LREZ | | | | AML | AML | 03 52 58.3 | |
| **PRHZ** | **Porangahau** | **4.26** | **42** | *e*PN | **Pn** | **03 51 16.7** | **-1.2** |
| PRHZ | | | | AML | AML | 03 52 14.6 | |
| PRHZ | | | | AML | AML | 03 52 20.7 | |
| **PREZ** | **Palmer Road** | **4.27** | **13** | *e*PN | **Pn** | **03 51 17.6** | **-0.4** |
| PREZ | | | | AML | AML | 03 52 18.7 | |
| PREZ | | | | AML | AML | 03 52 23.8 | |
| **WHZ** | **Wether Hill Ro** | **4.27** | **234** | *e*Pn | **Pn** | **03 51 16.8** | **-1.3** |
| **WHZ** | **Wether Hill Ro** | **4.27** | **234** | *e*PN | **Pn** | **03 51 16.5** | **-1.6** |
| WHZ | | | | AML | AML | 03 52 40.1 | |
| WHZ | | | | AML | AML | 03 52 42.8 | |
| **KHEZ** | **Kahui Hut** | **4.29** | **11** | *e*PN | **Pn** | **03 51 19.5** | **+1.1** |
| **NEZ** | **North Egmont** | **4.33** | **12** | PN | **Pn** | **03 51 20.1** | **+1.2** |
| **WPHZ** | **Waipukurau** | **4.33** | **39** | AML | AML | 03 52 23.3 | |
| WPHZ | | | | AML | AML | 03 52 26.2 | |
| **PNHZ** | **Pukenui** | **4.35** | **35** | PN | **Pn** | **03 51 17.3** | **-1.9** |
| PNHZ | | | | AML | AML | 03 52 17.7 | |
| PNHZ | | | | AML | AML | 03 52 27.9 | |
| **PKE** | **Pukeiti** | **4.39** | **11** | *e*PN | **Pn** | **03 51 20.7** | **+1.0** |
| PKE | | | | AML |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **WTVZ** | **West Tongariro** | **4.83** | **25** | PN | **Pn** | **03 51 25.5** | **-0.4** |
| WTVZ | | | | AML | AML | 03 52 51.8 | |
| WTVZ | | | | AML | AML | 03 53 18.4 | |
| **KWHZ** | **Kaweka Forest** | **4.86** | **34** | *e*PN | **Pn** | **03 51 25.0** | **-1.1** |
| KWHZ | | | | AML | AML | 03 52 45.0 | |
| KWHZ | | | | AML | AML | 03 52 55.0 | |
| **KRVZ** | **Karewarewa** | **4.86** | **26** | PN | **Pn** | **03 51 26.0** | **-0.4** |
| KRVZ | | | | AML | AML | 03 52 47.3 | |
| KRVZ | | | | AML | AML | 03 53 10.4 | |
| **CKHZ** | **Cape Kidnapper** | **4.95** | **40** | AML | AML | 03 52 36.5 | |
| CKHZ | | | | AML | AML | 03 52 41.4 | |
| **MCHZ** | **McNeill Hill** | **4.95** | **36** | PN | **Pn** | **03 51 27.1** | **-0.3** |
| MCHZ | | | | AML | AML | 03 53 16.5 | |
| MCHZ | | | | AML | AML | 03 53 59.3 | |
| **KATZ** | **Kakaramea** | **4.99** | **26** | PN | **Pn** | **03 51 28.9** | **+0.9** |
| KATZ | | | | AML | AML | 03 53 03.5 | |
| KATZ | | | | AML | AML | 03 53 33.9 | |
| **BKZ** | **Black Stump Fm** | **5.11** | **33** | *e*Pn | **Pn** | **03 51 28.8** | **-0.8** |
| **BKZ** | **Black Stump Fm** | **5.11** | **33** | PN | **Pn** | **03 51 28.3** | **-1.3** |
| BKZ | | | | AML | AML | 03 53 28.2 | |
| BKZ | | | | AML | AML | 03 53 48.0 | |
| **RATZ** | **Rangitukua** | **5.11** | **26** | AML | AML | 03 53 12.6 | |
| RATZ | | | | AML | AML | 03 53 22.8 | |
| **PYZ** | **Puysegur Point** | **5.17** | **237** | *e*Pn | **Pn** | **03 51 29.4** | **-1.1** |
| **PYZ** | **Puysegur Point** | **5.17** | **237** | *e*PN | **Pn** | **03 51 28.0** | **-2.5** |
| PYZ | | | | AML | AML | 03 53 07.9 | |
| PYZ | | | | AML | AML | 03 53 09.3 | |
| **HIZ** | **Hauiti** | **5.20** | **17** | *e*Pn | **Pn** | **03 51 31.1** | **+0.2** |
| **HIZ** | **Hauiti** | **5.20** | **17** | PN | **Pn** | **03 51 30.9** | **0.0** |
| HIZ | | | | AML | AML | 03 52 38.8 | |
| HIZ | | | | AML | AML | 03 53 23.6 | |
| **ARHZ** | **Aropaoanui** | **5.23** | **37** | *e*PN | **Pn** | **03 51 30.6** | **-0.7** |
| ARHZ | | | | AML | AML | 03 52 39.2 | |
| ARHZ | | | | AML | AML | 03 52 42.7 | |
| **NMHZ** | **Naumai** | **5.29** | **35** | *e*PN | **Pn** | **03 51 31.1** | **-1.1** |
| NMHZ | | | | AML | AML | 03 52 39.3 | |
| NMHZ | | | | AML | AML | 03 52 48.4 | |
| **WHHZ** | **Waihua** | **5.49** | **38** | *e*PN | **Pn** | **03 51 33.8** | **-1.1** |
| WHHZ | | | | AML | AML | 03 52 51.6 | |
| WHHZ | | | | AML | AML | 03 52 52.0 | |
| **MTHZ** | **Maungataniwha** | **5.51** | **34** | *e*PN | **Pn** | **03 51 33.9** | **-1.2** |
| **TLZ** | **Tolley Road** | **5.54** | **22** | Pn | **Pn** | **03 51 35.6** | **0.0** |
| **TLZ** | **Tolley Road** | **5.54** | **22** | *e*PN | **Pn** | **03 51 35.2** | **-0.4** |
| TLZ | | | | AML | AML | 03 52 47.4 | |
| TLZ | | | | AML | AML | 03 52 48.2 | |
| **ALRZ** | **Allen Road** | **5.58** | **29** | *e*PN | **Pn** | **03 51 35.2** | **-0.8** |
| ALRZ | | | | AML | AML | 03 53 40.0 | |
| ALRZ | | | | AML | AML | 03 53 47.9 | |
| **KNZ** | **Kokohu** | **5.74** | **40** | Pn | **Pn** | **03 51 36.9** | **-1.3** |
| **KNZ** | **Kokohu** | **5.74** | **40** | *e*PN | **Pn** | **03 51 36.3** | **-1.9** |
| KNZ | | | | AML | AML | 03 52 51.9 | |
| KNZ | | | | AML | AML | 03 52 55.2 | |
| **MHGZ** | **Mahia Peninsul** | **5.75** | **42** | *e*PN | **Pn** | **03 51 37.5** | **-0.8** |
| MHGZ | | | | AML | AML | 03 53 00.4 | |
| MHGZ | | | | AML | AML | 03 53 05.0 | |
| **RTZ** | **Ruatahuna** | **5.77** | **33** | *e*PN | **Pn** | **03 51 36.4** | **-2.3** |
| **SNGZ** | **Shannon Statio** | **5.78** | **37** | *e*PN | **Pn** | **03 51 36.9** | **-2.0** |
| SNGZ | | | | AML | AML | 03 52 58.0 | |
| SNGZ | | | | AML | AML | 03 53 06.1 | |
| **MUGZ** | **Murupara** | **5.81** | **31** | *e*PN | **Pn** | **03 51 38.0** | **-1.2** |
| **PRGZ** | **Paritu Road** | **5.92** | **41** | *e*PN | **Pn** | **03 51 38.4** | **-2.3** |
| PRGZ | | | | AML | AML | 03 52 52.1 | |
| PRGZ | | | | AML | AML | 03 52 52.8 | |
| **TARZ** | **Mount Tarawera** | **5.93** | **28** | PN | **Pn** | **03 51 40.0** | **-0.9** |
| TARZ | | | | AML | AML | 03 52 19.2 | |
| TARZ | | | | AML | AML | 03 53 26.2 | |
| **OMRZ** | **Omania** | **6.00** | **27** | AML | AML | 03 52 38.5 | |
| **RIGZ** | **Rimuhau** | **6.03** | **39** | *e*PN | **Pn** | **03 51 39.9** | **-2.4** |
| RIGZ | | | | AML | AML | 03 52 56.0 | |
| RIGZ | | | | AML | AML | 03 53 04.4 | |
| **RAGZ** | **Rawiri** | **6.05** | **36** | AML | AML | 03 52 14.3 | |
| RAGZ | | | | AML | AML | 03 52 23.1 | |
| **TOZ** | **Tahuroa Road** | **6.10** | **20** | Pn | **Pn** | **03 51 42.8** | **-0.4** |
| **TOZ** | **Tahuroa Road** | **6.10** | **20** | *e*PN | **Pn** | **03 51 42.3** | **-0.9** |
| TOZ | | | | AML | AML | 03 53 37.1 | |
| TOZ | | | | AML | AML | 03 53 54.3 | |
| **URZ** | **Urewera** | **6.13** | **33** | Pn | **Pn** | **03 51 42.2** | **-1.4** |
| | 5.9nm,0.3s,baz=253,slow=4.7,SNR=23 | | | | | | |
| URZ | | | | Sn | **Sn** | **03 52 53.6** | **0.0** |
| | 14nm,0.3s,baz=349,slow=10,SNR=5.6 | | | | | | |
| **URZ** | **Urewera** | **6.13** | **33** | *e*Pn | **Pn** | **03 51 41.5** | **-2.1** |
| URZ | | | | Sn | **Sn** | **03 52 53.6** | **0.0** |
| **URZ** | **Urewera** | **6.13** | **33** | *e*PN | **Pn** | **03 51 40.5** | **-3.1** |
| URZ | | | | AML | AML | 03 53 12.3 | |
| URZ | | | | AML | AML | 03 53 16.6 | |
| **MWZ** | **Matawai** | **6.24** | **36** | Pn | **Pn** | **03 51 43.0** | **-2.1** |
| **MWZ** | **Matawai** | **6.24** | **36** | *e*PN | **Pn** | **03 51 42.8** | **-2.3** |
| MWZ | | | | AML | AML | 03 52 53.5 | |
| MWZ | | | | AML | AML | 03 53 06.8 | |
| **TGRZ** | **Tauranga** | **6.31** | **25** | PN | **Pn** | **03 51 45.2** | **-0.8** |
| TGRZ | | | | AML | AML | 03 51 55.2 | |
| TGRZ | | | | AML | AML | 03 52 03.8 | |
| **AWAZ** | **Awhitu Peninsu** | **6.57** | **12** | PN | **Pn** | **03 51 50.0** | **+0.3** |
| **RUGZ** | **Raukumara Rang** | **6.61** | **35** | PN | **Pn** | **03 51 47.9** | **-2.4** |
| **ETAZ** | **East Tamaki Re** | **6.73** | **14** | PN | **Pn** | **03 51 52.2** | **+0.4** |
| **HAZ** | **Te Kaha** | **6.83** | **34** | *e*PN | **Pn** | **03 51 51.6** | **-1.6** |
| HAZ | | | | AML | AML | 03 53 16.7 | |
| HAZ | | | | AML | AML | 03 53 28.4 | |
| **PKGZ** | **Pakihiroa** | **6.85** | **37** | *e*PN | **Pn** | **03 51 51.5** | **-2.0** |
| PKGZ | | | | AML | AML | 03 53 14.2 | |
| PKGZ | | | | AML | AML | 03 53 14.2 | |
| **WIAZ** | **Waiheke Island** | **6.92** | **15** | *e*PN | **Pn** | **03 51 54.5** | **+0.1** |
| WIAZ | | | | AML | AML | 03 52 11.1 | |
| WIAZ | | | | AML | AML | 03 52 12.3 | |
| **WMGZ** | **Waiomatatini S** | **7.05** | **38** | PN | **Pn** | **03 51 53.5** | **-2.8** |
| WMGZ | | | | AML | AML | 03 52 07.1 | |
| WMGZ | | | | AML | AML | 03 52 16.6 | |
| **ABAZ** | **Army Bay** | **7.06** | **13** | *e*PN | **Pn** | **03 51 56.6** | **+0.3** |
| **KUZ** | **Kuaotunu** | **7.09** | **19** | Pn | **Pn** | **03 51 56.3** | **-0.5** |
| **MXZ** | **Matakaoa Point** | **7.22** | **36** | *e*Pn | **Pn** | **03 51 54.5** | **-4.0** |
| **CTZ** | **Chatham Island** | **7.59** | **95** | Pn | **Pn** | **03 52 03.2** | **-0.4** |
| **CTZ** | **Chatham Island** | **7.59** | **95** | PN | **Pn** | **03 52 03.1** | **-0.5** |
| **WCZ** | **Waipu Caves** | **7.64** | **9** | Pn | **Pn** | **03 52 05.5** | **+1.1** |
| **WCZ** | **Waipu Caves** | **7.64** | **9** | PN | **Pn** | **03 52 04.8** | **+0.4** |
| WCZ | | | | AML | AML | 03 53 39.7 | |
| **OUZ** | **Omahuta** | **8.30** | **4** | *e*Pn | **Pn** | **03 52 13.5** | **+0.2** |
| **CAN** | **Canberra** | **20.16** | **286** | *e*P | **P** | **03 54 46.7** | **-0.8** |
| | 11nm,1.1s | | | | | | |
| **ARMA** | **Armidale** | **21.38** | **301** | *e*P | **P** | **03 54 59.9** | **-0.8** |
| | 11nm,1.0s | | | | | | |
| **DZM** | **Mont Dzumac** | **22.05** | **344** | LR | LR | 04 02 47.6 | |
| | comp=Z,592nm,20.3s,baz=204,slow=34 | | | | | | |
| **DZM** | **Mont Dzumac** | **22.05** | **344** | *e*P | **P** | **03 55 08.3** | **+0.4** |
| | 25nm,1.2s | | | | | | |
| **EIDS** | **Eidsvold** | **25.41** | **308** | *e*P | **P** | **03 55 40.4** | **-0.2** |
| | 18nm,1.0s | | | | | | |
| **MSVF** | **Nonsavu** | **26.06** | **11** | *e*P | **P** | **03 55 44.6** | **-2.0** |
| | 30nm,1.4s | | | | | | |
| **STKA** | **Stephens Creek** | **27.22** | **285** | P | **P** | **03 55 57.0** | **+0.1** |
| | 2.0nm,0.9s,baz=124,slow=9.5,SNR=4.6 | | | | | | |
| STKA | | | | LR | LR | 04 05 36.3 | |
| | comp=Z,405nm,20.5s,baz=97,slow=34 | | | | | | |
| **BBOO** | **Buckleboo** | **30.66** | **278** | *e*P | **P** | **03 56 26.8** | **-0.8** |
| | 15nm,1.0s | | | | | | |
| **RAR** | **Rarotonga** | **31.79** | **54** | *e*P | **P** | **03 56 35.1** | **-2.4** |
| | 50nm,1.8s | | | | | | |
| **AFI** | **Afiamalu** | **32.29** | **29** | *e*P | **P** | **03 56 41.5** | **-0.5** |
| | 17nm,0.6s | | | | | | |
| **CTA** | **Charters Tower** | **32.29** | **308** | P | **P** | **03 56 42.9** | **+0.9** |
| | 3.1nm,0.4s,baz=169,slow=10,SNR=5.8 | | | | | | |
| **CTAO** | **Charters Tower** | **32.29** | **308** | *e*P | **P** | **03 56 44.4** | **+2.4** |
| | 64nm,1.0s | | | | | | |
| **VNDA** | **Vanda** | **34.42** | **184** | LR | LR | 04 09 29.2 | |
| | comp=Z,192nm,19.1s,baz=350,slow=34 | | | | | | |
| **AS01** | **Alice Springs** | **37.58** | **289** | *e*P | **P** | **03 57 27.4** | **-0.3** |
| **AS31** | **Alice Springs** | **37.62** | **289** | *e*P | **P** | **03 57 27.9** | **0.0** |
| | 2.1nm,0.9s | | | | | | |
| **ASAR** | **Alice Springs** | **37.62** | **289** | P | **P** | **03 57 28.4** | **+0.4** |
| | 4.3nm,0.8s,baz=132,slow=8.9,SNR=26 | | | | | | |
| ASAR | | | | LR | LR | 04 12 26.5 | |
| | comp=Z,215nm,20.0s,baz=146,slow=36 | | | | | | |
| **COEN** | **Coen** | **38.95** | **310** | *e*P | **P** | **03 57 39.5** | **+0.3** |
| | 11nm,1.1s | | | | | | |
| **WC3** | **Warramunga Arr** | **39.82** | **294** | *e*P | **P** | **03 57 45.9** | **-0.6** |
| | 23nm,1.3s | | | | | | |
| **WB2** | **Warramunga Arr** | **39.85** | **294** | *e*P | **P** | **03 57 49.0** | **+2.3** |
| **WRAB** | **Tennant Creek** | **39.86** | **294** | *e*P | **P** | **03 57 46.3** | **-0.4** |
| | 6.8nm,0.6s | | | | | | |
| WRAB | | | | *e*S | **S** | **04 03 47.0** | **-4.2** |
| **WRA** | **Warramunga Arr** | **39.86** | **294** | P | **P** | **03 57 47.0** | **+0.3** |
| | 6.4nm,0.7s,baz=131,slow=7.8,SNR=25 | | | | | | |
| WRA | | | | LR | LR | 04 13 03.1 | |
| | comp=Z,382nm,20.6s,baz=125,slow=34 | | | | | | |
| **PMG** | **Port Moresby** | **40.72** | **319** | *e*P | **P** | **03 57 54.2** | **+0.4** |
| | 30nm,1.0s | | | | | | |
| **RABL** | **Rabaul** | **43.25** | **329** | *e*P | **P** | **03 58 14.9** | **+0.4** |
| | 134nm,0.6s | | | | | | |
| **MBWA** | **Marble Bar** | **49.23** | **279** | *e*P | **P** | **03 59 02.1** | **+0.5** |
| | 39nm,0.9s | | | | | | |
| **SOEI** | **Soe** | **53.90** | **294** | *e*P | **P** | **03 59 36.8** | **+0.1** |
| | 21nm,0.9s | | | | | | |
| **MAW** | **Mawson** | **57.45** | **205** | LR | LR | 04 24 06.2 | |
| | comp=Z,82nm,18.5s,baz=214,slow=35 | | | | | | |
| **SYO** | **Syowa Base** | **62.61** | **197** | *e*P | **P** | **04 00 37.0** | **+0.3** |
| **SYO** | **Syowa Base** | **62.61** | **197** | *e*sP | sP | 04 00 45.0 | +2.9 |
| **SNAA** | **Sanae** | **65.09** | **181** | *e*P | **P** | **04 00 53.1** | **0.0** |
| | 476nm,1.2s | | | | | | |
| **GSI** | **Gunungsitoli** | **80.30** | **281** | *e*P | **P** | **04 02 23.8** | **-0.5** |
| | 38nm,1.0s | | | | | | |
| **NJ2** | **Nanjing** | **89.99** | **317** | *e*P | **P** | **04 03 14.0** | **+1.7** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,15nm,0.5s | | | | | | |
| **KSRS** | **Korea Array** | **90.34** | **326** | P | **P** | **04 03 14.9** | **+1.1** |
| | 3.0nm,0.8s,baz=147,slow=5.4,SNR=5.6 | | | | | | |
| **KSAR** | **Wonju Array Be** | **90.35** | **326** | P | **P** | **04 03 14.9** | **+1.0** |
| **KS01** | **Wonju Array Si** | **90.38** | **326** | *e*P | **P** | **04 03 16.2** | **+2.2** |
| **GYA** | **Guiyang** | **92.38** | **305** | *e*P | **P** | **04 03 25.0** | **+1.3** |
| GYA | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.0s | | | | | | |
| **KMI** | **Kunming** | **93.79** | **301** | P | P | 04 03 36.4 | +6.0 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.5s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,2μm,14.7s | | | | | | |
| **LPAZ** | **La Paz** | **98.45** | **122** | LR | LR | 04 38 40.6 | |
| | comp=Z,198nm,21.6s,baz=96,slow=30 | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **100.51** | **317** | *e*P | **Pdif** | **04 04 02.0** | **+1.7** |
| HHC | | | | PP | **PP** | **04 08 06.8** | **-0.9** |
| HHC | | | | S | **Sdif** | **04 15 36.0** | **-0.5** |
| HHC | | | | SS | **SS** | **04 22 38.1** | **+4.6** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,110nm,9.9s | | | | | | |
| **ILAR** | **Eielson Array** | **112.44** | **17** | PKiKP | **PKiKP** | **04 08 48.8** | **+0.8** |
| | 0.5nm,0.8s,baz=232,slow=3.0,SNR=3.9 | | | | | | |
| **WMQ** | **Urumqi** | **115.44** | **307** | PKP | **PKPdf** | **04 08 54.6** | **+0.1** |
| **INK** | **Inuvik** | **118.44** | **20** | PKP | **PKPdf** | **04 09 00.1** | **+0.7** |
| | 1.6nm,0.8s,baz=133,slow=2.4,SNR=8.6 | | | | | | |
| **INK** | **Inuvik** | **118.44** | **20** | *e*PKPdf | **PKPdf** | **04 08 59.5** | **+0.2** |
| **KSH** | **Kashi** | **120.19** | **297** | PKP | **PKPdf** | **04 08 59.3** | **-4.5** |
| KSH | | | | PP | **PP** | **04 10 31.4** | **+1.5** |
| KSH | | | | PKS | **PKSdf** | **04 12 35.6** | **-5.0** |
| KSH | | | | SS | SS | 04 26 56.3 | -1.0 |
| KSH | | | | AMB | AMB | | |
| | comp=Z,68nm,3.8s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,58nm,4.3s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,49nm,3.9s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,210nm,7.1s | | | | | | |
| **MKAR** | **Makanchi Array** | **120.27** | **307** | PKP | **PKPdf** | **04 09 04.3** | **+0.7** |
| | 1.3nm,1.0s,baz=174,slow=4.8,SNR=4.8 | | | | | | |
| **YKA** | **Yellowknife Ar** | **120.39** | **31** | PKP | **PKPdf** | **04 09 03.9** | **+0.7** |
| | 0.7nm,0.6s,baz=245,slow=1.7,SNR=12 | | | | | | |
| **FFC** | **Flin Flon** | **121.52** | **43** | *e*PKPdf | **PKPdf** | **04 09 05.4** | **-0.3** |
| **JFWS** | **Jewell Farm** | **121.94** | **59** | *e*PKPdf | **PKPdf** | **04 09 05.4** | **-1.5** |
| **WCI** | **Wyandotte Cave** | **122.00** | **66** | *e*PKPdf | **PKPdf** | **04 09 06.0** | **-1.2** |
| **ULM** | **Lac du Bonnet** | **122.40** | **49** | PKP | **PKPdf** | **04 09 09.4** | **+1.8** |
| | 1.9nm,0.7s,baz=203,slow=3.7,SNR=3.6 | | | | | | |
| **EYMN** | **Ely** | **123.74** | **54** | *e*PKPdf | **PKPdf** | **04 09 09.1** | **-1.1** |
| **KURK** | **Kurchatov** | **124.35** | **310** | *e*PKPdf | **PKPdf** | **04 09 10.8** | **-0.4** |
| **BLA** | **Blacksburg** | **125.42** | **70** | *e*PKPdf | **PKPdf** | **04 09 13.3** | **-0.5** |
| **KKAR** | **Karatay Array** | **125.57** | **298** | *e*PKPdf | **PKPdf** | **04 09 14.2** | **+0.3** |
| **RAYN** | **Ar Rayn** | **132.69** | **263** | *e*PKPdf | **PKPdf** | **04 09 28.3** | **+0.2** |
| **GNI** | **Garni** | **141.75** | **283** | *e*PKPdf | **PKPdf** | **04 09 43.2** | **-1.3** |
| **DBIC** | **Dimbokro** | **143.25** | **184** | PKP | **PKPdf** | **04 09 49.6** | **+1.9** |
| | 1.8nm,0.8s,baz=171,slow=3.6,SNR=3.5 | | | | | | |
| **SFJD** | **Kangerlussuaq** | **146.94** | **30** | PKPbc | **PKPbc** | **04 09 54.9** | **+0.6** |
| | 13nm,0.9s,baz=21,slow=2.2,SNR=4.0 | | | | | | |
| **SFJD** | **Kangerlussuaq** | **146.94** | **30** | *i* P | **PKPbc** | **04 09 54.0** | **-0.4** |
| **LVZ** | **Lovozero** | **147.19** | **332** | *e*PKPbc | **PKPdf** | **04 09 53.7** | **+0.9** |
| **SUMG** | **Summit** | **147.28** | **17** | *i* P | **PKPab** | **04 09 57.3** | **-0.3** |
| **CSS** | **Mathiatis** | **147.82** | **268** | *e*PKPbc | **PKPdf** | **04 09 56.2** | **+1.3** |
| **TORD** | **Torodi Ar. Bea** | **148.81** | **197** | PKP | **PKPdf** | **04 09 57.9** | **+0.8** |
| | 3.7nm,1.0s,baz=163,slow=2.6,SNR=4.5 | | | | | | |
| TORD | | | | PKPbc | **pPKPdf** | **04 10 01.9** | **+0.6** |
| | 6.9nm,1.2s,baz=148,slow=1.2,SNR=13 | | | | | | |
| **ARCES** | **ARCESS Array B** | **149.07** | **338** | PKPbc | **PKPbc** | **04 10 00.4** | **+0.4** |
| | 11nm,0.9s,baz=48,slow=1.8,SNR=8.5 | | | | | | |
| **BRTR** | **Keskin Array B** | **149.54** | **277** | PKPbc | **PKPbc** | **04 10 02.8** | **+0.5** |
| | 2.8nm,0.5s,baz=135,slow=4.0,SNR=10 | | | | | | |
| **OBN** | **Obninsk** | **149.77** | **308** | *e*PKPbc | **PKPbc** | **04 10 01.5** | **-0.6** |
| OBN | | | | *e*PKPab | **pPKPbc** | **04 10 06.4** | **+0.2** |
| **ANTO** | **Ankara** | **150.20** | **277** | *e*PKPbc | **PKPbc** | **04 10 02.3** | **-1.5** |
| **FINES** | **FINESS Array B** | **153.42** | **324** | PKPbc | **PKPbc** | **04 10 11.0** | **+0.7** |
| | 3.5nm,0.6s,baz=90,slow=3.8,SNR=10 | | | | | | |
| **AKASG** | **Malin Array Be** | **154.47** | **299** | PKPbc | **PKPbc** | **04 10 13.8** | **+0.9** |
| | 0.3nm,0.3s,baz=74,slow=2.3,SNR=4.3 | | | | | | |
| AKASG | | | | PKPab | **PKPab** | **04 10 27.9** | **+0.5** |
| | 1.8nm,0.8s,baz=71,slow=4.3,SNR=5.3 | | | | | | |
| **NOA** | **NORSAR Array B** | **159.31** | **334** | PKPab | **PKPab** | **04 10 49.2** | **+1.2** |
| | 1.8nm,0.8s,baz=45,slow=4.6,SNR=3.9 | | | | | | |
| **CLL** | **Collm** | **164.36** | **307** | *e*PKPab | **PKPab** | **04 11 11.0** | **+0.6** |

**WEL 23 03:51:59.4±0.2, 43°51'S×172°80'E, h5km, ML3.5/5, 1D, Error ellipse: s-maj=1.9km s-min=0.6km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.14** | **244** | ⇓PG | Pg | 03 52 02.4 | +0.2 |
| CRLZ | | | | SG | Sg | 03 52 04.7 | +0.6 |
| CRLZ | | | | AML | AML | 03 52 04.9 | |
| **MQZ** | **McQueen's Vall** | **0.22** | **209** | PG | Pg | 03 52 03.8 | +0.1 |
| MQZ | | | | SG | Sg | 03 52 06.9 | +0.3 |
| MQZ | | | | SG | | 03 52 06.9 | |
| MQZ | | | | AML | AML | 03 52 07.3 | |
| **OXZ** | **Oxford** | **0.58** | **288** | P* | Pb | 03 52 11.5 | -0.6 |
| OXZ | | | | SG | Sg | 03 52 18.5 | +0.4 |
| OXZ | | | | SG | Sb | 03 52 18.7 | -2.0 |
| OXZ | | | | AML | AML | 03 52 20.2 | |
| OXZ | | | | AML | AML | 03 52 20.2 | |
| **LTZ** | **Lake Taylor** | **0.83** | **332** | P* | Pg | 03 52 15.3 | +0.1 |
| LTZ | | | | S* | Sg | 03 52 26.6 | +0.6 |
| **INZ** | **Inchbonnie** | **1.27** | **308** | S* | Sb | 03 52 40.4 | +0.1 |
| **RPZ** | **Rata Peaks** | **1.28** | **260** | AML | AML | 03 52 39.9 | |
| RPZ | | | | S* | Sn | 03 52 42.0 | +0.4 |

**WEL 23 03:54:22.4±0.1, 43°49S×172°80E, h15km,2km, ML3.5/20, 1C-3D, Error ellipse: s-maj=1.7km s-min=0.7km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.15** | **237** | ⇑P* | Pg | 03 54 26.2 | -0.1 |
| CRLZ | | | | S* | Sg | 03 54 29.3 | +0.4 |
| CRLZ | | | | AML | AML | 03 54 29.7 | |
| **MQZ** | **McQueen's Vall** | **0.24** | **206** | ⇓P* | Pg | 03 54 27.8 | +0.1 |
| MQZ | | | | S* | Sg | 03 54 31.7 | +0.5 |
| MQZ | | | | S* | Sb | 03 54 31.8 | -0.8 |
| MQZ | | | | AML | AML | 03 54 31.9 | |
| **OXZ** | **Oxford** | **0.58** | **286** | ⇓P* | Pg | 03 54 33.4 | -0.4 |
| OXZ | | | | S* | Sg | 03 54 41.2 | -0.3 |
| OXZ | | | | AML | AML | 03 54 43.1 | |
| OXZ | | | | AML | AML | 03 54 43.3 | |
| OXZ | | | | AML | AML | 03 54 43.3 | |
| **LTZ** | **Lake Taylor** | **0.81** | **331** | ⇓P* | Pg | 03 54 37.6 | -0.5 |
| LTZ | | | | S* | Sg | 03 54 48.5 | -0.2 |
| **KHZ** | **Kahutara** | **1.20** | **27** | PN | Pn | 03 54 43.1 | -1.6 |
| KHZ | | | | AML | AML | 03 55 02.1 | |
| **INZ** | **Inchbonnie** | **1.25** | **307** | *e*PN | Pn | 03 54 44.8 | -0.6 |
| **RPZ** | **Rata Peaks** | **1.29** | **259** | *e*PN | Pn | 03 54 45.3 | -0.7 |
| RPZ | | | | AML | AML | 03 55 07.0 | |
| RPZ | | | | AML | AML | 03 55 07.1 | |
| **WVZ** | **Waitaha Valley** | **1.56** | **285** | *e*PN | Pn | 03 54 49.5 | -0.1 |
| WVZ | | | | AML | AML | 03 55 09.6 | |
| WVZ | | | | AML | AML | 03 55 12.1 | |
| **THZ** | **Tophouse** | **1.73** | **3** | PN | Pn | 03 54 51.0 | -1.0 |
| THZ | | | | AML | AML | 03 55 12.9 | |
| THZ | | | | AML | AML | 03 55 12.9 | |
| **DSZ** | **Denniston Nort** | **1.89** | **337** | PN | Pn | 03 54 53.6 | -0.7 |
| DSZ | | | | AML | AML | 03 55 18.4 | |
| DSZ | | | | AML | AML | 03 55 18.4 | |
| DSZ | | | | AML | AML | 03 55 18.6 | |
| DSZ | | | | AML | AML | 03 55 20.9 | |
| **BSWZ** | **Blackbirch Sta** | **1.94** | **24** | *e*PN | Pn | 03 54 54.0 | -0.9 |
| **LBZ** | **Lake Benmore** | **2.09** | **244** | *e*PN | Pn | 03 54 57.1 | +0.1 |
| LBZ | | | | AML | AML | 03 55 32.4 | |
| LBZ | | | | AML | AML | 03 55 33.0 | |
| **FOZ** | **Fox Glacier** | **2.17** | **268** | *e*PN | Pn | 03 54 59.1 | +1.1 |
| **ODZ** | **Otahua Downs** | **2.19** | **224** | *e*PN | Pn | 03 54 58.0 | -0.3 |
| ODZ | | | | AML | AML | 03 55 35.0 | |
| ODZ | | | | AML | AML | 03 55 35.1 | |
| ODZ | | | | AML | AML | 03 55 37.0 | |
| ODZ | | | | AML | AML | 03 55 38.1 | |
| **TUWZ** | **Tuamarina** | **2.23** | **23** | *e*PN | Pn | 03 54 57.5 | -1.3 |
| **NNZ** | **Nelson** | **2.31** | **11** | PN | Pn | 03 54 59.7 | -0.3 |
| NNZ | | | | AML | AML | 03 55 28.8 | |
| **TCW** | **Tory Channel** | **2.53** | **26** | *e*PN | Pn | 03 55 01.3 | -1.7 |
| **QRZ** | **Quartz Range** | **2.67** | **356** | AML | AML | 03 55 39.0 | |
| **CAW** | **Cannon Point** | **2.92** | **36** | *e*PN | Pn | 03 55 06.4 | -1.9 |
| CAW | | | | AML | AML | 03 55 42.9 | |
| CAW | | | | AML | AML | 03 55 43.7 | |
| **JCZ** | **Jackson Bay** | **2.96** | **257** | AML | AML | 03 56 00.3 | |
| **WKZ** | **Wanaka** | **3.03** | **243** | AML | AML | 03 56 02.9 | |
| **EAZ** | **Earnscleugh** | **3.05** | **234** | PN | Pn | 03 55 09.6 | -0.5 |
| EAZ | | | | AML | AML | 03 56 00.7 | |
| EAZ | | | | AML | AML | 03 56 03.6 | |
| **MTW** | **Mount Morrison** | **3.08** | **42** | AML | AML | 03 55 43.9 | |
| MTW | | | | AML | AML | 03 55 46.1 | |
| **TUZ** | **Tuapeka** | **3.34** | **221** | *e*PN | Pn | 03 55 13.9 | -0.2 |
| TUZ | | | | AML | AML | 03 56 15.3 | |
| **MRZ** | **Mangatainoka R** | **3.50** | **37** | AML | AML | 03 55 56.1 | |
| MRZ | | | | AML | AML | 03 55 56.1 | |

**WEL 23 03:57:26.8±0.2, 43°55S×172°79E, h8km, ML3.6/18, 2C-1D, Error ellipse: s-maj=1.5km s-min=0.9km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.13** | **257** | ⇓PG | Pg | 03 57 29.7 | +0.1 |
| CRLZ | | | | SG | Sg | 03 57 31.8 | +0.3 |
| CRLZ | | | | SG | Sg | 03 57 31.8 | +0.4 |
| **MQZ** | **McQueen's Vall** | **0.19** | **212** | ⇑PG | Pg | 03 57 30.8 | +0.2 |
| MQZ | | | | SG | Sg | 03 57 33.9 | +0.7 |
| MQZ | | | | AML | AML | 03 57 34.2 | |
| MQZ | | | | AML | AML | 03 57 34.2 | |
| **OXZ** | **Oxford** | **0.59** | **292** | P* | Pg | 03 57 38.2 | 0.0 |
| OXZ | | | | AML | AML | 03 57 41.1 | |
| OXZ | | | | AML | AML | 03 57 42.1 | |
| OXZ | | | | AML | AML | 03 57 49.4 | |
| OXZ | | | | AML | AML | 03 57 50.4 | |
| **LTZ** | **Lake Taylor** | **0.85** | **333** | ⇑P* | Pg | 03 57 43.4 | +0.2 |
| LTZ | | | | S* | Sg | 03 57 54.8 | +0.5 |
| **KHZ** | **Kahutara** | **1.25** | **26** | P* | Pn | 03 57 49.0 | -1.6 |
| KHZ | | | | AML | AML | 03 57 54.0 | |
| KHZ | | | | AML | AML | 03 57 54.0 | |
| **RPZ** | **Rata Peaks** | **1.27** | **262** | P* | Pn | 03 57 49.7 | -1.2 |
| RPZ | | | | AML | AML | 03 58 09.6 | |
| RPZ | | | | AML | AML | 03 58 10.5 | |
| **INZ** | **Inchbonnie** | **1.28** | **309** | P* | Pn | 03 57 50.3 | -0.7 |
| **WVZ** | **Waitaha Valley** | **1.57** | **287** | PN | Pn | 03 57 55.0 | -0.3 |
| WVZ | | | | SN | Sn | 03 58 14.6 | -1.0 |
| WVZ | | | | AML | AML | 03 58 21.3 | |
| **THZ** | **Tophouse** | **1.79** | **3** | PN | Pn | 03 57 56.5 | -1.5 |
| THZ | | | | SN | Sn | 03 58 18.5 | -2.4 |
| THZ | | | | AML | AML | 03 58 34.1 | |
| **DSZ** | **Denniston Nort** | **1.94** | **338** | *e*PN | Pn | 03 57 58.8 | -1.3 |
| DSZ | | | | AML | AML | 03 58 09.9 | |
| DSZ | | | | AML | AML | 03 58 25.4 | |
| DSZ | | | | AML | AML | 03 58 32.5 | |
| DSZ | | | | AML | AML | 03 58 38.0 | |
| **BSWZ** | **Blackbirch Sta** | **2.00** | **24** | PN | Pn | 03 57 59.6 | -1.2 |
| BSWZ | | | | AML | AML | 03 58 57.6 | |
| BSWZ | | | | AML | AML | 03 59 17.1 | |
| **LBZ** | **Lake Benmore** | **2.06** | **245** | *e*PN | Pn | 03 58 01.0 | -0.7 |
| LBZ | | | | AML | AML | 03 58 42.1 | |
| LBZ | | | | AML | AML | 03 58 45.2 | |
| **ODZ** | **Otahua Downs** | **2.15** | **225** | *e*PN | Pn | 03 58 02.6 | -0.4 |
| ODZ | | | | AML | AML | 03 58 41.1 | |
| ODZ | | | | AML | AML | 03 58 43.6 | |
| **FOZ** | **Fox Glacier** | **2.17** | **269** | PN | Pn | 03 58 03.7 | +0.6 |
| FOZ | | | | AML | AML | 03 58 31.8 | |
| FOZ | | | | AML | AML | 03 58 34.5 | |
| **TUWZ** | **Tuamarina** | **2.28** | **22** | PN | Pn | 03 58 03.1 | -1.6

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CRLZ | | | | SG | Sg | 03 59 59.2 | +0.5 | |
| CRLZ | | | | AML | AML | 04 00 00.1 | | |
| **MQZ** | **McQueen's Vall** | **0.26** | **207** | PG | Pg | 03 59 58.1 | +0.1 | |
| MQZ | | | | SG | Sg | 04 00 01.8 | +0.5 | |
| MQZ | | | | SG | Sb | 04 00 01.9 | -3.0 | |
| MQZ | | | | SG | Sb | 04 00 01.9 | -3.0 | |
| **OXZ** | **Oxford** | **0.59** | **285** | P* | Pg | 04 00 04.5 | +0.2 | |
| OXZ | | | | SG | Sg | 04 00 12.6 | +0.6 | |
| OXZ | | | | AML | AML | 04 00 13.4 | | |
| OXZ | | | | AML | AML | 04 00 14.6 | | |
| OXZ | | | | AML | AML | 04 00 14.6 | | |
| **LTZ** | **Lake Taylor** | **0.80** | **330** | P* | Pg | 04 00 08.8 | +0.4 | |
| LTZ | | | | S* | Sg | 04 00 19.6 | +0.8 | |
| LTZ | | | | AML | AML | 04 00 20.5 | | |
| **RPZ** | **Rata Peaks** | **1.30** | **259** | *e*P* | Pn | 04 00 15.9 | -1.9 | |

*IDC* ***23*** *04:00:36.9±1.8, 43°.39S×172°.93E, h0km, mb3.6/2, mb1 3.9/3, mb1mx3.7/20, mbtmp3.7/3, ML3.7/1, Error ellipse: s-maj=41.3km s-min=17.6km az=157.0*

*ISCJB* ***23*** *04:00:37.7±0.5, 43°.52S±0°.03×172°.93E±0°.05, h20km±4km, mb3.6/2, Error ellipse: s-maj=6.9km s-min=3.3km az=42.6*

*WEL* ***23*** *04:00:39.0±0.2, 43°.50S×172°.84E, h14km±2km, ML4.0/42, Error ellipse: s-maj=2.1km s-min=1.1km az=90.0*

*WEL Felt in the Canterbury region, maximum reported intensity MM 4.*

*NEIC* ***23*** *04:00:39.2±0.0, 43°.40S×172°.76E, h12km, ML4.1(WEL), After WEL.*

**ISC 23 04:00:38.2**±1.0, **43°.47S**±0°.03×**172°.86E**±0°.04, **h19**km±2km, **n88**, σ1**s37**/102, **3C-3D, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.20** | **239** | *e*Pg | **Pg** | **04 00 43.1** | **-0.1** |
| CRLZ | | | | *e*Sg | **Sg** | **04 00 46.1** | **-0.6** |
| **CRLZ** | **Canterbury Las** | **0.20** | **239** | ⇑P* | **Pg** | **04 00 43.2** | **-0.1** |
| CRLZ | | | | S* | **Sg** | **04 00 46.0** | **-0.8** |
| CRLZ | | | | S* | **Sg** | **04 00 46.1** | **-0.6** |
| CRLZ | | | | AML | AML | 04 00 46.3 | |
| CRLZ | | | | AML | AML | 04 00 49.4 | |
| **MQZ** | **McQueen's Vall** | **0.28** | **212** | *e*Pg | **Pb** | **04 00 44.8** | **+0.2** |
| MQZ | | | | *e*Sg | **Sg** | **04 00 48.6** | **-0.1** |
| **MQZ** | **McQueen's Vall** | **0.28** | **212** | P* | **Pg** | **04 00 44.5** | **+0.1** |
| MQZ | | | | S* | **Sg** | **04 00 48.5** | **-0.4** |
| MQZ | | | | S* | **Sg** | **04 00 48.7** | **-0.1** |
| MQZ | | | | AML | AML | 04 00 48.9 | |
| **OXZ** | **Oxford** | **0.62** | **283** | *e*Pg | **Pb** | **04 00 50.5** | **+0.2** |
| OXZ | | | | *e*Sg | **Sb** | **04 00 58.8** | **+0.2** |
| **OXZ** | **Oxford** | **0.62** | **283** | ⇓P* | **Pb** | **04 00 50.5** | **+0.2** |
| OXZ | | | | S* | **Sb** | **04 00 58.6** | **0.0** |
| OXZ | | | | AML | AML | 04 01 00.4 | |
| OXZ | | | | AML | AML | 04 01 00.8 | |
| OXZ | | | | AML | AML | 04 01 00.8 | |
| **LTZ** | **Lake Taylor** | **0.81** | **328** | *e*Pg | **Pn** | **04 00 54.8** | **0.0** |
| LTZ | | | | *e*Sg | **Sn** | **04 01 05.8** | **-0.5** |
| **LTZ** | **Lake Taylor** | **0.81** | **328** | ⇓P* | **Pn** | **04 00 54.7** | **0.0** |
| LTZ | | | | S* | **Sn** | **04 01 05.8** | **-0.5** |
| **KHZ** | **Kahutara** | **1.17** | **26** | *e*Pn | **Pg** | **04 01 00.7** | **-0.1** |
| KHZ | | | | *e*Sg | **Sg** | **04 01 15.3** | **-0.7** |
| **KHZ** | **Kahutara** | **1.17** | **26** | PN | **Pb** | **04 00 59.6** | **-0.1** |
| KHZ | | | | AML | AML | 04 01 16.6 | |
| KHZ | | | | AML | AML | 04 01 17.0 | |
| KHZ | | | | AML | AML | 04 01 17.0 | |
| KHZ | | | | AML | AML | 04 01 25.6 | |
| **INZ** | **Inchbonnie** | **1.28** | **305** | PN | **Pb** | **04 01 01.3** | **-0.4** |
| **RPZ** | **Rata Peaks** | **1.34** | **259** | Pg | **Pn** | **04 01 02.1** | **+0.1** |
| | 70nm,0.3s,baz=111,slow=1.9,SNR=21 | | | | | | |
| RPZ | | | | Lg | Lg | 04 01 21.8 | |
| | 80nm,0.3s,baz=75,slow=23,SNR=12 | | | | | | |
| **RPZ** | **Rata Peaks** | **1.34** | **259** | *e*Pn | **Pb** | **04 01 02.8** | **+0.1** |
| **RPZ** | **Rata Peaks** | **1.34** | **259** | PN | **Pn** | **04 01 02.0** | **+0.1** |
| RPZ | | | | AML | AML | 04 01 21.5 | |
| RPZ | | | | AML | AML | 04 01 23.1 | |
| **WVZ** | **Waitaha Valley** | **1.60** | **284** | Pn | **Pb** | **04 01 06.2** | **-1.0** |
| WVZ | | | | Sn | **Sb** | **04 01 26.5** | **-0.5** |
| **WVZ** | **Waitaha Valley** | **1.60** | **284** | PN | **Pb** | **04 01 06.1** | **-1.0** |
| WVZ | | | | AML | AML | 04 01 38.7 | |
| WVZ | | | | AML | AML | 04 01 39.0 | |
| **THZ** | **Tophouse** | **1.71** | **1** | Pn | **Pb** | **04 01 08.0** | **-1.1** |
| THZ | | | | *e*Sn | **Sn** | **04 01 28.3** | **-0.1** |
| **THZ** | **Tophouse** | **1.71** | **1** | PN | **Pb** | **04 01 07.9** | **-1.1** |
| THZ | | | | AML | AML | 04 01 32.3 | |
| THZ | | | | AML | AML | 04 01 33.8 | |
| **DSZ** | **Denniston Nort** | **1.89** | **335** | PN | **Pb** | **04 01 10.6** | **-1.6** |
| DSZ | | | | AML | AML | 04 01 38.4 | |
| DSZ | | | | AML | AML | 04 01 38.9 | |
| DSZ | | | | AML | AML | 04 01 48.9 | |
| DSZ | | | | AML | AML | 04 01 49.3 | |
| **BSWZ** | **Blackbirch Sta** | **1.91** | **23** | PN | **Pb** | **04 01 10.9** | **-1.5** |
| BSWZ | | | | AML | AML | 04 01 38.5 | |
| BSWZ | | | | AML | AML | 04 01 50.1 | |
| **LBZ** | **Lake Benmore** | **2.14** | **244** | Pn | **Pn** | **04 01 14.2** | **+1.2** |
| LBZ | | | | *e*Sn | **Sg** | **04 01 46.6** | **-0.5** |
| **LBZ** | **Lake Benmore** | **2.14** | **244** | PN | **Pn** | **04 01 14.4** | **+1.4** |
| LBZ | | | | AML | AML | 04 01 54.4 | |
| LBZ | | | | AML | AML | 04 01 54.4 | |
| LBZ | | | | AML | AML | 04 01 55.4 | |
| LBZ | | | | AML | AML | 04 01 55.4 | |
| **TUWZ** | **Tuamarina** | **2.19** | **22** | PN | **Pn** | **04 01 14.3** | **+0.7** |
| TUWZ | | | | AML | AML | 04 02 03.6 | |
| TUWZ | | | | AML | AML | 04 02 05.8 | |
| **FOZ** | **Fox Glacier** | **2.22** | **267** | Pn | **Pb** | **04 01 15.9** | **-1.8** |
| FOZ | | | | Sn | **Sn** | **04 01 34.0** | **-6.8** |
| **FOZ** | **Fox Glacier** | **2.22** | **267** | PN | **Pb** | **04 01 15.7** | **-2.0** |
| FOZ | | | | AML | AML | 04 01 43.8 | |
| FOZ | | | | AML | AML | 04 01 43.8 | |
| FOZ | | | | AML | AML | 04 02 01.8 | |
| FOZ | | | | AML | AML | 04 02 01.8 | |
| **ODZ** | **Otahua Downs** | **2.24** | **225** | *e*Pn | **Pn** | **04 01 15.0** | **+0.7** |
| ODZ | | | | *e*Sn | **Sg** | **04 01 49.1** | **-1.2** |
| **ODZ** | **Otahua Downs** | **2.24** | **225** | PN | **Pn** | **04 01 14.8** | **+0.5** |
| ODZ | | | | AML | AML | 04 01 51.2 | |
| ODZ | | | | AML | AML | 04 01 51.2 | |
| ODZ | | | | AML | AML | 04 01 52.2 | |
| ODZ | | | | AML | AML | 04 01 52.2 | |
| **NNZ** | **Nelson** | **2.28** | **10** | Pn | **Pn** | **04 01 16.4** | **+1.5** |
| **NNZ** | **Nelson** | **2.28** | **10** | ⇑PN | **Pn** | **04 01 16.4** | **+1.5** |
| NNZ | | | | AML | AML | 04 01 45.0 | |
| NNZ | | | | AML | AML | 04 02 04.8 | |
| **TCW** | **Tory Channel** | **2.49** | **25** | PN | **Pn** | **04 01 18.6** | **+0.8** |
| TCW | | | | AML | AML | 04 02 02.1 | |
| TCW | | | | AML | AML | 04 02 14.9 | |
| **SNZO** | **South Karori** | **2.55** | **33** | *e*Pn | **Pn** | **04 01 19.4** | **+0.8** |
| **PLWZ** | **Palliser** | **2.60** | **44** | PN | **Pn** | **04 01 19.3** | **0.0** |
| PLWZ | | | | AML | AML | 04 01 56.2 | |
| **WEL** | **Wellington** | **2.60** | **34** | Pn | **Pn** | **04 01 19.7** | **+0.5** |
| **WEL** | **Wellington** | **2.60** | **34** | PN | **Pn** | **04 01 19.7** | **+0.5** |
| WEL | | | | AML | AML | 04 01 50.7 | |
| WEL | | | | AML | AML | 04 01 51.3 | |
| WEL | | | | AML | AML | 04 01 52.1 | |
| **QRZ** | **Quartz Range** | **2.65** | **355** | Pn | **Pn** | **04 01 22.0** | **+2.0** |
| **QRZ** | **Quartz Range** | **2.65** | **355** | *e*PN | **Pn** | **04 01 21.6** | **+1.6** |
| QRZ | | | | AML | AML | 04 01 33.6 | |
| QRZ | | | | AML | AML | 04 02 03.5 | |
| **MSWZ** | **Moikau Station** | **2.71** | **42** | PN | **Pn** | **04 01 20.9** | **+0.1** |
| MSWZ | | | | AML | AML | 04 01 52.9 | |
| MSWZ | | | | AML | AML | 04 01 55.1 | |
| **DUWZ** | **D'Urville Isla** | **2.78** | **17** | PN | **Pn** | **04 01 23.6** | **+1.8** |
| DUWZ | | | | AML | AML | 04 02 05.7 | |
| DUWZ | | | | AML | AML | 04 02 07.6 | |
| **CAW** | **Cannon Point** | **2.87** | **35** | PN | **Pn** | **04 01 23.5** | **+0.5** |
| CAW | | | | AML | AML | 04 02 00.7 | |
| CAW | | | | AML | AML | 04 02 05.2 | |
| **HHSZ** | **Highcliff Hill** | **2.90** | **213** | Pn | **Pn** | **04 01 24.1** | **+0.6** |
| **HHSZ** | **Highcliff Hill** | **2.90** | **213** | ⇓PN | **Pn** | **04 01 24.1** | **+0.6** |
| HHSZ | | | | AML | AML | 04 02 19.5 | |
| HHSZ | | | | AML | AML | 04 02 20.2 | |
| **TRWZ** | **Traveller** | **2.94** | **46** | AML | AML | 04 02 04.0 | |
| TRWZ | | | | AML | AML | 04 02 24.9 | |
| **JCZ** | **Jackson Bay** | **3.01** | **257** | Pn | **Pn** | **04 01 26.2** | **+1.1** |
| **JCZ** | **Jackson Bay** | **3.01** | **257** | PN | **Pn** | **04 01 26.2** | **+1.1** |
| JCZ | | | | AML | AML | 04 02 17.5 | |
| JCZ | | | | AML | AML | 04 02 28.3 | |
| **KIW** | **Kapiti Island** | **3.02** | **31** | PN | **Pn** | **04 01 25.8** | **+0.7** |
| KIW | | | | AML | AML | 04 02 00.6 | |
| **MTW** | **Mount Morrison** | **3.03** | **41** | PN | **Pn** | **04 01 25.0** | **-0.1** |
| MTW | | | | AML | AML | 04 02 01.1 | |
| MTW | | | | AML | AML | 04 02 01.1 | |
| **WKZ** | **Wanaka** | **3.08** | **243** | Pn | **Pn** | **04 01 26.8** | **+0.9** |
| WKZ | | | | *e*Sg | **Sg** | **04 02 17.0** | **-0.3** |
| **WKZ** | **Wanaka** | **3.08** | **243** | PN | **Pn** | **04 01 26.8** | **+0.9** |
| WKZ | | | | AML | AML | 04 02 24.0 | |
| WKZ | | | | AML | AML | 04 02 24.4 | |
| **EAZ** | **Earnscleugh** | **3.10** | **234** | Pn | **Pn** | **04 01 26.7** | **+0.6** |
| **EAZ** | **Earnscleugh** | **3.10** | **234** | PN | **Pn** | **04 01 26.7** | **+0.6** |
| EAZ | | | | AML | AML | 04 02 17.5 | |
| EAZ | | | | AML | AML | 04 02 17.6 | |
| EAZ | | | | AML | AML | 04 02 18.8 | |
| EAZ | | | | AML | AML | 04 02 23.5 | |
| **OGWZ** | **Otaki Gorge** | **3.16** | **34** | PN | **Pn** | **04 01 27.2** | **+0.3** |
| OGWZ | | | | AML | AML | 04 02 04.1 | |
| OGWZ | | | | AML | AML | 04 02 07.5 | |
| **HOWZ** | **Holdsworth Sta** | **3.24** | **38** | PN | **Pn** | **04 01 28.4** | **+0.3** |
| HOWZ | | | | AML | AML | 04 02 08.1 | |
| HOWZ | | | | AML | AML | 04 02 14.6 | |
| **TUZ** | **Tuapeka** | **3.39** | **222** | Pn | **Pn** | **04 01 31.4** | **+1.3** |
| **TUZ** | **Tuapeka** | **3.39** | **222** | AML | AML | 04 02 32.6 | |
| TUZ | | | | AML | AML | 04 02 34.7 | |
| TUZ | | | | AML | AML | 04 02 34.7 | |
| TUZ | | | | AML | AML | 04 02 35.8 | |
| **MRZ** | **Mangatainoka R** | **3.46** | **37** | Pn | **Pn** | **04 01 30.9** | **-0.2** |
| **MRZ** | **Mangatainoka R** | **3.46** | **37** | *e*PN | **Pn** | **04 01 30.1** | **-1.0** |
| MRZ | | | | AML | AML | 04 02 15.1 | |
| MRZ | | | | AML | AML | 04 02 21.6 | |
| **BFZ** | **Birch Farm** | **3.76** | **43** | Pn | **Pn** | **04 01 34.7** | **-0.5** |
| **BFZ** | **Birch Farm** | **3.76** | **43** | PN | **Pn** | **04 01 34.6** | **-0.6** |
| **MLZ** | **Mavora Lakes** | **3.89** | **239** | Pn | **Pn** | **04 01 37.8** | **+0.7** |
| **MLZ** | **Mavora Lakes** | **3.89** | **239** | PN | **Pn** | **04 01 37.8** | **+0.7** |
| MLZ | | | | AML | AML | 04 02 51.9 | |
| MLZ | | | | AML | AML | 04 02 58.8 | |
| **SYZ** | **Scrubby Hill** | **4.05** | **219** | Pn | **Pn** | **04 01 40.1** | **+1.0** |
| **SYZ** | **Scrubby Hill** | **4.05** | **219** | PN | **Pn** | **04 01 39.8** | **+0.7** |
| SYZ | | | | AML | AML | 04 03 01.2 | |
| SYZ | | | | AML | AML | 04 03 03.2 | |
| **TSZ** | **Takapari Road** | **4.12** | **35** | Pn | **Pn** | **04 01 40.3** | **+0.1** |
| **WHZ** | **Wether Hill Ro** | **4.26** | **234** | *e*Pn | **Pn** | **04 01 41.8** | **-0.3** |
| **WHZ** | **Wether Hill Ro** | **4.26** | **234** | AML | AML | 04 03 05.0 | |
| **PNHZ** | **Pukenui** | **4.34** | **36** | AML | AML | 04 02 34.9 | |
| PNHZ | | | | AML | AML | 04 02 37.1 | |
| **PKE** | **Pukeiti** | **4.36** | **12** | PN | **Pn** | **04 01 46.0** | **+2.6** |
| PKE | | | | AML | AML | 04 02 39.9 | |
| **DCZ** | **Deep Cove** | **4.55** | **242** | Pn | **Pn** | **04 01 46.7** | **+0.7** |
| **DCZ** | **Deep Cove** | **4.55** | **242** | *e*PN | **Pn** | **04 01 46.1** | **+0.1** |
| DCZ | | | | AML | AML | 04 03 08.7 | |
| DCZ | | | | AML | AML | 04 03 10.4 | |
| **VRZ** | **Vera Road** | **4.57** | **19** | Pn | **Pn** | **04 01 49.4** | **+3.1** |
| **VRZ** | **Vera Road** | **4.57** | **19** | PN | **Pn** | **04 01 49.4** | **+3.1** |
| VRZ | | | | AML | AML | 04 03 03.0 | |
| **WNVZ** | **Wahianoa** | **4.62** | **27** | PN | **Pn** | **04 01 49.2** | **+2.0** |
| **TRVZ** | **Turoa** | **4.63** | **27** | *e*PN | **Pn** | **04 01 48.9** | **+1.5** |
| **KRHZ** | **Kereru** | **4.64** | **36** | PN | **Pn** | **04 01 47.0** | **-0.3** |
| KRHZ | | | | AML | AML | 04 02 42.7 | |
| **TUVZ** | **Tukino** | **4.69** | **28** | PN | **Pn** | **04 01 50.5** | **+2.3** |
| **OTVZ** | **Oturere** | **4.79** | **27** | *e*PN | **Pn** | **04 01 50.9** | **+1.3** |
| OTVZ | | | | AML | AML | 04 03 30.6 | |
| **TWVZ** | **Taurewa** | **4.80** | **25** | PN | **Pn** | **04 01 51.3** | **+1.6** |
| **APZ** | **The Paps** | **4.81** | **224** | Pn | **Pn** | **04 01 50.5** | **+0.8** |
| **APZ** | **The Paps** | **4.81** | **224** | PN | **Pn** | **04 01 50.5** | **+0.8** |
| **BKZ** | **Black Stump Fm** | **5.09** | **34** | *e*Pn | **Pn** | **04 01 56.1** | **+2.5** |
| **PYZ** | **Puysegur Point** | **5.16** | **236** | *e*Pn | **Pn** | **04 01 56.1** | **+1.7** |
| **HIZ** | **Hauiti** | **5.18** | **18** | Pn | **Pn** | **04 01 56.5** | **+1.9** |
| **HIZ** | **Hauiti** | **5.18** | **18** | ⇑PN | **Pn** | **04 01 56.5** | **+1.9** |
| **URZ** | **Urewera** | **6.12** | **33** | Pn | **Pn** | **04 02 06.6** | **-1.0** |
| | 1.8nm,0.3s,baz=227,slow=3.8,SNR=6.9 | | | | | | |
| URZ | | | | Sn | **Sn** | **04 03 14.1** | **-3.0** |
| | 3.6nm,0.3s,baz=75,slow=18,SNR=8.1 | | | | | | |
| **URZ** | **Urewera** | **6.12** | **33** | *e*Pn | **Pn** | **04 02 06.0** | **-1.6** |
| **ASAR** | **Alice Springs** | **37.56** | **289** | P | **P** | **04 07 53.2** | **+1.7** |
| | 0.6nm,0.5s,baz=129,slow=7.4,SNR=10 | | | | | | |
| **WRA** | **Warramunga Arr** | **39.80** | **294** | P | **P** | **04 08 12.3** | **+2.1** |
| | 0.6nm,0.5s,baz=133,slow=8.0,SNR=14 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **148.84** | **197** | PKPbc | **PKPbc** | **04 20 26.5** | **+1.6** |
| | 0.3nm,0.6s,baz=150,slow=2.1,SNR=4.8 | | | | | | |

*CSEM* ***23*** *04:02:24.8, 42°.84N×47°.12E, h8km, mb3.9*

**MOS 23 04:02:24.8**±1.2, **42°.84N×47°.12E, h8**km, **mb3.9**/1, **14C, Error ellipse: s-maj=0.1km s-min=0.0km az=69.4, Eastern Caucasus**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **BUJR** | **Buynaksk** | **0.01** | **206** | *e*PG | Pg | 04 02 25.5 | -0.8 |
| **BUJR** | **Buynaksk** | **0.01** | **206** | *e*Pg | Pg | 04 02 25.5 | -0.8 |
| **KRNR** | **Karanay** | **0.15** | **267** | ⇑*i*PG | Pg | 04 02 27.0 | -1.1 |
| **KRNR** | **Karanay** | **0.15** | **267** | *i* Pg | Pg | 04 02 27.0 | -1.1 |
| **ARKR** | **Arakani** | **0.25** | **201** | ⇑*i*PG | Pg | 04 02 29.0 | -0.8 |
| ARKR | | | | pmax | pmax | | |
| | comp=Z,199nm,0.2s | | | | | | |
| **ARKR** | **Arakani** | **0.25** | **201** | *i* Pg | Pg | 04 02 29.0 | -0.8 |
| | comp=Z,199nm,0.2s | | | | | | |
| **UNCR** | **Uncukul** | **0.27** | **243** | ⇑*i*PG | Pg | 04 02 29.3 | -0.8 |
| UNCR | | | | *i* S | Sg | 04 02 34.0 | +0.4 |
| UNCR | | | | pmax | pmax | | |
| | comp=Z,428nm,0.2s | | | | | | |
| **UNCR** | **Uncukul** | **0.27** | **243** | *i* Pg | Pg | 04 02 29.3 | -0.8 |
| | comp=Z,428nm,0.2s | | | | | | |
| UNCR | | | | *i* Sg | Sg | 04 02 34.0 | +0.4 |
| **DBC** | **Dubki** | **0.28** | **312** | *e*PG | Pg | 04 02 29.8 | -0.6 |
| **DBC** | **Dubki** | **0.28** | **312** | *e*Pg | Pg | 04 02 29.8 | -0.6 |
| **MAK** | **Makhachkala** | **0.31** | **66** | *e*PG | Pg | 04 02 30.9 | -0.1 |
| MAK | | | | *e* | | 04 02 36.8 | |
| MAK | | | | pmax | pmax | | |
| | comp=Z,461nm,0.3s | | | | | | |
| MAK | | | | smax | smax | | |
| | comp=E,3μm,0.4s | | | | | | |
| MAK | | | | smax | smax | | |
| | comp=E,2μm,0.4s | | | | | | |
| **MAK** | **Makhachkala** | **0.31** | **66** | *e*Pg | Pg | 04 02 30.9 | -0.1 |
| | comp=E,461nm,0.3s | | | | | | |
| MAK | | | | *e*Sg | Sb | 04 02 36.8 | -1.1 |
| **XNZR** | **Khunzakh** | **0.42** | **226** | ⇑*i*PG | Pg | 04 02 33.0 | -0.1 |
| XNZR | | | | *e*S | Sg | 04 02 39.3 | +0.7 |
| **XNZR** | **Khunzakh** | **0.42** | **226** | *i* Pg | Pg | 04 02 33.0 | -0.1 |
| XNZR | | | | *e*Sg | Sg | 04 02 39.3 | +0.7 |
| **DLMR** | **Dylym** | **0.43** | **304** | *e*PG | Pg | 04 02 33.0 | -0.1 |
| DLMR | | | | *e*S | Sb | 04 02 40.0 | -1.2 |
| DLMR | | | | pmax | pmax | | |
| | comp=Z,96nm,0.2s | | | | | | |
| **DLMR** | **Dylym** | **0.43** | **304** | *e*Pg | Pg | 04 02 33.0 | -0.1 |
| | comp=Z,96nm,0.2s | | | | | | |
| DLMR | | | | *e*Sg | Sb | 04 02 40.0 | -1.2 |
| **GNBR** | **Gunib** | **0.46** | **194** | ⇑*i*PG | Pg | 04 02 34.1 | +0.4 |
| GNBR | | | | *i* S | Sb | 04 02 41.9 | -0.3 |
| GNBR | | | | pmax | pmax | | |
| | comp=Z,469nm,0.9s | | | | | | |
| **GNBR** | **Gunib** | **0.46** | **194** | *i* Pg | Pg | 04 02 34.1 | +0.4 |
| | comp=Z,469nm,0.9s | | | | | | |
| GNBR | | | | *i* Sg | Sb | 04 02 41.9 | -0.3 |
| **BTLR** | **Botlikh** | **0.68** | **256** | ⇑*i*PG | Pg | 04 02 37.7 | -0.2 |
| BTLR | | | | *e*S | Sb | 04 02 47.8 | -0.7 |
| **BTLR** | **Botlikh** | **0.68** | **256** | *i* Pg | Pg | 04 02 37.7 | -0.2 |
| BTLR | | | | *e*Sg | Sb | 04 02 47.8 | -0.7 |
| **KMKR** | **Kumukh** | **0.70** | **181** | *e*PG | Pb | 04 02 39.0 | -0.4 |
| KMKR | | | | *e*S | Sb | 04 02 50.5 | +1.2 |
| KMKR | | | | pmax | pmax | | |
| | comp=Z,35nm,0.2s | | | | | | |
| **KMKR** | **Kumukh** | **0.70** | **181** | *e*Pg | Pb | 04 02 39.0 | -0.4 |
| | comp=Z,35nm,0.2s | | | | | | |
| KMKR | | | | *e*Sg | Sb | 04 02 50.5 | +1.2 |
| **DVE** | **Vedeno** | **0.74** | **280** | ⇑*i*PG | Pg | 04 02 39.2 | +0.2 |
| DVE | | | | *e*S | Sb | 04 02 49.7 | -0.5 |
| **DVE** | **Vedeno** | **0.74** | **280** | *i* Pg | Pg | 04 02 39.2 | +0.2 |
| DVE | | | | *e*Sg | Sb | 04 02 49.7 | -0.5 |
| **URKR** | **Urkarakh** | **0.77** | **150** | *i* PG | Pg | 04 02 40.0 | +0.4 |
| URKR | | | | *e*S | Sn | 04 02 55.0 | +1.1 |
| URKR | | | | pmax | pmax | | |
| | comp=Z,126nm,0.3s | | | | | | |
| **URKR** | **Urkarakh** | **0.77** | **150** | *i* Pg | Pg | 04 02 40.0 | +0.4 |
| | comp=Z,126nm,0.3s | | | | | | |
| URKR | | | | *e*Sg | Sn | 04 02 55.0 | +1.1 |
| **GROC** | **Groznyy** | **1.03** | **291** | *e*PG | Pn | 04 02 47.0 | +1.4 |
| GROC | | | | *e*S | Sn | 04 03 01.2 | +0.9 |
| **GROC** | **Groznyy** | **1.03** | **291** | *e*Pg | Pn | 04 02 47.0 | +1.4 |
| GROC | | | | *e*Sg | Sn | 04 03 01.2 | +0.9 |
| **DRN** | **Derbent** | **1.21** | **131** | *e*PG | Pg | 04 02 48.5 | +0.6 |
| DRN | | | | *e*S | Sn | 04 03 06.9 | +2.4 |
| DRN | | | | pmax | pmax | | |
| | comp=Z,27nm,0.4s | | | | | | |
| **DRN** | **Derbent** | **1.21** | **131** | *e*Pg | Pg | 04 02 48.5 | +0.6 |
| | comp=Z,27nm,0.4s | | | | | | |
| DRN | | | | *e*Sg | Sn | 04 03 06.9 | +2.4 |
| **ZKTA** | **Zakatala** | **1.25** | **197** | PG | Pg | 04 02 49.5 | +0.7 |
| **ZKTA** | **Zakatala** | **1.25** | **197** | Pg | Pg | 04 02 49.5 | +0.7 |
| **AKT** | **Akhty** | **1.43** | **161** | ⇑*i*PG | Pb | 04 02 51.8 | +0.1 |
| AKT | | | | *e*S | Sg | 04 03 11.9 | +1.2 |
| AKT | | | | pmax | pmax | | |
| | comp=Z,36nm,0.4s | | | | | | |
| **AKT** | **Akhty** | **1.43** | **161** | *i* Pg | Pb | 04 02 51.8 | +0.1 |
| | comp=Z,36nm,0.4s | | | | | | |
| AKT | | | | *e*Sg | Sg | 04 03 11.9 | +1.2 |
| **SEKA** | **Sheki** | **1.63** | **178** | PN | Pg | 04 02 56.3 | +0.3 |
| **SEKA** | **Sheki** | **1.63** | **178** | Pn | Pg | 04 02 56.3 | +0.3 |
| **KMGR** | **Komgaron** | **1.67** | **278** | *e*PN | Pg | 04 02 58.5 | +1.8 |
| KMGR | | | | *e*S | Sg | 04 03 22.3 | +3.9 |
| **KMGR** | **Komgaron** | **1.67** | **278** | *e*Pn | Pg | 04 02 58.5 | +1.8 |
| KMGR | | | | *e*Sg | Sg | 04 03 22.3 | +3.9 |
| **VLKR** | **Vladikavkaz** | **1.80** | **278** | *e*PN | Pg | 04 03 01.4 | +2.0 |
| VLKR | | | | *e*S | Sg | 04 03 24.9 | +2.2 |
| **VLKR** | **Vladikavkaz** | **1.80** | **278** | *e*Pn | Pg | 04 03 01.4 | +2.0 |
| VLKR | | | | *e*Sg | Sg | 04 03 24.9 | +2.2 |
| **BTKR** | **Batakoyurt** | **1.96** | **287** | *e*PN | Pb | 04 03 00.9 | +0.2 |
| BTKR | | | | *e*S | Sb | 04 03 26.3 | +1.0 |
| **BTKR** | **Batakoyurt** | **1.96** | **287** | *e*Pn | Pb | 04 03 00.9 | +0.2 |
| BTKR | | | | *e*Sg | Sb | 04 03 26.3 | +1.0 |
| **LACR** | **Lac** | **2.07** | **271** | ⇑*i*PN | Pb | 04 03 02.6 | -0.1 |
| LACR | | | | *e*S | Sb | 04 03 29.6 | +0.9 |
| **LACR** | **Lac** | **2.07** | **271** | *i* Pn | Pb | 04 03 02.6 | -0.1 |
| LACR | | | | *e*Sb | Sb | 04 03 29.6 | +0.9 |
| **GANJ** | **Ganja** | **2.27** | **195** | PN | Pb | 04 03 04.7 | -1.3 |
| **GANJ** | **Ganja** | **2.27** | **195** | Pn | Pb | 04 03 04.7 | -1.3 |
| **LSNR** | **Lesken** | **2.45** | **282** | *e*PN | Pg | 04 03 11.0 | -0.8 |
| LSNR | | | | *e*S | Sg | 04 03 42.0 | -1.5 |
| **LSNR** | **Lesken** | **2.45** | **282** | *e*Pn | Pg | 04 03 11.0 | -0.8 |
| LSNR | | | | *e*Sb | Sg | 04 03 42.0 | -1.5 |
| **DIGR** | **Digorskoe uzhe** | **2.60** | **273** | *e*PN | Pb | 04 03 10.2 | -1.6 |
| DIGR | | | | *e*S | Sb | 04 03 45.2 | +1.3 |
| **DIGR** | **Digorskoe uzhe** | **2.60** | **273** | *e*Pn | Pb | 04 03 10.2 | -1.6 |
| DIGR | | | | *e*Sb | Sb | 04 03 45.2 | +1.3 |
| **NCK** | **Nalchik** | **2.66** | **286** | *i* PN | Pb | 04 03 10.8 | -1.8 |
| **NCK** | **Nalchik** | **2.66** | **286** | *i* Pn | Pb | 04 03 10.8 | -1.8 |
| **GNI** | **Garni** | **3.22** | **214** | ⇑*i*PN | Pn | 04 03 15.2 | -0.6 |
| **GNI** | **Garni** | **3.22** | **214** | *i* Pn | Pn | 04 03 15.2 | -0.6 |
| **NEY** | **Neytrino** | **3.25** | **279** | *e*PN | Pn | 04 03 19.1 | +2.9 |
| NEY | | | | *e*S | Sb | 04 03 58.9 | -3.6 |
| **NEY** | **Neytrino** | **3.25** | **279** | *e*Pn | Pn | 04 03 19.1 | +2.9 |
| NEY | | | | *e*Sn | Sb | 04 03 58.9 | -3.6 |
| **BEYR** | **Belyy Ugol+** | **3.34** | **292** | *e*PN | Pn | 04 03 18.3 | +0.9 |
| BEYR | | | | *e*S | Sn | 04 03 58.0 | +0.7 |
| **BEYR** | **Belyy Ugol+** | **3.34** | **292** | *e*Pn | Pn | 04 03 18.3 | +0.9 |
| BEYR | | | | *e*Sn | Sn | 04 03 58.0 | +0.7 |
| **SHA1** | **Shidzhatmaz** | **3.38** | **287** | *e*PN | Pn | 04 03 19.6 | +1.6 |
| SHA1 | | | | *e*S | Sn | 04 04 00.6 | +2.2 |
| **SHA1** | **Shidzhatmaz** | **3.38** | **287** | *e*Pn | Pn | 04 03 19.6 | +1.6 |
| SHA1 | | | | *e*Sn | Sn | 04 04 00.6 | +2.2 |
| **KIV** | **Kislovodsk** | **3.42** | **291** | ⇑*e*PN | Pn | 04 03 19.2 | +0.8 |
| KIV | | | | pmax | pmax | | |
| | comp=Z,15nm,2.3s | | | | | | |
| KIV | | | | MLR | MLR | | |
| | comp=Z,370nm,19.0s | | | | | | |
| **KIV** | **Kislovodsk** | **3.42** | **291** | *e*Pn | Pn | 04 03 19.2 | +0.8 |
| | comp=Z,370nm,19.0s | | | | | | |
| **GOF** | **Gofitskoye** | **3.69** | **308** | ⇑*e*PN | Pb | 04 03 30.0 | -0.1 |
| GOF | | | | *e*S | Sg | 04 04 25.3 | +2.2 |
| GOF | | | | pmax | pmax | | |
| | comp=Z,22nm,0.7s | | | | | | |
| GOF | | | | smax | smax | | |
| | comp=N,40nm,0.8s | | | | | | |
| **GOF** | **Gofitskoye** | **3.69** | **308** | *e*Pn | Pb | 04 03 30.0 | -0.1 |
| | comp=N,22nm,0.7s | | | | | | |
| GOF | | | | *e*Sg | Sg | 04 04 25.3 | +2.2 |
| | comp=N,40nm,0.8s | | | | | | |
| **VSR** | **Storozhevoye** | **9.98** | **330** | ⇑*i*P | Pn | 04 04 51.2 | +2.8 |
| **VSR** | **Storozhevoye** | **9.98** | **330** | *i* P | Pn | 04 04 51.2 | +2.8 |
| **OBN** | **Obninsk** | **14.08** | **334** | *ce*P | Pn | 04 05 48.1 | +3.7 |
| OBN | | | | *e*S | Sn | 04 08 28.4 | +7.7 |
| OBN | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | |
| OBN | | | | MLR | MLR | | |
| | comp=Z,489nm,17.0s | | | | | | |
| **OBN** | **Obninsk** | **14.08** | **334** | *e*P | Pn | 04 05 48.1 | +3.7 |
| | comp=Z,489nm,17.0s | | | | | | |
| OBN | | | | *e*S | Sn | 04 08 28.4 | +7.7 |
| **KIEV** | **Kiev** | **14.55** | **309** | *i* P | Pn | 04 05 54.0 | +3.2 |
| KIEV | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.3s | | | | | | |
| **KIEV** | **

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LTZ | | | | S* | Sg | 04 08 32.4 | -0.1 | |
| **KHZ** | **Kahutara** | **1.20** | **23** | P* | Pb | 04 08 26.9 | +0.4 | |
| KHZ | | | | *e*Sg | Sn | 04 08 42.2 | +0.1 | |
| **KHZ** | **Kahutara** | **1.20** | **23** | P* | Pb | 04 08 26.7 | +0.3 | |
| KHZ | | | | AML | AML | 04 08 43.7 | | |
| KHZ | | | | AML | AML | 04 08 43.7 | | |
| KHZ | | | | AML | AML | 04 08 48.2 | | |
| KHZ | | | | AML | AML | 04 08 48.3 | | |
| **INZ** | **Inchbonnie** | **1.33** | **306** | P* | Pn | 04 08 27.5 | -0.4 | |
| **RPZ** | **Rata Peaks** | **1.35** | **261** | Pg | Pn | 04 08 28.3 | -0.1 | |
| | 50nm,0.3s,baz=76,slow=3.6,SNR=56 | | | | | | | |
| RPZ | | | | Lg | Lg | 04 08 46.7 | | |
| | 208nm,0.3s,baz=21,slow=16,SNR=31 | | | | | | | |
| **RPZ** | **Rata Peaks** | **1.35** | **261** | *e*Pn | Pn | 04 08 28.0 | -0.4 | |
| **RPZ** | **Rata Peaks** | **1.35** | **261** | P* | Pn | 04 08 28.2 | -0.2 | |
| RPZ | | | | AML | AML | 04 08 47.3 | | |
| RPZ | | | | AML | AML | 04 08 49.5 | | |
| **WVZ** | **Waitaha Valley** | **1.64** | **285** | Pn | Pn | 04 08 32.6 | +0.3 | |
| **WVZ** | **Waitaha Valley** | **1.64** | **285** | PN | Pn | 04 08 32.6 | +0.3 | |
| WVZ | | | | AML | AML | 04 08 59.9 | | |
| WVZ | | | | AML | AML | 04 09 01.8 | | |
| **THZ** | **Tophouse** | **1.76** | **0** | Pn | Pn | 04 08 34.5 | +0.5 | |
| **THZ** | **Tophouse** | **1.76** | **0** | ⇓PN | Pn | 04 08 34.5 | +0.5 | |
| THZ | | | | AML | AML | 04 08 58.5 | | |
| THZ | | | | AML | AML | 04 08 59.0 | | |
| **BSWZ** | **Blackbirch Sta** | **1.94** | **22** | PN | Pn | 04 08 37.5 | +1.1 | |
| BSWZ | | | | AML | AML | 04 09 03.6 | | |
| BSWZ | | | | AML | AML | 04 09 05.3 | | |
| **DSZ** | **Denniston Nort** | **1.95** | **335** | Pn | Pn | 04 08 36.9 | +0.3 | |
| **DSZ** | **Denniston Nort** | **1.95** | **335** | ⇓PN | Pn | 04 08 36.9 | +0.3 | |
| DSZ | | | | AML | AML | 04 09 09.9 | | |
| DSZ | | | | AML | AML | 04 09 09.9 | | |
| DSZ | | | | AML | AML | 04 09 12.6 | | |
| DSZ | | | | AML | AML | 04 09 15.4 | | |
| **LBZ** | **Lake Benmore** | **2.14** | **245** | Pn | Pn | 04 08 39.7 | +0.5 | |
| LBZ | | | | *e*Pg | Pg | 04 08 45.8 | +0.5 | |
| LBZ | | | | *e*Sn | Sg | 04 09 12.8 | -0.3 | |
| **LBZ** | **Lake Benmore** | **2.14** | **245** | PN | Pn | 04 08 39.7 | +0.5 | |
| LBZ | | | | AML | AML | 04 09 21.3 | | |
| LBZ | | | | AML | AML | 04 09 21.4 | | |
| LBZ | | | | AML | AML | 04 09 23.8 | | |
| LBZ | | | | AML | AML | 04 09 23.8 | | |
| **ODZ** | **Otahua Downs** | **2.22** | **226** | Pn | Pn | 04 08 40.8 | +0.5 | |
| ODZ | | | | *e*Pg | Pg | 04 08 47.1 | +0.3 | |
| ODZ | | | | *e*Sn | Sg | 04 09 16.2 | +0.6 | |
| **ODZ** | **Otahua Downs** | **2.22** | **226** | ⇑PN | Pn | 04 08 39.8 | +0.5 | |
| ODZ | | | | AML | AML | 04 09 20.4 | | |
| ODZ | | | | AML | AML | 04 09 20.4 | | |
| ODZ | | | | AML | AML | 04 09 23.2 | | |
| ODZ | | | | AML | AML | 04 09 23.2 | | |
| **TUWZ** | **Tuamarina** | **2.23** | **21** | PN | Pn | 04 08 41.1 | +0.7 | |
| TUWZ | | | | AML | AML | 04 09 26.2 | | |
| TUWZ | | | | AML | AML | 04 09 29.6 | | |
| **FOZ** | **Fox Glacier** | **2.24** | **269** | Pn | Pn | 04 08 42.0 | +1.4 | |
| **FOZ** | **Fox Glacier** | **2.24** | **269** | PN | Pn | 04 08 41.9 | +1.4 | |
| FOZ | | | | AML | AML | 04 09 09.8 | | |
| FOZ | | | | AML | AML | 04 09 18.0 | | |
| FOZ | | | | AML | AML | 04 09 22.1 | | |
| FOZ | | | | AML | AML | 04 09 25.7 | | |
| **NNZ** | **Nelson** | **2.33** | **9** | Pn | Pn | 04 08 43.0 | +1.2 | |
| **NNZ** | **Nelson** | **2.33** | **9** | PN | Pn | 04 08 43.0 | +1.2 | |
| NNZ | | | | AML | AML | 04 09 11.7 | | |
| NNZ | | | | AML | AML | 04 09 12.0 | | |
| **TCW** | **Tory Channel** | **2.52** | **24** | PN | Pn | 04 08 45.2 | +0.8 | |
| TCW | | | | AML | AML | 04 09 15.7 | | |
| TCW | | | | AML | AML | 04 09 17.4 | | |
| **BHW** | **Baring Head** | **2.57** | **35** | PN | Pn | 04 08 45.6 | +0.6 | |
| BHW | | | | AML | AML | 04 09 20.4 | | |
| BHW | | | | AML | AML | 04 09 20.8 | | |
| **SNZO** | **South Karori** | **2.58** | **32** | *e*Pn | Pn | 04 08 45.4 | +0.2 | |
| SNZO | | | | *e*Sn | Sn | 04 09 16.2 | 0.0 | |
| **PLWZ** | **Palliser** | **2.61** | **43** | PN | Pn | 04 08 46.0 | +0.3 | |
| PLWZ | | | | AML | AML | 04 09 18.8 | | |
| **QRZ** | **Quartz Range** | **2.71** | **354** | Pn | Pn | 04 08 47.4 | +0.5 | |
| **QRZ** | **Quartz Range** | **2.71** | **354** | PN | Pn | 04 08 47.4 | +0.5 | |
| QRZ | | | | AML | AML | 04 09 00.2 | | |
| QRZ | | | | AML | AML | 04 09 00.2 | | |
| QRZ | | | | AML | AML | 04 09 40.1 | | |
| QRZ | | | | AML | AML | 04 09 40.1 | | |
| **MSWZ** | **Moikau Station** | **2.73** | **40** | PN | Pn | 04 08 47.5 | +0.2 | |
| MSWZ | | | | AML | AML | 04 09 21.0 | | |
| MSWZ | | | | AML | AML | 04 09 24.0 | | |
| **DUWZ** | **D'Urville Isla** | **2.82** | **16** | ⇑PN | Pn | 04 08 49.9 | +1.3 | |
| DUWZ | | | | AML | AML | 04 09 32.9 | | |
| DUWZ | | | | AML | AML | 04 09 37.1 | | |
| **PAWZ** | **Paruwai Farm** | **2.84** | **42** | AML | AML | 04 09 22.9 | | |
| PAWZ | | | | AML | AML | 04 09 26.5 | | |
| **HHSZ** | **Highcliff Hill** | **2.88** | **214** | Pn | Pn | 04 08 49.8 | +0.5 | |
| **HHSZ** | **Highcliff Hill** | **2.88** | **214** | PN | Pn | 04 08 49.8 | +0.5 | |
| HHSZ | | | | AML | AML | 04 09 43.9 | | |
| HHSZ | | | | AML | AML | 04 09 45.2 | | |
| **CAW** | **Cannon Point** | **2.90** | **34** | PN | Pn | 04 08 50.0 | +0.4 | |
| CAW | | | | AML | AML | 04 09 23.9 | | |
| CAW | | | | AML | AML | 04 09 26.9 | | |
| **JCZ** | **Jackson Bay** | **3.03** | **258** | Pn | Pn | 04 08 51.9 | +0.4 | |
| **JCZ** | **Jackson Bay** | **3.03** | **258** | PN | Pn | 04 08 51.9 | +0.4 | |
| JCZ | | | | AML | AML | 04 09 49.7 | | |
| JCZ | | | | AML | AML | 04 09 50.3 | | |
| **KIW** | **Kapiti Island** | **3.05** | **30** | PN | Pn | 04 08 52.3 | +0.6 | |
| KIW | | | | AML | AML | 04 09 30.2 | | |
| KIW | | | | AML | AML | 04 09 33.2 | | |
| **MTW** | **Mount Morrison** | **3.05** | **40** | PN | Pn | 04 08 51.7 | 0.0 | |
| MTW | | | | AML | AML | 04 09 27.6 | | |
| MTW | | | | AML | AML | 04 09 27.9 | | |
| **WKZ** | **Wanaka** | **3.08** | **244** | Pn | Pn | 04 08 52.5 | +0.4 | |
| **WKZ** | **Wanaka** | **3.08** | **244** | PN | Pn | 04 08 52.5 | +0.4 | |
| WKZ | | | | AML | AML | 04 09 52.6 | | |
| WKZ | | | | AML | AML | 04 09 57.3 | | |
| **EAZ** | **Earnscleugh** | **3.09** | **235** | Pn | Pn | 04 08 52.6 | +0.4 | |
| **EAZ** | **Earnscleugh** | **3.09** | **235** | ⇑PN | Pn | 04 08 52.6 | +0.4 | |
| EAZ | | | | AML | AML | 04 09 40.4 | | |
| EAZ | | | | AML | AML | 04 09 49.6 | | |
| EAZ | | | | AML | AML | 04 09 53.1 | | |
| **OGWZ** | **Otaki Gorge** | **3.19** | **33** | PN | Pn | 04 08 53.9 | +0.4 | |
| OGWZ | | | | AML | AML | 04 09 34.2 | | |
| OGWZ | | | | AML | AML | 04 09 34.8 | | |
| **HOWZ** | **Holdsworth Sta** | **3.26** | **37** | PN | Pn | 04 08 54.7 | +0.1 | |
| HOWZ | | | | AML | AML | 04 09 33.3 | | |
| HOWZ | | | | AML | AML | 04 09 34.9 | | |
| **TUZ** | **Tuapeka** | **3.37** | **223** | Pn | Pn | 04 08 56.6 | +0.6 | |
| **TUZ** | **Tuapeka** | **3.37** | **223** | PN | Pn | 04 08 56.6 | +0.6 | |
| TUZ | | | | AML | AML | 04 10 01.4 | | |
| TUZ | | | | AML | AML | 04 10 02.4 | | |
| TUZ | | | | AML | AML | 04 10 02.4 | | |
| TUZ | | | | AML | AML | 04 10 03.5 | | |
| **MRZ** | **Mangatainoka R** | **3.48** | **36** | Pn | Pn | 04 08 57.9 | +0.2 | |
| **MRZ** | **Mangatainoka R** | **3.48** | **36** | PN | Pn | 04 08 57.6 | -0.1 | |
| MRZ | | | | SN | Sn | 04 09 36.8 | -1.7 | |
| MRZ | | | | AML | AML | 04 09 41.0 | | |
| **TIWZ** | **Tintock** | **3.53** | **40** | AML | AML | 04 09 42.7 | | |
| TIWZ | | | | AML | AML | 04 09 43.1 | | |
| **PRWZ** | **Pori Road** | **3.74** | **39** | Pn | Pn | 04 09 01.2 | 0.0 | |
| PRWZ | | | | AML | AML | 04 09 46.7 | | |
| PRWZ | | | | AML | AML | 04 09 46.9 | | |
| **BFZ** | **Birch Farm** | **3.77** | **42** | Pn | Pn | 04 09 01.1 | -0.5 | |
| BFZ | | | | *e*Sn | Sn | 04 09 41.1 | -4.6 | |
| **BFZ** | **Birch Farm** | **3.77** | **42** | PN | Pn | 04 09 01.1 | -0.5 | |
| **POWZ** | **Post Office Ro** | **3.79** | **35** | AML | AML | 04 09 55.1 | | |
| POWZ | | | | AML | AML | 04 09 56.1 | | |
| **MLZ** | **Mavora Lakes** | **3.89** | **240** | Pn | Pn | 04 09 03.1 | -0.2 | |
| **MLZ** | **Mavora Lakes** | **3.89** | **240** | PN | Pn | 04 09 03.0 | -0.2 | |
| **SYZ** | **Scrubby Hill** | **4.03** | **220** | Pn | Pn | 04 09 05.9 | +0.9 | |
| **SYZ** | **Scrubby Hill** | **4.03** | **220** | PN | Pn | 04 09 05.8 | +0.8 | |
| SYZ | | | | AML | AML | 04 10 25.4 | | |
| SYZ | | | | AML | AML | 04 10 27.8 | | |
| **WHZ** | **Wether Hill Ro** | **4.25** | **234** | Pn | Pn | 04 09 07.4 | -0.8 | |
| WHZ | | | | *e*Pg | Pg | 04 09 26.4 | +0.8 | |
| WHZ | | | | *e*Sg | Sg | 04 10 22.6 | +1.9 | |
| **WHZ** | **Wether Hill Ro** | **4.25** | **234** | PN | Pn | 04 09 07.4 | -0.8 | |
| WHZ | | | | AML | AML | 04 10 26.7 | | |
| **PRHZ** | **Porangahau** | **4.28** | **42** | *e*Pn | Pn | 04 09 08.4 | -0.3 | |
| **KHEZ** | **Kahui Hut** | **4.30** | **12** | *e*Pn | Pn | 04 09 10.5 | +1.5 | |
| **NEZ** | **North Egmont** | **4.34** | **12** | PN | Pn | 04 09 11.7 | +2.2 | |
| **WPHZ** | **Waipukurau** | **4.35** | **39** | AML | AML | 04 10 10.5 | | |
| WPHZ | | | | AML | AML | 04 10 10.9 | | |
| **PNHZ** | **Pukenui** | **4.37** | **36** | PN | Pn | 04 09 09.5 | -0.4 | |
| PNHZ | | | | AML | AML | 04 10 02.4 | | |
| PNHZ | | | | AML | AML | 04 10 03.1 | | |
| **DCZ** | **Deep Cove** | **4.55** | **243** | Pn | Pn | 04 09 12.1 | -0.1 | |
| DCZ | | | | *e*Pg | Pg | 04 09 30.6 | -0.6 | |
| **DCZ** | **Deep Cove** | **4.55** | **243** | PN | Pn | 04 09 11.6 | -0.6 | |
| DCZ | | | | AML | AML | 04 10 43.7 | | |
| **VRZ** | **Vera Road** | **4.61** | **18** | Pn | Pn | 04 09 15.9 | +2.8 | |
| **WNVZ** | **Wahianoa** | **4.66** | **27** | *e*PN | Pn | 04 09 15.2 | +1.3 | |
| **TRVZ** | **Turoa** | **4.66** | **26** | *e*PN | Pn | 04 09 16.2 | +2.1 | |
| TRVZ | | | | AML | AML | 04 10 11.3 | | |
| TRVZ | | | | AML | AML | 04 10 12.6 | | |
| **KRHZ** | **Kereru** | **4.67** | **35** | PN | Pn | 04 09 13.6 | -0.4 | |
| KRHZ | | | | AML | AML | 04 10 09.0 | | |
| KRHZ | | | | AML | AML | 04 10 10.4 | | |
| **BHHZ** | **Black Hill Sta** | **4.68** | **32** | PN | Pn | 04 09 15.7 | +1.6 | |
| **TUVZ** | **Tukino** | **4.73** | **27** | PN | Pn | 04 09 17.0 | +2.2 | |
| **KAHZ** | **Kahuranaki** | **4.77** | **40** | *e*PN | Pn | 04 09 15.1 | -0.3 | |
| **APZ** | **The Paps** | **4.80** | **225** | Pn | Pn | 04 09 15.8 | 0.0 | |
| **APZ** | **The Paps** | **4.80** | **225** | PN | Pn | 04 09 15.7 | 0.0 | |
| **OTVZ** | **Oturere** | **4.83** | **27** | *e*PN | Pn | 04 09 17.0 | +0.7 | |
| OTVZ | | | | AML | AML | 04 10 14.8 | | |
| **BKZ** | **Black Stump Fm** | **5.12** | **33** | *e*Pn | Pn | 04 09 20.8 | +0.6 | |
| BKZ | | | | *e*Pg | Pg | 04 09 44.0 | +1.7 | |
| **PYZ** | **Puysegur Point** | **5.15** | **237** | *e*Pn | Pn | 04 09 19.2 | -1.3 | |
| **HIZ** | **Hauiti** | **5.22** | **17** | Pn | Pn | 04 09 22.8 | +1.3 | |
| HIZ | | | | *e*Sn | Sn | 04 10 21.0 | -0.2 | |
| **HIZ** | **Hauiti** | **5.22** | **17** | ⇑PN | Pn | 04 09 22.7 | +1.3 | |
| HIZ | | | | AML | AML | 04 10 24.9 | | |
| **URZ** | **Urewera** | **6.15** | **33** | Pn | Pn | 04 09 34.3 | +0.1 | |
| | 1.3nm,0.3s,baz=206,slow=9.7,SNR=6.4 | | | | | | | |
| URZ | | | | Sn | Sn | 04 10 41.0 | -3.1 | |
| | 3.5nm,0.3s,baz=80,slow=18,SNR=9.1 | | | | | | | |
| **URZ** | **Urewera** | **6.15** | **33** | *e*Pn | Pn | 04 09 33.4 | -0.8 | |
| URZ | | | | *e*Sn | Sn | 04 10 41.1 | -3.0 | |
| **CTZ** | **Chatham Island** | **7.61** | **95** | Pn | Pn | 04 09 54.7 | +0.4 | |
| **CTZ** | **Chatham Island** | **7.61** | **95** | PN | Pn | 04 09 54.5 | +0.2 | |
| CTZ | | | | SN | Sn | 04 11 16.9 | -3.3 | |
| **ASAR** | **Alice Springs** | **37.60** | **289** | P | P | 04 15 19.0 | +1.0 | |
| | 0.2nm,0.6s,baz=136,slow=8.0,SNR=4.8 | | | | | | | |
| **WRA** | **Warramunga Arr** | **39.84** | **294** | P | P | 04 15 37.9 | +1.0 | |
| | 0.8nm,0.8s,baz=136,slow=7.7,SNR=7.1 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **148.80** | **197** | PKPbc | **PKPbc** | 04 27 52.5 | +1.4 | |
| | 0.5nm,1.0s,baz=145,slow=2.3,SNR=2.2 | | | | | | | |

*SJA **23** 04:12:12.6±0.6,28.°63S×69.°36W,h126km±5km,ML3.7, MW3.8*

*ISCJB **23** 04:12:13.4±1.0,28.°63S±0.°04×69.°40W±0.°04, h116km±12km,Error ellipse: s-maj=6.5km s-min=5.2km az=36.5*

*GUC **23** 04:12:14.6±0.6,28.°68S×69.°45W,h85km±9km,ML3.6*

**ISC 23 04:12:13.5±1.8,28.°62S±0.°05×69.°40W±0.°04, h120km±16km,n20,σ0557/33,2C-2D,Chile-Argentina border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **VCA** | **Vinchina** | **1.05** | **97** | *i* P | | **Pn** | **04 12 36.6** | **+0.4** |
| VCA | | | | *i* S | | **Sn** | **04 12 53.7** | **+0.4** |
| VCA | | | | IAML | | | 04 12 55.6 | |
| | comp=Z,3μm,0.2s | | | | | | | |
| **VCA** | **Vinchina** | **1.05** | **97** | ⇓*i* P | | **Pn** | **04 12 36.5** | **+0.4** |
| VCA | | | | *i* S | | **Sn** | **04 12 52.9** | **-0.5** |
| VCA | | | | IAML | | | 04 12 53.2 | |
| | comp=E,3μm,0.2s | | | | | | | |
| **AGUA** | **GUANDACOL** | **1.17** | **138** | *i* P | | **Pn** | **04 12 37.8** | **+0.4** |
| **VACH** | **Vallenar** | **1.20** | **272** | *e*P | | **Pn** | **04 12 37.7** | **+0.2** |
| VACH | | | | *i* S | | **Sn** | **04 12 55.6** | **-0.3** |
| **LCO** | **Las Campanas** | **1.21** | **251** | *i* P | | **Pn** | **04 12 38.4** | **+0.5** |
| **LCO** | **Las Campanas** | **1.21** | **251** | ⇓*i* P | | **Pn** | **04 12 38.5** | **+0.5** |
| LCO | | | | *i* S | | **Sn** | **04 12 55.9** | **-0.6** |
| LCO | | | | IAML | | | 04 12 57.7 | |
| | comp=N,1μm,0.3s | | | | | | | |
| **GO03** | **Copiap** | **1.26** | **324** | ⇑*i* P | | **Pn** | **04 12 38.3** | **0.0** |
| GO03 | | | | *i* S | | **Sn** | **04 12 56.6** | **-0.5** |
| **CPCH** | **Copiapo** | **1.51** | **326** | *e*P | | **Pn** | **04 12 41.7** | **+0.6** |
| CPCH | | | | *i* S | | **Sn** | **04 13 02.1** | **0.0** |
| **TLL** | **Tololo Astrono** | **1.98** | **218** | *e*P | | **Pn** | **04 12 47.3** | **+0.4** |
| TLL | | | | *e*S | | **Sn** | **04 13 11.2** | **-1.1** |
| TLL | | | | IAML | | | 04 13 16.2 | |
| | comp=E,706nm,0.3s | | | | | | | |
| **CDCH** | **Caldera** | **1.99** | **320** | *i* S | | **Sn** | **04 13 12.4** | **+0.1** |
| **LSCH** | **La Serena** | **2.07** | **231** | *e*S | | **Sn** | **04 13 12.5** | **-1.5** |
| **ACLC** | **CERRO LA CRUZ** | **2.29** | **111** | *i* P | | **Pn** | **04 12 50.7** | **0.0** |
| ACLC | | | | *i* S | | **Sn** | **04 13 19.2** | **0.0** |
| **AMOG** | **MOGNA** | **2.44** | **162** | *i* P | | **Pn** | **04 12 53.1** | **+0.5** |
| AMOG | | | | *i* S | | **Sn** | **04 13 22.5** | **-0.2** |
| **RTLL** | **Cerro Villicun** | **2.82** | **164** | *i* P | | **Pn** | **04 12 57.7** | **+0.2** |
| RTLL | | | | *i* S | | **Sn** | **04 13 30.9** | **-0.4** |
| **RTLL** | **Cerro Villicun** | **2.82** | **164** | ⇑*i* P | | **Pn** | **04 12 58.1** | **+0.7** |
| RTLL | | | | *i* S | | **Sn** | **04 13 31.0** | **-0.3** |
| **APLL** | **PUNTA DE LOS L** | **3.06** | **126** | *i* P | | **Pn** | **04 13 00.6** | **0.0** |
| APLL | | | | *i* S | | **Sn** | **04 13 36.2** | **-0.9** |
| **CYA** | **Choya** | **3.17** | **88** | *i* P | | **Pn** | **04 13 01.7** | **-0.2** |
| CYA | | | | IAML | | | 04 13 38.6 | |
| | comp=Z,54nm,0.3s | | | | | | | |
| **RTLS** | **Leoncito** | **3.17** | **178** | *i* P | | **Pn** | **04 13 03.3** | **+1.0** |
| RTLS | | | | *i* S | | **Sn** | **04 13 40.3** | **+0.3** |
| RTLS | | | | IAML | | | 04 13 41.2 | |
| | comp=Z,183nm,0.3s | | | | | | | |
| **RTCV** | **Cerro Valdivia** | **3.32** | **167** | *i* P | | **Pn** | **04 13 04.5** | **+0.5** |
| **AUSP** | **Uspallata** | **3.59** | **180** | *i* P | | **Pn** | **04 13 08.3** | **+0.4** |

**WEL 23 04:17:39.8±0.1,43.°52S×172.°85E,h10km±1km,ML3.0/5, Error ellipse: s-maj=1.5km s-min=0.9km az=90.0,South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.17** | **253** | PG | | Pg | 04 17 43.6 | +0.1 |
| CRLZ | | | | SG | | Sg | 04 17 46.5 | +0.4 |
| CRLZ | | | | AML | | AML | 04 17 48.6 | |
| **MQZ** | **McQueen's Vall** | **0.23** | **218** | PG | | Pg | 04 17 44.9 | +0.3 |
| MQZ | | | | SG | | Sg | 04 17 48.7 | +0.8 |
| MQZ | | | | AML | | AML | 04 17 50.9 | |
| **OXZ** | **Oxford** | **0.62** | **288** | P* | | Pg | 04 17 51.5 | -0.4 |
| OXZ | | | | S* | | Sg | 04 18 01.9 | +0.1 |
| OXZ | | | | AML | | AML | 04 18 00.8 | |
| **LTZ** | **Lake Taylor** | **0.85** | **330** | P* | | Pg | 04 17 56.0 | -0.3 |
| LTZ | | | | S* | | Sg | 04 18 07.5 | +0.2 |
| **KHZ** | **Kahutara** | **1.22** | **25** | P* | | Pn | 04 18 01.7 | -1.1 |
| **INZ** | **Inchbonnie** | **1.30** | **307** | PN | | Pn | 04 18 03.8 | -0.2 |
| **RPZ** | **Rata Peaks** | **1.32** | **261** | PN | | Pn | 04 18 03.6 | -0.6 |
| RPZ | | | | AML | | AML | 04 18 24.6 | |
| **LBZ** | **Lake Benmore** | **2.11** | **245** | *e*PN | | Pn | 04 18 15.1 | 0.0 |
| **TUZ** | **Tuapeka** | **3.34** | **222** | *e*PN | | Pn | 04 18 32.3 | +0.3 |

*GUC **23** 04:18:38.0±0.6,44.°26S×79.°52W,h8km,MW5.1*

*IDC **23** 04:18:40.2±1.7,44.°20S×79.°61W,h0km,mb3.9/5, mb1 4.3/6,mb1mx4.1/23,mbtmp4.0/6,ML5.3/1,MS4.3/7, Ms1 4.3/7,ms1mx4.0/19,Error ellipse: s-maj=54.3km s-min=33.3km az=173.0*

*GCMT **23** 04:18:42.5±0.3,44.°71S×79.°85W,h23km±1km,MW5.0/86, Moment Tensor Solution. s18,c24; s86,c118; Duration: 0 Moment tensor: Scale 10^16^Nm; Mrr=1.16±.31; Mθθ2.60±.26; Mϕϕ-1.44±.25; Mrθ0.53±.31; Mrϕ-3.91±.17; Mθϕ1.01±.35; Best double couple: Mw4.61100×10^16^ NP1:ϕs164.00000°,δ76.00000°,λ-15.00000°. NP2: ϕs258.00000°,δ75.00000°,λ-166.00000°. Principal axes: T 4.9820, Plg1.0000°, Azm211.0000°; N -0.7410, Plg70.0000°, Azm303.0000°; P -4.2410, Plg20.0000°, Azm121.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **23** 04:18:42.5±0.4,44.°31S×79.°35W,h10km,mb4.7/13 Error ellipse: s-maj=9.9km s-min=8.1km az=108.0*

*BJI **23** 04:18:42.7,44.°30S×79.°30W,h10km,mB5.1/2,Ms5.2/4, Ms7 5.1/4*

*ISCJB **23** 04:18:44.6±0.4,44.°31S±0.°05×79.°12W±0.°07,h33km, mb4.6/20,MS4.2/5,Error ellipse: s-maj=7.8km s-min=6.8km az=32.1*

**ISC 23 04:18:46.5±0.5,44.°25S±0.°07×79.°29W±0.°08,h35km,n75, σ1964/74,mb4.7/20,MS4.2/5,2C-2D,Off coast of southern Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **GO07** | **Milladeo Hill,** | **4.24** | **76** | *e*P | | **Pn** | **04 19 45.4** | **-3.1** |
| GO07 | | | | *e*S | | **Sn** | **04 20 37.7** | **+1.0** |
| **CHRN** | **Cochrane** | **5.57** | **125** | *e*Pn | | **Pn** | **04 20 04.2** | **-2.6** |
| **CHRN** | **Cochrane** | **5.57** | **125** | ⇓*i* P | | **Pn** | **04 20 03.8** | **-3.0** |
| **PLCA** | **Paso Flores** | **7.35** | **64** | Pn | | **Pn** | **04 20 30.4** | **-1.0** |
| | 10.0nm,0.3s,baz=257,slow=11,SNR=190 | | | | | | | |
| PLCA | | | | Sn | | Sn | 04 22 03.1 | +10 |
| | baz=275,slow=22,SNR=0.5 | | | | | | | |
| PLCA | | | | LR | | LR | 04 23 14.5 | |
| | comp=Z,3μm,19.0s,baz=260,slow=36 | | | | | | | |
| **PLCA** | **Paso Flores** | **7.35** | **64** | ⇑*i* P | | **Pn** | **04 20 30.2** | **-1.2** |
| **GO05** | **Hualaæ∅** | **10.83** | **34** | *e*Pn | | **Pn** | **04 21 17.5** | **-1.5** |
| **USHA** | **Usuaia** | **12.71** | **150** | LR | | LR | 04 26 14.5 | |
| | comp=Z,3μm,18.2s,baz=286,slow=35 | | | | | | | |
| **CLCH** | **Cerro Calan** | **12.80** | **35** | *e*P | | **Pn** | **04 21 42.5** | **-3.4** |
| **PEL** | **Peldehue** | **12.96** | **34** | *e*Pn | | **Pn** | **04 21 46.0** | **-2.1** |
| **PEL** | **Peldehue** | **12.96** | **34** | *e*P | | **Pn** | **04 21 45.1** | **-2.9** |
| **ROC1** | **El Roble** | **12.97** | **33** | *e*Pn | | **P** | **04 21 54.0** | **-4.6** |
| **ROC1** | **El Roble** | **12.97** | **33** | *e*P | | Pn | 04 21 53.0 | +4.5 |
| **AUSP** | **Uspallata** | **14.29** | **36** | *e*P | | **Pn** | **04 22 06.5** | **0.0** |
| **TRQA** | **Tornquist** | **14.42** | **71** | *e*Pn | | **Pn** | **04 22 08.0** | **0.0** |
| **RTLS** | **Leoncito** | **14.70** | **36** | *e*P | | **Pn** | **04 22 11.6** | **-0.5** |
| **RTCV** | **Cerro Valdivia** | **14.97** | **38** | *e*P | | **Pn** | **04 22 14.5** | **-0.9** |
| **ACAN** | **Cantantal** | **15.25** | **42** | *e*P | | **Pn** | **04 22 17.3** | **-1.8** |
| **RTLL** | **Cerro Villicun** | **15.45** | **37** | *e*P | | **Pn** | **04 22 20.4** | **-1.4** |
| **AMOG** | **MOGNA** | **15.78** | **36** | *e*P | | **Pn** | **04 22 24.9** | **-1.1** |
| **LCO** | **Las Campanas** | **16.68** | **27** | *e*Pn | | **Pn** | **04 22 36.9** | **-0.8** |
| | 184nm,1.9s | | | | | | | |
| **AGUA** | **GUANDACOL** | **17.05** | **34** | *e*P | | **P** | **04 22 43.4** | **-0.3** |
| **APLL** | **PUNTA DE LOS L** | **17.12** | **40** | *e*P | | **Pn** | **04 22 41.0** | **-2.1** |
| APLL | | | | IAML | | | 04 22 43.7 | |
| | comp=Z,12nm,0.4s | | | | | | | |
| **TCA** | **Tanti** | **17.31** | **47** | *e*P | | **Pn** | **04 22 43.8** | **-1.7** |
| **ACLC** | **CERRO LA CRUZ** | **17.76** | **38** | *e*P | | **P** | **04 22 51.2** | **-0.3** |
| **VCA** | **Vinchina** | **17.84** | **33** | *e*P | | **P** | **04 22 53.8** | **+1.4** |
| VCA | | | | IAML | | | 04 23 15.6 | |
| | comp=Z,21nm,0.5s | | | | | | | |
| **CYA** | **Choya** | **19.11** | **39** | *e*P | | **P** | **04 23 06.2** | **-0.1** |
| CYA | | | | IAML | | | 04 23 10.8 | |
| | comp=Z,12nm,0.7s | | | | | | | |
| **AHML** | **Horco Molle** | **20.75** | **37** | *e*P | | **P** | **04 23 25.0** | **+0.9** |
| **FSA** | **Cafayete** | **21.07** | **35** | *e*P | | **P** | **04 23 29.3** | **+1.6** |
| **AZAP** | **Zapla** | **23.11** | **35** | IAML | | | 04 24 09.6 | |
| | comp=Z,8.4nm,0.5s | | | | | | | |
| **PB01** | **IPOC Station P** | **24.53** | **23** | *e*P | | **P** | **04 24 02.9** | **+0.1** |
| | comp=Z,51nm,1.3s | | | | | | | |
| **CPUP** | **Villa Florida** | **25.19** | **52** | P | | **P** | **04 24 08.3** | **-0.3** |
| | comp=Z,75nm,1.1s,baz=230,slow=8.9,SNR=26 | | | | | | | |
| CPUP | | | | LR | | LR | 04 34 31.2 | |
| | comp=Z,807nm,18.9s,baz=183,slow=38 | | | | | | | |
| **CPUP** | **Villa Florida** | **25.19** | **52** | *e*P | | **P** | **04 24 08.8** | **+0.2** |
| **PB11** | **IPOC Station P** | **25.71** | **21** | *e*P | | **P** | **04 24 13.8** | **+0.3** |
| | comp=Z,42nm,1.2s | | | | | | | |
| **MNMC** | **Minye Minye** | **26.33** | **21** | *e*P | | **P** | **04 24 20.6** | **+1.3** |
| | comp=Z,65nm,1.5s | | | | | | | |
| **LPAZ** | **La Paz** | **29.43** | **22** | P | | **P** | **04 24 47.1** | **-0.4** |
| | comp=Z,2.2nm,0.9s,baz=210,slow=8.1,SNR=5.7 | | | | | | | |
| **LPAZ** | **La Paz** | **29.43** | **22** | *e*P | | **P** | **04 24 47.7** | **+0.3** |
| | comp=Z,25nm,1.8s | | | | | | | |
| **RPN** | **Rapa Nui** | **29.56** | **295** | LR | | LR | 04 33 15.9 | |
| | comp=Z,664nm,20.4s,baz=118,slow=30 | | | | | | | |
| **NNA** | **Nana** | **32.22** | **4** | *e*P | | **P** | **04 25 11.7** | **+0.3** |
| **VNA3** | **Neumayer Olymp** | **42.36** | **153** | P | | **P** | **04 26 37.0** | **+0.3** |
| **VNA1** | **Neumayer--Stat** | **42.82** | **152** | P | | **P** | **04 26 42.4** | **+2.0** |
| **VNA2** | **Neumayer--Watz** | **43.10** | **153** | P | | P | 04 26 36.4 | -6.4 |
| | baz=283,slow=8.5 | | | | | | | |
| **OTAV** | **Otavalo** | **44.30** | **1** | *e*P | | **P** | **04 26 53.7** | **+0.3** |
| | comp=Z,14nm,1.4s | | | | | | | |
| **SNAA** | **Sanae** | **44.53** | **154** | P | | **P** | **04 26 56.4** | **+2.1** |
| **SNAA** | **Sanae** | **44.53** | **154** | *e*P | | **P** | **04 26 52.7** | **-1.5** |
| | comp=Z,15nm,1.3s | | | | | | | |
| **QSPA** | **South Pole Qui** | **46.00** | **180** | *e*P | | **P** | **04 27 06.0** | **0.0** |
| | comp=Z,15nm,1.6s | | | | | | | |
| **RUSC** | **La Rusia** | **50.22** | **8** | *e*P | | **P** | **04 27 41.9** | **+2.3** |
| | comp=Z,8.2nm,1.1s | | | | | | | |
| **HELC** | **Santa Helena** | **50.32** | **5** | *e*P | | **P** | **04 27 41.9** | **+1.8** |
| | comp=Z,45nm,1.0s | | | | | | | |
| **VNDA** | **Vanda** | **52.90** | **194** | LR | | LR | 04 45 55.0 | |
| | comp=Z,102nm,19.5s,baz=166,slow=31 | | | | | | | |
| **SDV** | **Santo Domingo** | **53.46** | **11** | *e*P | | **P** | **04 28 04.5** | **+1.1** |
| | comp=Z,14nm,1.0s | | | | | | | |
| **JTS** | **JuntasAbangare** | **54.52** | **353** | *e*P | | **P** | **04 28 11.2** | **+0.3** |
| | comp=Z,9.4nm,1.0s | | | | | | | |
| **SYO** | **Syowa Base** | **58.43** | **158** | ⇑eP | | **P** | **04 28 35.0** | **-3.0** |
| **SYO** | **Syowa Base** | **58.43** | **158** | ⇓epP | | **P** | **04

*GCMT **23** 04:27:15.5±0.1, 13.15N×120.39E, h23km, MW5.2/105, Moment Tensor Solution. s60,c88; s105,c178; Duration: 1s0 Moment tensor: Scale 10^16Nm; Mrr=4.03±.24; Mθθ=-1.12±.15; Mφφ=-2.90±.17; Mrθ=2.63±.23; Mφθ=-6.24±.11; Mrφ=-3.93±.28; Best double couple: M=8.61300×10^16 NP1:φs185.00000°,δ66.00000°, λ39.00000°. NP2:φs76.00000°,δ55.00000°,λ150.00000°. Principal axes: T 8.7700, Plg44.0000°, Azm45.0000°; N -0.3040, Plg45.0000°, Azm212.0000°; P -8.4560, Plg7.0000°, Azm309.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*NEIC **23** 04:27:15.5±0.5, 13.19N×120.64E, h70km±4km, mb5.2/62 Error ellipse: s-maj=4.6km s-min=2.9km az=80.0*
*NEIC Felt [IV PIVS] at Abra de Ilog, Calapan, Mamburao, Paluan and Puerto Galera. Also felt at Naujan and Sabang. Felt [IV PIVS] at Batangas; [III PIVS] at Manila and Pasig; [II PIVS] at Lucban, Makati, Marikina City, Muntinlupa City, Pasay and Quezon City, Luzon. Also felt at Malvar and Rizal. Felt [III PIVS] at Mogpog, Marinduque.*
*IDC **23** 04:27:16.2±0.8, 13.25N×120.73E, h77km±6km, mb4.3/29, mb1 4.4/29,mb1mx4.4/41,mbtmp4.6/29,MS4.6/24, Ms1 4.6/24,ms1mx4.5/33, Error ellipse: s-maj=15.7km s-min=8.9km az=69.0*
**ISC 23 04:27:14.1±0.4, 13.14N±0.02×120.48E±0.03, h54km±3km, h54km; pP-P, n469, σ2.05/513, mb5.2/145, MS4.9/49, 42C-37D, Mindoro**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **LUBP** | **Lubang** | **0.64** | **339** | *eP* | **Pn** | **04 27 23.2** | **-4.1** |
| LUBP | | | | *eS* | **Sn** | **04 27 33.6** | **-3.2** |
| **SJMP** | **San Jose** | **0.92** | **137** | *eP* | **Pn** | **04 27 26.9** | **-3.9** |
| SJMP | | | | *eS* | **Sn** | **04 27 42.9** | **-0.3** |
| **TGY** | **Tagaytay City** | **1.05** | **25** | P | **Pn** | **04 27 32.0** | **-0.8** |
| | 11μm,0.3s,baz=225,slow=3.9,SNR=867 | | | | | | |
| TGY | | | | S | **Sn** | **04 27 47.6** | **+1.1** |
| | 9μm,0.3s,baz=221,slow=20,SNR=26 | | | | | | |
| TGY | | | | LR | LR | 04 27 57.7 | |
| | comp=Z,8μm,20.1s,baz=206,slow=48 | | | | | | |
| **TGY** | **Tagaytay City** | **1.05** | **25** | *iP* | **Pn** | **04 27 31.9** | **-0.8** |
| TGY | | | | *i* S | **Sn** | **04 27 47.8** | **+1.3** |
| **BUSP** | **Coron** | **1.16** | **194** | *eP* | **Pn** | **04 27 29.7** | **-4.5** |
| BUSP | | | | *eS* | **Sn** | **04 27 45.5** | **-3.5** |
| **BOAC** | **Boac** | **1.36** | **76** | *eP* | **Pn** | **04 27 36.7** | **-0.2** |
| BOAC | | | | *eS* | **Sn** | **04 27 56.5** | **+2.6** |
| **LQP** | **Lukban** | **1.41** | **47** | *eP* | **Pn** | **04 27 37.0** | **-0.7** |
| **OTRP** | **Odiongan** | **1.69** | **117** | *eP* | **Pn** | **04 27 38.5** | **-2.7** |
| OTRP | | | | *eS* | **Sn** | **04 27 59.0** | **-2.8** |
| **GQP** | **Guinayangan** | **2.06** | **68** | *eP* | **Pn** | **04 27 45.9** | **-0.3** |
| GQP | | | | *eS* | **Sn** | **04 28 14.7** | **+3.9** |
| **AUQP** | **San Andres** | **2.14** | **85** | *eP* | **Pn** | **04 27 50.7** | **+3.2** |
| AUQP | | | | *eS* | Sn | 04 28 21.3 | +8.4 |
| **ENPP** | **El Nido** | **2.18** | **208** | *eP* | **Pn** | **04 27 43.4** | **-4.6** |
| ENPP | | | | *eS* | **Sn** | **04 28 17.3** | **+3.5** |
| **KALP** | **Kalibo** | **2.32** | **128** | *eP* | **Pn** | **04 27 47.7** | **-2.2** |
| **PCPH** | **Palayan** | **2.48** | **14** | *eP* | **Pn** | **04 27 50.7** | **-1.4** |
| PCPH | | | | *eS* | **Sn** | **04 28 21.9** | **+0.7** |
| **SCZP** | **Santa Cruz** | **2.68** | **348** | *eP* | **Pn** | **04 27 52.5** | **-2.3** |
| SCZP | | | | *eS* | **Sn** | **04 28 32.0** | **+6.0** |
| **RCP** | **Roxas** | **2.71** | **125** | *eP* | **Pn** | **04 27 54.4** | **-0.9** |
| RCP | | | | *eS* | **Sn** | **04 28 33.0** | **+6.1** |
| **JAP** | **San Jose, Anti** | **2.78** | **149** | *eP* | **Pn** | **04 27 53.8** | **-2.3** |
| JAP | | | | *eS* | Sn | 04 28 55.7 | +27 |
| **BALP** | **Baler** | **2.80** | **22** | *eP* | **Pn** | **04 27 54.6** | **-1.8** |
| BALP | | | | *eS* | **Sn** | **04 28 33.9** | **+4.9** |
| **MMPH** | **Masbate** | **3.16** | **104** | *eP* | Pn | 04 28 05.8 | +4.4 |
| MMPH | | | | *eS* | **Sn** | **04 28 43.8** | **+5.9** |
| **GUIM** | **Jordan** | **3.24** | **140** | *eP* | **Pn** | **04 28 01.5** | **-1.0** |
| GUIM | | | | *eS* | **Sn** | **04 28 40.0** | **+0.1** |
| **BOLP** | **Bolinao** | **3.27** | **350** | *eP* | **Pn** | **04 28 02.7** | **-0.2** |
| BOLP | | | | *eS* | **Sn** | **04 28 39.7** | **-0.9** |
| **PPR** | **Puerto Princes** | **3.76** | **207** | *eP* | **Pn** | **04 28 07.8** | **-1.7** |
| PPR | | | | *eS* | Sn | 04 29 19.0 | +26 |
| **LLP** | **Lapu-Lapu** | **4.42** | **129** | *eP* | **Pn** | **04 28 18.0** | **-0.7** |
| LLP | | | | *eS* | **Sn** | **04 29 10.9** | **+2.1** |
| **ABRA** | **Dolores** | **4.49** | **3** | *eP* | **Pn** | **04 28 19.0** | **-0.7** |
| **SNPH** | **Sibulan** | **4.64** | **144** | *iP* | **Pn** | **04 28 20.9** | **-0.9** |
| **CVP** | **Callao Caves** | **4.72** | **16** | *eP* | **Pn** | **04 28 22.8** | **0.0** |
| **APYP** | **Conner** | **4.75** | **9** | *eP* | **Pn** | **04 28 24.1** | **+0.9** |
| APYP | | | | *eS* | Sn | 04 29 31.0 | +14 |
| **PLP** | **Palo** | **4.82** | **114** | *eP* | **Pn** | **04 28 23.2** | **-0.9** |
| **DCPH** | **Dipolog City** | **5.33** | **148** | *eP* | **Pn** | **04 28 29.5** | **-1.7** |
| **DAV** | **Davao City (W)** | **7.84** | **140** | LR | LR | 04 32 49.1 | |
| | comp=Z,13μm,18.6s,baz=301,slow=43 | | | | | | |
| **MYLDM** | **Lahad Datu** | **8.15** | **194** | *ePn* | **Pn** | **04 29 10.4** | **+0.6** |
| **KKM** | **Kota Kinabalu** | **8.21** | **211** | *ePn* | Pn | 04 29 15.4 | +4.6 |
| **TPUB** | **Ta-pu** | **10.11** | **1** | *ePn* | **Pn** | **04 29 37.3** | **+0.7** |
| **YULB** | **Yu-li** | **10.23** | **4** | *ePn* | **Pn** | **04 29 41.2** | **+3.0** |
| **SSLB** | **Suanglung** | **10.60** | **2** | *ePn* | **Pn** | **04 29 45.1** | **+1.7** |
| **YHNB** | **Yeheng** | **11.50** | **4** | *ePn* | **Pn** | **04 29 57.2** | **+1.5** |
| **QIZ** | **Qiongzhong** | **11.78** | **301** | P | **Pn** | **04 30 00.1** | **+0.6** |
| QIZ | | | | *p*P | | 04 30 08.8 | |
| QIZ | | | | S | **Sn** | **04 32 13.8** | **+4.3** |
| QIZ | | | | pmax | pmax | | |
| | comp=Z,43nm,1.6s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=E,3μm,14.1s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=Z,4μm,14.1s | | | | | | |
| **MRSI** | **Marisa** | **12.66** | **173** | P | **Pn** | **04 30 12.5** | **+0.9** |
| **KMSI** | **Cibinong** | **12.96** | **164** | P | **P** | **04 30 26.4** | **+1.9** |
| **SMKI** | **Samarinda** | **13.88** | **194** | P | **P** | **04 30 35.7** | **+0.9** |
| **PCI** | **Palu** | **13.97** | **183** | P | **P** | **04 30 39.1** | **+3.3** |
| **APSI** | **Ampana** | **14.01** | **175** | P | **P** | **04 30 40.1** | **+3.9** |
| | 130nm,1.0s | | | | | | |
| **TNTI** | **Ternate** | **14.05** | **150** | *ePn* | **Pn** | **04 30 28.8** | **-1.7** |
| **LUWI** | **Luwuk** | **14.27** | **171** | P | P | 04 30 44.8 | +5.7 |
| | 371nm,1.0s,4μm | | | | | | |
| **LUWI** | **Luwuk** | **14.27** | **171** | *ePn* | **Pn** | **04 30 34.6** | **+1.2** |
| **KSM** | **Kuching** | **15.36** | **222** | *ePn* | **Pn** | **04 30 47.9** | **+0.4** |
| | 41nm,1.1s | | | | | | |
| **LBMI** | **Labuha** | **15.36** | **153** | P | **P** | **04 30 49.0** | **-2.2** |
| **JOW** | **Kunigami** | **15.46** | **27** | *ePn* | **Pn** | **04 30 49.7** | **+0.9** |
| | 106nm,0.9s | | | | | | |
| **SANI** | **Sanana** | **16.05** | **160** | P | **Pn** | **04 30 53.2** | **-3.2** |
| **KBKI** | **Kotabaru** | **16.88** | **195** | P | **P** | **04 31 11.2** | **+3.0** |
| **SWI** | **Sorong** | **17.54** | **142** | P | **P** | **04 31 20.9** | **+5.4** |
| **NLAI** | **Namlea** | **17.55** | **158** | P | **P** | **04 31 20.7** | **+5.2** |
| **CHBT** | **CHBT** | **17.70** | **271** | P | P | 04 31 26.1 | +8.9 |
| | 163nm,0.8s | | | | | | |
| **SSE** | **Sheshan** | **17.88** | **2** | P | **Pn** | **04 31 14.3** | **-4.7** |
| SSE | | | | S | **Sn** | **04 34 34.6** | **-3.1** |
| SSE | | | | pmax | pmax | | |
| | comp=Z,34nm,0.8s | | | | | | |
| SSE | | | | pmax | pmax | | |
| | comp=Z,890nm,10.1s | | | | | | |
| SSE | | | | LR | LR | | |
| | comp=N,1μm,23.4s | | | | | | |
| SSE | | | | LR | LR | | |
| | comp=E,3μm,23.4s | | | | | | |
| SSE | | | | LR | LR | | |
| | comp=Z,3μm,18.3s | | | | | | |
| **PBKI** | **Pangkalan Bun** | **18.01** | **210** | P | **P** | **04 31 21.2** | **+0.6** |
| **WHN** | **Wuhan** | **18.22** | **343** | *iP* | **Pn** | **04 31 23.3** | **+0.1** |
| WHN | | | | S | **Sn** | **04 34 39.0** | **-6.9** |
| WHN | | | | LR | LR | | |
| | comp=Z,13μm,16.8s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=Z,6μm,15.4s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=Z,17μm,17.2s | | | | | | |
| **AAI** | **Ambon** | **18.39** | **155** | P | **Pn** | **04 31 29.8** | **+4.5** |
| **MSAI** | **Masohi** | **18.40** | **152** | P | **Pn** | **04 31 30.2** | **+4.7** |
| **GYA** | **Guiyang** | **18.54** | **318** | *iP* | **Pn** | **04 31 30.3** | **+3.1** |
| GYA | | | | *p*P | *p*P | 04 31 38.4 | -0.1 |
| GYA | | | | PP | **sP** | **04 31 46.0** | **+0.6** |
| GYA | | | | S | **Sn** | **04 34 51.8** | **-2.0** |
| GYA | | | | sS | sS | 04 35 07.3 | -7.4 |
| GYA | | | | SS | **SnSn** | **04 35 18.8** | **+10** |
| GYA | | | | pmax | pmax | | |
| | comp=Z,30nm,1.0s | | | | | | |
| GYA | | | | pmax | pmax | | |
| | comp=Z,130nm,4.9s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,4μm,16.0s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,4μm,16.1s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,4μm,15.4s | | | | | | |
| **BBSI** | **Bau Bau** | **18.62** | **173** | P | **Pn** | **04 31 34.4** | **+6.3** |
| **NJ2** | **Nanjing** | **18.88** | **356** | *eP* | **Pn** | **04 31 31.8** | **+0.7** |
| NJ2 | | | | *p*P | **pP** | **04 31 42.5** | **+0.4** |
| NJ2 | | | | S | **Sn** | **04 34 59.3** | **-2.5** |
| NJ2 | | | | sS | **sS** | **04 35 18.0** | **-3.4** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,24nm,0.5s | | | | | | |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,2μm,9.8s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,5μm,16.3s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,3μm,17.9s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=Z,5μm,15.7s | | | | | | |
| **PBKT** | **Sadao Pong** | **19.16** | **283** | P | **Pn** | **04 31 35.9** | **+1.3** |
| | comp=Z,27nm,1.0s,comp=Z,5μm | | | | | | |
| **FAKI** | **Fak Fak** | **19.77** | **143** | P | **Pn** | **04 31 44.4** | **+2.5** |
| **FAKI** | **Fak Fak** | **19.77** | **143** | *eP* | **P** | **04 31 35.8** | **-4.2** |
| | comp=Z,130nm,1.2s | | | | | | |
| **ENH** | **Enshi** | **19.85** | **331** | *eP* | **P** | **04 31 41.2** | **+0.5** |
| | comp=Z,140nm,1.3s | | | | | | |
| **KMI** | **Kunming** | **20.54** | **308** | P | Pn | 04 31 54.3 | +3.2 |
| KMI | | | | *p*P | pP | 04 32 01.5 | +0.9 |
| KMI | | | | S | Sn | 04 35 42.0 | -0.1 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,11nm,0.9s | | | | | | |
| KMI | | | | pmax | pmax | | |
| | comp=Z,780nm,7.9s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,850nm,14.1s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,2μm,14.7s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,2μm,14.7s | | | | | | |
| **DSRI** | **Dabo** | **20.78** | **231** | P | **P** | **04 31 44.4** | **-6.4** |
| **IPM** | **Ipoh** | **21.05** | **248** | *eP* | **P** | **04 31 48.4** | **-5.4** |
| | comp=Z,60nm,1.2s | | | | | | |
| **KULM** | **Kulim** | **21.06** | **250** | *eP* | **P** | **04 31 56.5** | **+2.6** |
| | comp=Z,99nm,1.5s | | | | | | |
| **CM01** | **Chiang Mai Arr** | **21.36** | **287** | *eP* | **P** | **04 31 58.5** | **+1.4** |
| **CM31** | **Chiang Mai Arr** | **21.38** | **287** | *eP* | **P** | **04 31 59.3** | **+2.0** |
| **CMAR** | **Chiang Mai Arr** | **21.38** | **287** | P | **P** | **04 31 59.5** | **+2.2** |
| | comp=Z,25nm,0.9s,baz=100,slow=9.0,SNR=65 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **21.38** | **287** | *ceP* | **P** | **04 31 59.2** | **+1.9** |
| CMAR | | | | pmax | pmax | | |
| | comp=Z,25nm,0.9s | | | | | | |
| **CMMT** | **Chiang Mai** | **21.45** | **288** | P | **P** | **04 31 59.7** | **+1.6** |
| | comp=Z,31nm,1.0s,comp=Z,876nm | | | | | | |
| **CHTO** | **Chiang Mai** | **21.45** | **288** | P | **P** | **04 31 59.8** | **+1.7** |
| | comp=Z,90nm,1.2s,comp=Z,3μm | | | | | | |
| **CHTO** | **Chiang Mai** | **21.45** | **288** | *eP* | **P** | **04 31 59.7** | **+1.7** |
| CHTO | | | | pmax | pmax | | |
| | comp=Z,25nm,1.0s | | | | | | |
| **CHTO** | **Chiang Mai** | **21.45** | **288** | *eP* | **P** | **04 31 59.7** | **+1.6** |
| | comp=Z,25nm,1.0s | | | | | | |
| **CHTO** | **Chiang Mai** | **21.45** | **288** | P | **P** | **04 32 00.1** | **+2.0** |
| | SNR=6.7 | | | | | | |
| **CHTO** | **Chiang Mai** | **21.45** | **288** | P | **P** | **04 32 00.1** | **+2.0** |
| | SNR=6.7 | | | | | | |
| **MMRI** | **Maumere** | **21.70** | **175** | *eP* | **P** | **04 31 59.6** | **-1.1** |
| | comp=Z,76nm,0.8s | | | | | | |
| **SRBI** | **Singaraja** | **21.73** | **194** | P | **P** | **04 32 04.3** | **+3.4** |
| **EDFI** | **Ende, Flores** | **21.78** | **177** | P | **P** | **04 32 06.7** | **+5.0** |
| **BLJI** | **Banyuglugur** | **21.85** | **199** | P | **P** | **04 32 03.4** | **+1.2** |
| **PLAI** | **Plampang** | **21.99** | **187** | P | **P** | **04 32 06.0** | **+2.2** |
| **JNU** | **Nakatsue** | **22.04** | **24** | P | **P** | **04 32 02.5** | **-1.7** |
| | comp=Z,3.0nm,0.5s,baz=233,slow=10,SNR=2.1 | | | | | | |
| **JNU** | **Nakatsue** | **22.04** | **24** | *eP* | **P** | **04 32 02.5** | **-1.7** |
| | comp=Z,33nm,0.9s | | | | | | |
| **JAGI** | **Jajag, Banyuwa** | **22.37** | **197** | *eP* | **P** | **04 32 08.8** | **+0.9** |
| | comp=Z,98nm,1.0s | | | | | | |
| **WBSI** | **Waikabubak, Su** | **22.66** | **183** | P | **P** | **04 32 13.2** | **+2.2** |
| **WSI** | **Waingapu** | **22.66** | **180** | P | **P** | **04 32 15.6** | **+4.6** |
| **SOEI** | **Soe** | **23.05** | **170** | P | **P** | **04 32 15.6** | **+0.4** |
| **SOEI** | **Soe** | **23.05** | **170** | *eP* | **P** | **04 32 14.9** | **-0.3** |
| | comp=Z,126nm,1.0s | | | | | | |
| **PCJI** | **Pacitan** | **23.12** | **204** | P | **P** | **04 32 14.9** | **-0.8** |
| **TIA** | **Tai'an** | **23.17** | **353** | *i*P | **P** | **04 32 15.0** | **-1.1** |
| TIA | | | | pmax | pmax | | |
| | comp=Z,30nm,1.3s | | | | | | |
| TIA | | | | pmax | pmax | | |
| | comp=Z,510nm,6.5s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,4μm,18.0s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,2μm,18.0s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,6μm,19.0s | | | | | | |
| **BASI** | **Baing, Sumba** | **23.21** | **180** | P | **P** | **04 32 19.6** | **+3.1** |
| **XAN** | **Xi'an** | **23.31** | **335** | P | **P** | **04 32 16.0** | **-1.5** |
| XAN | | | | *p*P | pP | 04 32 27.4 | -2.8 |
| XAN | | | | PP | **PnPn** | **04 32 47.9** | **+2.4** |
| XAN | | | | PcP | **PcP** | **04 36 04.6** | **+1.2** |
| XAN | | | | S | **S** | **04 36 21.0** | **-5.1** |
| XAN | | | | pmax | pmax | | |
| | comp=Z,51nm,1.5s | | | | | | |
| XAN | | | | pmax | pmax | | |
| | comp=Z,440nm,8.2s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,1μm,17.5s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,4μm,16.8s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,5μm,16.4s | | | | | | |
| **KPJI** | **Karang Pucung** | **23.35** | **210** | P | **P** | **04 32 16.6** | **-1.3** |
| **CD2** | **Chengdu** | **23.46** | **322** | P | **P** | **04 32 18.8** | **-0.2** |
| CD2 | | | | *p*P | pP | 04 32 29.6 | -2.3 |
| CD2 | | | | sP | sP | 04 32 39.4 | +0.9 |
| CD2 | | | | PP | **PnPn** | **04 32 57.5** | **+10** |
| CD2 | | | | S | **S** | **04 36 28.1** | **-0.5** |
| CD2 | | | | sS | Sn | 04 36 50.6 | -1.1 |
| CD2 | | | | SS | **SnSn** | **04 37 18.4** | **+9.5** |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,110nm,1.2s | | | | | | |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,470nm,7.6s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,3μm,14.4s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,3μm,14.3s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,3μm,13.3s | | | | | | |
| **PSI** | **Prapat** | **23.66** | **246** | *eP* | **P** | **04 32 22.5** | **+1.4** |
| PSI | | | | pmax | pmax | | |
| | comp=Z,128nm,1.8s | | | | | | |
| **PSI** | **Prapat** | **23.66** | **246** | *eP* | **P** | **04 32 22.5** | **+1.4** |
| | comp=Z,128nm,1.8s | | | | | | |
| **KLI** | **Kotabumi** | **23.68** | **222** | P | **P** | **04 32 15.2** | **-5.8** |
| **GUMO** | **Guam** | **23.73** | **86** | LR | LR | 04 40 01.3 | |
| | comp=Z,2μm,22.0s,baz=258,slow=33 | | | | | | |
| **BLSI** | **Bandar Lampung** | **23.81** | **220** | P | **P** | **04 32 16.4** | **-5.9** |
| **CISI** | **Cisompet, Garu** | **24.10** | **212** | P | **P** | **04 32 22.5** | **-2.5** |
| **CISI** | **Cisompet, Garu** | **24.10** | **212** | *eP* | **P** | **04 32 24.6** | **-0.4** |
| | comp=Z,151nm,1.3s | | | | | | |
| **CNJI** | **Cibinong** | **24.26** | **214** | P | **P** | **04 32 22.7** | **-3.6** |
| **PDSI** | **Padang** | **24.27** | **236** | P | P | 04 32 15.2 | -11 |
| **MASI** | **Maura Aman, Be** | **24.28** | **229** | P | P | 04 32 19.3 | -7.3 |
| **LWLI** | **Liwa** | **24.32** | **223** | P | **P** | **04 32 21.8** | **-5.2** |
| **SKJI** | **Sukabumi** | **24.33** | **215** | P | **P** | **04 32 22.3** | **-4.7** |
| **KASI** | **Kota Agung** | **24.41** | **222** | P | **P** | **04 32 23.7** | **-4.0** |
| **MNAI** | **Manna** | **24.60** | **226** | P | P | 04 32 21.3 | -8.2 |
| **MNAI** | **Manna** | **24.60** | **226** | *eP* | **P** | **04 32 30.7** | **+1.2** |
| **GENI** | **Genyem** | **25.02** | **127** | P | **P** | **04 32 30.1** | **-3.2** |
| **KSAR** | **Wonju Array Be** | **25.09** | **14** | P | **P** | **04 32 32.8** | **-0.9** |
| **KSAR** | **Wonju Array Be** | **25.09** | **14** | P | **P** | **04 32 32.8** | **-0.9** |
| **KSRS** | **Korea Array** | **25.11** | **14** | P | **P** | **04 32 32.8** | **-1.1** |
| | comp=Z,1.3nm,0.6s,baz=202,slow=9.6,SNR=3.5 | | | | | | |
| KSRS | | | | LR | LR | 04 44 04.2 | |
| | comp=Z,3μm,18.4s,baz=194,slow=40 | | | | | | |
| **KS01** | **Wonju Array Si** | **25.13** | **14** | *eP* | **P** | **04 32 33.3** | **-0.7** |
| **JAY** | **Jayapura** | **25.39** | **126** | P | **P** | **04 32 32.8** | **-3.9** |
| **GSI** | **Gunungsitoli** | **25.55** | **244** | P | P | 04 32 24.9 | -13 |
| **PBSI** | **Pulau Batu** | **25.61** | **241** | P | P | 04 32 26.7 | -12 |
| **SISI** | **Saibi** | **25.63** | **237** | P | P | 04 32 28.1 | -11 |
| **DL2** | **Dalian** | **25.68** | **2** | P | **P** | **04 32 44.0** | **+5.0** |
| DL2 | | | | S | S | 04 37 15.3 | +11 |
| DL2 | | | | pmax | pmax | | |
| | comp=Z,58nm,2.1s | | | | | | |
| DL2 | | | | pmax | pmax | | |
| | comp=Z,560nm,9.8s | | | | | | |
| DL2 | | | | LR | LR | | |
| | comp=N,3μm,16.7s | | | | | | |
| DL2 | | | | LR | LR | | |
| | comp=E,2μm,16.7s | | | | | | |
| DL2 | | | | LR | LR | | |
| | comp=Z,3μm,16.5s | | | | | | |
| **PPSI** | **Pulau Pagai** | **25.74** | **234** | P | P | 04 32 29.3 | -11 |
| **BJT** | **Baijiatuao** | **27.04** | **353** | *eP* | **P** | **04 32 50.4** | **-0.9** |
| BJT | | | | pmax | pmax | | |
| | comp=Z,70nm,1.4s | | | | | | |
| **BJT** | **Baijiatuao** | **27.04** | **353** | *eP* | **P** | **04 32 50.4** | **-0.9** |
| | comp=Z,70nm,1.4s | | | | | | |
| **BJI** | **Beijing** | **27.06** | **353** | P | **P** | **04 32 50.3** | **-1.2** |
| BJI | | | | S | **S** | **04 37 28.4** | **+2.8** |
| BJI | | | | pmax | pmax | | |
| | comp=Z,28nm,1.7s | | | | | | |
| BJI | | | | pmax | pmax | | |
| | comp=Z,180nm,4.0s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,3μm,17.3s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,2μm,19.9s | | | | | | |
| **LZH** | **Lanzhou** | **27.32** | **330** | *i*P | **P** | **04 32 54.3** | **+0.3** |
| LZH | | | | pP | pP | 04 33 06.1 | -1.6 |
| LZH | | | | sP | sP | 04 33 11.5 | -2.6 |
| LZH | | | | PP | **PnPn** | **04 33 42.3** | **+2.0** |
| LZH | | | | PcP | **PcP** | **04 36 07.6** | **-4.9** |
| LZH | | | | S | **S** | **04 37 30.3** | **+0.2** |
| LZH | | | | sS | sS | 04 37 48.8 | -4.4 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,150nm,1.5s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,390nm,4.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,5μm,15.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,2μm,13.3s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,3μm,17.2s | | | | | | |
| **MTN** | **Manton Dam** | **27.89** | **157** | *eP* | **P** | **04 32 58.5** | **-0.6** |
| | comp=Z,26nm,0.8s | | | | | | |
| **MAJO** | **Matsushiro** | **28.22** | **31** | *eP* | **P** | **04 33 00.4** | **-1.5** |
| MAJO | | | | pmax | pmax | | |
| | comp=Z,33nm,1.4s | | | | | | |
| **MAJO** | **Matsushiro** | **28.22** | **31** | *eP* | **P** | **04 33 00.4** | **-1.5** |
| | comp=Z,33nm,1.4s | | | | | | |
| **MJAR** | **Matsushiro Arr** | **28.22** | **31** | P | **P** | **04 32 59.3** | **-2.6** |
| | comp=Z,1.6nm,0.7s,baz=202,slow=9.1,SNR=4.9 | | | | | | |
| MJAR | | | | LR | LR | 04 45 03.4 | |
| | comp=Z,620nm,19.5s,baz=175,slow=38 | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **28.69** | **346** | *eP* | **P** | **04 33 05.8** | **-0.4** |
| HHC | | | | S | **S** | **04 37 46.6** | **-4.9** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,39nm,1.4s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,280nm,11.8s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,3μm,18.2s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,3μm,18.0s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,3μm,18.2s | | | | | | |
| **SNY** | **Shenyang** | **28.71** | **5** | *i*P | P | 04 33 19.4 | +13 |
| SNY | | | | S | S | 04 38 08.8 | +17 |
| SNY | | | | pmax | pmax | | |
| | comp=Z,27nm,1.7s | | | | | | |
| SNY | | | | pmax | pmax | | |
| | comp=Z,280nm,3.9s | | | | | | |
| SNY | | | | LR | LR | | |
| | comp=N,2μm,16.0s | | | | | | |
| SNY | | | | LR | LR | | |
| | comp=E,1μm,18.5s | | | | | | |
| SNY | | | | LR | LR | | |
| | comp=Z,2μm,15.5s | | | | | | |
| **BTO** | **Baotou** | **28.86** | **343** | *eP* | P | 04 33 02.5 | -5.2 |
| **CN2** | **Changchun** | **30.85** | **7** | *eP* | **P** | **04 33 26.6** | **+1.5** |
| CN2 | | | | *es*P | sP | 04 33 43.9 | -1.4 |
| CN2 | | | | *eS* | **S** | **04 38 25.6** | **+0.5** |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.6s | | | | | | |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,200nm,3.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,4μm,22.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,1μm,22.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,2μm,22.0s | | | | | | |
| **LSA** | **Lhasa** | **31.76** | **306** | P | **P** | **04 33 34.8** | **+0.9** |
| LSA | | | | pmax | pmax | | |
| | comp=Z,14nm,1.8s | | | | | | |
| **LSA** | **Lhasa** | **31.76** | **306** | *eP* | **P** | **04 33 35.0** | **+1.1** |
| LSA | | | | pmax | pmax | | |
| | comp=Z,22nm,0.8s | | | | | | |
| **LSA** | **Lhasa** | **31.76** | **306** | *eP* | **P** | **04 33 35.0** | **+1.1** |
| | comp=Z,22nm,0.8s | | | | | | |
| **GTA** | **Gaotai** | **31.90** | **329** | *eP* | **P** | **04 33 34.8** | **+0.2** |
| GTA | | | | pP | pP | 04 33 46.6 | -1.8 |
| GTA | | | | sP | sP | 04 33 52.0 | -2.8 |
| GTA | | | | S | **S** | **04 38 44.3** | **+2.4** |
| GTA | | | | sS | sS | 04 39 05.3 | +0.1 |
| GTA | | | | SS | **SnSn** | **04 40 40.8** | **+6.2** |
| GTA | | | | pmax | pmax | | |
| | comp=Z,28nm,1.6s | | | | | | |
| GTA | | | | pmax | pmax | | |
| | comp=Z,480nm,9.3s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,2μm,17.6s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,2μm,15.7s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,3μm,15.7s | | | | | | |
| **MDJ** | **Mudanjiang** | **32.32** | **12** | P | **P** | **04 33 36.1** | **-1.9** |
| MDJ | | | | pP | pP | 04 33 47.3 | -4.5 |
| MDJ | | | | sP | sP | 04 33 51.4 | -6.8 |
| MDJ | | | | S | **S** | **04 38 46.5** | **-1.6** |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,11nm,1.1s | | | | | | |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,250nm,5.0s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=Z,990nm,24.4s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=Z,920nm,25.6s | | | | | | |
| MDJ | | | | LR | LR | | |
| | comp=Z,1μm,19.5s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **32.49** | **15** | LR | LR | 04 48 26.1 | |
| | comp=Z,1μm,18.4s,baz=179,slow=39 | | | | | | |
| **TAPN** | **Taplejung** | **33.72** | **300** | *eP* | **P** | **04 33 51.3** | **+0.5** |
| | comp=Z,124nm,1.1s | | | | | | |
| **ODAN** | **Odare** | **33.84** | **299** | *eP* | **P** | **04 33 52.1** | **+0.3** |
| | comp=Z,185nm,0.8s | | | | | | |
| **MBWA** | **Marble Bar** | **34.09** | **181** | *eP* | **P** | **04 33 55.9** | **+2.2** |
| | comp=Z,20nm,0.9s | | | | | | |
| **RAMN** | **Ramite** | **34.54** | **299** | *eP* | **P** | **04 33 58.7** | **+0.8** |
| | comp=Z,205nm,0.9s | | | | | | |
| **PMG** | **Port Moresby** | **34.69** | **129** | LR | LR | 04 50 32.9 | |
| | comp=Z,385nm,19.1s,baz=198,slow=40 | | | | | | |
| **PMG** | **Port Moresby** | **34.69** | **129** | *eP* | **P** | **04 33 57.8** | **-1.2** |
| PMG | | | | pmax | pmax | | |
| | comp=Z,42nm,1.1s | | | | | | |
| **PMG** | **Port Moresby** | **34.69** | **129** | *eP* | **P** | **04 33 57.8** | **-1.2** |
| | comp=Z,42nm,1.1s | | | | | | |
| **COEN** | **Coen** | **35.07** | **139** | *eP* | **P** | **04 34 01.2** | **-1.1** |
| | comp=Z,16nm,0.9s | | | | | | |
| **JIRN** | **Jiri** | **35.10** | **300** | *eP* | **P** | **04 34 03.4** | **+0.

ULN **Ulaanbaatar** 36.39 345 *ce*P P 04 34 12.0 -1.4
ULN pmax pmax
comp=Z,57nm,1.7s
ULN **Ulaanbaatar** 36.39 345 *e*P P 04 34 12.6 -0.7
comp=Z,34nm,1.1s
ULN **Ulaanbaatar** 36.39 345 P P 04 34 13.0 -0.3
SNR=17
ULN **Ulaanbaatar** 36.39 345 P P 04 34 13.0 -0.3
SNR=17
ULN P P 04 34 13.0 -0.3
SNR=17
SONM **Songino Array** 36.53 344 P P 04 34 13.8 -0.8
comp=Z,19nm,0.7s,baz=162,slow=9.1,SNR=110
SONM PcP PcP 04 36 36.8 -0.4
comp=Z,0.9nm,0.5s,baz=154,slow=4.0,SNR=5.0
SONM LR LR 04 50 23.6
comp=Z,2μm,18.5s,baz=148,slow=38
SONA1 **Songino Array** 36.54 344 *e*P P 04 34 13.1 -1.6
KLR **Kul'dur** 37.17 12 PcP PcP 04 36 38.0 -0.9
comp=Z,0.2nm,0.7s,baz=144,slow=4.2,SNR=4.0
KLR LR LR 04 51 31.1
comp=Z,208nm,19.4s,baz=200,slow=39
KLR **Kul'dur** 37.17 12⇓ *i*P P 04 34 17.6 -2.2
HABR **Khabarovsk** 37.25 16 *ce*P P 04 34 15.5 -4.9
HABR *e**SP pP 04 34 29.3 -5.1
HABR *e* 04 35 40.1
HABR *e* 04 36 35.9
HABR *eS* **S** **04 39 59.3 -4.4**
HABR *e* 04 40 24.3
HABR *e* 04 44 26.7
HABR pmax pmax
comp=N,65nm,1.9s
HABR pmax pmax
comp=E,84nm,1.9s
HABR pmax pmax
comp=Z,118nm,1.9s
HABR MLR MLR
comp=Z,587nm,17.0s
KOLN **Koldanda** 37.33 299 *e*P P 04 34 21.8 +0.1
comp=Z,121nm,0.8s
PYUN **Piuthan** 37.94 299 *e*P P 04 34 27.2 +0.3
comp=Z,389nm,1.1s
AS31 **Alice Springs** 38.86 160 *e*P P 04 34 34.6 +0.2
comp=Z,12nm,0.6s
AS31 *eS* **S** **04 40 32.8 +4.1**
ASAR **Alice Springs** 38.86 160 P P 04 34 34.6 +0.2
comp=Z,18nm,0.6s,baz=339,slow=7.1,SNR=354
ASAR S **S** **04 40 28.9 +0.2**
comp=Z,4.7nm,1.1s,baz=325,slow=11,SNR=7.8
ASAR LR LR 04 53 04.0
comp=Z,321nm,19.0s,baz=344,slow=40
AS01 **Alice Springs** 38.88 160 *e*P P 04 34 34.2 -0.3
AS01 *eS* **S** **04 40 30.3 +1.4**
PALK **Pallekele** 39.55 266 *e*P P 04 34 41.5 +1.2
PALK pmax pmax
comp=Z,18nm,0.8s
PALK **Pallekele** 39.55 266 *e*P P 04 34 41.5 +1.2
comp=Z,18nm,0.8s
ZAK **Zakamensk** 39.71 343 *e*P P 04 34 39.5 -1.7
ZAK pmax pmax
comp=Z,10.0nm,1.2s
MOY **Mondy** 41.53 342 *e*P P 04 34 56.4 +0.2
WMQ **Urumqi** 41.53 324 P P 04 34 57.8 +1.5
WMQ pP pP 04 35 10.5 +0.1
WMQ sP sP 04 35 15.3 -1.4
WMQ S **S** **04 41 11.3 +3.0**
WMQ SS **SS** **04 44 12.1 -2.5**
WMQ pmax pmax
comp=Z,80nm,2.1s
WMQ pmax pmax
comp=Z,470nm,3.9s
CTAO **Charters Tower** 41.63 142 *e*P P 04 34 57.7 +0.4
CTAO pmax pmax
comp=Z,35nm,1.1s
CTAO **Charters Tower** 41.63 142 *e*P P 04 34 57.7 +0.4
comp=Z,35nm,1.1s
NKL **Nikolayevsk** 43.03 18 *e*P P 04 35 04.0 -4.3
NKL pmax pmax
comp=Z,2.0nm,15.0s
NKL pmax pmax
comp=N,1μm,15.0s
NKL pmax pmax
comp=E,1μm,15.0s
HVS **Khovu-Aksy** 43.67 336 *i*P P 04 35 12.9 -0.7
HVS pmax pmax
comp=Z,3.0nm,0.2s
FORT **Forrest** 44.27 171 *e*P P 04 35 18.9 +0.5
BOD **Bodaibo** 44.86 355 *e*P P 04 35 19.0 -3.9
BOD pmax pmax
comp=Z,15nm,1.5s
DGZ **Jazzator, Alta** 45.42 330 *ci*P P 04 35 28.2 +0.6
DGZ pmax pmax
comp=Z,21nm,1.8s
NWAO **Narrogin (SRO)** 45.91 184 *e*P P 04 35 32.7 +1.2
NWAO pmax pmax
comp=Z,30nm,0.6s
NWAO **Narrogin (SRO)** 45.91 184 *e*P P 04 35 32.7 +1.2
comp=Z,30nm,0.6s
MK01 **Makanchi Array** 46.34 324 *e*P P 04 35 34.5 -0.3
MK31 **Makanchi Array** 46.36 324 *e*P P 04 35 35.5 +0.6
MK31 **Makanchi Array** 46.36 324 *e*P P 04 35 35.5 +0.6
MKAR **Makanchi Array** 46.36 324 P P 04 35 35.5 +0.6
comp=Z,16nm,0.9s,baz=124,slow=9.0,SNR=83
MKAR LR LR 04 56 29.9
comp=Z,2μm,18.5s,baz=114,slow=38
MKAR **Makanchi Array** 46.36 324 *e*P P 04 35 35.5 +0.6
MKAR pmax pmax
comp=Z,121nm,0.9s
MKAR **Makanchi Array** 46.36 324 *e*P P 04 35 35.5 +0.6
comp=Z,121nm,0.9s
MAKZ **Makanchi** 46.55 324 *e*P P 04 35 37.1 +0.7
MAKZ pmax pmax
comp=Z,85nm,1.4s
MAKZ **Makanchi** 46.55 324 *e*P P 04 35 37.1 +0.7
comp=Z,85nm,1.4s
KSH **Kashi** 47.12 312 P P 04 35 43.5 +2.4
KSH pP pP 04 35 55.6 +0.2
KSH PcP **PcP** **04 37 13.4 +1.1**
KSH PP **PP** **04 37 34.5 +2.1**
KSH PcS **PcS** **04 41 07.5 0.0**
KSH S **S** **04 42 33.5 +3.8**
KSH ScS **ScS** **04 45 30.5 -0.3**
KSH SS **SS** **04 45 54.6 -2.8**
KSH pmax pmax
comp=Z,28nm,1.3s
KSH pmax pmax
comp=Z,200nm,3.4s
KSH LR LR
comp=Z,540nm,14.3s
KSH LR LR
comp=Z,590nm,13.0s
KSH LR LR
comp=Z,590nm,14.5s
SKR **Severo-Kuril's** 47.32 30 *e*P P 04 35 48.1 +5.8
SKR *e* 04 37 36.8
SKR *e* 04 45 40.1
SKR MLR MLR
comp=Z,700nm,19.0s
SKR MLR MLR
comp=Z,600nm,19.0s
BBOO **Buckleboo** 48.05 162 *e*P P 04 35 47.9 -0.3
comp=Z,37nm,1.0s
EIDS **Eidsvold** 48.52 142 *e*P P 04 35 52.2 +0.2
comp=Z,59nm,1.2s
KZA **Kyzart** 48.58 315 P P 04 35 54.2 +1.5
SNR=11
KBK **Karagaybulak** 49.01 316 P P 04 35 57.2 +1.4
SNR=15
STKA **Stephens Creek** 49.12 156 P P 04 35 56.0 -0.4
comp=Z,12nm,0.9s,baz=342,slow=7.6,SNR=17
STKA **Stephens Creek** 49.12 156 *e*P P 04 35 56.5 +0.1
STKA pmax pmax
comp=Z,6.0nm,0.9s
STKA **Stephens Creek** 49.12 156 *e*P P 04 35 56.5 +0.1
comp=Z,5.6nm,0.9s
UCH **Uchtor** 49.15 315 P P 04 35 58.6 +1.5
SNR=28
YAK **Yakutsk** 49.27 6 *e*P P 04 35 55.1 -2.0
YAK *e**PP **sP** **04 36 19.0 +1.2**
YAK *e* 04 37 13.0
YAK *e* 04 37 52.2
YAK *eS* **S** **04 42 58.8 -0.3**
YAK *e* 04 45 38.2
YAK pmax pmax
comp=Z,14nm,0.9s
YAK pmax pmax
comp=N,4.0nm,1.2s
YAK pmax pmax
comp=E,3.0nm,1.1s
YAK pmax pmax
comp=Z,155nm,3.7s
YAK pmax pmax
comp=E,152nm,4.6s
YAK pmax pmax
comp=N,85nm,3.8s
YAK smax smax
comp=E,287nm,4.4s
YAK smax smax
comp=N,102nm,3.8s
YAK MLR MLR
comp=Z,1μm,18.0s
YAK MLR MLR
comp=N,1μm,19.0s
YAK MLR MLR
comp=E,375nm,18.0s
YAK **Yakutsk** 49.27 6 *e*P P 04 35 55.0 -2.0
CHMS **Chumysh** 49.28 316 P P 04 35 58.3 +0.7
SNR=11
FRU **Bishkek** 49.31 316 *i*P P 04 35 59.0 +1.2
FRU *e* 04 36 14.0
FRU pmax pmax
comp=Z,70nm,2.2s
FRU pmax pmax
comp=E,800nm,18.0s
AAK **Ala-Archa** 49.31 316 *e*P P 04 35 58.7 +0.6
AAK pmax pmax
comp=Z,33nm,1.4s
AAK **Ala-Archa** 49.31 316 P P 04 35 59.0 +0.9
SNR=9.0
AAK **Ala-Archa** 49.31 316 *e*P P 04 35 58.7 +0.6
comp=Z,33nm,1.4s
AAK **Ala-Archa** 49.31 316 P P 04 35 59.5 +1.4
SNR=8.3
AAK **Ala-Archa** 49.31 316 P P 04 35 59.5 +1.4
SNR=8.3
AAK P P 04 35 59.5 +1.4
SNR=8.3
ZAA0 **Zalesovo Array** 49.46 333 *e*P P 04 35 58.1 -0.6
comp=Z,32nm,1.1s
ZALV **Zalesovo Beam** 49.46 333 P P 04 35 58.0 -0.7
comp=Z,12nm,0.4s,baz=125,slow=6.4,SNR=50
ZALV LR LR 04 58 07.1
comp=Z,2μm,18.1s,baz=78,slow=37
ZALV **Zalesovo Beam** 49.46 333 *e*P P 04 35 57.6 -1.1
ZALV **Zalesovo Beam** 49.46 333 *e*P P 04 35 57.5 -1.1
USP **Ospenovka** 49.55 316 P P 04 36 00.5 +0.8
SNR=11
PETK **Petropavlovsk-** 49.62 29 P P 04 35 58.6 -1.4
comp=Z,3.8nm,0.6s,baz=195,slow=8.9,SNR=4.6
PETK LR LR 04 59 20.9
comp=Z,782nm,19.0s,baz=235,slow=39
PETK **Petropavlovsk-** 49.62 29 *e*P P 04 35 59.5 -0.5
PETK **Petropavlovsk-** 49.62 29 *e*P P 04 35 59.5 -0.5
AML **Almayashu** 49.68 315 P P 04 36 02.4 +1.2
SNR=17
EKS2 **Erkin-Say** 49.81 315 P P 04 36 02.6 +0.8
SNR=8.9
KURK **Kurchatov** 50.54 327 *e*P P 04 36 07.5 +0.5
KURK pmax pmax
comp=Z,163nm,0.8s
KURK **Kurchatov** 50.54 327 *e*P P 04 36 07.5 +0.5
comp=Z,163nm,0.8s
KURK **Kurchatov** 50.54 327 P P 04 36 07.7 +0.8
SNR=63
KURK **Kurchatov** 50.54 327 P P 04 36 07.7 +0.8
SNR=63
MNAS **Manas** 50.63 315 P P 04 36 08.7 +0.7
MNAS pmax pmax
comp=Z,39nm,1.3s
NVS **Novosibirsk** 50.74 333 *e*P P 04 36 07.7 -0.7
NVS pmax pmax
comp=Z,40nm,1.2s
NVS pmax pmax
comp=N,27nm,1.3s
NVS pmax pmax
comp=E,30nm,1.1s
KBL **Kabul** 51.04 304 *e*P P 04 36 11.9 +0.6
KBL pmax pmax
comp=Z,105nm,2.0s
KBL **Kabul** 51.04 304 *e*P P 04 36 11.9 +0.6
comp=Z,104nm,2.0s
KK31 **Karatay Array** 52.22 315 *i*P P 04 36 19.4 -0.3
KK31 pmax pmax
comp=Z,23nm,1.0s
KKAR **Karatay Array** 52.22 315 *e*P P 04 36 20.1 +0.4
KKAR pmax pmax
comp=Z,109nm,0.9s
KKAR **Karatay Array** 52.22 315 *e*P P 04 36 20.1 +0.4
comp=Z,109nm,0.9s
ARMA **Armidale** 52.67 146 *e*P P 04 36 23.6 +0.3
comp=Z,54nm,1.2s
SEY **Seymchan** 54.61 17 P P 04 36 36.0 -0.9
comp=Z,4.0nm,0.9s,baz=215,slow=6.2,SNR=7.4
SEY **Seymchan** 54.61 17 *ce*P P 04 36 35.7 -1.2
CAN **Canberra** 55.25 152 *e*P P 04 36 42.2 +0.3
CAN pmax pmax
comp=Z,38nm,1.2s
CAN **Canberra** 55.25 152 *e*P P 04 36 42.2 +0.3
comp=Z,38nm,1.2s
BVA0 **Borovoye Array** 56.12 326 *i*P P 04 36 46.9 -1.0
BVA0 pmax pmax
comp=Z,60nm,1.2s
BRVK **Borovoye** 56.19 326 *ce*P P 04 36 47.9 -0.5
BRVK pmax pmax
comp=Z,304nm,1.2s
BRVK **Borovoye** 56.19 326 *e*P P 04 36 48.2 -0.2
comp=Z,103nm,1.1s
BRVK **Borovoye** 56.19 326 P P 04 36 48.9 +0.5
SNR=39
BRVK **Borovoye** 56.19 326 P P 04 36 48.9 +0.5
SNR=39
BRVK P P 04 36 48.9 +0.5
SNR=39
DZM **Mont Dzumac** 57.06 127 *e*P P 04 37 00.0 +4.8
comp=Z,69nm,1.2s
DZM **Mont Dzumac** 57.06 127 *e*P P 04 36 54.4 -0.8
comp=Z,11nm,0.7s
TIXI **Tiksi** 58.70 3 P P 04 37 03.5 -2.2
comp=Z,14nm,0.8s,baz=180,slow=5.8,SNR=16
TIXI **Tiksi** 58.70 3 *e*P P 04 37 03.1 -2.7
TIXI pmax pmax
comp=Z,11nm,0.5s
TIXI **Tiksi** 58.70 3 *e*P P 04 37 03.1 -2.7
comp=Z,10nm,0.5s
GEYT **Alibeck** 60.29 306 P P 04 37 18.6 +1.1
comp=Z,26nm,1.0s,baz=114,slow=3.6,SNR=41
AB31 **Akbulak array** 61.02 319 P P 04 37 21.2 -0.9
AB31 pmax pmax
comp=Z,14nm,0.7s
ABKAR **Akbulak array** 61.02 319 *e*P P 04 37 22.2 +0.1
comp=Z,127nm,0.7s
HATD **Hatta, Dubai** 61.48 291 P P 04 37 25.3 -0.4
BILL **Bilibino** 62.30 18⇑ *e*P P 04 37 28.7 -1.7
BILL *e* 04 39 45.1
BILL pmax pmax
comp=Z,16nm,0.9s
BILL MLR MLR
comp=Z,743nm,18.0s
AKTO **Aktyubinsk** 62.51 320 P P 04 37 31.4 -0.7
AKTO pmax pmax
comp=Z,35nm,1.1s
SVE **Sverdlovsk** 62.76 328 *d*P P 04 37 33.6 0.0
SVE pmax pmax
comp=Z,82nm,1.5s
ARU **Arti** 63.73 327 *c*P P 04 37 39.2 -0.9
ARU 04 38 08.7
ARU S **S** **04 46 13.3 +2.7**
ARU SS **SS** **04 50 12.9 -6.1**
ARU pmax pmax
comp=Z,57nm,1.7s
ARU MLR MLR
comp=Z,473nm,16.0s
ARU **Arti** 63.73 327 *e*P P 04 37 39.2 -0.9
comp=Z,35nm,1.1s
MSVF **Nonsavu** 64.56 117 *e*P P 04 37 45.6 -0.6
MSVF pmax pmax
comp=Z,19nm,1.1s
MSVF **Nonsavu** 64.56 117 *e*P P 04 37 45.6 -0.6
comp=Z,19nm,1.1s
MAK **Makhachkala** 68.73 311 *e*P P 04 38 04.0 -8.3
MAK *eS* S 04 47 00.7 -11
MAK pmax pmax
comp=Z,133nm,1.2s
GROC **Groznyy** 69.99 311 *e*P P 04 38 20.0 -0.1
GROC *e* 04 38 42.0
GROC pmax pmax
comp=Z,15nm,0.6s
GNI **Garni** 70.79 308 *i*P P 04 38 26.3 +1.1
SNR=12
GNI **Garni** 70.79 308 *ci*P P 04 38 26.4 +1.1
GNI pmax pmax
comp=Z,249nm,1.7s
GNI **Garni** 70.79 308 *e*P P 04 38 26.5 +1.1
comp=Z,91nm,1.4s
GNI **Garni** 70.79 308 P P 04 38 26.4 +1.1
SNR=13
GNI **Garni** 70.79 308 P P 04 38 26.4 +1.1
SNR=13
GNI P P 04 38 26.4 +1.1
SNR=13
RAYN **Ar Rayn** 71.25 291 *e*P P 04 38 28.9 +0.6
comp=Z,49nm,1.3s
GOF **Gofitskoye** 71.97 313⇑ *e*P P 04 38 32.1 0.0
KBZ **Khabaz** 72.10 312 P P 04 38 33.0 +0.2
comp=Z,14nm,1.0s,baz=86,slow=5.2,SNR=20
KBZ LR LR 05 16 02.6
comp=Z,324nm,18.4s,baz=72,slow=40
NEY **Neytrino** 72.23 311⇑ *i*P P 04 38 35.2 +1.2
NEY pmax pmax
comp=Z,1.0nm,0.9s
KIV **Kislovodsk** 72.24 312 *i*P P 04 38 34.2 +0.3
SNR=6.5
KIV **Kislovodsk** 72.24 312 *ci*P P 04 38 33.8 -0.1
KIV *e* 04 41 17.6
KIV pmax pmax
comp=Z,27nm,0.9s
KIV **Kislovodsk** 72.24 312 *e*P P 04 38 34.6 +0.7
comp=Z,44nm,1.0s
KIV **Kislovodsk** 72.24 312 P P 04 38 35.1 +1.2
SNR=9.5
KIV **Kislovodsk** 72.24 312 P P 04 38 35.1 +1.2
SNR=9.5
KIV P P 04 38 35.1 +1.2
SNR=9.5
VRH **Novokhopyorsk** 72.84 320 *e*P P 04 38 35.9 -1.2
VRH pmax pmax
comp=Z,60nm,0.9s
LBZ **Lake Benmore** 72.89 145 *e*P P 04 38 38.1 +0.6
comp=Z,68nm,0.9s
ARTV **Artvin** 72.90 309 *e*P P 04 38 39.3 +1.3
comp=Z,28nm,1.6s
ODZ **Otahua Downs** 73.55 145 *e*P P 04 38 41.1 -0.3
comp=Z,71nm,0.9s
BKZ **Black Stump Fm** 73.66 138 *e*P P 04 38 42.0 -0.2
comp=Z,23nm,0.9s
MARD **Mardin** 74.03 305 *e*P P 04 38 46.0 +1.4
comp=Z,134nm,1.8s
KLMR **Klimovskoe** 74.22 330 *e*P P 04 38 41.2 -3.9
KLMR pmax pmax
comp=Z,73nm,1.5s
VSR **Storozhevoye** 74.45 320 *e*P P 04 38 45.5 -1.1
VSR pmax pmax
comp=Z,80nm,1.7s
LPSR **Galich'ya Gora** 74.56 321 *e*P P 04 38 46.5 -0.7
LPSR pmax pmax
comp=Z,50nm,0.9s
TMCR **Tamitsa** 74.98 333 *e*P P 04 38 47.8 -1.6
TMCR pmax pmax
comp=Z,26nm,1.0s
MOS **Moscow** 75.24 325 *e*P P 04 38 49.7 -1.3
MOS pmax pmax
comp=Z,62nm,1.1s
OBN **Obninsk** 75.86 324⇑ *i*P P 04 38 53.5 -1.1
OBN *e* 04 41 41.6
OBN *eS* **S** **04 48 37.8 +5.0**
OBN *eSS* **SS** **04 53 33.8 +8.3**
OBN pmax pmax
comp=Z,94nm,1.6s
OBN MLR MLR
comp=Z,549nm,17.0s
IMAR **Indian Mountai** 76.38 25 *e*P P 04 38 56.4 -1.0
IMAR *e*PcP **PcP** **04 39 07.2 -1.8**
TOKA **Tokat** 77.09 309 *e*P P 04 39 03.1 +1.1
comp=Z,33nm,1.2s
BPAW **Bear Paw Mtn.** 77.65 27 *e*P P 04 39 04.1 -0.5
comp=Z,55nm,1.4s
MLY **Manley** 77.68 26 *e*P P 04 39 04.5 -0.3
comp=Z,88nm,2.0s
COLD **Coldfoot** 77.73 23 *e*P P 04 39 04.1 -0.8
SIM **Simferopol'** 78.29 314 *e*P P 04 39 08.3 -0.2
SIM pmax pmax
comp=Z,47nm,1.0s
MCK **McKinley** 78.59 27 *e*P P 04 39 08.5 -1.3
MCK **McKinley** 78.59 27 *e*P P 04 39 08.5 -1.3
MDM **Murphy Dome** 78.75 26 *e*P P 04 39 10.3 -0.3
MDM *e*pP **PcP** **04 39 21.2 +1.8**
COLA **College** 78.92 26 *e*P P 04 39 10.0 -1.5
COLA pmax pmax
comp=Z,12nm,1.1s
COLA **College** 78.92 26 *e*P P 04 39 10.0 -1.5
comp=Z,12nm,1.1s
BR131 **Keskin Array S** 79.33 308 *e*P P 04 39 14.7 +0.2
BRTR **Keskin Array B** 79.33 308 P P 04 39 14.5 0.0
comp=Z,3.7nm,0.8s,baz=111,slow=5.4,SNR=16
BRTR LR LR 05 20 29.8
comp=Z,160nm,19.6s,baz=67,slow=40
IL1 **Eielson Array** 79.34 26 *e*P P 04 39 11.0 -2.9
ILAR **Eielson Array** 79.34 26 P P 04 39 11.5 -2.4
comp=Z,1.3nm,0.7s,baz=279,slow=4.0,SNR=16
ILAR LR LR 05 18 47.1
comp=Z,252nm,18.0s,baz=304,slow=39
ARCES **ARCESS Array B** 79.53 339 P P 04 39 14.3 -0.5
comp=Z,3.3nm,0.7s,baz=77,slow=6.6,SNR=16
ARCES LR LR 05 18 19.0
comp=Z,956nm,18.1s,baz=67,slow=38
ANTO **Ankara** 79.95 309 *e*P P 04 39 16.8 -1.0
ANTO pmax pmax
comp=Z,234nm,1.7s
ANTO **Ankara** 79.95 309 *e*P P 04 39 16.8 -1.0
comp=Z,234nm,1.7s
BR231 **Keskin MP Arra** 79.97 309 *e*P P 04 39 15.4 -2.6
CSS **Mathiatis** 80.29 304 *e*P P 04 39 19.5 -0.1
comp=Z,11nm,1.1s
FINES **FINESS Array B** 80.67 331 P P 04 39 20.6 -0.5
comp=Z,3.3nm,0.8s,baz=74,slow=5.1,SNR=11
FINES LR LR 05 18 24.1
comp=Z,1μm,19.1s,baz=72,slow=38
AKASG **Malin Array Be** 80.75 320 P P 04 39 20.8 -0.9
comp=Z,12nm,1.0s,baz=65,slow=5.8,SNR=36
AKASG LR LR 05 16 24.2
comp=Z,299nm,19.5s,baz=40,slow=36
KIEV **Kiev** 80.76 320⇓ *e*P P 04 39 20.4 -1.4
KIEV pmax pmax
comp=Z,29nm,1.3s
KIEV **Kiev** 80.76 320 *e*P P 04 39 20.1 -1.7
comp=Z,32nm,1.3s
VSU **Vasula** 80.87 328⇓ *i*P P 04 39 21.7 -0.5
VSU pmax pmax
comp=Z,161nm,1.2s
IDID **Didziasalis** 81.43 325 *e*P P 04 39 24.6 -0.6
IDID IAmb IAmb 04 39 26.5
comp=Z,16nm,1.2s
NACGM **Naroch** 81.48 324 *e* P 04 39 24.0 -1.5
BOLV **Bolvadin** 81.55 308 *e*P P 04 39 27.2 +0.8
comp=Z,86nm,1.2s
IZAR **Zarasai** 81.63 325 *e*P P 04 39 25.6 -0.7
IZAR IAmb IAmb 04 39 27.4
comp=Z,20nm,1.2s
IIGN **Ignalina** 81.72 325 *e*P P 04 39 26.0 -0.7
IIGN IAmb IAmb 04 39 28.1
comp=Z,11nm,1.1s
SORM **Soroca** 81.75 317⇓ *i*P P 04 39 26.1 -1.0
SORM **Soroca** 81.75 317 ⇓P P 04 39 26.1 -1.0
EGAK **Eagle** 81.76 25 *e*P P 04 39 25.9 -0.9
comp=Z,32nm,1.5s
CFR **Carcaliu** 82.44 315⇑ *i*P P 04 39 30.0 -0.8
CFR **Carcaliu** 82.44 315 ⇑P P 04 39 30.0 -0.8
TESR **Tescani** 83.20 316⇓ *i*P P 04 39 34.5 -0.2
PRAR **RASCA** 83.31 317⇑ *i*P P 04 39 34.4 -0.9
MANT **Manisa** 83.44 308 *e*P P 04 39 36.9 +0.6
comp=Z,192nm,1.3s
KMBO **Kilima Mbogo** 83.66 267 P P 04 39 39.7 +1.7
comp=Z,3.0nm,0.7s,baz=83,slow=5.6,SNR=8.8
KMBO LR LR 05 15 29.1
comp=Z,207nm,19.6s,baz=92,slow=34
KMBO **Kilima Mbogo** 83.66 267 *ce*P P 04 39 40.5 +2.5
KMBO pmax pmax
comp=Z,3.0nm,0.7s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| KMBO | Kilima Mbogo | 83.66 | 267 | *e*P | | P | 04 39 39.5 | +1.5 |
| | comp=Z,40nm,1.8s | | | | | | | |
| INK | Inuvik | 83.69 | 21 | P | | P | 04 39 35.3 | -1.4 |
| | comp=Z,4.3nm,0.8s,baz=294,slow=6.0,SNR=18 | | | | | | | |
| SUW | Suwalki | 83.73 | 324 | *e*P | | P | 04 39 36.5 | -0.7 |
| SUW | Suwalki | 83.73 | 324 | *e*P | | P | 04 39 36.5 | -0.7 |
| SULR | | 83.85 | 314 | ⇓*i*P | | P | 04 39 38.5 | +0.4 |
| MLR | Muntele Rosu | 83.89 | 315 | ⇓*i*P | | P | 04 39 38.4 | -0.1 |
| MLR | Muntele Rosu | 83.89 | 315 | ⇓P | | P | 04 39 38.4 | -0.1 |
| MLR | Muntele Rosu | 83.89 | 315 | *e*P | | P | 04 39 38.4 | +0.4 |
| BURAR | Bucovina Array | 83.92 | 317 | ⇑*i*P | | P | 04 39 37.8 | -0.9 |
| BUR04 | Bucovina Ar. S | 83.93 | 317 | *e*P | | P | 04 39 37.7 | -0.9 |
| BUR08 | Bucovina Ar. S | 83.93 | 317 | *e*P | | P | 04 39 38.7 | +0.2 |
| DOPR | Dopca | 84.17 | 316 | ⇑*i*P | | P | 04 39 39.2 | -0.5 |
| LVV | L'vov | 84.19 | 320 | *e*P | | P | 04 39 38.3 | -1.4 |
| VOIR | | 84.52 | 315 | ⇑*i*P | | P | 04 39 40.7 | -0.9 |
| VOIR | | 84.52 | 315 | ⇑P | | P | 04 39 40.7 | -0.9 |
| ARCR | ARCALIA | 84.61 | 317 | ⇓*i*P | | P | 04 39 42.7 | +0.8 |
| HUMR | Humele | 84.78 | 314 | ⇑*i*P | | P | 04 39 42.7 | -0.1 |
| ARR | Arges | 84.82 | 315 | ⇓*i*P | | P | 04 39 42.6 | -0.5 |
| BMR | Baia Mare | 85.04 | 318 | ⇓*i*P | | P | 04 39 43.0 | -1.0 |
| BMR | Baia Mare | 85.04 | 318 | ⇓P | | P | 04 39 43.1 | -1.0 |
| KWP | Kalwaria Pacla | 85.07 | 320 | *e*P | | P | 04 39 44.2 | 0.0 |
| KWP | Kalwaria Pacla | 85.07 | 320 | *e*P | | P | 04 39 44.2 | 0.0 |
| KARP | Karpathos | 85.14 | 305 | *e*P | | P | 04 39 45.2 | +0.4 |
| CJR | Cluj-Napoca | 85.21 | 317 | ⇓*i*P | | P | 04 39 45.5 | +0.5 |
| CJR | Cluj-Napoca | 85.21 | 317 | ⇓P | | P | 04 39 45.5 | +0.5 |
| LOT | Lotru | 85.40 | 315 | ⇑*i*P | | P | 04 39 45.8 | -0.2 |
| TRPA | Tarpa | 85.55 | 318 | ⇓*e*PP | | P | 04 39 46.4 | -0.2 |
| UZH | Uzhgorod | 85.59 | 319 | ⇓*i*P | | P | 04 39 46.6 | -0.1 |
| BEL | Belsk | 85.68 | 322 | *e*P | | P | 04 39 47.3 | +0.2 |
| BEL | Belsk | 85.68 | 322 | *e*P | | P | 04 39 47.3 | +0.2 |
| DRGR | | 85.78 | 317 | ⇑*i*P | | P | 04 39 47.7 | -0.1 |
| DRGR | | 85.78 | 317 | ⇑P | | P | 04 39 47.7 | -0.1 |
| DEV | Deva | 85.88 | 316 | ⇓*i*P | | P | 04 39 48.3 | +0.1 |
| DEV | Deva | 85.88 | 316 | ⇓P | | P | 04 39 48.3 | +0.1 |
| CRVS | Cervenica-Dubn | 86.05 | 319 | *e*P | | P | 04 39 49.6 | +0.6 |
| CRVS | Cervenica-Dubn | 86.05 | 319 | *e*P | | P | 04 39 49.6 | +0.6 |
| STHS | Stebnicka Huta | 86.05 | 320 | *e*P | | P | 04 39 50.0 | +1.0 |
| STHS | | | | | pmax | pmax | | |
| | comp=Z,19nm,1.2s | | | | | | | |
| STHS | Stebnicka Huta | 86.05 | 320 | *e*P | | P | 04 39 50.0 | +1.0 |
| HERR | Herculane | 86.46 | 315 | ⇑*i*P | | P | 04 39 51.1 | -0.1 |
| VTS | Vitosha | 86.49 | 313 | ⇑*i*P | | P | 04 39 51.0 | -0.5 |
| VTS | Vitosha | 86.49 | 313 | ⇑P | | P | 04 39 51.0 | -0.5 |
| VTS | Vitosha | 86.49 | 313 | *e*P | | P | 04 39 51.4 | -0.2 |
| SIRR | Siria | 86.61 | 317 | ⇓*i*P | | P | 04 39 51.8 | -0.1 |
| NIE | Niedzica | 86.64 | 320 | *e*P | | P | 04 39 52.5 | +0.5 |
| NIE | Niedzica | 86.64 | 320 | *e*P | | P | 04 39 52.5 | +0.5 |
| OJC | Ojcow | 86.73 | 321 | *e*P | | P | 04 39 52.4 | 0.0 |
| OJC | Ojcow | 86.73 | 321 | *e*P | | P | 04 39 52.4 | 0.0 |
| OJC | Ojcow | 86.73 | 321 | *e*P | | P | 04 39 51.2 | -1.1 |
| KECS | Kecovo | 86.78 | 319 | *e*P | | P | 04 39 52.3 | -0.3 |
| KECS | | | | | pmax | pmax | | |
| | comp=Z,21nm,1.4s | | | | | | | |
| KECS | Kecovo | 86.78 | 319 | *e*P | | P | 04 39 52.3 | -0.3 |
| BZS | Buzias | 86.82 | 316 | ⇓*i*P | | P | 04 39 51.6 | -1.3 |
| BZS | Buzias | 86.82 | 316 | ⇓P | | P | 04 39 51.6 | -1.3 |
| MDVR | Moldovita | 86.97 | 315 | ⇑*i*P | | P | 04 39 53.6 | -0.1 |
| LANS | Liptovska Anna | 87.24 | 320 | *e*P | | P | 04 39 56.1 | +1.2 |
| LANS | Liptovska Anna | 87.24 | 320 | *e*P | | P | 04 39 56.1 | +1.2 |
| VAY | Valandovo | 87.27 | 312 | *i* P | | P | 04 39 54.2 | -0.9 |
| PSZ | Piszkesteto | 87.32 | 319 | ⇓*i*P | | P | 04 39 52.9 | -2.5 |
| PSZ | Piszkesteto | 87.32 | 319 | ⇓P | | P | 04 39 52.9 | -2.5 |
| PSZ | Piszkesteto | 87.32 | 319 | ⇓*e*PP | | P | 04 39 55.2 | -0.2 |
| PSZ | Piszkesteto | 87.32 | 319 | *e*P | | P | 04 39 54.4 | -0.9 |
| | comp=Z,28nm,1.3s | | | | | | | |
| NB2 | NORSAR Subarra | 87.66 | 333 | P | | P | 04 39 54.8 | -1.9 |
| | comp=Z,12nm,1.1s,baz=69,slow=4.6 | | | | | | | |
| NB2 | NORSAR Subarra | 87.66 | 333 | P | | P | 04 39 54.8 | -1.9 |
| | baz=69,slow=4.6 | | | | | | | |
| NOA | NORSAR Array B | 87.66 | 333 | P | | P | 04 39 55.2 | -1.4 |
| | comp=Z,2.2nm,0.7s,baz=68,slow=4.6,SNR=5.9 | | | | | | | |
| NOA | | | | | LR | LR | 05 22 00.0 | |
| | comp=Z,537nm,18.8s,baz=75,slow=38 | | | | | | | |
| VYHS | Vyhne | 87.83 | 319 | *e*P | | P | 04 39 57.5 | -0.2 |
| VYHS | | | | | pmax | pmax | | |
| | comp=Z,26nm,1.8s | | | | | | | |
| VYHS | Vyhne | 87.83 | 319 | *e*P | | P | 04 39 57.5 | -0.2 |
| OKC | Ostrava-Krasne | 87.86 | 321 | *e*P | | P | 04 39 58.2 | +0.4 |
| OKC | Ostrava-Krasne | 87.86 | 321 | *e*P | | P | 04 39 58.2 | +0.4 |
| SKO | Skopje | 87.92 | 313 | *i* P | | P | 04 39 57.8 | -0.4 |
| KRUS | Krusevo | 88.22 | 312 | *i* P | | P | 04 39 58.3 | -1.6 |
| MORC | Moravsky Berou | 88.25 | 321 | ⇓*i*P | | P | 04 39 58.6 | -1.1 |
| MORC | Moravsky Berou | 88.25 | 321 | ⇓P | | P | 04 39 58.6 | -1.1 |
| MORC | Moravsky Berou | 88.25 | 321 | *e*P | | P | 04 39 58.9 | -0.8 |
| KRLC | Kraliky | 88.62 | 321 | *e*P | | P | 04 40 01.8 | +0.3 |
| KRLC | Kraliky | 88.62 | 321 | *e*P | | P | 04 40 01.8 | +0.3 |
| KSP | Ksiaz | 88.67 | 322 | *e*P | | P | 04 40 01.6 | 0.0 |
| KSP | Ksiaz | 88.67 | 322 | *e*P | | P | 04 40 01.6 | 0.0 |
| DPC | Dobruska-Polom | 88.81 | 322 | *e*P | | P | 04 40 02.4 | +0.1 |
| DPC | | | | *ex* | | x | 04 40 13.4 | |
| DPC | Dobruska-Polom | 88.81 | 322 | *e*P | | P | 04 40 02.4 | +0.1 |
| PVCC | | | | | AMS | AMS | 05 25 20.0 | |
| | comp=Z,700nm,19.7s | | | | | | | |
| PVCC | Panska Ves | 89.80 | 322 | *e*P | | P | 04 40 07.2 | +0.3 |
| PVCC | | | | | MLR | MLR | | |
| | comp=Z,700nm,19.7s | | | | | | | |
| GOPC | GO Pecny, Ondr | 89.89 | 322 | *e*P | | P | 04 40 07.9 | +0.5 |
| GOPC | GO Pecny, Ondr | 89.89 | 322 | *e*P | | P | 04 40 07.9 | +0.5 |
| CONA | Conrad Observa | 89.90 | 319 | *i* PcP | | P | 04 40 07.8 | +0.3 |
| | comp=Z,8.4nm,1.3s | | | | | | | |
| PRU | Pruhonice | 90.01 | 322 | *e*P | | P | 04 40 08.2 | +0.3 |
| PRU | | | | | AMS | AMS | 05 24 30.0 | |
| | comp=Z,900nm,20.4s | | | | | | | |
| PRU | Pruhonice | 90.01 | 322 | *e*P | | P | 04 40 08.2 | +0.3 |
| PRU | | | | | MLR | MLR | | |
| | comp=Z,900nm,20.4s | | | | | | | |
| BRG | Berggiesshubel | 90.05 | 323 | *i* P | | P | 04 40 08.1 | 0.0 |
| | comp=Z,22nm,1.3s | | | | | | | |
| BRG | | | | *e* | | | 04 40 25.4 | |
| | comp=Z,7.9nm,1.0s | | | | | | | |
| | comp=Z,773nm,12.9s | | | | | | | |
| | comp=N,650nm,21.2s | | | | | | | |
| | comp=E,558nm,21.2s | | | | | | | |
| BRG | Berggiesshubel | 90.05 | 323 | *i* P | | P | 04 40 08.1 | 0.0 |
| BRG | | | | *e* | | | 04 40 25.4 | |
| BRG | | | | | pmax | pmax | | |
| | comp=Z,1.0nm,1.3s | | | | | | | |
| BRG | | | | | pmax | pmax | | |
| | comp=Z,22nm,1.0s | | | | | | | |
| BRG | | | | | MLR | MLR | | |
| | comp=Z,8μm,12.9s | | | | | | | |
| BRG | | | | | MLR | MLR | | |
| | comp=N,773nm,21.2s | | | | | | | |
| BRG | | | | | MLR | MLR | | |
| | comp=E,650nm,21.2s | | | | | | | |
| ARSA | Arzberg | 90.34 | 319 | *i* PcP | | P | 04 40 09.6 | +0.1 |
| | comp=E,4.7nm,0.9s | | | | | | | |
| CLL | Collm | 90.45 | 323 | *i* P | | P | 04 40 09.4 | -0.5 |
| CLL | | | | | pmax | pmax | | |
| | comp=Z,18nm,1.3s | | | | | | | |
| CLL | | | | | MLR | MLR | | |
| | comp=Z,800nm,17.6s | | | | | | | |
| CLL | Collm | 90.45 | 323 | *i* P | | P | 04 40 09.4 | -0.5 |
| | comp=Z,18nm,1.3s | | | | | | | |
| CLL | | | | | LmH | | 05 23 00.0 | |
| | comp=N,700nm,18.9s | | | | | | | |
| CLL | | | | | LmH | | 05 23 00.0 | |
| | comp=E,400nm,20.0s | | | | | | | |
| MAW | Mawson | 90.50 | 199 | P | | P | 04 40 10.5 | +0.9 |
| | comp=E,4.7nm,0.9s,baz=75,slow=8.9,SNR=4.0 | | | | | | | |
| MAW | | | | | LR | LR | 05 16 28.5 | |
| | comp=E,168nm,20.9s,baz=51,slow=33 | | | | | | | |
| KHC | Kasperske Hory | 90.90 | 321 | *e*P | | P | 04 40 11.8 | -0.3 |
| KHC | | | | *ex* | | x | 04 40 21.5 | |
| KHC | | | | *e*pP | | sP | 04 40 34.2 | +0.5 |
| KHC | | | | | AMS | AMS | 05 28 10.0 | |
| | comp=E,600nm,19.5s | | | | | | | |
| KHC | Kasperske Hory | 90.90 | 321 | *e*P | | P | 04 40 11.8 | -0.3 |
| KHC | | | | *e* | | | 04 40 34.2 | |
| KHC | | | | | MLR | MLR | | |
| | comp=Z,600nm,19.5s | | | | | | | |
| KHC | Kasperske Hory | 90.90 | 321 | *e*P | | P | 04 40 11.9 | -0.3 |
| GEC2 | GERESS Array S | 90.93 | 321 | *e*P | | P | 04 40 12.6 | +0.2 |
| GEC2 | GERESS Array S | 90.93 | 321 | *e*P | | P | 04 40 12.6 | +0.2 |
| GERES | GERESS Array B | 90.93 | 321 | P | | P | 04 40 12.2 | -0.1 |
| | comp=Z,4.7nm,0.9s,baz=59,slow=5.1,SNR=26 | | | | | | | |
| GERES | | | | | LR | LR | 05 23 14.4 | |
| | comp=Z,464nm,18.2s,baz=57,slow=37 | | | | | | | |
| GEA0 | GERESS Array S | 90.93 | 321 | *e*P | | P | 04 40 11.8 | -0.5 |
| MOA | Molln | 90.93 | 320 | *i* PcP | | P | 04 40 12.9 | +0.6 |
| | comp=Z,30nm,1.2s,SNR=7.5 | | | | | | | |
| NKC | Novy Kostel | 91.18 | 322 | *e*P | | P | 04 40 13.6 | +0.2 |
| NKC | Novy Kostel | 91.18 | 322 | *e*P | | P | 04 40 13.6 | +0.2 |
| ABTA | Abfaltersbach | 92.45 | 319 | *i* PcP | | P | 04 40 18.6 | -0.8 |
| | comp=Z,17nm,1.3s | | | | | | | |
| WTTA | Wattenberg | 92.81 | 320 | *i* PcP | | P | 04 40 21.0 | -0.1 |
| | comp=Z,15nm,0.9s,SNR=5.6 | | | | | | | |
| WATA | Walderalm | 92.81 | 320 | *i* PcP | | P | 04 40 20.6 | -0.6 |
| | comp=Z,36nm,1.4s | | | | | | | |
| MOTA | Moosalm | 93.11 | 320 | *i* PcP | | P | 04 40 22.2 | -0.3 |
| | comp=Z,18nm,1.0s,SNR=8.3 | | | | | | | |
| RETA | Reutte | 93.26 | 320 | *i* PcP | | P | 04 40 23.0 | -0.1 |
| | comp=Z,14nm,1.4s | | | | | | | |
| YKA | Yellowknife Ar | 93.37 | 22 | P | | P | 04 40 21.9 | -1.3 |
| | comp=Z,1.9nm,0.7s,baz=308,slow=4.3,SNR=41 | | | | | | | |
| YKA | | | | | PKKPbc | PKKPdf | 04 57 28.5 | -1.0 |
| | comp=Z,0.2nm,0.7s,baz=134,slow=2.7,SNR=4.2 | | | | | | | |
| YKA | | | | | LR | LR | 05 28 08.2 | |
| | comp=Z,15nm,18.2s,baz=0.0,slow=39 | | | | | | | |
| AQU | L'Aquila | 93.47 | 315 | *e*P | | P | 04 40 24.3 | +0.1 |
| AQU | L'Aquila | 93.47 | 315 | *e*P | | P | 04 40 24.3 | +0.1 |
| FETA | Feichten | 93.47 | 320 | *i* PcP | | P | 04 40 24.3 | +0.1 |
| | comp=Z,25nm,1.2s,SNR=6.9 | | | | | | | |
| VNDA | Vanda | 93.52 | 172 | P | | P | 04 40 23.4 | -0.1 |
| | comp=Z,2.7nm,0.9s,baz=309,slow=6.1,SNR=6.1 | | | | | | | |
| VNDA | | | | | LR | LR | 05 25 15.5 | |
| | comp=Z,133nm,18.7s,baz=277,slow=37 | | | | | | | |
| VNDA | Vanda | 93.52 | 172 | *e*P | | P | 04 40 23.9 | +0.5 |
| VNDA | Vanda | 93.52 | 172 | *e*P | | P | 04 40 23.9 | +0.5 |
| PPT | Papeete | 93.83 | 107 | LR | | LR | 05 16 25.6 | |
| | comp=Z,210nm,20.3s,baz=340,slow=32 | | | | | | | |
| PPT2 | Papeete2 | 93.84 | 107 | *e*LR | | LR | 05 10 49.2 | |
| | comp=Z,410nm,22.8s | | | | | | | |
| DAVA | Damuels | 93.89 | 320 | *i* PcP | | P | 04 40 26.2 | 0.0 |
| | comp=Z,21nm,1.6s | | | | | | | |
| FUORN | Ofenpass-Fuorn | 93.92 | 320 | *e*P | | P | 04 40 26.2 | -0.2 |
| BFO | Black Forest | 94.41 | 322 | *i* P | | P | 04 40 28.7 | +0.4 |
| TUE | Stuetta | 94.56 | 320 | *e*P | | P | 04 40 29.1 | -0.2 |
| WLF | Walferdange | 95.11 | 324 | *e*P | | P | 04 40 31.0 | -0.5 |
| WLF | | | | | pmax | pmax | | |
| | comp=Z,14nm,1.1s | | | | | | | |
| WLF | Walferdange | 95.11 | 324 | *e*P | | P | 04 40 31.0 | -0.5 |
| | comp=Z,14nm,1.1s | | | | | | | |
| TBI | Tubuai | 95.16 | 113 | *e*LR | | LR | 05 11 28.0 | |
| | comp=Z,347nm,25.0s | | | | | | | |
| TAOE | Nuku Hiva Isla | 101.03 | 97 | *e*LR | | LR | 05 14 10.8 | |
| | comp=Z,254nm,23.9s | | | | | | | |
| TORD | Torodi Ar. Bea | 113.95 | 291 | PKP | | PKiKP | 04 45 47.5 | -0.6 |
| | comp=Z,0.3nm,0.6s,baz=83,slow=2.1,SNR=5.9 | | | | | | | |
| TXAR | Lajitas Array | 120.02 | 45 | PKP | | PKPdf | 04 45 58.5 | -1.0 |
| | comp=Z,1.7nm,0.9s,baz=242,slow=2.1,SNR=6.7 | | | | | | | |
| JCT | Junction City | 121.84 | 41 | *e*PKIKP | | PKPdf | 04 46 02.5 | -0.4 |
| JCT | Junction City | 121.84 | 41 | *e*PKPdf | | PKPdf | 04 46 02.5 | -0.4 |
| WCI | Wyandotte Cave | 123.08 | 25 | *e*PKIKP | | PKPdf | 04 46 04.3 | -0.7 |
| WCI | Wyandotte Cave | 123.08 | 25 | *e*PKPdf | | PKPdf | 04 46 04.3 | -0.7 |
| HKT | Hockley | 124.69 | 39 | *e*PKIKP | | PKPdf | 04 46 07.2 | -1.0 |
| HKT | Hockley | 124.69 | 39 | *e*PKPdf | | PKPdf | 04 46 07.2 | -1.0 |
| JTS | JuntasAbangare | 145.66 | 49 | *e*PKIKP | | PKPdf | 04 46 46.2 | -1.4 |
| JTS | JuntasAbangare | 145.66 | 49 | *e*PKPbc | | PKPdf | 04 46 46.2 | -1.4 |
| PLCA | Paso Flores | 150.86 | 163 | PKPbc | | PKPbc | 04 47 00.8 | -0.2 |
| | comp=Z,3.4nm,0.9s,baz=252,slow=4.2,SNR=4.7 | | | | | | | |

*NEIC* ***23*** *04:28:28.0±0.0, 43.50S×172.79E, h8km, ML4.0(WEL), After WEL.*

**WEL 23 04:28:28.2±0.1, 43.50S×172.78E, h8km, ML3.9/28, 4C-2D, Error ellipse: s-maj=1.4km s-min=0.7km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| CRLZ | Canterbury Las | 0.13 | 238 | Pg | | Pg | 04 28 31.3 | +0.2 |
| CRLZ | | | | Sg | | Sg | 04 28 33.7 | +0.5 |
| CRLZ | Canterbury Las | 0.13 | 238 | ⇑PG | | Pg | 04 28 31.3 | +0.2 |
| CRLZ | | | | SG | | Sg | 04 28 33.6 | +0.4 |
| CRLZ | | | | SG | | | 04 28 33.6 | |
| CRLZ | | | | AML | AML | | 04 28 34.4 | |
| CRLZ | | | | AML | AML | | 04 28 34.4 | |
| MQZ | McQueen's Vall | 0.22 | 204 | Pg | | Pg | 04 28 32.7 | 0.0 |
| MQZ | | | | Sg | | Sg | 04 28 36.0 | +0.3 |
| MQZ | McQueen's Vall | 0.22 | 204 | PG | | Pg | 04 28 32.7 | 0.0 |
| MQZ | | | | SG | | Sg | 04 28 36.0 | +0.3 |
| MQZ | | | | SG | | | 04 28 36.1 | |
| MQZ | | | | AML | AML | | 04 28 36.3 | |
| OXZ | Oxford | 0.57 | 288 | *e*Pg | | Pg | 04 28 38.9 | -0.3 |
| OXZ | | | | *e*Sg | | Sg | 04 28 47.6 | +0.9 |
| OXZ | Oxford | 0.57 | 288 | ⇓P* | | Pg | 04 28 39.2 | 0.0 |
| OXZ | | | | S* | | Sg | 04 28 47.3 | +0.7 |
| OXZ | | | | AML | AML | | 04 28 48.3 | |
| OXZ | | | | AML | AML | | 04 28 48.3 | |
| OXZ | | | | AML | AML | | 04 28 49.2 | |
| LTZ | Lake Taylor | 0.81 | 333 | P* | | Pg | 04 28 44.0 | +0.2 |
| LTZ | | | | *e*Sg | | Sb | 04 28 55.5 | -0.2 |
| LTZ | Lake Taylor | 0.81 | 333 | P* | | Pg | 04 28 44.0 | +0.2 |
| LTZ | | | | S* | | Sb | 04 28 55.5 | -0.2 |
| KHZ | Kahutara | 1.22 | 27 | P* | | Pb | 04 28 50.1 | -1.4 |
| KHZ | Kahutara | 1.22 | 27 | ⇑P* | | Pb | 04 28 50.1 | -1.4 |
| KHZ | | | | AML | AML | | 04 29 08.5 | |
| KHZ | | | | AML | AML | | 04 29 14.1 | |
| KHZ | | | | AML | AML | | 04 29 14.1 | |
| KHZ | | | | AML | AML | | 04 29 20.1 | |
| INZ | Inchbonnie | 1.25 | 308 | P* | | Pn | 04 28 50.2 | -1.7 |
| RPZ | Rata Peaks | 1.27 | 260 | P* | | Pn | 04 28 50.6 | -1.6 |
| RPZ | | | | *e*Sg | | Sb | 04 29 08.1 | -0.8 |
| RPZ | Rata Peaks | 1.27 | 260 | P* | | Pn | 04 28 50.6 | -1.6 |
| RPZ | | | | AML | AML | | 04 29 09.6 | |
| RPZ | | | | AML | AML | | 04 29 11.3 | |
| WVZ | Waitaha Valley | 1.55 | 285 | AML | AML | | 04 29 20.4 | |
| WVZ | | | | AML | AML | | 04 29 23.7 | |
| THZ | Tophouse | 1.74 | 3 | Pn | Pn | | 04 28 57.7 | -1.1 |
| THZ | Tophouse | 1.74 | 3 | PN | Pn | | 04 28 57.4 | -1.4 |
| THZ | | | | AML | AML | | 04 29 22.0 | |
| THZ | | | | AML | AML | | 04 29 24.2 | |
| DSZ | Denniston Nort | 1.90 | 337 | Pn | Pn | | 04 29 00.2 | -0.7 |
| DSZ | Denniston Nort | 1.90 | 337 | PN | Pn | | 04 29 00.1 | -0.8 |
| DSZ | | | | AML | AML | | 04 29 25.3 | |
| DSZ | | | | AML | AML | | 04 29 25.9 | |
| DSZ | | | | AML | AML | | 04 29 33.2 | |
| DSZ | | | | AML | AML | | 04 29 33.2 | |
| BSWZ | Blackbirch Sta | 1.96 | 25 | Pn | Pn | | 04 29 00.5 | -1.2 |
| BSWZ | Blackbirch Sta | 1.96 | 25 | PN | Pn | | 04 29 00.5 | -1.2 |
| BSWZ | | | | AML | AML | | 04 29 28.5 | |
| BSWZ | | | | AML | AML | | 04 29 30.2 | |
| LBZ | Lake Benmore | 2.07 | 244 | Pn | Pn | | 04 29 02.3 | -1.0 |
| LBZ | | | | *e*Sn | Sg | | 04 29 35.2 | +0.5 |
| LBZ | Lake Benmore | 2.07 | 244 | PN | Pn | | 04 29 02.3 | -1.0 |
| LBZ | | | | AML | AML | | 04 29 40.5 | |
| LBZ | | | | AML | AML | | 04 29 40.5 | |
| LBZ | | | | AML | AML | | 04 29 40.5 | |
| LBZ | | | | AML | AML | | 04 29 40.6 | |
| FOZ | Fox Glacier | 2.16 | 268 | Pn | Pn | | 04 29 04.5 | +0.1 |
| FOZ | Fox Glacier | 2.16 | 268 | PN | Pn | | 04 29 04.3 | -0.1 |
| FOZ | | | | AML | AML | | 04 29 40.4 | |
| FOZ | | | | AML | AML | | 04 29 40.5 | |
| FOZ | | | | AML | AML | | 04 29 44.6 | |
| ODZ | Otahua Downs | 2.17 | 224 | Pn | Pn | | 04 29 03.2 | -1.4 |
| ODZ | | | | *e*Pg | Pg | | 04 29 09.6 | -0.3 |
| ODZ | | | | *e*Sn | Sg | | 04 29 37.1 | -0.9 |
| ODZ | Otahua Downs | 2.17 | 224 | ⇑PN | Pn | | 04 29 03.2 | -1.4 |
| ODZ | | | | AML | AML | | 04 29 40.6 | |
| ODZ | | | | AML | AML | | 04 29 41.5 | |
| ODZ | | | | AML | AML | | 04 29 42.9 | |
| ODZ | | | | AML | AML | | 04 29 43.9 | |
| TUWZ | Tuamarina | 2.24 | 23 | Pn | Pn | | 04 29 04.7 | -0.9 |
| TUWZ | Tuamarina | 2.24 | 23 | PN | Pn | | 04 29 04.7 | -0.9 |
| TUWZ | | | | AML | AML | | 04 29 40.1 | |
| NNZ | Nelson | 2.33 | 11 | Pn | Pn | | 04 29 05.8 | -0.9 |
| NNZ | Nelson | 2.33 | 11 | *e*PN | Pn | | 04 29 05.8 | -1.0 |
| NNZ | | | | AML | AML | | 04 29 37.0 | |
| TCW | Tory Channel | 2.55 | 26 | Pn | Pn | | 04 29 08.5 | -1.2 |
| TCW | Tory Channel | 2.55 | 26 | PN | Pn | | 04 29 08.5 | -1.2 |
| TCW | | | | AML | AML | | 04 29 42.8 | |
| BHW | Baring Head | 2.60 | 37 | Pn | Pn | | 04 29 08.9 | -1.7 |
| SNZO | South Karori | 2.62 | 34 | *e*Pn | Pn | | 04 29 08.4 | -2.3 |
| PLWZ | Palliser | 2.66 | 44 | Pn | Pn | | 04 29 09.4 | -2.0 |
| PLWZ | Palliser | 2.66 | 44 | PN | Pn | | 04 29 09.4 | -2.0 |
| QRZ | Quartz Range | 2.68 | 356 | Pn | Pn | | 04 29 10.6 | -1.1 |
| QRZ | Quartz Range | 2.68 | 356 | *e*PN | Pn | | 04 29 10.4 | -1.2 |
| QRZ | | | | AML | AML | | 04 29 42.9 | |
| QRZ | | | | AML | AML | | 04 29 43.0 | |
| QRZ | | | | AML | AML | | 04 30 04.8 | |
| QRZ | | | | AML | AML | | 04 30 04.8 | |
| DUWZ | D'Urville Isla | 2.83 | 18 | Pn | Pn | | 04 29 13.2 | -0.5 |
| DUWZ | D'Urville Isla | 2.83 | 18 | *e*PN | Pn | | 04 29 12.8 | -0.9 |
| DUWZ | | | | AML | AML | | 04 29 56.3 | |
| HHSZ | Highcliff Hill | 2.84 | 212 | Pn | Pn | | 04 29 12.4 | -1.4 |
| HHSZ | Highcliff Hill | 2.84 | 212 | PN | Pn | | 04 29 12.4 | -1.5 |
| HHSZ | | | | AML | AML | | 04 30 06.8 | |
| HHSZ | | | | AML | AML | | 04 30 06.8 | |
| CAW | Cannon Point | 2.93 | 36 | Pn | Pn | | 04 29 13.7 | -1.4 |
| CAW | Cannon Point | 2.93 | 36 | ⇓PN | Pn | | 04 29 13.7 | -1.4 |
| CAW | | | | AML | AML | | 04 29 48.6 | |
| CAW | | | | AML | AML | | 04 29 54.1 | |
| JCZ | Jackson Bay | 2.95 | 257 | Pn | Pn | | 04 29 14.4 | -1.0 |
| JCZ | Jackson Bay | 2.95 | 257 | PN | Pn | | 04 29 14.4 | -1.0 |
| JCZ | | | | AML | AML | | 04 30 08.1 | |
| JCZ | | | | AML | AML | | 04 30 09.1 | |
| TRWZ | Traveller | 3.01 | 47 | Pn | Pn | | 04 29 14.9 | -1.3 |
| TRWZ | Traveller | 3.01 | 47 | PN | Pn | | 04 29 14.9 | -1.3 |
| WKZ | Wanaka | 3.01 | 243 | Pn | Pn | | 04 29 14.8 | -1.4 |
| WKZ | | | | *e*Pg | Pg | | 04 29 25.1 | -0.8 |
| WKZ | | | | *e*Sg | Sg | | 04 30 09.5 | +4.5 |
| WKZ | Wanaka | 3.01 | 243 | PN | Pn | | 04 29 14.8 | -1.5 |
| WKZ | | | | AML | AML | | 04 30 12.2 | |
| WKZ | | | | AML | AML | | 04 30 14.7 | |
| EAZ | Earnscleugh | 3.03 | 234 | Pn | Pn | | 04 29 15.1 | -1.4 |
| EAZ | Earnscleugh | 3.03 | 234 | ⇑PN | Pn | | 04 29 15.0 | -1.4 |
| EAZ | | | | AML | AML | | 04 30 11.0 | |
| EAZ | | | | AML | AML | | 04 30 11.6 | |
| KIW | Kapiti Island | 3.08 | 32 | Pn | Pn | | 04 29 16.0 | -1.1 |
| KIW | Kapiti Island | 3.08 | 32 | PN | Pn | | 04 29 16.0 | -1.1 |
| MTW | Mount Morrison | 3.09 | 42 | Pn | Pn | | 04 29 14.6 | -2.6 |
| OGWZ | Otaki Gorge | 3.22 | 34 | Pn | Pn | | 04 29 16.9 | -2.1 |
| OGWZ | Otaki Gorge | 3.22 | 34 | PN | Pn | | 04 29 16.9 | -2.1 |
| OGWZ | | | | AML | AML | | 04 29 58.5 | |
| OGWZ | | | | AML | AML | | 04 29 58.5 | |
| HOWZ | Holdsworth Sta | 3.30 | 39 | Pn | Pn | | 04 29 19.1 | -1.0 |
| HOWZ | Holdsworth Sta | 3.30 | 39 | PN | Pn | | 04 29 19.0 | -1.1 |
| TUZ | Tuapeka | 3.32 | 221 | Pn | Pn | | 04 29 19.0 | -1.4 |
| TUZ | Tuapeka | 3.32 | 221 | PN | Pn | | 04 29 18.9 | -1.5 |
| TUZ | | | | AML | AML | | 04 30 22.5 | |
| TUZ | | | | AML | AML | | 04 30 27.2 | |
| TUZ | | | | AML | AML | | 04 30 27.2 | |
| TUZ | | | | AML | AML | | 04 30 28.3 | |
| MRZ | Mangatainoka R | 3.52 | 37 | Pn | Pn | | 04 29 21.1 | -2.0 |
| MRZ | Mangatainoka R | 3.52 | 37 | *e*PN | Pn | | 04 29 20.6 | -2.5 |
| MRZ | | | | AML | AML | | 04 30 04.8 | |
| BFZ | Birch Farm | 3.82 | 44 | Pn | Pn | | 04 29 24.6 | -2.7 |
| BFZ | Birch Farm | 3.82 | 44 | PN | Pn | | 04 29 24.5 | -2.8 |
| MLZ | Mavora Lakes | 3.82 | 239 | Pn | Pn | | 04 29 25.4 | -2.0 |
| MLZ | Mavora Lakes | 3.82 | 239 | PN | Pn | | 04 29 25.0 | -2.4 |
| MLZ | | | | AML | AML | | 04 30 40.8 | |
| SYZ | Scrubby Hill | 3.98 | 219 | Pn | Pn | | 04 29 28.3 | -1.2 |
| SYZ | Scrubby Hill | 3.98 | 219 | PN | Pn | | 04 29 28.1 | -1.3 |
| SYZ | | | | AML | AML | | 04 30 49.9 | |
| SYZ | | | | AML | AML | | 04 30 52.7 | |
| WHZ | Wether Hill Ro | 4.19 | 234 | Pn | Pn | | 04 29 29.9 | -2.5 |
| WHZ | Wether Hill Ro | 4.19 | 234 | PN | Pn | | 04 29 29.8 | -2.6 |
| KHEZ | Kahui Hut | 4.31 | 13 | Pn | Pn | | 04 29 35.4 | +1.4 |
| NEZ | North Egmont | 4.34 | 14 | Pn | Pn | | 04 29 35.5 | +0.9 |
| PKE | Pukeiti | 4.40 | 12 | Pn | Pn | | 04 29 35.7 | +0.4 |
| PKE | Pukeiti | 4.40 | 12 | *e*PN | Pn | | 04 29 35.8 | +0.5 |
| DCZ | Deep Cove | 4.48 | 242 | Pn | Pn | | 04 29 33.3 | -3.0 |
| DCZ | Deep Cove | 4.48 | 242 | *e*PN | Pn | | 04 29 34.1 | -2.2 |
| VRZ | Vera Road | 4.62 | 19 | Pn | Pn | | 04 29 38.9 | +0.6 |
| WNVZ | Wahianoa | 4.68 | 28 | Pn | Pn | | 04 29 39.2 | -0.1 |
| WNVZ | Wahianoa | 4.68 | 28 | PN | Pn | | 04 29 38.9 | -0.3 |
| BHHZ | Black Hill Sta | 4.71 | 33 | Pn | Pn | | 04 29 38.9 | -0.6 |
| BHHZ | Black Hill Sta | 4.71 | 33 | PN | Pn | | 04 29 38.9 | -0.6 |
| APZ | The Paps | 4.75 | 224 | Pn | Pn | | 04 29 38.1 | -1.9 |
| APZ | The Paps | 4.75 | 224 | *e*PN | Pn | | 04 29 38.0 | -2.0 |
| TUVZ | Tukino | 4.75 | 28 | Pn | Pn | | 04 29 40.1 | -0.1 |
| TUVZ | Tukino | 4.75 | 28 | PN | Pn | | 04 29 40.1 | -0.1 |
| OTVZ | Oturere | 4.85 | 28 | Pn | Pn | | 04 29 40.7 | -0.9 |
| OTVZ | Oturere | 4.85 | 28 | PN | Pn | | 04 29 40.7 | -0.9 |
| PYZ | Puysegur Point | 5.09 | 236 | Pn | Pn | | 04

*ISCJB **23** 04:33:47.3±0.7, 43.˚54S±0.˚04×172.˚95E±0.˚05, h17km±6km, mb3.5/2, Error ellipse: s-maj=8.2km s-min=3.5km az=40.8*
*WEL **23** 04:33:48.9±0.1, 43.˚50S×172.˚84E, h13km±1km, ML3.9/38, Error ellipse: s-maj=1.5km s-min=0.7km az=90.0*
*WEL Felt from West Coast to Canterbury, maximum reported intensity MM 5.*
*IDC **23** 04:33:48.4±1.9, 43.˚56S×172.˚82E, h0km, mb3.6/2, mb1 3.9/3, mb1mx3.7/29, mbtmp3.7/3, ML3.5/1, Error ellipse: s-maj=52.7km s-min=17.5km az=165.0*

**ISC 23 04:33:48.2±1.1, 43.˚48S±0.˚04×172.˚91E±0.˚05, h12km±8km, n58, σ1°s26/60, 2C-4D, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.22** | **246** | ⇑P* | **Pg** | **04 33 52.9** | **0.0** |
| CRLZ | | | | S* | **Sg** | **04 33 55.8** | **-0.4** |
| CRLZ | | | | AML | AML | 04 33 57.2 | |
| **MQZ** | **McQueen's Vall** | **0.29** | **219** | ⇓P* | **Pg** | **04 34 54.3** | **+0.2** |
| MQZ | | | | S* | **Sg** | **04 34 58.2** | **+0.1** |
| MQZ | | | | S* | | 04 33 58.3 | |
| MQZ | | | | AML | AML | 04 33 58.5 | |
| **OXZ** | **Oxford** | **0.65** | **284** | ⇓P* | **Pg** | **04 34 00.4** | **-0.4** |
| OXZ | | | | S* | **Sg** | **04 34 08.8** | **-0.6** |
| OXZ | | | | AML | AML | 04 34 10.4 | |
| OXZ | | | | AML | AML | 04 34 10.8 | |
| OXZ | | | | AML | AML | 04 34 11.2 | |
| **LTZ** | **Lake Taylor** | **0.84** | **326** | P* | **Pb** | **04 34 04.6** | **-0.1** |
| LTZ | | | | S* | **Sb** | **04 34 15.0** | **-1.0** |
| LTZ | | | | AML | AML | 04 34 16.9 | |
| **KHZ** | **Kahutara** | **1.16** | **24** | P* | **Pn** | **04 34 10.0** | **-0.3** |
| KHZ | | | | AML | AML | 04 34 26.6 | |
| KHZ | | | | AML | AML | 04 34 26.8 | |
| KHZ | | | | AML | AML | 04 34 44.6 | |
| KHZ | | | | AML | AML | 04 34 44.6 | |
| **INZ** | **Inchbonnie** | **1.31** | **305** | PN | **Pn** | **04 34 11.0** | **-1.3** |
| **RPZ** | **Rata Peaks** | **1.36** | **260** | Pg | **Pn** | **04 34 12.2** | **-0.9** |
| | 38nm,0.3s,baz=130,slow=1.9,SNR=27 | | | | | | |
| RPZ | | | | Lg | Lg | 04 34 29.6 | |
| | 98nm,0.3s,baz=193,slow=12,SNR=23 | | | | | | |
| **RPZ** | **Rata Peaks** | **1.36** | **260** | *e*PN | **Pn** | **04 34 11.6** | **-1.4** |
| RPZ | | | | AML | AML | 04 34 36.3 | |
| RPZ | | | | AML | AML | 04 34 36.6 | |
| **WVZ** | **Waitaha Valley** | **1.64** | **284** | *e*PN | **Pn** | **04 34 16.0** | **-0.7** |
| WVZ | | | | AML | AML | 04 34 43.8 | |
| WVZ | | | | AML | AML | 04 34 48.9 | |
| **THZ** | **Tophouse** | **1.72** | **0** | PN | **Pn** | **04 34 17.8** | **-0.1** |
| THZ | | | | AML | AML | 04 34 42.2 | |
| THZ | | | | AML | AML | 04 34 42.3 | |
| **BSWZ** | **Blackbirch Sta** | **1.91** | **22** | *e*PN | **Pn** | **04 34 20.9** | **+0.4** |
| BSWZ | | | | AML | AML | 04 34 45.6 | |
| BSWZ | | | | AML | AML | 04 34 48.3 | |
| **DSZ** | **Denniston Nort** | **1.92** | **335** | PN | **Pn** | **04 34 20.5** | **-0.2** |
| DSZ | | | | AML | AML | 04 34 46.3 | |
| DSZ | | | | AML | AML | 04 34 46.4 | |
| DSZ | | | | AML | AML | 04 34 57.8 | |
| DSZ | | | | AML | AML | 04 34 57.8 | |
| **LBZ** | **Lake Benmore** | **2.16** | **244** | PN | **Pn** | **04 34 23.8** | **-0.2** |
| LBZ | | | | AML | AML | 04 35 03.1 | |
| LBZ | | | | AML | AML | 04 35 03.2 | |
| LBZ | | | | AML | AML | 04 35 04.2 | |
| LBZ | | | | AML | AML | 04 35 04.2 | |
| **TUWZ** | **Tuamarina** | **2.19** | **21** | *e*PN | **Pn** | **04 34 24.2** | **-0.2** |
| TUWZ | | | | AML | AML | 04 34 58.8 | |
| TUWZ | | | | AML | AML | 04 35 02.3 | |
| **FOZ** | **Fox Glacier** | **2.25** | **268** | PN | **Pn** | **04 34 25.8** | **+0.7** |
| FOZ | | | | AML | AML | 04 34 53.3 | |
| FOZ | | | | AML | AML | 04 35 17.8 | |
| **ODZ** | **Otahua Downs** | **2.25** | **225** | PN | **Pn** | **04 34 24.6** | **-0.6** |
| ODZ | | | | AML | AML | 04 35 00.1 | |
| ODZ | | | | AML | AML | 04 35 00.8 | |
| ODZ | | | | AML | AML | 04 35 00.8 | |
| ODZ | | | | AML | AML | 04 35 05.8 | |
| **NNZ** | **Nelson** | **2.29** | **9** | ⇓PN | **Pn** | **04 34 26.5** | **+0.8** |
| NNZ | | | | AML | AML | 04 34 55.0 | |
| NNZ | | | | AML | AML | 04 34 57.0 | |
| **TCW** | **Tory Channel** | **2.49** | **25** | *e*PN | **Pn** | **04 34 28.3** | **-0.2** |
| TCW | | | | AML | AML | 04 35 11.9 | |
| TCW | | | | AML | AML | 04 35 11.9 | |
| **BHW** | **Baring Head** | **2.53** | **36** | PN | **Pn** | **04 34 29.0** | **0.0** |
| **PLWZ** | **Palliser** | **2.58** | **43** | PN | **Pn** | **04 34 29.4** | **-0.4** |
| PLWZ | | | | AML | AML | 04 35 01.6 | |
| **QRZ** | **Quartz Range** | **2.67** | **354** | PN | **Pn** | **04 34 32.1** | **+1.1** |
| QRZ | | | | AML | AML | 04 34 42.9 | |
| QRZ | | | | AML | AML | 04 34 42.9 | |
| QRZ | | | | AML | AML | 04 35 07.3 | |
| QRZ | | | | AML | AML | 04 35 07.3 | |
| **MSWZ** | **Moikau Station** | **2.70** | **41** | PN | **Pn** | **04 34 30.7** | **-0.7** |
| MSWZ | | | | SN | **Sn** | **04 35 02.0** | **-1.9** |
| MSWZ | | | | AML | AML | 04 35 02.8 | |
| **DUWZ** | **D'Urville Isla** | **2.79** | **16** | PN | **Pn** | **04 34 32.7** | **+0.1** |
| DUWZ | | | | AML | AML | 04 35 15.8 | |
| DUWZ | | | | AML | AML | 04 35 28.0 | |
| **CAW** | **Cannon Point** | **2.87** | **35** | PN | **Pn** | **04 34 33.4** | **-0.2** |
| CAW | | | | SN | **Sn** | **04 35 06.1** | **-1.9** |
| CAW | | | | AML | AML | 04 35 06.6 | |
| **HHSZ** | **Highcliff Hill** | **2.91** | **214** | PN | **Pn** | **04 34 33.7** | **-0.6** |
| HHSZ | | | | AML | AML | 04 35 28.1 | |
| HHSZ | | | | AML | AML | 04 35 29.4 | |
| **KIW** | **Kapiti Island** | **3.02** | **30** | PN | **Pn** | **04 34 35.9** | **+0.2** |
| **MTW** | **Mount Morrison** | **3.02** | **41** | PN | **Pn** | **04 34 35.0** | **-0.8** |
| MTW | | | | AML | AML | 04 35 11.1 | |
| MTW | | | | AML | AML | 04 35 11.1 | |
| **JCZ** | **Jackson Bay** | **3.04** | **257** | PN | **Pn** | **04 34 36.0** | **-0.2** |
| JCZ | | | | AML | AML | 04 35 33.6 | |
| JCZ | | | | AML | AML | 04 35 52.5 | |
| **WKZ** | **Wanaka** | **3.10** | **243** | PN | **Pn** | **04 34 36.6** | **-0.3** |
| WKZ | | | | AML | AML | 04 35 37.3 | |
| WKZ | | | | AML | AML | 04 35 38.4 | |
| **EAZ** | **Earnscleugh** | **3.12** | **235** | PN | **Pn** | **04 34 36.4** | **-0.6** |
| EAZ | | | | AML | AML | 04 35 28.2 | |
| EAZ | | | | AML | AML | 04 35 32.4 | |
| **OGWZ** | **Otaki Gorge** | **3.15** | **33** | PN | **Pn** | **04 34 37.2** | **-0.3** |
| OGWZ | | | | AML | AML | 04 35 16.9 | |
| OGWZ | | | | AML | AML | 04 35 17.8 | |
| **HOWZ** | **Holdsworth Sta** | **3.23** | **38** | PN | **Pn** | **04 34 38.3** | **-0.4** |
| HOWZ | | | | AML | AML | 04 35 16.5 | |
| HOWZ | | | | AML | AML | 04 35 18.1 | |
| **TUZ** | **Tuapeka** | **3.40** | **222** | ⇓PN | **Pn** | **04 34 40.6** | **-0.3** |
| TUZ | | | | AML | AML | 04 35 45.7 | |
| TUZ | | | | AML | AML | 04 35 45.7 | |
| TUZ | | | | AML | AML | 04 35 46.6 | |
| TUZ | | | | AML | AML | 04 35 46.6 | |
| **MRZ** | **Mangatainoka R** | **3.45** | **36** | PN | **Pn** | **04 34 41.7** | **0.0** |
| MRZ | | | | AML | AML | 04 35 22.7 | |
| MRZ | | | | AML | AML | 04 35 27.4 | |
| **TIWZ** | **Tintock** | **3.50** | **40** | AML | AML | 04 35 25.2 | |
| TIWZ | | | | AML | AML | 04 35 25.2 | |
| **PRWZ** | **Pori Road** | **3.71** | **39** | AML | AML | 04 35 31.9 | |
| PRWZ | | | | AML | AML | 04 35 32.3 | |
| **BFZ** | **Birch Farm** | **3.75** | **43** | PN | **Pn** | **04 34 44.6** | **-1.1** |
| **MLZ** | **Mavora Lakes** | **3.91** | **240** | PN | **Pn** | **04 34 47.2** | **-0.9** |
| **SYZ** | **Scrubby Hill** | **4.06** | **220** | ⇑PN | **Pn** | **04 34 50.0** | **0.0** |
| SYZ | | | | AML | AML | 04 36 05.3 | |
| SYZ | | | | AML | AML | 04 36 09.6 | |
| **KHEZ** | **Kahui Hut** | **4.27** | **12** | PN | **Pn** | **04 34 56.1** | **+3.1** |
| **WHZ** | **Wether Hill Ro** | **4.28** | **234** | PN | **Pn** | **04 34 52.2** | **-0.9** |
| **NEZ** | **North Egmont** | **4.30** | **12** | PN | **Pn** | **04 34 54.7** | **+1.2** |
| **WPHZ** | **Waipukurau** | **4.32** | **39** | AML | AML | 04 35 50.4 | |
| **PKE** | **Pukeiti** | **4.36** | **11** | *e*PN | **Pn** | **04 34 56.3** | **+2.1** |
| PKE | | | | AML | AML | 04 35 49.9 | |
| **DCZ** | **Deep Cove** | **4.57** | **242** | PN | **Pn** | **04 34 56.1** | **-0.9** |
| **VRZ** | **Vera Road** | **4.57** | **18** | *e*PN | **Pn** | **04 34 58.0** | **+0.8** |
| **WNVZ** | **Wahianoa** | **4.62** | **27** | *e*PN | **Pn** | **04 34 59.5** | **+1.6** |
| **TRVZ** | **Turoa** | **4.63** | **26** | AML | AML | 04 35 54.8 | |
| TRVZ | | | | AML | AML | 04 35 55.6 | |
| **KRHZ** | **Kereru** | **4.63** | **35** | AML | AML | 04 35 52.6 | |
| **BHHZ** | **Black Hill Sta** | **4.64** | **32** | *e*PN | **Pn** | **04 34 58.8** | **+0.6** |
| **OTVZ** | **Oturere** | **4.79** | **27** | *e*PN | **Pn** | **04 35 00.2** | **0.0** |
| OTVZ | | | | AML | AML | 04 35 59.7 | |
| **APZ** | **The Paps** | **4.83** | **224** | PN | **Pn** | **04 34 60.0** | **-0.6** |
| **PYZ** | **Puysegur Point** | **5.18** | **237** | *e*PN | **Pn** | **04 35 04.4** | **-1.0** |
| **HIZ** | **Hauiti** | **5.18** | **17** | PN | **Pn** | **04 35 06.3** | **+0.8** |
| **URZ** | **Urewera** | **6.12** | **33** | Pn | **Pn** | **04 35 19.3** | **+1.0** |
| | 1.2nm,0.3s,baz=219,slow=5.8,SNR=4.5 | | | | | | |
| URZ | | | | Sn | **Sn** | **04 36 22.7** | **-5.4** |
| | 3.1nm,0.3s,baz=83,slow=18,SNR=8.1 | | | | | | |
| **ASAR** | **Alice Springs** | **37.59** | **289** | P | **P** | **04 41 05.6** | **+2.9** |
| | 0.6nm,0.8s,baz=128,slow=7.3,SNR=2.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **39.83** | **294** | P | **P** | **04 41 23.5** | **+2.1** |
| | 1.0nm,0.7s,baz=135,slow=7.7,SNR=5.1 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **148.84** | **197** | PKPbc | **PKPbc** | **04 53 37.3** | **+1.4** |
| | 0.4nm,0.8s,baz=170,slow=1.7,SNR=4.1 | | | | | | |

**WEL 23 04:37:59.3±0.2, 43.˚50S×172.˚80E, h10km±1km, ML3.5/10, 2C-3D, Error ellipse: s-maj=1.7km s-min=1.0km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.15** | **240** | PG | Pg | 04 38 02.8 | +0.2 |
| CRLZ | | | | SG | Sg | 04 38 05.2 | +0.2 |
| CRLZ | | | | AML | AML | 04 38 05.4 | |
| **MQZ** | **McQueen's Vall** | **0.23** | **208** | ⇑PG | Pg | 04 38 04.3 | +0.3 |
| MQZ | | | | SG | Sg | 04 38 08.0 | +0.7 |
| MQZ | | | | SG | | 04 38 08.0 | |
| MQZ | | | | AML | AML | 04 38 08.2 | |
| **OXZ** | **Oxford** | **0.58** | **287** | ⇓P* | Pg | 04 38 10.2 | -0.4 |
| OXZ | | | | S* | Sg | 04 38 18.2 | -0.1 |
| OXZ | | | | AML | AML | 04 38 20.0 | |
| OXZ | | | | AML | AML | 04 38 22.1 | |
| OXZ | | | | AML | AML | 04 38 22.1 | |
| **LTZ** | **Lake Taylor** | **0.82** | **331** | ⇓P* | Pg | 04 38 14.8 | -0.2 |
| LTZ | | | | S* | Sg | 04 38 25.9 | +0.2 |
| LTZ | | | | AML | AML | 04 38 27.1 | |
| **KHZ** | **Kahutara** | **1.21** | **27** | ⇑P* | Pn | 04 38 21.1 | -1.1 |
| **INZ** | **Inchbonnie** | **1.26** | **307** | *e*P* | Pn | 04 38 21.4 | -1.5 |
| **RPZ** | **Rata Peaks** | **1.29** | **260** | PN | Pn | 04 38 22.0 | -1.3 |
| RPZ | | | | AML | AML | 04 38 40.8 | |
| RPZ | | | | AML | AML | 04 38 45.9 | |
| **WVZ** | **Waitaha Valley** | **1.57** | **285** | PN | Pb | 04 38 27.7 | -0.6 |
| **THZ** | **Tophouse** | **1.74** | **3** | PN | Pn | 04 38 28.3 | -1.3 |
| THZ | | | | AML | AML | 04 38 52.2 | |
| THZ | | | | AML | AML | 04 38 54.3 | |
| **DSZ** | **Denniston Nort** | **1.90** | **337** | *e*PN | Pn | 04 38 31.0 | -0.8 |
| DSZ | | | | AML | AML | 04 39 08.3 | |
| DSZ | | | | AML | AML | 04 39 09.3 | |
| **BSWZ** | **Blackbirch Sta** | **1.95** | **24** | PN | Pn | 04 38 31.5 | -0.9 |
| **LBZ** | **Lake Benmore** | **2.09** | **244** | PN | Pn | 04 38 33.5 | -0.8 |
| LBZ | | | | AML | AML | 04 39 10.2 | |
| LBZ | | | | AML | AML | 04 39 11.9 | |
| **FOZ** | **Fox Glacier** | **2.17** | **268** | PN | Pn | 04 38 35.8 | +0.4 |
| **ODZ** | **Otahua Downs** | **2.19** | **224** | PN | Pn | 04 38 34.2 | -1.5 |
| ODZ | | | | AML | AML | 04 39 11.9 | |
| ODZ | | | | AML | AML | 04 39 13.9 | |
| ODZ | | | | AML | AML | 04 39 13.9 | |
| ODZ | | | | AML | AML | 04 39 14.1 | |
| **HHSZ** | **Highcliff Hill** | **2.85** | **213** | PN | Pn | 04 38 43.7 | -1.1 |
| **CAW** | **Cannon Point** | **2.92** | **36** | PN | Pn | 04 38 44.1 | -1.7 |
| **JCZ** | **Jackson Bay** | **2.96** | **257** | PN | Pn | 04 38 45.9 | -0.5 |
| **EAZ** | **Earnscleugh** | **3.04** | **234** | PN | Pn | 04 38 46.4 | -1.1 |
| **TUZ** | **Tuapeka** | **3.33** | **222** | PN | Pn | 04 38 50.5 | -1.0 |
| TUZ | | | | AML | AML | 04 39 54.9 | |
| TUZ | | | | AML | AML | 04 39 57.2 | |
| **MLZ** | **Mavora Lakes** | **3.84** | **239** | PN | Pn | 04 38 57.1 | -1.3 |
| **SYZ** | **Scrubby Hill** | **4.00** | **219** | ⇓PN | Pn | 04 39 00.1 | -0.4 |
| **DCZ** | **Deep Cove** | **4.49** | **242** | PN | Pn | 04 39 05.6 | -1.7 |
| **APZ** | **The Paps** | **4.76** | **224** | *e*PN | Pn | 04 39 09.4 | -1.7 |

*ISCJB **23** 04:46:02.3±0.4, 43.˚58S±0.˚03×172.˚99E±0.˚04, h10km, mb3.4/2, Error ellipse: s-maj=5.8km s-min=2.8km az=140.6*
*WEL **23** 04:46:04.7±0.2, 43.˚49S×172.˚88E, h5km, ML4.1/31, Error ellipse: s-maj=1.7km s-min=0.6km az=90.0*
*IDC **23** 04:46:04.1±1.6, 43.˚28S×172.˚74E, h0km, mb3.5/2, mb1 3.8/3, mb1mx3.6/21, mbtmp3.6/3, ML3.7/1, Error ellipse: s-maj=45.7km s-min=15.1km az=151.0*

**ISC 23 04:46:04.1±0.8, 43.˚52S±0.˚04×172.˚90E±0.˚04, h10km, n56, σ0°s94/60, 3C-2D, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.21** | **254** | ⇑PG | **Pg** | **04 46 08.9** | **+0.4** |
| CRLZ | | | | SG | **Sg** | **04 46 11.6** | **+0.1** |
| CRLZ | | | | SG | | 04 46 11.8 | |
| CRLZ | | | | AML | AML | 04 46 11.9 | |
| CRLZ | | | | AML | AML | 04 46 11.9 | |
| **MQZ** | **McQueen's Vall** | **0.26** | **224** | ⇑PG | **Pg** | **04 46 10.1** | **+0.7** |
| MQZ | | | | SG | **Sg** | **04 46 14.1** | **+1.1** |
| MQZ | | | | AML | AML | 04 46 14.3 | |
| MQZ | | | | AML | AML | 04 46 14.3 | |
| **OXZ** | **Oxford** | **0.66** | **287** | ⇓P* | **Pg** | **04 46 16.7** | **-0.2** |
| OXZ | | | | SG | **Sg** | **04 46 25.4** | **-0.1** |
| OXZ | | | | AML | AML | 04 46 27.1 | |
| OXZ | | | | AML | AML | 04 46 29.2 | |
| OXZ | | | | AML | AML | 04 46 29.2 | |
| **LTZ** | **Lake Taylor** | **0.87** | **328** | ⇓P* | **Pb** | **04 46 21.2** | **-0.2** |
| LTZ | | | | S* | **Sb** | **04 46 32.3** | **-0.8** |
| LTZ | | | | AML | AML | 04 46 33.8 | |
| **KHZ** | **Kahutara** | **1.20** | **23** | P* | **Pb** | **04 46 26.8** | **-0.1** |
| KHZ | | | | AML | AML | 04 46 56.1 | |
| KHZ | | | | AML | AML | 04 46 56.1 | |
| KHZ | | | | AML | AML | 04 46 57.2 | |
| KHZ | | | | AML | AML | 04 46 57.3 | |
| **INZ** | **Inchbonnie** | **1.33** | **306** | *e*P* | **Pn** | **04 46 28.1** | **-0.6** |
| **RPZ** | **Rata Peaks** | **1.36** | **261** | Pg | **Pn** | **04 46 28.5** | **-0.7** |
| | 38nm,0.3s,baz=168,slow=2.3,SNR=13 | | | | | | |
| RPZ | | | | Lg | Lg | 04 46 46.0 | |
| | 298nm,0.3s,baz=156,slow=4.2,SNR=17 | | | | | | |
| **RPZ** | **Rata Peaks** | **1.36** | **261** | ⇑PN | **Pn** | **04 46 28.4** | **-0.8** |
| RPZ | | | | AML | AML | 04 46 46.3 | |
| RPZ | | | | AML | AML | 04 46 49.0 | |
| **WVZ** | **Waitaha Valley** | **1.64** | **285** | PN | **Pn** | **04 46 32.4** | **-0.6** |
| WVZ | | | | AML | AML | 04 46 57.9 | |
| WVZ | | | | AML | AML | 04 47 03.8 | |
| **THZ** | **Tophouse** | **1.75** | **0** | PN | **Pn** | **04 46 34.3** | **-0.3** |
| THZ | | | | AML | AML | 04 46 59.0 | |
| THZ | | | | AML | AML | 04 47 00.8 | |
| **BSWZ** | **Blackbirch Sta** | **1.94** | **22** | PN | **Pn** | **04 46 37.4** | **+0.2** |
| BSWZ | | | | AML | AML | 04 46 48.9 | |
| BSWZ | | | | AML | AML | 04 47 38.0 | |
| **DSZ** | **Denniston Nort** | **1.95** | **335** | PN | **Pn** | **04 46 37.3** | **0.0** |
| DSZ | | | | AML | AML | 04 47 09.3 | |
| DSZ | | | | AML | AML | 04 47 09.4 | |
| DSZ | | | | AML | AML | 04 47 10.7 | |
| DSZ | | | | AML | AML | 04 47 10.7 | |
| **LBZ** | **Lake Benmore** | **2.15** | **245** | PN | **Pn** | **04 46 39.8** | **-0.2** |
| LBZ | | | | AML | AML | 04 47 18.8 | |
| LBZ | | | | AML | AML | 04 47 18.8 | |
| LBZ | | | | AML | AML | 04 47 20.2 | |
| LBZ | | | | AML | AML | 04 47 20.2 | |
| **TUWZ** | **Tuamarina** | **2.23** | **21** | *e*PN | **Pn** | **04 46 40.8** | **-0.2** |
| TUWZ | | | | AML | AML | 04 47 24.0 | |
| TUWZ | | | | AML | AML | 04 47 40.4 | |
| **ODZ** | **Otahua Downs** | **2.23** | **226** | *e*PN | **Pn** | **04 46 39.9** | **-1.2** |
| ODZ | | | | AML | AML | 04 47 18.0 | |
| ODZ | | | | AML | AML | 04 47 18.0 | |
| ODZ | | | | AML | AML | 04 47 24.5 | |
| ODZ | | | | AML | AML | 04 47 24.5 | |
| **FOZ** | **Fox Glacier** | **2.25** | **269** | PN | **Pn** | **04 46 42.1** | **+0.8** |
| FOZ | | | | AML | AML | 04 47 10.5 | |
| FOZ | | | | AML | AML | 04 47 10.5 | |
| FOZ | | | | AML | AML | 04 47 26.4 | |
| FOZ | | | | AML | AML | 04 47 26.5 | |
| **NNZ** | **Nelson** | **2.33** | **9** | PN | **Pn** | **04 46 42.6** | **+0.2** |
| NNZ | | | | AML | AML | 04 47 14.2 | |
| NNZ | | | | AML | AML | 04 47 21.7 | |
| **BHW** | **Baring Head** | **2.56** | **35** | PN | **Pn** | **04 46 45.4** | **-0.3** |
| **PLWZ** | **Palliser** | **2.61** | **43** | PN | **Pn** | **04 46 45.7** | **-0.7** |
| **WEL** | **Wellington** | **2.62** | **32** | PN | **Pn** | **04 46 45.6** | **-1.0** |
| **QRZ** | **Quartz Range** | **2.71** | **354** | *e*PN | **Pn** | **04 46 48.2** | **+0.5** |
| QRZ | | | | AML | AML | 04 46 59.0 | |
| QRZ | | | | AML | AML | 04 46 59.1 | |
| QRZ | | | | AML | AML | 04 47 38.2 | |
| QRZ | | | | AML | AML | 04 47 38.2 | |
| **DUWZ** | **D'Urville Isla** | **2.82** | **16** | *e*PN | **Pn** | **04 46 50.5** | **+1.2** |
| DUWZ | | | | AML | AML | 04 47 37.7 | |
| DUWZ | | | | AML | AML | 04 47 56.2 | |
| **HHSZ** | **Highcliff Hill** | **2.88** | **214** | PN | **Pn** | **04 46 50.0** | **-0.1** |
| HHSZ | | | | AML | AML | 04 47 40.7 | |
| HHSZ | | | | AML | AML | 04 47 55.8 | |
| **CAW** | **Cannon Point** | **2.90** | **34** | PN | **Pn** | **04 46 49.6** | **-0.7** |
| CAW | | | | AML | AML | 04 47 27.3 | |
| CAW | | | | AML | AML | 04 47 28.2 | |
| **JCZ** | **Jackson Bay** | **3.03** | **258** | PN | **Pn** | **04 46 52.1** | **-0.1** |
| JCZ | | | | AML | AML | 04 47 43.7 | |
| JCZ | | | | AML | AML | 04 47 53.5 | |
| **KIW** | **Kapiti Island** | **3.04** | **30** | PN | **Pn** | **04 46 52.2** | **-0.2** |
| **WKZ** | **Wanaka** | **3.09** | **244** | *e*PN | **Pn** | **04 46 52.1** | **-0.8** |
| WKZ | | | | AML | AML | 04 47 48.8 | |
| WKZ | | | | AML | AML | 04 47 51.9 | |
| **EAZ** | **Earnscleugh** | **3.09** | **235** | PN | **Pn** | **04 46 52.7** | **-0.3** |
| EAZ | | | | AML | AML | 04 47 44.8 | |
| EAZ | | | | AML | AML | 04 47 46.2 | |
| EAZ | | | | AML | AML | 04 47 46.2 | |
| EAZ | | | | AML | AML | 04 47 46.7 | |
| **OGWZ** | **Otaki Gorge** | **3.18** | **33** | *e*PN | **Pn** | **04 46 53.2** | **-1.0** |
| OGWZ | | | | AML | AML | 04 47 30.0 | |
| OGWZ | | | | AML | AML | 04 47 32.9 | |
| **TUZ** | **Tuapeka** | **3.37** | **223** | *e*PN | **Pn** | **04 46 56.4** | **-0.4** |
| TUZ | | | | AML | AML | 04 47 56.4 | |
| TUZ | | | | AML | AML | 04 47 56.5 | |
| TUZ | | | | AML | AML | 04 47 58.4 | |
| TUZ | | | | AML | AML | 04 47 58.4 | |
| **MRZ** | **Mangatainoka R** | **3.48** | **36** | *e*PN | **Pn** | **04 46 57.4** | **-1.0** |
| MRZ | | | | AML | AML | 04 47 42.0 | |
| MRZ | | | | AML | AML | 04 47 43.8 | |
| **TIWZ** | **Tintock** | **3.52** | **40** | AML | AML | 04 47 41.1 | |
| TIWZ | | | | AML | AML | 04 47 44.1 | |
| **BFZ** | **Birch Farm** | **3.77** | **42** | PN | **Pn** | **04 47 00.9** | **-1.4** |
| **MLZ** | **Mavora Lakes** | **3.89** | **240** | PN | **Pn** | **04 47 03.2** | **-0.8** |
| MLZ | | | | AML | AML | 04 48 13.9 | |
| MLZ | | | | AML | AML | 04 48 17.6 | |
| **SYZ** | **Scrubby Hill** | **4.03** | **220** | PN | **Pn** | **04 47 05.9** | **+0.1** |
| SYZ | | | | AML | AML | 04 48 28.1 | |
| SYZ | | | | AML | AML | 04 48 34.0 | |
| **WHZ** | **Wether Hill Ro** | **4.26** | **234** | PN | **Pn** | **04 47 07.4** | **-1.6** |
| WHZ | | | | AML | AML | 04 48 32.1 | |
| **KHEZ** | **Kahui Hut** | **4.30** | **12** | PN | **Pn** | **04 47 11.6** | **+1.9** |
| **NEZ** | **North Egmont** | **4.34** | **12** | PN | **Pn** | **04 47 12.2** | **+2.1** |
| **PKE** | **Pukeiti** | **4.40** | **11** | PN | **Pn** | **04 47 12.2** | **+1.2** |
| **DCZ** | **Deep Cove** | **4.55** | **243** | *e*PN | **Pn** | **04 47 12.3** | **-0.7** |
| DCZ | | | | AML | AML | 04 48 38.4 | |
| DCZ | | | | AML | AML | 04 48 38.7 | |
| **MOVZ** | **Moawhango** | **4.63** | **28** | PN | **Pn** | **04 47 13.7** | **-0.5** |
| **WNVZ** | **Wahianoa** | **4.65** | **27** | PN | **Pn** | **04 47 14.7** | **+0.1** |
| **BHHZ** | **Black Hill Sta** | **4.67** | **32** | *e*PN | **Pn** | **04 47 14.8** | **0.0** |
| **OTVZ** | **Oturere** | **4.82** | **26** | *e*PN | **Pn** | **04 47 17.3** | **+0.4** |
| OTVZ | | | | AML | AML | 04 48 57.5 | |
| **TWVZ** | **Taurewa** | **4.84** | **24** | *e*PN | **Pn** | **04 47 17.3** | **+0.3** |
| **PYZ** | **Puysegur Point** | **5.16** | **237** | PN | **Pn** | **04 47 19.0** | **-2.3** |
| **HIZ** | **Hauiti** | **5.21** | **17** | PN | **Pn** | **04 47 22.6** | **+0.4** |
| **RTZ** | **Ruatahuna** | **5.79** | **34** | PN | **Pn** | **04 47 28.4** | **-1.7** |
| **URZ** | **Urewera** | **6.14** | **33** | Pn | **Pn** | **04 47 33.5** | **-1.4** |
| | 1.8nm,0.3s,baz=205,slow=4.4,SNR=6.6 | | | | | | |
| URZ | | | | Sn | **Sn** | **04 48 43.6** | **-1.6** |
| | 2.3nm,0.3s,baz=65,slow=16,SNR=6.3 | | | | | | |
| **MWZ** | **Matawai** | **6.25** | **36** | *e*PN | **Pn** | **04 47 34.5** | **-1.9** |
| **ASAR** | **Alice Springs** | **37.60** | **289** | P | **P** | **04 53 18.9** | **-0.1** |
| | 0.4nm,0.6s,baz=126,slow=6.8,SNR=3.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **39.85** | **294** | P | **P** | **04 53 37.6** | **-0.2** |
| | 0.5nm,0.6s,baz=132,slow=8.0,SNR=7.1 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **148.80** | **197** | PKPbc | **PKPbc** | **05 05 53.5** | **+1.4** |
| | 0.4nm,0.8s,baz=150,slow=2.4,SNR=2.9 | | | | | | |
| **ARCES** | **ARCESS Array B** | **149.07** | **338** | PKPbc | **PKPbc** | **05 05 52.5** | **+1.2** |
| | 3.1nm,0.9s,baz=70,slow=4.0,SNR=4.1 | | | | | | |

*MOS **23** 04:46:10.7±0.7, 55.˚53N×160.˚66E, h175km, mb4.4/23, Error ellipse: s-maj=9.9km s-min=4.1km az=77.3*
*BJI **23** 04:46:10.3, 55.˚60N×160.˚50E, h173km, mb4.5/17, mB5.0/10*
*KRSC **23** 04:46:10.0±1.0, 55.˚44N×161.˚00E, h172km±9km, ML4.7*
*ISCJB **23** 04:46:11.1±0.1, 55.˚54N±0.˚02×160.˚59E±0.˚04, h175km±1km, mb4.5/103, Error ellipse: s-maj=4.7km s-min=2.4km az=34.0*
*NEIC **23** 04:46:12.2±0.1, 55.˚55N×160.˚52E, mb4.6/69, Error ellipse: s-maj=5.1km s-min=2.8km az=149.0*
*IDC **23** 04:46:12.2±0.6, 55.˚58N×160.˚55E, h172km±5km, mb3.8/27, mb1 4.0/28, mb1mx4.0/37, mbtmp4.2/28, MS3.2/1, Ms1 3.2/1, ms1mx2.6/42, Error ellipse: s-maj=11.3km s-min=7.0km az=142.0*

**ISC 23 04:46:11.8±0.4, 55.˚48N±0.˚03×160.˚79E±0.˚03, h175km±3km, n275, σ1°s31/379, mb4.5/103, 5C-4D, Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TUMD** | **Tumrok D** | **0.36** | **219** | *e*P | **Pn** | **04 46 34.5** | **-0.9** |
| TUMD | | | | *e*S | **Sn** | **04 46 52.2** | **-1.3** |
| **TUMR** | **Tumrok** | **0.42** | **242** | PN | **Pn** | **04 46 35.5** | **-0.3** |
| TUMR | | | | S | **Sn** | **04 46 53.2** | **-0.9** |
| **TUMR** | **Tumrok** | **0.42** | **242** | *i* P | **Pn** | **04 46 35.5** | **-0.3** |
| TUMR | | | | *e*S | **Sn** | **04 46 53.2** | **-0.9** |
| **KMNR** | **Kamenistaya** | **0.42** | **312** | PN | **Pn** | **04 46 35.4** | **-0.3** |
| KMNR | | | | S | **Sn** | **04 46 54.0** | **-0.2** |
| **KMNR** | **Kamenistaya** | **0.42** | **312** | *i* P | **Pn** | **04 46 35.4** | **-0.3** |
| KMNR | | | | *e*S | **Sn** | **04 46 54.0** | **-0.2** |
| **KZV** | **Kizimen** | **0.47** | **218** | PN | **Pn** | **04 46 35.2** | **-0.8** |
| **KZV** | **Kizimen** | **0.47** | **218** | *i* P | **Pn** | **04 46 35.2** | **-0.8** |
| **BZMR** | **Bezymyannaya** | **0.49** | **340** | PN | **Pn** | **04 46 35.1** | **-0.9** |
| BZMR | | | | S | **Sn** | **04 46 54.0** | **-0.8** |
| **BZMR** | **Bezymyannaya** | **0.49** | **340** | *e*P | **Pn** | **04 46 35.1** | **-0.9** |
| BZMR | | | | *e*S | **Sn** | **04 46 54.0** | **-0.8** |
| **BZWR** | **Bezymyannyi-We** | **0.51** | **341** | PN | **Pn** | **04 46 35.4** | **-0.8** |
| BZWR | | | | S | **Sn** | **04 46 54.1** | **-0.9** |
| **BZWR** | **Bezymyannyi-We** | **0.51** | **341** | *e*P | **Pn** | **04 46 35.4** | **-0.8** |
| BZWR | | | | *e*S | **Sn** | **04 46 54.1** | **-0.9** |
| **KIRR** | **Kirishev** | **0.54** | **332** | PN | **Pn

KII **Karymskiy** 1.64 209 *e*P Pn 04 46 44.5 -0.3
KII *e*S Sn 04 47 10.9 +0.7
**SPN Mys Shipunski** 2.43 191 PN Pn 04 46 51.2 -2.1
SPN S Sn 04 47 21.6 -3.9
**SPN Mys Shipunski** 2.43 191 *e*P Pn 04 46 51.2 -2.1
SPN *e*S Sn 04 47 21.6 -3.9
**GNL Ganaly** 2.44 224 PN Pn 04 46 53.8 +0.3
GNL S Sn 04 47 27.5 +1.6
**GNL Ganaly** 2.44 224 *e*P Pn 04 46 53.8 +0.3
GNL *e*S Sn 04 47 27.5 +1.6
**NLC Nalytchevo** 2.46 201 PN Pn 04 46 52.7 -1.0
NLC S Sn 04 47 24.2 -2.0
**NLC Nalytchevo** 2.46 201 *e*P Pn 04 46 52.7 -1.0
NLC *e*S Sn 04 47 24.2 -2.0
**KRX Arik** 2.47 211 PN Pn 04 46 54.4 +0.5
KRX S Sn 04 47 27.0 +0.5
**KRX Arik** 2.47 211 *e*P Pn 04 46 54.4 +0.5
KRX *e*S Sn 04 47 27.0 +0.5
**SDLR Sedlovina** 2.47 208 PN Pn 04 46 53.8 -0.1
SDLR S Sn 04 47 26.4 -0.2
**SDLR Sedlovina** 2.47 208 *i* P Pn 04 46 53.8 -0.1
SDLR *e*S Sn 04 47 26.4 -0.2
**KRER Koryakskii** 2.49 210 PN Pn 04 46 54.8 +0.6
KRER S Sn 04 47 27.9 +0.9
**KRER Koryakskii** 2.49 210 *e*P Pn 04 46 54.8 +0.6
KRER *e*S Sn 04 47 27.9 +0.9
**SMAR Somma** 2.51 208 PN Pn 04 46 54.7 +0.3
SMAR S Sn 04 47 27.5 0.0
**SMAR Somma** 2.51 208 *i* P Pn 04 46 54.7 +0.3
SMAR *e*S Sn 04 47 27.5 0.0
**AVH Avacha** 2.52 209 PN Pn 04 46 54.9 +0.4
AVH S Sn 04 47 28.0 +0.4
**AVH Avacha** 2.52 209 *e*P Pn 04 46 54.9 +0.4
AVH *e*S Sn 04 47 28.0 +0.4
**KOK Koryaka** 2.53 211 PN Pn 04 46 55.7 +1.1
**KOK Koryaka** 2.53 211 *e*P Pn 04 46 55.7 +1.1
**UGLR Uglovaya** 2.55 208 PN Pn 04 46 54.9 +0.1
UGLR S Sn 04 47 28.4 +0.2
**UGLR Uglovaya** 2.55 208 *i* P Pn 04 46 54.9 +0.1
UGLR *e*S Sn 04 47 28.4 +0.2
**DALK Dalny** 2.73 207 PN Pn 04 46 56.4 -0.4
DALK S Sn 04 47 31.1 -0.7
**DALK Dalny** 2.73 207 *e*P Pn 04 46 56.4 -0.4
DALK *e*S Sn 04 47 31.1 -0.7
**PET Petropavlovsk** 2.76 208 *e*PN Pn 04 46 57.0 -0.2
PET *e*S Sn 04 47 31.3 -1.2
PET pmax pmax
comp=Z,61nm,0.5s
PET smax smax
comp=E,1µm,0.5s
PET MLR MLR
comp=Z,400nm,12.0s
**PET Petropavlovsk** 2.76 208 *e*Pn Pn 04 46 57.1 -0.2
PET *e*Sn Sn 04 47 30.9 -1.7
**PET Petropavlovsk** 2.76 208 *i* P Pn 04 46 57.1 -0.2
PET *e*S Sn 04 47 31.3 -1.2
**BKI Bering** 2.97 93 PN Pn 04 46 59.1 -0.6
BKI S Sn 04 47 34.1 -2.9
**BKI Bering** 2.97 93 *e*P Pn 04 46 59.1 -0.6
BKI *e*S Sn 04 47 34.1 -2.9
**PEA0B Petropavlovsk-** 2.99 219 *e*Pn Pn 04 47 00.5 +0.5
**PETK Petropavlovsk-** 2.99 219 P Pn 04 47 00.2 +0.2
comp=Z,2.9nm,0.3s,baz=58,slow=16,SNR=25
PETK S Sn 04 47 37.6 +0.2
comp=Z,9.4nm,0.3s,baz=68,slow=21,SNR=6.4
PETK LR LR 04 48 02.4
comp=Z,413nm,19.2s,baz=13,slow=37
**KRMR Karymshinskiy** 3.08 212 PN Pn 04 47 01.2 +0.1
KRMR S Sn 04 47 38.5 -1.0
**KRMR Karymshinskiy** 3.08 212 *e*P Pn 04 47 01.2 +0.1
KRMR *e*S Sn 04 47 38.5 -1.0
**APC Apacha** 3.33 221 PN Pn 04 47 04.9 +0.7
APC S Sn 04 47 46.1 +1.1
**APC Apacha** 3.33 221 *e*P Pn 04 47 04.9 +0.7
APC *e*S Sn 04 47 46.1 +1.1
**RUS Russkaya** 3.34 205 PN Pn 04 47 03.1 -1.2
RUS S Sn 04 47 42.0 -3.1
**RUS Russkaya** 3.34 205 *i* P Pn 04 47 03.1 -1.2
RUS *e*S Sn 04 47 42.0 -3.1
**MTVR Mutnovka** 3.38 208 PN Pn 04 47 04.6 -0.3
MTVR S Sn 04 47 45.0 -1.3
**MTVR Mutnovka** 3.38 208 *e*P Pn 04 47 04.6 -0.3
MTVR *e*S Sn 04 47 45.0 -1.3
**ASAK Asacha** 3.54 210 PN Pn 04 47 07.0 +0.1
ASAK S Sn 04 47 50.5 +0.6
**ASAK Asacha** 3.54 210 *i* P Pn 04 47 07.0 +0.1
ASAK *e*S Sn 04 47 50.5 +0.6
**PALN Palana** 3.65 353 PN Pn 04 47 07.7 -0.3
**PALN Palana** 3.65 353 *e*P Pn 04 47 07.7 -0.3
**KDTR Khodutka, Kamc** 4.02 205 *e*P Pn 04 47 11.2 -1.6
KDTR *e*S Sn 04 47 56.1 -4.5
**PAU Pauzhetka** 4.67 212 PN Pn 04 47 21.7 +0.4
**PAU Pauzhetka** 4.67 212 *e*P Pn 04 47 21.7 +0.4
**SKR Severo-Kuril's** 5.57 212 *e*PN Pn 04 47 33.4 +0.4
SKR *e*S Sn 04 48 32.0 -4.7
SKR pmax pmax
comp=Z,142nm,0.4s
SKR smax smax
comp=N,177nm,0.4s
SKR smax smax
comp=E,177nm,0.5s
SKR MLR MLR
comp=Z,300nm,14.0s
**TILK Tilichiki** 5.74 28 PN Pn 04 47 35.9 +0.9
**TILK Tilichiki** 5.74 28 *e*P Pn 04 47 35.9 +0.9
**MA2 Magadan** 6.78 311 P Pn 04 47 49.4 +0.7
comp=Z,0.8nm,0.3s,baz=122,slow=12,SNR=14
**MA2 Magadan** 6.78 311 *ce*PN Pn 04 47 48.4 -0.4
**SEY Seymchan** 8.62 334 P Pn 04 48 14.1 +1.1
comp=Z,0.2nm,0.3s,baz=146,slow=12,SNR=5.3
**BILL Bilibino** 12.86 9⇑ *e*PN Pn 04 49 09.4 +1.4
BILL pmax pmax
comp=Z,16nm,0.8s
**UGL Uglegorsk** 13.11 249 *e*PN Pn 04 49 09.4 -1.9
UGL *e*S Sn 04 51 34.7 -2.1
**ATKA Atka Island** 15.10 92 *e*Pn P 04 49 38.8 +1.8
comp=Z,197nm,1.5s
**ASAJ Asahikawa** 16.29 233 P Pn 04 49 53.1 +2.5
comp=Z,1.6nm,0.3s,baz=62,slow=7.7,SNR=4.5
**ASAJ Asahikawa** 16.29 233 *e*P Pn 04 49 50.3 -0.3
comp=Z,32nm,1.3s
**HABR Khabarovsk** 17.27 257 *e*P P 04 49 59.2 -1.8
HABR *e*S S 04 53 09.9 -1.8
HABR pmax pmax
comp=N,11nm,0.8s
HABR pmax pmax
comp=E,51nm,1.5s
HABR pmax pmax
comp=Z,53nm,1.5s
HABR MLR MLR
comp=Z,332nm,13.0s
**YAK Yakutsk** 17.29 305 *e*P P 04 50 00.5 -0.6
YAK *e*S S 04 53 09.0 -2.8
YAK pmax pmax
comp=Z,19nm,0.9s
YAK pmax pmax
comp=N,3.0nm,1.1s
YAK pmax pmax
comp=E,11nm,1.2s
YAK smax smax
comp=N,166nm,3.8s
YAK smax smax
comp=E,112nm,3.0s
**ERM Erimo** 17.72 228 *e*P Pn 04 50 06.8 -0.9
**ERM Erimo** 17.72 228 *e*P Pn 04 50 06.8 -0.9
**KLR Kul'dur** 18.72 263 P Pn 04 50 17.7 -1.6
comp=E,0.1nm,0.3s,baz=63,slow=9.7,SNR=15
KLR PcP PcP 04 54 37.3 +0.8
comp=E,0.0nm,0.3s,baz=86,slow=4.3,SNR=4.3
**KLR Kul'dur** 18.72 263 ⇓ *i*P P 04 50 16.8 0.0
**TIXI Tiksi** 21.11 332 P P 04 50 42.1 -0.2
comp=E,10.0nm,0.8s,baz=128,slow=11,SNR=9.9
**TIXI Tiksi** 21.11 332 *ce*P P 04 50 42.2 -0.1
TIXI pmax pmax
comp=Z,27nm,2.5s
**TIXI Tiksi** 21.11 332 *e*P P 04 50 41.2 -1.0
comp=Z,14nm,0.9s
**USRK Ussuriysk Ar.** 21.57 251 P P 04 50 47.6 +0.3
comp=Z,1.4nm,0.4s,baz=61,slow=14,SNR=4.1
**SDPT Sand Point** 21.80 74 *e*P P 04 50 52.4 +2.8
comp=Z,62nm,1.2s
**CHGN Chignik** 22.66 71 *e*P P 04 51 00.1 +2.3
comp=Z,30nm,1.2s

**SVW2 Sparrevohn** 23.25 58 *e*P P 04 51 04.3 +1.2
comp=Z,31nm,0.9s
**IMAR Indian Mountai** 24.00 46 *e*P P 04 51 10.2 +0.3
**MJB9 Matsu-Tunnel** 24.40 228 *e*P P 04 51 13.8 0.0
comp=Z,20nm,0.7s
**MAJO Matsushiro** 24.40 228 *i* P P 04 51 14.4 +0.6
MAJO pmax pmax
comp=Z,19nm,0.7s
**MAJO Matsushiro** 24.40 228 *e*P P 04 51 14.6 +0.8
comp=Z,12nm,0.6s
**MAT Matsushiro** 24.40 228 P P 04 51 14.9 +1.1
**MJAR Matsushiro Arr** 24.40 228 P P 04 51 14.8 +1.0
comp=Z,9.2nm,0.7s,baz=33,slow=7.7,SNR=25
**PPLA Purkeypile** 24.69 53 *e*P P 04 51 19.0 +2.7
comp=Z,58nm,1.6s
**RSO Redoubt South** 24.71 59 *e*P P 04 51 18.0 +1.4
**OHAK Old Harbor** 25.14 67 *e*P P 04 51 23.0 +2.7
comp=Z,164nm,2.0s
**BPAW Bear Paw Mtn.** 25.15 50 *e*P P 04 51 21.9 +1.5
comp=Z,28nm,2.0s
**KTH Kantishna Hill** 25.21 52 *e*P P 04 51 22.5 +1.5
comp=Z,59nm,2.0s
**MLY Manley** 25.23 48 *e*P P 04 51 22.7 +1.6
comp=Z,8.4nm,1.4s
MLY *e*PcP PcP 04 54 50.8 +1.5
**HOM Homer** 25.40 61 *e*P P 04 51 26.2 +3.5
comp=Z,953nm,1.5s
**COLD Coldfoot** 25.49 43 *e*P P 04 51 24.1 +0.7
comp=Z,5.7nm,1.1s
**TRF Thorofare Moun** 25.50 52 *e*P P 04 51 25.2 +1.4
comp=Z,12nm,1.0s
**CNPM China Poot** 25.63 61 *e*P P 04 51 26.5 +1.7
comp=Z,193nm,1.7s
**BRLK Bradley Lake** 25.76 60 *e*P P 04 51 28.9 +3.0
comp=Z,157nm,1.9s
**INU Inuyama** 25.92 229 *e*P P 04 51 28.1 +0.6
comp=Z,68nm,1.7s
**MCK McKinley** 26.08 51 *e*P P 04 51 29.6 +0.8
MCK pmax pmax
comp=Z,5.0nm,0.8s
**MCK McKinley** 26.08 51 *e*P P 04 51 29.6 +0.8
comp=Z,5.4nm,0.8s
**MDM Murphy Dome** 26.30 48 *e*P P 04 51 32.3 +1.6
comp=Z,12nm,1.4s
**SEW Seward** 26.39 59 *e*P P 04 51 33.5 +2.0
comp=Z,98nm,1.7s
**COLA College** 26.46 48 *e*P P 04 51 33.3 +1.2
COLA pmax pmax
comp=Z,32nm,0.3s
**COLA College** 26.46 48 *e*P P 04 51 33.3 +1.2
comp=Z,32nm,0.3s
**CCB Clear Creek Bu** 26.50 49 *e*P P 04 51 32.9 +0.5
comp=Z,50nm,2.0s
**SML Sawmill** 26.61 55 *e*P P 04 51 35.0 +1.5
SML pmax pmax
comp=Z,126nm,1.8s
**SML Sawmill** 26.61 55 *e*P P 04 51 35.0 +1.5
comp=Z,126nm,1.8s
**JHJ2 Mitrue** 26.73 222 *e*P P 04 51 34.6 -0.2
comp=Z,265nm,1.1s
**DHY Denali Highway** 26.86 52 *e*P P 04 51 37.1 +1.3
comp=Z,46nm,1.9s
**IL1 Eielson Array** 26.88 49 *e*P P 04 51 36.6 +0.7
**ILAR Eielson Array** 26.88 49 P P 04 51 36.2 +0.3
comp=Z,1.8nm,0.5s,baz=262,slow=7.5,SNR=32
ILAR PcP PcP 04 54 52.9 -0.3
comp=Z,0.5nm,0.7s,baz=283,slow=3.4,SNR=4.7
**ILB Eielson Array** 26.88 49 *e*P P 04 51 36.2 +0.3
**HDA Harding Lake** 26.89 49 *e*P P 04 51 36.6 +0.6
comp=Z,25nm,1.6s
**SCM Sheep Creek Mo** 27.07 55 *e*P P 04 51 39.0 +1.3
SCM pmax pmax
comp=Z,190nm,2.0s
**SCM Sheep Creek Mo** 27.07 55 *e*P P 04 51 39.0 +1.3
comp=Z,190nm,2.0s
**FYU Fort Yukon** 27.45 45 *e*P P 04 51 42.5 +1.7
comp=Z,16nm,1.0s
**PAX Paxson** 27.73 52 *e*P P 04 51 45.1 +1.6
PAX pmax pmax
comp=Z,10.0nm,0.8s
**PAX Paxson** 27.73 52 *e*P P 04 51 45.1 +1.6
comp=Z,9.8nm,0.8s
**KLU Klutina** 27.80 56 *e*P P 04 51 45.8 +1.7
comp=Z,82nm,2.0s
**HARP HAARP** 27.97 53 *e*P P 04 51 47.2 +1.5
comp=Z,211nm,1.9s
**DOT Dot Lake** 28.25 51 *e*P P 04 51 48.7 +0.6
comp=Z,91nm,1.8s
**KS01 Wonju Array Si** 28.55 245 *e*P P 04 51 49.6 -1.4
KS01 *e*PcP PcP 04 54 59.4 +1.7
**KSRS Korea Array** 28.55 245 P P 04 51 51.2 +0.2
comp=Z,1.4nm,0.6s,baz=33,slow=9.2,SNR=3.9
KSRS PcP PcP 04 54 58.3 +0.7
comp=Z,2.8nm,0.7s,baz=340,slow=2.7,SNR=7.7
**KSAR Wonju Array Be** 28.58 245 P P 04 51 51.2 0.0
KSAR 04 54 58.3
**KSAR Wonju Array Be** 28.58 245 P P 04 51 51.2 0.0
KSAR PcP PcP 04 54 58.3 +0.6
**EGAK Eagle** 29.32 48 *e*P P 04 51 57.5 +0.1
comp=Z,19nm,1.2s
**YKU2 Yakutat** 31.31 58 *e*P P 04 52 16.8 +1.8
comp=Z,5µm,1.4s
**INK Inuvik** 31.75 40 P P 04 52 19.4 +0.6
comp=Z,1.8nm,0.6s,baz=286,slow=8.1,SNR=12
INK PcP PcP 04 55 06.1 +0.7
comp=Z,0.7nm,0.7s,baz=315,slow=3.3,SNR=5.5
**INK Inuvik** 31.75 40 *e*P P 04 52 19.3 +0.6
INK 04 55 06.1
INK pmax pmax
comp=Z,3.0nm,0.8s
**INK Inuvik** 31.75 40 *e*P P 04 52 19.3 +0.6
comp=Z,2.9nm,0.8s
INK PcP PcP 04 55 06.1 +0.7
**HYT Haines Junctio** 31.91 55 *e*P P 04 52 22.3 +1.9
comp=Z,29nm,1.5s
**SONM Songino Array** 33.81 280 P P 04 52 36.7 -0.4
comp=Z,0.4nm,0.5s,baz=66,slow=6.8,SNR=4.7
SONM PcP PcP 04 55 12.2 +0.3
comp=Z,2.3nm,0.7s,baz=83,slow=1.7,SNR=14
**HHC Hu-ho-hao-te** 35.14 266 *e*P P 04 52 47.8 -0.8
HHC pmax pmax
comp=Z,10.0nm,0.9s
HHC pmax pmax
comp=Z,240nm,7.4s
**H11N2 WAKE ISLAND Hy** 35.99 170 T T 05 30 43.5
baz=355,slow=76,SNR=23
**H11N3 WAKE ISLAND Hy** 36.00 170 T T 05 30 48.5
baz=355,slow=76,SNR=17
**H11N1 WAKE ISLAND Hy** 36.01 170 T T 05 30 44.7
baz=355,slow=76,SNR=25
**NJ2 Nanjing** 37.46 249 *e*P P 04 53 06.8 -1.3
NJ2 pmax pmax
comp=Z,16nm,0.5s
**YKA Yellowknife Ar** 41.15 45 P P 04 53 39.1 +0.9
comp=Z,5.3nm,0.6s,baz=300,slow=7.9,SNR=103
YKA pP pP 04 54 16.8 +0.9
comp=Z,1.0nm,0.8s,baz=300,slow=8.3,SNR=2.7
YKA PcP PcP 04 55 34.7 +0.8
comp=Z,1.6nm,0.6s,baz=308,slow=3.6,SNR=33
**ZALV Zalesovo Beam** 41.87 301 P P 04 53 42.3 -1.9
comp=Z,0.7nm,0.4s,baz=64,slow=6.8,SNR=4.8
ZALV PcP PcP 04 55 36.1 -0.3
comp=Z,2.3nm,0.7s,baz=26,slow=3.6,SNR=7.8
**NVS Novosibirsk** 42.13 303 *e*P P 04 53 45.0 -1.3
NVS pmax pmax
comp=Z,18nm,1.1s
NVS pmax pmax
comp=E,8.0nm,0.9s
**GTA Gaotai** 42.79 274 *e*P P 04 53 51.4 -0.6
GTA pP pP 04 54 29.6 -0.3
GTA sP sP 04 54 49.6 0.0
GTA pmax pmax
comp=E,5.0nm,0.8s
**LZH Lanzhou** 42.81 268 *e*P P 04 53 49.3 -3.0
LZH pP pP 04 54 26.5 -3.7
LZH sP sP 04 54 46.3 -3.5
LZH PP PP 04 55 32.5 -2.5
LZH pmax pmax
comp=E,24nm,1.3s
LZH pmax pmax
comp=E,79nm,5.4s
**WMQ Urumqi** 46.60 288 P P 04 54 22.9 +0.9
WMQ pP pP 04 55 00.9 +0.4
WMQ sP sP 04 55 20.3 +0.3
WMQ pmax pmax
comp=E,20nm,0.7s
WMQ pmax pmax
comp=E,2µm,11.7s
WMQ LR LR
comp=E,310nm,18.1s
WMQ LR LR
comp=E,220nm,18.1s
WMQ LR LR
comp=E,240nm,19.9s
**KURK Kurchatov** 46.85 300 ⇓ *i*P P 04 54 22.5 -1.2
KURK pmax pmax
comp=Z,9.0nm,1.0s
**KURK Kurchatov** 46.85 300 *e*P P 04 54 22.7 -1.0
comp=Z,7.4nm,0.6s
KURK *e*PcP PcP 04 55 53.5 -0.1
**MKAR Makanchi Array** 47.52 294 P P 04 54 27.5 -1.6
comp=Z,0.6nm,0.4s,baz=52,slow=6.3,SNR=17
MKAR PcP PcP 04 55 55.7 -0.4
comp=Z,0.9nm,0.7s,baz=49,slow=5.5,SNR=4.7
**BRVK Borovoye** 49.27 307 ⇓ *e*P P 04 54 40.8 -1.5
BRVK pmax pmax
comp=Z,21nm,0.8s
**BRVK Borovoye** 49.27 307 *e*P P 04 54 40.7 -1.5
comp=Z,21nm,0.8s
**FFC Flin Flon** 51.09 48 *e*P P 04 54 56.6 +0.7
FFC pmax pmax
comp=Z,30nm,2.1s
**FFC Flin Flon** 51.09 48 *e*P P 04 54 56.6 +0.7
comp=Z,30nm,2.1s
**ARCES ARCESS Array B** 51.15 341 P P 04 54 56.2 +0.1
comp=Z,5.0nm,1.0s,baz=24,slow=8.9,SNR=2.7
**ARU Arti** 51.93 316 *d* iP P 04 55 01.6 -0.5
ARU S S 05 02 11.7 +0.7
ARU SS SS 05 05 48.1 -1.3
ARU pmax pmax
comp=Z,12nm,1.2s
**ARU Arti** 51.93 316 *e*P P 04 55 01.1 -1.0
comp=Z,6.6nm,0.6s
**HRY Holter Researc** 52.09 61 *e*P P 04 55 05.4 +1.9
**YHB Horse Butte** 53.78 62 *e*P P 04 55 18.6 +2.5
comp=Z,19nm,1.8s
**YHH Holmes Hill** 53.93 62 *e*P P 04 55 19.1 +1.9
comp=Z,5.7nm,1.2s
**YMR Madison River** 53.95 62 *e*P P 04 55 20.0 +2.6
comp=Z,7.3nm,1.3s
**H17A Grant Village** 54.34 62 *e*P P 04 55 23.7 +3.5
comp=Z,4.4nm,0.9s
**AAK Ala-Archa** 54.41 295 ⇑ *i*P P 04 55 20.9 +0.3
AAK pmax pmax
comp=Z,2.0nm,0.6s
**AAK Ala-Archa** 54.41 295 *e*P P 04 55 20.9 +0.3
comp=Z,3.1nm,0.9s
**RLMT Red Lodge** 54.48 60 *e*P P 04 55 23.5 +2.3
comp=Z,7.5nm,0.9s
**NV01 Mina Array Sit** 54.58 72 *e*P P 04 55 24.1 +2.1
**NVAR Mina Array Bea** 54.58 72 P P 04 55 23.1 +1.1
comp=Z,1.8nm,0.8s,baz=291,slow=8.6,SNR=8.8
NVAR pP pP 04 56 03.8 +2.2
comp=Z,1.1nm,0.8s,baz=305,slow=6.2,SNR=3.5
**TPAW Teton Pass** 54.80 63 *e*P P 04 55 26.1 +2.5
comp=Z,3.1nm,0.8s
**KSH Kashi** 55.89 291 P P 04 55 32.3 +1.1
KSH pP pP 04 56 12.8 +1.8
KSH PcP PcP 04 56 29.1 +1.4
KSH PP PP 04 57 40.1 +2.8
KSH S S 05 03 00.1 -4.8
KSH ScS ScS 05 04 56.8 -5.7
KSH pmax pmax
comp=Z,2.0nm,0.2s
KSH pmax pmax
comp=Z,150nm,5.6s
KSH LR LR
comp=Z,100nm,5.0s
KSH LR LR
comp=Z,180nm,6.4s
KSH LR LR
comp=Z,200nm,6.9s
**PDAR Pinedale Array** 56.03 63 P P 04 55 33.7 +1.4
comp=Z,2.2nm,0.7s,baz=326,slow=3.0,SNR=20
**KKAR Karatay Array** 56.10 298 *e*P P 04 55 32.0 -0.5
KKAR pmax pmax
comp=Z,2.0nm,0.4s
**KKAR Karatay Array** 56.10 298 *e*P P 04 55 32.0 -0.5
comp=Z,1.6nm,0.4s
**ULM Lac du Bonnet** 56.90 48 P P 04 55 38.8 +0.8
comp=Z,3.4nm,0.5s,baz=323,slow=7.9,SNR=16
ULM PcP PcP 04 56 31.9 +0.6
comp=Z,0.9nm,0.6s,baz=343,slow=4.3,SNR=2.9
**MPU Maple Canyon** 56.97 66 *e*P P 04 55 41.6 +2.7
comp=Z,7.8nm,1.1s
**FINES FINESS Array B** 58.09 336 P P 04 55 45.4 -0.7
comp=Z,2.1nm,0.6s,baz=28,slow=8.5,SNR=14
FINES PcP PcP 04 56 35.0 -0.8
comp=Z,2.9nm,0.9s,baz=90,slow=0.8,SNR=3.8
**FINES FINESS Array B** 58.09 336 *i* P P 04 55 45.5 -0.6
FINES pmax pmax
comp=Z,2.0nm,0.6s
**AGMN Agassiz Nation** 58.38 50 *e*P P 04 55 49.5 +1.1
comp=Z,5.5nm,0.8s
**O20A White River Ci** 58.63 64 *e*P P 04 55 52.6 +2.1
comp=Z,12nm,0.8s
**GUN Gumba** 59.07 275 *e*P P 04 55 52.8 -1.0
comp=Z,13nm,0.5s
**CMAR Chiang Mai Arr** 59.09 257 P P 04 55 53.6 0.0
comp=Z,0.9nm,0.3s,baz=18,slow=7.0,SNR=5.0
CMAR PcP PcP 04 56 40.7 +0.2
comp=Z,1.7nm,0.6s,baz=13,slow=3.4,SNR=8.8
**CMAR Chiang Mai Arr** 59.09 257 *i* P P 04 55 55.0 +1.4
CMAR pmax pmax
comp=Z,1.0nm,0.3s
**RAMN Ramite** 59.40 274 *e*P P 04 55 55.4 -0.6
comp=Z,10nm,0.4s
**PKI Pulchoki** 59.60 275 *e*P P 04 55 56.9 -0.5
comp=Z,9.1nm,0.6s
**PKIN Phulchoki** 59.60 275 *e*P P 04 55 57.1 -0.3
comp=Z,13nm,0.6s
**KOLN Koldanda** 60.47 277 *e*P P 04 56 02.5 -0.7
comp=Z,6.5nm,0.5s
**PYUN Piuthan** 60.56 277 *e*P P 04 56 03.4 -0.4
**NB2 NORSAR Subarra** 61.36 344 P P 04 56 07.6 -0.9
comp=Z,1.2nm,0.6s,baz=20,slow=6.9
**NOA NORSAR Array B** 61.36 344 P P 04 56 08.0 -0.5
comp=Z,1.8nm,0.6s,baz=20,slow=6.7,SNR=6.8
NOA pP pP 04 56 47.9 -1.1
comp=Z,1.2nm,0.8s,baz=24,slow=8.4,SNR=2.2
**BGNE Belgrade** 62.64 56 *e*P P 04 56 18.0 +0.7
**SCHQ Schefferville** 63.35 29 P P 04 56 21.6 -0.1
comp=Z,5.4nm,0.8s,baz=20,slow=5.5,SNR=4.6
**VLDQ Val d'Or** 65.83 39 *e*P P 04 56 36.8 -1.1
comp=Z,42nm,1.8s
**GEYT Alibeck** 66.14 302 P P 04 56 40.2 +0.1
comp=Z,1.5nm,0.5s,baz=46,slow=6.2,SNR=2.7
**MNTX Cornudas Mount** 66.58 68 *e*P P 04 56 46.0 +3.0
comp=Z,7.1nm,0.7s
**AKASG Malin Array Be** 66.78 329 P P 04 56 43.0 -0.9
comp=Z,1.5nm,0.8s,baz=23,slow=6.7,SNR=4.4
**AKASG Malin Array Be** 66.78 329 P P 04 56 43.0 -0.9
**KBZ Khabaz** 68.08 316 P P 04 56 52.1 0.0
comp=Z,6.6nm,0.8s,baz=51,slow=2.5,SNR=16
**TUL1 Leonard** 68.11 58 *e*P P 04 56 52.8 +0.3
comp=Z,16nm,0.8s
**KULM Kulim** 69.05 248 *e*P P 04 56 58.9 +0.3
comp=Z,14nm,0.7s
**TX31 Lajitas Ar. Si** 69.35 68 *e*P P 04 57 01.8 +1.5
**TXAR Lajitas Array** 69.35 68 P P 04 57 01.9 +1.5
comp=Z,2.6nm,0.5s,baz=303,slow=4.9,SNR=16
**IPM Ipoh** 69.54 247 *e*P P 04 57 00.8 -0.8
comp=Z,7.4nm,0.6s
**STHS Stebnicka Huta** 70.14 333 *e*P P 04 57 05.3 +0.5
**STHS Stebnicka Huta** 70.14 333 *e*P P 04 57 05.3 +0.5
**CLL Collm** 70.26 339 *e*P P 04 57 05.5 +0.1
CLL pmax pmax
comp=Z,7.0nm,1.0s
**CLL Collm** 70.26 339 *i* P P 04 57 05.1 -0.3
comp=Z,11nm,1.2s
**CLL Collm** 70.26 339 *e*P P 04 57 05.5 +0.1
comp=Z,7.0nm,1.0s
**JCT Junction City** 70.45 65 *e*P P 04 57 08.1 +1.1
JCT pmax pmax
comp=Z,8.0nm,0.8s
**JCT Junction City** 70.45 65 *e*P P 04 57 08.1 +1.1
comp=Z,7.5nm,0.8s
**DPC Dobruska-Polom** 70.46 337 *e*P P 04 57 07.7 +1.0
**DPC Dobruska-Polom** 70.46 337 *e*P P 04 57 07.7 +1.0
**MORC Moravsky Berou** 70.71 336 *e*P P 04 57 08.5 +0.2
MORC pmax pmax
comp=Z,11nm,0.9s
**MORC Moravsky Berou** 70.71 336 *e*P P 04 57 08.5 +0.2

comp=Z,10nm,0.9s
**COEN Coen 70.75 198** *e*P P 04 57 09.7 +1.0
comp=Z,7.3nm,0.9s
**PRU Pruhonice 71.19 338** *e*P P 04 57 11.8 +0.7
**PRU Pruhonice 71.19 338** *e*P P 04 57 11.8 +0.7
**NKC Novy Kostel 71.40 339** *e*P P 04 57 13.0 +0.7
**NKC Novy Kostel 71.40 339** *e*P P 04 57 13.0 +0.7
**PSI Prapat 72.06 248** *e*P P 04 57 16.9 0.0
PSI pmax pmax
comp=Z,13nm,0.7s
**PSI Prapat 72.06 248** *e*P P 04 57 16.9 0.0
comp=Z,13nm,0.7s
**GRFO Grafenberg 72.16 340** *e*P P 04 57 17.6 +0.7
GRFO pmax pmax
comp=Z,5.0nm,0.8s
**GRFO Grafenberg 72.16 340** *e*P P 04 57 17.6 +0.7
comp=Z,4.8nm,0.8s
**KHC Kasperske Hory 72.21 338** *e*P P 04 57 18.0 +0.8
**KHC Kasperske Hory 72.21 338** *e*P P 04 57 18.0 +0.8
**MEM Membach 72.21 343** P P 04 57 17.5 +0.4
comp=Z,6.9nm,1.1s
**GERES GERESS Array B 72.45 338** P P 04 57 19.2 +0.4
comp=Z,0.9nm,0.6s,baz=42,slow=6.2,SNR=9.3
**BRTR Keskin Array B 75.04 320** P P 04 57 33.8 -0.2
comp=Z,1.4nm,0.7s,baz=50,slow=4.0,SNR=6.2
**BRTR Keskin Array B 75.04 320** *ce*P P 04 57 34.2 +0.2
BRTR pmax pmax
comp=Z,1.0nm,0.7s
**BR231 Keskin MP Arra 75.24 321** *e*P P 04 57 34.7 -0.4
**TUE Stuetta 75.61 340** *e*P P 04 57 38.2 +1.0
comp=Z,5.2nm,0.7s
**CTAO Charters Tower 76.28 194** *e*P P 04 57 41.2 +0.3
CTAO pmax pmax
comp=Z,26nm,0.6s
**CTAO Charters Tower 76.28 194** *e*P P 04 57 41.2 +0.3
comp=Z,26nm,0.6s
**BNI Bardonecchia 77.47 342** *e*P P 04 57 47.9 +0.3
BNI pmax pmax
comp=Z,3.0nm,0.7s
**BNI Bardonecchia 77.47 342** *e*P P 04 57 47.9 +0.3
comp=Z,2.9nm,0.7s
**WRAB Tennant Creek 78.41 205** *e*P P 04 57 53.3 +0.6
WRAB pmax pmax
comp=Z,5.0nm,1.0s
**WRAB Tennant Creek 78.41 205** *e*P P 04 57 53.3 +0.6
comp=Z,5.0nm,1.0s
**WRA Warramunga Arr 78.42 205** P P 04 57 53.6 +0.8
comp=Z,1.3nm,0.5s,baz=8.2,slow=5.9,SNR=19
WRA pP **pP** 04 58 35.3 0.0
comp=Z,0.9nm,0.9s,baz=16,slow=6.0,SNR=2.2
**WRA Warramunga Arr 78.42 205** *i*P P 04 57 53.7 +0.9
WRA pmax pmax
comp=Z,1.0nm,0.5s
**AS01 Alice Springs 82.09 205** *e*P P 04 58 13.5 +1.1
**AS31 Alice Springs 82.10 205** *e*P P 04 58 13.9 +1.4
comp=Z,1.1nm,0.6s
**ASAR Alice Springs 82.10 205** P P 04 58 13.6 +1.2
comp=Z,2.9nm,0.7s,baz=14,slow=5.8,SNR=35
ASAR pP **pP** 04 58 55.0 -0.3
comp=Z,1.6nm,1.0s,baz=14,slow=6.4,SNR=3.2
**MBWA Marble Bar 83.94 218** *e*P P 04 58 21.3 -0.6
comp=Z,31nm,0.8s
**RAYN Ar Rayn 84.08 303** *e*P P 04 58 22.1 -0.8
comp=Z,5.3nm,0.8s
**ES19 SONSECA Array 84.29 348** *e*P P 04 58 24.1 +0.4
**ESDC Sonseca Array 84.32 348** P P 04 58 24.5 +0.7
comp=Z,6.6nm,0.7s,baz=1.3,slow=4.8,SNR=57
**ESLA Sonseca Array 84.33 348** *e*P P 04 58 24.5 +0.7
comp=Z,9.2nm,0.8s
**FORT Forrest 90.37 208** *e*P P 04 58 53.1 +0.5
**TORD Torodi Ar. Bea 109.40 338** PKiKP **PKiKP** 05 04 20.4 -0.8
comp=Z,0.2nm,0.6s,baz=348,slow=2.6,SNR=6.0
**PLCA Paso Flores 143.58 88** PKP PKPbc 05 05 24.1 +1.2
comp=Z,2.5nm,1.0s,baz=310,slow=4.3,SNR=3.4
**QSPA South Pole Qui 145.23 180** *e*PKPbc **PKPdf** **05 05 26.7 -0.2**
**TRQA Tornquist 146.57 77** *e*PKPbc **PKPbc** **05 05 32.7 +0.7**

**WEL 23 05:01:05.5±0.3, 43°55S×172°85E, h9km±1km, ML3.7/19, 3C-1D, Error ellipse: s-maj=2.5km s-min=1.2km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.17** | **262** | ⇑PG | Pg | 05 01 09.0 | 0.0 |
| CRLZ | | | | SG | Sg | 05 01 11.3 | 0.0 |
| CRLZ | | | | AML | AML | 05 01 14.7 | |
| **MQZ** | **McQueen's Vall** | **0.21** | **222** | ⇑PG | Pg | 05 01 10.1 | +0.4 |
| MQZ | | | | SG | Sg | 05 01 13.4 | +0.8 |
| MQZ | | | | AML | AML | 05 01 13.7 | |
| **OXZ** | **Oxford** | **0.63** | **291** | P* | Pg | 05 01 17.1 | -0.5 |
| OXZ | | | | S* | Sg | 05 01 25.9 | 0.0 |
| OXZ | | | | AML | AML | 05 01 27.8 | |
| OXZ | | | | AML | AML | 05 01 28.2 | |
| **LTZ** | **Lake Taylor** | **0.88** | **331** | ⇓P* | Pg | 05 01 22.2 | -0.2 |
| LTZ | | | | S* | Sg | 05 01 34.1 | +0.4 |
| **KHZ** | **Kahutara** | **1.24** | **24** | *e*P* | Pn | 05 01 27.4 | -1.6 |
| KHZ | | | | AML | AML | 05 01 50.3 | |
| KHZ | | | | AML | AML | 05 01 53.8 | |
| KHZ | | | | AML | AML | 05 02 03.1 | |
| **RPZ** | **Rata Peaks** | **1.31** | **262** | PN | Pn | 05 01 28.8 | -1.2 |
| RPZ | | | | AML | AML | 05 01 49.7 | |
| RPZ | | | | AML | AML | 05 01 53.4 | |
| **INZ** | **Inchbonnie** | **1.32** | **308** | PN | Pn | 05 01 28.7 | -1.4 |
| **WVZ** | **Waitaha Valley** | **1.61** | **286** | AML | AML | 05 01 60.0 | |
| WVZ | | | | AML | AML | 05 02 02.7 | |
| **THZ** | **Tophouse** | **1.79** | **1** | PN | Pn | 05 01 35.4 | -1.2 |
| THZ | | | | AML | AML | 05 02 02.3 | |
| THZ | | | | AML | AML | 05 02 02.6 | |
| **DSZ** | **Denniston Nort** | **1.96** | **337** | PN | Pn | 05 01 38.2 | -0.8 |
| DSZ | | | | AML | AML | 05 02 11.9 | |
| DSZ | | | | AML | AML | 05 02 11.9 | |
| DSZ | | | | AML | AML | 05 02 15.4 | |
| DSZ | | | | AML | AML | 05 02 15.4 | |
| **BSWZ** | **Blackbirch Sta** | **1.99** | **23** | PN | Pn | 05 01 38.5 | -0.8 |
| BSWZ | | | | AML | AML | 05 02 21.4 | |
| **LBZ** | **Lake Benmore** | **2.10** | **246** | PN | Pn | 05 01 40.5 | -0.3 |
| LBZ | | | | AML | AML | 05 02 16.0 | |
| LBZ | | | | AML | AML | 05 02 20.6 | |
| **ODZ** | **Otahua Downs** | **2.17** | **226** | PN | Pn | 05 01 41.3 | -0.5 |
| ODZ | | | | AML | AML | 05 02 16.8 | |
| ODZ | | | | AML | AML | 05 02 26.5 | |
| **FOZ** | **Fox Glacier** | **2.21** | **269** | PN | Pn | 05 01 42.8 | +0.6 |
| FOZ | | | | AML | AML | 05 02 10.3 | |
| FOZ | | | | AML | AML | 05 02 24.7 | |
| **TUWZ** | **Tuamarina** | **2.27** | **21** | *e*PN | Pn | 05 01 42.1 | -1.0 |
| **NNZ** | **Nelson** | **2.37** | **10** | ⇑PN | Pn | 05 01 44.0 | -0.5 |
| **TCW** | **Tory Channel** | **2.57** | **25** | PN | Pn | 05 01 46.1 | -1.2 |
| **BHW** | **Baring Head** | **2.61** | **36** | PN | Pn | 05 01 46.5 | -1.3 |
| **PLWZ** | **Palliser** | **2.66** | **43** | PN | Pn | 05 01 46.9 | -1.7 |
| **QRZ** | **Quartz Range** | **2.73** | **355** | PN | Pn | 05 01 49.2 | -0.4 |
| QRZ | | | | AML | AML | 05 02 36.6 | |
| QRZ | | | | AML | AML | 05 02 37.6 | |
| **HHSZ** | **Highcliff Hill** | **2.83** | **214** | PN | Pn | 05 01 50.3 | -0.6 |
| **DUWZ** | **D'Urville Isla** | **2.86** | **17** | PN | Pn | 05 01 50.3 | -1.0 |
| **CAW** | **Cannon Point** | **2.94** | **35** | PN | Pn | 05 01 50.9 | -1.5 |
| CAW | | | | AML | AML | 05 02 31.8 | |
| **JCZ** | **Jackson Bay** | **2.99** | **259** | PN | Pn | 05 01 52.8 | -0.3 |
| JCZ | | | | AML | AML | 05 02 52.5 | |
| **WKZ** | **Wanaka** | **3.04** | **244** | PN | Pn | 05 01 52.7 | -1.0 |
| WKZ | | | | AML | AML | 05 02 55.9 | |
| WKZ | | | | AML | AML | 05 02 56.4 | |
| **EAZ** | **Earnscleugh** | **3.04** | **235** | PN | Pn | 05 01 53.4 | -0.4 |
| EAZ | | | | AML | AML | 05 02 51.6 | |
| EAZ | | | | AML | AML | 05 02 53.7 | |
| **KIW** | **Kapiti Island** | **3.09** | **30** | PN | Pn | 05 01 53.2 | -1.3 |
| **MTW** | **Mount Morrison** | **3.10** | **40** | PN | Pn | 05 01 52.4 | -2.1 |
| **TUZ** | **Tuapeka** | **3.32** | **223** | PN | Pn | 05 01 57.7 | +0.1 |
| TUZ | | | | AML | AML | 05 03 05.3 | |
| TUZ | | | | AML | AML | 05 03 06.7 | |
| **MRZ** | **Mangatainoka R** | **3.53** | **36** | PN | Pn | 05 01 58.7 | -1.8 |
| **BFZ** | **Birch Farm** | **3.82** | **43** | PN | Pn | 05 02 02.2 | -2.3 |
| **MLZ** | **Mavora Lakes** | **3.84** | **240** | PN | Pn | 05 02 04.2 | -0.6 |
| **SYZ** | **Scrubby Hill** | **3.98** | **220** | *e*PN | Pn | 05 02 06.8 | +0.2 |
| **DCZ** | **Deep Cove** | **4.50** | **243** | PN | Pn | 05 02 13.4 | -0.4 |
| **WNVZ** | **Wahianoa** | **4.70** | **27** | PN | Pn | 05 02 16.7 | 0.0 |
| **APZ** | **The Paps** | **4.75** | **225** | PN | Pn | 05 02 17.0 | -0.3 |
| **TUVZ** | **Tukino** | **4.77** | **27** | PN | Pn | 05 02 17.8 | +0.1 |
| **OTVZ** | **Oturere** | **4.87** | **27** | PN | Pn | 05 02 18.5 | -0.5 |
| **HIZ** | **Hauiti** | **5.26** | **17** | PN | Pn | 05 02 24.0 | -0.2 |

*SJA 23 05:06:02.7±0.7, 37°01S×73°82W, h30km, ML3.5, MW3.4*
*ISCJB 23 05:06:03.2±1.8, 37°09S±0°05×73°7W±0°1, h26km±10km, Error ellipse: s-maj=17.6km s-min=8.5km az=3.5*
*GUC 23 05:06:06.1±0.6, 37°12S×73°48W, h38km±4km, ML3.3*
**ISC 23 05:06:04.7±3.1, 37°12S±0°07×73°6W±0°2, h25km±21km, n16, σ1s08/21, 2C-3D, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CCSP** | **San Pedro de C** | **0.47** | **55** | ⇑*i*P | Pn | **05 06 14.9** | **-0.8** |
| CCSP | | | | *i* S | Sb | **05 06 21.4** | **+0.3** |
| CCSP | | | | IAML | | 05 06 26.4 | |
| comp=N,6μm,0.2s | | | | | | | |
| **COCH** | **Cobquecura** | **1.18** | **33** | *e*P | Pb | **05 06 25.8** | **-0.6** |
| COCH | | | | ⇓*e*S | Sb | **05 06 41.0** | **0.0** |
| **COCH** | **Cobquecura** | **1.18** | **33** | ⇓*i*P | Pb | **05 06 25.7** | **-0.6** |
| COCH | | | | *i* S | Sb | **05 06 40.5** | **-0.6** |
| COCH | | | | IAML | | 05 06 41.6 | |
| comp=N,692nm,0.1s | | | | | | | |
| **CCHI** | **Chillan** | **1.32** | **68** | *e*P | Pb | **05 06 28.9** | **+0.2** |
| CCHI | | | | *e*S | Sb | **05 06 47.3** | **+2.1** |
| **CCHI** | **Chillan** | **1.32** | **68** | *e*P | Pb | **05 06 28.8** | **+0.1** |
| CCHI | | | | *i* S | Sb | **05 06 44.8** | **-0.3** |
| CCHI | | | | IAML | | 05 06 53.4 | |
| comp=E,1μm,0.3s | | | | | | | |
| **TMU** | **Temuco** | **1.79** | **154** | *e*P | Pn | **05 06 34.9** | **+0.8** |
| TMU | | | | *i* S | Sn | **05 06 55.2** | **-0.8** |
| **CANA** | **Caviahue** | **2.15** | **112** | *e*P | Pb | **05 06 42.1** | **-1.0** |
| CANA | | | | IAML | | 05 06 57.2 | |
| comp=Z,101nm,0.5s | | | | | | | |
| **RTCV** | **Cerro Valdivia** | **6.70** | **40** | *e*P | Pn | **05 07 42.0** | **+0.5** |
| **RTLL** | **Cerro Villicun** | **7.16** | **38** | *e*P | Pn | **05 07 48.6** | **+0.8** |
| **AMOG** | **MOGNA** | **7.47** | **36** | *e*P | Pn | **05 07 52.4** | **+0.3** |
| **APLL** | **PUNTA DE LOS L** | **8.91** | **43** | ⇓*e*P | Pn | **05 08 10.2** | **-1.7** |

*SOME 23 05:07:23.4, 40°37N×73°15E, h15km*
*KRNET 23 05:07:23.0±0.1, 40°28N×73°17E, h30km, mb2.8*
*NNC 23 05:07:26.9±3.2, 40°60N×73°15E, h0km, mb3.1, mpv2.7, Error ellipse: s-maj=26.6km s-min=18.1km az=168.0*
**ISC 23 05:07:23.6±2.1, 40°45N±0°08×73°19E±0°04, h0km±12km, n29, σ1s19/46, 20C-12D, Kyrgyzstan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SFK** | **Sufi-Kurgan** | **0.50** | **151** | *i* P | Pg | 05 07 31.7 | -1.5 |
| baz=135 | | | | | | | |
| SFK | | | | *i* S | Sg | 05 07 36.8 | -2.9 |
| baz=135 | | | | | | | |
| **ARSB** | **Arslanbob** | **0.88** | **350** | ⇑*e*P | Pb | **05 07 42.2** | **+0.3** |
| baz=352 | | | | | | | |
| ARSB | | | | ⇑*i*S | Sn | **05 07 56.9** | **-0.1** |
| baz=352 | | | | | | | |
| **TOKL** | **Toktogul** | **1.50** | **351** | ⇓*e*P | Pg | **05 07 52.9** | **+0.5** |
| baz=352 | | | | | | | |
| TOKL | | | | ⇓*i*S | Sg | **05 08 13.4** | **+1.5** |
| baz=352 | | | | | | | |
| **AML** | **Almayashu** | **1.72** | **13** | ⇓*e*P | Pb | **05 07 56.1** | **-0.1** |
| baz=12 | | | | | | | |
| AML | | | | ⇓*i*S | Sg | **05 08 19.1** | **+0.3** |
| baz=12 | | | | | | | |
| **AML** | **Almayashu** | **1.72** | **13** | P | Pb | **05 07 56.2** | **-0.1** |
| SNR=180 | | | | | | | |
| **UCH** | **Uchtor** | **2.04** | **29** | ⇑*i*P | Pn | **05 08 00.7** | **+1.2** |
| baz=27 | | | | | | | |
| UCH | | | | ⇑*i*S | Sb | **05 08 27.0** | **-0.7** |
| baz=27 | | | | | | | |
| **UCH** | **Uchtor** | **2.04** | **29** | P | Pb | **05 08 01.5** | **-0.2** |
| SNR=22 | | | | | | | |
| **MNAS** | **Manas** | **2.10** | **346** | ⇑*i*P | Pn | **05 08 01.1** | **+1.1** |
| baz=348 | | | | | | | |
| MNAS | | | | ⇑*i*S | Sg | **05 08 29.3** | **-1.6** |
| baz=348 | | | | | | | |
| **MNAS** | **Manas** | **2.10** | **346** | ⇓Pn | Pn | **05 08 00.9** | **+0.8** |
| 1.4nm,0.4s | | | | | | | |
| MNAS | | | | ⇑Lg | Lg | 05 08 29.4 | |
| 7.4nm,0.4s | | | | | | | |
| **KZA** | **Kyzart** | **2.25** | **43** | ⇑*i*P | Pn | **05 08 03.3** | **+0.9** |
| baz=40 | | | | | | | |
| KZA | | | | ⇑*i*S | Sn | **05 08 31.6** | **+0.6** |
| baz=40 | | | | | | | |
| **KZA** | **Kyzart** | **2.25** | **43** | P | Pb | **05 08 05.6** | **+0.3** |
| SNR=9.6 | | | | | | | |
| **EKS2** | **Erkin-Say** | **2.25** | **11** | ⇓*e*P | Pn | **05 08 03.7** | **+1.6** |
| baz=11 | | | | | | | |
| EKS2 | | | | ⇓*i*S | Sb | **05 08 32.9** | **-0.7** |
| baz=11 | | | | | | | |
| **EKS2** | **Erkin-Say** | **2.25** | **11** | P | Pb | **05 08 04.4** | **-0.7** |
| SNR=9.5 | | | | | | | |
| **MRKS** | **Merke** | **2.29** | **1** | *e*P | Pb | **05 08 05.9** | **+0.1** |
| 7.4nm,0.4s | | | | | | | |
| MRKS | | | | *e*S | Sg | **05 08 37.0** | **-0.2** |
| 23nm,0.4s | | | | | | | |
| **NRN** | **Naryn** | **2.34** | **64** | ⇓*i*P | Pn | **05 08 03.3** | **-0.3** |
| baz=61 | | | | | | | |
| NRN | | | | ⇓*i*S | Sn | **05 08 31.8** | **-1.5** |
| baz=61 | | | | | | | |
| **AAK** | **Ala-Archa** | **2.39** | **24** | ⇑*i*P | Pn | **05 08 05.6** | **+1.5** |
| baz=23 | | | | | | | |
| AAK | | | | ⇑*i*S | Sb | **05 08 35.5** | **-2.2** |
| baz=23 | | | | | | | |
| **AAK** | **Ala-Archa** | **2.39** | **24** | Pn | Pb | **05 08 07.0** | **-0.6** |
| 8.5nm,0.5s | | | | | | | |
| AAK | | | | Lg | Lg | 05 08 38.8 | |
| 35nm,0.8s | | | | | | | |
| **AAK** | **Ala-Archa** | **2.39** | **24** | P | Pb | **05 08 08.1** | **+0.5** |
| SNR=8.9 | | | | | | | |
| **KBK** | **Karagaybulak** | **2.57** | **30** | ⇑*i*P | Pn | **05 08 07.6** | **+1.1** |
| baz=29 | | | | | | | |
| KBK | | | | ⇑*i*S | Sb | **05 08 39.8** | **-2.9** |
| baz=29 | | | | | | | |
| **CHMS** | **Chumysh** | **2.80** | **24** | ⇑*e*P | Pn | **05 08 10.9** | **+1.3** |
| baz=23 | | | | | | | |
| CHMS | | | | ⇑*i*S | Sn | **05 08 44.8** | **+0.7** |
| baz=23 | | | | | | | |
| **ULHL** | **Ulahol** | **2.92** | **51** | ⇑*e*P | Pn | **05 08 11.4** | **0.0** |
| baz=49 | | | | | | | |
| ULHL | | | | ⇑*i*S | Sn | **05 08 45.9** | **-1.3** |
| baz=49 | | | | | | | |
| **ULHL** | **Ulahol** | **2.92** | **51** | P | Pb | **05 08 17.4** | **+0.9** |
| SNR=6.4 | | | | | | | |
| **IUG** | **Iuzhnay** | **2.92** | **306** | *e*P | Pb | **05 08 17.1** | **+0.7** |
| 13nm,0.3s | | | | | | | |
| IUG | | | | *e*S | Sg | **05 08 56.6** | **-0.7** |
| 32nm,0.4s | | | | | | | |
| **USP** | **Ospenovka** | **2.98** | **19** | ⇓*e*P | Pn | **05 08 13.4** | **+1.3** |
| baz=18 | | | | | | | |
| USP | | | | ⇓*i*S | Sn | **05 08 49.3** | **+0.8** |
| baz=18 | | | | | | | |
| **TKM2** | **Tokmak 2** | **3.06** | **35** | ⇑Pg | Pb | **05 08 19.5** | **+0.6** |
| 2.4nm,0.5s | | | | | | | |
| TKM2 | | | | ⇓Lg | Lg | 05 08 59.6 | |
| 11nm,0.5s | | | | | | | |
| **KK31** | **Karatay Array** | **3.32** | **324** | ⇑Pg | Pg | **05 08 26.0** | **-1.1** |
| 0.5nm,0.4s,baz=136,slow=15,SNR=4.5 | | | | | | | |
| KK31 | | | | ⇑Lg | Lg | 05 09 07.4 | |
| 1.3nm,0.3s,baz=144,slow=30,SNR=4.9 | | | | | | | |
| **KST** | **Kastek** | **3.32** | **38** | *e*P | Pb | **05 08 24.4** | **+1.1** |
| 1.0nm,0.2s | | | | | | | |
| KST | | | | *e*S | Sg | **05 09 08.8** | **-1.3** |
| 3.8nm,0.5s | | | | | | | |
| **DGS** | **Degeres** | **3.39** | **34** | *e*P | Pb | **05 08 27.2** | **+2.6** |
| 4.5nm,0.6s | | | | | | | |
| DGS | | | | *e*S | Sg | **05 09 13.6** | **+1.1** |
| 8.1nm,0.4s | | | | | | | |
| **IZV** | **Izvestkoviy** | **3.64** | **44** | *e*P | Pb | **05 08 31.2** | **+2.4** |
| 4.8nm,0.4s | | | | | | | |
| IZV | | | | *e*S | Sg | **05 09 20.0** | **-0.4** |
| 10nm,0.4s | | | | | | | |

**IDC 23 05:10:33.4±2.3, 6°11S×150°21E, h0km, mb3.5/3, mb1 3.8/3, mb1mx3.3/30, mbtmp3.5/3, MS3.6/1, Ms1 3.6/1, ms1mx2.9/21, Error ellipse: s-maj=151.7km s-min=34.4km az=128.0, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **20.67** | **227** | P | P | 05 15 15.6 | +0.6 |
| 0.7nm,0.7s,baz=53,slow=11,SNR=5.0 | | | | | | | |
| **ASAR** | **Alice Springs** | **23.48** | **220** | P | P | 05 15 44.5 | -0.4 |
| 0.6nm,0.5s,baz=54,slow=9.6,SNR=10 | | | | | | | |
| **KSRS** | **Korea Array** | **48.07** | **336** | LR | LR | 05 36 48.9 | |
| comp=Z,64nm,19.8s,baz=26,slow=33 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **97.77** | **28** | P | P | 05 24 10.1 | -0.1 |
| 0.3nm,1.0s,baz=280,slow=4.3,SNR=4.6 | | | | | | | |

**WEL 23 05:15:53.2±0.1, 43°52S×172°77E, h13km±2km, ML2.7/4, 2C, Error ellipse: s-maj=1.4km s-min=0.7km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.12** | **241** | ⇑P* | Pg | 05 15 56.4 | 0.0 |
| CRLZ | | | | S* | Sg | 05 15 59.0 | +0.3 |
| CRLZ | | | | AML | AML | 05 15 59.2 | |
| **MQZ** | **McQueen's Vall** | **0.21** | **204** | ⇑P* | Pg | 05 15 57.9 | +0.1 |
| MQZ | | | | S* | Sg | 05 16 01.6 | +0.7 |
| MQZ | | | | AML | AML | 05 16 02.0 | |
| **OXZ** | **Oxford** | **0.56** | **289** | P* | Pg | 05 16 04.0 | -0.3 |
| OXZ | | | | AML | AML | 05 16 05.0 | |
| OXZ | | | | S* | Sg | 05 16 12.1 | +0.3 |
| OXZ | | | | AML | AML | 05 16 14.7 | |
| **LTZ** | **Lake Taylor** | **0.82** | **333** | P* | Pg | 05 16 08.5 | -0.6 |
| LTZ | | | | S* | Sg | 05 16 19.4 | -0.4 |
| LTZ | | | | S* | Sb | 05 16 19.5 | -0.9 |
| **KHZ** | **Kahutara** | **1.23** | **27** | *e*P* | Pn | 05 16 14.6 | -1.6 |
| **INZ** | **Inchbonnie** | **1.25** | **309** | PN | Pn | 05 16 16.3 | -0.1 |

*SJA 23 05:29:48.4±0.8, 32°71S×72°19W, h25km, ML3.3, MW3.5*
*ISCJB 23 05:29:50.6±1.2, 32°84S±0°08×72°2W±0°1, h73km±16km, Error ellipse: s-maj=16.7km s-min=11.0km az=31.2*
*GUC 23 05:29:55.1±0.4, 32°77S×71°61W, h69km±11km, ML2.9*
**ISC 23 05:29:50.4±2.0, 32°87S±0°06×72°2W±0°1, h69km±23km, n20, σ2s49/29, 1C-3D, Off coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ROC1** | **El Roble** | **1.04** | **96** | *e*P | Pn | **05 30 13.3** | **+3.8** |
| ROC1 | | | | *e*S | Sn | **05 30 23.4** | **-0.3** |
| **ROCH** | **El Roble** | **1.04** | **96** | ⇓*i*P | Pn | **05 30 13.2** | **+3.7** |
| ROCH | | | | *i* S | Sn | **05 30 23.5** | **-0.3** |
| ROCH | | | | IAML | | 05 30 24.4 | |
| comp=E,1μm,0.3s | | | | | | | |
| **STL** | **Santa Lucia** | **1.46** | **113** | *e*P | Pn | **05 30 13.4** | **-1.4** |
| STL | | | | *i* S | Sn | **05 30 28.9** | **-4.2** |
| STL | | | | IAML | | 05 30 35.4 | |
| comp=E,300nm,0.4s | | | | | | | |
| **FSR** | **Penalolen** | **1.56** | **113** | ⇑*i*P | Pn | **05 30 15.6** | **-0.6** |
| FSR | | | | *i* S | Sn | **05 30 31.6** | **-4.1** |
| **SJCH** | **San Jose de Ma** | **1.76** | **116** | *e*P | Pn | **05 30 18.9** | **0.0** |
| SJCH | | | | *i* S | Sn | **05 30 36.5** | **-3.9** |
| SJCH | | | | IAML | | 05 30 43.1 | |
| comp=E,361nm,0.2s | | | | | | | |
| **GO05** | **HualaæØ** | **2.15** | **173** | *e*P | Pn | **05 30 26.9** | **+2.9** |
| **AUSP** | **Uspallata** | **2.50** | **76** | *e*P | Pn | **05 30 29.5** | **+0.5** |
| **RTLS** | **Leoncito** | **2.71** | **68** | *e*P | Pn | **05 30 32.8** | **+0.8** |
| RTLS | | | | ⇓*e*S | Sn | **05 31 04.3** | **+0.5** |
| **ARCO** | **CERRO ARCO** | **2.79** | **90** | *e*P | Pn | **05 30 35.3** | **+2.5** |
| ARCO | | | | IAML | | 05 30 40.9 | |
| comp=Z,89nm,0.4s | | | | | | | |
| **AAGR** | **Agrelo** | **2.88** | **95** | *e*P | Pn | **05 30 36.7** | **+2.7** |
| **TLL** | **Tololo Astrono** | **2.96** | **25** | *e*P | Pn | **05 30 34.1** | **-1.2** |
| TLL | | | | *i* S | Sn | **05 31 05.8** | **-4.0** |
| **RTCV** | **Cerro Valdivia** | **3.29** | **73** | *e*P | Pn | **05 30 41.3** | **+1.8** |
| **RTLL** | **Cerro Villicun** | **3.55** | **65** | *e*P | Pn | **05 30 43.8** | **+0.7** |
| RTLL | | | | IAML | | 05 31 34.3 | |
| comp=Z,71nm,0.4s | | | | | | | |
| **AMOG** | **MOGNA** | **3.72** | **60** | *e*P | Pn | **05 30 46.4** | **+0.9** |
| **ACAN** | **Cantantal** | **4.31** | **83** | *e*P | Pn | **05 30 55.0** | **+1.5** |
| **AGUA** | **GUANDACOL** | **4.66** | **45** | *e*P | Pn | **05 30 58.6** | **+0.3** |
| **VCA** | **Vinchina** | **5.39** | **41** | *e*P | Pn | **05 31 09.3** | **+1.0** |
| VCA | | | | *e*S | Sn | 05 32 23.8 | +15 |
| **ACLC** | **CERRO LA CRUZ** | **5.69** | **54** | *e*P | Pn | **05 31 11.7** | **-0.7** |
| **TCA** | **Tanti** | **6.67** | **79** | *e*P | Pn | **05 31 24.8** | **-0.9** |
| TCA | | | | *e*S | Sn | **05 32 39.5** | **-0.8** |
| **CYA** | **Choya** | **7.09** | **53** | ⇓*e*P | Pn | **05 31 33.9** | **+2.4** |
| CYA | | | | *e*S | Sn | **05 32 55.0** | **+4.4** |

**IDC 23 05:36:24.2±3.9, 6°04S×150°84E, h0km, mb3.1/2, mb1 3.5/2, mb1mx3.1/34, mbtmp3.2/2, Error ellipse: s-maj=146.7km s-min=52.5km az=118.0, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **21.17** | **228** | P | P | 05 41 11.8 | +0.5 |
| 0.9nm,0.8s,baz=54,slow=10,SNR=3.9 | | | | | | | |
| **ASAR** | **Alice Springs** | **23.93** | **221** | P | P | 05 41 39.7 | -0.5 |
| 0.4nm,0.7s,baz=53,slow=9.3,SNR=7.7 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **148.79** | **285** | PKPbc | PKPbc | 05 56 14.4 | -0.4 |
| 0.4nm,0.8s,baz=64,slow=3.4,SNR=2.6 | | | | | | | |

**WEL 23 05:44:32.6±0.1, 43°53S×172°80E, h8km, ML3.5/9, 4C-2D, Error ellipse: s-maj=1.3km s-min=0.7km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.14** | **249** | ⇑PG | Pg | 05 44 35.8 | +0.1 |
| CRLZ | | | | SG | Sg | 05 44 37.9 | +0.2 |
| CRLZ | | | | SG | | 05 44 38.0 | |
| CRLZ | | | | AML | AML | 05 44 38.1 | |
| CRLZ | | | | AML | AML | 05 44 38.2 | |
| **MQZ** | **McQueen's Vall** | **0.21** | **211** | ⇑PG | Pg | 05 44 37.1 | +0.2 |
| MQZ | | | | SG | Sg | 05 44 40.2 | +0.4 |
| MQZ | | | | SG | | 05 44 40.4 | |
| MQZ | | | | AML | AML | 05 44 40.5 | |
| **OXZ** | **Oxford** | **0.59** | **289** | P* | Pg | 05 44 43.7 | -0.4 |
| OXZ | | | | S* | Sg | 05 44 51.7 | -0.1 |
| OXZ | | | | AML | AML | 05 44 53.9 | |
| OXZ | | | | AML | AML | 05 44 55.4 | |
| OXZ | | | | AML | AML | 05 44 55.4 | |
| **LTZ** | **Lake Taylor** | **0.84** | **332** | ⇓P* | Pg | 05 44 48.7 | 0.0 |
| LTZ | | | | S* | Sb | 05 45 00.3 | -0.6 |
| **KHZ** | **Kahutara** | **1.23** | **26** | P* | Pn | 05 44 54.6 | -1.6 |
| **INZ** | **Inchbonnie** | **1.28** | **308** | P* | Pn | 05 44 55.0 | -1.7 |
| **RPZ** | **Rata Peaks** | **1.28** | **261** | P* | Pn | 05 44 55.3 | -1.5 |
| RPZ | | | | AML | AML | 05 45 16.1 | |
| RPZ | | | | AML | AML | 05 45 16.2 | |
| **THZ** | **Tophouse** | **1.76** | **3** | ⇑PN | Pn | 05 45 02.0 | -1.5 |
| THZ | | | | AML | AML | 05 45 24.8 | |
| THZ | | | | AML | AML | 05 45 28.9 | |
| **DSZ** | **Denniston Nort** | **1.93** | **337** | PN | Pn | 05 45 04.7 | -1.0 |
| DSZ | | | | AML | AML | 05 45 29.6 | |
| DSZ | | | | AML | AML | 05 45 30.4 | |
| DSZ | | | | AML | AML | 05 45 30.7 | |
| DSZ | | | | AML | AML | 05 45 31.0 | |
| **BSWZ** | **Blackbirch Sta** | **1.98** | **24** | PN | Pn | 05 45 05.2 | -1.2 |
| **LBZ** | **Lake Benmore** | **2.08** | **245** | PN | Pn | 05 45 07.0 | -0.8 |
| LBZ | | | | AML | AML | 05 45 40.4 | |
| LBZ | | | | AML | AML | 05 45 42.6 | |
| **ODZ** | **Otahua Downs** | **2.17** | **225** | PN | Pn | 05 45 07.6 | -1.4 |
| ODZ | | | | AML | AML | 05 45 45.5 | |
| ODZ | | | | AML | AML | 05 45 45.9 | |
| **FOZ** | **Fox Glacier** | **2.17** | **269** | PN | Pn | 05 45 09.8 | +0.8 |
| **TUWZ** | **Tuamarina** | **2.26** | **22** | PN | Pn | 05 45 08.8 | -1.4 |
| **NNZ** | **Nelson** | **2.35** | **11** | ⇑PN | Pn | 05 45 10.6 | -0.8 |
| **TCW** | **Tory Channel** | **2.56** | **26** | PN | Pn | 05 45 12.7 | -1.7 |
| **PLWZ** | **Palliser** | **2.67** | **44** | PN | Pn | 05 45 13.6 | -2.3 |
| **QRZ** | **Quartz Range** | **2.71** | **356** | PN | Pn | 05 45 15.3 | -1.1 |
| **HHSZ** | **Highcliff Hill** | **2.83** | **213** | ⇓PN | Pn | 05 45 17.0 | -1.1 |
| **DUWZ** | **D'Urville Isla** | **2.85** | **17** | PN | Pn | 05 45 17.4 | -1.

**WEL 23 05:44:53.3±0.1, 43.53S×172.80E, h8km, ML3.3/8, 1C, Error ellipse: s-maj=1.3km s-min=0.7km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.13** | **252** | ⇑PG | Pg | 05 44 56.3 | +0.1 |
| CRLZ | | | | SG | Sg | 05 44 58.4 | +0.2 |
| CRLZ | | | | AML | AML | 05 44 58.5 | |
| CRLZ | | | | AML | AML | 05 44 58.5 | |
| CRLZ | | | | AML | AML | 05 44 58.5 | |
| **MQZ** | **McQueen's Vall** | **0.20** | **211** | PG | Pg | 05 44 57.5 | +0.2 |
| MQZ | | | | SG | Sg | 05 45 00.6 | +0.4 |
| MQZ | | | | SG | | 05 45 00.6 | |
| MQZ | | | | AML | AML | 05 45 00.8 | |
| **OXZ** | **Oxford** | **0.59** | **290** | P* | Pb | 05 45 05.7 | -0.1 |
| OXZ | | | | S* | Sg | 05 45 13.0 | +0.6 |
| OXZ | | | | AML | AML | 05 45 14.4 | |
| OXZ | | | | AML | AML | 05 45 16.2 | |
| OXZ | | | | AML | AML | 05 45 16.4 | |
| **LTZ** | **Lake Taylor** | **0.84** | **333** | P* | Pg | 05 45 09.4 | -0.1 |
| LTZ | | | | S* | Sg | 05 45 21.1 | +0.6 |
| **INZ** | **Inchbonnie** | **1.28** | **309** | *e*P* | Pn | 05 45 17.5 | +0.1 |
| **RPZ** | **Rata Peaks** | **1.28** | **261** | AML | AML | 05 45 36.3 | |
| RPZ | | | | AML | AML | 05 45 38.7 | |
| **THZ** | **Tophouse** | **1.77** | **3** | AML | AML | 05 45 49.7 | |
| THZ | | | | AML | AML | 05 45 57.9 | |
| **LBZ** | **Lake Benmore** | **2.07** | **245** | AML | AML | 05 46 01.0 | |
| **ODZ** | **Otahua Downs** | **2.16** | **225** | AML | AML | 05 46 03.5 | |

**WEL 23 05:45:12.7±0.3, 43.49S×172.84E, h5km, ML3.0/5, 1D, Error ellipse: s-maj=2.7km s-min=1.0km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.18** | **241** | ⇓PG | Pg | 05 45 16.6 | +0.5 |
| CRLZ | | | | SG | Sg | 05 45 19.3 | +0.8 |
| CRLZ | | | | AML | AML | 05 45 19.5 | |
| **MQZ** | **McQueen's Vall** | **0.25** | **211** | PG | Pg | 05 45 17.7 | +0.1 |
| MQZ | | | | SG | Sg | 05 45 21.5 | +0.5 |
| MQZ | | | | SG | Sb | 05 45 21.6 | -2.9 |
| MQZ | | | | AML | AML | 05 45 21.8 | |
| **OXZ** | **Oxford** | **0.60** | **285** | P* | Pg | 05 45 24.1 | -0.2 |
| OXZ | | | | SG | Sg | 05 45 32.4 | +0.3 |
| OXZ | | | | AML | AML | 05 45 33.3 | |
| OXZ | | | | AML | AML | 05 45 34.1 | |
| OXZ | | | | AML | AML | 05 45 34.4 | |
| **LTZ** | **Lake Taylor** | **0.82** | **330** | P* | Pb | 05 45 29.1 | -0.3 |
| LTZ | | | | S* | Sb | 05 45 40.0 | -0.8 |
| **RPZ** | **Rata Peaks** | **1.31** | **260** | AML | AML | 05 45 56.0 | |
| RPZ | | | | AML | AML | 05 45 57.3 | |

**WEL 23 05:46:38.1±0.2, 43.49S×172.87E, h12km±2km, ML3.8/29, 2C-1D, Error ellipse: s-maj=1.9km s-min=0.9km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.20** | **244** | ⇑P* | Pg | 05 46 42.5 | -0.1 |
| CRLZ | | | | S* | Sg | 05 46 45.7 | +0.1 |
| CRLZ | | | | AML | AML | 05 46 46.0 | |
| **MQZ** | **McQueen's Vall** | **0.27** | **216** | ⇑P* | Pg | 05 46 43.9 | +0.1 |
| MQZ | | | | AML | AML | 05 46 47.0 | |
| MQZ | | | | S* | Sg | 05 46 48.2 | +0.6 |
| MQZ | | | | AML | AML | 05 46 48.7 | |
| **OXZ** | **Oxford** | **0.63** | **284** | P* | Pg | 05 46 49.7 | -0.7 |
| OXZ | | | | S* | Sg | 05 46 58.2 | -0.5 |
| OXZ | | | | AML | AML | 05 47 00.1 | |
| OXZ | | | | AML | AML | 05 47 01.0 | |
| OXZ | | | | AML | AML | 05 47 01.0 | |
| **LTZ** | **Lake Taylor** | **0.83** | **328** | ⇓P* | Pg | 05 46 53.7 | -0.5 |
| LTZ | | | | S* | Sg | 05 47 04.9 | -0.2 |
| LTZ | | | | AML | AML | 05 47 06.2 | |
| **KHZ** | **Kahutara** | **1.18** | **25** | P* | Pn | 05 46 59.3 | -1.0 |
| KHZ | | | | AML | AML | 05 47 15.4 | |
| KHZ | | | | AML | AML | 05 47 15.4 | |
| KHZ | | | | AML | AML | 05 47 15.8 | |
| KHZ | | | | AML | AML | 05 47 15.8 | |
| **INZ** | **Inchbonnie** | **1.29** | **306** | PN | Pn | 05 47 00.6 | -1.4 |
| **RPZ** | **Rata Peaks** | **1.34** | **260** | PN | Pn | 05 47 01.4 | -1.3 |
| RPZ | | | | AML | AML | 05 47 26.4 | |
| RPZ | | | | AML | AML | 05 47 28.2 | |
| **WVZ** | **Waitaha Valley** | **1.61** | **284** | *e*PN | Pn | 05 47 05.8 | -0.6 |
| WVZ | | | | AML | AML | 05 47 29.5 | |
| WVZ | | | | AML | AML | 05 47 33.5 | |
| **THZ** | **Tophouse** | **1.72** | **1** | PN | Pn | 05 47 06.8 | -1.1 |
| THZ | | | | AML | AML | 05 47 31.3 | |
| THZ | | | | AML | AML | 05 47 32.4 | |
| **DSZ** | **Denniston Nort** | **1.91** | **335** | PN | Pn | 05 47 09.6 | -0.9 |
| DSZ | | | | AML | AML | 05 47 40.4 | |
| DSZ | | | | AML | AML | 05 47 40.4 | |
| DSZ | | | | AML | AML | 05 47 42.2 | |
| DSZ | | | | AML | AML | 05 47 42.3 | |
| **BSWZ** | **Blackbirch Sta** | **1.92** | **23** | PN | Pn | 05 47 09.9 | -0.7 |
| BSWZ | | | | AML | AML | 05 47 37.1 | |
| BSWZ | | | | AML | AML | 05 47 37.3 | |
| **LBZ** | **Lake Benmore** | **2.14** | **244** | AML | AML | 05 47 52.7 | |
| LBZ | | | | AML | AML | 05 47 58.0 | |
| **TUWZ** | **Tuamarina** | **2.20** | **21** | *e*PN | Pn | 05 47 13.3 | -1.1 |
| TUWZ | | | | AML | AML | 05 47 56.3 | |
| TUWZ | | | | AML | AML | 05 47 59.0 | |
| **FOZ** | **Fox Glacier** | **2.23** | **268** | PN | Pn | 05 47 15.3 | +0.5 |
| FOZ | | | | AML | AML | 05 47 43.2 | |
| FOZ | | | | AML | AML | 05 47 43.2 | |
| FOZ | | | | AML | AML | 05 47 43.5 | |
| FOZ | | | | AML | AML | 05 47 43.5 | |
| **ODZ** | **Otahua Downs** | **2.23** | **225** | PN | Pn | 05 47 14.1 | -0.7 |
| ODZ | | | | AML | AML | 05 47 55.7 | |
| ODZ | | | | AML | AML | 05 47 55.7 | |
| ODZ | | | | AML | AML | 05 47 58.2 | |
| ODZ | | | | AML | AML | 05 48 03.5 | |
| **NNZ** | **Nelson** | **2.30** | **10** | PN | Pn | 05 47 15.4 | -0.4 |
| NNZ | | | | AML | AML | 05 47 44.7 | |
| NNZ | | | | AML | AML | 05 47 44.9 | |
| NNZ | | | | AML | AML | 05 47 45.3 | |
| **TCW** | **Tory Channel** | **2.50** | **25** | AML | AML | 05 47 47.8 | |
| TCW | | | | AML | AML | 05 47 48.5 | |
| **BHW** | **Baring Head** | **2.55** | **36** | PN | Pn | 05 47 17.9 | -1.3 |
| **PLWZ** | **Palliser** | **2.60** | **43** | PN | Pn | 05 47 18.3 | -1.7 |
| **QRZ** | **Quartz Range** | **2.67** | **354** | PN | Pn | 05 47 20.0 | -0.9 |
| QRZ | | | | AML | AML | 05 47 29.8 | |
| QRZ | | | | AML | AML | 05 47 29.8 | |
| QRZ | | | | AML | AML | 05 47 55.6 | |
| QRZ | | | | AML | AML | 05 47 55.6 | |
| **DUWZ** | **D'Urville Isla** | **2.79** | **17** | PN | Pn | 05 47 21.9 | -0.7 |
| DUWZ | | | | AML | AML | 05 48 04.7 | |
| DUWZ | | | | AML | AML | 05 48 05.5 | |
| **CAW** | **Cannon Point** | **2.88** | **35** | PN | Pn | 05 47 22.2 | -1.6 |
| CAW | | | | AML | AML | 05 47 56.1 | |
| CAW | | | | AML | AML | 05 47 59.2 | |
| **HHSZ** | **Highcliff Hill** | **2.90** | **213** | PN | Pn | 05 47 23.3 | -0.7 |
| **JCZ** | **Jackson Bay** | **3.02** | **257** | PN | Pn | 05 47 25.1 | -0.7 |
| JCZ | | | | AML | AML | 05 48 22.7 | |
| JCZ | | | | AML | AML | 05 48 31.6 | |
| **MTW** | **Mount Morrison** | **3.04** | **41** | AML | AML | 05 47 59.9 | |
| MTW | | | | AML | AML | 05 47 59.9 | |
| **WKZ** | **Wanaka** | **3.08** | **243** | PN | Pn | 05 47 25.2 | -1.4 |
| WKZ | | | | AML | AML | 05 48 22.8 | |
| WKZ | | | | AML | AML | 05 48 24.7 | |
| **EAZ** | **Earnscleugh** | **3.10** | **234** | PN | Pn | 05 47 25.7 | -1.0 |
| EAZ | | | | AML | AML | 05 48 20.1 | |
| EAZ | | | | AML | AML | 05 48 20.2 | |
| EAZ | | | | AML | AML | 05 48 22.7 | |
| EAZ | | | | AML | AML | 05 48 22.7 | |
| **OGWZ** | **Otaki Gorge** | **3.17** | **33** | *e*PN | Pn | 05 47 26.0 | -1.7 |
| OGWZ | | | | AML | AML | 05 48 02.3 | |
| OGWZ | | | | AML | AML | 05 48 02.3 | |
| **HOWZ** | **Holdsworth Sta** | **3.25** | **38** | AML | AML | 05 48 05.3 | |
| **TUZ** | **Tuapeka** | **3.38** | **222** | PN | Pn | 05 47 29.6 | -1.0 |
| TUZ | | | | AML | AML | 05 48 30.7 | |
| TUZ | | | | AML | AML | 05 48 30.8 | |
| TUZ | | | | AML | AML | 05 48 33.3 | |
| TUZ | | | | AML | AML | 05 48 37.6 | |
| **MRZ** | **Mangatainoka R** | **3.47** | **36** | *e*PN | Pn | 05 47 29.9 | -2.0 |
| MRZ | | | | AML | AML | 05 48 10.0 | |
| MRZ | | | | AML | AML | 05 48 12.7 | |
| **PRWZ** | **Pori Road** | **3.73** | **39** | AML | AML | 05 48 18.6 | |
| **BFZ** | **Birch Farm** | **3.76** | **43** | PN | Pn | 05 47 33.5 | -2.4 |
| **MLZ** | **Mavora Lakes** | **3.89** | **239** | PN | Pn | 05 47 36.2 | -1.5 |
| **SYZ** | **Scrubby Hill** | **4.04** | **220** | PN | Pn | 05 47 39.0 | -0.6 |
| **PKE** | **Pukeiti** | **4.37** | **11** | *e*PN | Pn | 05 47 45.2 | +0.9 |
| **DCZ** | **Deep Cove** | **4.55** | **242** | *e*PN | Pn | 05 47 45.7 | -0.9 |
| **WNVZ** | **Wahianoa** | **4.63** | **27** | PN | Pn | 05 47 47.2 | -0.9 |
| **TRVZ** | **Turoa** | **4.64** | **27** | PN | Pn | 05 47 48.4 | +0.2 |
| TRVZ | | | | | AML | AML | 05 48 43.6 |
| **OTVZ** | **Oturere** | **4.80** | **27** | PN | Pn | 05 47 50.9 | +0.6 |
| **APZ** | **The Paps** | **4.81** | **224** | *e*PN | Pn | 05 47 49.1 | -1.2 |
| **HIZ** | **Hauiti** | **5.19** | **17** | *e*PN | Pn | 05 47 55.2 | -0.3 |

*ISK **23** 06:19:01.9, 38.72N×43.60E, h3km, ML2.6*
*CSEM **23** 06:19:02.4±0.2, 38.69N×43.65E, h5km, ML2.6, Error ellipse: s-maj=5.3km s-min=3.6km az=100.0*
*DDA **23** 06:19:02.4, 38.69N×43.63E, h7km, Ml3.0*

**ISC 23 06:19:03.1±1.0, 38.70N±0.02×43.64E±0.03, h9km±8km, n31, σ1s15/59, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.22** | **242** | *e*PG | **Pg** | **06 19 07.9** | **+0.2** |
| VANB | | | | *e*SG | **Sg** | **06 19 12.1** | **+1.3** |
| **VANB** | **Van** | **0.22** | **242** | *e*Pg | **Pg** | **06 19 07.9** | **+0.2** |
| VANB | | | | *e*Sg | **Sg** | **06 19 12.1** | **+1.3** |
| **TVAN** | **Van** | **0.25** | **227** | *i* P | **Pg** | **06 19 07.3** | **-0.9** |
| TVAN | | | | *i* S | **Sg** | **06 19 12.7** | **+1.0** |
| **TVAN** | **Van** | **0.25** | **227** | P | **Pg** | **06 19 07.3** | **-0.9** |
| TVAN | | | | S | **Sg** | **06 19 12.7** | **+1.0** |
| **VMUR** | **Van-Muradiye** | **0.29** | **350** | *i* P | **Pg** | **06 19 08.4** | **-0.7** |
| VMUR | | | | *i* S | **Sb** | **06 19 14.4** | **-1.3** |
| **VMUR** | **Van-Muradiye** | **0.29** | **350** | P | **Pg** | **06 19 08.4** | **-0.7** |
| VMUR | | | | S | **Sb** | **06 19 14.4** | **-1.3** |
| **CLDR** | **Caldiran** | **0.49** | **26** | *e*PG | **Pg** | **06 19 12.4** | **-0.4** |
| CLDR | | | | *e*SG | **Sg** | **06 19 19.9** | **+0.6** |
| **CLDR** | **Caldiran** | **0.49** | **26** | *i* P | **Pg** | **06 19 12.5** | **-0.2** |
| CLDR | | | | *i* S | **Sb** | **06 19 21.4** | **-0.1** |
| **CLDR** | **Caldiran** | **0.49** | **26** | *e*Pg | **Pg** | **06 19 12.4** | **-0.4** |
| CLDR | | | | *e*Sg | **Sg** | **06 19 19.9** | **+0.6** |
| CLDR | | | | S | **Sb** | **06 19 21.4** | **-0.1** |
| **GEVA** | **Gevas** | **0.60** | **230** | *i* P | **Pg** | **06 19 13.6** | **-1.1** |
| GEVA | | | | *i* S | **Sb** | **06 19 23.0** | **-1.4** |
| **GEVA** | **Gevas** | **0.60** | **230** | P | **Pg** | **06 19 13.6** | **-1.1** |
| GEVA | | | | S | **Sb** | **06 19 23.0** | **-1.4** |
| **BASK** | **Baskale_VAN** | **0.71** | **156** | *i* P | **Pg** | **06 19 15.6** | **-1.2** |
| **BASK** | **Baskale_VAN** | **0.71** | **156** | P | **Pg** | **06 19 15.6** | **-1.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.72** | **279** | *i* P | **Pg** | **06 19 15.8** | **-1.3** |
| ADCV | | | | *i* S | **Sg** | **06 19 26.6** | **0.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.72** | **279** | P | **Pg** | **06 19 15.8** | **-1.3** |
| ADCV | | | | S | **Sg** | **06 19 26.6** | **0.0** |
| **DYDN** | **Diyadin** | **0.84** | **3** | *i* P | **Pg** | **06 19 18.9** | **-0.5** |
| DYDN | | | | *i* S | **Sb** | **06 19 31.4** | **-0.2** |
| **DYDN** | **Diyadin** | **0.84** | **3** | P | **Pg** | **06 19 18.9** | **-0.5** |
| DYDN | | | | S | **Sb** | **06 19 31.4** | **-0.2** |
| **AGRB** | **Hanur-Agry** | **1.01** | **330** | *e*PG | **Pg** | **06 19 20.8** | **-1.7** |
| AGRB | | | | *e*SG | **Sb** | **06 19 36.0** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **1.01** | **330** | *e*Pg | **Pg** | **06 19 20.8** | **-1.7** |
| AGRB | | | | *e*Sg | **Sb** | **06 19 36.0** | **-0.3** |
| **YOVA** | **Hakkari_Y`...kse** | **1.22** | **155** | *i* P | **Pg** | **06 19 25.3** | **-1.4** |
| YOVA | | | | *i* S | **Sn** | **06 19 45.1** | **+1.8** |
| **YOVA** | **Hakkari_Y`...kse** | **1.22** | **155** | P | **Pg** | **06 19 25.3** | **-1.4** |
| YOVA | | | | S | **Sn** | **06 19 45.1** | **+1.8** |
| **EKAR** | **Karacoban** | **1.35** | **295** | *i* P | **Pb** | **06 19 28.4** | **-0.3** |
| EKAR | | | | *i* S | **Sn** | **06 19 49.5** | **+3.1** |
| **EKAR** | **Karacoban** | **1.35** | **295** | P | **Pb** | **06 19 28.4** | **-0.3** |
| EKAR | | | | S | **Sn** | **06 19 49.5** | **+3.1** |
| **CUKT** | **Cukurca** | **1.45** | **181** | *e*PN | **Pg** | **06 19 30.1** | **-0.8** |
| **CUKT** | **Cukurca** | **1.45** | **181** | *e*Pn | **Pg** | **06 19 30.1** | **-0.8** |
| **EATA** | **Eleskirt** | **1.46** | **323** | *i* P | **Pn** | **06 19 29.0** | **-1.0** |
| EATA | | | | *i* S | **Sg** | **06 19 49.8** | **-0.4** |
| **EATA** | **Eleskirt** | **1.46** | **323** | P | **Pn** | **06 19 29.0** | **-1.0** |
| EATA | | | | S | **Sg** | **06 19 49.8** | **-0.4** |
| **SRTM** | **Siirt_Merkez** | **1.52** | **243** | *i* P | **Pn** | **06 19 30.6** | **0.0** |
| SRTM | | | | *i* S | **Sg** | **06 19 53.5** | **+1.4** |
| **SRTM** | **Siirt_Merkez** | **1.52** | **243** | P | **Pn** | **06 19 30.6** | **0.0** |
| SRTM | | | | S | **Sg** | **06 19 53.5** | **+1.4** |
| **DIGO** | **Kars** | **1.72** | **353** | *i* P | **Pb** | **06 19 34.7** | **-0.4** |
| DIGO | | | | *i* S | **Sg** | **06 19 59.9** | **+1.3** |
| **DIGO** | **Kars** | **1.72** | **353** | P | **Pb** | **06 19 34.7** | **-0.4** |
| DIGO | | | | S | **Sg** | **06 19 59.9** | **+1.3** |

*BJI **23** 06:20:51.0, 3.86S×131.46E, h31km, mb4.6/20, mB4.9/12, Ms4.9/7, Ms7 4.6/5*
*NEIC **23** 06:20:54.0±2.4, 3.49S×131.36E, h25km±18km, mb4.6/12, Error ellipse: s-maj=9.1km s-min=6.2km az=70.0*
*ISCJB **23** 06:20:54.8±0.5, 3.54S±0.04×131.33E±0.03, h51km±5km, mb4.6/21, MS4.0/5, Error ellipse: s-maj=6.2km s-min=5.5km az=25.8*
*DJA **23** 06:20:54.5±0.8, 3°S±3°×13°1E±°, h13km±5km, M4.6/10, mB4.8/1, mb4.7/1, MLv4.6/10, Mw(mB)4.0/1*
*IDC **23** 06:20:54.8±5.7, 3.92S×131.01E, h36km±45km, mb4.0/7, mb1 4.1/9, mb1mx3.9/28, mbtmp4.2/9, ML3.8/2, MS3.7/3, Ms1 3.7/3, ms1mx3.2/33, Error ellipse: s-maj=46.8km s-min=11.6km az=73.0*

**ISC 23 06:20:55.4±0.5, 3.53S±0.04×131.31E±0.04, h35km±5km, n58, σ2s44/68, mb4.6/21, MS4.0/5, Irian Jaya region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **FAKI** | **Fak Fak** | **1.11** | **57** | P | **Pn** | **06 21 14.2** | **-0.3** |
| FAKI | | | | S | **Sn** | **06 21 31.3** | **+2.7** |
| **FAKI** | **Fak Fak** | **1.11** | **57** | *e*Pn | **Pn** | **06 21 14.2** | **-0.3** |
| **BNDI** | **Bandanaira** | **1.72** | **235** | P | **Pn** | **06 21 24.8** | **+2.0** |
| BNDI | | | | S | **Sn** | **06 21 49.0** | **+5.4** |
| **MSAI** | **Masohi** | **2.39** | **274** | P | **Pn** | **06 21 32.0** | **0.0** |
| MSAI | | | | S | **Sn** | **06 22 01.8** | **+1.7** |
| **KMPI** | **Kaimana, Papua** | **2.39** | **93** | P | **Pn** | **06 21 33.4** | **+1.3** |
| KMPI | | | | S | **Sn** | **06 22 04.8** | **+4.7** |
| **SWI** | **Sorong** | **2.65** | **359** | P | **Pn** | **06 21 33.5** | **-2.1** |
| SWI | | | | S | **Sn** | **06 22 04.6** | **-1.9** |
| **AAI** | **Ambon** | **3.12** | **267** | P | **Pn** | **06 21 43.5** | **+1.4** |
| AAI | | | | S | **Sn** | **06 22 20.7** | **+2.6** |
| **RKPI** | **Ransiki, Papua** | **3.49** | **55** | P | **Pn** | **06 21 47.7** | **+0.5** |
| **NLAI** | **Namlea** | **4.22** | **274** | P | **Pn** | **06 21 58.6** | **+1.4** |
| **LBMI** | **Labuha** | **4.77** | **307** | P | **Pn** | **06 22 03.9** | **-0.9** |
| LBMI | | | | S | **Sn** | **06 22 58.3** | **-0.6** |
| **SANI** | **Sanana** | **5.52** | **285** | P | **Pn** | **06 22 12.7** | **-2.4** |
| **MTN** | **Manton Dam** | **9.26** | **181** | *e*Pn | **Pn** | **06 23 05.2** | **-1.3** |
| MTN | | | | *e*Sn | **Sn** | **06 24 47.3** | **-2.3** |
| **SOEI** | **Soe** | **9.34** | **228** | *e*Pn | **Pn** | **06 23 09.8** | **+2.1** |
| **FITZ** | **Fitzroy Crossi** | **15.52** | **201** | Pn | Pn | 06 24 24.1 | -7.6 |
| | 0.2nm,0.3s,baz=34,slow=12,SNR=10 | | | | | | |
| FITZ | | | | Sn | Sn | 06 27 10.6 | -12 |
| | 0.3nm,0.3s,baz=83,slow=16,SNR=2.8 | | | | | | |
| **COEN** | **Coen** | **15.64** | **132** | *e*Pn | **Pn** | **06 24 31.8** | **-1.5** |
| | 12nm,0.9s | | | | | | |
| **WRAB** | **Tennant Creek** | **16.57** | **170** | *e*Pn | **Pn** | **06 24 44.6** | **-0.7** |
| | 25nm,1.1s | | | | | | |
| **WRA** | **Warramunga Arr** | **16.58** | **170** | Pn | **Pn** | **06 24 39.4** | **-5.9** |
| | 0.4nm,0.3s,baz=348,slow=13,SNR=19 | | | | | | |
| WRA | | | | Sn | **Sn** | **06 27 39.4** | **-9.1** |
| | 0.7nm,0.3s,baz=354,slow=23,SNR=5.7 | | | | | | |
| **WB2** | **Warramunga Arr** | **16.59** | **170** | *e*Pn | **Pn** | **06 24 43.9** | **-1.5** |
| | 17nm,1.0s | | | | | | |
| **KKM** | **Kota Kinabalu** | **17.82** | **302** | *e*Pn | **Pn** | **06 25 00.2** | **-0.7** |
| | 84nm,1.4s | | | | | | |
| **AS31** | **Alice Springs** | **20.18** | **173** | *e*P | Pn | 06 25 27.8 | -1.4 |
| | 5.2nm,0.8s | | | | | | |
| **ASAR** | **Alice Springs** | **20.18** | **173** | P | **P** | **06 25 27.4** | **+0.4** |
| | 0.9nm,0.3s,baz=357,slow=11,SNR=53 | | | | | | |
| ASAR | | | | S | **S** | **06 29 04.5** | **-7.4** |
| | 0.2nm,0.3s,baz=356,slow=27,SNR=4.4 | | | | | | |
| **AS01** | **Alice Springs** | **20.18** | **173** | *e*P | **P** | **06 25 27.6** | **+0.5** |
| **CTA** | **Charters Tower** | **21.98** | **140** | P | **P** | **06 25 46.4** | **-0.1** |
| | 4.4nm,0.7s,baz=316,slow=13,SNR=6.4 | | | | | | |
| **CTAO** | **Charters Tower** | **21.98** | **140** | *e*P | **P** | **06 25 46.8** | **+0.3** |
| | 42nm,1.8s | | | | | | |
| **FORT** | **Forrest** | **27.28** | **186** | *e*P | **P** | **06 26 36.4** | **-0.2** |
| | 179nm,1.0s | | | | | | |
| **STKA** | **Stephens Creek** | **29.81** | **162** | P | **P** | **06 27 01.2** | **+2.0** |
| | 3.3nm,1.0s,baz=328,slow=9.5,SNR=5.1 | | | | | | |
| **QIZ** | **Qiongzhong** | **30.80** | **317** | P | **P** | **06 27 08.9** | **+0.8** |
| QIZ | | | | S | **S** | **06 32 04.3** | **-5.1** |
| **NJ2** | **Nanjing** | **37.31** | **342** | *e*P | **P** | **06 28 04.8** | **+0.5** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,176nm,0.5s | | | | | | |
| **CM01** | **Chiang Mai Arr** | **38.62** | **306** | *e*P | **P** | **06 28 16.4** | **+0.8** |
| **CMAR** | **Chiang Mai Arr** | **38.65** | **306** | P | **P** | **06 28 16.4** | **+0.5** |
| | 0.9nm,0.4s,baz=131,slow=6.0,SNR=6.4 | | | | | | |
| **DZM** | **Mont Dzumac** | **38.74** | **121** | *e*LR | LR | 06 38 55.8 | |
| | 196nm,26.2s | | | | | | |
| **MJAR** | **Matsushiro Arr** | **40.38** | **9** | P | **P** | **06 28 29.2** | **-0.8** |
| | 1.0nm,0.7s,baz=182,slow=7.4,SNR=3.2 | | | | | | |
| **KSRS** | **Korea Array** | **40.89** | **356** | LR | LR | 06 46 01.2 | |
| | comp=Z,77nm,19.3s,baz=180,slow=36 | | | | | | |
| **LZH** | **Lanzhou** | **47.04** | **329** | *e*P | **P** | **06 29 24.0** | **+0.2** |
| LZH | | | | pP | pP | 06 29 35.0 | +0.8 |
| LZH | | | | sP | sP | 06 29 39.5 | +1.1 |
| LZH | | | | *e*PP | **PP** | **06 31 14.3** | **-0.6** |
| LZH | | | | pmax | pmax | | |
| | comp=Z,21nm,1.1s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,75nm,6.3s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=N,320nm,13.7s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=E,350nm,14.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,410nm,17.4s | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **47.71** | **340** | *e*P | **P** | **06 29 32.9** | **+4.0** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,17nm,1.0s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,180nm,7.4s | | | | | | |
| **GTA** | **Gaotai** | **51.63** | **329** | *e*P | **P** | **06 29 58.3** | **-0.5** |
| GTA | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.6s | | | | | | |
| **ULN** | **Ulaanbaatar** | **55.42** | **340** | *e*P | **P** | **06 30 26.0** | **-0.5** |
| | 8.9nm,1.4s | | | | | | |
| **SONM** | **Songino Array** | **55.62** | **340** | P | **P** | **06 30 27.6** | **-0.2** |
| | 1.8nm,1.1s,baz=144,slow=4.2,SNR=4.6 | | | | | | |
| **SONA1** | **Songino Array** | **55.62** | **340** | *e*P | **P** | **06 30 26.5** | **-1.4** |
| **PETK** | **Petropavlovsk-** | **60.64** | **18** | LR | LR | 06 53 46.2 | |
| | comp=Z,44nm,21.4s,baz=192,slow=32 | | | | | | |
| **WMQ** | **Urumqi** | **61.26** | **325** | P | **P** | **06 31 08.5** | **+1.3** |
| WMQ | | | | pP | pP | 06 31 19.9 | +1.9 |
| WMQ | | | | sP | sP | 06 31 24.3 | +2.2 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,23nm,0.7s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,330nm,3.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,290nm,25.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,160nm,20.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,110nm,22.9s | | | | | | |
| **MK01** | **Makanchi Array** | **66.07** | **325** | *e*P | **P** | **06 31 38.8** | **-0.1** |
| **MK31** | **Makanchi Array** | **66.09** | **325** | *e*P | **P** | **06 31 39.7** | **+0.7** |
| **MKAR** | **Makanchi Array** | **66.09** | **325** | P | **P** | **06 31 39.1** | **+0.1** |
| | 2.4nm,0.9s,baz=126,slow=7.3,SNR=12 | | | | | | |
| **MKAR** | **Makanchi Array** | **66.09** | **325** | *e*P | **P** | **06 31 38.8** | **-0.2** |
| | 14nm,0.7s | | | | | | |
| **MAKZ** | **Makanchi** | **66.28** | **325** | *e*P | **P** | **06 31 39.7** | **-0.5** |
| | 7.6nm,1.3s | | | | | | |
| **KSH** | **Kashi** | **66.40** | **316** | P | **P** | **06 31 43.4** | **+2.2** |
| KSH | | | | pP | pP | 06 31 54.6 | +2.5 |
| KSH | | | | PcP | **PcP** | **06 32 12.5** | **+1.7** |
| KSH | | | | PP | **PP** | **06 34 12.5** | **+4.7** |
| KSH | | | | ScP | | 06 36 12.3 | |
| KSH | | | | S | **S** | **06 40 29.8** | **+0.6** |
| KSH | | | | ScS | **SKSac** | **06 41 33.5** | **-1.8** |
| KSH | | | | SS | **SS** | **06 44 49.4** | **+3.0** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.5s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,150nm,5.5s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,130nm,5.6s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,160nm,5.3s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,230nm,6.1s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **69.09** | **333** | P | **P** | **06 31 57.3** | **-0.4** |
| | 1.0nm,0.5s,baz=134,slow=6.2,SNR=5.3 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **69.09** | **333** | *e*P | **P** | **06 31 57.0** | **-0.7** |
| **KURBB** | **Kurchatov Arra** | **70.28** | **327** | P | **P** | **06 32 05.2** | **+0.1** |
| | 3.6nm,0.2s,baz=127,slow=5.7,SNR=3.1 | | | | | | |
| **KURK** | **Kurchatov** | **70.28** | **328** | *e*P | **P** | **06 32 05.0** | **-0.1** |
| | 5.2nm,0.8s | | | | | | |
| **TIXI** | **Tiksi** | **75.05** | **359** | *e*P | **P** | **06 32 33.3** | **+0.2** |
| | 9.9nm,0.4s | | | | | | |
| **BVAR** | **Borovoye Array** | **75.86** | **327** | P | **P** | **06 32 38.6** | **+0.5** |
| | 2.8nm,1.0s,baz=133,slow=6.3,SNR=2.0 | | | | | | |
| **BRVK** | **Borovoye** | **75.93** | **327** | *e*P | **P** | **06 32 37.3** | **-1.1** |
| | 24nm,1.9s | | | | | | |
| **PPT2** | **Papeete2** | **78.57** | **107** | *e*LR | LR | 06 57 21.9 | |
| | 77nm,24.2s | | | | | | |
| **KMBO** | **Kilima Mbogo** | **93.98** | **269** | LR | LR | 07 13 18.2 | |
| | comp=Z,56nm,19.5s,baz=91,slow=34 | | | | | | |
| **SFJD** | **Kangerlussuaq** | **116.63** | **1** | *e*PKPdf | **PKPdf** | **06 39 35.6** | **+0.2** |
| **TORD** | **Torodi Ar. Bea** | **129.33** | **284** | PKP | **PKPdf** | **06 40 01.5** | **+0.2** |
| | 0.3nm,0.6s,baz=54,slow=1.7,SNR=2.4 | | | | | | |

*NNC **23** 06:22:12.0±1.1, 44.65N×81.92E, h0km, mb3.2, mpv2.7, Error ellipse: s-maj=16.8km s-min=3.1km az=117.0*
*SOME **23** 06:22:11.0, 44.72N×82.08E, h10km*

**ISC 23 06:22:11.3±2.2, 44.70N±0.05×82.02E±0.10, h3km±15km, n8, σ1s17/15, 2C-6D, Northern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DJR** | **Jarkent** | **1.64** | **258** | *e*P | **Pg** | **06 22 42.4** | **-0.3** |
| | 12nm,0.2s | | | | | | |
| DJR | | | | *e*S | **Sg** | **06 23 04.8** | **+0.8** |
| | 13nm,0.2s | | | | | | |
| **KTMS** | **Ketmen** | **1.74** | **224** | *e*P | **Pg** | **06 22 44.9** | **+0.3** |
| | 9.9nm,0.1s | | | | | | |
| KTMS | | | | *e*S | **Sg** | **06 23 09.2** | **+2.1** |
| | 19nm,0.5s | | | | | | |
| **KAPS** | **Kapalarasan** | **1.98** | **288** | ⇓*i*P | **Pg** | **06 22 48.8** | **-0.4** |
| | 4.5nm,0.2s | | | | | | |
| K

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| THZ | | | | | AML | AML | 06 27 01.8 | |
| THZ | | | | | AML | AML | 06 27 09.9 | |
| **DSZ** | **Denniston Nort** | **1.92** | **336** | | PN | Pn | 06 26 37.7 | -0.5 |
| DSZ | | | | | AML | AML | 06 27 09.9 | |
| DSZ | | | | | AML | AML | 06 27 09.9 | |
| DSZ | | | | | AML | AML | 06 27 10.9 | |
| DSZ | | | | | AML | AML | 06 27 10.9 | |
| **BSWZ** | **Blackbirch Sta** | **1.94** | **23** | | PN | Pn | 06 26 37.8 | -0.7 |
| **LBZ** | **Lake Benmore** | **2.11** | **244** | | PN | Pn | 06 26 40.7 | -0.1 |
| LBZ | | | | | AML | AML | 06 27 16.9 | |
| LBZ | | | | | AML | AML | 06 27 20.3 | |
| **FOZ** | **Fox Glacier** | **2.20** | **268** | | PN | Pn | 06 26 43.1 | +1.1 |
| **ODZ** | **Otahua Downs** | **2.21** | **225** | ⇑ | PN | Pn | 06 26 41.7 | -0.4 |
| ODZ | | | | | AML | AML | 06 27 18.6 | |
| ODZ | | | | | AML | AML | 06 27 19.9 | |
| ODZ | | | | | AML | AML | 06 27 23.4 | |
| ODZ | | | | | AML | AML | 06 27 28.4 | |
| **TUWZ** | **Tuamarina** | **2.23** | **22** | | PN | Pn | 06 26 41.4 | -1.0 |
| **NNZ** | **Nelson** | **2.32** | **10** | | PN | Pn | 06 26 43.2 | -0.4 |
| **TCW** | **Tory Channel** | **2.53** | **25** | | PN | Pn | 06 26 45.4 | -1.1 |
| **BHW** | **Baring Head** | **2.58** | **36** | | PN | Pn | 06 26 45.7 | -1.5 |
| **PLWZ** | **Palliser** | **2.63** | **43** | | PN | Pn | 06 26 46.3 | -1.7 |
| **WEL** | **Wellington** | **2.64** | **33** | | PN | Pn | 06 26 46.9 | -1.1 |
| **QRZ** | **Quartz Range** | **2.69** | **355** | | PN | Pn | 06 26 48.4 | -0.3 |
| **DUWZ** | **D'Urville Isla** | **2.82** | **17** | | PN | Pn | 06 26 49.7 | -0.9 |
| DUWZ | | | | | AML | AML | 06 32 04.0 | |
| **HHSZ** | **Highcliff Hill** | **2.87** | **213** | | PN | Pn | 06 26 50.8 | -0.5 |
| **CAW** | **Cannon Point** | **2.91** | **35** | | PN | Pn | 06 26 50.2 | -1.6 |
| **JCZ** | **Jackson Bay** | **2.99** | **258** | | PN | Pn | 06 26 53.1 | +0.1 |
| **KIW** | **Kapiti Island** | **3.06** | **31** | | PN | Pn | 06 26 52.6 | -1.2 |
| **EAZ** | **Earnscleugh** | **3.07** | **235** | | PN | Pn | 06 26 53.5 | -0.5 |
| EAZ | | | | | AML | AML | 06 27 44.8 | |
| **TUZ** | **Tuapeka** | **3.35** | **222** | | PN | Pn | 06 26 57.6 | -0.2 |
| TUZ | | | | | AML | AML | 06 27 58.5 | |
| TUZ | | | | | AML | AML | 06 28 03.3 | |
| **MRZ** | **Mangatainoka R** | **3.50** | **37** | | PN | Pn | 06 26 58.0 | -1.8 |
| **BFZ** | **Birch Farm** | **3.79** | **43** | | PN | Pn | 06 27 01.4 | -2.5 |
| **MLZ** | **Mavora Lakes** | **3.86** | **240** | | PN | Pn | 06 27 04.7 | -0.2 |
| **SYZ** | **Scrubby Hill** | **4.01** | **220** | ⇑ | PN | Pn | 06 27 07.0 | +0.1 |
| **DCZ** | **Deep Cove** | **4.52** | **242** | *e* | PN | Pn | 06 27 13.3 | -0.5 |
| **WNVZ** | **Wahianoa** | **4.66** | **27** | | PN | Pn | 06 27 16.4 | +0.4 |
| **TUVZ** | **Tukino** | **4.73** | **27** | | PN | Pn | 06 27 17.2 | +0.2 |
| **APZ** | **The Paps** | **4.78** | **224** | | PN | Pn | 06 27 17.1 | -0.4 |
| **OTVZ** | **Oturere** | **4.83** | **27** | *e* | PN | Pn | 06 27 17.3 | -1.1 |
| **HIZ** | **Hauiti** | **5.21** | **18** | | PN | Pn | 06 27 23.4 | -0.1 |

**IDC 23 06:30:37.0±10.0, 27.12N×146.04E, h0km, mb3.7/3, mb1 3.8/3, mb1mx3.2/46, mbtmp3.7/3, Error ellipse: s-maj=373.5km s-min=32.0km az=73.0, North Pacific Ocean**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SONM** | **Songino Array** | **37.11** | **315** | P | P | 06 37 49.9 | +0.6 |
| | 0.6nm,0.7s,baz=125,slow=8.8,SNR=3.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **48.14** | **195** | P | P | 06 39 19.0 | 0.0 |
| | 0.8nm,0.7s,baz=16,slow=8.7,SNR=3.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **53.10** | **310** | P | | 06 39 55.5 | -0.8 |
| | 0.8nm,0.9s,baz=87,slow=9.2,SNR=4.3 | | | | | | |

**IDC 23 06:36:12.5±2.6, 54.32N×86.01E, h0km, mb1 3.0/2, mb1mx2.8/58, mbtmp3.0/2, ML2.7/2, Error ellipse: s-maj=19.9km s-min=11.1km az=52.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **I46RU** | **ZALESOVO INFRA** | **0.79** | **242** | *i* | | 06 41 05.6 | |
| | baz=62,slow=348,SNR=1.1 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **0.79** | **242** | Pg | Pg | 06 36 26.5 | -1.2 |
| | 1.0nm,0.3s,baz=60,slow=17,SNR=12 | | | | | | |
| ZALV | | | | Lg | Lg | 06 36 39.2 | |
| | 3.2nm,0.3s,baz=60,slow=29,SNR=8.8 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **5.88** | **234** | Pn | Pn | 06 37 42.2 | +1.4 |
| | 0.1nm,0.3s,baz=50,slow=14,SNR=4.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **7.90** | **199** | Pn | Pn | 06 38 09.3 | +0.7 |
| | 0.2nm,0.3s,baz=24,slow=13,SNR=8.2 | | | | | | |

*ISK **23** 06:38:21.4, 36.92N×37.05E, h2km, ML2.1*
*CSEM **23** 06:38:22.7±0.3, 36.93N×37.05E, h12km, ML2.8, Error ellipse: s-maj=6.3km s-min=6.2km az=3.0*
*DDA **23** 06:38:22.9, 36.98N×37.09E, h7km, Ml2.8*
*ISCJB **23** 06:38:23.1±0.5, 36.95N±0.03×37.06E±0.04, h10km±4km, Error ellipse: s-maj=5.5km s-min=4.6km az=148.4*

**ISC 23 06:38:23.3±0.9, 36.95N±0.03×37.07E±0.03, h15km±6km, n25, σ0=94/39, Jordan-Syria region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KUZU** | **Kuzuini** | **0.17** | **178** | *i* P | **Pg** | **06 38 27.6** | **-0.1** |
| KUZU | | | | *i* S | **Sg** | **06 38 30.7** | **+0.2** |
| **KUZU** | **Kuzuini** | **0.17** | **178** | P | **Pg** | **06 38 27.6** | **-0.1** |
| KUZU | | | | S | **Sg** | **06 38 30.7** | **+0.2** |
| **GAZ** | **Gaziantep** | **0.25** | **27** | *e*PG | **Pg** | **06 38 27.9** | **-1.1** |
| **GAZ** | **Gaziantep** | **0.25** | **27** | *e*Pg | **Pg** | **06 38 27.9** | **-1.1** |
| **KAMA** | **Osmaniye** | **0.40** | **307** | *i* P | **Pg** | **06 38 31.0** | **-0.5** |
| KAMA | | | | *i* S | **Sg** | **06 38 36.5** | **-0.5** |
| **HCB** | **Kahramanmara¯** | **0.42** | **342** | *i* P | **Pg** | **06 38 30.8** | **-1.0** |
| HCB | | | | *i* S | **Sg** | **06 38 36.2** | **-1.3** |
| **KMRS** | **Kahramanmaras** | **0.57** | **347** | *e*PG | **Pg** | **06 38 34.0** | **-0.7** |
| **KMRS** | **Kahramanmaras** | **0.57** | **347** | *e*Pg | **Pg** | **06 38 34.0** | **-0.7** |
| **ANDN** | **Andirin** | **0.86** | **318** | *i* P | **Pb** | **06 38 40.5** | **+0.6** |
| ANDN | | | | *i* S | **Sb** | **06 38 52.1** | **+0.8** |
| **ANDN** | **Andirin** | **0.86** | **318** | P | **Pb** | **06 38 40.5** | **+0.6** |
| ANDN | | | | S | **Sb** | **06 38 52.1** | **+0.8** |
| **KOZT** | **Kozan** | **1.13** | **299** | *e*PN | **Pg** | **06 38 43.2** | **-1.9** |
| KOZT | | | | *e*SN | **Sn** | **06 39 00.1** | **+0.4** |
| **KOZT** | **Kozan** | **1.13** | **299** | *e*Pn | **Pg** | **06 38 43.2** | **-1.9** |
| KOZT | | | | *e*Sn | **Sn** | **06 39 00.1** | **+0.4** |
| **YAYL** | **Yayladag** | **1.20** | **221** | *e*PN | **Pg** | **06 38 44.8** | **-1.6** |
| YAYL | | | | *e*SN | **Sn** | **06 39 01.5** | **-0.1** |
| **YAYL** | **Yayladag** | **1.20** | **221** | *e*Pn | **Pg** | **06 38 44.8** | **-1.6** |
| YAYL | | | | *e*Sn | **Sn** | **06 39 01.5** | **-0.1** |
| **SURC** | **SANLIURFA_SURC** | **1.24** | **93** | *i* P | **Pn** | **06 38 46.0** | **-0.1** |
| SURC | | | | *i* S | **Sg** | **06 39 02.1** | **-1.3** |
| **SURC** | **SANLIURFA_SURC** | **1.24** | **93** | P | **Pn** | **06 38 46.0** | **-0.1** |
| SURC | | | | S | **Sg** | **06 39 02.1** | **-1.3** |
| **URFA** | **Urfa** | **1.48** | **70** | *e*PN | **Pn** | **06 38 50.1** | **+0.6** |
| **URFA** | **Urfa** | **1.48** | **70** | *e*Pn | **Pn** | **06 38 50.1** | **+0.6** |
| **AKCD** | **Akcadag** | **1.51** | **26** | *e*P | **Pn** | **06 38 50.1** | **+0.2** |
| AKCD | | | | *i* S | **Sn** | **06 39 09.9** | **+0.5** |
| **AKCD** | **Akcadag** | **1.51** | **26** | P | **Pn** | **06 38 50.1** | **+0.2** |
| AKCD | | | | S | **Sn** | **06 39 09.9** | **+0.5** |
| **SARI** | **SarD1z-Kayseri** | **1.55** | **341** | *e*PN | **Pn** | **06 38 51.4** | **+0.9** |
| **DARE** | **Darende-Malaty** | **1.66** | **11** | *e*PN | **Pn** | **06 38 52.9** | **+1.0** |
| **DARE** | **Darende-Malaty** | **1.66** | **11** | *e*Pn | **Pn** | **06 38 52.9** | **+1.0** |
| **MALT** | **Malatya** | **1.74** | **38** | *e*PN | **Pn** | **06 38 54.0** | **+1.0** |
| **MALT** | **Malatya** | **1.74** | **38** | *e*Pn | **Pn** | **06 38 54.0** | **+1.0** |

**WEL 23 06:45:31.2±0.3, 43.48S×172.79E, h9km±2km, ML3.6/15, 4C-5D, Error ellipse: s-maj=3.0km s-min=1.4km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.15** | **231** | ⇓P | Pg | 06 45 34.7 | +0.3 |
| CRLZ | | | | | Sg | 06 45 37.1 | +0.5 |
| CRLZ | | | | | AML | 06 45 39.6 | |
| **MQZ** | **McQueen's Vall** | **0.24** | **203** | PG | Pg | 06 45 36.3 | +0.2 |
| MQZ | | | | SG | Sg | 06 45 40.2 | +0.8 |
| MQZ | | | | AML | AML | 06 45 40.4 | |
| MQZ | | | | AML | AML | 06 45 41.4 | |
| **OXZ** | **Oxford** | **0.57** | **286** | ⇓P* | Pg | 06 45 41.9 | -0.2 |
| OXZ | | | | S* | Sg | 06 45 49.7 | +0.1 |
| OXZ | | | | AML | AML | 06 45 51.7 | |
| OXZ | | | | AML | AML | 06 45 51.7 | |
| OXZ | | | | AML | AML | 06 45 52.1 | |
| **LTZ** | **Lake Taylor** | **0.79** | **331** | ⇓P* | Pg | 06 45 46.4 | 0.0 |
| LTZ | | | | S* | Sg | 06 45 57.3 | +0.5 |
| **KHZ** | **Kahutara** | **1.20** | **28** | ⇑P* | Pb | 06 45 52.8 | -1.3 |
| KHZ | | | | | AML | 06 46 10.9 | |
| **INZ** | **Inchbonnie** | **1.24** | **307** | ⇑P* | Pn | 06 45 53.2 | -1.5 |
| **RPZ** | **Rata Peaks** | **1.28** | **259** | ⇓P* | Pn | 06 45 53.8 | -1.5 |
| RPZ | | | | | AML | 06 46 12.7 | |
| RPZ | | | | | AML | 06 46 18.1 | |
| **WVZ** | **Waitaha Valley** | **1.55** | **284** | | PN | Pn | 06 45 58.3 | -0.7 |
| WVZ | | | | | AML | AML | 06 46 22.7 | |
| WVZ | | | | | AML | AML | 06 46 24.2 | |
| **THZ** | **Tophouse** | **1.72** | **3** | ⇑ | PN | Pn | 06 45 60.0 | -1.4 |
| THZ | | | | | AML | AML | 06 46 21.6 | |
| THZ | | | | | AML | AML | 06 46 23.9 | |
| **DSZ** | **Denniston Nort** | **1.88** | **337** | | PN | Pn | 06 46 02.7 | -0.8 |
| DSZ | | | | | AML | AML | 06 46 34.3 | |
| DSZ | | | | | AML | AML | 06 46 34.3 | |
| DSZ | | | | | AML | AML | 06 46 40.2 | |
| DSZ | | | | | AML | AML | 06 46 40.2 | |
| **BSWZ** | **Blackbirch Sta** | **1.94** | **25** | | PN | Pn | 06 46 03.3 | -1.0 |
| **LBZ** | **Lake Benmore** | **2.09** | **243** | | PN | Pn | 06 46 05.4 | -1.0 |
| LBZ | | | | | AML | AML | 06 46 41.4 | |
| LBZ | | | | | AML | AML | 06 46 43.8 | |
| **FOZ** | **Fox Glacier** | **2.16** | **268** | ⇓ | PN | Pn | 06 46 07.6 | +0.3 |
| FOZ | | | | | AML | AML | 06 46 35.2 | |
| **ODZ** | **Otahua Downs** | **2.19** | **224** | | PN | Pn | 06 46 06.6 | -1.3 |
| ODZ | | | | | AML | AML | 06 46 41.8 | |
| ODZ | | | | | AML | AML | 06 46 43.0 | |
| ODZ | | | | | AML | AML | 06 46 43.0 | |
| ODZ | | | | | AML | AML | 06 46 45.9 | |
| **TUWZ** | **Tuamarina** | **2.22** | **23** | | PN | Pn | 06 46 06.6 | -1.6 |
| **NNZ** | **Nelson** | **2.30** | **11** | | PN | Pn | 06 46 08.4 | -0.9 |
| **TCW** | **Tory Channel** | **2.52** | **26** | | PN | Pn | 06 46 11.0 | -1.4 |
| **BHW** | **Baring Head** | **2.58** | **37** | | PN | Pn | 06 46 11.3 | -1.9 |
| **PLWZ** | **Palliser** | **2.64** | **45** | | PN | Pn | 06 46 12.0 | -2.1 |
| **QRZ** | **Quartz Range** | **2.66** | **356** | | PN | Pn | 06 46 13.4 | -0.8 |
| **DUWZ** | **D'Urville Isla** | **2.81** | **18** | | PN | Pn | 06 46 15.0 | -1.3 |
| **HHSZ** | **Highcliff Hill** | **2.87** | **212** | | PN | Pn | 06 46 15.7 | -1.3 |
| **CAW** | **Cannon Point** | **2.91** | **36** | | PN | Pn | 06 46 15.6 | -2.1 |
| **JCZ** | **Jackson Bay** | **2.96** | **257** | | PN | Pn | 06 46 17.4 | -1.0 |
| JCZ | | | | | AML | AML | 06 47 12.9 | |
| **WKZ** | **Wanaka** | **3.03** | **242** | | PN | Pn | 06 46 18.1 | -1.3 |
| **EAZ** | **Earnscleugh** | **3.05** | **234** | ⇑ | PN | Pn | 06 46 18.3 | -1.3 |
| EAZ | | | | | AML | AML | 06 47 11.3 | |
| EAZ | | | | | AML | AML | 06 47 11.7 | |
| **KIW** | **Kapiti Island** | **3.06** | **32** | | PN | Pn | 06 46 17.9 | -1.8 |
| **TUZ** | **Tuapeka** | **3.34** | **221** | | PN | Pn | 06 46 22.4 | -1.2 |
| TUZ | | | | | AML | AML | 06 47 26.1 | |
| TUZ | | | | | AML | AML | 06 47 29.6 | |
| **MRZ** | **Mangatainoka R** | **3.50** | **37** | | PN | Pn | 06 46 23.8 | -2.0 |
| **BFZ** | **Birch Farm** | **3.80** | **44** | | PN | Pn | 06 46 27.0 | -2.9 |
| **MLZ** | **Mavora Lakes** | **3.84** | **239** | | PN | Pn | 06 46 28.8 | -1.7 |
| **SYZ** | **Scrubby Hill** | **4.00** | **219** | | PN | Pn | 06 46 31.7 | -1.0 |
| **KHEZ** | **Kahui Hut** | **4.28** | **13** | | PN | Pn | 06 46 37.3 | +0.7 |
| **DCZ** | **Deep Cove** | **4.49** | **242** | | PN | Pn | 06 46 37.9 | -1.5 |
| **WNVZ** | **Wahianoa** | **4.66** | **28** | | PN | Pn | 06 46 41.7 | -0.2 |
| **TUVZ** | **Tukino** | **4.73** | **28** | | PN | Pn | 06 46 42.6 | -0.3 |
| **APZ** | **The Paps** | **4.77** | **224** | | PN | Pn | 06 46 41.7 | -1.6 |
| **OTVZ** | **Oturere** | **4.83** | **28** | | PN | Pn | 06 46 42.8 | -1.4 |
| **HIZ** | **Hauiti** | **5.20** | **18** | | PN | Pn | 06 46 48.2 | -1.0 |

**WEL 23 06:53:27.7±0.2, 43.48S×172.83E, h8km±1km, ML3.7/18, 3C-4D, Error ellipse: s-maj=2.1km s-min=1.0km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.18** | **236** | PG | Pg | 06 53 31.4 | +0.1 |
| CRLZ | | | | SG | Sg | 06 53 34.7 | +0.3 |
| CRLZ | | | | AML | AML | 06 53 37.9 | |
| **MQZ** | **McQueen's Vall** | **0.26** | **208** | PG | Pg | 06 53 32.9 | 0.0 |
| MQZ | | | | SG | Sg | 06 53 36.7 | +0.3 |
| **OXZ** | **Oxford** | **0.59** | **284** | ⇓P* | Pg | 06 53 39.1 | -0.1 |
| OXZ | | | | AML | AML | 06 53 49.1 | |
| OXZ | | | | AML | AML | 06 53 49.6 | |
| **LTZ** | **Lake Taylor** | **0.81** | **330** | P* | Pg | 06 53 42.8 | -0.4 |
| LTZ | | | | S* | Sb | 06 53 54.7 | -0.2 |
| **KHZ** | **Kahutara** | **1.18** | **27** | P* | Pb | 06 53 49.5 | -0.8 |
| KHZ | | | | AML | AML | 06 54 13.3 | |
| KHZ | | | | AML | AML | 06 54 14.2 | |
| KHZ | | | | AML | AML | 06 54 14.2 | |
| **INZ** | **Inchbonnie** | **1.26** | **306** | P* | Pn | 06 53 51.6 | 0.0 |
| INZ | | | | S* | Sb | 06 54 07.6 | -0.4 |
| **RPZ** | **Rata Peaks** | **1.31** | **259** | ⇓PN | Pn | 06 53 50.9 | -1.4 |
| RPZ | | | | AML | AML | 06 54 09.9 | |
| RPZ | | | | AML | AML | 06 54 15.1 | |
| **WVZ** | **Waitaha Valley** | **1.58** | **284** | PN | Pn | 06 53 55.7 | -0.2 |
| WVZ | | | | AML | AML | 06 54 21.5 | |
| WVZ | | | | AML | AML | 06 54 23.9 | |
| **THZ** | **Tophouse** | **1.71** | **2** | PN | Pn | 06 53 57.2 | -0.7 |
| THZ | | | | AML | AML | 06 54 21.6 | |
| THZ | | | | AML | AML | 06 54 23.2 | |
| **DSZ** | **Denniston Nort** | **1.89** | **336** | ⇑PN | Pn | 06 53 59.9 | -0.4 |
| DSZ | | | | AML | AML | 06 54 31.5 | |
| DSZ | | | | AML | AML | 06 54 36.1 | |
| **BSWZ** | **Blackbirch Sta** | **1.92** | **24** | PN | Pn | 06 54 00.0 | -0.7 |
| BSWZ | | | | AML | AML | 06 54 41.0 | |
| **LBZ** | **Lake Benmore** | **2.11** | **244** | ⇓PN | Pn | 06 54 02.6 | -0.7 |
| LBZ | | | | AML | AML | 06 54 41.5 | |
| LBZ | | | | AML | AML | 06 54 43.5 | |
| **FOZ** | **Fox Glacier** | **2.19** | **268** | PN | Pn | 06 54 04.7 | +0.3 |
| FOZ | | | | AML | AML | 06 54 33.0 | |
| FOZ | | | | AML | AML | 06 54 48.5 | |
| **ODZ** | **Otahua Downs** | **2.22** | **224** | ⇓PN | Pn | 06 54 03.5 | -1.2 |
| ODZ | | | | AML | AML | 06 54 40.4 | |
| ODZ | | | | AML | AML | 06 54 40.4 | |
| ODZ | | | | AML | AML | 06 54 46.5 | |
| ODZ | | | | AML | AML | 06 54 46.5 | |
| **NNZ** | **Nelson** | **2.29** | **10** | ⇑PN | Pn | 06 54 05.5 | -0.3 |
| **BHW** | **Baring Head** | **2.56** | **37** | PN | Pn | 06 54 07.8 | -1.7 |
| **PLWZ** | **Palliser** | **2.62** | **44** | PN | Pn | 06 54 08.7 | -1.6 |
| **QRZ** | **Quartz Range** | **2.66** | **355** | *e*PN | Pn | 06 54 10.8 | -0.1 |
| QRZ | | | | AML | AML | 06 54 24.0 | |
| QRZ | | | | AML | AML | 06 54 59.4 | |
| **HHSZ** | **Highcliff Hill** | **2.88** | **213** | PN | Pn | 06 54 12.5 | -1.4 |
| HHSZ | | | | AML | AML | 06 55 07.5 | |
| **CAW** | **Cannon Point** | **2.89** | **36** | PN | Pn | 06 54 12.6 | -1.5 |
| **JCZ** | **Jackson Bay** | **2.99** | **257** | *e*PN | Pn | 06 54 14.4 | -1.0 |
| JCZ | | | | AML | AML | 06 55 08.4 | |
| **KIW** | **Kapiti Island** | **3.04** | **31** | PN | Pn | 06 54 15.0 | -1.0 |
| **WKZ** | **Wanaka** | **3.06** | **242** | PN | Pn | 06 54 15.3 | -1.0 |
| WKZ | | | | AML | AML | 06 55 17.5 | |
| **EAZ** | **Earnscleugh** | **3.07** | **234** | ⇑PN | Pn | 06 54 15.2 | -1.3 |
| EAZ | | | | AML | AML | 06 55 10.9 | |
| EAZ | | | | AML | AML | 06 55 17.2 | |
| **TUZ** | **Tuapeka** | **3.36** | **221** | PN | Pn | 06 54 19.2 | -1.3 |
| TUZ | | | | AML | AML | 06 55 19.5 | |
| TUZ | | | | AML | AML | 06 55 20.1 | |
| **MRZ** | **Mangatainoka R** | **3.48** | **37** | PN | Pn | 06 54 20.3 | -1.8 |
| **BFZ** | **Birch Farm** | **3.78** | **44** | PN | Pn | 06 54 23.9 | -2.3 |
| **MLZ** | **Mavora Lakes** | **3.87** | **239** | PN | Pn | 06 54 25.9 | -1.6 |
| **SYZ** | **Scrubby Hill** | **4.02** | **219** | PN | Pn | 06 54 28.5 | -1.0 |
| **WHZ** | **Wether Hill Ro** | **4.24** | **234** | PN | Pn | 06 54 30.0 | -2.5 |
| **DCZ** | **Deep Cove** | **4.52** | **242** | PN | Pn | 06 54 34.3 | -2.0 |
| **WNVZ** | **Wahianoa** | **4.64** | **28** | PN | Pn | 06 54 38.4 | +0.2 |
| **APZ** | **The Paps** | **4.79** | **224** | *e*PN | Pn | 06 54 38.4 | -1.8 |
| **OTVZ** | **Oturere** | **4.81** | **27** | PN | Pn | 06 54 40.4 | -0.1 |
| **HIZ** | **Hauiti** | **5.19** | **18** | PN | Pn | 06 54 45.4 | -0.2 |

**WEL 23 06:59:03.2±0.4, 37.39S×179.95E, h33km, ML3.7/7, Error ellipse: s-maj=4.0km s-min=3.7km az=90.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WMGZ** | **Waiomatatini S** | **1.29** | **250** | PN | Pn | 06 59 23.7 | -1.2 |
| WMGZ | | | | SN | Sn | 06 59 39.5 | -1.6 |
| WMGZ | | | | AML | AML | 06 59 41.4 | |
| **PUZ** | **Puketiti** | **1.50** | **242** | PN | Pn | 06 59 27.0 | -0.9 |
| PUZ | | | | SN | Sn | 06 59 45.2 | -1.2 |
| PUZ | | | | AML | AML | 06 59 47.8 | |
| **PKGZ** | **Pakihiroa** | **1.57** | **251** | PN | Pn | 06 59 27.6 | -1.2 |
| PKGZ | | | | SN | Sn | 06 59 46.2 | -1.8 |
| PKGZ | | | | AML | AML | 06 59 47.0 | |
| **HAZ** | **Te Kaha** | **1.76** | **257** | PN | Pn | 06 59 30.8 | -0.5 |
| HAZ | | | | AML | AML | 06 59 52.7 | |
| HAZ | | | | AML | AML | 06 59 53.6 | |
| **RUGZ** | **Raukumara Rang** | **1.89** | **251** | PN | Pn | 06 59 32.5 | -0.8 |
| **MWZ** | **Matawai** | **2.14** | **243** | PN | Pn | 06 59 35.6 | -1.0 |
| MWZ | | | | SN | Sn | 07 00 00.3 | -1.7 |
| MWZ | | | | AML | AML | 07 00 01.4 | |
| **RIGZ** | **Rimuhau** | **2.17** | **232** | *e*PN | Pn | 06 59 36.8 | -0.3 |
| RIGZ | | | | AML | AML | 07 00 03.7 | |
| RIGZ | | | | AML | AML | 07 00 04.8 | |
| **URZ** | **Urewera** | **2.41** | **248** | PN | Pn | 06 59 40.1 | -0.2 |
| URZ | | | | SN | Sn | 07 00 07.1 | -1.5 |
| URZ | | | | AML | AML | 07 00 08.1 | |
| **KNZ** | **Kokohu** | **2.42** | **227** | *e*PN | Pn | 06 59 39.4 | -1.0 |
| KNZ | | | | SN | Sn | 07 00 07.7 | -1.3 |
| **RTZ** | **Ruatahuna** | **2.65** | **241** | PN | Pn | 06 59 43.2 | -0.4 |
| RTZ | | | | SN | Sn | 07 00 13.4 | -1.2 |
| **NMHZ** | **Naumai** | **3.01** | **234** | *e*PN | Pn | 06 59 48.0 | -0.5 |

*ISCJB **23** 07:07:54.7±0.3, 24.52N±0.02×121.94E±0.02, h19km±3km, mb3.4/5, Error ellipse: s-maj=3.3km s-min=2.7km az=148.7*
*JMA **23** 07:07:54.1±0.1, 24.46N×121.81E, h40km±4km, M3.0*
*TAP **23** 07:07:54.4, 24.51N×121.86E, h26km, ML3.7, B*
*IDC **23** 07:08:09.5±6.5, 24.37N×121.70E, h166km±61km, mb3.1/5, mb1 3.3/6, mb1mx2.9/45, mbtmp3.6/6, Error ellipse: s-maj=43.9km s-min=24.3km az=65.0*

**ISC 23 07:07:54.9±0.8, 24.50N±0.02×121.91E±0.02, h23km±5km, n58, σ0=97/88, mb3.4/5, 3C-3D, Taiwan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TWC** | **Suao** | **0.12** | **332** | ⇓P | **Pb** | **07 07 59.3** | **-0.1** |
| | baz=359 | | | | | | |
| TWC | | | | *i* S | **Sb** | **07 08 02.4** | **-0.1** |
| | baz=359 | | | | | | |
| **ENA** | **Nanau** | **0.17** | **244** | ⇓*i*P | **Pb** | **07 07 59.6** | **-0.3** |
| | baz=230 | | | | | | |
| ENA | | | | *e*S | **Sb** | **07 08 03.0** | **-0.4** |
| | baz=230 | | | | | | |
| **EHP** | **Heping Village** | **0.25** | **219** | *e*P | **Pb** | **07 08 01.8** | **+0.9** |
| | baz=200 | | | | | | |
| **ILA** | **Ilan** | **0.30** | **330** | *e*P | **Pb** | **07 08 01.4** | **-0.4** |
| | baz=334 | | | | | | |
| ILA | | | | S | **Sb** | **07 08 06.5** | **+0.1** |
| | baz=334 | | | | | | |
| **TWE** | **Neicheng** | **0.31** | **314** | ⇑*i*P | **Pb** | **07 08 01.4** | **-0.5** |
| | baz=321 | | | | | | |
| TWE | | | | *i* S | **Sb** | **07 08 05.9** | **-0.8** |
| | baz=321 | | | | | | |
| **ENTT** | **Nioudou** | **0.34** | **294** | ⇑*i*P | **Pb** | **07 08 01.8** | **-0.6** |
| | baz=296 | | | | | | |
| ENTT | | | | *i* S | **Sb** | **07 08 06.7** | **-0.9** |
| | baz=296 | | | | | | |
| **NNS** | **Nan Shan** | **0.49** | **263** | *e*P | **Pb** | **07 08 04.0** | **-1.1** |
| | baz=261 | | | | | | |
| NNS | | | | *e*S | **Sb** | **07 08 10.4** | **-1.5** |
| | baz=261 | | | | | | |
| **TWB1** | **Santiao Chiao** | **0.51** | **8** | P | **Pb** | **07 08 04.9** | **-0.3** |
| | baz=11 | | | | | | |
| TWB1 | | | | S | **Sb** | **07 08 11.7** | **-0.4** |
| | baz=11 | | | | | | |
| **TWD** | **Chiawan** | **0.51** | **214** | *e*P | **Pb** | **07 08 04.6** | **-0.6** |
| | baz=209 | | | | | | |
| TWD | | | | *e*S | **Sb** | **07 08 12.9** | **+0.8** |
| | baz=209 | | | | | | |
| **NSK** | **Sanguang** | **0.53** | **289** | ⇑*i*P | **Pb** | **07 08 04.7** | **-0.9** |
| | baz=290 | | | | | | |
| NSK | | | | *i* S | **Sb** | **07 08 11.0** | **-2.0** |
| | baz=290 | | | | | | |
| **TWA** | **Mucha** | **0.56** | **328** | *e*P | **Pb** | **07 08 06.4** | **+0.3** |
| | baz=325 | | | | | | |
| TWA | | | | S | **Sb** | **07 08 13.2** | **-0.5** |
| | baz=325 | | | | | | |
| **NWF** | **Wu-fen Shan** | **0.58** | **348** | ⇓P | **Pb** | **07 08 06.4** | **0.0** |
| | baz=347 | | | | | | |
| NWF | | | | *i* S | **Sb** | **07 08 14.1** | **-0.2** |
| | baz=347 | | | | | | |
| **TAP1** | **Taipei** | **0.64** | **327** | P | **Pb** | **07 08 07.4** | **0.0** |
| | baz=329 | | | | | | |
| TAP1 | | | | S | **Sb** | **07 08 15.9** | **0.0** |
| | baz=329 | | | | | | |
| **TAP** | **Taipei** | **0.65** | **325** | *e*P | **Pb** | **07 08 07.3** | **-0.2** |
| | baz=329 | | | | | | |
| TAP | | | | *e*S | **Sb** | **07 08 15.9** | **-0.2** |
| | baz=329 | | | | | | |
| **WHF** | **Hehuan Shan** | **0.69** | **239** | P | **Pb** | **07 08 07.7** | **-0.8** |
| | baz=243 | | | | | | |
| WHF | | | | S | **Sb** | **07 08 17.0** | **-0.8** |
| | baz=243 | | | | | | |
| **TWT** | **Tachien** | **0.71** | **250** | *e*P | **Pb** | **07 08 06.3** | **-2.4** |
| | baz=248 | | | | | | |
| **TWS1** | **Kuangyinshan** | **0.74** | **323** | P | **Pb** | **07 08 09.0** | **-0.2** |
| | baz=336 | | | | | | |
| TWS1 | | | | *i* S | **Sb** | **07 08 19.8** | **+0.8** |
| | baz=336 | | | | | | |
| **NCU** | **National Centr** | **0.81** | **305** | *e*P | **Pb** | **07 08 10.1** | **-0.1** |
| | baz=292 | | | | | | |
| NCU | | | | S | **Sn** | **07 08 21.6** | **-0.5** |
| | baz=292 | | | | | | |
| **ESL** | **Shilin** | **0.81** | **213** | *e*P | **Pb** | **07 08 09.7** | **-0.6** |
| | baz=222 | | | | | | |
| **TWY** | **Chenhua** | **0.82** | **340** | *e*P | **Pb** | **07 08 10.5** | **+0.1** |
| | baz=343 | | | | | | |
| TWY | | | | *e*S | **Sb** | **07 08 20.9** | **-0.2** |
| | baz=343 | | | | | | |
| **NSTT** | **Nanjuang** | **0.84** | **279** | *e*P | **Pb** | **07 08 10.2** | **-0.5** |
| | baz=279 | | | | | | |
| **HSN** | **Hsinchu** | **0.91** | **289** | *e*P | **Pb** | **07 08 11.2** | **-0.7** |
| | baz=293 | | | | | | |
| HSN | | | | *e*S | **Sb** | **07 08 23.8** | **+0.2** |
| | baz=293 | | | | | | |
| **JYNG** | **Yonagunijimaku** | **0.94** | **93** | P | **Pb** | **07 08 12.2** | **-0.3** |
| JYNG | | | | *e*S | **Sn** | **07 08 25.4** | **-0.1** |
| **YOJ** | **Yonaguni jima** | **1.00** | **92** | *e*P | **Pb** | **07 08 12.8** | **-0.8** |
| | baz=81 | | | | | | |
| **YOJ** | **Yonaguni jima** | **1.00** | **92** | P | **Pb** | **07 08 13.2** | **-0.4** |
| YOJ | | | | S | **Sn** | **07 08 27.6** | **+0.7** |
| **WDT** | **Danda** | **1.03** | **224** | *e*P | **Pb** | **07 08 13.2** | **-1.0** |
| | baz=230 | | | | | | |
| WDT | | | | S | **Sn** | **07 08 28.0** | **-0.1** |
| | baz=230 | | | | | | |
| **TWQ1** | **Liyutan** | **1.05** | **262** |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **JISG** | **Ishigakijimahi** | **2.19** | **87** | P | | **Pn** | 07 08 29.4 | -0.4 |
| **SCZT** | **Fangliau** | **2.43** | **209** | *e*P | | **Pb** | 07 08 36.1 | -1.8 |
| | baz=196 | | | | | | | |
| **JTJ** | **Tarama** | **2.54** | **86** | *e*S | | **Sn** | 07 09 06.2 | +1.2 |
| **KSRS** | **Korea Array** | **13.90** | **20** | P | | **P** | 07 11 21.2 | +2.9 |
| | 0.1nm,0.3s,baz=200,slow=10,SNR=6.0 | | | | | | | |
| **SONM** | **Songino Array** | **26.34** | **336** | P | | **P** | 07 13 30.7 | +1.6 |
| | 1.0nm,0.6s,baz=148,slow=10,SNR=4.2 | | | | | | | |
| **MKAR** | **Makanchi Array** | **38.57** | **315** | P | | **P** | 07 15 15.7 | -0.2 |
| | 0.3nm,0.5s,baz=101,slow=8.9,SNR=6.0 | | | | | | | |
| **WRA** | **Warramunga Arr** | **45.80** | **164** | P | | **P** | 07 16 14.2 | -0.9 |
| | 0.3nm,0.7s,baz=346,slow=8.7,SNR=3.1 | | | | | | | |
| **FINES** | **FINESS Array B** | **71.51** | **330** | P | | **P** | 07 19 11.8 | -1.7 |
| | 2.2nm,0.8s,baz=202,slow=0.7,SNR=4.5 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **82.42** | **23** | P | | **P** | 07 20 13.9 | -1.0 |
| | 0.1nm,0.6s,baz=302,slow=5.3,SNR=4.0 | | | | | | | |

*ISK **23** 07:12:03.8,39.°98N×39.°87E,h9km,Ml2.5*
*ISCJB **23** 07:12:04.6±0.5,39.°97N±0.°03×39.°84E±0.°04,h5km±6km, Error ellipse: s-maj=5.0km s-min=4.3km az=27.8*
*CSEM **23** 07:12:04.3±0.2,39.°94N×39.°85E,h8km,ML2.5,Error ellipse: s-maj=5.4km s-min=4.4km az=152.0*
*DDA **23** 07:12:04.9,39.°94N×39.°83E,h7km,Ml2.7*

**ISC 23 07:12:04.4±1.1,39.°96N±0.°02×39.°85E±0.°02,h8km±9km, n30,σ1s00/48,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ERZN** | **Erzincan** | **0.39** | **195** | *e*PG | **Pb** | **07 12 12.4** | **-1.1** |
| ERZN | | | | *e*SG | **Sb** | **07 12 18.3** | **-1.4** |
| **EZC** | **Erzincan** | **0.43** | **242** | *e*Pg | **Pg** | **07 12 12.5** | **-0.4** |
| EZC | | | | *e*Sg | **Sg** | **07 12 18.3** | **-0.3** |
| **BAYT** | **Ayd¯–ntepe-Bay** | **0.49** | **27** | *e*PG | **Pg** | **07 12 14.0** | **+0.2** |
| BAYT | | | | *e*SG | **Sg** | **07 12 20.3** | **0.0** |
| **BAYT** | **Ayd¯–ntepe-Bay** | **0.49** | **27** | *e*Pg | **Pg** | **07 12 14.0** | **+0.2** |
| BAYT | | | | *e*Sg | **Sg** | **07 12 20.3** | **0.0** |
| **KELT** | **Kelkit** | **0.49** | **293** | *i* P | **Pb** | **07 12 15.0** | **-0.4** |
| KELT | | | | *i* S | **Sb** | **07 12 22.0** | **-0.9** |
| **KELT** | **Kelkit** | **0.49** | **293** | P | **Pb** | **07 12 15.0** | **-0.4** |
| KELT | | | | S | **Sb** | **07 12 22.0** | **-0.9** |
| **KOPT** | **Kop Dagi** | **0.50** | **83** | *i* P | **Pb** | **07 12 15.1** | **-0.5** |
| KOPT | | | | *i* S | **Sb** | **07 12 23.2** | **+0.1** |
| **KOPT** | **Kop Dagi** | **0.50** | **83** | P | **Pb** | **07 12 15.1** | **-0.5** |
| KOPT | | | | S | **Sb** | **07 12 23.2** | **+0.1** |
| **YEDI** | **Yedisu-Bingol** | **0.75** | **134** | *e*PG | **Pg** | **07 12 18.7** | **-0.1** |
| **YEDI** | **Yedisu-Bingol** | **0.75** | **134** | *e*Pg | **Pg** | **07 12 18.7** | **-0.1** |
| **TNCL** | **Tunceli-Merkez** | **0.88** | **196** | *i* P | **Pn** | **07 12 24.6** | **+1.5** |
| TNCL | | | | *i* S | **Sb** | **07 12 33.4** | **-0.4** |
| **TNCL** | **Tunceli-Merkez** | **0.88** | **196** | P | **Pn** | **07 12 24.6** | **+1.5** |
| TNCL | | | | S | **Sb** | **07 12 33.4** | **-0.4** |
| **REFA** | **Refahiye_ERZ¯** | **1.01** | **236** | *i* P | **Pg** | **07 12 21.2** | **-2.6** |
| **REFA** | **Refahiye_ERZ¯** | **1.01** | **236** | P | **Pg** | **07 12 21.2** | **-2.6** |
| **KTUT** | **Trabzon** | **1.03** | **356** | *e*PG | **Pg** | **07 12 23.4** | **-0.7** |
| **KTUT** | **Trabzon** | **1.03** | **356** | *e*Pg | **Pg** | **07 12 23.4** | **-0.7** |
| **ILIC** | **ilic-Erzincan** | **1.11** | **243** | *e*PN | **Pb** | **07 12 25.9** | **0.0** |
| **ILIC** | **ilic-Erzincan** | **1.11** | **243** | *e*Pn | **Pb** | **07 12 25.9** | **0.0** |
| **PTK** | **Pertek** | **1.12** | **199** | *e*PN | **Pn** | **07 12 26.1** | **-0.5** |
| **PTK** | **Pertek** | **1.12** | **199** | *e*Pn | **Pn** | **07 12 26.1** | **-0.5** |
| **KEMA** | **Kemaliye** | **1.25** | **237** | *i* P | **Pg** | **07 12 28.8** | **+0.4** |
| KEMA | | | | *i* S | **Sn** | **07 12 46.1** | **+0.7** |
| **KEMA** | **Kemaliye** | **1.25** | **237** | P | **Pg** | **07 12 28.8** | **+0.4** |
| KEMA | | | | S | **Sn** | **07 12 46.1** | **+0.7** |
| **ESPY** | **Espiye-Giresun** | **1.28** | **318** | *e*PN | **Pn** | **07 12 28.5** | **-0.1** |
| **ESPY** | **Espiye-Giresun** | **1.28** | **318** | *e*Pn | **Pn** | **07 12 28.5** | **-0.1** |
| **SUSE** | **Susehri** | **1.29** | **282** | *i* P | **Pg** | **07 12 29.1** | **0.0** |
| SUSE | | | | *i* S | **Sn** | **07 12 46.9** | **+0.6** |
| **SUSE** | **Susehri** | **1.29** | **282** | P | **Pg** | **07 12 29.1** | **0.0** |
| SUSE | | | | S | **Sn** | **07 12 46.9** | **+0.6** |
| **GRSN** | **GIRESUNGRSN** | **1.54** | **309** | *i* P | **Pb** | **07 12 33.0** | **-0.2** |
| GRSN | | | | *i* S | **Sn** | **07 12 51.9** | **-0.6** |
| **GRSN** | **GIRESUNGRSN** | **1.54** | **309** | P | **Pb** | **07 12 33.0** | **-0.2** |
| GRSN | | | | S | **Sn** | **07 12 51.9** | **-0.6** |
| **CUZAR** | **Zara_SIVAS** | **1.60** | **268** | *i* P | **Pn** | **07 12 33.5** | **+0.4** |
| CUZAR | | | | *i* S | **Sg** | **07 12 58.6** | **+2.8** |
| **CUZAR** | **Zara_SIVAS** | **1.60** | **268** | P | **Pn** | **07 12 33.5** | **+0.4** |
| CUZAR | | | | S | **Sg** | **07 12 58.6** | **+2.8** |

**MOS 23 07:24:42.6±1.9,52.°26N×99.°76E,h5km,mb4.4/1,1C-1D, Error ellipse: s-maj=23.8km s-min=17.5km az=122.1, Tuva-Buryatia-Mongolia border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ORL** | **Orlik** | **0.28** | **6** | *i*PG | Pb | 07 24 49.3 | -0.9 |
| ORL | | | | pmax | pmax | | |
| | comp=Z,440nm,0.1s | | | | | | |
| **MOY** | **Mondy** | **0.97** | **128** | *i*PG | Pg | 07 25 00.0 | -1.2 |
| MOY | | | | *e* | | 07 25 20.4 | |
| MOY | | | | pmax | pmax | | |
| | comp=Z,153nm,0.4s | | | | | | |
| MOY | | | | smax | smax | | |
| | comp=N,1μm,0.7s | | | | | | |
| **ARS** | **Arshan** | **1.68** | **101** | *e*PN | Pn | 07 25 12.6 | -0.1 |
| ARS | | | | *e* | | 07 25 15.4 | |
| ARS | | | | pmax | pmax | | |
| | comp=Z,156nm,0.3s | | | | | | |
| **TLY** | **Talaya** | **2.47** | **102** | *e*PN | Pb | 07 25 28.1 | +0.6 |
| TLY | | | | pmax | pmax | | |
| | comp=Z,12nm,0.4s | | | | | | |
| **ZAK** | **Zakamensk** | **2.90** | **129** | *e*PN | Pn | 07 25 31.4 | +1.9 |
| ZAK | | | | *e* | | 07 26 16.9 | |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,48nm,0.7s | | | | | | |
| ZAK | | | | smax | smax | | |
| | comp=N,222nm,0.8s | | | | | | |
| **TRG** | **Tyrgan** | **4.05** | **80** | *e*PN | Pn | 07 25 45.8 | +0.5 |
| TRG | | | | *e* | | 07 25 58.5 | |
| TRG | | | | pmax | pmax | | |
| | comp=Z,27nm,0.3s | | | | | | |
| **OGRR** | **Ongureny** | **4.94** | **71** | *e*PN | Pn | 07 25 59.1 | +1.7 |
| OGRR | | | | pmax | pmax | | |
| | comp=Z,16nm,0.3s | | | | | | |

*DDA **23** 07:28:45.4,39.°09N×37.°32E,h7km,Md2.6,Suspected Mining explosion.*
*ISCJB **23** 07:28:46.5±0.6,39.°08N±0.°03×37.°38E±0.°04,h0km,Error ellipse: s-maj=5.0km s-min=4.0km az=136.0*
*CSEM **23** 07:28:46.0±0.3,39.°10N×37.°38E,h2km,MD2.6,Error ellipse: s-maj=7.8km s-min=5.3km az=40.0,Suspected Mining explosion.*
*ISK **23** 07:28:47.2,39.°03N×37.°41E,h8km,ML2.1*

**ISC 23 07:28:46.2±0.9,39.°09N±0.°03×37.°38E±0.°03,h0km,n21, σ0s70/31,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CUKAN** | **kangal_SIVAS** | **0.23** | **16** | *i* P | **Pg** | **07 28 51.0** | **+0.3** |
| **CUKAN** | **kangal_SIVAS** | **0.23** | **16** | P | **Pg** | **07 28 51.0** | **+0.3** |
| **CUGUR** | **Gurin_S¯VAS** | **0.38** | **193** | *i* P | **Pg** | **07 28 53.0** | **-0.4** |
| CUGUR | | | | *i* S | **Sg** | **07 28 58.8** | **+0.5** |
| **CUGUR** | **Gurin_S¯VAS** | **0.38** | **193** | P | **Pg** | **07 28 53.0** | **-0.4** |
| CUGUR | | | | S | **Sg** | **07 28 58.8** | **+0.5** |
| **HEKM** | **Malatya_Hekimh** | **0.50** | **115** | *i* P | **Pg** | **07 28 55.7** | **0.0** |
| HEKM | | | | *i* S | **Sb** | **07 29 05.3** | **-0.5** |
| **HEKM** | **Malatya_Hekimh** | **0.50** | **115** | P | **Pg** | **07 28 55.7** | **0.0** |
| **CUALT** | **Altinyayla-SIV** | **0.52** | **291** | *i* P | **Pg** | **07 28 54.7** | **-1.5** |
| CUALT | | | | *i* S | **Sg** | **07 29 04.1** | **+1.2** |
| **CUALT** | **Altinyayla-SIV** | **0.52** | **291** | P | **Pg** | **07 28 54.7** | **-1.5** |
| CUALT | | | | S | **Sg** | **07 29 04.1** | **+1.2** |
| **DARE** | **Darende-Malaty** | **0.52** | **171** | *e*PG | **Pg** | **07 28 56.6** | **+0.4** |
| DARE | | | | *e*SG | **Sg** | **07 29 03.6** | **+0.6** |
| **DARE** | **Darende-Malaty** | **0.52** | **171** | *e*Pg | **Pg** | **07 28 56.6** | **+0.4** |
| DARE | | | | *e*Sg | **Sg** | **07 29 03.6** | **+0.6** |
| **SVSK** | **Karacayir** | **0.88** | **340** | *e*PG | **Pn** | **07 29 05.8** | **0.0** |
| **SVSK** | **Karacayir** | **0.88** | **340** | *e*Pg | **Pn** | **07 29 05.8** | **0.0** |
| **AKCD** | **Akcadag** | **0.90** | **152** | *i* P | **Pg** | **07 29 03.1** | **-0.3** |
| AKCD | | | | *i* S | **Sb** | **07 29 16.5** | **-0.9** |
| **AKCD** | **Akcadag** | **0.90** | **152** | P | **Pg** | **07 29 03.1** | **-0.3** |
| AKCD | | | | S | **Sb** | **07 29 16.5** | **-0.9** |
| **SARI** | **SarD1z-Kayseri** | **1.02** | **228** | *e*PG | **Pb** | **07 29 06.7** | **-0.2** |
| SARI | | | | *e*SG | **Sb** | **07 29 20.9** | **+0.2** |
| **MALT** | **Malatya** | **1.13** | **133** | *e*PG | **Pb** | **07 29 08.6** | **0.0** |
| **MALT** | **Malatya** | **1.13** | **133** | *e*Pg | **Pb** | **07 29 08.6** | **0.0** |
| **BNN** | **Bunyan** | **1.22** | **259** | *e*PN | **Pn** | **07 29 11.7** | **+1.0** |
| **BNN** | **Bunyan** | **1.22** | **259** | *e*Pn | **Pn** | **07 29 11.7** | **+1.0** |
| **PTK** | **Pertek** | **1.58** | **97** | *e*PN | **Pn** | **07 29 15.1** | **-0.5** |
| **PTK** | **Pertek** | **1.58** | **97** | *e*Pn | **Pn** | **07 29 15.1** | **-0.5** |

**IDC 23 07:40:15.7±3.3,54.°56N×86.°37E,h0km,mb1 2.8/2, mb1mx2.7/49,mbtmp2.8/2,ML2.5/2,Error ellipse: s-maj=25.6km s-min=16.1km az=42.0,Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **I46RU** | **ZALESOVO INFRA** | **1.09** | **237** | *i* | | 07 46 55.0 | |
| | baz=56,slow=347,SNR=10 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **1.09** | **237** | Pg | Pg | 07 40 35.9 | -0.7 |
| | 0.7nm,0.3s,baz=59,slow=16,SNR=9.8 | | | | | | |
| ZALV | | | | Lg | Lg | 07 40 52.3 | |
| | 3.7nm,0.3s,baz=53,slow=26,SNR=10 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **6.19** | **234** | Pn | Pn | 07 41 48.8 | +0.6 |
| | 0.1nm,0.3s,baz=49,slow=14,SNR=3.5 | | | | | | |
| KURBB | | | | Lg | Lg | 07 43 31.0 | |
| | 0.1nm,0.3s,baz=56,slow=26,SNR=2.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **8.19** | **200** | Pn | Pn | 07 42 16.7 | +1.0 |
| | 0.1nm,0.3s,baz=21,slow=12,SNR=5.4 | | | | | | |

**IDC 23 07:42:37.0±3.0,54.°59N×86.°77E,h0km,mb1 3.3/2, mb1mx3.0/50,mbtmp3.3/2,ML3.0/2,Error ellipse: s-maj=27.1km s-min=15.8km az=55.0,Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **I46RU** | **ZALESOVO INFRA** | **1.31** | **241** | *i* | | 07 49 40.0 | |
| | baz=60,slow=350,SNR=3.2 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **1.31** | **241** | Pg | Pg | 07 43 01.0 | -1.1 |
| | 2.7nm,0.3s,baz=56,slow=16,SNR=20 | | | | | | |
| ZALV | | | | Lg | Lg | 07 43 19.0 | |
| | 6.0nm,0.3s,baz=59,slow=27,SNR=19 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **6.40** | **235** | Pn | Pn | 07 44 13.6 | +1.2 |
| | 0.2nm,0.3s,baz=52,slow=14,SNR=9.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **8.30** | **202** | Pn | Pn | 07 44 39.3 | +0.6 |
| | 0.3nm,0.3s,baz=25,slow=13,SNR=13 | | | | | | |
| MKAR | | | | Sn | Sn | 07 46 12.2 | -0.9 |
| | 0.1nm,0.3s,baz=21,slow=28,SNR=5.6 | | | | | | |

*DDA **23** 07:44:49.9,38.°85N×40.°04E,h7km,Ml2.6*
*ISK **23** 07:44:50.3,38.°90N×40.°11E,h5km,ML2.0*
*CSEM **23** 07:44:51.0±0.3,38.°87N×40.°06E,h2km,ML2.0,Error ellipse: s-maj=7.3km s-min=5.6km az=26.0*

**ISC 23 07:44:50.1±1.0,38.°88N±0.°03×40.°12E±0.°02,h13km±10km, n24,σ0s49/39,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **BINT** | **Bingol** | **0.29** | **91** | *e*Pg | **Pn** | **07 44 59.6** | **-0.5** |
| **BNGB** | **Bing¶ll** | **0.45** | **76** | *e*PG | **Pb** | **07 44 59.6** | **-0.3** |
| BNGB | | | | *e*SG | **Sb** | **07 45 06.6** | **0.0** |
| **TNCL** | **Tunceli-Merkez** | **0.51** | **298** | *i* P | **Pg** | **07 44 59.5** | **-0.6** |
| TNCL | | | | *i* S | **Sg** | **07 45 07.2** | **+0.3** |
| **TNCL** | **Tunceli-Merkez** | **0.51** | **298** | P | **Pg** | **07 44 59.5** | **-0.6** |
| TNCL | | | | S | **Sg** | **07 45 07.2** | **+0.3** |
| **HANI** | **Diyarbakir_Han** | **0.52** | **155** | *i* P | **Pg** | **07 44 59.9** | **-0.4** |
| HANI | | | | *i* S | **Sg** | **07 45 07.6** | **+0.4** |
| **HANI** | **Diyarbakir_Han** | **0.52** | **155** | P | **Pg** | **07 44 59.9** | **-0.4** |
| HANI | | | | S | **Sg** | **07 45 07.6** | **+0.4** |
| **PTK** | **Pertek** | **0.57** | **271** | *e*PG | **Pg** | **07 45 01.5** | **+0.2** |
| PTK | | | | *e*SG | **Sb** | **07 45 09.7** | **-0.3** |
| **PTK** | **Pertek** | **0.57** | **271** | *e*Pg | **Pg** | **07 45 01.5** | **+0.2** |
| PTK | | | | *e*Sg | **Sb** | **07 45 09.7** | **-0.3** |
| **YEDI** | **Yedisu-Bingol** | **0.65** | **31** | *e*PG | **Pb** | **07 45 03.1** | **-0.2** |
| YEDI | | | | *e*SG | **Sb** | **07 45 12.5** | **+0.2** |
| **YEDI** | **Yedisu-Bingol** | **0.65** | **31** | *e*Pg | **Pb** | **07 45 03.1** | **-0.2** |
| YEDI | | | | *e*Sg | **Sb** | **07 45 12.5** | **+0.2** |
| **ERZN** | **Erzincan** | **0.77** | **336** | *e*PG | **Pb** | **07 45 05.1** | **-0.2** |
| ERZN | | | | *e*SG | **Sb** | **07 45 16.1** | **+0.3** |
| **BNGL** | **BINGOL** | **0.81** | **85** | *i* P | **Pn** | **07 45 06.9** | **-0.5** |
| BNGL | | | | *i* S | **Sn** | **07 45 19.6** | **+0.3** |
| **SVRC** | **Sivrice-ELAZID** | **0.81** | **232** | *e*PG | **Pb** | **07 45 06.7** | **+0.6** |
| **SVRC** | **Sivrice-ELAZID** | **0.81** | **232** | *e*Pg | **Pb** | **07 45 06.7** | **+0.6** |
| **KEMA** | **Kemaliye** | **1.32** | **287** | *i* P | **Pn** | **07 45 13.8** | **-0.5** |
| KEMA | | | | *i* S | **Sg** | **07 45 32.5** | **-0.3** |
| **KEMA** | **Kemaliye** | **1.32** | **287** | P | **Pn** | **07 45 13.8** | **-0.5** |
| KEMA | | | | S | **Sg** | **07 45 32.5** | **-0.3** |
| **ILIC** | **ilic-Erzincan** | **1.33** | **296** | *e*PN | **Pg** | **07 45 16.3** | **+0.5** |
| **ILIC** | **ilic-Erzincan** | **1.33** | **296** | *e*Pn | **Pg** | **07 45 16.3** | **+0.5** |
| **KELT** | **Kelkit** | **1.43** | **332** | *i* P | **Pg** | **07 45 18.6** | **+1.0** |
| KELT | | | | *i* S | **Sg** | **07 45 36.6** | **+0.4** |
| **KELT** | **Kelkit** | **1.43** | **332** | P | **Pg** | **07 45 18.6** | **+1.0** |
| KELT | | | | S | **Sg** | **07 45 36.7** | **+0.4** |
| **MAZI** | **Mazidag** | **1.44** | **170** | *e*PN | **Pg** | **07 45 18.4** | **+0.6** |
| **MAZI** | **Mazidag** | **1.44** | **170** | *e*Pn | **Pg** | **07 45 18.5** | **+0.6** |
| **CUKAN** | **kangal_SIVAS** | **2.11** | **283** | *i* P | **Pb** | **07 45 27.8** | **-0.5** |
| **CUKAN** | **kangal_SIVAS** | **2.11** | **283** | P | **Pb** | **07 45 27.8** | **-0.5** |

**PRE 23 07:51:08.1±2.0,29.°68S×18.°48E,h5km,ML3.5,South Africa**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KOMG** | **Komaggas** | **0.87** | **262** | *e*P | Pg | 07 51 24.9 | +0.1 |
| KOMG | | | | *e*S | Sb | 07 51 37.1 | -0.5 |
| KOMG | | | | AML | AML | 07 51 39.1 | |
| | comp=Z,651nm,0.4s | | | | | | |
| **AUGR** | **Augrabies** | **1.96** | **57** | *e*P | Pb | 07 51 43.3 | -1.0 |
| AUGR | | | | *e*S | Sn | 07 52 06.6 | -0.4 |
| AUGR | | | | AML | AML | 07 52 07.4 | |
| | comp=Z,175nm,0.2s | | | | | | |
| **CVNA** | **Calvinia** | **2.11** | **149** | *e*P | Pn | 07 51 44.4 | +0.2 |
| CVNA | | | | *e*S | Sn | 07 52 11.3 | +0.5 |
| CVNA | | | | AML | AML | 07 52 19.4 | |
| | comp=Z,467nm,0.3s | | | | | | |
| **CER** | **Ceres** | **3.73** | **169** | *e*P | Pn | 07 52 05.8 | -0.6 |
| CER | | | | *e*S | Sn | 07 52 50.7 | -0.1 |
| CER | | | | AML | AML | 07 53 09.8 | |
| | comp=Z,612nm,0.6s | | | | | | |
| **ELIM** | **Elim** | **5.02** | **168** | *e*P | Pn | 07 52 25.4 | +1.3 |
| ELIM | | | | *e*S | Sn | 07 53 19.9 | -2.5 |
| ELIM | | | | AML | AML | 07 53 57.5 | |
| | comp=Z,24nm,0.5s | | | | | | |
| **BOSA** | **Boshof** | **6.03** | **81** | *e*P | Pn | 07 52 37.3 | -0.7 |
| BOSA | | | | *e*S | Sn | 07 53 46.6 | -0.9 |
| BOSA | | | | AML | AML | 07 54 17.3 | |
| | comp=Z,17nm,0.4s | | | | | | |

**IDC 23 07:54:24.1±496.0,65.°65N×42.°76E,h0km,Error ellipse: s-maj=272.8km s-min=176.0km az=37.0,Baltic States-Belarus-Northwestern Russia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **I31KZ** | **AKTYUBINSK INF** | **17.21** | **145** | *i* | | 09 43 00.0 | |
| | baz=337,slow=344,SNR=1.4 | | | | | | |
| **I18DK** | **QAANAAQ INFRAS** | **31.34** | **337** | *i* | | 11 05 20.0 | |
| | baz=43,slow=348,SNR=0.8 | | | | | | |
| **I34MN** | **SONGINO INFRAS** | **37.23** | **87** | *i* | | 11 42 50.0 | |
| | baz=319,slow=329,SNR=0.3 | | | | | | |

*NEIC **23** 08:01:21.9±0.0,43.°53S×172.°85E,h11km,ML4.0(WEL), After WEL.*
*NEIC Felt at Christchurch.*

**WEL 23 08:01:22.5±0.2,43.°51S×172.°82E,h7km±1km,ML4.0/39, 4C-3D,Error ellipse: s-maj=2.1km s-min=1.0km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.16** | **244** | *e*Pg | Pg | 08 01 25.9 | +0.2 |
| **CRLZ** | **Canterbury Las** | **0.16** | **244** | PG | Pg | 08 01 25.9 | +0.1 |
| CRLZ | | | | SG | Sg | 08 01 28.4 | +0.5 |
| CRLZ | | | | AML | AML | 08 01 31.8 | |
| **MQZ** | **McQueen's Vall** | **0.23** | **210** | *e*Pg | Pg | 08 01 27.3 | +0.2 |
| MQZ | | | | *e*Sg | Sg | 08 01 30.9 | +0.6 |
| **MQZ** | **McQueen's Vall** | **0.23** | **210** | ⇑PG | Pg | 08 01 27.1 | 0.0 |
| MQZ | | | | SG | Sg | 08 01 30.6 | +0.3 |
| MQZ | | | | SG | | 08 01 30.8 | |
| MQZ | | | | AML | AML | 08 01 31.3 | |
| **OXZ** | **Oxford** | **0.59** | **287** | *e*Pg | Pg | 08 01 34.1 | +0.1 |
| OXZ | | | | *e*Sg | Sb | 08 01 43.3 | -0.5 |
| **OXZ** | **Oxford** | **0.59** | **287** | ⇓P* | Pg | 08 01 33.7 | -0.2 |
| OXZ | | | | SG | Sg | 08 01 42.7 | +1.0 |
| OXZ | | | | AML | AML | 08 01 44.5 | |
| OXZ | | | | AML | AML | 08 01 44.9 | |
| OXZ | | | | AML | AML | 08 01 45.0 | |
| **LTZ** | **Lake Taylor** | **0.83** | **331** | *e*Pg | Pg | 08 01 38.5 | +0.1 |
| LTZ | | | | *e*Sn | Sb | 08 01 51.0 | +0.5 |
| **LTZ** | **Lake Taylor** | **0.83** | **331** | P* | Pg | 08 01 38.4 | 0.0 |
| LTZ | | | | S* | Sg | 08 01 49.7 | +0.6 |
| LTZ | | | | AML | AML | 08 01 51.2 | |
| **KHZ** | **Kahutara** | **1.21** | **26** | *e*Pn | Pb | 08 01 44.0 | -1.7 |
| **KHZ** | **Kahutara** | **1.21** | **26** | P* | Pb | 08 01 43.7 | -2.1 |
| KHZ | | | | AML | AML | 08 02 12.5 | |
| KHZ | | | | AML | AML | 08 02 12.5 | |
| KHZ | | | | AML | AML | 08 02 12.9 | |
| KHZ | | | | AML | AML | 08 02 12.9 | |
| **INZ** | **Inchbonnie** | **1.27** | **307** | P* | Pn | 08 01 44.9 | -1.7 |
| **RPZ** | **Rata Peaks** | **1.30** | **260** | *e*Pn | Pn | 08 01 45.8 | -1.3 |
| **RPZ** | **Rata Peaks** | **1.30** | **260** | P* | Pn | 08 01 45.4 | -1.6 |
| RPZ | | | | AML | AML | 08 02 14.4 | |
| RPZ | | | | AML | AML | 08 02 15.8 | |
| **WVZ** | **Waitaha Valley** | **1.58** | **285** | PN | Pn | 08 01 49.9 | -0.9 |
| WVZ | | | | AML | AML | 08 02 13.4 | |
| WVZ | | | | AML | AML | 08 02 23.1 | |
| **THZ** | **Tophouse** | **1.74** | **2** | *e*Pn | Pn | 08 01 51.9 | -1.3 |
| **THZ** | **Tophouse** | **1.74** | **2** | ⇑PN | Pn | 08 01 51.6 | -1.6 |
| THZ | | | | AML | AML | 08 02 18.3 | |
| THZ | | | | AML | AML | 08 02 19.1 | |
| **DSZ** | **Denniston Nort** | **1.91** | **337** | ⇓PN | Pn | 08 01 54.4 | -1.1 |
| DSZ | | | | AML | AML | 08 02 28.1 | |
| DSZ | | | | AML | AML | 08 02 28.2 | |
| DSZ | | | | AML | AML | 08 02 33.8 | |
| DSZ | | | | AML | AML | 08 02 33.8 | |
| **BSWZ** | **Blackbirch Sta** | **1.95** | **24** | ⇑PN | Pn | 08 01 54.7 | -1.4 |
| BSWZ | | | | AML | AML | 08 02 40.9 | |
| BSWZ | | | | AML | AML | 08 02 49.5 | |
| **LBZ** | **Lake Benmore** | **2.09** | **244** | *e*Pn | Pn | 08 01 57.3 | -0.7 |
| **LBZ** | **Lake Benmore** | **2.09** | **244** | PN | Pn | 08 01 57.1 | -0.9 |
| LBZ | | | | AML | AML | 08 02 35.9 | |
| LBZ | | | | AML | AML | 08 02 37.4 | |
| **FOZ** | **Fox Glacier** | **2.18** | **268** | *e*Pn | Pn | 08 01 59.6 | +0.5 |
| **FOZ** | **Fox Glacier** | **2.18** | **268** | PN | Pn | 08 01 59.4 | +0.2 |
| FOZ | | | | AML | AML | 08 02 45.4 | |
| FOZ | | | | AML | AML | 08 02 45.7 | |
| **ODZ** | **Otahua Downs** | **2.19** | **225** | *e*Pn | Pn | 08 01 58.2 | -1.1 |
| **ODZ** | **Otahua Downs** | **2.19** | **225** | PN | Pn | 08 01 58.1 | -1.2 |
| ODZ | | | | AML | AML | 08 02 40.9 | |
| ODZ | | | | AML | AML | 08 02 42.9 | |
| ODZ | | | | AML | AML | 08 02 42.9 | |
| ODZ | | | | AML | AML | 08 02 44.8 | |
| **TUWZ** | **Tuamarina** | **2.24** | **22** | PN | Pn | 08 01 58.2 | -1.7 |
| TUWZ | | | | AML | AML | 08 02 48.0 | |
| TUWZ | | | | AML | AML | 08 03 00.2 | |
| **NNZ** | **Nelson** | **2.33** | **11** | PN | Pn | 08 02 00.1 | -1.1 |
| NNZ | | | | AML | AML | 08 02 46.6 | |
| NNZ | | | | AML | AML | 08 02 49.6 | |
| **TCW** | **Tory Channel** | **2.54** | **26** | AML | AML | 08 02 36.9 | |
| TCW | | | | AML | AML | 08 03 02.1 | |
| **BHW** | **Baring Head** | **2.59** | **37** | PN | Pn | 08 02 02.6 | -2.2 |
| BHW | | | | AML | AML | 08 03 15.2 | |
| **SNZO** | **South Karori** | **2.60** | **33** | *e*Pn | Pn | 08 02 03.0 | -1.9 |
| **PLWZ** | **Palliser** | **2.65** | **44** | PN | Pn | 08 02 03.1 | -2.5 |
| **QRZ** | **Quartz Range** | **2.69** | **355** | PN | Pn | 08 02 04.9 | -1.2 |
| QRZ | | | | AML | AML | 08 02 16.2 | |
| QRZ | | | | AML | AML | 08 02 16.2 | |
| QRZ | | | | AML | AML | 08 02 57.2 | |
| QRZ | | | | AML | AML | 08 02 57.2 | |
| **MSWZ** | **Moikau Station** | **2.76** | **42** | ⇓PN | Pn | 08 02 04.5 | -2.6 |
| MSWZ | | | | AML | AML | 08 02 37.6 | |
| MSWZ | | | | AML | AML | 08 02 39.5 | |
| **DUWZ** | **D'Urville Isla** | **2.83** | **17** | AML | AML | 08 02 57.5 | |
| DUWZ | | | | AML | AML | 08 03 09.5 | |
| **HHSZ** | **Highcliff Hill** | **2.86** | **213** | PN | Pn | 08 02 07.0 | -1.5 |
| HHSZ | | | | AML | AML | 08 03 06.4 | |
| HHSZ | | | | AML | AML | 08 03 16.2 | |
| **CAW** | **Cannon Point** | **2.92** | **36** | PN | Pn | 08 02 06.8 | -2.5 |
| CAW | | | | AML | AML | 08 02 43.9 | |
| CAW | | | | AML | AML | 08 02 46.9 | |
| **JCZ** | **Jackson Bay** | **2.97** | **258** | PN | Pn | 08 02 09.4 | -0.8 |
| JCZ | | | | AML | AML | 08 03 11.1 | |
| JCZ | | | | AML | AML | 08 03 16.3 | |
| **TRWZ** | **Traveller** | **2.99** | **46** | PN | Pn | 08 02 07.5 | -2.8 |
| **WKZ** | **Wanaka** | **3.04** | **243** | *e*Pn | Pn | 08 02 10.0 | -0.9 |
| **WKZ** | **Wanaka** | **3.04** | **243** | PN | Pn | 08 02 09.8 | -1.2 |
| WKZ | | | | AML | AML | 08 03 09.0 | |
| WKZ | | | | AML | AML | 08 03 24.1 | |
| **EAZ** | **Earnscleugh** | **3.05** | **234** | PN | Pn | 08 02 09.8 | -1.4 |
| EAZ | | | | AML | AML | 08 03 04.5 | |
| EAZ | | | | AML | AML | 08 03 04.5 | |
| EAZ | | | | AML | AML | 08 03 06.2 | |
| EAZ | | | | AML | AML | 08 03 13.5 | |
| **KIW** | **Kapiti Island** | **3.07** | **31** | PN | Pn | 08 02 08.9 | -2.4 |
| **MTW** | **Mount Morrison** | **3.08** | **41** | PN | Pn | 08 02 08.5 | -3.0 |
| MTW | | | | AML | AML | 08 02 46.8 | |
| MTW | | | | AML | AML | 08 02 49.8 | |
| **OGWZ** | **Otaki Gorge** | **3.21** | **34** | PN | Pn | 08 02 10.8 | -2.5 |
| OGWZ | | | | AML | AML | 08 02 53.3 | |
| OGWZ | | | | AML | AML | 08 02 54.7 | |
| **HOWZ** | **Holdsworth Sta** | **3.29** | **38** | PN | Pn | 08 02 11.6 | -2.8 |
| HOWZ | | | | AML | AML | 08 02 55.9 | |
| **TMWZ** | **Te Maipa** | **3.31** | **45** | AML | AML | 08 02 57.6 | |
| **TUZ** | **Tuapeka

**n110,σ1°56/141, mb4.3/38, 1C, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AAI** | **Ambon** | **2.42** | **29** | P | **P** | **08 03 22.0** | **+0.8** |
| AAI | | | | S | **S** | **08 04 11.1** | **-1.0** |
| **NLAI** | **Namlea** | **2.58** | **1** | P | **P** | **08 03 23.1** | **+0.9** |
| NLAI | | | | S | **S** | **08 04 12.6** | **-1.3** |
| **MSAI** | **Masohi** | **3.11** | **37** | P | **P** | **08 03 24.8** | **-1.2** |
| MSAI | | | | S | **S** | **08 04 16.6** | **-4.3** |
| **BNDI** | **Bandanaira** | **3.14** | **66** | P | **P** | **08 03 26.7** | **+0.5** |
| BNDI | | | | S | **S** | **08 04 21.7** | **+0.4** |
| **SANI** | **Sanana** | **3.90** | **344** | P | **P** | **08 03 31.6** | **-0.9** |
| SANI | | | | S | **S** | **08 04 31.3** | **-1.4** |
| **SAUI** | **Saumlaki** | **4.74** | **117** | P | **P** | **08 03 40.5** | **+0.4** |
| SAUI | | | | S | **S** | **08 04 46.4** | **-0.3** |
| **SAUI** | **Saumlaki** | **4.74** | **117** | *e*P | **P** | **08 03 41.4** | **+1.3** |
| SAUI | | | | *e*S | **S** | **08 04 43.9** | **-2.8** |
| **SOEI** | **Soe** | **4.76** | **215** | P | **P** | **08 03 41.1** | **+0.7** |
| SOEI | | | | S | **S** | **08 04 45.4** | **-1.9** |
| **SOEI** | **Soe** | **4.76** | **215** | *e*P | **P** | **08 03 41.3** | **+0.8** |
| SOEI | | | | *e*S | **S** | **08 04 45.0** | **-2.3** |
| **KDI** | **Kendari** | **4.78** | **293** | P | **P** | **08 03 41.8** | **+1.4** |
| KDI | | | | S | **S** | **08 04 47.0** | **-0.3** |
| **LBMI** | **Labuha** | **5.18** | **5** | P | **P** | **08 03 46.1** | **+1.7** |
| | 293nm,0.7s,4μm1.3nm | | | | | | |
| LBMI | | | | S | **S** | **08 04 55.0** | **+0.5** |
| | 293nm,0.7s,4μm1.3nm | | | | | | |
| **MMRI** | **Maumere** | **5.51** | **239** | P | **P** | **08 03 48.6** | **+1.0** |
| | 72nm,0.6s,4μm0.4nm | | | | | | |
| MMRI | | | | S | **S** | **08 05 01.3** | **+0.8** |
| | 72nm,0.6s,4μm0.4nm | | | | | | |
| **MMRI** | **Maumere** | **5.51** | **239** | *e*P | **P** | **08 03 48.5** | **+0.8** |
| **FAKI** | **Fak Fak** | **5.95** | **61** | P | **P** | **08 03 52.5** | **+0.4** |
| | 272nm,0.5s,10μm2.2nm | | | | | | |
| FAKI | | | | S | **S** | **08 05 03.8** | **-4.8** |
| | 272nm,0.5s,10μm2.2nm | | | | | | |
| **FAKI** | **Fak Fak** | **5.95** | **61** | *e*P | **P** | **08 03 52.7** | **+0.7** |
| FAKI | | | | *e*S | **S** | **08 05 02.8** | **-5.8** |
| **EDFI** | **Ende, Flores** | **6.04** | **241** | P | **P** | **08 03 53.7** | **+0.6** |
| | 24nm,0.6s,0.1nm | | | | | | |
| EDFI | | | | S | **S** | **08 05 09.3** | **-1.2** |
| | 24nm,0.6s,0.1nm | | | | | | |
| **LUWI** | **Luwuk** | **6.38** | **318** | P | **P** | **08 03 57.8** | **+1.3** |
| | 77nm,0.8s,11μm0.5nm | | | | | | |
| LUWI | | | | S | **S** | **08 05 17.5** | **+0.7** |
| | 77nm,0.8s,11μm0.5nm | | | | | | |
| **LUWI** | **Luwuk** | **6.38** | **318** | *e*P | **P** | **08 03 57.2** | **+0.7** |
| **SWI** | **Sorong** | **6.49** | **41** | P | **P** | **08 03 58.7** | **+1.0** |
| | 125nm,0.7s,2μm1.3nm | | | | | | |
| SWI | | | | S | **S** | **08 05 16.8** | **-2.1** |
| | 125nm,0.7s,2μm1.3nm | | | | | | |
| **TNTI** | **Ternate** | **6.57** | **3** | *e*P | **P** | **08 03 59.4** | **+0.8** |
| **KMPI** | **Kaimana, Papua** | **6.99** | **72** | P | **P** | **08 04 04.7** | **+1.8** |
| | 564nm,0.8s,18μm2.4nm | | | | | | |
| KMPI | | | | S | **S** | **08 05 24.2** | **-4.3** |
| | 564nm,0.8s,18μm2.4nm | | | | | | |
| **KMSI** | **Cibinong** | **7.06** | **334** | P | **P** | **08 04 05.1** | **+1.4** |
| | 196nm,0.5s,1.4nm | | | | | | |
| **APSI** | **Ampana** | **7.27** | **312** | P | **P** | **08 04 06.9** | **+1.0** |
| | 60nm,0.9s,0.3nm | | | | | | |
| **SPSI** | **Sidrap Palu** | **7.47** | **284** | P | **P** | **08 04 09.8** | **+1.7** |
| | 26nm,1.6s,0.1nm | | | | | | |
| **BASI** | **Baing, Sumba** | **7.74** | **235** | P | **P** | **08 04 11.0** | **+0.1** |
| | 114nm,1.0s,0.8nm | | | | | | |
| **MTN** | **Manton Dam** | **8.05** | **150** | *e*P | **P** | **08 04 14.9** | **+0.6** |
| **MRSI** | **Marisa** | **8.07** | **321** | P | **P** | **08 04 15.4** | **+0.9** |
| | 66nm,0.5s,922nm | | | | | | |
| **WBSI** | **Waikabubak, Su** | **8.47** | **243** | S | **S** | **08 05 50.7** | **-7.1** |
| **SGSI** | **Sangihe** | **9.57** | **351** | P | **P** | **08 04 31.4** | **+0.5** |
| **FITZ** | **Fitzroy Crossi** | **12.27** | **186** | P | **P** | **08 05 00.3** | **+0.2** |
| | 6.9nm,0.3s,baz=19,slow=9.8,SNR=198 | | | | | | |
| FITZ | | | | S | **S** | **08 07 13.6** | **-0.2** |
| | baz=323,slow=20,SNR=2.5 | | | | | | |
| **JAGI** | **Jajag, Banyuwa** | **13.05** | **258** | *e*P | **P** | **08 05 09.6** | **+0.9** |
| **MYLDM** | **Lahad Datu** | **13.87** | **322** | *e*P | **P** | **08 05 18.9** | **+1.4** |
| **WRAB** | **Tennant Creek** | **15.72** | **154** | *e*P | **P** | **08 05 36.8** | **-0.5** |
| | 45nm,0.4s | | | | | | |
| **WRA** | **Warramunga Arr** | **15.72** | **154** | P | **P** | **08 05 36.8** | **-0.5** |
| | 14nm,0.3s,baz=333,slow=10,SNR=562 | | | | | | |
| WRA | | | | S | **S** | **08 08 24.9** | **+3.2** |
| | 1.2nm,0.3s,baz=336,slow=16,SNR=13 | | | | | | |
| **WB2** | **Warramunga Arr** | **15.73** | **154** | *e*P | **P** | **08 05 36.8** | **-0.6** |
| | 45nm,0.3s | | | | | | |
| **MBWA** | **Marble Bar** | **16.80** | **204** | *e*P | **P** | **08 05 47.9** | **-0.8** |
| | 8.1nm,0.8s | | | | | | |
| **COEN** | **Coen** | **17.82** | **118** | *e*P | **P** | **08 05 59.0** | **-0.5** |
| | 18nm,0.4s | | | | | | |
| **KSM** | **Kuching** | **18.21** | **293** | *e*P | **P** | **08 06 03.5** | **+0.1** |
| | 21nm,0.5s | | | | | | |
| **AS31** | **Alice Springs** | **18.92** | **160** | *e*P | **P** | **08 06 10.5** | **+0.4** |
| | 44nm,0.3s | | | | | | |
| **ASAR** | **Alice Springs** | **18.93** | **160** | P | **P** | **08 06 10.2** | **+0.1** |
| | 16nm,0.3s,baz=337,slow=11,SNR=1081 | | | | | | |
| ASAR | | | | S | **S** | **08 09 20.4** | **+0.9** |
| | baz=348,slow=20,SNR=11 | | | | | | |
| **AS01** | **Alice Springs** | **18.94** | **160** | *e*P | **P** | **08 06 10.4** | **+0.1** |
| **CISI** | **Cisompet, Garu** | **19.16** | **264** | *e*P | **P** | **08 06 11.1** | **-1.4** |
| | 50nm,0.6s | | | | | | |
| **CTA** | **Charters Tower** | **23.44** | **129** | P | **P** | **08 06 52.4** | **+1.2** |
| | 1.8nm,0.6s,baz=306,slow=8.7,SNR=4.0 | | | | | | |
| **CTAO** | **Charters Tower** | **23.44** | **129** | *e*P | **P** | **08 06 52.2** | **+1.0** |
| | 35nm,1.8s | | | | | | |
| **MYKOM** | **Kota Tinggi** | **24.36** | **287** | *e*P | **P** | **08 07 00.9** | **+1.4** |
| | 57nm,1.6s | | | | | | |
| **FORT** | **Forrest** | **24.84** | **178** | *e*P | **P** | **08 07 03.5** | **0.0** |
| | 375nm,0.6s | | | | | | |
| **BBOO** | **Buckleboo** | **28.13** | **164** | *e*P | **P** | **08 07 32.8** | **+0.3** |
| | 15nm,0.8s | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **28.46** | **197** | P | **P** | **08 07 35.5** | **0.0** |
| | 5.7nm,0.6s,baz=332,slow=11,SNR=5.6 | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **28.46** | **197** | *e*P | **P** | **08 07 35.0** | **-0.5** |
| **STKA** | **Stephens Creek** | **29.27** | **154** | P | **P** | **08 07 43.1** | **+0.5** |
| | 12nm,0.4s,baz=327,slow=9.3,SNR=37 | | | | | | |
| **STKA** | **Stephens Creek** | **29.27** | **154** | *e*P | **P** | **08 07 43.1** | **+0.5** |
| | 2.6nm,0.7s | | | | | | |
| **PSI** | **Prapat** | **29.36** | **286** | P | **P** | **08 07 43.0** | **-0.7** |
| | 8.8nm,0.9s,baz=160,slow=5.4,SNR=7.4 | | | | | | |
| **PSI** | **Prapat** | **29.36** | **286** | *e*P | **P** | **08 07 43.0** | **-0.7** |
| | 12nm,0.8s | | | | | | |
| **ARMA** | **Armidale** | **33.66** | **140** | *e*P | **P** | **08 08 22.3** | **+1.7** |
| | 68nm,1.9s | | | | | | |
| **CAN** | **Canberra** | **35.65** | **148** | *e*P | **P** | **08 08 39.0** | **+1.9** |
| | 47nm,1.9s | | | | | | |
| **NJ2** | **Nanjing** | **38.47** | **349** | *e*P | **P** | **08 09 01.1** | **+0.7** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,14nm,0.5s | | | | | | |
| **KMI** | **Kunming** | **38.80** | **323** | P | **P** | **08 09 04.1** | **+0.6** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,13nm,0.5s | | | | | | |
| **LZH** | **Lanzhou** | **47.03** | **334** | ⇑P | **P** | **08 10 07.0** | **-1.2** |
| LZH | | | | pP | pP | 08 11 35.3 | +0.5 |
| LZH | | | | PP | **PP** | **08 12 04.6** | **+0.3** |
| LZH | | | | sP | sP | 08 12 24.3 | -0.5 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,25nm,1.2s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,86nm,6.0s | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **48.58** | **344** | *e*P | **P** | **08 10 21.6** | **+1.9** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.0s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,120nm,7.4s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **50.00** | **5** | P | **P** | **08 10 30.3** | **+0.3** |
| | 1.8nm,0.5s,baz=191,slow=5.9,SNR=4.1 | | | | | | |
| **ODAN** | **Odare** | **50.28** | **312** | *e*P | **P** | **08 10 31.9** | **-0.8** |
| | 12nm,0.5s | | | | | | |
| **TAPN** | **Taplejung** | **50.33** | **313** | *e*P | **P** | **08 10 32.8** | **-0.3** |
| | 12nm,0.4s | | | | | | |
| **RAMN** | **Ramite** | **50.92** | **312** | *e*P | **P** | **08 10 37.3** | **-0.1** |
| | 32nm,0.6s | | | | | | |
| **MSVF** | **Nonsavu** | **51.16** | **108** | *e*P | **P** | **08 10 38.0** | **-1.2** |
| | 39nm,1.8s | | | | | | |
| **GTA** | **Gaotai** | **51.57** | **333** | *e*P | **P** | **08 10 42.3** | **+0.5** |
| GTA | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.7s | | | | | | |
| **JIRN** | **Jiri** | **51.61** | **312** | *e*P | **P** | **08 10 42.2** | **-0.4** |
| **GUN** | **Gumba** | **51.98** | **312** | *e*P | **P** | **08 10 44.9** | **-0.4** |
| | 18nm,0.4s | | | | | | |
| **PKI** | **Pulchoki** | **52.14** | **312** | *e*P | **P** | **08 10 45.5** | **-0.9** |
| | 8.8nm,0.4s | | | | | | |
| **PKIN** | **Phulchoki** | **52.16** | **312** | *e*P | **P** | **08 10 45.8** | **-0.7** |
| | 11nm,0.4s | | | | | | |
| **GKN** | **Gorkha** | **52.95** | **312** | *e*P | **P** | **08 10 51.5** | **-0.6** |
| **KOLN** | **Koldanda** | **53.60** | **311** | *e*P | **P** | **08 10 56.0** | **-0.8** |
| | 11nm,0.4s | | | | | | |
| **PYUN** | **Piuthan** | **54.23** | **311** | *e*P | **P** | **08 11 00.9** | **-0.4** |
| | 21nm,0.6s | | | | | | |
| **SONM** | **Songino Array** | **56.45** | **343** | P | **P** | **08 11 16.8** | **+0.5** |
| | 1.2nm,0.4s,baz=166,slow=7.3,SNR=13 | | | | | | |
| SONM | | | | PcP | **PcP** | **08 12 07.5** | **+0.4** |
| | 0.3nm,0.3s,baz=146,slow=5.3,SNR=2.6 | | | | | | |
| **SONA1** | **Songino Array** | **56.46** | **343** | *e*P | **P** | **08 11 17.2** | **+0.8** |
| **WMQ** | **Urumqi** | **60.84** | **328** | P | **P** | **08 11 47.4** | **+1.3** |
| WMQ | | | | pP | pP | 08 13 18.4 | -0.3 |
| WMQ | | | | sP | sP | 08 14 04.0 | -2.9 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,19nm,0.9s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,350nm,6.3s | | | | | | |
| **PEA0B** | **Petropavlovsk-** | **64.19** | **20** | *e*P | **P** | **08 12 09.0** | **+1.4** |
| | 32nm,1.3s | | | | | | |
| **PETK** | **Petropavlovsk-** | **64.19** | **20** | P | **P** | **08 12 08.8** | **+1.2** |
| | 4.7nm,0.6s,baz=166,slow=3.2,SNR=8.6 | | | | | | |
| **KSH** | **Kashi** | **65.19** | **318** | P | **P** | **08 12 15.3** | **+0.9** |
| KSH | | | | PcP | **PcP** | **08 12 43.3** | **+0.6** |
| KSH | | | | pP | pP | 08 13 50.0 | +1.4 |
| KSH | | | | PP | **PP** | **08 14 48.3** | **+3.2** |
| KSH | | | | S | **S** | **08 20 18.1** | **-3.7** |
| KSH | | | | ScS | **SKSac** | **08 21 18.4** | **-6.7** |
| KSH | | | | SS | **SS** | **08 24 42.8** | **-2.2** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.8s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,160nm,5.5s | | | | | | |
| **MK01** | **Makanchi Array** | **65.64** | **328** | *e*P | **P** | **08 12 17.0** | **0.0** |
| MK01 | | | | *e*PcP | **PcP** | **08 12 44.1** | **-0.2** |
| **MK31** | **Makanchi Array** | **65.66** | **328** | *e*P | **P** | **08 12 17.2** | **0.0** |
| MK31 | | | | *e*PcP | **PcP** | **08 12 44.6** | **+0.2** |
| **MKAR** | **Makanchi Array** | **65.66** | **328** | P | **P** | **08 12 17.1** | **-0.1** |
| | 4.8nm,0.5s,baz=119,slow=8.2,SNR=90 | | | | | | |
| MKAR | | | | PcP | **PcP** | **08 12 44.2** | **-0.2** |
| | 1.9nm,0.7s,baz=122,slow=5.4,SNR=7.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **65.66** | **328** | *e*P | **P** | **08 12 17.2** | **+0.1** |
| | 36nm,0.5s | | | | | | |
| MKAR | | | | *e*PcP | **PcP** | **08 12 44.4** | **0.0** |
| **MAKZ** | **Makanchi** | **65.83** | **328** | *e*P | **P** | **08 12 18.3** | **+0.1** |
| | 6.1nm,1.3s | | | | | | |
| **AAK** | **Ala-Archa** | **67.77** | **321** | *e*P | **P** | **08 12 31.1** | **+0.6** |
| | 2.9nm,0.8s | | | | | | |
| **ZAA0** | **Zalesovo Array** | **69.26** | **335** | *e*P | **P** | **08 12 38.7** | **-0.5** |
| | 6.0nm,0.9s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **69.26** | **335** | P | **P** | **08 12 38.4** | **-0.7** |
| | 3.5nm,0.4s,baz=133,slow=4.6,SNR=19 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **69.26** | **335** | *e*P | **P** | **08 12 38.5** | **-0.6** |
| **KURK** | **Kurchatov** | **70.01** | **330** | *e*P | **P** | **08 12 43.6** | **-0.1** |
| | 7.8nm,1.0s | | | | | | |
| **BVAR** | **Borovoye Array** | **75.53** | **329** | P | **P** | **08 13 15.5** | **-0.1** |
| | 2.3nm,0.4s,baz=128,slow=9.6,SNR=26 | | | | | | |
| **BRVK** | **Borovoye** | **75.60** | **329** | *e*P | **P** | **08 13 15.9** | **-0.1** |
| | 6.0nm,1.1s | | | | | | |
| **GEYT** | **Alibeck** | **77.22** | **311** | P | **P** | **08 13 26.4** | **+1.1** |
| | 0.9nm,0.4s,baz=110,slow=6.3,SNR=3.2 | | | | | | |
| **TIXI** | **Tiksi** | **77.34** | **1** | *e*P | **P** | **08 13 25.1** | **-0.1** |
| | 4.7nm,0.5s | | | | | | |
| **ABKAR** | **Akbulak array** | **79.78** | **322** | *e*P | **P** | **08 13 38.6** | **-0.3** |
| | 119nm,0.8s | | | | | | |
| **ARU** | **Arti** | **83.17** | **329** | P | **P** | **08 13 56.0** | **-0.2** |
| | 7.0nm,0.2s,baz=110,slow=14,SNR=4.3 | | | | | | |
| **RAYN** | **Ar Rayn** | **84.58** | **294** | *e*P | **P** | **08 14 03.7** | **-0.3** |
| | 3.6nm,0.8s | | | | | | |
| **MLY** | **Manley** | **91.97** | **25** | *e*P | **P** | **08 14 37.4** | **-0.4** |
| | 26nm,2.0s | | | | | | |
| **COLD** | **Coldfoot** | **92.53** | **23** | *e*P | **P** | **08 14 40.1** | **-0.2** |
| | 15nm,1.9s | | | | | | |
| **CCB** | **Clear Creek Bu** | **93.15** | **25** | *e*P | **P** | **08 14 42.4** | **-0.8** |
| | 37nm,2.0s | | | | | | |
| **IL1** | **Eielson Array** | **93.56** | **25** | *e*P | **P** | **08 14 44.3** | **-0.8** |
| **ILAR** | **Eielson Array** | **93.56** | **25** | P | **P** | **08 14 43.6** | **-1.5** |
| | 0.4nm,0.6s,baz=232,slow=6.1,SNR=8.6 | | | | | | |
| **YKA** | **Yellowknife Ar** | **107.99** | **25** | PKiKP | **PKiKP** | **08 19 53.2** | **-0.6** |
| | 0.2nm,0.4s,baz=289,slow=1.9,SNR=11 | | | | | | |
| **GERES** | **GERESS Array B** | **109.64** | **320** | PKiKP | **PKiKP** | **08 19 57.4** | **-0.1** |
| | 0.4nm,0.5s,baz=66,slow=2.4,SNR=4.5 | | | | | | |
| **PDAR** | **Pinedale Array** | **118.14** | **44** | PKP | **PKPdf** | **08 20 14.5** | **+0.3** |
| | 0.2nm,0.4s,baz=242,slow=1.9,SNR=3.6 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **125.69** | **282** | PKP | **PKPdf** | **08 20 28.9** | **-0.2** |
| | 0.8nm,0.4s,baz=64,slow=2.3,SNR=12 | | | | | | |
| **TXAR** | **Lajitas Array** | **126.83** | **58** | PKP | **PKPdf** | **08 20 32.1** | **+1.0** |
| | 0.3nm,0.5s,baz=297,slow=2.9,SNR=2.8 | | | | | | |
| **WMOK** | **Wichita Mounta** | **128.93** | **49** | *e*PKPpre | PKPpre | 08 20 28.2 | |
| **TRQA** | **Tornquist** | **135.54** | **170** | *e*PKPdf | **PKPdf** | **08 20 48.7** | **+1.5** |
| **CPUP** | **Villa Florida** | **147.75** | **173** | PKPbc | **PKPbc** | **08 21 12.8** | **+0.2** |
| | 2.0nm,0.6s,baz=239,slow=1.0,SNR=5.6 | | | | | | |
| **PB11** | **IPOC Station P** | **149.72** | **148** | *e*PKPbc | **PKPbc** | **08 21 17.8** | **-0.1** |
| **MNMC** | **Minye Minye** | **150.27** | **147** | *e*PKPbc | **PKPbc** | **08 21 20.1** | **+0.8** |

*ISK **23** 08:17:14.4, 41°.39N×35°.91E, h5km, ML2.6*
*ISCJB **23** 08:17:15.7±0.4, 41°.38N±0°.02×35°.90E±0°.03, h0km, Error ellipse: s-maj=3.9km s-min=2.7km az=32.4*
*CSEM **23** 08:17:15.8±0.2, 41°.36N×35°.88E, h2km, ML2.9, Error ellipse: s-maj=5.1km s-min=3.3km az=37.0, Suspected Mining explosion.*
*DDA **23** 08:17:15.1, 41°.34N×35°.86E, h22km, Ml2.9, Suspected Mining explosion.*

**ISC 23 08:17:15.3±0.8, 41°.35N±0°.02×35°.86E±0°.02, h0km, n40, σ0°86/64, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SAMS** | **Samsun-Alacam** | **0.24** | **88** | *i* P | **Pg** | **08 17 21.1** | **+1.1** |
| SAMS | | | | *i* S | **Sg** | **08 17 26.4** | **+3.2** |
| **SAMS** | **Samsun-Alacam** | **0.24** | **88** | P | **Pg** | **08 17 21.1** | **+1.1** |
| **HAVZ** | **Havza** | **0.30** | **201** | *i* P | **Pg** | **08 17 21.4** | **+0.4** |
| HAVZ | | | | *i* S | **Sg** | **08 17 26.8** | **+1.9** |
| **HAVZ** | **Havza** | **0.30** | **201** | P | **Pg** | **08 17 21.5** | **+0.4** |
| HAVZ | | | | S | **Sg** | **08 17 26.8** | **+1.9** |
| **KVT** | **Kavak** | **0.31** | **153** | *e*PG | **Pg** | **08 17 21.5** | **+0.3** |
| **KVT** | **Kavak** | **0.31** | **153** | *e*Pg | **Pg** | **08 17 21.5** | **+0.3** |
| **DIKM** | **Dikmen** | **0.54** | **303** | *e*PG | **Pg** | **08 17 26.2** | **+0.5** |
| DIKM | | | | *e*SG | **Sb** | **08 17 34.9** | **-1.2** |
| **DIKM** | **Dikmen** | **0.54** | **303** | *e*Pg | **Pg** | **08 17 26.2** | **+0.5** |
| DIKM | | | | *e*Sg | **Sb** | **08 17 34.9** | **-1.2** |
| **SNOP** | **Sinop** | **0.83** | **324** | *e*PG | **Pg** | **08 17 31.2** | **0.0** |
| SNOP | | | | *e*SG | **Sb** | **08 17 43.6** | **-0.7** |
| **SNOP** | **Sinop** | **0.83** | **324** | *e*Pg | **Pg** | **08 17 31.2** | **0.0** |
| SNOP | | | | *e*Sg | **Sb** | **08 17 43.6** | **-0.7** |
| **SINO** | **SINOP_Merkez** | **0.83** | **324** | *i* P | **Pg** | **08 17 31.2** | **0.0** |
| SINO | | | | *i* S | **Sb** | **08 17 43.2** | **-1.1** |
| **SINO** | **SINOP_Merkez** | **0.83** | **324** | P | **Pg** | **08 17 31.2** | **0.0** |
| SINO | | | | S | **Sb** | **08 17 43.2** | **-1.1** |
| **ERBA** | **Erbaa** | **0.95** | **135** | *i* P | **Pg** | **08 17 33.3** | **-0.3** |
| ERBA | | | | *i* S | **Sb** | **08 17 47.0** | **-0.9** |
| **ERBA** | **Erbaa** | **0.95** | **135** | P | **Pg** | **08 17 33.3** | **-0.3** |
| ERBA | | | | S | **Sb** | **08 17 47.0** | **-0.9** |
| **CTAK** | **Corum_Osmancik** | **1.07** | **229** | *i* P | **Pg** | **08 17 35.9** | **0.0** |
| CTAK | | | | *i* S | **Sn** | **08 17 54.0** | **+0.5** |
| **CTAK** | **Corum_Osmancik** | **1.07** | **229** | P | **Pg** | **08 17 35.9** | **0.0** |
| **COAL** | **Corum-Alaca** | **1.28** | **212** | *i* P | **Pg** | **08 17 38.6** | **-1.3** |
| COAL | | | | *i* S | **Sn** | **08 17 59.2** | **+0.6** |
| **COAL** | **Corum-Alaca** | **1.28** | **212** | P | **Pg** | **08 17 38.6** | **-1.3** |
| COAL | | | | S | **Sn** | **08 17 59.2** | **+0.6** |
| **RSDY** | **Resadiye-TOKAT** | **1.47** | **130** | *e*PN | **Pn** | **08 17 42.7** | **-0.4** |
| **RSDY** | **Resadiye-TOKAT** | **1.47** | **130** | *e*Pn | **Pn** | **08 17 42.7** | **-0.4** |
| **BZK** | **Bozkurt** | **1.52** | **294** | *e*PN | **Pg** | **08 17 44.8** | **+0.3** |
| **BZK** | **Bozkurt** | **1.52** | **294** | *e*Pn | **Pg** | **08 17 44.8** | **+0.3** |
| **ORDU** | **Ordu-Boztepe** | **1.55** | **103** | *i* P | **Pn** | **08 17 43.6** | **-0.6** |
| ORDU | | | | *i* S | **Sg** | **08 18 05.3** | **+0.2** |
| **ORDU** | **Ordu-Boztepe** | **1.55** | **103** | P | **Pn** | **08 17 43.6** | **-0.6** |
| ORDU | | | | S | **Sg** | **08 18 05.3** | **+0.2** |
| **ILGA** | **Ilgaz** | **1.65** | **260** | *i* P | **Pn** | **08 17 45.8** | **+0.1** |
| ILGA | | | | *i* S | **Sg** | **08 18 09.9** | **+1.6** |
| **ILGA** | **Ilgaz** | **1.65** | **260** | P | **Pn** | **08 17 45.8** | **+0.1** |
| ILGA | | | | S | **Sg** | **08 18 09.9** | **+1.6** |
| **SVSK** | **Karacayir** | **1.68** | **149** | *e*PN | **Pb** | **08 17 46.7** | **-0.3** |
| **SVSK** | **Karacayir** | **1.68** | **149** | *e*Pn | **Pb** | **08 17 46.7** | **-0.3** |
| **YOZ** | **Yozgat** | **1.76** | **194** | *e*PN | **Pn** | **08 17 47.7** | **+0.5** |
| **YOZ** | **Yozgat** | **1.76** | **194** | *e*Pn | **Pn** | **08 17 47.7** | **+0.5** |
| **GRSN** | **GIRESUNGRSN** | **1.87** | **102** | *i* P | **Pn** | **08 17 48.1** | **-0.5** |
| GRSN | | | | *i* S | **Sb** | **08 18 14.1** | **-0.1** |
| **GRSN** | **GIRESUNGRSN** | **1.87** | **102** | P | **Pn** | **08 17 48.1** | **-0.5** |
| GRSN | | | | S | **Sb** | **08 18 14.1** | **-0.1** |
| **CUSAR** | **Sarkisla-SIVAS** | **1.96** | **171** | *i* P | **Pn** | **08 17 49.9** | **-0.1** |
| CUSAR | | | | *i* S | **Sb** | **08 18 17.1** | **+0.2** |
| **CUSAR** | **Sarkisla-SIVAS** | **1.96** | **171** | P | **Pn** | **08 17 49.8** | **-0.1** |
| CUSAR | | | | S | **Sb** | **08 18 17.1** | **+0.2** |
| **CDAG** | **Cicekdag** | **2.07** | **214** | *i* P | **Pb** | **08 17 53.3** | **-0.5** |
| CDAG | | | | *i* S | **Sg** | **08 18 21.5** | **-0.3** |
| **CDAG** | **Cicekdag** | **2.07** | **214** | P | **Pb** | **08 17 53.3** | **-0.5** |
| **SUSE** | **Susehri** | **2.11** | **122** | *i* P | **Pb** | **08 17 53.5** | **-1.1** |
| SUSE | | | | *i* S | **Sg** | **08 18 22.6** | **-0.6** |
| **SUSE** | **Susehri** | **2.11** | **122** | P | **Pb** | **08 17 53.5** | **-1.1** |
| **ESPY** | **Espiye-Giresun** | **2.21** | **100** | *e*PN | **Pn** | **08 17 53.0** | **-0.3** |
| **ESPY** | **Espiye-Giresun** | **2.21** | **100** | *e*Pn | **Pn** | **08 17 53.0** | **-0.3** |

**WEL 23 08:21:08.7±0.5, 35°.97S×177°.87E, h205km±9km, ML3.5/13, 1C-1D, Error ellipse: s-maj=7.0km s-min=6.4km az=0.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HAZ** | **Te Kaha** | **1.78** | **182** | PN | Pn | 08 21 45.6 | +0.2 |
| HAZ | | | | SN | S | 08 22 13.2 | -0.4 |
| **WMGZ** | **Waiomatatini S** | **1.89** | **167** | PN | Pn | 08 21 46.7 | +0.2 |
| WMGZ | | | | AML | AML | 08 22 18.3 | |
| **RUGZ** | **Raukumara Rang** | **1.99** | **184** | PN | Pn | 08 21 47.2 | -0.4 |
| **PUZ** | **Puketiti** | **2.12** | **172** | PN | Pn | 08 21 48.3 | -0.4 |
| PUZ | | | | SN | S | 08 22 19.3 | -0.4 |
| **TWGZ** | **Tauwhareparae** | **2.20** | **178** | PN | Pn | 08 21 50.2 | +0.5 |
| TWGZ | | | | SN | S | 08 22 21.9 | +0.6 |
| TWGZ | | | | AML | AML | 08 22 25.1 | |
| **URZ** | **Urewera** | **2.36** | **195** | PN | Pn | 08 21 51.6 | +0.3 |
| URZ | | | | SN | S | 08 22 24.8 | +0.6 |
| **MWZ** | **Matawai** | **2.37** | **186** | PN | Pn | 08 21 51.8 | +0.4 |
| **CNGZ** | **Carnagh Statio** | **2.52** | **174** | PN | Pn | 08 21 53.3 | +0.3 |
| **MUGZ** | **Murupara** | **2.65** | **199** | PN | Pn | 08 21 54.8 | +0.3 |
| **RIGZ** | **Rimuhau** | **2.73** | **182** | PN | Pn | 08 21 55.1 | -0.3 |
| RIGZ | | | | SN | S | 08 22 30.8 | -0.8 |
| **RTZ** | **Ruatahuna** | **2.73** | **195** | ⇓PN | Pn | 08 21 55.2 | -0.3 |
| **KNZ** | **Kokohu** | **3.05** | **183** | PN | Pn | 08 21 58.2 | -0.8 |
| **KWHZ** | **Kaweka Forest** | **3.63** | **198** | PN | Pn | 08 22 05.6 | -0.5 |
| **BHHZ** | **Black Hill Sta** | **3.79** | **202** | PN | Pn | 08 22 07.2 | -0.9 |
| **PXZ** | **Pawanui** | **4.13** | **191** | PN | Pn | 08 22 10.3 | -1.8 |
| **BFZ** | **Birch Farm** | **4.87** | **195** | ⇑PN | Pn | 08 22 19.4 | -2.1 |
| **TIWZ** | **Tintock** | **5.04** | **197** | PN | Pn | 08 22 19.9 | -3.7 |

**WEL 23 08:45:50.1±0.3, 38°.62S×175°.53E, h173km±2km, ML3.9/52, 8C-24D, Error ellipse: s-maj=1.9km s-min=1.6km az=90.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TLZ** | **Tolley Road** | **0.29** | **1** | ⇓PN | Pn | 08 46 13.5 | +0.1 |
| **RATZ** | **Rangitukua** | **0.31** | **143** | ⇓PN | Pn | 08 46 13.3 | -0.1 |
| **KATZ** | **Kakaramea** | **0.37** | **160** | ⇓PN | Pn | 08 46 13.6 | -0.1 |
| **KRVZ** | **Karewarewa** | **0.48** | **170** | ⇓PN | Pn | 08 46 14.1 | 0.0 |
| **WTVZ** | **West Tongariro** | **0.49** | **175** | PN | Pn | 08 46 14.1 | 0.0 |
| **HIZ** | **Hauiti** | **0.54** | **281** | ⇑PN | Pn | 08 46 14.0 | -0.2 |
| **OTVZ** | **Oturere** | **0.55** | **169** | ⇓PN | Pn | 08 46 14.2 | -0.2 |
| OTVZ | | | | SN | Sn | 08 46 34.2 | +0.9 |
| **NGZ** | **Ngauruhoe** | **0.56** | **175** | ⇑PN | Pn | 08 46 14.3 | -0.1 |
| **FWVZ** | **Far West T-bar** | **0.63** | **179** | PN | Pn | 08 46 14.8 | -0.2 |
| FWVZ | | | | SN | Sn | 08 46 33.5 | -0.7 |
| **ALRZ** | **Allen Road** | **0.64** | **85** | PN | Pn | 08 46 14.5 | -0.1 |
| **TUVZ** | **Tukino** | **0.65** | **172** | ⇓PN | Pn | 08 46 15.0 | +0.1 |
| **TRVZ** | **Turoa** | **0.68** | **179** | ⇓PN | Pn | 08 46 15.1 | 0.0 |
| **PKVZ** | **Pokaka** | **0.68** | **192** | ⇓PN | Pn | 08 46 14.9 | -0.1 |
| **WNVZ** | **Wahianoa** | **0.70** | **176** | ⇓PN | Pn | 08 46 15.3 | 0.0 |
| **MRHZ** | **Matea Rd** | **0.72** | **107** | PN | Pn | 08 46 14.9 | -0.3 |
| MRHZ | | | | SN | Sn | 08 46 32.6 | -1.9 |
| MRHZ | | | | AML | AML | 08 46 33.2 | |
| **MTVZ** | **Mangateitei** | **0.76** | **184** | ⇓PN | Pn | 08 46 15.4 | -0.1 |
| **MOVZ** | **Moawhango** | **0.80** | **168** | ⇓PN | Pn | 08 46 15.4 | -

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **TWGZ** | **Tauwhareparae** | **1.97** | **78** | PN | Pn | 08 46 26.3 | 0.0 | | |
| TWGZ | | | | AML | AML | 08 46 55.2 | | | |
| TWGZ | | | | AML | AML | 08 46 59.2 | | | |
| **ANWZ** | **Angora Road** | **1.97** | **159** | PN | Pn | 08 46 25.7 | -0.5 | | |
| ANWZ | | | | AML | AML | 08 46 54.4 | | | |
| ANWZ | | | | AML | AML | 08 46 55.5 | | | |
| **MRZ** | **Mangatainoka R** | **2.04** | **179** | PN | Pn | 08 46 25.6 | -1.4 | | |
| MRZ | | | | AML | AML | 08 46 54.1 | | | |
| MRZ | | | | AML | AML | 08 46 54.5 | | | |
| **CNGZ** | **Carnagh Statio** | **2.10** | **87** | PN | Pn | 08 46 28.0 | +0.3 | | |
| **BFZ** | **Birch Farm** | **2.13** | **165** | PN | Pn | 08 46 26.9 | -1.1 | | |
| BFZ | | | | AML | AML | 08 46 56.5 | | | |
| BFZ | | | | AML | AML | 08 46 56.6 | | | |
| BFZ | | | | AML | AML | 08 46 56.6 | | | |
| BFZ | | | | AML | AML | 08 46 59.8 | | | |
| **PKGZ** | **Pakihiroa** | **2.13** | **71** | PN | Pn | 08 46 28.0 | -0.2 | | |
| PKGZ | | | | AML | AML | 08 46 56.7 | | | |
| PKGZ | | | | AML | AML | 08 46 57.7 | | | |
| **TIWZ** | **Tintock** | **2.17** | **173** | PN | Pn | 08 46 27.3 | -1.3 | | |
| TIWZ | | | | AML | AML | 08 47 00.4 | | | |
| TIWZ | | | | AML | AML | 08 47 01.0 | | | |
| **OGWZ** | **Otaki Gorge** | **2.21** | **187** | PN | Pn | 08 46 27.7 | -1.3 | | |
| OGWZ | | | | SN | Sn | 08 46 55.3 | -3.9 | | |
| OGWZ | | | | AML | AML | 08 46 57.5 | | | |
| **PUZ** | **Puketiti** | **2.21** | **76** | PN | Pn | 08 46 28.4 | -0.6 | | |
| PUZ | | | | SN | Sn | 08 46 56.2 | -3.0 | | |
| PUZ | | | | AML | AML | 08 46 59.9 | | | |
| **HOWZ** | **Holdsworth Sta** | **2.27** | **180** | PN | Pn | 08 46 28.0 | -1.7 | | |
| HOWZ | | | | AML | AML | 08 46 58.4 | | | |
| HOWZ | | | | AML | AML | 08 46 59.0 | | | |
| **KIW** | **Kapiti Island** | **2.29** | **192** | PN | Pn | 08 46 28.2 | -1.7 | | |
| KIW | | | | AML | AML | 08 46 57.1 | | | |
| KIW | | | | AML | AML | 08 46 59.3 | | | |
| **CPWZ** | **Castlepoint** | **2.34** | **168** | PN | Pn | 08 46 29.6 | -0.8 | | |
| CPWZ | | | | AML | AML | 08 47 04.2 | | | |
| CPWZ | | | | AML | AML | 08 47 05.2 | | | |
| **WMGZ** | **Waiomatatini S** | **2.41** | **71** | PN | Pn | 08 46 30.7 | -0.6 | | |
| WMGZ | | | | AML | AML | 08 47 01.6 | | | |
| WMGZ | | | | AML | AML | 08 47 01.7 | | | |
| **MXZ** | **Matakaoa Point** | **2.43** | **65** | PN | Pn | 08 46 31.4 | -0.1 | | |
| **TMWZ** | **Te Maipa** | **2.50** | **174** | PN | Pn | 08 46 30.4 | -1.9 | | |
| TMWZ | | | | AML | AML | 08 47 03.3 | | | |
| TMWZ | | | | AML | AML | 08 47 03.9 | | | |
| **DUWZ** | **D'Urville Isla** | **2.51** | **209** | PN | Pn | 08 46 30.4 | -2.0 | | |
| **CAW** | **Cannon Point** | **2.51** | **188** | PN | Pn | 08 46 30.6 | -1.8 | | |
| CAW | | | | SN | Sn | 08 47 00.8 | -4.6 | | |
| CAW | | | | AML | AML | 08 47 02.9 | | | |
| **MTW** | **Mount Morrison** | **2.53** | **181** | PN | Pn | 08 46 30.6 | -2.1 | | |
| MTW | | | | AML | AML | 08 47 03.6 | | | |
| MTW | | | | AML | AML | 08 47 03.6 | | | |
| **WEL** | **Wellington** | **2.72** | **192** | PN | Pn | 08 46 32.8 | -2.1 | | |
| WEL | | | | AML | AML | 08 47 07.4 | | | |
| WEL | | | | AML | AML | 08 47 08.2 | | | |
| WEL | | | | AML | AML | 08 47 08.2 | | | |
| WEL | | | | AML | AML | 08 47 08.9 | | | |
| **PAWZ** | **Paruwai Farm** | **2.76** | **182** | PN | Pn | 08 46 33.2 | -2.2 | | |
| PAWZ | | | | AML | AML | 08 47 07.9 | | | |
| PAWZ | | | | AML | AML | 08 47 08.5 | | | |
| **TCW** | **Tory Channel** | **2.76** | **200** | PN | Pn | 08 46 33.2 | -2.2 | | |
| TCW | | | | SN | Sn | 08 47 06.2 | -4.6 | | |
| TCW | | | | AML | AML | 08 47 08.4 | | | |
| **TRWZ** | **Traveller** | **2.77** | **178** | PN | Pn | 08 46 33.5 | -2.1 | | |
| TRWZ | | | | AML | AML | 08 47 09.0 | | | |
| TRWZ | | | | AML | AML | 08 47 09.5 | | | |
| **MSWZ** | **Moikau Station** | **2.80** | **184** | PN | Pn | 08 46 33.5 | -2.4 | | |
| MSWZ | | | | AML | AML | 08 47 08.8 | | | |
| MSWZ | | | | AML | AML | 08 47 09.0 | | | |
| **BHW** | **Baring Head** | **2.83** | **190** | PN | Pn | 08 46 33.8 | -2.4 | | |
| BHW | | | | AML | AML | 08 47 09.2 | | | |
| BHW | | | | AML | AML | 08 47 09.5 | | | |
| **PLWZ** | **Palliser** | **2.95** | **184** | PN | Pn | 08 46 35.2 | -2.6 | | |
| PLWZ | | | | AML | AML | 08 47 11.2 | | | |
| PLWZ | | | | AML | AML | 08 47 12.2 | | | |
| **TUWZ** | **Tuamarina** | **3.06** | **203** | PN | Pn | 08 46 36.2 | -2.8 | | |
| TUWZ | | | | AML | AML | 08 47 14.2 | | | |
| TUWZ | | | | AML | AML | 08 47 15.1 | | | |
| **NNZ** | **Nelson** | **3.08** | **212** | PN | Pn | 08 46 36.4 | -2.8 | | |
| **QRZ** | **Quartz Range** | **3.19** | **226** | PN | Pn | 08 46 37.4 | -3.3 | | |
| QRZ | | | | SN | Sn | 08 47 15.6 | -4.7 | | |
| **BSWZ** | **Blackbirch Sta** | **3.34** | **202** | PN | Pn | 08 46 40.0 | -2.5 | | |
| **THZ** | **Tophouse** | **3.73** | **212** | PN | Pn | 08 46 43.9 | -3.6 | | |
| THZ | | | | SN | Sn | 08 47 27.5 | -4.9 | | |
| **KHZ** | **Kahutara** | **4.08** | **201** | PN | Pn | 08 46 48.9 | -3.0 | | |
| KHZ | | | | AML | AML | 08 47 36.2 | | | |
| KHZ | | | | AML | AML | 08 47 36.2 | | | |
| KHZ | | | | AML | AML | 08 47 36.3 | | | |
| **DSZ** | **Denniston Nort** | **4.23** | **221** | PN | Pn | 08 46 49.8 | -4.0 | | |
| **LTZ** | **Lake Taylor** | **4.84** | **210** | PN | Pn | 08 46 57.8 | -3.9 | | |
| **INZ** | **Inchbonnie** | **5.14** | **216** | ⇑PN | Pn | 08 47 01.2 | -4.5 | | |

**IDC 23 08:53:57.3±4.2, 67°30S×112°95E, h0km, mb3.8/3, mb1 4.0/4, mb1mx3.9/17, mbtmp3.8/4, ML3.3/1, MS3.3/1, Ms1 3.3/1, ms1mx2.7/18, Error ellipse: s-maj=132.4km s-min=39.3km az=85.0, Antarctica**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VNDA** | **Vanda** | **17.25** | **146** | P | Pn | 08 57 57.5 | -1.5 |
| | 0.1nm,0.3s,baz=291,slow=13,SNR=5.1 | | | | | | |
| VNDA | | | | LR | LR | 09 05 07.0 | |
| | comp=Z,87nm,19.2s,baz=304,slow=39 | | | | | | |
| **STKA** | **Stephens Creek** | **39.28** | **40** | P | P | 09 01 28.6 | +1.3 |
| | 2.1nm,0.9s,baz=186,slow=8.1,SNR=4.7 | | | | | | |
| **ASAR** | **Alice Springs** | **45.56** | **27** | P | P | 09 02 18.0 | -0.6 |
| | 0.9nm,0.7s,baz=193,slow=7.4,SNR=17 | | | | | | |
| **WRA** | **Warramunga Arr** | **49.28** | **27** | P | P | 09 02 46.2 | -1.3 |
| | 1.0nm,0.7s,baz=194,slow=7.0,SNR=5.9 | | | | | | |
| **ILAR** | **Eielson Array** | **149.55** | **56** | PKPbc | PKPbc | 09 13 47.2 | +0.6 |
| | 0.9nm,1.1s,baz=249,slow=4.6,SNR=4.2 | | | | | | |

**IDC 23 09:00:34.4±5.9, 47°95N×33°21E, h0km, mb1 2.0/1, mb1mx2.0/43, mbtmp2.0/1, ML2.8/1, Error ellipse: s-maj=62.9km s-min=47.9km az=46.0, Ukraine-Moldova-Southwestern Russia region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AKASG** | **Malin Array Be** | **3.79** | **318** | Pn | Pn | 09 01 34.6 | +0.6 |
| | 0.7nm,0.3s,baz=127,slow=13,SNR=3.3 | | | | | | |
| AKASG | | | | Pg | Pb | 09 01 40.9 | -1.3 |
| | 0.8nm,0.3s,baz=133,slow=17,SNR=3.5 | | | | | | |
| AKASG | | | | Lg | Lg | 09 02 33.7 | |
| | 2.7nm,0.3s,baz=136,slow=31,SNR=5.7 | | | | | | |
| AKASG | | | | Rg | Rg | 09 02 50.9 | |
| | 1.0nm,0.4s,baz=132,slow=30,SNR=6.6 | | | | | | |
| **I43RU** | **DUBNA INFRASON 9.12** | **14** | *i* | | | 10 03 30.0 | |
| | baz=190,slow=329,SNR=1.0 | | | | | | |
| **I31KZ** | **AKTYUBINSK INF 16.39** | **72** | *i* | | | 10 36 50.0 | |
| | baz=268,slow=312,SNR=1.2 | | | | | | |

*NIED* ***23*** *09:01:00,37.40N×141.70E,h5km,Mw3.8 Best double couple: M₀5.66000×10¹⁴ NP1:φs199.00000°,δ42.00000°, λ-109.00000°. NP2:φs44.00000°,δ50.00000°, λ-74.00000°.*

*ISCJB* ***23*** *09:01:07.9±1.7,37.42N±0.03×141.72E±0.05, h12km±11km,mb3.8/10,MS3.6/1,Error ellipse: s-maj=6.7km s-min=5.1km az=27.8*

*IDC* ***23*** *09:01:07.9±0.9,37.39N×141.73E,h0km,mb3.7/10, mb1 3.8/12,mb1mx3.7/50,mbtmp3.7/12,ML3.2/2,MS3.0/3, Ms1 3.0/3,ms1mx2.6/47,Error ellipse: s-maj=23.6km s-min=18.4km az=102.0*

*JMA* ***23*** *09:01:09.7±0.1,37.44N×141.61E,h23km±2km,M4.1*

*JMA Felt I J1.*

**ISC 23 09:01:07.7±1.8, 37.43N±0.04×141.68E±0.06, h0km±10km, n31, σ1s00/34, mb3.8/10, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JFK** | **Kawauchi** | **0.64** | **264** | P | **Pg** | **09 01 21.1** | **+1.1** |
| **ONAJ** | **Iwakimizuishiy** | **0.78** | **245** | P | **Pg** | **09 01 23.4** | **+0.8** |
| ONAJ | | | | S | **Sg** | **09 01 33.3** | **+0.7** |
| **JMM** | **Marumori** | **0.82** | **302** | P | **Pg** | **09 01 24.1** | **+0.6** |
| JMM | | | | eS | **Sg** | **09 01 34.6** | **+0.4** |
| **JIO** | **Ouri** | **1.05** | **346** | P | **Pg** | **09 01 28.1** | **+0.2** |
| JIO | | | | S | **Sg** | **09 01 41.6** | **0.0** |
| **JFT** | **Otama** | **1.07** | **275** | P | **Pg** | **09 01 28.4** | **+0.2** |
| JFT | | | | *e*S | **Sg** | **09 01 42.2** | **+0.1** |
| **JHO** | **Hitachi** | **1.21** | **228** | P | **Pg** | **09 01 29.7** | **-1.7** |
| JHO | | | | *e*S | **Sb** | **09 01 45.9** | **-1.6** |
| **JOU** | **Okura** | **1.23** | **320** | P | **Pg** | **09 01 31.6** | **-0.2** |
| JOU | | | | *e*S | **Sb** | **09 01 47.7** | **-0.5** |
| **JYS** | **Shirataka** | **1.50** | **302** | P | **Pn** | **09 01 35.8** | **0.0** |
| JYS | | | | S | **Sn** | **09 01 55.1** | **-1.0** |
| **JMK** | **Ichinoseki** | **1.56** | **347** | P | **Pn** | **09 01 36.4** | **-0.2** |
| JMK | | | | *e*S | **Sn** | **09 01 56.1** | **-1.4** |
| **JFY** | **Yanaizu** | **1.57** | **270** | P | **Pn** | **09 01 36.4** | **-0.4** |
| JFY | | | | *e*S | **Sn** | **09 01 56.6** | **-1.2** |
| **MJAR** | **Matsushiro Arr** | **2.92** | **253** | Pn | **Pn** | **09 01 55.9** | **+0.6** |
| | 3.8nm,0.3s,baz=78,slow=17,SNR=36 | | | | | | |
| MJAR | | | | Sn | **Sg** | **09 02 39.4** | **-2.0** |
| | 5.4nm,0.3s,baz=12,slow=14,SNR=7.0 | | | | | | |
| MJAR | | | | LR | LR | 09 03 22.7 | |
| | comp=Z,96nm,20.1s,baz=20,slow=46 | | | | | | |
| **MAT** | **Matsushiro** | **2.92** | **253** | P | **Pn** | **09 01 56.2** | **+0.9** |
| MAT | | | | *e*S | **Sn** | **09 02 31.9** | **+0.8** |
| **ASAJ** | **Asahikawa** | **6.71** | **6** | Pn | **Pn** | **09 02 46.2** | **-1.3** |
| | 0.4nm,0.3s,baz=103,slow=18,SNR=2.6 | | | | | | |
| **KSRS** | **Korea Array** | **10.94** | **274** | LR | LR | 09 07 11.0 | |
| | comp=Z,48nm,20.4s,baz=54,slow=33 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.18** | **122** | T | T | 09 36 31.3 | |
| | baz=314,slow=75,SNR=478 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.18** | **122** | T | T | 09 36 32.8 | |
| | baz=314,slow=75,SNR=409 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.19** | **122** | T | T | 09 36 33.5 | |
| | baz=314,slow=75,SNR=337 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.90** | **124** | T | T | 09 37 27.1 | |
| | baz=316,slow=76,SNR=328 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.90** | **124** | T | T | 09 37 27.2 | |
| | baz=316,slow=76,SNR=271 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.92** | **124** | T | T | 09 37 28.2 | |
| | baz=316,slow=76,SNR=185 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.80** | **312** | P | **P** | **09 09 01.0** | **+2.3** |
| | 0.7nm,0.4s,baz=78,slow=7.5,SNR=3.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.09** | **302** | P | **P** | **09 09 17.5** | **+0.1** |
| | 0.6nm,0.7s,baz=84,slow=11,SNR=4.8 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **45.92** | **308** | P | **P** | **09 09 31.4** | **-0.5** |
| | 1.0nm,0.4s,baz=82,slow=7.9,SNR=7.8 | | | | | | |
| **ILAR** | **Eielson Array** | **49.05** | **33** | P | **P** | **09 09 57.2** | **+1.2** |
| | 0.4nm,0.8s,baz=270,slow=5.9,SNR=4.1 | | | | | | |
| **BVAR** | **Borovoye Array** | **50.46** | **312** | P | **P** | **09 10 07.8** | **+0.8** |
| | 0.5nm,0.4s,baz=83,slow=12,SNR=2.1 | | | | | | |
| **INK** | **Inuvik** | **53.94** | **27** | P | **P** | **09 10 31.9** | **-0.7** |
| | 6.1nm,1.4s,baz=271,slow=10.0,SNR=3.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **57.48** | **188** | P | **P** | **09 10 58.6** | **0.0** |
| | 0.9nm,0.6s,baz=6.3,slow=7.4,SNR=16 | | | | | | |
| **SPITS** | **Spitsbergen Ar** | **60.17** | **349** | LR | LR | 09 38 34.3 | |
| | comp=Z,39nm,18.5s,baz=255,slow=37 | | | | | | |
| **ASAR** | **Alice Springs** | **61.21** | **188** | P | **P** | **09 11 23.9** | **-0.4** |
| | 0.5nm,0.8s,baz=8.9,slow=6.6,SNR=5.7 | | | | | | |
| **YKA** | **Yellowknife Ar** | **63.36** | **30** | P | **P** | **09 11 39.1** | **+0.8** |
| | 0.2nm,0.6s,baz=300,slow=6.1,SNR=3.6 | | | | | | |
| **AKASG** | **Malin Array Be** | **74.11** | **322** | P | **P** | **09 12 45.9** | **+0.4** |
| | 1.1nm,0.5s,baz=45,slow=6.0,SNR=8.9 | | | | | | |

*IDC* ***23*** *09:01:23.5±0.7,52.43N×169.25W,h0km,mb4.3/34, mb1 4.4/36,mb1mx4.4/54,mbtmp4.3/36,ML3.9/2,MS3.4/6, Ms1 3.4/6,ms1mx3.0/61,Error ellipse: s-maj=19.3km s-min=10.7km az=172.0*

*BJI* ***23*** *09:01:26.7,52.70N×169.55W,h24km,mb4.8/22, mB5.0/15,Ms4.8/6,Ms7 4.6/6*

*ISCJB* ***23*** *09:01:29.4±0.4,52.55N±0.04×169.24W±0.04,h53km±3km, mb4.5/62,MS3.7/8,Error ellipse: s-maj=7.5km s-min=3.2km az=160.3*

*MOS* ***23*** *09:01:29.4±1.0,52.65N×169.22W,h46km,mb4.8/18, Error ellipse: s-maj=16.8km s-min=8.5km az=99.1*

*NEIC* ***23*** *09:01:29.6±0.0,52.61N×169.24W,h45km,mb4.6/21, ML4.0(AEIC),After AEIC.*

**ISC 23 09:01:30.6±0.8, 52.48N±0.07×169.14W±0.04, h50km±5km, n180, σ1s24/197, mb4.5/66, MS3.7/8, 9C, Fox Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **NIKH** | **Nikolski High** | **0.53** | **19** | *e*Pn | **Pn** | **09 01 40.4** | **-1.7** |
| NIKH | | | | *e*Sn | **Sn** | **09 01 50.3** | **-0.1** |
| **OKSO** | **Okmok South** | **1.06** | **34** | *e*Pn | **Pn** | **09 01 47.4** | **-1.7** |
| OKSO | | | | *e*Sn | **Sn** | **09 02 03.0** | **+0.1** |
| **OKFG** | **Magazine Ridge** | **1.19** | **38** | *e*Pn | **Pn** | **09 01 49.6** | **-1.3** |
| OKFG | | | | *e*Sn | **Sn** | **09 02 07.0** | **+1.0** |
| **MGOD** | **Makushin Gods** | **1.90** | **45** | *e*Pn | **Pn** | **09 01 59.4** | **-1.2** |
| **MSW** | **Makushin Switc** | **2.02** | **44** | *e*Pn | **Pn** | **09 02 01.2** | **-1.0** |
| **UNV** | **Unalaska Valle** | **2.10** | **48** | *e*Pn | **Pn** | **09 02 01.6** | **-1.6** |
| UNV | | | | *e*Sn | **Sn** | **09 02 28.1** | **0.0** |
| **MTBL** | **Makushin Table** | **2.10** | **44** | *e*Pn | **Pn** | **09 02 02.7** | **-0.7** |
| **AKRB** | **Akutan Reef Bi** | **2.48** | **47** | *e*Pn | **Pn** | **09 02 08.7** | **+0.3** |
| **AKMO** | **Akutan Morgan** | **2.48** | **48** | *e*Pn | **Pn** | **09 02 08.1** | **-0.3** |
| **AKLV** | **Akutan Long Va** | **2.55** | **47** | *e*Pn | **Pn** | **09 02 09.9** | **+0.5** |
| **AKUT** | **Akutan** | **2.62** | **49** | *e*Pn | **Pn** | **09 02 10.9** | **+0.6** |
| AKUT | | | | *e*Sn | **Sn** | **09 02 40.5** | **-0.3** |
| **KOFP** | **Korovin Flat P** | **3.04** | **268** | *e*Pn | **Pn** | **09 02 16.1** | **-0.1** |
| **KOKL** | **Mount Kliuchef** | **3.10** | **269** | *e*Pn | **Pn** | **09 02 16.9** | **-0.1** |
| **ATKA** | **Atka Island** | **3.11** | **267** | *e*Pn | **Pn** | **09 02 15.6** | **-1.4** |
| **FALS** | **False Pass** | **4.16** | **53** | *e*Pn | **Pn** | **09 02 31.2** | **-0.2** |
| **GSTR** | **Great Sitkin T** | **4.26** | **268** | *e*Pn | **Pn** | **09 02 31.9** | **-1.0** |
| GSTR | | | | *e*Sn | **Sn** | **09 03 19.7** | **-1.7** |
| **GSTD** | **Great Sitkin T** | **4.32** | **267** | *e*Pn | **Pn** | **09 02 33.5** | **-0.3** |
| **ADAG** | **Mount Adagdak** | **4.61** | **267** | *e*Pn | **Pn** | **09 02 38.4** | **+0.7** |
| **SPIA** | **Saint Paul Isl** | **4.75** | **353** | *e*Pn | **Pn** | **09 02 41.5** | **+1.9** |
| SPIA | | | | *e*Sn | **Sn** | **09 03 31.6** | **-1.7** |
| **TAPA** | **Tanaga Point A** | **5.38** | **266** | *e*Pn | **Pn** | **09 02 49.1** | **+0.9** |
| **TAFL** | **Tanaga Flats** | **5.44** | **266** | *e*Pn | **Pn** | **09 02 50.1** | **+1.1** |
| **TAFP** | **Tanaga Falls P** | **5.47** | **267** | *e*Pn | **Pn** | **09 02 50.7** | **+1.2** |
| **SDPT** | **Sand Point** | **5.87** | **57** | *e*Pn | **Pn** | **09 02 56.6** | **+1.7** |
| **GAEA** | **Gareloi East** | **5.96** | **267** | *e*Pn | **Pn** | **09 02 57.0** | **+0.9** |
| **GALAA** | **Gareloi Lava P** | **5.98** | **267** | *e*Pn | **Pn** | **09 02 57.3** | **+0.9** |
| **CHGN** | **Chignik** | **7.34** | **54** | *e*Pn | **Pn** | **09 03 16.3** | **+1.4** |
| CHGN | | | | *e*Sn | **Sn** | **09 04 37.8** | **+1.0** |
| **KDAK** | **Kodiak Island** | **10.85** | **54** | Pn | **Pn** | **09 04 01.2** | **-1.8** |
| | 0.6nm,0.3s,baz=212,slow=4.3,SNR=7.9 | | | | | | |
| KDAK | | | | Sn | **Sn** | **09 05 59.9** | **-3.0** |
| | 0.1nm,0.3s,baz=343,slow=17,SNR=2.1 | | | | | | |
| **KDAK** | **Kodiak Island** | **10.85** | **54** | *ce*P | **Pn** | **09 04 02.0** | **-1.0** |
| **GAMB** | **Gambell** | **11.41** | **354** | *e*Pn | **Pn** | **09 04 12.2** | **+1.6** |
| GAMB | | | | *e*Sn | **Sn** | **09 06 15.3** | **-1.1** |
| **BPAW** | **Bear Paw Mtn.** | **14.98** | **32** | *e*Pn | **Pn** | **09 05 00.4** | **+1.5** |
| | 11nm,0.9s | | | | | | |
| **SCM** | **Sheep Creek Mo** | **15.02** | **43** | *e*P | **Pn** | **09 04 57.8** | **-1.6** |
| SCM | | | | pmax | pmax | | |
| | comp=Z,58nm,1.4s | | | | | | |
| **SCM** | **Sheep Creek Mo** | **15.02** | **43** | *e*Pn | **Pn** | **09 04 57.8** | **-1.6** |
| | comp=Z,58nm,1.4s | | | | | | |
| **DIV** | **Divide** | **15.38** | **47** | *e*Pn | **Pn** | **09 05 03.1** | **-0.9** |
| | comp=Z,137nm,2.0s | | | | | | |
| **KLU** | **Klutina** | **15.46** | **45** | *e*Pn | **Pn** | **09 05 03.5** | **-1.7** |
| | comp=Z,44nm,1.4s | | | | | | |
| **IMAR** | **Indian Mountai** | **15.59** | **24** | *e*Pn | **Pn** | **09 05 06.8** | **+0.1** |
| **MLY** | **Manley** | **15.70** | **30** | *e*Pn | **Pn** | **09 05 08.3** | **+0.1** |
| | comp=Z,11nm,0.8s | | | | | | |
| **ILAR** | **Eielson Array** | **16.78** | **34** | Pn | **Pn** | **09 05 20.0** | **-1.8** |
| | comp=Z,0.2nm,0.3s,baz=224,slow=11,SNR=16 | | | | | | |
| ILAR | | | | LR | LR | 09 12 51.6 | |
| | comp=Z,130nm,19.5s,baz=158,slow=41 | | | | | | |
| **ILB** | **Eielson Array** | **16.78** | **34** | *e*Pn | **Pn** | **09 05 20.9** | **-0.9** |
| **DOT** | **Dot Lake** | **17.21** | **40** | *e*P | **P** | **09 05 28.5** | **+0.4** |
| | comp=Z,121nm,1.6s | | | | | | |
| **COLD** | **Coldfoot** | **17.46** | **25** | *e*Pn | **Pn** | **09 05 29.6** | **-0.5** |
| | comp=Z,3.7nm,0.7s | | | | | | |
| **EGAK** | **Eagle** | **18.87** | **38** | *e*P | **P** | **09 05 46.7** | **+0.4** |
| | comp=Z,48nm,1.8s | | | | | | |
| **HYT** | **Haines Junctio** | **19.12** | **52** | *e*P | **Pn** | **09 05 51.1** | **+0.6** |
| | comp=Z,92nm,1.6s | | | | | | |
| **DAWY** | **Dawson** | **19.26** | **41** | *e*P | **P** | **09 05 50.7** | **+0.1** |
| | comp=Z,20nm,1.6s | | | | | | |
| **BILL** | **Bilibino** | **19.57** | **332** | ⇑*e*P | **P** | **09 05 53.0** | **-0.9** |
| BILL | | | | pmax | pmax | | |
| | comp=Z,11nm,1.3s | | | | | | |
| BILL | | | | MLR | MLR | | |
| | comp=Z,91nm,14.0s | | | | | | |
| **PEA0B** | **Petropavlovsk-** | **19.97** | **285** | *e*P | **P** | **09 05 57.8** | **-0.5** |
| | comp=Z,19nm,0.6s | | | | | | |
| **PEA1** | **Petropavlovsk-** | **19.97** | **285** | *e*P | **P** | **09 05 58.0** | **-0.4** |
| **PETK** | **Petropavlovsk-** | **19.97** | **285** | P | **P** | **09 05 58.0** | **-0.4** |
| | comp=Z,4.0nm,0.3s,baz=85,slow=14,SNR=50 | | | | | | |
| **PETK** | **Petropavlovsk-** | **19.97** | **285** | *e*P | **P** | **09 05 57.7** | **-0.7** |
| **PETK** | **Petropavlovsk-** | **19.97** | **285** | *e*P | **P** | **09 05 57.7** | **-0.7** |
| **SEY** | **Seymchan** | **22.70** | **312** | P | **P** | **09 06 27.1** | **-0.5** |
| | comp=Z,3.5nm,0.7s,baz=113,slow=9.9,SNR=9.3 | | | | | | |
| **SEY** | **Seymchan** | **22.70** | **312** | *ce*P | **P** | **09 06 26.6** | **-1.0** |
| **INK** | **Inuvik** | **23.18** | **33** | P | **P** | **09 06 30.3** | **-2.1** |
| | comp=Z,2.9nm,0.6s,baz=246,slow=8.1,SNR=22 | | | | | | |
| INK | | | | LR | LR | 09 17 19.4 | |
| | comp=Z,126nm,19.8s,baz=209,slow=41 | | | | | | |
| **INK** | **Inuvik** | **23.18** | **33** | *e*P | **P** | **09 06 30.9** | **-1.5** |
| INK | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.1s | | | | | | |
| **INK** | **Inuvik** | **23.18** | **33** | *e*P | **P** | **09 06 30.9** | **-1.5** |
| | comp=Z,7.6nm,1.1s | | | | | | |
| **MA2** | **Magadan** | **23.20** | **304** | P | **P** | **09 06 31.5** | **-1.2** |
| | comp=Z,6.3nm,0.6s,baz=88,slow=15,SNR=4.7 | | | | | | |
| **YKA** | **Yellowknife Ar** | **30.07** | **49** | P | **P** | **09 07 35.0** | **+0.4** |
| | comp=Z,2.0nm,0.6s,baz=271,slow=7.7,SNR=65 | | | | | | |
| YKA | | | | PcP | **PcP** | **09 10 35.6** | **+0.6** |
| | comp=Z,0.3nm,0.7s,baz=291,slow=2.2,SNR=4.7 | | | | | | |
| **YKA** | **Yellowknife Ar** | **30.07** | **49** | *ce*P | **P** | **09 07 35.0** | **+0.4** |
| YKA | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.6s | | | | | | |
| **HTW** | **Haystack Looko** | **30.28** | **80** | *e*P | **P** | **09 07 38.4** | **+1.7** |
| **TIXI** | **Tiksi** | **32.71** | **329** | *ce*P | **P** | **09 07 56.6** | **-1.1** |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.1s | | | | | | |
| **KLR** | **Kul'dur** | **36.55** | **289** | P | **P** | **09 08 29.5** | **-1.6** |
| | comp=Z,0.3nm,0.6s,baz=40,slow=5.9,SNR=11 | | | | | | |
| **KLR** | **Kul'dur** | **36.55** | **289** | *i* P | **P** | **09 08 29.4** | **-1.8** |
| **EGMT** | **Eagleton** | **37.30** | **72** | *e*P | **P** | **09 08 38.1** | **+0.5** |
| | comp=Z,21nm,1.4s | | | | | | |
| **NV01** | **Mina Array Sit** | **37.53** | **91** | *e*P | **P** | **09 08 40.9** | **+1.1** |
| **NVAR** | **Mina Array Bea** | **37.53** | **91** | P | **P** | **09 08 40.9** | **+1.1** |
| | comp=Z,0.4nm,0.8s,baz=263,slow=6.3,SNR=2.3 | | | | | | |
| NVAR | | | | PcP | **PcP** | **09 11 00.3** | **+3.3** |
| | comp=Z,0.2nm,0.6s,baz=316,slow=2.5,SNR=2.1 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **37.63** | **219** | T | T | 09 48 30.5 | |
| | baz=26,slow=74 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **37.63** | **219** | T | T | 09 48 41.3 | |
| | baz=26,slow=74 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **37.64** | **219** | T | T | 09 49 01.7 | |
| | baz=26 | | | | | | |
| **YHH** | **Holmes Hill** | **38.34** | **78** | *e*P | **P** | **09 08 47.3** | **+0.7** |
| | comp=Z,5.8nm,1.1s | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **38.81** | **218** | T | T | 09 50 00.6 | |
| | baz=23,slow=76,SNR=160 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **38.83** | **218** | T | T | 09 50 03.3 | |
| | baz=23,slow=76,SNR=158 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **38.83** | **218** | T | T | 09 50 04.8 | |
| | baz=23,slow=76,SNR=110 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **39.01** | **282** | P | **P** | **09 08 49.4** | **-2.5** |
| | comp=Z,1.0nm,0.5s,baz=40,slow=2.5,SNR=3.6 | | | | | | |
| **RLMT** | **Red Lodge** | **39.10** | **76** | *e*P | **P** | **09 08 53.8** | **+0.9** |
| | comp=Z,11nm,1.4s | | | | | | |
| **MJAR** | **Matsushiro Arr** | **39.84** | **268** | P | **P** | **09 08 58.9** | **0.0** |
| | comp=Z,1.2nm,0.6s,baz=44,slow=12,SNR=4.3 | | | | | | |
| **PD31** | **Pinedale Array** | **40.25** | **79** | *e*P | **P** | **09 09 02.9** | **+0.4** |
| **PDAR** | **Pinedale Array** | **40.25** | **79** | P | **P** | **09 09 02.6** | **+0.1** |
| | comp=Z,2.2nm,0.8s,baz=298,slow=3.7,SNR=19 | | | | | | |
| **BOD** | **Bodaibo** | **42.03** | **309** | *e*P | **P** | **09 09 15.0** | **-1.7** |
| BOD | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.9s | | | | | | |
| **O20A** | **White River Ci** | **42.61** | **82** | *e*P | **P** | **09 09 22.0** | **+0.1** |
| | comp=Z,7.1nm,0.9s | | | | | | |
| **PV10** | **Paradox Valley** | **43.22** | **84** | *e*P | **P** | **09 09 27.2** | **+0.3** |
| **PV01** | **Paradox Valley** | **43.66** | **84** | *e*P | **P** | **09 09 30.5** | **+0.1** |
| **ULM** | **Lac du Bonnet** | **43.98** | **62** | P | **P** | **09 09 31.9** | **-0.5** |
| | comp=Z,1.9nm,0.8s,baz=269,slow=7.8,SNR=3.4 | | | | | | |
| **KSRS** | **Korea Array** | **45.53** | **277** | P | **P** | **09 09 45.0** | **0.0** |
| | comp=Z,1.1nm,0.5s,baz=55,slow=7.6,SNR=5.4 | | | | | | |
| KSRS | | | | LR | LR | 09 29 33.8 | |
| | comp=Z,17nm,19.4s,baz=35,slow=37 | | | | | | |
| **JNU** | **Nakatsue** | **46.60** | **270** | P | **P** | **09 09 53.2** | **-0.3** |
| | comp=Z,7.6nm,1.0s,baz=65,slow=9.7,SNR=4.0 | | | | | | |
| **ULN** | **Ulaanbaatar** | **51.00** | **301** | *ce*P | **P** | **09 10 27.1** | **-0.1** |
| ULN | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.6s | | | | | | |
| **ULN** | **Ulaanbaatar** | **51.00** | **301** | *e*P | **P** | **09 10 26.4** | **-0.8** |
| | comp=Z,4.9nm,0.7s | | | | | | |
| **SONA1** | **Songino Array** | **51.35** | **301** | *e*P | **P

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **FINES** | **FINES Array B** | **65.78** | **352** | P | **P** | **09 12 09.6** | **-0.2** |
| | comp=Z,3.2nm,0.7s,baz=27,slow=8.8,SNR=12 | | | | | | | |
| FINES | | | | LR | LR | 09 41 18.1 | | |
| | comp=Z,56nm,20.7s,baz=318,slow=36 | | | | | | | |
| **NB2** | **NORSAR Subarra** | **66.83** | **360** | P | **P** | **09 12 16.7** | **+0.1** |
| | comp=Z,1.8nm,0.6s,baz=2.1,slow=6.5 | | | | | | | |
| **NB200** | **NORSAR Array S** | **66.83** | **360** | *eP* | **P** | **09 12 16.6** | **+0.1** |
| **NOA** | **NORSAR Array B** | **66.83** | **360** | P | **P** | **09 12 16.6** | **+0.1** |
| | comp=Z,2.5nm,0.6s,baz=0.6,slow=6.4,SNR=7.5 | | | | | | | |
| **KMI** | **Kunming** | **69.37** | **285** | P | **P** | **09 12 33.0** | **-0.3** |
| KMI | | | | pmax | pmax | | | |
| | comp=Z,13nm,0.6s | | | | | | | |
| **AKTO** | **Aktyubinsk** | **69.98** | **330** | P | **P** | **09 12 36.4** | **0.0** |
| | comp=Z,5.0nm,0.5s,baz=68,slow=9.0,SNR=15 | | | | | | | |
| **ABKAR** | **Akbulak array** | **70.41** | **328** | *eP* | **P** | **09 12 39.0** | **0.0** |
| | comp=Z,44nm,0.5s | | | | | | | |
| **AAK** | **Ala-Archa** | **70.52** | **315** | P | **P** | **09 12 40.4** | **+0.4** |
| | comp=Z,2.1nm,0.5s,baz=139,slow=3.5,SNR=11 | | | | | | | |
| **AAK** | **Ala-Archa** | **70.52** | **315** | *eP* | **P** | **09 12 40.0** | **0.0** |
| AAK | | | | pmax | pmax | | | |
| | comp=Z,8.0nm,1.1s | | | | | | | |
| **AAK** | **Ala-Archa** | **70.52** | **315** | *eP* | **P** | **09 12 40.0** | **0.0** |
| | comp=Z,7.5nm,1.1s | | | | | | | |
| AAK | | | | *eP* | **P** | **09 12 40.4** | **+0.4** |
| **PPT** | **Papeete** | **71.80** | **160** | LR | LR | 09 39 07.1 | | |
| | comp=Z,31nm,20.6s,baz=12,slow=32 | | | | | | | |
| **KKAR** | **Karatay Array** | **71.80** | **318** | *eP* | **P** | **09 12 47.3** | **-0.3** |
| KKAR | | | | pmax | pmax | | | |
| | comp=Z,17nm,0.6s | | | | | | | |
| **KKAR** | **Karatay Array** | **71.80** | **318** | *eP* | **P** | **09 12 47.3** | **-0.3** |
| | comp=Z,18nm,0.6s | | | | | | | |
| **KSH** | **Kashi** | **72.40** | **313** | P | **P** | **09 12 54.3** | **+2.9** |
| KSH | | | | pP | pP | 09 13 05.3 | -0.2 |
| KSH | | | | PcP | **sP** | **09 13 12.5** | **+1.3** |
| KSH | | | | PP | **PP** | **09 15 37.6** | **+5.4** |
| KSH | | | | S | **S** | **09 22 14.6** | **+3.4** |
| KSH | | | | SKS | **SKSac** | **09 22 51.6** | **-0.3** |
| KSH | | | | ScS | **ScS** | **09 22 54.5** | **+0.6** |
| KSH | | | | SS | **SS** | **09 26 54.5** | **+5.2** |
| KSH | | | | pmax | pmax | | | |
| | comp=Z,8.0nm,0.9s | | | | | | | |
| KSH | | | | pmax | pmax | | | |
| | comp=Z,70nm,3.9s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=Z,60nm,5.1s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=Z,81nm,5.6s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=Z,190nm,6.9s | | | | | | | |
| **AKASG** | **Malin Array Be** | **76.03** | **348** | P | **P** | **09 13 11.2** | **-0.9** |
| | comp=Z,4.3nm,0.6s,baz=15,slow=5.7,SNR=11 | | | | | | | |
| **AKBB** | **Malin Array Si** | **76.03** | **348** | *eP* | **P** | **09 13 11.6** | **-0.5** |
| AKBB | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,0.7s | | | | | | | |
| **AKBB** | **Malin Array Si** | **76.03** | **348** | *eP* | **P** | **09 13 11.6** | **-0.5** |
| | comp=Z,7.1nm,0.7s | | | | | | | |
| **CLL** | **Collm** | **76.57** | **359** | *i* P | **P** | **09 13 15.2** | **0.0** |
| CLL | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,0.9s | | | | | | | |
| **CLL** | **Collm** | **76.57** | **359** | *i* P | **P** | **09 13 15.2** | **0.0** |
| | comp=Z,4.0nm,0.9s | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **76.73** | **283** | P | **P** | **09 13 17.0** | **+0.4** |
| | comp=Z,3.0nm,0.5s,baz=28,slow=6.1,SNR=10 | | | | | | | |
| CMAR | | | | LR | LR | 09 51 14.4 | | |
| | comp=Z,14nm,18.5s,baz=290,slow=39 | | | | | | | |
| **GUN** | **Gumba** | **76.79** | **299** | *eP* | **P** | **09 13 17.2** | **-0.1** |
| | comp=Z,12nm,0.5s | | | | | | | |
| **JIRN** | **Jiri** | **76.82** | **298** | *eP* | **P** | **09 13 17.6** | **+0.1** |
| **BRG** | **Berggiesshubel** | **76.99** | **358** | *eP* | **P** | **09 13 17.8** | **+0.3** |
| | comp=Z,5.1nm,1.0s | | | | | | | |
| **BRG** | **Berggiesshubel** | **76.99** | **358** | *eP* | **P** | **09 13 17.8** | **+0.3** |
| BRG | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,1.0s | | | | | | | |
| **RAMN** | **Ramite** | **77.16** | **297** | *eP* | **P** | **09 13 18.7** | **-0.5** |
| | comp=Z,14nm,0.6s | | | | | | | |
| **UPC** | **Upice** | **77.30** | **357** | *eP* | **P** | **09 13 20.2** | **+0.9** |
| **UPC** | **Upice** | **77.30** | **357** | *eP* | **P** | **09 13 20.2** | **+0.9** |
| **PVCC** | **Panska Ves** | **77.32** | **358** | *eP* | **P** | **09 13 20.5** | **+1.1** |
| **PVCC** | **Panska Ves** | **77.32** | **358** | *eP* | **P** | **09 13 20.5** | **+1.1** |
| **NKC** | **Novy Kostel** | **77.66** | **359** | *eP* | **P** | **09 13 22.2** | **+0.9** |
| **NKC** | **Novy Kostel** | **77.66** | **359** | *eP* | **P** | **09 13 22.2** | **+0.9** |
| **KRLC** | **Kraliky** | **77.70** | **356** | *eP* | **P** | **09 13 20.7** | **-0.9** |
| **KRLC** | **Kraliky** | **77.70** | **356** | *eP* | **P** | **09 13 20.7** | **-0.9** |
| **PRU** | **Pruhonice** | **77.86** | **358** | *eP* | **P** | **09 13 22.8** | **+0.4** |
| **PRU** | **Pruhonice** | **77.86** | **358** | *eP* | **P** | **09 13 22.8** | **+0.4** |
| **OKC** | **Ostrava-Krasne** | **77.87** | **355** | *eP* | **P** | **09 13 23.1** | **+0.6** |
| **OKC** | **Ostrava-Krasne** | **77.87** | **355** | *eP* | **P** | **09 13 23.1** | **+0.6** |
| **STHS** | **Stebnicka Huta** | **78.10** | **353** | *eP* | **P** | **09 13 25.5** | **+1.7** |
| STHS | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,0.7s | | | | | | | |
| **STHS** | **Stebnicka Huta** | **78.10** | **353** | *eP* | **P** | **09 13 25.5** | **+1.7** |
| **PYUN** | **Piuthan** | **78.18** | **301** | *eP* | **P** | **09 13 24.5** | **-0.3** |
| | comp=Z,12nm,0.7s | | | | | | | |
| **LANS** | **Liptovska Anna** | **78.48** | **354** | *eP* | **P** | **09 13 27.3** | **+1.3** |
| **LANS** | **Liptovska Anna** | **78.48** | **354** | *eP* | **P** | **09 13 27.3** | **+1.3** |
| **KHC** | **Kasperske Hory** | **78.74** | **358** | *eP* | **P** | **09 13 28.5** | **+1.1** |
| **KHC** | **Kasperske Hory** | **78.74** | **358** | *eP* | **P** | **09 13 28.5** | **+1.1** |
| **GERES** | **GERESS Array B** | **79.02** | **358** | P | **P** | **09 13 29.4** | **+0.4** |
| | comp=Z,1.8nm,0.7s,baz=18,slow=4.8,SNR=14 | | | | | | | |
| **VYHS** | **Vyhne** | **79.17** | **355** | *eP* | **P** | **09 13 30.7** | **+1.0** |
| VYHS | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,0.9s | | | | | | | |
| **VYHS** | **Vyhne** | **79.17** | **355** | *eP* | **P** | **09 13 30.7** | **+1.0** |
| **CONA** | **Conrad Observa** | **79.88** | **357** | *i* PcP | **P** | **09 13 35.0** | **+1.4** |
| | comp=Z,5.3nm,0.7s | | | | | | | |
| **KIV** | **Kislovodsk** | **80.10** | **337**↑ | *eP* | **P** | **09 13 34.8** | **-0.1** |
| KIV | | | | *e* | | 09 16 38.4 | | |
| KIV | | | | *eS* | **S** | **09 23 30.2** | **-5.2** |
| KIV | | | | pmax | pmax | | | |
| | comp=Z,8.0nm,1.0s | | | | | | | |
| KIV | | | | MLR | MLR | | | |
| | comp=Z,89nm,16.0s | | | | | | | |
| **KBZ** | **Khabaz** | **80.27** | **337** | P | **P** | **09 13 36.5** | **+0.9** |
| | comp=Z,5.3nm,0.9s,baz=35,slow=3.1,SNR=12 | | | | | | | |
| **NCK** | **Nalchik** | **80.32** | **336** | *i* P | **P** | **09 13 36.4** | **+0.4** |
| NCK | | | | pmax | pmax | | | |
| | comp=Z,12nm,0.8s | | | | | | | |
| **WTTA** | **Wattenberg** | **80.63** | **359** | *i* PcP | **P** | **09 13 39.0** | **+1.2** |
| | comp=Z,3.8nm,0.7s | | | | | | | |
| **FETA** | **Feichten** | **80.88** | **0** | *i* PcP | **P** | **09 13 40.4** | **+1.3** |
| | comp=Z,7.4nm,0.9s | | | | | | | |
| **GEYT** | **Alibeck** | **81.02** | **324** | P | **P** | **09 13 40.4** | **+0.5** |
| | comp=Z,5.4nm,0.8s,baz=331,slow=5.4,SNR=8.3 | | | | | | | |
| **DAVOX** | **Davos/Dischmat** | **81.11** | **1** | P | **P** | **09 13 41.8** | **+1.3** |
| | comp=Z,3.2nm,0.5s,baz=350,slow=14,SNR=6.9 | | | | | | | |
| **SOKA** | **Soboth** | **81.16** | **357** | *i* PcP | **P** | **09 13 41.3** | **+0.8** |
| | comp=Z,7.3nm,0.9s | | | | | | | |
| **BR101** | **Keskin Array S** | **86.06** | **343** | *eP* | **P** | **09 14 06.2** | **+0.3** |
| **BRTR** | **Keskin Array B** | **86.06** | **343** | P | **P** | **09 14 06.2** | **+0.3** |
| | comp=Z,1.2nm,0.9s,baz=38,slow=4.0,SNR=3.2 | | | | | | | |
| **WR1** | **Warramunga Arr** | **87.18** | **232** | *eP* | **P** | **09 14 09.0** | **-2.2** |
| | comp=Z,23nm,1.7s | | | | | | | |
| **WRA** | **Warramunga Arr** | **87.18** | **232** | P | **P** | **09 14 09.0** | **-2.2** |
| | comp=Z,0.6nm,1.0s,baz=33,slow=5.9,SNR=3.5 | | | | | | | |
| **ESDC** | **Sonseca Array** | **87.32** | **11** | P | **P** | **09 14 12.1** | **+0.2** |
| | comp=Z,3.0nm,0.8s,baz=349,slow=4.7,SNR=9.0 | | | | | | | |
| **ASAR** | **Alice Springs** | **90.57** | **230** | P | **P** | **09 14 26.2** | **-0.9** |
| | comp=Z,0.7nm,0.6s,baz=29,slow=4.3,SNR=11 | | | | | | | |

**IDC 23 09:13:21.3±7.0, 14°33S×68°54W, h75km±82km, mb3.4/4, mb1 3.6/4, mb1mx3.4/23, mbtmp3.7/4, Error ellipse: s-maj=84.3km s-min=31.2km az=31.0, Peru-Bolivia border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **LPAZ** | **La Paz** | **1.99** | **168** | P | Pn | 09 13 55.0 | +1.5 |
| | 21nm,0.3s,baz=340,slow=5.7,SNR=432 | | | | | | |
| LPAZ | | | | S | Sn | 09 14 18.1 | +0.2 |
| | 3.0nm,0.3s,baz=315,slow=21,SNR=6.4 | | | | | | |
| **TXAR** | **Lajitas Array** | **55.08** | **322** | P | P | 09 22 44.1 | -1.8 |
| | 0.5nm,0.6s,baz=145,slow=13,SNR=4.1 | | | | | | |
| **DBIC** | **Dimbokro** | **66.52** | **76** | P | P | 09 24 03.5 | -0.2 |
| | 3.2nm,1.0s,baz=237,slow=10,SNR=3.1 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **74.71** | **72** | P | P | 09 24 53.2 | -0.4 |
| | 0.4nm,0.6s,baz=260,slow=6.4,SNR=4.1 | | | | | | |
| **YKA** | **Yellowknife Ar** | **84.58** | **340** | P | P | 09 25 47.8 | +1.9 |
| | 0.1nm,0.6s,baz=131,slow=5.0,SNR=5.9 | | | | | | |

*NIED* ***23*** *09:56:00, 39.°00N×142.°50E, h32km, Mw3.6 Best double couple: M0 3.02000×10^14 NP1:φs=23.00000°, δ=28.00000°, λ=13.00000°. NP2:φs=282.00000°, δ=84.00000°, λ=117.00000°.*
*JMA* ***23*** *09:56:12.8±0.1, 38.°99N×142.°48E, h32km±2km, M3.6*

*JMA Felt I J1.*
*IDC* ***23*** *09:56:15.7±3.3, 38.°97N×142.°47E, h53km±32km, mb3.4/8, mb1 3.7/10, mb1mx3.4/66, mbtmp3.7/10, ML3.4/2, Error ellipse: s-maj=37.5km s-min=14.6km az=110.0*

**ISC 23 09:56:09.0±1.9, 38°82N±0.°04×142°45E±0.°06, h7km±11km, n29, σ1s71/31, mb3.8/8, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **OFUJ** | **Ofunato** | **0.66** | **294** | P | **Pn** | **09 56 25.4** | **+0.6** |
| OFUJ | | | | *eS* | **Sb** | **09 56 34.0** | **+1.7** |
| **MIYJ** | **Miyakonagasawa** | **0.90** | **327** | P | **Pn** | **09 56 27.1** | **-1.0** |
| MIYJ | | | | S | **Sg** | **09 56 37.5** | **-0.6** |
| **JIO** | **Ouri** | **0.94** | **248** | P | **Pn** | **09 56 30.6** | **+2.1** |
| JIO | | | | *eS* | **Sn** | **09 56 42.9** | **+0.8** |
| **JMK** | **Ichinoseki** | **0.97** | **278** | P | **Pn** | **09 56 30.5** | **+1.5** |
| JMK | | | | *eS* | **Sn** | **09 56 42.9** | **-0.1** |
| **JOM** | **Ohasama** | **1.11** | **306** | P | **Pg** | **09 56 31.5** | **+1.1** |
| JOM | | | | S | **Sb** | **09 56 45.1** | **-0.2** |
| **JTH** | **Tanohata** | **1.21** | **338** | P | **Pb** | **09 56 31.5** | **-0.7** |
| **JKZ** | **Kuzumaki** | **1.45** | **324** | P | **Pg** | **09 56 36.3** | **-0.6** |
| JKZ | | | | *eS* | **Sn** | **09 56 52.8** | **-2.2** |
| **JOU** | **Okura** | **1.47** | **253** | P | **Pg** | **09 56 39.5** | **+2.3** |
| **JRG** | **Rokugo** | **1.53** | **293** | P | **Pg** | **09 56 39.0** | **+0.7** |
| JRG | | | | *eS* | **Sg** | **09 56 59.0** | **+0.9** |
| **JYK** | **Kaneyama** | **1.64** | **274** | P | **Pg** | **09 56 41.4** | **+1.0** |
| **JANG** | **Nango** | **1.71** | **335** | P | **Pb** | **09 56 39.6** | **-1.2** |
| **MJAR** | **Matsushiro Arr** | **4.06** | **237** | P | **Pb** | **09 57 17.8** | **-3.0** |
| | 2.9nm,0.3s,baz=36,slow=12,SNR=35 | | | | | | |
| **MAT** | **Matsushiro** | **4.06** | **237** | P | **Pb** | **09 57 17.8** | **-3.0** |
| MAT | | | | *eS* | **Sb** | **09 58 05.5** | **-4.6** |
| **ASAJ** | **Asahikawa** | **5.30** | **1** | P | **Pn** | **09 57 28.9** | **+0.4** |
| | 1.2nm,0.3s,baz=198,slow=19,SNR=6.1 | | | | | | |
| ASAJ | | | | S | **Sn** | **09 58 32.1** | **+2.4** |
| | 0.5nm,0.3s,baz=87,slow=17,SNR=2.4 | | | | | | |
| **KSRS** | **Korea Array** | **11.52** | **268** | P | Pn | 09 59 02.4 | +8.5 |
| | 0.1nm,0.3s,baz=73,slow=14,SNR=4.4 | | | | | | |
| **MA2** | **Magadan** | **21.44** | **12** | P | **P** | **10 00 57.1** | **-0.3** |
| | 7.7nm,0.6s,baz=184,slow=9.0,SNR=5.8 | | | | | | |
| **SEY** | **Seymchan** | **24.89** | **11** | P | **P** | **10 01 30.9** | **-1.1** |
| | 1.6nm,0.7s,baz=208,slow=15,SNR=4.3 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.43** | **125** | T | T | 10 32 25.7 | |
| | baz=317,slow=75,SNR=65 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.43** | **125** | T | T | 10 32 32.0 | |
| | baz=317,slow=75,SNR=55 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.44** | **125** | T | T | 10 32 36.3 | |
| | baz=317,slow=75,SNR=44 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.21** | **127** | T | T | 10 33 26.0 | |
| | baz=318,slow=76,SNR=8.8 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.21** | **127** | T | T | 10 33 30.2 | |
| | baz=318,slow=76,SNR=15 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.22** | **127** | T | T | 10 33 31.8 | |
| | baz=318,slow=76,SNR=10 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **45.57** | **307** | P | **P** | **10 04 29.7** | **+0.4** |
| | 0.4nm,0.5s,baz=81,slow=8.2,SNR=3.0 | | | | | | |
| **ILAR** | **Eielson Array** | **47.55** | **33** | P | **P** | **10 04 45.0** | **+0.4** |
| | 0.6nm,0.6s,baz=267,slow=6.2,SNR=12 | | | | | | |
| **INK** | **Inuvik** | **52.43** | **28** | P | **P** | **10 05 20.6** | **-1.0** |
| | 0.6nm,0.6s,baz=304,slow=2.1,SNR=4.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **58.94** | **189** | P | **P** | **10 06 10.0** | **+1.1** |
| | 1.4nm,0.5s,baz=6.3,slow=7.0,SNR=27 | | | | | | |
| **YKA** | **Yellowknife Ar** | **61.86** | **31** | P | **P** | **10 06 28.7** | **+0.3** |
| | 0.1nm,0.6s,baz=305,slow=7.0,SNR=3.9 | | | | | | |
| **ASAR** | **Alice Springs** | **62.67** | **189** | P | **P** | **10 06 35.6** | **+1.4** |
| | 0.3nm,0.6s,baz=3.1,slow=4.9,SNR=9.3 | | | | | | |

**WEL 23 09:56:49.8±0.3, 38°33S×179°25E, h33km, ML3.7/26, 11C-2D, Error ellipse: s-maj=3.1km s-min=1.3km az=90.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PUZ** | **Puketiti** | **0.82** | **288** | PN | Pn | 09 57 03.8 | -1.3 |
| PUZ | | | | SN | Sn | 09 57 15.3 | -0.7 |
| PUZ | | | | AML | AML | 09 57 15.5 | |
| **WMGZ** | **Waiomatatini S** | **0.83** | **307** | ⇑PN | Pn | 09 57 04.9 | -0.3 |
| WMGZ | | | | SN | Sn | 09 57 16.0 | -0.2 |
| WMGZ | | | | AML | AML | 09 57 17.9 | |
| **CNGZ** | **Carnagh Statio** | **0.83** | **259** | ⇑PN | Pn | 09 57 04.4 | -0.7 |
| CNGZ | | | | AML | AML | 09 57 20.5 | |
| CNGZ | | | | AML | AML | 09 57 21.1 | |
| **TWGZ** | **Tauwhareparae** | **1.01** | **278** | ⇑PN | Pn | 09 57 07.2 | -0.5 |
| TWGZ | | | | SN | Sn | 09 57 20.6 | -0.1 |
| TWGZ | | | | AML | AML | 09 57 21.0 | |
| **PKGZ** | **Pakihiroa** | **1.02** | **295** | ⇑PN | Pn | 09 57 07.3 | -0.5 |
| PKGZ | | | | AML | AML | 09 57 21.6 | |
| PKGZ | | | | AML | AML | 09 57 22.2 | |
| **MXZ** | **Matakaoa Point** | **1.07** | **316** | PN | Pn | 09 57 08.7 | +0.3 |
| MXZ | | | | AML | AML | 09 57 09.3 | |
| MXZ | | | | AML | AML | 09 57 23.8 | |
| **TKGZ** | **Te Karaka** | **1.10** | **264** | ⇑PN | Pn | 09 57 08.9 | -0.9 |
| TKGZ | | | | AML | AML | 09 57 24.7 | |
| TKGZ | | | | AML | AML | 09 57 24.8 | |
| **PRGZ** | **Paritu Road** | **1.22** | **240** | PN | Pn | 09 57 10.4 | -0.2 |
| PRGZ | | | | AML | AML | 09 57 29.5 | |
| PRGZ | | | | AML | AML | 09 57 29.7 | |
| **RIGZ** | **Rimuhau** | **1.22** | **252** | PN | Pn | 09 57 09.9 | -0.7 |
| RIGZ | | | | SN | Sn | 09 57 25.0 | -1.0 |
| RIGZ | | | | AML | AML | 09 57 40.5 | |
| **HAZ** | **Te Kaha** | **1.29** | **296** | PN | Pn | 09 57 10.9 | -0.6 |
| HAZ | | | | AML | AML | 09 57 27.9 | |
| HAZ | | | | AML | AML | 09 57 29.0 | |
| **RUGZ** | **Raukumara Rang** | **1.29** | **286** | ⇑PN | Pn | 09 57 10.9 | -0.6 |
| **MHGZ** | **Mahia Peninsul** | **1.33** | **231** | PN | Pn | 09 57 11.8 | -0.2 |
| **MWZ** | **Matawai** | **1.35** | **269** | ⇑PN | Pn | 09 57 11.5 | -0.9 |
| MWZ | | | | AML | AML | 09 57 28.0 | |
| MWZ | | | | AML | AML | 09 57 31.7 | |
| **KNZ** | **Kokohu** | **1.41** | **240** | PN | Pn | 09 57 12.3 | -0.9 |
| **RAGZ** | **Rawiri** | **1.45** | **263** | PN | Pn | 09 57 13.2 | -0.5 |
| RAGZ | | | | AML | AML | 09 57 37.4 | |
| RAGZ | | | | AML | AML | 09 57 37.8 | |
| **SNGZ** | **Shannon Statio** | **1.56** | **253** | PN | Pn | 09 57 14.5 | -0.7 |
| SNGZ | | | | AML | AML | 09 57 36.0 | |
| SNGZ | | | | AML | AML | 09 57 49.8 | |
| **URZ** | **Urewera** | **1.68** | **272** | PN | Pn | 09 57 16.8 | 0.0 |
| URZ | | | | AML | AML | 09 57 40.1 | |
| URZ | | | | AML | AML | 09 57 44.0 | |
| **WHHZ** | **Waihua** | **1.74** | **244** | PN | Pn | 09 57 17.8 | 0.0 |
| WHHZ | | | | AML | AML | 09 57 39.0 | |
| WHHZ | | | | AML | AML | 09 57 40.5 | |
| **RTZ** | **Ruatahuna** | **1.80** | **260** | ⇓PN | Pn | 09 57 18.1 | -0.5 |
| **MUGZ** | **Murupara** | **1.95** | **265** | PN | Pn | 09 57 20.4 | -0.2 |
| **MTHZ** | **Maungataniwha** | **1.96** | **254** | PN | Pn | 09 57 20.5 | -0.1 |
| **EDRZ** | **Edgecumbe** | **1.99** | **276** | AML | AML | 09 57 49.4 | |
| **NMHZ** | **Naumai** | **2.06** | **247** | PN | Pn | 09 57 22.0 | -0.1 |
| NMHZ | | | | AML | AML | 09 57 50.1 | |
| NMHZ | | | | AML | AML | 09 57 52.3 | |
| **RRRZ** | **Republican Roa** | **2.15** | **269** | PN | Pn | 09 57 23.6 | +0.3 |
| RRRZ | | | | AML | AML | 09 57 49.4 | |
| RRRZ | | | | AML | AML | 09 57 51.9 | |
| **CKHZ** | **Cape Kidnapper** | **2.15** | **231** | PN | Pn | 09 57 22.6 | -0.7 |
| **TARZ** | **Mount Tarawera** | **2.16** | **272** | PN | Pn | 09 57 23.7 | +0.1 |
| TARZ | | | | AML | AML | 09 57 43.5 | |
| TARZ | | | | AML | AML | 09 57 51.4 | |
| **OPRZ** | **Ohinepanea** | **2.18** | **282** | PN | Pn | 09 57 23.2 | -0.5 |
| **HLRZ** | **Highlands Stat** | **2.28** | **271** | AML | AML | 09 57 57.0 | |
| **MCHZ** | **McNeill Hill** | **2.28** | **240** | PN | Pn | 09 57 25.1 | 0.0 |
| **ALRZ** | **Allen Road** | **2.29** | **263** | PN | Pn | 09 57 25.5 | +0.2 |
| **BKZ** | **Black Stump Fm** | **2.31** | **248** | PN | Pn | 09 57 25.3 | -0.2 |
| **KAHZ** | **Kahuranaki** | **2.35** | **231** | PN | Pn | 09 57 25.4 | -0.8 |
| **KARZ** | **Kaharoa** | **2.39** | **276** | PN | Pn | 09 57 26.0 | -0.6 |
| **TGRZ** | **Tauranga** | **2.43** | **283** | PN | Pn | 09 57 26.8 | -0.4 |
| **KWHZ** | **Kaweka Forest** | **2.46** | **243** | ⇑PN | Pn | 09 57 27.2 | -0.4 |
| KWHZ | | | | AML | AML | 09 57 57.3 | |
| KWHZ | | | | AML | AML | 09 57 58.4 | |
| **PXZ** | **Pawanui** | **2.52** | **227** | PN | Pn | 09 57 26.5 | -1.8 |
| PXZ | | | | SN | Sn | 09 57 55.7 | -2.1 |
| **KRHZ** | **Kereru** | **2.60** | **239** | PN | Pn | 09 57 28.5 | -1.0 |
| **RITZ** | **Rihia Road** | **2.73** | **255** | PN | Pn | 09 57 31.2 | -0.1 |
| **BHHZ** | **Black Hill Sta** | **2.74** | **244** | ⇓PN | Pn | 09 57 30.9 | -0.6 |
| **WPHZ** | **Waipukurau** | **2.79** | **231** | PN | Pn | 09 57 30.8 | -1.2 |
| **PRHZ** | **Porangahau** | **2.80** | **225** | PN | Pn | 09 57 30.7 | -1.6 |
| **PNHZ** | **Pukenui** | **2.85** | **235** | PN | Pn | 09 57 31.6 | -1.4 |
| **KATZ** | **Kakaramea** | **2.85** | **256** | PN | Pn | 09 57 33.3 | +0.1 |
| **KRVZ** | **Karewarewa** | **2.92** | **254** | PN | Pn | 09 57 33.5 | -0.6 |
| **OTVZ** | **Oturere** | **2.92** | **252** | PN | Pn | 09 57 33.6 | -0.5 |
| **MOVZ** | **Moawhango** | **2.93** | **247** | PN | Pn | 09 57 33.7 | -0.4 |
| **TUVZ** | **Tukino** | **2.96** | **250** | PN | Pn | 09 57 34.3 | -0.3 |
| **WTVZ** | **West Tongariro** | **2.97** | **253** | PN | Pn | 09 57 34.3 | -0.3 |
| **NGZ** | **Ngauruhoe** | **2.97** | **252** | PN | Pn | 09 57 34.3 | -0.5 |
| **TOZ** | **Tahuroa Road** | **3.02** | **280** | PN | Pn | 09 57 34.9 | -0.3 |
| **WNVZ** | **Wahianoa** | **3.02** | **250** | PN | Pn | 09 57 34.8 | -0.6 |
| **ANWZ** | **Angora Road** | **3.02** | **224** | PN | Pn | 09 57 33.6 | -1.7 |
| **FWVZ** | **Far West T-bar** | **3.03** | **251** | PN | Pn | 09 57 35.2 | -0.5 |
| **TRVZ** | **Turoa** | **3.05** | **250** | PN | Pn | 09 57 35.5 | -0.4 |
| **DVHZ** | **Dannevirke** | **3.10** | **230** | PN | Pn | 09 57 34.5 | -1.8 |
| DVHZ | | | | AML | AML | 09 58 12.2 | |
| **KUZ** | **Kuaotunu** | **3.22** | **298** | ⇑PN | Pn | 09 57 37.2 | -0.8 |
| **BFZ** | **Birch Farm** | **3.30** | **224** | PN | Pn | 09 57 36.3 | -2.9 |
| BFZ | | | | SN | Sn | 09 58 13.5 | -3.8 |
| **PRWZ** | **Pori Road** | **3.37** | **228** | PN | Pn | 09 57 38.7 | -1.4 |
| **HIZ** | **Hauiti** | **3.45** | **266** | ⇑PN | Pn | 09 57 41.5 | +0.3 |
| **TIWZ** | **Tintock** | **3.57** | **226** | ⇑PN | Pn | 09 57 40.8 | -2.1 |
| TIWZ | | | | AML | AML | 09 58 25.8 | |
| **VRZ** | **Vera Road** | **3.60** | **256** | PN | Pn | 09 57 43.3 | +0.1 |
| **WAZ** | **Wanganui** | **3.61** | **245** | PN | Pn | 09 57 43.6 | +0.2 |
| **MRZ** | **Mangatainoka R** | **3.67** | **229** | PN | Pn | 09 57 42.0 | -2.2 |
| MRZ | | | | AML | AML | 09 58 24.2 | |
| MRZ | | | | AML | AML | 09 58 24.2 | |
| **TMWZ** | **Te Maipa** | **3.79** | **222** | AML | AML | 09 58 28.3 | |
| **HOWZ** | **Holdsworth Sta** | **3.86** | **227** | PN | Pn | 09 57 44.1 | -2.7 |
| **OGWZ** | **Otaki Gorge** | **4.01** | **230** | PN | Pn | 09 57 47.3 | -1.6 |
| OGWZ | | | | AML | AML | 09 58 34.0 | |
| **PAWZ** | **Paruwai Farm** | **4.24** | **223** | PN | Pn | 09 57 49.0 | -3.1 |
| **CAW** | **Cannon Point** | **4.25** | **228** | PN | Pn | 09 57 49.6 | -2.6 |
| CAW | | | | SN | Sn | 09 58 37.3 | -3.4 |
| **MSWZ** | **Moikau Station** | **4.36** | **224** | *eP* | Pn | 09 57 49.5 | -4.1 |
| **PLWZ** | **Palliser** | **4.46** | **222** | PN | Pn | 09 57 51.4 | -3.7 |
| **CTZ** | **Chatham Island** | **6.24** | **151** | PN | Pn | 09 58 21.5 | +2.0 |

*ISCJB* ***23*** *09:58:19.9±0.7, 35.°25N±0.°05×70.°82E±0.°07, h60km, mb3.6/5, Error ellipse: s-maj=9.1km s-min=5.7km az=148.1*
*IDC* ***23*** *09:58:23.4±3.9, 35.°30N×70.°76E, h82km±33km, mb3.4/5, mb1 3.4/11, mb1mx3.2/60, mbtmp3.7/11, Error ellipse: s-maj=29.3km s-min=24.0km az=168.0*
*NNC* ***23*** *09:58:26.0±4.3, 35.°73N×70.°64E, h0km, mb4.0, mpv3.7, Error ellipse: s-maj=32.6km s-min=21.0km az=2.0*

**ISC 23 09:58:20.7±0.9, 35°17N±0.°07×70°77E±0.°08, h60km, n19, σ1s76/25, mb3.6/5, 7C-5D, Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DZET** | **Dzherino** | **3.95** | **337** | ⇑Pn | **Pn** | **09 59 20.6** | **+1.8** |
| | 8.5nm,0.4s | | | | | | |
| DZET | | | | ⇓Sn | **Sn** | **10 00 02.9** | **-1.1** |
| | 22nm,0.4s | | | | | | |
| **THN** | **Thein Dam** | **4.94** | **122** | *eP* | Pn | 09 59 36.8 | +4.5 |
| THN | | | | *eS* | **Sn** | **10 00 27.6** | **-0.5** |
| **SFK** | **Sufi-Kurgan** | **5.30** | **23** | ⇑Pn | Pn | 09 59 41.7 | +4.3 |
| | 2.8nm,0.3s | | | | | | |
| SFK | | | | ⇑Sn | **Sn** | **10 00 41.7** | **+4.4** |
| | 21nm,0.3s | | | | | | |
| **SDNR** | **Sundarnagar** | **6.35** | **123** | *eP* | Pn | 10 00 05.0 | +13 |
| SDNR | | | | *eS* | **Sn** | **10 01 05.0** | **+2.2** |
| **MNAS** | **Manas** | **7.43** | **10** | ⇓Pn | **Pn** | **10 00 08.2** | **+1.7** |
| | 4.4nm,0.8s | | | | | | |
| MNAS | | | | ⇑Sn | **Sn** | **10 01 25.4** | **-4.1** |
| | 12nm,0.5s | | | | | | |
| **KK31** | **Karatay Array** | **7.93** | **359** | ⇑Pn | **Pn** | **10 00 13.8** | **+0.6** |
| | 4.5nm,0.6s,baz=191,slow=18,SNR=58 | | | | | | |
| KK31 | | | | ⇑Sn | **Sn** | **10 01 39.9** | **-1.6** |
| | 3.3nm,0.4s,baz=190,slow=25,SNR=8.6 | | | | | | |
| **AAK** | **Ala-Archa** | **8.00** | **20** | P | **Pn** | **10 00 16.6** | **+2.2** |
| | 1.9nm,0.3s,baz=175,slow=5.2,SNR=20 | | | | | | |
| AAK | | | | S | **Sn** | **10 01 42.4** | **-1.1** |
| | 0.4nm,0.3s,baz=21,slow=22,SNR=7.0 | | | | | | |
| **AAK** | **Ala-Archa** | **8.00** | **20** | ⇓Pn | **Pn** | **10 00 16.3** | **+1.9** |
| | 2.3nm,0.4s | | | | | | |
| AAK | | | | ⇓Sn | **Sn** | **10 01 42.2** | **-1.2** |
| | 4.4nm,0.5s | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| LTZ | | | | S* | Sb | 10 15 38.6 | -0.4 | | |
| **LTZ** | **Lake Taylor** | **0.81** | **330** | ⇑P* | Pg | 10 15 27.4 | +0.4 | | |
| LTZ | | | | S* | Sb | 10 15 38.6 | -0.4 | | |
| **KHZ** | **Kahutara** | **1.19** | **27** | P* | Pg | 10 15 33.6 | -0.7 | | |
| **KHZ** | **Kahutara** | **1.19** | **27** | P* | Pg | 10 15 33.2 | -1.1 | | |
| KHZ | | | | AML | AML | 10 15 50.9 | | | |
| KHZ | | | | AML | AML | 10 15 53.9 | | | |
| KHZ | | | | AML | AML | 10 15 53.9 | | | |
| KHZ | | | | AML | AML | 10 16 01.7 | | | |
| **INZ** | **Inchbonnie** | **1.26** | **306** | P* | Pn | 10 15 34.3 | -1.3 | | |
| **RPZ** | **Rata Peaks** | **1.30** | **259** | P* | Pn | 10 15 34.7 | -1.5 | | |
| **RPZ** | **Rata Peaks** | **1.30** | **259** | ⇑P* | Pn | 10 15 34.6 | -1.6 | | |
| RPZ | | | | AML | AML | 10 15 53.8 | | | |
| RPZ | | | | AML | AML | 10 18 25.2 | | | |
| **WVZ** | **Waitaha Valley** | **1.57** | **284** | PN | Pn | 10 15 38.8 | -1.1 | | |
| WVZ | | | | AML | AML | 10 16 03.7 | | | |
| WVZ | | | | AML | AML | 10 16 04.6 | | | |
| **THZ** | **Tophouse** | **1.72** | **2** | PN | Pn | 10 15 40.9 | -1.0 | | |
| THZ | | | | AML | AML | 10 16 16.1 | | | |
| THZ | | | | AML | AML | 10 18 36.2 | | | |
| **DSZ** | **Denniston Nort** | **1.89** | **336** | PN | Pn | 10 15 43.7 | -0.5 | | |
| DSZ | | | | AML | AML | 10 16 15.5 | | | |
| DSZ | | | | AML | AML | 10 16 15.5 | | | |
| DSZ | | | | AML | AML | 10 16 16.1 | | | |
| **BSWZ** | **Blackbirch Sta** | **1.93** | **24** | PN | Pn | 10 15 44.2 | -0.6 | | |
| BSWZ | | | | AML | AML | 10 16 12.2 | | | |
| BSWZ | | | | AML | AML | 10 16 13.1 | | | |
| **LBZ** | **Lake Benmore** | **2.11** | **244** | PN | Pn | 10 15 46.2 | -1.0 | | |
| **LBZ** | **Lake Benmore** | **2.11** | **244** | PN | Pn | 10 15 46.1 | -1.1 | | |
| LBZ | | | | AML | AML | 10 16 21.1 | | | |
| LBZ | | | | AML | AML | 10 16 23.8 | | | |
| LBZ | | | | AML | AML | 10 16 23.8 | | | |
| **FOZ** | **Fox Glacier** | **2.19** | **268** | PN | Pn | 10 15 48.5 | +0.2 | | |
| FOZ | | | | AML | AML | 10 16 16.6 | | | |
| FOZ | | | | AML | AML | 10 16 16.7 | | | |
| FOZ | | | | AML | AML | 10 16 33.1 | | | |
| **TUWZ** | **Tuamarina** | **2.21** | **22** | PN | Pn | 10 15 47.7 | -1.0 | | |
| **ODZ** | **Otahua Downs** | **2.21** | **224** | Pn | Pn | 10 15 47.3 | -1.4 | | |
| **ODZ** | **Otahua Downs** | **2.21** | **224** | PN | Pn | 10 15 47.2 | -1.4 | | |
| ODZ | | | | AML | AML | 10 16 26.7 | | | |
| ODZ | | | | AML | AML | 10 16 26.7 | | | |
| ODZ | | | | AML | AML | 10 16 28.0 | | | |
| ODZ | | | | AML | AML | 10 16 28.0 | | | |
| **NNZ** | **Nelson** | **2.30** | **11** | PN | Pn | 10 15 49.7 | -0.1 | | |
| NNZ | | | | SN | Sn | 10 16 18.1 | -0.3 | | |
| NNZ | | | | AML | AML | 10 16 18.6 | | | |
| **TCW** | **Tory Channel** | **2.51** | **26** | AML | AML | 10 16 25.9 | | | |
| **BHW** | **Baring Head** | **2.57** | **37** | PN | Pn | 10 15 52.2 | -1.3 | | |
| **PLWZ** | **Palliser** | **2.62** | **44** | *e*PN | Pn | 10 15 52.6 | -1.9 | | |
| **WEL** | **Wellington** | **2.63** | **34** | PN | Pn | 10 15 53.5 | -0.8 | | |
| WEL | | | | AML | AML | 10 16 25.2 | | | |
| WEL | | | | AML | AML | 10 16 25.2 | | | |
| WEL | | | | AML | AML | 10 16 25.3 | | | |
| WEL | | | | AML | AML | 10 16 25.3 | | | |
| **QRZ** | **Quartz Range** | **2.66** | **355** | PN | Pn | 10 15 55.4 | +0.5 | | |
| QRZ | | | | AML | AML | 10 16 30.1 | | | |
| QRZ | | | | AML | AML | 10 16 31.9 | | | |
| QRZ | | | | AML | AML | 10 16 32.6 | | | |
| QRZ | | | | AML | AML | 10 16 33.3 | | | |
| **DUWZ** | **D'Urville Isla** | **2.80** | **17** | AML | AML | 10 16 38.8 | | | |
| DUWZ | | | | AML | AML | 10 16 39.0 | | | |
| **HHSZ** | **Highcliff Hill** | **2.88** | **213** | Pn | Pn | 10 15 56.3 | -1.6 | | |
| **HHSZ** | **Highcliff Hill** | **2.88** | **213** | PN | Pn | 10 15 56.3 | -1.6 | | |
| HHSZ | | | | AML | AML | 10 16 50.5 | | | |
| HHSZ | | | | AML | AML | 10 16 57.7 | | | |
| **CAW** | **Cannon Point** | **2.90** | **36** | *e*PN | Pn | 10 15 56.6 | -1.5 | | |
| CAW | | | | AML | AML | 10 16 33.0 | | | |
| CAW | | | | AML | AML | 10 16 34.2 | | | |
| **JCZ** | **Jackson Bay** | **2.98** | **257** | PN | Pn | 10 15 57.9 | -1.4 | | |
| JCZ | | | | AML | AML | 10 19 24.2 | | | |
| JCZ | | | | AML | AML | 10 19 27.1 | | | |
| **WKZ** | **Wanaka** | **3.05** | **242** | Pn | Pn | 10 15 58.8 | -1.4 | | |
| **WKZ** | **Wanaka** | **3.05** | **242** | ⇓PN | Pn | 10 15 58.8 | -1.4 | | |
| WKZ | | | | AML | AML | 10 17 00.4 | | | |
| WKZ | | | | AML | AML | 10 17 00.4 | | | |
| WKZ | | | | AML | AML | 10 17 10.3 | | | |
| WKZ | | | | AML | AML | 10 19 30.3 | | | |
| **EAZ** | **Earnscleugh** | **3.07** | **234** | Pn | Pn | 10 15 59.1 | -1.3 | | |
| **EAZ** | **Earnscleugh** | **3.07** | **234** | ⇑PN | Pn | 10 15 59.1 | -1.3 | | |
| EAZ | | | | AML | AML | 10 16 52.0 | | | |
| EAZ | | | | AML | AML | 10 16 52.7 | | | |
| **OGWZ** | **Otaki Gorge** | **3.18** | **34** | *e*PN | Pn | 10 16 00.8 | -1.2 | | |
| OGWZ | | | | AML | AML | 10 16 39.5 | | | |
| OGWZ | | | | AML | AML | 10 16 40.3 | | | |
| **TUZ** | **Tuapeka** | **3.36** | **221** | Pn | Pn | 10 16 03.1 | -1.3 | | |
| **TUZ** | **Tuapeka** | **3.36** | **221** | ⇑PN | Pn | 10 16 03.1 | -1.3 | | |
| TUZ | | | | AML | AML | 10 17 01.5 | | | |
| TUZ | | | | AML | AML | 10 17 01.5 | | | |
| TUZ | | | | AML | AML | 10 17 09.0 | | | |
| TUZ | | | | AML | AML | 10 17 09.0 | | | |
| **MRZ** | **Mangatainoka R** | **3.48** | **37** | *e*PN | Pn | 10 16 04.3 | -1.9 | | |
| MRZ | | | | AML | AML | 10 16 48.6 | | | |
| MRZ | | | | AML | AML | 10 16 50.4 | | | |
| **TIWZ** | **Tintock** | **3.53** | **41** | AML | AML | 10 16 47.2 | | | |
| TIWZ | | | | AML | AML | 10 16 50.0 | | | |
| **BFZ** | **Birch Farm** | **3.78** | **44** | PN | Pn | 10 16 07.8 | -2.4 | | |
| **MLZ** | **Mavora Lakes** | **3.86** | **239** | Pn | Pn | 10 16 09.5 | -1.8 | | |
| **MLZ** | **Mavora Lakes** | **3.86** | **239** | ⇑PN | Pn | 10 16 09.5 | -1.8 | | |
| **SYZ** | **Scrubby Hill** | **4.02** | **219** | Pn | Pn | 10 16 12.3 | -1.2 | | |
| **SYZ** | **Scrubby Hill** | **4.02** | **219** | ⇓PN | Pn | 10 16 12.3 | -1.2 | | |
| SYZ | | | | AML | AML | 10 17 34.7 | | | |
| SYZ | | | | AML | AML | 10 19 57.7 | | | |
| **WHZ** | **Wether Hill Ro** | **4.23** | **234** | Pn | Pn | 10 16 13.9 | -2.5 | | |
| **WHZ** | **Wether Hill Ro** | **4.23** | **234** | PN | Pn | 10 16 13.9 | -2.5 | | |
| **PREZ** | **Palmer Road** | **4.25** | **14** | *e*PN | Pn | 10 16 17.7 | +1.0 | | |
| **KHEZ** | **Kahui Hut** | **4.28** | **13** | *e*PN | Pn | 10 16 17.9 | +0.8 | | |
| **NEZ** | **North Egmont** | **4.31** | **13** | *e*PN | Pn | 10 16 17.4 | -0.2 | | |
| **DREZ** | **Durham Road** | **4.41** | **14** | PN | Pn | 10 16 19.7 | +0.8 | | |
| **DCZ** | **Deep Cove** | **4.52** | **242** | Pn | Pn | 10 16 18.2 | -2.1 | | |
| **DCZ** | **Deep Cove** | **4.52** | **242** | PN | Pn | 10 16 18.2 | -2.1 | | |
| **VRZ** | **Vera Road** | **4.59** | **19** | PN | Pn | 10 16 22.1 | +0.8 | | |
| **WNVZ** | **Wahianoa** | **4.64** | **28** | PN | Pn | 10 16 22.8 | +0.5 | | |
| **TRVZ** | **Turoa** | **4.65** | **27** | *e*PN | Pn | 10 16 22.9 | +0.5 | | |
| **APZ** | **The Paps** | **4.79** | **224** | Pn | Pn | 10 16 22.2 | -1.9 | | |
| **APZ** | **The Paps** | **4.79** | **224** | ⇑PN | Pn | 10 16 22.2 | -1.9 | | |
| **OTVZ** | **Oturere** | **4.81** | **27** | *e*PN | Pn | 10 16 24.6 | +0.1 | | |
| **PYZ** | **Puysegur Point** | **5.13** | **236** | Pn | Pn | 10 16 26.4 | -2.3 | | |
| **PYZ** | **Puysegur Point** | **5.13** | **236** | PN | Pn | 10 16 26.1 | -2.6 | | |
| **HIZ** | **Hauiti** | **5.20** | **18** | PN | Pn | 10 16 29.3 | -0.4 | | |
| **TLZ** | **Tolley Road** | **5.54** | **23** | PN | Pn | 10 16 33.8 | -0.6 | | |
| **MWZ** | **Matawai** | **6.25** | **36** | Pn | Pn | 10 16 41.3 | -2.9 | | |
| **MWZ** | **Matawai** | **6.25** | **36** | PN | Pn | 10 16 41.3 | -2.9 | | |

*NEIC* ***23*** *10:17:40.5±0.0, 43.˚49S×172.˚85E, h10km, ML4.0(WEL), After WEL.*
*NEIC Felt at Christchurch.*

**WEL 23 10:17:40.3±0.3, 43.˚47S×172.˚86E, h8km±1km, ML3.8/20, 1C-5D, Error ellipse: s-maj=2.5km s-min=1.0km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.21** | **238** | Pg | Pg | 10 17 44.7 | +0.2 |
| **CRLZ** | **Canterbury Las** | **0.21** | **238** | ⇓PG | Pg | 10 17 44.7 | +0.2 |
| CRLZ | | | | AML | AML | 10 17 47.6 | |
| CRLZ | | | | AML | AML | 10 17 55.8 | |
| **MQZ** | **McQueen's Vall** | **0.28** | **212** | Pg | Pg | 10 17 46.1 | +0.2 |
| MQZ | | | | SG | Sg | 10 17 49.9 | +0.2 |
| **MQZ** | **McQueen's Vall** | **0.28** | **212** | PG | Pg | 10 17 46.1 | +0.2 |
| MQZ | | | | SG | Sg | 10 17 49.9 | +0.2 |
| **OXZ** | **Oxford** | **0.62** | **283** | P* | Pg | 10 17 52.3 | +0.1 |
| **OXZ** | **Oxford** | **0.62** | **283** | ⇓P* | Pg | 10 17 52.3 | +0.1 |
| OXZ | | | | S* | Sg | 10 18 00.7 | +0.4 |
| OXZ | | | | AML | AML | 10 18 01.4 | |
| OXZ | | | | AML | AML | 10 18 01.8 | |
| OXZ | | | | AML | AML | 10 18 02.2 | |
| **KHZ** | **Kahutara** | **1.16** | **26** | P* | Pg | 10 18 02.1 | -0.4 |
| KHZ | | | | AML | AML | 10 18 21.3 | |
| KHZ | | | | AML | AML | 10 18 21.6 | |
| **WVZ** | **Waitaha Valley** | **1.60** | **283** | Pn | Pn | 10 18 08.2 | -0.7 |
| **WVZ** | **Waitaha Valley** | **1.60** | **283** | PN | Pn | 10 18 08.2 | -0.7 |
| WVZ | | | | AML | AML | 10 18 37.0 | |
| WVZ | | | | AML | AML | 10 18 40.8 | |
| **DSZ** | **Denniston Nort** | **1.89** | **335** | AML | AML | 10 18 45.9 | |
| DSZ | | | | AML | AML | 10 18 49.2 | |
| **BSWZ** | **Blackbirch Sta** | **1.90** | **23** | Pn | Pn | 10 18 13.3 | +0.2 |
| **BSWZ** | **Blackbirch Sta** | **1.90** | **23** | ⇓PN | Pn | 10 18 13.3 | +0.2 |
| BSWZ | | | | AML | AML | 10 18 57.0 | |
| BSWZ | | | | AML | AML | 10 19 07.5 | |
| **LBZ** | **Lake Benmore** | **2.14** | **244** | AML | AML | 10 18 51.4 | |
| LBZ | | | | AML | AML | 10 18 55.0 | |
| **TUWZ** | **Tuamarina** | **2.19** | **22** | Pn | Pn | 10 18 16.6 | -0.3 |
| **TUWZ** | **Tuamarina** | **2.19** | **22** | PN | Pn | 10 18 16.5 | -0.4 |
| TUWZ | | | | AML | AML | 10 19 05.9 | |
| TUWZ | | | | AML | AML | 10 19 09.5 | |
| **FOZ** | **Fox Glacier** | **2.22** | **267** | AML | AML | 10 18 58.2 | |
| FOZ | | | | AML | AML | 10 19 01.0 | |
| **ODZ** | **Otahua Downs** | **2.24** | **225** | Pn | Pn | 10 18 16.7 | -1.1 |
| **ODZ** | **Otahua Downs** | **2.24** | **225** | ⇑PN | Pn | 10 18 16.7 | -1.1 |
| ODZ | | | | AML | AML | 10 18 52.6 | |
| ODZ | | | | AML | AML | 10 18 52.6 | |
| ODZ | | | | AML | AML | 10 18 59.5 | |
| ODZ | | | | AML | AML | 10 18 59.5 | |
| **TCW** | **Tory Channel** | **2.48** | **25** | Pn | Pn | 10 18 20.5 | -0.5 |
| **TCW** | **Tory Channel** | **2.48** | **25** | PN | Pn | 10 18 20.5 | -0.5 |
| TCW | | | | AML | AML | 10 18 59.8 | |
| **BHW** | **Baring Head** | **2.54** | **37** | Pn | Pn | 10 18 21.0 | -0.7 |
| **BHW** | **Baring Head** | **2.54** | **37** | PN | Pn | 10 18 21.0 | -0.7 |
| **PLWZ** | **Palliser** | **2.59** | **44** | Pn | Pn | 10 18 21.7 | -0.9 |
| **PLWZ** | **Palliser** | **2.59** | **44** | PN | Pn | 10 18 21.7 | -0.9 |
| **WEL** | **Wellington** | **2.60** | **34** | Pn | Pn | 10 18 22.5 | -0.1 |
| **WEL** | **Wellington** | **2.60** | **34** | PN | Pn | 10 18 22.5 | -0.1 |
| WEL | | | | AML | AML | 10 18 55.0 | |
| WEL | | | | AML | AML | 10 18 55.0 | |
| WEL | | | | AML | AML | 10 19 01.4 | |
| **MSWZ** | **Moikau Station** | **2.70** | **42** | Pn | Pn | 10 18 23.1 | -0.9 |
| **MSWZ** | **Moikau Station** | **2.70** | **42** | ⇓PN | Pn | 10 18 23.1 | -0.9 |
| MSWZ | | | | AML | AML | 10 18 55.5 | |
| **CAW** | **Cannon Point** | **2.87** | **35** | Pn | Pn | 10 18 25.5 | -0.8 |
| **CAW** | **Cannon Point** | **2.87** | **35** | PN | Pn | 10 18 25.5 | -0.8 |
| CAW | | | | AML | AML | 10 19 03.8 | |
| CAW | | | | AML | AML | 10 19 32.8 | |
| **KIW** | **Kapiti Island** | **3.01** | **31** | Pn | Pn | 10 18 27.9 | -0.4 |
| **KIW** | **Kapiti Island** | **3.01** | **31** | PN | Pn | 10 18 27.9 | -0.4 |
| **MTW** | **Mount Morrison** | **3.02** | **41** | Pn | Pn | 10 18 27.2 | -1.2 |
| **MTW** | **Mount Morrison** | **3.02** | **41** | ⇓PN | Pn | 10 18 27.2 | -1.2 |
| **EAZ** | **Earnscleugh** | **3.10** | **234** | Pn | Pn | 10 18 28.5 | -1.1 |
| **EAZ** | **Earnscleugh** | **3.10** | **234** | PN | Pn | 10 18 28.5 | -1.1 |
| EAZ | | | | AML | AML | 10 19 18.9 | |
| EAZ | | | | AML | AML | 10 19 22.3 | |
| EAZ | | | | AML | AML | 10 19 24.6 | |
| EAZ | | | | AML | AML | 10 19 24.9 | |
| **OGWZ** | **Otaki Gorge** | **3.15** | **34** | Pn | Pn | 10 18 29.7 | -0.5 |
| **OGWZ** | **Otaki Gorge** | **3.15** | **34** | PN | Pn | 10 18 29.1 | -1.1 |
| OGWZ | | | | AML | AML | 10 19 10.0 | |
| OGWZ | | | | AML | AML | 10 19 13.1 | |
| **HOWZ** | **Holdsworth Sta** | **3.23** | **38** | Pn | Pn | 10 18 30.6 | -0.8 |
| **HOWZ** | **Holdsworth Sta** | **3.23** | **38** | PN | Pn | 10 18 30.5 | -0.9 |
| **TMWZ** | **Te Maipa** | **3.25** | **45** | Pn | Pn | 10 18 31.4 | -0.2 |
| **TUZ** | **Tuapeka** | **3.39** | **222** | AML | AML | 10 19 40.0 | |
| TUZ | | | | AML | AML | 10 19 41.1 | |
| **MRZ** | **Mangatainoka R** | **3.46** | **37** | Pn | Pn | 10 18 33.3 | -1.1 |
| **MRZ** | **Mangatainoka R** | **3.46** | **37** | PN | Pn | 10 18 33.3 | -1.1 |
| MRZ | | | | AML | AML | 10 19 17.5 | |
| MRZ | | | | AML | AML | 10 19 17.6 | |
| **TIWZ** | **Tintock** | **3.50** | **41** | Pn | Pn | 10 18 34.3 | -0.8 |
| **TIWZ** | **Tintock** | **3.50** | **41** | AML | AML | 10 19 18.0 | |
| TIWZ | | | | AML | AML | 10 19 19.9 | |
| **POWZ** | **Post Office Ro** | **3.76** | **36** | Pn | Pn | 10 18 38.4 | -0.2 |
| **POWZ** | **Post Office Ro** | **3.76** | **36** | PN | Pn | 10 18 38.4 | -0.2 |
| **ANWZ** | **Angora Road** | **4.03** | **43** | Pn | Pn | 10 18 40.4 | -1.9 |
| ANWZ | | | | AML | AML | 10 19 36.6 | |
| **WAZ** | **Wanganui** | **4.03** | **24** | *e*PN | Pn | 10 18 43.7 | +1.4 |
| **PREZ** | **Palmer Road** | **4.23** | **14** | Pn | Pn | 10 18 46.8 | +1.7 |
| **PREZ** | **Palmer Road** | **4.23** | **14** | PN | Pn | 10 18 46.8 | +1.7 |
| **KHEZ** | **Kahui Hut** | **4.26** | **12** | Pn | Pn | 10 18 47.6 | +2.1 |
| **KHEZ** | **Kahui Hut** | **4.26** | **12** | *e*PN | Pn | 10 18 46.7 | +1.2 |
| **PRHZ** | **Porangahau** | **4.26** | **43** | Pn | Pn | 10 18 45.4 | 0.0 |
| **PRHZ** | **Porangahau** | **4.26** | **43** | *e*PN | Pn | 10 18 43.8 | -1.7 |
| **NEZ** | **North Egmont** | **4.29** | **13** | Pn | Pn | 10 18 47.5 | +1.5 |
| **PKE** | **Pukeiti** | **4.35** | **12** | Pn | Pn | 10 18 48.4 | +1.7 |
| **PKE** | **Pukeiti** | **4.35** | **12** | PN | Pn | 10 18 48.4 | +1.7 |
| **PXZ** | **Pawanui** | **4.55** | **42** | Pn | Pn | 10 18 48.1 | -1.4 |
| **PXZ** | **Pawanui** | **4.55** | **42** | SN | Sn | 10 19 39.6 | -2.9 |
| **PKVZ** | **Pokaka** | **4.57** | **25** | Pn | Pn | 10 18 51.2 | +1.4 |
| **PKVZ** | **Pokaka** | **4.57** | **25** | PN | Pn | 10 18 51.2 | +1.4 |
| **WNVZ** | **Wahianoa** | **4.62** | **27** | Pn | Pn | 10 18 51.1 | +0.6 |
| **WNVZ** | **Wahianoa** | **4.62** | **27** | PN | Pn | 10 18 50.9 | +0.3 |
| **TRVZ** | **Turoa** | **4.63** | **27** | Pn | Pn | 10 18 51.8 | +1.1 |
| **TRVZ** | **Turoa** | **4.63** | **27** | *e*PN | Pn | 10 18 51.7 | +1.0 |
| **BHHZ** | **Black Hill Sta** | **4.64** | **32** | Pn | Pn | 10 18 50.8 | 0.0 |
| **BHHZ** | **Black Hill Sta** | **4.64** | **32** | *e*PN | Pn | 10 18 50.8 | 0.0 |
| **TUVZ** | **Tukino** | **4.69** | **28** | Pn | Pn | 10 18 52.6 | +1.2 |
| **TUVZ** | **Tukino** | **4.69** | **28** | PN | Pn | 10 18 52.6 | +1.1 |
| **NGZ** | **Ngauruhoe** | **4.75** | **27** | Pn | Pn | 10 18 53.3 | +0.9 |
| **NGZ** | **Ngauruhoe** | **4.75** | **27** | *e*PN | Pn | 10 18 53.1 | +0.7 |
| **KATZ** | **Kakaramea** | **4.97** | **26** | Pn | Pn | 10 18 54.2 | -1.1 |
| **RITZ** | **Rihia Road** | **5.02** | **28** | Pn | Pn | 10 18 55.2 | -0.7 |
| **RATZ** | **Rangitukua** | **5.09** | **27** | Pn | Pn | 10 18 54.8 | -2.1 |
| **TLZ** | **Tolley Road** | **5.52** | **22** | Pn | Pn | 10 19 02.7 | 0.0 |
| **MWZ** | **Matawai** | **6.22** | **36** | Pn | Pn | 10 19 10.0 | -2.5 |

**WEL 23 10:18:36.2±0.4, 43.˚48S×172.˚84E, h7km±2km, ML3.5/7, 1C-3D, Error ellipse: s-maj=3.9km s-min=1.2km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.18** | **239** | ⇓PG | Pg | 10 18 40.3 | +0.3 |
| CRLZ | | | | SG | Sg | 10 18 43.0 | +0.5 |
| CRLZ | | | | AML | AML | 10 18 43.5 | |
| CRLZ | | | | AML | AML | 10 18 43.6 | |
| CRLZ | | | | AML | AML | 10 18 43.9 | |
| **MQZ** | **McQueen's Vall** | **0.27** | **211** | ⇓PG | Pg | 10 18 41.6 | +0.2 |
| MQZ | | | | SG | Sg | 10 18 45.8 | +0.8 |
| MQZ | | | | AML | AML | 10 18 45.9 | |
| MQZ | | | | AML | AML | 10 18 46.2 | |
| **OXZ** | **Oxford** | **0.60** | **284** | ⇓P* | Pg | 10 18 47.8 | -0.1 |
| OXZ | | | | AML | AML | 10 18 58.0 | |
| OXZ | | | | AML | AML | 10 18 58.1 | |
| OXZ | | | | AML | AML | 10 18 58.1 | |
| OXZ | | | | AML | AML | 10 18 58.1 | |
| **LTZ** | **Lake Taylor** | **0.81** | **329** | ⇑P* | Pg | 10 18 51.8 | 0.0 |
| LTZ | | | | S* | Sb | 10 19 03.6 | -0.3 |
| **KHZ** | **Kahutara** | **1.18** | **26** | P* | Pg | 10 18 58.0 | -0.8 |
| KHZ | | | | AML | AML | 10 19 14.0 | |
| KHZ | | | | AML | AML | 10 19 14.4 | |
| KHZ | | | | AML | AML | 10 19 15.3 | |
| KHZ | | | | AML | AML | 10 19 16.4 | |
| **DSZ** | **Denniston Nort** | **1.89** | **336** | AML | AML | 10 19 32.3 | |
| **ODZ** | **Otahua Downs** | **2.22** | **224** | AML | AML | 10 19 50.5 | |
| ODZ | | | | AML | AML | 10 19 51.3 | |

*IDC* ***23*** *10:24:11.4±0.8, 10.˚11S×124.˚10E, h0km, mb4.0/6, mb1 4.2/9, mb1mx3.9/44, mbtmp4.1/9, ML4.3/2, MS3.0/3, Ms1 3.0/3, ms1mx2.7/54, Error ellipse: s-maj=45.0km s-min=16.9km az=55.0*
*ISCJB* ***23*** *10:24:13.5±0.3, 10.˚55S±0.˚03×123.˚73E±0.˚03, h29km, mb4.3/10, Error ellipse: s-maj=5.5km s-min=2.7km az=136.7*
*NEIC* ***23*** *10:24:16.0±0.5, 10.˚47S×123.˚71E, h35km, mb4.5/2, Error ellipse: s-maj=11.3km s-min=7.4km az=51.0*
*DJA* ***23*** *10:24:16.1±0.9, 11.˚5S±4.˚5×12.˚4E±.˚, h23km±10km, M4.4/12, mB5.1/2, mb4.5/6, MLv4.4/12, Mw(mB)4.4/2*

**ISC 23 10:24:15.7±0.6, 10.˚55S±0.˚05×123.˚68E±0.˚05, h29km, n44, σ2§07/62, mb4.2/10, Timor region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SOEI** | **Soe** | **0.98** | **36** | P | Pn | **10 24 33.8** | **+0.2** |
| SOEI | | | | S | Sn | **10 24 48.1** | **+1.5** |
| **SOEI** | **Soe** | **0.98** | **36** | *e*Pn | Pn | **10 24 30.9** | **-2.7** |
| **MMRI** | **Maumere** | **2.38** | **323** | P | Pn | **10 24 52.5** | **-0.3** |
| MMRI | | | | S | Sn | **10 25 22.1** | **+1.1** |
| **MMRI** | **Maumere** | **2.38** | **323** | *e*Pn | Pn | **10 24 52.3** | **-0.5** |
| MMRI | | | | *e*Sn | Sn | **10 25 14.2** | **-6.8** |
| **EDFI** | **Ende, Flores** | **2.66** | **312** | P | Pn | **10 24 56.2** | **-0.5** |
| EDFI | | | | S | Sn | **10 25 29.8** | **+1.7** |
| **BASI** | **Baing, Sumba** | **3.07** | **276** | P | Pn | **10 25 03.6** | **+1.3** |
| BASI | | | | S | Sn | **10 25 40.6** | **+2.4** |
| **WSI** | **Waingapu** | **3.45** | **284** | P | Pn | **10 25 07.3** | **-0.2** |
| WSI | | | | S | Sn | **10 25 48.7** | **+1.3** |
| **WBSI** | **Waikabubak, Su** | **4.32** | **282** | P | Pn | **10 25 20.0** | **+0.4** |
| WBSI | | | | S | Sn | **10 26 08.2** | **-0.9** |
| **BBSI** | **Bau Bau** | **5.15** | **348** | P | Pn | **10 25 32.7** | **+1.8** |
| BBSI | | | | S | Sn | **10 26 31.3** | **+1.9** |
| **BSSI** | **Bau Bau, Buton** | **5.40** | **324** | P | Pn | **10 25 34.4** | **0.0** |
| BSSI | | | | S | Sn | **10 26 37.1** | **+1.5** |
| **PLAI** | **Plampang** | **6.07** | **286** | P | Pn | **10 25 44.2** | **+0.6** |
| | 105nm,0.7s,1μm0.4nm | | | | | | |
| PLAI | | | | S | Sn | **10 26 52.5** | **+0.4** |
| | 105nm,0.7s,1μm0.4nm | | | | | | |
| **KDI** | **Kendari** | **6.64** | **351** | P | Pn | **10 25 53.7** | **+2.4** |
| | 23nm,0.9s,0.1nm | | | | | | |
| KDI | | | | S | Sn | **10 27 07.8** | **+1.7** |
| | 23nm,0.9s,0.1nm | | | | | | |
| **SPSI** | **Sidrap Palu** | **7.61** | **329** | P | Pn | **10 26 03.2** | **-1.5** |
| SPSI | | | | S | Sn | **10 27 30.0** | **0.0** |
| **MTN** | **Manton Dam** | **7.64** | **108** | *e*Pn | Pn | **10 26 06.0** | **+0.8** |
| **FITZ** | **Fitzroy Crossi** | **7.74** | **166** | Pn | Pn | **10 26 09.2** | **+2.7** |
| | baz=180,slow=20 | | | | | | |
| FITZ | | | | Sn | Sn | **10 27 35.4** | **+2.2** |
| | 4.5nm,0.3s,baz=101,slow=19,SNR=4.1 | | | | | | |
| FITZ | | | | LR | LR | 10 29 38.5 | |
| | comp=Z,88nm,20.5s,baz=162,slow=40 | | | | | | |
| **SANI** | **Sanana** | **8.75** | **15** | P | Pn | **10 26 24.4** | **+4.0** |
| **JAGI** | **Jajag, Banyuwa** | **9.63** | **282** | *e*Pn | Pn | **10 26 30.7** | **-1.7** |
| **MBWA** | **Marble Bar** | **11.21** | **199** | *e*Pn | Pn | **10 26 56.1** | **+2.0** |
| **FAKI** | **Fak Fak** | **11.39** | **49** | *e*Pn | Pn | **10 26 57.4** | **+0.8** |
| **WR1** | **Warramunga Arr** | **13.88** | **134** | *e*Pn | Pn | **10 27 28.9** | **-1.7** |
| WR1 | | | | *e*Sn | Sn | **10 29 58.9** | **-5.0** |
| **WRA** | **Warramunga Arr** | **13.88** | **134** | Pn | Pn | **10 27 28.9** | **-1.7** |
| | 1.6nm,0.3s,baz=309,slow=15,SNR=73 | | | | | | |
| WRA | | | | Sn | Sn | **10 29 58.9** | **-5.0** |
| | 1.2nm,0.3s,baz=310,slow=23,SNR=8.5 | | | | | | |
| WRA | | | | LR | LR | 10 33 51.5 | |
| | comp=Z,77nm,20.6s,baz=335,slow=42 | | | | | | |
| **WRAB** | **Tennant Creek** | **13.88** | **133** | *e*Pn | Pn | **10 27 29.7** | **-0.9** |
| WRAB | | | | *e*Sn | Sn | **10 30 04.1** | **+0.2** |
| **WB2** | **Warramunga Arr** | **13.89** | **133** | *e*Pn | Pn | **10 27 29.7** | **-1.0** |
| WB2 | | | | *e*Sn | Sn | **10 30 02.6** | **-1.5** |
| **ASAR** | **Alice Springs** | **16.28** | **145** | Pn | Pn | **10 28 02.5** | **0.0** |
| | 1.5nm,0.3s,baz=317,slow=12,SNR=154 | | | | | | |
| ASAR | | | | Sn | Sn | **10 30 59.8** | **-2.6** |
| | 0.5nm,0.3s,baz=324,slow=25,SNR=7.2 | | | | | | |
| ASAR | | | | LR | LR | 10 34 21.0 | |
| | comp=Z,63nm,21.9s,baz=317,slow=37 | | | | | | |
| **AS01** | **Alice Springs** | **16.31** | **144** | *e*Pn | Pn | **10 28 02.2** | **-0.5** |
| AS01 | | | | *e*Sn | Sn | **10 31 03.8** | **+0.9** |
| **FORT** | **Forrest** | **20.54** | **169** | *e*P | Pn | 10 28 55.8 | +1.6 |
| | 180nm,0.7s | | | | | | |
| **PMG** | **Port Moresby** | **23.15** | **89** | *e*P | **P** | **10 29 19.4** | **-0.6** |
| | 14nm,1.3s | | | | | | |
| **BBOO** | **Buckleboo** | **24.91** | **155** | *e*P | **P** | **10 29 40.0** | **+3.7** |
| | 11nm,0.6s | | | | | | |
| **STKA** | **Stephens Creek** | **26.92** | **145** | P | **P** | **10 29 56.9** | **+2.4** |
| | 2.4nm,0.7s,baz=321,slow=12,SNR=7.0 | | | | | | |
| **HNR** | **Heniara** | **35.72** | **92** | P | **P** | **10 31 08.2** | **-4.0** |
| | 37nm,0.5s,baz=168,slow=5.5,SNR=2.2 | | | | | | |
| **BKZ** | **Black Stump Fm** | **54.79** | **131** | *e*P | **P** | **10 33 44.4** | **+1.2** |
| | 41nm,0.9s | | | | | | |
| **SONA0** | **Songino Array** | **60.12** | **347** | *e*P | **P** | **10 34 19.9** | **-0.7** |
| **SONM** | **Songino Array** | **60.12** | **347** | P | **P** | **10 34 19.9** | **-0.7** |
| | 0.7nm,0.6s,baz=165,slow=7.4,SNR=6.6 | | | | | | |
| **MK01** | **Makanchi Array** | **67.98** | **331** | *e*P | **P** | **10 35 11.1** | **-1.0** |
| **MK32** | **Makanchi Array** | **68.00** | **331** | *e*P | **P** | **10 35 11.3** | **-0.9** |
| **MKAR** | **Makanchi Array** | **68.00** | **331** | P | **P** | **10 35 11.3** | **-0.9** |
| | 2.1nm,0.8s,baz=142,slow=6.9,SNR=9.6 | | | | | | |
| **AAK** | **Ala-Archa** | **69.42** | **323** | P | **P** | **10 35 20.6** | **-0.8** |
| | 0.9nm,0.5s,baz=104,slow=7.1,SNR=4.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **72.19** | **337** | P | **P** | **10 35 36.0** | **-1.8** |
| | 1.0nm,0.4s,baz=130,slow=2.3,SNR=5.8 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **72.19** | **337** | *e*P | **P** | **10 35 35.8** | **-1.9** |
| **ZAA1** | **Zalesovo Array** | **72.19** | **337** | *e*P | **P** | **10 35 36.0** | **-1.8** |
| **KURBB** | **Kurchatov Arra** | **72.45** | **332** | P | **P** | **10 35 38.0** | **-1.4** |
| | 0.3nm,0.3s,baz=141,slow=5.5,SNR=4.1 | | | | | | |
| **KURK** | **Kurchatov** | **72.48** | **332** | *e*P | **P** | **10 35 38.0** | **-1.5** |
| **TORD** | **Torodi Ar. Bea** | **123.27** | **279** | PKP | **PKPdf** | **10 43 12.1** | **+1.3** |
| | 0.7nm,0.9s,baz=46

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **TCW** | **Tory Channel** | **2.56** | **24** | PN | **Pn** | **10 33 11.0** | **-1.0** |
| TCW | | | | AML | AML | 10 33 45.0 | | |
| TCW | | | | AML | AML | 10 33 52.5 | | |
| **BHW** | **Baring Head** | **2.60** | **35** | Pn | **Pn** | **10 33 11.9** | **-0.7** |
| **BHW** | **Baring Head** | **2.60** | **35** | PN | **Pn** | **10 33 11.6** | **-1.0** |
| BHW | | | | AML | AML | 10 33 45.5 | | |
| BHW | | | | AML | AML | 10 34 16.8 | | |
| **SNZO** | **South Karori** | **2.62** | **32** | *e*Pn | **Pn** | **10 33 12.1** | **-0.7** |
| SNZO | | | | *e*Sn | **Sn** | **10 33 46.5** | **+1.9** |
| **PLWZ** | **Palliser** | **2.65** | **42** | Pn | **Pn** | **10 33 12.4** | **-0.9** |
| **PLWZ** | **Palliser** | **2.65** | **42** | PN | **Pn** | **10 33 12.3** | **-1.0** |
| PLWZ | | | | AML | AML | 10 33 44.8 | | |
| PLWZ | | | | AML | AML | 10 33 45.9 | | |
| **WEL** | **Wellington** | **2.67** | **32** | Pn | **Pn** | **10 33 12.9** | **-0.5** |
| **WEL** | **Wellington** | **2.67** | **32** | PN | **Pn** | **10 33 12.9** | **-0.5** |
| WEL | | | | AML | AML | 10 33 45.5 | | |
| WEL | | | | AML | AML | 10 33 45.5 | | |
| WEL | | | | AML | AML | 10 33 45.7 | | |
| WEL | | | | AML | AML | 10 33 45.7 | | |
| **QRZ** | **Quartz Range** | **2.74** | **354** | PN | **Pn** | **10 33 13.5** | **-0.9** |
| QRZ | | | | AML | AML | 10 33 28.5 | | |
| QRZ | | | | AML | AML | 10 33 51.0 | | |
| QRZ | | | | AML | AML | 10 34 05.0 | | |
| QRZ | | | | AML | AML | 10 34 05.0 | | |
| **MSWZ** | **Moikau Station** | **2.76** | **40** | Pn | **Pn** | **10 33 13.9** | **-0.9** |
| **MSWZ** | **Moikau Station** | **2.76** | **40** | PN | **Pn** | **10 33 13.9** | **-0.9** |
| MSWZ | | | | AML | AML | 10 33 46.8 | | |
| MSWZ | | | | AML | AML | 10 33 46.9 | | |
| **HHSZ** | **Highcliff Hill** | **2.84** | **214** | Pn | **Pn** | **10 33 15.1** | **-0.8** |
| **HHSZ** | **Highcliff Hill** | **2.84** | **214** | *e*PN | **Pn** | **10 33 15.0** | **-0.9** |
| HHSZ | | | | AML | AML | 10 34 08.5 | | |
| HHSZ | | | | AML | AML | 10 34 15.6 | | |
| **DUWZ** | **D'Urville Isla** | **2.86** | **16** | Pn | **Pn** | **10 33 16.4** | **+0.3** |
| DUWZ | | | | AML | AML | 10 34 16.1 | | |
| DUWZ | | | | AML | AML | 10 34 23.3 | | |
| **CAW** | **Cannon Point** | **2.93** | **34** | Pn | **Pn** | **10 33 16.2** | **-0.9** |
| **CAW** | **Cannon Point** | **2.93** | **34** | ⇑PN | **Pn** | **10 33 16.2** | **-0.9** |
| CAW | | | | AML | AML | 10 33 52.6 | | |
| CAW | | | | AML | AML | 10 33 55.4 | | |
| **TRWZ** | **Traveller** | **2.99** | **45** | Pn | **Pn** | **10 33 17.1** | **-0.8** |
| **TRWZ** | **Traveller** | **2.99** | **45** | PN | **Pn** | **10 33 16.9** | **-1.1** |
| TRWZ | | | | AML | AML | 10 33 56.2 | | |
| TRWZ | | | | AML | AML | 10 33 59.7 | | |
| **JCZ** | **Jackson Bay** | **3.01** | **259** | Pn | **Pn** | **10 33 17.8** | **-0.5** |
| **JCZ** | **Jackson Bay** | **3.01** | **259** | ⇑PN | **Pn** | **10 33 17.8** | **-0.5** |
| JCZ | | | | AML | AML | 10 34 09.9 | | |
| JCZ | | | | AML | AML | 10 34 16.1 | | |
| **WKZ** | **Wanaka** | **3.06** | **244** | Pn | **Pn** | **10 33 18.3** | **-0.6** |
| **WKZ** | **Wanaka** | **3.06** | **244** | PN | **Pn** | **10 33 18.3** | **-0.6** |
| WKZ | | | | AML | AML | 10 34 13.5 | | |
| WKZ | | | | AML | AML | 10 34 13.6 | | |
| WKZ | | | | AML | AML | 10 34 14.4 | | |
| WKZ | | | | AML | AML | 10 34 14.5 | | |
| **EAZ** | **Earnscleugh** | **3.06** | **236** | Pn | **Pn** | **10 33 18.2** | **-0.7** |
| **EAZ** | **Earnscleugh** | **3.06** | **236** | ⇑PN | **Pn** | **10 33 18.2** | **-0.7** |
| EAZ | | | | AML | AML | 10 33 54.4 | | |
| EAZ | | | | AML | AML | 10 34 10.7 | | |
| EAZ | | | | AML | AML | 10 34 10.7 | | |
| EAZ | | | | AML | AML | 10 34 13.7 | | |
| **MTW** | **Mount Morrison** | **3.08** | **40** | Pn | **Pn** | **10 33 18.0** | **-1.2** |
| **MTW** | **Mount Morrison** | **3.08** | **40** | ⇓PN | **Pn** | **10 33 18.0** | **-1.2** |
| MTW | | | | AML | AML | 10 33 55.6 | | |
| MTW | | | | AML | AML | 10 33 58.0 | | |
| **KIW** | **Kapiti Island** | **3.09** | **30** | Pn | **Pn** | **10 33 18.6** | **-0.6** |
| **KIW** | **Kapiti Island** | **3.09** | **30** | PN | **Pn** | **10 33 18.6** | **-0.6** |
| KIW | | | | AML | AML | 10 33 55.8 | | |
| KIW | | | | AML | AML | 10 33 59.3 | | |
| **OGWZ** | **Otaki Gorge** | **3.22** | **33** | Pn | **Pn** | **10 33 20.2** | **-0.9** |
| **OGWZ** | **Otaki Gorge** | **3.22** | **33** | ⇓PN | **Pn** | **10 33 20.2** | **-0.9** |
| OGWZ | | | | AML | AML | 10 34 05.1 | | |
| OGWZ | | | | AML | AML | 10 34 05.6 | | |
| **HOWZ** | **Holdsworth Sta** | **3.30** | **37** | Pn | **Pn** | **10 33 21.0** | **-1.2** |
| **HOWZ** | **Holdsworth Sta** | **3.30** | **37** | PN | **Pn** | **10 33 21.0** | **-1.2** |
| HOWZ | | | | AML | AML | 10 34 00.1 | | |
| HOWZ | | | | AML | AML | 10 34 03.3 | | |
| **TMWZ** | **Te Maipa** | **3.31** | **43** | Pn | **Pn** | **10 33 22.2** | **-0.1** |
| **TMWZ** | **Te Maipa** | **3.31** | **43** | *e*PN | **Pn** | **10 33 22.2** | **-0.1** |
| TMWZ | | | | AML | AML | 10 34 03.0 | | |
| TMWZ | | | | AML | AML | 10 34 04.3 | | |
| **TUZ** | **Tuapeka** | **3.33** | **223** | Pn | **Pn** | **10 33 22.3** | **-0.3** |
| **TUZ** | **Tuapeka** | **3.33** | **223** | PN | **Pn** | **10 33 22.3** | **-0.3** |
| TUZ | | | | AML | AML | 10 34 23.5 | | |
| TUZ | | | | AML | AML | 10 34 23.5 | | |
| TUZ | | | | AML | AML | 10 34 25.1 | | |
| TUZ | | | | AML | AML | 10 34 25.1 | | |
| **MRZ** | **Mangatainoka R** | **3.52** | **36** | Pn | **Pn** | **10 33 23.8** | **-1.4** |
| **MRZ** | **Mangatainoka R** | **3.52** | **36** | PN | **Pn** | **10 33 23.7** | **-1.4** |
| MRZ | | | | AML | AML | 10 34 08.6 | | |
| MRZ | | | | AML | AML | 10 34 08.9 | | |
| **TIWZ** | **Tintock** | **3.56** | **40** | Pn | **Pn** | **10 33 24.4** | **-1.4** |
| **TIWZ** | **Tintock** | **3.56** | **40** | PN | **Pn** | **10 33 24.4** | **-1.4** |
| TIWZ | | | | AML | AML | 10 34 08.8 | | |
| TIWZ | | | | AML | AML | 10 34 09.5 | | |
| **PRWZ** | **Pori Road** | **3.78** | **39** | Pn | **Pn** | **10 33 27.5** | **-1.2** |
| **PRWZ** | **Pori Road** | **3.78** | **39** | PN | **Pn** | **10 33 27.3** | **-1.5** |
| PRWZ | | | | AML | AML | 10 34 15.8 | | |
| PRWZ | | | | AML | AML | 10 34 18.9 | | |
| **BFZ** | **Birch Farm** | **3.81** | **42** | Pn | **Pn** | **10 33 27.3** | **-1.9** |
| **BFZ** | **Birch Farm** | **3.81** | **42** | PN | **Pn** | **10 33 27.3** | **-1.9** |
| BFZ | | | | AML | AML | 10 34 12.8 | | |
| BFZ | | | | AML | AML | 10 34 12.8 | | |
| BFZ | | | | AML | AML | 10 34 16.8 | | |
| BFZ | | | | AML | AML | 10 34 16.8 | | |
| **POWZ** | **Post Office Ro** | **3.82** | **35** | AML | AML | 10 34 20.1 | | |
| POWZ | | | | AML | AML | 10 34 24.9 | | |
| **MLZ** | **Mavora Lakes** | **3.86** | **240** | Pn | **Pn** | **10 33 28.9** | **-1.0** |
| **MLZ** | **Mavora Lakes** | **3.86** | **240** | PN | **Pn** | **10 33 28.9** | **-1.0** |
| MLZ | | | | AML | AML | 10 34 40.6 | | |
| MLZ | | | | AML | AML | 10 34 47.6 | | |
| **SYZ** | **Scrubby Hill** | **3.99** | **220** | Pn | **Pn** | **10 33 31.7** | **+0.1** |
| **SYZ** | **Scrubby Hill** | **3.99** | **220** | ⇑PN | **Pn** | **10 33 31.7** | **+0.1** |
| SYZ | | | | AML | AML | 10 34 52.7 | | |
| SYZ | | | | AML | AML | 10 34 52.8 | | |
| **ANWZ** | **Angora Road** | **4.09** | **42** | *e*PN | **Pn** | **10 33 31.7** | **-1.3** |
| ANWZ | | | | AML | AML | 10 34 20.1 | | |
| ANWZ | | | | AML | AML | 10 34 24.4 | | |
| **WAZ** | **Wanganui** | **4.11** | **23** | Pn | **Pn** | **10 33 34.7** | **+1.3** |
| **WAZ** | **Wanganui** | **4.11** | **23** | ⇓PN | **Pn** | **10 33 34.7** | **+1.3** |
| WAZ | | | | AML | AML | 10 34 37.3 | | |
| **TSZ** | **Takapari Road** | **4.18** | **34** | AML | AML | 10 34 23.5 | | |
| TSZ | | | | AML | AML | 10 34 23.8 | | |
| **NMEZ** | **Namu Road** | **4.21** | **11** | Pn | **Pn** | **10 33 36.3** | **+1.7** |
| **NMEZ** | **Namu Road** | **4.21** | **11** | PN | **Pn** | **10 33 36.3** | **+1.7** |
| **WHZ** | **Wether Hill Ro** | **4.22** | **235** | Pn | **Pn** | **10 33 33.1** | **-1.7** |
| **WHZ** | **Wether Hill Ro** | **4.22** | **235** | ⇑PN | **Pn** | **10 33 33.1** | **-1.7** |
| WHZ | | | | AML | AML | 10 34 51.4 | | |
| WHZ | | | | AML | AML | 10 34 59.2 | | |
| **LREZ** | **Lake Rotokare** | **4.25** | **16** | *e*PN | **Pn** | **10 33 37.2** | **+2.0** |
| LREZ | | | | AML | AML | 10 34 34.5 | | |
| LREZ | | | | AML | AML | 10 34 51.4 | | |
| **PREZ** | **Palmer Road** | **4.32** | **13** | Pn | **Pn** | **10 33 37.7** | **+1.5** |
| **PREZ** | **Palmer Road** | **4.32** | **13** | PN | **Pn** | **10 33 37.7** | **+1.5** |
| PREZ | | | | AML | AML | 10 34 34.7 | | |
| PREZ | | | | AML | AML | 10 34 40.4 | | |
| **PRHZ** | **Porangahau** | **4.32** | **42** | Pn | **Pn** | **10 33 34.9** | **-1.3** |
| **PRHZ** | **Porangahau** | **4.32** | **42** | *e*PN | **Pn** | **10 33 34.7** | **-1.5** |
| PRHZ | | | | AML | AML | 10 34 27.7 | | |
| PRHZ | | | | AML | AML | 10 34 31.0 | | |
| **NWEZ** | **Newall Road** | **4.34** | **10** | Pn | **Pn** | **10 33 38.0** | **+1.5** |
| **NWEZ** | **Newall Road** | **4.34** | **10** | *e*PN | **Pn** | **10 33 38.7** | **+2.2** |
| **KHEZ** | **Kahui Hut** | **4.34** | **12** | Pn | **Pn** | **10 33 37.8** | **+1.2** |
| **KHEZ** | **Kahui Hut** | **4.34** | **12** | *e*PN | **Pn** | **10 33 37.5** | **+0.9** |
| **NEZ** | **North Egmont** | **4.38** | **12** | Pn | **Pn** | **10 33 38.0** | **+0.9** |
| **NEZ** | **North Egmont** | **4.38** | **12** | PN | **Pn** | **10 33 38.0** | **+0.9** |
| **WPHZ** | **Waipukurau** | **4.39** | **39** | AML | AML | 10 34 34.1 | | |
| WPHZ | | | | AML | AML | 10 34 37.3 | | |
| **PNHZ** | **Pukenui** | **4.41** | **35** | Pn | **Pn** | **10 33 35.6** | **-1.8** |
| **PNHZ** | **Pukenui** | **4.41** | **35** | PN | **Pn** | **10 33 35.6** | **-1.8** |
| PNHZ | | | | AML | AML | 10 34 31.5 | | |
| PNHZ | | | | AML | AML | 10 34 31.8 | | |
| **PKE** | **Pukeiti** | **4.44** | **11** | Pn | **Pn** | **10 33 38.7** | **+0.9** |
| **PKE** | **Pukeiti** | **4.44** | **11** | *e*Pn | **Pn** | **10 33 38.6** | **+0.8** |
| PKE | | | | AML | AML | 10 34 38.1 | | |
| **DREZ** | **Durham Road** | **4.47** | **13** | Pn | **Pn** | **10 33 39.4** | **+1.1** |
| **DREZ** | **Durham Road** | **4.47** | **13** | PN | **Pn** | **10 33 39.4** | **+1.1** |
| **DCZ** | **Deep Cove** | **4.52** | **243** | PN | **Pn** | **10 33 37.7** | **-1.1** |
| DCZ | | | | AML | AML | 10 35 02.2 | | |
| DCZ | | | | AML | AML | 10 35 08.3 | | |
| **MTVZ** | **Mangateitei** | **4.60** | **26** | Pn | **Pn** | **10 33 40.5** | **+0.4** |
| **MTVZ** | **Mangateitei** | **4.60** | **26** | AML | AML | 10 34 39.0 | | |
| MTVZ | | | | AML | AML | 10 34 46.4 | | |
| **PXZ** | **Pawanui** | **4.61** | **42** | Pn | **Pn** | **10 33 38.9** | **-1.2** |
| **PXZ** | **Pawanui** | **4.61** | **42** | PN | **Pn** | **10 33 38.9** | **-1.2** |
| PXZ | | | | AML | AML | 10 34 32.9 | | |
| **VRZ** | **Vera Road** | **4.65** | **18** | PN | **Pn** | **10 33 41.4** | **+0.7** |
| VRZ | | | | AML | AML | 10 34 38.7 | | |
| VRZ | | | | AML | AML | 10 34 44.2 | | |
| **PKVZ** | **Pokaka** | **4.65** | **24** | Pn | **Pn** | **10 33 40.9** | **+0.1** |
| **PKVZ** | **Pokaka** | **4.65** | **24** | *e*PN | **Pn** | **10 33 40.5** | **-0.3** |
| **MOVZ** | **Moawhango** | **4.67** | **28** | Pn | **Pn** | **10 33 40.6** | **-0.5** |
| **MOVZ** | **Moawhango** | **4.67** | **28** | *e*PN | **Pn** | **10 33 40.5** | **-0.6** |
| **WNVZ** | **Wahianoa** | **4.69** | **27** | Pn | **Pn** | **10 33 41.6** | **+0.2** |
| **WNVZ** | **Wahianoa** | **4.69** | **27** | PN | **Pn** | **10 33 41.0** | **-0.4** |
| **TRVZ** | **Turoa** | **4.70** | **26** | Pn | **Pn** | **10 33 42.2** | **+0.6** |
| **TRVZ** | **Turoa** | **4.70** | **26** | PN | **Pn** | **10 33 42.2** | **+0.6** |
| TRVZ | | | | AML | AML | 10 34 39.2 | | |
| TRVZ | | | | AML | AML | 10 34 41.7 | | |
| **BHHZ** | **Black Hill Sta** | **4.71** | **32** | Pn | **Pn** | **10 33 41.0** | **-0.6** |
| **BHHZ** | **Black Hill Sta** | **4.71** | **32** | PN | **Pn** | **10 33 41.0** | **-0.6** |
| BHHZ | | | | AML | AML | 10 34 39.2 | | |
| BHHZ | | | | AML | AML | 10 34 40.7 | | |
| **APZ** | **The Paps** | **4.76** | **225** | Pn | **Pn** | **10 33 41.8** | **-0.5** |
| **APZ** | **The Paps** | **4.76** | **225** | PN | **Pn** | **10 33 41.8** | **-0.5** |
| APZ | | | | AML | AML | 10 35 08.5 | | |
| APZ | | | | AML | AML | 10 35 08.7 | | |
| **TUVZ** | **Tukino** | **4.76** | **27** | Pn | **Pn** | **10 33 42.5** | **+0.1** |
| **TUVZ** | **Tukino** | **4.76** | **27** | PN | **Pn** | **10 33 42.3** | **-0.2** |
| TUVZ | | | | AML | AML | 10 34 40.9 | | |
| **KAHZ** | **Kahuranaki** | **4.80** | **40** | Pn | **Pn** | **10 33 42.1** | **-0.8** |
| **KAHZ** | **Kahuranaki** | **4.80** | **40** | PN | **Pn** | **10 33 42.1** | **-0.8** |
| **NGZ** | **Ngauruhoe** | **4.83** | **26** | Pn | **Pn** | **10 33 43.0** | **-0.4** |
| **NGZ** | **Ngauruhoe** | **4.83** | **26** | PN | **Pn** | **10 33 43.0** | **-0.4** |
| NGZ | | | | AML | AML | 10 34 40.4 | | |
| NGZ | | | | AML | AML | 10 34 45.2 | | |
| **OTVZ** | **Oturere** | **4.86** | **26** | Pn | **Pn** | **10 33 43.9** | **+0.2** |
| **OTVZ** | **Oturere** | **4.86** | **26** | *e*PN | **Pn** | **10 33 42.4** | **-1.4** |
| OTVZ | | | | AML | AML | 10 34 40.2 | | |
| OTVZ | | | | AML | AML | 10 35 13.3 | | |
| **TWVZ** | **Taurewa** | **4.88** | **24** | Pn | **Pn** | **10 33 44.1** | **+0.2** |
| **TWVZ** | **Taurewa** | **4.88** | **24** | PN | **Pn** | **10 33 44.1** | **+0.2** |
| **KWHZ** | **Kaweka Forest** | **4.91** | **34** | *e*PN | **Pn** | **10 33 43.6** | **-0.8** |
| KWHZ | | | | AML | AML | 10 34 41.6 | | |
| KWHZ | | | | AML | AML | 10 34 46.3 | | |
| **KRVZ** | **Karewarewa** | **4.92** | **26** | Pn | **Pn** | **10 33 44.8** | **+0.3** |
| **KRVZ** | **Karewarewa** | **4.92** | **26** | *e*PN | **Pn** | **10 33 44.8** | **+0.3** |
| **PYZ** | **Puysegur Point** | **5.12** | **237** | PN | **Pn** | **10 33 45.5** | **-1.7** |
| **BKZ** | **Black Stump Fm** | **5.16** | **33** | Pn | **Pn** | **10 33 46.7** | **-1.1** |
| **BKZ** | **Black Stump Fm** | **5.16** | **33** | *e*PN | **Pn** | **10 33 45.7** | **-2.1** |
| **HIZ** | **Hauiti** | **5.25** | **17** | Pn | **Pn** | **10 33 49.0** | **0.0** |
| **HIZ** | **Hauiti** | **5.25** | **17** | PN | **Pn** | **10 33 48.9** | **-0.2** |
| HIZ | | | | AML | AML | 10 35 18.5 | | |
| **NMHZ** | **Naumai** | **5.34** | **35** | AML | AML | 10 34 55.7 | | |
| NMHZ | | | | AML | AML | 10 34 57.8 | | |
| **TLZ** | **Tolley Road** | **5.59** | **22** | Pn | **Pn** | **10 33 53.4** | **-0.3** |
| **TLZ** | **Tolley Road** | **5.59** | **22** | PN | **Pn** | **10 33 53.1** | **-0.6** |
| TLZ | | | | AML | AML | 10 35 01.8 | | |
| **KNZ** | **Kokohu** | **5.79** | **40** | Pn | **Pn** | **10 33 54.2** | **-2.2** |
| **KNZ** | **Kokohu** | **5.79** | **40** | PN | **Pn** | **10 33 54.2** | **-2.2** |
| **MUGZ** | **Murupara** | **5.86** | **31** | PN | **Pn** | **10 33 55.6** | **-1.8** |
| **URZ** | **Urewera** | **6.18** | **33** | Pn | **Pn** | **10 33 60.0** | **-1.8** |
| | 1.7nm,0.3s,baz=243,slow=5.6,SNR=14 | | | | | | |
| URZ | | | | Sn | **Sn** | **10 35 06.8** | **-5.7** |
| | 3.5nm,0.3s,baz=6.2,slow=17,SNR=6.0 | | | | | | |
| **MWZ** | **Matawai** | **6.29** | **36** | Pn | **Pn** | **10 34 00.8** | **-2.5** |
| **MWZ** | **Matawai** | **6.29** | **36** | *e*PN | **Pn** | **10 33 59.7** | **-3.6** |
| MWZ | | | | AML | AML | 10 35 14.3 | | |
| **TWGZ** | **Tauwhareparae** | **6.62** | **37** | Pn | **Pn** | **10 34 07.1** | **-0.7** |
| **TWGZ** | **Tauwhareparae** | **6.62** | **37** | PN | **Pn** | **10 34 06.3** | **-1.5** |
| **AWAZ** | **Awhitu Peninsu** | **6.62** | **12** | PN | **Pn** | **10 34 08.0** | **+0.2** |
| **ETAZ** | **East Tamaki Re** | **6.78** | **14** | Pn | **Pn** | **10 34 10.1** | **+0.2** |
| **ETAZ** | **East Tamaki Re** | **6.78** | **14** | PN | **Pn** | **10 34 10.1** | **+0.2** |
| **WMGZ** | **Waiomatatini S** | **7.11** | **38** | Pn | **Pn** | **10 34 12.2** | **-2.2** |
| **CTZ** | **Chatham Island** | **7.62** | **95** | Pn | **Pn** | **10 34 20.9** | **-0.5** |
| **CTZ** | **Chatham Island** | **7.62** | **95** | *e*PN | **Pn** | **10 34 20.7** | **-0.7** |
| **ASAR** | **Alice Springs** | **37.60** | **289** | P | **P** | **10 39 45.3** | **-0.1** |
| | 1.1nm,0.6s,baz=130,slow=7.8,SNR=23 | | | | | | |
| **WRA** | **Warramunga Arr** | **39.85** | **294** | P | **P** | **10 40 04.2** | **+0.1** |
| | 1.8nm,0.7s,baz=133,slow=7.9,SNR=35 | | | | | | |
| **QSPA** | **South Pole Qui** | **46.57** | **180** | *e*P | **P** | **10 41 01.8** | **+3.6** |
| | 24nm,1.0s | | | | | | |
| **YKA** | **Yellowknife Ar** | **120.44** | **31** | PKP | **PKPdf** | **10 51 21.0** | **+0.1** |
| | 0.1nm,0.6s,baz=239,slow=1.5,SNR=3.1 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **148.76** | **197** | PKPbc | **PKPbc** | **10 52 18.8** | **+0.4** |
| | 0.6nm,0.9s,baz=156,slow=1.6,SNR=4.3 | | | | | | |
| **ARCES** | **ARCESS Array B** | **149.11** | **338** | PKPbc | **PKPbc** | **10 52 16.9** | **-0.7** |
| | 4.3nm,1.0s,baz=26,slow=4.3,SNR=3.9 | | | | | | |
| **BRTR** | **Keskin Array B** | **149.52** | **277** | PKPbc | **PKPbc** | **10 52 20.4** | **+0.6** |
| | 0.6nm,0.6s,baz=111,slow=4.2,SNR=2.7 | | | | | | |
| **FINES** | **FINESS Array B** | **153.44** | **324** | PKPbc | **PKPbc** | **10 52 28.2** | **+0.3** |
| | 2.6nm,0.8s,baz=183,slow=2.8,SNR=2.9 | | | | | | |

**IDC 23 10:38:10.4±811.0, 50.85N×51.98E, h0km, Error ellipse: s-maj=387.3km s-min=90.0km az=92.0, Western Kazakhstan**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **I31KZ** | **AKTYUBINSK INF** | **3.88** | **94** | *i* | | 11 02 30.0 | |
| | baz=279,slow=304,SNR=3.7 | | | | | | |
| **I46RU** | **ZALESOVO INFRA** | **20.18** | **68** | *i* | | 12 44 30.0 | |
| | baz=276,slow=322,SNR=1.4 | | | | | | |
| **I34MN** | **SONGINO INFRAS** | **34.94** | **73** | *i* | | 14 11 50.0 | |
| | baz=294,slow=334,SNR=1.1 | | | | | | |

*ISCJB **23** 10:40:10.1±1.2, 18.5S±0.3×178.0W±0.2, h600km, mb4.0/8, Error ellipse: s-maj=44.6km s-min=9.2km az=151.9*
*IDC **23** 10:40:11.4±1.4, 18.66S×177.73W, h623km±20km, mb3.4/8, mb1 3.6/10, mb1mx3.2/34, mbtmp4.4/10, Error ellipse: s-maj=45.0km s-min=12.1km az=145.0*
**ISC 23 10:40:10.9±1.3, 18.5S±0.3×177.9W±0.2, h600km, n12, σ1°39/15, mb4.1/8, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **AFI** | **Afiamalu** | **7.43** | **53** | P | **P** | **10 42 05.2** | **+0.1** |
| | 9.0nm,0.3s,baz=133,slow=2.5,SNR=20 | | | | | | |
| AFI | | | | S | **S** | **10 43 38.0** | **-0.3** |
| | 1.6nm,0.3s,baz=60,slow=20,SNR=3.0 | | | | | | |
| **DZM** | **Mont Dzumac** | **15.14** | **254** | P | **P** | **10 43 21.5** | **+1.0** |
| | 0.8nm,0.3s,baz=80,slow=18,SNR=8.4 | | | | | | |
| **PMG** | **Port Moresby** | **35.06** | **280** | P | **P** | **10 46 17.3** | **+1.8** |
| | 14nm,1.0s,baz=103,slow=16,SNR=4.3 | | | | | | |
| **STKA** | **Stephens Creek** | **38.80** | **242** | P | **P** | **10 46 45.9** | **+0.1** |
| | 3.4nm,0.4s,baz=72,slow=8.4,SNR=18 | | | | | | |
| **WRA** | **Warramunga Arr** | **45.03** | **260** | P | **P** | **10 47 34.4** | **-0.4** |
| | 3.5nm,0.3s,baz=97,slow=7.0,SNR=130 | | | | | | |
| WRA | | | | S | **S** | **10 53 29.6** | **-1.6** |
| | 0.6nm,0.8s,baz=94,slow=14,SNR=3.7 | | | | | | |
| **ASAR** | **Alice Springs** | **45.12** | **255** | P | **P** | **10 47 35.1** | **-0.4** |
| | 6.4nm,0.5s,baz=88,slow=8.2,SNR=170 | | | | | | |
| ASAR | | | | S | **S** | **10 53 30.2** | **-2.3** |
| | 5.2nm,1.3s,baz=92,slow=16,SNR=6.1 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **68.69** | **323** | P | **P** | **10 50 15.8** | **+0.1** |
| | 1.6nm,0.6s,baz=162,slow=6.2,SNR=6.1 | | | | | | |
| **PETK** | **Petropavlovsk-** | **74.39** | **345** | P | **P** | **10 50 48.6** | **+0.2** |
| | 3.1nm,0.7s,baz=114,slow=7.3,SNR=4.8 | | | | | | |
| **ILAR** | **Eielson Array** | **86.35** | **13** | P | **P** | **10 51 48.6** | **-1.4** |
| | 0.4nm,0.4s,baz=226,slow=4.9,SNR=20 | | | | | | |
| **YKA** | **Yellowknife Ar** | **94.66** | **25** | P | **P** | **10 52 27.5** | **-0.9** |
| | 0.2nm,0.7s,baz=245,slow=4.4,SNR=3.3 | | | | | | |
| **BRTR** | **Keskin Array B** | **145.56** | **315** | PKPbc | **PKPdf** | **10 58 42.1** | **-0.1** |
| | 1.8nm,1.0s,baz=342,slow=3.7,SNR=2.9 | | | | | | |
| **GERES** | **GERESS Array B** | **148.32** | **345** | PKPbc | **PKPdf** | **10 58 49.1** | **+2.8** |
| | 0.3nm,0.4s,baz=50,slow=5.2,SNR=4.0 | | | | | | |

*NNC **23** 10:44:27.1±2.6, 50.84N×73.76E, h0km, mb3.4, mpv3.1, Error ellipse: s-maj=39.6km s-min=9.6km az=26.0, Suspected Mining explosion.*
**IDC 23 10:44:32.2±1.4, 51.00N×73.76E, h0km, mb3.1/1, mb1 3.1/4, mb1mx3.0/53, mbtmp2.9/4, ML2.3/3, 6C-3D, Error ellipse: s-maj=33.4km s-min=8.0km az=33.0, Central Kazakhstan**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **BVA0** | **Borovoye Array** | **2.91** | **316** | ⇑Pg | Pb | 10 45 22.7 | -2.3 |
| | 3.6nm,0.8s,baz=285,slow=14,SNR=12 | | | | | | |
| BVA0 | | | | ⇓Lg | Lg | 10 45 59.4 | |
| | 8.7nm,0.6s,baz=125,slow=27,SNR=9.5 | | | | | | |
| **BVAR** | **Borovoye Array** | **2.91** | **316** | Pg | Pb | 10 45 23.6 | -1.4 |
| | 1.4nm,0.3s,baz=136,slow=17,SNR=8.6 | | | | | | |
| BVAR | | | | Sn | Sn | 10 45 56.4 | +1.0 |
| | 2.9nm,0.3s,baz=125,slow=20,SNR=6.4 | | | | | | |
| BVAR | | | | Lg | Lg | 10 46 03.1 | |
| | 5.4nm,0.3s,baz=123,slow=29,SNR=11 | | | | | | |
| **BRVK** | **Borovoye** | **2.98** | **315** | ⇓Pg | Pb | 10 45 25.5 | -0.6 |
| | 3.1nm,0.7s | | | | | | |
| BRVK | | | | ⇑Lg | Lg | 10 46 05.1 | |
| | 12nm,0.6s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **3.05** | **95** | Pn | Pn | 10 45 21.6 | +0.1 |
| | 0.2nm,0.3s,baz=279,slow=14,SNR=24 | | | | | | |
| KURBB | | | | Lg | Lg | 10 46 06.8 | |
| | 0.5nm,0.3s,baz=280,slow=30,SNR=4.8 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **3.05** | **95** | ⇑Pg | Pn | 10 45 21.5 | -0.1 |
| | 8.8nm,0.4s,baz=278,slow=13 | | | | | | |
| KURBB | | | | ⇑Lg | Lg | 10 46 05.7 | |
| | 44nm,0.6s,baz=275,slow=33 | | | | | | |
| **KURK** | **Kurchatov** | **3.09** | **93** | ⇓Pg | Pn | 10 45 22.3 | +0.1 |
| | 2.7nm,0.5s | | | | | | |
| KURK | | | | ⇑Lg | Lg | 10 46 08.1 | |
| | 15nm,0.7s | | | | | | |
| **MK31** | **Makanchi Array** | **7.02** | **124** | ⇑Lg | Lg | 10 48 07.1 | |
| | 2.2nm,0.6s,baz=316,slow=25,SNR=5.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **7.02** | **124** | Pn | Pn | 10 46 15.4 | -0.8 |
| | 0.1nm,0.3s,baz=294,slow=12,SNR=4.4 | | | | | | |
| MKAR | | | | Lg | Lg | 10 48 09.3 | |
| | 0.5nm,0.3s,baz=315,slow=26,SNR=7.8 | | | | | | |
| **I46RU** | **ZALESOVO INFRA** | **7.37** | **62** | *i* | | 11 28 50.6 | |
| | baz=243,slow=299,SNR=1.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **7.37** | **62** | Pn | Pn | 10 46 21.7 | +0.8 |
| | 0.2nm,0.3s,baz=259,slow=12,SNR=2.7 | | | | | | |
| **AAK** | **Ala-Archa** | **8.38** | **176** | Lg | Lg | 10 48 51.1 | |
| | 0.2nm,0.3s,baz=220,slow=24,SNR=5.0 | | | | | | |
| **ILAR** | **Eielson Array** | **60.35** | **19** | P | P | 10 54 41.4 | -1.0 |
| | 0.2nm,0.6s,baz=333,slow=5.7,SNR=4.4 | | | | | | |

*BJI **23** 10:52:04.7, 33.90S×178.30W, h8km, mb5.4/23, mB5.8/18, Ms5.6/18, Ms7 5.2/17*
*GCMT **23** 10:52:07.0±0.1, 33.60S×177.97W, h12km, MW5.5/130, Moment Tensor Solution. s97,c167; s130,c305; Duration: 1s3 Moment tensor: Scale 10^17 Nm; Mrr-1.68±.02; Mθθ-0.11±.02; Mϕϕ1.79±.01; Mrθ-0.07±.05; Mθϕ0.55±.01; Mϕr-0.27±.04; Best double couple: M0 1.83200×10^17 NP1:ϕs 15.00000°, δ49.00000°, λ-90.00000°. NP2:ϕs 195.00000°, δ41.00000°, λ-90.00000°. Principal axes: T 1.9610, Plg4.0000°, Azm105.0000°; N -0.2630, Plg0.0000°, Azm15.0000°; P -1.7020, Plg86.0000°, Azm284.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*
*NEIC **23** 10:52:07.0±0.1, 33.82S×178.34W, h10km, mb5.7/137, MS5.3/117 Error ellipse: s-maj=5.3km s-min=2.7km az=138.0*
*ISCJB **23** 10:52:09.4±0.1, 33.85S±0.02×178.42W±0.03, h33km, mb5.6/178, MS5.2/147, Error ellipse: s-maj=4.2km s-min=1.8km az=40.7*
*MOS **23** 10:52:10.3±1.1, 33.49S×178.32W, h33km, mb5.8/37, MS5.3/17, Error ellipse: s-maj=10.4km s-min=8.4km az=80.4*
*IDC **23** 10:52:13.4±0.4, 33.54S×178.20W, h50km±3km, mb4.8/22, mb1 4.9/23, mb1mx4.9/27, mbtmp5.1/23, MS4.8/22, Ms1 4.8/22, ms1mx4.7/30, Error ellipse: s-maj=12.7km s-min=10.5km az=12.0*
**ISC 23 10:52:11.6±0.4, 33.66S±0.04×178.09W±0.04, h41km±3km, n920, σ1°75/796, mb5.7/157, MS5.3/147, 20C-20D, South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **4.40** | **2** | P | Pn | 10 53 09.0 | -6.8 |
| | 288nm,0.3s,baz=49,slow=12,SNR=13 | | | | | | |
| RAO | | | | S | **Sn** | **10 53 58.1** | **-7.7** |
|

**PNHZ Pukenui 7.74 215** *e*PN Pn 10 53 55.7 -6.1
**PRHZ Porangahau 7.83 211** *e*PN Pn 10 53 56.3 -6.6
PRHZ SN **Sn 10 55 23.5 -6.7**
**TSZ Takapari Road 7.97 215** PN Pn 10 53 59.5 -5.4
**ANWZ Angora Road 8.06 211** PN Pn 10 53 58.9 -7.2
**DVHZ Dannevirke 8.06 213** PN Pn 10 53 59.8 -6.3
**WAZ Wanganui 8.24 220** PN Pn 10 54 03.4 -5.1
**POWZ Post Office Ro 8.32 214** PN Pn 10 54 03.4 -6.3
**BFZ Birch Farm 8.34 211** *e*Pn Pn 10 54 02.8 -7.1
BFZ *e*Sn **Sn 10 55 36.5 -6.2**
**PRWZ Pori Road 8.36 213** PN Pn 10 54 03.6 -6.6
**OHWZ Ohakea 8.40 217** PN Pn 10 54 05.9 -4.8
**NEZ North Egmont 8.42 226** PN **Pn 10 54 10.4 -0.7**
**CPWZ Castlepoint 8.54 210** *e*PN Pn 10 54 05.5 -7.2
**TIWZ Tintock 8.57 212** PN Pn 10 54 05.9 -7.2
**HOWZ Holdsworth Sta 8.84 213** PN Pn 10 54 09.5 -7.3
HOWZ SN Sn 10 55 46.0 -9.0
**TMWZ Te Maipa 8.84 211** PN Pn 10 54 08.3 -8.5
**OGWZ Otaki Gorge 8.94 215** PN Pn 10 54 10.7 -7.3
**MTW Mount Morrison 9.05 212** PN Pn 10 54 12.1 -7.6
MTW SN Sn 10 55 51.6 -8.6
**KIW Kapiti Island 9.10 216** *e*PN Pn 10 54 12.1 -8.1
**CAW Cannon Point 9.21 214** *e*PN Pn 10 54 13.8 -8.1
**PAWZ Paruwai Farm 9.27 212** PN Pn 10 54 14.4 -8.2
**MSWZ Moikau Station 9.37 212** PN Pn 10 54 16.1 -8.0
**WEL Wellington 9.49 215** SN Sn 10 56 01.4 -10
**PLWZ Palliser 9.49 212** PN Pn 10 54 17.7 -8.1
**SNZO South Karori 9.54 215** *e*Pn Pn 10 54 19.8 -6.5
SNZO *e*Sn Sn 10 56 02.7 -9.5
**TCW Tory Channel 9.67 217** PN Pn 10 54 20.5 -7.6
**TUWZ Tuamarina 10.00 217** *e*PN Pn 10 54 25.0 -7.7
**CTZ Chatham Island 10.13 174** PN Pn 10 54 28.7 -5.6
**NNZ Nelson 10.14 219** PN Pn 10 54 27.3 -7.2
**BSWZ Blackbirch Sta 10.25 216** PN Pn 10 54 28.3 -7.8
**QRZ Quartz Range 10.34 224** PN Pn 10 54 29.1 -8.2
**THZ Tophouse 10.78 219** *e*Pn Pn 10 54 36.9 -6.4
THZ *e*Sn Sn 10 56 32.6 -10
**THZ Tophouse 10.78 219** PN Pn 10 54 35.8 -7.5
**KHZ Kahutara 10.95 215** *e*Pn Pn 10 54 39.5 -6.0
KHZ *e*Sn Sn 10 56 36.9 -10
**KHZ Kahutara 10.95 215** PN Pn 10 54 38.3 -7.3
**DSZ Denniston Nort 11.36 222** PN Pn 10 54 43.8 -7.5
**LTZ Lake Taylor 11.84 217** *e*Pn Pn 10 54 51.7 -6.1
LTZ *e*Sn Sn 10 57 00.3 -8.2
**LTZ Lake Taylor 11.84 217** *e*PN Pn 10 54 51.0 -6.8
**INZ Inchbonnie 12.22 219** PN Pn 10 54 55.1 -7.9
**CRLZ Canterbury Las 12.27 213** *e*Pn Pn 10 54 51.3 -12
**MQZ McQueen's Vall 12.36 213** *e*Pn Pn 10 54 52.4 -12
**OXZ Oxford 12.36 216** *e*Pn Pn 10 54 58.4 -6.5
**OXZ Oxford 12.36 216** PN Pn 10 54 56.2 -8.6
**WVZ Waitaha Valley 12.84 220** PN Pn 10 55 04.0 -7.5
**RPZ Rata Peaks 13.13 217** P Pn 10 55 09.0 -6.5
14nm,0.3s,baz=49,slow=1.5,SNR=12
RPZ S Sn 10 57 24.2 -16
16nm,0.3s,baz=213,slow=20,SNR=12
**RPZ Rata Peaks 13.13 217** *e*Pn Pn 10 55 08.8 -6.7
**RPZ Rata Peaks 13.13 217** *e*PN Pn 10 55 06.5 -8.9
**FOZ Fox Glacier 13.65 220** *e*Pn Pn 10 55 16.3 -6.2
FOZ *e*Sn Sn 10 57 39.4 -13
**FOZ Fox Glacier 13.65 220** *e*PN Pn 10 55 14.7 -7.8
**LBZ Lake Benmore 14.05 217** *e*Pn Pn 10 55 20.8 -7.1
**LBZ Lake Benmore 14.05 217** PN Pn 10 55 20.8 -7.1
**ODZ Otahua Downs 14.31 214** *e*Pn Pn 10 55 23.8 -7.6
**ODZ Otahua Downs 14.31 214** PN Pn 10 55 22.2 -9.2
**JCZ Jackson Bay 14.56 221** PN Pn 10 55 26.7 -8.3
**WKZ Wanaka 14.95 218** *e*Pn Pn 10 55 32.7 -7.3
55nm,0.8s
**MLZ Mavora Lakes 15.78 218** *e*Pn **Pn 10 55 44.5 -6.4**
76nm,0.8s
**WHZ Wether Hill Ro 16.23 217** *e*Pn **Pn 10 55 50.5 -6.0**
79nm,0.6s
**MSVF Nonsavu 16.23 347** *e*P **Pn 10 55 52.8 -4.0**
**MSVF Nonsavu 16.23 347** *e*Pn **Pn 10 55 52.1 -4.7**
471nm,1.9s
MSVF *e*Sn **Sn 10 58 57.7 +1.8**
**NIUE Niue 16.25 29** P Pn 10 55 48.2 -8.7
baz=16,SNR=4.3
**DCZ Deep Cove 16.35 220** *e*Pn **Pn 10 55 51.9 -6.2**
51nm,1.0s
**PYZ Puysegur Point 17.07 218** *e*Pn Pn 10 55 59.5 -7.5
119nm,1.0s
**DZM Mont Dzumac 17.87 306** P **P 10 56 18.5 +1.0**
1.5nm,0.3s,baz=121,slow=13,SNR=28
DZM LR LR 11 02 18.3
comp=Z,5µm,19.3s,baz=134,slow=34
**DZM Mont Dzumac 17.87 306** *e*P **P 10 56 18.5 +1.0**
1µm,1.4s
DZM *e*LR LR 11 00 35.4
13µm,29.2s
**DZM Mont Dzumac 17.87 306** *e*Pn **Pn 10 56 16.6 -0.6**
588nm,1.3s
**LHI Lord Howe Isla 19.36 270** *e*P **Pn 10 56 36.6 +1.5**
533nm,1.5s
**RAR Rarotonga 20.41 57** P **P 10 56 44.7 -0.5**
85nm,0.9s,baz=238,slow=7.4,SNR=12
RAR S S 11 00 06.5 -25
78nm,1.2s,baz=52,slow=18,SNR=2.9
RAR LR LR 11 03 48.8
comp=Z,4µm,19.6s,baz=230,slow=34
**RAR Rarotonga 20.41 57** *e*P **P 10 56 43.3 -1.9**
519nm,1.5s
**AFI Afiamalu 20.48 18** P **P 10 56 44.9 -1.2**
110nm,0.6s,baz=39,slow=1.9,SNR=21
AFI S S 11 00 13.8 -19
12nm,0.4s,baz=37,slow=20,SNR=4.5
AFI LR LR 11 05 09.0
comp=Z,1µm,21.6s,baz=195,slow=38
**AFI Afiamalu 20.48 18** *e*P **P 10 56 45.2 -0.9**
AFI pmax pmax
comp=Z,1µm,1.8s
**AFI Afiamalu 20.48 18** P **P 10 56 44.9 -1.2**
comp=Z,209nm,1.8s
**FUNA Funafuti 25.14 354** PFAKE 10 57 40.0 +7.2
FUNA LR LR
comp=Z,2µm,19.0s
**MGCD Mangrove Creek 25.66 262** P **P 10 57 39.6 +2.0**
baz=26,SNR=3.9
**ARMA Armidale 25.82 269** P **P 10 57 40.0 +0.8**
baz=26,SNR=5.7
**ARMA Armidale 25.82 269** *e*P **P 10 57 36.7 -2.5**
comp=Z,286nm,1.7s
**CNB Canberra Magne 26.81 257** P **P 10 57 49.7 +1.7**
baz=27,SNR=12
**MILA Mila 26.85 253** P **P 10 57 49.9 +1.5**
baz=27,SNR=6.0
**TBI Tubuai 27.10 75** *e*LQ LQ 11 03 07.7
comp=Z,6µm,27.1s
TBI *e*LR LR 11 04 16.0
comp=Z,5µm,28.8s,baz=238
**TBI Tubuai 27.10 75** *e*T T 11 25 30.9
comp=Z,26nm,0.3s
**CAN Canberra 27.11 257** *e*P **P 10 57 51.9 +1.2**
CAN pmax pmax
comp=Z,72nm,1.5s
**CAN Canberra 27.11 257** *e*P **P 10 57 47.0 -3.7**
comp=Z,72nm,1.5s
CAN *e*PcP **PcP 11 01 11.3 +0.6**
CAN LR LR
comp=Z,2µm,19.0s
**YNG Young 27.73 259** P **P 10 57 57.6 +1.4**
baz=28,SNR=8.5
**EIDS Eidsvold 27.99 279** P **P 10 57 58.8 +0.2**
baz=28,SNR=6.8
**EIDS Eidsvold 27.99 279** *e*P **P 10 57 56.6 -2.0**
comp=Z,64nm,1.1s
**TAU Tasmania Unive 28.51 241** *e*P **P 10 58 04.1 +1.1**
TAU pmax pmax
comp=Z,49nm,0.9s
TAU MLR MLR
comp=Z,4µm,19.0s
**TAU Tasmania Unive 28.51 241** *e*P **P 10 58 04.1 +1.1**
comp=Z,49nm,0.9s
TAU LR LR
comp=Z,4µm,19.0s
**MOO Moorlands 28.55 242** P **P 10 58 04.1 +0.7**
baz=29,SNR=12
**RMQ Roma 29.48 275** P **P 10 58 13.1 +1.3**
baz=29,SNR=11
**TOO Toolangi 29.74 252** P **P 10 58 15.6 +1.5**
baz=30,SNR=4.7
**PAE Paea 30.10 65** *e*T T 11 29 21.5
comp=Z,7.1nm,0.2s
**PPT2 Papeete2 30.15 65** *e*S **S 11 03 06.6 -7.6**
comp=Z,747nm,25.5s
PPT2 *e*LQ LQ 11 04 27.8
comp=Z,4µm,23.5s
PPT2 *e*LR LR 11 05 48.5
comp=Z,3µm,20.5s,baz=228
**PPT2 Papeete2 30.15 65** *e*T T 11 29 25.6
comp=Z,6.7nm,0.3s
**TVO Taravao 30.28 66** *e*T T 11 29 34.4
comp=Z,1.9nm,0.3s
**CMSA Cobar Meteorol 30.49 264** P **P 10 58 20.9 +0.2**
baz=30,SNR=36
**HNR Honiara 31.46 315** PFAKE 10 58 40.0 +11
HNR LR LR
comp=Z,882nm,19.0s
**ARPS Mount Arapiles 32.72 253** P **P 10 58 40.9 +0.6**
baz=33,SNR=18
**VAH Vaihoa 33.07 64** *e*T T 11 33 04.5
comp=Z,26nm,0.2s
**QLP Quilpie 33.20 272** P **P 10 58 44.5 -0.1**
baz=33,SNR=12
**STKA Stephens Creek 33.80 262** P **P 10 58 49.6 -0.1**
comp=Z,6.9nm,0.9s,baz=107,slow=7.9,SNR=9.8
STKA PcP **PcP 11 01 28.5 +0.3**
comp=Z,9.9nm,0.9s,baz=95,slow=8.6,SNR=3.5
STKA pPcP 11 01 42.3
comp=Z,18nm,0.8s,baz=96,slow=6.9,SNR=7.7
STKA LR LR 11 12 13.5
comp=Z,2µm,18.8s,baz=93,slow=36
**STKA Stephens Creek 33.80 262** P **P 10 58 50.0 +0.3**
baz=34,SNR=10
**STKA Stephens Creek 33.80 262** *e*P **P 10 58 49.7 -0.1**
STKA 11 01 28.5
STKA pmax pmax
comp=Z,5.0nm,1.0s
**STKA Stephens Creek 33.80 262** *e*P **P 10 58 49.6 -0.1**
comp=Z,4.7nm,1.0s
STKA PcP **PcP 11 01 28.5 +0.3**
**CTA Charters Tower 34.38 284** P **P 10 58 54.8 -0.1**
comp=Z,32nm,0.5s,baz=114,slow=11,SNR=56
CTA pP **pP 10 59 08.3 +2.1**
comp=Z,49nm,0.5s,baz=114,slow=10,SNR=12
CTA S **S 11 04 20.4 +0.5**
comp=Z,3.9nm,0.8s,baz=216,slow=19,SNR=4.4
CTA LR LR 11 12 26.0
comp=Z,438nm,18.7s,baz=110,slow=35
**CTAO Charters Tower 34.38 284** *e*P **P 10 58 54.8 -0.1**
CTAO pmax pmax
comp=Z,56nm,0.6s
CTAO MLR MLR
comp=Z,2µm,19.0s
**CTAO Charters Tower 34.38 284** *e*P **P 10 58 54.8 -0.1**
comp=Z,56nm,0.6s
CTAO LR LR
comp=Z,2µm,19.0s
**TARA Tarawa 35.84 345** PFAKE 10 59 20.0 +13
TARA LR LR
comp=Z,199nm,20.0s
**MTSU Mount Surprise 36.95 285** P **P 10 59 17.0 +0.1**
baz=37,SNR=46
**BBOO Buckleboo 38.12 258** P **P 10 59 25.2 -1.4**
baz=38,SNR=9.8
**BBOO Buckleboo 38.12 258** *e*P **P 10 59 25.3 -1.4**
comp=Z,28nm,1.0s
**RKT Rikitea 39.12 86** *e*S S 11 05 21.5 -11
comp=Z,695nm,26.5s
RKT *e*LR LR 11 09 37.2
comp=Z,6µm,29.8s
**RKT Rikitea 39.12 86** *e*T T 11 40 26.0
comp=Z,1.8nm,0.3s
**QIS Mount Isa 39.59 278** P **P 10 59 38.4 -0.7**
baz=40,SNR=12
**PMG Port Moresby 40.02 299** P **P 10 59 41.8 -0.9**
comp=Z,37nm,1.0s,baz=96,slow=4.5,SNR=13
PMG PcP **PcP 11 01 47.4 +0.2**
comp=Z,38nm,1.0s,baz=289,slow=0.9,SNR=4.9
PMG pPcP 11 02 01.9
comp=Z,57nm,1.0s,baz=69,slow=6.1,SNR=7.7
PMG LR LR 11 15 44.3
comp=Z,2µm,18.4s,baz=136,slow=35
**PMG Port Moresby 40.02 299** *de*P **P 10 59 41.5 -1.2**
PMG pmax pmax
comp=Z,277nm,1.7s
**PMG Port Moresby 40.02 299** *e*P **P 10 59 42.0 -0.7**
comp=Z,67nm,1.1s
PMG PcP **PcP 11 01 47.4 +0.2**
**COEN Coen 40.19 290** P **P 10 59 43.8 -0.4**
baz=40,SNR=9.3
**COEN Coen 40.19 290** *e*P **P 10 59 43.7 -0.4**
comp=Z,155nm,1.7s
**XMAS Kiritimati 40.50 33** PFAKE 11 00 00.0 +13
XMAS LR LR
comp=Z,5.0nm,20.0s
**PTCN Pitcairn Islan 42.38 91** PFAKE 11 00 10.0 +7.9
PTCN LR LR
comp=Z,3µm,20.0s
**TAOE Nuku Hiva Isla 42.74 64** *e*S **S 11 06 20.8 -5.6**
comp=Z,987nm,24.4s
TAOE *e*LQ LQ 11 09 53.2
comp=Z,5µm,29.6s
TAOE *e*LR LR 11 11 18.9
comp=Z,2µm,21.0s,baz=230
**AS01 Alice Springs 42.92 270** *e*P **P 11 00 04.1 -2.4**
**AS31 Alice Springs 42.96 270** *e*P **P 11 00 04.7 -2.1**
comp=Z,36nm,0.6s
**ASAR Alice Springs 42.96 270** P **P 11 00 05.3 -1.5**
comp=Z,34nm,0.6s,baz=112,slow=7.5,SNR=312
ASAR pP **pP 11 00 19.8 +1.4**
comp=Z,109nm,0.7s,baz=111,slow=7.3,SNR=28
ASAR PcP **PcP 11 01 57.0 +0.2**
comp=Z,10nm,0.9s,baz=127,slow=3.8,SNR=5.2
ASAR pPcP 11 02 10.8
comp=Z,17nm,0.8s,baz=126,slow=3.6,SNR=7.2
ASAR S **S 11 06 23.7 -5.6**
comp=Z,5.6nm,0.8s,baz=115,slow=15,SNR=12
ASAR ScS **ScS 11 10 03.3 -1.1**
comp=Z,1.4nm,1.1s,baz=81,slow=8.0,SNR=4.2
**WB2 Warramunga Arr 44.23 276** *e*P **P 11 00 15.5 -1.6**
**WRAB Tennant Creek 44.23 276** *de*P **P 11 00 15.2 -1.9**
WRAB pmax pmax
comp=Z,373nm,1.7s
**WRAB Tennant Creek 44.23 276** *e*P **P 11 00 15.4 -1.7**
comp=Z,102nm,0.7s
WRAB LR LR
comp=Z,1µm,20.0s
**WR1 Warramunga Arr 44.24 276** *e*P **P 11 00 15.3 -1.8**
WR1 *e*PP **PP 11 02 00.7 -0.1**
**WRA Warramunga Arr 44.24 276** P **P 11 00 15.3 -1.8**
comp=Z,52nm,0.7s,baz=116,slow=8.1,SNR=276
WRA pP **pP 11 00 29.9 +1.2**
comp=Z,98nm,0.7s,baz=118,slow=7.4,SNR=24
WRA PcP **PP 11 02 00.7 -0.1**
comp=Z,15nm,0.9s,baz=120,slow=3.0,SNR=6.7
WRA pPcP 11 02 14.8
comp=Z,25nm,0.9s,baz=118,slow=3.4,SNR=7.2
WRA ScP **ScP 11 05 50.6 +0.8**
comp=Z,1.0nm,0.7s,baz=120,slow=3.7,SNR=3.9
WRA S **S 11 06 43.8 -4.2**
comp=Z,6.9nm,1.1s,baz=114,slow=14,SNR=6.5
**SBA Scott Base 44.79 185** *e*P **P 11 00 21.4 +0.6**
SBA pmax pmax
comp=Z,164nm,1.5s
SBA MLR MLR
comp=Z,1µm,20.0s
**SBA Scott Base 44.79 185** *e*P **P 11 00 21.4 +0.6**
comp=Z,164nm,1.5s
SBA LR LR
comp=Z,1µm,20.0s
**VNDA Vanda 44.85 186** P **P 11 00 23.0 +1.7**
comp=Z,1.9nm,0.6s,baz=23,slow=7.4,SNR=10
VNDA pP **sP 11 00 37.0 -0.8**
comp=Z,5.0nm,0.7s,baz=355,slow=7.0,SNR=8.2
VNDA LR LR 11 16 55.9
comp=Z,2µm,20.4s,baz=21,slow=33
**FORT Forrest 45.22 258** P **P 11 00 23.5 -1.3**
baz=45,SNR=6.0
**FORT Forrest 45.22 258** *e*P **P 11 00 23.0 -1.8**
comp=Z,309nm,0.6s
**WRKA Warakurna 47.08 266** P **P 11 00 37.1 -2.4**
baz=47,SNR=99
**JAY Jayapura 49.38 300** P **P 11 00 54.8 -2.6**
comp=Z,550nm,1.4s,comp=Z,9µm
**GENI Genyem 49.72 299** P **P 11 00 59.3 -0.6**
**MTN Manton Dam 50.49 282** P **P 11 01 04.7 -1.0**
baz=50,SNR=3.3
**KNRA Kununurra 50.95 277** P **P 11 01 08.1 -1.1**
baz=51,SNR=30
**NWAO Narrogin (SRO) 53.24 252** P **P 11 01 23.8 -2.2**
comp=Z,5.7nm,0.7s,baz=332,slow=11,SNR=4.9
NWAO LR LR 11 22 00.7
comp=Z,657nm,20.0s,baz=324,slow=34
**KLBR Kellerberrin 53.28 253** P **P 11 01 24.3 -2.1**
baz=53,SNR=11
**BAKI Biak 53.65 297** P **P 11 01 28.2 -1.0**
**MUN Mundaring 54.38 252** P **P 11 01 32.7 -1.8**
baz=54,SNR=6.4
**MEEK Meekatharra 54.44 259** P **P 11 01 33.7 -1.3**
baz=54,SNR=5.5
**FAKI Fak Fak 55.45 292** P **P 11 01 40.2 -2.1**
**FAKI Fak Fak 55.45 292** *e*P **P 11 01 39.7 -2.6**
comp=Z,183nm,1.4s
**MORW Morawa 55.59 256** P **P 11 01 41.3 -1.9**
baz=56,SNR=10
**MBWA Marble Bar 55.85 266** *e*P **P 11 01 42.9 -2.3**
comp=Z,27nm,0.8s
MBWA LR LR
comp=Z,1µm,19.0s
**QSPA South Pole Qui 56.46 180** *e*P **P 11 01 51.1 +2.0**
comp=Z,623nm,1.3s
QSPA LR LR
comp=Z,2µm,20.0s
**HPAH Hawaii Prepara 57.50 25** *e*P **P 11 01 57.6 +0.8**
comp=Z,398nm,1.3s
**SWI Sorong 57.52 294** P **P 11 01 55.9 -1.1**
**MSAI Masohi 57.77 290** P **P 11 01 57.5 -1.3**
**SOEI Soe 57.80 280** P **P 11 01 59.0 -0.2**
**SOEI Soe 57.80 280** *e*P **P 11 01 59.3 +0.1**
comp=Z,327nm,1.4s
**KIP Kipapa 58.02 22** *e*P **P 11 02 00.2 -0.1**
KIP pmax pmax
comp=Z,2µm,1.6s
**KIP Kipapa 58.02 22** *e*P **P 11 02 00.2 -0.1**
comp=Z,2µm,1.6s
**AAI Ambon 58.14 289** P **P 11 01 59.8 -1.6**
**RPN Rapa Nui 58.70 104** P **P 11 02 06.5 +1.3**
comp=Z,84nm,1.2s,baz=243,slow=4.5,SNR=3.5
RPN LR LR 11 22 14.5
comp=Z,2µm,18.9s,baz=242,slow=31
**MIR Mirnyy 59.20 208** *i*P **P 11 02 10.0 +2.0**
MIR pmax pmax
comp=Z,11nm,1.9s
**NLAI Namlea 59.28 288** P **P 11 02 07.9 -1.4**
**MMRI Maumere 60.08 280** P **P 11 02 13.8 -1.1**
**MMRI Maumere 60.08 280** *e*P **P 11 02 13.7 -1.2**
comp=Z,371nm,1.4s
**EDFI Ende, Flores 60.47 280** P **P 11 02 16.1 -1.6**
**LBMI Labuha 60.56 291** P **P 11 02 16.5 -1.6**
**BASI Baing, Sumba 60.59 277** P **P 11 02 17.7 -0.6**
**SANI Sanana 60.88 289** P **P 11 02 17.7 -2.6**
**WSI Waingapu 61.11 278** P **P 11 02 20.8 -1.1**
**MIDW Midway 61.54 1** *e*P **P 11 02 23.8 -0.5**
comp=Z,254nm,1.3s
**WBSI Waikabubak, Su 61.88 277** P **P 11 02 25.3 -1.8**
**PLAI Plampang 63.66 277** P **P 11 02 38.1 -0.8**
**LUWI Luwuk 64.04 287** P **P 11 02 40.6 -0.8**
**LUWI Luwuk 64.04 287** *e*P **P 11 02 40.1 -1.3**
comp=Z,111nm,1.2s
**KAPI Kappang 64.15 282** PFAKE 11 02 50.0 +7.8
KAPI LR LR
comp=Z,525nm,19.0s
**TTSI Tana Toraja 65.23 284** P **P 11 02 47.8 -1.4**
**DAV Davao City (W) 66.95 296** PFAKE 11 03 10.0 +10
DAV LR LR
comp=Z,246nm,21.0s
**MAW Mawson 69.24 201** P **P 11 03 15.2 +1.4**
comp=Z,17nm,1.2s,baz=134,slow=5.7,SNR=13
MAW LR LR 11 32 32.9
comp=Z,2µm,20.5s,baz=102,slow=35
**MAW Mawson 69.24 201** P **P 11 03 15.1 +1.3**
baz=69,SNR=9.2
**PMSA Palmer Station 69.34 155** PFAKE 11 03 30.0 +16
PMSA LR LR
comp=Z,1µm,20.0s
**PCJI Pacitan 69.48 274** P **P 11 03 14.9 -1.2**
**CISI Cisompet, Garu 72.62 272** *e*P **P 11 03 31.4 -3.9**
comp=Z,52nm,0.7s
**KKM Kota Kinabalu 73.52 289** PFAKE 11 03 50.0 +9.5
KKM LR LR
comp=Z,367nm,21.0s
**SYO Syowa Base 73.93 193** ⇑ *i*P **P 11 03 41.1 -0.9**
**SYO Syowa Base 73.93 193** ⇓ *i*pP **P 11 03 44.0 +2.0**
**SNAA Sanae 74.91 178** P **P 11 03 48.4 +0.6**
**SNAA Sanae 74.91 178** LR LR 11 33 38.3
comp=Z,882nm,20.9s,baz=175,slow=33
**SNAA Sanae 74.91 178** *d*-*i*P **P 11 03 47.7 -0.1**
**SNAA Sanae 74.91 178** *e*P **P 11 03 48.1 +0.4**
comp=Z,6µm,1.3s
**VNA3 Neumayer Olymp 75.07 176** P **P 11 03 49.0 +0.4**
**VNA2 Neumayer--Watz 75.50 177** P **P 11 03 51.9 +0.8**
baz=174,slow=4.3
**KSM Kuching 75.58 282** *e*P **P 11 03 50.5 -1.9**
KSM *e*PcP **PcP 11 04 05.1 -0.1**
KSM LR LR
comp=Z,484nm,21.0s
**NVL N'lazarevskaya 75.63 183** *e*P **P 11 03 52.9 +1.1**
NVL *e*S **S 11 13 30.0 +0.6**
NVL MLR MLR
comp=Z,2µm,24.0s
**VNA1 Neumayer--Stat 75.73 177** P **P 11 03 53.4 +1.0**
**PAF Port-aux-Franc 77.54 218** PFAKE 11 04 10.0 +7.1
PAF LR LR
comp=Z,2µm,19.0s
**EFI East Falkland 80.11 147** PFAKE 11 04 30.0 +13
EFI LR LR
comp=Z,2µm,20.0s
**PLCA Paso Flores 80.35 133** P **P 11 04 19.4 +0.7**
comp=Z,22nm,1.1s,baz=261,slow=5.5,SNR=15
PLCA LR LR 11 33 37.2
comp=Z,352nm,18.5s,baz=272,slow=31
**MJAR Matsushiro Arr 80.88 326** P **P 11 04 20.3 -0.9**
comp=Z,4.6nm,0.9s,baz=155,slow=4.8,SNR=6.4
MJAR LR LR 11 36 13.6
comp=Z,282nm,20.9s,baz=120,slow=33
**MAJO Matsushiro 80.88 326** *e*P **P 11 04 20.0 -1.2**
MAJO pmax pmax
comp=Z,8.0nm,1.0s
**MAT Matsushiro 80.88 326** P **P 11 04 19.4 -1.8**
**YHNB Yeheng 81.70 307** PFAKE 11 04 40.0 +14
YHNB LR LR
comp=Z,687nm,19.0s
**GO05 HualaæØ 82.85 127** *e*P **P 11 04 32.7 +0.8**
comp=Z,63nm,1.3s
**PEL Peldehue 84.79 126** *e*P **P 11 04 42.9 +1.0**
PEL pmax pmax
comp=Z,108nm,1.2s
**PEL Peldehue 84.79 126** *e*P **P 11 04 42.9 +1.0**
comp=Z,108nm,1.2s
**KULM Kulim 85.66 279** PFAKE 11 05 00.0 +14
KULM LR LR
comp=Z,622nm,20.0s
**AUSP Uspallata 86.21 126** *e*P **P 11 04 51.2 +1.9**
**SLBS Sierra La Lagu 86.32 58** *e*P **P 11 04 51.1 +1.7**
comp=Z,159nm,1.5s
**QIZ Qiongzhong 86.32 296** P **P 11 04 49.8 +0.3**
QIZ S **S 11 15 24.3 +2.2**
QIZ pmax pmax
comp=Z,360nm,4.6s
**QIZ Qiongzhong 86.32 296** PFAKE 11 05 00.0 +11
QIZ LR LR
comp=Z,611nm,20.0s
**HOPE Hope Point 86.36 159** PFAKE 11 05 00.0 +11
HOPE LR LR
comp=Z,737nm,19.0s
**ASAL Salagasta 86.36 127** *e*P **P 11 04 51.0 +1.3**
**SNCC San Nicolas Is 86.36 46** P **P 11 04 50.5 +1.1**
baz=225
**SCI2 San Clemente I 86.76 47** P **P 11 04 52.9 +1.6**
baz=226
**KSRS Korea Array 86.78 320** P **P 11 04 52.0 +0.8**
comp=Z,5.0nm,1.0s,baz=129,slow=6.1,SNR=8.4
KSRS LR LR 11 38 20.3
comp=Z,121nm,21.6s,baz=129,slow=32
**KS15 Wonju Array Si 86.79 320** *e*P **P 11 04 52.6 +1.3**
**KSAR Wonju Array Be 86.79 320** P **P 11 04 52.0 +0.7**
**KSAR Wonju Array Be 86.79 320** P **P 11 04 52.0 +0.7**
**KS01 Wonju Array Si 86.81 320** *e*P **P 11 04 51.4 0.0**
**SCZ2 Santa Cruz Isl 86.82 45** P **P 11 04 53.2 +1.6**
baz=225
**SKR Severo-Kuril's 87.01 344** *e*P **P 11 04 49.9 -2.1**
SKR *e*S **S 11 15 30.0 +2.6**
SKR pmax pmax
comp=Z,900nm,4.5s
SKR pmax pmax
comp=Z,98nm,1.6s

**SBC Santa Barbara** 87.09 45 P P 11 04 54.3 +1.4
baz=225
**CIS Catalina Islan** 87.14 46 P P 11 04 54.4 +1.2
baz=226,SNR=5.9
**TRQA Tornquist** 87.20 135 PFAKE 11 05 10.0 +16
TRQA LR LR
comp=Z,679nm,20.0s
**BLG Laguna Peak, P** 87.24 45 P P 11 04 54.9 +1.3
baz=226
**LCO Las Campanas** 87.26 123 eP P 11 04 54.9 +0.5
comp=Z,86nm,1.4s
LCO LR LR
comp=Z,2μm,20.0s
**PKM Mcpherson Peak** 87.34 44 P P 11 04 56.1 +1.7
baz=225
**FMP Fort Macarthur** 87.42 46 P P 11 04 56.0 +1.5
baz=226
**INCN Inchon** 87.50 319 PFAKE 11 05 10.0 +15
INCN LR LR
comp=Z,602nm,22.0s
**109C Camp Elliot, M** 87.58 47 P P 11 04 56.6 +1.3
baz=227,SNR=5.4
**PAGB Antelope Grade** 87.68 44 eP P 11 04 57.6 +1.9
comp=Z,233nm,1.4s
**BAR Barrett** 87.70 48 eP P 11 04 57.8 +1.8
comp=Z,84nm,1.3s
**PMPB Monarch Peak** 87.71 43 eP P 11 04 57.6 +1.7
comp=Z,222nm,1.4s
**SAO San Andreas Ge** 87.74 42 eP P 11 04 57.3 +1.4
SAO pmax pmax
comp=Z,289nm,2.0s
**SAO San Andreas Ge** 87.74 42 eP P 11 04 57.3 +1.4
comp=Z,289nm,2.0s
**DECC Green Verdugo** 87.77 46 P P 11 04 57.2 +0.9
baz=226
**OSI Osito Audit: C** 87.79 45 P P 11 04 57.8 +1.5
baz=226,SNR=5.0
**OSI Osito Audit: C** 87.79 45 eP P 11 04 58.4 +2.0
comp=Z,122nm,1.3s
**PAYG Puerto Ayora** 87.80 89 PFAKE 11 05 10.0 +13
PAYG LR LR
comp=Z,1μm,19.0s
**PASC Pasadena Art C** 87.81 46 eP P 11 04 58.0 +1.7
comp=Z,68nm,1.2s
**TRTT Trang** 87.87 281 P P 11 04 57.5 +0.4
comp=Z,16nm,1.4s
**MWC Mount Wilson** 87.92 46 eP P 11 04 58.2 +1.1
MWC pmax pmax
comp=Z,107nm,1.3s
**MWC Mount Wilson** 87.92 46 eP P 11 04 58.2 +1.1
comp=Z,107nm,1.3s
**MCCM Marconi Confer** 87.94 40 eP P 11 04 58.4 +1.6
comp=Z,587nm,1.7s
**MONP2 Monument Peak** 88.00 48 P P 11 04 59.3 +1.7
baz=227
**MURC Murrieta** 88.01 47 P P 11 04 58.9 +1.5
baz=227,SNR=28
**IKP In-Ko-Pah, Jac** 88.03 48 P P 11 04 59.5 +1.9
baz=227,SNR=15
**RDG13 Poverty Ridge** 88.05 42 eP P 11 04 59.1 +1.6
comp=Z,221nm,1.5s
**ARVC Arvin** 88.08 45 P P 11 04 59.1 +1.4
baz=226,SNR=17
**BFSC Mount Baldy Ra** 88.17 46 P P 11 04 59.6 +1.4
baz=226,SNR=23
**NJ2 Nanjing** 88.30 311 eP P 11 04 58.9 +0.2
NJ2 pP PcP 11 05 03.1 +2.7
NJ2 pmax pmax
comp=Z,24nm,1.2s
**EDW2 Edwards Air Fo** 88.41 45 P P 11 05 00.9 +1.6
baz=226,SNR=38
**SWSC Sam W. Stewart** 88.42 48 P P 11 05 01.1 +1.9
baz=228,SNR=8.7
**VES Vestal, Richgr** 88.43 44 P P 11 05 00.1 +0.8
baz=226
**HOPS Hopland Field** 88.46 40 eP P 11 05 00.8 +1.4
comp=Z,138nm,1.4s
**PFO Pinyon Flats O** 88.47 47 P P 11 05 01.4 +1.8
baz=227,SNR=20
**PFO Pinyon Flats O** 88.47 47 eP P 11 05 00.7 +1.0
PFO pmax pmax
comp=Z,91nm,1.3s
PFO MLR MLR
comp=Z,2μm,20.0s
**PFO Pinyon Flats O** 88.47 47 eP P 11 05 00.7 +1.0
comp=Z,91nm,1.3s
PFO LR LR
comp=Z,2μm,20.0s
**XPFO Piæon Flat** 88.47 47 eP P 11 05 01.2 +1.5
comp=Z,118nm,1.3s
**AGUA GUANDACOL** 88.50 125 eP P 11 05 01.8 +1.7
**BBRC Big Bear Solar** 88.63 47 P P 11 05 02.0 +1.5
baz=227
**RCTC Rector, Farmer** 88.66 44 P P 11 05 00.9 +0.6
baz=226,SNR=10.0
**ISA Isabella, Lake** 88.67 45 P P 11 05 02.1 +1.6
baz=226,SNR=29
**ISA Isabella, Lake** 88.67 45 eP P 11 05 02.1 +1.6
ISA pmax pmax
comp=Z,132nm,1.1s
**ISA Isabella, Lake** 88.67 45 eP P 11 05 02.1 +1.6
comp=Z,132nm,1.1s
**PET Petropavlovsk** 88.67 346 eP P 11 04 57.9 -2.0
PET eS S 11 15 39.4 -3.7
PET ePS PnS 11 16 44.1 -7.5
PET eSSS SSS 11 25 11.7
PET pmax pmax
comp=Z,800nm,3.2s
PET pmax pmax
comp=Z,55nm,1.9s
PET pmax pmax
comp=Z,400nm,4.3s
**PET Petropavlovsk** 88.67 346 eP P 11 05 00.5 +0.6
comp=Z,233nm,1.9s
PET LR LR
comp=Z,707nm,20.0s
**KCPM Cahto Peak** 88.69 39 eP P 11 05 02.6 +2.1
comp=Z,104nm,1.3s
**PEA0B Petropavlovsk-** 88.94 346 eP P 11 05 01.8 +0.6
comp=Z,354nm,1.4s
**PETK Petropavlovsk-** 88.94 346 P P 11 05 01.6 +0.4
comp=Z,43nm,1.0s,baz=111,slow=7.0,SNR=34
PETK pP pP 11 05 16.4 +2.6
comp=Z,40nm,0.9s,baz=120,slow=7.5,SNR=8.9
PETK LR LR 11 39 40.9
comp=Z,759nm,20.6s,baz=156,slow=32
**PEA1 Petropavlovsk-** 88.94 346 eP P 11 05 01.6 +0.4
**HSIG** 89.00 54 eP P 11 05 03.8 +1.7
comp=Z,150nm,1.5s
**RRX Edison Barstow** 89.00 46 P P 11 05 03.6 +1.5
baz=227,SNR=5.2
**LRMC Laurel Mtn Rad** 89.00 45 P P 11 05 03.7 +1.5
baz=226,SNR=41
**BELC Belle Mtn. Jos** 89.01 47 P P 11 05 04.2 +1.9
baz=227,SNR=7.6
**KMRM Mail Ridge** 89.02 39 eP P 11 05 03.8 +1.8
comp=Z,85nm,1.3s
**GLA Glamis** 89.10 49 P P 11 05 04.8 +2.3
baz=228,SNR=7.6
**GLA Glamis** 89.10 49 eP P 11 05 05.1 +2.5
GLA pmax pmax
comp=Z,133nm,1.3s
**GLA Glamis** 89.10 49 eP P 11 05 05.1 +2.5
comp=Z,132nm,1.3s
**BC3 Big Chuckawall** 89.12 48 P P 11 05 04.9 +2.2
baz=228,SNR=9.1
**VCA Vinchina** 89.16 124 eP P 11 05 03.6 +0.3
**CMB Columbia Colle** 89.23 42 eP P 11 05 04.0 +0.9
CMB pmax pmax
comp=Z,485nm,1.3s
**CMB Columbia Colle** 89.23 42 eP P 11 05 04.0 +0.9
comp=Z,485nm,1.3s
**APLL PUNTA DE LOS L** 89.26 127 eP P 11 05 04.4 +0.8
**HEC Hector,Ludlow** 89.37 46 P P 11 05 05.6 +1.7
baz=227,SNR=13
**CWC Cottonwood Cre** 89.43 44 P P 11 05 05.4 +1.3
baz=226
**KHMM Horse Mountain** 89.49 38 eP P 11 05 05.2 +0.9
comp=Z,67nm,1.2s
**MPMC Manual Prospec** 89.52 45 P P 11 05 06.2 +1.5
baz=226,SNR=36
**AFDM Forest Hills D** 89.56 41 eP P 11 05 05.3 +0.8
comp=Z,75nm,1.3s
**113A Mohawk Valley,** 89.58 49 eP P 11 05 06.6 +1.9
comp=Z,109nm,1.4s
**ACLC CERRO LA CRUZ** 89.59 126 eP P 11 05 05.7 +0.3
**SKNT Sakolnakorn** 89.61 291 P P 11 05 06.1 +0.9
comp=Z,52nm,1.3s
**IRM Iron Mountain** 89.64 48 P P 11 05 07.3 +2.2
baz=228,SNR=76
**MDPB Devils Postpil** 89.69 43 eP P 11 05 07.1 +1.6
comp=Z,62nm,1.4s
**ORV Oroville** 89.71 40 eP P 11 05 06.2 +1.0
ORV pmax pmax
comp=Z,58nm,1.4s
**ORV Oroville** 89.71 40 eP P 11 05 06.2 +1.0
comp=Z,58nm,1.4s
**GMRC Granite Mounta** 89.75 47 P P 11 05 07.7 +2.0
baz=228,SNR=32
**Y12C Blythe** 89.76 48 P P 11 05 07.7 +2.1
baz=228,SNR=12
**Y12C Blythe** 89.76 48 eP P 11 05 08.1 +2.5
comp=Z,90nm,1.2s
**TIN Tinemaha, Big** 89.77 44 P P 11 05 07.1 +1.4
baz=226
**MLAC Mammoth, Mammo** 89.82 43 P P 11 05 07.8 +1.7
baz=226,SNR=15
**USRK Ussuriysk Ar.** 89.83 327 P P 11 05 05.8 +0.2
comp=Z,6.8nm,1.0s,baz=211,slow=2.2,SNR=7.7
USRK LR LR 11 41 22.0
comp=Z,330nm,20.2s,baz=125,slow=33
**KRMB Red Mountain** 89.88 38 eP P 11 05 08.1 +2.0
comp=Z,94nm,1.4s
**WDC Whiskeytown Da** 89.89 39 eP P 11 05 07.3 +1.3
WDC pmax pmax
comp=Z,102nm,1.3s
**WDC Whiskeytown Da** 89.89 39 eP P 11 05 07.3 +1.3
comp=Z,102nm,1.3s
**TUQ Turquoise Moun** 90.03 46 P P 11 05 08.9 +2.0
baz=227,SNR=27
**O03D Paynes Creek** 90.08 40 P P 11 05 07.8 +0.8
baz=224,SNR=29
**N02D Trinity Center** 90.09 39 P P 11 05 08.9 +1.8
baz=233,SNR=50
**WAKR Walker** 90.09 42 eP P 11 05 08.7 +1.4
comp=Z,94nm,1.3s
**SHOC Shoshone, Teco** 90.13 46 P P 11 05 08.9 +1.6
baz=227
**KHON Khomkaen** 90.15 289 P P 11 05 08.7 +0.9
comp=Z,13nm,1.2s,comp=Z,3μm
**FURC Furnace Creek,** 90.16 45 P P 11 05 08.8 +1.5
baz=227,SNR=12
**NAYO Nakonayok** 90.19 287 P P 11 05 08.8 +0.8
comp=Z,24nm,1.4s,comp=Z,656nm
**KBO Bosley Butte** 90.22 37 eP P 11 05 09.8 +2.1
comp=Z,157nm,1.5s
**GRAC Grapevine Rang** 90.23 44 P P 11 05 09.6 +1.9
baz=227,SNR=24
**M02C Callahan** 90.32 38 P P 11 05 10.0 +1.9
baz=223,SNR=30
**PDMCI Parker Dam,Lak** 90.36 48 P P 11 05 10.5 +2.2
baz=228,SNR=13
**NEE2 Needles Airpor** 90.37 47 P P 11 05 10.5 +2.1
baz=228,SNR=33
**MOIG Morelia** 90.38 67 eP P 11 05 11.2 +2.1
comp=Z,97nm,1.4s
**PNTR Pine Nut** 90.41 42 eP P 11 05 09.4 +0.6
comp=Z,82nm,1.1s
**L02D Cave Junction,** 90.50 37 P P 11 05 10.4 +1.6
baz=223,SNR=12
**YERR Yerginn** 90.54 42 eP P 11 05 10.4 +1.1
comp=Z,46nm,1.1s
**BEKR Beckworth** 90.55 41 eP P 11 05 10.2 +0.9
comp=Z,47nm,1.3s
**CHAI Chaiyaphum** 90.56 289 P P 11 05 10.5 +0.8
comp=Z,5.9nm,1.3s
**YBH Yreka Blue Hor** 90.64 38 eP P 11 05 10.8 +1.2
YBH pmax pmax
comp=Z,60nm,1.3s
**YBH Yreka Blue Hor** 90.64 38 eP P 11 05 10.8 +1.2
comp=Z,60nm,1.3s
**KEBM Edson Butte** 90.66 36 eP P 11 05 11.5 +1.9
comp=Z,172nm,1.3s
**NV01 Mina Array Sit** 90.68 43 eP P 11 05 10.0 -0.1
**NVAR Mina Array Bea** 90.68 43 P P 11 05 11.0 +1.0
comp=Z,29nm,1.0s,baz=218,slow=7.3,SNR=92
NVAR pP pP 11 05 25.5 +2.8
comp=Z,3.8nm,0.8s,baz=224,slow=8.4,SNR=3.8
NVAR PKKPbc PKKPbc 11 22 38.4 +1.4
comp=Z,0.5nm,0.6s,baz=65,slow=3.9,SNR=4.5
**PHET Kaeng Krachan** 90.76 285 P P 11 05 11.8 +1.2
comp=Z,9.6nm,1.3s
**NV11 Mina Array Sit** 90.77 43 eP P 11 05 11.0 +0.7
comp=Z,2.9nm,1.1s
**Y14A Wickenburg** 90.83 49 eP P 11 05 11.9 +1.3
comp=Z,276nm,1.1s
**TPNV Topopah Spring** 90.85 45 P P 11 05 12.5 +1.7
baz=227,SNR=17
**TPNV Topopah Spring** 90.85 45 eP P 11 05 12.1 +1.3
TPNV pmax pmax
comp=Z,39nm,1.0s
**TPNV Topopah Spring** 90.85 45 eP P 11 05 12.1 +1.3
comp=Z,39nm,1.0s
**NONG Nongkai** 90.88 291 P P 11 05 11.4 +0.3
comp=Z,63nm,1.3s,comp=Z,6μm
**PAHR Pah Rah Range** 90.97 41 eP P 11 05 12.1 +0.8
comp=Z,53nm,1.3s
**CYA Choya** 90.99 125 eP P 11 05 12.3 +0.6
**W13A Hualapai Mount** 91.04 48 eP P 11 05 13.7 +1.9
comp=Z,60nm,1.1s
**M04C Macdoel** 91.13 38 P P 11 05 13.0 +1.1
baz=224,SNR=16
**TLIG Tlapa** 91.19 70 eP P 11 05 14.2 +1.5
comp=Z,63nm,1.6s
**SHPR Sheep Range** 91.20 46 eP P 11 05 13.8 +1.4
comp=Z,65nm,1.4s
**TUC Tucson** 91.20 51 P P 11 05 14.7 +2.2
baz=230
**TUC Tucson** 91.20 51 eP P 11 05 14.4 +1.9
TUC MLR MLR
comp=Z,1μm,19.0s
**TUC Tucson** 91.20 51 eP P 11 05 14.3 +1.9
TUC LR LR
comp=Z,1μm,19.0s
**KVN Kaiserville** 91.22 42 eP P 11 05 13.3 +0.8
KVN pmax pmax
comp=Z,36nm,1.1s
**KVN Kaiserville** 91.22 42 eP P 11 05 13.3 +0.8
comp=Z,36nm,1.1s
**MDJ Mudanjiang** 91.26 326 P P 11 05 12.8 +0.6
MDJ pmax pmax
comp=Z,16nm,1.5s
MDJ pmax pmax
comp=Z,700nm,4.5s
**MDJ Mudanjiang** 91.26 326 eP P 11 05 12.9 +0.6
comp=Z,106nm,2.0s
MDJ LR LR
comp=Z,627nm,19.0s
**319A Douglas** 91.60 53 eP P 11 05 16.6 +2.3
comp=Z,60nm,1.2s
**PBKT Sadao Pong** 91.74 289 P P 11 05 15.8 +0.7
comp=Z,25nm,1.4s,comp=Z,976nm
**I03D Drain, OR** 91.75 36 P P 11 05 16.0 +1.4
baz=223,SNR=13
**K04D Chiloquin, OR** 91.78 38 P P 11 05 16.0 +1.1
baz=224,SNR=5.0
**HABR Khabarovsk** 91.85 331 eP P 11 05 14.1 -0.7
HABR e 11 08 51.2
HABR ePPP PPP 11 10 49.6
HABR e 11 16 16.0
HABR eSS SS 11 22 21.2 -1.0
HABR eSSS SSS 11 26 00.1
HABR pmax pmax
comp=N,29nm,2.0s
HABR pmax pmax
comp=E,74nm,2.0s
HABR pmax pmax
comp=Z,28nm,2.0s
HABR MLR MLR
comp=Z,254nm,21.0s
**SRDT SRDT** 91.97 286 P P 11 05 17.0 +0.8
comp=Z,36nm,1.4s,comp=Z,2μm
**MOD Modoc Plateau** 92.02 39 eP P 11 05 16.4 +0.3
comp=Z,40nm,1.2s
**J04D Umpqua Nationa** 92.04 37 P P 11 05 17.4 +1.2
baz=224,SNR=9.9
**R11A Troy Canyon, C** 92.19 44 P P 11 05 17.9 +1.0
baz=228,SNR=5.9
**R11A Troy Canyon, C** 92.19 44 eP P 11 05 17.6 +0.6
comp=Z,12nm,1.4s
**I04A Tendick Farm,** 92.29 37 P P 11 05 17.8 +0.7
baz=224,SNR=14
**FSA Cafayete** 92.34 124 eP P 11 05 19.7 +1.5
**AHML Horco Molle** 92.36 124 eP P 11 05 19.4 +1.4
**UTHA Uthaitani** 92.38 287 P P 11 05 18.8 +0.7
comp=Z,5.8nm,1.2s,comp=Z,81nm
**J05D Fort Rock, OR** 92.52 38 P P 11 05 19.5 +1.2
baz=224,SNR=19
**NNA Nana** 92.60 106 PFAKE 11 05 30.0 +11
NNA LR LR
comp=Z,1μm,20.0s
**BMN Battle Mountai** 92.66 42 eP P 11 05 20.2 +1.1
BMN pmax pmax
comp=Z,43nm,1.2s
**BMN Battle Mountai** 92.66 42 eP P 11 05 20.2 +1.1
comp=Z,43nm,1.2s
**CN2 Changchun** 92.68 323 eP P 11 05 18.5 -0.4
CN2 esP pP 11 05 32.3 +0.8
CN2 pmax pmax
comp=Z,20nm,1.0s
CN2 pmax pmax
comp=Z,200nm,3.0s
CN2 LR LR
comp=Z,3μm,19.0s
CN2 LR LR
comp=Z,1μm,19.0s
CN2 LR LR
comp=Z,1μm,15.0s
**LCMT Little Creek M** 92.69 46 eP P 11 05 20.9 +1.6
comp=Z,25nm,1.1s
**WUAZ Wupatki** 92.87 49 P P 11 05 22.0 +1.8
baz=230
**WUAZ Wupatki** 92.87 49 eP P 11 05 22.0 +1.8
comp=Z,115nm,1.8s
WUAZ LR LR
comp=Z,1μm,19.0s
**U15A North Rim** 92.89 47 eP P 11 05 22.3 +1.9
comp=Z,51nm,1.3s
**G03D McMinnville, O** 92.90 35 P P 11 05 21.1 +1.3
baz=223
**PB01 IPOC Station P** 92.96 118 eP P 11 05 22.1 +1.1
comp=Z,21nm,1.0s
**CCUT Cedar City** 92.97 46 eP P 11 05 23.0 +2.3
comp=Z,17nm,0.8s
**H04A Detroit Lake** 93.04 36 eP P 11 05 21.1 +0.5
comp=Z,62nm,1.2s
**GYA Guiyang** 93.10 300⇑ iP P 11 05 23.0 +1.6
GYA PP PP 11 09 09.3 +4.0
GYA SKS SKSac 11 15 55.6 +3.2
GYA S ScS 11 16 27.0 +0.1
GYA SS SS 11 22 47.8 +6.6
GYA pmax pmax
comp=Z,20nm,1.0s
GYA pmax pmax
comp=Z,150nm,6.8s
GYA LR LR
comp=Z,940nm,20.6s
GYA LR LR
comp=Z,870nm,21.0s
GYA LR LR
comp=Z,810nm,21.2s
**X18A Snowflake** 93.15 50 eP P 11 05 23.5 +1.9
comp=Z,55nm,1.4s
**SZCU Shurtz Canyon** 93.17 46 eP P 11 05 23.5 +2.0
comp=Z,35nm,1.3s
**I05D Terrebonne, OR** 93.22 37 P P 11 05 22.4 +1.0
baz=224
**WVOR Wild Horse Val** 93.27 40 eP P 11 05 22.3 +0.5
WVOR pmax pmax
comp=Z,51nm,1.4s
WVOR MLR MLR
comp=Z,2μm,19.0s
**WVOR Wild Horse Val** 93.27 40 eP P 11 05 22.2 +0.5
comp=Z,51nm,1.4s
WVOR LR LR
comp=Z,2μm,19.0s
**121A Cookes Peak, D** 93.32 53 P P 11 05 23.9 +1.6
baz=232
**ENH Enshi** 93.37 304 eP P 11 05 22.2 -0.3
comp=Z,27nm,1.2s
ENH LR LR
comp=Z,231nm,21.0s
**PB11 IPOC Station P** 93.61 116 eP P 11 05 25.1 +1.0
comp=Z,69nm,1.2s
**W18A Petrified Fore** 93.66 50 P P 11 05 25.4 +1.6
baz=231
**W18A Petrified Fore** 93.66 50 eP P 11 05 25.8 +2.0
comp=Z,42nm,1.2s
**F04D Rainier, OR** 93.66 35 P P 11 05 25.2 +1.9
baz=223
**KLR Kulʻdur** 93.80 330 LR LR 11 43 41.7
comp=Z,44nm,19.7s,baz=168,slow=33
**KLR Kulʻdur** 93.80 330 iP P 11 05 22.1 -1.8
**G05D Wamic, OR** 93.87 36 P P 11 05 25.4 +1.0
baz=224
**I07A Izee** 93.97 38 eP P 11 05 26.3 +1.3
comp=Z,34nm,1.2s
**J08A Circle Bar Ran** 94.00 39 eP P 11 05 25.3 +0.2
comp=Z,59nm,1.3s
**MTPU Mount Pierson** 94.00 46 eP P 11 05 27.8 +2.2
comp=Z,51nm,1.3s
**MNMC Minye Minye** 94.04 116 eP P 11 05 26.0 -0.2
comp=Z,43nm,1.0s
**LTX Lajitas** 94.21 58 eP P 11 05 27.8 +1.4
**LTX Lajitas** 94.21 58 eP P 11 05 27.8 +1.4
**TX31 Lajitas Ar. Si** 94.21 57 eP P 11 05 27.6 +1.2
**TXAR Lajitas Array** 94.21 58 P P 11 05 27.8 +1.4
comp=Z,11nm,1.1s,baz=207,slow=5.3,SNR=30
TXAR LR LR 11 40 38.0
comp=Z,1μm,19.5s,baz=0.0,slow=31
**G06A Carlson Farm,** 94.21 37 eP P 11 05 26.8 +0.8
comp=Z,76nm,1.4s
**MSU Marysvale** 94.31 46 eP P 11 05 29.0 +2.2
**MSU Marysvale** 94.31 46 eP P 11 05 29.0 +2.2
**CM01 Chiang Mai Arr** 94.36 289 eP P 11 05 27.6 +0.4
**CMAR Chiang Mai Arr** 94.39 289 P P 11 05 27.3 -0.1
comp=Z,1.4nm,0.4s,baz=148,slow=3.2,SNR=13
CMAR PP PP 11 09 15.0 -0.4
comp=Z,1.1nm,0.6s,baz=140,slow=5.4,SNR=11
**CMAR Chiang Mai Arr** 94.39 289 iP P 11 05 27.7 +0.3
CMAR pmax pmax
comp=Z,1.0nm,0.4s
**MNTX Cornudas Mount** 94.43 55 P P 11 05 28.4 +1.2
baz=233
**MNTX Cornudas Mount** 94.43 55 eP P 11 05 28.5 +1.2
comp=Z,17nm,1.2s
MNTX LR LR
comp=Z,617nm,20.0s
**CHTO Chiang Mai** 94.59 289 PFAKE 11 05 40.0 +12
CHTO LR LR
comp=Z,260nm,20.0s
**LNIG Linares** 94.68 63 eP P 11 05 29.2 +0.7
comp=Z,43nm,1.4s
**ASTB Santa Barbara** 94.78 123 eP P 11 05 30.7 +1.3
**Y22D IRIS PASSCAL I** 94.83 52 P P 11 05 30.7 +1.5
baz=232
**Y22E IRIS PASSCAL I** 94.83 52 P P 11 05 30.7 +1.5
baz=232
**LAZ Ladron** 94.89 52 eP P 11 05 30.9 +1.4
**D05A Enumclaw** 94.94 35 eP P 11 05 30.6 +1.5
comp=Z,52nm,1.4s
**DUG Dugway, Tooele** 95.02 44 P P 11 05 30.8 +0.9
baz=229
**DUG Dugway, Tooele** 95.02 44 eP P 11 05 31.1 +1.2
DUG pmax pmax
comp=Z,15nm,1.6s
DUG MLR MLR
comp=Z,1μm,19.0s
**DUG Dugway, Tooele** 95.02 44 eP P 11 05 31.1 +1.2
comp=Z,15nm,1.6s
DUG LR LR
comp=Z,1μm,19.0s
**F07A Phinny Hill Vi** 95.03 37 eP P 11 05 30.9 +1.4
comp=Z,27nm,1.4s
**KDKW Coast Env Seat** 95.08 34 eP P 11 05 31.0 +1.3
**G08A Pilot Rock** 95.09 37 eP P 11 05 30.9 +0.8
comp=Z,42nm,1.3s
**YJA Yavi** 95.15 121 eP P 11 05 33.2 +1.7
**BJT Baijiatuau** 95.17 315 PFAKE 11 05 40.0 +10
BJT LR LR
comp=Z,476nm,22.0s
**KMI Kunming** 95.21 297 P P 11 05 31.5 +0.2
KMI SKS SKSac 11 16 06.4 +2.3
KMI pmax pmax
comp=Z,23nm,0.8s
KMI LR LR
comp=Z,210nm,4.9s
KMI LR LR
comp=Z,120nm,3.8s
KMI LR LR
comp=Z,670nm,32.4s

**NLU North Lily Min 95.30 45 eP P 11 05 32.7 +1.4**
comp=Z,30nm,1.9s
**TMUT Trail Mountain 95.39 46 eP P 11 05 33.6 +1.8**
comp=Z,33nm,1.5s
**MFID Camas Ranch 95.45 40 eP P 11 05 32.6 +0.8**
comp=Z,20nm,1.0s
**HAWA Hanford 95.57 36 eP P 11 05 33.5 +1.4**
comp=Z,44nm,1.4s
HAWA LR LR
comp=Z,1μm,20.0s
**MPU Maple Canyon 95.59 45 eP P 11 05 34.2 +1.5**
comp=Z,9.9nm,1.2s
**LTY Liberty 95.62 35 eP P 11 05 33.3 +0.9**
comp=Z,56nm,1.8s
**BMO Blue Mountains 95.64 39 eP P 11 05 33.4 +0.8**
BMO pmax pmax
comp=Z,55nm,1.8s
BMO MLR MLR
comp=Z,2μm,20.0s
**BMO Blue Mountains 95.64 39 eP P 11 05 33.4 +0.8**
comp=Z,55nm,1.8s
BMO LR LR
comp=Z,2μm,20.0s
**ANMO Albuquerque 95.66 52 P P 11 05 34.4 +1.4**
baz=233
**ANMO Albuquerque 95.66 52 ceP P 11 05 34.1 +1.0**
ANMO pmax pmax
comp=Z,8.0nm,1.1s
**ANMO Albuquerque 95.66 52 eP P 11 05 34.3 +1.2**
comp=Z,14nm,1.2s
ANMO LR LR
comp=Z,1μm,20.0s
**B05A Bryant 95.67 34 P P 11 05 34.5 +2.0**
baz=224
**SRU San Rafael Swe 95.68 46 eP P 11 05 34.2 +1.2**
SRU pmax pmax
comp=Z,18nm,1.2s
**SRU San Rafael Swe 95.68 46 eP P 11 05 34.2 +1.2**
comp=Z,18nm,1.2s
**MVCO Mesa Verde 95.74 49 P P 11 05 34.4 +1.0**
baz=232
**MVCO Mesa Verde 95.74 49 PFAKE 11 05 50.0 +17**
MVCO LR LR
comp=Z,1μm,19.0s
**P17A Butcher Ranch, 95.78 46 eP P 11 05 35.0 +1.5**
comp=Z,20nm,1.4s
**E08A Dider Farm, El 95.87 37 eP P 11 05 34.5 +1.1**
comp=Z,22nm,1.4s
**PV05 Paradox Valley 95.90 48 eP P 11 05 35.9 +1.8**
**HVU Hansel Valley 96.07 43 eP P 11 05 35.8 +1.1**
HVU pmax pmax
comp=Z,30nm,1.3s
**HVU Hansel Valley 96.07 43 eP P 11 05 35.8 +1.1**
comp=Z,30nm,1.3s
**PV10 Paradox Valley 96.13 48 eP P 11 05 36.1 +0.9**
**PV09 Paradox Valley 96.14 47 eP P 11 05 36.2 +0.9**
**P18A Preston Nutter 96.17 46 eP P 11 05 36.6 +1.2**
comp=Z,9.1nm,1.1s
**PV01 Paradox Valley 96.27 48 eP P 11 05 37.2 +1.4**
comp=Z,648nm,1.2s
**HLID Hailey 96.31 41 P P 11 05 37.3 +1.5**
baz=229
**HLID Hailey 96.31 41 eP P 11 05 37.1 +1.3**
comp=Z,9.6nm,1.0s
HLID LR LR
comp=Z,850nm,20.0s
**D08A Wollman Farm, 96.33 36 eP P 11 05 36.6 +1.0**
comp=Z,70nm,1.9s
**E09A Wood Farm, Sta 96.34 37 eP P 11 05 36.1 +0.5**
comp=Z,33nm,1.4s
**TCUT Toone Canyon 96.43 44 eP P 11 05 38.0 +1.5**
comp=Z,44nm,1.5s
**F10A Beach Ranch, E 96.44 38 eP P 11 05 36.7 +0.5**
comp=Z,20nm,1.2s
**833A Chaparral WMA, 96.68 61 P P 11 05 38.3 +0.7**
baz=235
**LPAZ La Paz 96.87 115 P P 11 05 40.9 +1.3**
comp=Z,2.3nm,0.7s,baz=268,slow=2.5,SNR=8.8
LPAZ LR LR 11 40 57.8
comp=Z,333nm,21.4s,baz=220,slow=30
**B08A Colville Reser 97.04 35 eP Pdif 11 05 38.9 +0.1**
comp=Z,29nm,1.9s
**S22A 4UR Ranch, Cre 97.12 49 P Pdif 11 05 41.1 +1.3**
baz=233
**S22A 4UR Ranch, Cre 97.12 49 eP Pdif 11 05 41.5 +1.7**
comp=Z,25nm,1.8s
**KVTX Kingsville 97.34 62 PFAKE 11 05 50.0 +9.4**
KVTX LR LR
comp=Z,1μm,19.0s
**MSTX Muleshoe 97.54 54 P Pdif 11 05 42.0 +0.4**
baz=234
**MSTX Muleshoe 97.54 54 eP P 11 05 41.5 0.0**
comp=Z,10nm,0.9s
**JCT Junction City 97.60 59 PFAKE 11 05 50.0 +8.2**
JCT LR LR
comp=Z,1μm,20.0s
**AHID Auburn Hatcher 97.65 43 eP Pdif 11 05 42.6 +0.7**
comp=Z,7.9nm,1.0s
AHID LR LR
comp=Z,1μm,20.0s
**O20A White River Ci 97.70 47 P Pdif 11 05 43.4 +1.2**
baz=232
**CD2 Chengdu 97.75 302 eP Pdif 11 05 43.4 +0.9**
CD2 pmax pmax
comp=Z,20nm,0.5s
**SMCO Snowmass 97.89 48 eP Pdif 11 05 44.5 +1.2**
comp=Z,10.0nm,1.3s
**SDCO Great Sand Dun 97.96 50 Pdiff P 11 05 43.6 +0.1**
baz=233
**SDCO Great Sand Dun 97.96 50 eP Pdif 11 05 43.9 +0.4**
comp=Z,11nm,1.4s
SDCO LR LR
comp=Z,714nm,20.0s
**MCMT McKenzie Canyo 97.99 41 eP Pdif 11 05 44.9 +1.4**
**CPUP Vila Florida 98.02 129 P Pdif 11 05 44.2 +0.4**
comp=Z,2.5nm,1.0s,baz=218,slow=8.3,SNR=3.3
CPUP LR LR 11 42 28.2
comp=Z,730nm,20.3s,baz=232,slow=31
**NEW Newport 98.05 36 Pdiff Pdif 11 05 44.1 +0.7**
baz=227
**NEW Newport 98.05 36 PFAKE 11 06 00.0 +17**
NEW LR LR
comp=Z,2μm,19.0s
**OTAV Otavalo 98.16 95 PFAKE 11 06 00.0 +15**
OTAV LR LR
comp=Z,426nm,20.0s
**REDW Red Top Meadow 98.17 43 eP P 11 05 43.9 -0.3**
comp=Z,23nm,1.3s
**TPAW Teton Pass 98.19 43 eP Pdif 11 05 45.6 +1.1**
comp=Z,9.3nm,1.1s
**JTS JuntasAbangare 98.21 83 PFAKE 11 06 00.0 +15**
JTS LR LR
comp=Z,1μm,19.0s
**FXWY Fox Creek 98.24 43 eP Pdif 11 05 45.6 +1.0**
comp=Z,10.0nm,1.3s
**SNOW Snow King Moun 98.29 43 eP Pdif 11 05 46.1 +1.3**
comp=Z,13nm,1.0s
**T25A Trinidad 98.30 51 Pdiff Pdif 11 05 45.2 +0.2**
baz=234
**T25A Trinidad 98.30 51 eP Pdif 11 05 45.8 +0.8**
comp=Z,11nm,1.1s
**HHC Hu-ho-hao-te 98.43 314 eP Pdif 11 05 46.0 +0.7**
HHC S **S 11 17 09.3 -1.3**
HHC sS pS 11 17 19.8 -7.1
HHC SS **SS 11 24 01.5 +5.1**
HHC pmax pmax
comp=Z,15nm,1.0s
HHC pmax pmax
comp=Z,190nm,10.4s
HHC LR LR
comp=Z,120nm,13.6s
HHC LR LR
comp=Z,210nm,13.6s
**MOOW Moose Ponds 98.47 43 eP Pdif 11 05 46.4 +0.7**
comp=Z,13nm,1.8s
**DLMT Dillon 98.47 40 eP Pdif 11 05 46.4 +0.9**
comp=Z,12nm,1.2s
**BW06 Boulder Array 98.54 44 Pdiff P 11 05 46.0 +0.1**
baz=232
**BW06 Boulder Array 98.54 44 eP Pdif 11 05 46.4 +0.5**
comp=Z,4.9nm,1.1s
BW06 LR LR
comp=Z,1μm,19.0s
**PD31 Pinedale Array 98.54 44 eP P 11 05 45.8 -0.1**
PD31 ePP PP 11 10 02.1 +15
**PDAR Pinedale Array 98.54 44 P Pdif 11 05 46.6 +0.7**
comp=Z,2.9nm,1.0s,baz=204,slow=3.3,SNR=12
PDAR PP PP 11 10 02.1 +15
comp=Z,0.5nm,0.9s,baz=234,slow=7.1,SNR=4.1
PDAR PKKP **PKKPbc 11 22 18.0 +1.9**
comp=Z,0.4nm,0.7s,baz=119,slow=3.2,SNR=4.7
PDAR LR LR 11 43 53.5
comp=Z,817nm,20.4s,baz=260,slow=32
**MSO Missoula 98.71 39 Pdiff Pdif 11 05 46.8 +0.4**
baz=229
**YPP Pitchstone Pla 98.77 42 eP Pdif 11 05 48.9 +1.9**
comp=Z,19nm,1.8s
**QLMT Earthquake Lak 98.77 41 eP Pdif 11 05 48.5 +1.6**
**YHB Horse Butte 98.85 42 eP Pdif 11 05 48.6 +1.4**
comp=Z,36nm,1.9s
YHB eS **S 11 17 14.2 0.0**
**YMR Madison River 98.93 42 eP Pdif 11 05 49.2 +1.6**
comp=Z,18nm,1.2s
**H17A Grant Village 98.97 42 Pdiff Pdif 11 05 49.3 +1.4**
baz=231
**H17A Grant Village 98.97 42 eP Pdif 11 05 49.6 +1.8**
comp=Z,11nm,1.4s
**YHH Holmes Hill 99.07 42 eP Pdif 11 05 50.2 +1.9**
comp=Z,18nm,1.4s
**ISCO Idaho Springs 99.11 48 PFAKE 11 06 00.0 +11**
ISCO LR LR
comp=Z,1μm,19.0s
**YNR Norris Junctio 99.12 42 eP Pdif 11 05 51.4 +2.9**
comp=Z,41nm,2.0s
**SEY Seymchan 99.12 347 P Pdif 11 05 47.5 -0.2**
comp=Z,2.3nm,0.9s,baz=146,slow=15,SNR=3.3
**BOZ Bozeman (W) 99.15 41 Pdiff Pdif 11 05 49.6 +1.2**
baz=231
**BOZ Bozeman (W) 99.15 41 PFAKE 11 06 00.0 +12**
BOZ LR LR
comp=Z,918nm,19.0s
**LKWY Lake 99.18 42 PFAKE 11 06 00.0 +11**
LKWY LR LR
comp=Z,2μm,19.0s
**HIA Hailar 99.31 324 PFAKE 11 06 00.0 +11**
HIA LR LR
comp=Z,484nm,19.0s
**RLMT Red Lodge 100.16 42 Pdiff Pdif 11 05 54.2 +1.2**
baz=232
**RLMT Red Lodge 100.16 42 PFAKE 11 06 10.0 +17**
RLMT LR LR
comp=Z,1μm,20.0s
**WMOK Wichita Mounta 100.69 55 PFAKE 11 06 10.0 +15**
WMOK LR LR
comp=Z,835nm,20.0s
**COLA College 101.02 13 PFAKE 11 06 10.0 +14**
COLA LR LR
comp=Z,851nm,19.0s
**ILAR Eielson Array 101.11 13 P Pdif 11 05 56.4 -0.1**
comp=Z,0.6nm,0.9s,baz=213,slow=3.9,SNR=4.9
ILAR PP **PP 11 09 59.6 -6.4**
comp=Z,1.4nm,1.1s,baz=221,slow=7.6,SNR=4.8
**ILB Eielson Array 101.11 13 ePdif Pdif 11 05 56.9 +0.3**
**EGMT Eagleton 101.67 40 PFAKE 11 06 10.0 +10**
EGMT LR LR
comp=Z,2μm,21.0s
**BCIP Isla Barro Col 101.86 87 PFAKE 11 06 10.0 +8.9**
BCIP LR LR
comp=Z,2μm,20.0s
**NATX Nacogdoches 101.99 60 PFAKE 11 06 10.0 +8.8**
NATX LR LR
comp=Z,1μm,20.0s
**OGNE Ogallala 102.00 49 PFAKE 11 06 10.0 +8.8**
OGNE LR LR
comp=Z,1μm,19.0s
**BILL Bilibino 102.07 354 eP Pdif 11 05 58.8 -1.9**
BILL e 11 10 12.9
BILL eSS SS 11 24 47.1 +1.3
BILL pmax pmax
comp=Z,3.0nm,1.4s
**EGAK Eagle 102.29 15 PFAKE 11 06 10.0 +8.3**
EGAK LR LR
comp=Z,1μm,19.0s
**CBKS Cedar Bluff 102.29 52 PFAKE 11 06 20.0 +18**
CBKS LR LR
comp=Z,858nm,19.0s
**RSSD Black Hills 102.58 45 Pdiff Pdif 11 06 04.9 +1.0**
baz=235
**LAO LASA Array 102.80 42 PFAKE 11 06 20.0 +15**
LAO LR LR
comp=Z,775nm,20.0s
**MIAR Mount Ida 104.22 58 PFAKE 11 06 20.0 +8.9**
MIAR LR LR
comp=Z,966nm,19.0s
**YAK Yakutsk 104.22 337 PFAKE 11 06 20.0 +10**
YAK LR LR
comp=Z,308nm,20.0s
**KSU1 Kansas State U 104.50 53 PFAKE 11 06 20.0 +7.8**
KSU1 LR LR
comp=Z,861nm,19.0s
**DGMT Dagmar 104.94 41 PFAKE 11 10 40.0**
DGMT LR LR
comp=Z,865nm,20.0s
**ULN Ulaanbaatar 105.14 318 PFAKE 11 10 40.0**
ULN LR LR
comp=Z,263nm,19.0s
**SAML Samuel 105.18 112 PFAKE 11 10 40.0**
SAML LR LR
comp=Z,697nm,22.0s
**SONA0 Songino Array 105.49 317 ePdif Pdif 11 06 18.9 +2.3**
SONA0 ePKiKP **PP 11 10 35.1 -4.3**
**SONM Songino Array 105.49 317 Pdiff Pdif 11 06 18.9 +2.3**
comp=Z,0.2nm,0.4s,baz=148,slow=6.3,SNR=3.2
SONM PKiKP **PP 11 10 35.1 -4.3**
comp=Z,0.5nm,0.7s,baz=116,slow=3.4,SNR=3.1
SONM PKKP **PKKPab 11 22 09.9 +0.4**
comp=Z,1.1nm,1.0s,baz=305,slow=3.0,SNR=3.2
**LSA Lhasa 106.35 295 PFAKE 11 10 40.0**
LSA LR LR
comp=Z,2μm,20.0s
**ECSD EROS Data Cent 106.88 49 PFAKE 11 10 40.0**
ECSD LR LR
comp=Z,1μm,20.0s
**INK Inuvik 106.93 16 PKiKP PKiKP 11 10 31.7 0.0**
comp=Z,1.4nm,0.9s,baz=9.1,slow=3.3,SNR=3.5
**BRAL Brewton 107.28 64 PFAKE 11 10 50.0**
BRAL LR LR
comp=Z,440nm,22.0s
**SCIA State Center 108.15 51 PFAKE 11 10 50.0**
SCIA LR LR
comp=Z,971nm,19.0s
**YKA Yellowknife Ar 108.41 26 Pdiff Pdif 11 06 30.5 +1.6**
comp=Z,0.3nm,0.9s,baz=220,slow=5.7,SNR=3.3
YKA PKiKP **PKiKP 11 10 34.4 -0.2**
comp=Z,0.5nm,0.7s,baz=245,slow=2.0,SNR=8.7
YKA PKKPbc **PKKPbc 11 21 43.6 -3.2**
comp=Z,3.4nm,1.0s,baz=36,slow=3.4,SNR=14
**MTDJ Mount Denham 108.47 80 PFAKE 11 10 50.0**
MTDJ LR LR
comp=Z,1μm,19.0s
**TLY Talaya 109.03 320 PFAKE 11 10 50.0**
TLY LR LR
comp=Z,472nm,19.0s
**SDV Santo Domingo 109.39 92 PFAKE 11 10 50.0**
SDV LR LR
comp=Z,787nm,20.0s
**FFC Flin Flon 109.47 37 PFAKE 11 10 50.0**
FFC LR LR
comp=Z,1μm,19.0s
**AGMN Agassiz Nation 109.59 45 PFAKE 11 10 50.0**
AGMN LR LR
comp=Z,1μm,20.0s
**HDIL Hopedale 110.12 54 PFAKE 11 10 50.0**
HDIL LR LR
comp=Z,798nm,19.0s
**JFWS Jewell Farm 110.56 52 PFAKE 11 10 50.0**
JFWS LR LR
comp=Z,942nm,19.0s
**GOGA Godfrey 111.02 63 PFAKE 11 10 50.0**
GOGA LR LR
comp=Z,546nm,19.0s
**TIXI Tiksi 111.37 344 cPKiKP PKiKP 11 10 39.5 -0.5**
TIXI pmax pmax
comp=Z,7.0nm,1.7s
**TIXI Tiksi 111.37 344 PFAKE 11 10 50.0**
TIXI LR LR
comp=Z,839nm,20.0s
**EYMN Ely 112.03 46 PFAKE 11 10 50.0**
EYMN LR LR
comp=Z,1μm,19.0s
**ABPO Ambohimpanom 112.10 227 PFAKE 11 10 50.0**
ABPO LR LR
comp=Z,217nm,19.0s
**PTGA Pitinga 112.72 107 PFAKE 11 11 00.0**
PTGA LR LR
comp=Z,34μm,20.0s
**NHSC New Hope 113.35 65 PFAKE 11 11 00.0**
NHSC LR LR
comp=Z,726nm,19.0s
**SDDR Presa de Saban 113.99 83 PFAKE 11 11 00.0**
SDDR LR LR
comp=Z,663nm,21.0s
**AAM Ann Arbor 114.69 54 PFAKE 11 11 00.0 +13**
AAM LR LR
comp=Z,894nm,19.0s
**BLA Blacksburg 114.90 61 PFAKE 11 11 00.0 +12**
BLA LR LR
comp=Z,1μm,19.0s
**GLMI Grayling 115.06 52 PFAKE 11 11 00.0 +12**
GLMI LR LR
comp=Z,1μm,19.0s
**WMQ Urumqi 115.15 307 PKP PKPdf 11 10 39.1 -9.1**
WMQ PP **PP 11 11 49.8 +0.6**
WMQ SKKS 11 18 41.6
**WMQ Urumqi 115.15 307 SS SS 11 27 49.8 +6.3**
WMQ AMB AMB
comp=Z,560nm,5.1s
WMQ LR LR
comp=N,270nm,25.1s
WMQ LR LR
comp=E,430nm,19.9s
WMQ LR LR
comp=Z,410nm,25.1s
**CNNC Cliffs of the 115.96 64 PFAKE 11 11 00.0 +10**
CNNC LR LR
comp=Z,546nm,20.0s
**MSEY Mahe Island 116.68 244 PFAKE 11 11 00.0 +8.0**
MSEY LR LR
comp=Z,831nm,19.0s
**DGZ Jazzator, Alta 117.50 313 i PKIKP PKPdf 11 10 50.5 -2.1**
**CBN Corbin Frederi 117.52 61 PFAKE 11 11 10.0 +17**
CBN LR LR
comp=Z,918nm,20.0s
**SJG San Juan 117.83 86 PFAKE 11 11 10.0 +16**
SJG LR LR
comp=Z,400nm,20.0s
**MK01 Makanchi Array 119.76 309 ePKPdf PKPdf 11 10 55.9 -1.0**
**MK31 Makanchi Array 119.77 309 ePKIKP PKPdf 11 10 56.5 -0.4**
**MK31 Makanchi Array 119.77 309 ePKPdf PKPdf 11 10 56.5 -0.4**
**MK32 Makanchi Array 119.77 309 ePKPdf PKPdf 11 10 56.4 -0.5**
**MKAR Makanchi Array 119.77 309 PKP PKPdf 11 10 56.4 -0.5**
comp=Z,16nm,1.1s,baz=90,slow=2.4,SNR=31
**BINY Binghamton 119.94 57 PFAKE 11 11 10.0 +13**
BINY LR LR
comp=Z,2μm,20.0s
**MAKZ Makanchi 119.98 309 ePKIKP PKPdf 11 10 56.8 -0.5**
**MAKZ Makanchi 119.98 309 ePKPdf PKPdf 11 10 56.8 -0.5**
**FDF Fort de France 120.33 92 PFAKE 11 11 10.0 +11**
FDF LR LR
comp=Z,590nm,20.0s
**ZAA0 Zalesovo Array 120.39 317 ePKPdf PKPdf 11 10 57.1 -0.7**
**ZALV Zalesovo Beam 120.39 317 PKP PKPdf 11 10 57.1 -0.7**
comp=Z,2.8nm,0.8s,baz=180,slow=1.5,SNR=12
**ZAA1 Zalesovo Array 120.39 317 ePKPdf PKPdf 11 10 57.1 -0.7**
**MATP Matopo 120.54 209 PKP PKPdf 11 11 00.2 +0.8**
comp=Z,5.7nm,1.0s,baz=189,slow=3.0,SNR=6.2
**NVS Novosibirsk 121.52 318 ePKIKP PKPdf 11 10 59.5 -0.4**
NVS pmax pmax
comp=N,7.0nm,1.4s
NVS pmax pmax
comp=E,10.0nm,1.4s
NVS pmax pmax
comp=Z,20nm,1.4s
**LONY Lake Ozonia 121.69 55 PFAKE 11 11 10.0 +9.3**
LONY LR LR
comp=Z,830nm,20.0s
**KSH Kashi 121.79 299 PKP PKPdf 11 11 03.8 +2.6**
KSH PP **PP 11 12 41.5 +6.2**
KSH SKS **SKSdf 11 18 13.3 +3.4**
KSH SKKS **SKKSac 11 19 33.3 +2.5**
KSH SS **SS 11 29 17.3 +7.6**
KSH LR LR
comp=Z,130nm,5.1s
KSH LR LR
comp=Z,87nm,4.3s
KSH LR LR
comp=Z,880nm,6.0s
**ULHL Ulahol 122.46 302 P PKPdf 11 11 03.1 +0.6**
SNR=13
**KZA Kyzart 123.11 302 P PKPdf 11 11 04.3 +0.3**
SNR=20
**TKM2 Tokmak 2 123.12 303 P PKPdf 11 11 03.7 -0.1**
SNR=12
**KURK Kurchatov 123.21 312 PKIKP PKPdf 11 11 05.1 +1.8**
**KURK Kurchatov 123.21 312 ePKPdf PKPdf 11 11 02.6 -0.8**
KURK LR LR
comp=Z,6μm,21.0s
**KURK Kurchatov 123.21 312 pPKiKP PKPdf 11 11 03.1 -0.3**
SNR=11
**KURK Kurchatov 123.21 312 P PKPdf 11 11 03.1 -0.3**
SNR=11
**KURBB Kurchatov Arra 123.24 312 PKP PKPdf 11 11 05.1 +1.7**
baz=115,slow=2.0
**UCH Uchtor 123.68 302 P PKPdf 11 11 05.3 +0.2**
SNR=30
**CHMS Chumysh 123.74 303 P PKPdf 11 11 04.8 +0.2**
SNR=14
**FRU Bishkek 123.78 302 i PKIKP PKPdf 11 11 05.0 +0.2**
FRU i 11 11 19.0
FRU pmax pmax
comp=Z,57nm,1.7s
**AAK Ala-Archa 123.81 302 di PKIKP PKPdf 11 11 04.7 -0.3**
**AAK Ala-Archa 123.81 302 P PKPdf 11 11 04.9 -0.1**
SNR=9.6
**AAK Ala-Archa 123.81 302 ePKPdf PKPdf 11 11 04.8 -0.3**
AAK LR LR
comp=Z,7μm,21.0s
**AAK Ala-Archa 123.81 302 pPKiKP PKPdf 11 11 05.7 +0.7**
SNR=5.9
**AAK Ala-Archa 123.81 302 P PKPdf 11 11 05.7 +0.7**
SNR=5.9
**USP Ospenovka 123.99 303 P PKPdf 11 11 05.4 +0.3**
SNR=9.8
**AML Almayashu 124.24 301 P PKPdf 11 11 06.7 +0.6**
SNR=33
**EKS2 Erkin-Say 124.33 302 P PKPdf 11 11 06.3 +0.4**
SNR=17
**BBSR BB Station 125.04 72 PFAKE 11 11 20.0 +13**
BBSR LR LR
comp=Z,322nm,19.0s
**MNAS Manas 125.18 301 PKIKP PKPdf 11 11 06.8 -0.8**
MNAS pmax pmax
comp=Z,43nm,1.3s
**LSZ Lusaka 125.26 212 PKP PKPdf 11 11 09.4 +0.8**
comp=Z,4.0nm,0.9s,baz=163,slow=4.4,SNR=5.5
**LSZ Lusaka 125.26 212 ePKPdf PKPdf 11 11 09.1 +0.5**
LSZ LR LR
comp=Z,738nm,21.0s
**KBL Kabul 125.37 291 ePKIKP PKPdf 11 11 08.6 +0.3**
**KBL Kabul 125.37 291 ePKPdf PKPdf 11 11 08.6 +0.3**
**PKME Peaks-Kenny Pk 125.48 55 PFAKE 11 11 20.0 +12**
PKME LR LR
comp=Z,875nm,19.0s
**KK31 Karatay Array 126.76 302 PKIKP PKPdf 11 11 10.0 -0.4**
KK31 pmax pmax
comp=Z,30nm,1.2s
**KKAR Karatay Array 126.76 302 ePKIKP PKPdf 11 11 10.4 -0.1**
**KKAR Karatay Array 126.76 302 ePKPdf PKPdf 11 11 10.4 -0.1**
**RCBR Riachuelo 126.87 130 PFAKE 11 11 20.0 +8.4**
RCBR LR LR
comp=Z,876nm,20.0s
**TULEG Thule 126.93 16 ePKPdf PKPdf 11 11 09.1 -0.6**
**BVA0 Borovoye Array 128.64 314 PKIKP PKPdf 11 11 12.8 -0.9**
BVA0 pmax pmax
comp=Z,45nm,1.5s
**BVAR Borovoye Array 128.64 314 PKP PKPdf 11 11 14.2 +0.6**
comp=Z,4.1nm,0.5s,baz=124,slow=1.1,SNR=30
BVAR pPKP **pPKPdf 11 11 28.8 +2.1**
comp=Z,3.7nm,0.5s,baz=45,slow=2.3,SNR=5.7
**SCHQ Schefferville 128.68 44 ePKPdf PKPdf 11 11 13.5 -0.2**
**LMN Caledonia Moun 128.68 55 ePKPdf PKPdf 11 11 14.4 +0.4**
**BRVK Borovoye 128.71 314 cPKIKP PKPdf 11 11 12.4 -1.4**
BRVK pmax pmax
comp=Z,89nm,1.2s
**BRVK Borovoye 128.71 314 ePKPdf PKPdf 11 11 13.7 -0.1**
BRVK LR LR
comp=Z,927nm,22.0s
**BRVK Borovoye 128.71 314 pPKiKP PKPdf 11 11 14.5 +0.7**

**BRVK Borovoye** 128.71 314 P PKPdf 11 11 14.5 +0.7
SNR=12
**WSAR Wadi Sarin** 129.60 274 PKP PKPdf 11 11 17.3 +0.9
comp=Z,9.7nm,1.0s,baz=180,slow=2.0,SNR=4.0
**SHEL Horse Pasture** 130.12 170 PFAKE 11 11 30.0 +12
SHEL LR LR
comp=Z,142nm,22.0s
**KULLO Kullorsuaq** 130.25 18 *i* PKIKP PKPdf 11 11 15.9 -0.2
KULLO pmax pmax
comp=Z,24nm,1.1s
**KULLO Kullorsuaq** 130.25 18 *i* P PKPdf 11 11 15.9 -0.2
comp=Z,24nm,1.1s
**KMBO Kilima Mbogo** 132.02 231 PKP PKPdf 11 11 22.9 +1.2
comp=Z,6.8nm,0.9s,baz=109,slow=3.1,SNR=17
KMBO pPKP pPKPdf 11 11 37.7 +3.0
comp=Z,6.1nm,0.8s,baz=34,slow=2.8,SNR=4.5
KMBO SKP 11 14 51.0
comp=Z,13nm,1.1s,baz=124,slow=5.1,SNR=11
**KMBO Kilima Mbogo** 132.02 231 PKIKP PKPdf 11 11 22.9 +1.2
KMBO 11 11 37.7
KMBO pmax pmax
comp=Z,7.0nm,0.9s
KMBO pmax pmax
comp=Z,7.0nm,0.9s
KMBO pmax pmax
comp=N,13nm,1.2s
**KMBO Kilima Mbogo** 132.02 231 *e*PKPdf PKPdf 11 11 21.1 -0.5
KMBO pPKP pPKPdf 11 11 37.7 +3.0
KMBO LR LR
comp=Z,507nm,20.0s
**KMBO Kilima Mbogo** 132.02 231 pPKiKP PKPdf 11 11 23.9 +2.2
SNR=11
**KMBO Kilima Mbogo** 132.02 231 P PKPdf 11 11 23.9 +2.2
SNR=11
**UOSS Minazif** 132.32 274 *e*PKPdf PKPdf 11 11 20.6 -1.0
**ASHO Ashiyiah** 132.34 274 pPKiKP PKPdf 11 11 23.8 +2.1
SNR=8.7
**ASHO Ashiyiah** 132.34 274 P PKPdf 11 11 23.8 +2.1
SNR=8.7
**SVE Sverdlovsk** 134.33 319 *e*PKIKP PKPdf 11 11 24.8 +0.5
SVE pmax pmax
comp=Z,34nm,1.5s
**KBS Kingsbay** 134.43 357 PFAKE 11 11 40.0 +16
KBS LR LR
comp=Z,519nm,19.0s
**GEYT Alibeck** 134.79 292 PKP PKPdf 11 11 26.9 +1.0
comp=Z,9.3nm,1.0s,baz=294,slow=1.5,SNR=11
GEYT pPKP pPKPdf 11 11 41.4 +2.6
comp=Z,14nm,0.8s,baz=238,slow=2.8,SNR=9.1
GEYT SKP 11 14 57.5
comp=Z,4.8nm,0.8s,baz=107,slow=1.5,SNR=8.1
**AB31 Akbulak array** 134.91 308 PKHKP PKPpre 11 11 18.0
AB31 pmax pmax
comp=Z,10.0nm,1.1s
**ABKAR Akbulak array** 134.91 308 *e*PKPdf PKPdf 11 11 25.7 +0.1
**SPITS Spitsbergen Ar** 134.94 356 PKP PKPdf 11 11 24.9 -0.1
comp=Z,20nm,0.9s,baz=35,slow=5.3,SNR=3.6
**SFJD Kangerlussuaq** 134.97 26 PFAKE 11 11 40.0 +15
SFJD LR LR
comp=Z,771nm,19.0s
**ARU Arti** 135.51 319 PKP PKPdf 11 11 26.7 +0.1
comp=Z,4.6nm,0.7s,baz=106,slow=1.2,SNR=7.7
**ARU Arti** 135.51 319 *i* PKIKP PKPdf 11 11 25.8 -0.7
ARU 11 13 59.5
**ARU Arti** 135.51 319 *e*PKPdf PKPdf 11 11 23.9 -2.6
ARU LR LR
comp=Z,1μm,19.0s
**SUMG Summit** 135.85 16 *i* PKIKP PKPdf 11 11 28.0 +0.8
SUMG pmax pmax
comp=Z,28nm,1.4s
**SUMG Summit** 135.85 16 *i* P PKPdf 11 11 28.0 +0.8
comp=Z,28nm,1.4s
**SUMG Summit** 135.85 16 *e*PKPdf PKPdf 11 11 27.8 +0.6
**AKTO Aktyubinsk** 136.18 310 PKhKP PKPpre 11 11 17.1
comp=Z,1.2nm,0.5s,baz=122,slow=3.1,SNR=6.0
AKTO PKP PKPdf 11 11 28.0 0.0
comp=Z,6.0nm,0.8s,baz=120,slow=5.0,SNR=10.0
**DAMY Dhamar** 137.18 254 *e*PKPdf PKPdf 11 11 29.6 -1.7
**RAYN Ar Rayn** 140.66 267 PFAKE 11 11 50.0 +13
RAYN LR LR
comp=Z,2μm,19.0s
**LVZ Lovozero** 140.91 341 PFAKE 11 11 50.0 +14
LVZ LR LR
comp=Z,721nm,21.0s
**ARA0 ARCESS Array S** 141.74 347 *e*PKPpre PKPpre 11 11 33.3
**ARCES ARCESS Array B** 141.74 347 PKhKP PKPpre 11 11 33.3
comp=Z,4.4nm,0.6s,baz=11,slow=2.8,SNR=14
**TMCR Tamitsa** 142.29 335 *e*PKIKP PKPdf 11 11 37.7 -0.9
**MAK Makhachkala** 143.42 298 *e*PKHKP PKPpre 11 11 37.1
MAK *e* 11 14 56.9
MAK *e* 11 18 40.5
MAK pmax pmax
comp=Z,88nm,0.9s
**KLMR Klimovskoe** 143.56 330 *e*PKHKP PKPpre 11 11 36.4
KLMR pmax pmax
comp=Z,48nm,1.2s
**GROC Groznyy** 144.67 299 *e*PKIKP PKPab 11 11 41.7 -0.6
GROC pmax pmax
comp=Z,184nm,1.2s
**GNI Garni** 145.40 293 PKPbc PKPab 11 11 45.7 +0.4
comp=Z,97nm,1.1s,baz=172,slow=2.2,SNR=14
**GNI Garni** 145.40 293 *d*PKIKP PKPbc 11 11 45.0 -0.1
GNI pmax pmax
comp=Z,601nm,1.2s
**GNI Garni** 145.40 293 *e*PKPbc PKPdf 11 11 45.2 +0.1
GNI LR LR
comp=Z,474nm,19.0s
**GNI Garni** 145.40 293 pPKiKP PKPab 11 11 45.7 +0.4
SNR=7.4
**GNI Garni** 145.40 293 P PKPab 11 11 45.7 +0.4
SNR=7.4
**BORG Borgarnes** 145.80 18 PKPbc PKPab 11 11 46.9 +1.1
comp=Z,84nm,1.1s,baz=331,slow=2.2,SNR=4.7
**NCK Nalchik** 146.27 299 *e*PKIKP PKPdf 11 11 44.9 -1.4
**VRH Novokhopyorsk** 146.29 313 *e*PKP2 PKPdf 11 11 46.6 +0.6
VRH pmax pmax
comp=Z,430nm,1.4s
**AKH Akhalkalaki** 146.38 296⇑ *i* P PKPab 11 11 48.9 -0.2
**GOF Gofitskoye** 146.55 302⇓ *i* PKP2 PKPbc 11 11 48.3 0.0
GOF pmax pmax
comp=Z,400nm,1.3s
**KBZ Khabaz** 146.76 300 PKPbc PKPbc 11 11 48.7 -0.2
comp=Z,22nm,1.1s,baz=90,slow=2.4,SNR=43
**KVAR Kislovodsk Arr** 146.89 300 PKPbc PKPbc 11 11 49.6 +0.2
comp=Z,29nm,0.8s,baz=51,slow=2.4,SNR=28
**KIV Kislovodsk** 146.90 300 *c* PKIKP PKPdf 11 11 47.9 +0.5
KIV *e* 11 15 13.2
KIV *e* 11 18 52.1
KIV *e*SS SS 11 34 11.0 -0.9
KIV pmax pmax
comp=Z,151nm,1.7s
**KIV Kislovodsk** 146.90 300 *e*PKPbc PKPbc 11 11 49.7 +0.3
KIV LR LR
comp=Z,508nm,20.0s
**KIV Kislovodsk** 146.90 300 pPKPab PKPbc 11 11 49.3 -0.1
SNR=25
**KIV Kislovodsk** 146.90 300 P PKPbc 11 11 49.3 -0.1
SNR=25
**NEY Neytrino** 146.92 299 *i* PKP2 PKPdf 11 11 48.3 +0.7
**MOS Moscow** 146.92 323 *e*PKIKP PKPdf 11 11 46.4 -0.5
MOS pmax pmax
comp=Z,525nm,1.8s
MOS pmax pmax
comp=Z,1μm,2.1s
**LPSR Galich'ya Gora** 147.50 317 *e*PKP2 PKPbc 11 11 49.4 -1.2
LPSR pmax pmax
comp=Z,100nm,1.0s
**ARTV Artvin** 147.56 295 *e*PKPbc PKPbc 11 11 51.8 +0.3
**VORR Voronezh** 147.65 315 *e*PKIKP PKPdf 11 11 47.0 -1.3
VORR pmax pmax
comp=Z,500nm,2.0s
**OBN Obninsk** 147.75 322 PKPbc PKPbc 11 11 51.3 +0.1
comp=Z,32nm,0.4s,baz=51,slow=5.0,SNR=5.2
**OBN Obninsk** 147.75 322 *i* PKIKP PKPdf 11 11 49.2 +0.9
OBN *e* 11 15 19.5
OBN *e*SS SS 11 34 19.7 -0.2
OBN pmax pmax
comp=Z,65nm,1.1s
**OBN Obninsk** 147.75 322 *e*PKPdf PKPdf 11 11 48.2 -0.1
OBN *e*PKPbc PKPbc 11 11 51.7 +0.5
OBN LR LR
comp=Z,555nm,19.0s
**VSR Storozhevoye** 147.82 314 *e*PKP2 PKPbc 11 11 50.6 -1.0
VSR pmax pmax
comp=Z,170nm,1.2s

**PUL Pulkovo** 147.89 333 *c* PKIKP PKPbc 11 11 50.0 -1.5
PUL pmax pmax
comp=Z,92nm,0.3s
**FIA1 FINESS Array S** 148.15 338 *e*PKPbc PKPbc 11 11 51.7 -0.4
**FIA0 FINESS Array S** 148.15 338 *e*PKP2 PKPbc 11 11 51.8 -0.3
**FIA0 FINESS Array S** 148.15 338 *e*PKPbc PKPbc 11 11 51.8 -0.3
**FINES FINESS Array B** 148.15 338 PKPbc PKPbc 11 11 51.8 -0.3
comp=Z,61nm,0.8s,baz=51,slow=3.5,SNR=126
**MARD Mardin** 148.29 288 *e*PKPbc PKPbc 11 11 54.0 +0.5
**KOPT Kop Dagi** 148.65 293 *e*PKPbc PKPbc 11 11 56.0 +1.5
**SOC Sochi** 149.07 300 *i* PKP2 PKPbc 11 11 54.5 -0.6
SOC *e* 11 15 27.3
SOC *e*PPP PPP 11 18 47.1
SOC *e*SS SS 11 34 37.2 +1.1
SOC pmax pmax
comp=Z,101nm,1.4s
**VSU Vasula** 150.13 334 *d* iPKP2 PKPbc 11 11 57.2 +0.1
VSU pmax pmax
comp=Z,657nm,1.2s
**SACV Santiago Islan** 150.35 123 PFAKE 11 12 10.0 +4.6
SACV LR LR
comp=Z,237nm,20.0s
**ANN Anapa** 150.54 303 *i* PKIKP PKPbc 11 11 57.3 -1.3
ANN *e* 11 12 12.1
ANN pmax pmax
comp=Z,157nm,1.0s
**ASF Jabal al Asfar** 150.67 277 PKPbc PKPbc 11 12 00.4 +1.0
comp=Z,55nm,1.0s,baz=102,slow=0.9,SNR=33
ASF pPKPbc pPKPbc 11 12 14.5 +2.1
comp=Z,65nm,0.9s,baz=343,slow=0.4,SNR=15
**EIL Elat** 151.66 271 PKPbc PKPbc 11 12 02.6 +0.9
comp=Z,65nm,0.9s,baz=80,slow=1.9,SNR=23
EIL pPKPbc pPKPbc 11 12 17.1 +2.4
comp=Z,135nm,1.0s,baz=114,slow=2.0,SNR=10
**NC303 NORSAR Array S** 151.75 350 *e*PKPbc PKPbc 11 12 00.7 -0.2
**NC405 NORSAR Array S** 151.81 350 *e*PKPbc PKPbc 11 12 00.2 -0.8
**NB201 NORSAR Array S** 151.93 350 *e*PKPbc PKPbc 11 12 01.4 +0.1
**NB2 NORSAR Subarra** 151.95 350 PKP PKPbc 11 12 01.3 -0.1
comp=Z,35nm,0.8s,baz=15,slow=2.5
**NB2 NORSAR Subarra** 151.95 350 PKP PKPbc 11 12 01.3 -0.1
baz=15,slow=2.5
**NB200 NORSAR Array S** 151.95 350 *e*PKPbc PKPbc 11 12 01.2 -0.1
NB200 *e*PKPab PKPab 11 12 11.2 +0.5
**NOA NORSAR Array B** 151.95 350 PKPbc PKPbc 11 12 01.2 -0.1
comp=Z,30nm,0.9s,baz=14,slow=4.1,SNR=29
NOA PKPab PKPab 11 12 11.2 +0.5
comp=Z,18nm,0.6s,baz=18,slow=4.1,SNR=12
**LIC Lamto** 151.95 165 *e*PKP2 PKPdf 11 11 56.9 +0.6
comp=Z,81nm,0.5s
**NBO02 NORSAR Array S** 151.99 351 *e*PKPbc PKPbc 11 12 01.5 +0.1
**NBO00 NORSAR Array S** 152.01 351 *e*PKPbc PKPbc 11 12 02.5 +1.0
**MMAI Mount Meron Ar** 152.07 278 PKPbc PKPbc 11 12 04.0 +1.4
comp=Z,112nm,0.9s,baz=84,slow=5.1,SNR=54
**KIC Kosan Boka** 152.15 166 *e*PKP2 PKPdf 11 11 56.7 +0.1
comp=Z,284nm,1.4s
**NAO01 NORSAR Array S** 152.18 351 *e*PKPbc PKPbc 11 12 02.7 +0.8
NAO01 *e*PKPab PKPab 11 12 11.2 -0.6
**NC602 NORSAR Array S** 152.19 350 *e*PKPbc PKPbc 11 12 01.9 -0.1
NC602 *e*PKPab PKPab 11 12 11.9 +0.1
**IZAR Zarasai** 152.21 330 *e*P PKPbc 11 12 02.6 +0.5
IZAR IAmb IAmb 11 12 03.8
comp=Z,19nm,0.7s
**IDID Didziasalis** 152.29 329 *e*P PKPbc 11 12 02.7 +0.4
IDID IAmb IAmb 11 12 03.8
comp=Z,36nm,1.1s
**MICGM Minsk** 152.31 327⇑ *e*P PKPbc 11 12 02.0 -0.3
MICGM PM 11 12 03.0
comp=Z,0.3nm,1.0s
**TIC Toumodi** 152.36 165 *e*PKP2 PKPdf 11 11 58.3 +1.4
**HFS Hagfors** 152.41 347 PKPbc PKPbc 11 12 02.1 -0.3
comp=Z,22nm,0.8s,baz=35,slow=5.3,SNR=19
HFS PKPab PKPab 11 12 12.1 -0.5
comp=Z,19nm,0.6s,baz=66,slow=5.0,SNR=16
**DBIC Dimbokro** 152.42 165 PKP PKPdf 11 11 57.7 +0.7
comp=Z,10nm,1.1s,baz=175,slow=7.6,SNR=4.3
DBIC PKPbc PKiKP 11 12 04.5 +0.3
comp=Z,28nm,1.1s,baz=157,slow=2.3,SNR=12
DBIC PKPab PKPab 11 12 14.0 +0.1
comp=Z,9.8nm,0.7s,baz=150,slow=5.5,SNR=5.9
**IIGN Ignalina** 152.49 329 *e*P PKPbc 11 12 03.3 +0.6
IIGN IAmb IAmb 11 12 04.3
comp=Z,34nm,1.0s
**NACGM Naroch** 152.54 328 *e*P PKPbc 11 12 03.0 +0.1
NACGM PM 11 12 05.0
comp=Z,0.3nm,1.0s
NACGM *e*LQ LQ 12 28 04.0
**SIM Simferopol'** 152.82 304 *e*PKIKP PKPbc 11 12 04.5 +0.7
SIM *e* 11 12 13.3
SIM pmax pmax
comp=Z,41nm,1.2s
**KONO Kongsberg** 153.51 351 *c* iPKIKP PKPbc 11 12 05.7 +0.9
KONO pmax pmax
comp=Z,527nm,2.5s
**ILGA Ilgaz** 153.76 296 *e*PKPbc PKPbc 11 12 07.2 +0.9
**AKASG Malin Array Be** 153.77 319 PKP PKPdf 11 11 56.8 -0.9
comp=Z,0.2nm,0.3s,baz=47,slow=2.0,SNR=7.0
AKASG PKPbc PKPbc 11 12 05.7 0.0
comp=Z,5.8nm,0.7s,baz=51,slow=2.6,SNR=13
**AKBB Malin Array Si** 153.77 319 *e*PKIKP PKPbc 11 12 05.8 +0.1
AKBB *e* 11 12 17.8
**AKBB Malin Array Si** 153.77 319 *e*PKPbc PKPbc 11 12 05.8 +0.1
AKBB *e*PKPab PKPab 11 12 17.8 -0.9
**KIEV Kiev** 153.78 319 *e*PKIKP PKPbc 11 12 05.6 -0.1
KIEV *e* 11 12 18.4
KIEV MLR MLR
comp=Z,557nm,19.0s
**KIEV Kiev** 153.78 319 *e*PKPbc PKPbc 11 12 05.6 -0.1
KIEV *e*PKPab PKPab 11 12 18.4 -0.4
KIEV LR LR
comp=Z,557nm,19.0s
**AK11 Malin Array Si** 153.81 319 *e*PKPbc PKPbc 11 12 05.4 -0.3
AK11 *e*PKPab PKPab 11 12 18.3 -0.6
**BR101 Keskin Array S** 153.93 293 *e*PKPdf PKPdf 11 11 58.8 +0.2
BR101 *e*PKPbc PKiKP 11 12 07.1 +0.4
**BRTR Keskin Array B** 153.93 293 PKP PKPdf 11 11 58.8 +0.2
comp=Z,3.2nm,1.0s,baz=352,slow=3.7,SNR=5.7
BRTR PKPbc PKiKP 11 12 07.1 +0.4
comp=Z,29nm,1.0s,baz=148,slow=2.8,SNR=33
**CSS Mathiatis** 154.06 282 *e*PKPbc PKPbc 11 12 07.8 +0.9
CSS LR LR
comp=Z,365nm,21.0s
**ANTO Ankara** 154.57 293 *e*PKIKP PKPbc 11 12 08.4 +0.5
ANTO *e* 11 12 22.3
ANTO MLR MLR
comp=Z,781nm,20.0s
**ANTO Ankara** 154.57 293 *e*PKPbc PKPbc 11 12 08.4 +0.5
ANTO *e*PKPab PKPab 11 12 22.3 -0.4
ANTO LR LR
comp=Z,781nm,20.0s
**TLCR** 156.35 307⇓ *i* P PKPab 11 12 29.8 -0.2
**TLCR** 156.35 307⇓ PKP2 PKPab 11 12 29.8 -0.2
**LVV L'vov** 157.04 321 *e*PKIKP PKPdf 11 12 03.8 +1.6
**TESR Tescani** 157.24 312⇓ *i* P PKPab 11 12 33.4 -0.4
**VRI Vrincioaia** 157.46 310⇑ *i* P PKPab 11 12 35.9 +1.1
**VRI Vrincioaia** 157.46 310⇑ PKP2 PKPab 11 12 35.9 +1.1
**PLOR Plostina** 157.52 310⇓ *i* P PKPab 11 12 36.2 +1.1
**PLOR Plostina** 157.52 310⇓ PKP2 PKPab 11 12 36.2 +1.1
**BURAR Bucovina Array** 157.59 315⇓ *i* P PKPab 11 12 28.8 -6.6
**BUR04 Bucovina Ar. S** 157.59 315 *e*PKPdf PKPdf 11 12 02.4 -0.7
**KWP Kalwaria Pacla** 157.84 322 *e*PKP PKPab 11 12 36.1 -0.2
**KWP Kalwaria Pacla** 157.84 322 *e*PKP2 PKPab 11 12 36.1 -0.2
**KWP Kalwaria Pacla** 157.84 322 *e*PKPab PKPab 11 12 35.9 -0.3
**EKA Eskdalemuir Ar** 158.04 8 PKPab PKPab 11 12 37.0 +0.1
comp=Z,7.1nm,1.0s,baz=330,slow=2.7,SNR=4.7
**EKA Eskdalemuir Ar** 158.04 8 PKP2 PKPab 11 12 37.0 +0.1
**MLR Muntele Rosu** 158.11 310 PKPbc PKPdf 11 12 13.7 +10
comp=Z,2.0nm,1.1s,baz=280,slow=10,SNR=4.0
MLR PKPab PKPab 11 12 35.5 -2.2
comp=Z,1.8nm,0.8s,baz=120,slow=11,SNR=4.4
**UZH Uzhgorod** 158.66 321 *e*PKP2 PKPab 11 12 32.9 -6.9
**VOIR** 158.71 310⇑ *i* P PKPab 11 12 37.8 -2.5
**VOIR** 158.71 310⇑ PKP2 PKPab 11 12 37.8 -2.5
**STHS Stebnicka Huta** 158.71 323 *e*PKP2 PKPab 11 12 38.4 -1.6
**STHS Stebnicka Huta** 158.71 323 *e*PKP PKPab 11 12 38.4 -1.6
**OJC Ojcow** 158.85 327 *e*PKIKP PKPdf 11 12 04.7 +0.2
OJC *e* 11 12 40.6
**OJC Ojcow** 158.85 327 *e*PKPdf PKPdf 11 12 04.7 +0.2
OJC *e*PKPab PKPab 11 12 40.6 0.0
**CRVS Cervenica-Dubn** 158.93 322 *e*PKP2 PKPab 11 12 40.6 -0.4
**CRVS Cervenica-Dubn** 158.93 322 *e*PKP PKPab 11 12 40.6 -0.4
**ARR Arges** 159.00 311⇑ *i* P PKPab 11 12 42.7 +1.2
**NIE Niedzica** 159.17 325 *e*PKP PKPdf 11 12 05.7 +0.8
**NIE Niedzica** 159.17 325 *e*PKIKP PKPdf 11 12 05.7 +0.8
**DRGR** 159.48 316⇑ *i* P PKPab 11 12 43.2 -0.4

**DRGR** 159.48 316⇑ PKP2 PKPab 11 12 43.2 -0.4
**TOA0 Torodi Ar. Sit** 159.58 179 *e*PKPdf PKPdf 11 12 07.0 +0.6
**TORD Torodi Ar. Bea** 159.58 179 PKP PKPdf 11 12 06.8 +0.4
comp=Z,5.0nm,1.1s,baz=258,slow=1.0,SNR=15
TORD PKPab PKPab 11 12 45.3 +0.8
comp=Z,40nm,1.1s,baz=169,slow=3.7,SNR=19
**TOA1 Torodi Ar. Sit** 159.59 179 *e*PKPdf PKPdf 11 12 06.8 +0.4
TOA1 *e*PKPab PKPab 11 12 45.3 +0.7
**KECS Kecovo** 159.69 322 *e*PKP2 PKPab 11 12 44.1 -0.2
**KECS Kecovo** 159.69 322 *e*PKP PKPab 11 12 44.1 -0.2
**OKC Ostrava-Krasne** 159.87 328 *e*PKPAB PKPab 11 12 43.1 -1.9
**OKC Ostrava-Krasne** 159.87 328 *e*PKP2 PKPab 11 12 43.1 -1.9
**MORC Moravsky Berou** 160.18 329 *e*PKIKP PKPdf 11 12 05.4 -0.7
**MORC Moravsky Berou** 160.18 329 *e*PKPdf PKPdf 11 12 05.4 -0.7
**KOWA Kowa** 160.18 163 *e*PKPdf PKPdf 11 12 07.9 +0.8
**UPC Upice** 160.23 333 *e*PKPAB PKPab 11 12 46.3 -0.3
**UPC Upice** 160.23 333 *e*PKP2 PKPab 11 12 46.3 -0.3
**DPC Dobruska-Polom** 160.24 332 *e*PKPDF PKPdf 11 12 03.2 -2.9
DPC *ex* x 11 12 15.2
DPC *e*PKPAB PKPab 11 12 46.4 -0.3
DPC AMS AMS 12 34 10.0
comp=Z,900nm,18.4s
**DPC Dobruska-Polom** 160.24 332 *e*PKIKP PKPdf 11 12 03.2 -2.9
DPC *e* 11 12 15.2
DPC *e* 11 12 46.4
DPC MLR MLR
comp=Z,900nm,18.4s
**KRLC Kraliky** 160.27 331 *e*PKPAB PKPab 11 12 45.6 -1.2
**KRLC Kraliky** 160.27 331 *e*PKP2 PKPab 11 12 45.6 -1.2
**PSZ Piszkesteto** 160.36 322⇓ *i* P PKPab 11 12 47.4 +0.1
**PSZ Piszkesteto** 160.36 322⇓ PKP2 PKPab 11 12 47.4 +0.1
**PSZ Piszkesteto** 160.36 322 PFAKE 11 12 20.0 +14
PSZ LR LR
comp=Z,598nm,20.0s
**SIRR Siria** 160.37 316⇑ *i* P PKPab 11 12 48.2 +0.8
**VYHS Vyhne** 160.51 325 *e*PKP2 PKPab 11 12 47.6 -0.3
**VYHS Vyhne** 160.51 325 *e*PKP PKPab 11 12 47.5 -0.3
**SANT Santorini** 160.53 285 PFAKE 11 12 20.0 +13
SANT LR LR
comp=Z,354nm,22.0s
**CLL Collm** 160.60 339 *e*PKIKP PKPdf 11 12 07.0 +0.6
CLL *i* 11 12 47.7
CLL pmax pmax
comp=Z,51nm,1.3s
**CLL Collm** 160.60 339 *e*PKPdf PKPdf 11 12 07.0 +0.6
CLL *i* PKPab PKPab 11 12 47.7 -0.4
comp=Z,51nm,1.3s
CLL *i* 11 13 01.4
comp=Z,30nm,1.2s
**HERR Herculane** 160.62 311⇑ *i* P PKPab 11 12 49.1 +0.6
**BRG Berggiesshubel** 160.67 336 *e*PKP PKPdf 11 12 05.8 -0.7
comp=Z,51nm,2.1s
BRG *e* 11 12 29.9
comp=Z,42nm,1.8s
BRG *i* 11 12 48.0
comp=Z,53nm,1.4s
BRG *e* 11 13 01.9
comp=Z,37nm,1.4s
BRG *e* 11 13 13.5
comp=Z,56nm,1.7s
**BRG Berggiesshubel** 160.67 336 *e*PKIKP PKPdf 11 12 05.8 -0.7
BRG *i* 11 12 48.0
BRG pmax pmax
comp=Z,9.0nm,2.1s
BRG pmax pmax
comp=Z,51nm,1.8s
BRG pmax pmax
comp=Z,42nm,1.4s
BRG pmax pmax
comp=Z,53nm,1.4s
BRG pmax pmax
comp=Z,37nm,1.7s
**PVCC Panska Ves** 160.75 335 *e*PKPAB PKPab 11 12 48.2 -0.6
**PVCC Panska Ves** 160.75 335 *e*PKP2 PKPab 11 12 48.2 -0.6
**VRAC Vranov** 160.94 329 PKP PKPdf 11 12 06.7 -0.2
comp=Z,1.6nm,0.5s,baz=36,slow=7.4,SNR=4.7
VRAC PKPab PKPab 11 12 49.2 -0.5
comp=Z,7.0nm,0.7s,baz=80,slow=2.4,SNR=7.9
**VRAC Vranov** 160.94 329⇓ *i* P PKPab 11 12 49.9 +0.2
**VRAC Vranov** 160.94 329⇓ PKP2 PKPab 11 12 49.9 +0.2
**IDI Anoyia** 160.99 281 PKPab PKPab 11 12 50.1 -0.5
comp=Z,9.1nm,0.7s,baz=42,slow=15,SNR=4.4
**MDVR Moldovita** 161.11 312⇓ *i* P PKPab 11 12 50.8 +0.1
**GOPC GO Pecny, Ondr** 161.18 333 *e*PKPAB PKPab 11 12 50.6 -0.1
GOPC *ex* x 11 13 00.2
GOPC AMS AMS 12 34 40.0
comp=Z,900nm,17.2s
**GOPC GO Pecny, Ondr** 161.18 333 *e*PKP2 PKPab 11 12 50.6 -0.1
GOPC MLR MLR
comp=Z,900nm,17.2s
**PRU Pruhonice** 161.21 334 *e*PKPAB PKPab 11 12 50.6 -0.2
PRU *ex* x 11 13 04.3
PRU *ex* x 11 13 15.4
PRU AMS AMS 12 35 00.0
comp=Z,900nm,17.2s
**PRU Pruhonice** 161.21 334 *e*PKP2 PKPab 11 12 50.6 -0.2
PRU MLR MLR
comp=Z,900nm,17.2s
**NKC Novy Kostel** 161.71 338 *e*PKPAB PKPab 11 12 53.0 0.0
NKC *ex* x 11 13 07.0
**NKC Novy Kostel** 161.71 338 *e*PKP2 PKPab 11 12 53.0 0.0
**KHC Kasperske Hory** 162.27 334 *e*PKPDF PKPdf 11 12 07.2 -1.1
KHC *ex* x 11 12 19.0
KHC *ex* x 11 12 29.8
KHC *e*PKPAB PKPab 11 12 55.0 -0.5
KHC *ex* x 11 13 20.5
**KHC Kasperske Hory** 162.27 334 *e*PKIKP PKPdf 11 12 07.2 -1.1
KHC *e* 11 12 19.0
KHC *e* 11 12 55.0
**KHC Kasperske Hory** 162.27 334 *e*PKPdf PKPdf 11 12 07.4 -0.9
KHC *e*PKPab PKPab 11 12 55.2 -0.4
**CONA Conrad Observa** 162.30 328 *i* PKPab PKPab 11 12 55.5 -0.3
comp=Z,25nm,1.5s
**GEC2 GERESS Array S** 162.46 333 *e*PKIKP PKPdf 11 12 08.3 -0.3
GEC2 *e* 11 12 56.4
**GEC2 GERESS Array S** 162.46 333 *e*PKPdf PKPdf 11 12 08.3 -0.3
GEC2 *e*PKPab PKPab 11 12 56.4 -0.1
**GERES GERESS Array B** 162.46 333 PKP PKPdf 11 12 05.7 -2.9
comp=Z,1.2nm,1.0s,baz=211,slow=1.6,SNR=7.0
GERES PKPab PKPab 11 12 56.2 -0.3
comp=Z,3.7nm,0.9s,baz=57,slow=4.9,SNR=12
**GEA0 GERESS Array S** 162.47 333 *e*PKPdf PKPdf 11 12 07.6 -1.0
GEA0 *e*PKPab PKPab 11 12 55.7 -0.8
**GRFO Grafenberg** 162.56 339 *e*PKP2 PKPab 11 12 58.0 +1.3
**GRFO Grafenberg** 162.56 339 *e*PKPab PKPab 11 12 58.0 +1.3
**MEM Membach** 162.80 351 PKPab PKPab 11 12 57.5 -0.2
**ARSA Arzberg** 162.96 327 *i* PKPab PKPab 11 12 58.2 -0.4
comp=Z,14nm,1.1s
**MOA Molln** 163.04 330 *i* PKPab PKPab 11 12 58.8 -0.2
comp=Z,8.6nm,1.2s
**BCLA Clavier** 163.07 353 PKPab PKPab 11 12 58.5 -0.4
**DOU Dourbes** 163.46 354 PKPab PKPab 11 13 00.1 -0.5
**SOKA Soboth** 163.61 326 *i* PKPab PKPab 11 13 01.7 +0.1
comp=Z,20nm,1.4s
**WLF Walferdange** 163.70 350 PKPab PKPab 11 13 01.5 -0.2
**WLF Walferdange** 163.70 350 *e*PKP2 PKPab 11 13 02.2 +0.5
WLF MLR MLR
comp=Z,964nm,19.0s
**WLF Walferdange** 163.70 350 *e*PKPab PKPab 11 13 02.2 +0.5
WLF LR LR
comp=Z,964nm,19.0s
**TIR Tirane** 163.83 304 PFAKE 11 12 20.0 +10
TIR LR LR
comp=Z,954nm,20.0s
**OBKA Obir** 163.96 327 *i* PKPab PKPab 11 13 00.9 -2.2
comp=Z,5.0nm,1.2s
**MYKA Terra Mystica** 164.27 329 *i* PKPab PKPab 11 13 03.5 -1.0
comp=Z,15nm,1.5s
**BFO Black Forest** 164.57 344 PFAKE 11 12 20.0 +10
BFO LR LR
comp=Z,757nm,20.0s
**ABTA Abfaltersbach** 164.64 331 *i* PKPab PKPab 11 13 04.7 -1.4
comp=Z,16nm,1.3s
**RETA Reutte** 164.65 337 *i* pPKPab PKPab 11 13 06.2 +0.1
comp=Z,29nm,1.2s
**MOTA Moosalm** 164.66 336 *i* pPKPab PKPab 11 13 05.7 -0.5
comp=Z,17nm,1.2s
**ECH Echery** 164.93 346 PKP PKPab 11 13 06.9 -0.3
**ECH Echery** 164.93 346 PFAKE 11 12 20.0 +9.2
ECH LR LR
comp=Z,1μm,19.0s
**FETA Feichten** 165.07 336 *i* pPKPab PKPab 11 13 08.1 0.0
comp=Z,24nm,1.2s
**DAVA Damuels** 165.11 338 *i* pPKPab PKPab 11 13 08.3 +0.1

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | comp=Z,26nm,1.1s | | | | | | | |
| **MOF** | **Molkenrain** | **165.28** | **346** | PKP | **PKPab** | **11 13 08.4** | **-0.5** |
| **DAVOX** | **Davos/Dischmat** | **165.56** | **338** | PKP | **PKPdf** | **11 12 11.0** | **-0.6** |
| | comp=Z,0.6nm,0.2s,baz=322,slow=19,SNR=2.7 | | | | | | | |
| DAVOX | | | | PKPab | **PKPab** | **11 13 09.8** | **-0.4** |
| | comp=Z,8.8nm,1.0s,baz=40,slow=1.7,SNR=7.7 | | | | | | | |
| **FUORN** | **Ofenpass-Fuorn** | **165.57** | **336** | *e*PKPab | **PKPab** | **11 13 10.5** | **0.0** |
| **TUE** | **Stuetta** | **166.00** | **338** | *e*PKPab | **PKPab** | **11 13 12.3** | **0.0** |
| TUE | | | | LR | LR | | | |
| | comp=Z,890nm,19.0s | | | | | | | |
| **TIP** | **Timpagrande** | **166.84** | **299** | PFAKE | | 11 12 20.0 | +7.3 | |
| TIP | | | | LR | LR | | | |
| | comp=Z,822nm,19.0s | | | | | | | |
| **CUC** | **Castrocucco** | **167.20** | **304** | PFAKE | | 11 12 20.0 | +7.1 | |
| CUC | | | | LR | LR | | | |
| | comp=Z,726nm,21.0s | | | | | | | |
| **AQU** | **L'Aquila** | **167.46** | **317** | PFAKE | | 11 12 20.0 | +7.0 | |
| AQU | | | | LR | LR | | | |
| | comp=Z,891nm,19.0s | | | | | | | |
| **VLC** | **Villacollemand** | **167.62** | **330** | PFAKE | | 11 12 20.0 | +7.0 | |
| VLC | | | | LR | LR | | | |
| | comp=Z,688nm,20.0s | | | | | | | |
| **BNI** | **Bardonecchia** | **168.04** | **343** | PFAKE | | 11 12 20.0 | +6.6 | |
| BNI | | | | LR | LR | | | |
| | comp=Z,2µm,20.0s | | | | | | | |
| **SSB** | **Saint Sauveur** | **168.22** | **351** | *e*PKP2 | **PKPab** | **11 13 21.7** | **-0.1** | |
| SSB | | | | MLR | MLR | | | |
| | comp=Z,715nm,19.0s | | | | | | | |
| **SSB** | **Saint Sauveur** | **168.22** | **351** | *e*PKPab | **PKPab** | **11 13 21.7** | **-0.1** | |
| SSB | | | | LR | LR | | | |
| | comp=Z,715nm,19.0s | | | | | | | |
| **TAM** | **Tamanrasset** | **168.72** | **197** | *e*PKIKP | **PKPdf** | **11 12 15.7** | **+1.1** | |
| TAM | | | | *e* | | 11 13 25.7 | | |
| TAM | | | | MLR | MLR | | | |
| | comp=Z,785nm,21.0s | | | | | | | |
| **TAM** | **Tamanrasset** | **168.72** | **197** | *e*PKPdf | **PKPdf** | **11 12 15.7** | **+1.1** | |
| TAM | | | | *e*PKPab | **PKPab** | **11 13 25.6** | **+1.0** | |
| TAM | | | | LR | LR | | | |
| | comp=Z,785nm,21.0s | | | | | | | |
| **LUCF** | **Luceram** | **168.94** | **339** | PKP | **PKPab** | **11 13 24.7** | **-0.4** | |
| **MVIF** | **Mont Vial** | **168.99** | **340** | PKP | **PKPab** | **11 13 25.0** | **-0.4** | |
| **REVF** | **Revere** | **169.07** | **339** | PKP | **PKPab** | **11 13 26.0** | **+0.3** | |
| **POLD** | **Lamas de Olo** | **169.11** | **42** | *e*P | **PKPab** | **11 13 25.2** | **-0.9** | |
| **WDD** | **Wied Dalam** | **169.39** | **285** | PFAKE | | 11 12 30.0 | +16 | |
| WDD | | | | LR | LR | | | |
| | comp=Z,802nm,19.0s | | | | | | | |
| **PVIS** | **Viseu** | **169.48** | **45** | *e*P | **PKPab** | **11 13 25.9** | **-1.8** | |
| **MVO** | **Moncorvo** | **169.68** | **41** | *e*PKPdf | **PKPdf** | **11 12 16.8** | **+2.3** | |
| MVO | | | | *e*P | **PKPab** | **11 13 29.2** | **+0.7** | |
| **PMST** | **Lisbon--Monsan** | **169.71** | **57** | *e*P | **PKPab** | **11 13 29.5** | **+0.8** | |
| **PTOM** | **Tomar** | **169.80** | **51** | *e*P | **PKPab** | **11 13 27.5** | **-1.6** | |
| **MTE** | **Manteigas** | **169.89** | **46** | *e*PKPdf | **PKPdf** | **11 12 16.1** | **+1.4** | |
| MTE | | | | *e*PKPab | **PKPab** | **11 13 29.6** | **0.0** | |
| MTE | | | | LR | LR | | | |
| | comp=Z,887nm,20.0s | | | | | | | |
| **MTE** | **Manteigas** | **169.89** | **46** | *e*PKPdf | **PKPdf** | **11 12 15.7** | **+1.0** | |
| MTE | | | | *e*P | **PKPab** | **11 13 29.9** | **+0.4** | |
| **CLTB** | **Caltabellotta** | **170.00** | **296** | PFAKE | | 11 12 30.0 | +15 | |
| CLTB | | | | LR | LR | | | |
| | comp=Z,506nm,20.0s | | | | | | | |
| **PMTG** | **Montargil** | **170.21** | **54** | *e*P | **PKPab** | **11 13 30.2** | **-0.7** | |
| **PCBR** | **Castelo Branco** | **170.27** | **48** | *e*PKPdf | **PKPdf** | **11 12 14.8** | **0.0** | |
| PCBR | | | | *e*P | **PKPab** | **11 13 31.3** | **+0.2** | |
| **PMRV** | **Marv??o** | **170.56** | **50** | *e*P | **PKPab** | **11 13 31.5** | **-1.0** | |
| **PESTR** | **Estremoz** | **170.74** | **53** | *e*PKPdf | **PKPdf** | **11 12 16.2** | **+1.1** | |
| PESTR | | | | *e*P | **PKPab** | **11 13 33.8** | **+0.5** | |
| **MESJ** | **Messejana** | **170.77** | **60** | *e*PKPdf | **PKPdf** | **11 12 15.9** | **+0.8** | |
| MESJ | | | | *e*P | **PKPab** | **11 13 33.9** | **+0.4** | |
| **PVAQ** | **Vaqueiros** | **171.31** | **62** | *e*P | **PKPab** | **11 13 34.5** | **-1.4** | |
| **PBAR** | **Barrancos** | **171.46** | **56** | *e*PKPdf | **PKPdf** | **11 12 18.0** | **+2.5** | |
| PBAR | | | | *e*P | **PKPab** | **11 13 30.6** | **-5.9** | |
| **VSL** | **Villasalto** | **171.63** | **316** | PFAKE | | 11 12 30.0 | +14 | |
| VSL | | | | LR | LR | | | |
| | comp=Z,898nm,20.0s | | | | | | | |
| **PAB** | **San Pablo** | **172.27** | **39** | PFAKE | | 11 12 30.0 | +14 | |
| PAB | | | | LR | LR | | | |
| | comp=Z,742nm,19.0s | | | | | | | |
| **ESDC** | **Sonseca Array** | **172.37** | **36** | PKP | **PKPdf** | **11 12 16.6** | **+0.6** | |
| | comp=Z,0.2nm,0.4s,baz=343,slow=4.6,SNR=5.4 | | | | | | | |
| ESDC | | | | PKPab | **PKPab** | **11 13 40.3** | **-0.1** | |
| | comp=Z,0.2nm,0.4s,baz=334,slow=4.3,SNR=7.3 | | | | | | | |
| ESDC | | | | PP | **PP** | **11 17 31.9** | **+0.3** | |
| | comp=Z,2.0nm,0.9s,baz=333,slow=4.7,SNR=7.4 | | | | | | | |
| **ES19** | **SONSECA Array** | **172.38** | **36** | *e*PKPdf | **PKPdf** | **11 12 17.5** | **+1.5** | |
| ES19 | | | | *e*PKPab | **PKPab** | **11 13 39.8** | **-0.7** | |
| **RTC** | **Rabat Centre** | **172.70** | **85** | PFAKE | | 11 12 30.0 | +14 | |
| RTC | | | | LR | LR | | | |
| | comp=Z,3µm,19.0s | | | | | | | |

*ISCJB **23** 10:52:52.3±0.6,50.°14N±0.°05×19.°04E±0.°04, h0km, Error ellipse: s-maj=6.9km s-min=3.2km az=13.1*
*CSEM **23** 10:52:53.5±0.4,50.°13N×19.°09E, h2km, ML2.3/4, Error ellipse: s-maj=9.5km s-min=4.7km az=10.0*
*PRU **23** 10:52:54.1,50.°14N×19.°10E, h0km*
**ISC 23 10:52:53.3±0.8,50.°14N±0.°04×19.°10E±0.°03, h0km, n25, σ0s77/37, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **OJC** | **Ojcow** | **0.46** | **80** | *e*Pg | **Pg** | **10 53 02.2** | **+0.2** |
| OJC | | | | *e*Sg | **Sg** | **10 53 07.7** | **-0.2** |
| **OJC** | **Ojcow** | **0.46** | **80** | *e*Pg | **Pg** | **10 53 02.2** | **+0.2** |
| OJC | | | | *e*Sg | **Sg** | **10 53 07.7** | **-0.2** |
| **OKC** | **Ostrava-Krasne** | **0.69** | **244** | *e*SG | **Sb** | **10 53 17.5** | **-0.6** |
| | comp=Z,11nm,0.4s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **0.69** | **244** | Sg | **Sb** | **10 53 17.5** | **-0.6** |
| | 11nm,0.4s | | | | | | |
| **LANS** | **Liptovska Anna** | **1.02** | **166** | *e*Pg | **Pg** | **10 53 13.2** | **+0.4** |
| LANS | | | | *e*Sg | **Sg** | **10 53 27.0** | **+1.0** |
| **LANS** | **Liptovska Anna** | **1.02** | **166** | *e*PG | **Pg** | **10 53 13.2** | **+0.4** |
| LANS | | | | *e*SG | **Sg** | **10 53 27.0** | **+1.0** |
| **MORC** | **Moravsky Berou** | **1.07** | **251** | *e*Pg | **Pn** | **10 53 15.7** | **+0.1** |
| **KRLC** | **Kraliky** | **1.50** | **268** | *e*PG | **Pn** | **10 53 21.7** | **+0.3** |
| KRLC | | | | *e*SG | **Sb** | **10 53 41.9** | **+0.4** |
| | comp=Z,1.9nm,0.3s | | | | | | |
| **KRLC** | **Kraliky** | **1.50** | **268** | Pg | **Pn** | **10 53 21.7** | **+0.3** |
| KRLC | | | | Sg | **Sb** | **10 53 41.9** | **+0.4** |
| | 1.9nm,0.3s | | | | | | |
| **STHS** | **Stebnicka Huta** | **1.57** | **117** | *e*Pn | **Pg** | **10 53 23.8** | **+0.5** |
| **STHS** | **Stebnicka Huta** | **1.57** | **117** | *e*PN | **Pg** | **10 53 23.8** | **+0.5** |
| STHS | | | | *e*LG | Lg | 10 53 51.4 | |
| **VYHS** | **Vyhne** | **1.66** | **186** | *e*Pg | **Pn** | **10 53 23.5** | **-0.1** |
| **VYHS** | **Vyhne** | **1.66** | **186** | *e*PG | **Pn** | **10 53 23.5** | **-0.1** |
| VYHS | | | | *e*LG | Lg | 10 53 46.8 | |
| **DPC** | **Dobruska-Polom** | **1.80** | **278** | *e*PG | **Pb** | **10 53 26.8** | **-0.3** |
| DPC | | | | *e*SG | **Sb** | **10 53 50.4** | **+0.3** |
| | comp=Z,7.4nm,0.5s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.80** | **278** | Pg | **Pb** | **10 53 26.8** | **-0.3** |
| DPC | | | | Sg | **Sb** | **10 53 50.4** | **+0.3** |
| | 7.4nm,0.5s | | | | | | |
| **KECS** | **Kecovo** | **1.89** | **151** | *e*Pn | **Pn** | **10 53 26.2** | **-0.6** |
| KECS | | | | *e*Sn | **Sn** | **10 53 50.8** | **-0.5** |
| **KECS** | **Kecovo** | **1.89** | **151** | *e*PN | **Pn** | **10 53 26.2** | **-0.6** |
| KECS | | | | *e*SN | **Sn** | **10 53 50.8** | **-0.5** |
| KECS | | | | *e*LG | Lg | 10 53 58.8 | |
| **UPC** | **Upice** | **2.01** | **282** | *e*SG | **Sg** | **10 53 59.4** | **+1.5** |
| | comp=Z,4.2nm,0.5s | | | | | | |
| **UPC** | **Upice** | **2.01** | **282** | Sg | **Sg** | **10 53 59.4** | **+1.5** |
| | 4.2nm,0.5s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **2.79** | **267** | *e*SG | **Sg** | **10 54 21.9** | **-1.0** |
| **GOPC** | **GO Pecny, Ondr** | **2.79** | **267** | Sg | **Sg** | **10 54 21.9** | **-1.0** |
| **PRU** | **Pruhonice** | **2.94** | **269** | *e*SG | **Sg** | **10 54 26.0** | **-1.7** |
| **PRU** | **Pruhonice** | **2.94** | **269** | Sg | **Sg** | **10 54 26.0** | **-1.7** |
| **KHC** | **Kasperske Hory** | **3.73** | **256** | *e*PN | **Pn** | **10 53 53.0** | **+0.9** |
| KHC | | | | *e*SG | **Sg** | **10 54 52.6** | **-0.4** |
| **KHC** | **Kasperske Hory** | **3.73** | **256** | Pn | **Pn** | **10 53 53.0** | **+0.9** |
| KHC | | | | Sg | **Sg** | **10 54 52.6** | **-0.4** |

*DDA **23** 10:54:35.4,38.°43N×38.°89E, h7km, Md2.5*
*ISK **23** 10:54:35.8,38.°53N×38.°79E, h7km, ML2.1*
*ISCJB **23** 10:54:37.0±0.5,38.°46N±0.°04×38.°86E±0.°05, h11km, Error ellipse: s-maj=6.2km s-min=4.8km az=34.0*
*CSEM **23** 10:54:36.3±0.3,38.°44N×38.°85E, h2km, ML2.1, Error ellipse: s-maj=6.9km s-min=5.4km az=17.0*
**ISC 23 10:54:37.0±1.0,38.°45N±0.°03×38.°83E±0.°03, h11km, n18, σ0s98/26, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MALT** | **Malatya** | **0.35** | **247** | *e*PG | **Pg** | **10 54 43.1** | **-0.9** |
| **MALT** | **Malatya** | **0.35** | **247** | *e*Pg | **Pg** | **10 54 43.1** | **-0.9** |
| **SVRC** | **Sivrice-ELAZID** | **0.38** | **101** | *e*PG | **Pg** | **10 54 44.1** | **-0.5** |
| **SVRC** | **Sivrice-ELAZID** | **0.38** | **101** | *e*Pg | **Pg** | **10 54 44.1** | **-0.5** |
| **PTK** | **Pertek** | **0.62** | **45** | *e*PG | **Pg** | **10 54 48.5** | **-0.7** |
| **PTK** | **Pertek** | **0.62** | **45** | *e*Pg | **Pg** | **10 54 48.5** | **-0.7** |
| **AKCD** | **Akcadag** | **0.73** | **258** | *i* P | **Pg** | **10 54 50.2** | **-1.0** |
| AKCD | | | | *i* S | **Sb** | **10 55 01.9** | **-0.1** |
| **AKCD** | **Akcadag** | **0.73** | **258** | P | **Pg** | **10 54 50.2** | **-1.0** |
| AKCD | | | | S | **Sb** | **10 55 01.9** | **-0.1** |
| **HEKM** | **Malatya_Hekimh** | **0.81** | **302** | *i* P | **Pg** | **10 54 52.0** | **-0.7** |
| HEKM | | | | *i* S | **Sb** | **10 55 05.0** | **+0.8** |
| **HEKM** | **Malatya_Hekimh** | **0.81** | **302** | P | **Pg** | **10 54 52.0** | **-0.7** |
| HEKM | | | | S | **Sb** | **10 55 05.0** | **+0.8** |
| **KEMA** | **Kemaliye** | **0.86** | **342** | *i* P | **Pg** | **10 54 52.6** | **-1.1** |
| KEMA | | | | *i* S | **Sb** | **10 55 06.3** | **+0.7** |
| **KEMA** | **Kemaliye** | **0.86** | **342** | P | **Pg** | **10 54 52.6** | **-1.1** |
| KEMA | | | | S | **Sb** | **10 55 06.3** | **+0.7** |
| **URFA** | **Urfa** | **1.01** | **181** | *e*PN | **Pn** | **10 54 57.1** | **-0.1** |
| URFA | | | | *e*SN | **Sn** | **10 55 13.3** | **+1.9** |
| **URFA** | **Urfa** | **1.01** | **181** | *e*Pn | **Pn** | **10 54 57.1** | **-0.1** |
| URFA | | | | *e*Sn | **Sn** | **10 55 13.3** | **+1.9** |
| **DYBB** | **Diyarbakir** | **1.14** | **115** | *e*PN | **Pn** | **10 54 59.0** | **0.0** |
| **DIY** | **Diyarbakir** | **1.23** | **116** | *e*Pn | **Pn** | **10 54 59.0** | **-1.2** |
| **MAZI** | **Mazidag** | **1.61** | **127** | *e*PN | **Pg** | **10 55 06.8** | **-1.2** |
| **MAZI** | **Mazidag** | **1.61** | **127** | *e*Pn | **Pg** | **10 55 06.8** | **-1.2** |

**WEL 23 11:15:44.9±0.2, 43.°55S×172.°79E, h8km, ML3.5/11, 6C-3D, Error ellipse: s-maj=1.5km s-min=0.7km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.13** | **258** | ⇑P | Pg | 11 15 47.9 | +0.2 |
| CRLZ | | | | SG | Sg | 11 15 50.0 | +0.3 |
| CRLZ | | | | AML | AML | 11 15 50.2 | |
| **MQZ** | **McQueen's Vall** | **0.19** | **213** | ⇑P | Pg | 11 15 49.0 | +0.2 |
| MQZ | | | | SG | Sg | 11 15 52.0 | +0.6 |
| MQZ | | | | SG | | 11 15 52.0 | |
| MQZ | | | | AML | AML | 11 15 52.2 | |
| **OXZ** | **Oxford** | **0.59** | **292** | P* | Pg | 11 15 56.2 | -0.2 |
| OXZ | | | | S* | Sg | 11 16 04.7 | +0.6 |
| OXZ | | | | AML | AML | 11 16 07.0 | |
| OXZ | | | | AML | AML | 11 16 07.0 | |
| OXZ | | | | AML | AML | 11 16 07.0 | |
| **LTZ** | **Lake Taylor** | **0.86** | **333** | P* | Pg | 11 16 01.3 | 0.0 |
| LTZ | | | | S* | Sg | 11 16 13.0 | +0.5 |
| LTZ | | | | AML | AML | 11 16 14.2 | |
| **KHZ** | **Kahutara** | **1.26** | **26** | P* | Pn | 11 16 06.7 | -2.0 |
| **RPZ** | **Rata Peaks** | **1.27** | **262** | ⇓P* | Pn | 11 16 07.7 | -1.3 |
| RPZ | | | | AML | AML | 11 16 28.6 | |
| RPZ | | | | AML | AML | 11 16 33.3 | |
| **INZ** | **Inchbonnie** | **1.29** | **309** | P* | Pn | 11 16 08.8 | -0.4 |
| **WVZ** | **Waitaha Valley** | **1.57** | **287** | ⇑PN | Pn | 11 16 12.9 | -0.2 |
| **THZ** | **Tophouse** | **1.79** | **3** | ⇑PN | Pn | 11 16 14.5 | -1.6 |
| THZ | | | | AML | AML | 11 16 48.1 | |
| THZ | | | | AML | AML | 11 16 49.0 | |
| **DSZ** | **Denniston Nort** | **1.94** | **338** | PN | Pn | 11 16 17.3 | -0.9 |
| DSZ | | | | AML | AML | 11 16 50.6 | |
| DSZ | | | | AML | AML | 11 16 52.0 | |
| **BSWZ** | **Blackbirch Sta** | **2.00** | **24** | ⇑PN | Pn | 11 16 17.6 | -1.3 |
| **LBZ** | **Lake Benmore** | **2.06** | **245** | ⇓PN | Pn | 11 16 19.3 | -0.6 |
| LBZ | | | | AML | AML | 11 16 54.9 | |
| LBZ | | | | AML | AML | 11 16 58.4 | |
| **ODZ** | **Otahua Downs** | **2.15** | **225** | PN | Pn | 11 16 19.7 | -1.4 |
| ODZ | | | | AML | AML | 11 16 59.3 | |
| ODZ | | | | AML | AML | 11 16 59.3 | |
| ODZ | | | | AML | AML | 11 17 01.8 | |
| ODZ | | | | AML | AML | 11 17 01.8 | |
| **FOZ** | **Fox Glacier** | **2.17** | **269** | ⇑PN | Pn | 11 16 21.7 | +0.4 |
| **NNZ** | **Nelson** | **2.37** | **11** | ⇓PN | Pn | 11 16 23.2 | -0.9 |
| **QRZ** | **Quartz Range** | **2.73** | **356** | PN | Pn | 11 16 28.1 | -0.9 |
| **JCZ** | **Jackson Bay** | **2.95** | **258** | PN | Pn | 11 16 31.8 | -0.4 |
| **CAW** | **Cannon Point** | **2.96** | **35** | PN | Pn | 11 16 29.9 | -2.4 |
| **EAZ** | **Earnscleugh** | **3.01** | **235** | PN | Pn | 11 16 31.9 | -1.0 |
| EAZ | | | | AML | AML | 11 17 23.7 | |
| EAZ | | | | AML | AML | 11 17 27.6 | |
| **TUZ** | **Tuapeka** | **3.30** | **222** | *e*PN | Pn | 11 16 36.2 | -0.5 |
| TUZ | | | | AML | AML | 11 17 34.0 | |
| TUZ | | | | AML | AML | 11 17 43.0 | |
| **MRZ** | **Mangatainoka R** | **3.55** | **37** | PN | Pn | 11 16 37.7 | -2.6 |
| **MLZ** | **Mavora Lakes** | **3.81** | **240** | PN | Pn | 11 16 42.5 | -1.4 |
| **SYZ** | **Scrubby Hill** | **3.96** | **220** | PN | Pn | 11 16 45.4 | -0.4 |
| **WHZ** | **Wether Hill Ro** | **4.17** | **234** | PN | Pn | 11 16 46.8 | -2.1 |
| **DCZ** | **Deep Cove** | **4.47** | **243** | PN | Pn | 11 16 51.5 | -1.4 |
| **VRZ** | **Vera Road** | **4.66** | **19** | PN | Pn | 11 16 55.9 | +0.3 |
| **APZ** | **The Paps** | **4.72** | **224** | PN | Pn | 11 16 55.6 | -0.8 |
| **HIZ** | **Hauiti** | **5.27** | **18** | PN | Pn | 11 17 02.7 | -1.2 |

**WEL 23 11:16:26.2±0.2, 43.°54S×172.°77E, h8km±1km, ML2.9/3, 1D, Error ellipse: s-maj=1.5km s-min=0.9km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.12** | **251** | ⇓PG | Pg | 11 16 29.0 | +0.2 |
| CRLZ | | | | SG | Sg | 11 16 31.1 | +0.5 |
| CRLZ | | | | AML | AML | 11 16 31.2 | |
| **MQZ** | **McQueen's Vall** | **0.19** | **207** | PG | Pg | 11 16 30.2 | +0.1 |
| MQZ | | | | SG | Sg | 11 16 33.3 | +0.5 |
| MQZ | | | | AML | AML | 11 16 33.3 | |
| MQZ | | | | AML | AML | 11 16 33.4 | |
| **OXZ** | **Oxford** | **0.58** | **291** | *e*P* | Pg | 11 16 37.1 | -0.2 |
| OXZ | | | | S* | Sg | 11 16 45.5 | +0.7 |
| OXZ | | | | AML | AML | 11 16 47.0 | |
| OXZ | | | | AML | AML | 11 16 47.0 | |
| OXZ | | | | AML | AML | 11 16 47.6 | |
| **LTZ** | **Lake Taylor** | **0.84** | **334** | P* | Pg | 11 16 42.4 | +0.1 |

**JMA 23 11:26:49.7±0.2, 39.°56N×143.°79E, h11km, M3.7, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MIYJ** | **Miyakonagasawa** | **1.52** | **271** | P | Pn | 11 27 17.1 | +0.2 |
| MIYJ | | | | *e*S | Sb | 11 27 37.3 | 0.0 |
| **JTH** | **Tanohata** | **1.53** | **285** | P | Pn | 11 27 17.1 | +0.1 |
| JTH | | | | *e*S | Sb | 11 27 37.7 | +0.2 |
| **OFUJ** | **Ofunato** | **1.71** | **254** | P | Pn | 11 27 19.9 | +0.4 |
| **JANG** | **Nango** | **1.93** | **296** | P | Pn | 11 27 22.8 | +0.4 |
| **JOM** | **Ohasama** | **1.93** | **268** | P | Pn | 11 27 23.5 | +1.0 |
| **JMK** | **Ichinoseki** | **2.09** | **254** | P | Pn | 11 27 25.3 | +0.7 |
| **JIO** | **Ouri** | **2.20** | **241** | P | Pn | 11 27 26.7 | +0.6 |
| **JYK** | **Kaneyama** | **2.74** | **258** | P | Pn | 11 27 35.0 | +1.4 |
| **JOT** | **Ohata** | **2.77** | **312** | P | Pn | 11 27 35.6 | +1.6 |
| **JNBK** | **Urakawa-nobuka** | **2.83** | **344** | P | Pb | 11 27 38.4 | -1.8 |
| JNBK | | | | *e*S | Sn | 11 28 11.8 | +2.9 |
| **JCH** | **Churui** | **3.07** | **354** | P | Pn | 11 27 40.7 | +2.6 |
| JCH | | | | *e*S | Sn | 11 28 15.4 | +0.6 |
| **JFT** | **Otama** | **3.39** | **234** | P | Pn | 11 27 39.9 | +1.4 |
| **JAK** | **Akkeshi** | **3.50** | **11** | P | Pn | 11 27 46.6 | +2.6 |
| JAK | | | | *e*S | Sn | 11 28 26.1 | +0.7 |

*IDC **23** 11:51:58.6±2.3,3.°68S×131.°09E, h0km, mb3.7/3, mb1 3.8/5, mb1mx3.4/55, mbtmp3.7/5, ML3.5/1, Error ellipse: s-maj=129.8km s-min=24.4km az=76.0*
*ISCJB **23** 11:51:59.5±0.6,3.°71S±0.°05×131.°20E±0.°07, h30km, mb3.7/2, Error ellipse: s-maj=11.0km s-min=6.9km az=19.1*
*DJA **23** 11:52:04.3±0.3,3.°5S×13.°1E±.°, h10km, M4.0/7, MLv4.0/7*
**ISC 23 11:52:00.8±0.8,3.°83S±0.°06×131.°26E±0.°04, h30km, n12, σ2s29/17, Irian Jaya region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **FAKI** | **Fak Fak** | **1.33** | **48** | P | **Pn** | **11 52 22.5** | **-0.9** |
| FAKI | | | | S | **Sn** | **11 52 38.0** | **-2.2** |
| **BNDI** | **Bandanaira** | **1.52** | **243** | P | Pb | 11 52 38.1 | +10 |
| **MSAI** | **Masohi** | **2.38** | **281** | P | **Pb** | **11 52 44.3** | **+1.3** |
| MSAI | | | | S | **Sb** | **11 53 13.3** | **+1.4** |
| **KMPI** | **Kaimana, Papua** | **2.44** | **86** | P | **Pb** | **11 52 44.2** | **+0.1** |
| KMPI | | | | S | **Sb** | **11 53 16.0** | **+2.3** |
| **SWI** | **Sorong** | **2.94** | **360** | P | **Pn** | **11 52 42.5** | **-3.1** |
| **RKPI** | **Ransiki, Papua** | **3.71** | **52** | P | **Pn** | **11 52 56.0** | **-0.1** |
| **LBMI** | **Labuha** | **4.92** | **310** | P | **Pn** | **11 53 10.9** | **-1.8** |
| **FITZ** | **Fitzroy Crossi** | **15.22** | **201** | Pn | **Pn** | **11 55 34.6** | **+0.9** |
| | baz=29,slow=19 | | | | | | |
| FITZ | | | | Sn | **Sn** | **11 58 17.8** | **-3.6** |
| | 0.1nm,0.3s,baz=158,slow=5.4,SNR=3.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **16.30** | **170** | Pn | **Pn** | **11 55 49.6** | **+1.9** |
| | 0.2nm,0.3s,baz=352,slow=11,SNR=12 | | | | | | |
| WRA | | | | Sn | **Sn** | **11 58 44.2** | **-3.5** |
| | 0.4nm,0.3s,baz=351,slow=24,SNR=7.6 | | | | | | |
| **ASAR** | **Alice Springs** | **19.89** | **173** | P | **Pn** | **11 56 34.7** | **+3.0** |
| | 1.5nm,0.6s,baz=356,slow=11,SNR=26 | | | | | | |
| ASAR | | | | S | **S** | **12 00 10.1** | **-2.3** |
| | 0.4nm,0.6s,baz=356,slow=29,SNR=4.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **66.31** | **326** | P | **P** | **12 02 47.7** | **+1.2** |
| | 0.4nm,0.6s,baz=115,slow=8.4,SNR=4.7 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **70.50** | **327** | P | **P** | **12 03 13.7** | **+1.1** |
| | 0.5nm,0.5s,baz=129,slow=5.8,SNR=11 | | | | | | |

**WEL 23 11:52:14.9±0.3, 36.°08S×177.°66E, h223km±4km, ML3.9/11, 1D, Error ellipse: s-maj=6.8km s-min=4.5km az=90.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MXZ** | **Matakaoa Point** | **1.56** | **161** | PN | Pn | 11 52 51.2 | +0.1 |
| MXZ | | | | SN | S | 11 53 19.8 | +0.3 |
| MXZ | | | | AML | AML | 11 53 20.0 | |
| **HAZ** | **Te Kaha** | **1.67** | **177** | PN | Pn | 11 52 52.3 | +0.3 |
| HAZ | | | | SN | S | 11 53 20.5 | -0.6 |
| HAZ | | | | AML | AML | 11 53 23.2 | |
| **PKGZ** | **Pakihiroa** | **1.83** | **170** | PN | Pn | 11 52 53.6 | 0.0 |
| PKGZ | | | | SN | S | 11 53 23.5 | -0.4 |
| PKGZ | | | | AML | AML | 11 53 24.9 | |
| **WMGZ** | **Waiomatatini S** | **1.83** | **161** | PN | Pn | 11 52 53.6 | +0.1 |
| WMGZ | | | | SN | S | 11 53 23.3 | -0.4 |
| WMGZ | | | | AML | AML | 11 53 25.0 | |
| **RUGZ** | **Raukumara Rang** | **1.88** | **180** | PN | Pn | 11 52 53.8 | -0.3 |
| **PUZ** | **Puketiti** | **2.04** | **167** | PN | Pn | 11 52 55.2 | -0.3 |
| PUZ | | | | SN | S | 11 53 26.0 | -1.3 |
| **TWGZ** | **Tauwhareparae** | **2.10** | **173** | PN | Pn | 11 52 56.7 | +0.6 |
| TWGZ | | | | AML | AML | 11 53 31.0 | |
| TWGZ | | | | AML | AML | 11 53 31.9 | |
| **URZ** | **Urewera** | **2.21** | **191** | PN | Pn | 11 52 57.5 | +0.3 |
| URZ | | | | SN | S | 11 53 30.0 | -0.3 |
| **MWZ** | **Matawai** | **2.25** | **183** | PN | Pn | 11 52 57.9 | +0.3 |
| **TKGZ** | **Te Karaka** | **2.36** | **176** | PN | Pn | 11 52 59.1 | +0.4 |
| TKGZ | | | | AML | AML | 11 53 33.3 | |
| TKGZ | | | | AML | AML | 11 53 34.2 | |
| **RAGZ** | **Rawiri** | **2.42** | **185** | PN | Pn | 11 53 00.2 | +0.9 |
| RAGZ | | | | AML | AML | 11 53 35.2 | |
| RAGZ | | | | AML | AML | 11 53 36.2 | |
| **CNGZ** | **Carnagh Statio** | **2.44** | **170** | PN | Pn | 11 52 59.6 | +0.2 |
| **MUGZ** | **Murupara** | **2.49** | **196** | PN | Pn | 11 53 00.6 | +0.5 |
| **RTZ** | **Ruatahuna** | **2.58** | **192** | PN | Pn | 11 53 01.1 | -0.1 |
| **RIGZ** | **Rimuhau** | **2.62** | **178** | PN | Pn | 11 53 01.2 | -0.3 |
| RIGZ | | | | AML | AML | 11 53 38.1 | |
| RIGZ | | | | AML | AML | 11 53 40.3 | |
| **SNGZ** | **Shannon Statio** | **2.71** | **185** | PN | Pn | 11 53 02.6 | +0.1 |
| SNGZ | | | | AML | AML | 11 53 42.1 | |
| SNGZ | | | | AML | AML | 11 53 45.2 | |
| **MTHZ** | **Maungataniwha** | **2.84** | **193** | PN | Pn | 11 53 03.9 | 0.0 |
| **KNZ** | **Kokohu** | **2.93** | **180** | PN | Pn | 11 53 04.2 | -0.6 |
| **WHHZ** | **Waihua** | **3.01** | **186** | SN | S | 11 53 44.7 | -1.0 |
| WHHZ | | | | AML | AML | 11 53 45.2 | |
| **NMHZ** | **Naumai** | **3.08** | **192** | PN | Pn | 11 53 06.9 | +0.2 |
| **MCHZ** | **McNeill Hill** | **3.44** | **192** | PN | Pn | 11 53 10.2 | -0.6 |
| **KWHZ** | **Kaweka Forest** | **3.48** | **196** | PN | Pn | 11 53 10.6 | -0.6 |
| KWHZ | | | | AML | AML | 11 54 11.2 | |
| **WNVZ** | **Wahianoa** | **3.63** | **206** | PN | Pn | 11 53 12.6 | -0.5 |
| **BHHZ** | **Black Hill Sta** | **3.63** | **200** | PN | Pn | 11 53 11.7 | -1.3 |
| **KAHZ** | **Kahuranaki** | **3.76** | **189** | PN | Pn | 11 53 13.3 | -1.2 |
| **PXZ** | **Pawanui** | **3.99** | **189** | ⇓PN | Pn | 11 53 15.5 | -1.7 |
| PXZ | | | | SN | S | 11 54 03.4 | -3.1 |
| **PNHZ** | **Pukenui** | **3.99** | **196** | PN | Pn | 11 53 15.6 | -1.8 |
| **TSZ** | **Takapari Road** | **4.19** | **198** | SN | S | 11 54 08.4 | -2.5 |
| **PRHZ** | **Porangahau** | **4.25** | **191** | PN | Pn | 11 53 19.0 | -1.6 |
| **ANWZ** | **Angora Road** | **4.47** | **192** | PN | Pn | 11 53 21.3 | -1.8 |
| **BFZ** | **Birch Farm** | **4.72** | **193** | PN | Pn | 11 53 23.8 | -2.5 |
| BFZ | | | | SN | S | 11 54 18.7 | -4.1 |
| **MRZ** | **Mangatainoka R** | **4.85** | **199** | PN | Pn | 11 53 25.3 | -2.6 |
| **TIWZ** | **Tintock** | **4.89** | **196** | PN | Pn | 11 53 26.3 | -2.0 |
| **OGWZ** | **Otaki Gorge** | **5.11** | **202** | PN | Pn | 11 53 28.6 | -2.5 |
| **KIW** | **Kapiti Island** | **5.23** | **203** | PN | Pn | 11 53 30.2 | -2.5 |
| **CAW** | **Cannon Point** | **

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **ZALV** | **Zalesovo Beam** | **61.57** | **324** | P | | **P** | **12 03 47.9** | **-1.1** |
| | 0.4nm,0.3s,baz=133,slow=10.0,SNR=2.1 | | | | | | | |
| ZALV | | | | pP | | **pP** | **12 04 18.0** | **-0.1** |
| | 0.5nm,0.5s,baz=99,slow=9.1,SNR=1.3 | | | | | | | |
| **ZAA1** | **Zalesovo Array** | **61.58** | **324** | *e*P | | **P** | **12 03 47.9** | **-1.2** |
| ZAA1 | | | | *e*pP | | **pP** | **12 04 18.0** | **-0.1** |
| **KURK** | **Kurchatov** | **64.54** | **320** | *e*P | | **P** | **12 04 09.1** | **+0.4** |
| KURK | | | | *e*pP | | **pP** | **12 04 38.1** | **+0.1** |
| **KURBB** | **Kurchatov Arra** | **64.58** | **320** | P | | **P** | **12 04 09.1** | **+0.2** |
| | 1.9nm,0.6s,baz=103,slow=6.9,SNR=14 | | | | | | | |
| KURBB | | | | pP | | **pP** | **12 04 38.1** | **-0.1** |
| | 1.7nm,0.8s,baz=100,slow=6.8,SNR=5.0 | | | | | | | |
| **ILAR** | **Eielson Array** | **68.51** | **25** | P | | **P** | **12 04 30.9** | **-2.8** |
| | 0.8nm,0.5s,baz=252,slow=5.6,SNR=26 | | | | | | | |
| **ILB** | **Eielson Array** | **68.51** | **25** | *e*P | | **P** | **12 04 30.9** | **-2.8** |
| **BVAR** | **Borovoye Array** | **69.88** | **322** | P | | **P** | **12 04 42.4** | **0.0** |
| | 2.0nm,0.5s,baz=108,slow=7.5,SNR=12 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **82.80** | **27** | P | | **P** | **12 05 53.6** | **-1.5** |
| | 0.8nm,0.3s,baz=286,slow=5.1,SNR=30 | | | | | | | |
| **NV01** | **Mina Array Sit** | **86.88** | **51** | *e*P | | **P** | **12 06 16.4** | **0.0** |
| **NVAR** | **Mina Array Bea** | **86.88** | **51** | P | | **P** | **12 06 16.6** | **+0.3** |
| | 0.8nm,0.4s,baz=269,slow=5.6,SNR=14 | | | | | | | |
| **ARA0** | **ARCESS Array S** | **87.02** | **342** | *e*P | | **P** | **12 06 16.7** | **+0.5** |
| **ARCES** | **ARCESS Array B** | **87.02** | **342** | P | | **P** | **12 06 16.7** | **+0.5** |
| | 2.0nm,0.9s,baz=64,slow=8.1,SNR=2.8 | | | | | | | |
| **FIA0** | **FINESS Array S** | **91.11** | **335** | *e*P | | **P** | **12 06 33.6** | **-1.8** |
| **FINES** | **FINESS Array B** | **91.11** | **335** | P | | **P** | **12 06 33.6** | **-1.8** |
| | 3.4nm,0.9s,baz=60,slow=5.5,SNR=4.9 | | | | | | | |
| **PDAR** | **Pinedale Array** | **91.92** | **45** | P | | **P** | **12 06 39.4** | **-0.5** |
| | 0.2nm,0.7s,baz=282,slow=10,SNR=2.2 | | | | | | | |
| **KIC** | **Kosan Boka** | **143.87** | **302** | *e*P | | PKPab | 12 13 04.0 | -0.1 |
| | 12nm,1.0s | | | | | | | |
| **TIC** | **Toumodi** | **143.94** | **302** | *e*P | | PKPab | 12 13 04.0 | -0.4 |
| **LIC** | **Lamto** | **144.18** | **302** | *e*P | | PKPbc | 12 13 05.6 | -0.1 |
| | 12nm,0.4s | | | | | | | |
| **LPAZ** | **La Paz** | **148.03** | **99** | PKPbc | | **PKPbc** | **12 13 18.6** | **+0.9** |
| | 1.5nm,0.5s,baz=302,slow=1.8,SNR=5.4 | | | | | | | |

*ISK* ***23*** *11:59:35.6, 38˚.51N×43˚.23E, h4km, ML2.3*
*ISCJB* ***23*** *11:59:38.9±0.8, 38˚.67N±0˚.04×43˚.15E±0˚.06, h7km±16km, Error ellipse: s-maj=8.4km s-min=6.8km az=176.3*
*DDA* ***23*** *11:59:38.7, 38˚.68N×43˚.16E, h7km, Ml2.7*
*CSEM* ***23*** *11:59:39.0±0.3, 38˚.69N×43˚.19E, h2km, ML2.3, Error ellipse: s-maj=7.0km s-min=5.7km az=106.0*

**ISC 23 11:59:39.5±1.1, 38˚.68N±0˚.03×43˚.24E±0˚.04, h7km±13km, n19,σ1§21/24, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.15** | **125** | *e*PG | **Pg** | **11 59 39.0** | **-3.6** |
| **TVAN** | **Van** | **0.20** | **138** | *i* P | **Pg** | **11 59 43.8** | **+0.2** |
| TVAN | | | | *i* S | **Sg** | **11 59 48.0** | **+1.6** |
| **TVAN** | **Van** | **0.20** | **138** | P | **Pg** | **11 59 43.8** | **+0.2** |
| TVAN | | | | S | **Sg** | **11 59 48.0** | **+1.6** |
| **ERCV** | **ERCIS-VAN** | **0.35** | **13** | *e*PG | **Pg** | **11 59 46.8** | **+0.4** |
| ERCV | | | | *e*SG | **Sb** | **11 59 54.1** | **+0.1** |
| **ERCV** | **ERCIS-VAN** | **0.35** | **13** | *e*Pg | **Pg** | **11 59 46.8** | **+0.4** |
| **GEVA** | **Gevas** | **0.39** | **201** | *i* P | **Pg** | **11 59 46.6** | **-0.6** |
| **GEVA** | **Gevas** | **0.39** | **201** | P | **Pg** | **11 59 46.6** | **-0.6** |
| **VMUR** | **Van-Muradiye** | **0.41** | **40** | P | **Pg** | **11 59 47.4** | **-0.1** |
| VMUR | | | | *i* S | **Sb** | **11 59 54.7** | **-0.9** |
| **VMUR** | **Van-Muradiye** | **0.41** | **40** | P | **Pg** | **11 59 47.4** | **-0.1** |
| VMUR | | | | S | **Sb** | **11 59 54.7** | **-0.9** |
| **ADCV** | **BITLIS_Adilcev** | **0.42** | **288** | *i* P | **Pg** | **11 59 47.0** | **-0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.42** | **288** | P | **Pg** | **11 59 47.0** | **-0.7** |
| **CLDR** | **Caldiran** | **0.71** | **49** | *e*PG | **Pg** | **11 59 52.1** | **-1.0** |
| **CLDR** | **Caldiran** | **0.71** | **49** | *e*Pg | **Pg** | **11 59 52.1** | **-1.0** |
| **TUTA** | **Tutak** | **0.79** | **336** | *i* P | **Pg** | **11 59 53.3** | **-1.5** |
| **TUTA** | **Tutak** | **0.79** | **336** | P | **Pg** | **11 59 53.3** | **-1.5** |
| **AGRB** | **Hanur-Agry** | **0.92** | **348** | *e*PG | **Pg** | **11 59 56.5** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **0.92** | **348** | *e*Pg | **Pg** | **11 59 56.5** | **-0.6** |
| **KARS** | **Kars** | **1.95** | **356** | *e*PN | **Pn** | **12 00 13.5** | **+0.4** |
| **KARS** | **Kars** | **1.95** | **356** | *e*Pn | **Pn** | **12 00 13.5** | **+0.4** |

*NNC* ***23*** *12:02:01.1±4.7, 28˚.99N×68˚.56E, h0km, mb5.2, Error ellipse: s-maj=63.3km s-min=36.4km az=96.0*
*IDC* ***23*** *12:02:01.0±0.5, 28˚.95N×68˚.43E, h0km, mb4.5/37, mb1 4.6/39, mb1mx4.6/51, mbtmp4.5/39, ML4.2/2, MS4.6/43, Ms1 4.6/43, ms1mx4.4/66, Error ellipse: s-maj=11.0km s-min=9.5km az=145.0*
*ISCJB* ***23*** *12:02:02.4±0.1, 28˚.90N±0˚.02×68˚.43E±0˚.02, h23km, mb4.9/143, MS4.6/64, Error ellipse: s-maj=2.5km s-min=1.9km az=24.9*
*NEIC* ***23*** *12:02:02.3±0.2, 28˚.86N×68˚.30E, h10km, mb5.1/56, Error ellipse: s-maj=5.8km s-min=3.9km az=168.0*
*NEIC Some windows cracked in Nasirabad. Felt at Dera Murad Jamali, Nuttal, Quetta and Sibi.*
*GCMT* ***23*** *12:02:02.3±0.2, 28.72N×68.24E, h12km, MW5.1/107, Moment Tensor Solution. s45,c53; s107,c185; Duration: 0 Moment tensor: Scale 10^16 Nm; Mrr 5.92±.10; Mθθ -3.75±.10; Mφφ -2.17±.10; Mrθ 2.17±.36; Mθφ 2.45±.08; Mφr -0.38±.40; Best double couple: Mw6.1 2900×10^16 NP1: φs 118.0000°, δ55.0000°, λ81.0000°. NP2: φs 314.0000°, δ36.0000°, λ103.0000°. Principal axes: T 6.3870, Plg78.0000°, Azm355.0000°; N -0.5170, Plg8.0000°, Azm123.0000°; P -5.8700, Plg10.0000°, Azm214.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*MOS* ***23*** *12:02:05.0±1.2, 29˚.06N×68˚.37E, h33km, mb5.0/64, MS4.5/23 Error ellipse: s-maj=5.8km s-min=3.6km az=106.2*
*BJI* ***23*** *12:02:07.5, 29˚.18N×68˚.62E, h34km, mb4.9/64, mB5.2/50, Ms5.1/65, Ms7 4.8/60*

**ISC 23 12:02:03.2±0.5, 28˚.88N±0˚.03×68˚.36E±0˚.03, h17km±2km, h17km:pP-P,n446,σ1§90/519, mb5.0/150, MS4.7/65, 43C-19D, Pakistan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SARP** | **Sargodha** | **4.80** | **50** | P | **Pn** | **12 03 14.1** | **-0.7** |
| **THW** | **Thamme Wali** | **4.86** | **36** | P | **Pn** | **12 03 16.8** | **+1.1** |
| **KBL** | **Kabul** | **5.67** | **6** | *e*P | **Pn** | **12 03 28.5** | **+1.6** |
| KBL | | | | *e* | | 12 04 27.7 | |
| **KBL** | **Kabul** | **5.67** | **6** | *e*Pn | **Pn** | **12 03 28.5** | **+1.6** |
| KBL | | | | *e*Sn | **Sn** | **12 04 27.7** | **-4.1** |
| **BHJ** | **Bhuj** | **5.72** | **168** | *e*P | **Pn** | **12 03 27.4** | **-0.1** |
| BHJ | | | | *e*S | **Sn** | **12 04 26.9** | **-5.9** |
| **CEP** | **Cherat** | **5.79** | **31** | P | **Pn** | **12 03 29.3** | **+0.9** |
| CEP | | | | S | **Sn** | **12 04 34.0** | **-0.5** |
| **CHCP** | **Chirah Chowk** | **6.34** | **40** | P | **Pn** | **12 03 36.6** | **+0.6** |
| **KHET** | **Khetri** | **6.60** | **95** | *e*P | **Pn** | **12 03 38.8** | **-0.7** |
| KHET | | | | *e*S | **Sn** | **12 04 52.3** | **-2.1** |
| **PONG** | **Pong** | **7.23** | **63** | *e*P | **Pn** | **12 03 48.0** | **-0.1** |
| PONG | | | | *e*x | Sb | 12 05 27.0 | -7.3 |
| **THN** | **Thein Dam** | **7.25** | **59** | *e*P | **Pn** | **12 03 48.7** | **+0.2** |
| THN | | | | *e*x | **Sn** | **12 05 10.0** | **-0.5** |
| **BHK** | **Bhakra** | **7.42** | **68** | *e*P | **Pn** | **12 03 49.0** | **-1.7** |
| BHK | | | | *e*x | **Sn** | **12 05 20.2** | **+5.7** |
| **JWA** | **Jwalamukhi** | **7.50** | **65** | *e*P | **Pn** | **12 03 53.0** | **+1.2** |
| JWA | | | | *e*x | x | 12 05 27.0 | |
| **DHRM** | **DHARAMSHALA** | **7.62** | **62** | *e*P | **Pn** | **12 03 54.7** | **+1.0** |
| DHRM | | | | *e*S | **Sn** | **12 05 17.3** | **-2.5** |
| **NDI** | **New Delhi** | **7.77** | **89** | *e*P | **Pn** | **12 03 56.5** | **+0.9** |
| NDI | | | | *e*x | **Sn** | **12 05 24.0** | **+0.7** |
| **SDNR** | **Sundarnagar** | **7.89** | **69** | *e*P | **Pn** | **12 03 59.0** | **+1.7** |
| SDNR | | | | *e*x | x | 12 07 11.0 | |
| **SMLA** | **Simla** | **7.96** | **71** | *e*P | **Pn** | **12 03 59.0** | **+0.9** |
| SMLA | | | | *e*S | **Sn** | **12 05 24.3** | **-3.4** |
| **DDI** | **Dehra Dun** | **8.56** | **78** | *e*P | **Pn** | **12 04 05.8** | **-0.6** |
| DDI | | | | *e*S | **Sn** | **12 05 36.0** | **-6.7** |
| **JOSI** | **Joshimath** | **9.88** | **78** | *e*P | **Pn** | **12 04 25.6** | **+1.0** |
| JOSI | | | | *e*x | **Sn** | **12 06 19.9** | **+4.6** |
| JOSI | | | | AML | AML | 12 06 25.9 | |
| | comp=N,591nm,0.6s | | | | | | |
| JOSI | | | | AML | AML | 12 06 26.2 | |
| | comp=E,576nm,0.6s | | | | | | |
| **BHPL** | **Bhopal** | **9.89** | **123** | *e*P | **Pn** | **12 04 23.1** | **-1.6** |
| **DZET** | **Dzherino** | **9.91** | **2** | ⇓P | **Pn** | **12 04 23.8** | **-1.2** |
| | comp=E,35nm,0.6s | | | | | | |
| DZET | | | | ⇑S | **Sn** | **12 06 15.4** | **-0.5** |
| | comp=E,144nm,1.1s | | | | | | |
| **DZET** | **Dzherino** | **9.91** | **2** | P | **Pn** | **12 04 23.7** | **-1.2** |
| DZET | | | | | | 12 06 15.3 | |
| DZET | | | | pmax | pmax | | |
| | comp=Z,35nm,0.6s | | | | | | |
| DZET | | | | smax | smax | | |
| | comp=N,144nm,1.1s | | | | | | |
| **PTH** | **Pithoragarh** | **10.38** | **83** | *e*P | **Pn** | **12 04 32.1** | **+0.6** |
| PTH | | | | *ex* | x | 12 07 34.3 | |
| **WSAR** | **Wadi Sarin** | **10.40** | **240** | Pn | **Pn** | **12 04 28.8** | **-2.8** |
| | comp=N,4.7nm,0.3s,baz=100,slow=8.6,SNR=85 | | | | | | |
| WSAR | | | | Sn | Sn | 12 06 15.6 | -12 |
| | comp=N,3.1nm,0.3s,baz=288,slow=3.5,SNR=4.3 | | | | | | |
| WSAR | | | | LR | LR | 12 10 04.1 | |
| | comp=N,3μm,18.3s,baz=98,slow=46 | | | | | | |
| **LGTI** | **Lohaghat** | **10.40** | **84** | *e*P | **Pn** | **12 04 30.7** | **-1.0** |
| **WBK** | **Wadi Bani Khal** | **10.52** | **236** | P | **Pn** | **12 04 32.0** | **-1.3** |
| | SNR=10 | | | | | | |
| **BIDO** | **Bidbid** | **10.63** | **242** | P | **Pn** | **12 04 33.2** | **-1.6** |
| | SNR=14 | | | | | | |
| **SMDO** | **Samad** | **10.94** | **240** | P | **Pn** | **12 04 38.0** | **-1.2** |
| | SNR=7.7 | | | | | | |
| **BANOM** | **Banah** | **11.12** | **257** | *i* P | **Pn** | **12 04 40.1** | **-1.5** |
| | SNR=14 | | | | | | |
| **BANOM** | **Banah** | **11.12** | **257** | P | **Pn** | **12 04 40.2** | **-1.3** |
| | SNR=14 | | | | | | |
| **JMDO** | **Jabal Madar** | **11.30** | **237** | P | **Pn** | **12 04 44.0** | **0.0** |
| | SNR=18 | | | | | | |
| **POO** | **Poona** | **11.46** | **153** | *e*P | **Pn** | **12 04 44.7** | **-1.5** |
| **UOSS** | **Minazif** | **11.54** | **253** | *e*Pn | **Pn** | **12 04 44.3** | **-3.0** |
| UOSS | | | | *e*Sn | **Sn** | **12 06 52.5** | **-3.2** |
| **UOSS** | **Minazif** | **11.54** | **253** | P | **Pn** | **12 04 44.2** | **-3.1** |
| | SNR=32 | | | | | | |
| **HATD** | **Hatta, Dubai** | **11.64** | **253** | *i* P | **Pn** | **12 04 47.0** | **-1.7** |
| | SNR=20 | | | | | | |
| **ASHO** | **Ashiyiah** | **11.76** | **252** | *i* P | **Pn** | **12 04 48.3** | **-2.0** |
| | SNR=52 | | | | | | |
| **ASHO** | **Ashiyiah** | **11.76** | **252** | P | **Pn** | **12 04 49.7** | **-0.6** |
| | SNR=50 | | | | | | |
| **BSY** | **Bisya** | **11.76** | **241** | P | **Pn** | **12 04 50.0** | **-0.4** |
| | SNR=22 | | | | | | |
| **SFK** | **Sufi-Kurgan** | **11.88** | **20** | ⇓P | **Pn** | **12 04 52.0** | **-0.1** |
| | comp=N,113nm,0.6s | | | | | | |
| SFK | | | | ⇓S | **Sn** | **12 07 05.1** | **+0.6** |
| | comp=N,96nm,1.3s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **11.88** | **20** | P | **Pn** | **12 04 52.0** | **-0.1** |
| SFK | | | | S | **Sn** | **12 07 05.1** | **+0.6** |
| SFK | | | | pmax | pmax | | |
| | comp=Z,113nm,0.6s | | | | | | |
| SFK | | | | smax | smax | | |
| | comp=N,97nm,1.3s | | | | | | |
| **JBP** | **Jabalpur** | **11.89** | **116** | ⇑*i*P | **Pn** | **12 04 51.2** | **-0.9** |
| JBP | | | | *ex* | **Sn** | **12 06 57.4** | **-7.1** |
| **NAZ** | **Nazwa, Dubai** | **11.98** | **254** | *i* P | **Pn** | **12 04 53.4** | **+0.1** |
| | SNR=24 | | | | | | |
| **ARQ** | **Araqi** | **11.98** | **245** | P | **Pn** | **12 04 55.0** | **+1.6** |
| | SNR=21 | | | | | | |
| **KSH** | **Kashi** | **12.33** | **29** | P | Pn | 12 04 53.3 | -4.8 |
| KSH | | | | pP | | 12 05 00.6 | |
| KSH | | | | PP | **PnPn** | **12 05 03.5** | **-2.5** |
| KSH | | | | S | Sn | 12 07 02.8 | -12 |
| KSH | | | | SS | **SnSn** | **12 07 17.8** | **-10** |
| KSH | | | | PcP | **PcP** | **12 10 42.1** | **+2.6** |
| KSH | | | | LR | LR | | |
| | comp=N,4μm,8.2s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,5μm,8.7s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,5μm,6.6s | | | | | | |
| **NGP** | **Nagpur** | **12.37** | **126** | *e*P | **Pn** | **12 04 59.0** | **+0.4** |
| NGP | | | | *ex* | x | 12 07 29.7 | |
| **GEYT** | **Alibeck** | **12.43** | **319** | Pn | **Pn** | **12 04 59.6** | **+0.2** |
| | comp=N,0.5nm,0.3s,baz=108,slow=8.4,SNR=11 | | | | | | |
| GEYT | | | | Lg | Lg | 12 08 35.5 | |
| | comp=N,0.1nm,0.3s,baz=166,slow=29,SNR=4.4 | | | | | | |
| GEYT | | | | LR | LR | 12 10 19.9 | |
| | comp=N,2μm,21.6s,baz=145,slow=40 | | | | | | |
| **PYUN** | **Piuthan** | **12.89** | **90** | *e*P | **Pn** | **12 05 03.7** | **-2.2** |
| | comp=N,78nm,0.5s | | | | | | |
| **KLRI** | **Killari** | **13.14** | **143** | *e*P | **Pn** | **12 05 08.2** | **-1.1** |
| KLRI | | | | *e*S | **Sn** | **12 07 33.4** | **-1.7** |
| **CHM** | **Chimkent** | **13.45** | **4** | *i* P | **Pn** | **12 05 11.6** | **-1.7** |
| | comp=N,554nm,1.0s | | | | | | |
| CHM | | | | *e*S | **Sn** | **12 07 39.6** | **-2.7** |
| CHM | | | | LR | LR | 12 10 31.8 | |
| | comp=N,2μm,10.1s | | | | | | |
| **SRSP** | **Sriramsagar** | **13.46** | **135** | *e*P | **Pn** | **12 05 10.5** | **-3.0** |
| SRSP | | | | *e*S | **Sn** | **12 07 42.7** | **-0.2** |
| **KOLN** | **Koldanda** | **13.47** | **91** | *e*P | **Pn** | **12 05 11.6** | **-2.2** |
| **AML** | **Almayashu** | **13.91** | **17** | P | **Pn** | **12 05 17.6** | **-2.4** |
| | SNR=139 | | | | | | |
| **MNAS** | **Manas** | **13.98** | **13** | ⇑P | **Pn** | **12 05 18.2** | **-2.6** |
| | comp=N,33nm,0.7s | | | | | | |
| MNAS | | | | ⇑S | **Sn** | **12 07 51.5** | **-4.1** |
| | comp=N,60nm,1.3s | | | | | | |
| **MNAS** | **Manas** | **13.98** | **13** | P | **Pn** | **12 05 18.1** | **-2.6** |
| MNAS | | | | S | **Sn** | **12 07 51.5** | **-4.1** |
| MNAS | | | | pmax | pmax | | |
| | comp=Z,33nm,0.7s | | | | | | |
| MNAS | | | | smax | smax | | |
| | comp=N,60nm,1.3s | | | | | | |
| **RPR** | **Rampur** | **14.12** | **133** | *e*P | Pn | 12 05 15.8 | -6.7 |
| RPR | | | | *e*S | **Sn** | **12 07 52.9** | **-5.9** |
| **UCH** | **Uchtor** | **14.22** | **19** | P | **Pn** | **12 05 21.9** | **-2.4** |
| | SNR=69 | | | | | | |
| **KK31** | **Karatay Array** | **14.30** | **6** | ⇓P | **Pn** | **12 05 21.9** | **-3.1** |
| | comp=N,4.9nm,0.4s,baz=180,slow=12,SNR=84 | | | | | | |
| KK31 | | | | ⇓S | **Sn** | **12 07 59.2** | **-3.9** |
| | comp=N,14nm,0.7s,baz=186,slow=24 | | | | | | |
| **KK31** | **Karatay Array** | **14.30** | **6** | *i* P | **Pn** | **12 05 21.8** | **-3.1** |
| KK31 | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.4s | | | | | | |
| **KKAR** | **Karatay Array** | **14.30** | **6** | *e*P | **Pn** | **12 05 21.8** | **-3.1** |
| KKAR | | | | *e* | | 12 08 00.3 | |
| **KKAR** | **Karatay Array** | **14.30** | **6** | *e*Pn | **Pn** | **12 05 21.8** | **-3.1** |
| KKAR | | | | *e*Sn | **Sn** | **12 08 00.3** | **-2.8** |
| **KZA** | **Kyzart** | **14.30** | **21** | P | **Pn** | **12 05 22.7** | **-2.6** |
| | SNR=12 | | | | | | |
| **EKS2** | **Erkin-Say** | **14.43** | **16** | P | **Pn** | **12 05 25.1** | **-1.7** |
| | SNR=22 | | | | | | |
| **AAK** | **Ala-Archa** | **14.59** | **18** | Pn | **Pn** | **12 05 28.1** | **-1.0** |
| | comp=Z,3.6nm,0.3s,baz=189,slow=8.6,SNR=60 | | | | | | |
| AAK | | | | Sn | **Sn** | **12 08 08.3** | **-2.2** |
| | comp=Z,0.2nm,0.3s,baz=278,slow=17,SNR=3.1 | | | | | | |
| AAK | | | | Lg | Lg | 12 09 47.2 | |
| | baz=281,slow=10,SNR=2.1 | | | | | | |
| AAK | | | | LR | LR | 12 12 10.0 | |
| | comp=Z,6μm,18.9s,baz=194,slow=42 | | | | | | |
| **AAK** | **Ala-Archa** | **14.59** | **18** | ⇓P | **Pn** | **12 05 25.6** | **-3.5** |
| | comp=Z,29nm,0.7s | | | | | | |
| AAK | | | | ⇑S | **Sn** | **12 08 11.4** | **+0.8** |
| | comp=Z,30nm,1.1s | | | | | | |
| **AAK** | **Ala-Archa** | **14.59** | **18** | *d* iP | **Pn** | **12 05 27.8** | **-1.3** |
| **AAK** | **Ala-Archa** | **14.59** | **18** | P | **Pn** | **12 05 27.3** | **-1.8** |
| | SNR=32 | | | | | | |
| **AAK** | **Ala-Archa** | **14.59** | **18** | *e*Pn | **Pn** | **12 05 27.5** | **-1.6** |
| AAK | | | | *e*Sn | **Sn** | **12 08 06.3** | **-4.3** |
| **AAK** | **Ala-Archa** | **14.59** | **18** | P | **Pn** | **12 05 27.7** | **-1.4** |
| | SNR=27 | | | | | | |
| **KBK** | **Karagaybulak** | **14.74** | **19** | P | **Pn** | **12 05 29.5** | **-1.6** |
| | SNR=19 | | | | | | |
| **HYBB** | **Hyderabad (bro** | **14.75** | **138** | *e*P | **Pn** | **12 05 30.7** | **-0.6** |
| **HYB** | **Hyderabad** | **14.75** | **138** | *i* P | **Pn** | **12 05 30.0** | **-1.3** |
| HYB | | | | *e*S | **Sn** | **12 08 16.0** | **+1.5** |
| **HYB** | **Hyderabad** | **14.75** | **138** | *e*P | **Pn** | **12 05 30.7** | **-0.6** |
| **ULHL** | **Ulahol** | **14.79** | **24** | P | **Pn** | **12 05 29.1** | **-2.6** |
| | SNR=9.0 | | | | | | |
| **FRU** | **Bishkek** | **14.81** | **18** | *e*P | **Pn** | **12 05 30.0** | **-1.9** |
| FRU | | | | *e*S | **Sn** | **12 08 10.0** | **-5.6** |
| FRU | | | | pmax | pmax | | |
| | comp=Z,150nm,2.2s | | | | | | |
| FRU | | | | smax | smax | | |
| | comp=N,330nm,1.9s | | | | | | |
| **DMN** | **Daman** | **14.81** | **91** | *e*P | **Pn** | **12 05 28.2** | **-4.0** |
| | comp=N,81nm,0.7s | | | | | | |
| **KKN** | **Kakani** | **14.94** | **90** | *e*P | **Pn** | **12 05 30.0** | **-3.9** |
| | comp=N,56nm,0.6s | | | | | | |
| **CHMS** | **Chumysh** | **15.00** | **18** | P | **Pn** | **12 05 32.2** | **-2.3** |
| | SNR=26 | | | | | | |
| **PKIN** | **Phulchoki** | **15.07** | **91** | *e*P | **Pn** | **12 05 31.7** | **-4.0** |
| | comp=N,63nm,0.7s | | | | | | |
| **PKI** | **Pulchoki** | **15.08** | **91** | *e*P | **Pn** | **12 05 31.6** | **-4.4** |
| | comp=N,84nm,0.8s | | | | | | |
| **TKM2** | **Tokmak 2** | **15.18** | **21** | ⇑P | **Pn** | **12 05 34.1** | **-2.9** |
| | comp=N,46nm,0.9s | | | | | | |
| TKM2 | | | | ⇓S | **Sn** | **12 08 25.4** | **+0.6** |
| | comp=N,25nm,1.1s | | | | | | |
| **TKM2** | **Tokmak 2** | **15.18** | **21** | P | **Pn** | **12 05 34.0** | **-2.9** |
| TKM2 | | | | pmax | pmax | | |
| | comp=Z,46nm,0.9s | | | | | | |
| **TKM2** | **Tokmak 2** | **15.18** | **21** | P | **Pn** | **12 05 35.1** | **-1.9** |
| | SNR=20 | | | | | | |
| **USP** | **Ospenovka** | **15.18** | **17** | P | **Pn** | **12 05 33.6** | **-3.3** |
| | SNR=8.9 | | | | | | |
| **BMNS** | **Besmoynak** | **15.37** | **21** | *i* P | **Pn** | **12 05 37.5** | **-2.0** |
| | comp=Z,489nm,1.1s | | | | | | |
| BMNS | | | | *e*S | **Sn** | **12 08 26.1** | **-3.3** |
| BMNS | | | | LRM | MLR | 12 12 37.0 | |
| | comp=Z,1μm,8.3s | | | | | | |
| **GUN** | **Gumba** | **15.45** | **89** | *e*P | **Pn** | **12 05 36.8** | **-4.0** |
| | comp=Z,266nm,0.6s | | | | | | |
| **JIRN** | **Jiri** | **15.76** | **90** | *e*P | **Pn** | **12 05 40.7** | **-4.1** |
| **AAA** | **Alma-Ata** | **15.87** | **23** | *e*P | **Pn** | **12 05 44.4** | **-1.5** |
| AAA | | | | *e*S | **Sn** | **12 08 40.3** | **-1.1** |
| AAA | | | | pmax | pmax | | |
| | comp=Z,400nm,2.7s | | | | | | |
| AAA | | | | smax | smax | | |
| | comp=E,1μm,7.1s | | | | | | |
| AAA | | | | MLR | MLR | | |
| | comp=Z,5μm,13.0s | | | | | | |
| **AAA** | **Alma-Ata** | **15.87** | **23** | *e*P | **Pn** | **12 05 44.3** | **-1.6** |
| | comp=Z,746nm,1.3s | | | | | | |
| AAA | | | | *e*S | **Sn** | **12 08 38.5** | **-2.9** |
| AAA | | | | LRM | MLR | 12 13 01.8 | |
| | comp=Z,2μm,14.1s | | | | | | |
| **NJS** | **Nagarjunasagar** | **15.87** | **138** | *e*P | **Pn** | **12 05 45.3** | **-0.7** |
| NJS | | | | *e*S | **Sn** | **12 08 40.6** | **-1.1** |
| **SRLM** | **Srisailam** | **16.00** | **140** | *e*P | **Pn** | **12 05 46.9** | **-0.8** |
| SRLM | | | | *e*S | **Sn** | **12 08 46.5** | **+1.7** |
| **URV** | **Uravakonda** | **16.12** | **147** | *e*P | **Pn** | **12 05 49.5** | **+0.2** |
| URV | | | | *e*S | **Sn** | **12 08 46.8** | **-1.0** |
| **RAMN** | **Ramite** | **16.24** | **92** | *e*P | **Pn** | **12 05 47.0** | **-3.8** |
| | comp=Z,126nm,0.6s | | | | | | |
| **ZHN** | **Zhinishke** | **16.40** | **27** | *e*P | **Pn** | **12 05 51.1** | **-1.6** |
| | comp=Z,76nm,0.8s | | | | | | |
| ZHN | | | | *e*S | **Sn** | **12 08 51.7** | **-2.7** |
| ZHN | | | | LRM | MLR | 12 13 03.7 | |
| | comp=Z,1μm,10.4s | | | | | | |
| **BOK** | **Bokaro** | **16.50** | **104** | *e*P | **Pn** | **12 05 54.6** | **+0.6** |
| BOK | | | | AMB | AMB | 12 05 59.2 | |
| | comp=Z,34nm,0.7s | | | | | | |
| **UZB** | **Uzynbulak** | **16.62** | **28** | *i* P | **Pn** | **12 05 54.2** | **-1.3** |
| | comp=Z,140nm,1.3s | | | | | | |
| UZB | | | | *e*S | **Sn** | **12 08 57.2** | **-2.6** |
| UZB | | | | LRM | MLR | 12 13 14.7 | |
| | comp=Z,922nm,11.1s | | | | | | |
| **PVM** | **Polavaram** | **16.80** | **131** | *e*P | **Pn** | **12 05 57.5** | **-0.3** |
| PVM | | | | *e*S | **Sn** | **12 08 58.2** | **-5.9** |
| **SHLS** | **Shalkode** | **16.82** | **29** | *i* P | **Pn** | **12 05 59.1** | **+1.1** |
| | comp=Z,303nm,1.3s | | | | | | |
| SHLS | | | | LRM | MLR | 12 13 15.0 | |
| | comp=Z,936nm,9.1s | | | | | | |
| **ADKI** | **Addanki** | **16.82** | **138** | *e*P | **Pn** | **12 05 58.5** | **+0.4** |
| ADKI | | | | *e*S | **Sn** | **12 09 04.6** | **0.0** |
| **ODAN** | **Odare** | **16.95** | **92** | *e*P | **Pn** | **12 05 56.9** | **-2.9** |
| | comp=Z,406nm,1.3s | | | | | | |
| **PDGK** | **Podgornoye** | **16.97** | **29** | ⇑P | **Pn** | **12 05 57.6** | **-2.3** |
| | comp=Z,88nm,1.4s | | | | | | |
| **PDGK** | **Podgornoye** | **16.97** | **29** | P | **Pn** | **12 05 57.6** | **-2.3** |
| PDGK | | | | pmax | pmax | | |
| | comp=Z,88nm,1.4s | | | | | | |
| **TAPN** | **Taplejung** | **17.14** | **90** | *e*P | **Pn** | **12 05 58.9** | **-3.4** |
| | comp=Z,129nm,0.8s | | | | | | |
| **VIS** | **Vishakhapatnam** | **17.65** | **126** | *e*P | **Pn** | **12 06 08.4** | **0.0** |
| **CHLP** | **Challavanipeta** | **17.68** | **122** | *e*P | **Pn** | **12 06 07.6** | **-1.2** |
| CHLP | | | | *e*S | **Sn** | **12 09 18.9** | **-6.6** |
| **SKHT** | **Srikalahasti** | **18.38** | **143** | *e*P | **Pn** | **12 06 14.8** | **-2.5** |
| SKHT | | | | *e*S | **Sn** | **12 09 42.8** | **+0.3** |
| **LKRN** | **Lenkeran, Azer** | **18.97** | **306** | P | **P** | **12 06 23.5** | **-0.2** |
| **LSA** | **Lhasa** | **19.89** | **82** | P | **Pn** | **12 06 37.1** | **+1.1** |
| LSA | | | | pP | **sP** | **12 06 44.1** | **+2.8** |
| LSA | | | | S | **S** | **12 10 19.1** | **+1.1** |
| LSA | | | | pmax | pmax | | |
| | comp=Z,20nm,1.2s | | | | | | |
| LSA | | | | pmax | pmax | | |
| | comp=Z,390nm,4.5s | | | | | | |
| LSA | | | | LR | LR | | |
| | comp=Z,990nm,10.5s | | | | | | |
| LSA | | | | LR | LR | | |
| | comp=Z,2μm,14.5s | | | | | | |
| LSA | | | | LR | LR | | |
| | comp=Z,2μm,10.5s | | | | | | |
| **LSA** | **Lhasa** | **19.89** | **82** | *e*P | **Pn** | **12 06 36.7** | **+0.7** |
| LSA | | | | pmax | pmax | | |
| | comp=Z,52nm,1.0s | | | | | | |
| **LSA** | **Lhasa** | **19.89** | **82** | *e*P | **Pn** | **12 06 36.7** | **+0.7** |
| | comp=Z,52nm,1.0s | | | | | | |
| **MAKZ** | **Makanchi** | **20.82** | **27** | *e*P | **P** | **12 06 44.1** | **+0.2** |
| MAKZ | | | | pmax | pmax | | |
| | comp=Z,50nm,0.8s | | | | | | |
| **MAKZ** | **Makanchi** | **20.82** | **27** | *e*P | **P** | **12 06 44.1** | **+0.2** |
| | comp=Z,50nm,0.8s | | | | | | |
| **MK01** | **Makanchi Array** | **20.92** | **28** | *e*P | **P** | **12 06 44.3** | **-0.6** |
| **MK31** | **Makanchi Array** | **20.94** | **28** | *e*P | **P** | **12 06 45.3** | **+0.2** |
| **MK31** | **Makanchi Array** | **20.94** | **28** | *e*P | **P** | **12 06 45.3** | **+0.2** |
| **MK32** | **Makanchi Array** | **20.94** | **28** | *e*P | **P** | **12 06 45.3** | **+0.2** |
| MK32 | |

**SEM Semipalatinsk 23.31 19** *i* P **P 12 07 09.1 -1.4**
comp=Z,686nm,1.3s
SEM *e*S **S 12 11 20.0 -2.4**
SEM LRM MLR 12 17 22.8
comp=Z,2µm,13.4s
**BVA0 Borovoye Array 24.17 3** *i* P **P 12 07 18.5 0.0**
BVA0 pmax pmax
comp=Z,48nm,1.3s
**BVAR Borovoye Array 24.17 3** P **P 12 07 19.0 +0.5**
comp=Z,12nm,0.7s,baz=168,slow=7.6,SNR=40
BVAR LR LR 12 18 22.4
comp=Z,3µm,18.8s,baz=190,slow=41
**BVAR Borovoye Array 24.17 3** P **P 12 07 19.0 +0.5**
BVAR pmax pmax
comp=Z,12nm,0.7s
BVAR MLR MLR
comp=Z,3µm,18.8s
**BRVK Borovoye 24.20 3***ce*P **P 12 07 19.2 +0.5**
BRVK pmax pmax
comp=Z,74nm,1.6s
**BRVK Borovoye 24.20 3** *e*P **P 12 07 19.3 +0.5**
comp=Z,31nm,0.8s
**BRVK Borovoye 24.20 3** P **P 12 07 19.5 +0.8**
SNR=22
**PALK Pallekele 24.44 149** LR LR 12 18 19.1
comp=Z,2µm,18.1s,baz=297,slow=40
**MARD Mardin 24.53 297** *e*P **P 12 07 21.5 -0.6**
comp=Z,34nm,0.7s
**NCK Nalchik 24.62 313** *i* P **P 12 07 22.1 -0.7**
NCK pmax pmax
comp=Z,22nm,0.9s
**ARTV Artvin 24.78 307** *e*P **P 12 07 22.8 -1.7**
comp=Z,32nm,1.5s
**NEY Neytrino 25.08 312***c i*P **P 12 07 29.5 +2.5**
NEY pmax pmax
comp=Z,29nm,1.8s
**KBZ Khabaz 25.18 313** P **P 12 07 29.2 +1.5**
comp=Z,26nm,1.0s,baz=107,slow=8.5,SNR=42
KBZ LR LR 12 19 48.0
comp=Z,485nm,18.9s,baz=88,slow=42
**DGZ Jazzator, Alta 25.36 30***c i*P **P 12 07 30.9 +1.4**
DGZ pmax pmax
comp=Z,23nm,0.6s
**KVAR Kislovodsk Arr 25.42 313** LR LR 12 18 40.2
comp=Z,421nm,20.7s,baz=60,slow=39
**KIV Kislovodsk 25.42 313** *i* P **P 12 07 31.5 +1.4**
SNR=10
**KIV Kislovodsk 25.42 313***c i*P **P 12 07 31.5 +1.4**
KIV *e* 12 08 06.3
KIV pmax pmax
comp=Z,105nm,1.7s
KIV MLR MLR
comp=Z,556nm,17.0s
**KIV Kislovodsk 25.42 313** *e*P **P 12 07 31.4 +1.4**
comp=Z,72nm,1.2s
**GOF Gofitskoye 25.73 316**⇑ *e*P **P 12 07 33.2 +0.4**
GOF pmax pmax
comp=Z,108nm,1.9s
**DAMY Dhamar 26.36 242** *e*P **P 12 07 38.6 -0.4**
comp=Z,100nm,1.1s
**SOC Sochi 27.20 310** *e*P **P 12 07 46.4 +0.3**
SOC *e*PPP PPP 12 08 41.7
SOC *e*S **S 12 12 25.9 +1.7**
SOC *e*SS **SnSn 12 13 30.5 -1.6**
SOC *e*SSS SSS 12 13 51.2
SOC pmax pmax
comp=Z,47nm,1.5s
SOC MLR MLR
comp=Z,603nm,12.0s
**ASF Jabal al Asfar 27.25 285** P **P 12 07 48.3 +1.5**
comp=Z,2.7nm,0.6s,baz=115,slow=4.9,SNR=3.8
ASF LR LR 12 20 01.3
comp=Z,624nm,19.5s,baz=52,slow=40
**ZAA0 Zalesovo Array 27.78 21** *e*P **P 12 07 51.3 +0.2**
comp=Z,18nm,0.9s
**ZALV Zalesovo Beam 27.78 21** P **P 12 07 51.3 +0.2**
comp=Z,4.2nm,0.6s,baz=227,slow=9.9,SNR=19
ZALV LR LR 12 20 12.7
comp=Z,3µm,18.1s,baz=240,slow=39
**ZALV Zalesovo Beam 27.78 21** *e*P **P 12 07 51.0 -0.1**
**ZALV Zalesovo Beam 27.78 21** *e*P **P 12 07 51.0 -0.1**
**ZAA1 Zalesovo Array 27.79 21** *e*P **P 12 07 51.3 +0.2**
**GTA Gaotai 27.94 60** *e*P **P 12 07 55.0 +2.1**
GTA pP sP 12 08 04.1 +4.0
GTA sP pP 12 08 08.4 +10
GTA S **S 12 12 36.3 +0.1**
GTA sS sS 12 12 51.5 +6.9
GTA pmax pmax
comp=Z,10.0nm,1.5s
GTA pmax pmax
comp=Z,380nm,7.8s
GTA LR LR
comp=Z,2µm,12.6s
GTA LR LR
comp=Z,1µm,11.2s
GTA LR LR
comp=Z,2µm,12.4s
**NVS Novosibirsk 28.08 18** *e*P **P 12 07 53.9 +0.1**
NVS pmax pmax
comp=N,9.0nm,0.7s
NVS pmax pmax
comp=E,4.0nm,0.7s
NVS pmax pmax
comp=Z,9.0nm,0.7s
**ARU Arti 28.40 349** P **P 12 07 57.0 +0.4**
comp=Z,7.9nm,0.7s,baz=136,slow=3.1,SNR=14
ARU LR LR 12 20 10.9
comp=Z,791nm,19.2s,baz=160,slow=38
**ARU Arti 28.40 349***d i*P **P 12 07 57.5 +0.9**
ARU 12 08 43.7
ARU S **S 12 12 44.2 +1.4**
ARU SS **SnSn 12 14 05.4 +4.4**
ARU pmax pmax
comp=Z,35nm,1.7s
ARU MLR MLR
comp=Z,1µm,14.0s
**ARU Arti 28.40 349** *e*P **P 12 07 56.7 +0.1**
comp=Z,15nm,0.9s
**SVE Sverdlovsk 28.46 351**⇑ *e*P **P 12 07 58.2 +1.1**
SVE pmax pmax
comp=Z,28nm,1.7s
SVE MLR MLR
comp=Z,3µm,14.0s
**MMAI Mount Meron Ar 28.50 287** LR LR 12 21 04.9
comp=Z,1µm,18.8s,baz=85,slow=40
**EIL Elat 29.10 280** P **P 12 08 05.6 +2.4**
comp=Z,6.1nm,0.8s,baz=32,slow=2.6,SNR=4.5
EIL LR LR 12 20 56.1
comp=Z,1µm,21.0s,baz=94,slow=39
**ATD Arta Tunnel 29.41 239** LR LR 12 20 45.2
comp=Z,773nm,18.9s,baz=32,slow=38
**CHTO Chiang Mai 29.63 103** *e*P **P 12 08 07.7 -0.2**
CHTO pmax pmax
comp=Z,50nm,1.8s
**CHTO Chiang Mai 29.63 103** *e*P **P 12 08 07.7 -0.2**
comp=Z,50nm,1.8s
**CMAR Chiang Mai Arr 29.79 104** P **P 12 08 10.2 +0.9**
comp=Z,1.2nm,0.5s,baz=295,slow=8.6,SNR=12
CMAR LR LR 12 21 15.5
comp=Z,511nm,18.2s,baz=328,slow=39
**CM01 Chiang Mai Arr 29.82 104** *e*P **P 12 08 10.0 +0.5**
**VRH Novokhopyorsk 29.93 326** *e*P **P 12 08 08.8 -1.4**
VRH pmax pmax
comp=Z,9.0nm,0.9s
**BR101 Keskin Array S 30.48 300** *e*P **P 12 08 15.9 +0.4**
**BRTR Keskin Array B 30.48 300** P **P 12 08 15.9 +0.4**
comp=Z,1.2nm,0.8s,baz=120,slow=8.8,SNR=5.2
**BRTR Keskin Array B 30.48 300** *i* P **P 12 08 15.3 -0.2**
BRTR pmax pmax
comp=Z,1.0nm,0.8s
**LZH Lanzhou 30.66 67** *e*P **P 12 08 18.8 +1.7**
LZH pP sP 12 08 28.8 +4.5
LZH sP pP 12 08 32.5 +10
LZH PP **PnPn 12 09 19.0 +2.4**
LZH *e*S **S 12 13 18.8 -0.2**
LZH sS sS 12 13 33.0 +5.6
LZH SS **SnSn 12 14 59.5 +2.9**
LZH pmax pmax
comp=Z,32nm,1.3s
LZH pmax pmax
comp=Z,180nm,5.5s
LZH LR LR
comp=Z,1µm,14.0s
LZH LR LR
comp=Z,1µm,12.4s
LZH LR LR
comp=Z,2µm,17.4s
**CD2 Chengdu 30.68 77** P **P 12 08 19.0 +1.9**
CD2 pP sP 12 08 25.1 +0.7
CD2 sP pP 12 08 30.1 +7.8
CD2 S **S 12 13 24.6 +5.5**
CD2 pmax pmax
comp=Z,30nm,1.0s
CD2 LR LR
comp=Z,5µm,18.0s
CD2 LR LR
comp=Z,2µm,8.5s
CD2 LR LR
comp=Z,2µm,9.5s
**KMI Kunming 30.79 89** P **P 12 08 20.1 +1.7**
KMI S **S 12 13 15.9 -5.5**
KMI pmax pmax
comp=Z,21nm,0.5s
KMI pmax pmax
comp=Z,200nm,7.6s
KMI LR LR
comp=Z,1µm,15.9s
KMI LR LR
comp=Z,1µm,20.6s
KMI LR LR
comp=Z,1µm,17.1s
**BR231 Keskin MP Arra 31.16 300** *e*P **P 12 08 21.7 +0.3**
**VSR Storozhevoye 31.23 324** *e*P **P 12 08 21.0 -0.7**
VSR pmax pmax
comp=Z,10.0nm,0.7s
**SIM Simferopol' 31.45 310** *e*P **P 12 08 25.0 +1.3**
SIM *e*S **S 12 13 31.0 +0.1**
SIM pmax pmax
comp=Z,85nm,0.9s
SIM MLR MLR
comp=Z,120nm,7.6s
**LPSR Galich'ya Gora 32.15 326** *e*P **P 12 08 29.6 -0.2**
LPSR pmax pmax
comp=Z,20nm,0.8s
**MOY Mondy 33.29 38** *e*P **P 12 08 41.8 +1.9**
MOY pmax pmax
comp=Z,26nm,1.5s
**GYA Guiyang 33.91 85**⇑ *i*P **P 12 08 46.4 +0.8**
GYA pP sP 12 08 56.8 +3.9
GYA PP **PnPn 12 10 01.0 +2.5**
GYA PcP **PcP 12 11 25.5 +1.4**
GYA S **S 12 14 08.3 -1.5**
GYA sS sS 12 14 25.5 +7.2
GYA ScP **ScP 12 15 07.8 -0.4**
GYA SS **SnSn 12 16 16.6 +0.8**
GYA pmax pmax
comp=Z,40nm,0.8s
GYA pmax pmax
comp=Z,130nm,5.0s
GYA LR LR
comp=Z,640nm,17.6s
GYA LR LR
comp=Z,570nm,17.0s
GYA LR LR
comp=Z,610nm,17.2s
**ZAK Zakamensk 33.95 41** *e*P **P 12 08 46.7 +1.0**
ZAK pmax pmax
comp=Z,7.0nm,1.3s
**MOS Moscow 34.66 329** *e*P **P 12 08 49.5 -2.1**
MOS *e* 12 10 01.1
MOS pmax pmax
comp=Z,102nm,1.7s
**TLY Talaya 34.74 39** *e*P **P 12 08 54.8 +2.4**
TLY *e*S **S 12 14 25.2 +3.3**
TLY *e*SS **SnSn 12 16 24.4 -11**
TLY pmax pmax
comp=Z,15nm,1.3s
TLY MLR MLR
comp=Z,868nm,17.0s
**OBN Obninsk 34.76 328***ce*P **P 12 08 52.8 +0.3**
OBN *e* 12 10 05.5
OBN *i* S **S 12 14 21.9 -0.1**
OBN *i* SS **SnSn 12 16 37.9 +2.4**
OBN pmax pmax
comp=Z,58nm,1.7s
OBN MLR MLR
comp=Z,774nm,15.0s
**XAN Xi'an 34.81 71** P **P 12 08 54.3 +1.0**
XAN sP sP 12 09 07.1 +6.5
XAN PP **PnPn 12 10 11.6 +1.9**
XAN PcP **PcP 12 11 28.0 +1.6**
XAN S **S 12 14 21.4 -2.0**
XAN SS **SnSn 12 16 32.8 -4.6**
XAN pmax pmax
comp=Z,18nm,1.4s
XAN pmax pmax
comp=Z,100nm,5.0s
XAN LR LR
comp=Z,370nm,16.8s
XAN LR LR
comp=Z,1µm,14.0s
XAN LR LR
comp=Z,2µm,16.2s
**SONA0 Songino Array 34.87 47** *e*P **P 12 08 55.8 +2.1**
SONA0 *e*PcP **PcP 12 11 27.9 +1.5**
**SONM Songino Array 34.87 47** P **P 12 08 55.8 +2.1**
comp=Z,4.4nm,0.8s,baz=248,slow=8.8,SNR=34
SONM PcP **PcP 12 11 27.9 +1.5**
comp=Z,1.9nm,0.9s,baz=230,slow=4.9,SNR=4.8
SONM LR LR 12 26 18.1
comp=Z,1µm,21.9s,baz=234,slow=42
**SONA1 Songino Array 34.88 47** *e*P **P 12 08 55.2 +1.4**
**ULN Ulaanbaatar 35.30 47***ce*P **P 12 08 59.2 +1.8**
ULN pmax pmax
comp=Z,24nm,2.5s
**ULN Ulaanbaatar 35.30 47** *e*P **P 12 08 59.0 +1.5**
comp=Z,16nm,1.4s
**CFR Carcaliu 35.59 308**⇑ *i*P **P 12 09 01.2 +1.5**
**ENH Enshi 35.66 77** *e*P **P 12 09 02.3 +1.7**
comp=Z,29nm,0.6s
**BTO Baotou 35.87 60** *e*P **P 12 09 03.8 +1.4**
**SORM Soroca 36.23 313**⇓ *i*P **P 12 09 05.8 +0.6**
**AKASG Malin Array Be 36.55 318** P **P 12 09 07.8 -0.1**
comp=Z,7.3nm,0.8s,baz=101,slow=7.3,SNR=18
AKASG LR LR 12 28 37.5
comp=Z,504nm,19.4s,baz=80,slow=44
**AKBB Malin Array Si 36.55 318** *e*P **P 12 09 07.9 0.0**
AKBB pmax pmax
comp=Z,18nm,0.9s
**AKBB Malin Array Si 36.55 318** *e*P **P 12 09 07.9 0.0**
comp=Z,18nm,0.9s
**KIEV Kiev 36.55 318***c i*P **P 12 09 07.8 -0.1**
KIEV pmax pmax
comp=Z,22nm,1.0s
**KIEV Kiev 36.55 318** *e*P **P 12 09 07.9 0.0**
comp=Z,21nm,1.0s
**AK11 Malin Array Si 36.57 318** *e*P **P 12 09 08.1 0.0**
**VRI Vrincioaia 36.70 309**⇑ *i*P **P 12 09 10.3 +0.9**
**PLOR Plostina 36.76 309**⇑ *i*P **P 12 09 11.9 +2.1**
**TESR Tescani 36.91 310**⇑ *i*P **P 12 09 12.1 +1.1**
**HHC Hu-ho-hao-te 37.06 60** *e*P **P 12 09 15.6 +3.1**
HHC S **S 12 15 00.3 +2.5**
HHC pmax pmax
comp=Z,15nm,1.0s
HHC pmax pmax
comp=Z,270nm,9.0s
HHC LR LR
comp=Z,1µm,14.8s
HHC LR LR
comp=Z,960nm,15.4s
HHC LR LR
comp=Z,790nm,13.2s
**MLR Muntele Rosu 37.16 308** P **P 12 09 15.3 +1.9**
comp=Z,14nm,1.1s,baz=108,slow=3.6,SNR=27
**MLR Muntele Rosu 37.16 308**⇓ *i*P **P 12 09 15.0 +1.6**
**MLR Muntele Rosu 37.16 308** *e*P **P 12 09 14.8 +1.4**
MLR pmax pmax
comp=Z,90nm,1.1s
**MLR Muntele Rosu 37.16 308** *e*P **P 12 09 14.8 +1.4**
comp=Z,90nm,1.1s
**KLMR Klimovskoe 37.34 337** *e*P **P 12 09 10.6 -3.9**
KLMR pmax pmax
comp=Z,35nm,1.3s
**PRAR RASCA 37.39 311**⇓ *i*P **P 12 09 16.1 +0.9**
**DOPR Dopca 37.64 309**⇓ *i*P **P 12 09 18.5 +1.2**
**VOIR 37.77 308**⇑ *i*P **P 12 09 20.2 +1.7**
**ARR Arges 38.04 308**⇓ *i*P **P 12 09 21.9 +1.1**
**BURAR Bucovina Array 38.12 311**⇓ *i*P **P 12 09 22.8 +1.4**
**BUR04 Bucovina Ar. S 38.12 311** *e*P **P 12 09 22.2 +0.8**
**BUR08 Bucovina Ar. S 38.14 311** *e*P **P 12 09 21.4 -0.2**
**ARCR ARCALIA 38.57 310**⇑ *i*P **P 12 09 26.6 +1.5**
**LOT Lotru 38.66 308**⇓ *i*P **P 12 09 26.9 +0.9**
**VTS Vitosha 38.68 303**⇓ *i*P **P 12 09 26.9 +0.7**
**VTS Vitosha 38.68 303** *e*P **P 12 09 25.3 -0.9**
VTS pmax pmax
comp=Z,79nm,1.9s
**VTS Vitosha 38.68 303** *e*P **P 12 09 25.3 -0.9**
comp=Z,79nm,1.9s
**QIZ Qiongzhong 38.98 95** P **P 12 09 29.3 +0.4**
QIZ S **S 12 15 27.3 +0.1**
QIZ sS sS 12 15 42.8 +7.0
QIZ LR LR
comp=Z,930nm,18.1s
QIZ LR LR
comp=Z,700nm,16.4s
QIZ LR LR
comp=Z,690nm,18.9s
**CJR Cluj-Napoca 39.00 310**⇓ *i*P **P 12 09 30.7 +1.9**
**LVV L'vov 39.43 315** *e*P **P 12 09 35.0 +2.7**
**DRGR 39.62 310**⇑ *i*P **P 12 09 35.1 +1.1**
**WHN Wuhan 39.76 76**⇑ P **P 12 09 37.3 +2.0**
WHN pmax pmax
comp=Z,150nm,1.4s
WHN LR LR
comp=Z,5µm,14.2s
WHN LR LR
comp=Z,5µm,22.5s
WHN LR LR
comp=Z,3µm,16.4s
**SKO Skopje 39.93 302** *e*P **P 12 09 36.9 +0.3**
**TRPA Tarpa 39.99 312**⇑ *e*P **P 12 09 38.2 +1.3**
**MDVR Moldovita 40.00 306**⇑ *i*P **P 12 09 38.2 +1.1**
**KRUS Krusevo 40.04 301** *i* P **P 12 09 37.4 -0.2**
**BZS Buzias 40.18 308**⇑ *i*P **P 12 09 39.9 +1.4**
**KWP Kalwaria Pacla 40.21 314** *e*P **P 12 09 39.9 +1.1**
**KWP Kalwaria Pacla 40.21 314** *e*P **P 12 09 39.5 +0.7**
KWP pmax pmax
comp=Z,210nm,1.0s
**KWP Kalwaria Pacla 40.21 314** *e*P **P 12 09 39.5 +0.7**
comp=Z,210nm,1.0s
**TMCR Tamitsa 40.22 340** *e*P **P 12 09 39.1 +0.6**
TMCR pmax pmax
comp=Z,31nm,1.3s
**SIRR Siria 40.24 309**⇑ *i*P **P 12 09 40.2 +1.1**
**UZH Uzhgorod 40.26 312** *e*P **P 12 09 38.5 -0.6**
UZH eS **S 12 15 42.9 -2.7**
**OHR Ohrid 40.37 301** *e*P **P 12 09 40.0 -0.3**
**BJI Beijing 40.53 61** P **P 12 09 41.6 +0.1**
BJI S **S 12 15 48.8 -1.1**
BJI pmax pmax
comp=Z,11nm,1.3s
BJI pmax pmax
comp=Z,250nm,7.0s
BJI LR LR
comp=Z,2µm,15.8s
BJI LR LR
comp=Z,950nm,16.2s
**CRVS Cervenica-Dubn 40.85 313** *e*P **P 12 09 45.4 +1.3**
**CRVS Cervenica-Dubn 40.85 313** *e*P **P 12 09 45.4 +1.3**
**STHS Stebnicka Huta 41.10 313** *e* P 12 09 55.6 +10
**VSU Vasula 41.12 328** *i* P **P 12 09 44.9 -1.2**
VSU pmax pmax
comp=Z,44nm,1.0s
**DIVS Divibare 41.15 305** *e*P **P 12 09 47.0 +0.3**
comp=Z,26nm,1.4s
**TIA Tai'an 41.40 67**⇑ P **P 12 09 50.6 +1.9**
TIA pmax pmax
comp=Z,20nm,1.0s
TIA LR LR
comp=Z,3µm,18.0s
TIA LR LR
comp=Z,770nm,16.0s
TIA LR LR
comp=Z,680nm,23.0s
**KECS Kecovo 41.40 312** *e*P **P 12 09 49.5 +0.9**
KECS pmax pmax
comp=Z,9.0nm,1.3s
**KECS Kecovo 41.40 312** *e*P **P 12 09 49.5 +0.9**
**PDG Podgorica 41.58 303**⇓ *i*P **P 12 09 50.5 +0.4**
**PSZ Piszkesteto 41.70 311**⇑ *i*P **P 12 09 52.4 +1.3**
**PSZ Piszkesteto 41.70 311** *e*P **P 12 09 52.1 +1.0**
PSZ pmax pmax
comp=Z,68nm,1.1s
**PSZ Piszkesteto 41.70 311**⇑ *e*P **P 12 09 52.4 +1.3**
**PSZ Piszkesteto 41.70 311** *e*P **P 12 09 52.1 +1.0**
comp=Z,68nm,1.1s
**NIE Niedzica 41.70 313** *e*P **P 12 09 52.8 +1.7**
**NIE Niedzica 41.70 313** *e*P **P 12 09 52.8 +1.7**
**KMBO Kilima Mbogo 42.16 230** P **P 12 09 57.0 +1.6**
comp=Z,7.6nm,0.9s,baz=23,slow=9.0,SNR=14
KMBO LR LR 12 27 13.7
comp=Z,426nm,21.7s,baz=86,slow=36
**BKNI Bangkinang 42.19 127** P P 12 10 06.2 +11
**VYHS Vyhne 42.49 311** *e*P **P 12 09 58.5 +1.0**
VYHS pmax pmax
comp=Z,18nm,1.5s
**VYHS Vyhne 42.49 311** *e*P **P 12 09 58.5 +1.0**
**CSKK Cs˙ˇkako 42.71 310**⇑ *e*P **P 12 10 00.1 +0.8**
**BOD Bodaibo 42.77 34** *e*P **P 12 10 00.0 +0.4**
BOD pmax pmax
comp=Z,14nm,1.3s
**FIA0 FINESS Array S 42.85 332** *e*P **P 12 10 00.2 0.0**
**FIA0 FINESS Array S 42.85 332** *e*P **P 12 10 00.2 0.0**
**FINES FINESS Array B 42.85 332** P **P 12 10 00.2 0.0**
comp=Z,4.0nm,0.5s,baz=112,slow=7.3,SNR=39
FINES LR LR 12 31 19.0
comp=Z,1µm,18.0s,baz=122,slow=41
**OKC Ostrava-Krasne 43.15 313** *e*P **P 12 10 03.6 +0.8**
OKC *e*pP **sP 12 10 06.8 -3.3**
**OKC Ostrava-Krasne 43.15 313** *e*P **P 12 10 03.6 +0.8**
**NJ2 Nanjing 43.32 73** *e*P **P 12 10 05.5 +1.1**
NJ2 pmax pmax
comp=Z,18nm,1.2s
NJ2 LR LR
comp=Z,2µm,13.0s
NJ2 LR LR
comp=Z,1µm,15.2s
NJ2 LR LR
comp=Z,1µm,14.1s
**MORC Moravsky Berou 43.53 313**⇑ *i*P **P 12 10 07.0 +1.1**
**MORC Moravsky Berou 43.53 313** *e*P **P 12 10 06.7 +0.8**
MORC pmax pmax
comp=Z,147nm,1.6s
**MORC Moravsky Berou 43.53 313** *e*P **P 12 10 06.7 +0.8**
comp=Z,147nm,1.6s
**APA Apatity 43.98 342**⇑ *i*P **P 12 10 08.6 -0.7**
APA pmax pmax
comp=Z,15nm,0.9s
APA MLR MLR
comp=Z,2µm,11.0s
**KOGS Kog 43.99 308** *e*P **P 12 10 10.4 +0.8**
**KRLC Kraliky 44.06 313** *e*P **P 12 10 10.8 +0.6**
KRLC *e*pP **pP 12 10 13.7 -1.8**
**KRLC Kraliky 44.06 313** *e*P **P 12 10 10.8 +0.6**
**VRAC Vranov 44.07 312** P **P 12 10 10.5 +0.3**
comp=Z,2.1nm,0.6s,baz=90,slow=9.2,SNR=4.7
**CUC Castrocucco 44.17 299** *e*P **P 12 10 12.0 +0.8**
comp=Z,46nm,0.9s
**CONA Conrad Observa 44.39 310** *i* pP **P 12 10 13.7 +0.8**
comp=Z,14nm,1.1s,SNR=7.1
**DPC Dobruska-Polom 44.40 314** *e*P **P 12 10 14.0 +1.1**
DPC *e*pP **sP 12 10 17.1 -3.1**
**DPC Dobruska-Polom 44.40 314** *e*P **P 12 10 14.0 +1.1**
**KSP Ksiaz 44.49 314** *e*P **P 12 10 14.7 +1.1**
**KSP Ksiaz 44.49 314** *e*P **P 12 10 14.7 +1.1**
**ARSA Arzberg 44.55 309** *i* pP **P 12 10 15.2 +1.1**
comp=Z,36nm,1.0s,SNR=22
**UPC Upice 44.62 314** *e*P **P 12 10 15.4 +0.8**
**UPC Upice 44.62 314** *e*P **P 12 10 15.4 +0.8**
**SOKA Soboth 44.84 308** *i* pP **P 12 10 17.4 +0.8**
comp=Z,21nm,1.2s,SNR=7.9
**LJU Ljubljana 45.15 308** *e*P **P 12 10 19.6 +0.7**
**OBKA Obir 45.16 308** *i* pP **P 12 10 20.1 +0.9**
comp=Z,29nm,1.4s
**GOPC GO Pecny, Ondr 45.31 313** *e*pP pP 12 10 25.6 +0.2
**GOPC GO Pecny, Ondr 45.31 313** *e*P P 12 10 25.6 +5.4
**MOA Molln 45.45 310** *i* pP **P 12 10 22.0 +0.7**
comp=Z,34nm,0.9s,SNR=12
**PVCC Panska Ves 45.53 314** *e*P **P 12 10 23.0 +1.1**
**PVCC Panska Ves 45.53 314** *e*P **P 12 10 23.0 +1.1**
**CADS Cadrg 45.71 308** *i* P **P 12 10 23.6 +0.2**
**MYKA Terra Mystica 45.80 308** *i* pP **P 12 10 24.8 +0.7**
comp=Z,6.8nm,0.6s
**GEA0 GERESS Array S 45.91 311** *e*P **P 12 10 25.3 +0.3**
**GEC2 GERESS Array S 45.91 311** *e*P **P 12 10 25.5 +0.5**

GEC2 pmax pmax
comp=Z,43nm,1.7s
**GEC2 GERESS Array S 45.91 311** *e*P **P 12 10 25.4 +0.5**
comp=Z,43nm,1.7s
**GERES GERESS Array B 45.91 311** P **P 12 10 25.4 +0.5**
comp=Z,3.6nm,0.7s,baz=98,slow=6.9,SNR=18
**BRG Berggiesshubel 45.97 314** *i* P **P 12 10 26.3 +1.0**
comp=Z,23nm,1.4s
BRG *e* 12 10 43.4
comp=Z,9.9nm,1.2s
BRG *e* 12 11 01.1
comp=Z,21nm,1.2s
**BRG Berggiesshubel 45.97 314** *i* P **P 12 10 26.3 +1.0**
BRG *e* 12 10 43.4
BRG pmax pmax
comp=Z,4.0nm,1.4s
BRG pmax pmax
comp=Z,23nm,1.2s
BRG pmax pmax
comp=Z,10.0nm,1.2s
**KHC Kasperske Hory 46.01 312** *e*P **P 12 10 23.3 -2.5**
KHC *ex* x 12 10 25.9
**KHC Kasperske Hory 46.01 312** *e*P **P 12 10 23.3 -2.5**
**KHC Kasperske Hory 46.01 312** *e*P **P 12 10 26.0 +0.2**
comp=Z,14nm,1.9s
**KBA Koelnbreinsper 46.02 309** *i* pP **P 12 10 26.6 +0.6**
comp=Z,45nm,0.9s
**ABTA Abfaltersbach 46.58 308** *i* P **P 12 10 30.6 +0.3**
comp=Z,25nm,0.8s,SNR=11
**CLL Collm 46.61 315** *i* P **P 12 10 33.3 +3.0**
CLL pmax pmax
comp=Z,17nm,1.8s
CLL MLR MLR
comp=Z,700nm,18.5s
**CLL Collm 46.61 315** *e*P **P 12 10 29.0 -1.3**
CLL *i* 12 11 06.2
CLL LmV 12 34 00.0
comp=Z,700nm,18.5s
**NKC Novy Kostel 46.85 313** *e*P **P 12 10 33.1 +0.8**
NKC epP **sP 12 10 36.4 -3.2**
**NKC Novy Kostel 46.85 313** *e*P **P 12 10 33.1 +0.8**
**WTTA Wattenberg 47.19 309** *i* P **P 12 10 35.1 -0.1**
SNR=8.8
**WATA Walderalm 47.24 309** *i* P **P 12 10 35.2 -0.3**
SNR=7.7
**ARA0 ARCESS Array S 47.48 341** *e*P **P 12 10 37.1 +0.2**
**ARCES ARCESS Array B 47.48 341** P **P 12 10 37.1 +0.2**
comp=Z,13nm,0.6s,baz=131,slow=7.7,SNR=75
ARCES LR LR 12 33 36.2
comp=Z,589nm,19.0s,baz=114,slow=40
**ARCES ARCESS Array B 47.48 341** *e*P **P 12 10 37.2 +0.3**
**MOTA Moosalm 47.56 309** *i* P **P 12 10 37.5 -0.5**
comp=Z,10nm,0.5s,SNR=11
**RETA Reutte 47.79 309** *i* P **P 12 10 39.0 -0.7**
SNR=5.8
**FETA Feichten 47.81 309** *i* P **P 12 10 39.6 -0.3**
comp=Z,39nm,1.1s,SNR=14
**HFS Hagfors 47.95 327** LR LR 12 33 57.1
comp=Z,769nm,19.0s,baz=95,slow=40
**FUORN Ofenpass-Fuorn 48.12 308** *e*P **P 12 10 42.6 +0.1**
comp=Z,20nm,0.7s
**DAVOX Davos/Dischmat 48.39 308** P **P 12 10 44.3 -0.2**
comp=Z,8.0nm,0.4s,baz=100,slow=4.3,SNR=18
**DAVA Damuels 48.39 309** *i* P **P 12 10 44.3 -0.2**
SNR=9.3
**TUE Stuetta 48.75 308** *e*P **P 12 10 47.0 -0.3**
comp=Z,13nm,0.7s
**KASI Kota Agung 48.77 129** P P 12 10 53.9 +6.4
**VSL Villasalto 49.15 299** *e*P **P 12 10 50.0 -0.3**
comp=Z,31nm,0.9s
**NB2 NORSAR Subarra 49.36 327** P **P 12 10 50.1 -1.5**
comp=Z,1.3nm,0.6s,baz=106,slow=7.9
**NB200 NORSAR Array S 49.36 327** *e*P **P 12 10 50.4 -1.2**
**NOA NORSAR Array B 49.36 327** P **P 12 10 50.4 -1.2**
comp=Z,4.9nm,1.0s,baz=105,slow=7.5,SNR=5.0
NOA LR LR 12 34 56.6
comp=Z,726nm,18.6s,baz=275,slow=40
**BFO Black Forest 49.45 310** *e*P **P 12 10 51.9 -0.5**
BFO pmax pmax
comp=Z,14nm,1.1s
**BFO Black Forest 49.45 310** *e*P **P 12 10 51.9 -0.5**
comp=Z,14nm,1.1s
**KEST Kesra 49.71 294** P **P 12 10 55.8 +1.2**
comp=Z,16nm,0.9s,baz=18,slow=3.8,SNR=7.9
**KEST Kesra 49.71 294** *e*P **P 12 10 54.9 +0.3**
comp=Z,55nm,1.3s
**LANF Langenberg 49.80 311** *e*P **P 12 10 54.4 -0.6**
**KS01 Wonju Array Si 49.84 64** *e*P **P 12 10 56.6 +1.1**
**KSRS Korea Array 49.87 64** P **P 12 10 56.7 +1.0**
comp=Z,4.7nm,0.7s,baz=274,slow=7.8,SNR=12
KSRS LR LR 12 36 49.5
comp=Z,326nm,18.4s,baz=272,slow=42
**SENIN Lac Senin/Sane 50.17 308** *e*P **P 12 10 58.1 -0.1**
comp=Z,17nm,0.8s
**MON Monaco 50.22 304** *e*P **P 12 10 55.4 -2.9**
**ECH Echery 50.23 310** *e*P **P 12 10 58.2 -0.1**
**ECH Echery 50.23 310** *e*P **P 12 10 58.0 -0.4**
ECH pmax pmax
comp=Z,28nm,1.1s
**ECH Echery 50.23 310** *e*P **P 12 10 58.0 -0.4**
comp=Z,28nm,1.1s
**MOF Molkenrain 50.25 310** *e*P **P 12 10 58.2 -0.4**
**MDJ Mudanjiang 50.37 54** P **P 12 10 57.8 -1.6**
MDJ pP sP 12 11 06.3 -0.5
MDJ sP pP 12 11 10.6 +5.9
MDJ ScP **ScP 12 16 10.5 -2.6**
MDJ PcS **PcS 12 16 14.1 -0.8**
MDJ pmax pmax
comp=Z,9.0nm,1.5s
MDJ pmax pmax
comp=Z,340nm,4.4s
MDJ LR LR
comp=Z,220nm,15.1s
MDJ LR LR
comp=Z,380nm,23.1s
MDJ LR LR
comp=Z,460nm,20.1s
**BNI Bardonecchia 50.67 306** *e*P **P 12 11 01.7 -0.2**
BNI pmax pmax
comp=Z,22nm,1.1s
**BNI Bardonecchia 50.67 306** *e*P **P 12 11 01.7 -0.2**
comp=Z,22nm,1.1s
**WLF Walferdange 50.88 312** *e*P **P 12 11 04.6 +1.4**
WLF pmax pmax
comp=Z,78nm,1.6s
**WLF Walferdange 50.88 312** *e*P **P 12 11 04.6 +1.4**
comp=Z,78nm,1.6s
**THEF They Montfort 51.01 310** *e*P **P 12 11 03.9 -0.3**
**OPO Ambohidratompo 51.42 206** LR LR 12 29 35.4
comp=Z,691nm,20.9s,baz=7.5,slow=32
**YAK Yakutsk 51.52 32***c i*P **P 12 11 07.8 0.0**
YAK *e**PP **sP 12 11 18.0 +2.8**
YAK *e* 12 12 24.9
YAK *e* 12 13 11.7
YAK eS **S 12 18 31.0 +3.8**
YAK *e**SS sS 12 18 47.9 +12
YAK *e* 12 21 00.2
YAK pmax pmax
comp=Z,18nm,0.8s
YAK pmax pmax
comp=N,2.0nm,0.9s
YAK pmax pmax
comp=E,10.0nm,1.1s
YAK pmax pmax
comp=Z,341nm,5.2s
YAK pmax pmax
comp=N,164nm,4.8s
YAK pmax pmax
comp=E,245nm,4.3s
YAK smax smax
comp=N,165nm,3.7s
YAK smax smax
comp=E,106nm,2.5s
YAK MLR MLR
comp=Z,1μm,19.0s
YAK MLR MLR
comp=E,520nm,19.0s
YAK MLR MLR
comp=N,429nm,19.0s
**YAK Yakutsk 51.52 32** *e*P **P 12 11 07.9 0.0**
comp=N,48nm,0.6s
**KLR Kul'dur 51.65 48** LR LR 12 35 38.3
comp=N,47nm,19.1s,baz=263,slow=39
**KLR Kul'dur 51.65 48**⇑*i*P **P 12 11 09.9 +0.9**
**MSHR Mys Shultsa 51.68 57***ce*P **P 12 11 10.1 +0.8**
**USRK Ussuriysk Ar. 52.12 55** LR LR 12 37 06.6
comp=N,701nm,18.1s,baz=258,slow=40
**SSB Saint Sauveur 52.16 307** *e*P **P 12 11 12.7 -0.2**
SSB pmax pmax
comp=Z,95nm,2.0s
**SSB Saint Sauveur 52.16 307** *e*P **P 12 11 12.7 -0.2**
comp=Z,95nm,2.0s
**LBL Lubilhac 53.08 307** *e*P **P 12 11 20.1 +0.4**
**PYM Petit Puy Mans 53.19 307** *e*P **P 12 11 20.7 +0.1**
**TIXI Tiksi 53.66 20** P **P 12 11 22.8 -0.7**
comp=Z,5.2nm,0.5s,baz=175,slow=4.5,SNR=10
TIXI LR LR 12 36 21.5
comp=Z,862nm,19.5s,baz=250,slow=38
**TIXI Tiksi 53.66 20***ce*P **P 12 11 23.6 +0.1**
TIXI pmax pmax
comp=Z,12nm,1.0s
**TIXI Tiksi 53.66 20** *e*P **P 12 11 24.0 +0.5**
**SPITS Spitsbergen Ar 54.44 348** P **P 12 11 30.6 +1.5**
comp=Z,8.3nm,0.7s,baz=90,slow=7.5,SNR=8.9
SPITS LR 12 37 46.1
comp=Z,423nm,19.4s,baz=150,slow=39
**EKA Eskdalemuir Ar 56.42 319** P **P 12 11 43.0 -0.7**
comp=Z,0.7nm,0.4s,baz=101,slow=7.8,SNR=7.7
**EKA Eskdalemuir Ar 56.42 319** *e*P **P 12 11 43.0 -0.7**
**MJAR Matsushiro Arr 58.12 63** P **P 12 11 55.9 -0.1**
comp=Z,1.5nm,0.6s,baz=277,slow=10,SNR=4.2
MJAR LR LR 12 40 42.7
comp=Z,235nm,19.1s,baz=290,slow=40
**JMIC Jan Mayen 58.72 338** LR LR 12 39 41.9
comp=Z,496nm,18.2s,baz=262,slow=38
**ES19 SONSECA Array 59.21 301** *e*P **P 12 12 03.4 -0.2**
**ESDC Sonseca Array 59.27 301** P **P 12 12 03.5 -0.5**
comp=Z,3.9nm,0.7s,baz=67,slow=7.0,SNR=16
**ESLA Sonseca Array 59.27 301** *e*P **P 12 12 03.8 -0.3**
comp=Z,22nm,1.4s
**PAB San Pablo 59.59 301** *e*P **P 12 12 05.8 -0.5**
PAB pmax pmax
comp=Z,17nm,1.1s
**PAB San Pablo 59.59 301** *e*P **P 12 12 05.8 -0.5**
comp=Z,17nm,1.1s
**MVO Moncorvo 61.18 303** *e*P **P 12 12 16.8 -0.3**
comp=Z,27nm,1.7s
**POLO Lamas de Olo 61.69 304** *e*P **P 12 12 21.1 +0.5**
comp=Z,17nm,1.5s
**MTE Manteigas 61.75 303** *e*P **P 12 12 20.5 -0.5**
comp=Z,28nm,1.1s
**MTE Manteigas 61.75 303** *e*P **P 12 12 21.3 +0.3**
comp=Z,50nm,1.8s
**MA2 Magadan 61.80 35** *i* P **P 12 12 22.9 +2.0**
**PCBR Castelo Branco 61.85 302** *e*P **P 12 12 21.4 -0.2**
comp=Z,47nm,1.5s
**PGAV Gavieira, Arco 61.88 305** *e*P **P 12 12 21.4 -0.5**
**PMRV Marv??o 61.90 302** *e*P **P 12 12 21.7 -0.2**
comp=Z,26nm,1.3s
**PVIS Viseu 61.93 303** *e*P **P 12 12 22.5 +0.3**
comp=Z,34nm,1.7s
**PBAR Barrancos 61.97 300** *e*P **P 12 12 21.8 -0.6**
comp=Z,122nm,1.5s
**SEY Seymchan 62.02 31***ce*P **P 12 12 23.4 +1.1**
**PESTR Estremoz 62.20 301** *e*P **P 12 12 25.5 +1.5**
comp=Z,33nm,1.9s
**MATP Matopo 62.31 223** LR LR 12 37 14.7
comp=Z,345nm,21.9s,slow=34
**PMTG Montargil 62.62 301** *e*P **P 12 12 29.0 +2.3**
**SANI Sanana 63.11 109** P **P 12 12 29.8 -0.5**
**TOA0 Torodi Ar. Sit 63.45 271** *e*P **P 12 12 32.0 -0.6**
**TOA1 Torodi Ar. Sit 63.45 271** *e*P **P 12 12 32.1 -0.5**
**TORD Torodi Ar. Bea 63.45 271** P **P 12 12 32.1 -0.6**
comp=Z,19nm,0.8s,baz=60,slow=5.9,SNR=54
TORD LR LR 12 43 30.4
comp=Z,1μm,18.5s,baz=225,slow=39
**BILL Bilibino 66.43 24***c i*P **P 12 12 52.3 +1.1**
BILL *e* 12 15 20.2
BILL *e*S S 12 21 32.4 -8.0
BILL pmax pmax
comp=Z,18nm,1.7s
BILL MLR MLR
comp=Z,1μm,20.0s
**SKR Severo-Kuril's 66.88 44** *e*P P 12 12 47.3 -7.0
SKR *e* 12 13 05.5
SKR *e*SSS SSS 12 28 59.0
SKR pmax pmax
comp=Z,300nm,8.1s
SKR pmax pmax
comp=Z,600nm,7.3s
SKR MLR MLR
comp=Z,700nm,19.0s
SKR MLR MLR
comp=Z,800nm,21.0s
**PEA1 Petropavlovsk- 67.08 41** *e*P **P 12 12 55.4 -0.1**
**PETK Petropavlovsk- 67.08 41** P **P 12 12 55.4 -0.2**
comp=Z,4.1nm,0.9s,baz=314,slow=4.3,SNR=5.2
PETK LR LR 12 45 38.9
comp=Z,507nm,19.2s,baz=279,slow=39
**LBTB Lobatse 67.54 222** LR LR 12 40 46.6
comp=Z,348nm,20.8s,baz=30,slow=34
**SUMG Summit 67.56 342** *e*P **P 12 12 58.5 -0.3**
SUMG pmax pmax
comp=Z,25nm,1.2s
**SUMG Summit 67.56 342** *i* P **P 12 12 59.7 +0.9**
comp=Z,10nm,0.8s
**SUMG Summit 67.56 342** *e*P **P 12 12 58.5 -0.3**
comp=Z,25nm,1.2s
**KOWA Kowa 67.87 275** *e*P **P 12 13 01.0 -0.2**
comp=Z,17nm,0.9s
**BOSA Boshof 70.49 220** P **P 12 13 17.3 +0.1**
comp=Z,5.6nm,1.1s,baz=123,slow=3.3,SNR=4.4
BOSA LR LR 12 41 54.8
comp=Z,511nm,21.7s,baz=28,slow=34
**TULEG Thule 71.56 350** *e*P **P 12 13 22.5 -0.3**
comp=Z,14nm,1.1s
**DBIC Dimbokro 72.13 268** P **P 12 13 27.4 +0.1**
comp=Z,6.9nm,0.9s,baz=42,slow=5.2,SNR=4.4
DBIC LR LR 12 46 29.3
comp=Z,280nm,18.1s,baz=24,slow=37
**DBIC Dimbokro 72.13 268** *e*P **P 12 13 26.8 -0.5**
DBIC pmax pmax
comp=Z,20nm,1.1s
**DBIC Dimbokro 72.13 268** *e*P **P 12 13 26.8 -0.5**
comp=Z,20nm,1.1s
**KIC Kosan Boka 72.17 267** *e*P **P 12 13 27.4 -0.2**
comp=Z,29nm,0.9s
**TIC Toumodi 72.28 268** *e*P **P 12 13 27.7 -0.6**
**LIC Lamto 72.48 267** *e*P **P 12 13 29.1 -0.4**
comp=Z,52nm,1.0s
**COLD Coldfoot 79.88 14** *e*P **P 12 14 11.5 +0.8**
comp=Z,16nm,1.3s
**WRA Warramunga Arr 80.04 119** P **P 12 14 12.7 +0.5**
comp=Z,6.4nm,1.0s,baz=323,slow=4.7,SNR=21
WRA LR LR 12 53 14.6
comp=Z,98nm,18.9s,baz=240,slow=38
**WR1 Warramunga Arr 80.04 119** *e*P **P 12 14 12.7 +0.5**
comp=Z,38nm,1.5s
**WRAB Tennant Creek 80.04 119***ce*P **P 12 14 13.8 +1.5**
WRAB pmax pmax
comp=Z,33nm,1.2s
**WRAB Tennant Creek 80.04 119** *e*P **P 12 14 12.8 +0.5**
comp=Z,11nm,1.0s
**WB2 Warramunga Arr 80.05 119** *e*P **P 12 14 13.2 +0.9**
comp=Z,21nm,1.2s
**IMAR Indian Mountai 80.09 16** *e*P **P 12 14 12.0 +0.2**
**FYU Fort Yukon 81.47 13** *e*P **P 12 14 20.8 +1.6**
comp=Z,97nm,1.8s
**MLY Manley 81.59 16** *e*P **P 12 14 20.7 +0.7**
comp=Z,7.6nm,0.8s
**INK Inuvik 81.75 8** LR LR 12 57 55.2
comp=Z,331nm,18.5s,baz=174,slow=41
**INK Inuvik 81.75 8** *e*P **P 12 14 21.5 +0.9**
INK pmax pmax
comp=Z,39nm,1.4s
**INK Inuvik 81.75 8** *e*P **P 12 14 21.5 +0.9**
comp=Z,39nm,1.4s
**ASAR Alice Springs 81.89 123** P **P 12 14 22.3 +0.2**
comp=Z,3.8nm,0.6s,baz=306,slow=5.3,SNR=58
**AS31 Alice Springs 81.89 123** *e*P **P 12 14 22.7 +0.6**
comp=Z,3.8nm,1.4s
**AS01 Alice Springs 81.92 123** *e*P **P 12 14 22.4 +0.2**
**MDM Murphy Dome 82.23 15** *e*P **P 12 14 23.7 +0.4**
comp=Z,13nm,0.9s
**IL1 Eielson Array 82.69 14** *e*P **P 12 14 25.2 -0.5**
**ILAR Eielson Array 82.69 14** P **P 12 14 25.2 -0.4**
comp=Z,2.8nm,1.0s,baz=320,slow=3.7,SNR=17
ILAR PP **PP 12 17 35.0 +0.3**
comp=Z,2.8nm,1.1s,baz=329,slow=7.0,SNR=6.4
**ILAR Eielson Array 82.69 14** P **P 12 14 25.3 -0.4**
ILAR 12 17 35.0
ILAR pmax pmax
comp=Z,3.0nm,1.0s
ILAR pmax pmax
comp=Z,3.0nm,1.1s
**ILB Eielson Array 82.69 14** *e*P **P 12 14 24.8 -0.8**
**EGAK Eagle 83.85 12** *e*P **P 12 14 32.3 +0.7**
comp=Z,22nm,1.4s
**DAWY Dawson 84.82 12** *e*P **P 12 14 37.2 +0.6**
comp=Z,41nm,1.7s
**KDAK Kodiak Island 87.08 21** LR LR 12 56 58.7
comp=Z,556nm,20.5s,baz=350,slow=38
**KDAK Kodiak Island 87.08 21** *i* P **P 12 14 48.9 +1.1**
**SCHQ Schefferville 88.17 336** LR LR 12 55 54.4
comp=Z,424nm,19.6s,baz=163,slow=37
**YKW3 Yellowknife Ar 88.85 1** *e*P **P 12 14 56.7 +0.6**
comp=Z,19nm,1.3s
**YKA Yellowknife Ar 88.92 1** P **P 12 14 57.0 +0.5**
comp=Z,4.2nm,0.7s,baz=352,slow=4.9,SNR=154
**YKA Yellowknife Ar 88.92 1** P **P 12 14 57.0 +0.5**
YKA pmax pmax
comp=Z,4.0nm,0.7s
**STKA Stephens Creek 92.14 125** P **P 12 15 11.9 0.0**
comp=Z,0.8nm,0.7s,baz=310,slow=13,SNR=3.2
STKA LR LR 13 01 33.4
comp=Z,192nm,18.2s,baz=243,slow=39
**MAW Mawson 96.28 182** LR LR 12 53 27.8
comp=Z,282nm,18.7s,baz=57,slow=32
**FFC Flin Flon 96.32 354** *i* P **P 12 15 32.3 +1.5**
**QSPA South Pole Qui 118.70 180** *e*PKPdf **PKPdf 12 20 49.7 0.0**
**PLCA Paso Flores 144.55 239** PKP **PKPdf 12 21 38.5 -0.4**
comp=Z,8.6nm,1.1s,baz=181,slow=3.4,SNR=6.3

**IDC 23 12:03:12.6±9.6, 28°.14S×177°.08W, h0km, mb3.6/3, mb1 3.8/3, mb1mx3.5/26, mbtmp3.6/3, MS3.8/3, Ms1 3.8/3, ms1mx3.2/35, 1C, Error ellipse: s-maj=179.2km s-min=32.3km az=97.0, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **1.33** | **213** | Pn | | Pn | | 12 03 38.4 | -0.1 |
| | 100nm,0.3s,baz=78,slow=20,SNR=4.3 | | | | | | | | |
| RAO | | | | Sn | | Sn | | 12 03 57.8 | +0.9 |
| | 92nm,0.3s,baz=92,slow=22,SNR=3.7 | | | | | | | | |
| RAO | | | | LR | | LR | | 12 04 02.4 | |
| | comp=Z,518nm,21.8s,baz=112,slow=37 | | | | | | | | |
| **PPT** | **Papeete** | **27.38** | **73** | LR | | LR | | 12 18 25.7 | |
| | comp=Z,98nm,19.0s,baz=320,slow=33 | | | | | | | | |
| **STKA** | **Stephens Creek** | **35.83** | **254** | P | | P | | 12 10 13.6 | -0.4 |
| | 0.9nm,0.7s,baz=69,slow=8.8,SNR=3.5 | | | | | | | | |
| **ASAR** | **Alice Springs** | **44.09** | **264** | P | | P | | 12 11 22.5 | -0.3 |
| | 0.5nm,0.6s,baz=94,slow=7.7,SNR=13 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **44.87** | **269** | P | | P | | 12 11 29.5 | +0.4 |
| | 0.7nm,0.8s,baz=110,slow=7.7,SNR=5.1 | | | | | | | | |
| **SYO** | **Syowa Base** | **79.49** | **193**⇑ | *e*P | | P | | 12 15 17.0 | -3.7 |
| **PSI** | **Prapat** | **86.02** | **275** | LR | | LR | | 12 54 07.5 | |
| | comp=Z,73nm,21.4s,baz=132,slow=36 | | | | | | | | |
| **ATAH** | **Atahualpa** | **94.27** | **100** | LR | | LR | | 12 49 58.4 | |
| | comp=Z,61nm,21.3s,baz=9.1,slow=30 | | | | | | | | |

**IDC 23 12:12:01.9±385.0, 62°.55N×43°.38E, h0km, Error ellipse: s-maj=178.6km s-min=123.7km az=2.0, Baltic States-Belarus-Northwestern Russia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **I43RU** | **DUBNA INFRASON 6.63** | | **211** | *i* | | | | 12 53 00.0 | |
| | baz=24,slow=325,SNR=0.2 | | | | | | | | |
| **I31KZ** | **AKTYUBINSK INF 14.57** | | **140** | *i* | | | | 13 40 20.0 | |
| | baz=332,slow=330,SNR=5.0 | | | | | | | | |
| **I46RU** | **ZALESOVO INFRA23.06** | | **93** | *i* | | | | 14 34 00.0 | |
| | baz=310,slow=313,SNR=2.2 | | | | | | | | |
| **I34MN** | **SONGINO INFRAS 37.24** | | **83** | *i* | | | | 16 00 10.0 | |
| | baz=312,slow=338,SNR=0.7 | | | | | | | | |

*ISCJB **23** 12:21:30.1±0.6, 43°.63S×172°.03E±0°.04, h14km±4km, mb3.4/2, Error ellipse: s-maj=7.0km s-min=3.4km az=137.2*
*WEL **23** 12:21:32.6±0.1, 43°.52S×172°.72E, h7km, ML4.1/47, Mw3.8, Error ellipse: s-maj=0.8km s-min=0.4km az=90.0*
*WEL Felt from Wellington to Canterbury, maximum reported intensity MM 6.*
*NEIC **23** 12:21:32.3±0.0, 43°.53S×172°.73E, h10km, ML4.3(WEL), After WEL.*
*NEIC Felt at Christchurch.*
*IDC **23** 12:21:35.6±9.8, 42°.72S×172°.39E, h0km, mb3.6/2, mb1 3.8/2, mb1mx3.5/34, mbtmp3.6/2, Error ellipse: s-maj=562.1km s-min=45.1km az=38.0*

**ISC 23 12:21:31.7±1.0, 43°.54S±0°.04×172°.81E±0°.04, h10km±7km, n133, σ1°.06/136, 6C-6D, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.14** | **257** | Pg | | **Pg** | | **12 21 34.7** | **-0.1** |
| CRLZ | | | | Sg | | **Sg** | | **12 21 36.2** | **-0.7** |
| **CRLZ** | **Canterbury Las** | **0.14** | **257** | ⇓PG | | **Pg** | | **12 21 34.7** | **-0.1** |
| CRLZ | | | | SG | | **Sg** | | **12 21 36.2** | **-0.7** |
| CRLZ | | | | AML | AML | | | 12 21 36.4 | |
| CRLZ | | | | AML | AML | | | 12 21 36.4 | |
| CRLZ | | | | AML | AML | | | 12 21 36.5 | |
| **MQZ** | **McQueen's Vall** | **0.20** | **214** | Pg | | **Pg** | | **12 21 36.5** | **+0.6** |
| MQZ | | | | Sg | | **Sg** | | **12 21 39.3** | **+0.6** |
| **MQZ** | **McQueen's Vall** | **0.20** | **214** | PG | | **Pg** | | **12 21 36.4** | **+0.6** |
| MQZ | | | | SG | | **Sg** | | **12 21 39.3** | **+0.6** |
| MQZ | | | | AML | AML | | | 12 21 39.5 | |
| **OXZ** | **Oxford** | **0.60** | **291** | P* | | **Pg** | | **12 21 42.8** | **-0.5** |
| **OXZ** | **Oxford** | **0.60** | **291** | ⇑P* | | **Pg** | | **12 21 42.8** | **-0.5** |
| OXZ | | | | AML | AML | | | 12 21 53.2 | |
| OXZ | | | | AML | AML | | | 12 21 53.2 | |
| OXZ | | | | AML | AML | | | 12 21 53.6 | |
| OXZ | | | | AML | AML | | | 12 21 53.7 | |
| **LTZ** | **Lake Taylor** | **0.86** | **333** | P* | | **Pb** | | **12 21 48.6** | **-0.1** |
| **LTZ** | **Lake Taylor** | **0.86** | **333** | ⇑P* | | **Pb** | | **12 21 48.6** | **-0.1** |
| LTZ | | | | S* | | **Sb** | | **12 22 00.0** | **-0.2** |
| LTZ | | | | AML | AML | | | 12 22 01.5 | |
| **KHZ** | **Kahutara** | **1.25** | **26** | P* | | **Pn** | | **12 21 55.0** | **-0.2** |
| **KHZ** | **Kahutara** | **1.25** | **26** | P* | | **Pn** | | **12 21 54.9** | **-0.2** |
| KHZ | | | | AML | AML | | | 12 22 21.6 | |
| KHZ | | | | AML | AML | | | 12 22 21.9 | |
| KHZ | | | | AML | AML | | | 12 22 21.9 | |
| KHZ | | | | AML | AML | | | 12 22 25.9 | |
| **RPZ** | **Rata Peaks** | **1.28** | **262** | P* | | **Pn** | | **12 21 54.7** | **-1.0** |
| **RPZ** | **Rata Peaks** | **1.28** | **262** | P* | | **Pn** | | **12 21 54.6** | **-1.0** |
| RPZ | | | | AML | AML | | | 12 22 18.5 | |
| RPZ | | | | AML | AML | | | 12 22 20.0 | |
| **INZ** | **Inchbonnie** | **1.29** | **309** | P* | | **Pn** | | **12 21 54.8** | **-1.0** |
| **WVZ** | **Waitaha Valley** | **1.58** | **287** | Pn | | **Pn** | | **12 21 59.4** | **-0.3** |
| **WVZ** | **Waitaha Valley** | **1.58** | **287** | PN | | **Pn** | | **12 21 59.4** | **-0.3** |
| WVZ | | | | AML | AML | | | 12 22 26.4 | |
| WVZ | | | | AML | AML | | | 12 22 26.8 | |
| **THZ** | **Tophouse** | **1.78** | **2** | Pn | | **Pn** | | **12 22 02.1** | **-0.5** |
| **THZ** | **Tophouse** | **1.78** | **2** | PN | | **Pn** | | **12 22 02.1** | **-0.5** |
| THZ | | | | AML | AML | | | 12 22 29.9 | |
| THZ | | | | AML | AML | | | 12 22 40.3 | |
| **DSZ** | **Denniston Nort** | **1.94** | **337** | Pn | | **Pn** | | **12 22 04.5** | **-0.3** |
| **DSZ** | **Denniston Nort** | **1.94** | **337** | ⇑PN | | **Pn** | | **12 22 04.5** | **-0.3** |
| DSZ | | | | AML | AML | | | 12 22 37.6 | |
| DSZ | | | | AML | AML | | | 12 22 37.6 | |
| DSZ | | | | AML | AML | | | 12 22 39.0 | |
| DSZ | | | | AML | AML | | | 12 22 39.1 | |
| **BSWZ** | **Blackbirch Sta** | **1.99** | **24** | Pn | | **Pn** | | **12 22 05.7** | **+0.3** |
| **BSWZ** | **Blackbirch Sta** | **1.99** | **24** | ⇑PN | | **Pn** | | **12 22 05.7** | **+0.3** |
| BSWZ | | | | AML | AML | | | 12 22 34.0 | |
| BSWZ | | | | AML | AML | | | 12 22 34.3 | |
| **LBZ** | **Lake Benmore** | **2.07** | **245** | Pn | | **Pn** | | **12 22 06.1** | **-0.4** |
| **LBZ** | **Lake Benmore** | **2.07** | **245** | PN | | **Pn** | | **12 22 06.1** | **-0.4** |
| LBZ | | | | AML | AML | | | 12 22 44.6 | |
| LBZ | | | | AML | AML | | | 12 22 44.6 | |
| LBZ | | | | AML | AML | | | 12 22 46.0 | |
| LBZ | | | | AML | AML | | | 12 22 46.1 | |
| **CMWZ** | **Cape Campbell** | **2.07** | **31** | Pn | | **Pn** | | **12 22 04.3** | **-2.3** |
| **CMWZ** | **Cape Campbell** | **2.07** | **31** | PN | | **Pn** | | **12 22 04.3** | **-2.3** |
| CMWZ | | | | AML | AML | | | 12 23 02.3 | |
| CMWZ | | | | AML | AML | | | 12 23 07.7 | |
| **ODZ** | **Otahua Downs** | **2.16** | **225** | Pn | | **Pn** | | **12 22 07.2** | **-0.5** |
| **ODZ** | **Otahua Downs** | **2.16** | **225** | ⇑PN | | **Pn** | | **12 22 07.2** | **-0.5** |
| ODZ | | | | AML | AML | | | 12 22 40.6 | |
| ODZ | | | | AML | AML | | | 12 22 46.5 | |
| ODZ | | | | AML | AML | | | 12 22 46.6 | |
| ODZ | | | | AML | AML | | | 12 22 46.6 | |
| **FOZ** | **Fox Glacier** | **2.17** | **269** | Pn | | **Pn** | | **12 22 08.5** | **+0.6** |
| **FOZ** | **Fox Glacier** | **2.17** | **269** | PN | | **Pn** | | **12 22 08.5** | **+0.6** |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| FOZ | | | | | AML | AML | 12 22 51.8 | | | |
| FOZ | | | | | AML | AML | 12 22 51.8 | | | |
| FOZ | | | | | AML | AML | 12 22 52.9 | | | |
| FOZ | | | | | AML | AML | 12 22 52.9 | | | |
| **TUWZ** | **Tuamarina** | **2.27** | **22** | | Pn | **Pn** | **12 22 09.2** | **-0.1** | | |
| **TUWZ** | **Tuamarina** | **2.27** | **22** | | PN | **Pn** | **12 22 09.2** | **-0.1** | | |
| TUWZ | | | | | AML | AML | 12 22 40.6 | | | |
| TUWZ | | | | | AML | AML | 12 22 42.0 | | | |
| **NNZ** | **Nelson** | **2.36** | **11** | | Pn | **Pn** | **12 22 10.9** | **+0.4** | | |
| **NNZ** | **Nelson** | **2.36** | **11** | | PN | **Pn** | **12 22 10.9** | **+0.4** | | |
| NNZ | | | | | AML | AML | 12 22 40.6 | | | |
| NNZ | | | | | AML | AML | 12 22 45.1 | | | |
| **TCW** | **Tory Channel** | **2.57** | **26** | | Pn | **Pn** | **12 22 12.9** | **-0.5** | | |
| **TCW** | **Tory Channel** | **2.57** | **26** | | PN | **Pn** | **12 22 12.9** | **-0.5** | | |
| TCW | | | | | AML | AML | 12 22 49.1 | | | |
| TCW | | | | | AML | AML | 12 22 50.1 | | | |
| **BHW** | **Baring Head** | **2.62** | **36** | | Pn | **Pn** | **12 22 13.7** | **-0.5** | | |
| **BHW** | **Baring Head** | **2.62** | **36** | | PN | **Pn** | **12 22 13.6** | **-0.5** | | |
| **SNZO** | **South Karori** | **2.64** | **33** | *e* | Pn | **Pn** | **12 22 14.1** | **-0.2** | | |
| SNZO | | | | *e* | Sn | **Sn** | **12 22 47.3** | **+1.0** | | |
| **PLWZ** | **Palliser** | **2.68** | **43** | | Pn | **Pn** | **12 22 14.5** | **-0.4** | | |
| **PLWZ** | **Palliser** | **2.68** | **43** | ⇓ | PN | **Pn** | **12 22 14.5** | **-0.4** | | |
| PLWZ | | | | | AML | AML | 12 22 58.6 | | | |
| **WEL** | **Wellington** | **2.69** | **33** | | Pn | **Pn** | **12 22 14.7** | **-0.3** | | |
| **WEL** | **Wellington** | **2.69** | **33** | | AML | AML | 12 22 47.0 | | | |
| WEL | | | | | AML | AML | 12 22 47.0 | | | |
| WEL | | | | | AML | AML | 12 22 47.0 | | | |
| WEL | | | | | AML | AML | 12 22 47.0 | | | |
| **QRZ** | **Quartz Range** | **2.72** | **356** | | Pn | **Pn** | **12 22 15.2** | **-0.3** | | |
| **QRZ** | **Quartz Range** | **2.72** | **356** | | PN | **Pn** | **12 22 15.2** | **-0.3** | | |
| QRZ | | | | | AML | AML | 12 22 24.9 | | | |
| QRZ | | | | | AML | AML | 12 22 24.9 | | | |
| QRZ | | | | | AML | AML | 12 23 00.8 | | | |
| QRZ | | | | | AML | AML | 12 23 05.6 | | | |
| **MSWZ** | **Moikau Station** | **2.79** | **41** | | Pn | **Pn** | **12 22 15.7** | **-0.7** | | |
| **MSWZ** | **Moikau Station** | **2.79** | **41** | | PN | **Pn** | **12 22 15.7** | **-0.7** | | |
| MSWZ | | | | | AML | AML | 12 22 49.2 | | | |
| MSWZ | | | | | AML | AML | 12 22 50.8 | | | |
| **HHSZ** | **Highcliff Hill** | **2.82** | **213** | | Pn | **Pn** | **12 22 16.1** | **-0.7** | | |
| **HHSZ** | **Highcliff Hill** | **2.82** | **213** | | PN | **Pn** | **12 22 16.1** | **-0.7** | | |
| HHSZ | | | | | AML | AML | 12 23 05.2 | | | |
| HHSZ | | | | | AML | AML | 12 23 15.7 | | | |
| **DUWZ** | **D'Urville Isla** | **2.86** | **17** | | Pn | **Pn** | **12 22 17.7** | **+0.3** | | |
| **DUWZ** | **D'Urville Isla** | **2.86** | **17** | | PN | **Pn** | **12 22 17.7** | **+0.3** | | |
| DUWZ | | | | | AML | AML | 12 22 34.5 | | | |
| DUWZ | | | | | AML | AML | 12 23 20.2 | | | |
| **CAW** | **Cannon Point** | **2.96** | **35** | | Pn | **Pn** | **12 22 18.2** | **-0.5** | | |
| **CAW** | **Cannon Point** | **2.96** | **35** | ⇓ | PN | **Pn** | **12 22 18.2** | **-0.5** | | |
| CAW | | | | | AML | AML | 12 22 56.9 | | | |
| CAW | | | | | AML | AML | 12 22 57.1 | | | |
| **JCZ** | **Jackson Bay** | **2.96** | **258** | | Pn | **Pn** | **12 22 18.3** | **-0.5** | | |
| **JCZ** | **Jackson Bay** | **2.96** | **258** | | PN | **Pn** | **12 22 18.3** | **-0.5** | | |
| JCZ | | | | | AML | AML | 12 23 11.2 | | | |
| JCZ | | | | | AML | AML | 12 23 14.1 | | | |
| **WKZ** | **Wanaka** | **3.01** | **243** | | Pn | **Pn** | **12 22 18.7** | **-0.8** | | |
| **WKZ** | **Wanaka** | **3.01** | **243** | | PN | **Pn** | **12 22 18.7** | **-0.8** | | |
| WKZ | | | | | AML | AML | 12 23 12.0 | | | |
| WKZ | | | | | AML | AML | 12 23 20.0 | | | |
| WKZ | | | | | AML | AML | 12 23 20.0 | | | |
| WKZ | | | | | AML | AML | 12 23 21.6 | | | |
| **EAZ** | **Earnscleugh** | **3.02** | **235** | | Pn | **Pn** | **12 22 18.9** | **-0.7** | | |
| **EAZ** | **Earnscleugh** | **3.02** | **235** | ⇓ | PN | **Pn** | **12 22 18.9** | **-0.7** | | |
| EAZ | | | | | AML | AML | 12 23 10.8 | | | |
| EAZ | | | | | AML | AML | 12 23 10.8 | | | |
| EAZ | | | | | AML | AML | 12 23 11.4 | | | |
| EAZ | | | | | AML | AML | 12 23 11.5 | | | |
| **KIW** | **Kapiti Island** | **3.10** | **31** | | Pn | **Pn** | **12 22 20.4** | **-0.3** | | |
| **KIW** | **Kapiti Island** | **3.10** | **31** | | PN | **Pn** | **12 22 20.4** | **-0.3** | | |
| KIW | | | | | AML | AML | 12 23 00.2 | | | |
| **MTW** | **Mount Morrison** | **3.11** | **41** | | Pn | **Pn** | **12 22 20.1** | **-0.7** | | |
| **MTW** | **Mount Morrison** | **3.11** | **41** | | PN | **Pn** | **12 22 20.1** | **-0.7** | | |
| MTW | | | | | AML | AML | 12 22 58.9 | | | |
| MTW | | | | | AML | AML | 12 22 59.5 | | | |
| **OGWZ** | **Otaki Gorge** | **3.24** | **34** | | Pn | **Pn** | **12 22 22.0** | **-0.6** | | |
| **OGWZ** | **Otaki Gorge** | **3.24** | **34** | | PN | **Pn** | **12 22 21.9** | **-0.7** | | |
| OGWZ | | | | | AML | AML | 12 22 59.3 | | | |
| OGWZ | | | | | AML | AML | 12 23 02.4 | | | |
| **TUZ** | **Tuapeka** | **3.30** | **222** | | Pn | **Pn** | **12 22 22.9** | **-0.5** | | |
| **TUZ** | **Tuapeka** | **3.30** | **222** | ⇑ | PN | **Pn** | **12 22 22.9** | **-0.5** | | |
| TUZ | | | | | AML | AML | 12 23 24.3 | | | |
| TUZ | | | | | AML | AML | 12 23 25.9 | | | |
| TUZ | | | | | AML | AML | 12 23 27.0 | | | |
| TUZ | | | | | AML | AML | 12 23 28.3 | | | |
| **HOWZ** | **Holdsworth Sta** | **3.32** | **38** | | Pn | **Pn** | **12 22 22.9** | **-0.8** | | |
| **HOWZ** | **Holdsworth Sta** | **3.32** | **38** | | PN | **Pn** | **12 22 22.6** | **-1.1** | | |
| HOWZ | | | | | AML | AML | 12 23 05.8 | | | |
| HOWZ | | | | | AML | AML | 12 23 06.4 | | | |
| **MRZ** | **Mangatainoka R** | **3.54** | **37** | | Pn | **Pn** | **12 22 25.8** | **-1.0** | | |
| **MRZ** | **Mangatainoka R** | **3.54** | **37** | | PN | **Pn** | **12 22 25.8** | **-1.0** | | |
| MRZ | | | | | AML | AML | 12 23 10.9 | | | |
| MRZ | | | | | AML | AML | 12 23 10.9 | | | |
| **TIWZ** | **Tintock** | **3.59** | **41** | | Pn | **Pn** | **12 22 27.4** | **0.0** | | |
| **TIWZ** | **Tintock** | **3.59** | **41** | | PN | **Pn** | **12 22 27.4** | **0.0** | | |
| TIWZ | | | | | AML | AML | 12 23 12.1 | | | |
| TIWZ | | | | | AML | AML | 12 23 12.4 | | | |
| **PRWZ** | **Pori Road** | **3.81** | **39** | | Pn | **Pn** | **12 22 29.7** | **-0.7** | | |
| **PRWZ** | **Pori Road** | **3.81** | **39** | | PN | **Pn** | **12 22 29.7** | **-0.7** | | |
| PRWZ | | | | | AML | AML | 12 23 17.5 | | | |
| PRWZ | | | | | AML | AML | 12 23 18.0 | | | |
| **MLZ** | **Mavora Lakes** | **3.82** | **240** | | Pn | **Pn** | **12 22 29.7** | **-0.8** | | |
| **MLZ** | **Mavora Lakes** | **3.82** | **240** | ⇓ | PN | **Pn** | **12 22 29.7** | **-0.8** | | |
| MLZ | | | | | AML | AML | 12 23 38.3 | | | |
| MLZ | | | | | AML | AML | 12 23 41.5 | | | |
| **BFZ** | **Birch Farm** | **3.84** | **43** | | Pn | **Pn** | **12 22 29.9** | **-0.9** | | |
| **BFZ** | **Birch Farm** | **3.84** | **43** | | PN | **Pn** | **12 22 29.9** | **-0.9** | | |
| **POWZ** | **Post Office Ro** | **3.85** | **36** | | AML | AML | 12 24 13.3 | | | |
| **SYZ** | **Scrubby Hill** | **3.96** | **220** | | Pn | **Pn** | **12 22 32.1** | **-0.4** | | |
| **SYZ** | **Scrubby Hill** | **3.96** | **220** | | PN | **Pn** | **12 22 32.1** | **-0.4** | | |
| SYZ | | | | | AML | AML | 12 23 51.6 | | | |
| SYZ | | | | | AML | AML | 12 23 53.6 | | | |
| **DVHZ** | **Dannevirke** | **4.10** | **39** | | AML | AML | 12 23 25.5 | | | |
| DVHZ | | | | | AML | AML | 12 23 28.6 | | | |
| **ANWZ** | **Angora Road** | **4.12** | **43** | | PN | **Pn** | **12 22 34.3** | **-0.3** | | |
| ANWZ | | | | | AML | AML | 12 23 22.3 | | | |
| ANWZ | | | | | AML | AML | 12 23 26.6 | | | |
| **WAZ** | **Wanganui** | **4.12** | **24** | | Pn | **Pn** | **12 22 36.0** | **+1.3** | | |
| **WAZ** | **Wanganui** | **4.12** | **24** | *e* | PN | **Pn** | **12 22 35.4** | **+0.7** | | |
| **WHZ** | **Wether Hill Ro** | **4.18** | **234** | | Pn | **Pn** | **12 22 33.9** | **-1.6** | | |
| **WHZ** | **Wether Hill Ro** | **4.18** | **234** | | PN | **Pn** | **12 22 33.9** | **-1.6** | | |
| WHZ | | | | | AML | AML | 12 23 51.8 | | | |
| WHZ | | | | | AML | AML | 12 23 55.6 | | | |
| **NMEZ** | **Namu Road** | **4.21** | **11** | | Pn | **Pn** | **12 22 38.2** | **+2.4** | | |
| **NMEZ** | **Namu Road** | **4.21** | **11** | *e* | PN | **Pn** | **12 22 37.9** | **+2.1** | | |
| **TSZ** | **Takapari Road** | **4.21** | **35** | | Pn | **Pn** | **12 22 34.5** | **-1.4** | | |
| **PREZ** | **Palmer Road** | **4.32** | **14** | | Pn | **Pn** | **12 22 39.1** | **+1.6** | | |
| **PREZ** | **Palmer Road** | **4.32** | **14** | | PN | **Pn** | **12 22 39.1** | **+1.6** | | |
| PREZ | | | | | AML | AML | 12 23 36.9 | | | |
| PREZ | | | | | AML | AML | 12 23 38.6 | | | |
| **NWEZ** | **Newall Road** | **4.34** | **11** | | Pn | **Pn** | **12 22 39.2** | **+1.5** | | |
| **KHEZ** | **Kahui Hut** | **4.34** | **12** | | Pn | **Pn** | **12 22 39.8** | **+2.0** | | |
| **PRHZ** | **Porangahau** | **4.35** | **42** | | Pn | **Pn** | **12 22 36.1** | **-1.7** | | |
| **PRHZ** | **Porangahau** | **4.35** | **42** | | PN | **Pn** | **12 22 36.1** | **-1.7** | | |
| **NEZ** | **North Egmont** | **4.38** | **13** | | Pn | **Pn** | **12 22 40.0** | **+1.7** | | |
| **NEZ** | **North Egmont** | **4.38** | **13** | | PN | **Pn** | **12 22 40.0** | **+1.7** | | |
| **PNHZ** | **Pukenui** | **4.43** | **36** | | Pn | **Pn** | **12 22 38.0** | **-0.9** | | |
| **PNHZ** | **Pukenui** | **4.43** | **36** | | AML | AML | 12 23 31.3 | | | |
| PNHZ | | | | | AML | AML | 12 23 31.6 | | | |
| **DCZ** | **Deep Cove** | **4.48** | **243** | | Pn | **Pn** | **12 22 38.2** | **-1.3** | | |
| **DCZ** | **Deep Cove** | **4.48** | **243** | | PN | **Pn** | **12 22 38.2** | **-1.3** | | |
| DCZ | | | | | AML | AML | 12 23 55.6 | | | |
| DCZ | | | | | AML | AML | 12 24 07.9 | | | |
| **DREZ** | **Durham Road** | **4.48** | **14** | | Pn | **Pn** | **12 22 41.1** | **+1.5** | | |
| **DREZ** | **Durham Road** | **4.48** | **14** | | PN | **Pn** | **12 22 41.1** | **+1.5** | | |
| **PXZ** | **Pawanui** | **4.64** | **42** | | Pn | **Pn** | **12 22 40.8** | **-1.0** | | |
| **VRZ** | **Vera Road** | **4.65** | **19** | | Pn | **Pn** | **12 22 42.9** | **+0.9** | | |
| **PKVZ** | **Pokaka** | **4.66** | **25** | | Pn | **Pn** | **12 22 43.1** | **+0.9** | | |
| **PKVZ** | **Pokaka** | **4.66** | **25** | | PN | **Pn** | **12 22 43.1** | **+0.9** | | |
| **MOVZ** | **Moawhango** | **4.69** | **29** | | Pn | **Pn** | **12 22 43.3** | **+0.7** | | |
| **WNVZ** | **Wahianoa** | **4.71** | **27** | | Pn | **Pn** | **12 22 43.4** | **+0.5** | | |
| **APZ** | **The Paps** | **4.73** | **224** | | Pn | **Pn** | **12 22 42.1** | **-1.0** | | |
| **APZ** | **The Paps** | **4.73** | **224** | ⇓ | PN | **Pn** | **12 22 42.1** | **-1.0** | | |
| APZ | | | | | AML | AML | 12 24 10.2 | | | |
| **BHHZ** | **Black Hill Sta** | **4.73** | **32** | | Pn | **Pn** | **12 22 43.0** | **-0.2** | | |
| **TUVZ** | **Tukino** | **4.78** | **28** | | Pn | **Pn** | **12 22 45.1** | **+1.2** | | |
| **TUVZ** | **Tukino** | **4.78** | **28** | | PN | **Pn** | **12 22 45.1** | **+1.2** | | |
| **KAHZ** | **Kahuranaki** | **4.83** | **41** | | Pn | **Pn** | **12 22 43.6** | **-0.9** | | |
| **KAHZ** | **Kahuranaki** | **4.83** | **41** | | PN | **Pn** | **12 22 43.3** | **-1.2** | | |
| **NGZ** | **Ngauruhoe** | **4.84** | **27** | | Pn | **Pn** | **12 22 45.6** | **+0.8** | | |
| **NGZ** | **Ngauruhoe** | **4.84** | **27** | | PN | **Pn** | **12 22 45.6** | **+0.8** | | |
| **OTVZ** | **Oturere** | **4.88** | **27** | | Pn | **Pn** | **12 22 45.5** | **+0.3** | | |
| **OTVZ** | **Oturere** | **4.88** | **27** | | PN | **Pn** | **12 22 45.0** | **-0.2** | | |
| OTVZ | | | | | AML | AML | 12 25 05.2 | | | |
| **KWHZ** | **Kaweka Forest** | **4.93** | **35** | *e* | PN | **Pn** | **12 22 45.3** | **-0.6** | | |
| KWHZ | | | | | AML | AML | 12 23 45.0 | | | |
| KWHZ | | | | | AML | AML | 12 23 47.6 | | | |
| **MCHZ** | **McNeill Hill** | **5.03** | **37** | | Pn | **Pn** | **12 22 46.7** | **-0.5** | | |
| **HIZ** | **Hauiti** | **5.26** | **18** | | Pn | **Pn** | **12 22 50.5** | **+0.2** | | |
| **HIZ** | **Hauiti** | **5.26** | **18** | | PN | **Pn** | **12 22 50.5** | **+0.2** | | |
| **TLZ** | **Tolley Road** | **5.61** | **23** | | Pn | **Pn** | **12 22 55.0** | **-0.1** | | |
| **SNGZ** | **Shannon Statio** | **5.86** | **37** | | Pn | **Pn** | **12 22 57.7** | **-0.9** | | |
| **MWZ** | **Matawai** | **6.31** | **36** | | Pn | **Pn** | **12 23 02.9** | **-2.0** | | |
| **MWZ** | **Matawai** | **6.31** | **36** | | PN | **Pn** | **12 23 02.7** | **-2.2** | | |
| MWZ | | | | | AML | SN | **12 24 12.4** | **-4.6** | | |
| **CTZ** | **Chatham Island** | **7.68** | **95** | | Pn | **Pn** | **12 23 21.9** | **-1.6** | | |
| **ASAR** | **Alice Springs** | **37.55** | **289** | | P | **P** | **12 28 46.6** | **+0.5** | | |
| | 0.5nm,0.7s,baz=128,slow=8.5,SNR=8.0 | | | | | | | | | |
| **WRA** | **Warramunga Arr** | **39.79** | **294** | | P | **P** | **12 29 05.3** | **+0.4** | | |
| | 0.5nm,0.5s,baz=132,slow=8.0,SNR=12 | | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **148.76** | **197** | | PKPbc | **PKPab** | **12 41 26.5** | **+3.2** | | |
| | 0.2nm,0.6s,baz=180,slow=3.7,SNR=3.4 | | | | | | | | | |

**IDC 23 12:28:08.0±1.2, 0.°24N×126.°09E, h0km, mb3.8/6, mb1 3.9/6, mb1mx3.6/59, mbtmp3.8/6, Error ellipse: s-maj=128.1km s-min=19.1km az=67.0, Northern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **21.63** | **159** | P | P | 12 32 59.5 | -0.6 |
| | 1.0nm,0.6s,baz=337,slow=11,SNR=10 | | | | | | |
| **ASAR** | **Alice Springs** | **24.95** | **163** | P | P | 12 33 33.6 | +0.4 |
| | 0.5nm,0.5s,baz=347,slow=13,SNR=14 | | | | | | |
| **SONM** | **Songino Array** | **50.40** | **343** | P | P | 12 37 07.0 | -0.3 |
| | 1.4nm,0.9s,baz=164,slow=8.9,SNR=6.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **60.07** | **327** | P | P | 12 38 16.6 | -0.4 |
| | 1.1nm,0.7s,baz=130,slow=6.7,SNR=11 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **64.34** | **329** | P | P | 12 38 45.9 | +0.4 |
| | 1.9nm,1.0s,baz=126,slow=6.1,SNR=9.5 | | | | | | |
| **AKTO** | **Aktyubinsk** | **75.99** | **322** | P | P | 12 39 57.0 | 0.0 |
| | 1.0nm,0.6s,baz=113,slow=8.8,SNR=4.2 | | | | | | |

*ISCJB **23** 12:30:15.6±0.8, 43.°63S±0.°03×173.°04E±0.°04, h5km±6km, mb3.5/2, Error ellipse: s-maj=6.5km s-min=3.2km az=140.4*
*IDC **23** 12:30:17.8±1.8, 43.°40S×172.°82E, h0km, mb3.6/2, mb1 3.9/3, mb1mx3.7/29, mbtmp3.8/3, ML4.1/1, Error ellipse: s-maj=47.8km s-min=17.4km az=158.0*
*NEIC **23** 12:30:18.7±0.0, 43.°54S×172.°86E, h8km, ML4.6(WEL), After WEL.*
*NEIC Felt at Christchurch.*
*WEL **23** 12:30:19.2±0.2, 43.°54S×172.°81E, h6km±1km, ML4.4/81, Mw4.1, Error ellipse: s-maj=1.7km s-min=0.8km az=90.0*
*WEL Felt in the Canterbury region, maximum reported intensity MM 6.*

**ISC 23 12:30:17.6±1.1, 43.°57S±0.°04×172.°95E±0.°04, h12km±7km, n182,σ1°21/184, 7C-7D, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.23** | **269** | Pg | **Pg** | **12 30 22.3** | **-0.2** |
| CRLZ | | | | Sg | **Sg** | **12 30 24.9** | **-1.0** |
| **CRLZ** | **Canterbury Las** | **0.23** | **269** | ⇑PG | **Pg** | **12 30 22.4** | **-0.2** |
| CRLZ | | | | SG | **Sg** | **12 30 24.7** | **-1.1** |
| CRLZ | | | | AML | AML | 12 30 26.7 | |
| **MQZ** | **McQueen's Vall** | **0.25** | **237** | Pg | **Pg** | **12 30 23.4** | **+0.6** |
| MQZ | | | | Sg | **Sg** | **12 30 26.8** | **+0.4** |
| **MQZ** | **McQueen's Vall** | **0.25** | **237** | PG | **Pg** | **12 30 23.4** | **+0.6** |
| MQZ | | | | SG | **Sg** | **12 30 26.7** | **+0.4** |
| MQZ | | | | AML | AML | 12 30 27.2 | |
| **OXZ** | **Oxford** | **0.70** | **290** | P* | **Pg** | **12 30 30.8** | **-0.5** |
| **OXZ** | **Oxford** | **0.70** | **290** | P* | **Pg** | **12 30 30.7** | **-0.5** |
| OXZ | | | | SG | **Sb** | **12 30 40.2** | **-1.2** |
| OXZ | | | | AML | AML | 12 30 41.7 | |
| OXZ | | | | AML | AML | 12 30 41.8 | |
| OXZ | | | | AML | AML | 12 30 42.0 | |
| **LTZ** | **Lake Taylor** | **0.93** | **328** | P* | **Pb** | **12 30 35.7** | **0.0** |
| **LTZ** | **Lake Taylor** | **0.93** | **328** | P* | **Pb** | **12 30 35.7** | **0.0** |
| LTZ | | | | *e*S* | **Sb** | **12 30 48.0** | **0.0** |
| **KHZ** | **Kahutara** | **1.23** | **21** | P* | **Pb** | **12 30 41.0** | **+0.2** |
| **KHZ** | **Kahutara** | **1.23** | **21** | P* | **Pn** | **12 30 40.9** | **+0.2** |
| KHZ | | | | AML | AML | 12 31 02.3 | |
| KHZ | | | | AML | AML | 12 31 02.3 | |
| KHZ | | | | AML | AML | 12 31 09.6 | |
| **RPZ** | **Rata Peaks** | **1.38** | **263** | Pg | **Pn** | **12 30 42.7** | **0.0** |
| | 86nm,0.3s,baz=139,slow=2.4,SNR=147 | | | | | | |
| RPZ | | | | Lg | Lg | 12 30 60.0 | |
| | 331nm,0.3s,baz=62,slow=15,SNR=20 | | | | | | |
| RPZ | | | | LR | LR | 12 31 12.4 | |
| | comp=Z,109nm,18.1s,baz=203,slow=41 | | | | | | |
| **RPZ** | **Rata Peaks** | **1.38** | **263** | P* | **Pn** | **12 30 42.2** | **-0.5** |
| RPZ | | | | AML | AML | 12 31 02.8 | |
| RPZ | | | | AML | AML | 12 31 10.3 | |
| **INZ** | **Inchbonnie** | **1.39** | **307** | P* | **Pn** | **12 30 42.2** | **-0.5** |
| **WVZ** | **Waitaha Valley** | **1.69** | **286** | ⇑PN | **Pn** | **12 30 46.9** | **+0.1** |
| WVZ | | | | AML | AML | 12 31 13.4 | |
| WVZ | | | | AML | AML | 12 31 22.1 | |
| **THZ** | **Tophouse** | **1.81** | **359** | PN | **Pn** | **12 30 48.8** | **+0.1** |
| THZ | | | | AML | AML | 12 31 16.3 | |
| THZ | | | | AML | AML | 12 31 22.3 | |
| **BSWZ** | **Blackbirch Sta** | **1.98** | **21** | Pn | **Pn** | **12 30 52.0** | **+1.1** |
| **BSWZ** | **Blackbirch Sta** | **1.98** | **21** | PN | **Pn** | **12 30 52.0** | **+1.1** |
| BSWZ | | | | AML | AML | 12 31 40.4 | |
| BSWZ | | | | AML | AML | 12 31 48.1 | |
| **DSZ** | **Denniston Nort** | **2.01** | **335** | ⇑PN | **Pn** | **12 30 51.1** | **+0.4** |
| DSZ | | | | AML | AML | 12 31 25.8 | |
| DSZ | | | | AML | AML | 12 31 25.8 | |
| DSZ | | | | AML | AML | 12 31 28.9 | |
| DSZ | | | | AML | AML | 12 31 28.9 | |
| **CMWZ** | **Cape Campbell** | **2.05** | **28** | AML | AML | 12 31 53.0 | |
| **LBZ** | **Lake Benmore** | **2.15** | **247** | ⇓PN | **Pn** | **12 30 54.0** | **+0.6** |
| LBZ | | | | AML | AML | 12 31 31.0 | |
| LBZ | | | | AML | AML | 12 31 31.1 | |
| LBZ | | | | AML | AML | 12 31 33.6 | |
| LBZ | | | | AML | AML | 12 31 33.6 | |
| **ODZ** | **Otahua Downs** | **2.21** | **227** | ⇑PN | **Pn** | **12 30 54.3** | **+0.2** |
| ODZ | | | | AML | AML | 12 31 36.6 | |
| ODZ | | | | AML | AML | 12 31 36.6 | |
| ODZ | | | | AML | AML | 12 31 36.6 | |
| ODZ | | | | AML | AML | 12 31 36.6 | |
| **TUWZ** | **Tuamarina** | **2.26** | **19** | Pn | **Pn** | **12 30 55.4** | **+0.6** |
| **TUWZ** | **Tuamarina** | **2.26** | **19** | PN | **Pn** | **12 30 55.4** | **+0.6** |
| TUWZ | | | | AML | AML | 12 31 45.8 | |
| TUWZ | | | | AML | AML | 12 31 49.1 | |
| **FOZ** | **Fox Glacier** | **2.27** | **270** | *e*PN | **Pn** | **12 30 55.9** | **+1.0** |
| FOZ | | | | AML | AML | 12 31 24.0 | |
| FOZ | | | | AML | AML | 12 31 37.9 | |
| FOZ | | | | AML | AML | 12 31 38.0 | |
| FOZ | | | | AML | AML | 12 31 40.7 | |
| **NNZ** | **Nelson** | **2.37** | **8** | ⇓PN | **Pn** | **12 30 57.3** | **+1.0** |
| NNZ | | | | AML | AML | 12 31 45.8 | |
| NNZ | | | | AML | AML | 12 31 45.8 | |
| NNZ | | | | AML | AML | 12 31 49.4 | |
| NNZ | | | | AML | AML | 12 31 49.5 | |
| **TCW** | **Tory Channel** | **2.56** | **23** | Pn | **Pn** | **12 30 59.3** | **+0.4** |
| **TCW** | **Tory Channel** | **2.56** | **23** | PN | **Pn** | **12 30 59.3** | **+0.4** |
| TCW | | | | AML | AML | 12 31 36.6 | |
| TCW | | | | AML | AML | 12 31 51.4 | |
| **BHW** | **Baring Head** | **2.59** | **34** | Pn | **Pn** | **12 30 59.9** | **+0.6** |
| **BHW** | **Baring Head** | **2.59** | **34** | PN | **Pn** | **12 30 59.9** | **+0.6** |
| BHW | | | | AML | AML | 12 31 01.5 | |
| BHW | | | | AML | AML | 12 32 18.9 | |
| **PLWZ** | **Palliser** | **2.63** | **41** | Pn | **Pn** | **12 31 00.4** | **+0.5** |
| **PLWZ** | **Palliser** | **2.63** | **41** | ⇓PN | **Pn** | **12 31 00.4** | **+0.5** |
| PLWZ | | | | AML | AML | 12 31 37.1 | |
| PLWZ | | | | AML | AML | 12 32 24.2 | |
| **WEL** | **Wellington** | **2.65** | **31** | Pn | **Pn** | **12 31 00.7** | **+0.6** |
| **WEL** | **Wellington** | **2.65** | **31** | PN | **Pn** | **12 31 00.7** | **+0.6** |
| WEL | | | | AML | AML | 12 31 33.6 | |
| WEL | | | | AML | AML | 12 31 33.6 | |
| WEL | | | | AML | AML | 12 31 33.8 | |
| WEL | | | | AML | AML | 12 31 33.8 | |
| **MSWZ** | **Moikau Station** | **2.75** | **39** | Pn | **Pn** | **12 31 01.8** | **+0.3** |
| **MSWZ** | **Moikau Station** | **2.75** | **39** | PN | **Pn** | **12 31 01.8** | **+0.3** |
| MSWZ | | | | AML | AML | 12 31 35.2 | |
| MSWZ | | | | AML | AML | 12 31 39.7 | |
| **QRZ** | **Quartz Range** | **2.76** | **353** | PN | **Pn** | **12 31 02.3** | **+0.7** |
| QRZ | | | | AML | AML | 12 31 50.5 | |
| QRZ | | | | AML | AML | 12 31 50.5 | |
| QRZ | | | | AML | AML | 12 31 51.1 | |
| QRZ | | | | AML | AML | 12 31 51.1 | |
| **HHSZ** | **Highcliff Hill** | **2.85** | **215** | Pn | **Pn** | **12 31 03.8** | **+0.8** |
| **HHSZ** | **Highcliff Hill** | **2.85** | **215** | PN | **Pn** | **12 31 03.8** | **+0.8** |
| HHSZ | | | | AML | AML | 12 32 06.3 | |
| HHSZ | | | | AML | AML | 12 32 07.8 | |
| **PAWZ** | **Paruwai Farm** | **2.86** | **41** | Pn | **Pn** | **12 31 03.2** | **+0.2** |
| **PAWZ** | **Paruwai Farm** | **2.86** | **41** | PN | **Pn** | **12 31 03.2** | **+0.2** |
| PAWZ | | | | AML | AML | 12 31 37.4 | |
| PAWZ | | | | AML | AML | 12 31 43.1 | |
| **DUWZ** | **D'Urville Isla** | **2.86** | **15** | PN | **Pn** | **12 31 03.7** | **+0.6** |
| DUWZ | | | | AML | AML | 12 31 47.7 | |
| DUWZ | | | | AML | AML | 12 31 49.5 | |
| **CAW** | **Cannon Point** | **2.92** | **33** | Pn | **Pn** | **12 31 04.2** | **+0.3** |
| **CAW** | **Cannon Point** | **2.92** | **33** | PN | **Pn** | **12 31 04.2** | **+0.3** |
| CAW | | | | AML | AML | 12 31 40.7 | |
| CAW | | | | AML | AML | 12 31 45.5 | |
| **TRWZ** | **Traveller** | **2.97** | **44** | Pn | **Pn** | **12 31 04.9** | **+0.3** |
| **TRWZ** | **Traveller** | **2.97** | **44** | PN | **Pn** | **12 31 04.9** | **+0.3** |
| TRWZ | | | | AML | AML | 12 31 41.6 | |
| TRWZ | | | | AML | AML | 12 31 45.4 | |
| **JCZ** | **Jackson Bay** | **3.05** | **259** | Pn | **Pn** | **12 31 06.0** | **+0.2** |
| **JCZ** | **Jackson Bay** | **3.05** | **259** | PN | **Pn** | **12 31 06.0** | **+0.2** |
| JCZ | | | | AML | AML | 12 32 01.1 | |
| JCZ | | | | AML | AML | 12 32 06.0 | |
| **MTW** | **Mount Morrison** | **3.07** | **39** | Pn | **Pn** | **12 31 05.9** | **0.0** |
| **MTW** | **Mount Morrison** | **3.07** | **39** | PN | **Pn** | **12 31 05.9** | **0.0** |
| MTW | | | | AML | AML | 12 31 42.5 | |
| MTW | | | | AML | AML | 12 32 07.6 | |
| **KIW** | **Kapiti Island** | **3.08** | **29** | Pn | **Pn** | **12 31 06.5** | **+0.5** |
| **KIW** | **Kapiti Island** | **3.08** | **29** | PN | **Pn** | **12 31 06.5** | **+0.5** |
| KIW | | | | AML | AML | 12 31 46.1 | |
| KIW | | | | AML | AML | 12 31 47.8 | |
| **EAZ** | **Earnscleugh** | **3.09** | **236** | Pn | **Pn** | **12 31 06.6** | **+0.4** |
| **EAZ** | **Earnscleugh** | **3.09** | **236** | ⇓PN | **Pn** | **12 31 06.6** | **+0.4** |
| EAZ | | | | AML | AML | 12 32 00.7 | |
| EAZ | | | | AML | AML | 12 32 06.8 | |
| EAZ | | | | AML | AML | 12 32 10.0 | |
| EAZ | | | | AML | AML | 12 32 10.0 | |
| **WKZ** | **Wanaka** | **3.09** | **245** | Pn | **Pn** | **12 31 06.7** | **+0.4** |
| **WKZ** | **Wanaka** | **3.09** | **245** | PN | **Pn** | **12 31 06.7** | **+0.4** |
| WKZ | | | | AML | AML | 12 32 04.0 | |
| WKZ | | | | AML | AML | 12 32 04.1 | |
| WKZ | | | | AML | AML | 12 32 08.3 | |
| WKZ | | | | AML | AML | 12 32 08.3 | |
| **OGWZ** | **Otaki Gorge** | **3.21** | **32** | Pn | **Pn** | **12 31 08.2** | **+0.4** |
| **OGWZ** | **Otaki Gorge** | **3.21** | **32** | PN | **Pn** | **12 31 08.2** | **+0.4** |
| OGWZ | | | | AML | AML | 12 31 47.9 | |
| OGWZ | | | | AML | AML | 12 31 49.1 | |
| **HOWZ** | **Holdsworth Sta** | **3.28** | **36** | Pn | **Pn** | **12 31 09.0** | **+0.1** |
| **HOWZ** | **Holdsworth Sta** | **3.28** | **36** | PN | **Pn** | **12 31 09.0** | **+0.1** |
| HOWZ | | | | AML | AML | 12 31 51.1 | |
| HOWZ | | | | AML | AML | 12 31 52.1 | |
| **TMWZ** | **Te Maipa** | **3.29** | **43** | Pn | **Pn** | **12 31 08.8** | **-0.2** |
| **TMWZ** | **Te Maipa** | **3.29** | **43** | PN | **Pn** | **12 31 08.8** | **-0.2** |
| TMWZ | | | | AML | AML | 12 31 51.1 | |
| TMWZ | | | | AML | AML | 12 31 52.1 | |
| **TUZ** | **Tuapeka** | **3.35** | **224** | Pn | **Pn** | **12 31 10.8** | **+0.9** |
| **TUZ** | **Tuapeka** | **3.35** | **224** | PN | **Pn** | **12 31 10.7** | **+0.9** |
| TUZ | | | | AML | AML | 12 32 10.5 | |
| TUZ | | | | AML | AML | 12 32 10.5 | |
| TUZ | | | | AML | AML | 12 32 13.6 | |
| TUZ | | | | AML | AML | 12 32 13.6 | |
| **MRZ** | **Mangatainoka R** | **3.51** | **35** | Pn | **Pn** | **12 31 

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **PKVZ** | **Pokaka** | **4.64** | **24** | PN | **Pn** | **12 31 29.0** | **+1.4** |
| PKVZ | | | | AML | AML | 12 32 48.1 | | |
| PKVZ | | | | AML | AML | 12 33 13.7 | | |
| **VRZ** | **Vera Road** | **4.65** | **18** | Pn | **Pn** | **12 31 29.3** | **+1.7** |
| **VRZ** | **Vera Road** | **4.65** | **18** | PN | **Pn** | **12 31 29.3** | **+1.7** |
| VRZ | | | | AML | AML | 12 32 32.5 | | |
| VRZ | | | | AML | AML | 12 32 45.5 | | |
| **MOVZ** | **Moawhango** | **4.66** | **28** | Pn | **Pn** | **12 31 28.2** | **+0.3** |
| **MOVZ** | **Moawhango** | **4.66** | **28** | PN | **Pn** | **12 31 28.2** | **+0.3** |
| MOVZ | | | | AML | AML | 12 32 24.8 | | |
| MOVZ | | | | AML | AML | 12 32 27.5 | | |
| **WNVZ** | **Wahianoa** | **4.69** | **26** | Pn | **Pn** | **12 31 29.3** | **+1.0** |
| **WNVZ** | **Wahianoa** | **4.69** | **26** | PN | **Pn** | **12 31 29.3** | **+1.0** |
| **KRHZ** | **Kereru** | **4.69** | **34** | PN | **Pn** | **12 31 27.5** | **-0.8** |
| KRHZ | | | | AML | AML | 12 32 24.1 | | |
| KRHZ | | | | AML | AML | 12 32 24.8 | | |
| **TRVZ** | **Turoa** | **4.69** | **26** | Pn | **Pn** | **12 31 30.3** | **+1.8** |
| **BHHZ** | **Black Hill Sta** | **4.70** | **31** | Pn | **Pn** | **12 31 28.7** | **+0.3** |
| **BHHZ** | **Black Hill Sta** | **4.70** | **31** | PN | **Pn** | **12 31 28.7** | **+0.3** |
| BHHZ | | | | AML | AML | 12 32 26.6 | | |
| BHHZ | | | | AML | AML | 12 32 29.8 | | |
| **TUVZ** | **Tukino** | **4.76** | **26** | Pn | **Pn** | **12 31 30.1** | **+0.9** |
| **TUVZ** | **Tukino** | **4.76** | **26** | PN | **Pn** | **12 31 30.1** | **+0.9** |
| TUVZ | | | | AML | AML | 12 32 29.2 | | |
| TUVZ | | | | AML | AML | 12 32 32.2 | | |
| **APZ** | **The Paps** | **4.79** | **225** | Pn | **Pn** | **12 31 30.3** | **+0.8** |
| **APZ** | **The Paps** | **4.79** | **225** | PN | **Pn** | **12 31 30.3** | **+0.8** |
| APZ | | | | AML | AML | 12 33 02.8 | | |
| APZ | | | | AML | AML | 12 33 08.7 | | |
| **KAHZ** | **Kahuranaki** | **4.79** | **39** | Pn | **Pn** | **12 31 28.7** | **-0.9** |
| **KAHZ** | **Kahuranaki** | **4.79** | **39** | PN | **Pn** | **12 31 28.7** | **-0.9** |
| KAHZ | | | | AML | AML | 12 32 27.5 | | |
| KAHZ | | | | AML | AML | 12 32 30.8 | | |
| **NGZ** | **Ngauruhoe** | **4.82** | **25** | Pn | **Pn** | **12 31 31.0** | **+0.8** |
| **NGZ** | **Ngauruhoe** | **4.82** | **25** | PN | **Pn** | **12 31 31.0** | **+0.8** |
| NGZ | | | | AML | AML | 12 33 01.5 | | |
| NGZ | | | | AML | AML | 12 33 33.5 | | |
| **OTVZ** | **Oturere** | **4.86** | **26** | Pn | **Pn** | **12 31 31.3** | **+0.7** |
| **OTVZ** | **Oturere** | **4.86** | **26** | PN | **Pn** | **12 31 31.3** | **+0.7** |
| OTVZ | | | | AML | AML | 12 33 14.5 | | |
| OTVZ | | | | AML | AML | 12 33 27.6 | | |
| **TWVZ** | **Taurewa** | **4.87** | **24** | Pn | **Pn** | **12 31 31.6** | **+0.8** |
| **TWVZ** | **Taurewa** | **4.87** | **24** | PN | **Pn** | **12 31 31.6** | **+0.8** |
| **WTVZ** | **West Tongariro** | **4.88** | **25** | Pn | **Pn** | **12 31 31.7** | **+0.8** |
| **WTVZ** | **West Tongariro** | **4.88** | **25** | PN | **Pn** | **12 31 31.7** | **+0.8** |
| WTVZ | | | | AML | AML | 12 32 31.2 | | |
| WTVZ | | | | AML | AML | 12 33 10.2 | | |
| **KWHZ** | **Kaweka Forest** | **4.90** | **33** | PN | **Pn** | **12 31 30.9** | **-0.2** |
| KWHZ | | | | AML | AML | 12 32 29.3 | | |
| KWHZ | | | | AML | AML | 12 32 29.6 | | |
| **KRVZ** | **Karewarewa** | **4.91** | **25** | Pn | **Pn** | **12 31 33.2** | **+1.8** |
| **KRVZ** | **Karewarewa** | **4.91** | **25** | PN | **Pn** | **12 31 33.2** | **+1.8** |
| KRVZ | | | | AML | AML | 12 32 39.8 | | |
| KRVZ | | | | AML | AML | 12 33 01.9 | | |
| **MCHZ** | **McNeill Hill** | **4.99** | **36** | Pn | **Pn** | **12 31 32.8** | **+0.4** |
| **MCHZ** | **McNeill Hill** | **4.99** | **36** | PN | **Pn** | **12 31 32.8** | **+0.4** |
| MCHZ | | | | AML | AML | 12 32 33.0 | | |
| MCHZ | | | | AML | AML | 12 32 42.6 | | |
| **HIZ** | **Hauiti** | **5.25** | **17** | Pn | **Pn** | **12 31 37.1** | **+1.1** |
| **HIZ** | **Hauiti** | **5.25** | **17** | PN | **Pn** | **12 31 37.1** | **+1.1** |
| HIZ | | | | AML | AML | 12 32 42.8 | | |
| HIZ | | | | AML | AML | 12 33 26.6 | | |
| **NMHZ** | **Naumai** | **5.33** | **34** | Pn | **Pn** | **12 31 37.3** | **+0.2** |
| **NMHZ** | **Naumai** | **5.33** | **34** | PN | **Pn** | **12 31 37.3** | **+0.2** |
| NMHZ | | | | AML | AML | 12 32 42.2 | | |
| NMHZ | | | | AML | AML | 12 32 43.6 | | |
| **TLZ** | **Tolley Road** | **5.59** | **21** | Pn | **Pn** | **12 31 41.3** | **+0.7** |
| **TLZ** | **Tolley Road** | **5.59** | **21** | ⇓PN | **Pn** | **12 31 41.3** | **+0.7** |
| TLZ | | | | AML | AML | 12 32 52.8 | | |
| TLZ | | | | AML | AML | 12 33 00.1 | | |
| **KNZ** | **Kokohu** | **5.77** | **40** | Pn | **Pn** | **12 31 42.0** | **-1.0** |
| **KNZ** | **Kokohu** | **5.77** | **40** | PN | **Pn** | **12 31 42.0** | **-1.0** |
| **RTZ** | **Ruatahuna** | **5.81** | **33** | PN | **Pn** | **12 31 43.1** | **-0.6** |
| **SNGZ** | **Shannon Statio** | **5.82** | **36** | Pn | **Pn** | **12 31 43.5** | **-0.3** |
| **SNGZ** | **Shannon Statio** | **5.82** | **36** | PN | **Pn** | **12 31 43.5** | **-0.3** |
| SNGZ | | | | AML | AML | 12 32 50.0 | | |
| SNGZ | | | | AML | AML | 12 32 50.6 | | |
| **MUGZ** | **Murupara** | **5.85** | **31** | PN | **Pn** | **12 31 43.7** | **-0.5** |
| **PRGZ** | **Paritu Road** | **5.95** | **40** | AML | AML | 12 32 53.2 | | |
| PRGZ | | | | AML | AML | 12 32 58.4 | | |
| **RIGZ** | **Rimuhau** | **6.07** | **38** | PN | **Pn** | **12 31 46.8** | **-0.3** |
| RIGZ | | | | AML | AML | 12 32 59.8 | | |
| RIGZ | | | | AML | AML | 12 33 00.7 | | |
| **RAGZ** | **Rawiri** | **6.09** | **35** | Pn | **Pn** | **12 31 46.7** | **-0.8** |
| **RAGZ** | **Rawiri** | **6.09** | **35** | PN | **Pn** | **12 31 46.7** | **-0.8** |
| **URZ** | **Urewera** | **6.17** | **32** | Pn | **Pn** | **12 31 48.0** | **-0.5** |
| | 4.8nm,0.3s,baz=208,slow=4.6,SNR=14 | | | | | | | |
| URZ | | | | Sn | **Sn** | **12 32 54.9** | **-4.1** |
| | 5.4nm,0.3s,baz=254,slow=23,SNR=8.6 | | | | | | | |
| **URZ** | **Urewera** | **6.17** | **32** | PN | **Pn** | **12 31 48.0** | **-0.5** |
| **MWZ** | **Matawai** | **6.28** | **35** | Pn | **Pn** | **12 31 48.8** | **-1.2** |
| **MWZ** | **Matawai** | **6.28** | **35** | PN | **Pn** | **12 31 48.8** | **-1.2** |
| MWZ | | | | AML | AML | 12 33 03.7 | | |
| MWZ | | | | AML | AML | 12 33 06.1 | | |
| **TKGZ** | **Te Karaka** | **6.33** | **38** | AML | AML | 12 33 01.9 | | |
| TKGZ | | | | AML | AML | 12 33 03.3 | | |
| **TWGZ** | **Tauwhareparae** | **6.60** | **37** | AML | AML | 12 33 13.2 | | |
| TWGZ | | | | AML | AML | 12 33 15.0 | | |
| **AWAZ** | **Awhitu Peninsu** | **6.63** | **12** | ⇑PN | **Pn** | **12 31 56.3** | **+1.4** |
| **RUGZ** | **Raukumara Rang** | **6.65** | **34** | PN | **Pn** | **12 31 54.6** | **-0.7** |
| **PUZ** | **Puketiti** | **6.81** | **38** | Pn | **Pn** | **12 31 56.9** | **-0.4** |
| **PUZ** | **Puketiti** | **6.81** | **38** | PN | **Pn** | **12 31 56.9** | **-0.4** |
| **HAZ** | **Te Kaha** | **6.87** | **34** | PN | **Pn** | **12 31 58.1** | **-0.1** |
| HAZ | | | | AML | AML | 12 33 17.7 | | |
| HAZ | | | | AML | AML | 12 33 19.6 | | |
| **WIAZ** | **Waiheke Island** | **6.97** | **15** | PN | **Pn** | **12 32 00.6** | **+1.1** |
| **WMGZ** | **Waiomatatini S** | **7.09** | **38** | Pn | **Pn** | **12 31 59.6** | **-1.5** |
| **WMGZ** | **Waiomatatini S** | **7.09** | **38** | PN | **Pn** | **12 31 59.6** | **-1.5** |
| **CTZ** | **Chatham Island** | **7.57** | **95** | Pn | **Pn** | **12 32 09.1** | **+1.3** |
| **CTZ** | **Chatham Island** | **7.57** | **95** | PN | **Pn** | **12 32 09.1** | **+1.3** |
| **ASAR** | **Alice Springs** | **37.65** | **289** | P | **P** | **12 37 33.4** | **+0.7** |
| | 0.7nm,0.7s,baz=130,slow=7.7,SNR=9.6 | | | | | | | |
| **WRA** | **Warramunga Arr** | **39.90** | **294** | P | **P** | **12 37 52.5** | **+1.1** |
| | 0.8nm,0.8s,baz=133,slow=8.0,SNR=9.6 | | | | | | | |
| **SYO** | **Syowa Base** | **62.56** | **197** | ⇓eX | **P** | **12 40 38.4** | **-2.3** |
| **SYO** | **Syowa Base** | **62.56** | **197** | ⇑epP | **P** | **12 40 43.0** | **+2.3** |
| **TORD** | **Torodi Ar. Bea** | **148.76** | **197** | PKPbc | **PKPbc** | **12 50 07.2** | **+2.0** |
| | 0.4nm,0.6s,baz=170,slow=2.2,SNR=3.3 | | | | | | | |

*ECX* ***23*** *12:32:37.6±0.4,30.˚45N×114.˚01W,h10km,MD4.6,ML4.8, Fault plane solution: NP1:φs0.00000°,δ90.00000°, λ,30.00000°.*

*ISCJB* ***23*** *12:32:40.0±0.2,30.˚64N±0.˚02×113.˚89W±0.˚02,h10km, mb4.7/39,MS4.4/20,Error ellipse: s-maj=3.5km s-min=1.7km az=28.6*

*NEIC* ***23*** *12:32:40.7±0.4,30.˚60N×113.˚97W,h10km,mb4.8/76, MD5.2(MEX),Error ellipse: s-maj=6.3km s-min=3.1km az=213.0*

*NEIC Felt [III] at Puerto Penasco, Sonora.*

*BJI* ***23*** *12:32:41.9,30.˚70N×113.˚60W,h10km,Ms5.4/1,Ms7 5.2/2*

*GCMT* ***23*** *12:32:41.4±0.3,30.˚65N×114.˚05W,h12km±1km,MW4.9/99, Moment Tensor Solution. s20,c22; s99,c147; Duration: 0 Moment tensor: Scale 10^16Nm; Mrr-0.30±.10; Mθθ-2.83±.10; Mφφ3.13±.11; Mrθ-0.73±.29; Mrφ0.38±.08; Mθφ0.19±.24; Best double couple: M0 3.10500×10^16 NP1:φs140.00000°,δ81.00000°,λ-168.00000°. NP2: φs48.00000°,δ78.00000°,λ-9.00000°. Principal axes: T 3.1590, Plg2.0000°, Azm273.0000°; N -0.1080, Plg75.0000°, Azm174.0000°; P -3.0510, Plg15.0000°, Azm4.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*IDC* ***23*** *12:32:42.4±1.1,30.˚88N×113.˚53W,h0km,mb4.3/10, mb1 4.3/17,mb1mx4.1/63,mbtmp4.2/17,ML3.7/7,MS4.3/23, Ms1 4.3/23,ms1mx4.2/42 Error ellipse: s-maj=24.7km s-min=10.3km az=41.0*

*MEX* ***23*** *12:32:43.6±0.8,30.˚53N×114.˚27W,h20km,MD5.2*

**ISC 23 12:32:42.4±0.5,30.67N±0.05×114.03W±0.04,h10km, n620,σ2924/616,mb4.8/40,MS4.4/20,4C-1D,Gulf of California**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ECBX** | **El Chinero** | **1.19** | **312** | ⇑eP | **Pb** | **12 33 01.2** | **-3.9** |
| ECBX | | | | eS | **Sb** | **12 33 19.2** | **-1.3** |
| **SPX** | **San Pedro Mart** | **1.29** | **287** | ⇑eP | Pn | 12 33 01.4 | -5.4 |
| SPX | | | | eS | **Sb** | **12 33 20.5** | **-3.3** |
| SPX | | | | ⇓e | | 12 33 39.4 | | |
| **SPIG** | **San Pedro Mart** | **1.29** | **287** | eP | Pn | 12 33 01.3 | -5.6 |
| SPIG | | | | eS | **Sb** | **12 33 16.4** | **-7.4** |
| **SPIG** | **San Pedro Mart** | **1.29** | **287** | ⇑eP | Pn | 12 33 01.5 | -5.4 |
| **SPIG** | **San Pedro Mart** | **1.29** | **287** | ePn | Pn | 12 33 01.3 | -5.6 |
| SPIG | | | | eSn | **Sb** | **12 33 16.4** | **-7.4** |
| **CPBX** | **Cerro Prieto** | **2.05** | **328** | IAML | | 12 34 45.1 | |
| | comp=N,13μm,1.3s | | | | | | | |
| CPBX | | | | e | | 12 34 45.1 | | |
| **113A** | **Mohawk Valley,** | **2.10** | **6** | ePn | **Pn** | **12 33 14.1** | **-3.6** |
| **ECNX** | **Esteban Cantu** | **2.41** | **295** | eP | **Pn** | **12 33 20.6** | **-1.4** |
| **GLA** | **Glamis** | **2.47** | **344** | ⇑P | **Pn** | **12 33 19.3** | **-3.5** |
| | baz=163,SNR=31 | | | | | | | |
| **GLA** | **Glamis** | **2.47** | **344** | ePn | **Pn** | **12 33 18.9** | **-3.9** |
| **IKP** | **In-Ko-Pah, Jac** | **2.65** | **319** | P | **Pn** | **12 33 22.8** | **-2.6** |
| | baz=138,SNR=17 | | | | | | | |
| **SWSC** | **Sam W. Stewart** | **2.72** | **327** | P | **Pn** | **12 33 23.7** | **-2.6** |
| | baz=146,SNR=10 | | | | | | | |
| **CBX** | **Cerro Bola** | **2.78** | **307** | ⇑eP | **Pn** | **12 33 24.4** | **-2.8** |
| CBX | | | | IAML | | 12 34 27.3 | | |
| | comp=N,5μm,0.8s | | | | | | | |
| **TJIG** | **Tijuana** | **2.86** | **309** | eP | **Pn** | **12 33 25.2** | **-2.9** |
| TJIG | | | | eS | **Sn** | **12 33 56.9** | **-5.8** |
| **MONP2** | **Monument Peak** | **3.01** | **318** | P | **Pn** | **12 33 29.1** | **-1.3** |
| | baz=137 | | | | | | | |
| **BAR** | **Barrett** | **3.02** | **312** | eP | **Pn** | **12 33 27.2** | **-3.1** |
| **BAR** | **Barrett** | **3.02** | **312** | ePn | **Pn** | **12 33 26.8** | **-3.5** |
| BAR | | | | eSn | **Sn** | **12 34 04.3** | **-2.2** |
| **Y12C** | **Blythe** | **3.10** | **352** | P | **Pn** | **12 33 28.3** | **-3.1** |
| | baz=171,SNR=43 | | | | | | | |
| **Y12C** | **Blythe** | **3.10** | **352** | ePn | **Pn** | **12 33 28.5** | **-2.9** |
| **HSIG** | | **3.14** | **121** | eP | **Pn** | **12 33 30.9** | **-1.0** |
| HSIG | | | | eS | **Sn** | **12 34 07.7** | **-1.8** |
| **HSIG** | | **3.14** | **121** | ePn | **Pn** | **12 33 29.9** | **-2.1** |
| HSIG | | | | eSn | **Sn** | **12 34 02.1** | **-7.5** |
| HSIG | | | | eLg | Lg | 12 34 07.7 | | |
| **BC3** | **Big Chuckawall** | **3.21** | **338** | P | **Pn** | **12 33 29.9** | **-3.2** |
| | baz=157 | | | | | | | |
| **TUC** | **Tucson** | **3.21** | **59** | P | Pn | 12 33 24.3 | -8.8 |
| | baz=239 | | | | | | | |
| **TUC** | **Tucson** | **3.21** | **59** | ePn | **Pn** | **12 33 28.8** | **-4.3** |
| TUC | | | | eSn | **Sn** | **12 34 09.0** | **-2.5** |
| **Y14A** | **Wickenburg** | **3.37** | **15** | ePn | **Pn** | **12 33 33.0** | **-2.2** |
| Y14A | | | | eSn | **Sn** | **12 34 12.8** | **-2.5** |
| **109C** | **Camp Elliot, M** | **3.43** | **311** | P | **Pn** | **12 33 33.4** | **-2.6** |
| | baz=130 | | | | | | | |
| **XPFO** | **Piæon Flat** | **3.58** | **326** | ePn | **Pn** | **12 33 37.4** | **-0.7** |
| **PFO** | **Pinyon Flats O** | **3.58** | **325** | P | **Pn** | **12 33 35.3** | **-2.9** |
| | baz=144 | | | | | | | |
| **PFO** | **Pinyon Flats O** | **3.58** | **325** | ePn | **Pn** | **12 33 35.1** | **-3.2** |
| **IRM** | **Iron Mountain** | **3.60** | **345** | P | **Pn** | **12 33 35.2** | **-3.2** |
| | baz=164,SNR=27 | | | | | | | |
| **PDMCI** | **Parker Dam,Lak** | **3.62** | **358** | P | **Pn** | **12 33 35.5** | **-3.1** |
| | baz=178,SNR=36 | | | | | | | |
| **SRIG** | **Santa Rosalia** | **3.69** | **154** | ePn | **Pn** | **12 33 36.3** | **-3.2** |
| SRIG | | | | eSn | **Sn** | **12 34 19.2** | **-3.9** |
| **MURC** | **Murrieta** | **3.97** | **318** | P | **Pn** | **12 33 43.4** | **0.0** |
| | baz=137 | | | | | | | |
| **NEE2** | **Needles Airpor** | **4.11** | **353** | P | **Pn** | **12 33 42.7** | **-2.7** |
| | baz=172,SNR=29 | | | | | | | |
| **319A** | **Douglas** | **4.13** | **79** | ePn | **Pn** | **12 33 42.0** | **-3.7** |
| **GMRC** | **Granite Mounta** | **4.33** | **342** | P | **Pn** | **12 33 46.0** | **-2.4** |
| | baz=161 | | | | | | | |
| **W13A** | **Hualapai Mount** | **4.42** | **1** | ePn | **Pn** | **12 33 47.9** | **-1.8** |
| **SCI2** | **San Clemente I** | **4.48** | **302** | P | **Pn** | **12 33 51.1** | **+0.7** |
| | baz=120 | | | | | | | |
| **CIS** | **Catalina Islan** | **4.62** | **307** | P | **Pn** | **12 33 52.4** | **+0.2** |
| | baz=125 | | | | | | | |
| **MWC** | **Mount Wilson** | **4.92** | **317** | ePn | **Pn** | **12 33 59.4** | **+2.8** |
| **PASC** | **Pasadena Art C** | **4.95** | **316** | ePg | **Pb** | **12 34 11.4** | **+2.1** |
| **TUQ** | **Turquoise Moun** | **5.01** | **342** | P | **Pn** | **12 33 56.1** | **-1.7** |
| | baz=161 | | | | | | | |
| **X18A** | **Snowflake** | **5.16** | **41** | ePn | **Pn** | **12 33 57.7** | **-2.2** |
| X18A | | | | eSn | **Sn** | **12 34 58.9** | **-0.7** |
| **CGIG** | | **5.23** | **92** | eP | **Pn** | **12 33 58.3** | **-2.6** |
| CGIG | | | | eS | **Sn** | **12 35 02.6** | **+1.3** |
| **CGIG** | | **5.23** | **92** | ePn | **Pn** | **12 33 58.3** | **-2.6** |
| CGIG | | | | eSn | **Sn** | **12 35 02.6** | **+1.3** |
| **WUAZ** | **Wupatki** | **5.32** | **24** | P | **Pn** | **12 34 00.6** | **-1.5** |
| | baz=205,SNR=30 | | | | | | | |
| **WUAZ** | **Wupatki** | **5.32** | **24** | ePn | **Pn** | **12 34 01.1** | **-1.0** |
| WUAZ | | | | eSn | **Sn** | **12 35 03.5** | **-0.1** |
| **EDW2** | **Edwards Air Fo** | **5.36** | **323** | P | **Pn** | **12 34 03.1** | **+0.5** |
| | baz=141 | | | | | | | |
| **SHOC** | **Shoshone, Teco** | **5.54** | **341** | P | **Pn** | **12 34 04.5** | **-0.5** |
| | baz=159 | | | | | | | |
| **121A** | **Cookes Peak, D** | **5.64** | **69** | P | **Pn** | **12 34 03.1** | **-3.3** |
| | baz=252,SNR=37 | | | | | | | |
| **121A** | **Cookes Peak, D** | **5.64** | **69** | ePn | **Pn** | **12 34 03.4** | **-3.1** |
| | comp=N,5.5nm,0.6s | | | | | | | |
| **LRMC** | **Laurel Mtn Rad** | **5.69** | **328** | P | **Pn** | **12 34 07.7** | **+0.5** |
| | baz=146 | | | | | | | |
| **W18A** | **Petrified Fore** | **5.72** | **38** | P | **Pn** | **12 34 05.2** | **-2.3** |
| | baz=219,SNR=45 | | | | | | | |
| **W18A** | **Petrified Fore** | **5.72** | **38** | ePn | **Pn** | **12 34 05.8** | **-1.7** |
| **SHPR** | **Sheep Range** | **5.89** | **351** | ePn | **Pn** | **12 34 09.0** | **-1.0** |
| **U15A** | **North Rim** | **5.92** | **14** | ePn | **Pn** | **12 34 10.2** | **-0.3** |
| **MPMC** | **Manual Prospec** | **6.10** | **333** | P | **Pn** | **12 34 13.4** | **+0.5** |
| | baz=151 | | | | | | | |
| **ISA** | **Isabella, Lake** | **6.22** | **324** | P | **Pn** | **12 34 17.2** | **+2.8** |
| | baz=142 | | | | | | | |
| **ISA** | **Isabella, Lake** | **6.22** | **324** | ePn | **Pn** | **12 34 12.9** | **-1.4** |
| ISA | | | | ePg | **Pb** | **12 34 28.2** | **-2.7** |
| **FURC** | **Furnace Creek,** | **6.25** | **338** | P | **Pn** | **12 34 16.7** | **+2.1** |
| | baz=157 | | | | | | | |
| **DAC** | **Darwin (Calif)** | **6.33** | **333** | ePn | **Pn** | **12 34 16.1** | **0.0** |
| **LCMT** | **Little Creek M** | **6.36** | **6** | ePn | **Pn** | **12 34 15.6** | **-0.7** |
| LCMT | | | | eSn | **Sn** | **12 35 29.1** | **+0.1** |
| **PKM** | **Mcpherson Peak** | **6.44** | **312** | P | **Pn** | **12 34 19.2** | **+1.8** |
| | baz=130 | | | | | | | |
| **EKU** | **East Kanab** | **6.51** | **11** | ePn | **Pn** | **12 34 18.6** | **+0.1** |
| **TPNV** | **Topopah Spring** | **6.53** | **344** | P | **Pn** | **12 34 19.3** | **+0.6** |
| | baz=163 | | | | | | | |
| **TPNV** | **Topopah Spring** | **6.53** | **344** | ePn | **Pn** | **12 34 17.9** | **-0.8** |
| **VES** | **Vestal, Richgr** | **6.67** | **322** | P | **Pn** | **12 34 22.6** | **+2.2** |
| | baz=139 | | | | | | | |
| **CWC** | **Cottonwood Cre** | **6.67** | **331** | P | **Pn** | **12 34 23.0** | **+2.3** |
| | baz=148 | | | | | | | |
| **SMMC** | **Simmler** | **6.82** | **314** | P | **Pn** | **12 34 26.0** | **+3.3** |
| | baz=131 | | | | | | | |
| **CCUT** | **Cedar City** | **6.88** | **4** | ePn | **Pn** | **12 34 23.6** | **0.0** |
| **GRAC** | **Grapevine Rang** | **6.89** | **337** | P | **Pn** | **12 34 24.8** | **+1.2** |
| | baz=155 | | | | | | | |
| **Y22D** | **IRIS PASSCAL I** | **6.90** | **59** | P | **Pn** | **12 34 20.5** | **-3.3** |
| | baz=242,SNR=12 | | | | | | | |
| **Y22D** | **IRIS PASSCAL I** | **6.90** | **59** | ePn | **Pn** | **12 34 21.7** | **-2.1** |
| Y22D | | | | eSn | **Sn** | **12 35 40.4** | **-2.1** |
| **Y22E** | **IRIS PASSCAL I** | **6.90** | **59** | P | **Pn** | **12 34 20.4** | **-3.4** |
| | baz=242,SNR=12 | | | | | | | |
| **LAZ** | **Ladron** | **6.90** | **56** | ePn | **Pn** | **12 34 21.4** | **-2.5** |
| **PKCU** | **Pink Cliffs** | **6.90** | **11** | ePn | **Pn** | **12 34 24.2** | **+0.2** |
| **SZCU** | **Shurtz Canyon** | **6.95** | **6** | ePn | **Pn** | **12 34 24.6** | **+0.1** |
| SZCU | | | | ePg | Pb | 12 34 36.7 | -6.7 |
| **BNM** | **Barren Site** | **7.15** | **59** | ePn | **Pn** | **12 34 25.1** | **-2.2** |
| BNM | | | | eSn | **Sn** | **12 35 48.4** | **-0.4** |
| **LPM** | **Los Pinos Moun** | **7.22** | **58** | ePn | **Pn** | **12 34 25.8** | **-2.5** |
| **PAGB** | **Antelope Grade** | **7.25** | **316** | ePn | **Pn** | **12 34 28.6** | **+0.1** |
| **TIN** | **Tinemaha, Big** | **7.26** | **332** | P | **Pn** | **12 34 31.6** | **+2.8** |
| | baz=150 | | | | | | | |
| **MNTX** | **Cornudas Mount** | **7.48** | **80** | P | **Pn** | **12 34 26.9** | **-4.7** |
| | baz=264 | | | | | | | |
| **MNTX** | **Cornudas Mount** | **7.48** | **80** | ePn | **Pn** | **12 34 29.0** | **-2.6** |
| **MTPU** | **Mount Pierson** | **7.51** | **11** | ePn | **Pn** | **12 34 33.4** | **+1.1** |
| **ANMO** | **Albuquerque** | **7.66** | **54** | Pn | **Pn** | **12 34 31.1** | **-3.3** |
| | comp=N,0.8nm,0.3s,baz=50,slow=14,SNR=13 | | | | | | | |
| ANMO | | | | Sn | **Sn** | **12 35 56.2** | **-5.1** |
| | comp=N,1.0nm,0.3s,baz=19,slow=13,SNR=3.3 | | | | | | | |
| ANMO | | | | Lg | Lg | 12 36 37.7 | | |
| | comp=N,0.9nm,0.3s,baz=31,slow=11,SNR=3.6 | | | | | | | |
| ANMO | | | | LR | LR | 12 37 11.8 | | |
| | comp=N,2μm,18.4s,baz=72,slow=37 | | | | | | | |
| **ANMO** | **Albuquerque** | **7.66** | **54** | P | **Pn** | **12 34 31.2** | **-3.1** |
| | baz=238 | | | | | | | |
| **ANMO** | **Albuquerque** | **7.66** | **54** | ePn | **Pn** | **12 34 31.8** | **-2.5** |
| ANMO | | | | eSn | **Sn** | **12 35 56.2** | **-5.1** |
| ANMO | | | | eSg | Sg | 12 36 37.7 | -11 |
| **R11A** | **Troy Canyon, C** | **7.76** | **351** | P | **Pn** | **12 34 35.6** | **-0.1** |
| | baz=170,SNR=28 | | | | | | | |
| **R11A** | **Troy Canyon, C** | **7.76** | **351** | ePn | **Pn** | **12 34 35.5** | **-0.1** |
| **PSUT** | **Pine Spring** | **7.84** | **1** | ePn | **Pn** | **12 34 35.1** | **-1.7** |
| **SLBS** | **Sierra La Lagu** | **7.85** | **151** | ePn | **Pn** | **12 34 35.4** | **-1.4** |
| **PMPB** | **Monarch Peak** | **7.91** | **316** | ePn | **Pn** | **12 34 35.4** | **-2.2** |
| **MSU** | **Marysvale** | **7.97** | **11** | ePn | **Pn** | **12 34 39.5** | **+1.0** |
| **MVCO** | **Mesa Verde** | **7.97** | **34** | P | **Pn** | **12 34 37.4** | **-1.2** |
| | baz=216,SNR=19 | | | | | | | |
| **MVCO** | **Mesa Verde** | **7.97** | **34** | ePn | **Pn** | **12 34 37.7** | **-0.9** |
| **MDPB** | **Devils Postpil** | **8.11** | **330** | ePn | **Pn** | **12 34 39.1** | **-1.3** |
| **PV05** | **Paradox Valley** | **8.43** | **28** | ePn | **Pn** | **12 34 42.5** | **-2.4** |
| **NV11** | **Mina Array Sit** | **8.46** | **337** | ePn | **Pn** | **12 34 42.5** | **-2.6** |
| **NV01** | **Mina Array Sit** | **8.50** | **337** | ePn | **Pn** | **12 34 45.0** | **-0.9** |
| **NVAR** | **Mina Array Bea** | **8.50** | **337** | Pn | **Pn** | **12 34 48.4** | **+2.5** |
| | baz=160,slow=15,SNR=27 | | | | | | | |
| **PV01** | **Paradox Valley** | **8.70** | **30** | ePn | **Pn** | **12 34 46.7** | **-1.9** |
| **PV10** | **Paradox Valley** | **8.71** | **27** | ePn | **Pn** | **12 34 47.4** | **-1.4** |
| **PV09** | **Paradox Valley** | **8.79** | **26** | ePn | **Pn** | **12 34 50.9** | **+1.1** |
| PV09 | | | | eSn | **Sn** | **12 36 22.6** | **-6.5** |
| **SRU** | **San Rafael Swe** | **8.89** | **18** | ePn | **Pn** | **12 34 51.7** | **+0.5** |
| SRU | | | | eSn | **Sn** | **12 36 25.0** | **-6.6** |
| **TMUT** | **Trail Mountain** | **8.91** | **14** | ePn | **Pn** | **12 34 52.8** | **+1.3** |
| **CPRX** | **Cap Rock** | **8.96** | **72** | ePn | **Pn** | **12 34 48.0** | **-4.0** |
| **WAKR** | **Walker** | **8.99** | **332** | ePn | **Pn** | **12 34 56.6** | **+4.0** |
| **KVN** | **Kaiserville** | **9.00** | **339** | ePn | **Pn** | **12 34 56.3** | **+3.6** |
| **CMB** | **Columbia Colle** | **9.03** | **326** | ePn | **Pn** | **12 34 50.9** | **-2.0** |
| **TX31** | **Lajitas Ar. Si** | **9.08** | **96** | ePn | **Pn** | **12 34 49.6** | **-4.0** |
| **LTX** | **Lajitas** | **9.08** | **96** | ePn | **Pn** | **12 34 49.6** | **-4.1** |
| LTX | | | | eLg | Lg | 12 37 27.4 | | |
| **TXAR** | **Lajitas Array** | **9.08** | **96** | Pn | **Pn** | **12 34 49.6** | **-4.1** |
| | comp=N,1.0nm,0.3s,baz=260,slow=16,SNR=21 | | | | | | | |
| TXAR | | | | Lg | Lg | 12 37 27.4 | | |
| | comp=N,3.7nm,0.3s,baz=267,slow=25,SNR=7.3 | | | | | | | |
| **P17A** | **Butcher Ranch,** | **9.18** | **16** | ePn | **Pn** | **12 34 53.1** | **-2.0** |
| **S22A** | **4UR Ranch, Cre** | **9.23** | **38** | P | **Pn** | **12 34 55.8** | **-0.2** |
| | baz=222 | | | | | | | |
| **S22A** | **4UR Ranch, Cre** | **9.23** | **38** | ePn | **Pn** | **12 34 57.8** | **+1.8** |
| **YERR** | **Yerington** | **9.33** | **334** | ePn | **Pn** | **12 34 57.4** | **+0.2** |
| **NLU** | **North Lily Min** | **9.40** | **9** | ePn | **Pn** | **12 34 57.6** | **-0.5** |
| **P18A** | **Preston Nutter** | **9.45** | **18** | ePn | **Pn** | **12 34 58.2** | **-0.7** |
| **MPU** | **Maple Canyon** | **9.52** | **11** | ePn | **Pn** | **12 34 59.4** | **-0.4** |
| **DUG** | **Dugway, Tooele** | **9.55** | **6** | P | **Pn** | **12 35 02.2** | **+2.0** |
| | baz=186,SNR=13 | | | | | | | |
| **DUG** | **Dugway, Tooele** | **9.55** | **6** | ePn | **Pn** | **12 35 00.9** | **+0.7** |
| **PNTR** | **Pine Nut** | **9.56** | **333** | ePn | **Pn** | **12 35 04.4** | **+4.1** |
| **SDCO** | **Great Sand Dun** | **9.98** | **43** | P | **Pn** | **12 35 05.6** | **-0.5** |
| | baz=227,SNR=12 | | | | | | | |
| **SDCO** | **Great Sand Dun** | **9.98** | **43** | ePn | **Pn** | **12 35 05.4** | **-0.7** |
| **PAHR** | **Pah Rah Range** | **10.02** | **336** | ePn | **Pn** | **12 35 06.2** | **-0.4** |
| **AFDM** | **Forest Hills D** | **10.03** | **327** | ePn | **Pn** | **12 35 06.9** | **+0.3** |
| **MSTX** | **Muleshoe** | **10.07** | **68** | P | **Pn** | **12 35 04.8** | **-2.5** |
| | baz=254,SNR=11 | | | | | | | |
| **MSTX** | **Muleshoe** | **10.07** | **68** | ePn | **Pn** | **12 35 03.2** | **-4.0** |
| **BMN** | **Battle Mountai** | **10.08** | **346** | ePn | **Pn** | **12 35 04.8** | **-2.6** |
| **MHTCO** | **State Highway** | **10.08** | **48** | ePn | **Pn** | **12 35 06.1** | **-1.3** |
| **ELK** | **Elko** | **10.10** | **355** | Pn | **Pn** | **12 35 08.6** | **+0.8** |
| | comp=N,0.2nm,0.3s,baz=219,slow=11,SNR=8.2 | | | | | | | |
| ELK | | | | Lg | Lg | 12 38 08.2 | | |
| | comp=N,0.1nm,0.3s,baz=294,slow=20,SNR=3.1 | | | | | | | |
| **JLU** | **Jordanelle** | **10.13** | **11** | ePn | **Pn** | **12 35 06.1** | **-2.1** |
| **CTU** | **Camp Tracy** | **10.17** | **10** | ePn | **Pn** | **12 35

baz=188,SNR=28
BOZ Bozeman (W) 15.02 7 ePn Pn 12 36 16.1 +1.2
comp=N,37nm,1.1s
136A Ennis 15.02 79 P Pn 12 36 10.5 -4.4
baz=268,SNR=8.0
W35A Tecumseh 15.08 68 P Pn 12 36 11.6 -4.0
baz=257,SNR=6.3
W35A Tecumseh 15.08 68 ePn Pn 12 36 13.2 -2.4
G08A Pilot Rock 15.10 347 ePn P 12 36 19.4 -1.7
comp=N,39nm,1.4s
Z36A Blue Ridge 15.15 76 P Pn 12 36 14.0 -2.6
baz=265
OK020 N3440 Road, Me 15.16 67 ePn P 12 36 21.2 -0.6
comp=N,169nm,1.8s
V35A Meyer Ranch, C 15.25 66 P Pn 12 36 16.0 -1.8
baz=255,SNR=6.1
OK021 N3530 Road, Sp 15.31 67 ePn P 12 36 22.7 -0.7
comp=N,110nm,1.5s
OK022 N3560 Road, Pr 15.33 67 ePn P 12 36 22.5 -1.2
comp=N,177nm,1.8s
Y36A Durant 15.35 73 P Pn 12 36 16.5 -2.6
baz=262,SNR=5.9
X36A Centrahoma 15.39 71 P Pn 12 36 18.2 -1.5
baz=260,SNR=7.5
H04A Detroit Lake 15.39 338 ePn Pn 12 36 20.3 +0.6
comp=N,97nm,1.1s
G06A Carlson Farm, 15.44 342 ePn Pn 12 36 19.3 -0.9
comp=N,115nm,1.4s
F10A Beach Ranch, E 15.48 352 ePn P 12 36 23.3 -2.1
comp=N,53nm,1.1s
U35A Pawnee 15.50 64 ePn P 12 36 25.3 -0.3
comp=N,70nm,1.5s
RSSD Black Hills 15.58 28 P Pn 12 36 22.6 +0.3
baz=214
RSSD Black Hills 15.58 28 ePn Pn 12 36 21.8 -0.5
comp=N,59nm,1.3s
W36A Wetumka 15.60 69 ePn Pn 12 36 19.1 -3.3
comp=N,46nm,1.0s
237A Washetta, Mont 15.63 80 P Pn 12 36 20.9 -1.8
baz=270
G05D Wamic, OR 15.63 341 P P 12 36 25.9 -1.1
baz=156
137A Heron Place, G 15.68 78 P Pn 12 36 21.5 -2.0
baz=268
HKT Hockley 15.73 88 ePn Pn 12 36 21.5 -2.5
comp=N,39nm,1.4s
R34A Isabella, Hill 15.78 57 P Pn 12 36 23.5 -1.3
baz=246
T35A Sooner Cattle 15.83 62 P Pn 12 36 23.1 -2.3
baz=252
Z37A Pogue Cattle C 15.83 76 P Pn 12 36 23.4 -2.0
baz=266
F07A Phinny Hill Vi 15.88 345 ePn P 12 36 29.4 -0.4
comp=N,65nm,1.0s
Y37A Hugo 15.90 73 P Pn 12 36 24.0 -2.4
baz=263
V36A Jenks 15.96 67 P Pn 12 36 24.8 -2.4
baz=256,SNR=5.8
V36A Jenks 15.96 67 ePn Pn 12 36 25.4 -1.8
comp=N,37nm,1.0s
TUL1 Leonard 16.11 66 P Pn 12 36 26.2 -2.8
baz=256
TUL1 Leonard 16.11 66 ePn Pn 12 36 27.2 -1.8
comp=N,80nm,1.6s
MSO Missoula 16.13 0 P P 12 36 31.3 -1.4
baz=180,SNR=20
MSO Missoula 16.13 0 ePn Pn 12 36 27.8 -1.5
comp=N,75nm,1.1s
E09A Wood Farm, Sta 16.14 350 ePn P 12 36 31.7 -0.8
comp=N,53nm,1.1s
X37A Clayton 16.19 71 P Pn 12 36 27.2 -2.8
baz=261,SNR=5.7
X37A Clayton 16.19 71 ePn Pn 12 36 27.7 -2.4
comp=N,198nm,1.9s
S35A Otter Creek Ra 16.22 60 P Pn 12 36 28.8 -1.7
baz=249
W37B Quinton 16.24 69 P Pn 12 36 28.8 -1.8
baz=259
W37B Quinton 16.24 69 ePn Pn 12 36 28.4 -2.2
comp=N,176nm,1.9s
138A Matatall Enter 16.25 78 P Pn 12 36 28.6 -2.2
baz=268
Q34A Chapman 16.25 55 P Pn 12 36 28.6 -2.2
baz=244,SNR=6.0
HAWA Hanford 16.27 346 ePn Pn 12 36 30.6 -0.4
comp=N,46nm,1.2s
E08A Dider Farm, El 16.27 348 ePn P 12 36 33.1 -0.9
comp=N,34nm,1.3s
U36A Oologah 16.28 65 P Pn 12 36 29.5 -1.7
baz=254
T36A Boggs Farm, Ca 16.35 62 P Pn 12 36 29.8 -2.3
baz=252
Z38A Mt. Pleasant 16.36 76 P Pn 12 36 30.1 -2.2
baz=266
KSU1 Kansas State U 16.56 55 P Pn 12 36 32.0 -2.8
baz=244
KSU1 Kansas State U 16.56 55 ePn Pn 12 36 32.7 -2.1
comp=N,51nm,1.1s
NATX Nacogdoches 16.61 81 P Pn 12 36 33.5 -1.9
baz=271
NATX Nacogdoches 16.61 81 ePn Pn 12 36 35.1 -0.2
comp=N,233nm,1.5s
V37A Hulbert 16.62 67 P Pn 12 36 30.6 -4.9
baz=257,SNR=5.5
Y38A Idabel 16.63 74 P Pn 12 36 32.5 -3.2
baz=264
X38A Whitesboro 16.65 71 P Pn 12 36 32.2 -3.6
baz=261
U37A Salina 16.76 65 P Pn 12 36 35.5 -1.8
baz=255
D08A Wollman Farm, 16.79 348 ePn P 12 36 39.2 -0.7
comp=N,19nm,1.1s
139A Bunkhouse Ranc 16.83 78 P Pn 12 36 35.1 -3.2
baz=268
Q35A Mercer Eighty, 16.87 56 P Pn 12 36 36.6 -2.1
baz=246
W38A Poteau 16.96 70 P Pn 12 36 37.2 -2.6
baz=260
O34A Beatrice 16.99 51 P Pn 12 36 38.2 -2.0
baz=241
Z39A Irene McRaven, 17.04 76 P Pn 12 36 38.9 -1.8
baz=266
JTMT Jette 17.05 359 ePn Pn 12 36 39.4 -1.6
comp=N,91nm,1.3s
R36A Gordon, Harris 17.05 58 P Pn 12 36 38.2 -2.7
baz=249
K31A O'Neill 17.07 41 P Pn 12 36 40.2 -1.0
baz=230
LAO LASA Array 17.10 19 P Pn 12 36 42.0 +0.4
baz=203,SNR=16
T37A Cheneyville 18 17.11 63 P Pn 12 36 39.7 -2.0
baz=253,SNR=5.3
LON Longmire 17.15 342 eP P 12 36 43.9 +0.1
comp=N,76nm,1.4s
P35A Duane Minner, 17.16 54 P Pn 12 36 40.4 -1.9
baz=244
Y39A Lockesburg 17.16 74 P Pn 12 36 40.9 -1.5
baz=264
V38A Canehill 17.20 67 P Pn 12 36 40.7 -2.1
baz=258,SNR=5.5
X39A Fountain Ranch 17.21 72 P Pn 12 36 39.6 -3.3
baz=262,SNR=8.6
LTY Liberty 17.34 345 eP Pn 12 36 44.7 +0.2
comp=N,77nm,1.8s
U38A Gravette 17.34 65 P Pn 12 36 41.9 -2.8
baz=256,SNR=5.1
S37A Fort Scott 17.37 61 P Pn 12 36 43.1 -1.8
baz=251
C09A Chrisman Ranch 17.41 350 ePn Pn 12 36 43.9 -1.5
comp=N,50nm,1.4s
N34A Lincoln 17.44 50 P Pn 12 36 44.2 -1.6
baz=240
140A Cam and Jess, 17.52 78 P Pn 12 36 44.3 -2.6
baz=269
O35A Humboldt 17.56 52 P Pn 12 36 46.2 -1.1
baz=242
T38A Diamond 17.56 64 P Pn 12 36 45.8 -1.6
baz=254
W39A Magazine 17.57 70 P Pn 12 36 45.7 -1.8
baz=260
D05A Enumclaw 17.60 342 ePn Pn 12 36 47.5 -0.2
comp=N,231nm,1.4s
EGMT Eagleton 17.64 9 P P 12 36 49.7 +0.5
baz=192,SNR=24
EGMT Eagleton 17.64 9 eP Pn 12 36 48.5 +0.3
MIAR Mount Ida 17.65 72 P Pn 12 36 46.4 -2.1
baz=263,SNR=6.8
MIAR Mount Ida 17.65 72 ePn Pn 12 36 46.4 -2.1
comp=N,52nm,1.3s
HHAR Hobbs 17.66 66 eP Pn 12 36 48.0 -0.5
comp=N,24nm,1.1s
L33A Hoskins 17.67 45 P Pn 12 36 46.8 -1.8
baz=235
Z40A Long Farm, Mag 17.69 76 P Pn 12 36 46.7 -2.2
baz=267
NEW Newport 17.73 353 P P 12 36 50.5 +0.2
comp=N,0.3nm,0.3s,baz=167,slow=12,SNR=16
NEW LR LR 12 44 33.1
comp=N,925nm,20.6s,baz=176,slow=40
NEW Newport 17.73 353 P P 12 36 50.8 +0.6
baz=171,SNR=26
NEW Newport 17.73 353 ePn Pn 12 36 48.1 -1.3
comp=N,48nm,1.2s
M34A Aspy Farms, Fr 17.73 48 P Pn 12 36 48.3 -1.1
baz=238
P36A Good Intent, A 17.77 55 P Pn 12 36 47.7 -2.2
baz=245
V39A Pettigrew 17.80 68 P Pn 12 36 47.4 -2.9
baz=259,SNR=5.8
Y40A Okolona 17.84 74 P Pn 12 36 48.8 -2.1
baz=265
341A Kurthwood 17.90 83 P Pn 12 36 48.5 -3.0
baz=273
441A DeRidder 17.92 84 P Pn 12 36 48.7 -3.1
baz=275
C06D Leavenworth 18.02 345 P P 12 36 55.5 +2.1
baz=160
N35A Tabor 18.02 51 P Pn 12 36 52.3 -0.7
baz=241
Q37A Longview Farm, 18.02 58 P Pn 12 36 51.4 -1.6
baz=249
S38A Stockton 18.02 62 P Pn 12 36 50.5 -2.5
baz=253
U39A Green Forest 18.04 66 P Pn 12 36 50.7 -2.5
baz=257
241A Mo Tay, Goldon 18.08 80 P Pn 12 36 52.6 -1.1
baz=271
141A Papa Simpson, 18.09 78 P Pn 12 36 51.3 -2.6
baz=269
B08A Colville Reser 18.12 349 ePn P 12 36 55.2 +0.6
comp=N,42nm,1.2s
O36A Bolckow 18.15 53 P Pn 12 36 53.3 -1.3
baz=244
W40A Ferguson Farm, 18.15 70 P Pn 12 36 53.0 -1.7
baz=261
W40A Ferguson Farm, 18.15 70 ePn Pn 12 36 53.4 -1.2
comp=N,42nm,0.9s
SUSD Miller 18.17 37 P P 12 36 55.7 +0.6
baz=226
Z41A Richland Creek 18.19 76 P Pn 12 36 53.1 -2.0
baz=267
R38A Fenwick Farm, 18.19 60 P Pn 12 36 53.4 -1.7
baz=251
X40A Basin Creek Fa 18.26 72 P Pn 12 36 53.7 -2.2
baz=264
T39A Clever 18.27 64 P Pn 12 36 54.2 -1.8
baz=255
M35A Neola 18.28 49 P Pn 12 36 54.6 -1.6
baz=239
P37A Lathrop 18.36 56 P Pn 12 36 53.8 -3.3
baz=247
WALA Waterton Lakes 18.36 0 eP Pn 12 36 55.0 -2.3
comp=N,54nm,1.2s
Y41A Eaglette Beard 18.39 74 P Pn 12 36 55.0 -2.5
baz=266,SNR=9.3
H31A Wolsey 18.45 37 P Pn 12 36 59.1 +1.0
baz=226
V40A Witts Springs 18.45 68 P P 12 36 55.4 -2.8
baz=260
N36A Muff Farm, Cla 18.46 52 P P 12 36 55.0 -3.2
baz=242
S39A Bolivar 18.48 62 P P 12 36 56.8 -1.8
baz=254
J33A Davis 18.53 42 P P 12 36 58.8 -0.3
baz=232
U40A Yellville 18.53 67 P P 12 36 57.1 -2.0
baz=258
342A Flagon Creek P 18.61 82 P P 12 36 58.4 -1.6
baz=273
B05A Bryant 18.62 343 P Pn 12 37 04.6 +4.4
baz=158
Q38A Cooks Store, C 18.66 58 P P 12 36 58.3 -2.2
baz=250
K34A Le Mars 18.68 45 P P 12 36 59.6 -1.1
baz=236
X301 Greenbrier Sit 18.70 70 eP P 12 36 58.2 -2.8
comp=N,27nm,1.0s
B06A Marblemount 18.71 344 eP Pn 12 37 07.1 +5.8
comp=N,117nm,1.8s
L35A Bielow Farm, R 18.71 47 P P 12 37 00.0 -1.0
baz=238
242A Grayson 18.73 80 P P 12 36 58.2 -3.1
baz=271
O37A Wolven Farm, M 18.73 54 P P 12 37 00.2 -1.1
baz=246
WHAR Wooly Hollow 18.80 70 eP P 12 37 00.0 -2.0
comp=N,33nm,1.1s
W41B Gay Mavity, V 18.82 70 P P 12 36 59.5 -2.7
baz=262
M36A Felix, Anita 18.86 50 P P 12 37 01.8 -0.9
baz=241
R39A Chumby, Stover 18.88 61 P P 12 37 00.1 -2.8
baz=252
Z42A Norrel Spur, H 18.91 76 P P 12 37 01.6 -1.6
baz=268
N37A Lee Faris, Mou 18.94 53 P P 12 37 02.7 -0.9
baz=244
P38A Dawn 18.96 56 P P 12 37 03.2 -0.5
baz=248
T40A Mansfield 18.96 64 P P 12 37 02.3 -1.6
baz=256
V41A Mountainview 18.98 69 P P 12 37 03.5 -0.6
baz=260
ECSD EROS Data Cent 18.98 42 P P 12 37 03.6 -0.5
baz=232,SNR=5.0
ECSD EROS Data Cent 18.98 42 eP P 12 37 03.0 -1.0
comp=N,20nm,1.1s
H32A Carlson Farm, 19.01 39 P Pn 12 37 05.6 +0.5
baz=229
S40A Lebanon 19.09 63 P P 12 37 04.3 -0.9
baz=255
G31A Conde 19.10 36 P P 12 37 04.2 -1.0
baz=226
443A Delano Plantat 19.13 84 P P 12 37 05.2 -0.4
baz=275
Q39A Willow Grove F 19.16 58 P P 12 37 04.6 -1.4
baz=250,SNR=5.8
O38A Galt 19.19 55 P P 12 37 05.0 -1.3
baz=247
X42A Stuttgart 19.25 73 P P 12 37 04.9 -2.1
baz=264
L36A Harm Buss Farm 19.27 48 P P 12 37 07.3 +0.1
baz=240
U41A Viola 19.27 67 P P 12 37 04.9 -2.2
baz=259
DGMT Dagmar 19.29 20 eP Pn 12 37 08.5 +0.1
comp=N,133nm,1.1s
243A Waterproof 19.30 81 P P 12 37 06.6 -1.0
baz=272
143A Socs Landing, 19.36 78 P P 12 37 07.2 -1.0
baz=270
W42A Bald Knob 19.42 70 P P 12 37 06.8 -2.0
baz=262
R40A Maddies Statio 19.45 61 P P 12 37 07.1 -2.1
baz=253,SNR=5.8
P39B Salisbury 19.47 57 P P 12 37 08.0 -1.3
baz=249
G32A Webster 19.48 37 P P 12 37 07.3 -2.2
baz=227
H33A Prehn Over Nor 19.51 39 P P 12 37 08.2 -1.6
baz=230
T41A Mountain View 19.53 65 P P 12 37 06.7 -3.4
baz=257
V42A Cord 19.60 69 P P 12 37 04.8 -6.0
baz=261
N38A Joes South For 19.63 53 P P 12 37 09.5 -1.6
baz=245
S41A Jillco Farms, 19.67 63 P P 12 37 09.9 -1.7
baz=256
K36A Gilmore City 19.68 47 P P 12 37 11.5 -0.1
baz=239
Y43A Makayla and Ka 19.78 75 P P 12 37 09.7 -3.2
baz=267
Q40A Laux Farm, Aux 19.81 59 P P 12 37 10.2 -2.9
baz=252
U42A Revenden 19.81 67 P P 12 37 09.0 -4.1
baz=260
X43A Marvell 19.86 73 P P 12 37 11.3 -2.4
baz=265
L37A Phoenix Point, 19.87 49 P P 12 37 13.1 -0.7
baz=241
O39A Kirksville 19.90 55 P P 12 37 11.0 -3.1
baz=248
M38A Pleasantville 19.92 52 P P 12 37 13.3 -0.9
baz=244,SNR=8.2
344A Westbrook Farm 19.97 82 P P 12 37 12.3 -2.5
baz=274
244A Avery, Jackson 19.98 80 P P 12 37 11.7 -3.2
baz=272
P40A Paris 20.00 58 P P 12 37 14.3 -0.9
baz=250
T42A Van Buren 20.05 65 P P 12 37 12.0 -3.7
baz=258
J36A Seneca 1, Swea 20.11 46 P Pn 12 37 17.4 -0.8
baz=237
VBMS Vicksburg 20.11 80 P P 12 37 11.4 -5.0
baz=272
VBMS Vicksburg 20.11 80 eP P 12 37 16.8 +0.3
comp=N,109nm,1.3s
SCIA State Center 20.12 50 P P 12 37 15.4 -1.1
baz=242
R41A Rosebud 20.13 62 P P 12 37 13.3 -3.3
baz=254,SNR=7.4
CCM Cathedral Cave 20.17 62 P P 12 37 16.3 -0.7
baz=255
CCM Cathedral Cave 20.17 62 eP P 12 37 15.9 -1.1
comp=N,51nm,1.6s
N39A Derby Farms, D 20.17 54 P P 12 37 17.3 +0.4
baz=246
Z44A Pea Ridge, Bel 20.18 76 P P 12 37 12.8 -4.3
baz=269
E31A Nome 20.20 34 P P 12 37 17.5 +0.2
baz=224
K37A Belmond 20.26 48 P P 12 37 17.4 -0.6
baz=240
O40A La Belle 20.33 56 P P 12 37 17.4 -1.3
baz=249
Y44A Strider, Charl 20.38 74 P P 12 37 18.0 -1.4
baz=267
L38A Oak Wood Farm, 20.40 50 P P 12 37 17.7 -1.8
baz=242
MDND Maddock 20.41 29 P P 12 37 20.1 +0.5
baz=218
MDND Maddock 20.41 29 eP Pn 12 37 22.8 +1.2
comp=N,122nm,1.1s
Q41A Truxton 20.42 60 P P 12 37 18.3 -1.4
baz=253
S42A Caledonia 20.45 63 P P 12 37 18.3 -1.7
baz=256
G34A Benson 20.47 40 P P 12 37 19.7 -0.5
baz=231
U43A Rector 20.48 68 P P 12 37 19.1 -1.3
baz=260
F33A 5 Mile Ranch, 20.50 37 P P 12 37 18.1 -2.5
baz=228
R42A Luebbering 20.57 62 P P 12 37 17.7 -3.6
baz=255,SNR=6.2
J37A Redenius Farm, 20.59 47 P Pn 12 37 23.0 -0.8
baz=239
H35A Sunnyside Ranc 20.59 42 P P 12 37 21.1 -0.4
baz=233
145A Houston Renfro 20.60 78 P P 12 37 21.0 -0.7
baz=271
M39A Webster 20.64 53 P P 12 37 19.9 -2.2
baz=245
I36A Fitzsimmons Fa 20.68 44 P P 12 37 19.6 -2.9
baz=236
T43A Greenville 20.69 66 P P 12 37 21.5 -1.3
baz=259
LLLB Lilloet 20.77 346 eP P 12 37 23.9 +0.4
comp=N,64nm,1.3s
P41A Barry, Barry 20.77 58 P P 12 37 21.7 -1.7
baz=251
FVM French Village 20.78 63 eP P 12 37 21.9 -1.8
comp=N,13nm,1.0s
Z45A Winona 20.80 76 P P 12 37 23.5 -0.3
baz=269
N40A Mertquake, Sal 20.81 55 P P 12 37 21.7 -2.3
baz=248
Q42A Golden Eagle 20.93 61 P P 12 37 20.6 -4.7
baz=254
Y45A Yeager Farm, C 20.93 75 P P 12 37 25.4 +0.1
baz=268,SNR=5.6
S43A Fulton Ridge, 20.96 64 P P 12 37 21.9 -3.7
baz=258
F34A Alexandria 21.02 39 P P 12 37 24.7 -1.5
baz=230
L39A Vinton 21.03 51 P P 12 37 25.7 -0.6
baz=244
O41A Passleys Farm, 21.04 57 P P 12 37 25.0 -1.4
baz=250
H36A Jessenland, He 21.05 43 P P 12 37 27.6 +1.1
baz=235
I37A Lemond, Waseca 21.05 45 P P 12 37 28.2 +1.7
baz=237
M40A Post Highland 21.06 53 P P 12 37 26.8 +0.1
baz=246
OXF Oxford 21.08 73 P P 12 37 25.5 -1.4
baz=266
OXF Oxford 21.08 73 eP P 12 37 26.2 -0.7
comp=N,68nm,1.2s
X45A UM Field Stati 21.08 73 P P 12 37 25.9 -1.0
baz=266
E33A Westby DABS, E 21.09 36 P P 12 37 26.4 -0.6
baz=228,SNR=5.5
G35A Watkins 21.10 41 P P 12 37 23.9 -3.1
baz=233
C31A Landman Farms, 21.18 32 P P 12 37 27.6 -0.3
baz=222,SNR=19
R43A Red Bud 21.23 63 P P 12 37 26.2 -2.2
baz=256
T44A Benton 21.24 66 P P 12 37 26.7 -1.9
baz=259
N41A Harden Midland 21.26 56 P P 12 37 27.9 -0.9
baz=248
P42A Winchester 21.27 59 P P 12 37 26.8 -2.1
baz=252
J38A Wedel Dairy, R 21.27 48 P P 12 37 29.4 +0.5
baz=240
246A Jackson Lee, B 21.30 80 P P 12 37 27.1 -2.1
baz=273
W45A Hickory Valley 21.31 71 P P 12 37 26.6 -2.8
baz=265
146A Union 21.34 78 P P 12 37 26.1 -3.6
baz=271
K39A Oelwein 21.36 50 P P 12 37 31.1 +1.2
baz=243
Z46A Louisville 21.43 77 P P 12 37 30.4 -0.2
baz=270
F35A Swanville 21.44 40 P P 12 37 31.5 +0.8
baz=231
Y46A Houston 21.50 75 P P 12 37 29.9 -1.6
baz=268,SNR=8.8
G36A St. Michael 21.52 42 P P 12 37 32.6 +1.0
baz=234
L40A Anamosa 21.53 52 P P 12 37 30.3 -1.3
baz=245,SNR=5.5
V45A Humboldt 21.55 70 P P 12 37 31.5 -0.4
baz=263
Q43A New Douglas 21.57 61 P P 12 37 29.9 -2.2
baz=255
D33A AnnSam, Waubun 21.61 35 P P 12 37 32.3 -0.2
baz=227
S44A Carbondale 21.62 64 P P 12 37 31.2 -1.5
baz=258
O42A Bath 21.65 57 P P 12 37 32.1 -0.8
baz=251
H37A Dierke Farm, C 21.65 44 P P 12 37 34.1 +1.2
baz=237
B31A Greenbush Farm 21.69 31 P P 12 37 32.3 -1.0
baz=221,SNR=6.5
I38A Scanlan Farm, 21.72 46 P P 12 37 34.3 +0.6
baz=239
M41A Milan 21.73 54 P P 12 37 33.4 -0.4
baz=248
247A Quitman 21.74 80 P P 12 37 34.7 +0.7
baz=273
X46A Booneville 21.76 73 P P 12 37 33.1 -1.1
baz=267
J39A Decorah 21.77 48 P P 12 37 35.1 +0.8
baz=242
U45A Rockin P Farm, 21.78 68 P P 12 37 34.1 -0.4
baz=262
447A Lucedale 21.80 83 P P 12 37 34.9 +0.3
baz=276

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **347A** | **Saraland** baz=275 | **21.84** | **82** | P | | **P** | **12 37 35.3** | **+0.3** |
| **K40A** | **Colesburg** baz=244 | **21.86** | **50** | P | | **P** | **12 37 35.0** | **-0.2** |
| **R44A** | **Waltonville** baz=257 | **21.87** | **63** | P | | **P** | **12 37 34.4** | **-1.0** |
| **N42A** | **Yates City** baz=250 | **21.89** | **56** | P | | **P** | **12 37 34.5** | **-1.1** |
| **P43A** | **Skaggs, Pawnee** baz=253 | **21.89** | **59** | P | | **P** | **12 37 34.7** | **-0.9** |
| **D34A** | **Park Rapids** baz=228 | **21.90** | **36** | P | | **P** | **12 37 36.1** | **+0.5** |
| **E35A** | **Pequot Lakes** baz=230 | **21.97** | **38** | P | | **P** | **12 37 36.3** | **-0.1** |
| **F36A** | **Milaca** baz=233,SNR=18 | **22.02** | **41** | P | | **P** | **12 37 36.7** | **-0.2** |
| **L41A** | **Preston** baz=246 | **22.03** | **52** | P | | **P** | **12 37 37.3** | **+0.3** |
| **SPMN** | **Marine on St.** baz=236 | **22.07** | **43** | P | | **P** | **12 37 37.3** | **-0.2** |
| **SPMN** | **Marine on St.** comp=N,104nm,1.8s | **22.07** | **43** | *e*P | | **P** | **12 37 40.2** | **+2.7** |
| **C33A** | **Trail** baz=226 | **22.07** | **34** | P | | **P** | **12 37 37.5** | **0.0** |
| **CMIG** | **Matias Romero** comp=N,9.8nm,0.9s,baz=87,slow=17,SNR=3.6 | **22.07** | **123** | P | | **P** | **12 37 36.6** | **-1.1** |
| CMIG | comp=N,1µm,19.9s,baz=276,slow=35 | | | LR | | LR | 12 45 17.3 | |
| **Q44A** | **Meyer Farm, Va** baz=256 | **22.07** | **61** | P | | **P** | **12 37 33.2** | **-4.3** |
| **H38A** | **Maiden Rock** baz=238 | **22.08** | **45** | P | | **P** | **12 37 38.0** | **+0.3** |
| **I39A** | **Houston** baz=241 | **22.14** | **47** | P | | **P** | **12 37 36.6** | **-1.6** |
| **S45A** | **Carrier Mills** baz=259 | **22.14** | **65** | P | | **P** | **12 37 36.7** | **-1.6** |
| **Z47A** | **Carrollton** baz=270 | **22.16** | **77** | P | | **P** | **12 37 37.1** | **-1.4** |
| **B32A** | **Ashes, Strandq** baz=223,SNR=38 | **22.16** | **32** | P | | **P** | **12 37 38.1** | **-0.3** |
| **PLAL** | **Pickwick Lake** comp=N,72nm,1.6s | **22.20** | **72** | *e*P | | **P** | **12 37 38.0** | **-1.0** |
| **O43A** | **Sugar Creek Fa** baz=252 | **22.23** | **58** | P | | **P** | **12 37 37.5** | **-1.7** |
| **U46A** | **Springville** baz=262 | **22.25** | **68** | P | | **P** | **12 37 37.8** | **-1.7** |
| **M42A** | **Sheffield** baz=249 | **22.30** | **54** | P | | **P** | **12 37 37.9** | **-2.1** |
| **HDIL** | **Hopedale** baz=251 | **22.33** | **57** | P | | **P** | **12 37 38.3** | **-2.0** |
| **HDIL** | **Hopedale** comp=N,90nm,1.3s | **22.33** | **57** | *e*P | | **P** | **12 37 39.7** | **-0.6** |
| **Y47A** | **UCPARC, Winfie** baz=269 | **22.34** | **75** | P | | **P** | **12 37 36.6** | **-3.9** |
| **X47A** | **Russelville** baz=267,SNR=12 | **22.36** | **73** | P | | **P** | **12 37 38.1** | **-2.5** |
| **K41A** | **Shullsburg** baz=245 | **22.37** | **51** | P | | **P** | **12 37 39.2** | **-1.5** |
| **AGMN** | **Agassiz Nation** baz=224,SNR=7.4 | **22.41** | **33** | P | | **P** | **12 37 40.2** | **-0.8** |
| **AGMN** | **Agassiz Nation** comp=N,23nm,0.9s | **22.41** | **33** | *e*P | | **P** | **12 37 40.2** | **-0.8** |
| **C34A** | **RKJ Ranch, Bem** baz=227 | **22.42** | **35** | P | | **P** | **12 37 41.1** | **-0.1** |
| **J40A** | **Soldiers Grove** baz=243,SNR=7.3 | **22.43** | **49** | P | | **P** | **12 37 39.4** | **-1.9** |
| **F37A** | **Hinrichs Farm,** baz=235 | **22.45** | **42** | P | | **P** | **12 37 42.0** | **+0.4** |
| **D35A** | **Remer** baz=230,SNR=5.9 | **22.49** | **38** | P | | **P** | **12 37 42.3** | **+0.4** |
| **WVT** | **Waverly** baz=263 | **22.50** | **69** | P | | **P** | **12 37 41.2** | **-1.0** |
| **WVT** | **Waverly** comp=N,50nm,1.2s | **22.50** | **69** | *e*P | | **P** | **12 37 41.4** | **-0.8** |
| **P44A** | **Sand Creek, Wi** baz=255 | **22.51** | **60** | P | | **P** | **12 37 41.8** | **-0.5** |
| **B33A** | **Robert and Kas** baz=225 | **22.52** | **33** | P | | **P** | **12 37 42.4** | **+0.2** |
| **JFWS** | **Jewell Farm** baz=245 | **22.54** | **51** | P | | **P** | **12 37 42.4** | **-0.1** |
| **JFWS** | **Jewell Farm** comp=N,48nm,1.0s | **22.54** | **51** | *e*P | | **P** | **12 37 40.2** | **-2.3** |
| **N43A** | **Stutzman Famil** baz=251 | **22.54** | **56** | P | | **P** | **12 37 41.6** | **-0.9** |
| **A32A** | **Rocking H Ranc** baz=222,SNR=17 | **22.57** | **31** | P | | **P** | **12 37 41.4** | **-1.3** |
| **E36A** | **McGregor** baz=232 | **22.57** | **40** | P | | **P** | **12 37 43.7** | **+0.9** |
| **L42A** | **Oliver, Polo** baz=248 | **22.57** | **53** | P | | **P** | **12 37 41.2** | **-1.6** |
| **T46A** | **Princeton** baz=261 | **22.57** | **67** | P | | **P** | **12 37 37.7** | **-5.2** |
| **Z48A** | **Northport** baz=270 | **22.59** | **76** | P | | **P** | **12 37 41.9** | **-1.1** |
| **G38A** | **Ridgeland** baz=238 | **22.60** | **44** | P | | **P** | **12 37 43.2** | **+0.1** |
| **H39A** | **Augusta** baz=239 | **22.70** | **46** | P | | **P** | **12 37 45.5** | **+1.3** |
| **Q45A** | **Warren Harvey,** baz=256 | **22.72** | **62** | P | | **P** | **12 37 43.2** | **-1.3** |
| **OLIL** | **Olney** comp=N,64nm,1.1s | **22.73** | **62** | *e*P | | **P** | **12 37 43.3** | **-1.2** |
| **I40A** | **Norwalk** baz=242 | **22.73** | **48** | P | | **P** | **12 37 45.0** | **+0.5** |
| **O44A** | **Mansfield** baz=253 | **22.81** | **59** | P | | **P** | **12 37 45.0** | **-0.4** |
| **S46A** | **Don Dixon Farm** baz=260 | **22.82** | **65** | P | | **P** | **12 37 44.1** | **-1.4** |
| **M43A** | **Waltham Townsh** baz=250 | **22.86** | **55** | P | | **P** | **12 37 45.5** | **-0.4** |
| **J41A** | **Loganville** baz=244 | **22.89** | **50** | P | | **P** | **12 37 45.4** | **-0.8** |
| **Y48A** | **Jasper** baz=269 | **22.91** | **75** | P | | **P** | **12 37 45.8** | **-0.6** |
| **C35A** | **Jirik Farms, M** baz=229,SNR=6.2 | **22.93** | **36** | P | | **P** | **12 37 46.1** | **-0.4** |
| **U47A** | **Clarksville** baz=263 | **22.97** | **68** | P | | **P** | **12 37 46.0** | **-1.1** |
| **D36A** | **Goodland** baz=231 | **23.02** | **38** | P | | **P** | **12 37 46.7** | **-0.8** |
| **F38A** | **Pierce - Schro** baz=236 | **23.02** | **42** | P | | **P** | **12 37 48.9** | **+1.4** |
| **X48A** | **Hartselle** baz=268 | **23.02** | **73** | P | | **P** | **12 37 46.0** | **-1.7** |
| **LRAL** | **Lakeview Retre** baz=271 | **23.06** | **77** | P | | **P** | **12 37 46.0** | **-2.0** |
| **LRAL** | **Lakeview Retre** comp=N,27nm,1.2s | **23.06** | **77** | *e*P | | **P** | **12 37 45.7** | **-2.3** |
| **E37A** | **Wrenshall** baz=234 | **23.07** | **40** | P | | **P** | **12 37 47.4** | **-0.6** |
| **G39A** | **Holcombe** baz=238 | **23.07** | **44** | P | | **P** | **12 37 47.0** | **-1.1** |
| **A33A** | **Warroad** baz=224,SNR=6.0 | **23.08** | **33** | P | | **P** | **12 37 45.6** | **-2.5** |
| **K42A** | **Prairie Point,** baz=246 | **23.09** | **52** | P | | **P** | **12 37 46.5** | **-1.8** |
| **B34A** | **Aery, Baudette** baz=226,SNR=7.5 | **23.12** | **34** | P | | **P** | **12 37 47.8** | **-0.7** |
| **P45A** | **Graceland, Par** baz=255 | **23.18** | **60** | P | | **P** | **12 37 48.1** | **-1.2** |
| **T47A** | **Sharon Grove** baz=262 | **23.19** | **67** | P | | **P** | **12 37 47.5** | **-1.8** |
| **H40A** | **Chili** baz=241 | **23.22** | **47** | P | | **P** | **12 37 49.9** | **+0.3** |
| **N44A** | **Piper City** baz=252 | **23.24** | **57** | P | | **P** | **12 37 48.5** | **-1.3** |
| **L43A** | **Garden Prairie** baz=248 | **23.27** | **53** | P | | **P** | **12 37 50.2** | **0.0** |
| **V48A** | **Smith Brothers** baz=265 | **23.28** | **70** | P | | **P** | **12 37 48.1** | **-2.2** |
| **I41A** | **Arkdale** baz=243 | **23.29** | **48** | P | | **P** | **12 37 52.1** | **+1.8** |
| **D37A** | **Cotton** baz=233 | **23.41** | **39** | P | | **P** | **12 37 52.4** | **+1.0** |
| **Z49A** | **Columbiana** baz=271 | **23.45** | **77** | P | | **P** | **12 37 51.7** | **-0.3** |
| **J42A** | **Columbus** baz=245 | **23.46** | **51** | P | | **P** | **12 37 49.4** | **-2.6** |
| **B35A** | **Bob, Littlefor** baz=228,SNR=6.1 | **23.49** | **35** | P | | **P** | **12 37 52.1** | **-0.1** |
| **M44A** | **Midewin, Midew** baz=251 | **23.49** | **56** | P | | **P** | **12 37 51.7** | **-0.7** |
| **Y49A** | **Blount Mountai** baz=270 | **23.54** | **75** | P | | **P** | **12 37 50.5** | **-2.4** |
| **C36A** | **Pine Crest Far** baz=231 | **23.55** | **38** | P | | **P** | **12 37 53.3** | **+0.4** |
| **F39A** | **Loretta** baz=238 | **23.56** | **43** | P | | **P** | **12 37 53.5** | **+0.5** |
| **U48A** | **Cassie Pea, Po** baz=264 | **23.58** | **68** | P | | **P** | **12 37 52.1** | **-1.2** |
| **P46A** | **Rosedale** baz=256 | **23.61** | **60** | P | | **P** | **12 37 52.1** | **-1.4** |
| **G40A** | **Rib Lake** baz=240,SNR=6.1 | **23.66** | **45** | P | | **P** | **12 37 54.4** | **+0.5** |
| **T48A** | **Bowling Green** baz=262 | **23.77** | **67** | P | | **P** | **12 37 54.4** | **-0.7** |
| **ULM** | **Lac du Bonnet** comp=N,21nm,1.1s,baz=220,slow=11,SNR=20 | **23.82** | **30** | P | | **P** | **12 37 53.5** | **-1.9** |
| ULM | comp=N,546nm,21.3s,baz=221,slow=36 | | | LR | | LR | 12 46 54.6 | |
| **ULM** | **Lac du Bonnet** comp=N,98nm,1.5s | **23.82** | **30** | *e*P | | **P** | **12 37 54.0** | **-1.5** |
| **R47A** | **Wooly Knot Far** baz=260 | **23.85** | **64** | P | | **P** | **12 37 53.8** | **-2.1** |
| **BBB** | **Bella Bella** comp=N,2µm,18.8s,baz=154,slow=38 | **23.86** | **338** | LR | | LR | 12 47 57.7 | |
| **SFIN** | **Lafayette** baz=254 | **23.88** | **59** | P | | **P** | **12 37 56.1** | **0.0** |
| **J43A** | **Natural Harves** baz=246 | **23.95** | **51** | P | | **P** | **12 37 53.7** | **-3.1** |
| **SWET** | **Sewanee** comp=N,42nm,1.2s | **23.97** | **72** | *e*P | | **P** | **12 37 56.5** | **-0.6** |
| **E39A** | **Mellen** baz=237 | **24.02** | **43** | P | | **P** | **12 37 56.7** | **-0.7** |
| **WCI** | **Wyandotte Cave** baz=260 | **24.02** | **64** | P | | **P** | **12 37 55.7** | **-1.8** |
| **F40A** | **Park Falls** baz=239 | **24.03** | **44** | P | | **P** | **12 37 56.0** | **-1.5** |
| **Q47A** | **Bedord North L** baz=258 | **24.05** | **62** | P | | **P** | **12 37 56.4** | **-1.4** |
| **S48A** | **Wiedeman Farm,** baz=261 | **24.11** | **66** | P | | **P** | **12 37 56.7** | **-1.7** |
| **X50A** | **Fort Payne** baz=263 | **24.18** | **74** | P | | **P** | **12 37 57.6** | **-1.4** |
| **P47A** | **Martinsville** baz=257 | **24.28** | **61** | P | | **P** | **12 37 58.0** | **-1.9** |
| **H42A** | **Shiocton** baz=244 | **24.35** | **48** | P | | **P** | **12 37 59.9** | **-0.5** |
| **C38A** | **Sawbill Land.** baz=234 | **24.37** | **39** | P | | **P** | **12 38 02.6** | **+2.0** |
| **E40A** | **Wakefield** baz=238 | **24.44** | **43** | P | | **P** | **12 38 02.1** | **+0.8** |
| **F41A** | **Three Lakes** baz=241 | **24.56** | **45** | P | | **P** | **12 38 04.0** | **+1.6** |
| **FFC** | **Flin Flon** comp=N,20nm,1.3s | **25.54** | **16** | *e*P | | **P** | **12 38 10.8** | **-0.4** |
| **TKL** | **Tuckaleechee C** comp=N,4.6nm,0.8s,baz=229,slow=11,SNR=2.9 | **25.75** | **71** | P | | **P** | **12 38 13.2** | **-0.1** |
| TKL | comp=N,1µm,20.8s,baz=266,slow=38 | | | LR | | LR | 12 48 34.7 | |
| **TKL** | **Tuckaleechee C** comp=N,60nm,1.6s | **25.75** | **71** | *e*P | | **P** | **12 38 11.5** | **-1.8** |
| **SADO** | **Sadowa** comp=N,374nm,18.8s,baz=275,slow=39 | **30.72** | **53** | LR | | LR | 12 52 25.2 | |
| **YKA** | **Yellowknife Ar** comp=N,1.1nm,0.8s,baz=176,slow=9.0,SNR=29 | **31.83** | **359** | P | | **P** | **12 39 06.4** | **-0.7** |
| YKA | comp=N,84nm,21.2s,baz=180,slow=38 | | | LR | | LR | 12 52 40.7 | |
| **YKW3** | **Yellowknife Ar** comp=N,19nm,1.5s | **31.90** | **359** | *e*P | | **P** | **12 39 11.8** | **+4.1** |
| **DAWY** | **Dawson** comp=N,21nm,1.3s | **37.04** | **342** | *e*P | | **P** | **12 39 56.8** | **+4.6** |
| **EGAK** | **Eagle** comp=N,29nm,1.4s | **38.08** | **342** | *e*P | | **P** | **12 40 03.0** | **+2.1** |
| **PMR** | **Palmer** comp=N,119nm,1.8s | **38.48** | **334** | *e*P | | **P** | **12 40 08.3** | **+4.0** |
| **INK** | **Inuvik** comp=N,7.9nm,1.1s,baz=150,slow=11,SNR=11 | **39.36** | **349** | P | | **P** | **12 40 12.1** | **+0.4** |
| **INK** | **Inuvik** comp=N,15nm,1.3s | **39.36** | **349** | *e*P | | **P** | **12 40 15.2** | **+3.6** |
| **MCK** | **McKinley** comp=N,54nm,1.7s | **39.74** | **337** | *e*P | | **P** | **12 40 18.6** | **+3.6** |
| **IL1** | **Eielson Array** | **39.76** | **339** | *e*P | | **P** | **12 40 15.5** | **+0.5** |
| **ILAR** | **Eielson Array** comp=N,8.8nm,1.1s,baz=147,slow=5.4,SNR=14 | **39.76** | **339** | P | | **P** | **12 40 15.8** | **+0.8** |
| **ILB** | **Eielson Array** | **39.76** | **339** | *e*P | | **P** | **12 40 17.0** | **+2.0** |
| **TRF** | **Thorofare Moun** comp=N,63nm,1.6s | **40.03** | **336** | *e*P | | **P** | **12 40 21.6** | **+4.0** |
| **COLA** | **College** comp=N,25nm,1.2s | **40.13** | **338** | *e*P | | P | 12 40 22.9 | +4.9 |
| **MDM** | **Murphy Dome** comp=N,29nm,1.8s | **40.31** | **338** | *e*P | | P | 12 40 25.1 | +5.5 |
| **PPLA** | **Purkeypile** comp=N,102nm,1.6s | **40.40** | **334** | *e*P | | **P** | **12 40 24.9** | **+4.4** |
| **FYU** | **Fort Yukon** comp=N,95nm,1.5s | **40.54** | **341** | *e*P | | **P** | **12 40 21.6** | **+0.2** |
| **BPAW** | **Bear Paw Mtn.** comp=N,41nm,1.5s | **40.68** | **336** | *e*P | | **P** | **12 40 24.6** | **+1.9** |
| **MLY** | **Manley** comp=N,38nm,1.6s | **41.17** | **337** | *e*P | | **P** | **12 40 30.5** | **+3.7** |
| **COLD** | **Coldfoot** comp=N,31nm,1.4s | **42.41** | **340** | *e*P | | **P** | **12 40 39.0** | **+2.2** |
| **IMAR** | **Indian Mountai** | **42.75** | **337** | *e*P | | **P** | **12 40 39.8** | **+0.2** |
| **RUSC** | **La Rusia** comp=N,16nm,1.3s | **45.64** | **114** | *e*P | | **P** | **12 41 00.3** | **-3.7** |
| **SDV** | **Santo Domingo** comp=N,6.4nm,1.0s,baz=290,slow=6.9,SNR=4.0 | **45.85** | **109** | P | | **P** | **12 41 03.7** | **-1.6** |
| **SDV** | **Santo Domingo** comp=N,34nm,1.3s | **45.85** | **109** | *e*P | | **P** | **12 41 02.3** | **-3.0** |
| **TAOE** | **U Hiva Isla** comp=N,164nm,23.2s | **46.62** | **217** | *e*LR | | LR | 12 53 59.6 | |
| **TULEG** | **Thule** comp=N,55nm,1.9s | **50.53** | **12** | *e*P | | **P** | **12 41 43.1** | **+2.7** |
| **SUMG** | **Summit** comp=N,17nm,1.0s | **56.72** | **20** | *i* P | | **P** | **12 42 26.3** | **-0.1** |
| SUMG | comp=N,15nm,1.0s | | | *i* | | | 12 42 49.5 | |
| **SUMG** | **Summit** | **56.72** | **20** | *e*P | | **P** | **12 42 25.2** | **-1.2** |
| **PPT2** | **Papeete2** comp=N,61nm,22.8s | **58.92** | **220** | *e*S | | S | 12 50 30.3 | -18 |
| PPT2 | comp=N,260nm,24.2s | | | *e*LQ | | LQ | 12 57 20.3 | |
| PPT2 | comp=N,205nm,22.5s | | | *e*LR | | LR | 12 59 52.2 | |
| **SEY** | **Seymchan** comp=N,2.2nm,0.9s,baz=82,slow=9.5,SNR=3.9 | **64.74** | **330** | P | | **P** | **12 43 23.4** | **+2.8** |
| **PEA1** | **Petropavlovsk-** | **65.13** | **318** | *e*P | | **P** | **12 43 24.0** | **+0.7** |
| **PETK** | **Petropavlovsk-** comp=N,7.2nm,1.0s,baz=70,slow=9.6,SNR=5.1 | **65.13** | **318** | P | | **P** | **12 43 24.0** | **+0.7** |
| PETK | comp=N,60nm,21.3s,baz=68,slow=33 | | | LR | | LR | 13 08 38.4 | |
| **AFI** | **Afiamalu** comp=N,234nm,21.8s,baz=141,slow=28 | **71.02** | **240** | LR | | LR | 13 06 23.8 | |
| **ARCES** | **ARCESS Array B** comp=N,320nm,19.1s,baz=286,slow=37 | **75.84** | **14** | LR | | LR | 13 19 16.5 | |
| **NOA** | **NORSAR Array B** comp=N,189nm,19.6s,baz=310,slow=36 | **78.38** | **24** | LR | | LR | 13 19 40.7 | |
| **PLCA** | **El Flores** comp=N,134nm,18.2s,baz=146,slow=31 | **81.65** | **148** | LR | | LR | 13 14 31.0 | |
| **FIA0** | **FINESS Array S** | **82.67** | **18** | *e*P | | **P** | **12 45 08.4** | **+2.6** |
| **FINES** | **FINESS Array B** comp=N,4.0nm,0.8s,baz=359,slow=9.5,SNR=5.7 | **82.67** | **18** | P | | **P** | **12 45 08.4** | **+2.6** |
| FINES | comp=N,339nm,18.0s,baz=318,slow=36 | | | LR | | LR | 13 22 50.9 | |
| **ESDC** | **Sonseca Array** comp=N,0.8nm,0.6s,baz=307,slow=4.5,SNR=6.8 | **84.57** | **47** | P | | **P** | **12 45 18.3** | **+2.2** |
| ESDC | comp=N,243nm,18.1s,baz=260,slow=36 | | | LR | | LR | 13 22 54.5 | |
| **GERES** | **GERESS Array B** comp=N,149nm,18.9s,baz=302,slow=37 | **88.12** | **32** | LR | | LR | 13 27 05.2 | |
| **DPC** | **Dobruska-Polom** | **88.14** | **29** | *e*P | | **P** | **12 45 33.6** | **+0.1** |
| **VRAC** | **Vranov** comp=N,345nm,18.1s,baz=330,slow=36 | **89.05** | **30** | LR | | LR | 13 26 09.7 | |
| **OBN** | **Obninsk** comp=N,334nm,18.6s,baz=290,slow=37 | **90.91** | **16** | LR | | LR | 13 27 57.4 | |
| **AKASG** | **Malin Array Be** comp=N,0.2nm,0.4s,baz=317,slow=3.8,SNR=4.8 | **92.71** | **22** | P | | **P** | **12 45 55.8** | **+1.1** |
| AKASG | comp=N,159nm,18.0s,baz=310,slow=36 | | | LR | | LR | 13 28 34.8 | |
| **SONA0** | **Songino Array** | **93.83** | **334** | *e*P | | **P** | **12 46 03.4** | **+3.3** |
| **SONM** | **Songino Array** comp=N,1.3nm,1.1s,baz=75,slow=2.1,SNR=5.5 | **93.83** | **334** | P | | **P** | **12 46 03.4** | **+3.3** |
| SONM | comp=N,177nm,18.9s,baz=357,slow=38 | | | LR | | LR | 13 31 54.9 | |
| **ZALV** | **Zalesovo Beam** comp=N,148nm,21.0s,baz=72,slow=38 | **94.16** | **349** | LR | | LR | 13 31 57.6 | |
| **KEST** | **Kesra** comp=N,187nm,18.1s,baz=281,slow=36 | **95.19** | **43** | LR | | LR | 13 29 36.0 | |
| **HHC** | **Hu-ho-hao-te** | **97.28** | **327** | *e*P | | Pdif | 12 46 16.9 | +0.9 |
| **NJ2** | **Nanjing** | **99.99** | **317** | *e*P | | **Pdif** | **12 46 30.4** | **+2.3** |
| **KSH** | **Kashi** | **109.55** | **352** | *e*Pdif | | **Pdif** | **12 47 16.6** | **+5.9** |
| KSH | | | | PP | | PP | 12 51 53.6 | +11 |
| KSH | | | | S | | **Sdif** | **12 59 25.8** | **+2.9** |
| KSH | | | | SS | | **SS** | **13 07 13.9** | **+9.5** |
| KSH | comp=N,250nm,5.7s | | | LR | | LR | | |
| **KMI** | **Kunming** | **114.29** | **323** | PKP | | PKPdf | 12 51 25.1 | +2.0 |
| **MATP** | **Matopo** comp=N,2.2nm,0.9s,baz=298,slow=1.5,SNR=4.1 | **144.83** | **82** | PKP | | **PKPdf** | **12 52 21.6** | **+1.2** |

*ECX* ***23*** *12:39:11.1±0.2,30.4°N×113.96°W,h10km,MD3.8,ML4.0*
*ISCJB* ***23*** *12:39:14.1±0.9,30.5°N±0.1°×114.13°W±0.07°,h10km, mb3.7/3,Error ellipse: s-maj=16.6km s-min=6.4km az=22.5*
*IDC* ***23*** *12:39:14.1±3.9,30.51°N×113.80°W,h0km,mb3.7/3, mb1 4.0/6,mb1mx3.7/53,mbtmp3.8/6,ML3.5/3,Error ellipse: s-maj=74.8km s-min=19.2km az=32.0*
*MEX* ***23*** *12:39:18.3±0.9,30.59°N×114.11°W,h15km,MD4.1*

**ISC 23 12:39:14.6±1.1,30.5°N±0.1°×114.18°W±0.08,h10km,n16,**
**σ1.52/19,mb3.8/3,Gulf of California**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **ECBX** | **El Chinero** | **1.22** | **322** | *e*P | | **Pn** | **12 39 35.1** | **-2.5** |
| ECBX | | | | *e*S | | **Sb** | **12 39 53.8** | **+0.3** |
| **SPX** | **San Pedro Mart** | **1.23** | **296** | *e*P | | **Pb** | **12 39 36.1** | **-2.1** |
| SPX | | | | *e*S | | **Sg** | **12 39 55.4** | **+1.1** |
| SPX | | | | *e* | | | 12 40 10.3 | |
| SPX | comp=N,1µm,0.5s | | | IAML | | | 12 40 10.3 | |
| **SPIG** | **San Pedro Mart** | **1.23** | **296** | *e*P | | **Pb** | **12 39 37.2** | **-1.0** |
| SPIG | | | | *e*S | | **Sb** | **12 39 54.3** | **+0.1** |
| **SPIG** | **San Pedro Mart** | **1.23** | **296** | *e*P | | **Pb** | **12 39 35.9** | **-2.2** |
| **ECNX** | **Esteban Cantu** | **2.37** | **299** | *e*P | | **Pn** | **12 39 55.3** | **+1.6** |
| **PBX** | **Punta Banda** | **2.51** | **300** | *e*P | | **Pn** | **12 39 55.1** | **-0.3** |
| **CBX** | **Cerro Bola** | **2.78** | **311** | *e*P | | **Pb** | **12 40 04.4** | **-0.1** |
| **CBX** | **Cerro Bola** | **2.78** | **311** | *e*P | | **Pb** | **12 40 04.4** | **-0.1** |
| **TJIG** | **Tijuana** | **2.87** | **313** | *e*P | | **Pn** | **12 40 00.5** | **+0.1** |
| TJIG | | | | *e*S | | **Sn** | **12 40 33.9** | **-1.1** |
| **HSIG** | | **3.17** | **117** | *e*P | | **Pn** | **12 40 05.3** | **+0.7** |
| **ANMO** | **Albuquerque** comp=N,0.1nm,0.3s,baz=51,slow=14,SNR=2.1 | **7.86** | **54** | Pn | | Pn | 12 41 04.4 | -4.8 |
| ANMO | comp=N,0.3nm,0.3s,baz=30,slow=18,SNR=2.8 | | | Lg | | Lg | 12 43 18.2 | |
| **TXAR** | **Lajitas Array** comp=N,0.3nm,0.3s,baz=260,slow=14,SNR=4.9 | **9.20** | **95** | Pn | | **Pn** | **12 41 24.6** | **-2.7** |
| TXAR | comp=N,1.1nm,0.3s,baz=257,slow=25,SNR=7.8 | | | Lg | | Lg | 12 44 07.8 | |
| **NEW** | **Newport** comp=N,0.1nm,0.3s,baz=169,slow=14,SNR=8.1 | **17.87** | **354** | P | | **Pn** | **12 43 24.4** | **+1.1** |
| **ULM** | **Lac du Bonnet** comp=N,9.8nm,1.3s,baz=205,slow=14,SNR=3.8 | **24.03** | **30** | P | | **P** | **12 44 30.0** | **+0.4** |
| **YKA** | **Yellowknife Ar** comp=N,0.3nm,0.8s,baz=187,slow=8.7,SNR=5.5 | **31.99** | **360** | P | | **P** | **12 45 42.3** | **+1.7** |
| **ILAR** | **Eielson Array** comp=N,2.4nm,1.1s,baz=152,slow=7.6,SNR=8.8 | **39.86** | **339** | P | | **P** | **12 46 49.6** | **+1.6** |

*ISCJB* ***23*** *12:44:59.1±1.0,33.82°S±0.07°×177.8°W±0.1,h35km, mb4.2/4,Error ellipse: s-maj=18.7km s-min=7.2km az=24.9*
*IDC* ***23*** *12:44:59.6±2.5,33.74°S×178.25°W,h0km,mb4.3/4, mb1 4.4/5,mb1mx4.0/36,mbtmp4.2/5,ML3.7/1,Error ellipse: s-maj=57.8km s-min=35.5km az=124.0*

**ISC 23 12:45:02.5±1.2,33.95°S±0.09°×177.8°W±0.1,h35km,n31,**
**σ2.84/44,mb4.3/4,South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **WMGZ** | **Waiomatatini S** | **4.92** | **217** | PN | | **Pn** | **12 46 16.0** | **+2.0** |
| WMGZ | | | | SN | | **Sn** | **12 47 15.5** | **+5.8** |
| **PKGZ** | **Pakihiroa** | **5.15** | **219** | PN | | **Pn** | **12 46 18.1** | **+0.9** |
| PKGZ | | | | SN | | **Sn** | **12 47 19.7** | **+4.4** |
| **PUZ** | **Puketiti** | **5.20** | **217** | PN | | **Pn** | **12 46 18.3** | **+0.5** |
| PUZ | | | | SN | | **Sn** | **12 47 20.1** | **+3.6** |
| **HAZ** | **Te Kaha** | **5.21** | **222** | PN | | **Pn** | **12 46 19.8** | **+1.9** |
| HAZ | | | | SN | | **Sn** | **12 47 22.1** | **+5.4** |
| **TWGZ** | **Tauwhareparae** | **5.42** | **218** | SN | | **Sn** | **12 47 25.4** | **+3.5** |
| **RUGZ** | **Raukumara Rang** | **5.42** | **221** | PN | | **Pn** | **12 46 21.9** | **+1.0** |
| **CNGZ** | **Carnagh Statio** | **5.55** | **214** | PN | | **Pn** | **12 46 23.3** | **+0.8** |
| **MWZ** | **Matawai** | **5.77** | **219** | PN | | **Pn** | **12 46 25.6** | **0.0** |
| MWZ | | | | SN | | **Sn** | **12 47 32.7** | **+2.1** |
| **RIGZ** | **Rimuhau** | **5.94** | **216** | PN | | **Pn** | **12 46 28.8** | **+0.9** |
| RIGZ | | | | SN | | **Sn** | **12 47 38.5** | **+3.8** |
| **URZ** | **Urewera** 2.2nm,0.3s,baz=270,slow=3.5,SNR=16 | **5.94** | **222** | Pn | | **Pn** | **12 46 28.3** | **+0.4** |
| URZ | 4.9nm,0.3s,baz=231,slow=19,SNR=13 | | | Sn | | **Sn** | **12 47 36.9** | **+2.1** |
| **URZ** | **Urewera** | **5.94** | **222** | PN | | **Pn** | **12 46 28.7** | **+0.8** |
| URZ | | | | SN | | **Sn** | **12 47 36.7** | **+1.9** |
| **RAGZ** | **Rawiri** | **5.95** | **219** | PN | | **Pn** | **12 46 28.5** | **+0.4** |
| **SNGZ** | **Shannon Statio** | **6.20** | **218** | PN | | **Pn** | **12 46 32.4** | **+0.8** |
| SNGZ | | | | SN | | **Sn** | **12 47 44.1** | **+2.9** |
| **KNZ** | **Kokohu** | **6.23** | **214** | *e*PN | | **Pn** | **12 46 30.9** | **-0.9** |
| **RTZ** | **Ruatahuna** | **6.27** | **221** | *e*PN | | **Pn** | **12 46 32.8** | **+0.3** |
| **MUGZ** | **Murupara** | **6.29** | **222** | PN | | **Pn** | **12 46 32.9** | **+0.2** |
| **NMHZ** | **Naumai** | **6.71** | **219** | PN | | **Pn** | **12 46 39.6** | **+1.0** |
| **MCHZ** | **McNeill Hill** | **7.03** | **217** | SN | | **Sn** | **12 48 04.0** | **+2.4** |
| **BFZ** | **Birch Farm** | **8.21** | **213** | PN | | **Pn** | **12 46 58.1** | **-1.0** |
| BFZ | | | | SN | | **Sn** | **12 48 28.2** | **-2.4** |
| **TIWZ** | **Tintock** | **8.46** | **214** | SN | | **Sn** | **12 48 34.9** | **-1.7** |
| **MRZ** | **Mangatainoka R** | **8.51** | **216** | *e*PN | | **Pn** | **12 47 00.2** | **-3.0** |
| MRZ | | | | SN | | **Sn** | **12 48 34.8** | **-3.2** |
| **TCW** | **Tory Channel** | **9.58** | **219** | SN | | **Sn** | **12 49 00.2** | **-4.0** |
| **CTZ** | **Chatham Island** | **9.82** | **175** | PN | | **Pn** | **12 47 23.7** | **+2.6** |
| CTZ | | | | SN | | **Sn** | **12 49 06.4** | **-3.7** |
| **TUWZ** | **Tuamarina** | **9.91** | **219** | SN | | **Sn** | **12 49 06.5** | **-5.9** |
| **NNZ** | **Nelson** | **10.06** | **221** | SN | | **Sn** | **12 49 10.7** | **-5.3** |
| **THZ** | **Tophouse** | **10.70** | **220** | SN | | **Sn** | **12 49 26.1** | **-5.7** |
| **CTA** | **Charters Tower** 2.3nm,0.5s,baz=118,slow=11,SNR=7.0 | **34.66** | **284** | P | | **P** | **12 51 48.4** | **-0.5** |
| **ASAR** | **Alice Springs** 4.4nm,0.8s,baz=112,slow=7.5,SNR=30 | **43.18** | **271** | P | | **P** | **12 52 59.2** | **-0.9** |
| ASAR | 0.5nm,0.5s,baz=117,slow=3.7,SNR=4.7 | | | PcP | | **PcP** | **12 54 50.8** | **+1.5** |
| **WRA** | **Warramunga Arr** 4.5nm,0.7s,baz=118,slow=7.5,SNR=27 | **44.49** | **276** | P | | **P** | **12 53 09.4** | **-1.3** |
| **FITZ** | **Fitzroy Crossi** 1.3nm,0.7s,baz=106,slow=7.1,SNR=3.5 | **52.58** | **273** | P | | **P** | **12 54 11.9** | **-1.0** |
| **FINES** | **FINESS Array B** 1.8nm,0.7s,baz=135,slow=0.4,SNR=6.3 | **148.50** | **338** | PKPbc | | **PKPbc** | **13 04 45.9** | **+1.3** |

*IDC* ***23*** *12:52:09.0±0.9,0.21°S×125.33E,h0km,mb3.7/6, mb1 3.9/7,mb1mx3.7/42,mbtmp3.8/7,ML3.5/1,MS4.0/3, Ms1 4.0/3,ms1mx3.0/38,Error ellipse: s-maj=72.8km s-min=16.3km az=73.0*
*ISCJB* ***23*** *12:52:13.5±0.8,0.2°S±0.1°×125.4°E±0.4,h49km,mb3.7/6, MS4.0/3,Error ellipse: s-maj=58.3km s-min=12.7km az=166.5*

**ISC 23 12:52:15.5±0.9,0.2°S±0.2°×125.5°E±0.4,h49km,n11,**
**σ0.83/8,mb3.8/6,MS4.0/3,Southern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **FITZ** | **Fitzroy Crossi

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CRLZ | | | | SG | | | 13 01 49.8 | |
| **MQZ** | **McQueen's Vall** | **0.23** | **206** | P* | Pg | | 13 01 47.9 | -0.1 |
| MQZ | | | | S* | Sg | | 13 01 52.1 | +0.8 |
| MQZ | | | | S* | | | 13 01 52.2 | |
| MQZ | | | | S* | | | 13 01 52.3 | |
| **OXZ** | **Oxford** | **0.58** | **287** | P* | Pg | | 13 01 53.7 | -0.7 |
| OXZ | | | | S* | Sb | | 13 02 03.2 | -0.1 |
| OXZ | | | | AML | AML | | 13 02 03.9 | |
| OXZ | | | | AML | AML | | 13 02 03.9 | |
| **LTZ** | **Lake Taylor** | **0.81** | **332** | ⇓P* | Pg | | 13 01 58.3 | -0.5 |
| LTZ | | | | S* | Sg | | 13 02 09.5 | +0.1 |
| LTZ | | | | AML | AML | | 13 02 10.3 | |
| **KHZ** | **Kahutara** | **1.21** | **27** | P* | Pn | | 13 02 04.1 | -1.7 |
| **INZ** | **Inchbonnie** | **1.25** | **308** | P* | Pn | | 13 02 05.0 | -1.5 |
| **RPZ** | **Rata Peaks** | **1.28** | **260** | *e*PN | Pn | | 13 02 06.0 | -0.8 |

**IDC 23 13:04:44.1±2.6, 14°98S×172°88W, h0km, mb3.6/4, mb1 4.0/4, mb1mx3.5/34, mbtmp3.6/4, MS4.1/6, Ms1 4.1/6, ms1mx3.6/23, Error ellipse: s-maj=152.3km s-min=19.6km az=145.0, Samoa Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | | Time | | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h | m s | ISC |
| **AFI** | **Afiamalu** | **1.51** | **45** | Pn | | Pn | 13 05 10.2 | | -2.2 |
| | 137nm,0.3s,baz=194,slow=3.5,SNR=682 | | | | | | | | |
| AFI | | | | Sn | | Sg | 13 05 26.3 | | -6.2 |
| | 327nm,0.3s,baz=229,slow=24,SNR=39 | | | | | | | | |
| **URZ** | **Urewera** | **24.82** | **199** | LR | | LR | 13 19 21.8 | | |
| | comp=Z,148nm,18.0s,baz=14,slow=35 | | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **38.87** | **328** | T | | T | 13 52 51.1 | | |
| | baz=146,slow=76,SNR=5.7 | | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **38.88** | **328** | T | | T | 13 52 51.6 | | |
| | baz=146,slow=76,SNR=6.8 | | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **38.89** | **328** | T | | T | 13 52 49.7 | | |
| | baz=146,slow=76,SNR=6.9 | | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **39.80** | **329** | T | | T | 13 53 56.2 | | |
| | baz=149,SNR=2.3 | | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **39.81** | **329** | T | | T | 13 53 58.6 | | |
| | baz=149,slow=74,SNR=2.5 | | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **39.82** | **329** | T | | T | 13 53 54.4 | | |
| | baz=149,slow=74,SNR=2.5 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **50.43** | **256** | P | | P | 13 13 43.0 | | -0.9 |
| | 0.4nm,0.7s,baz=92,slow=6.9,SNR=7.1 | | | | | | | | |
| WRA | | | | PcP | | PcP | 13 15 03.7 | | +1.4 |
| | 0.6nm,0.7s,baz=77,slow=4.0,SNR=3.8 | | | | | | | | |
| WRA | | | | LR | | LR | 13 33 49.9 | | |
| | comp=Z,335nm,21.1s,baz=70,slow=35 | | | | | | | | |
| **ASAR** | **Alice Springs** | **50.72** | **252** | P | | P | 13 13 44.6 | | -1.4 |
| | 1.1nm,0.7s,baz=86,slow=7.6,SNR=15 | | | | | | | | |
| ASAR | | | | LR | | LR | 13 35 37.9 | | |
| | comp=Z,213nm,19.3s,baz=56,slow=37 | | | | | | | | |
| **NVAR** | **Mina Array Bea** | **73.68** | **42** | P | | P | 13 16 20.6 | | +0.5 |
| | 0.3nm,0.6s,baz=241,slow=9.2,SNR=3.0 | | | | | | | | |
| NVAR | | | | LR | | LR | 13 43 12.8 | | |
| | comp=Z,124nm,18.1s,baz=326,slow=31 | | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **77.36** | **323** | LR | | LR | 13 47 24.4 | | |
| | comp=Z,78nm,19.0s,baz=46,slow=33 | | | | | | | | |
| **TXAR** | **Lajitas Array** | **79.96** | **56** | LR | | LR | 13 44 46.5 | | |
| | comp=Z,149nm,20.0s,baz=0.0,slow=30 | | | | | | | | |
| **ILAR** | **Eielson Array** | **81.94** | **11** | P | | P | 13 17 05.8 | | +0.5 |
| | 0.4nm,0.8s,baz=229,slow=5.9,SNR=7.0 | | | | | | | | |
| **GERES** | **GERESS Array B** | **145.80** | **352** | PKPbc | | PKPdf | 13 24 24.9 | | 0.0 |
| | 0.8nm,0.7s,baz=7.1,slow=2.4,SNR=5.2 | | | | | | | | |
| **BRTR** | **Keskin Array B** | **146.15** | **322** | PKPbc | | PKPbc | 13 24 26.8 | | 0.0 |
| | 1.7nm,1.0s,baz=194,slow=3.0,SNR=3.8 | | | | | | | | |

*ISCJB **23** 13:10:18.4±0.6, 43°62S±0°03×172°96E±0°04, h12km±4km, mb3.2/2, Error ellipse: s-maj=6.2km s-min=3.2km az=140.6*
*IDC **23** 13:10:20.1±1.8, 43°36S×172°70E, h0km, mb3.4/2, mb1 3.6/3, mb1mx3.4/26, mbtmp3.4/3, ML3.4/1, Error ellipse: s-maj=48.8km s-min=16.2km az=155.0*
*NEIC **23** 13:10:21.2±0.0, 43°55S×172°78E, h10km, ML4.0(WEL), After WEL.*
*NEIC Felt at Christchurch.*
*WEL **23** 13:10:21.3±0.1, 43°54S×172°78E, h8km, ML3.9/28, Mw3.6, Error ellipse: s-maj=1.0km s-min=0.5km az=90.0*

**ISC 23 13:10:19.9±1.0, 43°57S±0°04×172°88E±0°04, h15km±6km, n156, σ1°18/161, 4C-9D, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | | Time | | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h | m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.19** | **269** | *e*Pg | | **Pg** | **13 10 24.0** | | **-0.4** |
| **CRLZ** | **Canterbury Las** | **0.19** | **269** | ⇑Pg | | **Pg** | **13 10 24.1** | | **-0.3** |
| CRLZ | | | | SG | | **Sg** | **13 10 26.2** | | **-1.2** |
| CRLZ | | | | AML | | AML | 13 10 26.3 | | |
| **MQZ** | **McQueen's Vall** | **0.21** | **231** | *e*Pg | | **Pg** | **13 10 25.3** | | **+0.5** |
| **MQZ** | **McQueen's Vall** | **0.21** | **231** | ⇑PG | | **Pg** | **13 10 25.3** | | **+0.5** |
| MQZ | | | | SG | | **Sg** | **13 10 28.3** | | **+0.2** |
| **OXZ** | **Oxford** | **0.66** | **292** | *e*Pg | | **Pb** | **13 10 32.3** | | **-0.8** |
| **OXZ** | **Oxford** | **0.66** | **292** | ⇓P* | | **Pb** | **13 10 32.4** | | **-0.8** |
| OXZ | | | | S* | | **Sb** | **13 10 40.9** | | **-1.2** |
| OXZ | | | | AML | | AML | 13 10 42.3 | | |
| OXZ | | | | AML | | AML | 13 10 42.4 | | |
| OXZ | | | | AML | | AML | 13 10 42.4 | | |
| **LTZ** | **Lake Taylor** | **0.91** | **330** | *e*Pg | | **Pb** | **13 10 37.6** | | **+0.3** |
| **LTZ** | **Lake Taylor** | **0.91** | **330** | ⇓P* | | **Pb** | **13 10 37.6** | | **+0.3** |
| LTZ | | | | S* | | **Sb** | **13 10 49.1** | | **-0.1** |
| **KHZ** | **Kahutara** | **1.25** | **23** | *e*Pn | | **Pg** | **13 10 43.1** | | **-1.0** |
| **KHZ** | **Kahutara** | **1.25** | **23** | P* | | **Pg** | **13 10 42.9** | | **-1.2** |
| KHZ | | | | AML | | AML | 13 11 09.1 | | |
| KHZ | | | | AML | | AML | 13 11 14.2 | | |
| **RPZ** | **Rata Peaks** | **1.33** | **263** | Pg | | **Pg** | **13 10 43.9** | | **-1.7** |
| | 53nm,0.3s,baz=158,slow=1.6,SNR=223 | | | | | | | | |
| RPZ | | | | Lg | | Lg | 13 10 59.7 | | |
| | 128nm,0.3s,baz=286,slow=8.0,SNR=17 | | | | | | | | |
| **RPZ** | **Rata Peaks** | **1.33** | **263** | ⇓P* | | **Pg** | **13 10 43.8** | | **-1.7** |
| RPZ | | | | AML | | AML | 13 11 04.5 | | |
| RPZ | | | | AML | | AML | 13 11 05.6 | | |
| **INZ** | **Inchbonnie** | **1.35** | **308** | ⇓P* | | **Pg** | **13 10 43.8** | | **-2.1** |
| **WVZ** | **Waitaha Valley** | **1.64** | **287** | Pn | | **Pn** | **13 10 48.5** | | **+0.3** |
| **WVZ** | **Waitaha Valley** | **1.64** | **287** | PN | | **Pn** | **13 10 48.5** | | **+0.3** |
| WVZ | | | | AML | | AML | 13 11 11.5 | | |
| WVZ | | | | AML | | AML | 13 11 11.8 | | |
| **THZ** | **Tophouse** | **1.81** | **1** | *e*Pn | | **Pn** | **13 10 50.4** | | **-0.1** |
| **THZ** | **Tophouse** | **1.81** | **1** | ⇑Pn | | **Pn** | **13 10 50.8** | | **+0.3** |
| THZ | | | | AML | | AML | 13 11 15.3 | | |
| THZ | | | | AML | | AML | 13 11 15.6 | | |
| **DSZ** | **Denniston Nort** | **1.99** | **336** | Pn | | **Pn** | **13 10 53.4** | | **+0.3** |
| **DSZ** | **Denniston Nort** | **1.99** | **336** | PN | | **Pn** | **13 10 53.3** | | **+0.3** |
| DSZ | | | | AML | | AML | 13 11 23.6 | | |
| DSZ | | | | AML | | AML | 13 11 25.8 | | |
| DSZ | | | | AML | | AML | 13 11 25.9 | | |
| DSZ | | | | AML | | AML | 13 11 29.3 | | |
| **BSWZ** | **Blackbirch Sta** | **2.00** | **22** | Pn | | **Pn** | **13 10 53.9** | | **+0.9** |
| **BSWZ** | **Blackbirch Sta** | **2.00** | **22** | PN | | **Pn** | **13 10 53.9** | | **+0.9** |
| BSWZ | | | | AML | | AML | 13 11 19.7 | | |
| BSWZ | | | | AML | | AML | 13 11 46.1 | | |
| **LBZ** | **Lake Benmore** | **2.11** | **246** | *e*Pn | | **Pn** | **13 10 55.4** | | **+0.7** |
| **LBZ** | **Lake Benmore** | **2.11** | **246** | PN | | **Pn** | **13 10 55.2** | | **+0.6** |
| LBZ | | | | AML | | AML | 13 11 31.6 | | |
| LBZ | | | | AML | | AML | 13 11 31.6 | | |
| LBZ | | | | AML | | AML | 13 11 32.2 | | |
| LBZ | | | | AML | | AML | 13 11 40.4 | | |
| **ODZ** | **Otahua Downs** | **2.18** | **227** | *e*Pn | | **Pn** | **13 10 56.2** | | **+0.6** |
| **ODZ** | **Otahua Downs** | **2.18** | **227** | ⇓PN | | **Pn** | **13 10 55.9** | | **+0.4** |
| ODZ | | | | AML | | AML | 13 11 39.0 | | |
| ODZ | | | | AML | | AML | 13 11 39.0 | | |
| ODZ | | | | AML | | AML | 13 11 39.0 | | |
| ODZ | | | | AML | | AML | 13 11 41.7 | | |
| **FOZ** | **Fox Glacier** | **2.23** | **270** | *e*Pn | | **Pn** | **13 10 57.9** | | **+1.7** |
| **FOZ** | **Fox Glacier** | **2.23** | **270** | PN | | **Pn** | **13 10 57.6** | | **+1.4** |
| FOZ | | | | AML | | AML | 13 11 24.7 | | |
| FOZ | | | | AML | | AML | 13 11 26.0 | | |
| FOZ | | | | AML | | AML | 13 11 40.0 | | |
| FOZ | | | | AML | | AML | 13 11 40.0 | | |
| **TUWZ** | **Tuamarina** | **2.28** | **21** | Pn | | **Pn** | **13 10 57.5** | | **+0.5** |
| **TUWZ** | **Tuamarina** | **2.28** | **21** | PN | | **Pn** | **13 10 57.5** | | **+0.5** |
| TUWZ | | | | AML | | AML | 13 11 49.9 | | |
| TUWZ | | | | AML | | AML | 13 11 58.9 | | |
| **NNZ** | **Nelson** | **2.38** | **9** | Pn | | **Pn** | **13 10 59.3** | | **+0.9** |
| **NNZ** | **Nelson** | **2.38** | **9** | ⇑Pn | | **Pn** | **13 10 59.3** | | **+0.9** |
| NNZ | | | | AML | | AML | 13 11 46.0 | | |
| **TCW** | **Tory Channel** | **2.58** | **24** | Pn | | **Pn** | **13 11 01.1** | | **+0.1** |
| **TCW** | **Tory Channel** | **2.58** | **24** | PN | | **Pn** | **13 11 01.1** | | **+0.1** |
| TCW | | | | AML | | AML | 13 11 44.0 | | |
| **BHW** | **Baring Head** | **2.62** | **35** | Pn | | **Pn** | **13 11 01.8** | | **+0.3** |
| **BHW** | **Baring Head** | **2.62** | **35** | PN | | **Pn** | **13 11 01.8** | | **+0.3** |
| **SNZO** | **South Karori** | **2.63** | **31** | *e*Pn | | **Pn** | **13 11 00.3** | | **-1.5** |
| **PLWZ** | **Palliser** | **2.66** | **42** | Pn | | **Pn** | **13 11 02.3** | | **+0.1** |
| **PLWZ** | **Palliser** | **2.66** | **42** | PN | | **Pn** | **13 11 02.3** | | **+0.1** |
| **WEL** | **Wellington** | **2.68** | **32** | Pn | | **Pn** | **13 11 02.7** | | **+0.2** |
| **WEL** | **Wellington** | **2.68** | **32** | PN | | **Pn** | **13 11 02.7** | | **+0.2** |
| WEL | | | | AML | | AML | 13 11 38.2 | | |
| WEL | | | | AML | | AML | 13 12 08.0 | | |
| **MSWZ** | **Moikau Station** | **2.78** | **40** | Pn | | **Pn** | **13 11 03.8** | | **0.0** |
| **MSWZ** | **Moikau Station** | **2.78** | **40** | PN | | **Pn** | **13 11 03.8** | | **0.0** |
| MSWZ | | | | AML | | AML | 13 11 36.4 | | |
| **HHSZ** | **Highcliff Hill** | **2.83** | **214** | Pn | | **Pn** | **13 11 05.3** | | **+0.9** |
| **HHSZ** | **Highcliff Hill** | **2.83** | **214** | PN | | **Pn** | **13 11 05.3** | | **+0.9** |
| HHSZ | | | | AML | | AML | 13 11 58.1 | | |
| **DUWZ** | **D'Urville Isla** | **2.88** | **16** | Pn | | **Pn** | **13 11 06.1** | | **+0.9** |
| **DUWZ** | **D'Urville Isla** | **2.88** | **16** | PN | | **Pn** | **13 11 05.5** | | **+0.4** |
| **CAW** | **Cannon Point** | **2.95** | **34** | Pn | | **Pn** | **13 11 06.3** | | **+0.1** |
| **CAW** | **Cannon Point** | **2.95** | **34** | PN | | **Pn** | **13 11 06.3** | | **+0.1** |
| CAW | | | | AML | | AML | 13 11 45.0 | | |
| CAW | | | | AML | | AML | 13 11 46.6 | | |
| **JCZ** | **Jackson Bay** | **3.00** | **259** | Pn | | **Pn** | **13 11 07.5** | | **+0.5** |
| **JCZ** | **Jackson Bay** | **3.00** | **259** | ⇓PN | | **Pn** | **13 11 07.5** | | **+0.5** |
| JCZ | | | | AML | | AML | 13 12 06.6 | | |
| JCZ | | | | AML | | AML | 13 12 08.7 | | |
| **TRWZ** | **Traveller** | **3.01** | **45** | Pn | | **Pn** | **13 11 06.9** | | **0.0** |
| **TRWZ** | **Traveller** | **3.01** | **45** | PN | | **Pn** | **13 11 06.6** | | **-0.4** |
| **WKZ** | **Wanaka** | **3.05** | **244** | *e*Pn | | **Pn** | **13 11 07.8** | | **+0.3** |
| **WKZ** | **Wanaka** | **3.05** | **244** | ⇓PN | | **Pn** | **13 11 08.1** | | **+0.6** |
| WKZ | | | | AML | | AML | 13 12 10.6 | | |
| WKZ | | | | AML | | AML | 13 12 10.6 | | |
| WKZ | | | | AML | | AML | 13 12 10.7 | | |
| WKZ | | | | AML | | AML | 13 12 10.7 | | |
| **EAZ** | **Earnscleugh** | **3.05** | **236** | Pn | | **Pn** | **13 11 08.0** | | **+0.4** |
| **EAZ** | **Earnscleugh** | **3.05** | **236** | ⇓PN | | **Pn** | **13 11 08.0** | | **+0.4** |
| EAZ | | | | AML | | AML | 13 11 59.6 | | |
| EAZ | | | | AML | | AML | 13 11 59.7 | | |
| EAZ | | | | AML | | AML | 13 12 03.2 | | |
| EAZ | | | | AML | | AML | 13 12 03.2 | | |
| **MTW** | **Mount Morrison** | **3.10** | **40** | Pn | | **Pn** | **13 11 08.0** | | **-0.2** |
| **MTW** | **Mount Morrison** | **3.10** | **40** | PN | | **Pn** | **13 11 08.0** | | **-0.2** |
| **KIW** | **Kapiti Island** | **3.10** | **30** | Pn | | **Pn** | **13 11 08.6** | | **+0.3** |
| **KIW** | **Kapiti Island** | **3.10** | **30** | PN | | **Pn** | **13 11 08.6** | | **+0.3** |
| **OGWZ** | **Otaki Gorge** | **3.24** | **33** | Pn | | **Pn** | **13 11 10.1** | | **0.0** |
| **OGWZ** | **Otaki Gorge** | **3.24** | **33** | PN | | **Pn** | **13 11 10.1** | | **0.0** |
| OGWZ | | | | AML | | AML | 13 11 57.9 | | |
| OGWZ | | | | AML | | AML | 13 12 25.5 | | |
| **HOWZ** | **Holdsworth Sta** | **3.31** | **37** | Pn | | **Pn** | **13 11 11.3** | | **+0.1** |
| **HOWZ** | **Holdsworth Sta** | **3.31** | **37** | PN | | **Pn** | **13 11 11.3** | | **+0.1** |
| **TUZ** | **Tuapeka** | **3.32** | **223** | Pn | | **Pn** | **13 11 12.0** | | **+0.7** |
| **TUZ** | **Tuapeka** | **3.32** | **223** | PN | | **Pn** | **13 11 12.0** | | **+0.7** |
| TUZ | | | | AML | | AML | 13 12 11.4 | | |
| TUZ | | | | AML | | AML | 13 12 12.2 | | |
| TUZ | | | | AML | | AML | 13 12 16.7 | | |
| TUZ | | | | AML | | AML | 13 12 19.8 | | |
| **TMWZ** | **Te Maipa** | **3.32** | **43** | Pn | | **Pn** | **13 11 11.1** | | **-0.3** |
| **MRZ** | **Mangatainoka R** | **3.54** | **36** | Pn | | **Pn** | **13 11 14.1** | | **-0.2** |
| **MRZ** | **Mangatainoka R** | **3.54** | **36** | PN | | **Pn** | **13 11 13.7** | | **-0.5** |
| MRZ | | | | AML | | AML | 13 12 00.8 | | |
| **TIWZ** | **Tintock** | **3.58** | **40** | Pn | | **Pn** | **13 11 14.4** | | **-0.4** |
| **TIWZ** | **Tintock** | **3.58** | **40** | PN | | **Pn** | **13 11 14.4** | | **-0.4** |
| TIWZ | | | | AML | | AML | 13 11 60.0 | | |
| TIWZ | | | | AML | | AML | 13 12 00.7 | | |
| **PRWZ** | **Pori Road** | **3.79** | **38** | Pn | | **Pn** | **13 11 17.5** | | **-0.3** |
| **PRWZ** | **Pori Road** | **3.79** | **38** | PN | | **Pn** | **13 11 17.5** | | **-0.3** |
| **BFZ** | **Birch Farm** | **3.82** | **42** | *e*Pn | | **Pn** | **13 11 17.6** | | **-0.7** |
| **BFZ** | **Birch Farm** | **3.82** | **42** | PN | | **Pn** | **13 11 17.5** | | **-0.7** |
| **POWZ** | **Post Office Ro** | **3.84** | **35** | Pn | | **Pn** | **13 11 19.1** | | **+0.7** |
| **MLZ** | **Mavora Lakes** | **3.85** | **241** | *e*Pn | | **Pn** | **13 11 18.6** | | **+0.1** |
| **MLZ** | **Mavora Lakes** | **3.85** | **241** | PN | | **Pn** | **13 11 18.7** | | **+0.1** |
| **SYZ** | **Scrubby Hill** | **3.98** | **220** | *e*Pn | | **Pn** | **13 11 21.3** | | **+1.1** |
| **SYZ** | **Scrubby Hill** | **3.98** | **220** | ⇓PN | | **Pn** | **13 11 21.3** | | **+1.1** |
| SYZ | | | | AML | | AML | 13 12 40.8 | | |
| **ANWZ** | **Angora Road** | **4.10** | **42** | PN | | **Pn** | **13 11 22.1** | | **0.0** |
| **WAZ** | **Wanganui** | **4.13** | **23** | Pn | | **Pn** | **13 11 24.6** | | **+2.2** |
| **WAZ** | **Wanganui** | **4.13** | **23** | *e*PN | | **Pn** | **13 11 24.5** | | **+2.2** |
| **TSZ** | **Takapari Road** | **4.20** | **34** | Pn | | **Pn** | **13 11 24.0** | | **+0.6** |
| **TSZ** | **Takapari Road** | **4.20** | **34** | *e*PN | | **Pn** | **13 11 22.9** | | **-0.5** |
| **WHZ** | **Wether Hill Ro** | **4.21** | **235** | *e*Pn | | **Pn** | **13 11 23.2** | | **-0.3** |
| **WHZ** | **Wether Hill Ro** | **4.21** | **235** | PN | | **Pn** | **13 11 22.9** | | **-0.6** |
| **NMEZ** | **Namu Road** | **4.22** | **11** | Pn | | **Pn** | **13 11 26.2** | | **+2.6** |
| **NMEZ** | **Namu Road** | **4.22** | **11** | PN | | **Pn** | **13 11 26.2** | | **+2.6** |
| **LREZ** | **Lake Rotokare** | **4.26** | **16** | *e*PN | | **Pn** | **13 11 26.9** | | **+2.6** |
| **PRHZ** | **Porangahau** | **4.33** | **42** | Pn | | **Pn** | **13 11 24.6** | | **-0.5** |
| **PRHZ** | **Porangahau** | **4.33** | **42** | PN | | **Pn** | **13 11 24.3** | | **-0.8** |
| **PREZ** | **Palmer Road** | **4.33** | **13** | Pn | | **Pn** | **13 11 27.6** | | **+2.3** |
| **PREZ** | **Palmer Road** | **4.33** | **13** | PN | | **Pn** | **13 11 27.5** | | **+2.3** |
| **NWEZ** | **Newall Road** | **4.36** | **10** | *e*Pn | | **Pn** | **13 11 28.2** | | **+2.7** |
| **KHEZ** | **Kahui Hut** | **4.36** | **12** | Pn | | **Pn** | **13 11 27.6** | | **+2.0** |
| **KHEZ** | **Kahui Hut** | **4.36** | **12** | PN | | **Pn** | **13 11 27.4** | | **+1.8** |
| **NEZ** | **North Egmont** | **4.39** | **12** | Pn | | **Pn** | **13 11 27.9** | | **+1.8** |
| **NEZ** | **North Egmont** | **4.39** | **12** | *e*PN | | **Pn** | **13 11 27.8** | | **+1.7** |
| **PNHZ** | **Pukenui** | **4.42** | **35** | Pn | | **Pn** | **13 11 26.1** | | **-0.4** |
| **PNHZ** | **Pukenui** | **4.42** | **35** | PN | | **Pn** | **13 11 26.0** | | **-0.5** |
| **PKE** | **Pukeiti** | **4.45** | **11** | Pn | | **Pn** | **13 11 28.6** | | **+1.8** |
| **PKE** | **Pukeiti** | **4.45** | **11** | *e*PN | | **Pn** | **13 11 28.9** | | **+2.1** |
| **DREZ** | **Durham Road** | **4.49** | **13** | Pn | | **Pn** | **13 11 29.4** | | **+2.0** |
| **DREZ** | **Durham Road** | **4.49** | **13** | PN | | **Pn** | **13 11 29.2** | | **+1.9** |
| **DCZ** | **Deep Cove** | **4.51** | **243** | *e*Pn | | **Pn** | **13 11 27.7** | | **+0.1** |
| **DCZ** | **Deep Cove** | **4.51** | **243** | PN | | **Pn** | **13 11 27.2** | | **-0.4** |
| **MTVZ** | **Mangateitei** | **4.61** | **26** | Pn | | **Pn** | **13 11 30.9** | | **+1.8** |
| **PKVZ** | **Pokaka** | **4.66** | **24** | Pn | | **Pn** | **13 11 31.4** | | **+1.6** |
| **PKVZ** | **Pokaka** | **4.66** | **24** | *e*PN | | **Pn** | **13 11 31.5** | | **+1.7** |
| **VRZ** | **Vera Road** | **4.66** | **18** | Pn | | **Pn** | **13 11 31.2** | | **+1.5** |
| **VRZ** | **Vera Road** | **4.66** | **18** | PN | | **Pn** | **13 11 31.1** | | **+1.4** |
| VRZ | | | | SN | | **Sn** | **13 12 25.6** | | **+2.1** |
| **WNVZ** | **Wahianoa** | **4.71** | **27** | Pn | | **Pn** | **13 11 31.6** | | **+1.1** |
| **WNVZ** | **Wahianoa** | **4.71** | **27** | PN | | **Pn** | **13 11 31.4** | | **+0.9** |
| **BHHZ** | **Black Hill Sta** | **4.73** | **31** | Pn | | **Pn** | **13 11 30.9** | | **+0.2** |
| **BHHZ** | **Black Hill Sta** | **4.73** | **31** | *e*PN | | **Pn** | **13 11 30.7** | | **+0.1** |
| **APZ** | **The Paps** | **4.75** | **225** | Pn | | **Pn** | **13 11 31.5** | | **+0.5** |
| **APZ** | **The Paps** | **4.75** | **225** | PN | | **Pn** | **13 11 31.5** | | **+0.5** |
| **TUVZ** | **Tukino** | **4.78** | **27** | Pn | | **Pn** | **13 11 33.0** | | **+1.5** |
| **TUVZ** | **Tukino** | **4.78** | **27** | PN | | **Pn** | **13 11 32.8** | | **+1.4** |
| **KAHZ** | **Kahuranaki** | **4.82** | **40** | Pn | | **Pn** | **13 11 32.0** | | **+0.2** |
| **KAHZ** | **Kahuranaki** | **4.82** | **40** | *e*PN | | **Pn** | **13 11 31.1** | | **-0.7** |
| **NGZ** | **Ngauruhoe** | **4.85** | **26** | Pn | | **Pn** | **13 11 33.4** | | **+0.9** |
| **NGZ** | **Ngauruhoe** | **4.85** | **26** | *e*PN | | **Pn** | **13 11 33.3** | | **+0.9** |
| **OTVZ** | **Oturere** | **4.88** | **26** | Pn | | **Pn** | **13 11 33.5** | | **+0.6** |
| **OTVZ** | **Oturere** | **4.88** | **26** | PN | | **Pn** | **13 11 33.4** | | **+0.6** |
| **TWVZ** | **Taurewa** | **4.89** | **24** | Pn | | **Pn** | **13 11 34.0** | | **+1.1** |
| **TWVZ** | **Taurewa** | **4.89** | **24** | PN | | **Pn** | **13 11 34.0** | | **+1.1** |
| **KWHZ** | **Kaweka Forest** | **4.92** | **34** | PN | | **Pn** | **13 11 32.9** | | **-0.4** |
| KWHZ | | | | AML | | AML | 13 12 32.1 | | |
| **KRVZ** | **Karewarewa** | **4.93** | **26** | Pn | | **Pn** | **13 11 34.6** | | **+1.0** |
| **KRVZ** | **Karewarewa** | **4.93** | **26** | *e*PN | | **Pn** | **13 11 34.6** | | **+1.0** |
| **MCHZ** | **McNeill Hill** | **5.02** | **36** | Pn | | **Pn** | **13 11 35.0** | | **+0.3** |
| **MCHZ** | **McNeill Hill** | **5.02** | **36** | *e*PN | | **Pn** | **13 11 34.8** | | **+0.1** |
| **PYZ** | **Puysegur Point** | **5.11** | **237** | *e*PN | | **Pn** | **13 11 33.5** | | **-2.4** |
| **BKZ** | **Black Stump Fm** | **5.17** | **33** | *e*Pn | | **Pn** | **13 11 35.8** | | **-0.9** |
| **BKZ** | **Black Stump Fm** | **5.17** | **33** | *e*PN | | **Pn** | **13 11 36.4** | | **-0.4** |
| **HIZ** | **Hauiti** | **5.27** | **17** | *e*Pn | | **Pn** | **13 11 38.9** | | **+0.8** |
| **HIZ** | **Hauiti** | **5.27** | **17** | PN | | **Pn** | **13 11 38.8** | | **+0.7** |
| **TLZ** | **Tolley Road** | **5.61** | **22** | Pn | | **Pn** | **13 11 43.1** | | **+0.3** |
| **TLZ** | **Tolley Road** | **5.61** | **22** | *e*PN | | **Pn** | **13 11 43.1** | | **+0.3** |
| **SNGZ** | **Shannon Statio** | **5.85** | **37** | Pn | | **Pn** | **13 11 45.0** | | **-1.0** |
| **SNGZ** | **Shannon Statio** | **5.85** | **37** | PN | | **Pn** | **13 11 44.2** | | **-1.8** |
| **TARZ** | **Mount Tarawera** | **6.00** | **28** | Pn | | Pg | 13 12 34.5 | +20 | |
| **URZ** | **Urewera** | **6.20** | **33** | Pn | | **Pn** | **13 11 49.2** | | **-1.6** |
| | 1.0nm,0.3s,baz=266,slow=2.6,SNR=6.8 | | | | | | | | |
| URZ | | | | Sn | | **Sn** | **13 12 56.6** | | **-4.8** |
| | 1.5nm,0.3s,baz=89,slow=21,SNR=5.7 | | | | | | | | |
| **URZ** | **Urewera** | **6.20** | **33** | *e*Pn | | **Pn** | **13 11 49.9** | | **-0.9** |
| **MWZ** | **Matawai** | **6.30** | **35** | Pn | | **Pn** | **13 11 49.9** | | **-2.4** |
| **MWZ** | **Matawai** | **6.30** | **35** | PN | | **Pn** | **13 11 49.8** | | **-2.5** |
| **AWAZ** | **Awhitu Peninsu** | **6.64** | **12** | PN | | **Pn** | **13 11 58.0** | | **+1.1** |
| **RUGZ** | **Raukumara Rang** | **6.68** | **35** | PN | | **Pn** | **13 11 56.8** | | **-0.7** |
| **ETAZ** | **East Tamaki Re** | **6.79** | **14** | Pn | | **Pn** | **13 12 00.0** | | **+1.1** |
| **ETAZ** | **East Tamaki Re** | **6.79** | **14** | PN | | **Pn** | **13 12 00.0** | | **+1.1** |
| **CTZ** | **Chatham Island** | **7.62** | **95** | Pn | | **Pn** | **13 12 10.1** | | **-0.2** |
| **CTZ** | **Chatham Island** | **7.62** | **95** | PN | | **Pn** | **13 12 10.1** | | **-0.2** |
| **ASAR** | **Alice Springs** | **37.61** | **289** | P | | **P** | **13 17 35.5** | | **+1.5** |
| | 0.3nm,0.8s,baz=129,slow=6.7,SNR=5.6 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **39.85** | **294** | P | | **P** | **13 17 53.9** | | **+1.0** |
| | 0.5nm,0.6s,baz=136,slow=7.5,SNR=7.3 | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **148.75** | **197** | PKPbc | | **PKPbc** | **13 30 09.6** | | **+2.8** |
| | 0.3nm,0.7s,baz=160,slow=4.6,SNR=2.5 | | | | | | | | |

**WEL 23 13:11:17.6±0.1, 43°49S×172°77E, h9km, ML3.5/11, 2C-1D, Error ellipse: s-maj=0.9km s-min=0.5km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | | Time | | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h | m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.14** | **233** | ⇑PG | | Pg | 13 11 20.9 | | +0.2 |
| CRLZ | | | | AML | | AML | 13 11 23.4 | | |
| CRLZ | | | | SG | | Sg | 13 11 23.5 | | +0.6 |
| CRLZ | | | | AML | | AML | 13 11 23.8 | | |
| **MQZ** | **McQueen's Vall** | **0.23** | **202** | ⇑PG | | Pg | 13 11 22.4 | | 0.0 |
| MQZ | | | | SG | | Sg | 13 11 25.9 | | +0.4 |
| MQZ | | | | AML | | AML | 13 11 26.1 | | |
| MQZ | | | | AML | | AML | 13 11 26.2 | | |
| **OXZ** | **Oxford** | **0.56** | **287** | P* | | Pg | 13 11 28.3 | | -0.2 |
| OXZ | | | | AML | | AML | 13 11 37.6 | | |
| OXZ | | | | AML | | AML | 13 11 37.6 | | |
| OXZ | | | | AML | | AML | 13 11 38.1 | | |
| OXZ | | | | AML | | AML | 13 11 38.1 | | |
| **LTZ** | **Lake Taylor** | **0.80** | **332** | ⇓P* | | Pg | 13 11 33.2 | | +0.1 |
| LTZ | | | | S* | | Sb | 13 11 44.0 | | -0.5 |
| LTZ | | | | AML | | AML | 13 11 45.1 | | |
| **KHZ** | **Kahutara** | **1.21** | **28** | P* | | Pn | 13 11 39.2 | | -1.4 |
| KHZ | | | | AML | | AML | 13 11 57.1 | | |
| KHZ | | | | AML | | AML | 13 11 57.8 | | |
| KHZ | | | | AML | | AML | 13 12 00.0 | | |
| **INZ** | **Inchbonnie** | **1.24** | **308** | *e*P* | | Pn | 13 11 39.9 | | -1.1 |
| **RPZ** | **Rata Peaks** | **1.27** | **259** | *e*P* | | Pn | 13 11 40.2 | | -1.3 |
| RPZ | | | | AML | | AML | 13 11 60.0 | | |
| RPZ | | | | AML | | AML | 13 12 01.4 | | |
| **WVZ** | **Waitaha Valley** | **1.54** | **285** | AML | | AML | 13 12 08.7 | | |
| **THZ** | **Tophouse** | **1.73** | **3** | AML | | AML | 13 12 12.3 | | |
| THZ | | | | AML | | AML | 13 12 12.6 | | |
| **DSZ** | **Denniston Nort** | **1.89** | **337** | AML | | AML | 13 12 14.3 | | |
| DSZ | | | | AML | | AML | 13 12 14.4 | | |
| **LBZ** | **Lake Benmore** | **2.07** | **244** | AML | | AML | 13 12 27.0 | | |
| LBZ | | | | AML | | AML | 13 12 28.2 | | |
| **ODZ** | **Otahua Downs** | **2.18** | **224** | AML | | AML | 13 12 27.5 | | |
| ODZ | | | | AML | | AML | 13 12 28.3 | | |

*ISCJB **23** 13:16:31.8±0.4, 37°96N±0°02×27°17E±0°04, h6km±5km, Error ellipse: s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NSTT | | | | *e*S | **Sn** | **13 24 49.3** | **0.0** |
| | baz=264 | | | | | | | |
| **ESL** | **Shilin** | **1.30** | **222** | *e*P | **Pg** | **13 24 32.6** | **-0.2** |
| | baz=217 | | | | | | | |
| ESL | | | | *e*S | **Sb** | **13 24 50.2** | **+0.6** |
| | baz=217 | | | | | | | |
| **IRIF** | **Iriomote-Funau** | **1.31** | **110** | P | **Pb** | **13 24 32.9** | **0.0** |
| IRIF | | | | S | **Sg** | **13 24 49.1** | **-0.9** |
| **WDT** | **Danda** | **1.54** | **228** | *e*P | **Pb** | **13 24 37.0** | **+0.2** |
| | baz=225 | | | | | | | |
| WDT | | | | *e*S | **Sg** | **13 24 56.6** | **-0.7** |
| | baz=225 | | | | | | | |
| **TYC** | **Yuchr** | **1.65** | **238** | *e*P | **Pn** | **13 24 38.0** | **+0.7** |
| | baz=236 | | | | | | | |
| TYC | | | | *e*S | **Sn** | **13 24 56.6** | **-2.2** |
| | baz=236 | | | | | | | |
| **ALS** | **Alishan** | **1.92** | **229** | *e*P | **Pb** | **13 24 43.1** | **-0.3** |
| | baz=226 | | | | | | | |
| ALS | | | | *e*S | **Sn** | **13 25 06.3** | **+0.3** |
| | baz=226 | | | | | | | |
| **CHN5** | **Tsauling** | **1.96** | **233** | *e*P | **Pb** | **13 24 43.1** | **-0.8** |
| | baz=231 | | | | | | | |
| CHN5 | | | | *e*S | **Sn** | **13 25 07.4** | **+0.8** |
| | baz=231 | | | | | | | |

*ECX **23** 13:38:45.1±0.4, 30.47N×114.02W, h10km, MD3.5, ML3.7*
*ISCJB **23** 13:38:47.2±1.2, 30.5N±0.1×114.2W±0.1, h10km, Error ellipse: s-maj=23.2km s-min=7.9km az=32.1*
*MEX **23** 13:38:48.4±0.6, 31.39N×113.94W, h18km±43km, MD3.8*
**ISC 23 13:38:47.7**±1.4, **30.5N**±0.2×**114.3W**±0.1, **h10km, n7, σ1§15/11, 2C, Gulf of California**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SPX** | **San Pedro Mart** | **1.14** | **297** | *e*P | **Pg** | **13 39 08.8** | **-0.8** |
| SPX | | | | *e*S | **Sn** | **13 39 27.8** | **+1.9** |
| SPX | | | | IAML | | 13 39 42.0 | |
| | comp=N,743nm,1.5s | | | | | | |
| SPX | | | | ⇑*e* | | 13 39 42.0 | |
| SPX | | | | ⇑*e* | | 13 39 47.4 | |
| SPX | | | | IAML | | 13 39 47.4 | |
| | comp=E,600nm,1.1s | | | | | | |
| **SPIG** | **San Pedro Mart** | **1.14** | **297** | *e*P | **Pg** | **13 39 09.1** | **-0.6** |
| SPIG | | | | *e*S | **Sn** | **13 39 25.6** | **-0.3** |
| **SPIG** | **San Pedro Mart** | **1.14** | **297** | *e*P | **Pg** | **13 39 08.6** | **-1.1** |
| **ECBX** | **El Chinero** | **1.14** | **325** | *e*P | **Pb** | **13 39 08.3** | **-1.3** |
| ECBX | | | | *e*S | **Sn** | **13 39 25.9** | **+0.4** |
| **CBX** | **Cerro Bola** | **2.70** | **312** | *e*P | **Pg** | **13 39 39.2** | **-0.3** |
| CBX | | | | *e*S | **Sg** | **13 40 15.9** | **+1.4** |
| **TJIG** | **Tijuana** | **2.78** | **313** | *e*P | **Pn** | **13 39 32.9** | **+0.5** |
| TJIG | | | | *e*S | Sn | 13 39 56.1 | -10 |
| **HSIG** | | **3.27** | **117** | *e*P | **Pn** | **13 39 39.7** | **+0.6** |

*DDA **23** 13:41:06.9, 37.08N×38.75E, h7km, Ml2.9*
*ISK **23** 13:41:07.8, 37.16N×38.86E, h2km, MD2.7*
*CSEM **23** 13:41:07.7±0.4, 37.11N×38.80E, h2km, MD2.7, Error ellipse: s-maj=10.0km s-min=9.2km az=84.0*
*ISCJB **23** 13:41:08.8±0.7, 37.16N±0.04×38.76E±0.07, h9km, Error ellipse: s-maj=8.3km s-min=5.3km az=11.1*
**ISC 23 13:41:08.4**±1.0, **37.13N**±0.04×**38.75E**±0.05, **h9km, n16, σ0§56/21, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SURC** | **SANLIURFA_SURC** | **0.27** | **203** | *i* P | **Pg** | **13 41 13.5** | **-0.4** |
| SURC | | | | *i* S | **Sb** | **13 41 20.8** | **+0.6** |
| **SURC** | **SANLIURFA_SURC** | **0.27** | **203** | P | **Pg** | **13 41 13.5** | **-0.4** |
| **URFA** | **Urfa** | **0.32** | **11** | *e*PG | **Pg** | **13 41 14.4** | **-0.3** |
| URFA | | | | *e*SG | **Sg** | **13 41 19.4** | **+0.4** |
| **URFA** | **Urfa** | **0.32** | **11** | *e*Pg | **Pg** | **13 41 14.4** | **-0.3** |
| URFA | | | | *e*Sg | **Sg** | **13 41 19.4** | **+0.4** |
| **ATAB** | **Bozova** | **0.49** | **313** | *i* P | **Pg** | **13 41 16.9** | **-1.1** |
| ATAB | | | | *i* S | **Sg** | **13 41 24.7** | **+0.2** |
| **ATAB** | **Bozova** | **0.49** | **313** | P | **Pg** | **13 41 17.0** | **-1.1** |
| ATAB | | | | S | **Sg** | **13 41 24.7** | **+0.2** |
| **MALT** | **Malatya** | **1.21** | **348** | *e*PN | **Pb** | **13 41 31.7** | **+0.2** |
| **MALT** | **Malatya** | **1.21** | **348** | *e*Pn | **Pb** | **13 41 31.7** | **+0.2** |
| **SVRC** | **Sivrice-ELAZID** | **1.32** | **19** | *e*PN | **Pn** | **13 41 33.1** | **-0.2** |
| **SVRC** | **Sivrice-ELAZID** | **1.32** | **19** | *e*Pn | **Pn** | **13 41 33.1** | **-0.2** |
| **MAZI** | **Mazidag** | **1.40** | **76** | *e*PN | **Pn** | **13 41 33.5** | **-0.7** |
| **MAZI** | **Mazidag** | **1.40** | **76** | *e*Pn | **Pn** | **13 41 33.5** | **-0.7** |
| **DARE** | **Darende-Malaty** | **1.75** | **326** | *e*PN | **Pb** | **13 41 41.3** | **+0.5** |
| **DARE** | **Darende-Malaty** | **1.75** | **326** | *e*Pn | **Pb** | **13 41 41.3** | **+0.5** |
| **PTK** | **Pertek** | **1.83** | **16** | *e*PN | **Pn** | **13 41 40.8** | **+0.5** |
| **PTK** | **Pertek** | **1.83** | **16** | *e*Pn | **Pn** | **13 41 40.8** | **+0.5** |

**DJA 23 13:42:30.3**±1.3, **8°S**±7°×**10°9E**±°, **h24km**±9km, **M3.8/7, MLv3.8/7, Jawa**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KPJI** | **Karang Pucung** | **1.20** | **336** | P | Pb | 13 42 52.7 | +0.4 |
| **UGM** | **Wanagama** | **1.20** | **65** | P | Pn | 13 42 51.3 | -0.3 |
| UGM | | | | S | Sn | 13 43 06.4 | -0.7 |
| **PCJI** | **Pacitan** | **1.75** | **82** | P | Pn | 13 42 58.4 | -0.7 |
| PCJI | | | | S | Sn | 13 43 19.4 | -1.2 |
| **PWJI** | **Pagerwojo** | **2.38** | **80** | P | Pn | 13 43 08.7 | +0.8 |
| PWJI | | | | S | Sn | 13 43 35.1 | -1.3 |
| **CNJI** | **Cibinong** | **2.54** | **296** | P | Pn | 13 43 08.7 | -1.3 |
| **SKJI** | **Sukabumi** | **3.18** | **296** | P | Pn | 13 43 18.8 | -0.1 |

**WEL 23 13:44:30.7**±0.1, **43°50S×172°82E, h8km**±1km, **ML3.5/8, 4C-2D, Error ellipse: s-maj=1.4km s-min=0.8km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.16** | **243** | ⇑PG | Pg | 13 44 34.2 | +0.1 |
| CRLZ | | | | SG | Sg | 13 44 36.9 | +0.6 |
| CRLZ | | | | AML | AML | 13 44 37.3 | |
| **MQZ** | **McQueen's Vall** | **0.24** | **210** | ⇑PG | Pg | 13 44 35.5 | 0.0 |
| MQZ | | | | SG | Sg | 13 44 39.1 | +0.5 |
| MQZ | | | | SG | | 13 44 39.2 | |
| MQZ | | | | AML | AML | 13 44 39.3 | |
| **OXZ** | **Oxford** | **0.59** | **287** | ⇓P* | Pg | 13 44 42.0 | -0.2 |
| OXZ | | | | S* | Sg | 13 44 50.3 | +0.4 |
| OXZ | | | | AML | AML | 13 44 52.1 | |
| OXZ | | | | AML | AML | 13 44 52.5 | |
| OXZ | | | | AML | AML | 13 44 52.5 | |
| **LTZ** | **Lake Taylor** | **0.82** | **331** | ⇓P* | Pg | 13 44 46.5 | 0.0 |
| LTZ | | | | S* | Sb | 13 44 58.0 | -0.5 |
| **INZ** | **Inchbonnie** | **1.27** | **307** | P* | Pn | 13 44 52.9 | -1.8 |
| **RPZ** | **Rata Peaks** | **1.30** | **260** | ⇑P* | Pn | 13 44 53.5 | -1.7 |
| RPZ | | | | AML | AML | 13 45 12.8 | |
| RPZ | | | | AML | AML | 13 45 14.9 | |
| **WVZ** | **Waitaha Valley** | **1.58** | **285** | *e*PN | Pn | 13 44 57.8 | -1.2 |
| **THZ** | **Tophouse** | **1.74** | **2** | ⇑PN | Pn | 13 44 59.8 | -1.5 |
| THZ | | | | SN | Sn | 13 45 21.5 | -2.1 |
| THZ | | | | AML | AML | 13 45 32.9 | |
| **DSZ** | **Denniston Nort** | **1.91** | **337** | PN | Pn | 13 45 02.4 | -1.2 |
| **LBZ** | **Lake Benmore** | **2.10** | **244** | PN | Pn | 13 45 05.1 | -1.1 |
| LBZ | | | | AML | AML | 13 45 42.8 | |
| LBZ | | | | AML | AML | 13 45 47.1 | |
| **FOZ** | **Fox Glacier** | **2.18** | **268** | PN | Pn | 13 45 07.1 | -0.2 |
| FOZ | | | | SN | Sn | 13 45 33.2 | -1.3 |
| **ODZ** | **Otahua Downs** | **2.19** | **225** | PN | Pn | 13 45 05.9 | -1.5 |
| ODZ | | | | AML | AML | 13 45 47.3 | |
| ODZ | | | | AML | AML | 13 45 48.1 | |
| **QRZ** | **Quartz Range** | **2.68** | **355** | *e*PN | Pn | 13 45 13.1 | -1.0 |
| **DUWZ** | **D'Urville Isla** | **2.82** | **17** | *e*PN | Pn | 13 45 15.4 | -0.7 |
| **HHSZ** | **Highcliff Hill** | **2.86** | **213** | PN | Pn | 13 45 14.7 | -1.9 |
| **CAW** | **Cannon Point** | **2.92** | **36** | *e*PN | Pn | 13 45 15.1 | -2.3 |
| **JCZ** | **Jackson Bay** | **2.97** | **258** | PN | Pn | 13 45 17.2 | -1.1 |
| **WKZ** | **Wanaka** | **3.04** | **243** | PN | Pn | 13 45 17.6 | -1.5 |
| **EAZ** | **Earnscleugh** | **3.05** | **234** | PN | Pn | 13 45 17.8 | -1.4 |
| **MLZ** | **Mavora Lakes** | **3.85** | **239** | PN | Pn | 13 45 28.1 | -2.1 |
| **SYZ** | **Scrubby Hill** | **4.00** | **219** | PN | Pn | 13 45 30.8 | -1.4 |
| **DCZ** | **Deep Cove** | **4.50** | **242** | PN | Pn | 13 45 37.4 | -1.8 |
| **APZ** | **The Paps** | **4.77** | **224** | *e*PN | Pn | 13 45 40.8 | -2.0 |

*ISK **23** 13:48:00.6, 39.58N×28.80E, h9km, MD2.5*
*CSEM **23** 13:48:01.7±0.4, 39.62N×28.84E, h2km, MD2.5, Error ellipse: s-maj=8.4km s-min=6.3km az=124.0*
*DDA **23** 13:48:01.7, 39.66N×28.95E, h7km, Ml2.7*
**ISC 23 13:48:01.3**±1.2, **39.63N**±0.03×**28.82E**±0.03, **h4km**±10km, **n21, σ0§75/32, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DST** | **Dursunbey** | **0.16** | **259** | *e*PG | **Pg** | **13 48 04.2** | **-0.2** |
| **DST** | **Dursunbey** | **0.16** | **259** | *e*Pg | **Pg** | **13 48 04.2** | **-0.2** |
| **TVSB** | **Tavsanli** | **0.53** | **110** | *e*PG | **Pg** | **13 48 11.3** | **-0.1** |
| TVSB | | | | *e*SG | **Sg** | **13 48 19.1** | **+0.8** |
| **TVSB** | **Tavsanli** | **0.53** | **110** | *e*Pg | **Pg** | **13 48 11.4** | **-0.1** |
| TVSB | | | | *e*Sg | **Sg** | **13 48 19.1** | **+0.8** |
| **IGD** | **Bursa** | **0.69** | **25** | *i* P | **Pg** | **13 48 14.2** | **-0.4** |
| IGD | | | | *i* S | **Sg** | **13 48 23.4** | **-0.2** |
| **GDZ** | **Gediz** | **0.75** | **136** | *i* P | **Pg** | **13 48 15.2** | **-0.4** |
| GDZ | | | | *i* S | **Sg** | **13 48 24.4** | **-0.8** |
| **GDZ** | **Gediz** | **0.75** | **136** | P | **Pg** | **13 48 15.2** | **-0.4** |
| GDZ | | | | S | **Sg** | **13 48 24.5** | **-0.8** |
| **CAVI** | **Cavuskoy** | **0.97** | **54** | *e*PG | **Pg** | **13 48 20.3** | **+0.4** |
| CAVI | | | | *e*SG | **Sn** | **13 48 34.7** | **-1.2** |
| **CAVI** | **Cavuskoy** | **0.97** | **54** | *e*Pg | **Pg** | **13 48 20.3** | **+0.4** |
| CAVI | | | | *e*Sg | **Sn** | **13 48 34.7** | **-1.2** |
| **YLV** | **Yalova** | **1.02** | **24** | *e*PG | **Pg** | **13 48 21.2** | **+0.3** |
| YLV | | | | *e*SG | **Sn** | **13 48 37.2** | **-0.1** |
| **YLV** | **Yalova** | **1.02** | **24** | *e*Pg | **Pg** | **13 48 21.2** | **+0.3** |
| YLV | | | | *e*Sg | **Sn** | **13 48 37.2** | **-0.1** |
| **AKHS** | **Akhisar** | **1.08** | **226** | *i* P | **Pn** | **13 48 24.4** | **+1.2** |
| **AKHS** | **Akhisar** | **1.08** | **226** | P | **Pn** | **13 48 24.5** | **+1.2** |
| **KULA** | **Kula-Manisa** | **1.12** | **186** | *e*PG | **Pg** | **13 48 21.5** | **-1.3** |
| **KULA** | **Kula-Manisa** | **1.12** | **186** | *e*Pg | **Pg** | **13 48 21.5** | **-1.3** |
| **MANT** | **Manisa** | **1.16** | **190** | *i* P | **Pn** | **13 48 24.5** | **+0.1** |
| **MANT** | **Manisa** | **1.16** | **190** | P | **Pn** | **13 48 24.5** | **+0.1** |
| **KHAL** | **Karahalli** | **1.37** | **157** | *i* P | **Pg** | **13 48 28.6** | **+1.1** |
| KHAL | | | | *i* S | **Sn** | **13 48 46.0** | **+0.2** |
| **KHAL** | **Karahalli** | **1.37** | **157** | P | **Pg** | **13 48 28.6** | **+1.1** |
| KHAL | | | | S | **Sn** | **13 48 46.0** | **+0.2** |
| **GULT** | **Gulveren** | **1.53** | **58** | *e*PN | **Pn** | **13 48 29.2** | **-0.2** |
| **GULT** | **Gulveren** | **1.53** | **58** | *e*Pn | **Pn** | **13 48 29.2** | **-0.2** |

**WEL 23 13:48:54.1**±0.1, **43°56S×172°74E, h11km**±1km, **ML3.1/5, 2C-2D, Error ellipse: s-maj=1.6km s-min=0.9km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.09** | **258** | ⇑PG | Pg | 13 48 56.7 | +0.1 |
| CRLZ | | | | SG | Sg | 13 48 58.5 | +0.1 |
| CRLZ | | | | AML | AML | 13 48 58.8 | |
| **MQZ** | **McQueen's Vall** | **0.16** | **202** | ⇑PG | Pg | 13 48 57.9 | +0.2 |
| MQZ | | | | SG | Sg | 13 49 01.0 | +0.7 |
| MQZ | | | | SG | Sg | 13 49 01.0 | +0.7 |
| MQZ | | | | AML | AML | 13 49 01.1 | |
| **OXZ** | **Oxford** | **0.56** | **294** | ⇓P* | Pg | 13 49 04.7 | -0.2 |
| OXZ | | | | S* | Sg | 13 49 12.7 | +0.3 |
| OXZ | | | | AML | AML | 13 49 14.9 | |
| OXZ | | | | AML | AML | 13 49 14.9 | |
| OXZ | | | | AML | AML | 13 49 15.0 | |
| **LTZ** | **Lake Taylor** | **0.85** | **336** | ⇓P* | Pg | 13 49 09.9 | -0.5 |
| LTZ | | | | S* | Sg | 13 49 21.3 | -0.2 |
| LTZ | | | | AML | AML | 13 49 22.3 | |
| **RPZ** | **Rata Peaks** | **1.23** | **262** | P* | Pn | 13 49 16.0 | -1.2 |
| RPZ | | | | AML | AML | 13 49 36.7 | |
| **INZ** | **Inchbonnie** | **1.26** | **311** | *e*P* | Pn | 13 49 16.0 | -0.7 |
| **KHZ** | **Kahutara** | **1.28** | **28** | PN | Pn | 13 49 15.9 | -2.0 |
| **WVZ** | **Waitaha Valley** | **1.54** | **288** | *e*PN | Pn | 13 49 21.2 | -0.3 |
| **ODZ** | **Otahua Downs** | **2.11** | **225** | PN | Pn | 13 49 28.3 | -1.0 |

*ISCJB **23** 13:49:30.9±0.4, 43.58S±0.04×173.01E±0.05, h10km, mb3.6/3, Error ellipse: s-maj=8.0km s-min=2.7km az=138.2*
*WEL **23** 13:49:33.7±0.1, 43.48S×172.82E, h10km, ML4.1/37, Mw3.8, Error ellipse: s-maj=1.2km s-min=0.7km az=90.0*
*WEL Felt in the Canterbury region, maximum reported intensity MM 4.*
*NEIC **23** 13:49:33.6±0.0, 43.50S×172.82E, h12km, mb3.9/1, ML4.2(WEL), After WEL.*
*NEIC Felt at Christchurch.*
*IDC **23** 13:49:33.9±1.8, 43.04S×172.53E, h0km, mb3.6/2, mb1 3.8/3, mb1mx3.7/21, mbtmp3.6/3, ML3.0/1, MS3.6/1, Ms1 3.6/1, ms1mx2.8/16, Error ellipse: s-maj=44.4km s-min=16.2km az=139.0*
**ISC 23 13:49:32.3**±0.9, **43.50S**±0.04×**172.92E**±0.05, **h10km, n106, σ1§20/102, mb3.5/3, 5C-3D, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.23** | **251** | *e*Pg | **Pg** | **13 49 37.7** | **+0.7** |
| **CRLZ** | **Canterbury Las** | **0.23** | **251** | ⇑PG | **Pg** | **13 49 37.6** | **+0.5** |
| CRLZ | | | | AML | AML | 13 49 40.7 | |
| CRLZ | | | | AML | AML | 13 49 40.7 | |
| CRLZ | | | | AML | AML | 13 49 40.7 | |
| CRLZ | | | | AML | AML | 13 49 42.9 | |
| **MQZ** | **McQueen's Vall** | **0.28** | **223** | *e*Pg | **Pg** | **13 49 39.0** | **+1.0** |
| **MQZ** | **McQueen's Vall** | **0.28** | **223** | PG | **Pg** | **13 49 38.9** | **+0.8** |
| MQZ | | | | SG | **Sg** | **13 49 42.8** | **+0.9** |
| MQZ | | | | AML | AML | 13 49 43.1 | |
| MQZ | | | | AML | AML | 13 49 43.5 | |
| **OXZ** | **Oxford** | **0.67** | **285** | *e*Pg | **Pg** | **13 49 45.2** | **0.0** |
| **OXZ** | **Oxford** | **0.67** | **285** | P* | **Pg** | **13 49 45.0** | **-0.2** |
| OXZ | | | | AML | AML | 13 49 54.3 | |
| OXZ | | | | AML | AML | 13 49 54.3 | |
| OXZ | | | | AML | AML | 13 49 55.1 | |
| OXZ | | | | AML | AML | 13 49 55.1 | |
| **LTZ** | **Lake Taylor** | **0.86** | **326** | *e*Pg | **Pg** | **13 49 49.3** | **+0.4** |
| **KHZ** | **Kahutara** | **1.17** | **23** | *e*Pn | **Pb** | **13 49 54.9** | **+0.3** |
| **KHZ** | **Kahutara** | **1.17** | **23** | ⇑P* | **Pb** | **13 49 55.0** | **+0.4** |
| KHZ | | | | AML | AML | 13 50 11.2 | |
| KHZ | | | | AML | AML | 13 50 11.2 | |
| KHZ | | | | AML | AML | 13 50 11.6 | |
| KHZ | | | | AML | AML | 13 50 11.6 | |
| **INZ** | **Inchbonnie** | **1.33** | **305** | P* | **Pn** | **13 49 55.8** | **-1.1** |
| **RPZ** | **Rata Peaks** | **1.37** | **260** | Pg | **Pb** | **13 49 58.5** | **+0.4** |
| | 126nm,0.3s,baz=99,slow=3.0,SNR=81 | | | | | | |
| RPZ | | | | Lg | Lg | 13 50 14.0 | |
| | 144nm,0.3s,baz=42,slow=15,SNR=13 | | | | | | |
| RPZ | | | | LR | LR | 13 50 29.8 | |
| | comp=Z,75nm,21.4s,baz=90,slow=44 | | | | | | |
| **RPZ** | **Rata Peaks** | **1.37** | **260** | *e*Pn | **Pn** | **13 49 56.8** | **-0.8** |
| **RPZ** | **Rata Peaks** | **1.37** | **260** | ⇓PN | **Pn** | **13 49 56.7** | **-0.9** |
| RPZ | | | | AML | AML | 13 50 19.4 | |
| RPZ | | | | AML | AML | 13 50 31.6 | |
| **WVZ** | **Waitaha Valley** | **1.65** | **284** | Pn | **Pn** | **13 50 00.7** | **-0.6** |
| **WVZ** | **Waitaha Valley** | **1.65** | **284** | ⇓PN | **Pn** | **13 50 00.7** | **-0.6** |
| WVZ | | | | AML | AML | 13 50 31.9 | |
| WVZ | | | | AML | AML | 13 50 32.0 | |
| **THZ** | **Tophouse** | **1.74** | **360** | *e*Pn | **Pn** | **13 50 02.7** | **+0.1** |
| **THZ** | **Tophouse** | **1.74** | **360** | PN | **Pn** | **13 50 02.6** | **+0.1** |
| THZ | | | | AML | AML | 13 50 27.0 | |
| THZ | | | | AML | AML | 13 50 28.8 | |
| **BSWZ** | **Blackbirch Sta** | **1.92** | **22** | PN | **Pn** | **13 50 05.2** | **+0.2** |
| BSWZ | | | | AML | AML | 13 50 31.1 | |
| BSWZ | | | | AML | AML | 13 50 52.8 | |
| **DSZ** | **Denniston Nort** | **1.94** | **334** | PN | **Pn** | **13 50 05.1** | **-0.2** |
| DSZ | | | | AML | AML | 13 50 30.1 | |
| DSZ | | | | AML | AML | 13 50 37.7 | |
| DSZ | | | | AML | AML | 13 50 37.7 | |
| DSZ | | | | AML | AML | 13 50 40.8 | |
| **LBZ** | **Lake Benmore** | **2.17** | **245** | *e*Pn | **Pn** | **13 50 09.4** | **+0.9** |
| **LBZ** | **Lake Benmore** | **2.17** | **245** | PN | **Pn** | **13 50 08.9** | **+0.4** |
| LBZ | | | | AML | AML | 13 50 49.1 | |
| LBZ | | | | AML | AML | 13 50 49.1 | |
| LBZ | | | | AML | AML | 13 50 49.6 | |
| LBZ | | | | AML | AML | 13 50 49.6 | |
| **TUWZ** | **Tuamarina** | **2.20** | **20** | AML | AML | 13 50 57.5 | |
| TUWZ | | | | AML | AML | 13 51 01.6 | |
| **ODZ** | **Otahua Downs** | **2.25** | **226** | *e*Pn | **Pn** | **13 50 10.3** | **+0.7** |
| **ODZ** | **Otahua Downs** | **2.25** | **226** | AML | AML | 13 50 50.7 | |
| ODZ | | | | AML | AML | 13 50 50.7 | |
| ODZ | | | | AML | AML | 13 50 59.4 | |
| ODZ | | | | AML | AML | 13 50 59.4 | |
| **FOZ** | **Fox Glacier** | **2.26** | **268** | *e*Pn | **Pn** | **13 50 10.9** | **+1.1** |
| **FOZ** | **Fox Glacier** | **2.26** | **268** | PN | **Pn** | **13 50 10.5** | **+0.8** |
| FOZ | | | | AML | AML | 13 50 53.0 | |
| FOZ | | | | AML | AML | 13 50 53.0 | |
| FOZ | | | | AML | AML | 13 50 54.5 | |
| FOZ | | | | AML | AML | 13 50 54.5 | |
| **NNZ** | **Nelson** | **2.31** | **9** | PN | **Pn** | **13 50 11.0** | **+0.6** |
| NNZ | | | | AML | AML | 13 51 00.3 | |
| NNZ | | | | AML | AML | 13 51 05.3 | |
| **TCW** | **Tory Channel** | **2.50** | **24** | Pn | **Pn** | **13 50 13.0** | **0.0** |
| **TCW** | **Tory Channel** | **2.50** | **24** | *e*PN | **Pn** | **13 50 12.9** | **-0.1** |
| TCW | | | | AML | AML | 13 50 56.0 | |
| TCW | | | | AML | AML | 13 50 56.4 | |
| **BHW** | **Baring Head** | **2.54** | **35** | Pn | **Pn** | **13 50 13.5** | **-0.1** |
| **BHW** | **Baring Head** | **2.54** | **35** | PN | **Pn** | **13 50 13.5** | **-0.1** |
| **SNZO** | **South Karori** | **2.56** | **32** | *e*Pn | **Pn** | **13 50 13.7** | **-0.1** |
| **PLWZ** | **Palliser** | **2.59** | **43** | Pn | **Pn** | **13 50 13.8** | **-0.5** |
| **PLWZ** | **Palliser** | **2.59** | **43** | PN | **Pn** | **13 50 13.8** | **-0.5** |
| PLWZ | | | | AML | AML | 13 51 20.8 | |
| **QRZ** | **Quartz Range** | **2.69** | **354** | AML | AML | 13 50 28.2 | |
| QRZ | | | | AML | AML | 13 50 28.2 | |
| QRZ | | | | AML | AML | 13 51 09.0 | |
| QRZ | | | | AML | AML | 13 51 09.0 | |
| **MSWZ** | **Moikau Station** | **2.70** | **40** | Pn | **Pn** | **13 50 15.5** | **-0.4** |
| **MSWZ** | **Moikau Station** | **2.70** | **40** | PN | **Pn** | **13 50 15.4** | **-0.5** |
| MSWZ | | | | AML | AML | 13 50 54.4 | |
| MSWZ | | | | AML | AML | 13 50 58.0 | |
| **DUWZ** | **D'Urville Isla** | **2.80** | **16** | Pn | **Pn** | **13 50 18.4** | **+1.3** |
| **DUWZ** | **D'Urville Isla** | **2.80** | **16** | PN | **Pn** | **13 50 17.7** | **+0.6** |
| DUWZ | | | | AML | AML | 13 51 07.5 | |
| DUWZ | | | | AML | AML | 13 51 09.7 | |
| **CAW** | **Cannon Point** | **2.87** | **34** | Pn | **Pn** | **13 50 18.0** | **-0.2** |
| **CAW** | **Cannon Point** | **2.87** | **34** | PN | **Pn** | **13 50 18.0** | **-0.2** |
| CAW | | | | AML | AML | 13 51 02.6 | |
| CAW | | | | AML | AML | 13 51 03.5 | |
| **HHSZ** | **Highcliff Hill** | **2.90** | **214** | Pn | **Pn** | **13 50 18.3** | **-0.3** |
| **HHSZ** | **Highcliff Hill** | **2.90** | **214** | ⇑PN | **Pn** | **13 50 18.3** | **-0.3** |
| HHSZ | | | | AML | AML | 13 51 14.2 | |
| HHSZ | | | | AML | AML | 13 51 19.9 | |
| **KIW** | **Kapiti Island** | **3.02** | **30** | Pn | **Pn** | **13 50 20.2** | **0.0** |
| **KIW** | **Kapiti Island** | **3.02** | **30** | PN | **Pn** | **13 50 20.2** | **0.0** |
| **MTW** | **Mount Morrison** | **3.02** | **40** | Pn | **Pn** | **13 50 19.6** | **-0.7** |
| **MTW** | **Mount Morrison** | **3.02** | **40** | ⇓PN | **Pn** | **13 50 19.6** | **-0.7** |
| MTW | | | | AML | AML | 13 50 55.6 | |
| MTW | | | | AML | AML | 13 50 59.5 | |
| **JCZ** | **Jackson Bay** | **3.05** | **258** | Pn | **Pn** | **13 50 20.8** | **+0.1** |
| **JCZ** | **Jackson Bay** | **3.05** | **258** | PN | **Pn** | **13 50 20.8** | **+0.1** |
| JCZ | | | | AML | AML | 13 51 14.2 | |
| JCZ | | | | AML | AML | 13 51 22.1 | |
| **WKZ** | **Wanaka** | **3.11** | **243** | *e*Pn | **Pn** | **13 50 21.9** | **+0.4** |
| **WKZ** | **Wanaka** | **3.11** | **243** | *e*PN | **Pn** | **13 50 21.5** | **+0.1** |
| WKZ | | | | AML | AML | 13 51 20.7 | |
| WKZ | | | | AML | AML | 13 51 21.0 | |
| **EAZ** | **Earnscleugh** | **3.12** | **235** | Pn | **Pn** | **13 50 21.2** | **-0.3** |
| **EAZ** | **Earnscleugh** | **3.12** | **235** | ⇑PN | **Pn** | **13 50 21.2** | **-0.3** |
| EAZ | | | | AML | AML | 13 51 17.1 | |
| EAZ | | | | AML | AML | 13 51 17.1 | |
| EAZ | | | | AML | AML | 13 51 21.7 | |
| EAZ | | | | AML | AML | 13 51 21.8 | |
| **OGWZ** | **Otaki Gorge** | **3.16** | **33** | Pn | **Pn** | **13 50 21.9** | **-0.1** |
| **OGWZ** | **Otaki Gorge** | **3.16** | **33** | PN | **Pn** | **13 50 21.9** | **-0.1** |
| OGWZ | | | | AML | AML | 13 51 07.6 | |
| OGWZ | | | | AML | AML | 13 51 08.9 | |
| **HOWZ** | **Holdsworth Sta** | **3.24** | **37** | Pn | **Pn** | **13 50 22.8** | **-0.4** |
| **HOWZ** | **Holdsworth Sta** | **3.24** | **37** | PN | **Pn** | **13 50 22.8** | **-0.4** |
| HOWZ | | | | AML | AML | 13 51 09.1 | |
| HOWZ | | | | AML | AML | 13 51 09.8 | |
| **TUZ** | **Tuapeka** | **3.40** | **223** | PN | **Pn** | **13 50 25.0** | **-0.3** |
| TUZ | | | | AML | AML | 13 51 29.4 | |
| TUZ | | | | AML | AML | 13 51 29.5 | |
| TUZ | | | | AML | AML | 13 51 30.7 | |
| TUZ | | | | AML | AML | 13 51 30.7 | |
| **MRZ** | **Mangatainoka R** | **3.46** | **36** | *e*PN | **Pn** | **13 50 25.6** | **-0.6** |
| MRZ | | | | AML | AML | 13 51 09.9 | |
| MRZ | | | | AML | AML | 13 51 15.5 | |
| **TIWZ** | **Tintock** | **3.50** | **40** | Pn | **Pn** | **13 50 26.0** | **-0.9** |
| **TIWZ** | **Tintock** | **3.50** | **40** | PN | **Pn** | **13 50 25.8** | **-1.1** |
| TIWZ | | | | AML | AML | 13 51 10.1 | |
| TIWZ | | | | AML | AML | 13 51 11.9 | |
| **BFZ** | **Birch Farm** | **3.75** | **42** | *e*Pn | **Pn** | **13 50 28.5** | **-1.7** |
| **MLZ** | **Mavora Lakes** | **3.91** | **240** | *e*Pn | **Pn** | **13 50 31.8** | **-0.7** |
| **MLZ** | **Mavora Lakes** | **3.91** | **240** | *e*PN | **Pn** | **13 50 31.7** | **-0.7** |
| MLZ | | | | AML | AML | 13 51 39.5 | |
| MLZ | | | | AML | AML | 13 51 42.0 | |
| **ANWZ** | **Angora Road** | **4.03** | **42** | PN | **Pn** | **13 50 32.8** | **-1.2** |
| ANWZ | | | | AML | AML | 13 51 27.7 | |
| ANWZ | | | | AML | AML | 13 51 32.7 | |
| **SYZ** | **Scrubby Hill** | **4.05** | **220** | Pn | **Pn** | **13 50 34.5** | **+0.2** |
| **SYZ** | **Scrubby Hill** | **4.05** | **220** | ⇑PN | **Pn** | **13 50 34.5** | **+0.2** |
| SYZ | | | | AML | AML | 13 51 46.9 | |
| SYZ | | | | AML | AML | 13 51 55.5 | |
| **LREZ** | **Lake Rotokare** | **4.19** | **16** | AML | AML | 13 51 54.9 | |
| **PREZ** | **Palmer Road** | **4.26** | **13** | Pn | **Pn** | **13 50 39.6** | **+2.4** |
| **PREZ** | **Palmer Road** | **4.26** | **13** | *e*Pn | **Pn** | **13 50 39.3** | **+2.1** |
| PREZ | | | | AML | AML | 13 51 53.5 | |
| PREZ | | | | AML | AML | 13 52 00.8 | |
| **WHZ** | **Wether Hill Ro** | **4.28** | **234** | *e*Pn | **Pn** | **13 50 36.0** | **-1.5** |
| **WHZ** | **Wether Hill Ro** | **4.28** | **234** | PN | **Pn** | **13 50 35.9** | **-1.6** |
| WHZ | | | | AML | AML | 13 52 02.0 | |
| WHZ | | | | AML | AML | 13 52 03.4 | |
| **NWEZ** | **Newall Road** | **4.28** | **10** | Pn | **Pn** | **13 50 39.9** | **+2.4** |
| **KHEZ** | **Kahui Hut** | **4.28** | **11** | Pn | **Pn** | **13 50 40.8** | **+3.2** |
| **KHEZ** | **Kahui Hut** | **4.28** | **11** | *e*PN | **Pn** | **13 50 40.2** | **+2.6** |
| **NEZ** | **North Egmont** | **4.32** | **12** | Pn | **P

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TLL** | **Tololo Astrono** | **1.03** | **317** | *eP* | **Pn** | **14 04 10.0** | **-0.8** |
| TLL | | | | *i* S | **Sn** | **14 04 26.5** | **+0.3** |
| TLL | | | | IAML | | 14 04 30.4 | |
| | comp=N,299nm,0.7s | | | | | | |
| **RTLS** | **Leoncito** | **1.05** | **146** | *eP* | **Pn** | **14 04 10.5** | **-0.5** |
| RTLS | | | | *eS* | **Sn** | **14 04 27.3** | **+0.7** |
| **AMOG** | **MOGNA** | **1.28** | **91** | *eP* | **Pn** | **14 04 13.5** | **0.0** |
| AMOG | | | | *eS* | **Sn** | **14 04 32.3** | **+1.3** |
| **RTLL** | **Cerro Villicun** | **1.36** | **108** | *eP* | **Pn** | **14 04 13.4** | **-1.0** |
| RTLL | | | | *eS* | **Sn** | **14 04 32.8** | **+0.1** |
| **RTLL** | **Cerro Villicun** | **1.36** | **108** | *eP* | **Pn** | **14 04 13.4** | **-1.0** |
| RTLL | | | | *i* S | **Sn** | **14 04 32.1** | **-0.5** |
| RTLL | | | | IAML | | 14 04 35.9 | |
| | comp=E,320nm,0.3s | | | | | | |
| **AUSP** | **Uspallata** | **1.39** | **159** | *eP* | **Pn** | **14 04 14.2** | **-0.9** |
| AUSP | | | | *eS* | **Sn** | **14 04 33.0** | **-0.7** |
| **RTCV** | **Cerro Valdivia** | **1.55** | **127** | *eP* | **Pn** | **14 04 16.1** | **-0.7** |
| RTCV | | | | *eS* | **Sn** | **14 04 37.6** | **+0.8** |
| **ASAL** | **Salagasta** | **1.93** | **150** | *eP* | **Pn** | **14 04 20.5** | **-1.2** |
| **AGUA** | **GUANDACOL** | **1.93** | **42** | *eP* | **Pn** | **14 04 22.8** | **+1.0** |
| AGUA | | | | *eS* | **Sn** | **14 04 48.1** | **+2.4** |
| **LCO** | **Las Campanas** | **2.01** | **342** | *eP* | **Pn** | **14 04 21.8** | **-1.2** |
| LCO | | | | *i* S | **Sn** | **14 04 47.1** | **-0.6** |
| LCO | | | | IAML | | 14 04 49.1 | |
| | comp=E,102nm,0.3s | | | | | | |
| **ARCO** | **CERRO ARCO** | **2.11** | **155** | *eP* | **Pn** | **14 04 23.1** | **-1.1** |
| ARCO | | | | IAML | | 14 04 23.5 | |
| | comp=Z,44nm,0.3s | | | | | | |
| **ROCH** | **El Roble** | **2.22** | **203** | *eP* | Pn | 14 04 28.5 | +2.9 |
| ROCH | | | | *i* S | **Sn** | **14 04 55.5** | **+2.8** |
| ROCH | | | | IAML | | 14 04 59.3 | |
| | comp=N,145nm,0.2s | | | | | | |
| **ROC1** | **El Roble** | **2.22** | **203** | *eP* | Pn | 14 04 29.0 | +3.3 |
| ROC1 | | | | *eS* | **Sn** | **14 04 55.6** | **+2.8** |
| **VCA** | **Vinchina** | **2.67** | **36** | *eP* | **Pn** | **14 04 32.2** | **+0.6** |
| VCA | | | | *eS* | **Sn** | **14 05 05.6** | **+2.2** |
| VCA | | | | IAML | | 14 05 07.7 | |
| | comp=Z,39nm,0.3s | | | | | | |
| **ACLC** | **CERRO LA CRUZ** | **3.02** | **61** | *eP* | **Pn** | **14 04 35.5** | **-0.8** |
| **APLL** | **PUNTA DE LOS L** | **3.03** | **81** | *eP* | **Pn** | **14 04 35.1** | **-1.1** |
| APLL | | | | *eS* | **Sn** | **14 05 10.9** | **-0.7** |
| **GO03** | **Copiap** | **3.33** | **356** | *i* S | **Sn** | **14 05 17.8** | **-1.2** |
| GO03 | | | | IAML | | 14 05 19.1 | |
| | comp=N,30nm,0.7s | | | | | | |

**IDC 23 14:12:53.4±3.0, 21°24S×178°01W, h0km, mb3.5/3, mb1 3.8/3, mb1mx3.6/22, mbtmp3.5/3, Error ellipse: s-maj=312.8km s-min=32.2km az=162.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ASAR** | **Alice Springs** | **44.34** | **257** | P | P | 14 21 04.8 | -0.9 |
| | 0.4nm,0.8s,baz=102,slow=7.8,SNR=4.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.49** | **263** | P | P | 14 21 07.3 | +0.4 |
| | 0.2nm,0.3s,baz=97,slow=8.4,SNR=20 | | | | | | |
| **TXAR** | **Lajitas Array** | **87.46** | **57** | P | P | 14 25 43.2 | 0.0 |
| | 0.2nm,0.5s,baz=248,slow=4.8,SNR=3.8 | | | | | | |

*IDC **23** 14:14:41.1±1.1,38°12N×22°14E, h0km, mb4.0/9, mb1 3.9/11,mb1mx3.7/44, mbtmp3.9/11, ML3.2/2, Error ellipse: s-maj=25.0km s-min=19.2km az=71.0*

*ISCJB **23** 14:14:48.0±0.2,38°09N±0°01×22°14E±0°02, h64km±2km, mb3.9/9, Error ellipse: s-maj=2.8km s-min=2.3km az=145.2*

*ATH **23** 14:14:48.2,38°09N×22°15E, h56km±1km, ML3.4/25, Error ellipse: s-maj=1.2km s-min=0.6km az=297.0*

*IASPEI **23** 14:14:49.8±1.2,38°08N±0°02×22°15E±0°02, h47km±4km, mb3.8/9, Error ellipse: s-maj=3.1km s-min=2.8km az=34.0, GT5 selection from ISC bulletin GT5 identified by Bond¨ı¡r and McLaughlin (2009) selection criteria Bond¨ı¡r and McLaughlin, A new ground truth data set for seismic studies, Seism. Res. Let., 80, 465-472, 2009*

*THE **23** 14:14:49.2,38°06N×22°15E, h52km, ML3.3/27, Error ellipse: s-maj=0.9km s-min=0.3km az=264.0*

*CSEM **23** 14:14:49.2±0.1,38°09N×22°14E, h49km±1km, ML3.3, Error ellipse: s-maj=2.0km s-min=1.6km az=62.0*

**ISC 23 14:14:47.9±0.7, 38°09N±0°02×22°14E±0°02, h51km±4km, n203, σ1°74/316, mb3.8/9, Greece**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KLV** | **Kalavryta, Ach** | **0.05** | **172** | P | **Pn** | **14 14 56.6** | **+0.7** |
| KLV | | | | S | **Sn** | **14 15 02.8** | **+1.3** |
| KLV | | | | AML | AML | 14 15 03.6 | |
| | comp=E,9274μm,0.3s | | | | | | |
| KLV | | | | AML | AML | 14 15 03.6 | |
| | comp=N,9039μm,0.4s | | | | | | |
| **KLV** | **Kalavryta, Ach** | **0.05** | **172** | P | **Pn** | **14 14 56.8** | **+1.0** |
| KLV | | | | S | **Sn** | **14 15 02.5** | **+1.0** |
| **KLV** | **Kalavryta, Ach** | **0.05** | **172** | P | **Pn** | **14 14 56.8** | **+1.0** |
| KLV | | | | S | **Sn** | **14 15 03.1** | **+1.6** |
| **LAKA** | **Lakka** | **0.20** | **319** | P | **Pn** | **14 14 57.1** | **+0.7** |
| LAKA | | | | S | **Sn** | **14 15 04.1** | **+1.6** |
| **LAKA** | **Lakka** | **0.20** | **319** | P | **Pn** | **14 14 57.3** | **+0.9** |
| LAKA | | | | S | **Sn** | **14 15 04.7** | **+1.6** |
| **LAKA** | **Lakka** | **0.20** | **319** | P | **Pn** | **14 14 57.3** | **+0.9** |
| LAKA | | | | S | **Sn** | **14 15 04.1** | **+1.6** |
| **GUR** | **Goura** | **0.22** | **134** | P | **Pn** | **14 14 57.8** | **+1.1** |
| GUR | | | | S | **Sn** | **14 15 04.9** | **+2.0** |
| GUR | | | | AML | AML | 14 15 05.2 | |
| | comp=N,25036μm,0.3s | | | | | | |
| GUR | | | | AML | AML | 14 15 08.1 | |
| | comp=E,10966μm,0.3s | | | | | | |
| **GUR** | **Goura** | **0.22** | **134** | P | **Pn** | **14 14 57.8** | **+1.1** |
| GUR | | | | S | **Sn** | **14 15 04.9** | **+2.0** |
| **TRIZ** | **Trizonia** | **0.28** | **349** | P | **Pn** | **14 14 58.3** | **+1.3** |
| TRIZ | | | | S | **Sn** | **14 15 04.4** | **+1.0** |
| **TRIZ** | **Trizonia** | **0.28** | **349** | P | **Pn** | **14 14 58.3** | **+1.3** |
| TRIZ | | | | S | **Sn** | **14 15 04.7** | **+1.3** |
| **KALE** | **Kalithea** | **0.30** | **360** | P | **Pn** | **14 14 58.8** | **+1.6** |
| KALE | | | | S | **Sn** | **14 15 04.9** | **+1.0** |
| KALE | | | | AML | AML | 14 15 07.2 | |
| | comp=N,9228μm,0.2s | | | | | | |
| KALE | | | | AML | AML | 14 15 08.5 | |
| | comp=E,8287μm,0.3s | | | | | | |
| **KALE** | **Kalithea** | **0.30** | **360** | P | **Pn** | **14 14 58.8** | **+1.6** |
| KALE | | | | S | **Sn** | **14 15 05.6** | **+1.7** |
| **KALE** | **Kalithea** | **0.30** | **360** | P | **Pn** | **14 14 58.5** | **+1.2** |
| KALE | | | | S | **Sn** | **14 15 05.9** | **+2.0** |
| **SERG** | **Sergoula** | **0.33** | **348** | P | **Pn** | **14 14 58.9** | **+1.4** |
| SERG | | | | S | **Sn** | **14 15 06.5** | **+2.2** |
| SERG | | | | AML | AML | 14 15 06.6 | |
| | comp=N,9762μm,0.2s | | | | | | |
| SERG | | | | AML | AML | 14 15 07.6 | |
| | comp=E,7498μm,0.3s | | | | | | |
| **SERG** | **Sergoula** | **0.33** | **348** | P | **Pn** | **14 14 58.7** | **+1.2** |
| SERG | | | | S | **Sn** | **14 15 05.9** | **+1.6** |
| **SERG** | **Sergoula** | **0.33** | **348** | P | **Pn** | **14 14 58.7** | **+1.2** |
| SERG | | | | S | **Sn** | **14 15 06.4** | **+2.1** |
| **UPR** | **University Cam** | **0.34** | **305** | P | **Pn** | **14 14 58.7** | **+1.2** |
| UPR | | | | S | **Sn** | **14 15 07.4** | **+3.0** |
| **UPR** | **University Cam** | **0.34** | **305** | P | **Pn** | **14 14 58.7** | **+1.2** |
| UPR | | | | S | **Sn** | **14 15 06.6** | **+2.2** |
| **UPR** | **University Cam** | **0.34** | **305** | P | **Pn** | **14 14 58.7** | **+1.2** |
| UPR | | | | S | **Sn** | **14 15 06.6** | **+2.2** |
| **DRO** | **Drossia** | **0.37** | **248** | P | **Pn** | **14 14 58.2** | **+0.4** |
| DRO | | | | AML | AML | 14 15 07.4 | |
| | comp=E,21721μm,0.3s | | | | | | |
| DRO | | | | S | **Sn** | **14 15 07.6** | **+2.7** |
| DRO | | | | AML | AML | 14 15 07.6 | |
| | comp=N,21418μm,0.4s | | | | | | |
| **DRO** | **Drossia** | **0.37** | **248** | P | **Pn** | **14 14 58.5** | **+0.7** |
| DRO | | | | S | **Sn** | **14 15 06.6** | **+1.7** |
| **DRO** | **Drossia** | **0.37** | **248** | P | **Pn** | **14 14 58.5** | **+0.7** |
| DRO | | | | S | **Sn** | **14 15 06.6** | **+1.7** |
| **EFP** | **Efpalio** | **0.38** | **331** | P | **Pn** | **14 14 59.0** | **+1.1** |
| EFP | | | | S | **Sn** | **14 15 08.0** | **+2.8** |
| **EFP** | **Efpalio** | **0.38** | **331** | P | **Pn** | **14 14 59.1** | **+1.1** |
| EFP | | | | S | **Sn** | **14 15 07.5** | **+2.3** |
| **THAL** | **Thalero** | **0.41** | **97** | P | **Pn** | **14 14 59.5** | **+1.3** |
| THAL | | | | S | **Sn** | **14 15 07.9** | **+2.2** |
| THAL | | | | AML | AML | 14 15 08.2 | |
| | comp=E,19140μm,0.2s | | | | | | |
| THAL | | | | AML | AML | 14 15 08.4 | |
| | comp=N,28781μm,0.2s | | | | | | |
| **THAL** | **Thalero** | **0.41** | **97** | P | **Pn** | **14 14 59.5** | **+1.3** |
| THAL | | | | S | **Sn** | **14 15 07.2** | **+1.5** |
| **THAL** | **Thalero** | **0.41** | **97** | P | **Pn** | **14 14 59.4** | **+1.1** |
| THAL | | | | S | **Sn** | **14 15 07.2** | **+1.5** |
| **DSF** | **Desfina** | **0.44** | **43** | P | **Pn** | **14 14 59.9** | **+1.3** |
| DSF | | | | S | **Sn** | **14 15 06.7** | **+0.3** |
| DSF | | | | AML | AML | 14 15 08.8 | |
| | comp=E,8270μm,0.2s | | | | | | |
| DSF | | | | AML | AML | 14 15 09.4 | |
| | comp=N,14858μm,0.1s | | | | | | |
| **ANX** | **Ano Chora** | **0.53** | **341** | P | **Pn** | **14 15 01.5** | **+1.8** |
| ANX | | | | S | **Sn** | **14 15 08.7** | **+0.4** |
| ANX | | | | AML | AML | 14 15 13.0 | |
| | comp=E,6199μm,0.4s | | | | | | |
| ANX | | | | AML | AML | 14 15 13.5 | |
| | comp=N,6293μm,0.5s | | | | | | |
| **ANX** | **Ano Chora** | **0.53** | **341** | P | **Pn** | **14 15 01.1** | **+1.4** |
| ANX | | | | S | **Sn** | **14 15 10.6** | **+2.4** |
| **ANX** | **Ano Chora** | **0.53** | **341** | P | **Pn** | **14 15 01.1** | **+1.4** |
| ANX | | | | S | **Sn** | **14 15 10.6** | **+2.4** |
| **RLS** | **Riolos of Patr** | **0.53** | **267** | P | **Pn** | **14 14 59.3** | **-0.3** |
| RLS | | | | S | **Sn** | **14 15 09.2** | **+1.1** |
| RLS | | | | AML | AML | 14 15 10.7 | |
| | comp=E,4058μm,0.4s | | | | | | |
| RLS | | | | AML | AML | 14 15 11.5 | |
| | comp=N,4286μm,0.3s | | | | | | |
| **RLS** | **Riolos of Patr** | **0.53** | **267** | P | **Pn** | **14 15 00.1** | **+0.5** |
| RLS | | | | S | **Sn** | **14 15 09.2** | **+1.1** |
| **RLS** | **Riolos of Patr** | **0.53** | **267** | P | **Pn** | **14 15 00.1** | **+0.5** |
| RLS | | | | S | **Sn** | **14 15 09.6** | **+1.6** |
| **TRIP** | **Tripoli** | **0.57** | **170** | P | **Pn** | **14 15 01.4** | **+1.2** |
| TRIP | | | | S | **Sn** | **14 15 10.4** | **+1.5** |
| TRIP | | | | AML | AML | 14 15 10.9 | |
| | comp=E,3357μm,0.7s | | | | | | |
| TRIP | | | | AML | AML | 14 15 12.4 | |
| | comp=N,2261μm,0.4s | | | | | | |
| **TRIP** | **Tripoli** | **0.57** | **170** | P | **Pn** | **14 15 01.4** | **+1.2** |
| TRIP | | | | S | **Sn** | **14 15 10.4** | **+1.5** |
| **AXS** | **Araxos** | **0.61** | **280** | P | **Pn** | **14 15 01.3** | **+0.7** |
| AXS | | | | S | **Sn** | **14 15 10.9** | **+1.2** |
| **PROD** | **Prodromos** | **0.62** | **74** | P | **Pn** | **14 15 02.8** | **+2.1** |
| PROD | | | | S | **Sn** | **14 15 12.3** | **+2.3** |
| PROD | | | | AML | AML | 14 15 13.5 | |
| | comp=N,6646μm,0.3s | | | | | | |
| PROD | | | | AML | AML | 14 15 14.1 | |
| | comp=E,6097μm,0.3s | | | | | | |
| **AMT** | **Artemida-Makis** | **0.65** | **212** | P | **Pn** | **14 15 01.7** | **+0.6** |
| AMT | | | | S | **Sn** | **14 15 12.5** | **+1.8** |
| AMT | | | | AML | AML | 14 15 18.7 | |
| | comp=E,8411μm,0.4s | | | | | | |
| AMT | | | | AML | AML | 14 15 20.2 | |
| | comp=N,7983μm,0.3s | | | | | | |
| **AMT** | **Artemida-Makis** | **0.65** | **212** | P | **Pn** | **14 15 02.0** | **+0.9** |
| AMT | | | | S | **Sn** | **14 15 12.5** | **+1.8** |
| **LTK** | **Loutraki** | **0.66** | **96** | P | **Pn** | **14 15 02.5** | **+1.4** |
| LTK | | | | S | **Sn** | **14 15 12.1** | **+1.4** |
| **LTK** | **Loutraki** | **0.66** | **96** | P | **Pn** | **14 15 02.5** | **+1.4** |
| LTK | | | | S | **Sn** | **14 15 12.1** | **+1.4** |
| **LOUT** | **Loutraki** | **0.67** | **99** | P | **Pn** | **14 15 02.6** | **+1.4** |
| LOUT | | | | S | **Sn** | **14 15 12.5** | **+1.6** |
| **LOUT** | **Loutraki** | **0.67** | **99** | P | **Pn** | **14 15 02.6** | **+1.4** |
| LOUT | | | | S | **Sn** | **14 15 12.5** | **+1.6** |
| **PVO** | **Paravola** | **0.71** | **318** | P | **Pn** | **14 15 04.5** | **+2.6** |
| PVO | | | | S | **Sn** | **14 15 14.1** | **+2.0** |
| PVO | | | | AML | AML | 14 15 18.7 | |
| | comp=E,6492μm,0.2s | | | | | | |
| PVO | | | | AML | AML | 14 15 19.4 | |
| | comp=N,5304μm,0.4s | | | | | | |
| **PVO** | **Paravola** | **0.71** | **318** | P | **Pn** | **14 15 03.8** | **+1.9** |
| PVO | | | | S | **Sn** | **14 15 14.1** | **+2.0** |
| **PVO** | **Paravola** | **0.71** | **318** | P | **Pn** | **14 15 03.8** | **+1.9** |
| **VLX** | **Vlachokerasia** | **0.74** | **165** | P | **Pn** | **14 15 04.3** | **+2.0** |
| **VLX** | **Vlachokerasia** | **0.74** | **165** | P | **Pn** | **14 15 04.3** | **+2.0** |
| **EVR** | **Evrytania** | **0.87** | **343** | P | **Pn** | **14 15 06.5** | **+2.5** |
| **EVR** | **Evrytania** | **0.87** | **343** | P | **Pn** | **14 15 05.7** | **+1.7** |
| EVR | | | | S | **Sn** | **14 15 18.5** | **+2.8** |
| **EVR** | **Evrytania** | **0.87** | **343** | P | **Pn** | **14 15 05.7** | **+1.7** |
| EVR | | | | S | **Sn** | **14 15 18.5** | **+2.8** |
| **LKR** | **Lokris** | **0.88** | **50** | P | **Pn** | **14 15 05.4** | **+1.4** |
| LKR | | | | S | **Sn** | **14 15 18.6** | **+2.8** |
| LKR | | | | AML | AML | 14 15 19.1 | |
| | comp=E,4623μm,0.2s | | | | | | |
| LKR | | | | AML | AML | 14 15 19.3 | |
| | comp=N,3438μm,0.3s | | | | | | |
| **LKR** | **Lokris** | **0.88** | **50** | P | **Pn** | **14 15 05.4** | **+1.4** |
| LKR | | | | S | **Sn** | **14 15 18.1** | **+2.3** |
| **LKR** | **Lokris** | **0.88** | **50** | P | **Pn** | **14 15 05.1** | **+1.1** |
| LKR | | | | S | **Sn** | **14 15 18.1** | **+2.3** |
| **VIL2** | **Platees** | **0.90** | **82** | P | **Pn** | **14 15 06.1** | **+1.9** |
| VIL2 | | | | S | **Sn** | **14 15 18.5** | **+2.2** |
| **PDO** | **Prodromos** | **0.91** | **304** | P | **Pn** | **14 15 06.5** | **+2.1** |
| PDO | | | | S | **Sn** | **14 15 20.0** | **+3.5** |
| PDO | | | | AML | AML | 14 15 22.9 | |
| | comp=E,4099μm,0.3s | | | | | | |
| PDO | | | | AML | AML | 14 15 25.1 | |
| | comp=N,5079μm,0.3s | | | | | | |
| **PDO** | **Prodromos** | **0.91** | **304** | P | **Pn** | **14 15 06.2** | **+1.8** |
| PDO | | | | S | **Sn** | **14 15 19.2** | **+2.6** |
| **PDO** | **Prodromos** | **0.91** | **304** | P | **Pn** | **14 15 06.2** | **+1.8** |
| PDO | | | | S | **Sn** | **14 15 19.2** | **+2.6** |
| **MES3** | **Kyparissia** | **0.92** | **204** | P | **Pn** | **14 15 07.3** | **+2.7** |
| MES3 | | | | S | **Sn** | **14 15 19.8** | **+3.0** |
| **MES3** | **Kyparissia** | **0.92** | **204** | P | **Pn** | **14 15 07.3** | **+2.7** |
| MES3 | | | | S | **Sn** | **14 15 19.8** | **+3.0** |
| **ITM** | **Ithomi** | **0.93** | **191** | P | **Pn** | **14 15 07.1** | **+2.4** |
| ITM | | | | S | **Sn** | **14 15 18.9** | **+1.9** |
| ITM | | | | AML | AML | 14 15 23.1 | |
| | comp=N,3007μm,0.3s | | | | | | |
| ITM | | | | AML | AML | 14 15 25.2 | |
| | comp=E,2418μm,0.2s | | | | | | |
| **ITM** | **Ithomi** | **0.93** | **191** | P | **Pn** | **14 15 06.2** | **+1.5** |
| ITM | | | | S | **Sn** | **14 15 18.9** | **+1.9** |
| **ITM** | **Ithomi** | **0.93** | **191** | P | **Pn** | **14 15 06.2** | **+1.5** |
| **VILL** | **Villia** | **0.93** | **85** | P | **Pn** | **14 15 06.0** | **+1.3** |
| VILL | | | | S | **Sn** | **14 15 18.6** | **+1.6** |
| **VILL** | **Villia** | **0.93** | **85** | P | **Pn** | **14 15 06.0** | **+1.3** |
| VILL | | | | S | **Sn** | **14 15 18.6** | **+1.6** |
| **AGG** | **Agios Georgios** | **0.94** | **9** | P | **Pn** | **14 15 06.2** | **+1.3** |
| AGG | | | | S | **Sn** | **14 15 18.8** | **+1.3** |
| AGG | | | | AML | AML | 14 15 26.1 | |
| | comp=N,4585μm,0.5s | | | | | | |
| AGG | | | | AML | AML | 14 15 26.2 | |
| | comp=E,5691μm,0.3s | | | | | | |
| **AGG** | **Agios Georgios** | **0.94** | **9** | P | **Pn** | **14 15 06.2** | **+1.3** |
| AGG | | | | S | **Sn** | **14 15 19.0** | **+1.6** |
| **AGG** | **Agios Georgios** | **0.94** | **9** | P | **Pn** | **14 15 06.2** | **+1.3** |
| AGG | | | | S | **Sn** | **14 15 19.0** | **+1.6** |
| **DID** | **Didima** | **1.04** | **124** | P | **Pn** | **14 15 06.8** | **+0.5** |
| DID | | | | S | **Sn** | **14 15 21.6** | **+1.8** |
| DID | | | | AML | AML | 14 15 26.6 | |
| | comp=N,2624μm,0.2s | | | | | | |
| DID | | | | AML | AML | 14 15 27.8 | |
| | comp=E,3468μm,0.2s | | | | | | |
| **DID** | **Didima** | **1.04** | **124** | P | **Pn** | **14 15 07.1** | **+0.8** |
| DID | | | | S | **Sn** | **14 15 21.6** | **+1.8** |
| **DID** | **Didima** | **1.04** | **124** | P | **Pn** | **14 15 07.1** | **+0.8** |
| DID | | | | S | **Sn** | **14 15 21.8** | **+1.9** |
| **KRND** | **KRANIDI** | **1.07** | **131** | P | **Pn** | **14 15 07.0** | **+0.5** |
| KRND | | | | S | **Sn** | **14 15 22.3** | **+2.0** |
| KRND | | | | AML | AML | 14 15 27.0 | |
| | comp=N,1874μm,0.3s | | | | | | |
| KRND | | | | AML | AML | 14 15 28.2 | |
| | comp=E,2252μm,0.4s | | | | | | |
| **KRND** | **KRANIDI** | **1.07** | **131** | P | **Pn** | **14 15 07.5** | **+1.0** |
| KRND | | | | S | **Sn** | **14 15 20.9** | **+0.6** |
| **KRND** | **KRANIDI** | **1.07** | **131** | P | **Pn** | **14 15 07.5** | **+1.0** |
| KRND | | | | S | **Sn** | **14 15 20.9** | **+0.6** |
| **KFL** | **Anninata** | **1.07** | **271** | P | **Pn** | **14 15 07.8** | **+1.3** |
| **KFL** | **Anninata** | **1.07** | **271** | P | **Pn** | **14 15 07.8** | **+1.3** |
| **SMIA** | **Simia** | **1.15** | **46** | P | **Pn** | **14 15 09.2** | **+1.5** |
| SMIA | | | | S | **Sn** | **14 15 24.7** | **+2.3** |
| SMIA | | | | AML | AML | 14 15 26.0 | |
| | comp=E,3245μm,0.5s | | | | | | |
| SMIA | | | | AML | AML | 14 15 31.9 | |
| | comp=N,2969μm,0.5s | | | | | | |
| **SMIA** | **Simia** | **1.15** | **46** | P | **Pn** | **14 15 09.2** | **+1.5** |
| SMIA | | | | S | **Sn** | **14 15 24.5** | **+2.1** |
| **SMIA** | **Simia** | **1.15** | **46** | P | **Pn** | **14 15 09.1** | **+1.4** |
| SMIA | | | | S | **Sn** | **14 15 24.5** | **+2.1** |
| **VLS** | **Valsamata** | **1.23** | **275** | P | **Pn** | **14 15 08.4** | **-0.3** |
| **VLS** | **Valsamata** | **1.23** | **275** | P | **Pn** | **14 15 09.3** | **+0.6** |
| VLS | | | | S | **Sn** | **14 15 26.0** | **+1.8** |
| **VLS** | **Valsamata** | **1.23** | **275** | P | **Pn** | **14 15 09.3** | **+0.6** |
| VLS | | | | S | **Sn** | **14 15 26.0** | **+1.8** |
| **PYL** | **PYLOS** | **1.23** | **195** | P | **Pn** | **14 15 10.1** | **+1.3** |
| **PYL** | **PYLOS** | **1.23** | **195** | P | **Pn** | **14 15 10.1** | **+1.3** |
| **ATH** | **Athens Observa** | **1.25** | **95** | P | **Pn** | **14 15 10.7** | **+1.7** |
| ATH | | | | S | **Sn** | **14 15 26.9** | **+2.2** |
| ATH | | | | AML | AML | 14 15 30.5 | |
| | comp=E,2066μm,0.4s | | | | | | |
| ATH | | | | AML | AML | 14 15 30.7 | |
| | comp=N,1587μm,0.5s | | | | | | |
| **ATH** | **Athens Observa** | **1.25** | **95** | P | **Pn** | **14 15 10.3** | **+1.3** |
| ATH | | | | S | **Sn** | **14 15 26.7** | **+2.0** |
| **ATH** | **Athens Observa** | **1.25** | **95** | P | **Pn** | **14 15 10.3** | **+1.3** |
| ATH | | | | S | **Sn** | **14 15 26.7** | **+2.0** |
| **ATHU** | **Athens Univers** | **1.30** | **95** | P | **Pn** | **14 15 11.3** | **+1.5** |
| ATHU | | | | S | **Sn** | **14 15 26.9** | **+0.9** |
| **ATHU** | **Athens Univers** | **1.30** | **95** | P | **Pn** | **14 15 11.1** | **+1.4** |
| ATHU | | | | S | **Sn** | **14 15 27.5** | **+1.4** |
| **ATHU** | **Athens Univers** | **1.30** | **95** | P | **Pn** | **14 15 11.1** | **+1.4** |
| ATHU | | | | S | **Sn** | **14 15 27.5** | **+1.4** |
| **MES2** | **Methoni** | **1.31** | **195** | P | **Pn** | **14 15 10.3** | **+0.5** |
| MES2 | | | | S | **Sn** | **14 15 28.6** | **+2.4** |
| MES2 | | | | AML | AML | 14 15 29.1 | |
| | comp=E,1376μm,0.3s | | | | | | |
| MES2 | | | | AML | AML | 14 15 29.1 | |
| | comp=N,1673μm,0.3s | | | | | | |
| **MES2** | **Methoni** | **1.31** | **195** | P | **Pn** | **14 15 10.3** | **+0.5** |
| MES2 | | | | S | **Sn** | **14 15 28.6** | **+2.4** |
| **DSL** | **Palaion Diasel** | **1.33** | **322** | P | **Pn** | **14 15 12.8** | **+2.7** |
| **DSL** | **Palaion Diasel** | **1.33** | **322** | P | **Pn** | **14 15 11.9** | **+1.8** |
| DSL | | | | S | **Sn** | **14 15 29.2** | **+2.5** |
| **DSL** | **Palaion Diasel** | **1.33** | **322** | P | **Pn** | **14 15 11.9** | **+1.8** |
| DSL | | | | S | **Sn** | **14 15 29.2** | **+2.5** |
| **VLY** | **Voula,Athens** | **1.33** | **100** | P | **Pn** | **14 15 11.1** | **+1.1** |
| VLY | | | | S | **Sn** | **14 15 27.9** | **+1.3** |
| VLY | | | | AML | AML | 14 15 32.3 | |
| | comp=N,1254μm,0.3s | | | | | | |
| VLY | | | | AML | AML | 14 15 33.5 | |
| | comp=E,2351μm,0.3s | | | | | | |
| **VLY** | **Voula,Athens** | **1.33** | **100** | P | **Pn** | **14 15 11.3** | **+1.2** |
| VLY | | | | S | **Sn** | **14 15 28.1** | **+1.5** |
| **VLY** | **Voula,Athens** | **1.33** | **100** | P | **Pn** | **14 15 11.3** | **+1.2** |
| VLY | | | | S | **Sn** | **14 15 28.1** | **+1.5** |
| **DYR** | **Agios Nikonas** | **1.33** | **173** | P | **Pn** | **14 15 12.2** | **+1.9** |
| **DYR** | **Agios Nikonas** | **1.33** | **173** | P | **Pn** | **14 15 12.1** | **+1.9** |
| **LKD2** | **Lefkada island** | **1.36** | **301** | P | **Pn** | **14 15 11.0** | **+0.5** |
| **LKD2** | **Lefkada island** | **1.36** | **301** | P | **Pn** | **14 15 11.4** | **+0.9** |
| **LKD2** | **Lefkada island** | **1.36** | **301** | P | **Pn** | **14 15 11.4** | **+0.9** |
| **PTL** | **Penteli** | **1.36** | **91** | P | **Pn** | **14 15 12.1** | **+1.6** |
| PTL | | | | S | **Sn** | **14 15 28.4** | **+0.9** |
| PTL | | | | AML | AML | 14 15 29.1 | |
| | comp=E,613μm,0.3s | | | | | | |
| PTL | | | | AML | AML | 14 15 33.7 | |
| | comp=N,719μm,0.3s | | | | | | |
| **PTL** | **Penteli** | **1.36** | **91** | P | **Pn** | **14 15 11.9** | **+1.4** |
| PTL | | | | S | **Sn** | **14 15 28.8** | **+1.3** |
| **PTL** | **Penteli** | **1.36** | **91** | P | **Pn** | **14 15 11.9** | **+1.4** |
| PTL | | | | S | **Sn** | **14 15 28.8** | **+1.3** |
| **EREA** | **Eretria** | **1.45** | **76** | P | **Pn** | **14 15 13.9** | **+2.2** |
| EREA | | | | S | **Sn** | **14 15 32.0** | **+2.4** |
| EREA | | | | AML | AML | 14 15 33.0 | |
| | comp=N,1087μm,0.2s | | | | | | |
| EREA | | | | AML | AML | 14 15 33.1 | |
| | comp=E,1222μm,0.2s | | | | | | |
| **EREA** | **Eretria** | **1.45** | **76** | P | **Pn** | **14 15 13.4** | **+1.7** |
| EREA | | | | S | **Sn** | **14 15 31.5** | **+1.9** |
| **EREA** | **Eretria** | **1.45** | **76** | P | **Pn** | **14 15 13.4** | **+1.7** |
| EREA | | | | S | **Sn** | **14 15 31.5** | **+1.9** |
| **FYTO** | **Fytoko, Volos** | **1.46** | **25** | P | **Pn** | **14 15 12.7** | **+0.9** |
| FYTO | | | | S | **Sn** | **14 15 31.2** | **+1.4** |
| **FYTO** | **Fytoko, Volos** | **1.46** | **25** | P | **Pn** | **14 15 13.0** | **+1.2** |
| FYTO | | | | S | **Sn** | **14 15 31.5** | **+1.7** |
| **FYTO** | **Fytoko, Volos** | **1.46** | **25** | P | **Pn** | **14 15 13.0** | **+1.2** |
| FYTO | | | | S | **Sn** | **14 15 31.5** | **+1.7** |
| **THL** | **Klokotos Trika** | **1.48** | **356** | P | **Pn** | **14 15 12.7** | **+0.7** |
| **THL** | **Klokotos Trika** | **1.48** | **356** | P | **Pn** | **14 15 13.3** | **+1.2** |
| **THL** | **Klokotos Trika** | **1.48** | **356** | P | **Pn** | **14 15 13.3** | **+1.2** |
| **NEO** | **Neokhori** | **1.48** | **35** | P | **Pn** | **14 15 13.4** | **+1.2** |
| NEO | | | | S | **Sn** | **14 15 32.3** | **+1.9** |
| **NEO** | **Neokhori** | **1.48** | **35** | P | **Pn** | **14 15 13.4** | **+1.2** |
| NEO | | | | S | **Sn** | **14 15 32.3** | **+1.9** |
| **SKIA** | **Skiathos** | **1.49** | **44** | P | **Pn** | **14 15 13.5** | **+1.1** |
| SKIA | | | | S | **Sn** | **14 15 31.8** | **+1.1** |
| **SKIA** | **Skiathos** | **1.49** | **44** | P | **Pn** | **14 15 13.7** | **+1.4** |
| SKIA | | | | S | **Sn** | **14 15 32.9** | **+2.2** |
| **SKIA** | **Skiathos** | **1.49** | **44** | P | **Pn** | **14 15 13.7** | **+1.4** |
| SKIA | | | | S | **Sn** | **14 15 32.9** | **+2.2** |
| **VLI** | **Veliai** | **1.51** | **155** | P | **Pn** | **14 15 12.1** | **-0.4** |
| **VLI** | **Veliai** | **1.51** | **155** | P | **Pn** | **14 15 13.2** | **+0.7** |
| VLI | | | | S | **Sn** | **14 15 31.6** | **+0.6** |
| **VLI** | **Veliai** | **1.51** | **155** | P | **Pn** | **14 15 13.2** | **+0.7** |
| VLI | | | | S | **Sn** | **14 15 31.6** | **+0.6** |
| **XOR** | **Xorichti** | **1.52** | **32** | P | **Pn** | **14 15 13.1** | **+0.5** |
| **XOR** | **Xorichti** | **1.52** | **32** | P | **Pn** | **14 15 13.1** | **+0.5** |
| **KARY** | **Karystos** | **1.81** | **91** | P | **Pn** | **14 15 18.4** | **+1.7** |
| **KARY** | **Karystos** | **1.81** | **91** | P | **Pn** | **14 15 18.2** | **+1.5** |
| **KARY** | **Karystos** | **1.81** | **91** | P | **Pn** | **14 15 18.2** | **+1.5** |
| **JAN** | **Janina** | **1.86** | **328** | P | **Pn** | **14 15 20.1** | **+2.7** |
| **JAN** | **Janina** | **1.86** | **328** | P | **Pn** | **14 15 19.3** | **+1.9** |
| **JAN** | **Janina** | **1.86** | **328** | P | **Pn** | **14 15 19.3** | **+1.9** |
| **KPRO** | **Kipourio** | **1.96** | **342** | P | **Pn** | **14 15 21.5** | **+2.7** |
| **KPRO

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SMG | Samos | 3.73 | 94 | P | Pn | 14 15 44.2 | +1.2 | |
| SMG | Samos | 3.73 | 94 | P | Pn | 14 15 44.2 | +1.2 | |
| VTS | Vitosha | 4.57 | 10 | P | Pn | 14 15 56.3 | +1.7 | |
| VTS | Vitosha | 4.57 | 10 | P | Pn | 14 15 56.3 | +1.7 | |
| STON | Ston | 5.85 | 326 | *i* Pn | Pn | 14 16 10.1 | -1.9 | |
| STON | | | | Sn | Sn | 14 17 11.2 | -6.5 | |
| UDBI | Udbina | 8.02 | 325 | *e*Pn | Pn | 14 16 41.0 | -0.8 | |
| UDBI | | | | Sn | Sn | 14 18 06.8 | -4.4 | |
| UDBI | Udbina | 8.02 | 325 | *e*Pn | Pn | 14 16 41.0 | -0.8 | |
| NVLJ | Novalja | 8.47 | 322 | *e*Pn | Pn | 14 16 46.0 | -1.8 | |
| NVLJ | | | | Sn | Sn | 14 18 14.1 | -7.8 | |
| OZLJ | Ozalj | 9.02 | 329 | *e*Pn | Pn | 14 16 54.1 | -1.2 | |
| OZLJ | Ozalj | 9.02 | 329 | *e*Pn | Pn | 14 16 54.0 | -1.2 | |
| GERES | GERESS Array B | 12.37 | 333 | Pn | Pn | 14 17 40.5 | -0.7 | |
| | comp=E,0.1nm,0.3s,baz=154,slow=14,SNR=2.5 | | | | | | | |
| HFS | Hagfors | 22.71 | 349 | P | P | 14 19 43.2 | -1.8 | |
| | comp=E,2.2nm,0.6s,baz=180,slow=12,SNR=7.7 | | | | | | | |
| FINES | FINESS Array B | 23.51 | 5 | P | P | 14 19 51.8 | -1.1 | |
| | comp=E,3.3nm,0.9s,baz=191,slow=8.6,SNR=6.8 | | | | | | | |
| NOA | NORSAR Array B | 23.98 | 347 | P | P | 14 19 56.8 | -0.5 | |
| | comp=E,1.2nm,0.7s,baz=154,slow=9.4,SNR=2.7 | | | | | | | |
| EKA | Eskdalemuir Ar | 24.25 | 324 | P | P | 14 19 59.6 | -0.2 | |
| | comp=E,1.9nm,0.5s,baz=124,slow=9.4,SNR=10.0 | | | | | | | |
| TORD | Torodi Ar. Bea | 30.79 | 222 | P | P | 14 20 57.9 | -0.8 | |
| | comp=E,0.7nm,0.4s,baz=33,slow=9.4,SNR=7.2 | | | | | | | |
| ARCES | ARCESS Array B | 31.56 | 2 | P | P | 14 21 04.2 | -0.8 | |
| | comp=E,1.6nm,0.8s,baz=194,slow=9.9,SNR=6.0 | | | | | | | |
| SPITS | Spitsbergen Ar | 40.27 | 358 | P | P | 14 22 19.7 | +0.3 | |
| | comp=E,23nm,1.1s,baz=153,slow=9.7,SNR=5.0 | | | | | | | |
| MKAR | Makanchi Array | 44.26 | 59 | P | P | 14 22 52.0 | -0.2 | |
| | comp=E,0.5nm,0.5s,baz=269,slow=7.2,SNR=11 | | | | | | | |
| ZALV | Zalesovo Beam | 44.80 | 48 | P | P | 14 22 55.3 | -1.0 | |
| | comp=E,1.9nm,0.4s,baz=282,slow=7.7,SNR=6.9 | | | | | | | |

*IDC* ***23*** *14:22:46.0± 1.1, 28°.73N× 68°.48E, h0km, mb3.5/7, mb1 3.6/7, mb1mx3.4/46, mbtmp3.5/7, MS3.9/2, Ms1 3.9/2, ms1mx2.9/42, Error ellipse: s-maj=31.4km s-min=26.8km az=113.0*

*ISCJB* ***23*** *14:22:49.4± 1.0, 28°.8N± 0°.2× 68°.5E± 0°.2, h33km, mb3.5/6, MS4.5/1, Error ellipse: s-maj=29.5km s-min=22.6km az=22.0*

**ISC 23 14:22:51.6±1.2, 28°.8N±0°.2× 68°.5E±0°.2, h35km, n9, σ1s17/7, mb3.5/6, Pakistan**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| AAK | Ala-Archa | 14.64 | 18 | LR | | LR | 14 33 18.1 | |
| | comp=Z,151nm,18.4s,baz=344,slow=43 | | | | | | | |
| MKAR | Makanchi Array | 20.96 | 27 | P | | P | 14 27 30.6 | -1.0 |
| | 0.8nm,0.6s,baz=204,slow=12,SNR=6.2 | | | | | | | |
| KURBB | Kurchatov Arra | 23.08 | 17 | P | | P | 14 27 53.0 | -1.0 |
| | 1.3nm,0.5s,baz=212,slow=8.7,SNR=5.8 | | | | | | | |
| SONM | Songino Array | 34.86 | 46 | P | | P | 14 29 41.1 | +1.6 |
| | 0.3nm,0.4s,baz=232,slow=7.0,SNR=2.4 | | | | | | | |
| TORD | Torodi Ar. Bea | 63.54 | 271 | P | | P | 14 33 19.3 | +0.4 |
| | 1.0nm,0.6s,baz=62,slow=6.3,SNR=5.5 | | | | | | | |
| GUMO | Guam | 71.79 | 84 | LR | | LR | 15 03 34.8 | |
| | comp=Z,253nm,21.2s,baz=144,slow=34 | | | | | | | |
| WRA | Warramunga Arr | 79.33 | 119 | P | | P | 14 34 56.5 | -0.7 |
| | 0.4nm,0.9s,baz=314,slow=4.8,SNR=3.6 | | | | | | | |
| ASAR | Alice Springs | 81.77 | 123 | P | | P | 14 35 06.8 | -0.3 |
| | 0.3nm,0.9s,baz=306,slow=5.6,SNR=3.6 | | | | | | | |
| INK | Inuvik | 81.81 | 8 | P | | P | 14 35 06.2 | -0.3 |
| | 0.3nm,0.6s,baz=322,slow=5.9,SNR=3.9 | | | | | | | |

**GUC 23 14:27:10.7±0.6, 35°.29S× 72°.36W, h8km±2km, ML3.5, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| GO05 | HualaæØ | 0.45 | 52 | *e*P | | Pg | 14 27 18.9 | -0.6 |
| GO05 | | | | *i* S | | Sg | 14 27 24.8 | -0.7 |
| GO05 | | | | IAML | | | 14 27 25.9 | |
| | comp=N,5μm,0.3s | | | | | | | |
| COCH | Cobquecura | 0.90 | 202 | *e*P | | Pg | 14 27 26.8 | -1.3 |
| COCH | | | | *i* S | | Sg | 14 27 38.5 | -1.3 |
| CHPI | Pichilemu | 0.95 | 18 | *e*P | | Pg | 14 27 27.5 | -1.4 |
| CHPI | | | | *i* S | | Sg | 14 27 39.9 | -1.4 |
| NICH | Los Niches | 0.97 | 73 | *e*P | | Pg | 14 27 27.7 | -1.7 |
| NICH | | | | *i* S | | Sg | 14 27 39.7 | -2.3 |
| CCHI | Chillan | 1.33 | 170 | *e*P | | Pn | 14 27 33.9 | -1.7 |
| CCHI | | | | *i* S | | Sb | 14 27 50.7 | -2.3 |
| CCHI | | | | IAML | | | 14 27 53.4 | |
| | comp=E,2μm,0.5s | | | | | | | |
| LMEL | Las Melosas | 2.29 | 52 | *e*P | | Pn | 14 27 49.2 | +0.2 |
| LMEL | | | | *i* S | | Sn | 14 28 18.2 | +0.7 |
| LMEL | | | | IAML | | | 14 28 24.2 | |
| | comp=N,315nm,0.6s | | | | | | | |
| SJCH | San Jose de Ma | 2.34 | 46 | *e*P | | Pn | 14 27 49.9 | +0.3 |
| SJCH | | | | *i* S | | Sn | 14 28 19.5 | +0.9 |
| SJCH | | | | IAML | | | 14 28 26.6 | |
| | comp=N,256nm,0.4s | | | | | | | |
| CLCH | Cerro Calan | 2.42 | 39 | *e*P | | Pn | 14 27 50.4 | -0.3 |
| CLCH | | | | *i* S | | Sn | 14 28 21.8 | +1.2 |
| CLCH | | | | IAML | | | 14 28 31.8 | |
| | comp=N,484nm,0.5s | | | | | | | |
| PEL | Peldehue | 2.56 | 33 | *e*P | | Pn | 14 27 53.5 | +1.0 |
| PEL | | | | *i* S | | Sn | 14 28 26.0 | +2.1 |
| PEL | | | | IAML | | | 14 28 36.1 | |
| | comp=N,210nm,0.7s | | | | | | | |

**WEL 23 14:40:01.2±0.1, 43°.47S× 172°.84E, h5km, ML3.6/19, 3C-3D, Error ellipse: s-maj=1.5km s-min=0.6km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| CRLZ | Canterbury Las | 0.19 | 236 | ⇑Pg | | Pg | 14 40 05.3 | +0.3 |
| CRLZ | | | | S | | Sg | 14 40 08.3 | +0.8 |
| CRLZ | | | | AML | | AML | 14 40 08.6 | |
| MQZ | McQueen's Vall | 0.27 | 210 | ⇑Pg | | Pg | 14 40 06.6 | 0.0 |
| MQZ | | | | S | | Sg | 14 40 10.7 | +0.5 |
| MQZ | | | | S | | Sb | 14 40 10.8 | -2.8 |
| MQZ | | | | AML | | AML | 14 40 11.0 | |
| OXZ | Oxford | 0.60 | 283 | P* | | Pg | 14 40 12.8 | 0.0 |
| OXZ | | | | AML | | AML | 14 40 22.4 | |
| OXZ | | | | AML | | AML | 14 40 22.4 | |
| OXZ | | | | AML | | AML | 14 40 24.6 | |
| OXZ | | | | AML | | AML | 14 40 24.6 | |
| LTZ | Lake Taylor | 0.80 | 328 | ⇓P* | | Pg | 14 40 16.9 | +0.2 |
| LTZ | | | | S* | | Sb | 14 40 28.5 | -0.4 |
| KHZ | Kahutara | 1.17 | 26 | P* | | Pg | 14 40 22.6 | -1.0 |
| KHZ | | | | AML | | AML | 14 40 42.6 | |
| KHZ | | | | AML | | AML | 14 40 42.6 | |
| KHZ | | | | AML | | AML | 14 40 52.5 | |
| KHZ | | | | AML | | AML | 14 40 52.5 | |
| INZ | Inchbonnie | 1.27 | 306 | P* | | Pg | 14 40 23.9 | -1.6 |
| RPZ | Rata Peaks | 1.32 | 259 | P* | | Pn | 14 40 25.1 | -1.3 |
| RPZ | | | | AML | | AML | 14 40 50.7 | |
| RPZ | | | | AML | | AML | 14 40 51.0 | |
| WVZ | Waitaha Valley | 1.59 | 284 | PN | | Pn | 14 40 29.2 | -0.7 |
| WVZ | | | | AML | | AML | 14 40 55.7 | |
| WVZ | | | | AML | | AML | 14 41 05.8 | |
| THZ | Tophouse | 1.71 | 2 | PN | | Pn | 14 40 30.2 | -1.5 |
| THZ | | | | AML | | AML | 14 41 01.7 | |
| THZ | | | | AML | | AML | 14 41 02.8 | |
| DSZ | Denniston Nort | 1.89 | 336 | ⇓PN | | Pn | 14 40 33.1 | -1.0 |
| DSZ | | | | AML | | AML | 14 41 04.8 | |
| DSZ | | | | AML | | AML | 14 41 12.5 | |
| BSWZ | Blackbirch Sta | 1.91 | 24 | PN | | Pn | 14 40 33.1 | -1.4 |
| BSWZ | | | | AML | | AML | 14 41 19.2 | |
| LBZ | Lake Benmore | 2.13 | 244 | AML | | AML | 14 41 15.9 | |
| LBZ | | | | AML | | AML | 14 41 16.4 | |
| FOZ | Fox Glacier | 2.20 | 267 | PN | | Pn | 14 40 38.9 | +0.4 |
| FOZ | | | | AML | | AML | 14 41 06.6 | |
| FOZ | | | | AML | | AML | 14 41 19.1 | |
| ODZ | Otahua Downs | 2.23 | 224 | ⇑Pn | | Pn | 14 40 37.3 | -1.6 |
| ODZ | | | | AML | | AML | 14 41 19.5 | |
| ODZ | | | | AML | | AML | 14 41 19.5 | |
| NNZ | Nelson | 2.29 | 10 | PN | | Pn | 14 40 38.6 | -1.0 |
| PLWZ | Palliser | 2.60 | 44 | PN | | Pn | 14 40 41.6 | -2.4 |
| WEL | Wellington | 2.61 | 34 | PN | | Pn | 14 40 42.3 | -1.8 |
| QRZ | Quartz Range | 2.65 | 355 | AML | | AML | 14 40 52.9 | |
| QRZ | | | | AML | | AML | 14 41 35.1 | |
| CAW | Cannon Point | 2.88 | 36 | PN | | Pn | 14 40 45.6 | -2.2 |
| CAW | | | | AML | | AML | 14 41 22.1 | |
| HHSZ | Highcliff Hill | 2.90 | 213 | PN | | Pn | 14 40 45.7 | -2.4 |
| JCZ | Jackson Bay | 3.00 | 257 | PN | | Pn | 14 40 49.3 | -0.2 |
| JCZ | | | | AML | | AML | 14 41 49.5 | |
| JCZ | | | | AML | | AML | 14 41 49.6 | |
| KIW | Kapiti Island | 3.03 | 31 | PN | | Pn | 14 40 47.9 | -1.9 |
| WKZ | Wanaka | 3.07 | 242 | *e*PN | | Pn | 14 40 49.1 | -1.3 |
| WKZ | | | | AML | | AML | 14 41 45.4 | |
| EAZ | Earnscleugh | 3.09 | 234 | ⇓PN | | Pn | 14 40 49.2 | -1.5 |
| EAZ | | | | AML | | AML | 14 41 48.9 | |
| EAZ | | | | AML | | AML | 14 41 52.8 | |
| TUZ | Tuapeka | 3.38 | 222 | PN | | Pn | 14 40 52.7 | -1.9 |
| TUZ | | | | AML | | AML | 14 41 55.8 | |
| TUZ | | | | AML | | AML | 14 41 57.4 | |
| MRZ | Mangatainoka R | 3.47 | 37 | PN | | Pn | 14 40 53.9 | -2.0 |
| TIWZ | Tintock | 3.52 | 41 | PN | | Pn | 14 40 53.9 | -2.7 |
| BFZ | Birch Farm | 3.77 | 43 | PN | | Pn | 14 40 56.7 | -3.2 |
| SYZ | Scrubby Hill | 4.04 | 219 | PN | | Pn | 14 41 02.5 | -1.2 |
| WNVZ | Wahianoa | 4.63 | 28 | PN | | Pn | 14 41 11.8 | -0.2 |
| OTVZ | Oturere | 4.80 | 27 | PN | | Pn | 14 41 13.8 | -0.5 |
| APZ | The Paps | 4.80 | 224 | *e*PN | | Pn | 14 41 12.3 | -2.0 |
| HIZ | Hauiti | 5.18 | 18 | PN | | Pn | 14 41 18.7 | -0.7 |

*NIED* ***23*** *14:44:00.36°.20N× 139°.80E, h56km, Mw4.1 Best double couple: M0 1.77000×10^15 NP1: φs294.00000°, δ15.00000°, λ-136.00000°. NP2: φs161.00000°, δ79.00000°, λ-79.00000°.*

*ISCJB* ***23*** *14:44:05.0± 0.4, 36°.12N± 0°.04× 139°.87E± 0°.05, h62km± 3km, mb3.9/20, Error ellipse: s-maj=7.2km s-min=6.5km az=179.0*

*IDC* ***23*** *14:44:06.0± 1.4, 36°.09N× 139°.87E, h56km± 13km, mb3.7/20, mb1 3.9/24, mb1mx3.8/50, mbtmp4.0/24, MS3.1/1, Ms1 3.1/1, ms1mx2.6/38, Error ellipse: s-maj=14.3km s-min=8.7km az=83.0*

*JMA* ***23*** *14:44:06.4± 0.1, 36°.15N× 139°.83E, h54km± 1km, M4.2 Broadband fault plane solution: P waves. NP1: φs13.00000°, δ82.00000°, λ71.00000°. NP2: φs260.00000°, δ21.00000°, λ155.00000°. Principal axes: T Plg50.0000°, Azm262.0000°; N Plg19.0000°, Azm16.0000°; P Plg34.0000°, Azm119.0000°;*

*JMA Felt II J1.*

**ISC 23 14:44:06.5±0.8, 36°.14N±0°.05× 139°.86E±0°.05, h59km±6km, n40, σ1s10/42, mb4.0/20, 3C-3D, Eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| JYT | Yasato | 0.28 | 72 | ⇑P | | Pn | 14 44 15.9 | -0.4 |
| JYT | | | | S | | Sn | 14 44 22.7 | -0.7 |
| JAG | Ashikaga | 0.44 | 311 | ⇓P | | Pn | 14 44 16.9 | -0.8 |
| JAG | | | | S | | Sn | 14 44 24.3 | -1.6 |
| JRY | Ryogami san | 0.79 | 261 | ⇓P | | Pn | 14 44 21.1 | -0.7 |
| JRY | | | | S | | Sn | 14 44 32.0 | -1.0 |
| JKT | Katashina | 0.80 | 322 | ⇓P | | Pn | 14 44 21.0 | -1.0 |
| JKT | | | | S | | Sn | 14 44 32.4 | -0.9 |
| JOD2 | Odawara 2 | 1.08 | 216 | ⇑P | | Pn | 14 44 25.4 | -0.1 |
| JYN | Shimob | 1.25 | 239 | ⇑P | | Pn | 14 44 28.1 | +0.3 |
| MJAR | Matsushiro Arr | 1.39 | 287 | P | | Pn | 14 44 28.9 | -0.8 |
| | 86nm,0.3s,baz=88,slow=8.5,SNR=818 | | | | | | | |
| MJAR | | | | LR | | LR | 14 44 45.4 | |
| | comp=Z,66nm,18.1s,baz=100,slow=29 | | | | | | | |
| MAT | Matsushiro | 1.40 | 287 | P | | Pn | 14 44 28.8 | -0.9 |
| MAT | | | | S | | Sn | 14 44 45.4 | -1.8 |
| JHJ | Hachijo jima 2 | 3.02 | 181 | P | | Pn | 14 44 51.2 | -0.5 |
| | 73nm,0.3s,baz=330,slow=21,SNR=18 | | | | | | | |
| JHJ | | | | S | | Sn | 14 45 24.9 | -1.8 |
| | 126nm,0.3s,baz=70,slow=22,SNR=12 | | | | | | | |
| JNU | Nakatsue | 7.99 | 250 | P | | Pn | 14 46 01.2 | +1.2 |
| | 0.3nm,0.3s,baz=126,slow=8.4,SNR=4.0 | | | | | | | |
| ASAJ | Asahikawa | 8.24 | 14 | P | | Pn | 14 46 01.9 | -1.2 |
| | 0.5nm,0.3s,baz=141,slow=19,SNR=4.4 | | | | | | | |
| ASAJ | | | | S | | Sn | 14 47 32.4 | -2.3 |
| | 0.1nm,0.3s,baz=210,slow=20,SNR=2.2 | | | | | | | |
| KSRS | Korea Array | 9.67 | 281 | P | | Pn | 14 46 24.4 | +1.6 |
| | 0.4nm,0.3s,baz=93,slow=14,SNR=8.7 | | | | | | | |
| KSRS | | | | LR | | LR | 14 50 04.4 | |
| | comp=Z,97nm,19.1s,baz=66,slow=37 | | | | | | | |
| USRK | Ussuriysk Ar. | 10.05 | 326 | P | | Pn | 14 46 31.3 | +3.4 |
| | 0.5nm,0.3s,baz=102,slow=11,SNR=4.0 | | | | | | | |
| KLR | Kul'dur | 14.37 | 338 | P | | P | 14 47 31.9 | 0.0 |
| | 0.0nm,0.3s,baz=113,slow=13,SNR=2.8 | | | | | | | |
| MA2 | Magadan | 24.50 | 13 | P | | P | 14 49 20.4 | +0.5 |
| | 4.6nm,0.5s,baz=195,slow=12,SNR=7.7 | | | | | | | |
| SONM | Songino Array | 27.27 | 306 | P | | P | 14 49 46.5 | +1.3 |
| | 1.7nm,0.8s,baz=111,slow=7.8,SNR=7.1 | | | | | | | |
| SEY | Seymchan | 27.92 | 12 | P | | P | 14 49 50.5 | -0.2 |
| | 1.2nm,0.8s,baz=180,slow=20,SNR=3.9 | | | | | | | |
| H11N2 | WAKE ISLAND Hy | 28.81 | 117 | T | | T | 15 20 12.3 | |
| | baz=313,slow=75,SNR=26 | | | | | | | |
| H11N1 | WAKE ISLAND Hy | 28.81 | 117 | T | | T | 15 20 14.5 | |
| | baz=313,slow=75,SNR=22 | | | | | | | |
| H11N3 | WAKE ISLAND Hy | 28.82 | 117 | T | | T | 15 20 14.6 | |
| | baz=313,slow=75,SNR=23 | | | | | | | |
| H11S1 | WAKE ISLAND Hy | 29.47 | 119 | T | | T | 15 21 00.3 | |
| | baz=314,slow=76,SNR=30 | | | | | | | |
| H11S3 | WAKE ISLAND Hy | 29.47 | 119 | T | | T | 15 21 01.2 | |
| | baz=314,slow=76,SNR=24 | | | | | | | |
| H11S2 | WAKE ISLAND Hy | 29.48 | 119 | T | | T | 15 21 03.2 | |
| | baz=314,slow=76,SNR=21 | | | | | | | |
| CMAR | Chiang Mai Arr | 40.06 | 255 | P | | P | 14 51 36.0 | -0.1 |
| | 0.3nm,0.4s,baz=36,slow=8.0,SNR=3.3 | | | | | | | |
| ZALV | Zalesovo Beam | 41.60 | 313 | P | | P | 14 51 48.0 | -0.3 |
| | 2.3nm,0.6s,baz=96,slow=6.7,SNR=10.0 | | | | | | | |
| ZALV | | | | PcP | | PcP | 14 53 43.4 | -1.0 |
| | 1.0nm,0.7s,baz=118,slow=3.5,SNR=3.8 | | | | | | | |
| MKAR | Makanchi Array | 43.34 | 303 | P | | P | 14 52 03.6 | -0.7 |
| | 2.6nm,0.8s,baz=89,slow=9.0,SNR=12 | | | | | | | |
| ILAR | Eielson Array | 50.91 | 32 | P | | P | 14 53 01.4 | +0.2 |
| | 0.9nm,0.6s,baz=270,slow=5.5,SNR=30 | | | | | | | |
| FITZ | Fitzroy Crossi | 55.60 | 196 | P | | P | 14 53 36.4 | +0.2 |
| | 2.9nm,0.7s,baz=29,slow=4.4,SNR=8.9 | | | | | | | |
| INK | Inuvik | 55.75 | 27 | P | | P | 14 53 37.3 | +0.7 |
| | 1.0nm,0.6s,baz=318,slow=6.9,SNR=11 | | | | | | | |
| WRA | Warramunga Arr | 56.02 | 186 | P | | P | 14 53 38.4 | -0.8 |
| | 2.3nm,0.5s,baz=1.3,slow=7.6,SNR=52 | | | | | | | |
| ASAR | Alice Springs | 59.75 | 186 | P | | P | 14 54 04.7 | -0.6 |
| | 0.8nm,0.6s,baz=23,slow=11,SNR=14 | | | | | | | |
| GEYT | Alibeck | 63.17 | 299 | P | | P | 14 54 27.7 | -0.7 |
| | 0.9nm,0.5s,baz=54,slow=9.7,SNR=3.2 | | | | | | | |
| YKA | Yellowknife Ar | 65.20 | 30 | P | | P | 14 54 41.2 | +0.1 |
| | 0.4nm,0.6s,baz=303,slow=6.4,SNR=11 | | | | | | | |
| STKA | Stephens Creek | 67.68 | 178 | P | | P | 14 54 57.2 | 0.0 |
| | 1.2nm,0.7s,baz=332,slow=7.2,SNR=4.7 | | | | | | | |
| FINES | FINESS Array B | 69.02 | 332 | P | | P | 14 55 06.2 | +0.9 |
| | 5.6nm,1.0s,baz=39,slow=9.1,SNR=3.9 | | | | | | | |
| AKASG | Malin Array Be | 74.23 | 322 | P | | P | 14 55 36.2 | -0.7 |
| | 0.5nm,0.4s,baz=51,slow=6.0,SNR=4.7 | | | | | | | |
| NOA | NORSAR Array B | 74.52 | 337 | P | | P | 14 55 38.0 | -0.5 |
| | 1.8nm,0.8s,baz=44,slow=5.8,SNR=3.2 | | | | | | | |
| NVAR | Mina Array Bea | 76.52 | 52 | P | | P | 14 55 51.6 | +1.1 |
| | 0.7nm,0.7s,baz=286,slow=6.2,SNR=6.4 | | | | | | | |
| PDAR | Pinedale Array | 79.18 | 45 | P | | P | 14 56 05.2 | -0.1 |
| | 0.3nm,0.6s,baz=216,slow=4.5,SNR=3.0 | | | | | | | |
| TXAR | Lajitas Array | 91.65 | 51 | P | | P | 14 57 07.9 | +0.4 |
| | 0.3nm,0.5s,baz=323,slow=2.8,SNR=2.5 | | | | | | | |

**IDC 23 14:44:09.2±2.2, 1°.24N× 126°.70E, h0km, mb3.4/3, mb1 3.7/3, mb1mx3.3/42, mbtmp3.5/3, Error ellipse: s-maj=176.3km s-min=26.4km az=66.0, Northern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 22.35 | 161 | P | | P | 14 49 08.3 | -0.6 |
| | 1.0nm,0.6s,baz=339,slow=11,SNR=14 | | | | | | | |
| ASAR | Alice Springs | 25.73 | 165 | P | | P | 14 49 42.0 | +0.5 |
| | 0.3nm,0.3s,baz=345,slow=12,SNR=9.4 | | | | | | | |
| MKAR | Makanchi Array | 59.58 | 326 | P | | P | 14 54 14.7 | -0.1 |
| | 0.2nm,0.5s,baz=126,slow=7.0,SNR=4.4 | | | | | | | |

*CSEM* ***23*** *14:49:30.4± 0.1, 39°.94N× 15°.98E, h10km, ML3.0/4, Error ellipse: s-maj=4.1km s-min=2.4km az=41.0*

**ROM 23 14:49:29.9±0.1, 39°.95N×16°.00E, h9km±1km, MI2.5/10, 2C, Error ellipse: s-maj=1.7km s-min=1.3km az=64.0, Southern Italy**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| T0711 | Rotonda (PZ) | 0.05 | 103 | Pg | | Pg | 14 49 32.1 | +0.3 |
| T0711 | | | | Sg | | Sg | 14 49 33.5 | +0.3 |
| | 13μm,0.2s | | | | | | | |
| MMN | Mormanno | 0.06 | 185 | ⇑*i*Pg | | Pg | 14 49 32.2 | +0.4 |
| MMN | | | | Sg | | Sg | 14 49 33.4 | +0.3 |
| | 4μm,0.3s | | | | | | | |
| MMN | Mormanno | 0.06 | 185 | ⇑*i*Pg | | Pg | 14 49 32.2 | +0.4 |
| MMN | | | | Sg | | Sg | 14 49 33.4 | +0.3 |
| | 4μm,0.3s | | | | | | | |
| CUC | Castrocucco | 0.15 | 288 | Pg | | Pg | 14 49 33.7 | +0.6 |
| CUC | | | | Sg | | Sg | 14 49 37.3 | +1.9 |
| CUC | Castrocucco | 0.15 | 288 | Pg | | Pg | 14 49 33.7 | +0.6 |
| CUC | | | | Sg | | Sg | 14 49 37.3 | +1.9 |
| SCHR | S. Chirico Rap | 0.26 | 13 | Pg | | Pg | 14 49 35.6 | +0.4 |
| SCHR | | | | Sg | | Sg | 14 49 40.0 | +1.3 |
| | 307nm,0.2s | | | | | | | |
| SALB | San Lorenzo Be | 0.28 | 104 | Pg | | Pg | 14 49 36.0 | +0.5 |
| SALB | | | | Sg | | Sb | 14 49 42.1 | +0.1 |
| | 674nm,0.4s | | | | | | | |
| SALB | San Lorenzo Be | 0.28 | 104 | Pg | | Pg | 14 49 36.0 | +0.5 |
| SALB | | | | Sg | | Sb | 14 49 42.1 | +0.1 |
| | 674nm,0.4s | | | | | | | |
| ORI | Oriolo Calabro | 0.37 | 71 | Pg | | Pb | 14 49 38.1 | -0.5 |
| | 657nm,0.4s | | | | | | | |
| ORI | Oriolo Calabro | 0.37 | 71 | Pg | | Pb | 14 49 38.1 | -0.5 |
| | 657nm,0.4s | | | | | | | |
| MTSN | Montesano sull | 0.37 | 330 | Pg | | Pg | 14 49 37.8 | +0.6 |
| | 443nm,0.4s | | | | | | | |
| MTSN | Montesano sull | 0.37 | 330 | Pg | | Pg | 14 49 37.8 | +0.6 |
| | 443nm,0.4s | | | | | | | |
| MGR | Morigerati | 0.39 | 299 | Pg | | Pg | 14 49 38.1 | +0.5 |
| | 475nm,0.3s | | | | | | | |
| MGR | Morigerati | 0.39 | 299 | Pg | | Pg | 14 49 38.1 | +0.5 |
| | 475nm,0.3s | | | | | | | |
| CET2 | Cetraro | 0.42 | 184 | Pg | | Pg | 14 49 38.8 | +0.7 |
| CET2 | | | | Sg | | Sb | 14 49 45.0 | -1.0 |
| | 410nm,0.7s | | | | | | | |
| CET2 | Cetraro | 0.42 | 184 | Pg | | Pg | 14 49 38.8 | +0.7 |
| CET2 | | | | Sg | | Sb | 14 49 45.0 | -1.0 |
| | 410nm,0.7s | | | | | | | |
| BULG | Bulgheria - Ca | 0.49 | 286 | Pg | | Pg | 14 49 39.9 | +0.4 |
| | 465nm,0.6s | | | | | | | |
| BULG | Bulgheria - Ca | 0.49 | 286 | Pg | | Pg | 14 49 39.9 | +0.4 |
| | 465nm,0.6s | | | | | | | |
| SLCN | Sala Consilina | 0.52 | 328 | Pg | | Pg | 14 49 40.6 | +0.5 |
| SLCN | | | | Sg | | Sb | 14 49 49.5 | +0.4 |
| | 429nm,0.5s | | | | | | | |
| SLCN | Sala Consilina | 0.52 | 328 | Pg | | Pg | 14 49 40.6 | +0.5 |
| SLCN | | | | Sg | | Sb | 14 49 49.5 | +0.4 |
| | 429nm,0.5s | | | | | | | |
| CMPR | Campora | 0.65 | 305 | Pg | | Pg | 14 49 42.7 | +0.3 |
| | 260nm,0.4s | | | | | | | |
| CMPR | Campora | 0.65 | 305 | Pg | | Pg | 14 49 42.7 | +0.3 |
| | 260nm,0.4s | | | | | | | |
| CELI | Celico | 0.67 | 144 | Pg | | Pb | 14 49 43.5 | -0.4 |
| CELI | Celico | 0.67 | 144 | Pg | | Pb | 14 49 43.5 | -0.4 |
| CDRU | Civita di Ruta | 0.76 | 316 | Pg | | Pg | 14 49 44.7 | +0.2 |
| | 122nm,0.5s | | | | | | | |
| CDRU | Civita di Ruta | 0.76 | 316 | Pg | | Pg | 14 49 44.7 | +0.2 |
| | 122nm,0.5s | | | | | | | |
| SG1 | Sgolgore (BA) | 1.03 | 30 | *e*Pn | | Pn | 14 49 51.7 | +1.1 |

*CSEM* ***23*** *14:49:44.0, 39°.93N× 15°.98E, h8km, MD2.3/3*

**ROM 23 14:49:44.0±0.2, 39°.93N×15°.98E, h8km, Md2.3/3, MI1.7/2, Error ellipse: s-maj=4.3km s-min=1.9km az=19.0, Southern Italy**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| MMN | Mormanno | 0.04 | 170 | Pg | | Pg | 14 49 45.8 | +0.3 |
| MMN | | | | Sg | | Sg | 14 49 47.3 | +0.7 |
| | 4μm,0.3s | | | | | | | |
| MMN | Mormanno | 0.04 | 170 | Pg | | Pg | 14 49 45.8 | +0.3 |
| MMN | | | | Sg | | Sg | 14 49 47.3 | +0.7 |
| | 4μm,0.3s | | | | | | | |
| T0711 | Rotonda (PZ) | 0.06 | 81 | Pg | | Pg | 14 49 45.8 | -0.1 |
| T0711 | | | | Sg | | Sg | 14 49 47.2 | -0.1 |
| | 13μm,0.2s | | | | | | | |
| CUC | Castrocucco | 0.14 | 298 | Pg | | Pg | 14 49 47.4 | +0.3 |
| CUC | | | | Sg | | Sg | 14 49 50.0 | +0.7 |
| CUC | Castrocucco | 0.14 | 298 | Pg | | Pg | 14 49 47.4 | +0.3 |
| CUC | | | | Sg | | Sg | 14 49 50.0 | +0.7 |
| SALB | San Lorenzo Be | 0.28 | 100 | Pg | | Pg | 14 49 50.2 | +0.5 |
| SALB | | | | Sg | | Sb | 14 49 55.9 | -0.5 |
| | 674nm,0.4s | | | | | | | |
| SALB | San Lorenzo Be | 0.28 | 100 | Pg | | Pg | 14 49 50.2 | +0.5 |
| SALB | | | | Sg | | Sb | 14 49 55.9 | -0.5 |
| | 674nm,0.4s | | | | | | | |
| MTSN | Montesano sull | 0.38 | 333 | Pg | | Pb | 14 49 53.3 | +0.2 |
| | 443nm,0.4s | | | | | | | |
| MTSN | Montesano sull | 0.38 | 333 | Pg | | Pb | 14 49 53.3 | +0.2 |
| | 443nm,0.4s | | | | | | | |

*ISCJB* ***23*** *14:52:31.0± 0.9, 33°.94S± 0°.06× 177°.6W± 0°.1, h35km, mb4.4/6, MS2.8/1, Error ellipse: s-maj=14.7km s-min=6.7km az=20.4*

*IDC* ***23*** *14:52:32.6± 1.8, 33°.80S× 178°.28W, h0km, mb4.4/5, mb1 4.5/7, mb1mx4.1/35, mbtmp4.4/7, ML3.9/2, MS3.0/1, Ms1 3.0/1, ms1mx2.6/25, Error ellipse: s-maj=48.4km s-min=29.0km az=131.0*

*NEIC* ***23*** *14:52:40.5± 7.4, 34°.14S× 178°.37W, h60km± 63km, mb4.1/1, Error ellipse: s-maj=79.5km s-min=29.2km az=197.0*

**ISC 23 14:52:35.4±1.1, 33°.93S±0°.08× 177°.8W±0°.1, h35km, n36, σ1s92/51, mb4.5/6, South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| WMGZ | Waiomatatini S | 4.94 | 217 | *e*PN | | Pn | 14 53 48.5 | +1.3 |
| WMGZ | | | | SN | | Sn | 14 54 48.5 | +5.4 |
| PKGZ | Pakihiroa | 5.17 | 219 | *e*PN | | Pn | 14 53 50.4 | 0.0 |
| PKGZ | | | | SN | | Sn | 14 54 52.4 | +3.6 |
| PUZ | Puketiti | 5.22 | 216 | PN | | Pn | 14 53 51.1 | +0.1 |
| PUZ | | | | SN | | Sn | 14 54 52.7 | +2.7 |
| HAZ | Te Kaha | 5.23 | 222 | PN | | Pn | 14 53 52.4 | +1.3 |
| TWGZ | Tauwhareparae | 5.44 | 218 | PN | | Pn | 14 53 54.2 | +0.2 |
| TWGZ | | | | SN | | Sn | 14 54 59.4 | +4.1 |
| RUGZ | Raukumara Rang | 5.44 | 221 | PN | | Pn | 14 53 55.0 | +0.9 |
| CNGZ | Carnagh Statio | 5.57 | 214 | PN | | P

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **FINES** | **FINESS Array B** | **148.49** | **338** | PKPbc | **PKPbc** | **15 12 18.8** | **+1.2** |
| | 4.6nm,0.8s,baz=27,slow=4.9,SNR=12 | | | | | | |
| **BRTR** | **Keskin Array B** | **154.24** | **292** | PKPbc | **PKPbc** | **15 12 34.2** | **+2.4** |
| | 2.2nm,1.0s,baz=157,slow=5.7,SNR=4.4 | | | | | | |

*BJI **23** 14:54:04.4,2.2°92S×148.3°33E,h7km,mb4.6/39,mB5.1/26, Ms4.9/14,Ms7 4.5/17*
*GCMT **23** 14:54:05.9±0.2,3.3°03S×148.2°29E,h17km±1km,MW5.0/89, Moment Tensor Solution. s22,c27; s89,c135; Duration: 0 Moment tensor: Scale 10^16^Nm; Mrr-0.54±.12; Mθθ2.10±.10; Mϕϕ-1.57±.10; Mrθ0.41±.24; Mrϕ2.65±.08; Mθϕ-0.06±.25; Best double couple: M○3.24900×10^16^ NP1:ϕ1287.00000°,δ89.00000°,λ-7.00000°. NP2: ϕ2-17.00000°,δ83.00000°,λ-179.00000°. Principal axes: T 3.5160, Plg5.0000°, Azm333.0000°; N -0.5390, Plg83.0000°, Azm102.0000°; P -2.9830, Plg6.0000°, Azm242.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*ISCJB **23** 14:54:05.6±0.3,3.1°2S±0.0°3×148.3°5E±0.0°5,h18km, mb4.7/36,MS4.1/22 Error ellipse: s-maj=7.6km s-min=4.4km az=178.5*
*NEIC **23** 14:54:05.9±0.3,3.0°2S×148.2°5E,h10km,mb4.8/11,Error ellipse: s-maj=9.7km s-min=6.1km az=96.0*
*IDC **23** 14:54:05.0±0.7,3.1°3S×148.3°1E,h0km,mb4.5/16, mb1 4.6/18,mb1mx4.5/38,mbtmp4.4/18,ML1.4/1,MS4.0/20, Ms1 4.0/20,ms1mx4.0/26,Error ellipse: s-maj=24.9km s-min=12.5km az=97.0*
*DJA **23** 14:54:13.7±1.6,3°S±9°×14°8E±1°2,h59km±11km,M5.1/13, mb4.7/13,mB5.5/5,MLv5.3/2,Mw(mB)5.0/5*

**ISC 23 14:54:07.6±0.4,3.05S±0.05×148.34E±0.07,h18km,n113, σ1§60/104,mb4.8/36,MS4.1/22,Bismarck Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **MANU** | **Manus Island** | **1.40** | **316** | *e*Pn | | **Pn** | **Pn** | **14 54 28.4** | **-3.9** |
| **RABL** | **Rabaul** | **3.98** | **107** | *e*Pn | | **Pn** | **Pn** | **14 55 06.3** | **-1.4** |
| **PMG** | **Port Moresby** | **6.42** | **190** | Pn | | **Pn** | **Pn** | **14 55 40.1** | **-1.2** |
| | 0.5nm,0.3s,baz=63,slow=11,SNR=2.8 | | | | | | | | |
| PMG | | | | Sn | | **Sn** | | **14 56 53.0** | **-1.2** |
| | 0.8nm,0.3s,baz=18,slow=13,SNR=2.2 | | | | | | | | |
| PMG | | | | LR | | LR | | 14 58 15.2 | |
| | comp=Z,1μm,18.0s,baz=29,slow=39 | | | | | | | | |
| **PMG** | **Port Moresby** | **6.42** | **190** | *e*Pn | | **Pn** | | **14 55 41.0** | **-0.4** |
| PMG | | | | Sn | | **Sn** | | **14 56 52.4** | **-1.8** |
| **JAY** | **Jayapura** | **7.65** | **274** | P | | **Pn** | | **14 56 00.4** | **+2.2** |
| **GENI** | **Genyem** | **8.18** | **273** | P | | **Pn** | | **14 56 05.8** | **+0.4** |
| **COEN** | **Coen** | **11.98** | **205** | P | | **Pn** | | **14 56 59.8** | **+2.2** |
| | baz=12,SNR=4.3 | | | | | | | | |
| **COEN** | **Coen** | **11.98** | **205** | *e*Pn | | **Pn** | | **14 56 57.3** | **-0.3** |
| **HNR** | **Honiara** | **13.16** | **119** | LR | | LR | | 15 02 15.2 | |
| | comp=Z,838nm,18.2s,baz=301,slow=37 | | | | | | | | |
| **MTSU** | **Mount Surprise** | **15.50** | **194** | P | | **Pn** | | **14 57 46.3** | **+0.9** |
| | baz=15,SNR=7.7 | | | | | | | | |
| **CTA** | **Charters Tower** | **17.05** | **187** | Pn | | **P** | | **14 58 06.1** | **-0.9** |
| | 0.9nm,0.3s,baz=349,slow=16,SNR=8.3 | | | | | | | | |
| **CTAO** | **Charters Tower** | **17.05** | **187** | *e*Pn | | **Pn** | | **14 58 05.6** | **+0.3** |
| | 59nm,1.3s | | | | | | | | |
| **KDU** | **Kakadu** | **18.39** | **238** | P | | **P** | | **14 58 21.5** | **-0.3** |
| | baz=18,SNR=4.1 | | | | | | | | |
| **QIS** | **Mount Isa** | **19.37** | **205** | P | | **P** | | **14 58 32.8** | **+0.3** |
| | baz=19,SNR=12 | | | | | | | | |
| **MTN** | **Manton Dam** | **19.61** | **239** | P | | **P** | | **14 58 34.4** | **-0.7** |
| | baz=20,SNR=5.2 | | | | | | | | |
| **MTN** | **Manton Dam** | **19.61** | **239** | *e*P | | **P** | | **14 58 34.8** | **-0.3** |
| | 65nm,1.0s | | | | | | | | |
| **LBMI** | **Labuha** | **20.97** | **276** | P | | Pn | | 14 59 04.2 | +12 |
| **WRAB** | **Tennant Creek** | **21.64** | **218** | *e*P | | **P** | | **14 58 55.6** | **-1.5** |
| | 41nm,0.9s | | | | | | | | |
| **WB2** | **Warramunga Arr** | **21.64** | **218** | *e*P | | **P** | | **14 58 55.5** | **-1.6** |
| **WRA** | **Warramunga Arr** | **21.65** | **218** | P | | **P** | | **14 58 55.8** | **-1.4** |
| | 18nm,0.9s,baz=43,slow=10,SNR=69 | | | | | | | | |
| WRA | | | | LR | | LR | | 15 08 35.7 | |
| | comp=Z,312nm,20.0s,baz=40,slow=40 | | | | | | | | |
| **SANI** | **Sanana** | **22.35** | **272** | P | | **P** | | **14 59 05.6** | **+0.7** |
| **RMQ** | **Roma** | **23.30** | **179** | P | | **P** | | **14 59 14.3** | **-0.3** |
| | baz=23,SNR=6.6 | | | | | | | | |
| **QLP** | **Quilpie** | **23.73** | **189** | P | | **P** | | **14 59 18.6** | **-0.1** |
| | baz=24,SNR=12 | | | | | | | | |
| **AS01** | **Alice Springs** | **24.77** | **213** | *e*P | | **P** | | **14 59 27.1** | **-1.4** |
| **AS31** | **Alice Springs** | **24.80** | **213** | *e*P | | **P** | | **14 59 27.9** | **-0.8** |
| | 9.5nm,1.0s | | | | | | | | |
| **ASAR** | **Alice Springs** | **24.80** | **213** | P | | **P** | | **14 59 28.1** | **-0.7** |
| | 12nm,0.8s,baz=40,slow=7.3,SNR=80 | | | | | | | | |
| ASAR | | | | LR | | LR | | 15 09 41.8 | |
| | comp=Z,502nm,18.9s,baz=40,slow=38 | | | | | | | | |
| **SOEI** | **Soe** | **24.82** | **253** | *e*P | | **P** | | **14 59 29.3** | **+0.1** |
| | 116nm,1.2s | | | | | | | | |
| **DAV** | **Davao City (W)** | **24.84** | **294** | LR | | LR | | 15 07 58.6 | |
| | comp=Z,136nm,20.0s,baz=92,slow=34 | | | | | | | | |
| **LUWI** | **Luwuk** | **25.63** | **274** | P | | **P** | | **14 59 41.1** | **+4.7** |
| **LUWI** | **Luwuk** | **25.63** | **274** | *e*P | | **P** | | **14 59 33.3** | **-3.1** |
| | 96nm,1.1s | | | | | | | | |
| **DZM** | **Mont Dzumac** | **25.82** | **139** | LR | | LR | | 15 08 17.6 | |
| | comp=Z,983nm,20.9s,baz=316,slow=33 | | | | | | | | |
| **DZM** | **Mont Dzumac** | **25.82** | **139** | *e*LQ | | LQ | | 15 05 05.8 | |
| | 3μm,36.0s | | | | | | | | |
| DZM | | | | *e*LR | | LR | | 15 06 07.6 | |
| | 2μm,25.9s | | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **26.81** | **234** | P | | **P** | | **14 59 46.3** | **-0.7** |
| | 36nm,1.0s,baz=64,slow=8.8,SNR=33 | | | | | | | | |
| FITZ | | | | LR | | LR | | 15 10 52.8 | |
| | comp=Z,457nm,20.0s,baz=66,slow=38 | | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **26.81** | **234** | P | | **P** | | **14 59 45.8** | **-1.2** |
| | baz=27,SNR=20 | | | | | | | | |
| **EDFI** | **Ende, Flores** | **27.10** | **257** | P | | **P** | | **14 59 56.3** | **+6.5** |
| **ARMA** | **Armidale** | **27.40** | **174** | *e*P | | **P** | | **14 59 52.0** | **-0.3** |
| | 35nm,1.5s | | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.02** | **39** | T | | T | | 15 29 15.7 | |
| | baz=222,slow=76,SNR=971 | | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.02** | **40** | T | | T | | 15 29 16.5 | |
| | baz=222,slow=76,SNR=864 | | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.03** | **39** | T | | T | | 15 29 21.1 | |
| | baz=222,slow=76,SNR=676 | | | | | | | | |
| **PCI** | **Palu** | **28.57** | **274** | P | | **P** | | **15 00 06.2** | **+3.4** |
| | 35nm,1.3s | | | | | | | | |
| **WAKE** | **Wake Island** | **28.58** | **38** | *e*P | | **P** | | **15 00 01.1** | **-1.7** |
| | 348nm,1.2s | | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **29.05** | **38** | T | | T | | 15 30 46.1 | |
| | baz=220,slow=76,SNR=278 | | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **29.07** | **38** | T | | T | | 15 30 38.3 | |
| | baz=220,slow=76,SNR=538 | | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **29.07** | **38** | T | | T | | 15 30 39.7 | |
| | baz=220,slow=76,SNR=383 | | | | | | | | |
| **WRKA** | **Warakurna** | **29.16** | **220** | P | | **P** | | **15 00 06.5** | **-1.5** |
| | baz=29,SNR=4.4 | | | | | | | | |
| **STKA** | **Stephens Creek** | **29.37** | **192** | P | | **P** | | **15 00 08.7** | **-1.0** |
| | 1.8nm,0.8s,baz=20,slow=10,SNR=4.3 | | | | | | | | |
| STKA | | | | LR | | LR | | 15 12 54.6 | |
| | comp=Z,593nm,19.1s,baz=8.7,slow=39 | | | | | | | | |
| **YNG** | **Young** | **31.09** | **180** | P | | **P** | | **15 00 24.8** | **-0.1** |
| | baz=31,SNR=6.6 | | | | | | | | |
| **BBOO** | **Buckleboo** | **31.77** | **200** | *e*P | | **P** | | **15 00 30.5** | **-0.4** |
| | 18nm,1.3s | | | | | | | | |
| **CAN** | **Canberra** | **32.11** | **179** | *e*P | | **P** | | **15 00 33.0** | **-0.9** |
| | 49nm,1.8s | | | | | | | | |
| **CNB** | **Canberra Magne** | **32.12** | **178** | P | | **P** | | **15 00 33.2** | **-0.8** |
| | baz=32,SNR=4.5 | | | | | | | | |
| **TOO** | **Toolangi** | **34.45** | **184** | P | | **P** | | **15 00 54.2** | **-0.1** |
| | baz=34,SNR=4.1 | | | | | | | | |
| **STKI** | **Sintang** | **36.98** | **274** | P | | P | | 15 01 25.2 | +8.9 |
| **JNU** | **Nakatsue** | **39.59** | **337** | P | | **P** | | **15 01 38.6** | **+0.5** |
| | 21nm,0.8s,baz=150,slow=5.4,SNR=11 | | | | | | | | |
| **JNU** | **Nakatsue** | **39.59** | **337** | *e*P | | **P** | | **15 01 37.1** | **-0.9** |
| | 23nm,0.9s | | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **40.51** | **347** | P | | **P** | | **15 01 45.9** | **+0.3** |
| | 2.0nm,1.0s,baz=185,slow=9.0,SNR=3.5 | | | | | | | | |
| MJAR | | | | LR | | LR | | 15 18 06.3 | |
| | comp=Z,187nm,18.1s,baz=165,slow=36 | | | | | | | | |
| **QIZ** | **Qiongzhong** | **43.76** | **302** | P | | **P** | | **15 02 10.0** | **-2.5** |
| QIZ | | | | S | | **S** | | **15 08 43.1** | **+0.7** |
| QIZ | | | | pmax | | pmax | | | |
| | comp=Z,160nm,4.0s | | | | | | | | |
| QIZ | | | | LR | | LR | | | |
| | comp=Z,490nm,27.2s | | | | | | | | |
| **KASI** | **Kota Agung** | **43.78** | **265** | P | | **P** | | **15 02 10.2** | **-2.5** |
| **KSRS** | **Korea Array** | **44.54** | **337** | P | | **P** | | **15 02 18.9** | **+0.6** |
| | 3.5nm,0.9s,baz=158,slow=9.6,SNR=7.3 | | | | | | | | |
| KSRS | | | | LR | | LR | | 15 19 44.1 | |
| | comp=Z,147nm,18.8s,baz=149,slow=34 | | | | | | | | |
| **KSAR** | **Wonju Array Be** | **44.55** | **337** | P | | **P** | | **15 02 18.9** | **+0.5** |
| **NJ2** | **Nanjing** | **44.75** | **324** | *e*P | | **P** | | **15 02 16.8** | **-3.3** |
| NJ2 | | | | pmax | | pmax | | | |
| | comp=Z,12nm,0.6s | | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **49.27** | **345** | LR | | LR | | 15 21 33.9 | |
| | comp=Z,136nm,21.5s,baz=143,slow=33 | | | | | | | | |
| **XAN** | **Xi'an** | **52.33** | **318** | P | | **P** | | **15 03 18.6** | **0.0** |
| XAN | | | | sP | | pP | | 15 03 23.9 | -0.4 |
| XAN | | | | pmax | | pmax | | | |
| | comp=Z,9.0nm,1.2s | | | | | | | | |
| XAN | | | | pmax | | pmax | | | |
| | comp=Z,160nm,6.4s | | | | | | | | |
| XAN | | | | LR | | LR | | | |
| | comp=Z,410nm,16.2s | | | | | | | | |
| **KMI** | **Kunming** | **52.34** | **305** | P | | **P** | | **15 03 19.8** | **+0.8** |
| KMI | | | | pmax | | pmax | | | |
| | comp=Z,16nm,0.8s | | | | | | | | |
| **CM01** | **Chiang Mai Arr** | **53.09** | **296** | *e*P | | **P** | | **15 03 21.0** | **-3.4** |
| **CMAR** | **Chiang Mai Arr** | **53.11** | **296** | P | | **P** | | **15 03 25.6** | **+1.0** |
| | 5.1nm,1.0s,baz=111,slow=5.5,SNR=20 | | | | | | | | |
| CMAR | | | | LR | | LR | | 15 26 31.3 | |
| | comp=Z,53nm,18.5s,baz=110,slow=37 | | | | | | | | |
| **CHTO** | **Chiang Mai** | **53.23** | **296** | *e*P | | **P** | | **15 03 22.0** | **-3.4** |
| | 8.2nm,1.3s | | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **55.09** | **326** | *e*P | | **P** | | **15 03 38.8** | **0.0** |
| HHC | | | | pmax | | pmax | | | |
| | comp=Z,12nm,0.9s | | | | | | | | |
| HHC | | | | pmax | | pmax | | | |
| | comp=Z,200nm,8.6s | | | | | | | | |
| **PETK** | **Petropavlovsk-** | **56.51** | **7** | P | | **P** | | **15 03 49.6** | **+1.0** |
| | 10nm,1.0s,baz=168,slow=4.9,SNR=6.0 | | | | | | | | |
| PETK | | | | LR | | LR | | 15 24 46.8 | |
| | comp=Z,90nm,21.8s,baz=182,slow=32 | | | | | | | | |
| **LZH** | **Lanzhou** | **56.91** | **317** | *e*P | | **P** | | **15 03 54.5** | **+2.5** |
| LZH | | | | pP | | pP | | 15 03 57.8 | 0.0 |
| LZH | | | | sP | | sP | | 15 03 59.3 | -0.6 |
| LZH | | | | *e*PP | | **PP** | | **15 06 02.6** | **+3.9** |
| LZH | | | | pmax | | pmax | | | |
| | comp=Z,23nm,1.3s | | | | | | | | |
| LZH | | | | pmax | | pmax | | | |
| | comp=Z,82nm,7.5s | | | | | | | | |
| LZH | | | | LR | | LR | | | |
| | comp=N,310nm,15.0s | | | | | | | | |
| LZH | | | | LR | | LR | | | |
| | comp=E,320nm,14.7s | | | | | | | | |
| LZH | | | | LR | | LR | | | |
| | comp=Z,400nm,18.0s | | | | | | | | |
| **GTA** | **Gaotai** | **61.39** | **319** | *e*P | | **P** | | **15 04 23.9** | **+1.0** |
| GTA | | | | pP | | pP | | 15 04 28.8 | +0.1 |
| GTA | | | | sP | | sP | | 15 04 31.5 | +0.6 |
| GTA | | | | pmax | | pmax | | | |
| | comp=Z,5.0nm,1.0s | | | | | | | | |
| **SHL** | **Shillong** | **61.60** | **301** | *e*P | | **P** | | **15 04 26.0** | **+1.4** |
| **ULN** | **Ulaanbaatar** | **62.22** | **330** | *e*P | | **P** | | **15 04 26.0** | **-2.4** |
| | 9.4nm,1.0s | | | | | | | | |
| **PPT** | **Papeete** | **62.49** | **108** | LR | | LR | | 15 30 07.1 | |
| | comp=Z,37nm,18.1s,baz=318,slow=35 | | | | | | | | |
| **PPT2** | **Papeete2** | **62.49** | **108** | *e*LQ | | LQ | | 15 20 17.8 | |
| | 417nm,32.2s | | | | | | | | |
| PPT2 | | | | *e*LR | | LR | | 15 23 15.1 | |
| | 114nm,26.2s | | | | | | | | |
| **SONM** | **Songino Array** | **62.53** | **329** | P | | **P** | | **15 04 31.4** | **+1.0** |
| | 4.9nm,0.9s,baz=148,slow=5.9,SNR=14 | | | | | | | | |
| SONM | | | | LR | | LR | | 15 31 52.0 | |
| | comp=Z,192nm,19.6s,baz=135,slow=36 | | | | | | | | |
| **SONA1** | **Songino Array** | **62.53** | **330** | *e*P | | **P** | | **15 04 28.6** | **-1.9** |
| **TBI** | **Tubuai** | **63.33** | **115** | *e*LR | | LR | | 15 23 31.8 | |
| | 201nm,31.0s | | | | | | | | |
| **TAPN** | **Taplejung** | **65.70** | **302** | *e*P | | **P** | | **15 04 52.5** | **+0.6** |
| **ODAN** | **Odare** | **65.83** | **301** | *e*P | | **P** | | **15 04 53.0** | **+0.3** |
| | 26nm,1.0s | | | | | | | | |
| **RAMN** | **Ramite** | **66.54** | **301** | *e*P | | **P** | | **15 04 57.7** | **+0.5** |
| **GUN** | **Gumba** | **67.42** | **302** | *e*P | | **P** | | **15 05 03.3** | **+0.4** |
| | 34nm,1.0s | | | | | | | | |
| **PKI** | **Pulchoki** | **67.73** | **301** | *e*P | | **P** | | **15 05 05.0** | **+0.2** |
| | 9.8nm,0.8s | | | | | | | | |
| **KKN** | **Kakani** | **67.90** | **302** | *e*P | | **P** | | **15 05 06.2** | **+0.4** |
| | 17nm,0.9s | | | | | | | | |
| **DMN** | **Daman** | **68.00** | **301** | *e*P | | **P** | | **15 05 07.0** | **+0.6** |
| | 40nm,1.0s | | | | | | | | |
| **KOLN** | **Koldanda** | **69.33** | **301** | *e*P | | **P** | | **15 05 14.8** | **+0.1** |
| | 27nm,1.0s | | | | | | | | |
| **PYUN** | **Piuthan** | **69.93** | **301** | *e*P | | **P** | | **15 05 18.5** | **+0.1** |
| **TAOE** | **Nuku Hiva Isla** | **71.27** | **98** | *e*LR | | LR | | 15 27 06.7 | |
| | 174nm,28.7s | | | | | | | | |
| **WMQ** | **Urumqi** | **71.47** | **318** | P | | **P** | | **15 05 27.3** | **0.0** |
| WMQ | | | | pP | | pP | | 15 05 32.0 | -1.2 |
| WMQ | | | | sP | | sP | | 15 05 34.3 | -1.1 |
| WMQ | | | | pmax | | pmax | | | |
| | comp=Z,21nm,1.1s | | | | | | | | |
| WMQ | | | | LR | | LR | | | |
| | comp=N,250nm,17.7s | | | | | | | | |
| WMQ | | | | LR | | LR | | | |
| | comp=E,280nm,20.7s | | | | | | | | |
| **VNDA** | **Vanda** | **74.76** | **177** | P | | **P** | | **15 05 45.9** | **-0.2** |
| | 1.5nm,0.8s,baz=322,slow=12,SNR=4.0 | | | | | | | | |
| VNDA | | | | LR | | LR | | 15 36 57.4 | |
| | comp=Z,73nm,18.3s,baz=345,slow=34 | | | | | | | | |
| **MK01** | **Makanchi Array** | **76.09** | **320** | *e*P | | **P** | | **15 05 53.8** | **-0.5** |
| **MK31** | **Makanchi Array** | **76.11** | **320** | *e*P | | **P** | | **15 05 53.5** | **-0.9** |
| **MKAR** | **Makanchi Array** | **76.11** | **320** | P | | **P** | | **15 05 54.9** | **+0.5** |
| | 5.8nm,1.0s,baz=91,slow=4.8,SNR=14 | | | | | | | | |
| MKAR | | | | LR | | LR | | 15 39 55.1 | |
| | comp=Z,129nm,18.9s,baz=56,slow=36 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **76.11** | **320** | *e*P | | **P** | | **15 05 53.5** | **-0.9** |
| | 37nm,1.2s | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **77.26** | **327** | P | | **P** | | **15 06 00.3** | **-0.3** |
| | 5.1nm,1.0s,baz=101,slow=5.3,SNR=12 | | | | | | | | |
| ZALV | | | | LR | | LR | | 15 38 37.6 | |
| | comp=Z,126nm,21.5s,baz=72,slow=35 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **77.26** | **327** | *e*P | | **P** | | **15 05 59.9** | **-0.8** |
| **KSH** | **Kashi** | **78.44** | **311** | P | | **P** | | **15 06 07.4** | **-0.4** |
| KSH | | | | pP | | pP | | 15 06 10.8 | -2.9 |
| KSH | | | | PcP | | **PcP** | | **15 06 16.5** | **-0.4** |
| KSH | | | | PP | | **PP** | | **15 09 06.3** | **+1.0** |
| KSH | | | | S | | **S** | | **15 16 02.3** | **-0.9** |
| KSH | | | | ScS | | **SKKSac** | | **15 16 23.8** | **+0.6** |
| KSH | | | | SS | | **SS** | | **15 21 07.8** | **+1.2** |
| KSH | | | | pmax | | pmax | | | |
| | comp=Z,4.0nm,1.0s | | | | | | | | |
| KSH | | | | pmax | | pmax | | | |
| | comp=Z,350nm,7.3s | | | | | | | | |
| KSH | | | | LR | | LR | | | |
| | comp=N,90nm,5.7s | | | | | | | | |
| KSH | | | | LR | | LR | | | |
| | comp=E,95nm,6.7s | | | | | | | | |
| KSH | | | | LR | | LR | | | |
| | comp=Z,470nm,7.7s | | | | | | | | |
| **KZA** | **Kyzart** | **79.58** | **314** | P | | **P** | | **15 06 16.2** | **+1.9** |
| | SNR=9.9 | | | | | | | | |
| **KURK** | **Kurchatov** | **79.68** | **323** | *e*P | | **P** | | **15 06 13.4** | **-0.7** |
| | 12nm,1.0s | | | | | | | | |
| **KBK** | **Karagaybulak** | **79.93** | **314** | P | | **P** | | **15 06 14.3** | **-1.6** |
| | SNR=5.7 | | | | | | | | |
| **UCH** | **Uchtor** | **80.14** | **314** | P | | **P** | | **15 06 18.9** | **+1.5** |
| | SNR=9.7 | | | | | | | | |
| **IMAR** | **Indian Mountai** | **80.28** | **21** | *e*P | | **P** | | **15 06 16.1** | **-0.9** |
| **USP** | **Ospenovka** | **80.39** | **315** | P | | **P** | | **15 06 19.1** | **+0.9** |
| | SNR=6.4 | | | | | | | | |
| **AML** | **Almayashu** | **80.72** | **313** | P | | **P** | | **15 06 21.6** | **+1.2** |
| | SNR=12 | | | | | | | | |
| **EKS2** | **Erkin-Say** | **80.77** | **314** | P | | **P** | | **15 06 21.6** | **+1.2** |
| | SNR=7.5 | | | | | | | | |
| **IL1** | **Eielson Array** | **82.26** | **23** | *e*P | | **P** | | **15 06 26.6** | **-1.1** |
| **ILAR** | **Eielson Array** | **82.26** | **23** | P | | **P** | | **15 06 28.0** | **+0.4** |
| | 3.2nm,1.0s,baz=250,slow=4.5,SNR=16 | | | | | | | | |
| **GEYT** | **Alibeck** | **92.03** | **308** | LR | | LR | | 15 51 07.4 | |
| | comp=Z,95nm,18.6s,baz=340,slow=37 | | | | | | | | |
| **NVAR** | **Mina Array Bea** | **94.51** | **52** | P | | **P** | | **15 07 29.4** | **+1.8** |
| | 0.8nm,1.0s,baz=270,slow=6.6,SNR=4.2 | | | | | | | | |
| NVAR | | | | LR | | LR | | 15 43 10.9 | |
| | comp=Z,122nm,20.3s,baz=334,slow=31 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **95.96** | **28** | P | | **P** | | **15 07 33.9** | **+0.6** |
| | 1.8nm,0.8s,baz=274,slow=4.7,SNR=24 | | | | | | | | |
| **LPAZ** | **La Paz** | **139.15** | **119** | PKP | | **PKPdf** | | **15 13 36.1** | **+0.9** |
| | 2.1nm,1.0s,baz=238,slow=2.5,SNR=3.7 | | | | | | | | |
| **CPUP** | **Villa Florida** | **141.66** | **141** | PKP | | **PKPdf** | | **15 13 38.2** | **-0.6** |
| | 2.4nm,1.0s,baz=330,slow=3.9,SNR=3.4 | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **145.54** | **289** | PKPbc | | **PKPab** | | **15 13 47.4** | **+1.2** |
| | 3.2nm,0.9s,baz=64,slow=2.3,SNR=12 | | | | | | | | |
| **PTGA** | **Pitinga** | **151.45** | **97** | PKPbc | | **PKPbc** | | **15 14 02.0** | **+0.4** |
| | 4.5nm,0.7s,baz=295,slow=15,SNR=5.8 | | | | | | | | |

*IDC **23** 14:59:26.6±2.2,21.°48S×69.°39W,h0km,mb3.7/2, mb1 3.9/4,mb1mx3.7/24,mbtmp3.8/4,ML3.7/2,Error ellipse: s-maj=56.5km s-min=50.2km az=166.0*
*ISCJB **23** 14:59:41.5±0.7,20.°52S±0.°04×69.°20W±0.°10,h98km±6km, mb3.4/2,Error ellipse: s-maj=15.3km s-min=5.8km az=176.4*
*GUC **23** 14:59:41.3±0.5,20.°50S×69.°18W,h92km±3km,ML4.0*

**ISC 23 14:59:41.8±0.9,20.51S±0.°04×69.16W±0.°09,h90km±8km, n13,σ1§07/21,5C-2D,Northern Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **PB08** | **IPOC Station P** | **0.37** | **1** | ⇓*i*P | | **Pn** | | **14 59 56.4** | **+0.3** |
| PB08 | | | | *e*S | | **Sn** | | **15 00 07.5** | **+0.9** |
| PB08 | | | | IAML | | | | 15 00 08.1 | |
| | comp=E,6μm,0.2s | | | | | | | | |
| **PB01** | **IPOC Station P** | **0.61** | **210** | ⇑*i*P | | **Pn** | | **14 59 57.4** | **-0.2** |
| PB01 | | | | *e*S | | **Sn** | | **15 00 09.6** | **+0.2** |
| PB01 | | | | IAML | | | | 15 00 11.3 | |
| | comp=E,8μm,0.2s | | | | | | | | |
| **PB11** | **IPOC Station P** | **0.88** | **328** | ⇑*i*P | | **Pn** | | **15 00 00.5** | **+0.2** |
| PB11 | | | | *e*S | | **Sn** | | **15 00 14.8** | **+0.6** |
| **PB02** | **IPOC Station P** | **1.06** | **220** | ⇑*i*P | | **Pn** | | **15 00 02.4** | **+0.1** |
| PB02 | | | | *e*S | | **Sn** | | **15 00 18.3** | **+0.6** |
| PB02 | | | | IAML | | | | 15 00 19.4 | |
| | comp=E,8μm,0.4s | | | | | | | | |
| **PSGC** | **Pisagua** | **1.28** | **315** | ⇑*i*P | | **Pn** | | **15 00 04.9** | **-0.1** |
| PSGC | | | | *e*S | | **Sn** | | **15 00 22.8** | **+0.5** |
| PSGC | | | | IAML | | | | 15 00 24.1 | |
| | comp=N,2μm,0.9s | | | | | | | | |
| **PB09** | **IPOC Station P** | **1.28** | **183** | ⇓*i*P | | **Pn** | | **15 00 05.4** | **+0.4** |
| PB09 | | | | *e*S | | **Sn** | | **15 00 23.6** | **+1.1** |
| PB09 | | | | IAML | | | | 15 00 24.3 | |
| | comp=N,5μm,0.4s | | | | | | | | |
| **PB07** | **IPOC Station P** | **1.39** | **209** | ⇑*i*P | | **Pn** | | **15 00 06.2** | **-0.1** |
| PB07 | | | | *e*S | | **Sn** | | **15 00 25.5** | **+0.6** |
| PB07 | | | | IAML | | | | 15 00 25.8 | |
| | comp=N,2μm,0.2s | | | | | | | | |
| **PB12** | **IPOC Station P** | **2.18** | **329** | *e*P | | **Pn** | | **15 00 16.5** | **0.0** |
| PB12 | | | | *e*S | | **Sn** | | **15 00 43.4** | **+0.4** |
| PB12 | | | | IAML | | | | 15 00 50.2 | |
| | comp=E,4μm,0.4s | | | | | | | | |
| **LPAZ** | **La Paz** | **4.31** | **13** | Pn | | **Pn** | | **15 00 48.5** | **+2.8** |
| | comp=E,1.0nm,0.3s,baz=188,slow=6.4,SNR=16 | | | | | | | | |
| **SIV** | **San Ignacio** | **8.90** | **61** | Pn | | **Pn** | | **15 01 45.1** | **-2.6** |
| | comp=E,1.0nm,0.3s,baz=259,slow=12,SNR=18 | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **77.25** | **71** | P | | **P** | | **15 11 26.4** | **-0.4** |
| | comp=E,0.3nm,0.4s,baz=252,slow=5.3,SNR=6.4 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **90.18** | **341** | P | | **P** | | **15 12 31.6** | **0.0** |
| | comp=E,0.3nm,0.9s,baz=126,slow=4.3,SNR=5.6 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **144.96** | **35** | PKPbc | | **PKPdf** | | **15 19 07.6** | **-1.0** |
| | comp=E,0.9nm,1.0s,baz=294,slow=4.3,SNR=3.1 | | | | | | | | |

*IDC **23** 15:00:26.3±2.6,33.°53S×178.°20W,h0km,mb4.1/4, mb1 4.3/5,mb1mx3.9/30,mbtmp4.1/5,ML3.8/1,Error ellipse: s-maj=59.5km s-min=44.5km az=135.0*
*ISCJB **23** 15:00:27.8±1.7,33.°74S±0.°10×178.°0W±0.°3,h34km, mb4.1/4,Error ellipse: s-maj=34.1km s-min=8.1km az=19.6*

**ISC 23 15:00:30.6±2.1,33.°7S±0.°1×178.°1W±0.°3,h34km,n16, σ1§22/24,mb4.1/4,South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **WMGZ** | **Waiomatatini S** | **5.01** | **213** | *e*PN | | **Pn** | | **15 01 44.1** | **+0.7** |
| WMGZ | | | | SN | | **Sn** | | **15 02 43.4** | **+3.4** |
| **PKGZ** | **Pakihiroa** | **5.22** | **215** | *e*PN | | **Pn** | | **15 01 44.8** | **-1.6** |
| PKGZ | | | | SN | | **Sn** | | **15 02 46.1** | **+0.6** |
| **HAZ** | **Te Kaha** | **5.27** | **218** | *e*PN | | **Pn** | | **15 01 47.8** | **+0.9** |
| HAZ | | | | SN | | **Sn** | | **15 02 47.8** | **+1.4** |
| **PUZ** | **Puketiti** | **5.29** | **213** | PN | | **Pn** | | **15 01 47.6** | **+0.3** |
| PUZ | | | | SN | | **Sn** | | **15 02 46.9** | **-0.1** |
| **RUGZ** | **Raukumara Rang** | **5.48** | **217** | *e*PN | | **Pn** | | **15 01 48.4** | **-1.6** |
| **CNGZ** | **Carnagh Statio** | **5.65** | **211** | PN | | **Pn** | | **15 01 50.8** | **-1.4** |
| **MWZ** | **Matawai** | **5.84** | **216** | PN | | **Pn** | | **15 01 53.1** | **-1.7** |
| MWZ | | | | SN | | **Sn** | | **15 03 00.9** | **+0.2** |
| **URZ** | **Urewera** | **6.00** | **219** | Pn | | **Pn** | | **15 01 57.6** | **+0.6** |
| | 2.3nm,0.3s,baz=259,slow=4.8,SNR=3.6 | | | | | | | | |
| URZ | | | | Sn | | **Sn** | | **15 03 03.4** | **-0.9** |
| | 3.0nm,0.3s,baz=222,slow=15,SNR=8.0 | | | | | | | | |
| **URZ** | **Urewera** | **6.00** | **219** | PN | | **Pn** | | **15 01 56.7** | **-0.3** |
| URZ | | | | SN | | **Sn** | | **15 03 02.9** | **-1.5** |
| **RIGZ** | **Rimuhau** | **6.03** | **212** | SN | | **Sn** | | **15 03 05.1** | **-0.2** |
| **SNGZ** | **Shannon Statio** | **6.29** | **214** | *e*PN | | **Pn** | | **15 01 59.6** | **-1.3** |
| **CTA** | **Charters Tower** | **34.36** | **284** | P | | **P** | | **15 07 14.8** | **+0.3** |
| | 2.1nm,0.4s,baz=135,slow=10.0,SNR=3.2 | | | | | | | | |
| **ASAR** | **Alice Springs** | **42.94** | **270** | P | | **P** | | **15 08 26.2** | **-0.2** |
| | 2.3nm,0.7s,baz=112,slow=7.3,SNR=38 | | | | | | | | |
| ASAR | | | | PcP

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| EAZ | | | | | AML | AML | 15 35 29.7 | |
| EAZ | | | | | AML | AML | 15 35 29.7 | |
| MTW | Mount Morrison | 3.11 | 42 | PN | Pn | Pn | 15 34 37.1 | -2.0 |
| OGWZ | Otaki Gorge | 3.24 | 34 | PN | Pn | Pn | 15 34 39.4 | -1.5 |
| TUZ | Tuapeka | 3.30 | 221 | PN | Pn | Pn | 15 34 39.8 | -1.9 |
| TUZ | | | | | AML | AML | 15 35 42.3 | |
| TUZ | | | | | AML | AML | 15 35 42.3 | |
| TUZ | | | | | AML | AML | 15 35 43.9 | |
| TUZ | | | | | AML | AML | 15 35 43.9 | |
| MRZ | Mangatainoka R | 3.54 | 37 | PN | Pn | Pn | 15 34 43.1 | -1.9 |
| MLZ | Mavora Lakes | 3.80 | 239 | PN | Pn | Pn | 15 34 47.0 | -1.6 |
| BFZ | Birch Farm | 3.84 | 44 | PN | Pn | Pn | 15 34 46.7 | -2.4 |
| SYZ | Scrubby Hill | 3.96 | 219 | PN | Pn | Pn | 15 34 49.5 | -1.2 |
| WHZ | Wether Hill Ro | 4.17 | 234 | PN | Pn | Pn | 15 34 51.3 | -2.3 |
| DCZ | Deep Cove | 4.46 | 242 | PN | Pn | Pn | 15 34 56.1 | -1.4 |
| VRZ | Vera Road | 4.64 | 20 | PN | Pn | Pn | 15 35 01.4 | +1.3 |
| WNVZ | Wahianoa | 4.70 | 28 | PN | Pn | Pn | 15 35 01.4 | +0.3 |
| APZ | The Paps | 4.73 | 224 | PN | Pn | Pn | 15 34 59.8 | -1.5 |
| OTVZ | Oturere | 4.87 | 28 | *e*PN | Pn | Pn | 15 35 03.1 | -0.3 |

*ISCJB **23** 15:35:03.7±0.8, 43°.75N±0°.09×138°.6E±0°.1, h274km, mb2.9/4, Error ellipse: s-maj=12.5km s-min=10.2km az=12.8*
*JMA **23** 15:35:07.5±0.5, 43°.73N×138°.66E, h247km, M3.2*
*IDC **23** 15:35:09.6±8.0, 43°.10N×138°.23E, h374km±162km, mb2.6/4, mb1 2.8/5, mb1mx2.6/40, mbtmp3.4/5, Error ellipse: s-maj=151.5km s-min=22.6km az=178.0*

**ISC 23 15:35:03.7**±1.0, **43°.68N**±0°.10×**138°.55E**±0°.09, **h274**km, **n16,** σ1§**88**/17, **mb2.8/4, Eastern Sea of Japan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JHR | Hokuryu | 2.31 | 87 | P | Pn | 15 35 52.2 | +1.4 |
| JKB | Kayabe | 2.56 | 134 | P | Pn | 15 35 54.6 | +1.3 |
| JWK2 | Keihoku | 2.90 | 55 | P | Pn | 15 35 57.7 | +1.2 |
| JKK2 | Kamakawa 2 | 3.05 | 85 | P | Pn | 15 36 00.0 | +1.9 |
| JNBK | Urakawa-nobuka | 3.39 | 113 | P | Pn | 15 36 03.7 | +1.9 |
| JCH | Churui | 3.68 | 105 | P | Pn | 15 36 05.3 | +0.3 |
| JCH | | | | *e*S | S | 15 36 52.4 | -1.5 |
| JAR | Ashorobuto | 3.82 | 94 | P | Pn | 15 36 08.2 | +1.7 |
| JTKR | Abashiri--Toko | 3.89 | 84 | P | Pn | 15 36 08.9 | +1.6 |
| JAK | Akkeshi | 4.54 | 97 | *e*S | S | 15 37 09.9 | -1.6 |
| JMK | Ichinoseki | 5.14 | 156 | P | Pn | 15 36 23.3 | +1.4 |
| NEM2 | Nemuro 2 | 5.24 | 91 | *e*S | S | 15 37 23.2 | -3.5 |
| MJAR | Matsushiro Arr<br>1.4nm,0.3s,baz=5.6,slow=12,SNR=18 | 7.14 | 182 | P | Pn | 15 36 47.8 | +1.4 |
| MJAR | | | | S | S | 15 37 56.9 | -12 |
| | 0.4nm,0.3s,baz=123,slow=18,SNR=4.2 | | | | | | |
| ZALV | Zalesovo Beam<br>0.4nm,0.3s,baz=96,slow=8.4,SNR=2.7 | 36.02 | 306 | P | P | 15 41 37.4 | -1.4 |
| MKAR | Makanchi Array<br>0.3nm,0.7s,baz=81,slow=9.1,SNR=5.2 | 39.02 | 295 | P | P | 15 42 01.7 | -2.3 |
| ILAR | Eielson Array<br>0.4nm,0.9s,baz=268,slow=5.9,SNR=4.4 | 45.21 | 36 | P | P | 15 42 55.2 | +1.9 |
| YKA | Yellowknife Ar<br>0.2nm,0.9s,baz=307,slow=6.9,SNR=2.8 | 59.21 | 31 | P | P | 15 44 36.1 | +0.3 |

*IDC **23** 15:36:40.4±0.8, 0°.14S×125°.53E, h0km, mb4.1/8, mb1 4.2/9, mb1mx3.9/41, mbtmp4.1/9, ML3.9/1, Error ellipse: s-maj=54.8km s-min=14.8km az=75.0*
*DJA **23** 15:36:43.9±2.0, 0°.5S±7°×12°.6E±°, h117km±46km, M3.9/5, MLv3.9/5*
*ISCJB **23** 15:36:44.5±0.4, 0°.20S±0°.05×125°.64E±0°.04, h49km, mb4.2/10, Error ellipse: s-maj=8.0km s-min=6.0km az=18.0*
*NEIC **23** 15:36:45.0±0.5, 0°.09S×125°.71E, h35km, mb4.2/1, Error ellipse: s-maj=14.7km s-min=9.9km az=82.0*

**ISC 23 15:36:46.3**±0.6, **0°.21S**±0°.06×**125°.70E**±0°.04, **h49**km, **n23,** σ1§**96**/28, **mb4.1**/10, **Southern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LBMI | Labuha | 1.85 | 103 | P | Pn | 15 37 15.5 | -0.2 |
| LBMI | | | | S | Sn | 15 37 37.0 | -1.0 |
| SANI | Sanana | 1.85 | 171 | P | Pn | 15 37 15.6 | -0.1 |
| SANI | | | | S | Sn | 15 37 20.4 | -18 |
| KMSI | Cibinong | 1.88 | 294 | P | Pn | 15 37 15.7 | -0.4 |
| TNTI | Ternate | 1.93 | 60 | *e*Pn | Pn | 15 37 13.5 | -3.3 |
| TNTI | | | | *e*Sn | Sn | 15 37 43.1 | +3.2 |
| LUWI | Luwuk | 3.04 | 254 | P | Pn | 15 37 29.9 | -2.0 |
| LUWI | Luwuk | 3.04 | 254 | *e*Pn | Pn | 15 37 30.4 | -1.6 |
| LUWI | | | | *e*Sn | Sn | 15 38 02.9 | -4.2 |
| NLAI | Namlea | 3.32 | 155 | P | Pn | 15 37 32.8 | -3.0 |
| MRSI | Marisa | 3.82 | 280 | P | Pn | 15 37 42.3 | -0.3 |
| APSI | Ampana | 4.11 | 260 | P | Pn | 15 37 50.2 | +3.6 |
| FITZ | Fitzroy Crossi<br>0.3nm,0.3s,baz=7.2,slow=10,SNR=11 | 17.78 | 180 | P | P | 15 40 52.0 | +1.3 |
| WRAB | Tennant Creek<br>6.8nm,0.6s | 21.36 | 157 | *e*P | P | 15 41 29.8 | +0.1 |
| WRA | Warramunga Arr<br>4.1nm,0.8s,baz=340,slow=11,SNR=29 | 21.36 | 157 | P | P | 15 41 30.0 | +0.3 |
| ASAR | Alice Springs<br>2.1nm,0.6s,baz=344,slow=10,SNR=67 | 24.64 | 162 | P | P | 15 42 04.2 | +1.7 |
| ASAR | | | | PcP | PcP | 15 45 40.2 | +1.0 |
| | 0.3nm,0.5s,baz=348,slow=2.3,SNR=5.6 | | | | | | |
| STKA | Stephens Creek<br>1.9nm,0.5s,baz=328,slow=7.1,SNR=9.5 | 34.91 | 156 | P | P | 15 43 35.1 | +1.7 |
| STKA | | | | PcP | PcP | 15 46 06.8 | +1.4 |
| | 1.0nm,0.8s,baz=329,slow=5.9,SNR=2.9 | | | | | | |
| KSAR | Wonju Array Be | 37.52 | 3 | P | P | 15 43 56.5 | +1.0 |
| KSRS | Korea Array<br>1.8nm,0.8s,baz=183,slow=10.0,SNR=6.4 | 37.53 | 3 | P | P | 15 43 56.5 | +0.9 |
| ULN | Ulaanbaatar | 50.55 | 344 | *e*P | P | 15 45 40.5 | +0.4 |
| SONM | Songino Array<br>0.8nm,0.6s,baz=158,slow=9.0,SNR=5.3 | 50.71 | 343 | P | P | 15 45 41.4 | +0.2 |
| PETK | Petropavlovsk-<br>3.8nm,0.9s,baz=199,slow=2.7,SNR=6.6 | 59.44 | 22 | P | P | 15 46 44.3 | +0.3 |
| MKAR | Makanchi Array<br>1.6nm,0.5s,baz=124,slow=7.9,SNR=44 | 60.23 | 327 | P | P | 15 46 49.0 | -0.6 |
| YAK | Yakutsk<br>15nm,0.8s | 62.15 | 2 | P | P | 15 46 58.6 | -3.5 |
| ZALV | Zalesovo Beam<br>0.5nm,0.5s,baz=123,slow=5.5,SNR=3.9 | 63.64 | 334 | P | P | 15 47 11.9 | -0.3 |
| KURK | Kurchatov | 64.52 | 329 | *e*P | P | 15 47 16.9 | -1.1 |

*ISCJB **23** 15:46:15.3±0.5, 17°.3S±0°.1×66°.50E±0°.09, h14km, mb4.1/13, MS3.9/15, Error ellipse: s-maj=15.5km s-min=12.1km az=170.9*
*IDC **23** 15:46:15.3±0.6, 17°.34S×66°.49E, h0km, mb4.1/12, mb1 4.2/13, mb1mx3.9/49, mbtmp4.1/13, ML3.7/1, MS3.8/16, Ms1 3.8/16, ms1mx3.7/43, Error ellipse: s-maj=19.7km s-min=16.7km az=164.0*
*NEIC **23** 15:46:16.8±0.4, 17°.38S×66°.48E, h10km, mb4.4/1, Error ellipse: s-maj=13.0km s-min=10.4km az=168.0*

**ISC 23 15:46:17.8**±0.6, **17°.3S**±0°.1×**66°.5E**±0°.1, **h14**km, **n42,** σ1§**34**/20, **mb4.2**/13, **MS3.9**/15, **3C-1D, Mauritius-Reunion region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| H08S1 | Diego Carcia H<br>baz=210,slow=75,SNR=185 | 11.24 | 32 | T | T | 16 00 23.0 | |
| H08S2 | Diego Garcia H<br>baz=210,slow=75,SNR=157 | 11.25 | 32 | T | T | 16 00 31.9 | |
| H08S3 | Diego Garcia H<br>baz=210,slow=75,SNR=1085 | 11.26 | 32 | T | T | 16 00 23.8 | |
| H08N3 | Diego Garcia H<br>baz=201,slow=76,SNR=112 | 11.75 | 23 | T | T | 16 01 53.6 | |
| H08N1 | Diego Carcia H<br>baz=201,slow=76,SNR=182 | 11.76 | 23 | T | T | 16 01 57.3 | |
| H08N2 | Diego Garcia H<br>baz=201,slow=76,SNR=137 | 11.77 | 23 | T | T | 16 01 52.0 | |
| OPO | Ambohidratompo<br>0.2nm,0.3s,baz=114,slow=20,SNR=2.7 | 18.40 | 263 | P | Pn | 15 50 32.2 | -0.6 |
| OPO | | | | LR | LR | 15 55 49.1 | |
| | comp=Z,250nm,19.0s,baz=122,slow=31 | | | | | | |
| PALK | Pallekele<br>comp=Z,130nm,18.4s,baz=119,slow=33 | 28.18 | 31 | LR | LR | 16 01 48.0 | |
| KMBO | Kilima Mbogo<br>0.9nm,0.3s,baz=70,slow=4.5,SNR=3.6 | 32.93 | 296 | P | P | 15 52 52.2 | -0.2 |
| KMBO | | | | LR | LR | 16 04 09.2 | |
| | comp=Z,252nm,18.2s,baz=94,slow=33 | | | | | | |
| MATP | Matopo<br>1.2nm,0.6s,baz=78,slow=12,SNR=2.5 | 36.02 | 259 | P | P | 15 53 17.5 | -1.5 |
| LBTB | Lobatse<br>6.7nm,0.8s,baz=90,slow=8.3,SNR=8.4 | 38.77 | 251 | P | P | 15 53 41.8 | -0.5 |
| BOSA | Boshof<br>comp=Z,40nm,18.1s,baz=41,slow=31 | 39.41 | 246 | LR | LR | 16 06 41.6 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| H01W2 | Cape Leeuwin H<br>baz=280,slow=75,SNR=364 | 45.79 | 122 | T | T | 16 43 37.9 | | |
| H01W3 | Cape Leeuwin H<br>baz=280,slow=75,SNR=264 | 45.79 | 122 | T | T | 16 43 37.4 | | |
| H01W1 | Cape Leeuwin H<br>baz=280,slow=75,SNR=341 | 45.81 | 122 | T | T | 16 43 38.6 | | |
| CMAR | Chiang Mai Arr<br>1.2nm,0.9s,baz=236,slow=9.1,SNR=10 | 47.78 | 43 | P | P | 15 54 55.1 | +0.2 |
| CMAR | | | | LR | LR | 16 11 54.1 | | |
| | comp=Z,53nm,22.0s,baz=237,slow=32 | | | | | | | |
| MAW | Mawson<br>3.2nm,0.7s,baz=354,slow=8.4,SNR=5.8 | 50.33 | 182 | P | P | 15 55 13.6 | -0.1 | |
| MAW | | | | LR | LR | 16 10 55.9 | | |
| | comp=Z,125nm,21.5s,baz=57,slow=29 | | | | | | | |
| GEYT | Alibeck<br>comp=Z,107nm,18.5s,baz=15,slow=33 | 55.50 | 352 | LR | LR | 16 16 47.8 | | |
| ASAR | Alice Springs<br>1.9nm,0.7s,baz=272,slow=5.6,SNR=39 | 62.99 | 108 | P | P | 15 56 43.5 | -1.1 | |
| ASAR | | | | LR | LR | 16 20 53.6 | | |
| | comp=Z,314nm,19.4s,baz=286,slow=33 | | | | | | | |
| WRA | Warramunga Arr<br>3.2nm,0.9s,baz=267,slow=5.7,SNR=20 | 63.97 | 104 | P | P | 15 56 50.6 | -0.5 | |
| WRA | | | | LR | LR | 16 20 09.0 | | |
| | comp=Z,106nm,21.6s,baz=255,slow=32 | | | | | | | |
| WRAB | Tennant Creek<br>2.4nm,0.8s | 63.98 | 104 | *e*P | P | 15 56 50.5 | -0.7 | |
| BRTR | Keskin Array B<br>comp=Z,63nm,18.7s,baz=280,slow=35 | 64.48 | 332 | LR | LR | 16 23 52.9 | | |
| MKAR | Makanchi Array<br>1.3nm,0.9s,baz=218,slow=7.7,SNR=5.7 | 65.37 | 12 | P | P | 15 56 58.1 | -1.6 | |
| VNA2 | Neumayer--Watz<br>baz=193,slow=3.1 | 68.50 | 200 | P | P | 15 57 23.0 | +3.6 | |
| STKA | Stephens Creek<br>comp=Z,66nm,21.3s,baz=211,slow=31 | 68.65 | 118 | LR | LR | 16 21 55.5 | | |
| TORD | Torodi Ar. Bea<br>comp=Z,115nm,18.2s,baz=165,slow=34 | 70.75 | 291 | LR | LR | 16 26 48.9 | | |
| VRI | Vrincioaia | 72.44 | 332 | *i*P | P | 15 57 52.3 | +8.6 | |
| PLOR | Plostina | 72.46 | 332 | *i*P | P | 15 57 52.2 | +8.4 | |
| MLR | Muntele Rosu | 72.51 | 331 | *i*P | P | 15 57 55.1 | +11 | |
| ZALV | Zalesovo Beam<br>2.1nm,0.7s,baz=209,slow=5.5,SNR=8.8 | 72.69 | 11 | P | P | 15 57 43.9 | -1.0 | |
| QSPA | South Pole Qui | 72.79 | 180 | *e*P | P | 15 57 43.8 | -1.9 | |
| SONM | Songino Array<br>1.4nm,0.8s,baz=217,slow=5.9,SNR=7.0 | 74.03 | 27 | P | P | 15 57 53.4 | +0.2 | |
| DBIC | Dimbokro<br>comp=Z,101nm,19.6s,baz=57,slow=35 | 74.36 | 282 | LR | LR | 16 29 05.9 | | |
| VNDA | Vanda<br>1.2nm,0.9s,baz=27,slow=2.3,SNR=3.5 | 74.39 | 167 | P | P | 15 57 54.5 | -0.3 | |
| VNDA | | | | LR | LR | 16 26 39.4 | | |
| | comp=Z,74nm,19.8s,baz=296,slow=33 | | | | | | | |
| BURAR | Bucovina Array | 74.44 | 332 | *i*P | P | 15 57 44.4 | -11 | |
| AKASG | Malin Array Be<br>1.3nm,0.8s,baz=139,slow=5.2,SNR=4.1 | 75.20 | 337 | P | P | 15 58 00.9 | +1.2 | |
| KSRS | Korea Array<br>comp=Z,27nm,21.2s,baz=355,slow=34 | 79.38 | 45 | LR | LR | 16 31 06.2 | | |
| TIXI | Tiksi<br>comp=Z,32nm,18.4s,baz=6.5,slow=36 | 98.06 | 16 | LR | LR | 16 44 41.7 | | |
| ILAR | Eielson Array<br>0.6nm,1.1s,baz=215,slow=3.0,SNR=3.5 | 127.52 | 17 | PKP | PKPdf | 16 05 22.2 | +0.3 | |
| YKA | Yellowknife Ar<br>0.4nm,0.9s,baz=344,slow=2.9,SNR=5.1 | 134.85 | 1 | PKP | PKPdf | 16 05 37.1 | +1.3 | |
| PDAR | Pinedale Array<br>0.2nm,0.5s,baz=82,slow=2.0,SNR=3.6 | 154.40 | 353 | PKPbc | PKPbc | 16 06 18.8 | +0.5 | |
| NVAR | Mina Array Bea<br>0.4nm,0.7s,baz=290,slow=3.7,SNR=3.0 | 158.54 | 10 | PKPab | PKPab | 16 06 51.6 | +1.3 | |

**IDC 23 15:50:37.7**±3.9, **4°.42S×100°.16E, h0**km, **mb3.4**/5, **mb1 3.6**/5, **mb1mx3.4**/44, **mbtmp3.4**/5, **Error ellipse: s-maj=144.4km s-min=21.2km az=58.0, Southwest of Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CMAR | Chiang Mai Arr<br>0.6nm,0.7s,baz=186,slow=8.2,SNR=3.3 | 22.77 | 357 | P | P | 15 55 41.9 | 0.0 |
| H08S2 | Diego Garcia H<br>baz=84,SNR=11 | 27.69 | 262 | T | T | 16 25 33.3 | |
| H08S3 | Diego Garcia H<br>baz=84,SNR=51 | 27.70 | 262 | T | T | 16 25 36.5 | |
| H08S1 | Diego Carcia H<br>baz=84 | 27.71 | 262 | T | T | 16 25 35.6 | |
| WRA | Warramunga Arr<br>0.3nm,0.4s,baz=309,slow=9.1,SNR=7.5 | 36.69 | 118 | P | P | 15 57 46.3 | -0.3 |
| ASAR | Alice Springs<br>0.4nm,0.8s,baz=288,slow=7.6,SNR=2.2 | 37.75 | 124 | P | P | 15 57 56.0 | +0.3 |
| SONM | Songino Array<br>0.4nm,0.4s,baz=180,slow=7.2,SNR=3.2 | 52.32 | 5 | P | P | 15 59 51.0 | -0.3 |
| MKAR | Makanchi Array<br>0.6nm,0.6s,baz=149,slow=8.3,SNR=7.3 | 53.39 | 345 | P | P | 15 59 59.1 | 0.0 |

**IDC 23 15:52:03.5**±62.0, **14°.60S×169°.31E, h0**km, **mb4.1**/3, **mb1 4.3**/3, **mb1mx3.6**/31, **mbtmp4.1**/3, **Error ellipse: s-maj=1059.0km s-min=113.6km az=67.0, Vanuatu Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| STKA | Stephens Creek<br>0.7nm,0.3s,baz=62,slow=11,SNR=9.2 | 30.60 | 231 | P | P | 15 58 19.3 | 0.0 |
| WRA | Warramunga Arr<br>1.2nm,0.5s,baz=88,slow=8.8,SNR=20 | 33.78 | 256 | P | P | 15 58 47.6 | +0.2 |
| ASAR | Alice Springs<br>2.0nm,0.4s,baz=78,slow=9.0,SNR=60 | 34.57 | 249 | P | P | 15 58 53.9 | -0.4 |

**IDC 23 16:02:29.2**±681.0, **64°.53N×43°.64E, h0**km, **Error ellipse: s-maj=425.6km s-min=159.4km az=38.0, Baltic States-Belarus-Northwestern Russia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| I46RU | ZALESOVO INFRA<br>baz=316,slow=311,SNR=1.5 | 23.12 | 98 | *i* | | 18 23 20.0 | |
| I18DK | QAANAAQ INFRAS<br>baz=48,slow=344,SNR=1.2 | 32.52 | 338 | *i* | | 19 21 20.0 | |
| I34MN | SONGINO INFRAS<br>baz=318,slow=333,SNR=0.7 | 36.93 | 86 | *i* | | 19 49 20.0 | |

**IDC 23 16:02:38.0**±16.0, **22°.94N×142°.26E, h288**km±166km, **mb2.9**/5, **mb1 3.1**/5, **mb1mx2.9**/32, **mbtmp3.6**/5, **Error ellipse: s-maj=54.7km s-min=19.5km az=74.0, Volcano Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SONM | Songino Array<br>0.3nm,0.5s,baz=132,slow=9.0,SNR=3.2 | 37.84 | 320 | P | P | 16 09 27.3 | -0.3 |
| WRA | Warramunga Arr<br>0.2nm,0.3s,baz=8.0,slow=7.9,SNR=14 | 43.32 | 191 | P | P | 16 10 12.1 | -0.2 |
| MKAR | Makanchi Array<br>0.3nm,0.1s,baz=96,slow=9.2,SNR=5.3 | 53.23 | 312 | P | P | 16 11 27.5 | +0.1 |
| YKA | Yellowknife Ar<br>0.1nm,0.4s,baz=293,slow=5.6,SNR=5.9 | 75.76 | 28 | P | P | 16 13 52.0 | -0.1 |
| FINES | FINESS Array B<br>2.8nm,0.9s,baz=96,slow=7.7,SNR=4.1 | 81.69 | 334 | P | P | 16 14 24.4 | +0.2 |

*IDC **23** 16:07:48.4±1.8, 33°.69S×178°.31W, h0km, mb3.9/2, mb1 4.1/3, mb1mx3.7/25, mbtmp3.8/3, ML3.4/1, MS3.4/1, Ms1 3.4/1, ms1mx2.6/33, Error ellipse: s-maj=42.7km s-min=36.2km az=121.0*

**ISC 23 16:07:52.6**±1.8, **33°.7S**±0°.2×**178°.2W**±0°.3, **h34**km, **n14,** σ1§**31**/19, **South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WMGZ | Waiomatatini S | 4.96 | 213 | *e*PN | Pn | 16 09 04.5 | -0.1 |
| WMGZ | | | | SN | Sn | 16 10 03.4 | +2.7 |
| PUZ | Puketiti | 5.24 | 213 | *e*PN | Pn | 16 09 07.2 | -1.3 |
| PUZ | | | | SN | Sn | 16 10 08.3 | +0.6 |
| RUGZ | Raukumara Rang | 5.43 | 217 | *e*PN | Pn | 16 09 11.8 | +0.6 |
| RUGZ | | | | SN | Sn | 16 10 14.7 | +2.2 |
| CNGZ | Carnagh Statio | 5.60 | 210 | *e*PN | Pn | 16 09 12.0 | -1.4 |
| MWZ | Matawai | 5.79 | 216 | *e*PN | Pn | 16 09 14.6 | -1.4 |
| MWZ | | | | SN | Sn | 16 10 21.4 | +0.1 |
| URZ | Urewera<br>1.0nm,0.3s,baz=270,slow=3.0,SNR=10 | 5.94 | 219 | Pn | Pn | 16 09 16.8 | -1.3 |
| URZ | | | | Sn | Sn | 16 10 24.5 | -0.4 |
| | 1.8nm,0.3s,baz=160,slow=20,SNR=10.0 | | | | | | |
| URZ | Urewera | 5.94 | 219 | PN | Pn | 16 09 16.8 | -1.3 |
| URZ | | | | SN | Sn | 16 10 24.7 | -0.3 |
| RIGZ | Rimuhau | 5.98 | 212 | PN | Pn | 16 09 16.6 | -2.0 |
| RIGZ | | | | SN | Sn | 16 10 25.7 | -0.2 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| KNZ | Kokohu | 6.28 | 211 | PN | Pn | 16 09 16.2 | -6.5 | |
| ASAR | Alice Springs<br>1.3nm,0.9s,baz=106,slow=7.3,SNR=18 | 42.89 | 271 | P | P | 16 15 47.8 | -0.2 | |
| WRA | Warramunga Arr<br>1.1nm,0.5s,baz=116,slow=7.8,SNR=31 | 44.17 | 276 | P | P | 16 15 58.3 | 0.0 | |
| FITZ | Fitzroy Crossi<br>comp=Z,37nm,19.4s,baz=5.0,slow=36 | 52.28 | 273 | LR | LR | 16 39 26.9 | | |
| FINES | FINESS Array B<br>6.2nm,1.1s,baz=35,slow=5.1,SNR=6.1 | 148.16 | 338 | PKPbc | PKPbc | 16 27 34.6 | +0.6 | |
| TORD | Torodi Ar. Bea<br>0.6nm,1.0s,baz=207,slow=5.7,SNR=2.5 | 159.54 | 180 | PKPab | PKPab | 16 28 27.0 | +0.8 | |

*ISK **23** 16:09:29.3, 38°.44N×43°.99E, h9km, ML2.7*
*CSEM **23** 16:09:30.8±0.3, 38°.49N×43°.88E, h12km, MD3.0, Error ellipse: s-maj=8.6km s-min=4.8km az=99.0*
*DDA **23** 16:09:31.0, 38°.53N×43°.96E, h7km, Md3.0*

**ISC 23 16:09:30.6**±1.2, **38°.52N**±0°.03×**43°.93E**±0°.05, **h14**km±9km, **n26,** σ1§**49**/34, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TVAN | Van | 0.41 | 272 | *i* S | Sg | 16 09 42.9 | -1.8 |
| TVAN | Van | 0.41 | 272 | S | Sg | 16 09 42.9 | -1.8 |
| VANB | Van | 0.43 | 281 | *e*PG | Pg | 16 09 38.8 | -0.5 |
| VANB | Van | 0.43 | 281 | *e*Pg | Pg | 16 09 38.8 | -0.5 |
| VMUR | Van-Muradiye | 0.55 | 329 | *i* P | Pg | 16 09 42.0 | +0.5 |
| VMUR | | | | *i* S | Sn | 16 09 53.7 | +0.4 |
| VMUR | Van-Muradiye | 0.55 | 329 | P | Pg | 16 09 42.0 | +0.5 |
| CLDR | Caldiran | 0.63 | 359 | *e*PG | Pg | 16 09 43.2 | +0.3 |
| CLDR | | | | *e*SG | Sn | 16 09 53.6 | -1.6 |
| CLDR | Caldiran | 0.63 | 359 | *i* P | Pg | 16 09 43.1 | +0.1 |
| CLDR | | | | *i* S | Sn | 16 09 55.7 | +0.5 |
| CLDR | Caldiran | 0.63 | 359 | *e*Pg | Pg | 16 09 43.2 | +0.3 |
| CLDR | | | | *e*Sg | Sn | 16 09 53.6 | -1.6 |
| GEVA | Gevas | 0.72 | 254 | *i* P | Pb | 16 09 44.3 | -0.7 |
| GEVA | | | | *i* S | Sn | 16 09 56.4 | -1.0 |
| GEVA | Gevas | 0.72 | 254 | P | Pb | 16 09 44.3 | -0.7 |
| HAKT | HAKKARI | 0.97 | 191 | *i* P | Pg | 16 09 50.1 | +0.6 |
| HAKT | | | | *i* S | Sn | 16 10 05.9 | +2.1 |
| HAKT | HAKKARI | 0.97 | 191 | P | Pg | 16 09 50.1 | +0.6 |
| TUTA | Tutak | 1.24 | 316 | *i* P | Pg | 16 09 54.7 | +0.1 |
| TUTA | | | | *i* S | Sg | 16 10 14.2 | +3.4 |
| TUTA | Tutak | 1.24 | 316 | P | Pg | 16 09 54.7 | +0.1 |
| AGRB | Hanur-Agry | 1.29 | 326 | *e*PN | Pg | 16 09 55.3 | -0.1 |
| AGRB | Hanur-Agry | 1.29 | 326 | *e*Pn | Pg | 16 09 55.3 | -0.1 |
| CUKT | Cukurca | 1.29 | 192 | *e*PN | Pb | 16 09 53.3 | -1.4 |
| CUKT | Cukurca | 1.29 | 192 | *e*Pn | Pb | 16 09 53.3 | -1.4 |
| TASB | TASBURUN-IGDIR | 1.48 | 9 | *e*PN | Pb | 16 09 57.9 | -0.1 |
| TASB | TASBURUN-IGDIR | 1.48 | 9 | *e*Pn | Pb | 16 09 57.9 | -0.1 |
| SIRT | Sirnak | 1.56 | 230 | *e*PN | Pn | 16 09 57.3 | -0.6 |
| SIRT | Sirnak | 1.56 | 230 | *e*Pn | Pn | 16 09 57.3 | -0.6 |
| EKAR | Karacoban | 1.64 | 297 | *i* P | Pg | 16 10 04.2 | +2.1 |
| SRTM | Siirt_Merkez | 1.67 | 252 | *i* P | Pg | 16 10 02.9 | +0.2 |
| SRTM | | | | *i* S | Sg | 16 10 29.3 | +5.0 |
| EATA | Eleskirt | 1.75 | 321 | *i* P | Pg | 16 10 04.2 | -0.1 |

*IDC **23** 16:25:14.2±0.7, 0°.33S×125°.18E, h0km, mb4.0/10, mb1 4.1/11, mb1mx3.9/53, mbtmp4.0/11, ML3.9/1, Error ellipse: s-maj=64.8km s-min=14.3km az=69.0*
*ISCJB **23** 16:25:18.7±0.5, 0°.15S±0°.07×125°.77E±0°.07, h49km, mb4.0/10, Error ellipse: s-maj=12.0km s-min=8.1km az=137.6*
*DJA **23** 16:25:18.4±0.4, 0°.5S±6°×12°.6E±°, h10km, M4.0/7, mb4.2/2, MLv3.8/7*

**ISC 23 16:25:20.9**±0.7, **0°.24S**±0°.07×**125°.74E**±0°.06, **h49**km, **n21,** σ1§**96**/22, **mb4.0**/10, **Southern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| LBMI | Labuha | 1.80 | 103 | P | Pn | 16 25 49.0 | -0.6 |
| LBMI | | | | S | Sn | 16 26 15.5 | +4.2 |
| SANI | Sanana | 1.82 | 172 | P | Pn | 16 25 49.1 | -0.7 |
| KMSI | Cibinong | 1.94 | 295 | P | Pn | 16 25 49.4 | -2.0 |
| LUWI | Luwuk | 3.08 | 255 | P | Pn | 16 26 14.5 | +7.4 |
| MRSI | Marisa | 3.87 | 281 | P | Pn | 16 26 17.6 | -0.3 |
| APSI | Ampana | 4.15 | 261 | P | Pn | 16 26 25.9 | +4.1 |
| KDI | Kendari | 4.84 | 220 | P | Pn | 16 26 28.1 | -3.1 |
| MPSI | Mapaga | 5.87 | 276 | P | Pn | 16 26 48.0 | +2.5 |
| TTSI | Tana Toraja | 6.54 | 245 | P | Pn | 16 26 56.4 | +1.7 |
| FITZ | Fitzroy Crossi<br>0.3nm,0.3s,baz=11,slow=9.2,SNR=11 | 17.75 | 180 | P | Pn | 16 29 23.9 | -0.8 |
| WRA | Warramunga Arr<br>8.4nm,0.8s,baz=336,slow=12,SNR=31 | 21.32 | 157 | P | P | 16 30 03.5 | -0.3 |
| ASAR | Alice Springs<br>1.6nm,0.4s,baz=345,slow=10,SNR=59 | 24.60 | 162 | P | P | 16 30 37.8 | +1.0 |
| ASAR | | | | PcP | PcP | 16 34 13.9 | +0.2 |
| | 0.3nm,0.7s,baz=353,slow=1.9,SNR=6.1 | | | | | | |
| STKA | Stephens Creek<br>1.9nm,0.5s,baz=328,slow=8.3,SNR=9.5 | 34.86 | 156 | P | P | 16 32 08.1 | +0.5 |
| KSRS | Korea Array<br>1.1nm,0.7s,baz=185,slow=9.7,SNR=3.6 | 37.56 | 3 | P | P | 16 32 31.9 | +1.4 |
| SONM | Songino Array<br>0.9nm,0.9s,baz=152,slow=7.9,SNR=4.5 | 50.76 | 343 | P | P | 16 34 15.0 | -1.2 |
| MKAR | Makanchi Array<br>2.4nm,0.6s,baz=119,slow=8.4,SNR=17 | 60.28 | 327 | P | P | 16 35 22.6 | -1.9 |
| ZALV | Zalesovo Beam<br>1.0nm,0.6s,baz=159,slow=7.2,SNR=4.8 | 63.69 | 334 | P | P | 16 35 47.0 | -0.2 |
| KURBB | Kurchatov Arra<br>1.1nm,0.5s,baz=128,slow=6.4,SNR=9.3 | 64.56 | 329 | P | P | 16 35 51.4 | -1.6 |
| BVAR | Borovoye Array<br>0.3nm,0.4s,baz=133,slow=8.7,SNR=4.1 | 70.12 | 328 | P | P | 16 36 26.6 | -1.5 |
| AKTO | Aktyubinsk<br>0.6nm,0.3s,baz=108,slow=6.4,SNR=4.0 | 76.16 | 322 | P | P | 16 37 03.2 | -0.7 |
| TORD | Torodi Ar. Bea<br>0.4nm,0.7s,baz=80,slow=2.5,SNR=3.0 | 123.11 | 285 | PKP | PKPdf | 16 44 13.2 | -0.1 |

*CSEM **23** 16:49:23.2±0.4, 36°.66N×52°.24E, h10km, ML3.0, Error ellipse: s-maj=10.4km s-min=6.7km az=46.0*
*TEH **23** 16:49:24.3, 36°.61N×52°.31E, h5km, ML3.0*
*AZER **23** 16:49:25.3±2.8, 36°.64N×52°.20E, h70km±252km, Error ellipse: s-maj=72.8km s-min=16.7km az=35.0*

**ISC 23 16:49:21.4**±1.2, **36°.66N**±0°.04×**52°.35E**±0°.03, **h15**km±10km, **n47,** σ1§**11**/63, **5C-4D, Northern and central Iran**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| IPRN | Peran | 0.41 | 181 | *e*Pg | P

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **IANJ** | **Anjilo** | **1.74** | **133** | *e*Pn | **Pg** | **16 49 55.2** | **+0.4** |
| IANJ | | | | *e*AMB | AMB | 16 49 57.0 | | |
| | comp=Z,1µm,0.1s | | | | | | | |
| **IANJ** | **Anjilo** | **1.74** | **133** | *e*Pn | **Pg** | **16 49 55.2** | **+0.4** |
| **IGZV** | **Ghazvin** | **1.74** | **262** | *e*Pn | **Pb** | **16 49 53.2** | **+0.4** |
| IGZV | | | | *e*AMB | AMB | 16 49 54.3 | | |
| | comp=Z,9µm,0.1s | | | | | | | |
| **IGZV** | **Ghazvin** | **1.74** | **262** | *e*Pn | **Pb** | **16 49 53.2** | **+0.1** |
| **IR5** | **Iran Long-Peri** | **2.03** | **225** | *e*Pn | **Pb** | **16 49 59.2** | **+1.1** |
| **IR5** | **Iran Long-Peri** | **2.03** | **225** | *e*Pn | **Pb** | **16 49 59.2** | **+1.1** |
| **IRAZ** | **Razeghan** | **2.33** | **238** | *e*AMB | AMB | 16 50 05.0 | | |
| | comp=Z,1µm,0.1s | | | | | | | |
| IRAZ | | | | *e*Pn | **Pb** | **16 50 02.9** | **-0.2** |
| **ASAO** | **Ashtian** | **2.83** | **223** | *e*Pn | **Pb** | **16 50 09.5** | **-2.2** |
| ASAO | | | | *e*Sg | **Sg** | **16 50 50.0** | **-2.4** |
| **ZNJK** | **Zanjan** | **2.95** | **271** | *e*P | **Pn** | **16 50 10.8** | **+3.0** |
| **QAM** | **Ghamsar** | **2.98** | **195** | *e*Pn | **Pb** | **16 50 12.6** | **-1.7** |
| QAM | | | | *e*AMB | AMB | 16 50 56.2 | | |
| | comp=Z,659nm,0.2s | | | | | | | |
| **SHRO** | **Shahrood** | **3.03** | **102** | *e*P | **Pb** | **16 50 13.9** | **-1.2** |
| **IKLH** | **Kolahrood** | **3.39** | **191** | *e*Pn | **Pb** | **16 50 19.0** | **-2.3** |
| IKLH | | | | *e*AMB | AMB | 16 50 32.0 | | |
| | comp=Z,228nm,0.1s | | | | | | | |
| **IKLH** | **Kolahrood** | **3.39** | **191** | *e*Pn | **Pb** | **16 50 19.0** | **-2.3** |
| **ASTR** | **Astara** | **3.41** | **305** | ⇑P | **Pn** | **16 50 14.6** | **+0.7** |
| ASTR | | | | ⇓S | **Sn** | **16 50 53.1** | **-0.9** |
| **ASTR** | **Astara** | **3.41** | **305** | P | **Pn** | **16 50 14.6** | **+0.7** |
| ASTR | | | | S | **Sn** | **16 50 53.1** | **-0.9** |
| **LKRN** | **Lenkeran, Azer** | **3.50** | **307** | ⇓P | **Pn** | **16 50 15.9** | **+0.8** |
| | SNR=6.1 | | | | | | | |
| LKRN | | | | ⇓S | **Sn** | **16 50 55.6** | **-0.6** |
| **LKRN** | **Lenkeran, Azer** | **3.50** | **307** | P | **Pn** | **16 50 15.9** | **+0.8** |
| | SNR=6.1 | | | | | | | |
| LKRN | | | | S | **Sn** | **16 50 55.6** | **-0.6** |
| **KHMZ** | **Khomeyn** | **3.51** | **215** | *e*P | **Pn** | **16 50 18.7** | **+3.2** |
| **LRK** | **Lerik** | **3.75** | **303** | ⇑P | **Pn** | **16 50 19.7** | **+0.9** |
| | SNR=6.7 | | | | | | | |
| LRK | | | | ⇓S | **Sn** | **16 51 02.2** | **-0.5** |
| **LRK** | **Lerik** | **3.75** | **303** | P | **Pn** | **16 50 19.7** | **+0.9** |
| | SNR=6.7 | | | | | | | |
| LRK | | | | S | **Sn** | **16 51 02.2** | **-0.5** |
| **IZEF** | **Zefreh** | **3.75** | **180** | *e*Pn | **Pb** | **16 50 28.5** | **+1.0** |
| IZEF | | | | *e*AMB | AMB | 16 51 31.5 | | |
| | comp=Z,83nm,0.1s | | | | | | | |
| **IZEF** | **Zefreh** | **3.75** | **180** | *e*Pn | **Pb** | **16 50 28.5** | **+1.0** |
| **GLBA** | **Clilabad** | **4.05** | **311** | ⇑P | **Pn** | **16 50 23.3** | **+0.5** |
| GLBA | | | | ⇑S | **Sn** | **16 51 09.9** | **-0.1** |
| **GLBA** | **Clilabad** | **4.05** | **311** | P | **Pn** | **16 50 23.3** | **+0.5** |
| GLBA | | | | S | **Sn** | **16 51 09.9** | **-0.1** |
| **IPIR** | **Pirpir** | **4.14** | **197** | *e*Pn | **Pb** | **16 50 32.4** | **-1.7** |
| IPIR | | | | *e*AMB | AMB | 16 50 42.8 | | |
| | comp=Z,118nm,0.2s | | | | | | | |
| **IPIR** | **Pirpir** | **4.14** | **197** | *e*Pn | **Pb** | **16 50 32.4** | **-1.7** |
| **PQL** | **Pirkuli** | **5.07** | **326** | ⇑S | **Sn** | **16 51 35.1** | **0.0** |
| **PQL** | **Pirkuli** | **5.07** | **326** | S | **Sn** | **16 51 35.1** | **0.0** |
| **ORD** | **Ordubad** | **5.52** | **296** | S | **Sn** | **16 51 44.9** | **-1.4** |

*ISK **23** 16:50:21.8, 37.˚73N×27.˚70E, h6km, ML2.6*
*ISCJB **23** 16:50:22.4±0.5, 37.˚72N±0.˚03×27.˚69E±0.˚03, h4km±5km, Error ellipse: s-maj=4.8km s-min=3.2km az=31.3*
*CSEM **23** 16:50:22.5±0.2, 37.˚72N×27.˚70E, h8km, MD2.6, Error ellipse: s-maj=4.1km s-min=3.7km az=88.0*
*DDA **23** 16:50:22.8, 37.˚74N×27.˚70E, h7km, Md2.6*

**ISC 23 16:50:22.8±0.9, 37.˚72N±0.˚02×27.˚70E±0.˚02, h13km±6km, n34, σ1§65/62, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AYDN** | **Tasoluk** | **0.15** | **111** | *i* P | **Pg** | **16 50 26.8** | **+0.2** |
| AYDN | | | | *i* S | **Sg** | **16 50 29.1** | **-0.2** |
| **AYDN** | **Tasoluk** | **0.15** | **111** | P | **Pg** | **16 50 26.8** | **+0.2** |
| AYDN | | | | S | **Sg** | **16 50 29.0** | **-0.2** |
| **BDRM** | **Kayabasi** | **0.68** | **197** | *i* P | **Pg** | **16 50 35.9** | **-0.2** |
| BDRM | | | | *i* S | **Sg** | **16 50 45.3** | **+0.3** |
| **BDRM** | **Kayabasi** | **0.68** | **197** | P | **Pg** | **16 50 35.9** | **-0.2** |
| BDRM | | | | S | **Sg** | **16 50 45.3** | **+0.3** |
| **BODT** | **Bodrum** | **0.72** | **205** | *e*PG | **Pg** | **16 50 36.6** | **-0.2** |
| BODT | | | | *e*SG | **Sg** | **16 50 46.9** | **+0.6** |
| **BODT** | **Bodrum** | **0.72** | **205** | *e*Pg | **Pg** | **16 50 36.6** | **-0.2** |
| BODT | | | | *e*Sg | **Sg** | **16 50 46.9** | **+0.6** |
| **DGB** | **˜zmir** | **0.73** | **298** | *i* P | **Pb** | **16 50 37.4** | **+0.1** |
| DGB | | | | *i* S | **Sg** | **16 50 46.8** | **+0.2** |
| **TAVA** | **DENIZLI_Tavas** | **1.00** | **104** | *i* P | **Pb** | **16 50 41.6** | **-0.4** |
| TAVA | | | | *i* S | **Sn** | **16 50 56.2** | **-0.4** |
| **TAVA** | **DENIZLI_Tavas** | **1.00** | **104** | P | **Pb** | **16 50 41.6** | **-0.4** |
| TAVA | | | | S | **Sn** | **16 50 56.2** | **-0.4** |
| **MANT** | **Manisa** | **1.03** | **41** | *i* P | **Pg** | **16 50 42.0** | **-0.7** |
| MANT | | | | *i* S | **Sb** | **16 50 56.5** | **+0.4** |
| **MANT** | **Manisa** | **1.03** | **41** | P | **Pg** | **16 50 42.0** | **-0.7** |
| MANT | | | | S | **Sb** | **16 50 56.5** | **+0.4** |
| **DENT** | **Denizli** | **1.06** | **88** | *e*PG | **Pb** | **16 50 42.6** | **-0.4** |
| **DENT** | **Denizli** | **1.06** | **88** | *e*Pg | **Pb** | **16 50 42.6** | **-0.4** |
| **DNZL** | **Cakiroluk** | **1.07** | **91** | *i* P | **Pb** | **16 50 43.5** | **+0.2** |
| DNZL | | | | *i* S | **Sn** | **16 50 58.8** | **+0.3** |
| **DNZL** | **Cakiroluk** | **1.07** | **91** | P | **Pb** | **16 50 43.5** | **+0.2** |
| DNZL | | | | S | **Sn** | **16 50 58.8** | **+0.3** |
| **ZEY** | **˜zmir** | **1.08** | **299** | *i* P | **Pb** | **16 50 43.3** | **0.0** |
| ZEY | | | | *i* S | **Sb** | **16 50 57.4** | **+0.1** |
| **URLA** | **Izmir** | **1.08** | **307** | *e*PG | **Pb** | **16 50 43.0** | **-0.4** |
| URLA | | | | *e*SG | **Sn** | **16 50 58.2** | **-0.3** |
| **URLA** | **Izmir** | **1.08** | **307** | *i* P | **Pg** | **16 50 43.7** | **0.0** |
| URLA | | | | *i* S | **Sn** | **16 50 58.4** | **-0.1** |
| **URLA** | **Izmir** | **1.08** | **307** | *e*Pg | **Pb** | **16 50 43.0** | **-0.4** |
| **URLA** | **Izmir** | **1.08** | **307** | P | **Pg** | **16 50 43.7** | **0.0** |
| URLA | | | | *e*Sg | **Sn** | **16 50 58.3** | **-0.3** |
| **KULA** | **Kula-Manisa** | **1.10** | **43** | *e*PN | **Pb** | **16 50 43.1** | **-0.7** |
| KULA | | | | *e*SN | **Sg** | **16 50 58.7** | **+0.3** |
| **KULA** | **Kula-Manisa** | **1.10** | **43** | *e*Pn | **Pb** | **16 50 43.1** | **-0.7** |
| KULA | | | | *e*Sn | **Sg** | **16 50 58.7** | **+0.3** |
| **TURN** | **Turunc** | **1.11** | **139** | *e*PG | **Pb** | **16 50 42.3** | **-1.5** |
| **TURN** | **Turunc** | **1.11** | **139** | *i* P | **Pb** | **16 50 42.7** | **-1.1** |
| TURN | | | | *i* S | **Sb** | **16 50 58.2** | **+0.1** |
| **TURN** | **Turunc** | **1.11** | **139** | *e*Pg | **Pb** | **16 50 42.3** | **-1.5** |
| **TURN** | **Turunc** | **1.11** | **139** | P | **Pb** | **16 50 42.7** | **-1.1** |
| TURN | | | | S | **Sb** | **16 50 58.2** | **+0.1** |
| **AKHS** | **Akhisar** | **1.17** | **4** | *i* P | **Pb** | **16 50 44.2** | **-0.6** |
| AKHS | | | | *i* S | **Sg** | **16 51 00.4** | **0.0** |
| **AKHS** | **Akhisar** | **1.17** | **4** | P | **Pb** | **16 50 44.2** | **-0.6** |
| AKHS | | | | S | **Sg** | **16 51 00.4** | **0.0** |
| **DEMI** | **Demirci** | **1.55** | **31** | *i* P | **Pb** | **16 50 51.6** | **+0.2** |
| DEMI | | | | *i* S | **Sb** | **16 51 10.9** | **0.0** |
| **DEMI** | **Demirci** | **1.55** | **31** | P | **Pb** | **16 50 51.6** | **+0.2** |
| DEMI | | | | S | **Sb** | **16 51 10.9** | **0.0** |
| **GOLH** | **Golhisar** | **1.56** | **107** | *i* P | **Pg** | **16 50 52.6** | **-0.1** |
| GOLH | | | | *i* S | **Sg** | **16 51 16.2** | **+3.2** |
| **GOLH** | **Golhisar** | **1.56** | **107** | P | **Pg** | **16 50 52.6** | **-0.1** |
| **KHAL** | **Karahalli** | **1.56** | **65** | *i* P | **Pn** | **16 50 50.8** | **+0.5** |
| KHAL | | | | *i* S | **Sg** | **16 51 12.7** | **-0.4** |
| **KHAL** | **Karahalli** | **1.56** | **65** | P | **Pn** | **16 50 50.8** | **+0.5** |
| KHAL | | | | S | **Sg** | **16 51 12.7** | **-0.4** |

**JMA 23 16:51:38.7, 34.˚73N×137.˚09E, h12km±1km, M3.3, 4D Broadband fault plane solution: P waves. NP1:** $\phi_s$37.00000°, δ85.00000°, λ-120.00000°. **NP2:** $\phi_s$298.00000°, δ31.00000°, λ-10.00000°. **Principal axes:** T Plg33.0000°, Azm152.0000°; N Plg30.0000°, Azm40.0000°; P Plg42.0000°, Azm278.0000°; **Near south coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JAA** | **Atsumi** | **0.11** | **156** | ⇓P | Pg | 16 51 41.6 | 0.0 |
| JAA | | | | S | Sg | 16 51 43.2 | -0.5 |
| **JIE** | **Ise** | **0.46** | **223** | ⇓P | Pg | 16 51 47.7 | -0.1 |
| JIE | | | | S | Sg | 16 51 53.5 | -0.5 |
| **TSUJ** | **Tsu 2** | **0.55** | **268** | ⇓P | Pg | 16 51 49.2 | -0.3 |
| TSUJ | | | | S | Sg | 16 51 56.6 | -0.2 |
| **JKN2** | **Miekihoku** | **0.83** | **234** | ⇓P | Pg | 16 51 54.1 | -0.7 |
| JKN2 | | | | S | Sg | 16 52 05.5 | -0.2 |
| **MAT** | **Matsushiro** | **2.02** | **26** | P | Pb | 16 52 14.9 | -0.6 |
| MAT | | | | S | Sb | 16 52 40.6 | 0.0 |

**WEL 23 16:53:56.5±0.1, 43.˚51S×172.˚77E, h14km±1km, ML3.0/5, 1C-3D Error ellipse: s-maj=1.5km s-min=0.6km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.13** | **238** | ⇓P* | Pg | 16 53 59.9 | -0.1 |
| CRLZ | | | | S* | Sg | 16 54 02.4 | 0.0 |
| CRLZ | | | | S* | Sb | 16 54 02.6 | -0.8 |
| CRLZ | | | | AML | AML | 16 54 02.6 | |
| CRLZ | | | | AML | AML | 16 54 02.7 | |
| **MQZ** | **McQueen's Vall** | **0.22** | **203** | ⇑P* | Pg | 16 54 01.4 | +0.1 |
| MQZ | | | | S* | Sg | 16 54 05.2 | +0.5 |
| MQZ | | | | S* | Sb | 16 54 05.2 | -0.8 |
| MQZ | | | | AML | AML | 16 54 05.5 | |
| **OXZ** | **Oxford** | **0.56** | **288** | ⇓P* | Pg | 16 54 07.2 | -0.3 |
| OXZ | | | | S* | Sg | 16 54 15.1 | +0.1 |
| OXZ | | | | AML | AML | 16 54 17.4 | |
| OXZ | | | | AML | AML | 16 54 17.4 | |
| OXZ | | | | AML | AML | 16 54 17.4 | |
| **LTZ** | **Lake Taylor** | **0.81** | **333** | ⇓P* | Pg | 16 54 11.7 | -0.5 |
| LTZ | | | | S* | Sg | 16 54 22.5 | -0.4 |
| LTZ | | | | AML | AML | 16 54 23.7 | |
| **KHZ** | **Kahutara** | **1.23** | **28** | PN | Pn | 16 54 17.8 | -1.3 |
| **RPZ** | **Rata Peaks** | **1.27** | **260** | PN | Pn | 16 54 18.9 | -0.8 |
| RPZ | | | | AML | AML | 16 54 37.9 | |
| RPZ | | | | AML | AML | 16 54 39.0 | |

*ISCJB **23** 16:54:25.0±0.3, 43.˚58S±0.˚03×173.˚00E±0.˚04, h10km, mb3.6/3, Error ellipse: s-maj=5.7km s-min=2.5km az=140.4*
*IDC **23** 16:54:26.1±1.5, 43.˚32S×172.˚81E, h0km, mb3.6/2, mb1 3.9/3, mb1mx3.6/33, mbtmp3.7/3, ML3.2/1, Error ellipse: s-maj=45.1km s-min=16.1km az=157.0*
*WEL **23** 16:54:27.6±0.2, 43.˚51S×172.˚84E, h12km, ML4.2/57, Mw3.9, Error ellipse: s-maj=2.5km s-min=0.9km az=90.0*
*WEL Felt in the Canterbury region, maximum reported intensity MM 4.*
*NEIC **23** 16:54:27.6±0.0, 43.˚52S×172.˚83E, h13km, mb3.7/1, ML4.2(WEL), After WEL.*
*NEIC Felt at Christchurch.*

**ISC 23 16:54:26.5±0.8, 43.˚51S±0.˚04×172.˚93E±0.˚04, h10km, n116, σ1§02/105, mb3.6/3, 5C-3D, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.23** | **254** | *e*Pg | **Pg** | **16 54 31.8** | **+0.5** |
| **CRLZ** | **Canterbury Las** | **0.23** | **254** | ⇓Pg | **Pg** | **16 54 31.7** | **+0.4** |
| CRLZ | | | | SG | **Sg** | **16 54 34.8** | **+0.2** |
| CRLZ | | | | AML | AML | 16 54 34.8 | |
| CRLZ | | | | AML | AML | 16 54 37.2 | |
| CRLZ | | | | AML | AML | 16 54 37.2 | |
| **MQZ** | **McQueen's Vall** | **0.28** | **226** | *e*Pg | **Pg** | **16 54 33.0** | **+0.7** |
| **MQZ** | **McQueen's Vall** | **0.28** | **226** | PG | **Pg** | **16 54 32.9** | **+0.7** |
| MQZ | | | | SG | **Sg** | **16 54 36.9** | **+0.8** |
| MQZ | | | | AML | AML | 16 54 37.1 | |
| MQZ | | | | AML | AML | 16 54 37.3 | |
| **OXZ** | **Oxford** | **0.68** | **285** | *e*Pg | **Pg** | **16 54 39.3** | **-0.3** |
| **OXZ** | **Oxford** | **0.68** | **285** | ⇑P* | **Pg** | **16 54 39.2** | **-0.4** |
| OXZ | | | | AML | AML | 16 54 48.8 | |
| OXZ | | | | AML | AML | 16 54 48.8 | |
| OXZ | | | | AML | AML | 16 54 50.1 | |
| OXZ | | | | AML | AML | 16 54 50.2 | |
| **LTZ** | **Lake Taylor** | **0.88** | **326** | *e*Pg | **Pg** | **16 54 43.8** | **+0.4** |
| **LTZ** | **Lake Taylor** | **0.88** | **326** | ⇑P* | **Pg** | **16 54 43.6** | **+0.2** |
| LTZ | | | | S* | **Sb** | **16 54 55.3** | **-0.3** |
| **KHZ** | **Kahutara** | **1.18** | **22** | *e*Pn | **Pn** | **16 54 49.2** | **+0.1** |
| **KHZ** | **Kahutara** | **1.18** | **22** | P* | **Pn** | **16 54 49.1** | **0.0** |
| KHZ | | | | AML | AML | 16 55 05.6 | |
| KHZ | | | | AML | AML | 16 55 05.6 | |
| KHZ | | | | AML | AML | 16 55 06.0 | |
| KHZ | | | | AML | AML | 16 55 06.0 | |
| **INZ** | **Inchbonnie** | **1.34** | **305** | ⇑PN | **Pn** | **16 54 50.3** | **-1.1** |
| **RPZ** | **Rata Peaks** | **1.38** | **261** | Pg | **Pn** | **16 54 51.1** | **-0.8** |
| | 145nm,0.3s,baz=88,slow=3.1,SNR=69 | | | | | | |
| RPZ | | | | Lg | Lg | 16 55 08.7 | |
| | 601nm,0.3s,baz=15,slow=16,SNR=26 | | | | | | |
| **RPZ** | **Rata Peaks** | **1.38** | **261** | *e*Pn | **Pn** | **16 54 51.5** | **-0.4** |
| **RPZ** | **Rata Peaks** | **1.38** | **261** | *e*PN | **Pn** | **16 54 50.8** | **-1.1** |
| RPZ | | | | AML | AML | 16 55 18.7 | |
| RPZ | | | | AML | AML | 16 55 20.5 | |
| **WVZ** | **Waitaha Valley** | **1.66** | **284** | *e*PN | **Pn** | **16 54 54.8** | **-0.9** |
| WVZ | | | | AML | AML | 16 55 25.3 | |
| WVZ | | | | AML | AML | 16 55 33.2 | |
| **THZ** | **Tophouse** | **1.75** | **359** | *e*Pn | **Pn** | **16 54 57.0** | **+0.1** |
| **THZ** | **Tophouse** | **1.75** | **359** | PN | **Pn** | **16 54 56.8** | **-0.1** |
| THZ | | | | AML | AML | 16 55 29.3 | |
| THZ | | | | AML | AML | 16 55 29.7 | |
| **BSWZ** | **Blackbirch Sta** | **1.92** | **22** | Pn | **Pn** | **16 55 00.0** | **+0.7** |
| **BSWZ** | **Blackbirch Sta** | **1.92** | **22** | *e*PN | **Pn** | **16 54 59.8** | **+0.5** |
| BSWZ | | | | AML | AML | 16 55 27.5 | |
| BSWZ | | | | AML | AML | 16 55 55.5 | |
| **DSZ** | **Denniston Nort** | **1.95** | **334** | *e*PN | **Pn** | **16 54 59.4** | **-0.3** |
| DSZ | | | | AML | AML | 16 55 38.9 | |
| DSZ | | | | AML | AML | 16 55 39.0 | |
| DSZ | | | | AML | AML | 16 55 42.5 | |
| DSZ | | | | AML | AML | 16 55 42.5 | |
| **LBZ** | **Lake Benmore** | **2.17** | **245** | *e*Pn | **Pn** | **16 55 03.6** | **+0.9** |
| **LBZ** | **Lake Benmore** | **2.17** | **245** | *e*PN | **Pn** | **16 55 02.6** | **-0.1** |
| LBZ | | | | AML | AML | 16 55 42.1 | |
| LBZ | | | | AML | AML | 16 55 42.1 | |
| LBZ | | | | AML | AML | 16 55 45.0 | |
| LBZ | | | | AML | AML | 16 55 45.1 | |
| **TUWZ** | **Tuamarina** | **2.21** | **20** | Pn | **Pn** | **16 55 03.4** | **+0.2** |
| **TUWZ** | **Tuamarina** | **2.21** | **20** | AML | AML | 16 55 55.4 | |
| TUWZ | | | | AML | AML | 16 55 55.4 | |
| **ODZ** | **Otahua Downs** | **2.25** | **226** | *e*Pn | **Pn** | **16 55 03.6** | **-0.2** |
| **ODZ** | **Otahua Downs** | **2.25** | **226** | ⇑PN | **Pn** | **16 55 03.5** | **-0.3** |
| ODZ | | | | AML | AML | 16 55 45.3 | |
| ODZ | | | | AML | AML | 16 55 45.3 | |
| ODZ | | | | AML | AML | 16 55 51.9 | |
| ODZ | | | | AML | AML | 16 55 51.9 | |
| **FOZ** | **Fox Glacier** | **2.27** | **268** | *e*Pn | **Pn** | **16 55 04.8** | **+0.8** |
| **FOZ** | **Fox Glacier** | **2.27** | **268** | ⇓PN | **Pn** | **16 55 04.8** | **+0.8** |
| FOZ | | | | AML | AML | 16 55 46.0 | |
| FOZ | | | | AML | AML | 16 55 48.3 | |
| FOZ | | | | AML | AML | 17 03 41.5 | |
| FOZ | | | | AML | AML | 17 03 41.5 | |
| **NNZ** | **Nelson** | **2.31** | **8** | Pn | **Pn** | **16 55 05.5** | **+0.8** |
| **NNZ** | **Nelson** | **2.31** | **8** | ⇑PN | **Pn** | **16 55 05.5** | **+0.8** |
| NNZ | | | | AML | AML | 16 55 34.0 | |
| NNZ | | | | AML | AML | 16 55 54.0 | |
| **TCW** | **Tory Channel** | **2.50** | **24** | Pn | **Pn** | **16 55 07.3** | **0.0** |
| **TCW** | **Tory Channel** | **2.50** | **24** | PN | **Pn** | **16 55 07.1** | **-0.2** |
| TCW | | | | AML | AML | 16 55 51.2 | |
| TCW | | | | AML | AML | 16 56 02.1 | |
| **BHW** | **Baring Head** | **2.54** | **35** | Pn | **Pn** | **16 55 07.7** | **-0.1** |
| **BHW** | **Baring Head** | **2.54** | **35** | PN | **Pn** | **16 55 07.7** | **-0.1** |
| BHW | | | | AML | AML | 16 55 38.7 | |
| **SNZO** | **South Karori** | **2.56** | **31** | *e*Pn | **Pn** | **16 55 08.0** | **0.0** |
| SNZO | | | | *e*Sn | **Sn** | **16 55 39.7** | **+0.5** |
| **PLWZ** | **Palliser** | **2.59** | **42** | Pn | **Pn** | **16 55 08.2** | **-0.4** |
| **PLWZ** | **Palliser** | **2.59** | **42** | PN | **Pn** | **16 55 08.1** | **-0.5** |
| PLWZ | | | | AML | AML | 16 56 14.3 | |
| PLWZ | | | | AML | AML | 16 56 19.6 | |
| **WEL** | **Wellington** | **2.61** | **32** | Pn | **Pn** | **16 55 09.0** | **+0.3** |
| **WEL** | **Wellington** | **2.61** | **32** | AML | AML | 16 55 39.3 | |
| WEL | | | | AML | AML | 16 55 46.3 | |
| **QRZ** | **Quartz Range** | **2.70** | **353** | PN | **Pn** | **16 55 10.1** | **+0.1** |
| QRZ | | | | AML | AML | 16 55 23.7 | |
| QRZ | | | | AML | AML | 16 55 23.7 | |
| QRZ | | | | AML | AML | 16 55 46.4 | |
| QRZ | | | | AML | AML | 16 55 46.4 | |
| **MSWZ** | **Moikau Station** | **2.71** | **40** | Pn | **Pn** | **16 55 09.6** | **-0.5** |
| **MSWZ** | **Moikau Station** | **2.71** | **40** | PN | **Pn** | **16 55 09.6** | **-0.5** |
| MSWZ | | | | AML | AML | 16 55 45.9 | |
| MSWZ | | | | AML | AML | 16 55 46.8 | |
| **DUWZ** | **D'Urville Isla** | **2.80** | **16** | Pn | **Pn** | **16 55 12.8** | **+1.3** |
| **DUWZ** | **D'Urville Isla** | **2.80** | **16** | *e*PN | **Pn** | **16 55 12.1** | **+0.6** |
| DUWZ | | | | AML | AML | 16 55 55.5 | |
| DUWZ | | | | AML | AML | 16 56 04.0 | |
| **CAW** | **Cannon Point** | **2.88** | **34** | Pn | **Pn** | **16 55 12.3** | **-0.1** |
| **CAW** | **Cannon Point** | **2.88** | **34** | *e*PN | **Pn** | **16 55 12.3** | **-0.1** |
| CAW | | | | AML | AML | 16 55 49.5 | |
| CAW | | | | AML | AML | 16 55 54.1 | |
| **HHSZ** | **Highcliff Hill** | **2.90** | **214** | Pn | **Pn** | **16 55 12.5** | **-0.3** |
| **HHSZ** | **Highcliff Hill** | **2.90** | **214** | ⇓PN | **Pn** | **16 55 12.5** | **-0.3** |
| HHSZ | | | | AML | AML | 16 56 13.6 | |
| HHSZ | | | | AML | AML | 16 56 13.7 | |
| **TRWZ** | **Traveller** | **2.93** | **45** | Pn | **Pn** | **16 55 12.9** | **-0.3** |
| **TRWZ** | **Traveller** | **2.93** | **45** | PN | **Pn** | **16 55 12.7** | **-0.5** |
| TRWZ | | | | AML | AML | 16 55 52.3 | |
| TRWZ | | | | AML | AML | 16 56 38.6 | |
| **MTW** | **Mount Morrison** | **3.02** | **40** | Pn | **Pn** | **16 55 13.7** | **-0.8** |
| **MTW** | **Mount Morrison** | **3.02** | **40** | PN | **Pn** | **16 55 13.7** | **-0.8** |
| MTW | | | | AML | AML | 16 55 58.2 | |
| MTW | | | | AML | AML | 16 56 10.3 | |
| **KIW** | **Kapiti Island** | **3.03** | **30** | Pn | **Pn** | **16 55 14.6** | **+0.1** |
| **KIW** | **Kapiti Island** | **3.03** | **30** | AML | AML | 16 56 15.5 | |
| KIW | | | | AML | AML | 16 56 29.0 | |
| **JCZ** | **Jackson Bay** | **3.06** | **258** | *e*PN | **Pn** | **16 55 14.5** | **-0.5** |
| JCZ | | | | AML | AML | 16 56 13.4 | |
| JCZ | | | | AML | AML | 16 56 16.4 | |
| **WKZ** | **Wanaka** | **3.11** | **244** | *e*Pn | **Pn** | **16 55 15.3** | **-0.4** |
| **WKZ** | **Wanaka** | **3.11** | **244** | AML | AML | 16 56 14.5 | |
| WKZ | | | | AML | AML | 16 56 14.6 | |
| WKZ | | | | AML | AML | 16 56 15.7 | |
| WKZ | | | | AML | AML | 16 56 15.7 | |
| **EAZ** | **Earnscleugh** | **3.12** | **235** | PN | **Pn** | **16 55 15.2** | **-0.6** |
| EAZ | | | | AML | AML | 16 56 10.9 | |
| EAZ | | | | AML | AML | 16 56 11.3 | |
| EAZ | | | | AML | AML | 16 56 18.8 | |
| EAZ | | | | AML | AML | 16 56 18.8 | |
| **OGWZ** | **Otaki Gorge** | **3.16** | **32** | Pn | **Pn** | **16 55 15.9** | **-0.4** |
| **OGWZ** | **Otaki Gorge** | **3.16** | **32** | AML | AML | 16 56 00.4 | |
| OGWZ | | | | AML | AML | 16 56 20.4 | |
| **HOWZ** | **Holdsworth Sta** | **3.24** | **37** | Pn | **Pn** | **16 55 17.1** | **-0.4** |
| **HOWZ** | **Holdsworth Sta** | **3.24** | **37** | PN | **Pn** | **16 55 17.1** | **-0.4** |
| HOWZ | | | | AML | AML | 16 55 54.4 | |
| HOWZ | | | | AML | AML | 16 56 10.3 | |
| **TMWZ** | **Te Maipa** | **3.25** | **43** | Pn | **Pn** | **16 55 16.9** | **-0.7** |
| **TMWZ** | **Te Maipa** | **3.25** | **43** | AML | AML | 16 56 03.4 | |
| TMWZ | | | | AML | AML | 16 56 03.8 | |
| **TUZ** | **Tuapeka** | **3.39** | **223** | PN | **Pn** | **16 55 19.0** | **-0.5** |
| TUZ | | | | AML | AML | 16 56 24.7 | |
| TUZ | | | | AML | AML | 16 56 24.7 | |
| TUZ | | | | AML | AML | 16 56 24.9 | |
| TUZ | | | | AML | AML | 16 56 24.9 | |
| **MRZ** | **Mangatainoka R** | **3.46** | **36** | Pn | **Pn** | **16 55 19.9** | **-0.5** |
| **MRZ** | **Mangatainoka R** | **3.46** | **36** | PN | **Pn** | **16 55 19.9** | **-0.5** |
| MRZ | | | | AML | AML | 16 56 07.7 | |
| MRZ | | | | AML | AML | 16 56 08.3 | |
| **TIWZ** | **Tintock** | **3.50** | **40** | Pn | **Pn** | **16 55 20.3** | **-0.8** |
| **TIWZ** | **Tintock** | **3.50** | **40** | PN | **Pn** | **16 55 19.9** | **-1.2** |
| TIWZ | | | | AML | AML | 16 56 04.0 | |
| TIWZ | | | | AML | AML | 16 56 12.0 | |
| **PRWZ** | **Pori Road** | **3.72** | **38** | Pn | **Pn** | **16 55 24.4** | **+0.3** |
| **PRWZ** | **Pori Road** | **3.72** | **38** | *e*PN | **Pn** | **16 55 23.2** | **-0.9** |
| PRWZ | | | | AML | AML | 16 56 10.5 | |
| PRWZ | | | | AML | AML | 16 56 14.2 | |
| **BFZ** | **Birch Farm** | **3.75** | **42** | *e*Pn | **Pn** | **16 55 23.2** | **-1.2** |
| **BFZ** | **Birch Farm** | **3.75** | **42** | PN | **Pn** | **16 55 23.4** | **-1.0** |
| **POWZ** | **Post Office Ro** | **3.77** | **35** | Pn | **Pn** | **16 55 24.3** | **-0.3** |
| **POWZ** | **Post Office Ro** | **3.77** | **35** | AML | AML | 16 56 15.9 | |
| POWZ | | | | AML | AML | 16 56 16.9 | |
| **MLZ** | **Mavora Lakes** | **3.92** | **240** | *e*Pn | **Pn** | **16 55 25.8** | **-0.9** |
| **MLZ** | **Mavora Lakes** | **3.92** | **240** | *e*PN | **Pn** | **16 55 25.8** | **-0.9** |
| MLZ | | | | AML | AML | 16 56 33.7 | |
| MLZ | | | | AML | AML | 16 56 42.1 | |
| **SYZ** | **Scrubby Hill** | **4.05** | **220** | PN | **Pn** | **16 55 28.2** | **-0.3** |
| SYZ | | | | AML | AML | 16 56 40.8 | |
| SYZ | | | | AML | AML | 16 56 49.7 | |
| **WAZ** | **Wanganui** | **4.05** | **23** | AML | AML | 16 56 37.5 | |
| **PRHZ** | **Porangahau** | **4.26** | **42** | *e*PN | **Pn** | **16 55 30.2** | **-1.2** |
| **PREZ** | **Palmer Road** | **4.26** | **13** | AML | AML | 16 56 32.8 | |
| PREZ | | | | AML | AML | 16 56 39.1 | |
| **WHZ** | **Wether Hill Ro** | **4.28** | **234** | *e*Pn | **Pn** | **16 55 30.2** | **-1.5** |
| **WHZ** | **Wether Hill Ro** | **4.28** | **234** | *e*PN | **Pn** | **16 55 30.0** | **-1.7** |
| WHZ | | | | AML | AML | 16 56 51.4 | |
| WHZ | | | | AML | AML | 16 56 53.7 | |
| **KHEZ** | **Kahui Hut** | **4.29** | **11** | *e*PN | **Pn** | **16 55 34.0** | **+2.1** |
| **NEZ** | **North Egmont** | **4.33** | **12** | PN | **Pn** | **16 55 34.5** | **+2.1** |
| **PNHZ** | **Pukenui** | **4.35** | **35** | PN | **Pn** | **16 55 32.1** | **-0.6** |
| PNHZ | | | | AML | AML | 16 56 28.7 | |
| PNHZ | | | | AML | AML | 16 56 32.9 | |
| **PKE** | **Pukeiti** | **4.38** | **11** | PN | **Pn** | **16 55 35.2** | **+2.0** |
| PKE | | | | AML | AML | 16 56 28.6 | |
| PKE | | | | AML | AML | 16 56 30.9 | |
| **DREZ** | **Durham Road** | **4.42** | **13** | *e*PN | **Pn** | **16 55 35.8** | **+2.2** |
| **DCZ** | **Deep Cove** | **4.57** | **243** | *e*Pn | **Pn** | **16 55 35.4** | **-0.3** |
| **DCZ** | **Deep Cove** | **4.57** | **243** | PN | **Pn** | **16 55 35.2** | **-0.5** |
| DCZ | | | | AML | AML | 16 56 57.0 | |
| DCZ | | | | AML | AML | 16 56 59.7 | |
| **PKVZ** | **Pokaka** | **4.59** | **24** | PN | **Pn** | **16 55 37.8** | **+1.8** |
| **VRZ** | **Vera Road** | **4.59** | **18** | AML | AML | 16 56 38.5 | |
| VRZ | | | | AML | AML |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **MAT** | **Matsushiro** | **3.26** | **292** | P | **Pn** | **17 05 28.7** | **+1.6** |
| MAT | | | | S | **Sn** | **17 06 08.3** | **+3.1** |
| **ASAJ** | **Asahikawa** | **8.72** | **3** | Pn | **Pn** | **17 06 42.3** | **+0.2** |
| | 0.5nm,0.3s,baz=231,slow=32,SNR=1.8 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **26.95** | **119** | T | T | 17 38 42.9 | |
| | baz=311,slow=75,SNR=15 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **26.96** | **119** | T | T | 17 38 45.0 | |
| | baz=311,slow=75,SNR=10 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **26.97** | **119** | T | T | 17 38 40.9 | |
| | baz=311,slow=75,SNR=11 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **43.35** | **314** | P | **P** | **17 12 38.5** | **+0.8** |
| | 0.3nm,0.4s,baz=87,slow=3.0,SNR=1.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **45.38** | **304** | P | **P** | **17 12 55.8** | **+1.7** |
| | 0.6nm,0.8s,baz=69,slow=8.2,SNR=2.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **55.52** | **189** | P | **P** | **17 14 11.0** | **+0.1** |
| | 0.4nm,0.6s,baz=6.0,slow=7.4,SNR=2.0 | | | | | | |
| **ASAR** | **Alice Springs** | **59.24** | **189** | P | **P** | **17 14 34.7** | **-2.4** |
| | 0.7nm,0.9s,baz=356,slow=8.6,SNR=3.3 | | | | | | |
| **ULM** | **Lac du Bonnet** | **80.61** | **33** | LR | LR | 18 01 42.5 | |
| | comp=Z,57nm,18.0s,baz=280,slow=43 | | | | | | |

**KRSC 23 17:12:24.7±0.8, 55.59N×162.40E, h84km±18km, ML3.7, Near east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KBTR** | **Krutoberegovo** | **0.66** | **21** | *i* P | Pn | 17 12 41.5 | +1.2 |
| KBTR | | | | *e*S | Sn | 17 12 52.8 | +0.9 |
| **KBG** | **Krutoberegovo** | **0.69** | **14** | *e*P | Pn | 17 12 41.8 | +1.3 |
| KBG | | | | *e*S | Sn | 17 12 53.8 | +1.5 |
| **ZLN** | **Zelenaya** | **1.00** | **296** | *e*P | Pn | 17 12 45.6 | +1.6 |
| ZLN | | | | *e*S | Sn | 17 13 00.7 | +2.2 |
| **CIRR** | **Tsirk** | **1.07** | **300** | *e*P | Pn | 17 12 46.4 | +1.5 |
| CIRR | | | | *e*S | Sn | 17 13 01.7 | +1.6 |
| **SMKR** | **Semkarok** | **1.12** | **333** | *e*P | Pn | 17 12 46.7 | +1.2 |
| SMKR | | | | *e*S | Sn | 17 13 02.2 | +1.1 |
| **BDR** | **Baidarnaya** | **1.18** | **326** | *e*P | Pn | 17 12 47.6 | +1.3 |
| BDR | | | | *e*S | Sn | 17 13 04.6 | +2.1 |
| **KRSR** | **Krestovskiy** | **1.21** | **302** | *e*P | Pn | 17 12 47.5 | +0.9 |
| KRSR | | | | *e*S | Sn | 17 13 03.3 | +0.3 |
| **TUMD** | **Tumrok D** | **1.21** | **252** | *e*P | Pn | 17 12 48.0 | +1.5 |
| TUMD | | | | *e*S | Sn | 17 13 04.8 | +1.9 |
| **KLY** | **Klyuchi** | **1.22** | **307** | *e*P | Pn | 17 12 46.6 | 0.0 |
| KLY | | | | *e*S | Sn | 17 13 02.1 | -1.0 |
| **KMNR** | **Kamenistaya** | **1.24** | **278** | *i* P | Pn | 17 12 48.9 | +2.0 |
| KMNR | | | | *e*S | Sn | 17 13 06.4 | +2.8 |
| **SRKR** | **Sorokina** | **1.27** | **328** | *e*P | Pn | 17 12 48.6 | +1.3 |
| SRKR | | | | *e*S | Sn | 17 13 05.8 | +1.5 |
| **KZV** | **Kizimen** | **1.30** | **249** | *i* P | Pn | 17 12 49.5 | +1.8 |
| KZV | | | | *e*S | Sn | 17 13 08.1 | +3.1 |
| **TUMR** | **Tumrok** | **1.32** | **257** | *i* P | Pn | 17 12 50.2 | +2.2 |
| TUMR | | | | *e*S | Sn | 17 13 07.7 | +2.1 |
| **BKI** | **Bering** | **2.07** | **99** | *e*P | Pn | 17 13 00.2 | +2.6 |
| BKI | | | | *e*S | Sn | 17 13 24.6 | +1.8 |
| **ESO** | **Esso** | **2.12** | **281** | *e*P | Pn | 17 12 59.4 | +1.1 |
| ESO | | | | *e*S | Sn | 17 13 24.8 | +0.9 |
| **SPN** | **Mys Shipunskiy** | **2.86** | **210** | *e*P | Pn | 17 13 09.1 | +0.9 |
| SPN | | | | *e*S | Sn | 17 13 40.9 | -0.8 |
| **NLC** | **Nalytchevo** | **3.01** | **218** | *e*P | Pn | 17 13 12.4 | +2.2 |
| NLC | | | | *e*S | Sn | 17 13 46.1 | +0.8 |
| **SDLR** | **Sedlovina** | **3.10** | **223** | *i* P | Pn | 17 13 13.9 | +2.4 |
| SDLR | | | | *e*S | Sn | 17 13 50.9 | +3.3 |
| **KRX** | **Arik** | **3.13** | **226** | *e*P | Pn | 17 13 14.6 | +2.6 |
| **KRER** | **Koryakskii** | **3.13** | **224** | *e*P | Pn | 17 13 15.1 | +3.1 |
| **SMAR** | **Somma** | **3.14** | **223** | *e*P | Pn | 17 13 14.7 | +2.5 |
| **AVH** | **Avacha** | **3.17** | **224** | *e*P | Pn | 17 13 15.5 | +3.1 |
| **UGLR** | **Uglovaya** | **3.17** | **223** | *e*P | Pn | 17 13 15.5 | +3.0 |
| **GNL** | **Ganaly** | **3.21** | **236** | *e*P | Pn | 17 13 16.2 | +3.1 |
| **DALK** | **Dalny** | **3.34** | **221** | *e*P | Pn | 17 13 17.1 | +2.5 |
| DALK | | | | *e*S | Sn | 17 13 54.6 | +1.4 |
| **PET** | **Petropavlovsk** | **3.38** | **222** | *e*P | Pn | 17 13 17.9 | +2.7 |
| PET | | | | *e*S | Sn | 17 13 55.9 | +1.6 |
| **KRMR** | **Karymshinskiy** | **3.73** | **224** | *e*P | Pn | 17 13 23.3 | +3.3 |
| KRMR | | | | *e*S | Sn | 17 14 06.1 | +3.3 |
| **RUS** | **Russkaya** | **3.91** | **218** | *e*P | Pn | 17 13 24.5 | +2.1 |
| **ASAK** | **Asacha** | **4.17** | **221** | P | Pn | 17 13 30.0 | +4.0 |
| **KDTR** | **Khodutka, Kamc** | **4.58** | **216** | *e*P | Pn | 17 13 33.2 | +1.7 |

*IDC **23** 17:17:59.8±1.1, 9.40S×158.84E, h0km, mb3.6/5, mb1 3.7/5, mb1mx3.5/36, mbtmp3.6/5, MS2.9/1, Ms1 2.9/1, ms1mx2.5/33, Error ellipse: s-maj=34.6km s-min=16.8km az=171.0*

*ISCJB **23** 17:18:02.3±0.8, 9.5S±0.2×158.79E±0.07, h27km, mb3.4/5, Error ellipse: s-maj=27.4km s-min=9.2km az=172.6*

**ISC 23 17:18:03.6±1.0, 9.4S±0.2×158.87E±0.07, h27km, n8, σ0.94/9, mb3.5/5, Bougainville-Solomon Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HNR** | **Honiara** | **1.07** | **89** | *i* P | **Pn** | **17 18 22.0** | **-0.7** |
| HNR | | | | *i* S | **Sb** | **17 18 38.0** | **+1.1** |
| **HNR** | **Honiara** | **1.07** | **89** | Pn | **Pb** | **17 18 23.0** | **-0.4** |
| | 484nm,0.3s,baz=237,slow=4.6,SNR=228 | | | | | | |
| HNR | | | | Sn | **Sb** | **17 18 37.5** | **+0.6** |
| | 423nm,0.3s,baz=22,slow=22,SNR=12 | | | | | | |
| **PMG** | **Port Moresby** | **11.55** | **269** | LR | LR | 17 25 01.3 | |
| | comp=Z,59nm,19.4s,baz=98,slow=37 | | | | | | |
| **WRA** | **Warramunga Arr** | **25.88** | **243** | P | **P** | **17 23 33.5** | **+0.1** |
| | 0.4nm,0.8s,baz=70,slow=10,SNR=2.3 | | | | | | |
| **STKA** | **Stephens Creek** | **27.48** | **213** | P | **P** | **17 23 48.5** | **+0.9** |
| | 3.0nm,0.6s,baz=47,slow=14,SNR=12 | | | | | | |
| **ASAR** | **Alice Springs** | **27.73** | **236** | P | **P** | **17 23 49.2** | **-0.8** |
| | 0.2nm,0.7s,baz=64,slow=10,SNR=1.6 | | | | | | |
| **SONM** | **Songino Array** | **73.47** | **326** | P | **P** | **17 29 34.9** | **+1.0** |
| | 0.2nm,0.4s,baz=102,slow=6.1,SNR=1.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **87.77** | **318** | P | **P** | **17 30 49.5** | **-0.8** |
| | 0.4nm,0.9s,baz=107,slow=4.7,SNR=1.1 | | | | | | |

*CSEM **23** 17:22:01.8±0.2, 39.39N×40.38E, h10km, MD2.6, Error ellipse: s-maj=5.4km s-min=4.1km az=152.0*

*ISK **23** 17:22:01.6, 39.43N×40.37E, h14km, MD2.6*

*DDA **23** 17:22:02.1, 39.41N×40.37E, h7km, Md2.6*

**ISC 23 17:22:02.6±0.9, 39.41N±0.02×40.37E±0.02, h8km±7km, n26, σ0.80/45, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **YEDI** | **Yedisu-Bingol** | **0.14** | **78** | *e*PG | **Pg** | **17 22 05.3** | **-0.3** |
| YEDI | | | | *e*SG | **Sg** | **17 22 08.4** | **+0.6** |
| **YEDI** | **Yedisu-Bingol** | **0.14** | **78** | *e*Pg | **Pg** | **17 22 05.3** | **-0.3** |
| YEDI | | | | *e*Sg | **Sg** | **17 22 08.4** | **+0.6** |
| **BNGB** | **Bing¨¶l** | **0.48** | **150** | *e*PG | **Pg** | **17 22 11.7** | **-0.2** |
| BNGB | | | | *e*SG | **Sb** | **17 22 19.5** | **-1.2** |
| **ECAT** | **Cat-ERZURUM** | **0.51** | **67** | *i* P | **Pg** | **17 22 11.7** | **-0.7** |
| ECAT | | | | *i* S | **Sg** | **17 22 19.4** | **+0.3** |
| **ECAT** | **Cat-ERZURUM** | **0.51** | **67** | P | **Pg** | **17 22 11.7** | **-0.7** |
| ECAT | | | | S | **Sg** | **17 22 19.4** | **+0.3** |
| **ERZN** | **Erzincan** | **0.53** | **290** | *e*PG | **Pg** | **17 22 12.9** | **0.0** |
| **BINT** | **Bingol** | **0.54** | **170** | *e*Pg | **Pg** | **17 22 11.7** | **-1.3** |
| BINT | | | | *e*Sg | **Sg** | **17 22 19.5** | **-0.6** |
| **EUZM** | **Uzumlu** | **0.60** | **300** | *i* P | **Pg** | **17 22 13.0** | **-1.1** |
| EUZM | | | | *i* S | **Sg** | **17 22 21.7** | **-0.3** |
| **EUZM** | **Uzumlu** | **0.60** | **300** | P | **Pg** | **17 22 13.0** | **-1.1** |
| EUZM | | | | S | **Sg** | **17 22 21.7** | **-0.3** |
| **KOPT** | **Kop Dagi** | **0.61** | **9** | *i* P | **Pb** | **17 22 15.3** | **-0.5** |
| KOPT | | | | *i* S | **Sb** | **17 22 24.2** | **-0.5** |
| **KOPT** | **Kop Dagi** | **0.61** | **9** | P | **Pb** | **17 22 15.3** | **-0.5** |
| KOPT | | | | S | **Sb** | **17 22 24.2** | **-0.5** |
| **TNCL** | **Tunceli-Merkez** | **0.71** | **246** | *i* P | **Pg** | **17 22 15.4** | **-0.8** |
| TNCL | | | | *i* S | **Sb** | **17 22 26.8** | **-0.3** |
| **TNCL** | **Tunceli-Merkez** | **0.71** | **246** | P | **Pg** | **17 22 15.4** | **-0.8** |
| TNCL | | | | S | **Sb** | **17 22 26.8** | **-0.3** |
| **BNGL** | **BINGOL** | **0.76** | **127** | *i* P | **Pb** | **17 22 17.6** | **-0.6** |
| BNGL | | | | *i* S | **Sn** | **17 22 30.8** | **-0.8** |
| **ERZM** | **Erzurum** | **0.92** | **57** | *i* P | **Pg** | **17 22 19.4** | **-0.8** |
| ERZM | | | | *i* S | **Sb** | **17 22 33.8** | **+0.5** |
| **ERZM** | **Erzurum** | **0.92** | **57** | P | **Pg** | **17 22 19.4** | **-0.8** |
| ERZM | | | | S | **Sb** | **17 22 33.8** | **+0.5** |
| **PTK** | **Pertek** | **0.92** | **236** | *e*PG | **Pg** | **17 22 19.5** | **-0.7** |
| **PTK** | **Pertek** | **0.92** | **236** | *e*Pg | **Pg** | **17 22 19.5** | **-0.7** |
| **HANI** | **Diyarbakir_Han** | **0.99** | **179** | *i* P | **Pn** | **17 22 24.4** | **+1.5** |
| **HANI** | **Diyarbakir_Han** | **0.99** | **179** | P | **Pn** | **17 22 24.4** | **+1.5** |
| **BAYT** | **Ayd¨¬ntepe-Bay** | **1.00** | **350** | *e*PG | **Pg** | **17 22 20.9** | **-0.8** |
| **BAYT** | **Ayd¨¬ntepe-Bay** | **1.00** | **350** | *e*Pg | **Pg** | **17 22 20.9** | **-0.8** |
| **KELT** | **Kelkit** | **1.13** | **311** | *i* P | **Pg** | **17 22 23.1** | **-1.2** |
| KELT | | | | *i* S | **Sn** | **17 22 41.0** | **+0.2** |
| **KELT** | **Kelkit** | **1.13** | **311** | P | **Pg** | **17 22 23.1** | **-1.2** |
| KELT | | | | S | **Sn** | **17 22 41.0** | **+0.2** |
| **KEMA** | **Kemaliye** | **1.46** | **265** | *i* P | **Pb** | **17 22 30.1** | **0.0** |
| KEMA | | | | *i* S | **Sg** | **17 22 50.8** | **+1.3** |
| **KEMA** | **Kemaliye** | **1.46** | **265** | P | **Pb** | **17 22 30.1** | **0.0** |
| KEMA | | | | S | **Sg** | **17 22 50.8** | **+1.3** |

*ISCJB **23** 17:22:34.7±0.2, 61.15N±0.02×150.22W±0.04, h63km±2km, mb4.2/25, Error ellipse: s-maj=3.5km s-min=2.6km az=144.2*

*IDC **23** 17:22:35.4±0.7, 61.11N×150.47W, h60km±6km, mb3.7/14, mb1 3.9/17, mb1mx3.7/50, mbtmp4.0/17, MS2.8/2, Ms1 2.8/2, ms1mx2.6/51, Error ellipse: s-maj=15.5km s-min=8.4km az=107.0*

*NEIC **23** 17:22:36.5±0.0, 61.12N×150.22W, h42km, mb4.4/11, ML3.9(AEIC), After AEIC.*

*NEIC Felt [III] at Anchorage and Elmendorf AFB; [II] at Eagle River and Palmer. Also felt at Chugiak, Girdwood and Valdez.*

**ISC 23 17:22:35.8±0.5, 61.13N±0.03×150.19W±0.03, h54km±4km, h54km:pP-P, n134, σ1§24/164, mb4.3/25, Southern Alaska**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FIB** | **Fire Island** | **0.04** | **8** | *e*Pn | **Pn** | **17 22 43.6** | **-0.4** |
| FIB | | | | *e*Sn | **Sn** | **17 22 50.5** | **+0.7** |
| **RC01** | **Rabbit Creek A** | **0.22** | **100** | *e*Pn | **Pn** | **17 22 43.8** | **-0.9** |
| RC01 | | | | *e*Sn | **Sn** | **17 22 50.0** | **-1.1** |
| **SLKM** | **Skilak Lake** | **0.62** | **182** | *e*Pn | **Pn** | **17 22 47.8** | **-1.0** |
| **PMR** | **Palmer** | **0.69** | **47** | *e*Pn | **Pn** | **17 22 48.6** | **-0.9** |
| PMR | | | | *e*Sn | **Sn** | **17 22 58.7** | **-0.9** |
| **STLK** | **Strandline Lak** | **0.88** | **296** | P | **Pn** | **17 22 51.3** | **-0.8** |
| **KNK** | **Knik Glacier** | **0.88** | **71** | *e*Pn | **Pn** | **17 22 52.0** | **-0.1** |
| **GHO** | **Glory Hole Cre** | **0.89** | **43** | *e*Pn | **Pn** | **17 22 51.7** | **-0.5** |
| GHO | | | | *e*Sn | **Sn** | **17 23 04.3** | **+0.1** |
| **SPCG** | **Spurr Capps Gl** | **0.90** | **281** | P | **Pn** | **17 22 51.7** | **-0.8** |
| **SPU** | **Mount Spurr** | **0.91** | **274** | *e*Pn | **Pn** | **17 22 51.3** | **-1.1** |
| SPU | | | | *e*Sn | **Sn** | **17 23 04.3** | **-0.4** |
| **SPCP** | **Crater Peak Br** | **0.96** | **279** | P | **Pn** | **17 22 52.6** | **-0.7** |
| **CKL** | **Chakachamna La** | **1.04** | **275** | P | **Pn** | **17 22 53.6** | **-0.7** |
| **SPBG** | **Spurr Blockage** | **1.06** | **278** | P | **Pn** | **17 22 54.0** | **-0.6** |
| **SEW** | **Seward** | **1.09** | **160** | *e*Pn | **Pn** | **17 22 54.3** | **-0.5** |
| SEW | | | | *e*Sn | **Sn** | **17 23 09.9** | **+1.0** |
| **SML** | **Sawmill** | **1.12** | **52** | *e*Pn | **Pn** | **17 22 55.0** | **-0.3** |
| SML | | | | *e*Sn | **Sn** | **17 23 10.1** | **+0.3** |
| **SPWE** | **Spurr West** | **1.16** | **278** | P | **Pn** | **17 22 55.4** | **-0.4** |
| **DFR** | **Drift River** | **1.34** | **247** | P | **Pn** | **17 22 57.7** | **-0.6** |
| **RDJH** | **Redoubt Jeurge** | **1.39** | **248** | P | **Pn** | **17 22 58.5** | **-0.5** |
| **BRLK** | **Bradley Lake** | **1.41** | **195** | *e*Pn | **Pn** | **17 22 59.2** | **0.0** |
| BRLK | | | | *e*Sn | **Sn** | **17 23 17.6** | **+0.8** |
| **RSO** | **Redoubt South** | **1.43** | **243** | *e*Pn | **Pn** | **17 22 59.1** | **-0.5** |
| **RDWB** | **Redoubt West** | **1.45** | **245** | P | **Pn** | **17 22 59.3** | **-0.5** |
| **RED** | **Redoubt Volcan** | **1.46** | **242** | P | **Pn** | **17 22 59.4** | **-0.5** |
| **GLI** | **Glacier Island** | **1.53** | **98** | *e*Pn | **Pn** | **17 22 59.9** | **-0.8** |
| GLI | | | | *e*Sn | **Sn** | **17 23 17.0** | **-2.4** |
| **SCM** | **Sheep Creek Mo** | **1.54** | **62** | *e*Pn | **Pn** | **17 23 01.2** | **+0.2** |
| SCM | | | | *e*Sn | **Sn** | **17 23 21.1** | **+1.1** |
| **HOM** | **Homer** | **1.64** | **207** | *e*Pn | **Pn** | **17 23 02.7** | **+0.4** |
| HOM | | | | *e*Sn | **Sn** | **17 23 24.3** | **+2.0** |
| **CNPM** | **China Poot** | **1.69** | **198** | *e*Pn | **Pn** | **17 23 03.0** | **0.0** |
| CNPM | | | | *e*Sn | **Sn** | **17 23 23.5** | **-0.1** |
| **IVE** | **Iliamna Volcan** | **1.79** | **233** | P | **Pn** | **17 23 04.5** | **+0.1** |
| **ILS** | **Iliamna Low So** | **1.85** | **232** | P | **Pn** | **17 23 05.4** | **+0.2** |
| **FID** | **Port Fidalgo** | **1.85** | **100** | *e*Pn | **Pn** | **17 23 03.8** | **-1.3** |
| **VMT** | **TAPS Tl Valdez** | **1.85** | **90** | *e*Pn | **Pn** | **17 23 05.4** | **+0.2** |
| **PPLA** | **Purkeypile** | **2.01** | **333** | *e*Pn | **Pn** | **17 23 07.7** | **+0.3** |
| **KLU** | **Klutina** | **2.09** | **78** | *e*Pn | **Pn** | **17 23 08.3** | **-0.2** |
| KLU | | | | *e*Sn | **Sn** | **17 23 33.8** | **+0.5** |
| **DIV** | **Divide** | **2.14** | **88** | *e*Pn | **Pn** | **17 23 09.0** | **-0.2** |
| DIV | | | | *e*Sn | **Sn** | **17 23 34.7** | **+0.1** |
| **EYAK** | **Cordova Ski Ar** | **2.25** | **103** | *e*Pn | **Pn** | **17 23 10.7** | **+0.1** |
| **TRF** | **Thorofare Moun** | **2.33** | **359** | *e*Pn | **Pn** | **17 23 12.0** | **+0.1** |
| **DHY** | **Denali Highway** | **2.36** | **33** | *e*Pn | **Pn** | **17 23 12.4** | **+0.2** |
| **RND** | **Reindeer** | **2.37** | **15** | *e*Pn | **Pn** | **17 23 12.2** | **-0.1** |
| **AUW** | **Augustine West** | **2.41** | **224** | P | **Pn** | **17 23 13.5** | **+0.8** |
| **PS11** | **TAPS Pump St11** | **2.45** | **65** | *e*Pn | **Pn** | **17 23 14.1** | **+0.9** |
| **KTH** | **Kantishna Hill** | **2.46** | **352** | *e*Pn | **Pn** | **17 23 13.6** | **+0.1** |
| KTH | | | | *e*Sn | **Sn** | **17 23 46.3** | **+4.0** |
| **MID** | **Middleton Isla** | **2.57** | **130** | *e*Pn | **Pn** | **17 23 16.9** | **+2.1** |
| **SVW2** | **Sparrevohn** | **2.62** | **272** | *e*Pn | **Pn** | **17 23 15.2** | **-0.4** |
| SVW2 | | | | *e*Sn | Sn | 17 23 54.8 | +8.6 |
| **MCK** | **McKinley** | **2.68** | **12** | *e*Pn | **Pn** | **17 23 17.0** | **+0.6** |
| **HARP** | **HAARP** | **2.71** | **60** | *e*Pn | **Pn** | **17 23 17.6** | **+0.7** |
| **BMRM** | **Bremner River** | **2.72** | **91** | *e*Pn | **Pn** | **17 23 16.3** | **-0.7** |
| **RAGM** | **Ragged Mountai** | **2.81** | **103** | *e*Pn | **Pn** | **17 23 17.7** | **-0.5** |
| **CDD** | **Cape Douglas** | **2.81** | **220** | P | **Pn** | **17 23 18.8** | **+0.5** |
| **PAX** | **Paxson** | **2.89** | **48** | *e*Pn | **Pn** | **17 23 19.5** | **+0.1** |
| **FOSS** | **Fourpeaked Sta** | **2.93** | **219** | *e*Pn | **Pn** | **17 23 20.9** | **+1.1** |
| **BPAW** | **Bear Paw Mtn.** | **3.00** | **353** | *e*Pn | **Pn** | **17 23 20.5** | **-0.4** |
| **PS10** | **TAPS Pump St10** | **3.09** | **40** | *e*Pn | **Pn** | **17 23 24.3** | **+2.2** |
| **TT01** | **Tatalina** | **3.28** | **305** | *e*Pn | **Pn** | **17 23 24.6** | **0.0** |
| **TTA** | **Tatalina** | **3.29** | **306** | *e*Pn | **Pn** | **17 23 24.4** | **-0.4** |
| **KHIT** | **Khitrov Hills** | **3.47** | **98** | P | **Pn** | **17 23 28.6** | **+1.2** |
| **MENT** | **Mentasta** | **3.55** | **56** | *e*Pn | **Pn** | **17 23 28.0** | **-0.3** |
| **KDAK** | **Kodiak Island** | **3.57** | **201** | P | **Pn** | **17 23 27.6** | **-1.1** |
| | 2.4nm,0.3s,baz=50,slow=7.6,SNR=80 | | | | | | |
| KDAK | | | | S | **Sn** | **17 24 06.5** | **-3.1** |
| | 19nm,0.3s,baz=264,slow=18,SNR=8.2 | | | | | | |
| KDAK | | | | Lg | Lg | 17 24 21.2 | |
| | 32nm,0.3s,baz=204,slow=21,SNR=8.4 | | | | | | |
| KDAK | | | | LR | LR | 17 25 13.4 | |
| | comp=Z,282nm,18.3s,baz=103,slow=45 | | | | | | |
| **KDAK** | **Kodiak Island** | **3.57** | **201** | *e*Pn | **Pn** | **17 23 28.0** | **-0.6** |
| KDAK | | | | *e*Sn | **Sn** | **17 24 06.5** | **-3.1** |
| KDAK | | | | *e* | | 17 24 21.2 | |
| **HDA** | **Harding Lake** | **3.61** | **23** | *e*Pn | **Pn** | **17 23 29.9** | **+0.7** |
| **CCB** | **Clear Creek Bu** | **3.69** | **16** | *e*Pn | **Pn** | **17 23 29.9** | **-0.3** |
| **PS08** | **TAPS Pump Stn8** | **3.76** | **23** | *e*Pn | **Pn** | **17 23 32.6** | **+1.4** |
| **DOT** | **Dot Lake** | **3.81** | **46** | *e*Pn | **Pn** | **17 23 32.8** | **+0.9** |
| **KELA** | **Mount Kelaz** | **3.89** | **229** | P | **Pn** | **17 23 33.7** | **+0.1** |
| **COLA** | **College** | **3.91** | **15** | *e*Pn | **Pn** | **17 23 33.7** | **+0.6** |
| **MLY** | **Manley** | **3.92** | **357** | *e*Pn | **Pn** | **17 23 33.4** | **-0.1** |
| **MDM** | **Murphy Dome** | **3.94** | **12** | *e*Pn | **Pn** | **17 23 33.7** | **-0.1** |
| **ILAR** | **Eielson Array** | **3.95** | **21** | P | **Pn** | **17 23 34.8** | **+0.9** |
| | 4.8nm,0.3s,baz=200,slow=14,SNR=267 | | | | | | |
| ILAR | | | | S | **Sn** | **17 24 18.9** | **+0.1** |
| | 5.9nm,0.3s,baz=217,slow=14,SNR=5.3 | | | | | | |
| ILAR | | | | Lg | Lg | 17 24 54.0 | |
| | 6.2nm,0.3s,baz=198,slow=28,SNR=5.6 | | | | | | |
| **ILB** | **Eielson Array** | **3.95** | **21** | *e*Pn | **Pn** | **17 23 33.9** | **+0.1** |
| ILB | | | | *e*Sn | **Sn** | **17 24 18.9** | **+0.1** |
| **IL1** | **Eielson Array** | **3.95** | **21** | *e*Pn | **Pn** | **17 23 34.4** | **+0.7** |
| **OHAK** | **Old Harbor** | **4.23** | **204** | *e*Pn | **Pn** | **17 23 36.6** | **-1.1** |
| **BCA3** | **Beaver Creek A** | **4.40** | **60** | *e*Pn | **Pn** | **17 23 40.4** | **+0.3** |
| **IM3** | **Indian Mountai** | **5.12** | **343** | P | **Pn** | **17 23 50.0** | **+0.1** |
| **IMAR** | **Indian Mountai** | **5.12** | **343** | *e*Pn | **Pn** | **17 23 49.7** | **-0.2** |
| **EGAK** | **Eagle** | **5.51** | **44** | *e*Pn | **Pn** | **17 23 55.6** | **+0.5** |
| **DAWY** | **Dawson** | **5.79** | **55** | *e*Pn | **Pn** | **17 23 59.3** | **+0.3** |
| **FYU** | **Fort Yukon** | **5.88** | **20** | *e*Pn | **Pn** | **17 24 01.6** | **+1.4** |
| **COLD** | **Coldfoot** | **6.12** | **360** | *e*Pn | **Pn** | **17 24 04.2** | **+0.7** |
| **HYT** | **Haines Junctio** | **6.18** | **87** | *e*Pn | **Pn** | **17 24 04.8** | **+0.3** |
| **CHGN** | **Chignik** | **6.46** | **225** | *e*Pn | **Pn** | **17 24 08.1** | **-0.1** |
| **BM3** | **Burnt Mountain** | **6.76** | **19** | *e*Pn | **Pn** | **17 24 13.1** | **+0.7** |
| **WHY** | **Whitehorse** | **7.48** | **87** | *e*Pn | **Pn** | **17 24 21.5** | **-0.7** |
| WHY | | | | *e*Sn | **Sn** | **17 25 43.0** | **-2.7** |
| **SDPT** | **Sand Point** | **7.94** | **228** | *e*Pn | **Pn** | **17 24 29.9** | **+1.6** |
| **INK** | **Inuvik** | **10.10** | **37** | P | **Pn** | **17 24 58.0** | **+0.2** |
| | 0.4nm,0.3s,baz=244,slow=15,SNR=16 | | | | | | |
| INK | | | | S | **Sn** | **17 26 53.8** | **+4.5** |
| | 0.2nm,0.3s,baz=316,slow=15,SNR=3.2 | | | | | | |
| **INK** | **Inuvik** | **10.10** | **37** | *e*Pn | **Pn** | **17 24 58.7** | **+0.9** |
| INK | | | | *e*Sn | **Sn** | **17 26 53.8** | **+4.5** |
| **GAMB** | **Gambell** | **10.29** | **294** | *e*Pn | **Pn** | **17 25 01.5** | **+1.0** |
| **DLBC** | **Dease Lake** | **10.50** | **96** | *e*Pn | **Pn** | **17 25 05.0** | **+1.5** |
| **UNV** | **Unalaska Valle** | **11.39** | **237** | *e*Pn | **Pn** | **17 25 15.5** | **-0.1** |
| **YKW3** | **Yellowknife Ar** | **16.72** | **70** | *e*Pn | **Pn** | **17 26 25.9** | **0.0** |
| | 17nm,1.7s | | | | | | |
| **YKA** | **Yellowknife Ar** | **16.74** | **70** | P | **Pn** | **17 26 24.5** | **-1.6** |
| | 0.2nm,0.3s,baz=279,slow=9.9,SNR=27 | | | | | | |
| YKA | | | | PcP | **PcP** | **17 31 11.6** | **-0.1** |
| | 0.0nm,0.3s,baz=285,slow=1.3,SNR=7.6 | | | | | | |
| **YKB5** | **Yellowknife Ar** | **16.74** | **70** | *e*Pn | **Pn** | **17 26 24.6** | **-1.6** |
| YKB5 | | | | *e*PcP | **PcP** | **17 31 11.6** | **-0.1** |
| **C04A** | **Brinnon** | **20.56** | **118** | *e*P | **P** | **17 27 09.6** | **0.0** |
| C04A | | | | *e*PcP | **PcP** | **17 31 21.5** | **+2.9** |
| **E03A** | **Lebam** | **21.23** | **121** | *e*P | **P** | **17 27 17.7** | **+0.8** |
| | 118nm,1.6s | | | | | | |
| **SWFL** | **Southwest Flan** | **22.08** | **120** | *e*pP | pP | 17 27 38.3 | -0.3 |
| **GULW** | **Guler Mountain** | **22.55** | **119** | *e*PcP | **PcP** | **17 31 22.6** | **-0.1** |
| **RES** | **Resolute Bay** | **23.60** | **33** | P | **P** | **17 27 41.5** | **+0.3** |
| | 5.5nm,1.2s,baz=236,slow=7.3,SNR=3.9 | | | | | | |
| **WALA** | **Waterton Lakes** | **23.66** | **104** | *e*P | **P** | **17 27 41.2** | **-1.0** |
| | 7.7nm,0.6s | | | | | | |
| **J08A** | **Circle Bar Ran** | **25.94** | **119** | *e*PcP | **PcP** | **17 31 30.1** | **0.0** |
| **YHH** | **Holmes Hill** | **28.22** | **107** | *e*P | **P** | **17 28 24.8** | **+1.2** |
| | 2.6nm,1.2s | | | | | | |
| **FXWY** | **Fox Creek** | **29.02** | **109** | *e*P | **P** | **17 28 31.8** | **+1.2** |
| | 14nm,1.9s | | | | | | |
| **TPAW** | **Teton Pass** | **29.17** | **109** | *e*P | **P** | **17 28 32.2** | **+0.2** |
| | 4.4nm,0.6s | | | | | | |
| **NV01** | **Mina Array Sit** | **30.13** | **124** | *e*P | **P** | **17 28 41.6** | **+1.2** |
| **NVAR** | **Mina Array Bea** | **30.13** | **124** | P | **P** | **17 28 41.6** | **+1.1** |
| | 1.3nm,0.8s,baz=310,slow=9.4,SNR=8.6 | | | | | | |
| **PD31** | **Pinedale Array** | **30.37** | **108** | *e*P | **P** | **17 28 42.2** | **-0.3** |
| **PDAR** | **Pinedale Array** | **30.37** | **108** | P | **P** | **17 28 42.2** | **-0.3** |
| | 0.5nm,0.6s,baz=315,slow=4.8,SNR=5.4 | | | | | | |
| **RSSD** | **Black Hills** | **31.93** | **101** | *e*P | **P** | **17 28 56.1** | **-0.2** |
| | 5.0nm,0.6s | | | | | | |
| **DAC** | **Darwin (Calif)** | **32.28** | **125** | *e*P | **P** | **17 28 59.8** | **+0.4** |
| | 3.4nm,0.9s | | | | | | |
| **WUAZ** | **Wupatki** | **35.49** | **118** | *e*P | **P** | **17 29 28.5** | **+1.3** |
| | 3.3nm,0.7s | | | | | | |
| **SUMG** | **Summit** | **38.78** | **27** | *i* P | **P** | **17 29 55.2** | **+0.3** |
| | 5.9nm,0.7s | | | | | | |
| **SUMG** | **Summit** | **38.78** | **27** | *e*P | **P** | **17 29 55.4** | **+0.5** |
| | 5.3nm,0.7s | | | | | | |
| **KLR** | **Kul'dur** | **43.44** | **291** | LR | LR | 17 49 48.2 | |
| | comp=Z,4.7nm,18.1s,baz=46,slow=38 | | | | | | |
| **TKL** | **Tuckaleechee C** | **48.27** | **90** | P | **P** | **17 31 11.3** | **+0.1** |
| | 3.0nm,0.7s,baz=7.1,slow=8.1,SNR=4.1 | | | | | | |
| **TKL** | **Tuckaleechee C** | **48.27** | **90** | *e*P | **P** | **17 31 11.3** | **+0.1** |
| | 32nm,1.5s | | | | | | |
| **ARA0** | **ARCESS Array S** | **49.59** | **2** | *e*P | **P** | **17 31 18.8** | **-2.0** |
| **ARCES** | **ARCESS Array B** | **49.59** | **2** | P | **P** | **17 31 18.8** | **-2.0** |
| | 3.2nm,0.9s,baz=356,slow=7.3,SNR=5.1 | | | | | | |
| **SONA0** | **Songino Array** | **55.23** | **307** | *e*P | **P** | **17 32 02.7** | **-0.3** |
| SONA0 | | | | *e*pP | **pP** | **17 32 19.0** | **+1.4** |
| **SONM** | **Songino Array** | **55.23** | **307** | P | **P** | **17 32 02.7** | **-0.3** |
| | 0.9nm,0.8s,baz=40,slow=5.9,SNR=5.1 | | | | | | |
| SONM | | | | pP | **pP** | **17 32 19.0** | **+1.4** |
| | 1.1nm,0.6s,baz

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| MQZ | McQueen's Vall | 0.18 | 255 | ⇑PG | Pg | 17 37 34.4 | -0.3 |
| MQZ | | | | SG | Sg | 17 37 36.6 | -0.6 |
| CRLZ | Canterbury Las | 0.21 | 293 | ePg | Pg | 17 37 34.8 | -0.6 |
| CRLZ | Canterbury Las | 0.21 | 293 | ⇓PG | Pg | 17 37 34.8 | -0.6 |
| CRLZ | | | | AML | AML | 17 37 37.6 | |
| CRLZ | | | | AML | AML | 17 37 39.9 | |
| OXZ | Oxford | 0.71 | 298 | ePg | Pg | 17 37 44.0 | -0.8 |
| OXZ | | | | eSg | Sg | 17 37 54.2 | +0.3 |
| OXZ | Oxford | 0.71 | 298 | ⇓P* | Pg | 17 37 43.9 | -0.8 |
| OXZ | | | | SG | Sg | 17 37 53.7 | -0.2 |
| OXZ | | | | AML | AML | 17 37 55.2 | |
| OXZ | | | | AML | AML | 17 37 55.7 | |
| OXZ | | | | AML | AML | 17 37 55.8 | |
| LTZ | Lake Taylor | 0.99 | 332 | ePg | Pg | 17 37 49.5 | -0.6 |
| LTZ | | | | eSg | Sg | 17 38 02.4 | -0.6 |
| LTZ | Lake Taylor | 0.99 | 332 | ⇑P* | Pg | 17 37 49.5 | -0.6 |
| LTZ | | | | S* | Sg | 17 38 02.7 | -0.2 |
| LTZ | | | | AML | AML | 17 38 03.8 | |
| KHZ | Kahutara | 1.33 | 21 | ePn | Pn | 17 37 54.5 | -1.6 |
| KHZ | Kahutara | 1.33 | 21 | PN | Pn | 17 37 54.5 | -1.6 |
| KHZ | | | | AML | AML | 17 38 23.8 | |
| KHZ | | | | AML | AML | 17 38 23.8 | |
| KHZ | | | | AML | AML | 17 38 34.1 | |
| KHZ | | | | AML | AML | 17 38 34.1 | |
| RPZ | Rata Peaks | 1.34 | 267 | Pn | Pn | 17 37 54.3 | -2.0 |
| | 484nm,0.3s,baz=125,slow=3.1,SNR=567 | | | | | | |
| RPZ | | | | Sn | Sb | 17 38 12.5 | -1.4 |
| | 6μm,0.3s,baz=314,slow=20,SNR=64 | | | | | | |
| RPZ | Rata Peaks | 1.34 | 267 | ePn | Pn | 17 37 54.3 | -2.0 |
| RPZ | | | | eSn | Sb | 17 38 12.5 | -1.4 |
| RPZ | | | | eSn | Sn | 17 38 12.7 | -1.7 |
| RPZ | Rata Peaks | 1.34 | 267 | P* | Pn | 17 37 54.3 | -2.0 |
| RPZ | | | | S* | Sb | 17 38 11.9 | -2.0 |
| RPZ | | | | AML | AML | 17 38 14.8 | |
| INZ | Inchbonnie | 1.41 | 311 | PN | Pn | 17 37 55.4 | -1.9 |
| WVZ | Waitaha Valley | 1.68 | 290 | Pn | Pn | 17 37 59.6 | -1.4 |
| WVZ | Waitaha Valley | 1.68 | 290 | PN | Pn | 17 37 59.5 | -1.5 |
| WVZ | | | | AML | AML | 17 38 28.8 | |
| WVZ | | | | AML | AML | 17 38 36.4 | |
| THZ | Tophouse | 1.90 | 0 | ePn | Pn | 17 38 02.6 | -1.4 |
| THZ | Tophouse | 1.90 | 0 | ⇑PN | Pn | 17 38 02.6 | -1.4 |
| THZ | | | | AML | AML | 17 38 43.1 | |
| THZ | | | | AML | AML | 17 38 43.2 | |
| BSWZ | Blackbirch Sta | 2.07 | 21 | ePn | Pn | 17 38 05.5 | -0.9 |
| BSWZ | Blackbirch Sta | 2.07 | 21 | ⇑PN | Pn | 17 38 05.5 | -0.9 |
| BSWZ | | | | AML | AML | 17 38 56.0 | |
| BSWZ | | | | AML | AML | 17 39 10.2 | |
| DSZ | Denniston Nort | 2.08 | 337 | Pn | Pn | 17 38 05.4 | -1.1 |
| DSZ | Denniston Nort | 2.08 | 337 | ⇑PN | Pn | 17 38 04.9 | -1.5 |
| DSZ | | | | AML | AML | 17 38 43.8 | |
| DSZ | | | | AML | AML | 17 38 43.8 | |
| DSZ | | | | AML | AML | 17 38 44.1 | |
| DSZ | | | | AML | AML | 17 38 44.2 | |
| LBZ | Lake Benmore | 2.08 | 249 | ePn | Pn | 17 38 05.2 | -1.4 |
| LBZ | | | | eSn | Sn | 17 38 30.5 | -2.3 |
| LBZ | Lake Benmore | 2.08 | 249 | PN | Pn | 17 38 05.0 | -1.6 |
| LBZ | | | | AML | AML | 17 38 43.5 | |
| LBZ | | | | AML | AML | 17 38 43.6 | |
| LBZ | | | | AML | AML | 17 38 49.6 | |
| LBZ | | | | AML | AML | 17 38 49.7 | |
| ODZ | Otahua Downs | 2.13 | 229 | ePn | Pn | 17 38 05.7 | -1.5 |
| ODZ | | | | eSn | Sg | 17 38 38.2 | -1.1 |
| ODZ | Otahua Downs | 2.13 | 229 | ⇑PN | Pn | 17 38 05.6 | -1.5 |
| ODZ | | | | AML | AML | 17 38 50.5 | |
| ODZ | | | | AML | AML | 17 38 50.6 | |
| ODZ | | | | AML | AML | 17 38 52.5 | |
| ODZ | | | | AML | AML | 17 38 52.5 | |
| CMWZ | Cape Campbell | 2.14 | 27 | AML | AML | 17 38 56.6 | |
| CMWZ | | | | AML | AML | 17 39 05.5 | |
| FOZ | Fox Glacier | 2.24 | 272 | ePn | Pn | 17 38 08.4 | -0.2 |
| FOZ | Fox Glacier | 2.24 | 272 | PN | Pn | 17 38 08.4 | -0.2 |
| FOZ | | | | AML | AML | 17 38 46.4 | |
| FOZ | | | | AML | AML | 17 38 46.5 | |
| FOZ | | | | AML | AML | 17 38 51.1 | |
| FOZ | | | | AML | AML | 17 38 51.1 | |
| TUWZ | Tuamarina | 2.36 | 20 | Pn | Pn | 17 38 09.2 | -1.1 |
| TUWZ | Tuamarina | 2.36 | 20 | PN | Pn | 17 38 08.9 | -1.4 |
| TUWZ | | | | AML | AML | 17 39 03.5 | |
| TUWZ | | | | AML | AML | 17 39 28.2 | |
| NNZ | Nelson | 2.47 | 9 | ⇑PN | Pn | 17 38 10.7 | -1.1 |
| NNZ | | | | AML | AML | 17 39 09.5 | |
| NNZ | | | | AML | AML | 17 39 09.5 | |
| NNZ | | | | AML | AML | 17 39 15.3 | |
| NNZ | | | | AML | AML | 17 39 15.3 | |
| TCW | Tory Channel | 2.65 | 23 | Pn | Pn | 17 38 13.2 | -1.1 |
| TCW | Tory Channel | 2.65 | 23 | PN | Pn | 17 38 12.5 | -1.8 |
| TCW | | | | AML | AML | 17 39 13.7 | |
| TCW | | | | AML | AML | 17 39 22.8 | |
| BHW | Baring Head | 2.68 | 34 | Pn | Pn | 17 38 13.2 | -1.6 |
| BHW | Baring Head | 2.68 | 34 | PN | Pn | 17 38 13.1 | -1.6 |
| BHW | | | | AML | AML | 17 39 30.1 | |
| BHW | | | | AML | AML | 17 39 42.3 | |
| SNZO | South Karori | 2.70 | 30 | ePn | Pn | 17 38 13.3 | -1.7 |
| SNZO | | | | eSn | Sn | 17 38 46.6 | -1.4 |
| PLWZ | Palliser | 2.72 | 41 | Pn | Pn | 17 38 13.6 | -1.7 |
| PLWZ | Palliser | 2.72 | 41 | AML | AML | 17 39 34.3 | |
| PLWZ | | | | AML | AML | 17 39 40.8 | |
| WEL | Wellington | 2.75 | 31 | P | Pn | 17 38 14.3 | -1.4 |
| WEL | Wellington | 2.75 | 31 | Pn | Pn | 17 38 14.3 | -1.4 |
| WEL | Wellington | 2.75 | 31 | PN | Pn | 17 38 14.2 | -1.5 |
| WEL | | | | AML | AML | 17 38 50.8 | |
| WEL | | | | AML | AML | 17 38 50.8 | |
| WEL | | | | AML | AML | 17 39 19.3 | |
| WEL | | | | AML | AML | 17 39 19.3 | |
| HHSZ | Highcliff Hill | 2.76 | 216 | Pn | Pn | 17 38 14.4 | -1.5 |
| HHSZ | Highcliff Hill | 2.76 | 216 | PN | Pn | 17 38 14.3 | -1.5 |
| HHSZ | | | | AML | AML | 17 39 09.2 | |
| HHSZ | | | | AML | AML | 17 39 13.4 | |
| MSWZ | Moikau Station | 2.84 | 39 | Pn | Pn | 17 38 15.2 | -1.7 |
| MSWZ | Moikau Station | 2.84 | 39 | AML | AML | 17 39 03.0 | |
| MSWZ | | | | AML | AML | 17 39 38.3 | |
| QRZ | Quartz Range | 2.85 | 354 | Pn | Pn | 17 38 16.0 | -1.0 |
| QRZ | Quartz Range | 2.85 | 354 | PN | Pn | 17 38 15.3 | -1.7 |
| QRZ | | | | AML | AML | 17 38 26.1 | |
| QRZ | | | | AML | AML | 17 38 26.1 | |
| QRZ | | | | AML | AML | 17 39 05.9 | |
| QRZ | | | | AML | AML | 17 39 05.9 | |
| PAWZ | Paruwai Farm | 2.95 | 40 | Pn | Pn | 17 38 16.6 | -1.8 |
| PAWZ | Paruwai Farm | 2.95 | 40 | AML | AML | 17 38 51.9 | |
| PAWZ | | | | AML | AML | 17 40 03.3 | |
| DUWZ | D'Urville Isla | 2.96 | 15 | Pn | Pn | 17 38 17.4 | -1.1 |
| DUWZ | D'Urville Isla | 2.96 | 15 | PN | Pn | 17 38 16.5 | -2.0 |
| DUWZ | | | | AML | AML | 17 39 20.7 | |
| DUWZ | | | | AML | AML | 17 39 35.6 | |
| JCZ | Jackson Bay | 3.00 | 261 | Pn | Pn | 17 38 18.6 | -0.6 |
| JCZ | Jackson Bay | 3.00 | 261 | PN | Pn | 17 38 18.0 | -1.2 |
| JCZ | | | | AML | AML | 17 39 10.4 | |
| JCZ | | | | AML | AML | 17 39 13.0 | |
| EAZ | Earnscleugh | 3.01 | 237 | Pn | Pn | 17 38 17.9 | -1.3 |
| EAZ | Earnscleugh | 3.01 | 237 | PN | Pn | 17 38 17.8 | -1.4 |
| EAZ | | | | AML | AML | 17 39 11.2 | |
| EAZ | | | | AML | AML | 17 39 11.2 | |
| EAZ | | | | AML | AML | 17 39 13.6 | |
| EAZ | | | | AML | AML | 17 39 13.6 | |
| CAW | Cannon Point | 3.02 | 33 | Pn | Pn | 17 38 17.7 | -1.7 |
| CAW | Cannon Point | 3.02 | 33 | PN | Pn | 17 38 17.6 | -1.7 |
| CAW | | | | AML | AML | 17 39 27.4 | |
| CAW | | | | AML | AML | 17 39 42.1 | |
| WKZ | Wanaka | 3.02 | 246 | ePn | Pn | 17 38 17.8 | -1.6 |
| WKZ | | | | eSg | Sg | 17 39 05.4 | -2.7 |
| WKZ | Wanaka | 3.02 | 246 | AML | AML | 17 39 17.9 | |
| WKZ | | | | AML | AML | 17 39 17.9 | |
| WKZ | | | | AML | AML | 17 39 18.7 | |
| WKZ | | | | AML | AML | 17 39 18.8 | |
| TRWZ | Traveller | 3.06 | 43 | Pn | Pn | 17 38 18.1 | -1.9 |
| TRWZ | Traveller | 3.06 | 43 | AML | AML | 17 40 05.7 | |
| TRWZ | | | | AML | AML | 17 40 19.5 | |
| MTW | Mount Morrison | 3.16 | 39 | Pn | Pn | 17 38 19.3 | -2.0 |
| MTW | Mount Morrison | 3.16 | 39 | PN | Pn | 17 38 19.1 | -2.2 |
| MTW | | | | AML | AML | 17 39 32.8 | |
| MTW | | | | AML | AML | 17 39 45.0 | |
| KIW | Kapiti Island | 3.17 | 29 | ePn | Pn | 17 38 20.1 | -1.4 |
| KIW | Kapiti Island | 3.17 | 29 | AML | AML | 17 39 01.6 | |
| KIW | | | | AML | AML | 17 39 36.1 | |
| TUZ | Tuapeka | 3.26 | 224 | Pn | Pn | 17 38 21.4 | -1.3 |
| TUZ | Tuapeka | 3.26 | 224 | PN | Pn | 17 38 21.3 | -1.4 |
| TUZ | | | | AML | AML | 17 39 24.6 | |
| TUZ | | | | AML | AML | 17 39 24.6 | |
| TUZ | | | | AML | AML | 17 39 28.9 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| TUZ | | | | AML | AML | 17 39 28.9 | |
| OGWZ | Otaki Gorge | 3.31 | 32 | Pn | Pn | 17 38 21.8 | -1.6 |
| OGWZ | Otaki Gorge | 3.31 | 32 | AML | AML | 17 39 52.2 | |
| OGWZ | | | | AML | AML | 17 40 10.8 | |
| HOWZ | Holdsworth Sta | 3.38 | 36 | ePn | Pn | 17 38 22.2 | -2.1 |
| HOWZ | Holdsworth Sta | 3.38 | 36 | AML | AML | 17 39 06.6 | |
| HOWZ | | | | AML | AML | 17 39 11.9 | |
| TMWZ | Te Maipa | 3.38 | 42 | Pn | Pn | 17 38 22.5 | -1.9 |
| TMWZ | Te Maipa | 3.38 | 42 | AML | AML | 17 39 07.8 | |
| TMWZ | | | | AML | AML | 17 39 51.4 | |
| MRZ | Mangatainoka R | 3.60 | 35 | Pn | Pn | 17 38 25.1 | -2.2 |
| MRZ | Mangatainoka R | 3.60 | 35 | PN | Pn | 17 38 25.3 | -2.1 |
| MRZ | | | | AML | AML | 17 39 11.6 | |
| MRZ | | | | AML | AML | 17 39 14.0 | |
| TIWZ | Tintock | 3.64 | 39 | Pn | Pn | 17 38 26.0 | -1.9 |
| TIWZ | Tintock | 3.64 | 39 | AML | AML | 17 39 11.7 | |
| TIWZ | | | | AML | AML | 17 40 14.7 | |
| CPWZ | Castlepoint | 3.68 | 43 | Pn | Pn | 17 38 27.9 | -0.6 |
| CPWZ | Castlepoint | 3.68 | 43 | AML | AML | 17 39 18.6 | |
| CPWZ | | | | AML | AML | 17 39 24.4 | |
| MLZ | Mavora Lakes | 3.82 | 242 | ePn | Pn | 17 38 28.3 | -2.1 |
| MLZ | | | | eSg | Sg | 17 39 34.9 | +1.2 |
| MLZ | Mavora Lakes | 3.82 | 242 | PN | Pn | 17 38 28.4 | -2.1 |
| MLZ | | | | AML | AML | 17 39 41.7 | |
| MLZ | | | | AML | AML | 17 39 42.2 | |
| PRWZ | Pori Road | 3.86 | 37 | Pn | Pn | 17 38 29.4 | -1.5 |
| PRWZ | Pori Road | 3.86 | 37 | AML | AML | 17 39 57.6 | |
| PRWZ | | | | AML | AML | 17 40 02.1 | |
| BFZ | Birch Farm | 3.88 | 41 | ePn | Pn | 17 38 29.2 | -2.1 |
| BFZ | | | | eSn | Sn | 17 39 15.9 | -1.1 |
| BFZ | Birch Farm | 3.88 | 41 | PN | Pn | 17 38 29.0 | -2.2 |
| BFZ | | | | AML | AML | 17 39 15.1 | |
| BFZ | | | | AML | AML | 17 39 15.1 | |
| BFZ | | | | AML | AML | 17 40 15.4 | |
| BFZ | | | | AML | AML | 17 40 15.4 | |
| POWZ | Post Office Ro | 3.91 | 34 | Pn | Pn | 17 38 30.6 | -0.9 |
| POWZ | Post Office Ro | 3.91 | 34 | AML | AML | 17 39 33.1 | |
| POWZ | | | | AML | AML | 17 40 06.0 | |
| SYZ | Scrubby Hill | 3.92 | 221 | Pn | Pn | 17 38 30.5 | -1.2 |
| SYZ | Scrubby Hill | 3.92 | 221 | PN | Pn | 17 38 30.3 | -1.4 |
| SYZ | | | | AML | AML | 17 39 50.2 | |
| SYZ | | | | AML | AML | 17 39 50.3 | |
| SYZ | | | | AML | AML | 17 39 53.0 | |
| SYZ | | | | AML | AML | 17 39 53.0 | |
| DVHZ | Dannevirke | 4.15 | 37 | Pn | Pn | 17 38 32.3 | -2.7 |
| DVHZ | Dannevirke | 4.15 | 37 | AML | AML | 17 39 36.4 | |
| DVHZ | | | | AML | AML | 17 40 26.0 | |
| WHZ | Wether Hill Ro | 4.17 | 236 | ePn | Pn | 17 38 32.7 | -2.5 |
| WHZ | | | | eSg | Sg | 17 39 40.9 | -4.0 |
| WHZ | Wether Hill Ro | 4.17 | 236 | AML | AML | 17 39 53.5 | |
| WHZ | | | | AML | AML | 17 40 01.4 | |
| WAZ | Wanganui | 4.20 | 23 | Pn | Pn | 17 38 37.1 | +1.4 |
| WAZ | Wanganui | 4.20 | 23 | AML | AML | 17 40 07.5 | |
| WAZ | | | | AML | AML | 17 40 13.2 | |
| TSZ | Takapari Road | 4.26 | 34 | Pn | Pn | 17 38 34.7 | -1.8 |
| TSZ | Takapari Road | 4.26 | 34 | AML | AML | 17 40 19.3 | |
| TSZ | | | | AML | AML | 17 40 29.5 | |
| NMEZ | Namu Road | 4.31 | 10 | Pn | Pn | 17 38 37.8 | +0.7 |
| NMEZ | Namu Road | 4.31 | 10 | ePN | Pn | 17 38 37.7 | +0.6 |
| PRHZ | Porangahau | 4.39 | 41 | Pn | Pn | 17 38 36.2 | -2.0 |
| PRHZ | Porangahau | 4.39 | 41 | AML | AML | 17 39 43.9 | |
| PRHZ | | | | AML | AML | 17 40 27.7 | |
| PREZ | Palmer Road | 4.42 | 13 | Pn | Pn | 17 38 39.3 | +0.6 |
| PREZ | Palmer Road | 4.42 | 13 | ePN | Pn | 17 38 38.8 | +0.2 |
| PREZ | | | | AML | AML | 17 39 42.3 | |
| PREZ | | | | AML | AML | 17 40 06.5 | |
| KHEZ | Kahui Hut | 4.44 | 11 | Pn | Pn | 17 38 39.4 | +0.4 |
| KHEZ | Kahui Hut | 4.44 | 11 | ePN | Pn | 17 38 39.3 | +0.3 |
| WPHZ | Waipukurau | 4.46 | 38 | Pn | Pn | 17 38 38.5 | -0.7 |
| WPHZ | Waipukurau | 4.46 | 38 | AML | AML | 17 39 35.6 | |
| WPHZ | | | | AML | AML | 17 39 38.4 | |
| NEZ | North Egmont | 4.48 | 12 | Pn | Pn | 17 38 39.9 | +0.4 |
| NEZ | North Egmont | 4.48 | 12 | ePN | Pn | 17 38 39.5 | 0.0 |
| DCZ | Deep Cove | 4.48 | 244 | ePn | Pn | 17 38 37.7 | -1.8 |
| DCZ | Deep Cove | 4.48 | 244 | PN | Pn | 17 38 37.4 | -2.1 |
| DCZ | | | | AML | AML | 17 40 02.5 | |
| DCZ | | | | AML | AML | 17 40 02.5 | |
| DCZ | | | | AML | AML | 17 40 04.4 | |
| DCZ | | | | AML | AML | 17 40 04.5 | |
| PNHZ | Pukenui | 4.49 | 35 | Pn | Pn | 17 38 37.5 | -2.1 |
| PNHZ | Pukenui | 4.49 | 35 | AML | AML | 17 39 36.6 | |
| PNHZ | | | | AML | AML | 17 40 42.3 | |
| PKE | Pukeiti | 4.54 | 11 | Pn | Pn | 17 38 40.5 | +0.2 |
| PKE | Pukeiti | 4.54 | 11 | ePN | Pn | 17 38 40.4 | +0.2 |
| PKE | | | | AML | AML | 17 40 05.7 | |
| PKE | | | | AML | AML | 17 40 16.5 | |
| DREZ | Durham Road | 4.57 | 13 | Pn | Pn | 17 38 41.0 | +0.3 |
| DREZ | Durham Road | 4.57 | 13 | ePN | Pn | 17 38 41.0 | +0.3 |
| PXZ | Pawanui | 4.68 | 41 | Pn | Pn | 17 38 40.6 | -1.6 |
| PXZ | Pawanui | 4.68 | 41 | ePN | Pn | 17 38 40.9 | -1.4 |
| PXZ | | | | AML | AML | 17 39 41.0 | |
| PXZ | | | | AML | AML | 17 39 51.6 | |
| PXZ | | | | AML | AML | 17 39 51.6 | |
| PXZ | | | | AML | AML | 17 40 42.1 | |
| MTVZ | Mangateitei | 4.69 | 25 | Pn | Pn | 17 38 42.6 | +0.2 |
| MTVZ | Mangateitei | 4.69 | 25 | AML | AML | 17 40 09.3 | |
| MTVZ | | | | AML | AML | 17 40 21.0 | |
| APZ | The Paps | 4.70 | 226 | Pn | Pn | 17 38 40.7 | -1.8 |
| APZ | The Paps | 4.70 | 226 | ePN | Pn | 17 38 40.7 | -1.8 |
| APZ | | | | AML | AML | 17 40 10.6 | |
| APZ | | | | AML | AML | 17 40 12.3 | |
| MHEZ | Mangahewa | 4.70 | 14 | Pn | Pn | 17 38 43.6 | +1.1 |
| MHEZ | Mangahewa | 4.70 | 14 | ePN | Pn | 17 38 43.1 | +0.6 |
| VRZ | Vera Road | 4.74 | 18 | Pn | Pn | 17 38 43.4 | +0.3 |
| VRZ | Vera Road | 4.74 | 18 | PN | Pn | 17 38 42.4 | -0.7 |
| VRZ | | | | AML | AML | 17 40 32.1 | |
| VRZ | | | | AML | AML | 17 40 43.1 | |
| MOVZ | Moawhango | 4.76 | 28 | Pn | Pn | 17 38 43.1 | -0.2 |
| MOVZ | Moawhango | 4.76 | 28 | AML | AML | 17 39 39.3 | |
| MOVZ | | | | AML | AML | 17 40 42.2 | |
| WNVZ | Wahianoa | 4.78 | 26 | Pn | Pn | 17 38 43.2 | -0.6 |
| WNVZ | Wahianoa | 4.78 | 26 | PN | Pn | 17 38 42.9 | -0.9 |
| KRHZ | Kereru | 4.78 | 34 | AML | AML | 17 39 41.1 | |
| KRHZ | | | | AML | AML | 17 39 51.4 | |
| TRVZ | Turoa | 4.79 | 25 | Pn | Pn | 17 38 44.2 | +0.3 |
| TRVZ | Turoa | 4.79 | 25 | AML | AML | 17 39 41.2 | |
| TRVZ | | | | AML | AML | 17 39 41.4 | |
| BHHZ | Black Hill Sta | 4.80 | 31 | Pn | Pn | 17 38 42.1 | -1.7 |
| BHHZ | Black Hill Sta | 4.80 | 31 | AML | AML | 17 39 41.6 | |
| BHHZ | | | | AML | AML | 17 39 43.2 | |
| DRZ | Dome Shelter | 4.82 | 25 | AML | AML | 17 39 43.1 | |
| DRZ | | | | AML | AML | 17 39 49.6 | |
| WHVZ | Whangaehu Hut | 4.82 | 26 | Pn | Pn | 17 38 44.9 | +0.5 |
| WHVZ | Whangaehu Hut | 4.82 | 26 | PN | Pn | 17 38 44.9 | +0.5 |
| WHVZ | | | | AML | AML | 17 39 40.3 | |
| WHVZ | | | | AML | AML | 17 39 42.7 | |
| FWVZ | Far West T-bar | 4.83 | 25 | Pn | Pn | 17 38 44.2 | -0.3 |
| FWVZ | Far West T-bar | 4.83 | 25 | AML | AML | 17 39 45.2 | |
| FWVZ | | | | AML | AML | 17 39 46.9 | |
| TUVZ | Tukino | 4.85 | 26 | Pn | Pn | 17 38 44.3 | -0.5 |
| TUVZ | Tukino | 4.85 | 26 | AML | AML | 17 39 46.7 | |
| TUVZ | | | | AML | AML | 17 40 32.6 | |
| KAHZ | Kahuranaki | 4.88 | 39 | Pn | Pn | 17 38 43.7 | -1.3 |
| KAHZ | Kahuranaki | 4.88 | 39 | AML | AML | 17 40 53.8 | |
| KAHZ | | | | AML | AML | 17 40 55.1 | |
| NGZ | Ngauruhoe | 4.92 | 25 | Pn | Pn | 17 38 45.0 | -0.7 |
| NGZ | Ngauruhoe | 4.92 | 25 | AML | AML | 17 40 43.7 | |
| NGZ | | | | AML | AML | 17 40 55.0 | |
| OTVZ | Oturere | 4.95 | 26 | Pn | Pn | 17 38 45.0 | -1.1 |
| OTVZ | Oturere | 4.95 | 26 | PN | Pn | 17 38 44.6 | -1.5 |
| OTVZ | | | | AML | AML | 17 39 50.1 | |
| OTVZ | | | | AML | AML | 17 40 50.5 | |
| TWVZ | Taurewa | 4.97 | 24 | Pn | Pn | 17 38 45.7 | -0.6 |
| TWVZ | Taurewa | 4.97 | 24 | AML | AML | 17 40 22.0 | |
| TWVZ | | | | AML | AML | 17 40 33.4 | |
| WTVZ | West Tongariro | 4.97 | 25 | Pn | Pn | 17 38 45.8 | -0.5 |
| WTVZ | West Tongariro | 4.97 | 25 | AML | AML | 17 39 53.5 | |
| WTVZ | | | | AML | AML | 17 40 27.4 | |
| KWHZ | Kaweka Forest | 4.99 | 33 | AML | AML | 17 39 44.4 | |
| KWHZ | | | | AML | AML | 17 39 52.2 | |
| KRVZ | Karewarewa | 5.01 | 25 | Pn | Pn | 17 38 46.9 | 0.0 |
| KRVZ | Karewarewa | 5.01 | 25 | AML | AML | 17 39 48.9 | |
| KRVZ | | | | AML | AML | 17 40 28.1 | |
| PYZ | Puysegur Point | 5.08 | 238 | ePn | Pn | 17 38 45.9 | -1.8 |
| PYZ | Puysegur Point | 5.08 | 238 | ePN | Pn | 17 38 45.6 | -2.0 |
| PYZ | | | | AML | AML | 17 40 25.3 | |
| PYZ | | | | AML | AML | 17 40 30.2 | |
| CKHZ | Cape Kidnapper | 5.08 | 39 | Pn | Pn | 17 38 47.2 | -0.5 |
| CKHZ | Cape Kidnapper | 5.08 | 39 | AML | AML | 17 40 05.0 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| MCHZ | McNeill Hill | 5.09 | 35 | Pn | Pn | 17 38 47.9 | +0.1 |
| MCHZ | McNeill Hill | 5.09 | 35 | AML | AML | 17 40 45.3 | |
| MCHZ | | | | AML | AML | 17 41 04.1 | |
| KATZ | Kakaramea | 5.13 | 25 | Pn | Pn | 17 38 48.5 | -0.1 |
| KATZ | Kakaramea | 5.13 | 25 | AML | AML | 17 39 54.7 | |
| KATZ | | | | AML | AML | 17 41 00.4 | |
| BKZ | Black Stump Fm | 5.24 | 32 | ePn | Pn | 17 38 47.3 | -2.7 |
| BKZ | Black Stump Fm | 5.24 | 32 | AML | AML | 17 40 41.8 | |
| BKZ | | | | AML | AML | 17 41 03.4 | |
| RATZ | Rangitukua | 5.26 | 25 | AML | AML | 17 40 25.1 | |
| RATZ | | | | AML | AML | 17 41 15.4 | |
| HATZ | Hinemaiaia | 5.34 | 28 | Pn | Pn | 17 38 49.7 | -1.6 |
| HATZ | Hinemaiaia | 5.34 | 28 | AML | AML | 17 40 17.0 | |
| HATZ | | | | AML | AML | 17 40 51.9 | |
| HIZ | Hauiti | 5.35 | 17 | ePn | Pn | 17 38 50.8 | -0.7 |
| HIZ | | | | eSn | Sn | 17 39 54.2 | +0.8 |
| HIZ | Hauiti | 5.35 | 17 | PN | Pn | 17 38 50.7 | -0.7 |
| HIZ | | | | AML | AML | 17 39 56.7 | |
| HIZ | | | | AML | AML | 17 40 48.4 | |
| NMHZ | Naumai | 5.43 | 34 | Pn | Pn | 17 38 51.4 | -1.2 |
| NMHZ | Naumai | 5.43 | 34 | AML | AML | 17 40 54.6 | |
| NMHZ | | | | AML | AML | 17 41 16.8 | |
| WHHZ | Waihua | 5.62 | 37 | AML | AML | 17 40 00.6 | |
| WHHZ | | | | AML | AML | 17 40 25.3 | |
| TLZ | Tolley Road | 5.69 | 21 | Pn | Pn | 17 38 55.0 | -1.1 |
| TLZ | Tolley Road | 5.69 | 21 | AML | AML | 17 40 06.5 | |
| TLZ | | | | AML | AML | 17 41 03.5 | |
| ALRZ | Allen Road | 5.72 | 28 | Pn | Pn | 17 38 54.7 | -1.8 |
| ALRZ | Allen Road | 5.72 | 28 | AML | AML | 17 40 09.8 | |
| ALRZ | | | | AML | AML | 17 40 35.6 | |
| KNZ | Kokohu | 5.87 | 39 | Pn | Pn | 17 38 56.0 | -2.5 |
| KNZ | Kokohu | 5.87 | 39 | ePN | Pn | 17 38 55.6 | -2.9 |
| KNZ | | | | AML | AML | 17 40 12.1 | |
| KNZ | | | | AML | AML | 17 40 12.1 | |
| MHGZ | Mahia Peninsul | 5.87 | 42 | Pn | Pn | 17 38 57.7 | -0.9 |
| MHGZ | Mahia Peninsul | 5.87 | 42 | AML | AML | 17 40 18.2 | |
| MHGZ | | | | AML | AML | 17 40 27.9 | |
| SNGZ | Shannon Statio | 5.91 | 36 | Pn | Pn | 17 38 58.0 | -1.2 |
| MUGZ | Murupara | 5.95 | 31 | PN | Pn | 17 38 57.9 | -1.8 |
| RIGZ | Rimuhau | 6.16 | 38 | AML | AML | 17 40 23.4 | |
| RIGZ | | | | AML | AML | 17 40 38.7 | |
| RAGZ | Rawiri | 6.19 | 35 | AML | AML | 17 40 11.1 | |
| RAGZ | | | | AML | AML | 17 40 13.5 | |
| TOZ | Tahuroa Road | 6.25 | 19 | Pn | Pn | 17 39 02.5 | -1.2 |
| TOZ | Tahuroa Road | 6.25 | 19 | PN | Pn | 17 39 01.7 | -2.0 |
| TOZ | | | | AML | AML | 17 41 01.0 | |
| TOZ | | | | AML | AML | 17 41 18.7 | |
| URZ | Urewera | 6.27 | 32 | ePn | Pn | 17 39 01.9 | -2.2 |
| | 6.7nm,0.3s,baz=243,slow=4.9,SNR=17 | | | | | | |
| URZ | | | | Sn | Sn | 17 40 10.3 | -5.6 |
| | 13nm,0.3s,baz=125,slow=20,SNR=8.0 | | | | | | |
| URZ | Urewera | 6.27 | 32 | AML | AML | 17 40 13.1 | |
| URZ | | | | AML | AML | 17 41 40.0 | |
| MWZ | Matawai | 6.37 | 35 | Pn | Pn | 17 39 02.8 | -2.7 |
| MWZ | Matawai | 6.37 | 35 | AML | AML | 17 40 15.2 | |
| MWZ | | | | AML | AML | 17 40 21.0 | |
| CNGZ | Carnagh Statio | 6.54 | 40 | Pn | Pn | 17 39 06.2 | -1.6 |
| AWAZ | Awhitu Peninsu | 6.72 | 12 | PN | Pn | 17 39 09.4 | -0.9 |
| KBAZ | Karaka Road Bo | 6.73 | 14 | Pn | Pn | 17 39 10.4 | 0.0 |
| MKAZ | Moumakai | 6.77 | 16 | PN | Pn | 17 39 09.5 | -1.4 |
| MKAZ | | | | AML | AML | 17 41 18.3 | |
| MKAZ | | | | AML | AML | 17 41 36.4 | |
| ETAZ | East Tamaki Re | 6.88 | 14 | Pn | Pn | 17 39 11.6 | -0.8 |
| ETAZ | East Tamaki Re | 6.88 | 14 | PN | Pn | 17 39 11.3 | -1.1 |
| HAZ | Te Kaha | 6.97 | 34 | AML | AML | 17 40 34.8 | |
| HAZ | | | | AML | AML | 17 40 37.5 | |
| RVAZ | Riverhead Bore | 7.00 | 11 | Pn | Pn | 17 39 13.9 | -0.2 |
| WIAZ | Waiheke Island | 7.07 | 15 | AML | AML | 17 39 32.3 | |
| WIAZ | | | | AML | AML | 17 40 36.5 | |
| WMGZ | Waiomatatini S | 7.18 | 38 | Pn | Pn | 17 39 13.5 | -3.1 |
| WMGZ | Waiomatatini S | 7.18 | 38 | ePN | Pn | 17 39 13.1 | -3.5 |
| WMGZ | | | | AML | AML | 17 40 35.0 | |
| WMGZ | | | | AML | AML | 17 40 37.1 | |
| KUZ | Kuaotunu | 7.24 | 18 | Pn | Pn | 17 39 16.2 | -1.2 |
| MXZ | Matakaoa Point | 7.35 | 36 | ePn | Pn | 17 39 17.3 | -1.6 |
| CTZ | Chatham Island | 7.60 | 94 | Pn | Pn | 17 39 20.9 | -1.4 |
| CTZ | Chatham Island | 7.60 | 94 | PN | Pn | 17 39 20.0 | -2.3 |
| OUZ | Omahuta | 8.45 | 4 | ePn | Pn | 17 39 32.9 | -1.0 |
| LHI | Lord Howe Isla | 16.31 | 313 | ePn | Pn | 17 41 16.5 | -4.2 |
| | 141nm,1.1s | | | | | | |
| TAU | Tasmania Unive | 18.62 | 263 | eP | Pn | 17 41 49.2 | -0.1 |
| TAU | | | | pmax | pmax | | |
| | comp=Z,100nm,1.7s | | | | | | |
| TAU | Tasmania Unive | 18.62 | 263 | eP | Pn | 17 41 49.2 | -0.1 |
| | comp=Z,100nm,1.7s | | | | | | |
| MOO | Moorlands | 18.81 | 265 | P | Pn | 17 41 55.2 | +3.6 |
| | baz=19,SNR=4.8 | | | | | | |
| MILA | Mila | 19.22 | 282 | P | Pn | 17 41 58.8 | +2.0 |
| | baz=20,SNR=7.0 | | | | | | |
| CNB | Canberra Magne | 19.93 | 287 | P | Pn | 17 42 07.2 | +1.9 |
| | baz=20,SNR=4.8 | | | | | | |
| CAN | Canberra | 20.18 | 286 | eP | P | 17 42 03.8 | -2.6 |
| CAN | | | | pmax | pmax | | |
| | comp=Z,18nm,1.1s | | | | | | |
| CAN | Canberra | 20.18 | 286 | eP | P | 17 42 03.8 | -2.6 |
| | comp=Z,18nm,1.1s | | | | | | |
| YNG | Young | 21.15 | 288 | P | P | 17 42 20.0 | +3.2 |
| | baz=22,SNR=5.5 | | | | | | |
| ARMA | Armidale | 21.44 | 301 | P | P | 17 42 21.9 | +1.9 |
| | baz=22,SNR=9.8 | | | | | | |
| ARMA | Armidale | 21.44 | 301 | eP | P | 17 42 15.8 | -4.2 |
| | comp=Z,22nm,0.9s | | | | | | |
| TOO | Toolangi | 21.62 | 277 | P | P | 17 42 24.2 | +2.4 |
| | baz=22,SNR=17 | | | | | | |
| DZM | Mont Dzumac | 22.19 | 344 | P | P | 17 42 29.0 | +0.9 |
| | comp=Z,14nm,0.8s,baz=183,slow=2.9,SNR=3.8 | | | | | | |
| DZM | | | | LR | LR | 17 50 22.0 | |
| | comp=Z,855nm,18.1s,baz=114,slow=35 | | | | | | |
| DZM | Mont Dzumac | 22.19 | 344 | eP | P | 17 42 31.4 | +3.4 |
| | comp=Z,73nm,1.3s | | | | | | |
| DZM | | | | eS | S | 17 46 26.5 | -6.2 |
| | comp=Z,296nm,22.8s | | | | | | |
| DZM | | | | eLR | LR | 17 47 48.9 | |
| | comp=Z,429nm,21.9s | | | | | | |
| DZM | Mont Dzumac | 22.19 | 344 | eP | P | 17 42 29.6 | +1.6 |
| | comp=Z,57nm,1.4s | | | | | | |
| ARPS | Mount Arapiles | 24.60 | 276 | P | P | 17 42 53.0 | +1.1 |
| | baz=25,SNR=8.7 | | | | | | |
| CMSA | Cobar Meteorol | 24.60 | 290 | P | P | 17 42 53.6 | +1.6 |
| | baz=25,SNR=22 | | | | | | |
| EIDS | Eidsvold | 25.48 | 309 | eP | P | 17 42 58.8 | -1.2 |
| | comp=Z,35nm,1.3s | | | | | | |
| RMQ | Roma | 26.01 | 303 | P | P | 17 43 09.0 | +4.2 |
| | baz=27,SNR=5.0 | | | | | | |
| MSVF | Nonsavu | 26.21 | 11 | eP | P | 17 43 04.6 | -2.1 |
| MSVF | Nonsavu | 26.21 | 11 | eP | P | 17 43 04.5 | -2.1 |
| | comp=Z,24nm,1.2s | | | | | | |
| STKA | Stephens Creek | 27.23 | 285 | P | P | 17 43 17.7 | +1.9 |
| | comp=Z,19nm,0.9s,baz=118,slow=9.8,SNR=30 | | | | | | |
| STKA | | | | LR | LR | 17 52 11.0 | |
| | comp=Z,487nm,21.8s,baz=119,slow=32 | | | | | | |
| STKA | Stephens Creek | 27.23 | 285 | P | P | 17 43 18.4 | +2.6 |
| | baz=28,SNR=9.8 | | | | | | |
| STKA | Stephens Creek | 27.23 | 285 | eP | P | 17 43 16.7 | +0.9 |
| STKA | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.0s | | | | | | |
| STKA | Stephens Creek | 27.23 | 285 | eP | P | 17 43 16.6 | +0.9 |
| | comp=Z,5.5nm,1.0s | | | | | | |
| QLP | Quilpie | 28.78 | 297 | P | P | 17 43 30.7 | +1.1 |
| | baz=29,SNR=6.2 | | | | | | |
| BBOO | Buckleboo | 30.66 | 278 | P | P | 17 43 48.3 | +2.0 |
| | baz=31,SNR=6.4 | | | | | | |
| BBOO | Buckleboo | 30.66 | 278 | eP | P | 17 43 47.4 | +1.1 |
| | comp=Z,25nm,1.1s | | | | | | |
| CTAO | Charters Tower | 32.37 | 308 | eP | P | 17 44 01.6 | +0.2 |
| CTAO | | | | pmax | pmax | | |
| | comp=Z,25nm,1.4s | | | | | | |
| CTAO | Charters Tower | 32.37 | 308 | eP | P | 17 44 01.6 | +0.2 |
| | comp=Z,25nm,1.4s | | | | | | |
| AFI | Afiamalu | 32.43 | 29 | eP | P | 17 44 00.1 | -1.9 |
| AFI | | | | pmax | pmax | | |
| | comp=Z,99nm,1.6s | | | | | | |
| AFI | Afiamalu | 32.43 | 29 | eP | P | 17 44 00.1 | -1.9 |
| | comp=Z,99nm,1.6s | | | | | | |
| VNDA | Vanda | 34.27 | 184 | LR | LR | 17 55 35.9 | |
| | comp=Z,366nm,21.6s,baz=20,slow=32 | | | | | | |
| VNDA | Vanda | 34.27 | 184 | eP | P | 17 44 18.3 | +0.9 |
| VNDA | Vanda | 34.27 | 184 | eP | P | 17 44 18.3 | +0.9 |
| MTSU | Mount Surprise | 35.02 | 308 | P | P | 17 44 25.8 | +1.2 |
| | baz=36,SNR=5.4 | | | | | | |
| HNR | Honiara | 35.92 | 338 | P | P | 17 44 33.1 | +1.0 |
| | comp=Z,85nm,1.0s,baz=200,slow=5.5,SNR=5.0 | | | | | | |
| HNR | Honiara | 35.92 | 338 | eP | P | 17 44 32.3 | +0.1 |
| HNR | | | | pmax | pmax | | |

comp=Z,105nm,1.0s
**HNR Honiara 35.92 338** *e*P **P** **17 44 32.3 +0.1**
comp=Z,105nm,1.0s
**QIS Mount Isa 36.03 299** P **P** **17 44 35.5 +2.3**
baz=37,SNR=4.3
**TBI Tubuai 36.94 69** *e*LR LR 17 54 28.5
comp=Z,494nm,31.2s
**TBI Tubuai 36.94 69** *e*T T 18 22 56.5
comp=Z,21nm,0.3s
**FORT Forrest 37.51 275** *e*P **P** **17 44 46.0 +0.3**
comp=Z,158nm,0.9s
**AS01 Alice Springs 37.61 289** *e*P **P** **17 44 46.2 -0.5**
**AS31 Alice Springs 37.65 289** *e*P **P** **17 44 46.9 -0.1**
comp=Z,13nm,1.0s
**ASAR Alice Springs 37.65 289** P **P** **17 44 46.5 -0.4**
comp=Z,45nm,1.1s,baz=132,slow=8.2,SNR=97
ASAR LR LR 17 59 11.1
comp=Z,456nm,20.6s,baz=134,slow=35
**COEN Coen 39.03 310** *e*P **P** **17 44 59.2 +0.6**
comp=Z,13nm,1.1s
**WC3 Warramunga Arr 39.87 294** P **P** **17 45 05.2 -0.3**
baz=40
**WB2 Warramunga Arr 39.89 294** *e*P **P** **17 45 05.1 -0.7**
comp=Z,41nm,1.0s
**WR1 Warramunga Arr 39.90 294** *e*P **P** **17 45 05.2 -0.6**
comp=Z,45nm,1.0s
**WRA Warramunga Arr 39.90 294** P **P** **17 45 05.2 -0.6**
comp=Z,26nm,0.9s,baz=137,slow=7.6,SNR=88
WRA LR LR 18 01 19.5
comp=Z,608nm,18.1s,baz=130,slow=36
**WRAB Tennant Creek 39.90 294***d i*P **P** **17 45 05.5 -0.3**
WRAB pmax pmax
comp=Z,55nm,1.1s
**WRAB Tennant Creek 39.90 294** *e*P **P** **17 45 05.0 -0.8**
comp=Z,47nm,1.0s
**WRKA Warakurna 40.68 282** P **P** **17 45 11.9 -0.4**
baz=41,SNR=21
**PMG Port Moresby 40.82 319** LR LR 18 00 54.5
comp=Z,656nm,19.2s,baz=148,slow=34
**PMG Port Moresby 40.82 319**⇑ *e*P **P** **17 45 14.0 +0.6**
PMG pmax pmax
comp=Z,91nm,1.1s
**PMG Port Moresby 40.82 319** *e*P **P** **17 45 10.9 -2.5**
comp=Z,64nm,1.2s
**PAE Paea 40.87 63** *e*T T 18 27 41.6
comp=Z,11nm,0.3s
**PPT2 Papeete2 40.92 63** *e*S **S** **17 51 26.6 +0.1**
comp=Z,142nm,27.5s
PPT2 *e*LQ LQ 17 54 41.9
comp=Z,315nm,29.5s
PPT2 *e*LR LR 17 56 16.3
comp=Z,703nm,29.0s
**PPT2 Papeete2 40.92 63** *e*T T 18 27 46.9
comp=Z,7.3nm,0.2s
**PPTF Pamatai, Papee 40.93 63** *e*P **P** **17 45 14.6 +0.2**
comp=Z,382nm,1.9s
**PPT Papeete 40.94 62** LR LR 17 58 57.7
comp=Z,319nm,19.8s,baz=204,slow=31
**KMBL Kambalda 41.68 270** P **P** **17 45 21.6 +1.2**
baz=42,SNR=5.0
**RABL Rabaul 43.37 329** *e*P **P** **17 45 33.8 -0.5**
comp=Z,119nm,0.4s
**VAH Vaihoa 43.91 62** *e*T T 18 31 36.9
comp=Z,5.9nm,0.2s
**PMOR Pomariorio Ree 43.91 62** *e*T T 18 31 36.6
comp=Z,4.5nm,0.3s
**NWAO Narrogin (SRO) 44.23 265** LR LR 18 00 20.7
comp=Z,121nm,20.1s,slow=31
**KLBR Kellerberrin 44.55 267** P **P** **17 45 44.8 +1.2**
baz=45,SNR=4.9
**MUN Mundaring 45.47 265** P **P** **17 45 49.2 -1.7**
baz=46,SNR=3.0
**QSPA South Pole Qui 46.47 180** *e*P **P** **17 45 59.7 +1.1**
comp=Z,46nm,1.1s
**KNRA Kununurra 46.65 293** P **P** **17 46 01.9 +1.6**
baz=47,SNR=7.7
**MEEK Meekatharra 46.68 273** P **P** **17 46 02.6 +2.0**
baz=47,SNR=12
**FITZ Fitzroy Crossi 47.08 287** LR LR 18 05 37.5
comp=Z,323nm,18.4s,slow=36
**FITZ Fitzroy Crossi 47.08 287** P **P** **17 46 03.7 0.0**
baz=48,SNR=5.9
**MTN Manton Dam 47.16 298** *e*P **P** **17 46 04.4 0.0**
comp=Z,37nm,1.2s
**MORW Morawa 47.16 268** P **P** **17 46 05.2 +0.9**
baz=48,SNR=4.3
**MANU Manus Island 47.25 324** *e*P **P** **17 46 04.4 -0.6**
comp=Z,109nm,0.8s
**MBWA Marble Bar 49.23 279** *e*P **P** **17 46 20.3 -0.1**
comp=Z,28nm,1.4s
**TAOE Nuku Hiva Isla 53.51 64** *e*LR LR 18 02 03.6
comp=Z,362nm,25.6s
**SOEI Soe 53.94 294** *e*P **P** **17 46 56.7 +0.9**
comp=Z,164nm,1.7s
**MAW Mawson 57.30 205** LR LR 18 11 00.7
comp=Z,508nm,19.0s,baz=68,slow=35
**KAPI Kappang 60.44 294** *e*P **P** **17 47 41.8 +0.3**
comp=Z,1μm,0.9s
**LUWI Luwuk 61.47 299** *e*P **P** **17 47 49.6 +1.1**
comp=Z,91nm,1.2s
**JOHN Johnston Islan 62.22 19** *e*P **P** **17 47 51.7 -1.7**
comp=Z,477nm,1.2s
**SYO Syowa Base 62.46 197**⇑ *e*P **P** **17 47 51.7 -2.8**
**SYO Syowa Base 62.46 197**⇑ *e*pP **P** **17 47 53.5 -1.0**
**GUMO Guam 62.46 329** LR LR 18 13 40.3
comp=Z,61nm,20.0s,baz=152,slow=35
**SNAA Sanae 64.94 181** P **P** **17 48 12.6 +1.6**
**SNAA Sanae 64.94 181** *e*P **P** **17 48 10.9 0.0**
**SNAA Sanae 64.94 181** *e*P **P** **17 48 11.7 +0.8**
comp=Z,7.7nm,1.2s
**SMRI Semarang 65.36 284** *e*P **P** **17 48 14.6 +0.2**
comp=Z,122nm,1.1s
**VNA3 Neumayer Olymp 65.39 179** P **P** **17 48 15.3 +1.4**
**VNA2 Neumayer--Watz 65.73 180** P **P** **17 48 18.6 +2.6**
baz=209,slow=6.5
**VNA1 Neumayer--Stat 66.00 180** P **P** **17 48 20.1 +2.4**
**DAV Davao City (W) 66.16 307** LR LR 18 17 49.0
comp=Z,161nm,20.2s,baz=315,slow=36
**CISI Cisompet, Garu 66.86 282** *e*P **P** **17 48 23.6 -0.5**
comp=Z,42nm,0.9s
**KKM Kota Kinabalu 71.06 299** *e*P **P** **17 48 50.0 -0.3**
comp=Z,25nm,1.1s
**KSM Kuching 71.55 291** *e*P **P** **17 48 53.9 +0.8**
comp=Z,50nm,1.5s
**PLCA Paso Flores 78.43 136** LR LR 18 17 52.6
comp=Z,130nm,18.9s,baz=184,slow=31
**MJAR Matsushiro Arr 85.83 333** LR LR 18 27 00.6
comp=Z,28nm,19.7s,baz=325,slow=35
**NJ2 Nanjing 90.08 317** *e*P **P** **17 50 33.3 +1.8**
NJ2 pmax pmax
comp=Z,15nm,1.1s
**KSRS Korea Array 90.46 326** P **P** **17 50 34.8 +1.7**
comp=Z,3.5nm,0.9s,baz=151,slow=5.2,SNR=7.6
KSRS LR LR 18 26 56.6
comp=Z,28nm,21.8s,baz=355,slow=33
**KSAR Wonju Array Be 90.46 326** P **P** **17 50 34.8 +1.6**
**KSAR Wonju Array Be 90.46 326** P **P** **17 50 34.8 +1.6**
**KS01 Wonju Array Si 90.49 326** *e*P **P** **17 50 32.7 -0.6**
**CM31 Chiang Mai Arr 91.49 294** *e*P **P** **17 50 37.1 -1.4**
**CMAR Chiang Mai Arr 91.49 294** P **P** **17 50 40.5 +2.0**
comp=Z,0.9nm,0.8s,baz=156,slow=3.8,SNR=5.4
CMAR LR LR 18 36 13.9
comp=Z,52nm,18.2s,baz=136,slow=38
**GYA Guiyang 92.44 305** *e*P **P** **17 50 44.0 +1.2**
GYA pmax pmax
comp=Z,20nm,1.0s
**KMI Kunming 93.85 301** P **P** **17 50 50.8 +1.3**
KMI pmax pmax
comp=Z,5.0nm,0.5s
**CPUP Villa Florida 96.50 136** LR LR 18 29 24.4
comp=Z,78nm,18.6s,baz=211,slow=32
**PETK Petropavlovsk- 97.27 351** LR LR 18 32 46.9
comp=Z,70nm,18.3s,baz=140,slow=34
**LPAZ La Paz 98.39 122** LR LR 18 25 50.5
comp=Z,96nm,21.1s,baz=218,slow=30
**HHC Hu-ho-hao-te 100.61 317** *e*P **Pdif** **17 51 20.3 +0.8**
HHC pmax pmax
comp=Z,7.0nm,0.9s
HHC pmax pmax
comp=Z,110nm,8.6s
**LZH Lanzhou 101.14 310** *e*P **Pdif** **17 51 20.5 -1.6**
LZH *e*PP **PP** **17 55 32.8 +1.5**
LZH pmax pmax
comp=Z,19nm,1.4s
LZH pmax pmax
comp=Z,78nm,8.5s
LZH LR LR
comp=Z,330nm,17.0s
LZH LR LR
comp=Z,340nm,17.3s
LZH LR LR
comp=Z,430nm,19.5s
**WMQ Urumqi 115.51 307** PKP **PKPdf** **17 56 12.8 -0.6**
WMQ LR LR
comp=Z,160nm,19.9s
WMQ LR LR
comp=Z,130nm,18.7s
WMQ LR LR
comp=Z,250nm,19.7s
**DGZ Jazzator, Alta 119.07 312** *i* PKIKP **PKPdf** **17 56 20.3 +0.1**
**TIXI Tiksi 119.16 345** *i* PKIKP **PKPdf** **17 56 19.9 +0.4**
TIXI pmax pmax
comp=Z,2.0nm,1.0s
**KSH Kashi 120.24 297** PKP **PKPdf** **17 56 24.3 +1.5**
KSH PP **PP** **17 57 55.3 +6.3**
KSH PKS **PKSdf** **18 00 01.8 +2.3**
KSH SKS **SKSdf** **18 03 36.0 +0.8**
KSH SKKS **SKKSac** **18 04 47.8 -0.9**
KSH SS **SS** **18 14 22.3 +5.0**
KSH LR LR
comp=Z,430nm,6.9s
**MK01 Makanchi Array 120.32 307** *e*PKPdf **PKPdf** **17 56 22.3 -0.2**
**MK32 Makanchi Array 120.34 307** *e*PKPdf **PKPdf** **17 56 21.8 -0.8**
**MKAR Makanchi Array 120.34 307** PKP **PKPdf** **17 56 21.8 -0.8**
comp=Z,2.4nm,0.8s,baz=103,slow=1.6,SNR=14
**YKA Yellowknife Ar 120.53 31** PKP **PKPdf** **17 56 21.1 -1.3**
comp=Z,0.6nm,0.8s,baz=238,slow=1.7,SNR=10.0
**YKB5 Yellowknife Ar 120.53 31** *e*PKPdf **PKPdf** **17 56 22.3 -0.1**
**ZAA0 Zalesovo Array 122.72 315** *e*PKPdf **PKPdf** **17 56 26.0 -0.9**
**ZALV Zalesovo Beam 122.72 315** PKP **PKPdf** **17 56 25.8 -1.0**
comp=Z,1.7nm,0.7s,baz=132,slow=2.2,SNR=8.0
**ZALV Zalesovo Beam 122.72 315** *e*PKIKP **PKPdf** **17 56 24.9 -1.9**
**ZALV Zalesovo Beam 122.72 315** *e*PKPdf **PKPdf** **17 56 24.9 -1.9**
**ZAA1 Zalesovo Array 122.72 315** *e*PKPdf **PKPdf** **17 56 25.8 -1.0**
**KURK Kurchatov 124.43 310** *e*PKIKP **PKPdf** **17 56 29.9 -0.3**
KURK *e* 17 56 30.2
**KURK Kurchatov 124.43 310** *e*PKPdf **PKPdf** **17 56 29.9 -0.3**
KURK *e*PKPdf **PKiKP** **17 56 30.2 -0.3**
**KURBB Kurchatov Arra 124.44 310** PKP **PKPdf** **17 56 30.2 0.0**
comp=Z,2.6nm,0.2s,baz=119,slow=2.1,SNR=15
**BRVK Borovoye 130.10 310** *i* PKIKP **PKPdf** **17 56 42.2 +1.2**
**ARU Arti 137.57 311** *i* PKIKP **PKPdf** **17 56 55.9 +1.0**
ARU 17 59 37.7
**LIC Lamto 142.67 183** *e*PKP1 **PKPdf** **17 57 04.0 -1.5**
comp=Z,36nm,1.3s
**KIC Kosan Boka 142.79 184** *e*PKP1 **PKPdf** **17 57 03.7 -2.1**
comp=Z,28nm,1.1s
**TIC Toumodi 143.09 183** *e*PKP1 **PKPdf** **17 57 04.7 -1.6**
**KBZ Khabaz 144.30 288** PKP **PKPdf** **17 57 08.9 +1.5**
comp=Z,2.7nm,0.8s,baz=345,slow=4.7,SNR=5.7
**KIV Kislovodsk 144.51 288**⇓ *e*PKIKP **PKPdf** **17 57 07.9 0.0**
KIV *e* 18 00 26.5
KIV pmax pmax
comp=Z,4.0nm,1.0s
KIV MLR MLR
comp=Z,193nm,16.0s
**VRH Novokhopyorsk 146.65 301** *e*PKP2 **PKPab** **17 57 14.0 0.0**
VRH pmax pmax
comp=Z,10.0nm,1.0s
**KLMR Klimovskoe 147.55 318** *e*PKIKP **PKPdf** **17 57 12.0 -0.4**
KLMR pmax pmax
comp=Z,45nm,0.9s
**VSR Storozhevoye 148.25 300** *e*PKP2 **PKPab** **17 57 19.1 -1.2**
VSR pmax pmax
comp=Z,20nm,1.5s
**LPSR Galich'ya Gora 148.48 303** *e*PKP2 **PKPab** **17 57 19.3 -1.9**
LPSR pmax pmax
comp=Z,10.0nm,0.9s
**TOA0 Torodi Ar. Sit 148.66 197** *e*pPKPdf **pPKPdf** **17 57 18.7 +0.8**
TOA0 *e*PKPbc **PKPbc** **17 57 19.3 -0.1**
**TORD Torodi Ar. Bea 148.66 197** PKPbc **PKPbc** **17 57 19.6 +0.2**
comp=Z,4.5nm,0.8s,baz=155,slow=1.4,SNR=22
**TOA1 Torodi Ar. Sit 148.67 197** *e*PKPbc **PKPbc** **17 57 19.6 +0.2**
**ARA0 ARCESS Array S 149.21 338** *e*PKPbc **PKPbc** **17 57 19.2 0.0**
**ARCES ARCESS Array B 149.21 338** PKPbc **PKPbc** **17 57 19.2 0.0**
comp=Z,11nm,0.8s,baz=83,slow=2.6,SNR=13
**BR101 Keskin Array S 149.54 277** *e*PKPbc **PKPbc** **17 57 20.3 -0.8**
**BRTR Keskin Array B 149.54 277** PKPbc **PKPbc** **17 57 20.3 -0.8**
comp=Z,3.8nm,0.8s,baz=145,slow=5.4,SNR=15
**OBN Obninsk 149.84 308**⇓ *e*PKHKP PKPpre 17 57 16.5
OBN *e* 18 00 58.5
OBN *e*SS SS 18 20 07.1 -4.7
OBN pmax pmax
comp=Z,19nm,0.9s
OBN MLR MLR
comp=Z,389nm,18.0s
**OBN Obninsk 149.84 308** *e*PKPdf **PKPdf** **17 57 16.6 +0.3**
OBN *e*PKPbc **PKiKP** **17 57 22.9 +0.9**
**BR231 Keskin MP Arra 150.20 277** *e*PKPbc **PKPbc** **17 57 22.5 -0.2**
**FIA0 FINESS Array S 153.53 324** *e*PKIKP **PKPbc** **17 57 30.3 +0.9**
**FIA0 FINESS Array S 153.53 324** *e*PKPbc **PKPbc** **17 57 30.3 +0.9**
**FINES FINESS Array B 153.53 324** PKPbc **PKPbc** **17 57 30.3 +0.9**
comp=Z,6.7nm,0.9s,baz=74,slow=5.0,SNR=8.5
**AKASG Malin Array Be 154.52 299** PKPbc **PKPbc** **17 57 31.9 +0.1**
comp=Z,0.7nm,0.5s,baz=56,slow=2.4,SNR=4.1
AKASG PKPab **PKPab** **17 57 46.2 -0.2**
comp=Z,2.4nm,0.8s,baz=69,slow=4.6,SNR=6.6
**AK11 Malin Array Si 154.56 299** *e*pPKPdf **pPKPdf** **17 57 28.3 +2.6**
AK11 *e*PKPab **PKPab** **17 57 43.5 -3.1**
**KHC Kasperske Hory 164.73 298** *e*PKPAB **PKPab** **17 58 29.5 -1.5**
**KHC Kasperske Hory 164.73 298** *e*PKP2 **PKPab** **17 58 29.5 -1.5**

**WEL 23 17:38:11.0±0.2, 43°.65S×172°.86E, h5km, ML3.9/2, Error ellipse: s-maj=1.5km s-min=0.6km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MQZ** | **McQueen's Vall** | **0.16** | **249** | PG | Pg | 17 38 14.5 | +0.2 |
| MQZ | | | | SG | Sg | 17 38 16.6 | +0.2 |
| MQZ | | | | SG | | 17 38 16.6 | |
| MQZ | | | | AML | AML | 17 38 16.7 | |
| **CRLZ** | **Canterbury Las** | **0.19** | **293** | PG | Pg | 17 38 15.1 | +0.4 |
| CRLZ | | | | SG | Sg | 17 38 17.2 | 0.0 |
| CRLZ | | | | AML | AML | 17 38 17.3 | |

*ISCJB **23** 17:51:57.1±0.4, 17°.36S±0°.09×66°.44E±0°.07, h14km, mb4.4/19, MS4.0/5, Error ellipse: s-maj=12.8km s-min=9.5km az=170.8*
*NEIC **23** 17:51:57.9±0.4, 17°.44S×66°.34E, h10km, mb5.1/11, Error ellipse: s-maj=12.5km s-min=7.8km az=160.0*
*IDC **23** 17:51:57.1±0.9, 17°.33S×66°.49E, h0km, mb3.7/9, mb1 3.8/9, mb1mx3.6/57, mbtmp3.7/9, MS3.9/6, Ms1 3.9/6, ms1mx3.5/41, Error ellipse: s-maj=29.6km s-min=21.9km az=5.0*

**ISC 23 17:51:58.7±0.6, 17°.4S±0°.1×66°.35E±0°.08, h14km, n48, σ19°.21/33, mb4.7/19, MS4.0/5, Mauritius-Reunion region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MRIV** | **Mauritius Mete** | **8.85** | **250** | *e*Pn | **Pn** | **17 54 03.2** | **-3.0** |
| **RER** | **Riviere de l'E** | **10.67** | **248** | *e*Pn | **Pn** | **17 54 28.4** | **-2.9** |
| **H08S1** | **Diego Garcia H** | **11.42** | **32** | T | T | 18 06 01.7 | |
| | baz=210,slow=75,SNR=147 | | | | | | |
| **H08S2** | **Diego Garcia H** | **11.43** | **32** | T | T | 18 06 02.5 | |
| | baz=210,slow=75,SNR=127 | | | | | | |
| **H08S3** | **Diego Garcia H** | **11.44** | **32** | T | T | 18 06 03.6 | |
| | baz=210,slow=75,SNR=730 | | | | | | |
| **H08N3** | **Diego Garcia H** | **11.93** | **23** | T | T | 18 07 38.3 | |
| | baz=201,slow=76,SNR=143 | | | | | | |
| **H08N1** | **Diego Carcia H** | **11.94** | **23** | T | T | 18 07 33.1 | |
| | baz=201,slow=76,SNR=247 | | | | | | |
| **H08N2** | **Diego Garcia H** | **11.95** | **23** | T | T | 18 07 34.4 | |
| | baz=201,slow=76,SNR=150 | | | | | | |
| **ABPO** | **Ambohimpanom** | **18.23** | **262** | *e*Pn | **P** | **17 56 12.0** | **+0.1** |
| | 8.9nm,1.2s | | | | | | |
| **OPO** | **Ambohidratompo** | **18.26** | **264** | LR | LR | 18 01 31.9 | |
| | comp=Z,236nm,18.8s,baz=78,slow=31 | | | | | | |
| **PALK** | **Pallekele** | **28.36** | **31** | LR | LR | 18 07 29.6 | |
| | comp=Z,90nm,18.0s,baz=296,slow=33 | | | | | | |
| **COCO** | **West Island** | **29.91** | **84** | *e*P | **P** | **17 58 05.2** | **-1.2** |
| | 242nm,1.3s | | | | | | |
| **CRZF** | **Crozet Islands** | **31.30** | **199** | *e*P | **P** | **17 58 18.8** | **+0.5** |
| | 272nm,1.5s | | | | | | |
| **KMBO** | **Kilima Mbogo** | **32.88** | **296** | LR | LR | 18 09 04.1 | |
| | comp=Z,208nm,20.2s,baz=98,slow=31 | | | | | | |
| **KMBO** | **Kilima Mbogo** | **32.88** | **296** | *e*P | **P** | **17 58 33.0** | **+0.1** |
| | 19nm,2.0s | | | | | | |
| **DAMY** | **Dhamar** | **38.49** | **324** | *e*P | **P** | **17 59 21.1** | **+0.1** |
| | 20nm,1.3s | | | | | | |
| **LBTB** | **Lobatse** | **38.61** | **252** | P | **P** | **17 59 23.7** | **+1.8** |
| | 2.7nm,0.7s,baz=101,slow=9.9,SNR=4.6 | | | | | | |
| **LBTB** | **Lobatse** | **38.61** | **252** | *e*P | **P** | **17 59 23.2** | **+1.3** |
| | 42nm,1.8s | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **45.82** | **122** | T | T | 18 49 12.7 | |
| | baz=280,slow=75,SNR=357 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **45.82** | **122** | T | T | 18 49 09.5 | |
| | baz=280,slow=75,SNR=387 | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **45.84** | **122** | T | T | 18 49 29.8 | |
| | baz=280,slow=75,SNR=359 | | | | | | |
| **KSM** | **Kuching** | **47.21** | **71** | *e*P | **P** | **18 00 30.5** | **-1.0** |
| | 41nm,1.5s | | | | | | |
| **JAGI** | **Jajag, Banyuwa** | **47.32** | **85** | *e*P | **P** | **18 00 32.5** | **+0.1** |
| | 39nm,1.4s | | | | | | |
| **CM01** | **Chiang Mai Arr** | **47.94** | **44** | *e*P | **P** | **18 00 37.1** | **0.0** |
| **CM31** | **Chiang Mai Arr** | **47.96** | **44** | *e*P | **P** | **18 00 36.9** | **-0.4** |
| **CMAR** | **Chiang Mai Arr** | **47.96** | **44** | P | **P** | **18 00 37.9** | **+0.7** |
| | 0.3nm,0.7s,baz=231,slow=5.7,SNR=3.3 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **56.24** | **100** | LR | LR | 18 23 28.1 | |
| | comp=Z,117nm,19.6s,baz=255,slow=34 | | | | | | |
| **ASAR** | **Alice Springs** | **63.06** | **108** | P | **P** | **18 02 25.5** | **-0.5** |
| | 0.4nm,0.5s,baz=267,slow=5.8,SNR=11 | | | | | | |
| ASAR | | | | LR | LR | 18 26 54.2 | |
| | comp=Z,224nm,18.7s,baz=282,slow=33 | | | | | | |
| **WRA** | **Warramunga Arr** | **64.05** | **104** | P | **P** | **18 02 33.0** | **+0.4** |
| | 0.9nm,0.8s,baz=268,slow=5.7,SNR=5.7 | | | | | | |
| **WR1** | **Warramunga Arr** | **64.05** | **104** | *e*P | **P** | **18 02 33.0** | **+0.4** |
| | 27nm,1.7s | | | | | | |
| **WB2** | **Warramunga Arr** | **64.06** | **104** | *e*P | **P** | **18 02 32.2** | **-0.4** |
| **MAKZ** | **Makanchi** | **65.48** | **12** | *e*P | **P** | **18 02 40.9** | **-0.5** |
| | 28nm,1.9s | | | | | | |
| **MK01** | **Makanchi Array** | **65.51** | **12** | *e*P | **P** | **18 02 40.8** | **-0.7** |
| **MK32** | **Makanchi Array** | **65.53** | **12** | *e*P | **P** | **18 02 40.3** | **-1.3** |
| **MKAR** | **Makanchi Array** | **65.53** | **12** | P | **P** | **18 02 40.3** | **-1.4** |
| | 0.4nm,0.8s,baz=205,slow=8.7,SNR=3.5 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **70.69** | **291** | P | **P** | **18 03 16.2** | **+1.6** |
| | 0.4nm,0.7s,baz=141,slow=4.8,SNR=2.5 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **70.69** | **291** | *e*P | **P** | **18 03 16.2** | **+1.6** |
| **H09N1** | **TRISTAN DA CUN** | **70.80** | **236** | T | T | 19 21 13.7 | |
| | SNR=30 | | | | | | |
| **QSPA** | **South Pole Qui** | **72.65** | **180** | *e*P | **P** | **18 03 27.5** | **+1.7** |
| | 24nm,2.0s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **72.85** | **11** | P | **P** | **18 03 25.5** | **-1.3** |
| | 0.6nm,0.5s,baz=198,slow=4.6,SNR=4.5 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **72.85** | **11** | *e*P | **P** | **18 03 26.2** | **-0.6** |
| **ZAA1** | **Zalesovo Array** | **72.85** | **11** | *e*P | **P** | **18 03 25.5** | **-1.3** |
| **SONA0** | **Songino Array** | **74.20** | **27** | *e*P | **P** | **18 03 35.5** | **+0.4** |
| **SONM** | **Songino Array** | **74.20** | **27** | P | **P** | **18 03 35.5** | **+0.4** |
| | 0.4nm,0.7s,baz=204,slow=6.2,SNR=2.7 | | | | | | |
| **SONA1** | **Songino Array** | **74.22** | **27** | *e*P | **P** | **18 03 36.0** | **+0.8** |
| **ULN** | **Ulaanbaatar** | **74.51** | **27** | *e*P | **P** | **18 03 36.9** | **0.0** |
| | 14nm,1.7s | | | | | | |
| **CTA** | **Charters Tower** | **74.99** | **107** | LR | LR | 18 33 41.4 | |
| | comp=Z,184nm,20.6s,baz=286,slow=33 | | | | | | |
| **AKASG** | **Malin Array Be** | **75.28** | **337** | P | **P** | **18 03 41.9** | **+0.9** |
| | 0.1nm,0.3s,baz=144,slow=5.0,SNR=3.0 | | | | | | |

**IDC 23 17:56:03.0±2.1, 1°.52N×126°.29E, h0km, mb3.5/3, mb1 3.7/3, mb1mx3.3/50, mbtmp3.5/3, Error ellipse: s-maj=185.9km s-min=25.2km az=65.0, Northern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **22.74** | **160** | P | P | 18 01 06.5 | -0.5 |
| | 1.4nm,0.4s,baz=338,slow=11,SNR=28 | | | | | | |
| **ASAR** | **Alice Springs** | **26.10** | **164** | P | P | 18 01 39.2 | +0.4 |
| | 0.3nm,0.4s,baz=345,slow=11,SNR=12 | | | | | | |
| **MKAR** | **Makanchi Array** | **59.13** | **326** | P | P | 18 06 05.5 | -0.1 |
| | 0.2nm,0.4s,baz=116,slow=7.5,SNR=5.8 | | | | | | |

*NEIC **23** 17:57:26.9±0.0, 43°.55S×172°.80E, h8km, ML4.2(WEL), After WEL.*
*NEIC Felt at Christchurch.*

**WEL 23 17:57:26.9±0.2, 43°.54S×172°.80E, h9km, ML4.0/33, 7C-4D, Error ellipse: s-maj=2.1km s-min=0.7km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.13** | **256** | Pg | Pg | 17 57 30.0 | +0.1 |
| CRLZ | | | | Sg | Sg | 17 57 32.1 | +0.1 |
| **CRLZ** | **Canterbury Las** | **0.13** | **256** | PG | Pg | 17 57 30.0 | +0.1 |
| CRLZ | | | | SG | Sg | 17 57 32.1 | +0.1 |
| CRLZ | | | | AML | AML | 17 57 32.4 | |
| CRLZ | | | | AML | AML | 17 57 32.9 | |
| CRLZ | | | | AML | AML | 17 57 33.0 | |
| **MQZ** | **McQueen's Vall** | **0.19** | **213** | Pg | Pg | 17 57 31.1 | +0.1 |
| **MQZ** | **McQueen's Vall** | **0.19** | **213** | PG | Pg | 17 57 31.1 | +0.1 |
| MQZ | | | | SG | Sg | 17 57 34.0 | +0.3 |
| MQZ | | | | AML | AML | 17 57 34.3 | |
| MQZ | | | | AML | AML | 17 57 34.4 | |
| **OXZ** | **Oxford** | **0.60** | **291** | P* | Pg | 17 57 38.3 | -0.1 |
| **OXZ** | **Oxford** | **0.60** | **291** | P* | Pg | 17 57 38.3 | -0.1 |
| OXZ | | | | S* | Sg | 17 57 46.9 | +0.5 |
| OXZ | | | | AML | AML | 17 57 48.9 | |
| OXZ | | | | AML | AML | 17 57 48.9 | |
| OXZ | | | | AML | AML | 17 57 49.9 | |
| **LTZ** | **Lake Taylor** | **0.85** | **333** | P* | Pb | 17 57 43.8 | -0.2 |
| **LTZ** | **Lake Taylor** | **0.85** | **333** | ⇑P* | Pb | 17 57 43.8 | -0.2 |
| LTZ | | | | S* | Sb | 17 57 55.3 | -0.3 |
| **KHZ** | **Kahutara** | **1.25** | **26** | P* | Pn | 17 57 49.7 | -0.9 |
| **KHZ** | **Kahutara** | **1.25** | **26** | P* | Pn | 17 57 49.7 | -0.9 |
| KHZ | | | | AML | AML | 17 58 23.1 | |
| KHZ | | | | AML | AML | 17 58 25.3 | |
| **RPZ** | **Rata Peaks** | **1.28** | **262** | P* | Pn | 17 57 50.0 | -1.1 |
| **RPZ** | **Rata Peaks** | **1.28** | **262** | ⇓P* | Pn | 17 57 50.0 | -1.1 |
| RPZ | | | | AML | AML | 17 58 10.2 | |
| RPZ | | | | AML | AML | 17 58 13.9 | |
| **INZ** | **Inchbonnie** | **1.29** | **309** | ⇑P* | Pn | 17 57 50.0 | -1.1 |
| **WVZ** | **Waitaha Valley** | **1.58** | **287** | Pn | Pn | 17 57 54.8 | -0.3 |
| **WVZ** | **Waitaha Valley** | **1.58** | **287** | ⇑Pn | Pn | 17 57 54.8 | -0.3 |
| WVZ | | | | AML | AML | 17 58 21.8 | |
| WVZ | | | | AML | AML | 17 58 26.6 | |
| **THZ** | **Tophouse** | **1.78** | **3** | Pn | Pn | 17 57 57.1 | -0.9 |
| **THZ** | **Tophouse** | **1.78** | **3** | ⇑Pn | Pn | 17 57 57.1 | -0.9 |
| THZ | | | | AML | AML | 17 58 24.4 | |
| THZ | | | | AML | AML | 17 58 37.0 | |
| **DSZ** | **Denniston Nort** | **1.94** | **337** | PN | Pn | 17 57 59.8 | -0.4 |
| DSZ | | | | AML | AML | 17 58 25.3 | |
| DSZ | | | | AML | AML | 17 58 28.0 | |
| DSZ | | | | AML | AML | 17 58 33.7 | |
| DSZ | | | | AML | AML | 17 58 41.2 | |
| **BSWZ** | **Blackbirch Sta** | **1.99** | **24** | Pn | Pn | 17 58 00.2 | -0.6 |
| **BSWZ** | **Blackbirch Sta** | **1.99** | **24** | ⇑PN | Pn | 17 58 00.2 | -0.6 |
| BSWZ | | | | AML | AML | 17 58 29.2 | |
| BSWZ | | | | AML | AML | 17 58 51.8 | |
| **LBZ** | **Lake Benmore** | **2.07** | **245** | Pn | Pn | 17 58 01.3 | -0.6 |
| **LBZ** | **Lake Benmore** | **2.07** | **245** | PN | Pn | 17 58 01.2 | -0.7 |
| LBZ | | | | AML | AML | 17 58 40.7 | |
| LBZ | | | | AML | AML | 17 58 40.7 | |
| LBZ | | | | AML | AML | 17 58 47.5 | |
| LBZ | | | | AML | AML | 17 58 47.5 | |
| **ODZ** | **Otahua Downs** | **2.16** | **225** | Pn | Pn | 17 58 01.9 | -1.1 |
| **ODZ** | **Otahua Downs** | **2.16** | **225** | ⇑PN | Pn | 17 58 01.9 | -1.1 |
| ODZ | | | | AML | AML | 17 58 37.8 | |
| ODZ | | | | AML | AML | 17 58 43.0 | |
| ODZ | | | | AML | AML | 17 58 46.9 | |
| ODZ | | | | AML | AML | 17 58 47.1 | |
| **FOZ** | **Fox Glacier** | **2.17** | **269** | Pn | Pn | 17 58 03.7 | +0.5 |
| **FOZ** | **Fox Glacier** | **2.17** | **269** | PN | Pn | 17 58 03.7 | +0.4 |
| FOZ | | | | AML | AML | 17 58 31.6 | |
| FOZ | | | | AML | AML | 17 58 31.6 | |
| FOZ | | | | AML | AML | 17 58 44.2 | |
| FOZ | | | | AML | AML | 17 58 44.2 | |
| **TUWZ** | **Tuamarina** | **2.27** | **22** | Pn | Pn | 17 58 03.7 | -1.0 |
| **TUWZ** | **Tuamarina** | **2.27** | **22** | PN | Pn | 17 58 03.7 | -1.0 |
| TUWZ | | | | AML | AML | 17 58 59.4 | |
| TUWZ | | | | AML | AML | 17 59 19.6 | |
| **NNZ** | **Nelson** | **2.36** | **11** | Pn | Pn | 17 58 05.5 | -0.4 |
| **NNZ** | **Nelson** | **2.36** | **11** | PN | Pn | 17 58 05.5 | -0.4 |
| NNZ | | | | AML | AML | 17 59 00.6 | |
| NNZ | | | | AML | AML | 17 59 04.5 | |
| **TCW** | **Tory Channel** | **2.58** | **26** | Pn | Pn | 17 58 07.4 | -1.4 |
| **TCW** | **Tory Channel** | **2.58** | **26** | *e*PN | Pn | 17 58 07.4 | -1.4 |
| TCW | | | | AML | AML | 17 58 43.2 | |
| TCW | | | | AML | AML | 17 58 50.0 | |
| **BHW** | **Baring Head** | **2.63** | **36** | Pn | Pn | 17 58 08.1 | -1.4 |
| **BHW** | **Baring Head** | **2.63** | **36** | PN | Pn | 17 58 08.1 | -1.4 |
| **SNZO** | **South Karori** | **2.64** | **33** | *e*P

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| PLWZ | **Palliser** | 2.68 | 43 | Pn | Pn | 17 58 08.6 | -1.7 |
| PLWZ | **Palliser** | 2.68 | 43 | PN | Pn | 17 58 08.5 | -1.7 |
| QRZ | **Quartz Range** | 2.72 | 356 | Pn | Pn | 17 58 10.3 | -0.6 |
| QRZ | **Quartz Range** | 2.72 | 356 | PN | Pn | 17 58 10.3 | -0.6 |
| QRZ | | | | AML | AML | 17 58 58.3 | |
| QRZ | | | | AML | AML | 17 58 58.3 | |
| QRZ | | | | AML | AML | 17 59 59.0 | |
| QRZ | | | | AML | AML | 17 58 59.0 | |
| MSWZ | **Moikau Station** | 2.79 | 41 | Pn | Pn | 17 58 10.1 | -1.8 |
| MSWZ | **Moikau Station** | 2.79 | 41 | PN | Pn | 17 58 10.1 | -1.8 |
| MSWZ | | | | AML | AML | 17 58 43.4 | |
| MSWZ | | | | AML | AML | 17 58 47.6 | |
| HHSZ | **Highcliff Hill** | 2.82 | 213 | Pn | Pn | 17 58 10.9 | -1.3 |
| HHSZ | **Highcliff Hill** | 2.82 | 213 | ⇓PN | Pn | 17 58 10.9 | -1.3 |
| HHSZ | | | | AML | AML | 17 59 15.0 | |
| HHSZ | | | | AML | AML | 17 59 17.0 | |
| DUWZ | **D'Urville Isla** | 2.86 | 17 | Pn | Pn | 17 58 12.4 | -0.4 |
| DUWZ | **D'Urville Isla** | 2.86 | 17 | PN | Pn | 17 58 12.3 | -0.5 |
| DUWZ | | | | AML | AML | 17 59 05.7 | |
| DUWZ | | | | AML | AML | 17 59 14.5 | |
| JCZ | **Jackson Bay** | 2.96 | 258 | Pn | Pn | 17 58 13.5 | -0.6 |
| JCZ | **Jackson Bay** | 2.96 | 258 | PN | Pn | 17 58 13.5 | -0.6 |
| JCZ | | | | AML | AML | 17 59 10.2 | |
| JCZ | | | | AML | AML | 17 59 12.0 | |
| CAW | **Cannon Point** | 2.96 | 35 | Pn | Pn | 17 58 12.5 | -1.6 |
| CAW | **Cannon Point** | 2.96 | 35 | PN | Pn | 17 58 12.5 | -1.6 |
| CAW | | | | AML | AML | 17 58 48.8 | |
| CAW | | | | AML | AML | 17 58 54.2 | |
| WKZ | **Wanaka** | 3.01 | 243 | Pn | Pn | 17 58 14.1 | -0.7 |
| WKZ | **Wanaka** | 3.01 | 243 | PN | Pn | 17 58 14.1 | -0.7 |
| WKZ | | | | AML | AML | 17 59 11.5 | |
| WKZ | | | | AML | AML | 17 59 11.5 | |
| WKZ | | | | AML | AML | 17 59 12.4 | |
| WKZ | | | | AML | AML | 17 59 12.5 | |
| EAZ | **Earnscleugh** | 3.02 | 235 | Pn | Pn | 17 58 14.1 | -0.8 |
| EAZ | **Earnscleugh** | 3.02 | 235 | ⇑PN | Pn | 17 58 14.1 | -0.8 |
| EAZ | | | | AML | AML | 17 59 08.9 | |
| EAZ | | | | AML | AML | 17 59 08.9 | |
| EAZ | | | | AML | AML | 17 59 09.6 | |
| EAZ | | | | AML | AML | 17 59 09.7 | |
| KIW | **Kapiti Island** | 3.10 | 31 | Pn | Pn | 17 58 14.8 | -1.3 |
| KIW | **Kapiti Island** | 3.10 | 31 | PN | Pn | 17 58 14.8 | -1.3 |
| MTW | **Mount Morrison** | 3.11 | 41 | Pn | Pn | 17 58 14.2 | -2.0 |
| MTW | **Mount Morrison** | 3.11 | 41 | PN | Pn | 17 58 13.9 | -2.3 |
| MTW | | | | AML | AML | 17 58 54.1 | |
| MTW | | | | AML | AML | 17 58 59.4 | |
| OGWZ | **Otaki Gorge** | 3.24 | 34 | Pn | Pn | 17 58 16.4 | -1.6 |
| OGWZ | **Otaki Gorge** | 3.24 | 34 | PN | Pn | 17 58 16.2 | -1.8 |
| OGWZ | | | | AML | AML | 17 58 57.9 | |
| OGWZ | | | | AML | AML | 17 58 58.8 | |
| TUZ | **Tuapeka** | 3.30 | 222 | Pn | Pn | 17 58 18.1 | -0.7 |
| TUZ | **Tuapeka** | 3.30 | 222 | ⇓PN | Pn | 17 58 18.1 | -0.7 |
| TUZ | | | | AML | AML | 17 59 19.9 | |
| TUZ | | | | AML | AML | 17 59 19.9 | |
| TUZ | | | | AML | AML | 17 59 24.8 | |
| TUZ | | | | AML | AML | 17 59 24.8 | |
| HOWZ | **Holdsworth Sta** | 3.33 | 38 | Pn | Pn | 17 58 17.2 | -1.9 |
| HOWZ | **Holdsworth Sta** | 3.33 | 38 | PN | Pn | 17 58 16.7 | -2.4 |
| MRZ | **Mangatainoka R** | 3.54 | 37 | Pn | Pn | 17 58 20.1 | -2.1 |
| MRZ | **Mangatainoka R** | 3.54 | 37 | PN | Pn | 17 58 20.1 | -2.1 |
| MRZ | | | | AML | AML | 17 59 04.8 | |
| MRZ | | | | AML | AML | 17 59 06.6 | |
| TIWZ | **Tintock** | 3.59 | 41 | AML | AML | 17 59 04.7 | |
| TIWZ | | | | AML | AML | 17 59 09.8 | |
| MLZ | **Mavora Lakes** | 3.82 | 240 | Pn | Pn | 17 58 24.8 | -1.1 |
| MLZ | **Mavora Lakes** | 3.82 | 240 | ⇓PN | Pn | 17 58 24.8 | -1.1 |
| MLZ | | | | AML | AML | 17 59 33.2 | |
| MLZ | | | | AML | AML | 17 59 45.8 | |
| BFZ | **Birch Farm** | 3.84 | 43 | Pn | Pn | 17 58 23.7 | -2.5 |
| BFZ | **Birch Farm** | 3.84 | 43 | PN | Pn | 17 58 23.7 | -2.5 |
| SYZ | **Scrubby Hill** | 3.96 | 220 | Pn | Pn | 17 58 27.4 | -0.5 |
| SYZ | **Scrubby Hill** | 3.96 | 220 | PN | Pn | 17 58 27.0 | -0.9 |
| SYZ | | | | AML | AML | 17 59 47.3 | |
| SYZ | | | | AML | AML | 17 59 47.9 | |
| WAZ | **Wanganui** | 4.12 | 24 | *e*PN | Pn | 17 58 31.3 | +1.2 |
| WHZ | **Wether Hill Ro** | 4.18 | 234 | Pn | Pn | 17 58 29.1 | -1.8 |
| WHZ | **Wether Hill Ro** | 4.18 | 234 | PN | Pn | 17 58 29.1 | -1.8 |
| WHZ | | | | AML | AML | 17 59 55.9 | |
| WHZ | | | | AML | AML | 17 59 56.4 | |
| TSZ | **Takapari Road** | 4.21 | 35 | Pn | Pn | 17 58 28.9 | -2.4 |
| PREZ | **Palmer Road** | 4.32 | 14 | Pn | Pn | 17 58 34.0 | +1.1 |
| PREZ | **Palmer Road** | 4.32 | 14 | PN | Pn | 17 58 33.9 | +1.1 |
| KHEZ | **Kahui Hut** | 4.34 | 13 | Pn | Pn | 17 58 34.6 | +1.4 |
| KHEZ | **Kahui Hut** | 4.34 | 13 | PN | Pn | 17 58 34.6 | +1.4 |
| NEZ | **North Egmont** | 4.38 | 13 | Pn | Pn | 17 58 35.2 | +0.5 |
| PKE | **Pukeiti** | 4.44 | 12 | Pn | Pn | 17 58 35.2 | +0.7 |
| PKE | **Pukeiti** | 4.44 | 12 | PN | Pn | 17 58 35.2 | +0.7 |
| DCZ | **Deep Cove** | 4.47 | 243 | Pn | Pn | 17 58 33.5 | -1.4 |
| DCZ | **Deep Cove** | 4.47 | 243 | PN | Pn | 17 58 33.5 | -1.4 |
| DCZ | | | | AML | AML | 17 59 58.1 | |
| DCZ | | | | AML | AML | 17 59 59.3 | |
| VRZ | **Vera Road** | 4.66 | 19 | Pn | Pn | 17 58 37.6 | +0.2 |
| PKVZ | **Pokaka** | 4.66 | 25 | Pn | Pn | 17 58 37.6 | 0.0 |
| WNVZ | **Wahianoa** | 4.71 | 27 | Pn | Pn | 17 58 37.9 | -0.4 |
| WNVZ | **Wahianoa** | 4.71 | 27 | PN | Pn | 17 58 37.8 | -0.5 |
| KRHZ | **Kereru** | 4.73 | 36 | PN | Pn | 17 58 37.1 | -1.3 |
| APZ | **The Paps** | 4.73 | 224 | Pn | Pn | 17 58 37.4 | -1.1 |
| APZ | **The Paps** | 4.73 | 224 | PN | Pn | 17 58 37.4 | -1.1 |
| BHHZ | **Black Hill Sta** | 4.73 | 32 | Pn | Pn | 17 58 38.5 | 0.0 |
| TUVZ | **Tukino** | 4.78 | 28 | Pn | Pn | 17 58 38.9 | -0.3 |
| OTVZ | **Oturere** | 4.88 | 27 | Pn | Pn | 17 58 40.1 | -0.5 |
| OTVZ | **Oturere** | 4.88 | 27 | PN | Pn | 17 58 40.1 | -0.5 |
| TWVZ | **Taurewa** | 4.89 | 25 | Pn | Pn | 17 58 40.5 | -0.2 |
| TWVZ | **Taurewa** | 4.89 | 25 | PN | Pn | 17 58 40.4 | -0.3 |
| MCHZ | **McNeill Hill** | 5.03 | 37 | Pn | Pn | 17 58 43.6 | +1.0 |
| MCHZ | **McNeill Hill** | 5.03 | 37 | PN | Pn | 17 58 43.6 | +1.0 |
| PYZ | **Puysegur Point** | 5.08 | 237 | Pn | Pn | 17 58 42.4 | -0.9 |
| PYZ | **Puysegur Point** | 5.08 | 237 | PN | Pn | 17 58 42.4 | -0.9 |
| HIZ | **Hauiti** | 5.26 | 18 | Pn | Pn | 17 58 45.3 | -0.4 |
| HIZ | **Hauiti** | 5.26 | 18 | PN | Pn | 17 58 45.3 | -0.4 |

*HEL **23** 18:04:04.7±0.2, 67°08N×20°80E, h0km, ML2.4, Explosion*
*ISCJB **23** 18:04:04.1±0.3, 67°06N±0°02×20°95E±0°06, h0km, Error ellipse: s-maj=3.3km s-min=2.5km az=0.9*
*UPP **23** 18:04:04.8±0.1, 67°08N×20°92E, h0km, ML2.5*
*CSEM **23** 18:04:05.5±0.2, 67°04N×21°04E, h1km, ML2.4, Error ellipse: s-maj=5.6km s-min=4.6km az=95.0, Mining explosion.*
*NAO **23** 18:04:06.0±0.8, 67°06N×21°26E, ML2.6*
*IDC **23** 18:04:06.3±0.9, 67°08N×21°11E, h0km, mb1 3.3/4, mb1mx3.0/46, mbtmp3.2/4, ML2.6/4, Error ellipse: s-maj=17.3km s-min=8.2km az=116.0*
*BER **23** 18:04:07.7±4.1, 67°03N×20°94E, h0km, ML1.8, ML2.6(NAO), Suspected explosion*
*KOLA **23** 18:04:13.7, 67°91N×22°15E, h0km*

**ISC 23 18:04:05.2**±0.7,**67°08N**±0°02×**20°98E**±0°02,**h0**km,**n84,** σ1§**32**/116,**Sweden**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DUNU** | **Dundret** | **0.17** | **286** | P | **Pg** | **18 04 07.9** | **-0.4** |
| DUNU | | | | S | **Sg** | **18 04 09.0** | **-1.4** |
| **MASU** | **Masugnsbyn** | **0.55** | **46** | P | **Pg** | **18 04 15.7** | **0.0** |
| **ERTU** | **Ertsjaerv** | **0.71** | **137** | P | **Pg** | **18 04 18.5** | **-0.3** |
| **ERTU** | **Ertsjaerv** | **0.71** | **137** | PG | **Pg** | **18 04 18.3** | **-0.4** |
| **PAJU** | **Pajala** | **0.84** | **93** | P | **Pg** | **18 04 21.0** | **-0.3** |
| **HARU** | **Harads** | **0.92** | **180** | P | **Pg** | **18 04 22.0** | **-0.7** |
| **KUA** | **Kurravaara** | **0.92** | **345** | P | **Pg** | **18 04 21.6** | **-1.1** |
| **RATU** | **Laukkuluspa** | **0.92** | **325** | P | **Pg** | **18 04 21.6** | **-1.2** |
| **LANU** | **Lannavaara** | **1.05** | **21** | P | **Pg** | **18 04 24.2** | **-1.1** |
| **LANU** | **Lannavaara** baz=201 | **1.05** | **21** | PG | **Pg** | **18 04 24.1** | **-1.2** |
| LANU | | | | SB | **Sg** | **18 04 39.6** | **+0.6** |
| **NIKU** | **Nikkaluokta** | **1.09** | **318** | P | **Pg** | **18 04 24.7** | **-1.4** |
| **KALU** | **Kalix** | **1.55** | **141** | Pg | **Pn** | **18 04 33.5** | **-0.5** |
| KALU | | | | Sn | **Sg** | **18 04 55.9** | **+1.0** |
| **KALU** | **Kalix** | **1.55** | **141** | P | **Pn** | **18 04 33.4** | **-0.5** |
| **KALU** | **Kalix** baz=318 | **1.55** | **141** | PG | **Pn** | **18 04 33.5** | **-0.5** |
| KALU | | | | SN | **Sg** | **18 04 55.9** | **+1.0** |
| **SJUU** | **Sjulsmark** | **1.59** | **171** | P | **Pn** | **18 04 34.1** | **-0.5** |
| **TOF** | **Tornio** | **1.67** | **125** | Pg | **Pn** | **18 04 35.6** | **0.0** |
| TOF | | | | Sn | **Sg** | **18 04 59.1** | **+0.3** |
| **TOF** | **Tornio** baz=307 | **1.67** | **125** | PG | **Pn** | **18 04 35.6** | **0.0** |
| TOF | | | | SN | **Sg** | **18 04 59.1** | **+0.3** |
| **HEF** | **Hetta** | **1.69** | **36** | *e*P | **Pn** | **18 04 35.4** | **-0.5** |
| HEF | | | | *e*S | **Sb** | **18 04 58.9** | **+0.1** |
| **HEF** | **Hetta** SNR=50 | **1.69** | **36** | *e*P | **Pn** | **18 04 35.4** | **-0.5** |
| HEF | | | | Sn | **Sn** | **18 04 58.4** | **+0.3** |
| **HEF** | **Hetta** baz=219 | **1.69** | **36** | PG | **Pn** | **18 04 35.4** | **-0.5** |
| HEF | comp=Z,30nm,0.2s | | | MSG | | 18 04 56.0 | |
| HEF | | | | SN | **Sn** | **18 04 58.4** | **+0.3** |
| **LILU** | **Lilltraesk** | **1.85** | **195** | P | **Pn** | **18 04 38.1** | **0.0** |
| **KIF** | **Kilpisjarvi** | **1.94** | **358** | Pn | **Pb** | **18 04 41.1** | **-0.1** |
| KIF | | | | Lg | Lg | 18 05 07.7 | |
| **KIF** | **Kilpisjarvi** | **1.94** | **358** | *e*P | **Pn** | **18 04 40.3** | **+1.0** |
| KIF | | | | *e*S | **Sb** | **18 05 07.0** | **+1.0** |
| **KIF** | **Kilpisjarvi** SNR=50 | **1.94** | **358** | *e*P | **Pn** | **18 04 40.3** | **+1.0** |
| **KIF** | **Kilpisjarvi** SNR=50 | **1.94** | **358** | Pn | **Pb** | **18 04 41.2** | **-0.1** |
| KIF | | | | *e*S | **Sb** | **18 05 07.0** | **+1.0** |
| **KIF** | **Kilpisjarvi** | **1.94** | **358** | PG | **Pn** | **18 04 40.2** | **+0.9** |
| KIF | comp=Z,38nm,0.2s | | | MSG | | 18 05 03.3 | |
| KIF | | | | SG | **Sg** | **18 05 07.6** | **+0.2** |
| **KTK1** | **Kautokeino** | **2.12** | **23** | *e*P | **Pn** | **18 04 42.7** | **+0.8** |
| KTK1 | | | | *e*S | **Sb** | **18 05 10.7** | **-0.7** |
| KTK1 | comp=Z,15nm,0.2s | | | IAML | | 18 05 15.3 | |
| **KTK1** | **Kautokeino** SNR=50 | **2.12** | **23** | *e*P | **Pn** | **18 04 42.7** | **+0.8** |
| KTK1 | | | | *e*S | **Sb** | **18 05 10.7** | **-0.7** |
| **SGF** | **Sodankyl** | **2.19** | **78** | Pb | **Pn** | **18 04 43.6** | **+0.9** |
| **SGF** | **Sodankyl** | **2.19** | **78** | PB | **Pn** | **18 04 43.6** | **+0.9** |
| SGF | | | | SG | **Sb** | **18 05 14.0** | **+0.8** |
| **STEI** | **Steigen** | **2.37** | **294** | *e*P | **Pn** | **18 04 46.3** | **+1.1** |
| **STEI** | **Steigen** SNR=50 | **2.37** | **294** | *e*P | **Pn** | **18 04 46.3** | **+1.1** |
| **BURU** | **Burvik** | **2.51** | **176** | Pb | **Pn** | **18 04 47.8** | **+0.7** |
| **BURU** | **Burvik** | **2.51** | **176** | P | **Pn** | **18 04 47.9** | **+0.7** |
| **BURU** | **Burvik** | **2.51** | **176** | PB | **Pn** | **18 04 47.9** | **+0.7** |
| BURU | | | | SG | **Sb** | **18 05 24.1** | **+1.7** |
| **SVAU** | **Svanoeiden** | **2.66** | **193** | P | **Pn** | **18 04 49.5** | **+0.4** |
| **TRO** | **Tromso** | **2.68** | **344** | *e*P | **Pb** | **18 04 54.7** | **+0.8** |
| **TRO** | **Tromso** SNR=50 | **2.68** | **344** | *e*P | **Pb** | **18 04 54.7** | **+0.8** |
| **MOR8** | **Moi Rana** | **2.76** | **254** | *e*P | **Pn** | **18 04 50.5** | **-0.1** |
| MOR8 | | | | *e*Sg | **Sn** | **18 05 25.4** | **+0.8** |
| **MOR8** | **Moi Rana** SNR=50 | **2.76** | **254** | *e*P | **Pn** | **18 04 50.5** | **-0.1** |
| MOR8 | SNR=90 | | | *e*Sg | **Sn** | **18 05 25.4** | **+0.8** |
| **OUL** | **Oulu** | **2.83** | **133** | Pn | **Pn** | **18 04 51.8** | **+0.3** |
| **OUL** | **Oulu** | **2.83** | **133** | PN | **Pn** | **18 04 51.9** | **+0.3** |
| **ARA0** | **ARCESS Array S** baz=212,slow=14 | **2.99** | **32** | Pn | **Pn** | **18 04 54.2** | **+0.4** |
| ARA0 | baz=218,slow=22 | | | Sn | **Sn** | **18 05 31.8** | **+1.5** |
| **ARA0** | **ARCESS Array S** baz=212,slow=14 | **2.99** | **32** | Pn | **Pn** | **18 04 54.2** | **+0.4** |
| ARA0 | baz=218,slow=22 | | | Sn | **Sn** | **18 05 31.8** | **+1.5** |
| **ARA0** | **ARCESS Array S** SNR=50 | **2.99** | **32** | Pn | **Pn** | **18 04 54.2** | **+0.4** |
| ARA0 | SNR=50 | | | Sn | **Sn** | **18 05 31.8** | **+1.5** |
| **ARCES** | **ARCESS Array B** comp=Z,1.5nm,0.3s,baz=211,slow=14,SNR=66 | **2.99** | **32** | Pn | **Pn** | **18 04 54.0** | **+0.3** |
| ARCES | comp=Z,1.6nm,0.3s,baz=209,slow=21,SNR=10.0 | | | Sn | **Sn** | **18 05 32.5** | **+2.2** |
| **ARE0** | **ARCESS Array S** comp=Z,6.5nm,0.2s | **2.99** | **32** | IAML | | 18 05 37.4 | |
| **ARE0** | **ARCESS Array S** | **2.99** | **32** | Pn | **Pn** | **18 04 54.0** | **+0.2** |
| **ARE0** | **ARCESS Array S** | **2.99** | **32** | PN | **Pn** | **18 04 54.0** | **+0.2** |
| **OUF** | **Merijarvi** | **3.13** | **149** | Pn | **Pn** | **18 04 56.8** | **+1.1** |
| **OUF** | **Merijarvi** | **3.13** | **149** | PN | **Pn** | **18 04 56.8** | **+1.1** |
| **KONS** | **Konsvik** | **3.17** | **263** | *e*P | **Pn** | **18 04 57.6** | **+1.4** |
| **KONS** | **Konsvik** SNR=50 | **3.17** | **263** | *e*P | **Pn** | **18 04 57.6** | **+1.4** |
| **UMAU** | **Umeaa** | **3.21** | **182** | Pn | **Pn** | **18 04 57.1** | **+0.4** |
| **UMAU** | **Umeaa** | **3.21** | **182** | PN | **Pn** | **18 04 57.2** | **+0.4** |
| **STOK** | **Stokkvaagen** | **3.25** | **260** | *e*P | **Pn** | **18 04 58.5** | **+1.2** |
| **STOK** | **Stokkvaagen** SNR=50 | **3.25** | **260** | *e*P | **Pn** | **18 04 58.5** | **+1.2** |
| **VRF** | **Varrio** | **3.40** | **75** | Pn | **Pn** | **18 05 00.6** | **+1.2** |
| **VRF** | **Varrio** | **3.40** | **75** | PN | **Pn** | **18 05 00.6** | **+1.2** |
| VRF | | | | SG | **Sb** | **18 05 50.2** | **+2.2** |
| **MSF** | **Maaselka** | **3.44** | **106** | Pn | **Pn** | **18 05 01.1** | **+1.2** |
| **MSF** | **Maaselka** baz=293 | **3.44** | **106** | PN | **Pn** | **18 05 01.1** | **+1.2** |
| **KU6** | **Riekki** | **3.72** | **102** | Pn | **Pn** | **18 05 05.1** | **+1.4** |
| **KU6** | **Riekki** | **3.72** | **102** | PN | **Pn** | **18 05 05.2** | **+1.4** |
| **VAF** | **Ylistaro** | **4.11** | **169** | Pn | **Pn** | **18 05 09.8** | **+0.7** |
| **VAF** | **Ylistaro** baz=349 | **4.11** | **169** | PN | **Pn** | **18 05 09.9** | **+0.7** |
| **APA0** | **Apatity Array** baz=248,slow=12 | **4.68** | **78** | Pn | **Pn** | **18 05 16.9** | **0.0** |
| APA0 | baz=271,slow=28 | | | Sn | **Sn** | **18 06 11.9** | **+0.1** |
| APA0 | baz=278,slow=37 | | | Lg | Lg | 18 06 29.1 | |
| **APA0** | **Apatity Array** | **4.68** | **78** | P | **Pn** | **18 05 15.8** | **-1.1** |
| APA0 | | | | S | **Sn** | **18 06 03.5** | **-8.3** |
| **APA0** | **Apatity Array** baz=248,slow=12 | **4.68** | **78** | Pn | **Pn** | **18 05 16.9** | **0.0** |
| APA0 | baz=271,slow=28 | | | Sn | **Sn** | **18 06 11.9** | **+0.1** |
| APA0 | baz=278,slow=37 | | | Lg | Lg | 18 06 29.1 | |
| **APA0** | **Apatity Array** SNR=50 | **4.68** | **78** | Pn | **Pn** | **18 05 17.0** | **0.0** |
| APA0 | SNR=50 | | | Sn | **Sn** | **18 06 11.9** | **+0.1** |
| APA0 | | | | Lg | Lg | 18 06 29.1 | |
| **APA** | **Apatity** | **4.84** | **78** | P | **Pn** | **18 05 20.5** | **+1.4** |
| APA | | | | S | **Sn** | **18 06 09.6** | **-6.1** |
| **FIA0** | **FINESS Array S** baz=343,slow=14 | **6.07** | **156** | Pn | **Pn** | **18 05 36.3** | **+0.2** |
| FIA0 | baz=348,slow=28 | | | Sn | **Sn** | **18 06 45.2** | **-1.0** |
| **FIA0** | **FINESS Array S** baz=343,slow=14 | **6.07** | **156** | Pn | **Pn** | **18 05 36.3** | **+0.2** |
| FIA0 | baz=348,slow=28 | | | Sn | **Sn** | **18 06 45.2** | **-1.0** |
| **FIA0** | **FINESS Array S** SNR=50 | **6.07** | **156** | Pn | **Pn** | **18 05 36.3** | **+0.2** |
| FIA0 | SNR=50 | | | Sn | **Sn** | **18 06 45.2** | **-1.0** |
| **FINES** | **FINESS Array B** comp=Z,0.3nm,0.3s,baz=344,slow=12,SNR=14 | **6.07** | **156** | Pn | **Pn** | **18 05 37.1** | **+1.0** |
| FINES | comp=Z,0.5nm,0.3s,baz=350,slow=22,SNR=6.2 | | | Sn | **Sn** | **18 06 47.0** | **+0.8** |
| **NB2** | **NORSAR Subarra** baz=26,slow=14 | **7.41** | **220** | Pn | **Pn** | **18 05 53.9** | **-0.6** |
| **NB2** | **NORSAR Subarra** baz=26,slow=14 | **7.41** | **220** | Pn | **Pn** | **18 05 53.9** | **-0.6** |
| **NB2** | **NORSAR Subarra** SNR=50 | **7.41** | **220** | Pn | **Pn** | **18 05 53.8** | **-0.6** |
| **NOA** | **NORSAR Array B** comp=Z,0.1nm,0.3s,baz=35,slow=16,SNR=2.5 | **7.41** | **220** | Pn | **Pn** | **18 05 55.0** | **+0.5** |
| NOA | comp=Z,0.2nm,0.3s,baz=22,slow=20,SNR=2.9 | | | Sn | **Sn** | **18 07 16.4** | **-2.8** |
| **HFS** | **Hagfors** baz=26,slow=14 | **7.68** | **208** | Pn | **Pn** | **18 05 57.9** | **-0.2** |
| **HFS** | **Hagfors** comp=Z,0.1nm,0.3s,baz=21,slow=12,SNR=8.2 | **7.68** | **208** | Pn | **Pn** | **18 05 57.9** | **-0.2** |
| **HFS** | **Hagfors** baz=26,slow=14 | **7.68** | **208** | Pn | **Pn** | **18 05 57.9** | **-0.2** |
| **SPA0** | **Spitsbergen Ar** baz=156,slow=14 | **11.24** | **355** | Pn | **Pn** | **18 06 46.4** | **-0.4** |
| **SPA0** | **Spitsbergen Ar** baz=156,slow=14 | **11.24** | **355** | Pn | **Pn** | **18 06 46.4** | **-0.4** |
| **SPA0** | **Spitsbergen Ar** SNR=50 | **11.24** | **355** | Pn | **Pn** | **18 06 46.4** | **-0.4** |

*ISCJB **23** 18:05:18.7±0.7, 25°2S±0°1×179°7E±0°1, h507km, mb4.0/11, Error ellipse: s-maj=15.2km s-min=13.3km az=15.6*
*IDC **23** 18:05:20.6±1.4, 25°17S×179°66E, h518km±16km, mb3.6/11, mb1 3.9/13, mb1mx3.6/29, mbtmp4.6/13, Error ellipse: s-maj=32.1km s-min=12.5km az=163.0*

**ISC 23 18:05:19.5**±0.7,**25°19S**±0°10×**179°7E**±0°1,**h507**km,**n16,** σ1§**14**/20,**mb4.0**/11,**South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** 90nm,0.3s,baz=247,slow=23,SNR=5.3 | **4.57** | **153** | P | **P** | **18 06 43.3** | **+0.4** |
| **DZM** | **Mont Dzumac** 0.4nm,0.3s,baz=246,slow=23,SNR=5.7 | **12.54** | **282** | P | **P** | **18 08 05.1** | **+1.1** |
| **URZ** | **Urewera** 2.4nm,0.3s,baz=52,slow=2.0,SNR=12 | **13.22** | **189** | P | **P** | **18 08 08.9** | **-1.8** |
| URZ | 2.5nm,0.3s,baz=61,slow=22,SNR=11 | | | S | **S** | **18 10 33.3** | **+1.5** |
| **CTA** | **Charters Tower** 15nm,0.4s,baz=94,slow=11,SNR=42 | **31.24** | **272** | P | **P** | **18 10 58.0** | **+0.7** |
| **STKA** | **Stephens Creek** 2.2nm,0.5s,baz=92,slow=11,SNR=14 | **34.01** | **250** | P | **P** | **18 11 21.4** | **+0.7** |
| **PMG** | **Port Moresby** 4.0nm,0.6s,baz=123,slow=5.7,SNR=6.1 | **34.68** | **291** | P | **P** | **18 11 26.4** | **0.0** |
| **ASAR** | **Alice Springs** 4.0nm,0.5s,baz=94,slow=7.1,SNR=135 | **41.58** | **262** | P | **P** | **18 12 22.5** | **-0.2** |
| ASAR | 0.6nm,0.8s,baz=101,slow=12,SNR=7.5 | | | S | **S** | **18 18 00.9** | **-1.0** |
| **WRA** | **Warramunga Arr** 8.1nm,0.5s,baz=98,slow=6.8,SNR=150 | **42.07** | **268** | P | **P** | **18 12 25.9** | **-0.7** |
| WRA | 1.6nm,1.0s,baz=108,slow=3.9,SNR=5.4 | | | ScP | **ScP** | **18 17 12.2** | **+0.3** |
| WRA | 1.3nm,0.9s,baz=98,slow=14,SNR=5.3 | | | S | **S** | **18 18 06.0** | **-3.0** |
| **FITZ** | **Fitzroy Crossi** 6.6nm,0.5s,baz=101,slow=7.4,SNR=35 | **50.47** | **267** | P | **P** | **18 13 30.9** | **+0.4** |
| **KSRS** | **Korea Array** 1.6nm,0.7s,baz=125,slow=6.2,SNR=5.0 | **79.06** | **320** | P | **P** | **18 16 31.1** | **+0.4** |
| **PETK** | **Petropavlovsk-** 2.2nm,0.7s,baz=123,slow=6.6,SNR=5.9 | **80.28** | **347** | P | **P** | **18 16 35.9** | **-1.0** |
| **NVAR** | **Mina Array Bea** 1.7nm,0.7s,baz=224,slow=8.5,SNR=15 | **85.86** | **44** | P | **P** | **18 17 05.1** | **-0.4** |
| **CMAR** | **Chiang Mai Arr** 1.2nm,0.8s,baz=138,slow=3.5,SNR=11 | **89.72** | **290** | P | **P** | **18 17 24.8** | **+1.1** |
| **TXAR** | **Lajitas Array** 1.4nm,0.7s,baz=224,slow=3.5,SNR=6.3 | **91.34** | **58** | P | **P** | **18 17 31.1** | **0.0** |
| **AKASG** | **Malin Array Be** 1.9nm,0.5s,baz=44,slow=4.8,SNR=6.3 | **145.89** | **326** | PKPbc | **PKPdf** | **18 24 00.5** | **+0.6** |
| **BRTR** | **Keskin Array B** 0.7nm,0.6s,baz=133,slow=2.8,SNR=3.8 | **148.12** | **305** | PKPbc | **PKPbc** | **18 24 07.4** | **-0.7** |

*ISK **23** 18:06:28.6, 38°86N×43°48E, h5km, MD2.5*
*DDA **23** 18:06:29.8, 38°86N×43°52E, h7km, Md2.5*
*CSEM **23** 18:06:30.1±0.3, 38°87N×43°50E, h5km, MD2.5, Error ellipse: s-maj=6.5km s-min=5.3km az=103.0*

**ISC 23 18:06:30.0**±1.0,**38°86N**±0°03×**43°51E**±0°04,**h15**km±7km, **n14,** σ0§**74**/28,**Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.14** | **21** | *i* P | **Pg** | **18 06 33.3** | **-0.8** |
| VMUR | | | | *i* S | **Sg** | **18 06 37.6** | **+0.9** |
| **VMUR** | **Van-Muradiye** | **0.14** | **21** | P | **Pg** | **18 06 33.3** | **-0.8** |
| VMUR | | | | S | **Sg** | **18 06 37.6** | **+0.9** |
| **VANB** | **Van** | **0.28** | **200** | *e*PG | **Pb** | **18 06 36.6** | **-0.2** |
| VANB | | | | *e*SG | **Sb** | **18 06 43.0** | **+1.6** |
| **VANB** | **Van** | **0.28** | **200** | *e*Pg | **Pb** | **18 06 36.6** | **-0.2** |
| VANB | | | | *e*Sg | **Sb** | **18 06 43.0** | **+1.6** |
| **TVAN** | **Van** | **0.34** | **194** | *i* P | **Pg** | **18 06 36.3** | **-0.8** |
| TVAN | | | | *i* S | **Sb** | **18 06 42.8** | **-0.4** |
| **TVAN** | **Van** | **0.34** | **194** | P | **Pg** | **18 06 36.3** | **-0.8** |
| TVAN | | | | S | **Sb** | **18 06 42.8** | **-0.4** |
| **CLDR** | **Caldiran** | **0.43** | **48** | *e*PG | **Pg** | **18 06 38.4** | **-0.3** |
| CLDR | | | | *e*SG | **Sb** | **18 06 45.9** | **+0.1** |
| **CLDR** | **Caldiran** | **0.43** | **48** | *e*Pg | **Pg** | **18 06 38.4** | **-0.3** |
| CLDR | | | | *e*Sg | **Sb** | **18 06 45.9** | **+0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.61** | **266** | *i* P | **Pg** | **18 06 41.8** | **-0.3** |
| ADCV | | | | *i* S | **Sb** | **18 06 51.4** | **+0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.61** | **266** | P | **Pg** | **18 06 41.8** | **-0.3** |
| ADCV | | | | S | **Sb** | **18 06 51.4** | **+0.3** |
| **TUTA** | **Tutak** | **0.77** | **315** | *i* P | **Pg** | **18 06 44.3** | **-0.7** |
| TUTA | | | | *i* S | **Sb** | **18 06 55.7** | **+0.2** |
| **TUTA** | **Tutak** | **0.77** | **315** | P | **Pg** | **18 06 44.3** | **-0.7** |
| TUTA | | | | S | **Sb** | **18 06 55.7** | **+0.2** |
| **AGRB** | **Hanur-Agry** | **0.82** | **331** | *e*PG | **Pg** | **18 06 45.3** | **-0.7** |
| AGRB | | | | *e*SG | **Sb** | **18 06 57.7** | **+0.6** |
| **AGRB** | **Hanur-Agry** | **0.82** | **331** | *e*Pg | **Pg** | **18 06 45.3** | **-0.7** |
| AGRB | | | | *e*Sg | **Sb** | **18 06 57.7** | **+0.6** |

**WEL 23 18:12:50.1**±0.1,**43°50S**×**172°79E**,**h8**km,**ML3.6**/17,**4C-1D, Error ellipse: s-maj=1.5km s-min=0.7km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.14** | **236** | ⇑PG | Pg | **18 12 53.5** | **+0.2** |
| CRLZ | | | | SG | Sg | **18 12 55.7** | **+0.3** |
| CRLZ | | | | AML | AML | **18 12 56.2** | |
| **MQZ** | **McQueen's Vall** | **0.23** | **205** | ⇑PG | Pg | **18 12 54.9** | **+0.1** |
| MQZ | | | | SG | Sg | **18 12 58.5** | **+0.6** |
| MQZ | | | | SG | | **18 12 58.6** | |
| MQZ | | | | AML | AML | **18 12 58.7** | |
| **OXZ** | **Oxford** | **0.57** | **287** | P* | Pg | **18 13 01.1** | **-0.1** |
| OXZ | | | | S* | Sg | **18 13 09.3** | **+0.6** |
| OXZ | | | | AML | AML | **18 13 11.2** | |
| OXZ | | | | AML | AML | **18 13 11.3** | |
| OXZ | | | | AML | AML | **18 13 11.7** | |
| **LTZ** | **Lake Taylor** | **0.81** | **332** | P* | Pg | **18 13 05.7** | **+0.1** |
| LTZ | | | | S* | Sb | **18

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **WHZ** | **Wether Hill Ro** | **4.20** | **234** | PN | Pn | 18 13 51.9 | -2.5 |
| **PREZ** | **Palmer Road** | **4.28** | **14** | PN | Pn | 18 13 56.0 | +0.5 |
| **KHEZ** | **Kahui Hut** | **4.30** | **13** | PN | Pn | 18 13 56.7 | +0.9 |
| **DCZ** | **Deep Cove** | **4.49** | **242** | PN | Pn | 18 13 56.3 | -2.0 |
| **WNVZ** | **Wahianoa** | **4.67** | **28** | PN | Pn | 18 14 00.5 | -0.5 |
| **APZ** | **The Paps** | **4.76** | **224** | PN | Pn | 18 14 00.5 | -1.6 |
| **OTVZ** | **Oturere** | **4.84** | **28** | PN | Pn | 18 14 02.6 | -0.7 |
| **HIZ** | **Hauiti** | **5.22** | **18** | PN | Pn | 18 14 07.4 | -0.9 |

**IDC 23 18:13:26.7±4.7, 5°37S×131°78E, h0km, mb3.7/1, mb1 3.6/3, mb1mx3.3/31, mbtmp3.4/3, ML3.4/2, Error ellipse: s-maj=323.5km s-min=31.6km az=74.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **14.69** | **170** | Pn | Pn | 18 16 57.8 | +1.8 |
| | 0.2nm,0.3s,baz=352,slow=13,SNR=14 | | | | | | |
| WRA | | | | Sn | Sn | 18 19 21.1 | -19 |
| | 0.3nm,0.3s,baz=339,slow=21,SNR=7.3 | | | | | | |
| **ASAR** | **Alice Springs** | **18.30** | **174** | P | Pn | 18 17 41.0 | -1.2 |
| | 0.1nm,0.3s,baz=348,slow=11,SNR=9.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.86** | **326** | P | P | 18 24 27.0 | +0.1 |
| | 0.4nm,0.5s,baz=114,slow=9.1,SNR=5.1 | | | | | | |

*ISK **23** 18:16:48.7, 38°.76N×43°.43E, h21km, ML2.2*
*CSEM **23** 18:16:49.7±0.3, 38°.78N×43°.50E, h10km, ML2.2, Error ellipse: s-maj=6.9km s-min=4.5km az=101.0*
*DDA **23** 18:16:49.8, 38°.77N×43°.45E, h7km, Md2.7*
*ISCJB **23** 18:16:50.3±0.5, 38°.78N±0°.02×43°.47E±0°.05, h8km±5km, Error ellipse: s-maj=6.3km s-min=3.7km az=13.6*

**ISC 23 18:16:49.3±1.1, 38°.78N±0°.02×43°.46E±0°.03, h15km±9km, n25, σ0°56/46, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.19** | **198** | *e*Pg | **Pb** | **18 16 55.3** | **+0.7** |
| **VANB** | **Van** | **0.19** | **198** | *e*Pg | **Pb** | **18 16 55.3** | **+0.7** |
| **VMUR** | **Van-Muradiye** | **0.23** | **22** | *i* P | **Pb** | **18 16 55.1** | **-0.1** |
| VMUR | | | | *i* S | **Sb** | **18 16 59.6** | **+0.5** |
| **VMUR** | **Van-Muradiye** | **0.23** | **22** | P | **Pb** | **18 16 55.1** | **-0.1** |
| VMUR | | | | S | **Sb** | **18 16 59.6** | **+0.5** |
| **TVAN** | **Van** | **0.26** | **190** | *i* P | **Pb** | **18 16 55.2** | **-0.5** |
| TVAN | | | | *i* S | **Sb** | **18 16 59.9** | **-0.1** |
| **TVAN** | **Van** | **0.26** | **190** | P | **Pb** | **18 16 55.2** | **-0.5** |
| TVAN | | | | S | **Sb** | **18 16 59.9** | **-0.1** |
| **ERCV** | **ERCIS-VAN** | **0.26** | **338** | *e*PG | **Pg** | **18 16 55.1** | **0.0** |
| ERCV | | | | *e*SG | **Sb** | **18 17 00.2** | **+0.1** |
| **ERCV** | **ERCIS-VAN** | **0.26** | **338** | *e*Pg | **Pg** | **18 16 55.1** | **0.0** |
| ERCV | | | | *e*Sg | **Sb** | **18 17 00.2** | **+0.1** |
| **CLDR** | **Caldiran** | **0.51** | **44** | *e*PG | **Pb** | **18 16 59.8** | **-0.2** |
| CLDR | | | | *e*SG | **Sb** | **18 17 08.3** | **+1.0** |
| **CLDR** | **Caldiran** | **0.51** | **44** | *i* P | **Pb** | **18 16 59.9** | **-0.2** |
| CLDR | | | | *i* S | **Sb** | **18 17 08.3** | **+1.0** |
| **CLDR** | **Caldiran** | **0.51** | **44** | P | **Pb** | **18 16 59.8** | **-0.2** |
| CLDR | | | | S | **Sb** | **18 17 08.3** | **+1.0** |
| **GEVA** | **Gevas** | **0.56** | **214** | *i* P | **Pg** | **18 16 59.9** | **-0.6** |
| GEVA | | | | *i* S | **Sb** | **18 17 09.4** | **+0.5** |
| **GEVA** | **Gevas** | **0.56** | **214** | P | **Pg** | **18 16 59.9** | **-0.6** |
| GEVA | | | | S | **Sb** | **18 17 09.4** | **+0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.58** | **273** | *i* P | **Pb** | **18 17 01.0** | **-0.2** |
| ADCV | | | | *i* S | **Sb** | **18 17 10.2** | **+0.9** |
| **ADCV** | **BITLIS_Adilcev** | **0.58** | **273** | P | **Pb** | **18 17 01.0** | **-0.2** |
| ADCV | | | | S | **Sb** | **18 17 10.2** | **+0.9** |
| **TUTA** | **Tutak** | **0.80** | **321** | *i* P | **Pb** | **18 17 04.8** | **-0.2** |
| TUTA | | | | *i* S | **Sb** | **18 17 16.3** | **+0.5** |
| **TUTA** | **Tutak** | **0.80** | **321** | P | **Pb** | **18 17 04.8** | **-0.2** |
| TUTA | | | | S | **Sb** | **18 17 16.3** | **+0.5** |
| **AGRB** | **Hanur-Agry** | **0.88** | **335** | *e*PG | **Pg** | **18 17 06.1** | **-0.2** |
| AGRB | | | | *e*SG | **Sn** | **18 17 19.2** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **0.88** | **335** | *e*Pg | **Pg** | **18 17 06.1** | **-0.2** |
| AGRB | | | | *e*Sg | **Sn** | **18 17 19.2** | **-0.6** |
| **HAKT** | **HAKKARI** | **1.23** | **171** | *i* P | **Pb** | **18 17 12.3** | **-0.1** |
| **HAKT** | **HAKKARI** | **1.23** | **171** | P | **Pb** | **18 17 12.3** | **-0.1** |
| **SRTM** | **Siirt_Merkez** | **1.45** | **237** | *i* P | **Pg** | **18 17 17.2** | **+0.1** |
| SRTM | | | | *i* S | **Sg** | **18 17 36.8** | **+0.9** |
| **SRTM** | **Siirt_Merkez** | **1.45** | **237** | P | **Pg** | **18 17 17.2** | **+0.1** |
| SRTM | | | | S | **Sg** | **18 17 36.8** | **+0.9** |
| **BTMN** | **Batman** | **1.94** | **243** | *i* P | **Pb** | **18 17 24.5** | **+0.2** |
| BTMN | | | | *i* S | **Sg** | **18 17 50.8** | **-0.9** |
| **BTMN** | **Batman** | **1.94** | **243** | P | **Pb** | **18 17 24.5** | **+0.2** |
| BTMN | | | | S | **Sg** | **18 17 50.8** | **-0.9** |

**WEL 23 18:17:37.1±0.2, 43°.49S×172°.81E, h12km±1km, ML2.9/4, 2D, Error ellipse: s-maj=2.5km s-min=1.0km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.16** | **239** | PG | Pg | 18 17 40.8 | 0.0 |
| CRLZ | | | | SG | Sg | 18 17 43.7 | +0.4 |
| CRLZ | | | | AML | AML | 18 17 44.8 | |
| **MQZ** | **McQueen's Vall** | **0.24** | **208** | SG | Sg | 18 17 46.2 | +0.6 |
| MQZ | | | | SG | | 18 17 46.2 | |
| MQZ | | | | AML | AML | 18 17 46.4 | |
| **OXZ** | **Oxford** | **0.59** | **286** | ⇓P* | Pg | 18 17 48.2 | -0.4 |
| OXZ | | | | S* | Sg | 18 17 56.2 | -0.1 |
| OXZ | | | | AML | AML | 18 17 58.3 | |
| OXZ | | | | AML | AML | 18 17 58.3 | |
| **LTZ** | **Lake Taylor** | **0.81** | **331** | ⇓P* | Pg | 18 17 52.4 | -0.5 |
| LTZ | | | | S* | Sg | 18 18 03.9 | +0.3 |
| **KHZ** | **Kahutara** | **1.20** | **27** | P* | Pn | 18 17 58.5 | -1.3 |
| **INZ** | **Inchbonnie** | **1.26** | **307** | P* | Pb | 18 18 00.8 | -0.1 |
| **RPZ** | **Rata Peaks** | **1.29** | **260** | *e*PN | Pn | 18 18 00.1 | -1.0 |
| **THZ** | **Tophouse** | **1.73** | **2** | PN | Pn | 18 18 05.8 | -1.4 |
| **LBZ** | **Lake Benmore** | **2.10** | **244** | *e*PN | Pn | 18 18 11.5 | -0.6 |
| **ODZ** | **Otahua Downs** | **2.19** | **224** | PN | Pn | 18 18 12.7 | -0.7 |

*CSEM **23** 18:41:42.5±0.2, 39°.85N×30°.08E, h2km, MD2.9, Error ellipse: s-maj=4.0km s-min=3.0km az=98.0*
*ISK **23** 18:41:42.0, 39°.86N×30°.08E, h8km, ML3.0*
*DDA **23** 18:41:42.1, 39°.83N×30°.06E, h6km, Md2.9*

**ISC 23 18:41:42.4±1.0, 39°.85N±0°.02×30°.06E±0°.02, h8km±8km, n54, σ0°47/85, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BORA** | **Eskisehir** | **0.30** | **84** | *i* P | **Pg** | **18 41 48.2** | **-0.2** |
| BORA | | | | *i* S | **Sg** | **18 41 53.2** | **+0.7** |
| **BORA** | **Eskisehir** | **0.30** | **84** | P | **Pg** | **18 41 48.2** | **-0.2** |
| BORA | | | | S | **Sg** | **18 41 53.2** | **+0.7** |
| **CAVI** | **Cavuskoy** | **0.39** | **334** | *e*PG | **Pg** | **18 41 50.2** | **+0.1** |
| CAVI | | | | *e*SG | **Sg** | **18 41 55.6** | **+0.3** |
| **CAVI** | **Cavuskoy** | **0.39** | **334** | *e*Pg | **Pg** | **18 41 50.2** | **+0.1** |
| CAVI | | | | *e*Sg | **Sg** | **18 41 55.6** | **+0.3** |
| **GPA** | **Golpazari** | **0.48** | **23** | *e*PG | **Pg** | **18 41 51.3** | **-0.4** |
| GPA | | | | *e*SG | **Sg** | **18 41 58.3** | **+0.2** |
| **GPA** | **Golpazari** | **0.48** | **23** | *e*Pg | **Pg** | **18 41 51.3** | **-0.4** |
| GPA | | | | *e*Sg | **Sg** | **18 41 58.3** | **+0.2** |
| **ADVT** | **Abdulvahap** | **0.64** | **337** | *e*PG | **Pg** | **18 41 54.6** | **-0.1** |
| ADVT | | | | *e*SG | **Sb** | **18 42 03.9** | **-0.9** |
| **ADVT** | **Abdulvahap** | **0.64** | **337** | *e*Pg | **Pg** | **18 41 54.6** | **-0.1** |
| ADVT | | | | *e*Sg | **Sb** | **18 42 03.9** | **-0.9** |
| **GEYV** | **SAKARYA_Geyve** | **0.66** | **16** | *i* P | **Pg** | **18 41 55.0** | **-0.2** |
| GEYV | | | | *i* S | **Sn** | **18 42 09.1** | **+0.5** |
| **GEYV** | **SAKARYA_Geyve** | **0.66** | **16** | P | **Pg** | **18 41 55.0** | **-0.2** |
| **GULT** | **Gulveren** | **0.68** | **30** | *e*PG | **Pg** | **18 41 55.3** | **-0.2** |
| **GULT** | **Gulveren** | **0.68** | **30** | *e*Pg | **Pg** | **18 41 55.3** | **-0.2** |
| **ESKT** | **Eskisehir** | **0.69** | **118** | *i* P | **Pg** | **18 41 55.0** | **-0.7** |
| ESKT | | | | *i* S | **Sg** | **18 42 04.7** | **0.0** |
| **SEYT** | **Eskypehyr** | **0.69** | **118** | P | **Pg** | **18 41 55.0** | **-0.7** |
| SEYT | | | | S | **Sg** | **18 42 04.7** | **0.0** |
| **IGD** | **Bursa** | **0.78** | **302** | *i* P | **Pg** | **18 41 57.4** | **-0.1** |
| IGD | | | | *i* S | **Sn** | **18 42 11.9** | **+0.3** |
| **SPNC** | **Sapanca-Adapaz** | **0.86** | **13** | *e*PG | **Pg** | **18 41 58.8** | **-0.1** |
| **SPNC** | **Sapanca-Adapaz** | **0.86** | **13** | *e*Pg | **Pg** | **18 41 58.8** | **-0.1** |
| **GDZ** | **Gediz** | **0.88** | **211** | *i* P | **Pg** | **18 41 59.4** | **0.0** |
| GDZ | | | | *i* S | **Sb** | **18 42 11.5** | **-0.4** |
| **GDZ** | **Gediz** | **0.88** | **211** | P | **Pg** | **18 41 59.4** | **0.0** |
| GDZ | | | | S | **Sb** | **18 42 11.5** | **-0.4** |
| **YLV** | **Yalova** | **0.89** | **324** | *e*PG | **Pg** | **18 41 59.5** | **-0.1** |
| **YLV** | **Yalova** | **0.89** | **324** | *e*Pg | **Pg** | **18 41 59.5** | **-0.1** |
| **ORLT** | **Orhaneli** | **0.92** | **283** | *e*PG | **Pb** | **18 42 00.5** | **-0.1** |
| **ORLT** | **Orhaneli** | **0.92** | **283** | *e*Pg | **Pb** | **18 42 00.5** | **-0.1** |
| **BTAS** | **Taskesti** | **1.02** | **44** | *i* P | **Pb** | **18 42 02.2** | **-0.1** |
| BTAS | | | | *i* S | **Sn** | **18 42 18.1** | **+0.6** |
| **BTAS** | **Taskesti** | **1.02** | **44** | P | **Pb** | **18 42 02.2** | **-0.1** |
| **MDUB** | **Mudurnu** | **1.07** | **54** | *e*PG | **Pg** | **18 42 02.4** | **-0.5** |
| **MDUB** | **Mudurnu** | **1.07** | **54** | *e*Pg | **Pg** | **18 42 02.4** | **-0.5** |
| **SIMA** | **Simav-Kutahya** | **1.13** | **228** | *e*PN | **Pb** | **18 42 04.4** | **+0.1** |
| **SIMA** | **Simav-Kutahya** | **1.13** | **228** | *e*Pn | **Pb** | **18 42 04.4** | **+0.1** |
| **SAHE** | **Sakarya_HENDEK** | **1.17** | **31** | *i* P | **Pb** | **18 42 04.5** | **-0.3** |
| SAHE | | | | *i* S | **Sn** | **18 42 22.0** | **+0.8** |
| **SAHE** | **Sakarya_HENDEK** | **1.17** | **31** | P | **Pb** | **18 42 04.6** | **-0.3** |
| SAHE | | | | S | **Sn** | **18 42 22.0** | **+0.8** |
| **SVRH** | **Sivrihisar-ESK** | **1.20** | **109** | *e*PN | **Pb** | **18 42 05.0** | **-0.3** |
| **SVRH** | **Sivrihisar-ESK** | **1.20** | **109** | *e*Pn | **Pb** | **18 42 05.0** | **-0.3** |
| **KAND** | **Kocaeli-Kandir** | **1.25** | **4** | *i* P | **Pn** | **18 42 06.2** | **+0.1** |
| KAND | | | | *i* S | **Sn** | **18 42 23.0** | **-0.1** |
| **KAND** | **Kocaeli-Kandir** | **1.25** | **4** | P | **Pn** | **18 42 06.2** | **+0.1** |
| KAND | | | | S | **Sn** | **18 42 23.0** | **-0.1** |
| **BOLV** | **Bolvadin** | **1.32** | **148** | *i* P | **Pg** | **18 42 07.7** | **-0.1** |
| BOLV | | | | *i* S | **Sb** | **18 42 24.7** | **+0.1** |
| **BOLV** | **Bolvadin** | **1.32** | **148** | P | **Pg** | **18 42 07.7** | **-0.1** |
| BOLV | | | | S | **Sb** | **18 42 24.7** | **+0.1** |
| **KHAL** | **Karahalli** | **1.54** | **197** | *i* P | **Pg** | **18 42 11.6** | **-0.4** |
| KHAL | | | | *i* S | **Sg** | **18 42 31.6** | **-0.3** |
| **KHAL** | **Karahalli** | **1.54** | **197** | P | **Pg** | **18 42 11.6** | **-0.4** |
| KHAL | | | | S | **Sg** | **18 42 31.6** | **-0.3** |
| **KZIL** | **AFYON_Kizioren** | **1.59** | **178** | *i* P | **Pn** | **18 42 10.3** | **-0.6** |
| KZIL | | | | *i* S | **Sg** | **18 42 34.1** | **+0.6** |
| **KZIL** | **AFYON_Kizioren** | **1.59** | **178** | P | **Pn** | **18 42 10.3** | **-0.6** |
| KZIL | | | | S | **Sg** | **18 42 34.1** | **+0.6** |
| **KIZT** | **Kizilcal** | **1.71** | **124** | *e*PN | **Pn** | **18 42 12.6** | **+0.1** |
| **KIZT** | **Kizilcal** | **1.71** | **124** | *e*Pn | **Pn** | **18 42 12.6** | **+0.1** |
| **KULA** | **Kula-Manisa** | **1.72** | **220** | *e*PN | **Pb** | **18 42 13.9** | **-0.4** |
| **KULA** | **Kula-Manisa** | **1.72** | **220** | *e*Pn | **Pb** | **18 42 13.9** | **-0.4** |
| **MANT** | **Manisa** | **1.79** | **221** | *i* P | **Pg** | **18 42 16.9** | **+0.1** |
| MANT | | | | *i* S | **Sg** | **18 42 40.0** | **+0.1** |
| **MANT** | **Manisa** | **1.79** | **221** | P | **Pg** | **18 42 16.9** | **+0.1** |
| MANT | | | | S | **Sg** | **18 42 40.0** | **+0.1** |
| **BCAM** | **Yenicaga** | **1.81** | **57** | *i* P | **Pn** | **18 42 14.5** | **+0.5** |
| BCAM | | | | *i* S | **Sg** | **18 42 42.2** | **+1.6** |
| **BCAM** | **Yenicaga** | **1.81** | **57** | P | **Pn** | **18 42 14.5** | **+0.5** |
| **BAGO** | **Egridir - ISPA** | **1.94** | **163** | *i* P | **Pg** | **18 42 20.8** | **+1.2** |
| BAGO | | | | *i* S | **Sg** | **18 42 44.9** | **+0.2** |
| **CMDR** | **Camlidere-ANKA** | **1.96** | **70** | *i* P | **Pg** | **18 42 18.9** | **-1.0** |
| CMDR | | | | *i* S | **Sg** | **18 42 46.1** | **+0.8** |
| **CMDR** | **Camlidere-ANKA** | **1.96** | **70** | P | **Pg** | **18 42 18.9** | **-1.0** |
| **KDHN** | **Kadinhani** | **2.07** | **129** | *i* P | **Pb** | **18 42 20.4** | **+0.1** |
| KDHN | | | | *i* S | **Sg** | **18 42 49.0** | **0.0** |
| **KDHN** | **Kadinhani** | **2.07** | **129** | P | **Pb** | **18 42 20.4** | **+0.1** |

**WEL 23 18:42:19.4±0.2, 43°.50S×172°.82E, h7km±1km, ML3.6/16, 4C-5D, Error ellipse: s-maj=1.8km s-min=0.9km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.16** | **242** | ⇓PG | Pg | 18 42 22.8 | +0.2 |
| CRLZ | | | | SG | Sg | 18 42 25.3 | +0.5 |
| CRLZ | | | | AML | AML | 18 42 26.7 | |
| **MQZ** | **McQueen's Vall** | **0.24** | **210** | SG | Sg | 18 42 27.7 | +0.4 |
| **OXZ** | **Oxford** | **0.59** | **287** | P* | Pg | 18 42 30.8 | 0.0 |
| OXZ | | | | AML | AML | 18 42 41.4 | |
| OXZ | | | | AML | AML | 18 42 41.4 | |
| OXZ | | | | AML | AML | 18 42 45.1 | |
| OXZ | | | | AML | AML | 18 42 45.1 | |
| **KHZ** | **Kahutara** | **1.21** | **26** | P* | Pg | 18 42 40.8 | -1.7 |
| KHZ | | | | AML | AML | 18 43 06.1 | |
| KHZ | | | | AML | AML | 18 43 12.2 | |
| **INZ** | **Inchbonnie** | **1.27** | **307** | P* | Pn | 18 42 42.0 | -1.5 |
| **RPZ** | **Rata Peaks** | **1.30** | **260** | ⇑P* | Pn | 18 42 42.7 | -1.3 |
| RPZ | | | | AML | AML | 18 43 03.8 | |
| RPZ | | | | AML | AML | 18 43 04.6 | |
| **WVZ** | **Waitaha Valley** | **1.58** | **285** | PN | Pn | 18 42 46.9 | -0.9 |
| WVZ | | | | AML | AML | 18 43 13.6 | |
| WVZ | | | | AML | AML | 18 43 17.8 | |
| **THZ** | **Tophouse** | **1.74** | **2** | ⇑PN | Pn | 18 42 48.8 | -1.3 |
| THZ | | | | AML | AML | 18 43 15.8 | |
| THZ | | | | AML | AML | 18 43 25.1 | |
| **DSZ** | **Denniston Nort** | **1.91** | **337** | PN | Pn | 18 42 51.6 | -0.8 |
| DSZ | | | | AML | AML | 18 43 27.5 | |
| DSZ | | | | AML | AML | 18 43 28.0 | |
| DSZ | | | | AML | AML | 18 43 28.9 | |
| DSZ | | | | AML | AML | 18 43 32.7 | |
| **BSWZ** | **Blackbirch Sta** | **1.95** | **24** | PN | Pn | 18 42 51.8 | -1.1 |
| BSWZ | | | | AML | AML | 18 43 43.6 | |
| **LBZ** | **Lake Benmore** | **2.10** | **244** | PN | Pn | 18 42 54.2 | -0.8 |
| LBZ | | | | AML | AML | 18 43 33.5 | |
| LBZ | | | | AML | AML | 18 43 34.0 | |
| **FOZ** | **Fox Glacier** | **2.18** | **268** | ⇓PN | Pn | 18 42 56.6 | +0.4 |
| FOZ | | | | AML | AML | 18 43 26.4 | |
| FOZ | | | | AML | AML | 18 43 36.8 | |
| **ODZ** | **Otahua Downs** | **2.19** | **225** | PN | Pn | 18 42 55.1 | -1.2 |
| ODZ | | | | AML | AML | 18 43 30.9 | |
| ODZ | | | | AML | AML | 18 43 30.9 | |
| ODZ | | | | AML | AML | 18 43 39.0 | |
| ODZ | | | | AML | AML | 18 43 39.0 | |
| **TUWZ** | **Tuamarina** | **2.23** | **22** | PN | Pn | 18 42 55.3 | -1.5 |
| **NNZ** | **Nelson** | **2.32** | **11** | PN | Pn | 18 42 57.2 | -0.8 |
| **TCW** | **Tory Channel** | **2.53** | **26** | PN | Pn | 18 42 59.2 | -1.8 |
| **BHW** | **Baring Head** | **2.58** | **37** | PN | Pn | 18 42 59.8 | -1.9 |
| **PLWZ** | **Palliser** | **2.64** | **44** | PN | Pn | 18 43 00.2 | -2.2 |
| **QRZ** | **Quartz Range** | **2.68** | **355** | PN | Pn | 18 43 02.2 | -0.8 |
| QRZ | | | | AML | AML | 18 43 42.8 | |
| QRZ | | | | AML | AML | 18 43 51.1 | |
| QRZ | | | | AML | AML | 18 43 51.1 | |
| QRZ | | | | AML | AML | 18 43 51.5 | |
| **DUWZ** | **D'Urville Isla** | **2.82** | **17** | PN | Pn | 18 43 03.4 | -1.5 |
| **HHSZ** | **Highcliff Hill** | **2.86** | **213** | ⇓PN | Pn | 18 43 04.2 | -1.3 |
| **CAW** | **Cannon Point** | **2.92** | **36** | PN | Pn | 18 43 04.2 | -2.0 |
| **JCZ** | **Jackson Bay** | **2.97** | **257** | PN | Pn | 18 43 06.3 | -0.8 |
| JCZ | | | | AML | AML | 18 44 07.9 | |
| JCZ | | | | AML | AML | 18 44 13.1 | |
| **WKZ** | **Wanaka** | **3.04** | **243** | PN | Pn | 18 43 07.1 | -0.9 |
| WKZ | | | | AML | AML | 18 44 05.3 | |
| **EAZ** | **Earnscleugh** | **3.05** | **234** | ⇑PN | Pn | 18 43 07.0 | -1.1 |
| EAZ | | | | AML | AML | 18 43 59.4 | |
| EAZ | | | | AML | AML | 18 44 03.5 | |
| EAZ | | | | AML | AML | 18 44 03.5 | |
| **KIW** | **Kapiti Island** | **3.06** | **31** | PN | Pn | 18 43 06.4 | -1.9 |
| **MTW** | **Mount Morrison** | **3.07** | **41** | ⇓PN | Pn | 18 43 05.8 | -2.6 |
| **OGWZ** | **Otaki Gorge** | **3.20** | **34** | PN | Pn | 18 43 08.0 | -2.1 |
| **TMWZ** | **Te Maipa** | **3.30** | **45** | PN | Pn | 18 43 08.8 | -2.8 |
| **TUZ** | **Tuapeka** | **3.34** | **222** | ⇑PN | Pn | 18 43 10.9 | -1.2 |
| TUZ | | | | AML | AML | 18 44 14.7 | |
| TUZ | | | | AML | AML | 18 44 14.7 | |
| TUZ | | | | AML | AML | 18 44 15.1 | |
| TUZ | | | | AML | AML | 18 44 16.6 | |
| **MRZ** | **Mangatainoka R** | **3.50** | **37** | PN | Pn | 18 43 11.7 | -2.6 |
| **TIWZ** | **Tintock** | **3.55** | **41** | PN | Pn | 18 43 12.2 | -2.9 |
| **BFZ** | **Birch Farm** | **3.80** | **43** | ⇓PN | Pn | 18 43 15.4 | -3.0 |
| **MLZ** | **Mavora Lakes** | **3.85** | **239** | PN | Pn | 18 43 17.9 | -1.2 |
| **SYZ** | **Scrubby Hill** | **4.00** | **219** | PN | Pn | 18 43 20.6 | -0.6 |
| **WHZ** | **Wether Hill Ro** | **4.22** | **234** | PN | Pn | 18 43 21.8 | -2.3 |
| **PREZ** | **Palmer Road** | **4.27** | **14** | PN | Pn | 18 43 23.6 | -1.3 |
| **KHEZ** | **Kahui Hut** | **4.30** | **13** | PN | Pn | 18 43 26.0 | +0.7 |
| **PRHZ** | **Porangahau** | **4.31** | **43** | *e*PN | Pn | 18 43 22.1 | -3.3 |
| **NEZ** | **North Egmont** | **4.33** | **13** | PN | Pn | 18 43 26.1 | +0.3 |
| **PKE** | **Pukeiti** | **4.39** | **12** | PN | Pn | 18 43 26.9 | +0.3 |
| **DCZ** | **Deep Cove** | **4.50** | **242** | PN | Pn | 18 43 26.3 | -1.7 |
| **MTVZ** | **Mangateitei** | **4.57** | **27** | PN | Pn | 18 43 28.5 | -0.5 |
| **PKVZ** | **Pokaka** | **4.62** | **25** | *e*PN | Pn | 18 43 29.4 | -0.3 |
| **WNVZ** | **Wahianoa** | **4.66** | **28** | PN | Pn | 18 43 29.1 | -1.3 |
| **BHHZ** | **Black Hill Sta** | **4.69** | **32** | PN | Pn | 18 43 28.7 | -2.0 |
| **APZ** | **The Paps** | **4.77** | **224** | *e*PN | Pn | 18 43 29.5 | -2.2 |
| **OTVZ** | **Oturere** | **4.83** | **27** | PN | Pn | 18 43 31.2 | -1.5 |
| **HIZ** | **Hauiti** | **5.21** | **18** | PN | Pn | 18 43 37.0 | -0.8 |

*ISCJB **23** 19:12:32.5±0.2, 52°.14S±0°.03×27°.84E±0°.07, h10km, mb5.3/85, MS5.4/182, Error ellipse: s-maj=6.0km s-min=4.0km az=174.7*
*IDC **23** 19:12:32.3±0.4, 52°.18S×27°.81E, h0km, mb4.9/23, mb1 4.9/23, mb1mx4.8/40, mbtmp4.9/23, MS5.2/23, Ms1 5.1/23, ms1mx5.1/27, Error ellipse: s-maj=15.6km s-min=12.1km az=78.0*
*BJI **23** 19:12:33.3, 52°.10S×28°.00E, h7km, mb5.3/4, mB5.8/7, Ms5.6/17, Ms7 5.3/17*
*NEIC **23** 19:12:33.0±0.0, 52°.23S×28°.50E, h11km, Moment Tensor Solution. s19 Moment tensor: Scale $10^{17}$Nm; $M_{rr}$=0.80; $M_{\theta\theta}$6.32; $M_{\phi\phi}$-5.52; $M_{r\theta}$0.59; $M_{\theta\phi}$5.50; $M_{\phi r}$-1.51; Best double couple: $M_{o}$8.30000×$10^{17}$ NP1:$\phi_{s}$24.00000°, δ81.00000°, λ-171.00000°. NP2:$\phi_{s}$293.00000°, δ81.00000°, λ-9.00000°. Principal axes: T 8.4900, Plg0.0000°, Azm158.0000°; N -0.4400, Plg77.0000°, Azm68.0000°; P -8.0500, Plg12.0000°, Azm248.0000°;*
*MOS **23** 19:12:33.5±2.0, 52°.14S×28°.04E, h10km, mb5.5/26, MS5.3/24 Error ellipse: s-maj=19.1km s-min=9.2km az=90.6*
*NEIC **23** 19:12:34.0±0.1, 52°.12S×27°.96E, h10km, mb5.5/71, MS5.4/148, MW5.9, MW5.9, Error ellipse: s-maj=7.0km s-min=5.9km az=70.0, Moment Tensor Solution. s29 Moment tensor: Scale $10^{17}$Nm; $M_{rr}$0.08; $M_{\theta\theta}$5.80; $M_{\phi\phi}$-5.88; $M_{r\theta}$-0.80; $M_{\theta\phi}$4.81; $M_{\phi r}$-0.83; Best double couple: $M_{o}$7.70000×$10^{17}$ NP1:$\phi_{s}$205.00000°, δ87.00000°, λ172.00000°. NP2:$\phi_{s}$295.00000°, δ82.00000°, λ3.00000°. Principal axes: T 7.6700, Plg8.0000°, Azm160.0000°; N -0.0300, Plg81.0000°, Azm6.0000°; P -7.6400, Plg4.0000°, Azm251.0000°;*
*GCMT **23** 19:12:34.0±0.1, 52°.19S×28°.35E, h24km, MW5.9/130, Moment Tensor Solution. s126, c259; s130, c415; Duration: 2e3 Moment tensor: Scale $10^{18}$Nm; $M_{rr}$-0.04±.01; $M_{\theta\theta}$0.68±.01; $M_{\phi\phi}$-0.63±.01; $M_{r\theta}$0.07±.01; $M_{\theta\phi}$0.74±.01; $M_{\phi r}$0.09±.01; Best double couple: $M_{o}$0.99500×$10^{18}$ NP1:$\phi_{s}$21.00000°, δ88.00000°, λ174.00000°. NP2:$\phi_{s}$111.00000°, δ84.00000°, λ2.00000°. Principal axes: T 1.0200, Plg5.0000°, Azm336.0000°; N -0.0510, Plg84.0000°, Azm186.0000°; P -0.9690, Plg3.0000°, Azm66.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

**ISC 23 19:12:34.7±0.2, 52°.19S±0°.05×27°.91E±0°.06, h10km, n613, σ2°.24/510, mb5.5/95, MS5.4/185, 8C-6D, South of Africa**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRZF** | **Crozet Islands** | **16.61** | **79** | *e*Pn | **Pn** | **19 16 22.9** | **-4.6** |
| | 1μm,2.0s | | | | | | |
| **SYO** | **Syowa Base** | **17.76** | **166** | ⇑Pn | **Pn** | **19 16 37.3** | **-4.3** |
| **BUFB** | **Buffelsbos** | **18.18** | **352** | *e*P | **Pn** | **19 16 43.2** | **-3.8** |
| BUFB | | | | IAmb | IAmb | 19 16 44.0 | |
| | comp=Z,201nm,0.9s | | | | | | |
| **KROM** | **Kromhout** | **18.19** | **351** | *e*P | **Pn** | **19 16 42.8** | **-4.4** |
| KROM | | | | IAmb | IAmb | 19 16 48.2 | |
| | comp=Z,4μm,1.1s | | | | | | |
| **ROSN** | **Rosenhof** | **18.24** | **351** | *e*P | **Pn** | **19 16 44.6** | **-3.2** |
| **ELIM** | **Elim** | **18.54** | **338** | *e*P | **P** | **19 16 51.3** | **+0.1** |
| ELIM | | | | IAmb | IAmb | 19 16 55.5 | |
| | comp=Z,477nm,1.3s | | | | | | |
| **SOE** | **Somerset East** | **19.54** | **354** | *e*P | **P** | **19 17 00.7** | **-1.6** |
| SOE | | | | IAmb | IAmb | 19 17 21.6 | |
| | comp=Z,244nm,0.8s | | | | | | |
| **CER** | **Ceres** | **19.83** | **338** | *e*P | **P** | **19 17 06.2** | **+0.8** |
| **NVL** | **N'lazarevskaya** | **20.02** | **196** | *e*P | **P** | **19 17 07.2** | **0.0** |
| NVL | | | | *e*S | **S** | **19 20 45.1** | **-6.8** |
| NVL | | | | MLR | MLR | | |
| | comp=Z,11μm,14.0s | | | | | | |
| **SUR** | **Sutherland** | **20.46** | **343** | *e*P | **P** | **19 17 12.2** | **-0.2** |
| | comp=Z,187nm,0.9s | | | | | | |
| SUR | | | | LR | LR | | |
| | comp=Z,12μm,20.0s | | | | | | |
| **SUR** | **Sutherland** | **20.46** | **343** | Pn | **P** | **19 17 13.1** | **+0.6** |
| | SNR=8.3 | | | | | | |
| **SUR** | **Sutherland** | **20.46** | **343** | P | **P** | **19 17 13.1** | **+0.6** |
| | SNR=8.3 | | | | | | |
| **CVNA** | **Calvinia** | **21.54** | **341** | *e*P | **P** | **19 17 22.7** | **-1.3** |
| CVNA | | | | IAmb | IAmb | 19 17 27.8 | |
| | comp=Z,4μm,2.2s | | | | | | |
| **HVD** | **Gariep Dam** | **21.64** | **354** | *e*P | **P** | **19 17 24.9** | **-0.2** |
| HVD | | | | IAmb | IAmb | 19 17 29.4 | |
| | comp=Z,507nm,1.1s | | | | | | |
| **MAW** | **Mawson** | **22.89** | **146** | P | **P** | **19 17 35.8** | **-2.2** |
| | comp=Z,64nm,0.9s,baz=300,slow=9.1,SNR=56 | | | | | | |
| MAW | | | | LR | LR | 19 24 42.4 | |
| | comp=Z,4μm,20.6s,baz=296,slow=32 | | | | | | |
| **MAW** | **Mawson** | **22.89** | **146** | *e*P | **P** | **19 17 36.6** | **-1.5** |
| | comp=Z,30nm,0.9s | | | | | | |
| **BOSA**

ABPO LR LR
comp=Z,3µm,20.0s
**LSZ Lusaka 36.83 0** P **P 19 19 41.5 -1.5**
comp=Z,44nm,0.8s,baz=181,slow=9.4,SNR=118
**LSZ Lusaka 36.83 0** *eP* **P 19 19 40.6 -2.3**
LSZ pmax pmax
comp=Z,58nm,0.8s
LSZ MLR MLR
comp=Z,6µm,19.0s
**LSZ Lusaka 36.83 0** *eP* **P 19 19 40.6 -2.3**
comp=Z,58nm,0.8s
LSZ LR LR
comp=Z,6µm,19.0s
**LSZ Lusaka 36.83 0** P **P 19 19 41.5 -1.5**
SNR=11
**LSZ Lusaka 36.83 0** P **P 19 19 41.5 -1.5**
SNR=11
**HOPE Hope Point 37.41 241** *eP* **P 19 19 48.6 +1.3**
comp=Z,298nm,1.4s
HOPE LR LR
comp=Z,4µm,21.0s
**RER Riviere de l'E 37.73 45** PFAKE 19 20 00.0 +9.4
RER LR LR
comp=Z,3µm,20.0s
**QSPA South Pole Qui 38.03 180** *eP* **P 19 19 50.7 -2.0**
comp=Z,212nm,1.0s
QSPA LR LR
comp=Z,5µm,19.0s
**PMSA Palmer Station 45.33 217** *eP* **P 19 20 52.1 -0.2**
comp=Z,39nm,0.8s
PMSA LR LR
comp=Z,4µm,21.0s
**VNDA Vanda 47.45 168** P **P 19 21 07.5 -1.3**
comp=Z,6.7nm,0.6s,baz=229,slow=7.6,SNR=37
VNDA LR LR 19 40 09.7
comp=Z,5µm,21.5s,baz=212,slow=35
**VNDA Vanda 47.45 168** *eP* **P 19 21 08.1 -0.7**
comp=Z,33nm,1.0s
**SBA Scott Base 47.78 169** *eP* **P 19 21 11.1 -0.2**
SBA pmax pmax
comp=Z,86nm,0.9s
SBA MLR MLR
comp=Z,4µm,22.0s
**SBA Scott Base 47.78 169** *eP* **P 19 21 11.1 -0.2**
comp=Z,86nm,0.9s
SBA LR LR
comp=Z,4µm,22.0s
**EFI East Falkland 49.94 234** *eP* **P 19 21 29.0 +0.8**
EFI pmax pmax
comp=Z,210nm,1.4s
EFI MLR MLR
comp=Z,3µm,21.0s
**EFI East Falkland 49.94 234** *eP* **P 19 21 29.0 +0.8**
comp=Z,210nm,1.4s
EFI LR LR
comp=Z,3µm,21.0s
**KMBO Kilima Mbogo 51.49 12** P **P 19 21 41.0 +0.4**
comp=Z,6.3nm,0.8s,baz=178,slow=4.6,SNR=18
KMBO LR LR 19 41 14.8
comp=Z,3µm,20.0s,baz=168,slow=34
**KMBO Kilima Mbogo 51.49 12** *eP* **P 19 21 38.4 -2.1**
KMBO pmax pmax
comp=Z,22nm,1.2s
**KMBO Kilima Mbogo 51.49 12** *eP* **P 19 21 38.4 -2.1**
comp=Z,22nm,1.2s
**KMBO Kilima Mbogo 51.49 12** P **P 19 21 42.5 +2.0**
SNR=7.6
**KMBO Kilima Mbogo 51.49 12** P **P 19 21 42.5 +2.0**
SNR=7.6
**MSEY Mahe Island 52.58 36** PFAKE 19 22 00.0 +12
MSEY LR LR
comp=Z,3µm,19.0s
**H10S2 ASCENSION HYDR 55.25 306** T T 20 22 28.7
baz=149,slow=75,SNR=66
**H10S3 ASCENSION HYDR 55.27 306** T T 20 22 13.6
baz=149,slow=75,SNR=53
**H10S1 ASCENSION HYDR 55.27 306** T T 20 22 06.1
baz=149,slow=75,SNR=65
**ASCN Ascension 55.99 307** PFAKE 19 22 20.0 +6.7
ASCN LR LR
comp=Z,3µm,20.0s
**DGAR Diego Garcia 57.58 56** PFAKE 19 22 40.0 +15
DGAR LR LR
comp=Z,3µm,21.0s
**CHRN Cochrane 59.97 231** *eP* **P 19 22 42.8 +2.0**
comp=Z,20nm,1.2s
**TRQA Tornquist 61.01 244** *eP* **P 19 22 46.9 -1.2**
comp=Z,74nm,1.0s
TRQA LR LR
comp=Z,2µm,20.0s
**H01W2 Cape Leeuwin H 61.17 111** T T 20 29 55.3
baz=223,slow=75,SNR=4.2
**H01W3 Cape Leeuwin H 61.19 111** T T 20 29 49.0
baz=223,slow=75,SNR=4.9
**H01W1 Cape Leeuwin H 61.19 111** T T 20 29 53.0
baz=223,slow=75,SNR=4.6
**FURI Furi 61.54 12** *eP* **P 19 22 51.7 -0.4**
comp=Z,58nm,1.2s
**PLCA Paso Flores 63.68 237** P **P 19 23 04.9 -1.1**
comp=Z,22nm,1.0s,baz=162,slow=6.2,SNR=18
PLCA LR LR 19 45 43.8
comp=Z,1µm,21.5s,baz=157,slow=31
**PLCA Paso Flores 63.68 237** *eP* **P 19 23 04.6 -1.4**
PLCA pmax pmax
comp=Z,71nm,1.3s
**PLCA Paso Flores 63.68 237** *eP* **P 19 23 04.5 -1.4**
comp=Z,71nm,1.3s
**NWAO Narrogin (SRO) 64.38 111** P **P 19 23 11.0 +0.3**
comp=Z,6.8nm,0.6s,baz=96,slow=4.0,SNR=5.2
**NWAO Narrogin (SRO) 64.38 111** *eP* **P 19 23 09.6 -1.0**
NWAO pmax pmax
comp=Z,43nm,1.3s
NWAO MLR MLR
comp=Z,2µm,20.0s
**NWAO Narrogin (SRO) 64.38 111** *eP* **P 19 23 09.6 -1.0**
comp=Z,43nm,1.3s
NWAO LR LR
comp=Z,2µm,20.0s
**LIC Lamto 64.61 323** *eP* **P 19 23 10.9 -1.3**
comp=Z,96nm,1.3s
**KIC Kosan Boka 64.63 324** *eP* **P 19 23 11.0 -1.4**
comp=Z,53nm,1.1s
**DBIC Dimbokro 64.96 324** P **P 19 23 12.8 -1.7**
comp=Z,10nm,0.8s,baz=127,slow=8.9,SNR=12
DBIC LR LR 19 45 03.4
comp=Z,1µm,21.9s,baz=146,slow=30
**DBIC Dimbokro 64.96 324** *eP* **P 19 23 12.8 -1.7**
DBIC pmax pmax
comp=Z,38nm,1.0s
**DBIC Dimbokro 64.96 324** *eP* **P 19 23 12.8 -1.7**
comp=Z,38nm,1.0s
**TIC Toumodi 65.00 323** *eP* **P 19 23 12.7 -2.0**
**CPUP Villa Florida 66.83 257** P **P 19 23 25.5 -1.0**
comp=Z,53nm,0.9s,baz=129,slow=5.7,SNR=71
CPUP LR LR 19 47 16.0
comp=Z,2µm,20.8s,baz=132,slow=31
**CPUP Villa Florida 66.83 257** *eP* **P 19 23 25.4 -1.1**
CPUP pmax pmax
comp=Z,68nm,0.8s
**CPUP Villa Florida 66.83 257** *eP* **P 19 23 25.4 -1.1**
comp=Z,68nm,0.8s
**CPUP Villa Florida 66.83 257** *i* P **P 19 23 25.7 -0.8**
**DAMY Dhamar 68.01 17** *eP* **P 19 23 33.6 -0.6**
comp=Z,39nm,1.0s
**GO05 HualaaeØ 68.67 240** *eP* **P 19 23 37.5 -0.6**
comp=Z,51nm,0.9s
**ASAL Salagasta 68.81 244** *i* P **P 19 23 38.2 -0.8**
**TOA0 Torodi Ar. Sit 68.91 333** *eP* **P 19 23 37.5 -2.0**
**TORD Torodi Ar. Bea 68.91 333** P **P 19 23 38.2 -1.3**
comp=Z,4.4nm,1.0s,baz=167,slow=5.0,SNR=18
TORD LR LR 19 48 05.4
comp=Z,766nm,20.1s,baz=140,slow=31
**TOA1 Torodi Ar. Sit 68.91 333** *eP* **P 19 23 38.2 -1.3**
**BDFB Brasilia 69.18 271** *eP* **P 19 23 43.0 +1.4**
BDFB pmax pmax
comp=Z,6µm,1.0s
**BDFB Brasilia 69.18 271** *eP* **P 19 23 43.0 +1.4**
comp=Z,6µm,1.0s
**AUSP Uspallata 69.39 244** *i* P **P 19 23 42.1 -0.9**
**PEL Peldehue 69.41 242** *eP* **P 19 23 42.2 -0.5**
PEL pmax pmax
comp=Z,82nm,1.2s
**PEL Peldehue 69.41 242** *eP* **P 19 23 42.2 -0.5**
comp=Z,82nm,1.2s
**RCBR Riachuelo 69.53 288** *eP* **P 19 23 43.9 +0.3**
comp=Z,46nm,0.9s
RCBR LR LR
comp=Z,2µm,19.0s
**ACLC CERRO LA CRUZ 70.14 248** *i* P **P 19 23 46.1 -1.3**
**TAU Tasmania Unive 71.79 138** *eP* **P 19 23 57.4 +0.4**
TAU pmax pmax
comp=Z,94nm,1.8s
TAU MLR MLR
comp=Z,2µm,19.0s
**TAU Tasmania Unive 71.79 138** *eP* **P 19 23 57.4 +0.4**
comp=Z,94nm,1.8s
TAU LR LR
comp=Z,2µm,19.0s
**KOWA Kowa 71.94 327** *eP* **P 19 23 57.4 -0.7**
comp=Z,30nm,0.9s
**FORT Forrest 72.07 117** *eP* **P 19 23 56.4 -2.4**
comp=Z,242nm,0.8s
**FSA Cafayete 72.09 251** *eP* **P 19 23 57.3 -2.1**
**LCO Las Campanas 72.57 245** *eP* **P 19 24 00.1 -2.1**
comp=Z,146nm,1.5s
LCO LR LR
comp=Z,2µm,20.0s
**ALOL LOMAS DE OLMED 72.67 254** *i* P **P 19 24 02.3 -0.3**
**ASTB Santa Barbara 72.85 253** *i* P **P 19 24 03.8 -0.1**
**AZAP Zapla 73.00 252** *eP* **P 19 24 05.2 +0.4**
**MBWA Marble Bar 74.66 105** PFAKE 19 24 30.0 +16
MBWA LR LR
comp=Z,2µm,22.0s
**BBOO Buckleboo 74.72 124** *eP* **P 19 24 14.2 -0.3**
comp=Z,33nm,1.0s
**YJA Yavi 74.83 253** *eP* **P 19 24 15.1 -0.7**
**WHZ Wether Hill Ro 76.44 153** *eP* **P 19 24 24.2 0.0**
comp=Z,36nm,1.0s
**DCZ Deep Cove 76.60 152** *eP* **P 19 24 24.5 -0.5**
comp=Z,20nm,1.2s
**PB10 IPOC Station P 76.73 249** *eP* **P 19 24 25.8 -0.4**
**RAYN Ar Rayn 76.95 17** *eP* **P 19 24 26.0 -1.1**
comp=Z,38nm,1.6s
RAYN LR LR
comp=Z,2µm,20.0s
**MLZ Mavora Lakes 76.97 152** *eP* **P 19 24 26.9 -0.3**
comp=Z,41nm,1.2s
**TAM Tamanrasset 77.19 339** *eP* **P 19 24 28.0 -0.6**
TAM pmax pmax
comp=Z,20nm,1.3s
TAM MLR MLR
comp=Z,2µm,20.0s
**TAM Tamanrasset 77.19 339** *eP* **P 19 24 28.0 -0.6**
comp=Z,20nm,1.3s
TAM LR LR
comp=Z,2µm,20.0s
**KASI Kota Agung 77.44 83** P **P 19 24 31.5 +1.4**
**WKZ Wanaka 77.72 153** *eP* **P 19 24 31.8 +0.4**
comp=Z,108nm,1.3s
**ODZ Otahua Downs 77.97 154** *eP* **P 19 24 33.6 +0.9**
comp=Z,13nm,1.1s
**PB01 IPOC Station P 78.03 251** *eP* **P 19 24 33.0 -0.6**
comp=Z,161nm,1.9s
**STKA Stephens Creek 78.24 127** P **P 19 24 36.0 +1.6**
comp=Z,7.9nm,0.8s,baz=230,slow=4.2,SNR=13
STKA LR LR 19 52 40.8
comp=Z,1µm,19.3s,baz=206,slow=31
**STKA Stephens Creek 78.24 127** *eP* **P 19 24 34.6 +0.2**
STKA pmax pmax
comp=Z,5.0nm,0.8s
**STKA Stephens Creek 78.24 127** *eP* **P 19 24 34.6 +0.2**
comp=Z,4.7nm,0.8s
**LBZ Lake Benmore 78.45 153** *eP* **P 19 24 36.4 +0.9**
comp=Z,59nm,1.6s
**CAN Canberra 78.84 134** *eP* **P 19 24 39.6 +1.8**
CAN pmax pmax
comp=Z,34nm,1.3s
CAN MLR MLR
comp=Z,1µm,20.0s
**CAN Canberra 78.84 134** *eP* **P 19 24 39.6 +1.8**
comp=Z,34nm,1.3s
CAN LR LR
comp=Z,1µm,20.0s
**PB11 IPOC Station P 79.13 252** *eP* **P 19 24 38.2 -1.5**
comp=Z,76nm,0.9s
**FOZ Fox Glacier 79.14 153** *eP* **P 19 24 38.6 -0.5**
comp=Z,19nm,0.9s
**RPZ Rata Peaks 79.31 154** *eP* **P 19 24 39.8 -0.4**
comp=Z,14nm,0.9s
**MNMC Minye Minye 79.59 252** *eP* **P 19 24 41.5 -0.8**
comp=Z,52nm,0.7s
**MQZ McQueen's Vall 79.74 155** *eP* **P 19 24 42.9 +0.5**
comp=Z,30nm,0.8s
**WSAR Wadi Sarin 79.77 29** P **P 19 24 41.3 -1.4**
comp=Z,12nm,0.9s,baz=291,slow=2.7,SNR=20
**WVZ Waitaha Valley 79.81 153** P* **P 19 24 45.9 +3.1**
**CRLZ Canterbury Las 79.86 155** *eP* **P 19 24 41.8 -1.3**
comp=Z,110nm,1.1s
**BIDO Bidbid 79.89 28** PcP **P 19 24 48.0 +4.7**
SNR=8.2
**BIDO Bidbid 79.89 28** P **P 19 24 48.0 +4.7**
SNR=8.2
**OXZ Oxford 79.94 154** *eP* **P 19 24 42.4 -1.1**
comp=Z,45nm,0.4s
**OXZ Oxford 79.94 154** P* **P 19 24 46.0 +2.5**
**SACV Santiago Islan 80.33 310** PFAKE 19 25 00.0 +14
SACV LR LR
comp=Z,519nm,20.0s
**ASHO Ashiyiah 80.42 26** *i* P **P 19 24 44.3 -1.9**
SNR=18
**ASHO Ashiyiah 80.42 26** P **P 19 24 47.7 +1.5**
SNR=15
**ASHO Ashiyiah 80.42 26** P **P 19 24 47.7 +1.5**
SNR=15
**LTZ Lake Taylor 80.50 154** *eP* **P 19 24 45.9 -0.7**
comp=Z,64nm,1.0s
**LTZ Lake Taylor 80.50 154** P* **P 19 24 45.5 -1.1**
**HATD Hatta, Dubai 80.57 26** *i* P **P 19 24 45.4 -1.6**
SNR=9.3
**KCSI Kotacane, Aceh 80.59 72** P P 19 24 59.8 +12
**NAZ Nazwa, Dubai 80.60 25** *i* P **P 19 24 45.4 -1.7**
SNR=6.1
**PSI Prapat 80.69 73** P **P 19 24 48.8 +0.7**
comp=Z,2.6nm,0.3s,baz=149,slow=11,SNR=3.7
**PSI Prapat 80.69 73** *eP* **P 19 24 44.7 -3.4**
PSI pmax pmax
comp=Z,46nm,1.0s
**PSI Prapat 80.69 73** *eP* **P 19 24 44.7 -3.4**
comp=Z,46nm,1.0s
**UOSS Minazif 80.70 26** *eP* **P 19 24 45.3 -2.3**
comp=Z,29nm,0.8s
**ASAR Alice Springs 80.85 117** P **P 19 24 47.0 -1.8**
comp=Z,7.1nm,0.6s,baz=216,slow=4.7,SNR=37
ASAR LR LR 19 53 37.9
comp=Z,2µm,19.7s,baz=210,slow=30
**ASAR Alice Springs 80.85 117** P **P 19 24 47.0 -1.8**
**AS31 Alice Springs 80.85 117** *eP* **P 19 24 46.4 -2.4**
comp=Z,8.6nm,0.7s
**AS01 Alice Springs 80.88 117** *eP* **P 19 24 46.3 -2.7**
**LPAZ La Paz 80.94 255** P **P 19 24 50.1 0.0**
comp=Z,1.7nm,0.5s,baz=110,slow=4.2,SNR=7.6
LPAZ LR LR 19 56 04.0
comp=Z,1µm,22.0s,baz=118,slow=32
**LPAZ La Paz 80.94 255** *eP* **P 19 24 49.8 -0.2**
LPAZ pmax pmax
comp=Z,89nm,1.6s
**LPAZ La Paz 80.94 255** *eP* **P 19 24 49.8 -0.2**
comp=Z,89nm,1.6s
**KHZ Kahutara 81.18 155** *eP* **P 19 24 50.1 -0.1**
comp=Z,24nm,1.0s
**THZ Tophouse 81.62 154** *eP* **P 19 24 52.0 -0.6**
comp=Z,43nm,0.9s
**THZ Tophouse 81.62 154** P* **P 19 24 53.7 +1.0**
**EIL Eilat 81.74 6** P **P 19 24 52.6 -0.4**
comp=Z,4.3nm,0.7s,baz=310,slow=12,SNR=5.6
**SNZO South Karori 82.52 155** PFAKE 19 25 10.0 +13
SNZO LR LR
comp=Z,2µm,19.0s
**PLAI Plampang 83.02 95** P P 19 25 10.9 +11
**BFZ Birch Farm 83.50 156** *eP* **P 19 25 02.0 -0.3**
comp=Z,30nm,1.0s
**SAML Samuel 83.67 264** *eP* **P 19 25 03.1 -0.6**
comp=Z,141nm,1.4s
SAML LR LR
comp=Z,1µm,21.0s
**KULM Kulim 83.70 73** *eP* **P 19 25 05.5 +1.8**
comp=Z,27nm,1.0s
KULM LR LR
comp=Z,818nm,21.0s
**WR1 Warramunga Arr 84.07 115** *eP* **P 19 25 04.7 -1.0**
comp=Z,70nm,1.1s
WR1 *e*PKKPbc **PKKPbc 19 43 22.8 +5.8**
**WRA Warramunga Arr 84.07 115** P **P 19 25 04.7 -1.0**
comp=Z,9.3nm,1.0s,baz=218,slow=4.9,SNR=25
WRA PKKPbc **PKKPbc 19 43 22.8 +5.8**
comp=Z,0.6nm,0.9s,baz=22,slow=2.2,SNR=5.4
WRA LR LR 19 55 15.9
comp=Z,2µm,21.9s,baz=215,slow=30
**WC3 Warramunga Arr 84.07 115** *eP* **P 19 25 06.2 +0.6**
comp=Z,64nm,1.1s
**WB2 Warramunga Arr 84.07 115** *eP* **P 19 25 05.2 -0.4**
comp=Z,67nm,1.1s
**WRAB Tennant Creek 84.08 115** *eP* **P 19 25 05.7 0.0**
WRAB pmax pmax
comp=Z,14nm,1.0s
**WRAB Tennant Creek 84.08 115** *eP* **P 19 25 06.2 +0.6**
comp=Z,52nm,1.1s
WRAB LR LR
comp=Z,2µm,22.0s
**ARMA Armidale 84.16 134** *eP* **P 19 25 05.4 -0.7**
comp=Z,98nm,1.9s
**WNVZ Wahianoa 84.61 155** *eP** **P 19 25 06.6 -1.7**
**OTVZ Oturere 84.78 155** P* **P 19 25 06.6 -2.5**
**BKZ Black Stump Fm 84.99 156** *eP* **P 19 25 07.5 -2.6**
comp=Z,46nm,1.2s
**URZ Urewera 86.00 156** LR LR 20 00 36.4
comp=Z,2µm,21.3s,baz=204,slow=34
**KSM Kuching 86.49 83** PFAKE 19 25 30.0 +12
KSM LR LR
comp=Z,726nm,19.0s
**CSS Mathiatis 86.92 4** PFAKE 19 25 30.0 +11
CSS LR LR
comp=Z,398nm,19.0s
**KAPI Kappang 87.21 95** PFAKE 19 25 30.0 +8.7
KAPI LR LR
comp=Z,590nm,21.0s
**PTGA Pitinga 88.12 271** *eP* **P 19 25 23.4 -2.2**
comp=Z,34nm,1.4s
PTGA LR LR
comp=Z,46µm,22.0s
**SANT Santorini 88.22 358** PFAKE 19 25 40.0 +15
SANT LR LR
comp=Z,1µm,20.0s
**WDD Wied Dalam 88.44 349** PFAKE 19 25 40.0 +14
WDD LR LR
comp=Z,3µm,21.0s
**KEST Kesra 89.05 345** P **P 19 25 29.5 +0.1**
comp=Z,7.2nm,0.9s,baz=202,slow=3.4,SNR=2.1
KEST LR LR 20 08 21.2
comp=Z,2µm,18.4s,baz=120,slow=38
**KEST Kesra 89.05 345** *eP* **P 19 25 26.8 -2.7**
comp=Z,98nm,1.8s
**NNA Nana 89.47 251** PFAKE 19 25 40.0 +7.9
NNA LR LR
comp=Z,616nm,20.0s
**MARD Mardin 89.84 10** *eP* **P 19 25 32.5 -0.7**
comp=Z,45nm,1.7s
**CLTB Caltabellotta 90.31 348** PFAKE 19 25 50.0 +15
CLTB LR LR
comp=Z,2µm,21.0s
**CTAO Charters Tower 90.32 124** *eP* **P 19 25 36.4 +0.4**
CTAO pmax pmax
comp=Z,11nm,0.8s
CTAO MLR MLR
comp=Z,3µm,19.0s
**CTAO Charters Tower 90.32 124** *eP* **P 19 25 36.4 +0.4**
comp=Z,11nm,0.8s
CTAO LR LR
comp=Z,3µm,19.0s
**RTC Rabat Centre 91.05 332** PFAKE 19 25 50.0 +11
RTC LR LR
comp=Z,5µm,20.0s
**TIP Timpagrande 91.51 351** PFAKE 19 25 50.0 +9.2
TIP LR LR
comp=Z,2µm,19.0s
**BR101 Keskin Array S 91.68 4** *eP* **P 19 25 40.5 -1.2**
**BRTR Keskin Array B 91.68 4** P **P 19 25 40.5 -1.2**
comp=Z,2.8nm,1.0s,baz=199,slow=2.6,SNR=4.3
**BRTR Keskin Array B 91.68 4** *ce*P **P 19 25 41.0 -0.7**
BRTR pmax pmax
comp=Z,3.0nm,1.0s
**BR231 Keskin MP Arra 91.75 4** *eP* **P 19 25 39.3 -2.7**
**ANTO Ankara 91.78 4** PFAKE 19 25 50.0 +7.9
ANTO LR LR
comp=Z,873nm,19.0s
**CUC Castrocucco 92.41 351** PFAKE 19 26 00.0 +15
CUC LR LR
comp=Z,1µm,21.0s
**RPN Rapa Nui 92.60 217** PFAKE 19 26 00.0 +14
RPN LR LR
comp=Z,473nm,20.0s
**VSL Villasalto 92.73 346** PFAKE 19 26 00.0 +14
VSL LR LR
comp=Z,2µm,21.0s
**GNI Garni 93.12 13** *eP* **P 19 25 48.9 +0.5**
GNI pmax pmax
comp=Z,32nm,1.3s
**GNI Garni 93.12 13** PFAKE 19 26 00.0 +12
GNI LR LR
comp=Z,1µm,21.0s
**CM01 Chiang Mai Arr 93.31 64** *eP* **P 19 25 48.5 -1.1**
**KOLN Koldanda 93.31 47** *eP* **P 19 25 53.9 +4.2**
comp=Z,83nm,1.3s
**PYUN Piuthan 93.32 47** *eP* **P 19 25 54.4 +4.7**
comp=Z,124nm,1.3s
**CM31 Chiang Mai Arr 93.33 64** *eP* **P 19 25 50.0 +0.3**
**CMAR Chiang Mai Arr 93.33 64** P **P 19 25 50.3 +0.6**
comp=Z,1.0nm,0.9s,baz=217,slow=5.2,SNR=6.8
CMAR LR LR 20 03 15.7
comp=Z,415nm,18.2s,baz=230,slow=33
**SANI Sanana 93.35 98** P P 19 26 04.9 +15
**TIR Tirane 93.42 354** PFAKE 19 26 00.0 +10
TIR LR LR
comp=Z,2µm,19.0s
**GEYT Alibeck 93.54 23** P **P 19 25 49.1 -1.1**
comp=Z,2.2nm,1.0s,baz=227,slow=10.0,SNR=4.9
**CHTO Chiang Mai 93.62 64** *eP* **P 19 25 49.5 -1.5**
CHTO pmax pmax
comp=Z,11nm,1.1s
CHTO MLR MLR
comp=Z,575nm,20.0s
**CHTO Chiang Mai 93.62 64** *eP* **P 19 25 49.5 -1.5**
comp=Z,11nm,1.1s
CHTO LR LR
comp=Z,575nm,20.0s
**KKM Kota Kinabalu 93.69 85** PFAKE 19 26 00.0 +8.4
KKM LR LR
comp=Z,877nm,21.0s
**DMN Daman 93.86 48** *eP* **P 19 25 53.9 +1.6**
comp=Z,33nm,0.9s
**PKI Pulchoki 93.97 49** *eP* **P 19 25 53.8 +1.0**
comp=Z,42nm,1.3s
**PKIN Phulchoki 93.97 49** *eP* **P 19 25 53.8 +1.0**
comp=Z,12nm,0.7s
**RAMN Ramite 94.00 50** *eP* **P 19 25 52.9 0.0**
comp=Z,64nm,1.1s
**THN Thein Dam 94.07 39** *eP* **P 19 25 50.8 -1.9**
**KKN Kakani 94.10 48** *eP* **P 19 25 53.8 +0.5**
comp=Z,13nm,0.8s
**ODAN Odare 94.30 51** *eP* **P 19 25 52.8 -1.4**
comp=Z,62nm,1.0s
**GUN Gumba 94.48 49** *eP* **P 19 25 53.7 -1.5**
comp=Z,91nm,1.2s
**VTS Vitosha 94.49 357** Ĥ *iP* P 19 26 09.8 +15
**TAPN Taplejung 94.86 50** *eP* **P 19 25 52.7 -4.2**
**AQU L'Aquila 95.00 349** PFAKE 19 26 10.0 +13
AQU LR LR
comp=Z,2µm,19.0s
**SHL Shillong 95.41 55** *eP* P 19 26 10.0 +11
**PAB San Pablo 95.58 336** PFAKE 19 26 10.0 +10
PAB LR LR
comp=Z,991nm,19.0s
**ESDC Sonseca Array 95.60 336** P **P 19 26 01.0 +1.3**
comp=Z,1.6nm,0.9s,baz=160,slow=4.4,SNR=3.4
ESDC LR LR 20 11 30.7
comp=Z,548nm,18.2s,baz=145,slow=37
**ES19 SONSECA Array 95.61 336** *eP* **P 19 25 59.0 -0.7**
**RAO Raoul Island 95.80 158** LR LR 20 06 02.4
comp=Z,1µm,22.0s,baz=166,slow=34
**MAK Makhachkala 96.28 14** *eP* **P 19 25 58.8 -3.7**
MAK *e* 19 29 52.9
MAK pmax pmax
comp=Z,46nm,0.9s
**KBZ Khabaz 96.42 11** LR LR 20 11 08.8
comp=Z,473nm,19.2s,baz=200,slow=36
**KIV Kislovodsk 96.61 11** ‖ *eP* **P 19 26 02.4 -1.8**
KIV *e* 19 29 56.5
KIV *i* SS SS 19 44 12.3 +12
KIV pmax pmax
comp=Z,3.0nm,0.9s

KIV MLR MLR
comp=Z,416nm,15.0s
**KIV Kislovodsk 96.61 11** PFAKE 19 26 10.0 +5.8
KIV LR LR
comp=Z,709nm,19.0s
**VLC Villacollemand 97.16 347** PFAKE 19 26 20.0 +13
VLC LR LR
comp=Z,1μm,20.0s
**ARR Arges 97.22 358** ⇑ *i*P Pdif 19 26 22.7 +16
**MTE Manteigas 97.23 333** PFAKE 19 26 20.0 +13
MTE LR LR
comp=Z,1μm,19.0s
**VOIR 97.28 358** ⇑ *i*P Pdif 19 26 12.0 +4.8
**MLR Muntele Rosu 97.32 359** LR LR 20 11 05.8
comp=Z,494nm,21.7s,baz=178,slow=36
**MLR Muntele Rosu 97.32 359** ⇓ *i*P Pdif 19 26 21.8 +14
**LOT Lotru 97.33 357** ⇑ *i*P Pdif 19 26 09.1 +1.6
**PLOR Plostina 97.67 359** ⇓ *i*P Pdif 19 26 25.2 +16
**DZM Mont Dzumac 97.67 142** LR LR 20 01 39.7
comp=Z,519nm,21.9s,baz=207,slow=30
**DZM Mont Dzumac 97.67 142** *e*PP PP 19 29 57.6 -9.0
comp=Z,150nm,24.2s
**DZM Mont Dzumac 97.67 142** *e*PS PS 19 39 00.2 +2.1
comp=Z,672nm,27.4s
DZM *e*SS SS 19 44 11.5 -2.2
comp=Z,2μm,33.1s
**DZM Mont Dzumac 97.67 142** *e*LR LR 19 57 44.0
comp=Z,2μm,24.4s
**DZM Mont Dzumac 97.67 142** *e*P **P 19 26 07.8 -1.9**
comp=Z,70nm,1.6s
**VRI Vrincioaia 97.68 359** ⇑ *i*P Pdif 19 26 12.6 +3.7
**DOPR Dopca 97.80 358** ⇓ *i*P Pdif 19 26 22.9 +13
**LSA Lhasa 98.47 52** *e*P **P 19 26 12.5 -0.9**
LSA pmax pmax
comp=Z,15nm,1.5s
LSA MLR MLR
comp=Z,857nm,20.0s
**LSA Lhasa 98.47 52** *e*P **P 19 26 12.5 -0.9**
comp=Z,15nm,1.5s
LSA LR LR
comp=Z,857nm,20.0s
**BNI Bardonecchia 98.58 345** PFAKE 19 26 20.0 +6.9
BNI LR LR
comp=Z,4μm,22.0s
**BBGH Gun Hill 98.72 280** PFAKE 19 26 20.0 +5.7
BBGH LR LR
comp=Z,2μm,19.0s
**SSB Saint Sauveur 99.16 344** PFAKE 19 26 30.0 +14
SSB LR LR
comp=Z,2μm,19.0s
**GRGR Grenville 99.20 278** PFAKE 19 26 30.0 +14
GRGR LR LR
comp=Z,770nm,21.0s
**TUE Stuetta 99.57 347** PFAKE 19 26 30.0 +12
TUE LR LR
comp=Z,2μm,20.0s
**PMG Port Moresby 99.72 119** *i* P **Pdif 19 26 19.2 +0.3**
PMG pmax pmax
comp=Z,27nm,1.1s
**PMG Port Moresby 99.72 119** PFAKE 19 26 30.0 +11
PMG LR LR
comp=Z,1μm,22.0s
**DAVOX Davos/Dischmat 99.80 348** LR LR 20 12 55.8
comp=Z,775nm,18.9s,baz=176,slow=36
**PSZ Piszkesteto 99.97 355** PFAKE 19 26 30.0 +11
PSZ LR LR
comp=Z,2μm,19.0s
**QIZ Qiongzhong 100.00 72** P **Pdif 19 26 21.3 +1.4**
QIZ PP **PP 19 30 26.8 +1.4**
QIZ SKS **SKSac 19 36 56.3 -2.3**
QIZ S **Sdif 19 37 57.1 +2.6**
QIZ SS **SS 19 44 49.0 +0.9**
QIZ LR LR
comp=Z,520nm,18.4s
QIZ LR LR
comp=Z,930nm,31.7s
**QIZ Qiongzhong 100.00 72** PFAKE 19 26 30.0 +10
QIZ LR LR
comp=Z,564nm,22.0s
**OTAV Otavalo 100.17 257** PFAKE 19 26 30.0 +8.5
OTAV LR LR
comp=Z,1μm,22.0s
**DAV Davao City (W) 100.25 92** PFAKE 19 26 30.0 +8.8
DAV LR LR
comp=Z,379nm,21.0s
**KSH Kashi 100.44 36** P **Pdif 19 26 20.8 -0.7**
KSH pP pPdif 19 26 24.0 -0.9
KSH PP **PP 19 30 28.8 +0.1**
KSH SKS **SKSac 19 36 57.3 -2.8**
KSH S **Sdif 19 37 51.0 -6.5**
KSH SS **SS 19 44 48.8 -5.4**
KSH pmax pmax
comp=Z,3.0nm,0.9s
KSH LR LR
comp=Z,290nm,7.8s
KSH LR LR
comp=Z,370nm,10.3s
KSH LR LR
comp=Z,440nm,8.0s
**VYHS Vyhne 100.61 354** *e*P **Pdif 19 26 29.7 +7.8**
**VYHS Vyhne 100.61 354** *e*PDIFF **Pdif 19 26 29.7 +7.8**
VYHS *e*PP **PKiKP 19 30 41.8 -6.2**
**KMI Kunming 100.76 63** P **Pdif 19 26 24.4 +1.0**
KMI pmax pmax
comp=Z,5.0nm,0.7s
**FDF Fort de France 100.92 280** PFAKE 19 26 30.0 +5.9
FDF LR LR
comp=Z,767nm,19.0s
**CMLA Cha da Macela 100.95 320** PFAKE 19 26 30.0 +6.3
CMLA LR LR
comp=Z,884nm,22.0s
**BFO Black Forest 101.53 347** PFAKE 19 26 40.0 +14
BFO LR LR
comp=Z,2μm,21.0s
**ECH Echery 101.59 346** PFAKE 19 26 40.0 +14
ECH LR LR
comp=Z,2μm,20.0s
**KHC Kasperske Hory 101.68 350** *e*PP PP 19 30 35.0 -2.8
KHC *e*SS SS 19 45 08.5 -2.4
KHC AMS AMS 20 15 20.0
comp=Z,1μm,21.5s
**SDV Santo Domingo 102.20 269** PFAKE 19 26 40.0 +10
SDV LR LR
comp=Z,1μm,19.0s
**KIEV Kiev 102.52 1** PFAKE 19 26 40.0 +10
KIEV LR LR
comp=Z,2μm,20.0s
**AAK Ala-Archa 102.69 33** PFAKE 19 26 40.0 +8.5
AAK LR LR
comp=Z,655nm,19.0s
**NKC Novy Kostel 102.89 350** *e*SS SS 19 45 33.3 +5.7
**FRU Bishkek 102.91 33** *e*P **Pdif 19 26 28.0 -4.3**
**WLF Walferdange 103.15 346** PFAKE 19 26 40.0 +6.9
WLF LR LR
comp=Z,2μm,21.0s
**RKT Rikitea 103.53 196** *e*SS SS 19 45 36.4 +1.9
comp=Z,1μm,29.0s
**RKT Rikitea 103.53 196** *e*LQ LQ 19 55 53.4
comp=Z,1μm,32.5s
RKT *e*LR LR 20 00 37.0
comp=Z,2μm,24.2s
**ANWB Willy Bob 103.57 281** PFAKE 19 26 50.0 +14
ANWB LR LR
comp=Z,733nm,21.0s
**CLL Collm 103.89 350** *e*PS PS 19 40 08.0 +3.6
CLL *e*SS SS 19 45 45.0 +3.7
CLL L L 20 12 00.0
comp=Z,600nm,22.0s
**TBI Tubuai 104.75 183** *e*PP PP 19 30 58.5 -1.1
comp=Z,133nm,30.5s
TBI *e*SP SP 19 40 12.4 +0.3
comp=Z,598nm,28.2s
TBI *e*SS **SS 19 45 52.0 +0.8**
comp=Z,493nm,36.2s
**TBI Tubuai 104.75 183** *e*LR LR 20 01 05.4
comp=Z,3μm,30.2s
**MSVF Nonsavu 105.68 150** PFAKE 19 31 10.0
MSVF LR LR
comp=Z,1μm,21.0s
**HNR Honiara 106.17 130** PFAKE 19 31 10.0
HNR LR LR
comp=Z,613nm,20.0s
**PAYG Puerto Ayora 106.36 247** PFAKE 19 31 10.0
PAYG LR LR
comp=Z,1μm,20.0s
**SJG San Juan 106.56 278** PFAKE 19 31 10.0
SJG LR LR
comp=Z,1μm,22.0s
**OBN Obninsk 107.18 5** PFAKE 19 31 10.0
OBN LR LR
comp=Z,668nm,22.0s
**BCIP Isla Barro Col 108.06 262** PFAKE 19 31 10.0
BCIP LR LR
comp=Z,1μm,20.0s
**ENH Enshi 108.50 64** PFAKE 19 31 10.0
ENH LR LR
comp=Z,796nm,21.0s
**WMQ Urumqi 108.63 41** Pdif **Pdif 19 26 57.4 -0.4**
WMQ PP **PP 19 31 31.5 +2.0**
WMQ SS SS 19 46 44.1 -2.2
WMQ LR LR
comp=Z,2μm,26.3s
WMQ LR LR
comp=Z,790nm,25.1s
WMQ LR LR
comp=Z,2μm,26.3s
**MK32 Makanchi Array 109.04 36** *e*PKiKP **PKiKP 19 31 09.6 +6.0**
**MKAR Makanchi Array 109.04 36** PKiKP **PKiKP 19 31 09.6 +6.0**
comp=Z,0.5nm,0.8s,baz=229,slow=5.5,SNR=2.4
**LZH Lanzhou 109.94 57** *e*PKP **PKiKP 19 31 06.3 +0.5**
LZH pPKP pPKP 19 31 09.5
LZH sPKP 19 31 10.8
LZH PP **PP 19 31 44.3 +5.1**
LZH PKS PKSdf 19 34 41.0 -1.5
LZH SKKS 19 38 37.4
**LZH Lanzhou 109.94 57** SS SS 19 47 06.8 +2.5
LZH AMB AMB
comp=Z,190nm,7.0s
LZH LR LR
comp=N,610nm,18.0s
LZH LR LR
comp=E,760nm,18.5s
LZH LR LR
comp=Z,1μm,20.3s
**ESK Eskdalemuir 110.20 342** PFAKE 19 31 20.0
ESK LR LR
comp=Z,1μm,21.0s
**SDDR Presa de Saban 110.36 275** PFAKE 19 31 20.0
SDDR LR LR
comp=Z,846nm,20.0s
**PPT2 Papeete2 110.48 183** *e*PP PP 19 31 36.2 -5.5
comp=Z,124nm,26.2s
PPT2 *e*SP SP 19 41 14.3 +3.5
comp=Z,617nm,24.8s
PPT2 *e*SS **SS 19 47 11.3 +2.2**
comp=Z,802nm,28.2s
**PPT2 Papeete2 110.48 183** *e*LQ LQ 19 58 18.3
comp=Z,3μm,30.5s
PPT2 *e*LR LR 20 03 58.0
comp=Z,4μm,33.0s
**GTA Gaotai 110.50 52** *e*PKP **PKiKP 19 31 09.0 +2.3**
GTA SKS **SKSdf 19 38 19.9 +1.3**
GTA SS **SS 19 47 12.4 +0.7**
GTA LR LR
comp=Z,850nm,23.5s
GTA LR LR
comp=Z,630nm,20.4s
GTA LR LR
comp=Z,1μm,23.5s
**BVAR Borovoye Array 110.72 26** PKiKP **PKiKP 19 31 10.0 +3.5**
comp=Z,0.5nm,0.7s,baz=191,slow=2.8,SNR=4.7
**BVAR Borovoye Array 110.72 26** PKIKP **PKiKP 19 31 10.0 +3.5**
**BRVK Borovoye 110.72 26** PFAKE 19 31 20.0
BRVK LR LR
comp=Z,812nm,19.0s
**KURBB Kurchatov Arra 111.02 32** PKiKP **PKiKP 19 31 07.8 +0.6**
comp=Z,0.2nm,0.3s,baz=212,slow=3.9,SNR=2.6
**KURK Kurchatov 111.13 32** *e*PKIKP **PKiKP 19 31 07.8 +0.5**
KURK MLR MLR
comp=Z,1μm,20.0s
**KURK Kurchatov 111.13 32** *e*PKiKP **PKiKP 19 31 07.8 +0.5**
KURK LR LR
comp=Z,1μm,20.0s
**YHNB Yeheng 111.16 77** PFAKE 19 31 20.0
YHNB LR LR
comp=Z,982nm,20.0s
**ARU Arti 111.17 18** PFAKE 19 31 20.0
ARU LR LR
comp=Z,855nm,20.0s
**JTS JuntasAbangare 112.04 258** PFAKE 19 31 20.0
JTS LR LR
comp=Z,1μm,22.0s
**GRTK Grand Turk 112.17 277** PFAKE 19 31 20.0
GRTK LR LR
comp=Z,1μm,19.0s
**FIA0 FINESS Array S 113.30 359** *e*PKIKP **PKiKP 19 31 17.1 +6.0**
**FIA0 FINESS Array S 113.30 359** *e*PKiKP **PKiKP 19 31 17.1 +6.0**
**FINES FINESS Array B 113.30 359** PKiKP **PKiKP 19 31 17.1 +6.0**
comp=Z,7.2nm,1.1s,baz=130,slow=5.6,SNR=2.5
**GTBY Guantanamo Bay 113.42 273** PFAKE 19 31 20.0
GTBY LR LR
comp=Z,731nm,21.0s
**MTDJ Mount Denham 113.63 269** PFAKE 19 31 20.0
MTDJ LR LR
comp=Z,1μm,21.0s
**FUNA Funafuti 114.70 148** PFAKE 19 31 30.0 +15
FUNA LR LR
comp=Z,3μm,19.0s
**NJ2 Nanjing 115.14 70** *e*PKP **PKPdf 19 31 16.8 +1.2**
**SSE Sheshan 115.80 72** PKP **PKPdf 19 31 20.1 +3.2**
SSE PP PP 19 32 28.8 +8.0
SSE SS SS 19 48 22.1 +0.4
SSE AMB AMB
comp=Z,160nm,6.2s
SSE LR LR
comp=Z,460nm,25.3s
SSE LR LR
comp=Z,410nm,25.2s
SSE LR LR
comp=Z,540nm,21.5s
**ZALV Zalesovo Beam 115.91 33** PKP **PKPdf 19 31 19.1 +2.8**
comp=Z,0.5nm,0.4s,baz=259,slow=1.9,SNR=3.6
**ZAA1 Zalesovo Array 115.92 33** *e*PKPdf **PKPdf 19 31 19.1 +2.8**
**NVS Novosibirsk 116.12 32** *e*PKIKP PKPpre 19 31 09.7
**BBSR BB Station 116.33 289** PFAKE 19 31 30.0 +12
BBSR LR LR
comp=Z,406nm,19.0s
**HHC Hu-ho-hao-te 117.51 58** *e*PKP **PKPdf 19 31 19.8 -0.3**
HHC PP **PP 19 32 37.3 +4.5**
HHC SS SS 19 48 42.8 -1.3
HHC AMB AMB
comp=Z,96nm,8.6s
HHC LR LR
comp=Z,300nm,10.7s
HHC LR LR
comp=Z,440nm,16.0s
HHC LR LR
comp=Z,440nm,15.8s
**TAOE Nuku Hiva Isla 118.34 193** *e*LR LR 20 07 38.0
comp=Z,1μm,27.1s
**BJT Baijiatuan 119.37 62** PFAKE 19 31 30.0 +6.5
BJT LR LR
comp=Z,643nm,21.0s
**APA Apatity 119.51 2** ⇓ *i*PKIKP PKPdf 19 31 36.3 +13
APA pmax pmax
comp=Z,11nm,1.3s
APA MLR MLR
comp=Z,2μm,23.0s
**LVZ Lovozero 119.88 3** PFAKE 19 31 30.0 +6.3
LVZ LR LR
comp=Z,757nm,19.0s
**SONA0 Songino Array 119.97 50** *e*PKPdf **PKPdf 19 31 22.8 -1.8**
SONA0 *e*PKKPbc PKKPbc 19 41 42.1 +9.3
**SONM Songino Array 119.97 50** PKP **PKPdf 19 31 22.8 -1.8**
comp=Z,0.6nm,0.8s,baz=167,slow=1.9,SNR=3.5
SONM PKKPbc PKKPbc 19 41 42.1 +9.3
comp=Z,0.5nm,0.6s,baz=88,slow=1.7,SNR=3.6
**ULN Ulaanbaatar 120.30 50** PFAKE 19 31 40.0 +15
ULN LR LR
comp=Z,641nm,20.0s
**ZAK Zakamensk 120.39 46** *e*PKIKP **PKPdf 19 31 30.2 +4.9**
ZAK pmax pmax
comp=Z,4.0nm,1.1s
**ARA0 ARCESS Array S 121.43 359** *e*PKPdf **PKPdf 19 31 25.3 -1.3**
**ARCES ARCESS Array B 121.43 359** PKP **PKPdf 19 31 25.3 -1.3**
comp=Z,1.9nm,0.8s,baz=195,slow=2.4,SNR=3.1
**TLY Talaya 121.48 45** *i* PKIKP **PKPdf 19 31 31.2 +4.0**
TLY *e*SS SS 19 49 51.9 +17
TLY pmax pmax
comp=Z,5.0nm,0.6s
**TLY Talaya 121.48 45** PFAKE 19 31 40.0 +13
TLY LR LR
comp=Z,526nm,22.0s
**INCN Inchon 123.49 71** PFAKE 19 31 40.0 +8.4
INCN LR LR
comp=Z,828nm,20.0s
**NHSC New Hope 126.07 279** PFAKE 19 31 50.0 +13
NHSC LR LR
comp=Z,1μm,21.0s
**CNNC Cliffs of the 126.15 283** PFAKE 19 31 50.0 +13
CNNC LR LR
comp=Z,829nm,22.0s
**CN2 Changchun 127.02 64** *e*PKP **PKPdf 19 31 40.6 +2.5**
CN2 *e*PP **PP 19 33 42.4 +5.2**
CN2 LR LR
comp=Z,400nm,18.0s
CN2 LR LR
comp=Z,400nm,18.0s
CN2 LR LR
comp=Z,300nm,21.0s
**HIA Hailar 127.47 56** PFAKE 19 31 50.0 +11
HIA LR LR
comp=Z,521nm,20.0s
**PKME Peaks-Kenny Pk 127.77 298** PFAKE 19 31 50.0 +11
PKME LR LR
comp=Z,1μm,19.0s
**CBN Corbin Frederi 127.82 286** PFAKE 19 31 50.0 +10
CBN LR LR
comp=Z,864nm,22.0s
**GOGA Godfrey 128.28 277** PFAKE 19 31 50.0 +9.2
GOGA LR LR
comp=Z,868nm,21.0s
**BRAL Brewton 128.94 272** PFAKE 19 31 50.0 +7.9
BRAL LR LR
comp=Z,1μm,21.0s
**BLA Blacksburg 128.98 283** PFAKE 19 31 50.0 +7.9
BLA LR LR
comp=Z,952nm,19.0s
**BINY Binghamton 129.59 291** PFAKE 19 31 50.0 +6.9
BINY LR LR
comp=Z,874nm,20.0s
**XMAS Kiritimati 129.83 173** PFAKE 19 32 00.0 +16
XMAS LR LR
comp=Z,2.0nm,19.0s
**MDJ Mudanjiang 129.84 66** PFAKE 19 31 50.0 +6.6
MDJ LR LR
comp=Z,684nm,20.0s
**BOD Bodaibo 130.04 44** *e*PKIKP **PKPdf 19 31 42.7 -0.6**
BOD pmax pmax
comp=Z,16nm,1.6s
**LONY Lake Ozonia 130.29 294** PFAKE 19 32 00.0 +16
LONY LR LR
comp=Z,1μm,20.0s
**KBS Kingsbay 131.21 356** PFAKE 19 32 00.0 +15
KBS LR LR
comp=Z,1μm,20.0s
**SCHQ Schefferville 132.24 309** PKP **PKPdf 19 31 51.7 +4.1**
comp=Z,5.3nm,0.7s,baz=50,slow=1.3,SNR=3.8
**SFJD Kangerlussuaq 132.57 328** PFAKE 19 32 00.0 +12
SFJD LR LR
comp=Z,1μm,19.0s
**KLR Kul'dur 133.76 62** PKP **PKPdf 19 31 56.1 +5.4**
comp=Z,0.4nm,0.9s,baz=314,slow=3.2,SNR=7.3
**KLR Kul'dur 133.76 62** *i* PKIKP **PKPdf 19 31 53.0 +2.3**
**NATX Nacogdoches 134.03 267** PFAKE 19 32 00.0 +8.2
NATX LR LR
comp=Z,856nm,20.0s
**AAM Ann Arbor 134.13 286** PFAKE 19 32 00.0 +8.4
AAM LR LR
comp=Z,952nm,19.0s
**N46A Monticello 135.12 282** P **PKPdf 19 31 55.0 +1.6**
baz=128
**MIAR Mount Ida 135.25 271** PFAKE 19 32 10.0 +16
MIAR LR LR
comp=Z,683nm,20.0s
**T42A Van Buren 135.35 275** P **PKPdf 19 31 53.8 -0.3**
baz=130
**V40A Witts Springs 135.62 273** P **PKPdf 19 31 55.3 +0.6**
baz=131
**U40A Yellville 136.00 273** P **PKPdf 19 31 55.0 -0.4**
baz=130
**S41A Jillco Farms, 136.10 275** P **PKPdf 19 31 56.5 +1.0**
baz=130
**X38A Whitesboro 136.11 270** P **PKPdf 19 31 57.5 +1.9**
baz=132
**Y37A Hugo 136.13 268** P **PKPdf 19 31 56.5 +0.9**
baz=132
**GLMI Grayling 136.18 288** PFAKE 19 32 10.0 +15
GLMI LR LR
comp=Z,778nm,19.0s
**JCT Junction City 136.29 261** PFAKE 19 32 10.0 +14
JCT LR LR
comp=Z,579nm,22.0s
**HDIL Hopedale 136.45 280** PFAKE 19 32 10.0 +14
HDIL LR LR
comp=Z,952nm,22.0s
**LTX Lajitas 137.80 257** *e*PKIKP **PKPdf 19 31 58.8 -0.2**
**LTX Lajitas 137.80 257** *e*PKPdf **PKPdf 19 31 58.8 -0.2**
**TX31 Lajitas Ar. Si 137.80 257** *e*PKPdf **PKPdf 19 31 58.4 -0.6**
TX31 *e*PKPdf **PKiKP 19 31 58.8 -2.2**
**TXAR Lajitas Array 137.80 257** PKP **PKPdf 19 31 58.8 -0.2**
comp=Z,0.8nm,0.7s,baz=193,slow=5.1,SNR=3.5
**WMOK Wichita Mounta 138.58 267** PFAKE 19 32 10.0 +10
WMOK LR LR
comp=Z,841nm,19.0s
**YAK Yakutsk 138.96 45** PFAKE 19 32 10.0 +10
YAK LR LR
comp=Z,530nm,21.0s
**L38A Oak Wood Farm, 139.61 280** P **PKPdf 19 32 04.2 +2.5**
baz=125
**SCIA State Center 139.63 279** PFAKE 19 32 10.0 +8.2
SCIA LR LR
comp=Z,1μm,21.0s
**P35A Duane Minner, 139.93 274** P **PKPdf 19 32 03.5 +1.0**
baz=128
**J38A Wedel Dairy, R 139.99 282** P **PKPdf 19 32 02.9 +0.5**
baz=124
**KSU1 Kansas State U 140.03 274** PFAKE 19 32 10.0 +7.4
KSU1 LR LR
comp=Z,792nm,19.0s
**L37A Phoenix Point, 140.09 279** P **PKPdf 19 32 05.1 +2.5**
baz=125
**P34A Walnut Farm, R 140.44 274** P **PKPdf 19 32 04.7 +1.3**
baz=127
**AMTX Amarillo 140.46 264** P **PKPdf 19 32 05.7 +2.0**
baz=132
**MSTX Muleshoe 140.51 262** P **PKPdf 19 32 06.5 +2.6**
baz=133
**MSTX Muleshoe 140.51 262** *e*PKPdf **PKPdf 19 32 02.5 -1.3**
**MNTX Cornudas Mount 140.52 257** PFAKE 19 32 10.0 +6.2
MNTX LR LR
comp=Z,2μm,22.0s
**TIXI Tiksi 141.68 30** *i* PKIKP **PKPdf 19 32 03.4 -1.2**
TIXI pmax pmax
comp=Z,4.0nm,0.7s
**TIXI Tiksi 141.68 30** PFAKE 19 32 20.0 +15
TIXI LR LR
comp=Z,714nm,20.0s
**CBKS Cedar Bluff 141.78 271** PFAKE 19 32 20.0 +14
CBKS LR LR
comp=Z,932nm,22.0s
**EYMN Ely 141.87 288** PFAKE 19 32 20.0 +14
EYMN LR LR
comp=Z,918nm,22.0s
**F36A Milaca 142.00 284** P **PKPdf 19 32 08.2 +2.2**
baz=121
**H35A Sunnyside Ranc 142.17 282** P **PKPdf 19 32 10.1 +3.8**
baz=122
**G35A Watkins 142.24 283** P **PKPdf 19 32 09.9 +3.5**
baz=122
**K33A Hardington 142.34 278** P **PKPdf 19 32 11.4 +4.7**
baz=124
**ECSD EROS Data Cent 142.73 280** P **PKPdf 19 32 09.1 +1.7**
baz=123
**ECSD EROS Data Cent 142.73 280** *e*PKPdf **PKPdf 19 32 06.7 -0.7**
ECSD LR LR
comp=Z,856nm,21.0s
**BNM Barren Site 142.98 259** *e*PKPdf **PKPdf 19 32 05.7 -2.7**
**I33A Coleman 143.01 280** P **PKPdf 19 32 09.8 +2.0**
baz=123
**H33A Prehn Over Nor 143.32 281** P **PKPdf 19 32 11.2 +2.8**
baz=122
**I32A Karley and Nic 143.40 279** P **PKPdf 19 32 11.7 +3.2**
baz=123
**ANMO Albuquerque 143.41 260** PKP **PKPdf 19 32 10.0 +0.9**
comp=Z,1.9nm,0.7s,baz=320,slow=5.3,SNR=4.6

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ANMO | Albuquerque | 143.41 | 260 | PKIKP | PKPdf | 19 32 10.0 | +0.9 | | |
| ANMO | comp=Z,2.0nm,0.7s | | | pmax | pmax | | | | |
| ANMO | Albuquerque | 143.41 | 260 | PFAKE | | 19 32 20.0 | +11 | | |
| ANMO | comp=Z,915nm,22.0s | | | LR | LR | | | | |
| T25A | Trinidad | 143.61 | 265 | P | PKPdf | 19 32 12.5 | +3.1 | | |
| T25A | baz=130 Trinidad | 143.61 | 265 | *e*PKPpre | PKPpre | 19 32 04.8 | | | |
| H32A | Carlson Farm, | 143.64 | 280 | P | PKPdf | 19 32 12.4 | +3.5 | | |
| F33A | baz=122 5 Mile Ranch, | 143.65 | 283 | P | PKPdf | 19 32 12.6 | +3.7 | | |
| KSCO | baz=121 Kaye Shedlock' | 143.68 | 269 | P | PKPdf | 19 32 12.7 | +3.4 | | |
| C34A | baz=128 RKJ Ranch, Bem | 143.73 | 286 | P | PKPdf | 19 32 12.6 | +3.6 | | |
| E33A | baz=119 Westby DABS, E | 143.81 | 284 | P | PKPdf | 19 32 12.9 | +3.7 | | |
| B34A | baz=120 Aery, Baudette | 143.97 | 288 | P | PKPdf | 19 32 12.3 | +2.9 | | |
| G32A | baz=118 Webster | 144.07 | 281 | P | PKPdf | 19 32 13.7 | +4.0 | | |
| F32A | baz=121 Veblen | 144.16 | 282 | P | PKPdf | 19 32 13.1 | +3.3 | | |
| TUC | baz=120 Tucson | 144.17 | 253 | P | PKPdf | 19 32 13.4 | +3.0 | | |
| TUC | baz=136 Tucson | 144.17 | 253 | *e*PKPdf | PKPab | 19 32 06.0 | -2.0 | | |
| TUC | comp=Z,956nm,21.0s | | | LR | LR | | | | |
| H31A | Wolsey | 144.26 | 279 | P | PKPdf | 19 32 13.5 | +3.5 | | |
| OGNE | baz=122 Ogallala | 144.47 | 272 | P | PKPdf | 19 32 14.9 | +4.3 | | |
| OGNE | baz=126 Ogallala | 144.47 | 272 | *e*PKPdf | PKPab | 19 32 08.8 | -0.1 | | |
| OGNE | comp=Z,1μm,21.0s | | | LR | LR | | | | |
| G31A | Conde | 144.49 | 281 | P | PKPdf | 19 32 14.2 | +3.8 | | |
| SUSD | baz=121 Miller | 144.53 | 279 | P | PKPdf | 19 32 15.3 | +4.8 | | |
| AGMN | baz=122 Agassiz Nation | 144.60 | 287 | P | PKPdf | 19 32 14.4 | +4.0 | | |
| AGMN | baz=118 Agassiz Nation | 144.60 | 287 | *e*PKPdf | PKPab | 19 32 07.9 | -1.2 | | |
| AGMN | comp=Z,904nm,19.0s | | | LR | LR | | | | |
| A33A | Warroad | 144.62 | 288 | P | PKPdf | 19 32 15.2 | +4.7 | | |
| SDCO | baz=117 Great Sand Dun | 144.66 | 265 | P | PKPdf | 19 32 15.0 | +3.7 | | |
| SDCO | baz=129 Great Sand Dun | 144.66 | 265 | *e*PKPdf | PKPab | 19 32 08.9 | -1.1 | | |
| SDCO | comp=Z,802nm,21.0s | | | LR | LR | | | | |
| D32A | Dogwood Acres, | 144.73 | 284 | P | PKPdf | 19 32 14.6 | +3.9 | | |
| C32A | baz=119 Crookston | 144.77 | 286 | P | PKPdf | 19 32 15.0 | +4.2 | | |
| F31A | baz=118 Hecla | 144.84 | 282 | P | PKPdf | 19 32 15.4 | +4.4 | | |
| E31A | baz=120 Nome | 144.97 | 283 | P | PKPdf | 19 32 15.6 | +4.5 | | |
| B32A | baz=120 Ashes, Strandq | 145.04 | 286 | P | PKPdf | 19 32 16.0 | +4.8 | | |
| A32A | baz=118 Rocking H Ranc | 145.26 | 287 | P | PKPdf | 19 32 16.7 | +5.1 | | |
| C31A | baz=117 Landman Farms, | 145.47 | 285 | P | PKPab | 19 32 17.3 | +5.0 | | |
| S22A | baz=118 4UR Ranch, Cre | 145.47 | 263 | P | PKPab | 19 32 16.2 | +3.2 | | |
| S22A | baz=130 4UR Ranch, Cre | 145.47 | 263 | *e*PKPdf | PKPdf | 19 32 11.6 | -1.1 | | |
| ULM | Lac du Bonnet | 145.49 | 290 | PKPbc | PKPdf | 19 32 11.7 | -0.2 | | |
| W18A | comp=Z,4.8nm,0.5s,baz=44,slow=4.4,SNR=9.1 Petrified Fore | 145.51 | 257 | P | PKPab | 19 32 16.4 | +3.3 | | |
| A31A | baz=133 Linda, St. Vin | 145.67 | 287 | P | PKPab | 19 32 17.1 | +4.1 | | |
| B31A | baz=117 Greenbush Farm | 145.71 | 286 | P | PKPab | 19 32 17.3 | +4.1 | | |
| ISCO | baz=117 Idaho Springs | 146.00 | 267 | P | PKPab | 19 32 17.9 | +3.0 | | |
| ISCO | baz=127 Idaho Springs | 146.00 | 267 | *e*PKP2 | PKPdf | 19 32 13.1 | -0.5 | | |
| ISCO | comp=Z,995nm,19.0s | | | MLR | MLR | | | | |
| ISCO | Idaho Springs | 146.00 | 267 | *e*PKPdf | PKPdf | 19 32 13.1 | -0.5 | | |
| ISCO | comp=Z,995nm,19.0s | | | LR | LR | | | | |
| MVCO | Mesa Verde | 146.15 | 261 | P | PKPab | 19 32 18.3 | +2.8 | | |
| MVCO | baz=130 Mesa Verde | 146.15 | 261 | *e*PKPdf | PKPdf | 19 32 13.5 | -0.4 | | |
| MVCO | comp=Z,835nm,20.0s | | | LR | LR | | | | |
| 113A | Mohawk Valley, | 146.24 | 250 | *e*PKPdf | PKPdf | 19 32 13.7 | -0.1 | | |
| SMCO | Snowmass | 146.46 | 265 | *e*PKPdf | PKPbc | 19 32 15.3 | -0.6 | | |
| MDND | Maddock | 146.61 | 284 | P | PKPab | 19 32 19.2 | +2.6 | | |
| Y14A | baz=117 Wickenburg | 146.63 | 252 | *e*PKPdf | PKPdf | 19 32 14.2 | -0.2 | | |
| WUAZ | Wupatki | 146.76 | 256 | P | PKPab | 19 32 19.6 | +1.7 | | |
| WUAZ | baz=133 Wupatki | 146.76 | 256 | *e*PKPdf | PKPdf | 19 32 14.8 | 0.0 | | |
| WUAZ | comp=Z,784nm,20.0s | | | LR | LR | | | | |
| PHWY | Pilot Hill | 146.79 | 270 | *e*PKPdf | PKPdf | 19 32 14.6 | -0.2 | | |
| N23A | Red Feather La | 146.85 | 269 | P | PKPab | 19 32 19.3 | +1.2 | | |
| N23A | baz=126 Red Feather La | 146.85 | 269 | *e*PKPdf | PKPdf | 19 32 15.4 | +0.5 | | |
| GLA | Glamis | 147.06 | 249 | P | PKPab | 19 32 19.5 | +0.6 | | |
| PV10 | baz=137 Paradox Valley | 147.22 | 262 | *e*PKPdf | PKPdf | 19 32 16.6 | +0.9 | | |
| Y12C | Blythe | 147.39 | 250 | P | PKPab | 19 32 20.3 | +0.2 | | |
| RSSD | baz=136 Black Hills | 147.47 | 275 | P | PKPab | 19 32 20.1 | -0.3 | | |
| RSSD | baz=122 Black Hills | 147.47 | 275 | *e*PKIKP | PKPdf | 19 32 16.5 | +0.7 | | |
| RSSD | Black Hills | 147.47 | 275 | *e*PKPdf | PKPdf | 19 32 16.5 | +0.7 | | |
| POHA | Pohakuloa | 147.52 | 174 | PFAKE | | 19 32 30.0 | +8.8 | | |
| POHA | comp=Z,1μm,19.0s | | | LR | LR | | | | |
| SWSC | Sam W. Stewart | 147.54 | 248 | P | PKPab | 19 32 20.8 | +0.1 | | |
| PDMCI | baz=157 Parker Dam,Lak | 147.56 | 252 | P | PKPab | 19 32 20.7 | 0.0 | | |
| O20A | baz=135 White River Ci | 147.81 | 266 | P | PKPab | 19 32 21.0 | -0.9 | | |
| O20A | baz=127 White River Ci | 147.81 | 266 | *e*PKPdf | PKPbc | 19 32 18.1 | -1.3 | | |
| MONP2 | Monument Peak | 147.85 | 247 | P | PKPab | 19 32 21.3 | -0.9 | | |
| BC3 | baz=138 Big Chuckawall | 147.86 | 249 | P | PKPab | 19 32 22.4 | +0.3 | | |
| W13A | baz=136 Hualapai Mount | 147.97 | 253 | *e*PKPdf | PKPdf | 19 32 17.1 | +0.2 | | |
| MA2 | Magadan | 148.03 | 54 | PKPbc | PKPbc | 19 32 18.5 | -0.5 | | |
| RES | comp=Z,11nm,0.7s,baz=135,slow=7.1,SNR=5.8 Resolute Bay | 148.03 | 335 | PKPbc | PKPdf | 19 32 16.5 | +1.0 | | |
| IRM | comp=Z,3.7nm,0.8s,baz=108,slow=4.9,SNR=7.9 Iron Mountain | 148.04 | 250 | P | PKPab | 19 32 25.5 | +2.7 | | |
| NEE2 | baz=136 Needles Airpor | 148.16 | 252 | P | PKPab | 19 32 25.8 | +2.6 | | |
| 109C | baz=135 Camp Elliot, M | 148.24 | 246 | P | PKPab | 19 32 27.1 | +3.6 | | |
| PFO | baz=138 Pinyon Flats O | 148.40 | 248 | P | PKPab | 19 32 27.7 | +3.4 | | |
| PFO | baz=137 Pinyon Flats O | 148.40 | 248 | PFAKE | | 19 32 30.0 | +5.7 | | |
| PFO | comp=Z,938nm,21.0s | | | LR | LR | | | | |
| BELC | Belle Mtn. Jos | 148.42 | 249 | P | PKPab | 19 32 28.0 | +3.6 | | |
| SRU | baz=136 San Rafael Swe | 148.59 | 262 | *e*PKP2 | PKPbc | 19 32 20.2 | -1.3 | | |
| SRU | San Rafael Swe | 148.59 | 262 | *e*PKPbc | PKPbc | 19 32 20.1 | -1.3 | | |
| P18A | Preston Nutter | 148.74 | 263 | *e*PKPbc | PKPbc | 19 32 21.3 | -0.6 | | |
| P18A | | | | *e*PKPab | sPKPbc | 19 32 26.3 | -0.2 | | |
| GMRC | Granite Mounta | 148.78 | 251 | P | PKPab | 19 32 28.6 | +2.7 | | |
| MURC | baz=135 Murrieta | 148.81 | 247 | P | PKPab | 19 32 28.6 | +2.7 | | |
| TMUT | baz=137 Trail Mountain | 149.12 | 262 | *e*PKPbc | PKPbc | 19 32 21.9 | -1.0 | | |
| HEC | Hector,Ludlow | 149.21 | 250 | P | PKPab | 19 32 28.8 | +1.3 | | |
| MSU | baz=135 Marysvale | 149.22 | 260 | *e*PKIKP | PKPdf | 19 32 20.4 | +1.5 | | |
| MSU | Marysvale | 149.22 | 260 | *e*PKPdf | PKPdf | 19 32 20.4 | +1.5 | | |
| CCUT | Cedar City | 149.31 | 257 | *e*PKPbc | PKPbc | 19 32 23.1 | -0.3 | | |
| SEY | Seymchan | 149.34 | 48 | PKPbc | PKPbc | 19 32 20.1 | -2.1 | | |
| CIS | comp=Z,7.8nm,0.8s,baz=246,slow=3.1,SNR=11 Catalina Islan | 149.35 | 246 | P | PKPab | 19 32 29.5 | +1.4 | | |
| TUQ | baz=138 Turquoise Moun | 149.39 | 251 | P | PKPab | 19 32 29.3 | +1.0 | | |
| BFSC | baz=134 Mount Baldy Ra | 149.54 | 248 | P | PKPab | 19 32 30.0 | +1.1 | | |
| | baz=137 | | | | | | | | |
| RRX | Edison Barstow | 149.62 | 249 | P | PKPab | 19 32 30.2 | +1.1 | | |
| DGMT | baz=136 Dagmar | 149.64 | 282 | PFAKE | | 19 32 30.0 | +1.2 | | |
| DGMT | comp=Z,875nm,19.0s | | | LR | LR | | | | |
| SHPR | Sheep Range | 149.68 | 254 | *e*PKPbc | PKPbc | 19 32 23.4 | -0.8 | | |
| SHPR | | | | *e*PKPab | PKPab | 19 32 30.1 | +0.6 | | |
| SHOC | Shoshone, Teco | 149.92 | 251 | P | PKPab | 19 32 30.8 | +0.5 | | |
| DECC | baz=134 Green Verdugo | 149.94 | 247 | P | PKPab | 19 32 30.4 | 0.0 | | |
| PETK | baz=137 Petropavlovsk- | 150.03 | 68 | PKPbc | PKPbc | 19 32 22.0 | -2.3 | | |
| PETK | comp=Z,2.4nm,0.7s,baz=151,slow=3.3,SNR=2.9 Petropavlovsk- | 150.03 | 68 | *e*PKPdf | PKPdf | 19 32 20.7 | +1.3 | | |
| PETK | | | | *ep*PKPab | sPKPbc | 19 32 28.9 | 0.0 | | |
| PEA1 | Petropavlovsk- | 150.03 | 68 | *e*PKPbc | PKPbc | 19 32 22.0 | -2.3 | | |
| NLU | North Lily Min | 150.05 | 262 | *e*PKPbc | PKPbc | 19 32 24.0 | -1.1 | | |
| NLU | | | | *e*PKPab | PKPab | 19 32 31.2 | +0.2 | | |
| JLU | Jordanelle | 150.06 | 264 | *e*PKPbc | PKPbc | 19 32 24.3 | -0.9 | | |
| JLU | | | | *e*PKPab | PKPab | 19 32 31.3 | +0.2 | | |
| LAO | LASA Array | 150.07 | 278 | P | PKPab | 19 32 30.4 | -0.3 | | |
| LAO | baz=118 LASA Array | 150.07 | 278 | *e*PKPdf | PKPdf | 19 32 19.5 | -0.2 | | |
| LAO | | | | *e*PKPbc | sPKPdf | 19 32 24.0 | -0.3 | | |
| LAO | | | | *e*PKPab | PKPab | 19 32 30.6 | -0.1 | | |
| LAO | comp=Z,772nm,22.0s | | | LR | LR | | | | |
| PD31 | Pinedale Array | 150.13 | 269 | *e*PKPbc | PKPbc | 19 32 23.6 | -1.7 | | |
| PD31 | | | | *e*PKPab | sPKPbc | 19 32 29.9 | +0.1 | | |
| PDAR | Pinedale Array | 150.13 | 269 | PKPbc | PKPbc | 19 32 23.4 | -1.8 | | |
| PDAR | comp=Z,6.2nm,0.9s,baz=104,slow=1.8,SNR=12 Pinedale Array | 150.13 | 269 | *e*PKPdf | PKPdf | 19 32 18.3 | -1.9 | | |
| PDAR | | | | *e*PKPbc | PKPbc | 19 32 23.4 | -1.8 | | |
| BW06 | Boulder Array | 150.14 | 269 | P | PKPab | 19 32 31.0 | -0.3 | | |
| BW06 | baz=123 Boulder Array | 150.14 | 269 | *e*PKPdf | PKPdf | 19 32 19.6 | -0.5 | | |
| BW06 | | | | *e*PKPbc | pPKPdf | 19 32 23.3 | -0.3 | | |
| BW06 | | | | *e*PKPab | sPKPbc | 19 32 29.8 | -0.1 | | |
| BW06 | comp=Z,2μm,19.0s | | | LR | LR | | | | |
| EDW2 | Edwards Air Fo | 150.20 | 248 | P | PKPab | 19 32 31.5 | 0.0 | | |
| BLG | baz=136 Laguna Peak, P | 150.24 | 246 | P | PKPab | 19 32 31.5 | -0.1 | | |
| PSUT | baz=138 Pine Spring | 150.24 | 258 | *e*PKPbc | PKPbc | 19 32 25.0 | -0.6 | | |
| TCUT | Toone Canyon | 150.34 | 264 | *e*PKPbc | PKPbc | 19 32 24.9 | -0.8 | | |
| OSI | Osito Audit: C | 150.42 | 247 | P | PKPab | 19 32 32.2 | -0.2 | | |
| LRMC | baz=137 Laurel Mtn Rad | 150.44 | 249 | P | PKPab | 19 32 32.5 | -0.1 | | |
| PET | baz=135 Petropavlovsk | 150.55 | 69 | *i* PKIKP | PKPab | 19 32 35.8 | +3.5 | | |
| PET | | | | *e*SS | SS | 19 55 27.7 | +5.5 | | |
| PET | comp=Z,86nm,1.3s | | | pmax | pmax | | | | |
| PET | comp=Z,114nm,1.2s | | | pmax | pmax | | | | |
| PET | comp=Z,86nm,1.4s | | | pmax | pmax | | | | |
| PET | Petropavlovsk | 150.55 | 69 | PFAKE | | 19 32 30.0 | -2.3 | | |
| PET | comp=Z,468nm,20.0s | | | LR | LR | | | | |
| FFC | Flin Flon | 150.56 | 295 | *e*PKIKP | PKPab | 19 32 30.2 | -2.2 | | |
| FFC | comp=Z,1μm,19.0s | | | MLR | MLR | | | | |
| FFC | Flin Flon | 150.56 | 295 | *ep*PKPab | PKPab | 19 32 30.2 | -2.2 | | |
| FFC | comp=Z,1μm,19.0s | | | LR | LR | | | | |
| TPNV | Topopah Spring | 150.63 | 253 | P | PKPab | 19 32 33.5 | +0.1 | | |
| TPNV | baz=133 Topopah Spring | 150.63 | 253 | *e*PKIKP | PKPbc | 19 32 25.4 | -1.1 | | |
| TPNV | | | | *e* | | 19 32 30.8 | | | |
| TPNV | Topopah Spring | 150.63 | 253 | *e*PKPbc | PKPbc | 19 32 25.4 | -1.1 | | |
| TPNV | | | | *e*PKPab | sPKPbc | 19 32 30.8 | -0.3 | | |
| DUG | Dugway, Tooele | 150.65 | 262 | P | PKPab | 19 32 33.6 | +0.2 | | |
| DUG | baz=127 Dugway, Tooele | 150.65 | 262 | *e*PKIKP | PKPbc | 19 32 25.7 | -0.7 | | |
| DUG | comp=Z,855nm,19.0s | | | MLR | MLR | | | | |
| DUG | Dugway, Tooele | 150.65 | 262 | *e*PKPbc | PKPbc | 19 32 25.7 | -0.7 | | |
| DUG | comp=Z,855nm,19.0s | | | LR | LR | | | | |
| FURC | Furnace Creek, | 150.66 | 252 | P | PKPab | 19 32 34.0 | +0.7 | | |
| MPMC | baz=134 Manual Prospec | 150.74 | 250 | P | PKPab | 19 32 34.2 | +0.3 | | |
| DAC | baz=134 Darwin (Calif) | 150.95 | 250 | *e*PKIKP | PKPbc | 19 32 26.1 | -1.2 | | |
| DAC | Darwin (Calif) | 150.95 | 250 | *e*PKPbc | PKPbc | 19 32 26.1 | -1.2 | | |
| ISA | Isabella, Lake | 151.03 | 249 | P | PKPab | 19 32 34.8 | -0.2 | | |
| ISA | baz=135 Isabella, Lake | 151.03 | 249 | *e*PKIKP | PKPbc | 19 32 27.5 | +0.1 | | |
| ISA | Isabella, Lake | 151.03 | 249 | *e*PKPbc | PKPbc | 19 32 27.5 | +0.1 | | |
| AHID | Auburn Hatcher | 151.08 | 267 | PFAKE | | 19 32 30.0 | +2.6 | | |
| AHID | comp=Z,2μm,22.0s | | | LR | LR | | | | |
| SPUT | South Promonto | 151.09 | 264 | *e*PKPbc | PKPbc | 19 32 26.4 | -1.1 | | |
| SPUT | | | | *e*PKPab | sPKPbc | 19 32 32.7 | +0.7 | | |
| R11A | Troy Canyon, C | 151.16 | 256 | *e*PKPdf | PKPdf | 19 32 22.3 | +0.5 | | |
| R11A | | | | *e*PKPbc | PKPbc | 19 32 27.4 | -0.3 | | |
| R11A | | | | *e*PKPab | sPKPbc | 19 32 33.9 | +1.6 | | |
| RLMT | Red Lodge | 151.19 | 273 | P | PKPab | 19 32 35.0 | -0.6 | | |
| RLMT | baz=120 Red Lodge | 151.19 | 273 | *e*PKPdf | PKPdf | 19 32 21.3 | -0.4 | | |
| RLMT | | | | *e*PKPbc | sPKPdf | 19 32 26.8 | +0.5 | | |
| RLMT | comp=Z,1μm,21.0s | | | LR | LR | | | | |
| BGU | Big Grassy Mou | 151.22 | 263 | *e*PKPdf | PKPdf | 19 32 19.4 | -2.4 | | |
| PKM | Mcpherson Peak | 151.23 | 246 | P | PKPab | 19 32 34.7 | -1.3 | | |
| REDW | baz=137 Red Top Meadow | 151.25 | 269 | *e*PKPdf | PKPdf | 19 32 20.6 | -1.3 | | |
| GRAC | Grapevine Rang | 151.31 | 252 | P | PKPab | 19 32 35.5 | -0.6 | | |
| CWC | baz=133 Cottonwood Cre | 151.35 | 250 | P | PKPab | 19 32 36.0 | -0.4 | | |
| TPAW | baz=134 Teton Pass | 151.38 | 269 | *e*PKPdf | PKPdf | 19 32 20.5 | -1.6 | | |
| MOOW | Moose Ponds | 151.40 | 269 | *e*PKPdf | PKPdf | 19 32 21.6 | -0.5 | | |
| FXWY | Fox Creek | 151.51 | 269 | *e*PKPdf | PKPdf | 19 32 22.8 | +0.6 | | |
| HVU | Hansel Valley | 151.56 | 264 | *e*PKIKP | PKPdf | 19 32 21.6 | -0.7 | | |
| HVU | | | | *e* | | 19 32 33.0 | | | |
| HVU | Hansel Valley | 151.56 | 264 | *e*PKPdf | PKPdf | 19 32 21.6 | -0.7 | | |
| HVU | | | | *e*PKPab | sPKPbc | 19 32 33.0 | -0.1 | | |
| IMW | Indian Meadow | 151.59 | 270 | *e*PKPbc | PKPbc | 19 32 27.3 | -1.4 | | |
| LKWY | Lake | 151.60 | 271 | PFAKE | | 19 32 30.0 | +1.3 | | |
| LKWY | comp=Z,1μm,19.0s | | | LR | LR | | | | |
| H17A | Grant Village | 151.63 | 271 | P | PKPab | 19 32 37.7 | +0.2 | | |
| H17A | baz=121 Grant Village | 151.63 | 271 | *e*PKPbc | PKPbc | 19 32 27.7 | -1.0 | | |
| SMMC | Simmler | 151.64 | 246 | P | PKPab | 19 32 37.1 | -0.4 | | |
| YPP | baz=136 Pitchstone Pla | 151.70 | 270 | *e*PKPbc | PKPbc | 19 32 30.8 | +1.9 | | |
| RCTC | Rector, Farmer | 151.92 | 249 | P | PKPab | 19 32 38.9 | +0.3 | | |
| YHH | baz=135 Holmes Hill | 152.00 | 271 | *e*PKPbc | PKPbc | 19 32 30.0 | +0.4 | | |
| MLAC | Mammoth, Mammo | 152.60 | 251 | P | PKPab | 19 32 40.7 | -1.0 | | |
| NV11 | baz=133 Mina Array Sit | 152.74 | 253 | *e*PKPdf | PKPdf | 19 32 26.2 | +2.0 | | |
| NV11 | | | | *e*PKPbc | PKPbc | 19 32 31.4 | +0.2 | | |
| NV11 | | | | *e*PKPab | sPKPbc | 19 32 36.8 | +1.0 | | |
| EGMT | Eagleton | 152.82 | 278 | P | PKPab | 19 32 41.9 | -0.3 | | |
| EGMT | baz=115 Eagleton | 152.82 | 278 | PFAKE | | 19 32 30.0 | -1.0 | | |
| EGMT | comp=Z,923nm,19.0s | | | LR | LR | | | | |
| NV01 | Mina Array Sit | 152.83 | 253 | *e*PKPdf | PKPdf | 19 32 26.8 | +2.4 | | |
| NVAR | Mina Array Bea | 152.83 | 253 | PKP | PKPdf | 19 32 24.5 | +0.1 | | |
| BOZ | comp=Z,1.9nm,0.5s,baz=124,slow=3.8,SNR=13 Bozeman (W) | 152.87 | 272 | PFAKE | | 19 32 30.0 | -1.3 | | |
| BOZ | comp=Z,1μm,19.0s | | | LR | LR | | | | |
| KVN | Kaiserville | 153.11 | 254 | *e*PKIKP | PKPdf | 19 32 24.6 | -0.1 | | |
| KVN | | | | *e* | | 19 32 30.2 | | | |
| KVN | Kaiserville | 153.11 | 254 | *e*PKPdf | PKPdf | 19 32 24.6 | -0.1 | | |
| KVN | | | | *e*PKPbc | sPKPdf | 19 32 30.2 | +0.9 | | |
| MCMT | McKenzie Canyo | 153.25 | 270 | *e*PKPbc | PKPbc | 19 32 31.5 | -0.8 | | |
| MCMT | | | | *e*PKPab | PKPab | 19 32 43.2 | -1.1 | | |
| DLMT | Dillon | 153.35 | 271 | *e*PKPbc | PKPbc | 19 32 32.6 | +0.2 | | |
| DLMT | | | | *e*PKPab | PKPab | 19 32 42.3 | -2.3 | | |
| BMN | Battle Mountai | 153.46 | 258 | *e*PKIKP | PKPdf | 19 32 26.3 | +1.1 | | |
| BMN | | | | *e* | | 19 32 41.4 | | | |
| BMN | Battle Mountai | 153.46 | 258 | *e*PKPdf | PKPdf | 19 32 26.3 | +1.1 | | |
| BMN | | | | *e*PKPab | PKPab | 19 32 41.4 | -3.8 | | |
| SAO | San Andreas Ge | 153.50 | 247 | *e*PKIKP | PKPdf | 19 32 26.4 | +1.3 | | |
| SAO | San Andreas Ge | 153.50 | 247 | *e*PKPdf | PKPdf | 19 32 26.4 | +1.3 | | |
| HRY | Holter Researc | 153.52 | 274 | *e*PKPdf | PKPdf | 19 32 27.0 | +2.0 | | |
| WAKR | Walker | 153.54 | 252 | *e*PKPbc | PKPbc | 19 32 31.8 | -1.3 | | |
| HLID | Hailey | 153.55 | 266 | P | PKPab | 19 32 43.6 | -1.9 | | |
| HLID | baz=122 Hailey | 153.55 | 266 | *e*PKPdf | PKPdf | 19 32 26.7 | +1.5 | | |
| HLID | | | | *e*PKPab | PKPab | 19 32 42.8 | -2.7 | | |
| HLID | comp=Z,980nm,19.0s | | | LR | LR | | | | |
| YERR | Yerington | 153.74 | 253 | *e*PKPbc | PKPbc | 19 32 31.0 | -2.5 | | |
| YERR | | | | *e*PKPab | PKPab | 19 32 42.8 | -3.6 | | |
| BILL | Bilibino | 154.59 | 36 | *e*PKIKP | PKPbc | 19 32 33.1 | -1.0 | | |
| BILL | | | | *i* SS | SS | 19 56 11.9 | +6.2 | | |
| BILL | comp=Z,4.0nm,0.9s | | | pmax | pmax | | | | |
| AFDM | Forest Hills D | 154.73 | 251 | *e*PKPbc | PKPbc | 19 32 33.3 | -2.0 | | |
| MSO | Missoula | 154.87 | 273 | P | PKPab | 19 32 46.8 | -4.1 | | |
| ORV | baz=116 Oroville | 155.44 | 251 | *e*PKIKP | PKPdf | 19 32 35.1 | +7.4 | | |
| ORV | Oroville | 155.44 | 251 | *e*PKPbc | PKPdf | 19 32 35.1 | +7.4 | | |
| WVOR | Wild Horse Val | 155.51 | 260 | *e*PKIKP | PKPdf | 19 32 27.8 | -0.1 | | |
| WVOR | comp=Z,911nm,20.0s | | | MLR | MLR | | | | |
| WVOR | Wild Horse Val | 155.51 | 260 | *e*PKPdf | PKPdf | 19 32 27.8 | -0.1 | | |
| WVOR | comp=Z,911nm,20.0s | | | LR | LR | | | | |
| BMO | Blue Mountains | 156.00 | 266 | *e*PKIKP | PKPdf | 19 32 31.4 | +3.0 | | |
| BMO | comp=Z,1μm,21.0s | | | MLR | MLR | | | | |
| BMO | Blue Mountains | 156.00 | 266 | *e*PKPdf | PKPdf | 19 32 31.4 | +3.0 | | |
| BMO | comp=Z,1μm,21.0s | | | LR | LR | | | | |
| WDC | Whiskeytown Da | 156.71 | 252 | *e*PKIKP | PKPdf | 19 32 30.1 | +0.7 | | |
| WDC | Whiskeytown Da | 156.71 | 252 | *e*PKPdf | PKPdf | 19 32 30.1 | +0.7 | | |
| N02D | Trinity Center | 157.06 | 252 | P | PKPab | 19 33 02.1 | +1.7 | | |
| G08A | baz=129 Pilot Rock | 157.23 | 266 | *e*PKPdf | PKPdf | 19 32 34.7 | +4.7 | | |
| NEW | Newport | 157.43 | 274 | P | PKPab | 19 33 03.3 | +1.5 | | |
| YBH | baz=113 Yreka Blue Hor | 157.53 | 254 | PKPab | PKPab | 19 33 02.4 | -0.1 | | |
| J05D | comp=Z,4.2nm,1.0s,baz=246,slow=9.4,SNR=3.1 Fort Rock, OR | 157.56 | 259 | P | PKPab | 19 33 03.8 | +1.1 | | |
| YKA | baz=124 Yellowknife Ar | 157.63 | 312 | PKP | PKPdf | 19 32 28.4 | -1.3 | | |
| YKA | comp=Z,0.3nm,0.8s,baz=82,slow=1.1,SNR=3.5 | | | PKPab | PKPab | 19 32 58.9 | -3.2 | | |
| J04D | comp=Z,3.5nm,1.0s,baz=94,slow=2.9,SNR=11 Umpqua Nationa | 158.06 | 258 | P | PKPab | 19 33 05.1 | +0.2 | | |
| HAWA | baz=124 Hanford | 158.11 | 268 | PFAKE | | 19 32 40.0 | +9.1 | | |
| HAWA | comp=Z,1μm,22.0s | | | LR | LR | | | | |
| I05D | Terrebonne, OR | 158.20 | 261 | P | PKPab | 19 33 05.9 | +0.6 | | |
| I04A | baz=122 Tendick Farm, | 158.56 | 259 | P | PKPab | 19 33 06.0 | -0.8 | | |
| G05D | baz=123 Wamic, OR | 158.65 | 263 | P | PKPab | 19 33 07.5 | +0.3 | | |
| B05A | baz=120 Bryant | 160.49 | 270 | P | PKPab | 19 33 13.9 | -1.0 | | |
| INK | baz=113 Inuvik | 161.54 | 338 | PKP | PKPdf | 19 32 37.8 | +3.7 | | |
| INK | comp=Z,2.3nm,1.2s,baz=91,slow=18,SNR=3.1 | | | PKPab | PKPab | 19 33 15.1 | -3.8 | | |
| INK | comp=Z,3.7nm,1.1s,baz=65,slow=5.6,SNR=2.8 Inuvik | 161.54 | 338 | *e*PKPdf | PKPdf | 19 32 38.1 | +4.0 | | |
| INK | | | | PKPab | PKPab | 19 33 15.1 | -3.8 | | |
| EGAK | Eagle | 166.18 | 340 | PFAKE | | 19 32 50.0 | +12 | | |
| EGAK | comp=Z,1μm,19.0s | | | LR | LR | | | | |
| COLA | College | 167.09 | 352 | PFAKE | | 19 32 50.0 | +11 | | |
| COLA | comp=Z,1μm,19.0s | | | LR | LR | | | | |
| ILAR | Eielson Array | 167.10 | 350 | PKP | PKPdf | 19 32 41.3 | +2.1 | | |
| ILAR | comp=Z,0.4nm,0.9s,baz=227,slow=1.0,SNR=3.3 | | | PKPab | PKPab | 19 33 44.0 | +0.5 | | |
| DOT | comp=Z,0.8nm,0.8s,baz=331,slow=2.9,SNR=3.6 Dot Lake | 167.76 | 343 | *e*PKPab | PKPab | 19 33 44.5 | -2.1 | | |
| KDAK | Kodiak Island | 174.39 | 3 | PFAKE | | 19 32 50.0 | +6.8 | | |
| KDAK | comp=Z,916nm,22.0s | | | LR | LR | | | | |

**WEL 23 19:15:27.1±0.2, 38.71S×175.83E, h127km±1km, ML3.7/48, 32C-16D, Error ellipse: s-maj=1.0km s-min=0.9km az=90.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| WATZ | Wairara | 0.08 | 274 | ↑ | PN | Pn | 19 15 44.4 | 0.0 |
| HATZ | Hinemaiaia | 0.27 | 131 | ↑ | PN | Pn | 19 15 44.6 | -0.2 |
| HATZ | | | | | SN | Sn | 19 15 57.7 | -0.5 |
| KATZ | Kakaramea | 0.28 | 202 | ↑ | PN | Pn | 19 15 44.8 | -0.2 |
| KRVZ | Karewarewa | 0.41 | 201 | ↑ | PN | Pn | 19 15 45.3 | -0.3 |
| ALRZ | Allen Road | 0.43 | 70 | ↓ | PN | Pn | 19 15 45.4 | -0.1 |
| ALRZ | | | | | SN | Sn | 19 15 59.9 | +0.6 |
| WTVZ | West Tongariro | 0.44 | 205 | ↑ | PN | Pn | 19 15 45.6 | -0.1 |
| TLZ | Tolley Road | 0.45 | 329 | ↑ | PN | Pn | 19 15 45.7 | +0.1 |
| TLZ | | | | | SN | Sn | 19 15 59.8 | +0.3 |
| OTVZ | Oturere | 0.47 | 196 | ↑ | PN | Pn | 19 15 45.7 | -0.2 |
| TWVZ | Taurewa | 0.47 | 221 | ↑ | PN | Pn | 19 15 45.7 | -0.1 |
| MRHZ | Matea Rd | 0.47 | 105 | | PN | Pn | 19 15 45.5 | -0.2 |
| MRHZ | | | | | SN | Sn | 19 15 58.8 | -1.0 |
| MRHZ | | | | | AML | AML | 19 15 59.4 | |
| HRRZ | Handcock Road | 0.48 | 48 | ↓ | PN | Pn | 19 15 45.8 | 0.0 |
| NGZ | Ngauruhoe | 0.50 | 201 | | PN | Pn | 19 15 45.8 | -0.2 |
| HSRZ | Hossack Road | 0.52 | 39 | | PN | Pn | 19 15 45.9 | 0.0 |
| TUVZ | Tukino | 0.57 | 194 | | PN | Pn | 19 15 46.5 | 0.0 |
| FWVZ | Far West T-bar | 0.58 | 202 | ↑ | PN | Pn | 19 15 46.3 | -0.3 |
| DRZ | Dome Shelter | 0.60 | 200 | | PN | Pn | 19 15 46.9 | 0.0 |
| WHVZ | Whangaehu Hut | 0.60 | 198 | ↓ | PN | Pn | 19 15 46.6 | -0.2 |
| TRVZ | Turoa | 0.63 | 201 | ↓ | PN | Pn | 19 15 46.9 | -0.1 |
| WNVZ | Wahianoa | 0.64 | 197 | ↑ | PN | Pn | 19 15 46.9 | 0.0 |
| BKZ | Black Stump Fm | 0.69 | 131 | ↑ | PN | Pn | 19 15 47.0 | -0.1 |
| BKZ | | | | | SN | Sn | 19 16 01.6 | -0.7 |
| BKZ | | | | | AML | AML | 19 16 02.3 | |
| PKVZ | Pokaka | 0.69 | 213 | ↑ | PN | Pn | 19 15 47.1 | -0.1 |
| MOVZ | Moawhango | 0.70 | 185 | ↑ | PN | Pn | 19 15 47.0 | -0.3 |
| TARZ | Mount Tarawera | 0.71 | 48 | ↓ | PN | Pn | 19 15 47.3 | -0.1 |
| MTVZ | Mangateitei | 0.73 | 203 | | PN | Pn | 19 15 47.4 | -0.1 |
| KARZ | Kaharoa | 0.76 | 25 | ↓ | PN | Pn | 19 15 47.6 | -0.1 |
| MUGZ | Murup

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| TSZ | | | | | AML | AML | 19 15 53.2 | |
| **KAHZ** | **Kahuranaki** | **1.35** | **143** | | PN | Pn | 19 15 53.6 | +0.2 |
| KAHZ | | | | | AML | AML | 19 16 14.2 | |
| KAHZ | | | | | AML | AML | 19 16 15.4 | |
| **CKHZ** | **Cape Kidnapper** | **1.35** | **135** | | PN | Pn | 19 15 53.7 | +0.4 |
| CKHZ | | | | | AML | AML | 19 16 13.4 | |
| **DREZ** | **Durham Road** | **1.36** | **249** | | PN | Pn | 19 15 53.6 | +0.2 |
| **MWZ** | **Matawai** | **1.38** | **75** | | PN | Pn | 19 15 53.3 | -0.4 |
| MWZ | | | | | AML | AML | 19 16 19.9 | |
| **WPHZ** | **Waipukurau** | **1.43** | **161** | | PN | Pn | 19 15 54.0 | -0.3 |
| WPHZ | | | | | AML | AML | 19 16 15.4 | |
| WPHZ | | | | | AML | AML | 19 16 16.5 | |
| **PREZ** | **Palmer Road** | **1.45** | **244** | | PN | Pn | 19 15 54.6 | +0.2 |
| **NEZ** | **North Egmont** | **1.46** | **247** | ⇓ | PN | Pn | 19 15 54.9 | +0.3 |
| **KNZ** | **Kokohu** | **1.47** | **103** | ⇓ | PN | Pn | 19 15 54.5 | -0.1 |
| **RIGZ** | **Rimuhau** | **1.51** | **90** | | PN | Pn | 19 15 55.1 | 0.0 |
| RIGZ | | | | | AML | AML | 19 16 18.0 | |
| RIGZ | | | | | AML | AML | 19 16 18.2 | |
| **PKE** | **Pukeiti** | **1.52** | **251** | ⇑ | PN | Pn | 19 15 55.2 | 0.0 |
| **KHEZ** | **Kahui Hut** | **1.53** | **247** | ⇓ | PN | Pn | 19 15 55.6 | +0.2 |
| **PXZ** | **Pawanui** | **1.54** | **149** | ⇑ | PN | Pn | 19 15 55.1 | -0.3 |
| PXZ | | | | | AML | AML | 19 16 18.1 | |
| PXZ | | | | | AML | AML | 19 16 18.1 | |
| PXZ | | | | | AML | AML | 19 16 19.8 | |
| PXZ | | | | | AML | AML | 19 16 19.8 | |
| **OHWZ** | **Ohakea** | **1.54** | **195** | ⇑ | PN | Pn | 19 15 55.4 | 0.0 |
| **TKGZ** | **Te Karaka** | **1.60** | **81** | ⇓ | PN | Pn | 19 15 56.4 | +0.2 |
| TKGZ | | | | | AML | AML | 19 16 20.7 | |
| TKGZ | | | | | AML | AML | 19 16 20.7 | |
| **DVHZ** | **Dannevirke** | **1.60** | **171** | ⇑ | PN | Pn | 19 15 55.4 | -0.8 |
| DVHZ | | | | | AML | AML | 19 16 18.0 | |
| DVHZ | | | | | AML | AML | 19 16 18.3 | |
| **PRGZ** | **Paritu Road** | **1.62** | **98** | | PN | Pn | 19 15 56.1 | -0.2 |
| PRGZ | | | | | AML | AML | 19 16 21.0 | |
| PRGZ | | | | | AML | AML | 19 16 22.1 | |
| **RUGZ** | **Raukumara Rang** | **1.63** | **63** | | PN | Pn | 19 15 55.3 | -1.4 |
| **PRHZ** | **Porangahau** | **1.67** | **158** | ⇑ | PN | Pn | 19 15 56.5 | -0.5 |
| PRHZ | | | | | AML | AML | 19 16 18.4 | |
| PRHZ | | | | | AML | AML | 19 16 20.0 | |
| **MHGZ** | **Mahia Peninsul** | **1.68** | **106** | | PN | Pn | 19 15 57.0 | 0.0 |
| **POWZ** | **Post Office Ro** | **1.68** | **182** | | PN | Pn | 19 15 56.1 | -0.9 |
| POWZ | | | | | AML | AML | 19 16 20.2 | |
| POWZ | | | | | AML | AML | 19 16 20.4 | |
| **TWGZ** | **Tauwhareparae** | **1.77** | **73** | | PN | Pn | 19 15 58.2 | 0.0 |
| TWGZ | | | | | AML | AML | 19 16 23.6 | |
| TWGZ | | | | | AML | AML | 19 16 26.5 | |
| **HAZ** | **Te Kaha** | **1.81** | **59** | | PN | Pn | 19 15 57.4 | -1.1 |
| HAZ | | | | | AML | AML | 19 16 27.6 | |
| HAZ | | | | | AML | AML | 19 16 28.9 | |
| **ANNZ** | **Angora Road** | **1.81** | **164** | ⇑ | PN | Pn | 19 15 58.1 | -0.6 |
| ANWZ | | | | | AML | AML | 19 16 21.0 | |
| ANWZ | | | | | AML | AML | 19 16 21.7 | |
| **PRWZ** | **Pori Road** | **1.84** | **177** | | PN | Pn | 19 15 58.2 | -0.8 |
| PRWZ | | | | | AML | AML | 19 16 23.5 | |
| PRWZ | | | | | AML | AML | 19 16 23.6 | |
| **CNGZ** | **Carnagh Statio** | **1.88** | **84** | | PN | Pn | 19 15 59.3 | -0.1 |
| **PKGZ** | **Pakihiroa** | **1.95** | **66** | | PN | Pn | 19 15 59.7 | -0.6 |
| PKGZ | | | | | AML | AML | 19 16 27.1 | |
| PKGZ | | | | | AML | AML | 19 16 27.4 | |
| **MRZ** | **Mangatainoka R** | **1.96** | **186** | ⇑ | PN | Pn | 19 15 58.9 | -1.4 |
| MRZ | | | | | AML | AML | 19 16 25.1 | |
| MRZ | | | | | AML | AML | 19 16 25.1 | |
| **BFZ** | **Birch Farm** | **1.99** | **171** | | PN | Pn | 19 15 59.6 | -1.3 |
| BFZ | | | | | AML | AML | 19 16 26.1 | |
| BFZ | | | | | AML | AML | 19 16 27.5 | |
| BFZ | | | | | AML | AML | 19 16 27.5 | |
| **PUZ** | **Puketiti** | **2.01** | **72** | ⇓ | PN | Pn | 19 16 00.3 | -0.8 |
| PUZ | | | | | AML | AML | 19 16 27.7 | |
| PUZ | | | | | AML | AML | 19 16 29.5 | |
| **TIWZ** | **Tintock** | **2.06** | **179** | | PN | Pn | 19 16 00.3 | -1.4 |
| TIWZ | | | | | AML | AML | 19 16 28.3 | |
| TIWZ | | | | | AML | AML | 19 16 28.8 | |
| **OGWZ** | **Otaki Gorge** | **2.16** | **193** | ⇑ | PN | Pn | 19 16 01.4 | -1.5 |
| OGWZ | | | | | AML | AML | 19 16 28.9 | |
| OGWZ | | | | | AML | AML | 19 16 29.3 | |
| **HOWZ** | **Holdsworth Sta** | **2.19** | **186** | | PN | Pn | 19 16 01.5 | -1.8 |
| HOWZ | | | | | AML | AML | 19 16 27.4 | |
| HOWZ | | | | | AML | AML | 19 16 29.7 | |
| **CPWZ** | **Castlepoint** | **2.21** | **173** | ⇑ | PN | Pn | 19 16 02.5 | -1.0 |
| CPWZ | | | | | AML | AML | 19 16 31.6 | |
| CPWZ | | | | | AML | AML | 19 16 33.1 | |
| **WMGZ** | **Waiomatatini S** | **2.22** | **67** | | PN | Pn | 19 16 02.8 | -0.8 |
| WMGZ | | | | | AML | AML | 19 16 32.3 | |
| WMGZ | | | | | AML | AML | 19 16 32.5 | |
| **KIWZ** | **Kapiti Island** | **2.26** | **198** | | PN | Pn | 19 16 02.2 | -2.0 |
| KIW | | | | | AML | AML | 19 16 30.8 | |
| KIW | | | | | AML | AML | 19 16 31.4 | |
| **MXZ** | **Matakaoa Point** | **2.26** | **60** | | PN | Pn | 19 16 03.8 | -0.4 |
| **TMWZ** | **Te Maipa** | **2.39** | **179** | | PN | Pn | 19 16 03.9 | -1.9 |
| TMWZ | | | | | AML | AML | 19 16 34.2 | |
| TMWZ | | | | | AML | AML | 19 16 35.7 | |
| **MTW** | **Mount Morrison** | **2.46** | **186** | ⇑ | PN | Pn | 19 16 04.3 | -2.3 |
| MTW | | | | | AML | AML | 19 16 35.0 | |
| MTW | | | | | AML | AML | 19 16 35.2 | |
| **CAW** | **Cannon Point** | **2.46** | **194** | | PN | Pn | 19 16 04.5 | -2.2 |
| CAW | | | | | AML | AML | 19 16 35.3 | |
| CAW | | | | | AML | AML | 19 16 35.5 | |
| **DUWZ** | **D'Urville Isla** | **2.55** | **215** | | PN | Pn | 19 16 05.4 | -2.4 |
| **PAWZ** | **Paruwai Farm** | **2.68** | **187** | | PN | Pn | 19 16 07.0 | -2.5 |
| PAWZ | | | | | AML | AML | 19 16 40.1 | |
| **TRWZ** | **Traveller** | **2.68** | **182** | | PN | Pn | 19 16 07.3 | -2.3 |
| TRWZ | | | | | AML | AML | 19 16 40.4 | |
| TRWZ | | | | | AML | AML | 19 16 40.6 | |
| **WEL** | **Wellington** | **2.69** | **197** | | AML | AML | 19 16 40.6 | |
| WEL | | | | | AML | AML | 19 16 40.6 | |
| WEL | | | | | AML | AML | 19 16 41.3 | |
| WEL | | | | | AML | AML | 19 16 41.4 | |
| **MSWZ** | **Moikau Station** | **2.74** | **189** | ⇑ | PN | Pn | 19 16 07.6 | -2.6 |
| MSWZ | | | | | AML | AML | 19 16 40.3 | |
| MSWZ | | | | | AML | AML | 19 16 41.0 | |
| **TCW** | **Tory Channel** | **2.77** | **205** | | PN | Pn | 19 16 08.1 | -2.5 |
| TCW | | | | | AML | AML | 19 16 41.8 | |
| TCW | | | | | AML | AML | 19 16 42.5 | |
| **BHW** | **Baring Head** | **2.79** | **195** | | PN | Pn | 19 16 08.2 | -2.7 |
| **PLWZ** | **Palliser** | **2.89** | **189** | ⇑ | PN | Pn | 19 16 09.3 | -2.9 |
| **TUWZ** | **Tuamarina** | **3.08** | **208** | | PN | Pn | 19 16 11.7 | -2.9 |
| TUWZ | | | | | AML | AML | 19 16 48.5 | |
| TUWZ | | | | | AML | AML | 19 16 49.1 | |
| **NNZ** | **Nelson** | **3.13** | **216** | | PN | Pn | 19 16 12.6 | -2.7 |
| **QRZ** | **Quartz Range** | **3.31** | **229** | ⇑ | PN | Pn | 19 16 14.9 | -2.7 |
| **INZ** | **Inchbonnie** | **5.21** | **218** | | SN | Sn | 19 17 34.9 | -7.1 |

**WEL 23 19:27:47.1±0.1, 43°52S×172°83E, h10km, ML3.4/3, 2C, Error ellipse: s-maj=1.2km s-min=0.5km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.16** | **250** | ⇑PG | Pg | 19 27 50.7 | +0.2 |
| CRLZ | | | | | AML | 19 27 51.2 | |
| CRLZ | | | | SG | Sg | 19 27 52.9 | -0.1 |
| CRLZ | | | | AML | AML | 19 27 53.0 | |
| CRLZ | | | | AML | AML | 19 27 53.2 | |
| **MQZ** | **McQueen's Vall** | **0.22** | **214** | ⇑PG | Pg | 19 27 52.0 | +0.2 |
| MQZ | | | | SG | Sg | 19 27 54.9 | 0.0 |
| MQZ | | | | SG | | 19 27 55.0 | |
| MQZ | | | | AML | AML | 19 27 55.2 | |
| **OXZ** | **Oxford** | **0.61** | **288** | P* | Pg | 19 27 58.9 | 0.0 |
| OXZ | | | | AML | AML | 19 28 01.0 | |
| OXZ | | | | AML | AML | 19 28 01.4 | |
| OXZ | | | | AML | AML | 19 28 09.5 | |
| OXZ | | | | AML | AML | 19 28 10.0 | |
| **KHZ** | **Kahutara** | **1.22** | **26** | P* | Pn | 19 28 09.9 | -0.2 |
| **RPZ** | **Rata Peaks** | **1.30** | **261** | PN | Pn | 19 28 10.3 | -1.1 |
| **FOZ** | **Fox Glacier** | **2.19** | **269** | PN | Pn | 19 28 24.3 | +0.8 |
| **JCZ** | **Jackson Bay** | **2.98** | **258** | *e*PN | Pn | 19 28 34.0 | -0.4 |

**WEL 23 19:27:58.4±0.1, 43°53S×172°84E, h9km, ML3.8/21, 2C-1D, Error ellipse: s-maj=1.0km s-min=0.4km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.16** | **255** | ⇓PG | Pg | 19 28 01.9 | +0.2 |
| CRLZ | | | | AML | AML | 19 28 04.2 | |
| CRLZ | | | | SG | Sg | 19 28 04.2 | +0.1 |
| CRLZ | | | | AML | AML | 19 28 04.7 | |
| CRLZ | | | | AML | AML | 19 28 04.8 | |
| **MQZ** | **McQueen's Vall** | **0.22** | **217** | PG | Pg | 19 28 03.0 | +0.2 |
| MQZ | | | | SG | Sg | 19 28 05.9 | +0.2 |
| MQZ | | | | SG | | 19 28 06.0 | |
| MQZ | | | | AML | AML | 19 28 06.1 | |
| **OXZ** | **Oxford** | **0.62** | **289** | S* | Sg | 19 28 19.1 | +0.7 |
| OXZ | | | | AML | AML | 19 28 19.7 | |
| OXZ | | | | AML | AML | 19 28 20.8 | |
| OXZ | | | | AML | AML | 19 28 21.6 | |
| **KHZ** | **Kahutara** | **1.23** | **25** | ⇑P* | Pn | 19 28 21.4 | -0.3 |
| KHZ | | | | AML | AML | 19 28 38.3 | |
| KHZ | | | | AML | AML | 19 28 38.3 | |
| KHZ | | | | AML | AML | 19 28 56.6 | |
| KHZ | | | | AML | AML | 19 28 56.6 | |
| **INZ** | **Inchbonnie** | **1.30** | **308** | *e*P* | Pn | 19 28 22.6 | -0.2 |
| **RPZ** | **Rata Peaks** | **1.31** | **261** | ⇑PN | Pn | 19 28 21.9 | -0.9 |
| RPZ | | | | AML | AML | 19 28 45.7 | |
| RPZ | | | | AML | AML | 19 28 46.7 | |
| **WVZ** | **Waitaha Valley** | **1.60** | **286** | AML | AML | 19 28 57.0 | |
| WVZ | | | | AML | AML | 19 28 58.5 | |
| **THZ** | **Tophouse** | **1.77** | **2** | AML | AML | 19 28 51.6 | |
| THZ | | | | AML | AML | 19 29 05.6 | |
| **DSZ** | **Denniston Nort** | **1.94** | **337** | AML | AML | 19 29 04.8 | |
| DSZ | | | | AML | AML | 19 29 04.9 | |
| DSZ | | | | AML | AML | 19 29 12.8 | |
| DSZ | | | | AML | AML | 19 29 12.8 | |
| **BSWZ** | **Blackbirch Sta** | **1.97** | **23** | PN | Pn | 19 28 31.8 | -0.2 |
| BSWZ | | | | AML | AML | 19 28 58.6 | |
| BSWZ | | | | AML | AML | 19 29 17.9 | |
| **LBZ** | **Lake Benmore** | **2.10** | **245** | AML | AML | 19 29 12.3 | |
| LBZ | | | | AML | AML | 19 29 14.1 | |
| **ODZ** | **Otahua Downs** | **2.18** | **225** | AML | AML | 19 29 13.5 | |
| ODZ | | | | AML | AML | 19 29 14.4 | |
| ODZ | | | | AML | AML | 19 29 15.6 | |
| ODZ | | | | AML | AML | 19 29 15.6 | |
| **FOZ** | **Fox Glacier** | **2.20** | **269** | AML | AML | 19 29 03.3 | |
| FOZ | | | | AML | AML | 19 29 03.6 | |
| **NNZ** | **Nelson** | **2.35** | **10** | PN | Pn | 19 28 37.2 | 0.0 |
| **QRZ** | **Quartz Range** | **2.72** | **355** | AML | AML | 19 28 51.4 | |
| QRZ | | | | AML | AML | 19 29 32.9 | |
| **CAW** | **Cannon Point** | **2.94** | **35** | PN | Pn | 19 28 44.5 | -0.7 |
| CAW | | | | AML | AML | 19 29 20.5 | |
| CAW | | | | AML | AML | 19 29 26.4 | |
| **JCZ** | **Jackson Bay** | **2.98** | **258** | AML | AML | 19 29 37.9 | |
| JCZ | | | | AML | AML | 19 29 43.8 | |
| **WKZ** | **Wanaka** | **3.04** | **243** | AML | AML | 19 29 41.2 | |
| WKZ | | | | AML | AML | 19 29 42.8 | |
| **EAZ** | **Earnscleugh** | **3.04** | **235** | AML | AML | 19 29 39.4 | |
| EAZ | | | | AML | AML | 19 29 41.7 | |
| **KIW** | **Kapiti Island** | **3.08** | **31** | PN | Pn | 19 28 46.6 | -0.6 |
| **OGWZ** | **Otaki Gorge** | **3.22** | **33** | PN | Pn | 19 28 48.9 | -0.2 |
| OGWZ | | | | AML | AML | 19 29 25.9 | |
| OGWZ | | | | AML | AML | 19 29 32.2 | |
| **TUZ** | **Tuapeka** | **3.33** | **222** | AML | AML | 19 29 52.8 | |
| TUZ | | | | AML | AML | 19 29 53.7 | |
| **MRZ** | **Mangatainoka R** | **3.52** | **36** | PN | Pn | 19 28 52.9 | -0.4 |
| MRZ | | | | AML | AML | 19 29 34.6 | |
| MRZ | | | | AML | AML | 19 29 36.4 | |
| **BFZ** | **Birch Farm** | **3.82** | **43** | *e*PN | Pn | 19 28 55.3 | -2.0 |
| **MLZ** | **Mavora Lakes** | **3.84** | **240** | *e*PN | Pn | 19 28 56.9 | -0.8 |
| **SYZ** | **Scrubby Hill** | **3.98** | **220** | AML | AML | 19 30 16.1 | |
| **PREZ** | **Palmer Road** | **4.30** | **14** | PN | Pn | 19 29 05.6 | +1.5 |
| **KHEZ** | **Kahui Hut** | **4.33** | **12** | PN | Pn | 19 29 06.3 | +1.8 |
| **WNVZ** | **Wahianoa** | **4.69** | **27** | PN | Pn | 19 29 10.3 | +0.9 |
| **HIZ** | **Hauiti** | **5.24** | **18** | PN | Pn | 19 29 17.5 | +0.5 |

*ISCJB **23** 19:35:16.2±0.3, 35°13N±0°02×53°16E±0°03, h6km, Error ellipse: s-maj=4.1km s-min=2.9km az=158.2*
*THR **23** 19:35:16.4±1.1, 35°18N×53°13E, h17km±15km, ML3.7*
*CSEM **23** 19:35:17.2±0.2, 35°10N×53°18E, h5km, ML3.8, Error ellipse: s-maj=5.5km s-min=3.9km az=61.0*
*TEH **23** 19:35:17.4, 35°10N×53°16E, h7km, ML3.8*
*AZER **23** 19:35:21.3±2.5, 35°33N×53°11E, h5km, Error ellipse: s-maj=38.3km s-min=17.9km az=76.0*

**ISC 23 19:35:16.8±1.0, 35°08N±0°04×53°18E±0°03, h6km, n80, σ1§11/96, 8C-8D, Northern and central Iran**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ILAS** | **Lasjerd** | **0.35** | **329** | *e*Pg | **Pg** | **19 35 23.5** | **-0.3** |
| ILAS | | | | *e*AMB | AMB | 19 35 30.3 | |
| | comp=E,61μm,0.1s | | | | | | |
| **ILAS** | **Lasjerd** | **0.35** | **329** | *e*Pg | **Pg** | **19 35 23.5** | **-0.3** |
| **IFIR** | **Firoozkooh** | **0.66** | **328** | *e*Pg | **Pg** | **19 35 28.4** | **-1.2** |
| IFIR | | | | *e*Sg | **Sg** | **19 35 38.3** | **+0.1** |
| IFIR | | | | *e*AMB | AMB | 19 35 45.3 | |
| | comp=Z,32μm,0.1s | | | | | | |
| **IFIR** | **Firoozkooh** | **0.66** | **328** | *e*Pg | **Pg** | **19 35 28.4** | **-1.2** |
| IFIR | | | | *e*Sg | **Sg** | **19 35 38.3** | **+0.1** |
| **IANJ** | **Anjilo** | **0.72** | **57** | *e*Pg | **Pg** | **19 35 29.7** | **-0.9** |
| IANJ | | | | *e*AMB | AMB | 19 35 44.9 | |
| | comp=Z,42μm,0.1s | | | | | | |
| **IANJ** | **Anjilo** | **0.72** | **57** | *e*Pg | **Pg** | **19 35 29.7** | **-0.9** |
| **ISHM** | **Shahmirzad** | **0.73** | **7** | *e*Pg | **Pg** | **19 35 30.4** | **-0.5** |
| ISHM | | | | *e*AMB | AMB | 19 35 44.0 | |
| | comp=Z,50μm,0.2s | | | | | | |
| **IALA** | **Alasht** | **1.04** | **343** | *e*Pg | **Pg** | **19 35 35.5** | **-1.4** |
| IALA | | | | *e*Sg | **Sg** | **19 35 50.3** | **-0.2** |
| IALA | | | | *e*AMB | AMB | 19 35 56.2 | |
| | comp=Z,22μm,0.3s | | | | | | |
| **IALA** | **Alasht** | **1.04** | **343** | *e*Pg | **Pg** | **19 35 35.5** | **-1.4** |
| IALA | | | | *e*Sg | **Sg** | **19 35 50.3** | **-0.2** |
| **IDMV** | **Damavand** | **1.06** | **298** | *e*Pg | **Pg** | **19 35 35.5** | **-1.7** |
| IDMV | | | | *e*AMB | AMB | 19 35 58.0 | |
| | comp=Z,10μm,0.1s | | | | | | |
| **IDMV** | **Damavand** | **1.06** | **298** | *e*Pg | **Pg** | **19 35 35.5** | **-1.7** |
| **IVRN** | **Varamin** | **1.19** | **266** | *e*Pg | **Pg** | **19 35 38.3** | **-1.4** |
| IVRN | | | | *e*Sg | **Sg** | **19 35 55.2** | **0.0** |
| IVRN | | | | *e*AMB | AMB | 19 35 59.6 | |
| | comp=Z,52μm,0.1s | | | | | | |
| **IVRN** | **Varamin** | **1.19** | **266** | *e*Pg | **Pg** | **19 35 38.3** | **-1.4** |
| IVRN | | | | *e*Sg | **Sg** | **19 35 55.2** | **0.0** |
| **IPRN** | **Peran** | **1.34** | **330** | *e*Pn | **Pn** | **19 35 41.7** | **-0.6** |
| IPRN | | | | *e*AMB | AMB | 19 36 07.3 | |
| | comp=Z,17μm,0.2s | | | | | | |
| **IGLO** | **Ghaloghah** | **1.51** | **20** | *e*Pn | **Pn** | **19 35 44.6** | **-0.1** |
| IGLO | | | | *e*AMB | AMB | 19 36 13.0 | |
| | comp=Z,23μm,0.2s | | | | | | |
| **GHVR** | **GHOM** | **1.66** | **249** | *e*Pg | **Pn** | **19 35 47.6** | **+0.9** |
| GHVR | | | | AML | AML | 19 36 14.4 | |
| | comp=E,459nm,0.4s | | | | | | |
| **GHVR** | **GHOM** | **1.66** | **249** | *e*Pn | **Pn** | **19 35 47.5** | **+0.9** |
| **CHTH** | **Charan** | **1.87** | **297** | *e*Pg | **Pn** | **19 35 49.2** | **-0.3** |
| CHTH | | | | AML | AML | 19 36 16.5 | |
| | comp=E,1μm,0.4s | | | | | | |
| **CHTH** | **Charan** | **1.87** | **297** | *e*Pn | **Pn** | **19 35 49.3** | **-0.3** |
| **QAM** | **Ghamsar** | **1.95** | **228** | *e*Pn | **Pn** | **19 35 50.5** | **-0.2** |
| QAM | | | | *e*AMB | AMB | 19 36 20.2 | |
| | comp=Z,9μm,0.1s | | | | | | |
| **THKV** | **Tehran--Karaj** | **2.05** | **295** | *e*Pg | **Pn** | **19 35 52.5** | **+0.4** |
| THKV | | | | AML | AML | 19 36 23.5 | |
| | comp=E,1μm,0.4s | | | | | | |
| **THKV** | **Tehran--Karaj** | **2.05** | **295** | *e*Pn | **Pn** | **19 35 52.2** | **+0.1** |
| **IR5** | **Iran Long-Peri** | **2.13** | **274** | *e*Pn | **Pn** | **19 35 53.5** | **+0.4** |
| IR5 | | | | *e*AMB | AMB | 19 36 24.4 | |
| | comp=Z,7μm,0.1s | | | | | | |
| **IR5** | **Iran Long-Peri** | **2.13** | **274** | *e*Pn | **Pn** | **19 35 53.5** | **+0.4** |
| **IKLH** | **Kolahrood** | **2.20** | **217** | *e*Pn | **Pn** | **19 35 54.2** | **0.0** |
| IKLH | | | | *e*AMB | AMB | 19 36 28.6 | |
| | comp=Z,7μm,0.1s | | | | | | |
| **IKLH** | **Kolahrood** | **2.20** | **217** | *e*Pn | **Pn** | **19 35 54.2** | **0.0** |
| **IZEF** | **Zefreh** | **2.29** | **198** | *e*Pn | **Pn** | **19 35 55.4** | **0.0** |
| IZEF | | | | *e*AMB | AMB | 19 36 29.2 | |
| | comp=Z,8μm,0.2s | | | | | | |
| **IZEF** | **Zefreh** | **2.29** | **198** | *e*Pn | **Pn** | **19 35 55.4** | **0.0** |
| **NASN** | **Na'in** | **2.30** | **188** | *e*Pn | **Pn** | **19 35 57.2** | **+1.6** |
| **NASN** | **Na'in** | **2.30** | **188** | *e*Pn | **Pn** | **19 35 57.2** | **+1.6** |
| **SHRO** | **Shahrood** | **2.48** | **68** | *e*Pn | **Pn** | **19 35 57.8** | **-0.1** |
| SHRO | | | | AML | AML | 19 36 42.2 | |
| | comp=N,230nm,0.5s | | | | | | |
| SHRO | | | | AML | AML | 19 36 42.9 | |
| | comp=E,254nm,0.5s | | | | | | |
| **SHRO** | **Shahrood** | **2.48** | **68** | *e*Pn | **Pn** | **19 35 57.8** | **-0.1** |
| **ASAO** | **Ashtian** | **2.65** | **259** | *e*Pn | **Pn** | **19 36 00.2** | **-0.1** |
| **ASAO** | **Ashtian** | **2.65** | **259** | *e*Pn | **Pn** | **19 36 00.2** | **-0.1** |
| **IRAZ** | **Razeghan** | **2.68** | **278** | *e*Pn | **Pn** | **19 36 00.1** | **-0.6** |
| IRAZ | | | | *e*AMB | AMB | 19 36 45.0 | |
| | comp=Z,4μm,0.2s | | | | | | |
| **IRAZ** | **Razeghan** | **2.68** | **278** | *e*Pn | **Pn** | **19 36 00.1** | **-0.6** |
| **IGAR** | **Gharneh** | **2.83** | **200** | *e*Pn | **Pn** | **19 36 04.3** | **+1.4** |
| IGAR | | | | *e*AMB | AMB | 19 36 54.9 | |
| | comp=Z,1μm,0.2s | | | | | | |
| **ICHK** | **Chekchek** | **3.01** | **160** | *e*Pn | **Pn** | **19 36 06.3** | **+1.0** |
| ICHK | | | | *e*AMB | AMB | 19 37 00.1 | |
| | comp=Z,4μm,0.3s | | | | | | |
| **ICHK** | **Chekchek** | **3.01** | **160** | *e*Pn | **Pn** | **19 36 06.3** | **+1.0** |
| **IPIR** | **Pirpir** | **3.06** | **219** | *e*Pn | **Pn** | **19 36 08.2** | **+2.2** |
| IPIR | | | | *e*AMB | AMB | 19 37 06.1 | |
| | comp=Z,2μm,0.3s | | | | | | |
| **IPIR** | **Pirpir** | **3.06** | **219** | *e*Pn | **Pn** | **19 36 08.2** | **+2.2** |
| **ISAD** | **Sadrabad** | **3.19** | **172** | *e*Pn | **Pn** | **19 36 09.2** | **+1.4** |
| ISAD | | | | *e*AMB | AMB | 19 37 06.4 | |
| | comp=Z,3μm,0.3s | | | | | | |
| **ISAD** | **Sadrabad** | **3.19** | **172** | *e*Pn | **Pn** | **19 36 09.2** | **+1.4** |
| **IRAM** | **Ramesheh** | **3.33** | **192** | *e*Pn | **Pn** | **19 36 11.8** | **+2.1** |
| IRAM | | | | *e*AMB | AMB | 19 37 14.8 | |
| | comp=Z,822nm,0.2s | | | | | | |
| **IRAM** | **Ramesheh** | **3.33** | **192** | *e*Pn | **Pn** | **19 36 11.8** | **+2.1** |
| **MRVT** | **Maraveh tapeh** | **3.48** | **42** | *e*Pn | **Pn** | **19 36 12.1** | **+0.4** |
| **MRVT** | **Maraveh tapeh** | **3.48** | **42** | *e*Pn | **Pn** | **19 36 12.1** | **+0.4** |
| **IMEH** | **Mehriz** | **3.87** | **162** | *e*Pn | **Pn** | **19 36 17.4** | **+0.2** |
| IMEH | | | | *e*AMB | AMB | 19 37 30.9 | |
| | comp=Z,1μm,0.4s | | | | | | |
| **IMEH** | **Mehriz** | **3.87** | **162** | *e*Pn | **Pn** | **19 36 17.4** | **+0.2** |
| **IBAF** | **Bafgh** | **4.01** | **149** | *e*Pn | **Pn** | **19 36 19.4** | **+0.3** |
| IBAF | | | | *e*AMB | AMB | 19 37 36.4 | |
| | comp=Z,2μm,0.3s | | | | | | |
| **IBAF** | **Bafgh** | **4.01** | **149** | *e*Pn | **Pn** | **19 36 19.4** | **+0.3** |
| **ISFR** | **Sfrayin** | **4.37** | **62** | *e*Pn | **Pn** | **19 36 24.5** | **+0.4** |
| ISFR | | | | *e*AMB | AMB | 19 37 55.1 | |
| | comp=Z,1μm,0.3s | | | | | | |
| **ISFR** | **Sfrayin** | **4.37** | **62** | *e*Pn | **Pn** | **19 36 24.5** | **+0.4** |
| **ITEG** | **Tejag** | **5.12** | **114** | *e*Pn | **Pn** | **19 36 34.4** | **+0.2** |
| ITEG | | | | *e*AMB | AMB | 19 38 42.4 | |
| | comp=Z,581nm,0.4s | | | | | | |
| **ITEG** | **Tejag** | **5.12** | **114** | *e*Pn | **Pn** | **19 36 34.4** | **+0.2** |
| **LRK** | **Lerik** | **5.26** | **314** | ⇓P | **Pn** | **19 36 37.6** | **+1.4** |
| **LRK** | **Lerik** | **5.26** | **314** | P | **Pn** | **19 36 37.6** | **+1.4** |
| **IKOO** | **Kooshah** | **5.53** | **117** | *e*Pn | **Pn** | **19 36 40.1** | **+0.1** |
| IKOO | | | | *e*AMB | AMB | 19 36 41.2 | |
| | comp=Z,974nm,0.1s | | | | | | |
| **IKOO** | **Kooshah** | **5.53** | **117** | *e*Pn | **Pn** | **19 36 40.1** | **+0.1** |
| **GLBA** | **Clilabad** | **5.64** | **319** | ⇓S | **Sn** | **19 37 46.6** | **+0.3** |
| **GLBA** | **Clilabad** | **5.64** | **319** | S | **Sn** | **19 37 46.6** | **+0.3** |
| **ATGJ** | **Altiaghaj** | **6.67** | **331** | ⇑P | **Pn** | **19 36 56.8** | **+1.3** |
| ATGJ | | | | ⇑S | **Sn** | **19 38 11.7** | **-0.1** |
| **ATGJ** | **Altiaghaj** | **6.67** | **331** | P | **Pn** | **19 36 56.8** | **+1.3** |
| ATGJ | | | | S | **Sn** | **19 38 11.7** | **-0.1** |
| **PQL** | **Pirkuli** | **6.75** | **329** | ⇑P | **Pn** | **19 36 57.9** | **+1.3** |
| PQL | | | | ⇓S | **Sn** | **19 38 13.8** | **-0.1** |
| **PQL** | **Pirkuli** | **6.75** | **329** | P | **Pn** | **19 36 57.9** | **+1.3** |
| PQL | | | | S | **Sn** | **19 38 13.8** | **-0.1** |
| **ORD** | **Ordubad** | **6.91** | **306** | P | **Pn** | **19 37 00.6** | **+1.8** |
| **IML** | **Ismayilli** | **6.93** | **327** | ⇓P | **Pn** | **19 37 00.4** | **+1.3** |
| **IML** | **Ismayilli** | **6.93** | **327** | P | **Pn** | **19 37 00.4** | **+1.3** |
| **XNQ** | **Khinaliq** | **7.26** | **328** | ⇑P | **Pn** | **19 37 05.0** | **+1.3** |
| XNQ | | | | ⇑S | **Sn** | **19 38 27.7** | **+1.2** |
| **XNQ** | **Khinaliq** | **7.26** | **328** | P | **Pn** | **19 37 05.0** | **+1.3** |
| XNQ | | | | S | **Sn** | **19 38 27.7** | **+1.2** |
| **QUBA** | **Quba, Azerbaij** | **7.27** | **331** | ⇓P | **Pn** | **19 37 05.1** | **+1.5** |
| QUBA | | | | ⇓S | **Sn** | **19 38 26.5** | **+0.1** |
| **QUBA** | **Quba, Azerbaij** | **7.27** | **331** | P | **Pn** | **19 37 05.1** | **+1.5** |
| QUBA | | | | S | **Sn** | **19 38 26.5** | **+0.1** |
| **QSAR** | **Qusar** | **7.49** | **330** | ⇑P | **Pn** | **19 37 08.2** | **+1.5** |
| QSAR | | | | ⇑S | **Sn** | **19 38 32.0** | **-0.1** |
| **QSAR** | **Qusar** | **7.49** | **330** | P | **Pn** | **19 37 08.2** | **+1.5** |
| QSAR | | | | S | **Sn** | **19 38 32.0** | **-0.1** |
| **SEKA** | **Sheki** | **7.72** | **324** | ⇑P | **Pn** | **19 37 10.6** | **+0.8** |
| **SEKA** | **Sheki** | **7.72** | **324** | P | **Pn** | **19 37 10.6** | **+0.8** |
| **GANJ** | **Ganja** | **7.76** | **318** | ⇓P | **Pn** | **19 37 12.5** | **+2.1** |
| **GANJ** | **Ganja** | **7.76** | **318** | P | **Pn** | **19 37 12.5** | **+2.1** |
| **HYR** | **Heyderabad** | **8.08** | **307** | ⇓P | **Pn** | **19 37 17.4** | **+2.6** |
| **HYR** | **Heyderabad** | **8.08** | **307** | P | **Pn** | **19 37 17.4** | **+2.6** |

**MEX 23 19:44:13.1±0.4, 30°90N×113°94W, h11km±6km, MD3.8, Gulf of California**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SPIG** | **San Pedro Mart** | **1.32** | **277** | *e*P | Pn | 19 44 34.2 | -3.6 |
| SPIG | | | | *i* S | Sb | 19 44 50.1 | -5.1 |
| **CBX** | **Cerro Bola** | **2.72** | **302** | *e*P | Pn | 19 44 53.9 | -3.0 |
| CBX | | | | *i* S | Sn | 19 45 25.5 | -4.4 |
| **TJIG** | **Tijuana** | **2.79** | **304** | *e*P | Pn | 19 44 54.0 | -3.7 |
| TJIG | | | | *i* S | Sn | 19 45 28.6 | -2.8 |

**WEL 23 19:48:28.1±0.2, 43°51S×172°78E, h7km, ML3.7/17, 7C-2D, Error ellipse: s-maj=1.4km s-min=0.7km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **SYZ** | **Scrubby Hill** | **3.98** | **219** | PN | Pn | 19 49 28.5 | -1.1 |
| **WHZ** | **Wether Hill Ro** | **4.19** | **234** | PN | Pn | 19 49 30.2 | -2.3 |
| **DCZ** | **Deep Cove** | **4.48** | **242** | PN | Pn | 19 49 34.8 | -1.6 |
| **WNVZ** | **Wahianoa** | **4.68** | **28** | *e*PN | Pn | 19 49 38.2 | -1.2 |
| **APZ** | **The Paps** | **4.75** | **224** | PN | Pn | 19 49 38.6 | -1.5 |
| **OTVZ** | **Oturere** | **4.85** | **28** | PN | Pn | 19 49 40.3 | -1.4 |
| **HIZ** | **Hauiti** | **5.23** | **18** | PN | Pn | 19 49 46.3 | -0.4 |

*ISCJB **23** 19:50:56.9±0.6, 38.°17N±0.°04×26.°69E±0.°05, h8km±5km, Error ellipse: s-maj=8.3km s-min=5.3km az=137.2*
*CSEM **23** 19:50:56.5±0.3, 38.°14N×26.°66E, h5km, MD2.4, Error ellipse: s-maj=7.4km s-min=5.1km az=68.0*
*DDA **23** 19:50:56.3, 38.°19N×26.°73E, h7km, Md2.4*
*ISK **23** 19:50:56.1, 38.°15N×26.°57E, h6km, ML2.6*

**ISC 23 19:50:56.7**±0.9, **38.°16N**±0.°03×**26.°68E**±0.°04, **h10**km±7km, **n19**, σ**0.61**/30, **Aegean Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ZEY** | **˙zmir** | **0.16** | **300** | *i* P | **Pg** | **19 51 00.2** | **-0.1** |
| ZEY | | | | *i* S | **Sg** | **19 51 03.2** | **+0.4** |
| **DGB** | **˙zmir** | **0.19** | **124** | *i* P | **Pg** | **19 51 00.8** | **+0.1** |
| DGB | | | | *i* S | **Sg** | **19 51 03.8** | **+0.3** |
| **URLA** | **Izmir** | **0.21** | **341** | *e*PG | **Pg** | **19 51 00.7** | **-0.5** |
| URLA | | | | *e*SG | **Sg** | **19 51 04.2** | **-0.1** |
| **URLA** | **Izmir** | **0.21** | **341** | *i* P | **Pg** | **19 51 00.6** | **-0.6** |
| URLA | | | | *i* S | **Sg** | **19 51 04.2** | **-0.1** |
| **URLA** | **Izmir** | **0.21** | **341** | *e*Pg | **Pg** | **19 51 00.7** | **-0.5** |
| URLA | | | | S | **Sg** | **19 51 04.2** | **-0.1** |
| **AYDN** | **Tasoluk** | **1.07** | **117** | *i* P | **Pg** | **19 51 16.5** | **-0.8** |
| AYDN | | | | *i* S | **Sg** | **19 51 30.7** | **-0.5** |
| **AYDN** | **Tasoluk** | **1.07** | **117** | P | **Pg** | **19 51 16.5** | **-0.8** |
| AYDN | | | | S | **Sg** | **19 51 30.7** | **-0.5** |
| **BODT** | **Bodrum** | **1.20** | **155** | *e*PN | **Pg** | **19 51 20.1** | **+0.3** |
| **BODT** | **Bodrum** | **1.20** | **155** | *e*Pn | **Pg** | **19 51 20.1** | **+0.3** |
| **BDRM** | **Kayabasi** | **1.25** | **151** | *i* P | **Pg** | **19 51 20.4** | **-0.2** |
| BDRM | | | | *i* S | **Sn** | **19 51 37.6** | **+0.6** |
| **BDRM** | **Kayabasi** | **1.25** | **151** | P | **Pg** | **19 51 20.5** | **-0.2** |
| BDRM | | | | S | **Sn** | **19 51 37.6** | **+0.6** |
| **APE** | **Apeiranthos** | **1.42** | **220** | *e*PN | **Pn** | **19 51 22.1** | **-0.5** |
| **APE** | **Apeiranthos** | **1.42** | **220** | *e*Pn | **Pn** | **19 51 22.1** | **-0.5** |
| **MANT** | **Manisa** | **1.51** | **77** | *i* P | **Pb** | **19 51 24.7** | **-0.3** |
| MANT | | | | *i* S | **Sn** | **19 51 43.0** | **-0.9** |
| **MANT** | **Manisa** | **1.51** | **77** | P | **Pb** | **19 51 24.7** | **-0.3** |
| MANT | | | | S | **Sn** | **19 51 43.0** | **-0.9** |
| **KULA** | **Kula-Manisa** | **1.59** | **76** | *e*PN | **Pb** | **19 51 26.7** | **+0.4** |
| **KULA** | **Kula-Manisa** | **1.59** | **76** | *e*Pn | **Pb** | **19 51 26.7** | **+0.4** |
| **GONE** | **Gonen-Balikesi** | **2.04** | **22** | *e*PN | **Pn** | **19 51 32.4** | **+1.3** |
| **GONE** | **Gonen-Balikesi** | **2.04** | **22** | *e*Pn | **Pn** | **19 51 32.4** | **+1.3** |

**IDC 23 19:57:50.0**±2.8, **30.°73N**×**137.°53E**, **h322**km±34km, **mb2.9**/4, **mb1 2.9**/6, **mb1mx2.6**/58, **mbtmp3.5**/6, **Error ellipse: s-maj=37.0km s-min=19.3km az=81.0, Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MJAR** | **Matsushiro Arr** | **5.83** | **5** | P | Pn | 19 59 17.7 | -0.2 |
| | 0.5nm,0.3s,baz=176,slow=11,SNR=8.7 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **14.15** | **343** | P | Pn | 20 00 57.1 | -0.4 |
| | 0.3nm,0.3s,baz=155,slow=4.8,SNR=2.8 | | | | | | |
| **PETK** | **Petropavlovsk-** | **26.75** | **27** | P | P | 20 03 00.7 | -0.1 |
| | 6.9nm,1.0s,baz=231,slow=9.1,SNR=4.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **45.03** | **307** | P | P | 20 05 34.2 | -0.2 |
| | 0.3nm,0.8s,baz=97,slow=8.3,SNR=2.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **50.47** | **184** | P | P | 20 06 15.3 | -0.7 |
| | 0.4nm,0.6s,baz=360,slow=7.6,SNR=9.2 | | | | | | |
| **ASAR** | **Alice Springs** | **54.19** | **184** | P | P | 20 06 43.9 | +0.8 |
| | 0.3nm,0.6s,baz=12,slow=14,SNR=5.0 | | | | | | |

*IDC **23** 20:00:48.5±1.2, 41.°21N×48.°14E, h0km, mb3.8/5, mb1 3.7/11, mb1mx3.4/49, mbtmp3.6/11, ML1.9/3, Error ellipse: s-maj=21.1km s-min=11.1km az=159.0*
*MOS **23** 20:00:50.3±1.4, 41.°03N×48.°57E, h14km, mb4.3/2, Error ellipse: s-maj=10.0km s-min=5.3km az=117.6*
*AZER **23** 20:00:53.7±0.2, 41.°07N×48.°11E, h42km, Error ellipse: s-maj=0.8km s-min=0.5km az=313.0*
*ISCJB **23** 20:00:54.5±0.3, 41.°08N±0.°02×48.°11E±0.°03, h60km±3km, mb3.6/5, Error ellipse: s-maj=3.3km s-min=2.7km az=164.0*
*CSEM **23** 20:00:55.2±0.1, 41.°05N×48.°07E, h30km, mb4.3, Error ellipse: s-maj=3.6km s-min=2.8km az=67.0*

**ISC 23 20:00:53.3**±0.7, **41.°06N**±0.°02×**48.°10E**±0.°02, **h42**km±5km, **n108**, σ**2.94**/169, **mb3.9**/5, **27C-36D, Eastern Caucasus**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **XNQ** | **Khinaliq** | **0.11** | **14** | ⇑P | **Pn** | **20 01 01.8** | **+1.3** |
| XNQ | | | | ⇑S | **Sn** | **20 01 08.1** | **+2.6** |
| **XNQ** | **Khinaliq** | **0.11** | **14** | P | **Pn** | **20 01 01.8** | **+1.3** |
| XNQ | | | | S | **Sn** | **20 01 08.1** | **+2.6** |
| **QBL** | **Gabala** | **0.23** | **240** | ⇓P | **Pn** | **20 01 02.6** | **+1.5** |
| QBL | | | | ⇓S | **Sn** | **20 01 09.7** | **+3.1** |
| **QBL** | **Gabala** | **0.23** | **240** | P | **Pn** | **20 01 02.6** | **+1.5** |
| **IML** | **Ismayilli** | **0.28** | **168** | ⇑P | **Pn** | **20 01 02.9** | **+1.4** |
| IML | | | | ⇑S | **Sn** | **20 01 10.6** | **+3.3** |
| **IML** | **Ismayilli** | **0.28** | **168** | P | **Pn** | **20 01 02.9** | **+1.4** |
| IML | | | | S | **Sn** | **20 01 10.6** | **+3.3** |
| **QUBA** | **Quba, Azerbaij** | **0.41** | **45** | ⇑P | **Pn** | **20 01 04.8** | **+1.7** |
| QUBA | | | | ⇓S | **Sn** | **20 01 13.5** | **+3.6** |
| **QUBA** | **Quba, Azerbaij** | **0.41** | **45** | P | **Pn** | **20 01 04.8** | **+1.7** |
| QUBA | | | | S | **Sn** | **20 01 13.5** | **+3.6** |
| **PQL** | **Pirkuli** | **0.46** | **126** | ⇑P | **Pn** | **20 01 05.5** | **+1.7** |
| PQL | | | | ⇓S | **Sn** | **20 01 15.1** | **+4.0** |
| **PQL** | **Pirkuli** | **0.46** | **126** | P | **Pn** | **20 01 05.5** | **+1.7** |
| PQL | | | | S | **Sn** | **20 01 15.1** | **+4.0** |
| **QSAR** | **Qusar** | **0.47** | **15** | ⇓P | **Pn** | **20 01 05.3** | **+1.6** |
| QSAR | | | | ⇓S | **Sn** | **20 01 14.5** | **+3.4** |
| **QSAR** | **Qusar** | **0.47** | **15** | P | **Pn** | **20 01 05.3** | **+1.6** |
| QSAR | | | | S | **Sn** | **20 01 14.5** | **+3.4** |
| **AKT** | **Akhty** | **0.50** | **326** | *i* PG | **Pn** | **20 01 05.4** | **+1.1** |
| AKT | | | | *e*S | **Sn** | **20 01 15.4** | **+3.4** |
| AKT | | | | pmax | pmax | | |
| | comp=Z,741nm,0.3s | | | | | | |
| **AKT** | **Akhty** | **0.50** | **326** | *i* Pg | **Pn** | **20 01 05.4** | **+1.1** |
| | comp=Z,741nm,0.3s | | | | | | |
| AKT | | | | *e*Sg | **Sn** | **20 01 15.4** | **+3.4** |
| **KSMR** | **Kasumkent** | **0.54** | **2** | ⇓*i*PG | **Pn** | **20 01 06.0** | **+1.3** |
| KSMR | | | | *i* S | **Sn** | **20 01 15.0** | **+2.2** |
| KSMR | | | | pmax | pmax | | |
| | comp=Z,1μm,0.1s | | | | | | |
| **KSMR** | **Kasumkent** | **0.54** | **2** | *i* Pg | **Pn** | **20 01 06.0** | **+1.3** |
| | comp=Z,1μm,0.1s | | | | | | |
| KSMR | | | | *i* Sg | **Sn** | **20 01 15.0** | **+2.2** |
| **SIZA** | **Siyzn** | **0.60** | **89** | ⇓P | **Pn** | **20 01 07.5** | **+1.9** |
| SIZA | | | | ⇑S | **Sn** | **20 01 18.5** | **+4.3** |
| **SIZA** | **Siyzn** | **0.60** | **89** | P | **Pn** | **20 01 07.4** | **+1.9** |
| SIZA | | | | S | **Sn** | **20 01 18.5** | **+4.3** |
| **ATGJ** | **Altiaghaj** | **0.66** | **108** | ⇑P | **Pn** | **20 01 08.4** | **+2.0** |
| ATGJ | | | | ⇑S | **Sn** | **20 01 19.7** | **+3.9** |
| **ATGJ** | **Altiaghaj** | **0.66** | **108** | P | **Pn** | **20 01 08.4** | **+2.0** |
| ATGJ | | | | S | **Sn** | **20 01 19.7** | **+3.9** |
| **KDMR** | **Kurdemir** | **0.69** | **175** | ⇓P | **Pn** | **20 01 08.5** | **+1.9** |
| KDMR | | | | ⇑S | **Sn** | **20 01 20.5** | **+4.3** |
| **KDMR** | **Kurdemir** | **0.69** | **175** | P | **Pn** | **20 01 08.5** | **+1.9** |
| KDMR | | | | S | **Sn** | **20 01 20.5** | **+4.3** |
| **SEKA** | **Sheki** | **0.70** | **282** | ⇓P | **Pn** | **20 01 08.3** | **+1.5** |
| SEKA | | | | ⇑S | **Sn** | **20 01 19.7** | **+3.1** |
| **SEKA** | **Sheki** | **0.70** | **282** | PG | **Pn** | **20 01 08.4** | **+1.5** |
| **SEKA** | **Sheki** | **0.70** | **282** | Pg | **Pn** | **20 01 08.4** | **+1.5** |
| SEKA | | | | S | **Sn** | **20 01 19.7** | **+3.1** |
| **MNGR** | **Mingechevir, A** | **0.82** | **250** | ⇑P | **Pn** | **20 01 11.0** | **+2.5** |
| MNGR | | | | ⇑S | **Sn** | **20 01 24.1** | **+4.6** |
| **MNGR** | **Mingechevir, A** | **0.82** | **250** | PG | **Pn** | **20 01 11.1** | **+2.6** |
| **MNGR** | **Mingechevir, A** | **0.82** | **250** | P | **Pn** | **20 01 11.0** | **+2.5** |
| MNGR | | | | S | **Sn** | **20 01 24.1** | **+4.6** |
| **GBS** | **Qobustan** | **0.83** | **129** | ⇑P | **Pn** | **20 01 11.3** | **+2.7** |
| GBS | | | | ⇓S | **Sn** | **20 01 24.1** | **+4.4** |
| **GBS** | **Qobustan** | **0.83** | **129** | P | **Pn** | **20 01 11.3** | **+2.7** |
| GBS | | | | S | **Sn** | **20 01 24.1** | **+4.4** |
| **ZRD** | **Zardab** | **0.85** | **202** | ⇓P | **Pn** | **20 01 10.9** | **+2.1** |
| ZRD | | | | ⇓S | **Sn** | **20 01 25.2** | **+5.2** |
| **ZRD** | **Zardab** | **0.85** | **202** | P | **Pn** | **20 01 10.9** | **+2.1** |
| ZRD | | | | S | **Sn** | **20 01 25.2** | **+5.2** |
| **DRN** | **Derbent** | **0.98** | **10** | *e*PG | **Pn** | **20 01 11.9** | **+1.3** |
| DRN | | | | *e*S | **Sn** | **20 01 26.4** | **+3.2** |
| DRN | | | | pmax | pmax | | |
| | comp=Z,140nm,0.5s | | | | | | |
| **DRN** | **Derbent** | **0.98** | **10** | *e*Pg | **Pn** | **20 01 11.9** | **+1.3** |
| | comp=Z,140nm,0.5s | | | | | | |
| DRN | | | | *e*Sg | **Sn** | **20 01 26.4** | **+3.2** |
| **BRDA** | **Brd** | **1.07** | **222** | ⇓P | **Pn** | **20 01 13.9** | **+2.2** |
| BRDA | | | | ⇓S | **Sn** | **20 01 29.5** | **+4.1** |
| **BRDA** | **Brd** | **1.07** | **222** | P | **Pn** | **20 01 13.9** | **+2.2** |
| BRDA | | | | S | **Sn** | **20 01 29.5** | **+4.1** |
| **URKR** | **Urkarakh** | **1.16** | **342** | ⇓*i*PG | **Pn** | **20 01 15.0** | **+1.9** |
| URKR | | | | *e*S | **Sn** | **20 01 31.0** | **+3.2** |
| URKR | | | | pmax | pmax | | |
| | comp=Z,315nm,0.3s | | | | | | |
| **URKR** | **Urkarakh** | **1.16** | **342** | *i* Pg | **Pn** | **20 01 15.0** | **+1.9** |
| | comp=Z,315nm,0.3s | | | | | | |
| URKR | | | | *e*Sg | **Sn** | **20 01 31.0** | **+3.2** |
| **SAAT** | **Saatly** | **1.23** | **168** | ⇑P | **Pn** | **20 01 15.5** | **+1.5** |
| SAAT | | | | ⇓S | **Sn** | **20 01 32.2** | **+2.9** |
| **SAAT** | **Saatly** | **1.23** | **168** | P | **Pn** | **20 01 15.5** | **+1.5** |
| SAAT | | | | S | **Sn** | **20 01 32.2** | **+2.9** |
| **ZKTA** | **Zakatala** | **1.25** | **298** | ⇓P | **Pn** | **20 01 16.3** | **+1.9** |
| ZKTA | | | | ⇑S | **Sn** | **20 01 34.6** | **+4.5** |
| **ZKTA** | **Zakatala** | **1.25** | **298** | PG | **Pn** | **20 01 16.3** | **+1.9** |
| **ZKTA** | **Zakatala** | **1.25** | **298** | Pg | **Pn** | **20 01 16.3** | **+1.9** |
| **ALIB** | **Äli-Bayra** | **1.30** | **148** | ⇓P | **Pn** | **20 01 18.0** | **+3.0** |
| ALIB | | | | ⇓S | **Sn** | **20 01 35.9** | **+4.8** |
| **ALIB** | **Äli-Bayra** | **1.30** | **148** | P | **Pn** | **20 01 18.0** | **+3.0** |
| **KMKR** | **Kumukh** | **1.30** | **325** | ⇓*i*PG | **Pn** | **20 01 18.0** | **+2.7** |
| KMKR | | | | pmax | pmax | | |
| | comp=Z,147nm,0.2s | | | | | | |
| **KMKR** | **Kumukh** | **1.30** | **325** | *i* Pg | **Pn** | **20 01 18.0** | **+2.7** |
| | comp=Z,147nm,0.2s | | | | | | |
| **GOBA** | **Gobu** | **1.40** | **118** | ⇑P | **Pn** | **20 01 18.4** | **+2.0** |
| GOBA | | | | ⇓S | **Sn** | **20 01 37.8** | **+4.1** |
| **GOBA** | **Gobu** | **1.40** | **118** | P | **Pn** | **20 01 18.4** | **+2.0** |
| **GANJ** | **Ganja** | **1.41** | **253** | ⇑P | **Pn** | **20 01 17.9** | **+1.3** |
| GANJ | | | | ⇓S | **Sn** | **20 01 35.4** | **+1.4** |
| **GANJ** | **Ganja** | **1.41** | **253** | PN | **Pn** | **20 01 17.9** | **+1.3** |
| **GANJ** | **Ganja** | **1.41** | **253** | P | **Pn** | **20 01 17.9** | **+1.3** |
| GANJ | | | | S | **Sn** | **20 01 35.4** | **+1.4** |
| **NDR** | **Nardaran** | **1.51** | **108** | ⇓Pn | **Pn** | **20 01 20.2** | **+2.4** |
| NDR | | | | ⇓Sn | **Sn** | **20 01 41.0** | **+4.7** |
| **NDR** | **Nardaran** | **1.51** | **108** | Pn | **Pn** | **20 01 20.2** | **+2.4** |
| **GNBR** | **Gunib** | **1.57** | **328** | ⇓*i*PN | **Pn** | **20 01 21.9** | **+3.1** |
| GNBR | | | | pmax | pmax | | |
| | comp=Z,230nm,0.5s | | | | | | |
| **GNBR** | **Gunib** | **1.57** | **328** | *i* Pn | **Pn** | **20 01 21.9** | **+3.1** |
| | comp=Z,230nm,0.5s | | | | | | |
| **ARKR** | **Arakani** | **1.75** | **332** | *e*PN | **Pn** | **20 01 24.0** | **+2.8** |
| ARKR | | | | pmax | pmax | | |
| | comp=Z,105nm,0.1s | | | | | | |
| **ARKR** | **Arakani** | **1.75** | **332** | *e*Pn | **Pn** | **20 01 24.0** | **+2.8** |
| | comp=Z,105nm,0.1s | | | | | | |
| **XNZR** | **Khunzakh** | **1.81** | **325** | *e*PN | **Pn** | **20 01 25.6** | **+3.5** |
| **XNZR** | **Khunzakh** | **1.81** | **325** | *e*Pn | **Pn** | **20 01 25.6** | **+3.5** |
| **GDB** | **GEDABAY** | **1.81** | **260** | ⇑Pn | **Pn** | **20 01 23.1** | **+0.9** |
| GDB | | | | ⇓Sn | **Sn** | **20 01 47.7** | **+3.6** |
| **GDB** | **GEDABAY** | **1.81** | **260** | Pn | **Pn** | **20 01 23.1** | **+0.9** |
| GDB | | | | Sn | **Sn** | **20 01 47.7** | **+3.6** |
| **GLBA** | **Clilabad** | **1.83** | **173** | ⇓Pn | **Pn** | **20 01 23.9** | **+1.6** |
| GLBA | | | | ⇓Sn | **Sn** | **20 01 48.1** | **+3.8** |
| **GLBA** | **Clilabad** | **1.83** | **173** | Pn | **Pn** | **20 01 23.9** | **+1.6** |
| GLBA | | | | Sn | **Sn** | **20 01 48.1** | **+3.8** |
| **UNCR** | **Uncukul** | **1.92** | **330** | *e*PN | **Pn** | **20 01 26.0** | **+2.5** |
| UNCR | | | | pmax | pmax | | |
| | comp=Z,33nm,0.5s | | | | | | |
| **UNCR** | **Uncukul** | **1.92** | **330** | *e*Pn | **Pn** | **20 01 26.0** | **+2.5** |
| | comp=Z,33nm,0.5s | | | | | | |
| **MAK** | **Makhachkala** | **1.95** | **347** | *e*PN | **Pn** | **20 01 27.0** | **+3.2** |
| MAK | | | | *e* | | 20 01 52.5 | |
| MAK | | | | pmax | pmax | | |
| | comp=Z,58nm,0.8s | | | | | | |
| MAK | | | | smax | smax | | |
| | comp=N,448nm,0.4s | | | | | | |
| MAK | | | | smax | smax | | |
| | comp=E,513nm,0.5s | | | | | | |
| **MAK** | **Makhachkala** | **1.95** | **347** | *e*Pn | **Pn** | **20 01 27.0** | **+3.2** |
| | comp=E,58nm,0.8s | | | | | | |
| MAK | | | | *e*Sb | **Sn** | **20 01 52.5** | **+5.5** |
| | comp=E,448nm,0.4s | | | | | | |
| **KRNR** | **Karanay** | **1.98** | **334** | *e*PN | **Pn** | **20 01 27.0** | **+2.6** |
| KRNR | | | | *e*S | **Sn** | **20 01 55.5** | **+7.6** |
| KRNR | | | | pmax | pmax | | |
| | comp=Z,73nm,0.3s | | | | | | |
| **KRNR** | **Karanay** | **1.98** | **334** | *e*Pn | **Pn** | **20 01 27.0** | **+2.6** |
| | comp=Z,73nm,0.3s | | | | | | |
| **QZX** | **Qazax, Azerbai** | **2.06** | **271** | ⇑Pn | **Pn** | **20 01 27.4** | **+1.9** |
| QZX | | | | ⇑Sn | **Sn** | **20 01 51.6** | **+1.6** |
| **QZX** | **Qazax, Azerbai** | **2.06** | **271** | Pn | **Pn** | **20 01 27.4** | **+1.9** |
| QZX | | | | Sn | **Sn** | **20 01 51.6** | **+1.6** |
| **BTLR** | **Botlikh** | **2.13** | **319** | *e*PN | **Pn** | 20 01 34.6 | +8.2 |
| **DLMR** | **Dylym** | **2.29** | **332** | *e*PN | **Pn** | **20 01 31.5** | **+3.0** |
| DLMR | | | | *e*S | **Sn** | **20 02 02.5** | **+7.1** |
| DLMR | | | | pmax | pmax | | |
| | comp=Z,96nm,0.2s | | | | | | |
| **DLMR** | **Dylym** | **2.29** | **332** | *e*Pn | **Pn** | **20 01 31.5** | **+3.0** |
| | comp=Z,96nm,0.2s | | | | | | |
| **LKRN** | **Lenkeran, Azer** | **2.41** | **167** | ⇑Pn | **Pn** | **20 01 30.6** | **+0.5** |
| LKRN | | | | ⇑Sn | **Sn** | **20 01 59.6** | **+1.2** |
| **LKRN** | **Lenkeran, Azer** | **2.41** | **167** | PN | **Pn** | **20 01 30.7** | **+0.5** |
| **LKRN** | **Lenkeran, Azer** | **2.41** | **167** | Pn | **Pn** | **20 01 30.7** | **+0.5** |
| LKRN | | | | Sn | **Sn** | **20 01 59.6** | **+1.2** |
| **LRK** | **Lerik** | **2.42** | **176** | ⇑Pn | **Pn** | **20 01 31.5** | **+0.9** |
| LRK | | | | ⇓Sn | **Sn** | **20 02 01.2** | **+2.1** |
| **LRK** | **Lerik** | **2.42** | **176** | Pn | **Pn** | **20 01 31.5** | **+0.9** |
| LRK | | | | Sn | **Sn** | **20 02 01.2** | **+2.1** |
| **ASTR** | **Astara** | **2.56** | **168** | ⇓Pn | **Pn** | **20 01 32.5** | **+0.3** |
| ASTR | | | | ⇑Sn | **Sn** | **20 02 06.7** | **+4.6** |
| **ASTR** | **Astara** | **2.56** | **168** | Pn | **Pn** | **20 01 32.5** | **+0.3** |
| **SBZ** | **Shahbuz** | **2.57** | **230** | ⇑Pn | **Pn** | **20 01 34.8** | **+2.3** |
| SBZ | | | | ⇓Sn | **Sn** | **20 02 05.6** | **+3.1** |
| **SBZ** | **Shahbuz** | **2.57** | **230** | Pn | **Pn** | **20 01 34.8** | **+2.3** |
| SBZ | | | | Sn | **Sn** | **20 02 05.6** | **+3.1** |
| **ORD** | **Ordubad** | **2.68** | **218** | P | **Pn** | **20 01 35.9** | **+1.9** |
| ORD | | | | Sn | **Sn** | **20 02 07.3** | **+2.0** |
| **GNI** | **Garni** | **2.72** | **251** | Pn | **Pn** | **20 01 38.6** | **+4.0** |
| | comp=Z,1.0nm,0.3s,baz=352,slow=7.1,SNR=5.5 | | | | | | |
| GNI | | | | Lg | Lg | 20 02 17.3 | |
| | comp=Z,4.7nm,0.3s,baz=138,slow=22,SNR=4.5 | | | | | | |
| **GNI** | **Garni** | **2.72** | **251** | *e*PN | Pn | 20 01 42.6 | +8.0 |
| **GROC** | **Groznyy** | **2.74** | **322** | PN | **Pn** | **20 01 37.5** | **+2.8** |
| GROC | | | | S | **Sn** | **20 02 14.3** | **+7.7** |
| GROC | | | | pmax | pmax | | |
| | comp=Z,22nm,0.5s | | | | | | |
| GROC | | | | smax | smax | | |
| | comp=N,104nm,0.5s | | | | | | |
| GROC | | | | smax | smax | | |
| | comp=N,100nm,0.6s | | | | | | |
| **GROC** | **Groznyy** | **2.74** | **322** | Pn | **Pn** | **20 01 37.5** | **+2.8** |
| | comp=N,22nm,0.5s | | | | | | |
| **NAX** | **Nakhchivan** | **2.75** | **227** | ⇓Pn | **Pn** | **20 01 37.9** | **+2.9** |
| NAX | | | | ⇓Sn | **Sn** | **20 02 10.8** | **+3.8** |
| **NAX** | **Nakhchivan** | **2.75** | **227** | Pn | **Pn** | **20 01 37.9** | **+2.9** |
| NAX | | | | Sn | **Sn** | **20 02 10.8** | **+3.8** |
| **NEY** | **Neytrino** | **4.56** | **300** | *i* PN | Pn | 20 02 08.9 | +9.0 |
| **KBZ** | **Khabaz** | **4.69** | **306** | Pn | **Pn** | **20 02 02.1** | **+0.7** |
| | comp=N,0.1nm,0.3s,baz=180,slow=9.1,SNR=4.2 | | | | | | |
| KBZ | | | | Lg | Lg | 20 03 25.7 | |
| | comp=N,0.5nm,0.3s,baz=4.7,slow=14,SNR=3.6 | | | | | | |
| **KVAR** | **Kislovodsk Arr** | **4.93** | **308** | Pn | **Pn** | **20 02 05.5** | **+0.5** |
| | baz=124,slow=3.6,SNR=3.9 | | | | | | |
| **KIV** | **Kislovodsk** | **4.94** | **308** | ⇓*e*PN | Pn | 20 02 15.5 | +10 |
| KIV | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.5s | | | | | | |
| KIV | | | | MLR | MLR | | |
| | comp=Z,524nm,23.0s | | | | | | |
| **GEYT** | **Alibeck** | **8.35** | **109** | Pn | **Pn** | **20 02 50.4** | **-1.4** |
| | comp=Z,0.5nm,0.3s,baz=269,slow=16,SNR=7.4 | | | | | | |
| GEYT | | | | Sn | **Sn** | **20 04 18.4** | **-6.3** |
| | comp=Z,0.3nm,0.3s,baz=316,slow=22,SNR=4.4 | | | | | | |
| **AKTK** | **Aktyubinsk** | **11.64** | **33** | P | **Pn** | **20 03 34.4** | **-2.3** |
| | comp=Z,1.0nm,0.3s | | | | | | |
| **AKTO** | **Aktyubinsk** | **11.64** | **33** | Pn | **Pn** | **20 03 34.4** | **-2.3** |
| | comp=Z,0.5nm,0.3s,baz=202,slow=10.0,SNR=10 | | | | | | |
| AKTO | | | | Sn | Sn | 20 05 34.9 | -10 |
| | comp=Z,0.5nm,0.3s,baz=185,slow=22,SNR=7.7 | | | | | | |
| **OBN** | **Obninsk** | **16.00** | **335** | *ce*P | **P** | **20 04 37.7** | **-0.4** |
| OBN | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.9s | | | | | | |
| OBN | | | | MLR | MLR | | |
| | comp=Z,351nm,16.0s | | | | | | |
| **ARU** | **Arti** | **16.82** | **20** | *d* iP | **Pn** | **20 04 44.8** | **-0.7** |
| ARU | | | | S | **Sn** | **20 07 51.4** | **+0.2** |
| ARU | | | | pmax | pmax | | |
| | comp=Z,12nm,1.7s | | | | | | |
| **BVAR** | **Borovoye Array** | **19.24** | **44** | P | **P** | **20 05 12.8** | **-1.1** |
| | comp=Z,0.3nm,0.3s,baz=250,slow=9.3,SNR=4.6 | | | | | | |
| **FINES** | **FINESS Array B** | **24.40** | **334** | P | **P** | **20 06 05.8** | **-1.6** |
| | comp=Z,1.5nm,0.4s,baz=133,slow=10.0,SNR=21 | | | | | | |
| **FINES** | **FINESS Array B** | **24.40** | **334** | *e*P | **P** | **20 06 12.5** | **+5.1** |
| FINES | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.6s | | | | | | |
| **MKAR** | **Makanchi Array** | **25.14** | **65** | P | **P** | **20 06 12.8** | **-1.6** |
| | comp=Z,0.4nm,0.6s,baz=276,slow=6.0,SNR=4.1 | | | | | | |
| **GERES** | **GERESS Array B** | **25.39** | **299** | P | **P** | **20 06 17.2** | **+0.5** |
| | comp=Z,0.2nm,0.6s,baz=101,slow=10,SNR=5.5 | | | | | | |
| **HFS** | **Hagfors** | **28.51** | **324** | P | **P** | **20 06 43.0** | **-1.4** |
| | comp=Z,1.2nm,0.3s,baz=120,slow=10,SNR=17 | | | | | | |
| **ARCES** | **ARCESS Array B** | **30.89** | **345** | P | **P** | **20 07 04.5** | **-1.0** |
| | comp=Z,3.5nm,1.0s,baz=150,slow=8.4,SNR=5.7 | | | | | | |
| **ARCES** | **ARCESS Array B** | **30.89** | **345** | *e*P | **P** | **20 07 04.4** | **-1.0** |
| ARCES | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | |

**IDC 23 20:03:57.2**±9.8, **37.°57N**×**90.°05E**, **h0**km, **mb1 3.5**/3, **mb1mx3.1**/58, **mbtmp3.5**/3, **ML3.1**/3, **Error ellipse: s-maj=130.8km s-min=48.0km az=28.0, Southern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MKAR** | **Makanchi Array** | **10.86** | **331** | Pn | Pn | 20 06 31.3 | -2.5 |
| | 0.2nm,0.3s,baz=142,slow=14,SNR=10.0 | | | | | | |
| MKAR | | | | Lg | | 20 09 42.1 | |
| | 0.0nm,0.3s,baz=153,slow=26,SNR=2.9 | | | | | | |
| **SONM** | **Songino Array** | **15.77** | **44** | Pn | Pn | 20 07 40.6 | 0.0 |
| | 0.2nm,0.3s,baz=230,slow=15,SNR=10 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **16.77** | **349** | Pn | Pn | 20 07 53.5 | +0.2 |
| | 0.1nm,0.3s,baz=169,slow=9.8,SNR=5.4 | | | | | | |

*KRSC **23** 20:35:24.9±2.7, 50.°09N×156.°12E, h152km±32km, ML4.5*
*ISCJB **23** 20:35:25.5±0.5, 50.°39N±0.°06×155.°3E±0.°1, h163km±5km, mb3.8/26, Error ellipse: s-maj=13.1km s-min=6.6km az=40.6*
*MOS **23** 20:35:25.4±1.4, 50.°42N×155.°09E, h158km, mb4.0/17, Error ellipse: s-maj=10.8km s-min=4.2km az=68.0*
*IDC **23** 20:35:28.5±1.2, 50.°49N×155.°09E, h169km±11km, mb3.5/20, mb1 3.7/25, mb1mx3.6/53, mbtmp4.0/25, Error ellipse: s-maj=14.2km s-min=9.3km az=136.0*

**ISC 23 20:35:25.9**±0.7, **50.°35N**±0.°07×**155.°39E**±0.°07, **h152**km±5km, **n110**, σ**1.88**/136, **mb3.8**/26, **2C-1D, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SKR** | **Severo-Kuril's** | **0.57** | **54** | ⇓*i*PN | Pn | 20 35 46.1 | -1.7 |
| SKR | | | | *e*S | **Sn** | **20 36 02.4** | **-2.1** |
| SKR | | | | pmax | pmax | | |
| | comp=Z,4μm,1.1s | | | | | | |
| SKR | | | | pmax | pmax | | |
| | comp=Z,3μm,1.0s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=N,3μm,0.9s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=E,2μm,1.2s | | | | | | |
| **SKR** | **Severo-Kuril's** | **0.57** | **54** | *e*P | Pn | 20 35 46.0 | -1.7 |
| SKR | | | | *e*S | **Sn** | **20 36 02.3** | **-2.2** |
| **PAU** | **Pauzhetka** | **1.43** | **38** | PN | **Pn** | **20 35 54.3** | **-0.5** |
| PAU | | | | S | **Sn** | **20 36 16.7** | **-0.4** |
| **PAU** | **Pauzhetka** | **1.43** | **38** | *e*P | **Pn** | **20 35 54.3** | **-0.5** |
| PAU | | | | *e*S | **Sn** | **20 36 16.7** | **-0.4** |
| **KDTR** | **Khodutka, Kamc** | **2.23** | **48** | *e*P | **Pn** | **20 36 03.6** | **-0.2** |
| KDTR | | | | *e*S | **Sn** | **20 36 31.4** | **-1.6** |
| **ASAK** | **Asacha** | **2.57** | **37** | PN | **Pn** | **20 36 09.6** | **+1.6** |
| **ASAK** | **Asacha** | **2.57** | **37** | *e*P | **Pn** | **20 36 09.6** | **+1.6** |
| **MTVR** | **Mutnovka** | **2.76** | **38** | PN | **Pn** | **20 36 11.3** | **+1.0** |
| MTVR | | | | S | **Sn** | **20 36 46.2

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| YAK | | | | pmax | pmax | | |
| | comp=Z,31nm,1.1s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,5.0nm,1.0s | | | | | | |
| **MJA0** | **Matsu Arr-Jizo** | **18.53** | **228** | *e*P | **P** | **20 39 32.3** | **+1.7** |
| MJA0 | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.3s | | | | | | |
| **BILL** | **Bilibino** | **18.54** | **13⇑** | *e*P | **P** | **20 39 30.8** | **+0.4** |
| BILL | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.4s | | | | | | |
| **MAJO** | **Matsushiro** | **18.55** | **228** | *e*P | **P** | **20 39 31.0** | **+0.2** |
| MAJO | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.9s | | | | | | |
| **MJAR** | **Matsushiro Arr** | **18.55** | **228** | P | **P** | **20 39 31.1** | **+0.3** |
| | comp=Z,0.9nm,0.3s,baz=19,slow=12,SNR=13 | | | | | | |
| **KSRS** | **Korea Array** | **23.47** | **247** | P | **P** | **20 40 22.8** | **+1.3** |
| | comp=Z,2.4nm,0.7s,baz=47,slow=10,SNR=6.5 | | | | | | |
| **TIXI** | **Tiksi** | **24.51** | **340** | *e*P | **P** | **20 40 30.1** | **-0.5** |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.6s | | | | | | |
| **ULN** | **Ulaanbaatar** | **31.30** | **284** | *e*P | **P** | **20 41 30.4** | **-1.1** |
| ULN | | | | pmax | pmax | | |
| | comp=Z,1.0nm,1.0s | | | | | | |
| **SONM** | **Songino Array** | **31.72** | **285** | P | **P** | **20 41 33.7** | **-1.4** |
| | comp=Z,0.3nm,0.5s,baz=69,slow=9.4,SNR=4.2 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **31.89** | **159** | T | T | 21 15 51.3 | |
| | baz=348,slow=76,SNR=2.3 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **31.91** | **159** | T | T | 21 15 53.4 | |
| | baz=348,slow=76,SNR=2.8 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **31.91** | **159** | T | T | 21 15 53.7 | |
| | baz=348,slow=76,SNR=5.4 | | | | | | |
| **ILAR** | **Eielson Array** | **32.82** | **42** | P | **P** | **20 41 44.8** | **+0.5** |
| | comp=Z,0.3nm,0.4s,baz=266,slow=6.6,SNR=13 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **33.03** | **160** | T | T | 21 16 30.5 | |
| | baz=347,slow=76,SNR=38 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **33.04** | **160** | T | T | 21 16 29.7 | |
| | baz=347,slow=76,SNR=14 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **33.05** | **160** | T | T | 21 16 21.6 | |
| | baz=347,slow=76,SNR=21 | | | | | | |
| **INK** | **Inuvik** | **37.81** | **35** | P | **P** | **20 42 28.2** | **+1.4** |
| | comp=Z,1.1nm,0.4s,baz=293,slow=9.0,SNR=6.5 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.81** | **303** | P | **P** | **20 42 59.3** | **-0.9** |
| | comp=Z,1.1nm,0.3s,baz=64,slow=5.9,SNR=6.9 | | | | | | |
| ZALV | | | | PcP | **PcP** | **20 44 53.3** | **+0.2** |
| | comp=Z,0.8nm,0.5s,baz=48,slow=2.2,SNR=4.5 | | | | | | |
| **DGZ** | **Jazzator, Alta** | **42.26** | **297** | *e*P | **P** | **20 43 02.9** | **-1.1** |
| **KURK** | **Kurchatov** | **46.69** | **302** | *e*P | **P** | **20 43 36.8** | **-2.1** |
| KURK | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.0s | | | | | | |
| **MKAR** | **Makanchi Array** | **46.70** | **295** | P | **P** | **20 43 38.2** | **-0.9** |
| | comp=Z,0.9nm,0.5s,baz=38,slow=5.1,SNR=14 | | | | | | |
| MKAR | | | | PcP | **PcP** | **20 45 11.1** | **+1.0** |
| | comp=Z,0.4nm,0.6s,baz=86,slow=3.0,SNR=3.5 | | | | | | |
| **YKA** | **Yellowknife Ar** | **47.15** | **39** | P | **P** | **20 43 43.7** | **+1.4** |
| | comp=Z,1.0nm,0.7s,baz=299,slow=7.4,SNR=14 | | | | | | |
| YKA | | | | PcP | **PcP** | **20 45 12.8** | **+1.5** |
| | comp=Z,0.3nm,0.7s,baz=313,slow=3.7,SNR=5.4 | | | | | | |
| **BRVK** | **Borovoye** | **49.82** | **308** | *i* P | **P** | **20 44 02.0** | **-0.8** |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.8s | | | | | | |
| **ARU** | **Arti** | **53.41** | **317** | *c i* P | **P** | **20 44 27.1** | **-2.3** |
| ARU | | | | S | **S** | **20 51 47.6** | **-1.7** |
| ARU | | | | SS | **SKiKP** | **20 55 31.2** | **+2.9** |
| ARU | | | | pmax | pmax | | |
| | comp=Z,19nm,2.5s | | | | | | |
| **AAK** | **Ala-Archa** | **53.63** | **295** | P | **P** | **20 44 30.9** | **-0.5** |
| | comp=Z,0.8nm,0.4s,baz=119,slow=6.4,SNR=5.4 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **54.71** | **256** | P | **P** | **20 44 40.0** | **+0.7** |
| | comp=Z,1.6nm,0.6s,baz=33,slow=7.0,SNR=12 | | | | | | |
| CMAR | | | | PcP | **PcP** | **20 45 40.8** | **+0.7** |
| | comp=Z,0.7nm,0.6s,baz=19,slow=3.8,SNR=4.1 | | | | | | |
| **ARCES** | **ARCESS Array B** | **54.95** | **341** | P | **P** | **20 44 38.6** | **-1.7** |
| | comp=Z,3.9nm,0.9s,baz=50,slow=8.2,SNR=7.2 | | | | | | |
| **ARCES** | **ARCESS Array B** | **54.95** | **341** | *e*P | **P** | **20 44 38.1** | **-2.2** |
| ARCES | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.9s | | | | | | |
| **FINES** | **FINESS Array B** | **61.42** | **335** | P | **P** | **20 45 23.6** | **-1.7** |
| | comp=Z,4.2nm,0.9s,baz=39,slow=6.6,SNR=8.4 | | | | | | |
| FINES | | | | PcP | **PcP** | **20 46 05.6** | **-0.3** |
| | comp=Z,3.0nm,0.8s,baz=108,slow=6.2,SNR=4.4 | | | | | | |
| **FINES** | **FINESS Array B** | **61.42** | **335** | *e*P | **P** | **20 45 24.2** | **-1.1** |
| FINES | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.9s | | | | | | |
| **GEYT** | **Alibeck** | **66.05** | **301** | P | **P** | **20 45 56.0** | **-0.1** |
| | comp=Z,1.3nm,0.5s,baz=25,slow=4.9,SNR=5.9 | | | | | | |
| **MAK** | **Makhachkala** | **67.85** | **311** | *e*P | **P** | **20 46 05.5** | **-1.8** |
| MAK | | | | *e**PP | **PcP** | **20 46 39.1** | **+6.3** |
| MAK | | | | *e* | | 20 48 35.6 | |
| MAK | | | | *e*S | **S** | **20 54 51.5** | **-1.6** |
| MAK | | | | *e**SS | **ScS** | **20 55 50.2** | **-1.2** |
| MAK | | | | pmax | pmax | | |
| | comp=Z,36nm,0.6s | | | | | | |
| MAK | | | | MLR | MLR | | |
| | comp=Z,271nm,16.0s | | | | | | |
| **AKASG** | **Malin Array Be** | **69.38** | **327** | P | **P** | **20 46 14.7** | **-2.0** |
| | comp=Z,0.7nm,0.5s,baz=33,slow=7.0,SNR=3.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **72.42** | **201** | P | **P** | **20 46 35.4** | **+0.1** |
| | comp=Z,1.3nm,1.1s,baz=16,slow=6.4,SNR=12 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **73.03** | **210** | P | **P** | **20 46 39.6** | **+0.7** |
| | comp=Z,3.6nm,0.7s,baz=143,slow=1.5,SNR=7.5 | | | | | | |
| **TXAR** | **Lajitas Array** | **74.45** | **63** | P | **P** | **20 46 50.0** | **+2.6** |
| | comp=Z,0.3nm,0.4s,baz=293,slow=5.0,SNR=3.9 | | | | | | |
| **TXAR** | **Lajitas Array** | **74.45** | **63** | P | **P** | **20 46 50.0** | **+2.6** |
| **GERES** | **GERESS Array B** | **75.85** | **335** | P | **P** | **20 46 54.0** | **-1.0** |
| | comp=Z,0.3nm,0.5s,baz=15,slow=6.1,SNR=4.3 | | | | | | |
| **ASAR** | **Alice Springs** | **76.11** | **200** | P | **P** | **20 46 57.2** | **+0.6** |
| | comp=Z,0.5nm,0.5s,baz=11,slow=5.2,SNR=14 | | | | | | |
| **BRTR** | **Keskin Array B** | **76.77** | **318** | P | **P** | **20 46 59.9** | **-0.6** |
| | comp=Z,0.5nm,0.6s,baz=122,slow=3.6,SNR=4.3 | | | | | | |
| **BRTR** | **Keskin Array B** | **76.77** | **318** | *i* P | **P** | **20 47 01.1** | **+0.6** |
| **ESDC** | **Sonseca Array** | **88.53** | **344** | P | **P** | **20 48 00.2** | **-0.8** |
| | comp=Z,0.3nm,0.4s,baz=358,slow=4.0,SNR=8.3 | | | | | | |
| **CPUP** | **Villa Florida** | **145.33** | **59** | PKPbc | **PKPdf** | **20 54 46.2** | **+1.0** |
| | comp=Z,1.5nm,0.5s,baz=325,slow=3.6,SNR=7.7 | | | | | | |

*BJI **23** 20:36:53.8, 26˚.31N×99˚.37E, h9km, ML3.5/9*
**ISC 23 20:36:52.6±2.3, 26˚N±1˚×99˚.4E±0˚.3, h10km, n10, σ1$69/13, Yunnan**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KMI** | **Kunming** | **3.29** | **112** | Pg | **Pg** | **20 37 58.6** | **+2.9** |
| KMI | | | | Sg | **Sg** | **20 38 36.9** | **-1.4** |
| KMI | | | | smax | smax | | |
| | comp=N,160nm,0.8s | | | | | | |
| KMI | | | | smax | smax | | |
| | comp=E,160nm,0.8s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=N,570nm,4.6s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=E,610nm,4.7s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,440nm,5.4s | | | | | | |
| **KMI** | **Kunming** | **3.29** | **112** | Pn | **Pn** | **20 37 46.1** | **+1.7** |
| KMI | | | | Pg | **Pg** | **20 37 54.3** | **-1.4** |
| KMI | | | | Sg | **Sg** | **20 38 35.4** | **-2.9** |
| KMI | | | | smax | smax | | |
| | comp=Z,160nm,0.9s | | | | | | |
| KMI | | | | smax | smax | | |
| | comp=Z,160nm,0.7s | | | | | | |
| **TAPN** | **Taplejung** | **10.46** | **278** | *e*P | **Pn** | **20 39 22.8** | **-0.2** |
| | comp=Z,9.1nm,0.5s | | | | | | |
| **ODAN** | **Odare** | **10.73** | **275** | *e*P | **Pn** | **20 39 26.8** | **+0.1** |
| | comp=Z,10nm,0.5s | | | | | | |
| **RAMN** | **Ramite** | **11.44** | **276** | *e*P | **Pn** | **20 39 36.4** | **+0.1** |
| | comp=Z,16nm,0.6s | | | | | | |
| **JIRN** | **Jiri** | **11.82** | **279** | *e*P | **Pn** | **20 39 41.4** | **-0.3** |
| **GUN** | **Gumba** | **12.11** | **280** | *e*P | **Pn** | **20 39 45.0** | **-0.7** |
| | comp=Z,5.2nm,0.4s | | | | | | |
| **PKIN** | **Phulchoki** | **12.52** | **279** | *e*P | **Pn** | **20 39 50.9** | **-0.3** |
| | comp=Z,6.8nm,0.6s | | | | | | |
| **KKN** | **Kakani** | **12.63** | **280** | *e*P | **Pn** | **20 39 52.2** | **-0.5** |
| | comp=Z,6.8nm,0.5s | | | | | | |
| **PYUN** | **Piuthan** | **14.67** | **280** | *e*P | **Pn** | **20 40 18.5** | **-2.1** |
| | comp=Z,7.5nm,0.5s | | | | | | |

*ISN **23** 20:47:47.6±0.3, 38˚.71N×43˚.47E, h0km, ML3.1*
*ISK **23** 20:48:05.5, 38˚.77N×43˚.46E, h5km, ML2.7*
*CSEM **23** 20:48:06.7±0.2, 38˚.76N×43˚.54E, h2km, ML2.7, Error ellipse: s-maj=5.7km s-min=4.0km az=89.0*
*DDA **23** 20:48:06.7, 38˚.77N×43˚.54E, h12km, Ml3.1*
*ISCJB **23** 20:48:07.4±0.5, 38˚.77N±0˚.02×43˚.53E±0˚.04, h7km±4km, Error ellipse: s-maj=4.7km s-min=3.1km az=7.8*

**ISC 23 20:48:07.7±0.8, 38˚.76N±0˚.02×43˚.52E±0˚.02, h14km±6km, n59, σ1$25/85, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.19** | **213** | *e*PG | **Pg** | **20 48 12.0** | **-0.2** |
| VANB | | | | *e*SG | **Sg** | **20 48 17.1** | **+1.8** |
| **VANB** | **Van** | **0.19** | **213** | *e*Pg | **Pg** | **20 48 12.0** | **-0.2** |
| **VMUR** | **Van-Muradiye** | **0.23** | **9** | *i* P | **Pg** | **20 48 11.7** | **-1.2** |
| VMUR | | | | *i* S | **Sg** | **20 48 17.1** | **+0.6** |
| **VMUR** | **Van-Muradiye** | **0.23** | **9** | P | **Pg** | **20 48 11.7** | **-1.2** |
| VMUR | | | | S | **Sg** | **20 48 17.1** | **+0.6** |
| **TVAN** | **Van** | **0.25** | **202** | *i* P | **Pg** | **20 48 12.1** | **-1.1** |
| TVAN | | | | *i* S | **Sb** | **20 48 17.1** | **-1.2** |
| **TVAN** | **Van** | **0.25** | **202** | P | **Pg** | **20 48 12.1** | **-1.1** |
| TVAN | | | | S | **Sb** | **20 48 17.1** | **-1.2** |
| **CLDR** | **Caldiran** | **0.49** | **39** | *e*PG | **Pg** | **20 48 16.1** | **-1.4** |
| CLDR | | | | *e*SG | **Sb** | **20 48 25.4** | **0.0** |
| **CLDR** | **Caldiran** | **0.49** | **39** | *i* P | **Pg** | **20 48 16.1** | **-1.4** |
| CLDR | | | | *i* S | **Sb** | **20 48 25.4** | **0.0** |
| **CLDR** | **Caldiran** | **0.49** | **39** | *e*Pg | **Pg** | **20 48 16.2** | **-1.4** |
| CLDR | | | | S | **Sb** | **20 48 25.4** | **0.0** |
| **GEVA** | **Gevas** | **0.58** | **219** | *i* P | **Pg** | **20 48 17.1** | **-2.0** |
| GEVA | | | | *i* S | **Sb** | **20 48 27.5** | **-0.3** |
| **GEVA** | **Gevas** | **0.58** | **219** | P | **Pg** | **20 48 17.1** | **-2.0** |
| GEVA | | | | S | **Sb** | **20 48 27.5** | **-0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.63** | **275** | *i* P | **Pg** | **20 48 18.9** | **-1.1** |
| ADCV | | | | *i* S | **Sb** | **20 48 28.8** | **-0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.63** | **275** | P | **Pg** | **20 48 18.9** | **-1.1** |
| ADCV | | | | S | **Sb** | **20 48 28.8** | **-0.5** |
| **DYDN** | **Diyadin** | **0.79** | **9** | *i* P | **Pg** | **20 48 22.2** | **-1.0** |
| DYDN | | | | *i* S | **Sb** | **20 48 34.2** | **0.0** |
| **DYDN** | **Diyadin** | **0.79** | **9** | P | **Pg** | **20 48 22.2** | **-1.0** |
| DYDN | | | | S | **Sb** | **20 48 34.2** | **0.0** |
| **BASK** | **Baskale_VAN** | **0.80** | **152** | *i* P | **Pg** | **20 48 21.9** | **-1.4** |
| BASK | | | | *i* S | **Sb** | **20 48 34.5** | **+0.2** |
| **BASK** | **Baskale_VAN** | **0.80** | **152** | P | **Pg** | **20 48 21.9** | **-1.4** |
| BASK | | | | S | **Sb** | **20 48 34.5** | **+0.2** |
| **TUTA** | **Tutak** | **0.85** | **320** | *i* P | **Pg** | **20 48 22.1** | **-2.1** |
| TUTA | | | | *i* S | **Sb** | **20 48 35.7** | **0.0** |
| **TUTA** | **Tutak** | **0.85** | **320** | P | **Pg** | **20 48 22.1** | **-2.1** |
| TUTA | | | | S | **Sb** | **20 48 35.7** | **0.0** |
| **AGRB** | **Hanur-Agry** | **0.91** | **333** | *e*PG | **Pg** | **20 48 23.4** | **-2.1** |
| **AGRB** | **Hanur-Agry** | **0.91** | **333** | *e*Pg | **Pg** | **20 48 23.4** | **-2.1** |
| **HAKT** | **HAKKARI** | **1.21** | **173** | *i* P | **Pg** | **20 48 28.4** | **-2.6** |
| HAKT | | | | *i* S | **Sn** | **20 48 47.6** | **+0.9** |
| **HAKT** | **HAKKARI** | **1.21** | **173** | P | **Pg** | **20 48 28.4** | **-2.6** |
| HAKT | | | | S | **Sn** | **20 48 47.6** | **+0.9** |
| **EKAR** | **Karacoban** | **1.24** | **294** | *i* P | **Pg** | **20 48 30.3** | **-1.3** |
| EKAR | | | | *i* S | **Sn** | **20 48 52.2** | **+4.7** |
| **EKAR** | **Karacoban** | **1.24** | **294** | P | **Pg** | **20 48 30.3** | **-1.3** |
| **YOVA** | **Hakkari_Y˙˙˙kse** | **1.32** | **152** | *i* P | **Pn** | **20 48 31.2** | **-0.7** |
| YOVA | | | | *i* S | **Sn** | **20 48 52.2** | **+2.9** |
| **YOVA** | **Hakkari_Y˙˙˙kse** | **1.32** | **152** | P | **Pn** | **20 48 31.2** | **-0.7** |
| YOVA | | | | S | **Sn** | **20 48 52.2** | **+2.9** |
| **TASB** | **TASBURUN-IGDIR** | **1.34** | **24** | *e*PN | **Pg** | **20 48 32.5** | **-1.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.34** | **24** | *e*Pn | **Pg** | **20 48 32.5** | **-1.1** |
| **EATA** | **Eleskirt** | **1.36** | **324** | *i* P | **Pn** | **20 48 32.0** | **-0.6** |
| **EATA** | **Eleskirt** | **1.36** | **324** | P | **Pn** | **20 48 32.0** | **-0.6** |
| **SRTM** | **Siirt_Merkez** | **1.47** | **239** | *i* P | **Pb** | **20 48 34.7** | **-0.2** |
| **SRTM** | **Siirt_Merkez** | **1.47** | **239** | P | **Pb** | **20 48 34.7** | **-0.2** |
| **CUKT** | **Cukurca** | **1.51** | **177** | *e*PN | **Pn** | **20 48 34.8** | **+0.3** |
| **CUKT** | **Cukurca** | **1.51** | **177** | *i* P | **Pn** | **20 48 35.0** | **+0.5** |
| **CUKT** | **Cukurca** | **1.51** | **177** | *e*Pn | **Pn** | **20 48 34.8** | **+0.3** |
| **SIRT** | **Sirnak** | **1.52** | **215** | *e*PN | **Pn** | **20 48 34.8** | **+0.3** |
| **SIRT** | **Sirnak** | **1.52** | **215** | *e*Pn | **Pn** | **20 48 34.8** | **+0.3** |
| **SIRN** | **S˙˙rnak** | **1.54** | **215** | *i* P | **Pg** | **20 48 36.3** | **-0.9** |
| **SIRN** | **S˙˙rnak** | **1.54** | **215** | P | **Pg** | **20 48 36.3** | **-0.9** |
| **DIGO** | **Kars** | **1.66** | **356** | *i* P | **Pb** | **20 48 37.6** | **-0.6** |
| **DIGO** | **Kars** | **1.66** | **356** | P | **Pb** | **20 48 37.6** | **-0.6** |
| **VRTB** | **Varto-Mus** | **1.66** | **285** | *e*PN | **Pn** | **20 48 36.4** | **-0.2** |
| **VRTB** | **Varto-Mus** | **1.66** | **285** | *i* P | **Pn** | **20 48 37.7** | **-0.4** |
| **VRTB** | **Varto-Mus** | **1.66** | **285** | *e*Pn | **Pn** | **20 48 36.4** | **-0.2** |
| **VRTB** | **Varto-Mus** | **1.66** | **285** | P | **Pn** | **20 48 37.7** | **-0.4** |
| **BNGL** | **BINGOL** | **1.86** | **277** | *i* P | **Pg** | **20 48 42.1** | **-1.4** |
| **BTMN** | **Batman** | **1.97** | **245** | *i* P | **Pb** | **20 48 42.5** | **-0.9** |
| BTMN | | | | *i* S | **Sb** | **20 49 08.4** | **+0.5** |
| **BTMN** | **Batman** | **1.97** | **245** | P | **Pb** | **20 48 42.5** | **-0.9** |
| BTMN | | | | S | **Sb** | **20 49 08.4** | **+0.5** |
| **SENK** | **Senkaya-Erzuru** | **2.02** | **334** | *e*PN | **Pn** | **20 48 41.7** | **+0.2** |
| **SENK** | **Senkaya-Erzuru** | **2.02** | **334** | *e*Pn | **Pn** | **20 48 41.7** | **+0.2** |
| **ERZM** | **Erzurum** | **2.03** | **305** | *i* P | **Pb** | **20 48 44.5** | **0.0** |
| **ERZM** | **Erzurum** | **2.03** | **305** | P | **Pb** | **20 48 44.5** | **0.0** |
| **ECAT** | **Cat-ERZURUM** | **2.15** | **294** | *i* P | **Pb** | **20 48 45.5** | **-1.1** |
| ECAT | | | | *i* S | **Sg** | **20 49 17.0** | **0.0** |
| **ECAT** | **Cat-ERZURUM** | **2.15** | **294** | P | **Pb** | **20 48 45.5** | **-1.1** |
| **BNGB** | **Bing¶ll** | **2.23** | **277** | *e*PN | **Pn** | **20 48 44.4** | **+0.1** |
| **BINT** | **Bingol** | **2.37** | **274** | *e*Pn | **Pn** | **20 48 44.4** | **-1.9** |
| **YEDI** | **Yedisu-Bingol** | **2.42** | **287** | *e*PN | **Pn** | **20 48 47.1** | **+0.2** |
| **YEDI** | **Yedisu-Bingol** | **2.42** | **287** | *e*Pn | **Pn** | **20 48 47.1** | **+0.2** |

*ISCJB **23** 20:50:25.3±0.6, 30˚.30N±0˚.05×113˚.92W±0˚.03, h10km, mb3.7/3, MS3.0/1, Error ellipse: s-maj=7.9km s-min=3.3km az=13.0*
*NEIC **23** 20:50:26.4±0.8, 30˚.22N×113˚.93W, h10km, mb4.1/6, MD4.0(MEX), Error ellipse: s-maj=11.1km s-min=5.5km az=208.0*
*MEX **23** 20:50:26.3±0.2, 29˚.75N×114˚.21W, h17km±9km, MD4.0*
*ECX **23** 20:50:27.4±0.4, 30˚.44N×113˚.95W, h10km, MD4.1, ML4.3*
*IDC **23** 20:50:30.1±3.0, 30˚.34N×113˚.90W, h0km, mb3.3/2, mb1 3.8/5, mb1mx3.6/37, mbtmp3.3/5, ML3.9/2, MS3.7/3, Ms1 3.7/3, ms1mx3.6/9, Error ellipse: s-maj=50.6km s-min=14.0km az=32.0*
**ISC 23 20:50:27.7±1.1, 30˚.46N±0˚.09×113˚.95W±0˚.04, h10km, n105, σ2$30/101, mb3.5/3, 2C, Gulf of California**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ECBX** | **El Chinero** | **1.39** | **317** | *e*P | **Pn** | **20 50 51.5** | **-1.7** |
| ECBX | | | | *e* | | 20 51 26.6 | |
| ECBX | | | | IAML | | 20 51 26.6 | |
| | comp=E,4μm,0.6s | | | | | | |
| **SPX** | **San Pedro Mart** | **1.43** | **295** | *e*P | **Pn** | **20 50 52.4** | **-1.7** |
| SPX | | | | *e*S | **Sn** | **20 51 11.9** | **-1.2** |
| SPX | | | | IAML | | 20 51 27.6 | |
| | comp=N,2μm,1.1s | | | | | | |
| SPX | | | | ⇑*e* | | 20 51 27.6 | |
| **SPIG** | **San Pedro Mart** | **1.43** | **295** | *e*P | **Pn** | **20 50 51.9** | **-2.2** |
| SPIG | | | | *i* S | **Sn** | **20 51 12.1** | **-1.1** |
| **SPIG** | **San Pedro Mart** | **1.43** | **295** | *e*P | **Pn** | **20 50 51.8** | **-2.4** |
| **113A** | **Mohawk Valley,** | **2.31** | **4** | *e*Pn | **Pn** | **20 51 04.0** | **-1.9** |
| **ECNX** | **Esteban Cantu** | **2.57** | **298** | *e*P | **Pn** | **20 51 09.0** | **-0.6** |
| **GLA** | **Glamis** | **2.69** | **344** | *e*Pn | **Pn** | **20 51 10.2** | **-1.0** |
| **PBX** | **Punta Banda** | **2.71** | **299** | *e*P | **Pb** | **20 51 14.8** | **-1.5** |
| **CBX** | **Cerro Bola** | **2.97** | **309** | *e*P | **Pn** | **20 51 18.6** | **+3.5** |
| CBX | | | | *i* S | **Sn** | **20 51 52.8** | **+2.0** |
| **CBX** | **Cerro Bola** | **2.97** | **309** | *e*P | **Pb** | **20 51 20.6** | **-0.3** |
| CBX | | | | *e*S | **Sb** | **20 51 57.0** | **-0.3** |
| CBX | | | | IAML | | 20 52 22.8 | |
| | comp=N,2μm,1.6s | | | | | | |
| CBX | | | | ⇑*e* | | 20 52 22.8 | |
| **CBX** | **Cerro Bola** | **2.97** | **309** | *e*Sn | **Sn** | **20 51 52.8** | **+2.0** |
| **HSIG** | | **2.98** | **118** | *e*Pn | **Pn** | **20 51 12.2** | **-2.8** |
| **TJIG** | **Tijuana** | **3.05** | **311** | *e*P | **Pn** | **20 51 16.3** | **+0.2** |
| TJIG | | | | *e*S | **Sn** | **20 51 55.0** | **+2.3** |
| **BAR** | **Barrett** | **3.21** | **314** | *e*Pn | **Pn** | **20 51 17.2** | **-1.1** |
| **TUC** | **Tucson** | **3.28** | **55** | *e*Pn | **Pn** | **20 51 19.1** | **-0.1** |
| **Y12C** | **Blythe** | **3.32** | **352** | *e*Pn | **Pn** | **20 51 19.2** | **-0.5** |
| **SRIG** | **Santa Rosalia** | **3.46** | **154** | *e*Pn | Pn | 20 51 16.0 | -5.7 |
| **Y14A** | **Wickenburg** | **3.56** | **13** | *e*Pn | **Pn** | **20 51 23.1** | **-0.1** |
| **XPFO** | **Piæon Flat** | **3.80** | **327** | *e*Pn | **Pn** | **20 51 28.5** | **+2.0** |
| **PFO** | **Pinyon Flats O** | **3.80** | **327** | *e*Pn | **Pn** | **20 51 28.5** | **+2.0** |
| **319A** | **Douglas** | **4.11** | **76** | *e*Pn | **Pn** | **20 51 31.7** | **+0.9** |
| **W13A** | **Hualapai Mount** | **4.63** | **1** | *e*Pn | **Pn** | **20 51 37.9** | **-0.1** |
| **LDFC** | **Landfair** | **4.71** | **348** | *e*Pn | **Pb** | **20 51 48.5** | **-2.1** |
| **MWC** | **Mount Wilson** | **5.12** | **318** | *e*Pn | **Pn** | **20 51 47.8** | **+3.1** |
| **PASC** | **Pasadena Art C** | **5.16** | **317** | *e*Pn | **Pn** | **20 51 46.3** | **+1.3** |
| **X18A** | **Snowflake** | **5.28** | **39** | *e*Pn | **Pn** | **20 51 47.1** | **+0.2** |
| **WUAZ** | **Wupatki** | **5.49** | **23** | *e*Pn | **Pn** | **20 51 51.1** | **+1.4** |
| **W18A** | **Petrified Fore** | **5.85** | **36** | *e*Pn | **Pn** | **20 51 54.4** | **-0.3** |
| **U15A** | **North Rim** | **6.12** | **13** | *e*Pn | **Pn** | **20 51 59.7** | **+1.3** |
| **SHPR** | **Sheep Range** | **6.12** | **351** | *e*Pn | **Pn** | **20 51 58.9** | **+0.6** |
| **ISA** | **Isabella, Lake** | **6.43** | **325** | *e*Pn | **Pn** | **20 52 06.2** | **+3.6** |
| **DAC** | **Darwin (Calif)** | **6.56** | **333** | *e*Pn | **Pn** | **20 52 06.8** | **+2.4** |
| **LCMT** | **Little Creek M** | **6.56** | **5** | *e*Pn | **Pn** | **20 52 05.7** | **+1.2** |
| **TPNV** | **Topopah Spring** | **6.75** | **344** | *e*Pn | **Pn** | **20 52 07.8** | **+0.7** |
| **LAZ** | **Ladron** | **6.97** | **54** | *e*Pn | **Pn** | **20 52 11.3** | **+1.2** |
| **CCUT** | **Cedar City** | **7.09** | **4** | *e*Pn | **Pn** | **20 52 13.6** | **+1.7** |
| **PKCU** | **Pink Cliffs** | **7.10** | **11** | *e*Pn | **Pn** | **20 52 13.8** | **+1.8** |
| **SZCU** | **Shurtz Canyon** | **7.16** | **5** | *e*Pn | **Pn** | **20 52 14.3** | **+1.6** |
| **BNM** | **Barren Site** | **7.21** | **57** | *e*Pn | **Pn** | **20 52 12.9** | **-0.5** |
| BNM | | | | *e*Sn | **Sn** | **20 53 38.0** | **+2.6** |
| **LPM** | **Los Pinos Moun** | **7.28** | **56** | *e*Pn | **Pn** | **20 52 15.6** | **+1.2** |
| LPM | | | | *e*Sg | **Sg** | **20 54 21.1** | **-0.4** |
| **MNTX** | **Cornudas Mount** | **7.45** | **78** | *e*Pn | **Pn** | **20 52 18.2** | **+1.7** |
| **PAGB** | **Antelope Grade** | **7.46** | **317** | *e*Pn | **Pn** | **20 52 19.6** | **+2.9** |
| **MTPU** | **Mount Pierson** | **7.71** | **10** | *e*Pn | **Pn** | **20 52 22.5** | **+2.2** |
| **ANMO** | **Albuquerque** | **7.74** | **53** | *e*Pn | **Pn** | **20 52 22.2** | **+1.5** |
| **R11A** | **Troy Canyon, C** | **7.99** | **351** | *e*Pn | **Pn** | **20 52 25.1** | **+1.1** |
| **PSUT** | **Pine Spring** | **8.06** | **1** | *e*Pn | **Pn** | **20 52 27.1** | **+2.1** |
| **HPIG** | | **8.07** | **114** | *e*Pn | **Pn** | **20 52 22.3** | **-3.0** |
| **MVCO** | **Mesa Verde** | **8.12** | **32** | *e*Pn | **Pn** | **20 52 26.9** | **+1.0** |
| **MSU** | **Marysvale** | **8.17** | **10** | *e*Pn | **Pn** | **20 52 29.2** | **+2.6** |
| **MDPB** | **Devils Postpil** | **8.33** | **331** | *e*Pn | **Pn** | **20 52 27.3** | **-1.5** |
| **PV05** | **Paradox Valley** | **8.60** | **27** | *e*Pn | Pn | 20 52 38.1 | +5.7 |
| **NV11** | **Mina Array Sit** | **8.68** | **338** | *e*Pn | **Pn** | **20 52 36.1** | **+2.5** |
| **NV01** | **Mina Array Sit** | **8.73** | **337** | *e*Pn | **Pn** | **20 52 37.1** | **+2.9** |
| NV01 | | | | *e* | | 20 53 25.0 | |
| **NVAR** | **Mina Array Bea** | **8.73** | **337** | Pn | Pn | 20 52 39.8 | +5.6 |
| | baz=167,slow=14,SNR=3.7 | | | | | | |
| NVAR | | | | Pg | Pg | 20 53 25.0 | +10 |
| | baz=160,slow=19,SNR=7.9 | | | | | | |
| NVAR | | | | Lg | Lg | 20 55 43.9 | |
| | baz=169,slow=33,SNR=3.1 | | | | | | |
| NVAR | | | | LR | LR | 20 56 13.7 | |
| | comp=N,926nm,21.0s,baz=244,slow=39 | | | | | | |
| **PV01** | **Paradox Valley** | **8.86** | **29** | *e*Pn | **Pn** | **20 52 37.8** | **+1.7** |
| **PV10** | **Paradox Valley** | **8.88** | **26** | *e*Pn | **Pn** | **20 52 38.4** | **+2.0** |
| **SGU** | **Sterling** | **8.91** | **12** | *e*Sn | **Sn** | **20 54 12.4** | **-4.9** |
| **PV09** | **Paradox Valley** | **8.95** | **25** | *e*Pn | **Pn** | **20 52 35.2** | **-2.2** |
| **TX31** | **Lajitas Ar. Si** | **8.99** | **95** | *e*Pn | Pn | **20 52 35.7** | **-2.1** |
| **LTX** | **Lajitas** | **8.99** | **95** | *e*Pn | **Pn** | **20 52 41.3** | **+3.5** |
| LTX | | | | *e*Lg | Lg | 20 55 12.8 | |
| LTX | | | | *e* | | 20 56 31.8 | |
| **TXAR** | **Lajitas Array** | **8.99** | **95** | Pn | **Pn** | **20 52 41.3** | **+3.5** |
| | comp=N,0.5nm,0.3s,baz=263,slow=15,SNR=8.3 | | | | | | |
| TXAR | | | | Lg | Lg | 20 55 12.8 | |
| | comp=N,0.3nm,0.3s,baz=268,slow=33,SNR=3.8 | | | | | | |
| TXAR | | | | LR | LR | 20 56 31.8 | |
| | comp=N,1μm,20.5s,baz=0.0,slow=40 | | | | | | |
| **PV15** | **Paradox Valley** | **9.07** | **28** | *e*Pn | **Pn** | **20 52 37.6** | **-1.4** |
| **SRU** | **San Rafael Swe** | **9.08** | **17** | *e*Pn | **Pn** | **20 52 38.7** | **-0.3** |
| **TMUT** | **Trail Mountain** | **9.10** | **14** | *e*Pn | **Pn** | **20 52 43.5** | **+4.1** |
| **WAKR** | **Walker** | **9.22** | **332** | *e*Pn | **Pn** | **20 52 42.9** | **+2.0** |
| **KVN** | **Kaiserville** | **9.23** | **339** | *e*P

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **VRTB** | **Varto-Mus** | **1.66 285** | *e*PN | **Pn** | **20 51 51.5** | **0.0** |
| **VRTB** | **Varto-Mus** | **1.66 285** | *e*Pn | **Pn** | **20 51 51.5** | **0.0** |

**DJA 23 21:01:55.4±1.7, 9˚S±12˚×11˚1E±˚, h12km±9km, M3.8/10, MLv3.8/10, Jawa**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PCJI** | **Pacitan** | **0.79** | **20** | P | Pg | 21 02 11.0 | +0.3 |
| PCJI | | | | Pg | Pb | 21 02 10.9 | -0.2 |
| **UGM** | **Wanagama** | **1.09** | **340** | P | Pg | 21 02 16.1 | -0.3 |
| UGM | | | | Pg | Pb | 21 02 16.0 | -0.2 |
| **PWJI** | **Pagerwojo** | **1.28** | **44** | P | Pn | 21 02 17.7 | -1.4 |
| PWJI | | | | Pg | Pn | 21 02 17.7 | -1.4 |
| **UWJI** | **Ujung Watu** | **2.50** | **1** | P | Pn | 21 02 35.9 | -0.1 |
| **KPJI** | **Karang Pucung** | **2.52** | **309** | P | Pn | 21 02 36.9 | +0.7 |
| **BLJI** | **Banyuglugur** | **2.92** | **66** | P | Pn | 21 02 42.1 | +0.4 |
| **JAGI** | **Jajag, Banyuwa** | **3.25** | **82** | P | Pn | 21 02 46.8 | +0.6 |
| **CISI** | **Cisompet, Garu** | **3.35** | **294** | P | Pn | 21 02 46.9 | -0.8 |

**IDC 23 21:19:09.7±3.9, 1˚.55N×95˚.35E, h0km, mb3.4/5, mb1 3.5/5, mb1mx3.3/43, mbtmp3.4/5, Error ellipse: s-maj=153.6km s-min=22.4km az=59.0, Off west coast of northern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **43.80** | **121** | P | P | 21 27 17.4 | -0.3 |
| | 0.3nm,0.9s,baz=298,slow=8.6,SNR=2.6 | | | | | | |
| **ASAR** | **Alice Springs** | **45.09** | **126** | P | P | 21 27 28.0 | 0.0 |
| | 0.2nm,0.7s,baz=304,slow=7.9,SNR=3.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **46.48** | **348** | P | P | 21 27 38.5 | -0.2 |
| | 0.8nm,0.7s,baz=165,slow=8.1,SNR=5.2 | | | | | | |
| **SONM** | **Songino Array** | **47.09** | **10** | P | P | 21 27 43.8 | +0.2 |
| | 0.2nm,0.7s,baz=187,slow=10,SNR=2.8 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **52.95** | **352** | P | P | 21 28 27.4 | -0.4 |
| | 0.7nm,0.4s,baz=176,slow=7.7,SNR=4.7 | | | | | | |

*ISN* ***23*** *21:23:18.6±0.3, 38˚.25N×43˚.50E, h0km, ML3.1*
*ISK* ***23*** *21:23:22.4, 38˚.74N×43˚.50E, h5km, ML2.7*
*CSEM* ***23*** *21:23:23.5±0.2, 38˚.71N×43˚.61E, h10km, ML2.7, Error ellipse: s-maj=6.5km s-min=4.5km az=93.0*
*DDA* ***23*** *21:23:23.3, 38˚.71N×43˚.55E, h16km, Ml3.1*
**ISC 23 21:23:23.1±1.1, 38˚.72N±0˚.02×43˚.56E±0˚.02, h6km±9km, n60, σ1º12/88, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.18** | **228** | *e*PG | **Pg** | **21 23 28.5** | **+1.7** |
| **TVAN** | **Van** | **0.22** | **213** | *i* P | **Pg** | **21 23 28.4** | **+0.9** |
| **TVAN** | **Van** | **0.22** | **213** | P | **Pg** | **21 23 28.4** | **+0.9** |
| **VMUR** | **Van-Muradiye** | **0.27** | **2** | *i* P | **Pg** | **21 23 28.6** | **0.0** |
| VMUR | | | | *i* S | **Sb** | **21 23 34.5** | **-1.2** |
| **VMUR** | **Van-Muradiye** | **0.27** | **2** | P | **Pg** | **21 23 28.6** | **0.0** |
| VMUR | | | | S | **Sb** | **21 23 34.5** | **-1.2** |
| **ERCV** | **ERCIS-VAN** | **0.35** | **330** | *e*PG | **Pg** | **21 23 29.1** | **-1.0** |
| ERCV | | | | *e*SG | **Sg** | **21 23 35.3** | **+0.6** |
| **CLDR** | **Caldiran** | **0.51** | **33** | *e*PG | **Pg** | **21 23 33.0** | **0.0** |
| CLDR | | | | *e*SG | **Sb** | **21 23 42.4** | **-0.1** |
| **CLDR** | **Caldiran** | **0.51** | **33** | *i* P | **Pg** | **21 23 33.2** | **+0.2** |
| CLDR | | | | *i* S | **Sb** | **21 23 42.5** | **0.0** |
| **CLDR** | **Caldiran** | **0.51** | **33** | P | **Pg** | **21 23 33.2** | **+0.2** |
| CLDR | | | | *e*Sg | **Sb** | **21 23 42.4** | **-0.1** |
| **GEVA** | **Gevas** | **0.56** | **225** | *i* P | **Pg** | **21 23 34.1** | **+0.1** |
| GEVA | | | | *i* S | **Sn** | **21 23 46.6** | **-1.1** |
| **GEVA** | **Gevas** | **0.56** | **225** | P | **Pg** | **21 23 34.1** | **+0.1** |
| GEVA | | | | S | **Sn** | **21 23 46.6** | **-1.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.66** | **278** | *i* P | **Pg** | **21 23 35.2** | **-0.6** |
| ADCV | | | | *i* S | **Sb** | **21 23 45.9** | **-0.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.66** | **278** | P | **Pg** | **21 23 35.2** | **-0.6** |
| ADCV | | | | S | **Sb** | **21 23 45.9** | **-0.8** |
| **BASK** | **Baskale_VAN** | **0.75** | **152** | *i* P | **Pg** | **21 23 38.0** | **+0.5** |
| **BASK** | **Baskale_VAN** | **0.75** | **152** | P | **Pg** | **21 23 38.0** | **+0.5** |
| **DYDN** | **Diyadin** | **0.83** | **7** | *i* P | **Pg** | **21 23 38.7** | **-0.5** |
| DYDN | | | | *i* S | **Sb** | **21 23 52.4** | **+0.5** |
| **DYDN** | **Diyadin** | **0.83** | **7** | P | **Pg** | **21 23 38.7** | **-0.5** |
| DYDN | | | | S | **Sb** | **21 23 52.3** | **+0.5** |
| **TUTA** | **Tutak** | **0.90** | **320** | *i* P | **Pg** | **21 23 39.2** | **-1.2** |
| TUTA | | | | *i* S | **Sg** | **21 23 49.0** | **-3.1** |
| **TUTA** | **Tutak** | **0.90** | **320** | P | **Pg** | **21 23 39.2** | **-1.2** |
| **HAKT** | **HAKKARI** | **1.16** | **174** | *i* P | **Pb** | **21 23 45.3** | **-0.5** |
| HAKT | | | | *i* S | **Sn** | **21 24 04.3** | **+1.8** |
| **HAKT** | **HAKKARI** | **1.16** | **174** | P | **Pb** | **21 23 45.3** | **-0.5** |
| HAKT | | | | S | **Sn** | **21 24 04.3** | **+1.8** |
| **YOVA** | **Hakkari_Y˜…kse** | **1.26** | **153** | *i* P | **Pn** | **21 23 46.2** | **-1.4** |
| YOVA | | | | *i* S | **Sn** | **21 24 08.8** | **+3.8** |
| **YOVA** | **Hakkari_Y˜…kse** | **1.26** | **153** | P | **Pn** | **21 23 46.2** | **-1.4** |
| **EKAR** | **Karacoban** | **1.29** | **295** | *i* P | **Pg** | **21 23 48.2** | **+0.4** |
| EKAR | | | | *i* S | **Sn** | **21 24 09.4** | **+3.8** |
| **EKAR** | **Karacoban** | **1.29** | **295** | P | **Pg** | **21 23 48.2** | **+0.4** |
| EKAR | | | | S | **Sn** | **21 24 09.4** | **+3.8** |
| **TASB** | **TASBURUN-IGDIR** | **1.37** | **22** | *e*PN | **Pb** | **21 23 49.0** | **-0.3** |
| **TASB** | **TASBURUN-IGDIR** | **1.37** | **22** | *e*Pn | **Pb** | **21 23 49.0** | **-0.3** |
| **EATA** | **Eleskirt** | **1.42** | **324** | *i* P | **Pb** | **21 23 49.9** | **-0.3** |
| EATA | | | | *i* S | **Sg** | **21 24 09.8** | **+1.1** |
| **EATA** | **Eleskirt** | **1.42** | **324** | P | **Pb** | **21 23 49.9** | **-0.3** |
| EATA | | | | S | **Sg** | **21 24 09.8** | **+1.1** |
| **CUKT** | **Cukurca** | **1.47** | **179** | *e*PN | **Pg** | **21 23 51.2** | **0.0** |
| **CUKT** | **Cukurca** | **1.47** | **179** | *i* P | **Pg** | **21 23 51.4** | **+0.2** |
| **CUKT** | **Cukurca** | **1.47** | **179** | *e*Pn | **Pg** | **21 23 51.2** | **0.0** |
| **SRTM** | **Siirt_Merkez** | **1.48** | **241** | *i* P | **Pg** | **21 23 51.5** | **0.0** |
| SRTM | | | | *i* S | **Sg** | **21 24 10.5** | **-0.1** |
| **SRTM** | **Siirt_Merkez** | **1.48** | **241** | P | **Pg** | **21 23 51.5** | **0.0** |
| SRTM | | | | S | **Sg** | **21 24 10.5** | **-0.1** |
| **SIRT** | **Sirnak** | **1.50** | **216** | *e*PN | **Pb** | **21 23 51.2** | **-0.3** |
| **SIRT** | **Sirnak** | **1.50** | **216** | *e*Pn | **Pb** | **21 23 51.2** | **-0.3** |
| **SIRN** | **S˜–rnak** | **1.52** | **217** | *i* P | **Pg** | **21 23 52.2** | **0.0** |
| **SIRN** | **S˜–rnak** | **1.52** | **217** | P | **Pg** | **21 23 52.2** | **0.0** |
| **VRTB** | **Varto-Mus** | **1.70** | **286** | *e*PN | **Pn** | **21 23 53.8** | **+0.2** |
| **VRTB** | **Varto-Mus** | **1.70** | **286** | *i* P | **Pb** | **21 23 55.0** | **+0.1** |
| VRTB | | | | *i* S | **Sg** | **21 24 18.5** | **+0.7** |
| **VRTB** | **Varto-Mus** | **1.70** | **286** | *e*PN | **Pn** | **21 23 53.8** | **+0.2** |
| **VRTB** | **Varto-Mus** | **1.70** | **286** | P | **Pb** | **21 23 55.0** | **+0.1** |
| VRTB | | | | S | **Sg** | **21 24 18.5** | **+0.7** |
| **DIGO** | **Kars** | **1.70** | **355** | *i* P | **Pb** | **21 23 54.3** | **-0.8** |
| **DIGO** | **Kars** | **1.70** | **355** | P | **Pb** | **21 23 54.3** | **-0.8** |
| **HOMI** | **Horasan** | **1.85** | **317** | *i* P | **Pb** | **21 23 57.0** | **-0.5** |
| **BNGL** | **BINGOL** | **1.90** | **278** | *i* P | **Pb** | **21 23 58.0** | **-0.3** |
| BNGL | | | | *i* S | **Sg** | **21 24 25.2** | **+1.1** |
| **KARS** | **Kars** | **1.95** | **349** | *e*PN | **Pn** | **21 23 57.2** | **+0.3** |
| **KARS** | **Kars** | **1.95** | **349** | *e*Pn | **Pn** | **21 23 57.2** | **+0.3** |
| **EAK** | **Akyaka** | **1.97** | **1** | *i* P | **Pg** | **21 24 00.7** | **-0.2** |
| **EAK** | **Akyaka** | **1.97** | **1** | P | **Pg** | **21 24 00.7** | **-0.2** |
| **BTMN** | **Batman** | **1.98** | **246** | *i* P | **Pb** | **21 23 58.8** | **-0.9** |
| **BTMN** | **Batman** | **1.98** | **246** | P | **Pb** | **21 23 58.8** | **-0.9** |
| **SENK** | **Senkaya-Erzuru** | **2.07** | **333** | *e*PN | **Pn** | **21 23 59.1** | **+0.5** |
| **SENK** | **Senkaya-Erzuru** | **2.07** | **333** | *e*Pn | **Pn** | **21 23 59.1** | **+0.5** |
| **ERZM** | **Erzurum** | **2.08** | **306** | *i* P | **Pb** | **21 24 00.2** | **-1.2** |
| **ERZM** | **Erzurum** | **2.08** | **306** | P | **Pb** | **21 24 00.2** | **-1.2** |
| **ECAT** | **Cat-ERZURUM** | **2.20** | **295** | *i* P | **Pb** | **21 24 02.5** | **-1.0** |
| ECAT | | | | *i* S | **Sg** | **21 24 33.7** | **-0.1** |
| **ECAT** | **Cat-ERZURUM** | **2.20** | **295** | P | **Pb** | **21 24 02.5** | **-1.0** |
| ECAT | | | | S | **Sg** | **21 24 33.7** | **-0.1** |
| **BNGB** | **Bing˜¶l** | **2.27** | **278** | *e*PN | **Pn** | **21 24 02.1** | **+0.8** |
| **MSL** | **Mosul** | **2.34** | **189** | *e*Pg | **Pn** | **21 24 00.0** | **-2.2** |
| | SNR=9.0 | | | | | | |
| MSL | | | | *e*Sg | **Sn** | **21 24 29.0** | **-2.2** |
| | SNR=9.0 | | | | | | |

**IDC 23 21:29:27.2±7.2, 6˚.73S×147˚.70E, h88km±70km, mb2.7/1, mb1 2.9/3, mb1mx2.8/29, mbtmp3.0/3, ML3.2/1, Error ellipse: s-maj=119.5km s-min=54.8km az=116.0, Eastern New Guinea region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **2.71** | **191** | P | Pn | 21 30 08.5 | -0.3 |
| | 1.3nm,0.3s,baz=30,slow=14,SNR=4.6 | | | | | | |
| PMG | | | | S | Sn | 21 30 41.8 | +0.9 |
| | 1.4nm,0.3s,baz=336,slow=20,SNR=4.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **18.46** | **223** | P | P | 21 33 35.2 | -0.9 |
| | 0.1nm,0.3s,baz=50,slow=11,SNR=6.1 | | | | | | |
| **ASAR** | **Alice Springs** | **21.43** | **217** | P | P | 21 34 08.2 | -0.1 |
| | 0.3nm,0.5s,baz=49,slow=10,SNR=9.7 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **145.94** | **283** | PKPbc | PKPdf | 21 48 57.2 | +0.3 |
| | 0.3nm,0.8s,baz=64,slow=4.1,SNR=3.9 | | | | | | |

**IDC 23 21:34:11.7±1.8, 56˚.28S×28˚.22W, h0km, mb3.6/1, mb1 3.6/1, mb1mx3.4/16, mbtmp3.6/1, Error ellipse: s-maj=93.8km s-min=69.3km az=161.0, South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TORD** | **Torodi Ar. Bea** | **73.54** | **30** | P | P | 21 45 46.3 | 0.0 |
| | 0.3nm,0.6s,baz=191,slow=5.6,SNR=4.4 | | | | | | |
| **INK** | **Inuvik** | **145.61** | **321** | PKPbc | PKPdf | 21 53 49.5 | -0.7 |
| | 0.8nm,0.5s,baz=90,slow=5.1,SNR=5.1 | | | | | | |
| **ILAR** | **Eielson Array** | **149.83** | **312** | PKPbc | PKPbc | 21 54 01.8 | -0.4 |
| | 1.2nm,0.9s,baz=131,slow=1.6,SNR=11 | | | | | | |
| **SONM** | **Songino Array** | **151.32** | **88** | PKPbc | PKPbc | 21 54 06.1 | -0.2 |
| | 0.6nm,0.5s,baz=219,slow=4.0,SNR=9.9 | | | | | | |

**IDC 23 21:35:50.0±2.7, 5˚.14S×131˚.67E, h0km, mb3.4/1, mb1 4.0/4, mb1mx3.6/25, mbtmp3.8/4, ML4.1/3, Error ellipse: s-maj=120.3km s-min=29.0km az=78.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **14.17** | **204** | Pn | Pn | 21 39 11.2 | -0.9 |
| | 1.7nm,0.3s,baz=32,slow=11,SNR=36 | | | | | | |
| FITZ | | | | Sn | Sn | 21 41 38.9 | -11 |
| | 0.3nm,0.3s,baz=104,slow=12,SNR=4.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **14.94** | **170** | Pn | Pn | 21 39 21.3 | -1.5 |
| | 0.6nm,0.3s,baz=350,slow=14,SNR=47 | | | | | | |
| WRA | | | | Sn | Sn | 21 41 57.6 | -12 |
| | 0.6nm,0.3s,baz=341,slow=23,SNR=6.7 | | | | | | |
| **ASAR** | **Alice Springs** | **18.55** | **174** | P | Pn | 21 40 09.3 | +0.8 |
| | 0.3nm,0.3s,baz=357,slow=14,SNR=20 | | | | | | |
| ASAR | | | | S | Sn | 21 43 24.4 | -12 |
| | 0.1nm,0.3s,baz=353,slow=27,SNR=3.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.61** | **326** | P | P | 21 46 48.7 | 0.0 |
| | 0.2nm,0.4s,baz=112,slow=8.1,SNR=5.3 | | | | | | |

*ISK* ***23*** *22:02:23.9, 38˚.67N×43˚.13E, h3km, MD2.7*
*CSEM* ***23*** *22:02:24.7±0.1, 38˚.65N×43˚.11E, h2km, MD2.7, Error ellipse: s-maj=3.7km s-min=2.9km az=112.0*
*DDA* ***23*** *22:02:24.7, 38˚.63N×43˚.11E, h7km, Ml2.8*
*ISCJB* ***23*** *22:02:25.4±0.5, 38˚.68N±0˚.02×43˚.12E±0˚.03, h7km±5km, Error ellipse: s-maj=4.6km s-min=3.9km az=160.6*
**ISC 23 22:02:25.3±1.0, 38˚.64N±0˚.02×43˚.12E±0˚.03, h11km±8km, n28, σ1º07/46, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.22** | **103** | *e*PG | **Pg** | **22 02 29.9** | **-0.1** |
| VANB | | | | *e*SG | **Sg** | **22 02 34.7** | **+1.5** |
| **VANB** | **Van** | **0.22** | **103** | *e*Pg | **Pg** | **22 02 29.9** | **-0.1** |
| **TVAN** | **Van** | **0.26** | **117** | *i* P | **Pg** | **22 02 29.9** | **-0.8** |
| TVAN | | | | *i* S | **Sg** | **22 02 34.3** | **0.0** |
| **TVAN** | **Van** | **0.26** | **117** | P | **Pg** | **22 02 29.9** | **-0.8** |
| TVAN | | | | S | **Sg** | **22 02 34.3** | **0.0** |
| **GEVA** | **Gevas** | **0.33** | **188** | *i* P | **Pg** | **22 02 31.3** | **-0.8** |
| GEVA | | | | *i* S | **Sb** | **22 02 39.1** | **+0.3** |
| **GEVA** | **Gevas** | **0.33** | **188** | P | **Pg** | **22 02 31.3** | **-0.8** |
| GEVA | | | | S | **Sb** | **22 02 39.1** | **+0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.35** | **298** | *i* P | **Pg** | **22 02 32.1** | **-0.2** |
| ADCV | | | | *i* S | **Sb** | **22 02 38.3** | **-0.9** |
| **ADCV** | **BITLIS_Adilcev** | **0.35** | **298** | P | **Pg** | **22 02 32.1** | **-0.2** |
| **ERCV** | **ERCIS-VAN** | **0.41** | **25** | *e*PG | **Pg** | **22 02 32.6** | **-1.0** |
| **ERCV** | **ERCIS-VAN** | **0.41** | **25** | *e*Pg | **Pg** | **22 02 32.6** | **-1.0** |
| **VMUR** | **Van-Muradiye** | **0.50** | **46** | *i* P | **Pg** | **22 02 34.8** | **-0.3** |
| VMUR | | | | *i* S | **Sb** | **22 02 43.2** | **-0.3** |
| **VMUR** | **Van-Muradiye** | **0.50** | **46** | P | **Pg** | **22 02 34.8** | **-0.3** |
| VMUR | | | | S | **Sb** | **22 02 43.2** | **-0.3** |
| **TUTA** | **Tutak** | **0.79** | **343** | *i* P | **Pg** | **22 02 39.9** | **-0.8** |
| TUTA | | | | *i* S | **Sb** | **22 02 51.3** | **-0.8** |
| **TUTA** | **Tutak** | **0.79** | **343** | P | **Pg** | **22 02 39.9** | **-0.8** |
| TUTA | | | | S | **Sb** | **22 02 51.3** | **-0.8** |
| **CLDR** | **Caldiran** | **0.80** | **51** | *e*PG | **Pg** | **22 02 39.7** | **-1.1** |
| **CLDR** | **Caldiran** | **0.80** | **51** | *i* P | **Pg** | **22 02 40.2** | **-0.6** |
| CLDR | | | | *i* S | **Sb** | **22 02 52.1** | **-0.2** |
| **CLDR** | **Caldiran** | **0.80** | **51** | *e*Pg | **Pg** | **22 02 39.7** | **-1.1** |
| **CLDR** | **Caldiran** | **0.80** | **51** | P | **Pg** | **22 02 40.2** | **-0.6** |
| CLDR | | | | S | **Sb** | **22 02 52.1** | **-0.2** |
| **AGRB** | **Hanur-Agry** | **0.94** | **354** | *e*PG | **Pg** | **22 02 42.2** | **-1.2** |
| AGRB | | | | *e*SG | **Sb** | **22 02 55.6** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **0.94** | **354** | *e*Pg | **Pg** | **22 02 42.2** | **-1.2** |
| AGRB | | | | *e*Sg | **Sb** | **22 02 55.6** | **-0.6** |
| **HAKT** | **HAKKARI** | **1.18** | **157** | *i* P | **Pg** | **22 02 44.9** | **-3.1** |
| HAKT | | | | *i* S | **Sn** | **22 03 06.3** | **+2.1** |
| **HAKT** | **HAKKARI** | **1.18** | **157** | P | **Pg** | **22 02 44.9** | **-3.1** |
| HAKT | | | | S | **Sn** | **22 03 06.3** | **+2.1** |
| **SIRT** | **Sirnak** | **1.26** | **205** | *e*PN | **Pn** | **22 02 49.3** | **+0.3** |
| **SIRT** | **Sirnak** | **1.26** | **205** | *e*Pn | **Pn** | **22 02 49.3** | **+0.3** |
| **CUKT** | **Cukurca** | **1.45** | **164** | *e*PN | **Pn** | **22 02 52.1** | **+0.5** |
| **CUKT** | **Cukurca** | **1.45** | **164** | *e*Pn | **Pn** | **22 02 52.1** | **+0.5** |
| **BTMN** | **Batman** | **1.64** | **243** | *i* P | **Pb** | **22 02 55.1** | **-0.4** |
| BTMN | | | | *i* S | **Sb** | **22 03 16.9** | **+0.7** |
| **BTMN** | **Batman** | **1.64** | **243** | P | **Pb** | **22 02 55.1** | **-0.4** |
| BTMN | | | | S | **Sb** | **22 03 16.9** | **+0.7** |

*ISCJB* ***23*** *22:15:14.8±1.3, 43˚.54S±0˚.03×172˚.94E±0˚.05, h7km±11km, mb3.4/2, Error ellipse: s-maj=7.4km s-min=3.4km az=136.5*
*NEIC* ***23*** *22:15:17.0±0.0, 43˚.48S×172˚.90E, h13km, ML4.2(WEL), After WEL.*
*NEIC Felt at Christchurch.*
*IDC* ***23*** *22:15:16.0±2.1, 43˚.46S×172˚.78E, h0km, mb3.5/2, mb1 3.8/2, mb1mx3.6/27, mbtmp3.5/2, Error ellipse: s-maj=58.3km s-min=20.6km az=165.0*
*WEL* ***23*** *22:15:17.4±0.3, 43˚.50S×172˚.87E, h12km±1km, ML4.0/33, Mw3.9, Error ellipse: s-maj=2.6km s-min=1.0km az=90.0*
*WEL Felt in the Canterbury region, maximum reported intensity MM 5.*
**ISC 23 22:15:16.9±1.2, 43˚.50S±0˚.03×172˚.90E±0˚.04, h15km±7km, n70, σ0º92/74, 2C-3D, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.21** | **250** | P* | **Pg** | **22 15 21.8** | **+0.1** |
| **CRLZ** | **Canterbury Las** | **0.21** | **250** | P* | **Pg** | **22 15 21.8** | **+0.1** |
| CRLZ | | | | S* | **Sg** | **22 15 26.0** | **+0.1** |
| CRLZ | | | | AML | AML | 22 15 26.1 | |
| **MQZ** | **McQueen's Vall** | **0.27** | **221** | P* | **Pg** | **22 15 23.1** | **+0.4** |
| MQZ | | | | S* | **Sb** | **22 15 27.4** | **-0.6** |
| **MQZ** | **McQueen's Vall** | **0.27** | **221** | P* | **Pg** | **22 15 23.1** | **+0.4** |
| MQZ | | | | S* | **Sb** | **22 15 27.4** | **-0.6** |
| MQZ | | | | S* | **Sb** | **22 15 27.4** | **-0.6** |
| MQZ | | | | AML | AML | 22 15 28.1 | |
| **OXZ** | **Oxford** | **0.65** | **285** | P* | **Pg** | **22 15 29.1** | **-0.5** |
| OXZ | | | | S* | **Sg** | **22 15 37.8** | **-0.5** |
| **OXZ** | **Oxford** | **0.65** | **285** | ⇑P* | **Pg** | **22 15 29.1** | **-0.5** |
| OXZ | | | | S* | **Sg** | **22 15 37.8** | **-0.5** |
| OXZ | | | | AML | AML | 22 15 39.6 | |
| OXZ | | | | AML | AML | 22 15 39.9 | |
| OXZ | | | | AML | AML | 22 15 39.9 | |
| **LTZ** | **Lake Taylor** | **0.85** | **327** | ⇓P* | **Pg** | **22 15 33.0** | **-0.5** |
| LTZ | | | | S* | **Sb** | **22 15 44.4** | **-0.5** |
| LTZ | | | | AML | AML | 22 15 45.4 | |
| **KHZ** | **Kahutara** | **1.18** | **24** | P* | **Pn** | **22 15 38.1** | **-0.8** |
| **KHZ** | **Kahutara** | **1.18** | **24** | P* | **Pn** | **22 15 38.1** | **-0.8** |
| KHZ | | | | AML | AML | 22 16 00.8 | |
| KHZ | | | | AML | AML | 22 16 00.8 | |
| KHZ | | | | AML | AML | 22 16 04.2 | |
| KHZ | | | | AML | AML | 22 16 04.2 | |
| **INZ** | **Inchbonnie** | **1.32** | **306** | PN | **Pn** | **22 15 39.9** | **-1.0** |
| **RPZ** | **Rata Peaks** | **1.36** | **260** | Pg | **Pn** | **22 15 40.9** | **-0.5** |
| | 74nm,0.3s,baz=89,slow=1.9,SNR=142 | | | | | | |
| RPZ | | | | LR | LR | 22 15 46.6 | |
| | comp=Z,56nm,19.9s,baz=78,slow=24 | | | | | | |
| RPZ | | | | Lg | Lg | 22 15 57.1 | |
| | 97nm,0.3s,baz=168,slow=19,SNR=14 | | | | | | |
| **RPZ** | **Rata Peaks** | **1.36** | **260** | ⇑PN | **Pn** | **22 15 40.9** | **-0.5** |
| RPZ | | | | AML | AML | 22 16 05.9 | |
| RPZ | | | | AML | AML | 22 16 12.5 | |
| **WVZ** | **Waitaha Valley** | **1.64** | **284** | PN | **Pn** | **22 15 44.8** | **-0.4** |
| WVZ | | | | AML | AML | 22 16 17.4 | |
| WVZ | | | | AML | AML | 22 16 20.4 | |
| **THZ** | **Tophouse** | **1.74** | **0** | PN | **Pn** | **22 15 46.1** | **-0.6** |
| THZ | | | | AML | AML | 22 16 10.2 | |
| THZ | | | | AML | AML | 22 16 19.1 | |
| **BSWZ** | **Blackbirch Sta** | **1.93** | **22** | PN | **Pn** | **22 15 49.0** | **-0.2** |
| BSWZ | | | | AML | AML | 22 16 29.7 | |
| BSWZ | | | | AML | AML | 22 16 34.8 | |
| **DSZ** | **Denniston Nort** | **1.93** | **335** | PN | **Pn** | **22 15 49.0** | **-0.4** |
| DSZ | | | | AML | AML | 22 16 21.3 | |
| DSZ | | | | AML | AML | 22 16 21.7 | |
| DSZ | | | | AML | AML | 22 16 26.6 | |
| DSZ | | | | AML | AML | 22 16 26.7 | |
| **LBZ** | **Lake Benmore** | **2.15** | **245** | PN | **Pn** | **22 15 52.3** | **0.0** |
| LBZ | | | | AML | AML | 22 16 34.0 | |
| LBZ | | | | AML | AML | 22 16 34.0 | |
| LBZ | | | | AML | AML | 22 16 37.5 | |
| LBZ | | | | AML | AML | 22 16 37.5 | |
| **TUWZ** | **Tuamarina** | **2.21** | **21** | PN | **Pn** | **22 15 52.7** | **-0.4** |
| TUWZ | | | | AML | AML | 22 16 41.6 | |
| TUWZ | | | | AML | AML | 22 16 52.4 | |
| **ODZ** | **Otahua Downs** | **2.23** | **226** | PN | **Pn** | **22 15 53.2** | **-0.2** |
| ODZ | | | | AML | AML | 22 16 32.0 | |
| ODZ | | | | AML | AML | 22 16 32.0 | |
| ODZ | | | | AML | AML | 22 16 40.3 | |
| ODZ | | | | AML | AML | 22 16 40.3 | |
| **FOZ** | **Fox Glacier** | **2.24** | **268** | Sn | **Sn** | **22 16 21.0** | **0.0** |
| **FOZ** | **Fox Glacier** | **2.24** | **268** | PN | **Pn** | **22 15 54.4** | **+0.9** |
| FOZ | | | | SN | **Sn** | **22 16 21.0** | **0.0** |
| FOZ | | | | AML | AML | 22 16 22.2 | |
| FOZ | | | | AML | AML | 22 16 22.7 | |
| FOZ | | | | AML | AML | 22 16 33.8 | |
| **NNZ** | **Nelson** | **2.31** | **9** | PN | **Pn** | **22 15 54.6** | **+0.1** |
| NNZ | | | | AML | AML | 22 16 23.3 | |
| NNZ | | | | AML | AML | 22 16 43.1 | |
| **TCW** | **Tory Channel** | **2.51** | **24** | *e*PN | **Pn** | **22 15 56.1** | **-1.1** |
| TCW | | | | AML | AML | 22 16 27.4 | |
| TCW | | | | AML | AML | 22 16 29.0 | |
| **BHW** | **Baring Head** | **2.55** | **36** | *e*PN | **Pn** | **22 15 56.8** | **-1.0** |
| **QRZ** | **Quartz Range** | **2.69** | **354** | Pn | **Pn** | **22 15 60.0** | **+0.3** |
| **QRZ** | **Quartz Range** | **2.69** | **354** | PN | **Pn** | **22 15 60.0** | **+0.3** |
| QRZ | | | | AML | AML | 22 16 11.1 | |
| QRZ | | | | AML | AML | 22 16 43.8 | |
| **MSWZ** | **Moikau Station** | **2.72** | **41** | PN | **Pn** | **22 15 58.9** | **-1.2** |
| MSWZ | | | | AML | AML | 22 16 36.8 | |
| MSWZ | | | | AML | AML | 22 16 37.1 | |
| **DUWZ** | **D'Urville Isla** | **2.80** | **16** | *e*PN | **Pn** | **22 16 01.3** | **0.0** |
| DUWZ | | | | AML | AML | 22 16 58.9 | |
| DUWZ | | | | AML | AML | 22 17 01.0 | |
| **CAW** | **Cannon Point** | **2.88** | **35** | *e*PN | **Pn** | **22 16 01.3** | **-1.1** |
| CAW | | | | AML | AML | 22 16 35.2 | |
| CAW | | | | AML | AML | 22 16 41.5 | |
| **HHSZ** | **Highcliff Hill** | **2.89** | **214** | PN | **Pn** | **22 16 02.5** | **0.0** |
| HHSZ | | | | AML | AML | 22 16 57.3 | |
| HHSZ | | | | AML | AML | 22 17 19.1 | |
| **JCZ** | **Jackson Bay** | **3.03** | **258** | PN | **Pn** | **22 16 04.4** | **-0.1** |
| JCZ | | | | AML | AML | 22 17 02.1 | |
| JCZ | | | | AML | AML | 22 17 07.6 | |
| **MTW** | **Mount Morrison** | **3.04** | **40** | AML | AML | 22 16 42.2 | |
| MTW | | | | AML | AML | 22 16 43.7 | |
| **WKZ** | **Wanaka** | **3.09** | **243** | *e*PN | **Pn** | **22 16 05.1** | **-0.1** |
| WKZ | | | | AML | AML | 22 17 04.5 | |
| WKZ | | | | AML | AML | 22 17 09.1 | |
| **EAZ** | **Earnscleugh** | **3.10** | **235** | PN | **Pn** | **22 16 05.1** | **-0.3** |
| EAZ | | | | AML | AML | 22 16 58.0 | |
| EAZ | | | | AML | AML | 22 17 06.5 | |
| **OGWZ** | **Otaki Gorge** | **3.17** | **33** | AML | AML | 22 16 46.3 | |
| OGWZ | | | | AML | AML | 22 16 47.0 | |
| **TMWZ** | **Te Maipa** | **3.26** | **44** | AML | AML | 22 16 52.9 | |
| **TUZ** | **Tuapeka** | **3.38** | **222** | PN | **Pn** | **22 16 09.0** | **-0.2** |
| TUZ | | | | AML | AML | 22 17 10.2 | |
| TUZ | | | | AML | AML | 22 17 14.5 | |
| **MRZ** | **Mangatainoka R** | **3.47** | **36** | Pn | **Pn** | **22 16 09.3** | **-1.1** |
| **MRZ** | **Mangatainoka R** | **3.47** | **36** | ⇓PN | **Pn** | **22 16 09.3** | **-1.1** |
| MRZ | | | | AML | AML | 22 16 59.0 | |
| MRZ | | | | AML | AML | 22 16 59.1 | |
| **TIWZ** | **Tintock** | **3.52** | **40** | Pn | **Pn** | **22 16 11.7** | **+0.6** |
| **TIWZ** | **Tintock** | **3.52** | **40** | AML | AML | 22 16 54.4 | |
| TIWZ | | | | AML | AML | 22 16 56.9 | |
| **BFZ** | **Birch Farm** | **3.76** | **43** | Pn | **Pn** | **22 16 13.0** | **-1.5** |
| **BFZ** | **Birch Farm** | **3.76** | **43** | PN | **Pn** | **22 16 12.9** | **-1.6** |
| **MLZ** | **Mavora Lakes** | **3.90** | **240** | Pn | **Pn** | **22 16 15.7** | **-0.6** |
| **MLZ** | **Mavora Lakes** | **3.90** | **240** | PN | **Pn** | **22 16 15.4** | **-0.9** |
| MLZ | | | | AML | AML | 22 17 29.5 | |
| MLZ | | | | AML | AML | 22 17 38.2 | |
| **SYZ** | **Scrubby Hill** | **4.04** | **220** | *e*PN | **Pn** |

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ACLC** | **CERRO LA CRUZ** | **0.55** | **99** | *e*P | Pn | 22 18 35.4 | +0.6 |
| ACLC | | | | *e*S | Sn | 22 18 48.8 | +1.0 |
| ACLC | | | | IAML | | 22 18 49.0 | |
| | comp=Z,20µm,0.2s | | | | | | |
| **AGUA** | **GUANDACOL** | **0.81** | **259** | *e*P | Pn | 22 18 37.6 | +0.8 |
| AGUA | | | | *e*S | Sn | 22 18 52.5 | +1.0 |
| **VCA** | **Vinchina** | **0.82** | **317** | *e*P | Pn | 22 18 37.6 | +0.7 |
| **APLL** | **PUNTA DE LOS L** | **1.39** | **139** | *e*P | Pn | 22 18 44.0 | +1.0 |
| APLL | | | | *e*S | Sn | 22 19 03.3 | +1.0 |

*ISK **23** 22:27:40.7, 38˚.88N×32˚.74E, h15km, MD2.5*
*ISCJB **23** 22:27:41.6±0.6, 38˚.89N±0˚.03×32˚.77E±0.05, h3km±7km, Error ellipse: s-maj=7.2km s-min=4.1km az=39.0*
*CSEM **23** 22:27:41.3±0.2, 38˚.88N×32˚.75E, h10km, MD2.6, Error ellipse: s-maj=6.5km s-min=4.1km az=139.0*
*DDA **23** 22:27:41.4, 38˚.86N×32˚.85E, h7km, Md2.6*

**ISC 23 22:27:41.4±1.0, 38˚.89N±0˚.03×32˚.77E±0˚.03, h12km±9km, n18, σ0°66/31, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KKUL** | **Konya-Kulu** | **0.30** | **22** | *i* P | **Pg** | **22 27 47.9** | **+0.2** |
| KKUL | | | | *i* S | **Sb** | **22 27 53.3** | **-0.6** |
| **KKUL** | **Konya-Kulu** | **0.30** | **22** | P | **Pg** | **22 27 47.9** | **+0.2** |
| KKUL | | | | S | **Sb** | **22 27 53.3** | **-0.6** |
| **CHBY** | **Cihanbeyli** | **0.32** | **163** | *e*PG | **Pg** | **22 27 47.7** | **-0.3** |
| CHBY | | | | *e*SG | **Sg** | **22 27 52.9** | **+0.5** |
| **CHBY** | **Cihanbeyli** | **0.32** | **163** | *e*Pg | **Pg** | **22 27 47.7** | **-0.3** |
| CHBY | | | | *e*Sg | **Sg** | **22 27 52.9** | **+0.5** |
| **AFSR** | **Afˇar-Bala (A** | **0.60** | **23** | *e*PG | **Pg** | **22 27 53.4** | **+0.1** |
| AFSR | | | | *e*SG | **Sb** | **22 28 02.6** | **+0.1** |
| **AFSR** | **Afˇar-Bala (A** | **0.60** | **23** | *e*Pg | **Pg** | **22 27 53.4** | **+0.1** |
| AFSR | | | | *e*Sg | **Sb** | **22 28 02.6** | **+0.1** |
| **SERE** | **Sereflikochisa** | **0.62** | **85** | *e*PG | **Pg** | **22 27 53.9** | **+0.3** |
| **SERE** | **Sereflikochisa** | **0.62** | **85** | *e*Pg | **Pg** | **22 27 53.9** | **+0.3** |
| **KDHN** | **Kadinhani** | **0.63** | **234** | *i* P | **Pg** | **22 27 53.3** | **-0.4** |
| KDHN | | | | *i* S | **Sb** | **22 28 02.8** | **-0.5** |
| **KDHN** | **Kadinhani** | **0.63** | **234** | P | **Pg** | **22 27 53.3** | **-0.4** |
| KDHN | | | | S | **Sb** | **22 28 02.8** | **-0.5** |
| **KIZT** | **Kizilcal** | **0.69** | **269** | *e*PG | **Pg** | **22 27 54.2** | **-0.8** |
| **KIZT** | **Kizilcal** | **0.69** | **269** | *e*Pg | **Pg** | **22 27 54.2** | **-0.8** |
| **DOGA** | **KONYA_Doganhis** | **1.17** | **228** | *i* P | **Pn** | **22 28 04.2** | **+0.5** |
| DOGA | | | | *i* S | **Sn** | **22 28 21.6** | **+1.9** |
| **DOGA** | **KONYA_Doganhis** | **1.17** | **228** | P | **Pn** | **22 28 04.2** | **+0.5** |
| **CDAG** | **Cicekdag** | **1.44** | **59** | *i* P | **Pb** | **22 28 08.4** | **0.0** |
| CDAG | | | | *i* S | **Sn** | **22 28 26.9** | **+0.4** |
| **CDAG** | **Cicekdag** | **1.44** | **59** | P | **Pb** | **22 28 08.4** | **0.0** |
| CDAG | | | | S | **Sn** | **22 28 26.9** | **+0.4** |
| **AVNS** | **Nevsehir-Avano** | **1.62** | **92** | *i* P | **Pn** | **22 28 08.7** | **-1.3** |
| AVNS | | | | *i* S | **Sg** | **22 28 33.6** | **0.0** |
| **AVNS** | **Nevsehir-Avano** | **1.62** | **92** | P | **Pn** | **22 28 08.7** | **-1.3** |
| AVNS | | | | S | **Sg** | **22 28 33.7** | **0.0** |

**MEX 23 23:07:11.7±0.4, 31˚.56N×113˚.89W, h16km±5km, MD3.9, Gulf of California**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MBIG** | **Mexicali** | **1.40** | **308** | *e*P | Pn | 23 07 33.0 | -3.5 |
| MBIG | | | | *i* S | Sn | 23 07 49.4 | -5.3 |
| **SPIG** | **San Pedro Mart** | **1.44** | **250** | *e*P | Pn | 23 07 33.9 | -3.6 |
| SPIG | | | | *e*S | Sn | 23 07 51.4 | -4.9 |
| **CBX** | **Cerro Bola** | **2.48** | **288** | *e*P | Pn | 23 07 51.7 | +0.2 |
| CBX | | | | *i* S | Sn | 23 08 16.5 | -5.0 |

*IDC **23** 23:11:20.4±1.0, 9˚.48N×126˚.32E, h0km, mb3.9/7, mb1 4.0/7, mb1mx3.7/38, mbtmp3.9/7, MS3.1/2, Ms1 3.1/2, ms1mx2.6/34, Error ellipse: s-maj=78.3km s-min=19.8km az=75.0*
*MAN **23** 23:11:25, 13˚.07N×120˚.31E, h22km, mb4.7, ML3.6, MS3.6*
*NEIC **23** 23:11:26.0±0.7, 9˚.04N×125˚.48E, h35km, mb4.3/7, Error ellipse: s-maj=23.5km s-min=14.6km az=76.0*

**ISC 23 23:11:21.1±1.9, 9˚.54N±0˚.05×126˚.57E±0˚.07, h6km±11km, n32, σ1°12/29, mb4.2/13, 3C-1D, Mindanao**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BUTP** | **Butuan** | **1.09** | **239** | *e*P | **Pg** | **23 11 42.6** | **+0.4** |
| BUTP | | | | *e*S | **Sg** | **23 11 55.1** | **-1.2** |
| **BIPH** | **Bislig** | **1.36** | **189** | ⇑*i*P | **Pg** | **23 11 48.1** | **+0.8** |
| BIPH | | | | *i* S | **Sb** | **23 12 02.7** | **-2.0** |
| **MSLP** | **Maasin** | **1.79** | **290** | *e*P | **Pb** | **23 11 54.4** | **0.0** |
| MSLP | | | | *e*S | **Sg** | **23 12 18.3** | **-0.4** |
| **BUKP** | **Musuan** | **2.22** | **222** | *e*P | **Pn** | **23 12 00.2** | **+1.6** |
| BUKP | | | | *e*S | **Sn** | **23 12 27.4** | **+1.0** |
| **PLP** | **Palo** | **2.25** | **316** | ⇓*e*P | **Pb** | **23 12 02.3** | **0.0** |
| PLP | | | | *e*S | **Sb** | **23 12 30.1** | **-0.4** |
| **BESP** | **Borongan** | **2.34** | **332** | *e*P | **Pb** | **23 12 03.3** | **-0.4** |
| **TBP** | **Tagbilaran** | **2.68** | **274** | *e*P | **Pg** | **23 12 12.8** | **+0.4** |
| **LLP** | **Lapu-Lapu** | **2.68** | **287** | *e*P | **Pb** | **23 12 08.2** | **-1.4** |
| LLP | | | | *e*S | **Sn** | **23 12 38.8** | **+1.0** |
| **DCPH** | **Dipolog City** | **3.32** | **254** | ⇑*e*P | **Pn** | **23 12 15.8** | **+2.1** |
| DCPH | | | | *e*S | **Sn** | **23 12 54.3** | **+0.9** |
| **RCP** | **Roxas** | **4.27** | **298** | ⇑*e*P | Pn | 23 12 31.3 | +4.6 |
| **TGY** | **Tagaytay City** | **7.14** | **310** | LR | LR | 23 16 18.1 | |
| | comp=Z,67nm,19.8s,baz=158,slow=43 | | | | | | |
| **KSM** | **Kuching** | **18.05** | **245** | *e*Pn | Pn | 23 15 18.3 | -15 |
| | 2.5nm,0.4s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **27.48** | **182** | P | **P** | **23 17 09.2** | **+0.8** |
| | 2.6nm,1.0s,baz=355,slow=9.9,SNR=3.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **30.27** | **165** | P | **P** | **23 17 32.7** | **-0.6** |
| | 0.3nm,0.9s,baz=334,slow=9.3,SNR=3.9 | | | | | | |
| **ASAR** | **Alice Springs** | **33.77** | **168** | P | **P** | **23 18 03.6** | **-0.3** |
| | 0.1nm,0.3s,baz=343,slow=6.8,SNR=4.1 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **39.85** | **73** | T | T | 00 01 55.4 | |
| | baz=262,slow=75,SNR=22 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **39.86** | **73** | T | T | 00 01 52.8 | |
| | baz=262,slow=75,SNR=23 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **39.87** | **73** | T | T | 00 01 53.2 | |
| | baz=262,slow=75,SNR=27 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **40.21** | **71** | T | T | 00 02 33.1 | |
| | baz=265,slow=74,SNR=8.5 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **40.22** | **71** | T | T | 00 02 33.8 | |
| | baz=265,slow=74,SNR=8.9 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **40.23** | **71** | T | T | 00 02 35.7 | |
| | baz=265,slow=74,SNR=10 | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **43.15** | **192** | LR | LR | 23 37 12.3 | |
| | comp=Z,62nm,20.6s,baz=334,slow=36 | | | | | | |
| **MKAR** | **Makanchi Array** | **52.79** | **323** | P | **P** | **23 20 36.9** | **-0.4** |
| | 0.4nm,0.6s,baz=127,slow=8.4,SNR=8.1 | | | | | | |
| **AAK** | **Ala-Archa** | **56.05** | **315** | *e*P | **P** | **23 20 59.5** | **-1.8** |
| | 2.1nm,1.1s | | | | | | |
| **KURK** | **Kurchatov** | **56.84** | **326** | *e*P | **P** | **23 21 06.3** | **-0.2** |
| | 8.9nm,0.6s | | | | | | |
| **BRVK** | **Borovoye** | **62.51** | **326** | *e*P | **P** | **23 21 45.0** | **-0.6** |
| | 3.0nm,0.9s | | | | | | |
| **ARU** | **Arti** | **70.00** | **327** | *e*P | **P** | **23 22 33.9** | **+0.3** |
| | 2.1nm,0.9s | | | | | | |
| **KIV** | **Kislovodsk** | **79.06** | **313** | P | **P** | **23 23 25.1** | **-1.6** |
| | 1.6nm,0.7s | | | | | | |
| **OBN** | **Obninsk** | **82.26** | **325** | *e*P | **P** | **23 23 43.5** | **+0.1** |
| | 3.2nm,0.4s | | | | | | |
| **ARCES** | **ARCESS Array B** | **84.98** | **340** | P | **P** | **23 23 56.7** | **-0.4** |
| | 4.9nm,0.8s,baz=80,slow=7.4,SNR=4.8 | | | | | | |
| **FINES** | **FINESS Array B** | **86.67** | **332** | P | **P** | **23 24 04.8** | **-0.9** |
| | 3.2nm,0.8s,baz=64,slow=3.2,SNR=3.8 | | | | | | |
| **YKA** | **Yellowknife Ar** | **94.30** | **24** | P | **P** | **23 24 43.3** | **+1.9** |
| | 0.3nm,0.7s,baz=297,slow=4.8,SNR=5.7 | | | | | | |

**WEL 23 23:54:37.1±0.2, 43˚.53S×172˚.82E, h7km±1km, ML3.5/9, 2C, Error ellipse: s-maj=1.6km s-min=0.8km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.15** | **252** | PG | Pg | 23 54 40.3 | +0.1 |
| CRLZ | | | | SG | Sg | 23 54 42.8 | +0.4 |
| CRLZ | | | | AML | AML | 23 54 42.8 | |
| **MQZ** | **McQueen's Vall** | **0.21** | **214** | ⇑PG | Pg | 23 54 41.6 | +0.2 |
| MQZ | | | | SG | Sg | 23 54 44.8 | +0.6 |
| MQZ | | | | SG | | 23 54 44.9 | |
| MQZ | | | | AML | AML | 23 54 45.0 | |
| **OXZ** | **Oxford** | **0.60** | **289** | P* | Pg | 23 54 48.5 | -0.3 |
| OXZ | | | | SG | Sg | 23 54 57.0 | +0.4 |
| OXZ | | | | AML | AML | 23 54 59.5 | |
| OXZ | | | | AML | AML | 23 54 59.6 | |
| OXZ | | | | AML | AML | 23 54 59.6 | |
| **LTZ** | **Lake Taylor** | **0.85** | **332** | ⇑P* | Pg | 23 54 53.5 | +0.1 |
| LTZ | | | | S* | Sg | 23 55 05.0 | +0.6 |
| LTZ | | | | AML | AML | 23 55 07.9 | |
| **KHZ** | **Kahutara** | **1.23** | **26** | P* | Pb | 23 54 58.9 | -1.8 |
| **INZ** | **Inchbonnie** | **1.29** | **308** | P* | Pn | 23 55 00.0 | -1.5 |
| **RPZ** | **Rata Peaks** | **1.29** | **261** | P* | Pn | 23 55 00.2 | -1.4 |
| RPZ | | | | AML | AML | 23 55 24.6 | |
| RPZ | | | | AML | AML | 23 55 24.9 | |
| **THZ** | **Tophouse** | **1.77** | **2** | PN | Pn | 23 55 06.7 | -1.5 |
| THZ | | | | AML | AML | 23 55 47.9 | |
| THZ | | | | AML | AML | 23 55 48.0 | |
| **DSZ** | **Denniston Nort** | **1.93** | **337** | PN | Pn | 23 55 09.3 | -1.2 |
| **BSWZ** | **Blackbirch Sta** | **1.97** | **24** | PN | Pn | 23 55 09.7 | -1.3 |
| **LBZ** | **Lake Benmore** | **2.09** | **245** | PN | Pn | 23 55 11.7 | -0.9 |
| LBZ | | | | AML | AML | 23 55 47.0 | |
| LBZ | | | | AML | AML | 23 55 53.8 | |
| **ODZ** | **Otahua Downs** | **2.17** | **225** | PN | Pn | 23 55 12.2 | -1.6 |
| ODZ | | | | AML | AML | 23 55 46.5 | |
| ODZ | | | | AML | AML | 23 55 47.9 | |
| ODZ | | | | AML | AML | 23 55 51.5 | |
| **FOZ** | **Fox Glacier** | **2.18** | **269** | PN | Pn | 23 55 14.0 | +0.1 |
| **NNZ** | **Nelson** | **2.35** | **10** | PN | Pn | 23 55 15.0 | -1.1 |
| **QRZ** | **Quartz Range** | **2.71** | **355** | *e*PN | Pn | 23 55 20.2 | -0.9 |
| **EAZ** | **Earnscleugh** | **3.04** | **235** | *e*PN | Pn | 23 55 24.3 | -1.3 |
| **TUZ** | **Tuapeka** | **3.32** | **222** | AML | AML | 23 56 31.6 | |
| TUZ | | | | AML | AML | 23 56 32.4 | |

*MOS **23** 23:56:28.1±2.5, 49˚.81N×157˚.28E, h49km, mb4.3/1, Error ellipse: s-maj=31.6km s-min=5.2km az=82.1*

**KRSC 23 23:56:28.1±3.0, 49˚.81N×157˚.28E, h50km±35km, ML4.2, East of Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SKR** | **Severo-Kuril's** | **1.15** | **320** | PN | Pn | 23 56 46.4 | -1.4 |
| SKR | | | | S | Sn | 23 56 58.9 | -3.6 |
| **SKR** | **Severo-Kuril's** | **1.15** | **320** | *e*P | Pn | 23 56 46.4 | -1.4 |
| SKR | | | | *e*S | Sn | 23 56 58.9 | -3.6 |
| **PAU** | **Pauzhetka** | **1.69** | **350** | PN | Pn | 23 56 57.0 | +1.8 |
| PAU | | | | S | Sn | 23 57 16.7 | +1.1 |
| **PAU** | **Pauzhetka** | **1.69** | **350** | *e*P | Pn | 23 56 57.0 | +1.8 |
| PAU | | | | *e*S | Sn | 23 57 16.7 | +1.1 |
| **KDTR** | **Khodutka, Kamc** | **2.07** | **14** | *e*P | Pn | 23 57 03.9 | +3.6 |
| KDTR | | | | *e*S | Sn | 23 57 29.0 | +4.1 |
| **ASAK** | **Asacha** | **2.61** | **8** | PN | Pn | 23 57 11.5 | +3.7 |
| ASAK | | | | S | Sn | 23 57 43.4 | +5.1 |
| **ASAK** | **Asacha** | **2.61** | **8** | *e*P | Pn | 23 57 11.5 | +3.7 |
| ASAK | | | | *e*S | Sn | 23 57 43.4 | +5.1 |
| **MTVR** | **Mutnovka** | **2.74** | **12** | PN | Pn | 23 57 13.7 | +4.0 |
| MTVR | | | | S | Sn | 23 57 45.3 | +3.7 |
| **MTVR** | **Mutnovka** | **2.74** | **12** | *e*P | Pn | 23 57 13.7 | +4.0 |
| MTVR | | | | *e*S | Sn | 23 57 45.3 | +3.7 |
| **RUS** | **Russkaya** | **2.74** | **16** | PN | Pn | 23 57 13.0 | +3.4 |
| RUS | | | | S | Sn | 23 57 44.1 | +2.6 |
| **RUS** | **Russkaya** | **2.74** | **16** | *e*P | Pn | 23 57 13.0 | +3.4 |
| RUS | | | | *e*S | Sn | 23 57 44.1 | +2.6 |
| **KRMR** | **Karymshinskiy** | **3.08** | **10** | PN | Pn | 23 57 18.5 | +4.4 |
| KRMR | | | | S | Sn | 23 57 56.9 | +7.3 |
| **KRMR** | **Karymshinskiy** | **3.08** | **10** | *e*P | Pn | 23 57 18.5 | +4.4 |
| KRMR | | | | *e*S | Sn | 23 57 56.9 | +7.3 |
| **APC** | **Apacha** | **3.12** | **359** | PN | Pn | 23 57 17.9 | +3.1 |
| **APC** | **Apacha** | **3.12** | **359** | *e*P | Pn | 23 57 17.9 | +3.1 |
| **PET** | **Petropavlovsk** | **3.34** | **14** | *e*PN | Pn | 23 57 21.4 | +3.7 |
| PET | | | | *e*S | Sn | 23 58 00.3 | +4.3 |
| PET | | | | pmax | pmax | | |
| | comp=Z,20nm,0.5s | | | | | | |
| PET | | | | smax | smax | | |
| | comp=N,71nm,0.5s | | | | | | |
| PET | | | | smax | smax | | |
| | comp=E,76nm,0.6s | | | | | | |
| **DALK** | **Dalny** | **3.36** | **15** | PN | Pn | 23 57 22.0 | +4.0 |
| DALK | | | | S | Sn | 23 58 00.7 | +4.1 |
| **DALK** | **Dalny** | **3.36** | **15** | *e*P | Pn | 23 57 22.0 | +4.0 |
| DALK | | | | *e*S | Sn | 23 58 00.7 | +4.1 |
| **UGLR** | **Uglovaya** | **3.54** | **15** | PN | Pn | 23 57 25.1 | +4.5 |
| UGLR | | | | S | Sn | 23 58 03.7 | +2.4 |
| **UGLR** | **Uglovaya** | **3.54** | **15** | *e*P | Pn | 23 57 25.1 | +4.5 |
| UGLR | | | | *e*S | Sn | 23 58 03.7 | +2.4 |
| **AVH** | **Avacha** | **3.58** | **14** | PN | Pn | 23 57 25.9 | +4.7 |
| AVH | | | | S | Sn | 23 58 07.4 | +5.2 |
| **AVH** | **Avacha** | **3.58** | **14** | *e*P | Pn | 23 57 25.9 | +4.7 |
| AVH | | | | *e*S | Sn | 23 58 07.4 | +5.2 |
| **SMAR** | **Somma** | **3.59** | **15** | PN | Pn | 23 57 25.5 | +4.1 |
| **SMAR** | **Somma** | **3.59** | **15** | *e*P | Pn | 23 57 25.5 | +4.1 |
| **KOK** | **Koryaka** | **3.59** | **13** | PN | Pn | 23 57 25.9 | +4.6 |
| KOK | | | | S | Sn | 23 58 08.7 | +6.2 |
| **KOK** | **Koryaka** | **3.59** | **13** | *e*P | Pn | 23 57 25.9 | +4.6 |
| KOK | | | | *e*S | Sn | 23 58 08.7 | +6.2 |
| **NLC** | **Nalytchevo** | **3.61** | **20** | PN | Pn | 23 57 24.4 | +3.0 |
| NLC | | | | S | Sn | 23 58 04.7 | +2.0 |
| **NLC** | **Nalytchevo** | **3.61** | **20** | *e*P | Pn | 23 57 24.4 | +3.0 |
| NLC | | | | *e*S | Sn | 23 58 04.7 | +2.0 |
| **SDLR** | **Sedlovina** | **3.62** | **15** | PN | Pn | 23 57 25.6 | +3.9 |
| SDLR | | | | S | Sn | 23 58 07.6 | +4.4 |
| **SDLR** | **Sedlovina** | **3.62** | **15** | *e*P | Pn | 23 57 25.6 | +3.9 |
| SDLR | | | | *e*S | Sn | 23 58 07.6 | +4.4 |
| **KRER** | **Koryakskii** | **3.62** | **14** | PN | Pn | 23 57 26.2 | +4.4 |
| KRER | | | | S | Sn | 23 58 09.1 | +5.7 |
| **KRER** | **Koryakskii** | **3.62** | **14** | *e*P | Pn | 23 57 26.2 | +4.4 |
| KRER | | | | *e*S | Sn | 23 58 09.1 | +5.7 |
| **KRX** | **Arik** | **3.66** | **13** | PN | Pn | 23 57 26.9 | +4.6 |
| **KRX** | **Arik** | **3.66** | **13** | *e*P | Pn | 23 57 26.9 | +4.6 |
| **SPN** | **Mys Shipunski** | **3.72** | **26** | PN | Pn | 23 57 27.3 | +4.4 |
| SPN | | | | S | Sn | 23 58 09.9 | +4.5 |
| **SPN** | **Mys Shipunski** | **3.72** | **26** | *e*P | Pn | 23 57 27.3 | +4.4 |
| SPN | | | | *e*S | Sn | 23 58 09.9 | +4.5 |
| **GNL** | **Ganaly** | **3.92** | **6** | PN | Pn | 23 57 29.4 | +3.6 |
| **GNL** | **Ganaly** | **3.92** | **6** | *e*P | Pn | 23 57 29.4 | +3.6 |
| **KBTR** | **Krutoberegovo** | **7.23** | **25** | PN | Pn | 23 58 14.1 | +3.1 |
| **KBTR** | **Krutoberegovo** | **7.23** | **25** | *e*P | Pn | 23 58 14.1 | +3.1 |
| **BKI** | **Bering** | **7.57** | **41** | PN | Pn | 23 58 20.1 | +4.4 |
| **BKI** | **Bering** | **7.57** | **41** | *e*P | Pn | 23 58 20.1 | +4.4 |
| BKI | | | | *e*S | Sn | 23 59 39.3 | -0.7 |

**MEX 23 23:58:48.8±0.4, 15˚.35N×94˚.62W, h23km±10km, MD3.9, Near coast of Oaxaca**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PCIG** | | **1.40** | **75** | *e*P | Pn | 23 59 10.4 | -2.5 |
| PCIG | | | | *e*S | Sn | 23 59 26.2 | -4.4 |
| **TGIG** | | **2.02** | **45** | *e*P | Pn | 23 59 19.3 | -2.3 |
| TGIG | | | | *e*S | Sn | 23 59 42.8 | -3.5 |
| **CCIG** | **Comitan** | **2.56** | **68** | *e*P | Pn | 23 59 27.1 | -2.1 |
| CCIG | | | | *i* S | Sn | 23 59 56.4 | -3.4 |

*ISCJB **24** 00:18:42.9±0.7, 59˚.42S±0˚.08×148˚.8E±0˚.3, h10km, mb4.3/8, MS3.5/5, Error ellipse: s-maj=22.1km s-min=11.9km az=171.4*
*IDC **24** 00:18:43.1±3.6, 59˚.41S×148˚.89E, h0km, mb4.2/2, mb1 4.3/3, mb1mx3.9/21, mbtmp4.0/3, ML2.9/1, MS3.6/6, Ms1 3.6/6, ms1mx3.3/17, Error ellipse: s-maj=401.2km s-min=31.2km az=76.0*
*NEIC **24** 00:18:44.7±0.6, 59˚.40S×148˚.89E, h10km, mb4.2/6, Error ellipse: s-maj=17.5km s-min=9.6km az=81.0*

**ISC 24 00:18:44.8±1.0, 59˚.4S±0˚.1×148˚.9E±0˚.2, h10km, n17, σ0°66/10, mb4.2/8, MS3.6/5, West of Macquarie Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TAU** | **Tasmania Unive** | **16.54** | **356** | *e*Pn | **Pn** | **00 22 37.2** | **+0.6** |
| | 16nm,0.9s | | | | | | |
| **VNDA** | **Vanda** | **18.72** | **171** | P | **P** | **00 23 02.6** | **-0.4** |
| | 0.0nm,0.3s,baz=336,slow=10,SNR=4.4 | | | | | | |
| VNDA | | | | LR | LR | 00 29 37.7 | |
| | comp=Z,209nm,19.5s,baz=344,slow=35 | | | | | | |
| **RPZ** | **Rata Peaks** | **20.71** | **51** | LR | LR | 00 29 45.5 | |
| | comp=Z,247nm,18.6s,baz=198,slow=32 | | | | | | |
| **SNZO** | **South Karori** | **24.20** | **53** | P | **P** | **00 24 01.7** | **+0.5** |
| | 2.8nm,0.4s | | | | | | |
| **BBOO** | **Buckleboo** | **27.94** | **336** | *e*P | **P** | **00 24 34.3** | **-0.8** |
| | 27nm,1.5s | | | | | | |
| **QSPA** | **South Pole Qui** | **30.70** | **180** | P | **P** | **00 24 60.0** | **+0.5** |
| | 3.1nm,0.9s | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **33.41** | **302** | T | T | 01 01 03.1 | |
| | baz=146,slow=75,SNR=15 | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **33.41** | **302** | T | T | 01 00 58.9 | |
| | baz=146,slow=75,SNR=25 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **33.42** | **302** | T | T | 01 01 04.6 | |
| | baz=146,slow=75,SNR=22 | | | | | | |
| **MAW** | **Mawson** | **36.19** | **220** | LR | LR | 00 39 26.9 | |
| | comp=Z,73nm,20.9s,baz=58,slow=34 | | | | | | |
| **ASAR** | **Alice Springs** | **37.24** | **337** | P | **P** | **00 25 56.8** | **+0.3** |
| | 2.5nm,0.9s,baz=167,slow=8.5,SNR=21 | | | | | | |
| ASAR | | | | LR | LR | 00 38 45.7 | |
| | comp=Z,54nm,20.6s,baz=142,slow=32 | | | | | | |
| **RAO** | **Raoul Island** | **37.62** | **52** | P | **P** | **00 25 58.7** | **-0.9** |
| | 94nm,0.8s | | | | | | |
| **WRA** | **Warramunga Arr** | **40.78** | **339** | P | **P** | **00 26 25.4** | **-0.6** |
| | 5.2nm,0.9s,baz=167,slow=7.4,SNR=19 | | | | | | |
| **WRAB** | **Tennant Creek** | **40.79** | **339** | *e*P | **P** | **00 26 26.2** | **+0.1** |
| | 3.6nm,1.0s | | | | | | |
| **AFI** | **Afiamalu** | **53.86** | **50** | P | **P** | **00 28 08.4** | **+0.4** |
| | 1.0nm,0.3s | | | | | | |
| **BOSA** | **Boshof** | **80.80** | **228** | LR | LR | 01 03 21.5 | |
| | comp=Z,30nm,18.4s,baz=147,slow=33 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **87.60** | **313** | LR | LR | 01 10 06.0 | |
| | comp=Z,25nm,19.0s,baz=234,slow=35 | | | | | | |

**WEL 24 00:36:04.4±0.3, 43˚.63S×172˚.80E, h7km±1km, ML3.6/14, 1C-3D, Error ellipse: s-maj=2.6km s-min=1.3km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MQZ** | **McQueen's Vall** | **0.13** | **234** | ⇓PG | Pg | 00 36 07.6 | +0.4 |
| MQZ | | | | SG | Sg | 00 36 09.9 | +0.8 |
| MQZ | | | | AML | AML | 00 36 10.1 | |
| **CRLZ** | **Canterbury Las** | **0.14** | **293** | ⇓PG | Pg | 00 36 07.6 | +0.3 |
| CRLZ | | | | SG | Sg | 00 36 09.9 | +0.6 |
| CRLZ | | | | AML | AML | 00 36 15.1 | |
| **OXZ** | **Oxford** | **0.63** | **298** | ⇓P* | Pg | 00 36 16.9 | +0.3 |
| OXZ | | | | *e*S* | Sb | 00 36 26.2 | -0.6 |
| OXZ | | | | AML | AML | 00 36 28.0 | |
| OXZ | | | | AML | AML | 00 36 28.0 | |
| OXZ | | | | AML | AML | 00 36 28.0 | |
| **LTZ** | **Lake Taylor** | **0.93** | **335** | P* | Pb | 00 36 22.7 | -0.2 |
| LTZ | | | | AML | AML | 00 36 36.6 | |
| **RPZ** | **Rata Peaks** | **1.27** | **266** | ⇑P* | Pn | 00 36 27.5 | -1.1 |
| RPZ | | | | S* | Sb | 00 36 44.0 | -1.2 |
| RPZ | | | | AML | AML | 00 36 47.5 | |
| **KHZ** | **Kahutara** | **1.33** | **24** | AML | AML | 00 36 56.0 | |
| **THZ** | **Tophouse** | **1.87** | **2** | AML | AML | 00 37 04.9 | |
| THZ | | | | AML | AML | 00 37 15.3 | |
| **DSZ** | **Denniston Nort** | **2.02** | **338** | AML | AML | 00 37 07.7 | |
| DSZ | | | | AML | AML | 00 37 17.7 | |
| **LBZ** | **Lake Benmore** | **2.03** | **247** | AML | AML | 00 37 16.1 | |
| LBZ | | | | AML | AML | 00 37 17.6 | |
| **ODZ** | **Otahua Downs** | **2.10** | **227** | AML | AML | 00 37 20.9 | |
| ODZ | | | | AML | AML | 00 37 20.9 | |
| ODZ | | | | AML | AML | 00 37 21.6 | |
| ODZ | | | | AML | AML | 00 37 21.8 | |
| **FOZ** | **Fox Glacier** | **2.17** | **272** | AML | AML | 00 37 10.3 | |
| **QRZ** | **Quartz Range** | **2.81** | **356** | AML | AML | 00 37 37.7 | |
| **EAZ** | **Earnscleugh** | **2.97** | **236** | AML | AML | 00 37 43.3 | |
| EAZ | | | | AML | AML | 00 37 46.9 | |
| **TUZ** | **Tuapeka** | **3.24** | **223** | AML | AML | 00 37 51.5 | |

**WEL 24 00:36:59.1±0.2, 43˚.63S×172˚.83E, h5km, ML3.0/4, 1C, Error ellipse: s-maj=1.9km s-min=1.0km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MQZ** | **McQueen's Vall** | **0.15** | **239** | ⇑PG | Pg | 00 37 02.3 | +0.2 |
| MQZ | | | | SG | Sg | 00 37 04.3 | +0.3 |
| MQZ | | | | AML | AML | 00 37 04.5 | |
| MQZ | | | | AML | AML | 00 37 04.6 | |
| **CRLZ** | **Canterbury Las** | **0.16** | **290** | PG | Pg | 00 37 02.4 | +0.1 |
| CRLZ | | | | AML | AML | 00 37 02.5 | |
| CRLZ | | | | SG | Sg | 00 37 04.6 | +0.2 |
| **OXZ** | **Oxford** | **0.65** | **298** | P* | Pg | 00 37 11.5 | 0.0 |
| OXZ | | | | AML | AML | 00 37 22.5 | |
| OXZ | | | | AML | AML | 00 37 22.6 | |
| OXZ | | | | AML | AML | 00 37 22.6 | |
| OXZ | | | | AML | AML | 00 37 22.8 | |
| **LTZ** | **Lake Taylor** | **0.94** | **334** | P* | Pg | 00 37 17.4 | +0.3 |
| LTZ | | | | AML | AML | 00 37 32.1 | |
| **RPZ** | **Rata Peaks** | **1.29** | **266** | *e*P* | Pn | 00 37 23.0 | -0.8 |
| **KHZ** | **Kahutara** | **1.32** | **23** | *e*P* | Pn | 00 37 22.7 | -1.5 |
| **INZ** | **Inchbonnie** | **1.36** | **311** | PN | Pn | 00 37 24.3 | -0.3 |

*ISCJB **24** 00:41:35.3±1.0, 51˚.52N±0˚.04×16˚.11E±0˚.05, h0km, Error ellipse: s-maj=6.9km s-min=3.6km az=28.8*
*CSEM **24** 00:41:36.6±0.7, 51˚.53N×16˚.10E, h2km, ML2.7/5, Error ellipse: s-maj=10.1km s-min=5.3km az=23.0*
*PRU **24** 00:41:37.4, 51˚.53N×16˚.13E, h0km*
*WAR **24** 00:41:37.4, 51˚.54N×16˚.13E, h1km, Mw2.1*

**ISC 24 00:41:36.8±1.7, 51˚.56N±0˚.07×16˚.14E±0˚.05, h0km, n25, σ0°61/47, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KSP** | **Ksiaz** | **0.72** | **172** | *e*Pg | **Pg** | **00 41 50.7** | **+0.1** |
| KSP | | | | *e*Sg | **Sg** | **00 41 59.9** | **-0.1** |
| **KSP** | **Ksiaz** | **0.72** | **172** | *e*Pg | **Pg** | **00 41 50.7** | **+0.1** |
| KSP | | | | *e*Sg | **Sg** | **00 41 59.9** | **-0.1** |
| **KSP** | **Ksiaz** | **0.72** | **172** | *e*Pg | **Pg** | **00 41 50.7** | **+0.1** |
| KSP | | | | *e*Sg | **Sg** | **00 41 59.9** | **-0.

*mb3.6/8, Error ellipse: s-maj=3.7km s-min=2.3km az=6.1*
*NEIC* ***24*** *01:06:04.0±0.0, 62°.24N×153°.37W, h0km, ML3.5(AEIC), After AEIC.*
*IDC* ***24*** *01:06:05.3±1.0, 62°.41N×153°.12W, h0km, mb3.6/8, mb1 3.8/11, mb1mx3.6/60, mbtmp3.6/11, ML3.2/3, Error ellipse: s-maj=22.1km s-min=15.1km az=82.0*

**ISC 24 01:06:05.1±0.6, 62°.23N±0°.02×153°.34W±0°.03, h10km, n78, σ1§21/93, mb3.7/8, Central Alaska**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PPLA** | **Purkeypile** | **0.85** | **38** | P | **Pg** | **01 06 20.5** | **-1.1** |
| PPLA | | | | S | **Sb** | **01 06 32.3** | **-1.4** |
| **STLK** | **Strandline Lak** | **1.03** | **135** | P | **Pg** | **01 06 23.7** | **-1.1** |
| **SPWE** | **Spurr West** | **1.03** | **159** | P | **Pg** | **01 06 23.5** | **-1.5** |
| **BGL** | **Barrier Glacie** | **1.07** | **155** | P | **Pg** | **01 06 24.2** | **-1.5** |
| **SPBG** | **Spurr Blockage** | **1.08** | **154** | P | **Pg** | **01 06 24.4** | **-1.5** |
| SPBG | | | | S | **Sg** | **01 06 38.9** | **-1.0** |
| **CRP** | **Crater Peak** | **1.12** | **149** | P | **Pb** | **01 06 25.4** | **-1.3** |
| CRP | | | | S | **Sg** | **01 06 40.3** | **-1.0** |
| **SPCP** | **Crater Peak Br** | **1.12** | **149** | P | **Pb** | **01 06 25.4** | **-1.3** |
| SPCP | | | | S | **Sg** | **01 06 40.2** | **-1.0** |
| **CGLM** | **Capps Glacier** | **1.12** | **145** | P | **Pb** | **01 06 25.4** | **-1.3** |
| **SPCG** | **Spurr Capps Gl** | **1.14** | **146** | P | **Pb** | **01 06 25.5** | **-1.4** |
| SPCG | | | | S | **Sg** | **01 06 40.4** | **-1.2** |
| **CKL** | **Chakachamna La** | **1.15** | **155** | P | **Pb** | **01 06 25.7** | **-1.4** |
| **TT01** | **Tatalina** | **1.41** | **300** | P | **Pb** | **01 06 30.1** | **-1.4** |
| **TTA** | **Tatalina** | **1.42** | **301** | P | **Pn** | **01 06 29.9** | **-1.1** |
| TTA | | | | S | **Sg** | **01 06 49.7** | **-1.1** |
| **SVW2** | **Sparrevohn** | **1.56** | **224** | P | **Pb** | **01 06 32.3** | **-1.8** |
| SVW2 | | | | S | **Sg** | **01 06 53.7** | **-1.6** |
| **RDJH** | **Redoubt Jeurge** | **1.67** | **171** | P | **Pb** | **01 06 34.6** | **-1.4** |
| **DFR** | **Drift River** | **1.68** | **169** | P | **Pb** | **01 06 34.4** | **-1.7** |
| DFR | | | | S | **Sb** | **01 06 56.7** | **-0.6** |
| **KTH** | **Kantishna Hill** | **1.73** | **39** | P | **Pn** | **01 06 34.9** | **-0.4** |
| KTH | | | | S | **Sb** | **01 06 58.6** | **0.0** |
| **RDWB** | **Redoubt West** | **1.77** | **172** | P | **Pb** | **01 06 35.9** | **-1.8** |
| RDWB | | | | S | **Sb** | **01 06 59.2** | **-0.8** |
| **REF** | **Redoubt East F** | **1.78** | **170** | P | **Pb** | **01 06 36.2** | **-1.6** |
| **RED** | **Redoubt Volcan** | **1.84** | **171** | P | **Pb** | **01 06 36.9** | **-2.0** |
| RED | | | | S | **Sb** | **01 07 01.2** | **-0.8** |
| **TRF** | **Thorofare Moun** | **1.86** | **48** | P | **Pb** | **01 06 37.5** | **-1.8** |
| **HUR** | **Hurricane** | **1.87** | **65** | P | **Pb** | **01 06 37.7** | **-1.6** |
| **RC01** | **Rabbit Creek A** | **2.07** | **122** | P | **Pb** | **01 06 40.9** | **-1.8** |
| **PMR** | **Palmer** | **2.09** | **106** | P | **Pn** | **01 06 40.0** | **-0.2** |
| **GHO** | **Glory Hole Cre** | **2.13** | **101** | P | **Pb** | **01 06 41.5** | **-2.4** |
| **BPAW** | **Bear Paw Mtn.** | **2.16** | **29** | P | **Pn** | **01 06 40.4** | **-0.7** |
| **ILW** | **Iliamna West** | **2.16** | **177** | P | **Pn** | **01 06 42.1** | **+0.5** |
| **INE** | **Iliamna NE** | **2.19** | **176** | P | **Pn** | **01 06 42.1** | **+0.5** |
| **IVE** | **Iliamna Volcan** | **2.23** | **176** | P | **Pn** | **01 06 42.7** | **+0.5** |
| **ILS** | **Iliamna Low So** | **2.29** | **177** | P | **Pn** | **01 06 43.5** | **+0.5** |
| **SLKM** | **Skilak Lake** | **2.29** | **138** | P | **Pn** | **01 06 43.5** | **+0.6** |
| **RND** | **Reindeer** | **2.37** | **58** | P | **Pn** | **01 06 44.8** | **+0.7** |
| **SML** | **Sawmill** | **2.40** | **98** | P | **Pb** | **01 06 45.5** | **-2.8** |
| **KNK** | **Knik Glacier** | **2.46** | **107** | P | **Pb** | **01 06 47.2** | **-2.2** |
| **MCK** | **McKinley** | **2.51** | **51** | P | **Pn** | **01 06 46.7** | **+0.7** |
| **BRLK** | **Bradley Lake** | **2.75** | **153** | P | **Pn** | **01 06 50.1** | **+0.9** |
| **SEW** | **Seward** | **2.85** | **137** | P | **Pn** | **01 06 51.5** | **+0.9** |
| **SCM** | **Sheep Creek Mo** | **2.86** | **95** | P | **Pn** | **01 06 52.2** | **+1.4** |
| **DHY** | **Denali Highway** | **2.88** | **70** | P | **Pn** | **01 06 51.0** | **-0.2** |
| **CNPM** | **China Poot** | **2.91** | **158** | P | **Pn** | **01 06 51.9** | **+0.5** |
| **MLY** | **Manley** | **3.04** | **21** | P | **Pn** | **01 06 52.5** | **-0.7** |
| **CDD** | **Cape Douglas** | **3.32** | **183** | P | **Pn** | **01 06 57.7** | **+0.7** |
| **FONW** | **Fourpeaked Sta** | **3.42** | **185** | P | **Pn** | **01 06 59.5** | **+1.0** |
| **CCB** | **Clear Creek Bu** | **3.47** | **45** | P | **Pn** | **01 06 58.5** | **-0.6** |
| **MDM** | **Murphy Dome** | **3.56** | **38** | P | **Pn** | **01 06 59.4** | **-1.0** |
| **KLU** | **Klutina** | **3.59** | **99** | P | **Pn** | **01 07 01.8** | **+0.9** |
| **FID** | **Port Fidalgo** | **3.61** | **111** | P | **Pn** | **01 06 59.9** | **-1.2** |
| **COLA** | **College** | **3.61** | **40** | *e*Pn | **Pn** | **01 06 59.8** | **-1.3** |
| COLA | | | | *e*Pg | **Pb** | **01 07 09.6** | **+0.6** |
| COLA | | | | *e*Sg | **Sb** | **01 07 54.4** | **+1.6** |
| **HDA** | **Harding Lake** | **3.62** | **50** | P | **Pn** | **01 07 01.6** | **+0.5** |
| **PS10** | **TAPS Pump St10** | **3.67** | **68** | P | **Pn** | **01 07 03.2** | **+1.3** |
| **KAHC** | **Katmai Hardscr** | **3.69** | **194** | P | **Pn** | **01 07 02.7** | **+0.5** |
| **PAX** | **Paxson** | **3.71** | **75** | P | **Pn** | **01 07 03.4** | **+0.9** |
| **PS08** | **TAPS Pump Stn8** | **3.74** | **49** | P | **Pn** | **01 07 02.9** | **+0.1** |
| **IM3** | **Indian Mountai** | **3.77** | **357** | P | **Pn** | **01 07 03.2** | **0.0** |
| **DIV** | **Divide** | **3.77** | **104** | *e*Pn | **Pn** | **01 07 03.9** | **+0.6** |
| DIV | | | | *e*Pg | **Pg** | **01 07 14.9** | **-2.5** |
| DIV | | | | *e*Sn | **Sn** | **01 07 47.4** | **-0.4** |
| **HARP** | **HAARP** | **3.82** | **84** | P | **Pn** | **01 07 06.1** | **+2.1** |
| **IL1** | **Eielson Array** | **3.85** | **46** | P | **Pn** | **01 07 03.9** | **-0.5** |
| **ILAR** | **Eielson Array** | **3.85** | **46** | Pn | **Pn** | **01 07 03.9** | **-0.5** |
| | 2.0nm,0.3s,baz=240,slow=13,SNR=60 | | | | | | |
| ILAR | | | | Lg | Lg | 01 08 05.9 | |
| | 10nm,0.3s,baz=225,slow=28,SNR=10 | | | | | | |
| **ILB** | **Eielson Array** | **3.85** | **46** | P | **Pn** | **01 07 04.0** | **-0.4** |
| **PS06** | **TAPS Pump Stn6** | **3.96** | **22** | P | **Pn** | **01 07 05.6** | **-0.3** |
| **EYAK** | **Cordova Ski Ar** | **4.02** | **111** | P | **Pn** | **01 07 07.4** | **+0.7** |
| **BMRM** | **Bremner River** | **4.36** | **103** | P | **Pn** | **01 07 12.0** | **+0.6** |
| **DOT** | **Dot Lake** | **4.47** | **67** | P | **Pn** | **01 07 13.3** | **+0.4** |
| **KDAK** | **Kodiak Island** | **4.48** | **175** | Pn | **Pn** | **01 07 14.3** | **+1.4** |
| | 1.5nm,0.3s,baz=4.5,slow=12,SNR=18 | | | | | | |
| KDAK | | | | Lg | Lg | 01 08 30.3 | |
| | 1.2nm,0.3s,baz=112,slow=21,SNR=5.6 | | | | | | |
| **COLD** | **Coldfoot** | **5.19** | **14** | P | **Pn** | **01 07 22.9** | **+0.2** |
| **BCA3** | **Beaver Creek A** | **5.39** | **76** | P | **Pn** | **01 07 27.1** | **+1.5** |
| **EGAK** | **Eagle** | **6.02** | **60** | P | **Pn** | **01 07 34.4** | **+0.3** |
| **BM3** | **Burnt Mountain** | **6.40** | **32** | P | **Pn** | **01 07 38.6** | **-0.7** |
| **DAWY** | **Dawson** | **6.58** | **68** | P | **Pn** | **01 07 42.6** | **+0.8** |
| **INK** | **Inuvik** | **10.26** | **45** | Pn | **Pn** | **01 08 31.4** | **-0.7** |
| | 0.1nm,0.3s,baz=240,slow=13,SNR=8.9 | | | | | | |
| **YKA** | **Yellowknife Ar** | **17.79** | **72** | P | **Pn** | **01 10 11.7** | **-0.8** |
| | 0.1nm,0.3s,baz=283,slow=10,SNR=12 | | | | | | |
| **RES** | **Resolute Bay** | **23.52** | **35** | P | **P** | **01 11 14.0** | **-0.7** |
| | 1.2nm,0.8s,baz=276,slow=11,SNR=3.2 | | | | | | |
| **NVAR** | **Mina Array Bea** | **32.00** | **122** | P | **P** | **01 12 33.8** | **+2.3** |
| | 1.0nm,0.7s,baz=312,slow=8.5,SNR=9.8 | | | | | | |
| **PDAR** | **Pinedale Array** | **32.14** | **107** | P | **P** | **01 12 33.5** | **+0.8** |
| | 0.2nm,0.5s,baz=327,slow=6.5,SNR=5.8 | | | | | | |
| **ULM** | **Lac du Bonnet** | **32.95** | **84** | P | **P** | **01 12 40.1** | **+0.6** |
| | 1.0nm,0.5s,baz=309,slow=13,SNR=4.4 | | | | | | |
| **TXAR** | **Lajitas Array** | **45.95** | **112** | P | **P** | **01 14 29.7** | **+1.6** |
| | 1.0nm,0.8s,baz=327,slow=4.8,SNR=3.3 | | | | | | |
| **SONM** | **Songino Array** | **53.37** | **304** | P | **P** | **01 15 26.5** | **+2.1** |
| | 0.2nm,0.3s,baz=48,slow=4.3,SNR=3.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **62.59** | **320** | P | **P** | **01 16 29.4** | **+0.4** |
| | 0.3nm,0.7s,baz=44,slow=5.7,SNR=2.6 | | | | | | |
| **AKASG** | **Malin Array Be** | **67.39** | **358** | P | **P** | **01 17 00.8** | **+0.8** |
| | 0.2nm,0.3s,baz=3.8,slow=5.7,SNR=2.8 | | | | | | |

**IDC 24 01:12:45.8±21.0, 5°.78N×124°.90E, h467km±292km, mb3.2/4, mb1 3.4/4, mb1mx2.8/39, mbtmp4.1/4, Error ellipse: s-maj=198.2km s-min=39.7km az=60.0, Mindanao**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **27.20** | **160** | P | P | 01 17 50.8 | 0.0 |
| | 2.6nm,0.4s,baz=340,slow=9.1,SNR=62 | | | | | | |
| **ASAR** | **Alice Springs** | **30.56** | **164** | P | P | 01 18 19.6 | -0.5 |
| | 1.6nm,0.3s,baz=340,slow=7.1,SNR=67 | | | | | | |
| **STKA** | **Stephens Creek** | **40.70** | **158** | P | P | 01 19 44.9 | +0.3 |
| | 0.9nm,0.4s,baz=339,slow=7.0,SNR=6.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **54.84** | **325** | P | P | 01 21 30.8 | -0.1 |
| | 0.5nm,0.3s,baz=123,slow=7.7,SNR=16 | | | | | | |

**WEL 24 01:22:17.2±0.2, 43°.53S×172°.80E, h6km, ML3.6/15, Error ellipse: s-maj=1.6km s-min=0.6km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.13** | **250** | PG | Pg | 01 22 20.2 | +0.2 |
| CRLZ | | | | SG | Sg | 01 22 22.4 | +0.6 |
| CRLZ | | | | AML | AML | 01 22 23.0 | |
| **MQZ** | **McQueen's Vall** | **0.21** | **210** | PG | Pg | 01 22 21.3 | 0.0 |
| MQZ | | | | SG | Sg | 01 22 24.3 | +0.2 |
| MQZ | | | | AML | AML | 01 22 24.4 | |
| **OXZ** | **Oxford** | **0.59** | **290** | P* | Pg | 01 22 28.6 | 0.0 |
| OXZ | | | | AML | AML | 01 22 39.1 | |
| OXZ | | | | AML | AML | 01 22 39.2 | |
| OXZ | | | | AML | AML | 01 22 39.9 | |
| OXZ | | | | AML | AML | 01 22 39.9 | |
| **LTZ** | **Lake Taylor** | **0.84** | **333** | P* | Pb | 01 22 33.8 | -0.4 |
| LTZ | | | | AML | AML | 01 22 47.7 | |
| **KHZ** | **Kahutara** | **1.24** | **26** | P* | Pg | 01 22 39.5 | -1.4 |
| KHZ | | | | AML | AML | 01 23 04.2 | |
| KHZ | | | | AML | AML | 01 23 14.9 | |
| **INZ** | **Inchbonnie** | **1.27** | **309** | P* | Pn | 01 22 40.8 | -0.7 |
| **RPZ** | **Rata Peaks** | **1.28** | **261** | P* | Pn | 01 22 40.1 | -1.5 |
| RPZ | | | | AML | AML | 01 23 00.3 | |
| RPZ | | | | AML | AML | 01 23 04.0 | |
| **WVZ** | **Waitaha Valley** | **1.57** | **286** | AML | AML | 01 23 12.5 | |
| WVZ | | | | AML | AML | 01 23 16.8 | |
| **THZ** | **Tophouse** | **1.77** | **3** | AML | AML | 01 23 23.4 | |
| THZ | | | | AML | AML | 01 23 23.9 | |
| **DSZ** | **Denniston Nort** | **1.93** | **337** | AML | AML | 01 23 20.9 | |
| DSZ | | | | AML | AML | 01 23 23.2 | |
| **LBZ** | **Lake Benmore** | **2.07** | **245** | *e*Pn | Pn | 01 22 51.6 | -0.9 |
| LBZ | | | | AML | AML | 01 23 30.3 | |
| LBZ | | | | AML | AML | 01 23 33.0 | |
| **ODZ** | **Otahua Downs** | **2.16** | **225** | AML | AML | 01 23 30.1 | |
| ODZ | | | | AML | AML | 01 23 31.5 | |
| ODZ | | | | AML | AML | 01 23 31.8 | |
| ODZ | | | | AML | AML | 01 23 37.2 | |
| **FOZ** | **Fox Glacier** | **2.17** | **269** | AML | AML | 01 23 21.6 | |
| **JCZ** | **Jackson Bay** | **2.96** | **258** | AML | AML | 01 23 55.9 | |
| **EAZ** | **Earnscleugh** | **3.02** | **235** | AML | AML | 01 23 13.4 | |
| EAZ | | | | AML | AML | 01 23 13.4 | |
| EAZ | | | | AML | AML | 01 23 59.7 | |
| EAZ | | | | AML | AML | 01 24 00.0 | |
| **TUZ** | **Tuapeka** | **3.31** | **222** | AML | AML | 01 24 11.1 | |
| TUZ | | | | AML | AML | 01 24 11.9 | |

*ISCJB* ***24*** *01:26:45.8±0.6, 39°.86N±0°.03×33°.10E±0°.04, h5km±8km, Error ellipse: s-maj=6.2km s-min=4.7km az=145.7*
*CSEM* ***24*** *01:26:45.5±0.2, 39°.86N×33°.10E, h15km, MD2.6, Error ellipse: s-maj=4.7km s-min=3.8km az=49.0*
*DDA* ***24*** *01:26:45.6, 39°.86N×33°.13E, h7km, Md2.6*
*ISK* ***24*** *01:26:45.4, 39°.80N×33°.05E, h8km, MD2.6*

**ISC 24 01:26:45.5±1.1, 39°.86N±0°.03×33°.11E±0°.03, h9km±11km, n15, σ0§50/27, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **LOD** | **Lodumlu** | **0.26** | **276** | *e*PG | **Pg** | **01 26 50.6** | **-0.3** |
| LOD | | | | *e*SG | **Sg** | **01 26 54.6** | **+0.1** |
| **LOD** | **Lodumlu** | **0.26** | **276** | *e*Pg | **Pg** | **01 26 50.6** | **-0.3** |
| LOD | | | | *e*Sg | **Sg** | **01 26 54.6** | **+0.1** |
| **ELDT** | **Eldivan** | **0.67** | **21** | *i* P | **Pg** | **01 26 58.6** | **0.0** |
| ELDT | | | | *i* S | **Sb** | **01 27 09.3** | **+0.3** |
| **ELDT** | **Eldivan** | **0.67** | **21** | P | **Pg** | **01 26 58.6** | **0.0** |
| ELDT | | | | S | **Sb** | **01 27 09.3** | **+0.3** |
| **KAMT** | **Kaman** | **0.68** | **136** | *e*PG | **Pg** | **01 26 58.8** | **+0.1** |
| KAMT | | | | *e*SG | **Sb** | **01 27 08.5** | **-0.7** |
| **KAMT** | **Kaman** | **0.68** | **136** | *e*Pg | **Pg** | **01 26 58.8** | **+0.1** |
| KAMT | | | | *e*Sg | **Sb** | **01 27 08.5** | **-0.7** |
| **KKUL** | **Konya-Kulu** | **0.71** | **192** | *i* P | **Pg** | **01 26 59.3** | **+0.1** |
| KKUL | | | | *i* S | **Sb** | **01 27 10.6** | **+0.6** |
| **KKUL** | **Konya-Kulu** | **0.71** | **192** | P | **Pg** | **01 26 59.3** | **+0.1** |
| KKUL | | | | S | **Sb** | **01 27 10.6** | **+0.6** |
| **CMDR** | **Camlidere-ANKA** | **0.79** | **323** | *i* P | **Pb** | **01 27 01.5** | **-0.1** |
| CMDR | | | | *i* S | **Sb** | **01 27 13.1** | **+0.6** |
| **CMDR** | **Camlidere-ANKA** | **0.79** | **323** | P | **Pb** | **01 27 01.5** | **-0.1** |
| CMDR | | | | S | **Sb** | **01 27 13.1** | **+0.6** |
| **CDAG** | **Cicekdag** | **1.00** | **103** | *i* P | **Pg** | **01 27 04.4** | **-0.5** |
| CDAG | | | | *i* S | **Sb** | **01 27 18.8** | **+0.2** |
| **CDAG** | **Cicekdag** | **1.00** | **103** | P | **Pg** | **01 27 04.4** | **-0.5** |
| CDAG | | | | S | **Sb** | **01 27 18.8** | **+0.2** |
| **SVRH** | **Sivrihisar-ESK** | **1.29** | **252** | *e*PN | **Pn** | **01 27 09.4** | **-0.4** |
| **SVRH** | **Sivrihisar-ESK** | **1.29** | **252** | *e*Pn | **Pn** | **01 27 09.4** | **-0.4** |
| **AVNS** | **Nevsehir-Avano** | **1.71** | **127** | *i* P | Pn | 01 27 10.8 | -4.8 |
| AVNS | | | | *i* S | **Sg** | **01 27 42.0** | **+1.3** |

**IDC 24 01:44:57.1±4.5, 23°.82S×112°.94W, h0km, mb3.7/3, mb1 4.2/3, mb1mx3.8/26, mbtmp3.7/3, MS3.6/1, Ms1 3.6/1, ms1mx2.7/26, Error ellipse: s-maj=411.5km s-min=83.4km az=100.0, Easter Island region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RAR** | **Rarotonga** | **43.20** | **264** | LR | LR | 02 04 46.1 | |
| | comp=Z,74nm,19.0s,baz=124,slow=28 | | | | | | |
| **NVAR** | **Mina Array Bea** | **62.12** | **355** | P | P | 01 55 20.2 | +0.1 |
| | 0.8nm,0.7s,baz=188,slow=9.1,SNR=6.6 | | | | | | |
| **PDAR** | **Pinedale Array** | **66.33** | **3** | P | P | 01 55 47.1 | -0.5 |
| | 0.3nm,0.6s,baz=182,slow=8.1,SNR=3.6 | | | | | | |
| **YKA** | **Yellowknife Ar** | **86.02** | **359** | P | P | 01 57 39.5 | +0.5 |
| | 1.0nm,1.0s,baz=173,slow=5.4,SNR=10 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **147.09** | **341** | PKPbc | PKPbc | 02 04 41.0 | -0.7 |
| | 0.4nm,0.4s,baz=336,slow=3.2,SNR=2.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **154.02** | **336** | PKPbc | PKPbc | 02 04 58.3 | -0.4 |
| | 0.6nm,0.6s,baz=28,slow=2.9,SNR=4.6 | | | | | | |

**IDC 24 01:53:16.4±1.6, 33°.66S×178°.32W, h0km, mb3.8/3, mb1 4.1/4, mb1mx3.8/23, mbtmp3.8/4, ML3.5/1, Error ellipse: s-maj=55.4km s-min=27.2km az=143.0, South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **URZ** | **Urewera** | **5.90** | **218** | Pn | Pn | 01 54 45.1 | +0.1 |
| | 1.4nm,0.3s,baz=276,slow=2.8,SNR=11 | | | | | | |
| URZ | | | | Sn | Sn | 01 55 52.7 | -0.5 |
| | 5.5nm,0.3s,baz=24,slow=23,SNR=9.0 | | | | | | |
| **ASAR** | **Alice Springs** | **42.77** | **271** | P | P | 02 01 16.0 | +0.2 |
| | 1.1nm,0.7s,baz=108,slow=7.1,SNR=16 | | | | | | |
| ASAR | | | | PcP | PcP | 02 03 07.3 | -0.1 |
| | 0.2nm,0.4s,baz=122,slow=4.3,SNR=3.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.05** | **276** | P | P | 02 01 26.1 | -0.1 |
| | 1.0nm,0.5s,baz=117,slow=7.7,SNR=19 | | | | | | |
| **NVAR** | **Mina Array Bea** | **90.81** | **43** | P | P | 02 06 22.2 | +0.5 |
| | 0.1nm,0.4s,baz=200,slow=7.7,SNR=3.8 | | | | | | |
| **FINES** | **FINESS Array B** | **148.08** | **338** | PKPbc | PKPdf | 02 13 01.3 | +1.3 |
| | 1.4nm,0.7s,baz=48,slow=2.1,SNR=5.3 | | | | | | |

*ISCJB* ***24*** *01:55:54.5±0.3, 62°.28N±0°.02×153°.34W±0°.07, h10km, mb3.4/1, Error ellipse: s-maj=4.5km s-min=2.4km az=15.4*
*NEIC* ***24*** *01:55:57.0±0.0, 62°.26N×153°.31W, h15km, ML3.5(AEIC), After AEIC.*
*IDC* ***24*** *01:56:01.0±3.0, 62°.07N×152°.06W, h0km, mb3.4/1, mb1 3.8/3, mb1mx3.4/30, mbtmp3.3/3, ML3.1/2, Error ellipse: s-maj=34.9km s-min=22.0km az=78.0*

**ISC 24 01:55:55.3±0.8, 62°.23N±0°.02×153°.42W±0°.04, h10km, n58, σ1§51/76, Central Alaska**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PPLA** | **Purkeypile** | **0.88** | **40** | P | **Pg** | **01 56 10.9** | **-1.3** |
| PPLA | | | | S | **Sg** | **01 56 22.8** | **-0.8** |
| **SPWE** | **Spurr West** | **1.04** | **157** | P | **Pg** | **01 56 13.9** | **-1.4** |
| **STLK** | **Strandline Lak** | **1.05** | **134** | P | **Pg** | **01 56 14.1** | **-1.3** |
| **SPBG** | **Spurr Blockage** | **1.10** | **152** | P | **Pg** | **01 56 14.9** | **-1.5** |
| SPBG | | | | S | **Sg** | **01 56 29.0** | **-1.6** |
| **CRP** | **Crater Peak** | **1.14** | **148** | P | **Pb** | **01 56 15.9** | **-1.3** |
| CRP | | | | S | **Sg** | **01 56 30.6** | **-1.4** |
| **SPCP** | **Crater Peak Br** | **1.14** | **148** | P | **Pb** | **01 56 15.8** | **-1.3** |
| **SPCG** | **Spurr Capps Gl** | **1.15** | **144** | P | **Pb** | **01 56 15.9** | **-1.4** |
| **CKL** | **Chakachamna La** | **1.16** | **153** | P | **Pb** | **01 56 16.1** | **-1.3** |
| **TT01** | **Tatalina** | **1.38** | **300** | P | **Pn** | **01 56 20.0** | **-0.6** |
| **TTA** | **Tatalina** | **1.39** | **301** | P | **Pn** | **01 56 20.4** | **-0.4** |
| **SVW2** | **Sparrevohn** | **1.54** | **223** | P | **Pn** | **01 56 23.1** | **+0.4** |
| SVW2 | | | | S | **Sn** | **01 56 43.3** | **+0.6** |
| **RDJH** | **Redoubt Jeurge** | **1.67** | **170** | P | **Pn** | **01 56 24.9** | **+0.2** |
| RDJH | | | | S | **Sn** | **01 56 46.3** | **0.0** |
| **DFR** | **Drift River** | **1.68** | **168** | P | **Pn** | **01 56 24.8** | **0.0** |
| DFR | | | | S | **Sn** | **01 56 47.0** | **+0.5** |
| **KTH** | **Kantishna Hill** | **1.75** | **40** | P | **Pn** | **01 56 25.3** | **-0.4** |
| **RDWB** | **Redoubt West** | **1.77** | **171** | P | **Pn** | **01 56 26.3** | **+0.2** |
| RDWB | | | | S | **Sn** | **01 56 49.6** | **+0.8** |
| **RED** | **Redoubt Volcan** | **1.85** | **170** | P | **Pn** | **01 56 27.3** | **+0.3** |
| RED | | | | S | **Sn** | **01 56 51.3** | **+0.8** |
| **TRF** | **Thorofare Moun** | **1.89** | **48** | P | **Pn** | **01 56 27.9** | **+0.2** |
| **RC01** | **Rabbit Creek A** | **2.10** | **122** | P | **Pn** | **01 56 31.2** | **+0.8** |
| **PMR** | **Palmer** | **2.13** | **106** | P | **Pn** | **01 56 31.3** | **+0.5** |
| **GHO** | **Glory Hole Cre** | **2.17** | **100** | P | **Pn** | **01 56 32.2** | **+0.7** |
| **BPAW** | **Bear Paw Mtn.** | **2.18** | **29** | P | **Pn** | **01 56 30.8** | **-0.8** |
| **IVE** | **Iliamna Volcan** | **2.23** | **175** | P | **Pn** | **01 56 33.0** | **+0.6** |
| **ILS** | **Iliamna Low So** | **2.29** | **176** | P | **Pn** | **01 56 33.8** | **+0.6** |
| **SLKM** | **Skilak Lake** | **2.32** | **137** | P | **Pn** | **01 56 34.0** | **+0.6** |
| **RND** | **Reindeer** | **2.40** | **59** | P | **Pn** | **01 56 35.3** | **+0.6** |
| **SML** | **Sawmill** | **2.44** | **98** | *e*Pn | **Pn** | **01 56 36.4** | **+1.3** |
| SML | | | | *e*Sn | **Sn** | **01 57 04.2** | **-0.7** |
| **KNK** | **Knik Glacier** | **2.49** | **107** | P | **Pn** | **01 56 36.9** | **+1.0** |
| **MCK** | **McKinley** | **2.54** | **52** | *e*Pn | **Pn** | **01 56 36.8** | **+0.2** |
| MCK | | | | *e*Pg | **Pb** | **01 56 41.9** | **+1.0** |
| MCK | | | | *e*Sg | **Sg** | **01 57 15.8** | **-1.0** |
| **BRLK** | **Bradley Lake** | **2.77** | **152** | P | **Pn** | **01 56 40.6** | **+1.0** |
| **AUW** | **Augustine West** | **2.87** | **181** | P | **Pn** | **01 56 41.7** | **+0.6** |
| **SEW** | **Seward** | **2.87** | **136** | P | **Pn** | **01 56 42.0** | **+1.0** |
| **DHY** | **Denali Highway** | **2.92** | **70** | P | **Pn** | **01 56 41.5** | **-0.3** |
| **CNPM** | **China Poot** | **2.92** | **158** | P | **Pn** | **01 56 42.2** | **+0.5** |
| **MLY** | **Manley** | **3.05** | **22** | P | **Pn** | **01 56 42.8** | **-0.8** |
| **CDD** | **Cape Douglas** | **3.32** | **182** | P | **Pn** | **01 56 48.4** | **+1.2** |
| **CCB** | **Clear Creek Bu** | **3.50** | **44** | P | **Pn** | **01 56 48.9** | **-0.8** |
| **MDM** | **Murphy Dome** | **3.59** | **38** | P | **Pn** | **01 56 49.7** | **-1.2** |
| **KLU** | **Klutina** | **3.63** | **98** | P | **Pn** | **01 56 51.9** | **+0.3** |
| **COLA** | **College** | **3.64** | **41** | *e*Pn | **Pn** | **01 56 51.2** | **-0.3** |
| COLA | | | | *e*Pg | **Pb** | **01 57 01.6** | **+2.0** |
| COLA | | | | *e*Sn | **Sn** | **01 57 32.9** | **-1.6** |
| COLA | | | | *e*Sg | **Sb** | **01 57 45.6** | **+1.9** |
| **HDA** | **Harding Lake** | **3.65** | **50** | P | **Pn** | **01 56 52.1** | **+0.4** |
| **PAX** | **Paxson** | **3.75** | **75** | P | **Pn** | **01 56 53.5** | **+0.3** |
| **IM3** | **Indian Mountai** | **3.77** | **358** | P | **Pn** | **01 56 53.9** | **+0.6** |
| **DIV** | **Divide** | **3.81** | **104** | *e*Pn | **Pn** | **01 56 55.1** | **+1.2** |
| **HARP** | **HAARP** | **3.86** | **84** | P | **Pn** | **01 56 55.2** | **+0.6** |
| **ILAR** | **Eielson Array** | **3.88** | **46** | Pn | **Pn** | **01 56 54.1** | **-0.8** |
| | 2.1nm,0.3s,baz=221,slow=14,SNR=59 | | | | | | |
| ILAR | | | | Lg | Lg | 01 57 54.8 | |
| | 7.6nm,0.3s,baz=225,slow=29,SNR=8.3 | | | | | | |
| **ILB** | **Eielson Array** | **3.88** | **46** | P | **Pn** | **01 56 54.3** | **-0.6** |
| **PS06** | **TAPS Pump Stn6** | **3.98** | **22** | P | **Pn** | **01 56 56.0** | **-0.3** |
| **BMRM** | **Bremner River** | **4.40** | **103** | P | **Pn** | **01 57 02.2** | **+0.1** |
| **KDAK** | **Kodiak Island** | **4.48** | **174** | P | **Pn** | **01 57 03.5** | **+0.3** |
| **DOT** | **Dot Lake** | **4.50** | **67** | *e*Pn | **Pn** | **01 57 04.0** | **+0.5** |
| DOT | | | | *e*Pg | **Pb** | **01 57 16.9** | **+2.5** |
| DOT | | | | *e*Sn | **Sn** | **01 57 55.4** | **-0.5** |
| DOT | | | | *e*Sg | **Sb** | **01 58 13.4** | **+4.8** |
| **PS05** | **TAPS Pump Stn5** | **4.75** | **13** | P | **Pn** | **01 57 07.0** | **+0.1** |
| **COLD** | **Coldfoot** | **5.20** | **14** | P | **Pn** | **01 57 12.7** | **-0.4** |
| **BCA3** | **Beaver Creek A** | **5.43** | **76** | P | **Pn** | **01 57 16.1** | **-0.1** |
| **EGAK** | **Eagle** | **6.05** | **60** | P | **Pn** | **01 57 24.6** | **0.0** |
| **BM3** | **Burnt Mountain** | **6.42** | **32** | P | **Pn** | **01 57 28.5** | **-1.3** |
| **DAWY** | **Dawson** | **6.62** | **68** | *e*Pn | **Pn** | **01 57 32.8** | **+0.3** |
| | 6.5nm,0.6s | | | | | | |
| DAWY | | | | *e*Sg | **Sg** | **01 59 18.6** | **-8.8** |
| **YKA** | **Yellowknife Ar** | **17.83** | **72** | P | **Pn** | **02 00 02.6** | **-0.5** |
| | 0.1nm,0.3s,baz=285,slow=10.0,SNR=13 | | | | | | |
| **NVAR** | **Mina Array Bea** | **32.03** | **122** | P | **P** | **02 02 24.3** | **+2.4** |
| | 0.2nm,0.3s,baz=329,slow=8.5,SNR=3.5 | | | | | | |

*ISK* ***24*** *01:56:27.5, 39°.09N×29°.03E, h9km, ML2.1*
*ISCJB* ***24*** *01:56:28.3±0.6, 39°.07N±0°.03×29°.06E±0°.04, h3km±7km, Error ellipse: s-maj=5.4km s-min=5.1km az=140.7*
*CSEM* ***24*** *01:56:28.5±0.2, 39°.07N×29°.05E, h2km, ML2.1, Error ellipse: s-maj=3.7km s-min=3.3km az=133.0*
*DDA* ***24*** *01:56:28.6, 39°.06N×29°.01E, h7km, Md2.6*

**ISC 24 01:56:28.3±1.0, 39°.09N±0°.03×29°.04E±0°.03, h6km±5km, n16, σ0§40/32, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SIMA** | **Simav-Kutahya** | **0.04** | **268** | *e*PG | **Pg** | **01 56 29.8** | **0.0** |
| SIMA | | | | *e*SG | **

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **ZALV** | **Zalesovo Beam** | **40.56** | **312** | P | | **P** | **02 29 30.1** | **-0.1** |
| | 0.6nm,0.6s,baz=90,slow=5.8,SNR=3.8 | | | | | | | |
| **MKAR** | **Makanchi Array** | **42.75** | **301** | P | | **P** | **02 29 47.7** | **-0.7** |
| | 0.6nm,0.8s,baz=68,slow=9.4,SNR=3.3 | | | | | | | |
| **ILAR** | **Eielson Array** | **49.44** | **33** | P | | **P** | **02 30 41.6** | **+0.8** |
| | 1.3nm,0.8s,baz=278,slow=7.0,SNR=14 | | | | | | | |
| **INK** | **Inuvik** | **54.20** | **27** | P | | **P** | **02 31 16.2** | **0.0** |
| | 1.5nm,0.8s,baz=284,slow=4.2,SNR=5.1 | | | | | | | |
| **WRA** | **Warramunga Arr** | **57.70** | **186** | P | | **P** | **02 31 40.9** | **-0.9** |
| | 1.2nm,0.7s,baz=5.1,slow=7.5,SNR=4.6 | | | | | | | |
| **ASAR** | **Alice Springs** | **61.42** | **186** | P | | **P** | **02 32 07.4** | **-0.1** |
| | 0.8nm,0.9s,baz=13,slow=5.7,SNR=4.9 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **63.69** | **30** | P | | **P** | **02 32 24.3** | **+2.2** |
| | 0.1nm,0.7s,baz=304,slow=6.7,SNR=3.6 | | | | | | | |
| **AKASG** | **Malin Array Be** | **72.99** | **322** | P | | **P** | **02 33 19.1** | **-1.5** |
| | 0.3nm,0.4s,baz=49,slow=7.7,SNR=4.1 | | | | | | | |
| **NVAR** | **Mina Array Bea** | **75.41** | **53** | P | | **P** | **02 33 36.8** | **+1.5** |
| | 0.6nm,0.5s,baz=295,slow=5.6,SNR=6.0 | | | | | | | |
| **BRTR** | **Keskin Array B** | **77.49** | **311** | P | | **P** | **02 33 44.7** | **-2.3** |
| | 1.3nm,0.9s,baz=55,slow=5.5,SNR=3.5 | | | | | | | |
| **PDAR** | **Pinedale Array** | **77.91** | **45** | P | | **P** | **02 33 49.9** | **+0.5** |
| | 1.0nm,0.8s,baz=285,slow=2.9,SNR=7.2 | | | | | | | |
| **GERES** | **GERESS Array B** | **81.45** | **327** | P | | **P** | **02 34 07.5** | **-0.8** |
| | 1.0nm,0.9s,baz=19,slow=6.2,SNR=2.9 | | | | | | | |
| **LPAZ** | **La Paz** | **147.23** | **57** | PKPbc | | **PKPbc** | **02 41 36.0** | **+0.3** |
| | 1.6nm,0.9s,baz=327,slow=4.2,SNR=4.8 | | | | | | | |

*ISCJB **24** 02:23:47.4±1.2,49.92N±0.07×18.49E±0.08,h0km, Error ellipse: s-maj=11.8km s-min=4.1km az=31.5*
*CSEM **24** 02:23:48.6±0.6,49.87N×18.46E,h1km, Error ellipse: s-maj=15.4km s-min=4.7km az=31.0*
*PRU **24** 02:23:49.9,49.86N×18.42E,h0km*
**ISC 24 02:23:49.0±1.3, 49.86N±0.07×18.46E±0.05, h0km, n14, σ0.70/23, 2D, Czech and Slovak Republics**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **OKC** | **Ostrava-Krasne** | **0.20** | **264** | *i* P | **Pg** | **02 23 53.6** | **+0.8** |
| OKC | | | | *e*SG | **Sg** | **02 23 56.5** | **+1.1** |
| | comp=Z,19nm,0.2s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **0.20** | **264** | Pg | **Pg** | **02 23 53.6** | **+0.8** |
| OKC | | | | Sg | **Sg** | **02 23 56.5** | **+1.1** |
| | 19nm,0.2s | | | | | | |
| **MORC** | **Moravsky Berou** | **0.60** | **262** | *e*Pg | **Pg** | **02 24 00.4** | **0.0** |
| MORC | | | | *e*Sg | **Sg** | **02 24 08.0** | **-0.1** |
| **LANS** | **Liptovska Anna** | **0.97** | **137** | *e*Pg | **Pg** | **02 24 07.8** | **+0.3** |
| LANS | | | | *e*Sg | **Sb** | **02 24 22.7** | **+0.7** |
| **LANS** | **Liptovska Anna** | **0.97** | **137** | *e*PG | **Pg** | **02 24 07.8** | **+0.3** |
| LANS | | | | *e*SG | **Sb** | **02 24 22.7** | **+0.7** |
| **KRLC** | **Kraliky** | **1.10** | **282** | *e*PG | **Pg** | **02 24 09.0** | **-1.1** |
| **KRLC** | **Kraliky** | **1.10** | **282** | Pg | **Pg** | **02 24 09.0** | **-1.1** |
| **VRAC** | **Vranov** | **1.33** | **246** | *e*Pg | **Pg** | **02 24 13.9** | **-0.5** |
| **VYHS** | **Vyhne** | **1.39** | **169** | *e*Pg | **Pg** | **02 24 14.6** | **-0.9** |
| VYHS | | | | *e*Sn | **Sg** | **02 24 33.5** | **0.0** |
| **VYHS** | **Vyhne** | **1.39** | **169** | *e*PG | **Pg** | **02 24 14.6** | **-0.9** |
| VYHS | | | | *e*SN | **Sg** | **02 24 33.5** | **0.0** |
| **DPC** | **Dobruska-Polom** | **1.46** | **291** | *e*PG | **Pn** | **02 24 16.3** | **-0.3** |
| DPC | | | | *e*SG | **Sb** | **02 24 36.0** | **-0.1** |
| **DPC** | **Dobruska-Polom** | **1.46** | **291** | Pg | **Pn** | **02 24 16.3** | **-0.3** |
| DPC | | | | Sg | **Sb** | **02 24 36.0** | **-0.1** |
| **UPC** | **Upice** | **1.70** | **293** | *e*SG | **Sg** | **02 24 43.8** | **+0.3** |
| **UPC** | **Upice** | **1.70** | **293** | Sg | **Sg** | **02 24 43.8** | **+0.3** |

*CSEM **24** 02:25:31.1±0.9,51.19N×18.86E,h2km, ML2.6/4, Error ellipse: s-maj=17.5km s-min=7.3km az=12.0*
*PRU **24** 02:25:32.0,51.18N×18.91E,h0km, Belchatow*
**ISC 24 02:25:33.3±1.6, 51.05N±0.07×18.91E±0.04, h4km±11km, n25, σ1.26/41, Poland**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **OJC** | **Ojcow** | **1.01** | **145** | *e*Pg | **Pg** | **02 25 51.7** | **-0.9** |
| OJC | | | | *e*Sg | **Sb** | **02 26 07.0** | **+0.1** |
| **OJC** | **Ojcow** | **1.01** | **145** | *e*Pg | **Pg** | **02 25 51.7** | **-0.9** |
| OJC | | | | *e*Sg | **Sb** | **02 26 07.0** | **+0.1** |
| **OKC** | **Ostrava-Krasne** | **1.31** | **202** | *e*PG | **Pg** | **02 25 58.0** | **-0.3** |
| OKC | | | | *e*SG | **Sn** | **02 26 18.2** | **+1.9** |
| | comp=Z,12nm,0.5s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **1.31** | **202** | Pg | **Pg** | **02 25 58.0** | **-0.3** |
| OKC | | | | Sg | **Sn** | **02 26 18.2** | **+1.9** |
| | 12nm,0.5s | | | | | | |
| **MORC** | **Moravsky Berou** | **1.55** | **215** | *e*Pn | **Pn** | **02 26 01.1** | **-0.6** |
| MORC | | | | *e*Sg | **Sg** | **02 26 24.6** | **+1.7** |
| **KSP** | **Ksiaz** | **1.67** | **264** | *e*Pg | **Pb** | **02 26 04.3** | **-0.3** |
| KSP | | | | *e*Sg | **Sg** | **02 26 28.7** | **+1.9** |
| **KSP** | **Ksiaz** | **1.67** | **264** | *e*Pg | **Pb** | **02 26 04.3** | **-0.3** |
| KSP | | | | *e*Sg | **Sg** | **02 26 28.7** | **+1.9** |
| **KRLC** | **Kraliky** | **1.67** | **235** | *e*PG | **Pn** | **02 26 02.6** | **-0.8** |
| KRLC | | | | *e*SG | **Sg** | **02 26 28.5** | **+1.5** |
| | comp=Z,1.9nm,0.3s | | | | | | |
| **KRLC** | **Kraliky** | **1.67** | **235** | Pg | **Pn** | **02 26 02.6** | **-0.8** |
| KRLC | | | | Sg | **Sg** | **02 26 28.5** | **+1.5** |
| | 1.9nm,0.3s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.79** | **248** | *e*PG | **Pn** | **02 26 04.1** | **-0.9** |
| DPC | | | | *e*SG | **Sn** | **02 26 28.2** | **0.0** |
| | comp=Z,5.4nm,0.5s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.79** | **248** | Pg | **Pn** | **02 26 04.1** | **-0.9** |
| DPC | | | | Sg | **Sn** | **02 26 28.2** | **0.0** |
| | 5.4nm,0.5s | | | | | | |
| **LANS** | **Liptovska Anna** | **1.94** | **169** | *e*Pn | **Pb** | **02 26 08.9** | **-0.3** |
| LANS | | | | *e*Sn | **Sg** | **02 26 35.5** | **+0.1** |
| **LANS** | **Liptovska Anna** | **1.94** | **169** | *e*PN | **Pb** | **02 26 08.9** | **-0.3** |
| LANS | | | | *e*SN | **Sg** | **02 26 35.5** | **+0.1** |
| **STHS** | **Stebnicka Huta** | **2.22** | **137** | *e*Pg | **Pg** | **02 26 16.5** | **+0.7** |
| **STHS** | **Stebnicka Huta** | **2.22** | **137** | *e*PG | **Pg** | **02 26 16.5** | **+0.7** |
| **VYHS** | **Vyhne** | **2.56** | **181** | *e*Pg | **Pb** | **02 26 19.2** | **-0.6** |
| **VYHS** | **Vyhne** | **2.56** | **181** | *e*PG | **Pb** | **02 26 19.2** | **-0.6** |
| **PVCC** | **Panska Ves** | **2.80** | **261** | *e*SG | **Sg** | **02 27 02.2** | **-1.1** |
| | comp=Z,5.5nm,0.2s | | | | | | |
| **PVCC** | **Panska Ves** | **2.80** | **261** | Sg | **Sg** | **02 27 02.2** | **-1.1** |
| | 5.5nm,0.2s | | | | | | |
| **PRU** | **Pruhonice** | **2.98** | **251** | *e*SG | **Sg** | **02 27 08.5** | **-0.6** |
| **PRU** | **Pruhonice** | **2.98** | **251** | Sg | **Sg** | **02 27 08.5** | **-0.6** |
| **BRG** | **Berggiesshubel** | **3.15** | **269** | PG | **Pg** | **02 26 32.9** | **-0.7** |
| BRG | | | | SG | **Sg** | **02 27 13.8** | **-0.5** |
| | 3.4nm,0.4s | | | | | | |
| **CLL** | **Collm** | **3.73** | **276** | *i* Sg | **Sg** | **02 27 37.8** | **+4.9** |
| **KHC** | **Kasperske Hory** | **3.93** | **243** | *e*PN | **Pn** | **02 26 33.5** | **-1.0** |
| KHC | | | | *e*SG | **Sg** | **02 27 39.9** | **+0.3** |
| **KHC** | **Kasperske Hory** | **3.93** | **243** | Pn | **Pn** | **02 26 33.5** | **-1.0** |
| KHC | | | | Sg | **Sg** | **02 27 39.9** | **+0.3** |

**MEX 24 02:41:32.0±0.5, 14.65N×92.96W, h28km±13km, MD3.6, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PCIG** | | **1.08** | **347** | *e*P | Pn | 02 41 48.8 | -2.5 |
| PCIG | | | | *e*S | Sn | 02 42 01.7 | -3.6 |
| **CCIG** | **Comitan** | **1.81** | **26** | *e*P | Pn | 02 41 57.6 | -3.9 |
| CCIG | | | | *e*S | Sn | 02 42 00.3 | -3.4 |
| **TGIG** | | **2.12** | **356** | *e*P | Pn | 02 42 03.8 | -2.0 |
| TGIG | | | | *e*S | Sn | 02 42 28.3 | -2.9 |

**SJA 24 02:51:15.9±0.9, 31.76S×69.54W, h110km±7km, ML4.0, MW3.3, San Juan Province**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **AUSP** | **Uspallata** | **0.49** | **164** | *e*P | Pn | 02 51 34.3 | +1.3 |
| AUSP | | | | *e*S | Sn | 02 51 47.0 | +1.2 |
| **RTCV** | **Cerro Valdivia** | **0.86** | **97** | *e*P | Pn | 02 51 36.6 | +0.9 |
| RTCV | | | | *e*S | Sn | 02 51 52.1 | +1.4 |
| **RTLL** | **Cerro Villicun** | **1.01** | **65** | *e*P | Pn | 02 51 37.8 | +0.6 |
| **AMOG** | **MOGNA** | **1.21** | **48** | *e*P | Pn | 02 51 40.6 | +1.2 |
| AMOG | | | | IAML | | 02 51 41.0 | |
| | comp=Z,2μm,0.2s | | | | | | |
| AMOG | | | | *e*S | Sn | 02 51 58.0 | +0.8 |
| **ACAN** | **Cantantal** | **2.07** | **105** | *e*P | Pn | 02 51 50.4 | +0.7 |

**IDC 24 02:54:49.5±7.6, 4.47S×125.15E, h453km±106km, mb2.8/2, mb1 3.1/4, mb1mx2.7/36, mbtmp3.8/4, Error ellipse: s-maj=109.7km s-min=36.6km az=57.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **FITZ** | **Fitzroy Crossi** | **13.56** | **178** | P | P | 02 57 45.5 | +0.3 |
| | 0.1nm,0.3s,baz=1.8,slow=8.6,SNR=4.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **17.80** | **151** | P | P | 02 58 29.2 | -0.9 |
| | 1.1nm,0.3s,baz=329,slow=10,SNR=83 | | | | | | |
| **ASAR** | **Alice Springs** | **20.87** | **157** | P | P | 02 58 59.0 | +0.3 |
| | 0.9nm,0.6s,baz=326,slow=7.9,SNR=18 | | | | | | |
| **MKAR** | **Makanchi Array** | **63.52** | **329** | P | P | 03 04 34.2 | 0.0 |
| | 0.3nm,0.3s,baz=127,slow=7.9,SNR=7.1 | | | | | | |

**MEX 24 02:55:15.6±0.3, 27.89N×112.05W, h9km±7km, MD3.8, Baja California**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SRIG** | **Santa Rosalia** | **0.59** | **197** | *e*P | Pg | 02 55 25.9 | -1.1 |
| SRIG | | | | *e*S | Sg | 02 55 34.3 | -0.4 |
| **HSIG** | | **1.49** | **40** | *e*P | Pn | 02 55 39.1 | -3.5 |
| HSIG | | | | *e*S | Sn | 02 55 57.0 | -5.1 |

**CASC 24 03:03:00.5±1.9, 12.29N×87.44W, h61km±29km, MD3.1, ML3.5, Near coast of Nicaragua**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRIN** | **San Cristobal** | **0.56** | **43** | *e*P | Pn | 03 03 14.0 | +0.7 |
| CRIN | | | | *e*S | Sn | 03 03 24.8 | +2.3 |
| CRIN | | | | AML | AML | 03 03 26.5 | |
| | comp=N,3μm,0.1s | | | | | | |
| **CSGN** | **Cosiguina Volc** | **0.69** | **350** | *e*P | Pn | 03 03 16.2 | +1.4 |
| CSGN | | | | *e*S | Sn | 03 03 26.1 | +0.8 |
| **COPN** | **Copaltepe** | **0.83** | **97** | *e*P | Pn | 03 03 16.4 | 0.0 |
| COPN | | | | *e*S | Sn | 03 03 27.8 | -0.4 |
| COPN | | | | AML | AML | 03 03 28.5 | |
| | comp=Z,854nm,0.2s | | | | | | |
| **MOMN** | **Momotombo** | **0.89** | **82** | *e*P | Pn | 03 03 17.3 | +0.1 |
| MOMN | | | | *e*S | Sn | 03 03 29.0 | -0.4 |
| **CNCH** | **Conchagua** | **1.06** | **339** | *e*P | Pn | 03 03 19.9 | +0.5 |
| CNCH | | | | *e*S | Sn | 03 03 34.3 | +0.8 |
| **XAVN** | **Gruta Xavier** | **1.09** | **97** | *e*P | Pn | 03 03 20.1 | +0.3 |
| XAVN | | | | *e*S | Sn | 03 03 34.1 | 0.0 |
| **LCND** | **La Ca˜–ada** | **1.11** | **337** | *e*P | Pn | 03 03 20.4 | +0.3 |
| **TISN** | **Laguna Tiscapa** | **1.15** | **97** | *e*P | Pn | 03 03 21.1 | +0.5 |
| **MGAN** | **Managua** | **1.17** | **97** | *e*P | Pn | 03 03 20.5 | -0.3 |
| MGAN | | | | *e*S | Sn | 03 03 36.5 | +0.5 |
| **MASN** | **Masaya** | **1.29** | **103** | *e*P | Pn | 03 03 24.0 | +1.5 |
| **ESTN** | **Estel** | **1.32** | **52** | *e*P | Pn | 03 03 22.9 | 0.0 |
| **VSM** | **San Miguel** | **1.40** | **324** | *e*P | Pn | 03 03 24.8 | +0.7 |
| **LCY** | **Lacayo** | **1.41** | **324** | *e*P | Pn | 03 03 24.6 | +0.5 |
| LCY | | | | *e*S | Sn | 03 03 41.6 | -0.1 |
| **PACA** | **Pacayal** | **1.46** | **324** | *e*P | Pn | 03 03 25.3 | +0.5 |
| PACA | | | | *e*S | Sn | 03 03 43.1 | +0.1 |
| **LFRS** | **El Faro** | **2.07** | **310** | *e*P | Pn | 03 03 33.9 | +0.9 |
| LFRS | | | | *e*S | Sn | 03 03 57.5 | -0.2 |

*ISK **24** 03:07:44.7,38.68N×43.11E,h6km,MD2.3*
*ISCJB **24** 03:07:45.6±0.7,38.64N±0.04×43.21E±0.05,h31km±5km, Error ellipse: s-maj=7.0km s-min=6.7km az=2.1*
*CSEM **24** 03:07:46.3±0.3,38.70N×43.17E,h5km,MD2.3, Error ellipse: s-maj=5.9km s-min=5.1km az=113.0*
*DDA **24** 03:07:46.0,38.70N×43.19E,h7km,Md2.5*
**ISC 24 03:07:46.1±1.2, 38.68N±0.03×43.18E±0.03, h19km±2km, n16, σ0.79/31, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.18** | **117** | *e*PG | **Pg** | **03 07 50.7** | **-0.3** |
| VANB | | | | *e*SG | **Sg** | **03 07 55.5** | **+1.2** |
| **VANB** | **Van** | **0.18** | **117** | *e*Pg | **Pg** | **03 07 50.7** | **-0.3** |
| VANB | | | | *e*Sg | **Sg** | **03 07 55.5** | **+1.2** |
| **TVAN** | **Van** | **0.23** | **130** | *i* P | **Pg** | **03 07 51.0** | **-0.8** |
| TVAN | | | | *i* S | **Sb** | **03 07 55.5** | **+0.3** |
| **TVAN** | **Van** | **0.23** | **130** | P | **Pg** | **03 07 51.0** | **-0.8** |
| TVAN | | | | S | **Sb** | **03 07 55.5** | **+0.3** |
| **GEVA** | **Gevas** | **0.38** | **195** | *i* P | **Pb** | **03 07 53.6** | **-0.8** |
| GEVA | | | | *i* S | **Sb** | **03 08 00.7** | **+0.7** |
| **GEVA** | **Gevas** | **0.38** | **195** | P | **Pb** | **03 07 53.6** | **-0.8** |
| GEVA | | | | S | **Sb** | **03 08 00.7** | **+0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.38** | **290** | *i* P | **Pb** | **03 07 54.1** | **-0.4** |
| ADCV | | | | *i* S | **Sb** | **03 08 01.4** | **+1.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.38** | **290** | P | **Pb** | **03 07 54.1** | **-0.4** |
| ADCV | | | | S | **Sb** | **03 08 01.4** | **+1.3** |
| **VMUR** | **Van-Muradiye** | **0.44** | **44** | *i* P | **Pg** | **03 07 54.5** | **-0.7** |
| VMUR | | | | *i* S | **Sb** | **03 08 02.2** | **+0.5** |
| **VMUR** | **Van-Muradiye** | **0.44** | **44** | P | **Pg** | **03 07 54.5** | **-0.7** |
| VMUR | | | | S | **Sb** | **03 08 02.2** | **+0.5** |
| **CLDR** | **Caldiran** | **0.74** | **51** | *e*PG | **Pb** | **03 08 00.4** | **-0.1** |
| CLDR | | | | *e*SG | **Sb** | **03 08 11.6** | **+1.2** |
| **CLDR** | **Caldiran** | **0.74** | **51** | *i* P | **Pg** | **03 07 59.9** | **-0.8** |
| CLDR | | | | *i* S | **Sb** | **03 08 11.0** | **+0.7** |
| **CLDR** | **Caldiran** | **0.74** | **51** | P | **Pg** | **03 07 59.9** | **-0.8** |
| **CLDR** | **Caldiran** | **0.74** | **51** | *e*Pg | **Pb** | **03 08 00.4** | **-0.1** |
| CLDR | | | | S | **Sb** | **03 08 11.0** | **+0.7** |
| **AGRB** | **Hanur-Agry** | **0.91** | **351** | *e*PG | **Pb** | **03 08 02.6** | **-0.8** |
| AGRB | | | | *e*SG | **Sb** | **03 08 15.3** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **0.91** | **351** | *e*Pg | **Pb** | **03 08 02.6** | **-0.8** |
| AGRB | | | | *e*Sg | **Sb** | **03 08 15.3** | **+0.1** |

*ISCJB **24** 03:12:53.8±1.3,36.55N±0.04×141.41E±0.09,h22km±7km, mb3.4/2, Error ellipse: s-maj=11.6km s-min=6.5km az=3.5*
*JMA **24** 03:12:56.1±0.1,36.57N×141.22E,h44km±2km,M3.4*
*IDC **24** 03:12:58.5±5.8,36.44N×141.31E,h51km±46km,mb3.3/2, mb1 3.5/4,mb1mx3.1/42,mbtmp3.6/4,ML3.2/2, Error ellipse: s-maj=47.3km s-min=13.5km az=60.0*
**ISC 24 03:12:53.5±1.9, 36.57N±0.04×141.42E±0.08, h15km±10km, n17, σ1.16/19, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JHO** | **Hitachi** | **0.69** | **274** | P | **Pg** | **03 13 07.3** | **+0.4** |
| JHO | | | | S | **Sg** | **03 13 15.2** | **-0.8** |
| **ONAJ** | **Iwakimizuishiy** | **0.73** | **317** | P | **Pb** | **03 13 08.5** | **+0.5** |
| ONAJ | | | | S | **Sg** | **03 13 17.2** | **-0.2** |
| **JFK** | **Kawauchi** | **0.91** | **331** | P | **Pg** | **03 13 11.4** | **+1.3** |
| JFK | | | | S | **Sb** | **03 13 21.2** | **-1.8** |
| **JYT** | **Yasato** | **1.05** | **251** | P | **Pb** | **03 13 12.4** | **-0.9** |
| **JFT** | **Otama** | **1.29** | **318** | P | **Pn** | **03 13 17.4** | **+0.5** |
| JFT | | | | S | **Sb** | **03 13 32.6** | **-1.2** |
| **JMM** | **Marumori** | **1.39** | **339** | P | **Pn** | **03 13 18.5** | **+0.2** |
| JMM | | | | S | **Sn** | **03 13 35.3** | **-1.1** |
| **MJAR** | **Matsushiro Arr** | **2.59** | **270** | P | **Pn** | **03 13 35.4** | **+0.5** |
| | 6.4nm,0.3s,baz=106,slow=10,SNR=46 | | | | | | |
| MJAR | | | | S | **Sn** | **03 14 05.8** | **-0.3** |
| | 5.0nm,0.3s,baz=76,slow=16,SNR=7.4 | | | | | | |
| **MAT** | **Matsushiro** | **2.59** | **270** | P | **Pn** | **03 13 35.8** | **+0.9** |
| MAT | | | | *e*S | **Sn** | **03 14 06.9** | **+0.8** |
| **JHJ** | **Hachijo jima 2** | **3.70** | **202** | P | **Pn** | **03 13 50.8** | **+0.8** |
| | 5.0nm,0.3s,baz=80,slow=19,SNR=6.6 | | | | | | |
| JHJ | | | | S | **Sn** | **03 14 32.9** | **-0.5** |
| | 14nm,0.3s,baz=273,slow=24,SNR=5.2 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy 27.91** | **120** | | T | T | 03 48 01.1 | |
| | baz=313,slow=75,SNR=11 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy 27.91** | **120** | | T | T | 03 48 02.1 | |
| | baz=313,slow=75,SNR=12 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy 27.92** | **120** | | T | T | 03 48 04.3 | |
| | baz=313,slow=75,SNR=12 | | | | | | |
| **SONM** | **Songino Array** | **28.05** | **305** | P | **P** | **03 18 46.8** | **+2.5** |
| | 0.5nm,0.8s,baz=108,slow=9.5,SNR=3.7 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy 28.60** | **122** | | T | T | 03 48 59.1 | |
| | baz=314,slow=75,SNR=11 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy 28.60** | **122** | | T | T | 03 48 59.1 | |
| | baz=314,slow=75,SNR=8.4 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy 28.62** | **122** | | T | T | 03 48 59.1 | |
| | baz=314,slow=75,SNR=8.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **56.60** | **188** | P | **P** | **03 22 34.0** | **-1.7** |
| | 0.3nm,0.5s,baz=4.8,slow=7.1,SNR=6.3 | | | | | | |

*ISCJB **24** 03:58:24.5±1.4,77.49N±0.07×8.7E±0.6,h10km,mb3.6/4, Error ellipse: s-maj=20.3km s-min=9.6km az=10.6*
*CSEM **24** 03:58:26.2±0.8,77.59N×8.57E,h10km,ML2.2, Error ellipse: s-maj=19.8km s-min=9.2km az=97.0*
*NAO **24** 03:58:27.3±1.9,77.62N×8.44E,ML2.6*
*BER **24** 03:58:29.1±2.8,77.59N×8.62E,h15km±31km,MD2.3, ML2.2,ML2.6(NAO)*
*IDC **24** 03:58:31.0±1.3,76.71N×6.85E,h0km,mb3.6/4,mb1 3.8/5, mb1mx3.4/35,mbtmp3.6/5,ML2.9/1, Error ellipse: s-maj=33.7km s-min=17.0km az=52.0*
**ISC 24 03:58:24.6±1.0, 77.49N±0.07×8.11E±0.08, h10km, n19, σ1.94/19, mb3.6/4, Svalbard region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **BRBA** | **Barentsburg A** | **1.42** | **63** | Pg | **Pg** | **03 58 51.8** | **+0.1** |
| | SNR=92 | | | | | | |
| BRBA | | | | Lg | Lg | 03 59 08.7 | |
| | SNR=90 | | | | | | |
| **KBS** | **Kingsbay** | **1.64** | **27** | Pg | **Pn** | **03 58 53.8** | **+0.4** |
| KBS | | | | Lg | Lg | 03 59 12.3 | |
| **KBS** | **Kingsbay** | **1.64** | **27** | Pg | **Pn** | **03 58 53.8** | **+0.4** |
| KBS | | | | Lg | Lg | 03 59 12.3 | |
| **KBS** | **Kingsbay** | **1.64** | **27** | *e*P | **Pn** | **03 58 53.8** | **+0.4** |
| KBS | | | | *e*Pg | **Pb** | **03 58 55.0** | **+0.2** |
| KBS | | | | *e*Sg | **Sn** | **03 59 12.5** | **-2.0** |
| KBS | | | | IAML | | 03 59 14.9 | |
| | comp=Z,50nm,0.2s | | | | | | |
| **KBS** | **Kingsbay** | **1.64** | **27** | *e*P | **Pn** | **03 58 53.8** | **+0.4** |
| | SNR=55 | | | | | | |
| KBS | | | | Lg | Lg | 03 59 12.3 | |
| **SPA0** | **Spitsbergen Ar** | **1.88** | **65** | Pn | **Pb** | **03 58 59.4** | **+0.5** |
| | baz=246,slow=16 | | | | | | |
| SPA0 | | | | Lg | Lg | 03 59 22.5 | |
| | baz=253,slow=28 | | | | | | |
| **SPA0** | **Spitsbergen Ar** | **1.88** | **65** | Pg | **Pb** | **03 58 59.4** | **+0.5** |
| | baz=246,slow=16 | | | | | | |
| SPA0 | | | | Lg | Lg | 03 59 22.5 | |
| | baz=253,slow=28 | | | | | | |
| **SPA0** | **Spitsbergen Ar** | **1.88** | **65** | Pn | **Pb** | **03 58 59.4** | **+0.5** |
| | baz=246,slow=16 | | | | | | |
| SPA0 | | | | Lg | Lg | 03 59 22.5 | |
| | baz=253,slow=28 | | | | | | |
| **SPA0** | **Spitsbergen Ar** | **1.88** | **65** | Pg | **Pb** | **03 58 59.4** | **+0.5** |
| | SNR=781 | | | | | | |
| SPA0 | | | | Lg | Lg | 03 59 22.5 | |
| | baz=253,slow=25,SNR=6.9 | | | | | | |
| **ARA0** | **ARCESS Array S** | **9.34** | **140** | Pn | **Pn** | **04 00 40.5** | **+1.5** |
| | baz=336,slow=12 | | | | | | |
| **ARA0** | **ARCESS Array S** | **9.34** | **140** | Pn | **Pn** | **04 00 40.5** | **+1.5** |
| | baz=336,slow=12 | | | | | | |
| **ARA0** | **ARCESS Array S** | **9.34** | **140** | Pn | **Pn** | **04 00 40.5** | **+1.5** |
| | baz=336,slow=12 | | | | | | |
| **ARA0** | **ARCESS Array S** | **9.34** | **140** | Pn | **Pn** | **04 00 40.5** | **+1.5** |
| | SNR=55 | | | | | | |
| **ARCES** | **ARCESS Array** | **8.34** | **140** | Pn | **Pn** | **04 00 40.6** | **+1.7** |
| | comp=Z,0.2nm,0.3s,baz=324,slow=12,SNR=9.4 | | | | | | |
| ARCES | | | | Sn | **Sn** | **04 02 18.2** | **-5.6** |
| | comp=Z,0.1nm,0.3s,baz=345,slow=17,SNR=2.5 | | | | | | |
| **SUMG** | **Summit** | **12.64** | **271** | *i* P | **Pn** | **04 01 22.5** | **-1.9** |
| **ZALV** | **Zalesovo Beam** | **35.23** | **86** | P | P | 04 05 29.0 | +10 |
| | comp=Z,0.4nm,0.3s,baz=327,slow=10,SNR=2.1 | | | | | | |
| **ILAR** | **Eielson Array** | **37.14** | **343** | P | P | 04 05 47.9 | +13 |
| | comp=Z,0.5nm,0.9s,baz=3.0,slow=6.9,SNR=5.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **41.41** | **92** | P | P | 04 06 21.6 | +11 |
| | comp=Z,0.6nm,0.8s,baz=348,slow=6.0,SNR=4.3 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **64.43** | **187** | P | **P** | **04 09 03.4** | **+2.7** |
| | comp=Z,1.1nm,1.2s,baz=7.5,slow=6.1,SNR=3.4 | | | | | | |

**JMA 24 04:13:32.3±0.1, 37.99N×144.64E, h20km, M3.5, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **OFUJ** | **Ofunato** | **2.57** | **296** | P | Pn | 04 14 14.1 | +1.3 |
| **JIO** | **Ouri** | **2.63** | **281** | P | Pn | 04 14 15.2 | +1.6 |
| JIO | | | | S | Sn | 04 14 45.9 | +0.9 |
| **MIYJ** | **Miyakonagasawa** | **2.71** | **307** | P | Pn | 04 14 16.1 | +1.3 |
| MIYJ | | | | *e*S | Sn | 04 14 48.8 | +1.8 |
| **JMK** | **Ichinoseki** | **2.85** | **291** | P | Pn | 04 14 18.6 | +2.0 |
| JMK | | | | *e*S | Sn | 04 14 52.8 | +2.4 |
| **JOM** | **Ohasama** | **3.01** | **301** | P | Pn | 04 14 20.6 | +1.8 |
| JOM | | | | *e*S | Sn | 04 14 56.7 | +2.5 |
| **JOU** | **Okura** | **3.16** | **278** | P | Pn | 04 14 22.9 | +2.0 |
| JOU | | | | S | Sn | 04 15 00.1 | +2.2 |
| **JANG** | **Nango** | **3.40** | **315** | P | Pn | 04 14 25.8 | +1.6 |
| **JFT** | **Otama** | **3.44** | **263** | S | Sn | 04 15 06.3 | +1.3 |
| **JYK** | **Kaneyama** | **3.49** | **287** | P | Pn | 04 14 27.3 | +1.9 |
| **JTM** | **Tenmabayashi** | **3.93** | **316** | P | Pn | 04 14 33.4 | +1.9 |

*DDA **24** 04:18:09.5,36.28N×31.49E,h56km,Md3.1*
*ISCJB **24** 04:18:09.0±0.4,36.22N±0.02×31.55E±0.03,h79km±7km, Error ellipse: s-maj=4.5km s-min=2.8km az=43.9*
*ISK **24** 04:18:09.8,36.21N×31.55E,h48km,ML2.8*
*CSEM **24** 04:18:10.4±0.1,36.22N×31.54E,h50km,MD3.1, Error ellipse: s-maj=3.5km s-min=2.2km az=49.0*
*NIC **24** 04:18:14.6±0.5,36.10N×32.13E,h6km,ML3.1*
*HLW **24** 04:18:14.4,35.81N×31.33E,h33km±32km,Md3.4*
**ISC 24 04:18:09.6±1.1, 36.23N±0.03×31.57E±0.03, h75km±8km, n93, σ1.48/146, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GAZI** | **Gazipasa** | **0.60** | **89** | *i* P | **Pn** | **04 18 24.9** | **+1.0** |
| GAZI | | | | *i* S | **Sn** | **04 18 35.7** | **+1.3** |
| **GAZI** | **Gazipasa** | **

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **CSS** | **Mathiatis** | **1.91** | **131** | *e*PN | | **Pn** | **04 18 40.5** | **+0.3** |
| **CSS** | **Mathiatis** | **1.91** | **131** | *e*Pn | | **Pn** | **04 18 40.5** | **+0.3** |
| **CSS** | **Mathiatis** | **1.91** | **131** | P | | **Pn** | **04 18 41.2** | **+1.1** |
| CSS | | | | S | | **Sn** | **04 19 02.3** | **-1.1** |
| **CSS** | **Mathiatis** baz=319 | **1.91** | **131** | P | | **Pn** | **04 18 41.2** | **+1.1** |
| CSS | | | | S | | **Sn** | **04 19 02.3** | **-1.1** |
| **GLHS** | **Glhisar (BURDU** | **1.91** | **300** | *e*PN | | **Pn** | **04 18 41.1** | **+0.9** |
| **GLHS** | **Glhisar (BURDU** | **1.91** | **300** | *e*Pn | | **Pn** | **04 18 41.1** | **+0.9** |
| **FETY** | **Fethiye** | **2.05** | **282** | *e*PN | | **Pn** | **04 18 43.0** | **+1.0** |
| **FETY** | **Fethiye** | **2.05** | **282** | *e*Pn | | **Pn** | **04 18 43.0** | **+1.0** |
| **KIZK** | **Mersin** | **2.09** | **82** | *e*PN | | **Pn** | **04 18 44.1** | **+1.6** |
| **KIZK** | **Mersin** | **2.09** | **82** | *i* P | | **Pn** | **04 18 43.6** | **+1.1** |
| KIZK | | | | *i* S | | **Sn** | **04 19 09.6** | **+1.9** |
| **KIZK** | **Mersin** | **2.09** | **82** | P | | **Pn** | **04 18 43.6** | **+1.1** |
| KIZK | | | | S | | **Sn** | **04 19 09.6** | **+1.9** |
| **KZIL** | **AFYON_Kizioren** | **2.33** | **331** | *i* P | | **Pn** | **04 18 45.7** | **-0.1** |
| KZIL | | | | *i* S | | **Sn** | **04 19 13.2** | **-0.4** |
| **KZIL** | **AFYON_Kizioren** | **2.33** | **331** | P | | **Pn** | **04 18 45.7** | **-0.1** |
| KZIL | | | | S | | **Sn** | **04 19 13.2** | **-0.4** |
| **KDHN** | **Kadinhani** | **2.33** | **11** | *i* P | | **Pn** | **04 18 45.4** | **-0.5** |
| KDHN | | | | *i* S | | **Sn** | **04 19 12.2** | **-1.5** |
| **KDHN** | **Kadinhani** | **2.33** | **11** | P | | **Pn** | **04 18 45.4** | **-0.5** |
| KDHN | | | | S | | **Sn** | **04 19 12.2** | **-1.5** |
| **KERG** | **Konya-Eregli** | **2.37** | **59** | *i* P | | **Pn** | **04 18 47.4** | **+1.0** |
| KERG | | | | *i* S | | **Sn** | **04 19 14.1** | **-0.5** |
| **KERG** | **Konya-Eregli** | **2.37** | **59** | P | | **Pn** | **04 18 47.4** | **+1.0** |
| KERG | | | | S | | **Sn** | **04 19 14.1** | **-0.5** |
| **MERS** | **Mersin** | **2.46** | **74** | *e*PN | | **Pn** | **04 18 49.4** | **+1.8** |
| **MERS** | **Mersin** | **2.46** | **74** | *e*Pn | | **Pn** | **04 18 49.4** | **+1.8** |
| **SHUT** | **Suhut-Afyon** | **2.46** | **341** | *e*PN | | **Pn** | **04 18 48.5** | **+0.8** |
| **SHUT** | **Suhut-Afyon** | **2.46** | **341** | *e*Pn | | **Pn** | **04 18 48.5** | **+0.8** |
| **BOLV** | **Bolvadin** | **2.54** | **349** | *i* P | | **Pn** | **04 18 49.3** | **+0.6** |
| BOLV | | | | *i* S | | **Sn** | **04 19 17.8** | **-0.9** |
| **BOLV** | **Bolvadin** | **2.54** | **349** | P | | **Pn** | **04 18 49.3** | **+0.6** |
| BOLV | | | | S | | **Sn** | **04 19 17.8** | **-0.9** |
| **DED** | **Mersin** | **2.70** | **73** | *i* P | | **Pn** | **04 18 52.7** | **+1.9** |
| DED | | | | *i* S | | **Sn** | **04 19 23.7** | **+1.2** |
| **KHAL** | **Karahalli** | **2.71** | **323** | *i* P | | **Pn** | **04 18 51.5** | **+0.5** |
| KHAL | | | | *i* S | | **Sn** | **04 19 22.7** | **-0.1** |
| **KHAL** | **Karahalli** | **2.71** | **323** | P | | **Pn** | **04 18 51.5** | **+0.5** |
| KHAL | | | | S | | **Sn** | **04 19 22.7** | **-0.1** |
| **GULE** | **Gulek** | **2.78** | **67** | *i* P | | **Pn** | **04 18 54.4** | **+2.4** |
| GULE | | | | *i* S | | **Sn** | **04 19 27.0** | **+2.4** |
| **GULE** | **Gulek** | **2.78** | **67** | P | | **Pn** | **04 18 54.4** | **+2.4** |
| GULE | | | | S | | **Sn** | **04 19 27.0** | **+2.4** |
| **KARA** | **Karaisali** | **2.98** | **69** | *e*PN | | **Pn** | **04 18 56.4** | **+1.8** |
| **KARA** | **Karaisali** | **2.98** | **69** | *e*Pn | | **Pn** | **04 18 56.4** | **+1.8** |
| **KKUL** | **Konya-Kulu** | **3.13** | **20** | *i* P | | **Pn** | **04 18 57.2** | **+0.5** |
| KKUL | | | | *i* S | | **Sn** | **04 19 30.3** | **-2.7** |
| **KKUL** | **Konya-Kulu** | **3.13** | **20** | P | | **Pn** | **04 18 57.2** | **+0.5** |
| **GDZ** | **Gediz** | **3.31** | **330** | *i* P | | **Pn** | **04 18 59.3** | **+0.2** |
| GDZ | | | | *i* S | | **Sn** | **04 19 35.6** | **-1.8** |
| **GDZ** | **Gediz** | **3.31** | **330** | P | | **Pn** | **04 18 59.3** | **+0.2** |
| GDZ | | | | S | | **Sn** | **04 19 35.6** | **-1.8** |
| **AKO** | **Adana** | **3.34** | **67** | *i* P | | **Pn** | **04 19 01.5** | **+2.0** |
| AKO | | | | *i* S | | **Sn** | **04 19 38.8** | **+0.7** |
| **YAYL** | **Yayladag** | **3.67** | **92** | *i* P | | **Pn** | **04 19 05.2** | **+1.1** |
| YAYL | | | | *i* S | | **Sn** | **04 19 45.9** | **-0.4** |
| **YAYL** | **Yayladag** | **3.67** | **92** | P | | **Pn** | **04 19 05.2** | **+1.1** |
| YAYL | | | | S | | **Sn** | **04 19 45.9** | **-0.4** |
| **KAMA** | **Osmaniye** | **4.20** | **75** | *i* P | | **Pn** | **04 19 11.4** | **+0.1** |
| KAMA | | | | *i* S | | **Sn** | **04 19 55.9** | **-3.3** |
| **HCB** | **Kahramanmara¯** | **4.42** | **74** | *i* P | | **Pn** | **04 19 14.8** | **+0.6** |
| HCB | | | | *i* S | | **Sn** | **04 20 01.2** | **-3.3** |
| **KUZU** | **Kuzuini** | **4.47** | **81** | *i* P | | **Pn** | **04 19 14.9** | **+0.1** |
| KUZU | | | | *i* S | | **Sn** | **04 20 03.5** | **-2.1** |
| **KUZU** | **Kuzuini** | **4.47** | **81** | P | | **Pn** | **04 19 14.9** | **+0.1** |
| **RSH** | baz=156 | **5.55** | **161** | P | | **Pn** | **04 19 30.7** | **+1.1** |
| **RSH** | | **5.55** | **161** | P | | **Pn** | **04 19 30.7** | **+1.1** |
| **SUZ** | **Suez** baz=167 | **6.45** | **170** | P | | **Pn** | **04 19 42.5** | **+0.5** |
| **SUZ** | **Suez** | **6.45** | **170** | P | | **Pn** | **04 19 42.5** | **+0.5** |
| **HNKL** | **Nakhl** baz=158 | **6.59** | **161** | P | | **Pn** | **04 19 44.3** | **+0.4** |
| HNKL | baz=158 | | | S | | **Sn** | **04 20 54.0** | **-3.7** |
| **HNKL** | **Nakhl** | **6.59** | **161** | P | | **Pn** | **04 19 44.3** | **+0.4** |
| **SWA2** | baz=219 | **8.66** | **218** | P | | **Pn** | **04 20 12.0** | **-0.1** |
| SWA2 | baz=219 | | | S | | **Sn** | **04 21 41.2** | **-6.9** |
| **SWA2** | | **8.66** | **218** | P | | **Pn** | **04 20 12.0** | **-0.1** |
| **HFRF** | **Wahat Farafira** baz=198 | **9.47** | **198** | P | | **Pn** | **04 20 23.6** | **+0.5** |
| **HFRF** | **Wahat Farafira** | **9.47** | **198** | P | | **Pn** | **04 20 23.6** | **+0.5** |

*ISK **24** 04:22:37.9, 38˚.70N×43˚.27E, h2km, MD2.6*
*DDA **24** 04:22:39.0, 38˚.71N×43˚.35E, h7km, Md2.7*
*ISCJB **24** 04:22:39.4±0.6, 38˚.71N±0˚.03×43˚.31E±0˚.05, h10km±7km, Error ellipse: s-maj=6.3km s-min=5.6km az=162.4*
*CSEM **24** 04:22:39.2±0.2, 38˚.72N×43˚.28E, h2km, MD2.6, Error ellipse: s-maj=6.9km s-min=4.8km az=77.0*

**ISC 24 04:22:39.2±1.1, 38˚.74N±0˚.03×43˚.29E±0˚.03, h6km±14km, n17, σ0s84/27, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **VANB** | **Van** | **0.17** | **151** | *e*PG | | **Pg** | **04 22 43.3** | **+0.8** |
| **VANB** | **Van** | **0.17** | **151** | *e*Pg | | **Pg** | **04 22 43.3** | **+0.8** |
| **TVAN** | **Van** | **0.23** | **156** | *i* P | | **Pg** | **04 22 43.1** | **-0.6** |
| TVAN | | | | *i* S | | **Sg** | **04 22 46.9** | **+0.1** |
| **TVAN** | **Van** | **0.23** | **156** | P | | **Pg** | **04 22 43.1** | **-0.6** |
| TVAN | | | | S | | **Sg** | **04 22 46.9** | **+0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.45** | **279** | *i* P | | **Pb** | **04 22 48.7** | **-0.9** |
| ADCV | | | | *i* S | | **Sb** | **04 22 57.2** | **+0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.45** | **279** | P | | **Pb** | **04 22 48.7** | **-0.9** |
| ADCV | | | | S | | **Sb** | **04 22 57.2** | **+0.6** |
| **GEVA** | **Gevas** | **0.46** | **203** | *i* P | | **Pg** | **04 22 47.3** | **-0.8** |
| GEVA | | | | *i* S | | **Sb** | **04 23 00.1** | **+3.0** |
| **GEVA** | **Gevas** | **0.46** | **203** | P | | **Pg** | **04 22 47.3** | **-0.8** |
| **CLDR** | **Caldiran** | **0.64** | **50** | *e*PG | | **Pg** | **04 22 51.5** | **+0.1** |
| CLDR | | | | *e*SG | | **Sb** | **04 23 02.0** | **-0.1** |
| **CLDR** | **Caldiran** | **0.64** | **50** | *i* P | | **Pg** | **04 22 51.5** | **+0.1** |
| CLDR | | | | *i* S | | **Sb** | **04 23 02.1** | **-0.1** |
| **CLDR** | **Caldiran** | **0.64** | **50** | P | | **Pg** | **04 22 51.5** | **+0.1** |
| CLDR | | | | *e*Sg | | **Sb** | **04 23 02.0** | **-0.1** |
| **TUTA** | **Tutak** | **0.76** | **331** | *i* P | | **Pg** | **04 22 53.9** | **+0.2** |
| **TUTA** | **Tutak** | **0.76** | **331** | P | | **Pg** | **04 22 53.9** | **+0.2** |
| **AGRB** | **Hanur-Agry** | **0.87** | **345** | *e*PG | | **Pg** | **04 22 56.3** | **+0.5** |
| AGRB | | | | *e*SG | | **Sb** | **04 23 09.2** | **+0.5** |
| **AGRB** | **Hanur-Agry** | **0.87** | **345** | *e*Pg | | **Pg** | **04 22 56.3** | **+0.5** |
| AGRB | | | | *e*Sg | | **Sb** | **04 23 09.2** | **+0.5** |
| **CUKT** | **Cukurca** | **1.51** | **170** | *e*PN | | **Pb** | **04 23 07.2** | **-0.5** |
| **CUKT** | **Cukurca** | **1.51** | **170** | *e*Pn | | **Pb** | **04 23 07.2** | **-0.5** |

*IDC **24** 04:49:37.4±2.3, 18˚.96S×168˚.63E, h0km, mb4.0/5, mb1 4.2/6, mb1mx3.9/25, mbtmp4.0/6, ML4.0/1, MS2.8/1, Ms1 2.8/1, ms1mx2.4/28, Error ellipse: s-maj=67.6km s-min=31.5km az=133.0*
*ISCJB **24** 04:49:41.9±1.8, 19˚.4S±0˚.2×168˚.6E±0˚.3, h42km, mb4.0/6, Error ellipse: s-maj=44.5km s-min=14.8km az=28.8*
*NEIC **24** 04:49:42.1±1.6, 19˚.22S×168˚.77E, h35km, mb4.2/1, Error ellipse: s-maj=36.4km s-min=20.9km az=127.0*

**ISC 24 04:49:43.1±2.0, 19˚.4S±0˚.2×168˚.8E±0˚.3, h42km, n8, σ1s78/9, mb4.1/6, Vanuatu Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **DZM** | **Mont Dzumac** | **3.40** | **219** | Pn | | **Pn** | **04 50 34.7** | **+1.0** |
| DZM | 12nm,0.3s,baz=83,slow=16,SNR=290 | | | Sn | | **Sn** | **04 51 10.3** | **-2.5** |
| DZM | 13nm,0.3s,baz=120,slow=23,SNR=8.4 | | | LR | | LR | 04 51 52.9 | |
| **CTA** | comp=Z,117nm,19.7s,baz=9.0,slow=36 **Charters Tower** | **21.18** | **264** | P | | **P** | **04 54 25.8** | **+0.6** |
| **CTAO** | 2.7nm,0.8s,baz=84,slow=11,SNR=3.1 **Charters Tower** | **21.18** | **264** | *e*P | | **P** | **04 54 25.8** | **+0.6** |
| **STKA** | 18nm,0.7s **Stephens Creek** | **27.35** | **238** | P | | **P** | **04 55 26.5** | **+2.2** |
| **BBOO** | 2.3nm,0.5s,baz=63,slow=9.9,SNR=17 **Buckleboo** | **32.09** | **239** | *e*P | | **P** | **04 56 07.8** | **+1.5** |
| **WRA** | 2.5nm,0.6s **Warramunga Arr** | **32.38** | **263** | P | | **P** | **04 56 07.2** | **-1.7** |
| **ASAR** | 0.3nm,0.7s,baz=89,slow=8.2,SNR=4.0 **Alice Springs** | **32.64** | **256** | P | | **P** | **04 56 10.9** | **-0.3** |
| **ILAR** | 4.5nm,0.5s,baz=82,slow=8.5,SNR=100 **Eielson Array** | **90.55** | **17** | P | | **P** | **05 02 39.2** | **-1.0** |
| | 0.9nm,1.0s,baz=207,slow=7.9,SNR=4.2 | | | | | | | |

*ISK **24** 04:51:01.6, 38˚.70N×43˚.19E, h5km, MD2.6*
*CSEM **24** 04:51:02.6±0.3, 38˚.71N×43˚.19E, h5km, MD2.6, Error ellipse: s-maj=6.3km s-min=5.5km az=83.0*
*DDA **24** 04:51:02.4, 38˚.67N×43˚.20E, h7km, Md2.6*

**ISC 24 04:51:02.3±1.0, 38˚.69N±0˚.03×43˚.22E±0˚.03, h14km±9km, n14, σ0s51/26, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **VANB** | **Van** | **0.17** | **126** | *e*PG | | **Pb** | **04 51 07.1** | **-0.2** |
| VANB | | | | *e*SG | | **Sb** | **04 51 11.4** | **+0.7** |
| **VANB** | **Van** | **0.17** | **126** | *e*Pg | | **Pb** | **04 51 07.1** | **-0.2** |
| VANB | | | | *e*Sg | | **Sb** | **04 51 11.4** | **+0.7** |
| **TVAN** | **Van** | **0.22** | **138** | *i* P | | **Pg** | **04 51 06.8** | **-0.5** |
| TVAN | | | | *i* S | | **Sg** | **04 51 11.1** | **+0.4** |
| **TVAN** | **Van** | **0.22** | **138** | P | | **Pg** | **04 51 06.8** | **-0.5** |
| TVAN | | | | S | | **Sg** | **04 51 11.1** | **+0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.40** | **287** | *i* P | | **Pg** | **04 51 10.2** | **-0.2** |
| ADCV | | | | *i* S | | **Sg** | **04 51 17.0** | **+1.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.40** | **287** | P | | **Pg** | **04 51 10.2** | **-0.2** |
| ADCV | | | | S | | **Sg** | **04 51 17.0** | **+1.1** |
| **GEVA** | **Gevas** | **0.40** | **198** | *i* P | | **Pg** | **04 51 10.1** | **-0.3** |
| GEVA | | | | *i* S | | **Sb** | **04 51 17.4** | **0.0** |
| **GEVA** | **Gevas** | **0.40** | **198** | P | | **Pg** | **04 51 10.1** | **-0.3** |
| GEVA | | | | S | | **Sb** | **04 51 17.4** | **0.0** |
| **VMUR** | **Van-Muradiye** | **0.41** | **43** | *i* P | | **Pg** | **04 51 10.6** | **+0.1** |
| VMUR | | | | *i* S | | **Sb** | **04 51 17.8** | **+0.2** |
| **VMUR** | **Van-Muradiye** | **0.41** | **43** | P | | **Pg** | **04 51 10.6** | **+0.1** |
| VMUR | | | | S | | **Sb** | **04 51 17.8** | **+0.2** |
| **CLDR** | **Caldiran** | **0.71** | **50** | *e*PG | | **Pg** | **04 51 15.9** | **-0.3** |
| **CLDR** | **Caldiran** | **0.71** | **50** | *e*Pg | | **Pg** | **04 51 15.9** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **0.90** | **349** | *e*PG | | **Pb** | **04 51 19.1** | **-0.7** |
| AGRB | | | | *e*SG | | **Sg** | **04 51 31.7** | **+0.2** |
| **AGRB** | **Hanur-Agry** | **0.90** | **349** | *e*Pg | | **Pb** | **04 51 19.2** | **-0.7** |
| AGRB | | | | *e*Sg | | **Sg** | **04 51 31.7** | **+0.2** |

*ISCJB **24** 05:06:16.8±0.7, 20˚.8S±0˚.2×179˚.1W±0˚.1, h619km, mb3.6/13, Error ellipse: s-maj=26.5km s-min=11.8km az=157.2*
*IDC **24** 05:06:20.8±1.7, 20˚.85S×179˚.08W, h658km±17km, mb3.2/13, mb1 3.4/14, mb1mx3.3/23, mbtmp4.1/14, Error ellipse: s-maj=27.4km s-min=11.7km az=155.0*

**ISC 24 05:06:17.5±0.7, 20˚.8S±0˚.2×179˚.0W±0˚.1, h619km, n41, σ0s93/45, mb3.6/13, 7C-2D, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **DZM** | **Mont Dzumac** 1.0nm,0.3s,baz=103,slow=15,SNR=7.7 | **13.61** | **262** | P | | **P** | **05 09 13.6** | **+1.5** |
| **STKA** | **Stephens Creek** 0.7nm,0.4s,baz=86,slow=12,SNR=4.2 | **36.80** | **244** | P | | **P** | **05 12 36.1** | **+1.1** |
| **ASAR** | **Alice Springs** 0.8nm,0.8s,baz=99,slow=7.7,SNR=8.9 | **43.53** | **257** | P | | **P** | **05 13 29.4** | **+0.7** |
| ASAR | | | | PcP | | **PcP** | **05 15 01.7** | **-0.4** |
| ASAR | 0.7nm,0.6s,baz=104,slow=3.5,SNR=8.2 | | | ScP | | **ScP** | **05 17 53.0** | **-2.6** |
| ASAR | 0.6nm,0.7s,baz=103,slow=4.2,SNR=6.6 | | | S | | **S** | **05 19 13.2** | **-1.2** |
| **WRA** | 1.3nm,0.9s,baz=93,slow=15,SNR=6.6 **Warramunga Arr** | **43.62** | **263** | P | | **P** | **05 13 29.5** | **+0.1** |
| WRA | 0.4nm,0.3s,baz=97,slow=7.5,SNR=23 | | | S | | **S** | **05 19 13.8** | **-2.0** |
| **MJAR** | 0.9nm,1.0s,baz=97,slow=14,SNR=4.2 **Matsushiro Arr** | **59.93** | **324** | P | | **P** | **05 16 28.5** | **+0.4** |
| **PETK** | 3.2nm,0.7s,baz=153,slow=6.4,SNR=7.3 **Petropavlovsk-** | **76.36** | **346** | P | | **P** | **05 17 04.8** | **+0.6** |
| **USRK** | 4.4nm,0.7s,baz=124,slow=4.5,SNR=6.8 **Ussuriysk Ar.** | **78.72** | **326** | P | | **P** | **05 17 17.6** | **+0.5** |
| **NVAR** | 3.8nm,0.7s,baz=172,slow=3.7,SNR=5.4 **Mina Array Bea** | **81.92** | **44** | P | | **P** | **05 17 35.0** | **+0.8** |
| **TXAR** | 1.0nm,0.6s,baz=228,slow=8.6,SNR=7.9 **Lajitas Array** | **88.03** | **58** | P | | **P** | **05 18 04.4** | **+0.7** |
| **ILAR** | 0.2nm,0.6s,baz=289,slow=3.8,SNR=4.7 **Eielson Array** | **88.85** | **13** | P | | **P** | **05 18 05.8** | **-0.7** |
| **CMAR** | 1.0nm,0.5s,baz=215,slow=5.1,SNR=24 **Chiang Mai Arr** | **89.34** | **290** | P | | **P** | **05 18 10.0** | **+0.1** |
| **PLCA** | 1.8nm,0.7s,baz=121,slow=1.7,SNR=6.8 **Paso Flores** | **89.72** | **134** | P | | **P** | **05 18 11.7** | **+0.3** |
| **PDAR** | 1.9nm,0.8s,baz=308,slow=20,SNR=3.9 **Pinedale Array** | **89.85** | **44** | P | | **P** | **05 18 11.8** | **-0.2** |
| **YKA** | 0.5nm,0.6s,baz=209,slow=4.6,SNR=4.6 **Yellowknife Ar** | **97.21** | **25** | P | | **P** | **05 18 44.7** | **0.0** |
| **BVAR** | 0.1nm,0.6s,baz=245,slow=4.6,SNR=3.2 **Borovoye Array** | **118.73** | **320** | PKP | | **PKPdf** | **05 23 54.9** | **-1.4** |
| **ARCES** | 1.1nm,0.4s,baz=130,slow=1.1,SNR=5.7 **ARCESS Array B** | **129.08** | **349** | PKP | | **PKPdf** | **05 24 14.8** | **-0.9** |
| **FINES** | 4.1nm,0.9s,baz=29,slow=2.8,SNR=6.5 **FINESS Array B** | **135.82** | **343** | PKP | | **PKPdf** | **05 24 29.1** | **+0.6** |
| FINES | 2.7nm,0.8s,baz=55,slow=5.3,SNR=4.1 | | | SKP | | | 05 27 01.4 | |
| **AKASG** | 6.2nm,1.0s,baz=79,slow=3.0,SNR=5.7 **Malin Array Be** | **142.84** | **330** | PKP | | **PKPdf** | **05 24 38.5** | **-3.0** |
| **SORM** | 7.0nm,0.4s,baz=43,slow=4.4,SNR=65 **Soroca** | **144.99** | **328** | P | | **PKPdf** | **05 24 45.8** | **+0.5** |
| **BRTR** | **Keskin Array B** 1.6nm,0.6s,baz=152,slow=5.7,SNR=10 | **146.36** | **311** | PKPbc | | **PKPbc** | **05 24 50.1** | **-0.6** |
| **BURAR** | **Bucovina Array** | **146.88** | **329** | P | | **PKPbc** | **05 24 52.1** | **+0.4** |
| **DOPR** | **Dopca** | **147.95** | **327** | P | | **PKPbc** | **05 24 54.8** | **+0.4** |
| **UPC** | **Upice** | **148.11** | **342** | *e*PKP | | **PKPbc** | **05 24 54.6** | **0.0** |
| **DPC** | **Dobruska-Polom** | **148.15** | **341** | *e*PKP | | **PKPbc** | **05 24 54.4** | **-0.4** |
| DPC | | | | *ex* | | x | 05 25 01.0 | |
| **CLL** | **Collm** | **148.17** | **346** | *i* PKP | | **PKPbc** | **05 24 54.6** | **-0.1** |
| **VOIR** | | **148.49** | **327** | P | | **PKPbc** | **05 24 56.0** | **+0.1** |
| **PVCC** | **Panska Ves** | **148.49** | **343** | *e*PKP | | **PKPbc** | **05 24 55.8** | **+0.2** |
| **DRGR** | | **148.65** | **331** | P | | **PKPbc** | **05 24 55.9** | **-0.3** |
| **ARR** | **Arges** | **148.75** | **327** | P | | **PKPbc** | **05 24 57.5** | **+1.0** |
| **GOPC** | **GO Pecny, Ondr** | **148.99** | **343** | *e*PKP | | **PKPbc** | **05 24 56.9** | **+0.1** |
| **PRU** | **Pruhonice** | **148.99** | **343** | *e*PKP | | **PKPbc** | **05 24 56.7** | **-0.1** |
| **SIRR** | **Siria** | **149.53** | **331** | P | | **PKPbc** | **05 24 58.3** | **+0.1** |
| **KHC** | **Kasperske Hory** | **150.03** | **343** | *e*PKP | | **PKPbc** | **05 24 59.1** | **-0.3** |
| KHC | | | | *ex* | | x | 05 25 08.8 | |
| **BZS** | **Buzias** | **150.04** | **330** | P | | **PKPbc** | **05 24 59.2** | **-0.2** |
| **GERES** | **GERESS Array B** 1.2nm,0.6s,baz=134,slow=3.9,SNR=7.0 | **150.26** | **343** | PKPbc | | **PKPbc** | **05 24 59.2** | **-0.8** |
| **CONA** | **Conrad Observa** 2.3nm,0.6s | **150.43** | **340** | *e*PKPbc | | **PKPbc** | **05 25 00.1** | **-0.3** |
| **MDVR** | **Moldovita** | **150.61** | **329** | P | | **PKPbc** | **05 25 00.0** | **-0.9** |
| **MOA** | **Molln** 1.1nm,0.5s | **151.00** | **341** | *i* PKPbc | | **PKPbc** | **05 25 00.9** | **-0.7** |
| **RETA** | **Reutte** 0.7nm,0.3s | **152.26** | **346** | *i* PKPab | | **PKPab** | **05 25 17.6** | **+0.1** |
| **MYKA** | **Terra Mystica** 0.9nm,0.3s | **152.28** | **341** | *e*PKPdf | | **PKPdf** | **05 24 57.3** | **+0.1** |
| **ABTA** | **Abfaltersbach** 2.8nm,0.6s | **152.50** | **343** | *e*PKPbc | | **PKPbc** | **05 25 04.1** | **-1.0** |

*NNC **24** 05:07:40.1±5.2, 38˚.84N×75˚.78E, h0km, mb4.3, mpv3.9, Error ellipse: s-maj=40.2km s-min=28.1km az=161.0*
*BJI **24** 05:07:42.6, 39˚.07N×75˚.79E, h9km, ML3.6/4*
*SOME **24** 05:07:44.7, 39˚.23N×75˚.90E, h15km*
*KRNET **24** 05:07:44.5±0.1, 38˚.93N×75˚.81E, mb3.7*

**ISC 24 05:07:45.5±1.9, 39˚.16N±0˚.09×75˚.70E±0˚.04, h10km, n40, σ2s81/65, 33C-4D, Southern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **KSH** | **Kashi** | **0.42** | **31** | Pg | | **Pg** | 05 07 46.9 | -6.8 |
| KSH | | | | Sg | | **Sg** | **05 07 50.8** | **-8.5** |
| KSH | comp=N,12μm,0.4s | | | smax | | smax | | |
| KSH | comp=E,8μm,0.9s | | | smax | | smax | | |
| **SFK** | **Sufi-Kurgan** baz=302 | **1.90** | **297** | P | | **Pb** | **05 08 19.4** | **-1.0** |
| SFK | baz=302 | | | *i* S | | **Sb** | **05 08 44.8** | **+0.5** |
| **SFK** | **Sufi-Kurgan** 74nm,0.4s | **1.90** | **297** | Pg | | **Pb** | **05 08 19.1** | **-1.3** |
| SFK | 567nm,0.5s | | | Lg | | Lg | 05 08 49.2 | |
| **KZA** | **Kyzart** baz=352 | **2.94** | **353** | *i* P | | **Pb** | **05 08 34.6** | **-3.6** |
| KZA | baz=352 | | | *i* S | | **Sn** | **05 09 10.4** | **+2.2** |
| **KZA** | **Kyzart** SNR=6.4 | **2.94** | **353** | P | | **Pn** | **05 08 33.2** | **+0.6** |
| **ARSB** | **Arslanbob** baz=319 | **3.00** | **317** | *e*P | | **Pb** | **05 08 35.2** | **-3.9** |
| ARSB | | | | *i* S | | **Sn** | **05 09 11.9** | **+2.5** |
| | baz=319 | | | | | | | |
| **ULHL** | **Ulahol** baz=5.0 | **3.11** | **7** | *i* P | | **Pn** | **05 08 36.0** | **+1.2** |
| ULHL | baz=5.0 | | | *i* S | | **Sn** | **05 09 13.5** | **+1.3** |
| **ULHL** | **Ulahol** SNR=27 | **3.11** | **7** | P | | **Pb** | **05 08 39.0** | **-2.0** |
| **UCH** | **Uchtor** baz=344 | **3.20** | **344** | *i* P | | **Pn** | **05 08 37.9** | **+1.7** |
| UCH | baz=344 | | | *i* S | | **Sn** | **05 09 16.9** | **+2.3** |
| **UCH** | **Uchtor** SNR=12 | **3.20** | **344** | P | | **Pn** | **05 08 36.8** | **+0.5** |
| **BOOM** | **Boomskoye usch** baz=2.0 | **3.33** | **3** | *e*P | | **Pn** | **05 08 39.3** | **+1.4** |
| BOOM | baz=2.0 | | | *e*S | | **Sn** | **05 09 19.2** | **+1.6** |
| **AML** | **Almayashu** baz=334 | **3.34** | **333** | *i* P | | **Pn** | **05 08 40.2** | **+2.1** |
| AML | baz=334 | | | *i* S | | **Sn** | **05 09 20.6** | **+2.6** |
| **AML** | **Almayashu** SNR=11 | **3.34** | **333** | P | | **Pn** | **05 08 39.2** | **+1.1** |
| **KBK** | **Karagaybulak** baz=350 | **3.54** | **351** | *i* P | | **Pn** | **05 08 42.1** | **+1.4** |
| KBK | baz=350 | | | *i* S | | **Sn** | **05 09 24.8** | **+2.1** |
| **KBK** | **Karagaybulak** SNR=35 | **3.54** | **351** | P | | **Pb** | **05 08 47.8** | **-0.5** |
| **AAK** | **Ala-Archa** baz=345 | **3.59** | **346** | *i* P | | **Pn** | **05 08 42.7** | **+1.2** |
| AAK | baz=345 | | | *i* S | | **Sn** | **05 09 25.9** | **+1.9** |
| **AAK** | **Ala-Archa** 47nm,0.8s | **3.59** | **346** | Pn | | **Pn** | **05 08 42.6** | **+1.2** |
| AAK | 117nm,1.3s | | | Lg | | Lg | 05 09 43.1 | |
| **AAK** | **Ala-Archa** SNR=9.8 | **3.59** | **346** | P | | **Pn** | **05 08 42.6** | **+1.1** |
| **TKM2** | **Tokmak 2** 15nm,0.4s | **3.76** | **359** | Pg | | **Pb** | **05 08 53.0** | **+1.0** |
| TKM2 | 75nm,0.8s | | | Lg | | Lg | 05 09 47.8 | |
| **TKM2** | **Tokmak 2** SNR=7.3 | **3.76** | **359** | P | | **Pb** | **05 08 50.6** | **-1.5** |
| **EKS2** | **Erkin-Say** baz=338 | **3.79** | **338** | *e*P | | **Pn** | **05 08 45.9** | **+1.8** |
| EKS2 | baz=338 | | | *i* S | | **Sn** | **05 09 30.7** | **+1.9** |
| **ARK** | **Arkit** baz=315 | **3.88** | **314** | *e*P | | **Pn** | **05 08 46.6** | **+1.3** |
| ARK | baz=315 | | | *i* S | | **Sn** | **05 09 31.8** | **+0.8** |
| **KST** | **Kastek** 13nm,0.5s | **3.89** | **3** | *e*P | | **Pb** | **05 08 54.1** | **-0.1** |
| KST | 37nm,0.6s | | | *e*S | | **Sb** | **05 09 44.3** | **+3.0** |
| **CHMS** | **Chumysh** baz=349 | **3.91** | **350** | *i* P | | **Pn** | **05 08 47.3** | **+1.8** |
| CHMS | baz=349 | | | *i* S | | **Sn** | **05 09 33.0** | **+1.5** |
| **CHMS** | **Chumysh** SNR=6.4 | **3.91** | **350** | P | | **Pb** | **05 08 54.8** | **+0.4** |
| **IZV** | **Izvestkoviy** 36nm,0.5s | **3.94** | **10** | *e*P | | **Pb** | **05 08 55.3** | **+0.3** |
| IZV | 47nm,0.7s | | | *e*S | | **Sb** | **05 09 46.5** | **+3.7** |
| **TNSS** | **Tian-Shan** 41nm,0.6s | **3.99** | **13** | *e*P | | **Pb** | **05 08 57.0** | **+0.8** |
| TNSS | 58nm,0.8s | | | *e*S | | **Sg** | **05 09 48.9** | **-4.7** |
| **MTBS** | **Maitube** 27nm,0.5s | **4.01** | **8** | *e*P | | **Pb** | **05 08 56.5** | **+0.3** |
| MTBS | 22nm,0.2s | | | *e*S | | **Sb** | **05 09 47.7** | **+3.0** |
| **MRKS** | **Merke** 22nm,0.4s | **4.04** | **333** | *e*P | | **Pb** | **05 08 58.3** | **+1.4** |
| MRKS | 16nm,0.5s | | | *e*S | | **Sg** | **05 09 52.1** | **-3.2** |
| **DGS** | **Degeres** 43nm,0.5s | **4.08** | **1** | *e*P | | **Pb** | **05 08 58.7** | **+1.2** |
| DGS | 19nm,0.5s | | | *e*S | | **Sg** | **05 09 52.0** | **-4.5** |
| **MNAS** | **Manas** baz=326 | **4.12** | **325** | *i* P | | **Pn** | **05 08 50.0** | **+1.4** |
| MNAS | baz=326 | | | *i* S | | **Sn** | **05 09 38.1** | **+1.3** |
| **MNAS** | **Manas** 6.7nm,0.5s | **4.12** | **325** | Pg | | **Pb** | **05 08 59.2** | **+1.1** |
| MNAS | 45nm,0.8s | | | Lg | | Lg | 05 09 58.7 | |
| **MDOK** | **Medeo** 22nm,0.9s | **4.13** | **14** | *e*P | | **Pb** | **05 08 59.2** | **+0.9** |
| MDOK | 47nm,0.7s | | | *e*S | | **Sg** | **05 09 53.2** | **-4.9** |
| **USP** | **Ospenovka** baz=348 | **4.21** | **348** | *i* P | | **Pn** | **05 08 51.5** | **+1.8** |
| USP | baz=348 | | | *i* S | | **Sn** | **05 09 40.2** | **+1.3** |
| **KURS** | **Kuram** 4.2nm,0.8s | **4.71** | **22** | *e*P | | **Pb** | **05 09 08.6** | **+0.4** |
| KURS | 40nm,1.1s | | | *

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **GBOS** | **Grotte di Boss** | **0.99** | **345** | Pg | **Pn** | **05 37 06.8** | **+1.2** |
| GBOS | | | | Sg | **Sg** | **05 37 18.6** | **-0.3** |
| | 25nm,0.2s | | | | | | |
| **ENR** | **Entracque** | **1.10** | **329** | Pg | **Pg** | **05 37 08.4** | **+0.6** |
| | 44nm,0.1s | | | | | | |
| **ENR** | **Entracque** | **1.10** | **329** | Pg | **Pg** | **05 37 08.4** | **+0.6** |
| | 44nm,0.1s | | | | | | |
| ENR | | | | S | **Sb** | **05 37 21.3** | **+0.2** |
| **STV** | **Sant Anna di V** | **1.15** | **327** | P | **Pg** | **05 37 09.2** | **+0.4** |
| STV | | | | S | **Sb** | **05 37 22.7** | **+0.1** |
| **FRF** | **La Foret Royal** | **1.16** | **284** | *e*Pn | **Pg** | **05 37 09.0** | **0.0** |
| | SNR=1.0 | | | | | | |
| FRF | | | | *e*Sn | **Sn** | **05 37 22.9** | **-0.4** |
| | 14nm,0.2s,SNR=1.0 | | | | | | |
| **FRF** | **La Foret Royal** | **1.16** | **284** | *e*Pn | **Pg** | **05 37 09.0** | **0.0** |
| | SNR=1.0 | | | | | | |
| FRF | | | | *e*Sn | **Sn** | **05 37 22.9** | **-0.4** |
| | 7.2nm,0.2s,SNR=1.0 | | | | | | |
| **LMR** | **La Mourre** | **1.23** | **273** | *e*Pn | **Pg** | **05 37 10.1** | **-0.2** |
| | SNR=1.0 | | | | | | |
| LMR | | | | *e*Sn | **Sn** | **05 37 24.7** | **-0.3** |
| | 14nm,0.2s,SNR=1.0 | | | | | | |
| **LMR** | **La Mourre** | **1.23** | **273** | *e*Pn | **Pg** | **05 37 10.1** | **-0.2** |
| | SNR=1.0 | | | | | | |
| LMR | | | | *e*Sn | **Sn** | **05 37 24.7** | **-0.3** |
| | 6.8nm,0.2s,SNR=1.0 | | | | | | |
| **PZZ** | **Stroppo** | **1.45** | **328** | P | **Pg** | **05 37 13.7** | **-0.8** |
| **SC2M** | **Scurtabo** | **1.48** | **40** | P | **Pb** | **05 37 13.4** | **-0.1** |
| SC2M | | | | S | **Sn** | **05 37 30.0** | **-1.3** |
| **BHB** | **Bricherasio** | **1.70** | **337** | P | **Pb** | **05 37 16.3** | **-0.9** |
| **MBDF** | **Montbardon** | **1.77** | **325** | *e*Pn | **Pb** | **05 37 18.2** | **-0.4** |
| | SNR=1.0 | | | | | | |
| MBDF | | | | *e*Sn | **Sn** | **05 37 39.3** | **+0.7** |
| | 6.0nm,0.2s,SNR=1.0 | | | | | | |
| **MBDF** | **Montbardon** | **1.77** | **325** | *e*Pn | **Pb** | **05 37 18.2** | **-0.4** |
| | SNR=1.0 | | | | | | |
| MBDF | | | | *e*Sn | **Sn** | **05 37 39.3** | **+0.7** |
| | 3.0nm,0.2s,SNR=1.0 | | | | | | |
| **SMRF** | **Simiane la Rot** | **2.03** | **291** | *e*Pn | **Pb** | **05 37 20.9** | **-1.9** |
| | SNR=1.0 | | | | | | |
| **SMRF** | **Simiane la Rot** | **2.03** | **291** | *e*Pg | **Pg** | **05 37 26.2** | **+0.8** |
| SMRF | | | | *e*Sn | **Sn** | **05 37 45.3** | **+0.6** |
| | 4.9nm,0.3s | | | | | | |
| **SMRF** | **Simiane la Rot** | **2.03** | **291** | *e*Pn | **Pb** | **05 37 20.9** | **-1.9** |
| | SNR=1.0 | | | | | | |
| **SMRF** | **Simiane la Rot** | **2.03** | **291** | *e*Pg | **Pg** | **05 37 26.2** | **+0.8** |
| SMRF | | | | *e*Sn | **Sn** | **05 37 45.3** | **+0.6** |
| | 2.5nm,0.3s | | | | | | |
| **ORIF** | **Oris-en-Rattie** | **2.34** | **315** | *e*P | **Pb** | **05 37 27.8** | **-0.3** |
| | SNR=1.0 | | | | | | |
| **ORIF** | **Oris-en-Rattie** | **2.34** | **315** | *e*Pg | **Pg** | **05 37 31.3** | **0.0** |
| ORIF | | | | *e*Sg | **Sg** | **05 38 01.6** | **-0.1** |
| | 3.6nm,0.3s,SNR=1.0 | | | | | | |
| **ORIF** | **Oris-en-Rattie** | **2.34** | **315** | *e*P | **Pb** | **05 37 27.8** | **-0.3** |
| | SNR=1.0 | | | | | | |
| **ORIF** | **Oris-en-Rattie** | **2.34** | **315** | *e*Pg | **Pg** | **05 37 31.3** | **0.0** |
| ORIF | | | | *e*Sg | **Sg** | **05 38 01.6** | **-0.1** |
| | 1.8nm,0.3s,SNR=1.0 | | | | | | |
| **LPG** | **La Plagne** | **2.45** | **335** | *e*Pn | **Pn** | **05 37 26.1** | **+0.3** |
| **LPG** | **La Plagne** | **2.45** | **335** | *e*Pg | **Pg** | **05 37 33.4** | **0.0** |
| LPG | | | | *e*Sn | **Sn** | **05 37 54.7** | **-0.7** |
| | 2.6nm,0.3s | | | | | | |
| LPG | | | | *e*Sg | **Sg** | **05 38 05.0** | **-0.2** |
| | 1.1nm,0.2s | | | | | | |
| **LPG** | **La Plagne** | **2.45** | **335** | *e*Pn | **Pn** | **05 37 26.1** | **+0.3** |
| **LPG** | **La Plagne** | **2.45** | **335** | *e*Pg | **Pg** | **05 37 33.4** | **0.0** |
| LPG | | | | *e*Sn | **Sn** | **05 37 54.7** | **-0.7** |
| | 1.3nm,0.3s | | | | | | |
| LPG | | | | *e*Sg | **Sg** | **05 38 05.0** | **-0.2** |
| | 0.6nm,0.2s | | | | | | |
| **LPL** | **La Plagne** | **2.47** | **335** | *e*P | **Pb** | **05 37 29.7** | **-0.8** |
| | SNR=1.0 | | | | | | |
| LPL | | | | *e*Sn | **Sn** | **05 37 54.7** | **-1.2** |
| | 1.8nm,0.3s | | | | | | |
| **LPL** | **La Plagne** | **2.47** | **335** | *e*P | **Pb** | **05 37 29.7** | **-0.8** |
| | SNR=1.0 | | | | | | |
| LPL | | | | *e*Sn | **Sn** | **05 37 54.7** | **-1.2** |
| | 0.9nm,0.3s | | | | | | |
| **VIVF** | **Saint-Julien-l** | **2.99** | **303** | *e*Pn | **Pn** | **05 37 35.0** | **+2.0** |
| | SNR=1.0 | | | | | | |
| **VIVF** | **Saint-Julien-l** | **2.99** | **303** | *e*Pg | **Pg** | **05 37 41.9** | **-1.9** |
| VIVF | | | | *e*Sn | **Sn** | **05 38 07.2** | **-1.2** |
| | 1.5nm,0.2s,SNR=1.0 | | | | | | |
| **VIVF** | **Saint-Julien-l** | **2.99** | **303** | *e*Pn | **Pn** | **05 37 35.0** | **+2.0** |
| | SNR=1.0 | | | | | | |
| **VIVF** | **Saint-Julien-l** | **2.99** | **303** | *e*Pg | **Pg** | **05 37 41.9** | **-1.9** |
| VIVF | | | | *e*Sn | **Sn** | **05 38 07.2** | **-1.2** |
| | 0.8nm,0.2s,SNR=1.0 | | | | | | |
| **LASF** | **Ste Croix** | **3.25** | **286** | *e*Pn | **Pn** | **05 37 38.1** | **+1.5** |
| | SNR=1.0 | | | | | | |
| LASF | | | | *e*Sn | **Sn** | **05 38 13.6** | **-1.2** |
| | 2.1nm,0.2s,SNR=1.0 | | | | | | |
| **LASF** | **Ste Croix** | **3.25** | **286** | *e*Pn | **Pn** | **05 37 38.1** | **+1.5** |
| | SNR=1.0 | | | | | | |
| LASF | | | | *e*Sn | **Sn** | **05 38 13.6** | **-1.2** |
| | 1.0nm,0.2s,SNR=1.0 | | | | | | |
| **MTLF** | **Montolieu** | **4.36** | **273** | *e*Pn | **Pn** | **05 37 53.3** | **+1.4** |
| | SNR=1.0 | | | | | | |
| MTLF | | | | *e*Sn | **Sn** | **05 38 41.4** | **-0.9** |
| | 0.9nm,0.3s | | | | | | |
| **MTLF** | **Montolieu** | **4.36** | **273** | *e*Pn | **Pn** | **05 37 53.3** | **+1.4** |
| | SNR=1.0 | | | | | | |
| MTLF | | | | *e*Sn | **Sn** | **05 38 41.4** | **-0.9** |
| | 0.4nm,0.3s | | | | | | |
| **CAF** | **Calviac** | **4.71** | **293** | *e*Pn | **Pn** | **05 37 58.8** | **+2.1** |
| **CAF** | **Calviac** | **4.71** | **293** | *e*Pn | **Pn** | **05 37 58.8** | **+2.1** |

**MEX 24 05:41:39.9±0.3, 30°51'N×114°11'W, h16km±33km, MD3.6, Gulf of California**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SPIG** | **San Pedro Mart** | **1.29** | **295** | *e*P | Pn | 05 41 59.7 | -3.8 |
| SPIG | | | | *i* S | Sb | 05 42 15.6 | -4.8 |
| **CBX** | **Cerro Bola** | **2.83** | **310** | *e*P | Pn | 05 42 21.7 | -2.9 |
| CBX | | | | *e*S | Sn | 05 42 54.2 | -4.2 |
| **TJIG** | **Tijuana** | **2.91** | **312** | *e*P | Pn | 05 42 23.2 | -2.4 |
| TJIG | | | | *e*S | Sn | 05 42 56.3 | -4.0 |

**NNC 24 05:44:45.5±8.1, 37°51'N×71°68'E, h0km, mb3.7, mpv3.3, 5C-3D, Error ellipse: s-maj=71.6km s-min=24.6km az=163.0, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZET** | **Dzherino** | **2.59** | **301** | ⇑Pn | Pn | 05 45 28.6 | -0.3 |
| | 2.7nm,0.4s | | | | | | |
| DZET | | | | ⇑Sn | Sb | 05 46 03.4 | -2.0 |
| | 55nm,0.6s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **2.88** | **29** | ⇑Pn | Pn | 05 45 32.3 | -0.6 |
| | 12nm,0.3s | | | | | | |
| SFK | | | | ⇓Sn | Sn | 05 46 10.8 | +2.5 |
| | 9.9nm,0.2s | | | | | | |
| **MNAS** | **Manas** | **5.01** | **7** | ⇑Pn | Pn | 05 46 00.2 | -1.9 |
| | 2.1nm,0.3s | | | | | | |
| MNAS | | | | ⇓Sn | Sn | 05 46 59.6 | -1.2 |
| | 10.0nm,0.8s | | | | | | |
| **KK31** | **Karatay Array** | **5.66** | **351** | ⇑Pn | Pn | 05 46 09.0 | -1.9 |
| | 0.8nm,0.4s,baz=177,slow=14,SNR=16 | | | | | | |
| KK31 | | | | ⇓Sn | Sn | 05 47 16.4 | -0.1 |
| | 12nm,0.4s,baz=183,slow=26,SNR=54 | | | | | | |

**WEL 24 05:47:28.3±0.1, 43°48'S×172°75'E, h6km, ML3.6/14, 7C-3D, Error ellipse: s-maj=1.4km s-min=0.7km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.13** | **226** | ⇓PG | Pg | 05 47 31.3 | +0.3 |
| CRLZ | | | | SG | Sg | 05 47 33.5 | +0.6 |
| CRLZ | | | | AML | AML | 05 47 35.6 | |
| **MQZ** | **McQueen's Vall** | **0.23** | **198** | ⇑PG | Pg | 05 47 32.9 | -0.1 |
| MQZ | | | | SG | Sg | 05 47 36.4 | +0.3 |
| MQZ | | | | AML | AML | 05 47 36.6 | |
| **OXZ** | **Oxford** | **0.55** | **286** | ⇑P* | Pg | 05 47 39.0 | +0.1 |
| OXZ | | | | *e*SG | Sg | 05 47 46.9 | +1.0 |
| OXZ | | | | AML | AML | 05 47 48.8 | |
| OXZ | | | | AML | AML | 05 47 49.1 | |
| OXZ | | | | AML | AML | 05 47 49.1 | |
| **LTZ** | **Lake Taylor** | **0.79** | **333** | ⇓P* | Pg | 05 47 43.8 | +0.5 |
| LTZ | | | | *e*S* | Sb | 05 47 54.8 | -0.5 |
| **KHZ** | **Kahutara** | **1.21** | **29** | ⇑P* | Pg | 05 47 50.1 | -1.5 |
| KHZ | | | | AML | AML | 05 48 14.9 | |
| KHZ | | | | AML | AML | 05 48 16.7 | |
| **INZ** | **Inchbonnie** | **1.22** | **308** | ⇓P* | Pg | 05 47 50.4 | -1.4 |
| **RPZ** | **Rata Peaks** | **1.26** | **259** | ⇑P* | Pg | 05 47 51.0 | -1.5 |
| RPZ | | | | AML | AML | 05 48 11.5 | |
| RPZ | | | | AML | AML | 05 48 11.7 | |
| **WVZ** | **Waitaha Valley** | **1.53** | **285** | PN | Pn | 05 47 55.7 | -0.4 |
| WVZ | | | | AML | AML | 05 48 23.6 | |
| **THZ** | **Tophouse** | **1.72** | **4** | PN | Pn | 05 47 57.5 | -1.4 |
| THZ | | | | AML | AML | 05 48 30.2 | |
| THZ | | | | AML | AML | 05 48 34.2 | |
| **DSZ** | **Denniston Nort** | **1.87** | **338** | PN | Pn | 05 48 00.1 | -0.9 |
| DSZ | | | | AML | AML | 05 48 34.6 | |
| DSZ | | | | AML | AML | 05 48 34.6 | |
| DSZ | | | | AML | AML | 05 48 36.1 | |
| DSZ | | | | AML | AML | 05 48 36.1 | |
| **BSWZ** | **Blackbirch Sta** | **1.95** | **25** | PN | Pn | 05 48 00.6 | -1.4 |
| **LBZ** | **Lake Benmore** | **2.06** | **243** | PN | Pn | 05 48 02.4 | -1.2 |
| LBZ | | | | AML | AML | 05 48 39.2 | |
| LBZ | | | | AML | AML | 05 48 41.2 | |
| LBZ | | | | AML | AML | 05 48 43.7 | |
| **FOZ** | **Fox Glacier** | **2.14** | **268** | PN | Pn | 05 48 04.8 | +0.3 |
| **ODZ** | **Otahua Downs** | **2.17** | **223** | ⇑PN | Pn | 05 48 03.3 | -1.7 |
| ODZ | | | | AML | AML | 05 48 37.3 | |
| ODZ | | | | AML | AML | 05 48 47.3 | |
| ODZ | | | | AML | AML | 05 48 47.3 | |
| ODZ | | | | AML | AML | 05 48 48.4 | |
| **NNZ** | **Nelson** | **2.31** | **12** | PN | Pn | 05 48 06.0 | -0.9 |
| **QRZ** | **Quartz Range** | **2.66** | **356** | PN | Pn | 05 48 11.5 | -0.2 |
| **DUWZ** | **D'Urville Isla** | **2.82** | **18** | PN | Pn | 05 48 13.0 | -0.8 |
| **HHSZ** | **Highcliff Hill** | **2.85** | **212** | PN | Pn | 05 48 12.4 | -2.0 |
| **CAW** | **Cannon Point** | **2.93** | **37** | PN | Pn | 05 48 13.4 | -2.0 |
| **JCZ** | **Jackson Bay** | **2.93** | **257** | PN | Pn | 05 48 14.8 | -0.8 |
| JCZ | | | | AML | AML | 05 49 13.5 | |
| **WKZ** | **Wanaka** | **3.01** | **242** | PN | Pn | 05 48 15.0 | -1.5 |
| **EAZ** | **Earnscleugh** | **3.03** | **234** | ⇑PN | Pn | 05 48 15.2 | -1.6 |
| EAZ | | | | AML | AML | 05 49 09.1 | |
| EAZ | | | | AML | AML | 05 49 10.1 | |
| **TUZ** | **Tuapeka** | **3.33** | **221** | ⇑PN | Pn | 05 48 19.2 | -1.7 |
| TUZ | | | | AML | AML | 05 49 23.0 | |
| TUZ | | | | AML | AML | 05 49 23.1 | |
| TUZ | | | | AML | AML | 05 49 23.3 | |
| **MLZ** | **Mavora Lakes** | **3.82** | **239** | PN | Pn | 05 48 25.7 | -2.0 |
| **BFZ** | **Birch Farm** | **3.82** | **44** | PN | Pn | 05 48 24.7 | -3.0 |
| **SYZ** | **Scrubby Hill** | **3.99** | **219** | PN | Pn | 05 48 28.5 | -1.4 |
| **WHZ** | **Wether Hill Ro** | **4.19** | **233** | PN | Pn | 05 48 30.1 | -2.6 |
| **DCZ** | **Deep Cove** | **4.47** | **242** | PN | Pn | 05 48 34.4 | -2.2 |
| **WNVZ** | **Wahianoa** | **4.67** | **28** | PN | Pn | 05 48 39.2 | -0.3 |
| **APZ** | **The Paps** | **4.75** | **224** | PN | Pn | 05 48 38.3 | -2.1 |
| **OTVZ** | **Oturere** | **4.84** | **28** | PN | Pn | 05 48 41.1 | -0.7 |
| **HIZ** | **Hauiti** | **5.21** | **18** | PN | Pn | 05 48 46.4 | -0.4 |

*NIED **24** 06:14:00, 37°.00N×140°.60E, h8km, Mw4.0 Best double couple: M0 1.17000×10^15 NP1:φs283.00000°, δ45.00000°, λ-115.00000°. NP2:φs137.00000°, δ50.00000°, λ-67.00000°.*
*ISCJB **24** 06:14:38.3±0.4, 37°.01N±0°.02×140°.66E±0°.04, h20km±3km, mb4.0/24, Error ellipse: s-maj=5.3km s-min=3.7km az=24.2*
*JMA **24** 06:14:38.5, 37°.01N×140°.58E, h9km±1km, M4.0 Broadband fault plane solution: P waves. NP1: φs297.00000°, δ54.00000°, λ-108.00000°. NP2: φs146.00000°, δ40.00000°, λ-67.00000°. Principal axes: T Plg7.0000°, Azm40.0000°; N Plg14.0000°, Azm308.0000°; P Plg74.0000°, Azm156.0000°;*
*JMA Felt III J1.*
*NEIC **24** 06:14:43.7±0.7, 36°.98N×140°.48E, h51km±5km, mb4.4/8 Error ellipse: s-maj=7.0km s-min=5.1km az=128.0*
*NEIC Recorded [3 JMA] in Fukushima.*
*IDC **24** 06:14:43.5±1.7, 36°.99N×140°.46E, h49km±17km, mb3.6/18, mb1 3.9/21, mb1mx3.8/41, mbtmp3.9/21, ML3.9/2, MS2.6/1, Ms1 2.6/1, ms1mx2.4/32, Error ellipse: s-maj=17.8km s-min=11.9km az=82.0*

**ISC 24 06:14:38.1±1.1, 36°.98N±0°.03×140°.56E±0°.03, h8km±7km, n71, σ1s10/76, mb4.0/24, 8C, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ONAJ** | **Iwakimizuishiy** | **0.23** | **57** | ⇑P | **Pg** | **06 14 42.6** | **-0.1** |
| ONAJ | | | | *e*S | **Sg** | **06 14 45.8** | **0.0** |
| **JHO** | **Hitachi** | **0.36** | **179** | ⇑P | **Pb** | **06 14 46.2** | **-0.6** |
| JHO | | | | S | **Sb** | **06 14 52.0** | **-0.7** |
| **JFK** | **Kawauchi** | **0.46** | **33** | ⇑P | **Pg** | **06 14 46.6** | **-0.5** |
| JFK | | | | S | **Sg** | **06 14 52.5** | **-0.7** |
| **JSB** | **Shiboa** | **0.51** | **269** | ⇑P | **Pb** | **06 14 49.4** | **0.0** |
| JSB | | | | S | **Sb** | **06 14 57.1** | **+0.1** |
| **JFT** | **Otama** | **0.57** | **342** | ⇑P | **Pg** | **06 14 49.1** | **0.0** |
| JFT | | | | S | **Sg** | **06 14 56.5** | **-0.1** |
| **JYT** | **Yasato** | **0.80** | **202** | ⇑P | **Pb** | **06 14 54.1** | **-0.2** |
| JYT | | | | S | **Sn** | **06 15 05.4** | **-2.4** |
| **JFY** | **Yanaizu** | **0.81** | **302** | ⇑P | **Pb** | **06 14 53.9** | **-0.5** |
| JFY | | | | S | **Sg** | **06 15 04.2** | **+0.1** |
| **JMM** | **Marumori** | **0.91** | **12** | ⇑P | **Pg** | **06 14 54.4** | **-1.1** |
| JMM | | | | S | **Sg** | **06 15 06.0** | **-1.3** |
| **MJAR** | **Matsushiro Arr** | **1.94** | **258** | P | **Pb** | **06 15 12.5** | **-1.2** |
| | 64nm,0.3s,baz=78,slow=15,SNR=115 | | | | | | |
| MJAR | | | | S | **Sg** | **06 15 40.0** | **-0.3** |
| | 59nm,0.3s,baz=97,slow=25,SNR=22 | | | | | | |
| **MAJO** | **Matsushiro** | **1.94** | **258** | *e*Pn | **Pb** | **06 15 13.1** | **-0.6** |
| MAJO | | | | *e*Sn | **Sg** | **06 15 40.9** | **+0.5** |
| **MAT** | **Matsushiro** | **1.94** | **258** | P | **Pb** | **06 15 12.9** | **-0.8** |
| MAT | | | | S | **Sg** | **06 15 40.1** | **-0.3** |
| **MJB9** | **Matsu-Tunnel** | **1.94** | **258** | *e*Pn | **Pb** | **06 15 13.2** | **-0.5** |
| MJB9 | | | | *e*Sn | **Sg** | **06 15 40.9** | **+0.5** |
| **INU** | **Inuyama** | **3.29** | **242** | *e*Pn | **Pb** | **06 15 33.8** | **-3.0** |
| **JHJ** | **Hachijo jima 2** | **3.90** | **190** | P | **Pn** | **06 15 40.2** | **+1.9** |
| | 12nm,0.3s,baz=255,slow=23,SNR=3.0 | | | | | | |
| JHJ | | | | S | **Sn** | **06 16 26.6** | **+2.3** |
| | 11nm,0.3s,baz=150,slow=23,SNR=3.2 | | | | | | |
| **ERM** | **Erimo** | **5.42** | **21** | *e*Pn | **Pn** | **06 16 03.4** | **+4.2** |
| **ASAJ** | **Asahikawa** | **7.30** | **12** | P | **Pn** | **06 16 26.0** | **+1.0** |
| | 2.6nm,0.3s,baz=233,slow=14,SNR=6.2 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **9.72** | **321** | P | **Pn** | **06 17 01.4** | **+3.2** |
| | 0.2nm,0.3s,baz=135,slow=43,SNR=2.9 | | | | | | |
| **KSRS** | **Korea Array** | **10.09** | **277** | P | Pn | 06 17 09.6 | +6.3 |
| | 0.2nm,0.3s,baz=95,slow=29,SNR=3.4 | | | | | | |
| KSRS | | | | LR | LR | 06 20 48.8 | |
| | comp=Z,38nm,20.6s,baz=44,slow=36 | | | | | | |
| **KSAR** | **Wonju Array Be** | **10.12** | **276** | P | Pn | 06 17 09.6 | +5.9 |
| **SONA1** | **Songino Array** | **27.25** | **304** | *e*P | **P** | **06 20 22.9** | **+0.1** |
| **SONA0** | **Songino Array** | **27.25** | **304** | *e*P | **P** | **06 20 22.6** | **-0.2** |
| **SONM** | **Songino Array** | **27.25** | **304** | P | **P** | **06 20 22.6** | **-0.2** |
| | 1.4nm,0.9s,baz=109,slow=9.0,SNR=9.0 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.71** | **120** | T | T | 06 50 27.1 | |
| | baz=313,slow=75,SNR=119 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.72** | **120** | T | T | 06 50 21.6 | |
| | baz=313,slow=75,SNR=122 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.73** | **120** | T | T | 06 50 25.0 | |
| | baz=313,slow=75,SNR=106 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.41** | **122** | T | T | 06 51 15.9 | |
| | baz=314,slow=76,SNR=207 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.41** | **122** | T | T | 06 51 16.1 | |
| | baz=314,slow=76,SNR=114 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.42** | **122** | T | T | 06 51 17.6 | |
| | baz=314,slow=76,SNR=71 | | | | | | |
| **TIXI** | **Tiksi** | **35.27** | **354** | *e*P | **P** | **06 21 34.0** | **+1.1** |
| | 6.9nm,0.4s | | | | | | |
| **GAMB** | **Gambell** | **39.12** | **31** | *e*P | **P** | **06 22 06.0** | **+0.4** |
| | 5.5nm,1.2s | | | | | | |
| **ZAA1** | **Zalesovo Array** | **41.45** | **312** | *e*P | **P** | **06 22 25.3** | **+0.2** |
| **ZALV** | **Zalesovo Beam** | **41.45** | **312** | P | **P** | **06 22 25.3** | **+0.2** |
| | 0.7nm,0.5s,baz=109,slow=5.1,SNR=3.8 | | | | | | |
| **MK01** | **Makanchi Array** | **43.57** | **302** | *e*P | **P** | **06 22 42.2** | **-0.2** |
| **MK31** | **Makanchi Array** | **43.57** | **302** | *e*P | **P** | **06 22 42.5** | **0.0** |
| **MK32** | **Makanchi Array** | **43.57** | **302** | *e*P | **P** | **06 22 42.3** | **-0.2** |
| **MKAR** | **Makanchi Array** | **43.57** | **302** | P | **P** | **06 22 42.3** | **-0.2** |
| | 0.5nm,0.7s,baz=87,slow=11,SNR=4.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.57** | **302** | *e*P | **P** | **06 22 42.5** | **0.0** |
| | 8.8nm,0.8s | | | | | | |
| **KURK** | **Kurchatov** | **45.43** | **308** | *e*P | **P** | **06 22 55.8** | **-1.5** |
| | 3.3nm,0.8s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **45.50** | **308** | P | **P** | **06 22 56.5** | **-1.3** |
| | 1.9nm,0.6s,baz=82,slow=7.9,SNR=15 | | | | | | |
| **IMAR** | **Indian Mountai** | **47.05** | **31** | *e*P | **P** | **06 23 10.3** | **+0.5** |
| **IL1** | **Eielson Array** | **49.91** | **32** | *e*P | **P** | **06 23 31.0** | **-0.9** |
| **ILAR** | **Eielson Array** | **49.91** | **32** | P | **P** | **06 23 31.8** | **0.0** |
| | 0.7nm,0.7s,baz=267,slow=5.6,SNR=7.3 | | | | | | |
| **ILB** | **Eielson Array** | **49.91** | **32** | *e*P | **P** | **06 23 31.9** | **0.0** |
| **COEN** | **Coen** | **50.72** | **177** | *e*P | **P** | **06 23 39.0** | **+0.5** |
| | 3.9nm,1.1s | | | | | | |
| **INK** | **Inuvik** | **54.75** | **27** | P | **P** | **06 24 07.8** | **+0.2** |
| | 1.7nm,1.1s,baz=286,slow=3.8,SNR=4.0 | | | | | | |
| **WB2** | **Warramunga Arr** | **56.91** | **187** | *e*P | **P** | **06 24 23.1** | **-0.6** |
| | 8.7nm,1.4s | | | | | | |
| **WR1** | **Warramunga Arr** | **56.91** | **187** | *e*P | **P** | **06 24 23.1** | **-0.6** |
| | 3.4nm,0.8s | | | | | | |
| **WRA** | **Warramunga Arr** | **56.91** | **187** | P | **P** | **06 24 23.1** | **-0.6** |
| | 2.0nm,0.7s,baz=3.6,slow=7.3,SNR=26 | | | | | | |
| **AS01** | **Alice Springs** | **60.64** | **187** | *e*P | **P** | **06 24 49.5** | **-0.1** |
| **ASAR** | **Alice Springs** | **60.64** | **187** | P | **P** | **06 24 49.1** | **-0.5** |
| | 1.0nm,0.9s,baz=13,slow=7.8,SNR=6.7 | | | | | | |
| **ARA0** | **ARCESS Array S** | **63.81** | **339** | *e*P | **P** | **06 25 09.1** | **-1.3** |
| **ARCES** | **ARCESS Array B** | **63.81** | **339** | P | **P** | **06 25 09.1** | **-1.3** |
| | 12nm,1.1s,baz=30,slow=5.6,SNR=4.5 | | | | | | |
| **YKA** | **Yellowknife Ar** | **64.20** | **30** | P | **P** | **06 25 12.6** | **-0.4** |
| | 0.4nm,1.0s,baz=304,slow=6.7,SNR=5.4 | | | | | | |
| **FIA0** | **FINESS Array S** | **68.55** | **332** | *e*P | **P** | **06 25 39.6** | **-1.2** |
| **FINES** | **FINESS Array B** | **68.55** | **332** | P | **P** | **06 25 39.6** | **-1.2** |
| | 3.6nm,1.0s,baz=30,slow=12,SNR=4.3 | | | | | | |
| **AKASG** | **Malin Array Be** | **73.92** | **322** | P | **P** | **06 26 12.4** | **-1.1** |
| | 1.4nm,0.7s,baz=48,slow=5.4,SNR=6.8 | | | | | | |
| **NB200** | **NORSAR Array S** | **73.97** | **337** | *e*P | **P** | **06 26 14.4** | **+0.6** |
| **NOA** | **NORSAR Array B** | **73.97** | **337** | P | **P** | **06 26 14.4** | **+0.6** |
| | 1.4nm,0.8s,baz=38,slow=6.0,SNR=3.6 | | | | | | |
| **NV01** | **Mina Array Sit** | **75.57** | **53** | *e*P | **P** | **06 26 24.5** | **+0.8** |
| **NVAR** | **Mina Array Bea** | **75.57** | **53** | P | **P** | **06 26 24.5** | **+0.8** |
| | 0.6nm,0.6s,baz=305,slow=5.9,SNR=5.0 | | | | | | |
| **PD31** | **Pinedale Array** | **78.19** | **45** | *e*P | **P** | **06 26 38.8** | **+0.4** |
| **PDAR** | **Pinedale Array** | **78.19** | **45** | P | **P** | **06 26 38.8** | **+0.4** |
| | 0.3nm,0.6s,baz=302,slow=0.9,SNR=3.0 | | | | | | |
| **BR101** | **Keskin Array S** | **78.38** | **311** | *e*P | **P** | **06 26 39.3** | **-0.1** |
| **BRTR** | **Keskin Array B** | **78.38** | **311** | P | **P** | **06 26 39.3** | **-0.1** |
| | 0.4nm,0.7s,baz=311,slow=11,SNR=2.8 | | | | | | |
| **PV10** | **Paradox Valley** | **81.32** | **48** | *e*P | **P** | **06 26 56.9** | **+1.4** |
| **GERES** | **GERESS Array B** | **82.40** | **328** | P | **P** | **06 26 59.7** | **-1.1** |
| | 0.4nm,0.4s,baz=45,slow=6.1,SNR=8.0 | | | | | | |
| **GEA0** | **GERESS Array S** | **82.40** | **328** | *e*P | **P** | **06 26 59.6** | **-1.2** |
| **LTX** | **Lajitas** | **90.70** | **52** | *e*P | **P** | **06 27 41.1** | **-0.7** |
| **TXAR** | **Lajitas Array** | **90.70** | **52** | P | **P** | **06 27 41.1** | **-0.7** |
| | 3.3nm,0.6s,baz=293,slow=4.8,SNR=2.4 | | | | | | |
| **LPAZ** | **La Paz** | **147.31** | **59** | PKPbc | **PKPbc** | **06 34 23.2** | **-0.3** |
| | 1.3nm,0.6s,baz=36,slow=1.9,SNR=5.2 | | | | | | |
| **PB11** | **IPOC Station P** | **148.54** | **65** | *e*PKPbc | **PKPbc** | **06 34 24.7** | **-1.4** |

*BJI **24** 06:20:22.8, 39°.46N×112°.79E, h5km, mb4.0/4, ML3.9/16, Ms3.8/3, Ms7 3.6/1*
*IDC **24** 06:20:24.8±1.6, 39°.60N×112°.67E, h0km, mb3.3/4, mb1 3.6/5, mb1mx3.4/36, mbtmp3.4/5, ML3.4/1, Error ellipse: s-maj=88.7km s-min=19.0km az=55.0*

**ISC 24 06:20:25.7±0.9, 39°.57N±0°.06×112°.86E±0°.07, h10km, n13, σ2s01/18, mb3.5/4, Northeastern China**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HHC** | **Hu-ho-hao-te** | **1.62** | **323** | *e*Pg | **Pn** | **06 20 53.3** | **-1.1** |
| HHC | | | | Sg | **Sn** | **06 21 14.1** | **-1.4** |
| HHC | | | | smax | smax | | |
| | comp=N,830nm,0.4s | | | | | | |
| HHC | | | | smax | smax | | |
| | comp=E,990nm,0.4s | | | | | | |
| **TIY** | **Taiyuan** | **1.88** | **190** | Pg | **Pn** | **06 20 55.6** | **-2.3** |
| TIY | | | | Sg | **Sn** | **06 21 18.5** | **-3.2** |
| TIY | | | | smax | smax | | |
| | comp=N,570nm,0.5s | | | | | | |
| TIY | | | | smax | smax | | |
| | comp=E,1μm,0.6s | | | | | | |
| **BTO** | **Baotou** | **2.42** | **296** | *e*Pg | **Pn** | **06 21 05.8** | **+0.5** |
| BTO | | | | Sg | **Sn** | **06 21 36.1** | **+1.1** |
| **TIA** | **Tai'an** | **4.75** | **133** | Pn | **Pn** | **06 21 36.5** | **-0.8** |
| TIA | | | | Pg | **Pb** | **06 21 49.8** | **+0.8** |
| TIA | | | | Sg | **Sb** | **06 22 48.8** | **+2.5** |
| TIA | | | | smax | smax | | |
| | comp=N,100nm,0.8s | | | | | | |
| TIA | | | | smax | smax | | |
| | comp=E,100nm,0.9s | | | | | | |
| **XAN** | **Xi'an** | **6.36** | **211** | Pn | **Pn** | **06 21 57.9** | **-1.6** |
| XAN | | | | Pg | Pb | 06 22 12.9 | -3.5 |
| XAN | | | | Sg | **Sb** | **06 23 36.8** | **+4.3** |
| XAN | | | | smax | smax | | |
| | comp=N,66nm,0.8s | | | | | | |
| XAN | | | | smax | smax | | |
| | comp=E,48nm,1.0s | | | | | | |
| **LZH** | **Lanzhou** | **7.94** | **247** | Pn | **Pn** | **06 22 21.5** | **+0.3** |
| LZH | | | | smax | smax | | |
| | comp=N,72nm,1.2s | | | | | | |
| LZH | | | | smax | smax | | |
| | comp=E,88nm,1.1s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=N,210nm,5.4s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=E,220nm,4.5s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,240nm,6.0s | | | | | | |
| **SONM** | **Songino Array** | **9.50** | **333** | Pn | **Pn** | **06 22 41.7** | **-0.9** |
| | 0.4nm,0.3s,baz=152,slow=14,SNR=15 | | | | | | |
| S

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **ELFO** | **Elginfield** | **2.11** | **349** | PN | **Pn** | **06 25 34.4** | **+1.9** |
| ELFO | | | | SG | **Sb** | **06 26 02.8** | **+1.1** |
| ELFO | | | | Trac | | 06 26 05.5 | |
| | comp=Z,80nm,0.2s | | | | | | |
| **SSPA** | **Standing Stone** | **2.22** | **102** | *e*Pn | **Pb** | **06 25 36.8** | **-0.7** |
| SSPA | | | | *e*Sn | **Sb** | **06 26 04.4** | **-0.7** |
| **STCO** | **Saint Catharin** | **2.39** | **29** | PN | **Pn** | **06 25 38.7** | **+2.4** |
| STCO | | | | SN | **Sn** | **06 26 08.2** | **+2.5** |
| STCO | | | | Trac | | 06 26 14.9 | |
| | comp=Z,30nm,0.1s | | | | | | |
| **AAM** | **Ann Arbor** | **2.47** | **299** | *e*Pn | **Pb** | **06 25 41.3** | **-0.4** |
| AAM | | | | *e*Sn | **Sb** | **06 26 13.8** | **+1.6** |
| **ACTO** | **Acton** | **2.53** | **11** | PN | **Pn** | **06 25 40.0** | **+1.6** |
| ACTO | | | | SG | **Sb** | **06 26 14.6** | **+0.7** |
| ACTO | | | | Trac | | 06 26 15.5 | |
| | comp=Z,72nm,0.2s | | | | | | |
| **MEDO** | **Medina** | **2.66** | **39** | PN | **Pb** | **06 25 43.2** | **-1.6** |
| MEDO | | | | SN | **Sb** | **06 26 15.6** | **-1.9** |
| MEDO | | | | Trac | | 06 26 20.8 | |
| | comp=Z,9.0nm,0.1s | | | | | | |
| **MMNY** | **Mt. Morris Dam** | **2.66** | **52** | *e*Pn | **Pb** | **06 25 43.0** | **-1.9** |
| MMNY | | | | *e*Sn | **Sb** | **06 26 17.3** | **-0.2** |
| **TORO** | **Toronto--Lesli** | **2.69** | **22** | PG | **Pb** | **06 25 46.3** | **+0.8** |
| TORO | | | | SN | **Sn** | **06 26 14.9** | **+1.7** |
| TORO | | | | SG | **Sb** | **06 26 18.9** | **+0.3** |
| TORO | | | | Trac | | 06 26 21.7 | |
| | comp=Z,52nm,0.1s | | | | | | |
| **BASO** | **Ashfield** | **2.96** | **347** | PN | **Pb** | **06 25 50.3** | **+0.2** |
| BASO | | | | SN | **Sn** | **06 26 18.9** | **-0.9** |
| BASO | | | | SG | **Sb** | **06 26 27.2** | **+0.9** |
| BASO | | | | Trac | | 06 26 30.2 | |
| | comp=Z,18nm,0.2s | | | | | | |
| **BWLO** | **Walkerton** | **3.00** | **355** | PN | **Pn** | **06 25 46.4** | **+1.6** |
| BWLO | | | | SN | **Sn** | **06 26 21.1** | **+0.2** |
| BWLO | | | | SG | **Sb** | **06 26 28.4** | **+1.0** |
| BWLO | | | | Trac | | 06 26 32.1 | |
| | comp=Z,14nm,0.1s | | | | | | |
| **PKRO** | **Pickering** | **3.09** | **23** | PN | **Pn** | **06 25 49.3** | **+3.2** |
| PKRO | | | | SG | **Sb** | **06 26 31.3** | **+1.2** |
| **BRCO** | **Bruce Peninsul** | **3.15** | **351** | SN | **Sn** | **06 26 26.3** | **+1.7** |
| BRCO | | | | LG | Lg | 06 26 33.0 | |
| BRCO | | | | Trac | | 06 26 38.1 | |
| | comp=Z,48nm,0.2s | | | | | | |
| **PAGS** | **Pennsylvania G** | **3.19** | **105** | *e*Pn | **Pb** | **06 25 54.7** | **+0.7** |
| PAGS | | | | *e*Sn | **Sn** | **06 26 27.8** | **+2.3** |
| **WLVO** | **Wesleyville** | **3.29** | **31** | PN | **Pb** | **06 25 53.5** | **-2.2** |
| WLVO | | | | SN | **Sn** | **06 26 28.1** | **+0.2** |
| WLVO | | | | LG | Lg | 06 26 35.8 | |
| WLVO | | | | Trac | | 06 26 42.6 | |
| | comp=Z,3.1nm,0.1s | | | | | | |
| **SDMD** | **Soldier's Deli** | **3.45** | **119** | *e*Pn | **Pn** | **06 25 53.5** | **+2.6** |
| SDMD | | | | *e*Sb | **Sb** | **06 26 39.9** | **-0.4** |
| **BMRO** | **Meriville Lake** | **3.48** | **354** | PN | **Pn** | **06 25 52.0** | **+0.6** |
| BMRO | | | | PG | **Pb** | **06 25 59.1** | **+0.2** |
| BMRO | | | | SN | **Sn** | **06 26 34.1** | **+1.4** |
| BMRO | | | | LG | Lg | 06 26 42.9 | |
| BMRO | | | | Trac | | 06 26 50.6 | |
| | comp=Z,7.3nm,0.2s | | | | | | |
| **MVL** | **Millersville** | **3.54** | **107** | *e*Pn | **Pn** | **06 25 53.8** | **+1.6** |
| MVL | | | | *e*Sn | **Sn** | **06 26 35.5** | **+1.6** |
| **IP04** | **Greensprings** | **3.66** | **145** | *e*Pb | **Pb** | **06 26 01.9** | **0.0** |
| **IP03** | **Louisa** | **3.75** | **145** | *e*Pb | **Pb** | **06 26 03.5** | **-0.1** |
| IP03 | | | | *e*Sb | **Sb** | **06 26 50.7** | **+1.5** |
| **N59A** | **State Game Lan** | **3.77** | **92** | *e*Sb | **Sb** | **06 26 49.1** | **-0.5** |
| **CVRD** | **Centerville Ro** | **3.81** | **142** | *e*Pb | **Pb** | **06 26 04.5** | **0.0** |
| **SPRD** | **Spring Road, M** | **3.81** | **144** | *e*Pb | **Pb** | **06 26 04.6** | **+0.1** |
| SPRD | | | | *e*Sb | **Sb** | **06 26 51.8** | **+1.1** |
| **SADO** | **Sadowa** | **3.83** | **17** | PG | **Pb** | **06 26 03.8** | **-1.0** |
| SADO | | | | SN | **Sn** | **06 26 40.2** | **-0.9** |
| SADO | | | | LG | Lg | 06 26 51.8 | |
| SADO | | | | Trac | | 06 26 58.2 | |
| | comp=Z,16nm,0.3s | | | | | | |
| **SADO** | **Sadowa** | **3.83** | **17** | *e*Pb | **Pb** | **06 26 04.8** | **0.0** |
| SADO | | | | *e*Sb | **Sb** | **06 26 53.2** | **+2.1** |
| **IP07** | **Quail** | **3.83** | **146** | *e*Pb | **Pb** | **06 26 04.4** | **-0.6** |
| IP07 | | | | *e*Sb | **Sb** | **06 26 53.8** | **+2.4** |
| **IP06** | **Yanceyville** | **3.84** | **145** | *e*Pb | **Pb** | **06 26 05.0** | **0.0** |
| **IP01** | **Cuckoo** | **3.85** | **144** | *e*Pb | **Pb** | **06 26 05.1** | **-0.2** |
| **PTRD** | **Partlow Road** | **3.85** | **140** | *e*Pb | **Pb** | **06 26 05.3** | **+0.1** |
| **SPFD** | **Spotsylvania F** | **3.89** | **139** | *e*Pb | **Pb** | **06 26 06.1** | **+0.2** |
| **CBN** | **Corbin Frederi** | **3.91** | **137** | *e*Pb | **Pb** | **06 26 06.3** | **0.0** |
| **BLA** | **Blacksburg** | **3.92** | **176** | *e*Pg | **Pb** | **06 26 07.0** | **+0.5** |
| **JSRW** | **J. Sargeant Re** | **4.09** | **146** | *e*Pb | **Pb** | **06 26 09.1** | **-0.1** |
| **TOBO** | **Tobermory, Bru** | **4.13** | **352** | PG | **Pb** | **06 26 10.8** | **+0.7** |
| TOBO | | | | SN | **Sn** | **06 26 48.6** | **-0.2** |
| TOBO | | | | LG | Lg | 06 27 03.3 | |
| TOBO | | | | Trac | | 06 27 09.6 | |
| | comp=Z,30nm,0.5s | | | | | | |
| **PSUB** | **Penn St. - Bra** | **4.21** | **105** | *e*Pb | **Pb** | **06 26 11.4** | **0.0** |
| PSUB | | | | *e*Sg | **Sg** | **06 27 06.5** | **-5.9** |
| **KLBO** | **Killbear Provi** | **4.24** | **5** | SN | **Sn** | **06 26 50.8** | **-0.7** |
| KLBO | | | | LG | Lg | 06 27 06.9 | |
| KLBO | | | | Trac | | 06 27 10.5 | |
| | comp=Z,10nm,0.2s | | | | | | |
| **URVA** | **University of** | **4.34** | **144** | *e*Pb | **Pb** | **06 26 13.7** | **+0.2** |
| **BANO** | **Bancroft** | **4.40** | **27** | PN | **Pb** | **06 26 11.3** | **-3.4** |
| BANO | | | | LG | Lg | 06 27 09.5 | |
| BANO | | | | Trac | | 06 27 16.0 | |
| | comp=Z,15nm,0.2s | | | | | | |
| **BUKO** | **Buck Lake** | **4.42** | **12** | LG | Lg | 06 27 11.7 | |
| BUKO | | | | Trac | | 06 27 13.7 | |
| | comp=Z,7.5nm,0.2s | | | | | | |
| **ODNJ** | **Ogdensburg** | **4.64** | **89** | *e*Pb | **Pb** | **06 26 20.4** | **+1.7** |
| ODNJ | | | | *e*Sn | **Sn** | **06 27 01.9** | **+0.6** |
| ODNJ | | | | *e*Sb | **Sb** | **06 27 17.6** | **+3.0** |
| **BRNJ** | **Basking Ridge** | **4.71** | **93** | *e*Sb | **Sb** | **06 27 20.5** | **+4.0** |
| **PLVO** | **Plevna** | **4.74** | **33** | SN | **Sn** | **06 27 02.4** | **-1.4** |
| **BLO** | **Bloomington** | **4.84** | **248** | *e*Sb | **Sg** | **06 27 28.1** | **-4.4** |
| **SFIN** | **Lafayette** | **4.88** | **263** | *e*Pg | **Pg** | **06 26 30.2** | **-0.4** |
| SFIN | | | | *e*Sg | **Sg** | **06 27 30.3** | **-3.6** |
| **PEMO** | **Pembroke** | **5.21** | **28** | PN | **Pn** | **06 26 17.1** | **+1.9** |
| PEMO | | | | PG | **Pb** | **06 26 28.7** | **+0.3** |
| PEMO | | | | SN | **Sn** | **06 27 10.9** | **-4.5** |
| PEMO | | | | LG | Lg | 06 27 33.1 | |
| **CNNC** | **Cliffs of the** | **6.30** | **158** | *e*Pn | **Pn** | **06 26 30.9** | **+0.9** |

**MEX 24 06:35:28.2±0.4, 30°34'N×114°10'W, h22$^{km}$±10$^{km}$, MD3.9, Gulf of California**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SPIG** | **San Pedro Mart** | **1.37** | **301** | *e*P | Pn | 06 35 49.6 | -2.7 |
| SPIG | | | | *i* S | Sn | 06 36 05.3 | -4.6 |
| **CBX** | **Cerro Bola** | **2.94** | **313** | *e*P | Pn | 06 36 11.3 | -2.5 |
| CBX | | | | *e*S | Sn | 06 36 45.1 | -3.4 |
| **TJIG** | **Tijuana** | **3.03** | **314** | *e*P | Pn | 06 36 12.7 | -2.2 |
| TJIG | | | | *e*S | Sn | 06 36 47.6 | -2.9 |

*ISK **24** 06:35:32.2, 41°.42N×35°.94E, h4$^{km}$, ML2.1*
*ISCJB **24** 06:35:33.2±0.6, 41°.39N±0°.04×35°.86E±0°.04, h0$^{km}$, Error ellipse: s-maj=5.5km s-min=4.1km az=28.3*
*CSEM **24** 06:35:33.2±0.3, 41°.37N×35°.87E, h1$^{km}$, MD2.5, Error ellipse: s-maj=6.4km s-min=4.7km az=31.0, Suspected Mining explosion.*
*DDA **24** 06:35:33.8, 41°.28N×35°.93E, h7$^{km}$, Md2.5, Suspected Mining explosion.*

**ISC 24 06:35:33.0±0.8, 41°.35N±0°.03×35°.88E±0°.03, h0$^{km}$, n24, $_{o}$09$_{s}$90/35, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SAMS** | **Samsun-Alacam** | **0.23** | **87** | *i* P | **Pg** | **06 35 38.7** | **+1.2** |
| **SAMS** | **Samsun-Alacam** | **0.23** | **87** | P | **Pg** | **06 35 38.7** | **+1.2** |
| **KVT** | **Kavak** | **0.30** | **155** | *e*PG | **Pg** | **06 35 39.6** | **+0.9** |
| KVT | | | | *e*SG | **Sb** | **06 35 45.4** | **-1.4** |
| **KVT** | **Kavak** | **0.30** | **155** | *e*Pg | **Pg** | **06 35 39.6** | **+0.9** |
| KVT | | | | *e*Sg | **Sb** | **06 35 45.4** | **-1.4** |
| **HAVZ** | **Havza** | **0.30** | **204** | *i* P | **Pg** | **06 35 38.7** | **-0.1** |
| HAVZ | | | | *i* S | **Sg** | **06 35 43.8** | **+1.1** |
| **HAVZ** | **Havza** | **0.30** | **204** | P | **Pg** | **06 35 38.7** | **-0.1** |
| HAVZ | | | | S | **Sg** | **06 35 43.8** | **+1.1** |
| **DIKM** | **Dikmen** | **0.55** | **303** | *e*PG | **Pg** | **06 35 43.6** | **0.0** |
| DIKM | | | | *e*SG | **Sg** | **06 35 52.0** | **+1.2** |
| **DIKM** | **Dikmen** | **0.55** | **303** | *e*Pg | **Pg** | **06 35 43.6** | **0.0** |
| DIKM | | | | *e*Sg | **Sg** | **06 35 52.0** | **+1.2** |
| **SNOP** | **Sinop** | **0.84** | **323** | *e*PG | **Pg** | **06 35 48.6** | **-0.5** |
| **SNOP** | **Sinop** | **0.84** | **323** | *e*Pg | **Pg** | **06 35 48.6** | **-0.5** |
| **ERBA** | **Erbaa** | **0.94** | **135** | *i* P | **Pg** | **06 35 51.6** | **+0.6** |
| **ERBA** | **Erbaa** | **0.94** | **135** | P | **Pg** | **06 35 51.6** | **+0.6** |
| **CTAK** | **Corum_Osmancik** | **1.08** | **230** | *i* P | **Pb** | **06 35 55.2** | **+0.5** |
| **CTAK** | **Corum_Osmancik** | **1.08** | **230** | P | **Pb** | **06 35 55.2** | **+0.5** |
| **COAL** | **Corum-Alaca** | **1.29** | **212** | *i* P | **Pg** | **06 35 56.7** | **-1.0** |
| COAL | | | | *i* S | **Sb** | **06 36 16.8** | **+1.5** |
| **COAL** | **Corum-Alaca** | **1.29** | **212** | P | **Pg** | **06 35 56.7** | **-1.0** |
| COAL | | | | S | **Sb** | **06 36 16.8** | **+1.5** |
| **RSDY** | **Resadiye-TOKAT** | **1.45** | **130** | *e*PN | **Pn** | **06 36 00.2** | **-0.4** |
| **RSDY** | **Resadiye-TOKAT** | **1.45** | **130** | *e*Pn | **Pn** | **06 36 00.2** | **-0.4** |
| **ORDU** | **Ordu-Boztepe** | **1.54** | **103** | *i* P | **Pn** | **06 36 00.9** | **-0.8** |
| ORDU | | | | *i* S | **Sn** | **06 36 22.8** | **+0.4** |
| **ORDU** | **Ordu-Boztepe** | **1.54** | **103** | P | **Pn** | **06 36 00.9** | **-0.8** |
| ORDU | | | | S | **Sn** | **06 36 22.8** | **+0.4** |
| **SVSK** | **Karacayir** | **1.67** | **149** | *e*PN | **Pb** | **06 36 04.2** | **-0.4** |
| **SVSK** | **Karacayir** | **1.67** | **149** | *e*Pn | **Pb** | **06 36 04.2** | **-0.4** |
| **SUSE** | **Susehri** | **2.10** | **122** | *i* P | **Pb** | **06 36 11.1** | **-1.0** |
| SUSE | | | | *i* S | **Sg** | **06 36 39.8** | **-0.8** |
| **SUSE** | **Susehri** | **2.10** | **122** | P | **Pb** | **06 36 11.1** | **-1.0** |

*NEIC **24** 06:41:56.5±0.0, 37°.46S×177°.73E, h86$^{km}$, mb4.6/3, ML4.4(WEL), After WEL.*
**WEL 24 06:41:56.4±0.3, 37°.45S×177°.73E, h87$^{km}$±2$^{km}$, ML4.4/54, 15C-46D, Error ellipse: s-maj=2.0km s-min=1.4km az=0.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HAZ** | **Te Kaha** | **0.31** | **172** | P* | Pn | 06 42 08.9 | -0.6 |
| HAZ | | | | S* | Sn | 06 42 19.6 | +0.4 |
| HAZ | | | | AML | AML | 06 42 19.8 | |
| HAZ | | | | AML | AML | 06 42 20.9 | |
| HAZ | | | | AML | AML | 06 42 20.9 | |
| **WIZ** | **White Island** | **0.44** | **259** | P* | Pn | 06 42 10.2 | -0.1 |
| **WIZ** | **White Island** | **0.44** | **259** | P* | Pn | 06 42 10.2 | -0.1 |
| **MXZ** | **Matakaoa Point** | **0.47** | **104** | *e*Pn | Pn | 06 42 10.5 | -0.1 |
| MXZ | | | | *e*Sn | Sn | 06 42 22.5 | +1.4 |
| **MXZ** | **Matakaoa Point** | **0.47** | **104** | ⇑P* | Pn | 06 42 10.4 | -0.1 |
| MXZ | | | | AML | AML | 06 42 22.4 | |
| MXZ | | | | AML | AML | 06 42 23.0 | |
| **PKGZ** | **Pakihiroa** | **0.52** | **148** | ⇑PN | Pn | 06 42 11.2 | +0.1 |
| PKGZ | | | | AML | AML | 06 42 23.9 | |
| PKGZ | | | | AML | AML | 06 42 24.5 | |
| **RUGZ** | **Raukumara Rang** | **0.52** | **185** | P* | Pn | 06 42 10.5 | -0.6 |
| **WMGZ** | **Waiomatatini S** | **0.66** | **125** | Pn | Pn | 06 42 12.2 | 0.0 |
| **WMGZ** | **Waiomatatini S** | **0.66** | **125** | ⇑PN | Pn | 06 42 12.2 | 0.0 |
| WMGZ | | | | AML | AML | 06 42 26.3 | |
| WMGZ | | | | AML | AML | 06 42 26.5 | |
| **WHRZ** | **Whale Island** | **0.72** | **235** | P* | Pn | 06 42 13.3 | +0.4 |
| **PUZ** | **Puketiti** | **0.75** | **146** | Pn | Pn | 06 42 12.7 | -0.5 |
| **PUZ** | **Puketiti** | **0.75** | **146** | ⇓PN | Pn | 06 42 12.7 | -0.5 |
| PUZ | | | | AML | AML | 06 42 31.9 | |
| PUZ | | | | AML | AML | 06 42 35.4 | |
| **TWGZ** | **Tauwhareparae** | **0.76** | **165** | Pn | Pn | 06 42 13.9 | +0.7 |
| **TWGZ** | **Tauwhareparae** | **0.76** | **165** | ⇑PN | Pn | 06 42 13.9 | +0.7 |
| TWGZ | | | | AML | AML | 06 42 29.0 | |
| TWGZ | | | | AML | AML | 06 42 29.9 | |
| **MWZ** | **Matawai** | **0.90** | **190** | P* | Pn | 06 42 14.7 | 0.0 |
| **MWZ** | **Matawai** | **0.90** | **190** | ⇓P* | Pn | 06 42 14.7 | 0.0 |
| MWZ | | | | AML | AML | 06 42 30.5 | |
| MWZ | | | | AML | AML | 06 42 30.6 | |
| **URZ** | **Urewera** | **0.95** | **211** | *e*Pn | Pn | 06 42 15.1 | -0.1 |
| **URZ** | **Urewera** | **0.95** | **211** | ⇓P* | Pn | 06 42 15.0 | -0.2 |
| URZ | | | | S* | Sn | 06 42 29.7 | +0.3 |
| URZ | | | | AML | AML | 06 42 29.9 | |
| **MARZ** | **Manawahe** | **0.99** | **237** | P* | Pn | 06 42 15.7 | -0.1 |
| **MARZ** | **Manawahe** | **0.99** | **237** | ⇓P* | Pn | 06 42 15.7 | -0.1 |
| **TKGZ** | **Te Karaka** | **1.00** | **175** | Pn | Pn | 06 42 15.9 | +0.2 |
| **TKGZ** | **Te Karaka** | **1.00** | **175** | PN | Pn | 06 42 15.9 | +0.2 |
| TKGZ | | | | AML | AML | 06 42 32.0 | |
| TKGZ | | | | AML | AML | 06 42 32.3 | |
| **OPRZ** | **Ohinepanea** | **1.01** | **247** | P* | Pn | 06 42 15.6 | -0.4 |
| **OPRZ** | **Ohinepanea** | **1.01** | **247** | ⇑P* | Pn | 06 42 15.6 | -0.4 |
| **EDRZ** | **Edgecumbe** | **1.02** | **230** | P* | Pn | 06 42 16.2 | 0.0 |
| **EDRZ** | **Edgecumbe** | **1.02** | **230** | P* | Pn | 06 42 16.2 | 0.0 |
| **RAGZ** | **Rawiri** | **1.08** | **193** | P* | Pn | 06 42 17.1 | +0.3 |
| **RAGZ** | **Rawiri** | **1.08** | **193** | ⇓P* | Pn | 06 42 17.1 | +0.3 |
| RAGZ | | | | AML | AML | 06 42 34.6 | |
| RAGZ | | | | AML | AML | 06 42 34.7 | |
| **CNGZ** | **Carnagh Statio** | **1.10** | **160** | Pn | Pn | 06 42 17.3 | +0.2 |
| **CNGZ** | **Carnagh Statio** | **1.10** | **160** | ⇑Pn | Pn | 06 42 17.3 | +0.2 |
| CNGZ | | | | AML | AML | 06 42 36.5 | |
| CNGZ | | | | AML | AML | 06 42 36.4 | |
| **TGRZ** | **Tauranga** | **1.20** | **256** | P* | Pn | 06 42 18.1 | -0.1 |
| **TGRZ** | **Tauranga** | **1.20** | **256** | ⇓P* | Pn | 06 42 18.1 | -0.1 |
| **LIRZ** | **Lichensteins R** | **1.20** | **242** | P* | Pn | 06 42 18.2 | -0.1 |
| **LIRZ** | **Lichensteins R** | **1.20** | **242** | P* | Pn | 06 42 18.2 | -0.1 |
| **MKRZ** | **Makatiti** | **1.22** | **235** | P* | Pn | 06 42 19.0 | +0.5 |
| **MKRZ** | **Makatiti** | **1.22** | **235** | P* | Pn | 06 42 19.0 | +0.5 |
| **TARZ** | **Mount Tarawera** | **1.25** | **230** | P* | Pn | 06 42 19.2 | +0.3 |
| **TARZ** | **Mount Tarawera** | **1.25** | **230** | ⇓P* | Pn | 06 42 19.2 | +0.3 |
| **RIGZ** | **Rimuhau** | **1.26** | **179** | ⇓PN | Pn | 06 42 18.7 | -0.2 |
| RIGZ | | | | AML | AML | 06 42 37.1 | |
| RIGZ | | | | AML | AML | 06 42 37.7 | |
| **OMRZ** | **Omania** | **1.26** | **238** | P* | Pn | 06 42 19.1 | +0.1 |
| **OMRZ** | **Omania** | **1.26** | **238** | P* | Pn | 06 42 19.1 | +0.1 |
| **MUGZ** | **Murupara** | **1.28** | **216** | ⇓P* | Pn | 06 42 19.0 | -0.2 |
| **RTZ** | **Ruatahuna** | **1.31** | **207** | P* | Pn | 06 42 19.3 | -0.3 |
| **KARZ** | **Kaharoa** | **1.31** | **244** | P* | Pn | 06 42 19.6 | 0.0 |
| **KARZ** | **Kaharoa** | **1.31** | **244** | ⇓P* | Pn | 06 42 19.6 | 0.0 |
| **RRRZ** | **Republican Roa** | **1.31** | **227** | P* | Pn | 06 42 19.8 | +0.1 |
| **RRRZ** | **Republican Roa** | **1.31** | **227** | ⇓P* | Pn | 06 42 19.7 | +0.1 |
| **HLRZ** | **Highlands Stat** | **1.35** | **233** | ⇓P* | Pn | 06 42 20.5 | +0.3 |
| **SNGZ** | **Shannon Statio** | **1.37** | **193** | Pn | Pn | 06 42 20.4 | 0.0 |
| **SNGZ** | **Shannon Statio** | **1.37** | **193** | ⇓PN | Pn | 06 42 20.3 | 0.0 |
| SNGZ | | | | AML | AML | 06 42 41.3 | |
| SNGZ | | | | AML | AML | 06 42 45.7 | |
| **NGRZ** | **Ngongotaha** | **1.39** | **241** | ⇓P* | Pn | 06 42 20.8 | +0.3 |
| **HSRZ** | **Hossack Road** | **1.46** | **233** | ⇓P* | Pn | 06 42 22.0 | +0.6 |
| **KMRZ** | **Kaimai** | **1.47** | **254** | ⇓P* | Pn | 06 42 21.6 | 0.0 |
| **PRGZ** | **Paritu Road** | **1.48** | **175** | Pn | Pn | 06 42 21.0 | -0.8 |
| **PRGZ** | **Paritu Road** | **1.48** | **175** | ⇓PN | Pn | 06 42 21.0 | -0.8 |
| PRGZ | | | | AML | AML | 06 42 44.2 | |
| PRGZ | | | | AML | AML | 06 42 49.4 | |
| **PRRZ** | **Plateau Road** | **1.49** | **225** | P* | Pn | 06 42 22.0 | +0.1 |
| **PRRZ** | **Plateau Road** | **1.49** | **225** | ⇓P* | Pn | 06 42 22.0 | +0.1 |
| **ALRZ** | **Allen Road** | **1.56** | **224** | P* | Pn | 06 42 22.9 | +0.1 |
| **ALRZ** | **Allen Road** | **1.56** | **224** | ⇓P* | Pn | 06 42 22.9 | +0.1 |
| **GRRZ** | **Galatos Road** | **1.57** | **234** | ⇓P* | Pn | 06 42 23.3 | +0.5 |
| **MTHZ** | **Maungataniwha** | **1.57** | **206** | ⇓P* | Pn | 06 42 22.4 | -0.4 |
| **KNZ** | **Kokohu** | **1.57** | **182** | Pn | Pn | 06 42 22.0 | -0.9 |
| **KNZ** | **Kokohu** | **1.57** | **182** | PN | Pn | 06 42 22.0 | -0.9 |
| KNZ | | | | AML | AML | 06 42 45.2 | |
| KNZ | | | | AML | AML | 06 42 45.6 | |
| **WPRZ** | **Whakapapatarin** | **1.64** | **229** | P* | Pn | 06 42 24.2 | +0.4 |
| **WPRZ** | **Whakapapatarin** | **1.64** | **229** | ⇓P* | Pn | 06 42 24.2 | +0.4 |
| **WHHZ** | **Waihua** | **1.67** | **193** | ⇓PN | Pn | 06 42 23.9 | -0.3 |
| WHHZ | | | | AML | AML | 06 42 46.9 | |
| WHHZ | | | | AML | AML | 06 42 47.0 | |
| **MHGZ** | **Mahia Peninsul** | **1.71** | **175** | Pn | Pn | 06 42 24.0 | -0.7 |
| **MHGZ** | **Mahia Peninsul** | **1.71** | **175** | ⇓PN | Pn | 06 42 24.0 | -0.7 |
| MHGZ | | | | AML | AML | 06 42 51.3 | |
| MHGZ | | | | AML | AML | 06 42 53.5 | |
| **MRHZ** | **Matea Rd** | **1.73** | **216** | ⇓P* | Pn | 06 42 24.8 | -0.2 |
| MRHZ | | | | AML | AML | 06 42 29.1 | |
| MRHZ | | | | AML | AML | 06 42 48.6 | |
| **KUZ** | **Kuaotunu** | **1.75** | **293** | Pn | Pn | 06 42 24.4 | -0.8 |
| **KUZ** | **Kuaotunu** | **1.75** | **293** | PN | Pn | 06 42 24.3 | -0.8 |
| **TOZ** | **Tahuroa Road** | **1.79** | **260** | P* | Pn | 06 42 25.5 | -0.2 |
| **TOZ** | **Tahuroa Road** | **1.79** | **260** | P* | Pn | 06 42 25.5 | -0.2 |
| **NMHZ** | **Naumai** | **1.80** | **204** | Pn | Pn | 06 42 26.0 | +0.1 |
| **NMHZ** | **Naumai** | **1.80** | **204** | PN | Pn | 06 42 26.0 | +0.1 |
| NMHZ | | | | AML | AML | 06 42 56.8 | |
| NMHZ | | | | AML | AML | 06 43 00.4 | |
| **KUTZ** | **Kaahu Road** | **1.83** | **235** | Pn | Pn | 06 42 26.7 | +0.5 |
| **KUTZ** | **Kaahu Road** | **1.83** | **235** | ⇓PN | Pn | 06 42 26.7 | +0.5 |
| **WHTZ** | **Whakaora** | **1.85** | **228** | Pn | Pn | 06 42 27.4 | +0.8 |
| **WHTZ** | **Whakaora** | **1.85** | **228** | PN | Pn | 06 42 27.4 | +0.8 |
| **ARHZ** | **Aropaoanui** | **1.90** | **197** | ⇓PN | Pn | 06 42 26.7 | -0.5 |
| ARHZ | | | | AML | AML | 06 42 51.9 | |
| ARHZ | | | | AML | AML | 06 42 53.3 | |
| **HATZ** | **Hinemaiaia** | **1.94** | **221** | Pn | Pn | 06 42 27.5 | -0.1 |
| **HATZ** | **Hinemaiaia** | **1.94** | **221** | PN | Pn | 06 42 27.5 | -0.1 |
| **TLZ** | **Tolley Road** | **1.94** | **242** | Pn | Pn | 06 42 27.8 | 0.0 |
| **TLZ** | **Tolley Road** | **1.94** | **242** | PN | Pn | 06 42 27.8 | 0.0 |
| **BKZ** | **Black Stump Fm** | **1.97** | **209** | *e*Pn | Pn | 06 42 27.6 | -0.5 |
| **BKZ** | **Black Stump Fm** | **1.97** | **209** | ⇓PN | Pn | 06 42 27.6 | -0.6 |
| BKZ | | | | AML | AML | 06 42 56.6 | |
| BKZ | | | | AML | AML | 06 43 02.9 | |
| **MKAZ** | **Moumakai** | **2.08** | **279** | Pn | Pn | 06 42 29.4 | 0.0 |
| **MKAZ** | **Moumakai** | **2.08** | **279** | PN | Pn | 06 42 29.4 | 0.0 |
| **RATZ** | **Rangitukua** | **2.10** | **227** | Pn | Pn | 06 42 29.9 | +0.1 |
| **RATZ** | **Rangitukua** | **2.10** | **227** | PN | Pn | 06 42 29.9 | +0.1 |
| **RITZ** | **Rihia Road** | **2.12** | **223** | Pn | Pn | 06 42 30.4 | +0.3 |
| **RITZ** | **Rihia Road** | **2.12** | **223** | ⇓PN | Pn | 06 42 30.4 | +0.3 |
| **MCHZ** | **McNeill Hill** | **2.15** | **202** | Pn | Pn | 06 42 29.8 | -0.7 |
| **MCHZ** | **McNeill Hill** | **2.15** | **202** | ⇓PN | Pn | 06 42 29.8 | -0.7 |
| MCHZ | | | | AML | AML | 06 43 08.0 | |
| MCHZ | | | | AML | AML | 06 43 17.8 | |
| **WIAZ** | **Waiheke Island** | **2.17** | **287** | ⇓PN | Pn | 06 42 30.7 | 0.0 |
| **GRZ** | **Great Barrier** | **2.18** | **303** | PN | Pn | 06 42 30.4 | -0.3 |
| **KATZ** | **Kakaramea** | **2.21** | **226** | Pn | Pn | 06 42 31.4 | 0.0 |
| **KATZ** | **Kakaramea** | **2.21** | **226** | PN | Pn | 06 42 31.4 | 0.0 |
| **KWHZ** | **Kaweka Forest** | **2.23** | **207** | ⇓PN | Pn | 06 42 30.6 | -0.9 |
| KWHZ | | | | AML | AML | 06 43 01.7 | |
| KWHZ | | | | AML | AML | 06 43 06.3 | |
| **CKHZ** | **Cape Kidnapper** | **2.27** | **193** | Pn | Pn | 06 42 30.4 | -1.5 |
| **CKHZ** | **Cape Kidnapper** | **2.27** | **193** | ⇓PN | Pn | 06 42 30.4 | -1.5 |
| CKHZ | | | | AML | AML | 06 42 59.6 | |
| CKHZ | | | | AML | AML | 06 43 00.6 | |
| **ETAZ** | **East Tamaki Re** | **2.29** | **282** | Pn | Pn | 06 42 32.5 | +0.3 |
| **ETAZ** | **East Tamaki Re** | **2.29** | **282** | ⇓PN | Pn | 06 42 32.5 | +0.3 |
| **KRVZ** | **Karewarewa** | **2.33** | **224** | Pn | Pn | 06 42 33.0 | +0.2 |
| **KRVZ** | **Karewarewa** | **2.33** | **224** | PN | Pn | 06 42 33.0 | +0.2 |
| **OTVZ** | **Oturere** | **2.36** | **223** | Pn | Pn | 06 42 32.9 | -0.5 |
| **OTVZ** | **Oturere** | **2.36** | **223** | ⇑PN | Pn | 06 42 32.9 | -0.5 |
| **WTVZ** | **West Tongariro** | **2.37** | **225** | Pn | Pn | 06 42 33.4 | 0.0 |
| **WTVZ** | **West Tongariro** | **2.37** | **225** | ⇓PN | Pn | 06 42 33.4 | 0.0 |
| **NGZ** | **Ngauruhoe** | **2.41** | **223** | Pn | Pn | 06 42 33.9 | -0.1 |
| **NGZ** | **Ngauruhoe** | **2.41** | **223** | PN | Pn | 06 42 33.9 | -0.1 |
| **BHHZ** | **Black Hill Sta** | **2.42** | **212** | Pn | Pn | 06 42 32.9 | -1.2 |
| **BHHZ** | **Black Hill Sta** | **2.42** | **212** | PN | Pn | 06 42 32.9 | -1.2 |
| BHHZ | | | | AML | AML | 06 43 09.5 | |
| BHHZ | | | | AML | AML | 06 43 11.3 | |
| **TWVZ** | **Taurewa** | **2.43** | **227** | Pn | Pn | 06 42 34.3 | +0.1 |
| **TWVZ** | **Taurewa** | **2.43** | **227** | PN | Pn | 06 42 34.3 | +0.1 |
| **KAHZ** | **Kahuranaki** | **2.44** | **196** | Pn | Pn | 06 42 32.7 | -1.6 |
| **KAHZ** | **Kahuranaki** | **2.44** | **196** | ⇓PN | Pn | 06 42 32.7 | -1.6 |
| KAHZ | | | | AML | AML | 06 43 05.9 | |
| KAHZ | | | | AML | AML | 06 43 09.1 | |
| **KRHZ** | **Kereru** | **2.44** | **205** | ⇓PN | Pn | 06 42 32.8 | -1.5 |
| KRHZ | | | | AML | AML | 06 43 04.1 | |
| KRHZ | | | | AML | AML | 06 43 10.0 | |
| **TUVZ** | **Tukino** | **2.44** | **221** | Pn | Pn | 06 42 33.9 | -0.6 |
| **TUVZ** | **Tukino** | **2.44** | **221** | PN | Pn | 06 42 33.9 | -0.6 |
| **FWVZ** | **Far West T-bar** | **2.49** | **223** | Pn | Pn | 06 42 34.6 | -0.5 |
| **FWVZ** | **Far West T-bar** | **2.49** | **223** | PN | Pn | 06 42 34.6 | -0.5 |
| **WHVZ** | **Whangaehu Hut** | **2.49** | **222** | Pn | Pn | 06 42 34.7 | -0.5 |
| **WHVZ** | **Whangaehu Hut** | **2.49** | **222** | ⇑PN | Pn | 06 42 34.7 | -0.5 |
| **AWAZ** | **Awhitu Peninsu** | **2.49** | **278** | PN | Pn | 06 42 35.4 | +0.4 |
| **MOVZ** | **Moawhango** | **2.50** | **218** | Pn | Pn | 06 42 33.9 | -1.2 |
| **MOVZ** | **Moawhango** | **2.50** | **218** | PN | Pn | 06 42 33.9 | -1.2 |
| **HIZ

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **TRWZ** | **Traveller** | **4.25 201** | PN | Pn | 06 42 54.2 | -4.6 |
| TRWZ | | | AML | AML | 06 43 43.6 | |
| TRWZ | | | AML | AML | 06 43 44.5 | |
| **PAWZ** | **Paruwai Farm** | **4.32 204** | Pn | Pn | 06 42 55.0 | -4.7 |
| **PAWZ** | **Paruwai Farm** | **4.32 204** | PN | Pn | 06 42 55.0 | -4.7 |
| PAWZ | | | AML | AML | 06 43 44.8 | |
| PAWZ | | | AML | AML | 06 43 46.8 | |
| **MSWZ** | **Moikau Station** | **4.41 205** | Pn | Pn | 06 42 55.9 | -5.0 |
| **MSWZ** | **Moikau Station** | **4.41 205** | PN | Pn | 06 42 55.9 | -5.0 |
| MSWZ | | | AML | AML | 06 43 47.4 | |
| MSWZ | | | AML | AML | 06 43 48.1 | |
| **WEL** | **Wellington** | **4.47 210** | Pn | Pn | 06 42 57.7 | -3.9 |
| **WEL** | **Wellington** | **4.47 210** | PN | Pn | 06 42 57.7 | -3.9 |
| WEL | | | AML | AML | 06 43 49.8 | |
| WEL | | | AML | AML | 06 43 50.5 | |
| **DUWZ** | **D'Urville Isla** | **4.47 220** | Pn | Pn | 06 42 58.0 | -3.8 |
| **DUWZ** | **D'Urville Isla** | **4.47 220** | ⇑PN | Pn | 06 42 58.0 | -3.8 |
| **SNZO** | **South Karori** | **4.51 210** | *e*Pn | Pn | 06 42 58.0 | -4.3 |
| SNZO | | | *e*Sn | Sn | 06 43 49.0 | -4.5 |
| **BHW** | **Baring Head** | **4.53 208** | Pn | Pn | 06 42 57.6 | -5.0 |
| **BHW** | **Baring Head** | **4.53 208** | PN | Pn | 06 42 57.6 | -5.0 |
| BHW | | | AML | AML | 06 43 49.8 | |
| BHW | | | AML | AML | 06 43 51.7 | |
| **PLWZ** | **Palliser** | **4.54 204** | Pn | Pn | 06 42 57.5 | -5.2 |
| **PLWZ** | **Palliser** | **4.54 204** | PN | Pn | 06 42 57.5 | -5.2 |
| PLWZ | | | AML | AML | 06 43 49.6 | |
| PLWZ | | | AML | AML | 06 43 51.9 | |
| **TCW** | **Tory Channel** | **4.62 214** | Pn | Pn | 06 42 59.4 | -4.3 |
| **TCW** | **Tory Channel** | **4.62 214** | PN | Pn | 06 42 59.4 | -4.3 |
| TCW | | | AML | AML | 06 43 52.5 | |
| TCW | | | AML | AML | 06 43 52.7 | |
| **TUWZ** | **Tuamarina** | **4.94 215** | Pn | Pn | 06 43 03.5 | -4.6 |
| **TUWZ** | **Tuamarina** | **4.94 215** | PN | Pn | 06 43 03.5 | -4.6 |
| TUWZ | | | AML | AML | 06 44 02.7 | |
| TUWZ | | | AML | AML | 06 44 04.5 | |
| **NNZ** | **Nelson** | **5.05 220** | Pn | Pn | 06 43 05.0 | -4.7 |
| **NNZ** | **Nelson** | **5.05 220** | PN | Pn | 06 43 05.0 | -4.7 |
| **BSWZ** | **Blackbirch Sta** | **5.20 214** | Pn | Pn | 06 43 06.6 | -5.0 |
| **BSWZ** | **Blackbirch Sta** | **5.20 214** | PN | Pn | 06 43 06.6 | -5.0 |
| **QRZ** | **Quartz Range** | **5.27 229** | Pn | Pn | 06 43 08.3 | -4.2 |
| **QRZ** | **Quartz Range** | **5.27 229** | PN | Pn | 06 43 08.3 | -4.2 |
| **THZ** | **Tophouse** | **5.70 219** | *e*Pn | Pn | 06 43 14.0 | -4.4 |
| THZ | | | *e*Sn | Sn | 06 44 18.4 | -4.0 |
| **THZ** | **Tophouse** | **5.70 219** | ⇑PN | Pn | 06 43 13.7 | -4.7 |
| **KHZ** | **Kahutara** | **5.92 212** | *e*Pn | Pn | 06 43 16.5 | -4.8 |
| KHZ | | | *e*Sn | Sn | 06 44 21.8 | -5.9 |
| **DSZ** | **Denniston Nort** | **6.27 225** | Pn | Pn | 06 43 21.0 | -5.3 |
| **DSZ** | **Denniston Nort** | **6.27 225** | PN | Pn | 06 43 21.0 | -5.3 |
| **LTZ** | **Lake Taylor** | **6.77 216** | *e*Pn | Pn | 06 43 28.5 | -4.6 |
| **OXZ** | **Oxford** | **7.30 215** | *e*Pn | Pn | 06 43 34.9 | -5.4 |
| **MQZ** | **McQueen's Vall** | **7.35 210** | *e*Pn | Pn | 06 43 34.4 | -6.5 |
| **CTZ** | **Chatham Island** | **7.61 147** | *e*PN | Pn | 06 43 43.1 | -1.3 |
| **RPZ** | **Rata Peaks** | **8.06 217** | *e*Pn | Pn | 06 43 45.1 | -5.6 |
| **RPZ** | **Rata Peaks** | **8.06 217** | PN | Pn | 06 43 44.8 | -5.8 |
| **FOZ** | **Fox Glacier** | **8.56 222** | Pn | Pn | 06 43 51.0 | -6.4 |
| **FOZ** | **Fox Glacier** | **8.56 222** | PN | Pn | 06 43 51.0 | -6.4 |
| **LBZ** | **Lake Benmore** | **8.98 217** | *e*Pn | Pn | 06 43 57.4 | -5.7 |
| **LBZ** | **Lake Benmore** | **8.98 217** | PN | Pn | 06 43 56.8 | -6.3 |
| **ODZ** | **Otahua Downs** | **9.28 213** | *e*Pn | Pn | 06 44 00.6 | -6.5 |
| **JCZ** | **Jackson Bay** | **9.48 223** | Pn | Pn | 06 44 02.9 | -7.0 |
| **JCZ** | **Jackson Bay** | **9.48 223** | ⇑PN | Pn | 06 44 02.9 | -7.0 |
| **WKZ** | **Wanaka** | **9.87 219** | *e*Pn | Pn | 06 44 09.2 | -6.1 |
| **EAZ** | **Earnscleugh** | **10.02 216** | Pn | Pn | 06 44 11.1 | -6.3 |
| **EAZ** | **Earnscleugh** | **10.02 216** | PN | Pn | 06 44 11.1 | -6.3 |
| **TUZ** | **Tuapeka** | **10.43 213** | Pn | Pn | 06 44 16.4 | -6.4 |
| **TUZ** | **Tuapeka** | **10.43 213** | PN | Pn | 06 44 16.4 | -6.4 |
| **MLZ** | **Mavora Lakes** | **10.70 218** | *e*Pn | Pn | 06 44 20.5 | -6.2 |
| **WHZ** | **Wether Hill Ro** | **11.19 218** | *e*Pn | Pn | 06 44 28.2 | -4.6 |
| **DCZ** | **Deep Cove** | **11.27 221** | Pn | Pn | 06 44 27.7 | -6.5 |
| **DCZ** | **Deep Cove** | **11.27 221** | PN | Pn | 06 44 27.7 | -6.5 |
| **PYZ** | **Puysegur Point** | **11.98 220** | *e*Pn | Pn | 06 44 38.3 | -5.6 |
| **MSVF** | **Nonsavu** 46nm,1.8s | **19.64 1** | *e*P | P | 06 46 16.4 | -1.8 |
| **CTAO** | **Charters Tower** 13nm,1.4s | **32.36 294** | *e*P | P | 06 48 17.2 | -0.4 |
| **MANU** | **Manus Island** 69nm,1.5s | **44.95 314** | *e*P | P | 06 50 00.3 | -2.6 |

**IDC 24 06:44:43.7±2.0, 5°36.5S×133°38.8E, h0km, mb3.9/2, mb1 4.3/5, mb1mx3.8/35, mbtmp4.1/5, ML4.3/3, Error ellipse: s-maj=92.2km s-min=25.2km az=76.0, Aru Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** 0.9nm,0.3s,baz=360,slow=13,SNR=51 | **14.52** | **176** | Pn | Pn | 06 48 08.6 | -2.1 |
| WRA | 0.5nm,0.3s,baz=358,slow=24,SNR=5.1 | | | Sn | Sn | 06 50 46.5 | -6.1 |
| **FITZ** | **Fitzroy Crossi** 1.5nm,0.3s,baz=31,slow=12,SNR=44 | **14.75** | **210** | Pn | Pn | 06 48 12.9 | -0.8 |
| FITZ | 0.4nm,0.3s,baz=186,slow=18,SNR=4.0 | | | Sn | Sn | 06 50 55.2 | -2.8 |
| **ASAR** | **Alice Springs** 1.1nm,0.3s,baz=12,slow=11,SNR=49 | **18.21** | **178** | P | P | 06 48 58.3 | -0.1 |
| ASAR | 0.2nm,0.3s,baz=1,2,slow=27,SNR=4.9 | | | S | Sn | 06 52 18.4 | -3.6 |
| **STKA** | **Stephens Creek** 1.0nm,0.7s,baz=350,slow=12,SNR=2.6 | **27.48** | **165** | P | P | 06 50 32.4 | +0.6 |
| **MKAR** | **Makanchi Array** 0.5nm,0.4s,baz=109,slow=8.7,SNR=9.3 | **68.76** | **325** | P | P | 06 55 49.5 | 0.0 |

**IDC 24 06:48:21.4±2.6, 12°14N×144°94E, h0km, mb4.4/4, mb1 4.4/4, mb1mx3.6/45, mbtmp4.3/4, Error ellipse: s-maj=159.0km s-min=24.3km az=95.0, South of Mariana Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GUMO** | **Guam** 22nm,0.3s,baz=170,slow=19,SNR=13 | **1.44** | **357** | Pn | Pn | 06 48 47.8 | -0.9 |
| **WRA** | **Warramunga Arr** 0.5nm,0.6s,baz=21,slow=9.4,SNR=3.0 | **33.55** | **198** | P | P | 06 55 02.6 | -0.5 |
| **ARCES** | **ARCESS Array B** 3.4nm,0.6s,baz=51,slow=4.7,SNR=15 | **88.48** | **342** | P | P | 07 01 17.2 | +1.8 |
| **FINES** | **FINESS Array B** 2.9nm,0.8s,baz=55,slow=5.3,SNR=17 | **92.50** | **335** | P | P | 07 01 32.6 | -1.6 |
| **AKASG** | **Malin Array Be** 0.5nm,0.5s,baz=56,slow=5.7,SNR=4.1 | **96.23** | **325** | P | P | 07 01 52.0 | +0.4 |

**IDC 24 06:55:41.0±17.0, 27°46N×140°05E, h532km±211km, mb2.5/4, mb1 2.7/4, mb1mx2.4/38, mbtmp3.4/4, Error ellipse: s-maj=58.9km s-min=23.9km az=67.0, Bonin Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** 0.4nm,0.5s,baz=4.2,slow=7.5,SNR=8.6 | **47.45** | **187** | P | P | 07 03 27.4 | -0.2 |
| **MKAR** | **Makanchi Array** 0.3nm,0.8s,baz=90,slow=9.3,SNR=5.2 | **48.78** | **309** | P | P | 07 03 37.5 | +0.1 |
| **ASAR** | **Alice Springs** 0.1nm,0.4s,baz=353,slow=8.5,SNR=3.5 | **51.18** | **187** | P | P | 07 03 55.1 | 0.0 |
| **YKA** | **Yellowknife Ar** 0.2nm,0.5s,baz=298,slow=6.3,SNR=4.6 | **72.72** | **28** | P | P | 07 06 14.3 | -0.3 |
| **FINES** | **FINESS Array B** 10nm,1.2s,baz=58,slow=4.7,SNR=7.7 | **76.77** | **333** | P | P | 07 06 37.5 | +0.1 |

**IDC 24 06:56:03.8±1.6, 0°04S×125°69E, h0km, mb3.5/4, mb1 3.8/5, mb1mx3.5/39, mbtmp3.6/5, ML3.5/1, Error ellipse: s-maj=115.1km s-min=23.3km az=66.0, Southern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **FITZ** | **Fitzroy Crossi** 0.1nm,0.3s,baz=12,slow=14,SNR=3.5 | **17.95** | **180** | P | P | 07 00 15.7 | +0.1 |
| **WRA** | **Warramunga Arr** 0.7nm,0.5s,baz=335,slow=12,SNR=7.4 | **21.51** | **157** | P | P | 07 00 53.6 | -1.0 |
| **ASAR** | **Alice Springs** 0.7nm,0.7s,baz=346,slow=9.0,SNR=8.5 | **24.80** | **162** | P | P | 07 01 28.4 | +0.6 |
| **STKA** | **Stephens Creek** 0.9nm,0.6s,baz=318,slow=14,SNR=5.0 | **35.05** | **156** | P | P | 07 02 58.4 | -0.2 |
| **MKAR** | **Makanchi Array** 0.3nm,0.4s,baz=124,slow=7.4,SNR=6.9 | **60.09** | **327** | P | P | 07 06 12.9 | -0.1 |

**WEL 24 07:12:07.1±0.2, 43°48S×172°82E, h8km, ML3.5/9, 1C-2D, Error ellipse: s-maj=1.8km s-min=0.6km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.17** | **238** | ⇓PG | Pg | 07 12 10.8 | +0.2 |
| CRLZ | | | | *e*SG | Sg | 07 12 12.9 | 0.0 |
| CRLZ | | | | AML | AML | 07 12 13.2 | |
| **MQZ** | **McQueen's Vall** | **0.25** | **209** | ⇑PG | Pg | 07 12 12.2 | +0.1 |
| MQZ | | | | *e*SG | Sg | 07 12 15.5 | -0.1 |
| MQZ | | | | AML | AML | 07 12 15.9 | |
| **OXZ** | **Oxford** | **0.59** | **285** | ⇓P* | Pg | 07 12 18.6 | +0.1 |
| OXZ | | | | S* | Sg | 07 12 27.0 | +0.8 |
| OXZ | | | | AML | AML | 07 12 28.5 | |
| OXZ | | | | AML | AML | 07 12 28.5 | |
| OXZ | | | | AML | AML | 07 12 28.9 | |
| **KHZ** | **Kahutara** | **1.19** | **27** | *e*P* | Pg | 07 12 29.0 | -0.9 |
| **INZ** | **Inchbonnie** | **1.26** | **306** | P* | Pn | 07 12 29.8 | -1.2 |
| **RPZ** | **Rata Peaks** | **1.30** | **259** | P* | Pn | 07 12 30.2 | -1.5 |
| RPZ | | | | AML | AML | 07 12 49.0 | |
| RPZ | | | | AML | AML | 07 12 51.9 | |
| **WVZ** | **Waitaha Valley** | **1.58** | **284** | AML | AML | 07 13 06.6 | |
| **THZ** | **Tophouse** | **1.72** | **2** | PN | Pn | 07 12 36.8 | -0.7 |
| THZ | | | | AML | AML | 07 13 01.4 | |
| THZ | | | | AML | AML | 07 13 14.4 | |
| **DSZ** | **Denniston Nort** | **1.89** | **336** | PN | Pn | 07 12 39.2 | -0.6 |
| DSZ | | | | AML | AML | 07 13 05.3 | |
| DSZ | | | | AML | AML | 07 13 13.0 | |
| **BSWZ** | **Blackbirch Sta** | **1.93** | **24** | PN | Pn | 07 12 39.9 | -0.3 |
| **LBZ** | **Lake Benmore** | **2.11** | **244** | AML | AML | 07 13 19.9 | |
| LBZ | | | | AML | AML | 07 13 20.0 | |
| **FOZ** | **Fox Glacier** | **2.19** | **268** | PN | Pn | 07 12 44.0 | +0.2 |
| **ODZ** | **Otahua Downs** | **2.21** | **224** | AML | AML | 07 13 19.1 | |
| ODZ | | | | AML | AML | 07 13 25.1 | |
| ODZ | | | | AML | AML | 07 13 26.0 | |
| ODZ | | | | AML | AML | 07 13 29.0 | |
| **TUWZ** | **Tuamarina** | **2.21** | **22** | PN | Pn | 07 12 43.4 | -0.8 |
| **NNZ** | **Nelson** | **2.30** | **11** | PN | Pn | 07 12 45.2 | -0.2 |

*ISCJB* ***24*** *07:13:45.5±0.3, 51°54N×0°02×16°19E±0°02, h0km, mb3.4/4, Error ellipse: s-maj=2.3km s-min=2.0km az=16.1*
*LDG* ***24*** *07:13:45.8±0.4, 51°62N×16°29E, h1km, Ml3.8/5, Error ellipse: s-maj=10.2km s-min=3.4km az=6.0, Suspected Mining induced.*
*IPEC* ***24*** *07:13:47.0±0.3, 51°58N×16°27E, h0km, ML3.1/3, Error ellipse: s-maj=3.2km s-min=1.7km az=66.0*
*PRU* ***24*** *07:13:47.8, 51°55N×16°19E, h0km*
*WAR* ***24*** *07:13:48.6, 51°53N×16°17E, h1km, Mw3.1*
*CSEM* ***24*** *07:13:48.0±0.2, 51°50N×16°18E, h2km, ML3.9/14, Error ellipse: s-maj=4.5km s-min=2.5km az=11.0*
*BGR* ***24*** *07:13:48.4±0.4, 51°53N×16°21E, h1km, ML3.5/16, Error ellipse: s-maj=5.6km s-min=3.3km az=10.0*
*IDC* ***24*** *07:13:48.1±0.6, 51°51N×16°10E, h0km, mb3.4/4, mb1 3.7/12, mb1mx3.5/46, mbtmp3.5/12, ML3.2/7, Error ellipse: s-maj=10.2km s-min=5.8km az=103.0*
*UPP* ***24*** *07:13:49.1±3.1, 51°61N×15°63E, h0km, ML1.6*

**ISC 24 07:13:46.3±0.5, 51°60N±0°03×16°21E±0°02, h0km, n146, σ19 60/222, mb3.4/4, 4C-18D, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KSP** | **Ksiaz** | **0.76** | **176** | *i* Pg | **Pg** | **07 14 01.6** | **+0.7** |
| KSP | | | | *e*Sg | **Sg** | **07 14 10.7** | **0.0** |
| **KSP** | **Ksiaz** | **0.76** | **176** | *e*Pg | **Pg** | **07 14 01.7** | **+0.7** |
| KSP | | | | *e*Sg | **Sg** | **07 14 10.7** | **0.0** |
| **KSP** | **Ksiaz** | **0.76** | **176** | *i* Pg | **Pg** | **07 14 01.6** | **+0.7** |
| KSP | | | | Sg | **Sg** | **07 14 10.7** | **0.0** |
| **KSP** | **Ksiaz** | **0.76** | **176** | *i* Pg | **Pg** | **07 14 01.6** | **+0.7** |
| KSP | | | | *e*Sg | **Sg** | **07 14 10.7** | **0.0** |
| **UPC** | **Upice** | **1.10** | **187** | ⇓*i*PG | **Pg** | **07 14 07.8** | **+0.4** |
| UPC | comp=Z,521nm,0.7s | | | *e*SG | **Sg** | **07 14 21.5** | **-0.2** |
| **UPC** | **Upice** | **1.10** | **187** | Pg | **Pg** | **07 14 07.8** | **+0.4** |
| UPC | 521nm,0.7s | | | Sg | **Sg** | **07 14 21.5** | **-0.2** |
| **DPC** | **Dobruska-Polom** | **1.26** | **177** | ⇓*i*PG | **Pg** | **07 14 10.3** | **-0.1** |
| DPC | comp=Z,158nm,0.3s | | | *e*SG | **Sg** | **07 14 25.9** | **-0.7** |
| **DPC** | **Dobruska-Polom** | **1.26** | **177** | *e*Pg | **Pg** | **07 14 10.5** | **+0.1** |
| **DPC** | **Dobruska-Polom** | **1.26** | **177** | Pg | **Pg** | **07 14 10.3** | **-0.1** |
| DPC | 158nm,0.3s | | | Sg | **Sg** | **07 14 25.9** | **-0.7** |
| **PVCC** | **Panska Ves** | **1.49** | **225** | ⇓*i*PG | **Pn** | **07 14 14.5** | **+0.1** |
| PVCC | comp=Z,327nm,0.3s | | | *e*SG | **Sn** | **07 14 34.8** | **+0.3** |
| **PVCC** | **Panska Ves** | **1.49** | **225** | Pg | **Pn** | **07 14 14.5** | **+0.1** |
| PVCC | 327nm,0.3s | | | Sg | **Sn** | **07 14 34.8** | **+0.3** |
| **KRLC** | **Kraliky** | **1.57** | **166** | ⇓*i*PG | **Pn** | **07 14 15.6** | **+0.1** |
| KRLC | comp=Z,38nm,0.3s | | | *e*SG | **Sn** | **07 14 35.3** | **-1.3** |
| **BRG** | **Berggiesshubel** | **1.60** | **244** | PN | **Pn** | **07 14 15.6** | **-0.3** |
| BRG | | | | PG | **Pg** | **07 14 17.5** | **+0.5** |
| BRG | | | | SG | **Sg** | **07 14 38.2** | **+0.5** |
| **BRG** | **Berggiesshubel** | **1.60** | **244** | *e*Pn | **Pn** | **07 14 15.6** | **-0.3** |
| BRG | 428nm,0.4s | | | *e*Sg | **Sg** | **07 14 38.0** | **+0.3** |
| **BRG** | **Berggiesshubel** | **1.60** | **244** | Pn | **Pn** | **07 14 15.6** | **-0.3** |
| BRG | | | | Sg | **Sg** | **07 14 38.0** | **+0.3** |
| **GOPC** | **GO Pecny, Ondr** | **1.92** | **209** | ⇓*e*PG | **Pb** | **07 14 21.9** | **-0.2** |
| GOPC | comp=Z,90nm,0.7s | | | *e*SG | **Sb** | **07 14 46.9** | **+0.3** |
| **FBE** | **Freiberg** | **1.92** | **250** | *e*Pn | **Pn** | **07 14 20.4** | **+0.2** |
| FBE | | | | *e*Sg | **Sg** | **07 14 48.0** | **+0.1** |
| **FBE** | **Freiberg** | **1.92** | **250** | Pn | **Pn** | **07 14 20.4** | **+0.2** |
| FBE | | | | Sg | **Sg** | **07 14 48.0** | **+0.1** |
| **PRU** | **Pruhonice** | **1.93** | **214** | ⇓*e*PN | **Pn** | **07 14 20.2** | **-0.2** |
| PRU | | | | *e*PG | **Pb** | **07 14 22.4** | **0.0** |
| PRU | comp=Z,153nm,0.5s | | | *e*SG | **Sb** | **07 14 46.9** | **-0.1** |
| **RAC** | **Racibor z** | **1.97** | **140** | *e*Sg | **Sg** | **07 14 49.7** | **0.0** |
| **MORC** | **Moravsky Berou** | **2.02** | **155** | ⇓*i*P | **Pn** | **07 14 21.8** | **+0.2** |
| **MORC** | **Moravsky Berou** | **2.02** | **155** | *e*Pn | **Pn** | **07 14 21.8** | **+0.2** |
| MORC | | | | *e*Sg | **Sb** | **07 14 49.9** | **+0.5** |
| **MORC** | **Moravsky Berou** | **2.02** | **155** | ⇓*i*P | **Pn** | **07 14 21.8** | **+0.2** |
| MORC | | | | Sg | **Sb** | **07 14 49.9** | **+0.5** |
| MORC | | | | S | **Sg** | **07 14 50.4** | **-0.6** |
| **CLL** | **Collm** | **2.03** | **263** | *i* Pn | **Pn** | **07 14 21.8** | **+0.1** |
| CLL | comp=Z,19nm,0.5s | | | *i* Pg | **Pg** | **07 14 25.7** | **+0.5** |
| CLL | | | | *i* | | 07 14 28.1 | |
| CLL | | | | *i* Sg | **Sg** | **07 14 52.2** | **+0.8** |
| **CLL** | **Collm** | **2.03** | **263** | *e*Pn | **Pn** | **07 14 21.8** | **+0.1** |
| CLL | comp=Z,158nm,0.6s | | | *e*Sg | **Sg** | **07 14 52.3** | **+0.9** |
| **CLL** | **Collm** | **2.03** | **263** | Pn | **Pn** | **07 14 21.8** | **+0.1** |
| CLL | | | | Sg | **Sg** | **07 14 52.3** | **+0.9** |
| **OKC** | **Ostrava-Krasne** | **2.15** | **144** | ⇓*e*PN | **Pn** | **07 14 23.1** | **-0.4** |
| OKC | | | | *e*PG | **Pb** | **07 14 26.8** | **+0.6** |
| OKC | | | | *e*SG | **Sb** | **07 14 53.6** | **+0.2** |
| **OKC** | **Ostrava-Krasne** | **2.15** | **144** | *e*Pn | **Pn** | **07 14 23.1** | **-0.4** |
| OKC | comp=Z,146nm,0.7s | | | *e*Sg | **Sb** | **07 14 53.9** | **+0.5** |
| **OKC** | **Ostrava-Krasne** | **2.15** | **144** | Pn | **Pn** | **07 14 23.1** | **-0.4** |
| **VRAC** | **Vranov** | **2.31** | **174** | Pn | **Pn** | **07 14 26.2** | **+0.5** |
| VRAC | comp=Z,5.4nm,0.3s,baz=338,slow=14,SNR=44 | | | Pg | **Pb** | **07 14 29.7** | **+0.9** |
| VRAC | comp=Z,14nm,0.3s,baz=356,slow=16,SNR=37 | | | Lg | Lg | 07 14 57.6 | |
| **VRAC** | **Vranov** | **2.31** | **174** | ⇑*i*P | **Pn** | **07 14 26.1** | **+0.5** |
| **VRAC** | **Vranov** | **2.31** | **174** | S | **Sb** | **07 14 59.0** | **+1.1** |
| **VRAC** | **Vranov** | **2.31** | **174** | *e*Pn | **Pn** | **07 14 26.0** | **+0.4** |
| VRAC | comp=Z,100nm,0.4s | | | *e*Sg | **Sb** | **07 14 58.5** | **+0.6** |
| **KRUC** | **Moravsky** | **2.55** | **177** | *e*Pn | **Pn** | **07 14 29.3** | **+0.5** |
| KRUC | comp=Z,87nm,0.6s | | | *e*Sg | **Sb** | **07 15 06.1** | **+1.4** |
| **OJC** | **Ojcow** | **2.66** | **120** | *e*Pg | **Pg** | **07 14 37.2** | **-0.1** |
| OJC | | | | *e*Sg | **Sg** | **07 15 11.9** | **+0.2** |
| **OJC** | **Ojcow** | **2.66** | **120** | *e*Pn | **Pn** | **07 14 30.8** | **+0.4** |
| **OJC** | **Ojcow** | **2.66** | **120** | Pn | **Pn** | **07 14 30.8** | **+0.4** |
| **OJC** | **Ojcow** | **2.66** | **120** | *e*Pg | **Pg** | **07 14 37.2** | **-0.1** |
| OJC | | | | *e*Sg | **Sg** | **07 15 11.9** | **+0.2** |
| **OJC** | **Ojcow** | **2.66** | **120** | *e*Pg | **Pg** | **07 14 37.2** | **-0.1** |
| OJC | | | | *e*Sg | **Sg** | **07 15 11.9** | **+0.2** |
| **WERD** | **Werda** | **2.72** | **246** | *e*Pn | **Pn** | **07 14 31.9** | **+0.6** |
| **WERD** | **Werda** | **2.72** | **246** | Pn | **Pn** | **07 14 31.9** | **+0.6** |
| **NKC** | **Novy Kostel** | **2.75** | **242** | ⇓*e*PN | **Pn** | **07 14 32.2** | **+0.6** |
| NKC | | | | *e*PG | **Pg** | **07 14 38.4** | **-0.5** |
| NKC | | | | *e*SG | **Sg** | **07 15 14.2** | **-0.3** |
| **KHC** | **Kasperske Hory** | **2.99** | **215** | ⇓*e*PN | **Pn** | **07 14 35.1** | **+0.1** |
| KHC | | | | *e*PG | **Pb** | **07 14 41.6** | **+1.1** |
| KHC | | | | *e*SN | **Sn** | **07 15 10.2** | **-1.4** |
| KHC | | | | *e*SG | **Sg** | **07 15 20.3** | **-2.1** |
| **KHC** | **Kasperske Hory** | **2.99** | **215** | Pn | **Pn** | **07 14 35.1** | **+0.1** |
| **MOX** | **Moxa** | **3.05** | **253** | *e*Pn | **Pn** | **07 14 36.4** | **+0.6** |
| MOX | | | | *e*Sg | **Sg** | **07 15 25.0** | **+0.8** |
| **MOX** | **Moxa** | **3.05** | **253** | Pn | **Pn** | **07 14 36.4** | **+0.6** |
| MOX | | | | Sg | **Sg** | **07 15 25.0** | **+0.8** |
| **MANZ** | **Manzenberg** | **3.06** | **240** | *e*Pn | **Pn** | **07 14 36.7** | **+0.7** |
| MANZ | | | | *e*Sg | **Sg** | **07 15 25.8** | **+1.1** |
| **MANZ** | **Manzenberg** | **3.06** | **240** | Pn | **Pn** | **07 14 36.7** | **+0.7** |
| MANZ | | | | Sg | **Sg** | **07 15 25.8** | **+1.1** |
| **ROTZ** | **Rotzenmuhle** | **3.14** | **236** | *e*Pn | **Pn** | **07 14 37.4** | **+0.4** |
| **ROTZ** | **Rotzenmuhle** | **3.14** | **236** | Pn | **Pn** | **07 14 37.4** | **+0.4** |
| **SMOL** | **Smolenice** | **3.19** | **165** | *e*Pg | **Pg** | **07 14 46.7** | **-0.7** |
| SMOL | | | | *e*Sg | **Sg** | **07 15 27.9** | **-0.8** |
| **SMOL** | **Smolenice** | **3.19** | **165** | *e* | **Pn** | **07 14 39.4** | **+1.7** |
| **SMOL** | **Smolenice** | **3.19** | **165** | *e*PG | **Pg** | **07 14 46.7** | **-0.7** |
| SMOL | | | | *e*SG | **Sg** | **07 15 27.9** | **-0.8** |
| **GEC2** | **GERESS Array S** | **3.20** | **211** | *e*Pn | **Pn** | **07 14 38.1** | **+0.2** |
| GEC2 | | | | *e*Sg | **Sg** | **07 15 26.8** | **-2.1** |
| **GEC2** | **GERESS Array S** | **3.20** | **211** | Pn | **Pn** | **07 14 38.1** | **+0.2** |
| GEC2 | | | | Sg | **Sg** | **07 15 26.8** | **-2.1** |
| **GERES** | **GERESS Array B** | **3.20** | **211** | Pn | **Pn** | **07 14 38.1** | **+0.2** |
| GERES | comp=Z,2.6nm,0.3s,baz=31,slow=12,SNR=101 | | | Pg | **Pb** | **07 14 44.8** | **+0.8** |
| GERES | comp=Z,6.1nm,0.3s,baz=31,slow=16,SNR=46 | | | Lg | Lg | 07 15 23.9 | |
| **LANS** | **Liptovska Anna** | **3.22** | **138** | *e*Pg | **Pg** | **07 14 48.5** | **+0.4** |
| LANS | | | | *e*Sg | **Sg** | **07 15 27.2** | **-2.5** |
| **LANS** | **Liptovska Anna** | **3.22** | **138** | *e* | **Pn** | **07 14 39.3** | **+1.1** |
| **LANS** | **Liptovska Anna** | **3.22** | **138** | *e*PG | **Pg** | **07 14 48.4** | **+0.4** |
| LANS | | | | *e*SG | **Sg** | **07 15 27.2** | **-2.5** |
| **WET** | **Wettzell** | **3.26** | **222** | *e*Pn | **Pn** | **07 14 38.9** | **+0.3** |
| **WET** | **Wettzell** | **3.26** | **222** | Pn | **Pn** | **07 14 38.9** | **+0.3** |
| **NIE** | **Niedzica** | **3.41** | **128** | *e*P | **Pg** | **07 14 50.7** | **-0.8** |
| NIE | | | | *e*S | **Sg** | **07 15 35.0** | **-0.7** |
| **NIE** | **Niedzica** | **3.41** | **128** | *e*P | **Pg** | **07 14 50.7** | **-0.8** |
| NIE | | | | *e*S | **Sg** | **07 15 35.0** | **-0.7** |
| **ZST** | **Bratislava** | **3.46** | **170** | *e*SG | **Sb** | **07 15 33.5** | **+2.6** |
| **ZST** | **Bratislava** | **3.46** | **170** | *e*SG | **Sb** | **07 15 33.5** | **+2.6** |
| **ZST** | **Bratislava** | **3.46** | **170** | *e*SG | **Sg** | **07 15 39.6** | **+2.2** |
| **VYHS** | **Vyhne** | **3.54** | **150** | *e*Pg | **Pg** | **07 14 55.4** | **+1.2** |
| VYHS | | | | *e*Sg | **Sg** | **07 15 39.0** | **-1.0** |
| **VYHS** | **Vyhne** | **3.54** | **150** | *e* | **Pn** | **07 14 42.5** | **-0.1** |
| **VYHS** | **Vyhne** | **3.54** | **150** | *e*PG | **Pg** | **07 14 55.4** | **+1.2** |
| VYHS | | | | *e*SG | **Sg** | **07 15 39.0** | **-1.0** |
| **VYHS** | **Vyhne** | **3.54** | **150** | *e*SG | Sg | 07 15 53.9 | +14 |
| **CLZ** | **Clausthal** | **3.64** | **276** | *e*Pn | **Pn** | **07 14 45.5** | **+1.6** |
| **CLZ** | **Clausthal** | **3.64** | **276** | Pn | **Pn** | **07 14 45.5** | **+1.6** |
| **CONA** | **Conrad Observa** comp=Z,3.0nm,0.3s | **3.69** | **184** | *e*Pn | **Pn** | **07 14 45.4** | **+0.8** |
| CONA | comp=Z,11nm,0.3s | | | *e*Pg | **Pg** | **07 14 55.5** | **-1.4** |
| CONA | comp=Z,38nm,0.5s | | | Sg | **Sg** | **07 15 42.5** | **-2.1** |
| **CONA** | **Conrad Observa** comp=Z,3.0nm,0.3s | **3.69** | **184** | Pn | **Pn** | **07 14 45.4** | **+0.8** |
| **GRA1** | **Grafenberg Arr** | **3.71** | **241** | Sg | **Sg** | **07 15 45.2** | **-0.1** |
| **GRF** | **Grafenberg Arr** | **3.71** | **241** | *e*Sg | **Sg** | **07 15 45.2** | **-0.1** |
| **STHS** | **Stebnicka Huta** | **3.89** | **122** | *e*Pg | **Pg** | **07 15 01.9** | **+1.1** |
| STHS | | | | *e*Sg | **Sg** | **07 15 55.6** | **+4.5** |
| **STHS** | **Stebnicka Huta** | **3.89** | **122** | *e* | **Pn** | **07 14 48.6** | **+1.3** |
| **STHS** | **Stebnicka Huta** | **3.89** | **122** | *e*PG | **Pg** | **07 15 01.9** | **+1.1** |
| STHS | | | | *e*SG | **Sg** | **07 15 55.6** | **+4.5** |
| **STHS** | **Stebnicka Huta** | **3.89** | **122** | *e*SG | **Sg** | **07 15 59.4** | **+8.3** |
| **SOP** | **Sopron** | **3.93** | **177** | *ex* | **Sg** | **07 15 49.6** | **-2.9** |
| **MOA** | **Molln** comp=Z,7.6nm,0.4s | **3.96** | **199** | *e*Pn | **Pn** | **07 14 48.8** | **+0.4** |
| MOA | comp=Z,48nm,0.5s | | | Sg | **Sg** | **07 15 52.1** | **-1.5** |
| **MOA** | **Molln** comp=Z,7.6nm,0.4s | **3.96** | **199** | Pn | **Pn** | **07 14 48.8** | **+0.4** |
| **KECS** | **Kecovo** | **4.16** | **137** | *e*Pg | **Pg** | **07 15 07.6** | **+1.5** |
| **KECS** | **Kecovo** | **4.16** | **137** | *e* | **Pn** | **07 14 52.0** | **+0.9** |
| **KECS** | **Kecovo** | **4.16** | **137** | *e*PG | **Pg** | **07 15 07.6** | **+1.5** |
| KECS | | | | *e*SG | **Sg** | **07 16 06.4** | **+6.4** |
| **CRVS** | **Cervenica-Dubn** | **4.32** | **127** | *e*Pg | **Pg** | **07 15 10.7** | **+1.6** |
| CRVS |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DRGR | | 6.43 136 | ⇑ | *i*P | Pn | 07 15 22.9 | +0.7 |
| DRGR | | 6.43 136 | ⇑ | *i*P | Pn | 07 15 22.9 | +0.7 |
| SIRR | Siria | 6.43 144 | ⇓ | *i*P | Pn | 07 15 23.1 | +0.8 |
| SIRR | Siria | 6.43 144 | ⇓ | *i*P | Pn | 07 15 23.1 | +0.8 |
| CDF | Champ du Feu | 6.58 244 | | *e*P | Pn | 07 15 25.0 | +0.6 |
| CDF | comp=Z,52nm,0.9s | | | *e*Sg | Sg | 07 17 15.0 | -2.6 |
| CDF | Champ du Feu | 6.58 244 | | *e*P | Pn | 07 15 25.0 | +0.6 |
| BURAR | Bucovina Array | 7.08 121 | ⇓ | *i*P | Pn | 07 15 32.1 | +0.9 |
| BURAR | Bucovina Array | 7.08 121 | ⇓ | *i*P | Pn | 07 15 32.1 | +0.9 |
| HINF | Hinteralfeld | 7.15 242 | | *e*Sg | Sg | 07 17 29.8 | -6.0 |
| HAU | comp=Z,28nm,0.7s<br>Haudompre | 7.33 244 | | *e*Sg | Sg | 07 17 36.8 | -4.6 |
| AKASG | comp=Z,12nm,0.5s<br>Malin Array Be | 8.23 91 | | Pn | Pn | 07 15 46.6 | -0.4 |
| AKASG | comp=Z,2.0nm,0.3s,baz=280,slow=12,SNR=14 | | | Sn | Sn | 07 17 16.5 | -4.1 |
| AKASG | comp=Z,0.9nm,0.3s,baz=269,slow=25,SNR=3.5 | | | Lg | Lg | 07 18 16.9 | |
| CABF | comp=Z,0.3nm,0.3s,baz=266,slow=25,SNR=3.3<br>La Chapelle | 8.31 237 | | *e*Sg | Sg | 07 18 11.8 | -1.1 |
| CABF | La Chapelle | 8.31 237 | | *e*Sg | Sg | 07 18 11.8 | -1.1 |
| HFS | Hagfors | 8.67 352 | | Pn | Pn | 07 15 53.6 | +0.8 |
| HFS | comp=Z,0.1nm,0.3s,baz=177,slow=13,SNR=5.4 | | | Sn | Sn | 07 17 27.8 | -3.4 |
| SMF | comp=Z,0.2nm,0.3s,baz=187,slow=22,SNR=3.1<br>Signal de Mont | 9.50 243 | | *e*Sg | Sn | 07 18 48.4 | +57 |
| NOA | comp=Z,5.4nm,0.6s<br>NORSAR Array B | 9.86 346 | | Pn | Pn | 07 16 09.5 | +0.4 |
| VTS | comp=Z,0.1nm,0.3s,baz=169,slow=18,SNR=2.5<br>Vitosha | 10.19 149 | ⇑ | *i*P | Pn | 07 16 03.1 | -11 |
| FINES | FINESS Array B | 11.25 25 | | Pn | Pn | 07 16 26.2 | -1.9 |
| FINES | comp=Z,0.2nm,0.3s,baz=210,slow=11,SNR=9.3 | | | Sn | Sn | 07 18 29.0 | -5.6 |
| EKA | comp=Z,0.3nm,0.3s,baz=213,slow=19,SNR=4.2<br>Eskdalemuir Ar | 12.12 296 | | Pn | Pn | 07 16 37.3 | -2.8 |
| ARCES | baz=104,slow=13,SNR=5.5<br>ARCESS Array B | 18.52 10 | | Pn | P | 07 18 01.5 | -2.4 |
| TORD | comp=Z,0.2nm,0.3s,baz=194,slow=11,SNR=4.2<br>Torodi Ar. Bea | 40.11 202 | | P | P | 07 21 24.4 | +0.8 |
| MKAR | comp=Z,0.5nm,0.7s,baz=358,slow=10,SNR=4.7<br>Makanchi Array | 42.12 69 | | P | P | 07 21 41.8 | +1.8 |
| YKA | comp=Z,0.4nm,0.8s,baz=310,slow=11,SNR=3.0<br>Yellowknife Ar | 59.80 336 | | P | P | 07 23 54.6 | +2.0 |
| PDAR | comp=Z,0.4nm,0.7s,baz=26,slow=7.0,SNR=11<br>Pinedale Array | 74.91 322 | | P | P | 07 25 31.1 | +2.1 |
| | comp=Z,0.3nm,0.6s,baz=59,slow=5.4,SNR=3.5 | | | | | | |

**WEL 24 07:24:42.0±0.4, 37.08S×176.72E, h214km±3km, ML3.5/23, 1C-4D, Error ellipse: s-maj=4.4km s-min=4.0km az=0.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| RUGZ | Raukumara Rang | 1.17 | 140 | PN | Pn | 07 25 14.3 | -0.2 |
| URZ | Urewera | 1.22 | 165 | PN | Pn | 07 25 14.9 | +0.2 |
| URZ | | | | *e*SN | S | 07 25 40.3 | +0.1 |
| MUGZ | Murupara | 1.40 | 178 | PN | Pn | 07 25 16.5 | +0.3 |
| MWZ | Matawai | 1.41 | 153 | *e*PN | Pn | 07 25 16.5 | +0.2 |
| WMGZ | Waiomatatini S | 1.54 | 119 | PN | Pn | 07 25 17.8 | +0.5 |
| WMGZ | | | | AML | AML | 07 25 45.7 | |
| RTZ | Ruatahuna | 1.55 | 172 | ⇑PN | Pn | 07 25 17.5 | 0.0 |
| PUZ | Puketiti | 1.57 | 129 | PN | Pn | 07 25 17.6 | 0.0 |
| PUZ | | | | *e*SN | S | 07 25 44.7 | -0.5 |
| SNGZ | Shannon Statio | 1.77 | 164 | PN | Pn | 07 25 19.5 | +0.1 |
| SNGZ | | | | AML | AML | 07 25 51.4 | |
| SNGZ | | | | AML | AML | 07 25 52.9 | |
| RIGZ | Rimuhau | 1.82 | 153 | PN | Pn | 07 25 20.0 | +0.1 |
| RIGZ | | | | AML | AML | 07 25 52.6 | |
| KNZ | Kokohu | 2.08 | 159 | PN | Pn | 07 25 21.6 | -0.7 |
| OTVZ | Oturere | 2.24 | 202 | ⇓PN | Pn | 07 25 24.3 | +0.1 |
| MHGZ | Mahia Peninsul | 2.27 | 156 | PN | Pn | 07 25 23.7 | -0.6 |
| KWHZ | Kaweka Forest | 2.35 | 186 | PN | Pn | 07 25 24.6 | -0.7 |
| KWHZ | | | | AML | AML | 07 26 01.2 | |
| KWHZ | | | | AML | AML | 07 26 01.7 | |
| MCHZ | McNeill Hill | 2.36 | 180 | ⇓PN | Pn | 07 25 24.9 | -0.4 |
| WNVZ | Wahianoa | 2.41 | 201 | ⇓PN | Pn | 07 25 25.5 | -0.5 |
| BHHZ | Black Hill Sta | 2.46 | 192 | PN | Pn | 07 25 25.4 | -1.0 |
| KAHZ | Kahuranaki | 2.71 | 177 | PN | Pn | 07 25 27.9 | -1.2 |
| PNHZ | Pukenui | 2.86 | 188 | PN | Pn | 07 25 28.9 | -1.9 |
| PXZ | Pawanui | 2.95 | 178 | PN | Pn | 07 25 29.9 | -1.8 |
| PXZ | | | | SN | S | 07 26 08.9 | -1.6 |
| PRHZ | Porangahau | 3.18 | 181 | PN | Pn | 07 25 32.3 | -2.2 |
| ANWZ | Angora Road | 3.38 | 183 | AML | AML | 07 26 19.8 | |
| PRWZ | Pori Road | 3.52 | 189 | *e*PN | Pn | 07 25 36.1 | -2.3 |
| BFZ | Birch Farm | 3.62 | 186 | PN | Pn | 07 25 36.8 | -2.8 |
| MRZ | Mangatainoka R | 3.68 | 194 | ⇓PN | Pn | 07 25 37.4 | -3.1 |
| MRZ | | | | *e*SN | S | 07 26 22.3 | -3.9 |
| TIWZ | Tintock | 3.75 | 190 | PN | Pn | 07 25 38.9 | -2.3 |
| HOWZ | Holdsworth Sta | 3.92 | 193 | PN | Pn | 07 25 39.9 | -3.5 |
| KIW | Kapiti Island | 4.03 | 200 | PN | Pn | 07 25 41.3 | -3.4 |
| DUWZ | D'Urville Isla | 4.31 | 210 | PN | Pn | 07 25 44.4 | -3.7 |
| TCW | Tory Channel | 4.54 | 204 | *e*PN | Pn | 07 25 47.3 | -3.7 |
| TUWZ | Tuamarina | 4.85 | 206 | *e*PN | Pn | 07 25 50.6 | -4.2 |
| NNZ | Nelson | 4.88 | 211 | PN | Pn | 07 25 51.1 | -4.0 |
| NNZ | | | | SN | S | 07 26 48.1 | -4.7 |
| QRZ | Quartz Range | 4.96 | 220 | *e*PN | Pn | 07 25 51.7 | -4.6 |
| THZ | Tophouse | 5.53 | 211 | *e*PN | Pn | 07 25 58.5 | -5.0 |
| KHZ | Kahutara | 5.87 | 204 | *e*PN | Pn | 07 26 03.3 | -4.4 |
| DSZ | Denniston Nort | 6.01 | 218 | *e*PN | Pn | 07 26 04.3 | -5.3 |
| INZ | Inchbonnie | 6.94 | 214 | *e*PN | Pn | 07 26 16.8 | -4.7 |
| OXZ | Oxford | 7.19 | 208 | *e*PN | Pn | 07 26 18.6 | -6.2 |

**TAP 24 07:26:08.2, 25.08N×121.63E, h142km, ML3.5, B, Taiwan**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| TWA | Mucha | 0.10 | 201 | *i*P | Pn | 07 26 27.4 | 0.0 |
| TWA | baz=196 | | | *i*S | Sn | 07 26 41.2 | -0.6 |
| TAP | baz=196<br>Taipei | 0.12 | 250 | S | Sn | 07 26 41.3 | -0.5 |
| NWF | baz=247<br>Wu-fen Shan | 0.14 | 93 | *i*P | Pn | 07 26 27.4 | -0.1 |
| NWF | baz=92 | | | S | Sn | 07 26 41.7 | -0.4 |
| TWS1 | baz=92<br>Kuangyinshan | 0.19 | 277 | P | Pn | 07 26 27.5 | 0.0 |
| TWS1 | baz=277 | | | *e*S | Sn | 07 26 41.6 | -0.4 |
| TWY | baz=277<br>Chenhua | 0.20 | 353 | P | Pn | 07 26 27.4 | -0.1 |
| TWY | baz=355 | | | S | Sn | 07 26 41.8 | -0.3 |
| ILA | baz=355<br>Ilan | 0.33 | 160 | *e*S | Sn | 07 26 41.9 | -0.9 |
| TWB1 | baz=159<br>Santiao Chiao | 0.34 | 102 | *e*P | Pn | 07 26 27.8 | 0.0 |
| TWB1 | baz=101 | | | *e*S | Sn | 07 26 42.6 | -0.1 |
| TWE | baz=101<br>Neicheng | 0.36 | 174 | *e*P | Pn | 07 26 27.6 | -0.4 |
| TWE | baz=171 | | | *e*S | Sn | 07 26 42.1 | -0.9 |
| NCU | baz=171<br>National Centr | 0.41 | 255 | *e*S | Sn | 07 26 42.7 | -0.6 |
| ENTT | baz=254<br>Nioudou | 0.44 | 187 | *e*P | Pn | 07 26 27.9 | -0.5 |
| ENTT | baz=186 | | | *e*S | Sn | 07 26 42.4 | -1.2 |
| NSK | baz=186<br>Sanguang | 0.47 | 211 | P | Pn | 07 26 28.0 | -0.6 |
| NSK | baz=210 | | | *e*S | Sn | 07 26 42.5 | -1.5 |
| TWC | baz=210<br>Suao | 0.51 | 156 | P | Pn | 07 26 28.9 | +0.2 |
| TWC | baz=155 | | | *e*S | Sn | 07 26 44.1 | -0.1 |
| HSN | baz=155<br>Hsinchu | 0.66 | 245 | *e*S | Sn | 07 26 45.4 | -0.3 |
| ENA | baz=245<br>Nanau | 0.66 | 171 | *e*P | Pn | 07 26 29.8 | +0.2 |
| ENA | baz=170 | | | *e*S | Sn | 07 26 45.9 | +0.1 |
| NNS | baz=170<br>Nan Shan | 0.68 | 200 | *e*P | Pn | 07 26 29.7 | -0.1 |
| NNS | baz=199 | | | *e*S | Sn | 07 26 45.4 | -0.9 |
| NSTT | baz=199<br>Nanjuang | 0.72 | 232 | *e*P | Pn | 07 26 30.0 | 0.0 |
| NSTT | baz=231 | | | *e*S | Sn | 07 26 46.2 | -0.3 |
| | baz=231 | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| WHF | Hehuan Shan | 0.98 | 200 | *e*P | Pn | 07 26 32.7 | +0.1 |
| WHF | baz=199 | | | *e*S | Sn | 07 26 50.8 | -0.3 |
| TWD | baz=199<br>Chiawan | 0.99 | 182 | *e*P | Pn | 07 26 31.1 | -1.1 |
| TWD | baz=181 | | | *e*S | Sn | 07 26 48.4 | -2.0 |
| TWQ1 | baz=181<br>Liyutan | 1.06 | 227 | *e*P | Pn | 07 26 32.6 | -0.2 |
| TWQ1 | baz=226 | | | *e*S | Sn | 07 26 51.0 | -0.5 |
| ESL | baz=226<br>Shilin | 1.27 | 188 | *e*P | Pn | 07 26 35.6 | +0.8 |
| ESL | baz=187 | | | *e*S | Sn | 07 26 54.5 | -0.6 |
| TYC | baz=187<br>Yuchr | 1.36 | 211 | *e*P | Pn | 07 26 36.0 | +0.3 |
| TYC | baz=210 | | | *e*S | Sn | 07 26 56.7 | 0.0 |
| WDT | baz=210<br>Danda | 1.39 | 199 | *e*P | Pn | 07 26 36.6 | +0.2 |
| WDT | baz=198 | | | *e*S | Sn | 07 26 57.1 | -0.7 |
| EHY | baz=198<br>Hungye | 1.59 | 190 | *e*P | Pn | 07 26 38.2 | 0.0 |
| EHY | baz=189 | | | *e*S | Sn | 07 27 00.3 | -0.7 |
| YUS | baz=189<br>Yu-Shan | 1.70 | 201 | *e*P | Pn | 07 26 40.2 | +0.3 |
| YUS | baz=200 | | | *e*S | Sn | 07 27 03.6 | -0.4 |
| CHN5 | baz=200<br>Tsauling | 1.71 | 211 | *e*P | Pn | 07 26 39.7 | +0.1 |
| CHN5 | baz=210 | | | *e*S | Sn | 07 27 03.1 | -0.5 |
| ALS | baz=210<br>Alishan | 1.73 | 206 | *e*P | Pn | 07 26 40.2 | +0.1 |
| ALS | baz=205 | | | *e*S | Sn | 07 27 03.9 | -0.5 |
| CHN4 | baz=205<br>Tsaushan | 1.96 | 209 | *e*P | Pn | 07 26 42.9 | +0.5 |
| CHN4 | baz=208 | | | *e*S | Sn | 07 27 08.3 | -0.3 |
| | baz=208 | | | | | | |

*ISCJB **24** 07:28:08.1±0.6, 18.3S±0.2×177.7W±0.1, h300km, mb3.6/11, Error ellipse: s-maj=25.3km s-min=9.0km az=145.8*
*IDC **24** 07:28:11.8±2.2, 18.38S×177.55W, h333km±24km, mb3.4/12, mb1 3.7/13, mb1mx3.6/30, mbtmp4.1/13, Error ellipse: s-maj=24.6km s-min=12.0km az=143.0*
**ISC 24 07:28:09.3±0.8, 18.3S±0.2×177.6W±0.1, h300km, n15, σ1s58/16, mb3.7/11, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| AFI | Afiamalu | 7.09 | 53 | P | Pn | 07 29 55.1 | +3.1 |
| AFI | 21nm,0.3s,baz=142,slow=1.3,SNR=31 | | | S | S | 07 31 14.3 | -0.8 |
| DZM | 4.9nm,0.3s,baz=15,slow=20,SNR=3.1<br>Mont Dzumac | 15.44 | 253 | P | Pn | 07 31 35.8 | +2.8 |
| URZ | 0.3nm,0.3s,baz=50,slow=16,SNR=4.0<br>Urewera | 20.43 | 192 | P | P | 07 32 23.6 | -0.9 |
| CTA | 5.5nm,0.3s,baz=263,slow=4.2,SNR=12<br>Charters Tower | 34.13 | 261 | P | P | 07 34 27.2 | +0.3 |
| STKA | 2.1nm,0.6s,baz=80,slow=8.0,SNR=6.7<br>Stephens Creek | 39.12 | 242 | P | P | 07 35 08.7 | +0.2 |
| WRA | 2.3nm,0.5s,baz=87,slow=10,SNR=10.0<br>Warramunga Arr | 45.31 | 260 | P | P | 07 35 57.4 | -0.9 |
| ASAR | 0.6nm,0.4s,baz=97,slow=7.6,SNR=22<br>Alice Springs | 45.42 | 255 | P | P | 07 35 58.9 | -0.4 |
| MJAR | 5.3nm,0.5s,baz=90,slow=8.5,SNR=159<br>Matsushiro Arr | 68.66 | 323 | P | P | 07 38 41.5 | +0.7 |
| NVAR | 0.4nm,0.3s,baz=153,slow=8.4,SNR=5.2<br>Mina Array Bea | 79.17 | 43 | P | P | 07 39 41.1 | -0.4 |
| TXAR | 1.2nm,0.7s,baz=226,slow=8.7,SNR=8.6<br>Lajitas Array | 85.56 | 57 | P | P | 07 40 15.0 | +0.5 |
| ILAR | 0.9nm,0.7s,baz=227,slow=5.3,SNR=8.5<br>Eielson Array | 86.08 | 13 | P | P | 07 40 14.6 | -1.5 |
| PDAR | 0.5nm,0.4s,baz=221,slow=5.2,SNR=13<br>Pinedale Array | 87.10 | 43 | P | P | 07 40 20.8 | -1.0 |
| SONM | 0.2nm,0.6s,baz=242,slow=6.7,SNR=2.6<br>Songino Array | 94.33 | 319 | P | P | 07 40 53.6 | -1.5 |
| YKA | 0.2nm,0.4s,baz=122,slow=1.9,SNR=2.7<br>Yellowknife Ar | 94.35 | 25 | P | P | 07 40 52.8 | -1.9 |
| GERES | 0.4nm,0.7s,baz=241,slow=4.4,SNR=9.1<br>GERESS Array B | 148.16 | 346 | PKPbc | PKPdf | 07 47 18.0 | +1.6 |
| | 0.6nm,0.4s,baz=36,slow=3.5,SNR=6.9 | | | | | | |

*GUC **24** 07:33:20.6±0.5, 34.17S×73.31W, h28km±3km, ML3.7*
**ISC 24 07:33:22.1±6.7, 34.32S±0.07×73.4W±0.2, h39km±16km, n18, σ2s11/30, 5C-1D, Off coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| CHPI | Pichilemu | 1.11 | 94 | ⇓*i*P | Pn | 07 33 39.3 | -1.8 |
| CHPI | | | | *i*S | Sn | 07 33 53.6 | -1.7 |
| GO05 | HualaæØ | 1.35 | 121 | *i*P | Pn | 07 33 44.5 | 0.0 |
| GO05 | | | | *i*S | Sn | 07 34 02.1 | +0.8 |
| GO05 | HualaæØ | 1.35 | 121 | *e*P | Pn | 07 33 44.3 | -0.2 |
| GO05 | | | | *i*S | Sn | 07 34 01.9 | +0.6 |
| GO05 | comp=E,2μm,0.4s | | | IAML | | 07 34 02.3 | |
| COCH | Cobquecura | 1.86 | 166 | *e*P | Pn | 07 33 47.9 | -3.5 |
| COCH | | | | *e*S | Sn | 07 34 13.4 | -0.4 |
| NICH | Los Niches | 1.87 | 112 | *e*P | Pn | 07 33 52.0 | +0.3 |
| NICH | | | | *i*S | Sn | 07 34 15.7 | +1.7 |
| RCDM | Rinconada Maip | 2.27 | 69 | ⇑*i*P | Pn | 07 33 54.1 | -3.0 |
| RCDM | | | | *e*S | Sn | 07 34 21.1 | -2.7 |
| ROC1 | El Roble | 2.36 | 56 | *e*S | Sn | 07 34 31.4 | +5.0 |
| ROCH | El Roble | 2.37 | 56 | *e*P | Pn | 07 34 03.5 | +4.9 |
| ROCH | | | | *i*S | Sn | 07 34 31.3 | +4.8 |
| ROCH | comp=N,410nm,0.4s | | | IAML | | 07 34 33.3 | |
| ANTU | Antumapu | 2.38 | 72 | *e*P | Pn | 07 33 57.3 | -1.3 |
| ANTU | | | | *i*S | Sn | 07 34 25.2 | -1.2 |
| ANTU | comp=N,584nm,0.5s | | | IAML | | 07 34 26.3 | |
| FSR | Penalolen | 2.49 | 71 | ⇑*i*P | Pn | 07 34 00.3 | +0.1 |
| FSR | | | | *i*S | Sn | 07 34 29.4 | +0.1 |
| CCHI | Chillan | 2.50 | 156 | *e*P | Pn | 07 34 01.6 | +1.3 |
| CCHI | | | | *e*S | Sn | 07 34 32.7 | +3.2 |
| PEL | Peldehue | 2.51 | 63 | ⇑*i*P | Pn | 07 33 59.2 | -1.2 |
| PEL | | | | *e*S | Sn | 07 34 28.1 | -1.6 |
| PEL | comp=N,579nm,0.3s | | | IAML | | 07 34 29.9 | |
| CLCH | Cerro Calan | 2.51 | 69 | ⇑*i*P | Pn | 07 33 59.2 | -1.2 |
| CLCH | | | | *i*S | Sn | 07 34 28.8 | -1.1 |
| CLCH | comp=E,356nm,0.3s | | | IAML | | 07 34 33.7 | |
| LMEL | Las Melosas | 2.65 | 81 | *e*P | Pn | 07 34 01.9 | -0.6 |
| LMEL | | | | *i*S | Sn | 07 34 33.4 | 0.0 |
| LMEL | comp=E,806nm,0.1s | | | IAML | | 07 34 35.8 | |
| FCH | Farellones | 2.73 | 70 | ⇑*i*P | Pn | 07 34 02.8 | -0.9 |
| FCH | | | | *e*S | Sn | 07 34 34.5 | -1.1 |
| AUSP | Uspallata | 3.92 | 59 | *e*P | Pn | 07 34 21.0 | +1.0 |
| AAGR | Agrelo | 3.96 | 73 | *e*P | Pn | 07 34 22.4 | +2.0 |
| VCA | Vinchina | 7.09 | 40 | IAML | | 07 36 25.4 | |
| | comp=Z,12nm,0.3s | | | | | | |

*ISCJB **24** 07:39:41.1±0.7, 43.53S±0.04×172.91E±0.06, h16km±6km, mb3.6/3, Error ellipse: s-maj=8.4km s-min=3.7km az=40.6*
*NEIC **24** 07:39:42.4±0.0, 43.50S×172.77E, h13km, mb4.4/1, ML4.0(WEL), After WEL.*
*NEIC Felt in the Christchurch area.*
*WEL **24** 07:39:43.0±0.1, 43.48S×172.74E, h8km±1km, ML3.9/32, Mw3.8, Error ellipse: s-maj=1.5km s-min=0.7km az=90.0*
*WEL Felt in the Canterbury region, maximum reported intensity MM 4.*
*IDC **24** 07:39:47.0±2.6, 42.90S×171.90E, h0km, mb3.4/2, mb1 3.6/2, mb1mx3.5/17, mbtmp3.4/2, MS2.7/1, Ms1 2.7/1, ms1mx2.4/11, Error ellipse: s-maj=52.3km s-min=14.2km az=112.0*
**ISC 24 07:39:41.9±1.1, 43.49S±0.03×172.85E±0.04, h9km±7km, n70, σ1s06/72, mb3.3/3, 7C-4D, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| CRLZ | Canterbury Las | 0.18 | 242 | ⇑PG | Pg | 07 39 46.0 | +0.2 |
| CRLZ | | | | *e*Sg | Sg | 07 39 48.6 | +0.2 |
| CRLZ | | | | | AML | 07 39 48.8 | |
| CRLZ | | | | | AML | 07 39 48.8 | |
| CRLZ | | | | | AML | 07 39 49.1 | |
| MQZ | McQueen's Vall | 0.26 | 213 | *e*Pg | Pb | 07 39 47.7 | -1.0 |
| MQZ | | | | *e*Sg | Sg | 07 39 51.2 | +0.5 |
| MQZ | McQueen's Vall | 0.26 | 213 | ⇑PG | Pb | 07 39 47.7 | -1.0 |
| MQZ | | | | SG | Sg | 07 39 51.1 | +0.4 |
| MQZ | | | | AML | AML | 07 39 51.5 | |
| OXZ | Oxford | 0.61 | 285 | *e*Pg | Pg | 07 39 53.6 | -0.1 |
| OXZ | | | | *e*Sg | Sb | 07 40 03.1 | -0.3 |
| OXZ | Oxford | 0.61 | 285 | ⇓P* | Pg | 07 39 53.6 | -0.1 |
| OXZ | | | | SG | Sg | 07 40 01.3 | -0.4 |
| OXZ | | | | AML | AML | 07 40 02.6 | |
| OXZ | | | | AML | AML | 07 40 02.6 | |
| OXZ | | | | AML | AML | 07 40 03.3 | |
| LTZ | Lake Taylor | 0.82 | 329 | *e*Pg | Pg | 07 39 58.4 | +0.7 |
| LTZ | Lake Taylor | 0.82 | 329 | ⇓P* | Pg | 07 39 58.3 | +0.6 |
| LTZ | | | | S* | Sg | 07 40 09.3 | +0.9 |
| KHZ | Kahutara | 1.19 | 26 | *e*Pn | Pn | 07 40 04.2 | -0.3 |
| KHZ | Kahutara | 1.19 | 26 | ⇓P* | Pn | 07 40 04.2 | -0.3 |
| KHZ | | | | AML | AML | 07 40 26.7 | |
| KHZ | | | | AML | AML | 07 40 26.7 | |
| KHZ | | | | AML | AML | 07 40 29.9 | |
| KHZ | | | | AML | AML | 07 40 29.9 | |
| INZ | Inchbonnie | 1.28 | 306 | P* | Pn | 07 40 04.6 | -1.2 |
| RPZ | Rata Peaks | 1.32 | 259 | Pg | Pn | 07 40 05.1 | -1.4 |
| RPZ | 28nm,0.3s,baz=81,slow=0.9,SNR=98 | | | Lg | Lg | 07 40 22.2 | |
| RPZ | 48nm,0.3s,baz=217,slow=20,SNR=21 | | | LR | LR | 07 40 37.9 | |
| RPZ | comp=Z,113nm,19.7s,baz=128,slow=50<br>Rata Peaks | 1.32 | 259 | *e*Pn | Pg | 07 40 07.5 | +0.2 |
| RPZ | Rata Peaks | 1.32 | 259 | P* | Pn | 07 40 05.0 | -1.4 |
| RPZ | | | | AML | AML | 07 40 29.6 | |
| RPZ | | | | AML | AML | 07 40 30.7 | |
| WVZ | Waitaha Valley | 1.60 | 284 | *e*PN | Pn | 07 40 10.0 | -0.3 |
| WVZ | | | | AML | AML | 07 40 35.5 | |
| WVZ | | | | AML | AML | 07 40 45.7 | |
| THZ | Tophouse | 1.72 | 1 | *e*Pn | Pn | 07 40 11.8 | -0.3 |
| THZ | Tophouse | 1.72 | 1 | ⇓PN | Pn | 07 40 11.5 | -0.6 |
| THZ | | | | AML | AML | 07 40 45.7 | |
| THZ | | | | AML | AML | 07 40 47.1 | |
| DSZ | Denniston Nort | 1.90 | 336 | ⇑PN | Pn | 07 40 14.1 | -0.4 |
| DSZ | | | | AML | AML | 07 40 47.2 | |
| DSZ | | | | AML | AML | 07 40 47.3 | |
| DSZ | | | | AML | AML | 07 40 52.5 | |
| DSZ | | | | AML | AML | 07 40 52.6 | |
| BSWZ | Blackbirch Sta | 1.93 | 24 | ⇑PN | Pn | 07 40 14.9 | +0.1 |
| BSWZ | | | | AML | AML | 07 41 01.1 | |
| BSWZ | | | | AML | AML | 07 41 02.1 | |
| LBZ | Lake Benmore | 2.12 | 244 | *e*Pn | Pb | 07 40 19.2 | -1.3 |
| LBZ | Lake Benmore | 2.12 | 244 | PN | Pn | 07 40 16.8 | -0.7 |
| LBZ | | | | AML | AML | 07 41 01.4 | |
| LBZ | | | | AML | AML | 07 41 06.2 | |
| FOZ | Fox Glacier | 2.21 | 268 | *e*Pn | Pn | 07 40 19.6 | +1.0 |
| FOZ | Fox Glacier | 2.21 | 268 | ⇑PN | Pn | 07 40 19.3 | +0.7 |
| FOZ | | | | AML | AML | 07 40 48.2 | |
| FOZ | | | | AML | AML | 07 40 58.7 | |
| TUWZ | Tuamarina | 2.21 | 22 | ⇑PN | Pn | 07 40 18.4 | -0.3 |
| TUWZ | | | | AML | AML | 07 41 05.6 | |
| TUWZ | | | | AML | AML | 07 41 14.0 | |
| ODZ | Otahua Downs | 2.22 | 225 | *e*Pn | Pn | 07 40 19.4 | +0.6 |
| ODZ | Otahua Downs | 2.22 | 225 | AML | AML | 07 40 54.6 | |
| ODZ | | | | AML | AML | 07 40 54.6 | |
| ODZ | | | | AML | AML | 07 41 00.5 | |
| ODZ | | | | AML | AML | 07 41 00.5 | |
| NNZ | Nelson | 2.30 | 10 | AML | AML | 07 40 49.1 | |
| TCW | Tory Channel | 2.51 | 25 | PN | Pn | 07 40 22.2 | -0.6 |
| TCW | | | | AML | AML | 07 41 19.0 | |
| BHW | Baring Head | 2.56 | 36 | PN | Pn | 07 40 22.9 | -0.6 |
| SNZO | South Karori | 2.57 | 33 | *e*Pn | Pn | 07 40 23.3 | -0.4 |
| PLWZ | Palliser | 2.62 | 44 | PN | Pn | 07 40 23.4 | -0.9 |
| WEL | Wellington | 2.62 | 34 | PN | Pn | 07 40 23.9 | -0.4 |
| WEL | | | | AML | AML | 07 40 58.3 | |
| WEL | | | | AML | AML | 07 41 23.6 | |
| QRZ | Quartz Range | 2.67 | 355 | PN | Pn | 07 40 24.8 | -0.2 |
| QRZ | | | | AML | AML | 07 40 39.4 | |
| QRZ | | | | AML | AML | 07 41 10.2 | |
| QRZ | | | | AML | AML | 07 41 10.2 | |
| QRZ | | | | AML | AML | 07 41 11.6 | |
| DUWZ | D'Urville Isla | 2.80 | 17 | PN | Pn | 07 40 26.7 | -0.1 |
| DUWZ | | | | AML | AML | 07 41 19.8 | |
| DUWZ | | | | AML | AML | 07 41 28.3 | |
| HHSZ | Highcliff Hill | 2.88 | 213 | AML | AML | 07 41 21.6 | |
| HHSZ | | | | AML | AML | 07 41 22.8 | |
| CAW | Cannon Point | 2.89 | 35 | PN | Pn | 07 40 27.3 | -0.8 |
| CAW | | | | AML | AML | 07 41 02.7 | |
| CAW | | | | AML | AML | 07 41 54.6 | |
| JCZ | Jackson Bay | 3.00 | 257 | PN | Pn | 07 40 29.4 | -0.2 |
| JCZ | | | | AML | AML | 07 41 24.3 | |
| JCZ | | | | AML | AML | 07 41 29.2 | |
| MTW | Mount Morrison | 3.05 | 41 | AML | AML | 07 41 11.5 | |
| MTW | | | | AML | AML | 07 41 16.2 | |
| WKZ | Wanaka | 3.06 | 243 | *e*Pn | Pn | 07 40 32.2 | +1.7 |
| WKZ | Wanaka | 3.06 | 243 | AML | AML | 07 41 25.1 | |
| WKZ | | | | AML | AML | 07 41 33.0 | |
| EAZ | Earnscleugh | 3.08 | 234 | ⇑PN | Pn | 07 40 29.6 | -1.1 |
| EAZ | | | | AML | AML | 07 41 29.0 | |
| EAZ | | | | AML | AML | 07 41 33.1 | |
| EAZ | | | | AML | AML | 07 41 34.3 | |
| EAZ | | | | AML | AML | 07 41 34.4 | |
| TUZ | Tuapeka | 3.37 | 222 | PN | Pn | 07 40 33.8 | -0.8 |
| TUZ | | | | AML | AML | 07 41 36.4 | |
| TUZ | | | | AML | AML | 07 41 36.8 | |
| TUZ | | | | AML | AML | 07 41 42.9 | |
| TUZ | | | | AML | AML | 07 41 42.9 | |
| MRZ | Mangatainoka R | 3.48 | 37 | PN | Pn | 07 40 34.8 | -1.3 |
| MRZ | | | | AML | AML | 07 41 23.1 | |
| MRZ | | | | AML | AML | 07 41 23.3 | |
| BFZ | Birch Farm | 3.78 | 43 | *e*Pn | Pn | 07 40 39.0 | -1.2 |
| BFZ | Birch Farm | 3.78 | 43 | PN | Pn | 07 40 38.8 | -1.4 |
| MLZ | Mavora Lakes | 3.87 | 239 | *e*Pn | Pn | 07 40 41.8 | +0.2 |
| MLZ | Mavora Lakes | 3.87 | 239 | PN | Pn | 07 40 40.8 | -0.8 |
| MLZ | | | | AML | AML | 07 42 00.8 | |
| SYZ | Scrubby Hill | 4.03 | 219 | PN | Pn | 07 40 43.7 | +0.1 |
| SYZ | | | | AML | AML | 07 41 59.5 | |
| SYZ | | | | AML | AML | 07 42 05.1 | |
| ANWZ | Angora Road | 4.06 | 43 | AML | AML | 07 41 35.8 | |
| WHZ | Wether Hill Ro | 4.24 | 234 | *e*Pn | Pn | 07 40 46.1 | -0.5 |
| PREZ | Palmer Road | 4.26 | 14 | PN | Pn | 07 40 48.8 | +1.9 |
| KHEZ | Kahui Hut | 4.28 | 12 | PN | Pn | 07 40 49.1 | +1.9 |
| PKE | Pukeiti | 4.37 | 12 | PN | Pn | 07 40 49.6 | +1.2 |
| DCZ | Deep Cove | 4.53 | 242 | *e*Pn | Pn | 07 40 51.9 | +1.4 |
| DCZ | Deep Cove | 4.53 | 242 | PN | Pn | 07 40 49.3 | -1.2 |
| DCZ | | | | AML | AML | 07 42 20.8 | |
| WNVZ | Wahianoa | 4.64 | 27 | PN | Pn | 07 40 52.7 | +0.4 |
| TUVZ | Tukino | 4.71 | 28 | PN | Pn | 07 40 54.3 | +1.1 |
| NGZ | Ngauruhoe | 4.78 | 27 | PN | Pn | 07 40 54.8 | +0.7 |
| APZ | The Paps | 4.79 | 224 | PN | Pn | 07 40 53.8 | -0.4 |
| OTVZ | Oturere | 4.81 | 27 | PN | Pn | 07 40 54.4 | -0.2 |
| OTVZ | | | | AML | AML | 07 42 50.8 | |
| TWVZ | Taurewa | 4.82 | 25 | PN | Pn | 07 40 55.2 | +0.5 |
| BKZ | Black Stump Fm | 5.12 | 34 | *e*Pn | Pn | 07 40 58.0 | -0.7 |
| HIZ | Hauiti | 5.20 | 18 | *e*Pn | Pn | 07 41 00.3 | +0.6 |
| HIZ | Hauiti | 5.20 | 18 | PN | Pn | 07 41 00.1 | +0.3 |
| URZ | Urewera | 6.14 | 33 | Pn | Pn | 07 41 10.3 | -2.3 |
| URZ | 0.9nm,0.3s,baz=252,slow=3.2,SNR=3.6 | | | Sn | Sn | 07 42 14.8 | -8.2 |
| URZ | 0.9nm,0.3s,baz=207,slow=14,SNR=2.4 | | | LR |

*ellipse: s-maj=5.7km s-min=4.3km az=78.0*
*ISK **24** 07:47:13.8, 40.22N×42.13E, h6km, ML2.2*
**ISC 24 07:47:12.9±1.1, 40.19N±0.02×42.03E±0.02, h5km±10km, n20, σ0s49/40, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **HOMI** | **Horasan** | **0.17** | **213** | *i* P | **Pg** | **07 47 15.7** | **-0.7** |
| HOMI | | | | *i* S | **Sg** | **07 47 19.6** | **+0.8** |
| **SENK** | **Senkaya-Erzuru** | **0.44** | **34** | *e*PG | **Pg** | **07 47 21.9** | **+0.4** |
| SENK | | | | *e*SG | **Sg** | **07 47 27.5** | **+0.2** |
| **SENK** | **Senkaya-Erzuru** | **0.44** | **34** | *e*Pg | **Pg** | **07 47 21.9** | **+0.4** |
| SENK | | | | *e*Sg | **Sg** | **07 47 27.5** | **+0.2** |
| **EATA** | **Eleskirt** | **0.48** | **133** | *i* P | **Pg** | **07 47 21.5** | **-0.8** |
| EATA | | | | *i* S | **Sg** | **07 47 28.9** | **+0.3** |
| **EATA** | **Eleskirt** | **0.48** | **133** | P | **Pg** | **07 47 21.5** | **-0.8** |
| EATA | | | | S | **Sg** | **07 47 28.9** | **+0.3** |
| **ERZM** | **Erzurum** | **0.58** | **241** | *i* P | **Pg** | **07 47 24.3** | **+0.1** |
| ERZM | | | | *i* S | **Sg** | **07 47 31.6** | **-0.2** |
| **ERZM** | **Erzurum** | **0.58** | **241** | P | **Pg** | **07 47 24.3** | **+0.1** |
| ERZM | | | | S | **Sg** | **07 47 31.6** | **-0.2** |
| **DDEM** | **Demirkent** | **0.73** | **343** | *i* P | **Pg** | **07 47 26.9** | **-0.1** |
| DDEM | | | | *i* S | **Sb** | **07 47 38.9** | **+0.3** |
| **DDEM** | **Demirkent** | **0.73** | **343** | P | **Pg** | **07 47 26.9** | **-0.1** |
| DDEM | | | | S | **Sb** | **07 47 38.9** | **+0.3** |
| **DAGI** | **Agillar** | **0.89** | **354** | *i* P | **Pg** | **07 47 29.8** | **-0.2** |
| DAGI | | | | *i* S | **Sn** | **07 47 44.3** | **-1.3** |
| **KARS** | **Kars** | **0.91** | **61** | *e*PG | **Pg** | **07 47 30.4** | **0.0** |
| KARS | | | | *e*SG | **Sg** | **07 47 42.1** | **-0.1** |
| **KARS** | **Kars** | **0.91** | **61** | *e*Pg | **Pg** | **07 47 30.4** | **0.0** |
| KARS | | | | *e*Sg | **Sg** | **07 47 42.1** | **-0.1** |
| **EKAR** | **Karacoban** | **0.94** | **178** | *i* P | **Pn** | **07 47 33.3** | **+0.3** |
| EKAR | | | | *i* S | **Sn** | **07 47 47.3** | **+0.4** |
| **EKAR** | **Karacoban** | **0.94** | **178** | P | **Pn** | **07 47 33.3** | **+0.3** |
| EKAR | | | | S | **Sn** | **07 47 47.3** | **+0.4** |
| **AGRB** | **Hanur-Agry** | **0.96** | **129** | *e*PG | **Pg** | **07 47 31.5** | **+0.1** |
| AGRB | | | | *e*SG | **Sb** | **07 47 45.4** | **0.0** |
| **AGRB** | **Hanur-Agry** | **0.96** | **129** | *e*Pg | **Pg** | **07 47 31.5** | **+0.1** |
| AGRB | | | | *e*Sg | **Sb** | **07 47 45.4** | **0.0** |
| **ARTV** | **Artvin** | **0.99** | **356** | *i* P | **Pg** | **07 47 31.2** | **-0.8** |
| ARTV | | | | *i* S | **Sb** | **07 47 46.2** | **-0.1** |
| **ARTV** | **Artvin** | **0.99** | **356** | P | **Pg** | **07 47 31.2** | **-0.8** |
| ARTV | | | | S | **Sb** | **07 47 46.2** | **-0.1** |
| **CLDR** | **Caldiran** | **1.79** | **125** | *e*PN | **Pn** | **07 47 45.3** | **+0.5** |
| CLDR | | | | *e*SN | **Sb** | **07 48 08.6** | **-0.8** |
| **CLDR** | **Caldiran** | **1.79** | **125** | *e*Pn | **Pn** | **07 47 45.3** | **+0.5** |
| CLDR | | | | *e*Sn | **Sb** | **07 48 08.6** | **-0.8** |

*TIR **24** 07:47:38.2±2.5, 40.62N×20.39E, h23km±9km, ML2.7*
*ATH **24** 07:47:39.1, 40.73N×20.28E, h16km±5km, ML2.4/3, Error ellipse: s-maj=5.1km s-min=1.5km az=152.0*
*SKO **24** 07:47:40.5, 40.64N×20.27E, h10km, M2.0, ML2.5*
*ISCJB **24** 07:47:41.1±0.5, 40.64N±0.03×20.30E±0.05, h21km±7km, Error ellipse: s-maj=5.8km s-min=4.8km az=19.6*
*CSEM **24** 07:47:41.4±0.4, 40.61N×20.36E, h18km±3km, ML2.7, Error ellipse: s-maj=7.1km s-min=5.6km az=56.0*
**ISC 24 07:47:41.9±1.1, 40.62N±0.02×20.40E±0.03, h21km±2km, n42, σ1s45/65, Greece-Albania border region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KBN** | **Korca** | **0.29** | **89** | *i* PG | **Pb** | **07 47 47.5** | **-1.1** |
| KBN | | | | *i* SG | **Sb** | **07 47 53.7** | **+0.4** |
| **KBN** | **Korca** | **0.29** | **89** | *i* Pg | **Pb** | **07 47 47.5** | **-1.1** |
| | SNR=91 | | | | | | |
| KBN | | | | *i* Sg | **Sb** | **07 47 53.7** | **+0.4** |
| | SNR=91 | | | | | | |
| **NEST** | **Nestorio** | **0.53** | **112** | P | **Pb** | **07 47 51.9** | **-0.8** |
| NEST | | | | S | **Sn** | **07 48 02.6** | **-0.2** |
| **NEST** | **Nestorio** | **0.53** | **112** | P | **Pb** | **07 47 51.9** | **-0.8** |
| NEST | | | | S | **Sn** | **07 48 02.6** | **-0.2** |
| **OHR** | **Ohrid** | **0.58** | **31** | *i* Pg | **Pb** | **07 47 51.6** | **-1.9** |
| OHR | | | | *i* Sg | **Sb** | **07 48 01.5** | **+0.1** |
| OHR | | | | *e*Lg | Lg | 07 48 01.8 | |
| | comp=E,194nm,0.5s | | | | | | |
| OHR | | | | *e*Lg | Lg | 07 48 02.8 | |
| | comp=N,180nm,0.9s | | | | | | |
| **PENT** | **Pentalofos** | **0.70** | **127** | P | **Pb** | **07 47 54.2** | **-1.3** |
| PENT | | | | S | **Sb** | **07 48 05.8** | **+0.9** |
| PENT | | | | AML | AML | 07 48 10.4 | |
| | comp=N,318μm,0.3s | | | | | | |
| PENT | | | | AML | AML | 07 48 11.5 | |
| | comp=E,374μm,0.4s | | | | | | |
| **PENT** | **Pentalofos** | **0.70** | **127** | P | **Pb** | **07 47 54.2** | **-1.3** |
| PENT | | | | S | **Sb** | **07 48 05.8** | **+0.9** |
| **FNA** | **Florina** | **0.76** | **77** | P | **Pb** | **07 47 55.7** | **-0.8** |
| FNA | | | | S | **Sn** | **07 48 08.1** | **-0.3** |
| FNA | | | | AML | AML | 07 48 09.9 | |
| | comp=E,1219μm,0.4s | | | | | | |
| FNA | | | | AML | AML | 07 48 11.7 | |
| | comp=N,917μm,0.4s | | | | | | |
| **FNA** | **Florina** | **0.76** | **77** | P | **Pb** | **07 47 55.7** | **-0.8** |
| FNA | | | | S | **Sn** | **07 48 08.1** | **-0.3** |
| **SRN** | **Sarande** | **0.80** | **203** | *i* PG | **Pb** | **07 47 57.0** | **0.0** |
| SRN | | | | *i* SG | **Sn** | **07 48 10.7** | **+1.6** |
| **SRN** | **Sarande** | **0.80** | **203** | *i* Pg | **Pb** | **07 47 57.0** | **0.0** |
| | SNR=90 | | | | | | |
| **BIA** | **Bitola** | **0.81** | **60** | *i* Pg | **Pb** | **07 47 56.6** | **-0.7** |
| BIA | | | | *i* Sg | **Sn** | **07 48 08.9** | **-0.6** |
| **TIR** | **Tirane** | **0.83** | **331** | *i* PG | **Pb** | **07 47 58.5** | **+0.1** |
| TIR | | | | *i* SG | **Sn** | **07 48 10.1** | **0.0** |
| **TIR** | **Tirane** | **0.83** | **331** | *i* Pg | **Pn** | **07 47 58.5** | **+0.1** |
| | SNR=90 | | | | | | |
| TIR | | | | *i* Sg | **Sn** | **07 48 10.1** | **0.0** |
| | SNR=90 | | | | | | |
| **KRUS** | **Krusevo** | **0.99** | **40** | *i* Pg | **Pb** | **07 47 58.9** | **-1.5** |
| KRUS | | | | *i* Sg | **Sn** | **07 48 13.5** | **-0.5** |
| **SGD** | **Sagiada** | **1.01** | **187** | P | **Pb** | **07 48 00.6** | **-0.1** |
| **SGD** | **Sagiada** | **1.01** | **187** | P | **Pb** | **07 48 00.6** | **-0.1** |
| **KEK** | **Kerkira** | **1.01** | **207** | P | **Pn** | **07 48 00.7** | **-0.2** |
| KEK | | | | S | **Sn** | **07 48 16.4** | **+1.9** |
| KEK | | | | AML | AML | 07 48 20.6 | |
| | comp=E,352μm,0.5s | | | | | | |
| KEK | | | | AML | AML | 07 48 21.7 | |
| | comp=N,257μm,0.4s | | | | | | |
| **KEK** | **Kerkira** | **1.01** | **207** | P | **Pn** | **07 48 00.7** | **-0.2** |
| KEK | | | | S | **Sn** | **07 48 16.4** | **+1.9** |
| **JAN** | **Janina** | **1.02** | **160** | P | **Pb** | **07 47 59.5** | **-1.4** |
| **JAN** | **Janina** | **1.02** | **160** | P | **Pb** | **07 47 59.5** | **-1.4** |
| **PHP** | **Peshkopia** | **1.07** | **2** | *i* PN | **Pn** | **07 48 01.9** | **+0.2** |
| PHP | | | | *i* SN | **Sn** | **07 48 21.3** | **+5.3** |
| **PHP** | **Peshkopia** | **1.07** | **2** | *i* Pn | **Pn** | **07 48 01.9** | **+0.2** |
| **KZN** | **Kozani** | **1.09** | **106** | P | **Pn** | **07 48 01.7** | **-0.3** |
| **KZN** | **Kozani** | **1.09** | **106** | P | **Pn** | **07 48 01.7** | **-0.3** |
| **PUK** | **Puka** | **1.47** | **345** | *i* PN | **Pb** | **07 48 08.7** | **0.0** |
| PUK | | | | *i* SN | **Sb** | **07 48 32.2** | **+5.2** |
| **PUK** | **Puka** | **1.47** | **345** | *i* Pn | **Pb** | **07 48 08.7** | **0.0** |
| | SNR=40 | | | | | | |
| **SKO** | **Skopje** | **1.56** | **30** | *e*Pn | **Pn** | **07 48 08.8** | **+0.4** |
| **SCTE** | **Santa Cesarea** | **1.57** | **250** | P | **Pn** | **07 48 07.1** | **-1.5** |
| **SCTE** | **Santa Cesarea** | **1.57** | **250** | P | **Pn** | **07 48 07.1** | **-1.5** |
| **THL** | **Klokotos Trika** | **1.62** | **130** | P | **Pb** | **07 48 11.5** | **+0.4** |
| **THL** | **Klokotos Trika** | **1.62** | **130** | P | **Pb** | **07 48 11.5** | **+0.4** |
| **VAY** | **Valandovo** | **1.79** | **66** | *e*Pn | **Pb** | **07 48 13.0** | **-0.9** |
| **STON** | **Ston** | **3.03** | **319** | *e*Pn | **Pn** | **07 48 27.2** | **-1.4** |
| STON | | | | | Sn | **07 49 02.4** | **-1.7** |
| **STON** | **Ston** | **3.03** | **319** | *e*Pn | **Pn** | **07 48 27.1** | **-1.4** |
| STON | | | | | Sn | **07 49 02.4** | **-1.7** |
| **ZAPS** | **Zavoj** | **3.13** | **31** | *e*Pn | **Pn** | **07 48 32.9** | **+2.8** |
| **BOVS** | **Bovan** | **3.17** | **17** | *e*Pn | **Pn** | **07 48 30.9** | **+0.4** |
| **ZAGS** | **Zajecar** | **3.47** | **22** | *e*Pn | **Pn** | **07 48 34.6** | **-0.1** |
| **UDBI** | **Udbina** | **5.19** | **320** | *e*Pn | **Pn** | **07 48 58.7** | **+0.2** |
| UDBI | | | | | Sn | **07 49 56.6** | **-1.1** |
| **UDBI** | **Udbina** | **5.19** | **320** | *e*Pn | **Pn** | **07 48 58.6** | **+0.2** |
| UDBI | | | | | Sn | **07 49 56.6** | **-1.1** |
| **NVLJ** | **Novalja** | **5.67** | **316** | *i* Pn | **Pn** | **07 49 03.5** | **-1.5** |
| NVLJ | | | | | Sn | **07 50 06.0** | **-3.4** |
| **NVLJ** | **Novalja** | **5.67** | **316** | *i* Pn | **Pn** | **07 49 03.4** | **-1.5** |

**WEL 24 07:51:59.4±0.1, 43.65S×172.81E, h7km, ML3.5/11, 5C, Error ellipse: s-maj=1.3km s-min=0.8km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MQZ** | **McQueen's Vall** | **0.13** | **243** | ⇑PG | Pg | 07 52 02.5 | +0.3 |
| MQZ | | | | SG | Sg | 07 52 04.4 | +0.4 |
| MQZ | | | | SG | | 07 52 04.6 | |
| **CRLZ** | **Canterbury Las** | **0.15** | **298** | ⇑PG | Pg | 07 52 02.9 | +0.3 |
| CRLZ | | | | SG | Sg | 07 52 05.2 | +0.4 |
| CRLZ | | | | AML | AML | 07 52 05.8 | |
| **OXZ** | **Oxford** | **0.65** | **299** | ⇑P* | Pg | 07 52 12.1 | +0.1 |
| OXZ | | | | S* | Sg | 07 52 21.1 | +0.8 |
| OXZ | | | | AML | AML | 07 52 23.2 | |
| OXZ | | | | AML | AML | 07 52 23.2 | |
| OXZ | | | | AML | AML | 07 52 23.6 | |
| **LTZ** | **Lake Taylor** | **0.95** | **335** | ⇑P* | Pg | 07 52 17.6 | -0.1 |
| LTZ | | | | S* | Sb | 07 52 31.0 | -0.1 |
| LTZ | | | | AML | AML | 07 52 31.6 | |
| **RPZ** | **Rata Peaks** | **1.28** | **266** | ⇑P* | Pn | 07 52 22.3 | -1.4 |
| RPZ | | | | S* | Sb | 07 52 40.2 | -0.2 |
| RPZ | | | | AML | AML | 07 52 42.6 | |
| **KHZ** | **Kahutara** | **1.34** | **24** | AML | AML | 07 52 51.0 | |
| KHZ | | | | AML | AML | 07 52 51.0 | |
| KHZ | | | | AML | AML | 07 52 55.6 | |
| KHZ | | | | AML | AML | 07 52 55.6 | |
| **THZ** | **Tophouse** | **1.89** | **2** | AML | AML | 07 53 08.4 | |
| THZ | | | | AML | AML | 07 53 09.1 | |
| **LBZ** | **Lake Benmore** | **2.03** | **248** | AML | AML | 07 53 14.8 | |
| LBZ | | | | AML | AML | 07 53 18.1 | |
| **DSZ** | **Denniston Nort** | **2.04** | **338** | AML | AML | 07 53 12.5 | |
| **ODZ** | **Otahua Downs** | **2.09** | **227** | AML | AML | 07 53 14.1 | |
| ODZ | | | | AML | AML | 07 53 14.3 | |
| ODZ | | | | AML | AML | 07 53 23.8 | |
| ODZ | | | | AML | AML | 07 53 23.8 | |
| **TUZ** | **Tuapeka** | **3.23** | **223** | AML | AML | 07 53 51.8 | |
| TUZ | | | | AML | AML | 07 53 52.9 | |

*IDC **24** 07:56:46.5±0.9, 31.65N×86.50E, h0km, mb3.6/9, mb1 3.8/11, mb1mx3.6/38, mbtmp3.6/11, ML3.1/2, MS3.4/1, Ms1 3.4/1, ms1mx2.6/47, Error ellipse: s-maj=23.2km s-min=20.8km az=50.0*
*ISCJB **24** 07:56:47.7±0.6, 31.87N±0.08×86.3E±0.1, h10km, mb3.6/9, MS3.2/1, Error ellipse: s-maj=16.8km s-min=7.3km az=145.8*
**ISC 24 07:56:49.9±0.8, 31.9N±0.1×86.4E±0.1, h10km, n15, σ1s73/13, mb3.8/9, Xizang**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **LSA** | **Lhasa** | **4.62** | **117** | Pn | **Pn** | **07 58 02.3** | **+2.0** |
| LSA | | | | Sn | **Sb** | **07 59 04.8** | **-2.6** |
| LSA | | | | smax | smax | | |
| | comp=N,12nm,0.8s | | | | | | |
| LSA | | | | smax | smax | | |
| | comp=E,41nm,0.8s | | | | | | |
| **SHL** | **Shillong** | **7.94** | **142** | *e*PN | **Pn** | **07 58 48.0** | **+2.5** |
| SHL | | | | *e*SN | **Sn** | **08 00 17.0** | **+1.5** |
| **MKAR** | **Makanchi Array** | **15.19** | **349** | Pn | **Pn** | **08 00 24.9** | **+0.5** |
| | comp=E,0.1nm,0.3s,baz=185,slow=13,SNR=3.7 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **17.53** | **137** | P | **Pn** | **08 00 52.9** | **-1.6** |
| | comp=E,0.5nm,0.3s,baz=319,slow=11,SNR=8.3 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **19.58** | **345** | P | **P** | **08 01 17.9** | **0.0** |
| | comp=E,0.1nm,0.3s,baz=157,slow=11,SNR=8.5 | | | | | | |
| **SONM** | **Songino Array** | **21.98** | **38** | P | **P** | **08 01 44.6** | **+0.5** |
| | comp=E,0.7nm,0.9s,baz=236,slow=10.0,SNR=3.8 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **22.05** | **357** | P | **P** | **08 01 45.7** | **+1.1** |
| | comp=E,0.6nm,0.5s,baz=205,slow=6.4,SNR=2.4 | | | | | | |
| **GEYT** | **Alibeck** | **23.92** | **292** | LR | LR | 08 12 15.6 | |
| | comp=E,88nm,21.0s,baz=20,slow=39 | | | | | | |
| **WSAR** | **Wadi Sarin** | **26.06** | **258** | P | **P** | **08 02 21.6** | **-2.0** |
| | comp=E,0.7nm,0.3s,baz=112,slow=5.4,SNR=1.9 | | | | | | |
| **KSRS** | **Korea Array** | **34.36** | **69** | P | **P** | **08 03 35.5** | **-1.4** |
| | comp=E,1.2nm,0.7s,baz=274,slow=8.2,SNR=3.9 | | | | | | |
| **ARCES** | **ARCESS Array B** | **50.36** | **336** | P | **P** | **08 05 47.3** | **+0.5** |
| | comp=E,3.1nm,0.9s,baz=121,slow=8.7,SNR=3.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **69.03** | **132** | P | P | 08 07 52.5 | -3.5 |
| | comp=E,0.6nm,0.8s,baz=328,slow=6.5,SNR=5.9 | | | | | | |
| **ASAR** | **Alice Springs** | **71.52** | **135** | P | P | 08 08 08.2 | -3.0 |
| | comp=E,0.6nm,0.8s,baz=326,slow=7.7,SNR=4.9 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **78.76** | **279** | P | **P** | **08 08 53.0** | **-0.2** |
| | comp=E,0.5nm,0.9s,baz=66,slow=4.0,SNR=2.9 | | | | | | |
| **YKA** | **Yellowknife Ar** | **84.40** | **10** | P | P | 08 09 20.2 | -2.0 |
| | comp=E,0.3nm,0.7s,baz=335,slow=5.2,SNR=4.3 | | | | | | |

*BJI **24** 08:03:11.0, 28.93S×178.30W, h338km, mb4.6/12, mB5.1/11*
*ISCJB **24** 08:03:12.7±0.4, 29.71S±0.03×179.19W±0.08, h350km, mb4.7/44, Error ellipse: s-maj=9.3km s-min=3.4km az=4.9*
*NEIC **24** 08:03:12.4±0.6, 29.48S×179.09W, h337km±6km, mb4.7/32, Error ellipse: s-maj=10.0km s-min=6.5km az=107.0*
*IDC **24** 08:03:13.0±1.1, 29.35S×179.13W, h338km±10km, mb4.1/11, mb1 4.2/13, mb1mx4.0/25, mbtmp4.8/13, Error ellipse: s-maj=16.8km s-min=14.1km az=119.0*
**ISC 24 08:03:12.7±0.4, 29.63S±0.05×179.04W±0.07, h350km, n141, σ2s52/168, mb4.8/44, 1C, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **1.05** | **69** | P | **Pn** | **08 03 57.8** | **-0.8** |
| | 2μm,0.3s,baz=319,slow=1.6,SNR=105 | | | | | | |
| RAO | | | | S | **S** | **08 04 30.5** | **-4.9** |
| | 808nm,0.3s,baz=96,slow=22,SNR=14 | | | | | | |
| **RAO** | **Raoul Island** | **1.05** | **69** | *e*Pn | **Pn** | **08 03 57.8** | **-0.8** |
| RAO | | | | *e*S | **S** | **08 04 34.2** | **-1.2** |
| **MXZ** | **Matakaoa Point** | **8.21** | **195** | *e*Pn | **P** | **08 05 11.4** | **-0.6** |
| **OUZ** | **Omahuta** | **8.35** | **226** | *e*Pn | **P** | **08 05 15.7** | **+2.0** |
| **WMGZ** | **Waiomatatini S** | **8.44** | **194** | *e*PN | **Pn** | **08 05 11.0** | **-0.8** |
| WMGZ | | | | | SN | **S** | **08 06 46.5** | **-2.7** |
| **HAZ** | **Te Kaha** | **8.52** | **197** | *e*PN | **Pn** | **08 05 13.2** | **+0.3** |
| **PUZ** | **Puketiti** | **8.71** | **194** | *e*PN | **Pn** | **08 05 13.4** | **-1.7** |
| PUZ | | | | *e*SN | **S** | **08 06 50.4** | **-4.8** |
| **RUGZ** | **Raukumara Rang** | **8.75** | **197** | *e*PN | **Pn** | **08 05 15.7** | **+0.1** |
| RUGZ | | | | *e*SN | **S** | **08 06 50.8** | **-5.4** |
| **TWGZ** | **Tauwhareparae** | **8.87** | **195** | *e*PN | **P** | **08 05 19.4** | **-0.1** |
| TWGZ | | | | | SN | **S** | **08 06 56.4** | **-2.4** |
| **MWZ** | **Matawai** | **9.13** | **197** | *e*PN | **Pn** | **08 05 15.6** | **-4.6** |
| MWZ | | | | *e*SN | **S** | **08 07 00.9** | **-3.6** |
| **URZ** | **Urewera** | **9.18** | **199** | P | **Pn** | **08 05 20.4** | **-0.3** |
| | 9.3nm,0.3s,baz=272,slow=4.1,SNR=45 | | | | | | |
| URZ | | | | S | **S** | **08 07 05.0** | **-0.4** |
| | 14nm,0.3s,baz=97,slow=22,SNR=13 | | | | | | |
| **URZ** | **Urewera** | **9.18** | **199** | *e*Pn | **P** | **08 05 22.1** | **-0.7** |
| URZ | | | | *e*S | **S** | **08 07 05.4** | **0.0** |
| **URZ** | **Urewera** | **9.18** | **199** | *e*PN | **Pn** | **08 05 17.9** | **-2.7** |
| URZ | | | | *e*SN | **S** | **08 07 02.8** | **-2.6** |
| **MUGZ** | **Murupara** | **9.48** | **200** | *e*PN | **Pn** | **08 05 22.0** | **-2.3** |
| **KNZ** | **Kokohu** | **9.75** | **195** | *e*PN | **Pn** | **08 05 24.9** | **-2.6** |
| KNZ | | | | *e*SN | **S** | **08 07 13.2** | **-4.8** |
| **MHGZ** | **Mahia Peninsul** | **9.82** | **194** | *e*PN | **P** | **08 05 30.7** | **+0.7** |
| **BKZ** | **Black Stump Fm** | **10.20** | **200** | *e*Pn | **P** | **08 05 33.0** | **-1.3** |
| BKZ | | | | *e*S | **S** | **08 07 28.7** | **+0.7** |
| **HIZ** | **Hauiti** | **10.20** | **208** | *e*Pn | P | 08 05 38.2 | +4.0 |
| **MCHZ** | **McNeill Hill** | **10.40** | **199** | *e*PN | **P** | **08 05 35.1** | **-1.2** |
| **KWHZ** | **Kaweka Forest** | **10.46** | **200** | *e*PN | **Pn** | **08 05 35.0** | **-1.0** |
| **OTVZ** | **Oturere** | **10.46** | **203** | *e*PN | **Pn** | **08 05 33.9** | **-2.2** |
| **BHHZ** | **Black Hill Sta** | **10.63** | **201** | *e*PN | **Pn** | **08 05 37.1** | **-0.9** |
| **PXZ** | **Pawanui** | **10.90** | **197** | *e*SN | **S** | **08 07 36.6** | **-6.8** |
| **PRHZ** | **Porangahau** | **11.19** | **197** | *e*PN | **P** | **08 05 44.6** | **-0.5** |
| **BFZ** | **Birch Farm** | **11.68** | **198** | *e*Pn | **P** | **08 05 50.9** | **+0.4** |
| **BFZ** | **Birch Farm** | **11.68** | **198** | *e*PN | **Pn** | **08 05 47.8** | **-2.6** |
| BFZ | | | | *e*SN | **S** | **08 07 54.0** | **-6.5** |
| **MRZ** | **Mangatainoka R** | **11.85** | **200** | *e*PN | **P** | **08 05 49.0** | **-3.4** |
| MRZ | | | | *e*SN | S | 08 07 54.1 | -10 |
| **MSVF** | **Nonsavu** | **12.14** | **347** | *e*Pn | **Pn** | **08 05 54.6** | **-1.7** |
| **DUWZ** | **D'Urville Isla** | **12.54** | **205** | *e*PN | **P** | **08 05 56.6** | **-3.4** |
| DUWZ | | | | *e*SN | **S** | **08 08 11.1** | **-7.7** |
| **SNZO** | **South Karori** | **12.71** | **202** | *e*P | **Pn** | **08 06 01.8** | **-0.9** |
| **NNZ** | **Nelson** | **13.10** | **206** | *e*PN | **P** | **08 06 04.8** | **-1.5** |
| NNZ | | | | *e*SN | **S** | **08 08 23.9** | **-6.2** |
| **THZ** | **Tophouse** | **13.75** | **206** | *e*P | **Pn** | **08 06 13.9** | **-1.1** |
| THZ | | | | *e*S | **S** | **08 08 41.2** | **-2.1** |
| **THZ** | **Tophouse** | **13.75** | **206** | *e*PN | **P** | **08 06 11.8** | **-1.7** |
| THZ | | | | *e*SN | **S** | **08 08 37.3** | **-6.1** |
| **KHZ** | **Kahutara** | **14.09** | **203** | *e*P | **Pn** | **08 06 18.1** | **-0.7** |
| **KHZ** | **Kahutara** | **14.09** | **203** | PN | **P** | **08 06 15.9** | **-1.2** |
| **DZM** | **Mont Dzumac** | **15.07** | **297** | P | **Pn** | **08 06 28.8** | **-1.8** |
| | 1.5nm,0.3s,baz=102,slow=20,SNR=13 | | | | | | |
| **DZM** | **Mont Dzumac** | **15.07** | **297** | *e*P | Pn | 08 06 32.7 | +2.1 |
| **INZ** | **Inchbonnie** | **15.14** | **208** | *e*PN | **P** | **08 06 27.9** | **-0.8** |
| **OXZ** | **Oxford** | **15.42** | **205** | *e*P | **Pn** | **08 06 32.1** | **-2.1** |
| | 30nm,0.3s | | | | | | |
| **MQZ** | **McQueen's Vall** | **15.53** | **203** | *e*S | **S** | **08 09 26.3** | **+7.4** |
| **AFI** | **Afiamalu** | **17.03** | **25** | P | **P** | **08 06 48.1** | **-1.3** |
| | 5.2nm,0.3s,baz=350,slow=5.3,SNR=9.7 | | | | | | |
| AFI | | | | S | **S** | **08 09 39.7** | **-10** |
| | 2.0nm,0.3s,baz=307,slow=20,SNR=3.6 | | | | | | |
| **ODZ** | **Otahua Downs** | **17.41** | **205** | *e*P | **P** | **08 06 52.6** | **-0.5** |
| | 21nm,1.5s | | | | | | |
| **WKZ** | **Wanaka** | **17.87** | **209** | *e*P | **P** | **08 07 00.5** | **+2.4** |
| | 42nm,1.5s | | | | | | |
| **MLZ** | **Mavora Lakes** | **18.68** | **209** | *e*P | **P** | **08 07 10.1** | **+3.4** |
| | 26nm,1.5s | | | | | | |
| **ARMA** | **Armidale** | **25.38** | **261** | *e*P | **P** | **08 08 12.7** | **+3.2** |
| | 19nm,0.6s | | | | | | |
| **EIDS** | **Eidsvold** | **26.80** | **272** | *e*P | **P** | **08 08 23.6** | **+1.5** |
| | 54nm,1.5s | | | | | | |
| **CAN** | **Canberra** | **27.48** | **250** | *e*P | **P** | **08 08 30.9** | **+2.9** |
| | 36nm,1.7s | | | | | | |
| **TAU** | **Tasmania Unive** | **29.97** | **235** | *e*P | P | 08 08 53.1 | +3.4 |
| | 32nm,1.4s | | | | | | |
| **TARA** | **Tarawa** | **31.76** | **345** | *e*P | **P** | **08 09 04.4** | **-1.2** |
| | 459nm,1.4s | | | | | | |
| **CTAO** | **Charters Tower** | **32.79** | **279** | *e*P | **P** | **08 09 15.5** | **+1.0** |
| | 26nm,0.6s | | | | | | |
| **STKA** | **Stephens Creek** | **33.78** | **256** | P | **P** | **08 09 24.6** | **+1.7** |
| | 20nm,0.6s,baz=96,slow=10,SNR=76 | | | | | | |
| **STKA** | **Stephens Creek** | **33.78** | **256** | *e*P | **P** | **08 09 24.6** | **+1.7** |
| | 4.1nm,0.8s | | | | | | |
| **COEN** | **Coen** | **38.19** | **286** | *e*P | **P** | **08 10 00.8** | **+0.7** |
| | 16nm,1.0s | | | | | | |
| **BBOO** | **Buckleboo** | **38.31** | **253** | *e*P | **P** | **08 10 01.4** | **+0.5** |
| | 24nm,1.4s | | | | | | |
| **AS01** | **Alice Springs** | **42.21** | **267** | *e*P | **P** | **08 10 33.1** | **+0.3** |
| **AS31** | **Alice Springs** | **42.25** | **267** | *e*P | **P** | **08 10 33.6** | **+0.5** |
| | 10nm,0.5s | | | | | | |
| **ASAR** | **Alice Springs** | **42.25** | **267** | P | **P** | **08 10 33.1** | **0.0** |
| | 28nm,0.6s,baz=97,slow=6.6,SNR=491 | | | | | | |
| ASAR | | | | | PcP | **sP** | **08 12 20.4** | **-1.7** |
| | 2.0nm,0.6s,baz=114,slow=4.0,SNR=4.3 | | | | | | |
| ASAR | | | | | ScP | **ScP** | **08 15 39.5** | **+3.2** |
| | 1.0nm,0.6s,baz=121,slow=4.4,SNR=8.6 | | | | | | |
| **WB2** | **Warramunga Arr** | **43.16** | **272** | *e*P | **P** | **08 10 40.4** | **+0.1** |
| | 44nm,0.6s | | | | | | |
| **WRAB** | **Tennant Creek** | **43.16** | **272** | *e*P | **P** | **08 10 40.4** | **0.0** |
| | 33nm,0.6s | | | | | | |
| **WRA** | **Warramunga Arr** | **43.17** | **272** | P | **P** | **08 10 40.5** | **+0.1** |
| | 33nm,0.5s,baz=110,slow=7.2,SNR=459 | | | | | | |
| WRA | | | | | PcP | **PP** | **08 12 23.2** | **-5.9** |
| | 2.2nm,0.7s,baz=106,slow=3.2,SNR=4.9 | | | | | | |
| WRA | | | | | ScP | **ScP** | **08 15 43.5** | **+3.4** |
| | 2.1nm,0.8s,baz=116,slow=4.1,SNR=7.1 | | | | | | |
| WRA | | | | | S | **S** | **08 16 37.9** | **-2.4** |
| | 0.8nm,0.7s,baz=108,slow=13,SNR=5.3 | | | | | | |
| **FORT** | **Forrest** | **45.38** | **255** | *e*P | **P** | **08 10 57.9** | **+0.3** |
| | 394nm,0.6s | | | | | | |
| **SBA** | **Scott Base** | **48.73** | **184** | *e*P | P | 08 11 28.6 | +6.1 |
| | 91nm,1.6s | | | | | | |
| **VNDA** | **Vanda** | **48.77** | **185** | P | P | 08 11 27.0 | +4.2 |
| | 1.3nm,0.7s,baz=27,slow=6.7,SNR=6.3 | | | | | | |
| **VNDA** | **Vanda** | **48.77** | **185** | *e*P | P | 08 11 27.1 | +4.3 |
| | 14nm,1.6s | | | | | | |
| **MTN** | **Manton Dam** | **48.97** | **279** | *e*P | **P** | **08 11 25.1** | **-0.2** |
| | 83nm,1.5s | | | | | | |
| **WAKE** | **Wake Island** | **50.55** | **342** | *e*P | **P** | **08 11 34.6** | **-2.1** |
| | 403nm,1.4s | | | | | | |
| **FAKI** | **Fak Fak** | **53.23** | **290** | *e*P | **P** | **08 11 56.2** | **-0.3** |
| | 85nm,1.2s | | | | | | |
| **MBWA** | **Marble Bar** | **55.41** | **264** | *e*P | **P** | **08 12 12.2** | **+0.1** |
| | 40nm,0.8s | | | | | | |
| **QSPA** | **South Pole Qui** | **60.47** | **180** | *e*P | P | 08 12 50.4 | +4.1 |
| | 48nm,0.7s | | | | | | |
| **JAGI** | **Jajag, Banyuwa** | **65.72** | **274** | *e*P | **P** | **08 13 20.4** | **-0.8** |
| | 28nm,0.9s | | | | | | |
| **UGM** | **Wanagama** | **69.14** | **273** | *e*P | **P** | **08 13 42.9** | **+0.4** |
| | 360nm,1.5s | | | | | | |
| **KKM** | **Kota Kinabalu** | **71.46** | **288** | *e*P | **P** | **08 13 56.8** | **+0.3** |
| | 19nm,0.8s | | | | | | |
| **MAW** | **Mawson** | **72.71** | **201** | P | **P** | **08 14 05.5** | **+2.8** |
| | 5.9nm,0.5s,baz=125,slow=7.2,SNR=15 | | | | | | |
| **MAW** | **Mawson** | **72.71** | **201** | *e*P | **P** | **08 14 05.4** | **+2.7** |
| | 2.9nm,1.1s | | | | | | |
| **MJAR** | **Matsushiro Arr** | **77.10** | **326** | P | **P** | **08 14 27.9** | **-0.2** |
| | 4.4nm,0.9s,baz=160,slow=5.6,SNR=7.9 | | | | | | |
| **SNAA** | **Sanae** | **78.94** | **179** | P | **P** | **08 14 40.5** | **+2.7** |
| **SNAA** | **Sanae** | **78.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | comp=N,47nm,4.4s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=E,75nm,4.4s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=Z,340nm,5.5s | | | | | | | |
| **KURK** | **Kurchatov** | **119.87** | **314** | *e*PKPdf | **PKPdf** | **08 21 21.5** | **+0.2** | |
| **LBTB** | **Lobatse** | **120.74** | **206** | *e*PKPdf | **PKPdf** | **08 21 25.9** | **+1.8** | |
| **AAK** | **Ala-Archa** | **120.94** | **304** | *e*PKPdf | **PKPdf** | **08 21 24.6** | **+0.7** | |
| **KKAR** | **Karatay Array** | **123.90** | **304** | *e*PKPdf | **PKPdf** | **08 21 30.1** | **+0.7** | |
| **ARU** | **Arti** | **131.93** | **321** | PKP | **PKPdf** | **08 21 45.2** | **+1.0** | |
| | 4.9nm,0.2s,baz=281,slow=16,SNR=4.6 | | | | | | | |
| **GEYT** | **Alibeck** | **132.41** | **296** | PKP | **PKPdf** | **08 21 46.5** | **+0.7** | |
| | 1.0nm,0.5s,baz=222,slow=1.9,SNR=3.3 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **137.65** | **347** | PKP | **PKPdf** | **08 21 56.4** | **+1.8** | |
| | 4.2nm,1.0s,baz=59,slow=2.9,SNR=7.6 | | | | | | | |
| **KBZ** | **Khabaz** | **143.94** | **305** | PKP | **PKPdf** | **08 22 06.2** | **-0.3** | |
| | 4.0nm,0.6s,baz=120,slow=2.8,SNR=14 | | | | | | | |
| **FINES** | **FINESS Array B** | **144.12** | **340** | PKP | **PKPdf** | **08 22 05.1** | **-1.2** | |
| | 11nm,0.5s,baz=61,slow=3.8,SNR=105 | | | | | | | |
| **ARTV** | **Artvin** | **144.97** | **300** | *e*PKPbc | **PKPab** | **08 22 10.4** | **+1.1** | |
| ARTV | | | | *e*PKPdf | **PKiKP** | **08 22 10.7** | **-2.0** | |
| **MARD** | **Mardin** | **146.11** | **294** | *e*PKPdf | **PKPab** | **08 22 13.2** | **-0.5** | |
| MARD | | | | *e*PKPbc | **PKiKP** | **08 22 14.0** | **-1.1** | |
| **NB2** | **NORSAR Subarra** | **147.85** | **351** | PKP | **PKPab** | **08 22 16.3** | **-3.5** | |
| | comp=Z,2.9nm,0.6s,baz=14,slow=2.8 | | | | | | | |
| **NOA** | **NORSAR Array B** | **147.85** | **351** | PKPbc | **PKPab** | **08 22 16.1** | **-3.7** | |
| | comp=Z,3.6nm,0.6s,baz=17,slow=4.4,SNR=11 | | | | | | | |
| **HFS** | **Hagfors** | **148.31** | **348** | PKPbc | **PKPbc** | **08 22 17.1** | **-0.2** | |
| | comp=Z,3.0nm,0.4s,baz=62,slow=3.4,SNR=16 | | | | | | | |
| **ASF** | **Jabal al Asfar** | **149.15** | **284** | PKPbc | **PKPab** | **08 22 21.7** | **-4.5** | |
| | comp=Z,5.1nm,0.7s,baz=87,slow=2.0,SNR=6.0 | | | | | | | |
| **KONO** | **Kongsberg** | **149.42** | **351** | *e*PKPbc | **PKPab** | **08 22 20.9** | **-5.2** | |
| **AKASG** | **Malin Array Be** | **150.15** | **323** | PKPbc | **PKPbc** | **08 22 22.5** | **+0.4** | |
| | comp=Z,4.3nm,0.4s,baz=46,slow=3.1,SNR=24 | | | | | | | |
| **MMAI** | **Mount Meron Ar** | **150.46** | **285** | PKPbc | **PKPbc** | **08 22 24.8** | **+1.3** | |
| | comp=Z,11nm,0.5s,baz=86,slow=6.8,SNR=22 | | | | | | | |
| **EIL** | **Elat** | **150.52** | **279** | PKPbc | **PKPab** | **08 22 25.3** | **-6.5** | |
| | comp=Z,11nm,0.8s,baz=118,slow=1.7,SNR=9.4 | | | | | | | |
| **BR131** | **Keskin Array S** | **151.44** | **299** | *e*PKPdf | **PKPbc** | **08 22 26.2** | **+0.5** | |
| BR131 | | | | *e*PKPbc | **PKiKP** | **08 22 26.4** | **+0.4** | |
| **BRTR** | **Keskin Array B** | **151.44** | **299** | PKPbc | **PKPbc** | **08 22 26.1** | **+0.5** | |
| | comp=Z,2.1nm,0.4s,baz=144,slow=4.5,SNR=14 | | | | | | | |
| BRTR | | | | PKPab | **PKPab** | **08 22 36.0** | **+0.5** | |
| | comp=Z,2.3nm,0.7s,baz=127,slow=3.6,SNR=6.5 | | | | | | | |
| **ANTO** | **Ankara** | **152.05** | **300** | *e*PKPbc | **PKPbc** | **08 22 28.1** | **+1.2** | |
| **BR231** | **Keskin MP Arra** | **152.07** | **300** | *e*PKPbc | **PKPbc** | **08 22 27.0** | **-0.1** | |
| **CSS** | **Mathiatis** | **152.20** | **289** | *e*PKPbc | **PKPbc** | **08 22 28.4** | **+1.0** | |
| **BUR08** | **Bucovina Ar. S** | **154.06** | **321** | *e*PKPbc | **PKPbc** | **08 22 33.7** | **+2.6** | |
| BUR08 | | | | *e*PKPab | **PKPab** | **08 22 47.4** | **+1.1** | |
| **BUR04** | **Bucovina Ar. S** | **154.06** | **321** | *e*PKPbc | **PKPbc** | **08 22 33.1** | **+2.0** | |
| BUR04 | | | | *e*PKPab | **PKPab** | **08 22 47.1** | **+0.8** | |
| **STHS** | **Stebnicka Huta** | **154.94** | **328** | *e*PKP | **PKPab** | **08 22 51.2** | **+1.3** | |
| **CRVS** | **Cervenica-Dubn** | **155.19** | **327** | *e*PKP | **PKPab** | **08 22 51.0** | **0.0** | |
| **KECS** | **Kecovo** | **155.95** | **327** | *e*PKP | **PKPab** | **08 22 54.6** | **+0.4** | |
| **CLL** | **Collm** | **156.55** | **341** | *e*PKPab | **PKPab** | **08 22 57.0** | **+0.4** | |
| | comp=Z,5.0nm,0.7s | | | | | | | |
| **VYHS** | **Vyhne** | **156.71** | **329** | *e*PKP | **PKPab** | **08 22 57.9** | **+0.4** | |
| **GERES** | **GERESS Array B** | **158.48** | **337** | PKPbc | **PKPab** | **08 23 04.9** | **-0.3** | |
| | comp=Z,0.9nm,0.7s,baz=15,slow=4.1,SNR=2.8 | | | | | | | |
| **TOA0** | **Torodi Ar. Sit** | **163.58** | **183** | *e*PKPab | **PKPab** | **08 23 30.5** | **+2.3** | |
| **TORD** | **Torodi Ar. Bea** | **163.58** | **183** | PKP | **PKPdf** | **08 22 35.9** | **+1.2** | |
| | comp=Z,0.5nm,0.7s,baz=189,slow=3.0,SNR=3.8 | | | | | | | |
| TORD | | | | PKPab | **PKPab** | **08 23 30.3** | **+2.2** | |
| | comp=Z,3.2nm,0.5s,baz=179,slow=3.6,SNR=32 | | | | | | | |

*ISCJB **24** 08:04:56.1±0.8,32°.18S±0°.06×70°.15W±0°.07,h122km±7km, Error ellipse: s-maj=12.6km s-min=4.6km az=42.7*
*GUC **24** 08:04:57.6±0.8,32°.15S×70°.14W,h86km±17km,ML3.9*
*SJA **24** 08:04:57.1±0.8,32°.19S×70°.09W,h111km±6km,ML3.7, MW3.7*

**ISC 24 08:04:55.1±1.8,32°.15S±0°.06×70°.24W±0°.07, h127km±13km,n24,σ1s21/41,2C-4D,Chile-Argentina border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **AUSP** | **Uspallata** | **0.73** | **96** | *e*P | | **Pn** | **08 05 15.6** | **-0.1** |
| **RTLS** | **Leoncito** | **0.88** | **67** | *e*P | | **Pn** | **08 05 17.7** | **+0.8** |
| RTLS | | | | *e*S | | **Sn** | **08 05 32.9** | **-0.6** |
| **PEL** | **Peldehue** | **1.06** | **201** | ⇑*i*P | | **Pn** | **08 05 19.2** | **+0.9** |
| PEL | | | | *i* S | | **Sn** | **08 05 35.5** | **-0.5** |
| PEL | | | | IAML | | | 08 05 36.0 | |
| | comp=E,6μm,0.7s | | | | | | | |
| **FCH** | **Farellones** | **1.17** | **182** | *e*P | | **Pn** | **08 05 20.9** | **+1.2** |
| FCH | | | | *i* S | | **Sn** | **08 05 38.6** | **+0.1** |
| FCH | | | | IAML | | | 08 05 42.3 | |
| | comp=E,3μm,0.3s | | | | | | | |
| **CLCH** | **Cerro Calan** | **1.26** | **191** | ⇓*i*P | | **Pn** | **08 05 21.7** | **+1.2** |
| CLCH | | | | *i* S | | **Sn** | **08 05 39.7** | **0.0** |
| CLCH | | | | IAML | | | 08 05 43.1 | |
| | comp=N,3μm,0.2s | | | | | | | |
| **ASAL** | **Salagasta** | **1.27** | **110** | *e*P | | **Pn** | **08 05 21.2** | **+0.7** |
| ASAL | | | | *e*S | | **Sn** | **08 05 38.9** | **-1.0** |
| **ARCO** | **CERRO ARCO** | **1.30** | **122** | *e*P | | **Pn** | **08 05 21.5** | **+0.6** |
| ARCO | | | | *i* S | | Sn | 08 05 28.4 | -12 |
| ARCO | | | | IAML | | | 08 05 40.9 | |
| | comp=Z,808nm,0.4s | | | | | | | |
| **STL** | **Santa Lucia** | **1.32** | **195** | *e*P | | **Pn** | **08 05 22.4** | **+1.3** |
| **FSR** | **Penalolen** | **1.34** | **190** | ⇓*i*P | | **Pn** | **08 05 22.8** | **+1.5** |
| FSR | | | | *i* S | | **Sn** | **08 05 41.5** | **+0.2** |
| **RCDM** | **Rinconada Maip** | **1.41** | **199** | *e*P | | **Pn** | **08 05 19.5** | **-2.5** |
| RCDM | | | | *i* S | | **Sn** | **08 05 38.4** | **-4.2** |
| **ANTU** | **Antumapu** | **1.45** | **193** | ⇑*i*P | | **Pn** | **08 05 23.9** | **+1.4** |
| ANTU | | | | *i* S | | **Sn** | **08 05 43.7** | **+0.4** |
| ANTU | | | | IAML | | | 08 05 44.1 | |
| | comp=N,4μm,0.8s | | | | | | | |
| **RTCV** | **Cerro Valdivia** | **1.48** | **79** | *e*P | | **Pn** | **08 05 23.4** | **+0.6** |
| RTCV | | | | *e*S | | **Sn** | **08 05 42.9** | **-0.9** |
| **AAGR** | **Agrelo** | **1.51** | **128** | *e*P | | **Pn** | **08 05 24.2** | **+0.9** |
| AAGR | | | | *e*S | | **Sn** | **08 05 43.3** | **-1.3** |
| **SJA** | **San Juan** | **1.56** | **67** | *e*P | | **Pn** | **08 05 24.3** | **+0.6** |
| **LMEL** | **Las Melosas** | **1.69** | **179** | ⇓*i*P | | **Pn** | **08 05 26.8** | **+1.4** |
| LMEL | | | | *i* S | | **Sn** | **08 05 49.2** | **+0.8** |
| LMEL | | | | IAML | | | 08 05 52.7 | |
| | comp=N,2μm,0.1s | | | | | | | |
| **RTLL** | **Cerro Villicun** | **1.72** | **62** | *e*P | | **Pn** | **08 05 26.6** | **+1.1** |
| RTLL | | | | *e*P | | **Pn** | **08 05 26.7** | **+1.1** |
| RTLL | | | | *e*P | | **Pn** | **08 05 26.9** | **+1.3** |
| RTLL | | | | *i* S | | **Sn** | **08 05 48.2** | **-0.5** |
| RTLL | | | | *e*S | | **Sn** | **08 05 48.3** | **-0.5** |
| RTLL | | | | *i* S | | **Sn** | **08 05 48.4** | **-0.4** |
| **RTLL** | **Cerro Villicun** | **1.72** | **62** | ⇓*i*P | | Pn | 08 05 13.8 | -12 |
| **AMOG** | **MOGNA** | **1.92** | **51** | *e*P | | **Pn** | **08 05 27.9** | **-0.1** |
| AMOG | | | | *e*S | | **Sn** | **08 05 52.9** | **-0.4** |
| **AVIZ** | **Vizcacheras** | **1.96** | **133** | *e*P | | **Pn** | **08 05 29.2** | **+0.7** |
| **ACAN** | **Cantantal** | **2.59** | **93** | *e*P | | **Pn** | **08 05 36.6** | **+0.2** |
| ACAN | | | | *i* S | | **Sn** | **08 06 06.8** | **-1.3** |
| **GO05** | **HualaæØ** | **3.18** | **206** | *e*P | | **Pn** | **08 05 44.0** | **+0.1** |
| **APLL** | **PUNTA DE LOS L** | **3.63** | **62** | *e*P | | **Pn** | **08 05 51.9** | **+1.9** |
| **TCA** | **Tanti** | **4.88** | **82** | *e*P | | **Pn** | **08 06 06.2** | **-0.4** |
| TCA | | | | IAML | | | 08 07 36.6 | |
| | comp=Z,73nm,0.5s | | | | | | | |
| **CYA** | **Choya** | **5.33** | **47** | *e*P | | **Pn** | **08 06 13.0** | **+0.4** |
| CYA | | | | IAML | | | 08 07 59.3 | |
| | comp=Z,30nm,0.5s | | | | | | | |

*CSEM **24** 08:21:07.1,37°.90N×22°.48E,h11km,ML1.5/5*

**ATH 24 08:21:07.1,37°.90N×22°.48E,h11km±3km,ML1.5/5,Error ellipse: s-maj=3.6km s-min=1.0km az=324.0,Southern Greece**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **GUR** | **Goura** | **0.12** | **291** | P | | Pg | 08 21 10.4 | +0.3 |
| GUR | | | | AML | | AML | 08 21 12.4 | |
| | comp=E,1821μm,0.1s | | | | | | | |
| GUR | | | | S | | Sg | 08 21 12.4 | +0.1 |
| GUR | | | | AML | | AML | 08 21 12.4 | |
| | comp=N,1792μm,0.1s | | | | | | | |
| **GUR** | **Goura** | **0.12** | **291** | P | | Pg | 08 21 10.4 | +0.3 |
| GUR | | | | S | | Sg | 08 21 12.4 | +0.1 |
| **THAL** | **Thalero** | **0.20** | **46** | P | | Pg | 08 21 11.7 | +0.3 |
| THAL | | | | S | | Sg | 08 21 14.3 | -0.1 |
| **THAL** | **Thalero** | **0.20** | **46** | P | | Pg | 08 21 11.7 | +0.3 |
| THAL | | | | S | | Sg | 08 21 14.3 | -0.1 |
| **KLV** | **Kalavryta, Ach** | **0.30** | **300** | P | | Pg | 08 21 12.6 | -0.6 |
| KLV | | | | S | | Sg | 08 21 16.9 | -0.3 |
| KLV | | | | AML | | AML | 08 21 16.9 | |
| | comp=N,105μm,0.1s | | | | | | | |
| KLV | | | | AML | | AML | 08 21 20.2 | |
| | comp=E,122μm,0.2s | | | | | | | |
| **KLV** | **Kalavryta, Ach** | **0.30** | **300** | P | | Pg | 08 21 12.6 | -0.6 |
| KLV | | | | S | | Sg | 08 21 16.9 | -0.3 |
| **DSF** | **Desfina** | **0.52** | **4** | P | | Pg | 08 21 16.6 | -0.6 |
| DSF | | | | S | | Sg | 08 21 23.6 | -0.5 |
| DSF | | | | AML | | AML | 08 21 25.9 | |
| | comp=E,143μm,0.2s | | | | | | | |
| DSF | | | | AML | | AML | 08 21 28.0 | |
| | comp=N,244μm,0.1s | | | | | | | |
| **DSF** | **Desfina** | **0.52** | **4** | P | | Pg | 08 21 16.6 | -0.6 |
| DSF | | | | S | | Sg | 08 21 23.6 | -0.5 |
| **LAKA** | **Lakka** | **0.52** | **311** | P | | Pg | 08 21 16.6 | -0.7 |
| LAKA | | | | S | | Sg | 08 21 23.8 | -0.4 |
| **LAKA** | **Lakka** | **0.52** | **311** | P | | Pg | 08 21 16.6 | -0.7 |
| LAKA | | | | S | | Sg | 08 21 23.8 | -0.5 |
| **VLX** | **Vlachokerasia** | **0.53** | **189** | P | | Pg | 08 21 17.2 | -0.2 |
| VLX | | | | S | | Sg | 08 21 24.0 | -0.5 |
| VLX | | | | AML | | AML | 08 21 27.1 | |
| | comp=E,140μm,0.5s | | | | | | | |
| VLX | | | | AML | | AML | 08 21 28.1 | |
| | comp=N,98μm,0.4s | | | | | | | |
| **VLX** | **Vlachokerasia** | **0.53** | **189** | P | | Pg | 08 21 17.2 | -0.2 |
| VLX | | | | S | | Sg | 08 21 24.0 | -0.5 |
| **KALE** | **Kalithea** | **0.56** | **332** | P | | Pb | 08 21 19.7 | +0.7 |
| KALE | | | | S | | Sg | 08 21 25.8 | +0.3 |
| **KALE** | **Kalithea** | **0.56** | **332** | P | | Pb | 08 21 19.7 | +0.7 |
| KALE | | | | S | | Sg | 08 21 25.8 | +0.3 |
| **TRIZ** | **Trizonia** | **0.57** | **326** | P | | Pg | 08 21 17.6 | -0.5 |
| TRIZ | | | | S | | Sg | 08 21 25.8 | +0.1 |
| **TRIZ** | **Trizonia** | **0.57** | **326** | P | | Pg | 08 21 17.6 | -0.5 |
| TRIZ | | | | S | | Sg | 08 21 25.8 | +0.2 |
| **DRO** | **Drossia** | **0.61** | **276** | P | | Pg | 08 21 18.5 | -0.4 |
| DRO | | | | S | | Sb | 08 21 28.7 | +0.4 |
| DRO | | | | AML | | AML | 08 21 30.2 | |
| | comp=N,111μm,0.3s | | | | | | | |
| DRO | | | | AML | | AML | 08 21 30.6 | |
| | comp=E,118μm,0.4s | | | | | | | |
| **DRO** | **Drossia** | **0.61** | **276** | P | | Pg | 08 21 18.5 | -0.4 |
| DRO | | | | S | | Sb | 08 21 28.7 | +0.4 |
| **DID** | **Didima** | **0.72** | **123** | P | | Pg | 08 21 21.0 | +0.1 |
| **DID** | **Didima** | **0.72** | **123** | P | | Pg | 08 21 21.0 | +0.1 |
| **ANX** | **Ano Chora** | **0.82** | **328** | P | | Pg | 08 21 23.2 | +0.2 |
| **ANX** | **Ano Chora** | **0.82** | **328** | P | | Pg | 08 21 23.2 | +0.2 |

*TIR **24** 08:21:56.1±3.6,41°.81N×19°.18E,h0km±14km,ML3.7*
*IDC **24** 08:21:56.7±1.2,41°.92N×19°.18E,h0km,mb3.5/6, mb1 3.8/14,mb1mx3.7/50,mbtmp3.7/14,ML3.8/8,MS3.6/1, Ms1 3.6/1,ms1mx2.5/45,Error ellipse: s-maj=17.3km s-min=12.1km az=10.0*
*LDG **24** 08:21:57.4±0.1,41°.83N×19°.19E,h2km,Ml3.9/11,Error ellipse: s-maj=2.8km s-min=2.3km az=24.0*
*ROM **24** 08:21:57.7±0.1,41°.79N×19°.21E,h10km,Ml3.7/34,Error ellipse: s-maj=2.4km s-min=2.0km az=82.0*
*PDG **24** 08:21:58.7±0.2,41°.86N×19°.23E,h16km,ML3.7/11,Error ellipse: s-maj=0.4km s-min=0.6km az=0.0*
*CSEM **24** 08:21:58.5±0.1,41°.83N×19°.15E,h10km,ML3.6/7,Error ellipse: s-maj=2.2km s-min=1.9km az=115.0*
*PRU **24** 08:21:58.7,41°.87N×19°.35E,h0km*
*ISCJB **24** 08:21:59.0±0.3,41°.86N±0°.01×19°.13E±0°.01,h25km±2km, mb3.4/6,MS3.6/1,Error ellipse: s-maj=1.8km s-min=1.7km az=15.2*
*THE **24** 08:21:59.6,41°.91N×19°.04E,h28km±3km,ML3.3/8,Error ellipse: s-maj=3.6km s-min=0.9km az=319.0*
*BEO **24** 08:22:00.2±0.3,41°.92N×19°.34E,h6km±2km,M3.5/1*

**ISC 24 08:21:57.9±0.8,41°.80N±0°.01×19°.18E±0°.02,h17km±5km, n318,σ2s01/465,mb3.4/6,24C-37D,Albania**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **ULC** | **Ulcinj** | **0.17** | **17** | ⇑*i*Pg | | **Pg** | **08 22 02.2** | **-0.1** |
| ULC | | | | *i* Sg | | **Sg** | **08 22 04.7** | **-0.5** |
| **ULC** | **Ulcinj** | **0.17** | **17** | P | | **Pg** | **08 22 02.3** | **-0.1** |
| ULC | | | | *i* Sg | | **Sg** | **08 22 04.7** | **-0.5** |
| **DRME** | **Dracevica, Mon** | **0.39** | **1** | ⇓*i*Pg | | **Pg** | **08 22 05.6** | **-0.2** |
| DRME | | | | *i* Sg | | **Sg** | **08 22 11.1** | **-0.1** |
| **DRME** | **Dracevica, Mon** | **0.39** | **1** | ⇓*i*Pg | | **Pg** | **08 22 05.6** | **-0.2** |
| DRME | | | | *i* Sg | | **Sg** | **08 22 11.1** | **-0.1** |
| **BUM** | **Brajici-Budva** | **0.54** | **337** | ⇓*i*Pg | | **Pg** | **08 22 08.7** | **0.0** |
| BUM | | | | *i* Sg | | **Sb** | **08 22 16.9** | **+0.3** |
| **BUM** | **Brajici-Budva** | **0.54** | **337** | ⇓*i*Pg | | **Pg** | **08 22 08.7** | **0.0** |
| **PUK** | **Puka** | **0.58** | **65** | *i* PG | | **Pg** | **08 22 08.5** | **-1.0** |
| PUK | | | | *i* SG | | **Sg** | **08 22 17.3** | **-0.1** |
| **PUK** | **Puka** | **0.58** | **65** | *i* Pg | | **Pg** | **08 22 08.5** | **-1.0** |
| | SNR=91 | | | | | | | |
| PUK | | | | *i* Sg | | **Sg** | **08 22 17.3** | **-0.1** |
| | SNR=91 | | | | | | | |
| **PDG** | **Podgorica** | **0.63** | **5** | *e*Pg | | **Pg** | **08 22 09.7** | **-0.6** |
| **PDG** | **Podgorica** | **0.63** | **5** | Pn | | **Pg** | **08 22 09.7** | **-0.6** |
| | 2μm,0.4s | | | | | | | |
| **PDG** | **Podgorica** | **0.63** | **5** | ⇓*i*P | | **Pg** | **08 22 09.6** | **-0.8** |
| **PDG** | **Podgorica** | **0.63** | **5** | ⇓*i*P | | **Pg** | **08 22 09.6** | **-0.8** |
| PDG | | | | S | | **Sg** | **08 22 16.2** | **-2.6** |
| PDG | | | | *e*Sg | | **Sb** | **08 22 19.1** | **0.0** |
| **PDG** | **Podgorica** | **0.63** | **5** | P | | **Pg** | **08 22 10.3** | **0.0** |
| **TTG** | **Podgorica** | **0.63** | **5** | ⇑*i*Pg | | **Pg** | **08 22 09.5** | **-0.8** |
| TTG | | | | *i* Sg | | **Sb** | **08 22 19.2** | **+0.1** |
| **TIR** | **Tirane** | **0.69** | **131** | *i* PG | | **Pg** | **08 22 11.5** | **+0.1** |
| TIR | | | | *i* SG | | **Sn** | **08 22 22.3** | **-0.9** |
| **TIR** | **Tirane** | **0.69** | **131** | *e*Pg | | **Pg** | **08 22 11.5** | **+0.1** |
| TIR | | | | *e*Sg | | **Sn** | **08 22 23.5** | **+0.3** |
| **TIR** | **Tirane** | **0.69** | **131** | Pn | | **Pg** | **08 22 11.4** | **+0.1** |
| | 3μm,0.7s | | | | | | | |
| **TIR** | **Tirane** | **0.69** | **131** | ⇓*i*P | | **Pg** | **08 22 11.6** | **+0.2** |
| **TIR** | **Tirane** | **0.69** | **131** | Pn | | **Pg** | **08 22 11.4** | **+0.1** |
| | 3μm,0.7s | | | | | | | |
| **TIR** | **Tirane** | **0.69** | **131** | P | | **Pg** | **08 22 11.7** | **+0.3** |
| TIR | | | | *i* Sg | | **Sn** | **08 22 22.3** | **-0.9** |
| | SNR=90 | | | | | | | |
| TIR | | | | S | | **Sb** | **08 22 23.8** | **+3.1** |
| **CEME** | **Cevo** | **0.77** | **345** | ⇓*i*Pg | | **Pb** | **08 22 11.9** | **-1.0** |
| CEME | | | | *i* Sg | | **Sg** | **08 22 24.0** | **+0.8** |
| **CEME** | **Cevo** | **0.77** | **345** | ⇓*i*Pg | | **Pb** | **08 22 11.9** | **-1.0** |
| CEME | | | | *i* Sg | | **Sg** | **08 22 24.0** | **+0.8** |
| **HCY** | **Herceg Novi** | **0.82** | **322** | ⇑*i*Pg | | **Pb** | **08 22 13.3** | **-0.5** |
| HCY | | | | *e*Sg | | **Sn** | **08 22 26.7** | **+0.1** |
| **HCY** | **Herceg Novi** | **0.82** | **322** | ⇑*i*Pg | | **Pb** | **08 22 13.3** | **-0.5** |
| HCY | | | | *e*Sg | | **Sn** | **08 22 26.1** | **-0.5** |
| **PHP** | **Peshkopia** | **0.95** | **97** | *i* PG | | **Pb** | **08 22 15.2** | **-0.8** |
| PHP | | | | *i* SG | | **Sn** | **08 22 30.1** | **+0.3** |
| **PHP** | **Peshkopia** | **0.95** | **97** | *i* Pg | | **Pb** | **08 22 15.2** | **-0.8** |
| | SNR=91 | | | | | | | |
| PHP | | | | *i* Sg | | **Sn** | **08 22 30.1** | **+0.3** |
| | SNR=91 | | | | | | | |
| **NKME** | **Niksic** | **0.98** | **350** | ⇑*i*Pg | | **Pb** | **08 22 16.0** | **-0.5** |
| NKME | | | | *i* Sg | | **Sn** | **08 22 30.5** | **0.0** |
| **NKME** | **Niksic** | **0.98** | **350** | ⇑*i*Pg | | **Pb** | **08 22 16.0** | **-0.5** |
| NKME | | | | *i* Sg | | **Sn** | **08 22 30.5** | **0.0** |
| **PVY** | **Plav** | **0.98** | **36** | ⇑*i*Pg | | **Pb** | **08 22 15.6** | **-1.0** |
| PVY | | | | *e*Sg | | **Sg** | **08 22 30.1** | **+0.2** |
| **PVY** | **Plav** | **0.98** | **36** | ⇑*i*Pg | | **Pb** | **08 22 15.6** | **-1.0** |
| PVY | | | | *e*Sg | | **Sg** | **08 22 30.1** | **+0.2** |
| **NKY** | **Niksic** | **1.02** | **352** | ⇓*i*Pg | | **Pb** | **08 22 16.7** | **-0.5** |
| NKY | | | | *i* Sg | | **Sn** | **08 22 32.4** | **+0.8** |
| **NKY** | **Niksic** | **1.02** | **352** | ⇓*i*Pg | | **Pb** | **08 22 16.7** | **-0.5** |
| NKY | | | | *i* Sg | | **Sn** | **08 22 32.4** | **+0.8** |
| **KOME** | **Kolasin** | **1.08** | **13** | ⇓*i*Pg | | **Pb** | **08 22 17.4** | **-0.8** |
| KOME | | | | *i* Sg | | **Sn** | **08 22 33.8** | **+0.8** |
| **KOME** | **Kolasin** | **1.08** | **13** | ⇓*i*Pg | | **Pb** | **08 22 17.4** | **-0.8** |
| KOME | | | | *i* Sg | | **Sn** | **08 22 33.8** | **+0.8** |
| **TREB** | **Trebinje** | **1.10** | **326** | *e*Pg | | **Pg** | **08 22 19.4** | **+0.2** |
| TREB | | | | *e*Sg | | **Sg** | **08 22 35.2** | **+1.5** |
| **TREB** | **Trebinje** | **1.10** | **326** | *e*Pg | | **Pb** | **08 22 18.4** | **-0.2** |
| TREB | | | | *e*Sg | | **Sg** | **08 22 34.9** | **+1.2** |
| **PEJK** | **Peje** | **1.17** | **44** | P | | **Pn** | **08 22 19.0** | **-0.7** |
| PEJK | | | | S | | **Sg** | **08 22 37.1** | **+1.2** |
| **BEY** | **Berane** | **1.19** | **26** | ⇑*i*Pg | | **Pn** | **08 22 19.5** | **-0.5** |
| **BEY** | **Berane** | **1.19** | **26** | P | | **Pn** | **08 22 19.9** | **-0.1** |
| BEY | | | | *i* Sg | | **Sg** | **08 22 37.4** | **+0.8** |
| **IVA** | **Berane** | **1.19** | **26** | ⇑*i*Pg | | **Pn** | **08 22 19.5** | **-0.5** |
| IVA | | | | *i* Sg | | **Sg** | **08 22 37.4** | **+0.8** |
| **BRY** | **Bratogost** | **1.20** | **337** | ⇓*i*Pg | | **Pn** | **08 22 20.0** | **-0.1** |
| BRY | | | | *i* Sg | | **Sg** | **08 22 38.6** | **+1.9** |
| **BRY** | **Bratogost** | **1.20** | **337** | ⇓*i*Pg | | **Pn** | **08 22 20.0** | **-0.1** |
| BRY | | | | *e*Sg | | **Sg** | **08 22 37.1** | **+0.4** |
| **OHR** | **Ohrid** | **1.40** | **119** | *i* Pn | | **Pb** | **08 22 23.6** | **-0.1** |
| **UPM** | **Unac-Piva** | **1.42** | **352** | ⇓*i*Pg | | **Pn** | **08 22 23.5** | **+0.4** |
| UPM | | | | *i* Sg | | **Sg** | **08 22 44.6** | **+0.9** |
| **UPM** | **Unac-Piva** | **1.42** | **352** | ⇓*i*Pg | | **Pn** | **08 22 23.5** | **+0.4** |
| **UPM** | **Unac-Piva** | **1.42** | **352** | P | | **Pg** | **08 22 25.2** | **0.0** |
| UPM | | | | *e*Sg | | **Sg** | **08 22 44.3** | **+0.6** |
| **STON** | **Ston** | **1.53** | **315** | *e*Pn | | **Pb** | **08 22 26.1** | **+0.2** |
| **PLE** | **Pljevlja** | **1.54** | **6** | ⇓*i*Pg | | **Pb** | **08 22 26.2** | **+0.2** |
| PLE | | | | *i* Sg | | **Sg** | **08 22 47.3** | **-0.2** |
| **PLE** | **Pljevlja** | **1.54** | **6** | ⇓*i*Pg | | **Pb** | **08 22 26.2** | **+0.2** |
| PLE | | | | *i* Sg | | **Sg** | **08 22 47.3** | **-0.2** |
| **MESG** | **Mesagne** | **1.57** | **220** | Pn | | **Pn** | **08 22 25.8** | **+0.7** |
| | 785nm,0.7s | | | | | | | |
| **MESG** | **Mesagne** | **1.57** | **220** | Pn | | **Pn** | **08 22 25.8** | **+0.7** |
| | 785nm,0.7s | | | | | | | |
| **SJES** | **Sjenica** | **1.57** | **22** | *e*Pg | | **Pb** | **08 22 26.5** | **-0.2** |
| SJES | | | | *e*Sg | | **Sb** | **08 22 46.2** | **-0.1** |
| **SJES** | **Sjenica** | **1.57** | **22** | *e*Pg | | **Pb** | **08 22 26.5** | **-0.2** |
| SJES | | | | *e*Sg | | **Sb** | **08 22 46.2** | **-0.1** |
| **SMRK** | **Smrekonice** | **1.69** | **50** | P | | **Pb** | **08 22 29.1** | **+0.5** |
| SMRK | | | | S | | **Sg** | **08 22 52.0** | **-0.3** |
| **FASA** | **Fasano** | **1.69** | **235** | *e*Pn | | **Pb** | **08 22 28.0** | **-0.6** |
| **KBN** | **Korca** | **1.69** | **134** | *i* PN | | **Pb** | **08 22 29.7** | **+1.1** |
| KBN | | | | *i* SN | | **Sg** | **08 22 55.1** | **+2.7** |
| **KBN** | **Korca** | **1.69** | **134** | *i* Pn | | **Pb** | **08 22 29.7** | **+1.1** |
| | SNR=40 | | | | | | | |
| KBN | | | | *i* Sn | | **Sg** | **08 22 55.1** | **+2.7** |
| | SNR=40 | | | | | | | |
| **SKO** | **Skopje** | **1.70** | **83** | P | | **Pb** | **08 22 29.1** | **+0.4** |
| SKO | | | | S | | **Sg** | **08 22 52.0** | **-0.6** |
| **SKO** | **Skopje** | **1.70** | **83** | P | | **Pb** | **08 22 29.1** | **+0.4** |
| SKO | | | | S | | **Sg** | **08 22 52.0** | **-0.6** |
| **SKO** | **Skopje** | **1.70** | **83** | ⇑*i*Pn | | **Pb** | **08 22 29.3** | **+0.6** |
| **CGL1** | **Ceglie Messapi** | **1.72** | **229** | *e*Pn | | **Pn** | **08 22 27.7** | **+0.6** |
| CGL1 | | | | Sn | | **Sn** | **08 22 49.3** | **+0.6** |
| **BIA** | **Bitola** | **1.79** | **115** | *i* Pn | | **Pb** | **08 22 30.9** | **+0.5** |
| **SCTE** | **Santa Cesarea** | **1.81** | **198** | Pn | | **Pn** | **08 22 28.5** | **+0.2** |
| **SCTE** | **Santa Cesarea** | **1.81** | **198** | Pn | | **Pn** | **08 22 28.5** | **+0.2** |
| **BAI** | **Bari** | **1.86** | **249** | *e*Pn | | **Pn** | **08 22 30.3** | **+1.2** |
| BAI | | | | Sn | | **Sn** | **08 22 50.9** | **-1.3** |
| **NOCI** | **Noci** | **1.89** | **238** | Pn | | **Pn** | **08 22 30.6** | **+1.2** |
| **NOCI** | **Noci** | **1.89** | **238** | Pn | | **Pn** | **08 22 30.6** | **+1.2** |
| **IVAS** | **Ivanjica** | **1.91** | **22** | *e*Pn | | **Pb** | **08 22 31.5** | **-0.9** |
| IVAS | | | | *e*Sg | | **Sb** | **08 22 57.0** | **+0.9** |
| **IVAS** | **Ivanjica** | **1.91** | **22** | *e*Pn | | **Pb** | **08 22 31.5** | **-0.9** |
| IVAS | | | | *e*Sg | | **Sb** | **08 22 57.0** | **+0.9** |
| **TAR1** | **Taranto** | **1.92** | **229** | *e*Pn | | **Pg** | **08 22 35.0** | **+0.3** |
| **FNA** | **Florina** | **1.94** | **121** | P | | **Pb** | **08 22 32.5** | **-0.4** |
| FNA | | | | S | | **Sb** | **08 22 57.7** | **+0.8** |
| **FNA** | **Florina** | **1.94** | **121** | P | | **Pb** | **08 22 32.5** | **-0.4** |
| FNA | | | | S | | **Sb** | **08 22 57.7** | **+0.8** |
| **NEST** | **Nestorio** | **1.98** | **134** | P | | **Pb** | **08 22 33.4** | **-0.2** |
| NEST | | | | S | | **Sb** | **08 22 59.4** | **+1.4** |
| **NEST** | **Nestorio** | **1.98** | **134** | P | | **Pb** | **08 22 33.4** | **-0.2** |
| NEST | | | | S |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **DSL** | **Palaion Diasel** | **3.04** | **151** | P | | **Pn** | **08 22 47.3** | **+2.0** |
| **DSL** | **Palaion Diasel** | **3.04** | **151** | P | | **Pn** | **08 22 47.3** | **+2.0** |
| **VTS** | **Vitosha** | **3.10** | **74** | *e*Pn | | **Pn** | **08 22 48.4** | **+2.3** |
| VTS | | | | *e*Sn | | **Sn** | **08 23 22.5** | **-0.4** |
| **VTS** | **Vitosha** | **3.10** | **74** | ⇑*i*P | | **Pn** | **08 22 48.5** | **+2.3** |
| **VTS** | **Vitosha** | **3.10** | **74** | S | | **Sn** | **08 23 25.0** | **+2.2** |
| **VTS** | **Vitosha** | **3.10** | **74** | P | | **Pn** | **08 22 48.2** | **+2.0** |
| VTS | | | | *e*Sn | | **Sn** | **08 23 22.5** | **-0.4** |
| VTS | | | | S | | **Sn** | **08 23 25.1** | **+2.2** |
| **VTS** | **Vitosha** | **3.10** | **74** | P | | **Pn** | **08 22 48.2** | **+2.0** |
| VTS | | | | S | | **Sn** | **08 23 25.1** | **+2.2** |
| **KUBS** | **Kucevo** | **3.19** | **34** | *e*Pn | | **Pn** | **08 22 47.2** | **-0.1** |
| KUBS | | | | *e*Sn | | **Sn** | **08 23 24.0** | **-0.9** |
| **KUBS** | **Kucevo** | **3.19** | **34** | *e*Pn | | **Pn** | **08 22 47.2** | **-0.1** |
| KUBS | | | | *e*Sn | | **Sn** | **08 23 24.0** | **-0.9** |
| **MCRV** | **Calabrutti - M** | **3.19** | **253** | Pn | | **Pn** | **08 22 48.3** | **+0.9** |
| | 137nm,0.3s | | | | | | | |
| **MCRV** | **Calabrutti - M** | **3.19** | **253** | Pn | | **Pn** | **08 22 48.3** | **+0.9** |
| | 137nm,0.3s | | | | | | | |
| **TIP** | **Timpagrande** | **3.21** | **216** | Pn | | **Pn** | **08 22 48.2** | **+0.6** |
| | 59nm,1.0s | | | | | | | |
| **TIP** | **Timpagrande** | **3.21** | **216** | P | | **Pn** | **08 22 48.2** | **+0.6** |
| TIP | | | | S | | **Sn** | **08 23 26.7** | **+1.2** |
| **TIP** | **Timpagrande** | **3.21** | **216** | P | | **Pn** | **08 22 48.2** | **+0.6** |
| TIP | | | | S | | **Sn** | **08 23 26.7** | **+1.2** |
| **CDRU** | **Civita di Ruta** | **3.21** | **247** | Pn | | **Pn** | **08 22 48.8** | **+1.2** |
| | 78nm,0.3s | | | | | | | |
| **CDRU** | **Civita di Ruta** | **3.21** | **247** | Pn | | **Pn** | **08 22 48.8** | **+1.2** |
| | 78nm,0.3s | | | | | | | |
| **MGR** | **Morigerati** | **3.21** | **240** | Pn | | **Pn** | **08 22 49.5** | **+1.9** |
| | 111nm,0.3s | | | | | | | |
| **MGR** | **Morigerati** | **3.21** | **240** | Pn | | **Pn** | **08 22 49.5** | **+1.9** |
| | 111nm,0.3s | | | | | | | |
| **CMPR** | **Campora** | **3.28** | **244** | Pn | | **Pn** | **08 22 50.3** | **+1.6** |
| | 96nm,0.3s | | | | | | | |
| **CMPR** | **Campora** | **3.28** | **244** | Pn | | **Pn** | **08 22 50.3** | **+1.6** |
| | 96nm,0.3s | | | | | | | |
| **BLY** | **Banja Luka** | **3.29** | **334** | *e*Pn | | **Pn** | **08 22 50.8** | **+2.1** |
| **BLY** | **Banja Luka** | **3.29** | **334** | Pn | | **Pn** | **08 22 50.9** | **+2.3** |
| | 193nm,0.7s | | | | | | | |
| **BLY** | **Banja Luka** | **3.29** | **334** | *e*Pn | | **Pn** | **08 22 50.7** | **+2.1** |
| BLY | | | | *e*Sn | | **Sn** | **08 23 29.5** | **+2.1** |
| **CET2** | **Cetraro** | **3.34** | **228** | Pn | | **Pn** | **08 22 51.2** | **+1.7** |
| | 173nm,0.6s | | | | | | | |
| **CET2** | **Cetraro** | **3.34** | **228** | Pn | | **Pn** | **08 22 51.2** | **+1.7** |
| | 173nm,0.6s | | | | | | | |
| **SERS** | **Sersale** | **3.35** | **215** | Pn | | **Pn** | **08 22 49.8** | **+0.1** |
| | 48nm,0.8s | | | | | | | |
| **SERS** | **Sersale** | **3.35** | **215** | Pn | | **Pn** | **08 22 49.8** | **+0.1** |
| | 48nm,0.8s | | | | | | | |
| **BULG** | **Bulgheria - Ca** | **3.35** | **240** | Pn | | **Pn** | **08 22 51.3** | **+1.6** |
| **BULG** | **Bulgheria - Ca** | **3.35** | **240** | Pn | | **Pn** | **08 22 51.3** | **+1.6** |
| **FGSL** | **Fruska Gora** | **3.39** | **8** | *e*Pn | | **Pn** | **08 22 51.3** | **+1.3** |
| **FRGS** | **Fruska Gora** | **3.39** | **8** | *e*Pn | | **Pn** | **08 22 51.3** | **+1.2** |
| **MDVR** | **Moldovita** | **3.51** | **31** | ⇓*i*P | | **Pn** | **08 22 53.1** | **+1.4** |
| **MDVR** | **Moldovita** | **3.51** | **31** | ⇓*i*P | | **Pn** | **08 22 53.1** | **+1.4** |
| MDVR | | | | S | | **Sn** | **08 23 33.4** | **+0.5** |
| **MIDA** | **Miranda** | **3.69** | **269** | Pn | | **Pn** | **08 22 56.1** | **+1.8** |
| | 99nm,0.5s | | | | | | | |
| **MIDA** | **Miranda** | **3.69** | **269** | Pn | | **Pn** | **08 22 56.1** | **+1.8** |
| | 99nm,0.5s | | | | | | | |
| **UDBI** | **Udbina** | **3.70** | **319** | *i* Pn | | **Pn** | **08 22 57.4** | **+3.1** |
| **VAGA** | **Valle Agricola** | **3.73** | **266** | Pn | | **Pn** | **08 22 57.4** | **+2.6** |
| | 109nm,0.5s | | | | | | | |
| **VAGA** | **Valle Agricola** | **3.73** | **266** | Pn | | **Pn** | **08 22 57.4** | **+2.6** |
| | 109nm,0.5s | | | | | | | |
| **INTR** | **Introdacqua** | **3.94** | **275** | Pn | | **Pn** | **08 22 59.7** | **+2.0** |
| | 125nm,0.7s | | | | | | | |
| **INTR** | **Introdacqua** | **3.94** | **275** | Pn | | **Pn** | **08 22 59.7** | **+2.0** |
| | 125nm,0.7s | | | | | | | |
| **POFI** | **Posta Fibreno** | **4.09** | **271** | Pn | | **Pn** | **08 23 02.2** | **+2.4** |
| **POFI** | **Posta Fibreno** | **4.09** | **271** | Pn | | **Pn** | **08 23 02.2** | **+2.4** |
| **KAVA** | **Kavala** | **4.09** | **100** | P | | **Pn** | **08 23 02.0** | **+2.3** |
| **KAVA** | **Kavala** | **4.09** | **100** | P | | **Pn** | **08 23 02.0** | **+2.3** |
| **VVLD** | **Villa Vallelon** | **4.15** | **273** | Pn | | **Pn** | **08 23 02.9** | **+2.3** |
| | 81nm,0.8s | | | | | | | |
| **VVLD** | **Villa Vallelon** | **4.15** | **273** | Pn | | **Pn** | **08 23 02.9** | **+2.3** |
| | 81nm,0.8s | | | | | | | |
| **NVLJ** | **Novalja** | **4.19** | **313** | *i* Pn | | **Pn** | **08 23 02.7** | **+1.7** |
| **BZS** | **Buzias** | **4.20** | **24** | *e*Pn | | **Pn** | **08 23 02.4** | **+1.2** |
| **BZS** | **Buzias** | **4.20** | **24** | ⇑*i*P | | **Pn** | **08 23 02.5** | **+1.2** |
| **BZS** | **Buzias** | **4.20** | **24** | ⇑*i*P | | **Pn** | **08 23 02.5** | **+1.2** |
| BZS | | | | S | | **Sn** | **08 23 50.3** | **+0.3** |
| **AQU** | **L'Aquila** | **4.33** | **279** | *e*Sn | | **Sn** | **08 23 55.4** | **+2.1** |
| **CAMP** | **Campotosto** | **4.35** | **282** | Pn | | **Pn** | **08 23 05.5** | **+2.1** |
| **SMA1** | **SAN MARTINO** | **4.42** | **283** | Pn | | **Pn** | **08 23 06.7** | **+2.4** |
| | 191nm,0.5s | | | | | | | |
| **AOI** | **Ancona** | **4.47** | **295** | Pn | | **Pn** | **08 23 06.7** | **+1.8** |
| | 76nm,0.8s | | | | | | | |
| **FIAM** | **Fiamignano** | **4.54** | **278** | Pn | | **Pn** | **08 23 08.3** | **+2.3** |
| | 49nm,0.5s | | | | | | | |
| **FIAM** | **Fiamignano** | **4.54** | **278** | Pn | | **Pn** | **08 23 08.3** | **+2.3** |
| | 49nm,0.5s | | | | | | | |
| **NRCA** | **Norcia** | **4.61** | **285** | Pn | | **Pn** | **08 23 09.0** | **+2.0** |
| | 133nm,0.3s | | | | | | | |
| **CERT** | **Cerreto** | **4.63** | **274** | Pn | | **Pn** | **08 23 09.5** | **+2.3** |
| | 39nm,0.5s | | | | | | | |
| **CERT** | **Cerreto** | **4.63** | **274** | Pn | | **Pn** | **08 23 09.5** | **+2.3** |
| | 39nm,0.5s | | | | | | | |
| **LNSS** | **Leonessa** | **4.63** | **282** | Pn | | **Pn** | **08 23 09.6** | **+2.4** |
| | 132nm,0.3s | | | | | | | |
| **OZLJ** | **Ozalj** | **4.67** | **326** | *e*Pn | | **Pn** | **08 23 09.7** | **+2.2** |
| **FDMO** | **Fiordimonte** | **4.67** | **287** | Pn | | **Pn** | **08 23 09.8** | **+2.0** |
| | 61nm,0.3s | | | | | | | |
| **CING** | **Cingoli** | **4.69** | **292** | Pn | | **Pn** | **08 23 09.5** | **+1.5** |
| | 63nm,0.6s | | | | | | | |
| **CESI** | **CESI - Serrava** | **4.80** | **287** | Pn | | **Pn** | **08 23 11.4** | **+1.9** |
| | 51nm,0.5s | | | | | | | |
| **GCIS** | **Gornji Cirnik** | **4.81** | **329** | *i* Pn | | **Pn** | **08 23 11.1** | **+1.6** |
| **SIRR** | **Siria** | **4.81** | **21** | ⇑*i*P | | **Pn** | **08 23 11.3** | **+1.7** |
| **SIRR** | **Siria** | **4.81** | **21** | ⇑*i*P | | **Pn** | **08 23 11.3** | **+1.7** |
| SIRR | | | | S | | **Sn** | **08 24 05.0** | **+0.1** |
| **CRES** | **Cresnjev** | **4.84** | **327** | *e*Sn | | **Sn** | **08 24 07.1** | **+1.4** |
| **ARVD** | **Arcevia** | **4.90** | **292** | Pn | | **Pn** | **08 23 12.5** | **+1.6** |
| | 28nm,0.5s | | | | | | | |
| **LOT** | **Lotru** | **4.94** | **41** | ⇑*i*P | | **Pn** | **08 23 13.4** | **+1.9** |
| **LOT** | **Lotru** | **4.94** | **41** | ⇑*i*P | | **Pn** | **08 23 13.4** | **+1.9** |
| LOT | | | | S | | **Sn** | **08 24 09.2** | **+0.9** |
| **BEHE** | **Becsehely** | **4.98** | **340** | ⇓*ex* | | **Pn** | **08 23 13.3** | **+1.4** |
| BEHE | | | | *ex* | | **Sn** | **08 24 13.3** | **+4.3** |
| **BEHE** | **Becsehely** | **4.98** | **340** | ⇓*e*Pn | | **Pn** | **08 23 13.3** | **+1.4** |
| BEHE | | | | *e*Sn | | **Sn** | **08 24 09.8** | **+0.8** |
| **SSFR** | **Montelago di S** | **5.00** | **291** | Pn | | **Pn** | **08 23 13.8** | **+1.6** |
| | 182nm,0.3s | | | | | | | |
| **ATCC** | **AVT- Casa Cast** | **5.03** | **288** | Pn | | **Pn** | **08 23 14.7** | **+2.1** |
| | 86nm,0.4s | | | | | | | |
| **FRON** | **Frontone** | **5.06** | **292** | Pn | | **Pn** | **08 23 14.5** | **+1.5** |
| | 58nm,0.6s | | | | | | | |
| **MPAG** | **Monte Paganucc** | **5.07** | **293** | Pn | | **Pn** | **08 23 14.8** | **+1.6** |
| | 67nm,0.5s | | | | | | | |
| **FSSB** | **Fossombrone** | **5.08** | **294** | Pn | | **Pn** | **08 23 14.7** | **+1.4** |
| | 226nm,0.3s | | | | | | | |
| **CEY** | **Cerknica** | **5.23** | **320** | *e*Sn | | **Sn** | **08 24 16.4** | **+1.2** |
| **SKDS** | **Skadanscina** | **5.29** | **317** | *i* Pn | | **Pn** | **08 23 17.3** | **+1.0** |
| SKDS | | | | *e*Sn | | **Sn** | **08 24 16.0** | **-0.9** |
| **SKDS** | **Skadanscina** | **5.29** | **317** | *e*Sn | | **Sn** | **08 24 16.0** | **-0.9** |
| **ARR** | **Arges** | **5.33** | **46** | ⇓*i*P | | **Pn** | **08 23 19.1** | **+2.3** |
| **ARR** | **Arges** | **5.33** | **46** | ⇓*i*P | | **Pn** | **08 23 19.1** | **+2.3** |
| ARR | | | | S | | **Sn** | **08 24 18.5** | **+0.7** |
| **LJU** | **Ljubljana** | **5.41** | **323** | *e*Sn | | **Sn** | **08 24 20.5** | **+0.8** |
| **CSKK** | **Cs˘‡kako** | **5.60** | **354** | *ex* | | Pn | 08 23 25.7 | +5.3 |
| CSKK | | | | *ex* | | **Sn** | **08 24 28.0** | **+3.6** |
| **CSKK** | **Cs˘‡kako** | **5.60** | **354** | *e*Sn | | **Sn** | **08 24 28.0** | **+3.6** |
| **VAE** | **Valguarnera** | **5.67** | **222** | Sn | | **Sn** | **08 24 32.3** | **+6.0** |
| | 2.1nm,0.3s,baz=234,slow=19,SNR=3.0 | | | | | | | |
| **SOKA** | **Soboth** | **5.71** | **330** | *i* Pn | | **Pn** | **08 23 23.7** | **+1.6** |
| | 4.9nm,0.3s | | | | | | | |
| SOKA | | | | Sn | | **Sn** | **08 24 26.2** | **-1.1** |
| | 0.4nm,0.2s | | | | | | | |
| **SOKA** | **Soboth** | **5.71** | **330** | Pn | | **Pn** | **08 23 23.7** | **+1.6** |
| | 4.9nm,0.3s | | | | | | | |
| **OBKA** | **Obir** | **5.76** | **326** | *i* Pn | | **Pn** | **08 23 25.2** | **+2.4** |
| | 9.2nm,0.2s | | | | | | | |
| **ARSA** | **Arzberg** | **6.04** | **336** | *e*Pn | | **Pn** | **08 23 28.6** | **+2.1** |
| | 2.9nm,0.3s | | | | | | | |
| ARSA | | | | Sn | | **Sn** | **08 24 40.9** | **+5.6** |
| | 4.9nm,0.5s | | | | | | | |
| **ARSA** | **Arzberg** | **6.04** | **336** | Pn | | **Pn** | **08 23 28.6** | **+2.1** |
| | 2.9nm,0.3s | | | | | | | |
| **DOPR** | **Dopca** | **6.12** | **45** | ⇓*i*P | | **Pn** | **08 23 29.3** | **+1.7** |
| **DOPR** | **Dopca** | **6.12** | **45** | ⇓*i*P | | **Pn** | **08 23 29.3** | **+1.7** |
| DOPR | | | | S | | **Sn** | **08 24 38.5** | **+1.3** |
| **PSZ** | **Piszkesteto** | **6.14** | **5** | ⇓*i*P | | **Pn** | **08 23 29.3** | **+1.4** |
| **PSZ** | **Piszkesteto** | **6.14** | **5** | ⇓*ex* | | **Pn** | **08 23 29.6** | **+1.7** |
| PSZ | | | | *ex* | | **Sn** | **08 24 37.7** | **0.0** |
| **PSZ** | **Piszkesteto** | **6.14** | **5** | ⇓*i*P | | **Pn** | **08 23 29.3** | **+1.4** |
| **PSZ** | **Piszkesteto** | **6.14** | **5** | ⇓*e*Pn | | **Pn** | **08 23 29.6** | **+1.7** |
| PSZ | | | | *e*Sn | | **Sn** | **08 24 37.7** | **0.0** |
| PSZ | | | | S | | **Sn** | **08 24 38.5** | **+0.8** |
| **MLR** | **Muntele Rosu** | **6.14** | **51** | Pn | | **Pn** | **08 23 30.8** | **+2.8** |
| | 0.3nm,0.3s,baz=305,slow=11,SNR=11 | | | | | | | |
| MLR | | | | Sn | | **Sn** | **08 24 37.0** | **-0.8** |
| | 1.0nm,0.3s,baz=102,slow=22,SNR=13 | | | | | | | |
| **MLR** | **Muntele Rosu** | **6.14** | **51** | ⇓*i*P | | **Pn** | **08 23 28.9** | **+0.9** |
| **MLR** | **Muntele Rosu** | **6.14** | **51** | ⇓*i*P | | **Pn** | **08 23 28.9** | **+0.9** |
| MLR | | | | S | | **Sn** | **08 24 39.9** | **+2.1** |
| **MYKA** | **Terra Mystica** | **6.25** | **322** | *e*Pn | | **Pn** | **08 23 30.9** | **+1.5** |
| | 5.7nm,0.4s | | | | | | | |
| MYKA | | | | *e*Sn | | **Sn** | **08 24 42.1** | **+1.5** |
| | 1.2nm,0.3s | | | | | | | |
| **CONA** | **Conrad Observa** | **6.56** | **340** | Pn | | **Pn** | **08 23 36.9** | **+3.2** |
| | 2.8nm,0.4s | | | | | | | |
| CONA | | | | *e*Sn | | **Sn** | **08 24 49.3** | **+1.1** |
| | 6.3nm,0.6s | | | | | | | |
| **CONA** | **Conrad Observa** | **6.56** | **340** | Pn | | **Pn** | **08 23 36.9** | **+3.2** |
| | 2.8nm,0.4s | | | | | | | |
| CONA | | | | Sn | | **Sn** | **08 24 49.3** | **+1.1** |
| | 6.3nm,0.6s | | | | | | | |
| **VYHS** | **Vyhne** | **6.70** | **358** | *e*Pn | | **Pn** | **08 23 38.8** | **+3.3** |
| **VYHS** | **Vyhne** | **6.70** | **358** | *e*PN | | **Pn** | **08 23 38.8** | **+3.3** |
| VYHS | | | | *e*SN | | **Sn** | **08 24 50.0** | **-1.4** |
| **KBA** | **Koelnbreinsper** | **6.73** | **324** | *e*Pn | | **Pn** | **08 23 37.9** | **+1.8** |
| | 5.9nm,0.4s | | | | | | | |
| **KECS** | **Kecovo** | **6.75** | **7** | *e*Pn | | **Pn** | **08 23 38.9** | **+2.8** |
| **KECS** | **Kecovo** | **6.75** | **7** | *e*PN | | **Pn** | **08 23 38.9** | **+2.8** |
| KECS | | | | *e*SN | | **Sn** | **08 24 51.8** | **-0.8** |
| **PLOR** | **Plostina** | **6.75** | **51** | ⇑*i*P | | **Pn** | **08 23 37.2** | **+0.9** |
| **PLOR** | **Plostina** | **6.75** | **51** | ⇑*i*P | | **Pn** | **08 23 37.2** | **+0.9** |
| PLOR | | | | S | | **Sn** | **08 24 54.5** | **+1.7** |
| **TRPA** | **Tarpa** | **6.76** | **19** | ⇓*ex* | | **Pn** | **08 23 38.3** | **+2.0** |
| **TRPA** | **Tarpa** | **6.76** | **19** | ⇓*e*Pn | | **Pn** | **08 23 38.3** | **+2.0** |
| **VRI** | **Vrincioaia** | **6.80** | **51** | ⇑*i*P | | **Pn** | **08 23 40.0** | **+3.0** |
| **VRI** | **Vrincioaia** | **6.80** | **51** | ⇑*i*P | | **Pn** | **08 23 40.0** | **+3.0** |
| **SMOL** | **Smolenice** | **6.83** | **350** | *e*Pn | | **Pn** | **08 23 40.7** | **+3.4** |
| **SMOL** | **Smolenice** | **6.83** | **350** | *e*PN | | **Pn** | **08 23 40.7** | **+3.4** |
| **ABTA** | **Albaltersbach** | **6.88** | **318** | *i* Pn | | **Pn** | **08 23 39.1** | **+1.0** |
| | 6.2nm,0.3s,SNR=15 | | | | | | | |
| ABTA | | | | *e*Sn | | **Sn** | **08 24 57.1** | **+1.1** |
| | 9.4nm,0.5s | | | | | | | |
| **MOA** | **Molln** | **6.98** | **332** | *i* Pn | | **Pn** | **08 23 42.2** | **+2.8** |
| | 7.9nm,0.3s | | | | | | | |
| MOA | | | | *e*Sn | | **Sn** | **08 25 02.7** | **+4.3** |
| | 3.8nm,0.4s | | | | | | | |
| **MOA** | **Molln** | **6.98** | **332** | Pn | | **Pn** | **08 23 42.2** | **+2.8** |
| | 7.9nm,0.3s | | | | | | | |
| MOA | | | | Sn | | **Sn** | **08 25 02.7** | **+4.3** |
| | 3.8nm,0.4s | | | | | | | |
| **BURAR** | **Bucovina Array** | **7.23** | **34** | ⇓*i*P | | **Pn** | **08 23 43.2** | **+0.3** |
| **BURAR** | **Bucovina Array** | **7.23** | **34** | ⇓*i*P | | **Pn** | **08 23 43.2** | **+0.3** |
| **CRVS** | **Cervenica-Dubn** | **7.28** | **12** | *e*SN | | **Sn** | **08 25 03.5** | **-2.3** |
| **WTTA** | **Wattenberg** | **7.67** | **318** | *e*Pn | | **Pn** | **08 23 50.7** | **+1.7** |
| | 6.5nm,0.3s,SNR=6.0 | | | | | | | |
| WTTA | | | | Sn | | **Sn** | **08 25 17.6** | **+2.0** |
| | 7.0nm,0.5s | | | | | | | |
| **WATA** | **Walderalm** | **7.75** | **318** | *i* Pn | | **Pn** | **08 23 51.8** | **+1.7** |
| | 17nm,0.5s,SNR=19 | | | | | | | |
| WATA | | | | *i* Sn | | **Sn** | **08 25 20.3** | **+2.9** |
| | 5.8nm,0.4s | | | | | | | |
| **STHS** | **Stebnicka Huta** | **7.75** | **10** | *e*Sn | | **Sn** | **08 25 19.4** | **+2.0** |
| **STHS** | **Stebnicka Huta** | **7.75** | **10** | *e*SN | | **Sn** | **08 25 19.4** | **+2.0** |
| **IDI** | **Anoyia** | **7.89** | **144** | Sn | | **Sn** | **08 25 17.7** | **-3.3** |
| | 0.9nm,0.3s,baz=288,slow=19,SNR=2.7 | | | | | | | |
| **FETA** | **Feichten** | **7.99** | **314** | *e*Pn | | **Pn** | **08 23 55.0** | **+1.7** |
| | 2.3nm,0.4s,SNR=5.0 | | | | | | | |
| FETA | | | | *e*Sn | | **Sn** | **08 25 24.8** | **+1.4** |
| | 5.7nm,0.9s | | | | | | | |
| **MOTA** | **Moosalm** | **7.99** | **317** | *i* Pn | | **Pn** | **08 23 55.4** | **+2.0** |
| | 4.7nm,0.3s,SNR=12 | | | | | | | |
| MOTA | | | | *i* Sn | | **Sn** | **08 25 22.3** | **-1.2** |
| | 6.5nm,0.5s | | | | | | | |
| **GERES** | **GERESS Array B** | **8.03** | **333** | Pn | | **Pn** | **08 23 54.4** | **+0.5** |
| | 1.1nm,0.3s,baz=155,slow=13,SNR=21 | | | | | | | |
| GERES | | | | Sn | | **Sn** | **08 25 22.9** | **-1.4** |
| | 0.3nm,0.3s,baz=151,slow=25,SNR=2.8 | | | | | | | |
| **RETA** | **Reutte** | **8.26** | **316** | *e*Pn | | **Pn** | **08 23 58.5** | **+1.4** |
| | 2.9nm,0.4s,SNR=5.7 | | | | | | | |
| RETA | | | | *e*Sn | | **Sn** | **08 25 32.6** | **+2.6** |
| | 5.4nm,0.5s | | | | | | | |
| **KHC** | **Kasperske Hory** | **8.32** | **334** | *e*PN | | **Pn** | **08 23 58.9** | **+1.2** |
| KHC | | | | *ex* | | | 08 24 28.5 | |
| KHC | | | | *e*SN | | **Sn** | **08 25 33.0** | **+1.7** |
| **KHC** | **Kasperske Hory** | **8.32** | **334** | Pn | | **Pn** | **08 23 58.9** | **+1.2** |
| KHC | | | | Sn | | **Sn** | **08 25 33.0** | **+1.7** |
| **DAVOX** | **Davos/Dischmat** | **8.32** | **310** | Pn | | **Pn** | **08 23 59.2** | **+1.3** |
| | 1.9nm,0.3s,baz=157,slow=19,SNR=12 | | | | | | | |
| DAVOX | | | | Sn | | **Sn** | **08 25 33.4** | **+1.8** |
| | 0.7nm,0.3s,baz=351,slow=19,SNR=2.9 | | | | | | | |
| **DAVA** | **Damuels** | **8.61** | **313** | *e*Pn | | **Pn** | **08 24 04.3** | **+2.4** |
| | 2.4nm,0.2s | | | | | | | |
| **PRU** | **Pruhonice** | **8.80** | **340** | *e*PN | | **Pn** | **08 24 06.8** | **+2.5** |
| **PRU** | **Pruhonice** | **8.80** | **340** | Pn | | **Pn** | **08 24 06.8** | **+2.5** |
| **FRF** | **La Foret Royal** | **9.40** | **285** | *e*P | | **Pn** | **08 24 16.1** | **+3.6** |
| FRF | | | | *e*Sg | | Sn | 08 26 50.8 | +53 |
| | 2.1nm,0.2s | | | | | | | |
| **FRF** | **La Foret Royal** | **9.40** | **285** | *e*P | | **Pn** | **08 24 16.1** | **+3.6** |
| FRF | | | | *e*Sg | | Sn | 08 26 50.8 | +53 |
| | 1.0nm,0.2s | | | | | | | |
| **MBDF** | **Montbardon** | **9.51** | **292** | *e*Pn | | **Pn** | **08 24 13.7** | **-0.6** |
| MBDF | | | | *e*Sn | | **Sn** | **08 25 52.1** | **-8.7** |
| **MBDF** | **Montbardon** | **9.51** | **292** | *e*Pn | | **Pn** | **08 24 13.7** | **-0.6** |
| MBDF | | | | *e*Sn | | **Sn** | **08 25 52.1** | **-8.7** |
| **LPG** | **La Plagne** | **9.73** | **296** | *e*Pn | | **Pn** | **08 24 16.5** | **-0.9** |
| LPG | | | | *e*Sn | | **Sn** | **08 26 00.1** | **-6.4** |
| | 5.8nm,0.4s | | | | | | | |
| **LPG** | **La Plagne** | **9.73** | **296** | *e*Pn | | **Pn** | **08 24 16.5** | **-0.9** |
| LPG | | | | *e*Sn | | **Sn** | **08 26 00.1** | **-6.4** |
| | 2.9nm,0.4s | | | | | | | |
| **LPL** | **La Plagne** | **9.75** | **297** | *e*Pn | | **Pn** | **08 24 17.3** | **-0.3** |
| LPL | | | | *e*Sn | | **Sn** | **08 26 00.7** | **-6.2** |
| | 6.1nm,0.3s | | | | | | | |
| **LPL** | **La Plagne** | **9.75** | **297** | *e*Pn | | **Pn** | **08 24 17.3** | **-0.3** |
| LPL | | | | *e*Sn | | **Sn** | **08 26 00.7** | **-6.2** |
| | 3.0nm,0.3s | | | | | | | |
| **ORIF** | **Oris-en-Rattie** | **10.17** | **292** | *e*Pn | | **Pn** | **08 24 23.5** | **+0.2** |
| ORIF | | | | *e*Sn | | **Sn** | **08 26 12.2** | **-4.8** |
| | 4.0nm,0.5s | | | | | | | |
| **ORIF** | **Oris-en-Rattie** | **10.17** | **292** | *e*Pn | | **Pn** | **08 24 23.5** | **+0.2** |
| ORIF | | | | *e*Sn | | **Sn** | **08 26 12.2** | **-4.8** |
| | 2.0nm,0.5s | | | | | | | |
| **CABF** | **La Chapelle** | **10.55** | **302** | *e*Pn | | **Pn** | **08 24 27.2** | **-1.2** |
| CABF | | | | *e*Sn | | **Sn** | **08 26 20.6** | **-5.7** |
| | 5.7nm,0.4s | | | | | | | |
| **CABF** | **La Chapelle** | **10.55** | **302** | *e*Pn | | **Pn** | **08 24 27.2** | **-1.2** |
| CABF | | | | *e*Sn | | **Sn** | **08 26 20.6** | **-5.7** |
| | 2.8nm,0.4s | | | | | | | |
| **HINF** | **Hinteralfeld** | **10.62** | **309** | *e*Pn | | **Pn** | **08 24 29.9** | **+0.6** |
| HINF | | | | *e*Sn | | **Sn** | **08 26 23.2** | **-4.6** |
| | 3.2nm,0.3s | | | | | | | |
| **HINF** | **Hinteralfeld** | **10.62** | **309** | *e*Pn | | **Pn** | **08 24 29.9** | **+0.6** |
| **HAU** | **Haudompre** | **11.01** | **309** | *e*Pn | | **Pn** | **08 24 34.5** | **-0.1** |
| HAU | | | | *e*Sn | | **Sn** | **08 26 30.6** | **-6.7** |
| | 5.3nm,0.4s | | | | | | | |
| **HAU** | **Haudompre** | **11.01** | **309** | *e*Pn | | **Pn** | **08 24 34.5** | **-0.1** |
| HAU | | | | *e*Sn | | **Sn** | **08 26 30.6** | **-6.7** |
| | 2.7nm,0.4s | | | | | | | |
| **SMF** | **Signal de Mont** | **12.02** | **299** | *e*Pn | | **Pn** | **08 24 46.8** | **-1.6** |
| SMF | | | | *e*Sn | | **Sn** | **08 26 53.9** | **-8.1** |
| | 4.8nm,0.5s | | | | | | | |
| **SMF** | **Signal de Mont** | **12.02** | **299** | *e*Pn | | **Pn** | **08 24 46.8** | **-1.6** |
| SMF | | | | *e*Sn | | **Sn** | **08 26 53.9** | **-8.1** |
| | 2.4nm,0.5s | | | | | | | |
| **LOR** | **Lormes** | **12.21** | **302** | *e*Pn | | **Pn** | **08 24 50.1** | **-1.0** |
| | baz=121 | | | | | | | |
| LOR | | | | *e*Sn | | **Sn** | **08 26 59.7** | **-7.1** |
| | 4.7nm,0.3s | | | | | | | |
| **LOR** | **Lormes** | **12.21** | **302** | *e*Pn | | **Pn** | **08 24 50.1** | **-1.0** |
| LOR | | | | *e*Sn | | **Sn** | **08 26 59.7** | **-7.1** |
| | 2.3nm,0.3s | | | | | | | |
| **AVF** | **Avril sur Loir** | **12.38** | **299** | *e*Pn | | **Pn** | **08 24 51.8** | **-1.5** |
| **AVF** | **Avril sur Loir** | **12.38** | **299** | *e*Pn | | **Pn** | **08 24 51.8** | **-1.5** |
| **BGF** | **Bois d'Agland** | **12.65** | **298** | *e*Pn | | **Pn** | **08 24 56.9** | **-0.1** |
| **BGF** | **Bois d'Agland** | **12.65** | **298** | *e*Pn | | **Pn** | **08 24 56.9** | **-0.1** |
| **MMAI** | **Mount Meron Ar** | **15.57** | **119** | Pn | | **P** | **08 25 40.5** | **-0.4** |
| | 0.7nm,0.3s,baz=313,slow=19,SNR=2.8 | | | | | | | |
| **HFS** | **Hagfors** | **18.67** | **351** | P | | **P** | **08 26 14.8** | **0.0** |
| | 0.4nm,0.3s,baz=167,slow=8.9,SNR=9.5 | | | | | | | |
| **NB2** | **NORSAR Subarra** | **19.87** | **349** | P | | **P** | **08 26 26.9** | **-1.2** |
| | comp=Z,0.9nm,0.5s,baz=159,slow=11 | | | | | | | |
| **NB2** | **NORSAR Subarra** | **19.87** | **349** | P | | **P** | **08 26 26.9** | **-1.2** |
| | comp=Z,0.9nm,0.5s,SNR=2.5 | | | | | | | |
| **NOA** | **NORSAR Array B** | **19.87** | **349** | P | | **Pn** | **08 26 29.1** | **-0.6** |
| | comp=Z,0.2nm,0.3s,baz=160,slow=10,SNR=2.8 | | | | | | | |
| **EKA** | **Eskdalemuir Ar** | **19.93** | **320** | P | | **P** | **08 26 29.4** | **+0.7** |
| | baz=112,slow=9.7,SNR=10 | | | | | | | |
| **FINES** | **FINESS Array B** | **20.11** | **10** | P | | **P** | **08 26 30.2** | **-0.4** |
| | comp=Z,0.4nm,0.3s,baz=178,slow=11,SNR=15 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **32.35** | **213** | P | | **P** | **08 28 28.1** | **+1.6** |
| | comp=Z,0.4nm,0.8s,baz=19,slow=9.0,SNR=2.4 | | | | | | | |
| **BVAR** | **Borovoye Array** | **35.69** | **54** | P | | **P** | **08 28 55.9** | **+0.7** |
| | comp=Z,0.8nm,0.5s,baz=267,slow=5.9,SNR=4.7 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **44.12** | **51** | P | | **P** | **08 30 05.5** | **+0.4** |
| | comp=Z,0.7nm,0.6s,baz=280,slow=8.6,SNR=2.2 | | | | | | | |
| **MKAR** | **Makanchi Array** | **44.37** | **61** | P | | **P** | **08 30 07.4** | **+0.1** |
| | comp=Z,0.2nm,0.4s,baz=281,slow=7.9,SNR=4.7 | | | | | | | |
| **RES** | **Resolute Bay** | **56.01** | **343** | LR | | LR | 08 54 36.3 | |
| | comp=Z,46nm,18.7s,baz=35,slow=35 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **69.64** | **339** | P | | **P** | **08 33 06.1** | **+0.2** |
| | comp=Z,0.2nm,0.7s,baz=39,slow=5.3,SNR=7.4 | | | | | | | |
| **ILAR** | **Eielson Array** | **73.20** | **354** | P | | **P** | **08 33 28.1** | **+0.7** |
| | comp=Z,0.3nm,0.8s,baz=8.3,slow=6.4,SNR=4.1 | | | | | | | |

*IDC* ***24*** *08:33:46.0±6.2, 17.°11N×93.°70W, h0km, mb3.5/3, mb1 3.7/4, mb1mx3.5/39, mbtmp3.4/4, ML3.4/1, Error ellipse: s-maj=113.5km s-min=14.5km az=161.0*
*ISCJB* ***24*** *08:33:48.1±0.8, 16.°1N±0.°1×94.°60W±0.°04, h35km, mb3.7/3, Error ellipse: s-maj=15.9km s-min=5.1km az=11.4*
*MEX* ***24*** *08:33:50.6±0.5, 16.°14N×94.°60W, h44km±40km, MD3.9*

**ISC 24 08:33:46.4±1.1, 16.°0N±0.°1×94.°64W±0.°04, h35km, n10, σ2s 71/15, mb3.7/3, Oaxaca**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **CMIG** | **Matias Romero** | **1.07** | **348** | Pg | | **Pn** | **08 34 08.3** | **+3.3** |
| | 53nm,0.3s,baz=179,slow=9.1,SNR=902 | | | | | | | |
| CMIG | | | | Lg | | Lg | 08 34 22.3 | |
| | 229nm,0.3s,baz=73,slow=19,SNR=194 | | | | | | | |
| **PCIG** | | **1.41** | **103** | *

0.9nm,1.0s,baz=6.1,slow=29,SNR=3.5
**ILAR Eielson Array 86.35 24** P P 08 58 59.2 0.0
0.2nm,0.6s,baz=258,slow=4.4,SNR=4.1

**WEL 24 09:13:10.6±0.3, 39°53S×174°22E, h212km±2km, ML3.6/29, 12C-11D, Error ellipse: s-maj=2.7km s-min=1.7km az=90.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LREZ** | **Lake Rotokare** | **0.16** | **63** | *e*SN | S | 09 13 59.5 | -0.3 |
| **NEZ** | **North Egmont** | **0.28** | **340** | ⇓PN | Pn | 09 13 38.6 | -0.1 |
| NEZ | | | | SN | S | 09 13 59.7 | -0.7 |
| **KHEZ** | **Kahui Hut** | **0.29** | **326** | PN | Pn | 09 13 38.5 | -0.1 |
| KHEZ | | | | SN | S | 09 14 00.1 | -0.3 |
| **VRZ** | **Vera Road** | **0.58** | **46** | PN | Pn | 09 13 38.5 | -0.9 |
| VRZ | | | | SN | S | 09 13 59.9 | -1.9 |
| **WAZ** | **Wanganui** | **0.63** | **111** | ⇓PN | Pn | 09 13 40.3 | +0.7 |
| WAZ | | | | SN | S | 09 14 01.7 | -0.4 |
| **PKVZ** | **Pokaka** | **0.91** | **75** | PN | Pn | 09 13 40.6 | -0.5 |
| **MTVZ** | **Mangateitei** | **0.98** | **82** | PN | Pn | 09 13 41.4 | -0.1 |
| **TWVZ** | **Taurewa** | **1.05** | **64** | ⇓PN | Pn | 09 13 41.4 | -0.7 |
| **TRVZ** | **Turoa** | **1.05** | **78** | PN | Pn | 09 13 42.1 | -0.2 |
| **OHWZ** | **Ohakea** | **1.08** | **129** | *e*PN | Pn | 09 13 43.0 | +1.0 |
| **WNVZ** | **Wahianoa** | **1.09** | **80** | PN | Pn | 09 13 42.3 | 0.0 |
| **NGZ** | **Ngauruhoe** | **1.13** | **72** | PN | Pn | 09 13 42.3 | -0.3 |
| **HIZ** | **Hauiti** | **1.13** | **26** | ⇑PN | Pn | 09 13 41.4 | -1.1 |
| **WTVZ** | **West Tongariro** | **1.14** | **69** | PN | Pn | 09 13 42.0 | -0.6 |
| **TUVZ** | **Tukino** | **1.14** | **77** | PN | Pn | 09 13 42.9 | +0.2 |
| **OTVZ** | **Oturere** | **1.18** | **72** | PN | Pn | 09 13 42.7 | -0.3 |
| **KRVZ** | **Karewarewa** | **1.19** | **69** | PN | Pn | 09 13 42.6 | -0.4 |
| **MOVZ** | **Moawhango** | **1.19** | **84** | ⇓PN | Pn | 09 13 42.6 | -0.3 |
| **DUWZ** | **D'Urville Isla** | **1.29** | **190** | ⇑PN | Pn | 09 13 43.4 | -0.2 |
| DUWZ | | | | *e*SN | S | 09 14 06.8 | -2.5 |
| **BHHZ** | **Black Hill Sta** | **1.43** | **89** | PN | Pn | 09 13 44.2 | -0.5 |
| **KIW** | **Kapiti Island** | **1.43** | **158** | ⇑PN | Pn | 09 13 44.6 | -0.1 |
| KIW | | | | AML | AML | 09 14 09.8 | |
| KIW | | | | AML | AML | 09 14 11.1 | |
| **TSZ** | **Takapari Road** | **1.44** | **112** | ⇓PN | Pn | 09 13 45.0 | +0.1 |
| TSZ | | | | SN | S | 09 14 09.5 | -1.8 |
| **POWZ** | **Post Office Ro** | **1.47** | **126** | PN | Pn | 09 13 45.1 | +0.1 |
| POWZ | | | | AML | AML | 09 14 12.0 | |
| POWZ | | | | AML | AML | 09 14 12.1 | |
| **OGWZ** | **Otaki Gorge** | **1.47** | **151** | PN | Pn | 09 13 45.3 | +0.2 |
| OGWZ | | | | AML | AML | 09 14 11.7 | |
| OGWZ | | | | AML | AML | 09 14 12.6 | |
| **MRZ** | **Mangatainoka R** | **1.53** | **138** | PN | Pn | 09 13 45.6 | +0.1 |
| MRZ | | | | SN | S | 09 14 11.2 | -1.5 |
| MRZ | | | | AML | AML | 09 14 12.7 | |
| **PNHZ** | **Pukenui** | **1.57** | **105** | PN | Pn | 09 13 46.1 | +0.1 |
| **KRHZ** | **Kereru** | **1.67** | **94** | ⇑PN | Pn | 09 13 46.9 | +0.1 |
| KRHZ | | | | AML | AML | 09 14 15.1 | |
| KRHZ | | | | AML | AML | 09 14 15.6 | |
| **TCW** | **Tory Channel** | **1.68** | **179** | PN | Pn | 09 13 47.0 | +0.1 |
| TCW | | | | AML | AML | 09 14 15.3 | |
| TCW | | | | AML | AML | 09 14 15.6 | |
| **DVHZ** | **Dannevirke** | **1.68** | **118** | PN | Pn | 09 13 47.0 | 0.0 |
| DVHZ | | | | AML | AML | 09 14 14.3 | |
| DVHZ | | | | AML | AML | 09 14 16.2 | |
| **HOWZ** | **Holdsworth Sta** | **1.69** | **144** | PN | Pn | 09 13 46.9 | 0.0 |
| HOWZ | | | | AML | AML | 09 14 13.5 | |
| HOWZ | | | | AML | AML | 09 14 15.0 | |
| **PRWZ** | **Pori Road** | **1.69** | **128** | *e*PN | Pn | 09 13 47.3 | +0.4 |
| PRWZ | | | | AML | AML | 09 14 14.9 | |
| PRWZ | | | | AML | AML | 09 14 15.8 | |
| **CAW** | **Cannon Point** | **1.70** | **158** | PN | Pn | 09 13 46.9 | -0.2 |
| CAW | | | | AML | AML | 09 14 15.5 | |
| CAW | | | | AML | AML | 09 14 16.0 | |
| **KWHZ** | **Kaweka Forest** | **1.71** | **87** | ⇓PN | Pn | 09 13 47.4 | +0.2 |
| KWHZ | | | | AML | AML | 09 14 15.1 | |
| KWHZ | | | | AML | AML | 09 14 16.2 | |
| **TIWZ** | **Tintock** | **1.78** | **135** | PN | Pn | 09 13 48.0 | +0.2 |
| TIWZ | | | | AML | AML | 09 14 16.8 | |
| TIWZ | | | | AML | AML | 09 14 17.2 | |
| **WPHZ** | **Waipukurau** | **1.79** | **108** | PN | Pn | 09 13 48.2 | +0.2 |
| WPHZ | | | | AML | AML | 09 14 16.2 | |
| **BKZ** | **Black Stump Fm** | **1.80** | **79** | PN | Pn | 09 13 47.5 | -0.6 |
| **NNZ** | **Nelson** | **1.80** | **201** | ⇑PN | Pn | 09 13 47.4 | -0.6 |
| **QRZ** | **Quartz Range** | **1.83** | **225** | ⇑PN | Pn | 09 13 46.9 | -1.3 |
| **MRHZ** | **Matea Rd** | **1.84** | **68** | ⇓PN | Pn | 09 13 47.4 | -1.1 |
| MRHZ | | | | AML | AML | 09 14 17.0 | |
| MRHZ | | | | AML | AML | 09 14 17.4 | |
| **MTW** | **Mount Morrison** | **1.90** | **149** | PN | Pn | 09 13 48.5 | -0.4 |
| MTW | | | | AML | AML | 09 14 18.3 | |
| MTW | | | | AML | AML | 09 14 18.4 | |
| **TUWZ** | **Tuamarina** | **1.91** | **186** | PN | Pn | 09 13 48.6 | -0.3 |
| TUWZ | | | | AML | AML | 09 14 18.1 | |
| TUWZ | | | | AML | AML | 09 14 18.9 | |
| **MCHZ** | **McNeill Hill** | **1.92** | **88** | ⇓PN | Pn | 09 13 49.7 | +0.6 |
| **BFZ** | **Birch Farm** | **1.93** | **127** | PN | Pn | 09 13 49.1 | -0.1 |
| **BHW** | **Baring Head** | **1.94** | **165** | PN | Pn | 09 13 48.7 | -0.6 |
| BHW | | | | AML | AML | 09 14 17.9 | |
| **ANWZ** | **Angora Road** | **1.96** | **119** | ⇓PN | Pn | 09 13 49.9 | +0.4 |
| ANWZ | | | | AML | AML | 09 14 22.9 | |
| ANWZ | | | | AML | AML | 09 14 23.8 | |
| **PRHZ** | **Porangahau** | **2.00** | **112** | *e*PN | Pn | 09 13 50.0 | +0.1 |
| PRHZ | | | | AML | AML | 09 14 22.0 | |
| PRHZ | | | | AML | AML | 09 14 24.3 | |
| **TMWZ** | **Te Maipa** | **2.02** | **141** | PN | Pn | 09 13 50.1 | -0.1 |
| TMWZ | | | | AML | AML | 09 14 21.1 | |
| **MSWZ** | **Moikau Station** | **2.04** | **158** | PN | Pn | 09 13 49.8 | -0.5 |
| **NMHZ** | **Naumai** | **2.05** | **79** | PN | Pn | 09 13 50.9 | +0.3 |
| NMHZ | | | | AML | AML | 09 14 23.6 | |
| NMHZ | | | | AML | AML | 09 14 24.5 | |
| **TOZ** | **Tahuroa Road** | **2.06** | **30** | PN | Pn | 09 13 49.5 | -1.1 |
| **PAWZ** | **Paruwai Farm** | **2.06** | **154** | PN | Pn | 09 13 50.1 | -0.5 |
| **KAHZ** | **Kahuranaki** | **2.07** | **98** | PN | Pn | 09 13 51.1 | +0.4 |
| KAHZ | | | | AML | AML | 09 14 21.7 | |
| KAHZ | | | | AML | AML | 09 14 22.3 | |
| **PXZ** | **Pawanui** | **2.10** | **105** | ⇓PN | Pn | 09 13 51.1 | +0.2 |
| **MTHZ** | **Maungataniwha** | **2.15** | **72** | PN | Pn | 09 13 50.7 | -0.8 |
| **PLWZ** | **Palliser** | **2.18** | **159** | PN | Pn | 09 13 51.4 | -0.5 |
| **BSWZ** | **Blackbirch Sta** | **2.19** | **187** | PN | Pn | 09 13 51.7 | -0.2 |
| **CKHZ** | **Cape Kidnapper** | **2.21** | **94** | ⇑PN | Pn | 09 13 52.5 | +0.4 |
| **MUGZ** | **Murupara** | **2.25** | **63** | PN | Pn | 09 13 51.1 | -1.4 |
| **RTZ** | **Ruatahuna** | **2.34** | **68** | ⇓PN | Pn | 09 13 52.2 | -1.3 |
| **WHHZ** | **Waihua** | **2.38** | **80** | PN | Pn | 09 13 53.8 | -0.1 |
| **THZ** | **Tophouse** | **2.44** | **204** | ⇑PN | Pn | 09 13 53.4 | -1.1 |
| **SNGZ** | **Shannon Statio** | **2.54** | **74** | PN | Pn | 09 13 54.9 | -0.8 |
| SNGZ | | | | AML | AML | 09 14 30.9 | |
| SNGZ | | | | AML | AML | 09 14 34.6 | |
| **URZ** | **Urewera** | **2.59** | **61** | PN | Pn | 09 13 54.5 | -1.7 |
| **RAGZ** | **Rawiri** | **2.70** | **68** | PN | Pn | 09 13 56.4 | -1.1 |
| RAGZ | | | | AML | AML | 09 14 34.5 | |
| RAGZ | | | | AML | AML | 09 14 34.7 | |
| **KNZ** | **Kokohu** | **2.73** | **80** | PN | Pn | 09 13 57.1 | -0.6 |
| **MWZ** | **Matawai** | **2.84** | **66** | ⇑PN | Pn | 09 13 57.6 | -1.5 |
| **DSZ** | **Denniston Nort** | **2.87** | **219** | ⇑PN | Pn | 09 13 57.8 | -1.5 |
| **RIGZ** | **Rimuhau** | **2.88** | **74** | PN | Pn | 09 13 58.7 | -0.7 |
| RIGZ | | | | AML | AML | 09 14 37.2 | |
| RIGZ | | | | AML | AML | 09 14 37.7 | |
| **MHGZ** | **Mahia Peninsul** | **2.88** | **84** | PN | Pn | 09 13 59.3 | -0.2 |
| **PRGZ** | **Paritu Road** | **2.91** | **79** | PN | Pn | 09 13 59.2 | -0.6 |
| **KHZ** | **Kahutara** | **2.92** | **190** | PN | Pn | 09 13 58.9 | -1.0 |
| **TKGZ** | **Te Karaka** | **3.03** | **70** | PN | Pn | 09 14 00.4 | -0.7 |
| TKGZ | | | | AML | AML | 09 14 39.5 | |
| TKGZ | | | | AML | AML | 09 14 41.2 | |
| **RUGZ** | **Raukumara Rang** | **3.12** | **61** | PN | Pn | 09 13 59.9 | -2.5 |
| **TWGZ** | **Tauwhareparae** | **3.23** | **66** | PN | Pn | 09 14 02.5 | -1.1 |
| TWGZ | | | | AML | AML | 09 14 44.6 | |
| TWGZ | | | | AML | AML | 09 14 46.3 | |
| **CNGZ** | **Carnagh Statio** | **3.28** | **73** | PN | Pn | 09 14 03.3 | -0.7 |
| **HAZ** | **Te Kaha** | **3.31** | **59** | PN | Pn | 09 14 02.0 | -2.4 |
| **PKGZ** | **Pakihiroa** | **3.44** | **63** | PN | Pn | 09 14 04.2 | -1.8 |
| PKGZ | | | | AML | AML | 09 14 47.9 | |
| **PUZ** | **Puketiti** | **3.48** | **66** | ⇑PN | Pn | 09 14 04.7 | -1.7 |
| **LTZ** | **Lake Taylor** | **3.56** | **204** | *e*PN | Pn | 09 14 06.0 | -1.4 |
| **WMGZ** | **Waiomatatini S** | **3.70** | **64** | ⇑PN | Pn | 09 14 07.1 | -2.0 |
| WMGZ | | | | AML | AML | 09 14 52.8 | |
| WMGZ | | | | AML | AML | 09 14 54.1 | |

**DJA 24 09:16:17.7±0.6, 4°S±7°×172°E±°, h42km±15km, M4.2/9, mb4.5/4, MLv4.0/9, Buru**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **NLAI** | **Namlea** | **0.49** | **55** | P | Pn | 09 16 30.4 | +2.0 |
| NLAI | | | | Pg | Pn | 09 16 30.4 | +2.0 |
| **AAI** | **Ambon** | **1.50** | **96** | P | Pn | 09 16 42.0 | -0.2 |
| AAI | | | | S | Sn | 09 16 59.9 | -0.6 |
| **SANI** | **Sanana** | **1.62** | **334** | P | Pn | 09 16 43.2 | -0.7 |
| SANI | | | | S | Sn | 09 17 02.3 | -1.3 |
| **MSAI** | **Masohi** | **2.23** | **86** | P | Pn | 09 16 52.3 | +0.1 |
| **LBMI** | **Labuha** | **2.97** | **16** | P | Pn | 09 17 04.6 | +2.2 |
| **SWI** | **Sorong** | **5.26** | **60** | P | Pn | 09 17 34.9 | +1.0 |
| | 33nm,0.7s,0.5nm | | | | | | |
| **FAKI** | **Fak Fak** | **5.57** | **84** | P | Pn | 09 17 38.8 | +0.7 |
| **APSI** | **Ampana** | **5.67** | **297** | P | Pn | 09 17 39.9 | +0.4 |
| **MRSI** | **Marisa** | **6.20** | **310** | P | Pn | 09 17 46.8 | +0.1 |

*BJI **24** 09:20:03.7, 41°.40N×73°.10E, h10km, mb4.4/16, mB4.7/12, ML4.3/2, Ms4.1/5, Ms7 3.9/5*
*IDC **24** 09:20:03.6±0.6, 41°.44N×73°.24E, h0km, mb4.0/16, mb1 4.2/23, mb1mx4.1/50, mbtmp4.1/23, ML3.8/7, MS3.4/10, Ms1 3.4/10, ms1mx3.1/61, Error ellipse: s-maj=12.0km s-min=8.2km az=148.0*
*NEIC **24** 09:20:05.1±0.4, 41°.42N×73°.17E, h10km, mb4.4/7, Error ellipse: s-maj=7.8km s-min=5.4km az=168.0*
*MOS **24** 09:20:06.6±1.5, 41°.64N×73°.19E, h20km, mb4.4/9, Error ellipse: s-maj=7.3km s-min=5.3km az=81.9*
*NNC **24** 09:20:06.6±0.4, 41°.66N×73°.17E, h0km, mb5.1, mpv4.9, Error ellipse: s-maj=3.2km s-min=2.3km az=64.0*
*SOME **24** 09:20:06.4, 41°.63N×73°.17E, h5km, MS3.3*
*ISCJB **24** 09:20:07.0±0.7, 41°.58N±0°.02×73°.08E±0°.03, h26km±5km, mb4.2/34, MS3.5/8, Error ellipse: s-maj=4.2km s-min=3.5km az=151.5*
*KNET **24** 09:20:08.1±0.4, 41°.66N×73°.32E, h12km±2km, ml4.4, Error ellipse: s-maj=3.0km s-min=1.8km az=152.0*

**ISC 24 09:20:06.9±1.0, 41°.63N±0°.02×73°.18E±0°.02, h18km±6km, n170, σ2.9 39/214, mb4.3/34, MS3.3/8, 35C-24D, Kyrgyzstan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AML** | **Almayashu** | **0.63** | **37** | ⇑P | **Pg** | **09 20 19.2** | **-0.3** |
| | 925nm,0.2s,SNR=1713 | | | | | | |
| AML | | | | ⇑S | **Sb** | **09 20 28.0** | **-0.2** |
| | 15μm,0.2s | | | | | | |
| **MNAS** | **Manas** | **0.99** | **330** | ⇓P | **Pb** | **09 20 25.3** | **-0.4** |
| | 1μm,0.4s | | | | | | |
| MNAS | | | | ⇑S | **Sb** | **09 20 39.0** | **+0.5** |
| | 3μm,0.3s | | | | | | |
| **MNAS** | **Manas** | **0.99** | **330** | PG | **Pb** | **09 20 25.1** | **-0.6** |
| MNAS | | | | S | **Sb** | **09 20 38.0** | **-0.5** |
| **MRKS** | **Merke** | **1.11** | **2** | *e*P | **Pb** | **09 20 27.6** | **0.0** |
| | 4μm,0.3s | | | | | | |
| MRKS | | | | *e*S | **Sb** | **09 20 42.8** | **+0.9** |
| | 8μm,0.4s | | | | | | |
| **EKS2** | **Erkin-Say** | **1.12** | **23** | ⇑P | **Pb** | **09 20 27.8** | **0.0** |
| | 343nm,0.3s,SNR=394 | | | | | | |
| **UCH** | **Uchtor** | **1.16** | **59** | ⇑P | **Pn** | **09 20 28.7** | **+0.1** |
| | 628nm,0.1s,SNR=2731 | | | | | | |
| UCH | | | | ⇑S | **Sn** | **09 20 44.7** | **+0.5** |
| | 2μm,0.3s | | | | | | |
| **AAK** | **Ala-Archa** | **1.40** | **44** | Pg | **Pg** | **09 20 33.3** | **-0.6** |
| | 482nm,0.3s,baz=210,slow=12,SNR=2397 | | | | | | |
| AAK | | | | Lg | Lg | 09 20 52.0 | |
| | 554nm,0.3s,baz=162,slow=20,SNR=30 | | | | | | |
| AAK | | | | LR | LR | 09 21 18.9 | |
| | comp=Z,874nm,18.5s,baz=198,slow=50 | | | | | | |
| **AAK** | **Ala-Archa** | **1.40** | **44** | ⇑P | **Pg** | **09 20 33.4** | **-0.6** |
| | 1μm,0.5s | | | | | | |
| AAK | | | | ⇑S | **Sb** | **09 20 50.9** | **+0.6** |
| | 1μm,0.4s | | | | | | |
| **AAK** | **Ala-Archa** | **1.40** | **44** | *c i*PG | **Pb** | **09 20 32.9** | **+0.3** |
| **AAK** | **Ala-Archa** | **1.40** | **44** | ⇑P | **Pb** | **09 20 33.0** | **+0.3** |
| | 1μm,0.4s,SNR=2696 | | | | | | |
| AAK | | | | ⇑S | **Sg** | **09 20 52.0** | **-0.3** |
| | 2μm,0.3s | | | | | | |
| **AAK** | **Ala-Archa** | **1.40** | **44** | *e*Pn | **Pg** | **09 20 33.9** | **-0.1** |
| AAK | | | | *e*Sn | **Sg** | **09 20 52.0** | **-0.3** |
| **FRU** | **Bishkek** | **1.60** | **41** | *i* PN | **Pg** | **09 20 38.0** | **+0.2** |
| FRU | | | | *i* S | **Sg** | **09 20 59.0** | **+0.3** |
| FRU | | | | pmax | pmax | | |
| | comp=Z,1μm,1.0s | | | | | | |
| FRU | | | | smax | smax | | |
| | comp=E,220nm,1.2s | | | | | | |
| **KZA** | **Kyzart** | **1.61** | **73** | ⇓P | **Pb** | **09 20 36.4** | **+0.2** |
| | comp=E,1μm,0.3s,SNR=2446 | | | | | | |
| KZA | | | | ⇓S | **Sg** | **09 20 57.7** | **-1.2** |
| | comp=E,5μm,0.5s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **1.64** | **171** | ⇓P | **Pb** | **09 20 36.0** | **-0.6** |
| | comp=E,552nm,0.6s | | | | | | |
| SFK | | | | ⇓S | **Sg** | **09 20 59.1** | **-0.5** |
| | comp=E,4μm,0.6s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **1.64** | **171** | PN | **Pn** | **09 20 35.4** | **+0.4** |
| SFK | | | | S | **Sb** | **09 20 58.0** | **+1.0** |
| **KBK** | **Karagaybulak** | **1.67** | **51** | ⇑P | **Pg** | **09 20 38.0** | **-0.9** |
| | comp=E,778nm,0.2s,SNR=2322 | | | | | | |
| KBK | | | | ⇑S | **Sg** | **09 21 00.6** | **-0.1** |
| | comp=E,12μm,0.5s | | | | | | |
| **CHMS** | **Chumysh** | **1.79** | **40** | ⇑P | **Pb** | **09 20 40.0** | **+0.8** |
| | comp=E,916nm,0.3s,SNR=1003 | | | | | | |
| CHMS | | | | ⇓S | **Sg** | **09 21 04.0** | **-0.7** |
| | comp=E,1μm,0.3s | | | | | | |
| **USP** | **Ospenovka** | **1.90** | **30** | ⇑P | **Pb** | **09 20 41.8** | **+0.7** |
| | comp=E,2μm,0.5s,SNR=1192 | | | | | | |
| **TKM2** | **Tokmak 2** | **2.21** | **53** | ⇑Pn | **Pb** | **09 20 46.2** | **-0.2** |
| | comp=E,1μm,0.6s | | | | | | |
| TKM2 | | | | ⇑Lg | Lg | 09 21 16.4 | |
| | comp=E,2μm,0.5s | | | | | | |
| **TKM2** | **Tokmak 2** | **2.21** | **53** | PN | **Pb** | **09 20 46.0** | **-0.4** |
| **TKM2** | **Tokmak 2** | **2.21** | **53** | P | **Pb** | **09 20 46.5** | **+0.1** |
| | comp=E,2μm,0.6s,SNR=1209 | | | | | | |
| **BMNS** | **Besmoynak** | **2.36** | **50** | *e*P | **Pg** | **09 20 50.7** | **-1.5** |
| | comp=E,1μm,0.5s | | | | | | |
| BMNS | | | | *e*S | **Sg** | **09 21 22.3** | **-0.6** |
| | comp=E,10μm,0.5s | | | | | | |
| **ULHL** | **Ulahol** | **2.36** | **74** | ⇑P | **Pb** | **09 20 48.2** | **-0.9** |
| | comp=E,246nm,0.5s,SNR=226 | | | | | | |
| **IUG** | **luzhnay** | **2.41** | **283** | *e*P | **Pb** | **09 20 50.7** | **+0.9** |
| | comp=E,2μm,0.4s | | | | | | |
| IUG | | | | *e*S | **Sb** | **09 21 22.3** | **+3.2** |
| | comp=E,5μm,0.5s | | | | | | |
| **KK31** | **Karatay Array** | **2.47** | **308** | ⇑Pg | **Pb** | **09 20 51.2** | **+0.5** |
| | comp=E,645nm,0.5s,baz=124,slow=16,SNR=8494 | | | | | | |
| KK31 | | | | ⇓Lg | Lg | 09 21 24.6 | |
| | comp=E,971nm,0.4s,baz=127,slow=27,SNR=6.1 | | | | | | |
| **KK31** | **Karatay Array** | **2.47** | **308** | PN | **Pb** | **09 20 51.2** | **+0.5** |
| **KKAR** | **Karatay Array** | **2.47** | **308** | *e*PN | **Pn** | **09 20 49.0** | **+2.8** |
| KKAR | | | | *e* | | 09 21 24.2 | |
| **KKAR** | **Karatay Array** | **2.47** | **308** | *e*Pn | **Pn** | **09 20 49.0** | **+2.8** |
| KKAR | | | | *e*Sn | **Sb** | **09 21 24.2** | **+3.5** |
| **KST** | **Kastek** | **2.50** | **55** | *e*P | **Pg** | **09 20 52.9** | **-1.9** |
| | comp=E,272nm,0.3s | | | | | | |
| KST | | | | *e*S | **Sg** | **09 21 25.8** | **-1.5** |
| | comp=E,4μm,0.5s | | | | | | |
| **DGS** | **Degeres** | **2.50** | **49** | *e*P | **Pb** | **09 20 52.0** | **+0.7** |
| | comp=E,455nm,0.6s | | | | | | |
| DGS | | | | *e*S | **Sg** | **09 21 25.6** | **-1.8** |
| | comp=E,3μm,0.5s | | | | | | |
| **MTBS** | **Maitube** | **2.83** | **57** | *e*P | **Pb** | **09 20 58.7** | **+1.7** |
| | comp=E,321nm,0.5s | | | | | | |
| MTBS | | | | *e*S | **Sg** | **09 21 36.3** | **-1.7** |
| | comp=E,2μm,0.5s | | | | | | |
| **IZV** | **Izvestkoviy** | **2.91** | **60** | *e*P | **Pb** | **09 20 59.6** | **+1.4** |
| | comp=E,1μm,0.6s | | | | | | |
| IZV | | | | *e*S | **Sg** | **09 21 38.9** | **-1.3** |
| | comp=E,2μm,0.5s | | | | | | |
| **KSH** | **Kashi** | **3.00** | **134** | Pn | **Pg** | **09 21 02.8** | **-1.5** |
| KSH | | | | Sn | **Sg** | **09 21 42.4** | **-0.8** |
| KSH | | | | smax | smax | | |
| | comp=N,810nm,0.8s | | | | | | |
| KSH | | | | smax | smax | | |
| | comp=E,660nm,1.0s | | | | | | |
| **TNSS** | **Tian-Shan** | **3.12** | **62** | *e*P | **Pb** | **09 21 03.5** | **+1.4** |
| | comp=E,510nm,0.5s | | | | | | |
| TNSS | | | | *e*S | **Sg** | **09 21 44.7** | **-2.6** |
| | comp=E,1μm,0.5s | | | | | | |
| **AAA** | **Alma-Ata** | **3.18** | **59** | *e*PN | **Pb** | **09 21 05.0** | **+2.1** |
| AAA | | | | *e*S | **Sg** | **09 21 47.5** | **-1.6** |
| AAA | | | | pmax | pmax | | |
| | comp=Z,1μm,0.4s | | | | | | |
| AAA | | | | smax | smax | | |
| | comp=N,2μm,0.6s | | | | | | |
| **AAA** | **Alma-Ata** | **3.18** | **59** | *e*P | **Pg** | **09 21 05.4** | **-2.4** |
| | comp=N,1μm,0.4s | | | | | | |
| AAA | | | | *e*S | **Sg** | **09 21 47.5** | **-1.6** |
| | comp=N,2μm,0.6s | | | | | | |
| **KUU** | **Kurty** | **3.24** | **45** | *e*P | **Pb** | **09 21 05.6** | **+1.7** |
| KUU | | | | *e*S | **Sg** | **09 21 47.7** | **-3.3** |
| **MDOK** | **Medeo** | **3.25** | **61** | ⇓Pn | **Pb** | **09 21 00.8** | **-3.3** |
| MDOK | | | | Pg | **Pg** | **09 21 06.0** | **-3.1** |
| MDOK | | | | ⇓Lg | Lg | 09 21 47.8 | |
| **MDOK** | **Medeo** | **3.25** | **61** | *e*P | **Pb** | **09 21 05.8** | **+1.8** |
| | comp=N,354nm,0.7s | | | | | | |
| MDOK | | | | *e*S | **Sg** | **09 21 48.5** | **-2.7** |
| | comp=N,821nm,0.8s | | | | | | |
| **CHKK** | **Chushkaly** | **3.58** | **50** | *e*P | **Pb** | **09 21 11.4** | **+1.8** |
| | comp=N,202nm,0.6s | | | | | | |
| CHKK | | | | *e*S | **Sg** | **09 21 58.5** | **-3.2** |
| | comp=N,3μm,0.3s | | | | | | |
| **KURS** | **Kuram** | **4.12** | **62** | *e*P | **Pb** | **09 21 21.6** | **+2.6** |
| | comp=N,75nm,0.9s | | | | | | |
| KURS | | | | *e*S | **Sg** | **09 22 15.4** | **-3.9** |
| | comp=N,394nm,0.7s | | | | | | |
| **SATY** | **Saty** | **4.13** | **68** | *e*P | **Pg** | **09 21 22.8** | **-3.1** |
| | comp=N,806nm,0.7s | | | | | | |
| SATY | | | | *e*S | **Sg** | **09 22 17.6** | **-1.8** |
| | comp=N,707nm,0.5s | | | | | | |
| **ARXS** | **Arharly** | **4.28** | **51** | *e*P | **Pb** | **09 21 23.8** | **+2.2** |
| | comp=N,381nm,0.4s | | | | | | |
| ARXS | | | | *e*S | **Sg** | **09 22 20.4** | **-3.7** |
| | comp=N,1μm,0.4s | | | | | | |
| **PDGK** | **Podgornoye** | **4.96** | **68** | ⇓Pg | **Pb** | **09 21 37.1** | **+3.8** |
| | comp=N,71nm,0.5s | | | | | | |
| PDGK | | | | ⇑Lg | Lg | 09 22 42.1 | |
| | comp=N,444nm,0.8s | | | | | | |
| **PDGK** | **Podgornoye** | **4.96** | **68** | PN | **Pn** | **09 21 21.8** | **+1.2** |
| **TDK** | **Taldyqorghan** | **5.09** | **47** | *e*P | **Pb** | **09 21 38.9** | **+3.6** |
| | comp=N,240nm,0.6s | | | | | | |
| TDK | | | | *e*S | **Sg** | **09 22 45.3** | **-4.7** |
| | comp=N,1μm,0.7s | | | | | | |
| **DJR** | **Jarkent** | **5.55** | **59** | *e*P | **Pb** | **09 21 47.2** | **+4.0** |
| | comp=N,126nm,0.5s | | | | | | |
| DJR | | | | *e*S | **Sg** | **09 22 59.3** | **-5.6** |
| | comp=N,385nm,0.5s | | | | | | |
| **KTMS** | **Ketmen** | **5.60** | **69** | *e*P | **Pb** | **09 21 47.2** | **+3.0** |
| | comp=N,10nm,0.2s | | | | | | |
| KTMS | | | | *e*S | **Sg** | **09 23 00.0** | **-6.5** |
| | comp=N,261nm,0.5s | | | | | | |
| **KAPS** | **Kapalarasan** | **5.79** | **49** | *e*P | **Pb** | **09 21 50.4** | **+3.0** |
| | comp=N,99nm,0.4s | | | | | | |
| KAPS | | | | *e*S | **Sg** | **09 23 04.7** | **-7.9** |
| | comp=N,204nm,0.5s | | | | | | |
| **KBL** | **Kabul** | **7.79** | **206** | *e*P | **Pn** | **09 22 03.7** | **+4.1** |
| KBL | | | | *e* | | 09 23 27.7 | |
| **KBL** | **Kabul** | **7.79** | **206** | *e*Pn | **Pn** | **09 22 03.7** | **+4.1** |
| KBL | | | | *e*Sn | **Sn** | **09 23 27.7** | **+0.2** |
| **CEP** | **Cherat** | **7.86** | **188** | P | **Pn** | **09 22 04.2** | **+3.8** |
| **CHCP** | **Chirah Chowk** | **7.96** | **180** | P | **Pn** | **09 22 04.8** | **+3.1** |
| **MAKZ** | **Makanchi** | **8.16** | **48** | ⇓Pn | **Pn** | **09 22 07.3** | **+2.9** |
| | comp=N,14nm,0.8s | | | | | | |
| MAKZ | | | | ⇓Lg | Lg | 09 24 27.3 | |
| | comp=N,167nm,1.4s | | | | | | |
| **MAKZ** | **Makanchi** | **8.16** | **48** | *e*P | **Pn** | **09 22 07.5** | **+3.1** |
| **MAKZ** | **Makanchi** | **8.16** | **48** | *e*Pn | **Pn** | **09 22 07.5** | **+3.1** |
| **MK01** | **Makanchi Array** | **8.32** | **49** | *e*Pn | **Pn** | **09 22 09.1** | **+2.5** |
| **MK31** | **Makanchi Array** | **8.33** | **49** | ⇑Pn | **Pn** | **09 22 09.8** | **+3.1** |
| | comp=N,5.4nm,0.4s,baz=233,slow=12,SNR=448 | | | | | | |
| MK31 | | | | ⇓Lg | Lg | 09 24 29.5 | |
| | comp=N,128nm,0.8s | | | | | | |
| **MK31** | **Makanchi Array** | **8.33** | **49** | *e*P | **Pn** | **09 22 10.0** | **+3.3** |
| **MK31** | **Makanchi Array** | **8.33** | **49** | *e*Pn | **Pn** | **09 22 10.0** | **+3.3** |
| **MKAR** | **Makanchi Array** | **8.33** | **49** | Pn | **Pn** | **09 22 09.6** | **+2.9** |
| | comp=N,2.3nm,0.3s,baz=232,slow=13,SNR=78 | | | | | | |
| MKAR | | | | Lg | Lg | 09 24 28.1 | |
| | comp=N,5.4nm,0.3s,baz=233,slow=28,SNR=3.9 | | | | | | |
| MKAR | | | | LR | LR | 09 25 44.2 | |
| | comp=N,184nm,20.1s,baz=242,slow=40 | | | | | | |
| **MKAR** | **Makanchi Array** | **8.33** | **49** | *i* P | **Pn** | **09 22 09.3** | **+2.6** |
| MKAR | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.6s | | | | | | |
| **MKAR** | **Makanchi Array** | **8.33** | **49** | *e*Pn | **Pn** | **09 22 10.0** | **+3.3** |
| MKAR | | | | Lg | Lg | 09 24 28.1 | |
| **THW** | **Thamme Wali** | **8.89** | **188** | P | **Pn** | **09 22 16.0** | **+1.5** |
| **KURBB** | **Kurchatov Arra** | **9.72** | **21** | Pn | **Pn** | **09 22 25.8** | **+0.1** |
| | comp=Z,0.5nm,0.3s,baz=211,slow=12,SNR=24 | | | | | | |
| KURBB | | | | Sn | **Sn** | **09 24 18.1** | **+3.6** |
| | comp=Z,1.0nm,0.3s,baz=214,slow=23,SNR=5.2 | | | | | | |
| KURBB | | | | Lg | Lg | 09 25 14.2 | |
| | comp=Z,2.7nm,0.3s,baz=214,slow=30,SNR=8.8 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **9.72** | **21** | ⇓Lg | Lg | 09 25 15.6 | |
| | comp=Z,295nm,0.7s | | | | | | |
| **KURK** | **Kurchatov** | **9.83** | **21** | ⇓Lg | Lg | 09 25 17.8 | |
| | comp=Z,205nm,0.7s | | | | | | |
| **KURK** | **Kurchatov** | **9.83** | **21** | ⇑*e*P | **Pn** | **09 22 27.5** | **+0.2** |
| **KURK** | **Kurchatov** | **9.83** | **21** | *e*Pn | **Pn** | **09 22 28.4** | **+1.2** |
| KURK | | | | Sn | **Sn** | **09 24 18.1** | **+1.0** |
| KURK | | | | Lg | Lg | 09 25 14.2 | |
| **SDNR** | **Sundarnagar** | **10.56** | **162** | *e*P | **Pn** | **09 22 38.0** | **+0.7** |
| SDNR | | | | *e*S | **Sn** | **09 24 40.0** | **+4.9** |
| **WMQ** | **Urumqi** | **10.90** | **74** | P | **Pn** | **09 22 44.6** | **+2.6** |
| WMQ | | | | S | **Sn** | **09 24 49.0** | **+5.

comp=Z,0.0nm,0.3s,baz=135,slow=6.8,SNR=10
ARU S **S** **09 27 34.4 +0.9**
comp=Z,0.0nm,0.3s,baz=90,slow=20,SNR=3.3
ARU Lg Lg 09 29 26.0
comp=Z,0.0nm,0.3s,baz=135,slow=20,SNR=3.5
**ARU Arti 17.58 332***c i*P **Pn** **09 24 11.6 +0.9**
ARU S **Sn** **09 27 28.5 +2.6**
ARU pmax pmax
comp=Z,20nm,2.5s
**ARU Arti 17.58 332** *e*Pn **P** **09 24 12.5 +0.8**
comp=Z,15nm,0.9s
ARU S **S** **09 27 34.4 +0.9**
ARU Lg Lg 09 29 26.0
**RAMN Ramite 18.33 139** *e*P **Pn** **09 24 17.5 -3.0**
comp=Z,33nm,0.8s
**LSA Lhasa 18.80 124** *e*P **P** **09 24 22.1 -3.7**
LSA pmax pmax
comp=Z,13nm,1.4s
**LSA Lhasa 18.80 124** *e*P **P** **09 24 22.1 -3.7**
comp=Z,12nm,1.4s
**ODAN Odare 18.80 137** *e*P **P** **09 24 24.8 -0.8**
comp=Z,26nm,0.6s
**GTA Gaotai 20.34 87** *e*P **P** **09 24 43.3 +1.0**
GTA pP pP 09 24 47.3 -0.1
GTA sP sP 09 24 50.5 +0.8
GTA pmax pmax
comp=Z,5.0nm,0.6s
**WSAR Wadi Sarin 22.02 218** P **P** **09 24 59.1 -1.1**
comp=Z,4.5nm,1.0s,baz=47,slow=12,SNR=3.0
WSAR LR LR 09 35 31.6
comp=Z,77nm,19.9s,baz=50,slow=42
**KBZ Khabaz 22.31 286** P **P** **09 25 05.0 +1.8**
comp=Z,3.0nm,0.9s,baz=77,slow=10.0,SNR=3.5
**KVAR Kislovodsk Arr 22.43 286** P **P** **09 25 06.2 +1.5**
comp=Z,8.8nm,0.8s,baz=84,slow=9.2,SNR=2.8
**KIV Kislovodsk 22.44 286**⇓ *e*P **P** **09 25 06.6 +1.8**
KIV pmax pmax
comp=Z,5.0nm,0.7s
**KIV Kislovodsk 22.44 286** *e*P **P** **09 25 03.9 -0.9**
comp=Z,17nm,0.7s
**NEY Neytrino 22.48 284**⇑ *e*P **P** **09 25 07.5 +2.2**
NEY pmax pmax
comp=Z,2.0nm,1.0s
**ZAK Zakamensk 22.54 57** *e*P **P** **09 25 06.6 +0.8**
ZAK pmax pmax
comp=Z,6.0nm,1.1s
**TLY Talaya 23.04 54** LR LR 09 34 29.1
comp=Z,141nm,18.4s,baz=266,slow=37
**TLY Talaya 23.04 54** *e*P **P** **09 25 11.2 +0.3**
**TLY Talaya 23.04 54** *e*P **P** **09 25 11.2 +0.3**
**VRH Novokhopyorsk 23.55 305** *e*P **P** **09 25 18.6 +2.7**
VRH pmax pmax
comp=Z,6.0nm,0.4s
**SONM Songino Array 24.27 64** P **P** **09 25 22.6 -0.4**
comp=Z,0.8nm,0.8s,baz=273,slow=11,SNR=5.8
**BRDH Bariadhala 24.43 135** LR LR 09 35 54.2
comp=Z,73nm,18.1s,baz=334,slow=39
**LZH Lanzhou 24.43 93** *e*P **P** **09 25 25.0 +0.3**
LZH pP pP 09 25 27.9 -2.2
LZH sP sP 09 25 29.8 -2.6
LZH *e*PP **PnPn** **09 26 01.0 +5.7**
LZH pmax pmax
comp=Z,19nm,1.0s
LZH pmax pmax
comp=Z,65nm,4.2s
LZH LR LR
comp=Z,330nm,11.5s
LZH LR LR
comp=Z,350nm,12.0s
LZH LR LR
comp=Z,390nm,14.3s
**HYB Hyderabad 24.57 168** *i*P **P** **09 25 25.0 -0.8**
**ULN Ulaanbaatar 24.71 64** *de*P **P** **09 25 28.3 +1.2**
ULN pmax pmax
comp=Z,5.0nm,1.2s
**ULN Ulaanbaatar 24.71 64** *e*P **P** **09 25 26.7 -0.4**
comp=Z,3.7nm,1.0s
**VSR Storozhevoye 25.13 304** *e*P **P** **09 25 29.7 -0.9**
VSR pmax pmax
comp=Z,7.0nm,0.6s
**LPSR Galich'ya Gora 25.52 307** *e*P **P** **09 25 36.0 +1.9**
LPSR pmax pmax
comp=Z,5.0nm,0.5s
**OBN Obninsk 27.45 312**⇓ *e*P **P** **09 25 52.1 +0.6**
OBN pmax pmax
comp=Z,77nm,9.3s
**HHC Hu-ho-hao-te 28.72 79** *e*P **P** **09 26 01.4 -1.7**
HHC pmax pmax
comp=Z,17nm,0.7s
HHC pmax pmax
comp=Z,49nm,4.2s
**KMI Kunming 29.48 115** P **P** **09 26 09.8 -0.3**
KMI pmax pmax
comp=Z,12nm,0.5s
KMI pmax pmax
comp=Z,110nm,8.0s
**BR131 Keskin Array S 29.87 280** *e*P **P** **09 26 13.0 -0.4**
**BRTR Keskin Array B 29.87 280** P **P** **09 26 14.4 +1.0**
comp=Z,2.1nm,0.8s,baz=90,slow=7.9,SNR=7.2
**BRTR Keskin Array B 29.87 280** *i*P **P** **09 26 14.6 +1.2**
BRTR pmax pmax
comp=Z,2.0nm,0.8s
**BOD Bodaibo 30.38 44** *e*P **P** **09 26 18.0 +0.5**
BOD pmax pmax
comp=Z,8.0nm,1.9s
**BR231 Keskin MP Arra 30.48 280** *e*P **P** **09 26 15.2 -3.5**
**AKASG Malin Array Be 31.36 302** PP **PP** **09 27 27.7 -9.2**
comp=Z,0.7nm,0.5s,baz=79,slow=9.5,SNR=4.1
**TIRR Tirgusor 32.53 290**⇑ *i*P P 09 26 49.3 +13
**PLOR Plostina 33.51 293**⇑ *i*P **P** **09 26 46.9 +1.7**
**PLOR Plostina 33.51 293**⇑ P **P** **09 26 46.9 +1.7**
**MLR Muntele Rosu 34.06 293** LR LR 09 44 28.5
comp=Z,33nm,19.3s,baz=38,slow=43
**MLR Muntele Rosu 34.06 293**⇓ *i*P **P** **09 26 52.7 +2.6**
**MLR Muntele Rosu 34.06 293**⇓ P **P** **09 26 52.7 +2.6**
**MLR Muntele Rosu 34.06 293** *e*P **P** **09 26 50.9 +0.8**
comp=Z,9.2nm,1.0s
**FINES FINESS Array B 34.35 321** P **P** **09 26 52.0 -0.2**
comp=Z,2.0nm,0.8s,baz=110,slow=8.9,SNR=4.3
**VOIR 34.69 293**⇑ *i*P **P** **09 26 55.5 0.0**
**VOIR 34.69 293** P **P** **09 26 55.5 0.0**
**LOT Lotru 35.57 293**⇑ *i*P **P** **09 27 03.9 +0.8**
**BZS Buzias 37.01 294**⇑ *i*P **P** **09 27 16.7 +1.4**
**BZS Buzias 37.01 294**⇑ P **P** **09 27 16.7 +1.4**
**MDVR Moldovita 37.14 293**⇑ *i*P **P** **09 27 18.0 +1.6**
**ARCES ARCESS Array B 37.15 334** P **P** **09 27 17.0 +0.8**
comp=Z,2.4nm,0.8s,baz=100,slow=6.7,SNR=5.1
ARCES LR LR 09 43 09.5
comp=Z,254nm,19.1s,baz=239,slow=37
**ARCES ARCESS Array B 37.15 334** P **P** **09 27 17.0 +0.8**
**CN2 Changchun 37.94 69** *e*P **P** **09 27 21.8 -1.3**
CN2 pmax pmax
comp=Z,10.0nm,0.5s
**VYHS Vyhne 38.29 299** *e*P P 09 27 35.3 +9.2
**VYHS Vyhne 38.29 299** *e*P **P** 09 27 35.3 +9.2
**YAK Yakutsk 38.85 39** P **P** **09 27 30.6 0.0**
comp=Z,24nm,0.8s,baz=260,slow=1.4,SNR=7.7
**YAK Yakutsk 38.85 39** *e*P **P** **09 27 29.8 -0.8**
YAK pmax pmax
comp=N,2.0nm,1.2s
YAK pmax pmax
comp=Z,22nm,0.9s
YAK pmax pmax
comp=E,7.0nm,1.1s
**YAK Yakutsk 38.85 39** *e*P **P** **09 27 30.7 +0.1**
comp=E,24nm,0.7s
**PDG Podgorica 39.49 290**⇑ *i*P **P** **09 27 37.3 +1.1**
**TIXI Tiksi 40.39 24** *d i*P **P** **09 27 43.7 +0.4**
TIXI pmax pmax
comp=Z,7.0nm,0.9s
**TIXI Tiksi 40.39 24** *e*P **P** **09 27 44.0 +0.7**
comp=Z,12nm,1.1s
TIXI *e*PcP **PcP** **09 29 44.3 -1.7**
**KLR Kul'dur 40.88 59** P **P** **09 27 47.4 -0.3**
comp=Z,0.1nm,0.5s,baz=286,slow=7.4,SNR=3.8
**NB2 NORSAR Subarra 41.44 320** P **P** **09 27 51.3 -0.8**
comp=Z,1.4nm,0.5s,baz=90,slow=8.6
**NOA NORSAR Array B 41.44 320** P **P** **09 27 51.6 -0.6**
comp=Z,1.2nm,0.9s,baz=91,slow=8.3,SNR=3.0
NOA LR LR 09 47 41.8
comp=Z,64nm,18.4s,baz=0.0,slow=40
**GERES GERESS Array B 41.55 301** P **P** **09 27 54.0 +0.7**
comp=Z,0.8nm,0.6s,baz=67,slow=7.9,SNR=6.9
**GERES GERESS Array B 41.55 301** P **P** **09 27 54.0 +0.7**
**GEA0 GERESS Array S 41.55 301** *e*P **P** **09 27 53.6 +0.3**
**KSRS Korea Array 41.83 77** LR LR 09 44 29.9
comp=Z,32nm,20.5s,baz=330,slow=35
**MJAR Matsushiro Arr 49.67 73** P **P** **09 28 57.8 +0.3**
comp=Z,3.4nm,1.0s,baz=297,slow=9.1,SNR=5.3
**ES19 SONSECA Array 56.61 296** *e*P **P** **09 29 47.9 -0.7**
**ESDC Sonseca Array 56.66 296** P **P** **09 29 48.9 -0.1**
comp=Z,1.4nm,0.6s,baz=61,slow=7.4,SNR=9.7
**COLD Coldfoot 66.58 17** *e*P **P** **09 30 55.6 +0.2**
comp=Z,4.2nm,0.9s
**TOA0 Torodi Ar. Sit 67.58 268** *e*P **P** **09 31 01.4 -1.1**
**TORD Torodi Ar. Bea 67.58 268** P **P** **09 31 01.5 -1.0**
comp=Z,2.0nm,0.6s,baz=46,slow=5.6,SNR=18
**ILAR Eielson Array 69.38 17** P **P** **09 31 12.4 -0.6**
comp=Z,1.0nm,0.7s,baz=324,slow=5.2,SNR=17
**YKA Yellowknife Ar 76.03 4** P **P** **09 31 52.5 -0.1**
comp=Z,1.4nm,0.7s,baz=350,slow=5.9,SNR=30
**WRA Warramunga Ar 83.35 124** P **P** **09 32 31.9 -0.9**
comp=Z,1.0nm,0.7s,baz=328,slow=4.7,SNR=8.6
**WRA Warramunga Arr 83.35 124** *i*P **P** **09 32 33.5 +0.6**
WRA pmax pmax
comp=Z,1.0nm,0.8s
**ASAR Alice Springs 85.87 127** P **P** **09 32 44.5 -1.1**
comp=Z,2.2nm,0.9s,baz=316,slow=5.3,SNR=14
**AS01 Alice Springs 85.90 127** *e*P **P** **09 32 44.5 -1.2**
**YHB Horse Butte 93.91 3** *e*P **P** **09 33 23.8 +0.2**
comp=Z,7.5nm,0.4s
**TRIS Tristan da Cun 110.50 238** *e*PKPdf **PKiKP** **09 38 37.2 -0.6**

*NIED* ***24*** *09:23:00, 37˚.00N×140˚.70E, h77km, Mw3.7 Best double couple: M₀3.35000×10¹⁴ NP1:φ₉144.00000°, δ72.00000°, λ-161.00000°. NP2:φ₉48.00000°, δ72.00000°, λ-19.00000°.*
*IDC* ***24*** *09:23:55.0±2.4, 36˚.98N×140˚.95E, h0km, mb3.4/2, mb1 3.7/3, mb1mx3.3/59, mbtmp3.4/3, ML3.5/1, MS2.2/1, Ms1 2.2/1, ms1mx2.0/25, Error ellipse: s-maj=42.4km s-min=27.8km az=54.0*
*ISCJB* ***24*** *09:23:57.8±0.9, 36˚.96N±0˚.04×140˚.91E±0˚.08, h23km±5km, mb3.3/2, Error ellipse: s-maj=10.9km s-min=5.6km az=17.2*
*JMA* ***24*** *09:23:59.4, 36˚.99N×140˚.75E, h19km±1km, M3.7*
*JMA Felt I J1.*
**ISC 24 09:23:58.7**±1.2**, 36˚.97N**±0˚.04×**140˚.82E**±0˚.09**, h19**km±4km**, n11,** σ1**86**/19**, 2C-4D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **ONAJ** | **Iwakimizuishiy** | **0.13** | **354** | ⇑P | | **Pg** | **09 24 03.3** | **+0.4** |
| ONAJ | | | | S | | **Sg** | **09 24 05.9** | **+0.2** |
| **JFK** | **Kawauchi** | **0.40** | **7** | ⇓P | | **Pg** | **09 24 07.1** | **+0.1** |
| JFK | | | | S | | **Sg** | **09 24 12.7** | **0.0** |
| **JHO** | **Hitachi** | **0.41** | **209** | ⇓P | | **Pg** | **09 24 07.3** | **+0.1** |
| JHO | | | | S | | **Sg** | **09 24 12.9** | **0.0** |
| **JFT** | **Otama** | **0.67** | **325** | P | | **Pg** | **09 24 11.6** | **-0.3** |
| JFT | | | | S | | **Sg** | **09 24 19.8** | **-1.1** |
| **JSB** | **Shiboa** | **0.72** | **270** | ⇑P | | **Pb** | **09 24 12.7** | **+0.1** |
| JSB | | | | S | | **Sb** | **09 24 22.0** | **-0.1** |
| **JMM** | **Marumori** | **0.89** | **359** | ⇓P | | **Pg** | **09 24 15.2** | **-1.0** |
| **JYT** | **Yasato** | **0.90** | **214** | ⇓P | | **Pg** | **09 24 15.4** | **-0.8** |
| JYT | | | | S | | **Sg** | **09 24 27.1** | **-0.9** |
| **MJAR** | **Matsushiro Arr** | **2.14** | **259** | Pn | | **Pn** | **09 24 34.0** | **+0.5** |
| | 14nm,0.3s,baz=78,slow=16,SNR=97 | | | | | | | |
| MJAR | | | | Sn | | **Sn** | **09 25 01.6** | **+2.2** |
| | 9.3nm,0.3s,baz=82,slow=25,SNR=6.5 | | | | | | | |
| MJAR | | | | LR | | LR | 09 25 33.3 | |
| | comp=Z,50nm,21.1s,baz=110,slow=44 | | | | | | | |
| **MAT** | **Matsushiro** | **2.14** | **259** | P | | **Pn** | **09 24 34.5** | **+1.1** |
| MAT | | | | S | | **Sb** | **09 25 02.2** | **-0.8** |
| **SONM** | **Songino Array** | **27.42** | **304** | P | | **P** | **09 29 42.7** | **-0.6** |
| | 0.3nm,0.5s,baz=111,slow=7.9,SNR=2.4 | | | | | | | |
| **WRA** | **Warramunga Arr** | **56.94** | **187** | P | | **P** | **09 33 42.3** | **-0.4** |
| | 0.5nm,0.8s,baz=2.3,slow=7.3,SNR=3.2 | | | | | | | |

*ISCJB* ***24*** *09:29:52.1±0.7, 36˚.55N±0˚.05×71˚.49E±0˚.09, h114km, Error ellipse: s-maj=11.5km s-min=5.1km az=156.3*
*NNC* ***24*** *09:29:58.3±2.7, 37˚.08N×71˚.33E, h0km, mb3.9, mpv3.6, Error ellipse: s-maj=22.7km s-min=9.0km az=169.0*
**ISC 24 09:29:53.1**±1.3**, 36˚.54N**±0˚.08×**71˚.43E**±0˚.09**, h114**km**, n13,** σ1**78**/18**, 5C-5D, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **DZET** | **Dzherino** | **3.06** | **318** | ⇑Pn | | **Pn** | **09 30 41.6** | **+1.4** |
| | 16nm,0.2s | | | | | | | |
| DZET | | | | ⇑Sn | | **Sn** | **09 31 16.2** | **-0.2** |
| | 281nm,0.6s | | | | | | | |
| **SFK** | **Sufi-Kurgan** | **3.83** | **25** | ⇑Pn | | **Pn** | **09 30 53.9** | **+3.4** |
| | 5.5nm,0.4s | | | | | | | |
| SFK | | | | ⇑Sn | | **Sn** | **09 31 35.9** | **+1.0** |
| | 26nm,0.3s | | | | | | | |
| **MNAS** | **Manas** | **6.00** | **8** | ⇓Pn | | **Pn** | **09 31 20.2** | **+0.7** |
| | 7.8nm,1.2s | | | | | | | |
| MNAS | | | | ⇓Sn | | **Sn** | **09 32 25.1** | **-1.9** |
| | 14nm,0.6s | | | | | | | |
| **AAK** | **Ala-Archa** | **6.54** | **20** | ⇓Pn | | **Pn** | **09 31 27.7** | **+0.9** |
| | 7.2nm,1.1s | | | | | | | |
| AAK | | | | ⇑Sn | | **Sn** | **09 32 39.9** | **-0.1** |
| | 5.6nm,0.5s | | | | | | | |
| **KK31** | **Karatay Array** | **6.59** | **354** | ⇓Pn | | **Pn** | **09 31 28.1** | **+0.6** |
| | 0.7nm,0.2s,baz=175,slow=11,SNR=26 | | | | | | | |
| KK31 | | | | ⇓Sn | | **Sn** | **09 32 39.1** | **-2.1** |
| | 6.2nm,0.4s,baz=185,slow=23,SNR=16 | | | | | | | |
| **SDNR** | **Sundarnagar** | **6.81** | **136** | *e*P | | **Pn** | **09 31 33.0** | **+2.5** |
| **PYUN** | **Piuthan** | **12.89** | **127** | *e*P | | **Pn** | **09 32 51.2** | **-1.1** |
| | 9.3nm,0.4s | | | | | | | |
| **KOLN** | **Koldanda** | **13.51** | **127** | *e*P | | **Pn** | **09 32 58.6** | **-1.8** |
| | 5.5nm,0.3s | | | | | | | |
| **DMN** | **Daman** | **14.61** | **124** | *e*P | | **Pn** | **09 33 14.1** | **-0.4** |
| | 8.6nm,0.6s | | | | | | | |
| **PKIN** | **Phulchoki** | **14.82** | **123** | *e*P | | **Pn** | **09 33 16.8** | **-0.4** |
| | 8.8nm,0.3s | | | | | | | |
| **PKI** | **Pulchoki** | **14.84** | **123** | *e*P | | **Pn** | **09 33 16.6** | **-0.8** |
| | 8.7nm,0.4s | | | | | | | |
| **JIRN** | **Jiri** | **15.31** | **121** | *e*P | | **Pn** | **09 33 22.1** | **-1.4** |
| | 67nm,0.4s | | | | | | | |
| **RAMN** | **Ramite** | **16.04** | **122** | *e*P | | **Pn** | **09 33 29.3** | **-3.2** |
| | 3.6nm,0.3s | | | | | | | |

*IDC* ***24*** *09:30:36.4±18.0, 24˚.69S×179˚.23E, h284km±177km, mb3.7/3, mb1 3.9/4, mb1mx3.4/28, mbtmp4.4/4, MS3.5/3, Ms1 3.5/3, ms1mx2.7/35, Error ellipse: s-maj=129.4km s-min=37.1km az=11.0*
*ISCJB* ***24*** *09:31:00.5±1.8, 26˚.1S±0˚.1×178˚.8E±0˚.3, h550km, mb4.1/3, Error ellipse: s-maj=34.0km s-min=12.1km az=160.9*
**ISC 24 09:31:00.9**±1.4**, 26˚.2S**±0˚.1×**178˚.9E**±0˚.2**, h550**km**, n26,** σ1**17**/26**, mb4.1/3, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **4.11** | **138** | LR | | LR | 09 33 46.2 | |
| | comp=Z,165nm,20.1s,baz=126,slow=36 | | | | | | | |
| **PUZ** | **Puketiti** | **11.81** | **183** | PN | | **P** | **09 33 40.0** | **+2.6** |
| PUZ | | | | SN | | **S** | **09 35 45.5** | **-0.7** |
| **URZ** | **Urewera** | **12.08** | **187** | P | | **P** | **09 33 39.5** | **-0.6** |
| | 1.2nm,0.3s,baz=21,slow=18,SNR=10.0 | | | | | | | |
| **MRZ** | **Mangatainoka R** | **14.65** | **190** | *e*PN | | **P** | **09 34 06.0** | **-0.6** |
| **DUWZ** | **D'Urville Isla** | **15.11** | **195** | *e*PN | | **P** | **09 34 12.8** | **+1.5** |
| **CAW** | **Cannon Point** | **15.17** | **191** | PN | | **P** | **09 34 12.9** | **+0.9** |
| **QRZ** | **Quartz Range** | **15.49** | **198** | *e*PN | | **P** | **09 34 17.4** | **+2.2** |
| **NNZ** | **Nelson** | **15.63** | **196** | *e*PN | | **P** | **09 34 17.0** | **+0.4** |
| NNZ | | | | *e*SN | | **S** | **09 36 56.1** | **-0.7** |
| **THZ** | **Tophouse** | **16.26** | **196** | *e*PN | | **P** | **09 34 23.3** | **+0.5** |
| THZ | | | | *e*SN | | **S** | **09 37 06.6** | **-0.9** |
| **DSZ** | **Denniston Nort** | **16.54** | **199** | *e*PN | | **P** | **09 34 27.2** | **+1.8** |
| **KHZ** | **Kahutara** | **16.73** | **194** | *e*PN | | **P** | **09 34 27.5** | **+0.5** |
| **LTZ** | **Lake Taylor** | **17.38** | **197** | *e*PN | | **P** | **09 34 34.1** | **+1.2** |
| **INZ** | **Inchbonnie** | **17.55** | **199** | *e*PN | | **P** | **09 34 35.5** | **+1.1** |
| **OXZ** | **Oxford** | **17.95** | **196** | *e*PN | | **P** | **09 34 38.9** | **+0.8** |
| **RPZ** | **Rata Peaks** | **18.57** | **198** | P | | **P** | **09 34 45.5** | **+1.7** |
| | 6.3nm,0.5s,baz=36,slow=1.7,SNR=8.9 | | | | | | | |
| **FOZ** | **Fox Glacier** | **18.78** | **201** | *e*PN | | **P** | **09 34 46.7** | **+1.1** |
| **JCZ** | **Jackson Bay** | **19.60** | **202** | *e*PN | | **P** | **09 34 54.6** | **+1.3** |
| **STKA** | **Stephens Creek** | **32.99** | **251** | P | | **P** | **09 36 51.2** | **+0.2** |
| | 2.1nm,0.4s,baz=102,slow=11,SNR=16 | | | | | | | |
| **ASAR** | **Alice Springs** | **40.74** | **264** | P | | **P** | **09 37 54.2** | **-0.4** |
| | 2.7nm,0.4s,baz=91,slow=7.3,SNR=98 | | | | | | | |
| **WRA** | **Warramunga Arr** | **41.33** | **269** | P | | **P** | **09 37 58.3** | **-1.0** |
| | 2.5nm,0.4s,baz=99,slow=7.7,SNR=132 | | | | | | | |
| **DAV** | **Davao City (W)** | **61.41** | **295** | LR | | LR | 10 05 40.8 | |
| | comp=Z,62nm,19.4s,baz=147,slow=34 | | | | | | | |
| **ATAH** | **Atahualpa** | **98.14** | **102** | LR | | LR | 10 18 00.4 | |
| | comp=Z,32nm,21.9s,baz=340,slow=29 | | | | | | | |
| **NB2** | **NORSAR Subarra** | **144.21** | **350** | PKP | | **PKPab** | **09 49 34.1** | **+0.2** |
| | comp=Z,2.4nm,0.8s,baz=17,slow=2.6 | | | | | | | |
| **NOA** | **NORSAR Array B** | **144.21** | **350** | PKP | | **PKPdf** | **09 49 33.7** | **-0.2** |
| | comp=Z,2.0nm,0.7s,baz=23,slow=2.6,SNR=5.2 | | | | | | | |
| **HFS** | **Hagfors** | **144.62** | **347** | PKP | | **PKPab** | **09 49 35.2** | **-0.3** |
| | comp=Z,2.3nm,0.3s,baz=66,slow=2.8,SNR=36 | | | | | | | |
| **AKASG** | **Malin Array Be** | **146.35** | **325** | PKPbc | | **PKPbc** | **09 49 40.2** | **+0.1** |
| | comp=Z,0.4nm,0.3s,baz=46,slow=2.9,SNR=3.9 | | | | | | | |

*ISCJB* ***24*** *09:38:22.5±0.3, 12˚.93N±0˚.03×88˚.73W±0˚.02, h74km±1km, mb4.5/111, Error ellipse: s-maj=5.8km s-min=2.4km az=38.1*
*CASC* ***24*** *09:38:23.3±1.7, 12˚.97N×88˚.71W, h63km±16km, MD4.6, ML4.7, mb4.5(NEIC)*
*NEIC* ***24*** *09:38:23.9±0.3, 12˚.88N×88˚.64W, mb4.5/107, MD5.0(SNET), Error ellipse: s-maj=7.1km s-min=4.3km az=39.0*
*NEIC Felt [IV] at San Salvador.*
*IDC* ***24*** *09:38:30.1±3.7, 13˚.26N×88˚.25W, h124km±32km, mb4.0/16, mb1 4.3/17, mb1mx4.0/39, mbtmp4.4/17, MS3.5/10, Ms1 3.5/10, ms1mx3.4/27, Error ellipse: s-maj=22.9km s-min=11.7km az=50.0*
**ISC 24 09:38:23.3**±0.5**, 13˚.02N**±0˚.05×**88˚.70W**±0˚.04**, h69**km±3km**, n544,** σ1**9**61/559**, mb4.5**/111**, 3C-9D, El Salvador**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **UESV** | **Ojushtada** | **0.37** | **346** | *e*P | | **Pn** | **09 38 37.6** | **+2.6** |
| UESV | | | | *e*S | | **Sn** | **09 38 47.5** | **+4.0** |
| **AIES** | **Las Flores** | **0.56** | **322** | *e*P | | **Pn** | **09 38 36.2** | **-0.4** |
| AIES | | | | AML | | AML | 09 38 46.2 | |
| | comp=Z,23μm,0.5s | | | | | | | |
| AIES | | | | *e*S | | **Sn** | **09 38 46.5** | **+0.2** |
| **LCY** | **Lacayo** | **0.56** | **44**⇓ | *e*P | | **Pn** | **09 38 37.0** | **+0.2** |
| **PACA** | **Pacayal** | **0.58** | **39**⇓ | *e*P | | **Pn** | **09 38 37.3** | **+0.4** |
| PACA | | | | *e*S | | **Sn** | **09 38 47.9** | **+0.9** |
| **VSM** | **San Miguel** | **0.58** | **45** | *e*P | | **Pn** | **09 38 37.4** | **+0.3** |
| **UCHI** | **Chinameca** | **0.60** | **34**⇓ | *i*P | | **Pn** | **09 38 37.4** | **+0.3** |
| UCHI | | | | *e*S | | **Sn** | **09 38 48.1** | **+1.0** |
| **SNVI** | **San Vicente** | **0.61** | **347**⇓ | *i*P | | **Pn** | **09 38 37.4** | **+0.1** |
| **LFRS** | **El Faro** | **0.70** | **329**⇓ | *e*P | | **Pn** | **09 38 38.1** | **-0.2** |
| **LBRS** | **Las Brisas** | **0.79** | **335**⇓ | *e*P | | **Pn** | **09 38 39.7** | **+0.4** |
| **SANM** | **San Marcos** | **0.80** | **323** | *e*P | | **Pn** | **09 38 38.9** | **-0.4** |
| SANM | | | | *e*S | | **Sn** | **09 38 51.1** | **-0.1** |
| **SOYA** | **Soyapango** | **0.81** | **327** | *e*P | | **Pn** | **09 38 39.6** | **+0.1** |
| SOYA | | | | *e*S | | **Sn** | **09 38 51.5** | **0.0** |
| **UDBS** | **Soyapango** | **0.83** | **327** | *e*P | | **Pn** | **09 38 39.8** | **0.0** |
| UDBS | | | | *e*S | | **Sn** | **09 38 52.5** | **+0.5** |
| UDBS | | | | AML | | AML | 09 38 54.2 | |
| | comp=Z,45μm,0.4s | | | | | | | |
| **LCND** | **La Ca˜ada** | **0.84** | **70**⇑ | *e*P | | **Pn** | **09 38 40.0** | **+0.3** |
| LCND | | | | *e*S | | **Sn** | **09 38 53.0** | **+1.1** |
| **SNET** | **Serv Nac Est T** | **0.85** | **322** | *e*P | | **Pn** | **09 38 39.8** | **-0.2** |
| SNET | | | | *e*S | | **Sn** | **09 38 52.0** | **-0.2** |
| SNET | | | | IAML | | | 09 38 53.8 | |
| | comp=Z,44μm,0.4s | | | | | | | |
| **OPAM** | **San Salvador** | **0.85** | **325**⇑ | *e*P | | **Pn** | **09 38 40.0** | **0.0** |
| OPAM | | | | *e*S | | **Sn** | **09 38 52.7** | **+0.4** |
| **COLS** | **Colinas** | **0.87** | **318** | *e*P | | **Pn** | **09 38 40.1** | **-0.1** |
| **CLUB** | **San Salvador** | **0.88** | **321** | *i*P | | **Pn** | **09 38 40.4** | **+0.1** |
| CLUB | | | | *e*S | | **Sn** | **09 38 53.1** | **+0.2** |
| CLUB | | | | AML | | AML | 09 38 54.5 | |
| | comp=Z,24μm,0.4s | | | | | | | |
| **CNCH** | **Conchagua** | **0.88** | **73**⇓ | *e*P | | **Pn** | **09 38 40.4** | **+0.1** |
| **CAHU** | **Cacacuatique** | **0.88** | **32**⇓ | *i*P | | **Pn** | **09 38 41.4** | **+0.9** |
| **UEES** | **San Salvador** | **0.88** | **323** | *e*P | | **Pn** | **09 38 40.3** | **-0.1** |
| UEES | | | | *e*S | | **Sn** | **09 38 53.6** | **+0.6** |
| **BOQS** | **Boqueron** | **0.91** | **321** | *e*P | | **Pn** | **09 38 41.1** | **+0.2** |
| **SBLS** | **San Blas** | **1.22** | **312**⇓ | *e*P | | **Pn** | **09 38 45.4** | **+0.7** |
| **MONT** | **Ecomontaæa** | **1.25** | **312** | *e*P | | **Pn** | **09 38 45.9** | **+0.7** |
| **RTR** | **El Retiro** | **1.27** | **313** | *e*P | | **Pn** | **09 38 46.0** | **+0.6** |
| **UNIC** | **Santa Ana** | **1.28** | **319** | *e*P | | **Pn** | **09 38 45.5** | **+0.1** |
| **CUS1** | **Cusmapa** | **1.51** | **306**⇑ | *e*P | | **Pn** | **09 38 48.6** | **+0.3** |
| **CRIN** | **San Cristobal** | **1.64** | **101** | *e*P | | **Pn** | **09 38 50.5** | **+0.4** |
| CRIN | | | | *e*S | | **Sn** | **09 39 11.9** | **+1.6** |
| CRIN | | | | AML | | AML | 09 39 12.9 | |
| | comp=N,22μm,0.3s | | | | | | | |
| **MOMN** | **Momotombo** | **2.19** | **106** | *e*P | | **Pn** | **09 38 56.9** | **-0.6** |
| **COPN** | **Copaltepe** | **2.22** | **112** | *e*P | | **Pn** | **09 38 56.9** | **-0.9** |
| COPN | | | | AML | | AML | 09 39 25.5 | |
| | comp=Z,2μm,0.4s | | | | | | | |
| **ESTN** | **Estel** | **2.27** | **88** | *e*P | | **Pn** | **09 38 59.2** | **+0.6** |
| ESTN | | | | *e*S | | **Sn** | **09 39 26.6** | **+0.9** |
| **XAVN** | **Gruta Xavier** | **2.47** | **110** | *e*P | | **Pn** | **09 39 00.9** | **-0.4** |
| XAVN | | | | AML | | AML | 09 39 32.5 | |
| | comp=Z,3μm,0.5s | | | | | | | |
| **TISN** | **Laguna Tiscapa** | **2.52** | **110** | *e*P | | **Pn** | **09 39 01.7** | **-0.3** |
| **MGAN** | **Managua** | **2.54** | **110** | *e*P | | **Pn** | **09 39 02.0** | **-0.2** |
| **CRUN** | **El Crucero** | **2.56** | **113** | *e*P | | **Pn** | **09 39 02.9** | **+0.4** |
| **MASN** | **Masaya** | **2.69** | **112** | *e*P | | **Pn** | **09 39 04.4** | **+0.1** |
| **CRZ1** | **La Cruz** | **3.56** | **123** | *e*P | | **Pn** | **09 39 16.2** | **0.0** |
| CRZ1 | | | | *e*S | | **Sn** | **09 39 55.7** | **-1.5** |
| **ACON** | **Acoyapa** | **3.59** | **106** | *e*P | | **Pn** | **09 39 15.6** | **-1.0** |
| **VCR** | **Vista de Mar** | **4.16** | **133** | *e*P | | **Pn** | **09 39 25.0** | **+0.6** |
| **ESPN** | **Las Esperanzas** | **4.37** | **100** | *e*P | | **Pn** | **09 39 27.1** | **-0.1** |
| **CCIG** | **Comitan** | **4.65** | **315** | *e*Pn | | **Pn** | **09 39 34.1** | **+2.9** |
| **CGA2** | **Cerro Gallo 2** | **5.11** | **125** | *e*P | | **Pn** | **09 39 39.4** | **+2.0** |
| **HDC** | **Heredia** | **5.40** | **123** | *e*Pn | | **Pn** | **09 39 42.7** | **+1.3** |
| HDC | | | | *e*Sn | | **Sn** | **09 40 43.1** | **+0.8** |
| **HDC** | **Heredia** | **5.40** | **123** | *e*P | | **Pn** | **09 39 43.2** | **+1.8** |
| **QCR1** | **Quepos** | **5.70** | **128** | *e*P | | **Pn** | **09 39 48.8** | **+3.4** |
| **URSC** | **Urasca** | **5.76** | **123** | *e*P | | **Pn** | **09 39 48.7** | **+2.3** |
| URSC | | | | *e*S | | **Sn** | **09 40 54.2** | **+2.8** |
| **SCIG** | **Sabancuy** | **6.38** | **338** | *e*Pn | | **Pn** | **09 39 56.6** | **+1.9** |
| **CMIG** | **Matias Romero** | **7.22** | **305** | P | | **Pn** | **09 40 08.9** | **+2.7** |
| | comp=Z,4.4nm,0.3s,baz=146,slow=6.8,SNR=30 | | | | | | | |
| CMIG | | | | S | | **Sn** | **09 41 27.8** | **+1.0** |
| | comp=Z,4.7nm,0.3s,baz=254,slow=22,SNR=5.1 | | | | | | | |
| **BRU2** | **Volcan** | **7.24** | **125** | *e*P | | **Pn** | **09 40 09.0** | **+2.4** |
| **TBS2** | | **7.26** | **125** | *e*P | | **Pn** | **09 40 09.3** | **+2.3** |
| **MYIG** | **MØrida** | **7.96** | **353** | *e*Pn | | **Pn** | **09 40 18.9** | **+2.6** |
| **TLIG** | **Tlapa** | **10.54** | **297** | *e*Pn | | **Pn** | **09 40 54.3** | **+2.6** |
| **HELC** | **Santa Helena** | **14.64** | **116** | *e*P | | **P** | **09 41 51.6** | **-0.1** |
| **ZARC** | **Zaragoza, Cauc** | **14.68** | **111** | *e*P | | **P** | **09 41 51.6** | **-0.2** |
| **PTBC** | **PUERTO BERRIO,** | **15.43** |

VBMS **Vicksburg** 19.18 355 *e*P Pn 09 42 45.5 +2.5
comp=Z,52nm,0.8s
242A **Grayson** 19.22 351 P Pn 09 42 46.1 +2.7
baz=170,SNR=6.7
241A **Mo Tay, Goldon** 19.31 349 P Pn 09 42 47.2 +2.7
baz=167
NATX **Nacogdoches** 19.44 345 P Pn 09 42 48.5 +2.5
baz=162
NATX **Nacogdoches** 19.44 345 *e*P P 09 42 44.0 -0.2
comp=Z,45nm,0.8s
435B **Jarrell** 19.49 337 P Pn 09 42 47.0 +0.3
baz=153,SNR=6.9
145A **Houston Renfro** 19.53 357 P Pn 09 42 48.5 +1.5
baz=176
146A **Union** 19.53 359 P Pn 09 42 48.2 +1.2
baz=179,SNR=6.2
147A **Livingston** 19.57 1 P Pn 09 42 48.7 +1.2
baz=181,SNR=5.2
144A **Alexander Plac** 19.59 356 P Pn 09 42 49.9 +2.2
baz=175
143A **Socs Landing,** 19.75 353 P Pn 09 42 51.3 +1.6
baz=172
141A **Papa Simpson,** 19.87 349 P Pn 09 42 51.2 +0.1
baz=168
LRAL **Lakeview Retre** 19.99 4 P Pn 09 42 53.9 +1.4
baz=185,SNR=7.2
LRAL **Lakeview Retre** 19.99 4 *e*P Pn 09 42 53.6 +1.2
comp=Z,11nm,0.7s
237A **Washetta, Mont** 19.99 342 P Pn 09 42 54.2 +1.7
baz=159,SNR=5.5
140A **Cam and Jess,** 20.04 348 P Pn 09 42 54.2 +1.2
baz=166
Z46A **Louisville** 20.09 359 P Pn 09 42 55.2 +1.6
baz=179,SNR=14
Z47A **Carrollton** 20.10 2 P Pn 09 42 54.3 +0.6
baz=182,SNR=8.2
Z49A **Columbiana** 20.18 5 P Pn 09 42 56.0 +1.3
baz=186
JCT **Junction City** 20.18 331 P P 09 42 54.3 +1.9
baz=147,SNR=8.8
JCT **Junction City** 20.18 331 *e*P P 09 42 52.8 +0.4
comp=Z,14nm,1.1s
Z44A **Pea Ridge, Bel** 20.23 356 P Pn 09 42 56.3 +1.0
baz=175,SNR=5.3
Z43A **Armstrong Fami** 20.23 354 P Pn 09 42 56.7 +1.4
baz=173
139A **Bunkhouse Ranc** 20.25 346 P Pn 09 42 56.5 +0.9
baz=164
Z45A **Winona** 20.28 358 P Pn 09 42 57.1 +1.2
baz=177
Z48A **Northport** 20.29 3 P Pn 09 42 56.9 +0.8
baz=183,SNR=5.6
138A **Matatall Enter** 20.41 344 P Pn 09 42 58.0 +0.5
baz=162
Z41A **Richland Creek** 20.49 350 P Pn 09 42 58.8 +0.4
baz=168
WHTX **Lake Whitney,** 20.53 338 P Pn 09 42 59.4 +0.6
baz=155
WHTX **Lake Whitney,** 20.53 338 *e*P P 09 42 56.7 +0.7
comp=Z,34nm,1.0s
137A **Heron Place, G** 20.53 343 P Pn 09 42 59.0 +0.1
baz=160
136A **Ennis** 20.66 341 P Pn 09 43 00.4 +0.1
baz=158
Y45A **Yeager Farm, C** 20.77 358 P Pn 09 43 02.0 +0.4
baz=178
Y46A **Houston** 20.77 360 P Pn 09 43 01.7 0.0
baz=179,SNR=18
Y47A **UCPARC, Winfie** 20.80 2 P Pn 09 43 02.0 -0.1
baz=182,SNR=28
Y48A **Jasper** 20.85 4 P Pn 09 43 02.2 -0.3
baz=184,SNR=9.7
Y49A **Blount Mountai** 20.85 5 P Pn 09 43 02.2 -0.4
baz=186,SNR=5.4
GOGA **Godfrey** 20.85 12 *e*P P 09 43 01.9 +2.4
comp=Z,17nm,0.6s
Y44A **Strider, Charl** 20.90 356 P Pn 09 43 02.6 -0.5
baz=176
Z38A **Mt. Pleasant** 20.95 345 P Pn 09 43 03.4 -0.4
baz=163
CCAR **Cane Creek** 20.99 353 *e*P P 09 43 04.3 +3.3
CCAR *e*pP sP 09 43 20.7 -3.5
Z37A **Pogue Cattle C** 21.06 344 P P 09 43 04.8 +3.1
baz=161
Y41A **Eaglette Beard** 21.07 351 P P 09 43 04.2 +2.4
baz=169
Y40A **Okolona** 21.31 349 P P 09 43 07.1 +2.6
baz=168
X45A **UM Field Stati** 21.32 358 P P 09 43 07.4 +2.9
baz=178
Z36A **Blue Ridge** 21.36 342 P P 09 43 07.8 +2.9
baz=159
TXAR **Lajitas Array** 21.37 322 P P 09 43 07.8 +2.6
comp=Z,5.3nm,0.6s,baz=149,slow=9.5,SNR=56
TXAR PcP PcP 09 47 08.2 +1.3
comp=Z,0.7nm,0.7s,baz=142,slow=4.6,SNR=4.2
TXAR LR LR 09 51 42.4
comp=Z,74nm,18.5s,baz=0.0,slow=37
TX31 **Lajitas Ar. Si** 21.37 322 *e*P P 09 43 07.4 +2.2
X48A **Hartselle** 21.39 4 P P 09 43 07.3 +2.0
baz=184
Y39A **Lockesburg** 21.40 348 P P 09 43 07.4 +2.1
baz=165
OXF **Oxford** 21.41 358 P P 09 43 07.9 +2.4
baz=178
OXF **Oxford** 21.41 358 *e*P P 09 43 07.2 +1.8
comp=Z,28nm,1.0s
X47A **Russelville** 21.42 2 P P 09 43 07.7 +2.2
baz=182,SNR=10.0
X46A **Booneville** 21.44 0 P P 09 43 08.2 +2.4
baz=180
X43A **Marvell** 21.50 355 P P 09 43 08.6 +2.3
baz=174
X49A **Woodville** 21.51 5 P P 09 43 08.6 +2.1
baz=186
X50A **Fort Payne** 21.52 7 P P 09 43 08.8 +2.1
baz=188
Y38A **Idabel** 21.53 346 P P 09 43 08.8 +2.0
baz=164
X42A **Stuttgart** 21.60 353 P P 09 43 09.9 +2.4
baz=172
X41A **Kaden, Bauxite** 21.66 351 P P 09 43 10.4 +2.3
baz=170,SNR=8.5
X40A **Basin Creek Fa** 21.70 351 P P 09 43 11.7 +3.2
baz=169
Y37A **Hugo** 21.80 344 P P 09 43 12.5 +2.9
baz=162,SNR=7.3
MIAR **Mount Ida** 21.89 349 P P 09 43 12.5 +1.9
baz=167
MIAR **Mount Ida** 21.89 349 *e*P P 09 43 12.8 +2.3
comp=Z,11nm,0.7s
Y36A **Durant** 21.91 343 P P 09 43 12.9 +2.1
baz=160
UALR **University of** 21.91 352 *e*P P 09 43 12.9 +2.1
comp=Z,17nm,0.8s
HODGE **Hodges** 21.91 14 *e*P P 09 43 13.6 +2.7
comp=Z,16nm,1.2s
ABTX **Abilene, Hawle** 21.94 335 P P 09 43 12.9 +1.7
baz=150,SNR=7.9
ABTX **Abilene, Hawle** 21.94 335 *e*P P 09 43 12.8 +1.7
comp=Z,14nm,0.7s
X39A **Fountain Ranch** 21.95 348 P P 09 43 13.5 +2.2
baz=166
W45A **Hickory Valley** 22.05 359 P P 09 43 14.8 +2.6
baz=179
Y35A **Marietta** 22.14 341 P P 09 43 15.7 +2.5
baz=158,SNR=12
JSC **Jenkinsville** 22.22 16 *e*P P 09 43 16.8 +2.6
comp=Z,16nm,0.7s
SWET **Sewanee** 22.24 6 *e*P P 09 43 16.3 +1.9
comp=Z,49nm,1.8s
X38A **Whitesboro** 22.26 347 P P 09 43 17.1 +2.5
baz=164,SNR=7.5
W41B **Gary Mavity, V** 22.29 352 P P 09 43 17.6 +2.7
baz=171,SNR=6.8
X37A **Clayton** 22.31 345 P P 09 43 18.1 +2.9
baz=163,SNR=7.2
X37A **Clayton** 22.31 345 *e*P P 09 43 18.3 +3.1
comp=Z,22nm,1.0s
WHAR **Wooly Hollow** 22.41 352 *e*P P 09 43 17.6 +1.4
comp=Z,14nm,1.0s
W40A **Ferguson Farm,** 22.43 351 P P 09 43 19.0 +2.6
baz=169
W40A **Ferguson Farm,** 22.43 351 *e*P P 09 43 18.2 +1.9
comp=Z,16nm,0.8s
BG3 **Lake Jocassee** 22.49 12 *e*P P 09 43 18.9 +1.8
comp=Z,11nm,0.8s
HBAR **Harrisburg** 22.51 356 *e*P P 09 43 19.2 +1.9
comp=Z,48nm,1.1s
X36A **Centrahoma** 22.55 343 P P 09 43 20.6 +2.9
baz=160,SNR=9.9
W39A **Magazine** 22.56 349 P P 09 43 19.9 +2.2
baz=167
X35A **Drake** 22.57 342 P P 09 43 20.4 +2.4
baz=159
W38A **Poteau** 22.58 347 P P 09 43 20.8 +2.8
baz=165
V45A **Humboldt** 22.63 359 P P 09 43 20.7 +2.2
baz=179
CPCT **Cooper Cave** 22.65 9 *e*P P 09 43 20.5 +1.7
CPCT *e*pP pP 09 43 37.2 +3.8
V48A **Smith Brothers** 22.69 4 P P 09 43 21.1 +1.9
baz=185
V42A **Cord** 22.82 354 P P 09 43 22.3 +1.8
baz=173,SNR=7.7
MTP **Monte Pirata** 22.85 74 *e*P P 09 43 20.1 -1.0
comp=Z,64nm,1.4s
W37B **Quinton** 22.85 346 P P 09 43 22.9 +2.0
baz=163,SNR=13
W37B **Quinton** 22.85 346 *e*P P 09 43 22.6 +1.8
comp=Z,45nm,1.3s
V41A **Mountainview** 22.88 353 P P 09 43 22.9 +1.7
baz=171,SNR=6.2
TKL **Tuckaleechee C** 22.98 10 P P 09 43 22.4 +0.3
comp=Z,10.0nm,0.7s,baz=185,slow=13,SNR=22
TKL **Tuckaleechee C** 22.98 10 *e*P P 09 43 23.4 +1.3
TKL *e*pP pP 09 43 40.6 +3.7
V40A **Witts Springs** 22.99 351 P P 09 43 24.0 +1.7
baz=170,SNR=20
KMSC **Kings Mountain** 23.01 16 P P 09 43 24.2 +1.8
baz=198
KMSC **Kings Mountain** 23.01 16 *e*P P 09 43 23.5 +1.0
comp=Z,12nm,0.9s
WVT **Waverly** 23.03 2 P P 09 43 24.3 +1.7
baz=182
WVT **Waverly** 23.03 2 *e*P P 09 43 24.2 +1.7
comp=Z,5.4nm,0.8s
W36A **Wetumka** 23.05 344 P P 09 43 24.1 +1.2
baz=161
W36A **Wetumka** 23.05 344 *e*P P 09 43 22.7 -0.2
comp=Z,61nm,1.7s
V39A **Pettigrew** 23.16 350 P P 09 43 25.9 +1.9
baz=168
U44B **Burton Farm, H** 23.23 359 P P 09 43 26.6 +2.1
baz=178
U45A **Rockin P Farm,** 23.23 360 P P 09 43 26.4 +1.9
baz=180
U46A **Springville** 23.25 1 P P 09 43 25.6 +0.9
baz=181,SNR=11
W35A **Tecumseh** 23.25 343 P P 09 43 26.0 +1.2
baz=160
W35A **Tecumseh** 23.25 343 *e*P P 09 43 25.5 +0.8
comp=Z,13nm,0.9s
U43A **Rector** 23.30 357 P P 09 43 27.0 +1.7
baz=176
V38A **Canehill** 23.32 348 P P 09 43 26.4 +0.9
baz=166,SNR=8.5
U42A **Revenden** 23.35 355 P P 09 43 26.8 +1.1
baz=174
U47A **Clarksville** 23.36 3 P P 09 43 26.2 +0.5
baz=183,SNR=7.0
U41A **Viola** 23.41 353 P P 09 43 27.1 +0.9
baz=172,SNR=6.7
STVI **Saint Thomas** 23.45 74 *e*P P 09 43 26.6 -0.2
comp=Z,88nm,1.4s
U48A **Cassie Pea, Po** 23.47 4 P P 09 43 28.3 +1.4
baz=185
WMOK **Wichita Mounta** 23.48 339 P P 09 43 27.9 +1.0
baz=155,SNR=7.5
WMOK **Wichita Mounta** 23.48 339 *e*P P 09 43 27.6 +0.7
comp=Z,5.1nm,0.8s
V37A **Hulbert** 23.50 347 P P 09 43 28.2 +1.1
baz=164,SNR=8.1
U40A **Yellville** 23.54 352 P P 09 43 28.8 +1.4
baz=170,SNR=22
OK022 **N3560 Road, Pr** 23.55 344 *e*P P 09 43 27.7 +0.2
comp=Z,15nm,1.0s
V36A **Jenks** 23.59 345 P P 09 43 29.7 +1.7
baz=162
V36A **Jenks** 23.59 345 *e*P P 09 43 29.6 +1.7
comp=Z,16nm,1.0s
OK020 **N3440 Road, Me** 23.61 343 *e*P P 09 43 29.4 +1.3
comp=Z,9.3nm,0.8s
OK021 **N3530 Road, Sp** 23.62 344 *e*P P 09 43 29.3 +1.1
comp=Z,15nm,1.1s
U39A **Green Forest** 23.66 350 P P 09 43 30.0 +1.4
baz=168,SNR=11
TUL1 **Leonard** 23.68 346 P P 09 43 30.1 +1.4
baz=163
TUL1 **Leonard** 23.68 346 *e*P P 09 43 30.0 +1.4
comp=Z,13nm,0.9s
PBMO **Poplar Bluff** 23.71 357 *e*P P 09 43 29.3 +0.4
comp=Z,14nm,0.6s
PCRV **Puerto La Cruz** 23.73 94 P P 09 43 27.9 -1.6
comp=Z,7.4nm,0.6s,baz=270,slow=2.0,SNR=7.0
V35A **Meyer Ranch, C** 23.81 343 P P 09 43 30.5 +0.7
baz=160,SNR=5.2
V35A **Meyer Ranch, C** 23.81 343 *e*P P 09 43 30.1 +0.2
comp=Z,7nm,1.0s
U38A **Gravette** 23.88 349 P P 09 43 31.7 +1.2
baz=166,SNR=5.9
T47A **Sharon Grove** 23.91 3 P P 09 43 31.6 +0.8
baz=184,SNR=9.1
T46A **Princeton** 23.93 2 P P 09 43 31.6 +0.7
baz=182
T44A **Benton** 23.98 358 P P 09 43 32.4 +1.1
baz=178
U37A **Salina** 23.99 347 P P 09 43 33.0 +1.5
baz=164,SNR=5.7
T43A **Greenville** 24.01 357 P P 09 43 32.5 +0.9
baz=176,SNR=6.2
T42A **Van Buren** 24.01 355 P P 09 43 32.5 +0.9
baz=174
T48A **Bowling Green** 24.08 5 P P 09 43 34.0 +1.8
baz=185
T41A **Mountain View** 24.08 354 P P 09 43 33.5 +1.2
baz=173,SNR=7.1
MNTX **Cornudas Mount** 24.10 323 P P 09 43 33.4 +0.8
baz=137,SNR=7.7
MNTX **Cornudas Mount** 24.10 323 *e*P P 09 43 33.5 +1.0
comp=Z,19nm,1.4s
T39A **Clever** 24.27 351 P P 09 43 35.5 +1.5
baz=169,SNR=21
T40A **Mansfield** 24.27 353 P P 09 43 35.2 +1.2
baz=171
U35A **Pawnee** 24.35 344 P P 09 43 35.8 +1.0
baz=161
U35A **Pawnee** 24.35 344 *e*P P 09 43 35.7 +1.0
comp=Z,15nm,0.9s
T38A **Diamond** 24.44 349 P P 09 43 37.3 +1.8
baz=167,SNR=7.3
MSTX **Muleshoe** 24.48 331 P P 09 43 36.8 +0.7
baz=145,SNR=16
MSTX **Muleshoe** 24.48 331 *e*P P 09 43 36.7 +0.7
comp=Z,17nm,0.8s
S43A **Fulton Ridge,** 24.48 357 P P 09 43 36.7 +0.8
baz=177
S45A **Carrier Mills** 24.56 0 P P 09 43 38.2 +1.6
baz=180
S44A **Carbondale** 24.58 359 P P 09 43 37.8 +1.0
baz=179
S46A **Don Dixon Farm** 24.58 2 P P 09 43 37.6 +0.8
baz=182
SIUC **Southern Illin** 24.60 359 *e*P P 09 43 37.6 +0.6
SIUC *e*pP pP 09 43 56.9 +3.5
S41A **Jillco Farms,** 24.62 354 P P 09 43 38.1 +0.9
baz=173,SNR=5.4
T37A **Cheneyville 18** 24.64 348 P P 09 43 38.2 +0.8
baz=165,SNR=6.5
S48A **Wiedeman Farm,** 24.65 5 P P 09 43 37.9 +0.4
baz=186
S40A **Lebanon** 24.71 353 P P 09 43 39.1 +1.1
baz=171,SNR=13
S42A **Caledonia** 24.72 356 P P 09 43 38.7 +0.6
baz=175
AMTX **Amarillo** 24.74 334 P P 09 43 39.7 +1.3
baz=149
AMTX **Amarillo** 24.74 334 *e*P P 09 43 40.1 +1.7
comp=Z,20nm,1.0s
T36A **Boggs Farm, Ca** 24.79 346 P P 09 43 39.6 +0.8
baz=163,SNR=8.4
T35A **Sooner Cattle** 24.81 345 P P 09 43 39.6 +0.6
baz=162
S39A **Bolivar** 24.92 351 P P 09 43 41.1 +1.2
baz=169,SNR=28
S38A **Stockton** 24.95 350 P P 09 43 41.3 +1.1
baz=168,SNR=5.9
CCM **Cathedral Cave** 25.04 355 P P 09 43 41.9 +0.9
baz=174
CCM **Cathedral Cave** 25.04 355 *e*P P 09 43 41.9 +0.9
comp=Z,15nm,0.8s
U32A **Winter Ranch,** 25.04 340 P P 09 43 42.3 +1.3
baz=156
T34A **McClaskey Farm** 25.09 344 P P 09 43 42.2 +0.8
baz=160
R46A **Gibon Southern** 25.11 2 P P 09 43 42.2 +0.5
baz=183
R44A **Waltonville** 25.13 359 P P 09 43 42.6 +0.8
baz=179
R45A **Skylar, Fairfi** 25.18 1 P P 09 43 43.0 +0.8
baz=181
R43A **Red Bud** 25.18 358 P P 09 43 42.9 +0.6
baz=177
WCI **Wyandotte Cave** 25.20 4 P P 09 43 43.2 +0.8
baz=185
WCI **Wyandotte Cave** 25.20 4 *e*P P 09 43 43.3 +0.8
comp=Z,12nm,0.6s
R42A **Luebbering** 25.23 356 P P 09 43 43.7 +1.0
baz=175
S37A **Fort Scott** 25.24 349 P P 09 43 43.4 +0.6
baz=166,SNR=5.6
R47A **Wooly Knot Far** 25.25 4 P P 09 43 43.1 +0.3
baz=185
R41A **Rosebud** 25.29 355 P P 09 43 44.2 +0.9
baz=174,SNR=14
S36A **Lake Cedric, C** 25.36 347 P P 09 43 44.6 +0.6
baz=164,SNR=12
R40A **Maddies Statio** 25.37 353 P P 09 43 44.8 +0.8
baz=172,SNR=5.1
R39A **Chumby, Stover** 25.49 352 P P 09 43 45.9 +0.9
baz=170,SNR=14
S35A **Otter Creek Ra** 25.49 346 P P 09 43 46.1 +1.0
baz=162
R38A **Fenwick Farm,** 25.49 350 P P 09 43 46.0 +0.9
baz=168
S34A **Willow Spring** 25.70 344 P P 09 43 48.0 +1.0
baz=161
Q45A **Warren Harvey,** 25.78 1 P P 09 43 48.0 +0.4
baz=181
Q44A **Meyer Farm, Va** 25.78 359 P P 09 43 48.1 +0.4
baz=179
Q47A **Bedord North L** 25.89 4 P P 09 43 49.0 +0.3
baz=185
R36A **Gordon, Harris** 25.92 348 P P 09 43 49.2 +0.2
baz=165
Q41A **Truxton** 25.93 355 P P 09 43 50.3 +1.3
baz=174
Q40A **Laux Farm, Aux** 26.05 354 P P 09 43 50.7 +0.6
baz=172,SNR=8.3
121A **Cookes Peak, D** 26.13 321 P P 09 43 51.0 -0.2
baz=134
Q39A **Willow Grove F** 26.20 352 P P 09 43 52.5 +1.0
baz=170,SNR=10
Q38A **Cooks Store, C** 26.20 351 P P 09 43 52.8 +1.3
baz=169
R34A **Isabella, Hill** 26.30 345 P P 09 43 53.5 +1.0
baz=161
P44A **Sand Creek, Wi** 26.34 0 P P 09 43 55.3 +2.5
baz=180
P45A **Graceland, Par** 26.42 2 P P 09 43 53.7 +0.2
baz=182
P47A **Martinsville** 26.45 4 P P 09 43 54.2 +0.5
baz=185
P42A **Winchester** 26.50 357 P P 09 43 54.8 +0.6
baz=176
P46A **Rosedale** 26.53 3 P P 09 43 56.2 +1.8
baz=183
Q35A **Mercer Eighty,** 26.55 347 P P 09 43 56.0 +1.3
baz=164
P40A **Paris** 26.57 354 P P 09 43 55.5 +0.7
baz=173,SNR=8.0
P39B **Salisbury** 26.61 353 P P 09 43 55.7 +0.5
baz=171
BNM **Barren Site** 26.61 325 *e*P P 09 43 57.0 +1.5
P41A **Barry, Barry** 26.64 356 P P 09 43 56.3 +0.9
baz=175
Y22D **IRIS PASSCAL I** 26.72 325 P P 09 43 57.3 +0.9
baz=138
Y22D **IRIS PASSCAL I** 26.72 325 *e*P P 09 43 55.8 -0.6
comp=Z,16nm,0.8s
Y22E **IRIS PASSCAL I** 26.72 325 P P 09 43 57.4 +1.0
baz=138
Q34A **Chapman** 26.82 346 P P 09 43 58.0 +0.9
baz=162
KSU1 **Kansas State U** 26.91 346 P P 09 43 58.7 +0.8
baz=163
P37A **Lathop** 26.93 350 P P 09 43 58.9 +0.8
baz=168
O44A **Mansfield** 27.03 0 P P 09 43 59.5 +0.6
baz=180
LAZ **Ladron** 27.08 325 *e*P P 09 43 59.5 -0.2
ANMO **Albuquerque** 27.11 327 P P 09 44 02.5 +2.5
comp=Z,1.4nm,0.7s,baz=315,slow=8.1,SNR=10
ANMO PcP PcP 09 47 20.6 +1.2
comp=Z,0.4nm,0.4s,baz=314,slow=3.2,SNR=5.5
ANMO **Albuquerque** 27.11 327 P P 09 44 00.9 +0.9
baz=140
ANMO **Albuquerque** 27.11 327 *e*P P 09 44 02.0 +2.0
comp=Z,11nm,1.9s
ANMO PcP PcP 09 47 20.6 +1.2
P36A **Good Intent, A** 27.11 349 P P 09 44 01.2 +1.5
baz=166
O45A **Potomac** 27.14 2 P P 09 44 00.4 +0.5
baz=182
O40A **La Belle** 27.14 355 P P 09 44 00.7 +0.8
baz=179
P35A **Duane Minner,** 27.19 348 P P 09 44 00.9 +0.5
baz=164
O47A **Sheridan** 27.20 4 P P 09 44 00.7 +0.2
baz=185
SFIN **Lafayette** 27.29 3 P P 09 44 01.8 +0.6
baz=183
O39A **Kirksville** 27.34 354 P P 09 44 02.4 +0.7
baz=172
P34A **Walnut Farm, R** 27.38 346 P P 09 44 03.3 +1.1
baz=163
CBKS **Cedar Bluff** 27.50 341 *e*P P 09 44 04.7 +1.4
comp=Z,9.4nm,0.7s
N43A **Stutzman Famil** 27.82 359 P P 09 44 06.5 +0.5
baz=179
T25A **Trinidad** 27.84 332 P P 09 44 08.4 +1.9
baz=146,SNR=8.8
T25A **Trinidad** 27.84 332 *e*P P 09 44 08.2 +1.7
comp=Z,6.6nm,0.6s
N40A **Mertquake, Sal** 27.88 355 P P 09 44 07.3 +0.8
baz=174
O35A **Humboldt** 27.88 348 P P 09 44 07.0 +0.4
baz=165
TUC **Tucson** 27.90 317 P P 09 44 07.0 +0.1
baz=129
N38A **Joes South For** 27.95 353 P P 09 44 08.0 +0.8
baz=170
N39A **Derby Farms, D** 27.95 354 P P 09 44 08.0 +0.8
baz=172
MHTCO **State Highway** 27.95 332 *e*P P 09 44 09.8 +2.3
comp=Z,22nm,1.8s
O34A **Beatrice** 27.96 347 P P 09 44 08.1 +0.8
baz=163
N37A **Lee Faris, Mou** 28.05 351 P P 09 44 08.9 +0.8
baz=168
O33A **Hebron** 28.07 345 P P 09 44 09.8 +1.5
baz=161
N36A **Muff Farm, Cla** 28.23 350 P P 09 44 10.3 +0.7
baz=167
SDMD **Soldier's Deli** 28.30 20 *e*P P 09 44 11.2 +0.9
comp=Z,35nm,1.9s
M40A **Post Highland** 28.39 356 P P 09 44 11.6 +0.5
baz=174
N35A **Tabor** 28.40 349 P P 09 44 12.1 +0.9
baz=166
M39A **Webster** 28.52 355 P P 09 44 12.9 +0.7
baz=170
N34A **Lincoln** 28.55 348 P P 09 44 13.5 +1.0
baz=164
M38A **Pleasantville** 28.57 353 P P 09 44 13.0 +0.3
baz=171,SNR=5.6
M37A **Trindle Farm,** 28.66 352 P P 09 44 15.1 +1.5
baz=169
KSCO **Kaye Shedlock'** 28.68 337 P P 09 44 15.1 +1.2
baz=151
M36A **Felix, Anita** 28.83 350 P P 09 44 16.0 +1.0
baz=168,SNR=7.9
SDCO **Great Sand Dun** 28.83 332 P P 09 44 17.1 +1.7
baz=144

SDCO **Great Sand Dun** 28.83 332 *e*P P 09 44 17.1 +1.7
comp=Z,16nm,1.8s
L41A **Preston** 28.99 357 P P 09 44 18.1 +1.7
baz=176
M35A **Neola** 28.99 349 P P 09 44 17.9 +1.4
baz=166
L40A **Anamosa** 29.02 356 P P 09 44 18.1 +1.5
baz=175
SCIA **State Center** 29.05 353 *e*P P 09 44 18.3 +1.4
comp=Z,12nm,1.1s
L39A **Vinton** 29.14 355 P P 09 44 18.7 +1.0
baz=173
L38A **Oak Wood Farm,** 29.25 354 P P 09 44 19.4 +0.7
baz=171,SNR=7.5
M54A **Oil Creek Stat** 29.46 14 P P 09 44 22.0 +1.4
baz=198
S22A **4UR Ranch, Cre** 29.46 330 P P 09 44 22.0 +1.0
baz=142,SNR=11
S22A **4UR Ranch, Cre** 29.46 330 *e*P P 09 44 23.4 +2.4
comp=Z,5.9nm,0.7s
S22A *e*PcP PcP 09 47 26.9 +1.6
BGNE **Belgrade** 29.47 345 P P 09 44 21.9 +1.3
baz=161
AAM **Ann Arbor** 29.50 8 P P 09 44 22.7 +1.8
baz=190
L35A **Bielow Farm, R** 29.59 350 P P 09 44 22.4 +0.6
baz=166
K39A **Oelwein** 29.71 355 P P 09 44 23.8 +1.0
baz=174
K38A **Parkersburg** 29.73 354 P P 09 44 23.5 +0.5
baz=172
JFWS **Jewell Farm** 29.82 358 P P 09 44 24.3 +0.6
baz=177
MVCO **Mesa Verde** 29.90 327 P P 09 44 25.5 +0.7
baz=139
K37A **Belmond** 29.95 353 P P 09 44 25.6 +0.7
baz=170,SNR=11
OGNE **Ogallala** 30.18 340 P P 09 44 28.3 +1.2
baz=154
J42A **Columbus** 30.20 359 P P 09 44 26.9 -0.2
baz=179
K34A **Le Mars** 30.25 349 P P 09 44 28.3 +0.7
baz=166
J43A **Natural Harves** 30.26 0 P P 09 44 28.5 +0.9
baz=180
J41A **Loganville** 30.26 358 P P 09 44 28.9 +1.3
baz=177
J38A **Wedel Dairy, R** 30.37 355 P P 09 44 29.0 +0.4
baz=173
J37A **Redenius Farm,** 30.48 353 P P 09 44 30.4 +0.8
baz=171,SNR=9.6
ISCO **Idaho Springs** 30.57 334 P P 09 44 32.1 +1.3
baz=146
ISCO **Idaho Springs** 30.57 334 *e*P P 09 44 32.1 +1.3
comp=Z,3.0nm,0.8s
ISCO *e*pP sP 09 44 51.2 -4.2
J36A **Seneca 1, Swea** 30.59 352 P P 09 44 31.6 +1.0
baz=169
K32A **Verdigre** 30.61 346 P P 09 44 32.0 +1.3
baz=162
SMCO **Snowmass** 30.67 331 *e*P P 09 44 33.1 +1.3
comp=Z,5.0nm,0.6s
I40A **Norwalk** 30.81 357 P P 09 44 32.7 +0.2
baz=176
I39A **Houston** 30.82 356 P P 09 44 33.0 +0.4
baz=175
PV05 **Paradox Valley** 30.87 328 *e*P P 09 44 34.7 +1.4
I41A **Arkdale** 30.95 358 P P 09 44 34.0 +0.3
baz=178
PV10 **Paradox Valley** 31.06 328 *e*P P 09 44 36.5 +1.4
PV10 *e*PcP PcP 09 47 30.6 +1.2
I38A **Scanlan Farm,** 31.07 355 P P 09 44 35.5 +0.7
baz=173
I37A **Lemond, Waseca** 31.15 353 P P 09 44 36.3 +0.8
baz=171
I35A **Creekview Farm** 31.20 351 P P 09 44 37.2 +1.2
baz=168
I36A **Fitzsimmons Fa** 31.23 353 P P 09 44 37.3 +1.2
baz=170
J32A **Parkston** 31.26 347 P P 09 44 37.0 +0.6
baz=163
Y12C **Blythe** 31.27 316 P P 09 44 37.2 +0.5
baz=125
ECSD **EROS Data Cent** 31.36 349 P P 09 44 38.0 +0.7
baz=165
H40A **Chili** 31.53 358 P P 09 44 38.9 +0.1
baz=177
N23A **Red Feather La** 31.61 335 P P 09 44 41.7 +1.8
baz=147
N23A **Red Feather La** 31.61 335 *e*P P 09 44 41.4 +1.4
comp=Z,4.4nm,0.6s
N23A *e*pP pP 09 44 59.4 +2.8
H39A **Augusta** 31.63 356 P P 09 44 40.7 +1.0
baz=175
H37A **Dierke Farm, C** 31.66 354 P P 09 44 40.8 +0.8
baz=172
H38A **Maiden Rock** 31.70 355 P P 09 44 41.1 +0.8
baz=173
H36A **Jessenland, He** 31.77 353 P P 09 44 41.8 +0.9
baz=170,SNR=12
H35A **Sunnyside Ranc** 32.01 352 P P 09 44 43.3 +0.3
baz=169
O20A **White River Ci** 32.02 331 P P 09 44 45.4 +1.9
baz=142,SNR=9.6
O20A **White River Ci** 32.02 331 *e*P P 09 44 45.6 +2.2
comp=Z,11nm,0.8s
O20A *e*pP sP 09 45 03.9 -4.2
O20A *e*PcP PcP 09 47 32.5 +0.6
G42A **Mountain** 32.12 0 P P 09 44 43.8 -0.1
baz=180
G43A **Wallace** 32.14 1 P P 09 44 43.9 -0.3
baz=182
G38A **Ridgeland** 32.16 356 P P 09 44 45.1 +0.8
baz=174
G39A **Holcombe** 32.23 357 P P 09 44 45.0 0.0
baz=175,SNR=5.7
H32A **Carlson Farm,** 32.26 348 P P 09 44 45.4 +0.2
baz=164
SPMN **Marine on St.** 32.29 355 P P 09 44 45.7 +0.2
baz=172,SNR=18
SPMN **Marine on St.** 32.29 355 *e*P P 09 44 45.4 -0.1
comp=Z,26nm,0.4s
H33A **Prehn Over Nor** 32.30 349 P P 09 44 45.9 +0.4
baz=165
SRU **San Rafael Swe** 32.38 327 *e*P P 09 44 48.4 +1.8
comp=Z,4.2nm,0.6s
SRU *e*pP pP 09 45 05.5 +2.3
G36A **St. Michael** 32.40 353 P P 09 44 46.9 +0.5
baz=171,SNR=9.8
G35A **Watkins** 32.47 352 P P 09 44 48.0 +0.9
baz=169
SUSD **Miller** 32.53 346 P P 09 44 48.8 +1.2
baz=161
MTPU **Mount Pierson** 32.53 324 *e*P P 09 44 49.5 +1.4
comp=Z,23nm,1.9s
PFO **Pinyon Flats O** 32.54 314 P P 09 44 48.2 +0.2
baz=123
F41A **Three Lakes** 32.62 359 P P 09 44 48.9 +0.6
baz=179
P18A **Preston Nutter** 32.62 328 *e*P P 09 44 50.0 +1.1
G34A **Benson** 32.66 351 P P 09 44 49.8 +1.1
baz=167
SADO **Sadowa** 32.68 13 P P 09 44 48.5 -0.4
comp=Z,6.6nm,0.5s,baz=204,slow=10.0,SNR=9.5
F43A **Flat Rock, Esc** 32.73 2 P P 09 44 48.8 -0.5
baz=183
G33A **Ortonville** 32.74 350 P P 09 44 49.6 +0.2
baz=166
P17A **Butcher Ranch,** 32.76 328 *e*P P 09 44 51.2 +1.3
comp=Z,26nm,1.7s
F37A **Hinrichs Farm,** 32.77 355 P P 09 44 49.9 +0.3
baz=173
RWWY **Rawlins** 32.81 334 *e*P P 09 44 52.1 +1.7
comp=Z,8.8nm,0.6s
F40A **Park Falls** 32.81 358 P P 09 44 49.8 -0.3
baz=177
F39A **Loretta** 32.84 357 P P 09 44 50.3 0.0
baz=176
F38A **Pierce - Schro** 32.94 356 P P 09 44 51.3 +0.2
baz=174
F36A **Milaca** 32.99 354 P P 09 44 51.7 +0.1
baz=171
F35A **Swanville** 33.11 352 P P 09 44 52.9 +0.3
baz=169,SNR=5.6
F34A **Alexandria** 33.14 352 P P 09 44 53.3 +0.4
baz=168
K22A **Casper** 33.32 336 P P 09 44 55.7 +1.0
baz=147

K22A **Casper** 33.32 336 *e*P P 09 44 56.0 +1.2
comp=Z,6.1nm,0.7s
E40A **Wakefield** 33.33 358 P P 09 44 54.8 +0.2
baz=178
E36A **McGregor** 33.61 354 P P 09 44 57.2 +0.2
baz=172
RSSD **Black Hills** 33.67 340 P P 09 44 58.9 +1.0
baz=152
RSSD **Black Hills** 33.67 340 *e*P P 09 44 59.1 +1.3
comp=Z,5.2nm,0.7s
E35A **Pequot Lakes** 33.78 353 P P 09 44 58.8 +0.4
baz=170
PSUT **Pine Spring** 33.83 323 *e*P P 09 45 00.8 +1.5
comp=Z,3.4nm,1.0s
E34A **Wadena** 33.83 352 P P 09 44 59.2 +0.3
baz=169,SNR=8.7
E33A **Westby DABS, E** 33.94 351 P P 09 45 00.1 +0.2
baz=167
D37A **Cotton** 34.18 355 P P 09 45 02.1 +0.2
baz=174,SNR=5.3
D35A **Remer** 34.25 353 P P 09 45 02.4 -0.2
baz=171,SNR=6.6
D36A **Goodland** 34.26 355 P P 09 45 02.5 -0.1
baz=172,SNR=5.9
TPNV **Topopah Spring** 34.29 319 P P 09 45 03.7 +0.4
baz=127
TCUT **Toone Canyon** 34.32 329 *e*P P 09 45 05.0 +1.4
comp=Z,9.4nm,0.6s
TCUT *e*pP pP 09 45 21.6 +1.4
DUG **Dugway, Tooele** 34.38 326 P P 09 45 03.9 -0.1
baz=135
D34A **Park Rapids** 34.40 352 P P 09 45 03.9 +0.1
baz=169
D33A **AnnSam, Waubun** 34.54 351 P P 09 45 05.1 +0.1
baz=168,SNR=5.7
BW06 **Boulder Array** 34.71 333 P P 09 45 07.7 +0.9
baz=143
BW06 **Boulder Array** 34.71 333 *e*P P 09 45 07.9 +1.0
comp=Z,2.2nm,0.8s
PD31 **Pinedale Array** 34.71 333 *e*P P 09 45 07.5 +0.6
PDAR **Pinedale Array** 34.71 333 P P 09 45 08.0 +1.2
comp=Z,1.9nm,0.5s,baz=124,slow=10,SNR=20
PDAR PcP PcP 09 47 39.3 -0.1
comp=Z,0.5nm,0.5s,baz=131,slow=5.1,SNR=4.1
PDAR **Pinedale Array** 34.71 333 *e*P P 09 45 07.5 +0.6
PDAR PcP PcP 09 47 39.3 -0.1
C36A **Pine Crest Far** 34.81 355 P P 09 45 07.6 +0.2
baz=173
C35A **Jirik Farms, M** 34.86 354 P P 09 45 07.6 -0.1
baz=171,SNR=14
C34A **RKJ Ranch, Bem** 34.91 353 P P 09 45 08.2 -0.1
baz=169,SNR=7.0
SPUT **South Promonto** 34.99 328 *e*P P 09 45 10.5 +1.3
SPUT *e*pP sP 09 45 30.8 -3.2
CWC **Cottonwood Cre** 35.20 317 P P 09 45 11.5 +0.5
baz=124
AHID **Auburn Hatcher** 35.42 331 *e*P P 09 45 13.8 +0.9
comp=Z,5.5nm,0.6s
C31A **Landman Farms,** 35.48 349 P P 09 45 13.5 +0.3
baz=165
B35A **Bob, Littlefor** 35.48 354 P P 09 45 13.2 0.0
baz=172
HVU **Hansel Valley** 35.50 328 *e*P P 09 45 14.9 +1.3
comp=Z,3.0nm,0.7s
LPAZ **La Paz** 35.51 144 P P 09 45 15.3 +0.9
comp=Z,1.3nm,0.5s,baz=343,slow=3.0,SNR=8.2
LPAZ LR LR 09 59 35.9
comp=Z,74nm,20.7s,baz=302,slow=36
LPAZ **La Paz** 35.51 144 *e*P P 09 45 13.6 -0.8
comp=Z,15nm,1.9s
B33A **Robert and Kas** 35.61 352 P P 09 45 14.2 0.0
baz=168
AGMN **Agassiz Nation** 35.68 352 P P 09 45 15.1 +0.4
baz=168,SNR=7.4
AGMN **Agassiz Nation** 35.68 352 *e*P P 09 45 14.8 0.0
comp=Z,10nm,0.6s
B34A **Aery, Baudette** 35.71 353 P P 09 45 15.0 -0.1
baz=170,SNR=9.9
REDW **Red Top Meadow** 35.76 332 *e*P P 09 45 17.5 +1.7
comp=Z,14nm,0.6s
SNOW **Snow King Moun** 35.80 332 *e*P P 09 45 17.8 +1.6
comp=Z,17nm,0.6s
B32A **Ashes, Strandq** 35.87 351 P P 09 45 16.7 +0.3
baz=167,SNR=21
MDND **Maddock** 35.90 347 P P 09 45 17.4 +0.7
baz=162
MDND **Maddock** 35.90 347 *e*P P 09 45 17.4 +0.7
comp=Z,23nm,0.8s
MDND *e*pP sP 09 45 37.3 -4.3
TPAW **Teton Pass** 35.91 332 *e*P P 09 45 18.0 +0.9
comp=Z,6.3nm,0.6s
TPAW *e*pP sP 09 45 38.5 -3.5
MOOW **Moose Ponds** 36.01 332 *e*P P 09 45 18.9 +0.9
comp=Z,4.1nm,0.7s
FXWY **Fox Creek** 36.05 332 *e*P P 09 45 19.3 +0.9
comp=Z,2.3nm,0.6s
IMW **Indian Meadow** 36.22 332 *e*P P 09 45 20.5 +0.7
comp=Z,5.2nm,0.6s
A33A **Warroad** 36.24 353 P P 09 45 19.6 0.0
baz=169,SNR=20
A32A **Rocking H Ranc** 36.37 351 P P 09 45 20.6 -0.1
baz=167,SNR=7.0
NV11 **Mina Array Sit** 36.39 319 *e*P P 09 45 22.6 +1.4
comp=Z,0.2nm,0.7s
NV11 *e*pP sP 09 45 41.4 -4.7
H17A **Grant Village** 36.45 333 P P 09 45 23.5 +1.7
baz=142
H17A **Grant Village** 36.45 333 *e*P P 09 45 22.6 +0.9
comp=Z,3.3nm,0.6s
YPP **Pitchstone Pla** 36.45 333 *e*P P 09 45 27.4 +5.6
comp=Z,19nm,1.8s
RLMT **Red Lodge** 36.48 335 P P 09 45 23.1 +1.2
baz=145,SNR=12
RLMT **Red Lodge** 36.48 335 *e*P P 09 45 23.0 +1.0
comp=Z,10nm,0.7s
NV01 **Mina Array Sit** 36.48 319 *e*P P 09 45 23.6 +1.5
NV01 *e*PcP PcP 09 47 46.0 +1.3
NVAR **Mina Array Bea** 36.48 319 P P 09 45 24.9 +2.8
comp=Z,2.2nm,0.7s,baz=133,slow=7.1,SNR=20
NVAR PcP PcP 09 47 46.1 +1.3
comp=Z,2.7nm,0.6s,baz=125,slow=4.7,SNR=20
NVAR LR LR 10 00 27.2
comp=Z,119nm,19.7s,baz=169,slow=36
LKWY **Lake** 36.51 334 *e*P P 09 45 23.8 +1.5
comp=Z,5.2nm,0.6s
YFT **Old Faithful** 36.61 333 *e*P P 09 45 25.6 +2.5
comp=Z,5.7nm,0.7s
LAO **LASA Array** 36.67 340 P P 09 45 25.3 +1.9
baz=151
YNR **Norris Junctio** 36.75 334 *e*P P 09 45 25.7 +1.4
comp=Z,8.4nm,1.1s
YMR **Madison River** 36.83 333 *e*P P 09 45 26.2 +1.2
comp=Z,17nm,0.9s
YHH **Holmes Hill** 36.88 333 *e*P P 09 45 27.0 +1.5
comp=Z,3.6nm,0.6s
YHH *e*pP sP 09 45 46.5 -3.9
YHB **Horse Butte** 37.00 333 *e*P P 09 45 28.0 +1.6
comp=Z,7.1nm,0.8s
BMN **Battle Mountai** 37.04 323 *e*P P 09 45 27.0 +0.2
comp=Z,3.5nm,0.8s
ULM **Lac du Bonnet** 37.59 352 P P 09 45 30.3 -0.6
comp=Z,7.8nm,0.6s,baz=168,slow=8.8,SNR=27
ULM LR LR 10 02 31.2
comp=Z,126nm,19.0s,baz=158,slow=38
ULM **Lac du Bonnet** 37.59 352 *e*P P 09 45 30.4 -0.6
comp=Z,9.2nm,0.6s
HLID **Hailey** 37.63 329 P P 09 45 32.5 +0.8
baz=136
HLID **Hailey** 37.63 329 *e*P P 09 45 32.5 +0.8
comp=Z,1.6nm,0.6s
HLID *e*pP pP 09 45 50.0 +1.4
HLID *e*PcP PcP 09 47 49.6 +1.6
PNTR **Pine Nut** 37.69 319 *e*P P 09 45 33.5 +1.2
comp=Z,33nm,2.0s
MCMT **McKenzie Canyo** 37.81 332 *e*P P 09 45 35.7 +2.4
BOZ **Bozeman (W)** 37.85 334 P P 09 45 35.2 +1.6
baz=142,SNR=6.7
BOZ **Bozeman (W)** 37.85 334 *e*P P 09 45 35.3 +1.8
comp=Z,12nm,0.7s
BOZ *e*S S 09 51 20.1 +0.2
LRM **Limekiln Ridge** 38.39 333 *e*P P 09 45 39.3 +1.2
HRY **Holter Researc** 38.82 334 *e*P P 09 45 43.3 +1.7
EGMT **Eagleton** 39.06 337 P P 09 45 44.5 +1.0
baz=146,SNR=18
EGMT **Eagleton** 39.06 337 *e*P P 09 45 44.7 +1.1
comp=Z,29nm,0.6s
WVOR **Wild Horse Val** 39.13 324 *e*P P 09 45 45.2 +1.0
comp=Z,3.6nm,0.8s
O03D **Paynes Creek** 39.77 319 P P 09 45 50.2 +0.7
baz=124
MSO **Missoula** 39.83 333 P P 09 45 50.7 +0.8
baz=140
MSO **Missoula** 39.83 333 *e*P P 09 45 51.3 +1.3
comp=Z,4.9nm,1.0s
F10A **Beach Ranch, E** 40.75 329 *e*P P 09 45 57.9 +0.3
comp=Z,3.3nm,0.7s
I04A **Tendick Farm,** 42.15 323 P P 09 46 09.1 +0.1
baz=126
NEW **Newport** 42.33 332 P P 09 46 11.0 +0.5
baz=137
C09A **Chrisman Ranch** 42.54 331 *e*P P 09 46 13.1 +1.0
comp=Z,27nm,1.7s
FFC **Flin Flon** 42.90 349 *e*P P 09 46 15.5 +0.7
comp=Z,8.3nm,0.5s
SCHQ **Schefferville** 45.10 18 P P 09 46 31.5 -1.0
comp=Z,5.8nm,0.7s,baz=238,slow=6.4,SNR=6.3
SCHQ PcP PcP 09 48 11.8 -0.3
comp=Z,2.6nm,0.5s,baz=243,slow=4.5,SNR=3.2
CPUP **Villa Florida** 49.60 142 P P 09 47 07.5 -0.2
comp=Z,1.5nm,0.6s,baz=326,slow=7.7,SNR=4.2
YKA **Yellowknife Ar** 52.75 345 P P 09 47 30.8 0.0
comp=Z,9.7nm,0.7s,baz=150,slow=6.9,SNR=218
YKA LR LR 10 12 03.5
comp=Z,8.7nm,18.6s,baz=180,slow=38
YKW3 **Yellowknife Ar** 52.81 345 *e*P P 09 47 31.4 0.0
comp=Z,12nm,0.8s
DLBC **Dease Lake** 54.88 335 *e*P P 09 47 47.8 +1.1
comp=Z,12nm,0.8s
TAOE **Nuku Hiva Isla** 55.53 250 *e*LR LR 10 03 55.3
comp=Z,102nm,27.4s
TAOE **Nuku Hiva Isla** 55.53 250 *e*T T 10 47 14.6
comp=Z,13nm,0.2s
PLCA **Paso Flores** 56.06 163 LR LR 10 07 02.0
comp=Z,47nm,20.0s,baz=180,slow=30
RKT **Rikitea** 57.81 232 *e*T T 10 49 57.9
comp=Z,2.4nm,0.3s
SFJD **Kangerlussuaq** 59.51 16 LR LR 10 13 35.2
comp=Z,65nm,18.8s,baz=192,slow=36
INK **Inuvik** 62.30 343 P P 09 48 37.7 -0.2
comp=Z,8.5nm,0.7s,baz=119,slow=6.6,SNR=50
INK **Inuvik** 62.30 343 *e*P P 09 48 37.6 -0.2
comp=Z,9.7nm,0.8s
PMOR **Pomariorio Ree** 64.87 246 *e*T T 10 58 57.0
comp=Z,5.1nm,0.4s
IL1 **Eielson Array** 65.01 336 *e*P P 09 48 55.3 -0.5
ILAR **Eielson Array** 65.02 336 P P 09 48 55.5 -0.4
comp=Z,3.1nm,0.8s,baz=169,slow=5.0,SNR=66
ILB **Eielson Array** 65.02 336 *e*P P 09 48 55.6 -0.3
RND **Reindeer** 65.28 335 *e*P P 09 48 57.9 +0.2
comp=Z,12nm,0.8s
CCB **Clear Creek Bu** 65.33 336 *e*P P 09 48 57.4 -0.5
comp=Z,3.5nm,0.6s
TRF **Thorofare Moun** 65.90 334 *e*P P 09 49 01.4 -0.4
comp=Z,34nm,1.8s
KTH **Kantishna Hill** 66.20 334 *e*P P 09 49 02.8 -0.8
comp=Z,35nm,1.8s
BPAW **Bear Paw Mtn.** 66.41 335 *e*P P 09 49 04.3 -0.6
comp=Z,6.3nm,0.7s
MLY **Manley** 66.63 336 *e*P P 09 49 06.1 -0.2
comp=Z,8.5nm,0.6s
COLD **Coldfoot** 67.22 338 *e*P P 09 49 10.8 +0.8
comp=Z,4.9nm,0.8s
PPT2 **Papeete2** 67.35 245 *e*LR LR 10 09 29.0
comp=Z,119nm,26.8s
NOA **NORSAR Array B** 83.46 29 LR LR 10 27 01.1
comp=Z,23nm,18.6s,baz=0.0,slow=35
ARCES **ARCESS Array B** 86.04 19 P P 09 50 54.4 -1.6
comp=Z,4.4nm,0.9s,baz=288,slow=6.5,SNR=3.2
TORD **Torodi Ar. Bea** 87.47 77 P P 09 51 01.4 -2.6
comp=Z,0.1nm,0.4s,baz=294,slow=6.0,SNR=2.9
TORD LR LR 10 28 33.6
comp=Z,14nm,18.4s,baz=340,slow=34
GERES **GERESS Array B** 88.29 40 P P 09 51 03.9 -3.6
comp=Z,1.5nm,0.7s,baz=328,slow=9.6,SNR=4.0
AKASG **Malin Array Be** 96.75 34 LR LR 10 36 31.1
comp=Z,48nm,18.1s,baz=325,slow=36
KURK **Kurchatov** 115.58 9 PKP PKPdf 09 56 56.5 -1.0
KURBB **Kurchatov Arra** 115.65 9 PKP PKPdf 09 56 56.5 -1.2
comp=Z,0.3nm,0.5s,baz=343,slow=1.5,SNR=4.5
BOSA **Boshof** 117.03 116 PKP PKPdf 09 57 01.5 +0.4
comp=Z,2.2nm,0.6s,baz=219,slow=6.2,SNR=5.6
SONM **Songino Array** 117.94 349 PKP PKPdf 09 57 00.8 -1.5
comp=Z,0.2nm,0.3s,baz=19,slow=0.3,SNR=3.4
KSRS **Korea Array** 119.14 327 PKP PKPdf 09 57 05.2 +0.5
comp=Z,1.6nm,0.7s,baz=359,slow=2.0,SNR=6.7
KSAR **Wonju Array Be** 119.17 327 PKP PKPdf 09 57 05.2 +0.4
MKAR **Makanchi Array** 119.92 7 PKP PKPdf 09 57 04.2 -1.9
comp=Z,0.2nm,0.4s,baz=327,slow=3.5,SNR=4.8
HHC **Hu-ho-hao-te** 123.22 342 *e*P PKPdf 09 57 11.0 -1.7
WMQ **Urumqi** 123.34 3 *e*P PKPdf 09 57 12.4 -0.4
WMQ pmax pmax
comp=Z,26nm,3.7s
WMQ LR LR
comp=N,140nm,18.9s
WMQ LR LR
comp=E,100nm,15.3s
WMQ LR LR
comp=Z,120nm,18.1s
KSH **Kashi** 125.82 15 *e*PKP PKPdf 09 57 15.0 -2.8
KSH sPKP 09 57 52.1
KSH PP PP 09 59 13.0 +3.4
KSH PKS PKSdf 10 00 50.1 -4.4
KSH SKS SKSdf 10 04 15.3 -8.6
KSH SKKS SKKSac 10 05 54.3 -8.7
KSH **Kashi** 125.82 15 SS SS 10 16 01.6 -2.7
KSH AMB AMB
comp=Z,110nm,5.4s
KSH LR LR
comp=N,61nm,4.4s
KSH LR LR
comp=E,64nm,4.3s
KSH LR LR
comp=Z,190nm,7.1s
CTA **Charters Tower** 127.05 255 PKP PKPdf 09 57 21.4 +1.0
comp=Z,5.8nm,1.0s,baz=90,slow=2.0,SNR=3.5
NJ2 **Nanjing** 127.99 330 *e*P PKPdf 09 57 21.0 -0.9
NJ2 pmax pmax
comp=Z,8.0nm,0.6s
LZH **Lanzhou** 129.75 347 *e*PKP PKPdf 09 57 24.3 -1.1
LZH pPKP pPKPdf 09 57 47.5 +2.2
LZH sPKP 09 57 57.6
LZH LR LR
comp=N,100nm,18.1s
LZH LR LR
comp=E,110nm,18.0s
LZH LR LR
comp=Z,150nm,20.2s
WRA **Warramunga Arr** 138.25 255 PKhKP PKPpre 09 57 33.8
comp=Z,0.4nm,0.7s,baz=90,slow=3.7,SNR=7.4
WRA PKP PKPdf 09 57 42.7 +1.2
comp=Z,0.8nm,0.5s,baz=334,slow=11,SNR=10.0
ASAR **Alice Springs** 138.34 249 PKhKP PKPpre 09 57 33.5
comp=Z,0.4nm,0.6s,baz=111,slow=3.6,SNR=7.0
ASAR PKP PKPdf 09 57 42.9 +1.2
comp=Z,0.7nm,0.7s,baz=94,slow=1.9,SNR=9.2
FITZ **Fitzroy Crossi** 146.57 257 PKPbc PKPab 09 57 59.1 +0.1
comp=Z,4.0nm,0.6s,baz=124,slow=4.4,SNR=9.5
CMAR **Chiang Mai Arr** 147.83 346 PKPbc PKPdf 09 57 59.8 +1.4
comp=Z,1.3nm,0.4s,baz=331,slow=3.0,SNR=7.2

---

*ISCJB **24** 09:52:51.2±0.5, 0°03S±0.06×125°17E±0.05, h53km, mb3.5/9, Error ellipse: s-maj=9.7km s-min=6.5km az=34.5*
*DJA **24** 09:52:51.0±1.1, 0°S±5.5×12°5E±°, h16km±10km, M4.2/8, mB4.8/1, MLv4.2/8, Mw(mB)4.1/1*
*IDC **24** 09:52:51.5±6.8, 0.00N×125.14E, h39km±64km, mb3.3/9, mb1 3.5/10, mb1mx3.5/47, mbtmp3.6/10, ML3.4/1, Error ellipse: s-maj=59.2km s-min=16.3km az=77.0*

**ISC 24 09:52:52.7±0.7, 0.05S±0.08×125.18E±0.06, h53km, n18, σ0s75/19, mb3.5/9, Southern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| KMSI | Cibinong | 1.35 | 297 | P | Pn | 09 53 15.3 | +0.1 |
| SANI | Sanana | 2.15 | 158 | P | Pn | 09 53 25.3 | -0.8 |
| LBMI | Labuha | 2.40 | 104 | P | Pn | 09 53 30.2 | +0.7 |
| LBMI | | | | S | Sn | 09 53 57.7 | 0.0 |
| LUWI | Luwuk | 2.60 | 248 | Pg | Pn | 09 53 39.8 | +7.5 |
| MRSI | Marisa | 3.28 | 279 | P | Pn | 09 53 41.3 | -0.3 |
| NLAI | Namlea | 3.71 | 149 | P | Pn | 09 53 47.6 | +0.1 |
| KDI | Kendari | 4.65 | 213 | P | Pn | 09 54 00.4 | 0.0 |
| MPSI | Mapaga | 5.29 | 274 | P | Pn | 09 54 10.3 | +1.1 |
| FITZ | Fitzroy Crossi | 17.95 | 179 | P | P | 09 56 58.1 | -0.4 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 0.1nm,0.3s,baz=352,slow=7.1,SNR=2.8 | | | | | | | |
| **WRA** | **Warramunga Arr** | **21.71** | **156** | P | **P** | **09 57 39.5** | **-0.1** |
| | 0.6nm,0.4s,baz=338,slow=11,SNR=17 | | | | | | | |
| **ASAR** | **Alice Springs** | **24.96** | **161** | P | **P** | **09 58 12.3** | **+0.9** |
| | 0.7nm,0.7s,baz=338,slow=7.2,SNR=10 | | | | | | | |
| ASAR | | | | PcP | **PcP** | **10 01 46.5** | **+0.6** |
| | 0.3nm,0.5s,baz=349,slow=2.3,SNR=6.6 | | | | | | | |
| **STKA** | **Stephens Creek** | **35.26** | **155** | P | **P** | **09 59 43.5** | **+1.1** |
| | 1.8nm,0.7s,baz=343,slow=10.0,SNR=6.4 | | | | | | | |
| **KSRS** | **Korea Array** | **37.40** | **4** | P | **P** | **10 00 01.8** | **+1.2** |
| | 0.8nm,0.5s,baz=177,slow=8.5,SNR=4.9 | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **44.47** | **7** | P | **P** | **10 00 58.5** | **-0.2** |
| | 1.0nm,0.5s,baz=170,slow=6.1,SNR=2.8 | | | | | | | |
| **KLR** | **Kul'dur** | **49.41** | **6** | P | **P** | **10 01 36.8** | **-0.4** |
| | 0.1nm,0.6s,baz=200,slow=12,SNR=3.0 | | | | | | | |
| **SONM** | **Songino Array** | **50.41** | **344** | P | **P** | **10 01 44.2** | **-0.8** |
| | 0.3nm,0.6s,baz=142,slow=7.2,SNR=2.7 | | | | | | | |
| **MKAR** | **Makanchi Array** | **59.81** | **327** | P | **P** | **10 02 52.5** | **-0.2** |
| | 0.4nm,0.5s,baz=129,slow=7.9,SNR=5.9 | | | | | | | |
| **ILAR** | **Eielson Array** | **89.16** | **25** | P | **P** | **10 05 41.1** | **-1.3** |
| | 0.1nm,0.5s,baz=268,slow=4.2,SNR=2.8 | | | | | | | |

**IDC 24 10:08:24.7±1.3, 2°.35N×126°.90E, h0km, mb3.8/6, mb1 4.0/6, mb1mx3.6/45, mbtmp3.9/6, Error ellipse: s-maj=102.1km s-min=19.9km az=68.0, Northern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **FITZ** | **Fitzroy Crossi** | **20.36** | **183** | P | Pn | 10 13 04.8 | -0.1 |
| | 2.4nm,0.8s,baz=7.1,slow=10 | | | | | | |
| **WRA** | **Warramunga Arr** | **23.32** | **162** | P | P | 10 13 34.7 | 0.0 |
| | 3.6nm,0.5s,baz=338,slow=10,SNR=86 | | | | | | |
| **ASAR** | **Alice Springs** | **26.74** | **166** | P | P | 10 14 06.2 | -0.1 |
| | 0.8nm,0.5s,baz=344,slow=7.8,SNR=32 | | | | | | |
| ASAR | | | | PcP | PcP | 10 17 28.4 | -1.5 |
| | 0.4nm,0.6s,baz=342,slow=1.9,SNR=6.6 | | | | | | |
| **STKA** | **Stephens Creek** | **36.78** | **159** | P | P | 10 15 34.0 | -0.4 |
| | 4.1nm,0.7s,baz=337,slow=12,SNR=11 | | | | | | |
| **MKAR** | **Makanchi Array** | **58.78** | **326** | P | P | 10 18 25.3 | +0.4 |
| | 0.1nm,0.3s,baz=114,slow=6.7,SNR=1.2 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **62.99** | **328** | P | P | 10 18 53.5 | +0.2 |
| | 0.4nm,0.5s,baz=128,slow=6.2,SNR=3.3 | | | | | | |

*ISCJB **24** 10:09:01.3±0.5, 23°.90N±0°.02×122°.20E±0°.02, h25km±3km, Error ellipse: s-maj=4.2km s-min=2.5km az=155.5*
*JMA **24** 10:09:01.0±0.1, 23°.88N×122°.17E, h30km±3km, M3.0*
*TAP **24** 10:09:02.2, 23°.94N×122°.11E, h23km, ML2.9, D*
**ISC 24 10:09:01.2±1.1, 23°.89N±0°.03×122°.16E±0°.03, h29km±12km, n38, σ0°51/71, 1C, Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TWD** | **Chiawan** | **0.55** | **290** | ⇑*i*P | **Pb** | **10 09 12.8** | **+0.4** |
| TWD | baz=287 | | | S | **Sb** | **10 09 20.3** | **+0.2** |
| | baz=287 | | | | | | |
| **ENA** | **Nanau** | **0.66** | **324** | P | **Pn** | **10 09 14.5** | **-0.1** |
| | baz=325 | | | | | | |
| ENA | | | | *e*S | **Sn** | **10 09 24.2** | **+0.1** |
| | baz=325 | | | | | | |
| **ESL** | **Shilin** | **0.67** | **264** | P | **Pb** | **10 09 14.5** | **+0.1** |
| | baz=258 | | | | | | |
| ESL | | | | *e*S | **Sn** | **10 09 24.1** | **-0.3** |
| | baz=258 | | | | | | |
| **TWC** | **Suao** | **0.77** | **338** | *e*P | **Pn** | **10 09 16.3** | **+0.2** |
| | baz=341 | | | | | | |
| TWC | | | | *e*S | **Sb** | **10 09 25.8** | **-0.5** |
| | baz=341 | | | | | | |
| **EHY** | **Hungye** | **0.86** | **244** | *e*P | **Pn** | **10 09 17.5** | **+0.2** |
| | baz=238 | | | | | | |
| EHY | | | | *e*S | **Sn** | **10 09 29.6** | **+0.6** |
| | baz=238 | | | | | | |
| **WHF** | **Hehuan Shan** | **0.86** | **287** | P | **Pn** | **10 09 17.7** | **-0.1** |
| | baz=284 | | | | | | |
| WHF | | | | S | **Sb** | **10 09 29.1** | **-0.1** |
| | baz=284 | | | | | | |
| **NNS** | **Nan Shan** | **0.91** | **307** | *e*P | **Pn** | **10 09 18.2** | **+0.1** |
| | baz=306 | | | | | | |
| NNS | | | | *e*S | **Sb** | **10 09 30.1** | **-0.1** |
| | baz=306 | | | | | | |
| **ENTT** | **Nioudou** | **0.93** | **324** | *e*P | **Pb** | **10 09 18.6** | **-0.1** |
| | baz=324 | | | | | | |
| ENTT | | | | *e*S | **Sn** | **10 09 30.8** | **+0.2** |
| | baz=324 | | | | | | |
| **TWE** | **Neicheng** | **0.94** | **331** | *e*P | **Pb** | **10 09 18.9** | **-0.1** |
| | baz=333 | | | | | | |
| TWE | | | | *e*S | **Sb** | **10 09 30.8** | **-0.4** |
| | baz=333 | | | | | | |
| **WDT** | **Danda** | **0.95** | **262** | P | **Pb** | **10 09 19.3** | **0.0** |
| | baz=258 | | | | | | |
| WDT | | | | *e*S | **Sb** | **10 09 31.9** | **+0.2** |
| | baz=258 | | | | | | |
| **YOJ** | **Yonaguni jima** | **0.96** | **53** | P | **Pn** | **10 09 18.9** | **+0.2** |
| YOJ | | | | S | **Sn** | **10 09 31.2** | **-0.3** |
| **TWT** | **Tachien** | **0.97** | **292** | *e*P | **Pb** | **10 09 19.8** | **+0.2** |
| | baz=289 | | | | | | |
| TWT | | | | *e*S | **Sn** | **10 09 32.4** | **+0.4** |
| | baz=289 | | | | | | |
| **NSK** | **Sanguang** | **1.07** | **317** | P | **Pn** | **10 09 20.7** | **+0.4** |
| | baz=317 | | | | | | |
| NSK | | | | *e*S | **Sn** | **10 09 33.7** | **-0.7** |
| | baz=317 | | | | | | |
| **TWB1** | **Santiao Chiao** | **1.12** | **352** | *e*P | **Pn** | **10 09 21.0** | **0.0** |
| | baz=354 | | | | | | |
| TWB1 | | | | *e*S | **Sb** | **10 09 36.5** | **+0.2** |
| | baz=354 | | | | | | |
| **YUS** | **Yu-Shan** | **1.18** | **251** | P | **Pb** | **10 09 23.3** | **0.0** |
| | baz=246 | | | | | | |
| YUS | | | | *e*S | **Sn** | **10 09 37.9** | **+0.4** |
| | baz=246 | | | | | | |
| **TYC** | **Yuchr** | **1.20** | **271** | *e*P | **Pb** | **10 09 23.0** | **-0.2** |
| | baz=268 | | | | | | |
| **TWA** | **Mucha** | **1.21** | **334** | *e*S | **Sb** | **10 09 38.2** | **-0.5** |
| | baz=335 | | | | | | |
| **NWF** | **Wu-fen Shan** | **1.23** | **344** | *e*S | **Sb** | **10 09 39.7** | **+0.4** |
| | baz=345 | | | | | | |
| **ELDTW** | **Lidau** | **1.26** | **237** | *e*P | **Pn** | **10 09 23.3** | **+0.3** |
| | baz=233 | | | | | | |
| ELDTW | | | | *e*S | **Sn** | **10 09 38.5** | **-0.6** |
| | baz=233 | | | | | | |
| **NSTT** | **Nanjuang** | **1.29** | **305** | *e*P | **Pb** | **10 09 25.0** | **+0.1** |
| | baz=304 | | | | | | |
| NSTT | | | | *e*S | **Sb** | **10 09 40.5** | **-0.6** |
| | baz=304 | | | | | | |
| **ALS** | **Alishan** | **1.30** | **253** | *e*P | **Pb** | **10 09 25.1** | **0.0** |
| | baz=250 | | | | | | |
| ALS | | | | *e*S | **Sb** | **10 09 41.2** | **-0.4** |
| | baz=250 | | | | | | |
| **TWQ1** | **Liyutan** | **1.35** | **290** | *e*P | **Pb** | **10 09 25.7** | **-0.2** |
| | baz=288 | | | | | | |
| TWQ1 | | | | *e*S | **Sb** | **10 09 42.1** | **-0.7** |
| | baz=288 | | | | | | |
| **TCU** | **Taichung** | **1.38** | **281** | *e*P | **Pb** | **10 09 26.1** | **-0.3** |
| | baz=278 | | | | | | |
| TCU | | | | *e*S | **Sb** | **10 09 44.7** | **+1.0** |
| | baz=278 | | | | | | |
| **TWS1** | **Kuangyinshan** | **1.38** | **331** | *e*S | **Sb** | **10 09 43.0** | **-0.7** |
| | baz=331 | | | | | | |
| **CHN5** | **Tsauling** | **1.39** | **258** | *e*P | **Pb** | **10 09 26.4** | **-0.2** |
| | baz=255 | | | | | | |
| CHN5 | | | | *e*S | **Sb** | **10 09 44.6** | **+0.6** |
| | baz=255 | | | | | | |
| **TWG** | **Pinlang** | **1.46** | **224** | *e*P | **Pn** | **10 09 26.4** | **+0.7** |
| | baz=220 | | | | | | |
| TWG | | | | *e*S | **Sn** | **10 09 44.2** | **+0.3** |
| | baz=220 | | | | | | |
| **STYT** | **Tauyuan** | **1.48** | **241** | *e*P | **Pb** | **10 09 27.3** | **-0.8** |
| | baz=237 | | | | | | |
| STYT | | | | *e*S | **Sn** | **10 09 45.5** | **+1.2** |
| | baz=237 | | | | | | |
| **IRIF** | **Iriomote-Funau** | **1.50** | **72** | P | **Pn** | **10 09 26.6** | **+0.5** |
| IRIF | | | | S | **Sn** | **10 09 45.2** | **+0.5** |
| **HATJ** | **Hateruma jima** | **1.51** | **83** | S | **Sn** | **10 09 45.3** | **+0.3** |
| **CHN4** | **Tsaushan** | **1.54** | **250** | *e*P | **Pb** | **10 09 29.3** | **+0.3** |
| | baz=247 | | | | | | |
| CHN4 | | | | *e*S | **Sb** | **10 09 47.7** | **-0.4** |
| | baz=247 | | | | | | |
| **WTP** | **Ta-pu** | **1.56** | **246** | *e*P | **Pb** | **10 09 29.0** | **-0.4** |
| | baz=243 | | | | | | |
| WTP | | | | *e*S | **Sb** | **10 09 48.5** | **-0.3** |
| | baz=243 | | | | | | |
| **CHN1** | **Nanshi** | **1.66** | **245** | *e*P | **Pb** | **10 09 30.5** | **-0.5** |
| | baz=242 | | | | | | |
| CHN1 | | | | *e*S | **Sb** | **10 09 51.5** | **0.0** |
| | baz=242 | | | | | | |
| **TWK** | **Hsinying** | **1.66** | **248** | *e*P | **Pb** | **10 09 30.8** | **-0.3** |
| | baz=245 | | | | | | |
| TWK | | | | *e*S | **Sb** | **10 09 50.9** | **-0.7** |
| | baz=245 | | | | | | |
| **SGST** | **Jiashian** | **1.66** | **241** | *e*P | **Pb** | **10 09 31.0** | **-0.1** |
| | baz=238 | | | | | | |
| SGST | | | | *e*S | **Sb** | **10 09 51.4** | **-0.2** |
| | baz=238 | | | | | | |
| **JKRS** | **Kuro-shima** | **1.72** | **78** | P | **Pn** | **10 09 30.2** | **+1.0** |
| JKRS | | | | S | **Sn** | **10 09 51.7** | **+1.4** |
| **SSD** | **Sandimen** | **1.81** | **231** | *e*P | **Pb** | **10 09 32.3** | **-1.4** |
| | baz=228 | | | | | | |
| SSD | | | | *e*S | **Sb** | **10 09 55.0** | **-0.9** |
| | baz=228 | | | | | | |
| **JIJ** | **Ishigaki jima** | **1.87** | **75** | P | **Pn** | **10 09 31.1** | **-0.1** |
| JIJ | | | | S | **Sn** | **10 09 53.3** | **-0.6** |
| **JISG** | **Ishigakijimahi** | **2.08** | **70** | P | **Pn** | **10 09 34.0** | **-0.1** |
| JISG | | | | S | **Sn** | **10 09 58.4** | **-0.7** |

*MDD **24** 10:11:45.5±3.6, 36°.81N×12°.46W, h0km, mb3.7/2, Error ellipse: s-maj=30.9km s-min=24.1km az=85.0, PRXIMO SOLUCIN POBRE*
*INMG **24** 10:11:46.3±0.8, 36°.63N×12°.92W, h10km, ML2.2, Error ellipse: s-maj=5.8km s-min=4.1km az=96.0*
**ISC 24 10:11:44.5±4.1, 36°.9N±0°.1×12°.5W±0°.2, h10km, n27, σ1§48/42, 1D, Azores-Cape St. Vincent Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PFVI** | **Vila Bisbo** | **2.97** | **85** | P | **Pn** | **10 12 31.8** | **+0.2** |
| | 1.3nm,0.1s,SNR=18 | | | | | | |
| PFVI | | | | S | **Sn** | **10 13 06.1** | **-1.1** |
| | 2.3nm,0.1s,SNR=7.9 | | | | | | |
| **PFVI** | **Vila Bisbo** | **2.97** | **85** | *e*P | **Pn** | **10 12 31.8** | **+0.2** |
| PFVI | | | | S | **Sn** | **10 13 06.2** | **-1.1** |
| PFVI | | | | A | A | 10 13 09.3 | |
| | 4.8nm,0.5s | | | | | | |
| **PTEO** | **Sao Teotonio** | **3.10** | **77** | ⇓*e*P | **Pn** | **10 12 34.3** | **+0.9** |
| PTEO | | | | S | **Sn** | **10 13 10.5** | **0.0** |
| PTEO | | | | A | A | 10 13 11.8 | |
| | 6.5nm,0.7s | | | | | | |
| **PMAFR** | **Mafra** | **3.28** | **50** | P | **Pn** | **10 12 37.7** | **+1.8** |
| | 1.7nm,0.1s,SNR=7.9 | | | | | | |
| PMAFR | | | | S | **Sn** | **10 13 15.7** | **+0.8** |
| | 12nm,0.2s,SNR=7.9 | | | | | | |
| **PMAFR** | **Mafra** | **3.28** | **50** | *e*P | **Pn** | **10 12 37.7** | **+1.8** |
| PMAFR | | | | S | **Sn** | **10 13 16.0** | **+1.1** |
| PMAFR | | | | A | A | 10 13 16.4 | |
| | 14nm,0.4s | | | | | | |
| **PNCL** | **Nicolau / Gran** | **3.40** | **68** | *e*P | **Pn** | **10 12 38.9** | **+1.4** |
| PNCL | | | | S | **Sn** | **10 13 18.1** | **+0.3** |
| PNCL | | | | A | A | 10 13 18.7 | |
| | 2.6nm,0.9s | | | | | | |
| **MESJ** | **Messejana** | **3.55** | **74** | *e*P | **Pn** | **10 12 40.9** | **+1.3** |
| MESJ | | | | S | **Sn** | **10 13 21.6** | **-0.1** |
| MESJ | | | | A | A | 10 13 22.8 | |
| | 2.3nm,0.5s | | | | | | |
| **PCVE** | **Castro Verde** | **3.65** | **77** | *e*P | **Pn** | **10 12 42.2** | **+1.2** |
| PCVE | | | | S | **Sn** | **10 13 23.8** | **-0.3** |
| PCVE | | | | A | A | 10 13 26.6 | |
| | 1.7nm,0.2s | | | | | | |
| **PVAQ** | **Vaqueiros** | **3.87** | **81** | *e*P | **Pn** | **10 12 44.8** | **+0.8** |
| PVAQ | | | | S | **Sn** | **10 13 28.8** | **-0.8** |
| PVAQ | | | | A | A | 10 13 29.7 | |
| | 1.5nm,0.6s | | | | | | |
| **EVO** | **Evora** | **3.93** | **64** | S | **Sn** | **10 13 30.1** | **-0.8** |
| EVO | | | | A | A | 10 13 31.9 | |
| | 3.4nm,0.1s | | | | | | |
| **PMTG** | **Montargil** | **4.02** | **56** | *e*P | **Pn** | **10 12 47.7** | **+1.6** |
| PMTG | | | | S | **Sn** | **10 13 33.4** | **+0.1** |
| PMTG | | | | A | A | 10 13 35.5 | |
| | 1.5nm,0.4s | | | | | | |
| **EGRO** | **El Granado** | **4.07** | **80** | P | **Pn** | **10 12 47.4** | **+0.6** |
| | 0.2nm,0.1s,SNR=7.9 | | | | | | |
| EGRO | | | | S | **Sn** | **10 13 33.6** | **-0.9** |
| | 1.4nm,0.2s,SNR=7.9 | | | | | | |
| **PTOM** | **Tomar** | **4.22** | **49** | S | **Sn** | **10 13 38.6** | **+0.5** |
| PTOM | | | | A | A | 10 13 43.6 | |
| | 5.0nm,0.4s | | | | | | |
| **PESTR** | **Estremoz** | **4.37** | **62** | S | **Sn** | **10 13 41.8** | **0.0** |
| PESTR | | | | A | A | 10 13 45.1 | |
| | 1.3nm,0.3s | | | | | | |
| **PCAS** | **Casmilo, Conde** | **4.45** | **44** | S | **Sn** | **10 13 45.3** | **+1.4** |
| PCAS | | | | A | A | 10 13 48.6 | |
| | 2.6nm,0.3s | | | | | | |
| **PBAR** | **Barrancos** | **4.54** | **72** | *e*P | **Pn** | **10 12 54.1** | **+0.9** |
| PBAR | | | | S | **Sn** | **10 13 45.3** | **-0.7** |
| PBAR | | | | A | A | 10 13 46.8 | |
| | 3.0nm,0.7s | | | | | | |
| **EMIN** | **Mina Concepcio** | **4.74** | **78** | P | **Pn** | **10 12 56.4** | **+0.4** |
| | 0.4nm,0.2s,SNR=7.9 | | | | | | |
| EMIN | | | | S | **Sn** | **10 13 47.9** | **-3.1** |
| | 0.1nm,0.1s,SNR=7.9 | | | | | | |
| **PMRV** | **Marv??o** | **4.76** | **57** | *e*P | **Pn** | **10 12 57.9** | **+1.6** |
| PMRV | | | | S | **Sn** | **10 13 50.5** | **-1.1** |
| PMRV | | | | A | A | 10 13 53.4 | |
| | 1.7nm,0.4s | | | | | | |
| **PVIS** | **Viseu** | **5.25** | **42** | S | **Sn** | **10 14 02.9** | **-0.6** |
| **ECAB** | **El Cabril** | **5.77** | **76** | P | **Pn** | **10 13 10.9** | **+0.8** |
| | 0.5nm,0.1s,SNR=7.1 | | | | | | |
| ECAB | | | | S | **Sn** | **10 14 14.9** | **-1.5** |
| | 0.2nm,0.1s,SNR=7.9 | | | | | | |
| **POLO** | **Lamas de Olo** | **5.78** | **38** | S | **Sn** | **10 14 14.6** | **-2.1** |
| POLO | | | | A | A | 10 14 18.8 | |
| | 1.1nm,0.1s | | | | | | |
| **PGAV** | **Gavieira, Arco** | **6.03** | **32** | S | **Sn** | **10 14 20.8** | **-2.0** |
| PGAV | | | | A | A | 10 14 23.4 | |
| | 3.1nm,0.7s | | | | | | |
| **MVO** | **Moncorvo** | **6.03** | **44** | S | **Sn** | **10 14 21.1** | **-1.7** |
| | 0.9nm,0.1s,SNR=7.9 | | | | | | |
| **MVO** | **Moncorvo** | **6.03** | **44** | S | **Sn** | **10 14 21.8** | **-1.0** |
| MVO | | | | A | A | 10 14 23.7 | |
| | 2.3nm,0.6s | | | | | | |
| **ELOB** | **Lobios** | **6.04** | **34** | S | **Sn** | **10 14 20.6** | **-2.5** |
| | 0.6nm,0.1s,SNR=7.9 | | | | | | |
| **ECAL** | **Calabor** | **6.73** | **40** | S | **Sn** | **10 14 37.8** | **-2.4** |
| | 1.3nm,0.2s,SNR=7.9 | | | | | | |
| **EAGO** | **Agolada(Pontev** | **6.80** | **29** | S | **Sn** | **10 14 37.6** | **-4.2** |
| | 0.6nm,0.1s,SNR=7.9 | | | | | | |

*ISCJB **24** 10:12:11.5±1.6, 50°.9N±0°.2×73°.3E±0°.2, h0km, Error ellipse: s-maj=31.8km s-min=7.1km az=30.8*
*IDC **24** 10:12:16.7±1.4, 50°.89N×73°.64E, h0km, mb1 2.9/4, mb1mx2.8/54, mbtmp2.9/4, ML2.4/4, Error ellipse: s-maj=32.7km s-min=8.0km az=32.0*
*NNC **24** 10:12:17.7±1.9, 51°.22N×73°.82E, h0km, mb3.4, mpv3.1, Error ellipse: s-maj=46.6km s-min=5.6km az=27.0, Suspected Mining explosion.*
**ISC 24 10:12:13.4±1.7, 50°.8N±0°.2×73°.40E±0°.10, h0km, n12, σ1§14/11, 3C-9D, Central Kazakhstan**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **BVA0** | **Borovoye Array** | **2.87** | **321** | ⇓Pg | **Pg** | **10 13 08.5** | **+0.1** |
| | 4.3nm,0.5s,baz=136,slow=17,SNR=9.3 | | | | | | |
| BVA0 | | | | ⇓Lg | Lg | 10 13 47.4 | |
| | 11nm,0.4s,baz=130,slow=34,SNR=12 | | | | | | |
| **BVAR** | **Borovoye Array** | **2.87** | **321** | Pn | **Pb** | **10 13 05.0** | **-0.5** |
| | 2.5nm,0.3s,baz=134,slow=16,SNR=28 | | | | | | |
| BVAR | | | | Pg | **Pg** | **10 13 08.3** | **-0.2** |
| | 2.5nm,0.3s,baz=128,slow=16,SNR=31 | | | | | | |
| BVAR | | | | Lg | Lg | 10 13 47.4 | |
| | 3.9nm,0.3s,baz=122,slow=30,SNR=18 | | | | | | |
| **BRVK** | **Borovoye** | **2.94** | **320** | ⇓Pg | **Pg** | **10 13 08.5** | **-1.3** |
| | 2.1nm,0.4s | | | | | | |
| BRVK | | | | ⇑Lg | Lg | 10 13 49.2 | |
| | 30nm,0.5s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **3.27** | **92** | Pn | **Pn** | **10 13 07.3** | **+1.4** |
| | 0.2nm,0.3s,baz=279,slow=13,SNR=34 | | | | | | |
| KURBB | | | | Lg | Lg | 10 13 53.3 | |
| | 0.6nm,0.3s,baz=272,slow=31,SNR=9.2 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **3.27** | **92** | ⇑Pn | **Pn** | **10 13 07.0** | **+1.1** |
| | 3.9nm,0.4s | | | | | | |
| KURBB | | | | ⇑Pg | **Pg** | **10 13 15.1** | **-1.0** |
| | 9.5nm,0.5s | | | | | | |
| KURBB | | | | ⇓Lg | Lg | 10 13 52.9 | |
| | 56nm,0.8s | | | | | | |
| **KURK** | **Kurchatov** | **3.32** | **90** | ⇓Pn | **Pn** | **10 13 07.9** | **+1.3** |
| | 2.8nm,0.7s | | | | | | |
| KURK | | | | ⇓Pg | **Pb** | **10 13 12.4** | **-0.7** |
| | 3.1nm,0.5s | | | | | | |
| KURK | | | | ⇓Lg | Lg | 10 13 54.1 | |
| | 25nm,0.8s | | | | | | |
| **MAKZ** | **Makanchi** | **6.95** | **122** | ⇓Lg | Lg | 10 15 58.1 | |
| | 13nm,1.3s | | | | | | |
| **MK31** | **Makanchi Array** | **7.13** | **121** | ⇓Lg | Lg | 10 16 04.0 | |
| | 12nm,1.1s,baz=316,slow=26,SNR=6.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **7.13** | **121** | Pn | **Pn** | **10 13 59.8** | **+0.8** |
| | 0.1nm,0.3s,baz=290,slow=11,SNR=4.5 | | | | | | |
| MKAR | | | | Lg | Lg | 10 15 56.9 | |
| | 0.5nm,0.3s,baz=308,slow=26,SNR=6.4 | | | | | | |
| **I46RU** | **ZALESOVO INFRA** | **7.65** | **62** | *i* | | 10 57 30.0 | |
| | baz=247,slow=323,SNR=1.9 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **7.65** | **62** | Pn | **Pn** | **10 14 07.2** | **+1.1** |
| | 0.2nm,0.3s,baz=255,slow=14,SNR=6.0 | | | | | | |
| **AAK** | **Ala-Archa** | **8.24** | **174** | Lg | Lg | 10 16 38.0 | |
| | 0.1nm,0.3s,baz=180,slow=20,SNR=4.1 | | | | | | |

**IDC 24 10:15:16.6±8.1, 20°.88S×66°.29W, h259km±52km, mb3.4/2, mb1 3.4/4, mb1mx3.0/23, mbtmp3.8/4, Error ellipse: s-maj=110.0km s-min=28.0km az=20.0, Southern Bolivia**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **LPAZ** | **La Paz** | **4.89** | **339** | P | Pn | 10 16 32.2 | +0.1 |
| | 0.5nm,0.3s,baz=178,slow=6.4,SNR=14 | | | | | | |
| LPAZ | | | | S | S | 10 17 32.3 | +0.1 |
| | 0.1nm,0.3s,baz=327,slow=18,SNR=3.8 | | | | | | |
| **SIV** | **San Ignacio** | **6.94** | **46** | P | Pn | 10 16 57.2 | +0.4 |
| | 1.7nm,0.3s,baz=250,slow=11,SNR=20 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **74.85** | **69** | P | P | 10 26 29.3 | -0.1 |
| | 1.2nm,0.5s,baz=257,slow=5.4,SNR=17 | | | | | | |
| **YKA** | **Yellowknife Ar** | **91.44** | **340** | P | P | 10 27 53.5 | +0.5 |
| | 0.2nm,0.5s,baz=129,slow=4.4,SNR=8.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **143.69** | **37** | PKP | PKPbc | 10 34 19.8 | +0.7 |
| | 0.6nm,0.7s,baz=320,slow=3.7,SNR=4.3 | | | | | | |

*ISCJB **24** 10:19:03.2±1.2, 36°.77N±0°.08×34°.61E±0°.09, h15km±8km, Error ellipse: s-maj=17.6km s-min=6.2km az=138.6*
*ISK **24** 10:19:03.2, 36°.87N×34°.53E, h18km, ML1.9*
*CSEM **24** 10:19:04.6±0.6, 36°.90N×34°.59E, h20km, ML1.9, Error ellipse: s-maj=19.9km s-min=9.2km az=127.0*
*DDA **24** 10:19:06.1, 36°.91N×34°.58E, h7km, Md2.5*
**ISC 24 10:19:04.1±0.9, 36°.88N±0°.04×34°.54E±0°.05, h16km±6km, n14, σ0°69/23, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MERS** | **Mersin** | **0.02** | **228** | *e*PG | **Pg** | **10 19 07.0** | **-0.1** |
| **MERS** | **Mersin** | **0.02** | **228** | *e*Pg | **Pg** | **10 19 07.0** | **-0.1** |
| **DED** | **Mersin** | **0.22** | **69** | *i* P | **Pg** | **10 19 09.3** | **0.0** |
| DED | | | | *i* S | **Sg** | **10 19 12.7** | **-0.1** |
| **GULE** | **Gulek** | **0.44** | **25** | *i* P | **Pb** | **10 19 13.4** | **-0.3** |
| GULE | | | | *i* S | **Sb** | **10 19 21.1** | **+0.9** |
| **GULE** | **Gulek** | **0.44** | **25** | P | **Pb** | **10 19 13.4** | **-0.3** |
| GULE | | | | S | **Sb** | **10 19 21.1** | **+0.9** |
| **KIZK** | **Mersin** | **0.51** | **219** | *e*PG | **Pg** | **10 19 12.8** | **-1.6** |
| **KIZK** | **Mersin** | **0.51** | **219** | *i* P | **Pn** | **10 19 16.9** | **+0.2** |
| KIZK | | | | *i* S | **Sn** | **10 19 26.0** | **+0.9** |
| **KIZK** | **Mersin** | **0.51** | **219** | P | **Pn** | **10 19 16.9** | **+0.2** |
| KIZK | | | | S | **Sn** | **10 19 26.0** | **+0.9** |
| **KARA** | **Karaisali** | **0.56** | **47** | *e*PG | **Pg** | **10 19 14.5** | **-0.7** |
| KARA | | | | *e*SG | **Sb** | **10 19 23.8** | **+0.5** |
| **KARA** | **Karaisali** | **0.56** | **47** | *e*Pg | **Pg** | **10 19 14.5** | **-0.7** |
| KARA | | | | *e*Sg | **Sb** | **10 19 23.8** | **+0.5** |
| **KERG** | **Konya-Eregli** | **0.63** | **328** | *i* P | **Pg** | **10 19 16.6** | **0.0** |
| KERG | | | | *i* S | **Sn** | **10 19 27.4** | **-0.8** |
| **KERG** | **Konya-Eregli** | **0.63** | **328** | P | **Pg** | **10 19 16.6** | **0.0** |
| KERG | | | | S | **Sn** | **10 19 27.4** | **-0.8** |
| **TEVE** | **Tevekalti-Mers** | **0.99** | **244** | *e*PG | **Pb** | **10 19 22.9** | **0.0** |
| **TEVE** | **Tevekalti-Mers** | **0.99** | **244** | *e*Pg | **Pb** | **10 19 22.9** | **0.0** |

*IDC **24** 10:22:31.9±1.6, 0°.28N×97°.48E, h28km±5km, mb3.5/5, mb1 3.7/7, mb1mx3.4/46, mbtmp3.7/7, ML2.2/1, Error ellipse: s-maj=57.0km s-min=17.7km az=60.0*
**ISC 24 10:22:34.1±1.1, 0°.62N±0°.09×98°.2E±0°.2, h29km, n15, σ1§39/13, mb3.9/5, Northern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PSI** | **Prapat** | **2.30** | **19** | Pn | **Pb** | **10 23 14.4** | **-0.6** |
| | 0.4nm,0.3s,baz=214,slow=7.3,SNR=2.1 | | | | | | |
| PSI | | | | Sn | **Sb** | **10 23 42.6** | **-0.4** |
| | 1.3nm,0.3s,baz=130,slow=6.3,SNR=5.1 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **17.75** | **2** | P | **P** | **10 26 41.6** | **+1.8** |
| | 0.9nm,0.3s,baz=185,slow=9.5,SNR=5.3 | | | | | | |
| **H08S2** | **Diego Garcia H** | **26.89** | **252** | T | T | 10 54 40.0 | |
| | baz=74,slow=75,SNR=20 | | | | | | |
| **H08S3** | **Diego Garcia H** | **26.90** | **252** | T | T | 10 54 42.5 | |
| | baz=74,slow=75,SNR=86 | | | | | | |
| **H08S1** | **Diego Carcia H** | **26.91** | **252** | T | T | 10 54 35.7 | |
| | baz=74,slow=75,SNR=8.7 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **38.34** | **159** | T | T | 11 10 12.0 | |
| | baz=333,slow=76,SNR=14 | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **38.36** | **159** | T | T | 11 10 11.8 | |
| | baz=333,slow=76,SNR=19 | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **38.36** | **159** | T | T | 11 10 17.2 | |
| | baz=333,slow=76,SNR=17 | | | | | | |
| **WRA** | **Warramunga Arr** | **40.90** | **122** | P | **P** | **10 30 14.3** | **+0.2** |
| | 0.5nm,0.7s,baz=302,slow=8.9,SNR=5.4 | | | | | | |
| WRA | | | | pP | **sP** | **10 30 24.7** | **-1.6** |
| | 0.7nm,0.5s,baz=302,slow=8.9,SNR=4.2 | | | | | | |
| **ASAR** | **Alice Springs** | **42.27** | **127** | P | **P** | **10 30 26.1** | **+0.7** |
| | 0.4nm,0.8s,baz=301,slow=7.5,SNR=2.9 | | | | | | |
| **SONM** | **Songino Array** | **47.57** | **7** | P | **P** | **10 31 09.2** | **+1.9** |
| | 0.5nm,0.6s,baz=196,slow=8.5,SNR=3.8 | | | | | | |
| SONM | | | | pP | **pP** | **10 31 17.3** | **+1.2** |
| | 0.7nm,0.5s,baz=191,slow=9.7,SNR=4.1 | | | | | | |
| SONM | | | | PcP | **PcP** | **10 32 37.4** | **+0.4** |
| | 0.4nm,0.3s,baz=171,slow=5.5,SNR=4.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **48.05** | **345** | P | **P** | **10 31 09.7** | **-1.2** |
| | 0.7nm,0.6s,baz=161,slow=7.9,SNR=7.3 | | | | | | |
| MKAR | | | | pP | **pP** | **10 31 18.2** | **-1.5** |
| | 1.1nm,0.5s,baz=161,slow=8.4,SNR=6.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **54.29** | **350** | P | **P** | **10 31 56.6** | **-0.9** |
| | 1.1nm,0.4s,baz=181,slow=8.6,SNR=6.8 | | | | | | |
| ZALV | | | | pP | **pP** | **10 32 04.9** | **-1.6** |
| | 2.4nm,0.4s,baz=172,slow=6.9,SNR=8.1 | | | | | | |
| **H09N1** | **TRISTAN DA CUN** | **06.64** | **231** | T | T | 12 34 16.5 | |
| | SNR=5.5 | |

*s-maj=32.6km s-min=10.5km az=67.0*

**ISC 24 10:39:24.5**±0.8,**33°15N**±0'07,**139°50E**±0'09,**h185**km±6km, **n30,**σ**0965/35,mb3.5/10,Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JHJ** | **Hachijo jima 2** | **0.24** | **97** | P | **Pn** | **10 39 48.9** | **-0.2** |
| | 45nm,0.3s,baz=132,slow=21,SNR=78 | | | | | | |
| JHJ | | | | S | **Sn** | **10 40 08.8** | **+0.9** |
| | 93nm,0.3s,baz=80,slow=21,SNR=13 | | | | | | |
| **JHCJ** | **Hachijojimakas** | **0.26** | **107** | P | **Pn** | **10 39 49.0** | **-0.1** |
| JHCJ | | | | *e*S | **Sn** | **10 40 08.1** | **+0.1** |
| **JHJ2** | **Mitsune** | **0.27** | **98** | P | **Pn** | **10 39 48.8** | **-0.3** |
| JHJ2 | | | | S | **Sn** | **10 40 08.1** | **+0.1** |
| **JIZS** | **Izushimoda** | **1.65** | **342** | P | **Pn** | **10 39 58.2** | **-0.1** |
| JIZS | | | | *e*S | **Sn** | **10 40 23.4** | **-1.3** |
| **TK02** | **Tokai 2** | **1.66** | **299** | P | **Pn** | **10 39 58.1** | **-0.1** |
| **TK04** | **Tokai 4** | **1.83** | **313** | P | **Pn** | **10 40 00.2** | **+0.2** |
| **BSO1** | **Boso 1** | **1.94** | **39** | P | **Pn** | **10 40 00.6** | **-0.1** |
| BSO1 | | | | X | | 10 40 28.8 | |
| **JOD2** | **Odawara 2** | **2.14** | **351** | P | **Pn** | **10 40 03.4** | **0.0** |
| JOD2 | | | | *e*S | **Sn** | **10 40 34.1** | **+0.3** |
| **TTO2** | **TONANKAI O.B.S** | **2.15** | **286** | P | **Pn** | **10 40 03.2** | **0.0** |
| **SHZ3** | **Shizuoka 3** | **2.19** | **331** | P | **Pn** | **10 40 04.4** | **+0.3** |
| SHZ3 | | | | S | **Sn** | **10 40 35.1** | **+0.2** |
| **TTO1** | **TONANKAI O.B.S** | **2.32** | **283** | P | **Pn** | **10 40 05.1** | **0.0** |
| **JYN** | **Shimob** | **2.48** | **342** | P | **Pn** | **10 40 07.7** | **+0.5** |
| **JIE** | **Ise** | **2.64** | **299** | P | **Pn** | **10 40 08.8** | **-0.3** |
| **JRY** | **Ryogami san** | **2.91** | **350** | P | **Pn** | **10 40 13.0** | **+0.8** |
| JRY | | | | S | **Sn** | **10 40 48.4** | **-1.2** |
| **MJAR** | **Matsushiro Arr** | **3.55** | **343** | P | **Pn** | **10 40 19.7** | **-0.4** |
| | 0.5nm,0.3s,baz=162,slow=12,SNR=6.1 | | | | | | |
| MJAR | | | | S | **Sn** | **10 41 03.9** | **+0.2** |
| | 0.8nm,0.3s,baz=153,slow=11,SNR=4.3 | | | | | | |
| **KSRS** | **Korea Array** | **10.39** | **298** | P | **Pn** | **10 41 50.5** | **+1.5** |
| | 0.1nm,0.3s,baz=97,slow=12,SNR=3.8 | | | | | | |
| **KLR** | **Kul'dur** | **17.08** | **342** | P | **P** | **10 43 10.2** | **-0.9** |
| | 0.0nm,0.3s,baz=157,slow=15,SNR=6.5 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **27.84** | **112** | T | T | 11 14 20.0 | |
| | baz=304,slow=74 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **27.84** | **112** | T | T | 11 14 20.4 | |
| | baz=304 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **27.85** | **112** | T | T | 11 14 14.6 | |
| | baz=304,slow=74 | | | | | | |
| **SONM** | **Songino Array** | **28.88** | **310** | P | **P** | **10 45 06.5** | **+0.5** |
| | 0.2nm,0.4s,baz=123,slow=7.1,SNR=2.6 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **43.48** | **315** | P | **P** | **10 47 09.8** | **+0.6** |
| | 0.7nm,0.4s,baz=108,slow=8.5,SNR=3.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.96** | **305** | P | **P** | **10 47 21.5** | **+0.3** |
| | 0.5nm,0.3s,baz=85,slow=9.6,SNR=16 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **47.25** | **311** | P | **P** | **10 47 39.2** | **+0.4** |
| | 1.2nm,0.5s,baz=89,slow=7.5,SNR=13 | | | | | | |
| **BVAR** | **Borovoye Array** | **52.09** | **314** | P | **P** | **10 48 16.3** | **+0.9** |
| | 1.4nm,0.4s,baz=102,slow=7.1,SNR=6.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **53.02** | **186** | P | **P** | **10 48 21.5** | **-1.0** |
| | 0.4nm,0.4s,baz=1.4,slow=7.6,SNR=7.6 | | | | | | |
| **ASAR** | **Alice Springs** | **56.75** | **186** | P | **P** | **10 48 49.0** | **-0.3** |
| | 0.5nm,0.9s,baz=6.4,slow=6.3,SNR=6.6 | | | | | | |
| **FINES** | **FINESS Array B** | **71.52** | **332** | P | **P** | **10 50 24.7** | **-0.1** |
| | 2.5nm,0.8s,baz=66,slow=4.7,SNR=4.2 | | | | | | |
| **NOA** | **NORSAR Array B** | **77.15** | **337** | P | **P** | **10 50 56.2** | **-1.3** |
| | 1.2nm,0.8s,baz=48,slow=8.7,SNR=2.5 | | | | | | |
| **TXAR** | **Lajitas Array** | **93.75** | **51** | P | **P** | **10 52 21.5** | **+0.7** |
| | 0.1nm,0.4s,baz=346,slow=6.2,SNR=4.0 | | | | | | |

*BJI **24** 11:12:14.3,53°00N×173°74W,h181km,mb4.4/13, mB5.0/8*

*NEIC **24** 11:12:16.5±0.2,52°82N×173°93W,h182km±2km,mb4.5/73, Error ellipse: s-maj=5.8km s-min=3.1km az=148.0*

*IDC **24** 11:12:26.6±5.3,53°33N×172°88W,h232km±24km,mb3.8/9, mb1 4.1/11,mb1mx3.4/60,mbtmp4.5/11,Error ellipse: s-maj=60.2km s-min=25.1km az=65.0*

**ISC 24 11:12:17.1**±0.6,**52°6N**±0'1×**173°77W**±0'05,**h200**km,**n345,** σ**1842/360,mb4.4/64,Andreanof Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KOKV** | **Korovin Volcan** | **0.32** | **230** | P | **Pn** | **11 12 41.7** | **-2.0** |
| **KOFP** | **Korovin Flat P** | **0.35** | **215** | P | **Pn** | **11 12 41.7** | **-2.1** |
| **KOKL** | **Mount Kliuchef** | **0.36** | **228** | P | **Pn** | **11 12 41.6** | **-2.2** |
| **ATKA** | **Atka Island** | **0.45** | **216** | P | **Pn** | **11 12 41.5** | **-2.5** |
| ATKA | | | | S | **Sn** | **11 13 00.8** | **-3.9** |
| **GSTR** | **Great Sitkin T** | **1.48** | **252** | P | **Pn** | **11 12 48.5** | **-2.1** |
| **GSMY** | **Great Sitkin M** | **1.50** | **250** | P | **Pn** | **11 12 48.6** | **-2.1** |
| **GSTD** | **Great Sitkin T** | **1.54** | **252** | P | **Pn** | **11 12 48.8** | **-2.4** |
| GSTD | | | | S | **Sn** | **11 13 12.7** | **-5.0** |
| **GSCK** | **Great Sitkin C** | **1.57** | **250** | P | **Pn** | **11 12 49.2** | **-2.2** |
| **ADAG** | **Mount Adagdak** | **1.84** | **253** | P | **Pn** | **11 12 51.9** | **-2.0** |
| **KIRH** | **Kanaga Island** | **2.15** | **253** | P | **Pn** | **11 12 55.4** | **-1.7** |
| **KIKV** | **Kanaga Island** | **2.20** | **253** | P | **Pn** | **11 12 55.8** | **-1.9** |
| **KICM** | **Kanaga Island** | **2.20** | **254** | P | **Pn** | **11 12 55.9** | **-1.7** |
| **TAPA** | **Tanaga Point A** | **2.60** | **255** | P | **Pn** | **11 13 00.4** | **-1.7** |
| **TAFL** | **Tanaga Flats** | **2.67** | **254** | P | **Pn** | **11 13 01.4** | **-1.4** |
| **TAFP** | **Tanaga Falls P** | **2.67** | **257** | P | **Pn** | **11 13 01.4** | **-1.5** |
| TAFP | | | | S | **Sn** | **11 13 35.5** | **-3.2** |
| **NIKH** | **Nikolski High** | **3.02** | **80** | P | **Pn** | **11 13 05.7** | **-1.1** |
| NIKH | | | | S | **Sn** | **11 13 43.2** | **-2.4** |
| **GAEA** | **Gareloi East** | **3.16** | **258** | P | **Pn** | **11 13 07.4** | **-1.2** |
| **GALAA** | **Gareloi Lava P** | **3.18** | **257** | P | **Pn** | **11 13 07.4** | **-1.4** |
| **OKWE** | **Okmok W'ng Wal** | **3.46** | **73** | P | **Pn** | **11 13 11.2** | **-0.9** |
| **MGOD** | **Makushin Gods** | **4.33** | **71** | P | **Pn** | **11 13 22.4** | **-0.5** |
| **MREP** | **Makushin Rep't** | **4.41** | **71** | P | **Pn** | **11 13 23.4** | **-0.5** |
| **MSW** | **Makushin Switc** | **4.41** | **69** | P | **Pn** | **11 13 23.1** | **-0.8** |
| **ZRO** | **Akutan Zero** | **4.92** | **69** | P | **Pn** | **11 13 30.0** | **-0.2** |
| **AHB** | **Akutan Harbor** | **5.01** | **69** | P | **Pn** | **11 13 30.9** | **-0.6** |
| **AKUT** | **Akutan** | **5.04** | **69** | *e*Pn | **Pn** | **11 13 31.3** | **-0.5** |
| AKUT | | | | *e*Sn | **Sn** | **11 14 30.0** | **-0.9** |
| **WESE** | **West Dahl East** | **5.80** | **67** | P | **Pn** | **11 13 41.1** | **-0.6** |
| **ISLZ** | **Isanotski Laza** | **6.36** | **66** | P | **Pn** | **11 13 48.0** | **-0.9** |
| **FALS** | **False Pass** | **6.56** | **65** | P | **Pn** | **11 13 50.7** | **-0.7** |
| **DRIA** | **Deer Island** | **7.23** | **66** | P | **Pn** | **11 13 58.5** | **-1.6** |
| **DT1** | **Dutton Round H** | **7.26** | **65** | P | **Pn** | **11 13 58.9** | **-1.6** |
| **SDPT** | **Sand Point** | **8.32** | **65** | *e*Pn | **Pn** | **11 14 12.2** | **-2.1** |
| **CHGN** | **Chignik** | **9.70** | **61** | *e*Pn | **Pn** | **11 14 29.9** | **-2.2** |
| **OHAK** | **Old Harbor** | **12.66** | **60** | *e*Pn | **Pn** | **11 15 05.9** | **-4.0** |
| **SVW2** | **Sparrevohn** | **13.08** | **42** | *e*Pn | **Pn** | **11 15 14.1** | **-1.2** |
| **KDAK** | **Kodiak Island** | **13.16** | **58** | P | **Pn** | **11 15 12.4** | **-3.9** |
| | 4.5nm,0.3s,baz=167,slow=3.0,SNR=95 | | | | | | |
| KDAK | | | | S | S | 11 17 28.9 | -14 |
| | 0.2nm,0.3s,baz=47,slow=20,SNR=2.8 | | | | | | |
| **KDAK** | **Kodiak Island** | **13.16** | **58** | *e*Pn | **Pn** | **11 15 14.0** | **-2.2** |
| KDAK | | | | S | S | 11 17 28.9 | -14 |
| **RSO** | **Redoubt South** | **13.99** | **47** | *e*P | **P** | **11 15 27.9** | **-0.7** |
| **CNPM** | **China Poot** | **14.34** | **52** | *e*Pn | **P** | **11 15 31.0** | **-1.4** |
| **BRLK** | **Bradley Lake** | **14.59** | **51** | *e*Pn | **P** | **11 15 33.0** | **-2.1** |
| **SPU** | **Mount Spurr** | **14.61** | **45** | *e*Pn | **P** | **11 15 34.9** | **-0.5** |
| **PPLA** | **Purkeypile** | **15.40** | **39** | *e*Pn | **P** | **11 15 44.5** | **+0.3** |
| | 24nm,0.8s | | | | | | |
| **RC01** | **Rabbit Creek A** | **15.60** | **47** | *e*Pn | **P** | **11 15 45.6** | **-0.6** |
| | 40nm,1.7s | | | | | | |
| **KTH** | **Kantishna Hill** | **16.24** | **38** | *e*P | **Pn** | **11 15 52.5** | **-1.5** |
| | 49nm,0.7s | | | | | | |
| **TRF** | **Thorofare Moun** | **16.43** | **39** | *e*P | **Pn** | **11 15 55.2** | **-1.1** |
| | 19nm,1.0s | | | | | | |
| **SML** | **Sawmill** | **16.50** | **46** | *e*P | **Pn** | **11 15 56.0** | **-1.1** |
| | 26nm,1.3s | | | | | | |
| **BPAW** | **Bear Paw Mtn.** | **16.51** | **37** | *e*P | **Pn** | **11 15 55.9** | **-1.2** |
| | 34nm,0.4s | | | | | | |
| **IMAR** | **Indian Mountai** | **16.78** | **29** | *e*P | **Pn** | **11 15 58.5** | **-1.8** |
| **SCM** | **Sheep Creek Mo** | **16.95** | **46** | *e*P | **Pn** | **11 16 00.7** | **-1.8** |
| | 13nm,0.8s | | | | | | |
| **RND** | **Reindeer** | **16.97** | **41** | *e*P | **Pn** | **11 16 00.6** | **-2.1** |
| | 38nm,0.6s | | | | | | |
| **FID** | **Port Fidalgo** | **16.98** | **50** | *e*P | **Pn** | **11 16 01.2** | **-1.6** |
| | 52nm,1.6s | | | | | | |
| **MCK** | **McKinley** | **17.09** | **39** | *e*P | **Pn** | **11 16 02.6** | **-1.4** |
| | 28nm,0.6s | | | | | | |
| **MLY** | **Manley** | **17.13** | **34** | *e*P | **Pn** | **11 16 03.0** | **-1.5** |
| | 16nm,0.4s | | | | | | |
| **DHY** | **Denali Highway** | **17.42** | **43** | *e*P | **Pn** | **11 16 05.8** | **-2.3** |
| | 39nm,0.6s | | | | | | |
| **DIV** | **Divide** | **17.42** | **50** | *e*P | **Pn** | **11 16 05.7** | **-2.4** |
| | 52nm,2.0s | | | | | | |
| **KLU** | **Klutina** | **17.46** | **48** | *e*P | **Pn** | **11 16 06.0** | **-2.5** |
| | 13nm,1.0s | | | | | | |
| **BMRM** | **Bremner River** | **17.93** | **51** | *e*P | **Pn** | **11 16 13.1** | **-0.8** |
| **CCB** | **Clear Creek Bu** | **17.98** | **38** | *e*P | **P** | **11 16 10.3** | **-1.9** |
| | 18nm,0.7s | | | | | | |
| **MDM** | **Murphy Dome** | **17.98** | **36** | *e*P | **Pn** | **11 16 10.9** | **-3.5** |
| | 24nm,1.0s | | | | | | |
| **COLA** | **College** | **18.07** | **37** | *e*P | **Pn** | **11 16 13.2** | **-2.3** |
| | 28nm,0.7s | | | | | | |
| **HARP** | **HAARP** | **18.11** | **46** | *e*P | **Pn** | **11 16 13.7** | **-2.3** |
| | 31nm,0.5s | | | | | | |
| **PAX** | **Paxson** | **18.17** | **44** | *e*P | **Pn** | **11 16 13.9** | **-2.9** |
| | 18nm,0.8s | | | | | | |
| **HDA** | **Harding Lake** | **18.18** | **39** | *e*P | **P** | **11 16 13.0** | **-1.5** |
| | 50nm,1.0s | | | | | | |
| **IL1** | **Eielson Array** | **18.38** | **38** | *e*P | **P** | **11 16 13.7** | **-2.9** |
| **ILAR** | **Eielson Array** | **18.38** | **38** | P | **P** | **11 16 14.2** | **-2.4** |
| | 1.6nm,0.3s,baz=237,slow=9.5,SNR=84 | | | | | | |
| ILAR | | | | ScP | **ScP** | **11 23 53.6** | **-0.4** |
| | 0.0nm,0.3s,baz=275,slow=3.9,SNR=4.8 | | | | | | |
| **ILB** | **Eielson Array** | **18.38** | **38** | *e*P | **P** | **11 16 14.3** | **-2.4** |
| **COLD** | **Coldfoot** | **18.67** | **29** | *e*P | **Pn** | **11 16 19.7** | **-2.7** |
| | 12nm,0.8s | | | | | | |
| **MENT** | **Mentasta** | **18.91** | **45** | *e*P | **Pn** | **11 16 22.3** | **-3.1** |
| | 27nm,1.4s | | | | | | |
| **DOT** | **Dot Lake** | **19.02** | **43** | *e*P | **Pn** | **11 16 23.0** | **-3.6** |
| | 142nm,0.6s | | | | | | |
| **FYU** | **Fort Yukon** | **19.88** | **34** | *e*P | **P** | **11 16 31.5** | **-1.1** |
| | 39nm,1.4s | | | | | | |
| **YKU2** | **Yakutat** | **20.10** | **56** | *e*P | Pn | 11 16 35.8 | -3.8 |
| | 3μm,1.3s | | | | | | |
| **EGAK** | **Eagle** | **20.61** | **41** | *e*P | **P** | **11 16 39.7** | **-0.8** |
| | 24nm,0.7s | | | | | | |
| **DAWY** | **Dawson** | **21.11** | **44** | *e*P | **P** | **11 16 45.2** | **-0.6** |
| | 12nm,0.6s | | | | | | |
| **WRAK** | **Wrangell Islan** | **24.09** | **64** | *e*P | **P** | **11 17 14.7** | **+0.8** |
| **INK** | **Inuvik** | **24.70** | **35** | P | **P** | **11 17 18.5** | **-0.8** |
| | 6.2nm,0.5s,baz=255,slow=9.1,SNR=50 | | | | | | |
| **INK** | **Inuvik** | **24.70** | **35** | *e*P | **P** | **11 17 18.8** | **-0.5** |
| | 7.1nm,0.6s | | | | | | |
| **BBB** | **Bella Bella** | **27.52** | **72** | P | **P** | **11 17 46.6** | **+1.9** |
| | 18nm,0.9s,baz=292,slow=7.5,SNR=3.9 | | | | | | |
| **LLLB** | **Lillooet** | **31.73** | **72** | *e*P | **P** | **11 18 23.9** | **+1.9** |
| | 10.0nm,0.6s | | | | | | |
| **YKA** | **Yellowknife Ar** | **32.13** | **49** | P | **P** | **11 18 24.2** | **-1.0** |
| | 0.6nm,0.4s,baz=282,slow=7.7,SNR=33 | | | | | | |
| YKA | | | | ScP | **ScP** | **11 24 32.5** | **-0.7** |
| | 0.2nm,0.5s,baz=290,slow=3.5,SNR=5.8 | | | | | | |
| **B08A** | **Colville Reser** | **34.21** | **75** | *e*P | **P** | **11 18 44.8** | **+1.4** |
| | 24nm,0.6s | | | | | | |
| **G05D** | **Wamic, OR** | **34.58** | **81** | P | **P** | **11 18 48.1** | **+1.6** |
| | baz=302 | | | | | | |
| **I04A** | **Tendick Farm,** | **34.69** | **84** | P | **P** | **11 18 49.2** | **+1.6** |
| | baz=304 | | | | | | |
| **HAWA** | **Hanford** | **35.05** | **78** | *e*P | **P** | **11 18 52.4** | **+1.8** |
| | 6.8nm,0.6s | | | | | | |
| **C09A** | **Chrisman Ranch** | **35.10** | **75** | *e*P | **P** | **11 18 52.2** | **+1.2** |
| | 14nm,0.6s | | | | | | |
| **NEW** | **Newport** | **35.56** | **74** | P | **P** | **11 18 56.0** | **+1.1** |
| | baz=299,SNR=24 | | | | | | |
| **J05D** | **Fort Rock, OR** | **35.68** | **84** | P | **P** | **11 18 58.0** | **+1.9** |
| | baz=304 | | | | | | |
| **E09A** | **Wood Farm, Sta** | **35.82** | **77** | *e*P | **P** | **11 18 59.0** | **+1.9** |
| | 8.3nm,1.1s | | | | | | |
| **N02D** | **Trinity Center** | **36.11** | **88** | P | **P** | **11 19 02.0** | **+2.2** |
| | baz=307 | | | | | | |
| **M04C** | **Macdoel** | **36.17** | **86** | P | **P** | **11 19 02.4** | **+2.1** |
| | baz=306 | | | | | | |
| **F10A** | **Beach Ranch, E** | **36.64** | **77** | *e*P | **P** | **11 19 05.5** | **+1.3** |
| | 35nm,2.0s | | | | | | |
| **MOD** | **Modoc Plateau** | **37.03** | **85** | *e*P | **P** | **11 19 09.7** | **+2.1** |
| | 8.2nm,1.4s | | | | | | |
| **O03D** | **Paynes Creek** | **37.07** | **88** | P | **P** | **11 19 10.2** | **+2.4** |
| | baz=308 | | | | | | |
| **BSMT** | **Bassoo Peak** | **37.12** | **73** | *e*P | **P** | **11 19 09.9** | **+1.5** |
| **BMO** | **Blue Mountains** | **37.19** | **79** | *e*P | **P** | **11 19 10.2** | **+1.3** |
| | 2.1nm,0.4s | | | | | | |
| **J08A** | **Circle Bar Ran** | **37.31** | **82** | *e*P | **P** | **11 19 12.4** | **+2.6** |
| | 3.8nm,1.0s | | | | | | |
| **JTMT** | **Jette** | **37.47** | **73** | *e*P | **P** | **11 19 12.3** | **+1.1** |
| | 13nm,0.9s | | | | | | |
| **WVOR** | **Wild Horse Val** | **37.74** | **83** | *e*P | **P** | **11 19 15.8** | **+2.3** |
| | 6.0nm,1.1s | | | | | | |
| **MSO** | **Missula** | **38.14** | **74** | P | **P** | **11 19 18.0** | **+1.3** |
| | baz=302,SNR=16 | | | | | | |
| **MSO** | **Missoula** | **38.14** | **74** | *e*P | **P** | **11 19 17.8** | **+1.0** |
| | 15nm,0.6s | | | | | | |
| **BEKR** | **Beckworth** | **38.21** | **88** | *e*P | **P** | **11 19 19.8** | **+2.3** |
| | 3.8nm,1.3s | | | | | | |
| **MFID** | **Camas Ranch** | **38.87** | **80** | *e*P | **P** | **11 19 24.7** | **+1.8** |
| | 2.1nm,0.6s | | | | | | |
| **PAHR** | **Pah Rah Range** | **38.90** | **87** | *e*P | **P** | **11 19 25.8** | **+2.5** |
| | 3.2nm,0.7s | | | | | | |
| **PNTR** | **Pine Nut** | **39.15** | **88** | *e*P | **P** | **11 19 28.4** | **+3.0** |
| | 9.9nm,0.6s | | | | | | |
| **YERR** | **Yerington** | **39.43** | **88** | *e*P | **P** | **11 19 30.2** | **+2.5** |
| | 3.7nm,0.9s | | | | | | |
| **HRY** | **Holter Researc** | **39.44** | **73** | *e*P | **P** | **11 19 28.8** | **+1.3** |
| **HLID** | **Hailey** | **39.64** | **79** | P | **P** | **11 19 31.0** | **+1.7** |
| | baz=305,SNR=6.9 | | | | | | |
| **HLID** | **Hailey** | **39.64** | **79** | *e*P | **P** | **11 19 30.6** | **+1.3** |
| | 3.6nm,0.9s | | | | | | |
| **MCMT** | **Mt Menzie Canyo** | **39.86** | **76** | *e*P | **P** | **11 19 32.6** | **+1.4** |
| **EGMT** | **Eagleton** | **39.95** | **70** | P | **P** | **11 19 32.6** | **+0.9** |
| | baz=302 | | | | | | |
| **EGMT** | **Eagleton** | **39.95** | **70** | *e*P | **P** | **11 19 32.4** | **+0.7** |
| | 7.1nm,0.7s | | | | | | |
| **BOZ** | **Bozeman (W)** | **40.16** | **74** | P | **P** | **11 19 34.4** | **+0.9** |
| | baz=304,SNR=18 | | | | | | |
| **CN2** | **Changchun** | **40.35** | **283** | *e*P | **P** | **11 19 36.0** | **+1.1** |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.5s | | | | | | |
| **NV01** | **Mina Array Sit** | **40.35** | **88** | *e*P | **P** | **11 19 36.6** | **+1.3** |
| **NVAR** | **Mina Array Bea** | **40.35** | **88** | P | **P** | **11 19 38.2** | **+2.9** |
| | 2.2nm,0.7s,baz=298,slow=7.6,SNR=14 | | | | | | |
| NVAR | | | | ScP | **ScP** | **11 25 04.3** | **0.0** |
| | 0.4nm,0.5s,baz=309,slow=4.8,SNR=3.8 | | | | | | |
| **MDPB** | **Devils Postpil** | **40.38** | **89** | *e*P | **P** | **11 19 38.4** | **+2.8** |
| | 4.1nm,0.9s | | | | | | |
| **QLMT** | **Earthquake Lak** | **40.70** | **75** | *e*P | **P** | **11 19 39.7** | **+1.6** |
| **YHH** | **Holmes Hill** | **41.06** | **75** | *e*P | **P** | **11 19 42.6** | **+1.5** |
| | 13nm,0.6s | | | | | | |
| **YMR** | **Madison River** | **41.06** | **75** | *e*P | **P** | **11 19 42.1** | **+1.1** |
| | 11nm,0.7s | | | | | | |
| **YNR** | **Norris Junctio** | **41.20** | **75** | *e*P | **P** | **11 19 43.9** | **+1.7** |
| | 9.4nm,0.9s | | | | | | |
| **YFT** | **Old Faithful** | **41.26** | **75** | *e*P | **P** | **11 19 44.8** | **+2.2** |
| | 9.2nm,0.8s | | | | | | |
| **H17A** | **Grant Village** | **41.45** | **75** | P | **P** | **11 19 45.6** | **+1.4** |
| | baz=305,SNR=11 | | | | | | |
| **H17A** | **Grant Village** | **41.45** | **75** | *e*P | **P** | **11 19 46.3** | **+2.1** |
| | 8.3nm,0.6s | | | | | | |
| **IMW** | **Indian Meadow** | **41.52** | **76** | *e*P | **P** | **11 19 46.4** | **+1.6** |
| | 5.5nm,1.0s | | | | | | |
| **VES** | **Vestal, Richgr** | **41.54** | **91** | P | **P** | **11 19 46.6** | **+1.9** |
| | baz=312 | | | | | | |
| **HVU** | **Hansel Valley** | **41.66** | **80** | *e*P | **P** | **11 19 47.5** | **+1.7** |
| | 4.1nm,0.5s | | | | | | |
| **RLMT** | **Red Lodge** | **41.80** | **73** | P | **P** | **11 19 48.1** | **+1.1** |
| | baz=305,SNR=14 | | | | | | |
| **RLMT** | **Red Lodge** | **41.80** | **73** | *e*P | **P** | **11 19 48.5** | **+1.5** |
| | 13nm,0.9s | | | | | | |
| **R11A** | **Troy Canyon, C** | **42.06** | **86** | P | **P** | **11 19 50.7** | **+1.6** |
| | baz=310 | | | | | | |
| **R11A** | **Troy Canyon, C** | **42.06** | **86** | *e*P | **P** | **11 19 51.3** | **+2.2** |
| | 2.1nm,0.8s | | | | | | |
| **FURC** | **Furnace Creek,** | **42.49** | **89** | P | **P** | **11 19 54.3** | **+1.9** |
| | baz=311 | | | | | | |
| **TPNV** | **Topopah Spring** | **42.55** | **88** | P | **P** | **11 19 55.1** | **+2.0** |
| | baz=311 | | | | | | |
| **TPNV** | **Topopah Spring** | **42.55** | **88** | *e*P | **P** | **11 19 54.6** | **+1.5** |
| | 5.8nm,0.8s | | | | | | |
| **DUG** | **Dugway, Tooele** | **42.59** | **82** | P | **P** | **11 19 54.8** | **+1.4** |
| | baz=308 | | | | | | |
| **DUG** | **Dugway, Tooele** | **42.59** | **82** | *e*P | **P** | **11 19 54.4** | **+1.0** |
| | 18nm,1.9s | | | | | | |
| **LAO** | **LASA Array** | **42.69** | **70** | P | **P** | **11 19 55.2** | **+1.2** |
| | baz=304 | | | | | | |
| **LAO** | **LASA Array** | **42.69** | **70** | *e*P | **P** | **11 19 54.5** | **+0.6** |
| | 10nm,0.6s | | | | | | |
| **BW06** | **Boulder Array** | **42.99** | **76** | *e*P | **P** | **11 19 57.9** | **+1.2** |
| | 9.1nm,0.8s | | | | | | |
| **PD31** | **Pinedale Array** | **42.99** | **76** | *e*P | **P** | **11 19 57.9** | **+1.2** |
| **PDAR** | **Pinedale Array** | **42.99** | **76** | P | **P** | **11 19 57.8** | **+1.2** |
| | 5.8nm,0.4s,baz=302,slow=4.2,SNR=86 | | | | | | |
| **PDAR** | **Pinedale Array** | **42.99** | **76** | *e*P | **P** | **11 19 57.7** | **+1.0** |
| **P17A** | **Butcher Ranch,** | **44.29** | **81** | *e*P | **P** | **11 20 09.1** | **+2.2** |
| | 14nm,0.7s | | | | | | |
| **GMRC** | **Granite Mounta** | **44.34** | **90** | P | **P** | **11 20 08.4** | **+1.1** |
| | baz=313 | | | | | | |
| **P18A** | **Preston Nutter** | **44.49** | **81** | *e*P | **P** | **11 20 12.1** | **+3.4** |
| | 101nm,0.3s | | | | | | |
| **SRU** | **San Rafael Swe** | **44.65** | **81** | *e*P | **P** | **11 20 12.5** | **+2.7** |
| | 7.0nm,0.7s | | | | | | |
| **K22A** | **Casper** | **44.86** | **75** | P | **P** | **11 20 11.4** | **0.0** |
| | baz=308 | | | | | | |
| **O20A** | **White River Ci** | **45.38** | **79** | P | **P** | **11 20 16.9** | **+1.4** |
| | baz=309,SNR=8.9 | | | | | | |
| **O20A** | **White River Ci** | **45.38** | **79** | *e*P | **P** | **11 20 16.8** | **+1.2** |
| | 7.7nm,0.6s | | | | | | |
| **RSSD** | **Black Hills** | **45.43** | **72** | P | **P** | **11 20 16.0** | **+0.1** |
| | baz=307 | | | | | | |
| **RSSD** | **Black Hills** | **45.43** | **72** | *e*P | **P** | **11 20 16.3** | **+0.4** |
| | 4.2nm,0.6s | | | | | | |
| **Y12C** | **Blythe** | **45.73** | **90** | P | **P** | **11 20 19.4** | **+1.3** |
| | baz=313 | | | | | | |
| **PV09** | **Paradox Valley** | **45.88** | **81** | *e*P | **P** | **11 20 21.4** | **+1.8** |
| **PV10** | **Paradox Valley** | **46.01** | **81** | *e*P | **P** | **11 20 22.9** | **+2.3** |
| **GLA** | **Glamis** | **46.02** | **91** | P | **P** | **11 20 21.4** | **+1.0** |
| | baz=314 | | | | | | |
| **N23A** | **Red Feather La** | **46.27** | **76** | P | **P** | **11 20 23.9** | **+1.3** |
| | baz=309 | | | | | | |
| **N23A** | **Red Feather La** | **46.27** | **76** | *e*P | **P** | **11 20 24.2** | **+1.6** |
| | 6.9nm,1.1s | | | | | | |
| **ULM** | **Lac du Bonnet** | **46.41** | **60** | P | **P** | **11 20 21.6** | **-1.6** |
| | 1.2nm,0.3s,baz=321,slow=8.3,SNR=9.2 | | | | | | |
| **PV01** | **Paradox Valley** | **46.45** | **81** | *e*P | **P** | **11 20 24.6** | **+0.6** |
| **WUAZ** | **Wupatki** | **46.46** | **86** | P | **P** | **11 20 25.6** | **+1.6** |
| | baz=312 | | | | | | |
| **MVCO** | **Mesa Verde** | **47.09** | **82** | P | **P** | **11 20 30.1** | **+1.2** |
| | baz=311 | | | | | | |
| **B32A** | **Ashes, Strandq** | **47.12** | **62** | P | **P** | **11 20 29.1** | **+0.4** |
| | baz=306 | | | | | | |
| **ISCO** | **Idaho Springs** | **47.16** | **77** | P | **P** | **11 20 30.7** | **+1.2** |
| | baz=310 | | | | | | |
| **S22A** | **4UR Ranch, Cre** | **47.75** | **80** | P | **P** | **11 20 34.0** | **-0.1** |
| | baz=311 | | | | | | |
| **B34A** | **Aery, Baudette** | **48.09** | **61** | P | **P** | **11 20 35.1** | **-1.1** |
| | baz=307 | | | | | | |
| **SDCO** | **Great Sand Dun** | **48.55** | **79** | P | **P** | **11 20 41.4** | **+1.2** |
| | baz=311,SNR=5.3 | | | | | | |
| **SDCO** | **Great Sand Dun** | **48.55** | **79** | *e*P | **P** | **11 20 42.0** | **+1.8** |
| | 8.9nm,1.5s | | | | | | |
| **OGNE** | **Ogallala** | **48.55** | **74** | P | **P** | **11 20 41.0** | **+1.1** |
| | baz=310 | | | | | | |
| **D34A** | **Park Rapids** | **48.63** | **63** | P | **P** | **11 20 39.6** | **-0.8** |
| | baz=308 | | | | | | |
| **TUC** | **Tucson** | **49.00** | **88** | P | **P** | **11 20 45.3** | **+1.9** |
| | baz=314 | | | | | | |
| **KSCO** | **Kaye Shedlock'** | **49.44** | **76** | P | **P** | **11 20 47.8** | **+1.1** |
| | baz=311 | | | | | | |
| **MHTCO** | **State Highway** | **49.44** | **79** | *e*P | **P** | **11 20 49.2** | **+2.4** |
| | 4.9nm,0.9s | | | | | | |
| **T25A** | **Trinidad** | **49.60** | **79** | P | **P** | **11 20 49.2** | **+1.2** |
| | baz=312,SNR=6.2 | | | | | | |
| **T25A** | **Trinidad** | **49.60** | **79** | *e*P | **P** | **11 20 50.4** | **+2.3** |
| | 9.4nm,1.1s | | | | | | |
| **F35A** | **Swanville** | **49.72** | **64** | P | **P** | **11 20 48.1** | **-0.5** |
| | baz=309 | | | | | | |
| **ANMO** | **Albuquerque** | **49.83** | **83** | P | **P** | **11 20 50.3** | **+0.5** |
| | baz=313 | | | | | | |
| **F36A** | **Milaca** | **50.29** | **64** | P | **P** | **11 20 52.3** | **-0.6** |
| | baz=309 | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **50.32** | **288** | *e*P | **P** | **11 20 54.3** | **+1.0** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,11nm,0.9s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,99nm,5.7s | | | | | | |
| **FRB** | **Frobisher Bay** | **50.35** | **34** | P | **P** | **11 20 52.0** | **-0.9** |
| | 9.9nm,0.8s,baz=139,slow=9.2,SNR=17 | | | | | | |
| **BGNE** | **Belgrade** | **50.51** | **71** | P | **P** | **11 20 54.8** | **+0.2** |
| | baz=310 | | | | | | |
| **BGNE** | **Belgrade** | **50.51** | **71** | *e*P | **P** | **11 20 55.0** | **+0.4** |
| | 25nm,0.8s | | | | | | |
| **K34A** | **Le Mars** | **50.87** | **68** | P | **P** | **11 20 57.1** | **-0.1** |
| | baz=310 | | | | | | |
| **H36A** | **Jessenland, He** | **50.88** | **65** | P | **P** | **11 20 57.2** | **-0.1** |
| | baz=310 | | | | | | |
| **F38A** | **Pierce - Schro** | **51.13** | **63** | P | **P** | **11 20 58.9** | **-0.2** |
| | baz=310 | | | | | | |
| **L34A** | **Svends

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | baz=313 | | | | | | | |
| T37A | Cheneyville 18 | 55.23 | 73 | P | | P | 11 21 28.5 | -0.6 |
| | baz=314,SNR=5.9 | | | | | | | |
| M42A | Sheffield | 55.23 | 66 | P | | P | 11 21 28.4 | -0.6 |
| | baz=313 | | | | | | | |
| P40A | Paris | 55.24 | 69 | P | | P | 11 21 28.5 | -0.6 |
| | baz=313,SNR=6.0 | | | | | | | |
| TX31 | Lajitas Ar. Si | 55.43 | 86 | eP | | P | 11 21 32.5 | +1.7 |
| TXAR | Lajitas Array | 55.43 | 86 | P | | P | 11 21 32.0 | +1.3 |
| | 1.4nm,0.7s,baz=294,slow=5.2,SNR=13 | | | | | | | |
| TXAR | | | | ScP | | ScP | 11 26 08.0 | +0.3 |
| | 0.8nm,0.9s,baz=303,slow=5.8,SNR=4.8 | | | | | | | |
| W35A | Tecumseh | 55.43 | 76 | P | | P | 11 21 31.2 | +0.6 |
| | baz=314 | | | | | | | |
| W35A | Tecumseh | 55.43 | 76 | eP | | P | 11 21 31.5 | +0.9 |
| | 13nm,1.0s | | | | | | | |
| S38A | Stockton | 55.47 | 72 | P | | P | 11 21 29.5 | -1.3 |
| | baz=314,SNR=6.2 | | | | | | | |
| R39A | Chumby, Stover | 55.50 | 70 | P | | P | 11 21 30.0 | -1.1 |
| | baz=314 | | | | | | | |
| O41A | Passleys Farm, | 55.51 | 67 | P | | P | 11 21 30.0 | -1.0 |
| | baz=313 | | | | | | | |
| ABTX | Abilene, Hawle | 55.54 | 80 | P | | P | 11 21 31.9 | +0.5 |
| | baz=315 | | | | | | | |
| V36A | Jenks | 55.54 | 75 | P | | P | 11 21 30.7 | -0.7 |
| | baz=314 | | | | | | | |
| TUL1 | Leonard | 55.55 | 74 | P | | P | 11 21 31.3 | -0.1 |
| | baz=314 | | | | | | | |
| Q40A | Laux Farm, Aux | 55.59 | 69 | P | | P | 11 21 31.1 | -0.6 |
| | baz=313 | | | | | | | |
| U37A | Salina | 55.60 | 73 | P | | P | 11 21 31.8 | 0.0 |
| | baz=314,SNR=5.2 | | | | | | | |
| T38A | Diamond | 55.65 | 72 | P | | P | 11 21 31.7 | -0.4 |
| | baz=314 | | | | | | | |
| P41A | Barry, Barry | 55.70 | 68 | P | | P | 11 21 31.9 | -0.6 |
| | baz=313 | | | | | | | |
| GLMI | Grayling | 55.74 | 59 | P | | P | 11 21 32.4 | -0.2 |
| | baz=313 | | | | | | | |
| S39A | Bolivar | 55.76 | 71 | P | | P | 11 21 31.5 | -1.4 |
| | baz=314 | | | | | | | |
| W36A | Wetumka | 55.82 | 75 | P | | P | 11 21 33.8 | +0.4 |
| | baz=314 | | | | | | | |
| X35A | Drake | 55.89 | 76 | P | | P | 11 21 33.8 | -0.1 |
| | baz=315 | | | | | | | |
| V37A | Hulbert | 55.95 | 74 | P | | P | 11 21 34.1 | -0.1 |
| | baz=314 | | | | | | | |
| R40A | Maddies Statio | 55.96 | 70 | P | | P | 11 21 33.0 | -1.3 |
| | baz=314,SNR=9.3 | | | | | | | |
| U38A | Gravette | 56.01 | 73 | P | | P | 11 21 34.1 | -0.5 |
| | baz=314 | | | | | | | |
| Q41A | Truxton | 56.10 | 69 | P | | P | 11 21 34.8 | -0.5 |
| | baz=314 | | | | | | | |
| X36A | Centrahoma | 56.14 | 76 | P | | P | 11 21 36.1 | +0.4 |
| | baz=315 | | | | | | | |
| P42A | Winchester | 56.17 | 68 | P | | P | 11 21 34.9 | -0.9 |
| | baz=314 | | | | | | | |
| T39A | Clever | 56.19 | 72 | P | | P | 11 21 34.9 | -1.1 |
| | baz=314,SNR=9.5 | | | | | | | |
| Y35A | Marietta | 56.20 | 77 | P | | P | 11 21 36.3 | +0.2 |
| | baz=315 | | | | | | | |
| O43A | Sugar Creek Fa | 56.27 | 66 | P | | P | 11 21 35.9 | -0.6 |
| | baz=314 | | | | | | | |
| W37B | Quinton | 56.29 | 75 | P | | P | 11 21 36.9 | +0.2 |
| | baz=314 | | | | | | | |
| S40A | Lebanon | 56.30 | 71 | P | | P | 11 21 36.4 | -0.3 |
| | baz=314 | | | | | | | |
| V38A | Canehill | 56.39 | 73 | P | | P | 11 21 37.1 | -0.3 |
| | baz=314 | | | | | | | |
| R41A | Rosebud | 56.47 | 69 | P | | P | 11 21 36.9 | -0.9 |
| | baz=314 | | | | | | | |
| Q42A | Golden Eagle | 56.52 | 68 | P | | P | 11 21 37.9 | -0.3 |
| | baz=314 | | | | | | | |
| U39A | Green Forest | 56.57 | 72 | P | | P | 11 21 37.9 | -0.8 |
| | baz=314,SNR=5.0 | | | | | | | |
| P43A | Skaggs, Pawnee | 56.60 | 67 | P | | P | 11 21 37.9 | -0.8 |
| | baz=314 | | | | | | | |
| T40A | Mansfield | 56.60 | 71 | P | | P | 11 21 37.9 | -0.9 |
| | baz=314,SNR=5.7 | | | | | | | |
| Y36A | Durant | 56.65 | 76 | P | | P | 11 21 39.6 | +0.4 |
| | baz=315 | | | | | | | |
| CCM | Cathedral Cave | 56.71 | 69 | P | | P | 11 21 38.4 | -1.2 |
| | baz=314 | | | | | | | |
| X37A | Clayton | 56.71 | 75 | P | | P | 11 21 40.2 | +0.5 |
| | baz=315 | | | | | | | |
| X37A | Clayton | 56.71 | 75 | eP | | P | 11 21 40.6 | +1.0 |
| | 9.2nm,0.9s | | | | | | | |
| S41A | Jillco Farms, | 56.74 | 70 | P | | P | 11 21 38.7 | -1.2 |
| | baz=314,SNR=10 | | | | | | | |
| R42A | Luebbering | 56.81 | 69 | P | | P | 11 21 39.4 | -0.8 |
| | baz=314 | | | | | | | |
| V39A | Pettigrew | 56.85 | 73 | P | | P | 11 21 40.5 | -0.2 |
| | baz=314 | | | | | | | |
| W38A | Poteau | 56.88 | 74 | P | | P | 11 21 41.3 | +0.5 |
| | baz=315 | | | | | | | |
| JCT | Junction City | 56.95 | 82 | P | | P | 11 21 42.2 | +0.8 |
| | baz=316 | | | | | | | |
| U40A | Yellville | 56.95 | 72 | P | | P | 11 21 40.6 | -0.7 |
| | baz=314,SNR=6.1 | | | | | | | |
| Q43A | New Douglas | 56.98 | 68 | P | | P | 11 21 41.2 | -0.2 |
| | baz=314 | | | | | | | |
| Z36A | Blue Ridge | 57.00 | 77 | P | | P | 11 21 42.3 | +0.6 |
| | baz=315 | | | | | | | |
| T41A | Mountain View | 57.11 | 71 | P | | P | 11 21 41.3 | -1.1 |
| | baz=314 | | | | | | | |
| S42A | Caledonia | 57.16 | 69 | P | | P | 11 21 41.8 | -0.9 |
| | baz=314,SNR=5.2 | | | | | | | |
| O45A | Potomac | 57.18 | 65 | P | | P | 11 21 42.5 | -0.3 |
| | baz=314 | | | | | | | |
| P44A | Sand Creek, Wi | 57.22 | 67 | P | | P | 11 21 42.9 | -0.3 |
| | baz=314 | | | | | | | |
| W39A | Magazine | 57.22 | 74 | P | | P | 11 21 43.1 | -0.1 |
| | baz=315 | | | | | | | |
| V40A | Witts Springs | 57.36 | 72 | P | | P | 11 21 43.5 | -0.7 |
| | baz=315,SNR=11 | | | | | | | |
| T42A | Van Buren | 57.51 | 70 | P | | P | 11 21 43.7 | -1.5 |
| | baz=315 | | | | | | | |
| U41A | Viola | 57.51 | 71 | P | | P | 11 21 44.3 | -0.9 |
| | baz=315 | | | | | | | |
| X39A | Fountain Ranch | 57.51 | 74 | P | | P | 11 21 45.5 | +0.3 |
| | baz=315,SNR=5.4 | | | | | | | |
| W40A | Ferguson Farm, | 57.64 | 73 | P | | P | 11 21 45.8 | -0.3 |
| | baz=315 | | | | | | | |
| S43A | Fulton Ridge, | 57.71 | 69 | P | | P | 11 21 46.0 | -0.6 |
| | baz=315 | | | | | | | |
| V41A | Mountainview | 57.76 | 72 | P | | P | 11 21 46.1 | -0.8 |
| | baz=315,SNR=5.0 | | | | | | | |
| MIAR | Mount Ida | 57.80 | 74 | P | | P | 11 21 47.6 | +0.4 |
| | baz=315,SNR=5.3 | | | | | | | |
| MIAR | Mount Ida | 57.80 | 74 | eP | | P | 11 21 47.9 | +0.6 |
| | 6.6nm,0.8s | | | | | | | |
| U42A | Revenden | 57.89 | 71 | P | | P | 11 21 46.8 | -1.1 |
| | baz=315 | | | | | | | |
| Y39A | Lockesburg | 57.92 | 75 | P | | P | 11 21 48.5 | +0.4 |
| | baz=315 | | | | | | | |
| T43A | Greenville | 57.93 | 70 | P | | P | 11 21 47.4 | -0.7 |
| | baz=315,SNR=12 | | | | | | | |
| LZH | Lanzhou | 57.99 | 289 | eP | | P | 11 21 49.1 | +0.3 |
| LZH | | | | pP | | pP | 11 22 30.8 | -3.3 |
| LZH | | | | sP | | sP | 11 22 51.0 | -5.0 |
| LZH | | | | PP | | PP | 11 24 01.3 | +2.1 |
| LZH | | | | pmax | | pmax | | |
| | comp=Z,19nm,1.3s | | | | | | | |
| LZH | | | | pmax | | pmax | | |
| | comp=Z,62nm,7.4s | | | | | | | |
| O47A | Sheridan | 58.05 | 64 | P | | P | 11 21 47.5 | -1.4 |
| | baz=314 | | | | | | | |
| W41B | Gary Mavity, V | 58.13 | 73 | P | | P | 11 21 49.1 | -0.5 |
| | baz=315 | | | | | | | |
| V42A | Cord | 58.19 | 71 | P | | P | 11 21 49.7 | -0.2 |
| | baz=315 | | | | | | | |
| R45A | Skylar, Fairfi | 58.23 | 67 | P | | P | 11 21 49.5 | -0.7 |
| | baz=315 | | | | | | | |
| 237A | Washetta, Mont | 58.27 | 78 | P | | P | 11 21 50.9 | +0.3 |
| | baz=316 | | | | | | | |
| X40A | Basin Creek Fa | 58.27 | 74 | P | | P | 11 21 50.5 | 0.0 |
| | baz=315 | | | | | | | |
| T44A | Benton | 58.33 | 69 | P | | P | 11 21 50.0 | -0.8 |
| | baz=315 | | | | | | | |
| U43A | Rector | 58.36 | 70 | P | | P | 11 21 50.2 | -0.9 |
| | baz=315 | | | | | | | |
| X41A | Kaden, Bauxite | 58.45 | 73 | P | | P | 11 21 51.3 | -0.5 |
| | baz=315 | | | | | | | |
| S45A | Carrier Mills | 58.49 | 68 | P | | P | 11 21 51.1 | -0.8 |
| | baz=315 | | | | | | | |
| P47A | Martinsville | 58.52 | 65 | P | | P | 11 21 51.3 | -0.9 |
| | baz=315 | | | | | | | |
| Q47A | Bedord North L | 58.81 | 66 | P | | P | 11 21 53.6 | -0.6 |
| | baz=315 | | | | | | | |
| Z41A | Richland Creek | 59.16 | 75 | P | | P | 11 21 56.8 | +0.2 |
| | baz=316 | | | | | | | |
| R47A | Wooly Knot Far | 59.21 | 66 | P | | P | 11 21 56.6 | -0.3 |
| | baz=315 | | | | | | | |
| T46A | Princeton | 59.32 | 68 | P | | P | 11 21 57.4 | -0.3 |
| | baz=315 | | | | | | | |
| WCI | Wyandotte Cave | 59.38 | 66 | P | | P | 11 21 57.9 | -0.2 |
| | baz=315 | | | | | | | |
| X43A | Marvell | 59.39 | 72 | P | | P | 11 21 58.3 | +0.1 |
| | baz=316 | | | | | | | |
| T47A | Sharon Grove | 59.80 | 68 | P | | P | 11 22 00.9 | -0.1 |
| | baz=316 | | | | | | | |
| X44A | Crenshaw | 59.83 | 72 | P | | P | 11 22 01.4 | +0.2 |
| | baz=316 | | | | | | | |
| W45A | Hickory Valley | 59.92 | 71 | P | | P | 11 22 02.0 | +0.2 |
| | baz=316 | | | | | | | |
| S48A | Wiedeman Farm, | 59.92 | 66 | P | | P | 11 22 01.3 | -0.5 |
| | baz=316 | | | | | | | |
| WVT | Waverly | 60.00 | 69 | P | | P | 11 22 02.4 | 0.0 |
| | baz=316 | | | | | | | |
| OXF | Oxford | 60.25 | 71 | P | | P | 11 22 04.1 | +0.1 |
| | baz=316 | | | | | | | |
| OXF | Oxford | 60.25 | 71 | eP | | P | 11 22 04.3 | +0.3 |
| | 22nm,0.8s | | | | | | | |
| X45A | UM Field Stati | 60.32 | 71 | P | | P | 11 22 04.7 | +0.2 |
| | baz=316 | | | | | | | |
| U48A | Cassie Pea, Po | 60.46 | 68 | P | | P | 11 22 05.4 | -0.1 |
| | baz=316 | | | | | | | |
| X46A | Booneville | 60.69 | 71 | P | | P | 11 22 06.8 | -0.2 |
| | baz=316 | | | | | | | |
| V48A | Smith Brothers | 60.85 | 68 | P | | P | 11 22 08.1 | 0.0 |
| | baz=316 | | | | | | | |
| VBMS | Vicksburg | 61.25 | 74 | P | | P | 11 22 11.2 | +0.4 |
| | baz=317 | | | | | | | |
| WMQ | Urumqi | 61.25 | 305 | eP | | P | 11 22 12.4 | +1.6 |
| WMQ | | | | pP | | pP | 11 22 54.4 | -2.2 |
| WMQ | | | | sP | | sP | 11 23 14.3 | -4.0 |
| WMQ | | | | pmax | | pmax | | |
| | comp=Z,30nm,0.5s | | | | | | | |
| WMQ | | | | pmax | | pmax | | |
| | comp=Z,440nm,5.9s | | | | | | | |
| WMQ | | | | LR | | LR | | |
| | comp=N,130nm,18.7s | | | | | | | |
| WMQ | | | | LR | | LR | | |
| | comp=E,150nm,17.7s | | | | | | | |
| WMQ | | | | LR | | LR | | |
| | comp=Z,85nm,14.1s | | | | | | | |
| 244A | Avery, Jackson | 61.27 | 74 | P | | P | 11 22 11.8 | +0.8 |
| | baz=317 | | | | | | | |
| X48A | Hartselle | 61.65 | 70 | P | | P | 11 22 12.8 | -0.7 |
| | baz=317 | | | | | | | |
| 344A | Westbrook Farm | 61.67 | 75 | P | | P | 11 22 14.8 | +1.2 |
| | baz=317 | | | | | | | |
| 146A | Union | 61.80 | 72 | P | | P | 11 22 15.0 | +0.6 |
| | baz=317 | | | | | | | |
| Z47A | Carrollton | 61.96 | 71 | P | | P | 11 22 15.5 | -0.1 |
| | baz=317 | | | | | | | |
| Y48A | Jasper | 61.97 | 70 | P | | P | 11 22 15.2 | -0.4 |
| | baz=317 | | | | | | | |
| X49A | Woodville | 62.02 | 69 | P | | P | 11 22 15.6 | -0.3 |
| | baz=317 | | | | | | | |
| Z48A | Northport | 62.13 | 71 | P | | P | 11 22 16.4 | -0.3 |
| | baz=317 | | | | | | | |
| 544A | White Castle | 62.39 | 76 | P | | P | 11 22 19.0 | +0.6 |
| | baz=317 | | | | | | | |
| X50A | Fort Payne | 62.44 | 69 | P | | P | 11 22 18.4 | -0.4 |
| | baz=317 | | | | | | | |
| TKL | Tuckaleechee C | 62.63 | 66 | P | | P | 11 22 19.6 | -0.5 |
| | 2.4nm,0.8s,baz=346,slow=4.2,SNR=4.2 | | | | | | | |
| LRAL | Lakeview Retre | 62.70 | 71 | P | | P | 11 22 20.2 | -0.3 |
| | baz=317 | | | | | | | |
| Z49A | Columbiana | 62.85 | 70 | P | | P | 11 22 20.9 | -0.6 |
| | baz=317 | | | | | | | |
| 248A | Dixon Mills | 62.96 | 72 | P | | P | 11 22 22.6 | +0.4 |
| | baz=317 | | | | | | | |
| BRAL | Brewton | 64.03 | 72 | P | | P | 11 22 29.4 | +0.2 |
| | baz=318 | | | | | | | |
| KMSC | Kings Mountain | 64.37 | 65 | P | | P | 11 22 31.5 | +0.1 |
| | baz=318 | | | | | | | |
| TIGA | Tifton | 65.83 | 70 | P | | P | 11 22 41.2 | +0.4 |
| | baz=318 | | | | | | | |
| KSH | Kashi | 70.22 | 310 | eP | | P | 11 23 10.8 | +2.7 |
| KSH | | | | PcP | | PcP | 11 23 31.8 | +3.1 |
| KSH | | | | pP | | pP | 11 23 53.4 | -1.8 |
| KSH | | | | PP | | PP | 11 25 49.3 | +3.6 |
| KSH | | | | S | | S | 11 32 00.3 | -2.9 |
| KSH | | | | SKS | | SKSac | 11 32 45.8 | -4.3 |
| KSH | | | | ScS | | SKKSac | 11 32 48.0 | -2.2 |
| KSH | | | | SS | | SS | 11 36 38.3 | +1.8 |
| KSH | | | | pmax | | pmax | | |
| | comp=Z,1.0nm,0.4s | | | | | | | |
| KSH | | | | pmax | | pmax | | |
| | comp=Z,150nm,6.6s | | | | | | | |
| KSH | | | | LR | | LR | | |
| | comp=N,95nm,5.9s | | | | | | | |
| KSH | | | | LR | | LR | | |
| | comp=E,79nm,4.5s | | | | | | | |
| KSH | | | | LR | | LR | | |
| | comp=Z,260nm,6.8s | | | | | | | |

*VIE* ***24*** *11:13:46.7±1.2,45°.53N×10°.22E,h8km,mb2.1/8,ML2.5/12, Error ellipse: s-maj=7.1km s-min=4.4km az=37.0*
*CSEM* ***24*** *11:13:47.8±0.1,45°.60N×10°.19E,h10km,ML2.7/22,Error ellipse: s-maj=2.5km s-min=1.8km az=160.0*
*ROM* ***24*** *11:13:47.6±0.6,45°.57N×10°.18E,h7km±7km,Md2.4/15, Ml2.4/10,Error ellipse: s-maj=4.5km s-min=2.7km az=7.0*
*GEN* ***24*** *11:13:48.4,45°.64N×10°.26E,h5km,ML2.2*
*LDG* ***24*** *11:13:48.6±0.1,45°.64N×10°.25E,h2km,Ml2.5/11,Error ellipse: s-maj=3.0km s-min=2.5km az=161.0*

**ISC 24 11:13:48.1±1.0,45°.59N±0°.02×10°.18E±0°.02,h13km±8km, n95,σ0°86/142,2C,Northern Italy**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| MAGA | Magasa | 0.37 | 59 | Pg | | Pg | 11 13 54.9 | -0.6 |
| MAGA | | | | Sg | | Sb | 11 14 01.6 | -0.6 |
| | 343nm,0.5s | | | | | | | |
| MAGA | Magasa | 0.37 | 59 | Pg | | Pg | 11 13 54.9 | -0.6 |
| MAGA | | | | Sg | | Sb | 11 14 01.6 | -0.6 |
| | 343nm,0.5s | | | | | | | |
| BALD | Monte Baldo | 0.46 | 78 | ePg | | Pg | 11 13 57.2 | 0.0 |
| BALD | | | | eSg | | Sg | 11 14 03.6 | +0.2 |
| BALD | Monte Baldo | 0.46 | 78 | ePg | | Pg | 11 13 57.2 | 0.0 |
| BALD | | | | eSg | | Sg | 11 14 03.6 | +0.2 |
| RNI | Roncone | 0.50 | 38 | ePg | | Pg | 11 13 57.3 | -0.7 |
| RNI | | | | eSg | | Sg | 11 14 05.4 | +0.7 |
| MABI | Malga Bissina | 0.52 | 27 | Pg | | Pg | 11 13 57.6 | -0.8 |
| MABI | | | | Sg | | Sg | 11 14 05.4 | 0.0 |
| | 61nm,0.1s | | | | | | | |
| MABI | Malga Bissina | 0.52 | 27 | Pg | | Pg | 11 13 57.6 | -0.8 |
| MABI | | | | Sg | | Sg | 11 14 05.4 | 0.0 |
| | 61nm,0.1s | | | | | | | |
| ROVR | Rover¯¤ Verone | 0.63 | 84 | Pg | | Pg | 11 13 59.8 | -0.6 |
| | 217nm,0.2s | | | | | | | |
| ROVR | Rover¯¤ Verone | 0.63 | 84 | Pg | | Pg | 11 13 59.8 | -0.6 |
| | 217nm,0.2s | | | | | | | |
| MARN | Marana (Italy) | 0.73 | 86 | ePg | | Pg | 11 14 01.3 | -0.9 |
| MARN | Marana (Italy) | 0.73 | 86 | ePg | | Pg | 11 14 01.3 | -0.9 |
| MUGIO | Muggio | 0.86 | 293 | Pg | | Pg | 11 14 03.7 | -1.1 |
| MUGIO | | | | Sg | | Sb | 11 14 16.6 | +0.2 |
| MUGIO | Muggio | 0.86 | 293 | Pg | | Pg | 11 14 03.7 | -1.1 |
| MUGIO | | | | Sg | | Sb | 11 14 16.6 | +0.2 |
| NOVE | Novellara | 0.88 | 154 | Pg | | Pb | 11 14 05.1 | 0.0 |
| NOVE | Novellara | 0.88 | 154 | Pg | | Pb | 11 14 05.1 | 0.0 |
| BRMO | Bormio | 0.90 | 9 | Pg | | Pb | 11 14 05.6 | 0.0 |
| BRMO | | | | Sg | | Sb | 11 14 17.8 | +0.3 |
| | 30nm,0.4s | | | | | | | |
| BRMO | Bormio | 0.90 | 9 | Pg | | Pb | 11 14 05.6 | 0.0 |
| BRMO | | | | Sg | | Sb | 11 14 17.8 | +0.3 |
| | 30nm,0.4s | | | | | | | |
| CARE | Lago del Cares | 0.91 | 23 | ePg | | Pb | 11 14 06.1 | +0.2 |
| CARE | Lago del Cares | 0.91 | 23 | ePg | | Pb | 11 14 06.1 | +0.2 |
| PANI | Panarotta | 0.93 | 60 | ePg | | Pb | 11 14 06.6 | +0.4 |
| OZOL | Ozolo | 1.02 | 36 | ePg | | Pb | 11 14 08.0 | +0.4 |
| OZOL | Ozolo | 1.02 | 36 | ePg | | Pb | 11 14 08.0 | +0.4 |
| FUORN | Ofenpass-Fuorn | 1.03 | 3 | Pg | | Pg | 11 14 07.8 | -0.3 |
| FUORN | Ofenpass-Fuorn | 1.03 | 3 | Pg | | Pg | 11 14 07.8 | -0.3 |
| TUE | Stuetta | 1.06 | 327 | Pg | | Pg | 11 14 07.9 | -0.6 |
| TUE | | | | Sg | | Sb | 11 14 23.0 | +0.9 |
| | 43nm,0.2s | | | | | | | |
| TUE | Stuetta | 1.06 | 327 | Pg | | Pg | 11 14 07.9 | -0.6 |
| TUE | | | | Sg | | Sb | 11 14 23.0 | +0.9 |
| | 43nm,0.2s | | | | | | | |
| MOSI | Grossmontoni | 1.06 | 14 | Pg | | Pg | 11 14 07.7 | -0.8 |
| MOSI | | | | Sg | | Sg | 11 14 22.3 | -0.1 |
| | 76nm,0.5s | | | | | | | |
| MOSI | Grossmontoni | 1.06 | 14 | Pg | | Pg | 11 14 07.7 | -0.8 |
| MOSI | | | | Sg | | Sg | 11 14 22.3 | -0.1 |
| | 76nm,0.5s | | | | | | | |
| TEOL | Teolo | 1.07 | 102 | Pg | | Pg | 11 14 07.7 | -1.1 |
| | 297nm,0.4s | | | | | | | |
| TEOL | Teolo | 1.07 | 102 | ePg | | Pg | 11 14 07.9 | -0.9 |
| TEOL | Teolo | 1.07 | 102 | Pg | | Pg | 11 14 07.7 | -1.1 |
| | 297nm,0.4s | | | | | | | |
| APPI | Appiano | 1.15 | 39 | Pg | | Pn | 11 14 10.4 | +0.5 |
| APPI | | | | Sg | | Sb | 11 14 25.9 | +1.1 |
| | 107nm,0.3s | | | | | | | |
| APPI | Appiano | 1.15 | 39 | Pg | | Pn | 11 14 10.4 | +0.5 |
| APPI | | | | Sg | | Sb | 11 14 25.9 | +1.1 |
| | 107nm,0.3s | | | | | | | |
| CGRP | Cima Grappa | 1.17 | 75 | Pg | | Pg | 11 14 09.7 | -1.0 |
| CGRP | Cima Grappa | 1.17 | 75 | ePg | | Pg | 11 14 09.7 | -1.0 |
| CGRP | Cima Grappa | 1.17 | 75 | Pg | | Pg | 11 14 09.7 | -1.0 |
| DAVOX | Davos/Dischmat | 1.21 | 350 | Pg | | Pg | 11 14 10.6 | -0.8 |
| DAVOX | Davos/Dischmat | 1.21 | 350 | Pg | | Pg | 11 14 10.6 | -0.8 |
| KOSI | Kohlern | 1.21 | 43 | Pg | | Pn | 11 14 11.2 | +0.4 |
| KOSI | | | | Sg | | Sn | 11 14 27.7 | +0.6 |
| | 64nm,0.6s | | | | | | | |
| KOSI | Kohlern | 1.21 | 43 | Pg | | Pn | 11 14 11.2 | +0.4 |
| KOSI | | | | Sg | | Sn | 11 14 27.7 | +0.6 |
| | 64nm,0.6s | | | | | | | |
| SC2M | Scurtabo | 1.27 | 201 | P | | Pg | 11 14 12.4 | -0.1 |
| SC2M | | | | S | | Sn | 11 14 29.4 | +1.0 |
| MTLO | Montello | 1.36 | 80 | ePg | | Pb | 11 14 13.4 | 0.0 |
| MTLO | Montello | 1.36 | 80 | ePg | | Pb | 11 14 13.4 | 0.0 |
| FUSIO | Fusio | 1.37 | 310 | Pg | | Pn | 11 14 13.5 | +0.6 |
| FUSIO | Fusio | 1.37 | 310 | Pg | | Pn | 11 14 13.5 | +0.6 |
| ABSI | Aberstueckl | 1.39 | 34 | Pg | | Pb | 11 14 14.1 | +0.1 |
| ABSI | | | | Sg | | Sg | 11 14 34.0 | +1.1 |
| | 51nm,0.5s | | | | | | | |
| ABSI | Aberstueckl | 1.39 | 34 | Pg | | Pb | 11 14 14.1 | +0.1 |
| ABSI | | | | Sg | | Sg | 11 14 34.0 | +1.1 |
| | 51nm,0.5s | | | | | | | |
| VARN | Col Varnada, M | 1.41 | 73 | ePg | | Pn | 11 14 13.7 | +0.3 |
| VARN | Col Varnada, M | 1.41 | 73 | ePg | | Pn | 11 14 13.7 | +0.3 |
| SARO | Sassorosso | 1.41 | 173 | P | | Pg | 11 14 14.8 | -0.4 |
| AGOR | Agordo | 1.48 | 61 | ePg | | Pg | 11 14 15.8 | -0.7 |
| FETA | Feichten | 1.48 | 15 | Pg | | Pg | 11 14 16.5 | -0.1 |
| | 1.7nm,0.3s | | | | | | | |
| FETA | | | | Sg | | Sg | 11 14 35.8 | -0.1 |
| | 0.8nm,0.2s | | | | | | | |
| PCP | Piancastagn | 1.56 | 228 | P | | Pb | 11 14 16.8 | 0.0 |
| DAVA | Damuels | 1.71 | 353 | Pg | | Pg | 11 14 21.3 | +0.4 |
| | 2.7nm,0.1s | | | | | | | |
| DAVA | | | | Sg | | Sg | 11 14 44.7 | +1.5 |
| | 11nm,0.2s | | | | | | | |
| MOTA | Moosalm | 1.87 | 20 | Pg | | Pb | 11 14 22.8 | +0.7 |
| | 2.7nm,0.3s | | | | | | | |
| MOTA | | | | Sg | | Sg | 11 14 52.6 | +4.4 |
| | 2.4nm,0.4s | | | | | | | |
| WTTA | Wattenberg | 1.96 | 31 | Sg | | Sg | 11 14 51.6 | +0.6 |
| | 3.8nm,0.2s | | | | | | | |
| ABTA | Abfaltersbach | 1.99 | 54 | Pg | | Pb | 11 14 23.7 | -0.5 |
| | 0.6nm,0.1s | | | | | | | |
| ABTA | | | | Sg | | Sg | 11 14 51.1 | -1.1 |
| | 6.7nm,0.3s,SNR=6.2 | | | | | | | |
| WATA | Walderalm | 2.00 | 28 | Pg | | Pb | 11 14 24.4 | +0.1 |
| | 1.2nm,0.2s | | | | | | | |
| WATA | | | | Sg | | Sg | 11 14 53.9 | +1.6 |
| | 1.2nm,0.2s | | | | | | | |
| LPG | La Plagne | 2.41 | 269 | ePn | | Pn | 11 14 28.3 | +0.9 |
| LPG | | | | eSg | | Sg | 11 15 06.4 | +0.9 |
| LPG | La Plagne | 2.41 | 269 | ePn | | Pn | 11 14 28.3 | +0.9 |
| LPG | | | | eSg | | Sg | 11 15 06.4 | +0.9 |
| LPL | La Plagne | 2.42 | 270 | eSn | | Sn | 11 14 57.3 | +0.2 |
| | 5.4nm,0.3s | | | | | | | |
| LPL | La Plagne | 2.42 | 270 | eSn | | Sn | 11 14 57.3 | +0.2 |
| | 2.7nm,0.3s | | | | | | | |
| MBDF | Montbardon | 2.56 | 252 | ePn | | Pn | 11 14 28.4 | -0.9 |
| MBDF | | | | eSn | | Sn | 11 15 01.3 | +0.9 |
| | 2.5nm,0.3s | | | | | | | |
| MBDF | Montbardon | 2.56 | 252 | ePn | | Pn | 11 14 28.4 | -0.9 |
| MBDF | | | | eSn | | Sn | 11 15 01.3 | +0.9 |
| | 1.2nm,0.3s | | | | | | | |
| MYKA | Terra Mystica | 2.62 | 65 | Sg | | Sg | 11 15 11.4 | -1.0 |
| | 1.3nm,0.3s | | | | | | | |
| CABF | La Chapelle | 3.02 | 291 | ePn | | Pn | 11 14 36.3 | +0.6 |
| CABF | | | | eSn | | Sn | 11 15 11.6 | -0.2 |
| | 1.4nm,0.3s | | | | | | | |
| CABF | | | | eSg | | Sg | 11 15 24.6 | -0.6 |
| CABF | La Chapelle | 3.02 | 291 | ePn | | Pn | 11 14 36.3 | +0.6 |
| CABF | | | | eSn | | Sn | 11 15 11.6 | -0.2 |
| | 0.7nm,0.3s | | | | | | | |
| CABF | | | | eSg | | Sg | 11 15 24.6 | -0.6 |
| ORIF | Oris-en-Rattie | 3.11 | 259 | ePn | | Pn | 11 14 37.8 | +1.0 |
| ORIF | Oris-en-Rattie | 3.11 | 259 | ePn | | Pn | 11 14 37.8 | +1.0 |
| PGF | Pioggiola | 3.16 | 196 | ePn | | Pn | 11 14 38.5 | +1.0 |
| PGF | Pioggiola | 3.16 | 196 | ePn | | Pn | 11 14 38.5 | +1.0 |
| HINF | Hinteralfeld | 3.19 | 315 | ePn | | Pn | 11 14 38.1 | +0.1 |
| HINF | | | | eSn | | Sn | 11 15 14.3 | -1.6 |
| | 1.9nm,0.3s | | | | | | | |
| HINF | Hinteralfeld | 3.19 | 315 | ePn | | Pn | 11 14 38.1 | +0.1 |
| HINF | | | | eSn | | Sn | 11 15 14.3 | -1.6 |
| | 0.9nm,0.3s | | | | | | | |
| CDF | Champ du Feu | 3.45 | 326 | ePn | | Pn | 11 14 41.8 | +0.2 |
| CDF | Champ du Feu | 3.45 | 326 | ePn | | Pn | 11 14 41.8 | +0.2 |
| NVLJ | Novalja | 3.48 | 105 | iPn | | Pn | 11 14 41.5 | -0.3 |
| NVLJ | | | | Sn | | Sn | 11 15 14.1 | -8.7 |
| NVLJ | Novalja | 3.48 | 105 | iPn | | Pn | 11 14 41.5 | -0.3 |
| HAU | Haudompre | 3.57 | 314 | ePn | | Pn | 11 14 43.8 | +0.7 |
| HAU | | | | eSn | | Sn | 11 15 23.6 | -1.6 |
| | 5.5nm,0.3s | | | | | | | |
| HAU | Haudompre | 3.57 | 314 | ePn | | Pn | 11 14 43.8 | +0.7 |
| HAU | | | | eSn | | Sn | 11 15 23.6 | -1.6 |
| | 2.8nm,0.3s | | | | | | | |
| VIVF | Saint-Julien-l | 3.96 | 261 | ePn | | Pn | 11 14 49.2 | +0.7 |
| VIVF | | | | eSn | | Sn | 11 15 33.9 | -0.8 |
| | 0.7nm,0.2s | | | | | | | |
| VIVF | Saint-Julien-l | 3.96 | 261 | ePn | | Pn | 11 14 49.2 | +0.7 |
| VIVF | | | | eSn | | Sn | 11 15 33.9 | -0.8 |
| | 0.3nm,0.2s | | | | | | | |
| SFTF | Sexfontaines | 4.39 | 308 | ePn | | Pn | 11 14 55.0 | +0.7 |
| | baz=126 | | | | | | | |
| SFTF | | | | eSn | | Sn | 11 15 43.5 | -1.8 |
| | 1.9nm,0.2s | | | | | | | |
| SFTF | Sexfontaines | 4.39 | 308 | ePn | | Pn | 11 14 55.0 | +0.7 |
| SFTF | | | | eSn | | Sn | 11 15 43.5 | -1.8 |
| | 0.9nm,0.2s | | | | | | | |
| SMF | Signal de Mont | 4.53 | 286 | ePn | | Pn | 11 14 56.4 | +0.1 |
| SMF | | | | eSn | | Sn | 11 15 47.5 | -1.3 |
| | 1.8nm,0.2s | | | | | | | |
| SMF | Signal de Mont | 4.53 | 286 | ePn | | Pn | 11 14 56.4 | +0.1 |
| SMF | | | | eSn | | Sn | 11 15 47.5 | -1.3 |
| | 0.9nm,0.2s | | | | | | | |
| MEZF | Maizieres J'vi | 4.56 | 312 | ePn | | Pn | 11 14 56.2 | -0.4 |
| MEZF | Maizieres J'vi | 4.56 | 312 | ePn | | Pn | 11 14 56.2 | -0.4 |
| LOR | Lormes | 4.68 | 293 | ePn | | Pn | 11 14 58.8 | +0.4 |
| | baz=117 | | | | | | | |
| LOR | | | | eSn | | Sn | 11 15 50.5 | -2.0 |
| | 3.2nm,0.3s | | | | | | | |
| LOR | Lormes | 4.68 | 293 | ePn | | Pn | 11 14 58.8 | +0.4 |
| LOR | | | | eSn | | Sn | 11 15 50.5 | -2.0 |
| | 1.6nm,0.3s | | | | | | | |
| LASF | Ste Croix | 4.74 | 254 | ePn | | Pn | 11 14 59.4 | +0.2 |
| LASF | Ste Croix | 4.74 | 254 | ePn | | Pn | 11 14 59.4 | +0.2 |
| AVF | Avril sur Loir | 4.89 | 287 | ePn | | Pn | 11 15 01.3 | +0.1 |
| AVF | Avril sur Loir | 4.89 | 287 | ePn | | Pn | 11 15 01.3 | +0.1 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| GULE | | | | S | **Sg** | **11 17 25.4** | **+0.7** |
| **KARA** | **Karaisali** | **0.49** | **147** | *e*PG | **Pg** | **11 17 22.4** | **+0.8** |
| KARA | | | | *e*SG | **Sb** | **11 17 30.0** | **-1.4** |
| **KARA** | **Karaisali** | **0.49** | **147** | *e*Pg | **Pg** | **11 17 22.4** | **+0.8** |
| KARA | | | | *e*Sg | **Sb** | **11 17 30.0** | **-1.4** |
| **KERG** | **Konya-Eregli** | **0.54** | **242** | *i* P | **Pg** | **11 17 23.2** | **+0.8** |
| KERG | | | | *i* S | **Sb** | **11 17 31.4** | **-1.4** |
| **KERG** | **Konya-Eregli** | **0.54** | **242** | P | **Pg** | **11 17 23.2** | **+0.8** |
| KERG | | | | S | **Sb** | **11 17 31.4** | **-1.4** |
| **AKO** | **Adana** | **0.62** | **110** | *i* P | **Pg** | **11 17 24.5** | **+0.5** |
| AKO | | | | *i* S | **Sg** | **11 17 32.2** | **+0.3** |
| **YAHY** | **KAYSERI_Yahyal** | **0.66** | **50** | *i* P | **Pg** | **11 17 25.6** | **+0.7** |
| **YAHY** | **KAYSERI_Yahyal** | **0.66** | **50** | P | **Pg** | **11 17 25.6** | **+0.7** |
| **DED** | **Mersin** | **0.71** | **175** | *i* P | **Pg** | **11 17 26.1** | **+0.3** |
| **MERS** | **Mersin** | **0.82** | **191** | *e*PG | **Pb** | **11 17 29.4** | **+0.1** |
| MERS | | | | *e*SG | **Sb** | **11 17 40.5** | **-0.4** |
| **MERS** | **Mersin** | **0.82** | **191** | *e*Pg | **Pb** | **11 17 29.4** | **+0.1** |
| MERS | | | | *e*Sg | **Sb** | **11 17 40.5** | **-0.4** |
| **KOZT** | **Kozan** | **0.90** | **102** | *e*PG | **Pg** | **11 17 29.8** | **+0.3** |
| **KOZT** | **Kozan** | **0.90** | **102** | *e*Pg | **Pg** | **11 17 29.8** | **+0.3** |
| **SULT** | **Sultanhani-AKS** | **1.08** | **299** | *e*PN | **Pn** | **11 17 34.5** | **-0.2** |
| **SULT** | **Sultanhani-AKS** | **1.08** | **299** | *e*Pn | **Pn** | **11 17 34.5** | **-0.2** |
| **AVNS** | **Nevsehir-Avano** | **1.14** | **5** | *i* P | **Pn** | **11 17 35.4** | **-0.1** |
| AVNS | | | | *i* S | **Sn** | **11 17 52.0** | **+0.1** |
| **AVNS** | **Nevsehir-Avano** | **1.14** | **5** | P | **Pn** | **11 17 35.4** | **-0.1** |
| AVNS | | | | S | **Sn** | **11 17 52.0** | **+0.1** |

**IDC 24 11:51:21.6±3.5, 4°50.5S×152°67.7E, h0km, mb3.3/3, mb1 3.5/3, mb1mx3.3/30, mbtmp3.4/3, Error ellipse: s-maj=121.4km s-min=34.9km az=110.0, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **23.54** | **228** | P | P | 11 56 34.1 | +0.3 |
| | 0.5nm,0.6s,baz=52,slow=9.8,SNR=8.6 | | | | | | |
| **ASAR** | **Alice Springs** | **26.28** | **222** | P | P | 11 56 59.5 | +0.4 |
| | 0.2nm,0.7s,baz=53,slow=8.7,SNR=1.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **80.01** | **319** | P | P | 12 03 33.8 | +0.6 |
| | 0.3nm,0.5s,baz=91,slow=6.5,SNR=6.6 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **150.09** | **289** | PKPbc | PKPbc | 12 11 13.9 | -1.5 |
| | 0.3nm,0.7s,baz=72,slow=4.7,SNR=3.7 | | | | | | |

**IDC 24 12:02:13.0±2.0, 0°93S×128°02E, h0km, mb4.0/2, mb1 4.1/3, mb1mx3.7/40, mbtmp3.9/3, ML3.7/1, Error ellipse: s-maj=156.5km s-min=23.8km az=67.0, Halmahera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **19.89** | **162** | P | Pn | 12 06 47.0 | -0.7 |
| | 0.2nm,0.3s,baz=342,slow=12,SNR=21 | | | | | | |
| **ASAR** | **Alice Springs** | **23.32** | **166** | P | P | 12 07 22.4 | -0.6 |
| | 2.7nm,0.6s,baz=339,slow=10,SNR=38 | | | | | | |
| **MKAR** | **Makanchi Array** | **62.10** | **326** | P | P | 12 12 35.8 | 0.0 |
| | 1.3nm,0.5s,baz=118,slow=8.3,SNR=22 | | | | | | |

**GUC 24 12:06:00.6±0.4, 35°.81S×73°.31W, h15km±11km, ML3.5, 1D, Off coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **COCH** | **Cobquecura** | **0.53** | **127** | *e*P | Pg | 12 06 10.2 | -0.8 |
| COCH | | | | *i* S | Sg | 12 06 17.4 | -0.7 |
| COCH | | | | IAML | | 12 06 18.7 | |
| | comp=E,5μm,0.9s | | | | | | |
| **CCSP** | **San Pedro de C** | **1.04** | **171** | *e*P | Pb | 12 06 18.3 | -2.1 |
| CCSP | | | | *i* S | Sb | 12 06 31.0 | -2.9 |
| CCSP | | | | IAML | | 12 06 34.5 | |
| | comp=N,5μm,0.5s | | | | | | |
| **CCHI** | **Chillan** | **1.27** | **129** | *e*P | Pn | 12 06 22.6 | -1.2 |
| CCHI | | | | *i* S | Sb | 12 06 33.0 | -7.3 |
| CCHI | | | | IAML | | 12 06 44.6 | |
| | comp=E,2μm,0.3s | | | | | | |
| **GO05** | **HualaæØ** | **1.38** | **55** | *e*P | Pn | 12 06 23.5 | -1.9 |
| GO05 | | | | *i* S | Sn | 12 06 41.0 | -2.3 |
| GO05 | | | | IAML | | 12 06 45.6 | |
| | comp=N,604nm,0.4s | | | | | | |
| **LMEL** | **Las Melosas** | **3.22** | **53** | *e*P | Pn | 12 06 51.6 | +0.8 |

**IDC 24 12:09:02.6±4.2, 11°.93S×167°.37E, h0km, mb3.5/3, mb1 3.8/3, mb1mx3.5/31, mbtmp3.5/3, Error ellipse: s-maj=203.1km s-min=34.5km az=140.0, Santa Cruz Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **32.70** | **252** | P | P | 12 15 37.4 | +0.4 |
| | 0.5nm,0.6s,baz=82,slow=8.8,SNR=5.4 | | | | | | |
| **ASAR** | **Alice Springs** | **33.84** | **245** | P | P | 12 15 46.4 | -0.6 |
| | 0.4nm,1.0s,baz=83,slow=8.8,SNR=1.8 | | | | | | |
| **ILAR** | **Eielson Array** | **83.85** | **18** | P | P | 12 21 33.8 | +0.1 |
| | 0.5nm,0.9s,baz=238,slow=5.2,SNR=6.1 | | | | | | |

*IDC* ***24*** *12:24:22.6±1.3, 16°.28S×176°.38E, h0km, mb4.3/10, mb1 4.5/10, mb1mx4.3/25, mbtmp4.3/10, MS3.6/15, Ms1 3.6/15, ms1mx3.5/29, Error ellipse: s-maj=71.5km s-min=18.3km az=149.0*

*ISCJB* ***24*** *12:24:25.4±0.9, 16°.6S±0°.3×176°.5E±0°.2, h33km, mb4.2/10, MS3.6/11, Error ellipse: s-maj=43.1km s-min=14.8km az=154.6*

**ISC 24 12:24:26.8±0.8, 16°.7S±0°.3×176°.7E±0°.1, h35km, n30, σ1s10/12, mb4.2/10, MS3.6/11, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **11.01** | **239** | LR | LR | 12 30 37.4 | |
| | comp=Z,429nm,19.8s,baz=73,slow=34 | | | | | | |
| **DZM** | **Mont Dzumac** | **11.01** | **239** | *e*LR | LR | 12 29 46.0 | |
| | 474nm,24.4s | | | | | | |
| **AFI** | **Afiamalu** | **11.51** | **78** | LR | LR | 12 30 33.5 | |
| | comp=Z,286nm,21.2s,baz=244,slow=32 | | | | | | |
| **RAO** | **Raoul Island** | **13.46** | **159** | LR | LR | 12 31 54.9 | |
| | comp=Z,317nm,21.0s,baz=1.5,slow=32 | | | | | | |
| **HNR** | **Honiara** | **17.79** | **292** | LR | LR | 12 34 45.2 | |
| | comp=Z,420nm,18.4s,baz=133,slow=36 | | | | | | |
| **RPZ** | **Rata Peaks** | **27.35** | **189** | LR | LR | 12 42 01.7 | |
| | comp=Z,58nm,18.0s,baz=12,slow=38 | | | | | | |
| **CTA** | **Charters Tower** | **29.02** | **259** | P | **P** | **12 30 22.9** | **-0.8** |
| | 6.1nm,1.0s,baz=103,slow=14,SNR=4.9 | | | | | | |
| **PPT2** | **Papeete2** | **32.26** | **97** | *e*S | **S** | **12 36 02.3** | **-1.5** |
| | 48nm,24.2s | | | | | | |
| PPT2 | | | | *e*LQ | LQ | 12 38 03.4 | |
| | 478nm,27.0s | | | | | | |
| PPT2 | | | | *e*LR | LR | 12 39 23.4 | |
| | 341nm,29.2s | | | | | | |
| **PPT** | **Papeete** | **32.27** | **97** | LR | LR | 12 42 59.5 | |
| | comp=Z,44nm,18.1s,baz=260,slow=34 | | | | | | |
| **STKA** | **Stephens Creek** | **35.16** | **238** | P | **P** | **12 31 19.1** | **+1.6** |
| | 25nm,0.8s,baz=72,slow=9.4,SNR=36 | | | | | | |
| STKA | | | | LR | LR | 12 44 02.7 | |
| | comp=Z,115nm,20.8s,baz=27,slow=34 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **36.31** | **344** | T | T | 13 09 54.1 | |
| | baz=171,slow=76,SNR=45 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **36.32** | **344** | T | T | 13 09 54.2 | |
| | baz=171,slow=76,SNR=48 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **36.33** | **344** | T | T | 13 09 53.2 | |
| | baz=171,slow=76,SNR=42 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **37.43** | **345** | T | T | 13 11 17.1 | |
| | baz=164,slow=76,SNR=36 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **37.43** | **345** | T | T | 13 11 16.2 | |
| | baz=164,slow=76,SNR=48 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **37.45** | **345** | T | T | 13 11 17.4 | |
| | baz=164,slow=76,SNR=24 | | | | | | |
| **WRA** | **Warramunga Arr** | **40.22** | **259** | P | **P** | **12 31 58.9** | **-1.5** |
| | 5.6nm,0.8s,baz=92,slow=9.0,SNR=27 | | | | | | |
| WRA | | | | LR | LR | 12 47 35.1 | |
| | comp=Z,63nm,18.3s,baz=290,slow=35 | | | | | | |
| **ASAR** | **Alice Springs** | **40.60** | **253** | P | **P** | **12 32 03.3** | **-0.2** |
| | 11nm,0.9s,baz=82,slow=8.2,SNR=47 | | | | | | |
| ASAR | | | | LR | LR | 12 47 42.6 | |
| | comp=Z,98nm,20.2s,baz=90,slow=35 | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **42.77** | **85** | *e*LR | LR | 12 44 26.6 | |
| | 183nm,26.2s | | | | | | |
| **MJAR** | **Matsushiro Arr** | **64.20** | **326** | LR | LR | 12 57 51.9 | |
| | comp=Z,30nm,21.9s,baz=215,slow=32 | | | | | | |
| **KSRS** | **Korea Array** | **70.72** | **321** | LR | LR | 13 01 39.2 | |
| | comp=Z,29nm,20.4s,baz=154,slow=32 | | | | | | |
| **PETK** | **Petropavlovsk-** | **71.42** | **348** | LR | LR | 13 01 06.7 | |
| | comp=Z,32nm,20.1s,baz=208,slow=31 | | | | | | |
| **NVAR** | **Mina Array Bea** | **81.91** | **46** | P | **P** | **12 36 44.3** | **+1.1** |
| | 1.9nm,0.8s,baz=227,slow=9.8,SNR=11 | | | | | | |
| NVAR | | | | LR | LR | 13 08 20.1 | |
| | comp=Z,70nm,20.0s,baz=233,slow=32 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **84.04** | **291** | P | **P** | **12 36 53.6** | **-0.7** |
| | 0.7nm,0.8s,baz=116,slow=2.1,SNR=1.9 | | | | | | |
| **ILAR** | **Eielson Array** | **85.85** | **15** | P | **P** | **12 37 01.9** | **-0.5** |
| | 1.4nm,0.9s,baz=227,slow=6.5,SNR=8.9 | | | | | | |
| **YAK** | **Yakutsk** | **86.76** | **340** | LR | LR | 13 10 50.5 | |
| | comp=Z,51nm,19.1s,baz=88,slow=32 | | | | | | |
| **TXAR** | **Lajitas Array** | **89.39** | **59** | P | **P** | **12 37 21.1** | **+0.8** |
| | 0.6nm,0.8s,baz=205,slow=5.5,SNR=6.3 | | | | | | |
| TXAR | | | | LR | LR | 13 11 22.5 | |
| | comp=Z,48nm,18.6s,baz=0.0,slow=32 | | | | | | |
| **SONM** | **Songino Array** | **89.59** | **321** | P | **P** | **12 37 21.3** | **+0.4** |
| | 0.6nm,1.0s,baz=94,slow=4.8,SNR=2.7 | | | | | | |
| **YKA** | **Yellowknife Ar** | **95.25** | **26** | P | **P** | **12 37 46.3** | **-0.2** |
| | 0.4nm,0.9s,baz=247,slow=4.2,SNR=7.0 | | | | | | |
| **GERES** | **GERESS Array B** | **145.05** | **340** | PKP | **PKPdf** | **12 44 00.8** | **+0.3** |
| | 1.6nm,0.8s,baz=42,slow=4.2,SNR=5.2 | | | | | | |

*IDC* ***24*** *12:37:58.0±0.9, 14°.43N×56°.43E, h0km, mb3.7/11, mb1 3.8/12, mb1mx3.6/51, mbtmp3.7/12, ML3.3/1, MS3.7/20, Ms1 3.7/20, ms1mx3.6/34, Error ellipse: s-maj=27.0km s-min=19.5km az=110.0*

*ISCJB* ***24*** *12:37:59.4±0.7, 14°.50N±0°.1×56°.4E±0°.1, h19km, mb3.6/11, MS3.7/18, Error ellipse: s-maj=20.0km s-min=12.5km az=22.6*

**ISC 24 12:38:01.0±0.9, 14°.5N±0°.1×56°.4E±0°.2, h19km, n31, σ0s49/12, mb3.8/11, MS3.7/18, Owen Fracture Zone region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WSAR** | **Wadi Sarin** | **8.98** | **13** | Pn | **Pn** | **12 40 09.0** | **-0.7** |
| | 0.3nm,0.3s,baz=181,slow=13,SNR=2.1 | | | | | | |
| WSAR | | | | LR | LR | 12 43 27.2 | |
| | comp=Z,1μm,20.7s,baz=212,slow=36 | | | | | | |
| **ATD** | **Arta Tunnel** | **13.54** | **259** | LR | LR | 12 45 03.6 | |
| | comp=Z,269nm,19.1s,baz=94,slow=31 | | | | | | |
| **GEYT** | **Alibeck** | **23.42** | **3** | P | **P** | **12 43 09.2** | **+0.2** |
| | 3.0nm,0.9s,baz=185,slow=10.0,SNR=3.8 | | | | | | |
| GEYT | | | | LR | LR | 12 53 07.1 | |
| | comp=Z,128nm,21.4s,baz=305,slow=39 | | | | | | |
| **EIL** | **Elat** | **24.93** | **311** | LR | LR | 12 54 02.1 | |
| | comp=Z,140nm,20.4s,baz=121,slow=39 | | | | | | |
| **H08N2** | **Diego Garcia H** | **25.22** | **144** | T | T | 13 10 20.3 | |
| | baz=325,slow=76,SNR=15 | | | | | | |
| **H08N3** | **Diego Garcia H** | **25.23** | **144** | T | T | 13 10 35.6 | |
| | baz=325,slow=76,SNR=12 | | | | | | |
| **H08N1** | **Diego Garcia H** | **25.24** | **144** | T | T | 13 10 24.9 | |
| | baz=325,slow=76,SNR=14 | | | | | | |
| **MMAI** | **Mount Meron Ar** | **26.57** | **318** | LR | LR | 12 56 33.1 | |
| | comp=Z,48nm,18.1s,baz=140,slow=42 | | | | | | |
| **KBZ** | **Khabaz** | **31.38** | **341** | LR | LR | 12 58 06.9 | |
| | comp=Z,112nm,19.0s,baz=158,slow=38 | | | | | | |
| **MKAR** | **Makanchi Array** | **38.81** | **29** | P | **P** | **12 45 25.7** | **+1.0** |
| | 0.3nm,0.7s,baz=230,slow=6.8,SNR=3.0 | | | | | | |
| MKAR | | | | LR | LR | 13 03 40.1 | |
| | comp=Z,167nm,19.7s,baz=222,slow=40 | | | | | | |
| **LSZ** | **Lusaka** | **40.65** | **224** | P | **P** | **12 45 40.6** | **+0.2** |
| | 1.7nm,0.8s,baz=50,slow=11,SNR=2.8 | | | | | | |
| **ARU** | **Ati** | **41.91** | **2** | LR | LR | 13 04 50.5 | |
| | comp=Z,107nm,18.1s,baz=182,slow=38 | | | | | | |
| **AKASG** | **Malin Array Be** | **42.31** | **334** | P | **P** | **12 45 53.6** | **+0.1** |
| | 0.3nm,0.3s,baz=133,slow=7.9,SNR=4.3 | | | | | | |
| AKASG | | | | LR | LR | 13 07 04.4 | |
| | comp=Z,73nm,19.2s,baz=330,slow=41 | | | | | | |
| **MATP** | **Matopo** | **44.22** | **219** | P | **P** | **12 46 09.4** | **0.0** |
| | 3.0nm,1.0s,baz=26,slow=9.5,SNR=4.2 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **45.26** | **23** | P | **P** | **12 46 17.3** | **+0.1** |
| | 0.5nm,0.4s,baz=242,slow=6.2,SNR=1.9 | | | | | | |
| ZALV | | | | LR | LR | 13 06 36.6 | |
| | comp=Z,150nm,18.3s,baz=248,slow=38 | | | | | | |
| **KEST** | **Kesra** | **47.07** | **306** | LR | LR | 13 07 09.6 | |
| | comp=Z,51nm,18.6s,baz=270,slow=37 | | | | | | |
| **FINES** | **FINESS Array B** | **51.73** | **342** | P | **P** | **12 47 07.3** | **+0.5** |
| | 4.3nm,0.9s,baz=152,slow=6.2,SNR=4.2 | | | | | | |
| FINES | | | | LR | LR | 13 11 13.4 | |
| | comp=Z,196nm,18.3s,baz=230,slow=38 | | | | | | |
| **BOSA** | **Boshof** | **52.37** | **215** | LR | LR | 13 09 34.8 | |
| | comp=Z,94nm,18.5s,baz=28,slow=36 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **53.05** | **276** | P | **P** | **12 47 17.3** | **-0.2** |
| | 0.2nm,0.5s,baz=72,slow=6.1,SNR=3.1 | | | | | | |
| TORD | | | | LR | LR | 13 08 04.0 | |
| | comp=Z,52nm,21.7s,baz=345,slow=34 | | | | | | |
| **NOA** | **NORSAR Array B** | **56.70** | **336** | LR | LR | 13 17 50.2 | |
| | comp=Z,30nm,18.0s,baz=280,slow=42 | | | | | | |
| **ESDC** | **Sonseca Array** | **58.17** | **308** | P | **P** | **12 47 53.6** | **-0.3** |
| | 0.1nm,0.4s,baz=90,slow=7.7,SNR=3.3 | | | | | | |
| **KSRS** | **Kora Array** | **66.75** | **51** | LR | LR | 13 20 04.5 | |
| | comp=Z,311nm,18.1s,baz=70,slow=38 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **69.76** | **48** | LR | LR | 13 23 20.2 | |
| | comp=Z,64nm,18.1s,baz=237,slow=39 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **73.50** | **134** | T | T | 14 09 47.8 | |
| | baz=303,slow=76,SNR=9.9 | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **73.51** | **134** | T | T | 14 09 48.3 | |
| | baz=303,slow=76,SNR=8.1 | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **73.52** | **134** | T | T | 14 09 49.1 | |
| | baz=303,slow=76,SNR=9.5 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **75.02** | **56** | LR | LR | 13 23 08.1 | |
| | comp=Z,41nm,19.7s,baz=70,slow=36 | | | | | | |
| **MAW** | **Mawson** | **81.98** | **178** | LR | LR | 13 18 14.2 | |
| | comp=Z,56nm,21.1s,baz=271,slow=30 | | | | | | |
| **WRA** | **Warramunga Arr** | **83.89** | **112** | P | **P** | **12 50 29.7** | **-0.4** |
| | 0.5nm,0.8s,baz=301,slow=4.2,SNR=2.6 | | | | | | |
| **ASAR** | **Alice Springs** | **84.65** | **116** | P | **P** | **12 50 33.9** | **-0.2** |
| | 0.5nm,0.8s,baz=291,slow=4.7,SNR=5.5 | | | | | | |
| **PETK** | **Petropavlovsk-** | **85.20** | **35** | LR | LR | 13 31 23.5 | |
| | comp=Z,33nm,19.2s,baz=285,slow=38 | | | | | | |

*IDC* ***24*** *12:42:45.6±1.1, 14°.43N×56°.54E, h0km, mb3.7/7, mb1 3.8/7, mb1mx3.5/44, mbtmp3.7/7, MS3.5/1, Ms1 3.5/1, ms1mx2.8/36, Error ellipse: s-maj=37.8km s-min=23.9km az=89.0*

*ISCJB* ***24*** *12:42:46.9±0.9, 14°.5N±0°.1×56°.5E±0°.2, h19km, mb3.6/8, MS3.5/1, Error ellipse: s-maj=30.4km s-min=18.5km az=4.3*

**ISC 24 12:42:48.6±1.1, 14°.5N±0°.2×56°.5E±0°.3, h19km, n15, σ0s80/7, mb3.7/8, Owen Fracture Zone region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GEYT** | **Alibeck** | **23.41** | **3** | P | **P** | **12 47 55.4** | **-1.1** |
| | 2.3nm,0.7s,baz=195,slow=10,SNR=5.3 | | | | | | |
| **H08N2** | **Diego Garcia H** | **25.14** | **144** | T | T | 13 15 08.5 | |
| | baz=325,slow=76,SNR=7.0 | | | | | | |
| **H08N3** | **Diego Garcia H** | **25.17** | **144** | T | T | 13 15 08.4 | |
| | baz=325,slow=76,SNR=5.9 | | | | | | |
| **H08N1** | **Diego Garcia H** | **25.18** | **144** | T | T | 13 15 09.8 | |
| | baz=325,slow=76,SNR=8.7 | | | | | | |
| **AAK** | **Ala-Archa** | **32.06** | **25** | LR | LR | 13 03 00.6 | |
| | comp=Z,85nm,18.6s,baz=200,slow=38 | | | | | | |
| **MKAR** | **Makanchi Array** | **38.76** | **28** | P | **P** | **12 50 12.6** | **+0.8** |
| | 0.5nm,0.8s,baz=224,slow=5.4,SNR=2.7 | | | | | | |
| **AKASG** | **Malin Array Be** | **42.35** | **334** | P | **P** | **12 50 41.5** | **+0.1** |
| | 0.1nm,0.3s,baz=136,slow=7.2,SNR=2.8 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **45.21** | **23** | P | **P** | **12 51 05.0** | **+0.7** |
| | 0.7nm,0.6s,baz=225,slow=7.7,SNR=4.0 | | | | | | |
| **BOSA** | **Boshof** | **52.43** | **215** | P | **P** | **12 52 00.5** | **+0.2** |
| | 2.0nm,0.9s,baz=64,slow=7.3,SNR=3.2 | | | | | | |
| **ESDC** | **Sonseca Array** | **58.25** | **308** | P | P | 12 52 47.2 | +5.1 |
| | 0.4nm,0.6s,baz=82,slow=6.6,SNR=5.4 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **73.43** | **134** | T | T | 14 14 29.9 | |
| | baz=304,slow=74 | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **73.44** | **134** | T | T | 14 14 30.7 | |
| | baz=304,slow=74 | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **73.45** | **134** | T | T | 14 14 31.0 | |
| | baz=304 | | | | | | |
| **WRA** | **Warramunga Arr** | **83.79** | **112** | P | **P** | **12 55 17.1** | **-0.2** |
| | 0.7nm,0.8s,baz=297,slow=4.3,SNR=4.6 | | | | | | |
| **ASAR** | **Alice Springs** | **84.55** | **116** | P | **P** | **12 55 20.6** | **-0.5** |
| | 0.3nm,0.7s,baz=282,slow=5.9,SNR=4.6 | | | | | | |

**IDC 24 12:43:57.8±1.7, 3°.14N×127°.60E, h0km, mb3.6/4, mb1 3.8/4, mb1mx3.4/37, mbtmp3.6/4, Error ellipse: s-maj=141.6km s-min=24.0km az=66.0, Talaud Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **23.88** | **164** | P | P | 12 49 13.2 | -0.1 |
| | 0.5nm,0.3s,baz=343,slow=10,SNR=9.5 | | | | | | |
| **ASAR** | **Alice Springs** | **27.34** | **167** | P | P | 12 49 45.2 | +0.4 |
| | 0.2nm,0.6s,baz=353,slow=8.8,SNR=6.6 | | | | | | |
| ASAR | | | | PcP | PcP | 12 53 03.4 | -1.1 |
| | 0.2nm,0.5s,baz=356,slow=3.3,SNR=5.2 | | | | | | |
| **STKA** | **Stephens Creek** | **37.28** | **160** | P | P | 12 51 11.3 | -0.4 |
| | 2.2nm,0.8s,baz=330,slow=9.2,SNR=4.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **58.53** | **325** | P | P | 12 53 56.5 | +0.3 |
| | 0.3nm,0.5s,baz=116,slow=9.1,SNR=6.3 | | | | | | |

*ISCJB* ***24*** *12:55:35.4±0.5, 50°.26N±0°.04×18°.69E±0°.03, h0km, Error ellipse: s-maj=5.4km s-min=2.5km az=15.7*

*CSEM* ***24*** *12:55:36.3±0.2, 50°.27N×18°.74E, h2km, ML2.6/5, Error ellipse: s-maj=6.0km s-min=2.7km az=13.0*

*WAR* ***24*** *12:55:36.8, 50°.27N×18°.83E, h1km, Mw2.6*

*PRU* ***24*** *12:55:37.5, 50°.22N×18°.71E, h0km*

**ISC 24 12:55:36.4±0.8, 50°.20N±0°.04×18°.73E±0°.02, h0km, n34, σ0s70/63, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OKC** | **Ostrava-Krasne** | **0.52** | **227** | *e*PG | **Pb** | **12 55 48.2** | **-0.2** |
| OKC | | | | *e*SG | **Sg** | **12 55 54.2** | **+1.1** |
| | comp=Z,14nm,0.3s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **0.52** | **227** | Pg | **Pb** | **12 55 48.2** | **-0.2** |
| OKC | | | | Sg | **Sg** | **12 55 54.2** | **+1.1** |
| | 14nm,0.3s | | | | | | |
| **OJC** | **Ojcow** | **0.68** | **88** | *e*Pg | **Pg** | **12 55 48.6** | **-0.9** |
| OJC | | | | *e*Sg | **Sg** | **12 55 58.9** | **+0.5** |
| **OJC** | **Ojcow** | **0.68** | **88** | *e*Pg | **Pg** | **12 55 48.6** | **-0.9** |
| OJC | | | | *e*Sg | **Sg** | **12 55 58.9** | **+0.5** |
| **OJC** | **Ojcow** | **0.68** | **88** | *e*Pg | **Pg** | **12 55 48.6** | **-0.9** |
| OJC | | | | *e*Sg | **Sg** | **12 55 58.9** | **+0.5** |
| **MORC** | **Moravsky Berou** | **0.88** | **242** | *e*Pg | **Pb** | **12 55 54.4** | **-0.1** |
| MORC | | | | *e*Sg | **Sb** | **12 56 07.2** | **+0.4** |
| **LANS** | **Liptovska Anna** | **1.15** | **155** | *e*Pg | **Pb** | **12 55 59.4** | **+0.2** |
| LANS | | | | *e*Sg | **Sn** | **12 56 15.7** | **-0.5** |
| **LANS** | **Liptovska Anna** | **1.15** | **155** | *e*PG | **Pb** | **12 55 59.4** | **+0.2** |
| LANS | | | | *e*SG | **Sn** | **12 56 15.7** | **-0.5** |
| **KRLC** | **Kraliky** | **1.26** | **265** | *e*PG | **Pg** | **12 56 00.4** | **-0.2** |
| KRLC | | | | *e*SG | **Sg** | **12 56 17.3** | **+0.4** |
| | comp=Z,2.7nm,0.3s | | | | | | |
| **KRLC** | **Kraliky** | **1.26** | **265** | Pg | **Pg** | **12 56 00.4** | **-0.2** |
| KRLC | | | | Sg | **Sg** | **12 56 17.3** | **+0.4** |
| | 2.7nm,0.3s | | | | | | |
| **NIE** | **Niedzica** | **1.28** | **127** | *e*Pg | **Pb** | **12 56 01.1** | **-0.3** |
| NIE | | | | *e*Sg | **Sn** | **12 56 19.9** | **+0.5** |
| **NIE** | **Niedzica** | **1.28** | **127** | *e*Pg | **Pb** | **12 56 01.1** | **-0.3** |
| NIE | | | | *e*Sg | **Sn** | **12 56 19.9** | **+0.5** |
| **NIE** | **Niedzica** | **1.28** | **127** | *e*Pg | **Pb** | **12 56 01.1** | **-0.3** |
| NIE | | | | *e*Sg | **Sn** | **12 56 19.9** | **+0.5** |
| **DPC** | **Dobruska-Polom** | **1.56** | **277** | *e*PG | **Pn** | **12 56 05.2** | **-0.2** |
| DPC | | | | *e*SG | **Sg** | **12 56 26.7** | **+0.4** |
| | comp=Z,11nm,0.4s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.56** | **277** | Pg | **Pn** | **12 56 05.2** | **-0.2** |
| DPC | | | | Sg | **Sg** | **12 56 26.7** | **+0.4** |
| | 11nm,0.4s | | | | | | |
| **VRAC** | **Vranov** | **1.65** | **238** | *e*Pn | **Pb** | **12 56 07.5** | **-0.1** |
| VRAC | | | | *e*Sg | **Sg** | **12 56 29.8** | **+0.5** |
| **KSP** | **Ksiaz** | **1.69** | **293** | *e*Pg | **Pb** | **12 56 08.4** | **+0.1** |
| KSP | | | | *e*Sg | **Sg** | **12 56 31.2** | **+0.6** |
| **KSP** | **Ksiaz** | **1.69** | **293** | *e*Pg | **Pb** | **12 56 08.4** | **+0.1** |
| KSP | | | | *e*Sg | **Sg** | **12 56 31.2** | **+0.6** |
| **KSP** | **Ksiaz** | **1.69** | **293** | *e*Pg | **Pb** | **12 56 08.4** | **+0.1** |
| KSP | | | | *e*Sg | **Sg** | **12 56 31.2** | **+0.6** |
| **VYHS** | **Vyhne** | **1.71** | **178** | *e*Pg | **Pn** | **12 56 07.4** | **0.0** |
| VYHS | | | | *e*Sn | **Sn** | **12 56 29.0** | **-0.9** |
| **VYHS** | **Vyhne** | **1.71** | **178** | *e*PG | **Pn** | **12 56 07.4** | **0.0** |
| VYHS | | | | *e*SN | **Sn** | **12 56 29.0** | **-0.9** |
| **UPC** | **Upice** | **1.77** | **281** | *e*PG | **Pb** | **12 56 09.6** | **-0.1** |
| UPC | | | | *e*SG | **Sg** | **12 56 34.2** | **+0.9** |
| **UPC** | **Upice** | **1.77** | **281** | Pg | **Pb** | **12 56 09.6** | **-0.1** |
| UPC | | | | Sg | **Sg** | **12 56 34.2** | **+0.9** |
| **STHS** | **Stebnicka Huta** | **1.80** | **115** | *e*Pn | **Pb** | **12 56 10.0** | **-0.3** |
| STHS | | | | *e*Sn | **Sg** | **12 56 35.7** | **+1.4** |
| **STHS** | **Stebnicka Huta** | **1.80** | **115** | *e*PN | **Pb** | **12 56 10.0** | **-0.3** |
| STHS | | | | *e*SN | **Sg** | **12 56 35.7** | **+1.4** |
| STHS | | | | *e*LG | Lg | 12 56 41.1 | |
| **GOPC** | **GO Pecny, Ondr** | **2.56** | **265** | *e*SG | **Sg** | **12 56 58.6** | **0.0** |
| **GOPC** | **GO Pecny, Ondr** | **2.56** | **265** | Sg | **Sg** | **12 56 58.6** | **0.0** |
| **PVCC** | **Panska Ves** | **2.69** | **279** | *e*SG | **Sg** | **12 57 02.7** | **0.0** |
| | comp=Z,6.0nm,0.3s | | | | | | |
| **PVCC** | **Panska Ves** | **2.69** | **279** | Sg | **Sg** | **12 57 02.7** | **0.0** |
| | 6.0nm,0.3s | | | | | | |
| **PRU** | **Pruhonice** | **2.71** | **267** | *e*SG | **Sg** | **12 57 01.6** | **-1.7** |
| **PRU** | **Pruhonice** | **2.71** | **267** | Sg | **Sg** | **12 57 01.6** | **-1.7** |
| **BRG** | **Berggiesshubel** | **3.13** | **284** | PG | **Pb** | **12 56 33.7** | **+0.8** |
| BRG | | | | SG | **Sg** | **12 57 16.6** | **-0.3** |
| | 3.4nm,0.5s | | | | | | |
| **KHC** | **Kasperske Hory** | **3.52** | **254** | *e*PN | **Pn** | **12 56 32.5** | **+0.2** |
| KHC | | | | *e*PG | **Pb** | **12 56 41.5** | **+2.0** |
| KHC | | | | *e*SG | **Sg** | **12 57 28.5** | **-0.8** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SNAA | | | | S | **S** | **14 19 10.8** | **-4.1** |
| **QSPA** | **South Pole Qui** | **33.83** | **180** | *e*P | **P** | **14 18 17.2** | **+1.0** |
| **SUR** | **Sutherland** | **40.67** | **74** | *e*P | **P** | **14 19 11.4** | **-3.0** |
| | 3.9nm,0.6s | | | | | | |
| **BOSA** | **Boshof** | **45.99** | **75** | P | **P** | **14 19 56.2** | **-0.9** |
| | 2.3nm,0.9s,baz=216,slow=7.8,SNR=3.6 | | | | | | |
| **VNDA** | **Vanda** | **46.21** | **183** | P | **P** | **14 19 59.7** | **+1.7** |
| | 6.3nm,0.6s,baz=186,slow=7.0,SNR=39 | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **48.34** | **17** | T | T | 15 13 02.2 | |
| | baz=189,slow=75,SNR=9.4 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **48.34** | **16** | T | T | 15 13 03.6 | |
| | baz=189,slow=75,SNR=12 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **48.35** | **17** | T | T | 15 13 07.5 | |
| | baz=189,slow=75,SNR=12 | | | | | | |
| **LBTB** | **Lobatse** | **49.05** | **73** | P | **P** | **14 20 20.0** | **-0.7** |
| | 3.1nm,0.6s,baz=213,slow=7.7,SNR=6.3 | | | | | | |
| **H10N1** | **ASCENSION HYDR** | **49.45** | **16** | T | T | 15 13 52.7 | |
| | baz=193 | | | | | | |
| **H10N3** | **ASCENSION HYDR** | **49.45** | **16** | T | T | 15 14 26.6 | |
| | baz=193 | | | | | | |
| **H10N2** | **ASCENSION HYDR** | **49.47** | **16** | T | T | 15 14 27.1 | |
| | baz=193 | | | | | | |
| **LPAZ** | **La Paz** | **50.65** | **305** | P | **P** | **14 20 35.1** | **+1.6** |
| | 1.7nm,0.6s,baz=98,slow=5.5,SNR=9.4 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **73.34** | **29** | P | **P** | **14 23 04.7** | **+0.1** |
| | 2.4nm,0.6s,baz=196,slow=6.6,SNR=18 | | | | | | |
| TORD | | | | pP | **pP** | **14 23 32.5** | **+2.5** |
| | 1.3nm,0.8s,baz=196,slow=6.5,SNR=3.8 | | | | | | |
| **STKA** | **Stephens Creek** | **91.52** | **170** | P | **P** | **14 24 41.9** | **+2.8** |
| | 1.3nm,0.7s,baz=187,slow=8.1,SNR=4.6 | | | | | | |
| **ASAR** | **Alice Springs** | **98.61** | **162** | P | Pdif | 14 25 14.3 | +2.8 |
| | 0.5nm,0.6s,baz=182,slow=3.9,SNR=11 | | | | | | |
| **WRA** | **Warramunga Arr** | **102.33** | **162** | P | **Pdif** | **14 25 30.3** | **+2.2** |
| | 0.6nm,0.9s,baz=195,slow=4.3,SNR=3.5 | | | | | | |
| **YKA** | **Yellowknife Ar** | **136.49** | **318** | PKP | **PKPdf** | **14 30 52.5** | **0.0** |
| | 0.1nm,0.3s,baz=132,slow=2.2,SNR=11 | | | | | | |
| **INK** | **Inuvik** | **146.13** | **320** | PKPbc | **PKPab** | **14 31 10.9** | **-0.7** |
| | 1.0nm,0.4s,baz=70,slow=4.5,SNR=8.9 | | | | | | |
| **ILAR** | **Eielson Array** | **150.41** | **311** | PKPbc | **PKPbc** | **14 31 22.1** | **0.0** |
| | 0.4nm,0.5s,baz=134,slow=4.9,SNR=14 | | | | | | |
| ILAR | | | | pPKPbc | **sPKPdf** | **14 31 53.7** | **-0.8** |
| | 0.7nm,0.8s,baz=148,slow=2.0,SNR=3.6 | | | | | | |
| **SONM** | **Songino Array** | **150.68** | **87** | PKPbc | **PKPbc** | **14 31 22.7** | **-0.6** |
| | 0.3nm,0.5s,baz=217,slow=3.8,SNR=5.3 | | | | | | |
| SONM | | | | pPKPbc | **sPKPdf** | **14 31 52.7** | **-2.9** |
| | 0.2nm,0.5s,baz=223,slow=3.5,SNR=2.1 | | | | | | |

*MDD **24** 14:15:48.3±3.4, 32°.42N×7°.73W, h0km, mb4.2/8, Error ellipse: s-maj=31.5km s-min=27.1km az=145.0, PRXIMO SOLUCIN POBRE*
*IGIL **24** 14:15:48.7, 32°.42N×7°.73W, h0km*
*SFS **24** 14:15:49.0, 32°.45N×7°.62W, h0km, ML4.1*
*CSEM **24** 14:15:51.7±0.9, 32°.71N×7°.66W, h5km, mb4.2, Error ellipse: s-maj=17.2km s-min=14.3km az=143.0*

**ISC 24 14:15:52.4±3.9, 32°.7N±0°.2×7°.72W±0°.09, h10km, n23, σ1§37/39, Morocco**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AVE** | **Averroes** | **0.64** | **24** | *e*P | **Pb** | **14 16 05.7** | **0.0** |
| AVE | | | | *e*S | **Sn** | **14 16 23.2** | **+5.4** |
| **PFVI** | **Vila Bisbo** | **4.50** | **349** | P | **Pn** | **14 17 00.1** | **-0.6** |
| | 36nm,1.2s,SNR=8.9 | | | | | | |
| PFVI | | | | S | **Sn** | **14 17 54.2** | **+1.1** |
| | 1.2nm,0.2s,SNR=7.9 | | | | | | |
| **PFVI** | **Vila Bisbo** | **4.50** | **349** | P | **Pn** | **14 17 00.1** | **-0.6** |
| | 36nm,1.2s,SNR=8.9 | | | | | | |
| PFVI | | | | S | **Sn** | **14 17 54.2** | **+1.1** |
| | 1.2nm,0.2s,SNR=7.9 | | | | | | |
| **EMIJ** | **Mijas** | **4.54** | **31** | S | **Sn** | **14 17 53.6** | **-0.6** |
| | 4.5nm,0.4s,SNR=7.9 | | | | | | |
| **EMIJ** | **Mijas** | **4.54** | **31** | S | **Sn** | **14 17 53.6** | **-0.6** |
| | 4.5nm,0.4s,SNR=7.9 | | | | | | |
| **MORF** | **Marmelete** | **4.65** | **351** | *e*P | **Pn** | **14 17 02.0** | **-0.7** |
| **EGRO** | **El Granado** | **4.81** | **2** | P | **Pn** | **14 17 04.5** | **-0.5** |
| | 2.7nm,0.5s,SNR=5.1 | | | | | | |
| EGRO | | | | S | **Sn** | **14 18 01.0** | **+0.2** |
| | 5.6nm,0.4s,SNR=6.3 | | | | | | |
| **EGRO** | **El Granado** | **4.81** | **2** | P | **Pn** | **14 17 04.5** | **-0.5** |
| | 2.7nm,0.5s,SNR=5.1 | | | | | | |
| EGRO | | | | S | **Sn** | **14 18 01.0** | **+0.2** |
| | 5.6nm,0.4s,SNR=6.3 | | | | | | |
| **EMIN** | **Mina Concepcio** | **5.12** | **9** | P | **Pn** | **14 17 08.7** | **-0.4** |
| | 3.3nm,0.7s,SNR=15 | | | | | | |
| EMIN | | | | S | **Sn** | **14 18 08.6** | **+0.4** |
| | 5.3nm,0.3s,SNR=19 | | | | | | |
| **EMIN** | **Mina Concepcio** | **5.12** | **9** | P | **Pn** | **14 17 08.7** | **-0.4** |
| | 3.3nm,0.7s,SNR=15 | | | | | | |
| EMIN | | | | S | **Sn** | **14 18 08.6** | **+0.4** |
| | 5.3nm,0.3s,SNR=19 | | | | | | |
| **EGOR** | **Sierra Gorda,** | **5.29** | **33** | S | **Sn** | **14 18 12.3** | **-0.5** |
| | 4.0nm,0.4s,SNR=4.0 | | | | | | |
| **EGOR** | **Sierra Gorda,** | **5.29** | **33** | S | **Sn** | **14 18 12.3** | **-0.5** |
| | 4.0nm,0.4s,SNR=4.0 | | | | | | |
| **ELGU** | **Los Guajares,** | **5.34** | **38** | P | **Pn** | **14 17 11.0** | **-1.3** |
| | 0.3nm,0.1s,SNR=7.9 | | | | | | |
| ELGU | | | | S | **Sn** | **14 18 13.4** | **-0.5** |
| | 2.8nm,0.4s,SNR=7.9 | | | | | | |
| **ELGU** | **Los Guajares,** | **5.34** | **38** | P | **Pn** | **14 17 11.0** | **-1.3** |
| | 0.3nm,0.1s,SNR=7.9 | | | | | | |
| ELGU | | | | S | **Sn** | **14 18 13.4** | **-0.5** |
| | 2.8nm,0.4s,SNR=7.9 | | | | | | |
| **ECAB** | **El Cabril** | **5.67** | **19** | P | **Pn** | **14 17 16.5** | **-0.3** |
| | 7.8nm,1.2s,SNR=9.6 | | | | | | |
| ECAB | | | | S | **Sn** | **14 18 19.8** | **-2.1** |
| | 5.2nm,0.5s,SNR=11 | | | | | | |
| **ECAB** | **El Cabril** | **5.67** | **19** | P | **Pn** | **14 17 16.5** | **-0.3** |
| | 7.8nm,1.2s,SNR=9.6 | | | | | | |
| ECAB | | | | S | **Sn** | **14 18 19.8** | **-2.1** |
| | 5.2nm,0.5s,SNR=11 | | | | | | |
| **EADA** | **Adamuz** | **6.01** | **24** | P | **Pn** | **14 17 21.4** | **-0.1** |
| | 1.8nm,0.4s,SNR=10 | | | | | | |
| EADA | | | | S | **Sn** | **14 18 28.6** | **-1.9** |
| | 11nm,1.2s | | | | | | |
| **EADA** | **Adamuz** | **6.01** | **24** | P | **Pn** | **14 17 21.4** | **-0.1** |
| | 1.8nm,0.4s,SNR=10 | | | | | | |
| EADA | | | | S | **Sn** | **14 18 28.6** | **-1.9** |
| | 11nm,1.2s | | | | | | |
| **EBAD** | **Badajoz** | **6.06** | **5** | P | **Pn** | **14 17 22.2** | **+0.2** |
| | 3.3nm,1.0s,SNR=7.5 | | | | | | |
| EBAD | | | | S | **Sn** | **14 18 30.4** | **-1.0** |
| | 26nm,1.6s | | | | | | |
| **EBAD** | **Badajoz** | **6.06** | **5** | P | **Pn** | **14 17 22.2** | **+0.2** |
| | 3.3nm,1.0s,SNR=7.5 | | | | | | |
| EBAD | | | | S | **Sn** | **14 18 30.4** | **-1.0** |
| | 26nm,1.6s | | | | | | |
| **GORA** | **Gorafe** | **6.11** | **38** | P | **Pn** | **14 17 24.8** | **+1.9** |
| | 11nm,0.1s,SNR=7.9 | | | | | | |
| GORA | | | | S | **Sn** | **14 18 35.1** | **+2.3** |
| | 2.1nm,0.2s,SNR=7.9 | | | | | | |
| **EPLA** | **Plasencia** | **7.45** | **10** | P | **Pn** | **14 17 41.9** | **+0.7** |
| | 46nm,1.6s,SNR=5.9 | | | | | | |
| **EPLA** | **Plasencia** | **7.45** | **10** | P | **Pn** | **14 17 41.9** | **+0.7** |
| | 46nm,1.6s,SNR=5.9 | | | | | | |

*ISK **24** 14:16:30.7, 39°.29N×36°.49E, h18km, ML2.0*
*ISCJB **24** 14:16:31.5±0.5, 39°.27N±0°.03×36°.48E±0°.04, h0km, Error ellipse: s-maj=5.2km s-min=3.9km az=156.2*
*CSEM **24** 14:16:31.5±0.2, 39°.30N×36°.49E, h1km, MD2.8, Error ellipse: s-maj=5.9km s-min=4.2km az=172.0, Suspected Mining explosion.*
*DDA **24** 14:16:31.6, 39°.27N×36°.46E, h7km, Md2.8, Suspected Mining explosion.*

**ISC 24 14:16:31.9±1.0, 39°.29N±0°.03×36°.49E±0°.02, h0km, n19, σ0§85/28, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CUALT** | **Altinyayla-SIV** | **0.21** | **94** | *i* P | **Pg** | **14 16 36.0** | **+0.1** |
| CUALT | | | | *i* S | **Sg** | **14 16 40.1** | **+1.6** |
| **CUALT** | **Altinyayla-SIV** | **0.21** | **94** | P | **Pg** | **14 16 36.0** | **+0.1** |
| CUALT | | | | S | **Sg** | **14 16 40.1** | **+1.6** |
| **CUSAR** | **Sarkisla-SIVAS** | **0.23** | **304** | *i* P | **Pg** | **14 16 36.2** | **-0.1** |
| CUSAR | | | | *i* S | **Sg** | **14 16 40.3** | **+1.0** |
| **CUSAR** | **Sarkisla-SIVAS** | **0.23** | **304** | P | **Pg** | **14 16 36.2** | **-0.1** |
| CUSAR | | | | S | **Sg** | **14 16 40.3** | **+1.0** |
| **BNN** | **Bunyan** | **0.66** | **229** | *e*PG | **Pg** | **14 16 43.8** | **-0.8** |
| BNN | | | | *e*SG | **Sg** | **14 16 54.2** | **+1.0** |
| **BNN** | **Bunyan** | **0.66** | **229** | *e*Pg | **Pg** | **14 16 43.8** | **-0.8** |
| BNN | | | | *e*Sg | **Sg** | **14 16 54.2** | **+1.0** |
| **SVSK** | **Karacayir** | **0.74** | **32** | *e*PG | **Pg** | **14 16 45.2** | **-0.8** |
| SVSK | | | | *e*SG | **Sg** | **14 16 56.6** | **+1.0** |
| **SVSK** | **Karacayir** | **0.74** | **32** | *e*Pg | **Pg** | **14 16 45.3** | **-0.8** |
| SVSK | | | | *e*Sg | **Sg** | **14 16 56.7** | **+1.0** |
| **SCER** | **sogukcermik** | **0.76** | **41** | *i* P | **Pg** | **14 16 45.8** | **-0.5** |
| SCER | | | | *i* S | **Sb** | **14 16 58.7** | **-0.2** |
| **SCER** | **sogukcermik** | **0.76** | **41** | P | **Pg** | **14 16 45.8** | **-0.5** |
| **CUKAN** | **kangal_SIVAS** | **0.76** | **88** | *i* P | **Pg** | **14 16 45.2** | **-1.2** |
| **CUKAN** | **kangal_SIVAS** | **0.76** | **88** | P | **Pg** | **14 16 45.2** | **-1.2** |
| **SARI** | **SarD1z-Kayseri** | **0.88** | **184** | *e*PG | **Pg** | **14 16 48.4** | **-0.3** |
| **YOZ** | **Yozgat** | **0.97** | **292** | *e*PG | **Pg** | **14 16 50.0** | **-0.5** |
| **YOZ** | **Yozgat** | **0.97** | **292** | *e*Pg | **Pg** | **14 16 50.0** | **-0.5** |
| **HEKM** | **Malatya_Hekimh** | **1.21** | **109** | *i* P | **Pb** | **14 16 55.4** | **-0.5** |
| **HEKM** | **Malatya_Hekimh** | **1.21** | **109** | P | **Pb** | **14 16 55.4** | **-0.5** |
| **AKCD** | **Akcadag** | **1.50** | **131** | *i* P | **Pg** | **14 17 00.1** | **-0.3** |
| **AKCD** | **Akcadag** | **1.50** | **131** | P | **Pg** | **14 17 00.2** | **-0.3** |

**IDC 24 14:41:08.6±1.2, 1°.16N×126°.42E, h0km, mb3.9/7, mb1 4.0/8, mb1mx3.7/43, mb2mb3.9/8, ML3.7/1, Error ellipse: s-maj=93.7km s-min=17.1km az=69.0, Northern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **19.16** | **182** | P | Pn | 14 45 35.1 | +0.7 |
| | 0.2nm,0.3s,baz=20,slow=12,SNR=1.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **22.36** | **160** | P | P | 14 46 08.0 | -0.4 |
| | 1.8nm,0.4s,baz=335,slow=11,SNR=58 | | | | | | |
| **ASAR** | **Alice Springs** | **25.73** | **164** | P | P | 14 46 40.4 | -0.5 |
| | 1.5nm,0.5s,baz=351,slow=15,SNR=12 | | | | | | |
| **SONM** | **Songino Array** | **49.63** | **342** | P | P | 14 50 01.3 | -0.6 |
| | 0.5nm,0.6s,baz=156,slow=9.1,SNR=3.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **59.49** | **326** | P | P | 14 51 13.1 | -0.5 |
| | 1.4nm,0.7s,baz=120,slow=7.4,SNR=10.0 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **63.73** | **328** | P | P | 14 51 41.8 | -0.3 |
| | 1.7nm,0.6s,baz=128,slow=6.2,SNR=16 | | | | | | |
| **BVAR** | **Borovoye Array** | **69.30** | **328** | P | P | 14 52 18.1 | +0.4 |
| | 0.4nm,0.5s,baz=137,slow=11,SNR=2.9 | | | | | | |
| **GEYT** | **Alibeck** | **72.27** | **310** | P | P | 14 52 37.6 | +1.5 |
| | 0.7nm,0.5s,baz=152,slow=4.1,SNR=2.2 | | | | | | |

*NIED **24** 15:11:00, 38°.40N×142°.20E, h26km, Mw3.7 Best double couple: M0≤4.45000×10^14 NP1:φs321.00000°, δ39.00000°, λ-126.00000°. NP2:φs184.00000°, δ59.00000°, λ-64.00000°.*
*ISCJB **24** 15:11:04.7±1.1, 38°.39N±0°.04×142°.20E±0°.06, h29km±6km, mb3.7/12, Error ellipse: s-maj=8.2km s-min=5.5km az=24.7*
*JMA **24** 15:11:05.9±0.1, 38°.43N×142°.16E, h32km±1km, M3.8*
*JMA Felt II J1.*
*IDC **24** 15:11:08.0±2.5, 38°.38N×142°.16E, h41km±23km, mb3.5/11, mb1 3.7/16, mb1mx3.6/45, mbtmp3.7/16, ML3.5, MS2.8/1, Ms1 2.8/1, ms1mx2.2/50, Error ellipse: s-maj=21.4km s-min=15.0km az=93.0*

**ISC 24 15:11:04.3±1.7, 38°.34N±0°.04×142°.15E±0°.06, h15km±10km, n33, σ1§52/39, mb3.7/12, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JIO** | **Ouri** | **0.64** | **280** | P | **Pn** | **15 11 18.4** | **-0.3** |
| JIO | | | | S | **Sn** | **15 11 26.8** | **-1.8** |
| **OFUJ** | **Ofunato** | **0.82** | **333** | P | **Pg** | **15 11 20.1** | **-0.2** |
| OFUJ | | | | S | **Sg** | **15 11 30.1** | **-1.0** |
| **JMK** | **Ichinoseki** | **0.94** | **310** | P | **Pb** | **15 11 22.6** | **+0.6** |
| JMK | | | | S | **Sb** | **15 11 34.1** | **+0.6** |
| **JOU** | **Okura** | **1.16** | **272** | P | **Pg** | **15 11 26.6** | **-0.1** |
| JOU | | | | S | **Sn** | **15 11 41.7** | **0.0** |
| **JMM** | **Marumori** | **1.17** | **246** | P | **Pb** | **15 11 26.3** | **+0.1** |
| JMM | | | | S | **Sb** | **15 11 40.9** | **-0.2** |
| **JOM** | **Ohasama** | **1.31** | **330** | P | **Pn** | **15 11 27.7** | **-0.3** |
| JOM | | | | *e*S | **Sb** | **15 11 43.2** | **-2.0** |
| **JFK** | **Kawauchi** | **1.40** | **226** | P | **Pn** | **15 11 29.4** | **+0.1** |
| JFK | | | | S | **Sn** | **15 11 46.5** | **-1.1** |
| **JYK** | **Kaneyama** | **1.51** | **293** | P | **Pn** | **15 11 31.3** | **+0.5** |
| JYK | | | | *e*S | **Sb** | **15 11 50.4** | **-0.6** |
| **JRG** | **Rokugo** | **1.58** | **312** | P | **Pn** | **15 11 32.2** | **+0.4** |
| **MJAR** | **Matsushiro Arr** | **3.61** | **241** | P | **Pn** | **15 12 01.6** | **+1.9** |
| | 2.2nm,0.3s,baz=86,slow=18,SNR=22 | | | | | | |
| MJAR | | | | S | **Sb** | **15 12 48.5** | **-3.0** |
| | 1.4nm,0.3s,baz=61,slow=15,SNR=2.7 | | | | | | |
| MJAR | | | | LR | LR | 15 13 44.1 | |
| | comp=Z,137nm,18.5s,baz=40,slow=43 | | | | | | |
| **MAT** | **Matsushiro** | **3.61** | **241** | P | **Pn** | **15 12 02.4** | **+2.7** |
| MAT | | | | *e*S | **Sb** | **15 12 49.5** | **-2.0** |
| **JHJ** | **Hachijo jima 2** | **5.56** | **201** | P | **Pn** | **15 12 27.6** | **+1.2** |
| | 10nm,0.3s,baz=73,slow=14,SNR=3.4 | | | | | | |
| JHJ | | | | S | **Sn** | **15 13 26.0** | **-4.0** |
| | 12nm,0.3s,baz=50,slow=17,SNR=2.3 | | | | | | |
| **ASAJ** | **Asahikawa** | **5.78** | | P | **Pn** | **15 12 30.4** | **+0.9** |
| | 0.4nm,0.3s,baz=201,slow=18,SNR=12 | | | | | | |
| ASAJ | | | | S | **Sn** | **15 13 34.5** | **-0.9** |
| | 0.4nm,0.3s,baz=190,slow=17,SNR=2.0 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **9.62** | **311** | P | **Pn** | **15 13 23.2** | **+1.0** |
| | 0.2nm,0.3s,baz=118,slow=14,SNR=4.0 | | | | | | |
| **KSRS** | **Korea Array** | **11.28** | **270** | P | **Pn** | **15 13 48.8** | **+4.0** |
| | 0.2nm,0.3s,baz=77,slow=14,SNR=3.2 | | | | | | |
| **SONM** | **Songino Array** | **27.56** | **302** | P | **P** | **15 16 50.8** | **+0.1** |
| | 0.2nm,0.6s,baz=101,slow=7.8,SNR=2.8 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.36** | **124** | T | T | 15 47 16.9 | |
| | baz=316,slow=75,SNR=388 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.36** | **124** | T | T | 15 47 17.1 | |
| | baz=316,slow=75,SNR=346 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.37** | **124** | T | T | 15 47 17.2 | |
| | baz=316,slow=75,SNR=259 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.12** | **126** | T | T | 15 48 11.3 | |
| | baz=318,slow=76,SNR=76 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.12** | **126** | T | T | 15 48 11.5 | |
| | baz=318,slow=76,SNR=107 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.14** | **126** | T | T | 15 48 12.5 | |
| | baz=318,slow=76,SNR=72 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.47** | **311** | P | **P** | **15 18 50.5** | **+0.2** |
| | 0.6nm,0.4s,baz=100,slow=7.8,SNR=3.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.93** | **301** | P | **P** | **15 19 10.2** | **-0.2** |
| | 0.2nm,0.5s,baz=78,slow=11,SNR=4.6 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **45.66** | **307** | P | **P** | **15 19 23.9** | **-0.3** |
| | 1.3nm,0.2s,baz=93,slow=7.7,SNR=8.0 | | | | | | |
| **ILAR** | **Eielson Array** | **48.08** | **33** | P | **P** | **15 19 42.7** | **-0.2** |
| | 0.3nm,0.2s,baz=268,slow=5.8,SNR=6.1 | | | | | | |
| **BVAR** | **Borovoye Array** | **50.13** | **312** | P | **P** | **15 20 01.8** | **+3.1** |
| | 0.2nm,0.5s,baz=69,slow=7.8,SNR=2.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **58.44** | **189** | P | **P** | **15 20 59.6** | **+0.1** |
| | 1.3nm,0.5s,baz=7.8,slow=7.7,SNR=38 | | | | | | |
| **ASAR** | **Alice Springs** | **62.16** | **189** | P | **P** | **15 21 25.4** | **+0.5** |
| | 1.3nm,0.7s,baz=5.0,slow=4.7,SNR=16 | | | | | | |
| **YKA** | **Yellowknife Ar** | **62.39** | **31** | P | **P** | **15 21 25.6** | **-0.4** |
| | 0.1nm,0.6s,baz=299,slow=6.0,SNR=4.0 | | | | | | |
| **FINES** | **FINESS Array B** | **67.93** | **332** | P | **P** | **15 22 02.0** | **0.0** |
| | 3.7nm,0.9s,baz=39,slow=9.0,SNR=2.8 | | | | | | |
| **PDAR** | **Pinedale Array** | **76.34** | **46** | P | **P** | **15 22 53.0** | **+0.1** |
| | 0.8nm,0.9s,baz=349,slow=1.5,SNR=4.0 | | | | | | |
| **TXAR** | **Lajitas Array** | **88.87** | **53** | P | **P** | **15 23 58.6** | **+0.4** |
| | 0.3nm,0.6s,baz=316,slow=3.5,SNR=3.8 | | | | | | |

*BKK **24** 15:14:01.3±0.9, 24°.N±6°×9°.8E±1°.0, h10km, M5.0/10, mb4.8/9, mB5.4/6, MLv5.2/10, Mw(mB)4.8/6*
*ISCJB **24** 15:14:14.6±0.3, 22°.61N±0°.05×98°.70E±0°.05, h10km, mb3.9/17, MS3.3/3, Error ellipse: s-maj=8.6km s-min=4.5km az=136.3*
*IDC **24** 15:14:15.4±0.6, 22°.57N×98°.66E, h0km, mb3.9/14, mb1 4.1/16, mb1mx3.8/49, mbtmp4.0/16, ML4.2/2, MS3.4/3, Ms1 3.4/3, ms1mx2.8/62, Error ellipse: s-maj=30.4km s-min=11.2km az=71.0*
*NEIC **24** 15:14:16.9±0.4, 22°.55N×98°.57E, h10km, mb4.0/3, Error ellipse: s-maj=17.9km s-min=6.3km az=71.0*
*PLV **24** 15:15:57.7±2.5, 22°.22N×102°.12E, h6km, ML3.3*

**ISC 24 15:14:16.9±0.5, 22°.56N±0°.04×98°.62E±0°.05, h10km, n42, σ1§44/43, mb4.0/17, MS3.3/3, Myanmar-China border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CHTO** | **Chiang Mai** | **3.74** | **175** | P | **Pn** | **15 15 14.8** | **+0.1** |
| CHTO | | | | S | **Sb** | **15 16 09.5** | **+1.1** |
| **CHTO** | **Chiang Mai** | **3.74** | **175** | *e*Pn | **Pn** | **15 15 14.3** | **-0.4** |
| **CMMT** | **Chiang Mai** | **3.74** | **175** | P | **Pn** | **15 15 14.8** | **+0.1** |
| CMMT | | | | S | **Sb** | **15 16 09.5** | **+1.1** |
| **CMAR** | **Chiang Mai Arr** | **4.09** | **176** | Pn | **Pn** | **15 15 19.7** | **+0.2** |
| | 3.4nm,0.3s,baz=352,slow=13,SNR=109 | | | | | | |
| CMAR | | | | Pg | **Pb** | **15 15 31.9** | **+2.9** |
| | 18nm,0.3s,baz=360,slow=17,SNR=99 | | | | | | |
| CMAR | | | | Lg | Lg | 15 16 23.2 | |
| | 22nm,0.3s,baz=77,slow=22,SNR=7.2 | | | | | | |
| **PHRA** | **Phrae** | **4.31** | **159** | P | **Pn** | **15 15 23.3** | **+0.7** |
| | 15nm,2.2s,9.5nm | | | | | | |
| PHRA | | | | S | **Sg** | **15 16 32.8** | **-2.6** |
| | 15nm,2.2s,9.5nm | | | | | | |
| **SPV** | **Sa-pa** | **4.83** | **92** | *e*P | **Sn** | **15 16 26.2** | **+0.2** |
| **MCVV** | **Moc Chau** | **5.88** | **106** | *e*Sg | **Sg** | **15 17 26.2** | **+0.5** |
| MCVV | | | | AML | AML | 15 17 32.2 | |
| | comp=E,94nm,0.7s | | | | | | |
| MCVV | | | | AML | AML | 15 17 33.3 | |
| | comp=N,137nm,0.7s | | | | | | |
| **PBKT** | **Sadao Pong** | **6.35** | **159** | P | **Pn** | **15 15 51.0** | **+0.3** |
| | comp=N,30nm,0.9s,comp=N,0.6nm | | | | | | |
| PBKT | | | | S | **Sg** | **15 17 35.9** | **-5.1** |
| | comp=N,30nm,0.9s,comp=N,0.6nm | | | | | | |
| **BCVB** | **Bac Can** | **6.66** | **94** | *e*Sg | **Sg** | **15 17 46.8** | **-4.1** |
| **SHL** | **Shillong** | **6.84** | **297** | *e*P | Pb | 15 16 07.0 | -9.1 |
| **UTHA** | **Uthaitani** | **7.00** | **173** | P | **Pn** | **15 16 00.1** | **+0.5** |
| | comp=N,6.3nm,0.8s,comp=N,121nm | | | | | | |
| **LSVB** | **Lang Son stati** | **7.57** | **94** | *e*Sg | **Sg** | **15 18 20.0** | **+0.1** |
| **LSA** | **Lhasa** | **9.78** | **318** | Pn | **Pn** | **15 16 37.2** | **-0.9** |
| **TAPN** | **Taplejung** | **10.98** | **298** | *e*P | **Pn** | **15 16 55.3** | **+0.8** |
| | comp=N,10nm,0.6s | | | | | | |
| **ODAN** | **Odare** | **11.07** | **295** | *e*P | **Pn** | **15 16 55.0** | **-0.5** |
| | comp=N,9.8nm,0.6s | | | | | | |
| **RAMN** | **Ramite** | **11.76** | **294** | *e*P | **Pn** | **15 17 03.5** | **-1.6** |
| | comp=N,11nm,0.7s | | | | | | |
| **JIRN** | **Jiri** | **12.35** | **297** | *e*P | **Pn** | **15 17 12.8** | **-0.4** |
| **GUN** | **Gumba** | **12.70** | **297** | *e*P | **Pn** | **15 17 17.6** | **-0.4** |
| | comp=N,14nm,0.6s | | | | | | |
| **PKI** | **Pulchoki** | **12.97** | **295** | *e*P | **Pn** | **15 17 20.0** | **-1.6** |
| | comp=N,7.8nm,0.7s | | | | | | |
| **PYUN** | **Piuthan** | **15.17** | **295** | *e*P | **Pn** | **15 17 51.7** | **+0.2** |
| **PSI** | **Prapat** | **19.64** | **179** | P | **Pn** | **15 18 48.7** | **+1.4** |
| | comp=N,1.0nm,0.3s,baz=337,slow=9.3,SNR=29 | | | | | | |
| **SONM** | **Songino Array** | **25.98** | **12** | P | **P** | **15 19 50.4** | **+0.5** |
| | comp=N,1.3nm,0.7s,baz=193,slow=10,SNR=9.6 | | | | | | |
| **ULN** | **Ulaanbaatar** | **26.14** | **13** | *e*P | **P** | **15 19 52.8** | **+1.4** |
| | comp=N,3.0nm,1.0s | | | | | | |
| **MKAR** | **Makanchi Array** | **27.55** | **335** | P | **P** | **15 20 02.3** | **-1.5** |
| | comp=N,0.3nm,0.5s,baz=124,slow=9.6,SNR=3.5 | | | | | | |
| **KSRS** | **Korea Array** | **29.25** | **53** | LR | LR | 15 33 24.3 | |
| | comp=N,82nm,18.7s,baz=254,slow=39 | | | | | | |
| **TLY** | **Talaya** | **29.33** | **6** | LR | LR | 15 33 10.3 | |
| | comp=N,78nm,19.2s,baz=182,slow=39 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **32.11** | **336** | P | **P** | **15 20 45.2** | **+0.9** |
| | comp=N,0.5nm,0.2s,baz=143,slow=9.0,SNR=3.8 | | | | | | |
| **KURK** | **Kurchatov** | **32.15** | **336** | P | **P** | **15 20 45.2** | **+0.6** |
| **ZALV** | **Zalesovo Beam** | **33.04** | **345** | P | **P** | **15 20 53.3** | **+1.0** |
| | comp=N,0.8nm,0.4s,baz=156,slow=8.3,SNR=5.2 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **36.89** | **59** | LR | LR | 15 37 50.0 | |
| | comp=N,31nm,19.0s,baz=40,slow=38 | | | | | | |
| **BVAR** | **Borovoye Array** | **37.26** | **332** | P | **P** | **15 21 29.7** | **+1.0** |
| | comp=N,0.6nm,0.6s,baz=127,slow=11,SNR=3.5 | | | | | | |
| **GEYT** | **Alibeck** | **37.88** | **303** | P | **P** | **15 21 35.0** | **+0.8** |
| | comp=N,1.7nm,0.8s,baz=158,slow=4.3,SNR=4.8 | | | | | | |
| **ABKAR** | **Akbulak array** | **40.45** | **321** | *e*P | **P** | **15 21 55.1** | **-0.4** |
| | comp=N,3.2nm,0.9s | | | | | | |
| **WRA** | **Warramunga Arr** | **54.78** | **138** | P | **P** | **15 23 46.8** | **-0.4** |
| | comp=N,2.1nm,0.7s,baz=325,slow=7.7,SNR=16 | | | | | | |
| **WRAB** | **Tennant Creek** | **54.78** | **138** | *e*P | **P** | **15 23 46.1** | **-1.1** |
| | comp=N,1.4nm,0.9s | | | | | | |
| **ASAR** | **Alice Springs** | **57.34** | **141** | P | **P** | **15 24 05.5** | **0.0** |
| | comp=N,1.6nm,0.8s,baz=320,slow=6.6,SNR=12 | | | | | | |
| **AKASG** | **Malin Array Be** | **59.92** | **317** | P | **P** | **15 24 21.9** | **-1.2** |
| | comp=N,0.7nm,0.5s,baz=78,slow=6.7,SNR=4.6 | | | | | | |
| **FINES** | **FINESS Array B** | **62.11** | **329** | P | **P** | **15 24 37.8** | **+0.1** |
| | comp=N,3.7nm,1.0s,baz=111,slow=11,SNR=2.7 | | | | | | |
| **STKA** | **Stephens Creek** | **67.98** | **141** | P | **P** | **15 25 16.3** | **0.0** |
| | comp=N,1.8nm,0.8s,baz=304,slow=11,SNR=3.1 | | | | | | |
| **NOA** | **NORSAR Array B** | **69.30** | **329** | P | **P** | **15 25 23.6** | **-0.7** |
| | comp=N,1.6nm,0.9s,baz=117,slow=5.9,SNR=3.4 | | | | | | |
| **INK** | **Inuvik** | **81.77** | **17** | P | **P** | **15 26 35.4** | **-0.2** |
| | comp=N,2.7nm,1.0s,baz=284,slow=2.7,SNR=9.6 | | | | | | |
| **YKA** | **Yellowknife Ar** | **91.22** | **15** | P | **P** | **15 27 21.4** | **-0.7** |
| | comp=N,0.4nm,0.8s,baz=332,slow=4.8,SNR=5.6 | | | | | | |

*ISCJB **24** 15:16:32.4±0.4, 67°.89N±0°.03×25

| | | | | | | |
|---|---|---|---|---|---|---|
| **BURU** | **Burvik** | **3.75** | **208** | P | **Pn** | **15 17 33.5 +1.3** |
| **BURU** | **Burvik** | **3.75** | **208** | *e*P | **Pn** | **15 17 33.5 +1.3** |
| **UMAU** | **Umeaa** | **4.52** | **208** | P | **Pn** | **15 17 43.1 +0.4** |
| **UMAU** | **Umeaa** | **4.52** | **208** | *e*P | **Pn** | **15 17 43.1 +0.4** |

*DDA* ***24*** *15:19:20.6,38°.78N×30°.22E,h7km,Ml2.6*
*ISCJB* ***24*** *15:19:21.4±0.5,38°.78N±0°.03×30°.21E±0°.03,h8km±5km, Error ellipse: s-maj=5.2km s-min=4.3km az=19.3*
*CSEM* ***24*** *15:19:21.6±0.2,38°.76N×30°.21E,h10km,ML2.1*
*ISK* ***24*** *15:19:21.3,38°.68N×30°.17E,h16km, ML2.1*

**ISC 24 15:19:21.1±1.0, 38°.76N±0°.03×30°.22E±0°.02, h10km±10km, n27,σ0.66/41, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SHUT** | **Suhut-Afyon** | **0.33** | **129** | *e*PG | **Pb** | **15 19 28.7** | **-0.5** |
| SHUT | | | | *e*SG | **Sb** | **15 19 33.7** | **-0.9** |
| **SHUT** | **Suhut-Afyon** | **0.33** | **129** | *e*Pg | **Pb** | **15 19 28.7** | **-0.5** |
| SHUT | | | | *e*Sg | **Sb** | **15 19 33.7** | **-0.9** |
| **KZIL** | **AFYON_Kizioren** | **0.51** | **187** | *i* P | **Pg** | **15 19 31.5** | **+0.5** |
| KZIL | | | | *i* S | **Sb** | **15 19 39.2** | **-0.5** |
| **KZIL** | **AFYON_Kizioren** | **0.51** | **187** | P | **Pg** | **15 19 31.5** | **+0.5** |
| KZIL | | | | S | **Sb** | **15 19 39.2** | **-0.5** |
| **BOLV** | **Bolvadin** | **0.57** | **94** | *i* P | **Pg** | **15 19 31.9** | **-0.4** |
| BOLV | | | | *i* S | **Sg** | **15 19 40.0** | **+0.2** |
| **BOLV** | **Bolvadin** | **0.57** | **94** | P | **Pg** | **15 19 31.9** | **-0.4** |
| BOLV | | | | S | **Sg** | **15 19 40.0** | **+0.2** |
| **GDZ** | **Gediz** | **0.66** | **300** | *i* P | **Pb** | **15 19 35.1** | **+0.3** |
| GDZ | | | | *i* S | **Sg** | **15 19 43.3** | **+0.5** |
| **GDZ** | **Gediz** | **0.66** | **300** | P | **Pb** | **15 19 35.1** | **+0.3** |
| GDZ | | | | S | **Sg** | **15 19 43.3** | **+0.5** |
| **KHAL** | **Karahalli** | **0.69** | **236** | *i* P | **Pg** | **15 19 34.6** | **0.0** |
| KHAL | | | | *i* S | **Sg** | **15 19 44.0** | **+0.3** |
| **KHAL** | **Karahalli** | **0.69** | **236** | P | **Pg** | **15 19 34.6** | **0.0** |
| KHAL | | | | S | **Sg** | **15 19 44.0** | **+0.3** |
| **BAGO** | **Egridir - ISPA** | **0.89** | **150** | *i* S | **Sn** | **15 19 52.8** | **+0.1** |
| **ESKT** | **Eskisehir** | **0.90** | **33** | *e*PG | **Pn** | **15 19 40.8** | **+0.9** |
| **ESKT** | **Eskisehir** | **0.90** | **33** | *i* P | **Pg** | **15 19 37.3** | **-1.2** |
| ESKT | | | | *i* S | **Sg** | **15 19 49.1** | **-1.1** |
| **ESKT** | **Eskisehir** | **0.90** | **33** | *e*Pg | **Pn** | **15 19 40.8** | **+0.9** |
| **SEYT** | **Eskypehyr** | **0.90** | **33** | P | **Pg** | **15 19 37.3** | **-1.2** |
| SEYT | | | | S | **Sg** | **15 19 49.2** | **-1.1** |
| **TVSB** | **Tavsanli** | **0.91** | **319** | *e*PG | **Pn** | **15 19 40.0** | **0.0** |
| **TVSB** | **Tavsanli** | **0.91** | **319** | *e*Pg | **Pn** | **15 19 40.0** | **0.0** |
| **SVRH** | **Sivrihisar-ESK** | **1.22** | **56** | *e*PN | **Pg** | **15 19 45.8** | **+1.2** |
| **SVRH** | **Sivrihisar-ESK** | **1.22** | **56** | *e*Pn | **Pg** | **15 19 45.8** | **+1.2** |
| **KULA** | **Kula-Manisa** | **1.25** | **259** | *e*PN | **Pn** | **15 19 43.8** | **-0.8** |
| **KULA** | **Kula-Manisa** | **1.25** | **259** | *e*Pn | **Pn** | **15 19 43.8** | **-0.8** |
| **KIZT** | **Kizilcal** | **1.30** | **84** | *e*PN | **Pb** | **15 19 46.0** | **+0.3** |
| **KIZT** | **Kizilcal** | **1.30** | **84** | *e*Pn | **Pb** | **15 19 46.0** | **+0.3** |
| **DOGA** | **KONYA_Doganhis** | **1.31** | **120** | *i* P | **Pn** | **15 19 45.7** | **+0.1** |
| **DOGA** | **KONYA_Doganhis** | **1.31** | **120** | P | **Pn** | **15 19 45.7** | **+0.1** |
| **KDHN** | **Kadinhani** | **1.50** | **99** | *i* P | **Pg** | **15 19 49.9** | **-0.1** |
| KDHN | | | | *i* S | **Sb** | **15 20 08.9** | **+0.7** |
| **KDHN** | **Kadinhani** | **1.50** | **99** | P | **Pg** | **15 19 49.9** | **-0.1** |
| KDHN | | | | S | **Sb** | **15 20 08.9** | **+0.7** |

**IDC 24 15:32:11.2±7.1, 2°.55N×125°.84E, h0km, mb3.8/4, mb1 4.0/4, mb1mx3.5/47, mbtmp3.9/4, MS3.3/2, Ms1 3.3/2, ms1mx2.6/40, Error ellipse: s-maj=120.4km s-min=98.8km az=118.0, Talaud Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DAV** | **Davao City (W)** | **4.50** | **357** | LR | LR | 15 35 19.0 | |
| | comp=Z,214nm,18.3s,baz=68,slow=42 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **20.52** | **181** | P | P | 15 36 50.9 | -0.3 |
| | 3.8nm,1.1s,baz=16,slow=13,SNR=4.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **23.86** | **160** | P | P | 15 37 26.3 | -0.2 |
| | 2.1nm,0.5s,baz=340,slow=10,SNR=31 | | | | | | |
| **ASAR** | **Alice Springs** | **27.21** | **164** | P | P | 15 37 57.0 | 0.0 |
| | 0.6nm,0.5s,baz=341,slow=8.0,SNR=10 | | | | | | |
| **STKA** | **Stephens Creek** | **37.37** | **158** | P | P | 15 39 25.9 | +0.2 |
| | 1.2nm,0.6s,baz=326,slow=7.3,SNR=5.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **61.24** | **334** | LR | LR | 16 09 23.6 | |
| | comp=Z,37nm,18.8s,baz=70,slow=36 | | | | | | |

**DJA 24 15:32:58.9±1.2, 1°.N±6°×12°.3E±°, h17km±6km, M2.9/4, MLv2.9/4, Minahassa Peninsula, Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MRSI** | **Marisa** | **0.84** | **222** | P | Pg | 15 33 15.5 | +0.2 |
| MRSI | | | | S | Sg | 15 33 27.1 | +0.6 |
| **APSI** | **Ampana** | **2.18** | **203** | P | Pn | 15 33 34.8 | +0.4 |
| APSI | | | | S | Sn | 15 34 02.0 | +1.0 |
| **MPSI** | **Mapaga** | **2.71** | **254** | P | Pn | 15 33 41.6 | -0.1 |
| MPSI | | | | S | Sn | 15 34 14.9 | +0.7 |
| **SANI** | **Sanana** | **4.69** | **132** | P | Pn | 15 34 09.0 | 0.0 |
| SANI | | | | S | Sn | 15 35 04.1 | +1.0 |

**IDC 24 15:34:22.1±10.0, 13°.86N×90°.63W, h79km±63km, mb3.1/3, mb1 3.4/5, mb1mx3.1/50, mbtmp3.4/5, ML3.7/2, Error ellipse: s-maj=102.0km s-min=46.0km az=151.0, Near coast of Guatemala**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CMIG** | **Matias Romero** | **5.21** | **309** | P | Pn | 15 35 36.9 | -0.6 |
| | 1.3nm,0.3s,baz=124,slow=12,SNR=9.9 | | | | | | |
| CMIG | | | | S | Sn | 15 36 28.0 | -8.3 |
| | 1.3nm,0.3s,baz=102,slow=19,SNR=3.6 | | | | | | |
| **TXAR** | **Lajitas Array** | **19.57** | **324** | P | P | 15 38 44.5 | +0.6 |
| | 0.1nm,0.3s,baz=145,slow=11,SNR=7.1 | | | | | | |
| **TKL** | **Tuckaleechee C** | **22.57** | **15** | P | P | 15 39 16.6 | +0.7 |
| | 1.5nm,0.5s,baz=180,slow=13 | | | | | | |
| **NVAR** | **Mina Array Bea** | **34.62** | **320** | P | P | 15 41 04.7 | +0.7 |
| | 0.4nm,0.6s,baz=131,slow=9.7,SNR=4.1 | | | | | | |
| NVAR | | | | PcP | PcP | 15 43 36.9 | 0.0 |
| | 0.4nm,0.6s,baz=98,slow=5.6,SNR=3.7 | | | | | | |
| **YKA** | **Yellowknife Ar** | **51.47** | **346** | P | P | 15 43 17.2 | -2.0 |
| | 0.2nm,0.8s,baz=145,slow=8.4,SNR=3.5 | | | | | | |
| YKA | | | | pP | pP | 15 43 43.2 | +4.4 |
| | 0.2nm,0.8s,baz=146,slow=7.6,SNR=4.1 | | | | | | |

**MEX 24 16:13:37.3±0.5, 15°.82N×95°.71W, h27km±13km, MD3.9, Near coast of Oaxaca**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VHO** | **Vista Hermosa** | **1.59** | **322** | *e*P | Pn | 16 14 01.3 | -2.6 |
| VHO | | | | *e*S | Sn | 16 14 20.8 | -2.9 |
| **PCIG** | | **2.40** | **92** | *e*P | Pn | 16 14 12.9 | -1.9 |
| PCIG | | | | *e*S | Sn | 16 14 39.4 | -3.9 |
| **PNIG** | **Pinotepa** | **2.40** | **284** | *e*P | Pn | 16 14 12.8 | -2.0 |
| PNIG | | | | *e*S | Sn | 16 14 37.4 | -6.0 |
| **TGIG** | | **2.66** | **69** | *e*P | Pn | 16 14 16.8 | -1.6 |
| TGIG | | | | *e*S | Sn | 16 14 46.7 | -3.1 |
| **TLIG** | **Tlapa** | **3.25** | **303** | *e*P | Pn | 16 14 24.7 | -1.9 |
| TLIG | | | | *e*S | Sn | 16 15 01.4 | -3.0 |
| **CCIG** | **Comitan** | **3.46** | **82** | *e*P | Pn | 16 14 27.4 | -2.2 |
| CCIG | | | | *e*S | Sn | 16 15 07.4 | -2.4 |

**IDC 24 16:21:14.1±1.7, 5°.26S×152°.71E, h0km, mb3.5/6, mb1 3.7/6, mb1mx3.5/39, mbtmp3.5/6, MS3.3/1, Ms1 3.3/1, ms1mx2.6/21, Error ellipse: s-maj=64.0km s-min=24.2km az=121.0, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **23.07** | **229** | P | P | 16 26 21.0 | -0.6 |
| | 0.6nm,0.6s,baz=51,slow=10,SNR=6.6 | | | | | | |
| **ASAR** | **Alice Springs** | **25.75** | **223** | P | P | 16 26 47.2 | +0.5 |
| | 0.9nm,0.7s,baz=56,slow=9.6,SNR=8.4 | | | | | | |
| **RPZ** | **Rata Peaks** | **41.57** | **160** | LR | LR | 16 44 59.9 | |
| | comp=Z,41nm,19.7s,baz=284,slow=34 | | | | | | |
| **SONM** | **Songino Array** | **66.67** | **328** | P | P | 16 32 07.0 | +0.1 |
| | 0.3nm,0.6s,baz=136,slow=6.1,SNR=3.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **80.61** | **319** | P | P | 16 33 28.8 | 0.0 |
| | 0.3nm,0.7s,baz=122,slow=7.6,SNR=2.2 | | | | | | |
| **ILAR** | **Eielson Array** | **82.62** | **22** | P | P | 16 33 39.0 | -0.1 |
| | 0.3nm,0.7s,baz=244,slow=5.8,SNR=5.7 | | | | | | |
| **YKA** | **Yellowknife Ar** | **95.87** | **28** | P | P | 16 34 42.2 | -0.2 |
| | 0.1nm,0.6s,baz=266,slow=4.7,SNR=3.4 | | | | | | |

**WEL 24 16:22:21.4±0.2, 43°.48S×172°.75E, h6km±1km, ML3.5/13, 6C-2D, Error ellipse: s-maj=1.9km s-min=0.9km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.14** | **222** | PG | Pg | 16 22 24.4 | +0.2 |
| CRLZ | | | | SG | Sg | 16 22 26.9 | +0.8 |
| CRLZ | | | | AML | AML | 16 22 31.8 | |
| **MQZ** | **McQueen's Vall** | **0.24** | **196** | ↑PG | Pg | 16 22 26.3 | +0.1 |
| MQZ | | | | SG | Sg | 16 22 29.2 | -0.2 |
| MQZ | | | | AML | AML | 16 22 32.6 | |
| **OXZ** | **Oxford** | **0.54** | **286** | ↓P* | Pg | 16 22 31.9 | +0.1 |
| OXZ | | | | SG | Sg | 16 22 39.5 | +0.6 |
| OXZ | | | | AML | AML | 16 22 41.3 | |
| OXZ | | | | AML | AML | 16 22 41.3 | |
| OXZ | | | | AML | AML | 16 22 41.9 | |
| **LTZ** | **Lake Taylor** | **0.78** | **333** | ↑P* | Pg | 16 22 36.7 | +0.4 |
| LTZ | | | | S* | Sg | 16 22 47.1 | +0.7 |
| **KHZ** | **Kahutara** | **1.21** | **29** | P* | Pg | 16 22 43.0 | -1.6 |
| KHZ | | | | AML | AML | 16 23 06.4 | |
| KHZ | | | | AML | AML | 16 23 08.8 | |
| KHZ | | | | AML | AML | 16 23 08.8 | |
| **INZ** | **Inchbonnie** | **1.21** | **308** | P* | Pg | 16 22 43.4 | -1.3 |
| **RPZ** | **Rata Peaks** | **1.25** | **258** | ↑P* | Pg | 16 22 44.0 | -1.5 |
| RPZ | | | | AML | AML | 16 23 07.1 | |
| RPZ | | | | AML | AML | 16 23 07.2 | |
| **WVZ** | **Waitaha Valley** | **1.52** | **285** | ↑PN | Pn | 16 22 48.8 | -0.4 |
| WVZ | | | | AML | AML | 16 23 12.9 | |
| WVZ | | | | AML | AML | 16 23 13.6 | |
| **THZ** | **Tophouse** | **1.71** | **4** | PN | Pn | 16 22 50.5 | -1.4 |
| THZ | | | | AML | AML | 16 23 16.9 | |
| THZ | | | | AML | AML | 16 23 40.2 | |
| **DSZ** | **Denniston Nort** | **1.86** | **338** | ↑PN | Pn | 16 22 52.9 | -1.0 |
| DSZ | | | | AML | AML | 16 23 34.0 | |
| DSZ | | | | AML | AML | 16 23 36.6 | |
| **BSWZ** | **Blackbirch Sta** | **1.95** | **26** | PN | Pn | 16 22 53.9 | -1.1 |
| **LBZ** | **Lake Benmore** | **2.06** | **243** | PN | Pn | 16 22 55.7 | -1.0 |
| LBZ | | | | AML | AML | 16 23 31.5 | |
| LBZ | | | | AML | AML | 16 23 32.2 | |
| **FOZ** | **Fox Glacier** | **2.13** | **267** | PN | Pn | 16 22 57.8 | +0.2 |
| FOZ | | | | AML | AML | 16 23 38.0 | |
| **ODZ** | **Otahua Downs** | **2.18** | **223** | PN | Pn | 16 22 56.8 | -1.4 |
| ODZ | | | | AML | AML | 16 23 31.6 | |
| ODZ | | | | AML | AML | 16 23 34.0 | |
| ODZ | | | | AML | AML | 16 23 34.7 | |
| ODZ | | | | AML | AML | 16 23 38.7 | |
| **TUWZ** | **Tuamarina** | **2.23** | **24** | PN | Pn | 16 22 57.3 | -1.5 |
| **NNZ** | **Nelson** | **2.30** | **12** | ↑PN | Pn | 16 22 59.1 | -0.8 |
| **QRZ** | **Quartz Range** | **2.65** | **356** | PN | Pn | 16 23 03.6 | -1.1 |
| **DUWZ** | **D'Urville Isla** | **2.81** | **18** | PN | Pn | 16 23 05.8 | -1.1 |
| **HHSZ** | **Highcliff Hill** | **2.86** | **212** | PN | Pn | 16 23 06.0 | -1.5 |
| **CAW** | **Cannon Point** | **2.92** | **37** | PN | Pn | 16 23 06.2 | -2.2 |
| **JCZ** | **Jackson Bay** | **2.93** | **257** | *e*PN | Pn | 16 23 07.4 | -1.2 |
| **WKZ** | **Wanaka** | **3.01** | **242** | PN | Pn | 16 23 08.2 | -1.5 |
| **EAZ** | **Earnscleugh** | **3.03** | **233** | PN | Pn | 16 23 08.5 | -1.4 |
| **TUZ** | **Tuapeka** | **3.33** | **221** | PN | Pn | 16 23 12.6 | -1.4 |
| TUZ | | | | AML | AML | 16 24 15.2 | |
| TUZ | | | | AML | AML | 16 24 16.8 | |
| **MRZ** | **Mangatainoka R** | **3.51** | **38** | PN | Pn | 16 23 14.4 | -2.1 |
| **MLZ** | **Mavora Lakes** | **3.82** | **239** | *e*PN | Pn | 16 23 18.9 | -1.9 |
| **SYZ** | **Scrubby Hill** | **3.99** | **219** | ↓PN | Pn | 16 23 22.3 | -0.8 |
| **WHZ** | **Wether Hill Ro** | **4.19** | **233** | *e*PN | Pn | 16 23 23.3 | -2.5 |
| **KHEZ** | **Kahui Hut** | **4.28** | **13** | PN | Pn | 16 23 28.1 | +0.9 |
| **NEZ** | **North Egmont** | **4.32** | **14** | PN | Pn | 16 23 28.1 | +0.3 |
| **DCZ** | **Deep Cove** | **4.47** | **242** | *e*PN | Pn | 16 23 27.7 | -1.9 |
| **WNVZ** | **Wahianoa** | **4.67** | **28** | PN | Pn | 16 23 32.4 | -0.2 |
| **APZ** | **The Paps** | **4.75** | **223** | PN | Pn | 16 23 31.8 | -1.8 |
| **OTVZ** | **Oturere** | **4.83** | **28** | PN | Pn | 16 23 33.4 | -1.4 |
| **HIZ** | **Hauiti** | **5.21** | **19** | *e*PN | Pn | 16 23 38.9 | -0.9 |

**WEL 24 16:26:58.9±0.1, 43°.51S×172°.78E, h7km, ML3.5/11, 2C-1D, Error ellipse: s-maj=1.2km s-min=0.7km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.13** | **242** | PG | Pg | 16 27 01.9 | +0.2 |
| CRLZ | | | | SG | Sg | 16 27 03.9 | +0.3 |
| CRLZ | | | | AML | AML | 16 27 04.2 | |
| CRLZ | | | | AML | AML | 16 27 04.3 | |
| CRLZ | | | | AML | AML | 16 27 04.7 | |
| **MQZ** | **McQueen's Vall** | **0.22** | **206** | ↑PG | Pg | 16 27 03.2 | 0.0 |
| MQZ | | | | SG | Sg | 16 27 06.3 | +0.2 |
| MQZ | | | | AML | AML | 16 27 06.5 | |
| **OXZ** | **Oxford** | **0.57** | **289** | P* | Pg | 16 27 10.0 | 0.0 |
| OXZ | | | | SG | Sb | 16 27 19.9 | +0.3 |
| OXZ | | | | AML | AML | 16 27 20.1 | |
| OXZ | | | | AML | AML | 16 27 22.7 | |
| **LTZ** | **Lake Taylor** | **0.82** | **333** | ↑P* | Pb | 16 27 15.1 | -0.3 |
| LTZ | | | | S* | Sg | 16 27 25.1 | -0.2 |
| LTZ | | | | AML | AML | 16 27 26.9 | |
| **KHZ** | **Kahutara** | **1.23** | **27** | ↓P* | Pb | 16 27 21.2 | -1.1 |
| **INZ** | **Inchbonnie** | **1.26** | **308** | P* | Pn | 16 27 21.3 | -1.5 |
| **RPZ** | **Rata Peaks** | **1.27** | **260** | P* | Pn | 16 27 21.5 | -1.5 |
| RPZ | | | | AML | AML | 16 27 42.2 | |
| RPZ | | | | AML | AML | 16 27 42.2 | |
| **THZ** | **Tophouse** | **1.75** | **3** | AML | AML | 16 28 05.9 | |
| THZ | | | | AML | AML | 16 28 06.2 | |
| **DSZ** | **Denniston Nort** | **1.91** | **337** | AML | AML | 16 28 02.9 | |
| **LBZ** | **Lake Benmore** | **2.07** | **244** | AML | AML | 16 28 09.4 | |
| LBZ | | | | AML | AML | 16 28 12.2 | |
| **ODZ** | **Otahua Downs** | **2.17** | **224** | AML | AML | 16 28 13.7 | |
| ODZ | | | | AML | AML | 16 28 13.7 | |
| ODZ | | | | AML | AML | 16 28 14.5 | |
| ODZ | | | | AML | AML | 16 28 14.5 | |
| **EAZ** | **Earnscleugh** | **3.03** | **234** | AML | AML | 16 28 39.1 | |
| EAZ | | | | AML | AML | 16 28 39.2 | |
| EAZ | | | | AML | AML | 16 28 39.9 | |
| EAZ | | | | AML | AML | 16 28 40.2 | |
| **TUZ** | **Tuapeka** | **3.32** | **222** | AML | AML | 16 28 48.5 | |
| TUZ | | | | AML | AML | 16 28 52.8 | |

*NIED* ***24*** *16:32:00,42°.40N×144°.70E,h32km,Mw3.5 Best double couple: M₀2.09000×10¹⁴ NP1:φs8.176.00000°,δ69.00000°, λ-13.00000°. NP2:φs271.00000°,δ78.00000°, λ-158.00000°.*
*MOS* ***24*** *16:32:30.8±1.0,42°.29N×144°.74E,h42km,mb4.1/3, Error ellipse: s-maj=19.7km s-min=8.9km az=73.0*
*SKHL* ***24*** *16:32:31.4±0.4,42°.24N×144°.81E,h49km±1km,mb4.8/2*
*JMA* ***24*** *16:32:31.5,42°.37N×144°.73E,h31km±1km,M3.6*
*IDC* ***24*** *16:32:33.2±3.4,42°.38N×144°.74E,h41km±30km,mb3.3/7, mb1 3.6/9,mb1mx3.3/42,mbtmp3.5/9,ML3.5/1,MS3.1/1, Ms1 3.1/1,ms1mx2.2/22, Error ellipse: s-maj=36.2km s-min=23.6km az=169.0*

**ISC 24 16:32:30.3±1.5, 42°.39N±0°.08×144°.72E±0°.04, h20km±7km, n46,σ0.95/57, mb3.3/8, 4D, Hokkaido region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JAK** | **Akkeshi** | **0.61** | **358** | ↓P | Pn | **16 32 43.7** | **-0.2** |
| JAK | | | | *e*S | Sn | **16 32 52.4** | **-0.8** |
| **JOB** | **Onbets** | **0.83** | **309** | ↓P | Pn | **16 32 47.3** | **+0.3** |
| **JCH** | **Churui** | **1.03** | **283** | ↓P | Pg | **16 32 50.2** | **-0.2** |
| JCH | | | | *e*S | Sn | **16 33 03.7** | **+0.1** |
| **MYR** | **Moyori** | **1.07** | **265** | *e*P | Pg | **16 32 50.9** | **-0.3** |
| **JAR** | **Ashorobuto** | **1.15** | **323** | ↓P | Pn | **16 32 51.4** | **+0.1** |
| **JNK** | **Nakash** | **1.20** | **360** | P | Pn | **16 32 51.8** | **-0.2** |
| JNK | | | | *e*S | Sb | **16 33 06.9** | **-0.6** |
| **NEM2** | **Nemuro 2** | **1.23** | **37** | P | Pn | **16 32 52.4** | **-0.1** |
| **JNBK** | **Urakawa-nobuka** | **1.47** | **267** | P | Pn | **16 32 55.9** | **+0.2** |
| **GLVR** | **Golovnino** | **1.47** | **23** | *e*PN | Pb | **16 32 56.6** | **-0.4** |
| GLVR | | | | *e*S | Sb | **16 33 15.2** | **-0.1** |
| **GLVR** | **Golovnino** | **1.47** | **23** | *e*P | Pb | **16 32 56.6** | **-0.4** |
| GLVR | | | | *e*S | Sb | **16 33 15.2** | **-0.1** |
| **JRA** | **Rausu** | **1.58** | **11** | P | Pn | **16 32 57.6** | **+0.4** |
| JRA | | | | *e*S | Sn | **16 33 16.8** | **-0.3** |
| **HRK** | **Horoka** | **1.59** | **313** | *e*P | Pn | **16 32 58.0** | **+0.5** |
| **GRPR** | **Tuman** | **1.78** | **25** | *e*PN | Pn | **16 33 00.8** | **+0.8** |
| GRPR | | | | *e*S | Sn | **16 33 22.6** | **+0.6** |
| **GRPR** | **Tuman** | **1.78** | **25** | *e*P | Pn | **16 33 00.8** | **+0.8** |
| GRPR | | | | *e*S | Sn | **16 33 22.6** | **+0.6** |
| **LAGR** | **Lagunnoye** | **1.84** | **25** | *e*PN | Pn | **16 33 02.0** | **+1.2** |
| LAGR | | | | *e*S | Sb | **16 33 24.9** | **-1.0** |
| **LAGR** | **Lagunnoye** | **1.84** | **25** | *e*P | Pn | **16 33 02.0** | **+1.2** |
| LAGR | | | | *e*S | Sb | **16 33 24.9** | **-1.0** |
| **YUK** | **Yuzh-Kuril'sk** | **1.85** | **26** | *e*PN | Pn | **16 33 01.6** | **+0.7** |
| YUK | | | | *e*S | Sn | **16 33 24.5** | **+0.8** |
| YUK | | | | pmax | pmax | | |
| | comp=Z,415nm,0.3s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=N,49nm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=E,138nm,0.3s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,473nm,0.4s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=E,476nm,0.5s | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **1.85** | **26** | *e*P | **Pn** | **16 33 01.6** | **+0.7** |
| YUK | | | | AMB | AMB | 16 33 02.2 | |
| | comp=E,49nm,0.4s | | | | | | |
| YUK | | | | AMB | AMB | 16 33 02.2 | |
| | comp=E,139nm,0.4s | | | | | | |
| YUK | | | | AMB | AMB | 16 33 02.2 | |
| | comp=E,415nm,0.4s | | | | | | |
| YUK | | | | *e*S | **Sn** | **16 33 24.5** | **+0.8** |
| YUK | | | | A | A | 16 33 28.0 | |
| | comp=E,470nm,0.5s | | | | | | |
| YUK | | | | A | A | 16 33 28.0 | |
| | comp=E,480nm,0.5s | | | | | | |
| **SHO** | **Shikotan** | **2.14** | **45** | *e*PN | **Pn** | **16 33 05.4** | **+0.5** |
| SHO | | | | *e*S | **Sn** | **16 33 32.0** | **+1.1** |
| SHO | | | | pmax | pmax | | |
| | comp=Z,68nm,0.2s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=N,214nm,0.2s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=E,262nm,0.5s | | | | | | |
| **SHO** | **Shikotan** | **2.14** | **45** | *e*P | **Pn** | **16 33 05.4** | **+0.5** |
| SHO | | | | AMB | AMB | 16 33 06.2 | |
| | comp=E,68nm,0.2s | | | | | | |
| SHO | | | | *e*S | **Sn** | **16 33 31.2** | **+0.3** |
| SHO | | | | A | A | 16 33 32.9 | |
| | comp=E,214nm,0.2s | | | | | | |
| SHO | | | | A | A | 16 33 32.9 | |
| | comp=E,262nm,0.2s | | | | | | |
| **JKA** | **Kamikawa-asahi** | **2.32** | **319** | *e*P | **Pn** | **16 33 09.2** | **+1.7** |
| **ASAJ** | **Asahikawa** | **2.33** | **319** | P | **Pn** | **16 33 09.2** | **+1.7** |
| | comp=E,8.4nm,0.3s,baz=178,slow=13,SNR=130 | | | | | | |
| ASAJ | | | | S | **Sb** | **16 33 40.7** | **+0.8** |
| | comp=E,7.6nm,0.3s,baz=317,slow=19,SNR=15 | | | | | | |
| **KUR** | **Kuril'sk** | **3.64** | **38** | *e*PN | **Pn** | **16 33 27.6** | **+2.0** |
| KUR | | | | *e*S | **Sn** | **16 34 10.3** | **+2.3** |
| **KUR** | **Kuril'sk** | **3.64** | **38** | *e*P | **Pn** | **16 33 27.6** | **+2.0** |
| KUR | | | | *e*S | **Sn** | **16 34 09.1** | **+1.1** |
| **MJAR** | **Matsushiro Arr** | **7.71** | **223** | P | **Pn** | **16 34 22.2** | **+0.7** |
| | baz=36,slow=14,SNR=2.9 | | | | | | |
| **SONM** | **Songino Array** | **27.39** | **295** | P | **P** | **16 38 16.7** | **+2.3** |
| | comp=E,0.4nm,0.5s,baz=103,slow=9.7,SNR=3.0 | | | | | | |
| SONM | | | | LR | LR | 16 49 24.3 | |
| | comp=E,42nm,21.3s,baz=227,slow=37 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **29.34** | **133** | T | T | 17 09 48.9 | |
| | baz=326,slow=75,SNR=54 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **29.36** | **134** | T | T | 17 09 47.8 | |
| | baz=326,slow=75,SNR=45 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **29.36** | **133** | T | T | 17 09 45.3 | |
| | baz=326,slow=75,SNR=38 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **30.25** | **135** | T | T | 17 10 54.6 | |
| | baz=328,slow=76,SNR=75 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **30.25** | **135** | T | T | 17 10 59.2 | |
| | baz=328,slow=76,SNR=46 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **30.27** | **135** | T | T | 17 10 53.7 | |
| | baz=328,slow=76,SNR=48 | | | | | | |
| **ILAR** | **Eielson Array** | **43.63** | **35** | P | **P** | **16 40 33.3** | **+0.2** |
| | comp=E,0.3nm,0.6s,baz=263,slow=5.8,SNR=10 | | | | | | |
| **ILAR** | **Eielson Array** | **43.63** | **35** | P | **P** | **16 40 33.3** | **+0.2** |
| ILAR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.7s | | | | | | |
| **MKAR** | **Makanchi Array** | **43.65** | **298** | P | **P** | **16 40 33.0** | **-0.5** |
| | comp=Z,0.4nm,0.7s,baz=85,slow=8.3,SNR=2.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.65** | **298** | P | **P** | **16 40 33.0** | **-0.5** |
| MKAR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,1.0s | | | | | | |
| **MKAR** | **Makanchi Array** | **43.65** | **298** | *e*P | **P** | **16 40 33.0** | **-0.5** |
| **KURK** | **Kurchatov** | **44.83** | **304** | *e*P | **P** | **16 40 43.0** | **+0.2** |
| **KURK** | **Kurchatov** | **44.83** | **304** | *e*P | **P** | **16 40 43.0** | **+0.2** |
| **KURBB** | **Kurchatov Arra** | **44.91** | **304** | P | **P** | **16 40 43.0** | **-0.4** |
| | comp=Z,0.2nm,0.3s,baz=73,slow=8.7,SNR=3.9 | | | | | | |
| **YKA** | **Yellowknife Ar** | **57.91** | **33** | P | **P** | **16 42 20.1** | **-0.6** |
| | comp=Z,0.2nm,0.6s,baz=306,slow=6.9,SNR=4.3 | | | | | | |
| **FINES** | **FINESS Array B** | **65.27** | **332** | P | **P** | **16 43 09.6** | **-0.7** |
| | comp=Z,3.7nm,1.0s,baz=49,slow=9.5,SNR=4.8 | | | | | | |
| **GERES** | **GERESS Array B** | **79.45** | **330** | P | **P** | **16 44 33.9** | **-1.4** |
| | comp=Z,0.1nm,0.3s,baz=135,slow=11,SNR=3.2 | | | | | | |
| **GERES** | **GERESS Array B** | **79.45** | **330** | P | **P** | **16 44 33.9** | **-1.4** |
| **GERES** | **GERESS Array B** | **79.45** | **330** | *e*P | **P** | **16 44 33.9** | **-1.4** |
| **TXAR** | **Lajitas Array** | **84.89** | **55** | P | **P** | **16 45 04.5** | **+0.5** |
| | comp=Z,0.3nm,0.8s,baz=305,slow=5.2,SNR=3.2 | | | | | | |

*ATH* ***24*** *16:37:16.0,36°.44N×30°.47E,h73km±4km,ML3.4/3, Error ellipse: s-maj=5.1km s-min=2.9km az=191.0*
*DDA* ***24*** *16:37:15.7,36°.32N×30°.53E,h39km, Ml3.3*
*ISCJB* ***24*** *16:37:16.3±0.5,36°.27N±0°.02×30°.45E±0°.02,h27km±4km, Error ellipse: s-maj=3.7km s-min=2.9km az=166.7*
*ISK* ***24*** *16:37:16.1,36°.32N×30°.47E,h20km, ML3.0*
*CSEM* ***24*** *16:37:16.8±0.1,36°.32N×30°.46E,h20km,ML3.0, Error ellipse: s-maj=3.3km s-min=2.8km az=176.0*
*HLW* ***24*** *16:37:18.2,36°.29N×30°.70E,h33km±22km,Md3.7*

**ISC 24 16:37:17.3±1.1, 36°.33N±0°.03×30°.49E±0°.02, h26km±11km, n95,σ1.9/17/148, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | comp=N,492μm,0.5s | | | | | | | |
| ARG | | | | | AML | AML | 16 38 15.1 | |
| | comp=E,744μm,0.3s | | | | | | | |
| **ARG** | **Arkhangelos** | **1.91** | **267** | | P | **Pn** | **16 37 47.9** | **-0.2** |
| ARG | | | | | S | **Sn** | **16 38 09.5** | **-1.8** |
| **KZIL** | **AFYON_Kizioren** | **1.94** | **352** | *i* | P | **Pn** | **16 37 49.0** | **+0.3** |
| KZIL | | | | *i* | S | **Sn** | **16 38 14.1** | **+1.9** |
| **KZIL** | **AFYON_Kizioren** | **1.94** | **352** | | P | **Pn** | **16 37 49.0** | **+0.3** |
| KZIL | | | | | S | **Sn** | **16 38 14.1** | **+1.9** |
| **ERMK** | **Ermenek** | **1.98** | **80** | *i* | P | **Pn** | **16 37 51.0** | **+1.7** |
| ERMK | | | | *i* | S | **Sb** | **16 38 18.7** | **+1.6** |
| **ERMK** | **Ermenek** | **1.98** | **80** | | P | **Pn** | **16 37 51.0** | **+1.7** |
| **DOGA** | **KONYA_Doganhis** | **2.01** | **28** | *i* | P | **Pn** | **16 37 50.6** | **+1.0** |
| DOGA | | | | *i* | S | **Sn** | **16 38 14.9** | **+1.0** |
| **DOGA** | **KONYA_Doganhis** | **2.01** | **28** | | P | **Pn** | **16 37 50.6** | **+1.0** |
| DOGA | | | | | S | **Sn** | **16 38 14.9** | **+1.0** |
| **KMER** | **Konya-Meram** | **2.08** | **46** | *i* | P | **Pn** | **16 37 52.0** | **+1.4** |
| KMER | | | | *i* | S | **Sb** | **16 38 18.5** | **-1.3** |
| **KMER** | **Konya-Meram** | **2.08** | **46** | | P | **Pn** | **16 37 52.0** | **+1.4** |
| KMER | | | | | S | **Sb** | **16 38 18.5** | **-1.3** |
| **KONT** | **Konya--Tatoy** | **2.20** | **42** | *e* | PN | **Pn** | **16 37 53.3** | **+1.2** |
| **KONT** | **Konya--Tatoy** | **2.20** | **42** | *i* | P | **Pn** | **16 37 53.6** | **+1.5** |
| KONT | | | | *i* | S | **Sb** | **16 38 21.4** | **-1.8** |
| **KONT** | **Konya--Tatoy** | **2.20** | **42** | *e* | Pn | **Pn** | **16 37 53.3** | **+1.2** |
| **LEF** | **Lefka** | **2.30** | **121** | *e* | PN | **Pn** | **16 37 53.6** | **+0.1** |
| **LEF** | **Lefka** | **2.30** | **121** | *e* | Pn | **Pn** | **16 37 53.6** | **+0.1** |
| **TEVE** | **Tevekalti-Mers** | **2.39** | **87** | *e* | PN | **Pn** | **16 37 55.8** | **+1.0** |
| **TEVE** | **Tevekalti-Mers** | **2.39** | **87** | *e* | Pn | **Pn** | **16 37 55.8** | **+1.0** |
| **BOLV** | **Bolvadin** | **2.41** | **9** | *i* | P | **Pn** | **16 37 53.9** | **-1.2** |
| BOLV | | | | *i* | S | **Sn** | **16 38 22.1** | **-1.7** |
| **BOLV** | **Bolvadin** | **2.41** | **9** | | P | **Pn** | **16 37 53.9** | **-1.2** |
| BOLV | | | | | S | **Sn** | **16 38 22.1** | **-1.7** |
| **AKKU** | **Akkuyu-Mersin** | **2.48** | **93** | *e* | PN | **Pn** | **16 37 57.1** | **+1.2** |
| **AKKU** | **Akkuyu-Mersin** | **2.48** | **93** | *e* | Pn | **Pn** | **16 37 57.2** | **+1.2** |
| **KDHN** | **Kadinhani** | **2.54** | **30** | *i* | P | **Pn** | **16 37 57.2** | **+0.3** |
| KDHN | | | | *i* | S | **Sn** | **16 38 27.8** | **+0.8** |
| **KDHN** | **Kadinhani** | **2.54** | **30** | | P | **Pn** | **16 37 57.2** | **+0.3** |
| KDHN | | | | | S | **Sn** | **16 38 27.8** | **+0.8** |
| **BDRM** | **Kayabasi** | **2.55** | **288** | *i* | P | **Pn** | **16 37 57.1** | **+0.2** |
| BDRM | | | | *i* | S | **Sn** | **16 38 25.7** | **-1.4** |
| **BDRM** | **Kayabasi** | **2.55** | **288** | | P | **Pn** | **16 37 57.1** | **+0.2** |
| BDRM | | | | | S | **Sn** | **16 38 25.7** | **-1.4** |
| **MANT** | **Manisa** | **2.64** | **325** | *i* | P | **Pn** | **16 37 57.2** | **-1.2** |
| MANT | | | | *i* | S | **Sn** | **16 38 27.9** | **-1.8** |
| **MANT** | **Manisa** | **2.64** | **325** | | P | **Pn** | **16 37 57.2** | **-1.2** |
| MANT | | | | | S | **Sn** | **16 38 27.9** | **-1.8** |
| **CSS** | **Mathiatis** | **2.69** | **120** | *e* | PN | **Pn** | **16 37 59.2** | **+0.4** |
| **CSS** | **Mathiatis** | **2.69** | **120** | *e* | Pn | **Pn** | **16 37 59.3** | **+0.4** |
| **KIZT** | **Kizilcal** | **2.77** | **23** | *e* | PN | **Pn** | **16 38 00.2** | **+0.1** |
| **KIZT** | **Kizilcal** | **2.77** | **23** | *e* | Pn | **Pn** | **16 38 00.2** | **+0.1** |
| **KARP** | **Karpathos** | **2.81** | **255** | | P | **Pn** | **16 38 01.3** | **+0.8** |
| KARP | | | | | S | **Sn** | **16 38 33.6** | **+0.1** |
| KARP | | | | | AML | AML | 16 38 35.3 | |
| | comp=E,671μm,0.2s | | | | | | | |
| KARP | | | | | AML | AML | 16 38 37.1 | |
| | comp=N,673μm,0.3s | | | | | | | |
| **KARP** | **Karpathos** | **2.81** | **255** | | P | **Pn** | **16 38 01.3** | **+0.8** |
| KARP | | | | | S | **Sn** | **16 38 33.6** | **+0.1** |
| **GDZ** | **Gediz** | **2.86** | **344** | *i* | P | **Pn** | **16 38 00.8** | **-0.5** |
| GDZ | | | | *i* | S | **Sn** | **16 38 34.1** | **-0.9** |
| **GDZ** | **Gediz** | **2.86** | **344** | | P | **Pn** | **16 38 00.8** | **-0.5** |
| GDZ | | | | | S | **Sn** | **16 38 34.1** | **-0.9** |
| **KIZK** | **Mersin** | **2.96** | **86** | *e* | PN | **Pn** | **16 38 04.3** | **+1.8** |
| **SULT** | **Sultanhani-AKS** | **3.05** | **51** | *e* | PN | **Pn** | **16 38 05.0** | **+1.1** |
| **SULT** | **Sultanhani-AKS** | **3.05** | **51** | *e* | Pn | **Pn** | **16 38 05.0** | **+1.1** |
| **SMG** | **Samos** | **3.23** | **296** | | P | **Pn** | **16 38 05.2** | **-1.0** |
| SMG | | | | | S | **Sn** | **16 38 42.2** | **-1.5** |
| SMG | | | | | AML | AML | 16 38 44.1 | |
| | comp=N,572μm,0.5s | | | | | | | |
| SMG | | | | | AML | AML | 16 38 45.2 | |
| | comp=E,656μm,0.6s | | | | | | | |
| **SMG** | **Samos** | **3.23** | **296** | | P | **Pn** | **16 38 05.2** | **-1.0** |
| SMG | | | | | S | **Sn** | **16 38 42.2** | **-1.5** |
| **MERS** | **Mersin** | **3.29** | **79** | *e* | PN | **Pn** | **16 38 09.1** | **+1.9** |
| **MERS** | **Mersin** | **3.29** | **79** | *e* | Pn | **Pn** | **16 38 09.1** | **+1.9** |
| **ZKR** | **Zakros** | **3.68** | **252** | | P | **Pn** | **16 38 13.7** | **+1.3** |
| ZKR | | | | | S | **Sn** | **16 38 53.9** | **-1.0** |
| **ZKR** | **Zakros** | **3.68** | **252** | | P | **Pn** | **16 38 13.7** | **+1.3** |
| ZKR | | | | | S | **Sn** | **16 38 53.9** | **-1.0** |
| **APE** | **Apeiranthos** | **4.05** | **282** | | P | **Pn** | **16 38 17.4** | **-0.2** |
| **APE** | **Apeiranthos** | **4.05** | **282** | | P | **Pn** | **16 38 17.4** | **-0.2** |
| **CHOS** | **Chios island** | **4.08** | **301** | | P | **Pn** | **16 38 17.4** | **-0.6** |
| **CHOS** | **Chios island** | **4.08** | **301** | | P | **Pn** | **16 38 17.4** | **-0.6** |
| **NPS** | **Neapolis** | **4.10** | **256** | | P | **Pn** | **16 38 17.4** | **-0.9** |
| **NPS** | **Neapolis** | **4.10** | **256** | | P | **Pn** | **16 38 17.4** | **-0.9** |
| **LAST** | **Lasithi** | **4.24** | **255** | | P | **Pn** | **16 38 20.7** | **+0.5** |
| **LAST** | **Lasithi** | **4.24** | **255** | | P | **Pn** | **16 38 20.7** | **+0.5** |
| **IDI** | **Anoyia** | **4.67** | **259** | | P | **Pn** | **16 38 25.2** | **-0.9** |
| **IDI** | **Anoyia** | **4.67** | **259** | | P | **Pn** | **16 38 25.2** | **-0.9** |
| **IMMV** | **Iera Moni Meta** | **5.35** | **263** | | P | **Pn** | **16 38 37.4** | **+1.9** |
| **IMMV** | **Iera Moni Meta** | **5.35** | **263** | | P | **Pn** | **16 38 37.3** | **+1.9** |
| **GVD** | **Gavdhos** | **5.42** | **256** | | P | **Pn** | **16 38 37.8** | **+1.4** |
| **GVD** | **Gavdhos** | **5.42** | **256** | | P | **Pn** | **16 38 37.8** | **+1.4** |
| **RSH** | | **6.00** | **152** | | P | **Pn** | **16 38 43.5** | **-0.8** |
| | baz=153 | | | | | | | |
| RSH | | | | | S | **Sn** | **16 39 48.0** | **-4.2** |
| | baz=153 | | | | | | | |
| **RSH** | | **6.00** | **152** | | P | **Pn** | **16 38 43.5** | **-0.8** |
| **SUZ** | **Suez** | **6.77** | **162** | | P | **Pn** | **16 38 54.5** | **-0.4** |
| | baz=163 | | | | | | | |
| **SUZ** | **Suez** | **6.77** | **162** | | P | **Pn** | **16 38 54.5** | **-0.4** |
| **GLL** | **Jalalah** | **6.81** | **171** | | P | **Pn** | **16 38 55.2** | **-0.4** |
| | baz=172 | | | | | | | |
| **GLL** | **Jalalah** | **6.81** | **171** | | P | **Pn** | **16 38 55.2** | **-0.4** |
| **HNKL** | **Nakhl** | **7.03** | **154** | | P | **Pn** | **16 38 57.3** | **-1.2** |
| | baz=155 | | | | | | | |
| **HNKL** | **Nakhl** | **7.03** | **154** | | P | **Pn** | **16 38 57.3** | **-1.2** |

*CSEM **24** 16:40:40.0, 34.24N×24.37E, h35km, ML2.9/5*
*ATH **24** 16:40:40.0, 34.24N×24.37E, h35km±2km, ML2.9/5, Error ellipse: s-maj=3.4km s-min=2.4km az=22.0*
*IDC **24** 16:41:07.5±20.0, 35.71N×24.80E, h214km±137km, mb3.0/3, mb1 3.1/5, mb1mx2.7/36, mbtmp3.5/5, Error ellipse: s-maj=178.8km s-min=30.9km az=15.0*
**ISC 24 16:40:38.4±1.5, 34.12N±0.09×24.44E±0.06, h30km, n18, σ0s91/26, mb3.3/3, Crete**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **GVD** | **Gavdhos** | **0.78** | **338** | P | | **Pb** | **16 40 53.5** | **+0.1** |
| GVD | | | | S | | **Sn** | **16 41 03.2** | **-0.8** |
| GVD | | | | AML | | AML | 16 41 06.7 | |
| | comp=E,4107μm,0.5s | | | | | | | |
| GVD | | | | AML | | AML | 16 41 08.7 | |
| | comp=N,4048μm,0.4s | | | | | | | |
| **GVD** | **Gavdhos** | **0.78** | **338** | P | | **Pb** | **16 40 53.5** | **+0.1** |
| GVD | | | | S | | **Sn** | **16 41 03.2** | **-0.8** |
| **SIVA** | **Sivas** | **0.95** | **19** | P | | **Pb** | **16 40 56.4** | **0.0** |
| SIVA | | | | S | | **Sb** | **16 41 08.6** | **0.0** |
| SIVA | | | | AML | | AML | 16 41 12.7 | |
| | comp=E,5102μm,0.5s | | | | | | | |
| **SIVA** | **Sivas** | **0.95** | **19** | P | | **Pb** | **16 40 56.3** | **0.0** |
| SIVA | | | | S | | **Sb** | **16 41 08.6** | **0.0** |
| **IDI** | **Anoyia** | **1.23** | **18** | S | | **Sb** | **16 41 16.8** | **+0.2** |
| IDI | | | | AML | | AML | 16 41 23.2 | |
| | comp=E,676μm,0.6s | | | | | | | |
| **IDI** | **Anoyia** | **1.23** | **18** | S | | **Sb** | **16 41 16.8** | **+0.2** |
| **VAM** | **Vamos** | **1.30** | **352** | P | | **Pb** | **16 41 01.2** | **-1.1** |
| VAM | | | | S | | **Sn** | **16 41 17.0** | **0.0** |
| VAM | | | | AML | | AML | 16 41 22.2 | |
| | comp=E,578μm,0.6s | | | | | | | |
| VAM | | | | AML | | AML | 16 41 25.9 | |
| | comp=N,690μm,0.7s | | | | | | | |
| **VAM** | **Vamos** | **1.30** | **352** | P | | **Pb** | **16 41 01.2** | **-1.1** |
| VAM | | | | S | | **Sn** | **16 41 17.0** | **0.0** |
| **IMMV** | **Iera Moni Meta** | **1.39** | **345** | P | | **Pn** | **16 41 02.1** | **+0.3** |
| IMMV | | | | S | | **Sb** | **16 41 20.6** | **-0.6** |
| IMMV | | | | AML | | AML | 16 41 30.0 | |
| | comp=N,777μm,0.9s | | | | | | | |
| IMMV | | | | AML | | AML | 16 41 32.6 | |
| | comp=E,1136μm,0.7s | | | | | | | |
| **IMMV** | **Iera Moni Meta** | **1.39** | **345** | P | | **Pn** | **16 41 02.1** | **+0.3** |
| IMMV | | | | S | | **Sb** | **16 41 20.6** | **-0.6** |
| **NPS** | **Neapolis** | **1.50** | **40** | P | | **Pb** | **16 41 06.4** | **+0.8** |
| **NPS** | **Neapolis** | **1.50** | **40** | P | | **Pb** | **16 41 06.4** | **+0.8** |
| **KARP** | **Karpathos** | **2.66** | **57** | P | | **Pb** | **16 41 23.2** | **-2.1** |
| **KARP** | **Karpathos** | **2.66** | **57** | P | | **Pb** | **16 41 23.2** | **-2.1** |
| **AKASG** | **Malin Array Be** | **16.94** | **10** | P | | **Pn** | **16 44 33.4** | **+0.4** |
| | comp=E,1.3nm,0.3s,baz=198,slow=11,SNR=6.7 | | | | | | | |
| **NOA** | **NORSAR Array B** | **28.26** | **346** | P | | **P** | **16 46 27.3** | **-1.4** |
| | comp=E,0.5nm,0.8s,baz=152,slow=8.6,SNR=3.8 | | | | | | | |
| **MKAR** | **Makanchi Array** | **44.85** | **56** | P | | **P** | **16 48 51.2** | **+1.5** |
| | comp=E,0.7nm,0.5s,baz=264,slow=7.9,SNR=8.2 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **78.25** | **342** | P | | **P** | **16 52 35.5** | **+0.7** |
| | comp=E,0.1nm,0.4s,baz=30,slow=5.3,SNR=2.5 | | | | | | | |

**IDC 24 16:45:10.7±6.6, 3.62S×133.93E, h0km, mb3.6/1, mb1 3.6/3, mb1mx3.3/27, mbtmp3.4/3, ML3.3/2, Error ellipse: s-maj=378.2km s-min=30.7km az=77.0, Irian Jaya region**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **16.23** | **179** | Pn | | Pn | 16 48 58.2 | -2.0 |
| | 0.1nm,0.3s,baz=359,slow=13,SNR=7.7 | | | | | | | |
| WRA | | | | Sn | | Sn | 16 51 56.9 | -4.3 |
| | 0.1nm,0.3s,baz=0.0,slow=23,SNR=4.7 | | | | | | | |
| **ASAR** | **Alice Springs** | **19.93** | **180** | P | | Pn | 16 49 45.2 | -0.8 |
| | 0.1nm,0.3s,baz=359,slow=11,SNR=14 | | | | | | | |
| **MKAR** | **Makanchi Array** | **67.67** | **324** | P | | P | 16 56 09.7 | 0.0 |
| | 0.4nm,0.6s,baz=111,slow=7.6,SNR=5.0 | | | | | | | |

*DDA **24** 16:54:02.8, 39.63N×38.80E, h7km, Md2.5*
*CSEM **24** 16:54:03.0±0.3, 39.69N×38.72E, h2km, MD2.5, Error ellipse: s-maj=5.9km s-min=4.7km az=133.0*
*ISK **24** 16:54:03.2, 39.65N×38.68E, h7km, MD2.5*
**ISC 24 16:54:03.3±1.2, 39.67N±0.03×38.72E±0.03, h4km±13km, n17, σ0s50/29, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **ILIC** | **ilic-Erzincan** | **0.25** | **208** | *e* | PG | **Pg** | **16 54 08.1** | **-0.1** |
| **ILIC** | **ilic-Erzincan** | **0.25** | **208** | *e* | Pg | **Pg** | **16 54 08.1** | **-0.1** |
| **REFA** | **Refahiye_ERZ** | **0.28** | **173** | *i* | P | **Pg** | **16 54 08.4** | **-0.3** |
| **REFA** | **Refahiye_ERZ** | **0.28** | **173** | | P | **Pg** | **16 54 08.4** | **-0.3** |
| **KEMA** | **Kemaliye** | **0.44** | **204** | *i* | P | **Pg** | **16 54 11.4** | **-0.4** |
| KEMA | | | | *i* | S | **Sg** | **16 54 17.8** | **+0.2** |
| **KEMA** | **Kemaliye** | **0.44** | **204** | | P | **Pg** | **16 54 11.4** | **-0.4** |
| KEMA | | | | | S | **Sg** | **16 54 17.8** | **+0.2** |
| **KELT** | **Kelkit** | **0.63** | **41** | *i* | P | **Pg** | **16 54 15.1** | **-0.3** |
| KELT | | | | *i* | S | **Sg** | **16 54 24.3** | **+0.7** |
| **KELT** | **Kelkit** | **0.63** | **41** | | P | **Pg** | **16 54 15.1** | **-0.3** |
| KELT | | | | | S | **Sg** | **16 54 24.3** | **+0.7** |
| **ERZN** | **Erzincan** | **0.78** | **96** | *e* | PG | **Pb** | **16 54 19.2** | **-0.3** |
| **PTK** | **Pertek** | **0.94** | **146** | *e* | PG | **Pg** | **16 54 21.4** | **+0.2** |
| PTK | | | | *e* | SG | **Sb** | **16 54 34.9** | **-0.3** |
| **PTK** | **Pertek** | **0.94** | **146** | *e* | Pg | **Pg** | **16 54 21.5** | **+0.2** |
| PTK | | | | *e* | Sg | **Sb** | **16 54 34.9** | **-0.3** |
| **CUKAN** | **kangal_SIVAS** | **1.03** | **250** | *i* | P | **Pg** | **16 54 22.4** | **-0.8** |
| CUKAN | | | | *i* | S | **Sb** | **16 54 38.9** | **+0.9** |
| **CUKAN** | **kangal_SIVAS** | **1.03** | **250** | | P | **Pg** | **16 54 22.4** | **-0.8** |
| CUKAN | | | | | S | **Sb** | **16 54 38.9** | **+0.9** |
| **SVSK** | **Karacayir** | **1.35** | **281** | *e* | PN | **Pn** | **16 54 28.7** | **-0.3** |
| SVSK | | | | *e* | SN | **Sb** | **16 54 47.4** | **+0.5** |
| **SVSK** | **Karacayir** | **1.35** | **281** | *e* | Pn | **Pn** | **16 54 28.7** | **-0.3** |
| SVSK | | | | *e* | Sn | **Sb** | **16 54 47.4** | **+0.5** |
| **AKCD** | **Akcadag** | **1.51** | **205** | *i* | P | **Pg** | **16 54 32.5** | **+0.2** |
| AKCD | | | | *i* | S | **Sg** | **16 54 52.3** | **+0.4** |
| **AKCD** | **Akcadag** | **1.51** | **205** | | P | **Pg** | **16 54 32.5** | **+0.2** |
| AKCD | | | | | S | **Sg** | **16 54 52.3** | **+0.4** |

**IDC 24 16:54:27.1±2.1, 5.24N×124.24E, h0km, mb3.4/3, mb1 3.6/3, mb1mx3.3/26, mbtmp3.4/3, MS3.3/1, Ms1 3.3/1, ms1mx2.6/25, Error ellipse: s-maj=224.7km s-min=25.7km az=64.0, Mindanao**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **26.92** | **159** | P | | P | 17 00 10.5 | +0.3 |
| | 0.2nm,0.3s,baz=338,slow=9.6,SNR=11 | | | | | | | |
| **ASAR** | **Alice Springs** | **30.24** | **162** | P | | P | 17 00 39.5 | -0.4 |
| | 0.4nm,0.9s,baz=339,slow=7.0,SNR=4.3 | | | | | | | |
| **MKAR** | **Makanchi Array** | **54.92** | **326** | P | | P | 17 03 59.7 | -0.1 |
| | 0.1nm,0.3s,baz=136,slow=6.2,SNR=3.8 | | | | | | | |
| **AAK** | **Ala-Archa** | **57.59** | **318** | LR | | LR | 17 30 30.2 | |
| | comp=Z,27nm,20.0s,baz=264,slow=38 | | | | | | | |

*ISK **24** 16:56:23.6, 38.69N×43.15E, h6km, ML2.3*
*CSEM **24** 16:56:24.5±0.2, 38.71N×43.15E, h2km, ML2.3, Error ellipse: s-maj=4.0km s-min=3.3km az=127.0*
*DDA **24** 16:56:24.3, 38.68N×43.15E, h7km, Ml2.7*
**ISC 24 16:56:24.8±0.9, 38.70N±0.02×43.15E±0.02, h11km±8km, n26, σ0s72/48, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **VANB** | **Van** | **0.21** | **118** | *e* | PG | **Pg** | **16 56 29.4** | **0.0** |
| VANB | | | | *e* | SG | **Sg** | **16 56 33.9** | **+1.3** |
| **VANB** | **Van** | **0.21** | **118** | *e* | Pg | **Pg** | **16 56 29.4** | **0.0** |
| VANB | | | | *e* | Sg | **Sg** | **16 56 33.9** | **+1.3** |
| **TVAN** | **Van** | **0.26** | **130** | *i* | P | **Pg** | **16 56 29.2** | **-1.1** |
| TVAN | | | | *i* | S | **Sg** | **16 56 33.7** | **-0.3** |
| **TVAN** | **Van** | **0.26** | **130** | | P | **Pg** | **16 56 29.2** | **-1.1** |
| TVAN | | | | | S | **Sg** | **16 56 33.7** | **-0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.35** | **289** | *i* | P | **Pg** | **16 56 31.9** | **0.0** |
| ADCV | | | | *i* | S | **Sb** | **16 56 38.5** | **-0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.35** | **289** | | P | **Pg** | **16 56 31.9** | **0.0** |
| ADCV | | | | | S | **Sb** | **16 56 38.5** | **-0.2** |
| **ERCV** | **ERCIS-VAN** | **0.35** | **25** | *e* | PG | **Pg** | **16 56 31.2** | **-0.8** |
| **ERCV** | **ERCIS-VAN** | **0.35** | **25** | *e* | Pg | **Pg** | **16 56 31.2** | **-0.8** |
| **GEVA** | **Gevas** | **0.39** | **190** | *i* | P | **Pg** | **16 56 31.4** | **-1.2** |
| GEVA | | | | *i* | S | **Sg** | **16 56 38.3** | **+0.5** |
| **GEVA** | **Gevas** | **0.39** | **190** | | P | **Pg** | **16 56 31.4** | **-1.2** |
| GEVA | | | | | S | **Sg** | **16 56 38.3** | **+0.5** |
| **VMUR** | **Van-Muradiye** | **0.44** | **48** | *i* | P | **Pg** | **16 56 33.4** | **-0.1** |
| VMUR | | | | *i* | S | **Sb** | **16 56 41.0** | **-0.4** |
| **VMUR** | **Van-Muradiye** | **0.44** | **48** | | P | **Pg** | **16 56 33.4** | **-0.1** |
| VMUR | | | | | S | **Sb** | **16 56 41.0** | **-0.4** |
| **CLDR** | **Caldiran** | **0.75** | **53** | *e* | PG | **Pg** | **16 56 38.7** | **-0.6** |
| CLDR | | | | *e* | SG | **Sg** | **16 56 49.3** | **+0.2** |
| **CLDR** | **Caldiran** | **0.75** | **53** | *i* | P | **Pg** | **16 56 38.5** | **-0.8** |
| CLDR | | | | *i* | S | **Sb** | **16 56 50.2** | **0.0** |
| **CLDR** | **Caldiran** | **0.75** | **53** | | P | **Pg** | **16 56 38.5** | **-0.8** |
| **CLDR** | **Caldiran** | **0.75** | **53** | *e* | Pg | **Pg** | **16 56 38.7** | **-0.6** |
| CLDR | | | | *e* | Sg | **Sg** | **16 56 49.3** | **+0.2** |
| CLDR | | | | *i* | S | **Sb** | **16 56 50.2** | **0.0** |
| **TUTA** | **Tutak** | **0.75** | **340** | *i* | P | **Pg** | **16 56 38.9** | **-0.4** |
| **TUTA** | **Tutak** | **0.75** | **340** | | P | **Pg** | **16 56 38.9** | **-0.4** |
| **AGRB** | **Hanur-Agry** | **0.89** | **352** | *e* | PG | **Pg** | **16 56 41.2** | **-0.7** |
| AGRB | | | | *e* | SG | **Sg** | **16 56 53.7** | **+0.2** |
| **AGRB** | **Hanur-Agry** | **0.89** | **352** | *e* | Pg | **Pg** | **16 56 41.2** | **-0.7** |
| AGRB | | | | *e* | Sg | **Sg** | **16 56 53.7** | **+0.2** |
| **SRTM** | **Siirt_Merkez** | **1.19** | **234** | *i* | P | **Pn** | **16 56 47.5** | **+0.1** |
| SRTM | | | | *i* | S | **Sn** | **16 57 05.3** | **+1.6** |
| **SRTM** | **Siirt_Merkez** | **1.19** | **234** | | P | **Pn** | **16 56 47.5** | **+0.1** |
| SRTM | | | | | S | **Sn** | **16 57 05.3** | **+1.6** |
| **EATA** | **Eleskirt** | **1.27** | **337** | *i* | P | **Pg** | **16 56 48.1** | **-1.1** |
| EATA | | | | *i* | S | **Sn** | **16 57 06.6** | **+0.7** |
| **EATA** | **Eleskirt** | **1.27** | **337** | | P | **Pg** | **16 56 48.1** | **-1.1** |
| EATA | | | | | S | **Sn** | **16 57 06.6** | **+0.7** |
| **BTMN** | **Batman** | **1.68** | **242** | *i* | P | **Pb** | **16 56 55.4** | **-0.4** |
| BTMN | | | | *i* | S | **Sg** | **16 57 18.8** | **-0.1** |
| **BTMN** | **Batman** | **1.68** | **242** | | P | **Pb** | **16 56 55.4** | **-0.4** |
| BTMN | | | | | S | **Sg** | **16 57 18.8** | **-0.1** |

*ISCJB **24** 17:02:16.1±0.5, 24.39N±0.02×122.06E±0.02, h10km±3km, Error ellipse: s-maj=3.2km s-min=2.3km az=159.3*
*TAP **24** 17:02:16.9, 24.41N×121.96E, h18km, ML3.3, D*
*JMA **24** 17:02:16.0±0.2, 24.33N×121.92E, h49km±4km, M2.6*
**ISC 24 17:02:16.7±1.0, 24.39N±0.02×122.01E±0.02, h18km±5km, n46, σ0s81/85, Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **ENA** | **Nanau** | **0.25** | **278** | *i* | P | **Pg** | **17 02 22.5** | **+0.1** |
| | baz=273 | | | | | | | |
| ENA | | | | S | | **Sg** | **17 02 26.9** | **+0.6** |
| | baz=273 | | | | | | | |
| **TWC** | **Suao** | **0.26** | **326** | *i* | P | **Pg** | **17 02 22.8** | **+0.2** |
| | baz=335 | | | | | | | |
| TWC | | | | *i* | S | **Sg** | **17 02 27.1** | **+0.5** |
| | baz=335 | | | | | | | |
| **ILA** | **Ilan** | **0.44** | **327** | P | | **Pb** | **17 02 25.9** | **-0.2** |
| | baz=332 | | | | | | | |
| ILA | | | | S | | **Sb** | **17 02 32.4** | **+0.1** |
| | baz=332 | | | | | | | |
| **TWE** | **Neicheng** | **0.45** | **316** | *i* | P | **Pb** | **17 02 25.6** | **-0.5** |
| | baz=320 | | | | | | | |
| TWE | | | | S | | **Sb** | **17 02 31.9** | **-0.7** |
| | baz=320 | | | | | | | |
| **ENTT** | **Nioudou** | **0.47** | **301** | P | | **Pb** | **17 02 26.0** | **-0.5** |
| | baz=302 | | | | | | | |
| ENTT | | | | S | | **Sb** | **17 02 32.6** | **-0.7** |
| | baz=302 | | | | | | | |
| **TWD** | **Chiawan** | **0.49** | **231** | P | | **Pg** | **17 02 26.5** | **-0.1** |
| | baz=224 | | | | | | | |
| TWD | | | | *e* | S | **Sb** | **17 02 35.5** | **+1.9** |
| | baz=224 | | | | | | | |
| **NNS** | **Nan Shan** | **0.58** | **275** | P | | **Pg** | **17 02 27.8** | **-0.5** |
| | baz=272 | | | | | | | |
| NNS | | | | S | | **Sb** | **17 02 35.9** | **-0.5** |
| | baz=272 | | | | | | | |
| **TWB1** | **Santiao Chiao** | **0.61** | **358** | *i* | P | **Pb** | **17 02 29.0** | **+0.1** |
| | baz=3.0 | | | | | | | |
| TWB1 | | | | S | | **Sb** | **17 02 37.3** | **+0.1** |
| | baz=3.0 | | | | | | | |
| **NSK** | **Sanguang** | **0.66** | **296** | P | | **Pg** | **17 02 29.0** | **-0.7** |
| | baz=295 | | | | | | | |
| NSK | | | | *e* | S | **Sg** | **17 02 37.4** | **-1.1** |
| | baz=295 | | | | | | | |
| **TWA** | **Mucha** | **0.70** | **327** | *e* | P | **Pb** | **17 02 31.3** | **+0.9** |
| | baz=329 | | | | | | | |
| TWA | | | | *e* | S | **Sn** | **17 02 43.0** | **+0.8** |
| | baz=329 | | | | | | | |
| **NWF** | **Wu-fen Shan** | **0.71** | **343** | *i* | P | **Pb** | **17 02 30.5** | **0.0** |
| | baz=346 | | | | | | | |
| NWF | | | | *e* | S | **Sg** | **17 02 39.4** | **-0.7** |
| | baz=346 | | | | | | | |
| **WHF** | **Hehuan Shan** | **0.72** | **250** | *i* | P | **Pg** | **17 02 30.4** | **-0.6** |
| | baz=246 | | | | | | | |
| WHF | | | | S | | **Sb** | **17 02 40.6** | **-0.2** |
| | baz=246 | | | | | | | |
| **TWT** | **Tachien** | **0.78** | **260** | *i* | P | **Pb** | **17 02 31.6** | **-0.2** |
| | baz=257 | | | | | | | |
| TWT | | | | S | | **Sb** | **17 02 42.7** | **+0.6** |
| | baz=257 | | | | | | | |
| **ESL** | **Shilin** | **0.78** | **223** | *e* | P | **Pg** | **17 02 30.4** | **-1.6** |
| | baz=218 | | | | | | | |
| ESL | | | | *e* | S | **Sg** | **17 02 42.1** | **-0.2** |
| | baz=218 | | | | | | | |
| **TAP** | **Taipei** | **0.79** | **325** | *e* | P | **Pb** | **17 02 32.1** | **+0.2** |
| | baz=326 | | | | | | | |
| TAP | | | | *e* | S | **Sb** | **17 02 42.4** | **0.0** |
| | baz=326 | | | | | | | |
| **JYNG** | **Yonaguni jima** | **0.85** | **86** | P | | **Pg** | **17 02 33.1** | **-0.2** |
| JYNG | | | | | S | **Sg** | **17 02 45.7** | **+1.1** |
| **TWS1** | **Kuangyinshan** | **0.89** | **323** | P | | **Pb** | **17 02 33.5** | **-0.1** |
| | baz=324 | | | | | | | |
| TWS1 | | | | *e* | S | **Sb** | **17 02 46.0** | **+0.8** |
| | baz=324 | | | | | | | |
| **YOJ** | **Yonaguni jima** | **0.91** | **85** | P | | **Pg** | **17 02 34.0** | **-0.5** |
| YOJ | | | | *e* | S | **Sg** | **17 02 47.2** | **+0.7** |
| **NCU** | **National Centr** | **0.95** | **308** | *e* | S | **Sn** | **17 02 47.7** | **-0.5** |
| | baz=308 | | | | | | | |
| **NSTT** | **Nanjuang** | **0.95** | **285** | P | | **Pg** | **17 02 34.4** | **-0.8** |
| | baz=283 | | | | | | | |
| NSTT | | | | *e* | S | **Sn** | **17 02 48.6** | **+0.3** |
| | baz=283 | | | | | | | |
| **HSN** | **Hsinchu** | **1.03** | **294** | *e* | S | **Sn** | **17 02 50.8** | **+0.4** |
| | baz=295 | | | | | | | |
| **EHY** | **Hungye** | **1.08** | **216** | *e* | P | **Pg** | **17 02 35.2** | **-2.5** |
| | baz=212 | | | | | | | |
| EHY | | | | *e* | S | **Sb** | **17 02 52.3** | **+1.5** |
| | baz=212 | | | | | | | |
| **TWQ1** | **Liyutan** | **1.13** | **268** | P | | **Pn** | **17 02 38.2** | **+0.6** |
| | baz=266 | | | | | | | |
| TWQ1 | | | | S | | **Sn** | **17 02 53.1** | **+0.3** |
| | baz=266 | | | | | | | |
| **NSY** | **Sanyi** | **1.14** | **271** | *e* | S | **Sn** | **17 02 53.7** | **+0.7** |
| | baz=270 | | | | | | | |
| **TYC** | **Yuchr** | **1.16** | **246** | P | | **Pb** | **17 02 37.9** | **-0.3** |
| | baz=243 | | | | | | | |
| TYC | | | | *e* | S | **Sn** | **17 02 54.4** | **+1.0** |
| | baz=243 | | | | | | | |
| **WNT** | **Mingjian** | **1.32** | **247** | *e* | P | **Pn** | **17 02 40.5** | **+0.3** |
| | baz=245 | | | | | | | |
| WNT | | | | *e* | S | **Sg** | **17 02 59.5** | **+0.1** |
| | baz=245 | | | | | | | |
| **YUS** | **Yu-Shan** | **1.32** | **227** | *e* | P | **Pn** | **17 02 40.2** | **-0.5** |
| | baz=224 | | | | | | | |
| YUS | | | | *e* | S | **Sb** | **17 02 58.3** | **+0.2**

1.6nm,0.2s,baz=94,slow=7.7,SNR=123
**ASAR Alice Springs 47.66 253** P **P 17 18 31.2 -0.3**
20nm,0.7s,baz=90,slow=7.4,SNR=495
**FITZ Fitzroy Crossi 55.81 259** P **P 17 19 31.7 +0.4**
1.2nm,0.4s,baz=108,slow=4.6,SNR=15
**VNDA Vanda 62.03 185** P P 17 20 17.0 +4.4
2.2nm,1.0s,baz=2.3,slow=7.9,SNR=5.3
**SEY Seymchan 83.06 346** P **P 17 22 15.6 +0.1**
2.0nm,1.0s,baz=132,slow=16,SNR=3.7
**ILAR Eielson Array 84.00 12** P **P 17 22 20.6 +0.4**
0.3nm,0.5s,baz=217,slow=5.2,SNR=9.4
**KMBO Kilima Mbogo 143.05 245** PKP **PKPdf 17 29 22.1 -0.6**
0.5nm,0.2s,baz=85,slow=5.2,SNR=6.2
**BRTR Keskin Array B 145.58 318** PKPbc **PKPab 17 29 27.8 -0.3**
1.0nm,0.8s,baz=90,slow=3.7,SNR=4.5
**DAVOX Davos/Dischmat 149.49 352** PKPbc **PKPbc 17 29 39.0 +1.6**
1.7nm,0.8s,baz=0.8,slow=4.4,SNR=4.4

---

*ISCJB **24** 17:14:12.6±0.7,5.°07S±0.°02×153.°67E±0.°03, h56km±6km, mb5.1/147,MS4.2/29, Error ellipse: s-maj=4.8km s-min=3.8km az=167.2*
*MOS **24** 17:14:12.8±1.2, 4.°99S×153.°58E, h53km, mb5.2/31, Error ellipse: s-maj=8.7km s-min=6.1km az=95.6*
*NEIC **24** 17:14:15.7±0.6, 5.°07S×153.°59E, h72km±5km, mb5.3/84, Error ellipse: s-maj=4.4km s-min=3.5km az=73.0*
*GCMT **24** 17:14:15.7±0.2, 5.°27S×153.°41E, h46km, MW5.2/88, Moment Tensor Solution. s88,c122; s82,c120; Duration: 1s0 Moment tensor: Scale 10^17 Nm; Mrr0.81±.02; Mθθ-0.38±.01; Mϕϕ-0.42±.01; Mrθ0.20±.01; Mθϕ0.45±.01; Mϕr-0.12±.01; Best double couple: M=0.86300×10^17 NP1:ϕs132.00000°, δ53.00000°, λ85.00000°. NP2:ϕs321.00000°, δ37.00000°, λ97.00000°. Principal axes: T 0.8430, Plg81.0000°, Azm16.0000°; N 0.0390, Plg4.0000°, Azm136.0000°; P -0.8830, Plg8.0000°, Azm226.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*IDC **24** 17:14:16.7±2.0, 5.°11S×153.°58E, h75km±18km, mb4.5/37, mb1 4.6/39,mb1mx4.5/53,mbtmp4.8/39,MS4.1/21, Ms1 4.1/21,ms1mx3.9/33 Error ellipse: s-maj=12.4km s-min=7.8km az=91.0*
*BJI **24** 17:14:17.9, 4.°64S×153.°39E, h75km, mb5.1/63, mB5.3/44, Ms5.0/31,Ms7 4.6/31*
*DJA **24** 17:14:24.0±2.4, 5.°5±11.°×15.°3E±1.°7, h93km±13km, M5.4/17, mb5.2/17, mB5.7/11, MLv5.7/1, Mw(mB)5.2/11, Mwp6.3/1*

**ISC 24 17:14:15.7±0.5, 5.°08S±0.°04×153.°55E±0.°04, h66km±4km, n370, σ1§67/400, mb5.2/148, 17C-3D, New Ireland region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RABL** | **Rabaul** | **1.64** | **302** | *e*Pn | **Pn** | **17 14 42.6** | **+0.2** |
| **MANU** | **Manus Island** | **6.87** | **296** | *e*Pn | **Pn** | **17 15 55.8** | **+2.0** |
| **PMG** | **Port Moresby** | **7.66** | **235** | *d*iP | **Pn** | **17 16 04.0** | **-0.6** |
| PMG | | | | pmax | pmax | | |
| | comp=Z,876nm,1.0s | | | | | | |
| **PMG** | **Port Moresby** | **7.66** | **235** | *e*Pn | **Pn** | **17 16 04.1** | **-0.6** |
| PMG | | | | *e*Sn | **Sn** | **17 17 23.2** | **-6.9** |
| **HNR** | **Honiara** | **7.68** | **125** | *e*P | **Pn** | **17 16 06.0** | **+1.1** |
| HNR | | | | *e*S | **Sn** | **17 17 35.0** | **+4.5** |
| **HNR** | **Honiara** | **7.68** | **125** | P | **Pn** | **17 16 06.3** | **+1.4** |
| | comp=Z,25nm,0.3s,baz=252,slow=6.1,SNR=10 | | | | | | |
| HNR | | | | S | **Sn** | **17 17 29.8** | **-0.7** |
| | baz=253,slow=10,SNR=1.8 | | | | | | |
| HNR | | | | LR | LR | 17 19 36.6 | |
| | comp=Z,3μm,19.3s,baz=286,slow=42 | | | | | | |
| **HNR** | **Honiara** | **7.68** | **125** | *e*P | **Pn** | **17 16 07.1** | **+2.2** |
| HNR | | | | *e* | | 17 17 25.0 | |
| **HNR** | **Honiara** | **7.68** | **125** | *e*Pn | **Pn** | **17 16 07.1** | **+2.2** |
| HNR | | | | *e*Sn | **Sn** | **17 17 25.0** | **-5.5** |
| **PATS** | **Pohnpei** | **12.75** | **22** | P | **Pn** | **17 17 12.8** | **-1.4** |
| | baz=13,SNR=3.6 | | | | | | |
| **PATS** | **Pohnpei** | **12.75** | **22** | *e*Pn | **Pn** | **17 17 13.2** | **-1.1** |
| **JAY** | **Jayapura** | **13.07** | **281** | P | **Pn** | **17 17 19.2** | **+0.6** |
| | comp=Z,324nm,2.1s,comp=Z,7μm | | | | | | |
| **COEN** | **Coen** | **13.51** | **228** | P | **Pn** | **17 17 24.4** | **0.0** |
| | baz=14,SNR=19 | | | | | | |
| **COEN** | **Coen** | **13.51** | **228** | *e*Pn | **Pn** | **17 17 24.4** | **0.0** |
| **GENI** | **Geneyem** | **13.58** | **280** | P | **P** | **17 17 31.0** | **-1.2** |
| | comp=Z,134nm,1.5s,comp=Z,3μm | | | | | | |
| **MTSU** | **Mount Surprise** | **15.81** | **214** | P | **Pn** | **17 17 55.0** | **+0.6** |
| | baz=16,SNR=17 | | | | | | |
| **CTA** | **Charters Tower** | **16.52** | **205** | P | **Pn** | **17 18 03.6** | **+0.3** |
| | comp=Z,0.7nm,0.3s,baz=30,slow=14,SNR=43 | | | | | | |
| CTA | | | | LR | LR | 17 23 36.8 | |
| | comp=Z,2μm,21.5s,baz=14,slow=34 | | | | | | |
| **CTAO** | **Charters Tower** | **16.52** | **205** | *e*P | **Pn** | **17 18 03.3** | **0.0** |
| CTAO | | | | pmax | pmax | | |
| | comp=Z,161nm,1.1s | | | | | | |
| **CTAO** | **Charters Tower** | **16.52** | **205** | *e*Pn | **Pn** | **17 18 03.3** | **0.0** |
| | comp=Z,161nm,1.1s | | | | | | |
| **BAKI** | **Biak** | **17.84** | **282** | P | **Pn** | **17 18 22.6** | **+3.0** |
| | comp=Z,176nm,1.1s,comp=Z,2μm | | | | | | |
| **KWAJ** | **Kwajalein Atol** | **19.66** | **46** | *e*P | **P** | **17 18 38.6** | **-0.8** |
| KWAJ | | | | pmax | pmax | | |
| | comp=Z,509nm,1.2s | | | | | | |
| **KWAJ** | **Kwajalein Atol** | **19.66** | **46** | *e*P | **P** | **17 18 38.5** | **-0.8** |
| | comp=Z,509nm,1.2s | | | | | | |
| **EIDS** | **Eidsvold** | **20.32** | **186** | P | **P** | **17 18 46.9** | **+0.4** |
| | baz=20,SNR=6.2 | | | | | | |
| **EIDS** | **Eidsvold** | **20.32** | **186** | *e*P | **P** | **17 18 45.6** | **-0.9** |
| | comp=Z,64nm,1.1s | | | | | | |
| **TARA** | **Tarawa** | **20.38** | **72** | *e*P | **P** | **17 18 46.0** | **-1.2** |
| | comp=Z,961nm,1.9s | | | | | | |
| **GUMO** | **Guam** | **20.45** | **335** | P | Pn | 17 18 49.4 | -1.2 |
| | comp=Z,70nm,0.7s,baz=167,slow=14,SNR=2.6 | | | | | | |
| GUMO | | | | LR | LR | 17 27 24.2 | |
| | comp=Z,267nm,18.8s,baz=156,slow=38 | | | | | | |
| **GUMO** | **Guam** | **20.45** | **335** | *e*P | **P** | **17 18 45.9** | **-2.1** |
| | comp=Z,352nm,1.1s | | | | | | |
| **QIS** | **Mount Isa** | **20.51** | **220** | P | **P** | **17 18 49.0** | **+0.4** |
| | baz=21,SNR=17 | | | | | | |
| **DZM** | **Mont Dzumac** | **21.00** | **145** | P | **P** | **17 18 53.7** | **-0.3** |
| | comp=Z,32nm,0.4s,baz=271,slow=7.4,SNR=39 | | | | | | |
| **DZM** | **Mont Dzumac** | **21.00** | **145** | *e*P | **P** | **17 18 53.3** | **-0.7** |
| | comp=Z,319nm,1.1s | | | | | | |
| DZM | | | | *e*S | **S** | **17 22 45.3** | **+0.8** |
| | comp=Z,905nm,26.9s | | | | | | |
| DZM | | | | *e*LR | LR | 17 24 02.7 | |
| | comp=Z,2μm,22.9s | | | | | | |
| **DZM** | **Mont Dzumac** | **21.00** | **145** | *e*P | **P** | **17 18 53.4** | **-0.7** |
| | comp=Z,125nm,1.0s | | | | | | |
| **FAKI** | **Fak Fak** | **21.36** | **275** | *e*P | **P** | **17 18 57.4** | **-0.4** |
| | comp=Z,120nm,1.1s | | | | | | |
| **RMQ** | **Roma** | **21.78** | **192** | P | **P** | **17 19 02.6** | **+0.5** |
| | baz=22,SNR=23 | | | | | | |
| **KDU** | **Kakadu** | **22.14** | **249** | P | **P** | **17 19 06.5** | **+0.3** |
| | baz=22,SNR=8.5 | | | | | | |
| **SWI** | **Sorong** | **22.65** | **280** | P | **P** | **17 19 11.9** | **+0.3** |
| | comp=Z,132nm,0.9s,comp=Z,1μm | | | | | | |
| **PALU** | **Palau** | **22.68** | **303** | P | **P** | **17 19 12.4** | **+0.4** |
| | baz=23,SNR=8.2 | | | | | | |
| **QLP** | **Quilpie** | **23.16** | **202** | P | **P** | **17 19 16.6** | **0.0** |
| | baz=23,SNR=22 | | | | | | |
| **MTN** | **Manton Dam** | **23.43** | **249** | P | **P** | **17 19 20.9** | **+1.6** |
| | baz=24,SNR=4.4 | | | | | | |
| **MTN** | **Manton Dam** | **23.43** | **249** | *e*P | **P** | **17 19 20.2** | **+0.9** |
| | comp=Z,57nm,0.8s | | | | | | |
| **WRAB** | **Tennant Creek** | **23.82** | **230** | *c i*P | **P** | **17 19 23.2** | **+0.4** |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,111nm,1.2s | | | | | | |
| **WRAB** | **Tennant Creek** | **23.82** | **230** | *e*P | **P** | **17 19 22.7** | **-0.1** |
| | comp=Z,53nm,0.8s | | | | | | |
| **WB2** | **Warramunga Arr** | **23.82** | **230** | *e*P | **P** | **17 19 21.2** | **-1.6** |
| **WR1** | **Warramunga Arr** | **23.83** | **230** | *e*P | **P** | **17 19 22.8** | **-0.1** |
| | comp=Z,70nm,0.8s | | | | | | |
| WR1 | | | | *e*PcP | **PcP** | **17 23 05.5** | **+0.7** |
| WR1 | | | | *e*S | **S** | **17 23 34.0** | **-0.2** |
| WR1 | | | | *e*ScP | **ScP** | **17 26 41.2** | **+3.7** |
| WR1 | | | | *e* | | 17 28 34.3 | |
| **WRA** | **Warramunga Arr** | **23.83** | **230** | P | **P** | **17 19 22.8** | **-0.1** |
| | comp=Z,22nm,0.8s,baz=53,slow=9.8,SNR=54 | | | | | | |
| WRA | | | | PcP | **PcP** | **17 23 05.5** | **+0.7** |
| | comp=Z,10nm,0.5s,baz=54,slow=2.6,SNR=12 | | | | | | |
| WRA | | | | S | **S** | **17 23 34.0** | **-0.2** |
| | comp=Z,1.6nm,0.9s,baz=50,slow=16,SNR=3.0 | | | | | | |
| WRA | | | | ScP | **ScP** | **17 26 41.3** | **+3.7** |
| | comp=Z,2.4nm,1.1s,baz=45,slow=3.4,SNR=4.0 | | | | | | |
| WRA | | | | LR | LR | 17 28 34.3 | |
| | comp=Z,1μm,20.9s,baz=50,slow=36 | | | | | | |
| **ARMA** | **Armidale** | **25.27** | **184** | P | **P** | **17 19 36.8** | **+0.8** |
| | baz=25,SNR=22 | | | | | | |
| **ARMA** | **Armidale** | **25.27** | **184** | *e*P | **P** | **17 19 36.2** | **+0.2** |
| | comp=Z,53nm,1.2s | | | | | | |
| **LBMI** | **Labuha** | **26.38** | **279** | P | **P** | **17 19 48.3** | **+2.2** |
| | comp=Z,148nm,1.1s,comp=Z,1μm | | | | | | |
| **AS01** | **Alice Springs** | **26.43** | **224** | *e*P | **P** | **17 19 46.3** | **-0.1** |
| **AS31** | **Alice Springs** | **26.46** | **224** | *e*P | **P** | **17 19 46.1** | **-0.7** |
| | comp=Z,10nm,1.0s | | | | | | |
| AS31 | | | | *e*PcP | **PcP** | **17 23 11.1** | **+0.4** |
| AS31 | | | | *e*ScP | **ScP** | **17 26 47.7** | **+2.7** |
| AS31 | | | | *e* | | 17 29 53.9 | |
| **ASAR** | **Alice Springs** | **26.46** | **224** | P | **P** | **17 19 46.7** | **-0.1** |
| | comp=Z,3.9nm,0.4s,baz=55,slow=8.7,SNR=45 | | | | | | |
| ASAR | | | | PcP | **PcP** | **17 23 11.5** | **+0.8** |
| | comp=Z,6.0nm,0.5s,baz=61,slow=2.4,SNR=9.6 | | | | | | |
| ASAR | | | | S | **S** | **17 24 15.0** | **-1.1** |
| | comp=Z,3.8nm,1.1s,baz=45,slow=13,SNR=3.7 | | | | | | |
| ASAR | | | | ScP | **ScP** | **17 26 47.7** | **+2.7** |
| | comp=Z,1.1nm,0.7s,baz=40,slow=3.8,SNR=3.9 | | | | | | |
| ASAR | | | | LR | LR | 17 29 53.9 | |
| | comp=Z,1μm,21.8s,baz=78,slow=35 | | | | | | |
| **KNRA** | **Kununurra** | **26.53** | **245** | P | **P** | **17 19 47.9** | **+0.5** |
| | baz=27,SNR=7.9 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **26.77** | **29** | T | T | 17 48 17.2 | |
| | baz=206,slow=73,SNR=20 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **26.77** | **29** | T | T | 17 48 19.3 | |
| | baz=206,slow=73,SNR=149 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **26.78** | **29** | T | T | 17 48 21.7 | |
| | baz=206,slow=73,SNR=21 | | | | | | |
| **TNTI** | **Ternate** | **26.79** | **282** | *e*P | **P** | **17 19 50.5** | **+0.7** |
| | comp=Z,27nm,0.9s | | | | | | |
| **CMSA** | **Cobar Meteorol** | **27.34** | **195** | P | **P** | **17 19 54.4** | **-0.1** |
| | baz=28,SNR=11 | | | | | | |
| **SANI** | **Sanana** | **27.67** | **275** | P | **P** | **17 20 01.0** | **+3.3** |
| | comp=Z,47nm,0.8s | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **27.91** | **28** | T | T | 17 50 20.0 | |
| | baz=214,slow=76 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **27.93** | **28** | T | T | 17 50 08.8 | |
| | baz=214,slow=76 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **27.93** | **28** | T | T | 17 50 18.6 | |
| | baz=214,slow=76 | | | | | | |
| **MGCD** | **Mangrove Creek** | **28.08** | **184** | P | **P** | **17 20 01.9** | **+0.7** |
| | baz=28,SNR=10 | | | | | | |
| **STKA** | **Stephens Creek** | **28.92** | **201** | P | **P** | **17 20 07.8** | **-0.7** |
| | comp=Z,3.0nm,0.6s,baz=34,slow=12,SNR=13 | | | | | | |
| STKA | | | | LR | LR | 17 31 56.7 | |
| | comp=Z,908nm,19.2s,baz=23,slow=37 | | | | | | |
| **STKA** | **Stephens Creek** | **28.92** | **201** | P | **P** | **17 20 07.9** | **-0.7** |
| | baz=29,SNR=12 | | | | | | |
| **STKA** | **Stephens Creek** | **28.92** | **201** | *e*P | **P** | **17 20 08.4** | **-0.2** |
| STKA | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.3s | | | | | | |
| **STKA** | **Stephens Creek** | **28.92** | **201** | *e*P | **P** | **17 20 08.4** | **-0.2** |
| | comp=Z,6.0nm,1.3s | | | | | | |
| **SOEI** | **Soe** | **29.40** | **259** | P | P | 17 20 21.4 | +8.2 |
| **SOEI** | **Soe** | **29.40** | **259** | *e*P | **P** | **17 20 12.6** | **-0.6** |
| | comp=Z,83nm,1.1s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **30.19** | **242** | LR | LR | 17 33 10.2 | |
| | comp=Z,487nm,20.1s,slow=38 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **30.19** | **242** | P | **P** | **17 20 20.0** | **0.0** |
| | baz=30,SNR=11 | | | | | | |
| **CAN** | **Canberra** | **30.39** | **187** | *e*P | **P** | **17 20 21.5** | **-0.1** |
| CAN | | | | pmax | pmax | | |
| | comp=Z,54nm,1.3s | | | | | | |
| **CAN** | **Canberra** | **30.39** | **187** | *e*P | **P** | **17 20 21.5** | **-0.1** |
| | comp=Z,54nm,1.3s | | | | | | |
| **DAV** | **Davao City (W)** | **30.41** | **293** | LR | LR | 17 32 42.2 | |
| | comp=Z,381nm,18.5s,baz=110,slow=36 | | | | | | |
| **LUWI** | **Luwuk** | **30.99** | **276** | *e*P | **P** | **17 20 26.2** | **-0.9** |
| | comp=Z,68nm,1.1s | | | | | | |
| **MMRI** | **Maumere** | **31.28** | **262** | P | **P** | **17 20 31.2** | **+1.5** |
| | comp=Z,85nm,1.2s,comp=Z,1μm | | | | | | |
| **MMRI** | **Maumere** | **31.28** | **262** | *e*P | **P** | **17 20 28.8** | **-0.9** |
| | comp=Z,121nm,1.2s | | | | | | |
| **WRKA** | **Warakurna** | **31.32** | **228** | P | **P** | **17 20 29.3** | **-0.7** |
| | baz=31,SNR=5.5 | | | | | | |
| **EDFI** | **Ende, Flores** | **31.83** | **262** | P | **P** | **17 20 34.1** | **-0.6** |
| | comp=Z,47nm,0.9s | | | | | | |
| **BBOO** | **Buckleboo** | **32.06** | **208** | *e*P | **P** | **17 20 35.5** | **-0.9** |
| | comp=Z,25nm,1.1s | | | | | | |
| **MILA** | **Mila** | **32.08** | **187** | P | **P** | **17 20 37.7** | **+1.2** |
| | baz=32,SNR=6.1 | | | | | | |
| **APSI** | **Ampana** | **32.12** | **276** | P | **P** | **17 20 41.6** | **+4.5** |
| | comp=Z,86nm,1.2s,comp=Z,665nm | | | | | | |
| **WSI** | **Waingapu** | **33.28** | **260** | P | **P** | **17 20 48.7** | **+1.5** |
| | comp=Z,489nm,1.2s,comp=Z,5μm | | | | | | |
| **CBIJ** | **Chichi jima** | **33.82** | **342** | *e*P | **P** | **17 20 52.4** | **+0.7** |
| | comp=Z,172nm,0.9s | | | | | | |
| **WBSI** | **Waikabubak, Su** | **34.17** | **260** | P | **P** | **17 20 55.6** | **+0.6** |
| **FORT** | **Forrest** | **35.05** | **220** | P | **P** | **17 21 02.2** | **-0.2** |
| | baz=35,SNR=20 | | | | | | |
| **FORT** | **Forrest** | **35.05** | **220** | *e*P | **P** | **17 21 01.9** | **-0.5** |
| | comp=Z,466nm,0.8s | | | | | | |
| **OUZ** | **Omahuta** | **35.25** | **151** | *e*P | **P** | **17 21 03.5** | **-0.4** |
| | comp=Z,41nm,1.1s | | | | | | |
| **AFI** | **Afiamalu** | **35.26** | **107** | *e*P | **P** | **17 21 03.1** | **-1.3** |
| AFI | | | | pmax | pmax | | |
| | comp=Z,36nm,1.1s | | | | | | |
| **AFI** | **Afiamalu** | **35.26** | **107** | *e*P | **P** | **17 21 03.1** | **-1.3** |
| | comp=Z,36nm,1.1s | | | | | | |
| **MBWA** | **Marble Bar** | **36.49** | **241** | *e*P | **P** | **17 21 14.8** | **0.0** |
| | comp=Z,28nm,0.8s | | | | | | |
| **MOO** | **Moorlands** | **37.63** | **188** | P | **P** | **17 21 25.7** | **+1.5** |
| | baz=38,SNR=7.8 | | | | | | |
| **TAU** | **Tasmania Unive** | **38.08** | **187** | *e*P | **P** | **17 21 28.8** | **+0.9** |
| TAU | | | | pmax | pmax | | |
| | comp=Z,61nm,1.4s | | | | | | |
| **TAU** | **Tasmania Unive** | **38.08** | **187** | *e*P | **P** | **17 21 28.8** | **+0.9** |
| | comp=Z,62nm,1.4s | | | | | | |
| **HIZ** | **Hauiti** | **38.50** | **153** | *e*P | **P** | **17 21 32.2** | **+0.6** |
| | comp=Z,110nm,1.3s | | | | | | |
| **KKM** | **Kota Kinabalu** | **38.88** | **286** | *e*P | **P** | **17 21 33.7** | **-1.5** |
| | comp=Z,31nm,1.1s | | | | | | |
| **JAGI** | **Jajag, Banyuwa** | **39.26** | **263** | *e*P | **P** | **17 21 36.1** | **-2.1** |
| | comp=Z,51nm,1.0s | | | | | | |
| **URZ** | **Urewera** | **39.37** | **150** | P | **P** | **17 21 38.8** | **0.0** |
| | comp=Z,24nm,1.0s,baz=247,slow=8.3,SNR=8.9 | | | | | | |
| **MXZ** | **Matakaoa Point** | **39.45** | **148** | *e*P | **P** | **17 21 38.3** | **-1.2** |
| | comp=Z,306nm,1.7s | | | | | | |
| **KMBL** | **Kambalda** | **39.58** | **225** | P | **P** | **17 21 40.4** | **-0.4** |
| | baz=40,SNR=9.0 | | | | | | |
| **MEEK** | **Meekatharra** | **39.64** | **233** | P | **P** | **17 21 40.6** | **-0.7** |
| | baz=40,SNR=14 | | | | | | |
| **BKZ** | **Black Stump Fm** | **39.79** | **152** | *e*P | **P** | **17 21 41.5** | **-0.8** |
| | comp=Z,17nm,0.7s | | | | | | |
| **THZ** | **Tophouse** | **40.41** | **158** | *e*P | **P** | **17 21 46.0** | **-1.5** |
| | comp=Z,52nm,1.0s | | | | | | |
| **SNZO** | **South Karori** | **40.74** | **155** | *e*P | **P** | **17 21 48.9** | **-1.3** |
| | comp=Z,43nm,0.9s | | | | | | |
| **BFZ** | **Birch Farm** | **40.89** | **153** | *e*P | **P** | **17 21 49.9** | **-1.5** |
| | comp=Z,94nm,1.4s | | | | | | |
| **FOZ** | **Fox Glacier** | **40.90** | **162** | *e*P | **P** | **17 21 51.7** | **+0.3** |
| | comp=Z,40nm,1.2s | | | | | | |
| **LTZ** | **Lake Taylor** | **41.06** | **159** | *e*P | **P** | **17 21 52.6** | **-0.2** |
| | comp=Z,63nm,1.2s | | | | | | |
| **KHZ** | **Kahutara** | **41.21** | **157** | *e*P | **P** | **17 21 52.7** | **-1.2** |
| | comp=Z,67nm,1.0s | | | | | | |
| **OXZ** | **Oxford** | **41.45** | **160** | *e*P | **P** | **17 21 54.5** | **-1.5** |
| | comp=Z,58nm,1.3s | | | | | | |
| **RPZ** | **Rata Peaks** | **41.46** | **161** | P | **P** | **17 21 55.8** | **-0.3** |
| | comp=Z,15nm,0.5s,baz=331,slow=2.1,SNR=13 | | | | | | |
| **LBZ** | **Lake Benmore** | **41.79** | **162** | *e*P | **P** | **17 21 57.9** | **-0.8** |
| | comp=Z,39nm,1.5s | | | | | | |
| **WKZ** | **Wanaka** | **41.85** | **163** | *e*P | **P** | **17 21 59.2** | **0.0** |
| | comp=Z,32nm,1.2s | | | | | | |
| **CRLZ** | **Canterbury Las** | **41.87** | **159** | *e*P | **P** | **17 21 58.9** | **-0.5** |
| | comp=Z,108nm,1.1s | | | | | | |
| **MQZ** | **McQueen's Vall** | **42.00** | **159** | *e*P | **P** | **17 21 59.6** | **-0.7** |
| | comp=Z,58nm,1.2s | | | | | | |
| **MLZ** | **Mavora Lakes** | **42.10** | **165** | *e*P | **P** | **17 22 00.9** | **-0.4** |
| | comp=Z,40nm,1.1s | | | | | | |
| **TWG** | **Pinlang** | **42.15** | **312** | *e*P | **P** | **17 22 01.7** | **-0.2** |
| | comp=Z,188nm,1.2s | | | | | | |
| **ODZ** | **Otahua Downs** | **42.52** | **162** | *e*P | **P** | **17 22 03.5** | **-1.1** |
| | comp=Z,37nm,1.5s | | | | | | |
| **NACB** | **Ninganchiao** | **42.60** | **314** | *e*P | **P** | **17 22 03.6** | **-2.0** |
| | comp=Z,96nm,1.3s | | | | | | |
| **KLBR** | **Kellerberrin** | **42.67** | **227** | P | **P** | **17 22 05.8** | **-0.2** |
| | baz=43,SNR=12 | | | | | | |
| **MORW** | **Morawa** | **42.76** | **232** | P | **P** | **17 22 06.3** | **-0.5** |
| | baz=43,SNR=8.1 | | | | | | |
| **SSLB** | **Suanglung** | **42.82** | **313** | *e*P | **P** | **17 22 08.1** | **+0.7** |
| | comp=Z,176nm,1.9s | | | | | | |
| **UGM** | **Wanagama** | **42.83** | **264** | *e*P | **P** | **17 22 06.1** | **-1.5** |
| | comp=Z,287nm,1.4s | | | | | | |
| **BLDU** | **Ballidu** | **42.96** | **229** | P | **P** | **17 22 07.9** | **-0.6** |
| | baz=43,SNR=9.2 | | | | | | |
| **JNU** | **Nakatsue** | **43.65** | **332** | P | **P** | **17 22 13.8** | **-0.2** |
| | comp=Z,14nm,0.7s,baz=154,slow=0.6,SNR=18 | | | | | | |
| **JNU** | **Nakatsue** | **43.65** | **332** | *e*P | **P** | **17 22 11.5** | **-2.4** |
| | comp=Z,18nm,0.8s | | | | | | |
| **KSM** | **Kuching** | **43.69** | **277** | *e*P | **P** | **17 22 13.2** | **-1.3** |
| | comp=Z,40nm,1.1s | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **43.73** | **226** | P | **P** | **17 22 14.2** | **-0.4** |
| | comp=Z,5.8nm,0.6s,baz=354,slow=5.2,SNR=6.9 | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **43.73** | **226** | P | **P** | **17 22 14.2** | **-0.4** |
| NWAO | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.8s | | | | | | |
| **MJAR** | **Matsushiro Arr** | **43.82** | **342** | P | **P** | **17 22 14.1** | **-1.2** |
| | comp=Z,2.5nm,0.6s,baz=173,slow=8.0,SNR=9.6 | | | | | | |
| MJAR | | | | PcP | **PcP** | **17 24 02.2** | **+1.4** |
| | comp=Z,1.4nm,0.5s,baz=151,slow=3.8,SNR=2.8 | | | | | | |
| MJAR | | | | LR | LR | 17 40 50.7 | |
| | comp=Z,131nm,18.1s,baz=180,slow=36 | | | | | | |
| **MAJO** | **Matsushiro** | **43.82** | **342** | *i*eP | **P** | **17 22 13.9** | **-1.4** |
| MAJO | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.5s | | | | | | |
| **MJB9** | **Matsu-Tunnel** | **43.83** | **342** | *e*P | **P** | **17 22 14.2** | **-1.0** |
| | comp=Z,76nm,1.9s | | | | | | |
| **MUN** | **Mundaring** | **44.00** | **228** | P | **P** | **17 22 16.8** | **0.0** |
| | baz=44,SNR=4.6 | | | | | | |
| **RKGY** | **Rocky Gully** | **44.80** | **224** | P | **P** | **17 22 23.6** | **+0.4** |
| | baz=45,SNR=15 | | | | | | |
| **CISI** | **Cisompet, Garu** | **45.51** | **264** | *e*P | **P** | **17 22 27.2** | **-1.9** |
| | comp=Z,265nm,0.9s | | | | | | |
| **SSE** | **Sheshan** | **47.42** | **321** | P | **P** | **17 22 42.9** | **-0.8** |
| SSE | | | | S | **S** | **17 29 33.8** | **+0.5** |
| SSE | | | | pmax | pmax | | |
| | comp=Z,15nm,0.7s | | | | | | |
| SSE | | | | pmax | pmax | | |
| | comp=Z,190nm,3.9s | | | | | | |
| SSE | | | | LR | LR | | |
| | comp=Z,100nm,26.2s | | | | | | |
| SSE | | | | LR | LR | | |
| | comp=Z,230nm,26.2s | | | | | | |
| SSE | | | | LR | LR | | |
| | comp=Z,190nm,25.7s | | | | | | |
| **ERM** | **Erimo** | **47.82** | **350** | *e*P | **P** | **17 22 44.7** | **-1.9** |
| ERM | | | | pmax | pmax | | |
| | comp=Z,144nm,1.3s | | | | | | |
| **ERM** | **Erimo** | **47.82** | **350** | *e*P | **P** | **17 22 44.7** | **-1.9** |
| | comp=Z,144nm,1.3s | | | | | | |
| **TJN** | **Taejon** | **47.97** | **331** | *i*eP | **P** | **17 22 46.6** | **-1.3** |
| **RAR** | **Rarotonga** | **47.98** | **114** | LR | LR | 17 40 01.7 | |
| | comp=Z,108nm,21.7s,baz=264,slow=32 | | | | | | |
| **KSRS** | **Korea Array** | **48.59** | **333** | P | **P** | **17 22 53.1** | **+0.5** |
| | comp=Z,5.0nm,0.5s,baz=145,slow=7.9,SNR=15 | | | | | | |
| KSRS | | | | PcP | **PcP** | **17 24 18.7** | **+1.3** |
| | comp=Z,1.5nm,0.6s,baz=158,slow=2.7,SNR=3.2 | | | | | | |
| KSRS | | | | LR | LR | 17 41 40.0 | |
| | comp=Z,64nm,21.2s,baz=132,slow=34 | | | | | | |
| **KS15** | **Wonju Array Si** | **48.59** | **333** | *e*P | **P** | **17 22 54.3** | **+1.7** |
| KS15 | | | | *e* | | 17 41 40.0 | |
| **KSAR** | **Wonju Array Be** | **48.59** | **333** | P | **P** | **17 22 53.1** | **+0.4** |
| KSAR | | | | | | 17 24 18.7 | |
| **KSAR** | **Wonju Array Be** | **48.59** | **333** | P | **P** | **17 22 53.1** | **+0.4** |
| KSAR | | | | PcP | **PcP** | **17 24 18.7** | **+1.2** |
| **KS01** | **Wonju Array Si** | **48.62** | **333** | *e*P | **P** | **17 22 53.8** | **+1.0** |
| **INCN** | **Inchon** | **49.21** | **332** | *e*P | **P** | **17 22 55.2** | **-2.2** |
| | comp=Z,142nm,1.4s | | | | | | |
| **QIZ** | **Qiongzhong** | **49.25** | **300** | P | **P** | **17 22 58.9** | **+0.8** |
| QIZ | | | | pP | **pP** | **17 23 17.1** | **+2.1** |
| QIZ | | | | PP | **PP** | **17 24 55.8** | **+3.2** |
| QIZ | | | | S | **S** | **17 29 58.8** | **-0.8** |
| QIZ | | | | SS | **SS** | **17 33 27.3** | **-4.7** |
| QIZ | | | | LR | LR | | |
| | comp=Z,620nm,5.7s | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **49.38** | **353** | *i*eP | **P** | **17 22 56.3** | **-2.2** |
| **NJ2** | **Nanjing** | **49.53** | **321** | *e*P | **P** | **17 22 58.9** | **-1.0** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,14nm,0.5s | | | | | | |
| **ASAJ** | **Asahikawa** | **49.95** | **350** | P | **P** | **17 23 04.3** | **+1.4** |
| | comp=Z,4.9nm,0.5s,baz=184,slow=7.9,SNR=7.9 | | | | | | |
| **ASAJ** | **Asahikawa** | **49.95** | **350** | *e*P | **P** | **17 23 04.4** | **+1.4** |
| | comp=Z,34nm,1.3s | | | | | | |
| **WHN** | **Wuhan** | **51.57** | **316** | P | **P** | **17 23 16.8** | **+1.4** |
| WHN | | | | S | **S** | **17 30 35.1** | **+3.7** |
| WHN | | | | LR | LR | | |
| | comp=Z,840nm,13.9s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **52.75** | **341** | P | **P** | **17 23 24.1** | **+0.3** |
| | comp=Z,3.5nm,0.6s,baz=157,slow=5.4,SNR=7.6 | | | | | | |
| USRK | | | | LR | LR | 17 42 27.5 | |
| | comp=Z,96nm,20.6s,baz=147,slow=32 | | | | | | |
| **TIA** | **Tai'an** | **53.38** | **323** | P | **P** | **17 23 28.8** | **+0.1** |
| TIA | | | | pmax | pmax | | |
| | comp=Z,12nm,0.7s | | | | | | |
| **SKNT** | **Sakolnakorn** | **53.65** | **295** | P | **P** | **17 23 33.1** | **+2.1** |
| | comp=Z,29nm,1.1s | | | | | | |
| **KULM** | **Kulim** | **53.82** | **280** | *e*P | **P** | **17 23 31.7** | **-0.6** |
| | comp=Z,44nm,1.2s | | | | | | |
| **KIP** | **Kipapa** | **54.28** | **59** | *e*P | **P** | **17 23 32.8** | **-2.7** |
| KIP | | | | pmax | pmax | | |
| | comp=Z,521nm,1.9s | | | | | | |
| **KIP** | **Kipapa** | **54.28** | **59** | *e*P | **P** | **17 23 32.8** | **-2.7** |
| | comp=Z,521nm,1.9s | | | | | | |
| **OPA** | **Opana** | **54.38** | **59** | *e*P | **P** | **17 23 34.2**

XAN pP pP 17 24 14.8 +0.3
XAN pmax pmax
comp=Z,73nm,0.6s
XAN pmax pmax
comp=Z,190nm,5.3s
XAN LR LR
comp=Z,120nm,18.5s
XAN LR LR
comp=Z,240nm,18.1s
XAN LR LR
comp=Z,440nm,17.8s
**UTHA Uthaitani 57.35 292** P **P 17 23 58.9 +1.3**
comp=Z,18nm,0.6s,comp=Z,207nm
**PHRA Phrae 57.53 296** P **P 17 24 00.6 +1.9**
comp=Z,14nm,2.5s
**KMI Kunming 57.76 304** P **P 17 24 01.9 +1.3**
KMI pmax pmax
comp=Z,17nm,0.7s
KMI pmax pmax
comp=Z,290nm,4.5s
KMI LR LR
comp=Z,290nm,6.1s
KMI LR LR
comp=Z,290nm,5.5s
KMI LR LR
comp=Z,330nm,18.0s
**PET Petropavlovsk 58.04 4** *e*P **P 17 24 01.8 +0.1**
PET *e*S **S 17 31 52.7 -4.6**
PET pmax pmax
comp=Z,19nm,0.6s
**PETK Petropavlovsk- 58.07 3** P **P 17 24 02.2 +0.3**
comp=Z,7.4nm,0.5s,baz=166,slow=5.6,SNR=46
PETK LR LR 17 44 58.9
comp=Z,198nm,21.5s,baz=178,slow=32
**PETK Petropavlovsk- 58.07 3** *e*P **P 17 24 02.0 0.0**
**PEA1 Petropavlovsk- 58.08 3** *e*P **P 17 24 02.2 +0.2**
PEA1 *e*PKKPdf PKKPdf 17 44 58.9 -28
**CM01 Chiang Mai Arr 58.65 295** *e*P **P 17 24 07.9 +1.3**
**CM31 Chiang Mai Arr 58.67 295** *e*P **P 17 24 07.9 +1.1**
**CMAR Chiang Mai Arr 58.67 295** P **P 17 24 08.2 +1.4**
comp=Z,20nm,0.8s,baz=119,slow=5.3,SNR=83
CMAR PcP **PcP 17 24 57.5 +1.2**
comp=Z,2.3nm,0.5s,baz=144,slow=3.1,SNR=4.9
**CMAR Chiang Mai Arr 58.67 295** *i* P **P 17 24 08.5 +1.7**
CMAR pmax pmax
comp=Z,21nm,0.8s
**CMMT Chiang Mai 58.78 295** P **P 17 24 09.5 +2.0**
comp=Z,29nm,1.3s
**CHTO Chiang Mai 58.78 295** P **P 17 24 09.6 +2.1**
comp=Z,127nm,1.4s
**CHTO Chiang Mai 58.78 295** *e*P **P 17 24 07.9 +0.3**
CHTO pmax pmax
comp=Z,43nm,1.3s
**CHTO Chiang Mai 58.78 295** *e*P **P 17 24 07.9 +0.3**
comp=Z,43nm,1.3s
**CD2 Chengdu 59.48 310** P **P 17 24 13.1 +0.8**
CD2 pP pP 17 24 30.1 +0.4
CD2 sP sP 17 24 40.8 +3.7
CD2 S **S 17 32 13.1 -3.9**
CD2 SS **SS 17 36 08.4 -5.0**
CD2 pmax pmax
comp=Z,140nm,0.8s
CD2 pmax pmax
comp=Z,450nm,4.8s
CD2 LR LR
comp=Z,490nm,21.8s
CD2 LR LR
comp=Z,460nm,18.0s
**HHC Hu-ho-hao-te 59.71 324** *e*P **P 17 24 15.0 +1.3**
HHC S **S 17 32 18.9 -0.8**
HHC pmax pmax
comp=Z,11nm,1.1s
HHC pmax pmax
comp=Z,250nm,6.8s
HHC LR LR
comp=Z,320nm,16.9s
HHC LR LR
comp=Z,360nm,16.1s
HHC LR LR
comp=Z,290nm,16.5s
**LZH Lanzhou 61.95 316** *e*P **P 17 24 30.6 +1.5**
LZH pP pP 17 24 50.3 +3.7
LZH sP sP 17 24 58.9 +4.9
LZH PP **PP 17 26 49.4 +3.2**
LZH *e*S **S 17 32 47.5 -1.1**
LZH sS sS 17 33 20.0 +1.8
LZH SS **SS 17 36 52.4 +0.3**
LZH pmax pmax
comp=Z,46nm,1.3s
LZH pmax pmax
comp=Z,200nm,7.5s
LZH LR LR
comp=Z,380nm,14.0s
LZH LR LR
comp=Z,320nm,15.0s
LZH LR LR
comp=Z,490nm,17.4s
**MA2 Magadan 64.49 358** P **P 17 24 44.8 -0.3**
comp=Z,17nm,0.5s,baz=168,slow=7.0,SNR=25
**MA2 Magadan 64.49 358**‖ *e*P **P 17 24 44.5 -0.7**
**TAOE Nuku Hiva Isla 65.85 97** *e*LR LR 17 44 41.3
comp=Z,233nm,22.7s
**CLNS Chul'man 65.99 343** *e*P **P 17 24 55.0 0.0**
CLNS pmax pmax
comp=Z,14nm,1.4s
CLNS pmax pmax
comp=N,15nm,1.4s
**GTA Gaotai 66.37 317** *e*P **P 17 24 59.3 +1.4**
GTA pP pP 17 25 18.5 +2.9
GTA sP PcP 17 25 28.3 +1.0
GTA pmax pmax
comp=N,16nm,0.8s
**ULN Ulaanbaatar 66.63 328** *e*P **P 17 25 00.0 +0.6**
ULN pmax pmax
comp=Z,9.0nm,0.9s
**ULN Ulaanbaatar 66.63 328** *e*P **P 17 25 00.0 +0.6**
comp=Z,9.1nm,0.9s
**SONA0 Songino Array 66.96 328** *e*P **P 17 25 02.3 +0.8**
SONA0 *e* 17 55 29.1
**SONM Songino Array 66.96 328** P **P 17 25 02.3 +0.8**
comp=Z,7.0nm,0.5s,baz=143,slow=5.9,SNR=84
SONM LR LR 17 55 29.1
comp=Z,98nm,18.6s,baz=152,slow=37
**SONA1 Songino Array 66.96 328** *e*P **P 17 25 01.9 +0.3**
**SHL Shillong 67.09 300** *e*P P 17 25 11.0 +8.2
**SEY Seymchan 67.83 359** P **P 17 25 06.4 -0.1**
comp=Z,3.1nm,0.6s,baz=151,slow=8.4,SNR=12
**SEY Seymchan 67.83 359**‖ *e*P **P 17 25 04.0 -2.5**
**LSA Lhasa 69.01 304** P **P 17 25 16.6 +1.4**
**LSA Lhasa 69.01 304** *e*P **P 17 25 16.0 +0.8**
LSA pmax pmax
comp=Z,10.0nm,0.8s
**LSA Lhasa 69.01 304** *e*P **P 17 25 16.0 +0.8**
comp=Z,9.7nm,0.8s
**YAK Yakutsk 69.39 348** P **P 17 25 16.2 0.0**
comp=Z,7.2nm,0.3s,baz=124,slow=1.7,SNR=5.4
**YAK Yakutsk 69.39 348** *e*P **P 17 25 15.5 -0.7**
YAK pmax pmax
comp=Z,10.0nm,1.2s
**YAK Yakutsk 69.39 348** *e*P **P 17 25 16.5 +0.3**
comp=Z,30nm,1.4s
**ZAK Zakamensk 70.12 328** *e*P **P 17 25 21.5 +0.4**
ZAK pmax pmax
comp=Z,15nm,1.1s
**BOD Bodaibo 70.32 339** *e*P **P 17 25 22.6 +0.6**
BOD pmax pmax
comp=Z,10.0nm,2.1s
**TLY Talaya 70.69 330** *e*P **P 17 25 27.3 +2.8**
TLY pmax pmax
comp=Z,6.0nm,0.9s
**TAPN Taplejung 71.19 301** *e*P **P 17 25 29.2 +0.9**
comp=Z,22nm,0.6s
**ODAN Odare 71.33 300** *e*P **P 17 25 29.9 +0.8**
comp=Z,53nm,0.7s
**RAMN Ramite 72.03 300** *e*P **P 17 25 34.0 +0.6**
comp=Z,21nm,0.5s
**MOY Mondy 72.04 329** *e*P **P 17 25 33.7 +1.0**
MOY pmax pmax
comp=Z,28nm,2.0s
**VNDA Vanda 72.53 178** P **P 17 25 35.6 +0.5**
comp=Z,14nm,0.8s,baz=331,slow=6.9,SNR=36
**VNDA Vanda 72.53 178** *e*P **P 17 25 35.3 +0.2**
comp=Z,25nm,1.0s
**JIRN Jiri 72.57 301** *e*P **P 17 25 37.5 +0.8**
**GUN Gumba 72.90 301** *e*P **P 17 25 39.5 +0.8**
comp=Z,58nm,0.6s

**SBA Scott Base 73.06 177** *e*P **P 17 25 40.2 +2.0**
SBA pmax pmax
comp=Z,90nm,1.6s
**SBA Scott Base 73.06 177** *e*P **P 17 25 40.1 +2.0**
comp=Z,90nm,1.6s
**PKI Pulchoki 73.22 301** *e*P **P 17 25 41.0 +0.5**
comp=Z,20nm,0.6s
**PKIN Phulchoki 73.23 301** *e*P **P 17 25 41.5 +1.0**
comp=Z,19nm,0.6s
**KKN Kakani 73.39 301** *e*P **P 17 25 41.9 +0.6**
comp=Z,34nm,0.6s
**DMN Daman 73.49 301** *e*P **P 17 25 42.8 +0.8**
comp=Z,50nm,0.8s
**BILL Bilibino 73.50 5** *d*e**P P 17 25 41.4 +0.5**
BILL *e* 17 26 01.6
BILL *e* 17 28 24.0
BILL pmax pmax
comp=Z,11nm,0.6s
BILL MLR MLR
comp=Z,111nm,19.0s
**PALK Pallekele 73.72 279** P **P 17 25 44.0 +0.7**
comp=Z,12nm,0.7s,baz=113,slow=5.6,SNR=5.8
**PALK Pallekele 73.72 279** *e*P **P 17 25 43.4 +0.1**
comp=Z,163nm,1.8s
**MIR Mirnyy 73.94 201** *i* P **P 17 25 45.0 +1.5**
MIR pmax pmax
comp=Z,10.0nm,1.5s
**KOLN Koldanda 74.82 300** *e*P **P 17 25 50.2 +0.5**
comp=Z,37nm,0.8s
**DANN Dangsing 74.83 301** *e*P **P 17 25 50.0 +0.2**
comp=Z,1.0nm,0.8s
**PYUN Piuthan 75.42 301** *e*P **P 17 25 53.5 +0.3**
comp=Z,33nm,0.6s
**HVS Khovu-Aksy 75.70 326**‖ *e*P **P 17 25 54.4 +0.3**
HVS pmax pmax
comp=Z,30nm,1.4s
**KDAK Kodiak Island 76.09 26** P **P 17 25 56.6 +0.6**
comp=Z,3.4nm,0.5s,baz=262,slow=10,SNR=4.1
**KDAK Kodiak Island 76.09 26** *i* P **P 17 25 59.2 +3.2**
**KDAK Kodiak Island 76.09 26** *e*P **P 17 25 55.4 -0.6**
**WMQ Urumqi 76.45 317** P **P 17 25 59.3 +0.8**
WMQ pP pP 17 26 18.1 +1.5
WMQ sP sP 17 26 25.6 +1.7
WMQ pmax pmax
comp=Z,68nm,0.7s
WMQ pmax pmax
comp=Z,570nm,4.7s
WMQ LR LR
comp=Z,190nm,25.5s
WMQ LR LR
comp=Z,240nm,23.1s
WMQ LR LR
comp=Z,270nm,26.9s
**HYB Hyderabad 77.29 289** *i* P **P 17 26 03.0 -0.7**
**CNPM China Poot 77.64 25** *e*P **P 17 26 04.3 -0.5**
comp=Z,42nm,0.6s
**TIXI Tiksi 78.27 352** P **P 17 26 09.2 +1.3**
comp=Z,1.9nm,0.3s,baz=137,slow=6.3,SNR=3.7
**TIXI Tiksi 78.27 352**‖ *e*P **P 17 26 08.2 +0.2**
TIXI pmax pmax
comp=Z,8.0nm,1.7s
**TIXI Tiksi 78.27 352** *e*P **P 17 26 08.4 +0.5**
comp=Z,10.0nm,0.4s
**DGZ Jazzator, Alta 78.76 323** *c i*P **P 17 26 11.6 +0.3**
DGZ pmax pmax
comp=Z,8.0nm,1.0s
**RC01 Rabbit Creek A 79.11 24** *e*P **P 17 26 12.4 -0.4**
comp=Z,19nm,1.1s
**IMAR Indian Mountai 80.39 19** *e*P **P 17 26 19.2 -0.5**
**MCK McKinley 80.83 22** *e*P **P 17 26 21.4 -0.7**
MCK pmax pmax
comp=Z,50nm,1.2s
**MCK McKinley 80.83 22** *e*P **P 17 26 21.4 -0.7**
comp=Z,50nm,1.2s
**MLY Manley 80.87 21** *e*P **P 17 26 21.8 -0.6**
comp=Z,28nm,1.4s
**MK01 Makanchi Array 81.01 319** *e*P **P 17 26 23.9 +0.4**
**MK31 Makanchi Array 81.03 319** *e*P **P 17 26 23.8 +0.3**
**MK31 Makanchi Array 81.03 319** *e*P **P 17 26 23.8 +0.3**
**MK32 Makanchi Array 81.03 319** *e*P **P 17 26 24.1 +0.6**
MK32 *e* 18 02 13.8
**MKAR Makanchi Array 81.03 319** P **P 17 26 24.1 +0.6**
comp=Z,7.7nm,0.5s,baz=95,slow=7.7,SNR=233
MKAR LR LR 18 02 13.8
comp=Z,62nm,20.8s,baz=101,slow=36
**MKAR Makanchi Array 81.03 319** *i* P **P 17 26 24.2 +0.7**
MKAR pmax pmax
comp=Z,8.0nm,0.4s
**MKAR Makanchi Array 81.03 319** *e*P **P 17 26 23.6 +0.1**
comp=Z,86nm,1.0s
**MAKZ Makanchi 81.23 319** *e*P **P 17 26 24.2 -0.4**
MAKZ pmax pmax
comp=Z,62nm,1.5s
**MAKZ Makanchi 81.23 319** *e*P **P 17 26 24.2 -0.4**
comp=Z,62nm,1.5s
**ZAA0 Zalesovo Array 81.80 326** *e*P **P 17 26 26.4 -1.0**
comp=Z,12nm,0.5s
**ZALV Zalesovo Beam 81.80 326** P **P 17 26 26.7 -0.7**
comp=Z,12nm,0.5s,baz=114,slow=6.0,SNR=46
ZALV LR LR 18 03 33.5
comp=Z,55nm,20.1s,baz=70,slow=36
**ZALV Zalesovo Beam 81.80 326** *e*P **P 17 26 26.5 -0.8**
**ZAA1 Zalesovo Array 81.80 326** *e*P **P 17 26 26.7 -0.7**
ZAA1 *e* 18 03 33.5
**POO Poona 81.88 289** *e*P P 17 26 22.0 -6.6
**ILAR Eielson Array 82.13 22** P **P 17 26 27.4 -1.5**
comp=Z,3.4nm,0.5s,baz=247,slow=5.0,SNR=8.0
ILAR LR LR 18 00 23.3
comp=Z,203nm,18.7s,baz=226,slow=34
**ILB Eielson Array 82.13 22** *e*P **P 17 26 27.2 -1.7**
**IL1 Eielson Array 82.14 22** *e*P **P 17 26 27.1 -1.9**
**DOT Dot Lake 82.68 23** *e*P **P 17 26 31.4 -0.5**
comp=Z,78nm,1.3s
**NVS Novosibirsk 82.97 327** *e*P **P 17 26 33.6 +0.2**
NVS pmax pmax
comp=N,7.0nm,1.4s
NVS pmax pmax
comp=E,16nm,1.4s
NVS pmax pmax
comp=Z,24nm,1.4s
**KSH Kashi 83.68 311** P **P 17 26 40.3 +2.6**
KSH pP sP 17 27 01.3 -1.9
KSH PP **PP 17 29 57.3 +5.9**
KSH SKS S **17 36 52.8 -2.6**
KSH S **SKSac 17 36 56.1 +1.1**
KSH SS **SS 17 42 28.0 +4.4**
KSH pmax pmax
comp=Z,24nm,0.9s
KSH LR LR
comp=Z,230nm,6.5s
KSH LR LR
comp=Z,250nm,6.0s
KSH LR LR
comp=Z,340nm,5.7s
**ULHL Ulahul 84.05 313** P **P 17 26 41.0 +1.4**
SNR=8.5
**HYT Haines Junctio 84.33 27** *e*P **P 17 26 39.9 -0.6**
comp=Z,50nm,1.2s
**KURK Kurchatov 84.45 322** *c i*P **P 17 26 40.7 -0.4**
KURK pmax pmax
comp=Z,127nm,1.2s
**KURK Kurchatov 84.45 322** *e*P **P 17 26 40.8 -0.3**
comp=Z,46nm,1.4s
**KURBB Kurchatov Arra 84.48 322** P **P 17 26 41.2 -0.1**
comp=Z,5.8nm,0.6s,baz=108,slow=4.0,SNR=26
**TKM2 Tokmak 2 84.66 314** P **P 17 26 43.7 +1.1**
SNR=29
**KZA Kyzart 84.74 313** P **P 17 26 45.2 +1.9**
SNR=52
**QSPA South Pole Qui 84.89 180** *e*P **P 17 26 42.8 -0.4**
comp=Z,95nm,0.7s
**KBK Karagaybulak 85.08 313** P **P 17 26 45.7 +1.0**
SNR=20
**CHMS Chumysh 85.28 314** P **P 17 26 46.5 +1.0**
SNR=19
**UCH Uchtor 85.31 313** P **P 17 26 47.9 +1.6**
SNR=32
**FRU Bishkek 85.35 314** *e*P **P 17 26 47.0 +1.1**
FRU *e* 17 26 59.0
FRU pmax pmax
comp=Z,80nm,1.4s
**AAK Ala-Archa 85.40 313** P **P 17 26 47.4 +1.1**
comp=Z,14nm,0.8s,baz=111,slow=4.0,SNR=38
**AAK Ala-Archa 85.40 313** *c i*P **P 17 26 47.2 +0.9**
AAK *i* *PP **pP 17 27 04.5 -0.2**
AAK pmax pmax
comp=Z,24nm,1.2s
**AAK Ala-Archa 85.40 313** P **P 17 26 47.5 +1.1**
SNR=21
**AAK Ala-Archa 85.40 313** *e*P **P 17 26 46.7 +0.4**
comp=Z,17nm,0.8s
**USP Ospenovka 85.52 314** P **P 17 26 47.6 +0.9**
SNR=30
**MAW Mawson 85.60 203** P **P 17 26 46.9 +0.3**
comp=Z,32nm,0.5s,baz=92,slow=5.4,SNR=85
MAW LR LR 18 01 51.1
comp=Z,83nm,21.6s,baz=60,slow=33
**MAW Mawson 85.60 203** *e*P **P 17 26 46.6 0.0**
comp=Z,7.6nm,0.6s
**AML Almayashu 85.89 313** P **P 17 26 50.5 +1.4**
SNR=40
**EKS2 Erkin-Say 85.92 313** P **P 17 26 50.1 +1.2**
SNR=14
**KKAR Karatay Array 88.36 313** *e*P **P 17 27 00.4 -0.1**
KKAR pmax pmax
comp=Z,75nm,1.1s
**KKAR Karatay Array 88.36 313** *e*P **P 17 27 00.4 -0.1**
comp=Z,75nm,1.1s
**INK Inuvik 88.45 21** P **P 17 26 59.9 -0.4**
comp=Z,1.1nm,0.5s,baz=272,slow=6.1,SNR=6.9
**INK Inuvik 88.45 21** *e*P **P 17 26 59.6 -0.7**
comp=Z,26nm,1.5s
**BRVK Borovoye 89.98 323** *c e*P **P 17 27 07.4 -0.4**
BRVK pmax pmax
comp=Z,39nm,0.8s
**BRVK Borovoye 89.98 323** *e*P **P 17 27 06.9 -0.9**
comp=Z,14nm,0.9s
**NV01 Mina Array Sit 91.67 52** *e*P **P 17 27 14.8 -1.5**
**NVAR Mina Array Bea 91.67 52** P **P 17 27 15.9 -0.4**
comp=Z,0.7nm,0.7s,baz=254,slow=6.2,SNR=5.1
**NV11 Mina Array Sit 91.78 52** *e*P **P 17 27 16.3 -0.4**
comp=Z,1.0nm,1.3s
**SYO Syowa Base 93.66 199**‖ *e*P **P 17 27 23.4 -1.1**
**SYO Syowa Base 93.66 199**‖ *e*pP pP 17 27 45.2 +2.2
**YKA Yellowknife Ar 95.32 28** P **P 17 27 31.4 -0.8**
comp=Z,0.6nm,0.7s,baz=268,slow=4.5,SNR=13
YKA PKiKP **PKiKP 17 32 11.0 -1.6**
comp=Z,0.1nm,0.4s,baz=268,slow=1.9,SNR=2.6
YKA PKKPbc **PKKPdf 17 44 24.3 -3.2**
comp=Z,0.6nm,0.7s,baz=85,slow=2.8,SNR=15
YKA LR LR 18 06 17.7
comp=Z,14nm,20.7s,baz=0.0,slow=33
**YKB5 Yellowknife Ar 95.32 28** *e*P **P 17 27 31.0 -1.2**
**ABKAR Akbulak array 96.17 319** *e*P **P 17 27 34.5 -1.9**
comp=Z,22nm,0.5s
**ARU Arti 96.96 326** P **P 17 27 37.9 -1.9**
comp=Z,2.3nm,0.5s,baz=47,slow=3.9,SNR=4.7
**ARU Arti 96.96 326** *c i*P **P 17 27 38.2 -1.6**
ARU *PP **pP 17 27 57.5 -0.9**
ARU 17 31 33.8
ARU S **SKSac 17 38 08.5 -2.5**
ARU SP **SP 17 40 13.6 -4.3**
ARU pmax pmax
comp=Z,19nm,2.5s
**ARU Arti 96.96 326** *e*P **P 17 27 37.5 -2.3**
comp=Z,11nm,1.2s
**ECR Eagle Creek 97.15 47** *e*P **P 17 27 40.1 -1.2**
**GEYT Alibeck 97.38 307** P **P 17 27 41.5 -0.7**
comp=Z,1.4nm,0.6s,baz=84,slow=6.1,SNR=5.2
GEYT LR LR 18 13 10.6
comp=Z,83nm,21.1s,baz=40,slow=36
**AKTO Aktyubinsk 97.41 320** P **P 17 27 40.4 -1.6**
comp=Z,1.7nm,0.6s,baz=94,slow=7.8,SNR=7.7
**PD31 Pinedale Array 98.48 48** *e*P **P 17 27 45.4 -1.9**
**PDAR Pinedale Array 98.48 48** P **P 17 27 46.7 -0.6**
comp=Z,0.2nm,0.5s,baz=356,slow=4.8,SNR=2.5
**LTX Lajitas 103.61 61** *e*PKKPab PKKPdf 17 44 20.4 +8.6
**TXAR Lajitas Array 103.61 61** PKKPab PKKPdf 17 44 20.4 +8.6
comp=Z,0.7nm,0.7s,baz=98,slow=5.5,SNR=5.5
**ARA0 ARCESS Array S 107.35 343** *e*PKiKP **PKiKP 17 32 34.4 +0.2**
**ARCES ARCESS Array B 107.35 343** PKiKP **PKiKP 17 32 34.4 +0.2**
comp=Z,6.8nm,1.1s,baz=29,slow=2.1,SNR=4.6
**FIA0 FINESS Array S 111.61 336** *e*P **Pdif 17 28 44.1 -0.9**
FIA0 *i* 17 32 42.2
**FIA0 FINESS Array S 111.61 336** *e*Pdif **Pdif 17 28 44.1 -0.9**
FIA0 *e*PKiKP **PKiKP 17 32 42.2 -0.2**
**FINES FINESS Array B 111.61 336** Pdiff **Pdif 17 28 44.1 -0.9**
comp=Z,6.3nm,1.1s,baz=101,slow=7.2,SNR=3.6
FINES PKiKP **PKiKP 17 32 42.2 -0.2**
comp=Z,2.7nm,0.9s,baz=86,slow=2.0,SNR=5.0
**AKASG Malin Array Be 115.15 325** PKP **PKPdf 17 32 47.8 -1.7**
comp=Z,1.5nm,0.5s,baz=52,slow=2.6,SNR=13
AKASG PP **PP 17 33 54.2 +4.2**
comp=Z,0.2nm,0.4s,baz=58,slow=7.9,SNR=4.7
**BR101 Keskin Array S 116.04 312** *e*PKPdf **PKPdf 17 32 51.5 -0.2**
**BRTR Keskin Array B 116.04 312** PKP **PKPdf 17 32 51.5 -0.2**
comp=Z,0.6nm,0.5s,baz=141,slow=3.5,SNR=4.6
**BRTR Keskin Array B 116.04 312** *i* PKiKP **PKPdf 17 32 53.0 +1.2**
BRTR pmax pmax
comp=Z,1.0nm,0.5s
**NB200 NORSAR Array S 117.42 340** *e*PKPdf **PKPdf 17 32 53.4 -0.2**
**NOA NORSAR Array B 117.42 340** PKP **PKPdf 17 32 53.4 -0.2**
comp=Z,0.8nm,0.8s,baz=51,slow=1.7,SNR=2.6
**PLCA Paso Flores 119.11 143** PKP **PKPdf 17 32 55.9 -1.7**
comp=Z,1.3nm,0.9s,baz=225,slow=2.9,SNR=3.2
**PLCA Paso Flores 119.11 143** *e*PKPdf **PKPdf 17 32 54.2 -3.4**
**MLR Muntele Rosu 119.34 320** PKP **PKPdf 17 32 57.9 0.0**
comp=Z,0.4nm,0.5s,baz=153,slow=3.9,SNR=4.6
**MLR Muntele Rosu 119.34 320** *e*PKPdf **PKPdf 17 32 57.3 -0.6**
**BOSA Boshof 120.06 233** PKP **PKPdf 17 32 59.9 +0.1**
comp=Z,4.2nm,0.5s,baz=129,slow=2.5,SNR=20
**UZH Uzhgorod 120.10 325** *e*PKiKP **PKPdf 17 33 04.3 +5.2**
**STHS Stebnicka Huta 120.30 326** *e*PKiKP **PKPdf 17 33 00.8 +1.3**
**STHS Stebnicka Huta 120.30 326** *e*PKP **PKPdf 17 33 00.8 +1.3**
**CRVS Cervenica-Dubn 120.44 325** *e*PKiKP **PKPdf 17 33 01.1 +1.3**
**CRVS Cervenica-Dubn 120.44 325** *e*PKP **PKPdf 17 33 01.1 +1.3**
**LSZ Lusaka 122.23 249** *e*PKiKP **PKPdf 17 33 04.1 -0.2**
**LSZ Lusaka 122.23 249** *e*PKPdf **PKPdf 17 33 04.0 -0.2**
**CONA Conrad Observa 124.09 327** *i* PKiKP **PKiKP 17 33 08.1 +0.9**
comp=Z,0.9nm,0.5s
**KHC Kasperske Hory 124.56 329** *e*PKPdf **PKPdf 17 33 08.8 +1.1**
KHC *ex* x 17 33 15.2
KHC *ex* x 17 33 22.9
**KHC Kasperske Hory 124.56 329** *e*PKiKP **PKPdf 17 33 08.8 +1.1**
KHC *e* 17 33 22.9
**GERES GERESS Array B 124.68 329** PKP **PKPdf 17 33 07.6 -0.4**
comp=Z,1.1nm,0.6s,baz=64,slow=2.3,SNR=13
**GEA0 GERESS Array S 124.68 329** *e*PKPpre PKPpre 17 32 51.9
GEA0 *e*PKPdf **PKPdf 17 33 07.1 -0.9**
**FETA Feichten 127.38 329** *i* PKiKP **PKiKP 17 33 14.2 +0.3**
comp=Z,2.0nm,0.8s
**LPAZ La Paz 133.63 118** PKP **PKPdf 17 33 25.3 -1.3**
comp=Z,0.9nm,0.6s,baz=194,slow=2.2,SNR=4.1
**LPAZ La Paz 133.63 118** *e*PKiKP **PKPdf 17 33 21.9 -4.7**
**LPAZ La Paz 133.63 118** *e*PKPdf **PKPdf 17 33 21.9 -4.7**
**KEST Kesra 135.11 318** PKP **PKPdf 17 33 29.9 +1.7**
comp=Z,6.4nm,0.9s,baz=27,slow=6.8,SNR=4.3
**KEST Kesra 135.11 318** *e*PKPdf **PKPdf 17 33 27.6 -0.6**
**CPUP Villa Florida 136.76 138** PKP **PKPdf 17 33 31.8 +0.3**
comp=Z,0.9nm,0.6s,baz=270,slow=4.0,SNR=3.1
**CPUP Villa Florida 136.76 138** *e*PKPdf **PKPdf 17 33 30.6 -0.9**
**ESDC Sonseca Array 140.02 333** PKhKP PKPpre 17 33 33.2
comp=Z,0.3nm,0.5s,baz=18,slow=3.0,SNR=3.1
**TAM Tamanrasset 144.46 303** *e*PKiKP PKPbc 17 33 44.3 +0.1
**TAM Tamanrasset 144.46 303** *e*PKPdf PKPbc 17 33 44.2 0.0
**MDT Midelt 145.69 326** PKPbc **PKPab 17 33 48.2 0.0**
comp=Z,5.6nm,0.7s,baz=354,slow=2.0,SNR=13
**BDFB Brasilia 150.34 134** PKPbc **PKPbc 17 34 00.3 -0.4**
comp=Z,5.0nm,0.5s,baz=6.8,slow=3.3,SNR=1.5
**TOA0 Torodi Ar. Sit 151.10 288** *e*PKPdf **PKPdf 17 33 54.2 -2.3**
TOA0 *e*PKPbc **PKPbc 17 34 01.3 -1.1**
TOA0 *e*PKPbc **PKiKP 17 34 01.4 -1.5**
**TORD Torodi Ar. Bea 151.10 288** PKPbc **PKPbc 17 34 02.0 -0.4**
comp=Z,22nm,0.4s,baz=35,slow=1.2,SNR=5.0
**TOA1 Torodi Ar. Sit 151.10 288** *e*PKPbc **PKPbc 17 34 02.0 -0.4**
**KOWA Kowa 156.02 295** *e*PKPdif PKPdf 17 34 12.6 +9.0
KOWA *e*PKPab **PKPab 17 34 30.6 -0.4**
**KIC Kosan Boka 158.36 274** *e*PKP1 PKPdf 17 34 21.7 +15
comp=Z,32nm,1.0s
**DBIC Dimbokro 158.46 275** PKPab **PKPab 17 34 42.4 +0.7**
comp=Z,4.3nm,0.5s,baz=64,slow=4.0,SNR=6.7
**DBIC Dimbokro 158.46 275**‖ *e*PKiKP **PKPdf 17 34 13.2 +6.5**
DBIC *e* 17 34 42.1
**DBIC Dimbokro 158.46 275** *e*PKPdif **PKPdf 17 34 13.2 +6.5**
DBIC *e*PKPab **PKPab 17 34 42.1 +0.4**
**TIC Toumodi 158.63 275** *e*PKP1 PKPdf 17 34 21.3 +14
**LIC Lamto 158.65 274** *e*PKP1 PKPdf 17 34 21.0 +14
comp=Z,46nm,1.1s

*IDC **24** 17:17:26.4±1.2, 27.°70N×66.°71E, h0km, mb3.8/7,*

*mb1 4.0/7, mb1mx3.5/66, mbtmp3.8/7, Error ellipse: s-maj=33.1km s-min=26.8km az=19.0*
*ISCJB **24** 17:17:29.4±0.9, 27.8N±0.1×66.5E±0.1, h33km, mb4.3/12, Error ellipse: s-maj=22.1km s-min=11.1km az=151.5*
*NEIC **24** 17:17:31.1±1.0, 27.81N×66.60E, h35km, mb4.9/7, Error ellipse: s-maj=23.9km s-min=10.6km az=146.0*

**ISC 24 17:17:31.2±1.2, 27.8N±0.2×66.6E±0.1, h35km, n25, σ1§43/24, mb4.4/12, Pakistan**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KBL** | **Kabul** | **7.02** | **17** | *e*Pn | **Pn** | **17 19 09.1** | **-2.6** |
| **UOSS** | **Minazif** | **9.72** | **255** | *e*Pn | **Pn** | **17 19 45.8** | **-2.7** |
| **RAYN** | **Ar Rayn** | **19.45** | **262** | *e*P | **P** | **17 21 55.2** | **+0.3** |
| | 9.1nm,1.8s | | | | | | |
| **MAKZ** | **Makanchi** | **22.49** | **29** | *e*P | **P** | **17 22 27.4** | **-0.2** |
| | 11nm,1.4s | | | | | | |
| **MK01** | **Makanchi Array** | **22.60** | **29** | *e*P | **P** | **17 22 28.6** | **-0.1** |
| **MK31** | **Makanchi Array** | **22.61** | **29** | *e*P | **P** | **17 22 28.9** | **+0.1** |
| **MK32** | **Makanchi Array** | **22.61** | **29** | *e*P | **P** | **17 22 28.5** | **-0.3** |
| **MKAR** | **Makanchi Array** | **22.61** | **29** | P | **P** | **17 22 28.5** | **-0.3** |
| | 0.4nm,0.7s,baz=219,slow=11,SNR=5.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **22.61** | **29** | *e*P | **P** | **17 22 27.9** | **-0.9** |
| | 35nm,1.6s | | | | | | |
| **KBZ** | **Khabaz** | **24.78** | **316** | P | **P** | **17 22 52.6** | **+3.0** |
| | 1.9nm,0.9s,baz=151,slow=9.5,SNR=3.5 | | | | | | |
| **BUR04** | **Bucovina Ar. S** | **37.64** | **313** | *e*P | **P** | **17 24 41.1** | **-1.8** |
| **AGG** | **Agios Georgios** | **38.23** | **299** | *e*P | P | 17 24 40.1 | -7.7 |
| | 71nm,1.5s | | | | | | |
| **FIA1** | **FINESS Array S** | **43.03** | **333** | *e*P | **P** | **17 25 26.4** | **-0.7** |
| | 49nm,1.5s | | | | | | |
| **FIA0** | **FINESS Array S** | **43.03** | **333** | *e*P | **P** | **17 25 28.6** | **+1.5** |
| **FINES** | **FINESS Array B** | **43.03** | **333** | P | **P** | **17 25 28.6** | **+1.5** |
| | 14nm,1.2s,baz=19,slow=12,SNR=5.4 | | | | | | |
| **GERES** | **GERESS Array B** | **45.42** | **312** | P | **P** | **17 25 47.5** | **+1.0** |
| | 0.2nm,0.5s,baz=97,slow=8.0,SNR=3.7 | | | | | | |
| **FUORN** | **Ofenpass-Fuorn** | **47.53** | **309** | *e*P | **P** | **17 26 04.4** | **+1.1** |
| | 33nm,1.9s | | | | | | |
| **NB201** | **NORSAR Array S** | **49.36** | **328** | *e*P | **P** | **17 26 17.2** | **+0.2** |
| **SENIN** | **Lac Senin/Sane** | **49.57** | **309** | *e*P | **P** | **17 26 19.0** | **0.0** |
| | 40nm,2.0s | | | | | | |
| **TOA0** | **Torodi Ar. Sit** | **61.87** | **271** | *e*P | **P** | **17 27 47.1** | **-0.3** |
| **TORD** | **Torodi Ar. Bea** | **61.87** | **271** | P | **P** | **17 27 48.6** | **+1.2** |
| | 2.4nm,1.0s,baz=56,slow=6.4,SNR=13 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **61.87** | **271** | *e*P | **P** | **17 27 48.6** | **+1.2** |
| **ASAR** | **Alice Springs** | **82.68** | **121** | P | **P** | **17 29 51.4** | **-0.1** |
| | 0.8nm,1.1s,baz=304,slow=5.0,SNR=3.4 | | | | | | |
| **INK** | **Inuvik** | **83.00** | **7** | P | **P** | **17 29 54.4** | **+2.0** |
| | 0.8nm,0.5s,baz=326,slow=3.6,SNR=4.4 | | | | | | |
| **INK** | **Inuvik** | **83.00** | **7** | *e*P | **P** | **17 29 53.5** | **+1.1** |
| | 15nm,1.7s | | | | | | |

*IDC **24** 17:21:21.7±0.9, 31.65N×141.53E, h0km, mb3.8/7, mb1 4.0/9, mb1mx3.6/62, mbtmp3.7/9, ML3.2/2, Error ellipse: s-maj=30.5km s-min=20.1km az=76.0*
*ISCJB **24** 17:21:25.5±0.8, 31.7N±0.1×141.4E±0.2, h40km, mb3.8/7, Error ellipse: s-maj=23.8km s-min=14.1km az=152.8*

**ISC 24 17:21:27.3±1.0, 31.7N±0.1×141.4E±0.2, h40km, n9, σ1§30/9, mb3.8/7, Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JHJ** | **Hachijo jima 2** | **1.97** | **318** | Pn | **Pn** | **17 21 56.6** | **-1.6** |
| | 28nm,0.3s,baz=131,slow=19,SNR=5.1 | | | | | | |
| JHJ | | | | Sn | Sn | 17 22 13.7 | -7.9 |
| | 25nm,0.3s,baz=66,slow=20,SNR=4.0 | | | | | | |
| **MJAR** | **Matsushiro Ar** | **5.52** | **333** | Pn | **Pn** | **17 22 48.0** | **+1.0** |
| | 0.6nm,0.3s,baz=146,slow=10,SNR=4.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **47.10** | **306** | P | **P** | **17 29 56.4** | **+1.1** |
| | 1.1nm,0.8s,baz=91,slow=10,SNR=2.7 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **49.40** | **312** | P | **P** | **17 30 13.6** | **+0.7** |
| | 1.4nm,0.2s,baz=87,slow=7.1,SNR=4.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **51.76** | **188** | P | **P** | **17 30 31.6** | **+0.7** |
| | 0.9nm,0.5s,baz=6.4,slow=7.7,SNR=16 | | | | | | |
| **ILAR** | **Eielson Array** | **54.09** | **30** | P | **P** | **17 30 46.7** | **-1.0** |
| | 0.6nm,1.0s,baz=256,slow=6.3,SNR=3.2 | | | | | | |
| **ASAR** | **Alice Springs** | **55.48** | **188** | P | **P** | **17 30 57.7** | **-0.5** |
| | 0.6nm,0.8s,baz=2.2,slow=6.5,SNR=7.1 | | | | | | |
| **NVAR** | **Mina Array Bea** | **78.27** | **52** | P | **P** | **17 33 24.7** | **+1.3** |
| | 0.2nm,0.5s,baz=287,slow=6.3,SNR=3.1 | | | | | | |
| **TXAR** | **Lajitas Array** | **93.42** | **52** | P | **P** | **17 34 37.6** | **-1.3** |
| | 0.3nm,0.8s,baz=299,slow=2.8,SNR=3.7 | | | | | | |

**IDC 24 17:23:54.7±13.0, 15.06S×166.01E, h0km, mb3.7/3, mb1 3.9/4, mb1mx3.5/33, mbtmp3.7/4, ML3.4/1, Error ellipse: s-maj=237.4km s-min=37.3km az=58.0, Vanuatu Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DZM** | **Mont Dzumac** | **6.99** | **177** | Pn | Pn | 17 25 39.0 | +0.5 |
| | 0.7nm,0.3s,baz=328,slow=19,SNR=3.8 | | | | | | |
| DZM | | | | Sn | Sn | 17 26 58.0 | -0.9 |
| | 0.8nm,0.3s,baz=21,slow=9.7,SNR=2.4 | | | | | | |
| **STKA** | **Stephens Creek** | **27.86** | **229** | P | P | 17 29 46.2 | 0.0 |
| | 0.8nm,0.5s,baz=59,slow=12,SNR=3.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **30.56** | **256** | P | P | 17 30 10.5 | +0.1 |
| | 0.6nm,1.1s,baz=85,slow=8.5,SNR=3.5 | | | | | | |
| **ASAR** | **Alice Springs** | **31.42** | **249** | P | P | 17 30 17.8 | -0.1 |
| | 0.6nm,0.6s,baz=78,slow=9.2,SNR=8.3 | | | | | | |

**SKO 24 17:30:36.1, 40.60N×23.14E, h15km, M1.0, ML1.5, Greece**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VAY** | **Valandovo** | **0.84** | **329** | *i* Pg | Pg | 17 30 52.6 | +0.2 |
| VAY | | | | *i* Sg | Sg | 17 31 03.4 | 0.0 |
| VAY | | | | *e*Lg | Lg | 17 31 03.5 | |
| | comp=E,8.0nm,0.3s | | | | | | |
| VAY | | | | *e*Lg | Lg | 17 31 07.0 | |
| | comp=N,14nm,0.9s | | | | | | |

**IDC 24 17:31:34.4±2.9, 3.28S×135.86E, h0km, mb3.2/2, mb1 3.5/4, mb1mx3.3/26, mbtmp3.3/4, ML3.1/2, Error ellipse: s-maj=92.9km s-min=31.1km az=84.0, Irian Jaya region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **16.63** | **185** | Pn | Pn | 17 35 27.2 | -1.8 |
| | 0.1nm,0.3s,baz=7.8,slow=13,SNR=5.1 | | | | | | |
| WRA | | | | Sn | Sn | 17 38 21.6 | -13 |
| | 0.0nm,0.3s,baz=4.7,slow=23,SNR=2.8 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **17.81** | **213** | P | Pn | 17 35 42.5 | -1.4 |
| | 0.1nm,0.3s,baz=36,slow=14,SNR=3.4 | | | | | | |
| FITZ | | | | S | Sn | 17 38 47.3 | -16 |
| | 0.1nm,0.3s,baz=223,slow=18,SNR=2.6 | | | | | | |
| **ASAR** | **Alice Springs** | **20.36** | **185** | P | Pn | 17 36 14.1 | -0.5 |
| | 0.7nm,0.8s,baz=6.1,slow=11,SNR=9.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **68.53** | **324** | P | P | 17 42 38.8 | 0.0 |
| | 0.2nm,0.5s,baz=119,slow=7.4,SNR=2.9 | | | | | | |

**WEL 24 17:40:04.7±0.5, 37.32S×179.99W, h33km, ML3.9/9, Error ellipse: s-maj=4.6km s-min=3.8km az=0.0, East of North Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WMGZ** | **Waiomatatini S** | **1.36** | **248** | PN | Pn | 17 40 27.0 | -0.3 |
| WMGZ | | | | SN | Sn | 17 40 43.9 | -0.4 |
| WMGZ | | | | AML | AML | 17 40 44.9 | |
| **MXZ** | **Matakaoa Point** | **1.38** | **259** | PN | Pn | 17 40 26.8 | -0.7 |
| MXZ | | | | SN | Sn | 17 40 43.1 | -1.5 |
| MXZ | | | | AML | AML | 17 40 44.7 | |
| **PUZ** | **Puketiti** | **1.58** | **241** | PN | Pn | 17 40 29.8 | -0.5 |
| PUZ | | | | AML | AML | 17 40 49.7 | |
| PUZ | | | | AML | AML | 17 40 51.1 | |
| **PKGZ** | **Pakihiroa** | **1.64** | **249** | PN | Pn | 17 40 30.6 | -0.5 |
| PKGZ | | | | SN | Sn | 17 40 50.0 | -1.2 |
| PKGZ | | | | AML | AML | 17 40 52.2 | |
| **HAZ** | **Te Kaha** | **1.82** | **255** | PN | Pn | 17 40 34.3 | +0.7 |
| **CNGZ** | **Carnagh Statio** | **1.84** | **230** | *e*PN | Pn | 17 40 34.2 | +0.3 |
| **RUGZ** | **Raukumara Rang** | **1.96** | **250** | PN | Pn | 17 40 35.6 | -0.1 |
| **MWZ** | **Matawai** | **2.21** | **242** | *e*PN | Pn | 17 40 38.3 | -0.8 |
| MWZ | | | | SN | Sn | 17 41 02.4 | -2.9 |
| MWZ | | | | AML | AML | 17 41 05.0 | |
| **RIGZ** | **Rimuhau** | **2.25** | **231** | PN | Pn | 17 40 39.2 | -0.4 |
| RIGZ | | | | AML | AML | 17 41 07.9 | |
| RIGZ | | | | AML | AML | 17 41 08.9 | |
| **URZ** | **Urewera** | **2.48** | **247** | PN | Pn | 17 40 42.5 | -0.2 |
| URZ | | | | *e*SN | Sn | 17 41 11.0 | -0.9 |
| URZ | | | | AML | AML | 17 41 12.7 | |
| **KNZ** | **Kokohu** | **2.51** | **227** | PN | Pn | 17 40 41.8 | -1.2 |
| **RTZ** | **Ruatahuna** | **2.72** | **241** | PN | Pn | 17 40 46.2 | 0.0 |
| **MUGZ** | **Murupara** | **2.81** | **245** | PN | Pn | 17 40 46.8 | -0.5 |
| **MTHZ** | **Maungataniwha** | **2.93** | **238** | *e*PN | Pn | 17 40 48.5 | -0.5 |
| **ARHZ** | **Aropaoanui** | **3.06** | **230** | PN | Pn | 17 40 50.9 | +0.1 |
| **MCHZ** | **McNeill Hill** | **3.36** | **230** | *e*PN | Pn | 17 40 53.7 | -1.1 |
| MCHZ | | | | AML | AML | 17 41 35.8 | |
| **KAHZ** | **Kahuranaki** | **3.48** | **224** | *e*PN | Pn | 17 40 55.2 | -1.4 |
| **KWHZ** | **Kaweka Forest** | **3.52** | **232** | *e*PN | Pn | 17 40 55.7 | -1.3 |
| KWHZ | | | | AML | AML | 17 41 40.8 | |
| KWHZ | | | | AML | AML | 17 41 40.8 | |
| **BHHZ** | **Black Hill Sta** | **3.78** | **234** | *e*PN | Pn | 17 40 59.7 | -0.9 |
| **BFZ** | **Birch Farm** | **4.46** | **220** | *e*PN | Pn | 17 41 06.8 | -3.1 |
| **MRZ** | **Mangatainoka R** | **4.80** | **225** | PN | Pn | 17 41 11.6 | -3.1 |
| MRZ | | | | SN | Sn | 17 42 03.8 | -5.3 |

**WEL 24 17:41:10.4±0.1, 43.53S×172.75E, h8km, ML3.7/21, 4C-4D, Error ellipse: s-maj=1.4km s-min=0.8km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.11** | **242** | PG | Pg | 17 41 13.1 | +0.3 |
| CRLZ | | | | SG | Sg | 17 41 14.9 | +0.3 |
| CRLZ | | | | AML | AML | 17 41 15.2 | |
| CRLZ | | | | AML | AML | 17 41 15.3 | |
| CRLZ | | | | AML | AML | 17 41 15.4 | |
| **MQZ** | **McQueen's Vall** | **0.19** | **202** | ↑PG | Pg | 17 41 14.5 | +0.2 |
| MQZ | | | | SG | Sg | 17 41 17.4 | +0.4 |
| MQZ | | | | AML | AML | 17 41 18.2 | |
| **OXZ** | **Oxford** | **0.56** | **291** | *e*P* | Pg | 17 41 21.2 | +0.1 |
| OXZ | | | | SG | Sg | 17 41 29.4 | +1.0 |
| OXZ | | | | AML | AML | 17 41 31.5 | |
| OXZ | | | | AML | AML | 17 41 31.9 | |
| OXZ | | | | AML | AML | 17 41 31.9 | |
| **LTZ** | **Lake Taylor** | **0.82** | **334** | ↓P* | Pb | 17 41 26.7 | -0.3 |
| LTZ | | | | S* | Sb | 17 41 38.2 | +0.1 |
| **INZ** | **Inchbonnie** | **1.25** | **309** | ↓P* | Pn | 17 41 32.9 | -1.2 |
| **RPZ** | **Rata Peaks** | **1.25** | **261** | ↑P* | Pn | 17 41 33.0 | -1.2 |
| RPZ | | | | AML | AML | 17 41 53.1 | |
| RPZ | | | | AML | AML | 17 41 59.0 | |
| **KHZ** | **Kahutara** | **1.25** | **28** | P* | Pn | 17 41 32.8 | -1.3 |
| KHZ | | | | AML | AML | 17 41 50.1 | |
| KHZ | | | | AML | AML | 17 41 50.4 | |
| KHZ | | | | AML | AML | 17 41 50.4 | |
| KHZ | | | | AML | AML | 17 41 55.2 | |
| **WVZ** | **Waitaha Valley** | **1.54** | **286** | ↓PN | Pn | 17 41 37.6 | -0.4 |
| WVZ | | | | AML | AML | 17 42 05.7 | |
| WVZ | | | | AML | AML | 17 42 07.6 | |
| **THZ** | **Tophouse** | **1.77** | **4** | ↑PN | Pn | 17 41 40.1 | -1.2 |
| THZ | | | | AML | AML | 17 42 04.6 | |
| THZ | | | | AML | AML | 17 42 15.6 | |
| **DSZ** | **Denniston Nort** | **1.91** | **338** | PN | Pn | 17 41 42.1 | -1.2 |
| DSZ | | | | AML | AML | 17 42 08.7 | |
| DSZ | | | | AML | AML | 17 42 08.7 | |
| DSZ | | | | AML | AML | 17 42 08.9 | |
| DSZ | | | | AML | AML | 17 42 17.2 | |
| **BSWZ** | **Blackbirch Sta** | **1.99** | **25** | PN | | 17 40 36.6 | |
| BSWZ | | | | AML | AML | 17 42 09.9 | |
| BSWZ | | | | AML | AML | 17 42 11.6 | |
| **LBZ** | **Lake Benmore** | **2.04** | **244** | PN | Pn | 17 41 44.5 | -0.6 |
| LBZ | | | | AML | AML | 17 42 23.5 | |
| LBZ | | | | AML | AML | 17 42 29.8 | |
| **FOZ** | **Fox Glacier** | **2.14** | **269** | PN | Pn | 17 41 46.8 | +0.5 |
| FOZ | | | | AML | AML | 17 42 14.0 | |
| FOZ | | | | AML | AML | 17 42 26.5 | |
| **ODZ** | **Otahua Downs** | **2.14** | **224** | ↑PN | Pn | 17 41 45.1 | -1.3 |
| ODZ | | | | AML | AML | 17 42 20.4 | |
| ODZ | | | | AML | AML | 17 42 20.4 | |
| ODZ | | | | AML | AML | 17 42 33.2 | |
| ODZ | | | | AML | AML | 17 42 33.3 | |
| **TUWZ** | **Tuamarina** | **2.27** | **23** | PN | Pn | 17 41 46.9 | -1.3 |
| **NNZ** | **Nelson** | **2.35** | **12** | ↓PN | Pn | 17 41 48.8 | -0.5 |
| **TCW** | **Tory Channel** | **2.57** | **27** | PN | Pn | 17 41 50.9 | -1.4 |
| **BHW** | **Baring Head** | **2.63** | **37** | PN | Pn | 17 41 51.4 | -1.7 |
| **PLWZ** | **Palliser** | **2.69** | **44** | PN | Pn | 17 41 52.0 | -2.0 |
| **WEL** | **Wellington** | **2.69** | **34** | PN | Pn | 17 41 52.4 | -1.5 |
| WEL | | | | AML | AML | 17 42 27.9 | |
| **QRZ** | **Quartz Range** | **2.70** | **356** | PN | Pn | 17 41 54.1 | 0.0 |
| QRZ | | | | AML | AML | 17 42 06.7 | |
| QRZ | | | | AML | AML | 17 42 06.7 | |
| QRZ | | | | AML | AML | 17 42 39.1 | |
| QRZ | | | | AML | AML | 17 42 42.1 | |
| **HHSZ** | **Highcliff Hill** | **2.81** | **212** | PN | Pn | 17 41 54.8 | -0.9 |
| **JCZ** | **Jackson Bay** | **2.92** | **258** | PN | Pn | 17 41 56.6 | -0.6 |
| JCZ | | | | AML | AML | 17 42 49.8 | |
| JCZ | | | | AML | AML | 17 42 54.8 | |
| **CAW** | **Cannon Point** | **2.96** | **36** | PN | Pn | 17 41 56.0 | -1.7 |
| CAW | | | | AML | AML | 17 42 31.9 | |
| CAW | | | | AML | AML | 17 42 33.1 | |
| **WKZ** | **Wanaka** | **2.98** | **243** | PN | Pn | 17 41 57.2 | -0.8 |
| WKZ | | | | AML | AML | 17 42 53.1 | |
| WKZ | | | | AML | AML | 17 42 55.2 | |
| **EAZ** | **Earnscleugh** | **3.00** | **234** | PN | Pn | 17 41 57.0 | -1.2 |
| EAZ | | | | AML | AML | 17 42 50.6 | |
| EAZ | | | | AML | AML | 17 42 50.6 | |
| EAZ | | | | AML | AML | 17 42 56.7 | |
| EAZ | | | | AML | AML | 17 42 56.7 | |
| **KIW** | **Kapiti Island** | **3.11** | **32** | PN | Pn | 17 41 58.4 | -1.3 |
| **MTW** | **Mount Morrison** | **3.12** | **42** | PN | Pn | 17 41 57.5 | -2.4 |
| **OGWZ** | **Otaki Gorge** | **3.25** | **34** | PN | Pn | 17 42 00.5 | -1.1 |
| OGWZ | | | | AML | AML | 17 42 40.8 | |
| OGWZ | | | | AML | AML | 17 42 42.6 | |
| **TUZ** | **Tuapeka** | **3.29** | **221** | PN | Pn | 17 42 01.2 | -1.0 |
| TUZ | | | | AML | AML | 17 43 05.1 | |
| TUZ | | | | AML | AML | 17 43 08.4 | |
| **MLZ** | **Mavora Lakes** | **3.79** | **239** | PN | Pn | 17 42 08.0 | -1.2 |
| **SYZ** | **Scrubby Hill** | **3.95** | **219** | PN | Pn | 17 42 10.9 | -0.4 |
| **DCZ** | **Deep Cove** | **4.45** | **242** | PN | Pn | 17 42 17.1 | -1.0 |
| **WNVZ** | **Wahianoa** | **4.71** | **28** | PN | Pn | 17 42 21.9 | 0.0 |
| **APZ** | **The Paps** | **4.72** | **224** | PN | Pn | 17 42 20.4 | -1.5 |

*IDC **24** 17:46:09.7±1.1, 4.81S×152.79E, h0km, mb4.0/8, mb1 4.3/8, mb1mx3.8/40, mbtmp4.0/8, MS3.3/1, Ms1 3.3/1, ms1mx2.6/26, Error ellipse: s-maj=33.9km s-min=22.3km az=108.0*
*ISCJB **24** 17:46:15.4±0.4, 4.87S±0.05×152.72E±0.05, h55km, mb4.6/23, MS3.2/1, Error ellipse: s-maj=7.8km s-min=6.3km az=150.9*
*NEIC **24** 17:46:16.7±0.4, 4.85S×152.72E, h53km±4km, mb4.9/12, Error ellipse: s-maj=7.2km s-min=6.0km az=65.0*

**ISC 24 17:46:16.4±0.6, 4.77S±0.06×152.70E±0.08, h55km, n40, σ1§33/40, mb4.7/23, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RABL** | **Rabaul** | **0.79** | **317** | *e*Pn | **Pn** | **17 46 32.0** | **+0.5** |
| RABL | | | | *e*Sn | **Sn** | **17 46 44.1** | **+1.6** |
| **MANU** | **Manus Island** | **5.97** | **297** | *e*Pn | **Pn** | **17 47 38.3** | **-4.0** |
| **PMG** | **Port Moresby** | **7.17** | **230** | *e*Pn | **Pn** | **17 47 59.6** | **+0.8** |
| PMG | | | | *e*Sn | **Sn** | **17 49 18.5** | **-0.5** |
| **HNR** | **Honiara** | **8.55** | **123** | *e*Pn | **Pn** | **17 48 17.6** | **-0.1** |
| **COEN** | **Coen** | **13.10** | **225** | *e*Pn | **Pn** | **17 49 18.7** | **-1.1** |
| **DZM** | **Mont Dzumac** | **21.75** | **144** | *e*P | **P** | **17 51 03.4** | **-0.1** |
| | 99nm,1.5s | | | | | | |
| **MTN** | **Manton Dam** | **22.76** | **248** | *e*P | **P** | **17 51 15.5** | **+1.2** |
| **WRAB** | **Tennant Creek** | **23.38** | **228** | *e*P | **P** | **17 51 20.1** | **-0.3** |
| | 49nm,1.8s | | | | | | |
| **WB2** | **Warramunga Arr** | **23.38** | **228** | *e*P | **P** | **17 51 19.7** | **-0.8** |
| **WR1** | **Warramunga Arr** | **23.39** | **228** | *e*P | **P** | **17 51 20.4** | **-0.2** |
| | 65nm,2.0s | | | | | | |
| **WRA** | **Warramunga Arr** | **23.39** | **228** | P | **P** | **17 51 20.4** | **-0.2** |
| | 2.9nm,0.4s,baz=51,slow=10,SNR=39 | | | | | | |
| **AS01** | **Alice Springs** | **26.07** | **222** | *e*P | **P** | **17 51 44.9** | **-0.2** |
| **AS31** | **Alice Springs** | **26.11** | **222** | *e*P | **P** | **17 51 46.2** | **+0.9** |
| | 1.3nm,0.6s | | | | | | |
| **ASAR** | **Alice Springs** | **26.11** | **222** | P | **P** | **17 51 45.7** | **+0.4** |
| | 2.2nm,0.5s,baz=59,slow=8.5,SNR=24 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **29.59** | **241** | P | **P** | **17 52 16.6** | **+0.1** |
| | 3.9nm,0.4s,baz=46,slow=7.4,SNR=30 | | | | | | |
| FITZ | | | | LR | LR | 18 04 24.0 | |
| | comp=Z,51nm,18.8s,baz=60,slow=37 | | | | | | |
| **MBWA** | **Marble Bar** | **35.90** | **240** | *e*P | **P** | **17 53 12.1** | **+0.5** |
| | 22nm,1.2s | | | | | | |
| **JHJ2** | **Mitsune** | **39.61** | **343** | *e*P | **P** | **17 53 43.2** | **+0.6** |

*MAN **24** 17:49:28, 6.97N×127.71E, h43km, mb4.7, ML3.6, MS3.6*
*IDC **24** 17:49:30.3±1.3, 7.58N×127.46E, h0km, mb3.5/4, mb1 3.7/4, mb1mx3.3/41, mbtmp3.5/4, Error ellipse: s-maj=32.0km s-min=23.6km az=48.0*

**ISC 24 17:49:36.6±1.1, 7.40N±0.08×127.4E±0.1, h41km, n10, σ2§27/14, mb3.4/4, 1C, Philippine Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MATI** | **Mati** | **1.21** | **248** | *e*P | **Pn** | **17 49 53.1** | **-3.9** |
| **BIPH** | **Bislig** | **1.28** | **308** | ↑*i*P | **Pn** | **17 49 55.9** | **-2.1** |
| BIPH | | | | *i* S | **Sn** | **17 50 11.6** | **-2.4** |
| **DAV** | **Davao City (W)** | **1.82** | **260** | Pn | **Pn** | **17 50 05.8** | **+0.3** |
| | 70nm,0.3s,baz=80,slow=5.5,SNR=12 | | | | | | |
| DAV | | | | Sn | **Sn** | **17 50 30.2** | **+2.8** |
| | 68nm,0.3s,baz=249,slow=22,SNR=6.7 | | | | | | |
| **BUTP** | **Butuan** | **2.34** | **312** | *e*P | **Pn** | **17 50 12.6** | **0.0** |
| BUTP | | | | *e*S | **Sn** | **17 50 44.1** | **+4.0** |
| **BUKP** | **Musuan** | **2.35** | **282** | *e*P | **Pn** | **17 50 12.0** | **-0.8** |
| **FITZ** | **Fitzroy Crossi** | **25.40** | **184** | P | **P** | **17 55 00.6** | **+0.2** |
| | 1.5nm,0.8s,baz=13,slow=12,SNR=2.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **28.02** | **166** | P | **P** | **17 55 24.1** | **0.0** |
| | 0.2nm,0.4s,baz=344,slow=10,SNR=5.9 | | | | | | |
| **ASAR** | **Alice Springs** | **31.53** | **169** | P | **P** | **17 55 56.6** | **+1.5** |
| | 0.2nm,0.7s,baz=342,slow=7.7,SNR=5.0 | | | | | | |
| ASAR | | | | PcP | **PcP** | **17 58 48.7** | **+1.3** |
| | 0.2nm,0.4s,baz=350,slow=2.4,SNR=5.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **54.97** | **324** | P | **P** | **17 59 02.4** | **-1.3** |
| | 0.3nm,0.5s,baz=106,slow=7.2,SNR=4.9 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **122.32** | **291** | PKP | **PKPdf** | **18 08 27.5** | **-0.8** |
| | 0.3nm,0.7s,baz=76,slow=2.1,SNR=2.3 | | | | | | |

*ISCJB **24** 17:53:08.6±0.5, 46.95N±0.07×152.33E±0.09, h106km, mb3.7/22, Error ellipse: s-maj=12.3km s-min=4.7km az=139.3*
*SKHL **24** 17:53:09.4±0.8, 46.62N×152.66E, h128km±3km, mb4.6/3, msh5.1/4*
*MOS **24** 17:53:10.1±1.2, 46.95N×152.16E, h125km, mb4.0/13, Error ellipse: s-maj=13.8km s-min=9.7km az=81.1*
*IDC **24** 17:53:12.6±2.3, 47.01N×152.14E, h129km±21km, mb3.5/20, mb1 3.6/25, mb1mx3.5/48, mbtmp3.9/25, Error ellipse: s-maj=15.3km s-min=12.0km az=142.0*

**ISC 24 17:53:10.4±0.7, 46.96N±0.09×152.25E±0.08, h106km, n71, σ1§48/70, mb3.8/22, 6C-2D, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KUR** | **Kuril'sk** | **3.51** | **242** | *e*P | **Pn** | **17 54 04.4** | **+1.5** |
| KUR | | | | AMB | AMB | 17 54 07.6 | |
| | 20nm,0.3s | | | | | | |
| KUR | | | | AMB | AMB | 17 54 07.6 | |
| | 32nm,0.3s | | | | | | |
| KUR | | | | AMB | AMB | 17 54 07.6 | |
| | 21nm,0.3s | | | | | | |
| KUR | | | | *e*S | **Sn** | **17 54 46.0** | **+2.4** |
| KUR | | | | A | A | 17 54 50.5 | |
| | 30nm,0.2s | | | | | | |
| **SKR** | **Severo-Kuril's** | **4.51** | **33** | ↑*e*PN | Pn | 17 54 31.8 | +15 |
| **SKR** | **Severo-Kuril's** | **4.51** | **33** | *e*P | **Pn** | **17 54 16.5** | **+0.1** |
| SKR | | | | AMB | AMB | 17 54 17.0 | |
| | 13nm,0.3s | | | | | | |
| SKR | | | | AMB | AMB | 17 54 17.0 | |
| | 20nm,0.3s | | | | | | |
| SKR | | | | AMB | AMB | 17 54 17.0 | |
| | 10.0nm,0.3s | | | | | | |
| SKR | | | | *e*S | **Sn** | **17 55 07.2** | **-0.6** |
| SKR | | | | A | A | 17 55 09.0 | |
| | 15nm,0.5s | | | | | | |
| SKR | | | | A | A | 17 55 09.0 | |
| | 18nm,0.5s | | | | | | |
| **SHO** | **Shikotan** | **4.91** | **233** | *e*PN | **Pn** | **17 54 22.1** | **+0.2** |
| SHO | | | | *e*S | **Sn** | **17 55 12.9** | **-4.6** |
| SHO | | | | smax | smax | | |
| | comp=N,46nm,0.4s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=E,111nm,0.6s | | | | | | |
| **SHO** | **Shikotan** | **4.91** | **233** | *e*P | **Pn** | **17 54 22.1** | **+0.2** |
| SHO | | | | *e*S | **Sn** | **17 55 16.0** | **-1.5** |
| SHO | | | | A | A | 17 55 24.4 | |
| | comp=E,46nm,0.6s | | | | | | |
| SHO | | | | A | A | 17 55 24.4 | |
| | comp=E,111nm,0.6s | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **5.36** | **239** | *e*PN | **Pn** | **17 54 26.5** | **-1.4** |
| YUK | | | | pmax | pmax | | |
| | comp=Z,59nm,0.3s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=N,58nm,0.4s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=E,20nm,0.2s | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **5.36** | **239** | *e*P | **Pn** | **17 54 27.0** | **-0.9** |
| YUK | | | | AMB | AMB | 17 54 29.8 | |
| | comp=E,2.0nm,0.4s | | | | | | |
| YUK | | | | AMB | AMB | 17 54 29.8 | |
| | comp=E,59nm,0.4s | | | | | | |
| YUK | | | | *e*S | **Sn** | **17 55 26.5** | **-1.9** |
| YUK | | | | A | A | 17 55 27.0 | |
| | comp=E,112nm,0.8s | | | | | | |
| YUK | | | | A | A | 17 55 27.0 | |
| | comp=E,68nm,0.8s | | | | | | |
| **PETK** | **Petropavlovsk-** | **7.08** | **28** | P | **Pn** | **17 54 52.1** | **+0.9** |
| | comp=E,0.4nm,0.3s,baz=207,slow=12,SNR=10.0 | | | | | | |
| **JKA** | **Kamikawa-asahi** | **7.35** | **251** | *e*P | **Pn** | **17 54 57.5** | **+2.6** |
| **ASAJ** | **Asahikawa** | **7.35** | **251** | P | **Pn** | **17 54 57.5** | **+2.5** |
| | comp=E,0.6nm,0.3s,baz=70,slow=18,SNR=5.2 | | | | | | |
| **ASAJ** | **Asahikawa** | **7.35** | **251** | *e*P | **Pn** | **17 54 57.2** | **+2.3** |
| | comp=E,26nm,1.1s | | | | | | |
| **ERM** | **Erimo** | **8.17** | **236** | ↑*e*PN | Pn | 17 55 17.6 | +12 |
| **EKMR** | **Ekimchan** | **13.81** | **303** | *e*P | **P** | **17 56 24.9** | **-1.4** |
| EKMR | | | | AMB | AMB | 17 56 29.0 | |
| | comp=E,5.0nm,0.5s | | | | | | |
| **KLR** | **Kul'dur** | **13.89** | **287** | P | **P** | **17 56 26.2** | **-0.9** |
| | comp=E,0.0nm,0.3s,baz=87,slow=8.3,SNR=6.5 | | | | | | |
| **USR

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **KSRS** | **Korea Array** | **20.30 251** | P | **P** | **17 57 38.2** | **+0.6** |
| | comp=E,1.7nm,0.7s,baz=52,slow=11,SNR=5.7 | | | | | |
| **HIA** | **Hailar** | **21.74 288**⇑ | *e*P | **P** | **17 57 53.2** | **+0.2** |
| HIA | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.4s | | | | | |
| **BILL** | **Bilibino** | **22.32 14**⇑ | *e*P | **P** | **17 58 02.4** | **+3.5** |
| BILL | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.6s | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **29.68 151** | T | T | 18 30 43.7 | |
| | baz=340,slow=76,SNR=65 | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **29.70 151** | T | T | 18 30 39.4 | |
| | baz=340,slow=76,SNR=52 | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **29.70 151** | T | T | 18 30 44.7 | |
| | baz=340,slow=76,SNR=47 | | | | | |
| **SONM** | **Songino Array** | **30.70 289** | P | **P** | **17 59 13.7** | **-1.4** |
| | comp=Z,0.1nm,0.5s,baz=68,slow=5.4,SNR=3.0 | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **30.76 152** | T | T | 18 32 05.9 | |
| | baz=341,slow=76,SNR=83 | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **30.77 152** | T | T | 18 32 04.0 | |
| | baz=341,slow=76,SNR=79 | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **30.78 152** | T | T | 18 32 00.5 | |
| | baz=341,slow=76,SNR=70 | | | | | |
| **ILAR** | **Eielson Array** | **36.75 39** | P | **P** | **18 00 05.7** | **-1.3** |
| | comp=Z,0.6nm,1.0s,baz=246,slow=6.8,SNR=3.0 | | | | | |
| **INK** | **Inuvik** | **41.79 32** | P | **P** | **18 00 49.5** | **+0.7** |
| | comp=Z,0.8nm,0.7s,baz=302,slow=3.1,SNR=3.9 | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.01 305** | P | **P** | **18 00 49.0** | **-1.8** |
| | comp=Z,1.1nm,0.5s,baz=56,slow=7.4,SNR=5.6 | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.01 305** | P | **P** | **18 00 49.0** | **-1.8** |
| ZALV | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.5s | | | | | |
| **MKAR** | **Makanchi Array** | **46.32 297** | P | **P** | **18 01 24.2** | **-1.1** |
| | comp=Z,1.0nm,0.4s,baz=63,slow=6.2,SNR=19 | | | | | |
| **KURK** | **Kurchatov** | **46.75 303**⇑ | *e*P | **P** | **18 01 26.9** | **-1.7** |
| KURK | | | *i* *PP | **sP** | **18 02 09.0** | **+3.7** |
| KURK | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.7s | | | | | |
| **KURK** | **Kurchatov** | **46.75 303** | *e*P | **P** | **18 01 26.9** | **-1.7** |
| **BRVK** | **Borovoye** | **50.31 309**⇑ | *e*P | **P** | **18 01 54.3** | **-1.5** |
| BRVK | | | *i* *PP | **sP** | **18 02 35.5** | **+2.7** |
| BRVK | | | pmax | pmax | | |
| | comp=Z,20nm,4.2s | | | | | |
| **BRVK** | **Borovoye** | **50.31 309** | *e*P | **P** | **18 01 54.3** | **-1.5** |
| **YKA** | **Yellowknife Ar** | **51.11 37** | P | **P** | **18 02 02.7** | **+1.1** |
| | comp=Z,0.3nm,0.7s,baz=296,slow=7.4,SNR=2.9 | | | | | |
| **AAK** | **Ala-Archa** | **53.21 296**⇓ | *e*P | **P** | **18 02 17.0** | **-0.7** |
| AAK | | | pmax | pmax | | |
| | comp=Z,1.0nm,1.0s | | | | | |
| **AAK** | **Ala-Archa** | **53.21 296** | *e*P | **P** | **18 02 17.0** | **-0.7** |
| **TAPN** | **Taplejung** | **53.50 272** | *e*P | **P** | **18 02 21.0** | **+0.8** |
| **JIRN** | **Jiri** | **54.34 274** | *e*P | **P** | **18 02 27.7** | **+1.3** |
| **GUN** | **Gumba** | **54.39 274** | *e*P | **P** | **18 02 28.1** | **+1.4** |
| **RAMN** | **Ramite** | **54.51 273** | *e*P | **P** | **18 02 27.1** | **-0.4** |
| | comp=Z,11nm,0.5s | | | | | |
| **KKN** | **Kakani** | **54.88 275** | *e*P | **P** | **18 02 31.2** | **+1.1** |
| | comp=Z,3.5nm,0.5s | | | | | |
| **PKI** | **Pulchoki** | **54.93 274** | *e*P | **P** | **18 02 31.6** | **+1.0** |
| | comp=Z,3.6nm,0.5s | | | | | |
| **PKIN** | **Phulchoki** | **54.94 274** | *e*P | **P** | **18 02 31.6** | **+1.0** |
| | comp=Z,7.6nm,0.8s | | | | | |
| **DMN** | **Daman** | **55.11 275** | *e*P | **P** | **18 02 32.1** | **+0.3** |
| | comp=Z,9.7nm,0.9s | | | | | |
| **KOLN** | **Koldanda** | **56.04 276** | *e*P | **P** | **18 02 39.3** | **+0.9** |
| | comp=Z,11nm,0.7s | | | | | |
| **PYUN** | **Piuthan** | **56.24 276** | *e*P | **P** | **18 02 40.5** | **+0.6** |
| **ARCES** | **ARCESS Array B** | **57.46 340** | P | **P** | **18 02 46.3** | **-1.2** |
| | comp=Z,4.2nm,0.9s,baz=28,slow=5.5,SNR=5.6 | | | | | |
| **ARCES** | **ARCESS Array B** | **57.46 340** | *e*P | **P** | **18 02 46.7** | **-0.8** |
| **ARCES** | **ARCESS Array B** | **57.46 340** | *e*P | **P** | **18 02 46.7** | **-0.8** |
| **NVAR** | **Mina Array Bea** | **62.86 62** | P | **P** | **18 03 24.7** | **-0.5** |
| | comp=Z,0.2nm,0.5s,baz=299,slow=9.2,SNR=2.8 | | | | | |
| **FINES** | **FINESS Array B** | **63.59 334** | P | **P** | **18 03 28.0** | **-1.3** |
| | comp=Z,1.9nm,0.5s,baz=34,slow=7.5,SNR=23 | | | | | |
| **FINES** | **FINESS Array B** | **63.59 334** | P | **P** | **18 03 28.0** | **-1.3** |
| FINES | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.5s | | | | | |
| **FINES** | **FINESS Array B** | **63.59 334** | *e*P | **P** | **18 03 28.0** | **-1.3** |
| **PDAR** | **Pinedale Array** | **65.10 53** | P | **P** | **18 03 40.9** | **+1.2** |
| | comp=Z,0.2nm,0.6s,baz=342,slow=5.7,SNR=3.1 | | | | | |
| **GEYT** | **Alibeck** | **65.99 300** | P | **P** | **18 03 45.6** | **+0.3** |
| | comp=Z,1.1nm,0.7s,baz=74,slow=8.8,SNR=3.7 | | | | | |
| **NB2** | **NORSAR Subarra** | **67.83 341** | P | **P** | **18 03 55.7** | **-0.9** |
| | comp=Z,1.1nm,0.5s,baz=26,slow=6.5 | | | | | |
| **NOA** | **NORSAR Array B** | **67.83 341** | P | **P** | **18 03 56.0** | **-0.6** |
| | comp=Z,1.1nm,0.5s,baz=30,slow=6.6,SNR=14 | | | | | |
| **WRA** | **Warramunga Arr** | **68.53 198** | P | **P** | **18 04 00.3** | **-1.0** |
| | comp=Z,0.5nm,0.5s,baz=16,slow=6.7,SNR=9.2 | | | | | |
| **KBZ** | **Khabaz** | **70.29 313** | P | **P** | **18 04 11.7** | **-0.2** |
| | comp=Z,1.8nm,0.8s,baz=79,slow=6.5,SNR=4.3 | | | | | |
| **AKASG** | **Malin Array Be** | **71.04 326** | P | **P** | **18 04 15.2** | **-1.2** |
| | comp=Z,1.5nm,0.4s,baz=294,slow=6.1,SNR=12 | | | | | |
| **ASAR** | **Alice Springs** | **72.23 198** | P | **P** | **18 04 24.1** | **+0.3** |
| | comp=Z,1.7nm,0.6s,baz=12,slow=5.7,SNR=45 | | | | | |
| **BRTR** | **Keskin Array B** | **77.83 316** | P | **P** | **18 04 56.3** | **+0.2** |
| | comp=Z,0.8nm,0.8s,baz=18,slow=6.7,SNR=3.2 | | | | | |
| **TXAR** | **Lajitas Array** | **77.90 60** | P | **P** | **18 04 56.2** | **-0.5** |
| | comp=Z,1.0nm,0.6s,baz=304,slow=4.1,SNR=15 | | | | | |
| **GERES** | **GERESS Array B** | **78.00 333** | P | **P** | **18 04 56.5** | **-0.4** |
| | comp=Z,0.4nm,0.5s,baz=40,slow=5.1,SNR=3.2 | | | | | |

*KRSC **24** 17:55:49.6±0.8,56°.16N×163°.15E, h6km±4km, ML3.7*
*IDC **24** 17:55:51.2±2.2,56°.44N×162°.58E, h0km, mb3.2/2, mb1 3.4/3, mb1mx3.1/47, mbtmp3.2/3, ML2.2/1, Error ellipse: s-maj=64.9km s-min=27.6km az=138.0*

**ISC 24 17:55:47.7±1.3, 56°.40N±0°.04×163°.33E±0°.04, h4km±10km, n23, σ1§17/34, Near east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | h m s | ISC |
| **KBTR** | **Krutoberegovo** | **0.34** | **236** | *e*P | | **Pg** | | **17 55 54.8** | **+0.5** |
| KBTR | | | | *e*S | | **Sg** | | **17 55 56.8** | **-2.0** |
| **KBG** | **Krutoberegovo** | **0.38** | **248** | *e*P | | **Pg** | | **17 55 56.1** | **+1.2** |
| KBG | | | | *e*S | | **Sg** | | **17 55 59.5** | **-0.3** |
| **SMKR** | **Semkarok** | **1.05** | **281** | *e*P | | **Pn** | | **17 56 09.6** | **+0.4** |
| SMKR | | | | *e*S | | **Sb** | | **17 56 23.2** | **+0.7** |
| **BDR** | **Baidarnaya** | **1.19** | **279** | *e*P | | **Pn** | | **17 56 12.0** | **+0.9** |
| BDR | | | | *e*S | | **Sn** | | **17 56 28.1** | **+0.4** |
| **ZLN** | **Zelenaya** | **1.46** | **256** | *e*P | | **Pn** | | **17 56 14.5** | **-0.4** |
| **CIRR** | **Tsirk** | **1.47** | **260** | *e*P | | **Pn** | | **17 56 14.9** | **-0.1** |
| **KLY** | **Klyuchi** | **1.49** | **268** | *e*P | | **Pn** | | **17 56 13.7** | **-1.5** |
| KLY | | | | *e*S | | **Sn** | | **17 56 31.2** | **-3.9** |
| **KRSR** | **Krestovskiy** | **1.55** | **264** | *e*P | | **Pn** | | **17 56 15.7** | **-0.4** |
| **BZWR** | **Bezymyannyi-We** | **1.64** | **256** | *e*P | | **Pn** | | **17 56 17.2** | **-0.2** |
| **BZMR** | **Bezymyannaya** | **1.66** | **255** | *e*P | | **Pn** | | **17 56 17.1** | **-0.5** |
| **KIRR** | **Kirishev** | **1.73** | **256** | *e*P | | **Pn** | | **17 56 18.5** | **-0.1** |
| KIRR | | | | *e*S | | **Sn** | | **17 56 39.5** | **-1.6** |
| **KPT** | **Kopyto** | **1.79** | **257** | *e*P | | **Pn** | | **17 56 19.6** | **+0.2** |
| **KMNR** | **Kamenistaya** | **1.85** | **251** | *e*P | | **Pn** | | **17 56 20.1** | **-0.1** |
| KMNR | | | | *e*S | | **Sn** | | **17 56 43.2** | **-0.8** |
| **BKI** | **Bering** | **1.91** | **128** | *e*P | | **Pb** | | **17 56 23.3** | **+0.2** |
| BKI | | | | *e*S | | **Sb** | | **17 56 47.5** | **+0.3** |
| **KOZ** | **Kozyrevsk** | **1.96** | **261** | *e*P | | **Pn** | | **17 56 23.1** | **+1.5** |
| KOZ | | | | *e*S | | **Sn** | | **17 56 48.3** | **+1.7** |
| **TUMD** | **Tumrok D** | **2.04** | **235** | *e*P | | **Pn** | | **17 56 21.6** | **-1.2** |
| **TUMR** | **Tumrok** | **2.12** | **239** | *e*P | | **Pn** | | **17 56 23.9** | **0.0** |
| TUMR | | | | *e*S | | **Sn** | | **17 56 49.2** | **-1.4** |
| **ESO** | **Esso** | **2.63** | **262** | *e*P | | **Pn** | | **17 56 31.7** | **+0.8** |
| **OSSR** | **Ossora** | **2.86** | **357** | *e*P | | **Pg** | | **17 56 42.2** | **-0.3** |
| OSSR | | | | *e*S | | **Sg** | | **17 57 18.3** | **-1.3** |
| **TILK** | **Tilichiki** | **4.32** | **19** | P | | **Pb** | | **17 57 04.4** | **+0.3** |
| **PETK** | **Petropavlovsk-** | **4.64** | **227** | Pn | | **Pn** | | **17 56 59.0** | **+0.6** |
| | 0.6nm,0.3s,baz=57,slow=14,SNR=5.5 | | | | | | | | |
| PETK | | | | Sn | | **Sn** | | **17 57 51.8** | **-0.8** |
| | baz=60,slow=35,SNR=2.5 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **39.48** | **46** | P | | P | | 18 03 24.9 | +6.3 |
| | 0.1nm,0.5s,baz=299,slow=7.9,SNR=2.7 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **48.44** | **295** | P | | **P** | | **18 04 31.6** | **+0.8** |
| | 0.2nm,0.4s,baz=54,slow=7.2,SNR=4.4 | | | | | | | | |

**KRSC 24 17:58:37.1±0.9, 56°.11N×163°.14E, h4km±5km, ML3.6, Near east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | h m s | ISC |
| **KBTR** | **Krutoberegovo** | **0.20** | **298** | *e*P | | Pg | | 17 58 42.5 | +1.4 |
| KBTR | | | | *e*S | | Sg | | 17 58 44.8 | +1.1 |
| **KBG** | **Krutoberegovo** | **0.28** | **301** | *e*P | | Pb | | 17 58 43.7 | -1.1 |
| KBG | | | | *e*S | | Sg | | 17 58 47.5 | +1.2 |
| **SMKR** | **Semkarok** | **1.04** | **298** | *e*P | | Pb | | 17 58 57.5 | -0.3 |
| SMKR | | | | *e*S | | Sn | | 17 59 12.8 | -0.9 |
| **BDR** | **Baidarnaya** | **1.17** | **294** | *e*P | | Pg | | 17 58 59.7 | +0.2 |
| **SRKR** | **Sorokina** | **1.22** | **297** | *e*P | | Pb | | 17 59 00.8 | -0.1 |
| SRKR | | | | S | | Sn | | 17 59 17.6 | -0.5 |
| **ZLN** | **Zelenaya** | **1.31** | **267** | *e*P | | Pg | | 17 59 02.3 | 0.0 |
| **CIRR** | **Tsirk** | **1.34** | **271** | *e*P | | Pn | | 17 59 02.5 | -0.2 |
| **KLY** | **Klyuchi** | **1.41** | **279** | *e*P | | Pn | | 17 59 01.5 | -2.0 |
| KLY | | | | *e*S | | Sb | | 17 59 18.8 | -3.3 |
| **KRSR** | **Krestovskiy** | **1.44** | **275** | *e*P | | Pn | | 17 59 03.6 | -0.5 |
| KRSR | | | | *e*S | | Sn | | 17 59 24.5 | +0.9 |
| **BZWR** | **Bezymyannyi-We** | **1.49** | **265** | *e*P | | Pn | | 17 59 04.6 | -0.2 |
| **BZMR** | **Bezymyannaya** | **1.50** | **264** | *e*P | | Pn | | 17 59 04.9 | 0.0 |
| **KIRR** | **Kirishev** | **1.58** | **265** | *e*P | | Pn | | 17 59 06.0 | 0.0 |
| **KPT** | **Kopyto** | **1.64** | **266** | *e*P | | Pn | | 17 59 07.4 | +0.5 |
| **KMNR** | **Kamenistaya** | **1.67** | **259** | *e*P | | Pb | | 17 59 08.0 | -0.5 |
| **TUMD** | **Tumrok D** | **1.80** | **241** | *e*P | | Pn | | 17 59 09.5 | +0.5 |
| TUMD | | | | *e*S | | Sn | | 17 59 32.7 | +0.4 |
| **KOZ** | **Kozyrevsk** | **1.83** | **270** | *e*P | | Pb | | 17 59 10.6 | -0.6 |
| KOZ | | | | *e*S | | Sg | | 17 59 35.8 | -0.1 |
| **BKI** | **Bering** | **1.84** | **118** | *e*P | | Pb | | 17 59 11.0 | -0.4 |
| BKI | | | | *e*S | | Sb | | 17 59 35.3 | +0.5 |
| **TUMR** | **Tumrok** | **1.89** | **245** | *e*P | | Pb | | 17 59 11.4 | -0.8 |
| TUMR | | | | *e*S | | Sb | | 17 59 36.9 | +0.7 |
| **ESO** | **Esso** | **2.50** | **268** | *e*P | | Pb | | 17 59 21.5 | -1.1 |
| **OSSR** | **Ossora** | **3.15** | **359** | *e*P | | Pn | | 17 59 30.0 | +2.6 |
| **PALN** | **Palana** | **3.44** | **332** | *e*P | | Pb | | 17 59 36.5 | -2.0 |
| **SDLR** | **Sedlovina** | **3.76** | **223** | *e*P | | Pn | | 17 59 38.3 | +2.3 |
| **GNL** | **Ganaly** | **3.86** | **233** | *e*P | | Pn | | 17 59 40.4 | +3.1 |
| **TILK** | **Tilichiki** | **4.63** | **19** | *e*P | | Pn | | 17 59 50.9 | +3.2 |

*SOME **24** 18:13:49.3, 43°.92N×81°.20E, h15km*
*NNC **24** 18:13:49.4±2.8, 43°.91N×81°.08E, h0km, mb2.7, mpv2.4, Error ellipse: s-maj=43.0km s-min=7.9km az=134.0*

**ISC 24 18:13:48.0±1.9, 43°.86N±0°.06×81°.23E±0°.09, h12km±11km, n9, σ2§54/15, 3C-3D, Northern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | h m s | ISC |
| **KTMS** | **Ketmen** | **0.76** | **238** | *e*P | | **Pg** | | **18 14 03.2** | **+0.6** |
| | 22nm,0.1s | | | | | | | | |
| KTMS | | | | *e*S | | **Sg** | | **18 14 13.3** | **+0.8** |
| | 24nm,0.1s | | | | | | | | |
| **DJR** | **Jarkent** | **1.14** | **295** | *e*P | | **Pg** | | **18 14 08.8** | **-1.1** |
| | 3.7nm,0.2s | | | | | | | | |
| DJR | | | | *e*S | | **Sg** | | **18 14 23.0** | **-1.8** |
| | 14nm,0.3s | | | | | | | | |
| **PDGK** | **Podgornoye** | **1.37** | **248** | ⇓P | | **Pn** | | **18 14 13.6** | **+0.5** |
| | 0.6nm,0.2s | | | | | | | | |
| PDGK | | | | ⇑S | | **Sb** | | **18 14 31.6** | **+0.5** |
| | 3.8nm,0.5s | | | | | | | | |
| **SHLS** | **Shalkode** | **1.46** | **242** | *e*P | | **Pn** | | **18 14 11.2** | **-3.1** |
| | 5.1nm,0.1s | | | | | | | | |
| SHLS | | | | *e*S | | **Sn** | | **18 14 27.2** | **-6.4** |
| | 23nm,0.1s | | | | | | | | |
| **UZB** | **Uzynbulak** | **1.75** | **247** | *e*P | | **Pn** | | **18 14 20.2** | **+1.7** |
| | 2.6nm,0.2s | | | | | | | | |
| UZB | | | | *e*S | | **Sn** | | **18 14 43.0** | **+2.2** |
| | 6.9nm,0.1s | | | | | | | | |
| **KAPS** | **Kapalarasan** | **1.96** | **318** | ⇓*i*P | | **Pn** | | **18 14 22.3** | **+1.1** |
| | 1.3nm,0.2s | | | | | | | | |
| KAPS | | | | *e*S | | **Sn** | | **18 14 46.4** | **+0.7** |
| | 7.7nm,0.3s | | | | | | | | |
| **ZHN** | **Zhinishke** | **2.15** | **252** | *e*P | | **Pb** | | **18 14 27.7** | **+0.8** |
| ZHN | | | | *e*S | | **Sb** | | **18 14 55.6** | **+2.1** |
| **MAKZ** | **Makanchi** | **3.00** | **10** | ⇓Lg | | Lg | | 18 15 21.8 | |
| | 6.1nm,1.6s | | | | | | | | |
| **MK31** | **Makanchi Array** | **3.03** | **14** | ⇑Pg | | **Pg** | | **18 14 45.5** | **-0.5** |
| | 1.1nm,0.7s,baz=190,slow=16,SNR=4.8 | | | | | | | | |
| MK31 | | | | ⇑Lg | | Lg | | 18 15 23.7 | |
| | 0.2nm,0.2s,baz=191,slow=28,SNR=6.2 | | | | | | | | |

*ISCJB **24** 18:41:10.3±0.4, 52°.50N±0°.08×179°.61E±0°.06, h178km, mb3.4/11, Error ellipse: s-maj=12.0km s-min=4.8km az=11.9*
*NEIC **24** 18:41:11.5±0.0, 52°.27N×179°.68E, h193km, MG3.1(AEIC), After AEIC.*
*IDC **24** 18:41:14.5±5.2, 52°.41N×179°.56E, h211km±50km, mb3.0/11, mb1 3.3/12, mb1mx3.0/41, mbtmp3.6/12, Error ellipse: s-maj=29.9km s-min=15.6km az=169.0*

**ISC 24 18:41:10.9±0.7, 52°.4N±0°.1×179°.54E±0°.05, h178km, n24, σ1§25/28, mb3.3/11, Rat Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | h m s | ISC |
| **GALAA** | **Gareloi Lava P** | **1.23** | **121** | *e*Pn | | **Pn** | | **18 41 40.9** | **+0.6** |
| GALAA | | | | *e*Sn | | **Sn** | | **18 42 04.8** | **+1.9** |
| **GAEA** | **Gareloi East** | **1.23** | **120** | *e*Sn | | **Sn** | | **18 42 03.2** | **+0.2** |
| **TASE** | **Tanaga Southea** | **1.60** | **110** | *e*Pn | | **Pn** | | **18 41 43.6** | **-0.1** |
| TASE | | | | *e*Sn | | **Sn** | | **18 42 08.6** | **-0.6** |
| **TAFP** | **Tanaga Falls P** | **1.61** | **108** | *e*Sn | | **Sn** | | **18 42 08.1** | **-1.1** |
| **TAFL** | **Tanaga Flats** | **1.71** | **112** | *e*Pn | | **Pn** | | **18 41 44.3** | **-0.5** |
| **TAPA** | **Tanaga Point A** | **1.74** | **109** | *e*Pn | | **Pn** | | **18 41 44.5** | **-0.6** |
| **GSTD** | **Great Sitkin T** | **2.68** | **96** | *e*Pn | | **Pn** | | **18 41 54.7** | **-0.9** |
| **SMY** | **Shemya** | **3.33** | **278** | *e*Pn | | **Pn** | | **18 42 06.0** | **+2.5** |
| SMY | | | | *e*Sn | | **Sn** | | **18 42 45.6** | **+1.1** |
| **ATKA** | **Atka Island** | **3.85** | **91** | *e*Pn | | **Pn** | | **18 42 10.3** | **+0.3** |
| ATKA | | | | *e*Sn | | **Sn** | | **18 42 54.9** | **-1.3** |
| **SPIA** | **Saint Paul Isl** | **7.59** | **47** | *e*Pn | | Pn | | 18 43 04.4 | +5.8 |
| **UNV** | **Unalaska Valle** | **8.52** | **75** | *e*Pn | | **Pn** | | **18 43 13.2** | **+2.3** |
| **PETK** | **Petropavlovsk-** | **13.24** | **282** | P | | **P** | | **18 44 15.7** | **+0.2** |
| | 0.2nm,0.3s,baz=90,slow=14,SNR=4.3 | | | | | | | | |
| PETK | | | | S | | **Sn** | | **18 46 35.7** | **-3.2** |
| | 0.1nm,0.3s,baz=93,slow=19,SNR=3.4 | | | | | | | | |
| **KDAK** | **Kodiak Island** | **16.76** | **60** | P | | **P** | | **18 44 53.0** | **-1.4** |
| | 0.8nm,0.3s,baz=263,slow=5.4,SNR=22 | | | | | | | | |
| **ILAR** | **Eielson Array** | **21.11** | **41** | P | | **P** | | **18 45 41.8** | **+0.5** |
| | 0.5nm,0.5s,baz=244,slow=8.7,SNR=18 | | | | | | | | |
| **INK** | **Inuvik** | **27.22** | **36** | P | | **P** | | **18 46 38.2** | **+0.6** |
| | 0.6nm,0.6s,baz=242,slow=7.6,SNR=3.3 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **35.27** | **47** | P | | **P** | | **18 47 49.5** | **+1.4** |
| | 0.4nm,0.6s,baz=283,slow=7.8,SNR=13 | | | | | | | | |
| **NEW** | **Newport** | **39.49** | **70** | P | | **P** | | **18 48 23.9** | **+0.1** |
| | 1.4nm,0.7s,baz=299,slow=10,SNR=4.3 | | | | | | | | |
| **NVAR** | **Mina Array Bea** | **44.44** | **83** | P | | **P** | | **18 49 04.8** | **+0.6** |
| | 0.5nm,0.5s,baz=288,slow=7.4,SNR=5.8 | | | | | | | | |
| **PDAR** | **Pinedale Array** | **46.97** | **72** | P | | **P** | | **18 49 23.1** | **-0.9** |
| | 0.4nm,0.6s,baz=302,slow=3.2,SNR=4.9 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **58.58** | **307** | P | | **P** | | **18 50 48.2** | **-0.5** |
| | 0.4nm,0.8s,baz=55,slow=6.6,SNR=2.4 | | | | | | | | |
| **TXAR** | **Lajitas Array** | **59.51** | **81** | P | | **P** | | **18 50 55.5** | **+0.1** |
| | 0.4nm,0.5s,baz=303,slow=4.8,SNR=10 | | | | | | | | |
| **FINES** | **FINESS Array B** | **64.54** | **346** | P | | **P** | | **18 51 28.7** | **+0.5** |
| | 3.3nm,1.1s,baz=13,slow=8.6,SNR=3.4 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **82.07** | **222** | P | | **P** | | **18 53 10.5** | **-0.7** |
| | 0.4nm,0.9s,baz=34,slow=6.2,SNR=3.5 | | | | | | | | |
| **ASAR** | **Alice Springs** | **85.57** | **221** | P | | **P** | | **18 53 29.4** | **+0.5** |
| | 0.2nm,0.7s,baz=25,slow=4.6,SNR=4.4 | | | | | | | | |

**IDC 24 18:50:50.3±2.8, 4°.84N×127°.52E, h0km, mb3.4/3, mb1 3.5/3, mb1mx3.3/25, mbtmp3.4/3, MS2.7/1, Ms1 2.7/1, ms1mx2.4/20, Error ellipse: s-maj=233.3km s-min=25.9km az=67.0, Talaud Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | h m s | ISC |
| **WRA** | **Warramunga Arr** | **25.53** | **165** | P | | P | | 18 56 21.0 | +0.2 |
| | 0.6nm,0.6s,baz=345,slow=9.8,SNR=3.3 | | | | | | | | |
| **ASAR** | **Alice Springs** | **29.01** | **168** | P | | P | | 18 56 51.9 | -0.2 |
| | 0.2nm,0.8s,baz=352,slow=7.8,SNR=5.4 | | | | | | | | |
| **KSRS** | **Korea Array** | **32.46** | **1** | LR | | LR | | 19 13 20.6 | |
| | comp=Z,13nm,18.9s,baz=325,slow=42 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **57.10** | **324** | P | | P | | 19 00 38.6 | -0.1 |
| | 0.4nm,0.7s,baz=122,slow=8.8,SNR=3.5 | | | | | | | | |

*ISCJB **24** 19:29:34.0±1.2, 16°.62N±0°.07×99°.60W±0°.05, h26km±10km, mb3.1/3, Error ellipse: s-maj=11.9km s-min=6.7km az=23.3*
*MEX **24** 19:29:35.7±0.6, 16°.52N×99°.59W, h16km±9km, MD3.9*
*IDC **24** 19:29:35.2±8.9, 17°.12N×99°.21W, h0km, mb3.4/3, mb1 3.9/3, mb1mx3.5/41, mbtmp3.4/3, ML2.5/1, MS3.1/1, Ms1 3.1/1, ms1mx2.6/19, Error ellipse: s-maj=202.0km s-min=29.3km az=20.0*

**ISC 24 19:29:33.5±1.6, 16°.69N±0°.07×99°.51W±0°.04, h17km±10km, n12, σ1§40/20, mb3.3/3, Near coast of Guerrero**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | h m s | ISC |
| **CAIG** | **El Cayaco** | **0.81** | **296** | *i* P | | **Pb** | | **19 29 49.1** | **0.0** |
| CAIG | | | | *i* S | | **Sb** | | **19 29 58.5** | **-1.3** |
| **MEIG** | **Mezcala** | **1.24** | **355** | *e*P | | **Pg** | | **19 29 57.2** | **-0.2** |
| MEIG | | | | *i* S | | **Sg** | | **19 30 13.2** | **-0.3** |
| **TLIG** | **Tlapa** | **1.25** | **46** | *e*P | | **Pg** | | **19 29 57.4** | **-0.3** |
| TLIG | | | | *i* S | | **Sg** | | **19 30 14.3** | **+0.2** |
| **PNIG** | **Pinotepa** | **1.36** | **102** | *e*P | | **Pn** | | **19 29 56.5** | **-1.1** |
| PNIG | | | | *i* S | | **Sg** | | **19 30 18.5** | **+1.1** |
| **PLIG** | **Platanillo** | **1.69** | **0** | *e*P | | **Pb** | | **19 30 04.1** | **-0.1** |
| PLIG | | | | *e*S | | **Sb** | | **19 30 24.9** | **-0.4** |
| **ARIG** | **Puente Sto Nin** | **1.77** | **333** | *e*P | | **Pb** | | **19 30 05.2** | **-0.4** |
| ARIG | | | | *e*S | | **Sn** | | **19 30 26.0** | **+0.4** |
| **ZIIG** | **Zihuatanejo** | **2.08** | **296** | *e*P | | **Pn** | | **19 30 07.0** | **-0.6** |
| ZIIG | | | | *e*S | | **Sn** | | **19 30 30.8** | **-2.4** |
| **CMIG** | **Matias Romero** | **4.45** | **84** | Pn | | **Pn** | | **19 30 40.4** | **+0.3** |
| | 0.3nm,0.3s,baz=263,slow=8.1,SNR=2.8 | | | | | | | | |
| CMIG | | | | Pg | | **Pg** | | **19 30 58.5** | **-0.2** |
| | 1.1nm,0.3s,baz=242,slow=17,SNR=8.4 | | | | | | | | |
| CMIG | | | | Sn | | **Sn** | | **19 31 28.3** | **-3.2** |
| | 1.6nm,0.3s,baz=227,slow=19,SNR=3.7 | | | | | | | | |
| CMIG | | | | Lg | | Lg | | 19 31 57.2 | |
| | 2.6nm,0.3s,baz=137,slow=20,SNR=8.3 | | | | | | | | |
| **ANMO** | **Albuquerque** | **19.22** | **342** | LR | | LR | | 19 42 22.8 | |
| | comp=Z,59nm,19.3s,baz=118,slow=41 | | | | | | | | |
| **NVAR** | **Mina Array Bea** | **27.22** | **326** | P | | **P** | | **19 35 18.9** | **+2.1** |
| | 0.4nm,0.6s,baz=139,slow=8.4,SNR=4.3 | | | | | | | | |
| **PDAR** | **Pinedale Array** | **27.37** | **344** | P | | **P** | | **19 35 20.1** | **+2.0** |
| | 0.2nm,0.6s,baz=149,slow=13,SNR=3.7 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **46.97** | **350** | P | | **P** | | **19 38 04.5** | **+1.3** |
| | 0.4nm,0.7s,baz=157,slow=7.3,SNR=5.9 | | | | | | | | |

*IDC **24** 19:34:04.6±11.0, 39°.90N×142°.78E, h0km, mb3.4/2, mb1 3.6/3, mb1mx3.2/44, mbtmp3.3/3, ML3.0/1, Error ellipse: s-maj=249.6km s-min=69.3km az=167.0*
*ISCJB **24** 19:34:13.7±1.3, 39°.09N±0°.05×142°.47E±0°.09, h31km±6km, mb3.4/2, Error ellipse: s-maj=11.9km s-min=8.8km az=162.4*
*JMA **24** 19:34:15.2±0.1, 39°.13N×142°.39E, h32km±1km, M3.2*

**ISC 24 19:34:15.8±2.3, 39°.13N±0°.06×142°.4E±0°.2, h38km±6km, n17, σ1§28/18, Near coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | h m s | ISC |
| **OFUJ** | **Ofunato** | **0.57** | **265** | P | | **Pn** | | **19 34 26.5** | **-1.0** |
| OFUJ | | | | S | | **Sn** | | **19 34 34.2** | **-1.4** |
| **MIYJ** | **Miyakonagasawa** | **0.63** | **315** | P | | **Pn** | | **19 34 27.3** | **-1.0** |
| MIYJ | | | | S | | **Sn** | | **19 34 36.1** | **-1.1** |
| **JOM** | **Ohasama** | **0.92** | **292** | P | | **Pn** | | **19 34 32.0** | **-0.2** |
| JOM | | | | S | | **Sn** | | **19 34 44.0** | **-0.2** |
| **JMK** | **Ichinoseki** | **0.93** | **259** | P | | **Pn** | | **19 34 31.9** | **-0.4** |
| JMK | | | | S | | **Sn** | | **19 34 43.8** | **-0.7** |
| **JIO** | **Ouri** | **1.06** | **231** | P | | **Pn** | | **19 34 33.1** | **-0.9** |
| JIO | | | | S | | **Sn** | | **19 34 45.7** | **-1.8** |
| **JKZ** | **Kuzumaki** | **1.19** | **316** | P | | **Pn** | | **19 34 36.3** | **+0.4** |
| JKZ | | | | S | | **Sn** | | **19 34 51.2** | **+0.4** |
| **JRG** | **Rokugo** | **1.40** | **282** | P | | **Pn** | | **19 34 39.5** | **+0.9** |
| JRG | | | | S | | **Sn** | | **19 34 58.0** | **+2.2** |
| **JOU** | **Okura** | **1.56** | **241** | P | | **Pn** | | **19 34 41.4** | **+0.5** |
| **MJAR** | **Matsushiro Arr** | **4.20** | **233** | Pn | | **Pn** | | **19 35 19.8** | **+2.6** |
| | 0.6nm,0.3s,baz=41,slow=13,SNR=7.9 | | | | | | | | |
| **H

3.0nm,2.0s
MDOK *e*S **Sb** **19 45 45.7 +4.2**
5.1nm,0.4s
**KURBB Kurchatov Arra 6.80 321** ⇑Lg Lg 19 46 06.8
31nm,0.6s
**KURK Kurchatov 6.83 322** ⇑Lg Lg 19 46 07.3
28nm,0.8s

*ISCJB* ***24*** *19:46:24.3±0.7, 38°.65N±0°.03×43°.64E±0°.05, h1km±5km, Error ellipse: s-maj=6.2km s-min=4.3km az=7.7*
*CSEM* ***24*** *19:46:24.7±0.2, 38°.65N×43°.62E, h2km, ML3.0, Error ellipse: s-maj=6.0km s-min=4.0km az=89.0*
*DDA* ***24*** *19:46:24.4, 38°.63N×43°.58E, h12km, Ml3.4*
*ISK* ***24*** *19:46:24.1, 38°.66N×43°.57E, h5km, ML3.0*
**ISC 24 19:46:25.1±0.9, 38°.65N±0°.02×43°.61E±0°.03, h12km±7km, n63, σ0°96/68, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.18** | **253** | *e*PG | **Pg** | **19 46 28.9** | **-0.3** |
| VANB | | | | *e*SG | **Sg** | **19 46 32.7** | **+0.7** |
| **VANB** | **Van** | **0.18** | **253** | *e*Pg | **Pg** | **19 46 28.9** | **-0.3** |
| VANB | | | | *e*Sg | **Sg** | **19 46 32.7** | **+0.7** |
| **TVAN** | **Van** | **0.20** | **233** | *i* P | **Pg** | **19 46 28.8** | **-0.7** |
| TVAN | | | | *i* S | **Sg** | **19 46 32.6** | **+0.2** |
| **VMUR** | **Van-Muradiye** | **0.34** | **356** | *i* P | **Pg** | **19 46 31.6** | **-0.5** |
| **ERCV** | **ERCIS-VAN** | **0.43** | **331** | *e*PG | **Pg** | **19 46 32.7** | **-1.0** |
| **ERCV** | **ERCIS-VAN** | **0.43** | **331** | *e*Pg | **Pg** | **19 46 32.7** | **-1.0** |
| **GEVA** | **Gevas** | **0.54** | **232** | *i* P | **Pg** | **19 46 34.4** | **-1.4** |
| **CLDR** | **Caldiran** | **0.55** | **26** | *e*PG | **Pb** | **19 46 36.1** | **-0.7** |
| **CLDR** | **Caldiran** | **0.55** | **26** | *i* P | **Pg** | **19 46 36.0** | **0.0** |
| **CLDR** | **Caldiran** | **0.55** | **26** | *e*Pg | **Pb** | **19 46 36.1** | **-0.7** |
| **BASK** | **Baskale_VAN** | **0.67** | **152** | *i* P | **Pg** | **19 46 37.4** | **-0.8** |
| **BASK** | **Baskale_VAN** | **0.67** | **152** | P | **Pg** | **19 46 37.4** | **-0.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.71** | **284** | *i* P | **Pg** | **19 46 38.0** | **-0.9** |
| **ADCV** | **BITLIS_Adilcev** | **0.71** | **284** | P | **Pg** | **19 46 38.0** | **-0.9** |
| **DYDN** | **Diyadin** | **0.90** | **4** | *i* P | **Pg** | **19 46 42.0** | **-0.5** |
| **DYDN** | **Diyadin** | **0.90** | **4** | P | **Pg** | **19 46 42.0** | **-0.5** |
| **TUTA** | **Tutak** | **0.97** | **321** | *i* P | **Pg** | **19 46 42.6** | **-1.3** |
| **TUTA** | **Tutak** | **0.97** | **321** | P | **Pg** | **19 46 42.6** | **-1.3** |
| **AGRB** | **Hanur-Agry** | **1.04** | **333** | *e*PG | **Pg** | **19 46 43.9** | **-1.4** |
| AGRB | | | | *e*SG | **Sb** | **19 46 59.7** | **+0.8** |
| **AGRB** | **Hanur-Agry** | **1.04** | **333** | *e*Pg | **Pg** | **19 46 43.9** | **-1.4** |
| AGRB | | | | *e*Sg | **Sb** | **19 46 59.7** | **+0.8** |
| **HAKT** | **HAKKARI** | **1.09** | **176** | *i* P | **Pg** | **19 46 44.7** | **-1.4** |
| **HAKT** | **HAKKARI** | **1.09** | **176** | P | **Pg** | **19 46 44.7** | **-1.4** |
| **YOVA** | **Hakkari_Y¨…kse** | **1.19** | **153** | *i* P | **Pg** | **19 46 47.0** | **-1.0** |
| **EKAR** | **Karacoban** | **1.35** | **297** | *i* P | **Pn** | **19 46 49.8** | **-0.1** |
| **EKAR** | **Karacoban** | **1.35** | **297** | P | **Pn** | **19 46 49.8** | **-0.1** |
| **CUKT** | **Cukurca** | **1.40** | **180** | *e*PN | **Pb** | **19 46 50.9** | **-0.2** |
| **CUKT** | **Cukurca** | **1.40** | **180** | *i* P | **Pn** | **19 46 50.4** | **0.0** |
| **CUKT** | **Cukurca** | **1.40** | **180** | P | **Pn** | **19 46 50.4** | **0.0** |
| **CUKT** | **Cukurca** | **1.40** | **180** | *e*Pn | **Pb** | **19 46 50.9** | **-0.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.42** | **20** | *e*PN | **Pg** | **19 46 52.3** | **-0.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.42** | **20** | *e*Pn | **Pg** | **19 46 52.3** | **-0.2** |
| **SIRT** | **Sirnak** | **1.47** | **219** | *e*PN | **Pg** | **19 46 52.6** | **-0.7** |
| **SIRT** | **Sirnak** | **1.47** | **219** | *e*Pn | **Pg** | **19 46 52.6** | **-0.7** |
| **SRTM** | **Siirt_Merkez** | **1.48** | **244** | *i* P | **Pg** | **19 46 52.6** | **-0.9** |
| **SRTM** | **Siirt_Merkez** | **1.48** | **244** | P | **Pg** | **19 46 52.6** | **-0.9** |
| **SIRN** | **S¨–rnak** | **1.48** | **220** | *i* P | **Pg** | **19 46 53.8** | **+0.2** |
| **SIRN** | **S¨–rnak** | **1.48** | **220** | P | **Pg** | **19 46 53.8** | **+0.2** |
| **EATA** | **Eleskirt** | **1.49** | **325** | *i* P | **Pn** | **19 46 52.2** | **+0.3** |
| **EATA** | **Eleskirt** | **1.49** | **325** | P | **Pn** | **19 46 52.2** | **+0.3** |
| **VRTB** | **Varto-Mus** | **1.75** | **288** | *e*PN | **Pb** | **19 46 56.1** | **-1.2** |
| **VRTB** | **Varto-Mus** | **1.75** | **288** | *i* P | **Pb** | **19 46 57.0** | **-0.3** |
| **VRTB** | **Varto-Mus** | **1.75** | **288** | *e*Pn | **Pb** | **19 46 56.1** | **-1.2** |
| **VRTB** | **Varto-Mus** | **1.75** | **288** | P | **Pb** | **19 46 57.0** | **-0.3** |
| **DIGO** | **Kars** | **1.78** | **354** | *i* P | **Pg** | **19 46 58.6** | **-0.6** |
| **DIGO** | **Kars** | **1.78** | **354** | P | **Pg** | **19 46 58.6** | **-0.6** |
| **HOMI** | **Horasan** | **1.92** | **317** | *i* P | **Pb** | **19 47 00.0** | **-0.1** |
| **BNGL** | **BINGOL** | **1.94** | **280** | *i* P | **Pb** | **19 46 59.4** | **-1.1** |
| **BTMN** | **Batman** | **1.99** | **248** | *i* P | **Pb** | **19 47 00.7** | **-0.5** |
| **BTMN** | **Batman** | **1.99** | **248** | P | **Pb** | **19 47 00.7** | **-0.5** |
| **KARS** | **Kars** | **2.02** | **349** | *e*PN | **Pn** | **19 47 00.2** | **+1.1** |
| **KARS** | **Kars** | **2.02** | **349** | *e*Pn | **Pn** | **19 47 00.2** | **+1.1** |
| **SENK** | **Senkaya-Erzuru** | **2.15** | **334** | *e*PN | **Pb** | **19 47 02.4** | **-1.6** |
| **SENK** | **Senkaya-Erzuru** | **2.15** | **334** | *e*Pn | **Pb** | **19 47 02.4** | **-1.6** |
| **BNGB** | **Bing¶l** | **2.31** | **288** | *e*PN | **Pn** | **19 47 04.0** | **+0.9** |
| **BINT** | **Bingol** | **2.45** | **276** | *e*PN | **Pn** | **19 47 04.0** | **+0.9** |
| **YEDI** | **Yedisu-Bingol** | **2.51** | **289** | *e*PN | **Pn** | **19 47 06.9** | **+1.1** |
| **YEDI** | **Yedisu-Bingol** | **2.51** | **289** | *e*Pn | **Pn** | **19 47 06.9** | **+1.1** |
| **MAZI** | **Mazidag** | **2.76** | **246** | *e*PN | **Pn** | **19 47 10.3** | **+1.1** |
| **MAZI** | **Mazidag** | **2.76** | **246** | *e*Pn | **Pn** | **19 47 10.3** | **+1.1** |
| **PTK** | **Pertek** | **3.30** | **276** | *e*PN | **Pn** | **19 47 18.5** | **+1.8** |
| **PTK** | **Pertek** | **3.30** | **276** | *e*Pn | **Pn** | **19 47 18.5** | **+1.8** |
| **SVRC** | **Sivrice-ELAZID** | **3.38** | **267** | *e*PN | **Pn** | **19 47 19.7** | **+1.9** |
| **SVRC** | **Sivrice-ELAZID** | **3.38** | **267** | *e*Pn | **Pn** | **19 47 19.7** | **+1.9** |

*NIED* ***24*** *19:54:00, 37°.00N×140°.60E, h5km, Mw3.6 Best double couple: M0 2.43000×10^14 NP1:φs=291.00000°, δ21.00000°, λ-122.00000°. NP2:φs144.00000°, δ73.00000°, λ-79.00000°.*
*ISCJB* ***24*** *19:54:43.7±0.5, 37°.00N±0°.03×140°.63E±0°.05, h19km±4km, mb3.5/8, Error ellipse: s-maj=6.4km s-min=4.3km az=23.2*
*JMA* ***24*** *19:54:44.0, 37°.00N×140°.54E, h6km±1km, M3.6 Broadband fault plane solution: P waves. NP1: φs=105.00000°, δ56.00000°, λ-97.00000°. NP2: φs298.00000°, δ34.00000°, λ-79.00000°. Principal axes: T Plg11.0000°, Azm200.0000°; N Plg6.0000°, Azm109.0000°; P Plg77.0000°, Azm351.0000°;*
*JMA Felt II J1.*
*IDC* ***24*** *19:54:48.7±2.7, 37°.05N×140°.54E, h50km±23km, mb3.3/8, mb1 3.5/9, mb1mx3.3/34, mbtmp3.6/9, ML3.7/1 Error ellipse: s-maj=23.5km s-min=16.6km az=119.0*
**ISC 24 19:54:44.0±1.0, 37°.00N±0°.03×140°.58E±0°.04, h13km±7km, n25, σ1s00/28, mb3.6/8, 7C-1D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ONAJ** | **Iwakimizuishiy** | **0.20** | **60** | ⇑P | **Pg** | **19 54 48.7** | **+0.1** |
| **JHO** | **Hitachi** | **0.39** | **181** | ⇑P | **Pg** | **19 54 51.5** | **-0.2** |
| JHO | | | | *e*S | **Sg** | **19 54 56.9** | **-0.1** |
| **JFK** | **Kawauchi** | **0.44** | **33** | ⇑P | **Pg** | **19 54 52.7** | **0.0** |
| JFK | | | | S | **Sg** | **19 54 58.9** | **+0.3** |
| **JSB** | **Shiboa** | **0.53** | **267** | ⇑P | **Pg** | **19 54 54.5** | **+0.2** |
| JSB | | | | S | **Sg** | **19 55 01.7** | **+0.3** |
| **JFT** | **Otama** | **0.55** | **340** | ⇑P | **Pg** | **19 54 54.7** | **+0.1** |
| JFT | | | | S | **Sg** | **19 55 02.3** | **+0.1** |
| **JFY** | **Yanaizu** | **0.81** | **301** | ⇓P | **Pb** | **19 54 59.0** | **-0.8** |
| JFY | | | | S | **Sb** | **19 55 09.2** | **-1.4** |
| **JYT** | **Yasato** | **0.83** | **202** | ⇑P | **Pb** | **19 54 59.2** | **-1.0** |
| JYT | | | | *e*S | **Sb** | **19 55 10.6** | **-0.6** |
| **JMM** | **Marumori** | **0.88** | **11** | ⇑P | **Pb** | **19 55 00.3** | **-0.8** |
| JMM | | | | *e*S | **Sb** | **19 55 11.8** | **-1.0** |
| **MJAR** | **Matsushiro Arr** | **1.96** | **257** | P | **Pn** | **19 55 18.1** | **+1.3** |
| | 18nm,0.3s,baz=76,slow=16,SNR=74 | | | | | | |
| MJAR | | | | S | **Sn** | **19 55 42.5** | **+1.3** |
| | 26nm,0.3s,baz=73,slow=26,SNR=15 | | | | | | |
| **MAT** | **Matsushiro** | **1.96** | **257** | P | **Pn** | **19 55 18.3** | **+1.5** |
| MAT | | | | S | **Sb** | **19 55 43.6** | **-0.1** |
| **ASAJ** | **Asahikawa** | **7.27** | **12** | P | **Pn** | **19 56 31.7** | **+1.8** |
| | 1.2nm,0.3s,baz=228,slow=9.8,SNR=9.4 | | | | | | |
| **SONM** | **Songino Array** | **27.25** | **304** | P | **P** | **20 00 27.2** | **-0.6** |
| | 0.5nm,0.8s,baz=112,slow=9.2,SNR=4.2 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy 28.71** | **120** | | T | T | 20 30 31.2 | |
| | baz=313,slow=75,SNR=16 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy 28.72** | **120** | | T | T | 20 30 33.2 | |
| | baz=313,slow=75,SNR=15 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy 28.73** | **120** | | T | T | 20 30 30.3 | |
| | baz=313,slow=75,SNR=13 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy 29.41** | **122** | | T | T | 20 31 23.1 | |
| | baz=314,slow=75,SNR=18 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy 29.41** | **122** | | T | T | 20 31 23.2 | |
| | baz=314,slow=75,SNR=25 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy 29.42** | **122** | | T | T | 20 31 24.3 | |
| | baz=314,slow=75,SNR=18 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.44** | **312** | P | **P** | **20 02 30.3** | **+0.2** |
| | 0.8nm,0.7s,baz=97,slow=6.0,SNR=4.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.57** | **302** | P | **P** | **20 02 48.0** | **+0.5** |
| | 0.4nm,0.7s,baz=88,slow=9.7,SNR=3.1 | | | | | | |
| **ILAR** | **Eielson Array** | **49.88** | **32** | P | **P** | **20 03 37.4** | **+0.8** |
| | 0.2nm,0.7s,baz=256,slow=9.1,SNR=3.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **56.94** | **187** | P | **P** | **20 04 28.5** | **-0.4** |
| | 0.5nm,0.5s,baz=1.7,slow=7.2,SNR=13 | | | | | | |
| **ASAR** | **Alice Springs** | **60.67** | **187** | P | **P** | **20 04 56.1** | **+1.3** |
| | 0.4nm,0.8s,baz=21,slow=6.0,SNR=3.9 | | | | | | |
| **FINES** | **FINESS Array B** | **68.53** | **332** | P | **P** | **20 05 43.3** | **-2.4** |
| | 4.1nm,1.0s,baz=36,slow=7.4,SNR=2.9 | | | | | | |
| **GERES** | **GERESS Array B** | **82.39** | **328** | P | **P** | **20 07 05.6** | **-0.1** |
| | 0.2nm,0.4s,baz=34,slow=7.1,SNR=3.7 | | | | | | |

**IDC 24 20:13:49.6±2.1, 5°.89S×151°.94E, h0km, mb3.2/3, mb1 3.5/3, mb1mx3.3/36, mbtmp3.2/3, Error ellipse: s-maj=134.1km s-min=30.8km az=127.0, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **22.09** | **229** | P | P | 20 18 46.9 | +0.4 |
| | 0.3nm,0.4s,baz=55,slow=10,SNR=5.4 | | | | | | |
| **ASAR** | **Alice Springs** | **24.77** | **223** | P | P | 20 19 13.1 | -0.2 |
| | 0.3nm,0.8s,baz=57,slow=9.8,SNR=3.6 | | | | | | |
| **ILAR** | **Eielson Array** | **83.49** | **22** | P | P | 20 26 19.2 | +0.2 |
| | 0.4nm,0.9s,baz=231,slow=4.6,SNR=5.0 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **149.81** | **286** | PKPbc | PKPbc | 20 33 42.0 | -0.7 |
| | 0.4nm,0.5s,baz=80,slow=2.6,SNR=6.3 | | | | | | |

**MEX 24 20:16:00.8±0.3, 14°.05N×91°.86W, h20km±202km, MD3.7, Guatemala**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PCIG** | | **2.11** | **322** | *e*P | Pn | 20 16 32.4 | -2.6 |
| PCIG | | | | *e*S | Sn | 20 16 56.8 | -3.9 |

*ISCJB* ***24*** *20:17:50.8±0.3, 39°.93N±0°.02×16°.05E±0°.03, h8km±2km, mb3.5/7, Error ellipse: s-maj=3.3km s-min=2.9km az=153.1*
*ROM* ***24*** *20:17:50.3±0.1, 39°.92N×16°.02E, h8km±1km, Ml3.3/26, Error ellipse: s-maj=1.8km s-min=1.3km az=62.0*
*IASPEI* ***24*** *20:17:51.6±0.9, 39°.92N±0°.02×16°.02E±0°.02, h4km±5km, mb3.9/7, Error ellipse: s-maj=3.3km s-min=2.8km az=49.3, GT5 selection from ISC bulletin GT5 identified by Bond¨jr and McLaughlin (2009) selection criteria Bond¨jr and McLaughlin, A new ground truth data set for seismic studies, Seism. Res. Let., 80, 465-472, 2009*
*CSEM* ***24*** *20:17:51.1±0.1, 39°.91N×16°.01E, h0km±1km, ML3.6/8, Error ellipse: s-maj=3.3km s-min=2.6km az=55.0*
*IDC* ***24*** *20:17:52.4±1.0, 40°.09N×15°.99E, h0km, mb3.6/8, mb1 3.6/13, mb1mx3.5/53, mbtmp3.5/13, ML3.0/5, Error ellipse: s-maj=20.1km s-min=14.4km az=90.0*
**ISC 24 20:17:51.9±0.7, 39°.92N±0°.02×16°.02E±0°.02, h4km±4km, n113, σ1s31/141, mb3.9/7, 24C-5D, Southern Italy**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **T0711** | **Rotonda (PZ)** | **0.04** | **64** | ⇑*i*Pg | **Pg** | **20 17 52.3** | **-0.7** |
| T0711 | | | | Sg | **Sg** | **20 17 53.4** | **-0.4** |
| | 187µm,0.3s | | | | | | |
| **MMN** | **Mormanno** | **0.04** | **217** | ⇑*i*Pg | **Pg** | **20 17 52.5** | **-0.4** |
| MMN | | | | Sg | **Sg** | **20 17 53.5** | **-0.1** |
| | 7µm,0.1s | | | | | | |
| **MMN** | **Mormanno** | **0.04** | **217** | ⇑*i*Pg | **Pg** | **20 17 52.5** | **-0.4** |
| MMN | | | | Sg | **Sg** | **20 17 53.5** | **-0.1** |
| | 7µm,0.1s | | | | | | |
| **CUC** | **Castrocucco** | **0.17** | **295** | ⇑*i*Pg | **Pg** | **20 17 54.7** | **-0.6** |
| CUC | | | | Sg | **Sg** | **20 17 57.9** | **+0.3** |
| | 8µm,0.5s | | | | | | |
| **CUC** | **Castrocucco** | **0.17** | **295** | ⇑*i*Pg | **Pg** | **20 17 54.7** | **-0.6** |
| CUC | | | | Sg | **Sg** | **20 17 57.9** | **+0.3** |
| | 8µm,0.5s | | | | | | |
| **SALB** | **San Lorenzo Be** | **0.25** | **100** | ⇑*e*Pg | **Pg** | **20 17 56.0** | **-0.8** |
| SALB | | | | Sg | **Sg** | **20 18 00.0** | **-0.2** |
| | 7µm,0.3s | | | | | | |
| **SALB** | **San Lorenzo Be** | **0.25** | **100** | ⇑*e*Pg | **Pg** | **20 17 56.0** | **-0.8** |
| SALB | | | | Sg | **Sg** | **20 18 00.0** | **-0.2** |
| | 7µm,0.3s | | | | | | |
| **SCHR** | **S. Chirico Rap** | **0.28** | **9** | ⇑*e*Pg | **Pg** | **20 17 56.5** | **-0.9** |
| SCHR | | | | Sg | **Sg** | **20 18 01.0** | **-0.1** |
| | 2µm,0.5s | | | | | | |
| **SIRI** | **Monte Sirino -** | **0.29** | **336** | ⇑*e*Pg | **Pg** | **20 17 56.9** | **-0.6** |
| SIRI | | | | Sg | **Sb** | **20 18 02.7** | **-2.2** |
| | 5µm,0.3s | | | | | | |
| **SIRI** | **Monte Sirino -** | **0.29** | **336** | ⇑*e*Pg | **Pg** | **20 17 56.9** | **-0.6** |
| SIRI | | | | Sg | **Sb** | **20 18 02.7** | **-2.2** |
| | 5µm,0.3s | | | | | | |
| **ORI** | **Oriolo Calabro** | **0.36** | **66** | ⇑*e*Pg | **Pg** | **20 17 58.2** | **-0.6** |
| | 9µm,0.5s | | | | | | |
| **ORI** | **Oriolo Calabro** | **0.36** | **66** | ⇑*e*Pg | **Pg** | **20 17 58.2** | **-0.6** |
| | 9µm,0.5s | | | | | | |
| **CET2** | **Cetraro** | **0.39** | **187** | ⇑*i*Pg | **Pg** | **20 17 58.8** | **-0.7** |
| CET2 | | | | Sg | **Sg** | **20 18 04.8** | **+0.2** |
| | 6µm,0.7s | | | | | | |
| **CET2** | **Cetraro** | **0.39** | **187** | ⇑*i*Pg | **Pg** | **20 17 58.8** | **-0.7** |
| CET2 | | | | Sg | **Sg** | **20 18 04.8** | **+0.2** |
| | 6µm,0.7s | | | | | | |
| **MTSN** | **Montesano sull** | **0.40** | **329** | Pg | **Pg** | **20 17 58.9** | **-0.8** |
| MTSN | | | | Sg | **Sb** | **20 18 06.0** | **-2.2** |
| | 2µm,0.5s | | | | | | |
| **MTSN** | **Montesano sull** | **0.40** | **329** | Pg | **Pg** | **20 17 58.9** | **-0.8** |
| MTSN | | | | Sg | **Sb** | **20 18 06.0** | **-2.2** |
| | 2µm,0.5s | | | | | | |
| **MGR** | **Morigerati** | **0.42** | **301** | Pg | **Pg** | **20 17 58.8** | **-1.2** |
| | 2µm,0.6s | | | | | | |
| **MGR** | **Morigerati** | **0.42** | **301** | Pg | **Pg** | **20 17 58.8** | **-1.2** |
| | 2µm,0.6s | | | | | | |
| **MCEL** | **Monticello** | **0.44** | **338** | Pg | **Pg** | **20 17 59.4** | **-0.9** |
| | 2µm,0.5s | | | | | | |
| **MCEL** | **Monticello** | **0.44** | **338** | Pg | **Pg** | **20 17 59.4** | **-0.9** |
| | 2µm,0.5s | | | | | | |
| **BULG** | **Bulgheria - Ca** | **0.52** | **288** | Pg | **Pg** | **20 18 00.8** | **-1.0** |
| | 2µm,0.6s | | | | | | |
| **BULG** | **Bulgheria - Ca** | **0.52** | **288** | Pg | **Pg** | **20 18 00.8** | **-1.0** |
| | 2µm,0.6s | | | | | | |
| **SLCN** | **Sala Consilina** | **0.56** | **328** | Pg | **Pg** | **20 18 01.4** | **-1.2** |
| | 3µm,0.5s | | | | | | |
| **SLCN** | **Sala Consilina** | **0.56** | **328** | Pg | **Pg** | **20 18 01.4** | **-1.2** |
| | 3µm,0.5s | | | | | | |
| **CELI** | **Celico** | **0.64** | **144** | Pg | **Pg** | **20 18 03.5** | **-0.7** |
| | 1µm,0.5s | | | | | | |
| **CELI** | **Celico** | **0.64** | **144** | Pg | **Pg** | **20 18 03.5** | **-0.7** |
| | 1µm,0.5s | | | | | | |
| **CMPR** | **Campora** | **0.68** | **306** | Pg | **Pg** | **20 18 03.4** | **-1.5** |
| | 2µm,0.5s | | | | | | |
| **CMPR** | **Campora** | **0.68** | **306** | Pg | **Pg** | **20 18 03.4** | **-1.5** |
| | 2µm,0.5s | | | | | | |
| **PZUN** | **Potenza** | **0.74** | **347** | Pg | **Pb** | **20 18 06.3** | **-1.1** |
| | 628nm,0.8s | | | | | | |
| **PZUN** | **Potenza** | **0.74** | **347** | Pg | **Pb** | **20 18 06.3** | **-1.1** |
| | 628nm,0.8s | | | | | | |
| **PIPA** | **Pietrapaola** | **0.75** | **125** | Pg | **Pb** | **20 18 06.4** | **-1.1** |
| | 386nm,0.4s | | | | | | |
| **PIPA** | **Pietrapaola** | **0.75** | **125** | Pg | **Pb** | **20 18 06.4** | **-1.1** |
| | 386nm,0.4s | | | | | | |
| **MIGL** | **Miglionico** | **0.76** | **25** | Pg | **Pg** | **20 18 04.8** | **-1.6** |
| | 2µm,0.6s | | | | | | |
| **MIGL** | **Miglionico** | **0.76** | **25** | Pg | **Pg** | **20 18 04.8** | **-1.6** |
| | 2µm,0.6s | | | | | | |
| **CDRU** | **Civita di Ruta** | **0.79** | **316** | Pg | **Pg** | **20 18 05.3** | **-1.7** |
| | 1µm,1.1s | | | | | | |
| **CDRU** | **Civita di Ruta** | **0.79** | **316** | Pg | **Pg** | **20 18 05.3** | **-1.7** |
| | 1µm,1.1s | | | | | | |
| **ACER** | **Acerenza** | **0.87** | **356** | Pg | **Pg** | **20 18 07.1** | **-1.4** |
| | 2µm,0.8s | | | | | | |
| **ACER** | **Acerenza** | **0.87** | **356** | Pg | **Pg** | **20 18 07.1** | **-1.4** |
| | 2µm,0.8s | | | | | | |
| **MRLC** | **Muro Lucano** | **0.93** | **334** | Pg | **Pg** | **20 18 09.3** | **-0.4** |
| | 557nm,0.7s | | | | | | |
| **MRLC** | **Muro Lucano** | **0.93** | **334** | Pg | **Pg** | **20 18 09.3** | **-0.4** |
| | 557nm,0.7s | | | | | | |
| **TIP** | **Timpagrande** | **0.94** | **142** | Pg | **Pg** | **20 18 09.5** | **-0.3** |
| | 357nm,0.8s | | | | | | |
| **TIP** | **Timpagrande** | **0.94** | **142** | Pg | **Pg** | **20 18 09.5** | **-0.3** |
| | 357nm,0.8s | | | | | | |
| **SERS** | **Sersale** | **1.02** | **149** | Pg | **Pg** | **20 18 11.1** | **-0.4** |
| | 412nm,0.7s | | | | | | |
| **SERS** | **Sersale** | **1.02** | **149** | Pg | **Pg** | **20 18 11.1** | **-0.4** |
| | 412nm,0.7s | | | | | | |
| **SG1** | **Sgolgore (BA)** | **1.05** | **29** | *e*Pg | **Pb** | **20 18 12.6** | **0.0** |
| SG1 | | | | Sg | **Sb** | **20 18 26.1** | **-0.6** |
| **TAR1** | **Taranto** | **1.14** | **58** | *e*Pg | **Pg** | **20 18 13.4** | **-0.4** |
| TAR1 | | | | Sg | **Sg** | **20 18 28.1** | **-0.5** |
| **MRVN** | **Minervino Murg** | **1.15** | **7** | Pg | **Pg** | **20 18 12.8** | **-1.1** |
| | 348nm,0.9s | | | | | | |
| **MRVN** | **Minervino Murg** | **1.15** | **7** | Pg | **Pg** | **20 18 12.8** | **-1.1** |
| | 348nm,0.9s | | | | | | |
| **CDT** | **Castel del Mon** | **1.18** | **9** | *e*Pg | **Pg** | **20 18 13.7** | **-0.8** |
| **SNAL** | **S. Angelo Dei** | **1.18** | **329** | Pg | **Pg** | **20 18 14.0** | **-0.5** |
| | 2µm,1.3s | | | | | | |
| **SNAL** | **S. Angelo Dei** | **1.18** | **329** | Pg | **Pg** | **20 18 14.0** | **-0.5** |
| | 2µm,1.3s | | | | | | |
| **JOPP** | **Joppolo** | **1.32** | **185** | Pg | **Pg** | **20 18 14.7** | **-2.4** |
| | 462nm,0.8s | | | | | | |
| **JOPP** | **Joppolo** | **1.32** | **185** | Pg | **Pg** | **20 18 14.7** | **-2.4** |
| | 462nm,0.8s | | | | | | |
| **CGL1** | **Geglie Messapi** | **1.33** | **56** | *e*Pg | **Pg** | **20 18 16.7** | **-0.8** |
| CGL1 | | | | Sg | **Sg** | **20 18 32.0** | **-2.8** |
| **BAI** | **Bari** | **1.35** | **29** | *e*Pg | **Pb** | **20 18 18.3** | **+0.5** |
| BAI | | | | Sg | **Sn** | **20 18 36.1** | **+0.2** |
| **FASA** | **Fasano** | **1.36** | **48** | *e*Pg | **Pg** | **20 18 16.6** | **-1.3** |
| **MSCL** | **Scilla** | **1.69** | **186** | Pg | **Pn** | **20 18 19.9** | **-2.4** |
| | 541nm,0.8s | | | | | | |
| **MSRU** | **Castanea** | **1.70** | **194** | Pg | **Pn** | **20 18 20.1** | **-2.2** |
| | 298nm,0.4s | | | | | | |
| **MS1** | **Monte Sant'Ang** | **1.78** | **358** | *e*Pg | **Pg** | **20 18 26.0** | **-0.1** |
| MS1 | | | | Sg | **Sg** | **20 18 49.7** | **+0.5** |
| **VAE** | **Valguarnera** | **2.74** | **208** | Pn | **Pb** | **20 18 39.2** | **-2.3** |
| | 1.0nm,0.3s,baz=18,slow=19,SNR=3.9 | | | | | | |
| VAE | | | | Sn | **Sb** | **20 19 15.7** | **+0.2** |
| | 1.1nm,0.3s,baz=29,slow=19,SNR=2.8 | | | | | | |
| **STON** | **Ston** | **3.21** | **23** | *e*Pn | **Pn** | **20 18 42.0** | **-1.0** |
| STON | | | | Sn | **Sn** | **20 19 21.8** | **+0.2** |
| **STON** | **Ston** | **3.21** | **23** | *e*Pn | **Pn** | **20 18 42.0** | **-1.0** |
| STON | | | | Sn | **Sn** | **20 19 21.8** | **+0.2** |
| **PDG** | **Podgorica** | **3.50** | **43** | ⇑*i*P | **Pn** | **20 18 46.7** | **-0.3** |
| **PDG** | **Podgorica** | **3.50** | **43** | ⇑*i*P | **Pn** | **20 18 46.7** | **-0.3** |
| **OHR** | **Ohrid** | **3.83** | **70** | *e*Pn | **Pn** | **20 18 52.5** | **+0.8** |
| **KRUS** | **Krusevo** | **4.23** | **68** | *i* Pn | **Pn** | **20 18 57.7** | **+0.5** |
| **BBLS** | **Lazići** | **4.68** | **32** | *e*Pn | **Pn** | **20 19 04.4** | **+1.0** |
| **NVLJ** | **Novalja** | **4.72** | **350** | *e*Pn | **Pn** | **20 19 03.0** | **-0.8** |
| NVLJ | | | | Sn | **Sn** | **20 19 58.5** | **-0.4** |
| **NVLJ** | **Novalja** | **4.72** | **350** | *e*Pn | **Pn** | **20 19 02.9** | **-0.8** |
| NVLJ | | | | Sn | **Sn** | **20 19 58.5** | **-0.4** |
| **IVAS** | **Ivanjica** | **4.79** | **39** | *e*Pn | **Pn** | **20 19 04.3** | **-0.5** |
| **SELS** | **Selova** | **5.05** | **48** | *e*Pn | **Pn** | **20 19 08.6** | **+0.2** |
| **DIVS** | **Divibare** | **5.12** | **34** | *e*Pn | **Pn** | **20 19 08.9** | **-0.4** |
| **BARS** | **Barje** | **5.23** | **55** | *e*Pn | **Pn** | **20 19 11.0** | **+0.1** |
| **GRUS** | **Gruza** | **5.29** | **40** | *e*Pn | **Pn** | **20 19 10.2** | **-1.4** |
| **TEKS** | **Tekeris** | **5.31** | **28** | *e*Pn | **Pn** | **20 19 11.0** | **-0.9** |
| **TRUS** | **Trudelj** | **5.40** | **36** | *e*Pn | **Pn** | **20 19 12.5** | **-0.6** |
| **OZLJ** | **Ozalj** | **5.71** | **356** | *e*Pn | **Pn** | **20 19 18.7** | **+1.4** |
| **OZLJ** | **Ozalj** | **5.71** | **356** | *e*Pn | **Pn** | **20 19 18.7** | **+1.4** |
| **FGSL** | **Fruska Gora** | **5.94** | **27** | *e*Pn | **Pn** | **20 19 19.5** | **-1.0** |
| **ZAPS** | **Zavoj** | **5.98** | **54** | *e*Pn | **Pn** | **20 19 22.4** | **+1.2** |
| **VTS** | **Vitosha** | **6.04** | **61** | ⇑*i*P | **Pn** | **20 19 22.8** | **+0.7** |
| **VTS** | **Vitosha** | **6.04** | **61** | ⇑*i*P | **Pn** | **20 19 22.8** | **+0.7** |
| **ZAGS** | **Zajecar** | **6.05** | **48** | *e*Pn | **Pn** | **20 19 22.5** | **+0.4** |
| **MDVR** | **Moldovita** | **6.43** | **39** | ⇑*i*P | **Pn** | **20 19 26.9** | **-0.5** |
| **MDVR** | **Moldovita** | **6.43** | **39** | ⇑*i*P | **Pn** | **20 19 26.9** | **-0.5** |
| **KEST** | **Kesra** | **6.74** | **234** | Pn | **Pn** | **20 19 34.6** | **+3.0** |
| | 0.3nm,0.3s,baz=11,slow=19,SNR=2.4 | | | | | | |
| **BZS** | **Buzias** | **7.02** | **34** | ⇓*i*P | **Pn** | **20 19 36.0** | **+0.6** |
| **BZS** | **Buzias** | **7.02** | **34** | ⇓*i*P | **Pn** | **20 19 36.0** | **+0.6** |
| **SIRR** | **Siria** | **7.57** | **31** | ⇑*i*P | **Pn** | **20 19 43.9** | **+1.0** |
| **SIRR** | **Siria** | **7.57** | **31** | ⇑*i*P | **Pn** | **20 19 43.9** | **+1.0** |
| **MOA** | **Molln** | **8.03** | **352** | *i* Pn | **Pn** | **20 19 51.1** | **+1.9** |
| MOA | | | | *e*Sn | **Sn** | **20 21 21.7** | **+1.3** |
| | 2.0nm,0.6s | | | | | | |
| **MOA** | **Molln** | **8.03** | **352** | Pn | **Pn** | **20 19 51.1** | **+1.9** |
| MOA | | | | Sn | **Sn** | **20 21 21.7** | **+1.3** |
| | 2.0nm,0.6s | | | |

*msh5.3/4*
*MOS* ***24*** *20:49:03.6±0.8,43°.60N×144°.41E,h152km,mb4.4/23, Error ellipse: s-maj=8.6km s-min=5.7km az=74.6*
*JMA* ***24*** *20:49:04.7±0.1,43°.51N×144°.49E,h150km±1km,M4.0*
*JMA Felt II J1.*
*NEIC* ***24*** *20:49:04.7±0.4,43°.51N×144°.46E,h148km±4km,mb4.8/62, Error ellipse: s-maj=6.9km s-min=3.2km az=139.0*
*NEIC Recorded [2 JMA] in eastern Hokkaido.*
*IDC* ***24*** *20:49:05.3±1.0,43°.55N×144°.47E,h153km±7km,mb3.7/17, mb1 3.8/20,mb1mx3.6/54,mbtmp4.1/20,MS3.2/2, Ms1 3.2/2,ms1mx2.6/45,Error ellipse: s-maj=13.9km s-min=10.8km az=137.0*

**ISC 24 20:49:04.7±0.5,43°.54N±0°.04×144°.45E±0°.04,h150km±4km, n230,σ1§02/264,mb4.7/86,20C-5D,Hokkaido region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | h | m | s | ISC |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | | | | |
| **JNK** | **Nakash** | **0.20** | **76** | ⇓P | | **Pn** | **20** | **49** | **25.1** | **+0.2** |
| JNK | | | | *e*S | | **Sn** | **20** | **49** | **40.1** | **-0.3** |
| **JAR** | **Ashorobuto** | **0.55** | **244** | ⇑P | | **Pn** | **20** | **49** | **26.8** | **+0.5** |
| JAR | | | | *e*S | | **Sn** | **20** | **49** | **43.2** | **+0.5** |
| **JAK** | **Akkeshi** | **0.57** | **161** | ⇑P | | **Pn** | **20** | **49** | **26.1** | **-0.3** |
| JAK | | | | *e*S | | **Sn** | **20** | **49** | **42.1** | **-0.8** |
| **JTKR** | **Abashiri--Toko** | **0.58** | **318** | ⇑P | | **Pn** | **20** | **49** | **26.8** | **+0.4** |
| JTKR | | | | *e*S | | **Sn** | **20** | **49** | **42.9** | **-0.2** |
| **JRA** | **Rausu** | **0.63** | **50** | ⇓P | | **Pn** | **20** | **49** | **26.9** | **+0.2** |
| JRA | | | | *e*S | | **Sn** | **20** | **49** | **43.8** | **+0.3** |
| **JOB** | **Onbets** | **0.78** | **216** | ⇑P | | **Pn** | **20** | **49** | **28.1** | **+0.4** |
| JOB | | | | *e*S | | **Sn** | **20** | **49** | **45.1** | **-0.1** |
| **GLVR** | **Golovnino** | **0.80** | **75** | *e*PN | | **Pn** | **20** | **49** | **27.3** | **-0.5** |
| GLVR | | | | *e*S | | **Sn** | **20** | **49** | **45.3** | **-0.2** |
| **GLVR** | **Golovnino** | **0.80** | **75** | *e*P | | **Pn** | **20** | **49** | **27.3** | **-0.5** |
| GLVR | | | | *e*S | | **Sn** | **20** | **49** | **45.3** | **-0.2** |
| **JMP** | **Maruseppu** | **0.92** | **301** | ⇑P | | **Pn** | **20** | **49** | **29.1** | **+0.3** |
| JMP | | | | *e*S | | **Sn** | **20** | **49** | **47.0** | **-0.2** |
| **NEM2** | **Nemuro 2** | **0.96** | **100** | ⇓P | | **Pn** | **20** | **49** | **28.4** | **-0.6** |
| NEM2 | | | | *e*S | | **Sn** | **20** | **49** | **45.6** | **-2.0** |
| **HRK** | **Horoka** | **0.96** | **266** | *e*P | | **Pn** | **20** | **49** | **29.9** | **+0.7** |
| **GRPR** | **Tuman** | **1.06** | **64** | *e*PN | | **Pn** | **20** | **49** | **29.6** | **-0.3** |
| GRPR | | | | *e*S | | **Sn** | **20** | **49** | **50.7** | **+1.4** |
| **GRPR** | **Tuman** | **1.06** | **64** | *e*P | | **Pn** | **20** | **49** | **29.6** | **-0.3** |
| GRPR | | | | *e*S | | **Sn** | **20** | **49** | **50.7** | **+1.4** |
| **LAGR** | **Lagunnoye** | **1.10** | **61** | *e*PN | | **Pn** | **20** | **49** | **30.3** | **+0.1** |
| LAGR | | | | *e*S | | **Sn** | **20** | **49** | **50.3** | **+0.5** |
| **LAGR** | **Lagunnoye** | **1.10** | **61** | *e*P | | **Pn** | **20** | **49** | **30.3** | **+0.1** |
| LAGR | | | | *e*S | | **Sn** | **20** | **49** | **50.3** | **+0.5** |
| **YUK** | **Yuzh-Kuril'sk** | **1.14** | **64** | *e*PN | | **Pn** | **20** | **49** | **30.8** | **+0.1** |
| YUK | | | | *e*S | | **Sn** | **20** | **49** | **50.8** | **+0.3** |
| YUK | | | | pmax | pmax | | | | | |
| | comp=E,108nm,0.2s | | | | | | | | | |
| YUK | | | | pmax | pmax | | | | | |
| | comp=Z,2μm,0.2s | | | | | | | | | |
| YUK | | | | pmax | pmax | | | | | |
| | comp=N,512nm,0.3s | | | | | | | | | |
| YUK | | | | smax | smax | | | | | |
| | comp=E,1μm,0.1s | | | | | | | | | |
| YUK | | | | smax | smax | | | | | |
| | comp=N,2μm,0.4s | | | | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **1.14** | **64** | *e*P | | **Pn** | **20** | **49** | **30.7** | **+0.1** |
| YUK | | | | AMB | AMB | 20 49 31.4 | | | | |
| | comp=N,510nm,0.3s | | | | | | | | | |
| YUK | | | | AMB | AMB | 20 49 31.4 | | | | |
| | comp=N,102nm,0.3s | | | | | | | | | |
| YUK | | | | AMB | AMB | 20 49 31.4 | | | | |
| | comp=N,230nm,0.3s | | | | | | | | | |
| YUK | | | | *e*S | | **Sn** | **20** | **49** | **50.5** | **0.0** |
| YUK | | | | A | A | 20 49 55.2 | | | | |
| | comp=N,200nm,0.3s | | | | | | | | | |
| YUK | | | | A | A | 20 49 55.2 | | | | |
| | comp=N,1μm,0.3s | | | | | | | | | |
| **JCH** | **Churui** | **1.22** | **221** | ⇑P | | **Pn** | **20** | **49** | **31.3** | **-0.1** |
| JCH | | | | *e*S | | **Sn** | **20** | **49** | **50.9** | **-0.9** |
| **JKK2** | **Kamakawa 2** | **1.28** | **286** | ⇑P | | **Pn** | **20** | **49** | **32.5** | **+0.5** |
| JKK2 | | | | *e*S | | **Sn** | **20** | **49** | **53.9** | **+1.0** |
| **JFR** | **Furan** | **1.40** | **255** | ⇑P | | **Pn** | **20** | **49** | **33.7** | **+0.5** |
| **JKA** | **Kamikawa-asahi** | **1.46** | **294** | *e*P | | **Pn** | **20** | **49** | **34.7** | **+0.9** |
| **ASAJ** | **Asahikawa** | **1.46** | **294** | P | | **Pn** | **20** | **49** | **34.7** | **+0.9** |
| | comp=N,210nm,0.3s,baz=146,slow=3.8,SNR=1763 | | | | | | | | | |
| ASAJ | | | | S | | **Sn** | **20** | **49** | **57.6** | **+1.5** |
| | comp=N,21nm,0.3s,baz=72,slow=31,SNR=9.1 | | | | | | | | | |
| **ASAJ** | **Asahikawa** | **1.46** | **294** | *e*P | | **Pn** | **20** | **49** | **34.6** | **+0.8** |
| **ASAJ** | **Asahikawa** | **1.46** | **294** | *e*Pn | | **Pn** | **20** | **49** | **34.6** | **+0.8** |
| **SHO** | **Shikotan** | **1.76** | **78** | *i* PN | | **Pn** | **20** | **49** | **36.2** | **-0.7** |
| SHO | | | | *i* S | | **Sn** | **20** | **49** | **59.2** | **-2.6** |
| SHO | | | | pmax | pmax | | | | | |
| | comp=Z,2μm,0.3s | | | | | | | | | |
| SHO | | | | pmax | pmax | | | | | |
| | comp=N,397nm,0.2s | | | | | | | | | |
| SHO | | | | pmax | pmax | | | | | |
| | comp=E,867nm,0.3s | | | | | | | | | |
| SHO | | | | smax | smax | | | | | |
| | comp=N,8μm,0.4s | | | | | | | | | |
| SHO | | | | smax | smax | | | | | |
| | comp=E,8μm,0.4s | | | | | | | | | |
| **SHO** | **Shikotan** | **1.76** | **78** | *e*P | | **Pn** | **20** | **49** | **36.3** | **-0.7** |
| SHO | | | | AMB | AMB | 20 49 36.4 | | | | |
| | comp=E,150nm,0.3s | | | | | | | | | |
| SHO | | | | *i* S | | **Sn** | **20** | **49** | **59.2** | **-2.6** |
| SHO | | | | A | A | 20 50 00.0 | | | | |
| | comp=E,780nm,0.4s | | | | | | | | | |
| SHO | | | | A | A | 20 50 00.0 | | | | |
| | comp=E,750nm,0.4s | | | | | | | | | |
| **JNBK** | **Urakawa-nobuka** | **1.77** | **225** | ⇑P | | **Pn** | **20** | **49** | **36.8** | **-0.4** |
| JNBK | | | | *e*S | | **Sn** | **20** | **50** | **00.4** | **-1.6** |
| **ERM** | **Erimo** | **1.79** | **212** | *c i* PN | | **Pn** | **20** | **49** | **38.0** | **+0.6** |
| ERM | | | | pmax | pmax | | | | | |
| | comp=Z,225nm,0.4s | | | | | | | | | |
| **ERM** | **Erimo** | **1.79** | **212** | *e*P | | **Pn** | **20** | **49** | **38.0** | **+0.6** |
| **ERM** | **Erimo** | **1.79** | **212** | *e*Pn | | **Pn** | **20** | **49** | **38.3** | **+0.9** |
| **JSE** | **Soyaes** | **1.95** | **317** | ⇑P | | **Pn** | **20** | **49** | **39.5** | **+0.3** |
| **JHR** | **Hokuryu** | **1.99** | **277** | ⇑P | | **Pn** | **20** | **49** | **40.6** | **+1.0** |
| **KUR** | **Kuril'sk** | **2.98** | **54** | *d i* PN | | **Pn** | **20** | **49** | **52.6** | **+0.9** |
| KUR | | | | *i* S | | **Sn** | **20** | **50** | **29.7** | **+1.6** |
| KUR | | | | pmax | pmax | | | | | |
| | comp=Z,121nm,0.7s | | | | | | | | | |
| KUR | | | | pmax | pmax | | | | | |
| | comp=N,38nm,0.4s | | | | | | | | | |
| KUR | | | | pmax | pmax | | | | | |
| | comp=E,26nm,0.2s | | | | | | | | | |
| KUR | | | | smax | smax | | | | | |
| | comp=N,362nm,0.5s | | | | | | | | | |
| KUR | | | | smax | smax | | | | | |
| | comp=E,170nm,0.3s | | | | | | | | | |
| **KUR** | **Kuril'sk** | **2.98** | **54** | *e*P | | **Pn** | **20** | **49** | **52.2** | **+0.5** |
| KUR | | | | AMB | AMB | 20 49 55.0 | | | | |
| | comp=E,68nm,0.2s | | | | | | | | | |
| KUR | | | | *e*S | | **Sn** | **20** | **50** | **29.1** | **+1.0** |
| KUR | | | | A | A | 20 50 30.7 | | | | |
| | comp=E,362nm,0.4s | | | | | | | | | |
| KUR | | | | A | A | 20 50 30.7 | | | | |
| | comp=E,170nm,0.4s | | | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **3.62** | **341** | ⇑*e*PN | | **Pn** | **20** | **50** | **00.0** | **+0.2** |
| YSS | | | | *e*S | | **Sn** | **20** | **50** | **42.8** | **0.0** |
| YSS | | | | pmax | pmax | | | | | |
| | comp=Z,40nm,0.9s | | | | | | | | | |
| YSS | | | | smax | smax | | | | | |
| | comp=E,80nm,0.9s | | | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **3.62** | **341** | *e*P | | **Pn** | **20** | **50** | **00.1** | **+0.2** |
| YSS | | | | AMB | AMB | 20 50 00.9 | | | | |
| | comp=E,40nm,0.9s | | | | | | | | | |
| YSS | | | | *e*S | | **Sn** | **20** | **50** | **42.8** | **0.0** |
| YSS | | | | A | A | 20 50 45.7 | | | | |
| | comp=E,80nm,0.9s | | | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **3.62** | **341** | *e*Pn | | **Pn** | **20** | **50** | **00.1** | **+0.2** |
| **UGL** | **Uglegorsk** | **5.78** | **344** | *e*PN | | **Pn** | **20** | **50** | **26.2** | **-2.1** |
| UGL | | | | *e*S | | **Sn** | **20** | **51** | **31.6** | **-2.2** |
| **UGL** | **Uglegorsk** | **5.78** | **344** | *e*P | | **Pn** | **20** | **50** | **26.2** | **-2.1** |
| **HABR** | **Khabarovsk** | **8.19** | **310** | *e*PN | | **Pn** | **20** | **50** | **58.4** | **-2.1** |
| HABR | | | | *e*S | | **Sn** | **20** | **52** | **29.6** | **-2.0** |
| HABR | | | | pmax | pmax | | | | | |
| | comp=E,33nm,1.2s | | | | | | | | | |
| HABR | | | | pmax | pmax | | | | | |
| | comp=Z,16nm,1.2s | | | | | | | | | |
| HABR | | | | pmax | pmax | | | | | |
| | comp=N,17nm,1.1s | | | | | | | | | |
| HABR | | | | MLR | MLR | | | | | |
| | comp=Z,15nm,8.0s | | | | | | | | | |
| **HABR** | **Khabarovsk** | **8.19** | **310** | *e*P | | **Pn** | **20** | **50** | **58.4** | **-2.1** |
| **MJB9** | **Matsu-Tunnel** | **8.46** | **217** | *e*Pn | | **Pn** | **20** | **51** | **03.8** | **-0.5** |
| **MJAR** | **Matsushiro Arr** | **8.46** | **216** | P | | **Pn** | **20** | **51** | **04.0** | **-0.3** |
| | comp=Z,0.8nm,0.3s,baz=24,slow=14,SNR=8.0 | | | | | | | | | |
| MJAR | | | | S | | **Sn** | **20** | **52** | **36.2** | **-2.2** |
| | comp=Z,0.3nm,0.3s,baz=28,slow=30,SNR=2.4 | | | | | | | | | |
| **MAJO** | **Matsushiro** | **8.47** | **216** | ⇑*e*PN | | **Pn** | **20** | **51** | **04.5** | **+0.2** |
| **MAJO** | **Matsushiro** | **8.47** | **216** | *e*P | | **Pn** | **20** | **51** | **04.5** | **+0.2** |
| **MAJO** | **Matsushiro** | **8.47** | **216** | *e*Pn | | **Pn** | **20** | **51** | **03.9** | **-0.4** |
| **USRK** | **Ussuriysk Ar.** | **9.03** | **279** | P | | **Pn** | **20** | **51** | **11.3** | **-0.4** |
| | comp=Z,0.1nm,0.3s,baz=88,slow=16,SNR=2.9 | | | | | | | | | |
| **INU** | **Inuyama** | **9.99** | **218** | *e*Pn | | **Pn** | **20** | **51** | **23.6** | **-0.9** |
| **KLR** | **Kul'dur** | **10.45** | **307** | P | | **Pn** | **20** | **51** | **33.0** | **+2.5** |
| | comp=Z,0.0nm,0.3s,baz=120,slow=16,SNR=3.1 | | | | | | | | | |
| **SKR** | **Severo-Kuril's** | **10.68** | **44** | ⇑*e*PN | | **Pn** | **20** | **51** | **31.5** | **-2.0** |
| **SKR** | **Severo-Kuril's** | **10.68** | **44** | *e*P | | **Pn** | **20** | **51** | **31.5** | **-2.0** |
| **PEA0B** | **Petropavlovsk-** | **13.00** | **38** | *e*Pn | | **Pn** | **20** | **52** | **02.4** | **-1.1** |
| **PETK** | **Petropavlovsk-** | **13.00** | **38** | P | | **Pn** | **20** | **52** | **00.3** | **-3.2** |
| | comp=Z,0.8nm,0.3s,baz=219,slow=7.8,SNR=14 | | | | | | | | | |
| **PETK** | **Petropavlovsk-** | **13.00** | **38** | *e*PN | | **Pn** | **20** | **52** | **02.4** | **-1.2** |
| **PETK** | **Petropavlovsk-** | **13.00** | **38** | *e*Pn | | **Pn** | **20** | **52** | **02.4** | **-1.2** |
| **PET** | **Petropavlovsk** | **13.38** | **40** | ⇑*e*PN | | **Pn** | **20** | **52** | **06.2** | **-2.2** |
| PET | | | | pmax | pmax | | | | | |
| | comp=Z,28nm,1.2s | | | | | | | | | |
| **PET** | **Petropavlovsk** | **13.38** | **40** | *e*P | | **Pn** | **20** | **52** | **06.2** | **-2.2** |
| **CN2** | **Changchun** | **13.76** | **278** | *e*P | | **Pn** | **20** | **52** | **12.8** | **-0.6** |
| CN2 | | | | pmax | pmax | | | | | |
| | comp=E,10.0nm,0.5s | | | | | | | | | |
| **KSRS** | **Korea Array** | **13.96** | **250** | P | | **Pn** | **20** | **52** | **15.6** | **-0.4** |
| | comp=Z,1.1nm,0.3s,baz=57,slow=12,SNR=3.5 | | | | | | | | | |
| **SEY** | **Seymchan** | **19.97** | **11** | P | | **P** | **20** | **53** | **22.6** | **-2.3** |
| | comp=Z,0.4nm,0.3s,baz=186,slow=8.9,SNR=16 | | | | | | | | | |
| **SEY** | **Seymchan** | **19.97** | **11** | ⇓*e*P | | **P** | **20** | **53** | **23.2** | **-1.7** |
| **YAK** | **Yakutsk** | **20.47** | **340** | *e*P | | **P** | **20** | **53** | **30.3** | **+0.1** |
| **YAK** | **Yakutsk** | **20.47** | **340** | *e*P | | **P** | **20** | **53** | **29.3** | **-0.9** |
| **YAK** | **Yakutsk** | **20.47** | **340** | *e*P | | **P** | **20** | **53** | **30.3** | **+0.1** |
| **NJ2** | **Nanjing** | **23.16** | **249** | *e*P | | **P** | **20** | **53** | **57.3** | **-0.4** |
| NJ2 | | | | pmax | pmax | | | | | |
| | comp=Z,12nm,0.5s | | | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **24.43** | **275** | *e*P | | **P** | **20** | **54** | **09.4** | **+0.1** |
| HHC | | | | S | | **S** | **20** | **58** | **15.8** | **-2.4** |
| HHC | | | | pmax | pmax | | | | | |
| | comp=E,13nm,0.8s | | | | | | | | | |
| HHC | | | | pmax | pmax | | | | | |
| | comp=Z,260nm,5.0s | | | | | | | | | |
| **YOJ** | **Yonaguni jima** | **25.91** | **230** | *e*P | | **P** | **20** | **54** | **22.6** | **-0.1** |
| YOJ | | | | pmax | pmax | | | | | |
| | comp=Z,163nm,1.1s | | | | | | | | | |
| **YOJ** | **Yonaguni jima** | **25.91** | **230** | *e*P | | **P** | **20** | **54** | **22.6** | **-0.1** |
| | comp=E,163nm,1.1s | | | | | | | | | |
| **ULN** | **Ulaanbaatar** | **26.30** | **293** | ⇑*e*P | | **P** | **20** | **54** | **27.2** | **+0.9** |
| ULN | | | | pmax | pmax | | | | | |
| | comp=Z,10.0nm,2.2s | | | | | | | | | |
| **ULN** | **Ulaanbaatar** | **26.30** | **293** | *e*P | | **P** | **20** | **54** | **27.2** | **+0.9** |
| **SONA1** | **Songino Array** | **26.74** | **293** | *e*P | | **P** | **20** | **54** | **30.9** | **+0.7** |
| **SONM** | **Songino Array** | **26.74** | **293** | P | | **P** | **20** | **54** | **31.0** | **+0.8** |
| | comp=Z,4.7nm,0.6s,baz=92,slow=8.5,SNR=36 | | | | | | | | | |
| **SONM** | **Songino Array** | **26.74** | **293** | P | | **P** | **20** | **54** | **31.0** | **+0.8** |
| SONM | | | | pmax | pmax | | | | | |
| | comp=Z,5.0nm,0.6s | | | | | | | | | |
| **SSLB** | **Suanglung** | **27.59** | **232** | *e*P | | **P** | **20** | **54** | **38.4** | **+0.5** |
| | comp=Z,64nm,1.5s | | | | | | | | | |
| **YULB** | **Yu-li** | **27.71** | **231** | *e*P | | **P** | **20** | **54** | **38.0** | **-0.8** |
| | comp=Z,38nm,1.3s | | | | | | | | | |
| **TPUB** | **Ta-pu** | **28.16** | **232** | *e*P | | **P** | **20** | **54** | **42.1** | **-0.8** |
| | comp=Z,169nm,1.8s | | | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **30.29** | **135** | T | | T | 21 | 26 | 30.4 | |
| | baz=328,slow=75 | | | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **30.30** | **135** | T | | T | 21 | 26 | 28.9 | |
| | baz=328,slow=75 | | | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **30.30** | **134** | T | | T | 21 | 26 | 31.8 | |
| | baz=328,slow=75 | | | | | | | | | |
| **ENH** | **Enshi** | **30.70** | **256** | *e*P | | **P** | **20** | **55** | **05.1** | **-0.2** |
| | comp=Z,16nm,1.4s | | | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **31.21** | **136** | T | | T | 21 | 27 | 35.0 | |
| | baz=328,slow=76 | | | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **31.21** | **136** | T | | T | 21 | 27 | 42.5 | |
| | baz=328,slow=76 | | | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **31.23** | **136** | T | | T | 21 | 27 | 37.7 | |
| | baz=328,slow=76 | | | | | | | | | |
| **LZH** | **Lanzhou** | **31.82** | **270** | *e*P | | **P** | **20** | **55** | **14.6** | **-0.6** |
| LZH | | | | pP | | pP | 20 | 55 | 47.3 | +0.2 |
| LZH | | | | sP | | sP | 20 | 56 | 05.1 | +0.8 |
| LZH | | | | PP | | **PnPn** | **20** | **56** | **25.0** | **-0.9** |
| LZH | | | | pmax | pmax | | | | | |
| | comp=Z,21nm,1.0s | | | | | | | | | |
| LZH | | | | pmax | pmax | | | | | |
| | comp=Z,67nm,5.2s | | | | | | | | | |
| **GAMB** | **Gambell** | **32.01** | **35** | *e*P | | **P** | **20** | **55** | **16.3** | **0.0** |
| | comp=Z,22nm,1.6s | | | | | | | | | |
| **CD2** | **Chengdu** | **34.43** | **262** | *e*P | | **P** | **20** | **55** | **38.1** | **+0.3** |
| CD2 | | | | pmax | pmax | | | | | |
| | comp=Z,20nm,1.0s | | | | | | | | | |
| **KMI** | **Kunming** | **38.56** | **255** | P | | **P** | **20** | **56** | **13.8** | **+0.8** |
| KMI | | | | pmax | pmax | | | | | |
| | comp=Z,8.0nm,0.9s | | | | | | | | | |
| KMI | | | | pmax | pmax | | | | | |
| | comp=Z,120nm,4.2s | | | | | | | | | |
| **SVW2** | **Sparrevohn** | **39.04** | **42** | *e*P | | **P** | **20** | **56** | **17.6** | **+1.3** |
| | comp=Z,37nm,1.8s | | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **39.56** | **307** | P | | **P** | **20** | **56** | **20.6** | **-0.1** |
| | comp=Z,0.8nm,0.5s,baz=69,slow=8.1,SNR=4.0 | | | | | | | | | |
| ZALV | | | | PcP | | **PcP** | **20** | **58** | **24.7** | **-0.2** |
| | comp=Z,0.9nm,0.5s,baz=53,slow=4.2,SNR=4.8 | | | | | | | | | |
| ZALV | | | | ScP | | **ScP** | **21** | **02** | **00.2** | **+0.8** |
| | comp=Z,1.1nm,0.7s,baz=104,slow=3.1,SNR=5.1 | | | | | | | | | |
| **IMAR** | **Indian Mountai** | **39.92** | **34** | *e*P | | **P** | **20** | **56** | **23.6** | **0.0** |
| **WMQ** | **Urumqi** | **40.34** | **291** | *e*P | | **P** | **20** | **56** | **28.6** | **+1.2** |
| WMQ | | | | sP | | sP | 20 | 57 | 20.0 | +2.7 |
| WMQ | | | | PP | | **PnPn** | **20** | **58** | **07.5** | **-0.9** |
| WMQ | | | | pmax | pmax | | | | | |
| | comp=Z,24nm,0.7s | | | | | | | | | |
| WMQ | | | | pmax | pmax | | | | | |
| | comp=Z,47nm,4.9s | | | | | | | | | |
| WMQ | | | | LR | LR | | | | | |
| | comp=Z,100nm,17.7s | | | | | | | | | |
| WMQ | | | | LR | LR | | | | | |
| | comp=Z,140nm,20.5s | | | | | | | | | |
| WMQ | | | | LR | LR | | | | | |
| | comp=Z,67nm,15.9s | | | | | | | | | |
| **OHAK** | **Old Harbor** | **40.53** | **48** | *e*P | | **P** | **20** | **56** | **28.7** | **0.0** |
| | comp=Z,206nm,2.0s | | | | | | | | | |
| **PPLA** | **Purkeypile** | **40.58** | **39** | *e*P | | **P** | **20** | **56** | **29.9** | **+0.6** |
| | comp=Z,65nm,2.0s | | | | | | | | | |
| **SPU** | **Mount Spurr** | **40.74** | **42** | *e*P | | **P** | **20** | **56** | **31.6** | **+1.1** |
| **KDAK** | **Kodiak Island** | **40.83** | **47** | *e*P | | **P** | **20** | **56** | **31.3** | **+0.2** |
| KDAK | | | | pmax | pmax | | | | | |
| | comp=Z,206nm,1.9s | | | | | | | | | |
| **KDAK** | **Kodiak Island** | **40.83** | **47** | *e*P | | **P** | **20** | **56** | **30.9** | **-0.2** |
| **KDAK** | **Kodiak Island** | **40.83** | **47** | *e*P | | **P** | **20** | **56** | **31.3** | **+0.2** |
| | comp=Z,206nm,1.9s | | | | | | | | | |
| **BPAW** | **Bear Paw Mtn.** | **41.08** | **37** | *e*P | | **P** | **20** | **56** | **34.4** | **+1.3** |
| | comp=Z,46nm,2.0s | | | | | | | | | |
| **KTH** | **Kantishna Hill** | **41.13** | **38** | *e*P | | **P** | **20** | **56** | **35.0** | **+1.4** |
| | comp=Z,8.2nm,0.8s | | | | | | | | | |
| **MLY** | **Manley** | **41.16** | **36** | *e*P | | **P** | **20** | **56** | **35.1** | **+1.3** |
| | comp=Z,21nm,2.0s | | | | | | | | | |
| **CNPM** | **China Poot** | **41.31** | **44** | *e*P | | **P** | **20** | **56** | **35.4** | **+0.4** |
| | comp=Z,154nm,1.8s | | | | | | | | | |
| **COLD** | **Coldfoot** | **41.38** | **32** | *e*P | | **P** | **20** | **56** | **35.5** | **0.0** |
| | comp=Z,12nm,1.6s | | | | | | | | | |
| **TRF** | **Thofare Moun** | **41.42** | **38** | *e*P | | **P** | **20** | **56** | **36.6** | **+0.5** |
| | comp=Z,41nm,1.9s | | | | | | | | | |
| **BRLK** | **Bradley Lake** | **41.45** | **44** | *e*P | | **P** | **20** | **56** | **36.4** | **+0.2** |
| | comp=Z,174nm,2.0s | | | | | | | | | |
| **RC01** | **Rabbit Creek A** | **41.87** | **42** | *e*P | | **P** | **20** | **56** | **39.7** | **+0.1** |
| | comp=Z,81nm,1.9s | | | | | | | | | |
| **MCK** | **McKinley** | **42.00** | **38** | *e*P | | **P** | **20** | **56** | **40.9** | **+0.3** |
| MCK | | | | pmax | pmax | | | | | |
| | comp=Z,9.0nm,0.9s | | | | | | | | | |
| **MCK** | **McKinley** | **42.00** | **38** | *e*P | | **P** | **20** | **56** | **40.9** | **+0.3** |
| **MCK** | **McKinley** | **42.00** | **38** | *e*P | | **P** | **20** | **56** | **40.9** | **+0.3** |
| | comp=Z,89nm,0.9s | | | | | | | | | |
| **RND** | **Reindeer** | **42.06** | **38** | *e*P | | **P** | **20** | **56** | **41.3** | **+0.1** |
| RND | | | | pmax | pmax | | | | | |
| | comp=Z,36nm,1.9s | | | | | | | | | |
| **RND** | **Reindeer** | **42.06** | **38** | *e*P | | **P** | **20** | **56** | **41.3** | **+0.1** |
| | comp=Z,36nm,1.9s | | | | | | | | | |
| **PMR** | **Palmer** | **42.10** | **41** | *e*P | | **P** | **20** | **56** | **41.7** | **+0.3** |
| PMR | | | | pmax | pmax | | | | | |
| | comp=Z,59nm,2.0s | | | | | | | | | |
| **PMR** | **Palmer** | **42.10** | **41** | *e*P | | **P** | **20** | **56** | **41.7** | **+0.3** |
| **PMR** | **Palmer** | **42.10** | **41** | *e*P | | **P** | **20** | **56** | **41.7** | **+0.3** |
| | comp=Z,59nm,2.0s | | | | | | | | | |
| **MDM** | **Murphy Dome** | **42.23** | **36** | *e*P | | **P** | **20** | **56** | **43.4** | **+0.9** |
| | comp=Z,6.5nm,0.8s | | | | | | | | | |
| **COLA** | **College** | **42.40** | **36** | *e*P | | **P** | **20** | **56** | **44.4** | **+0.7** |
| COLA | | | | pmax | pmax | | | | | |
| | comp=Z,11nm,0.8s | | | | | | | | | |
| **COLA** | **College** | **42.40** | **36** | *e*P | | **P** | **20** | **56** | **44.4** | **+0.7** |
| **COLA** | **College** | **42.40** | **36** | *e*P | | **P** | **20** | **56** | **44.4** | **+0.7** |
| | comp=Z,11nm,0.8s | | | | | | | | | |
| **CCB** | **Clear Creek Bu** | **42.43** | **36** | *e*P | | **P** | **20** | **56** | **44.2** | **+0.2** |
| | comp=Z,17nm,1.8s | | | | | | | | | |
| **SML** | **Sawmill** | **42.46** | **40** | *e*P | | **P** | **20** | **56** | **44.3** | **-0.1** |
| SML | | | | pmax | pmax | | | | | |
| | comp=Z,12nm,0.7s | | | | | | | | | |
| **SML** | **Sawmill** | **42.46** | **40** | *e*P | | **P** | **20** | **56** | **44.2** | **-0.1** |
| | comp=Z,12nm,0.7s | | | | | | | | | |
| **DHY** | **Denali Highway** | **42.76** | **38** | *e*P | | **P** | **20** | **56** | **47.2** | **+0.3** |
| | comp=Z,47nm,2.0s | | | | | | | | | |
| **ILAR** | **Eielson Array** | **42.81** | **36** | P | | **P** | **20** | **56** | **47.3** | **+0.1** |
| | comp=Z,4.9nm,0.7s,baz=256,slow=5.6,SNR=66 | | | | | | | | | |
| **ILB** | **Eielson Array** | **42.81** | **36** | *e*P | | **P** | **20** | **56** | **47.5** | **+0.3** |
| **IL1** | **Eielson Array** | **42.82** | **36** | *e*P | | **P** | **20** | **56** | **46.6** | **-0.5** |
| **SCM** | **Sheep Creek Mo** | **42.93** | **40** | *e*P | | **P** | **20** | **56** | **49.0** | **+0.8** |
| SCM | | | | pmax | pmax | | | | | |
| | comp=Z,62nm,1.8s | | | | | | | | | |
| **SCM** | **Sheep Creek Mo** | **42.93** | **40** | *e*P | | **P** | **20** | **56** | **49.0** | **+0.8** |
| | comp=Z,62nm,1.8s | | | | | | | | | |
| **MK31** | **Makanchi Array** | **42.94** | **297** | *e*P | | **P** | **20** | **56** | **48.7** | **+0.3** |
| **MK31** | **Makanchi Array** | **42.94** | **297** | *e*P | | **P** | **20** | **56** | **48.7** | **+0.3** |
| **MKAR** | **Makanchi Array** | **42.94** | **297** | P | | **P** | **20** | **56** | **48.9** | **+0.4** |
| | comp=Z,2.5nm,0.7s,baz=80,slow=9.5,SNR=11 | | | | | | | | | |
| MKAR | | | | PcP | | **PcP** | **20** | **58** | **36.4** | **+0.2** |
| | comp=Z,0.3nm,0.5s,baz=272,slow=0.1,SNR=4.0 | | | | | | | | | |
| MKAR | | | | ScP | | **ScP** | **21** | **02** | **13.9** | **+0.9** |
| | comp=Z,0.5nm,0.9s,baz=93,slow=2.9,SNR=3.1 | | | | | | | | | |
| **MKAR** | **Makanchi Array** | **42.94** | **297** | *e*P | | **P** | **20** | **56** | **48.7** | **+0.2** |
| | comp=Z,17nm,0.6s | | | | | | | | | |
| **MK01** | **Makanchi Array** | **42.94** | **297** | *e*P | | **P** | **20** | **56** | **48.9** | **+0.4** |
| **MAKZ** | **Makanchi** | **43.14** | **297** | *e*P | | **P** | **20** | **56** | **50.7** | **+0.6** |
| MAKZ | | | | pmax | pmax | | | | | |
| | comp=Z,20nm,1.6s | | | | | | | | | |
| **MAKZ** | **Makanchi** | **43.14** | **297** | *e*P | | **P** | **20** | **56** | **50.6** | **+0.6** |
| | comp=Z,20nm,1.6s | | | | | | | | | |
| **FYU** | **Fort Yukon** | **43.36** | **33** | *e*P | | **P** | **20** | **56** | **52.0** | **+0.5** |
| | comp=Z,52nm,2.0s | | | | | | | | | |
| **FID** | **Port Fidalgo** | **43.49** | **42** | *e*P | | **P** | **20** | **56** | **53.4** | **+0.8** |
| | comp=Z,41nm,1.3s | | | | | | | | | |
| **PAX** | **Paxson** | **43.63** | **38** | *e*P | | **P** | **20** | **56** | **54.6** | **+0.7** |
| PAX | | | | pmax | pmax | | | | | |
| | comp=Z,4.0nm,1.0s | | | | | | | | | |
| **PAX** | **Paxson** | **43.63** | **38** | *e*P | | **P** | **20** | **56** | **54.6** | **+0.7** |
| | comp=Z,4.2nm,1.0s | | | | | | | | | |
| **KLU** | **Klutina** | **43.64** | **41** | *e*P | | **P** | **20** | **56** | **54.5** | **+0.5** |
| | comp=Z,70nm,2.0s | | | | | | | | | |
| **DIV** | **Divide** | **43.77** | **41** | *e*P | | **P** | **20** | **56** | **55.8** | **+0.8** |
| **DIV** | **Divide** | **43.77** | **41** | *e*P | | **P** | **20** | **56** | **55.8** | **+0.8** |
| | comp=Z,31nm,1.5s | | | | | | | | | |
| **HARP** | **HAARP** | **43.86** | **39** | *e*P | | **P** | **20** | **56** | **56.7** | **+1.1** |
| | comp=Z,78nm,1.7s | | | | | | | | | |
| **KURK** | **Kurchatov** | **44.02** | **303** | *e*P | | **P** | **20** | **56** | **57.3** | **+0.3** |
| KURK | | | | pmax | pmax | | | | | |
| | comp=Z,4.0nm,0.8s | | | | | | | | | |
| **KURK** | **Kurchatov** | **44.02** | **303** | *e*P | | **P** | **20** | **56** | **57.3** | **+0.3** |
| **KURK** | **Kurchatov** | **44.02** | **303** | *e*P | | **P** | **20** | **56** | **57.3** | **+0.3** |
| | comp=Z,3.9nm,0.8s | | | | | | | | | |
| **DOT** | **Dot Lake** | **44.17** | **37** | *e*P | | **P** | **20** | **56** | **58.0** | **-0.1** |
| | comp=Z,9.4nm,0.6s | | | | | | | | | |
| **BMRM** | **Bremner River** | **44.36** | **41** | *e*

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **NEW** | **Newport** | **63.93** | **47** | P | **P** | **20 59 21.9** | **+0.5** |
| NEW | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.9s | | | | | | |
| **FINES** | **FINESS Array B** | **64.16** | **332** | P | **P** | **20 59 22.5** | **-0.1** |
| | comp=Z,1.9nm,0.5s,baz=54,slow=7.5,SNR=23 | | | | | | |
| **FINES** | **FINESS Array B** | **64.16** | **332** | *i* P | **P** | **20 59 23.0** | **+0.4** |
| FINES | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.5s | | | | | | |
| **FINES** | **FINESS Array B** | **64.16** | **332** | *e*P | **P** | **20 59 23.0** | **+0.4** |
| **PALK** | **Pallekele** | **66.08** | **257** | *i* P | **P** | **20 59 35.4** | **-0.3** |
| **J08A** | **Circle Bar Ran** | **66.16** | **52** | *e*P | **P** | **20 59 37.4** | **+1.5** |
| | comp=Z,3.3nm,0.8s | | | | | | |
| **FFC** | **Flin Flon** | **67.02** | **35** | *i* P | **P** | **20 59 42.5** | **+1.4** |
| **FFC** | **Flin Flon** | **67.02** | **35** | *e*P | **P** | **20 59 42.4** | **+1.4** |
| **ASAR** | **Alice Springs** | **67.57** | **190** | P | **P** | **20 59 45.5** | **+0.6** |
| | comp=Z,0.4nm,0.6s,baz=4.0,slow=7.0,SNR=9.7 | | | | | | |
| **ASAR** | **Alice Springs** | **67.57** | **190** | P | **P** | **20 59 45.5** | **+0.6** |
| ASAR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.6s | | | | | | |
| **BOZ** | **Bozeman (W)** | **68.54** | **47** | *e*P | **P** | **20 59 51.4** | **+0.5** |
| BOZ | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.6s | | | | | | |
| **BOZ** | **Bozeman (W)** | **68.54** | **47** | *e*P | **P** | **20 59 51.7** | **+0.8** |
| **BOZ** | **Bozeman (W)** | **68.54** | **47** | *e*P | **P** | **20 59 51.4** | **+0.5** |
| | comp=Z,3.8nm,0.6s | | | | | | |
| **HFS** | **Hagfors** | **69.11** | **336** | P | **P** | **20 59 54.6** | **+0.6** |
| | comp=Z,1.6nm,0.7s,baz=57,slow=10,SNR=6.6 | | | | | | |
| **NVAR** | **Mina Array Bea** | **69.34** | **56** | P | **P** | **20 59 57.3** | **+1.2** |
| | comp=Z,1.6nm,0.7s,baz=294,slow=6.7,SNR=9.8 | | | | | | |
| **GCMT** | **Greycliff** | **69.44** | **46** | *e*P | **P** | **20 59 56.6** | **+0.1** |
| **ECR** | **Eagle Creek** | **70.35** | **49** | *e*P | **P** | **20 59 59.8** | **-2.3** |
| **AKASG** | **Malin Array Be** | **70.57** | **322** | P | **P** | **21 00 02.5** | **-0.6** |
| | comp=Z,0.3nm,0.3s,baz=43,slow=6.7,SNR=3.3 | | | | | | |
| **ANN** | **Anapa** | **70.70** | **314** | *e*P | **P** | **21 00 03.9** | **-0.1** |
| ANN | | | | pmax | pmax | | |
| | comp=Z,83nm,1.1s | | | | | | |
| **PDAR** | **Pinedale Array** | **71.53** | **48** | P | **P** | **21 00 09.7** | **+0.4** |
| | comp=Z,1.1nm,0.5s,baz=268,slow=0.8,SNR=13 | | | | | | |
| **PDAR** | **Pinedale Array** | **71.53** | **48** | *e*P | **P** | **21 00 09.3** | **0.0** |
| **PV10** | **Paradox Valley** | **74.82** | **51** | *e*P | **P** | **21 00 29.8** | **+1.1** |
| **PV05** | **Paradox Valley** | **74.99** | **52** | *e*P | **P** | **21 00 31.0** | **+1.3** |
| **EYMN** | **Ely** | **76.45** | **35** | *e*P | **P** | **21 00 37.0** | **-0.5** |
| | comp=Z,48nm,1.8s | | | | | | |
| **CLL** | **Collm** | **76.58** | **331** | *e*P | **P** | **21 00 38.0** | **-0.1** |
| **SCHQ** | **Schefferville** | **78.45** | **18** | *e*P | **P** | **21 00 48.3** | **-0.2** |
| | comp=Z,49nm,1.6s | | | | | | |
| **ANMO** | **Albuquerque** | **78.70** | **52** | LR | LR | 21 35 32.0 | |
| | comp=Z,19nm,20.8s,baz=215,slow=35 | | | | | | |
| **VTS** | **Vitosha** | **79.38** | **320** | *e*P | **P** | **21 00 53.9** | **-0.1** |
| VTS | | | | pmax | pmax | | |
| | comp=Z,19nm,2.0s | | | | | | |
| **VTS** | **Vitosha** | **79.38** | **320** | *e*P | **P** | **21 00 53.9** | **-0.1** |
| | comp=Z,18nm,2.0s | | | | | | |
| **CBKS** | **Cedar Bluff** | **79.57** | **46** | *e*P | **P** | **21 00 55.2** | **+0.3** |
| CBKS | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.5s | | | | | | |
| **CBKS** | **Cedar Bluff** | **79.57** | **46** | *e*P | **P** | **21 00 55.2** | **+0.3** |
| | comp=Z,8.3nm,0.5s | | | | | | |
| **CWF** | **Charnwood Fore** | **79.67** | **340** | *e*P | **P** | **21 00 55.7** | **+0.6** |
| | comp=Z,70nm,1.7s | | | | | | |
| **RAYN** | **Ar Rayn** | **80.29** | **293** | *e*P | **P** | **21 00 59.5** | **+0.4** |
| | comp=Z,4.9nm,1.4s | | | | | | |
| **ECH** | **Echery** | **81.21** | **333** | *e*P | **P** | **21 01 03.9** | **+0.4** |
| ECH | | | | pmax | pmax | | |
| | comp=Z,28nm,1.6s | | | | | | |
| **ECH** | **Echery** | **81.21** | **333** | *e*P | **P** | **21 01 03.9** | **+0.4** |
| | comp=Z,28nm,1.6s | | | | | | |
| **MNTX** | **Cornudas Mount** | **81.65** | **54** | *e*P | **P** | **21 01 06.7** | **+0.6** |
| | comp=Z,13nm,1.9s | | | | | | |
| **WMOK** | **Wichita Mounta** | **83.13** | **48** | *e*P | **P** | **21 01 13.9** | **+0.2** |
| WMOK | | | | pmax | pmax | | |
| | comp=Z,20nm,1.9s | | | | | | |
| **WMOK** | **Wichita Mounta** | **83.13** | **48** | *e*P | **P** | **21 01 13.9** | **+0.2** |
| | comp=Z,20nm,1.9s | | | | | | |

*ISK **24** 20:56:05.3,39.05N×40.41E,h18km,MD2.4*
*ISCJB **24** 20:56:06.6±0.6,39.08N±0.04×40.38E±0.04,h8km±9km, Error ellipse: s-maj=6.6km s-min=5.0km az=10.3*
*CSEM **24** 20:56:06.6±0.3,39.08N×40.39E,h2km,MD2.4,Error ellipse: s-maj=6.1km s-min=4.9km az=150.0*
*DDA **24** 20:56:07.0,39.11N×40.37E,h7km,Md2.5*

**ISC 24 20:56:06.4**±1.1,**39.09N**±0.04×**40.38E**±0.03,**h8**km±12km, **n19,**σ**0962/26,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BINT** | **Bingol** | **0.23** | **159** | *e*Pg | **Pg** | **20 56 10.9** | **-0.1** |
| BINT | | | | *e*Sg | **Sg** | **20 56 14.7** | **+0.6** |
| **BNGB** | **Bing¯¶ł** | **0.25** | **112** | *e*PG | **Pg** | **20 56 14.9** | **-0.5** |
| BNGB | | | | *e*SG | **Sg** | **20 56 14.7** | **-0.1** |
| **YEDI** | **Yedisu-Bingol** | **0.37** | **19** | *e*PG | **Pg** | **20 56 14.0** | **+0.2** |
| YEDI | | | | *e*SG | **Sb** | **20 56 20.4** | **-1.0** |
| **YEDI** | **Yedisu-Bingol** | **0.37** | **19** | *e*Pg | **Pg** | **20 56 14.0** | **+0.2** |
| YEDI | | | | *e*Sg | **Sb** | **20 56 20.4** | **-1.0** |
| **BNGL** | **BINGOL** | **0.61** | **102** | *i* P | **Pb** | **20 56 19.1** | **-0.4** |
| BNGL | | | | *i* S | **Sb** | **20 56 29.2** | **+1.0** |
| **TNCL** | **Tunceli-Merkez** | **0.66** | **273** | *i* P | **Pg** | **20 56 19.2** | **+0.2** |
| TNCL | | | | *i* S | **Sb** | **20 56 29.8** | **+0.4** |
| **TNCL** | **Tunceli-Merkez** | **0.66** | **273** | P | **Pg** | **20 56 19.2** | **+0.2** |
| TNCL | | | | S | **Sb** | **20 56 29.8** | **+0.4** |
| **HANI** | **Diyarbakir_Han** | **0.67** | **179** | *i* P | **Pb** | **20 56 20.2** | **-0.2** |
| **HANI** | **Diyarbakir_Han** | **0.67** | **179** | P | **Pb** | **20 56 20.2** | **-0.2** |
| **ECAT** | **Cat-ERZURUM** | **0.69** | **41** | *i* P | **Pg** | **20 56 20.2** | **+0.4** |
| **ECAT** | **Cat-ERZURUM** | **0.69** | **41** | P | **Pg** | **20 56 20.2** | **+0.4** |
| **PTK** | **Pertek** | **0.80** | **256** | *e*PG | **Pg** | **20 56 21.4** | **-0.3** |
| **PTK** | **Pertek** | **0.80** | **256** | *e*Pg | **Pg** | **20 56 21.6** | **-0.3** |
| **VRTB** | **Varto-Mus** | **0.84** | **85** | *e*PG | **Pg** | **20 56 21.6** | **-0.9** |
| **VRTB** | **Varto-Mus** | **0.84** | **85** | *i* P | **Pg** | **20 56 22.6** | **0.0** |
| **VRTB** | **Varto-Mus** | **0.84** | **85** | *e*Pg | **Pg** | **20 56 21.6** | **-0.9** |
| **VRTB** | **Varto-Mus** | **0.84** | **85** | P | **Pg** | **20 56 22.5** | **0.0** |
| **EKAR** | **Karacoban** | **1.32** | **82** | *i* P | **Pg** | **20 56 32.7** | **+1.0** |
| **EKAR** | **Karacoban** | **1.32** | **82** | P | **Pg** | **20 56 32.7** | **+1.0** |

**MEX 24 20:56:45.2**±0.6,**17.82N**×**99.97W,h48**km±7km,**MD3.8, Guerrero**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MEIG** | **Mezcala** | **0.35** | **72** | *i* P | Pn | 20 56 53.4 | -1.3 |
| MEIG | | | | *e*S | Sn | 20 56 59.6 | -1.9 |
| **ARIG** | **Puente Sto Nin** | **0.58** | **322** | *e*P | Pn | 20 56 55.9 | -1.5 |
| ARIG | | | | *e*S | Sn | 20 57 04.7 | -1.6 |
| **PLIG** | **Platanillo** | **0.72** | **38** | *i* P | Pn | 20 56 57.6 | -1.7 |
| PLIG | | | | *e*S | Sn | 20 57 07.2 | -2.3 |
| **CAIG** | **El Cayaco** | **0.82** | **201** | *i* P | Pn | 20 56 58.6 | -1.9 |
| CAIG | | | | *e*S | Sn | 20 57 09.8 | -1.7 |
| **TLIG** | **Tlapa** | **1.36** | **101** | *e*P | Pn | 20 57 06.3 | -1.5 |
| TLIG | | | | *e*S | Sn | 20 57 22.7 | -2.1 |
| **ZIIG** | **Zihuatanejo** | **1.44** | **262** | *e*P | Pn | 20 57 05.5 | -3.5 |
| ZIIG | | | | *i* S | Sn | 20 57 24.2 | -2.5 |
| **PNIG** | **Pinotepa** | **2.26** | **129** | *e*P | Pn | 20 57 18.9 | -1.3 |
| PNIG | | | | *i* S | Sn | 20 57 48.7 | +1.9 |

*NAO **24** 20:59:36.6±1.4,67.68N×33.73E,ML2.6*
*HEL **24** 20:59:37.6±0.2,67.76N×33.61E,h0km,ML1.9,Explosion*
*CSEM **24** 20:59:38.4±0.4,67.69N×33.35E,h2km,ML2.6,Error ellipse: s-maj=6.9km s-min=4.9km az=69.0,Mining explosion.*

**ISC 24 20:59:37.1**±1.8,**67.65N**±0.04×**33.61E**±0.09,**h0**km,**n37,** σ**1975/60,Baltic States-Belarus-Northwestern Russia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **APZ9** | **Apatity** | **0.12** | **223** | Pg | **Pg** | **20 59 39.8** | **+0.5** |
| APZ9 | | | | Lg | Lg | 20 59 42.8 | |
| **APZ9** | **Apatity** | **0.12** | **223** | Pg | **Pg** | **20 59 39.8** | **+0.5** |
| APZ9 | | | | Lg | Lg | 20 59 42.8 | |
| **APZ9** | **Apatity** | **0.12** | **223** | Pg | **Pg** | **20 59 39.8** | **+0.5** |
| APZ9 | | | | Lg | Lg | 20 59 42.8 | |
| **APZ9** | **Apatity** | **0.12** | **223** | Pg | **Pg** | **20 59 39.8** | **+0.5** |
| | SNR=91 | | | | | | |
| APZ9 | | | | Lg | Lg | 20 59 42.8 | |
| | SNR=91 | | | | | | |
| **APA0** | **Apatity Array** | **0.24** | **259** | Pg | **Pg** | **20 59 42.1** | **+0.4** |
| | baz=33,slow=18 | | | | | | |
| APA0 | | | | Lg | Lg | 20 59 46.3 | |
| | baz=79,slow=37 | | | | | | |
| APA0 | | | | Rg | Rg | 20 59 47.5 | |
| **APA0** | **Apatity Array** | **0.24** | **259** | Pg | **Pg** | **20 59 42.1** | **+0.4** |
| | baz=33,slow=18 | | | | | | |
| APA0 | | | | Lg | Lg | 20 59 46.3 | |
| | baz=79,slow=37 | | | | | | |
| APA0 | | | | Rg | Rg | 20 59 47.5 | |
| **APA0** | **Apatity Array** | **0.24** | **259** | Pg | **Pg** | **20 59 42.1** | **+0.4** |
| | SNR=91 | | | | | | |
| APA0 | | | | Lg | Lg | 20 59 46.3 | |
| | SNR=90 | | | | | | |
| **VRF** | **Varrio** | **1.53** | **275** | Pg | **Pn** | **21 00 04.8** | **-0.8** |
| VRF | | | | Sn | **Sg** | **21 00 25.7** | **-0.5** |
| **VRF** | **Varrio** | **1.53** | **275** | PG | **Pn** | **21 00 04.8** | **-0.8** |
| VRF | | | | MSG | | 21 00 23.2 | |
| | comp=Z,9.5nm,0.2s | | | | | | |
| VRF | | | | SN | **Sg** | **21 00 25.7** | **-0.5** |
| **KU6** | **Riekki** | **2.20** | **224** | Pn | **Pn** | **21 00 15.9** | **+1.1** |
| KU6 | | | | Sb | **Sb** | **21 00 46.0** | **+0.6** |
| **KU6** | **Riekki** | **2.20** | **224** | PN | **Pn** | **21 00 15.9** | **+1.1** |
| KU6 | | | | MSG | | 21 00 45.0 | |
| | comp=Z,4.8nm,0.2s | | | | | | |
| KU6 | | | | SB | **Sb** | **21 00 46.0** | **+0.6** |
| **MSF** | **Maaselka** | **2.52** | **228** | Pn | **Pn** | **21 00 20.6** | **+1.4** |
| MSF | | | | Sb | **Sb** | **21 00 55.2** | **+0.6** |
| **MSF** | **Maaselka** | **2.52** | **228** | PN | **Pn** | **21 00 20.6** | **+1.4** |
| MSF | | | | SB | **Sb** | **21 00 55.2** | **+0.6** |
| **SGF** | **Sodankyl** | **2.73** | **269** | Pn | **Pn** | **21 00 22.4** | **+0.4** |
| SGF | | | | Sg | **Sb** | **21 01 01.2** | **+0.6** |
| **SGF** | **Sodankyl** | **2.73** | **269** | PN | **Pn** | **21 00 22.4** | **+0.4** |
| SGF | | | | SG | **Sb** | **21 01 01.2** | **+0.6** |
| **ARA0** | **ARCESS Array S** | **3.52** | **306** | Pn | **Pn** | **21 00 32.8** | **-0.1** |
| | baz=122,slow=16 | | | | | | |
| ARA0 | | | | Pg | **Pb** | **21 00 41.0** | **+0.9** |
| | baz=112,slow=16 | | | | | | |
| ARA0 | | | | Sn | **Sn** | **21 01 13.9** | **-1.4** |
| | baz=120,slow=28 | | | | | | |
| ARA0 | | | | Lg | Lg | 21 01 24.9 | |
| | baz=113,slow=37 | | | | | | |
| **ARA0** | **ARCESS Array S** | **3.52** | **306** | Pn | **Pn** | **21 00 32.8** | **-0.1** |
| | baz=122,slow=16 | | | | | | |
| ARA0 | | | | Pg | **Pb** | **21 00 41.0** | **+0.9** |
| | baz=112,slow=16 | | | | | | |
| ARA0 | | | | Sn | **Sn** | **21 01 13.9** | **-1.4** |
| | baz=120,slow=28 | | | | | | |
| ARA0 | | | | Lg | Lg | 21 01 24.9 | |
| | baz=113,slow=37 | | | | | | |
| **ARA0** | **ARCESS Array S** | **3.52** | **306** | Pn | **Pn** | **21 00 32.8** | **-0.1** |
| | SNR=50 | | | | | | |
| **ARA0** | **ARCESS Array S** | **3.52** | **306** | Pg | **Pb** | **21 00 41.0** | **+0.9** |
| | SNR=7.0 | | | | | | |
| ARA0 | | | | Sn | **Sn** | **21 01 13.9** | **-1.4** |
| | SNR=50 | | | | | | |
| ARA0 | | | | Lg | Lg | 21 01 24.9 | |
| | SNR=50 | | | | | | |
| **ARE0** | **ARCESS Array S** | **3.52** | **306** | Pn | **Pn** | **21 00 32.3** | **-0.7** |
| ARE0 | | | | Sn | **Sn** | **21 01 13.9** | **-1.4** |
| **ARE0** | **ARCESS Array S** | **3.52** | **306** | PN | **Pn** | **21 00 32.3** | **-0.7** |
| | baz=119 | | | | | | |
| ARE0 | | | | SN | **Sn** | **21 01 13.9** | **-1.4** |
| **HEF** | **Hetta** | **3.82** | **286** | Pn | **Pn** | **21 00 36.7** | **-0.3** |
| **HEF** | **Hetta** | **3.82** | **286** | PN | **Pn** | **21 00 36.7** | **-0.3** |
| | baz=100 | | | | | | |
| **TOF** | **Tornio** | **3.99** | **251** | Pg | **Pb** | **21 00 49.5** | **+1.4** |
| TOF | | | | Sn | **Sn** | **21 01 26.5** | **-0.3** |
| **TOF** | **Tornio** | **3.99** | **251** | PG | **Pb** | **21 00 49.5** | **+1.4** |
| TOF | | | | SN | **Sn** | **21 01 26.5** | **-0.3** |
| **OUL** | **Oulu** | **4.04** | **234** | Pb | **Pn** | **21 00 44.4** | **+4.5** |
| OUL | | | | Sg | **Sg** | **21 01 44.7** | **-1.8** |
| **OUL** | **Oulu** | **4.04** | **234** | PB | **Pn** | **21 00 44.5** | **+4.5** |
| | baz=43 | | | | | | |
| OUL | | | | SG | **Sg** | **21 01 44.8** | **-1.8** |
| **LANU** | **Lannavaara** | **4.42** | **281** | SG | **Sb** | **21 01 52.9** | **+3.7** |
| **KALU** | **Kalix** | **4.45** | **251** | Sg | **Sg** | **21 01 57.4** | **-2.3** |
| **KALU** | **Kalix** | **4.45** | **251** | SG | **Sg** | **21 01 57.4** | **-2.3** |
| **ERTU** | **Ertsjaerv** | **4.60** | **261** | Pn | **Pn** | **21 00 48.1** | **+0.4** |
| ERTU | | | | Sn | **Sn** | **21 01 40.5** | **-1.2** |
| **ERTU** | **Ertsjaerv** | **4.60** | **261** | PN | **Pn** | **21 00 48.1** | **+0.4** |
| ERTU | | | | SN | **Sn** | **21 01 40.6** | **-1.2** |
| **FIA0** | **FINESS Array S** | **7.02** | **211** | Sn | **Sn** | **21 02 36.6** | **-4.8** |
| FIA0 | | | | Lg | Lg | 21 03 10.0 | |
| | baz=41,slow=28 | | | | | |

*mb4.5/15,MS3.8/6, Error ellipse: s-maj=12.3km s-min=7.5km az=6.4*

*IDC* ***24*** *21:31:04.9±0.7,49°30'S×120°92'E, h0km, mb4.2/7, mb1 4.4/8, mb1mx4.1/20, mbtmp4.3/8, ML3.0/1, MS3.8/7, Ms1 3.8/7, ms1mx3.5/21, Error ellipse: s-maj=37.6km s-min=16.3km az=108.0*

*NEIC* ***24*** *21:31:05.9±0.4, 49°34'S×120°97'E, h10km, mb4.4/9, Error ellipse: s-maj=14.0km s-min=9.3km az=107.0*

**ISC 24 21:31:06.4±0.5, 49°29'S±0.07'×121°0'E±0.1', h10km, n43, σ1§05/36, mb4.4/15, MS3.8/6, 1C, Western Indian-Antarctic Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **H01W2** | **Cape Leeuwin H** | **15.25** | **338** | T | T | 21 50 07.2 | |
| | baz=162,slow=74,SNR=105 | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **15.25** | **338** | T | T | 21 50 07.3 | |
| | baz=162,slow=74,SNR=98 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **15.26** | **338** | T | T | 21 50 08.0 | |
| | baz=162,slow=74,SNR=93 | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **16.59** | **349** | Pn | **Pn** | **21 34 59.9** | **+0.9** |
| | 2.6nm,0.3s,baz=32,slow=8.6,SNR=24 | | | | | | |
| NWAO | | | | Sn | **Sn** | **21 38 01.4** | **-1.7** |
| | 0.4nm,0.3s,baz=111,slow=6.3,SNR=3.5 | | | | | | |
| NWAO | | | | LR | LR | 21 39 50.8 | |
| | comp=Z,452nm,19.6s,baz=182,slow=32 | | | | | | |
| **FORT** | **Forrest** | **19.24** | **19** | P | **P** | **21 35 31.1** | **+0.5** |
| **TAU** | **Tasmania Unive** | **19.26** | **81** | P | **P** | **21 35 31.6** | **+0.8** |
| | 5.3nm,0.9s | | | | | | |
| **BBOO** | **Buckleboo** | **19.93** | **40** | P | **P** | **21 35 39.1** | **+0.9** |
| | 11nm,1.0s | | | | | | |
| **STKA** | **Stephens Creek** | **23.25** | **49** | P | **P** | **21 36 14.4** | **+0.6** |
| | 4.7nm,0.8s,baz=211,slow=6.9,SNR=7.3 | | | | | | |
| **ASAR** | **Alice Springs** | **27.51** | **26** | P | **P** | **21 36 53.2** | **+0.2** |
| | 2.7nm,0.9s,baz=203,slow=9.1,SNR=15 | | | | | | |
| ASAR | | | | LR | LR | 21 46 38.2 | |
| | comp=Z,53nm,21.6s,baz=190,slow=34 | | | | | | |
| **WRA** | **Warramunga Arr** | **31.16** | **25** | P | **P** | **21 37 24.9** | **-0.6** |
| | 0.5nm,0.5s,baz=196,slow=11,SNR=7.2 | | | | | | |
| WRA | | | | PcP | **PcP** | **21 40 21.8** | **+1.5** |
| | 0.4nm,0.9s,baz=2.5,slow=1.6,SNR=2.7 | | | | | | |
| **VNDA** | **Vanda** | **32.27** | **165** | P | **P** | **21 37 34.8** | **+0.1** |
| | 3.9nm,0.7s,baz=304,slow=7.9,SNR=19 | | | | | | |
| VNDA | | | | LR | LR | 21 49 56.3 | |
| | comp=Z,295nm,18.2s,baz=312,slow=35 | | | | | | |
| **MAW** | **Mawson** | **33.85** | **216** | P | **P** | **21 37 47.2** | **-1.3** |
| | 3.8nm,0.8s,baz=102,slow=9.6,SNR=6.1 | | | | | | |
| MAW | | | | LR | LR | 21 49 40.2 | |
| | comp=Z,76nm,19.0s,baz=64,slow=33 | | | | | | |
| **COEN** | **Coen** | **39.65** | **35** | *e*P | **P** | **21 38 39.0** | **+0.6** |
| | 8.5nm,1.5s | | | | | | |
| **QSPA** | **South Pole Qui** | **40.84** | **180** | *e*P | **P** | **21 38 47.9** | **0.0** |
| | 68nm,1.1s | | | | | | |
| **COCO** | **West Island** | **42.05** | **323** | *e*P | **P** | **21 38 57.6** | **-0.6** |
| | 90nm,0.5s | | | | | | |
| **SYO** | **Syowa Base** | **42.25** | **212** | *e*P | **P** | **21 39 00.7** | **+1.4** |
| **PMG** | **Port Moresby** | **45.35** | **38** | P | **P** | **21 39 25.0** | **+0.2** |
| | 1.8nm,0.7s | | | | | | |
| **SNAA** | **Sanae** | **53.02** | **199** | P | **P** | **21 40 22.7** | **-0.2** |
| **SNAA** | **Sanae** | **53.02** | **199** | P | **P** | **21 40 22.7** | **-0.2** |
| | 9.1nm,0.8s,baz=142,slow=11,SNR=21 | | | | | | |
| **SNAA** | **Sanae** | **53.02** | **199** | *e*P | **P** | **21 40 22.6** | **-0.2** |
| | 940nm,0.9s | | | | | | |
| **VNA2** | **Neumayer--Watz** | **54.55** | **198** | P | **P** | **21 40 34.0** | **0.0** |
| | baz=127,slow=7.5 | | | | | | |
| **H08S2** | **Diego Garcia H** | **58.02** | **299** | T | T | 22 43 31.8 | |
| | baz=151 | | | | | | |
| **H08S1** | **Diego Carcia H** | **58.03** | **299** | T | T | 22 43 35.2 | |
| | baz=151 | | | | | | |
| **H08S3** | **Diego Garcia H** | **58.03** | **299** | T | T | 22 43 29.8 | |
| | baz=151 | | | | | | |
| **AFI** | **Afiamalu** | **64.72** | **82** | LR | LR | 22 06 05.3 | |
| | comp=Z,278nm,19.0s,baz=160,slow=32 | | | | | | |
| **RAR** | **Rarotonga** | **67.27** | **96** | P | **P** | **21 41 57.7** | **-3.5** |
| | 2.6nm,0.3s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **70.24** | **338** | P | **P** | **21 42 19.4** | **-0.1** |
| | 0.6nm,0.5s,baz=189,slow=4.4,SNR=5.6 | | | | | | |
| CMAR | | | | LR | LR | 22 10 41.1 | |
| | comp=Z,36nm,20.9s,baz=168,slow=34 | | | | | | |
| **CHTO** | **Chiang Mai** | **70.58** | **338** | P | **P** | **21 42 21.3** | **-0.3** |
| | 0.6nm,0.4s | | | | | | |
| **TAPN** | **Taplejung** | **81.88** | **330** | *e*P | **P** | **21 43 27.3** | **+1.3** |
| | 18nm,1.0s | | | | | | |
| **JIRN** | **Jiri** | **82.66** | **329** | *e*P | **P** | **21 43 30.8** | **+0.6** |
| **PKI** | **Pulchoki** | **82.84** | **329** | *e*P | **P** | **21 43 31.3** | **+0.2** |
| | 12nm,1.0s | | | | | | |
| **DMN** | **Daman** | **82.98** | **328** | *e*P | **P** | **21 43 32.7** | **+0.9** |
| | 18nm,1.1s | | | | | | |
| **GUN** | **Gumba** | **83.00** | **329** | *e*P | **P** | **21 43 31.3** | **-0.6** |
| | 29nm,0.9s | | | | | | |
| **LSA** | **Lhasa** | **83.03** | **334** | *e*P | **P** | **21 43 31.9** | **-0.3** |
| | 8.9nm,0.8s | | | | | | |
| **KOLN** | **Koldanda** | **83.66** | **327** | *e*P | **P** | **21 43 34.6** | **-0.6** |
| **PYUN** | **Piuthan** | **84.17** | **327** | *e*P | **P** | **21 43 38.4** | **+0.6** |
| **PLCA** | **Paso Flores** | **89.78** | **171** | LR | LR | 22 22 52.1 | |
| | comp=Z,53nm,18.0s,baz=211,slow=35 | | | | | | |
| **ULN** | **Ulaanbaatar** | **97.52** | **351** | P | **P** | **21 44 39.6** | **-0.5** |
| | 0.3nm,0.2s | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **118.90** | **256** | PKP | **PKPdf** | **21 49 56.0** | **+0.8** |
| | 0.3nm,0.7s,baz=180,slow=0.2,SNR=3.3 | | | | | | |
| **GERES** | **GERESS Array B** | **134.12** | **299** | PKhKP | PKPpre | 21 50 19.9 | |
| | 0.4nm,0.7s,baz=232,slow=6.1,SNR=3.1 | | | | | | |
| **PDAR** | **Pinedale Array** | **144.84** | **81** | PKP | **PKPab** | **21 50 42.7** | **+0.4** |
| | 0.7nm,0.8s,baz=186,slow=1.5,SNR=5.0 | | | | | | |
| **YKA** | **Yellowknife Ar** | **147.25** | **45** | PKPbc | **PKPdf** | **21 50 48.7** | **+2.4** |
| | 1.1nm,0.7s,baz=272,slow=2.7,SNR=29 | | | | | | |
| **RES** | **Resolute Bay** | **150.41** | **18** | PKPbc | **PKPbc** | **21 50 56.0** | **-0.4** |
| | 1.6nm,0.8s,baz=252,slow=4.2,SNR=4.3 | | | | | | |

*ISCJB* ***24*** *21:54:15.6±0.7,55°7S±0.1'×25°2W±0.3', h10km, mb4.2/9, Error ellipse: s-maj=25.0km s-min=14.4km az=151.2*

*IDC* ***24*** *21:54:15.4±1.2,55°68S×25°16W, h0km, mb3.8/3, mb1 4.0/3, mb1mx3.8/19, mbtmp3.8/3, Error ellipse: s-maj=48.3km s-min=32.8km az=86.0*

*NEIC* ***24*** *21:54:20.7±0.4,55°69S×25°22W, h35km, mb4.3/6, Error ellipse: s-maj=17.7km s-min=10.5km az=61.0*

**ISC 24 21:54:17.0±0.7, 55°7S±0.1'×25°2W±0.2', h10km, n12, σ0§69/12, mb4.1/9, South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SNAA** | **Sanae** | **18.64** | **158** | P | **Pn** | **21 58 35.5** | **+0.6** |
| | 55nm,0.9s | | | | | | |
| **TRQA** | **Tornquist** | **30.23** | **290** | *e*P | **P** | **22 00 27.6** | **0.0** |
| | 1.3nm,0.6s | | | | | | |
| **SBA** | **Scott Base** | **46.53** | **183** | P | **P** | **22 02 43.8** | **0.0** |
| | 2.0nm,1.0s | | | | | | |
| **VNDA** | **Vanda** | **46.99** | **182** | P | **P** | **22 02 47.5** | **0.0** |
| | 1.0nm,0.9s,baz=180,slow=6.1,SNR=6.1 | | | | | | |
| **LPAZ** | **La Paz** | **51.10** | **303** | P | **P** | **22 03 20.6** | **+0.2** |
| | 2.0nm,0.7s,baz=205,slow=6.2,SNR=9.1 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **72.19** | **28** | P | **P** | **22 05 42.1** | **+0.3** |
| | 0.3nm,0.4s,baz=196,slow=7.0,SNR=6.7 | | | | | | |
| **KMBO** | **Kilima Mbogo** | **73.85** | **67** | P | **P** | **22 05 52.2** | **+0.1** |
| | 0.4nm,0.5s | | | | | | |
| **SJG** | **San Juan** | **81.25** | **321** | P | **P** | **22 06 33.4** | **+0.5** |
| | 4.4nm,0.6s | | | | | | |
| **JTS** | **JuntasAbangare** | **82.27** | **301** | P | **P** | **22 06 38.9** | **+0.3** |
| | 5.2nm,0.9s | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **86.08** | **149** | P | **P** | **22 06 57.5** | **-0.3** |
| | 39nm,1.1s | | | | | | |
| **YKA** | **Yellowknife Ar** | **136.65** | **317** | PKP | **PKPdf** | **22 13 36.1** | **-1.8** |
| | 0.2nm,0.8s,baz=110,slow=1.8,SNR=3.6 | | | | | | |
| **ILAR** | **Eielson Array** | **150.71** | **312** | PKPbc | **PKPbc** | **22 14 07.4** | **-0.4** |
| | 0.5nm,0.8s,baz=126,slow=2.4,SNR=5.6 | | | | | | |

*IDC* ***24*** *22:02:12.5±0.5, 18°18S×172°58W, h0km, mb4.4/19, mb1 4.6/20, mb1mx4.4/44, mbtmp4.4/20, ML4.4/1, MS3.7/19, Ms1 3.7/19, ms1mx3.5/41, Error ellipse: s-maj=22.0km s-min=13.5km az=122.0*

*ISCJB* ***24*** *22:02:15.0±0.2, 17°98S±0.05'×172°74W±0.06', h21km, mb4.8/65, MS3.9/18, Error ellipse: s-maj=9.3km s-min=5.4km az=40.7*

*NEIC* ***24*** *22:02:19.1±0.6, 17°93S×172°71W, h40km±5km, mb4.7/35, Error ellipse: s-maj=8.2km s-min=4.7km az=133.0*

*BJI* ***24*** *22:02:19.2, 17°66S×172°48W, h45km, mb5.0/10, mB5.5/5, Ms5.3/1, Ms7 5.0/4*

**ISC 24 22:02:16.3±0.4, 18°04S±0.06'×172°61W±0.08', h21km, n124, σ1§51/120, mb4.8/65, MS3.7/19, Tonga Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **AFI** | **Afiamalu** | **4.18** | **11** | Pn | **Pn** | **22 03 19.7** | **+0.7** |
| | 20nm,0.3s,baz=60,slow=3.5,SNR=14 | | | | | | |
| AFI | | | | Sn | **Sn** | **22 04 03.8** | **-3.5** |
| | 51nm,0.3s,baz=31,slow=22,SNR=11 | | | | | | |
| **AFI** | **Afiamalu** | **4.18** | **11** | *e*Pn | **Pn** | **22 03 18.3** | **-0.7** |
| AFI | | | | Sn | **Sn** | **22 04 03.8** | **-3.5** |
| **MSVF** | **Nonsavu** | **8.90** | **271** | *e*Pn | **Pn** | **22 04 26.4** | **+2.6** |
| **RAO** | **Raoul Island** | **12.17** | **203** | *e*Pn | **Pn** | **22 05 11.2** | **+2.7** |
| **RAR** | **Rarotonga** | **12.50** | **107** | Pn | Pn | 22 05 06.5 | -6.5 |
| | 5.3nm,0.3s,baz=260,slow=7.9,SNR=8.9 | | | | | | |
| RAR | | | | LR | LR | 22 08 42.2 | |
| | comp=Z,361nm,21.4s,baz=265,slow=31 | | | | | | |
| **DZM** | **Mont Dzumac** | **20.08** | **255** | LR | LR | 22 13 05.8 | |
| | comp=Z,258nm,21.8s,baz=108,slow=33 | | | | | | |
| **DZM** | **Mont Dzumac** | **20.08** | **255** | *e*LR | LR | 22 11 31.8 | |
| | 395nm,24.1s | | | | | | |
| **OUZ** | **Omahuta** | **21.05** | **213** | *e*P | **P** | **22 07 01.1** | **+2.2** |
| | 118nm,1.8s | | | | | | |
| **PPT** | **Papeete** | **21.93** | **92** | LR | LR | 22 13 50.1 | |
| | comp=Z,191nm,18.0s,baz=186,slow=32 | | | | | | |
| **PPT** | **Papeete** | **21.93** | **92** | *e*P | **P** | **22 07 11.3** | **+2.7** |
| **PPTF** | **Pamatai, Papee** | **21.94** | **92** | *e*P | **P** | **22 07 11.1** | **+2.3** |
| | 167nm,1.4s | | | | | | |
| **URZ** | **Urewera** | **22.06** | **202** | P | **P** | **22 07 08.3** | **-1.5** |
| | 13nm,0.7s,baz=342,slow=3.2,SNR=3.5 | | | | | | |
| URZ | | | | S | **S** | **22 11 05.6** | **-6.5** |
| | 6.0nm,0.5s,baz=102,slow=20,SNR=5.0 | | | | | | |
| **URZ** | **Urewera** | **22.06** | **202** | *e*P | **P** | **22 07 12.7** | **+3.0** |
| | 23nm,0.9s | | | | | | |
| URZ | | | | S | **S** | **22 11 05.6** | **-6.5** |
| URZ | | | | *e*S | Sn | 22 11 13.0 | -10 |
| URZ | | | | *e*Sn | Sn | 22 11 19.0 | -4.2 |
| **BFZ** | **Birch Farm** | **24.52** | **201** | *e*P | **P** | **22 07 34.3** | **0.0** |
| | 13nm,0.6s | | | | | | |
| **THZ** | **Tophouse** | **26.70** | **205** | *e*P | **P** | **22 07 56.6** | **+2.6** |
| | 13nm,0.9s | | | | | | |
| **HNR** | **Honiara** | **27.97** | **284** | LR | LR | 22 17 34.0 | |
| | comp=Z,201nm,20.9s,baz=96,slow=33 | | | | | | |
| **RPZ** | **Rata Peaks** | **29.07** | **205** | P | **P** | **22 08 11.9** | **-3.3** |
| | 12nm,0.5s,baz=0.0,slow=14,SNR=9.4 | | | | | | |
| **RPZ** | **Rata Peaks** | **29.07** | **205** | *e*P | **P** | **22 08 15.6** | **+0.3** |
| | 89nm,2.0s | | | | | | |
| **JOHN** | **Johnston Islan** | **34.69** | **5** | *e*P | **P** | **22 09 03.9** | **-0.8** |
| | 270nm,1.0s | | | | | | |
| **CTAO** | **Charters Tower** | **38.87** | **260** | *e*P | **P** | **22 09 39.9** | **-0.5** |
| | 14nm,0.8s | | | | | | |
| **PTCN** | **Pitcairn Islan** | **40.03** | **108** | *e*P | **P** | **22 09 52.5** | **+2.4** |
| | 336nm,1.3s | | | | | | |
| **RIM** | **Rim** | **40.91** | **25** | *e*P | **P** | **22 09 57.6** | **+0.2** |
| | 1µm,1.5s | | | | | | |
| **UWE** | **Uwekahuna** | **40.93** | **25** | *e*P | **P** | **22 09 57.4** | **-0.2** |
| | 1µm,1.4s | | | | | | |
| **HULD** | **Heiheiahulu Di** | **41.05** | **26** | *e*P | **P** | **22 09 57.8** | **-0.7** |
| | 179nm,1.3s | | | | | | |
| **STKA** | **Stephens Creek** | **43.44** | **243** | P | **P** | **22 10 17.4** | **-0.5** |
| | 3.1nm,0.8s,baz=93,slow=9.0,SNR=3.9 | | | | | | |
| STKA | | | | LR | LR | 22 26 48.9 | |
| | comp=Z,93nm,18.8s,baz=31,slow=34 | | | | | | |
| **WB2** | **Warramunga Arr** | **50.02** | **259** | *e*P | **P** | **22 11 09.4** | **-0.3** |
| | 68nm,1.8s | | | | | | |
| **WRAB** | **Tennant Creek** | **50.02** | **259** | *e*P | **P** | **22 11 08.6** | **-1.1** |
| | 11nm,0.9s | | | | | | |
| **AS01** | **Alice Springs** | **50.02** | **254** | *e*P | **P** | **22 11 08.8** | **-0.9** |
| **WRA** | **Warramunga Arr** | **50.03** | **259** | P | **P** | **22 11 08.6** | **-1.2** |
| | 8.5nm,0.7s,baz=96,slow=7.8,SNR=78 | | | | | | |
| WRA | | | | LR | LR | 22 30 30.3 | |
| | comp=Z,84nm,22.0s,baz=205,slow=34 | | | | | | |
| **AS31** | **Alice Springs** | **50.07** | **254** | *e*P | **P** | **22 11 09.5** | **-0.5** |
| | 5.0nm,0.7s | | | | | | |
| **ASAR** | **Alice Springs** | **50.07** | **254** | P | **P** | **22 11 09.2** | **-0.8** |
| | 20nm,0.9s,baz=90,slow=8.1,SNR=113 | | | | | | |
| **GUMO** | **Guam** | **52.41** | **304** | LR | LR | 22 32 21.5 | |
| | comp=Z,31nm,18.1s,baz=128,slow=34 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **58.45** | **260** | LR | LR | 22 36 00.1 | |
| | comp=Z,89nm,20.2s,baz=102,slow=35 | | | | | | |
| **VNDA** | **Vanda** | **60.84** | **186** | P | **P** | **22 12 26.1** | **-0.6** |
| | 0.6nm,0.6s,baz=0.0,slow=6.1,SNR=3.1 | | | | | | |
| VNDA | | | | LR | LR | 22 36 33.8 | |
| | comp=Z,44nm,18.7s,baz=90,slow=34 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **71.44** | **320** | P | **P** | **22 13 36.0** | **+0.8** |
| | 2.3nm,1.0s,baz=145,slow=6.3,SNR=3.4 | | | | | | |
| MJAR | | | | LR | LR | 22 39 38.4 | |
| | comp=Z,51nm,22.0s,baz=65,slow=31 | | | | | | |
| **TGY** | **Tagaytay City** | **72.89** | **291** | LR | LR | 22 42 41.1 | |
| | comp=Z,133nm,19.5s,baz=108,slow=33 | | | | | | |
| **ORV** | **Oroville** | **74.54** | **39** | *e*P | **P** | **22 13 54.5** | **+0.9** |
| | 4.7nm,1.3s | | | | | | |
| **WDC** | **Whiskeytown Da** | **74.59** | **37** | *e*P | **P** | **22 13 54.2** | **+0.4** |
| | 13nm,1.5s | | | | | | |
| **DAC** | **Darwin (Calif)** | **74.96** | **43** | *e*P | **P** | **22 13 56.0** | **-0.3** |
| | 9.9nm,1.6s | | | | | | |
| **YBH** | **Yreka Blue Hor** | **75.25** | **36** | P | **P** | **22 13 58.5** | **+0.8** |
| | 2.5nm,0.9s,baz=212,slow=3.2,SNR=5.8 | | | | | | |
| **PETK** | **Petropavlovsk-** | **75.36** | **342** | P | **P** | **22 13 58.0** | **0.0** |
| | 6.5nm,0.8s,baz=118,slow=8.5,SNR=5.8 | | | | | | |
| PETK | | | | LR | LR | 22 42 04.8 | |
| | comp=Z,33nm,21.3s,baz=114,slow=32 | | | | | | |
| **NV01** | **Mina Array Sit** | **75.79** | **41** | *e*P | **P** | **22 13 59.3** | **-1.7** |
| **NVAR** | **Mina Array Bea** | **75.79** | **41** | P | **P** | **22 14 01.2** | **+0.1** |
| | 2.9nm,0.9s,baz=227,slow=9.6,SNR=14 | | | | | | |
| NVAR | | | | LR | LR | 22 43 15.8 | |
| | comp=Z,81nm,19.6s,baz=48,slow=32 | | | | | | |
| **NV11** | **Mina Array Sit** | **75.88** | **41** | *e*P | **P** | **22 14 02.0** | **+0.5** |
| | 0.7nm,1.3s | | | | | | |
| **COR** | **Corvallis** | **76.82** | **34** | *e*P | **P** | **22 14 06.7** | **+0.3** |
| | 288nm,1.9s | | | | | | |
| **KSRS** | **Korea Array** | **78.57** | **316** | LR | LR | 22 42 14.3 | |
| | comp=Z,33nm,19.7s,baz=112,slow=30 | | | | | | |
| **PSUT** | **Pine Spring** | **78.69** | **43** | *e*P | **P** | **22 14 17.9** | **+0.5** |
| | 4.4nm,1.1s | | | | | | |
| **G08A** | **Pilot Rock** | **79.62** | **35** | *e*P | **P** | **22 14 22.5** | **+0.4** |
| | 8.2nm,1.2s | | | | | | |
| **USRK** | **Usurivsk Ar.** | **79.94** | **323** | LR | LR | 22 41 58.0 | |
| | comp=Z,106nm,21.7s,baz=78,slow=30 | | | | | | |
| **D08A** | **Wollman Farm,** | **80.76** | **34** | *e*P | **P** | **22 14 28.6** | **+0.5** |
| | 36nm,1.8s | | | | | | |
| **TMUT** | **Trail Mountain** | **80.83** | **44** | *e*P | **P** | **22 14 30.2** | **+1.1** |
| | 6.9nm,1.0s | | | | | | |
| **HLID** | **Hailey** | **81.19** | **39** | *e*P | **P** | **22 14 30.8** | **+0.1** |
| | 2.9nm,1.0s | | | | | | |
| **P17A** | **Butcher Ranch,** | **81.24** | **44** | *e*P | **P** | **22 14 32.1** | **+1.0** |
| | 3.8nm,1.0s | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **81.46** | **55** | *e*P | **P** | **22 14 33.3** | **+0.9** |
| **TXAR** | **Lajitas Array** | **81.46** | **55** | P | **P** | **22 14 32.7** | **+0.3** |
| | 1.8nm,0.9s,baz=213,slow=9.0,SNR=9.9 | | | | | | |
| **C09A** | **Chrisman Ranch** | **81.56** | **34** | *e*P | **P** | **22 14 32.2** | **-0.2** |
| | 7.1nm,1.0s | | | | | | |
| **TCUT** | **Toone Canyon** | **81.68** | **42** | *e*P | **P** | **22 14 34.2** | **+0.7** |
| | 14nm,1.1s | | | | | | |
| **PV09** | **Paradox Valley** | **81.80** | **45** | *e*P | **P** | **22 14 34.9** | **+0.7** |
| **PV10** | **Paradox Valley** | **81.80** | **45** | *e*P | **P** | **22 14 34.4** | **+0.2** |
| **ANMO** | **Albuquerque** | **81.92** | **49** | P | **P** | **22 14 35.4** | **+0.6** |
| | 1.9nm,1.0s,baz=22,slow=11,SNR=5.2 | | | | | | |
| **PV01** | **Paradox Valley** | **82.00** | **46** | P | **P** | **22 14 35.3** | **+0.2** |
| | 396nm,1.1s | | | | | | |
| **NJ2** | **Nanjing** | **82.36** | **307** | *e*P | **P** | **22 14 36.3** | **-0.6** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,12nm,0.5s | | | | | | |
| **MCMT** | **McKenzie Canyo** | **82.83** | **38** | *e*P | **P** | **22 14 40.0** | **+0.6** |
| **MA2** | **Magadan** | **82.90** | **342** | LR | LR | 22 46 38.6 | |
| | comp=Z,31nm,19.7s,baz=96,slow=32 | | | | | | |
| **S22A** | **4UR Ranch, Cre** | **83.00** | **47** | *e*P | **P** | **22 14 41.2** | **+0.7** |
| | 6.2nm,1.0s | | | | | | |
| **REDW** | **Red Top Meadow** | **83.23** | **40** | *e*P | **P** | **22 14 41.8** | **+0.3** |
| | 8.8nm,1.2s | | | | | | |
| **TPAW** | **Teton Pass** | **83.24** | **40** | *e*P | **P** | **22 14 41.5** | **-0.1** |
| | 17nm,1.8s | | | | | | |
| **IMW** | **Indian Meadow** | **83.47** | **40** | *e*P | **P** | **22 14 43.3** | **+0.6** |
| | 12nm,1.3s | | | | | | |
| **CN2** | **Changchun** | **83.59** | **320** | *e*P | **P** | **22 14 44.0** | **+1.0** |
| **BW06** | **Boulder Array** | **83.72** | **41** | *e*P | **P** | **22 14 43.8** | **-0.2** |
| | 4.4nm,1.0s | | | | | | |
| **PD31** | **Pinedale Array** | **83.72** | **41** | *e*P | **P** | **22 14 43.5** | **-0.5** |
| **PDAR** | **Pinedale Array** | **83.72** | **41** | P | **P** | **22 14 43.7** | **-0.3** |
| | 2.6nm,0.9s,baz=221,slow=4.2,SNR=18 | | | | | | |
| **PDAR** | **Pinedale Array** | **83.72** | **41** | *e*P | **P** | **22 14 43.3** | **-0.7** |
| **YHB** | **Horse Butte** | **83.77** | **39** | *e*P | **P** | **22 14 45.3** | **+1.1** |
| | 6.0nm,0.9s | | | | | | |
| **H17A** | **Grant Village** | **83.95** | **40** | *e*P | **P** | **22 14 46.9** | **+1.6** |
| | 9.7nm,1.3s | | | | | | |
| **BOZ** | **Bozeman (W)** | **83.98** | **38** | *e*pP | pP | 22 14 56.6 | +4.5 |
| **YHH** | **Holmes Hill** | **84.00** | **39** | *e*P | **P** | **22 14 45.9** | **+0.4** |
| | 5.6nm,1.2s | | | | | | |
| **HRY** | **Holter Researc** | **84.47** | **37** | *e*P | **P** | **22 14 47.8** | **+0.2** |
| **CCB** | **Clear Creek Bu** | **84.60** | **10** | *e*P | **P** | **22 14 47.7** | **0.0** |
| | 6.5nm,1.2s | | | | | | |
| **COLA** | **College** | **84.80** | **10** | *e*P | **P** | **22 14 46.3** | **-2.3** |
| | 2.9nm,0.7s | | | | | | |
| **MDM** | **Murphy Dome** | **84.82** | **10** | *e*P | **P** | **22 14 48.7** | **-0.1** |
| | 29nm,1.7s | | | | | | |
| **IL1** | **Eielson Array** | **84.88** | **11** | *e*P | **P** | **22 14 48.7** | **-0.4** |
| **ILAR** | **Eielson Array** | **84.88** | **11** | P | **P** | **22 14 48.8** | **-0.3** |
| | 0.7nm,0.6s,baz=232,slow=5.8,SNR=22 | | | | | | |
| **SEY** | **Seymchan** | **85.25** | **345** | P | **P** | **22 14 51.7** | **+0.7** |
| | 6.0nm,1.0s,baz=129,slow=5.2,SNR=7.9 | | | | | | |
| **MAW** | **Mawson** | **85.55** | **198** | P | **P** | **22 14 52.1** | **-0.4** |
| | 2.6nm,1.0s,baz=118,slow=3.9,SNR=3.6 | | | | | | |
| MAW | | | | LR | LR | 22 54 15.5 | |
| | comp=Z,22nm,19.0s,baz=61,slow=37 | | | | | | |
| **DAWY** | **Dawson** | **85.78** | **14** | *e*P | **P** | **22 14 54.0** | **+0.3** |
| | 6.9nm,0.9s | | | | | | |
| **ABTX** | **Abilene, Hawle** | **85.98** | **54** | *e*P | **P** | **22 14 55.6** | **+0.3** |
| | 18nm,1.0s | | | | | | |
| **CCIG** | **Comitan** | **86.24** | **72** | *e*P | **P** | **22 14 57.6** | **+0.4** |
| | 40nm,0.5s | | | | | | |
| **PLCA** | **Paso Flores** | **87.19** | **132** | P | **P** | **22 15 00.5** | **-0.9** |
| | 1.2nm,0.9s,baz=256,slow=5.0,SNR=5.5 | | | | | | |
| PLCA | | | | LR | LR | 22 46 51.7 | |
| | comp=Z,46nm,18.7s,baz=217,slow=31 | | | | | | |
| **INK** | **Inuvik** | **90.64** | **14** | P | **P** | **22 15 16.4** | **-0.2** |
| | 2.2nm,0.9s,baz=206,slow=4.5,SNR=5.6 | | | | | | |
| **VNA2** | **Neumayer--Watz** | **90.67** | **175** | P | **P** | **22 15 15.7** | **-1.4** |
| | baz=188,slow=3.3 | | | | | | |
| **VNA1** | **Neumayer--Stat** | **90.87** | **175** | P | **P** | **22 15 16.6** | **-1.4** |
| **HHC** | **Hu-ho-hao-te** | **91.37** | **313** | *e*P | **P** | **22 15 20.9** | **0.0** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,21nm,1.4s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,150nm,7.6s | | | | | | |
| **YKA** | **Yellowknife Ar** | **92.21** | **23** | P | **P** | **22 15 23.6** | **-0.5** |
| | 0.7nm,1.0s,baz=245,slow=4.2,SNR=7.3 | | | | | | |
| **KMI** | **Kunming** | **92.84** | **295** | P | **P** | **22 15 28.8** | **+0.6** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.5s | | | | | | |
| KMI | | | | pmax | pmax | | |
| | comp=Z,120nm,4.6s | | | | | | |
| **VBMS** | **Vicksburg** | **93.00** | **57** | *e*P | **P** | **22 15 29.6** | **+1.1** |
| | 151nm,0.3s | | | | | | |
| **LZH** | **Lanzhou** | **95.39** | **306** | *e*P | P | 22 15 45.0 | +5.4 |
| LZH | | | | pP | sP | 22 15 57.6 | +8.5 |
| LZH | | | | sP | pP | 22 16 02.8 | +16 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,18nm,1.4s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,75nm,9.2s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=N,350nm,17.5s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=E,370nm,17.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,430nm,19.3s | | | | | | |
| **LPAZ** | **La Paz** | **98.20** | **110** | LR | LR | 22 52 13.2 | |
| | comp=Z,63nm,18.5s,baz=246,slow=31 | | | | | | |
| **KSH** | **Kashi** | **117.64** | **306** | *e*PKP | **PKPdf** | **22 21 04.3** | **+3.1** |
| KSH | | | | sPKP | | 22 21 17.8 | |
| KSH | | | | PP | PP | 22 22 22.8 | +8.7 |
| KSH | | | | SKS | **SKSdf** | **22 28 11.5** | **-0.9** |
| KSH | | | | SKKS | **SKKSac** | **22 29 11.1** | **-2.6** |
| KSH | | | | SS | **SS** | **22 38 29.6** | **+4.1** |
| KSH | | | | LR | LR | | |
| | comp=Z,270nm,6.4s | | | | | | |
| **KMBO** | **Kilima Mbogo** | **144.98** | **240** | PKP | **PKPdf** | **22 21 53.1** | **-0.3** |
| | 2.8nm,0.8s,baz=64,slow=4.3,SNR=13 | | | | | | |
| **OJC** | **Ojcow** | **146.39** | **346** | *e*PKP | **PKPdf** | **22 21 54.5** | **+0.1** |
| **CLL** | **Collm** | **146.51** | **354** | *i* PKPbc | **PKPbc** | **22 21 55.9** | **0.0** |
| | comp=Z,12nm,1.0s | | | | | | |
| CLL | | | | *i* pPKPdf | sPKPbc | 22 22 05.0 | -0.4 |
| | comp=Z,17nm,1.3s | | | | | | |
| **KSP** | **Ksiaz** | **146.51** | **350** | *e*PKP | **PKPab** | **22 21 56.6** | **-0.2** |
| **STHS** | **Stebnicka Huta** | **146.76** | **343** | *e*PKP | **PKPbc** | **22 21 57.3** | **+0.6** |
| **BRG** | **Berggiesshubel** | **146.83** | **352** | PKP | **PKPbc** | **22 21 57.0** | **+0.2** |
| | comp=Z,6.3nm,1.0s | | | | | | |
| **UPC** | **Upice** | **146.88** | **350** | *e*PKP | **PKPbc** | **22 21 57.5** | **+0.5** |
| **DPC** | **Dobruska-Polom** | **146.98** | **349** | *e*PKP | **PKPbc** | **22 21 57.6** | **+0.3** |
| **PVCC** | **Panska Ves** | **147.08** | **352** | *e*PKP | **PKPbc** | **22 21 58.2** | **+0.7** |
| **CRVS** | **Cervenica-Dubn** | **147.17** | **343** | *e*PKP | **PKPbc** | **22 22 00.0** | **+0.5** |
| **PRU** | **Pruhonice** | **147.61** | **351** | *e*PKP | **PKPbc** | **22 21 59.3** | **+0.3** |
| **KECS** | **Kecovo** | **147.82** | **344** | *e*PKP | **PKPbc** | **22 21 59.3** | **-0.3** |
| KECS | | | | *e* | | 22 22 02.8 | |
| **VYHS** | **Vyhne** | **148.23** | **345** | *e*PKP | **PKPbc** | **22 22 01.2** | **+0.4** |
| VYHS | | | | *e* | | 22 22 04.9 | |
| **KHC** | **Kasperske Hory** | **148.58

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| FCH | | | | | IAML | | | 22 34 44.2 | |
| | comp=N,197nm,0.6s | | | | | | | | |
| **LCO** | **Las Campanas** | **2.69** | **33** | *eP* | | **Pn** | **22 34 09.9** | **+0.1** | |
| LCO | | | | *i* S | | **Sn** | **22 34 41.6** | **-0.1** | |
| LCO | | | | | IAML | | 22 34 54.0 | | |
| | comp=E,220nm,0.5s | | | | | | | | |
| **AUSP** | **Uspallata** | **2.70** | **111** | *eP* | | **Pn** | **22 34 10.2** | **+0.3** | |
| AUSP | | | | *eS* | | **Sn** | **22 34 41.5** | **-0.3** | |
| **LMEL** | **Las Melosas** | **3.13** | **145** | *eP* | | **Pn** | **22 34 15.4** | **-0.2** | |
| LMEL | | | | *i* S | | **Sn** | **22 34 49.8** | **-2.3** | |
| LMEL | | | | | IAML | | 22 35 00.7 | | |
| | comp=N,236nm,0.4s | | | | | | | | |
| **RTCV** | **Cerro Valdivia** | **3.31** | **101** | *eP* | | **Pn** | **22 34 18.5** | **+0.5** | |
| **RTLL** | **Cerro Villicun** | **3.33** | **92** | *eP* | | **Pn** | **22 34 18.1** | **-0.1** | |
| RTLL | | | | | IAML | | 22 35 05.3 | | |
| | comp=Z,111nm,0.3s | | | | | | | | |
| **AMOG** | **MOGNA** | **3.34** | **85** | *eP* | | **Pn** | **22 34 19.2** | **+0.8** | |
| AMOG | | | | *eS* | | **Sn** | **22 35 00.7** | **+3.7** | |
| **AGUA** | **GUANDACOL** | **3.80** | **63** | *eP* | | **Pn** | **22 34 27.4** | **+2.7** | |
| **VCA** | **Vinchina** | **4.42** | **56** | *eP* | | **Pn** | **22 34 36.5** | **+3.3** | |
| VCA | | | | | IAML | | 22 35 43.6 | | |
| | comp=Z,117nm,0.3s | | | | | | | | |
| **ACAN** | **Cantantal** | **4.51** | **104** | *eP* | | **Pn** | **22 34 34.7** | **+0.3** | |
| **ACLC** | **CERRO LA CRUZ** | **5.04** | **70** | *eP* | | **Pn** | **22 34 41.8** | **+0.2** | |
| ACLC | | | | *eS* | | **Sn** | **22 35 38.8** | **+0.2** | |
| **APLL** | **PUNTA DE LOS L** | **5.10** | **81** | *eP* | | **Pn** | **22 34 41.7** | **-0.7** | |
| APLL | | | | *eS* | | **Sn** | **22 35 38.0** | **-1.9** | |
| APLL | | | | | IAML | | 22 35 47.5 | | |
| | comp=Z,16nm,0.4s | | | | | | | | |
| **CYA** | **Choya** | **6.37** | **65** | *eP* | | **Pn** | **22 34 58.9** | **-0.8** | |
| CYA | | | | | IAML | | 22 36 30.8 | | |
| | comp=Z,8.6nm,0.5s | | | | | | | | |
| **TCA** | **Tanti** | **6.65** | **92** | *eP* | | **Pn** | **22 35 03.2** | **-0.4** | |
| TCA | | | | | IAML | | 22 36 52.5 | | |
| | comp=Z,16nm,0.6s | | | | | | | | |
| **AHML** | **Horco Molle** | **7.62** | **56** | IAML | | | 22 36 52.5 | | |
| | comp=Z,3.0nm,0.5s | | | | | | | | |
| **FSA** | **Cafayete** | **7.62** | **49** | IAML | | | 22 35 24.8 | | |
| | comp=Z,2.5nm,0.5s | | | | | | | | |

*IDC **24** 22:34:35.4±2.6,37.89N×142.36E,h0km,mb3.6/3, mb1 3.7/4,mb1mx3.3/60,mbtmp3.5/4,ML3.0/1,Error ellipse: s-maj=66.2km s-min=31.1km az=56.0*
*ISCJB **24** 22:34:42.4±1.3,37.78N±0.04×141.88E±0.08,h30km±6km, mb3.7/3,Error ellipse: s-maj=10.8km s-min=5.2km az=18.5*
*JMA **24** 22:34:43.5,37.79N×141.79E,h50km±1km,M3.7*
**ISC 24 22:34:40.9**±1.3,**37.75N**±0.05×**141.90E**±0.10,**h20**km±6km, **n24,**σ1§**19**/31,**mb3.5**/3,**Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JIO** | **Ouri** | **0.83** | **329** | P | **Pn** | **22 34 58.0** | **+0.6** |
| JIO | | | | S | **Sb** | **22 35 08.0** | **+0.7** |
| **JMM** | **Marumori** | **0.88** | **278** | P | **Pn** | **22 34 58.6** | **+0.5** |
| JMM | | | | S | **Sb** | **22 35 09.4** | **+0.6** |
| **JFK** | **Kawauchi** | **0.90** | **245** | P | **Pn** | **22 34 59.2** | **+0.9** |
| JFK | | | | S | **Sn** | **22 35 10.5** | **-0.2** |
| **ONAJ** | **Iwakimizuishiy** | **1.09** | **234** | P | **Pb** | **22 35 01.9** | **+0.9** |
| ONAJ | | | | *eS* | **Sn** | **22 35 16.0** | **+0.6** |
| **JOU** | **Okura** | **1.16** | **303** | P | **Pb** | **22 35 02.3** | **+0.2** |
| JOU | | | | S | **Sb** | **22 35 16.1** | **-0.6** |
| **JFT** | **Otama** | **1.26** | **260** | P | **Pb** | **22 35 04.7** | **+0.8** |
| JFT | | | | S | **Sb** | **22 35 20.1** | **+0.4** |
| **JMK** | **Ichinoseki** | **1.32** | **336** | P | **Pb** | **22 35 04.9** | **0.0** |
| JMK | | | | *eS* | **Sn** | **22 35 20.3** | **-0.7** |
| **JYS** | **Shirataka** | **1.52** | **289** | P | **Pn** | **22 35 07.6** | **+0.7** |
| JYS | | | | *eS* | **Sn** | **22 35 26.4** | **+0.2** |
| **JYK** | **Kaneyama** | **1.68** | **315** | P | **Pn** | **22 35 09.8** | **+0.7** |
| JYK | | | | *eS* | **Sn** | **22 35 30.1** | **0.0** |
| **JFY** | **Yanaizu** | **1.77** | **260** | P | **Pb** | **22 35 11.7** | **-1.0** |
| JFY | | | | *eS* | **Sn** | **22 35 32.9** | **+0.5** |
| **JOM** | **Ohasama** | **1.79** | **345** | P | **Pn** | **22 35 11.7** | **+1.1** |
| JOM | | | | *eS* | **Sn** | **22 35 32.9** | **+0.2** |
| **JYA** | **Atsumi** | **1.92** | **297** | P | **Pn** | **22 35 13.0** | **+0.7** |
| **JRG** | **Rokugo** | **1.92** | **329** | P | **Pn** | **22 35 13.7** | **+1.3** |
| JRG | | | | S | **Sn** | **22 35 36.6** | **+0.6** |
| **MJAR** | **Matsushiro Arr** | **3.18** | **249** | Pn | **Pn** | **22 35 31.9** | **+2.2** |
| | 1.3nm,0.3s,baz=75,slow=13,SNR=15 | | | | | | |
| **MAT** | **Matsushiro** | **3.18** | **249** | P | **Pn** | **22 35 32.1** | **+2.3** |
| MAT | | | | *eS* | **Sb** | **22 36 11.2** | **-3.9** |
| **H11N2** | **WAKE ISLAND Hy** | **28.19** | **123** | T | T | 23 10 13.2 | |
| | baz=316,slow=75,SNR=47 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.20** | **123** | T | T | 23 10 12.0 | |
| | baz=316,slow=75,SNR=49 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.21** | **123** | T | T | 23 10 10.3 | |
| | baz=316,slow=75,SNR=38 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.93** | **125** | T | T | 23 11 09.4 | |
| | baz=318,SNR=368 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.93** | **125** | T | T | 23 11 06.5 | |
| | baz=318,slow=74,SNR=140 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.95** | **125** | T | T | 23 11 09.4 | |
| | baz=318,slow=74,SNR=15 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.07** | **302** | P | **P** | **22 42 46.8** | **-0.5** |
| | 0.9nm,1.1s,baz=83,slow=8.6,SNR=3.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **57.82** | **188** | P | **P** | **22 44 29.6** | **-1.2** |
| | 0.9nm,0.5s,baz=5.5,slow=7.0,SNR=23 | | | | | | |
| **ASAR** | **Alice Springs** | **61.55** | **188** | P | **P** | **22 44 55.8** | **-0.7** |
| | 0.3nm,0.7s,baz=13,slow=6.0,SNR=3.9 | | | | | | |

*CSEM **24** 22:38:03.4,37.19N×22.17E,h3km,ML1.0/3*
**ATH 24 22:38:03.4,37.19N×22.17E,h3**km±1km,**ML1.0**/3,**Error ellipse: s-maj=1.6km s-min=0.7km az=270.0,Southern Greece**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ITM** | **Ithomi** | **0.19** | **266** | P | Pg | 22 38 07.3 | +0.1 |
| ITM | | | | S | Sg | 22 38 09.3 | -0.5 |
| ITM | | | | AML | AML | 22 38 10.8 | |
| | comp=N,117μm,0.2s | | | | | | |
| ITM | | | | AML | AML | 22 38 10.9 | |
| | comp=E,83μm,0.2s | | | | | | |
| **ITM** | **Ithomi** | **0.19** | **266** | P | Pg | 22 38 07.3 | +0.1 |
| ITM | | | | S | Sg | 22 38 09.3 | -0.5 |
| **VLX** | **Vlachokerasia** | **0.24** | **43** | P | Pg | 22 38 07.9 | -0.2 |
| VLX | | | | S | Sg | 22 38 12.2 | +0.8 |
| VLX | | | | AML | AML | 22 38 12.3 | |
| | comp=N,77μm,0.3s | | | | | | |
| VLX | | | | AML | AML | 22 38 12.6 | |
| | comp=E,118μm,0.3s | | | | | | |
| **VLX** | **Vlachokerasia** | **0.24** | **43** | P | Pg | 22 38 07.9 | -0.3 |
| VLX | | | | S | Sg | 22 38 12.2 | +0.8 |
| **MES3** | **Kyparissia** | **0.40** | **278** | P | Pg | 22 38 11.3 | +0.2 |
| MES3 | | | | S | Sg | 22 38 16.8 | +0.4 |
| **MES3** | **Kyparissia** | **0.40** | **278** | P | Pg | 22 38 11.3 | +0.2 |
| MES3 | | | | S | Sg | 22 38 16.8 | +0.5 |
| **DYR** | **Agios Nikonas** | **0.45** | **163** | P | Pg | 22 38 12.6 | +0.6 |
| DYR | | | | S | Sg | 22 38 19.1 | +1.2 |
| **DYR** | **Agios Nikonas** | **0.45** | **163** | P | Pg | 22 38 12.6 | +0.6 |
| DYR | | | | S | Sg | 22 38 19.1 | +1.2 |
| **PYL** | **PYLOS** | **0.45** | **229** | P | Pg | 22 38 10.4 | -1.6 |
| PYL | | | | S | Sg | 22 38 19.5 | +1.6 |
| **PYL** | **PYLOS** | **0.45** | **229** | P | Pg | 22 38 10.4 | -1.7 |
| PYL | | | | S | Sg | 22 38 19.5 | +1.5 |
| **AMT** | **Artemida-Makis** | **0.50** | **313** | P | Pg | 22 38 12.5 | -0.5 |
| AMT | | | | S | Sg | 22 38 20.4 | +0.8 |
| AMT | | | | AML | AML | 22 38 23.5 | |
| | comp=N,68μm,0.5s | | | | | | |
| AMT | | | | AML | AML | 22 38 24.9 | |
| | comp=E,46μm,0.3s | | | | | | |
| **AMT** | **Artemida-Makis** | **0.50** | **313** | P | Pg | 22 38 12.5 | -0.5 |
| AMT | | | | S | Sg | 22 38 20.4 | +0.9 |
| **MES2** | **Methoni** | **0.52** | **225** | P | Pb | 22 38 14.7 | -0.4 |
| MES2 | | | | S | Sg | 22 38 20.9 | +0.7 |
| **MES2** | **Methoni** | **0.52** | **225** | P | Pb | 22 38 14.7 | -0.5 |
| MES2 | | | | S | Sg | 22 38 20.9 | +0.7 |
| **VLI** | **Veliai** | **0.78** | **127** | P | Pg | 22 38 17.5 | -0.8 |
| VLI | | | | S | Sg | 22 38 27.2 | -1.1 |
| **VLI** | **Veliai** | **0.78** | **127** | P | Pg | 22 38 17.5 | -0.8 |
| VLI | | | | S | Sg | 22 38 27.2 | -1.1 |
| **DRO** | **Drossia** | **0.84** | **334** | P | Pg | 22 38 19.4 | -0.1 |
| DRO | | | | S | Sb | 22 38 32.2 | -0.2 |
| **DRO** | **Drossia** | **0.84** | **334** | P | Pg | 22 38 19.4 | -0.2 |
| DRO | | | | S | Sb | 22 38 32.2 | -0.2 |
| **DID** | **Didima** | **0.91** | **69** | P | Pg | 22 38 20.8 | 0.0 |
| DID | | | | S | Sb | 22 38 33.6 | -0.7 |
| **DID** | **Didima** | **0.91** | **69** | P | Pg | 22 38 20.8 | 0.0 |
| DID | | | | S | Sb | 22 38 33.6 | -0.6 |

*ISCJB **24** 22:39:04.9±0.2,77.05N±0.03×7.7E±0.2,h10km,mb4.4/46, MS3.6/28,Error ellipse: s-maj=5.4km s-min=4.3km az=136.2*
*IDC **24** 22:39:04.9±0.5,77.48N×7.46E,h0km,mb3.9/18, mb1 4.0/24,mb1mx3.9/56,mbtmp3.9/24,ML3.4/5,MS3.6/32, Ms1 3.6/32,ms1mx3.5/60,Error ellipse: s-maj=13.0km s-min=9.7km az=28.0*
*MOS **24** 22:39:04.5±1.1,77.50N×7.48E,h10km,mb4.8/8,Error ellipse: s-maj=34.7km s-min=7.8km az=94.8*
*BJI **24** 22:39:04.2,77.50N×7.40E,h10km,mb4.4/23,mB5.2/16, Ms4.9/7,Ms7 4.6/6*
*CSEM **24** 22:39:05.0±0.1,77.56N×7.60E,h2km,mb4.7/20,Error ellipse: s-maj=6.4km s-min=4.4km az=49.0*
*NAO **24** 22:39:05.4±1.8,77.53N×8.71E,ML3.8*
*NEIC **24** 22:39:06.8±0.3,77.56N×7.57E,h10km,mb4.7/21,Error ellipse: s-maj=6.6km s-min=4.6km az=53.0*
*BER **24** 22:39:08.2±6.6,77.61N×8.68E,h15km±48km,MD2.4, ML3.0,ML3.8(NAO)*
**ISC 24 22:39:06.9**±0.4,**77.59N**±0.05×**7.59E**±0.04,**h10**km,**n174,** σ1§**96**/165,**mb4.5**/46,**MS3.6**/28,**1C,Svalbard region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BRBA** | **Barentsburg A** | **1.48** | **68** | Pg | **Pn** | **22 39 29.8** | **-3.7** |
| BRBA | | | | Lg | Lg | 22 39 47.0 | |
| | SNR=91 | | | | | | |
| **KBS** | **Kingsbay** | **1.61** | **32** | Pg | **Pn** | **22 39 31.8** | **-3.4** |
| KBS | | | | Lg | Lg | 22 39 50.8 | |
| **KBS** | **Kingsbay** | **1.61** | **32** | Pg | **Pn** | **22 39 31.8** | **-3.4** |
| KBS | | | | Lg | Lg | 22 39 50.8 | |
| **KBS** | **Kingsbay** | **1.61** | **32** | *eP* | **Pn** | **22 39 33.2** | **-2.1** |
| **KBS** | **Kingsbay** | **1.61** | **32** | *eP* | **Pn** | **22 39 31.6** | **-3.6** |
| KBS | | | | *eSg* | **Sn** | **22 39 50.6** | **-5.4** |
| KBS | | | | IAML | | 22 39 53.5 | |
| | comp=Z,320nm,0.2s | | | | | | |
| **KBS** | **Kingsbay** | **1.61** | **32** | *eP* | **Pn** | **22 39 33.2** | **-2.1** |
| KBS | | | | Lg | Lg | 22 39 50.8 | |
| **KBS** | **Kingsbay** | **1.61** | **32** | *ePn* | **Pn** | **22 39 33.1** | **-2.1** |
| **SPA0** | **Spitsbergen Ar** | **1.94** | **68** | Pn | **Pn** | **22 39 37.4** | **-2.5** |
| | baz=261,slow=14 | | | | | | |
| SPA0 | | | | Lg | Lg | 22 40 00.4 | |
| | baz=234,slow=28 | | | | | | |
| **SPA0** | **Spitsbergen Ar** | **1.94** | **68** | Pg | **Pn** | **22 39 37.4** | **-2.5** |
| | baz=261,slow=14 | | | | | | |
| SPA0 | | | | Lg | Lg | 22 40 00.1 | |
| **SPA0** | **Spitsbergen Ar** | **1.94** | **68** | Pn | **Pn** | **22 39 37.4** | **-2.5** |
| | baz=261,slow=14 | | | | | | |
| SPA0 | | | | Lg | Lg | 22 40 00.4 | |
| | baz=234,slow=28 | | | | | | |
| SPA0 | | | | IAML | | 22 40 04.9 | |
| | comp=Z,313nm,0.4s | | | | | | |
| **SPA0** | **Spitsbergen Ar** | **1.94** | **68** | *ePn* | **Pn** | **22 39 37.5** | **-2.4** |
| SPA0 | | | | Lg | Lg | 22 40 00.4 | |
| | SNR=50 | | | | | | |
| **SPA0** | **Spitsbergen Ar** | **1.94** | **68** | *ePn* | **Pn** | **22 39 37.5** | **-2.4** |
| **SPITS** | **Spitsbergen Ar** | **1.94** | **68** | Pn | **Pn** | **22 39 37.4** | **-2.5** |
| | baz=249,slow=16,SNR=1920 | | | | | | |
| SPITS | | | | Sn | **Sn** | **22 40 00.0** | **-4.3** |
| | baz=238,slow=27,SNR=12 | | | | | | |
| SPITS | | | | LR | LR | 22 40 38.7 | |
| | comp=Z,1μm,19.1s,baz=270,slow=47 | | | | | | |
| **HOPEN** | **Hopen** | **4.06** | **97** | Pn | **Pn** | **22 40 05.9** | **-3.0** |
| HOPEN | | | | Sn | **Sn** | **22 40 50.2** | **-6.2** |
| **HOPEN** | **Hopen** | **4.06** | **97** | *eP* | **Pn** | **22 40 05.9** | **-3.0** |
| HOPEN | | | | *eS* | **Sn** | **22 40 50.4** | **-5.9** |
| **DAG** | **Danmarks Havn** | **5.87** | **275** | *eP* | **Pn** | **22 40 31.6** | **-2.0** |
| **ARA0** | **ARCESS Array S** | **9.49** | **139** | Pn | Pn | 22 41 18.3 | -5.0 |
| | baz=334,slow=14 | | | | | | |
| ARA0 | | | | Sn | Sn | 22 42 55.0 | -15 |
| | baz=341,slow=22 | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| WMQ | | | | | pmax | pmax | | |
| | comp=Z,26nm,0.6s | | | | | | | |
| WMQ | | | | | pmax | pmax | | |
| | comp=Z,170nm,3.7s | | | | | | | |
| WMQ | | | | | LR | LR | | |
| | comp=Z,100nm,21.7s | | | | | | | |
| WMQ | | | | | LR | LR | | |
| | comp=Z,130nm,16.9s | | | | | | | |
| **SONM** | **Songino Array** | **45.64** | **69** | | P | **P** | **22 47 27.9** | **+0.9** |
| | comp=Z,0.9nm,0.8s,baz=296,slow=4.8,SNR=6.1 | | | | | | | |
| **KSH** | **Kashi** | **47.13** | **101** | | *e*P | P | 22 47 43.8 | +5.0 |
| KSH | | | | | pP | sP | 22 47 47.6 | +4.4 |
| KSH | | | | | PcP | **PcP** | **22 49 15.8** | **+5.5** |
| KSH | | | | | PP | **PP** | **22 49 36.0** | **+6.7** |
| KSH | | | | | S | **S** | **22 54 36.4** | **+5.6** |
| KSH | | | | | ScS | **ScS** | **22 57 35.1** | **+2.4** |
| KSH | | | | | SS | **SS** | **22 57 55.8** | **-1.5** |
| KSH | | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.9s | | | | | | | |
| KSH | | | | | pmax | pmax | | |
| | comp=Z,310nm,6.3s | | | | | | | |
| KSH | | | | | LR | LR | | |
| | comp=Z,180nm,6.8s | | | | | | | |
| KSH | | | | | LR | LR | | |
| | comp=Z,190nm,4.9s | | | | | | | |
| KSH | | | | | LR | LR | | |
| | comp=Z,320nm,6.2s | | | | | | | |
| **NEW** | **Newport** | **49.90** | **314** | | LR | LR | 23 10 11.9 | |
| | comp=Z,111nm,21.1s,baz=298,slow=37 | | | | | | | |
| **MSO** | **Missoula** | **50.79** | **311** | | *e*P | **P** | **22 48 06.5** | **-0.3** |
| | comp=Z,26nm,1.8s | | | | | | | |
| **MSO** | **Missoula** | **50.79** | **311** | | *e*P | **P** | **22 48 06.5** | **-0.3** |
| | comp=Z,28nm,1.8s | | | | | | | |
| **CN2** | **Changchun** | **53.11** | **53** | | *e*P | **P** | **22 48 24.5** | **+0.5** |
| CN2 | | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.6s | | | | | | | |
| **IMW** | **Indian Meadow** | **53.13** | **307** | | *e*P | **P** | **22 48 25.2** | **+0.7** |
| | comp=Z,3.8nm,0.9s | | | | | | | |
| **IMW** | **Indian Meadow** | **53.13** | **307** | | *e*P | **P** | **22 48 25.2** | **+0.7** |
| | comp=Z,3.8nm,0.9s | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **53.38** | **67** | | *e*P | **P** | **22 48 26.3** | **+0.2** |
| HHC | | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.1s | | | | | | | |
| HHC | | | | | pmax | pmax | | |
| | comp=Z,130nm,6.4s | | | | | | | |
| **PDAR** | **Pinedale Array** | **53.99** | **306** | | P | **P** | **22 48 30.9** | **+0.2** |
| | comp=Z,0.4nm,0.8s,baz=52,slow=10,SNR=3.7 | | | | | | | |
| PDAR | | | | | LR | LR | 23 11 30.5 | |
| | comp=Z,144nm,21.0s,baz=16,slow=36 | | | | | | | |
| **PDAR** | **Pinedale Array** | **53.99** | **306** | | P | **P** | **22 48 31.0** | **+0.2** |
| **BJI** | **Beijing** | **55.06** | **63** | | P | **P** | **22 48 37.1** | **-1.1** |
| **UTMT** | **University of** | **56.19** | **285** | | *e*P | **P** | **22 48 47.1** | **+0.7** |
| | comp=Z,50nm,0.8s | | | | | | | |
| **UTMT** | **University of** | **56.19** | **285** | | *e*P | **P** | **22 48 47.1** | **+0.7** |
| | comp=Z,50nm,0.8s | | | | | | | |
| **O20A** | **White River Ci** | **56.31** | **304** | | *e*P | **P** | **22 48 47.8** | **+0.3** |
| | comp=Z,7.2nm,1.0s | | | | | | | |
| **O20A** | **White River Ci** | **56.31** | **304** | | *e*P | **P** | **22 48 47.8** | **+0.3** |
| | comp=Z,7.2nm,1.0s | | | | | | | |
| **LZH** | **Lanzhou** | **56.40** | **75** | | *e*P | **P** | **22 48 47.6** | **-0.5** |
| LZH | | | | | pP | pP | 22 48 50.9 | -0.4 |
| LZH | | | | | *e*PP | **PP** | **22 50 54.5** | **+1.3** |
| LZH | | | | | pmax | pmax | | |
| | comp=Z,21nm,1.3s | | | | | | | |
| LZH | | | | | pmax | pmax | | |
| | comp=Z,75nm,7.2s | | | | | | | |
| LZH | | | | | LR | LR | | |
| | comp=Z,320nm,14.5s | | | | | | | |
| LZH | | | | | LR | LR | | |
| | comp=Z,350nm,15.0s | | | | | | | |
| LZH | | | | | LR | LR | | |
| | comp=Z,400nm,19.0s | | | | | | | |
| **RAYN** | **Ar Rayn** | **57.04** | **138** | | *e*P | **P** | **22 48 53.0** | **+0.4** |
| | comp=Z,4.2nm,1.2s | | | | | | | |
| **RAYN** | **Ar Rayn** | **57.04** | **138** | | *e*P | **P** | **22 48 53.0** | **+0.4** |
| | comp=Z,4.2nm,1.2s | | | | | | | |
| **U35A** | **Pawnee** | **57.77** | **292** | | *e*P | **P** | **22 48 57.0** | **-0.6** |
| | comp=Z,53nm,1.7s | | | | | | | |
| **U35A** | **Pawnee** | **57.77** | **292** | | *e*P | **P** | **22 48 57.0** | **-0.6** |
| | comp=Z,53nm,1.7s | | | | | | | |
| **NVAR** | **Mina Array Bea** | **59.68** | **313** | | LR | LR | 23 15 47.3 | |
| | comp=Z,125nm,20.4s,baz=3.0,slow=37 | | | | | | | |
| **KSRS** | **Korea Array** | **59.71** | **53** | | LR | LR | 23 18 51.3 | |
| | comp=Z,36nm,19.2s,baz=356,slow=40 | | | | | | | |
| **WMOK** | **Wichita Mounta** | **59.76** | **294** | | *e*P | **P** | **22 49 11.1** | **-0.4** |
| WMOK | | | | | pmax | pmax | | |
| | comp=Z,19nm,1.9s | | | | | | | |
| **WMOK** | **Wichita Mounta** | **59.76** | **294** | | *e*P | **P** | **22 49 11.1** | **-0.4** |
| | comp=Z,19nm,1.9s | | | | | | | |
| **WMOK** | **Wichita Mounta** | **59.76** | **294** | | *e*P | **P** | **22 49 11.1** | **-0.4** |
| | comp=Z,19nm,1.9s | | | | | | | |
| **NJ2** | **Nanjing** | **63.32** | **62** | | *e*P | **P** | **22 49 36.8** | **+1.3** |
| NJ2 | | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.5s | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **64.52** | **186** | | P | **P** | **22 49 42.4** | **-1.2** |
| | comp=Z,2.7nm,0.8s,baz=360,slow=5.7,SNR=14 | | | | | | | |
| **TXAR** | **Lajitas Array** | **65.96** | **297** | | P | **P** | **22 49 51.9** | **-1.0** |
| | comp=Z,0.8nm,0.8s,baz=50,slow=3.7,SNR=7.9 | | | | | | | |
| TXAR | | | | | LR | LR | 23 18 32.2 | |
| | comp=Z,92nm,18.1s,baz=0.0,slow=36 | | | | | | | |
| **KMI** | **Kunming** | **66.76** | **79** | | P | **P** | **22 49 59.8** | **+1.6** |
| KMI | | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.5s | | | | | | | |
| KMI | | | | | pmax | pmax | | |
| | comp=Z,210nm,5.0s | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **72.40** | **85** | | LR | LR | 23 27 37.0 | |
| | comp=Z,60nm,18.5s,baz=5.5,slow=40 | | | | | | | |

*IDC **24** 22:42:19.3±2.5,**30°02S**×**177°22W**,**h0**km,**mb3.5**/2,*
*mb1 3.8/2,mb1mx3.5/31,mbtmp3.5/2,**Error ellipse:***
***s-maj=53.6km s-min=28.5km az=69.0,Kermadec***
***Islands***

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **0.98** | **321** | Pn | Pn | 22 42 40.9 | +0.6 |
| | 466nm,0.3s,baz=80,slow=6.7,SNR=36 | | | | | | |
| RAO | | | | Sn | Sn | 22 42 54.7 | -0.2 |
| | 168nm,0.3s,baz=112,slow=22,SNR=4.0 | | | | | | |
| **ASAR** | **Alice Springs** | **43.81** | **266** | P | P | 22 50 27.1 | -0.2 |
| | 0.3nm,0.6s,baz=99,slow=6.7,SNR=6.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.76** | **271** | P | P | 22 50 34.6 | -0.2 |
| | 0.6nm,0.6s,baz=110,slow=8.1,SNR=9.6 | | | | | | |
| **FINES** | **FINESS Array B** | **145.02** | **341** | PKPbc | PKPbc | 23 01 56.2 | -1.0 |
| | 9.0nm,1.2s,baz=56,slow=3.4,SNR=11 | | | | | | |

*CSEM **24** 22:42:40.5±1.6,77°55N×7°89E,h5km,ML2.8,Error*
*ellipse: s-maj=46.2km s-min=19.3km az=90.0*
*BER **24** 22:42:42.9±6.6,77°65N×8°19E,h0km±95km,MD2.3,ML2.6,*
*ML2.8(NAO)*
*NAO **24** 22:42:43.7±1.9,77°61N×8°60E,ML2.8*
*IDC **24** 22:42:48.6±1.8,77°32N×10°45E,h0km,mb3.4/2,*
*mb1 3.8/3,mb1mx3.1/51,mbtmp3.6/3,ML3.1/1,Error*
*ellipse: s-maj=25.0km s-min=14.8km az=103.0*

**ISC 24 22:42:43.5±1.6,77°62N±0°07×8°7E±0°1,h10km,n18,**
**σ1§32/20,Svalbard region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **BRBA** | **Barentsburg A** | **1.25** | **67** | Pg | **Pg** | **22 43 07.5** | **+0.2** |
| BRBA | | | | Lg | Lg | 22 43 24.6 | |
| | SNR=91 | | | | | | |
| **KBS** | **Kingsbay** | **1.47** | **25** | Pg | **Pb** | **22 43 10.7** | **0.0** |
| KBS | | | | Lg | Lg | 22 43 28.4 | |
| **KBS** | **Kingsbay** | **1.47** | **25** | Pg | **Pb** | **22 43 10.7** | **0.0** |
| KBS | | | | Lg | Lg | 22 43 28.4 | |
| **KBS** | **Kingsbay** | **1.47** | **25** | *e*P | **Pn** | **22 43 09.8** | **-0.1** |
| KBS | | | | *e*Sg | **Sn** | **22 43 28.2** | **-0.9** |
| KBS | | | | IAML | | 22 43 30.5 | |
| | comp=Z,103nm,0.2s | | | | | | |
| **KBS** | **Kingsbay** | **1.47** | **25** | *e*P | **Pn** | **22 43 09.8** | **-0.1** |
| | SNR=50 | | | | | | |
| **KBS** | **Kingsbay** | **1.47** | **25** | Pg | **Pb** | **22 43 10.7** | **0.0** |
| KBS | | | | *e*Sg | **Sn** | **22 43 28.2** | **-0.9** |
| | SNR=90 | | | | | | |
| **SPA0** | **Spitsbergen Ar** | **1.71** | **67** | Pn | **Pb** | **22 43 15.2** | **+0.3** |
| | baz=244,slow=14 | | | | | | |
| SPA0 | | | | Lg | Lg | 22 43 37.9 | |
| | baz=287,slow=22

baz=42
**USP Ospenovka 1.43 41 ⇑P Pg 23 14 25.7 -0.4**
6.7nm,0.1s,SNR=71
**KZA Kyzart 1.53 94 ⇓*i*P Pb 23 14 27.5 +0.2**
baz=94
KZA ⇓*i*S **Sg 23 14 47.9 +0.1**
baz=94
**KZA Kyzart 1.53 94 ⇑P Pg 23 14 27.9 0.0**
4.6nm,0.2s,SNR=6.9
**TKM2 Tokmak 2 1.91 67 ⇑*i*P Pb 23 14 33.7 0.0**
baz=67
TKM2 ⇑*i*S **Sg 23 14 58.7 -1.3**
baz=67
**TKM2 Tokmak 2 1.91 67 ⇑Pg Pb 23 14 34.0 +0.3**
6.3nm,0.5s
TKM2 ⇑Lg Lg 23 15 01.0
12nm,0.6s
**TKM2 Tokmak 2 1.91 67 P Pb 23 14 34.2 +0.4**
4.2nm,0.2s,SNR=14
**BOOM Boomskoye usch 2.05 81 ⇓*e*P Pg 23 14 37.6 -0.3**
baz=81
BOOM ⇓*i*S **Sg 23 15 04.3 -0.2**
baz=81
**DGS Degeres 2.16 60 *e*P Pg 23 14 40.1 +0.1**
25nm,0.2s
DGS *e*S **Sg 23 15 10.0 +1.9**
16nm,0.3s
**KK31 Karatay Array 2.18 295 ⇓Pn Pb 23 14 38.6 +0.5**
0.3nm,0.2s,baz=109,slow=14,SNR=57
KK31 ⇑Pg **Pg 23 14 41.1 +0.8**
0.8nm,0.2s,baz=124,slow=16,SNR=8.6
KK31 ⇑Lg Lg 23 15 08.6
11nm,0.5s,baz=116,slow=27,SNR=14
**SFK Sufi-Kurgan 2.20 174 ⇓*e*P Pb 23 14 38.3 -0.3**
baz=174
SFK ⇓*i*S **Sb 23 15 07.0 +1.0**
baz=174
**SFK Sufi-Kurgan 2.20 174 ⇓Pg Pb 23 14 38.8 +0.2**
6.6nm,0.8s
SFK ⇓Lg Lg 23 15 09.0
8.8nm,0.3s
**KST Kastek 2.21 67 *e*P Pg 23 14 40.5 -0.3**
3.1nm,0.2s
KST ⇓*i*S **Sg 23 15 10.6 +1.1**
26nm,0.8s
**NRN Naryn 2.23 109 ⇑*e*P Pb 23 14 38.6 -0.6**
baz=109
NRN ⇑*i*S **Sb 23 15 07.4 +0.4**
baz=109
**ULHL Ulahol 2.26 88 ⇑*e*P Pb 23 14 39.1 -0.6**
baz=88
ULHL ⇑*e*S **Sb 23 15 08.1 +0.3**
baz=88
**ULHL Ulahol 2.26 88 ⇑P Pb 23 14 40.1 +0.4**
6.2nm,0.3s,SNR=23
**IUG Iuzhnay 2.36 270 *e*P Pg 23 14 43.5 -0.2**
37nm,0.2s
IUG *e*S **Sg 23 15 15.7 +1.4**
55nm,0.3s
**MTBS Maitube 2.56 68 *e*P Pg 23 14 46.3 -1.2**
7.6nm,0.2s
MTBS *e*S **Sg 23 15 21.3 +0.6**
11nm,0.3s
**IZV Izvestkoviy 2.66 70 *e*P Pb 23 14 47.6 +1.2**
21nm,0.3s
IZV *e*S **Sg 23 15 23.1 -0.8**
11nm,0.2s
**TNSS Tian-Shan 2.89 72 *e*P Pg 23 14 52.8 -1.2**
8.9nm,0.2s
TNSS ⇓*i*S **Sg 23 15 31.6 +0.2**
12nm,0.6s
**MDOK Medeo 3.00 70 *e*P Pb 23 14 53.8 +1.6**
6.0nm,0.3s
MDOK *e*S **Sg 23 15 34.0 -0.9**
8.9nm,1.2s
**KOTS Kotyrbulak 3.06 69 *e*P Pg 23 14 57.3 0.0**
7.1nm,0.3s
KOTS *e*S **Sg 23 15 39.0 +2.0**
8.8nm,0.4s
**ARXS Arharly 3.94 58 *e*P Pg 23 15 12.1 -1.9**
7.5nm,0.5s
ARXS *e*S **Sg 23 16 04.7 -0.2**
9.2nm,0.3s

*ISCJB **24** 23:22:20.2±1.0,45°.26N±0°.05×80°.39E±0°.09,h10km,Error ellipse: s-maj=8.9km s-min=7.6km az=7.0*
*NNC **24** 23:22:21.2±0.8,45°.06N×80°.60E,h0km,mb2.6,mpv2.1, Error ellipse: s-maj=16.5km s-min=5.3km az=118.0*
*SOME **24** 23:22:22.5,45°.07N×80°.18E,h5km*
**ISC 24 23:22:23.1±1.4,45°.13N±0°.05×80°.24E±0°.08,h10km,n7, σ1°77/10,3C-3D,Kazakhstan-Xinjiang border region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KAPS** | **Kapalarasan** | **0.65** | **284** | ***e*P** | **Pg** | **23 22 34.9** | **-0.7** |
| KAPS | 0.8nm,0.3s | | | *e*S | **Sb** | **23 22 44.2** | **-1.4** |
| **DJR** | **Jarkent** | **0.86** | **202** | ⇓*i*P | **Pg** | **23 22 38.2** | **-1.5** |
| DJR | 3.6nm,0.2s | | | *e*S | **Sg** | **23 22 50.1** | **-0.8** |
| **KTMS** | **Ketmen** | **1.69** | **177** | ***e*P** | **Pn** | **23 22 52.3** | **-0.4** |
| KTMS | 7.7nm,0.3s<br>5.1nm,0.1s | | | *e*S | **Sn** | **23 23 14.7** | **+0.3** |
| **PDGK** | **Podgornoye** | **1.88** | **197** | ⇑Pg | **Pn** | **23 22 55.8** | **+0.5** |
| PDGK | 3.4nm,1.0s<br>4.2nm,0.6s | | | ⇑Lg | Lg | 23 23 22.2 | |
| **MAKZ** | **Makanchi** | **2.07** | **35** | ⇓Lg | Lg | 23 23 24.0 | |
| | 1.8nm,0.3s | | | | | | |
| **UZB** | **Uzynkulak** | **2.17** | **204** | ***e*P** | **Pn** | **23 23 01.2** | **+1.9** |
| UZB | 1.6nm,0.1s<br>2.6nm,0.2s | | | *e*S | **Sn** | **23 23 29.9** | **+3.5** |
| **MK31** | **Makanchi Array** | **2.19** | **40** | ⇑Pg | **Pn** | **23 23 00.2** | **+0.7** |
| | 0.3nm,0.3s,baz=214,slow=17,SNR=10 | | | | | | |
| MK31 | 0.6nm,0.2s,baz=215,slow=27,SNR=15 | | | ⇓Lg | Lg | 23 23 27.0 | |

*IDC **24** 23:23:06.6±2.0, 10°.62S×162°.23E,h0km,mb3.8/5, mb1 4.0/6,mb1mx3.7/40,mbtmp3.9/6,ML4.6/1,MS3.1/2, Ms1 3.1/2,ms1mx2.6/38, Error ellipse: s-maj=51.5km s-min=30.3km az=134.0*
*ISCJB **24** 23:23:14.3±0.6, 10°.65S±0°.08×161°.91E±0°.08,h54km, mb4.4/16,MS3.1/1, Error ellipse: s-maj=13.6km s-min=9.8km az=44.2*
*NEIC **24** 23:23:15.9±2.3, 10°.61S×161°.90E,h51km±19km,mb4.2/7, Error ellipse: s-maj=19.8km s-min=13.3km az=92.0*
**ISC 24 23:23:16.3±0.8,10°.65S±0°.1×161°.9E±0°.1,h54km,n26, σ1°26/20,mb4.0/16,Bougainville-Solomon Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **HNR** | **Honiara** | **2.23** | **302** | ***i*P** | **Pn** | **23 23 48.5** | **-2.4** |
| **HNR** | **Honiara** | **2.23** | **302** | Pn | **Pn** | **23 23 49.6** | **-1.3** |
| HNR | 126nm,0.3s,baz=163,slow=4.9,SNR=34 | | | Sn | **Sn** | **23 24 18.2** | **+0.8** |
| | 236nm,0.3s,baz=64,slow=13,SNR=11 | | | | | | |
| **PMG** | **Port Moresby** | **14.53** | **274** | LR | LR | 23 31 53.5 | |
| | comp=Z,72nm,21.1s,baz=94,slow=35 | | | | | | |
| **CTA** | **Charters Tower** | **17.73** | **236** | P | **P** | **23 27 21.5** | **+1.8** |
| | 0.3nm,0.3s,baz=52,slow=16,SNR=3.9 | | | | | | |
| **RAO** | **Raoul Island** | **26.46** | **137** | P | **P** | **23 28 49.0** | **+0.6** |
| | 36nm,0.3s | | | | | | |
| **WRA** | **Warramunga Arr** | **28.08** | **247** | P | **P** | **23 29 03.1** | **+0.1** |
| | 0.9nm,0.6s,baz=78,slow=9.0,SNR=8.2 | | | | | | |
| WRA | comp=Z,42nm,18.4s,baz=55,slow=35 | | | LR | LR | 23 39 50.2 | |
| **H11S2** | **WAKE ISLAND Hy** | **29.33** | **9** | T | T | 23 59 51.6 | |
| | baz=189,slow=76,SNR=32 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.33** | **9** | T | T | 23 59 52.4 | |
| | baz=189,slow=76,SNR=5.0 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.35** | **9** | T | T | 23 59 56.3 | |
| | baz=189,slow=76,SNR=26 | | | | | | |
| **GUMO** | **Guam** | **29.39** | **325** | ***e*P** | **P** | **23 29 15.8** | **+1.2** |
| | 15nm,0.3s | | | | | | |
| **ASAR** | **Alice Springs** | **29.62** | **240** | P | **P** | **23 29 16.7** | **-0.1** |
| | 0.4nm,0.8s,baz=64,slow=9.6,SNR=4.4 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **30.56** | **9** | T | T | 00 01 27.7 | |
| | baz=188,slow=76,SNR=22 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **30.57** | **9** | T | T | 00 01 25.2 | |
| | baz=188,slow=76,SNR=24 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **30.58** | **9** | T | T | 00 01 25.4 | |
| | baz=188,slow=76,SNR=20 | | | | | | |
| **TAU** | **Tasmania Unive** | **34.57** | **199** | P | **P** | **23 29 58.9** | **-0.9** |
| | 0.2nm,0.3s | | | | | | |
| **MAJO** | **Matsushiro** | **51.94** | **336** | P | **P** | **23 32 21.3** | **+1.4** |
| | 1.2nm,0.8s | | | | | | |
| **MDJ** | **Mudanjiang** | **62.27** | **334** | P | **P** | **23 33 33.3** | **+0.6** |
| | 1.1nm,0.4s | | | | | | |
| **KULM** | **Kulim** | **62.96** | **282** | P | **P** | **23 33 38.5** | **+0.6** |
| | 3.3nm,1.0s | | | | | | |
| **COCO** | **West Island** | **63.63** | **262** | P | **P** | **23 33 42.1** | **-0.2** |
| | 70nm,0.4s | | | | | | |
| **ULN** | **Ulaanbaatar** | **75.76** | **325** | ***e*P** | **P** | **23 34 56.0** | **-0.6** |
| | 0.6nm,0.6s | | | | | | |
| **SONM** | **Songino Array** | **76.11** | **325** | P | **P** | **23 34 57.8** | **-0.7** |
| | 1.5nm,0.8s,baz=122,slow=7.0,SNR=11 | | | | | | |
| **YAK** | **Yakutsk** | **76.67** | **345** | P | **P** | **23 35 02.0** | **+0.9** |
| | 2.9nm,0.4s | | | | | | |
| **COLA** | **College** | **84.12** | **19** | P | **P** | **23 35 41.8** | **+0.7** |
| | 0.8nm,0.9s | | | | | | |
| **ILAR** | **Eielson Array** | **84.37** | **20** | P | **P** | **23 35 40.1** | **-2.3** |
| | 0.4nm,0.7s,baz=245,slow=5.2,SNR=4.2 | | | | | | |
| **DGAR** | **Diego Garcia** | **88.08** | **263** | P | **P** | **23 36 01.8** | **+0.1** |
| | 46nm,0.1s | | | | | | |
| **MKAR** | **Makanchi Array** | **90.63** | **317** | P | **P** | **23 36 11.2** | **-1.8** |
| | 0.4nm,0.7s,baz=97,slow=7.4,SNR=3.7 | | | | | | |

*IDC **24** 23:28:56.7±1.1,51°.08N×177°.84E,h0km,mb3.4/9, mb1 3.7/10,mb1mx3.5/52,mbtmp3.5/10,ML4.1/1,MS2.4/1, Ms1 2.4/1,ms1mx2.2/35,Error ellipse: s-maj=38.3km s-min=17.7km az=172.0*
*ISCJB **24** 23:29:00.1±0.9,51°.1N±0°.2×177°.9E±0°.2,h33km,mb3.2/9, Error ellipse: s-maj=31.8km s-min=13.9km az=169.1*
**ISC 24 23:29:01.7±1.0,51°.1N±0°.2×177°.9E±0°.1,h33km,n11, σ1°18/10,mb3.4/9,Rat Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PETK** | **Petropavlovsk-** | **12.56** | **287** | LR | LR | 23 36 45.0 | |
| | comp=Z,18nm,19.1s,baz=50,slow=37 | | | | | | |
| **KDAK** | **Kodiak Island** | **18.32** | **57** | P | **P** | **23 33 10.5** | **-2.3** |
| | 0.6nm,0.3s,baz=259,slow=10,SNR=16 | | | | | | |
| **ILAR** | **Eielson Array** | **22.77** | **40** | P | **P** | **23 34 00.3** | **-0.6** |
| | 0.3nm,0.6s,baz=234,slow=7.7,SNR=7.3 | | | | | | |
| **KLR** | **Kul'dur** | **29.24** | **285** | P | **P** | **23 34 59.9** | **-0.4** |
| | 0.1nm,0.7s,baz=72,slow=6.4,SNR=3.4 | | | | | | |
| **YKA** | **Yellowknife Ar** | **36.92** | **46** | P | **P** | **23 36 07.1** | **+0.2** |
| | 0.1nm,0.4s,baz=277,slow=6.8,SNR=4.4 | | | | | | |
| **SONM** | **Songino Array** | **44.89** | **295** | P | **P** | **23 37 13.7** | **+0.8** |
| | 0.1nm,0.4s,baz=71,slow=9.3,SNR=3.5 | | | | | | |
| **NVAR** | **Mina Array Bea** | **45.65** | **80** | P | **P** | **23 37 20.4** | **+1.2** |
| | 0.3nm,0.6s,baz=294,slow=7.1,SNR=3.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **58.54** | **307** | P | **P** | **23 38 53.9** | **-0.7** |
| | 0.2nm,0.5s,baz=54,slow=5.3,SNR=4.1 | | | | | | |
| **TXAR** | **Lajitas Array** | **60.75** | **79** | P | **P** | **23 39 10.5** | **+0.3** |
| | 0.3nm,0.7s,baz=299,slow=5.6,SNR=3.7 | | | | | | |
| **ASAR** | **Alice Springs** | **83.91** | **220** | P | **P** | **23 41 27.4** | **-0.7** |
| | 0.3nm,0.7s,baz=30,slow=5.0,SNR=4.5 | | | | | | |
| **BRTR** | **Keskin Array B** | **84.28** | **333** | P | **P** | **23 41 30.9** | **+0.8** |
| | 0.6nm,0.7s,baz=12,slow=7.4,SNR=2.9 | | | | | | |

**WEL 24 23:47:51.4±0.2,43°.48S×172°.81E,h8km±1km,ML3.5/12, 4C-1D,Error ellipse: s-maj=2.1km s-min=0.9km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.17** | **233** | ⇑PG | Pg | 23 47 55.2 | +0.3 |
| CRLZ | | | | SG | Sg | 23 47 57.7 | +0.5 |
| CRLZ | | | | AML | AML | 23 47 58.3 | |
| CRLZ | | | | AML | AML | 23 47 58.3 | |
| CRLZ | | | | AML | AML | 23 47 58.3 | |
| **MQZ** | **McQueen's Vall** | **0.26** | **206** | ⇑PG | Pg | 23 47 56.5 | -0.1 |
| MQZ | | | | SG | Sg | 23 48 00.2 | +0.3 |
| MQZ | | | | AML | AML | 23 48 00.8 | |
| **OXZ** | **Oxford** | **0.58** | **285** | ⇓P* | Pg | 23 48 02.7 | +0.1 |
| OXZ | | | | S* | Sg | 23 48 10.6 | +0.4 |
| OXZ | | | | AML | AML | 23 48 13.2 | |
| OXZ | | | | AML | AML | 23 48 13.2 | |
| OXZ | | | | AML | AML | 23 48 14.4 | |
| **LTZ** | **Lake Taylor** | **0.80** | **330** | ***e*P*** | Pg | 23 48 07.0 | +0.2 |
| LTZ | | | | *e*S* | Sg | 23 48 17.7 | +0.6 |
| **KHZ** | **Kahutara** | **1.19** | **27** | P* | Pb | 23 48 12.5 | -1.6 |
| KHZ | | | | AML | AML | 23 48 37.4 | |
| KHZ | | | | AML | AML | 23 48 37.4 | |
| **INZ** | **Inchbonnie** | **1.25** | **306** | P* | Pn | 23 48 13.7 | -1.4 |
| **RPZ** | **Rata Peaks** | **1.30** | **259** | ⇑P* | Pn | 23 48 14.3 | -1.5 |
| RPZ | | | | AML | AML | 23 48 35.3 | |
| RPZ | | | | AML | AML | 23 48 43.3 | |
| **WVZ** | **Waitaha Valley** | **1.56** | **284** | ⇑PN | Pn | 23 48 18.9 | -0.6 |
| **THZ** | **Tophouse** | **1.71** | **2** | PN | Pn | 23 48 20.0 | -1.6 |
| THZ | | | | AML | AML | 23 48 46.5 | |
| THZ | | | | AML | AML | 23 48 56.2 | |
| **DSZ** | **Denniston Nort** | **1.88** | **337** | PN | Pn | 23 48 22.8 | -1.1 |
| DSZ | | | | AML | AML | 23 48 55.5 | |
| DSZ | | | | AML | AML | 23 48 57.6 | |
| **BSWZ** | **Blackbirch Sta** | **1.93** | **25** | PN | Pn | 23 48 23.0 | -1.5 |
| **LBZ** | **Lake Benmore** | **2.10** | **243** | PN | Pn | 23 48 26.0 | -0.9 |
| LBZ | | | | AML | AML | 23 49 02.0 | |
| LBZ | | | | AML | AML | 23 49 05.4 | |
| **FOZ** | **Fox Glacier** | **2.18** | **267** | PN | Pn | 23 49 28.1 | +0.2 |
| **ODZ** | **Otahua Downs** | **2.21** | **224** | AML | AML | 23 49 03.3 | |
| ODZ | | | | AML | AML | 23 49 09.5 | |
| ODZ | | | | AML | AML | 23 49 10.3 | |
| ODZ | | | | AML | AML | 23 49 15.0 | |
| **NNZ** | **Nelson** | **2.30** | **11** | PN | Pn | 23 48 28.5 | -1.1 |
| **PLWZ** | **Palliser** | **2.63** | **44** | PN | Pn | 23 48 31.5 | -2.7 |
| **QRZ** | **Quartz Range** | **2.66** | **355** | PN | Pn | 23 48 33.7 | -0.9 |
| **DUWZ** | **D'Urville Isla** | **2.80** | **18** | PN | Pn | 23 48 35.3 | -1.2 |
| **CAW** | **Cannon Point** | **2.90** | **36** | PN | Pn | 23 48 35.4 | -2.5 |
| **JCZ** | **Jackson Bay** | **2.97** | **257** | PN | Pn | 23 48 38.5 | -0.5 |
| JCZ | | | | AML | AML | 23 49 34.1 | |
| **EAZ** | **Earnscleugh** | **3.06** | **234** | PN | Pn | 23 48 38.9 | -1.2 |
| **TUZ** | **Tuapeka** | **3.36** | **221** | PN | Pn | 23 48 42.9 | -1.2 |
| TUZ | | | | AML | AML | 23 49 50.9 | |
| **BFZ** | **Birch Farm** | **3.79** | **44** | PN | Pn | 23 48 46.7 | -3.4 |
| **MLZ** | **Mavora Lakes** | **3.85** | **239** | PN | Pn | 23 48 49.7 | -1.3 |
| **SYZ** | **Scrubby Hill** | **4.02** | **219** | PN | Pn | 23 48 52.3 | -0.9 |
| **WHZ** | **Wether Hill Ro** | **4.22** | **233** | PN | Pn | 23 48 54.7 | -1.4 |
| **DCZ** | **Deep Cove** | **4.51** | **242** | PN | Pn | 23 48 58.4 | -1.5 |
| **OTVZ** | **Oturere** | **4.81** | **28** | PN | Pn | 23 49 03.2 | -1.1 |
| **HIZ** | **Hauiti** | **5.19** | **18** | PN | Pn | 23 49 08.6 | -0.8 |

*ISCJB **24** 23:48:50.8±0.7,49°.02S±0°.08×122°.0E±0°.3,h10km, mb4.4/8,MS3.6/11,Error ellipse: s-maj=25.5km s-min=11.7km az=6.8*
*IDC **24** 23:48:51.1±1.2,49°.02S×121°.93E,h0km,mb4.3/3, mb1 4.4/4,mb1mx3.9/32,mbtmp4.3/4,ML2.4/1,MS3.6/12, Ms1 3.6/12,ms1mx3.4/34,Error ellipse: s-maj=92.5km s-min=25.1km az=108.0*
*NEIC **24** 23:48:52.6±0.5,49°.04S×121°.91E,h10km,mb4.4/5,Error ellipse: s-maj=23.6km s-min=10.6km az=96.0*
**ISC 24 23:48:52.5±0.7,49°.03S±0°.10×121°.9E±0°.2,h10km,n27, σ0°82/15,mb4.3/8,MS3.7/11,Western Indian-Antarctic Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **H01W1** | **Cape Leeuwin H** | **15.24** | **335** | T | T | 00 07 43.2 | |
| | baz=159,slow=74,SNR=37 | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **15.24** | **335** | T | T | 00 07 49.8 | |
| | baz=159,slow=74,SNR=42 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **15.26** | **335** | T | T | 00 07 45.9 | |
| | baz=159,slow=74,SNR=29 | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **16.46** | **346** | Pn | **Pn** | **23 52 42.7** | **-0.8** |
| | 0.7nm,0.3s,baz=48,slow=12,SNR=5.8 | | | | | | |
| NWAO | comp=Z,286nm,18.2s,baz=168,slow=32 | | | LR | LR | 23 57 40.7 | |
| **NWAO** | **Narrogin (SRO)** | **16.46** | **346** | Pn | **Pn** | **23 52 43.4** | **0.0** |
| | 11nm,0.9s | | | | | | |
| **STKA** | **Stephens Creek** | **22.65** | **48** | LR | LR | 00 01 11.2 | |
| | comp=Z,116nm,20.6s,baz=205,slow=33 | | | | | | |
| **ASAR** | **Alice Springs** | **27.02** | **25** | P | **P** | **23 54 34.6** | **-0.1** |
| | 5.4nm,1.0s,baz=191,slow=8.5,SNR=17 | | | | | | |
| ASAR | comp=Z,224nm,21.4s,baz=188,slow=34 | | | LR | LR | 00 04 02.7 | |
| **WRA** | **Warramunga Arr** | **30.69** | **23** | P | **P** | **23 55 06.8** | **-0.5** |
| | 3.9nm,1.1s,baz=194,slow=8.9,SNR=6.5 | | | | | | |
| WRA | comp=Z,116nm,21.4s,baz=190,slow=34 | | | LR | LR | 00 06 07.0 | |
| **WRAB** | **Tennant Creek** | **30.70** | **23** | P | **P** | **23 55 08.6** | **+1.2** |
| | 0.1nm,0.3s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **31.00** | **7** | LR | LR | 00 06 10.5 | |
| | comp=Z,292nm,21.4s,baz=98,slow=34 | | | | | | |
| **VNDA** | **Vanda** | **32.37** | **165** | LR | LR | 00 06 54.1 | |
| | comp=Z,149nm,21.0s,baz=312,slow=33 | | | | | | |
| **SBA** | **Scott Base** | **33.42** | **164** | P | **P** | **23 55 29.1** | **-1.7** |
| | 1.9nm,0.6s | | | | | | |
| **MAW** | **Mawson** | **34.40** | **216** | LR | LR | 00 06 45.9 | |
| | comp=Z,70nm,18.4s,baz=59,slow=31 | | | | | | |
| **CTAO** | **Charters Tower** | **34.85** | **43** | P | **P** | **23 55 44.1** | **+0.4** |
| | 8.0nm,0.9s | | | | | | |
| **QSPA** | **South Pole Qui** | **41.09** | **180** | P | **P** | **23 56 37.7** | **+1.5** |
| | 2.6nm,0.3s | | | | | | |
| **COCO** | **West Island** | **42.20** | **322** | P | **P** | **23 56 45.3** | **-0.1** |
| | 151nm,0.8s | | | | | | |
| **SNAA** | **Sanae** | **53.45** | **199** | P | **P** | **23 58 12.2** | **+0.1** |
| | 4.1nm,1.1s,baz=150,slow=7.9,SNR=5.7 | | | | | | |
| **SNAA** | **Sanae** | **53.45** | **199** | P | **P** | **23 58 12.1** | **0.0** |
| | 43nm,0.9s | | | | | | |
| **GUMO** | **Guam** | **65.57** | **25** | LR | LR | 00 28 24.1 | |
| | comp=Z,19nm,19.1s,baz=160,slow=36 | | | | | | |
| **PALK** | **Pallekele** | **66.64** | **315** | LR | LR | 00 23 08.0 | |
| | comp=Z,44nm,18.4s,baz=116,slow=31 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **70.23** | **337** | LR | LR | 00 30 52.0 | |
| | comp=Z,11nm,20.0s,baz=160,slow=36 | | | | | | |
| **LBTB** | **Lobatse** | **75.47** | **249** | LR | LR | 00 27 06.3 | |
| | comp=Z,49nm,18.4s,baz=155,slow=30 | | | | | | |
| **BRDH** | **Bariadhala** | **76.32** | **331** | LR | LR | 00 32 56.0 | |
| | comp=Z,45nm,18.7s,baz=328,slow=35 | | | | | | |
| **TRIS** | **Tristan da Cun** | **85.14** | **215** | P | **P** | **00 01 28.9** | **+0.2** |
| **PDAR** | **Pinedale Array** | **144.22** | **80** | PKP | **PKPdf** | **00 08 27.8** | **-0.5** |
| | 0.5nm,0.7s,baz=188,slow=3.0,SNR=5.3 | | | | | | |
| **YKA** | **Yellowknife Ar** | **146.66** | **45** | PKPbc | **PKPbc** | **00 08 33.3** | **+0.3** |
| | 1.1nm,0.8s,baz=270,slow=2.3,SNR=26 | | | | | | |
| **RES** | **Resolute Bay** | **149.98** | **19** | PKPbc | **PKPbc** | **00 08 41.2** | **-0.3** |
| | 2.0nm,1.0s,baz=270,slow=4.0,SNR=4.7 | | | | | | |

**WEL 24 23:53:45.9±0.3,43°.48S×172°.81E,h8km±1km,ML3.5/13, 4C-6D,Error ellipse: s-maj=2.8km s-min=1.0km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.17** | **237** | ⇓PG | Pg | 23 53 49.7 | +0.3 |
| CRLZ | | | | SG | Sg | 23 53 52.6 | +0.9 |
| CRLZ | | | | AML | AML | 23 53 52.8 | |
| **MQZ** | **McQueen's Vall** | **0.25** | **208** | ⇑PG | Pg | 23 53 51.0 | +0.1 |
| MQZ | | | | SG | Sg | 23 53 54.9 | +0.6 |
| MQZ | | | | AML | AML | 23 53 55.3 | |
| **OXZ** | **Oxford** | **0.59** | **285** | ⇓P* | Pg | 23 53 57.3 | +0.1 |
| OXZ | | | | S* | Sg | 23 54 05.6 | +0.7 |
| OXZ | | | | AML | AML | 23 54 07.3 | |
| OXZ | | | | AML | AML | 23 54 07.7 | |
| OXZ | | | | AML | AML | 23 54 07.7 | |
| **LTZ** | **Lake Taylor** | **0.81** | **330** | P* | Pg | 23 54 01.5 | +0.1 |
| LTZ | | | | S* | Sg | 23 54 12.3 | +0.5 |
| **KHZ** | **Kahutara** | **1.19** | **27** | P* | Pb | 23 54 06.6 | -2.1 |
| KHZ | | | | AML | AML | 23 54 31.9 | |
| KHZ | | | | AML | AML | 23 54 33.1 | |
| **INZ** | **Inchbonnie** | **1.26** | **307** | P* | Pn | 23 54 08.1 | -1.6 |
| **RPZ** | **Rata Peaks** | **1.30** | **259** | ⇓P* | Pn | 23 54 08.7 | -1.6 |
| RPZ | | | | AML | AML | 23 54 32.9 | |
| RPZ | | | | AML | AML | 23 54 37.8 | |
| **WVZ** | **Waitaha Valley** | **1.57** | **284** | ⇓PN | Pn | 23 54 13.1 | -0.9 |
| **THZ** | **Tophouse** | **1.72** | **2** | ⇑PN | Pn | 23 54 14.5 | -1.6 |
| THZ | | | | AML | AML | 23 54 41.0 | |
| THZ | | | | AML | AML | 23 54 45.7 | |
| **DSZ** | **Denniston Nort** | **1.89** | **336** | PN | Pn | 23 54 17.5 | -0.9 |
| DSZ | | | | AML | AML | 23 54 52.1 | |
| DSZ | | | | AML | AML | 23 54 55.6 | |
| **BSWZ** | **Blackbirch Sta** | **1.93** | **24** | PN | Pn | 23 54 17.5 | -1.4 |
| **LBZ** | **Lake Benmore** | **2.10** | **244** | PN | Pn | 23 54 20.9 | -0.5 |
| LBZ | | | | AML | AML | 23 54 60.0 | |
| LBZ | | | | AML | AML | 23 55 01.5 | |
| **FOZ** | **Fox Glacier** | **2.18** | **268** | ⇑PN | Pn | 23 54 22.7 | +0.3 |
| **ODZ** | **Otahua Downs** | **2.21** | **224** | PN | Pn | 23 54 21.4 | -1.3 |
| ODZ | | | | AML | AML | 23 54 59.4 | |
| ODZ | | | | AML | AML | 23 55 06.5 | |
| ODZ | | | | AML | AML | 23 55 06.5 | |
| ODZ | | | | AML | AML | 23 55 09.6 | |
| **NNZ** | **Nelson** | **2.30** | **11** | PN | Pn | 23 54 23.0 | -1.1 |
| **TCW** | **Tory Channel** | **2.52** | **26** | PN | Pn | 23 54 25.2 | -1.8 |
| **PLWZ** | **Palliser** | **2.63** | **44** | ⇓PN | Pn | 23 54 26.0 | -2.6 |
| **QRZ** | **Quartz Range** | **2.67** | **355** | PN | Pn | 23 54 28.2 | -0.9 |
| **DUWZ** | **D'Urville Isla** | **2.80** | **17** | PN | Pn | 23 54 29.5 | -1.5 |
| **HHSZ** | **Highcliff Hill** | **2.87** | **213** | PN | Pn | 23 54 30.5 | -1.5 |
| **CAW** | **Cannon Point** | **2.90** | **36** | PN | Pn | 23 54 29.9 | -2.4 |
| **JCZ** | **Jackson Bay** | **2.98** | **257** | PN | Pn | 23 54 33.2 | -0.2 |
| JCZ | | | | AML | AML | 23 55 32.7 | |
| **KIW** | **Kapiti Island** | **3.05** | **31** | PN | Pn | 23 54 32.1 | -2.2 |
| **MTW** | **Mount Morrison** | **3.06** | **42** | ⇓PN | Pn | 23 54 31.6 | -2.9 |
| **EAZ** | **Earnscleugh** | **3.06** | **234** | ⇑PN | Pn | 23 54 33.0 | -1.1 |
| EAZ | | | | AML | AML | 23 55 36.7 | |
| **TUZ** | **Tuapeka** | **3.35** | **221** | PN | Pn | 23 54 37.4 | -1.1 |
| TUZ | | | | AML | AML | 23 55 45.4 | |
| TUZ | | | | AML | AML | 23 55 46.8 | |
| **MRZ** | **Mangatainoka R** | **3.49** | **37** | PN | Pn | 23 54 37.4 | -3.0 |
| **BFZ** | **Birch Farm** | **3.79** | **44** | PN | Pn | 23 54 41.2 | -3.3 |
| **SYZ** | **Scrubby Hill** | **4.01** | **219** | PN | Pn | 23 54 46.8 | -0.7 |
| **PKE** | **Pukeiti** | **4.38** | **12** | PN | Pn | 23 54 52.7 | +0.1 |
| **OTVZ** | **Oturere** | **4.82** | **27** | PN | Pn | 23 54 57.1 | -1.7 |
| **HIZ** | **Hauiti** | **5.20** | **18** | PN | Pn | 23 55 03.0 | -0.9 |

**IDC 24 23:59:57.2±3.4,4°.76S×152°.61E,h0km,mb3.1/2, mb1 3.4/2,mb1mx3.2/45,mbtmp3.2/2,Error ellipse: s-maj=149.4km s-min=47.1km az=121.0,New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **23.33** | **228** | P | P | 00 05 06.2 | -1.0 |
| | 0.3nm,0.4s,baz=54,slow=10,SNR=5.5 | | | | | | |
| **ASAR** | **Alice Springs** | **26.05** | **222** | P | P | 00 05 33.6 | +1.1 |
| | 0.3nm,0.8s,baz=58,slow=9.9,SNR=4.3 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **150.12** | **288** | PKPbc | PKPbc | 00 19 50.5 | -0.5 |
| | 0.1nm,0.4s,baz=71,slow=2.2,SNR=3.2 | | | | | | |

*BJI **25** 00:07:50.8,6°.19N×126°.60E,h62km,mb4.6/35,mB5.2/23, Ms4.7/10,Ms7 4.4/10*
*MAN **25** 00:07:53,6°.48N×126°.27E,h20km,mb5.4,ML4.4,MS4.7*
*ISCJB **25** 00:07:54.5±0.4,6°.61N±0°.03×126°.35E±0°.04,h66km±3km, mb4.6/45,Error ellipse: s-maj=6.8km s-min=4.5km az=159.8*
*IDC **25** 00:07:55.5±1.4,6°.60N×126°.29E,h62km±12km,mb4.0/16, mb1 4.1/16,mb1mx3.8/60,mbtmp4.2/16,MS4.5/2, Ms1 4.5/2,ms1mx2.9/39,Error ellipse: s-maj=30.7km s-min=9.8km az=70.0*
*NEIC **25** 00:07:56.4±0.8,6°.67N×126°.37E,h70km±7km,mb4.8/21, Error ellipse: s-maj=8.0km s-min=4.6km az=64.0*
**ISC 25 00:07:55.6±0.7,6°.62N±0°.04×126°.35E±0°.05,h60km±5km, n100,σ2°07/120,mb4.6/44,MS4.2/5,4C-2D,Mindanao**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MATI** | **Mati** | **0.34** | **345** | ***e*P** | **Pn** | **00 08 03.9** | **-2.1** |
| MATI | | | | *e*S | **Sn** | **00 08 12.1** | **-1.5** |
| **DAV**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LLP | | | | *e*S | | **Sn** | **00 09 42.3** | **-6.8** |
| **BESP** | **Borongan** | **5.03** | **350** | *e*P | | **Pn** | **00 09 10.8** | **+2.2** |
| **TNTI** | **Ternate** | **5.90** | **170** | *e*Pn | | **Pn** | **00 09 22.4** | **+1.9** |
| **RCP** | **Roxas** | **6.06** | **324**‖ | *e*P | | **Pn** | **00 09 25.6** | **+2.8** |
| MYLDM | **Lahad Datu** | **7.94** | **260** | *e*Pn | | **Pn** | **00 09 47.6** | **-0.8** |
| **LUWI** | **Luwuk** | **8.41** | **205** | *e*Pn | | **Pn** | **00 09 57.0** | **+2.1** |
| LUWI | | | | *e*Sn | | **Sn** | **00 11 36.1** | **+7.8** |
| **KKM** | **Kota Kinabalu** | **10.09** | **267** | *e*Pn | | **Pn** | **00 10 19.4** | **+1.5** |
| **KAPI** | **Kappang** | **13.30** | **210** | *e*Pn | | **Pn** | **00 11 03.2** | **+1.5** |
| **SBUM** | **Sibu** | **14.68** | **254** | *e*Pn | | **P** | **00 11 22.7** | **-2.1** |
| **SAUI** | **Saumlaki** 213nm,0.9s | **15.32** | **161** | *e*Pn | | **P** | **00 11 30.4** | **-1.6** |
| **MMRI** | **Maumere** 23nm,0.7s | **15.70** | **195** | *e*Pn | | **P** | **00 11 34.4** | **-1.7** |
| **JAGI** | **Jajag, Banyuwa** 14nm,0.9s | **19.30** | **219** | *e*P | | **Pn** | **00 12 18.1** | **+0.6** |
| **QIZ** | **Qiongzhong** | **20.25** | **309** | P | | **P** | **00 12 27.4** | **+1.2** |
| QIZ | | | | S | | **S** | **00 16 10.6** | **+0.4** |
| **MANU** | **Manus Island** 34nm,1.1s | **22.68** | **112** | *e*P | | **P** | **00 12 51.5** | **-0.8** |
| **CISI** | **Cisompet, Garu** 68nm,1.3s | **23.24** | **233** | *e*P | | **P** | **00 12 59.5** | **+1.4** |
| **FITZ** | **Fitzroy Crossi** 2.4nm,0.6s,baz=19,slow=8.5,SNR=3.2 | **24.57** | **182** | P | | **P** | **00 13 08.9** | **-1.2** |
| **IPM** | **Ipoh** 25nm,1.2s | **25.29** | **266** | *e*P | | **P** | **00 13 16.9** | **+0.1** |
| **PMG** | **Port Moresby** 23nm,1.4s | **26.14** | **127** | *e*P | | **P** | **00 13 23.6** | **-0.8** |
| **NJ2** | **Nanjing** | **26.25** | **346** | *e*P | | **P** | **00 13 24.3** | **-1.0** |
| NJ2 | comp=Z,14nm,0.6s | | | | pmax | pmax | | |
| **WHN** | **Wuhan** | **26.33** | **336** | P | | **P** | **00 13 27.4** | **+1.4** |
| **COEN** | **Coen** 17nm,1.4s | **26.40** | **141** | *e*P | | **P** | **00 13 26.2** | **-0.5** |
| **WRA** | **Warramunga Arr** 1.7nm,0.5s,baz=342,slow=10,SNR=29 | **27.54** | **164** | P | | **P** | **00 13 36.0** | **-1.0** |
| WRA | 0.5nm,0.5s,baz=332,slow=2.6,SNR=3.2 | | | | PcP | **PcP** | **00 16 53.7** | **-0.2** |
| WRA | 0.8nm,0.8s,baz=344,slow=3.2,SNR=4.9 | | | | ScP | **ScP** | **00 20 30.4** | **+0.9** |
| **WB2** | **Warramunga Arr** | **27.55** | **164** | *e*P | | **P** | **00 13 37.2** | **+0.2** |
| **PSI** | **Prapat** 27nm,1.6s | **27.59** | **263** | *e*P | | **P** | **00 13 35.9** | **-1.7** |
| **KMI** | **Kunming** | **29.13** | **312** | P | | **P** | **00 13 53.4** | **+2.0** |
| KMI | comp=Z,5.0nm,0.5s | | | | pmax | pmax | | |
| KMI | comp=Z,210nm,4.7s | | | | pmax | pmax | | |
| **GSI** | **Gunungsitoli** 26nm,1.0s | **29.17** | **261** | *e*P | | **P** | **00 13 51.5** | **-0.1** |
| **KS01** | **Wonju Array Si** | **30.75** | **2** | *e*P | | **P** | **00 14 04.4** | **-0.8** |
| **AS31** | **Alice Springs** 1.6nm,0.6s | **30.99** | **166** | *e*P | | **P** | **00 14 07.2** | **-0.4** |
| **ASAR** | **Alice Springs** 2.7nm,0.4s,baz=344,slow=7.4,SNR=81 | **30.99** | **166** | P | | **P** | **00 14 07.0** | **-0.6** |
| ASAR | 0.3nm,0.3s,baz=341,slow=2.7,SNR=3.6 | | | | PcP | **PcP** | **00 17 02.1** | **-0.5** |
| ASAR | 0.7nm,0.9s,baz=347,slow=2.9,SNR=4.4 | | | | ScP | **ScP** | **00 20 41.6** | **+1.1** |
| **AS01** | **Alice Springs** | **31.00** | **166** | *e*P | | **P** | **00 14 07.0** | **-0.6** |
| **XAN** | **Xi'an** | **31.69** | **332** | P | | **P** | **00 14 14.8** | **+1.1** |
| XAN | | | | pP | | pP | 00 14 29.8 | +1.2 |
| XAN | | | | sP | | sP | 00 14 36.9 | +1.3 |
| XAN | comp=Z,26nm,0.8s | | | | pmax | pmax | | |
| XAN | comp=Z,210nm,5.4s | | | | pmax | pmax | | |
| **CD2** | **Chengdu** | **32.13** | **322** | *e*P | | **P** | **00 14 19.3** | **+1.7** |
| CD2 | | | | pP | | pP | 00 14 35.5 | +3.1 |
| CD2 | | | | PP | | **PP** | **00 15 32.6** | **+1.5** |
| CD2 | | | | S | | **S** | **00 19 30.8** | **+4.8** |
| CD2 | | | | SS | | **SnSn** | **00 21 23.1** | **+1.6** |
| CD2 | comp=Z,20nm,1.0s | | | | pmax | pmax | | |
| CD2 | comp=Z,230nm,6.6s | | | | pmax | pmax | | |
| CD2 | comp=E,290nm,13.3s | | | | LR | LR | | |
| CD2 | comp=Z,210nm,12.3s | | | | LR | LR | | |
| **CTA** | **Charters Tower** 2.9nm,0.8s,baz=326,slow=10,SNR=3.5 | **32.98** | **144** | P | | **P** | **00 14 25.5** | **+0.4** |
| **BJI** | **Beijing** | **34.51** | **346** | P | | **P** | **00 14 39.9** | **+1.8** |
| BJI | | | | pP | | **pP** | **00 14 51.8** | **-1.2** |
| BJI | comp=Z,24nm,0.9s | | | | pmax | pmax | | |
| BJI | comp=Z,220nm,4.0s | | | | pmax | pmax | | |
| **LZH** | **Lanzhou** | **35.85** | **328** | ⇑P | | **P** | **00 14 53.0** | **+3.1** |
| LZH | | | | pP | | sP | 00 15 09.4 | -2.6 |
| LZH | | | | sP | | pP | 00 15 16.3 | +11 |
| LZH | | | | PP | | **PP** | **00 16 17.3** | **+4.9** |
| LZH | | | | *e*S | | **S** | **00 20 26.3** | **+2.7** |
| LZH | | | | sS | | sS | 00 20 53.0 | +3.9 |
| LZH | | | | SS | | **SnSn** | **00 22 52.8** | **+1.1** |
| LZH | comp=Z,35nm,1.0s | | | | pmax | pmax | | |
| LZH | comp=Z,210nm,5.2s | | | | pmax | pmax | | |
| **HHC** | **Hu-ho-hao-te** | **36.56** | **341** | *e*P | | **P** | **00 14 58.1** | **+2.3** |
| HHC | | | | S | | **S** | **00 20 36.0** | **+1.8** |
| HHC | | | | sS | | sS | 00 21 01.8 | +2.1 |
| HHC | | | | SS | | **SnSn** | **00 23 05.3** | **-3.3** |
| HHC | | | | ScS | | **ScS** | **00 25 06.1** | **-0.5** |
| HHC | comp=Z,23nm,1.1s | | | | pmax | pmax | | |
| HHC | comp=Z,280nm,5.4s | | | | pmax | pmax | | |
| HHC | comp=N,100nm,14.3s | | | | LR | LR | | |
| HHC | comp=E,170nm,15.1s | | | | LR | LR | | |
| HHC | comp=Z,130nm,14.1s | | | | LR | LR | | |
| **CN2** | **Changchun** | **37.04** | **359** | *e*P | | **P** | **00 14 58.5** | **-1.2** |
| **FORT** | **Forrest** 217nm,1.0s | **37.22** | **178** | *e*P | | **P** | **00 15 01.9** | **+0.5** |
| **NWAO** | **Narrogin (SRO)** 5.8nm,0.4s,baz=266,slow=8.5,SNR=9.4 | **40.27** | **192** | P | | **P** | **00 15 26.3** | **-0.6** |
| **NWAO** | **Narrogin (SRO)** 90nm,1.8s | **40.27** | **192** | *e*P | | **P** | **00 15 27.9** | **+1.0** |
| **GTA** | **Gaotai** | **40.45** | **328** | *e*P | | **P** | **00 15 30.8** | **+2.3** |
| GTA | | | | pP | | pP | 00 15 46.0 | +2.2 |
| GTA | | | | sP | | sP | 00 15 53.1 | +2.4 |
| GTA | comp=Z,8.0nm,0.9s | | | | pmax | pmax | | |
| **STKA** | **Stephens Creek** 8.2nm,0.5s,baz=337,slow=8.3,SNR=22 | **40.95** | **160** | P | | **P** | **00 15 32.1** | **-0.5** |
| **STKA** | **Stephens Creek** 2.1nm,0.8s | **40.95** | **160** | *e*P | | **P** | **00 15 32.9** | **+0.3** |
| **H11S3** | **WAKE ISLAND Hy** baz=194,slow=77,SNR=35 | **41.00** | **69** | T | | T | 00 59 40.2 | |
| **H11S1** | **WAKE ISLAND Hy** baz=194,slow=77,SNR=14 | **41.02** | **69** | T | | T | 00 59 39.2 | |
| **H11S2** | **WAKE ISLAND Hy** baz=194,slow=77,SNR=13 | **41.02** | **69** | T | | T | 00 59 35.1 | |
| **H11N1** | **WAKE ISLAND Hy** baz=265,slow=74,SNR=27 | **41.44** | **68** | T | | T | 01 00 30.9 | |
| **H11N2** | **WAKE ISLAND Hy** baz=265,slow=74,SNR=17 | **41.45** | **68** | T | | T | 01 00 29.4 | |
| **H11N3** | **WAKE ISLAND Hy** baz=265,slow=74,SNR=26 | **41.46** | **68** | T | | T | 01 00 30.4 | |
| **TAPN** | **Taplejung** 5.3nm,0.6s | **42.05** | **304** | *e*P | | **P** | **00 15 41.5** | **-0.6** |
| **KLR** | **Kul'dur** 0.1nm,0.6s,baz=175,slow=7.5,SNR=5.1 | **42.71** | **5** | P | | **P** | **00 15 46.6** | **0.0** |
| **RAMN** | **Ramite** 14nm,0.7s | **42.83** | **303** | *e*P | | **P** | **00 15 48.4** | **+0.1** |
| **JIRN** | **Jiri** | **43.42** | **304** | *e*P | | **P** | **00 15 52.5** | **-0.7** |
| **GUN** | **Gumba** 8.2nm,0.6s | **43.77** | **304** | *e*P | | **P** | **00 15 55.5** | **-0.5** |
| **PKI** | **Pulchoki** 2.4nm,0.4s | **44.04** | **303** | *e*P | | **P** | **00 15 57.0** | **-1.1** |
| **ARMA** | **Armidale** 85nm,2.0s | **44.09** | **148** | *e*P | | **P** | **00 15 58.2** | **0.0** |
| **ULN** | **Ulaanbaatar** 8.2nm,1.0s | **44.27** | **341** | *e*P | | **P** | **00 16 00.5** | **+1.0** |
| **SONM** | **Songino Array** 2.9nm,0.9s,baz=161,slow=8.4,SNR=14 | **44.46** | **341** | P | | **P** | **00 16 01.5** | **+0.6** |
| SONM | 0.8nm,0.7s,baz=151,slow=3.0,SNR=4.4 | | | | PcP | **PcP** | **00 17 43.4** | **-0.2** |
| **SONA1** | **Songino Array** | **44.47** | **341** | *e*P | | **P** | **00 16 01.8** | **+0.8** |
| **KOLN** | **Koldanda** 9.7nm,0.7s | **45.61** | **303** | *e*P | | **P** | **00 16 09.8** | **-0.7** |
| **PYUN** | **Piuthan** | **46.23** | **303** | *e*P | | **P** | **00 16 14.6** | **-0.8** |
| **CAN** | **Canberra** | **46.86** | **154** | *e*P | | **P** | **00 16 20.0** | **+0.1** |
| | 26nm,1.5s | | | | | | | |
| **LHI** | **Lord Howe Isla** 246nm,1.3s | **49.14** | **142** | *e*P | | **P** | **00 16 37.3** | **-0.2** |
| **WMQ** | **Urumqi** | **50.17** | **324** | P | | **P** | **00 16 45.8** | **+0.5** |
| WMQ | | | | pP | | pP | 00 17 01.9 | +0.9 |
| WMQ | | | | sP | | sP | 00 17 09.0 | +1.1 |
| WMQ | comp=Z,12nm,0.7s | | | | pmax | pmax | | |
| WMQ | comp=Z,450nm,5.3s | | | | pmax | pmax | | |
| WMQ | comp=N,120nm,15.9s | | | | LR | LR | | |
| WMQ | comp=E,200nm,20.3s | | | | LR | LR | | |
| WMQ | comp=Z,180nm,21.3s | | | | LR | LR | | |
| **TAU** | **Tasmania Unive** 61nm,2.0s | **52.85** | **161** | *e*P | | **P** | **00 17 05.6** | **+0.4** |
| **PEA0B** | **Petropavlovsk-** 176nm,1.7s | **52.93** | **23** | *e*P | | **P** | **00 17 05.6** | **-0.1** |
| **PETK** | **Petropavlovsk-** | **52.93** | **23** | *e*P | | **P** | **00 17 05.3** | **-0.4** |
| **MK01** | **Makanchi Array** | **54.97** | **324** | *e*P | | **P** | **00 17 20.1** | **-0.6** |
| **MK31** | **Makanchi Array** | **54.99** | **324** | *e*P | | **P** | **00 17 20.1** | **-0.8** |
| **MKAR** | **Makanchi Array** 2.5nm,0.5s,baz=120,slow=8.1,SNR=34 | **54.99** | **324** | P | | **P** | **00 17 19.8** | **-1.1** |
| **MKAR** | **Makanchi Array** 22nm,0.4s | **54.99** | **324** | *e*P | | **P** | **00 17 20.1** | **-0.8** |
| **KSH** | **Kashi** | **55.76** | **314** | *e*P | | **P** | **00 17 27.6** | **+0.9** |
| KSH | | | | pP | | pP | 00 17 44.0 | +1.4 |
| KSH | | | | PcP | | **PcP** | **00 18 24.3** | **-1.0** |
| KSH | | | | PP | | **PP** | **00 19 34.8** | **+3.1** |
| KSH | | | | S | | **S** | **00 25 05.3** | **-4.0** |
| KSH | | | | ScS | | **ScS** | **00 27 04.1** | **-6.8** |
| KSH | comp=Z,5.0nm,1.3s | | | | pmax | pmax | | |
| KSH | comp=Z,250nm,5.3s | | | | pmax | pmax | | |
| KSH | comp=N,220nm,5.3s | | | | LR | LR | | |
| KSH | comp=E,240nm,6.2s | | | | LR | LR | | |
| KSH | comp=Z,360nm,6.3s | | | | LR | LR | | |
| **ZALV** | **Zalesovo Beam** 1.4nm,0.5s,baz=127,slow=5.7,SNR=10.0 | **57.86** | **332** | P | | **P** | **00 17 40.1** | **-1.0** |
| **ZALV** | **Zalesovo Beam** | **57.86** | **332** | *e*P | | **P** | **00 17 40.4** | **-0.7** |
| **KURK** | **Kurchatov** 4.7nm,0.6s | **59.12** | **327** | *e*P | | **P** | **00 17 49.2** | **-0.8** |
| **KURBB** | **Kurchatov Arra** 2.3nm,0.5s,baz=127,slow=6.3,SNR=18 | **59.12** | **327** | P | | **P** | **00 17 48.6** | **-1.4** |
| **KKAR** | **Karatay Array** 71nm,0.3s | **60.89** | **316** | *e*P | | **P** | **00 18 01.0** | **-1.3** |
| **BVAR** | **Borovoye Array** 1.7nm,0.5s,baz=113,slow=5.3,SNR=5.1 | **64.71** | **326** | P | | **P** | **00 18 27.0** | **-0.5** |
| **ABKAR** | **Akbulak array** 10nm,0.7s | **69.69** | **320** | *e*P | | **P** | **00 18 57.6** | **-1.5** |
| **ILAR** | **Eielson Array** 0.3nm,0.7s,baz=240,slow=5.0,SNR=4.9 | **82.68** | **26** | P | | **P** | **00 20 11.6** | **-0.9** |
| **VNDA** | **Vanda** 0.5nm,0.5s,baz=307,slow=5.1,SNR=2.6 | **86.32** | **173** | P | | **P** | **00 20 30.6** | **0.0** |
| **ARCES** | **ARCESS Array B** 1.5nm,0.6s,baz=68,slow=6.9,SNR=8.3 | **87.62** | **340** | P | | **P** | **00 20 36.1** | **-1.0** |
| **FINES** | **FINESS Array B** 2.1nm,0.9s,baz=60,slow=6.6,SNR=7.9 | **89.12** | **332** | P | | **P** | **00 20 42.9** | **-1.4** |
| **HFS** | **Hagfors** comp=Z,333nm,18.0s,baz=302,slow=40 | **95.30** | **332** | LR | | LR | 01 10 48.1 | |
| **NOA** | **NORSAR Array B** comp=Z,105nm,18.4s,baz=290,slow=39 | **96.05** | **334** | LR | | LR | 01 10 08.1 | |
| **YKA** | **Yellowknife Ar** 0.1nm,0.5s,baz=300,slow=4.3,SNR=3.0 | **97.04** | **24** | P | | Pdif | 00 21 21.5 | +0.7 |
| **NEWO** | **Newport DOGAMI** | **99.08** | **43** | *e*P | | **Pdif** | **00 21 29.8** | **-0.6** |
| **TORD** | **Torodi Ar. Bea** 0.6nm,0.6s,baz=60,slow=1.6,SNR=11 | **121.63** | **290** | PKP | | **PKPdf** | **00 26 42.3** | **-1.4** |
| **PLCA** | **Paso Flores** 1.6nm,0.9s,baz=162,slow=3.2,SNR=3.3 | **142.82** | **159** | PKP | | **PKPdf** | **00 27 20.3** | **-2.5** |

*NEIC **25** 00:12:24.9±0.0,52.°32N×179.°11E,h26km,ML3.5(AEIC), After AEIC.*
*IDC **25** 00:12:43.3±17.0,51.°56N×178.°93E,h268km±170km, mb3.1/8,mb1 3.3/8,mb1mx2.9/64,mbtmp3.7/8,Error ellipse: s-maj=92.3km s-min=14.6km az=15.0*
**ISC 25 00:12:23.3±1.1,52.°1N±0.°2×178.°96E±0.°07,h35km,n23, σ2s21/26,mb3.7/8,Rat Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| GALAA | **Gareloi Lava P** | **1.44** | **102** | P | | P | **Pn** | **00 12 48.8** | **+1.9** |
| GALAA | | | | S | | S | **Sn** | **00 13 07.0** | **+2.4** |
| **GAEA** | **Gareloi East** | **1.45** | **101** | P | | P | **Pn** | **00 12 48.9** | **+1.9** |
| **TASE** | **Tanaga Southea** | **1.88** | **97** | P | | P | **Pn** | **00 12 54.7** | **+1.8** |
| TASE | | | | S | | S | **Sn** | **00 13 16.9** | **+1.6** |
| **TAFP** | **Tanaga Falls P** | **1.90** | **95** | P | | P | **Pn** | **00 12 55.0** | **+1.8** |
| TAFP | | | | S | | S | **Sn** | **00 13 17.7** | **+1.8** |
| **TAFL** | **Tanaga Flats** | **1.98** | **99** | P | | P | **Pn** | **00 12 55.8** | **+1.6** |
| **TAPA** | **Tanaga Point A** | **2.02** | **97** | P | | P | **Pn** | **00 12 56.5** | **+1.7** |
| **KICM** | **Kanaga Island** | **2.38** | **93** | P | | P | **Pn** | **00 13 02.0** | **+2.2** |
| **KIKV** | **Kanaga Island** | **2.40** | **94** | P | | P | **Pn** | **00 13 01.9** | **+1.8** |
| **ADAG** | **Mount Adagdak** | **2.74** | **91** | P | | P | **Pn** | **00 13 06.5** | **+1.8** |
| **GSTD** | **Great Sitkin T** | **3.02** | **89** | P | | P | **Pn** | **00 13 10.1** | **+1.5** |
| **SMY** | **Shemya** | **3.04** | **284** | P | | P | **Pn** | **00 13 12.8** | **+4.0** |
| **GSTR** | **Great Sitkin T** | **3.07** | **88** | P | | P | **Pn** | **00 13 11.3** | **+2.0** |
| **KOWE** | **Korovin West** | **4.18** | **84** | P | | P | **Pn** | **00 13 27.1** | **+2.6** |
| **KOKL** | **Mount Kliuchef** | **4.21** | **84** | P | | P | **Pn** | **00 13 27.5** | **+2.5** |
| **ATKA** | **Atka Island** | **4.22** | **86** | P | | P | **Pn** | **00 13 27.2** | **+2.2** |
| ATKA | | | | S | | S | **Sn** | **00 14 13.9** | **+1.0** |
| **TIXI** | **Tiksi** 1.9nm,0.4s,baz=107,slow=11,SNR=5.7 | **29.33** | **330** | P | | P | **Pn** | **00 18 24.8** | **+2.7** |
| **NVAR** | **Mina Array Bea** 0.4nm,0.7s,baz=297,slow=6.5,SNR=4.4 | **44.84** | **82** | P | | P | **Pn** | **00 20 32.3** | **-1.7** |
| **SONM** | **Songino Array** 0.5nm,0.5s,baz=76,slow=7.9,SNR=3.5 | **45.08** | **295** | P | | P | **Pn** | **00 20 34.1** | **-1.6** |
| **PDAR** | **Pinedale Array** 0.4nm,0.8s,baz=309,slow=4.5,SNR=3.4 | **47.41** | **72** | P | | P | **Pn** | **00 20 52.0** | **-2.3** |
| **KURBB** | **Kurchatov Arra** 0.6nm,0.5s,baz=42,slow=6.4,SNR=9.1 | **57.62** | **312** | P | | P | **Pn** | **00 22 08.0** | **-1.4** |
| **MKAR** | **Makanchi Array** 0.3nm,0.3s,baz=50,slow=6.8,SNR=9.2 | **58.49** | **307** | P | | P | **Pn** | **00 22 13.2** | **-2.5** |
| **BVAR** | **Borovoye Array** 0.9nm,0.3s,baz=43,slow=8.1,SNR=7.5 | **59.44** | **318** | P | | P | **Pn** | **00 22 20.0** | **-2.0** |
| **TXAR** | **Lajitas Array** 0.3nm,0.7s,baz=308,slow=6.2,SNR=4.0 | **59.91** | **80** | P | | P | Pn | 00 22 22.0 | -3.7 |

*NNC **25** 00:18:15.9±1.9,36.°50N×70.°89E,h149km±19km,mb2.6, mpv3.3,Error ellipse: s-maj=17.5km s-min=9.1km az=165.0*
*ISCJB **25** 00:18:16.6±1.2,36.°57N±0.°08×70.°89E±0.°09,h150km, mb3.0/2, Error ellipse: s-maj=12.5km s-min=9.1km az=141.1*
*IDC **25** 00:18:16.4±7.1,36.°70N×70.°50E,h118km±46km,mb3.0/2, mb1 3.0/5,mb1mx2.7/53,mbtmp3.4/5,MS3.2/1,Ms1 3.2/1, ms1mx2.6/17, Error ellipse: s-maj=135.9km s-min=34.9km az=136.0*
**ISC 25 00:18:17.8±1.5,36.7N±0.1×70.86E±0.08,h150km,n14, σ1s83/20,8C-4D,Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **DZET** | **Dzherino** 8.4nm,0.5s | **2.68** | **324** | ⇓P | | P | **Pn** | **00 19 00.6** | **-0.6** |
| DZET | | | | ⇑S | | S | **Sn** | **00 19 36.7** | **+2.0** |
| **SFK** | **Sufi-Kurgan** 1.4nm,0.3s | **3.94** | **31** | ⇑P | | P | **Pn** | **00 19 17.2** | **-0.2** |
| SFK | | | | ⇑S | | S | **Sn** | **00 20 06.5** | **+2.8** |
| **MNAS** | **Manas** 0.9nm,0.3s | **5.95** | **12** | ⇑P | | P | **Pn** | **00 19 44.2** | **+0.3** |
| MNAS | | | | ⇑S | | S | **Sn** | **00 20 53.0** | **+1.7** |
| **KK31** | **Karatay Array** 0.9nm,0.3s,baz=173,slow=12,SNR=39 | **6.44** | **358** | P | | P | **Pn** | **00 19 51.0** | **+0.7** |
| KK31 | | | | ⇓S | | S | **Sn** | **00 21 04.3** | **+1.5** |
| **AAK** | **Ala-Archa** 1.1nm,0.3s,baz=163,slow=11,SNR=14 | **6.59** | **24** | P | | P | **Pn** | **00 19 52.1** | **-0.4** |
| AAK | 0.2nm,0.3s,baz=338,slow=23,SNR=6.7 | | | S | | S | **Sn** | **00 21 07.5** | **+0.9** |
| **AAK** | **Ala-Archa** 1.9nm,0.6s | **6.59** | **24** | ⇓P | | P | **Pn** | **00 19 51.7** | **-0.8** |
| AAK | 2.7nm,0.7s | | | ⇑S | | S | **Sn** | **00 21 08.1** | **+1.5** |
| **TKM2** | **Tokmak 2** | **7.23** | **29** | ⇓P | | P | **Pn** | **00 19 59.9** | **-1.2** |
| | 1.5nm,0.7s | | | | | | | | |
| **MKAR** | **Makanchi Array** 0.0nm,0.3s,baz=216,slow=14,SNR=2.4 | **13.22** | **37** | P | | P | **Pn** | **00 21 22.5** | **-1.6** |
| **AB31** | **Akbulak array** 0.2nm,0.3s,baz=166,slow=12,SNR=17 | **14.89** | **331** | ⇑P | | P | **Pn** | **00 21 42.4** | **-0.2** |
| AB31 | 1.2nm,0.7s,baz=155,slow=23,SNR=3.4 | | | S | | S | **Sn** | **00 24 28.3** | **-4.3** |
| **AKTO** | **Aktyubinsk** 4.9nm,1.1s | **16.58** | **330** | ⇑P | | P | **Pn** | **00 22 03.5** | **+2.2** |
| **ZALV** | **Zalesovo Beam** 0.2nm,0.3s,baz=196,slow=9.6,SNR=4.2 | **19.81** | **25** | P | | P | **Pn** | **00 22 37.9** | **-1.7** |
| **MMAI** | **Mount Meron Ar** comp=Z,43nm,18.5s,baz=210,slow=44 | **29.23** | **273** | LR | | LR | 00 39 22.3 | |
| **TORD** | **Torodi Ar. Bea** 0.2nm,0.4s,baz=45,slow=5.9,SNR=4.4 | **65.61** | **268** | P | | P | **Pn** | **00 28 46.1** | **+0.1** |
| **YKA** | **Yellowknife Ar** 0.1nm,0.4s,baz=351,slow=5.4,SNR=3.9 | **81.09** | **3** | P | | P | **Pn** | **00 30 18.0** | **+2.3** |

**SJA 25 00:20:25.0±0.3,31.°62S×69.°17W,h102km±2km,ML4.0, MW3.2,San Juan Province**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **RTLS** | **Leoncito** | **0.21** | **210** | *e*P | | P | Pn | 00 20 40.9 | +1.0 |
| RTLS | | | | *e*S | | S | Sn | 00 20 52.6 | +1.7 |
| **RTCV** | **Cerro Valdivia** | **0.59** | **114** | *e*P | | P | Pn | 00 20 42.5 | +0.7 |
| RTCV | | | | *e*S | | S | Sn | 00 20 55.3 | +1.0 |
| **AUSP** | **Uspallata** | **0.63** | **197** | *e*P | | P | Pn | 00 20 43.5 | +1.1 |
| AUSP | | | | *e*S | | S | Sn | 00 20 57.0 | +1.7 |
| **AMOG** | **MOGNA** | **0.89** | **41** | *e*P | | P | Pn | 00 20 45.3 | +0.7 |
| AMOG | comp=Z,3μm,0.1s | | | | IAML | | | 00 20 46.2 | |
| AMOG | | | | *e*S | | S | Sn | 00 21 00.4 | +1.1 |

*IDC **25** 00:23:46.7±0.9,6.°67S×131.°11E,h0km,mb3.8/4, mb1 4.1/9,mb1mx3.7/36,mbtmp4.0/9,ML4.0/4, Error ellipse: s-maj=44.1km s-min=17.7km az=66.0*
*ISCJB **25** 00:23:49.0±0.7,6.°81S±0.°06×131.°2E±0.°1,h36km,mb3.7/5, Error ellipse: s-maj=15.4km s-min=8.1km az=172.9*
*NEIC **25** 00:23:51.2±0.6,6.°71S×131.°21E,h35km,mb4.1/1, Error ellipse: s-maj=15.1km s-min=9.4km az=78.0*
**ISC 25 00:23:50.7±0.7,6.°83S±0.°06×131.°37E±0.°09,h36km,n13, σ2s47/17,mb3.9/5,Tanimbar Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **FAKI** | **Fak Fak** | **3.98** | **13** | *e*Pn | | P | **Pn** | **00 24 48.5** | **-0.8** |
| **FITZ** | **Fitzroy Crossi** 0.7nm,0.3s,baz=34,slow=14,SNR=24 | **12.52** | **206** | Pn | | P | **Pn** | **00 26 47.5** | **+1.1** |
| FITZ | 1.8nm,0.3s,baz=351,slow=22,SNR=7.0 | | | Sn | | S | **Sn** | **00 29 00.7** | **-4.0** |
| **WRA** | **Warramunga Arr** 0.7nm,0.3s,baz=348,slow=13,SNR=50 | **13.35** | **168** | Pn | | P | **Pn** | **00 26 58.5** | **+0.8** |
| WRA | 1.3nm,0.3s,baz=342,slow=24,SNR=5.0 | | | Sn | | S | **Sn** | **00 29 23.2** | **-1.8** |
| **COEN** | **Coen** 8.1nm,0.8s | **13.59** | **122** | *e*Pn | | P | **Pn** | **00 27 03.6** | **+2.5** |
| **PMG** | **Port Moresby** 0.6nm,0.3s,baz=18,slow=20,SNR=3.3 | **15.84** | **100** | Pn | | P | **P** | **00 27 34.3** | **-0.2** |
| PMG | 0.4nm,0.3s,baz=300,slow=16,SNR=2.3 | | | Sn | | S | **Sn** | **00 30 21.3** | **-4.4** |
| **ASAR** | **Alice Springs** 0.8nm,0.3s,baz=348,slow=9.1,SNR=71 | **16.91** | **172** | Pn | | P | **Pn** | **00 27 47.0** | **+2.2** |
| ASAR | 0.4nm,0.3s,baz=353,slow=22,SNR=5.7 | | | Sn | | S | **Sn** | **00 30 49.0** | **-2.8** |
| **CTA** | **Charters Tower** 0.2nm,0.3s,baz=316,slow=11,SNR=4.7 | **19.55** | **134** | P | | P | **Pn** | **00 28 20.0** | **+3.0** |
| **STKA** | **Stephens Creek** 1.0nm,0.3s,baz=332,slow=9.2,SNR=5.2 | **26.68** | **160** | P | | P | **P** | **00 29 30.0** | **+3.5** |
| **SONM** | **Songino Array** 0.1nm,0.3s,baz=155,slow=6.8,SNR=2.4 | **58.73** | **341** | P | | P | **P** | **00 33 44.4** | **-0.6** |
| **MKAR** | **Makanchi Array** 0.7nm,0.4s,baz=118,slow=7.8,SNR=22 | **68.84** | **326** | P | | P | **P** | **00 34 51.0** | **-0.5** |
| **ZALV** | **Zalesovo Beam** 0.4nm,0.4s,baz=148,slow=5.8,SNR=2.7 | **72.04** | **333** | P | | P | **P** | **00 35 11.7** | **+0.9** |
| **COLD** | **Coldfoot** 0.5nm,0.7s | **91.79** | **22** | P | | P | **P** | **00 36 52.9** | **-1.5** |
| **TORD** | **Torodi Ar. Bea** 0.2nm,0.8s,baz=116,slow=3.2,SNR=2.2 | **130.11** | **281** | PKP | | **PKPdf** | **00 42 58.4** | **+0.5** |

*ISCJB **25** 00:53:31.8±0.5,38.°81N±0.°02×30.°21E±0.°03,h1km±5km, Error ellipse: s-maj=4.3km s-min=3.4km az=22.0*
*ISK **25** 00:53:31.7,38.°79N×30.°23E,h8km,ML2.6*
*DDA **25** 00:53:32.0,38.°80N×30.°24E,h7km,Ml2.4*
*CSEM **25** 00:53:32.1±0.1,38.°80N×30.°22E,h8km,ML2.6,Error ellipse: s-maj=2.4km s-min=1.9km az=15.0*
**ISC 25 00:53:31.9±1.0,38.°81N±0.°02×30.°22E±0.°02,h10km±9km, n33,σ0s33/54,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **SHUT** | **Suhut-Afyon** | **0.36** | **135** | *e*PG | | P | **Pg** | **00 53 39.3** | **+0.1** |
| SHUT | | | | *e*SG | | S | **Sg** | **00 53 44.3** | **+0.2** |
| **SHUT** | **Suhut-Afyon** | **0.36** | **135** | *e*Pg | | P | **Pg** | **00 53 39.3** | **+0.1** |
| SHUT | | | | *e*Sg | | S | **Sg** | **00 53 44.3** | **+0.2** |
| **KZIL** | **AFYON_Kizioren** | **0.56** | **186** | *i* P | | P | **Pg** | **00 53 42.6** | **-0.2** |
| KZIL | | | | *i* S | | S | **Sg** | **00 53 50.0** | **-0.1** |
| **KZIL** | **AFYON_Kizioren** | **0.56** | **186** | P | | P | **Pg** | **00 53 42.6** | **-0.2** |
| KZIL | | | | S | | S | **Sg** | **00 53 50.0** | **-0.1** |
| **BOLV** | **Bolvadin** | **0.58** | **99** | *i* P | | P | **Pg** | **00 53 44.0** | **-0.2** |
| BOLV | | | | *i* S | | S | **Sg** | **00 53 50.6** | **-0.2** |
| **BOLV** | **Bolvadin** | **0.58** | **99** | P | | P | **Pg** | **00 53 44.0** | **-0.2** |
| BOLV | | | | S | | S | **Sg** | **00 53 50.6** | **-0.2** |
| **GDZ** | **Gediz** | **0.64** | **296** | *i* P | | P | **Pb** | **00 53 45.6** | **+0.4** |
| GDZ | | | | *i* S | | S | **Sb** | **00 53 54.2** | **-0.1** |
| **GDZ** | **Gediz** | **0.64** | **296** | P | | P | **Pb** | **00 53 45.6** | **+0.4** |
| GDZ | | | | S | | S | **Sb** | **00 53 54.2** | **-0.1** |
| **KHAL** | **Karahalli** | **0.72** | **233** | *i* P | | P | **Pg** | **00 53 45.8** | **-0.1** |
| KHAL | | | | *i* S | | S | **Sg** | **00 53 54.4** | **-0.9** |
| **KHAL** | **Karahalli** | **0.72** | **233** | P | | P | **Pg** | **00 53 45.8** | **-0.1** |
| KHAL | | | | S | | S | **Sg** | **00 53 54.4** | **-0.9** |
| **ESKT** | **Eskisehir** | **0.86** | **34** | *i* P | | P | **Pg** | **00 53 48.0** | **-0.5** |
| ESKT | | | | *i* S | | S | **Sb** | **00 54 00.7** | **0.0** |
| **SEYT** | **Eskypehyr** | **0.86** | **34** | P | | P | **Pg** | **00 53 48.0** | **-0.5** |
| SEYT | | | | S | | S | **Sb** | **00 54 00.7** | **0.0** |
| **TVSB** | **Tavsanli** | **0.87**

1.4nm,1.1s,baz=278,slow=5.7,SNR=14
**WRA Warramunga Arr 140.29 229** PKP PKPdf 01 17 29.7 -0.1
0.7nm,1.0s,baz=122,slow=1.9,SNR=2.7

*CSEM **25** 01:00:21.9±0.6,51.35N×16.12E,h1km, Error ellipse: s-maj=8.9km s-min=4.3km az=16.0*
*PRU **25** 01:00:21.9,51.38N×16.16E,h0km*
**WAR 25 01:00:20.7,51.44N×16.19E,h1km,Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KSP** | **Ksiaz** | **0.60** | **174** | *e*Pg | Pg | 01 00 32.0 | -0.1 |
| KSP | | | | *e*Sg | Sg | 01 00 40.2 | +0.4 |
| **KSP** | **Ksiaz** | **0.60** | **174** | *e*Pg | Pg | 01 00 32.0 | -0.1 |
| KSP | | | | *e*Sg | Sg | 01 00 40.2 | +0.4 |
| **KSP** | **Ksiaz** | **0.60** | **174** | *e*Pg | Pg | 01 00 32.0 | -0.1 |
| KSP | | | | *e*Sg | Sg | 01 00 40.2 | +0.4 |
| **UPC** | **Upice** | **0.94** | **187** | *e*PG | Pg | 01 00 38.3 | -0.3 |
| UPC | | | | *e*SG | Sg | 01 00 50.1 | -0.6 |
| | comp=Z,9.6nm,0.4s | | | | | | |
| **UPC** | **Upice** | **0.94** | **187** | Pg | Pg | 01 00 38.3 | -0.3 |
| UPC | | | | Sg | Sg | 01 00 50.1 | -0.6 |
| | 9.6nm,0.4s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.09** | **176** | *e*PG | Pg | 01 00 41.3 | -0.2 |
| DPC | | | | *e*SG | Sg | 01 00 55.5 | -0.1 |
| **DPC** | **Dobruska-Polom** | **1.09** | **176** | Pg | Pg | 01 00 41.3 | -0.2 |
| DPC | | | | Sg | Sg | 01 00 55.5 | -0.1 |
| **PVCC** | **Panska Ves** | **1.37** | **229** | *e*PG | Pg | 01 00 46.5 | -0.4 |
| PVCC | | | | *e*SG | Sg | 01 01 04.8 | +0.2 |
| | comp=Z,16nm,0.3s | | | | | | |
| **PVCC** | **Panska Ves** | **1.37** | **229** | Pg | Pg | 01 00 46.5 | -0.4 |
| PVCC | | | | Sg | Sg | 01 01 04.8 | +0.2 |
| | 16nm,0.3s | | | | | | |
| **KRLC** | **Kraliky** | **1.41** | **164** | *e*SG | Sg | 01 01 05.9 | -0.1 |
| **KRLC** | **Kraliky** | **1.41** | **164** | Sg | Sg | 01 01 05.9 | -0.1 |
| **BRG** | **Berggiesshubel** | **1.52** | **249** | PG | Pb | 01 00 49.7 | 0.0 |
| BRG | | | | SG | Sn | 01 01 09.4 | 0.0 |
| | 3.0nm,0.5s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **1.77** | **211** | *e*PG | Pb | 01 00 53.6 | -0.3 |
| GOPC | | | | *e*SG | Sg | 01 01 17.0 | -0.4 |
| **GOPC** | **GO Pecny, Ondr** | **1.77** | **211** | Pg | Pb | 01 00 53.6 | -0.3 |
| GOPC | | | | Sg | Sg | 01 01 17.0 | -0.4 |
| **PRU** | **Pruhonice** | **1.79** | **217** | *e*PG | Pb | 01 00 53.7 | -0.5 |
| PRU | | | | *e*SG | Sb | 01 01 16.9 | -0.2 |
| **PRU** | **Pruhonice** | **1.79** | **217** | Pg | Pb | 01 00 53.7 | -0.5 |
| PRU | | | | Sg | Sb | 01 01 16.9 | -0.2 |
| **CLL** | **Collm** | **2.00** | **268** | *e*PG | Pb | 01 00 57.0 | -0.9 |
| CLL | | | | *e*SG | Sg | 01 01 25.0 | 0.0 |
| **OKC** | **Ostrava-Krasne** | **2.03** | **141** | *e*SG | Sg | 01 01 25.5 | -0.3 |
| **OKC** | **Ostrava-Krasne** | **2.03** | **141** | Sg | Sg | 01 01 25.5 | -0.3 |
| **NKC** | **Novy Kostel** | **2.66** | **245** | *e*SG | Sg | 01 01 46.6 | +0.5 |
| **NKC** | **Novy Kostel** | **2.66** | **245** | Sg | Sg | 01 01 46.6 | +0.5 |
| **KHC** | **Kasperske Hory** | **2.85** | **217** | *e*PG | Pb | 01 01 13.3 | +0.9 |
| KHC | | | | *e*SG | Sg | 01 01 50.3 | -1.9 |
| **KHC** | **Kasperske Hory** | **2.85** | **217** | Pg | Pb | 01 01 13.3 | +0.9 |
| KHC | | | | Sg | Sg | 01 01 50.3 | -1.9 |

*ISCJB **25** 01:04:29.2±1.3,38.66N±0.06×142.37E±0.10,h17km, mb3.5/3, Error ellipse: s-maj=10.9km s-min=7.8km az=168.9*
*JMA **25** 01:04:32.0±0.1,38.71N×142.21E,h39km±2km,M3.5*
*IDC **25** 01:04:50.8±2.7,38.28N×140.13E,h179km±34km,mb2.9/3, mb1 3.2/4,mb1mx2.8/51,mbtmp3.3/4, Error ellipse: s-maj=119.1km s-min=23.1km az=110.0*
**ISC 25 01:04:29.1±1.5,38.70N±0.06×142.36E±0.09,h17km,n13, σ0.93/16,mb3.6/3,Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OFUJ** | **Ofunato** | **0.66** | **305** | P | **Pn** | **01 04 43.7** | **0.0** |
| OFUJ | | | | *e*S | **Sg** | **01 04 51.6** | **+0.6** |
| **JIO** | **Ouri** | **0.83** | **253** | P | **Pg** | **01 04 45.5** | **+0.1** |
| JIO | | | | *e*S | **Sb** | **01 04 54.7** | **-1.3** |
| **JMK** | **Ichinoseki** | **0.93** | **286** | P | **Pb** | **01 04 47.2** | **+0.4** |
| JMK | | | | *e*S | **Sb** | **01 04 58.0** | **-0.8** |
| **JOM** | **Ohasama** | **1.14** | **313** | P | **Pn** | **01 04 50.7** | **+0.4** |
| JOM | | | | *e*S | **Sb** | **01 05 04.0** | **-0.8** |
| **JTH** | **Tanohata** | **1.29** | **343** | P | **Pb** | **01 04 53.5** | **+0.5** |
| **JOU** | **Okura** | **1.37** | **256** | P | **Pn** | **01 04 53.5** | **-0.1** |
| **JMM** | **Marumori** | **1.49** | **236** | P | **Pn** | **01 04 54.9** | **-0.2** |
| **JRG** | **Rokugo** | **1.52** | **298** | P | **Pn** | **01 04 55.9** | **+0.4** |
| **JYK** | **Kaneyama** | **1.58** | **278** | P | **Pn** | **01 04 56.7** | **+0.3** |
| **MJAR** | **Matsushiro Arr** | **3.94** | **238** | P | **Pn** | **01 05 31.3** | **+2.4** |
| | 3.1nm,0.3s,baz=38,slow=13,SNR=35 | | | | | | |
| **ILAR** | **Eielson Array** | **47.69** | **30** | P | P | 01 13 18.8 | +14 |
| | 0.2nm,0.6s,baz=266,slow=5.7,SNR=5.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **58.82** | **189** | P | **P** | **01 14 25.9** | **-0.8** |
| | 0.6nm,0.9s,baz=6.3,slow=7.5,SNR=3.8 | | | | | | |
| **ASAR** | **Alice Springs** | **62.54** | **189** | P | **P** | **01 14 51.3** | **-0.8** |
| | 0.4nm,0.9s,baz=359,slow=6.5,SNR=3.2 | | | | | | |

**IDC 25 01:18:50.1±29.0,55.03S×27.47W,h298km±258km, mb3.0/2,mb1 3.1/2,mb1mx2.9/18,mbtmp3.6/2,Error ellipse: s-maj=143.9km s-min=37.8km az=166.0,South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **H10S2** | **ASCENSION HYDR** | **47.07** | **17** | T | T | 02 18 17.6 | |
| | baz=189,slow=75,SNR=20 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **47.07** | **17** | T | T | 02 18 17.9 | |
| | baz=189,slow=75,SNR=21 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **47.08** | **17** | T | T | 02 18 20.2 | |
| | baz=189,slow=75,SNR=18 | | | | | | |
| **H10N1** | **ASCENSION HYDR** | **48.19** | **17** | T | T | 02 19 41.1 | |
| | baz=188,slow=75,SNR=9.1 | | | | | | |
| **H10N3** | **ASCENSION HYDR** | **48.19** | **17** | T | T | 02 19 38.9 | |
| | baz=188,slow=75,SNR=18 | | | | | | |
| **H10N2** | **ASCENSION HYDR** | **48.20** | **17** | T | T | 02 19 41.2 | |
| | baz=188,slow=75,SNR=12 | | | | | | |
| **LPAZ** | **La Paz** | **49.66** | **305** | P | P | 01 27 12.8 | -0.1 |
| | 0.6nm,0.5s,baz=157,slow=7.7,SNR=4.6 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **72.24** | **30** | P | P | 01 29 43.1 | 0.0 |
| | 0.2nm,0.5s,baz=201,slow=6.3,SNR=9.1 | | | | | | |
| **YKA** | **Yellowknife Ar** | **135.30** | **319** | PKP | PKPdf | 01 37 33.6 | +0.7 |
| | 0.1nm,0.7s,baz=132,slow=2.0,SNR=3.2 | | | | | | |
| **ILAR** | **Eielson Array** | **149.31** | **313** | PKPbc | PKPbc | 01 38 01.4 | -0.8 |
| | 0.3nm,0.7s,baz=112,slow=1.0,SNR=4.3 | | | | | | |
| **SONM** | **Songino Array** | **150.81** | **85** | PKPbc | PKPbc | 01 38 06.2 | -0.3 |
| | 0.2nm,0.6s,baz=220,slow=3.4,SNR=4.4 | | | | | | |

*NEIC **25** 01:30:39.1±0.0, 15.96N×95.83W,h56km, MD4.0(MEX), After MEX.*
**MEX 25 01:30:39.1±0.5,15.96N×95.83W,h56km±11km,MD4.0, Near coast of Oaxaca**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PANG** | **Puerto Angel** | **0.68** | **245** | *e*P | Pn | 01 30 51.1 | -1.8 |
| PANG | | | | *e*S | Sn | 01 31 01.4 | -1.5 |
| **OXBJ** | **Oaxaca** | **1.40** | **322** | *e*P | Pn | 01 31 00.8 | -1.7 |
| OXBJ | | | | *i* S | Sn | 01 31 18.1 | -1.9 |
| **VHO** | **Vista Hermosa** | **1.41** | **322** | *e*P | Pn | 01 31 01.3 | -1.4 |
| VHO | | | | *e*S | Sn | 01 31 17.6 | -2.7 |
| **VHO** | **Vista Hermosa** | **1.41** | **322** | *e*P | Pn | 01 31 01.3 | -1.4 |
| VHO | | | | *e*S | Sn | 01 31 17.6 | -2.7 |
| **PNIG** | **Pinotepa** | **2.25** | **281** | *e*P | Pn | 01 31 12.6 | -1.3 |
| PNIG | | | | *i* S | Sn | 01 31 38.6 | -1.9 |
| **PNIG** | **Pinotepa** | **2.25** | **281** | *e*P | Pn | 01 31 12.6 | -1.3 |
| PNIG | | | | *i* S | Sn | 01 31 38.6 | -1.9 |
| **PCIG** | | **2.53** | **95** | *e*P | Pn | 01 31 16.1 | -1.6 |
| PCIG | | | | *e*S | Sn | 01 31 45.8 | -1.6 |
| **PCIG** | | **2.53** | **95** | *e*P | Pn | 01 31 16.1 | -1.6 |
| PCIG | | | | *e*S | Sn | 01 31 45.8 | -1.6 |
| **TGIG** | | **2.73** | **72** | *e*P | Pn | 01 31 19.5 | -1.0 |
| TGIG | | | | *i* S | Sn | 01 31 50.6 | -1.8 |
| **TGIG** | | **2.73** | **72** | *e*P | Pn | 01 31 19.5 | -1.0 |
| TGIG | | | | *i* S | Sn | 01 31 50.6 | -1.8 |
| **TLIG** | **Tlapa** | **3.07** | **302** | *e*P | Pn | 01 31 23.8 | -1.5 |
| TLIG | | | | *e*S | Sn | 01 31 58.9 | -1.9 |
| **TLIG** | **Tlapa** | **3.07** | **302** | *e*P | Pn | 01 31 23.8 | -1.5 |
| TLIG | | | | *e*S | Sn | 01 31 58.9 | -1.9 |
| **CCIG** | **Comitan** | **3.57** | **84** | *e*P | Pn | 01 31 31.0 | -1.1 |
| CCIG | | | | *e*S | Sn | 01 32 11.9 | -1.2 |
| **CCIG** | **Comitan** | **3.57** | **84** | *e*P | Pn | 01 31 31.0 | -1.1 |
| CCIG | | | | *e*S | Sn | 01 32 11.9 | -1.2 |

*ISCJB **25** 01:34:30.6±1.0,29.66S±0.03×71.15W±0.1,h54km±8km, mb3.9/6,MS3.8/1, Error ellipse: s-maj=14.9km s-min=5.3km az=8.3*
*SJA **25** 01:34:30.6±1.1,29.54S×71.31W,h55km±17km,ML4.3, MW4.3*
*IDC **25** 01:34:30.9±0.8,29.80S×71.36W,h43km±6km,mb3.7/6, mb1 3.8/10,mb1mx3.6/30,mbtmpg3.9/10,ML3.6/4,MS3.4/3, Ms1 3.4/3,ms1mx3.0/24,Error ellipse: s-maj=29.7km s-min=18.8km az=81.0*
*GUC **25** 01:34:32.1±0.5,29.66S×71.12W,h41km±2km,ML4.2*
**ISC 25 01:34:30.7±0.7,29.64S±0.04×71.50W±0.08,h41km±6km, n34,σ1.47/41,mb4.2/6,2D,Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TLL** | **Tololo Astrono** | **0.80** | **131** | *i* P | **Pn** | **01 34 44.6** | **-1.1** |
| TLL | | | | *i* S | **Sn** | **01 34 54.1** | **-2.4** |
| TLL | | | | IAML | | 01 34 54.7 | |
| | comp=E,52μm,0.5s | | | | | | |
| **LCO** | **Las Campanas** | **0.94** | **48** | *i* P | **Pn** | **01 34 46.9** | **-0.8** |
| LCO | | | | *i* S | **Sn** | **01 34 58.0** | **-2.0** |
| **LCO** | **Las Campanas** | **0.94** | **48** | *i* P | **Pn** | **01 34 46.8** | **-0.8** |
| LCO | | | | *i* S | **Sn** | **01 34 58.3** | **-1.8** |
| LCO | | | | IAML | | 01 34 58.6 | |
| | comp=N,5μm,0.8s | | | | | | |
| **GO03** | **Copiap** | **2.33** | **29** | *e*P | **Pn** | **01 35 07.6** | **+1.0** |
| GO03 | | | | *i* S | **Sn** | **01 35 33.9** | **0.0** |
| GO03 | | | | IAML | | 01 35 45.4 | |
| | comp=E,988nm,0.3s | | | | | | |
| **AGUA** | **GUANDACOL** | **2.62** | **87** | *e*P | **Pn** | **01 35 12.6** | **+1.9** |
| AGUA | | | | *e*S | **Sn** | **01 35 43.9** | **+2.5** |
| **RTLS** | **Leoncito** | **2.86** | **139** | *e*P | **Pn** | **01 35 16.3** | **+2.2** |
| RTLS | | | | IAML | | 01 36 02.0 | |
| | comp=Z,1μm,0.7s | | | | | | |
| **AMOG** | **MOGNA** | **2.90** | **117** | *e*P | **Pn** | **01 35 16.1** | **+1.6** |
| **VCA** | **Vinchina** | **3.02** | **73** | *e*P | **Pn** | **01 35 18.9** | **+2.8** |
| VCA | | | | IAML | | 01 36 05.5 | |
| | comp=Z,1μm,0.4s | | | | | | |
| **RTLL** | **Cerro Villicun** | **3.10** | **124** | *e*P | **Pn** | **01 35 18.1** | **+0.9** |
| RTLL | | | | IAML | | 01 36 04.2 | |
| | comp=Z,525nm,0.3s | | | | | | |
| **AUSP** | **Uspallata** | **3.15** | **145** | *e*P | **Pn** | **01 35 20.2** | **+2.2** |
| **PEL** | **Peldehue** | **3.56** | **169** | *e*P | **Pn** | **01 35 24.7** | **+1.3** |
| PEL | | | | *i* S | **Sn** | **01 36 05.0** | **+0.7** |
| PEL | | | | IAML | | 01 36 22.1 | |
| | comp=N,1μm,0.6s | | | | | | |
| **ANTU** | **Antumapu** | **3.98** | **170** | *e*P | **Pn** | **01 35 30.8** | **+1.5** |
| ANTU | | | | *i* S | **Sn** | **01 36 15.6** | **+0.9** |
| **LMEL** | **Las Melosas** | **4.33** | **166** | *e*P | **Pn** | **01 35 36.1** | **+1.9** |
| **APLL** | **PUNTA DE LOS L** | **4.37** | **101** | IAML | | 01 36 32.7 | |
| | comp=Z,135nm,0.5s | | | | | | |
| **CYA** | **Choya** | **5.13** | **78** | *e*P | **Pn** | **01 35 44.7** | **-0.4** |
| CYA | | | | IAML | | 01 36 53.4 | |
| | comp=Z,396nm,0.9s | | | | | | |
| **TCA** | **Tanti** | **6.19** | **108** | IAML | | 01 37 15.0 | |
| | comp=Z,112nm,0.6s | | | | | | |
| **PLCA** | **Paso Flores** | **11.09** | **176** | P | **Pn** | **01 37 04.7** | **-2.0** |
| | comp=Z,0.1nm,0.3s,baz=329,slow=14,SNR=3.2 | | | | | | |
| **CPUP** | **Villa Florida** | **12.95** | **79** | P | **Pn** | **01 37 31.9** | **-0.2** |
| | comp=Z,0.1nm,0.3s,baz=257,slow=15,SNR=3.5 | | | | | | |
| CPUP | | | | LR | LR | 01 42 52.7 | |
| | comp=Z,161nm,20.1s,baz=242,slow=39 | | | | | | |
| **LPAZ** | **La Paz** | **13.65** | **14** | P | **Pn** | **01 37 44.1** | **+1.8** |
| | comp=Z,0.2nm,0.3s,baz=204,slow=8.0,SNR=6.5 | | | | | | |
| **SIV** | **San Ignacio** | **16.63** | **37** | P | **P** | **01 38 22.4** | **-0.5** |
| | comp=Z,0.2nm,0.3s,baz=212,slow=8.6,SNR=3.5 | | | | | | |
| **NNA** | **Nana** | **18.26** | **343** | LR | LR | 01 43 51.2 | |
| | comp=Z,59nm,21.9s,baz=180,slow=30 | | | | | | |
| **VNA3** | **Neumayer Olymp** | **53.23** | **159** | P | **P** | **01 43 44.6** | **0.0** |
| **VNA2** | **Neumayer--Watz** | **53.86** | **159** | P | **P** | **01 43 48.8** | **-0.4** |
| | baz=286,slow=8.4 | | | | | | |
| **SNAA** | **Sanae** | **55.45** | **159** | P | **P** | **01 44 00.4** | **-0.4** |
| **SNAA** | **Sanae** | **55.45** | **159** | P | **P** | **01 43 59.7** | **-1.1** |
| | comp=Z,4.7nm,0.9s,baz=276,slow=9.2,SNR=9.3 | | | | | | |
| **TXAR** | **Lajas Array** | **66.20** | **329** | P | **P** | **01 45 16.0** | **+1.6** |
| | comp=Z,0.4nm,0.7s,baz=147,slow=5.1,SNR=4.8 | | | | | | |
| **DBIC** | **Dimbokro** | **73.38** | **72** | LR | LR | 02 17 03.2 | |
| | comp=Z,48nm,18.1s,baz=356,slow=35 | | | | | | |
| **MAW** | **Mawson** | **77.22** | **164** | P | **P** | **01 46 20.0** | **+0.1** |
| | comp=Z,0.9nm,0.4s,baz=219,slow=7.8,SNR=7.2 | | | | | | |
| **PDAR** | **Pinedale Array** | **80.11** | **333** | P | **P** | **01 46 36.9** | **+0.5** |
| | comp=Z,0.1nm,0.3s,baz=128,slow=5.8,SNR=3.9 | | | | | | |
| **BOSA** | **Boshof** | **81.69** | **118** | P | **P** | **01 46 44.0** | **-1.3** |
| | comp=Z,2.2nm,0.8s,baz=228,slow=5.2,SNR=6.4 | | | | | | |
| BOSA | | | | pP | **pP** | **01 46 56.0** | **-1.6** |
| | comp=Z,2.7nm,0.7s,baz=242,slow=2.3,SNR=3.2 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **82.30** | **70** | P | **P** | **01 46 47.4** | **-1.0** |
| | comp=Z,0.9nm,0.8s,baz=256,slow=5.6,SNR=6.5 | | | | | | |
| TORD | | | | pP | **pP** | **01 47 00.8** | **0.0** |
| | comp=Z,1.7nm,0.7s,baz=259,slow=4.6,SNR=10.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **124.77** | **210** | PKP | **PKPdf** | **01 53 24.9** | **-1.7** |
| | comp=Z,0.5nm,0.9s,baz=152,slow=1.8,SNR=4.4 | | | | | | |
| WRA | | | | pPKP | **pPKPdf** | **01 53 39.6** | **0.0** |
| | comp=Z,0.5nm,1.0s,baz=146,slow=1.8,SNR=1.2 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **150.25** | **29** | PKPbc | **PKPbc** | **01 54 17.1** | **+0.3** |
| | comp=Z,1.0nm,0.5s,baz=295,slow=3.9,SNR=5.7 | | | | | | |
| ZALV | | | | pPKPbc | **sPKPdf** | **01 54 30.7** | **+1.5** |
| | comp=Z,4.3nm,0.7s,baz=304,slow=3.7,SNR=9.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **153.40** | **43** | PKPab | **PKPab** | **01 54 37.0** | **+0.4** |
| | comp=Z,0.5nm,0.8s,baz=298,slow=3.5,SNR=3.4 | | | | | | |

*NIED **25** 01:54:00,39.40N×142.10E,h71km,Mw3.6 Best double couple: M0 3.20000×10^14 NP1:φ=213.00000°,δ=44.00000°, λ=91.00000°. NP2:φ=31.00000°,δ=46.00000°,λ=89.00000°.*
*ISCJB **25** 01:54:12.5±0.7,39.42N±0.04×142.15E±0.10,h64km±5km, mb3.6/9, Error ellipse: s-maj=12.8km s-min=5.2km az=15.0*
*JMA **25** 01:54:13.9,39.41N×142.09E,h57km±1km,M3.5*
*JMA Felt I J1.*
*IDC **25** 01:54:17.1±3.1,39.34N×142.02E,h94km±29km, mb3.4/9, mb1 3.5/12,mb1mx3.3/60,mbtmp3.7/12, Error ellipse: s-maj=27.2km s-min=17.0km az=94.0*
**ISC 25 01:54:13.6±1.0,39.41N±0.04×142.15E±0.09,h58km±7km, n32,σ1.907/36,mb3.6/9,Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MIYJ** | **Miyakonagasawa** | **0.31** | **303** | P | **Pn** | **01 54 23.5** | **-0.1** |
| MIYJ | | | | S | **Sn** | **01 54 30.3** | **-0.5** |
| **OFUJ** | **Ofunato** | **0.50** | **229** | P | **Pn** | **01 54 25.3** | **-0.1** |
| OFUJ | | | | *e*S | **Sn** | **01 54 33.4** | **-0.6** |
| **JTH** | **Tanohata** | **0.58** | **337** | P | **Pn** | **01 54 26.4** | **+0.1** |
| JTH | | | | S | **Sn** | **01 54 35.2** | **-0.3** |
| **JOM** | **Ohasama** | **0.67** | **276** | P | **Pn** | **01 54 27.0** | **-0.4** |
| JOM | | | | S | **Sn** | **01 54 36.5** | **-0.9** |
| **JMK** | **Ichinoseki** | **0.86** | **238** | P | **Pn** | **01 54 29.3** | **-0.4** |
| JMK | | | | S | **Sn** | **01 54 40.7** | **-0.8** |
| **JKZ** | **Kuzumaki** | **0.86** | **312** | P | **Pn** | **01 54 29.7** | **-0.1** |
| JKZ | | | | S | **Sn** | **01 54 41.1** | **-0.6** |
| **JANG** | **Nango** | **1.08** | **333** | P | **Pn** | **01 54 32.5** | **-0.2** |
| JANG | | | | *e*S | **Sn** | **01 54 46.0** | **-0.8** |
| **JIO** | **Ouri** | **1.14** | **214** | P | **Pn** | **01 54 33.2** | **-0.2** |
| JIO | | | | *e*S | **Sn** | **01 54 47.0** | **-1.1** |
| **JRG** | **Rokugo** | **1.18** | **270** | P | **Pn** | **01 54 33.4** | **-0.5** |
| **JAH** | **Hinai** | **1.41** | **304** | P | **Pn** | **01 54 36.8** | **-0.2** |
| **JYK** | **Kaneyama** | **1.48** | **251** | P | **Pn** | **01 54 37.8** | **-0.2** |
| **JOU** | **Okura** | **1.56** | **229** | P | **Pn** | **01 54 39.1** | **0.0** |
| **MAT** | **Matsushiro** | **4.23** | **229** | P | **Pn** | **01 55 18.2** | **+2.6** |
| MAT | | | | *e*S | **Sn** | **01 56 03.9** | **+0.2** |
| **MJAR** | **Matsushiro Arr** | **4.23** | **229** | P | **Pn** | **01 55 18.1** | **+2.4** |
| | 1.5nm,0.3s,baz=38,slow=12,SNR=30 | | | | | | |
| **ASAJ** | **Asahikawa** | **4.72** | **4** | P | **Pn** | **01 55 23.0** | **+0.8** |
| | 1.2nm,0.3s,baz=225,slow=5.8,SNR=4.9 | | | | | | |
| ASAJ | | | | S | **Sn** | **01 56 13.9** | **-1.6** |
| | 1.0nm,0.3s,baz=151,slow=19,SNR=2.6 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **8.97** | **306** | P | **Pn** | **01 56 21.8** | **+1.3** |
| | 0.2nm,0.3s,baz=117,slow=14,SNR=5.4 | | | | | | |
| **KSRS** | **Korea Array** | **11.33** | **265** | P | **Pn** | **01 56 55.3** | **+2.6** |
| | 0.2nm,0.3s,baz=70,slow=14,SNR=2.9 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.95** | **125** | T | T | 02 30 36.3 | |
| | baz=318,slow=75,SNR=164 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.96** | **126** | T | T | 02 30 37.0 | |
| | baz=318,slow=75,SNR=163 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.97** | **125** | T | T | 02 30 39.2 | |
| | baz=318,slow=75,SNR=131 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.75** | **127** | T | T | 02 31 48.1 | |
| | baz=320 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.75** | **127** | T | T | 02 31 44.0 | |
| | baz=320 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.76** | **127** | T | T | 02 31 51.9 | |
| | baz=320 | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **ZALV** | **Zalesovo Beam** | **40.78** | **310** | P | **P** | **02 01 48.9** | **-0.1** |
| | 0.6nm,0.4s,baz=99,slow=7.3,SNR=3.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.39** | **300** | P | **P** | **02 02 09.4** | **-1.0** |
| | 0.5nm,0.8s,baz=76,slow=7.0,SNR=3.1 | | | | | | |
| **ILAR** | **Eielson Array** | **47.19** | **34** | P | **P** | **02 02 41.5** | **+1.4** |
| | 0.5nm,0.6s,baz=267,slow=6.1,SNR=12 | | | | | | |
| **WRA** | **Warramunga Arr** | **59.49** | **189** | P | **P** | **02 04 09.9** | **-0.8** |
| | 0.4nm,0.4s,baz=6.2,slow=7.1,SNR=10 | | | | | | |
| **YKA** | **Yellowknife Ar** | **61.47** | **31** | P | **P** | **02 04 24.1** | **+0.4** |
| | 0.1nm,0.6s,baz=301,slow=6.4,SNR=4.1 | | | | | | |
| **ASAR** | **Alice Springs** | **63.22** | **188** | P | **P** | **02 04 34.6** | **-1.2** |
| | 0.5nm,1.0s,baz=2.1,slow=6.9,SNR=5.5 | | | | | | |
| **FINES** | **FINESS Array B** | **66.99** | **332** | P | **P** | **02 04 59.3** | **-0.6** |
| | 1.8nm,0.9s,baz=47,slow=8.2,SNR=4.0 | | | | | | |
| **HFS** | **Hagfors** | **72.17** | **336** | P | **P** | **02 05 31.9** | **0.0** |
| | 5.9nm,1.0s,baz=35,slow=7.8,SNR=5.1 | | | | | | |
| **PDAR** | **Pinedale Array** | **75.60** | **46** | P | **P** | **02 05 51.6** | **-0.9** |
| | 0.2nm,0.6s,baz=302,slow=2.0,SNR=3.7 | | | | | | |

*NEIC **25** 02:04:40.5±0.0, 16.18N×94.84W,h26km, MD4.0(MEX), After MEX.*
**MEX 25 02:04:40.5±0.5,16.18N×94.84W,h26km±10km,MD4.0, Oaxaca**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PCIG** | | **1.62** | **107** | *e*P | Pn | 02 05 05.5 | -1.9 |
| PCIG | | | | *i* S | Sn | 02 05 24.0 | -3.5 |
| **PCIG** | | **1.62** | **107** | *e*P | Pn | 02 05 05.5 | -1.9 |
| PCIG | | | | *i* S | Sn | 02 05 24.0 | -3.5 |
| **PANG** | **Puerto Angel** | **1.66** | **252** | *i* P | Pb | 02 05 16.9 | +6.6 |
| **TGIG** | | **1.75** | **70** | *e*P | Pn | 02 05 06.8 | -2.4 |
| TGIG | | | | *i* S | Sn | 02 05 27.6 | -3.1 |
| **TGIG** | | **1.75** | **70** | *e*P | Pn | 02 05 06.8 | -2.4 |
| TGIG | | | | *i* S | Sn | 02 05 27.6 | -3.1 |
| **VHO** | **Vista Hermosa** | **2.02** | **296** | *e*P | Pn | 02 05 11.2 | -2.0 |
| VHO | | | | *e*S | Sn | 02 05 35.0 | -2.8 |
| **VHO** | **Vista Hermosa** | **2.02** | **296** | *e*P | Pn | 02 05 11.2 | -2.0 |
| VHO | | | | *e*S | Sn | 02 05 35.0 | -2.8 |
| **CCIG** | **Comitan** | **2.59** | **87** | *e*P | Pn | 02 05 19.1 | -1.8 |
| CCIG | | | | *i* S | Sn | 02 05 48.7 | -3.1 |
| **CCIG** | **Comitan** | **2.59** | **87** | *e*P | Pn | 02 05 19.1 | -1.8 |
| CCIG | | | | *i* S | Sn | 02 05 48.7 | -3.1 |
| **PNIG** | **Pinotepa** | **3.17** | **274** | *e*P | Pn | 02 05 26.4 | -2.3 |
| PNIG | | | | *e*S | Sn | 02 06 03.0 | -2.7 |
| **PNIG** | **Pinotepa** | **3.17** | **274** | *e*P | Pn | 02 05 26.4 | -2.3 |
| PNIG | | | | *e*S | Sn | 02 06 03.0 | -2.7 |
| **TLIG** | **Tlapa** | **3.83** | **292** | *e*P | Pn | 02 05 36.6 | -1.3 |
| TLIG | | | | *i* S | Sn | 02 06 19.8 | -2.4 |
| **TLIG** | **Tlapa** | **3.83** | **292** | *e*P | Pn | 02 05 36.6 | -1.3 |
| TLIG | | | | *i* S | Sn | 02 06 19.8 | -2.4 |

*IDC **25** 02:25:35.8±0.9,9.94S×120.04E,h0km,mb4.0/6, mb1 4.2/9,mb1mx3.9/35,mbtmp4.1/9,ML4.1/3,MS3.2/2, Ms1 3.3/2,ms1mx2.7/40,Error ellipse: s-maj=46.7km s-min=17.7km az=64.0*
*ISCJB **25** 02:25:37.0±0.3,10.68S±0.04×119.29E±0.03,h33km, mb4.0/11,MS3.3/1,Error ellipse: s-maj=5.8km s-min=3.6km az=10.9*
*DJA **25** 02:25:36.7±0.3,11°S±4'×11°9E±', h10km,M4.7/12, mB5.1/2,mb4.7/6,MLv4.7/12,Mw(mB)4.5/2*
*NEIC **25** 02:25:39.3±1.0, 10.62S×119.31E,h40km±11km,mb4.0/6, Error ellipse: s-maj=12.6km s-min=9.0km az=50.0*
**ISC 25 02:25:38.2±0.6,10.71S±0.05×119.34E±0.04,h35km,n44, σ2.926/51,mb4.0/11,Sumba region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WBSI** | **Waikabubak, Su** | **1.06** | **3** | P | **Pn** | **02 25 56.2** | **-0.5** |
| WBSI | | | | S | **Sn** | **02 26 07.5** | **-2.8** |
| **BASI** | **Baing, Sumba** | **1.32** | **68** | P | **Pn** | **02 26 01.8** | **+1.7** |
| BASI | | | | S | **Sn** | **02 26 18.1** | **+1.6** |
| **PLAI** | **Plampang** | **2.42** | **320** | P | **Pn** | **02 26 15.4** | **0.0** |
| **EDFI** | **Ende, Flores** | **3.03** | **50** | P | **Pn** | **02 26 23.3** | **-0.6** |
| **MMRI** | **Maumere** | **3.53** | **54** | P | **Pn** | **02 26 30.8** | **+0.2** |
| **MMRI** | **Maumere** | **3.53** | **54** | *e*Pn | **Pn** | **02 26 30.6** | **0.0** |
| MMRI | | | | *e*Sn | **Sn** | **02 27 08.3** | **-2.8** |
| **DNP** | **Denpasar** | **4.54** | **296** | P | **Pn** | **02 26 45.5** | **+1.0** |
| DNP | | | | S | **Sn** | **02 27 36.0** | **-0.1** |
| **BSSI** | **Bau Bau, Buton** | **4.68** | **14** | P | **Pn** | **02 26 46.4** | **-0.1** |
| **SRBI** | **Singaraja** | **4.83** | **302** | P | **Pn** | **02 26 49.0** | **+0.5** |
| **SOEI** | **Soe** | **4.95** | **79** | P | **Pn** | **02 26 52.7** | **+2.5** |
| SOEI | | | | S | **Sn** | **02 27 46.4** | **+0.1** |
| **SOEI** | **Soe** | **4.95** | **79** | *e*Pn | **Pn** | **02 26 52.2** | **+2.0** |
| SOEI | | | | *e*Sn | **Sn** | **02 27 48.7** | **+2.4** |
| **JAGI** | **Jajag, Banyuwa** | **5.58** | **293** | P | **Pn** | **02 26 57.3** | **

*ellipse: s-maj=8.8km s-min=5.0km az=19.4*

**ISC 25 02:29:26.5±1.3, 34°08S±0'05×70°34W±0'05, h10km, n13, σ1§76/21, 2C-2D, Chile-Argentina border region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **LMEL** | **Las Melosas** | **0.26** | **26** | ⇓*iP* | **Pg** | **02 29 29.3** | **-2.5** |
| LMEL | | | | *i* Sg | **Sg** | **02 29 32.7** | **-2.8** |
| LMEL | | | | IAML | | 02 29 35.4 | |
| | comp=N,2μm,0.2s | | | | | | |
| **ANTU** | **Antumapu** | **0.57** | **334** | *e*P | **Pg** | **02 29 36.9** | **-0.7** |
| ANTU | | | | ⇑*iP* | **Pb** | **02 29 37.1** | **-1.4** |
| ANTU | | | | *i* S | **Sg** | **02 29 44.9** | **-0.1** |
| ANTU | | | | IAML | | 02 29 48.3 | |
| | comp=N,283nm,1.0s | | | | | | |
| **CLCH** | **Cerro Calan** | **0.70** | **347** | ⇓*iP* | **Pg** | **02 29 39.5** | **-0.6** |
| CLCH | | | | *i* S | **Sg** | **02 29 49.0** | **-0.3** |
| CLCH | | | | IAML | | 02 29 50.8 | |
| | comp=N,346nm,0.8s | | | | | | |
| **FCH** | **Farellones** | **0.75** | **3** | *e*P | **Pg** | **02 29 40.0** | **-1.0** |
| FCH | | | | ⇑*iP* | **Pb** | **02 29 40.4** | **-1.5** |
| FCH | | | | *e*S | **Sg** | **02 29 50.4** | **-0.5** |
| FCH | | | | *i* S | **Sg** | **02 29 50.5** | **-0.5** |
| FCH | | | | IAML | | 02 29 51.5 | |
| | comp=N,135nm,0.3s | | | | | | |
| **PEL** | **Peldehue** | **0.98** | **343** | *e*P | **Pg** | **02 29 44.1** | **-1.2** |
| PEL | | | | *i* S | **Sg** | **02 29 57.3** | **-0.7** |
| PEL | | | | IAML | | 02 29 58.1 | |
| | comp=N,175nm,0.2s | | | | | | |
| **ROC1** | **El Roble** | **1.24** | **333** | *e*P | Pg | 02 29 55.7 | +5.4 |
| ROC1 | | | | *i* S | **Sn** | **02 30 12.6** | **+5.5** |
| **GO05** | **HualaæØ** | **1.60** | **234** | *i* P | **Pb** | **02 29 55.3** | **-0.9** |
| GO05 | | | | *i* S | **Sb** | **02 30 17.0** | **+0.3** |
| **AAGR** | **Agrelo** | **1.61** | **52** | *e*P | **Pg** | **02 29 58.2** | **+0.8** |
| **ARCO** | **CERRO ARCO** | **1.71** | **44** | *e*P | **Pg** | **02 29 59.0** | **-0.3** |
| **ASAL** | **Salagasta** | **1.95** | **41** | *e*P | **Pg** | **02 30 03.7** | **-0.2** |
| **AUSP** | **Uspallata** | **2.02** | **24** | *e*P | **Pb** | **02 30 03.5** | **+0.1** |
| **RTLS** | **Leoncito** | **2.44** | **21** | *e*P | **Pb** | **02 30 11.4** | **+0.7** |
| RTLS | | | | IAML | | 02 30 17.2 | |
| | comp=Z,18nm,0.4s | | | | | | |
| **RTLL** | **Cerro Villicun** | **3.16** | **30** | IAML | | 02 30 27.5 | |
| | comp=Z,8.0nm,0.4s | | | | | | |

*NIED* ***25*** *02:39:00, 37°70N×141°90E, h32km, Mw3.4 Best double couple: M0 1.65000×10^14 NP1:ϕ=150.00000°, δ=54.00000°, λ=-30.00000°. NP2:ϕ=259.00000°, δ=67.00000°, λ=-140.00000°.*

**JMA 25 02:39:24.7±0.1, 37°73N×141°86E, h21km±2km, M3.6, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JIO** | **Ouri** | **0.83** | **331** | P | Pb | 02 39 40.2 | -0.2 |
| JIO | | | | S | Sb | 02 39 50.9 | -0.2 |
| **JMM** | **Marumori** | **0.86** | **279** | P | Pb | 02 39 40.5 | -0.3 |
| JMM | | | | S | Sb | 02 39 51.4 | -0.5 |
| **JFK** | **Kawauchi** | **0.86** | **245** | P | Pb | 02 39 40.7 | -0.3 |
| JFK | | | | S | Sb | 02 39 51.8 | -0.3 |
| **ONAJ** | **Iwakimizuishiy** | **1.05** | **234** | P | Pb | 02 39 43.6 | -0.6 |
| ONAJ | | | | S | Sb | 02 39 57.5 | -0.1 |
| **JOU** | **Okura** | **1.14** | **304** | P | Pb | 02 39 45.7 | 0.0 |
| JOU | | | | S | Sn | 02 40 00.5 | +0.1 |
| **JFT** | **Otama** | **1.23** | **261** | P | Pb | 02 39 47.0 | -0.2 |
| JFT | | | | S | Sn | 02 40 03.4 | +0.8 |
| **JMK** | **Ichinoseki** | **1.32** | **338** | P | Pn | 02 39 47.8 | -0.1 |
| JMK | | | | S | Sn | 02 40 04.7 | -0.1 |
| **JYS** | **Shirataka** | **1.50** | **290** | P | Pb | 02 39 51.3 | -0.5 |
| JYS | | | | S | Sb | 02 40 10.8 | +0.4 |
| **JYK** | **Kaneyama** | **1.67** | **316** | P | Pn | 02 39 53.1 | +0.3 |
| **JFY** | **Yanaizu** | **1.74** | **260** | P | Pb | 02 39 55.2 | -0.8 |
| JFY | | | | S | Sb | 02 40 17.4 | 0.0 |
| **MAT** | **Matsushiro** | **3.15** | **249** | P | Pb | 02 40 17.5 | -2.5 |
| MAT | | | | S | Sb | 02 40 55.2 | -2.7 |

*DDA* ***25*** *02:50:37.5, 38°.95N×43°.78E, h12km, Ml2.8*
*ISK* ***25*** *02:50:37.2, 38°.99N×43°.73E, h5km, MD2.7*
*ISCJB* ***25*** *02:50:38.3±0.7, 38°.99N±0°.03×43°.78E±0°.05, h6km±5km, Error ellipse: s-maj=6.6km s-min=4.7km az=19.9*
*CSEM* ***25*** *02:50:38.1±0.3, 38°.99N×43°.77E, h2km, ML2.8, Error ellipse: s-maj=6.4km s-min=4.2km az=103.0*

**ISC 25 02:50:37.1±0.9, 38°97N±0°.03×43°78E±0°.03, h16km±5km, n29, σ0§73/47, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VMUR** | **Van-Muradiye** | **0.17** | **276** | *i* P | **Pg** | **02 50 40.9** | **-0.6** |
| VMUR | | | | *i* S | **Sg** | **02 50 44.7** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.17** | **276** | P | **Pg** | **02 50 40.9** | **-0.6** |
| VMUR | | | | S | **Sg** | **02 50 44.7** | **+0.3** |
| **CLDR** | **Caldiran** | **0.20** | **32** | *e*PG | **Pg** | **02 50 42.2** | **+0.2** |
| CLDR | | | | *e*SG | **Sb** | **02 50 46.1** | **-0.1** |
| **CLDR** | **Caldiran** | **0.20** | **32** | *i* P | **Pg** | **02 50 42.2** | **+0.2** |
| CLDR | | | | *i* S | **Sb** | **02 50 46.1** | **-0.1** |
| **CLDR** | **Caldiran** | **0.20** | **32** | P | **Pg** | **02 50 42.2** | **+0.2** |
| CLDR | | | | S | **Sb** | **02 50 46.1** | **-0.1** |
| **ERCV** | **ERCIS-VAN** | **0.35** | **278** | *e*PG | **Pg** | **02 50 44.7** | **+0.2** |
| **ERCV** | **ERCIS-VAN** | **0.35** | **278** | *e*Pg | **Pg** | **02 50 44.7** | **+0.2** |
| **VANB** | **Van** | **0.49** | **219** | *e*PG | **Pn** | **02 50 48.9** | **-0.7** |
| **VANB** | **Van** | **0.49** | **219** | *e*Pg | **Pn** | **02 50 48.9** | **-0.7** |
| **TVAN** | **Van** | **0.53** | **214** | *i* P | **Pb** | **02 50 48.7** | **+0.4** |
| TVAN | | | | *i* S | **Sn** | **02 50 59.6** | **+0.5** |
| **TVAN** | **Van** | **0.53** | **214** | P | **Pb** | **02 50 48.7** | **+0.4** |
| **DYDN** | **Diyadin** | **0.57** | **353** | *i* P | **Pb** | **02 50 48.9** | **-0.1** |
| DYDN | | | | *i* S | **Sn** | **02 50 58.5** | **-1.7** |
| **DYDN** | **Diyadin** | **0.57** | **353** | P | **Pb** | **02 50 48.9** | **-0.1** |
| DYDN | | | | S | **Sn** | **02 50 58.5** | **-1.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.84** | **259** | *i* P | **Pg** | **02 50 53.9** | **+0.3** |
| ADCV | | | | *i* S | **Sn** | **02 51 07.1** | **+0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.84** | **259** | P | **Pg** | **02 50 53.9** | **+0.3** |
| ADCV | | | | S | **Sn** | **02 51 07.1** | **+0.4** |
| **AGRB** | **Hanur-Agry** | **0.86** | **315** | *e*PG | **Pg** | **02 50 54.1** | **+0.2** |
| AGRB | | | | *e*SG | **Sn** | **02 51 06.4** | **-0.8** |
| **AGRB** | **Hanur-Agry** | **0.86** | **315** | *e*Pg | **Pg** | **02 50 54.1** | **+0.2** |
| AGRB | | | | *e*Sg | **Sn** | **02 51 06.4** | **-0.8** |
| **TUTA** | **Tutak** | **0.87** | **300** | *i* P | **Pg** | **02 50 54.1** | **+0.1** |
| TUTA | | | | *i* S | **Sn** | **02 51 06.6** | **-0.8** |
| **TUTA** | **Tutak** | **0.87** | **300** | P | **Pg** | **02 50 54.1** | **+0.1** |
| TUTA | | | | S | **Sn** | **02 51 06.6** | **-0.8** |
| **GEVA** | **Gevas** | **0.87** | **221** | *i* P | **Pb** | **02 50 53.4** | **-0.6** |
| GEVA | | | | *i* S | **Sn** | **02 51 08.2** | **+0.8** |
| **GEVA** | **Gevas** | **0.87** | **221** | P | **Pb** | **02 50 53.4** | **-0.6** |
| GEVA | | | | S | **Sn** | **02 51 08.2** | **+0.8** |
| **TASB** | **TASBURUN-IGDIR** | **1.07** | **19** | *e*PG | **Pg** | **02 50 58.9** | **+1.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.07** | **19** | *e*Pg | **Pg** | **02 50 58.9** | **+1.1** |
| **EATA** | **Eleskirt** | **1.34** | **312** | *i* P | **Pg** | **02 51 02.6** | **-0.4** |
| EATA | | | | *i* S | **Sg** | **02 51 22.2** | **+1.8** |
| **EATA** | **Eleskirt** | **1.34** | **312** | P | **Pg** | **02 51 02.6** | **-0.4** |
| EATA | | | | S | **Sg** | **02 51 22.2** | **+1.8** |
| **CUKT** | **Cukurca** | **1.73** | **185** | *e*PN | **Pg** | **02 51 10.1** | **-0.3** |
| **CUKT** | **Cukurca** | **1.73** | **185** | *e*Pn | **Pg** | **02 51 10.1** | **-0.3** |
| **VRTB** | **Varto-Mus** | **1.82** | **277** | *e*PN | **Pb** | **02 51 10.7** | **+0.5** |
| **VRTB** | **Varto-Mus** | **1.82** | **277** | *e*Pn | **Pb** | **02 51 10.7** | **+0.5** |

*ISCJB* ***25*** *02:59:25.9±0.3, 42°.92N±0°.04×144°.04E±0°.04, h101km±2km, mb3.7/17, Error ellipse: s-maj=6.8km s-min=4.2km az=154.7*
*SKHL* ***25*** *02:59:26.2±0.1, 42°.73N×144°.31E, h104km±1km, mb4.6/2, msh5.1/3*
*MOS* ***25*** *02:59:26.4±0.9, 42°.96N×143°.99E, h106km, mb4.0/9, Error ellipse: s-maj=15.6km s-min=9.6km az=69.9*
*JMA* ***25*** *02:59:27.0±0.1, 42°.93N×144°.01E, h95km±1km, M3.3*
*JMA Felt II J1.*
*IDC* ***25*** *02:59:28.6±2.0, 43°.01N×143°.94E, h108km±11km, mb3.4/17, mb1 3.6/18, mb1mx3.4/59, mbtmp3.8/18, Error ellipse: s-maj=22.4km s-min=15.7km az=169.0*

**ISC 25 02:59:26.8±0.7, 42°91N±0°.05×144°04E±0°.03, h95km±5km, n59, σ0§87/68, mb3.8/17, 1D, Hokkaido region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JOB** | **Onbets** | **0.15** | **266** | P | **Pn** | **02 59 40.9** | **+0.7** |
| JOB | | | | *e*S | **Sn** | **02 59 50.9** | **+0.6** |
| **JAR** | **Ashorobuto** | **0.43** | **333** | P | **Pn** | **02 59 41.6** | **0.0** |
| JAR | | | | *e*S | **Sn** | **02 59 52.4** | **-0.2** |
| **JAK** | **Akkeshi** | **0.49** | **80** | P | **Pn** | **02 59 42.2** | **+0.2** |
| JAK | | | | *e*S | **Sn** | **02 59 53.9** | **+0.6** |
| **JCH** | **Churui** | **0.58** | **239** | P | **Pn** | **02 59 42.8** | **+0.1** |
| JCH | | | | *e*S | **Sn** | **02 59 54.1** | **-0.5** |
| **JNK** | **Nakash** | **0.84** | **36** | P | **Pn** | **02 59 45.1** | **0.0** |
| JNK | | | | *e*S | **Sn** | **02 59 58.4** | **-0.4** |
| **JTKR** | **Abashiri--Toko** | **1.06** | **355** | P | **Pn** | **02 59 47.9** | **+0.4** |
| JTKR | | | | *e*S | **Sn** | **03 00 03.4** | **+0.3** |
| **JFR** | **Furan** | **1.09** | **284** | P | **Pn** | **02 59 47.6** | **-0.3** |
| JFR | | | | *e*S | **Sn** | **03 00 03.5** | **-0.2** |
| **ERM** | **Erimo** | **1.11** | **216** | *d i* PN | **Pn** | **02 59 49.1** | **+1.0** |
| **ERM** | **Erimo** | **1.11** | **216** | *e*P | **Pn** | **02 59 49.1** | **+1.0** |
| **JNBK** | **Urakawa-nobuka** | **1.14** | **237** | P | **Pn** | **02 59 48.3** | **-0.2** |
| JNBK | | | | *e*S | **Sn** | **03 00 03.8** | **-1.0** |
| **JMP** | **Maruseppu** | **1.20** | **336** | P | **Pn** | **02 59 49.1** | **-0.1** |
| JMP | | | | *e*S | **Sn** | **03 00 05.4** | **-0.6** |
| **JBT2** | **Biratori 2** | **1.24** | **264** | P | **Pn** | **02 59 49.5** | **-0.1** |
| **JRA** | **Rausu** | **1.29** | **37** | P | **Pn** | **02 59 50.6** | **+0.4** |
| JRA | | | | *e*S | **Sn** | **03 00 09.1** | **+1.2** |
| **NEM2** | **Nemuro 2** | **1.33** | **70** | P | **Pn** | **02 59 50.4** | **-0.2** |
| NEM2 | | | | *e*S | **Sn** | **03 00 07.8** | **-0.9** |
| **JKK2** | **Kamakawa 2** | **1.34** | **316** | P | **Pn** | **02 59 51.1** | **+0.2** |
| JKK2 | | | | *e*S | **Sn** | **03 00 08.8** | **-0.3** |
| **JAB** | **Ashibetsu** | **1.45** | **295** | P | **Pn** | **02 59 53.0** | **+0.8** |
| **JKA** | **Kamikawa-asahi** | **1.59** | **319** | *e*P | **Pn** | **02 59 55.0** | **+1.0** |
| **ASAJ** | **Asahikawa** | **1.59** | **319** | P | **Pn** | **02 59 55.0** | **+1.0** |
| | 24nm,0.3s,baz=142,slow=6.0,SNR=45 | | | | | | |
| ASAJ | | | | S | **Sn** | **03 00 15.2** | **+0.6** |
| | 18nm,0.3s,baz=280,slow=32,SNR=24 | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **1.74** | **49** | *e*PN | **Pn** | **02 59 56.5** | **+0.7** |
| YUK | | | | *e*S | **Sn** | **03 00 17.7** | **-0.1** |
| YUK | | | | pmax | pmax | | |
| | comp=E,214nm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=Z,1μm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=N,185nm,0.1s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=E,1μm,0.3s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,505nm,0.1s | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **1.74** | **49** | *e*P | **Pn** | **02 59 55.6** | **-0.2** |
| YUK | | | | AMB | AMB | 02 59 57.3 | |
| | comp=N,140nm,0.4s | | | | | | |
| YUK | | | | *e*S | **Sn** | **03 00 17.7** | **-0.1** |
| YUK | | | | A | A | 03 00 20.6 | |
| | comp=N,130nm,0.3s | | | | | | |
| YUK | | | | A | A | 03 00 20.6 | |
| | comp=N,505nm,0.3s | | | | | | |
| **SHO** | **Shikotan** | **2.25** | **64** | *e*PN | **Pn** | **03 00 02.4** | **0.0** |
| SHO | | | | *e*S | **Sn** | **03 00 28.3** | **-1.4** |
| SHO | | | | pmax | pmax | | |
| | comp=Z,96nm,0.4s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=N,65nm,0.2s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=N,686nm,0.2s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=E,789nm,0.4s | | | | | | |
| **SHO** | **Shikotan** | **2.25** | **64** | *e*P | **Pn** | **03 00 02.4** | **0.0** |
| SHO | | | | AMB | AMB | 03 00 06.0 | |
| | comp=E,96nm,0.4s | | | | | | |
| SHO | | | | *e*S | **Sn** | **03 00 28.3** | **-1.4** |
| SHO | | | | A | A | 03 00 29.6 | |
| | comp=E,690nm,0.4s | | | | | | |
| SHO | | | | A | A | 03 00 29.6 | |
| | comp=E,790nm,0.4s | | | | | | |
| **KUR** | **Kuril'sk** | **3.60** | **49** | PN | **Pn** | **03 00 22.7** | **+2.2** |
| KUR | | | | *e*S | **Sn** | **03 01 04.5** | **+2.5** |
| KUR | | | | smax | smax | | |
| | comp=E,39nm,0.4s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=N,37nm,0.3s | | | | | | |
| **KUR** | **Kuril'sk** | **3.60** | **49** | *e*P | **Pn** | **03 00 21.0** | **+0.5** |
| KUR | | | | *e*S | **Sn** | **03 01 02.0** | **0.0** |
| KUR | | | | A | A | 03 01 09.7 | |
| | comp=N,77nm,0.4s | | | | | | |
| KUR | | | | A | A | 03 01 09.7 | |
| | comp=N,31nm,0.4s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **4.14** | **348** | *e*P | Pn | 03 00 33.2 | +5.4 |
| **MJA0** | **Matsu Arr-Jizo** | **7.77** | **217** | *e*PN | **Pn** | **03 01 19.0** | **+1.8** |
| MJA0 | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.3s | | | | | | |
| **MJAR** | **Matsushiro Arr** | **7.79** | **217** | P | **Pn** | **03 01 17.7** | **+0.3** |
| | comp=Z,0.5nm,0.3s,baz=30,slow=14,SNR=9.3 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **7.79** | **217** | *e*P | **Pn** | **03 01 19.0** | **+1.6** |
| **KLR** | **Kul'dur** | **10.61** | **311** | *e*PN | Pn | 03 02 00.1 | +4.4 |
| **KLR** | **Kul'dur** | **10.61** | **311** | *e*P | Pn | 03 02 00.1 | +4.4 |
| **SEY** | **Seymchan** | **20.64** | **11** | P | **P** | **03 03 56.4** | **-2.0** |
| | comp=Z,2.6nm,0.4s,baz=201,slow=9.3,SNR=14 | | | | | | |
| **SONM** | **Songino Array** | **26.71** | **294** | P | **P** | **03 04 57.6** | **+0.4** |
| | comp=Z,0.3nm,0.4s,baz=98,slow=7.8,SNR=2.8 | | | | | | |
| **TIXI** | **Tiksi** | **29.76** | **350** | *i* P | P | 03 05 15.5 | -8.3 |
| **H11N2** | **WAKE ISLAND Hy** | **30.07** | **133** | T | T | 03 36 52.4 | |
| | baz=327,slow=75,SNR=61 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **30.09** | **133** | T | T | 03 36 50.8 | |
| | baz=327,slow=75,SNR=68 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **30.09** | **133** | T | T | 03 36 53.2 | |
| | baz=327,slow=75,SNR=65 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **30.98** | **135** | T | T | 03 38 04.3 | |
| | baz=328,slow=76,SNR=103 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **30.98** | **135** | T | T | 03 37 57.6 | |
| | baz=328,slow=76,SNR=69 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **31.00** | **135** | T | T | 03 37 38.3 | |
| | baz=328,slow=76,SNR=57 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **39.70** | **307** | P | **P** | **03 06 49.2** | **-0.2** |
| | comp=Z,0.5nm,0.3s,baz=64,slow=10,SNR=4.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **42.96** | **297** | P | **P** | **03 07 16.4** | **+0.2** |
| | comp=Z,0.4nm,0.6s,baz=78,slow=10,SNR=4.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **42.96** | **297** | *e*P | **P** | **03 07 16.5** | **+0.3** |
| **MKAR** | **Makanchi Array** | **42.96** | **297** | *e*P | **P** | **03 07 16.5** | **+0.3** |
| **ILAR** | **Eielson Array** | **43.50** | **36** | P | **P** | **03 07 20.6** | **+0.3** |
| | comp=Z,0.5nm,0.3s,baz=258,slow=5.3,SNR=12 | | | | | | |
| **KURK** | **Kurchatov** | **44.11** | **304** | P | **P** | **03 07 25.7** | **+0.3** |
| KURK | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | |
| **KURK** | **Kurchatov** | **44.11** | **304** | *e*P | **P** | **03 07 25.7** | **+0.3** |
| **KURBB** | **Kurchatov Arra** | **44.19** | **304** | P | **P** | **03 07 25.7** | **-0.3** |
| | comp=Z,1.5nm,0.7s,baz=73,slow=9.0,SNR=6.4 | | | | | | |
| **INK** | **Inuvik** | **48.26** | **30** | P | **P** | **03 07 57.9** | **+0.3** |
| | comp=Z,0.5nm,0.3s,baz=294,slow=7.9,SNR=9.2 | | | | | | |
| **BVAR** | **Borovoye Array** | **48.27** | **309** | P | **P** | **03 07 58.1** | **+0.1** |
| | comp=Z,0.6nm,0.3s,baz=80,slow=9.0,SNR=5.9 | | | | | | |
| **YKA** | **Yellowknife Ar** | **57.74** | **33** | P | **P** | **03 09 07.6** | **+0.4** |
| | comp=Z,0.2nm,0.7s,baz=303,slow=6.8,SNR=6.0 | | | | | | |
| **ARCES** | **ARCESS Array B** | **59.22** | **339** | P | **P** | **03 09 16.7** | **-0.8** |
| | comp=Z,3.6nm,0.8s,baz=56,slow=9.9,SNR=4.2 | | | | | | |
| **FINES** | **FINESS Array B** | **64.57** | **332** | P | **P** | **03 09 52.7** | **-0.6** |
| | comp=Z,1.3nm,0.5s,baz=46,slow=7.0,SNR=18 | | | | | | |
| **NOA** | **NORSAR Array B** | **69.54** | **338** | P | **P** | **03 10 23.0** | **-1.9** |
| | comp=Z,1.9nm,0.9s,baz=34,slow=6.4,SNR=3.1 | | | | | | |
| **NOA** | **NORSAR Array B** | **69.54** | **338** | P | **P** | **03 10 23.0** | **-1.9** |
| NOA | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.9s | | | | | | |
| **HFS** | **Hagfors** | **69.56** | **336** | P | **P** | **03 10 24.6** | **-0.4** |
| | comp=Z,1.9nm,0.6s,baz=39,slow=9.3,SNR=6.2 | | | | | | |
| **AKASG** | **Malin Array Be** | **70.88** | **322** | P | **P** | **03 10 32.5** | **-0.7** |
| | comp=Z,0.5nm,0.5s,baz=40,slow=6.4,SNR=3.7 | | | | | | |
| **PDAR** | **Pinedale Array** | **72.17** | **48** | P | **P** | **03 10 42.1** | **+0.7** |
| | comp=Z,0.2nm,0.4s,baz=328,slow=3.3,SNR=2.7 | | | | | | |
| **GERES** | **GERESS Array B** | **78.74** | **329** | P | **P** | **03 11 18.8** | **+0.1** |
| | comp=Z,0.2nm,0.5s,baz=45,slow=4.3,SNR=2.9 | | | | | | |
| **TXAR** | **Lajitas Array** | **84.99** | **54** | P | **P** | **03 11 53.1** | **+1.3** |
| | comp=Z,0.4nm,1.0s,baz=305,slow=6.5,SNR=3.1 | | | | | | |

*DDA* ***25*** *03:09:56.9, 35°.74N×28°.76E, h13km, Ml3.2*
*ISK* ***25*** *03:09:59.5, 35°.86N×28°.84E, h9km, ML3.1*
*CSEM* ***25*** *03:10:00.9±0.2, 35°.92N×28°.80E, h12km, ML2.6, Error ellipse: s-maj=4.7km s-min=2.8km az=150.0*
*ATH* ***25*** *03:10:00.4, 35°.87N×28°.75E, h22km±1km, ML2.6/3, Error ellipse: s-maj=3.1km s-min=1.1km az=352.0*
*ISCJB* ***25*** *03:10:01.6±0.9, 35°.90N±0°.05×28°.79E±0°.04, h24km±7km, Error ellipse: s-maj=8.7km s-min=4.8km az=158.9*

**ISC 25 03:10:01.5±1.2, 35°92N±0°.04×28°78E±0°.03, h16km±9km, n55, σ1§11/77, Eastern Mediterranean Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ARG** | **Arkhangelos** | **0.61** | **299** | P | **Pg** | **03 10 11.7** | **-1.8** |
| ARG | | | | S | **Sb** | **03 10 22.6** | **+0.5** |
| ARG | | | | AML | AML | 03 10 27.9 | |
| | comp=N,900μm,0.7s | | | | | | |
| ARG | | | | AML | AML | 03 10 30.6 | |
| | comp=E,1475μm,0.4s | | | | | | |
| **ARG** | **Arkhangelos** | **0.61** | **299** | P | **Pg** | **03 10 11.7** | **-1.8** |
| ARG | | | | S | **Sb** | **03 10 22.5** | **+0.5** |
| **KSL** | **Kastellorizon** | **0.69** | **70** | P | **Pb** | **03 10 14.5** | **-0.6** |
| KSL | | | | S | **Sn** | **03 10 25.9** | **-1.1** |
| KSL | | | | AML | AML | 03 10 36.0 | |
| | comp=E,1005μm,0.4s | | | | | | |
| KSL | | | | AML | AML | 03 10 39.4 | |
| | comp=N,857μm,0.5s | | | | | | |
| **KSL** | **Kastellorizon** | **0.69** | **70** | P | **Pb** | **03 10 14.5** | **-0.6** |
| **FETY** | **Fethiye** | **0.76** | **19** | *e*PG | **Pg** | **03 10 15.1** | **-1.2** |
| FETY | | | | *e*SG | **Sb** | **03 10 26.9** | **+0.5** |
| **FETY** | **Fethiye** | **0.76** | **19** | P | **Pg** | **03 10 14.9** | **-1.4** |
| **FETY** | **Fethiye** | **0.76** | **19** | *e*Pg | **Pg** | **03 10 15.1** | **-1.2** |
| FETY | | | | *e*Sg | **Sb** | **03 10 26.9** | **+0.5** |
| FETY | | | | S | **Sn** | **03 10 27.7** | **-0.9** |
| **MRSB** | **Marmaris-Mugla** | **0.93** | **330** | *e*PG | **Pg** | **03 10 19.2** | **-0.2** |
| **MRSB** | **Marmaris-Mugla** | **0.93** | **330** | *e*Pg | **Pg** | **03 10 19.2** | **-0.2** |
| **TURN** | **Turunc** | **0.96** | **352** | *e*PG | **Pb** | **03 10 19.3** | **-0.5** |
| TURN | | | | *e*SG | **Sn** | **03 10 34.7** | **+1.1** |
| **TURN** | **Turunc** | **0.96** | **352** | *i* P | **Pb** | **03 10 19.0** | **-0.8** |
| TURN | | | | *i* S | **Sg** | **03 10 33.3** | **+0.5** |
| **TURN** | **Turunc** | **0.96** | **352** | P | **Pb** | **03 10 19.0** | **-0.8** |
| **TURN** | **Turunc** | **0.96** | **352** | *e*Pg | **Pb** | **03 10 19.3** | **-0.5** |
| TURN | | | | S | **Sg** | **03 10 33.3** | **+0.5** |
| TURN | | | | *e*Sg | **Sn** | **03 10 34.7** | **+1.1** |
| **ELL** | **Elmali** | **1.23** | **47** | *e*PN | **Pn** | **03 10 23.4** | **-0.8** |
| **ELL** | **Elmali** | **1.23** | **47** | *e*Pn | **Pn** | **03 10 23.4** | **-0.8** |
| **GLHS** | **Glhisar (BURDU** | **1.36** | **25** | *e*PN | **Pn** | **03 10 25.5** | **-0.4** |
| **GLHS** | **Glhisar (BURDU** | **1.36** | **25** | *e*Pn | **Pn** | **03 10 25.5** | **-0.4** |
| **KARP** | **Karpathos** | **1.37** | **255** | *e*PN | **Pb** | **03 10 26.0** | **-0.7** |
| **KARP** | **Karpathos** | **1.37** | **255** | P | **Pb** | **03 10 25.7** | **-1.0** |
| KARP | | | | S | **Sb** | **03 10 44.0** | **0.0** |
| KARP | | | | AML | AML | 03 10 52.8 | |
| | comp=N,776μm,0.9s | | | | | | |
| KARP | | | | AML | AML | 03 10 53.2 | |
| | comp=E,601μm,0.4s | | | | | | |
| **KARP** | **Karpathos** | **1.37** | **255** | P | **Pb** | **03 10 25.7** | **-1.0** |
| **KARP** | **Karpathos** | **1.37** | **255** | *e*Pn | **Pb** | **03 10 26.0** | **-0.7** |
| KARP | | | | S | **Sb** | **03 10 44.0** | **0.0** |
| **GOLH** | **Golhisar** | **1.46** | **25** | *i* P | **Pb** | **03 10 27.6** | **-0.7** |
| GOLH | | | | *i* S | **Sg** | **03 10 51.6** | **+3.0** |
| **GOLH** | **Golhisar** | **1.46** | **25** | P | **Pb** | **03 10 27.6** | **-0.7** |
| **TAVA** | **DENIZLI_Tavas** | **1.55** | **4** | *i* P | **Pn** | **03 10 27.8** | **-0.7** |
| TAVA | | | | *i* S | **Sn** | **03 10 47.8** | **-0.5** |
| **TAVA** | **DENIZLI_Tavas** | **1.55** | **4** | P | **Pn** | **03 10 27.8** | **-0.7** |
| TAVA | | | | S | **Sn** | **03 10 47.8** | **-0.5** |
| **BDRM** | **Kayabasi** | **1.57** | **317** | *i* P | **Pn** | **03 10 28.7** | **0.0** |
| BDRM | | | | *i* S | **Sg** | **03 10 53.2** | **+1.0** |
| **BDRM** | **Kayabasi** | **1.57** | **317** | P | **Pn** | **03 10 28.7** | **0.0** |
| BDRM | | | | S | **Sg** | **03 10 53.2** | **+1.0** |
| **BODT** | **Bodrum** | **1.65** | **314** | *e*PN | **Pn** | **03 10 30.3** | **+0.6** |
| **BODT** | **Bodrum** | **1.65** | **314** | *e*Pn | **Pn** | **03 10 30.3** | **+0.6** |
| **KORT** | **Korkueli** | **1.66** | **49** | *e*PN | **Pn** | **03 10 29.9** | **-0.2** |
| **KORT** | **Korkueli** | **1.66** | **49** | *i* P | **Pb** | **03 10 30.6** | **-1.2** |
| KORT | | | | *i* S | **Sg** | **03 11 01.1** | **+5.9** |
| **KORT** | **Korkueli** | **1.66** | **49** | *e*Pn | **Pn** | **03 10 29.9** | **-0.2** |
| **KORT** | **Korkueli** | **1.66** | **49** | P | **Pb** | **03 10 30.6** | **-1.2** |
| **DNZL** | **Cakiroluk** | **1.78** | **7** | *i* P | **Pn** | **03 10 31.0** | **-0.8** |
| DNZL | | | | *i* S | **Sg** | **03 10 59.4** | **+0.5** |
| **DNZL** | **Cakiroluk** | **1.78** | **7** | P | **Pn** | **03 10 31.0** | **-0.8** |
| DNZL | | | | S | **Sg** | **03 10 59.4** | **+0.5** |
| **ANTB** | **Antalya** | **1.80** | **56** | *e*PN | **Pn** | **03 10 31.7** | **-0.1** |
| **ANTB** | **Antalya** | **1.80** | **56** | *e*Pn | **Pn** | **03 10 31.7** | **-0.1** |
| **AYDN** | **Tasoluk** | **1.88** | **338** | *i* P | **Pn** | **03 10 32.7** | **-0.3** |
| AYDN | | | | *i* S | **Sg** | **03 11 04.4** | **+2.2** |
| **AYDN** | **Tasoluk** | **1.88** | **338** | P | **Pn** | **03 10 32.7** | **-0.3** |
| **BRDR** | **BURDUR-Merkez** | **2.05** | **30** | *i* P | **Pn** | **03 10 35.4** | **0.0** |
| BRDR | | | | *i* S | **Sg** | **03 11 08.9** | **+1.4** |
| **BRDR** | **BURDUR-Merkez** | **2.05** | **30** | P | **Pn** | **03 10 35.4** | **0.0** |
| **BCK** | **Bucak** | **2.12** | **43** | *e*PN | **Pn** | **03 10 36.2** | **-0.1** |
| **BCK** | **Bucak** | **2.12** | **43** | *e*Pn | **Pn** | **03 10 36.2** | **-0.1** |
| **ZKR** | **Zakros** | **2.24** | **250** | P | **Pn** | **03 10 38.0** | **+0.1** |
| **ZKR** | **Zakros** | **2.24** | **250** | P | **Pn** | **03 10 38.0** | **+0.1** |
| **SUTC** | **Sutluce-Ispart** | **2.37** | **48** | *e*PN | **Pn** | **03 10 40.0** | **+0.3** |
| **SUTC** | **Sutluce-Ispart** | **2.37** | **48** | *e*Pn | **Pn** | **03 10 40.0** | **+0.3

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | comp=E,398nm,0.4s | | | | | | | | | |
| **LMEL** | **Las Melosas** | **2.67** | **197** | ⇑*i* | P | | **Pn** | **03 20 56.4** | **+0.3** |
| LMEL | | | | *i* | S | | **Sn** | **03 21 31.9** | **+3.5** |
| LMEL | | | | | IAML | | | 03 21 36.1 | |
| | comp=N,206nm,0.4s | | | | | | | | |
| **VCA** | **Vinchina** | **2.71** | **20** | *e* | P | | **Pn** | **03 20 56.4** | **-0.4** |
| VCA | | | | *e* | S | | **Sn** | **03 21 28.9** | **-0.5** |
| **VCA** | **Vinchina** | **2.71** | **20** | ⇓*i* | P | | **Pn** | **03 20 57.1** | **+0.4** |
| VCA | | | | *i* | S | | **Sn** | **03 21 30.4** | **+1.0** |
| VCA | | | | | IAML | | | 03 21 34.9 | |
| | comp=N,460nm,0.4s | | | | | | | | |
| **CYA** | **Choya** | **4.14** | **48** | *e* | P | | **Pn** | **03 21 14.8** | **-0.8** |
| **AHML** | **Horco Molle** | **5.66** | **38** | *e* | P | | **Pn** | **03 21 35.4** | **-0.7** |
| **PLCA** | **Paso Flores** | **9.48** | **186** | P | | | **Pn** | **03 22 24.9** | **-2.7** |
| | comp=N,0.1nm,0.3s,baz=13,slow=14,SNR=5.4 | | | | | | | | |
| **LPAZ** | **La Paz** | **14.97** | **4** | P | | | **Pn** | **03 23 41.5** | **+1.0** |
| | comp=N,0.1nm,0.3s,baz=198,slow=6.4,SNR=5.2 | | | | | | | | |
| **SIV** | **San Ignacio** | **16.97** | **28** | P | | | **Pn** | **03 24 03.5** | **-1.2** |
| | comp=N,0.2nm,0.3s,baz=232,slow=3.6,SNR=6.1 | | | | | | | | |
| **TXAR** | **Lajitas Array** | **68.60** | **328** | P | | | **P** | **03 31 05.0** | **+0.3** |
| | comp=N,0.1nm,0.6s,baz=168,slow=8.9,SNR=2.5 | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **81.07** | **69** | P | | | **P** | **03 32 16.9** | **+0.1** |
| | comp=N,0.7nm,0.7s,baz=266,slow=4.9,SNR=8.1 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **150.70** | **32** | PKPbc | | | **PKPbc** | **03 39 52.2** | **0.0** |
| | comp=N,2.5nm,0.8s,baz=305,slow=5.2,SNR=4.4 | | | | | | | | |

*ISCJB* ***25*** *03:27:53.7±0.5, 24˚.86N±0˚.04×122˚.32E±0˚.02, h6km±4km, Error ellipse: s-maj=7.2km s-min=2.8km az=6.3*
*TAP* ***25*** *03:27:54.9, 24˚.88N×122˚.26E, h13km, ML2.8, D*
*JMA* ***25*** *03:27:55.5, 24˚.71N×122˚.24E, h34km, M2.0*

**ISC 25 03:27:52.0±1.3, 24˚.85N±0˚.05×122˚.34E±0˚.02, h7km±11km, n25, σ0ˢ73/45, 1C, Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **TWB1** | **Santiao Chiao** | **0.36** | **297** | *i* P | | **Pb** | **03 28 01.1** | **+0.3** |
| | baz=297 | | | | | | | |
| TWB1 | | | | *i* S | | **Sb** | **03 28 05.2** | **-1.4** |
| | baz=297 | | | | | | | |
| **TWC** | **Suao** | **0.51** | **242** | *e* P | | **Pg** | **03 28 02.2** | **+0.4** |
| | baz=234 | | | | | | | |
| TWC | | | | *i* S | | **Sb** | **03 28 10.3** | **-0.5** |
| | baz=234 | | | | | | | |
| **NWF** | **Wu-fen Shan** | **0.55** | **294** | *e* P | | **Pn** | **03 28 06.0** | **-0.4** |
| | baz=292 | | | | | | | |
| NWF | | | | *e* S | | **Sb** | **03 28 12.0** | **-0.3** |
| | baz=292 | | | | | | | |
| **TWE** | **Neicheng** | **0.62** | **259** | ⇑P | | **Pb** | **03 28 05.1** | **-0.2** |
| | baz=243 | | | | | | | |
| TWE | | | | *e* S | | **Sb** | **03 28 13.5** | **-0.8** |
| | baz=243 | | | | | | | |
| **JYNG** | **Yonagunijimaku** | **0.68** | **125** | P | | **Pn** | **03 28 08.6** | **+0.5** |
| JYNG | | | | *e* S | | **Sn** | **03 28 18.9** | **0.0** |
| **ENA** | **Nanau** | **0.69** | **233** | P | | **Pb** | **03 28 05.8** | **-0.6** |
| | baz=221 | | | | | | | |
| **TWA** | **Mucha** | **0.70** | **281** | *e* P | | **Pb** | **03 28 06.8** | **+0.2** |
| | baz=279 | | | | | | | |
| TWA | | | | S | | **Sb** | **03 28 17.1** | **+0.6** |
| | baz=279 | | | | | | | |
| **YOJ** | **Yonaguni jima** | **0.72** | **122** | P | | **Pn** | **03 28 09.4** | **+0.7** |
| YOJ | | | | *e* S | | **Sn** | **03 28 19.9** | **-0.1** |
| **ENTT** | **Nioudou** | **0.73** | **254** | P | | **Pb** | **03 28 07.0** | **-0.2** |
| | baz=249 | | | | | | | |
| ENTT | | | | *e* S | | **Sb** | **03 28 16.4** | **-1.0** |
| | baz=249 | | | | | | | |
| **NSK** | **Sanguang** | **0.91** | **259** | P | | **Pn** | **03 28 10.4** | **-0.9** |
| | baz=272 | | | | | | | |
| NSK | | | | *e* S | | **Sb** | **03 28 22.4** | **-0.1** |
| | baz=272 | | | | | | | |
| **NNS** | **Nan Shan** | **0.97** | **245** | *e* P | | **Pb** | **03 28 11.3** | **0.0** |
| | baz=232 | | | | | | | |
| NNS | | | | S | | **Sb** | **03 28 23.8** | **-0.5** |
| | baz=232 | | | | | | | |
| **TWD** | **Chiawan** | **1.02** | **222** | *e* P | | **Pn** | **03 28 13.5** | **+0.7** |
| | baz=218 | | | | | | | |
| **WHF** | **Hehuan Shan** | **1.20** | **235** | *e* P | | **Pn** | **03 28 15.5** | **-0.2** |
| | baz=232 | | | | | | | |
| WHF | | | | *e* S | | **Sg** | **03 28 30.1** | **-0.7** |
| | baz=232 | | | | | | | |
| **NSTT** | **Nanjuang** | **1.24** | **260** | *e* P | | **Pg** | **03 28 17.6** | **+1.8** |
| | baz=275 | | | | | | | |
| NSTT | | | | *e* S | | **Sn** | **03 28 33.6** | **+0.9** |
| | baz=275 | | | | | | | |
| **IRIF** | **Iriomote-Funau** | **1.36** | **112** | P | | **Pg** | **03 28 20.1** | **+1.9** |
| **WDT** | **Danda** | **1.55** | **226** | *e* P | | **Pb** | **03 28 21.4** | **+0.2** |
| | baz=232 | | | | | | | |
| WDT | | | | *e* S | | **Sg** | **03 28 42.4** | **+0.6** |
| | baz=232 | | | | | | | |
| **HATJ** | **Hateruma jima** | **1.55** | **120** | *e* S | | **Sb** | **03 28 41.0** | **+0.1** |
| **EHY** | **Hungye** | **1.63** | **215** | *e* P | | **Pn** | **03 28 21.4** | **+0.3** |
| | baz=213 | | | | | | | |
| **JKRS** | **Kuro-shima** | **1.64** | **111** | P | | **Pg** | **03 28 23.3** | **-0.2** |
| JKRS | | | | S | | **Sg** | **03 28 44.1** | **-0.6** |
| **TYC** | **Yuchr** | **1.65** | **236** | *e* P | | **Pg** | **03 28 23.9** | **+0.3** |
| | baz=234 | | | | | | | |
| TYC | | | | *e* S | | **Sb** | **03 28 44.1** | **+0.4** |
| | baz=234 | | | | | | | |
| **JIJ** | **Ishigaki jima** | **1.71** | **106** | P | | **Pg** | **03 28 24.1** | **-0.8** |
| JIJ | | | | *e* S | | **Sg** | **03 28 46.0** | **-1.1** |
| **ALS** | **Alishan** | **1.93** | **227** | *e* P | | **Pg** | **03 28 29.5** | **+0.3** |
| | baz=214 | | | | | | | |
| ALS | | | | *e* S | | **Sg** | **03 28 54.0** | **-0.2** |
| | baz=214 | | | | | | | |
| **CHN5** | **Tsauling** | **1.96** | **231** | *e* P | | **Pg** | **03 28 29.9** | **+0.2** |
| | baz=232 | | | | | | | |
| CHN5 | | | | *e* S | | **Sg** | **03 28 55.3** | **+0.2** |
| | baz=232 | | | | | | | |
| **CHN4** | **Tsaushan** | **2.18** | **227** | *e* P | | **Pb** | **03 28 31.5** | **-0.4** |
| | baz=212 | | | | | | | |
| CHN4 | | | | *e* S | | **Sg** | **03 29 01.0** | **-1.2** |
| | baz=212 | | | | | | | |
| **WTP** | **Ta-pu** | **2.24** | **225** | *e* P | | **Pb** | **03 28 32.9** | **-0.1** |
| | baz=210 | | | | | | | |
| WTP | | | | *e* S | | **Sg** | **03 29 03.0** | **-1.1** |
| | baz=210 | | | | | | | |

*ISCJB* ***25*** *03:31:07.9±1.0, 4˚.42N±0˚.05×95˚.10E±0˚.07, h70km±10km, mb4.2/22, Error ellipse: s-maj=11.1km s-min=8.3km az=170.8*
*IDC* ***25*** *03:31:08.2±0.6, 4˚.59N×95˚.05E, h52km±5km, mb3.9/15, mb1 4.0/16, mb1mx3.7/49, mbtmp4.2/16, MS2.9/2, Ms1 3.0/2, ms1mx2.8/40, Error ellipse: s-maj=21.4km s-min=9.5km az=38.0*
*NEIC* ***25*** *03:31:09.9±1.3, 4˚.55N×95˚.11E, h69km±11km, mb4.3/4, Error ellipse: s-maj=14.3km s-min=7.5km az=56.0*
*DJA* ***25*** *03:31:09.4±1.0, 4˚.N±4˚×9˚.5E±˚, h47km±45km, M4.3/9, mb4.4/2, MLv4.2/9*

**ISC 25 03:31:07.5±0.6, 4˚.39N±0˚.05×95˚.01E±0˚.06, h53km±5km, h53km:pP-P, n52, σ1ˢ24/65, mb4.3/22, 1C-3D, Northern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **MLSI** | **Meulaboh, Aceh** | **1.40** | **95** | P | | **Pn** | **03 31 31.4** | **+0.7** |
| MLSI | | | | S | | **Sn** | **03 31 48.8** | **+0.7** |
| **LHMI** | **Lhok Sumawe** | **2.11** | **67** | P | | **Pn** | **03 31 42.1** | **+1.7** |
| LHMI | | | | S | | **Sn** | **03 32 03.8** | **-1.6** |
| **LHMI** | **Lhok Sumawe** | **2.11** | **67** | *e*Pn | | **Pn** | **03 31 41.7** | **+1.3** |
| **SNSI** | **Sinabang, Aceh** | **2.37** | **146** | P | | **Pn** | **03 31 43.5** | **-0.5** |
| SNSI | | | | S | | **Sn** | **03 32 10.6** | **-1.2** |
| **TPTI** | | **2.44** | **117** | P | | **Pn** | **03 31 45.1** | **+0.1** |
| TPTI | | | | S | | **Sn** | **03 32 13.4** | **-0.2** |
| **KCSI** | **Kotacane, Aceh** | **2.89** | **107** | P | | **Pn** | **03 31 52.9** | **+1.8** |
| **GSI** | **Gunungsitoli** | **4.00** | **140** | P | | **Pn** | **03 32 06.8** | **+0.5** |
| GSI | | | | S | | **Sn** | **03 32 49.3** | **-2.6** |
| **PSI** | **Prapat** | **4.22** | **112** | P | | **Pn** | **03 32 12.0** | **+2.5** |
| | 4.0nm,0.3s,baz=313,slow=15,SNR=14 | | | | | | | |
| PSI | | | | S | | **Sn** | **03 33 01.4** | **+3.9** |
| | 2.8nm,0.3s,baz=11,slow=18,SNR=2.8 | | | | | | | |
| PSI | | | | LR | | LR | 03 34 14.7 | |
| | comp=Z,198nm,19.8s,baz=260,slow=43 | | | | | | | |
| **KULM** | **Kulim** | **5.70** | **81** | *e*Pn | | **Pn** | **03 32 29.4** | **-0.2** |
| | 28nm,0.6s | | | | | | | |
| KULM | | | | *e*Sn | | **Sn** | **03 33 31.9** | **-1.9** |
| **IPM** | **Ipoh** | **6.00** | **89** | *e*Pn | | **Pn** | **03 32 34.6** | **+0.8** |
| | 13nm,0.5s | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **14.50** | **15** | P | | **P** | **03 34 34.4** | **-0.9** |
| | 0.9nm,0.3s,baz=208,slow=11,SNR=19 | | | | | | | |
| CMAR | | | | LR | | LR | 03 40 10.1 | |
| | comp=Z,38nm,21.2s,baz=198,slow=38 | | | | | | | |
| **UGM** | **Wanagama** | **19.72** | **128** | P | | **P** | **03 35 29.2** | **-3.8** |
| **JIRN** | **Jiri** | **24.62** | **341** | *e*P | | **P** | **03 36 23.5** | **-0.1** |
| **GUN** | **Gumba** | **24.96** | **341** | *e*P | | **P** | **03 36 26.7** | **+0.1** |
| | 10nm,0.5s | | | | | | | |
| **LSA** | **Lhasa** | **25.44** | **352** | *e*P | | **P** | **03 36 31.0** | **0.0** |
| | 6.1nm,0.4s | | | | | | | |
| **H08S2** | **Diego Garcia H** | **25.45** | **242** | T | | T | 04 02 24.9 | |
| | baz=64,slow=74 | | | | | | | |
| **H08S3** | **Diego Garcia H** | **25.45** | **242** | T | | T | 04 02 25.7 | |
| | baz=64,slow=74 | | | | | | | |
| **H08S1** | **Diego Garcia H** | **25.46** | **242** | T | | T | 04 02 27.0 | |
| | baz=64 | | | | | | | |
| **KOLN** | **Koldanda** | **25.67** | **336** | *e*P | | **P** | **03 36 32.6** | **-0.3** |
| | 15nm,0.6s | | | | | | | |
| **PYUN** | **Piuthan** | **26.21** | **335** | *e*P | | **P** | **03 36 38.3** | **+0.5** |
| | 14nm,0.4s | | | | | | | |
| **TNTI** | **Ternate** | **32.52** | **95** | *e*P | | **P** | **03 37 34.5** | **+0.8** |
| | 26nm,0.8s | | | | | | | |
| **UCH** | **Uchtor** | **41.88** | **337** | P | | **P** | **03 38 53.6** | **+0.4** |
| | SNR=7.9 | | | | | | | |
| **KBK** | **Karagaybulak** | **42.08** | **338** | P | | **P** | **03 38 55.7** | **+1.2** |
| | SNR=8.5 | | | | | | | |
| **AML** | **Almayashu** | **42.12** | **336** | P | | **P** | **03 38 55.9** | **+0.8** |
| | SNR=6.6 | | | | | | | |
| **AAK** | **Ala-Archa** | **42.23** | **337** | P | | **P** | **03 38 57.5** | **+1.8** |
| | SNR=5.2 | | | | | | | |
| **AAK** | **Ala-Archa** | **42.23** | **337** | *e*P | | **P** | **03 38 56.6** | **+0.8** |
| | 3.0nm,0.6s | | | | | | | |
| **USP** | **Osgenovka** | **42.77** | **338** | P | | **P** | **03 39 01.5** | **+1.5** |
| | SNR=5.2 | | | | | | | |
| **MKAR** | **Makanchi Array** | **43.66** | **347** | P | | **P** | **03 39 06.6** | **-0.4** |
| | 7.2nm,0.5s,baz=169,slow=7.9,SNR=81 | | | | | | | |
| **KKAR** | **Karatay Array** | **44.25** | **334** | *e*P | | **P** | **03 39 11.9** | **+0.1** |
| | 1.0nm,0.3s | | | | | | | |
| **SONM** | **Songino Array** | **44.38** | **11** | P | | **P** | **03 39 11.8** | **-1.2** |
| | 1.0nm,0.6s,baz=186,slow=9.4,SNR=9.6 | | | | | | | |
| SONM | | | | PcP | | **PP** | **03 40 56.8** | **-0.5** |
| | 0.2nm,0.3s,baz=212,slow=4.3,SNR=5.6 | | | | | | | |
| **KSAR** | **Wonju Array Be** | **44.56** | **38** | P | | **P** | **03 39 14.1** | **-0.3** |
| **KSRS** | **Korea Array** | **44.59** | **38** | P | | **P** | **03 39 14.1** | **-0.5** |
| | 1.5nm,0.9s,baz=226,slow=9.7,SNR=4.2 | | | | | | | |
| **WRA** | **Warramunga Arr** | **45.59** | **123** | P | | **P** | **03 39 23.8** | **+1.0** |
| | 2.8nm,0.6s,baz=300,slow=9.3,SNR=25 | | | | | | | |
| **WRAB** | **Tennant Creek** | **45.59** | **123** | *e*P | | **P** | **03 39 23.3** | **+0.5** |
| | 3.7nm,0.7s | | | | | | | |
| **ASAR** | **Alice Springs** | **47.06** | **128** | P | | **P** | **03 39 35.4** | **+0.9** |
| | 0.7nm,0.4s,baz=301,slow=7.9,SNR=44 | | | | | | | |
| ASAR | | | | pP | | **pP** | **03 39 49.0** | **+0.5** |
| | 1.7nm,0.6s,baz=299,slow=8.1,SNR=10 | | | | | | | |
| ASAR | | | | PcP | | **PcP** | **03 41 06.8** | **+0.9** |
| | 0.6nm,0.8s,baz=304,slow=3.7,SNR=3.7 | | | | | | | |
| **GEYT** | **Alibeck** | **47.38** | **320** | P | | **P** | **03 39 36.9** | **+0.3** |
| | 2.7nm,0.7s,baz=170,slow=9.0,SNR=6.3 | | | | | | | |
| GEYT | | | | pP | | **pP** | **03 39 51.8** | **+1.1** |
| | 2.1nm,0.7s,baz=183,slow=8.6,SNR=3.2 | | | | | | | |
| **KURK** | **Kurchatov** | **48.18** | **346** | *e*P | | **P** | **03 39 42.6** | **+0.1** |
| **ZALV** | **Zalesovo Beam** | **50.10** | **352** | P | | **P** | **03 39 57.0** | **-0.2** |
| | 3.7nm,0.3s,baz=180,slow=7.3,SNR=25 | | | | | | | |
| **BRVK** | **Borovoye** | **52.61** | **341** | *e*P | | **P** | **03 40 15.2** | **-0.8** |
| | 9.0nm,0.6s | | | | | | | |
| **ABKAR** | **Akbulak array** | **53.69** | **332** | *e*P | | **P** | **03 40 23.5** | **-0.5** |
| | 2.7nm,0.7s | | | | | | | |
| **BRTR** | **Keskin Array B** | **65.36** | **312** | P | | **P** | **03 41 44.5** | **-0.3** |
| | 0.6nm,0.5s,baz=141,slow=7.3,SNR=7.5 | | | | | | | |
| BRTR | | | | pP | | **pP** | **03 41 59.1** | **-0.3** |
| | 1.8nm,0.6s,baz=143,slow=6.5,SNR=6.5 | | | | | | | |
| **TIXI** | **Tiksi** | **70.47** | **11** | P | | **P** | **03 42 14.2** | **-1.9** |
| | 4.2nm,0.6s,baz=220,slow=3.4,SNR=14 | | | | | | | |
| **AKASG** | **Malin Array Be** | **71.41** | **322** | P | | **P** | **03 42 20.9** | **-1.3** |
| | 1.3nm,0.5s,baz=87,slow=5.4,SNR=6.8 | | | | | | | |
| AKASG | | | | pP | | **pP** | **03 42 36.1** | **-1.0** |
| | 0.5nm,0.5s,baz=218,slow=27,SNR=2.0 | | | | | | | |
| **VRI** | **Vrincioaia** | **71.81** | **317** | ⇓*i* P | | **P** | **03 42 25.5** | **+0.7** |
| **PLOR** | **Plostina** | **71.86** | **317** | ⇓*i* P | | **P** | **03 42 25.6** | **+0.5** |
| **MLR** | **Muntele Rosu** | **72.26** | **316** | ⇓*i* P | | **P** | **03 42 28.4** | **+0.8** |
| **BURAR** | **Bucovina Array** | **73.20** | **318** | ⇑*i* P | | **P** | **03 42 33.8** | **+0.7** |
| BURAR | | | | S | | **pP** | **03 42 48.6** | **+0.6** |
| **LBTB** | **Lobatse** | **73.37** | **242** | P | | **P** | **03 42 36.3** | **+1.8** |
| | 1.1nm,0.7s,baz=81,slow=7.9,SNR=3.3 | | | | | | | |
| **FINES** | **FINESS Array B** | **76.18** | **332** | P | | **P** | **03 42 49.5** | **-0.3** |
| | 2.5nm,0.7s,baz=109,slow=5.7,SNR=18 | | | | | | | |
| FINES | | | | pP | | **pP** | **03 43 03.7** | **-1.2** |
| | 1.2nm,0.5s,baz=97,slow=4.1,SNR=1.8 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **78.82** | **340** | P | | **P** | **03 43 04.5** | **-0.1** |
| | 8.3nm,1.1s,baz=88,slow=5.6,SNR=17 | | | | | | | |
| **GERES** | **GERESS Array B** | **80.99** | **319** | P | | **P** | **03 43 17.7** | **+0.9** |
| | 0.4nm,0.5s,baz=94,slow=8.2,SNR=3.8 | | | | | | | |
| GERES | | | | pP | | **pP** | **03 43 32.8** | **+0.9** |
| | 1.2nm,0.6s,baz=90,slow=6.7,SNR=6.2 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **92.23** | **283** | P | | **P** | **03 44 13.7** | **+1.2** |
| | 0.3nm,0.7s,baz=95,slow=5.2,SNR=2.5 | | | | | | | |

*NIED* ***25*** *03:36:00, 36˚.80N×141˚.10E, h47km, Mw4.3 Best double couple: M0 3.26000×10¹⁵ NP1:φs289.00000°, δ4.00000°, λ177.00000°. NP2:φs22.00000°, δ90.00000°, λ86.00000°.*
*BJI* ***25*** *03:36:48.5, 36˚.90N×140˚.85E, h42km, mb4.5/40, mB5.1/23, Ms4.6/14, Ms7 4.3/13*
*ISCJB* ***25*** *03:36:49.4±0.4, 36˚.80N±0˚.03×141˚.03E±0˚.04, h52km±2km, mb4.5/82, MS3.6/8, Error ellipse: s-maj=5.3km s-min=3.9km az=36.1*
*JMA* ***25*** *03:36:49.9±0.1, 36˚.77N×141˚.02E, h49km±1km, M4.1*
*JMA Felt II J1.*
*NEIC* ***25*** *03:36:50.6±0.7, 36˚.87N×140˚.95E, h47km±6km, mb4.5/41, Error ellipse: s-maj=7.0km s-min=5.4km az=157.0*
*NEIC Recorded [2 JMA] in Fukushima and Ibaraki.*
*MOS* ***25*** *03:36:51.3±0.8, 37˚.11N×140˚.85E, h56km, mb4.8/33, Error ellipse: s-maj=8.3km s-min=6.0km az=105.4*
*IDC* ***25*** *03:36:52.2±1.6, 36˚.76N×140˚.98E, h66km±14km, mb4.0/21, mb1 4.2/27, mb1mx4.1/50, mbtmp4.4/27, MS3.4/8, Ms1 3.4/8, ms1mx3.1/37, Error ellipse: s-maj=12.8km s-min=10.3km az=68.0*

**ISC 25 03:36:49.2±0.7, 36˚.81N±0˚.04×141˚.16E±0˚.05, h42km±6km, n217, σ1ˢ66/238, mb4.5/85, MS3.6/8, 10C-17D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **ONAJ** | **Iwakimizuishiy** | **0.41** | **315** | P | | **Pn** | **03 36 59.5** | **+0.5** |
| ONAJ | | | | S | | **Sn** | **03 37 06.2** | **+0.3** |
| **JHO** | **Hitachi** | **0.52** | **248** | P | | **Pn** | **03 36 59.9** | **-0.3** |
| JHO | | | | S | | **Sn** | **03 37 06.9** | **-1.1** |
| **JFK** | **Kawauchi** | **0.60** | **338** | P | | **Pn** | **03 37 02.1** | **+0.7** |
| JFK | | | | S | | **Sn** | **03 37 10.7** | **+0.5** |
| **JFT** | **Otama** | **0.97** | **317** | P | | **Pn** | **03 37 07.3** | **+0.9** |
| JFT | | | | S | | **Sn** | **03 37 19.6** | **+0.6** |
| **JYT** | **Yasato** | **0.97** | **234** | P | | **Pn** | **03 37 05.6** | **-0.7** |
| **JMM** | **Marumori** | **1.10** | **345** | P | | **Pn** | **03 37 08.9** | **+0.8** |
| JMM | | | | S | | **Sn** | **03 37 22.8** | **+0.7** |
| **JFY** | **Yanaizu** | **1.31** | **298** | P | | **Pn** | **03 37 11.0** | **0.0** |
| JFY | | | | S | | **Sn** | **03 37 27.2** | **-0.1** |
| **JAG** | **Ashikaga** | **1.43** | **255** | P | | **Pn** | **03 37 12.0** | **-0.6** |
| JAG | | | | S | | **Sn** | **03 37 27.6** | **-2.6** |
| **JKT** | **Katashina** | **1.54** | **269** | P | | **Pn** | **03 37 14.1** | **-0.1** |
| JKT | | | | S | | **Sn** | **03 37 31.8** | **-1.2** |
| **MJAR** | **Matsushiro Arr** | **2.39** | **265** | P | | **Pn** | **03 37 26.2** | **+0.3** |
| | 36nm,0.3s,baz=88,slow=16,SNR=317 | | | | | | | |
| MJAR | | | | S | | **Sn** | **03 37 54.3** | **+0.4** |
| | 62nm,0.3s,baz=98,slow=25,SNR=11 | | | | | | | |
| MJAR | | | | LR | | LR | 03 38 30.5 | |
| | comp=Z,584nm,21.6s,baz=115,slow=45 | | | | | | | |
| **MAJO** | **Matsushiro** | **2.39** | **265** | *d* iP | | **Pn** | **03 37 26.5** | **+0.6** |
| **MAJO** | **Matsushiro** | **2.39** | **265** | *e*Pn | | **Pn** | **03 37 26.7** | **+0.8** |
| **MAT** | **Matsushiro** | **2.39** | **265** | P | | **Pn** | **03 37 26.6** | **+0.7** |
| MAT | | | | S | | **Sn** | **03 37 54.1** | **+0.1** |
| **MJB9** | **Matsu-Tunnel** | **2.39** | **265** | *e*Pn | | **Pn** | **03 37 26.7** | **+0.8** |
| **INU** | **Inuyama** | **3.66** | **248** | *e*Pn | | **Pn** | **03 37 45.1** | **+1.8** |
| **JHJ2** | **Mitsune** | **3.85** | **197** | *e*Pn | | **Pn** | **03 37 45.8** | **0.0** |
| JHJ2 | | | | *e*Sn | | **Sn** | **03 38 30.9** | **+1.1** |
| **JHJ** | **Hachijo jima 2** | **3.85** | **198** | P | | **Pn** | **03 37 46.4** | **+0.5** |
| | 52nm,0.3s,baz=74,slow=23,SNR=18 | | | | | | | |
| JHJ | | | | S | | **Sn** | **03 38 29.9** | **+0.1** |
| | 46nm,0.3s,baz=128,slow=23,SNR=6.6 | | | | | | | |
| **ERM** | **Erimo** | **5.43** | **16** | ⇑*e*P | | **Pn** | **03 38 09.1** | **+1.6** |
| **ERM** | **Erimo** | **5.43** | **16** | *e*Pn | | **Pn** | **03 38 08.2** | **+0.7** |
| ERM | | | | *e*Sn | | **Sn** | **03 39 08.5** | **-0.2** |
| **ASAJ** | **Asahikawa** | **7.38** | **8** | P | | **Pn** | **03 38 36.5** | **+2.1** |
| | 4.0nm,0.3s,baz=212,slow=8.8,SNR=4.8 | | | | | | | |
| ASAJ | | | | S | | **Sn** | **03 39 56.3** | **-0.5** |
| | 0.1nm,0.3s,baz=0.0,slow=20,SNR=3.0 | | | | | | | |
| **ASAJ** | **Asahikawa** | **7.38** | **8** | *e*Pn | | **Pn** | **03 38 34.1** | **-0.3** |
| ASAJ | | | | S | | **Sn** | **03 39 56.3** | **-0.5** |
| **YUK** | **Yuzh-Kuril'sk** | **8.06** | **25** | *e*P | | **Pn** | **03 38 46.6** | **+3.0** |
| YUK | | | | *e*S | | **Sn** | **03 40 08.4** | **-5.0** |
| YUK | | | | pmax | pmax | | | |
| | comp=N,38nm,0.3s | | | | | | | |
| YUK | | | | pmax | pmax | | | |
| | comp=E,49nm,0.3s | | | | | | | |
| YUK | | | | pmax | pmax | | | |
| | comp=Z,82nm,0.3s | | | | | | | |
| YUK | | | | smax | smax | | | |
| | comp=E,237nm,0.3s | | | | | | | |
| YUK | | | | smax | smax | | | |
| | comp=N,116nm,0.4s | | | | | | | |
| **SHO** | **Shikotan** | **8.28** | **30** | *e*P | | **Pn** | **03 38 48.3** | **+1.7** |
| SHO | | | | *e*S | | **Sn** | **03 40 12.6** | **-6.1** |
| SHO | | | | smax | smax | | | |
| | comp=E,112nm,0.6s | | | | | | | |
| SHO | | | | smax | smax | | | |
| | comp=N,251nm,0.7s | | | | | | | |
| **JNU** | **Nakatsue** | **9.21** | **249** | P | | **Pn** | **03 39 01.8** | **+2.4** |
| | comp=N,0.4nm,0.3s,baz=224,slow=23,SNR=5.5 | | | | | | | |
| **KUR** | **Kuril'sk** | **9.82** | **29** | *e*P | | **Pn** | **03 39 09.3** | **+1.6** |
| KUR | | | | *e*S | | **Sn** | **03 40 50.9** | **-5.7** |
| **USRK** | **Ussuriysk Ar.** | **10.16** | **319** | P | | **Pn** | **03 39 15.9** | **+3.5** |
| | comp=N,1.2nm,0.3s,baz=132,slow=13,SNR=27 | | | | | | | |
| USRK | | | | LR | | LR | 03 42 02.8 | |
| | comp=N,82nm,21.3s,baz=153,slow=31 | | | | | | | |
| **KSRS** | **Korea Array** | **10.59** | **277** | P | | **Pn** | **03 39 19.8** | **+1.5** |
| | comp=N,0.4nm,0.3s,baz=90,slow=13,SNR=16 | | | | | | | |
| KSRS | | | | LR | | LR | 03 43 00.9 | |
| | comp=N,230nm,21.0s,baz=70,slow=35 | | | | | | | |
| **KSAR** | **Wonju Array Be** | **10.62** | **277** | P | | **Pn** | **03 39 19.8** | **+1.0** |
| **KSAR** | **Wonju Array Be** | **10.62** | **277** | P | | **Pn** | **03 39 19.8** | **+1.0** |
| **CN2** | **Changchun** | **13.87** | **305** | *e*P | | Pn | 03 39 57.3 | -5.8 |
| **KLR** | **Kul'dur** | **14.18** | **334** | P | | **Pn** | **03 40 06.6** | **-0.7** |
| | comp=N,0.0nm,0.3s,baz=149,slow=12,SNR=3.5 | | | | | | | |
| **NJ2** | **Nanjing** | **18.99** | **262** | *e*P | | **P** | **03 41 04.6** | **-2.6** |
| NJ2 | | | | pmax | pmax | | | |
| | comp=N,8.0nm,0.6s | | | | | | | |
| **BJI** | **Beijing** | **19.82** | **287** | P | | **P** | **03 41 16.3** | **+0.1** |
| BJI | | | | pmax | pmax | | | |
| | comp=N,6.0nm,1.4s | | | | | | | |
| BJI | | | | pmax | pmax | | | |
| | comp=N,62nm,5.2s | | | | | | | |
| **PET** | **Petropavlovsk** | **20.32** | **32** | *e*P | | **P** | **03 41 20.7** | **-0.7** |
| PET | | | | pmax | pmax | | | |
| | comp=Z,105nm,1.4s | | | | | | | |
| **PET** | **Petropavlovsk** | **20.32** | **32** | *e*P | | **P** | **03 41 20.7** | **-0.7** |
| | comp=Z,105nm,1.4s | | | | | | | |
| **TPUB** | **Ta-pu** | **22.23** | **238** | *e*P | | **P** | **03 41 37.3** | **-5.1** |
| | comp=Z,137nm,1.7s | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **23.36** | **289** | *e*P | | **P** | **03 41 52.8** | **-1.2** |
| HHC | | | | S | | **S** | **03 45 57.6** | **-6.3** |
| HHC | | | | sS | | sS | 03 46 12.8 | -10 |
| HHC | | | | SS | | **SnSn** | **03 46 43.5** | **+2.4** |
| HHC | | | | pmax | pmax | | | |
| | comp=E,16nm,1.1s | | | | | | | |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,210nm,5.8s | | | | | | | |
| HHC | | | | LR | LR | | | |
| | comp=Z,280nm,15.3s | | | | | | | |
| HHC | | | | LR | LR | | | |
| | comp=Z,340nm,13.9s | | | | | | | |
| HHC | | | | LR | LR | | | |
| | comp=Z,130nm,15.3s | | | | | | | |
| **YAK** | **Yakutsk** | **26.25** | **348** | *e*P | | **P** | **03 42 18.8** | **-1.3** |
| YAK | | | | pmax | pmax | | | |
| | comp=Z,17nm,1.1s | | | | | | | |
| YAK | | | | pmax | pmax | | | |
| | comp=N,7.0nm,1.3s | | | | | | | |
| **ULN** | **Ulaanbaatar** | **27.32** | **305** | ⇓*e*P | | **P** | **03 42 30.2** | **+0.1** |
| ULN | | | | pmax | pmax | | | |
| | comp=E,8.0nm,1.7s | | | | | | | |
| **ULN** | **Ulaanbaatar** | **27.32** | **305** | *e*P | | **P** | **03 42 29.3** | **-0.8** |
| | comp=Z,4.9nm,0.8s | | | | | | | |
| **BOD** | **Bodaibo** | **27.61** | **328** | *e*P | | **P** | **03 42 30.4** | **-2.0** |
| BOD | | | | pmax | pmax | | | |
| | comp=Z,8.0nm,1.4s | | | | | | | |
| **SONA1** | **Songino Array** | **27.74** | **304** | *e*P | | **P** | **03 42 34.2** | **+0.3** |
| **SONM** | **Songino Array** | **27.75** | **304** | P | | **P** | **03 42 32.3** | **-1.6** |
| | comp=Z,8.4nm,0.7s,baz=107,slow=8.8,SNR=28 | | | | | | | |
| SONM | | | | LR | | LR | 03 54 02.2 | |
| | comp=Z,75nm,18.6s,baz=76,slow=37 | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.21** | **120** | T | | T | 04 12 36.4 | |
| | baz=313,slow=75,SNR=358 | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.21** | **120** | T | | T | 04 12 32.4 | |
| | baz=313,slow=75,SNR=336 | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.22** | **120** | T | | T | 04 12 26.3 | |
| | baz=313,slow=75,SNR=291 | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.91** | **122** | T | | T | 04 13 31.0 | |
| | baz=314,slow=75,SNR=423 | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.91** | **122** | T | | T | 04 13 33.8 | |
| | baz=314,slow=75,SNR=433 | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.92** | **122** | T | | T | 04 13 32.2 | |
| | baz=314,slow=75,SNR=241 | | | | | | | |
| **LZH** | **Lanzhou** | **29.91** | **280

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **CHGN** | **Chignik** | **44.27** | **44** | *e*P | | **P** | **03 44 52.0** | **-2.3** |
| | comp=Z,130nm,1.0s | | | | | | | | |
| **MAKZ** | **Makanchi** | **44.28** | **302** | *e*P | | **P** | **03 44 52.7** | **-2.0** |
| MAKZ | | | | | pmax | pmax | | | |
| | comp=Z,26nm,1.8s | | | | | | | | |
| **MAKZ** | **Makanchi** | **44.28** | **302** | *e*P | | **P** | **03 44 52.7** | **-2.0** |
| | comp=Z,26nm,1.8s | | | | | | | | |
| **KURK** | **Kurchatov** | **45.91** | **308** | *de*P | | **P** | **03 45 06.9** | **-0.6** |
| KURK | | | | | pmax | pmax | | | |
| | comp=Z,53nm,1.0s | | | | | | | | |
| **KURK** | **Kurchatov** | **45.91** | **308** | *e*P | | **P** | **03 45 06.7** | **-0.8** |
| | comp=Z,15nm,1.0s | | | | | | | | |
| **ODAN** | **Odare** | **46.23** | **274** | *e*P | | **P** | **03 45 09.8** | **-0.8** |
| | comp=Z,16nm,0.7s | | | | | | | | |
| **RAMN** | **Ramite** | **46.82** | **274** | *e*P | | **P** | **03 45 14.5** | **-0.8** |
| | comp=Z,52nm,0.8s | | | | | | | | |
| **JIRN** | **Jiri** | **46.84** | **275** | *e*P | | **P** | **03 45 15.2** | **-0.4** |
| **GUN** | **Gumba** | **46.98** | **276** | *e*P | | **P** | **03 45 15.7** | **-0.9** |
| | comp=Z,16nm,0.4s | | | | | | | | |
| **KOLN** | **Koldanda** | **48.86** | **277** | *e*P | | **P** | **03 45 30.4** | **-0.6** |
| **PYUN** | **Piuthan** | **49.20** | **277** | *e*P | | **P** | **03 45 33.2** | **-0.4** |
| | comp=Z,22nm,0.6s | | | | | | | | |
| **ILAR** | **Eielson Array** | **49.79** | **32** | P | | **P** | **03 45 39.0** | **+1.6** |
| | comp=Z,1.6nm,0.8s,baz=266,slow=6.5,SNR=16 | | | | | | | | |
| **ILAR** | **Eielson Array** | **49.79** | **32** | P | | **P** | **03 45 39.0** | **+1.6** |
| **KSH** | **Kashi** | **50.31** | **294** | P | | **P** | **03 45 46.1** | **+4.2** |
| KSH | | | | pP | | sP | 03 45 56.8 | -1.7 |
| KSH | | | | PcP | | **PcP** | **03 47 04.3** | **+4.1** |
| KSH | | | | PP | | **PP** | **03 47 43.3** | **+5.9** |
| KSH | | | | S | | **S** | **03 52 56.4** | **+4.6** |
| KSH | | | | ScS | | **ScS** | **03 55 31.4** | **+1.8** |
| KSH | | | | SS | | **SS** | **03 56 27.3** | **+1.8** |
| KSH | | | | pmax | pmax | | | | |
| | comp=Z,3.0nm,0.7s | | | | | | | | |
| KSH | | | | pmax | pmax | | | | |
| | comp=Z,61nm,4.2s | | | | | | | | |
| KSH | | | | LR | LR | | | | |
| | comp=Z,200nm,5.4s | | | | | | | | |
| KSH | | | | LR | LR | | | | |
| | comp=Z,280nm,5.6s | | | | | | | | |
| KSH | | | | LR | LR | | | | |
| | comp=Z,340nm,6.5s | | | | | | | | |
| **AAK** | **Ala-Archa** | **50.42** | **298**⇑ | *e*P | | **P** | **03 45 41.9** | **-0.7** |
| AAK | | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.9s | | | | | | | | |
| **AAK** | **Ala-Archa** | **50.42** | **298** | *e*P | | **P** | **03 45 42.0** | **-0.7** |
| | comp=Z,4.2nm,0.9s | | | | | | | | |
| **BRVK** | **Borovoye** | **50.63** | **312** | *e*P | | **P** | **03 45 43.6** | **-0.3** |
| BRVK | | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,0.9s | | | | | | | | |
| **BRVK** | **Borovoye** | **50.63** | **312** | *e*P | | **P** | **03 45 43.6** | **-0.3** |
| | comp=Z,4.4nm,0.9s | | | | | | | | |
| **KKAR** | **Karatay Array** | **53.06** | **300** | *e*P | | **P** | **03 46 01.0** | **-1.2** |
| KKAR | | | | | pmax | pmax | | | |
| | comp=Z,22nm,0.8s | | | | | | | | |
| **KKAR** | **Karatay Array** | **53.06** | **300** | *e*P | | **P** | **03 46 00.9** | **-1.2** |
| | comp=Z,22nm,0.8s | | | | | | | | |
| **SVE** | **Sverdlovsk** | **55.19** | **319** | *e*P | | **P** | **03 46 16.9** | **-0.5** |
| SVE | | | | | pmax | pmax | | | |
| | comp=Z,17nm,1.1s | | | | | | | | |
| **ARU** | **Arti** | **56.40** | **319** | *c i*P | | **P** | **03 46 25.6** | **-0.5** |
| ARU | | | | S | | **S** | **03 54 13.6** | **0.0** |
| ARU | | | | SS | | **SS** | **03 57 52.1** | **-8.3** |
| ARU | | | | | pmax | pmax | | | |
| | comp=Z,20nm,1.2s | | | | | | | | |
| **ARU** | **Arti** | **56.40** | **319** | *e*P | | **P** | **03 46 25.3** | **-0.8** |
| | comp=Z,10nm,0.8s | | | | | | | | |
| **WRA** | **Warramunga Arr** | **56.81** | **188** | P | | **P** | **03 46 28.9** | **-0.4** |
| | comp=Z,5.1nm,0.8s,baz=7.7,slow=7.6,SNR=9.8 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **56.81** | **188** | P | | **P** | **03 46 29.0** | **-0.4** |
| **ABKAR** | **Akbulak array** | **57.93** | **310** | *e*P | | **P** | **03 46 36.2** | **-0.8** |
| | comp=Z,29nm,0.6s | | | | | | | | |
| **AS01** | **Alice Springs** | **60.53** | **188** | *e*P | | **P** | **03 46 55.2** | **0.0** |
| **ASAR** | **Alice Springs** | **60.54** | **188** | P | | **P** | **03 46 55.6** | **+0.4** |
| | comp=Z,2.3nm,0.8s,baz=8.5,slow=9.4,SNR=9.8 | | | | | | | | |
| **GEYT** | **Alibeck** | **63.77** | **299** | P | | **P** | **03 47 17.0** | **+0.1** |
| | comp=Z,4.6nm,0.9s,baz=15,slow=2.3,SNR=7.5 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **64.11** | **30** | P | | **P** | **03 47 19.8** | **+1.1** |
| | comp=Z,0.6nm,0.7s,baz=304,slow=6.7,SNR=12 | | | | | | | | |
| YKA | | | | PcP | | **PcP** | **03 47 54.8** | **+1.3** |
| | comp=Z,0.5nm,0.7s,baz=302,slow=4.0,SNR=6.9 | | | | | | | | |
| **ARCES** | **ARCESS Array B** | **64.14** | **339** | P | | **P** | **03 47 18.3** | **-0.5** |
| | comp=Z,4.5nm,0.9s,baz=61,slow=7.5,SNR=5.6 | | | | | | | | |
| **AFI** | **Afiamalu** | **67.14** | **130** | LR | | LR | 04 09 44.0 | | |
| | comp=Z,30nm,21.9s,baz=345,slow=29 | | | | | | | | |
| **VRH** | **Novokhopyorsk** | **67.61** | **318** | *e*P | | **P** | **03 47 40.0** | **-1.4** |
| VRH | | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.7s | | | | | | | | |
| **OBN** | **Obninsk** | **68.16** | **323**⇑ | *e*P | | **P** | **03 47 44.8** | **+0.1** |
| OBN | | | | | | | 03 50 14.0 | | |
| OBN | | | | | pmax | pmax | | | |
| | comp=Z,36nm,2.5s | | | | | | | | |
| **LPSR** | **Galich'ya Gora** | **68.35** | **320** | *e*P | | **P** | **03 47 44.5** | **-1.5** |
| LPSR | | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.6s | | | | | | | | |
| **FINES** | **FINESS Array B** | **68.92** | **332** | P | | **P** | **03 47 49.2** | **-0.2** |
| | comp=Z,4.3nm,0.7s,baz=60,slow=6.2,SNR=12 | | | | | | | | |
| **VSR** | **Storozhevoye** | **68.97** | **319** | *e*P | | **P** | **03 47 48.8** | **-1.1** |
| VSR | | | | | pmax | pmax | | | |
| | comp=Z,9.0nm,0.9s | | | | | | | | |
| **VSU** | **Vasula** | **70.55** | **330**⇑ | *e*P | | **P** | **03 47 59.1** | **-0.4** |
| VSU | | | | | pmax | pmax | | | |
| | comp=Z,38nm,0.8s | | | | | | | | |
| **KBZ** | **Khabaz** | **70.90** | **311** | P | | **P** | **03 48 01.9** | **0.0** |
| | comp=Z,7.0nm,0.8s,baz=72,slow=1.4,SNR=12 | | | | | | | | |
| **KIV** | **Kislovodsk** | **70.90** | **311** | *e*P | | **P** | **03 48 03.0** | **+0.9** |
| KIV | | | | | pmax | pmax | | | |
| | comp=Z,15nm,1.1s | | | | | | | | |
| **KIV** | **Kislovodsk** | **70.90** | **311** | *e*P | | **P** | **03 48 02.9** | **+0.8** |
| | comp=Z,10nm,0.8s | | | | | | | | |
| **GNI** | **Garni** | **71.68** | **307**⇓ | *e*P | | **P** | **03 48 07.8** | **+0.9** |
| GNI | | | | | pmax | pmax | | | |
| | comp=Z,8.0nm,0.9s | | | | | | | | |
| **BMO** | **Blue Mountains** | **72.23** | **47** | *e*P | | **P** | **03 48 11.4** | **+1.4** |
| BMO | | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.8s | | | | | | | | |
| **BMO** | **Blue Mountains** | **72.23** | **47** | *e*P | | **P** | **03 48 11.4** | **+1.4** |
| | comp=Z,1.9nm,0.8s | | | | | | | | |
| **FFC** | **Flin Flon** | **74.00** | **33** | *e*P | | **P** | **03 48 20.9** | **+0.7** |
| FFC | | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,0.9s | | | | | | | | |
| **FFC** | **Flin Flon** | **74.00** | **33** | *e*P | | **P** | **03 48 20.9** | **+0.7** |
| | comp=Z,3.5nm,0.9s | | | | | | | | |
| **NB2** | **NORSAR Subarra** | **74.32** | **337** | P | | **P** | **03 48 21.8** | **-0.2** |
| | comp=Z,2.4nm,0.6s,baz=41,slow=5.9 | | | | | | | | |
| **NOA** | **NORSAR Array B** | **74.32** | **337** | P | | **P** | **03 48 21.9** | **-0.1** |
| | comp=Z,3.0nm,0.7s,baz=40,slow=5.8,SNR=5.8 | | | | | | | | |
| **AKASG** | **Malin Array Be** | **74.35** | **322** | P | | **P** | **03 48 21.7** | **-0.6** |
| | comp=Z,2.7nm,0.4s,baz=46,slow=6.2,SNR=17 | | | | | | | | |
| **AKBB** | **Malin Array Si** | **74.35** | **322** | *e*P | | **P** | **03 48 22.0** | **-0.3** |
| AKBB | | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,0.8s | | | | | | | | |
| **AKBB** | **Malin Array Si** | **74.35** | **322** | *e*P | | **P** | **03 48 22.0** | **-0.3** |
| | comp=Z,6.5nm,0.8s | | | | | | | | |
| **LRM** | **Limekiln Ridge** | **74.45** | **44** | *e*P | | **P** | **03 48 25.5** | **+2.2** |
| **DLMT** | **Dillon** | **74.64** | **45** | *e*P | | **P** | **03 48 26.8** | **+2.4** |
| | comp=Z,4.1nm,0.6s | | | | | | | | |
| **MCMT** | **McKenzie Canyo** | **74.82** | **45** | *e*P | | **P** | **03 48 26.8** | **+1.3** |
| **BOZ** | **Bozeman (W)** | **75.04** | **44** | *e*P | | **P** | **03 48 28.6** | **+2.0** |
| BOZ | | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,0.6s | | | | | | | | |
| **BOZ** | **Bozeman (W)** | **75.04** | **44** | *e*P | | **P** | **03 48 28.6** | **+2.0** |
| | comp=Z,2.6nm,0.6s | | | | | | | | |
| **NV01** | **Mina Array Sit** | **75.28** | **53** | *e*P | | **P** | **03 48 30.3** | **+2.1** |
| **NVAR** | **Mina Array Bea** | **75.28** | **53** | P | | **P** | **03 48 30.7** | **+2.4** |
| | comp=Z,1.2nm,0.7s,baz=302,slow=5.4,SNR=12 | | | | | | | | |
| **LKWY** | **Lake** | **76.36** | **44** | *e*P | | **P** | **03 48 36.1** | **+1.7** |
| LKWY | | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,0.7s | | | | | | | | |
| **LKWY** | **Lake** | **76.36** | **44** | *e*P | | **P** | **03 48 36.1** | **+1.7** |
| | comp=Z,6.4nm,0.7s | | | | | | | | |
| **H17A** | **Grant Village** | **76.37** | **44** | *e*P | | **P** | **03 48 35.6** | **+1.2** |
| | comp=Z,3.9nm,0.9s | | | | | | | | |
| **IMW** | **Indian Meadow** | **76.48** | **45** | *e*P | | **P** | **03 48 35.0** | **0.0** |
| | comp=Z,2.9nm,0.8s | | | | | | | | |
| **FXWY** | **Fox Creek** | **76.59** | **45** | *e*P | | **P** | **03 48 38.8** | **+3.2** |
| | comp=Z,4.4nm,1.3s | | | | | | | | |
| **MOOW** | **Moose Ponds** | **76.68** | **45** | *e*P | | **P** | **03 48 37.3** | **+1.3** |
| | comp=Z,5.4nm,1.4s | | | | | | | | |
| **R11A** | **Troy Canyon, C** | **77.06** | **52** | *e*P | | **P** | **03 48 39.8** | **+1.6** |
| | comp=Z,3.5nm,1.2s | | | | | | | | |
| **TPNV** | **Topopah Spring** | **77.47** | **53** | *e*P | | **P** | **03 48 42.2** | **+1.6** |
| TPNV | | | | | pmax | pmax | | | |
| | comp=Z,15nm,1.8s | | | | | | | | |
| **TPNV** | **Topopah Spring** | **77.47** | **53** | *e*P | | **P** | **03 48 42.1** | **+1.6** |
| | comp=Z,15nm,1.8s | | | | | | | | |
| **DUG** | **Dugway, Tooele** | **77.66** | **49** | *e*P | | **P** | **03 48 42.8** | **+1.3** |
| DUG | | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,1.3s | | | | | | | | |
| **DUG** | **Dugway, Tooele** | **77.66** | **49** | *e*P | | **P** | **03 48 42.8** | **+1.3** |
| | comp=Z,6.1nm,1.3s | | | | | | | | |
| **TCUT** | **Toone Canyon** | **77.93** | **47** | *e*P | | **P** | **03 48 41.5** | **-1.6** |
| | comp=Z,7.0nm,1.1s | | | | | | | | |
| **BW06** | **Boulder Array** | **77.97** | **45** | *e*P | | **P** | **03 48 43.8** | **+0.4** |
| | comp=Z,17nm,1.8s | | | | | | | | |
| **PD31** | **Pinedale Array** | **77.97** | **45** | *e*P | | **P** | **03 48 44.9** | **+1.6** |
| **PDAR** | **Pinedale Array** | **77.97** | **45** | P | | **P** | **03 48 44.6** | **+1.3** |
| | comp=Z,1.1nm,0.7s,baz=258,slow=1.6,SNR=13 | | | | | | | | |
| **CTU** | **Camp Tracy** | **77.99** | **48** | *e*P | | **P** | **03 48 43.9** | **+0.5** |
| | comp=Z,8.1nm,1.6s | | | | | | | | |
| **PRAR** | **RASCA** | **78.03** | **321**⇑ | *i*P | | **P** | **03 48 43.4** | **+0.1** |
| **BUR08** | **Bucovina Ar. S** | **78.35** | **322** | *e*P | | **P** | **03 48 45.5** | **+0.3** |
| **BUR04** | **Bucovina Ar. S** | **78.36** | **322** | *e*P | | **P** | **03 48 45.2** | **0.0** |
| **BURAR** | **Bucovina Array** | **78.36** | **322** | ⇓*i*P | | **P** | **03 48 45.6** | **+0.3** |
| **TESR** | **Tescani** | **78.38** | **320** | ⇓*i*P | | **P** | **03 48 45.3** | **+0.1** |
| **VRI** | **Vrincioaia** | **78.77** | **320** | ⇑*i*P | | **P** | **03 48 48.7** | **+1.3** |
| **TIRR** | **Tirgusor** | **78.81** | **318** | ⇓*i*P | | **P** | **03 48 44.4** | **-3.2** |
| **BRTR** | **Keskin Array B** | **78.85** | **311** | P | | **P** | **03 48 47.3** | **-0.8** |
| | comp=Z,1.9nm,0.9s,baz=109,slow=3.3,SNR=6.5 | | | | | | | | |
| **BRTR** | **Keskin Array B** | **78.85** | **311** | *ce*P | | **P** | **03 48 48.7** | **+0.6** |
| BRTR | | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.9s | | | | | | | | |
| **STHS** | **Stebnicka Huta** | **79.03** | **325** | *e*P | | **P** | **03 48 49.4** | **+0.6** |
| **STHS** | **Stebnicka Huta** | **79.03** | **325** | *e*P | | **P** | **03 48 49.4** | **+0.6** |
| **OJC** | **Ojcow** | **79.11** | **326** | *e*P | | **P** | **03 48 49.0** | **-0.2** |
| OJC | | | | | pmax | pmax | | | |
| | comp=Z,9.0nm,1.0s | | | | | | | | |
| **OJC** | **Ojcow** | **79.11** | **326** | *e*P | | **P** | **03 48 49.0** | **-0.2** |
| | comp=Z,9.2nm,1.0s | | | | | | | | |
| **ARCR** | **ARCALIA** | **79.16** | **322** | ⇓*i*P | | **P** | **03 48 50.5** | **+1.0** |
| **PGOR** | **Pogoanele** | **79.27** | **319** | ⇓*i*P | | **P** | **03 48 51.3** | **+1.2** |
| **P17A** | **Butcher Ranch,** | **79.35** | **48** | *e*P | | **P** | **03 48 53.5** | **+2.5** |
| | comp=Z,3.0nm,0.7s | | | | | | | | |
| **MTPU** | **Mount Pierson** | **79.37** | **50** | *e*P | | **P** | **03 48 53.3** | **+2.0** |
| | comp=Z,17nm,1.9s | | | | | | | | |
| **DOPR** | **Dopca** | **79.39** | **320** | ⇓*i*P | | **P** | **03 48 51.5** | **+0.7** |
| **P18A** | **Preston Nutter** | **79.55** | **48** | *e*P | | **P** | **03 48 55.3** | **+3.1** |
| | comp=Z,22nm,1.9s | | | | | | | | |
| **SRU** | **San Rafael Swe** | **79.71** | **49** | *e*P | | **P** | **03 48 55.2** | **+2.3** |
| SRU | | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,0.8s | | | | | | | | |
| **SRU** | **San Rafael Swe** | **79.71** | **49** | *e*P | | **P** | **03 48 55.2** | **+2.3** |
| | comp=Z,3.8nm,0.8s | | | | | | | | |
| **ULM** | **Lac du Bonnet** | **79.80** | **33** | P | | **P** | **03 48 52.9** | **0.0** |
| | comp=Z,1.8nm,0.7s,baz=354,slow=1.3,SNR=3.6 | | | | | | | | |
| **OKC** | **Ostrava-Krasne** | **80.13** | **327** | *e*P | | **P** | **03 48 55.0** | **+0.3** |
| **OKC** | **Ostrava-Krasne** | **80.13** | **327** | *e*P | | **P** | **03 48 55.0** | **+0.3** |
| **DRGR** | | **80.17** | **322** | ⇓*i*P | | **P** | **03 48 55.4** | **+0.3** |
| **ARR** | **Arges** | **80.19** | **320** | ⇓*i*P | | **P** | **03 48 56.3** | **+1.1** |
| **MORC** | **Moravsky Berou** | **80.44** | **327** | ⇓*i*P | | **P** | **03 48 57.1** | **+0.7** |
| **DPC** | **Dobruska-Polom** | **80.54** | **328** | *e*P | | **P** | **03 48 57.5** | **+0.5** |
| **DPC** | **Dobruska-Polom** | **80.54** | **328** | *e*P | | **P** | **03 48 57.5** | **+0.5** |
| **RAYN** | **Ar Rayn** | **80.56** | **292** | *e*P | | **P** | **03 48 56.7** | **-0.8** |
| | comp=Z,6.9nm,1.1s | | | | | | | | |
| **UPC** | **Upice** | **80.56** | **328** | *e*P | | **P** | **03 48 57.5** | **+0.5** |
| **UPC** | **Upice** | **80.56** | **328** | *e*P | | **P** | **03 48 57.5** | **+0.5** |
| **PSZ** | **Piszkesteto** | **80.72** | **324** | ⇓*i*P | | **P** | **03 48 59.1** | **+1.1** |
| **PSZ** | **Piszkesteto** | **80.72** | **324** | *e*P | | **P** | **03 48 58.3** | **+0.3** |
| PSZ | | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,0.8s | | | | | | | | |
| **PSZ** | **Piszkesteto** | **80.72** | **324** | *e*P | | **P** | **03 48 58.3** | **+0.3** |
| | comp=Z,3.3nm,0.8s | | | | | | | | |
| **VYHS** | **Vyhne** | **80.80** | **325** | *e*P | | **P** | **03 48 58.9** | **+0.6** |
| **VYHS** | **Vyhne** | **80.80** | **325** | *e*P | | **P** | **03 48 58.9** | **+0.6** |
| **PV10** | **Paradox Valley** | **81.08** | **48** | *e*P | | **P** | **03 49 03.0** | **+2.6** |
| **BRG** | **Berggiesshubel** | **81.14** | **329** | *e*P | | **P** | **03 49 00.5** | **+0.4** |
| | comp=Z,2.6nm,0.7s | | | | | | | | |
| **BRG** | **Berggiesshubel** | **81.14** | **329** | *e*P | | **P** | **03 49 00.5** | **+0.4** |
| BRG | | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,0.7s | | | | | | | | |
| **PVCC** | **Panska Ves** | **81.15** | **329** | *e*P | | **P** | **03 49 00.9** | **+0.8** |
| **PVCC** | **Panska Ves** | **81.15** | **329** | *e*P | | **P** | **03 49 00.9** | **+0.8** |
| **CLL** | **Collm** | **81.19** | **330** | *e*P | | **P** | **03 49 00.3** | **-0.1** |
| CLL | | | | | pmax | pmax | | | |
| | comp=Z,5.0nm,0.8s | | | | | | | | |
| **CLL** | **Collm** | **81.19** | **330** | *i* P | | **P** | **03 48 59.9** | **-0.5** |
| | comp=Z,5.0nm,0.8s | | | | | | | | |
| **CLL** | **Collm** | **81.19** | **330** | *e*P | | **P** | **03 49 00.3** | **-0.1** |
| | comp=Z,4.9nm,0.8s | | | | | | | | |
| **VRAC** | **Vranov** | **81.20** | **327**⇑ | *i*P | | **P** | **03 49 01.3** | **+0.8** |
| **PV05** | **Paradox Valley** | **81.23** | **49** | *e*P | | **P** | **03 49 02.4** | **+1.3** |
| **GOPC** | **GO Pecny, Ondr** | **81.52** | **328** | *e*P | | **P** | **03 49 02.6** | **+0.4** |
| **GOPC** | **GO Pecny, Ondr** | **81.52** | **328** | *e*P | | **P** | **03 49 02.6** | **+0.4** |
| **PRU** | **Pruhonice** | **81.57** | **328** | *e*P | | **P** | **03 49 02.7** | **+0.3** |
| **PRU** | **Pruhonice** | **81.57** | **328** | *e*P | | **P** | **03 49 02.7** | **+0.3** |
| **ISCO** | **Idaho Springs** | **82.15** | **46** | *e*P | | **P** | **03 49 07.9** | **+1.8** |
| ISCO | | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.6s | | | | | | | | |
| **ISCO** | **Idaho Springs** | **82.15** | **46** | *e*P | | **P** | **03 49 07.9** | **+1.8** |
| | comp=Z,1.1nm,0.6s | | | | | | | | |
| **NKC** | **Novy Kostel** | **82.25** | **330** | *e*P | | **P** | **03 49 06.2** | **+0.2** |
| **NKC** | **Novy Kostel** | **82.25** | **330** | *e*P | | **P** | **03 49 06.2** | **+0.2** |
| **CONA** | **Conrad Observa** | **82.56** | **326** | *i* P | | **P** | **03 49 08.5** | **+0.8** |
| | comp=Z,0.7nm,0.4s | | | | | | | | |
| **KHC** | **Kasperske Hory** | **82.63** | **328** | *e*P | | **P** | **03 49 08.2** | **+0.2** |
| KHC | | | | | *e*pP | **pP** | **03 49 20.8** | **+0.2** |
| **KHC** | **Kasperske Hory** | **82.63** | **328** | *e*P | | **P** | **03 49 08.5** | **+0.5** |
| KHC | | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.8s | | | | | | | | |
| **KHC** | **Kasperske Hory** | **82.63** | **328** | *e*P | | **P** | **03 49 08.5** | **+0.5** |
| | comp=Z,7nm,0.8s | | | | | | | | |
| **GERES** | **GERESS Array B** | **82.80** | **328** | P | | **P** | **03 49 08.9** | **-0.1** |
| | comp=Z,1.5nm,0.5s,baz=34,slow=5.3,SNR=13 | | | | | | | | |
| **GEA0** | **GERESS Array S** | **82.80** | **328** | *e*P | | **P** | **03 49 08.7** | **-0.3** |
| **VTS** | **Vitosha** | **82.85** | **319** | ⇓*i*P | | **P** | **03 49 09.9** | **+0.4** |
| **MOA** | **Molln** | **83.32** | **327** | P | | **P** | **03 49 12.1** | **+0.5** |
| | comp=Z,0.5nm,0.4s | | | | | | | | |
| **SDCO** | **Great Sand Dun** | **83.59** | **47** | *e*P | | **P** | **03 49 14.8** | **+1.3** |
| | comp=Z,2.0nm,1.0s | | | | | | | | |
| **MYKA** | **Terra Mystica** | **84.53** | **327** | *e*P | | **P** | **03 49 17.6** | **-0.3** |
| | comp=Z,2.3nm,0.6s | | | | | | | | |
| **PPT** | **Papeete** | **84.71** | **116** | LR | | LR | 04 20 57.1 | | |
| | comp=Z,33nm,21.4s,baz=328,slow=31 | | | | | | | | |
| **WATA** | **Walderalm** | **84.87** | **328** | *i* PcP | | **P** | **03 49 20.3** | **+0.6** |
| | comp=Z,0.6nm,0.4s | | | | | | | | |
| **ANMO** | **Albuquerque** | **84.89** | **50**⇓ | *e*P | | **P** | **03 49 23.1** | **+3.1** |
| ANMO | | | | | pmax | pmax | | | |
| | comp=Z,11nm,2.5s | | | | | | | | |
| **ANMO** | **Albuquerque** | **84.89** | **50** | *e*P | | **P** | **03 49 22.9** | **+2.9** |
| | comp=Z,7.6nm,0.6s | | | | | | | | |
| **RETA** | **Reute** | **85.09** | **329** | *i* PcP | | **P** | **03 49 20.8** | **+0.2** |
| | comp=Z,1.6nm,0.5s | | | | | | | | |
| **BFO** | **Black Forest** | **85.40** | **331** | *i* P | | **P** | **03 49 23.0** | **+0.9** |
| **DAVA** | **Damuels** | **85.61** | **329** | *e*PcP | | **P** | **03 49 23.7** | **+0.3** |
| | comp=Z,1.7nm,0.5s | | | | | | | | |
| **TXAR** | **Lajitas Array** | **90.42** | **52** | P | | **P** | **03 49 48.4** | **+1.8** |
| | comp=Z,1.0nm,0.8s,baz=298,slow=3.3,SNR=12 | | | | | | | | |
| **LPAZ** | **La Paz** | **146.98** | **60** | PKPbc | | **PKPab** | **03 56 29.5** | **-0.5** |
| | comp=Z,4.0nm,0.7s,baz=326,slow=2.2,SNR=18 | | | | | | | | |

**IDC 25 03:39:21.0±1.6, 6°59S×129°33E, h0km, mb4.0/2, mb1 3.8/4, mb1mx3.6/33, mbtmpg3.7/4, ML3.8/2, Error ellipse: s-maj=104.1km s-min=28.5km az=70.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **14.14** | **160** | P | Pn | 03 42 43.1 | +0.4 |
| | 0.7nm,0.3s,baz=339,slow=14,SNR=24 | | | | | | |
| WRA | | | | | Sn | 03 45 10.7 | -10 |
| | 1.6nm,0.3s,baz=341,slow=22,SNR=10 | | | | | | |
| **ASAR** | **Alice Springs** | **17.54** | **166** | P | Pn | 03 43 26.8 | -0.3 |
| | 0.2nm,0.3s,baz=349,slow=9.4,SNR=14 | | | | | | |
| ASAR | | | | | S | Sn | 03 46 34.9 | -8.3 |
| | 0.4nm,0.3s,baz=355,slow=27,SNR=4.9 | | | | | | |
| **SONM** | **Songino Array** | **57.84** | **342** | P | P | 03 49 14.4 | -0.2 |
| | 0.4nm,0.5s,baz=168,slow=5.6,SNR=4.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.52** | **327** | P | P | 03 50 19.2 | +0.1 |
| | 1.5nm,0.4s,baz=115,slow=8.1,SNR=26 | | | | | | |

**MEX 25 03:46:47.8±0.4, 17°07N×91°01W, h24km±9km, MD3.8, Mexico-Guatemala border region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CCIG** | **Comitan** | **1.33** | **234** | *e*P | Pn | 03 47 08.2 | -2.8 |
| CCIG | | | | *i* S | Sn | 03 47 24.4 | -3.7 |
| **SCIG** | **Sabancuy** | **1.90** | **355** | *e*P | Pn | 03 47 16.4 | -2.3 |
| SCIG | | | | *i* S | Sn | 03 47 38.3 | -3.4 |
| **TGIG** | | **2.04** | **262** | *e*P | Pn | 03 47 18.4 | -2.3 |
| TGIG | | | | *e*S | Sn | 03 47 42.3 | -3.1 |
| **PCIG** | | **2.52** | **238** | *e*P | Pn | 03 47 24.8 | -2.3 |
| PCIG | | | | *e*S | Sn | 03 47 54.1 | -3.0 |

*NEIC **25** 04:00:35.4±0.0, 43°51S×172°79E, h8km, ML4.1(WEL), After WEL.*
*NEIC Felt strongly at Christchurch.*
**WEL 25 04:00:35.4±0.1, 43°51S×172°79E, h6km±1km, ML4.0/41, Mw3.8, 5C-5D, Error ellipse: s-maj=1.3km s-min=0.7km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.14** | **239** | Pg | Pg | 04 00 38.5 | +0.2 |
| **CRLZ** | **Canterbury Las** | **0.14** | **239** | PG | Pg | 04 00 38.5 | +0.2 |
| CRLZ | | | | SG | Sg | 04 00 40.1 | -0.1 |
| CRLZ | | | | AML | AML | 04 00 41.1 | |
| CRLZ | | | | AML | AML | 04 00 41.8 | |
| CRLZ | | | | AML | AML | 04 00 45.7 | |
| **MQZ** | **McQueen's Vall** | **0.22** | **205** | Pg | Pg | 04 00 39.8 | 0.0 |
| MQZ | | | | Sg | Sg | 04 00 43.1 | +0.3 |
| **MQZ** | **McQueen's Vall** | **0.22** | **205** | PG | Pg | 04 00 39.8 | 0.0 |
| MQZ | | | | SG | Sg | 04 00 43.1 | +0.3 |
| MQZ | | | | AML | AML | 04 00 43.3 | |
| **OXZ** | **Oxford** | **0.57** | **288** | ⇑P* | Pg | 04 00 46.5 | +0.1 |
| OXZ | | | | AML | AML | 04 00 57.1 | |
| OXZ | | | | AML | AML | 04 00 57.2 | |
| OXZ | | | | AML | AML | 04 00 57.8 | |
| OXZ | | | | AML | AML | 04 00 57.8 | |
| **LTZ** | **Lake Taylor** | **0.81** | **332** | P* | Pb | 04 00 51.6 | -0.4 |
| **LTZ** | **Lake Taylor** | **0.81** | **332** | P* | Pb | 04 00 51.6 | -0.4 |
| LTZ | | | | *e*S* | Sb | 04 01 02.7 | -0.6 |
| **KHZ** | **Kahutara** | **1.22** | **27** | P* | Pg | 04 00 57.3 | -1.6 |
| **KHZ** | **Kahutara** | **1.22** | **27** | P* | Pg | 04 00 57.3 | -1.6 |
| KHZ | | | | *e*S* | Sg | 04 01 13.2 | -1.4 |
| KHZ | | | | AML | AML | 04 01 22.8 | |
| KHZ | | | | AML | AML | 04 01 22.8 | |
| KHZ | | | | AML | AML | 04 01 24.7 | |
| **INZ** | **Inchbonnie** | **1.25** | **308** | ⇓P* | Pn | 04 00 58.1 | -1.4 |
| **RPZ** | **Rata Peaks** | **1.27** | **260** | P* | Pn | 04 00 58.4 | -1.4 |
| **RPZ** | **Rata Peaks** | **1.27** | **260** | ⇓P* | Pn | 04 00 58.4 | -1.4 |
| RPZ | | | | AML | AML | 04 01 21.5 | |
| RPZ | | | | AML | AML | 04 01 33.9 | |
| **WVZ** | **Waitaha Valley** | **1.56** | **285** | Pn | Pn | 04 01 02.7 | -0.9 |
| **WVZ** | **Waitaha Valley** | **1.56** | **285** | ⇑PN | Pn | 04 01 02.7 | -0.9 |
| WVZ | | | | AML | AML | 04 01 28.7 | |
| WVZ | | | | AML | AML | 04 01 37.5 | |
| **THZ** | **Tophouse** | **1.74** | **3** | Pn | Pn | 04 01 05.1 | -1.2 |
| **THZ** | **Tophouse** | **1.74** | **3** | ⇑PN | Pn | 04 01 05.1 | -1.2 |
| THZ | | | | AML | AML | 04 01 30.3 | |
| THZ | | | | AML | AML | 04 01 38.4 | |
| **DSZ** | **Denniston Nort** | **1.90** | **337** | AML | AML | 04 01 41.2 | |
| DSZ | | | | AML | AML | 04 01 41.2 | |
| DSZ | | | | AML | AML | 04 01 44.3 | |
| DSZ | | | | AML | AML | 04 01 44.3 | |
| **BSWZ** | **Blackbirch Sta** | **1.96** | **25** | Pn | Pn | 04 01 08.2 | -1.0 |
| **BSWZ** | **Blackbirch Sta** | **1.96** | **25** | ⇑PN | Pn | 04 01 08.2 | -1.0 |
| BSWZ | | | | AML | AML | 04 01 48.1 | |
| BSWZ | | | | AML | AML | 04 01 52.7 | |
| **LBZ** | **Lake Benmore** | **2.08** | **244** | Pn | Pn | 04 01 09.8 | -1.0 |
| **LBZ** | **Lake Benmore** | **2.08** | **244** | PN | Pn | 04 01 09.8 | -1.0 |
| LBZ | | | | AML | AML | 04 01 48.8 | |
| LBZ | | | | AML | AML | 04 01 48.8 | |
| LBZ | | | | AML | AML | 04 01 51.0 | |
| LBZ | | | | AML | AML | 04 01 51.0 | |
| **FOZ** | **Fox Glacier** | **2.16

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **PRWZ** | **Pori Road** | **3.78** | **40** | PN | Pn | 04 01 31.8 | -2.5 |
| PRWZ | | | | AML | AML | 04 02 20.6 | |
| PRWZ | | | | AML | AML | 04 02 22.5 | |
| **BFZ** | **Birch Farm** | **3.82** | **44** | Pn | Pn | 04 01 31.9 | -2.9 |
| **BFZ** | **Birch Farm** | **3.82** | **44** | PN | Pn | 04 01 31.9 | -2.9 |
| **POWZ** | **Post Office Ro** | **3.82** | **37** | AML | AML | 04 03 04.1 | |
| POWZ | | | | AML | AML | 04 03 09.1 | |
| **MLZ** | **Mavora Lakes** | **3.83** | **239** | Pn | Pn | 04 01 33.3 | -1.6 |
| **MLZ** | **Mavora Lakes** | **3.83** | **239** | PN | Pn | 04 01 33.3 | -1.6 |
| MLZ | | | | AML | AML | 04 02 42.1 | |
| MLZ | | | | AML | AML | 04 02 45.4 | |
| **SYZ** | **Scrubby Hill** | **3.98** | **219** | Pn | Pn | 04 01 36.0 | -0.9 |
| **SYZ** | **Scrubby Hill** | **3.98** | **219** | PN | Pn | 04 01 36.0 | -0.9 |
| SYZ | | | | AML | AML | 04 02 55.1 | |
| SYZ | | | | AML | AML | 04 03 03.6 | |
| **KHEZ** | **Kahui Hut** | **4.31** | **13** | Pn | Pn | 04 01 42.3 | +0.8 |
| **KHEZ** | **Kahui Hut** | **4.31** | **13** | PN | Pn | 04 01 42.3 | +0.8 |
| **WPHZ** | **Waipukurau** | **4.39** | **40** | AML | AML | 04 02 38.1 | |
| WPHZ | | | | AML | AML | 04 02 38.4 | |
| **PKE** | **Pukeiti** | **4.40** | **12** | Pn | Pn | 04 01 43.1 | +0.4 |
| **PKE** | **Pukeiti** | **4.40** | **12** | PN | Pn | 04 01 43.1 | +0.4 |
| **PNHZ** | **Pukenui** | **4.41** | **37** | Pn | Pn | 04 01 40.2 | -2.6 |
| **PNHZ** | **Pukenui** | **4.41** | **37** | PN | Pn | 04 01 40.2 | -2.6 |
| **DREZ** | **Durham Road** | **4.44** | **14** | Pn | Pn | 04 01 43.6 | +0.3 |
| **DREZ** | **Durham Road** | **4.44** | **14** | PN | Pn | 04 01 43.6 | +0.3 |
| **DCZ** | **Deep Cove** | **4.48** | **242** | Pn | Pn | 04 01 42.2 | -1.5 |
| **DCZ** | **Deep Cove** | **4.48** | **242** | PN | Pn | 04 01 42.2 | -1.5 |
| DCZ | | | | AML | AML | 04 03 22.2 | |
| **PKVZ** | **Pokaka** | **4.63** | **25** | Pn | Pn | 04 01 46.1 | +0.1 |
| **PKVZ** | **Pokaka** | **4.63** | **25** | PN | Pn | 04 01 46.1 | +0.1 |
| **WNVZ** | **Wahianoa** | **4.68** | **28** | Pn | Pn | 04 01 45.9 | -0.8 |
| **WNVZ** | **Wahianoa** | **4.68** | **28** | PN | Pn | 04 01 45.9 | -0.8 |
| **TRVZ** | **Turoa** | **4.69** | **27** | Pn | Pn | 04 01 46.1 | -0.8 |
| **TRVZ** | **Turoa** | **4.69** | **27** | PN | Pn | 04 01 46.1 | -0.8 |
| TRVZ | | | | AML | AML | 04 02 44.1 | |
| TRVZ | | | | AML | AML | 04 02 48.3 | |
| **BHHZ** | **Black Hill Sta** | **4.71** | **33** | Pn | Pn | 04 01 45.2 | -1.8 |
| **BHHZ** | **Black Hill Sta** | **4.71** | **33** | PN | Pn | 04 01 45.2 | -1.8 |
| **APZ** | **The Paps** | **4.75** | **224** | Pn | Pn | 04 01 46.9 | -0.7 |
| **APZ** | **The Paps** | **4.75** | **224** | PN | Pn | 04 01 46.9 | -0.7 |
| **TUVZ** | **Tukino** | **4.75** | **28** | Pn | Pn | 04 01 46.8 | -0.8 |
| **TUVZ** | **Tukino** | **4.75** | **28** | PN | Pn | 04 01 46.8 | -0.9 |
| **OTVZ** | **Oturere** | **4.85** | **28** | Pn | Pn | 04 01 47.6 | -1.4 |
| **OTVZ** | **Oturere** | **4.85** | **28** | PN | Pn | 04 01 47.6 | -1.4 |
| OTVZ | | | | AML | AML | 04 03 38.5 | |
| **TWVZ** | **Taurewa** | **4.86** | **25** | Pn | Pn | 04 01 48.2 | -0.9 |
| **TWVZ** | **Taurewa** | **4.86** | **25** | PN | Pn | 04 01 48.2 | -0.9 |
| **HIZ** | **Hauiti** | **5.23** | **18** | Pn | Pn | 04 01 53.3 | -0.8 |
| **HIZ** | **Hauiti** | **5.23** | **18** | ⇑PN | Pn | 04 01 53.3 | -0.8 |

*IDC **25** 04:17:08.6±1.1, 12°.78N×93°.10E, h0km, mb3.7/9, mb1 3.9/10, mb1mx3.6/41, mbtmp3.7/10, ML4.1/1, Error ellipse: s-maj=35.4km s-min=20.2km az=59.0*
*ISCJB **25** 04:17:11.4±0.8, 12°.81N±0°.10×93°.17E±0°.09, h32km, mb3.7/11, Error ellipse: s-maj=15.3km s-min=11.9km az=145.9*
*NEIC **25** 04:17:13.9±0.7, 12°.83N×93°.17E, h35km, mb4.0/2, Error ellipse: s-maj=17.2km s-min=11.6km az=52.0*

**ISC 25 04:17:13.4±1.1, 12°.8N±0°.1×93°.1E±0°.1, h32km, n13, σ0s74/14, mb3.7/11, Andaman Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CMAR** | **Chiang Mai Arr** | **7.96** | **44** | Pn | **Pn** | **04 19 06.2** | **-0.8** |
| | 0.6nm,0.3s,baz=235,slow=15,SNR=4.7 | | | | | | |
| CMAR | | | | Sn | **Sn** | **04 20 36.8** | **+0.8** |
| | 1.0nm,0.3s,baz=228,slow=25,SNR=3.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **35.12** | **347** | P | **P** | **04 24 03.7** | **-0.2** |
| | 0.6nm,0.7s,baz=174,slow=7.0,SNR=4.8 | | | | | | |
| **SONM** | **Songino Array** | **36.67** | **15** | P | **P** | **04 24 17.8** | **+0.5** |
| | 0.4nm,0.3s,baz=160,slow=4.6,SNR=4.5 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **39.58** | **345** | P | **P** | **04 24 40.9** | **-0.7** |
| | 0.5nm,0.7s,baz=165,slow=7.3,SNR=6.0 | | | | | | |
| **KURK** | **Kurchatov** | **39.64** | **346** | P | **P** | **04 24 40.9** | **-1.3** |
| **ZALV** | **Zalesovo Beam** | **41.60** | **353** | P | **P** | **04 24 58.1** | **-0.1** |
| | 0.5nm,0.5s,baz=167,slow=7.2,SNR=3.3 | | | | | | |
| **BRVK** | **Borovoye** | **44.12** | **340** | *eP* | **P** | **04 25 17.5** | **-1.3** |
| | 4.2nm,0.8s | | | | | | |
| **ABKAR** | **Akbulak array** | **45.49** | **330** | *eP* | **P** | **04 25 30.1** | **+0.3** |
| | 0.5nm,0.4s | | | | | | |
| **WRA** | **Warramunga Arr** | **51.98** | **128** | P | **P** | **04 26 20.1** | **+0.1** |
| | 0.2nm,0.6s,baz=305,slow=10,SNR=4.5 | | | | | | |
| **ASAR** | **Alice Springs** | **53.87** | **132** | P | **P** | **04 26 33.9** | **0.0** |
| | 0.2nm,0.5s,baz=304,slow=6.8,SNR=6.6 | | | | | | |
| **FINES** | **FINESS Array B** | **67.94** | **331** | P | **P** | **04 28 08.7** | **-0.2** |
| | 3.3nm,0.9s,baz=134,slow=11,SNR=4.7 | | | | | | |
| **ARCES** | **ARCESS Array B** | **70.34** | **340** | P | **P** | **04 28 23.7** | **0.0** |
| | 5.6nm,1.1s,baz=101,slow=4.7,SNR=2.4 | | | | | | |
| **GERES** | **GERESS Array B** | **73.54** | **317** | P | **P** | **04 28 44.1** | **+0.7** |
| | 0.7nm,0.7s,baz=92,slow=6.9,SNR=3.5 | | | | | | |

*NAO **25** 04:18:45.6±2.2, 77°.56N×8°.41E, ML2.4*
*BER **25** 04:18:50.2±3.0, 77°.63N×8°.93E, h23km±33km, ML1.9, ML2.4(NAO)*

**CSEM 25 04:18:44.2±1.1, 77°.48N×8°.23E, h10km, ML1.9, Error ellipse: s-maj=31.2km s-min=15.7km az=90.0, Svalbard region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **BRBA** | **Barentsburg A** | **1.40** | **62** | Pg | Pg | 04 19 11.9 | +0.8 |
| | SNR=96 | | | | | | |
| BRBA | | | | Lg | Lg | 04 19 26.3 | |
| | SNR=91 | | | | | | |
| **KBS** | **Kingsbay** | **1.64** | **26** | Pg | Pb | 04 19 14.8 | +0.3 |
| KBS | | | | Lg | Lg | 04 19 32.4 | |
| **KBS** | **Kingsbay** | **1.64** | **26** | *eP* | Pb | 04 19 14.0 | -0.5 |
| KBS | | | | Pg | Pg | 04 19 14.8 | -0.9 |
| KBS | | | | Sg | Sn | 04 19 32.4 | -1.9 |
| KBS | | | | IAML | | 04 19 34.6 | |
| | comp=Z,24nm,0.2s | | | | | | |
| **KBS** | **Kingsbay** | **1.64** | **26** | *eP* | Pb | 04 19 14.0 | -0.5 |
| | SNR=55 | | | | | | |
| **KBS** | **Kingsbay** | **1.64** | **26** | Pg | Pb | 04 19 14.8 | +0.3 |
| | SNR=95 | | | | | | |
| KBS | | | | Lg | Lg | 04 19 32.4 | |
| **SPA0** | **Spitsbergen Ar** | **1.86** | **64** | Pg | Pg | 04 19 19.5 | -0.4 |
| | baz=260,slow=16 | | | | | | |
| SPA0 | | | | Lg | Lg | 04 19 42.2 | |
| | baz=244,slow=18 | | | | | | |
| **SPA0** | **Spitsbergen Ar** | **1.86** | **64** | Pg | Pg | 04 19 19.5 | -0.4 |
| | baz=260,slow=16 | | | | | | |
| SPA0 | | | | Lg | Lg | 04 19 42.2 | |
| | baz=244,slow=18 | | | | | | |
| **SPA0** | **Spitsbergen Ar** | **1.86** | **64** | Pg | Pg | 04 19 19.5 | -0.4 |
| | SNR=94 | | | | | | |
| SPA0 | | | | Lg | Lg | 04 19 42.2 | |
| | SNR=4.6 | | | | | | |
| **ARA0** | **ARCESS Array S** | **9.31** | **140** | Pn | Pn | 04 20 58.2 | 0.0 |
| | baz=327,slow=12 | | | | | | |
| **ARA0** | **ARCESS Array S** | **9.31** | **140** | P | Pn | 04 20 58.2 | 0.0 |
| | baz=327,slow=12 | | | | | | |
| **ARA0** | **ARCESS Array S** | **9.31** | **140** | P | Pn | 04 20 58.2 | 0.0 |
| | SNR=51 | | | | | | |

**IDC 25 04:39:43.7±4.9, 0°.28N×101°.91E, h0km, mb3.6/4, mb1 3.8/4, mb1mx3.4/41, mbtmp3.6/4, Error ellipse: s-maj=267.5km s-min=23.1km az=55.0, Northern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **37.59** | **124** | P | P | 04 47 01.3 | +0.9 |
| | 0.5nm,0.4s,baz=304,slow=9.1,SNR=7.8 | | | | | | |
| **ASAR** | **Alice Springs** | **39.14** | **130** | P | P | 04 47 12.2 | -1.2 |
| | 0.4nm,0.7s,baz=304,slow=7.4,SNR=7.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **49.41** | **342** | P | P | 04 48 34.8 | -0.5 |
| | 0.6nm,0.5s,baz=161,slow=8.8,SNR=6.9 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **55.33** | **348** | P | P | 04 49 19.6 | +0.5 |
| | 0.5nm,0.4s,baz=140,slow=7.0,SNR=3.9 | | | | | | |
| **TXAR** | **Lajitas Array** | **141.75** | **38** | PKhKP | PKPpre | 04 59 13.8 | |
| | 0.5nm,0.6s,baz=228,slow=0.6,SNR=8.6 | | | | | | |

*NIED **25** 05:03:00, 35°.40N×140°.50E, h65km, Mw4.3 Best double couple: M₀2.94000×10¹⁵ NP1:φs136.00000°, δ24.00000°, λ46.00000°. NP2:φs2.00000°, δ73.00000°, λ107.00000°.*
*ISCJB **25** 05:03:30.4±0.4, 35°.36N±0°.04×140°.45E±0°.05, h61km±3km, mb3.8/14, Error ellipse: s-maj=7.0km s-min=6.3km az=14.2*
*JMA **25** 05:03:31.2±0.1, 35°.45N×140°.43E, h51km±1km, M3.5 Broadband fault plane solution: P waves. NP1: φs341.00000°, δ75.00000°, λ83.00000°. NP2: φs188.00000°, δ16.00000°, λ116.00000°. Principal axes: T Plg59.0000°, Azm241.0000°; N Plg7.0000°, Azm343.0000°; P Plg30.0000°, Azm77.0000°;*
*JMA Felt I J1.*
*IDC **25** 05:03:31.6±1.8, 35°.34N×140°.33E, h55km±18km, mb3.5/14, mb1 3.8/17, mb1mx3.7/50, mbtmp3.8/17, ML3.6/3, MS3.2/5, Ms1 3.2/5, ms1mx2.9/50 Error ellipse: s-maj=19.6km s-min=10.5km az=81.0*

**ISC 25 05:03:31.6±0.8, 35°.37N±0°.04×140°.47E±0°.05, h55km±6km, n37, σ1s10/36, mb3.8/14, 1C-5D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KTR** | **Katsuura** | **0.25** | **209** | ⇓P | **Pn** | **05 03 40.6** | **-0.2** |
| KTR | | | | S | **Sn** | **05 03 47.9** | **+0.4** |
| **BSO4** | **Boso 4** | **0.39** | **195** | ⇓P | **Pn** | **05 03 42.2** | **+0.3** |
| **CHOJ** | **Chosi** | **0.46** | **44** | P | **Pn** | **05 03 42.0** | **-0.8** |
| CHOJ | | | | *eS* | **Sn** | **05 03 50.2** | **-0.6** |
| **BSO3** | **Boso 3** | **0.57** | **176** | ⇓P | **Pn** | **05 03 43.9** | **+0.2** |
| **BSO1** | **Boso 1** | **0.83** | **149** | ⇑P | **Pn** | **05 03 46.6** | **-0.1** |
| **JYT** | **Yasato** | **0.88** | **346** | P | **Pn** | **05 03 46.5** | **-1.4** |
| **JIM2** | **Oshima 3** | **1.07** | **233** | P | **Pn** | **05 03 49.5** | **-0.9** |
| JIM2 | | | | S | **Sn** | **05 04 03.1** | **-1.2** |
| **JOD2** | **Odawara 2** | **1.13** | **265** | ⇓P | **Pn** | **05 03 50.4** | **-0.8** |
| JOD2 | | | | *eS* | **Sn** | **05 04 05.1** | **-0.7** |
| **JAG** | **Ashikaga** | **1.33** | **322** | ⇓P | **Pn** | **05 03 53.0** | **-0.9** |
| **MJAR** | **Matsushiro Arr** | **2.17** | **303** | P | **Pn** | **05 04 04.2** | **-1.1** |
| | 17nm,0.3s,baz=101,slow=14,SNR=94 | | | | | | |
| MJAR | | | | S | **Sn** | **05 04 34.9** | **+3.8** |
| | 23nm,0.3s,baz=130,slow=11,SNR=7.2 | | | | | | |
| MJAR | | | | LR | LR | 05 05 09.7 | |
| | comp=Z,444nm,20.3s,baz=110,slow=48 | | | | | | |
| **MAT** | **Matsushiro** | **2.17** | **303** | P | **Pn** | **05 04 05.0** | **-0.3** |
| MAT | | | | S | **Sn** | **05 04 32.6** | **+1.5** |
| **JHJ** | **Hachijo jima 2** | **2.32** | **194** | P | **Pn** | **05 04 06.9** | **-0.4** |
| | 180nm,0.3s,baz=69,slow=1.7,SNR=24 | | | | | | |
| JHJ | | | | S | **Sn** | **05 04 33.5** | **-1.1** |
| | 230nm,0.3s,baz=360,slow=23,SNR=14 | | | | | | |
| JHJ | | | | LR | LR | 05 04 48.0 | |
| | comp=Z,15nm,20.8s,baz=114,slow=34 | | | | | | |
| **JNU** | **Nakatsue** | **8.25** | **257** | P | **Pn** | **05 05 28.9** | **+0.4** |
| | 0.3nm,0.3s,baz=319,slow=4.4,SNR=3.4 | | | | | | |
| **KSRS** | **Korea Array** | **10.32** | **285** | P | **Pn** | **05 05 58.7** | **+1.9** |
| | 0.2nm,0.3s,baz=98,slow=14,SNR=6.5 | | | | | | |
| KSRS | | | | LR | LR | 05 09 53.1 | |
| | comp=Z,151nm,19.8s,baz=92,slow=37 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **10.96** | **326** | LR | LR | 05 10 06.5 | |
| | comp=Z,117nm,19.8s,baz=145,slow=36 | | | | | | |
| **GUMO** | **Guam** | **22.05** | **169** | LR | LR | 05 16 19.6 | |
| | comp=Z,48nm,20.7s,baz=81,slow=35 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy 28.02** | **117** | | T | T | 05 39 03.0 | |
| | baz=308,slow=75,SNR=68 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy 28.03** | **117** | | T | T | 05 39 08.3 | |
| | baz=308,slow=75,SNR=77 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy 28.04** | **117** | | T | T | 05 39 09.1 | |
| | baz=308,slow=75,SNR=56 | | | | | | |
| **SONM** | **Songino Array** | **28.12** | **307** | P | **P** | **05 09 16.9** | **-1.4** |
| | 0.4nm,0.7s,baz=102,slow=9.1,SNR=2.5 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy 28.66** | **119** | | T | T | 05 39 27.5 | |
| | baz=312,slow=75,SNR=29 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy 28.66** | **119** | | T | T | 05 39 18.9 | |
| | baz=312,slow=75,SNR=35 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy 28.68** | **119** | | T | T | 05 39 23.5 | |
| | baz=312,slow=75,SNR=29 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **40.35** | **256** | LR | LR | 05 29 30.0 | |
| | comp=Z,30nm,18.1s,baz=40,slow=39 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.49** | **314** | P | **P** | **05 11 20.9** | **-0.2** |
| | 0.6nm,0.4s,baz=81,slow=9.2,SNR=4.0 | | | | | | |
| ZALV | | | | PcP | **PcP** | **05 13 12.4** | **-0.5** |
| | 0.4nm,0.4s,baz=29,slow=3.3,SNR=2.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.37** | **303** | P | **P** | **05 11 35.6** | **-0.8** |
| | 1.0nm,0.6s,baz=67,slow=9.5,SNR=8.4 | | | | | | |
| **ILAR** | **Eielson Array** | **51.31** | **32** | P | **P** | **05 12 30.2** | **+0.4** |
| | 1.1nm,0.8s,baz=268,slow=6.6,SNR=11 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **55.01** | **197** | P | **P** | **05 12 57.2** | **-0.2** |
| | 2.3nm,0.6s,baz=5.9,slow=8.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **55.31** | **187** | P | **P** | **05 12 59.2** | **-0.4** |
| | 1.2nm,0.5s,baz=1.3,slow=7.6,SNR=20 | | | | | | |
| **INK** | **Inuvik** | **56.21** | **27** | P | **P** | **05 13 06.3** | **+0.8** |
| | 0.5nm,0.6s,baz=284,slow=7.9,SNR=2.6 | | | | | | |
| **ASAR** | **Alice Springs** | **59.04** | **187** | P | **P** | **05 13 25.8** | **-0.1** |
| | 0.4nm,0.5s,baz=19,slow=12,SNR=14 | | | | | | |
| **YKA** | **Yellowknife Ar** | **65.63** | **30** | P | **P** | **05 14 09.1** | **-0.3** |
| | 0.4nm,0.8s,baz=297,slow=7.0,SNR=6.6 | | | | | | |
| **FINES** | **FINESS Array B** | **69.92** | **332** | P | **P** | **05 14 36.2** | **-0.3** |
| | 2.0nm,0.8s,baz=132,slow=2.1,SNR=3.1 | | | | | | |
| **AKASG** | **Malin Array Be** | **75.14** | **322** | P | **P** | **05 15 07.6** | **-0.1** |
| | 0.6nm,0.5s,baz=47,slow=5.6,SNR=5.3 | | | | | | |
| **NVAR** | **Mina Array Bea** | **76.60** | **52** | P | **P** | **05 15 18.0** | **+1.4** |
| | 0.6nm,0.7s,baz=270,slow=6.1,SNR=6.5 | | | | | | |
| **PDAR** | **Pinedale Array** | **79.38** | **45** | P | **P** | **05 15 32.6** | **+0.6** |
| | 0.4nm,0.7s,baz=282,slow=2.9,SNR=4.8 | | | | | | |
| **TXAR** | **Lajitas Array** | **91.75** | **52** | P | **P** | **05 16 34.5** | **+0.9** |
| | 0.6nm,1.0s,baz=336,slow=2.7,SNR=4.1 | | | | | | |

**IDC 25 05:10:36.6±1.8, 10°.50N×92°.66E, h0km, mb3.5/4, mb1 3.9/5, mb1mx3.4/45, mbtmp3.6/5, ML4.6/1, MS3.5/1, Ms1 3.5/1, ms1mx2.6/51, Error ellipse: s-maj=65.5km s-min=21.2km az=61.0, Andaman Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CMAR** | **Chiang Mai Arr** | **9.97** | **37** | Pn | Pn | 05 13 02.6 | +1.3 |
| | 1.5nm,0.3s,baz=225,slow=15,SNR=22 | | | | | | |
| **AAK** | **Ala-Archa** | **35.73** | **337** | LR | LR | 05 35 46.3 | |
| | comp=Z,73nm,18.3s,baz=39,slow=42 | | | | | | |
| **MKAR** | **Makanchi Array** | **37.23** | **348** | P | P | 05 17 49.3 | -0.5 |
| | 0.2nm,0.3s,baz=167,slow=9.4,SNR=4.5 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **41.66** | **346** | P | P | 05 18 26.0 | -0.7 |
| | 0.2nm,0.3s,baz=158,slow=8.2,SNR=3.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **50.98** | **126** | P | P | 05 19 40.0 | -0.5 |
| | 0.4nm,0.4s,baz=302,slow=10.0,SNR=22 | | | | | | |
| **ASAR** | **Alice Springs** | **52.72** | **131** | P | P | 05 19 54.1 | +0.7 |
| | 0.3nm,0.3s,baz=303,slow=7.6,SNR=18 | | | | | | |

*IDC **25** 05:26:22.7±1.3, 35°.24N×140°.68E, h0km, mb3.3/4, mb1 3.5/5, mb1mx3.3/58, mbtmp3.3/5, ML3.0/1, Error ellipse: s-maj=38.4km s-min=24.6km az=71.0*
*ISCJB **25** 05:26:28.5±0.6, 35°.40N±0°.05×140°.47E±0°.07, h61km±5km, mb3.4/4, Error ellipse: s-maj=9.0km s-min=8.0km az=158.6*
*JMA **25** 05:26:29.7±0.1, 35°.46N×140°.43E, h48km±1km, M2.9*

**ISC 25 05:26:29.7±0.9, 35°.42N±0°.05×140°.46E±0°.06, h52km±8km, n20, σ0s84/19, mb3.5/4, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KTR** | **Katsuura** | **0.29** | **203** | P | **Pn** | **05 26 38.8** | **-0.2** |
| KTR | | | | S | **Sn** | **05 26 46.1** | **+0.5** |
| **CHOJ** | **Chosi** | **0.43** | **49** | P | **Pn** | **05 26 40.2** | **-0.2** |
| CHOJ | | | | *eS* | **Sn** | **05 26 48.4** | **+0.4** |
| **BSO4** | **Boso 4** | **0.44** | **193** | P | **Pn** | **05 26 40.4** | **+0.1** |
| **BSO3** | **Boso 3** | **0.62** | **176** | P | **Pn** | **05 26 42.1** | **-0.2** |
| **JYT** | **Yasato** | **0.83** | **345** | P | **Pn** | **05 26 44.4** | **-0.9** |
| JYT | | | | *eS* | **Sn** | **05 26 55.7** | **-1.0** |
| **JOD2** | **Odawara 2** | **1.13** | **262** | P | **Pn** | **05 26 48.7** | **-0.5** |
| JOD2 | | | | S | **Sn** | **05 27 02.5** | **-1.2** |
| **JAG** | **Ashikaga** | **1.29** | **321** | P | **Pn** | **05 26 51.3** | **-0.1** |
| **JRY** | **Ryogami san** | **1.40** | **296** | P | **Pn** | **05 26 52.8** | **-0.1** |
| **MJAR** | **Matsushiro Arr** | **2.14** | **302** | Pn | **Pn** | **05 27 03.2** | **+0.2** |
| | 4.1nm,0.3s,baz=99,slow=15,SNR=24 | | | | | | |
| **MAT** | **Matsushiro** | **2.14** | **302** | P | **Pn** | **05 27 03.6** | **+0.6** |
| MAT | | | | *eS* | **Sn** | **05 27 29.0** | **+0.6** |
| **H11N2** | **WAKE ISLAND Hy 28.05** | **117** | | T | T | 06 01 43.8 | |
| | baz=309,slow=75,SNR=8.0 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy 28.06** | **117** | | T | T | 06 01 33.0 | |
| | baz=309,slow=75,SNR=7.7 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy 28.07** | **117** | | T | T | 06 01 40.3 | |
| | baz=309,slow=75,SNR=8.5 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy 28.69** | **119** | | T | T | 06 02 26.6 | |
| | baz=312,slow=75,SNR=9.8 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy 28.70** | **119** | | T | T | 06 02 16.0 | |
| | baz=312,slow=75,SNR=13 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy 28.71** | **119** | | T | T | 06 02 16.7 | |
| | baz=312,slow=75,SNR=7.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.34** | **303** | P | **P** | **05 34 36.5** | **+1.8** |
| | 0.2nm,0.6s,baz=84,slow=11,SNR=3.1 | | | | | | |
| **ILAR** | **Eielson Array** | **51.27** | **32** | P | **P** | **05 35 27.9** | **0.0** |
| | 0.3nm,0.6s,baz=269,slow=5.0,SNR=4.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **55.36** | **187** | P | **P** | **05 35 57.1** | **-1.4** |
| | 0.6nm,0.6s,baz=1.9,slow=7.7,SNR=7.4 | | | | | | |
| **ASAR** | **Alice Springs** | **59.09** | **187** | P | **P** | **05 36 24.0** | **-0.7** |
| | 0.2nm,0.6s,baz=12,slow=13,SNR=4.4 | | | | | | |

*NEIC **25** 05:27:52.7±0.0, 57°.69N×132°.13W, h20km, ML2.9(AEIC), ML3.1(OTT), After AEIC.*

**PGC 25 05:27:52.3±2.0, 57°.74N×132°.18W, h1km, ML3.1/5, 146km Ese of Juneau, Ak Southeastern Alaska, Southeastern Alaska**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JIS** | **Juneau Island** | **1.29** | **296** | P | Pg | 05 28 15.3 | -1.7 |
| JIS | | | | S | Sg | 05 28 32.2 | -1.5 |
| **WRAK** | **Wrangell Islan** | **1.32** | **184** | P | Pg | 05 28 14.9 | -2.7 |
| WRAK | | | | S | Sg | 05 28 31.8 | -2.9 |
| **DLBC** | **Dease Lake** | **1.34** | **58** | P | Pg | 05 28 15.6 | -2.4 |
| DLBC | | | | S | Sg | 05 28 34.7 | -0.7 |
| **DLBC** | **Dease Lake** | **1.34** | **58** | P | Pg | 05 28 15.6 | -2.4 |
| DLBC | | | | S | Sg | 05 28 35.7 | +0.3 |
| **BESE** | **Bessie Mountai** | **1.65** | **302** | Pn | Pn | 05 28 21.5 | -1.0 |
| BESE | | | | Sg | Sn | 05 28 43.0 | -1.3 |
| **BESE** | **Bessie Mountai** | **1.65** | **302** | P | Pn | 05 28 21.4 | -1.0 |
| BESE | | | | S | Sn | 05 28 44.1 | -0.2 |
| **CRAG** | **Craig** | **2.33** | **193** | P | Pn | 05 28 29.7 | -2.1 |
| **SKAG** | **Skagway** | **2.39** | **318** | P | Pn | 05 28 31.6 | -0.9 |
| **PLBC** | **Pleasant Camp** | **2.79** | **310** | Pn | Pn | 05 28 36.6 | -1.4 |
| PLBC | | | | Sg | Sb | 05 29 17.7 | +0.3 |
| **PLBC** | **Pleasant Camp** | **2.79** | **310** | P | Pn | 05 28 38.1 | +0.1 |
| **WHY** | **Whitehorse** | **3.24** | **336** | Pn | Pn | 05 28 43.4 | -1.0 |
| WHY | | | | Sg | Sb | 05 29 32.4 | +1.7 |
| **WHY** | **Whitehorse** | **3.24** | **336** | P | Pn | 05 28 44.2 | -0.2 |
| **HYT** | **Haines Junctio** | **4.13** | **321** | Pn | Pn | 05 28 55.7 | -0.8 |
| HYT | | | | Pg | Pb | 05 29 06.0 | +0.3 |
| HYT | | | | Sg | Sb | 05 29 59.6 | +3.5 |
| **HYT** | **Haines Junctio** | **4.13** | **321** | P | Pn | 05 28 55.9 | -0.6 |
| **YUK7** | **Dusty Glacier** | **4.16** | **315** | Pg | Pb | 05 29 05.7 | -0.6 |
| YUK7 | | | | Sg | Sb | 05 30 01.3 | +4.3 |
| **FNBB** | **Fort Nelson** | **4.97** | **73** | Pn | Pn | 05 29 07.0 | -1.1 |
| FNBB | | | | Sg | Sg | 05 30 27.1 | -4.8 |
| **YUK3** | **Moose Creek** | **5.82** | **318** | Sg | Sg | 05 30 56.4 | -2.6 |
| **YUK2** | **White River** | **5.97** | **317** | Pn | Pn | 05 29 23.3 | +1.5 |
| YUK2 | | | | Sg | Sg | 05 31 01.4 | -2.4 |
| **YUK1** | **Sand Pete Hill** | **6.10** | **320** | Pg | Pb | 05 29 41.9 | +2.6 |
| YUK1 | | | | Sg | Sg | 05 31 03.4 | -4.6 |
| **DAWY** | **Dawson** | **7.25** | **334** | Sg | Sg | 05 31 37.5 | -7.5 |

*OMAN **25** 05:35:17.0±99.0, 32°.93N×46°.52E, h6km, Error ellipse: s-maj=303.5km s-min=29.1km az=333.0*
*DSN **25** 05:35:28.1±2.3, 32°.99N×47°.61E, h33km, Error ellipse: s-maj=25.1km s-min=24.2km az=125.0*
*SGS **25** 05:35:31.9, 33°.02N×47°.80E, h35km*
*BJI **25** 05:35:33.1, 32°.40N×47°.80E, h33km, mb4.4/17, mB4.9/11, Ms4.5/8, Ms7 4.3/8*
*TEH **25** 05:35:33.6, 32°.49N×47°.66E, h6km, ML4.2*
*IDC **25** 05:35:33.3±5.2, 32°.52N×47°.78E, h17km±32km, mb4.0/26, mb1 4.1/32, mb1mx4.0/53, mbtmp4.1/32, ML3.9/5, MS3.3/7, Ms1 3.3/7, ms1mx2.9/50, Error ellipse: s-maj=15.9km s-min=11.3km az=156.0*
*THR **25** 05:35:34.6±0.9, 32°.50N×47°.77E, h30km±8km, ML4.0*
*MOS **25** 05:35:34.8±1.4, 32°.65N×47°.77E, h33km, mb4.5/22, Error ellipse: s-maj=6.8km s-min=5.1km az=104.6*
*CSEM **25** 05:35:35.2±0.1, 32°.43N×47°.72E, h30km, mb4.2/9, Error ellipse: s-maj=5.4km s-min=3.5km az=20.0*
*NEIC **25** 05:35:35.2±0.3, 32°.45N×47°.79E, mb4.4/15, ML4.0(THR), MN4.2(TEH), Error ellipse: s-maj=5.7km s-min=4.3km az=195.0*
*ISCJB **25** 05:35:35.1±0.4, 32°.45N±0°.03×47°.79E±0°.03, h47km±4km, mb4.2/61, MS3.8/8, Error ellipse: s-maj=5.0km s-min=3.5km az=17.5*
*ISN **25** 05:35:57.4±4.3, 32°.22N×47°.88E, h49km, ML4.6*

**ISC 25 05:35:35.2±0.6, 32°.54N±0°.04×47°.74E±0°.03, h32km±3km, n299, σ1s64/316, mb4.3/60, MS3.8/8, 31C-20D, Iran-Iraq border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **IKFM** | **Kafar-mosalman** | **0.98** | **5** | *eP* | **Pn** | **05 35 52.0** | **-0.8** |
| **IKFM** | **Kafar-mosalman** | **0.98** | **5** | *eP* | **Pn** | **05 35 52.0** | **-0.8** |
| **SHGR** | **Shooshtar-Gavs** | **1.00** | **115** | *eP* | **Pn** | **05 35 52.9** | **-0.1** |
| SHGR | | | | AML | AML | 05 36 37.6 | |
| | comp=E,4µm,0.4s | | | | | | |
| SHGR | | | | AML | AML | 05 36 42.7 | |
| | comp=N,4µm,0.6s | | | | | | |
| **SHGR** | **Shooshtar-Gavs** | **1.00** | **115** | *eP* | **Pn** | **05 35 52.9** | **-0.1** |
| **AHWZ** | **Ahwaz** |

comp=Z,3µm,0.3s
IVRN Varamin 4.12 53 ePn Pn 05 36 38.3 +2.2
ZNJK Zanjan 4.19 10 ePn Pn 05 36 39.4 +2.3
ZNJK Zanjan 4.19 10 ePn Pn 05 36 39.4 +2.3
THKV Tehran--Karaj 4.25 37 ePn Pn 05 36 40.0 +2.1
THKV Tehran--Karaj 4.25 37 ePn Pn 05 36 40.0 +2.1
NASN Na'in 4.28 85 ePn Pn 05 36 40.0 +1.5
NASN Na'in 4.28 85 ePn Pn 05 36 40.0 +1.5
KFJS 4.34 178 S Sn 05 37 31.9 +3.4
KFJS P Pn 05 36 41.0 +2.0
IGZV Ghazvin 4.35 27 ePn Pn 05 36 40.2 +0.9
IGZV Ghazvin 4.35 27 ePn Pn 05 36 40.2 +0.9
CHTH Charan 4.37 39 ePn Pn 05 36 41.5 +1.8
CHTH Charan 4.37 39 ePn Pn 05 36 41.5 +1.8
IDMV Damavand 4.67 48 ePn Pn 05 36 45.0 +1.2
IDMV eAMB AMB 05 36 48.7
comp=Z,2µm,0.3s
IDMV Damavand 4.67 48 ePn Pn 05 36 45.0 +1.2
AHBU AHRAM 4.78 139 ePn Pn 05 36 45.5 +0.6
IFIR Firoozkooh 5.18 52 ePn Pn 05 36 52.3 +1.5
IFIR eAMB AMB 05 37 14.5
comp=Z,718nm,0.2s
IFIR Firoozkooh 5.18 52 ePn Pn 05 36 52.3 +1.5
IPRN Peran 5.30 45 ePn Pn 05 36 54.4 +2.2
IPRN eAMB AMB 05 38 31.9
comp=Z,2µm,0.3s
ISRV Sarvestan 5.59 123 ePn Pn 05 36 55.9 -0.5
ISRV eAMB AMB 05 38 11.4
comp=Z,1µm,0.2s
ISRV Sarvestan 5.59 123 ePn Pn 05 36 55.9 -0.5
ASYS 5.82 211 P Pn 05 36 59.7 +0.3
IANJ Anjilo 5.90 59 eAMB AMB 05 37 03.3
comp=Z,891nm,0.2s
GRMI Germi 6.25 1 ePn Pn 05 37 07.8 +2.4
GRMI Germi 6.25 1 ePn Pn 05 37 07.8 +2.4
MAKU Maku 7.24 341 ePn Pn 05 37 21.1 +2.1
MAKU Maku 7.24 341 ePn Pn 05 37 21.0 +2.1
MARD Mardin 7.44 312 ePn Pn 05 37 21.2 -0.4
MARD Mardin 7.44 312 ePn Pn 05 37 21.2 -0.4
MARD eSn Sn 05 38 43.4 -1.6
SHRO Shahrood 7.66 61 ePn Pn 05 37 26.3 +1.7
SHRO Shahrood 7.66 61 ePn Pn 05 37 26.3 +1.7
TABS Tabas 7.95 79 ePn Pn 05 37 29.9 +1.3
TABS Tabas 7.95 79 ePn Pn 05 37 29.9 +1.3
GNI Garni 7.97 343 Pn Pn 05 37 31.4 +2.5
comp=Z,0.6nm,0.3s,baz=179,slow=14,SNR=3.5
GNI Lg Lg 05 39 49.8
comp=Z,0.3nm,0.3s,baz=152,slow=15,SNR=1.6
GNI LR LR 05 40 24.7
comp=Z,45nm,19.9s,baz=196,slow=36
GNI Garni 7.97 343⇑ ePn Pn 05 37 33.1 +4.2
KRBR Kerman 8.13 106 ePn Pn 05 37 32.8 +1.5
KRBR Kerman 8.13 106 ePn Pn 05 37 32.8 +1.5
MRVT Maraveh tapeh 8.53 51 ePn Pn 05 37 39.1 +2.5
MRVT Maraveh tapeh 8.53 51 ePn Pn 05 37 39.1 +2.5
ASF Jabal al Asfar 9.18 271 Pn Pn 05 37 45.2 -0.3
comp=Z,0.4nm,0.3s,baz=45,slow=13,SNR=3.6
ASF Sn Sn 05 39 25.5 -2.2
comp=Z,0.2nm,0.3s,baz=308,slow=22,SNR=2.4
ASF Lg Lg 05 40 25.7
comp=Z,0.3nm,0.3s,baz=46,slow=9.7,SNR=3.7
RAYN Ar Rayn 9.20 193 ePn Pn 05 37 44.2 -1.6
RAYN eSn Sn 05 39 24.9 -3.4
RAYN Ar Rayn 9.20 193 ePn Pn 05 37 44.2 -1.6
RAYN eSn Sn 05 39 24.9 -3.4
MALT Malatya 9.53 310 P Pn 05 37 50.6 +0.3
MALT Malatya 9.53 310 P Pn 05 37 50.6 +0.3
BANOM Banah 9.97 129 iP Pn 05 37 54.2 -2.0
SNR=25
BANOM Banah 9.97 129 P Pn 05 37 54.7 -1.6
SNR=26
BANOM Banah 9.97 129 P Pn 05 37 54.7 -1.6
SNR=26
GEYT Alibeck 10.04 55 Pn Pn 05 37 56.4 -0.8
comp=Z,0.2nm,0.3s,baz=249,slow=12,SNR=2.1
NAZ Nazwa, Dubai 10.24 135 iP Pn 05 37 58.8 -1.2
SNR=6.8
MSFE Esma-Masafi 10.27 132 P Pn 05 37 59.4 -1.0
UOSS Minazif 10.60 133 ePn Pn 05 38 02.3 -2.6
UOSS Minazif 10.60 133 ePn Pn 05 38 02.3 -2.6
HATD Hatta, Dubai 10.64 134 iP Pn 05 38 04.1 -1.4
SNR=6.2
ASHO Ashiyiah 10.71 135 iP Pn 05 38 04.2 -2.2
SNR=9.3
ASHO Ashiyiah 10.71 135 P Pn 05 38 05.0 -1.4
ASHO Ashiyiah 10.71 135 P Pn 05 38 05.0 -1.4
EIL Elat 11.33 259 Lg Lg 05 41 37.9
comp=Z,0.2nm,0.3s,baz=107,slow=19,SNR=4.0
NCK Nalchik 11.41 345|| ePn 05 38 14.7 -1.2
KBZ Khabaz 11.80 343 LR LR 05 42 34.3
comp=Z,184nm,18.6s,baz=351,slow=36
WSAR Wadi Sarin 13.36 131 Pn Pn 05 38 39.5 -3.1
comp=Z,1.6nm,0.3s,baz=341,slow=11,SNR=11
WSAR Sn Sn 05 41 00.4 -10
comp=Z,0.2nm,0.3s,baz=265,slow=3.4,SNR=2.6
WSAR LR LR 05 44 46.8
comp=Z,114nm,19.1s,baz=333,slow=42
BR131 Keskin Array S 13.46 306 ePn Pn 05 38 47.0 +3.0
BR131 Keskin Array S 13.46 306 ePn Pn 05 38 47.0 +3.0
BRTR Keskin Array B 13.46 306 Pn Pn 05 38 43.3 -0.7
comp=Z,0.1nm,0.3s,baz=124,slow=13,SNR=7.4
MANT Manisa 16.70 296 ePn P 05 39 31.4 +2.4
comp=Z,111nm,1.3s
KBL Kabul 17.87 78 eP Pn 05 39 41.2 -0.3
KBL pmax pmax
comp=Z,17nm,1.3s
KBL Kabul 17.87 78 eP Pn 05 39 41.2 -0.3
comp=Z,17nm,1.3s
KBL Kabul 17.87 78 ePn Pn 05 39 41.2 -0.3
comp=Z,17nm,1.3s
DZET Dzherino 18.22 64 P P 05 39 47.0 +1.3
DZET Dzherino 18.22 64 P P 05 39 47.0 +1.3
AB31 Akbulak array 19.03 25 iP P 05 39 54.3 -0.1
AB31 pmax pmax
comp=Z,5.0nm,0.6s
AB31 Akbulak array 19.03 25 iP P 05 39 54.3 -0.1
comp=Z,5.0nm,0.6s
ABKAR Akbulak array 19.03 25 eP Pn 05 39 54.7 -0.6
comp=Z,67nm,0.6s
ABKAR Akbulak array 19.03 25 eP Pn 05 39 54.7 -0.6
comp=Z,67nm,0.6s
IDI Anoyia 19.16 284 P P 05 39 56.2 +0.3
comp=Z,1.0nm,0.3s,baz=59,slow=12,SNR=6.6
VRH Novokhopyorsk 19.16 348 eP Pn 05 39 56.2 -0.7
VRH pmax pmax
comp=Z,8.0nm,0.4s
VRH Novokhopyorsk 19.16 348 eP Pn 05 39 56.2 -0.7
comp=Z,8.0nm,0.4s
AKTK Aktyubinsk 19.43 20 P P 05 39 58.8 0.0
AKTO Aktyubinsk 19.43 20 P P 05 39 58.8 0.0
comp=Z,0.8nm,0.3s,baz=199,slow=13,SNR=26
VSR Storozhevoye 19.70 344 eP P 05 40 00.8 -0.8
VSR pmax pmax
comp=Z,10.0nm,0.5s
VSR Storozhevoye 19.70 344 eP P 05 40 00.8 -0.8
comp=Z,10.0nm,0.5s
CFR Carcaliu 19.74 315⇑ iP Pn 05 40 03.5 -0.3
CFR Carcaliu 19.74 315⇑ P Pn 05 40 03.5 -0.3
CFR Carcaliu 19.74 315 P Pn 05 40 03.5 -0.3
ODBI Odobesti 20.70 316⇑ iP Pn 05 40 15.3 +0.2
ODBI Odobesti 20.70 316⇑ iP Pn 05 40 15.3 +0.2
KK31 Karatay Array 20.79 53 eP P 05 40 13.1 -0.5
KK31 pmax pmax
comp=Z,3.0nm,0.6s
KK31 Karatay Array 20.79 53 eP P 05 40 13.1 -0.5
comp=Z,3.0nm,0.6s
KKAR Karatay Array 20.79 53 eP P 05 40 13.8 +0.2
KKAR pmax pmax
comp=Z,39nm,0.5s
KKAR Karatay Array 20.79 53 eP P 05 40 13.8 +0.2
comp=Z,39nm,0.5s
KKAR Karatay Array 20.79 53 eP P 05 40 13.8 +0.2
comp=Z,39nm,0.5s
VRI Vrincioaia 20.95 316⇑ iP Pn 05 40 17.0 -1.0
VRI Vrincioaia 20.95 316⇑ P Pn 05 40 17.0 -1.0
VRI Vrincioaia 20.95 316 P Pn 05 40 17.0 -1.0
PLOR Plostina 20.99 315|| iP Pn 05 40 17.0 -1.5
PLOR Plostina 20.99 315 || P Pn 05 40 17.0 -1.5
PLOR Plostina 20.99 315 P Pn 05 40 17.0 -1.5
LPSR Galich'ya Gora 21.04 345 eP P 05 40 15.2 -1.0
LPSR pmax pmax
comp=Z,30nm,0.6s
MLR Muntele Rosu 21.22 314 P P 05 40 20.0 +1.6
comp=Z,3.8nm,0.7s,baz=83,slow=8.1,SNR=4.3
MLR Muntele Rosu 21.22 314⇑ iP P 05 40 21.0 +2.6
MLR Muntele Rosu 21.22 314 ⇑P P 05 40 21.0 +2.6
MLR Muntele Rosu 21.22 314 eP P 05 40 18.4 0.0
comp=Z,21nm,0.8s
MLR Muntele Rosu 21.22 314 eP P 05 40 18.4 0.0
comp=Z,21nm,0.8s
TESR Tescani 21.34 317⇑ iP P 05 40 20.7 +1.2
TESR Tescani 21.34 317⇑ iP P 05 40 20.7 +1.2
ATD Arta Tunnel 21.39 193 LR LR 05 49 26.6
comp=Z,69nm,19.3s,baz=110,slow=39
VOIR 21.75 313⇑ iP P 05 40 25.9 +1.9
VOIR 21.75 313 ⇑P P 05 40 25.9 +1.9
VOIR 21.75 313 P P 05 40 25.9 +1.9
DOPR Dopca 21.80 314⇑ iP P 05 40 26.4 +1.9
DOPR Dopca 21.80 314⇑ iP P 05 40 26.4 +1.9
VTS Vitosha 21.81 304 eP P 05 40 25.4 +0.6
VTS pmax pmax
comp=Z,9.0nm,1.3s
VTS Vitosha 21.81 304 eP P 05 40 25.4 +0.6
comp=Z,8.6nm,1.3s
VTS Vitosha 21.81 304 eP P 05 40 25.4 +0.6
comp=Z,8.6nm,1.3s
MNAS Manas 21.94 56 P P 05 40 27.4 +1.3
MNAS pmax pmax
comp=Z,5.0nm,1.2s
MNAS Manas 21.94 56 P P 05 40 27.4 +1.3
comp=Z,5.0nm,1.2s
ARR Arges 21.97 312 || iP P 05 40 28.1 +1.7
ARR Arges 21.97 312 || iP P 05 40 28.1 +1.7
SFK Sufi-Kurgan 22.02 63 P P 05 40 28.0 +0.9
SFK pmax pmax
comp=Z,7.0nm,0.8s
SFK Sufi-Kurgan 22.02 63 P P 05 40 28.0 +0.9
comp=Z,7.0nm,0.8s
LOT Lotru 22.55 312 || iP P 05 40 33.5 +0.8
LOT Lotru 22.55 312 || iP P 05 40 33.5 +0.8
AKASG Malin Array Be 22.71 328 P P 05 40 32.9 -1.2
comp=Z,1.9nm,0.5s,baz=136,slow=9.6,SNR=19
AKASG Malin Array Be 22.71 328 eP P 05 40 32.5 -1.6
AKASG pmax pmax
comp=Z,2.0nm,0.5s
AKBB Malin Array Si 22.71 328 eP P 05 40 32.9 -1.2
AKBB pmax pmax
comp=Z,6.0nm,0.6s
AKBB Malin Array Si 22.71 328 eP P 05 40 32.9 -1.2
comp=Z,5.5nm,0.6s
AK11 Malin Array Si 22.72 328 eP P 05 40 31.6 -2.6
BURAR Bucovina Array 22.77 318⇑ iP P 05 40 35.8 +0.9
BURAR Bucovina Array 22.77 318 ⇑P P 05 40 35.8 +0.9
BURAR Bucovina Array 22.77 318⇑ iP P 05 40 35.8 +0.9
BUR04 Bucovina Ar. S 22.77 318 eP P 05 40 35.2 +0.3
BUR04 Bucovina Ar. S 22.77 318 eP P 05 40 35.2 +0.3
BUR08 Bucovina Ar. S 22.79 318 eP P 05 40 35.3 +0.2
BUR08 Bucovina Ar. S 22.79 318 eP P 05 40 35.4 +0.2
ZAGS Zajecar 22.90 307 eP P 05 40 38.1 +1.9
BOVS Bovan 23.20 306 eP P 05 40 41.9 +2.7
CJR Cluj-Napoca 23.25 315 || iP P 05 40 42.2 +2.5
CJR Cluj-Napoca 23.25 315 || P P 05 40 42.2 +2.5
CJR Cluj-Napoca 23.25 315 P P 05 40 42.2 +2.5
AAK Ala-Archa 23.39 57 P P 05 40 42.7 +1.4
comp=Z,1.8nm,0.7s,baz=224,slow=7.2,SNR=6.2
AAK Ala-Archa 23.39 57 eP P 05 40 42.5 +1.2
AAK pmax pmax
comp=Z,3.0nm,0.8s
AAK Ala-Archa 23.39 57 eP P 05 40 42.5 +1.2
comp=Z,3.0nm,0.8s
AAK Ala-Archa 23.39 57 eP P 05 40 42.5 +1.2
comp=Z,3.0nm,0.8s
KUBS Kucevo 23.49 308 eP P 05 40 42.7 +0.6
KSH Kashi 23.81 65 P P 05 40 44.4 -0.9
KSH pP pP 05 40 53.1 -1.3
KSH PP PnPn 05 41 16.5 +2.8
KSH PcP PcP 05 44 31.6 +3.5
KSH S S 05 44 51.0 -8.0
KSH SS SnSn 05 45 39.3 +0.4
KSH ScS ScS 05 51 50.4 -0.6
KSH pmax pmax
comp=Z,5.0nm,0.5s
KSH pmax pmax
comp=Z,180nm,4.5s
KSH LR LR
comp=Z,270nm,9.0s
KSH LR LR
comp=Z,290nm,8.1s
KSH LR LR
comp=Z,540nm,6.8s
DRGR 23.82 314 || iP P 05 40 46.6 +1.3
DRGR 23.82 314 ||P P 05 40 46.6 +1.3
DRGR 23.82 314 P P 05 40 46.6 +1.3
OBN Obninsk 23.90 344 eP P 05 40 47.2 +1.4
OBN e*PP sP 05 41 00.1 +1.2
OBN pmax pmax
comp=Z,5.0nm,1.0s
OBN Obninsk 23.90 344 eP P 05 40 47.2 +1.4
comp=Z,5.0nm,1.0s
OBN Obninsk 23.90 344 eP P 05 40 46.6 +0.8
comp=Z,56nm,1.7s
GRUS Gruza 23.96 306 eP P 05 40 47.8 +1.3
BZS Buzias 23.99 311⇑ iP P 05 40 48.3 +1.5
BZS Buzias 23.99 311 ⇑P P 05 40 48.3 +1.5
BZS Buzias 23.99 311 P P 05 40 48.3 +1.5
SIRR Siria 24.24 312 || iP P 05 40 51.2 +2.1
SIRR Siria 24.24 312 || iP P 05 40 51.2 +2.1
TKM2 Tokmak 2 24.24 57 P P 05 40 50.7 +1.2
TKM2 pmax pmax
comp=Z,9.0nm,0.6s
TKM2 Tokmak 2 24.24 57 P P 05 40 50.7 +1.2
comp=Z,9.0nm,0.6s
IVAS Ivanjica 24.25 305 eP P 05 40 50.4 +1.1
TRUS Trudelj 24.28 307 eP P 05 40 51.0 +1.5
DIVS Divibare 24.52 306 eP P 05 40 52.8 +1.0
PDG Podgorica 24.56 302⇑ iP P 05 40 52.7 +0.6
PDG Podgorica 24.56 302⇑ iP P 05 40 52.7 +0.6
BBLS Lazići 24.85 305 eP P 05 40 56.2 +1.4
TEKS Tekeris 24.98 307 eP P 05 40 57.2 +1.3
ARU Arti 25.04 14 P P 05 40 56.7 +0.4
comp=Z,2.8nm,0.3s,baz=198,slow=5.9,SNR=8.9
ARU LR LR 05 53 34.6
comp=Z,150nm,18.2s,baz=304,slow=43
ARU Arti 25.04 14 c iP P 05 40 57.6 +1.4
ARU 05 41 38.2
ARU S S 05 45 14.9 -3.3
ARU SS SnSn 05 46 09.1 +0.5
ARU pmax pmax
comp=Z,31nm,2.5s
ARU Arti 25.04 14 iP P 05 40 57.6 +1.4
comp=Z,31nm,2.5s
ARU Arti 25.04 14 eP P 05 40 57.0 +0.8
comp=Z,26nm,1.4s
CRVS Cervenica-Dubn 25.58 317 eP P 05 41 03.1 +1.8
CRVS Cervenica-Dubn 25.58 317 eP P 05 41 03.1 +1.8
KECS Kecovo 25.94 316 eP P 05 41 06.4 +1.9
KECS pmax pmax
comp=Z,11nm,0.7s
KECS Kecovo 25.94 316 eP P 05 41 06.4 +1.9
STHS Stebnicka Huta 25.96 318 eP P 05 41 07.3 +2.5
STHS pmax pmax
comp=Z,5.0nm,0.8s
STHS Stebnicka Huta 25.96 318 eP P 05 41 07.2 +2.5
PSZ Piszkesteto 26.04 314 || iP P 05 41 09.2 +3.7
PSZ Piszkesteto 26.04 314 || P P 05 41 09.2 +3.7
PSZ Piszkesteto 26.04 314 || eP P 05 41 08.9 +3.4
PSZ Piszkesteto 26.04 314 eP P 05 41 08.1 +2.6
comp=Z,16nm,0.8s
BRVK Borovoye 26.14 32⇑ eP P 05 41 06.5 +0.2
BRVK pmax pmax
comp=Z,12nm,0.7s
BRVK Borovoye 26.14 32 eP P 05 41 06.6 +0.3
comp=Z,4.8nm,0.8s
BRVK epP pP 05 41 16.5 +1.0
BVA0 Borovoye Array 26.17 32 P P 05 41 06.9 +0.4
BVA0 pmax pmax
comp=Z,6.0nm,0.6s
BVAR Borovoye Array 26.17 32 P P 05 41 06.9 +0.4
comp=Z,5.9nm,0.6s,baz=224,slow=8.2,SNR=45
BVAR PcP PcP 05 44 33.7 +0.8
comp=Z,0.9nm,0.5s,baz=205,slow=3.1,SNR=6.2
BVAR ScP ScP 05 48 11.2 +0.9
comp=Z,0.9nm,0.7s,baz=184,slow=4.0,SNR=6.2
BLY Banja Luka 26.64 306 eP P 05 41 12.3 +1.5
comp=Z,78nm,1.9s
LANS Liptovska Anna 26.85 316 eP P 05 41 14.9 +2.1
LANS Liptovska Anna 26.85 316 eP P 05 41 14.9 +2.1
VYHS Vyhne 26.93 315 eP P 05 41 14.9 +1.5
VYHS Vyhne 26.93 315 eP P 05 41 14.9 +1.5
OJC Ojcow 27.18 319 eP P 05 41 16.7 +1.1
OJC pmax pmax
comp=Z,9.0nm,0.7s
OJC Ojcow 27.18 319 eP P 05 41 16.7 +1.1
comp=Z,9.3nm,0.7s
WDD Wied Dalam 27.60 286 eP P 05 41 19.8 +0.3
WDD epP pP 05 41 28.0 -0.8
MORC Moravsky Berou 28.25 316 eP P 05 41 26.6 +1.3
MORC e*PP sP 05 41 36.5 -2.0
MORC pmax pmax
comp=Z,15nm,0.8s
MORC Moravsky Berou 28.25 316 eP P 05 41 26.6 +1.3
comp=Z,15nm,0.8s
MORC epP sP 05 41 36.5 -2.0
KLMR Klimovskoe 28.83 352 eP P 05 41 28.0 -2.2
KLMR pmax pmax
comp=Z,13nm,0.8s
KURBB Kurchatov Arra 28.97 42 P P 05 41 31.2 -0.4
comp=Z,0.6nm,0.4s,baz=244,slow=9.2,SNR=6.0
KURK Kurchatov 29.06 42⇑ eP P 05 41 33.3 +0.9
KURK pmax pmax
comp=Z,12nm,2.5s
KURK Kurchatov 29.06 42 eP P 05 41 32.7 +0.3
comp=Z,4.8nm,1.1s
MOA Molln 29.51 311 eP P 05 41 37.8 +1.2
comp=Z,3.0nm,0.8s
MK01 Makanchi Array 29.89 51 eP P 05 41 40.6 +0.7
MK31 Makanchi Array 29.89 51 eP P 05 41 40.5 +0.6
MK31 Makanchi Array 29.89 51 eP P 05 41 40.5 +0.6
MKAR Makanchi Array 29.89 51 P P 05 41 40.8 +0.9
comp=Z,3.5nm,0.7s,baz=248,slow=7.3,SNR=31
MKAR PcP PcP 05 44 42.6 +0.3
comp=Z,0.3nm,0.5s,baz=272,slow=4.0,SNR=4.6
MKAR LR LR 05 54 07.4
comp=Z,108nm,19.5s,baz=314,slow=37
MKAR Makanchi Array 29.89 51 ce P P 05 41 41.0 +1.1
MKAR pmax pmax
comp=Z,4.0nm,0.6s
MKAR Makanchi Array 29.89 51 eP P 05 41 40.8 +0.9
comp=Z,29nm,0.6s
MKAR PcP PcP 05 44 42.6 +0.3
GERES GERESS Array B 30.20 313 P P 05 41 43.1 +0.4
comp=Z,0.7nm,0.7s,baz=134,slow=7.6,SNR=5.4
GERES PcP PcP 05 44 43.7 +0.6
comp=Z,0.4nm,0.5s,baz=45,slow=2.3,SNR=3.6
WATA Walderalm 31.10 309 iP P 05 41 51.0 +0.3
comp=Z,2.4nm,0.5s
MOTA Moosalm 31.41 309 iP P 05 41 53.3 -0.1
comp=Z,4.5nm,0.6s
FETA Feichten 31.58 308 eP P 05 41 55.6 +0.6
comp=Z,3.1nm,0.6s
RETA Reutte 31.68 309 iP P 05 41 56.1 +0.4
comp=Z,0.4nm,0.3s
FINES FINESS Array B 32.15 341 P P 05 41 59.6 0.0
comp=Z,1.6nm,0.4s,baz=144,slow=9.6,SNR=27
DAVA Damuels 32.21 308 iP P 05 42 00.8 +0.3
comp=Z,5.5nm,0.4s
WMQ Urumqi 33.07 58 P P 05 42 10.3 +2.4
WMQ LR LR
comp=Z,180nm,17.7s
WMQ LR LR
comp=Z,200nm,13.3s
WMQ LR LR
comp=Z,200nm,16.3s
SENIN Lac Senin/Sane 33.76 306 eP P 05 42 15.0 +0.9
comp=Z,20nm,1.4s
ZAA0 Zalesovo Array 33.89 40 eP P 05 42 14.6 -0.2
comp=Z,2.3nm,0.6s
ZALV Zalesovo Beam 33.89 40 P P 05 42 14.8 0.0
comp=Z,1.8nm,0.4s,baz=253,slow=8.8,SNR=10
ZALV LR LR 05 56 32.5
comp=Z,74nm,19.3s,baz=248,slow=37
ZALV Zalesovo Beam 33.89 40 eP P 05 42 14.6 -0.2
ZALV Zalesovo Beam 33.89 40 eP P 05 42 14.6 -0.2
DGZ Jazzator, Alta 33.99 48 d iP P 05 42 17.2 +1.2
DGZ pmax pmax
comp=Z,1.0nm,0.7s
BNI Bardonecchia 34.00 304 eP P 05 42 16.4 +0.3
BNI pmax pmax
comp=Z,75nm,1.8s
BNI Bardonecchia 34.00 304 eP P 05 42 16.4 +0.3
comp=Z,75nm,1.8s
KMBO Kilima Mbogo 34.92 199 P P 05 42 25.0 +0.5
comp=Z,1.0nm,0.3s,baz=34,slow=15,SNR=3.0
KMBO Kilima Mbogo 34.92 199 ce P P 05 42 29.2 +4.8
KMBO pmax pmax
comp=Z,1.0nm,0.3s
NOA NORSAR Array B 37.06 331 P P 05 42 42.5 +0.4
comp=Z,1.0nm,0.7s,baz=124,slow=8.5,SNR=2.6
ARCES ARCESS Array B 39.09 348 P P 05 42 59.5 +0.4
comp=Z,4.4nm,0.9s,baz=158,slow=9.8,SNR=8.0
ARCES PcP PcP 05 45 08.9 +0.7
comp=Z,3.7nm,0.9s,baz=197,slow=3.8,SNR=4.2
ES19 SONSECA Array 41.84 295 eP P 05 43 22.6 +0.4
ESDC Sonseca Array 41.89 295 P P 05 43 23.4 +0.8
comp=Z,1.6nm,0.6s,baz=75,slow=8.4,SNR=27
GTA Gaotai 42.21 65 eP P 05 43 26.5 +1.2
GTA pP pP 05 43 30.9 -3.9
GTA sP sP 05 43 34.3 -4.4
GTA pmax pmax
comp=Z,4.0nm,0.7s
PBRG Braganca 43.75 298 eP P 05 43 38.3 +0.7
PBAR Barrancos 44.49 293 eP P 05 43 44.3 +0.8
PVRL Vila Real 44.54 298 eP P 05 43 45.2 +1.2
PCBR Castelo Branco 44.55 296 eP P 05 43 45.3 +1.3
POLO Lamas de Olo 44.58 298 eP P 05 43 45.2 +0.8
PGAV Gavieira, Arco 44.86 299 eP P 05 43 47.2 +0.6
PBEJ Beja 45.16 293 eP P 05 43 49.6 +0.7
COI Coimbra 45.21 296 eP P 05 43 52.1 +2.9
LZH Lanzhou 45.93 69 eP P 05 43 56.3 +1.0
LZH pP sP 05 44 06.5 -2.2
LZH sP pP 05 44 10.3 +5.5
LZH ePP PP 05 45 44.5 +1.4
LZH pmax pmax
comp=Z,19nm,1.2s
LZH pmax pmax
comp=Z,45nm,5.6s
LZH LR LR
comp=Z,180nm,13.7s
LZH LR LR
comp=Z,170nm,14.0s
LZH LR LR
comp=Z,240nm,18.2s
PMST Lisbon--Monsan 46.04 294 eP P 05 43 54.7 -1.2
TORD Torodi Ar. Bea 46.21 256 P P 05 43 57.8 +0.4
comp=Z,1.1nm,0.6s,baz=82,slow=7.3,SNR=7.1
SONM Songino Array 46.24 53 P P 05 43 58.1 +0.6
comp=Z,0.7nm,0.6s,baz=272,slow=9.3,SNR=5.1
ULN Ulaanbaatar 46.68 53|| eP P 05 44 01.9 +0.9
ULN pmax pmax
comp=Z,12nm,2.5s
BOD Bodaibo 50.64 39 eP P 05 44 29.9 -1.1
BOD pmax pmax
comp=Z,6.0nm,1.8s
HHC Hu-ho-hao-te 50.84 61 eP P 05 44 33.5 +0.5
HHC S S 05 51 45.1 -1.9
HHC sS sS 05 52 01.8 -1.2
HHC ScS ScS 05 54 18.6 -2.8
HHC SS SS 05 55 17.0 -4.6
HHC pmax pmax
comp=Z,22nm,1.1s
HHC pmax pmax
comp=Z,83nm,5.4s
HHC LR LR
comp=Z,330nm,15.7s
HHC LR LR
comp=Z,200nm,16.3s
HHC LR LR
comp=Z,82nm,15.9s
DBIC Dimbokro 55.15 254 P P 05 45 05.4 +0.5
comp=Z,0.9nm,0.4s,baz=29,slow=10,SNR=3.3
SUMG Summit 58.17 339 iP P 05 45 25.1 -0.9
SUMG pmax pmax
comp=Z,5.0nm,0.7s
SUMG Summit 58.17 339 iP P 05 45 25.1 -0.9
comp=Z,5.3nm,0.7s
SUMG Summit 58.17 339 iP P 05 45 25.1 -0.9
comp=Z,5.3nm,0.7s
CN2 Changchun 60.04 55 eP P 05 45 37.9 -1.0
KLR Kul'dur 62.48 47 P P 05 45 55.0 -0.4
comp=Z,0.1nm,0.3s,baz=278,slow=6.2,SNR=5.0
KLR Kul'dur 62.48 47⇑ eP P 05 45 56.9 +1.5
KSAR Wonju Array Be 63.95 61 P P 05 46 04.9 -0.4
KSAR Wonju Array Be 63.95 61 P P 05 46 04.9 -0.4
KSRS Korea Array 63.97 61 P P 05 46 04.9 -0.5

comp=Z,1.2nm,0.5s,baz=284,slow=6.6,SNR=6.4
**BOSA Boshof 64.46 202** P **P 05 46 09.3 +0.6**
comp=Z,1.8nm,0.8s,baz=354,slow=13,SNR=3.6
**SEY Seymchan 67.77 29** P **P 05 46 30.3 +0.9**
comp=Z,6.2nm,0.6s,baz=286,slow=6.0,SNR=14
**SEY Seymchan 67.77 29** *de*P **P 05 46 30.7 +1.3**
**BILL Bilibino 69.86 21**⇓*e*P **P 05 46 42.4 0.0**
BILL *e* 05 46 47.4
BILL *e* 05 46 54.7
BILL pmax pmax
comp=Z,2.0nm,0.9s
BILL MLR MLR
comp=Z,62nm,13.0s
**SCHQ Schefferville 76.50 327** P **P 05 47 22.1 +0.3**
comp=Z,6.0nm,1.0s,baz=73,slow=11,SNR=3.6
**ILAR Eielson Array 82.33 6** P **P 05 47 53.8 +0.4**
comp=Z,0.3nm,0.7s,baz=317,slow=4.7,SNR=4.4
**YKA Yellowknife Ar 84.23 352** P **P 05 48 03.1 -0.1**
comp=Z,0.4nm,0.6s,baz=6.5,slow=5.4,SNR=13
**YKA Yellowknife Ar 84.23 352** *ce*P **P 05 48 03.0 -0.2**
**WRA Warramunga Arr 97.72 109** P **P 05 49 06.7 -0.6**
comp=Z,1.1nm,1.1s,baz=316,slow=4.0,SNR=4.1
**ASAR Alice Springs 99.31 112** P **Pdif 05 49 13.5 -0.9**
comp=Z,0.4nm,0.9s,baz=306,slow=4.2,SNR=4.9

---

*ISCJB **25** 06:12:27.3±0.5, 37.78N±0.04×72.42E±0.05, h119km, mb3.5/4, Error ellipse: s-maj=5.5km s-min=5.3km az=22.9*
*IDC **25** 06:12:28.6±4.2, 37.84N×72.34E, h109km±28km, mb3.3/4, mb1 3.4/11, mb1mx3.1/41, mbtmp3.7/11, MS3.3/2, Ms1 3.3/2, ms1mx2.7/38, Error ellipse: s-maj=47.3km s-min=18.1km az=146.0*
*NNC **25** 06:12:33.5±1.8, 38.17N×72.24E, h123km±23km, mb3.1, mpv3.6, Error ellipse: s-maj=17.2km s-min=14.3km az=66.0*

**ISC 25 06:12:28.8±0.7, 37.88N±0.05×72.36E±0.06, h119km, n35, σ2.9 04/41, mb3.5/4, 10C-4D, Tajikistan**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SFK** | **Sufi-Kurgan** | **2.31** | **22** | ⇑P | **Pn** | **06 13 08.2** | **+1.9** |
| | 7.6nm,0.1s | | | | | | |
| SFK | | | | ⇓S | **Sn** | **06 13 35.7** | **+0.6** |
| | 106nm,0.2s | | | | | | |
| **DZET** | **Dzherino** | **2.93** | **290** | ⇑P | **Pn** | **06 13 17.2** | **+3.0** |
| | 1.9nm,0.2s | | | | | | |
| DZET | | | | ⇑S | **Sn** | **06 13 51.5** | **+2.4** |
| | 134nm,0.4s | | | | | | |
| **AML** | **Almayashu** | **4.37** | **13** | P | **Pn** | **06 13 34.7** | **+1.1** |
| | SNR=66 | | | | | | |
| **MNAS** | **Manas** | **4.61** | **1** | ⇑P | **Pn** | **06 13 37.9** | **+1.5** |
| | 12nm,0.5s | | | | | | |
| MNAS | | | | ⇑S | **Sn** | **06 14 28.3** | **-0.8** |
| | 45nm,0.6s | | | | | | |
| **UCH** | **Uchtor** | **4.65** | **20** | P | **Pn** | **06 13 38.5** | **+1.2** |
| | SNR=15 | | | | | | |
| **KZA** | **Kyzart** | **4.75** | **27** | P | **Pn** | **06 13 39.3** | **+0.7** |
| | SNR=6.1 | | | | | | |
| **EKS2** | **Erkin-Say** | **4.90** | **12** | P | **Pn** | **06 13 42.0** | **+1.6** |
| | SNR=29 | | | | | | |
| **AAK** | **Ala-Archa** | **5.03** | **18** | P | **Pn** | **06 13 43.6** | **+1.5** |
| | 2.5nm,0.3s,baz=168,slow=5.9,SNR=32 | | | | | | |
| AAK | | | | S | **Sn** | **06 14 39.1** | **-0.1** |
| | 1.7nm,0.3s,baz=326,slow=21,SNR=31 | | | | | | |
| **AAK** | **Ala-Archa** | **5.03** | **18** | ⇑P | **Pn** | **06 13 43.5** | **+1.3** |
| | 4.9nm,0.5s | | | | | | |
| AAK | | | | ⇑S | **Sn** | **06 14 38.8** | **-0.4** |
| | 44nm,0.7s | | | | | | |
| **AAK** | **Ala-Archa** | **5.03** | **18** | P | **Pn** | **06 13 43.6** | **+1.5** |
| | SNR=12 | | | | | | |
| **ULHL** | **Ulahol** | **5.28** | **33** | P | **Pn** | **06 13 46.0** | **+0.3** |
| | SNR=8.7 | | | | | | |
| **KK31** | **Karatay Array** | **5.41** | **345** | ⇑P | **Pn** | **06 13 48.7** | **+1.6** |
| | 12nm,0.3s,baz=151,slow=11,SNR=232 | | | | | | |
| KK31 | | | | S | **Sn** | **06 14 46.1** | **-2.1** |
| | 14nm,0.5s,baz=151,slow=15,SNR=15 | | | | | | |
| **CHMS** | **Chumysh** | **5.43** | **19** | P | **Pn** | **06 13 48.6** | **+1.1** |
| | SNR=5.4 | | | | | | |
| **TKM2** | **Tokmak 2** | **5.61** | **25** | ⇓P | **Pn** | **06 13 52.0** | **+1.9** |
| | 2.5nm,0.8s | | | | | | |
| TKM2 | | | | ⇑S | **Sn** | **06 14 53.3** | **-0.1** |
| | 7.1nm,0.7s | | | | | | |
| **USP** | **Ospenovka** | **5.62** | **16** | P | **Pn** | **06 13 50.9** | **+0.8** |
| | SNR=8.0 | | | | | | |
| **THN** | **Thein Dam** | **6.09** | **152** | *e*P | **Pn** | **06 13 56.5** | **+0.2** |
| THN | | | | *e*P | **Sn** | **06 15 01.0** | **-3.7** |
| **GEYT** | **Alibeck** | **11.26** | **275** | P | **Pn** | **06 15 05.9** | **-0.2** |
| | 0.6nm,0.3s,baz=96,slow=9.6,SNR=6.0 | | | | | | |
| GEYT | | | | S | **Sn** | **06 17 08.9** | **-1.1** |
| | 1.0nm,0.3s,baz=152,slow=13,SNR=4.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **11.54** | **36** | P | **Pn** | **06 15 12.2** | **+2.4** |
| | 0.0nm,0.3s,baz=209,slow=9.4,SNR=2.0 | | | | | | |
| **PYUN** | **Piuthan** | **13.21** | **134** | *e*P | Pn | 06 15 28.4 | -3.5 |
| | 8.5nm,0.3s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **13.48** | **17** | P | **Pn** | **06 15 36.8** | **+1.8** |
| | 0.2nm,0.3s,baz=209,slow=9.5,SNR=3.6 | | | | | | |
| **KOLN** | **Koldanda** | **13.80** | **134** | *e*P | Pn | 06 15 35.3 | -4.3 |
| | 3.9nm,0.3s | | | | | | |
| **AB31** | **Akbulak array** | **14.48** | **326** | ⇓P | **Pn** | **06 15 48.2** | **+0.3** |
| | 1.1nm,0.5s,baz=0.8,slow=28,SNR=32 | | | | | | |
| AB31 | | | | S | **Sn** | **06 18 22.0** | **-5.6** |
| | 1.7nm,0.7s,baz=130,slow=25,SNR=6.6 | | | | | | |
| **GUN** | **Gumba** | **15.07** | **127** | *e*P | **Pn** | **06 15 52.8** | **-3.1** |
| | 4.1nm,0.4s | | | | | | |
| **BVAR** | **Borovoye Array** | **15.21** | **355** | P | **Pn** | **06 15 57.0** | **0.0** |
| | 0.5nm,0.3s,baz=155,slow=9.6,SNR=6.0 | | | | | | |
| **JIRN** | **Jiri** | **15.45** | **127** | *e*P | **Pn** | **06 15 57.0** | **-3.6** |
| | 40nm,0.4s | | | | | | |
| **AKTO** | **Aktyubinsk** | **16.20** | **325** | P | **P** | **06 16 11.2** | **+1.0** |
| | 0.7nm,0.3s,baz=129,slow=6.2,SNR=13 | | | | | | |
| **AKTO** | **Aktyubinsk** | **16.20** | **325** | ⇓P | **P** | **06 16 11.2** | **+1.0** |
| | 2.0nm,0.6s | | | | | | |
| AKTO | | | | ⇑S | **Sn** | **06 19 03.9** | **-5.0** |
| | 2.4nm,1.1s | | | | | | |
| **RAMN** | **Ramite** | **16.21** | **128** | *e*P | Pn | 06 16 03.1 | -6.7 |
| | 5.1nm,0.2s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **18.21** | **24** | P | **P** | **06 16 32.0** | **-0.4** |
| | 0.2nm,0.3s,baz=220,slow=11,SNR=5.5 | | | | | | |
| **TLY** | **Talaya** | **25.91** | **48** | LR | LR | 06 28 28.8 | |
| | comp=Z,39nm,19.5s,baz=6.5,slow=37 | | | | | | |
| **FINES** | **FINESS Array B** | **36.97** | **325** | P | **P** | **06 19 27.8** | **+1.7** |
| | 2.9nm,1.0s,baz=126,slow=10,SNR=3.5 | | | | | | |
| **ARCES** | **ARCESS Array B** | **40.30** | **337** | P | **P** | **06 19 55.4** | **+1.6** |
| | 1.6nm,0.8s,baz=110,slow=8.0,SNR=3.2 | | | | | | |
| **PSI** | **Prapat** | **42.55** | **139** | LR | LR | 06 40 13.4 | |
| | comp=Z,66nm,18.8s,slow=39 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **66.83** | **269** | P | **P** | **06 23 08.3** | **+0.3** |
| | 0.1nm,0.3s,baz=40,slow=6.5,SNR=2.8 | | | | | | |
| **YKA** | **Yellowknife Ar** | **79.82** | **3** | P | **P** | **06 24 24.3** | **+0.8** |
| | 0.1nm,0.4s,baz=351,slow=5.5,SNR=4.4 | | | | | | |

---

**SJA 25 06:17:40.4±0.4, 30.52S×66.65W, h36km±2km, ML3.6, MW4.5, La Rioja Province**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **APLL** | **PUNTA DE LOS L** | **0.16** | **40** | *e*P | Pn | 06 17 47.6 | -3.2 |
| APLL | | | | *e*S | Sn | 06 17 52.7 | -8.1 |
| **ACLC** | **CERRO LA CRUZ** | **1.12** | **346** | *e*P | Pn | 06 18 01.6 | +1.8 |
| ACLC | | | | IAML | | 06 18 26.0 | |
| | comp=Z,1μm,0.2s | | | | | | |
| **AGUA** | **GUANDACOL** | **1.90** | **302** | *e*P | Pn | 06 18 12.3 | +2.0 |
| **AHML** | **Horco Molle** | **3.90** | **18** | *e*P | Pn | 06 18 40.7 | +2.9 |

---

*CASC **25** 06:37:22.2±2.4, 10.84N×86.96W, h0km±15km, MD4.0*
*ISCJB **25** 06:37:24.6±0.4, 10.91N±0.05×86.96W±0.04, h30km, mb4.3/47, MS4.2/4, Error ellipse: s-maj=8.1km s-min=3.3km az=30.2*
*NEIC **25** 06:37:28.1±0.8, 11.04N×86.85W, h35km, mb4.4/42, Error ellipse: s-maj=16.4km s-min=6.6km az=212.0*
*IDC **25** 06:37:31.8±3.5, 11.59N×86.51W, h43km±25km, mb3.7/9, mb1 4.0/11, mb1mx3.7/43, mbtmp4.0/11, ML3.2/2, MS3.5/3, Ms1 3.6/3, ms1mx3.0/35, Error ellipse: s-maj=45.1km s-min=30.2km az=28.0*

**ISC 25 06:37:27.8±0.6, 11.04N±0.07×86.85W±0.06, h30km, n308, σ1.9 18/320, mb4.4/47, MS4.3/4, 1D, Near coast of Nicaragua**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **COPN** | **Copaltepe** | **1.16** | **12** | *e*P | **Pn** | **06 37 48.4** | **+0.5** |
| **MASN** | **Masaya** | **1.16** | **36** | *e*P | **Pb** | **06 37 49.9** | **+0.6** |
| **XAVN** | **Gruta Xavier** | **1.21** | **25** | *e*P | **Pn** | **06 37 49.0** | **+0.3** |
| **TISN** | **Laguna Tiscapa** | **1.23** | **27** | *e*P | **Pn** | **06 37 49.0** | **0.0** |
| **MGAN** | **Managua** | **1.24** | **28** | *e*Pn | **Pn** | **06 37 49.0** | **-0.1** |
| **MGAN** | **Managua** | **1.24** | **28** | *e*P | **Pn** | **06 37 49.3** | **+0.1** |
| **MOMN** | **Momotombo** | **1.39** | **12** | *e*P | **Pn** | **06 37 51.2** | **0.0** |
| **GPS3** | **Bodega del ICE** | **1.48** | **101**⇓ | *e*P | **Pn** | **06 37 50.3** | **-2.2** |
| **VCR** | **Vista de Mar** | **1.50** | **127** | *e*P | Pn | 06 37 48.5 | -4.3 |
| **MESS** | **Mesas** | **1.65** | **100** | *e*P | **Pn** | **06 37 52.4** | **-2.4** |
| MESS | | | | *e*S | **Sn** | **06 38 15.9** | **+0.9** |
| **COLC** | **Colonia** | **1.66** | **103** | *e*P | **Pn** | **06 37 52.7** | **-2.2** |
| COLC | | | | *e*S | **Sb** | **06 38 18.8** | **+0.5** |
| **CRIN** | **San Cristobal** | **1.66** | **353** | *e*P | **Pn** | **06 37 55.2** | **+0.3** |
| **CUI** | **Cuipilapa** | **1.70** | **103** | *e*P | **Pn** | **06 37 53.4** | **-2.0** |
| CUI | | | | *e*S | **Sn** | **06 38 18.5** | **+2.3** |
| **ACON** | **Acoyapa** | **1.88** | **61** | *e*P | **Pn** | **06 37 56.5** | **-1.4** |
| **JTS** | **JuntasAbangare** | **2.01** | **112** | *e*Pn | **Pn** | **06 37 57.9** | **-1.8** |
| **MATN** | **Matagalpa** | **2.08** | **26** | *e*P | **Pn** | **06 38 00.7** | **0.0** |
| **ESTN** | **Estel** | **2.10** | **13** | *e*P | **Pn** | **06 38 01.2** | **+0.2** |
| **ARE1** | **Arenal 1** | **2.17** | **105** | *e*P | **Pn** | **06 38 01.2** | **-0.7** |
| **CGA2** | **Cerro Gallo 2** | **2.55** | **113** | *e*P | **Pn** | **06 38 06.0** | **-1.4** |
| **HDC** | **Heredia** | **2.88** | **111** | *e*Pn | **Pn** | **06 38 13.3** | **+1.5** |
| **LCR2** | **La Lucha 2** | **3.08** | **115** | *e*P | **Pn** | **06 38 13.5** | **-1.2** |
| **URSC** | **Urasca** | **3.25** | **111** | *e*P | **Pn** | **06 38 17.2** | **+0.3** |
| **DRK0** | **Durika** | **3.96** | **116** | *e*P | **Pn** | **06 38 26.3** | **-0.4** |
| **CCIG** | **Comitan** | **7.32** | **316** | *e*Pn | **Pn** | **06 39 12.8** | **-0.1** |
| **SCIG** | **Sabancuy** | **8.92** | **333** | *e*Pn | **Pn** | **06 39 33.5** | **-1.2** |
| **CMIG** | **Matias Romero** | **9.84** | **309** | P | **Pn** | **06 39 49.7** | **+2.3** |
| | 1.0nm,0.3s,baz=108,slow=11,SNR=9.1 | | | | | | |
| **TLIG** | **Tlapa** | **13.07** | **301** | *e*Pn | **Pn** | **06 40 35.4** | **+3.8** |
| **SDV** | **Santo Domingo** | **16.11** | **96** | P | **Pn** | **06 41 11.9** | **-0.6** |
| | 0.2nm,0.3s,baz=294,slow=4.8,SNR=11 | | | | | | |
| **SDV** | **Santo Domingo** | **16.11** | **96** | *e*Pn | **Pn** | **06 41 12.8** | **+0.3** |
| | 10nm,0.9s | | | | | | |
| **ZAIG** | **Zacatecas** | **19.01** | **310** | *e*P | **P** | **06 41 46.5** | **-1.1** |
| | 27nm,1.9s | | | | | | |
| **447A** | **Lucedale** | **19.73** | **355** | P | **Pn** | **06 41 56.1** | **-0.5** |
| | baz=175 | | | | | | |
| **446A** | **Poplarville** | **19.79** | **354** | P | **P** | **06 41 56.8** | **+1.1** |
| | baz=173 | | | | | | |
| **ATAH** | **Atahualpa** | **19.92** | **155** | LR | LR | 06 48 38.2 | |
| | comp=Z,107nm,19.3s,baz=329,slow=33 | | | | | | |
| **442A** | **Mamou** | **20.25** | **346** | P | **P** | **06 42 01.8** | **+1.1** |
| | baz=164 | | | | | | |
| **348A** | **Jackson** | **20.29** | **357** | P | **P** | **06 42 01.5** | **+0.3** |
| | baz=177 | | | | | | |
| **347A** | **Saraland** | **20.32** | **356** | P | **P** | **06 42 02.4** | **+1.0** |
| | baz=175 | | | | | | |
| **345A** | **Thompson Farm,** | **20.38** | **352** | P | **P** | **06 42 03.2** | **+1.1** |
| | baz=171 | | | | | | |
| **346A** | **Big Creek Wild** | **20.39** | **354** | P | **P** | **06 42 03.2** | **+1.0** |
| | baz=173 | | | | | | |
| **441A** | **DeRidder** | **20.47** | **344** | P | **P** | **06 42 03.7** | **+0.5** |
| | baz=162 | | | | | | |
| **TIGA** | **Tifton** | **20.52** | **8** | P | **P** | **06 42 03.9** | **+0.2** |
| | baz=189 | | | | | | |
| **HKT** | **Hockley** | **20.59** | **337** | *e*P | **P** | **06 42 05.5** | **+1.2** |
| | 19nm,1.4s | | | | | | |
| **344A** | **Westbrook Farm** | **20.63** | **351** | P | **P** | **06 42 04.7** | **-0.1** |
| | baz=169 | | | | | | |
| **833A** | **Chaparral WMA,** | **20.83** | **327** | P | **P** | **06 42 07.0** | **0.0** |
| | baz=143 | | | | | | |
| **342A** | **Flagon Creek P** | **20.86** | **347** | P | **P** | **06 42 07.5** | **+0.2** |
| | baz=165 | | | | | | |
| **248A** | **Dixon Mills** | **20.97** | **358** | P | **P** | **06 42 09.4** | **+0.9** |
| | baz=178 | | | | | | |
| **247A** | **Quitman** | **20.97** | **356** | P | **P** | **06 42 09.8** | **+1.3** |
| | baz=175 | | | | | | |
| **341A** | **Kurthwood** | **21.02** | **345** | P | **P** | **06 42 10.3** | **+1.2** |
| | baz=162,SNR=6.6 | | | | | | |
| **245A** | **Little AP, Sta** | **21.08** | **353** | P | **P** | **06 42 10.3** | **+0.6** |
| | baz=172 | | | | | | |
| **244A** | **Avery, Jackson** | **21.20** | **351** | P | **P** | **06 42 12.0** | **+1.0** |
| | baz=170 | | | | | | |
| **242A** | **Grayson** | **21.48** | **348** | P | **P** | **06 42 15.0** | **+0.9** |
| | baz=166 | | | | | | |
| **147A** | **Livingston** | **21.57** | **357** | P | **P** | **06 42 15.2** | **+0.3** |
| | baz=176 | | | | | | |
| **146A** | **Union** | **21.59** | **355** | P | **P** | **06 42 15.4** | **+0.3** |
| | baz=174 | | | | | | |
| **NATX** | **Nacogdoches** | **21.84** | **342** | *e*P | **P** | **06 42 18.9** | **+1.0** |
| | 14nm,1.0s | | | | | | |
| **LRAL** | **Lakeview Retre** | **21.89** | **360** | P | **P** | **06 42 19.4** | **+1.0** |
| | baz=180 | | | | | | |
| **LRAL** | **Lakeview Retre** | **21.89** | **360** | *e*P | **P** | **06 42 19.3** | **+1.0** |
| | 8.9nm,0.9s | | | | | | |
| **435B** | **Jell** | **22.03** | **335** | P | **P** | **06 42 20.8** | **+0.9** |
| | baz=151 | | | | | | |
| **Z49A** | **Columbiana** | **22.05** | **1** | P | **P** | **06 42 21.0** | **+0.9** |
| | baz=181 | | | | | | |
| **Z47A** | **Carrollton** | **22.08** | **357** | P | **P** | **06 42 20.8** | **+0.4** |
| | baz=177 | | | | | | |
| **Z46A** | **Louisville** | **22.13** | **355** | P | **P** | **06 42 22.1** | **+1.1** |
| | baz=175,SNR=5.1 | | | | | | |
| **141A** | **Papa Simpson,** | **22.17** | **346** | P | **P** | **06 42 22.1** | **+0.6** |
| | baz=164 | | | | | | |
| **Z48A** | **Northport** | **22.24** | **358** | P | **P** | **06 42 22.7** | **+0.6** |
| | baz=178 | | | | | | |
| **237A** | **Washetta, Mont** | **22.44** | **340** | P | **P** | **06 42 25.1** | **+0.8** |
| | baz=156 | | | | | | |
| **GOGA** | **Godfrey** | **22.48** | **7** | *e*P | **P** | **06 42 25.3** | **+0.6** |
| | 8.1nm,0.8s | | | | | | |
| **139A** | **Bunkhouse Ranc** | **22.63** | **343** | P | **P** | **06 42 27.3** | **+1.0** |
| | baz=160 | | | | | | |
| **Y49A** | **Blount Mountai** | **22.71** | **1** | P | **P** | **06 42 27.5** | **+0.3** |
| | baz=181 | | | | | | |
| **Y48A** | **Jasper** | **22.77** | **359** | P | **P** | **06 42 28.0** | **+0.3** |
| | baz=179,SNR=8.4 | | | | | | |
| **Y47A** | **UCPARC, Winfie** | **22.77** | **358** | P | **P** | **06 42 27.9** | **+0.1** |
| | baz=178,SNR=9.8 | | | | | | |
| **Z41A** | **Richland Creek** | **22.78** | **347** | P | **P** | **06 42 28.2** | **+0.3** |
| | baz=165 | | | | | | |
| **JCT** | **Junction City** | **22.78** | **330** | P | **P** | **06 42 28.0** | **0.0** |
| | baz=146 | | | | | | |
| **Y46A** | **Houston** | **22.81** | **356** | P | **P** | **06 42 28.5** | **+0.3** |
| | baz=175,SNR=8.0 | | | | | | |
| **138A** | **Matatall Enter** | **22.81** | **342** | P | **P** | **06 42 28.9** | **+0.7** |
| | baz=159,SNR=5.2 | | | | | | |
| **Z40A** | **Long Farm, Mag** | **22.91** | **346** | P | **P** | **06 42 29.6** | **+0.3** |
| | baz=163 | | | | | | |
| **137A** | **Heron Place, G** | **22.97** | **340** | P | **P** | **06 42 30.1** | **+0.3** |
| | baz=157 | | | | | | |
| **WHTX** | **Lake Whitney,** | **23.03** | **336** | P | **P** | **06 42 30.7** | **+0.2** |
| | baz=153,SNR=7.2 | | | | | | |
| **WHTX** | **Lake Whitney,** | **23.03** | **336** | *e*P | **P** | **06 42 30.6** | **0.0** |
| | 10nm,0.6s | | | | | | |
| **136A** | **Ennis** | **23.12** | **339** | P | **P** | **06 42 32.4** | **+1.0** |
| | baz=155,SNR=6.9 | | | | | | |
| **CCAR** | **Cane Creek** | **23.21** | **350** | *e*P | **P** | **06 42 32.3** | **0.0** |
| | 52nm,1.6s | | | | | | |
| **X48A** | **Hartselle** | **23.30** | **360** | P | **P** | **06 42 33.8** | **+0.6** |
| | baz=180 | | | | | | |
| **X50A** | **Fort Payne** | **23.33** | **2** | P | **P** | **06 42 34.1** | **+0.5** |
| | baz=183 | | | | | | |
| **Z38A** | **Mt. Pleasant** | **23.34** | **343** | P | **P** | **06 42 33.9** | **+0.3** |
| | baz=160 | | | | | | |
| **X49A** | **Woodville** | **23.37** | **1** | P | **P** | **06 42 34.4** | **+0.6** |
| | baz=181 | | | | | | |
| **X47A** | **Russelville** | **23.39** | **358** | P | **P** | **06 42 33.8** | **-0.2** |
| | baz=178,SNR=7.1 | | | | | | |
| **X45A** | **UM Field Stati** | **23.39** | **355** | P | **P** | **06 42 34.2** | **+0.1** |
| | baz=174 | | | | | | |
| **X46A** | **Booneville** | **23.46** | **356** | P | **P** | **06 42 34.6** | **-0.1** |
| | baz=176,SNR=7.5 | | | | | | |
| **OXF** | **Oxford** | **23.48** | **355** | P | **P** | **06 42 35.0** | **+0.1** |
| | baz=174 | | | | | | |
| **Z37A** | **Pogue Cattle C** | **23.48** | **341** | P | **P** | **06 42 35.9** | **+0.9** |
| | baz=158 | | | | | | |
| **Y40A** | **Okolona** | **23.61** | **347** | P | **P** | **06 42 36.5** | **+0.3** |
| | baz=164 | | | | | | |
| **Y39A** | **Locesburg** | **23.73** | **345** | P | **P** | **06 42 37.7** | **+0.3** |
| | baz=162 | | | | | | |
| **X42A** | **Stuttgart** | **23.80** | **350** | P | **P** | **06 42 37.8** | **-0.3** |
| | baz=168 | | | | | | |
| **Z36A** | **Blue Ridge** | **23.81** | **340** | P | **P** | **06 42 38.8** | **+0.6** |
| | baz=156 | | | | | | |
| **PLAL** | **Pickwick Lake** | **23.86** | **358** | *e*P | **P** | **06 42 38.5** | **0.0** |
| **X41A** | **Kaden, Bauxite** | **23.91** | **348** | P | **P** | **06 42 38.8** | **-0.2** |
| | baz=166 | | | | | | |
| **X40A** | **Basin Creek Fa** | **23.97** | **348** | P | **P** | **06 42 40.4** | **+0.7** |
| | baz=166 | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **24.03** | **322** | *e*P | **P** | **06 42 41.3** | **+0.8** |
| **TXAR** | **Lajitas Array** | **24.03** | **322** | P | **P** | **06 42 40.9** | **+0.5** |
| | 3.5nm,0.8s,baz=135,slow=9.9,SNR=38 | | | | | | |
| TXAR | | | | | PcP | **PcP** | **06 46 24.3** | **+2.4** |
| | 0.9nm,0.9s,baz=132,slow=4.2,SNR=6.2 | | | | | | |
| **W45A** | **Hickory Valley** | **24.10** | **355** | P | **P** | **06 42 39.9** | **-0.9** |
| | baz=174 | | | | | | |
| **BG3** | **Lake Jocassee** | **24.11** | **8** | *e*P | **P** | **06 42 40.7** | **-0.2** |
| | 8.3nm,0.8s | | | | | | |
| **W44A** | **Shelby Farms P** | **24.14** | **354** | P | **P** | **06 42 41.9** | **+0.7** |
| | baz=173 | | | | | | |
| **MIAR** | **Mount Ida** | **24.19** | **346** | P | **P** | **06 42 41.7** | **0.0** |
| | baz=164 | | | | | | |
| **MIAR** | **Mount Ida** | **24.19** | **346** | *e*P | **P** | **06 42 41.5** | **-0.1** |
| | 6.1nm,0.8s | | | | | | |
| MIAR | | | | *e*pP | **sP** | **06 42 57.5** | **+3.5** |
| **Y37A** | **Hugo** | **24.20** | **342** | P | **P** | **06 42 42.6** | **+0.8** |
| | baz=159,SNR=9.3 | | | | | | |
| **X39A** | **Fountain Ranch** | **24.28** | **345** | P | **P** | **06 42 42.5** | **-0.1** |
| | baz=162 | | | | | | |
| **Y36A** | **Durant** | **24.34** | **341** | P | **P** | **06 42 43.5** | **+0.5** |
| | baz=157,SNR=5.0 | | | | | | |
| **CPCT** | **Cooper Cave** | **24.39** | **5** | *e*P | **P** | **06 42 43.6** | **+0.1** |
| | 12nm,0.7s | | | | | | |
| **ABTX** | **Abilene, Hawle** | **24.50** | **333** | P | **P** | **06 42 44.1** | **-0.5** |
| | baz=148 | | | | | | |
| **ABTX** | **Abilene, Hawle** | **24.50** | **333** | *e*P | **P** | **06 42 43.4** | **-1.2** |
| | 5.3nm,0.9s | | | | | | |
| **KMSC** | **Kings Mountain** | **24.51** | **11** | P | **P** | **06 42 44.7** | **+0.1** |
| | baz=193 | | | | | | |
| **W41B** | **Gary Mavity, V** | **24.52** | **349** | P | **P** | **06 42 44.1** | **-0.5** |
| | baz=167 | | | | | | |
| **V48A** | **Smith Brothers** | **24.59** | **0** | P | **P** | **06 42 45.6** | **+0.3** |
| | baz=180 | | | | | | |
| **Y35A** | **Marietta** | **24.59** | **339** | P | **P** | **06 42 46.2** | **+0.8** |
| | baz=155,SNR=8.5 | | | | | | |
| **X38A** | **Whitesboro** | **24.62** | **344** | P | **P** | **06 42 45.5** | **-0.1** |
| | baz=161 | | | | | | |
| **V45A** | **Humboldt** | **24.66** | **356** | P | **P** | **06 42 45.8** | **-0.1** |
| | baz=175 | | | | | | |
| **TKL** | **Tuckaleechee C** | **24.66** | **6** | P | **P** | **06 42 44.9** | **-1.1** |
| | 4.8nm,0.7s,baz=191,slow=8.5,SNR=7.8 | | | | | | |
| **X37A** | **Clayton** | **24.70** | **343** | P | **P** | **06 42 46.3** | **0.0** |
| | baz=160,SNR=6.1 | | | | | | |
| **X37A** | **Clayton** | **24.70** | **343** | *e*P | **P** | **06 42 46.4** | **+0.2** |
| | 7.6nm,0.6s | | | | | | |
| **W40A** | **Ferguson Farm,** | **24.70** | **348** | P | **P** | **06 42 45.7** | **-0.6** |
| | baz=165 | | | | | | |
| **W39A** | **Magazine** | **24.86** | **346** | P | **P** | **06 42 47.6** | **-0.1** |
| | baz=164 | | | | | | |
| **V43A** | **Jonesboro** | **24.86** | **353** | P | **P** | **06 42 47.5** | **-0.2** |
| | baz=171 | | | | | | |
| **W38A** | **Poteau** | **24.92** | **345** | P | **P** | **06 42 48.3** | **+0.1** |
| | baz=162,SNR=6.5 | | | | | | |
| **X36A** | **Centrahoma** | **24.97** | **341** | P | **P** | **06 42 48.9** | **+0.1** |
| | baz=158,SNR=12 | | | | | | |
| **V42A** | **Cord** | **24.99** | **351** | P | **P** | **06 42 49.2** | **+0.3** |
| | baz=169 | | | | | | |
| **X35A** | **Drake** | **25.02** | **340** | P | **P** | **06 42 49.4** | **+0.2** |
| | baz=156 | | | | | | |
| **X35A** | **Drake** | **25.02** | **340** | *e*P | **P** | **06 42 51.1** | **+1.9** |
| | 11nm,0.8s | | | | | | |
| **V41A** | **Mountainview** | **25.10** | **350** | P | **P** | **06 42 49.0** | **-1.0** |
| | baz=168,SNR=7.0 | | | | | | |
| **W37B** | **Quinton** | **25.23** | **343** | P | **P** | **06 42 50.7** | **-0.4** |
| | baz=160,SNR=6.9 | | | | | | |
| **W37B** | **Quinton** | **25.23** | **343** | *e*P | **P** | **06 42 50.4** | **-0.7** |
| | 27nm,1.4s | | | | | | |
| **U46A** | **Springville** | **25.23** | **357** | P | **P** | **06 42 50.4** | **-0.7** |
| | baz=177 | | | | | | |
| **V40A** | **Witts Springs** | **25.24** | **349** | P | **P** | **06 42 50.4** | **-0.8** |
| | baz=166,SNR=6.6 | | | | | | |
| **U45A** | **Rockin P Farm,** | **25.25** | **356** | P | **P** | **06 42 52.0** | **+0.7** |
| | baz=176 | | | | | | |
| **U44B** | **Burton Farm, H** | **25.29** | **355** | P | **P** | **06 42 51.5** | **-0.1** |
| | baz=174 | | | | | | |
| **U47A** | **Clarksville** | **25.29** | **359** | P | **P** | **06 42 50.7** | **-0.9** |
| | baz=179 | | | | | | |
| **U43A** | **Rector** | **25.42** | **353** | P | **P** | **06 42 53.0** | **+0.2** |
| | baz=172 | | | | | | |
| **V39A** | **Pettigrew** | **25.44** | **347** | P | **P** | **06 42 52.8** | **-0.3** |
| | baz=164,SNR=6.1 | | | | | | |
| **W36A** | **Wetumka** | **25.46** | **342** | P | **P** | **06 42 53.0** | **-0.2** |
| | baz=158 | | | | | | |
| **W36A** | **Wetumka** | **25.46** | **342** | *e*P | **P** | **06 42 52.8** | **-0.4** |
| | 47nm,1.8s | | | | | | |
| **U42A** | **Revenden** | **25.51** | **352** | P | **P** | **06 42 52.5** | **-1.1** |
| | baz=170 | | | | | | |
| **U41A** | **Viola** | **25.60** | **350** | P | **P** | **06 42 54.2** | **-0.3** |
| | baz=168 | | | | | | |
| **V38A** | **Canehill** | **25.64** | **346** | P | **P** | **06 42 54.2** | **-0.6** |
| | baz=163 | | | | | | |
| **W35A** | **Tecumseh** | **25.68** | **341** | P | **P** | **06 42 54.6** | **-0.6** |
| | baz=157 | | | | | | |
| **U40A** | **Yellville** | **25.78** | **349** | P | **P** | **06 42 55.5** | **-0.6** |
| | baz=166,SNR=5.5 | | | | | | |
| **PBMO** | **Poplar Bluff** | **25.83** | **353** | *e*P | **P** | **06 42 55.8** | **-0.7** |
| | 14nm,1.5s | | | | | | |
| **T47A** | **Sharon Grove** | **25.83** | **360** | P | **P** | **06 42 55.8** | **-0.7** |
| | baz=179 | | | | | | |
| **V37A** | **Hulbert** | **25.85** | **344** | P | **P** | **06 42 56.2** | **-0.5** |
| | baz=161,SNR=5.9 | | | | | | |
| **T46A** | **Princeton** | **25.90** | **358** | P | **P** | **06 42 56.4** | **-0.8** |
| | baz=178 | | | | | | |
| **U39A** | **Green Forest** | **25.93** | **348** | P | **P** | **06 42 56.8** | **-0.6** |
| | baz=165 | | | | | | |
| **HHAR** | **Hobbs** | **25.93** | **347** | *e*P | **P** | **06 42 57.2** | **-0.3** |
| | 18nm,1.7s | | | | | | |
| **OK022** | **N3560 Road, Pr** | **25.96** | **341** | *e*P | **P** | **06 42 57.4** | **-0.4** |
| | 9.0nm,0.8s | | | | | | |
| **WMOK** | **Wichita Mounta** | **25.98** | **337** | P | **P** | **06 42 58.4** | **+0.5** |
| | baz=152,SNR=12 | | | | | | |
| **WMOK** | **Wichita Mounta** | **25.98** | **337** | *e*P | **P** | **06 42 58.8** | **+0.9** |
| | 8.2nm,0.8s | | | | | | |
| **V36A** | **Jenks** | **25.98** | **343** | P | **P** | **06 42 57.7** | **-0.2** |
| | baz=159 | | | | | | |
| **V36A** | **Jenks** | **25.98** | **343** | *e*P | **P** | **06 42 56.9** | **-1.0** |
| | 7.6nm,0.8s | | | | | | |
| **OK020** | **N3440 Road, Me** | **26.03** | **341** | *e*P | **P** | **06 42 58.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **R47A** | **Wooly Knot Far** baz=181 | 27.14 | 1 | P | | **P** | 06 43 07.8 | -0.5 |
| **T36A** | **Boggs Farm, Ca** baz=160,SNR=8.8 | 27.15 | 344 | P | | **P** | 06 43 07.7 | -0.8 |
| **R44A** | **Waltonville** baz=175 | 27.16 | 356 | P | | **P** | 06 43 07.7 | -0.8 |
| **R45A** | **Skylar, Fairfi** baz=177 | 27.16 | 358 | P | | **P** | 06 43 07.8 | -0.8 |
| **S39A** | **Bolivar** baz=166,SNR=8.0 | 27.16 | 349 | P | | **P** | 06 43 07.5 | -1.0 |
| **CCM** | **Cathedral Cave** baz=171 | 27.18 | 352 | P | | **P** | 06 43 07.9 | -0.9 |
| **CCM** | **Cathedral Cave** 25nm,0.7s | 27.18 | 352 | *e*P | | **P** | 06 43 06.6 | -2.1 |
| **T35A** | **Sooner Cattle** baz=159 | 27.20 | 343 | P | | **P** | 06 43 08.1 | -0.8 |
| **S38A** | **Stockton** baz=165 | 27.22 | 348 | P | | **P** | 06 43 08.9 | -0.3 |
| **R43A** | **Red Bud** baz=173 | 27.26 | 355 | P | | **P** | 06 43 09.3 | -0.1 |
| **AMTX** | **Amarillo** baz=147 | 27.31 | 333 | P | | **P** | 06 43 09.3 | -0.7 |
| **AMTX** | **Amarillo** 35nm,1.9s | 27.31 | 333 | *e*P | | **P** | 06 43 09.6 | -0.4 |
| **U32A** | **Winter Ranch,** baz=154 | 27.52 | 338 | P | | **P** | 06 43 10.8 | -1.0 |
| **S37A** | **Fort Scott** baz=163,SNR=5.3 | 27.55 | 346 | P | | **P** | 06 43 11.5 | -0.5 |
| **R40A** | **Maddies Statio** baz=168 | 27.56 | 351 | P | | **P** | 06 43 11.6 | -0.5 |
| **S36A** | **Lake Cedric, C** baz=161,SNR=11 | 27.70 | 345 | P | | **P** | 06 43 12.3 | -1.1 |
| **R39A** | **Chumby, Stover** baz=167 | 27.71 | 349 | P | | **P** | 06 43 12.5 | -1.0 |
| **R38A** | **Fenwick Farm,** baz=165 | 27.76 | 348 | P | | **P** | 06 43 13.0 | -0.9 |
| **Q45A** | **Warren Harvey,** baz=177 | 27.76 | 358 | P | | **P** | 06 43 13.2 | -0.6 |
| **Q47A** | **Bedord North L** baz=181 | 27.78 | 1 | P | | **P** | 06 43 13.3 | -0.7 |
| **Q44A** | **Meyer Farm, Va** baz=175 | 27.81 | 356 | P | | **P** | 06 43 13.5 | -0.8 |
| **S35A** | **Otter Creek Ra** baz=160,SNR=6.9 | 27.86 | 344 | P | | **P** | 06 43 14.2 | -0.6 |
| **Q46A** | **CEJHS Indians,** baz=179 | 27.87 | 359 | P | | **P** | 06 43 14.1 | -0.8 |
| **Q41A** | **Truxton** baz=171 | 28.07 | 353 | P | | **P** | 06 43 15.9 | -0.7 |
| **Q40A** | **Laux Farm, Aux** baz=169 | 28.22 | 351 | P | | **P** | 06 43 17.1 | -0.9 |
| **R36A** | **Gordon, Harris** baz=162 | 28.25 | 346 | P | | **P** | 06 43 17.3 | -1.0 |
| **Q39A** | **Willow Grove F** baz=167 | 28.42 | 350 | P | | **P** | 06 43 19.1 | -0.7 |
| **Q38A** | **Cooks Store, C** baz=166 | 28.45 | 349 | P | | **P** | 06 43 19.3 | -0.8 |
| **Q37A** | **Longview Farm,** baz=164 | 28.54 | 348 | P | | **P** | 06 43 20.3 | -0.5 |
| **R34A** | **Isabella, Hill** baz=158 | 28.70 | 343 | P | | **P** | 06 43 21.9 | -0.4 |
| **Q36A** | **Arnold C. Orve** baz=162 | 28.84 | 346 | P | | **P** | 06 43 22.9 | -0.7 |
| **Q35A** | **Mercer Eighty,** baz=161 | 28.89 | 345 | P | | **P** | 06 43 23.6 | -0.4 |
| **O44A** | **Mansfield** baz=177 | 29.03 | 357 | P | | **P** | 06 43 25.3 | +0.2 |
| **P38A** | **Dawn** baz=166 | 29.08 | 349 | P | | **P** | 06 43 24.8 | -0.8 |
| **O47A** | **Sheridan** baz=181 | 29.08 | 1 | P | | **P** | 06 43 24.8 | -0.8 |
| **O45A** | **Potomac** baz=178 | 29.10 | 359 | P | | **P** | 06 43 25.2 | -0.6 |
| **O41A** | **Passleys Farm,** baz=172 | 29.18 | 354 | P | | **P** | 06 43 25.8 | -0.7 |
| **Q34A** | **Chapman** baz=159 | 29.19 | 344 | P | | **P** | 06 43 26.2 | -0.5 |
| **KSU1** | **Kansas State U** baz=160 | 29.27 | 344 | P | | **P** | 06 43 26.8 | -0.5 |
| **HDIL** | **Hopedale** baz=175 | 29.47 | 356 | P | | **P** | 06 43 28.8 | -0.3 |
| **P35A** | **Duane Minner,** baz=162 | 29.52 | 346 | P | | **P** | 06 43 29.2 | -0.4 |
| **N45A** | **Kentland** baz=179 | 29.69 | 359 | P | | **P** | 06 43 30.9 | -0.2 |
| **P34A** | **Walnut Farm, R** baz=160 | 29.74 | 344 | P | | **P** | 06 43 31.1 | -0.5 |
| **ANMO** | **Albuquerque** 1.0nm,0.7s,baz=328,slow=6.9,SNR=5.5 | 29.75 | 326 | P | | **P** | 06 43 32.4 | +0.5 |
| **ANMO** | **Albuquerque** baz=138 | 29.75 | 326 | P | | **P** | 06 43 31.4 | -0.5 |
| **N40A** | **Mertquake, Sal** baz=171 | 30.02 | 353 | P | | **P** | 06 43 33.4 | -0.5 |
| **O56A** | **Blue Knob Stat** baz=196 | 30.02 | 13 | P | | **P** | 06 43 33.6 | -0.4 |
| **N37A** | **Lee Faris, Mou** baz=166 | 30.30 | 349 | P | | **P** | 06 43 35.9 | -0.6 |
| **O34A** | **Beatrice** baz=161 | 30.30 | 345 | P | | **P** | 06 43 36.0 | -0.5 |
| **O33A** | **Hebron** baz=159,SNR=7.5 | 30.44 | 344 | P | | **P** | 06 43 37.6 | -0.2 |
| **SSPA** | **Standing Stone** 23nm,0.7s | 30.52 | 13 | *e*P | | **P** | 06 43 37.9 | -0.5 |
| **N35A** | **Tabor** baz=163 | 30.70 | 347 | P | | **P** | 06 43 39.5 | -0.5 |
| **N34A** | **Lincoln** baz=161 | 30.88 | 346 | P | | **P** | 06 43 41.2 | -0.4 |
| **M35A** | **Neola** baz=163,SNR=6.1 | 31.29 | 347 | P | | **P** | 06 43 44.5 | -0.7 |
| **N59A** | **State Game Lan** baz=201 | 31.32 | 16 | P | | **P** | 06 43 45.6 | +0.1 |
| **SDCO** | **Great Sand Dun** baz=143 | 31.42 | 331 | P | | **P** | 06 43 46.1 | -0.7 |
| **SDCO** | **Great Sand Dun** 2.2nm,0.8s | 31.42 | 331 | *e*P | | **P** | 06 43 47.8 | +1.1 |
| **L38A** | **Oak Wood Farm,** baz=168 | 31.44 | 351 | P | | **P** | 06 43 45.5 | -1.0 |
| **K42A** | **Prairie Point,** baz=175 | 31.69 | 356 | P | | **P** | 06 43 47.9 | -0.8 |
| **M33A** | **Taylor Creek F** baz=160 | 31.74 | 345 | P | | **P** | 06 43 48.0 | -1.2 |
| **BGNE** | **Belgrade** baz=159 | 31.84 | 344 | P | | **P** | 06 43 49.3 | -0.7 |
| **K39A** | **Oelwein** baz=171 | 31.85 | 353 | P | | **P** | 06 43 48.9 | -1.2 |
| **L35A** | **Bielow Farm, R** baz=164 | 31.87 | 348 | P | | **P** | 06 43 49.2 | -1.1 |
| **JFWS** | **Jewell Farm** baz=174 | 31.89 | 355 | P | | **P** | 06 43 49.3 | -1.1 |
| **K38A** | **Parkersburg** baz=169 | 31.91 | 352 | P | | **P** | 06 43 49.4 | -1.1 |
| **L34A** | **Svendsen Farm,** baz=162 | 31.92 | 346 | P | | **P** | 06 43 49.6 | -1.1 |
| **S22A** | **4UR Ranch, Cre** baz=141 | 32.07 | 329 | P | | **P** | 06 43 51.5 | -0.9 |
| **K37A** | **Belmond** baz=167,SNR=5.1 | 32.15 | 351 | P | | **P** | 06 43 51.7 | -1.0 |
| **K36A** | **Gilmore City** baz=166 | 32.17 | 349 | P | | **P** | 06 43 51.7 | -1.2 |
| **J41A** | **Loganville** baz=174 | 32.32 | 356 | P | | **P** | 06 43 52.9 | -1.3 |
| **J40A** | **Soldiers Grove** baz=173 | 32.41 | 355 | P | | **P** | 06 43 53.7 | -1.3 |
| **J36A** | **Seneca 1, Swea** baz=166 | 32.82 | 350 | P | | **P** | 06 43 57.6 | -1.0 |
| **LPAZ** | **La Paz** comp=Z,51nm,19.0s,baz=34,slow=36 | 32.87 | 145 | LR | | LR | 06 57 30.7 | |
| **I39A** | **Houston** baz=172 | 32.94 | 354 | P | | **P** | 06 43 58.0 | -1.6 |
| **I41A** | **Arkdale** baz=175 | 33.00 | 356 | P | | **P** | 06 43 58.9 | -1.3 |
| **I37A** | **Lemond, Waseca** baz=168 | 33.34 | 351 | P | | **P** | 06 44 01.6 | -1.5 |
| **ECSD** | **EROS Data Cent** baz=163 | 33.65 | 347 | P | | **P** | 06 44 04.3 | -1.5 |
| **ECSD** | **EROS Data Cent** 32nm,1.9s | 33.65 | 347 | *e*P | | **P** | 06 44 04.4 | -1.4 |
| **H36A** | **Jessenland, He** baz=168 | 33.97 | 351 | P | | **P** | 06 44 07.5 | -1.1 |
| **G40A** | **Rib Lake** baz=174 | 34.23 | 356 | P | | **P** | 06 44 09.2 | -1.6 |
| **H35A** | **Sunnyside Ranc** baz=166 | 34.23 | 350 | P | | **P** | 06 44 09.4 | -1.5 |
| **G38A** | **Ridgeland** baz=171 | 34.28 | 354 | P | | **P** | 06 44 09.7 | -1.6 |
| **G39A** | **Holcombe** baz=172,SNR=5.8 | 34.32 | 355 | P | | **P** | 06 44 10.4 | -1.3 |
| **SPMN** | **Marine on St.** baz=170 | 34.44 | 353 | P | | **P** | 06 44 11.1 | -1.6 |
| **SPMN** | **Marine on St.** 16nm,1.1s | 34.44 | 353 | *e*P | | **P** | 06 44 11.1 | -1.6 |
| **F45A** | **CMU Biological** baz=182 | 34.54 | 2 | P | | **P** | 06 44 13.8 | +0.3 |
| **H32A** | **Carlson Farm,** baz=162 | 34.57 | 347 | P | | **P** | 06 44 12.8 | -1.0 |
| **O20A** | **White River Ci** baz=141 | 34.62 | 331 | P | | **P** | 06 44 14.0 | -0.5 |
| **SRU** | **San Rafael Swe** 5.3nm,1.1s | 35.01 | 327 | *e*P | | **P** | 06 44 19.1 | +1.2 |
| **G33A** | **Ortonville** baz=164 | 35.01 | 348 | P | | **P** | 06 44 16.3 | -1.4 |
| **F38A** | **Pierce - Schro** baz=171 | 35.06 | 354 | P | | **P** | 06 44 16.4 | -1.6 |
| **F36A** | **Milaca** baz=169 | 35.16 | 352 | P | | **P** | 06 44 17.2 | -1.7 |
| **P17A** | **Butcher Ranch,** 4.1nm,0.9s | 35.39 | 327 | *e*P | | **P** | 06 44 21.9 | +0.8 |
| **F33A** | **5 Mile Ranch,** baz=164 | 35.60 | 349 | P | | **P** | 06 44 21.1 | -1.5 |
| **D33A** | **AnnSam, Waubun** baz=165 | 36.77 | 350 | P | | **P** | 06 44 31.4 | -1.3 |
| **TPNV** | **Topopah Spring** baz=127 | 36.96 | 319 | P | | **P** | 06 44 34.4 | -0.2 |
| **C35A** | **Jirik Farms, M** baz=168 | 37.03 | 352 | P | | **P** | 06 44 33.1 | -1.8 |
| **BW06** | **Boulder Array** baz=141 | 37.28 | 332 | P | | **P** | 06 44 36.4 | -1.0 |
| **PDAR** | **Pinedale Array** 0.9nm,0.6s,baz=122,slow=9.4,SNR=13 | 37.28 | 332 | P | | **P** | 06 44 37.1 | -0.3 |
| **R11A** | **Troy Canyon, C** baz=129 | 37.40 | 322 | P | | **P** | 06 44 37.7 | -0.7 |
| **CWC** | **Cottonwood Cre** baz=124 | 37.87 | 317 | P | | **P** | 06 44 41.0 | -1.4 |
| **B34A** | **Aery, Baudette** baz=168 | 37.89 | 352 | P | | **P** | 06 44 40.5 | -1.6 |
| **AGMN** | **Agassiz Nation** baz=166 | 37.90 | 350 | P | | **P** | 06 44 40.9 | -1.3 |
| **AGMN** | **Agassiz Nation** 6.9nm,0.8s | 37.90 | 350 | *e*P | | **P** | 06 44 40.8 | -1.4 |
| **AHID** | **Auburn Hatcher** 3.0nm,0.8s | 38.01 | 331 | *e*P | | **P** | 06 44 42.3 | -1.2 |
| AHID | | | | *e*pP | | **sP** | 06 44 59.2 | +3.2 |
| **B32A** | **Ashes, Strandq** baz=164,SNR=9.6 | 38.11 | 350 | P | | **P** | 06 44 42.7 | -1.2 |
| **REDW** | **Red Top Meadow** 4.7nm,0.8s | 38.35 | 331 | *e*P | | **P** | 06 44 45.6 | -0.7 |
| **SNOW** | **Snow King Moun** 5.7nm,0.8s | 38.38 | 332 | *e*P | | **P** | 06 44 47.1 | +0.5 |
| **A33A** | **Warroad** baz=166,SNR=7.7 | 38.44 | 351 | P | | **P** | 06 44 45.4 | -1.3 |
| **TPAW** | **Teton Pass** 4.1nm,1.0s | 38.49 | 331 | *e*P | | **P** | 06 44 47.5 | -0.1 |
| **A32A** | **Rocking H Ranc** baz=165 | 38.60 | 350 | P | | **P** | 06 44 46.4 | -1.7 |
| **NVAR** | **Mina Array Bea** 0.7nm,0.7s,baz=134,slow=6.4,SNR=7.6 | 39.15 | 320 | P | | **P** | 06 44 54.8 | +1.7 |
| NVAR | | | | PcP | | **PcP** | 06 47 04.0 | +1.7 |
| | 1.0nm,0.8s,baz=134,slow=4.4,SNR=6.1 | | | | | | | |
| NVAR | | | | LR | | LR | 07 02 11.1 | |
| | comp=Z,154nm,18.4s,baz=35,slow=38 | | | | | | | |
| **ULM** | **Lac du Bonnet** 5.5nm,0.8s,baz=153,slow=9.1,SNR=8.6 | 39.79 | 351 | P | | **P** | 06 44 55.5 | -2.6 |
| **ULM** | **Lac du Bonnet** 5.7nm,0.8s | 39.79 | 351 | *e*P | | **P** | 06 44 56.1 | -2.0 |
| ULM | | | | *e*pP | | **sP** | 06 45 13.0 | +2.4 |
| **HLID** | **Hailey** baz=135 | 40.24 | 329 | P | | **P** | 06 45 01.2 | -0.9 |
| **BOZ** | **Bozeman (W)** baz=141 | 40.42 | 333 | P | | **P** | 06 45 04.0 | +0.5 |
| **BOZ** | **Bozeman (W)** 4.6nm,0.9s | 40.42 | 333 | *e*P | | **P** | 06 45 02.1 | -1.5 |
| BOZ | | | | *e*S | | **S** | 06 51 06.8 | -3.3 |
| **YKA** | **Yellowknife Ar** 0.5nm,0.8s,baz=138,slow=7.5,SNR=11 | 55.12 | 345 | P | | **P** | 06 46 55.5 | -1.4 |
| YKA | | | | ScP | | **ScP** | 06 51 53.3 | -1.4 |
| | 0.2nm,0.6s,baz=130,slow=2.3,SNR=4.9 | | | | | | | |
| **INK** | **Inuvik** 1.4nm,0.9s,baz=131,slow=6.5,SNR=5.1 | 64.72 | 343 | P | | **P** | 06 48 02.2 | -0.5 |
| **ILAR** | **Eielson Array** 0.6nm,1.0s,baz=132,slow=5.3,SNR=5.2 | 67.54 | 336 | P | | **P** | 06 48 20.0 | -1.0 |
| **WMQ** | **Urumqi** | 125.17 | 5 | P | | **PKPdf** | 06 56 26.0 | +0.2 |
| **HHC** | **Hu-ho-hao-te** | 125.63 | 343 | *e*PKP | | **PKPdf** | 06 56 26.5 | -0.3 |
| HHC | | | | PP | | **PP** | 06 58 21.0 | +3.7 |
| HHC | | | | SKS | | **SKSdf** | 07 03 33.5 | -3.4 |
| HHC | | | | SKKS | | **SKKSac** | 07 05 09.0 | -5.9 |
| **HHC** | **Hu-ho-hao-te** | 125.63 | 343 | SS | | SS | 07 15 13.5 | -0.8 |
| HHC | | | | AMB | | AMB | | |
| | comp=Z,19nm,5.4s | | | | | | | |
| HHC | | | | LR | | LR | | |
| | comp=N,190nm,18.2s | | | | | | | |
| HHC | | | | LR | | LR | | |
| | comp=E,330nm,19.2s | | | | | | | |
| HHC | | | | LR | | LR | | |
| | comp=Z,150nm,19.2s | | | | | | | |
| **KSH** | **Kashi** | 127.22 | 17 | *e*PKP | | **PKPdf** | 06 56 29.8 | -0.1 |
| KSH | | | | sPKP | | | 06 56 43.5 | |
| KSH | | | | PP | | **PP** | 06 58 31.5 | +3.6 |
| KSH | | | | PKS | | **PKSdf** | 07 00 04.5 | -2.2 |
| KSH | | | | SKS | | **SKSdf** | 07 03 35.5 | -4.5 |
| KSH | | | | SKKS | | **SKKSac** | 07 05 19.3 | -5.7 |
| **KSH** | **Kashi** | 127.22 | 17 | SS | | SS | 07 15 34.3 | +0.1 |
| KSH | | | | AMB | | AMB | | |
| | comp=Z,160nm,5.1s | | | | | | | |
| KSH | | | | LR | | LR | | |
| | comp=N,73nm,3.5s | | | | | | | |
| KSH | | | | LR | | LR | | |
| | comp=E,33nm,3.6s | | | | | | | |
| KSH | | | | LR | | LR | | |
| | comp=Z,540nm,6.1s | | | | | | | |
| **LZH** | **Lanzhou** | 132.05 | 348 | *e*PKP | | **PKPdf** | 06 56 36.8 | -2.5 |
| LZH | | | | pPKP | | pPKPdf | 06 56 47.5 | -1.7 |
| LZH | | | | sPKP | | | 06 56 51.3 | |
| LZH | | | | LR | | LR | | |
| | comp=N,97nm,18.1s | | | | | | | |
| LZH | | | | LR | | LR | | |
| | comp=E,100nm,17.9s | | | | | | | |
| LZH | | | | LR | | LR | | |
| | comp=Z,140nm,20.0s | | | | | | | |
| **ASAR** | **Alice Springs** comp=Z,0.4nm,0.8s,baz=88,slow=1.9,SNR=3.4 | 139.28 | 247 | PKP | | **PKPdf** | 06 56 55.4 | +2.6 |
| **WRA** | **Warramunga Arr** comp=Z,0.5nm,0.8s,baz=103,slow=0.9,SNR=3.3 | 139.43 | 252 | PKP | | **PKPdf** | 06 56 53.4 | +0.2 |

**MEX 25 07:07:35.5±0.4, 16.49N×98.43W, h29km±5km, MD3.7, 1C, Near coast of Guerrero**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **PNIG** | **Pinotepa** | 0.31 | 108 | *i* P | | Pb | 07 07 41.5 | -1.5 |
| PNIG | | | | *i* S | | Sb | 07 07 46.7 | -1.4 |
| **TLIG** | **Tlapa** | 1.08 | 353 | *e*P | | Pn | 07 07 52.2 | -2.6 |
| TLIG | | | | *e*S | | Sn | 07 08 05.4 | -3.4 |
| **VHO** | **Vista Hermosa** | 1.73 | 70 | *e*P | | Pn | 07 08 01.5 | -2.2 |
| VHO | | | | *e*S | | Sn | 07 08 22.4 | -2.5 |
| **MEIG** | **Mezcala** | 1.83 | 322 | *e*P | | Pn | 07 08 03.0 | -2.0 |
| MEIG | | | | *e*S | | Sn | 07 08 25.1 | -2.2 |
| **CAIG** | **El Cayaco** | 1.85 | 288⇑ | *e*P | | Pn | 07 08 03.0 | -2.2 |
| CAIG | | | | *i* S | | Sn | 07 08 24.6 | -3.0 |
| **ARIG** | **Puente Sto Nin** | 2.56 | 315 | *e*P | | Pn | 07 08 12.7 | -2.3 |
| ARIG | | | | *i* S | | Sn | 07 08 43.3 | -1.9 |

*IDC **25** 07:09:10.9±5.4, 55.84N×167.43W, h0km, mb3.3/3, mb1 3.7/6, mb1mx3.3/51, mbtmp3.4/6, ML3.4/2, MS3.9/1, Ms1 3.9/1, ms1mx2.8/19, Error ellipse: s-maj=88.6km s-min=42.7km az=90.0*
*NEIC **25** 07:09:13.7±0.0, 56.39N×166.96W, h21km, ML3.5(AEIC), After AEIC.*

**ISC 25 07:09:11.6±2.0, 56.09N±0.08×167.58W±0.08, h4km±18km, n25, σ0.93/30, mb3.1/3, Pribilof Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **SPIA** | **Saint Paul Isl** | 1.83 | 308 | P | | **Pb** | 07 09 45.9 | +0.1 |
| SPIA | | | | S | | **Sb** | 07 10 09.1 | +0.1 |
| **AKGG** | **Akutan Green G** | 2.10 | 154 | P | | **Pb** | 07 09 50.4 | +0.1 |
| AKGG | | | | S | | **Sg** | 07 10 20.3 | +1.3 |
| **AKRB** | **Akutan Reef Bi** | 2.14 | 155 | P | | **Pg** | 07 09 52.0 | -0.7 |
| AKRB | | | | S | | **Sg** | 07 10 21.1 | +0.6 |
| **MCIR** | **Makushin Cirqu** | 2.18 | 169 | P | | **Pg** | 07 09 53.3 | 0.0 |
| **MTBL** | **Makushin Table** | 2.18 | 166 | P | | **Pg** | 07 09 53.3 | -0.2 |
| **AKUT** | **Akutan** | 2.21 | 151 | P | | **Pb** | 07 09 51.6 | -0.6 |
| **MSW** | **Makushin Switc** | 2.22 | 168 | P | | **Pg** | 07 09 53.0 | -1.2 |
| MSW | | | | S | | **Sg** | 07 10 23.8 | +0.8 |
| **AKSA** | **Akutan Strait** | 2.23 | 150 | P | | **Pb** | 07 09 52.0 | -0.6 |
| **WESP** | **Westdahl Peak** | 2.29 | 133 | P | | **Pn** | 07 09 50.5 | +0.3 |
| **WESN** | **West Dahl Nort** | 2.29 | 130 | P | | **Pn** | 07 09 49.7 | -0.5 |
| **UNV** | **Unalaska Valle** | 2.33 | 164 | P | | **Pb** | 07 09 54.3 | +0.2 |
| UNV | | | | S | | **Sg** | 07 10 26.4 | 0.0 |
| **MGOD** | **Makushin Gods** | 2.33 | 170 | P | | **Pb** | 07 09 54.2 | 0.0 |
| **WESE** | **West Dahl East** | 2.35 | 132 | P | | **Pn** | 07 09 51.4 | +0.2 |
| **SSLS** | **Shishaldin Sou** | 2.46 | 123 | P | | **Pn** | 07 09 52.1 | -0.5 |
| **ISLZ** | **Isanotski Laza** | 2.59 | 120 | P | | **Pn** | 07 09 53.9 | -0.5 |
| **FALS** | **False Pass** | 2.67 | 116 | P | | **Pn** | 07 09 54.4 | -0.9 |
| **OKFG** | **Magazine Ridge** | 2.69 | 184 | P | | **Pg** | 07 10 03.9 | +0.8 |
| **OKSO** | **Okmok South** | 2.75 | 187 | P | | **Pg** | 07 10 04.4 | 0.0 |
| **KDAK** | **Kodiak Island** 0.3nm,0.3s,baz=286,slow=14,SNR=5.7 | 8.38 | 72 | Pn | | **Pn** | 07 11 14.4 | +0.7 |
| KDAK | | | | Sn | | **Sn** | 07 12 51.9 | +3.3 |
| | 0.2nm,0.3s,baz=200,slow=6.3,SNR=2.1 | | | | | | | |
| **ILAR** | **Eielson Array** baz=233,slow=11,SNR=2.6 | 13.36 | 41 | Pn | | **Pn** | 07 12 21.5 | -0.2 |
| **INK** | **Inuvik** 0.2nm,0.3s,baz=240,slow=8.7,SNR=8.6 | 19.71 | 38 | P | | **Pn** | 07 13 41.5 | -1.5 |
| **YKA** | **Yellowknife Ar** 0.2nm,0.5s,baz=280,slow=9.7,SNR=5.6 | 27.10 | 54 | P | | **P** | 07 14 55.4 | +0.3 |
| **PDAR** | **Pinedale Array** 0.3nm,0.8s,baz=347,slow=3.7,SNR=4.7 | 38.84 | 85 | P | | **P** | 07 16 37.2 | -0.7 |
| **TXAR** | **Lajitas Array** 0.4nm,0.8s,baz=318,slow=4.9,SNR=2.5 | 51.77 | 93 | P | | **P** | 07 18 19.8 | -0.6 |
| **ZALV** | **Zalesovo Beam** comp=Z,105nm,18.9s,baz=250,slow=38 | 55.40 | 317 | LR | | LR | 07 44 40.3 | |

**MEX 25 07:11:18.7±0.7, 15.73N×92.73W, h147km±11km, MD3.6, Mexico-Guatemala border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **PCIG** | | 0.47 | 267 | *e*P | | Pn | 07 11 38.1 | -1.5 |
| PCIG | | | | *e*S | | Sn | 07 11 53.6 | -1.8 |
| **CCIG** | **Comitan** | 0.79 | 46 | *e*P | | Pn | 07 11 41.4 | -0.4 |
| CCIG | | | | *e*S | | Sn | 07 11 57.0 | -2.4 |
| **TGIG** | | 1.11 | 340 | *e*P | | Pn | 07 11 42.8 | -1.5 |
| TGIG | | | | *e*S | | Sn | 07 12 01.0 | -2.9 |

*JMA **25** 07:46:38.2±0.2, 30.98N×138.42E, h483km±3km, M4.3*
*ISCJB **25** 07:46:41.3±0.3, 30.97N±0.04×138.29E±0.05, h437km±3km, mb3.9/44, Error ellipse: s-maj=7.1km s-min=5.9km az=157.9*
*MOS **25** 07:46:41.0±0.7, 30.96N×138.11E, h428km, mb4.1/29, Error ellipse: s-maj=15.3km s-min=7.1km az=116.2*
*IDC **25** 07:46:42.7±0.7, 31.00N×138.13E, h426km±7km, mb3.5/20, mb1 3.6/24, mb1mx3.5/47, mbtmp4.3/24, Error ellipse: s-maj=13.0km s-min=9.3km az=88.0*
*NEIC **25** 07:46:42.0±0.3, 31.02N×138.36E, h438km±4km, mb4.2/17, Error ellipse: s-maj=8.5km s-min=5.5km az=70.0*

**ISC 25 07:46:41.8±0.6, 30.98N±0.06×138.30E±0.06, h423km±5km, n119, σ1$28/144, mb4.0/44, 6C-3D, Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **JHCJ** | **Hachijojimakas** | 2.44 | 31 | P | | **P** | 07 47 44.6 | +2.1 |
| **JHJ** | **Hachijo jima 2** 99nm,0.3s,baz=94,slow=22,SNR=21 | 2.48 | 30 | P | | **P** | 07 47 44.9 | +2.1 |
| JHJ | | | | S | | **S** | 07 48 34.7 | +2.4 |
| | 70nm,0.3s,baz=245,slow=23,SNR=7.6 | | | | | | | |
| **JHJ2** | **Mitsune** | 2.49 | 31 | P | | **P** | 07 47 44.7 | +1.9 |
| **JHJ2** | **Mitsune** | 2.49 | 31 | *e*P | | **P** | 07 47 44.5 | +1.7 |
| JHJ2 | | | | *e*S | | **S** | 07 47 48.4 | +2.3 |
| **TTO1** | **TONANKAI O.B.S** | 2.93 | 334 | P | | **P** | 07 47 48.1 | +2.4 |
| **TK02** | **Tokai 2** | 2.99 | 351 | P | | **P** | 07 47 48.6 | +2.4 |
| **JWZ** | **Kozaga** | 3.36 | 320 | P | | **P** | 07 47 51.3 | +1.9 |
| **JIE** | **Ise** | 3.66 | 339 | P | | **P** | 07 47 54.1 | +2.1 |
| **BSO1** | **Boso 1** | 4.30 | 31 | P | | **P** | 07 47 57.8 | +0.6 |
| BSO1 | | | | *e*S | | **S** | 07 49 01.1 | +2.2 |
| **JOD2** | **Odawara 2** | 4.32 | 9 | P | | **P** | 07 47 58.8 | +0.7 |
| JOD2 | | | | S | | **S** | 07 49 02.0 | +1.7 |
| **INU** | **Inuyama** | 4.49 | 347 | *e*P | | **P** | 07 48 01.5 | +1.9 |
| **JTO** | **Tosashimizu** | 5.03 | 293 | P | | **P** | 07 48 06.0 | +1.0 |
| **JRY** | **Ryogami san** | 5.05 | 6 | P | | **P** | 07 48 05.7 | +0.6 |
| JRY | | | | *e*S | | **S** | 07 49 14.2 | +0.9 |
| **CBIJ** | **Chichi jima** | 5.15 | 138 | P | | **P** | 07 48 05.8 | -0.5 |
| **CBIJ** | **Chichi jima** | 5.15 | 138 | *e*P | | **P** | 07 48 06.8 | +0.5 |
| CBIJ | | | | *e* | | | 07 49 13.0 | |
| CBIJ | | | | *e*S | | **S** | 07 49 13.7 | -1.6 |
| **MJAR** | **Matsushiro Arr** 6.1nm,0.3s,baz=173,slow=11,SNR=80 | 5.55 | 359 | P | | **P** | 07 48 10.6 | +0.4 |
| **MAJO** | **Matsushiro** | 5.55 | 359 | *e*P | | **P** | 07 48 10.6 | +0.4 |
| **MAJO** | **Matsushiro** | 5.55 | 359 | *e*P | | **P** | 07 48 10.6 | +0.4 |
| **MAT** | **Matsushiro** | 5.55 | 359 | P | | **P** | 07 48 10.6 | +0.4 |
| MAT | | | | S | | **S** | 07 49 21.8 | -0.8 |
| **MJB9** | **Matsu-Tunnel** | 5.55 | 359 | *e*P | | **P** | 07 48 10.6 | +0.4 |
| **JNU** | **Nakatsue** 0.8nm,0.3s,baz=48,slow=3.4,SNR=8.7 | 6.65 | 291 | P | | **P** | 07 48 24.1 | +1.7 |
| **JNU** | **Nakatsue** | 6.65 | 291 | *e*P | | **P** | 07 48 23.2 | +0.9 |
| JNU | | | | *e*S | | **S** | 07 49 44.4 | +0.2 |
| **JMK** | **Ichinoseki** | 8.31 | 16 | P | | **P** | 07 48 38.8 | -1.4 |
| JMK | | | | *e*S | | **S** | 07 50 13.5 | -3.9 |
| **JOW** | **Kunigami** | 9.71 | 247 | *e*P | | **P** | 07 48 56.8 | +0.9 |
| **KSRS** | **Korea Array** 1.1nm,0.3s,baz=124,slow=10,SNR=21 | 10.74 | 310 | P | | **P** | 07 49 07.8 | +0.8 |
| **KS15** | **Wonju Array Si** | 10.76 | 310 | *e*P | | **P** | 07 49 08.1 | +0.9 |
| **KS01** | **Wonju Array Si** | 10.77 | 310 | *e*P | | **P** | 07 49 07.6 | +0.2 |
| **ERM** | **Erimo** | 11.68 | 18 | *e*P | | **P** | 07 49 15.7 | -1.6 |
| **ERM** | **Erimo** | 11.68 | 18 | *e*P | | **P** | 07 49 15.7 | -1.6 |
| **USRK** | **Ussuriysk Ar.** 0.3nm,0.3s,baz=143,slow=11,SNR=4.3 | 14.11 | 341 | P | | **P** | 07 49 44.0 | +0.3 |
| **KLR** | **Kul'dur** 0.1nm,0.3s,baz=144,slow=7.2,SNR=8.1 | 18.89 | 347 | P | | **P** | 07 50 34.5 | +0.3 |
| **KLR** | **Kul'dur** | 18.89 | 347 | *i* P | | **P** | 07 50 34.7 | +0.5 |
| **BJT** | **Baijiatuau** | 20.11 | 303 | *e*P | | **P** | 07 50 43.9 | -1.7 |
| BJT | | | | pmax | | pmax | | |
| | comp=Z,9.0nm,0.5s | | | | | | | |
| **BJT** | **Baijiatuau** comp=Z,9.1nm,0.5s | 20.11 | 303 | *e*P | | **P** | 07 50 43.9 | -1.7 |
| **HIA** | **Hailar** | 23.02 | 328 | *i* P | | **P** | 07 51 12.3 | +0.3 |
| HIA | | | | pmax | | pmax | | |
| | comp=Z,6.0nm,1.0s | | | | | | | |
| **HIA** | **Hailar** comp=Z,6.6nm,0.9s | 23.02 | 328 | *e*P | | **P** | 07 51 12.1 | +0.1 |
| **HHC** | **Hu-ho-hao-te** | 23.71 | 302 | *e*P | | **P** | 07 51 18.5 | +0.1 |
| HHC | | | | S | | **S** | 07 55 00.5 | -1.7 |
| **HHC** | **Hu-ho-hao-te** | 23.71 | 302 | ScS | | ScS | 08 01 29.8 | -3.8 |
| **ENH** | **Enshi** comp=Z,6.8nm,0.7s | 24.78 | 276 | *e*P | | **P** | 07 51 26.8 | -1.2 |
| **GYA** | **Guiyang** | 28.05 | 269⇑ | *i*P | | P | 07 51 49.5 | -7.6 |
| GYA | | | | pP | | pP | 07 53 14.3 | +2.0 |
| GYA | | | | sP | | sP | 07 54 04.0 | +2.2 |
| GYA | | | | S | | **S** | 07 56 10.5 | -0.3 |
| **ULN** | **Ulaanbaatar** | 29.18 | 314 | *ce*P | | **P** | 07 52 06.8 | 0.0 |
| ULN | | | | pmax | | pmax | | |
| | comp=Z,5.0nm,1.0s | | | | | | | |
| **ULN** | **Ulaanbaatar** comp=Z,5.5nm,0.6s | 29.18 | 314 | *e*P | | **P** | 07 52 06.0 | -0.8 |
| **SONA1** | **Songino Array** | 29.57 | 314 | *e*P | | **P** | 07 52 09.3 | -0.9 |
| **SONM** | **Songino Array** comp=Z,2.3nm,0.5s,baz=123,slow=8.5,SNR=23 | 29.57 | 314 | P | | **P** | 07 52 10.1 | -0.1 |
| SONM | | | | PcP | | **PcP** | 07 55 03.1 | +0.5 |
| | comp=Z,0.2nm,0.4s,baz=144,slow=

**ZALV Zalesovo Beam 44.34 317 P P 07 54 11.5 -0.7**
comp=Z,3.2nm,0.4s,baz=99,slow=8.2,SNR=15
ZALV PcP PcP 07 55 47.2 -0.3
comp=Z,2.4nm,0.6s,baz=128,slow=3.7,SNR=9.7
ZALV ScP ScP 07 58 57.0 -1.6
comp=Z,0.5nm,0.3s,baz=94,slow=4.9,SNR=4.9
**ZALV Zalesovo Beam 44.34 317** *eP* **P 07 54 11.2 -1.0**
ZALV *e*PcP **PcP 07 55 47.2 -0.3**
**COEN Coen 44.92 173** *eP* **P 07 54 15.6 -1.6**
comp=Z,28nm,1.7s
**RAMN Ramite 45.08 278** *eP* **P 07 54 18.1 -0.6**
comp=Z,14nm,0.7s
**JIRN Jiri 45.22 280** *eP* **P 07 54 19.9 0.0**
**MK01 Makanchi Array 45.40 307** *eP* **P 07 54 20.0 -0.6**
**GUN Gumba 45.41 280** *eP* **P 07 54 21.2 -0.2**
comp=Z,9.3nm,0.3s
**MK31 Makanchi Array 45.41 307** *eP* **P 07 54 20.3 -0.4**
**MK31 Makanchi Array 45.41 307** *eP* **P 07 54 20.3 -0.4**
**MKAR Makanchi Array 45.41 307** P **P 07 54 20.2 -0.5**
comp=Z,4.2nm,0.6s,baz=92,slow=9.9,SNR=30
MKAR PcP **PcP 07 55 51.3 -0.2**
comp=Z,0.6nm,0.5s,baz=102,slow=3.0,SNR=3.5
MKAR ScP **ScP 07 59 02.0 -1.2**
comp=Z,0.2nm,0.4s,baz=74,slow=3.9,SNR=4.2
**MKAR Makanchi Array 45.41 307** *eP* **P 07 54 20.0 -0.6**
comp=Z,36nm,0.8s
**MAKZ Makanchi 45.62 307** *eP* **P 07 54 21.6 -0.8**
MAKZ pmax pmax
comp=Z,21nm,1.5s
**MAKZ Makanchi 45.62 307** *eP* **P 07 54 21.6 -0.8**
comp=Z,21nm,1.5s
**KOLN Koldanda 47.38 281** *eP* **P 07 54 35.8 -0.4**
comp=Z,14nm,0.6s
**PDGK Podgornoye 47.56 302** P **P 07 54 36.1 -1.2**
PDGK pmax pmax
comp=Z,11nm,0.9s
**PYUN Piuthan 47.79 281** *eP* **P 07 54 39.2 -0.2**
comp=Z,29nm,0.5s
**KURK Kurchatov 47.85 312** *eP* **P 07 54 38.4 -0.8**
KURK pmax pmax
comp=Z,11nm,1.0s
**KURK Kurchatov 47.85 312** *eP* **P 07 54 38.4 -0.8**
comp=Z,11nm,1.0s
**FITZ Fitzroy Crossi 50.29 196** P **P 07 54 58.4 +0.7**
comp=Z,3.5nm,1.0s,baz=17,slow=11,SNR=5.0
**KSH Kashi 50.72 298** P **P 07 55 04.3 +3.4**
KSH PcP **PcP 07 56 13.5 +2.4**
KSH pP pP 07 56 29.3 +3.9
KSH PP **sP 07 57 08.3 -4.0**
KSH S **S 08 01 46.3 +2.7**
KSH ScS **ScS 08 04 05.8 -0.5**
**KSH Kashi 50.72 298** SS **SS 08 05 29.5 +5.2**
**WB2 Warramunga Arr 50.77 185** *eP* **P 07 55 01.4 +0.1**
**WRA Warramunga Arr 50.77 185** P **P 07 55 01.6 +0.3**
comp=Z,2.6nm,0.5s,baz=0.2,slow=7.7,SNR=44
WRA ScP **ScP 07 59 26.9 +0.7**
comp=Z,0.5nm,0.7s,baz=1.9,slow=4.2,SNR=4.1
**KZA Kyzart 50.82 301** P **P 07 55 02.5 +0.5**
SNR=5.0
**KBK Karagaybulak 50.95 302** P **P 07 55 02.8 +0.1**
SNR=6.5
**AAK Ala-Archa 51.28 302**⇓ *i* P **P 07 55 04.5 -0.6**
AAK pmax pmax
comp=Z,4.0nm,0.7s
**AAK Ala-Archa 51.28 302** P **P 07 55 05.0 -0.1**
SNR=5.3
**AAK Ala-Archa 51.28 302** *eP* **P 07 55 04.7 -0.4**
comp=Z,3.6nm,0.7s
**UCH Uchtor 51.34 301** P **P 07 55 06.3 +0.5**
SNR=5.5
**AML Almayashu 51.95 301** P **P 07 55 10.8 +0.5**
SNR=13
**BVA0 Borovoye Array 52.89 315** P **P 07 55 15.7 -0.7**
BVA0 pmax pmax
comp=Z,7.0nm,0.6s
**BRVK Borovoye 52.95 315***ce*P **P 07 55 16.7 -0.1**
BRVK pmax pmax
comp=Z,6.0nm,0.7s
**BRVK Borovoye 52.95 315** *eP* **P 07 55 15.9 -0.9**
comp=Z,6.3nm,0.8s
**KDAK Kodiak Island 53.38 39** P **P 07 55 21.2 +1.5**
comp=Z,5.0nm,0.7s,baz=295,slow=6.3,SNR=15
**KK31 Karatay Array 54.09 303** *i* P **P 07 55 24.7 -0.4**
KK31 pmax pmax
comp=Z,5.0nm,0.6s
**KKAR Karatay Array 54.09 303** *eP* **P 07 55 24.6 -0.5**
KKAR pmax pmax
comp=Z,62nm,0.6s
**KKAR Karatay Array 54.09 303** *eP* **P 07 55 24.6 -0.5**
comp=Z,62nm,0.6s
**AS01 Alice Springs 54.49 185** *eP* **P 07 55 27.8 -0.4**
**AS31 Alice Springs 54.50 185** *eP* **P 07 55 28.1 -0.1**
comp=Z,9.4nm,1.9s
**ASAR Alice Springs 54.50 185** P **P 07 55 28.7 +0.6**
comp=Z,0.7nm,0.5s,baz=15,slow=13,SNR=19
ASAR ScP **ScP 07 59 42.9 +0.5**
comp=Z,0.5nm,0.8s,baz=345,slow=6.0,SNR=4.7
**ILAR Eielson Array 56.00 30** P **P 07 55 38.6 +0.4**
comp=Z,0.4nm,0.6s,baz=284,slow=7.0,SNR=10
**ARU Arti 59.28 321***c i* P **P 07 56 01.1 +0.3**
ARU 07 58 14.3
ARU S **S 08 03 35.3 +0.2**
ARU pmax pmax
comp=Z,10.0nm,2.5s
**ARU Arti 59.28 321** *eP* **P 07 55 59.7 -1.1**
comp=Z,8.2nm,0.8s
**AB31 Akbulak array 59.97 312** P **P 07 56 04.8 -0.7**
AB31 pmax pmax
comp=Z,3.0nm,0.5s
**ABKAR Akbulak array 59.97 312** *eP* **P 07 56 04.9 -0.6**
comp=Z,65nm,0.5s
**INK Inuvik 60.95 25** P **P 07 56 12.9 +1.2**
comp=Z,1.7nm,0.3s,baz=273,slow=5.8,SNR=33
**GEYT Alibeck 64.57 300** P **P 07 56 36.0 +0.1**
comp=Z,1.9nm,0.7s,baz=64,slow=3.4,SNR=4.0
**NWAO Narrogin (SRO) 66.61 199** P **P 07 56 49.0 +0.4**
comp=Z,3.2nm,0.8s,baz=20,slow=7.9,SNR=3.6
**ARCES ARCESS Array B 68.75 340** P **P 07 57 01.7 +0.3**
comp=Z,2.5nm,0.6s,baz=67,slow=8.3,SNR=14
**YKA Yellowknife Ar 70.34 28** P **P 07 57 12.0 +1.0**
comp=Z,0.5nm,0.4s,baz=300,slow=6.1,SNR=16
**YKA Yellowknife Ar 70.34 28** P **P 07 57 12.0 +1.0**
YKA pmax pmax
comp=Z,1.0nm,0.4s
**OBN Obninsk 71.40 324**⇑ *eP* **P 07 57 16.6 -0.8**
OBN *PP **pP 07 58 52.0 +2.8**
OBN pmax pmax
comp=Z,6.0nm,1.1s
**KBZ Khabaz 72.89 311** P **P 07 57 26.6 +0.3**
comp=Z,7.5nm,0.8s,baz=86,slow=5.6,SNR=16
**FINES FINESS Array B 72.96 332** P **P 07 57 26.4 -0.1**
comp=Z,4.7nm,0.5s,baz=63,slow=5.6,SNR=69
**AKASG Malin Array Be 77.48 322** P **P 07 57 51.7 -0.4**
comp=Z,2.4nm,0.5s,baz=50,slow=5.9,SNR=22
**NB2 NORSAR Subarra 78.73 337** P **P 07 57 58.4 -0.3**
comp=Z,1.2nm,0.5s,baz=44,slow=5.9
**NOA NORSAR Array B 78.73 337** P **P 07 57 58.7 0.0**
comp=Z,1.3nm,0.5s,baz=42,slow=5.4,SNR=4.3
**RAYN Ar Rayn 80.51 292** *eP* **P 07 58 08.6 -0.3**
comp=Z,4.0nm,1.0s
**BRTR Keskin Array B 80.89 311** P **P 07 58 10.6 -0.1**
comp=Z,1.7nm,0.6s,baz=107,slow=3.4,SNR=7.6
**BRTR Keskin Array B 80.89 311***ce*P **P 07 58 10.8 +0.1**
BRTR pmax pmax
comp=Z,2.0nm,0.6s
**BR231 Keskin MP Arra 81.38 311** *eP* **P 07 58 11.3 -1.9**
**BUR04 Bucovina Ar. S 81.41 321** *eP* **P 07 58 12.9 -0.3**
**CLL Collm 85.00 329** *eP* **P 07 58 30.0 -1.0**
**GERES GERESS Array B 86.42 327** P **P 07 58 37.3 -0.8**
comp=Z,0.3nm,0.4s,baz=50,slow=7.2,SNR=5.1
**TXAR Lajitas Array 95.90 51** P **P 07 59 23.1 +0.8**
comp=Z,0.1nm,0.5s,baz=303,slow=2.0,SNR=3.4
**TORD Torodi Ar. Bea 119.48 310** PKP **PKPdf 08 04 42.3 -0.6**
comp=Z,0.2nm,0.5s,baz=56,slow=2.0,SNR=3.7

**IDC 25 07:49:37.0**±1.7,**6**˚**04**′**N**×**121**˚**22E**,**h0**km,**mb3.9**/3,
**mb1 4.2**/3,**mb1mx3.5**/41,**mbtmp3.9**/3,**MS3.7**/1,**Ms1 3.6**/1,
**ms1mx2.6**/38,**Error ellipse: s-maj=222.5km**
**s-min=25.3km az=62.0,Mindanao**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **28.86** | **154** | P | P | 07 55 36.8 | -0.7 |
| | 1.4nm,0.4s,baz=331,slow=10,SNR=9.7 | | | | | | |
| **ASAR** | **Alice Springs** | **32.02** | **158** | P | P | 07 56 06.0 | +0.6 |
| | 1.0nm,0.3s,baz=340,slow=7.1,SNR=13 | | | | | | |
| **STKA** | **Stephens Creek** | **42.42** | **154** | LR | LR | 08 16 38.0 | |
| | comp=Z,85nm,18.9s,baz=31,slow=38 | | | | | | |
| **MKAR** | **Makanchi Array** | **52.59** | **327** | P | P | 07 58 52.5 | -0.1 |
| | 0.3nm,0.3s,baz=120,slow=7.8,SNR=7.5 | | | | | | |

*ISCJB* ***25*** *08:11:39.3±0.2,32˚60N±0˚02×105˚53E±0˚03,h11km,*
*mb4.3/42,MS3.0/3,Error ellipse: s-maj=3.5km*
*s-min=3.2km az=28.2*
*IDC* ***25*** *08:11:39.7±0.6,32˚66N×105˚51E,h0km,mb4.3/23,*
*mb1 4.3/26,mb1mx4.2/42,mbtmp4.2/26,ML3.8/3,MS3.0/6,*
*Ms1 3.0/6,ms1mx2.9/41,Error ellipse: s-maj=15.7km*
*s-min=13.3km az=30.0*
*BJI* ***25*** *08:11:40.3,32˚73N×105˚43E,h7km,mb4.4/30,mB4.9/14,*
*ML4.3/28,Ms4.1/30,Ms7 4.0/27*
*NEIC* ***25*** *08:11:41.3±0.2,32˚66N×105˚48E,h10km,mb4.6/15,*
*ML4.3(BJI),Error ellipse: s-maj=4.8km s-min=3.9km*
*az=89.0*
*MOS* ***25*** *08:11:41.2±0.8,32˚64N×105˚51E,h23km,mb4.9/15,Error*
*ellipse: s-maj=8.6km s-min=5.7km az=104.3*

**ISC 25 08:11:41.6±0.3,32˚60N±0˚03×105˚53E±0˚03,h11km,n151,**
**σ1§84/182,mb4.4/42,MS3.1/3,16C-12D,Sichuan**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CD2** | **Chengdu** | **2.26** | **222** | Pn | **Pn** | **08 12 20.0** | **+1.0** |
| CD2 | | | | Pg | **Pb** | **08 12 23.3** | **+0.8** |
| CD2 | | | | Sn | **Sb** | **08 12 50.0** | **-0.5** |
| CD2 | | | | Sg | **Sg** | **08 12 54.5** | **+0.2** |
| CD2 | | | | *s*max | *s*max | | |
| | comp=N,6μm,0.9s | | | | | | |
| CD2 | | | | *s*max | *s*max | | |
| | comp=E,5μm,0.5s | | | | | | |
| **CD2** | **Chengdu** | **2.26** | **222** | Pn | **Pn** | **08 12 20.0** | **+1.0** |
| CD2 | | | | Pg | **Pb** | **08 12 23.3** | **+0.8** |
| CD2 | | | | Sn | **Sb** | **08 12 50.0** | **-0.5** |
| CD2 | | | | Sg | **Sg** | **08 12 54.5** | **+0.2** |
| **XAN** | **Xi'an** | **3.18** | **62** | Pn | **Pn** | **08 12 32.5** | **+0.8** |
| XAN | | | | Pg | **Pb** | **08 12 39.0** | **+0.8** |
| XAN | | | | Sg | **Sb** | **08 13 19.0** | **+2.0** |
| XAN | | | | *s*max | *s*max | | |
| | comp=N,2μm,0.8s | | | | | | |
| XAN | | | | *s*max | *s*max | | |
| | comp=E,4μm,0.7s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=N,1μm,7.1s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=E,2μm,7.4s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,2μm,7.0s | | | | | | |
| **XAN** | **Xi'an** | **3.18** | **62** | P | **Pn** | **08 12 32.5** | **+0.8** |
| **XAN** | **Xi'an** | **3.18** | **62** | Pn | **Pn** | **08 12 32.5** | **+0.8** |
| XAN | | | | Pg | **Pb** | **08 12 39.0** | **+0.8** |
| XAN | | | | Sg | **Sb** | **08 13 19.0** | **+2.0** |
| **LZH** | **Lanzhou** | **3.75** | **339** | ⇓Pn | **Pn** | **08 12 40.5** | **+0.9** |
| LZH | | | | Pg | **Pb** | **08 12 47.0** | **-1.0** |
| LZH | | | | Sn | **Sn** | **08 13 24.8** | **+0.9** |
| LZH | | | | Sg | **Sb** | **08 13 35.0** | **+1.5** |
| LZH | | | | *s*max | *s*max | | |
| | comp=N,2μm,1.0s | | | | | | |
| LZH | | | | *s*max | *s*max | | |
| | comp=E,1μm,1.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=E,2μm,6.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,2μm,7.5s | | | | | | |
| **LZH** | **Lanzhou** | **3.75** | **339** | P | **Pn** | **08 12 40.5** | **+0.9** |
| LZH | | | | | | 08 13 24.8 | |
| **LZH** | **Lanzhou** | **3.75** | **339** | Pn | **Pn** | **08 12 40.5** | **+0.9** |
| LZH | | | | Pg | **Pb** | **08 12 47.0** | **-1.0** |
| LZH | | | | Sn | **Sn** | **08 13 24.8** | **+0.9** |
| LZH | | | | Sg | **Sb** | **08 13 35.0** | **+1.5** |
| **ENH** | **Enshi** | **4.10** | **123** | *e*Pn | **Pn** | **08 12 46.6** | **+2.4** |
| ENH | | | | *e*Sn | **Sn** | **08 13 31.4** | **-0.8** |
| **GYA** | **Guiyang** | **6.20** | **171**⇑ | *i*Pn | **Pn** | **08 13 14.5** | **+1.3** |
| GYA | | | | Pg | **Pg** | **08 13 36.5** | **-3.8** |
| GYA | | | | Sn | **Sn** | **08 14 25.0** | **+0.9** |
| GYA | | | | Sg | **Sb** | **08 14 51.8** | **+8.0** |
| GYA | | | | *s*max | *s*max | | |
| | comp=N,270nm,0.7s | | | | | | |
| GYA | | | | *s*max | *s*max | | |
| | comp=E,440nm,0.8s | | | | | | |
| **WHN** | **Wuhan** | **7.80** | **103** | P | **Pn** | **08 13 34.0** | **-1.0** |
| WHN | | | | S | **Sn** | **08 15 02.0** | **-1.3** |
| WHN | | | | LR | LR | | |
| | comp=E,2μm,4.0s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=Z,2μm,7.1s | | | | | | |
| **KMI** | **Kunming** | **7.84** | **199** | P | **Pn** | **08 13 37.3** | **+1.5** |
| KMI | | | | *s*max | *s*max | | |
| | comp=N,64nm,1.5s | | | | | | |
| KMI | | | | *s*max | *s*max | | |
| | comp=E,53nm,1.4s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=N,550nm,5.9s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=E,620nm,5.1s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,390nm,7.0s | | | | | | |
| **GTA** | **Gaotai** | **8.23** | **327** | *e*P | **Pn** | **08 13 40.8** | **-0.2** |
| GTA | | | | pP | pP | 08 13 44.5 | |
| GTA | | | | sP | sP | 08 13 47.8 | |
| GTA | | | | S | **Sn** | **08 15 12.8** | **-1.2** |
| GTA | | | | sS | sS | 08 15 19.0 | |
| GTA | | | | *p*max | *p*max | | |
| | comp=Z,11nm,0.9s | | | | | | |
| GTA | | | | *p*max | *p*max | | |
| | comp=Z,190nm,5.9s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=N,680nm,7.8s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=E,430nm,7.6s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,560nm,10.7s | | | | | | |
| **BTO** | **Baotou** | **8.77** | **23** | *e*P | **Pn** | **08 13 52.5** | **+4.1** |
| **HHC** | **Hu-ho-hao-te** | **9.55** | **29** | *e*P | **Pn** | **08 14 00.5** | **+1.3** |
| HHC | | | | S | **Sn** | **08 15 48.3** | **+1.7** |
| HHC | | | | sS | | 08 15 55.5 | |
| HHC | | | | *p*max | *p*max | | |
| | comp=Z,17nm,1.0s | | | | | | |
| HHC | | | | *p*max | *p*max | | |
| | comp=Z,120nm,5.5s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=N,470nm,8.1s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,280nm,7.1s | | | | | | |
| **TIA** | **Tai'an** | **10.23** | **66** | P | **Pn** | **08 14 12.3** | **+3.9** |
| TIA | | | | *p*max | *p*max | | |
| | comp=Z,9.0nm,0.7s | | | | | | |
| TIA | | | | *p*max | *p*max | | |
| | comp=Z,210nm,4.5s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=N,310nm,5.6s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=E,290nm,7.0s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=Z,370nm,8.6s | | | | | | |
| **NJ2** | **Nanjing** | **11.29** | **89** | *e*P | **Pn** | **08 14 22.0** | **-0.8** |
| NJ2 | | | | *p*max | *p*max | | |
| | comp=Z,11nm,0.5s | | | | | | |
| **BJI** | **Beijing** | **11.35** | **46** | P | **Pn** | **08 14 22.5** | **-1.1** |
| BJI | | | | *p*max | *p*max | | |
| | comp=Z,7.0nm,0.5s | | | | | | |
| BJI | | | | *p*max | *p*max | | |
| | comp=Z,210nm,4.5s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,140nm,15.4s | | | | | | |
| **LSA** | **Lhasa** | **12.65** | **261** | *i*P | **Pn** | **08 14 42.7** | **+0.7** |
| **SHL** | **Shillong** | **13.83** | **243** | *e*P | Pn | 08 14 45.0 | -13 |
| **QIZ** | **Qiongzhong** | **14.05** | **163** | P | **Pn** | **08 15 01.3** | **+0.6** |
| **CHTO** | **Chiang Mai** | **14.95** | **205** | *e*P | **Pn** | **08 15 12.1** | **-0.8** |
| **CHTO** | **Chiang Mai** | **14.95** | **205** | *e*Pn | **Pn** | **08 15 12.1** | **-0.8** |
| **SONM** | **Songino Array** | **15.24** | **2** | Pn | **Pn** | **08 15 15.5** | **-1.2** |
| | 0.1nm,0.3s,baz=170,slow=9.9,SNR=8.9 | | | | | | |
| SONM | | | | Lg | Lg | 08 19 43.8 | |
| | 0.1nm,0.3s,baz=194,slow=28,SNR=2.9 | | | | | | |
| SONM | | | | LR | LR | 08 21 46.4 | |
| | comp=Z,92nm,18.5s,baz=224,slow=40 | | | | | | |
| **SONA1** | **Songino Array** | **15.25** | **2** | *e*Pn | **Pn** | **08 15 15.9** | **-1.1** |
| **CMAR** | **Chiang Mai Arr** | **15.28** | **204** | Pn | **Pn** | **08 15 19.3** | **+1.9** |
| | 0.2nm,0.3s,baz=12,slow=9.5,SNR=4.2 | | | | | | |
| CMAR | | | | LR | LR | 08 21 06.3 | |
| | comp=Z,62nm,19.7s,baz=12,slow=37 | | | | | | |
| **ULN** | **Ulaanbaatar** | **15.30** | **4** | *e*P | **Pn** | **08 15 16.5** | **-1.1** |
| ULN | | | | *p*max | *p*max | | |
| | comp=Z,4.0nm,0.7s | | | | | | |
| **ULN** | **Ulaanbaatar** | **15.30** | **4** | *e*Pn | **Pn** | **08 15 16.5** | **-1.1** |
| | comp=Z,4.1nm,0.7s | | | | | | |
| **CM01** | **Chiang Mai Arr** | **15.30** | **204** | *e*Pn | **Pn** | **08 15 18.1** | **+0.4** |
| **BRDH** | **Bariadhala** | **15.77** | **235** | LR | LR | 08 22 47.9 | |
| | comp=Z,102nm,21.6s,baz=27,slow=42 | | | | | | |
| **YHNB** | **Yeheng** | **15.98** | **116** | *e*Pn | **P** | **08 15 33.0** | **+2.9** |
| | comp=Z,63nm,1.1s | | | | | | |
| **RAMN** | **Ramite** | **17.36** | **256** | *e*P | **Pn** | **08 15 42.0** | **-2.2** |
| | comp=Z,55nm,1.2s | | | | | | |
| **JIRN** | **Jiri** | **17.43** | **259** | *e*P | **Pn** | **08 15 43.8** | **-1.4** |
| **GUN** | **Gumba** | **17.60** | **260** | *e*P | **Pn** | **08 15 46.3** | **-1.0** |
| | comp=Z,28nm,0.8s | | | | | | |
| **WMQ** | **Urumqi** | **17.91** | **314** | P | **P** | **08 15 50.8** | **-0.5** |
| WMQ | | | | pP | pP | 08 15 53.5 | -0.9 |
| WMQ | | | | sP | sP | 08 15 57.8 | +2.0 |
| WMQ | | | | *p*max | *p*max | | |
| | comp=Z,15nm,0.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,200nm,20.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,130nm,19.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,180nm,21.5s | | | | | | |
| **PKI** | **Pulchoki** | **18.11** | **259** | *e*P | **Pn** | **08 15 52.0** | **-1.6** |
| | comp=Z,12nm,0.6s | | | | | | |
| **PKIN** | **Phulchoki** | **18.12** | **259** | *e*P | **Pn** | **08 15 51.9** | **-1.7** |
| | comp=Z,20nm,0.6s | | | | | | |
| **KKN** | **Kakani** | **18.14** | **260** | *e*P | **Pn** | **08 15 53.1** | **-0.7** |
| | comp=Z,34nm,0.9s | | | | | | |
| **DMN** | **Daman** | **18.35** | **260** | *e*P | **Pn** | **08 15 54.9** | **-1.5** |
| | comp=Z,26nm,0.8s | | | | | | |
| **KS15** | **Wonju Array Si** | **18.92** | **69** | *e*P | **Pn** | **08 16 06.8** | **+3.8** |
| **KSAR** | **Wonju Array Be** | **18.92** | **69** | P | **Pn** | **08 16 02.8** | **-0.2** |
| **KSAR** | **Wonju Array Be** | **18.92** | **69** | P | **Pn** | **08 16 02.8** | **-0.2** |
| **KS01** | **Wonju Array Si** | **18.94** | **69** | *e*P | **P** | **08 16 02.4** | **-0.1** |
| **KSRS** | **Korea Array** | **18.95** | **69** | P | **P** | **08 16 02.8** | **0.0** |
| | comp=Z,0.5nm,0.3s,baz=259,slow=9.8,SNR=12 | | | | | | |
| KSRS | | | | LR | LR | 08 23 57.7 | |
| | comp=Z,40nm,18.0s,baz=300,slow=39 | | | | | | |
| **TLY** | **Talaya** | **19.12** | **356** | *i*P | **Pn** | **08 16 04.8** | **-0.6** |
| TLY | | | | *p*max | *p*max | | |
| | comp=Z,4.0nm,1.0s | | | | | | |
| **CN2** | **Changchun** | **19.19** | **49** | *e*P | **Pn** | **08 16 06.5** | **+0.3** |
| CN2 | | | | *e*PP | **PnPn** | **08 16 23.5** | **+4.6** |
| CN2 | | | | *p*max | *p*max | | |
| | comp=Z,20nm,1.2s | | | | | | |
| CN2 | | | | *p*max | *p*max | | |
| | comp=Z,200nm,8.0s | | | | | | |
| **KOLN** | **Koldanda** | **19.55** | **262** | *e*P | **P** | **08 16 08.9** | **-0.7** |
| | comp=Z,33nm,0.8s | | | | | | |
| **HIA** | **Hailar** | **19.76** | **28** | *i*P | **Pn** | **08 16 12.4** | **-0.6** |
| HIA | | | | *p*max | *p*max | | |
| | comp=Z,7.0nm,1.0s | | | | | | |
| **PYUN** | **Piuthan** | **19.95** | **263** | *e*P | **P** | **08 16 14.5** | **+0.5** |
| | comp=Z,29nm,0.8s | | | | | | |
| **HVS** | **Khovu-Aksy** | **20.47** | **338**⇑ | *i*P | **P** | **08 16 20.1** | **+0.8** |
| HVS | | | | *p*max | *p*max | | |
| | comp=Z,37nm,0.9s | | | | | | |
| **DGZ** | **Jazzator, Alta** | **21.76** | **327** | *d*P | **P** | **08 16 34.0** | **+0.7** |
| DGZ | | | | *p*max | *p*max | | |
| | comp=Z,6.0nm,0.9s | | | | | | |
| **MDJ** | **Mudanjiang** | **22.22** | **50** | P | **P** | **08 16 38.5** | **+0.4** |
| MDJ | | | | *p*max | *p*max | | |
| | comp=Z,20nm,1.0s | | | | | | |
| **MK01** | **Makanchi Array** | **22.69** | **315** | *e*P | **P** | **08 16 42.6** | **-0.6** |
| **MK31** | **Makanchi Array** | **22.71** | **315** | *e*P | **P** | **08 16 42.0** | **-1.4** |
| **MK31** | **Makanchi Array** | **22.71** | **315** | *e*P | **P** | **08 16 42.8** | **-0.5** |
| **MKAR** | **Makanchi Array** | **22.71** | **315** | P | **P** | **08 16 42.8** | **-0.6** |
| | comp=Z,4.4nm,0.7s,baz=120,slow=12,SNR=25 | | | | | | |
| MKAR | | | | PcP | **PcP** | **08 20 34.7** | **-0.7** |
| | comp=Z,0.4nm,0.6s,baz=186,slow=1.4,SNR=3.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **22.71** | **315** | *e*P | **P** | **08 16 43.1** | **-0.3** |
| MKAR | | | | | | 08 20 34.7 | |
| MKAR | | | | *p*max | *p*max | | |
| | comp=Z,31nm,0.7s | | | | | | |
| **MKAR** | **Makanchi Array** | **22.71** | **315** | *e*P | **P** | **08 16 43.1** | **-0.3** |
| | comp=Z,31nm,0.7s | | | | | | |
| MKAR | | | | PcP | **PcP** | **08 20 34.7** | **-0.7** |
| **PDGK** | **Podgornoye** | **23.07** | **305** | P | **P** | **08 16 46.3** | **-1.0** |
| **USRK** | **Ussuriysk Ar.** | **23.65** | **53** | P | **P** | **08 16 53.1** | **+0.3** |
| | comp=Z,6.3nm,0.8s,baz=254,slow=10,SNR=9.2 | | | | | | |
| **KSH** | **Kashi** | **24.80** | **295** | P | **P** | **08 17 07.3** | **+3.5** |
| KSH | | | | pP | sP | 08 17 11.0 | +2.5 |
| KSH | | | | PP | **PnPn** | **08 17 44.3** | **+8.4** |
| KSH | | | | PcP | **PcP** | **08 20 43.3** | **+3.2** |
| KSH | | | | S | **S** | **08 21 27.5** | **+1.2** |
| KSH | | | | SS | **SnSn** | **08 22 26.3** | **+13** |
| KSH | | | | *p*max | *p*max | | |
| | comp=Z,6.0nm,0.7s | | | | | | |
| KSH | | | | *p*max | *p*max | | |
| | comp=Z,170nm,4.2s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,370nm,6.2s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,280nm,5.3s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,520nm,6.3s | | | | | | |
| **KLR** | **Kul'dur** | **25.67** | **42** | P | **P** | **08 17 11.6** | **+0.1** |
| | comp=Z,2.6nm,0.8s,baz=257,slow=9.6,SNR=35 | | | | | | |
| KLR | | | | LR | LR | 08 28 08.4 | |
| | comp=Z,6.7nm,21.6s,baz=1.5,slow=39 | | | | | | |
| **KLR** | **Kul'dur** | **25.67** | **42** | *i*P | **P** | **08 17 11.0** | **-0.4** |
| **ZAA0** | **Zalesovo Array** | **25.95** | **331** | *e*P | **P** | **08 17 12.7** | **-1.2** |
| | comp=Z,5.4nm,0.9s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **25.95** | **331** | P | **P** | **08 17 13.2** | **-0.7** |
| | comp=Z,2.0nm,0.5s,baz=127,slow=9.6,SNR=12 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **25.95** | **331** | *e*P | **P** | **08 17 12.9** | **-1.0** |
| **ZALV** | **Zalesovo Beam** | **25.95** | **331** | *e*P | **P** | **08 17 12.9** | **-1.0** |
| **AAK** | **Ala-Archa** | **26.42** | **301** | P | **P** | **08 17 18.4** | **-0.1** |
| | comp=Z,1.0nm,0.8s,baz=100,slow=12,SNR=2.5 | | | | | | |
| **AAK** | **Ala-Archa** | **26.42** | **301** | *e*P | **P** | **08 17 17.4** | **-1.1** |
| | comp=Z,2.8nm,0.9s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **26.75** | **295** | P | **P** | **08 17 21.4** | **-0.2** |
| **KURBB** | **Kurchatov Arra** | **26.83** | **320** | P | **P** | **08 17 21.3** | **-0.5** |
| | comp=Z,2.3nm,0.7s,baz=138,slow=8.5,SNR=20 | | | | | | |
| KURBB | | | | PcP | **PcP** | **08 20 43.6** | **-0.7** |
| | comp=Z,1.5nm,0.7s,baz=120,slow=1.9,SNR=8.3 | | | | | | |
| **KURK** | **Kurchatov** | **26.83** | **320**⇓ | *e*P | **P** | **08 17 20.6** | **-1.2** |
| KURK | | | | *p*max | *p*max | | |
| | comp=Z,5.0nm,0.7s | | | | | | |
| **KURK** | **Kurchatov** | **26.83** | **320** | *e*P | **P** | **08 17 19.8** | **-2.1** |
| | comp=Z,4.8nm,0.8s | | | | | | |
| KURK | | | | PcP | **PcP** | **08 20 43.6** | **-0.7** |
| **MJAR** | **Matsushiro Arr** | **27.12** | **73** | LR | LR | 08 29 41.7 | |
| | comp=Z,51nm,20.1s,baz=290,slow=40 | | | | | | |
| **KKAR** | **Karatay Array** | **29.38** | **301** | *e*P | **P** | **08 17 40.9** | **-3.9** |
| KKAR | | | | *p*max | *p*max | | |
| | comp=Z,23nm,1.1s | | | | | | |
| **KKAR** | **Karatay Array** | **29.38** | **301** | *e*P | **P** | **08 17 40.9** | **-3.9** |
| | comp=Z,22nm,1.1s | | | | | | |
| **BRVK** | **Borovoye** | **32.48** | **320** | *i*P | **P** | **08 18 11.9** | **-0.1** |
| BRVK | | | | *p*max | *p*max | | |
| | comp=Z,3.0nm,1.0s | | | | | | |
| **YAK** | **Yakutsk** | **33.28** | **21** | P | **P** | **08 18 18.8** | **-0.1** |
| | comp=Z,9.6nm,0.5s,baz=336,slow=1.7,SNR=5.2 | | | | | | |
| **YAK** | **Yakutsk** | **33.28** | **21** | *e*P | **P** | **08 18 17.6** | **-1.2** |
| YAK | | | | *p*max | *p*max | | |
| | comp=Z,16nm,1.2s | | | | | | |
| **ABKAR** | **Akbulak array** | **37.62** | **310** | *e*P | **P** | **08 18 55.6** | **-0.7** |
| | comp=Z,1.7nm,0.6s | | | | | | |
| **GEYT** | **Alibeck** | **38.75** | **292** | P | **P** | **08 19 06.7** | **+0.7** |
| | comp=Z,2.3nm,0.7s,baz=46,slow=6.2,SNR=7.8 | | | | | | |
| **SVE** | **Sverdlovsk** | **39.05** | **322** | *e*P | **P** | **08 19 06.6** | **-1.6** |
| **ARU** | **Arti** | **40.02** | **321** | *d*P | **P** | **08 19 15.6** | **-0.7** |
| ARU | | | | S | **S** | **08 25 22.9** | **+1.1** |
| ARU | | | | SS | SS | 08 28 07.2 | -11 |
| ARU | | | | *p*max | *p*max | | |
| | comp=Z,11nm,1.2s | | | | | | |
| **TIXI** | **Tiksi** | **41.06** | **11** | P | **P** | **08 19 23.8** | **-0.9** |
| | comp=Z,7.7nm,0.5s,baz=214,slow=4.1,SNR=20 | | | | | | |
| **TIXI** | **Tiksi** | **41.06** | **11**⇑ | *i*P | **P** | **08 19 23.6** | **-1.1** |
| TIXI | | | | *p*max | *p*max | | |
| | comp=Z,7.0nm,0.5s | | | | | | |
| **TIXI** | **Tiksi** | **41.06** | **11** | *e*P | **P** | **08 19 23.6** | **-1.1** |
| | comp=Z,11nm,0.6s | | | | | | |
| **

comp=Z,79nm,17.0s
**KLMR Klimovskoe 50.54 325** *e*P **P** **08 20 37.7 -2.0**
KLMR pmax pmax
comp=Z,17nm,0.7s
**OBN Obninsk 52.20 317**⇓*e*P **P** **08 20 52.8 +0.6**
OBN *e* 08 20 55.3
OBN 08 22 02.0
OBN pmax pmax
comp=Z,8.0nm,0.9s
**ARCES ARCESS Array B 56.41 335** P **P** **08 21 22.1 -0.6**
comp=Z,1.9nm,0.5s,baz=79,slow=8.8,SNR=11
**FINES FINESS Array B 57.02 326** P **P** **08 21 26.5 -0.6**
comp=Z,4.8nm,0.5s,baz=86,slow=7.4,SNR=36
**BRTR Keskin Array B 57.07 299** P **P** **08 21 27.6 -0.5**
comp=Z,0.7nm,0.7s,baz=90,slow=5.8,SNR=3.8
**AKASG Malin Array Be 57.26 313** P **P** **08 21 27.9 -1.1**
comp=Z,2.3nm,0.4s,baz=66,slow=7.8,SNR=11
**AKASG Malin Array Be 57.26 313** *i*P **P** **08 21 28.1 -0.9**
AKASG pmax pmax
comp=Z,4.0nm,0.4s
**SORM Soroca 58.43 310**⇓*i*P **P** **08 21 36.2 -1.0**
**SORM Soroca 58.43 310** ⇓P **P** **08 21 36.2 -1.0**
**WRA Warramunga Arr 59.06 148** P **P** **08 21 41.9 0.0**
comp=Z,3.4nm,0.6s,baz=341,slow=7.4,SNR=62
**WB2 Warramunga Arr 59.07 148** *e*P **P** **08 21 41.5 -0.5**
comp=Z,33nm,1.5s
**VRI Vrincioaia 60.13 308**⇑*i*P **P** **08 21 46.9 -2.2**
**VRI Vrincioaia 60.13 308** ⇑P **P** **08 21 46.9 -2.2**
**PLOR Plostina 60.18 308**⇑*i*P **P** **08 21 49.8 +0.3**
**PLOR Plostina 60.18 308** ⇑P **P** **08 21 49.8 +0.3**
**BURAR Bucovina Array 60.60 310**⇑P **P** **08 21 51.2 -1.2**
**BURAR Bucovina Array 60.60 310**⇑P **P** **08 21 51.2 -1.2**
**BUR04 Bucovina Ar. S 60.60 310** *e*P **P** **08 21 51.3 -1.1**
**MLR Muntele Rosu 60.76 308**⇑*i*P **P** **08 21 53.7 +0.1**
**MLR Muntele Rosu 60.76 308** ⇑P **P** **08 21 53.7 +0.1**
**VOIR 61.38 308**⇓*i*P **P** **08 21 57.7 0.0**
**VOIR 61.38 308** ⇓P **P** **08 21 57.7 0.0**
**AS31 Alice Springs 62.16 150** *e*P **P** **08 22 02.6 -0.5**
comp=Z,1.2nm,0.6s
**ASAR Alice Springs 62.16 150** P **P** **08 22 03.5 +0.5**
comp=Z,2.4nm,0.5s,baz=329,slow=6.8,SNR=44
**AS01 Alice Springs 62.18 150** *e*P **P** **08 22 03.2 0.0**
**LOT Lotru 62.23 308**⇓*i*P **P** **08 22 03.1 -0.4**
**DRGR 62.48 310**⇓*i*P **P** **08 22 05.1 0.0**
**DRGR 62.48 310** ⇓P **P** **08 22 05.1 0.0**
**SIRR Siria 63.34 309**⇑P **P** **08 22 10.8 0.0**
**MDVR Moldovita 63.83 308**⇑*i*P **P** **08 22 13.7 -0.3**
**NB2 NORSAR Subarra 64.06 327** P **P** **08 22 13.5 -1.8**
comp=Z,2.9nm,0.5s,baz=70,slow=6.9
**NOA NORSAR Array B 64.06 327** P **P** **08 22 14.2 -1.1**
comp=Z,2.0nm,0.8s,baz=77,slow=7.8,SNR=8.7
**VYHS Vyhne 64.36 313** *e*P **P** **08 22 16.9 -0.5**
**VYHS Vyhne 64.36 313** *e*P **P** **08 22 16.9 -0.5**
**MORC Moravsky Berou 64.70 314**⇑*i*P **P** **08 22 18.1 -1.5**
**MORC Moravsky Berou 64.70 314** ⇑P **P** **08 22 18.1 -1.5**
**DPC Dobruska-Polom 65.22 315** *e*P **P** **08 22 22.7 -0.3**
**DPC Dobruska-Polom 65.22 315** *e*P **P** **08 22 22.7 -0.3**
**UPC Upice 65.35 315** *e*P **P** **08 22 24.2 +0.4**
**UPC Upice 65.35 315** *e*P **P** **08 22 24.2 +0.4**
**PRU Pruhonice 66.42 315** *e*P **P** **08 22 30.6 -0.1**
**PRU Pruhonice 66.42 315** *e*P **P** **08 22 30.6 -0.1**
**PPLA Purkeypile 66.78 29** *e*P **P** **08 22 32.5 -0.5**
comp=Z,6.4nm,0.5s
**CLL Collm 66.80 317** *e*P **P** **08 22 33.0 -0.1**
**KHC Kasperske Hory 67.33 315** *e*P **P** **08 22 37.4 +0.8**
**KHC Kasperske Hory 67.33 315** *e*P **P** **08 22 37.4 +0.8**
**GERES GERESS Array B 67.38 314** P **P** **08 22 36.0 -0.9**
comp=Z,1.1nm,0.8s,baz=51,slow=5.3,SNR=6.0
**MDM Murphy Dome 67.38 26** *e*P **P** **08 22 36.0 -0.6**
comp=Z,20nm,1.6s
**GEA0 GERESS Array S 67.38 314** *e*P **P** **08 22 36.1 -0.8**
**COLA College 67.56 26** *e*P **P** **08 22 37.1 -0.6**
COLA pmax pmax
comp=Z,5.0nm,0.7s
**COLA College 67.56 26** *e*P **P** **08 22 37.1 -0.6**
comp=Z,5.1nm,0.7s
**ILAR Eielson Array 67.97 26** P **P** **08 22 39.0 -1.3**
comp=Z,0.8nm,0.6s,baz=291,slow=4.5,SNR=16
**PMR Palmer 68.65 30** *e*P **P** **08 22 43.7 -0.8**
PMR pmax pmax
comp=Z,6.0nm,0.6s
**PMR Palmer 68.65 30** *e*P **P** **08 22 43.7 -0.8**
comp=Z,5.7nm,0.6s
**INK Inuvik 70.35 20** P **P** **08 22 54.2 -0.7**
comp=Z,3.8nm,0.8s,baz=327,slow=6.7,SNR=18
**INK Inuvik 70.35 20** *e*P **P** **08 22 53.9 -1.0**
INK pmax pmax
comp=Z,4.0nm,0.8s
**INK Inuvik 70.35 20** *e*P **P** **08 22 53.9 -1.0**
comp=Z,4.1nm,0.8s
**YKA Yellowknife Ar 79.91 18** P **P** **08 23 49.5 -0.7**
comp=Z,1.3nm,0.6s,baz=329,slow=5.2,SNR=27
**ESDC Sonseca Array 82.91 313** P **P** **08 24 06.3 -0.3**
comp=Z,0.6nm,0.7s,baz=46,slow=5.7,SNR=4.5
**FFC Flin Flon 89.86 16** *e*P **P** **08 24 39.6 -0.8**
FFC pmax pmax
comp=Z,16nm,1.8s
**FFC Flin Flon 89.86 16** *e*P **P** **08 24 39.6 -0.8**
comp=Z,16nm,1.8s
**TORD Torodi Ar. Bea 94.33 288** P **P** **08 25 01.4 -0.4**
comp=Z,0.6nm,0.8s,baz=60,slow=5.0,SNR=4.8
**TXAR Lajitas Array 112.46 27** PKiKP **PKiKP** **08 30 17.4 -0.9**
comp=Z,0.2nm,0.5s,baz=4.4,slow=1.2,SNR=4.4

*ISCJB **25** 08:34:54.0±0.7,52.˚82N±0.˚09×168.˚24W±0.˚07,h54km±5km, mb3.7/13, Error ellipse: s-maj=16.1km s-min=5.1km az=160.3*
*NEIC **25** 08:34:53.8±0.0,52.˚77N×168.˚18W,h25km,ML3.8(AEIC), After AEIC.*
*IDC **25** 08:34:53.2±7.5,52.˚96N×168.˚22W,h28km±51km, mb3.6/13, mb1 3.8/15, mb1mx3.6/45, mbtmp3.7/15, ML3.5/2, Error ellipse: s-maj=35.0km s-min=14.4km az=175.0*
**ISC 25 08:34:54.7**±1.4,**52.˚9N**±0.˚1×**168.˚26W**±0.˚06,**h43**km±10km, **n49,**σ1°**33/49, mb3.8/13, Fox Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **OKSP** | **Okmok Steeple** | **0.37** | **357** | P | | P | **Pn** | **08 35 04.5** | **+0.5** |
| **NIKH** | **Nikolski High** | **0.37** | **284** | P | | P | **Pn** | **08 35 03.5** | **-0.5** |
| NIKH | | | | S | | S | **Sn** | **08 35 10.5** | **-0.1** |
| **OKSO** | **Okmok South** | **0.48** | **7** | P | | P | **Pn** | **08 35 06.0** | **+0.7** |
| OKSO | | | | S | | S | **Sn** | **08 35 15.3** | **+2.4** |
| **OKFG** | **Magazine Ridge** | **0.57** | **21** | P | | P | **Pn** | **08 35 07.0** | **+0.6** |
| OKFG | | | | S | | S | **Sn** | **08 35 17.1** | **+2.3** |
| **MGOD** | **Makushin Gods** | **1.23** | **42** | P | | P | **Pn** | **08 35 15.3** | **-0.2** |
| **MSW** | **Makushin Switc** | **1.36** | **40** | P | | P | **Pn** | **08 35 17.4** | **+0.2** |
| **UNV** | **Unalaska Valle** | **1.43** | **47** | P | | P | **Pn** | **08 35 18.1** | **0.0** |
| UNV | | | | S | | S | **Sn** | **08 35 36.1** | **+0.5** |
| **MTBL** | **Makushin Table** | **1.44** | **40** | P | | P | **Pn** | **08 35 19.2** | **+0.9** |
| **AKMO** | **Akutan Morgan** | **1.81** | **47** | P | | P | **Pn** | **08 35 24.0** | **+0.7** |
| AKMO | | | | S | | S | **Sn** | **08 35 46.9** | **+2.0** |
| **AKRB** | **Akutan Reef Bi** | **1.81** | **45** | P | | P | **Pn** | **08 35 24.5** | **+1.2** |
| **AKLV** | **Akutan Long Va** | **1.88** | **46** | P | | P | **Pn** | **08 35 25.1** | **+0.7** |
| **AKGG** | **Akutan Green G** | **1.89** | **45** | P | | P | **Pn** | **08 35 25.9** | **+1.5** |
| **AKUT** | **Akutan** | **1.94** | **49** | P | | P | **Pn** | **08 35 25.6** | **+0.4** |
| **WESP** | **Westdahl Peak** | **2.65** | **51** | P | | P | **Pn** | **08 35 36.4** | **+1.5** |
| **WEBT** | **Westdahl Beart** | **2.69** | **49** | P | | P | **Pn** | **08 35 37.7** | **+2.2** |
| **WESE** | **West Dahl East** | **2.70** | **52** | P | | P | **Pn** | **08 35 36.3** | **+0.6** |
| **WESN** | **West Dahl Nort** | **2.76** | **51** | P | | P | **Pn** | **08 35 37.8** | **+1.4** |
| **SSLS** | **Shishaldin Sou** | **3.12** | **52** | P | | P | **Pn** | **08 35 43.0** | **+1.6** |
| **ISLZ** | **Isanotski Laza** | **3.27** | **54** | P | | P | **Pn** | **08 35 44.2** | **+0.9** |
| **FALS** | **False Pass** | **3.48** | **53** | P | | P | **Pn** | **08 35 47.3** | **+1.0** |
| **KOFP** | **Korovin Flat P** | **3.62** | **263** | P | | P | **Pn** | **08 35 49.6** | **+1.4** |
| **ATKA** | **Atka Island** | **3.69** | **262** | P | | P | **Pn** | **08 35 50.5** | **+1.4** |
| **KOWE** | **Korovin West** | **3.69** | **264** | P | | P | **Pn** | **08 35 51.3** | **+2.1** |
| **BALA** | **Baldy Mountain** | **3.97** | **52** | P | | P | **Pn** | **08 35 56.2** | **+3.3** |
| **DRIA** | **Deer Island** | **4.11** | **57** | P | | P | **Pn** | **08 35 56.1** | **+1.2** |
| **DT1** | **Dutton Round H** | **4.17** | **55** | P | | P | **Pn** | **08 35 57.2** | **+1.5** |
| **SPIA** | **Saint Paul Isl** | **4.45** | **346** | P | | P | Pn | 08 36 04.2 | +4.7 |
| **KDAK** | **Kodiak Island** | **10.18** | **55** | Pn | | P | **Pn** | **08 37 17.9** | **0.0** |
| KDAK | 0.9nm,0.3s,baz=228,slow=10,SNR=20 | | | | | | Sn | | **-3.5** |
| **ILAR** | baz=330,slow=20,SNR=3.4<br>**Eielson Array** | **16.14** | **34** | Pn | | P | **Pn** | **08 38 36.5** | **-1.7** |
| **PETK** | 0.1nm,0.3s,baz=227,slow=11,SNR=8.7<br>**Petropavlovsk-** | **20.39** | **284** | P | | P | **P** | **08 39 27.9** | **+0.4** |
| **INK** | 8.4nm,1.0s,baz=85,slow=13,SNR=3.5<br>**Inuvik** | **22.54** | **34** | P | | P | **P** | **08 39 49.3** | **-1.2** |
| **SEY** | 1.5nm,0.4s,baz=237,slow=8.0,SNR=20<br>**Seymchan** | **22.83** | **312** | P | | P | **P** | **08 39 54.0** | **+0.4** |
| **YKA** | 1.8nm,0.6s,baz=94,slow=20,SNR=7.5<br>**Yellowknife Ar** | **29.39** | **50** | P | | P | **P** | **08 40 53.7** | **+0.4** |
| YKA | 0.2nm,0.5s,baz=273,slow=7.8,SNR=13 | | | | | PcP | **PcP** | **08 43 59.0** | **+0.8** |
| **H11N2** | 0.4nm,0.6s,baz=292,slow=2.4,SNR=7.9<br>**WAKE ISLAND Hy 38.28 220** | | | T | | T | | 09 23 14.5 | |
| **H11N3** | baz=24,slow=76,SNR=279<br>**WAKE ISLAND Hy 38.29 220** | | | T | | T | | 09 23 15.0 | |
| **H11N1** | baz=24,slow=76,SNR=292<br>**WAKE ISLAND Hy 38.30 220** | | | T | | T | | 09 23 26.3 | |
| **H11S1** | baz=24,slow=76,SNR=216<br>**WAKE ISLAND Hy 39.47 219** | | | T | | T | | 09 24 43.4 | |
| **H11S2** | baz=24,slow=76,SNR=563<br>**WAKE ISLAND Hy 39.48 219** | | | T | | T | | 09 24 44.4 | |
| **H11S3** | baz=24,slow=76,SNR=417<br>**WAKE ISLAND Hy 39.48 219** | | | T | | T | | 09 24 43.5 | |
| **PDAR** | baz=24,slow=76,SNR=237<br>**Pinedale Array 39.64 80** | | | P | | P | | **08 42 21.9** | **-0.4** |
| **MJAR** | 0.3nm,0.8s,baz=301,slow=2.6,SNR=4.3<br>**Matsushiro Arr 40.39 268** | | | P | | P | | **08 42 28.3** | **0.0** |
| **KSRS** | 0.9nm,0.5s,baz=37,slow=6.1,SNR=5.2<br>**Korea Array 46.02 277** | | | P | | P | | **08 43 14.1** | **+0.5** |
| **SONM** | 0.7nm,0.5s,baz=52,slow=6.9,SNR=4.6<br>**Songino Array 51.62 301** | | | P | | P | | **08 43 56.7** | **+0.1** |
| **TXAR** | 0.2nm,0.6s,baz=60,slow=5.8,SNR=4.0<br>**Lajitas Array 52.06 90** | | | P | | P | | **08 44 00.1** | **-0.1** |
| **CMAR** | 0.4nm,0.8s,baz=296,slow=5.4,SNR=5.8<br>**Chiang Mai Arr 77.16 284** | | | P | | P | | **08 46 44.4** | **+0.6** |
| **ESDC** | 1.9nm,0.3s,baz=17,slow=6.7,SNR=6.3<br>**Sonseca Array 86.81 12** | | | P | | P | | **08 47 34.5** | **+0.2** |
| | 0.5nm,0.6s,baz=348,slow=6.0,SNR=5.0 | | | | | | | | |

**IDC 25 08:42:16.4**±4.4,**3.˚33S**×**139.˚15E,h230**km±46km,**mb3.2/2, mb1 3.3/4, mb1mx3.0/27, mbtmp3.8/4, MS3.9/1, Ms1 3.9/1, ms1mx2.7/16, Error ellipse: s-maj=56.9km s-min=17.0km az=123.0, Irian Jaya**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr 17.17 195** | | | P | | P | | 08 46 00.0 | -1.3 |
| WRA | 0.3nm,0.3s,baz=18,slow=12,SNR=15 | | | S | | S | | 08 49 08.7 | +0.5 |
| **FITZ** | 0.0nm,0.3s,baz=15,slow=23,SNR=2.9<br>**Fitzroy Crossi 19.77 221** | | | P | | P | | 08 46 29.4 | 0.0 |
| FITZ | 0.1nm,0.3s,baz=61,slow=13,SNR=4.0 | | | S | | S | | 08 50 00.4 | +0.8 |
| **ASAR** | 0.0nm,0.3s,baz=200,slow=21,SNR=2.1<br>**Alice Springs 20.84 194** | | | P | | P | | 08 46 41.6 | +0.7 |
| **TGY** | 1.0nm,0.3s,baz=16,slow=10,SNR=20<br>**Tagaytay City 25.02 314** | | | LR | | LR | | 08 59 16.7 | |
| **ILAR** | comp=Z,234nm,19.1s,baz=105,slow=41<br>**Eielson Array 86.21 24** | | | P | | P | | 08 54 31.6 | -0.1 |
| | 0.4nm,0.6s,baz=260,slow=4.5,SNR=7.0 | | | | | | | | |

*NNC **25** 08:56:07.0±1.5,38.˚99N×72.˚12E,h0km, mb3.8, mpv3.4, Error ellipse: s-maj=17.9km s-min=5.9km az=155.0*
*ISCJB **25** 08:56:10.6±0.9,39.˚28N±0.˚06×71.˚98E±0.˚06,h10km, Error ellipse: s-maj=9.9km s-min=5.0km az=147.8*
*KRNET **25** 08:56:10.9±0.1,39.˚45N×72.˚06E, mb3.3*
**ISC 25 08:56:08.2**±1.1,**39.˚27N**±0.˚06×**71.˚88E**±0.˚04,**h10**km,**n26,** σ2°**56/41, 20C-17D, Tajikistan**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **SFK** | **Sufi-Kurgan 1.46 59** | | | ⇑*e*P | | **Pg** | | **08 56 35.4** | **-0.8** |
| SFK | baz=62 | | | ⇑*i*S | | **Sb** | | **08 56 53.3** | **-0.9** |
| **SFK** | **Sufi-Kurgan 1.46 59** | | | ⇑P | | **Pb** | | **08 56 34.6** | **-1.0** |
| SFK | 8.0nm,0.5s | | | ⇓S | | **Sg** | | **08 56 54.9** | **-0.2** |
| **ARSB** | 71nm,0.4s<br>**Arslanbob 2.22 22** | | | ⇓*e*P | | **Pb** | | **08 56 48.1** | **-0.4** |
| ARSB | baz=20 | | | ⇓*i*S | | **Sb** | | **08 57 15.0** | **-1.1** |
| **DZET** | baz=20<br>**Dzherino 2.42 260** | | | ⇓P | | **Pb** | | **08 56 50.8** | **-1.1** |
| DZET | 38nm,0.5s | | | ⇑S | | **Sg** | | **08 57 23.7** | **-2.2** |
| **ARK** | 177nm,0.5s<br>**Arkit 2.53 1** | | | ⇓*i*P | | **Pb** | | **08 56 53.0** | **-0.7** |
| ARK | baz=359 | | | ⇓*i*S | | **Sb** | | **08 57 24.3** | **-0.6** |
| **TOKL** | baz=359<br>**Toktogul 2.77 15** | | | ⇑*i*P | | **Pb** | | **08 56 55.6** | **-2.3** |
| TOKL | baz=14 | | | ⇑*i*S | | **Sb** | | **08 57 29.1** | **-2.9** |
| **AML** | baz=14<br>**Almayashu 3.18 25** | | | ⇑*i*P | | **Pb** | | **08 57 00.8** | **-4.1** |
| AML | baz=24 | | | ⇑*i*S | | **Sn** | | **08 57 39.2** | **+2.5** |
| **AML** | baz=24<br>**Almayashu 3.18 25** | | | P | | **Pb** | | **08 57 03.1** | **-1.8** |
| **MNAS** | SNR=12<br>**Manas 3.25 8** | | | ⇓*i*P | | **Pb** | | **08 57 02.5** | **-3.5** |
| MNAS | baz=6.0 | | | ⇓*i*S | | **Sb** | | **08 57 41.6** | **-4.1** |
| **MNAS** | baz=6.0<br>**Manas 3.25 8** | | | ⇑Pn | | **Pn** | | **08 57 01.5** | **+2.2** |
| MNAS | 8.9nm,0.7s | | | ⇓Sn | | **Sb** | | **08 57 47.7** | **+2.0** |
| **UCH** | 25nm,0.6s<br>**Uchtor 3.57 33** | | | ⇑*e*P | | Pb | | 08 57 06.8 | -4.9 |
| UCH | baz=33 | | | ⇑*i*S | | **Sn** | | **08 57 48.0** | **+1.5** |
| **UCH** | baz=33<br>**Uchtor 3.57 33** | | | P | | **Pb** | | **08 57 09.2** | **-2.5** |
| **EKS2** | SNR=20<br>**Erkin-Say 3.68 22** | | | ⇓*i*P | | Pb | | 08 57 08.4 | -5.0 |
| EKS2 | baz=22 | | | ⇓*i*S | | **Sn** | | **08 57 50.6** | **+1.8** |
| **EKS2** | baz=22<br>**Erkin-Say 3.68 22** | | | P | | **Pb** | | **08 57 09.1** | **-4.3** |
| **KZA** | SNR=9.3<br>**Kyzart 3.80 41** | | | ⇑*i*P | | **Pb** | | **08 57 09.6** | **+2.4** |
| KZA | baz=42 | | | ⇑*i*S | | **Sn** | | **08 57 53.8** | **+1.7** |
| **KZA** | baz=42<br>**Kyzart 3.80 41** | | | P | | **Pb** | | **08 57 11.0** | **-4.6** |
| **NRN** | SNR=15<br>**Naryn 3.82 54** | | | ⇓*e*P | | **Pn** | | **08 57 10.1** | **+2.8** |
| NRN | baz=55 | | | ⇓*e*S | | **Sn** | | **08 57 54.4** | **+1.9** |
| **AAK** | baz=55<br>**Ala-Archa 3.91 30** | | | ⇑*e*P | | **Pn** | | **08 57 10.8** | **+2.4** |
| AAK | baz=29 | | | ⇑*i*S | | **Sn** | | **08 57 55.7** | **+1.4** |
| **AAK** | baz=29<br>**Ala-Archa 3.91 30** | | | ⇓Pn | | Pb | | 08 57 12.3 | -4.9 |
| AAK | 7.5nm,0.7s | | | ⇑Sn | | **Sb** | | **08 58 01.5** | **-3.1** |
| **AAK** | 17nm,0.8s<br>**Ala-Archa 3.91 30** | | | P | | **Pb** | | **08 57 14.4** | **-2.8** |
| **KK31** | SNR=11<br>**Karatay Array 3.97 345** | | | Pn | | **Pn** | | **08 57 10.1** | **+1.0** |
| KK31 | 1.0nm,0.3s,baz=166,slow=12,SNR=97 | | | ⇓Pg | | **Pg** | | **08 57 23.2** | **-1.0** |
| KK31 | 8.9nm,0.6s,baz=160,slow=16,SNR=11 | | | ⇑Sn | | **Sb** | | **08 58 06.4** | **+0.2** |
| **CHMS** | 10nm,0.5s,baz=175,slow=27,SNR=5.3<br>**Chumysh 4.31 29** | | | P | | Pn | | 08 57 17.6 | +3.8 |
| **USP** | SNR=15<br>**Ospenovka 4.46 25** | | | ⇓*e*P | | **Pn** | | **08 57 18.7** | **+2.9** |
| USP | baz=25 | | | ⇓*i*S | | **Sn** | | **08 58 08.1** | **+0.3** |
| **USP** | baz=25<br>**Ospenovka 4.46 25** | | | P | | **Pn** | | **08 57 19.2** | **+3.4** |
| **TKM2** | SNR=8.2<br>**Tokmak 2 4.61 36** | | | ⇑Pn | | **Pn** | | **08 57 21.0** | **+3.0** |
| TKM2 | 5.1nm,0.7s | | | ⇑Sn | | **Sn** | | **08 58 17.2** | **+5.5** |
| **AB31** | 10nm,0.7s<br>**Akbulak array 13.13 323** | | | ⇑Pn | | **Pn** | | **08 59 16.3** | **+1.7** |
| | 0.5nm,0.5s,baz=132,slow=13,SNR=9.7 | | | | | | | | |

**KRSC 25 09:03:19.3**±1.8,**54.˚99N**×**163.˚08E,h7**km±42km,**ML3.7, Off east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **KBTR** | **Krutoberegovo 1.23 353** | | | *e*P | | Pn | | 09 03 43.3 | +0.4 |
| KBTR | | | | *e*S | | Sn | | 09 04 00.2 | +0.5 |
| **KBG** | **Krutoberegovo 1.28 351** | | | *e*S | | Sn | | 09 04 01.4 | +0.3 |
| **TUMD** | **Tumrok D 1.55 279** | | | *e*P | | Pn | | 09 03 47.2 | -0.2 |
| TUMD | | | | *e*S | | Sn | | 09 04 08.0 | +0.2 |
| **KZV** | **Kizimen 1.61 276** | | | P | | Pn | | 09 03 48.7 | +0.5 |
| KZV | | | | *e*S | | Sb | | 09 04 10.1 | +0.2 |
| **ZLN** | **Zelenaya 1.65 309** | | | *e*P | | Pn | | 09 03 49.3 | +0.5 |
| **BKI** | **Bering 1.68 81** | | | *e*S | | Sb | | 09 04 12.3 | +0.6 |
| **TUMR** | **Tumrok 1.71 281** | | | *e*P | | Pb | | 09 03 50.4 | -0.7 |
| **CIRR** | **Tsirk 1.74 311** | | | *e*P | | Pb | | 09 03 51.1 | -0.5 |
| **BZMR** | **Bezymyannaya 1.75 304** | | | *e*P | | Pb | | 09 03 51.1 | -0.7 |
| BZMR | | | | *e*S | | Sb | | 09 04 14.5 | +0.4 |
| **BZWR** | **Bezymyannyi-We 1.76 305** | | | *e*P | | Pn | | 09 03 51.0 | +0.6 |
| BZWR | | | | *e*S | | Sg | | 09 04 15.9 | -0.1 |
| **KMNR** | **Kamenistaya 1.79 296** | | | *e*P | | Pn | | 09 03 51.1 | +0.3 |
| KMNR | | | | *e*S | | Sn | | 09 04 14.0 | +0.2 |
| **KIRR** | **Kirishev 1.83 303** | | | *e*P | | Pb | | 09 03 52.6 | -0.6 |
| **SMKR** | **Semkarok 1.84 331** | | | *e*P | | Pn | | 09 03 51.7 | +0.4 |
| **KRSR** | **Krestovskiy 1.88 312** | | | *e*P | | Pn | | 09 03 52.1 | +0.1 |
| KRSR | | | | *e*S | | Sb | | 09 04 17.3 | -0.5 |
| **BDR** | **Baidarnaya 1.90 327** | | | *e*P | | Pn | | 09 03 53.1 | +0.9 |
| **KLY** | **Klyuchi 1.91 315** | | | *e*P | | Pn | | 09 03 51.4 | -0.8 |
| KLY | | | | *e*S | | Sn | | 09 04 15.2 | -1.3 |
| **SRKR** | **Sorokina 1.99 328** | | | *e*P | | Pn | | 09 03 54.3 | +0.9 |
| **KOZ** | **Kozyrevsk 2.11 302** | | | *e*P | | Pb | | 09 03 56.8 | -1.1 |
| KOZ | | | | *e*S | | Sb | | 09 04 23.6 | -0.7 |
| **SPN** | **Mys Shipunski 2.62 225** | | | *e*S | | Sn | | 09 04 34.9 | +1.0 |
| **ESO** | **Esso 2.66 292** | | | *e*P | | Pn | | 09 04 03.9 | +1.3 |
| **NLC** | **Nalytchevo 2.86 232** | | | *e*S | | Sn | | 09 04 42.7 | +2.9 |
| **SDLR** | **Sedlovina 3.00 237** | | | *e*P | | Pb | | 09 04 10.7 | -2.5 |
| SDLR | | | | *e*S | | Sb | | 09 04 47.3 | -2.8 |
| **SMAR** | **Somma 3.05 237** | | | *e*P | | Pn | | 09 04 11.3 | +2.1 |
| **UGLR** | **Uglovaya 3.08 236** | | | *e*P | | Pb | | 09 04 11.7 | -2.7 |
| **DALK** | **Dalny 3.22 234** | | | *e*P | | Pb | | 09 04 13.7 | -3.0 |
| **PET** | **Petropavlovsk 3.27 235** | | | *e*P | | Pn | | 09 04 14.0 | +3.1 |
| PET | | | | *e*S | | Sn | | 09 04 53.6 | +3.6 |
| **GNL** | **Ganaly 3.27 249** | | | *e*P | | Pn | | 09 04 13.7 | +2.6 |
| **KRMR** | **Karymshinskiy 3.64 236** | | | P | | Pb | | 09 04 20.0 | -3.9 |
| KRMR | | | | *e*S | | Sn | | 09 05 03.0 | +3.9 |

*ISCJB **25** 09:11:25.1±1.1,18.˚10S±0.˚06×71.˚1W±0.˚1,h71km±12km, mb3.7/3, Error ellipse: s-maj=18.4km s-min=9.7km az=169.8*
*GUC **25** 09:11:26.6±0.5,18.˚52S×71.˚24W,h28km±4km, ML4.0*
*IDC **25** 09:11:34.1±3.3,17.˚82S×70.˚67W,h121km±24km, mb3.5/3, mb1 3.7/7, mb1mx3.4/28, mbtmp3.9/7, MS3.1/5, Ms1 3.1/5, ms1mx3.0/19, Error ellipse: s-maj=45.5km s-min=22.2km az=14.0*
**ISC 25 09:11:25.5**±2.1,**18.˚14S**±0.˚07×**71.˚2W**±0.˚2,**h57**km±21km, **n29,**σ1°**48/29, mb3.8/3, 2C-4D, Off coast of northern Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **ARCH** | **Arica 0.89 113** | | | ⇓*i*P | | **Pn** | | **09 11 41.8** | **-0.2** |
| ARCH | | | | *i*S | | **Sn** | | **09 11 53.6** | **-0.5** |
| **PB12** | **IPOC Station P 0.92 121** | | | ⇓*i*P | | **Pn** | | **09 11 42.5** | **0.0** |
| PB12 | | | | *e*S | | **Sn** | | **09 11 54.2** | **-0.7** |
| PB12 | comp=E,23μm,0.1s | | | IAML | | | | 09 11 56.1 | |
| **PSGC** | **Pisagua 1.75 146** | | | *e*P | | **Pn** | | **09 11 54.6** | **+1.0** |
| PSGC | | | | *i*S | | **Sn** | | **09 12 14.5** | **-0.3** |
| **MNMC** | **Minye Minye 1.78 124** | | | ⇑*i*P | | **Pn** | | **09 11 55.0** | **+0.9** |
| MNMC | | | | *i*S | | **Sn** | | **09 12 17.3** | **+1.4** |
| MNMC | comp=N,3μm,0.3s | | | IAML | | | | 09 12 22.7 | |
| **PB11** | **IPOC Station P 2.15 139** | | | ⇑*i*P | | **Pn** | | **09 12 00.1** | **+1.0** |
| PB11 | | | | *i*S | | **Sn** | | **09 12 25.1** | **+0.4** |
| PB11 | comp=N,3μm,0.4s | | | IAML | | | | 09 12 33.3 | |
| **PB08** | **IPOC Station P 2.75 137** | | | ⇓*i*P | | **Pn** | | **09 12 08.8** | **+1.3** |
| PB08 | | | | *i*S | | **Sn** | | **09 12 40.9** | **+1.2** |
| PB08 | comp=E,430nm,0.3s | | | IAML | | | | 09 12 50.6 | |
| **PB01** | **IPOC Station P 3.29 152** | | | *e*P | | **Pn** | | **09 12 15.3** | **+0.7** |
| PB01 | | | | *i*S | | **Sn** | | **09 12 51.3** | **-1.2** |
| PB01 | comp=E,240nm,0.4s | | | IAML | | | | 09 12 55.3 | |
| **PB02** | **IPOC Station P 3.38 160** | | | ⇓*i*P | | **Pn** | | **09 12 17.3** | **+1.4** |
| PB02 | | | | *e*S | | **Sn** | | **09 12 52.7** | **-2.1** |
| PB02 | comp=E,372nm,0.3s | | | IAML | | | | 09 13 03.9 | |
| **LPAZ** | **La Paz 3.43 58** | | | P | | **Pn** | | **09 12 19.6** | **+2.5** |
| LPAZ | comp=E,6.7nm,0.3s,baz=243,slow=8.2,SNR=76 | | | LR | | LR | | 09 13 51.4 | |
| **NNA** | comp=E,210nm,21.2s,baz=220,slow=48<br>**Nana 8.22 317** | | | P | | Pn | | 09 13 32.9 | +11 |
| NNA | comp=E,1.1nm,0.3s,baz=161,slow=10,SNR=6.9 | | | S | | Sn | | 09 15 13.2 | +19 |
| NNA | comp=E,1.1nm,0.3s,baz=246,slow=20,SNR=2.8 | | | LR | | LR | | 09 16 53.9 | |
| **SIV** | comp=E,45nm,20.9s,baz=282,slow=38<br>**San Ignacio 9.88 79** | | | P | | **Pn** | | **09 13 44.9** | **0.0** |
| SIV | comp=E,1.7nm,0.3s,baz=273,slow=14,SNR=17 | | | LR | | LR | | 09 17 54.9 | |
| **PTGA** | comp=E,159nm,19.3s,baz=295,slow=41<br>**Pitinga 20.50 34** | | | P | | **P** | | **09 15 57.1** | **-1.9** |
| PTGA | comp=E,0.6nm,0.3s,baz=250,slow=16,SNR=11 | | | LR | | LR | | 09 24 27.8 | |
| **YOTC** | comp=E,82nm,18.3s,baz=184,slow=39<br>**Yotoco, Valle 22.57 346** | | | *e*P | | **P** | | **09 16 21.4** | **+0.1** |
| **RUSC** | **La Rusia 23.96 355** | | | *e*P | | **P** | | **09 16 33.4** | **-1.8** |
| **HELC** | **Santa Helena 24.56 349** | | | *e*P | | **P** | | **09 16 36.7** | **-3.9** |
| **ZARC** | **Zaragoza, Cauc 25.73 352** | | | *e*P | | **P** | | **09 16 49.4** | **-1.4** |
| **RPN** | **Rapa Nui 36.24 249** | | | LR | | LR | | 09 29 35.9 | |
| **TXAR** | comp=E,52nm,18.1s,baz=82,slow=29<br>**Lajitas Array 56.68 326** | | | P | | **P** | | **09 21 04.1** | **+0.8** |
| **TORD** | comp=E,0.7nm,1.0s,baz=144,slow=7.8,SNR=4.2<br>**Torodi Ar. Bea 78.28 72** | | | P | | **P** | | **09 23 18.7** | **-1.2** |
| **YKA** | comp=E,1.0nm,0.7s,baz=260,slow=4.9,SNR=8.6<br>**Yellowknife Ar 87.34 341** | | | P | | **P** | | **09 24 06.6** | **+0.8** |
| **H11S2** | comp=E,1.0nm,0.7s,baz=137,slow=4.8,SNR=22<br>**WAKE ISLAND Hy 25.28 280** | | | T | | T | | 11 48 14.0 | |
| **H11N3** | baz=100<br>**WAKE ISLAND Hy 25.28 282** | | | T | | T | | 11 48 14.8 | |
| **H11S1** | baz=99<br>**WAKE ISLAND Hy 25.29 280** | | | T | | T | | 11 48 12.3 | |
| **H11N2** | baz=100<br>**WAKE ISLAND Hy 25.30 282** | | | T | | T | | 11 48 12.4 | |
| **H11S3** | baz=99<br>**WAKE ISLAND Hy 25.30 280** | | | T | | T | | 11 48 14.6 | |
| **H

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **38.93** | **120** | P | **P** | **09 22 36.9** | **-2.3** | |
| | 0.8nm,0.4s,baz=305,slow=9.0,SNR=9.4 | | | | | | | |
| **ASAR** | **Alice Springs** | **40.18** | **126** | P | **P** | **09 22 47.6** | **-2.0** | |
| | 0.4nm,0.8s,baz=304,slow=7.0,SNR=8.7 | | | | | | | |
| **SONM** | **Songino Array** | **49.56** | **6** | P | **P** | **09 24 06.3** | **+2.3** | |
| | 0.2nm,0.6s,baz=198,slow=9.1,SNR=3.3 | | | | | | | |
| **STKA** | **Stephens Creek** | **50.06** | **132** | P | **P** | **09 24 07.2** | **-0.8** | |
| | 2.8nm,1.0s,baz=303,slow=12,SNR=2.8 | | | | | | | |
| **MKAR** | **Makanchi Array** | **50.37** | **345** | P | **P** | **09 24 10.6** | **+0.6** | |
| | 1.0nm,0.6s,baz=156,slow=7.7,SNR=7.9 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **56.56** | **350** | P | **P** | **09 24 55.4** | **+0.1** | |
| | 0.6nm,0.4s,baz=152,slow=6.6,SNR=3.7 | | | | | | | |
| **TXAR** | **Lajitas Array** | **144.81** | **36** | PKPbc | PKPbc | 09 34 49.8 | +0.2 | |
| | 0.6nm,0.5s,baz=229,slow=0.7,SNR=19 | | | | | | | |

*ISCJB **25** 09:15:28.1±1.2,35˚.42N±0˚.07×141˚.3E±0˚.1,h33km, mb3.5/2,Error ellipse: s-maj=16.0km s-min=7.3km az=154.5*

*JMA **25** 09:15:28.3±0.1,35˚.44N×141˚.25E,h32km±1km,M2.8*

*IDC **25** 09:15:38.5±4.6,35˚.03N×140˚.17E,h77km±29km,mb3.2/2, mb1 3.5/2,mb1mx2.9/40,mbtmp3.5/2,MS2.5/1,Ms1 2.5/1, ms1mx2.2/13,Error ellipse: s-maj=106.2km s-min=26.1km az=73.0*

**ISC 25 09:15:29.2±1.5,35˚.42N±0˚.07×141˚.2E±0˚.1,h33km,n19, σ1$75/14,Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|---|
| **CHOJ** | **Chosi** | **0.41** | **313** | P | | **Pb** | | **09 15 37.3** | **-1.2** |
| CHOJ | | | | S | | **Sb** | | **09 15 43.8** | **-1.0** |
| **BSO1** | **Boso 1** | **0.79** | **195** | P | | **Pn** | | **09 15 43.2** | **-0.4** |
| BSO1 | | | | X | | | | 09 15 55.3 | |
| **KTR** | **Katsuura** | **0.79** | **250** | P | | **Pn** | | **09 15 43.6** | **-0.4** |
| **BSO4** | **Boso 4** | **0.84** | **240** | P | | **Pn** | | **09 15 44.5** | **-0.2** |
| **BSO3** | **Boso 3** | **0.85** | **224** | P | | **Pn** | | **09 15 44.4** | **-0.2** |
| BSO3 | | | | X | | | | 09 15 57.0 | |
| **JYT** | **Yasato** | **1.16** | **314** | P | | **Pn** | | **09 15 48.6** | **-0.6** |
| **JHO** | **Hitachi** | **1.30** | **336** | P | | **Pb** | | **09 15 51.3** | **-1.8** |
| **JHJ** | **Hachijo jima 2** | **2.59** | **208** | P | | **Pn** | | **09 16 09.4** | **+0.7** |
| | 10nm,0.3s,baz=71,slow=21,SNR=3.2 | | | | | | | | |
| JHJ | | | | S | | Sn | | 09 16 25.6 | -13 |
| | 20nm,0.3s,baz=241,slow=22,SNR=2.9 | | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **2.69** | **295** | P | | **Pn** | | **09 16 12.6** | **+2.4** |
| | 0.8nm,0.3s,baz=133,slow=14,SNR=8.9 | | | | | | | | |
| **MAT** | **Matsushiro** | **2.69** | **295** | P | | **Pb** | | **09 16 13.7** | **-3.0** |
| MAT | | | | *e*S | | **Sn** | | **09 16 44.8** | **+3.1** |
| **KSRS** | **Korea Array** | **10.91** | **285** | LR | | LR | | 09 22 10.7 | |
| | comp=Z,25nm,18.6s,baz=325,slow=38 | | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy 27.49** | **118** | | T | | T | | 09 50 07.0 | |
| | baz=310,slow=75,SNR=9.8 | | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy 27.50** | **118** | | T | | T | | 09 50 11.4 | |
| | baz=310,slow=75,SNR=8.0 | | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy 27.51** | **118** | | T | | T | | 09 50 05.2 | |
| | baz=310,slow=75,SNR=9.1 | | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy 28.15** | **120** | | T | | T | | 09 51 07.2 | |
| | baz=312,slow=75,SNR=52 | | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy 28.15** | **120** | | T | | T | | 09 51 07.2 | |
| | baz=312,slow=75,SNR=43 | | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy 28.16** | **120** | | T | | T | | 09 50 54.3 | |
| | baz=312,slow=75,SNR=43 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **55.44** | **188** | P | | **P** | | **09 25 01.1** | **+0.5** |
| | 0.2nm,0.3s,baz=5.2,slow=7.6,SNR=9.3 | | | | | | | | |
| **ASAR** | **Alice Springs** | **59.17** | **188** | P | | **P** | | **09 25 28.3** | **+1.4** |
| | 0.3nm,0.8s,baz=0.9,slow=6.7,SNR=4.8 | | | | | | | | |

*ISCJB **25** 09:30:56.3±1.1,44˚.11N±0˚.09×147˚.1E±0˚.1,h126km±6km, Error ellipse: s-maj=19.5km s-min=7.7km az=138.8*

*SKHL **25** 09:30:56.8±0.4,44˚.44N×146˚.80E,h133km±5km,mb4.6/2, msh4.8/3*

*JMA **25** 09:30:58.1±0.4,44˚.08N×146˚.97E,h120km±3km,M3.3*

**ISC 25 09:30:55.3±2.3,44˚.06N±0˚.10×147˚.2E±0˚.1,h133km±12km, n17,σ1$22/27,Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|---|
| **SHO** | **Shikotan** | **0.30** | **232** | *e*P | | **Pn** | | **09 31 14.5** | **+0.7** |
| SHO | | | | *e*S | | **Sn** | | **09 31 27.6** | **-0.1** |
| SHO | | | | A | | A | | 09 31 28.0 | |
| | 2µm,0.4s | | | | | | | | |
| SHO | | | | A | | A | | 09 31 28.0 | |
| | 2µm,0.4s | | | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **0.94** | **269** | *e*P | | **Pn** | | **09 31 18.5** | **+0.6** |
| YUK | | | | AMB | | AMB | | 09 31 18.7 | |
| | 39nm,0.2s | | | | | | | | |
| YUK | | | | AMB | | AMB | | 09 31 18.7 | |
| | 67nm,0.2s | | | | | | | | |
| YUK | | | | AMB | | AMB | | 09 31 18.7 | |
| | 570nm,0.2s | | | | | | | | |
| YUK | | | | *e*S | | **Sn** | | **09 31 34.6** | **-0.4** |
| YUK | | | | A | | A | | 09 31 34.8 | |
| | 460nm,0.3s | | | | | | | | |
| YUK | | | | A | | A | | 09 31 34.8 | |
| | 102nm,0.3s | | | | | | | | |
| **LAGR** | **Lagunnoye** | **0.99** | **270** | *e*P | | **Pn** | | **09 31 18.8** | **+0.5** |
| LAGR | | | | *e*S | | **Sn** | | **09 31 35.5** | **-0.3** |
| **GRPR** | **Tuman** | **1.01** | **267** | *e*P | | **Pn** | | **09 31 18.6** | **+0.1** |
| GRPR | | | | *e*S | | **Sn** | | **09 31 34.4** | **-1.7** |
| **GLVR** | **Golovnino** | **1.23** | **256** | *e*P | | **Pn** | | **09 31 21.4** | **+0.7** |
| GLVR | | | | *e*S | | **Sn** | | **09 31 40.1** | **+0.2** |
| **NEM2** | **Nemuro 2** | **1.24** | **237** | P | | **Pn** | | **09 31 21.7** | **+0.9** |
| NEM2 | | | | *e*S | | **Sn** | | **09 31 39.6** | **-0.5** |
| **KUR** | **Kuril'sk** | **1.28** | **23** | *e*P | | **Pn** | | **09 31 21.3** | **+0.2** |
| KUR | | | | AMB | | AMB | | 09 31 21.6 | |
| | 44nm,0.4s | | | | | | | | |
| KUR | | | | *e*S | | **Sn** | | **09 31 40.0** | **-0.9** |
| KUR | | | | A | | A | | 09 31 40.4 | |
| | 67nm,0.2s | | | | | | | | |
| KUR | | | | A | | A | | 09 31 40.4 | |
| | 45nm,0.2s | | | | | | | | |
| **JRA** | **Rausu** | **1.48** | **266** | P | | **Pn** | | **09 31 23.8** | **+0.5** |
| **JNK** | **Nakash** | **1.83** | **256** | P | | **Pn** | | **09 31 28.2** | **+0.8** |
| **JAK** | **Akkeshi** | **2.08** | **240** | P | | **Pn** | | **09 31 31.3** | **+0.9** |
| **JTKR** | **Abashiri--Toko** | **2.35** | **269** | P | | **Pn** | | **09 31 34.1** | **+0.4** |
| **JAR** | **Ashorobuto** | **2.58** | **254** | P | | **Pn** | | **09 31 38.1** | **+1.5** |
| **JOB** | **Onbets** | **2.68** | **246** | P | | **Pn** | | **09 31 39.3** | **+1.4** |
| JOB | | | | *e*S | | **Sn** | | **09 32 10.5** | **-0.2** |
| **JCH** | **Churui** | **3.13** | **244** | P | | **Pn** | | **09 31 44.4** | **+0.8** |
| JCH | | | | *e*S | | **Sn** | | **09 32 20.2** | **-0.7** |
| **JKK2** | **Kamakawa 2** | **3.19** | **268** | P | | **Pn** | | **09 31 45.4** | **+0.9** |
| **JNBK** | **Urakawa-nobuka** | **3.68** | **243** | P | | **Pn** | | **09 31 51.3** | **+0.4** |
| JNBK | | | | *e*S | | **Sn** | | **09 32 29.8** | **-4.1** |
| **JWK2** | **Keihoku** | **3.96** | **290** | P | | **Pn** | | **09 31 55.9** | **+1.4** |

*ISCJB **25** 09:43:19.7±0.4,38˚.72N±0˚.02×43˚.51E±0˚.04,h9km±4km, Error ellipse: s-maj=5.7km s-min=3.3km az=11.9*

*CSEM **25** 09:43:19.1±0.2,38˚.70N×43˚.52E,h10km,ML2.7,Error ellipse: s-maj=5.5km s-min=3.6km az=99.0*

*DDA **25** 09:43:19.1,38˚.73N×43˚.49E,h7km,Ml2.7*

*ISK **25** 09:43:19.0,38˚.68N×43˚.56E,h10km, ML2.7*

**ISC 25 09:43:19.5±0.8,38˚.70N±0˚.02×43˚.54E±0˚.03,h14km±6km, n40,σ1$10/62,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.16** | **231** | *e*PG | | **Pg** | | **09 43 23.2** | **-0.3** |
| VANB | | | | *e*SG | | **Sg** | | **09 43 27.6** | **+1.4** |
| **VANB** | **Van** | **0.16** | **231** | *e*Pg | | **Pg** | | **09 43 23.2** | **-0.3** |
| VANB | | | | *e*Sg | | **Sg** | | **09 43 27.6** | **+1.4** |
| **TVAN** | **Van** | **0.20** | **213** | *i* P | | **Pg** | | **09 43 23.5** | **-0.7** |
| TVAN | | | | *i* S | | **Sg** | | **09 43 28.0** | **+0.7** |
| **TVAN** | **Van** | **0.20** | **213** | P | | **Pg** | | **09 43 23.5** | **-0.7** |
| TVAN | | | | S | | **Sg** | | **09 43 28.0** | **+0.7** |
| **VMUR** | **Van-Muradiye** | **0.29** | **4** | *i* P | | **Pg** | | **09 43 24.6** | **-1.3** |
| VMUR | | | | *i* S | | **Sg** | | **09 43 29.2** | **-0.8** |
| **VMUR** | **Van-Muradiye** | **0.29** | **4** | P | | **Pg** | | **09 43 24.5** | **-1.3** |
| VMUR | | | | S | | **Sg** | | **09 43 29.2** | **-0.8** |
| **ERCV** | **ERCIS-VAN** | **0.36** | **334** | *e*PG | | **Pb** | | **09 43 27.7** | **-0.2** |
| **ERCV** | **ERCIS-VAN** | **0.36** | **334** | *e*Pg | | **Pb** | | **09 43 27.7** | **-0.2** |
| **CLDR** | **Caldiran** | **0.53** | **33** | *e*PG | | **Pg** | | **09 43 29.9** | **-0.2** |
| CLDR | | | | *e*SG | | **Sb** | | **09 43 38.2** | **-0.3** |
| **CLDR** | **Caldiran** | **0.53** | **33** | *i* P | | **Pg** | | **09 43 29.0** | **-1.1** |
| CLDR | | | | *i* S | | **Sb** | | **09 43 38.5** | **0.0** |
| **CLDR** | **Caldiran** | **0.53** | **33** | P | | **Pg** | | **09 43 29.0** | **-1.1** |
| **CLDR** | **Caldiran** | **0.53** | **33** | *e*Pg | | **Pg** | | **09 43 29.9** | **-0.2** |
| CLDR | | | | *e*Sg | | **Sb** | | **09 43 38.2** | **-0.3** |
| **GEVA** | **Gevas** | **0.54** | **225** | *i* P | | **Pg** | | **09 43 28.7** | **-1.5** |
| GEVA | | | | *i* S | | **Sb** | | **09 43 38.7** | **+0.1** |
| **GEVA** | **Gevas** | **0.54** | **225** | P | | **Pg** | | **09 43 28.7** | **-1.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.65** | **280** | *i* P | | **Pg** | | **09 43 30.5** | **-1.8** |
| ADCV | | | | *i* S | | **Sb** | | **09 43 40.6** | **-1.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.65** | **280** | P | | **Pg** | | **09 43 30.5** | **-1.8** |
| ADCV | | | | S | | **Sb** | | **09 43 40.6** | **-1.2** |
| **BASK** | **Baskale_VAN** | **0.74** | **150** | *i* P | | **Pg** | | **09 43 32.6** | **-1.3** |
| BASK | | | | *i* S | | **Sn** | | **09 43 46.4** | **-0.5** |
| **BASK** | **Baskale_VAN** | **0.74** | **150** | P | | **Pg** | | **09 43 32.6** | **-1.3** |
| BASK | | | | S | | **Sn** | | **09 43 46.4** | **-0.5** |
| **DYDN** | **Diyadin** | **0.85** | **8** | *i* P | | **Pg** | | **09 43 35.2** | **-1.0** |
| DYDN | | | | *i* S | | **Sb** | | **09 43 48.0** | **+0.2** |
| **DYDN** | **Diyadin** | **0.85** | **8** | P | | **Pg** | | **09 43 35.2** | **-1.0** |
| **AGRB** | **Hanur-Agry** | **0.98** | **334** | *e*PG | | **Pb** | | **09 43 38.0** | **-0.4** |
| **AGRB** | **Hanur-Agry** | **0.98** | **334** | *e*Pg | | **Pb** | | **09 43 38.0** | **-0.4** |
| **HAKT** | **HAKKARI** | **1.14** | **174** | *i* P | | **Pb** | | **09 43 40.2** | **-1.0** |
| HAKT | | | | *i* S | | **Sn** | | **09 43 59.2** | **+2.3** |
| **HAKT** | **HAKKARI** | **1.14** | **174** | P | | **Pb** | | **09 43 40.2** | **-1.0** |
| HAKT | | | | S | | **Sn** | | **09 43 59.2** | **+2.3** |
| **EKAR** | **Karacoban** | **1.28** | **296** | *i* P | | **Pn** | | **09 43 43.0** | **-0.3** |
| EKAR | | | | *i* S | | **Sn** | | **09 44 02.9** | **+2.5** |
| **EKAR** | **Karacoban** | **1.28** | **296** | P | | **Pn** | | **09 43 43.0** | **-0.3** |
| EKAR | | | | S | | **Sn** | | **09 44 02.9** | **+2.5** |
| **TASB** | **TASBURUN-IGDIR** | **1.40** | **22** | *e*PN | | **Pb** | | **09 43 45.6** | **+0.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.40** | **22** | *e*Pn | | **Pb** | | **09 43 45.6** | **+0.2** |
| **EATA** | **Eleskirt** | **1.42** | **325** | *i* P | | **Pn** | | **09 43 45.1** | **-0.2** |
| EATA | | | | *i* S | | **Sb** | | **09 44 03.6** | **-0.5** |
| **EATA** | **Eleskirt** | **1.42** | **325** | P | | **Pn** | | **09 43 45.1** | **-0.2** |
| EATA | | | | S | | **Sb** | | **09 44 03.7** | **-0.5** |
| **CUKT** | **Cukurca** | **1.45** | **178** | *e*PN | | **Pn** | | **09 43 45.7** | **+0.3** |
| **CUKT** | **Cukurca** | **1.45** | **178** | *i* P | | **Pb** | | **09 43 46.2** | **-0.1** |
| **CUKT** | **Cukurca** | **1.45** | **178** | *e*Pn | | **Pn** | | **09 43 45.7** | **+0.3** |
| **CUKT** | **Cukurca** | **1.45** | **178** | P | | **Pb** | | **09 43 46.2** | **-0.1** |
| **SRTM** | **Siirt_Merkez** | **1.46** | **242** | *i* P | | **Pn** | | **09 43 45.7** | **+0.2** |
| **SRTM** | **Siirt_Merkez** | **1.46** | **242** | P | | **Pn** | | **09 43 45.7** | **+0.2** |
| **SIRT** | **Sirnak** | **1.48** | **217** | *e*PN | | **Pn** | | **09 43 46.1** | **+0.3** |
| **SIRT** | **Sirnak** | **1.48** | **217** | *e*Pn | | **Pn** | | **09 43 46.1** | **+0.3** |
| **DIGO** | **Kars** | **1.72** | **356** | *i* P | | **Pb** | | **09 43 50.5** | **-0.6** |
| DIGO | | | | *i* S | | **Sg** | | **09 44 18.2** | **+3.2** |
| **DIGO** | **Kars** | **1.72** | **356** | P | | **Pb** | | **09 43 50.5** | **-0.6** |

**MEX 25 10:03:33.9±0.7,16˚.22N×98˚.11W,h13km±3km,MD3.7, Near coast of Guerrero**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|---|
| **PNIG** | **Pinotepa** | **0.18** | **355** | *e*P | | Pg | | 10 03 37.2 | -0.8 |
| PNIG | | | | *i* S | | Sg | | 10 03 40.7 | -0.1 |
| **TLIG** | **Tlapa** | **1.41** | **342** | *e*P | | Pn | | 10 03 55.3 | -4.1 |
| TLIG | | | | *e*S | | Sn | | 10 04 12.1 | -5.9 |
| **VHO** | **Vista Hermosa** | **1.57** | **57** | *e*P | | Pn | | 10 03 58.5 | -3.2 |
| VHO | | | | *e*S | | Sn | | 10 04 17.6 | -4.5 |
| **MEIG** | **Mezcala** | **2.23** | **320** | *e*P | | Pn | | 10 04 08.2 | -2.5 |
| MEIG | | | | *i* S | | Sn | | 10 04 34.1 | -4.1 |

*IDC **25** 10:33:49.6±1.0,34˚.50N×24˚.66E,h0km,mb3.5/6, mb1 3.7/12,mb1mx3.5/49,mbtmp3.6/12,ML4.1/5,Error ellipse: s-maj=19.0km s-min=11.2km az=106.0*

*ISCJB **25** 10:33:51.6±1.1,34˚.49N±0˚.06×24˚.58E±0˚.04,h21km±6km, mb3.5/6,Error ellipse: s-maj=9.8km s-min=5.5km az=6.3*

*CSEM **25** 10:33:54.6±0.4,34˚.69N×24˚.55E,h10km,ML3.2,Error ellipse: s-maj=7.7km s-min=3.5km az=3.0*

*ATH **25** 10:33:54.2,34˚.70N×24˚.55E,h24km±2km,ML3.4/7,Error ellipse: s-maj=3.5km s-min=1.2km az=354.0*

*THE **25** 10:33:55.0,34˚.74N×24˚.55E,h0km±1km,ML3.2/10,Error ellipse: s-maj=1.7km s-min=0.6km az=182.0*

**ISC 25 10:33:54.7±1.0,34˚.71N±0˚.05×24˚.54E±0˚.02,h26km±7km, n53,σ1$18/79,mb3.5/6,Crete**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|---|
| **SIVA** | **Sivas** | **0.38** | **36** | P | | **Pb** | | **10 34 02.6** | **-0.5** |
| SIVA | | | | S | | **Sb** | | **10 34 08.7** | **-0.1** |
| SIVA | | | | AML | | AML | | 10 34 12.9 | |
| | comp=N,26412µm,0.3s | | | | | | | | |
| SIVA | | | | AML | | AML | | 10 34 14.0 | |
| | comp=E,41566µm,0.4s | | | | | | | | |
| **SIVA** | **Sivas** | **0.38** | **36** | P | | **Pb** | | **10 34 02.6** | **-0.5** |
| SIVA | | | | S | | **Sb** | | **10 34 08.1** | **-0.7** |
| **SIVA** | **Sivas** | **0.38** | **36** | P | | **Pb** | | **10 34 02.6** | **-0.5** |
| SIVA | | | | S | | **Sb** | | **10 34 08.1** | **-0.7** |
| **GVD** | **Gavdhos** | **0.39** | **289** | P | | **Pb** | | **10 34 03.5** | **+0.3** |
| GVD | | | | S | | **Sb** | | **10 34 09.9** | **+0.9** |
| GVD | | | | AML | | AML | | 10 34 14.8 | |
| | comp=E,16569µm,0.4s | | | | | | | | |
| GVD | | | | AML | | AML | | 10 34 16.3 | |
| | comp=N,14145µm,0.4s | | | | | | | | |
| **GVD** | **Gavdhos** | **0.39** | **289** | P | | **Pb** | | **10 34 03.1** | **-0.2** |
| GVD | | | | S | | **Sb** | | **10 34 09.7** | **+0.7** |
| **GVD** | **Gavdhos** | **0.39** | **289** | P | | **Pb** | | **10 34 03.1** | **-0.2** |
| GVD | | | | S | | **Sb** | | **10 34 09.7** | **+0.7** |
| **IDI** | **Anoyia** | **0.65** | **27** | Pg | | **Pb** | | **10 34 06.6** | **-0.9** |
| | comp=N,125nm,0.3s,baz=271,slow=13,SNR=452 | | | | | | | | |
| IDI | | | | Lg | | Lg | | 10 34 15.6 | |
| | comp=N,140nm,0.3s,baz=252,slow=20,SNR=23 | | | | | | | | |
| IDI | | | | LR | | LR | | 10 34 46.0 | |
| | comp=N,182nm,20.9s,baz=245,slow=70 | | | | | | | | |
| **IDI** | **Anoyia** | **0.65** | **27** | P | | **Pb** | | **10 34 06.4** | **-1.1** |
| IDI | | | | S | | **Sb** | | **10 34 17.1** | **+0.9** |
| IDI | | | | AML | | AML | | 10 34 23.9 | |
| | comp=E,2533µm,0.4s | | | | | | | | |
| IDI | | | | AML | | AML | | 10 34 24.9 | |
| | comp=N,3801µm,0.3s | | | | | | | | |
| **IDI** | **Anoyia** | **0.65** | **27** | P | | **Pb** | | **10 34 06.6** | **-0.9** |
| IDI | | | | S | | **Sb** | | **10 34 16.6** | **+0.4** |
| **IDI** | **Anoyia** | **0.65** | **27** | P | | **Pb** | | **10 34 06.6** | **-0.9** |
| IDI | | | | S | | **Sb** | | **10 34 16.6** | **+0.4** |
| **IACM** | **Heraklion** | **0.74** | **36** | P | | **Pb** | | **10 34 09.3** | **+0.3** |
| IACM | | | | S | | **Sb** | | **10 34 18.8** | **+0.1** |
| IACM | | | | AML | | AML | | 10 34 32.4 | |
| | comp=N,16065µm,0.4s | | | | | | | | |
| IACM | | | | AML | | AML | | 10 34 34.9 | |
| | comp=E,14770µm,0.5s | | | | | | | | |
| **IACM** | **Heraklion** | **0.74** | **36** | P | | **Pb** | | **10 34 09.3** | **+0.3** |
| IACM | | | | S | | **Sb** | | **10 34 19.2** | **+0.5** |
| **IACM** | **Heraklion** | **0.74** | **36** | P | | **Pb** | | **10 34 08.3** | **-0.7** |
| IACM | | | | S | | **Sb** | | **10 34 19.2** | **+0.5** |
| **VAM** | **Vamos** | **0.75** | **338** | P | | **Pb** | | **10 34 08.2** | **-1.0** |
| VAM | | | | S | | **Sn** | | **10 34 21.7** | **+1.6** |
| VAM | | | | AML | | AML | | 10 34 27.7 | |
| | comp=N,5869µm,0.5s | | | | | | | | |
| VAM | | | | AML | | AML | | 10 34 28.9 | |
| | comp=E,5634µm,0.5s | | | | | | | | |
| **VAM** | **Vamos** | **0.75** | **338** | P | | **Pb** | | **10 34 08.7** | **-0.5** |
| VAM | | | | S | | **Sn** | | **10 34 20.6** | **+0.5** |
| **VAM** | **Vamos** | **0.75** | **338** | P | | **Pb** | | **10 34 08.7** | **-0.5** |
| VAM | | | | S | | **Sn** | | **10 34 20.6** | **+0.5** |
| **IMMV** | **Iera Moni Meta** | **0.88** | **329** | P | | **Pb** | | **10 34 10.0** | **-1.4** |
| **IMMV** | **Iera Moni Meta** | **0.88** | **329** | P | | **Pb** | | **10 34 10.9** | **-0.4** |
| IMMV | | | | S | | **Sn** | | **10 34 24.8** | **+1.6** |
| **IMMV** | **Iera Moni Meta** | **0.88** | **329** | P | | **Pb** | | **10 34 10.9** | **-0.4** |
| IMMV | | | | S | | **Sn** | | **10 34 24.8** | **+1.6** |
| **LAST** | **Lasithi** | **0.90** | **60** | P | | **Pb** | | **10 34 11.1** | **-0.7** |
| LAST | | | | S | | **Sn** | | **10 34 24.5** | **+0.7** |
| LAST | | | | AML | | AML | | 10 34 30.8 | |
| | comp=N,2531µm,0.6s | | | | | | | | |
| LAST | | | | AML | | AML | | 10 34 31.2 | |
| | comp=E,2090µm,0.6s | | | | | | | | |
| **LAST** | **Lasithi** | **0.90** | **60** | P | | **Pb** | | **10 34 11.2** | **-0.5** |
| LAST | | | | S | | **Sn** | | **10 34 24.5** | **+0.7** |
| **LAST** | **Lasithi** | **0.90** | **60** | P | | **Pb** | | **10 34 11.2** | **-0.5** |
| LAST | | | | S | | **Sn** | | **10 34 25.6** | **+1.8** |
| **NPS** | **Neapolis** | **1.04** | **58** | P | | **Pn** | | **10 34 13.9** | **+0.2** |
| NPS | | | | S | | **Sn** | | **10 34 29.5** | **+2.1** |
| NPS | | | | AML | | AML | | 10 34 35.7 | |
| | comp=E,2351µm,0.6s | | | | | | | | |
| NPS | | | | AML | | AML | | 10 34 39.3 | |
| | comp=N,1577µm,0.7s | | | | | | | | |
| **NPS** | **Neapolis** | **1.04** | **58** | P | | **Pb** | | **10 34 14.1** | **0.0** |
| NPS | | | | S | | **Sn** | | **10 34 29.5** | **+2.1** |
| **NPS** | **Neapolis** | **1.04** | **58** | P | | **Pb** | | **10 34 14.1** | **0.0** |
| NPS | | | | S | | **Sn** | | **10 34 29.6** | **+2.2** |
| **ZKR** | **Zakros** | **1.44** | **73** | P | | **Pb** | | **10 34 21.2** | **+0.3** |
| **ZKR** | **Zakros** | **1.44** | **73** | P | | **Pb** | | **10 34 20.9** | **0.0** |
| ZKR | | | | S | | **Sb** | | **10 34 41.5** | **+2.7** |
| **ZKR** | **Zakros** | **1.44** | **73** | P | | **Pb** | | **10 34 20.9** | **0.0** |
| ZKR | | | | S | | **Sb** | | **10 34 41.5** | **+2.7** |
| **ANKY** | **Antikythira Is** | **1.53** | **319** | P | | **Pb** | | **10 34 22.8** | **+0.3** |
| **ANKY** | **Antikythira Is** | **1.53** | **319** | P | | **Pb** | | **10 34 22.8** | **+0.3** |
| ANKY | | | | S | | **Sb** | | **10 34 42.9** | **+1.4** |
| **ANKY** | **Antikythira Is** | **1.53** | **319** | P | | **Pb** | | **10 34 22.6** | **+0.1** |
| ANKY | | | | S | | **Sb** | | **10 34 42.9** | **+1.4** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **THR6** | **Thira Island,** | **1.79** | **23** | P | | **Pn** | | **10 34 25.3** | **+1.4** |
| **THR6** | **Thira Island,** | **1.79** | **23** | P | | **Pn** | | **10 34 25.3** | **+1.4** |
| **THR5** | **Thira Island,** | **1.83** | **21** | P | | **Pn** | | **10 34 26.1** | **+1.7** |
| **THR5** | **Thira Island,** | **1.83** | **21** | P | | **Pn** | | **10 34 26.1** | **+1.7** |
| **THR3** | **Thira Island,** | **1.84** | **22** | P | | **Pn** | | **10 34 25.9** | **+1.4** |
| **THR3** | **Thira Island,** | **1.84** | **22** | P | | **Pn** | | **10 34 25.9** | **+1.4** |
| **MHLO** | **Agia Marina, M** | **1.98** | **357** | P | | **Pn** | | **10 34 27.9** | **+1.4** |
| **MHLO** | **Agia Marina, M** | **1.98** | **357** | P | | **Pn** | | **10 34 27.9** | **+1.4** |
| **KARP** | **Karpathos** | **2.31** | **68** | P | | **Pn** | | **10 34 33.3** | **+2.2** |
| **KARP** | **Karpathos** | **2.31** | **68** | P | | **Pn** | | **10 34 33.3** | **+2.2** |
| **BRTR** | **Keskin Array B** | **8.82** | **53** | Pn | | **Pn** | | **10 36 01.5** | **+0.9** |
| | comp=N,0.1nm,0.3s,baz=221,slow=16,SNR=2.8 | | | | | | | | |
| **MMAI** | **Mount Meron Ar** | **9.20** | **98** | Pn | | **Pn** | | **10 36 03.5** | **-2.2** |
| | comp=N,1.1nm,0.3s,baz=255,slow=10,SNR=2.8 | | | | | | | | |
| **EIL** | **Elat** | **10.15** | **117** | Pn | | Pn | | 10 36 15.3 | -3.5 |
| | comp=N,0.5nm,0.3s,baz=355,slow=11,SNR=4.0 | | | | | | | | |
| **VRAC** | **Vranov** | **15.72** | **341** | Pn | | **P** | | **10 37 36.9** | **-1.1** |
| | comp=N,0.4nm,0.3s,baz=219,slow=6.5,SNR=3.4 | | | | | | | | |
| **GERES** | **GERESS Array B** | **16.25** | **334** | Pn | | **P** | | **10 37 43.9** | **0.0** |
| | comp=N,0.3nm,0.3s,baz=148,slow=11,SNR=9.4 | | | | | | | | |
| **AKASG** | **Malin Array Be** | **16.34** | **11** | Pn | | **Pn** | | **10 37 43.2** | **+1.0** |
| | comp=N,2.4nm,0.3s,baz=200,slow=10,SNR=16 | | | | | | | | |
| **ESDC** | **Sonseca Array** | **23.19** | **291** | P | | **P** | | **10 39 00.1** | **+0.7** |
| | comp=N,0.3nm,0.5s,baz=94,slow=8.7,SNR=4.4 | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **29.81** | **230** | P | | **P** | | **10 39 58.7** | **-0.9** |
| | comp=N,0.3nm,0.5s,baz=32,slow=8.9,SNR=7.1 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **44.45** | **56** | P | | **P** | | **10 42 02.7** | **-0.7** |
| | comp=N,0.7nm,0.4s,baz=269,slow=7.8,SNR=13 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **45.68** | **46** | P | | **P** | | **10 42 10.9** | **-2.2** |
| | comp=N,0.8nm,0.4s,baz=270,slow=7.2,SNR=3.0 | | | | | | | | |
| **SONM** | **Songino Array** | **60.17** | **50** | P | | **P** | | **10 43 59.1** | **-1.1** |
| | comp=N,0.3nm,0.5s,baz=290,slow=6.1,SNR=2.6 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **77.72** | **342** | P | | **P** | | **10 45 47.5** | **-1.2** |
| | comp=N,0.1nm,0.5s,baz=30,slow=5.1,SNR=4.3 | | | | | | | | |

**IDC 25 10:38:45.0±8.9,16˚.91N×142˚.49E,h0km,mb3.5/3, mb1 3.7/3,mb1mx3.2/39,mbtmp3.5/3,Error ellipse: s-maj=343.1km s-min=32.3km az=76.0,Mariana Islands region**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **37.49** | **193** | P | | P | | 10 46 01.1 | +0.4 |
| | 0.4nm,0.3s,baz=14,slow=8.6,SNR=16 | | | | | | | | |
| **ASAR** | **Alice Springs** | **41.19** | **192** | P | | P | | 10 46 30.8 | -0.9 |
| | 0.3nm,0.7s,baz=12,slow=9.5,SNR=5.9 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **57.52** | **315** | P | | P | | 10 48 36.3 | 0.0 |
| | 0.4nm,0.6s,baz=86,slow=7.9,SNR=3.5 | | | | | | | | |

*DHMR **25** 10:48:07.3±1.0,13˚.61N×40˚.20E,h10km,ML4.2*

*IDC **25** 10:48:17.8±1.0,13˚.32N×40˚.80E,h0km,mb3.8/7, mb1 4.0/9,mb1mx3.7/41,mbtmp3.9/9,ML3.6/2,MS3.6/8, Ms1 3.6/8,ms1mx3.3/44,Error ellipse: s-maj=25.6km s-min=15.0km az=34.0*

*CSEM **25** 10:48:18.9±0.2,13˚.43N×40˚.90E,h2km,mb4.7/10,Error ellipse: s-maj=10.3km s-min=6.3km az=15.0*

*ISCJB **25** 10:48:18.4±0.4,13˚.43N±0˚.06×40˚.86E±0˚.04,h10km, mb4.4/18,MS4.0/7,Error ellipse: s-maj=9.1km s-min=5.7km az=9.0*

*BJI **25** 10:48:19.3,13˚.50N×40˚.80E,h10km,mb4.3/8,mB5.2/8, Ms4.7/4,Ms7 4.5/4*

*NEIC **25** 10:48:20.2±0.3,13˚.45N×40˚.81E,h10km,mb4.6/11,Error ellipse: s-maj=6.9km s-min=5.8km az=173.0*

**ISC 25 10:48:20.5±0.5,13˚.55N±0˚.05×40˚.98E±0˚.04,h10km,n94, σ1$71/103,mb4.4/18,MS3.8/7,16D,Ethiopia**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time | Res |
|---|---|---

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **KSH** | **Kashi** | **40.20** | **43** | P | **P** | **10 55 58.3** | **+0.9** |
| KSH | | | | pP | sP | 10 56 01.5 | -0.2 |
| KSH | | | | PP | **PnPn** | **10 57 34.3** | **+0.9** |
| KSH | | | | PcP | **PcP** | **10 58 03.3** | **+1.8** |
| KSH | | | | S | **S** | **11 02 03.3** | **-1.1** |
| KSH | | | | SS | **SS** | **11 04 53.0** | **-9.4** |
| KSH | | | | ScS | **ScS** | **11 06 02.3** | **-2.3** |
| KSH | | | | pmax | pmax | | |
| | comp=N,2.0nm,0.3s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=N,170nm,4.6s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,530nm,7.5s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,520nm,7.7s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,560nm,7.2s | | | | | | |
| **OJC** | **Ojcow** | **40.45** | **339** | *e*P | **P** | **10 55 59.1** | **0.0** |
| | comp=N,6.3nm,0.8s | | | | | | |
| **OJC** | **Ojcow** | **40.45** | **339** | *e*P | **P** | **10 55 59.1** | **0.0** |
| | comp=N,6.3nm,0.8s | | | | | | |
| **MORC** | **Moravsky Berou** | **40.91** | **337** | *e*P | **P** | **10 56 03.3** | **+0.3** |
| | comp=N,45nm,1.5s | | | | | | |
| **MORC** | **Moravsky Berou** | **40.91** | **337** | *e*P | **P** | **10 56 03.3** | **+0.3** |
| | comp=N,45nm,1.5s | | | | | | |
| **GEA0** | **GERESS Array S** | **41.77** | **333** | *e*P | **P** | **10 56 09.4** | **-0.7** |
| **GEA0** | **GERESS Array S** | **41.77** | **333** | *e*P | **P** | **10 56 09.4** | **-0.7** |
| **GEC2** | **GERESS Array S** | **41.77** | **333** | *e*P | **P** | **10 56 09.6** | **-0.6** |
| | comp=N,8.6nm,1.4s | | | | | | |
| **GEC2** | **GERESS Array S** | **41.77** | **333** | *e*P | **P** | **10 56 09.6** | **-0.6** |
| | comp=N,8.6nm,1.4s | | | | | | |
| **GERES** | **GERESS Array B** | **41.77** | **333** | P | **P** | **10 56 09.3** | **-0.8** |
| | comp=N,0.8nm,0.6s,baz=151,slow=3.0,SNR=5.4 | | | | | | |
| **CLL** | **Collm** | **43.92** | **335** | *e*P | **P** | **10 56 25.0** | **-2.4** |
| **BOSA** | **Boshof** | **44.59** | **200** | LR | LR | 11 14 48.8 | |
| | comp=N,101nm,19.5s,baz=22,slow=36 | | | | | | |
| **DBIC** | **Dimbokro** | **45.58** | **266** | LR | LR | 11 14 29.9 | |
| | comp=N,115nm,19.4s,baz=357,slow=35 | | | | | | |
| **MEM** | **Membach** | **46.59** | **330** | P | **P** | **10 56 48.4** | **-0.2** |
| **ESDC** | **Sonseca Array** | **47.21** | **312** | P | **P** | **10 56 53.2** | **-0.5** |
| | comp=N,0.8nm,0.8s,baz=102,slow=6.4,SNR=5.0 | | | | | | |
| **PAB** | **San Pablo** | **47.44** | **312** | *e*P | **P** | **10 56 55.1** | **-0.5** |
| | comp=N,27nm,1.8s | | | | | | |
| **PAB** | **San Pablo** | **47.44** | **312** | *e*P | **P** | **10 56 55.1** | **-0.5** |
| | comp=N,27nm,1.8s | | | | | | |
| **MK01** | **Makanchi Array** | **47.85** | **38** | *e*P | **P** | **10 56 59.8** | **+1.3** |
| **MK01** | **Makanchi Array** | **47.85** | **38** | *e*P | **P** | **10 56 59.9** | **+1.3** |
| **MK31** | **Makanchi Array** | **47.85** | **38** | *e*P | **P** | **10 57 00.3** | **+1.7** |
| **MK31** | **Makanchi Array** | **47.85** | **38** | *e*P | **P** | **10 57 00.3** | **+1.7** |
| **MKAR** | **Makanchi Array** | **47.85** | **38** | P | **P** | **10 57 00.1** | **+1.5** |
| | comp=N,1.3nm,0.7s,baz=238,slow=6.6,SNR=8.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **47.85** | **38** | *e*P | **P** | **10 57 00.1** | **+1.5** |
| | comp=N,18nm,0.9s | | | | | | |
| **MKAR** | **Makanchi Array** | **47.85** | **38** | *e*P | **P** | **10 57 00.1** | **+1.5** |
| | comp=N,18nm,0.9s | | | | | | |
| **KURK** | **Kurchatov** | **47.99** | **32** | *e*P | **P** | **10 57 00.2** | **+0.7** |
| | comp=N,8.6nm,1.4s | | | | | | |
| **KURK** | **Kurchatov** | **47.99** | **32** | *e*P | **P** | **10 57 00.2** | **+0.7** |
| | comp=N,8.6nm,1.4s | | | | | | |
| **WMQ** | **Urumqi** | **49.97** | **43** | P | **P** | **10 57 16.8** | **+1.9** |
| **NC303** | **NORSAR Array S** | **52.20** | **342** | *e*P | **P** | **10 57 32.6** | **+1.3** |
| **NC303** | **NORSAR Array S** | **52.20** | **342** | *e*P | **P** | **10 57 32.6** | **+1.3** |
| **ZALV** | **Zalesovo Beam** | **52.96** | **31** | P | **P** | **10 57 37.5** | **+0.5** |
| | comp=N,1.1nm,0.6s,baz=245,slow=7.5,SNR=7.8 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **52.96** | **31** | *e*P | **P** | **10 57 37.7** | **+0.7** |
| **ZALV** | **Zalesovo Beam** | **52.96** | **31** | *e*P | **P** | **10 57 37.6** | **+0.7** |
| **LZH** | **Lanzhou** | **60.28** | **56** | *e*P | **P** | **10 58 32.0** | **+2.3** |
| LZH | | | | pP | sP | 10 58 35.3 | +1.2 |
| LZH | | | | sP | pP | 10 58 36.8 | +3.9 |
| LZH | | | | *e*PP | **PP** | **11 00 47.3** | **+4.8** |
| LZH | | | | pmax | pmax | | |
| | comp=N,18nm,1.3s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=N,47nm,6.5s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=N,140nm,15.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=N,140nm,14.7s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=N,180nm,18.2s | | | | | | |
| **SONM** | **Songino Array** | **63.60** | **43** | P | **P** | **10 58 53.0** | **+1.2** |
| | comp=N,1.0nm,0.8s,baz=246,slow=8.1,SNR=6.1 | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **66.61** | **51** | *e*P | **P** | **10 59 12.5** | **+1.0** |
| HHC | | | | S | **S** | **11 00 02.5** | **-0.6** |
| HHC | | | | sS | sS | 11 08 10.3 | +1.9 |
| HHC | | | | ScS | **SKSac** | **11 09 05.5** | **-3.2** |
| HHC | | | | pmax | pmax | | |
| | comp=N,15nm,1.0s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=N,240nm,5.8s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=N,200nm,15.3s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=N,200nm,16.9s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=N,170nm,16.9s | | | | | | |
| **KSRS** | **Korea Array** | **79.50** | **54** | LR | LR | 11 40 32.7 | |
| | comp=N,66nm,18.6s,baz=320,slow=39 | | | | | | |
| **LKWY** | **Lake** | **116.58** | **337** | *e*PKIKP | **PKPdf** | **11 07 04.8** | **-0.6** |
| **LKWY** | **Lake** | **116.58** | **337** | *e*PKPdf | **PKPdf** | **11 07 04.8** | **-0.6** |
| **TX31** | **Lajitas Ar. Si** | **125.39** | **322** | *e*PKIKP | **PKPdf** | **11 07 22.9** | **+0.3** |
| **TX31** | **Lajitas Ar. Si** | **125.39** | **322** | *e*PKPdf | **PKPdf** | **11 07 22.9** | **+0.3** |
| **TXAR** | **Lajitas Array** | **125.39** | **322** | PKP | **PKPdf** | **11 07 21.8** | **-0.8** |
| | comp=N,0.2nm,0.8s,baz=66,slow=2.3,SNR=2.9 | | | | | | |

*ISCJB **25** 10:54:44.7±1.2,32°.85S±0°.06×70°.19W±0°.07, h104km±10km, Error ellipse: s-maj=12.4km s-min=5.6km az=139.3*
*GUC **25** 10:54:44.0±0.6,32°.75S×70°.21W,h103km±6km, ML2.8*
*SJA **25** 10:54:46.0±0.4,32°.78S×69°.96W,h110km±2km, ML2.4, MW2.9*

**ISC 25 10:54:46.8**±2.5,**32°.98S**±0°.06×**69°.98W**±0°.05,**h97**km±20km, **n15**,σ1°**99**/31,**2C-1D**,**Mendoza Province**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **FCH** | **Farellones** | **0.43** | **216** | ⇓*i*P | | **Pn** | **10 55 00.9** | **-1.4** |
| FCH | | | | *i* S | | **Sn** | **10 55 13.7** | **-0.1** |
| FCH | | | | IAML | | | 10 55 13.9 | |
| | comp=E,520nm,0.6s | | | | | | | |
| **PEL** | **Peldehue** | **0.61** | **254** | *e*P | | **Pn** | **10 55 00.3** | **-3.0** |
| PEL | | | | *i* S | | **Sn** | **10 55 12.8** | **-2.8** |
| PEL | | | | IAML | | | 10 55 13.4 | |
| | comp=N,300nm,0.2s | | | | | | | |
| **CLCH** | **Cerro Calan** | **0.62** | **228** | *e*P | | **Pn** | **10 55 01.8** | **-1.6** |
| CLCH | | | | *i* S | | **Sn** | **10 55 15.0** | **-0.9** |
| CLCH | | | | IAML | | | 10 55 15.5 | |
| | comp=E,318nm,0.4s | | | | | | | |
| **ANTU** | **Antumapu** | **0.80** | **223** | *e*P | | **Pn** | **10 55 03.3** | **-1.8** |
| ANTU | | | | *i* S | | **Sn** | **10 55 17.8** | **-1.0** |
| ANTU | | | | IAML | | | 10 55 18.2 | |
| | comp=N,525nm,0.5s | | | | | | | |
| **RCDM** | **Rinconada Maip** | **0.86** | **233** | ⇑*i*P | | **Pn** | **10 55 03.3** | **-2.3** |
| RCDM | | | | *i* S | | **Sn** | **10 55 18.0** | **-1.7** |
| RCDM | | | | IAML | | | 10 55 18.9 | |
| | comp=N,433nm,0.1s | | | | | | | |
| **ROCH** | **El Roble** | **0.86** | **270** | ⇑*i*P | | **Pn** | **10 55 09.6** | **+3.8** |
| ROCH | | | | *i* S | | **Sn** | **10 55 23.5** | **+3.4** |
| ROCH | | | | IAML | | | 10 55 23.9 | |
| | comp=N,366nm,0.3s | | | | | | | |
| **ROC1** | **El Roble** | **0.87** | **270** | *e*P | | **Pn** | **10 55 07.2** | **+1.2** |
| ROC1 | | | | *e*P | | **Pn** | **10 55 07.4** | **+1.5** |
| ROC1 | | | | *e*S | | **Sn** | **10 55 23.2** | **+3.0** |
| ROC1 | | | | *e*S | | **Sn** | **10 55 23.2** | **+3.0** |
| **LMEL** | **Las Melosas** | **0.89** | **192** | *e*P | | **Pn** | **10 55 05.8** | **-0.2** |
| LMEL | | | | *i* S | | **Sn** | **10 55 22.8** | **+2.4** |
| LMEL | | | | IAML | | | 10 55 26.6 | |
| | comp=N,244nm,0.1s | | | | | | | |
| **ARCO** | **CERRO ARCO** | **0.90** | **82** | IAML | | | 10 55 06.8 | |
| | comp=Z,63nm,0.3s | | | | | | | |
| ARCO | | | | *e*P | | **Pn** | **10 55 06.9** | **+0.8** |
| ARCO | | | | *e*S | | **Sn** | **10 55 22.2** | **+1.7** |
| **AUSP** | **Uspallata** | **0.91** | **34** | *e*P | | **Pn** | **10 55 06.1** | **-0.3** |
| AUSP | | | | *e*S | | **Sn** | **10 55 21.0** | **0.0** |
| **AAGR** | **Agrelo** | **0.98** | **97** | *e*P | | **Pn** | **10 55 08.3** | **+1.4** |
| AAGR | | | | *e*S | | **Sn** | **10 55 24.6** | **+2.6** |
| **ASAL** | **Salagasta** | **1.04** | **69** | *e*P | | **Pn** | **10 55 07.4** | **-0.2** |
| ASAL | | | | *e*S | | **Sn** | **10 55 23.9** | **+0.6** |
| **RTLS** | **Leoncito** | **1.31** | **26** | *e*P | | **Pn** | **10 55 10.3** | **-0.7** |
| RTLS | | | | *e*S | | **Sn** | **10 55 28.0** | **-1.1** |
| **RTCV** | **Cerro Valdivia** | **1.65** | **48** | *e*P | | **Pn** | **10 55 14.0** | **-0.9** |
| RTCV | | | | *e*S | | **Sn** | **10 55 34.7** | **-1.5** |
| **AMOG** | **MOGNA** | **2.40** | **32** | *e*P | | **Pn** | **10 55 22.9** | **-1.6** |

*ISK **25** 11:09:51.2,39°.51N×26°.59E,h8km,MD2.9*
*CSEM **25** 11:09:53.2±0.2,39°.46N×26°.35E,h8km, ML1.9, Error ellipse: s-maj=5.8km s-min=4.2km az=88.0*
*ATH **25** 11:09:53.0,39°.45N×26°.38E,h20km±2km, ML1.9/5, Error ellipse: s-maj=3.5km s-min=0.8km az=246.0*
*DDA **25** 11:09:53.4,39°.46N×26°.33E,h7km, Ml2.6*

**ISC 25 11:09:52.9**±1.0,**39°.47N**±0°.02×**26°.42E**±0°.03,**h8**km±8km, **n48**,σ1°**17**/**79**,**Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **PRK** | **Paraskevi** | **0.26** | **208** | P | | **Pg** | **11 09 57.6** | **-0.3** |
| PRK | | | | S | | **Sg** | **11 10 02.0** | **+0.6** |
| PRK | | | | AML | | AML | 11 10 05.0 | |
| | comp=N,1239μm,0.5s | | | | | | | |
| PRK | | | | AML | | AML | 11 10 05.0 | |
| | comp=E,653μm,0.4s | | | | | | | |
| **PRK** | **Paraskevi** | **0.26** | **208** | P | | **Pg** | **11 09 57.6** | **-0.3** |
| PRK | | | | S | | **Sg** | **11 10 02.0** | **+0.6** |
| **BAYC** | **CANAKKALE_Bayr** | **0.28** | **19** | *i* P | | **Pg** | **11 09 59.5** | **+1.0** |
| BAYC | | | | *i* S | | **Sb** | **11 10 05.3** | **0.0** |
| **BAYC** | **CANAKKALE_Bayr** | **0.28** | **19** | P | | **Pg** | **11 09 59.5** | **+1.0** |
| BAYC | | | | S | | **Sb** | **11 10 05.3** | **0.0** |
| **EZN** | **Ezine** | **0.36** | **348** | *e*PG | | **Pg** | **11 09 59.3** | **-0.7** |
| EZN | | | | *e*SG | | **Sg** | **11 10 04.8** | **0.0** |
| **EZN** | **Ezine** | **0.36** | **348** | *e*Pg | | **Pg** | **11 09 59.3** | **-0.7** |
| EZN | | | | *e*Sg | | **Sg** | **11 10 04.8** | **0.0** |
| **BOZC** | **Bozcaada** | **0.47** | **322** | *e*PG | | **Pg** | **11 10 02.3** | **+0.3** |
| **BOZC** | **Bozcaada** | **0.47** | **322** | *i* P | | **Pg** | **11 10 02.7** | **+0.7** |
| BOZC | | | | *i* S | | **Sg** | **11 10 08.8** | **+0.7** |
| **BOZC** | **Bozcaada** | **0.47** | **322** | *e*Pg | | **Pg** | **11 10 02.3** | **+0.3** |
| **SIGR** | **SIGRI** | **0.51** | **240** | P | | **Pg** | **11 10 02.9** | **+0.1** |
| SIGR | | | | S | | **Sg** | **11 10 08.7** | **-0.8** |
| **SIGR** | **SIGRI** | **0.51** | **240** | P | | **Pg** | **11 10 02.9** | **+0.1** |
| SIGR | | | | S | | **Sg** | **11 10 08.7** | **-0.8** |
| **GADA** | **Gvkgeada** | **0.82** | **331** | *e*PG | | **Pg** | **11 10 08.3** | **-0.4** |
| GADA | | | | *e*SG | | **Sb** | **11 10 20.4** | **-0.4** |
| **GADA** | **Gvkgeada** | **0.82** | **331** | *e*Pg | | **Pg** | **11 10 08.3** | **-0.4** |
| GADA | | | | *e*Sg | | **Sb** | **11 10 20.4** | **-0.4** |
| **GELI** | **Tayfur-Gelibol** | **0.93** | **2** | *e*PG | | **Pg** | **11 10 08.6** | **-2.1** |
| **GELI** | **Tayfur-Gelibol** | **0.93** | **2** | *e*Pg | | **Pg** | **11 10 08.6** | **-2.1** |
| **LPK** | **Lapseki** | **0.94** | **16** | *e*PG | | **Pg** | **11 10 08.3** | **-2.6** |
| **LPK** | **Lapseki** | **0.94** | **16** | *e*Pg | | **Pg** | **11 10 08.3** | **-2.6** |
| **BALY** | **Balya** | **0.96** | **73** | *i* P | | **Pn** | **11 10 13.3** | **+0.5** |
| BALY | | | | *i* S | | **Sn** | **11 10 28.2** | **+1.5** |
| **BALY** | **Balya** | **0.96** | **73** | P | | **Pn** | **11 10 13.3** | **+0.5** |
| BALY | | | | S | | **Sn** | **11 10 28.2** | **+1.5** |
| **STEP** | **BALIKESIR_Sava** | **1.01** | **95** | *i* P | | **Pn** | **11 10 14.5** | **+1.1** |
| STEP | | | | *i* S | | **Sn** | **11 10 29.2** | **+1.4** |
| **STEP** | **BALIKESIR_Sava** | **1.01** | **95** | P | | **Pn** | **11 10 14.5** | **+1.1** |
| STEP | | | | S | | **Sn** | **11 10 29.2** | **+1.4** |
| **LIA** | **Limnos Island** | **1.05** | **294** | P | | **Pb** | **11 10 13.2** | **-0.1** |
| LIA | | | | AML | | AML | 11 10 26.8 | |
| | comp=E,125μm,1.2s | | | | | | | |
| LIA | | | | S | | **Sb** | **11 10 26.8** | **-0.4** |
| LIA | | | | AML | | AML | 11 10 29.8 | |
| | comp=N,69μm,0.3s | | | | | | | |
| **LIA** | **Limnos Island** | **1.05** | **294** | P | | **Pb** | **11 10 13.2** | **-0.1** |
| LIA | | | | S | | **Sb** | **11 10 26.8** | **-0.4** |
| **URLA** | **Izmir** | **1.12** | **173** | *e*PN | | **Pg** | **11 10 13.1** | **-1.3** |
| **URLA** | **Izmir** | **1.12** | **173** | *i* P | | **Pg** | **11 10 14.3** | **-0.1** |
| URLA | | | | *i* S | | **Sn** | **11 10 30.3** | **-0.2** |
| **URLA** | **Izmir** | **1.12** | **173** | *e*Pn | | **Pg** | **11 10 13.1** | **-1.3** |
| **URLA** | **Izmir** | **1.12** | **173** | P | | **Pg** | **11 10 14.3** | **-0.1** |
| URLA | | | | S | | **Sn** | **11 10 30.3** | **-0.2** |
| **CHOS** | **Chios island** | **1.12** | **195** | P | | **Pg** | **11 10 14.0** | **-0.4** |
| CHOS | | | | S | | **Sb** | **11 10 29.5** | **+0.1** |
| CHOS | | | | AML | | AML | 11 10 32.7 | |
| | comp=E,174μm,0.3s | | | | | | | |
| CHOS | | | | AML | | AML | 11 10 34.1 | |
| | comp=N,136μm,0.3s | | | | | | | |
| **CHOS** | **Chios island** | **1.12** | **195** | P | | **Pg** | **11 10 14.0** | **-0.4** |
| CHOS | | | | S | | **Sb** | **11 10 29.5** | **+0.1** |
| **BALB** | **Balikesir** | **1.14** | **81** | *e*PG | | Pb | 11 10 10.8 | -4.0 |
| **KRBG** | **Karabiga-Canak** | **1.14** | **36** | *e*PG | | **Pg** | **11 10 11.3** | **-3.4** |
| **ERIK** | **Erikli-Kesan** | **1.20** | **3** | *e*PN | | **Pb** | **11 10 14.1** | **-1.8** |
| **ERIK** | **Erikli-Kesan** | **1.20** | **3** | *e*Pn | | **Pb** | **11 10 14.1** | **-1.8** |
| **SMTH** | **Samothraki Isl** | **1.21** | **326** | P | | **Pb** | **11 10 16.0** | **-0.1** |
| SMTH | | | | S | | **Sn** | **11 10 33.1** | **+0.3** |
| SMTH | | | | AML | | AML | 11 10 33.6 | |
| | comp=E,108μm,0.2s | | | | | | | |
| SMTH | | | | AML | | AML | 11 10 35.0 | |
| | comp=N,140μm,0.4s | | | | | | | |
| **SMTH** | **Samothraki Isl** | **1.21** | **326** | P | | **Pb** | **11 10 16.0** | **-0.1** |
| SMTH | | | | S | | **Sn** | **11 10 33.1** | **+0.3** |
| **ZEY** | **˜zmir** | **1.23** | **177** | *i* P | | **Pb** | **11 10 16.2** | **-0.2** |
| ZEY | | | | *i* S | | **Sn** | **11 10 34.7** | **+1.5** |
| **ENEZ** | **Enez** | **1.28** | **351** | *e*PN | | **Pn** | **11 10 16.0** | **-1.1** |
| **ENEZ** | **Enez** | **1.28** | **351** | *e*Pn | | **Pn** | **11 10 16.0** | **-1.1** |
| **SART** | **Tekirdag** | **1.35** | **25** | *i* P | | **Pb** | **11 10 19.0** | **+0.6** |
| SART | | | | *i* S | | **Sg** | **11 10 37.7** | **+1.5** |
| **SART** | **Tekirdag** | **1.35** | **25** | P | | **Pb** | **11 10 19.0** | **+0.6** |
| SART | | | | S | | **Sg** | **11 10 37.7** | **+1.5** |
| **KESN** | **Edirne-Kesan** | **1.37** | **8** | *i* P | | **Pg** | **11 10 21.0** | **+1.8** |
| KESN | | | | *i* S | | **Sn** | **11 10 38.6** | **+1.5** |
| **KESN** | **Edirne-Kesan** | **1.37** | **8** | P | | **Pg** | **11 10 21.0** | **+1.8** |
| KESN | | | | S | | **Sn** | **11 10 38.6** | **+1.5** |
| **EDC** | **Edincik** | **1.41** | **51** | *e*PN | | **Pn** | **11 10 16.0** | **-2.9** |
| **EDC** | **Edincik** | **1.41** | **51** | *e*Pn | | **Pn** | **11 10 16.0** | **-2.9** |
| **ALN** | **Alexandroupoli** | **1.45** | **349** | P | | **Pg** | **11 10 21.2** | **+0.5** |
| ALN | | | | S | | **Sg** | **11 10 40.5** | **+0.9** |
| **ALN** | **Alexandroupoli** | **1.45** | **349** | P | | **Pg** | **11 10 21.2** | **+0.5** |
| ALN | | | | S | | **Sg** | **11 10 40.5** | **+0.9** |
| **RDO** | **Rodhopi** | **1.80** | **338** | P | | **Pn** | **11 10 24.7** | **+0.4** |
| RDO | | | | S | | **Sb** | **11 10 48.5** | **-0.4** |
| RDO | | | | AML | | AML | 11 10 51.2 | |
| | comp=E,25μm,0.4s | | | | | | | |
| RDO | | | | AML | | AML | 11 10 52.2 | |
| | comp=N,26μm,0.4s | | | | | | | |
| **RDO** | **Rodhopi** | **1.80** | **338** | P | | **Pn** | **11 10 24.7** | **+0.4** |
| RDO | | | | S | | **Sb** | **11 10 48.5** | **-0.4** |

*ISCJB **25** 11:27:57.2±1.1,24°.9N±0°.2×95°.4E±0°.1,h150km, mb3.2/3, Error ellipse: s-maj=29.2km s-min=10.4km az=30.4*
*IDC **25** 11:27:58.5±3.6,24°.76N×95°.18E,h151km±39km, mb3.0/3, mb1 3.2/4,mb1mx2.7/52,mbtmp3.4/4, Error ellipse: s-maj=164.0km s-min=20.5km az=60.0*

**ISC 25 11:27:58.8**±1.3,**24°.8N**±0°.2×**95°.3E**±0°.2,**h150**km,**n5**, σ0°**81**/**6**,**mb3.4**/3,**Myanmar**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **SHL** | **Shillong** | **3.22** | **284** | *e*PN | | **Pn** | **11 28 50.0** | **+0.9** |
| SHL | | | | *e*SN | | **Sn** | **11 29 27.0** | **-1.0** |
| **CMAR** | **Chiang Mai Arr** | **7.17** | **152** | P | | **Pn** | **11 29 41.1** | **-0.1** |
| | 0.3nm,0.3s,baz=327,slow=13,SNR=3.0 | | | | | | | |
| **MKAR** | **Makanchi Array** | **24.27** | **338** | P | | **P** | **11 33 01.7** | **-0.2** |
| | 0.2nm,0.6s,baz=157,slow=9.2,SNR=3.3 | | | | | | | |
| **WRA** | **Warramunga Arr** | **58.48** | **136** | P | | **P** | **11 37 39.2** | **-0.2** |
| | 0.4nm,0.4s,baz=323,slow=7.3,SNR=8.4 | | | | | | | |
| **ASAR** | **Alice Springs** | **61.01** | **139** | P | | **P** | **11 37 56.6** | **0.0** |
| | 0.4nm,0.9s,baz=320,slow=6.7,SNR=6.1 | | | | | | | |

*NEIC **25** 11:32:17.7±0.0,43°.55S×172°.77E,h9km, ML4.0(WEL), After WEL.*
*NEIC Felt at Christchurch.*

**WEL 25 11:32:18.1**±0.2,**43°.53S×172°.77E,h6**km,**ML3.8**/21,**Mw3.5, 3C-2D**,**Error ellipse: s-maj=1.4km s-min=0.6km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.11** | **248** | ⇑PG | | Pg | 11 32 20.8 | +0.2 |
| CRLZ | | | | SG | | Sg | 11 32 22.8 | +0.6 |
| CRLZ | | | | AML | | AML | 11 32 22.9 | |
| CRLZ | | | | AML | | AML | 11 32 23.1 | |
| CRLZ | | | | AML | | AML | 11 32 23.1 | |
| **MQZ** | **McQueen's Vall** | **0.19** | **206** | *e*Pg | | Pg | 11 32 25.0 | +3.1 |
| **MQZ** | **McQueen's Vall** | **0.19** | **206** | ⇑PG | | Pg | 11 32 22.0 | +0.1 |
| MQZ | | | | SG | | Sg | 11 32 24.7 | +0.1 |
| MQZ | | | | AML | | AML | 11 32 25.2 | |
| **OXZ** | **Oxford** | **0.57** | **291** | *e*Pn | | Pg | 11 32 29.1 | +0.1 |
| **OXZ** | **Oxford** | **0.57** | **291** | ⇓P* | | Pg | 11 32 29.1 | 0.0 |
| OXZ | | | | SG | | Sg | 11 32 37.0 | +0.5 |
| OXZ | | | | AML | | AML | 11 32 39.8 | |
| OXZ | | | | AML | | AML | 11 32 39.8 | |
| OXZ | | | | AML | | AML | 11 32 40.1 | |
| **LTZ** | **Lake Taylor** | **0.83** | **334** | *e*Pn | | Pb | 11 32 34.6 | -0.4 |
| LTZ | | | | *e*Sn | | Sb | 11 32 46.6 | +0.1 |
| **LTZ** | **Lake Taylor** | **0.83** | **334** | ⇓P* | | Pg | 11 32 34.5 | +0.4 |
| LTZ | | | | S* | | Sg | 11 32 45.0 | +0.1 |
| **KHZ** | **Kahutara** | **1.25** | **27** | *e*Pn | | Pb | 11 32 40.6 | -1.4 |
| **KHZ** | **Kahutara** | **1.25** | **27** | P* | | Pb | 11 32 40.4 | -1.6 |
| KHZ | | | | AML | | AML | 11 33 00.3 | |
| KHZ | | | | AML | | AML | 11 33 00.8 | |
| **RPZ** | **Rata Peaks** | **1.26** | **261** | *e*Pn | | Pn | 11 32 40.7 | -1.5 |
| **RPZ** | **Rata Peaks** | **1.26** | **261** | ⇑P* | | Pn | 11 32 40.7 | -1.5 |
| RPZ | | | | AML | | AML | 11 33 00.3 | |
| RPZ | | | | AML | | AML | 11 33 02.3 | |
| **INZ** | **Inchbonnie** | **1.26** | **309** | P* | | Pn | 11 32 40.6 | -1.6 |
| **WVZ** | **Waitaha Valley** | **1.55** | **286** | *e*PN | | Pn | 11 32 44.9 | -1.3 |
| WVZ | | | | AML | | AML | 11 33 11.0 | |
| WVZ | | | | AML | | AML | 11 33 13.2 | |
| **THZ** | **Tophouse** | **1.77** | **3** | *e*Pn | | Pn | 11 32 48.1 | -1.2 |
| **THZ** | **Tophouse** | **1.77** | **3** | PN | | Pn | 11 32 47.8 | -1.5 |
| THZ | | | | AML | | AML | 11 33 10.9 | |
| THZ | | | | AML | | AML | 11 33 12.5 | |
| **DSZ** | **Denniston Nort** | **1.92** | **338** | PN | | Pn | 11 32 50.3 | -1.1 |
| DSZ | | | | AML | | AML | 11 36 10.1 | |
| DSZ | | | | AML | | AML | 11 36 11.8 | |
| **BSWZ** | **Blackbirch Sta** | **1.99** | **25** | AML | | AML | 11 33 19.3 | |
| **LBZ** | **Lake Benmore** | **2.05** | **245** | *e*Pn | | Pn | 11 32 52.3 | -0.9 |
| **LBZ** | **Lake Benmore** | **2.05** | **245** | AML | | AML | 11 33 26.1 | |
| LBZ | | | | AML | | AML | 11 33 28.2 | |
| **ODZ** | **Otahua Downs** | **2.15** | **225** | *e*Pn | | Pn | 11 32 52.9 | -1.5 |
| **ODZ** | **Otahua Downs** | **2.15** | **225** | AML | | AML | 11 33 01.7 | |
| ODZ | | | | AML | | AML | 11 33 02.2 | |
| **FOZ** | **Fox Glacier** | **2.15** | **269** | *e*Pn | | Pn | 11 32 54.5 | +0.2 |
| **FOZ** | **Fox Glacier** | **2.15** | **269** | AML | | AML | 11 33 23.2 | |
| FOZ | | | | AML | | AML | 11 33 23.4 | |
| **SNZO** | **South Karori** | **2.64** | **34** | *e*Pn | | Pn | 11 32 59.2 | -1.9 |
| **QRZ** | **Quartz Range** | **2.71** | **356** | AML | | AML | 11 33 36.9 | |
| **HHSZ** | **Highcliff Hill** | **2.81** | **213** | AML | | AML | 11 33 55.3 | |
| **CAW** | **Cannon Point** | **2.96** | **36** | AML | | AML | 11 33 42.2 | |
| CAW | | | | AML | | AML | 11 33 43.3 | |
| **WKZ** | **Wanaka** | **2.99** | **243** | *e*Pn | | Pn | 11 33 05.0 | -1.1 |
| **WKZ** | **Wanaka** | **2.99** | **243** | AML | | AML | 11 33 55.0 | |
| **EAZ** | **Earnscleugh** | **3.01** | **234** | AML | | AML | 11 33 54.1 | |
| EAZ | | | | AML | | AML | 11 33 54.5 | |
| EAZ | | | | AML | | AML | 11 33 58.6 | |
| EAZ | | | | AML | | AML | 11 33 59.8 | |
| **OGWZ** | **Otaki Gorge** | **3.25** | **34** | AML | | AML | 11 33 47.0 | |
| **TUZ** | **Tuapeka** | **3.29** | **222** | AML | | AML | 11 34 05.5 | |
| TUZ | | | | AML | | AML | 11 34 05.6 | |
| TUZ | | | | AML | | AML | 11 34 10.3 | |
| TUZ | | | | AML | | AML | 11 34 11.4 | |
| **MRZ** | **Mangatainoka R** | **3.55** | **37** | AML | | AML | 11 33 56.6 | |
| **MLZ** | **Mavora Lakes** | **3.80** | **240** | *e*Pn | | Pn | 11 33 15.5 | -1.6 |
| **BFZ** | **Birch Farm** | **3.85** | **43** | *e*Pn | | Pn | 11 33 45.1 | -2.3 |
| **WHZ** | **Wether Hill Ro** | **4.17** | **234** | *e*Pn | | Pn | 11 33 25.8 | +3.6 |
| **DCZ** | **Deep Cove** | **4.46** | **242** | *e*Pn | | Pn | 11 33 24.4 | -1.8 |
| **OTVZ** | **Oturere** | **4.88** | **28** | Pn | | Pn | 11 33 30.5 | -1.6 |
| **OTVZ** | **Oturere** | **4.88** | **28** | PN | | Pn | 11 33 30.5 | -1.6 |
| **PYZ** | **Puysegur Point** | **5.07** | **237** | *e*Pn | | Pn | 11 33 32.9 | -1.7 |
| **BKZ** | **Black Stump Fm** | **5.18** | **34** | *e*Pn | | Pn | 11 33 33.7 | -2.5 |
| **HIZ** | **Hauiti** | **5.26** | **18** | *e*Pn | | Pn | 11 33 36.8 | -0.4 |

*NEIC **25** 11:35:01.6±0.0,43°.51S×172°.79E,h11km,ML3.8(WEL), After WEL.*
*NEIC Felt at Christchurch.*

**WEL 25 11:35:02.1**±0.1,**43°.51S×172°.77E,h8**km,**ML3.9**/30,**2C, Error ellipse: s-maj=1.3km s-min=0.6km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.12** | **237** | *e*Pg | | Pg | 11 35 05.2 | +0.4 |
| CRLZ | | | | *e*Sg | | Sg | 11 35 07.4 | +0.7 |
| **CRLZ** | **Canterbury Las** | **0.12** | **237** | ⇑PG | | Pg | 11 35 05.1 | +0.3 |
| CRLZ | | | | SG | | Sg | 11 35 06.6 | -0.1 |
| CRLZ | | | | AML | | AML | 11 35 07.5 | |
| CRLZ | | | | AML | | AML | 11 35 08.1 | |
| CRLZ | | | | AML | | AML | 11 35 08.1 | |
| **MQZ** | **McQueen's Vall** | **0.21** | **202** | *e*Pg | | Pg | 11 35 06.5 | +0.1 |
| MQZ | | | | *e*Sg | | Sg | 11 35 09.7 | +0.3 |
| **MQZ** | **McQueen's Vall** | **0.21** | **202** | ⇑PG | | Pg | 11 35 06.5 | 0.0 |
| MQZ | | | | SG | | Sg | 11 35 09.1 | -0.3 |
| MQZ | | | | AML | | AML | 11 35 10.0 | |
| **OXZ** | **Oxford** | **0.56** | **289** | *e*Pg | | Pg | 11 35 13.2 | +0.2 |
| OXZ | | | | *e*Sg | | Sb | 

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **BFZ** | **Birch Farm** | **3.83** | **44** | *e*Pn | | Pn | 11 35 58.7 | -2.7 |
| **SYZ** | **Scrubby Hill** | **3.97** | **219** | *e*PN | | Pn | 11 36 01.5 | -1.8 |
| SYZ | | | | | AML | AML | 11 37 13.0 | |
| SYZ | | | | | AML | AML | 11 37 13.5 | |
| **WAZ** | **Wanganui** | **4.10** | **25** | *e*PN | | Pn | 11 36 05.8 | +0.6 |
| **ANWZ** | **Angora Road** | **4.11** | **43** | | AML | AML | 11 36 49.5 | |
| ANWZ | | | | | AML | AML | 11 36 50.7 | |
| **WHZ** | **Wether Hill Ro** | **4.18** | **234** | *e*Pn | | Pn | 11 36 03.8 | -2.4 |
| WHZ | | | | *e*Pg | | Pg | 11 36 20.3 | -1.9 |
| **WHZ** | **Wether Hill Ro** | **4.18** | **234** | *e*PN | | Pn | 11 36 03.4 | -2.8 |
| **WPHZ** | **Waipukurau** | **4.40** | **40** | | AML | AML | 11 37 04.0 | |
| **PNHZ** | **Pukenui** | **4.42** | **37** | | AML | AML | 11 36 59.1 | |
| **DCZ** | **Deep Cove** | **4.47** | **242** | *e*Pn | | Pn | 11 36 08.2 | -2.0 |
| DCZ | | | | *e*Pg | | Pg | 11 36 24.3 | -3.4 |
| **DCZ** | **Deep Cove** | **4.47** | **242** | *e*PN | | Pn | 11 36 08.2 | -2.0 |
| **VRZ** | **Vera Road** | **4.63** | **20** | *e*PN | | Pn | 11 36 12.0 | -0.4 |
| **PYZ** | **Puysegur Point** | **5.08** | **236** | *e*Pn | | Pn | 11 36 16.7 | -1.9 |
| PYZ | | | | *e*Pg | | Pg | 11 36 41.7 | +2.3 |
| **BKZ** | **Black Stump Fm** | **5.16** | **34** | *e*Pn | | Pn | 11 36 18.7 | -1.1 |
| BKZ | | | | *e*Pg | | Pg | 11 36 40.3 | -0.7 |
| **HIZ** | **Hauiti** | **5.23** | **18** | *e*Pn | | Pn | 11 36 20.4 | -0.3 |
| **RIGZ** | **Rimuhau** | **6.10** | **40** | | AML | AML | 11 37 39.3 | |
| **RAGZ** | **Rawiri** | **6.12** | **37** | | AML | AML | 11 37 38.6 | |
| RAGZ | | | | | AML | AML | 11 37 41.3 | |
| **URZ** | **Urewera** | **6.19** | **34** | *e*Pn | | Pn | 11 36 30.6 | -3.2 |
| URZ | | | | *e*Sn | | Sn | 11 37 40.5 | -4.3 |
| **WMGZ** | **Waiomatatini S** | **7.12** | **39** | | AML | AML | 11 38 02.3 | |
| WMGZ | | | | | AML | AML | 11 38 02.3 | |

*CSEM* ***25*** *11:36:20.9±0.4, 39°.99N×41°.25E, h10km, ML2.4, Error ellipse: s-maj=11.1km s-min=7.3km az=173.0*
*ISK* ***25*** *11:36:20.6, 39°.90N×41°.34E, h8km, MD2.9*
*DDA* ***25*** *11:36:21.3, 39°.94N×41°.25E, h5km, Ml2.4*
*ATA* ***25*** *11:36:21.6±1.7, 39°.93N×41°.28E, h3km±6km, MD2.2, ML2.6, MW2.7*

**ISC 25 11:36:21.3±1.0, 39°.92N±0°.03×41°.26E±0°.02, h9km±7km, n32, σ0°95/50, 1D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ERZM** | **Erzurum** | **0.09** | **102** | ǁ*iP* | **Pg** | **11 36 23.5** | **-0.2** |
| ERZM | | | | *e*P | **Pg** | **11 36 23.6** | **-0.2** |
| **ERZM** | **Erzurum** | **0.09** | **102** | *i* P | **Pg** | **11 36 23.4** | **-0.4** |
| **ERZM** | **Erzurum** | **0.09** | **102** | P | **Pg** | **11 36 23.4** | **-0.4** |
| **ECAT** | **Cat-ERZURUM** | **0.39** | **215** | *e*P | **Pg** | **11 36 29.9** | **+0.9** |
| ECAT | | | | *i* Pg | **Pb** | **11 36 31.4** | **+0.9** |
| ECAT | | | | *e*S | **Sb** | **11 36 36.0** | **-0.7** |
| ECAT | comp=Z,44nm,0.2s | | | IAML | | 11 36 37.3 | |
| **ECAT** | **Cat-ERZURUM** | **0.39** | **215** | *i* P | **Pg** | **11 36 29.7** | **+0.8** |
| ECAT | | | | *i* S | **Sb** | **11 36 35.9** | **-0.7** |
| **ECAT** | **Cat-ERZURUM** | **0.39** | **215** | P | **Pg** | **11 36 29.7** | **+0.8** |
| ECAT | | | | S | **Sb** | **11 36 35.9** | **-0.7** |
| **HOMI** | **Horasan** | **0.51** | **76** | *e*P | **Pg** | **11 36 31.7** | **+0.5** |
| HOMI | | | | *e*S | **Sb** | **11 36 40.9** | **+0.5** |
| **HOMI** | **Horasan** | **0.51** | **76** | *i* P | **Pg** | **11 36 31.4** | **+0.1** |
| HOMI | | | | *i* S | **Sb** | **11 36 40.3** | **0.0** |
| **KOPT** | **Kop Dagi** | **0.59** | **279** | *e*P | **Pb** | **11 36 34.2** | **+0.2** |
| KOPT | | | | *e*S | **Sn** | **11 36 45.2** | **-1.0** |
| **KOPT** | **Kop Dagi** | **0.59** | **279** | *i* P | **Pg** | **11 36 33.5** | **+0.7** |
| KOPT | | | | *i* S | **Sn** | **11 36 45.0** | **-1.1** |
| **KOPT** | **Kop Dagi** | **0.59** | **279** | P | **Pg** | **11 36 33.5** | **+0.7** |
| **YEDI** | **Yedisu-Bingol** | **0.73** | **229** | *e*PG | **Pg** | **11 36 35.6** | **+0.1** |
| YEDI | | | | *e*SG | **Sb** | **11 36 47.0** | **+0.4** |
| **YEDI** | **Yedisu-Bingol** | **0.73** | **229** | *e*Pg | **Pg** | **11 36 35.6** | **+0.1** |
| YEDI | | | | *e*Sg | **Sb** | **11 36 47.0** | **+0.4** |
| **EKAR** | **Karacoban** | **0.91** | **137** | *e*P | **Pb** | **11 36 38.9** | **+0.5** |
| EKAR | | | | *e*S | **Sn** | **11 36 54.4** | **+0.4** |
| **EKAR** | **Karacoban** | **0.91** | **137** | *i* P | **Pn** | **11 36 40.3** | **-0.3** |
| EKAR | | | | *i* S | **Sn** | **11 36 54.8** | **+0.8** |
| **EKAR** | **Karacoban** | **0.91** | **137** | P | **Pn** | **11 36 40.3** | **-0.3** |
| EKAR | | | | S | **Sn** | **11 36 54.8** | **+0.8** |
| **EATA** | **Eleskirt** | **0.95** | **93** | *e*P | **Pb** | **11 36 40.2** | **0.0** |
| EATA | | | | *e*S | **Sn** | **11 36 55.7** | **+0.6** |
| **EATA** | **Eleskirt** | **0.95** | **93** | *i* P | **Pg** | **11 36 39.8** | **+0.2** |
| EATA | | | | *i* S | **Sn** | **11 36 54.3** | **-0.7** |
| **EATA** | **Eleskirt** | **0.95** | **93** | P | **Pg** | **11 36 39.8** | **+0.2** |
| EATA | | | | S | **Sn** | **11 36 54.3** | **-0.7** |
| **BAYT** | **Ayd¯–ntepe-Bay** | **0.98** | **299** | *e*PG | **Pb** | **11 36 40.9** | **+0.4** |
| **BAYT** | **Ayd¯–ntepe-Bay** | **0.98** | **299** | *e*Pg | **Pb** | **11 36 40.9** | **+0.4** |
| **BNGB** | **Bing ¶ll** | **1.03** | **206** | *e*PG | **Pg** | **11 36 40.9** | **-0.3** |
| BNGB | | | | *e*SG | **Sb** | **11 36 56.0** | **+0.8** |
| **SENK** | **Senkaya-Erzuru** | **1.05** | **52** | *e*PG | **Pg** | **11 36 40.6** | **-0.9** |
| **SENK** | **Senkaya-Erzuru** | **1.05** | **52** | *e*Pg | **Pg** | **11 36 40.6** | **-0.9** |
| **BINT** | **Bingol** | **1.20** | **210** | *e*Pg | **Pb** | **11 36 40.9** | **-3.5** |
| **ERZN** | **Erzincan** | **1.23** | **255** | *e*PN | **Pg** | **11 36 45.4** | **+0.4** |
| **TUTA** | **Tutak** | **1.31** | **113** | *i* P | Pg | 11 36 53.4 | +7.0 |
| **ARTV** | **Artvin** | **1.36** | **22** | *e*P | **Pg** | **11 36 47.4** | **0.0** |
| ARTV | | | | *e*S | **Sg** | **11 37 07.3** | **+2.3** |
| **EZC** | **Erzincan** | **1.48** | **264** | *e*Pn | **Pn** | **11 36 45.4** | **-2.9** |
| **KELT** | **Kelkit** | **1.55** | **279** | *i* P | **Pg** | **11 36 51.5** | **+0.4** |
| **PTK** | **Pertek** | **1.77** | **235** | *e*PN | **Pn** | **11 36 52.9** | **+0.5** |
| **PTK** | **Pertek** | **1.77** | **235** | *e*Pn | **Pn** | **11 36 52.9** | **+0.5** |

*IDC* ***25*** *11:48:37.3±1.6, 2.°92N×96.°05E, h0km, mb3.9/6, mb1 4.0/8, mb1mx3.6/46, mbtmp3.9/8, ML3.8/2, MS4.1/1, Ms1 4.1/1, ms1mx2.8/48, Error ellipse: s-maj=56.9km s-min=18.5km az=54.0*
*ISCJB* ***25*** *11:48:46.2±0.5, 3.°20N±0.°04×96.°56E±0.°05, h71km±4km, mb4.3/16, Error ellipse: s-maj=8.7km s-min=5.8km az=162.6*
*NEIC* ***25*** *11:48:46.4±1.1, 3.°11N×96.°43E, h63km±9km, mb4.5/11, Error ellipse: s-maj=14.0km s-min=5.9km az=60.0*
*DJA* ***25*** *11:48:46.5±0.4, 3°N±3°×9°7E±°, h18km±4km, M3.9/10, MLv3.9/10*

**ISC 25 11:48:46.1±0.9, 3°.22N±0°.04×96°.59E±0°.05, h55km±8km, n46, σ1°40/51, mb4.3/16, Northern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TPTI** | | **0.59** | **86** | P | **Pn** | **11 48 58.4** | **-0.3** |
| TPTI | | | | Pg | **Pn** | **11 48 58.5** | **-0.3** |
| TPTI | | | | S | **Sn** | **11 49 06.1** | **-1.9** |
| TPTI | | | | Sg | **Sn** | **11 49 06.2** | **-1.8** |
| **SNSI** | **Sinabang, Aceh** | **0.84** | **198** | P | **Pn** | **11 49 03.1** | **+1.2** |
| SNSI | | | | Pg | **Pn** | **11 49 03.1** | **+1.2** |
| SNSI | | | | Sg | **Sn** | **11 49 15.2** | **+1.7** |
| SNSI | | | | S | **Sn** | **11 49 15.3** | **+1.7** |
| **MLSI** | **Meulaboh, Aceh** | **1.06** | **350** | P | **Pn** | **11 49 06.0** | **+1.2** |
| MLSI | | | | S | **Sn** | **11 49 20.3** | **+1.7** |
| **KCSI** | **Kotacane, Aceh** | **1.22** | **76** | P | **Pn** | **11 49 08.4** | **+1.4** |
| KCSI | | | | S | **Sn** | **11 49 23.4** | **+0.9** |
| **TSI** | **Tuntungan** | **2.00** | **82** | P | **Pn** | **11 49 20.0** | **+2.5** |
| **LHMI** | **Lhok Sumawe** | **2.03** | **10** | P | **Pn** | **11 49 19.9** | **+1.9** |
| **LHMI** | **Lhok Sumawe** | **2.03** | **10** | *e*Pn | **Pn** | **11 49 20.1** | **+2.2** |
| **GSI** | **Gunungsitoli** | **2.14** | **152** | P | **Pn** | **11 49 20.0** | **+0.5** |
| **GSI** | **Gunungsitoli** | **2.14** | **152** | *e*Pn | **Pn** | **11 49 20.3** | **+0.8** |
| GSI | | | | *e*Sn | **Sn** | **11 49 45.8** | **+0.9** |
| **PSI** | **Prapat** | **2.37** | **100** | Pn | **Pn** | **11 49 25.8** | **+3.1** |
| | 8.8nm,0.3s,baz=322,slow=8.2,SNR=16 | | | | | | |
| **PSI** | **Prapat** | **2.37** | **100** | *e*Pn | **Pn** | **11 49 25.5** | **+2.8** |
| **KULM** | **Kulim** | **4.55** | **63** | *e*Pn | **Pn** | **11 49 53.9** | **+1.5** |
| **IPM** | **Ipoh** | **4.60** | **74** | *e*Pn | **Pn** | **11 49 55.4** | **+2.2** |
| **CM31** | **Chiang Mai Arr** | **15.32** | **8** | *e*Pn | **P** | **11 52 22.0** | **-0.8** |
| **CMAR** | **Chiang Mai Arr** | **15.32** | **8** | Pn | **P** | **11 52 22.0** | **-0.8** |
| | 0.2nm,0.3s,baz=197,slow=12,SNR=14 | | | | | | |
| **KKM** | **Kota Kinabalu** | **19.76** | **81** | *e*P | **Pn** | **11 53 13.8** | **-0.1** |
| | 19nm,1.0s | | | | | | |
| **MYLDM** | **Lahad Datu** | **21.94** | **84** | *e*P | **P** | **11 53 36.9** | **+1.6** |
| | 46nm,1.4s | | | | | | |
| **H08S2** | **Diego Garcia H** | **26.35** | **246** | T | T | 12 21 00.6 | |
| | baz=68 | | | | | | |
| **H08S3** | **Diego Garcia H** | **26.35** | **246** | T | T | 12 21 05.1 | |
| | baz=68 | | | | | | |
| **H08S1** | **Diego Garcia H** | **26.37** | **246** | T | T | 12 20 56.4 | |
| | baz=68 | | | | | | |
| **LUWI** | **Luwuk** | **26.52** | **99** | *e*P | **P** | **11 54 19.0** | **+0.2** |
| | 22nm,1.0s | | | | | | |
| **WR1** | **Warramunga Arr** | **43.63** | **123** | *e*P | **P** | **11 56 46.0** | **+0.4** |
| | 10.0nm,1.4s | | | | | | |
| **WRA** | **Warramunga Arr** | **43.63** | **123** | P | **P** | **11 56 46.0** | **+0.4** |
| | 0.5nm,0.5s,baz=302,slow=9.2,SNR=13 | | | | | | |
| **WRAB** | **Tennant Creek** | **43.64** | **123** | *e*P | **P** | **11 56 46.1** | **+0.5** |
| | 10nm,1.4s | | | | | | |
| **WB2** | **Warramunga Arr** | **43.64** | **123** | *e*P | **P** | **11 56 46.0** | **+0.4** |
| | 5.7nm,1.2s | | | | | | |
| **AS31** | **Alice Springs** | **45.11** | **128** | *e*P | **P** | **11 56 57.9** | **+0.5** |
| | 2.8nm,1.4s | | | | | | |
| **ASAR** | **Alice Springs** | **45.11** | **128** | P | **P** | **11 56 57.4** | **0.0** |
| | 0.3nm,0.4s,baz=297,slow=7.5,SNR=19 | | | | | | |
| **MK01** | **Makanchi Array** | **45.12** | **346** | *e*P | **P** | **11 56 57.0** | **-0.1** |
| **MK31** | **Makanchi Array** | **45.15** | **346** | *e*P | **P** | **11 56 57.5** | **+0.2** |
| **MK32** | **Makanchi Array** | **45.15** | **346** | *e*P | **P** | **11 56 56.6** | **-0.7** |
| **MKAR** | **Makanchi Array** | **45.15** | **346** | P | **P** | **11 56 56.6** | **-0.7** |
| | 0.7nm,0.5s,baz=167,slow=8.5,SNR=10 | | | | | | |
| **MKAR** | **Makanchi Array** | **45.15** | **346** | *e*P | **P** | **11 56 57.3** | **0.0** |
| | 22nm,1.1s | | | | | | |
| **MAKZ** | **Makanchi** | **45.24** | **346** | *e*P | **P** | **11 56 57.9** | **-0.1** |
| | 4.1nm,1.0s | | | | | | |
| **SONA0** | **Songino Array** | **45.25** | **9** | *e*P | **P** | **11 56 58.4** | **+0.2** |
| **SONM** | **Songino Array** | **45.25** | **9** | P | **P** | **11 56 58.4** | **+0.2** |
| | 0.6nm,0.5s,baz=193,slow=9.4,SNR=6.2 | | | | | | |
| **SONA1** | **Songino Array** | **45.26** | **9** | *e*P | **P** | **11 56 58.6** | **+0.3** |
| **ZAA0** | **Zalesovo Array** | **51.48** | **351** | *e*P | **P** | **11 57 46.0** | **+0.1** |
| | 2.3nm,0.6s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **51.48** | **351** | P | **P** | **11 57 45.5** | **-0.5** |
| | 2.1nm,0.5s,baz=174,slow=7.4,SNR=11 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **51.48** | **351** | *e*P | **P** | **11 57 45.9** | **0.0** |
| **ZAA1** | **Zalesovo Array** | **51.49** | **351** | *e*P | **P** | **11 57 45.5** | **-0.5** |
| **BVAR** | **Borovoye Array** | **54.16** | **341** | LR | LR | 12 22 01.7 | |
| | comp=Z,175nm,21.3s,baz=268,slow=37 | | | | | | |
| **ABKAR** | **Akbulak array** | **55.46** | **332** | *e*P | **P** | **11 58 15.3** | **+0.1** |
| | 8.6nm,0.5s | | | | | | |
| **SANT** | **Santorini** | **72.93** | **307** | *e*P | **P** | **12 00 05.9** | **-4.0** |
| | 105nm,1.3s | | | | | | |
| **ARA0** | **ARCESS Array S** | **80.44** | **340** | *e*P | **P** | **12 00 52.5** | **+0.9** |
| **ARCES** | **ARCESS Array B** | **80.44** | **340** | P | **P** | **12 00 52.5** | **+0.9** |
| | 2.6nm,0.8s,baz=95,slow=7.6,SNR=3.3 | | | | | | |
| **ROC1** | **El Roble** | **148.20** | **200** | *e*PKPdf | **PKPdf** | **12 08 21.9** | **-1.7** |

**IDC 25 11:51:42.6±7.8, 27°.67N×140°.01E, h472km±98km, mb2.7/7, mb1 2.9/7, mb1mx2.7/36, mbtmp3.6/7, Error ellipse: s-maj=32.0km s-min=14.4km az=84.0, Bonin Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SONM** | **Songino Array** | **32.97** | **317** | P | P | 11 57 37.1 | +0.1 |
| | 0.3nm,0.5s,baz=120,slow=8.5,SNR=2.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **47.65** | **187** | P | P | 11 59 34.9 | -0.2 |
| | 0.3nm,0.3s,baz=1.7,slow=7.5,SNR=12 | | | | | | |
| **MKAR** | **Makanchi Array** | **48.62** | **309** | P | P | 11 59 41.7 | -0.4 |
| | 0.2nm,0.5s,baz=90,slow=10.0,SNR=4.8 | | | | | | |
| **ASAR** | **Alice Springs** | **51.37** | **187** | P | P | 12 00 02.5 | -0.1 |
| | 0.2nm,0.3s,baz=359,slow=5.5,SNR=10.0 | | | | | | |
| **ILAR** | **Eielson Array** | **58.14** | **29** | P | P | 12 00 49.4 | -0.3 |
| | 0.9nm,1.2s,baz=250,slow=5.8,SNR=3.5 | | | | | | |
| **YKA** | **Yellowknife Ar** | **72.55** | **28** | P | P | 12 02 20.7 | +0.3 |
| | 0.3nm,0.6s,baz=298,slow=6.0,SNR=6.4 | | | | | | |
| **FINES** | **FINESS Array B** | **76.58** | **333** | P | P | 12 02 43.2 | 0.0 |
| | 1.1nm,0.5s,baz=65,slow=4.2,SNR=9.6 | | | | | | |

*NIED* ***25*** *11:59:00, 29°.50N×131°.60E, h5km, Mw4.2 Best double couple: M₀2.64000×10¹⁵ NP1:φs12.00000°, δ12.00000°, λ-69.00000°. NP2:φs171.00000°, δ79.00000°, λ-94.00000°.*
*IDC* ***25*** *11:59:07.7±0.8, 29°.45N×131°.50E, h0km, mb4.0/16, mb1 4.1/19, mb1mx4.0/42, mbtmp3.9/19, ML3.3/4, MS3.7/1, Ms1 3.7/1, ms1mx2.7/40, Error ellipse: s-maj=21.5km s-min=17.8km az=80.0*
*ISCJB* ***25*** *11:59:09.9±1.0, 29°.55N±0°.03×131°.58E±0°.03, h23km±6km, mb4.1/30, MS3.6/1, Error ellipse: s-maj=5.6km s-min=3.6km az=34.5*
*JMA* ***25*** *11:59:10.5±0.1, 29°.55N×131°.61E, h33km, M4.1*
*NEIC* ***25*** *11:59:10.4±2.0, 29°.45N×131°.53E, h16km±12km, mb4.4/17, Error ellipse: s-maj=7.0km s-min=4.9km az=133.0*

**ISC 25 11:59:11.6±2.7, 29°.55N±0°.04×131°.59E±0°.06, h25km±19km, n79, σ1°30/96, mb4.2/30, Southeast of Ryukyu Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JYAK** | **Yakushimahirau** | **1.16** | **307** | P | **Pn** | **11 59 31.2** | **-1.1** |
| JYAK | | | | *e*S | **Sn** | **11 59 46.0** | **-1.4** |
| **JTN** | **Tanegashima 3** | **1.22** | **335** | P | **Pn** | **11 59 32.1** | **-1.1** |
| JTN | | | | S | **Sn** | **11 59 47.8** | **-1.1** |
| **JKC** | **Kuchinoerabu** | **1.51** | **307** | P | **Pn** | **11 59 36.6** | **-0.6** |
| JKC | | | | S | **Sn** | **11 59 56.2** | **+0.2** |
| **JNN** | **Nakanoshima** | **1.52** | **281** | P | **Pn** | **11 59 36.6** | **-0.6** |
| JNN | | | | *e*S | **Sn** | **11 59 57.2** | **+1.0** |
| **JTSR** | **Tashiro 2** | **1.71** | **341** | P | **Pn** | **11 59 39.3** | **-0.6** |
| JTSR | | | | *e*S | **Sn** | **11 59 59.5** | **-1.6** |
| **JZK** | **Kikaishima** | **1.88** | **229** | P | **Pn** | **11 59 42.2** | **+0.1** |
| JZK | | | | *e*S | **Sn** | **12 00 05.2** | **+0.2** |
| **JAM** | **Amami Oshima** | **2.07** | **237** | P | **Pn** | **11 59 44.2** | **-0.7** |
| JAM | | | | S | **Sn** | **12 00 08.5** | **-1.4** |
| **JTAJ** | **Takarajima** | **2.12** | **260** | P | **Pn** | **11 59 45.1** | **-0.4** |
| JTAJ | | | | *e*S | **Sn** | **12 00 11.3** | **+0.3** |
| **JTZ** | **Takazaki** | **2.38** | **350** | P | **Pn** | **11 59 49.1** | **0.0** |
| JTZ | | | | *e*S | **Sn** | **12 00 16.7** | **-0.9** |
| **JAMN** | **Amaminishikomi** | **2.48** | **239** | P | **Pn** | **11 59 50.0** | **-0.5** |
| JAMN | | | | *e*S | **Sn** | **12 00 19.0** | **-1.0** |
| **JSJ** | **Shimokoshiki** | **2.67** | **323** | P | **Pn** | **11 59 51.4** | **-1.6** |
| JSJ | | | | *e*S | **Sn** | **12 00 21.4** | **-3.2** |
| **JTK** | **Tokunoshima** | **2.91** | **233** | P | **Pn** | **11 59 55.9** | **-0.5** |
| JTK | | | | *e*S | **Sn** | **12 00 29.0** | **-1.5** |
| **JIU2** | **Izumi 2** | **3.06** | **348** | P | **Pn** | **11 59 58.3** | **-0.2** |
| JIU2 | | | | *e*S | **Sn** | **12 00 32.4** | **-1.9** |
| **JOKE** | **Okinoerabujima** | **3.44** | **231** | P | **Pn** | **12 00 03.0** | **-0.6** |
| JOKE | | | | S | **Sn** | **12 00 41.4** | **-2.2** |
| **JTO** | **Tosashimizu** | **3.46** | **17** | P | **Pn** | **12 00 02.1** | **-1.9** |
| JTO | | | | S | **Sn** | **12 00 38.9** | **-5.3** |
| **JNU** | **Nakatsue** | **3.61** | **351** | Pn | **Pn** | **12 00 06.0** | **-0.1** |
| | 6.2nm,0.3s,baz=355,slow=9.9,SNR=102 | | | | | | |
| JNU | | | | Sn | **Sn** | **12 00 45.8** | **-2.2** |
| | 6.4nm,0.3s,baz=11,slow=16,SNR=11 | | | | | | |
| **JNU** | **Nakatsue** | **3.61** | **351** | *e*Pn | **Pn** | **12 00 07.0** | **+0.9** |
| JNU | | | | *e*Sn | **Sn** | **12 00 48.6** | **+0.6** |
| **JOW** | **Kunigami** | **3.98** | **228** | *e*Pn | **Pn** | **12 00 10.2** | **-1.0** |
| **INU** | **Inuyama** | **7.38** | **37** | *e*Pn | **Pn** | **12 00 59.4** | **+1.6** |
| **KSRS** | **Korea Array** | **8.46** | **340** | Pn | **Pn** | **12 01 13.4** | **+0.8** |
| | 0.2nm,0.3s,baz=155,slow=15,SNR=3.1 | | | | | | |
| **KS15** | **Wonju Array Si** | **8.46** | **340** | *e*Pn | **Pn** | **12 01 13.4** | **+0.8** |
| **KSAR** | **Wonju Array Be** | **8.46** | **340** | Pn | **Pn** | **12 01 13.4** | **+0.8** |
| **MAJO** | **Matsushiro** | **8.91** | **37** | *e*Pn | **Pn** | **12 01 20.7** | **+1.8** |
| **MAT** | **Matsushiro** | **8.91** | **37** | P | **Pn** | **12 01 20.3** | **+1.4** |
| **MJAR** | **Matsushiro Arr** | **8.91** | **37** | Pn | **Pn** | **12 01 20.4** | **+1.5** |
| | 1.5nm,0.3s,baz=248,slow=14,SNR=13 | | | | | | |
| **MJB9** | **Matsu-Tunnel** | **8.91** | **37** | *e*Pn | **Pn** | **12 01 20.7** | **+1.8** |
| **NACB** | **Ninganchiao** | **10.40** | **241** | *e*Pn | **Pn** | **12 01 36.2** | **-3.0** |
| **SSLB** | **Suanglung** | **11.10** | **241** | *e*Pn | **Pn** | **12 01 46.5** | **-2.4** |
| **KLR** | **Kul'dur** | **19.66** | | P | **P** | **12 03 38.8** | **+0.3** |
| | 0.0nm,0.3s,baz=180,slow=8.5,SNR=3.5 | | | | | | |
| **QIZ** | **Qiongzhong** | **22.38** | **247** | *e*P | **P** | **12 04 09.0** | **+0.8** |
| | 67nm,1.5s | | | | | | |
| **SONA0** | **Songino Array** | **26.64** | **320** | *e*P | **P** | **12 04 47.8** | **-0.7** |
| **SONM** | **Songino Array** | **26.64** | **320** | P | **P** | **12 04 47.8** | **-0.7** |
| | 1.0nm,0.5s,baz=139,slow=10,SNR=7.2 | | | | | | |
| SONM | | | | LR | LR | 12 15 29.1 | |
| | comp=Z,169nm,20.0s,baz=340,slow=37 | | | | | | |
| **SONA1** | **Songino Array** | **26.65** | **320** | *e*P | **P** | **12 04 47.7** | **-0.8** |
| **SEY** | **Seymchan** | **36.01** | **16** | P | **P** | **12 06 10.9** | **+0.5** |
| | 1.6nm,0.6s,baz=239,slow=7.3,SNR=4.8 | | | | | | |
| **PMG** | **Port Moresby** | **41.53** | **156** | *e*P | **P** | **12 06 57.4** | **+0.2** |
| | 7.9nm,1.0s | | | | | | |
| **MK01** | **Makanchi Array** | **41.67** | **308** | *e*P | **P** | **12 06 59.4** | **+1.3** |
| **MK31** | **Makanchi Array** | **41.67** | **308** | *e*P | **P** | **12 06 58.8** | **+0.6** |
| **MK32** | **Makanchi Array** | **41.67** | **308** | *e*P | **P** | **12 06 57.4** | **-0.7** |
| **MKAR** | **Makanchi Array** | **41.67** | **308** | P | **P** | **12 06 57.4** | **-0.7** |
| | 0.3nm,0.5s,baz=91,slow=7.3,SNR=6.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **41.67** | **308** | *e*P | **P** | **12 06 58.9** | **+0.7** |
| | 19nm,1.3s | | | | | | |
| **KURK** | **Kurchatov** | **44.57** | **314** | *e*P | **P** | **12 07 20.9** | **-0.5** |
| **KURBB** | **Kurchatov Arra** | **44.62** | **314** | P | **P** | **12 07 20.9** | **-0.9** |
| | 0.3nm,0.4s,baz=99,slow=9.4,SNR=2.7 | | | | | | |
| **BRVK** | **Borovoye** | **49.93** | **316** | *e*P | **P** | **12 08 04.5** | **+1.3** |
| | 2.3nm,0.8s | | | | | | |
| **KKAR** | **Karatay Array** | **50.00** | **303** | *e*P | **P** | **12 08 04.1** | **+0.1** |
| | 14nm,0.6s | | | | | | |
| **AS31** | **Alice Springs** | **52.95** | **177** | *e*P | **P** | **12 08 24.9** | **-1.3** |
| | 0.7nm,0.8s | | | | | | |
| **ASAR** | **Alice Springs** | **52.96** | **177** | P | **P** | **12 08 24.9** | **-1.3** |
| | 0.9nm,0.9s,baz=8.7,slow=8.5,SNR=2.7 | | | | | | |
| **ABKAR** | **Akbulak array** | **56.60** | **312** | *e*S | **S** | **12 16 40.1** | **-2.6** |
| **RND** | **Reindeer** | **59.39** | **31** | *e*P | **P** | **12 09 12.3** | **+0.5** |
| | 5.9nm,0.9s | | | | | | |
| **IL1** | **Eielson Array** | **60.11** | **29** | *e*P | **P** | **12 09 16.5** | **-0.1** |
| **ILAR** | **Eielson Array** | **60.11** | **29** | P | **P** | **12 09 16.6** | **0.0** |
| | 0.4nm,0.8s,baz=281,slow=5.4,SNR=5.3 | | | | | | |
| **ILB** | **Eielson Array** | **60.11** | **29** | *e*P | **P** | **12 09 16.6** | **0.0** |
| **PAX** | **Paxson** | **60.96** | **31** | *e*P | **P** | **12 09 20.9** | **-1.6** |
| | 3.9nm,0.7s | | | | | | |
| **DOT** | **Dot Lake** | **61.49** | **30** | *e*P | **P** | **12 09 26.4** | **+0.4** |
| | 1.2nm,0.5s | | | | | | |
| **STKA** | **Stephens Creek** | **61.82** | **170** | P | **P** | **12 09 27.9** | **-0.6** |
| | 1.7nm,0.8s,baz=342,slow=11,SNR=3.0 | | | | | | |
| **STKA** | **Stephens Creek** | **61.82** | **170** | *e*P | **P** | **12 09 27.9** | **-0.6** |
| | 1.0nm,1.2s | | | | | | |
| **INK** | **Inuvik** | **64.67** | **24** | P | **P** | **12 09 47.8** | **+0.8** |
| | 1.3nm,0.6s,baz=304,slow=6.8,SNR=14 | | | | | | |
| **INK** | **Inuvik** | **64.67** | **24** | *e*P | **P** | **12 09 47.8** | **+0.8** |
| | 1.9nm,0.8s | | | | | | |
| **KBZ** | **Khabaz** | **69.36** | **309** | P | **P** | **12 10 17.8** | **+0.6** |
| | 2.0nm,0.8s,baz=31,slow=3.9,SNR=4.2 | | | | | | |
| **FIA1** | **FINESS Array S** | **71.44** | **331** | *e*P | **P** | **12 10 31.2** | **+1.7** |
| **FIA0** | **FINESS Array S** | **71.44** | **331** | *e*P | **P** | **12 10 29.4** | **-0.2** |
| **FINES** | **FINESS Array B** | **71.44** | **331** | P | **P** | **12 10 29.4** | **-0.2** |
| | 2.4nm,0.7s,baz=150,slow=4.2,SNR=8.4 | | | | | | |
| **YKA** | **Yellowknife Ar** | **74.26** | **26** | P | **P** | **12 10 46.9** | **+0.6** |
| | 1.1nm,0.8s,baz=300,slow=5.5,SNR=18 | | | | | | |
| **AKASG** | **Malin Array Be** | **74.93** | **320** | P | **P** | **12 10 49.9** | **-0.5** |
| | 0.8nm,0.4s,baz=54,slow=6.3,SNR=7.7 | | | | | | |
| **AKBB** | **Malin Array Si** | **74.93** | **320** | *e*P | **P** | **12 10 49.9** | **-0.5** |
| | 10nm,1.4s | | | | | | |
| **KIEV** | **Kiev** | **74.94** | **320** | *e*P | **P** | **12 10 52.1** | **+1.6** |
| | 8.6nm,1.3s | | | | | | |
| **BR101** | **Keskin Array S** | **77.33** | **308** | *e*P | **P** | **12 11 05.4** | **+0.9** |
| **BRTR** | **Keskin Array B** | **77.33** | **308** | P | **P** | **12 11 05.4** | **+0.9** |
| | 2.9nm,0.9s,baz=96,slow=5.3,SNR=9.5 | | | | | | |
| **NB200** | **NORSAR Array S** | **77.63** | **335** | *e*P | **P** | **12 11 07.6** | **+1.9** |
| **NOA** | **NORSAR Array B** | **77.63** | **335** | P | **P** | **12 11 07.6** | **+1.9** |
| | 1.2nm,0.6s,baz=50,slow=5.5,SNR=3.0 | | | | | | |
| **BR231** | **Keskin MP Arra** | **77.86** | **309** | *e*P | **P** | **12 11 07.3** | **-0.1** |
| **CLL** | **Collm** | **83.09** | **326** | *e*P | **P** | **12 11 36.0** | **+0.9** |
| **GERES** | **GERESS Array B** | **84.31** | **324** | P | **P** | **12 11 42.3** | **+0.8** |
| | 0.6nm,0.9s,baz=39,slow=6.3,SNR=5.5 | | | | | | |
| **GEA0** | **GERESS Array S** | **84.32** | **324** | *e*P | **P** | **12 11 42.5** | **+0.9** |
| **CMB** | **Columbia Colle** | **84.94** | **49** | *e*P | **P** | **12 11 45.6** | **+0.6** |
| | 0.1nm,1.1s | | | | | | |
| **WAKR** | **Walker** | **85.30** | **48** | *e*P | **P** | **12 11 48.6** | **+1.7** |
| | 0.2nm,0.6s | | | | | | |
| **KVN** | **Kaiserville** | **85.85** | **47** | *e*P | **P** | **12 11 50.8** | **+1.1** |
| | 1.6nm,0.7s | | | | | | |
| **NV01** | **Mina Array Sit** | **86.08** | **48** | *e*P | **P** | **12 11 51.6** | **+0.9** |
| **NVAR** | **Mina Array Bea** | **86.08** | **48** | P | **P** | **12 11 51.6** | **+0.9** |
| | 0.8nm,0.6s,baz=300,slow=5.9,SNR=10 | | | | | | |
| **DAC** | **Darwin (Calif)** | **87.78** | **49** | *e*P | **P** | **12 11 60.0** | **+0.9** |
| | 2.2nm,0.8s | | | | | | |

*IDC* ***25*** *11:59:36.3±1.3, 5.°27S×133.°50E, h0km, mb3.7/3, mb1 4.0/7, mb1mx3.7/37, mbtmp3.9/7, ML3.9/4, MS3.0/3, Ms1 3.0/3, ms1mx2.7/33, Error ellipse: s-maj=64.0km s-min=22.1km az=

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | comp=Z,0.1nm,0.3s,baz=42,slow=19,SNR=11 | | | | | | | | |
| **TLY** | **Talaya** | **6.60** | **82** | *e*PN | | **Pb** | **12 13 48.9** | **+0.6** | |
| TLY | | | | *e* | | | 12 15 14.2 | | |
| TLY | | | | pmax | pmax | | | | |
| | comp=Z,8.0nm,0.4s | | | | | | | | |
| **TTS** | **Tsetserleg** | **6.62** | **122** | *e*Pg | | **Pb** | **12 13 49.3** | **+0.5** | |
| TTS | | | | *e*Sg | | **Sb** | **12 15 16.6** | **+8.6** | |
| **NVS** | **Novosibirsk** | **6.95** | **305** | *e*Pn | | **Pn** | **12 13 33.7** | **-1.6** | |
| NVS | | | | *e*Pg | | **Pb** | **12 13 56.2** | **+1.9** | |
| NVS | | | | *e*Sn | | Sn | 12 14 46.7 | -7.7 | |
| NVS | | | | *e*Sg | | **Sb** | **12 15 21.7** | **+4.5** | |
| **NVS** | **Novosibirsk** | **6.95** | **305** | *e*PN | | **Pn** | **12 13 33.7** | **-1.6** | |
| NVS | | | | *i* | | | 12 13 56.2 | | |
| NVS | | | | *e* | | | 12 15 21.7 | | |
| **IRK** | **Irkutsk** | **7.00** | **78** | *e*PN | | **Pb** | **12 13 56.8** | **+1.6** | |
| IRK | | | | *e* | | | 12 15 24.7 | | |
| IRK | | | | pmax | pmax | | | | |
| | comp=Z,61nm,0.1s | | | | | | | | |
| IRK | | | | smax | smax | | | | |
| | comp=N,328nm,1.2s | | | | | | | | |
| **BLGM** | **Bulgan** | **7.15** | **106** | *e*Pn | | **Pn** | **12 13 37.7** | **-0.5** | |
| **BLGM** | **Bulgan** | **7.15** | **106** | *e*Pg | | **Pb** | **12 14 00.5** | **+2.7** | |
| BLGM | | | | *e*Sg | | **Sg** | **12 15 37.9** | **-5.1** | |
| **MK31** | **Makanchi Array** | **8.39** | **242** | Pn | | **Pn** | **12 13 54.9** | **-0.3** | |
| | comp=N,1.6nm,0.4s,baz=44,slow=16,SNR=41 | | | | | | | | |
| MK31 | | | | ⇑Pg | | **Pb** | **12 14 22.5** | **+3.6** | |
| | comp=N,5.1nm,0.5s,baz=62,slow=12,SNR=3.8 | | | | | | | | |
| MK31 | | | | ⇓Lg | | Lg | 12 16 14.2 | | |
| | comp=N,44nm,0.9s,baz=61,slow=31,SNR=4.9 | | | | | | | | |
| **MK31** | **Makanchi Array** | **8.39** | **242** | P | | **Pn** | **12 13 54.9** | **-0.3** | |
| **MKAR** | **Makanchi Array** | **8.39** | **242** | Pn | | **Pn** | **12 13 55.0** | **-0.2** | |
| | comp=N,0.6nm,0.3s,baz=52,slow=13,SNR=24 | | | | | | | | |
| MKAR | | | | Lg | | Lg | 12 16 12.0 | | |
| | comp=N,0.7nm,0.3s,baz=60,slow=32,SNR=3.5 | | | | | | | | |
| MKAR | | | | LR | | LR | 12 17 46.0 | | |
| | comp=N,118nm,19.2s,baz=3.5,slow=41 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **8.39** | **242** | P | | **Pn** | **12 13 55.0** | **-0.2** | |
| MKAR | | | | pmax | pmax | | | | |
| | comp=Z,1.0nm,0.3s | | | | | | | | |
| MKAR | | | | MLR | MLR | | | | |
| | comp=Z,118nm,19.2s | | | | | | | | |
| **MAKZ** | **Makanchi** | **8.56** | **243** | ⇓Pn | | **Pn** | **12 13 56.6** | **-0.8** | |
| | comp=Z,4.1nm,0.7s | | | | | | | | |
| MAKZ | | | | ⇓Pg | | Pg | 12 14 28.4 | -8.8 | |
| | comp=Z,12nm,1.1s | | | | | | | | |
| MAKZ | | | | ⇑Lg | | Lg | 12 16 17.9 | | |
| | comp=Z,66nm,1.1s | | | | | | | | |
| **MAKZ** | **Makanchi** | **8.56** | **243** | P | | **Pn** | **12 13 56.6** | **-0.8** | |
| **KURK** | **Kurchatov** | **9.16** | **272** | ⇑Pn | | **Pn** | **12 14 04.4** | **-1.2** | |
| | comp=Z,6.0nm,0.8s | | | | | | | | |
| KURK | | | | ⇓Lg | | Lg | 12 16 37.7 | | |
| | comp=Z,49nm,0.9s | | | | | | | | |
| **KURK** | **Kurchatov** | **9.16** | **272** | *i* P | | **Pn** | **12 14 06.5** | **+0.9** | |
| KURK | | | | pmax | pmax | | | | |
| | comp=Z,1.0nm,0.8s | | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **9.23** | **272** | Pn | | **Pn** | **12 14 06.3** | **-0.2** | |
| | comp=Z,0.1nm,0.3s,baz=77,slow=16,SNR=7.1 | | | | | | | | |
| KURBB | | | | Lg | | Lg | 12 16 40.5 | | |
| | comp=Z,0.2nm,0.3s,baz=84,slow=33,SNR=8.0 | | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **9.23** | **272** | ⇓Pn | | **Pn** | **12 14 06.4** | **-0.2** | |
| | comp=Z,9.4nm,0.9s | | | | | | | | |
| KURBB | | | | ⇑Lg | | Lg | 12 16 38.2 | | |
| | comp=Z,136nm,0.8s | | | | | | | | |
| **SONB5** | **Songino Array** | **9.27** | **106** | *e*Sg | | Sn | 12 16 41.7 | +50 | |
| **SONB4** | **Songino Array** | **9.27** | **106** | *e*Sg | | Sn | 12 16 41.5 | +50 | |
| **SONB1** | **Songino Array** | **9.28** | **106** | *e*Sg | | Sn | 12 16 43.1 | +51 | |
| **SONA2** | **Songino Array** | **9.29** | **106** | *e*Sg | | Sn | 12 16 43.0 | +51 | |
| **SONA1** | **Songino Array** | **9.29** | **106** | *e*Sg | | Sn | 12 16 42.6 | +50 | |
| **SONM** | **Songino Array** | **9.29** | **106** | Pn | | **Pn** | **12 14 04.8** | **-2.8** | |
| | comp=Z,0.1nm,0.3s,baz=296,slow=14,SNR=4.0 | | | | | | | | |
| SONM | | | | Pg | | | 12 14 35.8 | | |
| | comp=Z,0.9nm,0.3s,baz=291,slow=16,SNR=15 | | | | | | | | |
| SONM | | | | Lg | | Lg | 12 16 47.1 | | |
| | comp=Z,1.5nm,0.3s,baz=286,slow=27,SNR=7.2 | | | | | | | | |
| **SONA3** | **Songino Array** | **9.29** | **106** | *e*Sg | | Sn | 12 16 43.3 | +51 | |
| **SONA4** | **Songino Array** | **9.29** | **106** | *e*Sg | | Sn | 12 16 43.5 | +51 | |
| **SONB2** | **Songino Ar. Si** | **9.30** | **106** | *e*Sg | | Sn | 12 16 41.9 | +49 | |
| **SONB3** | **Songino Array** | **9.30** | **106** | *e*Sg | | Sn | 12 16 42.7 | +50 | |
| **ULN** | **Ulaanbaatar** | **9.68** | **105** | *i* P | | **Pn** | **12 14 13.4** | **+0.5** | |
| ULN | | | | pmax | pmax | | | | |
| | comp=Z,1.0nm,0.5s | | | | | | | | |
| **SEMM** | | **9.77** | **107** | *e*Sg | | Sn | 12 16 58.5 | +55 | |
| **PDGK** | **Podgornoye** | **12.16** | **235** | ⇑Pn | | **Pn** | **12 14 46.4** | **-0.5** | |
| | comp=Z,3.3nm,1.0s | | | | | | | | |
| **PDGK** | **Podgornoye** | **12.16** | **235** | P | | **Pn** | **12 14 46.4** | **-0.5** | |
| **BVAR** | **Borovoye Array** | **14.05** | **286** | Pn | | Pn | 12 15 08.8 | -3.8 | |
| | comp=Z,0.1nm,0.3s,baz=80,slow=16,SNR=3.3 | | | | | | | | |
| BVAR | | | | Sn | | **Sn** | **12 17 44.3** | **-4.1** | |
| | comp=Z,0.2nm,0.3s,baz=79,slow=24,SNR=2.8 | | | | | | | | |
| **BRVK** | **Borovoye** | **14.12** | **286** | *i* P | | **Pn** | **12 15 10.9** | **-2.5** | |
| BRVK | | | | pmax | pmax | | | | |
| | comp=Z,1.0nm,0.6s | | | | | | | | |
| **AAK** | **Ala-Archa** | **15.32** | **243** | Pn | | **Pn** | **12 15 28.5** | **-1.4** | |
| | comp=Z,0.1nm,0.3s,baz=222,slow=16,SNR=2.2 | | | | | | | | |
| AAK | | | | Sn | | **Sn** | **12 18 28.2** | **+8.6** | |
| | baz=198,slow=20,SNR=2.1 | | | | | | | | |
| AAK | | | | Lg | | Lg | 12 19 53.1 | | |
| | comp=Z,0.1nm,0.3s,baz=277,slow=16,SNR=4.1 | | | | | | | | |
| **AAK** | **Ala-Archa** | **15.32** | **243** | *i* P | | **Pn** | **12 15 31.0** | **+1.1** | |
| AAK | | | | pmax | pmax | | | | |
| | comp=Z,1.0nm,0.9s | | | | | | | | |
| **HIA** | **Hailar** | **17.12** | **86** | *i* P | | **Pn** | **12 15 52.6** | **-0.1** | |
| HIA | | | | pmax | pmax | | | | |
| | comp=Z,4.0nm,1.5s | | | | | | | | |
| **AKTO** | **Aktyubinsk** | **22.05** | **282** | P | | **P** | **12 16 47.5** | **-0.7** | |
| | comp=Z,0.5nm,0.4s,baz=59,slow=9.5,SNR=3.6 | | | | | | | | |
| **FINES** | **FINESS Array B** | **36.87** | **312** | P | | **P** | **12 19 00.1** | **-1.5** | |
| | comp=Z,5.6nm,1.0s,baz=80,slow=10.0,SNR=2.5 | | | | | | | | |
| **AKASG** | **Malin Array Be** | **39.08** | **295** | P | | **P** | **12 19 17.3** | **-3.1** | |
| | comp=Z,0.1nm,0.3s,baz=62,slow=9.1,SNR=2.9 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **64.50** | **14** | P | | P | 12 22 24.0 | -5.8 | |
| | comp=Z,0.1nm,0.6s,baz=338,slow=6.3,SNR=3.7 | | | | | | | | |
| **ASAR** | **Alice Springs** | **82.78** | **143** | P | | P | 12 24 13.2 | -4.4 | |
| | comp=Z,0.2nm,0.8s,baz=350,slow=4.7,SNR=2.7 | | | | | | | | |

**WEL 25 12:26:12.3±0.1, 43.49S×172.79E, h9km±1km, ML3.7/22, 6C-8D, Error ellipse: s-maj=1.4km s-min=0.8km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.15** | **235** | ⇑PG | | Pg | 12 26 15.9 | +0.3 |
| CRLZ | | | | SG | | Sg | 12 26 17.7 | -0.1 |
| CRLZ | | | | AML | AML | | 12 26 18.6 | |
| CRLZ | | | | AML | AML | | 12 26 18.6 | |
| CRLZ | | | | AML | AML | | 12 26 20.8 | |
| **MOZ** | **McQueen's Vall** | **0.24** | **205** | ⇓Pg | | Pg | 12 26 17.2 | +0.1 |
| MOZ | | | | SG | | Sg | 12 26 20.8 | +0.5 |
| MOZ | | | | AML | AML | | 12 26 21.0 | |
| **OXZ** | **Oxford** | **0.57** | **287** | ⇓P* | | Pg | 12 26 23.6 | +0.2 |
| OXZ | | | | S* | | Sg | 12 26 31.5 | +0.6 |
| OXZ | | | | AML | AML | | 12 26 33.6 | |
| OXZ | | | | AML | AML | | 12 26 33.8 | |
| OXZ | | | | AML | AML | | 12 26 33.8 | |
| **KHZ** | **Kahutara** | **1.21** | **27** | P* | | Pb | 12 26 33.5 | -1.8 |
| KHZ | | | | AML | AML | | 12 26 51.1 | |
| KHZ | | | | AML | AML | | 12 26 59.5 | |
| **INZ** | **Inchbonnie** | **1.25** | **307** | ⇓P* | | Pn | 12 26 34.8 | -1.1 |
| **RPZ** | **Rata Peaks** | **1.28** | **259** | ⇑P* | | Pn | 12 26 35.1 | -1.3 |
| RPZ | | | | AML | AML | | 12 26 54.3 | |
| RPZ | | | | AML | AML | | 12 26 59.4 | |
| **WVZ** | **Waitaha Valley** | **1.56** | **285** | ⇓PN | | Pn | 12 26 39.5 | -0.6 |
| WVZ | | | | AML | AML | | 12 27 04.6 | |
| WVZ | | | | AML | AML | | 12 27 11.7 | |
| **THZ** | **Tophouse** | **1.73** | **3** | ⇓PN | | Pn | 12 26 41.4 | -1.2 |
| THZ | | | | AML | AML | | 12 27 06.1 | |
| THZ | | | | AML | AML | | 12 27 07.6 | |
| **DSZ** | **Denniston Nort** | **1.89** | **337** | PN | | Pn | 12 26 43.9 | -0.9 |
| DSZ | | | | AML | AML | | 12 27 11.2 | |
| DSZ | | | | AML | AML | | 12 27 12.0 | |
| DSZ | | | | AML | AML | | 12 27 17.8 | |
| DSZ | | | | AML | AML | | 12 27 20.8 | |
| **BSWZ** | **Blackbirch Sta** | **1.95** | **25** | ⇑PN | | Pn | 12 26 44.5 | -1.0 |
| BSWZ | | | | AML | AML | | 12 27 10.7 | |
| BSWZ | | | | AML | AML | | 12 27 12.4 | |
| **LBZ** | **Lake Benmore** | **2.08** | **244** | PN | | Pn | 12 26 46.7 | -0.7 |
| LBZ | | | | AML | AML | | 12 27 24.0 | |
| LBZ | | | | AML | AML | | 12 27 26.2 | |
| **FOZ** | **Fox Glacier** | **2.16** | **268** | PN | | Pn | 12 26 48.9 | +0.4 |
| FOZ | | | | AML | AML | | 12 27 17.2 | |
| FOZ | | | | AML | AML | | 12 27 17.2 | |
| FOZ | | | | AML | AML | | 12 27 30.6 | |
| FOZ | | | | AML | AML | | 12 27 31.2 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **ODZ** | **Otahua Downs** | **2.19** | **224** | ⇑PN | | Pn | 12 26 47.8 | -1.1 | |
| ODZ | | | | AML | AML | | 12 27 29.9 | | |
| ODZ | | | | AML | AML | | 12 27 29.9 | | |
| ODZ | | | | AML | AML | | 12 27 32.8 | | |
| ODZ | | | | AML | AML | | 12 27 37.1 | | |
| **TUWZ** | **Tuamarina** | **2.23** | **23** | PN | | Pn | 12 26 48.0 | -1.4 | |
| **NNZ** | **Nelson** | **2.31** | **11** | ⇓PN | | Pn | 12 26 49.7 | -0.8 | |
| **TCW** | **Tory Channel** | **2.53** | **26** | PN | | Pn | 12 26 52.0 | -1.6 | |
| **BHW** | **Baring Head** | **2.59** | **37** | PN | | Pn | 12 26 52.3 | -2.0 | |
| **PLWZ** | **Palliser** | **2.65** | **44** | PN | | Pn | 12 26 52.9 | -2.3 | |
| **WEL** | **Wellington** | **2.65** | **34** | AML | AML | | 12 27 24.9 | | |
| **QRZ** | **Quartz Range** | **2.67** | **356** | PN | | Pn | 12 26 54.8 | -0.7 | |
| QRZ | | | | AML | AML | | 12 27 06.9 | | |
| QRZ | | | | AML | AML | | 12 27 07.9 | | |
| QRZ | | | | AML | AML | | 12 27 38.7 | | |
| QRZ | | | | AML | AML | | 12 27 38.7 | | |
| **MSWZ** | **Moikau Station** | **2.76** | **42** | PN | | Pn | 12 26 54.4 | -2.3 | |
| MSWZ | | | | AML | AML | | 12 27 27.3 | | |
| **DUWZ** | **D'Urville Isla** | **2.82** | **18** | ⇓PN | | Pn | 12 26 56.8 | -0.7 | |
| **HHSZ** | **Highcliff Hill** | **2.86** | **212** | PN | | Pn | 12 26 56.7 | -1.3 | |
| **CAW** | **Cannon Point** | **2.92** | **36** | ⇓PN | | Pn | 12 26 56.8 | -2.0 | |
| CAW | | | | AML | AML | | 12 27 33.6 | | |
| CAW | | | | AML | AML | | 12 28 04.8 | | |
| **JCZ** | **Jackson Bay** | **2.96** | **257** | PN | | Pn | 12 26 58.9 | -0.6 | |
| JCZ | | | | AML | AML | | 12 27 52.8 | | |
| JCZ | | | | AML | AML | | 12 28 00.2 | | |
| **WKZ** | **Wanaka** | **3.02** | **243** | PN | | Pn | 12 26 59.3 | -1.0 | |
| WKZ | | | | AML | AML | | 12 27 57.4 | | |
| WKZ | | | | AML | AML | | 12 27 58.0 | | |
| **EAZ** | **Earnscleugh** | **3.04** | **234** | ⇑PN | | Pn | 12 26 59.5 | -1.1 | |
| EAZ | | | | AML | AML | | 12 27 51.3 | | |
| EAZ | | | | AML | AML | | 12 27 52.8 | | |
| EAZ | | | | AML | AML | | 12 28 04.9 | | |
| EAZ | | | | AML | AML | | 12 28 04.9 | | |
| **KIW** | **Kapiti Island** | **3.06** | **32** | PN | | Pn | 12 26 59.1 | -1.8 | |
| **MTW** | **Mount Morrison** | **3.08** | **42** | PN | | Pn | 12 26 58.6 | -2.5 | |
| **OGWZ** | **Otaki Gorge** | **3.21** | **34** | PN | | Pn | 12 27 00.5 | -2.3 | |
| OGWZ | | | | AML | AML | | 12 27 41.9 | | |
| OGWZ | | | | AML | AML | | 12 27 43.2 | | |
| **HOWZ** | **Holdsworth Sta** | **3.29** | **39** | PN | | Pn | 12 27 01.8 | -2.2 | |
| **TUZ** | **Tuapeka** | **3.34** | **221** | ⇑PN | | Pn | 12 27 03.5 | -1.1 | |
| TUZ | | | | AML | AML | | 12 28 07.5 | | |
| TUZ | | | | AML | AML | | 12 28 07.5 | | |
| TUZ | | | | AML | AML | | 12 28 13.5 | | |
| TUZ | | | | AML | AML | | 12 28 15.7 | | |
| **TIWZ** | **Tintock** | **3.56** | **41** | AML | AML | | 12 27 48.5 | | |
| **MLZ** | **Mavora Lakes** | **3.84** | **239** | PN | | Pn | 12 27 09.9 | -1.6 | |
| **SYZ** | **Scrubby Hill** | **4.00** | **219** | PN | | Pn | 12 27 12.7 | -0.9 | |
| **NMEZ** | **Namu Road** | **4.16** | **12** | PN | | Pn | 12 27 16.1 | +0.3 | |
| **WHZ** | **Wether Hill Ro** | **4.21** | **234** | PN | | Pn | 12 27 14.4 | -2.2 | |
| **PREZ** | **Palmer Road** | **4.27** | **14** | PN | | Pn | 12 27 18.2 | +0.7 | |
| **KHEZ** | **Kahui Hut** | **4.29** | **13** | PN | | Pn | 12 27 18.1 | +0.2 | |
| **NEZ** | **North Egmont** | **4.33** | **14** | PN | | Pn | 12 27 18.4 | 0.0 | |
| **DREZ** | **Durham Road** | **4.43** | **14** | PN | | Pn | 12 27 19.9 | +0.3 | |
| **DCZ** | **Deep Cove** | **4.49** | **242** | PN | | Pn | 12 27 18.7 | -1.8 | |
| **VRZ** | **Vera Road** | **4.61** | **19** | PN | | Pn | 12 27 21.9 | -0.1 | |
| **PKVZ** | **Pokaka** | **4.62** | **25** | PN | | Pn | 12 27 22.4 | +0.1 | |
| **TRVZ** | **Turoa** | **4.67** | **27** | PN | | Pn | 12 27 22.5 | -0.7 | |
| **BHHZ** | **Black Hill Sta** | **4.69** | **33** | *e*PN | | Pn | 12 27 20.4 | -2.9 | |
| **TUVZ** | **Tukino** | **4.74** | **28** | PN | | Pn | 12 27 23.6 | -0.4 | |
| **APZ** | **The Paps** | **4.76** | **224** | PN | | Pn | 12 27 22.6 | -1.6 | |

*JMA **25** 12:31:13.4±0.1, 23.48N×121.48E, h20km±2km, M3.0*
*ISCJB **25** 12:31:14.3±0.3, 23.49N±0.02×121.46E±0.02, h22km±3km, Error ellipse: s-maj=3.9km s-min=2.4km az=37.6*
*TAP **25** 12:31:14.7, 23.51N×121.37E, h24km, ML3.6, B*
**ISC 25 12:31:13.8±0.9, 23.48N±0.02×121.48E±0.02, h24km±6km, n61, σ0.90/93, 11C-5D, Taiwan**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **EHY** | **Hungye** | **0.14** | **282** | ⇓*i*P | | **Pb** | **12 31 19.0** | **+0.3** |
| | baz=256 | | | | | | | |
| EHY | | | | *i* S | | **Sb** | **12 31 21.6** | **-0.5** |
| | baz=256 | | | | | | | |
| **TWF1** | **Yuli** | **0.20** | **233** | *e*P | | **Pb** | **12 31 20.4** | **+1.0** |
| | baz=205 | | | | | | | |
| **TEGC** | **Jichi Village** | **0.24** | **14** | *e*P | | **Pn** | **12 31 21.9** | **+0.1** |
| | baz=31 | | | | | | | |
| **ESL** | **Shilin** | **0.34** | **353** | ⇓*i*P | | **Pb** | **12 31 21.6** | **+0.2** |
| | baz=18 | | | | | | | |
| ESL | | | | *i* S | | **Sb** | **12 31 26.0** | **-0.5** |
| | baz=18 | | | | | | | |
| **CHKT** | **Chengkung** | **0.39** | **195** | ⇑*e*P | | **Pn** | **12 31 23.4** | **-0.5** |
| | baz=179 | | | | | | | |
| **WDT** | **Danda** | **0.42** | **312** | ⇓*i*P | | **Pb** | **12 31 22.5** | **-0.4** |
| | baz=319 | | | | | | | |
| WDT | | | | *i* S | | **Sb** | **12 31 27.7** | **-1.4** |
| | baz=319 | | | | | | | |
| **YUS** | **Yu-Shan** | **0.48** | **272** | ⇑*i*P | | **Pb** | **12 31 23.9** | **-0.1** |
| | baz=272 | | | | | | | |
| YUS | | | | *i* S | | **Sb** | **12 31 29.5** | **-1.4** |
| | baz=272 | | | | | | | |
| **ELDTW** | **Lidau** | **0.51** | **236** | ⇑*i*P | | **Pb** | **12 31 23.7** | **-0.5** |
| | baz=219 | | | | | | | |
| ELDTW | | | | *e*S | | **Sb** | **12 31 30.1** | **-1.2** |
| | baz=219 | | | | | | | |
| **HWA** | **Hwalien** | **0.51** | **13** | *e*P | | **Pb** | **12 31 25.0** | **+0.7** |
| | baz=17 | | | | | | | |
| **TWD** | **Chiawan** | **0.61** | **10** | *e*P | | **Pb** | **12 31 25.9** | **0.0** |
| | baz=21 | | | | | | | |
| **ALS** | **Alishan** | **0.62** | **273** | ⇓P | | **Pb** | **12 31 25.9** | **-0.2** |
| | baz=277 | | | | | | | |
| ALS | | | | S | | **Sb** | **12 31 33.0** | **-1.6** |
| | baz=277 | | | | | | | |
| **WHF** | **Hehuan Shan** | **0.69** | **344** | *e*P | | **Pb** | **12 31 27.5** | **0.0** |
| WHF | | | | *e*S | | **Sb** | **12 31 35.8** | **-1.1** |
| **TYC** | **Yuchr** | **0.71** | **307** | ⇓P | | **Pb** | **12 31 27.0** | **-0.5** |
| | baz=315 | | | | | | | |
| TYC | | | | S | | **Sb** | **12 31 36.0** | **-0.9** |
| | baz=315 | | | | | | | |
| **STYT** | **Tauyuan** | **0.73** | **245** | ⇑*i*P | | **Pb** | **12 31 27.9** | **0.0** |
| | baz=237 | | | | | | | |
| STYT | | | | *e*S | | **Sb** | **12 31 36.9** | **-0.6** |
| | baz=237 | | | | | | | |
| **CHN5** | **Tsauling** | **0.74** | **280** | ⇑P | | **Pb** | **12 31 28.3** | **+0.1** |
| | baz=277 | | | | | | | |
| CHN5 | | | | S | | **Sb** | **12 31 37.9** | **0.0** |
| | baz=277 | | | | | | | |
| **TWG** | **Pinlang** | **0.75** | **210** | *e*P | | **Pb** | **12 31 27.2** | **-1.1** |
| | baz=191 | | | | | | | |
| **TTN** | **Taitung** | **0.78** | **203** | *e*P | | **Pn** | **12 31 29.1** | **-0.2** |
| | baz=186 | | | | | | | |
| **CHN4** | **Tsaushan** | **0.82** | **261** | *e*P | | **Pn** | **12 31 29.7** | **-0.2** |
| | baz=252 | | | | | | | |
| CHN4 | | | | *e*S | | **Sb** | **12 31 40.2** | **+0.1** |
| | baz=252 | | | | | | | |
| **TWT** | **Tachien** | **0.82** | **341** | ⇑P | | **Pb** | **12 31 29.6** | **+0.1** |
| | baz=346 | | | | | | | |
| TWT | | | | *i* S | | **Sb** | **12 31 39.0** | **-1.3** |
| | baz=346 | | | | | | | |
| **WTP** | **Ta-pu** | **0.82** | **254** | ⇑P | | **Pb** | **12 31 29.5** | **0.0** |
| | baz=248 | | | | | | | |
| WTP | | | | *e*S | | **Sb** | **12 31 39.9** | **-0.3** |
| | baz=248 | | | | | | | |
| **WNT** | **Mingjian** | **0.83** | **299** | P | | **Pb** | **12 31 29.8** | **+0.2** |
| | baz=300 | | | | | | | |
| WNT | | | | S | | **Sb** | **12 31 40.3** | **0.0** |
| | baz=300 | | | | | | | |
| **WGK** | **Gukeng** | **0.86** | **284** | *e*P | | **Pb** | **12 31 29.7** | **-0.4** |
| | baz=283 | | | | | | | |
| WGK | | | | *e*S | | **Sb** | **12 31 41.0** | **-0.3** |
| | baz=283 | | | | | | | |
| **SGST** | **Jiashian** | **0.91** | **245** | ⇑P | | **Pn** | **12 31 31.2** | **+0.1** |
| | baz=229 | | | | | | | |
| SGST | | | | *e*S | | **Sn** | **12 31 44.1** | **+0.6** |
| | baz=229 | | | | | | | |
| **CHN1** | **Nanshi** | **0.92** | **252** | *e*P | | **Pb** | **12 31 31.4** | **+0.3** |
| | baz=246 | | | | | | | |
| CHN1 | | | | *e*S | | **Sn** | **12 31 43.6** | **-0.1** |
| | baz=246 | | | | | | | |
| **CHN2** | **Minshiung** | **0.92** | **274** | *e*P | | **Pb** | **12 31 31.5** | **+0.4** |
| | baz=271 | | | | | | | |
| CHN2 | | | | *e*S | | **Sn** | **12 31 43.5** | **-0.2** |
| | baz=271 | | | | | | | |
| **TWK** | **Hsinying** | **0.93** | **257** | *e*P | | **Pb** | **12 31 31.4** | **+0.1** |
| | baz=252 | | | | | | | |
| TWK | | | | *e*S | | **Sb** | **12 31 42.8** | **-0.5** |
| | baz=252 | | | | | | | |
| **NNS** | **Nan Shan** | **0.96** | **354** | *e*P | | **Pn** | **12 31 31.6** | **-0.4** |
| | baz=13 | | | | | | | |
| NNS | | | | *e*S | | **Sb** | **12 31 43.3** | **-1.1** |
| | baz=13 | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **CHY** | **Chiayi** | **0.97** | **272** | *e*P | | **Pb** | **12 31 32.0** | **+0.1** | |
| | baz=269 | | | | | | | | |
| **ENA** | **Nanau** | **0.98** | **14** | *e*P | | **Pn** | **12 31 31.2** | **-0.8** | |
| | baz=12 | | | | | | | | |
| **TCU** | **Taichung** | **0.99** | **313** | *e*P | | **Pb** | **12 31 32.8** | **+0.5** | |
| | baz=316 | | | | | | | | |
| **ECL** | **Taimali** | **1.00** | **209** | *e*P | | **Pn** | **12 31 30.4** | **-1.9** | |
| | baz=190 | | | | | | | | |
| **SSD** | **Sandimen** | **1.06** | **227** | *e*P | | **Pn** | **12 31 33.2** | **0.0** | |
| | baz=218 | | | | | | | | |
| SSD | | | | *e*S | | **Sn** | **12 31 48.2** | **+0.9** | |
| | baz=218 | | | | | | | | |
| **TWQ1** | **Liyutan** | **1.08** | **324** | ⇑*i*P | | **Pb** | **12 31 34.5** | **+0.7** | |
| | baz=314 | | | | | | | | |
| TWQ1 | | | | *e*S | | **Sb** | **12 31 47.9** | **+0.4** | |
| | baz=314 | | | | | | | | |
| **CHN3** | **Shinhua** | **1.10** | **249** | *e*P | | **Pb** | **12 31 34.9** | **+0.8** | |
| | baz=244 | | | | | | | | |
| **NSY** | **Sanyi** | **1.14** | **325** | ⇑*i*P | | **Pb** | **12 31 35.9** | **+1.0** | |
| | baz=317 | | | | | | | | |
| NSY | | | | *e*S | | **Sb** | **12 31 50.6** | **+1.3** | |
| | baz=317 | | | | | | | | |
| **ENTT** | **Nioudou** | **1.16** | **4** | *e*P | | **Pn** | **12 31 34.3** | **-0.3** | |
| | baz=20 | | | | | | | | |
| **WSF** | **Szhu** | **1.16** | **278** | *e*P | | **Pn** | **12 31 34.4** | **-0.2** | |
| | baz=276 | | | | | | | | |
| WSF | | | | *e*S | | **Sn** | **12 31 49.2** | **-0.5** | |
| | baz=276 | | | | | | | | |
| **WTCT** | **Ta-ch'eng** | **1.16** | **290** | *e*P | | **Pn** | **12 31 34.8** | **+0.2** | |
| | baz=290 | | | | | | | | |
| **TWM1** | **Shoushan** | **1.17** | **236** | *e*P | | **Pb** | **12 31 37.2** | **+1.8** | |
| | baz=230 | | | | | | | | |
| **CHN8** | **Yiju** | **1.17** | **264** | *e*P | | **Pn** | **12 31 34.7** | **+0.1** | |
| | baz=261 | | | | | | | | |
| CHN8 | | | | S | | **Sb** | **12 31 50.3** | **+0.3** | |
| | baz=261 | | | | | | | | |
| **SGLT** | **Jiouru** | **1.18** | **231** | *e*P | | **Pb** | **12 31 36.7** | **+1.2** | |
| | baz=224 | | | | | | | | |
| **TWC** | **Suao** | **1.18** | **17** | *e*P | | **Pn** | **12 31 34.4** | **-0.4** | |
| | baz=16 | | | | | | | | |
| **NSK** | **Sanguang** | **1.20** | **355** | *e*P | | **Pn** | **12 31 35.7** | **+0.5** | |
| | baz=2.0 | | | | | | | | |
| NSK | | | | *e*S | | **Sn** | **12 31 49.7** | **-1.1** | |
| | baz=2.0 | | | | | | | | |
| **SCLT** | **Jiali** | **1.22** | **256** | *e*P | | **Pb** | **12 31 37.3** | **+1.2** | |
| | baz=251 | | | | | | | | |
| **NSTT** | **Nanjuang** | **1.23** | **339** | ⇑*e*P | | **Pb** | **12 31 36.6** | **+0.3** | |
| | baz=344 | | | | | | | | |
| NSTT | | | | *e*S | | **Sb** | **12 31 51.8** | **0.0** | |
| | baz=344 | | | | | | | | |
| **EAST** | **Anshuo** | **1.23** | **208** | *e*P | | **Pn** | **12 31 34.3** | **-1.3** | |
| | baz=192 | | | | | | | | |
| **TWE** | **Neicheng** | **1.25** | **8** | *e*P | | **Pn** | **12 31 35.4** | **-0.5** | |
| | baz=26 | | | | | | | | |
| **SCZT** | **Fangliau** | **1.35** | **216** | *e*P | | **Pb** | **12 31 37.9** | **-0.6** | |
| | baz=208 | | | | | | | | |
| SCZT | | | | *e*S | | **Sb** | **12 31 57.3** | **+2.0** | |
| | baz=208 | | | | | | | | |
| **LAY** | **Lan-yu** | **1.43** | **177** | *e*P | | **Pn** | **12 31 37.5** | **-0.8** | |
| | baz=163 | | | | | | | | |
| **TWB1** | **Santiao Chiao** | **1.60** | **17** | *e*P | | **Pb** | **12 31 42.1** | **-0.5** | |
| | baz=22 | | | | | | | | |
| **NWF** | **Wu-fen Shan** | **1.61** | **10** | *e*P | | **Pb** | **12 31 42.5** | **-0.4** | |
| | baz=15 | | | | | | | | |
| **TWS1** | **Kuangyinshan** | **1.62** | **358** | *e*P | | **Pb** | **12 31 42.5** | **-0.5** | |
| | baz=20 | | | | | | | | |
| **TWK1** | **Hengchun** | **1.65** | **202** | *e*P | | **Pb** | **12 31 43.4** | **0.0** | |
| | baz=191 | | | | | | | | |
| **JYNG** | **Yonagunijimaku** | **1.66** | **54** | P | | **Pb** | **12 31 43.2** | **-0.5** | |
| JYNG | | | | S | | **Sb** | **12 32 04.0** | **-0.1** | |
| **WDGT** | **Dungji** | **1.68** | **263** | *e*P | | **Pn** | **12 31 41.2** | **-0.5** | |
| | baz=260 | | | | | | | | |
| **PNG** | **Penghu** | **1.77** | **273** | *e*P | | **Pn** | **12 31 42.3** | **-0.5** | |
| | baz=272 | | | | | | | | |
| **HATJ** | **Hateruma jima** | **2.21** | **74** | S | | **Sn** | **12 32 17.7** | **+2.1** | |
| **IRIF** | **Iriomote-Funau** | **2.23** | **67** | P | | **Pb** | **12 31 51.7** | **-1.8** | |
| IRIF | | | | *e*S | | **Sb** | **12 32 19.2** | **-1.5** | |
| **JKRS** | **Kuro-shima** | **2.44** | **71** | P | | **Pb** | **12 31 55.3** | **-1.7** | |
| **JIJ** | **Ishigaki jima** | **2.59** | **70** | P | | **Pn** | **12 31 56.3** | **+2.0** | |
| JIJ | | | | S | | **Sn** | **12 32 26.7** | **+1.6** | |
| **JISG** | **Ishigakijimahi** | **2.82** | **66** | P | | **Pn** | **12 31 58.8** | **+1.4** | |
| JISG | | | | *e*S | | **Sn** | **12 32 32.9** | **+2.3** | |

*ISK **25** 12:41:39.9, 37.36N×30.57E, h14km, MD2.6*
*ISCJB **25** 12:41:41.2±0.6, 37.31N±0.04×30.61E±0.05, h5km±12km, Error ellipse: s-maj=6.7km s-min=5.7km az=28.3*
*CSEM **25** 12:41:41.0±0.3, 37.36N×30.58E, h8km, MD2.6, Error ellipse: s-maj=8.0km s-min=6.0km az=128.0*
*DDA **25** 12:41:41.8, 37.42N×30.59E, h40km, Md2.6*
**ISC 25 12:41:40.9±1.0, 37.35N±0.03×30.58E±0.03, h8km±7km, n20, σ0.83/26, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ULHL | | | | ⇑*i*S | | Sg | 12 42 50.0 | +0.4 | |
| | baz=277 | | | | | | | | |
| **IZV** | **Izvestkoviy** | **0.81** | **8** | *e*P | | Pg | 12 42 58.8 | -0.4 | |
| | 5.7nm,0.2s | | | | | | | | |
| IZV | | | | *e*S | | Sg | 12 43 10.0 | +0.4 | |
| | 18nm,0.2s | | | | | | | | |
| **NRN** | **Naryn** | **0.87** | **203** | ⇑*i*P | | Pg | 12 42 59.8 | -0.6 | |
| | baz=203 | | | | | | | | |
| NRN | | | | ⇑*i*S | | Sg | 12 43 11.6 | -0.2 | |
| | baz=203 | | | | | | | | |
| **TNSS** | **Tian-Shan** | **0.88** | **24** | ⇑*i*P | | Pg | 12 43 00.2 | -0.3 | |
| | 4.5nm,0.5s | | | | | | | | |
| TNSS | | | | ⇓*i*S | | Sg | 12 43 12.2 | +0.2 | |
| | 5.4nm,0.5s | | | | | | | | |
| **KST** | **Kastek** | **0.88** | **336** | *e*P | | Pg | 12 43 00.3 | -0.3 | |
| | 1.4nm,0.2s | | | | | | | | |
| KST | | | | *e*S | | Sg | 12 43 12.6 | +0.5 | |
| | 9.4nm,0.3s | | | | | | | | |
| **KZA** | **Kyzart** | **0.91** | **260** | ⇑*i*P | | Pg | 12 43 00.8 | -0.3 | |
| | baz=262 | | | | | | | | |
| KZA | | | | ⇑*i*S | | Sg | 12 43 13.0 | 0.0 | |
| | baz=262 | | | | | | | | |
| **TKM2** | **Tokmak 2** | **0.93** | **317** | ⇑*i*P | | Pg | 12 43 01.6 | +0.1 | |
| | baz=320 | | | | | | | | |
| TKM2 | | | | ⇑*i*S | | Sb | 12 43 14.2 | -0.5 | |
| | baz=320 | | | | | | | | |
| **TKM2** | **Tokmak 2** | **0.93** | **317** | ⇑P | | Pb | 12 43 01.8 | -0.2 | |
| | 0.4nm,0.2s | | | | | | | | |
| TKM2 | | | | ⇓S | | Sb | 12 43 14.1 | -0.5 | |
| | 2.6nm,0.3s | | | | | | | | |
| **MDOK** | **Medeo** | **1.02** | **25** | ⇑P | | Pg | 12 43 02.3 | -1.0 | |
| MDOK | | | | ⇑S | | Sg | 12 43 16.1 | -0.4 | |
| **MDOK** | **Medeo** | **1.02** | **25** | *e*P | | Pg | 12 43 02.3 | -1.0 | |
| | 2.6nm,0.2s | | | | | | | | |
| MDOK | | | | *e*S | | Sg | 12 43 16.0 | -0.6 | |
| | 2.6nm,0.3s | | | | | | | | |
| **BMNS** | **Besmoynak** | **1.05** | **327** | *e*P | | Pg | 12 43 03.3 | -0.4 | |
| | 6.3nm,0.1s | | | | | | | | |
| BMNS | | | | ⇓*i*S | | Sg | 12 43 17.4 | +0.1 | |
| | 15nm,0.3s | | | | | | | | |
| **BMNS** | **Besmoynak** | **1.05** | **327** | *e*P | | Sg | 12 43 17.2 | -0.1 | |
| **KOTS** | **Kotyrbulak** | **1.11** | **26** | *e*P | | Pg | 12 43 04.0 | -0.9 | |
| KOTS | | | | *e*S | | Sg | 12 43 19.0 | -0.2 | |
| **DGS** | **Degeres** | **1.12** | **334** | *e*P | | Pg | 12 43 04.5 | -0.6 | |
| | 0.7nm,0.2s | | | | | | | | |
| DGS | | | | *e*S | | Sb | 12 43 19.9 | -0.2 | |
| | 5.7nm,0.5s | | | | | | | | |
| **KBK** | **Karagaybulak** | **1.19** | **291** | ⇑*i*P | | Pb | 12 43 06.1 | -0.4 | |
| | baz=293 | | | | | | | | |
| KBK | | | | ⇑*i*S | | Sg | 12 43 21.8 | -0.2 | |
| | baz=293 | | | | | | | | |
| **UCH** | **Uchtor** | **1.44** | **270** | *i* P | | Pn | 12 43 09.8 | -0.5 | |
| | baz=271 | | | | | | | | |
| UCH | | | | *i* S | | Sb | 12 43 29.2 | -0.4 | |
| | baz=271 | | | | | | | | |
| **CHMS** | **Chumysh** | **1.47** | **302** | ⇑*i*P | | Pb | 12 43 10.8 | -0.3 | |
| | baz=303 | | | | | | | | |
| CHMS | | | | ⇑*i*S | | Sb | 12 43 30.3 | +0.3 | |
| | baz=303 | | | | | | | | |
| **AAK** | **Ala-Archa** | **1.51** | **286** | ⇑*i*P | | Pb | 12 43 11.5 | -0.3 | |
| | baz=287 | | | | | | | | |
| AAK | | | | ⇑*i*S | | Sb | 12 43 31.2 | +0.1 | |
| | baz=287 | | | | | | | | |
| **AAK** | **Ala-Archa** | **1.51** | **286** | ⇓P | | Pg | 12 43 13.6 | +1.1 | |
| | 1.4nm,0.8s | | | | | | | | |
| AAK | | | | ⇑S | | Sg | 12 43 32.1 | 0.0 | |
| | 1.3nm,0.5s | | | | | | | | |
| **KUU** | **Kurty** | **1.66** | **357** | *e*P | | Pb | 12 43 14.3 | -0.1 | |
| | 2.3nm,0.1s | | | | | | | | |
| KUU | | | | *e*S | | Sg | 12 43 36.3 | -0.5 | |
| | 3.1nm,0.2s | | | | | | | | |
| **ZHN** | **Zhinishke** | **1.73** | **57** | ⇓*i*P | | Pb | 12 43 15.1 | -0.5 | |
| | 2.3nm,0.3s | | | | | | | | |
| ZHN | | | | ⇓*i*S | | Sb | 12 43 37.8 | +0.3 | |
| | 28nm,0.2s | | | | | | | | |
| **USP** | **Ospenovka** | **1.77** | **306** | ⇑*i*P | | Pb | 12 43 16.2 | -0.1 | |
| | baz=307 | | | | | | | | |
| USP | | | | ⇑*i*S | | Sg | 12 43 39.5 | -1.0 | |
| | baz=307 | | | | | | | | |
| **AML** | **Almayashu** | **2.06** | **268** | *i* P | | Pb | 12 43 21.0 | -0.3 | |
| | baz=269 | | | | | | | | |
| AML | | | | *i* S | | Sb | 12 43 48.1 | +0.9 | |
| | baz=269 | | | | | | | | |
| **UZB** | **Uzynbulak** | **2.10** | **63** | ⇑*i*P | | Pb | 12 43 20.9 | -1.0 | |
| | 1.6nm,0.3s | | | | | | | | |
| UZB | | | | ⇓*i*S | | Sb | 12 43 48.0 | -0.1 | |
| | 4.5nm,0.2s | | | | | | | | |
| **ARXS** | **Arharly** | **2.21** | **26** | *e*P | | Pb | 12 43 23.8 | -0.1 | |
| | 1.8nm,0.4s | | | | | | | | |
| ARXS | | | | *e*S | | Sb | 12 43 52.9 | +1.5 | |
| | 7.5nm,0.2s | | | | | | | | |
| **MRKS** | **Merke** | **2.44** | **283** | *e*P | | Pg | 12 43 30.0 | -0.4 | |
| | 1.6nm,0.3s | | | | | | | | |
| MRKS | | | | *e*S | | Sg | 12 44 01.9 | -0.2 | |
| | 2.7nm,0.3s | | | | | | | | |
| **PDGK** | **Podgornoye** | **2.48** | **63** | ⇑Pn | | Pn | 12 43 26.3 | +2.0 | |
| | 1.7nm,0.8s | | | | | | | | |
| PDGK | | | | ⇑Sn | | Sb | 12 43 60.0 | +0.8 | |
| | 3.0nm,0.6s | | | | | | | | |

*IDC **25** 12:43:02.1±1.0,1.21N×125.53E,h0km,mb3.8/6, mb1 4.0/7,mb1mx3.7/38,mbtmp3.9/7,ML3.8/1,Error ellipse: s-maj=110.9km s-min=15.5km az=69.0*
*ISCJB **25** 12:43:10.2±0.3,1.17N±0.04×125.67E±0.03,h79km, mb4.2/15,Error ellipse: s-maj=5.2km s-min=4.0km az=24.6*
*NEIC **25** 12:43:13.6±0.7,1.15N×125.72E,h100km±7km,mb4.6/11, Error ellipse: s-maj=10.1km s-min=6.1km az=57.0*
*DJA **25** 12:43:13.6±0.2,1.1N±2'×12'6E±',h46km±33km,M4.4/13, mB5.4/2,mb4.6/6,MLv4.3/13,Mw(mB)4.9/2*

**ISC 25 12:43:11.9±0.5,1.11N±0.05×125.68E±0.04,h79km,n46, σ1§41/59,mb4.5/15,Northern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **TNTI** | **Ternate** | **1.72** | **101** | *e*Pn | | **Pn** | **12 43 41.8** | **+1.7** |
| **KMSI** | **Cibinong** | **1.78** | **253** | P | | **Pn** | **12 43 40.5** | **-0.3** |
| KMSI | | | | S | | **Sn** | **12 44 01.2** | **-1.6** |
| **LBMI** | **Labuha** | **2.52** | **134** | P | | **Pn** | **12 43 51.9** | **+1.1** |
| LBMI | | | | S | | **Sn** | **12 44 21.1** | **+0.5** |
| **SGSI** | **Sangihe** | **2.56** | **357** | S | | **Sn** | **12 44 23.6** | **+2.0** |
| **SANI** | **Sanana** | **3.16** | **174** | P | | **Pn** | **12 43 57.9** | **-1.5** |
| **LUWI** | **Luwuk** | **3.61** | **234** | P | | **Pn** | **12 44 06.9** | **+1.4** |
| LUWI | | | | S | | **Sn** | **12 44 48.1** | **+1.1** |
| **LUWI** | **Luwuk** | **3.61** | **234** | *e*Pn | | **Pn** | **12 44 07.0** | **+1.5** |
| LUWI | | | | *e*Sn | | **Sn** | **12 44 52.6** | **+5.6** |
| **MRSI** | **Marisa** | **3.79** | **260** | P | | **Pn** | **12 44 08.3** | **+0.3** |
| MRSI | | | | S | | **Sn** | **12 44 51.3** | **-0.1** |
| **APSI** | **Ampana** | **4.50** | **243** | P | | **Pn** | **12 44 18.9** | **+1.2** |
| APSI | | | | S | | **Sn** | **12 45 10.4** | **+1.6** |
| **NLAI** | **Namlea** | **4.55** | **162** | P | | **Pn** | **12 44 18.0** | **-0.4** |
| **AAI** | **Ambon** | **5.39** | **152** | P | | **Pn** | **12 44 30.9** | **+1.0** |
| | 108nm,0.6s,0.4nm | | | | | | | |
| AAI | | | | S | | **Sn** | **12 45 29.6** | **-1.0** |
| | 108nm,0.6s,0.4nm | | | | | | | |
| **MSAI** | **Masohi** | **5.49** | **144** | P | | **Pn** | **12 44 34.3** | **+3.0** |
| | 24nm,0.5s,0.1nm | | | | | | | |
| MSAI | | | | S | | **Sn** | **12 45 33.6** | **+0.5** |
| | 24nm,0.5s,0.1nm | | | | | | | |
| **MPSI** | **Mapaga** | **5.83** | **262** | P | | **Pn** | **12 44 36.7** | **+0.9** |
| | 11nm,0.6s,0.1nm | | | | | | | |
| **TTSI** | **Tana Toraja** | **7.17** | **235** | P | | **Pn** | **12 44 54.1** | **0.0** |
| | 18nm,0.7s,0.1nm | | | | | | | |
| TTSI | | | | S | | **Sn** | **12 46 13.6** | **-0.4** |
| | 18nm,0.7s,0.1nm | | | | | | | |
| **FAKI** | **Fak Fak** | **7.69** | **121** | *e*Pn | | **Pn** | **12 45 03.6** | **+2.3** |
| **SPSI** | **Sidrap Palu** | **7.76** | **229** | P | | **Pn** | **12 45 02.9** | **+0.6** |
| | 14nm,0.6s,0.1nm | | | | | | | |
| **MYLDM** | **Lahad Datu** | **8.22** | **300** | *e*Pn | | **Pn** | **12 45 11.7** | **+3.1** |
| **FITZ** | **Fitzroy Crossi** | **19.09** | **180** | P | | **P** | **12 47 28.4** | **0.0** |
| | 0.2nm,0.3s,baz=6.3,slow=9.2,SNR=8.3 | | | | | | | |
| **CISI** | **Cisompet, Garu** | **19.79** | **244** | *e*P | | **P** | **12 47 36.8** | **+0.7** |
| | 141nm,1.6s | | | | | | | |
| **MYKOM** | **Kota Tinggi** | **21.83** | **272** | *e*P | | **P** | **12 47 59.2** | **+1.1** |
| | 74nm,1.3s | | | | | | | |
| **WRAB** | **Tennant Creek** | **22.58** | **158** | *e*P | | **P** | **12 48 05.5** | **-0.5** |
| | 35nm,1.9s | | | | | | | |
| **WR1** | **Warramunga Arr** | **22.58** | **158** | *e*P | | **P** | **12 48 05.4** | **-0.6** |
| | 36nm,1.8s | | | | | | | |
| **WRA** | **Warramunga Arr** | **22.58** | **158** | P | | **P** | **12 48 05.4** | **-0.6** |
| | 3.3nm,0.5s,baz=339,slow=11,SNR=72 | | | | | | | |
| **WB2** | **Warramunga Arr** | **22.59** | **158** | *e*P | | **P** | **12 48 05.7** | **-0.4** |
| | 34nm,1.8s | | | | | | | |
| **YHNB** | **Yeheng** | **23.79** | **350** | *e*P | | **P** | **12 48 15.6** | **-2.0** |
| | 244nm,1.9s | | | | | | | |
| **AS31** | **Alice Springs** | **25.90** | **163** | *e*P | | **P** | **12 48 38.0** | **+1.3** |
| | 1.0nm,0.8s | | | | | | | |
| **ASAR** | **Alice Springs** | **25.90** | **163** | P | | **P** | **12 48 37.4** | **+0.7** |
| | 0.7nm,0.3s,baz=339,slow=9.9,SNR=55 | | | | | | | |
| **AS01** | **Alice Springs** | **25.91** | **162** | *e*P | | **P** | **12 48 38.3** | **+1.5** |
| **STKA** | **Stephens Creek** | **36.11** | **157** | P | | **P** | **12 50 07.2** | **+0.8** |
| | 1.4nm,0.7s,baz=349,slow=8.1,SNR=7.2 | | | | | | | |
| **STKA** | **Stephens Creek** | **36.11** | **157** | *e*P | | **P** | **12 50 08.0** | **+1.6** |
| | 8.3nm,1.8s | | | | | | | |
| **BJT** | **Baijiatuau** | **39.68** | **349** | *e*P | | **P** | **12 50 37.1** | **+0.8** |
| BJT | | | | *e*S | | **S** | **12 56 32.4** | **-1.6** |
| **SONA0** | **Songino Array** | **49.45** | **343** | *e*P | | **P** | **12 51 53.5** | **-0.7** |
| **SONM** | **Songino Array** | **49.45** | **343** | P | | **P** | **12 51 53.5** | **-0.7** |
| | 0.6nm,0.8s,baz=153,slow=9.7,SNR=2.7 | | | | | | | |
| **MK01** | **Makanchi Array** | **59.10** | **327** | *e*P | | **P** | **12 53 03.4** | **-0.8** |
| **MK31** | **Makanchi Array** | **59.12** | **327** | *e*P | | **P** | **12 53 03.4** | **-0.9** |
| **MK32** | **Makanchi Array** | **59.12** | **327** | *e*P | | **P** | **12 53 03.4** | **-0.9** |
| MK32 | | | | *e*PcP | | **PcP** | **12 53 52.2** | **0.0** |
| **MKAR** | **Makanchi Array** | **59.12** | **327** | P | | **P** | **12 53 03.4** | **-0.9** |
| | 0.8nm,0.4s,baz=124,slow=7.3,SNR=28 | | | | | | | |
| MKAR | | | | PcP | | **PcP** | **12 53 52.2** | **0.0** |
| | 0.8nm,0.6s,baz=128,slow=4.2,SNR=5.6 | | | | | | | |
| **MKAR** | **Makanchi Array** | **59.12** | **327** | *e*P | | **P** | **12 53 03.4** | **-0.9** |
| | 17nm,1.3s | | | | | | | |
| MKAR | | | | PcP | | **PcP** | **12 53 52.2** | **0.0** |
| **ZALV** | **Zalesovo Beam** | **62.45** | **334** | P | | **P** | **12 53 26.2** | **-0.5** |
| | 0.3nm,0.3s,baz=134,slow=7.9,SNR=2.5 | | | | | | | |
| **ZAA1** | **Zalesovo Array** | **62.45** | **334** | *e*P | | **P** | **12 53 26.2** | **-0.5** |
| **KURK** | **Kurchatov** | **63.39** | **329** | *e*P | | **P** | **12 53 32.1** | **-0.9** |
| | 17nm,2.0s | | | | | | | |
| **VNDA** | **Vanda** | **80.98** | **173** | *e*P | | **P** | **12 55 15.5** | **-1.9** |
| | 11nm,1.9s | | | | | | | |
| **HDA** | **Harding Lake** | **87.86** | **26** | *e*P | | **P** | **12 55 51.1** | **-1.3** |
| | 10nm,1.2s | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **122.69** | **286** | PKP | | **PKPdf** | **13 01 59.6** | **-0.1** |
| | 0.3nm,0.5s,baz=55,slow=1.1,SNR=2.4 | | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **122.69** | **286** | *e*PKPdf | | **PKPdf** | **13 01 59.6** | **-0.1** |
| **PAYG** | **Puerto Ayora** | **144.04** | **90** | *e*PKPdf | | **PKPab** | **13 02 36.3** | **-0.9** |

*ISK **25** 13:13:06.9,38°.62N×43°.09E,h5km,MD2.6*
*CSEM **25** 13:13:12.6±0.5,38°.80N×43°.20E,h5km,ML2.5,Error ellipse: s-maj=9.2km s-min=8.4km az=96.0*
*DDA **25** 13:13:13.3,38°.76N×43°.20E,h7km,Ml2.5*

**ISC 25 13:13:11.3±1.5,38.76N±0.02×43.24E±0.03,h2km±13km, n20,σ1§20/36,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **VANB** | **Van** | **0.20** | **146** | *e*PG | | **Pg** | **13 13 13.4** | **-1.8** |
| **TVAN** | **Van** | **0.27** | **151** | *i* P | | **Pb** | **13 13 19.1** | **+0.1** |
| TVAN | | | | *i* S | | **Sb** | **13 13 24.1** | **-0.1** |
| **TVAN** | **Van** | **0.27** | **151** | P | | **Pb** | **13 13 19.1** | **+0.1** |
| TVAN | | | | S | | **Sb** | **13 13 24.0** | **-0.1** |
| **VMUR** | **Van-Muradiye** | **0.34** | **49** | *i* P | | **Pb** | **13 13 21.0** | **+0.7** |
| VMUR | | | | *i* S | | **Sb** | **13 13 27.9** | **+1.6** |
| **VMUR** | **Van-Muradiye** | **0.34** | **49** | P | | **Pb** | **13 13 21.0** | **+0.7** |
| VMUR | | | | S | | **Sb** | **13 13 27.9** | **+1.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.41** | **276** | *i* P | | **Pb** | **13 13 21.2** | **-0.1** |
| ADCV | | | | *i* S | | **Sb** | **13 13 27.6** | **-0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.41** | **276** | P | | **Pb** | **13 13 21.2** | **-0.1** |
| ADCV | | | | S | | **Sb** | **13 13 27.6** | **-0.5** |
| **GEVA** | **Gevas** | **0.47** | **198** | *i* P | | **Pg** | **13 13 21.7** | **+1.3** |
| GEVA | | | | *i* S | | **Sb** | **13 13 29.6** | **-0.4** |
| **GEVA** | **Gevas** | **0.47** | **198** | P | | **Pg** | **13 13 21.7** | **+1.3** |
| GEVA | | | | S | | **Sb** | **13 13 29.6** | **-0.4** |
| **CLDR** | **Caldiran** | **0.65** | **54** | *e*PG | | **Pg** | **13 13 23.1** | **-0.6** |
| CLDR | | | | *e*SG | | **Sn** | **13 13 36.8** | **-1.9** |
| **CLDR** | **Caldiran** | **0.65** | **54** | *i* P | | **Pb** | **13 13 26.4** | **+0.9** |
| CLDR | | | | *i* S | | **Sb** | **13 13 36.1** | **+1.0** |
| **CLDR** | **Caldiran** | **0.65** | **54** | *e*Pg | | **Pg** | **13 13 23.2** | **-0.6** |
| **CLDR** | **Caldiran** | **0.65** | **54** | P | | **Pb** | **13 13 26.4** | **+0.9** |
| CLDR | | | | S | | **Sb** | **13 13 36.1** | **+1.0** |
| **TUTA** | **Tutak** | **0.72** | **333** | *i* P | | **Pg** | **13 13 24.2** | **-0.9** |
| TUTA | | | | *i* S | | **Sb** | **13 13 36.9** | **-0.3** |
| **TUTA** | **Tutak** | **0.72** | **333** | P | | **Pg** | **13 13 24.2** | **-0.9** |
| TUTA | | | | S | | **Sb** | **13 13 36.8** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **0.83** | **347** | *e*PG | | **Pg** | **13 13 26.2** | **-1.1** |
| AGRB | | | | *e*SG | | **Sn** | **13 13 41.0** | **-2.2** |
| **AGRB** | **Hanur-Agry** | **0.83** | **347** | *e*Pg | | **Pg** | **13 13 26.2** | **-1.1** |
| AGRB | | | | *e*Sg | | **Sn** | **13 13 41.0** | **-2.2** |
| **EKAR** | **Karacoban** | **1.04** | **299** | *i* P | | Pn | 13 13 38.3 | +5.2 |
| EKAR | | | | *i* S | | **Sn** | **13 13 50.8** | **+2.5** |
| **EATA** | **Eleskirt** | **1.24** | **332** | *i* P | | **Pg** | **13 13 36.3** | **+1.1** |
| EATA | | | | *i* S | | **Sn** | **13 13 54.3** | **+0.8** |
| **EATA** | **Eleskirt** | **1.24** | **332** | P | | **Pg** | **13 13 36.3** | **+1.1** |

**IDC 25 13:22:25.5±1.1,22.55N×144.60E,h0km,mb3.6/7, mb1 3.8/7,mb1mx3.5/35,mbtmp3.6/7,Error ellipse: s-maj=40.3km s-min=21.7km az=80.0,Volcano Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **SONM** | **Songino Array** | **39.54** | **319** | P | | P | 13 29 59.5 | +1.2 |
| | 0.3nm,0.5s,baz=133,slow=7.6,SNR=2.5 | | | | | | | |
| **WRA** | **Warramunga Arr** | **43.40** | **194** | P | | P | 13 30 30.2 | +0.1 |
| | 0.3nm,0.3s,baz=15,slow=8.8,SNR=14 | | | | | | | |
| **ASAR** | **Alice Springs** | **47.10** | **193** | P | | P | 13 30 59.1 | -0.3 |
| | 0.4nm,0.9s,baz=12,slow=7.1,SNR=5.4 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **54.37** | **321** | P | | P | 13 31 53.4 | -0.6 |
| | 0.5nm,0.4s,baz=114,slow=8.0,SNR=2.3 | | | | | | | |
| **MKAR** | **Makanchi Array** | **55.10** | **312** | P | | P | 13 31 59.0 | -0.5 |
| | 0.3nm,0.5s,baz=86,slow=10,SNR=5.1 | | | | | | | |
| **NVAR** | **Mina Array Bea** | **81.59** | **52** | P | | P | 13 34 46.1 | +0.3 |
| | 0.4nm,0.7s,baz=264,slow=2.7,SNR=3.4 | | | | | | | |
| **FINES** | **FINESS Array B** | **82.98** | **335** | P | | P | 13 34 51.4 | -0.9 |
| | 4.0nm,0.9s,baz=84,slow=6.2,SNR=3.5 | | | | | | | |

*IDC **25** 13:25:00.4±1.0,14.71N×91.58W,h0km,mb4.1/9, mb1 4.4/11,mb1mx4.1/35,mbtmp4.1/11,ML4.1/2,MS3.6/5, Ms1 3.6/5,ms1mx3.2/34,Error ellipse: s-maj=32.5km s-min=20.0km az=49.0*
*CASC **25** 13:25:09.3±1.3,15.22N×92.46W,h35km±999km, mb4.3(NEIC)*
*SSS **25** 13:25:09.3,15.01N×92.41W,h15km,ML4.0*
*MEX **25** 13:25:13.6±0.8,14.67N×92.34W,h78km±11km,MD4.1*
*ISCJB **25** 13:25:13.7±0.4,14.90N±0.03×92.15W±0.03,h97km±3km, mb4.2/37,Error ellipse: s-maj=6.3km s-min=3.8km az=42.2*
*NEIC **25** 13:25:14.2±0.7,14.89N×92.12W,h96km±5km,mb4.3/42, MD4.1(MEX),Error ellipse: s-maj=9.3km s-min=6.4km az=209.0*
*NEIC Felt at Tapachula, Mexico.*

**ISC 25 13:25:14.7±0.8,14.93N±0.06×92.28W±0.05,h97km±6km, n279,σ1§39/292,mb4.3/37,Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **PCIG** | | **1.19** | **311** | *e*P | | **Pn** | **13 25 36.0** | **-1.1** |
| PCIG | | | | *e*S | | **Sn** | **13 25 52.1** | **-1.9** |
| **PCIG** | | **1.19** | **311** | *e*P | | **Pn** | **13 25 36.0** | **-1.1** |
| PCIG | | | | *e*S | | **Sn** | **13 25 52.1** | **-1.9** |
| **CCIG** | **Comitan** | **1.35** | **6** | *i* P | | **Pn** | **13 25 40.5** | **+1.3** |
| CCIG | | | | *i* S | | **Sn** | **13 25 59.5** | **+1.7** |
| **CCIG** | **Comitan** | **1.35** | **6** | *e*Pn | | **Pn** | **13 25 40.6** | **+1.3** |
| CCIG | | | | *e*Sn | | **Sn** | **13 25 58.2** | **+0.4** |
| **IXG** | **Ixpaco** | **1.92** | **113** | *e*P | | **Pn** | **13 25 44.0** | **-2.3** |
| **TGIG** | | **2.01** | **336** | *e*P | | **Pn** | **13 25 46.9** | **-0.5** |
| TGIG | | | | *e*S | | **Sn** | **13 26 13.7** | **+1.3** |
| **TGIG** | | **2.01** | **336** | *e*P | | **Pn** | **13 25 46.9** | **-0.5** |
| TGIG | | | | *e*S | | **Sn** | **13 26 13.7** | **+1.3** |
| **CUS1** | **Cusmapa** | **2.47** | **114** | *e*P | | **Pn** | **13 25 50.9** | **-2.6** |
| **RTR** | **El Retiro** | **2.75** | **112** | *e*P | | **Pn** | **13 25 55.0** | **-2.2** |
| **MONT** | **Ecomontaæa** | **2.76** | **112** | *e*P | | **Pn** | **13 25 56.8** | **-0.7** |
| **SBLS** | **San Blas** | **2.79** | **112** | *e*P | | **Pn** | **13 25 55.6** | **-2.2** |
| SBLS | | | | *e*S | | **Sn** | **13 26 32.0** | **+1.0** |
| **SNJE** | **San Jose** | **2.80** | **112** | *e*P | | **Pn** | **13 25 55.6** | **-2.3** |
| **BOQS** | **Boqueron** | **3.14** | **112** | *e*P | | **Pn** | **13 26 01.8** | **-0.8** |
| **COLS** | **Colinas** | **3.15** | **113** | *e*P | | **Pn** | **13 26 00.9** | **-1.7** |
| COLS | | | | *e*S | | **Sn** | **13 26 41.5** | **+2.0** |
| **UEES** | **San Salvador** | **3.17** | **112** | *e*P | | **Pn** | **13 26 01.9** | **-1.0** |
| UEES | | | | *e*S | | **Sn** | **13 26 41.7** | **+1.7** |
| UEES | | | | IAML | | | 13 26 47.9 | |
| | comp=Z,380nm,0.3s | | | | | | | |
| **OPAM** | **San Salvador** | **3.22** | **112** | *e*P | | **Pn** | **13 26 01.1** | **-2.3** |
| OPAM | | | | IAML | | | 13 26 58.9 | |
| | comp=Z,318nm,0.4s | | | | | | | |
| **CMIG** | **Matias Romero** | **3.30** | **311** | Pn | | **Pn** | **13 26 03.9** | **-0.6** |
| | comp=Z,23nm,0.3s,baz=144,slow=11,SNR=174 | | | | | | | |
| CMIG | | | | Sn | | **Sn** | **13 26 43.7** | **+0.8** |
| | comp=Z,50nm,0.3s,baz=93,slow=19,SNR=8.1 | | | | | | | |
| CMIG | | | | Lg | | Lg | 13 27 02.1 | |
| | comp=Z,74nm,0.3s,baz=248,slow=19,SNR=4.3 | | | | | | | |
| CMIG | | | | LR | | LR | 13 27 41.8 | |
| | comp=Z,88nm,20.6s,baz=9.0,slow=41 | | | | | | | |
| **LBRS** | **Las Brisas** | **3.35** | **110** | *e*P | | **Pn** | **13 26 03.0** | **-2.2** |
| **SCIG** | **Sabancuy** | **4.15** | **14** | *e*Pn | | **Pn** | **13 26 15.9** | **-0.1** |
| SCIG | | | | *e*Sn | | **Sn** | **13 27 02.3** | **-1.1** |
| **LCND** | **La Ca˜–ada** | **4.55** | **110** | *e*P | | **Pn** | **13 26 20.3** | **-1.1** |
| **TGUH** | **Tegucigalpa,Un** | **4.92** | **99** | *e*Pn | | **Pn** | **13 26 24.6** | **-1.8** |
| **MYIG** | **MÖrida** | **6.47** | **22** | *e*Pn | | **Pn** | **13 26 46.0** | **-1.4** |
| MYIG | | | | *e*Sn | | **Sn** | **13 27 57.9** | **-1.8** |
| **TLIG** | **Tlapa** | **6.58** | **294** | *e*Pn | | **Pn** | **13 26 50.0** | **+0.9** |
| TLIG | | | | *e*Sn | | **Sn** | **13 28 01.4** | **-1.3** |
| **UNM** | **Universidad Na** | **7.92** | **305** | *e*Pn | | **Pn** | **13 27 07.1** | **-0.3** |
| UNM | | | | *e*Sn | | **Sn** | **13 28 27.5** | **-8.0** |
| **JTS** | **JuntasAbangare** | **8.51** | **122** | *e*P | | **Pn** | **13 27 13.7** | **-1.5** |
| | comp=Z,11nm,0.6s | | | | | | | |
| **MOIG** | **Morelia** | **9.73** | **300** | *e*Pn | | **Pn** | **13 27 35.0** | **+2.9** |
| **ZAIG** | **Zacatecas** | **12.47** | **310** | *e*Pn | | **Pn** | **13 28 11.3** | **+2.3** |
| **833A** | **Chaparral WMA,** | **14.88** | **335** | S | | **Sn** | **13 31 23.0** | **-1.1** |
| | baz=152 | | | | | | | |
| **446A** | **Poplarville** | **16.02** | **9** | P | | **P** | **13 28 55.3** | **-0.6** |
| | baz=190 | | | | | | | |
| **447A** | **Lucedale** | **16.14** | **11** | P | | **P** | **13 28 57.0** | **-0.3** |
| | baz=192 | | | | | | | |
| **342A** | **Flagon Creek P** | **16.37** | **360** | P | | **P** | **13 29 00.7** | **+0.9** |
| | baz=179 | | | | | | | |
| **344A** | **Westbrook Farm** | **16.51** | **5** | P | | **P** | **13 29 02.5** | **+1.1** |
| | baz=185 | | | | | | | |
| **435B** | **Jarrell** | **16.52** | **344** | P | | **P** | **13 29 03.1** | **+1.6** |
| | baz=161 | | | | | | | |
| **346A** | **Big Creek Wild** | **16.59** | **8** | P | | **P** | **13 29 03.5** | **+1.2** |
| | baz=189 | | | | | | | |
| **347A** | **Saraland** | **16.75** | **11** | P | | **P** | **13 29 05.3** | **+1.2** |
| | baz=192 | | | | | | | |
| **BRAL** | **Brewton** | **16.86** | **16** | P | | **P** | **13 29 06.5** | **+1.2** |
| | baz=197 | | | | | | | |
| **348A** | **Jackson** | **16.89** | **13** | P | | **P** | **13 29 06.3** | **+0.7** |
| | baz=194 | | | | | | | |
| **JCT** | **Junction City** | **16.95** | **337** | P | | **P** | **13 29 08.9** | **+2.6** |
| | baz=154 | | | | | | | |
| **242A** | **Grayson** | **17.06** | **0** | P | | **P** | **13 29 09.4** | **+2.0** |
| | baz=180 | | | | | | | |
| **244A** | **Avery, Jackson** | **17.10** | **5** | P | | **P** | **13 29 08.9** | **+1.0** |
| | baz=185 | | | | | | | |
| **245A** | **Little AP, Sta** | **17.17** | **7** | P | | **P** | **13 29 09.6** | **+0.9** |
| | baz=187 | | | | | | | |
| **VBMS** | **Vicksburg** | **17.29** | **5** | *e*Pn | | **Pn** | **13 29 11.8** | **+1.8** |
| | comp=Z,40nm,1.2s | | | | | | | |
| **247A** | **Quitman** | **17.38** | **10** | P | | **Pn** | **13 29 13.0** | **+1.9** |
| | baz=191 | | | | | | | |
| **142A** | **Monroe** | **17.55** | **1** | P | | **Pn** | **13 29 15.1** | **+2.0** |
| | baz=181 | | | | | | | |
| **248A** | **Dixon Mills** | **17.59** | **13** | P | | **Pn** | **13 29 15.3** | **+1.7** |
| | baz=194 | | | | | | | |
| **141A** | **Papa Simpson,** | **17.61** | **358** | P | | **Pn** | **13 29 16.0** | **+2.1** |
| | baz=178 | | | | | | | |
| **139A** | **Bunkhouse Ranc** | **17.78** | **354** | P | | **Pn** | **13 29 18.3** | **+2.4** |
| | baz=173 | | | | | | | |
| **TXAR** | **Lajitas Array** | **17.78** | **326** | P | | **Pn** | **13 29 18.0** | **+1.8** |
| | comp=Z,0.1nm,0.3s,baz=149,slow=13,SNR=17 | | | | | | | |
| TXAR | | | | PcP | | **PcP** | **13 33 49.4** | **+0.9** |
| | comp=Z,0.1nm,0.3s,baz=134,slow=2.6,SNR=6.6 | | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **17.78** | **326** | *e*P | | **Pn** | **13 29 18.1** | **+2.0** |
| **136A** | **Ennis** | **17.89** | **348** | P | | **Pn** | **13 29 19.6** | **+2.3** |
| | baz=166 | | | | | | | |
| **147A** | **Livingston** | **18.04** | **11** | P | | **Pn** | **13 29 20.2** | **+1.1** |
| | baz=192 | | | | | | | |
| **Z41A** | **Richland Creek** | **18.26** | **359** | P | | **Pn** | **13 29 23.4** | **+1.7** |
| | baz=178 | | | | | | | |
| **TIGA** | **Tifton** | **18.26** | **24** | P | | **Pn** | **13 29 22.2** | **+0.5** |
| | baz=207 | | | | | | | |
| **Z42A** | **Norrel Spur, H** | **18.27** | **1** | P | | **Pn** | **13 29 22.2** | **+0.4** |
| | baz=180 | | | | | | | |
| **Z44A** | **Pea Ridge, Bel** | **18.35** | **5** | P | | **Pn** | **13 29 23.5** | **+0.8** |
| | baz=185 | | | | | | | |
| **Z46A** | **Louisville** | **18.44** | **9** | P | | **Pn** | **13 29 24.6** | **+0.8** |
| | baz=190 | | | | | | | |
| **Z37A** | **Pogue Cattle C** | **18.44** | **351** | P | | **Pn** | **13 29 24.2** | **+0.3** |
| | baz=169 | | | | | | | |
| **Z45A** | **Winona** | **18.51** | **7** | P | | **Pn** | **13 29 24.5** | **-0.2** |
| | baz=187 | | | | | | | |
| **Z

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| W38A | Poteau | 20.16 | 355 | P | | Pn | 13 29 42.9 | -1.2 | | |
| | baz=173 | | | | | | | | | |
| W41B | Gary Mavity, V | 20.16 | 0 | P | | P | 13 29 42.4 | +1.1 | | |
| | baz=180 | | | | | | | | | |
| W40A | Ferguson Farm, | 20.19 | 358 | P | | P | 13 29 43.1 | +1.4 | | |
| | baz=177 | | | | | | | | | |
| X49A | Woodville | 20.23 | 14 | P | | P | 13 29 42.7 | +0.6 | | |
| | baz=196 | | | | | | | | | |
| W39A | Magazine | 20.23 | 356 | P | | Pn | 13 29 43.9 | -0.9 | | |
| | baz=175 | | | | | | | | | |
| W37B | Quinton | 20.33 | 353 | P | | Pn | 13 29 44.7 | -1.3 | | |
| | baz=171 | | | | | | | | | |
| W37B | Quinton | 20.33 | 353 | eP | | P | 13 29 42.8 | -0.3 | | |
| | comp=Z,7.8nm,0.6s | | | | | | | | | |
| X50A | Fort Payne | 20.35 | 16 | P | | P | 13 29 44.2 | +0.7 | | |
| | baz=198,SNR=6.4 | | | | | | | | | |
| W36A | Wetumka | 20.44 | 351 | P | | P | 13 29 45.6 | +1.2 | | |
| | baz=169 | | | | | | | | | |
| PRAC | Prado | 20.44 | 121 | eP | | P | 13 29 43.5 | -1.1 | | |
| | comp=Z,6.9nm,0.6s | | | | | | | | | |
| MNTX | Cornudas Mount | 20.55 | 327 | P | | Pn | 13 29 47.4 | -1.3 | | |
| | baz=141,SNR=8.8 | | | | | | | | | |
| MNTX | Cornudas Mount | 20.55 | 327 | eP | | P | 13 29 46.5 | +0.9 | | |
| | comp=Z,5.0nm,0.9s | | | | | | | | | |
| W35A | Tecumseh | 20.56 | 349 | P | | P | 13 29 45.9 | +0.3 | | |
| | baz=167 | | | | | | | | | |
| W35A | Tecumseh | 20.56 | 349 | eP | | P | 13 29 44.3 | -1.4 | | |
| | comp=Z,10nm,0.8s | | | | | | | | | |
| WMOK | Wichita Mounta | 20.58 | 345 | P | | P | 13 29 47.0 | +1.1 | | |
| | baz=162 | | | | | | | | | |
| V41A | Mountainview | 20.77 | 0 | P | | P | 13 29 49.2 | +1.3 | | |
| | baz=180 | | | | | | | | | |
| V40A | Witts Springs | 20.80 | 359 | P | | P | 13 29 49.2 | +1.0 | | |
| | baz=178 | | | | | | | | | |
| V42A | Cord | 20.81 | 2 | P | | P | 13 29 49.1 | +0.8 | | |
| | baz=182 | | | | | | | | | |
| V39A | Pettigrew | 20.86 | 357 | P | | P | 13 29 50.2 | +1.3 | | |
| | baz=176 | | | | | | | | | |
| OK020 | N3440 Road, Me | 20.94 | 349 | eP | | P | 13 29 48.4 | -1.3 | | |
| | comp=Z,8.7nm,0.6s | | | | | | | | | |
| V38A | Canehill | 20.94 | 355 | P | | P | 13 29 50.9 | +1.2 | | |
| | baz=174 | | | | | | | | | |
| V45A | Humboldt | 20.94 | 8 | P | | P | 13 29 51.2 | +1.5 | | |
| | baz=188 | | | | | | | | | |
| SWET | Sewanee | 21.00 | 15 | eP | | P | 13 29 49.8 | -0.5 | | |
| | comp=Z,11nm,0.7s | | | | | | | | | |
| V37A | Hulbert | 21.03 | 354 | P | | P | 13 29 51.8 | +1.2 | | |
| | baz=172 | | | | | | | | | |
| V36A | Jenks | 21.03 | 352 | P | | P | 13 29 52.2 | +1.5 | | |
| | baz=170 | | | | | | | | | |
| TUL1 | Leonard | 21.13 | 352 | P | | P | 13 29 53.1 | +1.3 | | |
| | baz=170 | | | | | | | | | |
| V35A | Meyer Ranch, C | 21.15 | 350 | P | | P | 13 29 52.9 | +1.0 | | |
| | baz=167 | | | | | | | | | |
| MSTX | Muleshoe | 21.20 | 335 | P | | P | 13 29 54.1 | +1.4 | | |
| | baz=151 | | | | | | | | | |
| V48A | Smith Brothers | 21.30 | 12 | P | | P | 13 29 53.7 | +0.2 | | |
| | baz=194,SNR=5.7 | | | | | | | | | |
| U41A | Viola | 21.33 | 1 | P | | P | 13 29 54.7 | +0.8 | | |
| | baz=180 | | | | | | | | | |
| U40A | Yellville | 21.35 | 359 | P | | P | 13 29 54.9 | +0.9 | | |
| | baz=178 | | | | | | | | | |
| U42A | Revenden | 21.36 | 2 | P | | P | 13 29 54.9 | +0.7 | | |
| | baz=182 | | | | | | | | | |
| U39A | Green Forest | 21.39 | 357 | P | | P | 13 29 55.4 | +0.8 | | |
| | baz=176 | | | | | | | | | |
| U43A | Rector | 21.42 | 4 | P | | P | 13 29 55.7 | +0.9 | | |
| | baz=184 | | | | | | | | | |
| U44B | Burton Farm, H | 21.48 | 6 | P | | P | 13 29 56.1 | +0.6 | | |
| | baz=187 | | | | | | | | | |
| WVT | Waverly | 21.49 | 10 | P | | P | 13 29 55.9 | +0.3 | | |
| | baz=191 | | | | | | | | | |
| WVT | Waverly | 21.49 | 10 | eP | | P | 13 29 53.2 | -2.4 | | |
| | comp=Z,5.5nm,0.6s | | | | | | | | | |
| U38A | Gravette | 21.51 | 355 | P | | P | 13 29 56.9 | +1.1 | | |
| | baz=174 | | | | | | | | | |
| U37A | Salina | 21.54 | 354 | P | | P | 13 29 56.9 | +0.8 | | |
| | baz=172 | | | | | | | | | |
| UTMT | University of | 21.55 | 8 | eP | | P | 13 29 57.0 | +0.9 | | |
| | comp=Z,121nm,1.8s | | | | | | | | | |
| U45A | Rockin P Farm, | 21.56 | 8 | P | | P | 13 29 57.4 | +1.0 | | |
| | baz=189 | | | | | | | | | |
| CPCT | Cooper Cave | 21.59 | 17 | eP | | P | 13 29 56.5 | -0.2 | | |
| | comp=Z,11nm,0.8s | | | | | | | | | |
| AMTX | Amarillo | 21.60 | 339 | P | | P | 13 29 57.9 | +1.0 | | |
| | baz=154 | | | | | | | | | |
| AMTX | Amarillo | 21.60 | 339 | eP | | P | 13 29 56.5 | -0.4 | | |
| | comp=Z,6.8nm,0.6s | | | | | | | | | |
| U46A | Springville | 21.66 | 9 | P | | P | 13 29 57.7 | +0.4 | | |
| | baz=190,SNR=6.1 | | | | | | | | | |
| BG3 | Lake Jocassee | 21.68 | 21 | eP | | P | 13 29 57.9 | +0.3 | | |
| | comp=Z,15nm,1.3s | | | | | | | | | |
| JSC | Jenkinsville | 21.69 | 25 | eP | | P | 13 29 58.1 | +0.4 | | |
| | comp=Z,31nm,1.5s | | | | | | | | | |
| U35A | Pawnee | 21.72 | 350 | P | | P | 13 29 59.1 | +1.0 | | |
| | baz=168 | | | | | | | | | |
| PARMO | Parma | 21.77 | 5 | eP | | P | 13 29 59.0 | +0.5 | | |
| | comp=Z,29nm,0.7s | | | | | | | | | |
| PBMO | Poplar Bluff | 21.83 | 4 | eP | | P | 13 29 58.4 | -0.8 | | |
| | comp=Z,10nm,0.4s | | | | | | | | | |
| U47A | Clarksville | 21.89 | 11 | P | | P | 13 29 59.7 | 0.0 | | |
| | baz=193 | | | | | | | | | |
| SDV | Santo Domingo | 22.00 | 103 | P | | P | 13 29 53.0 | -8.4 | | |
| | comp=Z,0.8nm,0.3s,baz=287,slow=14,SNR=1.7 | | | | | | | | | |
| SDV | Santo Domingo | 22.00 | 103 | eP | | P | 13 30 01.0 | -0.5 | | |
| TKL | Tuckaleechee C | 22.01 | 19 | P | | P | 13 30 01.7 | +0.6 | | |
| | comp=Z,3.4nm,0.5s,baz=187,slow=12,SNR=15 | | | | | | | | | |
| TKL | | | | LR | | LR | 13 39 46.1 | | | |
| | comp=Z,138nm,18.8s,baz=357,slow=40 | | | | | | | | | |
| TKL | Tuckaleechee C | 22.01 | 19 | eP | | P | 13 30 01.3 | +0.1 | | |
| | comp=Z,30nm,1.5s | | | | | | | | | |
| T39A | Clever | 22.03 | 358 | P | | P | 13 30 01.2 | -0.1 | | |
| | baz=177,SNR=5.1 | | | | | | | | | |
| T41A | Mountain View | 22.03 | 1 | P | | P | 13 30 01.3 | 0.0 | | |
| | baz=181 | | | | | | | | | |
| T42A | Van Buren | 22.04 | 3 | P | | P | 13 30 01.6 | +0.2 | | |
| | baz=183 | | | | | | | | | |
| T38A | Diamond | 22.09 | 356 | P | | P | 13 30 01.7 | -0.3 | | |
| | baz=174 | | | | | | | | | |
| U48A | Cassie Pea, Po | 22.10 | 12 | P | | P | 13 30 01.3 | -0.7 | | |
| | baz=194 | | | | | | | | | |
| T40A | Mansfield | 22.14 | 359 | P | | P | 13 30 02.3 | -0.2 | | |
| | baz=179 | | | | | | | | | |
| T43A | Greenville | 22.14 | 4 | P | | P | 13 30 02.0 | -0.4 | | |
| | baz=185 | | | | | | | | | |
| T35A | Sooner Cattle | 22.22 | 351 | P | | P | 13 30 03.2 | -0.2 | | |
| | baz=169 | | | | | | | | | |
| T37A | Chenenyville 18 | 22.23 | 354 | P | | P | 13 30 03.5 | +0.1 | | |
| | baz=173 | | | | | | | | | |
| T45A | Paducah | 22.24 | 8 | P | | P | 13 30 03.9 | +0.4 | | |
| | baz=189 | | | | | | | | | |
| T36A | Boggs Farm, Ca | 22.28 | 352 | P | | P | 13 30 03.7 | -0.2 | | |
| | baz=170 | | | | | | | | | |
| T46A | Princeton | 22.37 | 9 | P | | P | 13 30 04.2 | -0.7 | | |
| | baz=191 | | | | | | | | | |
| KMSC | Kings Mountain | 22.41 | 24 | P | | P | 13 30 05.5 | +0.2 | | |
| | baz=208 | | | | | | | | | |
| KMSC | Kings Mountain | 22.41 | 24 | eP | | P | 13 30 04.2 | -1.1 | | |
| | comp=Z,10nm,0.9s | | | | | | | | | |
| T47A | Sharon Grove | 22.45 | 11 | P | | P | 13 30 05.1 | -0.6 | | |
| | baz=193,SNR=9.4 | | | | | | | | | |
| 121A | Cookes Peak, D | 22.50 | 324 | P | | P | 13 30 08.5 | +1.9 | | |
| | baz=137 | | | | | | | | | |
| S41A | Jillco Farms, | 22.58 | 1 | P | | P | 13 30 07.5 | +0.5 | | |
| | baz=181 | | | | | | | | | |
| S40A | Lebanon | 22.58 | 360 | P | | P | 13 30 07.4 | +0.3 | | |
| | baz=179 | | | | | | | | | |
| S38A | Stockton | 22.66 | 357 | P | | P | 13 30 07.7 | -0.2 | | |
| | baz=176 | | | | | | | | | |
| S39A | Bolivar | 22.69 | 358 | P | | P | 13 30 08.0 | -0.2 | | |
| | baz=177 | | | | | | | | | |
| T48A | Bowling Green | 22.71 | 12 | P | | P | 13 30 08.1 | -0.2 | | |
| | baz=194 | | | | | | | | | |
| S42A | Caledonia | 22.79 | 3 | P | | P | 13 30 08.2 | -1.0 | | |
| | baz=183 | | | | | | | | | |
| S44A | Carbondale | 22.84 | 6 | P | | P | 13 30 09.5 | -0.1 | | |
| | baz=187,SNR=10.0 | | | | | | | | | |
| S37A | Fort Scott | 22.86 | 355 | P | | P | 13 30 09.0 | -0.9 | | |
| | baz=173 | | | | | | | | | |
| SIUC | Southern Illin | 22.86 | 6 | eP | | P | 13 30 08.9 | -1.0 | | |
| | comp=Z,20nm,0.8s | | | | | | | | | |
| S36A | Lake Cedric, C | 22.90 | 353 | P | | P | 13 30 09.8 | -0.4 | | |
| | baz=171 | | | | | | | | | |
| S45A | Carrier Mills | 22.90 | 8 | P | | P | 13 30 09.6 | -0.7 | | |
| | baz=189 | | | | | | | | | |
| S35A | Otter Creek Ra | 22.95 | 352 | P | | P | 13 30 10.0 | -0.7 | | |
| | baz=170 | | | | | | | | | |
| S46A | Don Dixon Farm | 23.03 | 9 | P | | P | 13 30 10.9 | -0.6 | | |
| | baz=191 | | | | | | | | | |
| CCM | Cathedral Cave | 23.06 | 2 | P | | P | 13 30 11.0 | -0.8 | | |
| | baz=182 | | | | | | | | | |
| CCM | Cathedral Cave | 23.06 | 2 | eP | | P | 13 30 11.0 | -0.8 | | |
| | comp=Z,7.3nm,0.9s | | | | | | | | | |
| S34A | Willow Spring | 23.09 | 350 | P | | P | 13 30 11.9 | -0.2 | | |
| | baz=168 | | | | | | | | | |
| BNM | Barren Site | 23.12 | 328 | eP | | P | 13 30 12.9 | +0.2 | | |
| R38A | Fenwick Farm, | 23.21 | 357 | P | | P | 13 30 12.5 | -0.8 | | |
| | baz=176 | | | | | | | | | |
| LPM | Los Pinos Moun | 23.25 | 329 | eP | | P | 13 30 14.7 | +0.8 | | |
| R40A | Maddies Statio | 23.27 | 0 | P | | P | 13 30 12.7 | -1.1 | | |
| | baz=180 | | | | | | | | | |
| R41A | Rosebud | 23.29 | 2 | P | | P | 13 30 13.7 | -0.3 | | |
| | baz=182 | | | | | | | | | |
| S48A | Wiedeman Farm, | 23.30 | 13 | P | | P | 13 30 13.4 | -0.8 | | |
| | baz=195 | | | | | | | | | |
| R39A | Chumby, Stover | 23.31 | 358 | P | | P | 13 30 12.7 | -1.4 | | |
| | baz=178 | | | | | | | | | |
| USIN | University of | 23.31 | 9 | eP | | P | 13 30 12.0 | -2.1 | | |
| | comp=Z,15nm,0.7s | | | | | | | | | |
| R43A | Red Bud | 23.35 | 5 | P | | P | 13 30 13.9 | -0.6 | | |
| | baz=185 | | | | | | | | | |
| R44A | Waltonville | 23.40 | 6 | P | | P | 13 30 14.7 | -0.2 | | |
| | baz=187 | | | | | | | | | |
| R36A | Gordon, Harris | 23.48 | 354 | P | | P | 13 30 16.1 | +0.4 | | |
| | baz=172 | | | | | | | | | |
| R45A | Skylar, Fairfi | 23.54 | 8 | P | | P | 13 30 15.9 | -0.3 | | |
| | baz=189 | | | | | | | | | |
| LAZ | Ladron | 23.57 | 328 | eP | | P | 13 30 17.8 | +0.9 | | |
| R46A | Gibon Southern | 23.57 | 9 | P | | P | 13 30 16.2 | -0.4 | | |
| | baz=191 | | | | | | | | | |
| ANMO | Albuquerque | 23.67 | 330 | P | | P | 13 30 19.7 | +2.0 | | |
| | comp=Z,1.7nm,0.7s,baz=343,slow=14,SNR=11 | | | | | | | | | |
| ANMO | Albuquerque | 23.67 | 330 | P | | P | 13 30 19.4 | +1.7 | | |
| | baz=144 | | | | | | | | | |
| ANMO | Albuquerque | 23.67 | 330 | eP | | P | 13 30 18.9 | +1.2 | | |
| | comp=Z,2.1nm,0.6s | | | | | | | | | |
| R34A | Isabella, Hill | 23.69 | 350 | P | | P | 13 30 17.9 | +0.2 | | |
| | baz=168 | | | | | | | | | |
| WCI | Wyandotte Cave | 23.81 | 12 | P | | P | 13 30 18.0 | -0.6 | | |
| | baz=194 | | | | | | | | | |
| WCI | Wyandotte Cave | 23.81 | 12 | eP | | P | 13 30 17.5 | -1.2 | | |
| | comp=Z,26nm,0.7s | | | | | | | | | |
| R47A | Wooly Knot Far | 23.83 | 11 | P | | P | 13 30 18.0 | -0.8 | | |
| | baz=193,SNR=6.0 | | | | | | | | | |
| Q37A | Longview Farm, | 23.93 | 356 | P | | P | 13 30 20.3 | +0.5 | | |
| | baz=174 | | | | | | | | | |
| Q41A | Truxton | 23.95 | 2 | P | | P | 13 30 20.8 | +0.9 | | |
| | baz=182,SNR=5.6 | | | | | | | | | |
| Q38A | Cooks Store, C | 23.97 | 357 | P | | P | 13 30 19.8 | -0.4 | | |
| | baz=176 | | | | | | | | | |
| Q40A | Laux Farm, Aux | 23.98 | 0 | P | | P | 13 30 20.6 | +0.4 | | |
| | baz=180 | | | | | | | | | |
| OLIL | Olney | 24.00 | 8 | eP | | P | 13 30 19.8 | -0.5 | | |
| | comp=Z,22nm,0.8s | | | | | | | | | |
| Q43A | New Douglas | 24.03 | 5 | P | | P | 13 30 21.1 | +0.5 | | |
| | baz=186 | | | | | | | | | |
| Q39A | Willow Grove F | 24.04 | 359 | P | | P | 13 30 21.1 | +0.4 | | |
| | baz=178 | | | | | | | | | |
| Q44A | Meyer Farm, Va | 24.06 | 6 | P | | P | 13 30 21.2 | +0.3 | | |
| | baz=187 | | | | | | | | | |
| R48A | Northridge Ran | 24.06 | 12 | P | | P | 13 30 21.3 | +0.4 | | |
| | baz=182 | | | | | | | | | |
| Q45A | Warren Harvey, | 24.15 | 8 | P | | P | 13 30 22.3 | +0.6 | | |
| | baz=189 | | | | | | | | | |
| TUC | Tucson | 24.16 | 319 | P | | P | 13 30 24.0 | +1.9 | | |
| | baz=131 | | | | | | | | | |
| Q34A | Chapman | 24.25 | 351 | P | | P | 13 30 23.4 | +0.7 | | |
| | baz=169 | | | | | | | | | |
| Q46A | CEJHS Indians, | 24.39 | 9 | P | | P | 13 30 24.4 | +0.5 | | |
| | baz=191 | | | | | | | | | |
| Q47A | Bedord North L | 24.47 | 11 | P | | P | 13 30 24.8 | +0.2 | | |
| | baz=193 | | | | | | | | | |
| P40A | Paris | 24.51 | 0 | P | | P | 13 30 25.7 | +0.7 | | |
| | baz=180 | | | | | | | | | |
| T25A | Trinidad | 24.61 | 336 | P | | P | 13 30 28.0 | +1.7 | | |
| | baz=151 | | | | | | | | | |
| P42A | Winchester | 24.62 | 4 | P | | P | 13 30 26.4 | +0.4 | | |
| | baz=184 | | | | | | | | | |
| P37A | Lathrop | 24.64 | 356 | P | | P | 13 30 27.5 | +1.4 | | |
| | baz=175 | | | | | | | | | |
| P44A | Sand Creek, Wi | 24.66 | 7 | P | | P | 13 30 27.1 | +0.8 | | |
| | baz=188 | | | | | | | | | |
| BLO | Bloomington | 24.68 | 11 | eP | | P | 13 30 25.6 | -0.9 | | |
| | comp=Z,15nm,1.0s | | | | | | | | | |
| P43A | Skaggs, Pawnee | 24.74 | 5 | P | | P | 13 30 28.4 | +1.3 | | |
| | baz=186 | | | | | | | | | |
| P45A | Graceland, Par | 24.83 | 8 | P | | P | 13 30 27.9 | 0.0 | | |
| | baz=190 | | | | | | | | | |
| P34A | Walnut Farm, R | 24.85 | 352 | P | | P | 13 30 28.0 | -0.1 | | |
| | baz=169 | | | | | | | | | |
| P46A | Rosedale | 25.00 | 9 | P | | P | 13 30 29.1 | -0.3 | | |
| | baz=191,SNR=6.5 | | | | | | | | | |
| P47A | Martinsville | 25.03 | 11 | P | | P | 13 30 28.9 | -0.8 | | |
| | baz=193 | | | | | | | | | |
| O40A | La Belle | 25.10 | 1 | P | | P | 13 30 30.9 | +0.5 | | |
| | baz=181 | | | | | | | | | |
| SJG | San Juan | 25.24 | 79 | LR | | LR | 13 39 17.6 | | | |
| | comp=Z,73nm,20.0s,baz=120,slow=35 | | | | | | | | | |
| O45A | Potomac | 25.54 | 8 | P | | P | 13 30 34.0 | -0.4 | | |
| | baz=190 | | | | | | | | | |
| MVCO | Mesa Verde | 26.47 | 330 | P | | P | 13 30 44.9 | +1.9 | | |
| | baz=143 | | | | | | | | | |
| WUAZ | Wupatki | 26.71 | 324 | P | | P | 13 30 47.7 | +2.5 | | |
| | baz=135 | | | | | | | | | |
| CCUT | Cedar City | 29.28 | 324 | eP | | P | 13 31 08.8 | +0.6 | | |
| | comp=Z,3.2nm,1.0s | | | | | | | | | |
| EDW2 | Edwards Air Fo | 30.49 | 315 | P | | P | 13 31 21.7 | +3.0 | | |
| | baz=124 | | | | | | | | | |
| TPNV | Topopah Spring | 30.59 | 320 | P | | P | 13 31 22.5 | +2.8 | | |
| | baz=129 | | | | | | | | | |
| LRMC | Laurel Mtn Rad | 30.62 | 317 | P | | P | 13 31 22.3 | +2.4 | | |
| | baz=125 | | | | | | | | | |
| MPMC | Manual Prospec | 30.83 | 318 | P | | P | 13 31 24.6 | +2.8 | | |
| | baz=126 | | | | | | | | | |
| R11A | Troy Canyon, C | 31.11 | 323 | P | | P | 13 31 27.0 | +2.8 | | |
| | baz=132 | | | | | | | | | |
| PDAR | Pinedale Array | 31.47 | 335 | P | | P | 13 31 28.4 | +1.0 | | |
| | comp=Z,0.2nm,0.4s,baz=146,slow=9.8,SNR=4.9 | | | | | | | | | |
| PDAR | | | | PcP | | PcP | 13 34 18.4 | 0.0 | | |
| | comp=Z,0.4nm,0.7s,baz=145,slow=5.5,SNR=4.7 | | | | | | | | | |
| PDAR | | | | S | | S | 13 36 40.4 | +12 | | |
| | comp=Z,0.2nm,0.6s,baz=160,slow=16,SNR=5.6 | | | | | | | | | |
| SADO | Sadowa | 31.77 | 18 | P | | P | 13 31 27.7 | -1.9 | | |
| | comp=Z,6.2nm,0.7s,baz=230,slow=7.9,SNR=4.9 | | | | | | | | | |
| SNOW | Snow King Moun | 32.54 | 335 | eP | | P | 13 31 37.6 | +0.8 | | |
| | comp=Z,3.7nm,0.9s | | | | | | | | | |
| NV01 | Mina Array Sit | 32.79 | 320 | eP | | P | 13 31 40.5 | +1.6 | | |
| NVAR | Mina Array Bea | 32.79 | 320 | P | | P | 13 31 41.9 | +3.0 | | |
| | comp=Z,5.8nm,0.6s,baz=132,slow=8.8,SNR=64 | | | | | | | | | |
| NVAR | | | | PcP | | PcP | 13 34 23.0 | +0.9 | | |
| | comp=Z,0.6nm,0.6s,baz=130,slow=1.4,SNR=5.4 | | | | | | | | | |
| MDPB | Devils Postpil | 32.79 | 319 | eP | | P | 13 31 40.7 | +1.6 | | |
| | comp=Z,4.9nm,0.9s | | | | | | | | | |
| KVN | Kaiserville | 33.05 | 322 | eP | | P | 13 31 43.5 | +2.2 | | |
| | comp=Z,6.2nm,1.1s | | | | | | | | | |
| BMN | Battle Mountai | 33.44 | 324 | eP | | P | 13 31 46.1 | +1.5 | | |
| | comp=Z,3.4nm,0.8s | | | | | | | | | |
| PNTR | Pine Nut | 33.99 | 320 | eP | | P | 13 31 52.3 | +2.9 | | |
| | comp=Z,4.6nm,0.7s | | | | | | | | | |
| HLID | Hailey | 34.24 | 331 | P | | P | 13 31 53.4 | +1.9 | | |
| | baz=140 | | | | | | | | | |
| HLID | Hailey | 34.24 | 331 | eP | | P | 13 31 53.9 | +2.4 | | |
| | comp=Z,3.6nm,1.4s | | | | | | | | | |
| PAHR | Pah Rah Range | 34.24 | 321 | eP | | P | 13 31 54.0 | +2.5 | | |
| | comp=Z,3.2nm,0.8s | | | | | | | | | |
| BOZ | Bozeman (W) | 34.65 | 336 | P | | P | 13 31 57.0 | +2.0 | | |
| | baz=146 | | | | | | | | | |
| BEKR | Beckworth | 34.93 | 321 | eP | | P | 13 31 59.6 | +2.2 | | |
| | comp=Z,2.6nm,0.8s | | | | | | | | | |
| WVOR | Wild Horse Val | 35.58 | 326 | eP | | P | 13 32 04.6 | +1.7 | | |
| | comp=Z,5.2nm,1.1s | | | | | | | | | |
| O03D | Paynes Creek | 36.07 | 320 | P | | P | 13 32 09.3 | +2.1 | | |
| | baz=126 | | | | | | | | | |
| J08A | Circle Bar Ran | 36.12 | 327 | eP | | P | 13 32 09.1 | +1.6 | | |
| | comp=Z,3nm,0.7s | | | | | | | | | |
| NEW | Newport | 39.05 | 334 | P | | P | 13 32 33.9 | +1.8 | | |
| | baz=140 | | | | | | | | | |
| SCHQ | Schefferville | 44.45 | 21 | P | | P | 13 33 13.6 | -2.4 | | |
| | comp=Z,4.7nm,0.9s,baz=218,slow=12,SNR=3.9 | | | | | | | | | |
| YKA | Yellowknife Ar | 50.07 | 347 | P | | P | 13 33 58.4 | -0.9 | | |
| | comp=Z,1.4nm,0.5s,baz=151,slow=7.4,SNR=46 | | | | | | | | | |
| YKA | | | | PcP | | PcP | 13 35 17.3 | -0.4 | | |
| | comp=Z,0.2nm,0.4s,baz=151,slow=3.8,SNR=4.6 | | | | | | | | | |
| SFJD | Kangerlussuaq | 58.72 | 18 | LR | | LR | 14 00 46.5 | | | |
| | comp=Z,226nm,18.5s,baz=69,slow=36 | | | | | | | | | |
| ILAR | Eielson Array | 61.89 | 337 | P | | P | 13 35 23.9 | +0.3 | | |
| | comp=Z,1.9nm,0.6s,baz=124,slow=6.0,SNR=36 | | | | | | | | | |
| ILAR | | | | PcP | | PcP | 13 36 03.5 | -0.1 | | |
| | comp=Z,0.6nm,0.6s,baz=128,slow=1.6,SNR=5.2 | | | | | | | | | |
| RAR | Rarotonga | 75.33 | 243 | LR | | LR | 14 00 46.1 | | | |
| | comp=Z,137nm,21.6s,baz=262,slow=28 | | | | | | | | | |
| ESDC | Sonseca Array | 79.36 | 52 | P | | P | 13 37 06.4 | -3.9 | | |
| | comp=Z,0.2nm,0.5s,baz=279,slow=7.6,SNR=3.4 | | | | | | | | | |
| ARCES | ARCESS Array B | 85.35 | 18 | P | | P | 13 37 38.4 | -2.3 | | |
| | comp=Z,8.1nm,1.1s,baz=273,slow=3.4,SNR=3.3 | | | | | | | | | |
| KSRS | Korea Array | 115.63 | 325 | PKP | | PKPdf | 13 43 46.4 | +0.4 | | |
| | comp=Z,0.9nm,0.6s,baz=3.8,slow=2.1,SNR=4.5 | | | | | | | | | |
| KSAR | Wonju Array Be | 115.66 | 325 | PKP | | PKPdf | 13 43 46.4 | +0.3 | | |
| MKAR | Makanchi Array | 118.37 | 4 | PKP | | PKPdf | 13 43 48.9 | -2.2 | | |
| | comp=Z,0.2nm,0.6s,baz=11,slow=2.2,SNR=2.7 | | | | | | | | | |
| WMQ | Urumqi | 121.54 | 0 | P | | PKPdf | 13 43 58.5 | +1.2 | | |
| KSH | Kashi | 124.74 | 11 | ePKP | | PKPdf | 13 44 08.0 | +4.3 | | |
| KSH | | | | sPKP | | | 13 44 45.3 | | | |
| KSH | | | | PP | | PP | 13 45 59.3 | +8.6 | | |
| KSH | | | | PKS | | PKSdf | 13 47 43.5 | +3.1 | | |
| KSH | | | | SKS | | SKSdf | 13 51 08.8 | +1.7 | | |
| KSH | | | | SKKS | | SKKSac | 13 52 40.3 | -1.2 | | |
| KSH | Kashi | 124.74 | 11 | SS | | SS | 14 02 40.8 | +4.0 | | |
| KSH | | | | AMB | | AMB | | | | |
| | comp=Z,110nm,5.9s | | | | | | | | | |
| KSH | | | | LR | | LR | | | | |
| | comp=N,120nm,4.8s | | | | | | | | | |
| KSH | | | | LR | | LR | | | | |
| | comp=E,120nm,4.3s | | | | | | | | | |
| KSH | | | | LR | | LR | | | | |
| | comp=Z,640nm,7.6s | | | | | | | | | |
| LZH | Lanzhou | 127.02 | 344 | ePKP | | PKPdf | 13 44 10.5 | +2.3 | | |
| LZH | | | | pPKP | | pPKPdf | 13 44 39.3 | +4.3 | | |
| LZH | | | | sPKP | | | 13 44 52.5 | | | |
| LZH | | | | LR | | LR | | | | |
| | comp=N,65nm,18.3s | | | | | | | | | |
| LZH | | | | LR | | LR | | | | |
| | comp=E,76nm,17.9s | | | | | | | | | |
| LZH | | | | LR | | LR | | | | |
| | comp=Z,110nm,20.0s | | | | | | | | | |
| WRA | Warramunga Arr | 135.35 | 257 | PKP | | PKPdf | 13 44 22.8 | -1.3 | | |
| | comp=Z,0.3nm,0.8s,baz=84,slow=3.1,SNR=2.6 | | | | | | | | | |
| ASAR | Alice Springs | 135.71 | 251 | PKP | | PKPdf | 13 44 22.7 | -2.0 | | |
| | comp=Z,0.2nm,0.8s,baz=90,slow=2.9,SNR=3.0 | | | | | | | | | |
| CMAR | Chiang Mai Arr | 145.03 | 341 | PKPbc | | PKPbc | 13 44 40.8 | -0.3 | | |
| | comp=Z,3.6nm,0.6s,baz=334,slow=3.4,SNR=19 | | | | | | | | | |

*IDC **25** 13:40:27.5±1.5, 43.39S×172.76E, h0km, mb3.6/2, mb1 3.9/3, mb1mx3.6/31, mbtmp3.7/3, ML3.8/1, Error ellipse: s-maj=46.0km s-min=15.7km az=159.0*
*NEIC **25** 13:40:28.8±0.0, 43.50S×172.83E, h13km, ML4.1(WEL), After WEL.*
*NEIC Felt at Christchurch.*
*WEL **25** 13:40:29.3±0.2, 43.47S×172.79E, h8km±1km, ML4.0/62, Mw3.7, Error ellipse: s-maj=2.1km s-min=1.0km az=90.0*
*WEL Felt in the Canterbury region, maximum reported intensity MM 4.*

**ISC 25 13:40:28.2±1.0, 43.52S±0.04×172.91E±0.04, h15km±7km, n167,σ1.05/167, 6C-4D, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| CRLZ | Canterbury Las | 0.21 | 255 | P* | | Pg | 13 40 33.0 | 0.0 |
| CRLZ | Canterbury Las | 0.21 | 255 | ⇑PG | | Pg | 13 40 33.0 | 0.0 |
| CRLZ | | | | SG | | Sg | 13 40 35.7 | -0.6 |
| CRLZ | | | | AML | | AML | 13 40 36.0 | |
| MQZ | McQueen's Vall | 0.26 | 224 | P* | | Pg | 13 40 34.4 | +0.6 |
| MQZ | McQueen's Vall | 0.26 | 224 | PG | | Pg | 13 40 34.4 | +0.6 |
| MQZ | | | | SG | | Sg | 13 40 38.2 | +0.6 |
| MQZ | | | | AML | | AML | 13 40 38.5 | |
| OXZ | Oxford | 0.66 | 287 | P* | | Pg | 13 40 40.5 | -0.7 |
| OXZ | Oxford | 0.66 | 287 | P* | | Pg | 13 40 40.4 | -0.7 |
| OXZ | | | | S* | | Sg | 13 40 48.4 | -1.4 |
| OXZ | | | | AML | | AML | 13 40 49.6 | |
| OXZ | | | | AML | | AML | 13 40 50.4 | |
| LTZ | Lake Taylor | 0.87 | 327 | P* | | Pb | 13 40 44.9 | -0.2 |
| LTZ | Lake Taylor | 0.87 | 327 | ⇑P* | | Pb | 13 40 44.8 | -0.2 |
| LTZ | | | | eS* | | Sb | 13 40 56.4 | -0.1 |
| KHZ | Kahutara | 1.20 | 23 | P* | | Pb | 13 40 50.2 | -0.3 |
| KHZ | Kahutara | 1.20 | 23 | ⇑P* | | Pb | 13 40 50.2 | -0.3 |
| KHZ | | | | AML | | AML | 13 41 07.3 | |
| KHZ | | | | AML | | AML | 13 41 07.3 | |
| KHZ | | | | AML | | AML | 13 41 16.0 | |
| KHZ | | | | AML | | AML | 13 41 16.0 | |
| INZ | Inchbonnie | 1.33 | 306 | P* | | Pn | 13 40 51.4 | -0.9 |
| RPZ | Rata Peaks | 1.36 | 261 | Pg | | Pn | 13 40 51.9 | -0.8 |
| | 116nm,0.3s,baz=91,slow=3.2,SNR=356 | | | | | | | |
| RPZ | | | | Lg | | Lg | 13 41 08.4 | |
| | 148nm,0.3s,baz=180,slow=8.1,SNR=18 | | | | | | | |
| RPZ | Rata Peaks | 1.36 | 261 | P* | | Pn | 13 40 52.0 | -0.8 |
| RPZ | | | | AML | | AML | 13 41 11.4 | |
| RPZ | | | | AML | | AML | 13 41 16.5 | |
| WVZ | Waitaha Valley | 1.65 | 285 | Pn | | Pn | 13 40 56.1 | -0.5 |
| WVZ | Waitaha Valley | 1.65 | 285 | ⇓PN | | Pn | 13 40 56.1 | -0.5 |
| WVZ | | | | AML | | AML | 13 41 23.2 | |
| WVZ | | | | AML | | AML | 13 41 25.8 | |
| THZ | Tophouse | 1.75 | 360 | Pn | | Pn | 13 40 58.2 | +0.1 |
| THZ | Tophouse | 1.75 | 360 | ⇑PN | | Pn | 13 40 58.2 | +0.1 |
| THZ | | | | AML | | AML | 13 41 22.5 | |
| THZ | | | | AML | | AML | 13 41 24.1 | |
| BSWZ | Blackbirch Sta | 1.94 | 22 | Pn | | Pn | 13 41 01.2 | +0.6 |
| BSWZ | Blackbirch Sta | 1.94 | 22 | PN | | Pn | 13 41 01.2 | +0.6 |
| BSWZ | | | | AML | | AML | 13 41 27.2 | |
| BSWZ | | | | AML | | AML | 13 41 46.9 | |
| DSZ | Denniston Nort | 1.95 | 335 | Pn | | Pn | 13 41 00.6 | -0.2 |
| DSZ | Denniston Nort | 1.95 | 335 | ⇓PN | | Pn | 13 41 00.6 | -0.2 |
| DSZ | | | | AML | | AML | 13 41 39.6 | |
| DSZ | | | | AML | | AML | 13 41 39.6 | |
| DSZ | | | | AML | | AML | 13 41 41.2 | |
| DSZ | | | | AML | | AML | 13 41 41.2 | |
| CMWZ | Cape Campbell | 2.01 | 29 | AML | | AML | 13 41 35.1 | |
| CMWZ | | | | AML | | AML | 13 41 37.1 | |
| LBZ | L

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| MSWZ | Moikau Station | 2.72 | 40 | PN | Pn | 13 41 11.1 | -0.3 | |
| MSWZ | | | | AML | AML | 13 41 43.8 | | |
| MSWZ | | | | AML | AML | 13 41 45.4 | | |
| DUWZ | D'Urville Isla | 2.82 | 16 | Pn | Pn | 13 41 13.3 | +0.5 | |
| DUWZ | D'Urville Isla | 2.82 | 16 | PN | Pn | 13 41 13.3 | +0.5 | |
| DUWZ | | | | AML | AML | 13 41 56.0 | | |
| DUWZ | | | | AML | AML | 13 42 03.1 | | |
| HHSZ | Highcliff Hill | 2.88 | 214 | Pn | Pn | 13 41 13.9 | +0.3 | |
| HHSZ | Highcliff Hill | 2.88 | 214 | ⇑PN | Pn | 13 41 13.9 | +0.3 | |
| HHSZ | | | | AML | AML | 13 42 09.2 | | |
| HHSZ | | | | AML | AML | 13 42 10.0 | | |
| CAW | Cannon Point | 2.89 | 34 | Pn | Pn | 13 41 13.6 | -0.2 | |
| CAW | Cannon Point | 2.89 | 34 | PN | Pn | 13 41 13.5 | -0.2 | |
| CAW | | | | AML | AML | 13 41 50.4 | | |
| CAW | | | | AML | AML | 13 41 51.6 | | |
| TRWZ | Traveller | 2.95 | 45 | Pn | Pn | 13 41 14.3 | -0.3 | |
| TRWZ | Traveller | 2.95 | 45 | PN | Pn | 13 41 14.3 | -0.3 | |
| TRWZ | | | | AML | AML | 13 41 50.7 | | |
| TRWZ | | | | AML | AML | 13 41 53.5 | | |
| JCZ | Jackson Bay | 3.04 | 258 | Pn | Pn | 13 41 15.8 | +0.1 | |
| JCZ | Jackson Bay | 3.04 | 258 | PN | Pn | 13 41 15.8 | +0.1 | |
| JCZ | | | | AML | AML | 13 42 16.6 | | |
| JCZ | | | | AML | AML | 13 42 17.5 | | |
| KIW | Kapiti Island | 3.04 | 30 | Pn | Pn | 13 41 16.0 | +0.2 | |
| KIW | Kapiti Island | 3.04 | 30 | PN | Pn | 13 41 16.0 | +0.2 | |
| KIW | | | | AML | AML | 13 41 57.6 | | |
| KIW | | | | AML | AML | 13 42 03.5 | | |
| MTW | Mount Morrison | 3.04 | 40 | Pn | Pn | 13 41 15.3 | -0.5 | |
| MTW | Mount Morrison | 3.04 | 40 | ⇓PN | Pn | 13 41 15.3 | -0.5 | |
| MTW | | | | AML | AML | 13 41 51.4 | | |
| MTW | | | | AML | AML | 13 41 55.3 | | |
| WKZ | Wanaka | 3.09 | 244 | Pn | Pn | 13 41 16.3 | -0.2 | |
| WKZ | Wanaka | 3.09 | 244 | PN | Pn | 13 41 16.3 | -0.2 | |
| WKZ | | | | AML | AML | 13 42 16.7 | | |
| WKZ | | | | AML | AML | 13 42 26.4 | | |
| EAZ | Earnscleugh | 3.10 | 235 | Pn | Pn | 13 41 16.5 | -0.1 | |
| EAZ | Earnscleugh | 3.10 | 235 | ⇓PN | Pn | 13 41 16.5 | -0.1 | |
| EAZ | | | | AML | AML | 13 42 13.4 | | |
| EAZ | | | | AML | AML | 13 42 13.4 | | |
| EAZ | | | | AML | AML | 13 42 16.0 | | |
| EAZ | | | | AML | AML | 13 42 16.0 | | |
| OGWZ | Otaki Gorge | 3.18 | 33 | Pn | Pn | 13 41 17.5 | -0.2 | |
| OGWZ | Otaki Gorge | 3.18 | 33 | PN | Pn | 13 41 17.5 | -0.2 | |
| OGWZ | | | | AML | AML | 13 41 57.8 | | |
| OGWZ | | | | AML | AML | 13 41 57.9 | | |
| HOWZ | Holdsworth Sta | 3.26 | 37 | Pn | Pn | 13 41 18.6 | -0.2 | |
| HOWZ | Holdsworth Sta | 3.26 | 37 | PN | Pn | 13 41 18.5 | -0.2 | |
| HOWZ | | | | AML | AML | 13 41 56.9 | | |
| HOWZ | | | | AML | AML | 13 42 00.1 | | |
| TMWZ | Te Maipa | 3.27 | 44 | Pn | Pn | 13 41 18.5 | -0.5 | |
| TMWZ | Te Maipa | 3.27 | 44 | PN | Pn | 13 41 18.5 | -0.5 | |
| TMWZ | | | | AML | AML | 13 42 02.2 | | |
| TMWZ | | | | AML | AML | 13 42 03.0 | | |
| TUZ | Tuapeka | 3.37 | 223 | Pn | Pn | 13 41 20.6 | +0.3 | |
| TUZ | Tuapeka | 3.37 | 223 | PN | Pn | 13 41 20.6 | +0.3 | |
| TUZ | | | | AML | AML | 13 42 24.8 | | |
| TUZ | | | | AML | AML | 13 42 24.8 | | |
| TUZ | | | | AML | AML | 13 42 26.0 | | |
| TUZ | | | | AML | AML | 13 42 26.1 | | |
| MRZ | Mangatainoka R | 3.48 | 36 | Pn | Pn | 13 41 21.1 | -0.7 | |
| MRZ | Mangatainoka R | 3.48 | 36 | PN | Pn | 13 41 21.1 | -0.7 | |
| MRZ | | | | AML | AML | 13 42 05.3 | | |
| MRZ | | | | AML | AML | 13 42 07.3 | | |
| TIWZ | Tintock | 3.52 | 40 | Pn | Pn | 13 41 21.5 | -0.9 | |
| TIWZ | Tintock | 3.52 | 40 | PN | Pn | 13 41 21.5 | -0.9 | |
| TIWZ | | | | AML | AML | 13 42 05.9 | | |
| TIWZ | | | | AML | AML | 13 42 07.4 | | |
| PRWZ | Pori Road | 3.74 | 39 | Pn | Pn | 13 41 24.8 | -0.6 | |
| PRWZ | Pori Road | 3.74 | 39 | AML | AML | 13 42 12.0 | | |
| PRWZ | | | | AML | AML | 13 42 13.6 | | |
| BFZ | Birch Farm | 3.77 | 42 | Pn | Pn | 13 41 24.9 | -0.9 | |
| BFZ | Birch Farm | 3.77 | 42 | PN | Pn | 13 41 24.9 | -0.9 | |
| BFZ | | | | AML | AML | 13 42 20.9 | | |
| BFZ | | | | AML | AML | 13 42 20.9 | | |
| POWZ | Post Office Ro | 3.78 | 35 | Pn | Pn | 13 41 26.0 | 0.0 | |
| POWZ | Post Office Ro | 3.78 | 35 | PN | Pn | 13 41 26.0 | 0.0 | |
| POWZ | | | | AML | AML | 13 42 22.1 | | |
| POWZ | | | | AML | AML | 13 42 25.3 | | |
| MLZ | Mavora Lakes | 3.90 | 240 | Pn | Pn | 13 41 27.2 | -0.4 | |
| MLZ | Mavora Lakes | 3.90 | 240 | PN | Pn | 13 41 27.2 | -0.4 | |
| MLZ | | | | AML | AML | 13 42 41.2 | | |
| MLZ | | | | AML | AML | 13 42 47.5 | | |
| SYZ | Scrubby Hill | 4.03 | 220 | Pn | Pn | 13 41 29.8 | +0.5 | |
| SYZ | Scrubby Hill | 4.03 | 220 | PN | Pn | 13 41 29.8 | +0.5 | |
| SYZ | | | | AML | AML | 13 42 42.4 | | |
| SYZ | | | | AML | AML | 13 42 54.5 | | |
| DVHZ | Dannevirke | 4.03 | 38 | AML | AML | 13 42 17.4 | | |
| DVHZ | | | | AML | AML | 13 42 22.5 | | |
| ANWZ | Angora Road | 4.05 | 42 | PN | Pn | 13 41 28.7 | -0.9 | |
| ANWZ | | | | AML | AML | 13 42 20.7 | | |
| ANWZ | | | | AML | AML | 13 42 23.5 | | |
| WAZ | Wanganui | 4.07 | 23 | Pn | Pn | 13 41 32.4 | +2.4 | |
| WAZ | Wanganui | 4.07 | 23 | PN | Pn | 13 41 32.4 | +2.4 | |
| TSZ | Takapari Road | 4.14 | 34 | Pn | Pn | 13 41 30.0 | -1.0 | |
| TSZ | Takapari Road | 4.14 | 34 | PN | Pn | 13 41 30.0 | -1.0 | |
| TSZ | | | | AML | AML | 13 42 20.2 | | |
| NMEZ | Namu Road | 4.17 | 10 | Pn | Pn | 13 41 33.5 | +2.3 | |
| NMEZ | Namu Road | 4.17 | 10 | PN | Pn | 13 41 33.5 | +2.3 | |
| LREZ | Lake Rotokare | 4.21 | 16 | Pn | Pn | 13 41 34.5 | +2.8 | |
| LREZ | | | | AML | AML | 13 42 27.5 | | |
| LREZ | | | | AML | AML | 13 42 33.2 | | |
| WHZ | Wether Hill Ro | 4.26 | 234 | Pn | Pn | 13 41 31.6 | -0.9 | |
| WHZ | Wether Hill Ro | 4.26 | 234 | PN | Pn | 13 41 31.6 | -0.9 | |
| WHZ | | | | AML | AML | 13 42 54.9 | | |
| WHZ | | | | AML | AML | 13 42 57.5 | | |
| PREZ | Palmer Road | 4.28 | 13 | Pn | Pn | 13 41 34.7 | +1.9 | |
| PREZ | Palmer Road | 4.28 | 13 | PN | Pn | 13 41 34.7 | +1.9 | |
| PREZ | | | | AML | AML | 13 42 28.7 | | |
| PREZ | | | | AML | AML | 13 42 32.5 | | |
| PRHZ | Porangahau | 4.28 | 42 | Pn | Pn | 13 41 31.8 | -1.0 | |
| PRHZ | Porangahau | 4.28 | 42 | PN | Pn | 13 41 31.8 | -1.0 | |
| PRHZ | | | | AML | AML | 13 42 34.0 | | |
| PRHZ | | | | AML | AML | 13 42 35.5 | | |
| KHEZ | Kahui Hut | 4.30 | 12 | Pn | Pn | 13 41 35.5 | +2.3 | |
| KHEZ | Kahui Hut | 4.30 | 12 | PN | Pn | 13 41 35.5 | +2.3 | |
| NEZ | North Egmont | 4.34 | 12 | Pn | Pn | 13 41 35.3 | +1.6 | |
| NEZ | North Egmont | 4.34 | 12 | PN | Pn | 13 41 35.3 | +1.6 | |
| WPHZ | Waipukurau | 4.35 | 39 | AML | AML | 13 42 33.8 | | |
| WPHZ | | | | AML | AML | 13 42 36.9 | | |
| PNHZ | Pukenui | 4.36 | 35 | Pn | Pn | 13 41 33.2 | -0.8 | |
| PNHZ | Pukenui | 4.36 | 35 | PN | Pn | 13 41 33.2 | -0.8 | |
| PNHZ | | | | AML | AML | 13 42 27.4 | | |
| PNHZ | | | | AML | AML | 13 42 28.0 | | |
| PKE | Pukeiti | 4.40 | 11 | Pn | Pn | 13 41 36.4 | +2.0 | |
| PKE | Pukeiti | 4.40 | 11 | PN | Pn | 13 41 36.4 | +2.0 | |
| PKE | | | | AML | AML | 13 42 30.8 | | |
| PKE | | | | AML | AML | 13 42 32.8 | | |
| DREZ | Durham Road | 4.43 | 13 | Pn | Pn | 13 41 36.8 | +1.8 | |
| DREZ | Durham Road | 4.43 | 13 | PN | Pn | 13 41 36.8 | +1.8 | |
| DCZ | Deep Cove | 4.55 | 243 | Pn | Pn | 13 41 36.4 | -0.2 | |
| DCZ | Deep Cove | 4.55 | 243 | PN | Pn | 13 41 36.3 | -0.2 | |
| DCZ | | | | AML | AML | 13 42 58.8 | | |
| DCZ | | | | AML | AML | 13 43 00.6 | | |
| MTVZ | Mangateitei | 4.56 | 26 | Pn | Pn | 13 41 38.6 | +2.0 | |
| MTVZ | Mangateitei | 4.56 | 26 | PN | Pn | 13 41 38.6 | +2.0 | |
| MTVZ | | | | AML | AML | 13 42 34.2 | | |
| MTVZ | | | | AML | AML | 13 42 36.9 | | |
| PXZ | Pawanui | 4.57 | 42 | Pn | Pn | 13 41 35.4 | -1.4 | |
| PXZ | Pawanui | 4.57 | 42 | PN | Pn | 13 41 35.4 | -1.4 | |
| PKVZ | Pokaka | 4.61 | 24 | Pn | Pn | 13 41 38.9 | +1.6 | |
| PKVZ | Pokaka | 4.61 | 24 | PN | Pn | 13 41 38.9 | +1.6 | |
| VRZ | Vera Road | 4.61 | 18 | PN | Pn | 13 41 38.5 | +1.3 | |
| VRZ | | | | AML | AML | 13 42 37.8 | | |
| WNVZ | Wahianoa | 4.65 | 27 | Pn | Pn | 13 41 39.2 | +1.1 | |
| WNVZ | Wahianoa | 4.65 | 27 | PN | Pn | 13 41 39.2 | +1.1 | |
| TRVZ | Turoa | 4.66 | 26 | Pn | Pn | 13 41 39.2 | +1.0 | |
| TRVZ | Turoa | 4.66 | 26 | PN | Pn | 13 41 39.2 | +1.0 | |
| TRVZ | | | | AML | AML | 13 42 35.0 | | |
| TRVZ | | | | AML | AML | 13 42 35.8 | | |
| TUVZ | Tukino | 4.72 | 27 | Pn | Pn | 13 41 40.7 | +1.7 | |
| TUVZ | Tukino | 4.72 | 27 | PN | Pn | 13 41 40.7 | +1.7 | |
| KAHZ | Kahuranaki | 4.76 | 40 | Pn | Pn | 13 41 38.1 | -1.4 | |
| KAHZ | Kahuranaki | 4.76 | 40 | PN | Pn | 13 41 38.1 | -1.4 | |
| NGZ | Ngauruhoe | 4.79 | 26 | Pn | Pn | 13 41 41.0 | +1.1 | |
| NGZ | Ngauruhoe | 4.79 | 26 | PN | Pn | 13 41 41.0 | +1.1 | |
| APZ | The Paps | 4.80 | 225 | Pn | Pn | 13 41 40.2 | +0.2 | |
| APZ | The Paps | 4.80 | 225 | PN | Pn | 13 41 40.2 | +0.2 | |
| OTVZ | Oturere | 4.82 | 26 | Pn | Pn | 13 41 40.8 | +0.4 | |
| OTVZ | Oturere | 4.82 | 26 | PN | Pn | 13 41 40.8 | +0.4 | |
| OTVZ | | | | AML | AML | 13 43 26.1 | | |
| TWVZ | Taurewa | 4.83 | 24 | Pn | Pn | 13 41 41.5 | +1.0 | |
| TWVZ | Taurewa | 4.83 | 24 | PN | Pn | 13 41 41.5 | +1.0 | |
| WTVZ | West Tongariro | 4.84 | 26 | Pn | Pn | 13 41 40.8 | +0.2 | |
| WTVZ | West Tongariro | 4.84 | 26 | PN | Pn | 13 41 40.8 | +0.2 | |
| WTVZ | | | | AML | AML | 13 42 52.0 | | |
| WTVZ | | | | AML | AML | 13 43 13.7 | | |
| MCHZ | McNeill Hill | 4.97 | 36 | Pn | Pn | 13 41 42.0 | -0.2 | |
| MCHZ | McNeill Hill | 4.97 | 36 | PN | Pn | 13 41 42.0 | -0.2 | |
| BKZ | Black Stump Fm | 5.12 | 33 | Pn | Pn | 13 41 43.8 | -0.6 | |
| BKZ | Black Stump Fm | 5.12 | 33 | PN | Pn | 13 41 43.8 | -0.6 | |
| HIZ | Hauiti | 5.21 | 17 | Pn | Pn | 13 41 46.3 | +0.7 | |
| HIZ | Hauiti | 5.21 | 17 | PN | Pn | 13 41 46.3 | +0.7 | |
| NMHZ | Naumai | 5.30 | 35 | Pn | Pn | 13 41 46.9 | 0.0 | |
| NMHZ | Naumai | 5.30 | 35 | PN | Pn | 13 41 46.9 | 0.0 | |
| NMHZ | | | | AML | AML | 13 42 57.2 | | |
| NMHZ | | | | AML | AML | 13 42 58.6 | | |
| WHHZ | Waihua | 5.50 | 38 | PN | Pn | 13 41 48.9 | -0.7 | |
| TLZ | Tolley Road | 5.55 | 22 | AML | AML | 13 42 56.9 | | |
| KNZ | Kokohu | 5.75 | 40 | Pn | Pn | 13 41 51.5 | -1.5 | |
| KNZ | Kokohu | 5.75 | 40 | PN | Pn | 13 41 51.5 | -1.5 | |
| RTZ | Ruatahuna | 5.78 | 34 | ePN | Pn | 13 41 51.7 | -1.9 | |
| SNGZ | Shannon Statio | 5.79 | 37 | Pn | Pn | 13 41 52.7 | -1.0 | |
| RIGZ | Rimuhau | 6.04 | 39 | PN | Pn | 13 41 55.8 | -1.3 | |
| RIGZ | | | | AML | AML | 13 43 11.5 | | |
| RIGZ | | | | AML | AML | 13 43 13.9 | | |
| RAGZ | Rawiri | 6.07 | 36 | PN | Pn | 13 41 56.2 | -1.2 | |
| RAGZ | | | | AML | AML | 13 43 11.4 | | |
| RAGZ | | | | AML | AML | 13 43 12.7 | | |
| TOZ | Tahuroa Road | 6.11 | 20 | PN | Pn | 13 41 57.9 | -0.1 | |
| URZ | Urewera | 6.14 | 33 | Pn | Pn | 13 41 56.7 | -1.7 | |
| | 2.4nm,0.3s,baz=216,slow=14,SNR=15 | | | | | | | |
| URZ | | | | Sn | Sn | 13 43 05.2 | -3.1 | |
| | 4.1nm,0.3s,baz=82,slow=20,SNR=9.2 | | | | | | | |
| URZ | Urewera | 6.14 | 33 | PN | Pn | 13 41 57.0 | -1.4 | |
| MWZ | Matawai | 6.25 | 36 | PN | Pn | 13 41 57.9 | -2.0 | |
| AWAZ | Awhitu Peninsu | 6.58 | 12 | PN | Pn | 13 42 05.3 | +0.9 | |
| RUGZ | Raukumara Rang | 6.62 | 35 | PN | Pn | 13 42 04.2 | -0.9 | |
| ETAZ | East Tamaki Re | 6.74 | 14 | PN | Pn | 13 42 07.4 | +0.9 | |
| RVAZ | Riverhead Bore | 6.86 | 11 | PN | Pn | 13 42 09.2 | +0.9 | |
| WMGZ | Waiomatatini S | 7.07 | 38 | PN | Pn | 13 42 08.9 | -2.2 | |
| CTZ | Chatham Island | 7.61 | 95 | ePN | Pn | 13 42 18.2 | -0.3 | |
| ASAR | Alice Springs | 37.61 | 289 | P | P | 13 47 42.9 | +0.5 | |
| | 0.5nm,0.7s,baz=128,slow=7.7,SNR=11 | | | | | | | |
| WRA | Warramunga Arr | 39.85 | 294 | P | P | 13 48 01.8 | +0.6 | |
| | 1.1nm,0.9s,baz=132,slow=7.8,SNR=12 | | | | | | | |
| YKA | Yellowknife Ar | 120.40 | 31 | PKP | PKPdf | 13 59 20.0 | +2.3 | |
| | 0.1nm,0.7s,baz=266,slow=1.7,SNR=3.3 | | | | | | | |
| TORD | Torodi Ar. Bea | 148.80 | 197 | PKPbc | PKPbc | 14 00 16.3 | +0.9 | |
| | 0.2nm,0.4s,baz=193,slow=3.3,SNR=2.8 | | | | | | | |

*ISCJB **25** 14:03:19.8±0.6, 37.43N±0.05×72.41E±0.08, h200km, mb3.6/4, Error ellipse: s-maj=9.0km s-min=6.6km az=168.4*

*IDC **25** 14:03:22.6±5.4, 37.59N×72.38E, h197km±33km, mb3.4/4, mb1 3.3/10, mb1mx2.9/50, mbtmp3.8/10, MS3.7/1, Ms1 3.7/1, ms1mx3.0/35, Error ellipse: s-maj=57.6km s-min=25.2km az=160.0*

*NNC **25** 14:03:24.8±1.2, 37.82N×72.18E, h189km±10km, mb2.6, mpv3.9, Error ellipse: s-maj=13.6km s-min=9.1km az=55.0*

**ISC 25 14:03:20.6±0.8, 37.48N±0.06×72.29E±0.06, h200km, n28, σ1§87/36, mb3.7/4, 10C-3D, Tajikistan**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| SFK | Sufi-Kurgan | 2.70 | 20 | ⇑P | Pn | 14 04 07.2 | +0.3 |
| | 30nm,0.3s | | | | | | |
| SFK | | | | ⇑S | Sn | 14 04 41.1 | -2.2 |
| | 50nm,0.5s | | | | | | |
| DZET | Dzherino | 3.04 | 297 | ⇑P | Pn | 14 04 10.2 | -0.5 |
| | 21nm,0.4s | | | | | | |
| DZET | | | | ⇑S | Sn | 14 04 45.7 | -4.2 |
| | 92nm,0.4s | | | | | | |
| AML | Almayashu | 4.77 | 13 | P | Pn | 14 04 32.6 | +0.2 |
| | SNR=48 | | | | | | |
| MNAS | Manas | 5.00 | 2 | ⇑P | Pn | 14 04 35.4 | +0.3 |
| | 17nm,0.3s | | | | | | |
| MNAS | | | | ⇓S | Sn | 14 05 29.8 | -4.1 |
| | 9.1nm,0.5s | | | | | | |
| UCH | Uchtor | 5.04 | 19 | P | Pn | 14 04 35.9 | +0.1 |
| | SNR=24 | | | | | | |
| KZA | Kyzart | 5.13 | 25 | P | Pn | 14 04 36.8 | -0.1 |
| | SNR=6.5 | | | | | | |
| EKS2 | Erkin-Say | 5.30 | 12 | P | Pn | 14 04 39.4 | +0.6 |
| | SNR=16 | | | | | | |
| AAK | Ala-Archa | 5.42 | 17 | P | Pn | 14 04 41.2 | +0.8 |
| | 5.7nm,0.3s,baz=192,slow=4.2,SNR=62 | | | | | | |
| AAK | | | | S | Sn | 14 05 42.6 | -1.0 |
| | 0.5nm,0.3s,baz=127,slow=18,SNR=6.6 | | | | | | |
| AAK | Ala-Archa | 5.42 | 17 | ⇑P | Pn | 14 04 41.0 | +0.5 |
| | 11nm,0.5s | | | | | | |
| AAK | | | | ⇑S | Sn | 14 05 41.6 | -2.0 |
| | 10nm,1.1s | | | | | | |
| AAK | Ala-Archa | 5.42 | 17 | P | Pn | 14 04 41.4 | +0.9 |
| | SNR=24 | | | | | | |
| KBK | Karagaybulak | 5.56 | 21 | P | Pn | 14 04 43.6 | +1.4 |
| | SNR=8.5 | | | | | | |
| THN | Thein Dam | 5.76 | 150 | eP | Pn | 14 04 44.0 | -0.8 |
| THN | | | | eS | Sn | 14 05 47.0 | -4.4 |
| KK31 | Karatay Array | 5.78 | 347 | P | Pn | 14 04 44.7 | -0.2 |
| | 3.3nm,0.4s,baz=156,slow=11,SNR=81 | | | | | | |
| KK31 | | | | ⇑S | Sn | 14 05 47.6 | -4.1 |
| | 4.6nm,0.3s,baz=165,slow=22,SNR=13 | | | | | | |
| CHMS | Chumysh | 5.83 | 18 | P | Pn | 14 04 46.0 | +0.5 |
| | SNR=9.5 | | | | | | |
| TKM2 | Tokmak 2 | 6.00 | 24 | ⇑P | Pn | 14 04 48.2 | +0.3 |
| | 5.2nm,0.7s | | | | | | |
| TKM2 | Tokmak 2 | 6.00 | 24 | P | Pn | 14 04 49.3 | +1.4 |
| | SNR=6.7 | | | | | | |
| USP | Ospenovka | 6.02 | 16 | P | Pn | 14 04 47.8 | -0.3 |
| | SNR=5.6 | | | | | | |
| MKAR | Makanchi Array | 11.89 | 35 | P | Pn | 14 06 03.8 | -0.2 |
| | 0.0nm,0.3s,baz=210,slow=12,SNR=3.1 | | | | | | |
| KURBB | Kurchatov Arra | 13.88 | 17 | P | P | 14 06 30.3 | -0.5 |
| | 0.0nm,0.3s,baz=201,slow=10,SNR=4.5 | | | | | | |
| AB31 | Akbulak array | 14.78 | 327 | ⇓P | P | 14 06 41.5 | +0.7 |
| | 0.2nm,0.3s,baz=143,slow=12,SNR=12 | | | | | | |
| AB31 | | | | ⇑S | S | 14 09 21.4 | -2.6 |
| | 0.3nm,0.3s,baz=143,slow=25,SNR=4.5 | | | | | | |
| BVAR | Borovoye Array | 15.60 | 356 | P | P | 14 06 49.7 | -0.2 |
| | 0.1nm,0.3s,baz=163,slow=11,SNR=5.2 | | | | | | |
| BVAR | | | | LR | LR | 14 13 54.0 | |
| | comp=Z,278nm,20.0s,baz=266,slow=41 | | | | | | |
| AKTO | Aktyubinsk | 16.50 | 326 | P | Pn | 14 07 02.0 | +1.4 |
| | 0.2nm,0.3s,baz=120,slow=12,SNR=4.4 | | | | | | |
| ZAA0 | Zalesovo Array | 18.60 | 24 | ⇓P | P | 14 07 23.5 | +0.9 |
| | 0.4nm,0.8s | | | | | | |
| ZALV | Zalesovo Beam | 18.60 | 24 | P | Pn | 14 07 24.0 | -1.3 |
| | 0.4nm,0.3s,baz=227,slow=11,SNR=11 | | | | | | |
| BRTR | Keskin Array B | 30.14 | 286 | P | P | 14 09 14.5 | +2.7 |
| | 0.7nm,0.9s,baz=74,slow=9.5,SNR=2.7 | | | | | | |
| FINES | FINESS Array B | 37.26 | 325 | P | P | 14 10 14.1 | +1.4 |
| | 7.8nm,1.2s,baz=104,slow=14,SNR=2.7 | | | | | | |
| ARCES | ARCESS Array B | 40.64 | 337 | P | P | 14 10 42.3 | +1.6 |
| | 4.6nm,0.8s,baz=110,slow=7.8,SNR=4.0 | | | | | | |
| YKA | Yellowknife Ar | 80.22 | 3 | P | P | 14 15 10.0 | +1.7 |
| | 0.3nm,0.4s,baz=349,slow=5.5,SNR=11 | | | | | | |

*CSEM **25** 14:05:32.5±0.2, 38.48N×43.21E, h23km±2km, MD2.7, Error ellipse: s-maj=5.7km s-min=4.5km az=86.0*

*ISK **25** 14:05:32.6, 38.48N×43.22E, h27km, MD2.7*

*ISCJB **25** 14:05:34.4±0.5, 38.57N±0.03×43.21E±0.05, h23km±5km, Error ellipse: s-maj=6.6km s-min=5.1km az=28.1*

*DDA **25** 14:05:34.7, 38.64N×43.19E, h8km, Ml2.6*

**ISC 25 14:05:34.2±0.8, 38.59N±0.02×43.25E±0.03, h20km±4km, n31, σ2§08/50, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| VANB | Van | 0.11 | 85 | ePG | Pg | 14 05 38.3 | -0.1 |
| VANB | | | | eSG | Sg | 14 05 42.7 | +1.5 |
| VANB | Van | 0.11 | 85 | ePg | Pg | 14 05 38.3 | -0.1 |
| VANB | | | | eSg | Sg | 14 05 42.7 | +1.5 |
| TVAN | Van | 0.14 | 114 | iP | Pg | 14 05 38.8 | 0.0 |
| TVAN | | | | iS | Sg | 14 05 42.7 | +0.9 |
| TVAN | Van | 0.14 | 114 | P | Pg | 14 05 38.8 | 0.0 |
| TVAN | | | | S | Sg | 14 05 42.7 | +0.9 |
| GEVA | Gevas | 0.31 | 208 | iP | Pb | 14 05 40.9 | -0.3 |
| GEVA | | | | iS | Sn | 14 05 47.3 | -2.6 |
| ADCV | BITLIS_Adilcev | 0.46 | 299 | iP | Pg | 14 05 42.5 | -1.3 |
| ADCV | | | | iS | Sg | 14 05 49.8 | -0.5 |
| ADCV | | | | P | Pg | 14 05 42.5 | -1.3 |
| ADCV | | | | S | Sg | 14 05 49.8 | -0.5 |
| VMUR | Van-Muradiye | 0.48 | 32 | iP | Pg | 14 05 43.8 | -0.2 |
| VMUR | | | | iS | Sb | 14 05 51.9 | +1.2 |
| VMUR | Van-Muradiye | 0.48 | 32 | P | Pg | 14 05 43.8 | -0.2 |
| VMUR | | | | S | Sb | 14 05 51.9 | +1.2 |
| CLDR | Caldiran | 0.76 | 43 | iP | Pg | 14 05 49.8 | +0.5 |
| CLDR | | | | iS | Sg | 14 06 00.6 | +1.1 |
| TUTA | Tutak | 0.88 | 338 | iP | Pb | 14 05 49.6 | -1.3 |
| TUTA | | | | iS | Sb | 14 06 02.6 | +0.2 |
| TUTA | Tutak | 0.88 | 338 | P | Pb | 14 05 49.6 | -1.3 |
| TUTA | | | | S | Sb | 14 06 02.6 | +0.2 |
| AGRB | Hanur-Agry | 1.01 | 349 | ePN | Pb | 14 05 52.8 | -0.3 |
| AGRB | | | | eSN | Sb | 14 06 07.2 | +1.2 |
| AGRB | Hanur-Agry | 1.01 | 349 | ePn | Pb | 14 05 52.8 | -0.3 |
| AGRB | | | | eSn | Sb | 14 06 07.2 | +1.2 |
| HAKT | HAKKARI | 1.09 | 160 | iP | Pg | 14 05 55.5 | +0.1 |
| HAKT | | | | iS | Sg | 14 06 17.0 | +7.3 |
| HAKT | HAKKARI | 1.09 | 160 | P | Pg | 14 05 55.5 | +0.1 |
| EKAR | Karacoban | 1.14 | 306 | iP | Pn | 14 05 55.0 | -0.2 |
| EKAR | | | | iS | Sg | 14 06 15.2 | +3.9 |
| EKAR | Karacoban | 1.14 | 306 | P | Pn | 14 05 55.0 | -0.2 |
| SRTM | Siirt_Merkez | 1.20 | 241 | iP | Pg | 14 05 58.5 | +1.1 |
| SRTM | | | | iS | Sg | 14 06 20.2 | +7.1 |
| SIRT | Sirnak | 1.26 | 211 | ePN | Pn | 14 05 53.8 | -2.9 |
| SIRT | Sirnak | 1.26 | 211 | ePn | Pn | 14 05 53.8 | -2.9 |
| CUKT | Cukurca | 1.37 | 168 | ePN | Pn | 14 05 54.7 | -3.5 |
| CUKT | Cukurca | 1.37 | 168 | ePn | Pn | 14 05 54.7 | -3.5 |
| EATA | Eleskirt | 1.40 | 336 | iP | Pn | 14 05 58.9 | 0.0 |
| EATA | | | | iS | Sb | 14 06 18.8 | +1.3 |
| EATA | Eleskirt | 1.40 | 336 | P | Pn | 14 05 58.9 | 0.0 |
| EATA | | | | S | Sb | 14 06 18.8 | +1.3 |
| TASB | TASBURUN-IGDIR | 1.59 | 29 | ePN | Pn | 14 06 00.7 | -0.6 |
| TASB | TASBURUN-IGDIR | 1.59 | 29 | ePn | Pn | 14 06 00.7 | -0.6 |
| ERZM | Erzurum | 1.97 | 313 | iP | Pb | 14 06 09.2 | -0.3 |
| ERZM | Erzurum | 1.97 | 313 | P | Pb | 14 06 09.2 | -0.3 |
| BNGB | Bing¶ll | 2.05 | 282 | ePN | Pn | 14 06 06.9 | -0.7 |
| BINT | Bingol | 2.17 | 278 | ePn | Pn | 14 06 06.9 | -2.5 |

*NIED **25** 14:07:00, 37.30N×141.20E, h35km, Mw3.8 Best double couple: M0 5.95000×10^14 NP1:φs355.00000°, δ12.00000°, λ-133.00000°. NP2:φs218.00000°, δ82.00000°, λ-82.00000°.*

*JMA **25** 14:07:10.5±0.1, 37.29N×141.16E, h35km±1km, M4.0*

*JMA Felt II J1.*

*IDC **25** 14:07:15.0±2.3, 37.22N×140.99E, h75km±20km, mb3.5/15, mb1 3.6/19, mb1mx3.5/45, mbtmp3.8/19, Error ellipse: s-maj=21.3km s-min=13.7km az=73.0*

**ISC 25 14:07:07.9±1.4, 37.29N±0.03×141.27E±0.05, h17km±8km, n37, σ1§35/44, mb3.8/16, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| JFK | Kawauchi | 0.33 | 284 | P | Pn | 14 07 17.4 | -0.5 |
| JFK | | | | S | Sb | 14 07 22.1 | +1.8 |
| ONAJ | Iwakimizuishiy | 0.42 | 244 | P | Pn | 14 07 18.7 | -0.5 |
| ONAJ | | | | iS | Sb | 14 07 24.3 | +1.3 |
| JMM | Marumori | 0.69 | 327 | P | Pn | 14 07 22.7 | -0.2 |
| JMM | | | | S | Sb | 14 07 31.5 | +0.8 |
| JFT | Otama | 0.78 | 287 | P | Pn | 14 07 24.3 | +0.2 |
| JFT | | | | S | Sg | 14 07 33.8 | +0.4 |
| JHO | Hitachi | 0.88 | 220 | P | Pn | 14 07 24.9 | -0.6 |
| JHO | | | | eS | Sg | 14 07 35.5 | -1.1 |
| JSB | Shiboa | 1.13 | 254 | P | Pg | 14 07 29.8 | +0.2 |
| JSB | | | | S | Sb | 14 07 44.1 | +0.8 |
| JIO | Ouri | 1.17 | 3 | P | Pg | 14 07 30.3 | -0.1 |
| JIO | | | | eS | Sn | 14 07 44.6 | -0.3 |
| JOU | Okura | 1.18 | 336 | P | Pg | 14 07 30.6 | 0.0 |
| JOU | | | | S | Sn | 14 07 46.0 | +0.7 |
| JFY | Yanaizu | 1.25 | 276 | P | Pb | 14 07 31.1 | 0.0 |
| JFY | | | | S | Sb | 14 07 46.2 | -0.8 |
| JYS | Shirataka | 1.33 | 315 | P | Pg | 14 07 32.8 | -0.8 |
| JYS | | | | S | Sn | 14 07 49.8 | +0.7 |
| MJAR | Matsushiro Arr | 2.56 | 254 | P | Pn | 14 07 50.2 | +1.5 |
| | 7.5nm,0.3s,baz=77,slow=15,SNR=37 | | | | | | |
| MJAR | | | | S | Sn | 14 08 22.5 | +3.0 |
| | 8.7nm,0.3s,baz=156,slow=10,SNR=6.4 | | | | | | |
| JHJ | Hachijo jima 2 | 4.33 | 197 | P | Pn | 14 08 15.7 | +2.7 |
| | 8.1nm,0.3s,baz=73,slow=18,SNR=3.5 | | | | | | |
| JHJ | | | | S | Sn | 14 09 02.1 | -1.1 |
| | 29nm,0.3s,baz=286,slow=18,SNR=3.5 | | | | | | |
| ASAJ | Asahikawa | 6.89 | 8 | P | Pn | 14 08 49.4 | +1.3 |
| | 0.9nm,0.3s,baz=225,slow=11,SNR=10 | | | | | | |
| ASAJ | | | | S | Sn | 14 10 09.1 | +2.9 |
| | 0.1nm,0.3s,baz=254,slow=18,SNR=1.8 | | | | | | |
| USRK | Ussuriysk Ar. | 9.86 | 317 | P | Pn | 14 09 34.4 | +5.6 |
| | 0.2nm,0.3s,baz=129,slow=15,SNR=4.1 | | | | | | |
| KSRS | Korea Array | 10.63 | 275 | P | Pn | 14 09 42.6 | +3.3 |
| | 0.1nm,0.3s,baz=91,slow=14,SNR=2.8 | | | | | | |
| GUMO | Guam | 23.82 | 171 | P | P | 14 12 21.7 | +1.7 |
| | 23n

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **W35A** | **Tecumseh** | **0.39** | **235** | P | **Pg** | **14 10 48.2** | **+0.6** |
| | baz=49,SNR=413 | | | | | | | |
| W35A | | | | S | **Sg** | **14 10 53.4** | **+0.7** |
| | baz=49 | | | | | | | |
| **W35A** | **Tecumseh** | **0.39** | **235** | *e*Pg | **Pg** | **14 10 48.2** | **+0.6** |
| **V35A** | **Meyer Ranch, C** | **0.48** | **323** | P | **Pg** | **14 10 49.6** | **+0.2** |
| | baz=146,SNR=652 | | | | | | | |
| V35A | | | | S | **Sg** | **14 10 56.1** | **+0.5** |
| | baz=146 | | | | | | | |
| **V35A** | **Meyer Ranch, C** | **0.48** | **323** | *e*Pg | **Pg** | **14 10 49.9** | **+0.5** |
| **V36A** | **Jenks** | **0.60** | **47** | P | **Pb** | **14 10 53.0** | **-0.5** |
| | baz=231,SNR=808 | | | | | | | |
| V36A | | | | S | **Sb** | **14 11 01.1** | **-1.3** |
| | baz=231 | | | | | | | |
| **V36A** | **Jenks** | **0.60** | **47** | *e*Pg | **Pb** | **14 10 53.0** | **-0.5** |
| **OK002** | **Wilshire Harra** | **0.60** | **287** | *e*Pg | **Pg** | **14 10 52.3** | **+0.5** |
| **OK001** | **Jones High Sch** | **0.68** | **286** | *e*Pg | **Pg** | **14 10 52.4** | **-0.9** |
| **TUL1** | **Leonard** | **0.78** | **47** | P | **Pb** | **14 10 56.2** | **-0.2** |
| | baz=230,SNR=611 | | | | | | | |
| TUL1 | | | | S | **Sb** | **14 11 06.5** | **-0.9** |
| | baz=230 | | | | | | | |
| **TUL1** | **Leonard** | **0.78** | **47** | *e*Pg | **Pb** | **14 10 56.2** | **-0.2** |
| **X36A** | **Centrahoma** | **0.81** | **172** | P | **Pb** | **14 10 56.9** | **-0.1** |
| | baz=350,SNR=386 | | | | | | | |
| X36A | | | | S | **Sb** | **14 11 08.5** | **+0.1** |
| | baz=350 | | | | | | | |
| **W37B** | **Quinton** | **0.90** | **105** | P | **Pn** | **14 10 58.8** | **-0.9** |
| | baz=286,SNR=688 | | | | | | | |
| W37B | | | | S | **Sn** | **14 11 12.0** | **-1.3** |
| | baz=286 | | | | | | | |
| **W37B** | **Quinton** | **0.90** | **105** | *e*Pg | **Pn** | **14 10 58.9** | **-0.9** |
| **U35A** | **Pawnee** | **1.01** | **349** | P | **Pg** | **14 10 59.2** | **-0.4** |
| | baz=170,SNR=575 | | | | | | | |
| U35A | | | | S | **Sg** | **14 11 13.1** | **+0.3** |
| | baz=170 | | | | | | | |
| **U35A** | **Pawnee** | **1.01** | **349** | *e*Pg | **Pg** | **14 10 59.2** | **-0.4** |
| **X35A** | **Drake** | **1.05** | **202** | P | **Pb** | **14 11 00.4** | **-0.7** |
| | baz=20,SNR=1000 | | | | | | | |
| X35A | | | | S | **Sb** | **14 11 14.6** | **-0.8** |
| | baz=20 | | | | | | | |
| **X35A** | **Drake** | **1.05** | **202** | *e*Pg | **Pb** | **14 11 00.6** | **-0.6** |
| **U36A** | **Oologah** | **1.18** | **31** | P | **Pg** | **14 11 02.9** | **0.0** |
| | baz=213,SNR=77 | | | | | | | |
| U36A | | | | S | **Sb** | **14 11 19.1** | **0.0** |
| | baz=213 | | | | | | | |
| **V37A** | **Hulbert** | **1.21** | **65** | P | **Pn** | **14 11 03.9** | **-0.1** |
| | baz=247,SNR=1000 | | | | | | | |
| V37A | | | | S | **Sn** | **14 11 20.2** | **-0.8** |
| | baz=247 | | | | | | | |
| **X37A** | **Clayton** | **1.21** | **130** | P | **Pn** | **14 11 04.7** | **+0.6** |
| | baz=311 | | | | | | | |
| X37A | | | | S | **Sn** | **14 11 21.8** | **+0.9** |
| | baz=311 | | | | | | | |
| **X37A** | **Clayton** | **1.21** | **130** | *e*Pg | **Pn** | **14 11 04.8** | **+0.8** |
| **Y36A** | **Durant** | **1.48** | **174** | P | **Pg** | **14 11 08.2** | **-0.4** |
| | baz=352,SNR=198 | | | | | | | |
| Y36A | | | | S | **Sn** | **14 11 29.0** | **+1.2** |
| | baz=352 | | | | | | | |
| **U37A** | **Salina** | **1.51** | **47** | P | **Pb** | **14 11 08.7** | **-0.2** |
| | baz=229,SNR=363 | | | | | | | |
| U37A | | | | S | **Sg** | **14 11 29.6** | **+0.8** |
| | baz=229 | | | | | | | |
| **X38A** | **Whitesboro** | **1.53** | **117** | Pb | **Pg** | **14 11 10.0** | **+0.5** |
| | baz=298,SNR=665 | | | | | | | |
| X38A | | | | Sb | **Sg** | **14 11 31.6** | **+2.1** |
| | baz=298 | | | | | | | |
| **T35A** | **Sooner Cattle** | **1.54** | **359** | P | **Pn** | **14 11 08.3** | **-0.3** |
| | baz=181,SNR=511 | | | | | | | |
| T35A | | | | S | **Sn** | **14 11 29.0** | **-0.2** |
| | baz=181 | | | | | | | |
| **Y35A** | **Marietta** | **1.54** | **197** | Pb | **Pg** | **14 11 09.6** | **0.0** |
| | baz=15,SNR=232 | | | | | | | |
| Y35A | | | | Sb | **Sg** | **14 11 30.8** | **+1.3** |
| | baz=15 | | | | | | | |
| **Y37A** | **Hugo** | **1.57** | **153** | Pb | **Pg** | **14 11 10.7** | **+0.5** |
| | baz=332,SNR=174 | | | | | | | |
| Y37A | | | | Sb | **Sg** | **14 11 33.0** | **+2.5** |
| | baz=332 | | | | | | | |
| **W38A** | **Poteau** | **1.64** | **100** | Pb | **Pg** | **14 11 11.8** | **+0.2** |
| | baz=282,SNR=441 | | | | | | | |
| W38A | | | | Sb | **Sg** | **14 11 34.8** | **+1.9** |
| | baz=282 | | | | | | | |
| **T34A** | **McClaskey Farm** | **1.74** | **341** | P | **Pn** | **14 11 11.5** | **+0.1** |
| | baz=162,SNR=136 | | | | | | | |
| **T36A** | **Boggs Farm, Ca** | **1.75** | **16** | P | **Pn** | **14 11 11.9** | **+0.4** |
| | baz=198,SNR=745 | | | | | | | |
| **V38A** | **Canehill** | **1.76** | **73** | P | **Pb** | **14 11 13.1** | **-0.1** |
| | baz=256,SNR=752 | | | | | | | |
| **WMOK** | **Wichita Mounta** | **1.99** | **252** | P | **Pn** | **14 11 15.3** | **+0.5** |
| | baz=70,SNR=739 | | | | | | | |
| **WMOK** | **Wichita Mounta** | **1.99** | **252** | *e*Pn | **Pn** | **14 11 15.3** | **+0.5** |
| **U38A** | **Gravette** | **2.01** | **58** | P | **Pb** | **14 11 16.3** | **-1.1** |
| | baz=240 | | | | | | | |
| **Y38A** | **Idabel** | **2.04** | **134** | P | **Pg** | **14 11 18.1** | **-1.3** |
| | baz=315 | | | | | | | |
| **Z36A** | **Blue Ridge** | **2.10** | **179** | P | **Pb** | **14 11 17.7** | **-1.2** |
| | baz=358 | | | | | | | |
| **X39A** | **Fountain Ranch** | **2.13** | **113** | P | **Pb** | **14 11 18.6** | **-0.9** |
| | baz=295 | | | | | | | |
| **T37A** | **Cheneyville 18** | **2.15** | **36** | P | **Pb** | **14 11 18.9** | **-1.0** |
| | baz=218 | | | | | | | |
| **W39A** | **Magazine** | **2.22** | **94** | P | **Pb** | **14 11 19.6** | **-1.4** |
| | baz=276 | | | | | | | |
| **HHAR** | **Hobbs** | **2.26** | **66** | *e*Pn | **Pb** | **14 11 19.9** | **-1.8** |
| **U32A** | **Winter Ranch,** | **2.27** | **297** | P | **Pn** | **14 11 19.3** | **+0.5** |
| | baz=115 | | | | | | | |
| **Z37A** | **Pogue Cattle C** | **2.29** | **162** | P | **Pn** | **14 11 19.9** | **+1.0** |
| | baz=341 | | | | | | | |
| **S35A** | **Otter Creek Ra** | **2.30** | **3** | P | **Pn** | **14 11 20.0** | **+0.8** |
| | baz=184 | | | | | | | |
| **V39A** | **Pettigrew** | **2.36** | **78** | P | **Pb** | **14 11 21.4** | **-2.0** |
| | baz=260 | | | | | | | |
| **S34A** | **Willow Spring** | **2.37** | **348** | P | **Pn** | **14 11 20.7** | **+0.6** |
| | baz=168 | | | | | | | |
| **T38A** | **Diamond** | **2.43** | **46** | P | **Pb** | **14 11 23.3** | **-1.2** |
| | baz=228 | | | | | | | |
| **Y39A** | **Lockesburg** | **2.44** | **125** | P | **Pb** | **14 11 23.3** | **-1.5** |
| | baz=307 | | | | | | | |
| **S36A** | **Lake Cedric, C** | **2.45** | **17** | P | **Pn** | **14 11 22.4** | **+1.2** |
| | baz=198 | | | | | | | |
| **Z38A** | **Mt. Pleasant** | **2.45** | **149** | P | **Pb** | **14 11 22.9** | **-2.0** |
| | baz=330 | | | | | | | |
| **MIAR** | **Mount Ida** | **2.53** | **108** | P | **Pb** | **14 11 24.4** | **-1.9** |
| | baz=290 | | | | | | | |
| **MIAR** | **Mount Ida** | **2.53** | **108** | *e*Pn | **Pb** | **14 11 24.0** | **-2.2** |
| **U39A** | **Green Forest** | **2.64** | **67** | P | **Pn** | **14 11 25.1** | **+1.3** |
| | baz=249 | | | | | | | |
| **S37A** | **Fort Scott** | **2.73** | **29** | P | **Pb** | **14 11 27.6** | **-2.1** |
| | baz=211 | | | | | | | |
| **W40A** | **Ferguson Farm,** | **2.80** | **93** | P | **Pn** | **14 11 28.0** | **+2.0** |
| | baz=275 | | | | | | | |
| **W40A** | **Ferguson Farm,** | **2.80** | **93** | *e*Pn | **Pn** | **14 11 27.6** | **+1.6** |
| **137A** | **Heron Place, G** | **2.84** | **167** | P | **Pn** | **14 11 27.8** | **+1.3** |
| | baz=347 | | | | | | | |
| **Z39A** | **Irene McRaven,** | **2.86** | **138** | P | **Pb** | **14 11 29.3** | **-2.6** |
| | baz=319 | | | | | | | |
| **136A** | **Ennis** | **2.90** | **181** | P | **Pn** | **14 11 27.9** | **+0.6** |
| | baz=360 | | | | | | | |
| **138A** | **Matatall Enter** | **2.95** | **156** | P | **Pn** | **14 11 29.1** | **+1.1** |
| | baz=337 | | | | | | | |
| 138A | | | | Sb | **Sg** | **14 12 13.8** | **-1.1** |
| | baz=337 | | | | | | | |
| **R35A** | **Emporia Munici** | **2.95** | **4** | P | **Pn** | **14 11 28.7** | **+0.6** |
| | baz=185 | | | | | | | |
| **Y40A** | **Okolona** | **2.97** | **116** | P | **Pn** | **14 11 29.7** | **+1.4** |
| | baz=298 | | | | | | | |
| Y40A | | | | Sb | **Sg** | **14 12 14.5** | **-1.2** |
| | baz=298 | | | | | | | |
| **R34A** | **Isabella, Hill** | **2.98** | **348** | P | **Pn** | **14 11 28.4** | **0.0** |
| | baz=169 | | | | | | | |
| R34A | | | | Sb | **Sb** | **14 12 13.4** | **+2.5** |
| | baz=169 | | | | | | | |
| **T39A** | **Clever** | **3.00** | **56** | P | **Pn** | **14 11 28.9** | **+0.1** |
| | baz=238 | | | | | | | |
| T39A | | | | Sb | **Sb** | **14 12 13.9** | **+2.4** |
| | baz=238 | | | | | | | |
| **V40A** | **Witts Springs** | **3.02** | **81** | P | **Pn** | **14 11 30.6** | **+1.6** |
| | baz=263 | | | | | | | |
| **R36A** | **Gordon, Harris** | **3.04** | **15** | P | **Pn** | **14 11 29.7** | **+0.4** |
| | baz=196 | | | | | | | |
| R36A | | | | Sb | **Sb** | **14 12 14.8** | **+2.1** |
| | baz=196 | | | | | | | |
| **S38A** | **Stockton** | **3.06** | **42** | P | **Pn** | **14 11 30.8** | **+1.2** |
| | baz=224 | | | | | | | |
| **U40A** | **Yellville** | **3.11** | **71** | P | **Pn** | **14 11 31.4** | **+1.2** |
| | baz=253 | | | | | | | |
| **X301** | **Greenbrier Sit** | **3.34** | **91** | *e*Pn | **Pn** | **14 11 35.1** | **+1.7** |
| **WHAR** | **Wooly Hollow** | **3.43** | **90** | *e*Pn | **Pn** | **14 11 36.2** | **+1.6** |
| **UALR** | **University of** | **3.45** | **99** | *e*Pn | **Pn** | **14 11 37.0** | **+2.1** |
| **KSU1** | **Kansas State U** | **3.72** | **359** | *e*Pn | **Pn** | **14 11 38.7** | **+0.1** |
| **NATX** | **Nacogdoches** | **3.92** | **157** | *e*Pn | **Pn** | **14 11 43.0** | **+1.6** |
| **CCAR** | **Cane Creek** | **4.15** | **109** | *e*Pn | **Pn** | **14 11 45.4** | **+0.8** |
| **AMTX** | **Amarillo** | **4.29** | **265** | *e*Pn | **Pn** | **14 11 47.0** | **+0.5** |
| **CBKS** | **Cedar Bluff** | **4.30** | **324** | *e*Pn | **Pn** | **14 11 46.9** | **+0.2** |
| **CCM** | **Cathedral Cave** | **4.99** | **56** | *e*Pn | **Pn** | **14 11 56.2** | **+0.2** |
| **GNAR** | **Gosnell** | **5.30** | **82** | *e*Pn | **Pn** | **14 12 00.7** | **+0.4** |
| **MSTX** | **Muleshoe** | **5.37** | **257** | *e*Pn | **Pn** | **14 12 01.0** | **-0.3** |
| **FVM** | **French Village** | **5.52** | **60** | *e*Pn | **Pn** | **14 12 03.8** | **+0.4** |
| **JCT** | **Junction City** | **5.62** | **211** | *e*Pn | **Pn** | **14 12 04.2** | **-0.6** |
| **OXF** | **Oxford** | **5.88** | **96** | *e*Pn | **Pn** | **14 12 09.0** | **+0.8** |
| **BGNE** | **Belgrade** | **6.16** | **348** | *e*Pn | **Pn** | **14 12 11.3** | **-0.9** |
| **SIUC** | **Southern Illin** | **6.30** | **66** | *e*Pn | **Pn** | **14 12 14.5** | **+0.5** |
| **SCIA** | **State Center** | **7.00** | **20** | *e*Pn | **Pn** | **14 12 23.8** | **+0.1** |
| **OGNE** | **Ogallala** | **7.07** | **323** | *e*Pn | **Pn** | **14 12 24.4** | **-0.3** |
| OGNE | | | | *e*Sg | **Sg** | **14 14 21.5** | **-5.7** |
| **SDCO** | **Great Sand Dun** | **7.63** | **291** | *e*Pn | **Pn** | **14 12 32.6** | **0.0** |
| **HDIL** | **Hopedale** | **7.68** | **46** | *e*Pn | **Pn** | **14 12 35.0** | **+2.0** |
| | 92nm,0.6s | | | | | | | |
| **ANMO** | **Albuquerque** | **8.18** | **270** | *e*Pn | **Pn** | **14 12 40.4** | **+0.3** |
| | 2.9nm,0.8s | | | | | | | |
| **MNTX** | **Cornudas Mount** | **8.28** | **246** | *e*Pn | **Pn** | **14 12 40.7** | **-0.6** |
| **ECSD** | **EROS Data Cent** | **8.35** | **359** | *e*Pn | **Pn** | **14 12 41.2** | **-0.9** |
| **ISCO** | **Idaho Springs** | **8.48** | **304** | *e*Pn | **Pn** | **14 12 44.4** | **+0.1** |
| **TXAR** | **Lajitas Array** | **8.55** | **227** | Pn | **Pn** | **14 12 46.2** | **+1.1** |
| | 0.2nm,0.3s,baz=48,slow=12,SNR=30 | | | | | | | |
| TXAR | | | | Pg | Pg | 14 13 16.0 | -8.0 | |
| | 0.9nm,0.3s,baz=52,slow=15,SNR=10.0 | | | | | | | |
| TXAR | | | | Lg | Lg | 14 15 07.5 | | |
| | 1.7nm,0.3s,baz=62,slow=24,SNR=6.3 | | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **8.55** | **227** | *e*Pn | **Pn** | **14 12 45.6** | **+0.5** |
| **PDAR** | **Pinedale Array** | **12.55** | **310** | Pn | **Pn** | **14 13 38.5** | **-1.4** |
| | 0.1nm,0.3s,baz=117,slow=15,SNR=3.3 | | | | | | | |
| PDAR | | | | Lg | Lg | 14 17 15.4 | | |
| | 0.2nm,0.3s,baz=127,slow=16,SNR=4.4 | | | | | | | |
| **ULM** | **Lac du Bonnet** | **14.87** | **2** | Pn | Pn | 14 14 06.0 | -5.3 | |
| | 0.3nm,0.3s,baz=180,slow=12,SNR=8.9 | | | | | | | |
| ULM | | | | Sn | Sn | 14 16 43.2 | -13 | |
| | 0.2nm,0.3s,baz=205,slow=14,SNR=2.4 | | | | | | | |
| ULM | | | | Lg | Lg | 14 18 28.9 | | |
| | 0.4nm,0.3s,baz=98,slow=18,SNR=4.7 | | | | | | | |

*IDC **25** 14:29:04.2±1.5, 43°.32S×172°.91E, h0km, mb3.6/2, mb1 3.9/2, mb1mx3.6/24, mbtmp3.6/2, Error ellipse: s-maj=103.4km s-min=38.0km az=25.0*
*NEIC Felt in the Christchurch area.*
*WEL **25** 14:29:05.5±0.0, 43°.49S×172°.81E, h12km, ML4.1(WEL), After WEL.*
*NEIC Felt in the Christchurch area.*
*WEL **25** 14:29:05.4±0.2, 43°.47S×172°.82E, h10km, ML4.1/53, Mw3.9, Error ellipse: s-maj=1.7km s-min=0.9km az=90.0*
*WEL Felt in the Canterbury region, maximum reported intensity MM 5.*

**ISC 25 14:29:04.8±1.1, 43°.52S±0°.04×172°.90E±0°.04, h10km±8km, n137,σ1°10/129, 3C-5D, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.21** | **255** | P* | **Pg** | **14 29 09.5** | **+0.4** |
| **CRLZ** | **Canterbury Las** | **0.21** | **255** | PG | **Pg** | **14 29 09.5** | **+0.4** |
| CRLZ | | | | SG | **Sg** | **14 29 11.8** | **-0.3** |
| CRLZ | | | | AML | AML | 14 29 12.4 | |
| CRLZ | | | | AML | AML | 14 29 12.4 | |
| CRLZ | | | | AML | AML | 14 29 12.8 | |
| **MQZ** | **McQueen's Vall** | **0.26** | **224** | P* | **Pg** | **14 29 10.8** | **+0.8** |
| **MQZ** | **McQueen's Vall** | **0.26** | **224** | PG | **Pg** | **14 29 10.8** | **+0.8** |
| MQZ | | | | SG | **Sg** | **14 29 14.1** | **+0.5** |
| MQZ | | | | AML | AML | 14 29 14.8 | |
| **OXZ** | **Oxford** | **0.66** | **287** | P* | **Pg** | **14 29 17.0** | **-0.4** |
| **OXZ** | **Oxford** | **0.66** | **287** | P* | **Pg** | **14 29 17.0** | **-0.4** |
| OXZ | | | | S* | **Sg** | **14 29 25.2** | **-0.9** |
| OXZ | | | | AML | AML | 14 29 27.4 | |
| OXZ | | | | AML | AML | 14 29 27.6 | |
| OXZ | | | | AML | AML | 14 29 27.6 | |
| **KHZ** | **Kahutara** | **1.20** | **23** | P* | **Pb** | **14 29 26.9** | **-0.7** |
| **KHZ** | **Kahutara** | **1.20** | **23** | P* | **Pb** | **14 29 26.8** | **-0.7** |
| KHZ | | | | AML | AML | 14 29 43.6 | |
| KHZ | | | | AML | AML | 14 29 43.6 | |
| KHZ | | | | AML | AML | 14 29 44.0 | |
| KHZ | | | | AML | AML | 14 29 44.0 | |
| **INZ** | **Inchbonnie** | **1.33** | **306** | P* | **Pn** | **14 29 27.9** | **-1.4** |
| **RPZ** | **Rata Peaks** | **1.35** | **261** | Pn | **Pn** | **14 29 28.6** | **-1.2** |
| **RPZ** | **Rata Peaks** | **1.35** | **261** | ⇓PN | **Pn** | **14 29 28.6** | **-1.2** |
| RPZ | | | | AML | AML | 14 29 47.9 | |
| RPZ | | | | AML | AML | 14 29 53.4 | |
| **WVZ** | **Waitaha Valley** | **1.64** | **285** | Pn | **Pn** | **14 29 32.8** | **-0.8** |
| **WVZ** | **Waitaha Valley** | **1.64** | **285** | PN | **Pn** | **14 29 32.8** | **-0.8** |
| WVZ | | | | AML | AML | 14 30 00.2 | |
| WVZ | | | | AML | AML | 14 30 02.1 | |
| **THZ** | **Tophouse** | **1.76** | **0** | PN | **Pn** | **14 29 34.7** | **-0.6** |
| THZ | | | | AML | AML | 14 30 01.2 | |
| THZ | | | | AML | AML | 14 30 06.0 | |
| **BSWZ** | **Blackbirch Sta** | **1.94** | **22** | Pn | **Pn** | **14 29 37.8** | **0.0** |
| **BSWZ** | **Blackbirch Sta** | **1.94** | **22** | ⇑PN | **Pn** | **14 29 37.8** | **0.0** |
| BSWZ | | | | AML | AML | 14 30 03.9 | |
| BSWZ | | | | AML | AML | 14 30 21.9 | |
| **DSZ** | **Denniston Nort** | **1.95** | **335** | Pn | **Pn** | **14 29 37.4** | **-0.5** |
| **DSZ** | **Denniston Nort** | **1.95** | **335** | PN | **Pn** | **14 29 37.4** | **-0.5** |
| DSZ | | | | AML | AML | 14 30 05.3 | |
| DSZ | | | | AML | AML | 14 30 05.3 | |
| DSZ | | | | AML | AML | 14 30 15.8 | |
| DSZ | | | | AML | AML | 14 30 15.9 | |
| **CMWZ** | **Cape Campbell** | **2.02** | **29** | *e*PN | **Pn** | **14 29 39.0** | **+0.2** |
| **LBZ** | **Lake Benmore** | **2.14** | **245** | Pn | **Pn** | **14 29 40.4** | **-0.2** |
| **LBZ** | **Lake Benmore** | **2.14** | **245** | PN | **Pn** | **14 29 40.4** | **-0.2** |
| LBZ | | | | AML | AML | 14 30 19.8 | |
| LBZ | | | | AML | AML | 14 30 19.8 | |
| LBZ | | | | AML | AML | 14 30 20.6 | |
| LBZ | | | | AML | AML | 14 30 21.0 | |
| **ODZ** | **Otahua Downs** | **2.22** | **226** | Pn | **Pn** | **14 29 41.2** | **-0.4** |
| **ODZ** | **Otahua Downs** | **2.22** | **226** | ⇑PN | **Pn** | **14 29 41.2** | **-0.4** |
| ODZ | | | | AML | AML | 14 30 24.0 | |
| ODZ | | | | AML | AML | 14 30 24.0 | |
| ODZ | | | | AML | AML | 14 30 25.9 | |
| ODZ | | | | AML | AML | 14 30 25.9 | |
| **TUWZ** | **Tuamarina** | **2.23** | **21** | Pn | **Pn** | **14 29 41.3** | **-0.4** |
| **TUWZ** | **Tuamarina** | **2.23** | **21** | PN | **Pn** | **14 29 41.3** | **-0.4** |
| TUWZ | | | | AML | AML | 14 30 15.6 | |
| TUWZ | | | | AML | AML | 14 30 33.0 | |
| **FOZ** | **Fox Glacier** | **2.24** | **269** | Pn | **Pn** | **14 29 42.5** | **+0.6** |
| **FOZ** | **Fox Glacier** | **2.24** | **269** | PN | **Pn** | **14 29 42.4** | **+0.6** |
| FOZ | | | | AML | AML | 14 30 24.3 | |
| FOZ | | | | AML | AML | 14 30 24.3 | |
| FOZ | | | | AML | AML | 14 30 25.4 | |
| FOZ | | | | AML | AML | 14 30 25.4 | |
| **NNZ** | **Nelson** | **2.33** | **9** | Pn | **Pn** | **14 29 43.2** | **+0.1** |
| **NNZ** | **Nelson** | **2.33** | **9** | PN | **Pn** | **14 29 43.2** | **+0.1** |
| NNZ | | | | AML | AML | 14 30 12.0 | |
| NNZ | | | | AML | AML | 14 30 12.0 | |
| **TCW** | **Tory Channel** | **2.52** | **24** | Pn | **Pn** | **14 29 45.0** | **-0.7** |
| **TCW** | **Tory Channel** | **2.52** | **24** | PN | **Pn** | **14 29 45.0** | **-0.7** |
| TCW | | | | AML | AML | 14 30 29.0 | |
| TCW | | | | AML | AML | 14 30 42.1 | |
| **BHW** | **Baring Head** | **2.57** | **35** | Pn | **Pn** | **14 29 45.6** | **-0.7** |
| **BHW** | **Baring Head** | **2.57** | **35** | PN | **Pn** | **14 29 45.6** | **-0.7** |
| BHW | | | | AML | AML | 14 30 48.8 | |
| **PLWZ** | **Palliser** | **2.61** | **43** | Pn | **Pn** | **14 29 46.2** | **-0.8** |
| **PLWZ** | **Palliser** | **2.61** | **43** | PN | **Pn** | **14 29 46.2** | **-0.8** |
| PLWZ | | | | AML | AML | 14 30 24.6 | |
| PLWZ | | | | AML | AML | 14 30 27.1 | |
| **WEL** | **Wellington** | **2.63** | **32** | Pn | **Pn** | **14 29 46.6** | **-0.6** |
| **WEL** | **Wellington** | **2.63** | **32** | PN | **Pn** | **14 29 46.6** | **-0.6** |
| WEL | | | | AML | AML | 14 30 18.1 | |
| WEL | | | | AML | AML | 14 30 18.1 | |
| **QRZ** | **Quartz Range** | **2.71** | **354** | AML | AML | 14 30 00.7 | |
| QRZ | | | | AML | AML | 14 30 00.7 | |
| QRZ | | | | AML | AML | 14 30 41.1 | |
| QRZ | | | | AML | AML | 14 30 41.1 | |
| **MSWZ** | **Moikau Station** | **2.73** | **40** | Pn | **Pn** | **14 29 47.7** | **-0.9** |
| **MSWZ** | **Moikau Station** | **2.73** | **40** | PN | **Pn** | **14 29 47.7** | **-0.9** |
| MSWZ | | | | AML | AML | 14 30 22.0 | |
| MSWZ | | | | AML | AML | 14 30 28.1 | |
| **DUWZ** | **D'Urville Isla** | **2.82** | **16** | Pn | **Pn** | **14 29 49.3** | **-0.5** |
| **DUWZ** | **D'Urville Isla** | **2.82** | **16** | PN | **Pn** | **14 29 49.3** | **-0.5** |
| DUWZ | | | | AML | AML | 14 30 32.7 | |
| DUWZ | | | | AML | AML | 14 30 37.7 | |
| **HHSZ** | **Highcliff Hill** | **2.88** | **214** | Pn | **Pn** | **14 29 50.3** | **-0.3** |
| **HHSZ** | **Highcliff Hill** | **2.88** | **214** | PN | **Pn** | **14 29 50.3** | **-0.3** |
| HHSZ | | | | AML | AML | 14 30 45.6 | |
| HHSZ | | | | AML | AML | 14 30 46.8 | |
| **CAW** | **Cannon Point** | **2.90** | **34** | Pn | **Pn** | **14 29 50.1** | **-0.8** |
| **CAW** | **Cannon Point** | **2.90** | **34** | PN | **Pn** | **14 29 50.1** | **-0.8** |
| CAW | | | | AML | AML | 14 30 29.7 | |
| CAW | | | | AML | AML | 14 30 32.6 | |
| **JCZ** | **Jackson Bay** | **3.03** | **258** | Pn | **Pn** | **14 29 52.8** | **0.0** |
| **JCZ** | **Jackson Bay** | **3.03** | **258** | ⇓PN | **Pn** | **14 29 52.8** | **0.0** |
| JCZ | | | | AML | AML | 14 30 49.7 | |
| JCZ | | | | AML | AML | 14 30 53.2 | |
| **KIW** | **Kapiti Island** | **3.05** | **30** | Pn | **Pn** | **14 29 52.5** | **-0.5** |
| **KIW** | **Kapiti Island** | **3.05** | **30** | PN | **Pn** | **14 29 52.5** | **-0.5** |
| KIW | | | | AML | AML | 14 30 34.6 | |
| **MTW** | **Mount Morrison** | **3.05** | **40** | Pn | **Pn** | **14 29 52.0** | **-1.0** |
| **MTW** | **Mount Morrison** | **3.05** | **40** | ⇓PN | **Pn** | **14 29 52.0** | **-1.0** |
| MTW | | | | AML | AML | 14 30 28.0 | |
| MTW | | | | AML | AML | 14 30 28.1 | |
| **WKZ** | **Wanaka** | **3.08** | **244** | Pn | **Pn** | **14 29 53.1** | **-0.4** |
| **WKZ** | **Wanaka** | **3.08** | **244** | PN | **Pn** | **14 29 53.1** | **-0.4** |
| WKZ | | | | AML | AML | 14 30 53.0 | |
| WKZ | | | | AML | AML | 14 30 53.2 | |
| **EAZ** | **Earnscleugh** | **3.09** | **235** | Pn | **Pn** | **14 29 53.0** | **-0.5** |
| **EAZ** | **Earnscleugh** | **3.09** | **235** | ⇑PN | **Pn** | **14 29 53.0** | **-0.5** |
| EAZ | | | | AML | AML | 14 30 50.0 | |
| EAZ | | | | AML | AML | 14 30 50.0 | |
| EAZ | | | | AML | AML | 14 30 51.0 | |
| EAZ | | | | AML | AML | 14 30 51.0 | |
| **OGWZ** | **Otaki Gorge** | **3.19** | **33** | Pn | **Pn** | **14 29 54.0** | **-0.8** |
| **OGWZ** | **Otaki Gorge** | **3.19** | **33** | PN | **Pn** | **14 29 54.0** | **-0.8** |
| OGWZ | | | | AML | AML | 14 30 30.3 | |
| OGWZ | | | | AML | AML | 14 30 34.4 | |
| **HOWZ** | **Holdsworth Sta** | **3.26** | **37** | Pn | **Pn** | **14 29 54.8** | **-1.1** |
| **HOWZ** | **Holdsworth Sta** | **3.26** | **37** | PN | **Pn** | **14 29 54.8** | **-1.1** |
| HOWZ | | | | AML | AML | 14 30 38.9 | |
| HOWZ | | | | AML | AML | 14 31 13.6 | |
| **TMWZ** | **Te Maipa** | **3.28** | **44** | AML | AML | 14 30 45.6 | |
| **TUZ** | **Tuapeka** | **3.37** | **223** | Pn | **Pn** | **14 29 57.1** | **-0.2** |
| **TUZ** | **Tuapeka** | **3.37** | **223** | PN | **Pn** | **14 29 57.1** | **-0.2** |
| TUZ | | | | AML | AML | 14 31 05.6 | |
| TUZ | | | | AML | AML | 14 31 05.6 | |
| TUZ | | | | AML | AML | 14 31 07.0 | |
| TUZ | | | | AML | AML | 14 31 07.3 | |
| **MRZ** | **Mangatainoka R** | **3.48** | **36** | AML | AML | 14 30 46.6 | |
| MRZ | | | | AML | AML | 14 31 26.3 | |
| **TIWZ** | **Tintock** | **3.53** | **40** | Pn | **Pn** | **14 29 58.3** | **-1.3** |
| **TIWZ** | **Tintock** | **3.53** | **40** | ⇓PN | **Pn** | **14 29 58.3** | **-1.3** |
| TIWZ | | | | AML | AML | 14 30 44.8 | |
| TIWZ | | | | AML | AML | 14 30 45.4 | |
| **PRWZ** | **Pori Road** | **3.74** | **39** | Pn | **Pn** | **14 30 01.4** | **-1.2** |
| **PRWZ** | **Pori Road** | **3.74** | **39** | PN | **Pn** | **14 30 01.4** | **-1.2** |
| PRWZ | | | | AML | AML | 14 30 49.8 | |
| PRWZ | | | | AML | AML | 14 30 58.8 | |
| **BFZ** | **Birch Farm** | **3.77** | **42** | Pn | **Pn** | **14 30 01.5** | **-1.5** |
| **BFZ** | **Birch Farm** | **3.77** | **42** | PN | **Pn** | **14 30 01.5** | **-1.5** |
| **POWZ** | **Post Office Ro** | **3.79** | **35** | AML | AML | 14 30 57.3 | |
| POWZ | | | | AML | AML | 14 31 16.8 | |
| **MLZ** | **Mavora Lakes** | **3.89** | **240** | Pn | **Pn** | **14 30 03.6** | **-1.0** |
| **MLZ** | **Mavora Lakes** | **3.89** | **240** | PN | **Pn** | **14 30 03.6** | **-1.0** |
| MLZ | | | | AML | AML | 14 31 20.2 | |
| MLZ | | | | AML | AML | 14 31 24.1 | |
| **SYZ** | **Scrubby Hill** | **4.03** | **220** | Pn | **Pn** | **14 30 06.5** | **+0.1** |
| **SYZ** | **Scrubby Hill** | **4.03** | **220** | PN | **Pn** | **14 30 06.5** | **+0.1** |
| SYZ | | | | AML | AML | 14 31 25.6 | |
| SYZ | | | | AML | AML | 14 31 27.5 | |
| **ANWZ** | **Angora Road** | **4.06** | **42** | PN | **Pn** | **14 30 05.3** | **-1.5** |
| ANWZ | | | | AML | AML | 14 31 03.6 | |
| ANWZ | | | | AML | AML | 14 31 04.4 | |
| **WAZ** | **Wanganui** | **4.07** | **23** | Pn | **Pn** | **14 30 09.0** | **+1.9** |
| **WAZ** | **Wanganui** | **4.07** | **23** | PN | **Pn** | **14 30 09.0** | **+1.9** |
| **TSZ** | **Takapari Road** | **4.15** | **35** | Pn | **Pn** | **14 30 06.4** | **-1.7** |
| **TSZ** | **Takapari Road** | **4.15** | **35** | PN | **Pn** | **14 30 06.4** | **-1.7** |
| **NMEZ** | **Namu Road** | **4.17** | **10** | Pn | **Pn** | **14 30 10.0** | **+1.6** |
| **NMEZ** | **Namu Road** | **4.17** | **10** | PN | **Pn** | **14 30 10.0** | **+1.6** |
| **LREZ** | **Lake Rotokare** | **4.21** | **16** | AML | AML | 14 31 22.4 | |
| LREZ | | | | AML | AML | 14 31 32.6 | |
| **WHZ** | **Wether Hill Ro** | **4.25** | **234** | Pn | **Pn** | **14 30 08.0** | **-1.6** |
| **WHZ** | **Wether Hill Ro** | **4.25** | **234** | PN | **Pn** | **14 30 08.0** | **-1.6** |
| WHZ | | | | AML | AML | 14 31 28.9 | |
| **PREZ** | **Palmer Road** | **4.28** | **13** | Pn | **Pn** | **14 30 11.4** | **+1.4** |
| **PREZ** | **Palmer Road** | **4.28** | **13** | PN | **Pn** | **14 30 11.4** | **+1.4** |
| PREZ | | | | AML | AML | 14 31 05.5 | |
| PREZ | | | | AML | AML | 14 31 10.2 | |
| **KHEZ** | **Kahui Hut** | **4.30** | **12** | Pn | **Pn** | **14 30 11.6** | **+1.3** |
| **KHEZ** | **Kahui Hut** | **4.30** | **12** | PN | **Pn** | **14 30 11.6** | **+1.3** |
| **NEZ** | **North Egmont** | **4.34** | **12** | Pn | **Pn** | **14 30 11.8** | **+1.0** |
| **NEZ** | **North Egmont** | **4.34** | **12** | PN

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ILIC** | **ilic-Erzincan** | **0.19** | **190** | *e*PG | **Pg** | **15 06 04.7** | **-0.3** |
| ILIC | | | | *e*SG | **Sg** | **15 06 07.8** | **+0.2** |
| **ILIC** | **ilic-Erzincan** | **0.19** | **190** | *e*Pg | **Pg** | **15 06 04.7** | **-0.3** |
| ILIC | | | | *e*Sg | **Sg** | **15 06 07.8** | **+0.2** |
| **REFA** | **Refahiye_ERZ˜** | **0.27** | **154** | *i* P | **Pg** | **15 06 06.9** | **+0.4** |
| REFA | | | | *i* S | **Sb** | **15 06 11.9** | **-1.3** |
| **REFA** | **Refahiye_ERZ˜** | **0.27** | **154** | P | **Pg** | **15 06 06.9** | **+0.4** |
| REFA | | | | S | **Sb** | **15 06 11.9** | **-1.3** |
| **KEMA** | **Kemaliye** | **0.38** | **194** | *i* P | **Pg** | **15 06 07.7** | **-0.9** |
| KEMA | | | | *i* S | **Sg** | **15 06 13.9** | **+0.3** |
| **KEMA** | **Kemaliye** | **0.38** | **194** | P | **Pg** | **15 06 07.7** | **-0.9** |
| KEMA | | | | S | **Sg** | **15 06 13.9** | **+0.3** |
| **SUSE** | **Susehri** | **0.65** | **331** | *i* P | **Pg** | **15 06 14.0** | **+0.3** |
| SUSE | | | | *i* S | **Sb** | **15 06 23.9** | **-0.3** |
| **SUSE** | **Susehri** | **0.65** | **331** | P | **Pg** | **15 06 14.0** | **+0.3** |
| SUSE | | | | S | **Sb** | **15 06 23.9** | **-0.3** |
| **CUZAR** | **Zara_SIVAS** | **0.69** | **291** | *i* P | **Pg** | **15 06 14.7** | **+0.1** |
| CUZAR | | | | *i* S | **Sn** | **15 06 27.6** | **-1.0** |
| **CUZAR** | **Zara_SIVAS** | **0.69** | **291** | P | **Pg** | **15 06 14.7** | **+0.1** |
| CUZAR | | | | S | **Sn** | **15 06 27.6** | **-1.0** |
| **ERZN** | **Erzincan** | **0.86** | **93** | *e*PG | **Pb** | **15 06 18.4** | **-0.1** |
| **TNCL** | **Tunceli-Merkez** | **0.89** | **126** | *i* P | **Pb** | **15 06 18.9** | **0.0** |
| TNCL | | | | *i* S | **Sb** | **15 06 31.2** | **+0.1** |
| **TNCL** | **Tunceli-Merkez** | **0.89** | **126** | P | **Pb** | **15 06 18.9** | **0.0** |
| TNCL | | | | S | **Sb** | **15 06 31.2** | **+0.1** |
| **HEKM** | **Malatya_Hekimh** | **0.91** | **214** | *i* P | **Pg** | **15 06 18.8** | **+0.1** |
| HEKM | | | | *i* S | **Sn** | **15 06 35.9** | **+1.9** |
| **HEKM** | **Malatya_Hekimh** | **0.91** | **214** | P | **Pg** | **15 06 18.8** | **+0.1** |
| **CUKAN** | **kangal_SIVAS** | **0.94** | **250** | *i* P | **Pg** | **15 06 18.2** | **-1.0** |
| CUKAN | | | | *i* S | **Sb** | **15 06 33.5** | **+0.9** |
| **CUKAN** | **kangal_SIVAS** | **0.94** | **250** | P | **Pg** | **15 06 18.2** | **-1.0** |
| CUKAN | | | | S | **Sb** | **15 06 33.5** | **+0.9** |
| **PTK** | **Pertek** | **0.96** | **141** | *e*PG | **Pg** | **15 06 19.6** | **0.0** |
| **PTK** | **Pertek** | **0.96** | **141** | *e*Pg | **Pg** | **15 06 19.6** | **0.0** |
| **MALT** | **Malatya** | **1.33** | **186** | *e*PN | **Pg** | **15 06 26.8** | **+0.1** |
| **MALT** | **Malatya** | **1.33** | **186** | *e*Pn | **Pg** | **15 06 26.8** | **+0.1** |
| **DARE** | **Darende-Malaty** | **1.38** | **220** | *e*PN | **Pg** | **15 06 28.2** | **+0.6** |
| **DARE** | **Darende-Malaty** | **1.38** | **220** | *e*Pn | **Pg** | **15 06 28.2** | **+0.6** |

**IDC 25 15:06:18.0±46.0, 23.75S×177.78W, h0km, mb3.8/3, mb1 4.0/3, mb1mx3.7/18, mbtmp3.8/3, Error ellipse: s-maj=838.1km s-min=160.5km az=87.0, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **STKA** | **Stephens Creek** | **36.67** | **248** | P | P | 15 13 25.2 | -1.4 |
| | 2.0nm,1.0s,baz=101,slow=10,SNR=3.9 | | | | | | |
| **ASAR** | **Alice Springs** | **44.07** | **260** | P | P | 15 14 28.1 | -0.1 |
| | 0.4nm,0.4s,baz=95,slow=7.6,SNR=35 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.45** | **265** | P | P | 15 14 31.8 | +0.6 |
| | 0.4nm,0.4s,baz=101,slow=7.8,SNR=20 | | | | | | |

**IDC 25 15:25:42.1±2.4, 54°32N×168°29E, h0km, mb3.3/5, mb1 3.5/6, mb1mx3.3/37, mbtmp3.3/6, ML2.7/1, Error ellipse: s-maj=88.4km s-min=19.3km az=170.0, Komandorsky Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PETK** | **Petropavlovsk-** | **6.40** | **263** | Pn | Pn | 15 27 18.5 | +0.9 |
| | 0.8nm,0.3s,baz=89,slow=18,SNR=9.3 | | | | | | |
| PETK | | | | Sn | Sn | 15 28 30.5 | -0.8 |
| | 1.6nm,0.3s,baz=204,slow=22,SNR=8.6 | | | | | | |
| **ILAR** | **Eielson Array** | **24.45** | **47** | P | P | 15 31 02.1 | -0.1 |
| | 0.8nm,0.9s,baz=257,slow=6.7,SNR=6.5 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **34.55** | **182** | T | T | 16 08 56.4 | |
| | baz=2.1,slow=76,SNR=36 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **34.56** | **182** | T | T | 16 09 00.2 | |
| | baz=2.1,slow=76,SNR=26 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **34.56** | **182** | T | T | 16 09 01.7 | |
| | baz=2.1,slow=76,SNR=24 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **35.77** | **183** | T | T | 16 10 32.3 | |
| | baz=2.0,slow=76,SNR=10 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **35.78** | **183** | T | T | 16 10 36.6 | |
| | baz=2.0,slow=76,SNR=6.5 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **35.78** | **183** | T | T | 16 10 37.4 | |
| | baz=2.0,slow=76,SNR=12 | | | | | | |
| **SONM** | **Songino Array** | **38.30** | **286** | P | P | 15 33 04.7 | +0.6 |
| | 0.4nm,0.5s,baz=65,slow=8.1,SNR=4.5 | | | | | | |
| **YKA** | **Yellowknife Ar** | **38.88** | **46** | P | P | 15 33 09.0 | +0.4 |
| | 0.2nm,0.7s,baz=291,slow=7.6,SNR=4.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **51.91** | **299** | P | P | 15 34 51.4 | -0.8 |
| | 0.3nm,0.7s,baz=49,slow=6.5,SNR=3.1 | | | | | | |
| **TXAR** | **Lajitas Array** | **65.64** | **73** | P | P | 15 36 27.7 | -0.3 |
| | 0.1nm,0.4s,baz=296,slow=4.2,SNR=4.5 | | | | | | |

*IDC 25 15:52:22.3±1.5, 25.50N×96.76E, h0km, mb3.4/4, mb1 3.4/5, mb1mx3.1/48, mbtmp3.3/5, ML3.3/1, Error ellipse: s-maj=55.9km s-min=21.0km az=74.0*
*ISCJB 25 15:52:24.8±1.0, 25.4N±0.1×96.80E±0.09, h33km, mb3.2/4, Error ellipse: s-maj=14.9km s-min=11.8km az=6.1*

**ISC 25 15:52:26.9±1.2, 25.4N±0.1×96.8E±0.1, h35km, n6, σ1$00/7, mb3.3/4, Myanmar**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SHL** | **Shillong** | **4.44** | **273** | *e*P | **Pn** | **15 53 32.0** | **0.0** |
| SHL | | | | *e*S | **Sn** | **15 54 23.0** | **+0.4** |
| **CMAR** | **Chiang Mai Arr** | **7.22** | **164** | Pn | **Pn** | **15 54 10.0** | **0.0** |
| | 0.1nm,0.3s,baz=340,slow=12,SNR=3.4 | | | | | | |
| CMAR | | | | Lg | Lg | 15 56 14.6 | |
| | 0.2nm,0.3s,baz=344,slow=27,SNR=4.0 | | | | | | |
| **SONM** | **Songino Array** | **23.61** | **16** | P | **P** | **15 57 35.2** | **+0.5** |
| | 0.2nm,0.4s,baz=210,slow=11,SNR=5.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **24.25** | **335** | P | **P** | **15 57 40.3** | **-0.3** |
| | 0.6nm,0.5s,baz=141,slow=8.3,SNR=16 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **28.82** | **336** | P | **P** | **15 58 19.9** | **-1.7** |
| | 0.2nm,0.5s,baz=142,slow=9.7,SNR=3.7 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **29.85** | **346** | P | **P** | **15 58 31.5** | **+0.8** |
| | 0.4nm,0.5s,baz=152,slow=7.5,SNR=2.3 | | | | | | |

*ISCJB 25 15:52:32.4±0.6, 39.18N±0.04×29.13E±0.05, h7km±7km, Error ellipse: s-maj=8.7km s-min=4.9km az=142.5*
*CSEM 25 15:52:32.4±0.1, 39.17N×29.14E, h8km, MD2.6, Error ellipse: s-maj=3.6km s-min=1.9km az=132.0*
*DDA 25 15:52:32.4, 39.14N×29.12E, h7km, Md2.3*
*ISK 25 15:52:32.0, 39.18N×29.17E, h6km, MD2.6*

**ISC 25 15:52:32.6±1.0, 39.19N±0.04×29.12E±0.03, h8km±13km, n18, σ0$21/26, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SIMA** | **Simav-Kutahya** | **0.15** | **226** | *e*PG | **Pg** | **15 52 36.0** | **+0.1** |
| **SIMA** | **Simav-Kutahya** | **0.15** | **226** | *e*Pg | **Pg** | **15 52 36.0** | **+0.1** |
| **GDZ** | **Gediz** | **0.30** | **110** | *i* P | **Pg** | **15 52 38.7** | **+0.2** |
| GDZ | | | | *i* S | **Sg** | **15 52 42.6** | **+0.1** |
| **GDZ** | **Gediz** | **0.30** | **110** | P | **Pg** | **15 52 38.7** | **+0.2** |
| GDZ | | | | S | **Sg** | **15 52 42.6** | **+0.1** |
| **DEMI** | **Demirci** | **0.35** | **245** | *i* P | **Pg** | **15 52 39.3** | **-0.2** |
| DEMI | | | | *i* S | **Sg** | **15 52 44.0** | **-0.1** |
| **DEMI** | **Demirci** | **0.35** | **245** | P | **Pg** | **15 52 39.3** | **-0.2** |
| DEMI | | | | S | **Sg** | **15 52 44.0** | **-0.1** |
| **TVSB** | **Tavsanli** | **0.37** | **45** | *e*PG | **Pg** | **15 52 39.7** | **-0.2** |
| TVSB | | | | *e*SG | **Sg** | **15 52 44.5** | **-0.3** |
| **TVSB** | **Tavsanli** | **0.37** | **45** | *e*Pg | **Pg** | **15 52 39.7** | **-0.2** |
| TVSB | | | | *e*Sg | **Sg** | **15 52 44.5** | **-0.3** |
| **MANT** | **Manisa** | **0.82** | **212** | *i* P | **Pg** | **15 52 48.3** | **-0.2** |
| MANT | | | | *i* S | **Sg** | **15 52 59.0** | **-0.2** |
| **MANT** | **Manisa** | **0.82** | **212** | P | **Pg** | **15 52 48.3** | **-0.2** |
| MANT | | | | S | **Sg** | **15 52 59.0** | **-0.2** |
| **CAVI** | **Cavuskoy** | **1.15** | **29** | *e*PN | **Pg** | **15 52 54.6** | **-0.2** |
| **CAVI** | **Cavuskoy** | **1.15** | **29** | *e*Pn | **Pg** | **15 52 54.6** | **-0.2** |
| **KCTX** | **Karacabey (Bur** | **1.23** | **331** | *e*PN | **Pg** | **15 52 56.5** | **+0.3** |
| **KCTX** | **Karacabey (Bur** | **1.23** | **331** | *e*Pn | **Pg** | **15 52 56.5** | **+0.3** |
| **ARMT** | **Armutlu** | **1.39** | **352** | *e*PN | **Pb** | **15 52 58.9** | **0.0** |
| **ARMT** | **Armutlu** | **1.39** | **352** | *e*Pn | **Pb** | **15 52 58.9** | **0.0** |
| **YLV** | **Yalova** | **1.39** | **8** | *e*PN | **Pn** | **15 52 58.6** | **+0.2** |
| **YLV** | **Yalova** | **1.39** | **8** | *e*Pn | **Pn** | **15 52 58.6** | **+0.2** |

*IDC 25 15:56:42.2±1.5, 7.15S×128.64E, h0km, mb3.9/4, mb1 4.1/7, mb1mx3.8/34, mbtmp3.9/7, ML4.2/3, MS4.2/1, Ms1 4.2/1, ms1mx2.9/31, Error ellipse: s-maj=100.7km s-min=23.1km az=77.0*

**ISC 25 15:56:45.5±1.0, 7.51S±0.09×128.8E±0.2, h35km, n9, σ2$01/10, mb4.0/4, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KAPI** | **Kappang** | **9.35** | **285** | LR | LR | 16 02 21.4 | |
| | comp=Z,2µm,21.3s,baz=29,slow=37 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **10.98** | **196** | Pn | Pn | 15 59 26.2 | +6.0 |
| | 1.0nm,0.3s,baz=15,slow=8.4,SNR=22 | | | | | | |
| FITZ | | | | Sn | **Sn** | **16 01 21.1** | **-0.7** |
| | 0.8nm,0.3s,baz=84,slow=18,SNR=5.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **13.47** | **157** | Pn | **P** | **16 00 00.6** | **-2.5** |
| | 1.9nm,0.3s,baz=330,slow=11,SNR=106 | | | | | | |
| WRA | | | | Sn | **Sn** | **16 02 23.2** | **+0.4** |
| | 0.8nm,0.3s,baz=338,slow=21,SNR=5.9 | | | | | | |
| **ASAR** | **Alice Springs** | **16.79** | **164** | P | **P** | **16 00 44.5** | **+4.5** |
| | 0.4nm,0.3s,baz=334,slow=8.4,SNR=50 | | | | | | |
| ASAR | | | | S | **Sn** | **16 03 44.5** | **+0.8** |
| | 0.2nm,0.3s,baz=348,slow=24,SNR=4.2 | | | | | | |
| **SONM** | **Songino Array** | **58.56** | **342** | P | **P** | **16 06 39.4** | **+0.7** |
| | 0.4nm,0.6s,baz=156,slow=8.1,SNR=3.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **68.02** | **327** | P | **P** | **16 07 41.2** | **-0.1** |
| | 0.6nm,0.5s,baz=116,slow=8.2,SNR=13 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **71.53** | **334** | P | **P** | **16 08 02.2** | **-0.5** |
| | 0.8nm,0.4s,baz=119,slow=2.1,SNR=3.4 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **72.34** | **329** | P | **P** | **16 08 07.3** | **-0.3** |
| | 0.8nm,0.5s,baz=130,slow=4.9,SNR=8.7 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **127.76** | **281** | PKP | **PKPdf** | **16 15 48.1** | **-0.2** |
| | 0.5nm,0.8s,baz=46,slow=1.0,SNR=2.9 | | | | | | |

*ISCJB 25 16:14:03.5±1.5, 13.97S±0.09×166.9E±0.2, h150km, mb3.5/4, Error ellipse: s-maj=30.9km s-min=12.9km az=174.4*
*IDC 25 16:14:03.7±7.5, 13.83S×167.00E, h142km±71km, mb3.4/4, mb1 3.6/5, mb1mx3.3/31, mbtmp3.8/5, Error ellipse: s-maj=76.1km s-min=27.7km az=155.0*

**ISC 25 16:14:04.4±1.2, 14.0S±0.1×167.1E±0.2, h150km, n9, σ0$94/10, mb3.5/4, Vanuatu Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **8.09** | **184** | P | **Pn** | **16 16 00.2** | **+1.1** |
| | 0.6nm,0.3s,baz=88,slow=18,SNR=6.3 | | | | | | |
| DZM | | | | S | **Sn** | **16 17 27.8** | **-1.4** |
| | 0.3nm,0.3s,baz=198,slow=9.6,SNR=3.1 | | | | | | |
| **STKA** | **Stephens Creek** | **29.35** | **228** | P | **P** | **16 19 53.7** | **+0.5** |
| | 2.7nm,0.6s,baz=54,slow=10,SNR=14 | | | | | | |
| **WRA** | **Warramunga Arr** | **31.83** | **255** | P | **P** | **16 20 15.0** | **-0.3** |
| | 0.3nm,0.4s,baz=86,slow=9.3,SNR=10 | | | | | | |
| **ASAR** | **Alice Springs** | **32.77** | **248** | P | **P** | **16 20 22.9** | **-0.6** |
| | 0.6nm,0.5s,baz=78,slow=9.2,SNR=28 | | | | | | |
| **ILAR** | **Eielson Array** | **85.86** | **18** | P | **P** | **16 26 26.9** | **+0.1** |
| | 0.2nm,0.7s,baz=230,slow=5.8,SNR=5.2 | | | | | | |
| **ARCES** | **ARCESS Array B** | **119.47** | **345** | PKP | **PKPdf** | **16 32 34.4** | **-1.2** |
| | 1.6nm,0.8s,baz=92,slow=3.0,SNR=5.6 | | | | | | |
| **FINES** | **FINESS Array B** | **124.04** | **338** | PKP | **PKPdf** | **16 32 46.1** | **-0.1** |
| | 3.2nm,0.9s,baz=28,slow=5.4,SNR=3.2 | | | | | | |
| **BRTR** | **Keskin Array B** | **131.87** | **311** | PKP | **PKPdf** | **16 32 59.7** | **-0.6** |
| | 0.8nm,0.9s,baz=14,slow=2.9,SNR=4.6 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **165.76** | **268** | PKPab | **PKPab** | **16 34 53.2** | **+0.8** |
| | 0.5nm,0.8s,baz=183,slow=2.9,SNR=3.6 | | | | | | |

*IDC 25 16:17:48.3±3.1, 13.83N×91.26W, h0km, mb3.5/4, mb1 3.9/6, mb1mx3.6/36, mbtmp3.5/6, ML3.4/2, MS2.5/1, Ms1 2.5/1, ms1mx2.4/24, Error ellipse: s-maj=66.0km s-min=40.4km az=19.0*

**ISC 25 16:17:55.9±2.6, 13.9N±0.4×91.4W±0.2, h61km, n7, σ2$31/8, mb3.6/4, Near coast of Guatemala**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CMIG** | **Matias Romero** | **4.63** | **314** | Pn | **Pn** | **16 18 59.8** | **-3.7** |
| | 1.3nm,0.3s,baz=136,slow=8.2,SNR=9.8 | | | | | | |
| CMIG | | | | Sn | **Sn** | **16 19 58.2** | **+2.2** |
| | 3.6nm,0.3s,baz=163,slow=14,SNR=5.3 | | | | | | |
| CMIG | | | | LR | LR | 16 20 38.8 | |
| | comp=Z,52nm,18.7s,baz=168,slow=36 | | | | | | |
| **TXAR** | **Lajitas Array** | **19.13** | **326** | P | **Pn** | **16 22 15.2** | **-0.4** |
| | 0.0nm,0.3s,baz=155,slow=11,SNR=9.3 | | | | | | |
| **TKL** | **Tuckaleechee C** | **22.77** | **16** | P | **P** | **16 22 53.0** | **-0.3** |
| | 2.8nm,1.0s,baz=187,slow=13,SNR=4.1 | | | | | | |
| **NVAR** | **Mina Array Bea** | **34.13** | **321** | P | **P** | **16 24 38.2** | **+2.9** |
| | 0.7nm,0.8s,baz=144,slow=5.3,SNR=4.2 | | | | | | |
| **YKA** | **Yellowknife Ar** | **51.29** | **346** | P | **P** | **16 26 53.4** | **-0.1** |
| | 0.4nm,0.6s,baz=152,slow=7.9,SNR=13 | | | | | | |
| **ILAR** | **Eielson Array** | **63.19** | **337** | P | **P** | **16 28 17.6** | **+0.2** |
| | 0.4nm,0.8s,baz=170,slow=4.3,SNR=8.5 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **146.30** | **342** | PKPbc | **PKPab** | **16 37 31.5** | **0.0** |
| | 0.3nm,0.5s,baz=341,slow=5.0,SNR=4.3 | | | | | | |

**IDC 25 16:26:14.1±6.1, 17.52S×178.76W, h601km±74km, mb3.0/8, mb1 3.3/8, mb1mx3.1/25, mbtmp3.9/8, Error ellipse: s-maj=77.5km s-min=23.8km az=148.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **STKA** | **Stephens Creek** | **38.52** | **241** | P | P | 16 32 46.5 | -0.3 |
| | 2.7nm,0.8s,baz=96,slow=12,SNR=6.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.37** | **259** | P | P | 16 33 32.6 | -0.3 |
| | 1.6nm,0.5s,baz=96,slow=7.2,SNR=54 | | | | | | |
| WRA | | | | PcP | PcP | 16 35 03.1 | -0.3 |
| | 0.5nm,0.8s,baz=90,slow=4.2,SNR=3.9 | | | | | | |
| **ASAR** | **Alice Springs** | **44.57** | **254** | P | P | 16 33 34.6 | +0.2 |
| | 9.2nm,0.6s,baz=91,slow=8.3,SNR=210 | | | | | | |
| ASAR | | | | PcP | PcP | 16 35 03.9 | -0.3 |
| | 0.4nm,0.6s,baz=105,slow=3.8,SNR=4.1 | | | | | | |
| **NVAR** | **Mina Array Bea** | **79.38** | **44** | P | P | 16 37 19.3 | 0.0 |
| | 0.3nm,0.6s,baz=230,slow=8.2,SNR=3.9 | | | | | | |
| **ILAR** | **Eielson Array** | **85.59** | **13** | P | P | 16 37 49.5 | -0.1 |
| | 0.2nm,0.4s,baz=224,slow=5.0,SNR=10 | | | | | | |
| **TXAR** | **Lajitas Array** | **86.07** | **58** | P | P | 16 37 52.9 | +0.1 |
| | 0.6nm,0.8s,baz=226,slow=6.8,SNR=8.1 | | | | | | |
| **PDAR** | **Pinedale Array** | **87.30** | **44** | P | P | 16 37 58.3 | -0.2 |
| | 0.3nm,0.6s,baz=222,slow=2.4,SNR=3.1 | | | | | | |
| **YKA** | **Yellowknife Ar** | **94.12** | **25** | P | P | 16 38 29.0 | -0.1 |
| | 0.1nm,0.4s,baz=239,slow=4.4,SNR=3.6 | | | | | | |

*ISN 25 16:28:52.9±0.3, 38.27N×44.42E, h0km, ML3.3*
*DDA 25 16:29:05.3, 38.34N×44.53E, h5km, Ml3.2*
*AZER 25 16:29:05.7±0.8, 38.21N×44.40E, h11km, Error ellipse: s-maj=8.1km s-min=4.5km az=34.0*
*CSEM 25 16:29:06.9±0.2, 38.31N×44.51E, h2km, ML3.2, Error ellipse: s-maj=4.8km s-min=3.5km az=146.0*
*ISK 25 16:29:06.6, 38.37N×44.43E, h5km, ML3.2*

**ISC 25 16:29:07.0±1.1, 38.34N±0.02×44.47E±0.02, h7km±9km, n90, σ1$44/139, 17C-7D, Turkey-Iran border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BASK** | **Baskale_VAN** | **0.47** | **232** | *i* P | **Pg** | **16 29 15.0** | **-1.0** |
| BASK | | | | *i* S | **Sg** | **16 29 22.5** | **+0.3** |
| **BASK** | **Baskale_VAN** | **0.47** | **232** | P | **Pg** | **16 29 15.0** | **-1.0** |
| BASK | | | | S | **Sg** | **16 29 22.5** | **+0.3** |
| **YOVA** | **Hakkari_Y˜…kse** | **0.76** | **191** | *i* P | **Pg** | **16 29 20.9** | **-0.8** |
| YOVA | | | | *i* S | **Sg** | **16 29 32.7** | **+1.1** |
| **YOVA** | **Hakkari_Y˜…kse** | **0.76** | **191** | P | **Pg** | **16 29 20.9** | **-0.8** |
| YOVA | | | | S | **Sg** | **16 29 32.7** | **+1.1** |
| **TVAN** | **Van** | **0.86** | **283** | *i* P | **Pg** | **16 29 22.4** | **-1.1** |
| TVAN | | | | *i* S | **Sn** | **16 29 37.3** | **-1.4** |
| **TVAN** | **Van** | **0.86** | **283** | P | **Pg** | **16 29 22.4** | **-1.1** |
| TVAN | | | | S | **Sn** | **16 29 37.3** | **-1.4** |
| **VANB** | **Van** | **0.89** | **287** | *e*PG | **Pg** | **16 29 22.9** | **-1.2** |
| VANB | | | | *e*SG | **Sb** | **16 29 36.0** | **-1.0** |
| **VANB** | **Van** | **0.89** | **287** | *e*Pg | **Pg** | **16 29 22.9** | **-1.2** |
| VANB | | | | *e*Sg | **Sb** | **16 29 36.0** | **-1.0** |
| **CLDR** | **Caldiran** | **0.91** | **332** | *e*PG | **Pg** | **16 29 23.8** | **-0.8** |
| CLDR | | | | *e*SG | **Sb** | **16 29 37.5** | **-0.3** |
| **CLDR** | **Caldiran** | **0.91** | **332** | *i* P | **Pg** | **16 29 23.3** | **-1.3** |
| CLDR | | | | *i* S | **Sb** | **16 29 36.8** | **-1.0** |
| **CLDR** | **Caldiran** | **0.91** | **332** | P | **Pg** | **16 29 23.3** | **-1.3** |
| **CLDR** | **Caldiran** | **0.91** | **332** | *e*Pg | **Pg** | **16 29 23.8** | **-0.8** |
| CLDR | | | | S | **Sb** | **16 29 36.8** | **-1.0** |
| CLDR | | | | *e*Sg | **Sb** | **16 29 37.5** | **-0.3** |
| **VMUR** | **Van-Muradiye** | **0.96** | **313** | *i* P | **Pg** | **16 29 24.4** | **-1.0** |
| VMUR | | | | *i* S | **Sn** | **16 29 41.1** | **0.0** |
| **VMUR** | **Van-Muradiye** | **0.96** | **313** | P | **Pg** | **16 29 24.4** | **-1.0** |
| VMUR | | | | S | **Sn** | **16 29 41.1** | **0.0** |
| **HAKT** | **HAKKARI** | **0.99** | **218** | *i* P | **Pg** | **16 29 24.9** | **-1.0** |
| HAKT | | | | *i* S | **Sb** | **16 29 40.9** | **+1.0** |
| **HAKT** | **HAKKARI** | **0.99** | **218** | P | **Pg** | **16 29 24.9** | **-1.0** |
| HAKT | | | | S | **Sb** | **16 29 40.8** | **+1.0** |
| **GEVA** | **Gevas** | **1.11** | **269** | *i* P | **Pg** | **16 29 27.2** | **-1.2** |
| GEVA | | | | *i* S | **Sn** | **16 29 44.5** | **-0.4** |
| **GEVA** | **Gevas** | **1.11** | **269** | P | **Pg** | **16 29 27.2** | **-1.2** |
| GEVA | | | | S | **Sn** | **16 29 44.5** | **-0.4** |
| **NAX** | **Nakhchivan** | **1.16** | **43** | ⇓P | **Pn** | **16 29 29.5** | **-0.2** |
| | SNR=39 | | | | | | |
| NAX | | | | ⇑S | **Sn** | **16 29 47.4** | **+1.6** |
| **NAX** | **Nakhchivan** | **1.16** | **43** | P | **Pn** | **16 29 29.5** | **-0.2** |
| | SNR=39 | | | | | | |
| NAX | | | | S | **Sn** | **16 29 47.4** | **+1.6** |
| **CUKT** | **Cukurca** | **1.29** | **212** | *e*PN | **Pg** | **16 29 32.2** | **+0.5** |
| CUKT | | | | *e*SN | **Sn** | **16 29 51.4** | **+2.3** |
| **CUKT** | **Cukurca** | **1.29** | **212** | *i* P | **Pn** | **16 29 30.4** | **-1.1** |
| CUKT | | | | *i* S | **Sn** | **16 29 49.7** | **+0.6** |
| **CUKT** | **Cukurca** | **1.29** | **212** | P | **Pn** | **16 29 30.4** | **-1.1** |
| **CUKT** | **Cukurca** | **1.29** | **212** | *e*Pn | **Pg** | **16 29 32.2** | **+0.5** |
| CUKT | | | | S | **Sn** | **16 29 49.7** | **+0.6** |
| CUKT | | | | *e*Sn | **Sn** | **16 29 51.4** | **+2.3** |
| **ORD** | **Ordubad** | **1.33** | **63** | P | **Pn** | **16 29 32.1** | **0.0** |
| | SNR=14 | | | | | | |
| ORD | | | | S | **Sn** | **16 29 52.0** | **+1.9** |
| **DYDN** | **Diyadin** | **1.35** | **333** | *i* P | **Pn** | **16 29 31.5** | **-1.0** |
| DYDN | | | | *i* S | **Sn** | **16 29 50.2** | **-0.6** |
| **DYDN** | **Diyadin** | **1.35** | **333** | P | **Pn** | **16 29 31.5** | **-1.0** |
| DYDN | | | | S | **Sn** | **16 29 50.2** | **-0.6** |
| **SBZ** | **Shahbuz** | **1.35** | **38** | ⇑P | **Pg** | **16 29 32.6** | **-0.3** |
| | SNR=14 | | | | | | |
| SBZ | | | | ⇓S | **Sn** | **16 29 53.1** | **+2.4** |
| **SBZ** | **Shahbuz** | **1.35** | **38** | P | **Pg** | **16 29 32.6** | **-0.3** |
| | SNR=14 | | | | | | |
| SBZ | | | | S | **Sn** | **16 29 53.1** | **+2.4** |
| **HYR** | **Heyderabad** | **1.41** | **12** | ⇑P | **Pg** | **16 29 33.7** | **-0.4** |
| | SNR=24 | | | | | | |
| HYR | | | | ⇑S | **Sg** | **16 29 54.3** | **+1.9** |
| **HYR** | **Heyderabad** | **1.41** | **12** | P | **Pg** | **16 29 33.7** | **-0.4** |
| | SNR=24 | | | | | | |
| HYR | | | | S | **Sg** | **16 29 54.3** | **+1.9** |
| **ADCV** | **BITLIS_Adilcev** | **1.45** | **289** | *i* P | **Pb** | **16 29 34.1** | **-0.3** |
| ADCV | | | | *i* S | **Sg** | **16 29 56.9** | **+3.3** |
| **ADCV** | **BITLIS_Adilcev** | **1.45** | **289** | P | **Pb** | **16 29 34.1** | **-0.3** |
| ADCV | | | | S | **Sg** | **16 29 56.9** | **+3.3** |
| **TASB** | **TASBURUN-IGDIR** | **1.65** | **354** | *e*PN | **Pb** | **16 29 37.4** | **-0.5** |
| **TASB** | **TASBURUN-IGDIR** | **1.65** | **354** | *e*Pn | **Pb** | **16 29 37.4** | **-0.5** |
| **TUTA** | **Tutak** | **1.68** | **310** | *i* P | **Pb** | **16 29 38.0** | **-0.3** |
| TUTA | | | | *i* S | **Sn** | **16 29 53.6** | **-5.2** |
| **TUTA** | **Tutak** | **1.68** | **310** | P | **Pb** | **16 29 38.0** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **1.69** | **317** | *e*PN | **Pb** | **16 29 37.9** | **-0.7** |
| **AGRB** | **Hanur-Agry** | **1.69** | **317** | *e*Pn | **Pb** | **16 29 37.9** | **-0.7** |
| **SIRT** | **Sirnak** | **1.81** | **243** | *e*PN | **Pb** | **16 29 40.1** | **-0.5** |
| **SIRT** | **Sirnak** | **1.81** | **243** | *e*Pn | **Pb** | **16 29 40.1** | **-0.5** |
| **SIRN** | **S˜–rnak** | **1.83** | **243** | *i* P | **Pn** | **16 29 36.4** | **-2.6** |
| **SRTM** | **Siirt_Merkez** | **2.04** | **261** | *i* P | **Pb** | **16 29 44.3** | **-0.2** |
| **SRTM** | **Siirt_Merkez** | **2.04** | **261** | P | **Pb** | **16 29 44.3** | **-0.2** |
| **EKAR** | **Karacoban** | **2.09** | **297** | *i* P | **Pg** | **16 29 46.1** | **-1.0** |
| **EKAR** | **Karacoban** | **2.09** | **297** | P | **Pg** | **16 29 46.1** | **-1.0** |
| **EATA** | **Eleskirt** | **2.17** | **315** | *i* P | **Pb** | **16 29 46.6** | **-0.1** |
| **EATA** | **Eleskirt** | **2.17** | **315** | P | **Pb** | **16 29 46.6** | **-0.1** |
| **MSL** | **Mosul** | **2.22** | **210** | *e*Pg | **Pn** | **16 29 40.0** | **-4.2** |
| | SNR=9.0 | | | | | | |
| MSL | | | | *e*Sg | **Sn** | **16 30 13.0** | **+1.1** |
| | SNR=9.0 | | | | | | |
| **DIGO** | **Kars** | **2.24** | **338** | *i* P | **Pb** | **16 29 48.2** | **+0.2** |
| **DIGO** | **Kars** | **2.24** | **338** | P | **Pb** | **16 29 48.2** | **+0.2** |
| **EAK** | **Akyaka** | **2.44** | **344** | *i* P | **Pb** | **16 29 50.9** | **-0.4** |
| **EAK** | **Akyaka** | **2.44** | **344** | P | **Pb** | **16 29 50.9** | **-0.4** |
| **KARS** | **Kars** | **2.53** | **335** | *e*PN | **Pn** | **16 29 49.6** | **+1.0** |
| **KARS** | **Kars** | **2.53** | **335** | *e*Pn | **Pn** | **16 29 49.6** | **+1.0** |
| **BTMN** | **Batman** | **2.56** | **261** | *i* P | **Pn** | **16 29 51.1** | **+2.0** |
| **BTMN** | **Batman** | **2.56** | **261** | P | **Pn** | **16 29 51.1** | **+2.0** |
| **GDB** | **GE

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **HOMI** | **Horasan** | **0.50** | **81** | *i* P | | **Pg** | **16 34 02.9** | **-0.4** |
| HOMI | | | | *i* S | | **Sb** | **16 34 12.8** | **+0.1** |
| **KOPT** | **Kop Dagi** | **0.59** | **275** | *e*P | | **Pb** | **16 34 06.8** | **+0.3** |
| KOPT | | | | *e*S | | **Sb** | **16 34 16.6** | **+1.4** |
| KOPT | | | | IAML | | | 16 34 23.4 | |
| | comp=Z,26nm,0.5s | | | | | | | |
| **KOPT** | **Kop Dagi** | **0.59** | **275** | *e*P | | **Pb** | **16 34 06.7** | **+0.2** |
| KOPT | | | | *e*S | | **Sn** | **16 34 17.6** | **-1.3** |
| KOPT | | | | IAML | | | 16 34 23.4 | |
| | comp=Z,26nm,0.5s | | | | | | | |
| **KOPT** | **Kop Dagi** | **0.59** | **275** | *i* P | | **Pb** | **16 34 06.5** | **0.0** |
| KOPT | | | | *i* S | | **Sn** | **16 34 18.4** | **-0.6** |
| **KOPT** | **Kop Dagi** | **0.59** | **275** | P | | **Pb** | **16 34 06.5** | **0.0** |
| KOPT | | | | S | | **Sn** | **16 34 18.4** | **-0.6** |
| **EKAR** | **Karacoban** | **0.94** | **139** | *e*P | | **Pb** | **16 34 12.3** | **-0.3** |
| EKAR | | | | *e*S | | **Sn** | **16 34 26.5** | **-1.1** |
| EKAR | | | | IAML | | | 16 34 30.4 | |
| | comp=Z,12nm,0.7s | | | | | | | |
| **EKAR** | **Karacoban** | **0.94** | **139** | *e*P | | **Pg** | **16 34 11.9** | **+0.2** |
| EKAR | | | | *e*S | | **Sb** | **16 34 25.8** | **+0.4** |
| EKAR | | | | IAML | | | 16 34 30.4 | |
| | comp=Z,12nm,0.6s | | | | | | | |
| **EKAR** | **Karacoban** | **0.94** | **139** | *i* P | | **Pn** | **16 34 13.9** | **+0.2** |
| EKAR | | | | *i* S | | **Sn** | **16 34 27.0** | **-0.6** |
| **EKAR** | **Karacoban** | **0.94** | **139** | P | | **Pn** | **16 34 13.9** | **+0.2** |
| EKAR | | | | S | | **Sn** | **16 34 27.0** | **-0.6** |
| **EATA** | **Eleskirt** | **0.95** | **96** | *e*P | | **Pb** | **16 34 12.4** | **-0.3** |
| EATA | | | | *e*S | | **Sn** | **16 34 28.5** | **+0.5** |
| EATA | | | | IAML | | | 16 34 32.8 | |
| | comp=Z,1.3nm,0.5s | | | | | | | |
| **EATA** | **Eleskirt** | **0.95** | **96** | *e*P | | **Pb** | **16 34 12.5** | **-0.3** |
| EATA | | | | *e*S | | **Sb** | **16 34 26.8** | **+1.0** |
| EATA | | | | IAML | | | 16 34 32.8 | |
| | comp=Z,1.3nm,0.4s | | | | | | | |
| **EATA** | **Eleskirt** | **0.95** | **96** | *i* P | | **Pg** | **16 34 11.9** | **0.0** |
| EATA | | | | *i* S | | **Sn** | **16 34 27.3** | **-0.7** |
| **EATA** | **Eleskirt** | **0.95** | **96** | P | | **Pg** | **16 34 11.9** | **0.0** |
| EATA | | | | S | | **Sn** | **16 34 27.3** | **-0.7** |
| **DDEM** | **Demirkent** | **0.99** | **22** | *i* P | | **Pb** | **16 34 13.5** | **+0.2** |
| DDEM | | | | *i* S | | **Sn** | **16 34 28.7** | **0.0** |
| **DDEM** | **Demirkent** | **0.99** | **22** | P | | **Pb** | **16 34 13.5** | **+0.2** |
| DDEM | | | | S | | **Sn** | **16 34 28.7** | **0.0** |
| **DAGI** | **Agillar** | **1.21** | **24** | *i* P | | **Pb** | **16 34 17.2** | **+0.1** |
| DAGI | | | | *i* S | | **Sb** | **16 34 33.5** | **+0.4** |
| **ARTV** | **Artvin** | **1.32** | **22** | *e*P | | **Pb** | **16 34 19.2** | **+0.3** |
| ARTV | | | | *e*S | | **Sn** | **16 34 39.0** | **+2.1** |
| ARTV | | | | IAML | | | 16 34 39.4 | |
| | comp=Z,2.0nm,0.4s | | | | | | | |
| **ARTV** | **Artvin** | **1.32** | **22** | *i* P | | **Pn** | **16 34 17.2** | **-1.6** |
| **ARTV** | **Artvin** | **1.32** | **22** | P | | **Pn** | **16 34 17.2** | **-1.6** |
| **TUTA** | **Tutak** | **1.32** | **115** | *e*P | | **Pb** | **16 34 19.1** | **0.0** |
| TUTA | | | | *e*S | | **Sn** | **16 34 38.9** | **+1.8** |
| **TUTA** | **Tutak** | **1.32** | **115** | *e*P | | **Pb** | **16 34 19.0** | **0.0** |
| TUTA | | | | *e*S | | **Sn** | **16 34 38.1** | **+1.0** |
| TUTA | | | | IAML | | | 16 34 41.2 | |
| | comp=Z,14nm,0.4s | | | | | | | |
| **TUTA** | **Tutak** | **1.32** | **115** | *i* P | | **Pn** | **16 34 17.4** | **-1.5** |
| TUTA | | | | *i* S | | **Sn** | **16 34 38.0** | **+1.0** |
| **TUTA** | **Tutak** | **1.32** | **115** | P | | **Pn** | **16 34 17.4** | **-1.5** |
| TUTA | | | | S | | **Sn** | **16 34 38.0** | **+1.0** |

*ISCJB* ***25*** *16:35:24.7±0.7,36°34N±0.04×52°33E±0.03,h4km±6km, Error ellipse: s-maj=6.5km s-min=4.3km az=12.8*
*CSEM* ***25*** *16:35:26.0±0.2,36°27N×52°35E,h2km,ML3.2,Error ellipse: s-maj=5.5km s-min=3.1km az=54.0*
*TEH* ***25*** *16:35:27.4,36°20N×52°36E,h8km,ML3.2*
*AZER* ***25*** *16:35:29.9±0.7,36°42N×52°09E,h5km,Error ellipse: s-maj=12.9km s-min=6.6km az=41.0*

**ISC 25 16:35:25.9±1.2,36°26N±0.04×52°35E±0.03,h6km±11km, n54,σ1§00/87,14C-15D,Northern and central Iran**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **IALA** | **Alasht** | **0.41** | **116** | *e*Pg | **Pg** | **16 35 34.1** | **+0.1** |
| IALA | | | | *e*Sg | **Sg** | **16 35 40.1** | **+0.7** |
| IALA | | | | *e*AMB | AMB | 16 35 44.0 | |
| | comp=Z,55μm,0.2s | | | | | | |
| **IALA** | **Alasht** | **0.41** | **116** | *e*Pg | **Pg** | **16 35 34.1** | **+0.1** |
| IALA | | | | *e*Sg | **Sg** | **16 35 40.1** | **+0.7** |
| **IFIR** | **Firoozkooh** | **0.70** | **152** | *e*Pg | **Pg** | **16 35 38.8** | **-0.6** |
| IFIR | | | | *e*AMB | AMB | 16 35 49.8 | |
| | comp=Z,14μm,0.1s | | | | | | |
| **IFIR** | **Firoozkooh** | **0.70** | **152** | *e*Pg | **Pg** | **16 35 38.8** | **-0.6** |
| **IDMV** | **Damavand** | **0.73** | **201** | *e*Pg | **Pg** | **16 35 39.3** | **-0.6** |
| IDMV | | | | *e*Sg | **Sg** | **16 35 48.7** | **-0.7** |
| IDMV | | | | *e*AMB | AMB | 16 35 50.9 | |
| | comp=Z,7μm,0.1s | | | | | | |
| **IDMV** | **Damavand** | **0.73** | **201** | *e*Pg | **Pg** | **16 35 39.3** | **-0.6** |
| IDMV | | | | *e*Sg | **Sg** | **16 35 48.7** | **-0.7** |
| **ISHM** | **Shahmirzad** | **0.89** | **120** | *e*Pg | **Pg** | **16 35 42.5** | **-0.5** |
| ISHM | | | | *e*AMB | AMB | 16 36 01.6 | |
| | comp=Z,12μm,0.2s | | | | | | |
| **ILAS** | **Lasjerd** | **1.01** | **150** | *e*Pg | **Pg** | **16 35 44.3** | **-0.9** |
| ILAS | | | | *e*AMB | AMB | 16 36 03.1 | |
| | comp=E,8μm,0.1s | | | | | | |
| **ILAS** | **Lasjerd** | **1.01** | **150** | *e*Pg | **Pg** | **16 35 44.3** | **-0.9** |
| **IGLO** | **Ghaloghah** | **1.22** | **78** | *e*Pg | **Pn** | **16 35 50.1** | **+0.4** |
| IGLO | | | | *e*AMB | AMB | 16 36 17.2 | |
| | comp=Z,8μm,0.1s | | | | | | |
| **THKV** | **Tehran--Karaj** | **1.24** | **254** | *e*Pg | **Pg** | **16 35 49.8** | **+0.1** |
| THKV | | | | *e*Sg | **Sb** | **16 36 06.2** | **0.0** |
| **IVRN** | **Varamin** | **1.36** | **202** | *e*Pg | **Pb** | **16 35 51.7** | **-0.2** |
| IVRN | | | | *e*AMB | AMB | 16 36 12.5 | |
| | comp=Z,12μm,0.1s | | | | | | |
| **IVRN** | **Varamin** | **1.36** | **202** | *e*Pg | **Pb** | **16 35 51.7** | **-0.2** |
| **IMHD** | **Mahdasht** | **1.48** | **248** | *e*Pn | **Pb** | **16 35 53.8** | **-0.1** |
| IMHD | | | | *e*AMB | AMB | 16 35 56.3 | |
| | comp=Z,6μm,0.2s | | | | | | |
| **IMHD** | **Mahdasht** | **1.48** | **248** | *e*Pn | **Pb** | **16 35 53.8** | **-0.1** |
| **IANJ** | **Anjilo** | **1.50** | **122** | *e*Pn | **Pn** | **16 35 53.7** | **+0.1** |
| IANJ | | | | *e*AMB | AMB | 16 35 56.1 | |
| | comp=Z,4μm,0.1s | | | | | | |
| **IANJ** | **Anjilo** | **1.50** | **122** | *e*Pn | **Pn** | **16 35 53.7** | **+0.1** |
| **IGZV** | **Ghazvin** | **1.73** | **275** | *e*Pn | **Pb** | **16 35 58.0** | **-0.2** |
| IGZV | | | | *e*Sg | **Sg** | **16 36 21.4** | **+0.1** |
| IGZV | | | | *e*AMB | AMB | 16 36 24.1 | |
| | comp=Z,4μm,0.1s | | | | | | |
| **IGZV** | **Ghazvin** | **1.73** | **275** | *e*Pn | **Pb** | **16 35 58.0** | **-0.2** |
| IGZV | | | | *e*Sg | **Sg** | **16 36 21.4** | **+0.1** |
| **IR5** | **Iran Long-Peri** | **1.78** | **234** | *e*Pn | **Pb** | **16 35 58.8** | **-0.2** |
| IR5 | | | | *e*AMB | AMB | 16 36 26.1 | |
| | comp=Z,1μm,0.2s | | | | | | |
| **IR5** | **Iran Long-Peri** | **1.78** | **234** | *e*Pn | **Pb** | **16 35 58.8** | **-0.2** |
| **IRAZ** | **Razeghan** | **2.15** | **247** | *e*AMB | AMB | 16 36 36.1 | |
| | comp=Z,3μm,0.3s | | | | | | |
| IRAZ | | | | *e*Pn | **Pb** | **16 36 04.5** | **-0.8** |
| **ASAO** | **Ashtian** | **2.56** | **229** | *e*Pn | **Pn** | **16 36 09.4** | **+1.3** |
| ASAO | | | | *e*Sg | **Sb** | **16 36 45.5** | **+1.4** |
| **ZNJK** | **Zanjan** | **2.98** | **279** | *e*Pn | **Pn** | **16 36 16.1** | **+2.1** |
| **IZEF** | **Zefreh** | **3.36** | **180** | *e*Pn | **Pn** | **16 36 20.4** | **+1.2** |
| IZEF | | | | *e*AMB | AMB | 16 36 33.4 | |
| | comp=Z,292nm,0.2s | | | | | | |
| **IZEF** | **Zefreh** | **3.36** | **180** | *e*Pn | **Pn** | **16 36 20.4** | **+1.2** |
| **ASTR** | **Astara** | **3.65** | **310** | ⇓P | **Pn** | **16 36 22.9** | **0.0** |
| | SNR=7.8 | | | | | | |
| ASTR | | | | ⇑S | **Sn** | **16 37 05.0** | **-1.2** |
| **ASTR** | **Astara** | **3.65** | **310** | P | **Pn** | **16 36 22.9** | **0.0** |
| | SNR=7.8 | | | | | | |
| ASTR | | | | S | **Sn** | **16 37 05.0** | **-1.2** |
| **LKRN** | **Lenkeran, Azer** | **3.75** | **312** | ⇑P | **Pn** | **16 36 24.0** | **-0.3** |
| | SNR=5.8 | | | | | | |
| LKRN | | | | ⇓S | **Sn** | **16 37 06.5** | **-2.2** |
| **LKRN** | **Lenkeran, Azer** | **3.75** | **312** | P | **Pn** | **16 36 24.0** | **-0.3** |
| | SNR=5.8 | | | | | | |
| LKRN | | | | S | **Sn** | **16 37 06.5** | **-2.2** |
| **LRK** | **Lerik** | **3.98** | **308** | ⇓P | **Pn** | **16 36 27.9** | **+0.3** |
| | SNR=4.6 | | | | | | |
| LRK | | | | ⇑S | **Sn** | **16 37 13.7** | **-1.0** |
| **LRK** | **Lerik** | **3.98** | **308** | P | **Pn** | **16 36 27.9** | **+0.3** |
| | SNR=4.6 | | | | | | |
| LRK | | | | S | **Sn** | **16 37 13.7** | **-1.0** |
| **GLBA** | **Clilabad** | **4.32** | **315** | ⇑P | **Pn** | **16 36 32.6** | **+0.4** |
| GLBA | | | | ⇑S | **Sn** | **16 37 21.4** | **-1.5** |
| **GLBA** | **Clilabad** | **4.32** | **315** | P | **Pn** | **16 36 32.6** | **+0.4** |
| GLBA | | | | S | **Sn** | **16 37 21.4** | **-1.5** |
| **TABS** | **Tabas** | **4.71** | **122** | *e*P | **Pn** | **16 36 39.4** | **+1.8** |
| **ATGJ** | **Altiaghaj** | **5.31** | **331** | ⇑P | **Pn** | **16 36 47.5** | **+1.6** |
| ATGJ | | | | ⇓S | **Sn** | **16 37 46.8** | **-0.7** |
| **ATGJ** | **Altiaghaj** | **5.31** | **331** | P | **Pn** | **16 36 47.5** | **+1.6** |
| ATGJ | | | | S | **Sn** | **16 37 46.8** | **-0.7** |
| **PQL** | **Pirkuli** | **5.39** | **328** | ⇓P | **Pn** | **16 36 48.3** | **+1.2** |
| PQL | | | | ⇓S | **Sn** | **16 37 48.8** | **-0.8** |
| **PQL** | **Pirkuli** | **5.39** | **328** | P | **Pn** | **16 36 48.3** | **+1.2** |
| PQL | | | | S | **Sn** | **16 37 48.8** | **-0.8** |
| **SIZA** | **Siyzn** | **5.51** | **332** | ⇑S | **Sn** | **16 37 53.2** | **+0.8** |
| **SIZA** | **Siyzn** | **5.51** | **332** | S | **Sn** | **16 37 53.2** | **+0.8** |
| **ORD** | **Ordubad** | **5.70** | **300** | P | **Pn** | **16 36 53.1** | **+1.8** |
| | SNR=4.6 | | | | | | |
| ORD | | | | S | **Sn** | **16 37 58.8** | **+1.7** |
| **QBL** | **Gabala** | **5.86** | **324** | ⇓P | **Pn** | **16 36 53.7** | **+0.3** |
| | SNR=4.5 | | | | | | |
| QBL | | | | ⇑S | **Sn** | **16 37 58.3** | **-2.7** |
| **XNQ** | **Khinaliq** | **5.90** | **327** | ⇓P | **Pn** | **16 36 54.7** | **+0.6** |
| | SNR=16 | | | | | | |
| XNQ | | | | ⇓S | **Sn** | **16 38 01.1** | **-1.2** |
| **QSAR** | **Qusar** | **6.14** | **330** | ⇑P | **Pn** | **16 36 58.4** | **+1.2** |
| | SNR=6.4 | | | | | | |
| QSAR | | | | ⇓S | **Sn** | **16 38 06.3** | **-1.5** |
| **SEKA** | **Sheki** | **6.37** | **322** | ⇑P | **Pn** | **16 37 01.1** | **+0.7** |
| | SNR=4.1 | | | | | | |
| SEKA | | | | ⇑S | **Sn** | **16 38 12.7** | **-0.8** |
| **SEKA** | **Sheki** | **6.37** | **322** | P | **Pn** | **16 37 01.1** | **+0.7** |
| | SNR=4.1 | | | | | | |
| SEKA | | | | S | **Sn** | **16 38 12.7** | **-0.8** |
| **GANJ** | **Ganja** | **6.44** | **315** | ⇑P | **Pn** | **16 37 01.7** | **+0.3** |
| | SNR=6.8 | | | | | | |
| GANJ | | | | ⇓S | **Sn** | **16 38 13.6** | **-1.7** |
| **GANJ** | **Ganja** | **6.44** | **315** | P | **Pn** | **16 37 01.7** | **+0.3** |
| | SNR=6.8 | | | | | | |
| GANJ | | | | S | **Sn** | **16 38 13.6** | **-1.7** |
| **GDB** | **GEDABAY** | **6.82** | **313** | ⇓P | **Pn** | **16 37 07.1** | **+0.4** |
| | SNR=16 | | | | | | |
| GDB | | | | ⇓S | **Sn** | **16 38 25.2** | **+0.4** |
| **GDB** | **GEDABAY** | **6.82** | **313** | P | **Pn** | **16 37 07.1** | **+0.4** |
| | SNR=16 | | | | | | |
| GDB | | | | S | **Sn** | **16 38 25.2** | **+0.4** |
| **ZKTA** | **Zakatala** | **6.98** | **322** | ⇓P | **Pn** | **16 37 09.9** | **+1.1** |
| | SNR=4.8 | | | | | | |
| ZKTA | | | | ⇓S | **Sn** | **16 38 28.8** | **+0.3** |
| **QZX** | **Qazax, Azerbai** | **7.26** | **313** | ⇑P | **Pn** | **16 37 13.0** | **+0.4** |
| QZX | | | | ⇑S | **Sn** | **16 38 36.2** | **+0.8** |
| **QZX** | **Qazax, Azerbai** | **7.26** | **313** | P | **Pn** | **16 37 13.0** | **+0.4** |
| QZX | | | | S | **Sn** | **16 38 36.2** | **+0.8** |

*ISCJB* ***25*** *16:40:57.5±0.2,6°78N±0.03×73°07W±0.04,h162km±2km, mb4.1/26,Error ellipse: s-maj=6.2km s-min=4.6km az=30.5*
*RSNC* ***25*** *16:40:59.8±0.9,6°80N×73°17W,h151km±5km,ML4.3, Mw4.2*
*IDC* ***25*** *16:40:59.5±2.5,6°81N×72°87W,h171km±18km,mb3.5/13, mb1 3.7/16,mb1mx3.6/33,mbtmp4.0/16,MS3.6/1, Ms1 3.6/1,ms1mx2.8/27,Error ellipse: s-maj=27.3km s-min=13.5km az=20.0*
*NEIC* ***25*** *16:41:01.2±0.5,8°45N×73°89W,h35km,mb4.6/12,Error ellipse: s-maj=13.3km s-min=9.1km az=70.0*

**ISC 25 16:40:58.1±0.6,6°83N±0°04×73°08W±0°04,h156km±5km, n174,σ1§29/189,mb4.2/26,3C,Northern Colombia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BARC** | **Barichara** | **0.26** | **203** | *e*P | **Pn** | **16 41 20.0** | **+0.4** |
| BARC | | | | *e*S | **Sn** | **16 41 35.1** | **-0.8** |
| BARC | | | | *i* | | 16 41 36.6 | |
| | comp=Z,8μm,0.2s | | | | | | |
| **GIRC** | **Giron, Santand** | **0.27** | **336** | *e*P | **Pn** | **16 41 20.1** | **+0.6** |
| GIRC | | | | *e*S | **Sn** | **16 41 36.0** | **+0.2** |
| **PAMC** | **Pamplona, Colo** | **0.63** | **37** | *e*P | **Pn** | **16 41 22.8** | **+1.4** |
| PAMC | | | | *e*S | **Sn** | **16 41 40.1** | **+0.9** |
| PAMC | | | | *i* | | 16 41 42.3 | |
| | comp=Z,2μm,0.5s | | | | | | |
| **BRRC** | **Barranca, Sant** | **0.68** | **294** | ⇑*i*P | **Pn** | **16 41 21.9** | **+0.8** |
| BRRC | | | | *i* | | 16 41 22.2 | |
| | comp=Z,4μm,0.1s | | | | | | |
| BRRC | | | | *e*S | **Sn** | **16 41 39.3** | **+0.6** |
| **CBRI** | **Barrientos, No** | **0.92** | **18** | *e*P | **Pn** | **16 41 24.6** | **+1.5** |
| **RUSC** | **La Rusia** | **0.93** | **180** | *e*P | **Pn** | **16 41 23.9** | **+0.4** |
| RUSC | | | | *e*S | **Sn** | **16 41 43.0** | **0.0** |
| RUSC | | | | *i* | | 16 41 44.5 | |
| | comp=Z,3μm,0.4s | | | | | | |
| **RUSC** | **La Rusia** | **0.93** | **180** | *e*Pn | **Sn** | **16 41 41.6** | **-1.4** |
| **GUEC** | **Guerrero, Nort** | **1.00** | **9** | *e*P | **Pn** | **16 41 25.2** | **+1.3** |
| **PTBC** | **PUERTO BERRIO,** | **1.40** | **258** | *e*P | **Pn** | **16 41 26.4** | **-0.7** |
| PTBC | | | | *e*S | **Sn** | **16 41 47.9** | **-1.4** |
| **OCAC** | **Ocana** | **1.42** | **350** | *e*P | **Pn** | **16 41 28.6** | **+1.1** |
| **YOPC** | **Yopal, Colombi** | **1.61** | **156** | *e*P | **Pn** | **16 41 30.6** | **+1.1** |
| YOPC | | | | *e*S | **Sn** | **16 41 54.8** | **+1.3** |
| **ZARC** | **Zaragoza, Cauc** | **1.88** | **291** | *e*P | **Pn** | **16 41 32.3** | **+0.1** |
| ZARC | | | | *e*S | **Sn** | **16 41 57.8** | **-0.7** |
| ZARC | | | | *i* | | 16 42 03.5 | |
| | comp=Z,2μm,0.6s | | | | | | |
| **NORC** | **Norcasia** | **2.18** | **235** | *e*P | **Pn** | **16 41 35.5** | **-0.2** |
| NORC | | | | *e*S | **Sn** | **16 42 03.1** | **-1.6** |
| **CHIC** | **Chingaza** | **2.28** | **196** | *e*P | **Pn** | **16 41 37.8** | **+0.5** |
| CHIC | | | | *i* | | 16 42 15.6 | |
| | comp=Z,1μm,0.5s | | | | | | |
| **HELC** | **Santa Helena** | **2.51** | **255** | *e*P | **Pn** | **16 41 39.8** | **-0.2** |
| HELC | | | | *i* | | 16 42 18.0 | |
| | comp=Z,1μm,0.4s | | | | | | |
| **HELC** | **Santa Helena** | **2.51** | **255** | *e*Pn | **Pn** | **16 41 41.6** | **+1.6** |
| **VILC** | **Villavicencio,** | **2.77** | **193** | *e*P | **Pn** | **16 41 43.2** | **+0.2** |
| VILC | | | | *e*S | **Sn** | **16 42 16.8** | **-1.0** |
| VILC | | | | *i* | | 16 42 25.0 | |
| | comp=Z,748nm,0.4s | | | | | | |
| **GUYC** | **Guyana, Colomb** | **2.80** | **235** | *e*P | **Pn** | **16 41 44.6** | **+0.9** |
| GUYC | | | | *i* | | 16 42 27.5 | |
| | comp=Z,2μm,0.4s | | | | | | |
| **CODC** | **Agust ́n Codaz** | **3.10** | **353** | *e*P | **Pn** | **16 41 47.5** | **+0.5** |
| CODC | | | | *i* | | 16 42 30.3 | |
| | comp=Z,915nm,0.3s | | | | | | |
| **TOLC** | **Tolima** | **3.15** | **225** | *e*P | **Pn** | **16 41 47.6** | **-0.3** |
| TOLC | | | | *e*S | **Sn** | **16 42 26.3** | **-0.3** |
| **SDV** | **Santo Domingo** | **3.17** | **50** | P | **Pn** | **16 41 49.4** | **+1.3** |
| | comp=Z,53nm,0.3s,baz=230,slow=9.3,SNR=198 | | | | | | |
| SDV | | | | S | **Sn** | **16 42 26.7** | **-0.1** |
| | comp=Z,116nm,0.3s,baz=260,slow=23,SNR=31 | | | | | | |
| **SDV** | **Santo Domingo** | **3.17** | **50** | *e*Pn | **Pn** | **16 41 49.0** | **+0.9** |
| **PRAC** | **Prado** | **3.58** | **210** | *e*P | **Pn** | **16 41 53.0** | **-0.2** |
| PRAC | | | | *e*S | **Sn** | **16 42 35.4** | **-0.6** |
| **YOTC** | **Yotoco, Valle** | **4.31** | **229** | *e*P | **Pn** | **16 42 02.0** | **-0.7** |
| YOTC | | | | *i* | | 16 43 04.6 | |
| | comp=Z,178nm,0.5s | | | | | | |
| **PCRV** | **Puerto La Cruz** | **8.99** | **68** | P | **Pn** | **16 43 03.0** | **-1.7** |
| | comp=Z,0.7nm,0.3s,baz=158,slow=5.4,SNR=3.7 | | | | | | |
| PCRV | | | | S | **Sn** | **16 44 40.9** | **-3.8** |
| | comp=Z,1.2nm,0.3s,baz=255,slow=16,SNR=1.9 | | | | | | |
| **STH** | **Stony Hill** | **11.75** | **342** | *i* P | **Pn** | **16 43 43.6** | **+2.5** |
| **MCJ** | **Malvern** | **11.90** | **338** | *i* P | **Pn** | **16 43 46.0** | **+2.9** |
| **BBJ** | **Bamboo Saint A** | **12.18** | **341** | ⇑*e*P | **P** | **16 43 49.9** | **-2.8** |
| BBJ | | | | ⇑*e*S | **Sn** | **16 45 55.2** | **-6.4** |
| **SJG** | **San Juan** | **13.09** | **30** | P | **Pn** | **16 43 57.0** | **-1.3** |
| | comp=Z,2.4nm,0.3s,baz=207,slow=15,SNR=7.2 | | | | | | |
| **346A** | **Big Creek Wild** | **28.84** | **330** | P | **P** | **16 46 44.3** | **+2.4** |
| | baz=144 | | | | | | |
| **Z49A** | **Columbiana** | **29.05** | **336** | P | **P** | **16 46 46.1** | **+2.4** |
| | baz=152 | | | | | | |
| **Y49A** | **Blount Mountai** | **29.59** | **337** | P | **P** | **16 46 50.5** | **+2.0** |
| | baz=153 | | | | | | |
| **Z47A** | **Carrollton** | **29.70** | **334** | P | **P** | **16 46 51.6** | **+2.2** |
| | baz=149 | | | | | | |
| **Y48A** | **Jasper** | **29.94** | **336** | P | **P** | **16 46 53.1** | **+1.6** |
| | baz=151 | | | | | | |
| **Y47A** | **UCPARC, Winfie** | **30.21** | **335** | P | **P** | **16 46 56.0** | **+2.1** |
| | baz=150 | | | | | | |
| **TKL** | **Tuckaleechee C** | **30.32** | **343** | LR | LR | 16 59 01.8 | |
| | comp=Z,98nm,18.6s,baz=4.0,slow=36 | | | | | | |
| **X48A** | **Hartselle** | **30.36** | **337** | P | **P** | **16 46 57.3** | **+2.0** |
| | baz=152 | | | | | | |
| **Y46A** | **Houston** | **30.62** | **334** | P | **P** | **16 46 59.5** | **+1.9** |
| | baz=148 | | | | | | |
| **X47A** | **Russelville** | **30.74** | **336** | P | **P** | **16 47 00.3** | **+1.7** |
| | baz=151 | | | | | | |
| **X45A** | **UM Field Stati** | **31.32** | **333** | P | **P** | **16 47 04.7** | **+1.0** |
| | baz=148 | | | | | | |
| **V48A** | **Smith Brothers** | **31.41** | **338** | P | **P** | **16 47 05.8** | **+1.3** |
| | baz=154 | | | | | | |
| **Z42A** | **Norrel Spur, H** | **31.60** | **329** | P | **P** | **16 47 08.3** | **+2.2** |
| | baz=142 | | | | | | |
| **W45A** | **Hickory Valley** | **31.85** | **334** | P | **P** | **16 47 09.8** | **+1.5** |
| | baz=149 | | | | | | |
| **U48A** | **Cassie Pea, Po** | **32.00** | **339** | P | **P** | **16 47 11.7** | **+2.1** |
| | baz=155 | | | | | | |
| **WVT** | **Waverly** | **32.14** | **337** | P | **P** | **16 47 12.3** | **+1.4** |
| | baz=152 | | | | | | |
| **Y41A** | **Eaglette Beard** | **32.42** | **329** | P | **P** | **16 47 14.7** | **+1.4** |
| | baz=142 | | | | | | |
| **T47A** | **Sharon Grove** | **32.63** | **339** | P | **P** | **16 47 16.7** | **+1.6** |
| | baz=154 | | | | | | |
| **833A** | **Chaparral WMA,** | **32.80** | **314** | P | **P** | **16 47 18.1** | **+1.3** |
| | baz=125 | | | | | | |
| **S48A** | **Wiedeman Farm,** | **32.87** | **341** | P | **P** | **16 47 18.7** | **+1.4** |
| | baz=156 | | | | | | |
| **T46A** | **Princeton** | **32.96** | **338** | P | **P** | **16 47 19.7** | **+1.6** |
| | baz=153 | | | | | | |
| **X40A** | **Basin Creek Fa** | **33.01** | **329** | P | **P** | **16 47 19.7** | **+1.2** |
| | baz=142 | | | | | | |
| **435B** | **Jarrell** | **33.09** | **319** | P | **P** | **16 47 20.4** | **+1.1** |
| | baz=130 | | | | | | |
| **Y39A** | **Lockesburg** | **33.24** | **327** | P | **P** | **16 47 20.9** | **+0.4** |
| | baz=139 | | | | | | |
| **W41B** | **Gary Mavity, V** | **33.26** | **331** | P | **P** | **16 47 21.6** | **+0.9** |
| | baz=144 | | | | | | |
| **V42A** | **Cord** | **33.37** | **332** | P | **P** | **16 47 22.6** | **+1.0** |
| | baz=146 | | | | | | |
| **S46A** | **Don Dixon Farm** | **33.47** | **339** | P | **P** | **16 47 23.5** | **+1.1** |
| | baz=153 | | | | | | |
| **WCI** | **Wyandotte Cave** | **33.47** | **341** | P | **P** | **16 47 23.1** | **+0.7** |
| | baz=156 | | | | | | |
| **Y38A** | **Idabel** | **33.59** | **326** | P | **P** | **16 47 25.2** | **+1.8** |
| | baz=138 | | | | | | |
| **R47A** | **Wooly Knot Far** | **33.61** | **341** | P | **P** | **16 47 25.4** | **+1.8** |
| | baz=156 | | | | | | |
| **W40A** | **Ferguson Farm,** | **33.68** | **330** | P | **P** | **16 47 25.7** | **+1.4** |
| | baz=142 | | | | | | |
| **X39A** | **Fountain Ranch** | **33.69** | **328** | P | **P** | **16 47 26.0** | **+1.6** |
| | baz=140 | | | | | | |
| **V41A** | **Mountainview** | **33.71** | **331** | P | **P** | **16 47 25.4** | **+0.8** |
| | baz=144,SNR=6.8 | | | | | | |
| **S45A** | **Carrier Mills** | **33.78** | **338** | P | **P** | **16 47 26.4** | **+1.3** |
| | baz=152 | | | | | | |
| **R46A** | **Gibon Southern** | **33.87** | **339** | P | **P** | **16 47 27.3** | **+1.5** |
| | baz=154 | | | | | | |
| **T43A** | **Greenville** | **33.95** | **335** | P | **P** | **16 47 27.8** | **+1.3** |
| | baz=148 | | | | | | |
| **V40A** | **Witts Springs** | **34.05** | **331** | P | **P** | **16 47 29.0** | **+1.5** |
| | baz=143 | | | | | | |
| **W39A** | **Magazine** | **34.05** | **329** | P | **P** | **16 47 28.5** | **+1.0** |
| | baz=141 | | | | | | |
| **S44A** | **Carbondale** | **34.05** | **337** | P | **P** | **16 47 29.1** | **+1.6** |
| | baz=151 | | | | | | |
| **U41A** | **Viola** | **34.05** | **332** | P | **P** | **16 47 28.6** | **+1.1** |
| | baz=145,SNR=5.7 | | | | | | |
| **Y37A** | **Hugo** | **34.12** | **325** | P | **P** | **16 47 29.2** | **+1.1** |
| | baz=137 | | | | | | |
| **Q47A** | **Bedord North L** | **34.16** | **341** | P | **P** | **16 47 30.1** | **+1.8** |
| | baz=156 | | | | | | |
| **X38A** | **Whitesboro** | **34.20** | **327** | P | **P** | **16 47 30.1** | **+1.3** |
| | baz=139 | | | | | | |
| **R45A** | **Skylar, Fairfi** | **34.21** | **338** | P | **P** | **16 47 30.3** | **+1.5** |
| | baz=153 | | | | | | |
| **T42A** | **Van Buren** | **34.25** | **334** | P | **P** | **16 47 30.2** | **+1.0** |
| | baz=147 | | | | | | |
| **R44A** | **Waltonville** | **34.47** | **337** | P | **P** | **16 47 32.2** | **+1.2** |
| | baz=151 | | | | | | |
| **V39A** | **Pettigrew** | **34.48** | **330** | P | **P** | **16 47 32.0** | **+0.7** |
| | baz=142 | | | | | | |
| **U40A** | **Yellville** | **34.50** | **331** | P | **P** | **16 47 32.4** | **+1.0** |
| | baz=144,SNR=9.8 | | | | | | |
| **Q46A** | **CEJHS Indians,** | **34.54** | **340** | P | **P** | **16 47 33.0** | **+1.3** |
| | baz=155,SNR=5.2 | | | | | | |
| **T41A** | **Mountain View** | **34.56** | **333** | P | **P** | **16 47 32.9** | **+1.0** |
| | baz=146 | | | | | | |
| **P47A** | **Martinsville** | **34.61** | **342** | P | **P** | **16 47 34.1** | **+1.8** |
| | baz=157 | | | | | | |
| **S42A** | **Caledonia** | **34.74** | **335** | P | **P** | **16 47 34.1** | **+0.7** |
| | baz=148 | | | | | | |
| **R43A** | **Red Bud** | **34.83** | **336** | P | **P** | **16 47 34.8** | **+0.7** |
| | baz=150 | | | | | | |
| **U39A** | **Green Forest** | **34.83** | **330** | P | **P** | **16 47 34.7** | **+0.5** |
| | baz=143 | | | | | | |
| **V38A** | **Canehill** | **34.88** | **329** | P | **P** | **16 47 35.1** | **+0.4** |
| | baz=141,SNR=5.1 | | | | | | |
| **X36A** | **Centrahoma** | **34.96** | **325** | P | **P** | **16 47 35.4** | **0.0** |
| | baz=136 | | | | | | |
| **T40A** | **Mansfield** | **34.99** | **332** | P | **P** | **16 47 36.2** | **+0.7** |
| | baz=145 | | | | | | |
| **S41A** | **Jillco Farms,** | **35.00** | **334** | P | **P** | **16 47 37.2** | **+1.6** |
| | baz=146 | | | | | | |
| **P46A** | **Rosedale** | **35.03** | **341** | P | **P** | **16 47 36.9** | **+1.1** |
| | baz=156 | | | | | | |
| **P45A** | **Graceland, Par** | **35.12** | **340** | P | **P** | **16 47 37.2** | **+0.5** |
| | baz=155 | | | | | | |
| **CCM** | **Cathedral Cave** | **35.18** | **335** | P | **P** | **16 47 38.1** | **+1.0** |
| | baz=148 | | | | | | |
| **CCM** | **Cathedral Cave** | **35.18** | **335** | *e*P | **P** | **16 47 38.1** | **+1.0** |
| | comp=Z,8.8nm,0.6s | | | | | | |
| **R42A** | **Luebbering** | **35.18** | **335** | P | **P** | **16 47 38.3** | **+1.2** |
| | baz=149 | | | | | | |
| **U38A** | **Gravette** | **35.32** | **330** | P | **P** | **16 47 38.6** | **+0.2** |
| | baz=141 | | | | | | |
| **S40A** | **Lebanon** | **35.

baz=144
**ANMO Albuquerque 41.53 317** P **P** **16 48 32.4 +1.8**
comp=Z,0.4nm,0.5s,baz=333,slow=9.0,SNR=3.1
**ECSD EROS Data Cent 42.15 334** P **P** **16 48 35.6 +0.4**
baz=144
**SDCO Great Sand Dun 42.56 321** P **P** **16 48 40.2 +1.2**
baz=128
**SDCO Great Sand Dun 42.56 321** *e*P **P** **16 48 40.7 +1.8**
comp=Z,14nm,1.8s
**E36A McGregor 43.19 340** P **P** **16 48 44.2 +0.7**
baz=150
**TUC Tucson 43.27 311** P **P** **16 48 45.5 +1.1**
baz=117
**S22A 4UR Ranch, Cre 43.40 320** P **P** **16 48 46.8 +1.1**
baz=126
**E34A Wadena 43.87 338** P **P** **16 48 49.9 +1.0**
baz=148
**EYMN Ely 43.87 342** *e*P **P** **16 48 49.4 +0.4**
**ISCO Idaho Springs 43.92 323** P **P** **16 48 51.4 +1.6**
baz=129
**C35A Jirik Farms, M 44.46 340** P **P** **16 48 54.2 +0.7**
baz=150
**D33A AnnSam, Waubun 44.65 338** P **P** **16 48 55.9 +0.8**
baz=147,SNR=5.9
**WUAZ Wupatki 45.24 315** P **P** **16 49 01.5 +1.3**
baz=119,SNR=5.3
**WUAZ Wupatki 45.24 315** *e*P **P** **16 49 01.5 +1.3**
comp=Z,6.6nm,1.0s
**B34A Aery, Baudette 45.36 340** P **P** **16 49 01.5 +0.8**
baz=150
**AGMN Agassiz Nation 45.63 339** P **P** **16 49 03.5 +0.7**
baz=148
**B32A Ashes, Strandq 45.95 338** P **P** **16 49 06.1 +0.7**
baz=147
**A33A Warroad 46.00 340** P **P** **16 49 06.5 +0.8**
baz=149
**ULM Lac du Bonnet 47.29 340** P **P** **16 49 15.4 -0.3**
comp=Z,2.4nm,0.4s,baz=150,slow=7.6,SNR=13
**PDAR Pinedale Array 48.09 324** P **P** **16 49 22.4 0.0**
comp=Z,0.7nm,0.5s,baz=119,slow=9.2,SNR=7.3
**SCHQ Schefferville 48.13 5** P **P** **16 49 23.2 +1.1**
comp=Z,6.1nm,0.6s,baz=189,slow=6.7,SNR=16
**TCUT Toone Canyon 48.24 321** *e*P **P** **16 49 24.6 +1.1**
comp=Z,7.6nm,0.6s
**TUQ Turquoise Moun 48.49 312** P **P** **16 49 26.6 +1.2**
baz=115
**DUG Dugway, Tooele 48.63 319** P **P** **16 49 27.5 +1.1**
baz=122
**BGU Big Grassy Mou 49.16 320** *e*P **P** **16 49 31.1 +0.6**
comp=Z,3.6nm,0.8s
**TPNV Topopah Spring 49.39 314** P **P** **16 49 33.9 +1.7**
baz=116
**RLMT Red Lodge 49.39 327** P **P** **16 49 33.1 +0.9**
baz=129
**R11A Troy Canyon, C 49.56 316** P **P** **16 49 34.9 +1.4**
baz=118
**HLID Hailey 51.45 322** P **P** **16 49 49.3 +1.7**
baz=123
**NVAR Mina Array Bea 51.50 315** P **P** **16 49 49.1 +0.9**
comp=Z,0.6nm,0.5s,baz=116,slow=7.2,SNR=6.9
**YKA Yellowknife Ar 63.27 340** P **P** **16 51 10.1 +0.3**
comp=Z,1.1nm,0.5s,baz=133,slow=6.7,SNR=60
**TIC Toumodi 67.54 86** *e*P **P** **16 51 40.0 +1.8**
**LIC Lamto 67.56 86** *e*P **P** **16 51 36.9 -1.5**
comp=Z,44nm,1.8s
**DBIC Dimbokro 67.70 86** P **P** **16 51 38.0 -1.2**
comp=Z,1.7nm,0.5s,baz=296,slow=4.3,SNR=4.0
**KIC Kosan Boka 67.83 86** *e*P **P** **16 51 38.2 -1.9**
comp=Z,8.7nm,0.7s
**ESDC Sonseca Array 69.62 50** P **P** **16 51 49.1 -1.6**
comp=Z,0.1nm,0.3s,baz=246,slow=6.4,SNR=2.7
**INK Inuvik 73.03 340** P **P** **16 52 10.8 +0.3**
comp=Z,0.4nm,0.5s,baz=124,slow=3.5,SNR=6.1
**TORD Torodi Ar. Bea 73.70 78** P **P** **16 52 13.7 -1.8**
comp=Z,0.3nm,0.4s,baz=281,slow=5.2,SNR=4.5
**ILAR Eielson Array 76.97 335** P **P** **16 52 33.2 0.0**
comp=Z,0.2nm,0.7s,baz=99,slow=4.7,SNR=3.4
**ARCES ARCESS Array B 86.65 20** P **P** **16 53 23.9 +0.1**
comp=Z,6.8nm,1.0s,baz=285,slow=7.3,SNR=3.8
**MKAR Makanchi Array 122.30 20** PKP **PKPdf** **16 59 34.0 -0.9**
comp=Z,1.1nm,1.0s,baz=304,slow=2.2,SNR=4.2
**SONM Songino Array 125.57 0** PKP **PKPdf** **16 59 41.4 +0.2**
comp=Z,0.7nm,0.8s,baz=246,slow=1.1,SNR=2.8
**ASAR Alice Springs 149.15 234** PKPbc **PKPbc** **17 00 28.5 -0.5**
comp=Z,0.2nm,0.3s,baz=120,slow=3.3,SNR=3.4
**WRA Warramunga Arr 150.38 241** PKPbc **PKPbc** **17 00 31.4 -0.6**
comp=Z,0.4nm,0.3s,baz=105,slow=3.0,SNR=7.6
**CMAR Chiang Mai Arr 153.67 17** PKPbc **PKPbc** **17 00 39.0 -0.5**
comp=Z,0.6nm,0.6s,baz=324,slow=3.5,SNR=6.7

---

*IDC* ***25*** *16:46:49.0±0.5, 31˚.14N×103˚.58E, h0km, mb4.4/29, mb1 4.5/30, mb1mx4.5/41, mbtmp4.4/30, ML3.8/1, MS3.9/11, Ms1 3.9/11, ms1mx3.6/48, Error ellipse: s-maj=14.1km s-min=10.5km az=44.0*

*MOS* ***25*** *16:46:50.8±1.0, 31˚.28N×103˚.85E, h25km, mb5.1/30, Error ellipse: s-maj=7.6km s-min=5.0km az=101.5*

*BJI* ***25*** *16:46:51.7, 31˚.37N×103˚.79E, h20km, mb4.6/36, mB5.2/28, ML5.0/20, Ms4.7/39, Ms7 4.4/38*

*ISCJB* ***25*** *16:46:52.5±0.5, 31˚.26N±0˚.02×103˚.78E±0˚.03, h38km±4km, mb4.6/90, MS3.8/12, Error ellipse: s-maj=3.8km s-min=3.4km az=157.5*

*NEIC* ***25*** *16:46:54.3±0.4, 31˚.28N×103˚.81E, h39km±4km, mb4.8/40, Error ellipse: s-maj=4.2km s-min=4.0km az=86.0*

*NEIC Felt [III] at Chengdu. Also felt at Leshan.*

**ISC 25 16:46:53.8±0.5, 31˚.18N±0˚.03×103˚.81E±0˚.03, h30km±3km, n256,⌐2⌐16/283, mb4.7/91, MS3.9/12, 12C-3D, Sichuan**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | | |
| **CD2** | **Chengdu** | **0.27** | **189** | Pg | **Pb** | **16 47 00.0** | **-1.0** |
| CD2 | | | | Sg | **Sn** | **16 47 07.0** | **+0.1** |
| CD2 | | | | smax | smax | | |
| | comp=N,169μm,0.8s | | | | | | |
| CD2 | | | | smax | smax | | |
| | comp=E,108μm,0.5s | | | | | | |
| **CD2** | **Chengdu** | **0.27** | **189** | Pg | **Pb** | **16 47 00.0** | **-1.0** |
| CD2 | | | | Sg | **Sn** | **16 47 07.0** | **+0.1** |
| **LZH** | **Lanzhou** | **4.90** | **0** | Pn | **Pn** | **16 48 07.8** | **+2.3** |
| LZH | | | | Pg | **Pb** | **16 48 22.0** | **+3.1** |
| LZH | | | | Sn | **Sn** | **16 49 04.5** | **+3.3** |
| LZH | | | | Sg | **Sb** | **16 49 22.5** | **+5.1** |
| LZH | | | | smax | smax | | |
| | comp=N,980nm,1.0s | | | | | | |
| LZH | | | | smax | smax | | |
| | comp=E,1μm,1.1s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=N,4μm,5.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=E,5μm,4.8s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,6μm,6.0s | | | | | | |
| **ENH** | **Enshi** | **4.97** | **99** | *e*Pn | **Pn** | **16 48 06.2** | **-0.2** |
| **XAN** | **Xi'an** | **5.17** | **55** | Pn | **Pn** | **16 48 06.5** | **-2.7** |
| XAN | | | | Pg | **Pb** | **16 48 21.0** | **-2.6** |
| XAN | | | | Sg | **Sb** | **16 49 28.0** | **+2.7** |
| XAN | | | | smax | smax | | |
| | comp=Z,2μm,0.9s | | | | | | |
| XAN | | | | smax | smax | | |
| | comp=Z,3μm,0.9s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,3μm,9.3s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,3μm,10.3s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,4μm,10.9s | | | | | | |
| **XAN** | **Xi'an** | **5.17** | **55** | P | **Pn** | **16 48 06.5** | **-2.7** |
| **XAN** | **Xi'an** | **5.17** | **55** | Pn | **Pn** | **16 48 06.5** | **-2.7** |
| XAN | | | | Pg | **Pb** | **16 48 21.0** | **-2.6** |
| XAN | | | | Sg | **Sb** | **16 49 28.0** | **+2.7** |
| **GYA** | **Guiyang** | **5.33** | **151** ⇑ | *i*Pn | **Pn** | **16 48 13.8** | **+2.4** |
| GYA | | | | Pg | Pb | 16 48 33.0 | +6.7 |
| GYA | | | | Sn | **Sn** | **16 49 13.5** | **+1.7** |
| GYA | | | | smax | smax | | |
| | comp=Z,2μm,1.1s | | | | | | |
| GYA | | | | smax | smax | | |
| | comp=Z,2μm,1.0s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,2μm,9.2s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,3μm,9.9s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,2μm,7.7s | | | | | | |
| **GYA** | **Guiyang** | **5.33** | **151** ⇑ | *i*Pn | **Pn** | **16 48 13.8** | **+2.4** |
| GYA | | | | Pg | Pb | 16 48 33.0 | +6.7 |
| GYA | | | | Sn | **Sn** | **16 49 13.5** | **+1.7** |
| **KMI** | **Kunming** | **6.10** | **189** | Pn | **Pn** | **16 48 24.5** | **+2.3** |
| KMI | | | | Sn | **Sn** | **16 49 34.5** | **+3.4** |
| KMI | | | | smax | smax | | |
| | comp=Z,370nm,0.7s | | | | | | |
| KMI | | | | smax | smax | | |
| | comp=Z,330nm,0.9s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,2μm,4.1s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,4μm,4.4s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,3μm,11.0s | | | | | | |
| **KMI** | **Kunming** | **6.10** | **189** | P | **Pn** | **16 48 24.5** | **+2.3** |
| KMI | | | | | | 16 49 34.5 | |
| **KMI** | **Kunming** | **6.10** | **189** | Pn | **Pn** | **16 48 24.5** | **+2.3** |
| KMI | | | | Sn | **Sn** | **16 49 34.5** | **+3.4** |
| **GTA** | **Gaotai** | **8.84** | **339** | *e*P | **Pn** | **16 49 00.5** | **+0.9** |
| GTA | | | | pP | | 16 49 05.5 | |
| GTA | | | | sP | | 16 49 09.3 | |
| GTA | | | | S | **Sn** | **16 50 39.8** | **+1.6** |
| GTA | | | | sS | | 16 50 48.3 | |
| GTA | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.0s | | | | | | |
| GTA | | | | pmax | pmax | | |
| | comp=Z,460nm,6.4s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,2μm,12.1s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,4μm,12.8s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,2μm,12.6s | | | | | | |
| **GTA** | **Gaotai** | **8.84** | **339** | *e*P | **Pn** | **16 49 00.5** | **+0.9** |
| **WHN** | **Wuhan** | **9.08** | **91** | P | **Pn** | **16 49 01.0** | **-1.8** |
| WHN | | | | LR | LR | | |
| | comp=Z,4μm,9.0s | | | | | | |
| **WHN** | **Wuhan** | **9.08** | **91** | P | **Pn** | **16 49 01.0** | **-1.8** |
| **LSA** | **Lhasa** | **11.02** | **266** | P | **Pn** | **16 49 31.8** | **+1.9** |
| LSA | | | | pmax | pmax | | |
| | comp=Z,11nm,0.7s | | | | | | |
| **LSA** | **Lhasa** | **11.02** | **266** | *e*P | **Pn** | **16 49 31.1** | **+1.2** |
| **LSA** | **Lhasa** | **11.02** | **266** | *e*Pn | **Pn** | **16 49 31.1** | **+1.2** |
| **HHC** | **Hu-ho-hao-te** | **11.51** | **31** | *e*P | Pn | 16 49 43.8 | +7.7 |
| HHC | | | | S | Sn | 16 51 52.5 | +8.9 |
| HHC | | | | sS | | 16 52 01.0 | |
| HHC | | | | SS | **SnSn** | **16 52 06.5** | **+11** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,11nm,1.1s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,340nm,5.6s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=N,2μm,12.4s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=E,1μm,10.6s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,1μm,12.9s | | | | | | |
| **GZH** | **Guangzhou** | **11.70** | **131** | P | Pn | 16 49 34.0 | -4.7 |
| GZH | | | | S | Sn | 16 51 38.0 | -10 |
| GZH | | | | smax | smax | | |
| | comp=N,290nm,1.1s | | | | | | |
| GZH | | | | smax | smax | | |
| | comp=E,330nm,1.2s | | | | | | |
| **SHL** | **Shillong** | **11.89** | **245** | *e*P | **Pn** | **16 49 44.0** | **+2.5** |
| **TIA** | **Tai'an** | **12.17** | **62** | P | **Pn** | **16 49 46.0** | **+0.9** |
| TIA | | | | S | **Sn** | **16 52 05.0** | **+5.3** |
| TIA | | | | pmax | pmax | | |
| | comp=E,26nm,0.6s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=E,680nm,10.3s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=E,520nm,6.4s | | | | | | |
| TIA | | | | LR | LR | | |
| | comp=E,580nm,6.7s | | | | | | |
| **TIA** | **Tai'an** | **12.17** | **62** | P | **Pn** | **16 49 46.0** | **+0.9** |
| **NJ2** | **Nanjing** | **12.86** | **82** | *e*P | **Pn** | **16 49 54.8** | **+0.3** |
| NJ2 | | | | S | **Sn** | **16 52 17.0** | **+0.5** |
| NJ2 | | | | pmax | pmax | | |
| | comp=E,13nm,0.5s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=E,1μm,9.8s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=E,2μm,10.3s | | | | | | |
| NJ2 | | | | LR | LR | | |
| | comp=E,2μm,10.8s | | | | | | |
| **CMMT** | **Chiang Mai** | **13.07** | **201** | P | **Pn** | **16 50 00.0** | **+2.5** |
| | comp=E,54nm,0.9s | | | | | | |
| **CHTO** | **Chiang Mai** | **13.07** | **201** | P | **Pn** | **16 50 00.1** | **+2.6** |
| | comp=E,243nm,0.9s,comp=E,3μm | | | | | | |
| **CHTO** | **Chiang Mai** | **13.07** | **201** | *e*P | **Pn** | **16 49 59.5** | **+2.0** |
| **CHTO** | **Chiang Mai** | **13.07** | **201** | *e*Pn | **Pn** | **16 49 59.5** | **+2.0** |
| **QIZ** | **Qiongzhong** | **13.27** | **154** | P | **Pn** | **16 50 01.8** | **+1.6** |
| QIZ | | | | S | **Sn** | **16 52 31.5** | **+4.8** |
| QIZ | | | | pmax | pmax | | |
| | comp=E,22nm,1.7s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=E,3μm,15.5s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=E,1μm,10.5s | | | | | | |
| **QIZ** | **Qiongzhong** | **13.27** | **154** | *e*Pn | **Pn** | **16 49 59.5** | **-0.7** |
| **BJI** | **Beijing** | **13.38** | **45** | P | **Pn** | **16 50 00.3** | **-1.3** |
| BJI | | | | pmax | pmax | | |
| | comp=E,7.0nm,0.8s | | | | | | |
| BJI | | | | pmax | pmax | | |
| | comp=E,220nm,3.9s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=E,1μm,4.6s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=E,610nm,6.2s | | | | | | |
| **CM31** | **Chiang Mai Arr** | **13.41** | **200** | *e*Pn | **Pn** | **16 50 04.4** | **+2.3** |
| **CMAR** | **Chiang Mai Arr** | **13.41** | **200** | Pn | **Pn** | **16 50 04.7** | **+2.6** |
| | comp=E,1.1nm,0.3s,baz=12,slow=11,SNR=99 | | | | | | |
| CMAR | | | | Lg | Lg | 16 54 01.0 | |
| | comp=E,0.1nm,0.3s,baz=34,slow=32,SNR=2.2 | | | | | | |
| CMAR | | | | LR | LR | 16 55 53.7 | |
| | comp=E,745nm,19.1s,baz=9.0,slow=41 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **13.41** | **200** | *ce*P | **Pn** | **16 50 04.6** | **+2.5** |
| CMAR | | | | pmax | pmax | | |
| | comp=Z,24nm,0.8s | | | | | | |
| **CM01** | **Chiang Mai Arr** | **13.44** | **200** | *e*Pn | **Pn** | **16 50 04.6** | **+2.1** |
| **BRDH** | **Bariadhala** | **13.75** | **235** | LR | LR | 16 56 22.1 | |
| | comp=Z,356nm,21.2s,baz=38,slow=42 | | | | | | |
| **SKNT** | **Sakolnakorn** | **14.14** | **179** | P | **Pn** | **16 50 14.9** | **+2.8** |
| | comp=Z,36nm,0.7s | | | | | | |
| **TAPN** | **Taplejung** | **14.56** | **259** | *e*P | **Pn** | **16 50 16.9** | **-1.1** |
| | comp=Z,25nm,0.6s | | | | | | |
| **PBKT** | **Sadao Pong** | **14.77** | **191** | P | **Pn** | **16 50 23.1** | **+2.5** |
| | comp=Z,178nm,0.7s,comp=Z,3μm | | | | | | |
| **KHON** | **Khonkaen** | **14.80** | **184** | P | **Pn** | **16 50 22.8** | **+1.8** |
| | comp=Z,53nm,0.7s,comp=Z,615nm | | | | | | |
| **ODAN** | **Odare** | **14.99** | **257** | *e*P | **Pn** | **16 50 21.9** | **-1.9** |
| | comp=Z,52nm,0.8s | | | | | | |
| **CHAI** | **Chaiyaphum** | **15.30** | **187** | P | **Pn** | **16 50 29.4** | **+1.8** |
| | comp=Z,24nm,0.6s,comp=Z,208nm | | | | | | |
| **JIRN** | **Jiri** | **15.75** | **262** | *e*P | **Pn** | **16 50 32.0** | **-1.8** |
| | comp=Z,458nm,0.8s | | | | | | |
| **GUN** | **Gumba** | **15.94** | **263** | *e*P | **Pn** | **16 50 33.8** | **-2.5** |
| | comp=Z,175nm,0.8s | | | | | | |
| **UTHA** | **Uthaitani** | **16.05** | **195** | P | **P** | **16 50 39.2** | **-1.3** |
| | comp=Z,58nm,0.7s,comp=Z,440nm | | | | | | |
| **PKI** | **Pulchoki** | **16.43** | **262** | *e*P | **Pn** | **16 50 39.8** | **-2.8** |
| | comp=Z,121nm,0.8s | | | | | | |
| **PKIN** | **Phulchoki** | **16.44** | **262** | *e*P | **Pn** | **16 50 40.1** | **-2.5** |
| | comp=Z,85nm,0.7s | | | | | | |
| **KKN** | **Kakani** | **16.48** | **263** | *e*P | **Pn** | **16 50 41.0** | **-2.1** |
| | comp=Z,80nm,0.6s | | | | | | |
| **DMN** | **Daman** | **16.68** | **262** | *e*P | **Pn** | **16 50 43.0** | **-2.6** |
| | comp=Z,115nm,0.7s | | | | | | |
| **SONM** | **Songino Array** | **16.75** | **6** | Pn | **Pn** | **16 50 44.0** | **-2.2** |
| | comp=Z,0.3nm,0.3s,baz=186,slow=12,SNR=60 | | | | | | |
| SONM | | | | LR | LR | 16 57 43.6 | |
| | comp=Z,818nm,20.8s,baz=186,slow=39 | | | | | | |
| **SONA1** | **Songino Array** | **16.77** | **6** | *e*Pn | **Pn** | **16 50 45.1** | **-1.3** |
| **YHNB** | **Yeheng** | **16.82** | **108** | *e*P | **P** | **16 50 48.9** | **-0.2** |
| **ULN** | **Ulaanbaatar** | **16.85** | **8** | *ce*P | **Pn** | **16 50 45.5** | **-2.0** |
| ULN | | | | pmax | pmax | | |
| | comp=Z,16nm,1.0s | | | | | | |
| **ULN** | **Ulaanbaatar** | **16.85** | **8** | *e*Pn | **Pn** | **16 50 45.6** | **-1.9** |
| | comp=Z,26nm,1.2s | | | | | | |
| **TPUB** | **Ta-pu** | **16.88** | **114** | *e*P | **Pn** | **16 50 48.1** | **+0.2** |
| **SSLB** | **Suanglung** | **16.89** | **112** | *e*Pn | **P** | **16 50 49.7** | **-0.1** |
| | comp=Z,34nm,0.9s | | | | | | |
| **NAYO** | **Nakonayok** | **16.94** | **188** | P | **P** | **16 50 50.6** | **+0.3** |
| | comp=Z,57nm,1.1s | | | | | | |
| **SRAK** | **Srakaew** | **17.16** | **186** | P | **Pn** | **16 50 51.7** | **+0.3** |
| | comp=Z,138nm,0.8s,comp=Z,1μm | | | | | | |
| **SRDT** | **SRDT** | **17.29** | **195** | P | **P** | **16 50 54.4** | **+0.1** |
| | comp=Z,169nm,1.2s | | | | | | |
| **KOLN** | **Koldanda** | **17.92** | **264** | *e*P | **Pn** | **16 50 58.1** | **-2.9** |
| | comp=Z,72nm,0.8s | | | | | | |
| **WMQ** | **Urumqi** | **17.93** | **319** | P | **Pn** | **16 50 59.8** | **-1.0** |
| WMQ | | | | pP | pP | 16 51 05.5 | -3.8 |
| WMQ | | | | sP | sP | 16 51 09.5 | -3.7 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,34nm,1.1s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,2μm,8.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,1μm,13.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,500nm,14.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,670nm,19.1s | | | | | | |
| **PYUN** | **Piuthan** | **18.35** | **266** | *e*P | **P** | **16 51 03.7** | **-2.5** |
| | comp=Z,111nm,0.9s | | | | | | |
| **PHET** | **Kaeng Krachan** | **18.58** | **193** | P | **Pn** | **16 51 10.7** | **+1.8** |
| | comp=Z,37nm,0.8s,comp=Z,325nm | | | | | | |
| **ZAK** | **Zakamensk** | **19.19** | **359** | *e*P | **P** | **16 51 14.9** | **-0.2** |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,18nm,1.2s | | | | | | |
| **TJN** | **Taejon** | **20.24** | **69** | *i*P | Pn | 16 51 27.8 | -0.8 |
| **TLY** | **Talaya** | **20.49** | **360** | P | Pn | 16 51 32.6 | +1.2 |
| | comp=Z,4.9nm,0.6s,baz=132,slow=18,SNR=3.6 | | | | | | |
| TLY | | | | LR | LR | 16 58 39.9 | |
| | comp=Z,69nm,21.4s,baz=173,slow=35 | | | | | | |
| **TLY** | **Talaya** | **20.49** | **360** | *e*P | Pn | 16 51 32.7 | +1.3 |
| TLY | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.9s | | | | | | |
| TLY | | | | MLR | MLR | | |
| | comp=Z,617nm,11.0s | | | | | | |
| **KS15** | **Wonju Array Si** | **20.82** | **66** | *e*P | **P** | **16 51 33.1** | **+0.4** |
| **KSAR** | **Wonju Array Be** | **20.82** | **66** | P | **P** | **16 51 32.3** | **-0.5** |
| **KSAR** | **Wonju Array Be** | **20.82** | **66** | P | **P** | **16 51 32.2** | **-0.5** |
| **KS01** | **Wonju Array Si** | **20.83** | **66** | *e*P | **P** | **16 51 33.2** | **+0.3** |
| **KSRS** | **Korea Array** | **20.85** | **66** | P | **P** | **16 51 32.2** | **-0.9** |
| | comp=Z,6.2nm,0.6s,baz=258,slow=9.0,SNR=14 | | | | | | |
| KSRS | | | | LR | LR | 16 59 27.8 | |
| | comp=Z,309nm,18.8s,baz=269,slow=36 | | | | | | |
| **IRK** | **Irkutsk** | **21.05** | **1** | *e*P | **P** | **16 51 34.7** | **-0.5** |
| IRK | | | | pmax | pmax | | |
| | comp=Z,155nm,1.5s | | | | | | |
| **CN2** | **Changchun** | **21.23** | **48** | *e*P | **P** | **16 51 36.0** | **-1.1** |
| CN2 | | | | *e*PP | **PnPn** | **16 51 59.5** | **+2.5** |
| CN2 | | | | *e*S | **S** | **16 55 26.3** | **-5.1** |
| CN2 | | | | *e*SS | **SnSn** | **16 55 59.8** | **+5.5** |
| CN2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| **HVS** | **Khovu-Aksy** | **21.30** | **342** | *d i*P | **P** | **16 51 37.6** | **-0.4** |
| HVS | | | | pmax | pmax | | |
| | comp=Z,78nm,0.7s | | | | | | |
| **HIA** | **Hailar** | **21.70** | **29** | *e*P | **P** | **16 51 41.6** | **-0.6** |
| HIA | | | | pmax | pmax | | |
| | comp=Z,11nm,0.7s | | | | | | |
| **HIA** | **Hailar** | **21.70** | **29** | *e*P | **P** | **16 51 41.6** | **-0.6** |
| | comp=Z,11nm,0.7s | | | | | | |
| **CIT** | **Chita** | **22.03** | **16** | *e*P | **P** | **16 51 48.2** | **+2.5** |
| CIT | | | | *e* | | 16 52 00.5 | |
| CIT | | | | *e* | | 16 52 13.3 | |
| CIT | | | | pmax | pmax | | |
| | comp=Z,78nm,1.2s | | | | | | |
| **MK01** | **Makanchi Array** | **22.74** | **319** | *e*P | **P** | **16 51 52.1** | **-1.2** |
| **PDGK** | **Podgornoye** | **22.75** | **309** | P | **P** | **16 51 57.7** | **+4.1** |
| PDGK | | | | pmax | pmax | | |
| | comp=Z,41nm,1.4s | | | | | | |
| **MK31** | **Makanchi Array** | **22.76** | **319** | *e*P | **P** | **16 51 52.9** | **-0.6** |
| **MK31** | **Makanchi Array** | **22.76** | **319** | *e*P | **P** | **16 51 52.9** | **-0.6** |
| **MKAR** | **Makanchi Array** | **22.76** | **319** | P | **P** | **16 51 53.5** | **-0.1** |
| | comp=Z,18nm,1.1s,baz=119,slow=11,SNR=41 | | | | | | |
| **MKAR** | **Makanchi Array** | **22.76** | **319** | *e*P | **P** | **16 51 52.9** | **-0.6** |
| MKAR | | | | pmax | pmax | | |
| | comp=Z,66nm,0.7s | | | | | | |
| **MKAR** | **Makanchi Array** | **22.76** | **319** | *e*P | **P** | **16 51 52.9** | **-0.6** |
| | comp=Z,66nm,0.7s | | | | | | |
| **MAKZ** | **Makanchi** | **22.94** | **319** | *e*P | **P** | **16 51 55.0** | **-0.4** |
| MAKZ | | | | pmax | pmax | | |
| | comp=Z,21nm,1.2s | | | | | | |
| **MAKZ** | **Makanchi** | **22.94** | **319** | *e*P | **P** | **16 51 55.0** | **-0.4** |
| | comp=Z,21nm,1.2s | | | | | | |
| **JNU** | **Nakatsue** | **22.98** | **78** | P | **P** | **16 51 57.9** | **+1.9** |
| | comp=Z,8.7nm,0.8s,baz=333,slow=3.1,SNR=4.1 | | | | | | |
| **THN** | **Thein Dam** | **23.88** | **280** | *e*P | **P** | **16 52 01.8** | **-2.9** |
| **KSH** | **Kashi** | **24.11** | **298** | P | **P** | **16 52 10.3** | **+3.3** |
| KSH | | | | pP | pP | 16 52 16.5 | +0.7 |
| KSH | | | | PP | **PnPn** | **16 52 45.3** | **+8.7** |
| KSH | | | | PcP | **PcP** | **16 55 51.5** | **+3.9** |
| KSH | | | | S | **S** | **16 56 24.5** | **+1.6** |
| KSH | | | | SS | **SnSn** | **16 57 17.3** | **+12** |
| KSH | | | | ScS | **ScS** | **17 03 13.5** | **+2.2** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.7s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,420nm,5.9s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,680nm,6.8s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,450nm,6.9s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,530nm,7.8s | | | | | | |
| **MDJ** | **Mudanjiang** | **24.25** | **49** | P | **P** | **16 52 08.5** | **+0.5** |
| MDJ | | | | pP | pP | 16 52 14.3 | -2.5 |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,33nm,0.8s | | | | | | |
| MDJ | | | | pmax | pmax | | |
| | comp=Z,250nm,3.8s | | | | | | |
| **MDJ** | **Mudanjiang** | **24.25** | **49** | *e*P | **P** | **16 52 06.8** | **-1.2** |
| | comp=Z,44nm,1.0s | | | | | | |
| **TKM2** | **Tokmak 2** | **25.26** | **306** | P | **P** | **16 52 18.0** | **+0.5** |
| TKM2 | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.9s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **25.67** | **52** | P | **P** | **16 52 23.4** | **+2.4** |
| | comp=Z,13nm,0.9s,baz=218,slow=11,SNR=13 | | | | | | |
| **AAK** | **Ala-Archa** | **25.95** | **304** | P | **P** | **16 52 24.6** | **+0.9** |
| | comp=Z,2.3nm,0.6s,baz=88,slow=7.2,SNR=13 | | | | | | |
| **AAK** | **Ala-Archa** | **25.95** | **304** | *i*P | **P** | **16 52 23.4** | **-0.3** |
| AAK | | | | pmax | pmax | | |
| | comp=Z,11nm,1.3s | | | | | | |
| **AAK** | **Ala-Archa** | **25.95** | **304** | *e*P | **P** | **16 52 23.5** | **-0.3** |
| | comp=Z,12nm,1.1s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **26.07** | **298** | P | **P** | **16 52 25.7** | **+0.8** |
| SFK | | | | pmax | pmax | | |
| | comp=Z,19nm,1.3s | | | | | | |
| **ZAA0** | **Zalesovo Array** | **26.55** | **335** | *e*P | **P** | **16 52 27.5** | **-1.2** |
| | comp=Z,20nm,0.9s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **26.55** | **335** | P | **P** | **16 52 27.9** | **-0.9** |
| | comp=Z,21nm,0.9s,baz=136,slow=9.6,SNR=41 | | | | | | |
| ZALV | | | | LR | LR | 17 03 10.6 | |
| | comp=Z,308nm,18.1s,baz=356,slow=37 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **26.55** | **335** | *e*P | **P** | **16 52 27.1** | **-1.6** |
| **ZALV** | **Zalesovo Beam** | **26.55** | **335** | *e*P | **P** | **16 52 27.1** | **-1.6** |
| **IPM** | **Ipoh** | **26.69** | **186** | *e*P | **P** | **16 52 29.5** | **-0.8** |
| | comp=Z,22nm,1.0s | | | | | | |
| **HYB** | **Hyderabad** | **26.70** | **245** | *i*P | **P** | **16 52 30.0** | **-0.6** |
| HYB | | | | *e*S | **S** | **16 57 08.0** | **+3.7** |
| **KURBB** | **Kurchatov Arra** | **27.03** | **323** | P | **P** | **16 52 32.7** | **-0.4** |
| | comp=Z,9.1nm,0.8s,baz=129,slow=9.0,SNR=65 | | | | | | |
| KURBB | | | | PcP | **PcP** | **16 55 52.7** | **-1.1** |
| | comp=Z,1.5nm,0.8s,baz=125,slow=2.3,SNR=4.3 | | | | | | |
| **KURK** | **Kurchatov** | **27.04** | **323** | *ce*P | **P** | **16 52 32.6** | **-0.6** |
| KURK | | | | pmax | pmax | | |
| | comp=Z,55nm,1.0s | | | | | | |
| **KURK** | **Kurchatov** | **27.04** | **323** | *e*P | **P** | **16 52 32.4** | **-0.8** |
| | comp=Z,15nm,1.0s | | | | | | |
| KURK | | | | PcP | **PcP** | **16 55 52.7** | **-1.2** |
| **MNAS** | **Manas** | **27.33** | **303** | P | **P** | **16 52 36.4** | **+0.3** |
| MNAS | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.2s | | | | | | |
| **BOD** | **Bodaibo** | **27.55** | **12** | *e*P | **P** | **16 52 34.8** | **-2.9** |
| BOD | | | | pmax | pmax | | |
| | comp=Z,11nm,1.5s | | | | | | |
| **KLR** | **Kul'dur** | **27.70** | **41** | P | **P** | **16 52 41.6** | **+2.4** |
| | comp=Z,1.0nm,1.1s,baz=248,slow=12,SNR=7.7 | | | | | | |
| KLR | | | | LR | LR | 17 03 20.0 | |
| | comp=Z,

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | comp=Z,22nm,0.7s | | | | | | | | | |
| **KK31** | **Karatay Array** | **28.90** | **304** | *i* P | | **P** | **16 52 49.6** | **-0.4** | | |
| KK31 | | | | pmax | pmax | | | | | |
| | comp=Z,2.0nm,0.7s | | | | | | | | | |
| **KKAR** | **Karatay Array** | **28.90** | **304** | *e*P | | **P** | **16 52 49.4** | **-0.6** | | |
| KKAR | | | | pmax | pmax | | | | | |
| | comp=Z,26nm,0.8s | | | | | | | | | |
| **KKAR** | **Karatay Array** | **28.90** | **304** | *e*P | | **P** | **16 52 49.4** | **-0.6** | | |
| | comp=Z,26nm,0.8s | | | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **28.96** | **70** | P | | **P** | **16 52 53.0** | **+2.4** | | |
| | comp=Z,4.1nm,1.1s,baz=279,slow=11,SNR=3.8 | | | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **28.96** | **70** | P | | **P** | **16 52 53.0** | **+2.4** | | |
| **HABR** | **Khabarovsk** | **29.29** | **45** | *e*P | | **P** | **16 52 51.0** | **-2.3** | | |
| HABR | | | | *e**PP | | **pP** | **16 53 00.4** | **-1.7** | | |
| HABR | | | | *e* | | | 16 53 44.7 | | | |
| HABR | | | | *e*PPP | | PPP | 16 53 53.4 | | | |
| HABR | | | | *e* | | | 16 55 57.1 | | | |
| HABR | | | | *e*S | | **S** | **16 57 42.2** | **-2.1** | | |
| HABR | | | | *e**SS | | **sS** | **16 57 58.4** | **-0.5** | | |
| HABR | | | | *e*SS | | **SnSn** | **16 59 10.2** | **-1.0** | | |
| HABR | | | | *e* | | | 16 59 40.3 | | | |
| HABR | | | | pmax | pmax | | | | | |
| | comp=Z,37nm,2.3s | | | | | | | | | |
| HABR | | | | pmax | pmax | | | | | |
| | comp=E,43nm,1.5s | | | | | | | | | |
| HABR | | | | pmax | pmax | | | | | |
| | comp=N,9.0nm,1.5s | | | | | | | | | |
| HABR | | | | pmax | pmax | | | | | |
| | comp=Z,26nm,1.5s | | | | | | | | | |
| HABR | | | | MLR | MLR | | | | | |
| | comp=Z,97nm,11.0s | | | | | | | | | |
| **DZET** | **Dzherino** | **29.52** | **295** | P | | **P** | **16 52 55.0** | **-0.6** | | |
| DZET | | | | pmax | pmax | | | | | |
| | comp=Z,6.0nm,0.6s | | | | | | | | | |
| **RGRI** | **Rengat** | **31.39** | **183** | P | | **P** | **16 53 10.5** | **-1.6** | | |
| **STKI** | **Sintang** | **31.79** | **165** | P | | **P** | **16 53 17.6** | **+2.0** | | |
| **BVA0** | **Borovoye Array** | **32.58** | **322** | P | | **P** | **16 53 21.5** | **-0.8** | | |
| BVA0 | | | | pmax | pmax | | | | | |
| | comp=Z,3.0nm,0.7s | | | | | | | | | |
| **BRVK** | **Borovoye** | **32.65** | **322** | *ce*P | | **P** | **16 53 21.7** | **-1.2** | | |
| BRVK | | | | pmax | pmax | | | | | |
| | comp=Z,24nm,1.2s | | | | | | | | | |
| **BRVK** | **Borovoye** | **32.65** | **322** | *e*P | | **P** | **16 53 22.4** | **-0.5** | | |
| | comp=Z,5.5nm,0.8s | | | | | | | | | |
| **MASI** | **Maura Aman, Be** | **34.16** | **183** | P | | **P** | **16 53 36.9** | **+0.5** | | |
| **MRSI** | **Marisa** | **35.04** | **147** | P | | **P** | **16 53 45.2** | **+1.2** | | |
| | comp=Z,9.3nm,0.6s | | | | | | | | | |
| **YAK** | **Yakutsk** | **35.13** | **21** | P | | **P** | **16 53 46.1** | **+1.9** | | |
| | comp=Z,9.2nm,0.6s,baz=213,slow=1.4,SNR=8.6 | | | | | | | | | |
| **YAK** | **Yakutsk** | **35.13** | **21** | *e*P | | **P** | **16 53 44.7** | **+0.5** | | |
| YAK | | | | pmax | pmax | | | | | |
| | comp=Z,21nm,1.1s | | | | | | | | | |
| YAK | | | | pmax | pmax | | | | | |
| | comp=N,5.0nm,1.1s | | | | | | | | | |
| YAK | | | | pmax | pmax | | | | | |
| | comp=E,7.0nm,1.1s | | | | | | | | | |
| **YAK** | **Yakutsk** | **35.13** | **21** | *e*P | | **P** | **16 53 45.3** | **+1.0** | | |
| | comp=E,25nm,1.1s | | | | | | | | | |
| **KMSI** | **Cibinong** | **35.94** | **144** | P | | **P** | **16 53 53.2** | **+1.5** | | |
| **KASI** | **Kota Agung** | **36.50** | **179** | P | | **P** | **16 53 55.4** | **-1.1** | | |
| **LUWI** | **Luwuk** | **36.76** | **147** | P | | **P** | **16 53 58.7** | **0.0** | | |
| **AB31** | **Akbulak array** | **37.43** | **312** | *i* P | | **P** | **16 54 03.5** | **-0.7** | | |
| AB31 | | | | pmax | pmax | | | | | |
| | comp=Z,3.0nm,0.7s | | | | | | | | | |
| **ABKAR** | **Akbulak array** | **37.43** | **312** | *e*P | | **P** | **16 54 03.5** | **-0.6** | | |
| | comp=Z,2.3nm,0.6s | | | | | | | | | |
| **GEYT** | **Alibeck** | **37.93** | **293** | P | | **P** | **16 54 09.9** | **+1.4** | | |
| | comp=Z,6.2nm,0.8s,baz=101,slow=6.2,SNR=16 | | | | | | | | | |
| GEYT | | | | PcP | | **PcP** | **16 56 23.1** | **-1.0** | | |
| | comp=Z,2.6nm,0.7s,baz=114,slow=1.7,SNR=3.4 | | | | | | | | | |
| **KPJI** | **Karang Pucung** | **38.60** | **172** | P | | **P** | **16 54 16.8** | **+2.5** | | |
| **AKTO** | **Aktyubinsk** | **38.90** | **313** | P | | **P** | **16 54 15.5** | **-1.0** | | |
| | comp=Z,1.3nm,0.5s,baz=92,slow=9.5,SNR=7.2 | | | | | | | | | |
| **AKTO** | **Aktyubinsk** | **38.90** | **313** | P | | **P** | **16 54 14.0** | **-2.5** | | |
| AKTO | | | | pmax | pmax | | | | | |
| | comp=Z,5.0nm,1.2s | | | | | | | | | |
| **SVE** | **Sverdlovsk** | **39.29** | **324** | *e*P | | **P** | **16 54 19.8** | **+0.2** | | |
| SVE | | | | pmax | pmax | | | | | |
| | comp=Z,13nm,1.1s | | | | | | | | | |
| **ARU** | **Arti** | **40.22** | **322** | P | | **P** | **16 54 27.0** | **-0.4** | | |
| | comp=Z,7.4nm,0.6s,baz=110,slow=3.7,SNR=16 | | | | | | | | | |
| **ARU** | **Arti** | **40.22** | **322** | *d* i P | | **P** | **16 54 26.2** | **-1.2** | | |
| ARU | | | | S | | **S** | **17 00 32.0** | **-0.3** | | |
| ARU | | | | SS | | **SS** | **17 03 24.9** | **-5.9** | | |
| ARU | | | | pmax | pmax | | | | | |
| | comp=Z,10.0nm,0.7s | | | | | | | | | |
| **ARU** | **Arti** | **40.22** | **322** | *e*P | | **P** | **16 54 26.2** | **-1.2** | | |
| | comp=Z,10nm,0.7s | | | | | | | | | |
| **WSAR** | **Wadi Sarin** | **40.72** | **270** | P | | **P** | **16 54 31.6** | **-0.4** | | |
| | comp=Z,2.9nm,0.9s,baz=80,slow=2.6,SNR=4.4 | | | | | | | | | |
| **TIXI** | **Tiksi** | **42.73** | **11** | *ce*P | | **P** | **16 54 45.3** | **-2.4** | | |
| TIXI | | | | pmax | pmax | | | | | |
| | comp=Z,8.0nm,1.7s | | | | | | | | | |
| **TIXI** | **Tiksi** | **42.73** | **11** | *e*P | | **P** | **16 54 45.6** | **-2.2** | | |
| | comp=Z,5.4nm,0.8s | | | | | | | | | |
| **MMRI** | **Maumere** | **43.35** | **153** | P | | **P** | **16 54 53.1** | **-0.3** | | |
| **SEY** | **Seymchan** | **44.15** | **30** | *ce*P | | **P** | **16 54 59.1** | **-0.2** | | |
| **PETK** | **Petropavlovsk-** | **44.31** | **44** | P | | **P** | **16 55 02.6** | **+1.8** | | |
| | comp=Z,2.7nm,0.6s,baz=260,slow=3.0,SNR=6.1 | | | | | | | | | |
| PETK | | | | LR | | LR | 17 15 17.6 | | | |
| | comp=Z,156nm,20.3s,baz=304,slow=38 | | | | | | | | | |
| **KBZ** | **Khabaz** | **48.93** | **303** | P | | **P** | **16 55 38.1** | **+1.0** | | |
| | comp=Z,1.3nm,0.7s,baz=129,slow=8.4,SNR=4.8 | | | | | | | | | |
| **VRH** | **Novokhopyorsk** | **49.24** | **313** | *e*P | | **P** | **16 55 37.8** | **-1.5** | | |
| VRH | | | | pmax | pmax | | | | | |
| | comp=Z,6.0nm,0.5s | | | | | | | | | |
| **VSR** | **Storozhevoye** | **50.85** | **313** | *e*P | | **P** | **16 55 49.1** | **-2.4** | | |
| VSR | | | | pmax | pmax | | | | | |
| | comp=Z,10.0nm,1.4s | | | | | | | | | |
| **KLMR** | **Klimovskoe** | **50.86** | **325** | *e*P | | **P** | **16 55 48.4** | **-3.1** | | |
| KLMR | | | | pmax | pmax | | | | | |
| | comp=Z,13nm,0.7s | | | | | | | | | |
| **LPSR** | **Galich'ya Gora** | **50.94** | **315** | *e*P | | **P** | **16 55 50.1** | **-2.1** | | |
| LPSR | | | | pmax | pmax | | | | | |
| | comp=Z,6.0nm,0.5s | | | | | | | | | |
| **BILL** | **Bilibino** | **51.22** | **25** | *e*P | | **P** | **16 55 55.2** | **+1.1** | | |
| BILL | | | | *e**PP | | **sP** | **16 56 05.3** | **-1.6** | | |
| BILL | | | | pmax | pmax | | | | | |
| | comp=Z,3.0nm,0.5s | | | | | | | | | |
| BILL | | | | MLR | MLR | | | | | |
| | comp=Z,174nm,15.0s | | | | | | | | | |
| **RAYN** | **Ar Rayn** | **51.84** | **277** | *e*P | | **P** | **16 55 58.1** | **-1.4** | | |
| | comp=Z,13nm,1.4s | | | | | | | | | |
| **OBN** | **Obninsk** | **52.26** | **318** | *e*P | | **P** | **16 56 02.4** | **+0.5** | | |
| OBN | | | | *e* | | | 16 56 13.7 | | | |
| OBN | | | | | | | 16 57 11.0 | | | |
| OBN | | | | pmax | pmax | | | | | |
| | comp=Z,5.0nm,1.0s | | | | | | | | | |
| OBN | | | | MLR | MLR | | | | | |
| | comp=Z,532nm,17.0s | | | | | | | | | |
| **MBWA** | **Marble Bar** | **54.23** | **162** | P | | **P** | **16 56 17.3** | **+0.5** | | |
| **BRTR** | **Keskin Array B** | **56.48** | **300** | P | | **P** | **16 56 32.7** | **-0.5** | | |
| | comp=Z,1.7nm,0.8s,baz=106,slow=4.9,SNR=5.4 | | | | | | | | | |
| **ARCES** | **ARCESS Array B** | **57.09** | **336** | P | | **P** | **16 56 35.2** | **-1.6** | | |
| | comp=Z,6.9nm,0.8s,baz=85,slow=7.1,SNR=12 | | | | | | | | | |
| **AKASG** | **Malin Array Be** | **57.15** | **313** | P | | **P** | **16 56 35.8** | **-1.7** | | |
| | comp=Z,1.6nm,0.6s,baz=66,slow=6.9,SNR=5.5 | | | | | | | | | |
| **FINES** | **FINESS Array B** | **57.36** | **326** | P | | **P** | **16 56 38.0** | **-0.9** | | |
| | comp=Z,6.6nm,0.9s,baz=94,slow=6.7,SNR=15 | | | | | | | | | |
| **FINES** | **FINESS Array B** | **57.36** | **326** | P | | **P** | **16 56 38.0** | **-0.9** | | |
| **PMG** | **Port Moresby** | **57.90** | **127** | P | | **P** | **16 56 44.3** | **+1.0** | | |
| | comp=Z,10nm,0.6s,baz=5.3,slow=7.9,SNR=3.5 | | | | | | | | | |
| **WRAB** | **Tennant Creek** | **58.67** | **146** | *ce*P | | **P** | **16 56 48.2** | **-0.3** | | |
| WRAB | | | | pmax | pmax | | | | | |
| | comp=Z,38nm,1.5s | | | | | | | | | |
| **WRAB** | **Tennant Creek** | **58.67** | **146** | *e*P | | **P** | **16 56 48.3** | **-0.2** | | |
| | comp=Z,38nm,0.7s | | | | | | | | | |
| **WRA** | **Warramunga Arr** | **58.68** | **146** | P | | **P** | **16 56 48.9** | **+0.3** | | |
| | comp=Z,9.9nm,0.4s,baz=338,slow=7.9,SNR=213 | | | | | | | | | |
| **COEN** | **Coen** | **58.68** | **134** | *e*P | | **P** | **16 56 48.7** | **0.0** | | |
| | comp=Z,24nm,1.0s | | | | | | | | | |
| **WB2** | **Warramunga Arr** | **58.68** | **146** | *e*P | | **P** | **16 56 47.8** | **-0.8** | | |
| **AS31** | **Alice Springs** | **61.69** | **149** | *e*P | | **P** | **16 57 09.2** | **+0.1** | | |
| | comp=Z,2.2nm,0.6s | | | | | | | | | |
| **ASAR** | **Alice Springs** | **61.69** | **149** | P | | **P** | **16 57 09.6** | **+0.5** | | |
| | comp=Z,4.3nm,0.7s,baz=336,slow=6.5,SNR=66 | | | | | | | | | |
| **AS01** | **Alice Springs** | **61.71** | **148** | *e*P | | **P** | **16 57 09.2** | **0.0** | | |
| **STHS** | **Stebnicka Huta** | **62.45** | **313** | *e*P | | **P** | **16 57 18.4** | **+4.4** | | |
| **STHS** | **Stebnicka Huta** | **62.45** | **313** | *e*P | | **P** | **16 57 18.4** | **+4.4** | | |
| **KECS** | **Kecovo** | **63.20** | **312** | *e*P | | **P** | **16 57 22.1** | **+3.1** | | |
| **KECS** | **Kecovo** | **63.20** | **312** | *e*P | | **P** | **16 57 22.1** | **+3.1** | | |
| **VYHS** | **Vyhne** | **64.24** | **313** | *e*P | | **P** | **16 57 26.1** | **+0.2** | | |
| **VYHS** | **Vyhne** | **64.24** | **313** | *e*P | | **P** | **16 57 26.1** | **+0.2** | | |
| **NB2** | **NORSAR Subarra** | **64.46** | **327** | P | | **P** | **16 57 25.2** | **-2.0** | | |
| | comp=Z,1.6nm,0.5s,baz=72,slow=6.9 | | | | | | | | | |
| **NOA** | **NORSAR Array B** | **64.46** | **327** | P | | **P** | **16 57 25.5** | **-1.7** | | |
| | comp=Z,3.9nm,0.8s,baz=73,slow=6.8,SNR=5.7 | | | | | | | | | |
| **DPC** | **Dobruska-Polom** | **65.19** | **315** | *e*P | | **P** | **16 57 32.1** | **0.0** | | |
| DPC | | | | *ex* | | x | 16 57 37.2 | | | |
| **DPC** | **Dobruska-Polom** | **65.19** | **315** | *e*P | | **P** | **16 57 32.1** | **0.0** | | |
| DPC | | | | *e* | | | 16 57 37.2 | | | |
| **CTA** | **Charters Tower** | **65.26** | **136** | P | | **P** | **16 57 32.7** | **-0.1** | | |
| | comp=Z,2.4nm,0.7s,baz=301,slow=11 | | | | | | | | | |
| **UPC** | **Upice** | **65.32** | **315** | *e*P | | **P** | **16 57 32.4** | **-0.5** | | |
| **UPC** | **Upice** | **65.32** | **315** | *e*P | | **P** | **16 57 32.4** | **-0.5** | | |
| **CONA** | **Conrad Observa** | **66.30** | **313** | P | | **P** | **16 57 39.2** | **-0.2** | | |
| **ARSA** | **Arzbarg** | **66.76** | **312** | *e*P | | **P** | **16 57 41.9** | **-0.3** | | |
| | comp=Z,0.4nm,0.3s | | | | | | | | | |
| **IMAR** | **Indian Mountai** | **66.77** | **26** | *e*P | | **P** | **16 57 39.5** | **-2.4** | | |
| **SOKA** | **Soboth** | **67.28** | **312** | *i* P | | **P** | **16 57 45.2** | **-0.4** | | |
| | comp=Z,1.7nm,0.6s | | | | | | | | | |
| **KHC** | **Kasperske Hory** | **67.28** | **315** | *e*P | | **P** | **16 57 43.8** | **-1.7** | | |
| **KHC** | **Kasperske Hory** | **67.28** | **315** | *e*P | | **P** | **16 57 43.8** | **-1.7** | | |
| **GERES** | **GERESS Array B** | **67.31** | **314** | P | | **P** | **16 57 44.6** | **-1.2** | | |
| | comp=Z,1.2nm,0.8s,baz=75,slow=5.7,SNR=5.3 | | | | | | | | | |
| **COLD** | **Coldfoot** | **67.51** | **24** | *e*P | | **P** | **16 57 45.1** | **-1.5** | | |
| | comp=Z,14nm,1.0s | | | | | | | | | |
| **MLY** | **Manley** | **68.32** | **26** | *e*P | | **P** | **16 57 50.4** | **-1.4** | | |
| | comp=Z,10.0nm,0.7s | | | | | | | | | |
| **BPAW** | **Bear Paw Mtn.** | **68.65** | **27** | *e*P | | **P** | **16 57 52.7** | **-1.2** | | |
| | comp=Z,77nm,1.9s | | | | | | | | | |
| **PPLA** | **Purkeypile** | **68.72** | **28** | *e*P | | **P** | **16 57 53.8** | **-0.7** | | |
| | comp=Z,14nm,0.6s | | | | | | | | | |
| **WATA** | **Walderalm** | **69.21** | **313** | *e*P | | **P** | **16 57 56.9** | **-0.9** | | |
| | comp=Z,1.0nm,0.5s | | | | | | | | | |
| **MDM** | **Murphy Dome** | **69.29** | **26** | *e*P | | **P** | **16 57 57.4** | **-0.4** | | |
| | comp=Z,35nm,1.4s | | | | | | | | | |
| **COLA** | **College** | **69.47** | **26** | *e*P | | **P** | **16 57 57.2** | **-1.6** | | |
| COLA | | | | pmax | pmax | | | | | |
| | comp=Z,22nm,0.9s | | | | | | | | | |
| **COLA** | **College** | **69.47** | **26** | *e*P | | **P** | **16 57 57.2** | **-1.6** | | |
| | comp=Z,22nm,0.9s | | | | | | | | | |
| **CCB** | **Clear Creek Bu** | **69.60** | **26** | *e*P | | **P** | **16 57 58.4** | **-1.3** | | |
| | comp=Z,17nm,1.7s | | | | | | | | | |
| **MCK** | **McKinley** | **69.62** | **27** | *e*P | | **P** | **16 57 58.8** | **-1.1** | | |
| MCK | | | | pmax | pmax | | | | | |
| | comp=Z,32nm,1.8s | | | | | | | | | |
| **MCK** | **McKinley** | **69.62** | **27** | *e*P | | **P** | **16 57 58.8** | **-1.1** | | |
| | comp=Z,32nm,1.8s | | | | | | | | | |
| **RND** | **Reindeer** | **69.81** | **27** | *e*P | | **P** | **16 57 59.8** | **-1.3** | | |
| RND | | | | pmax | pmax | | | | | |
| | comp=Z,49nm,1.8s | | | | | | | | | |
| **RND** | **Reindeer** | **69.81** | **27** | *e*P | | **P** | **16 57 59.8** | **-1.3** | | |
| | comp=Z,49nm,1.8s | | | | | | | | | |
| **FETA** | **Feichten** | **69.87** | **313** | *i* P | | **P** | **16 58 01.2** | **-0.7** | | |
| **IL1** | **Eielson Array** | **69.88** | **26** | *e*P | | **P** | **16 57 59.0** | **-2.4** | | |
| **ILAR** | **Eielson Array** | **69.88** | **26** | P | | **P** | **16 57 59.5** | **-2.0** | | |
| | comp=Z,1.7nm,0.6s,baz=295,slow=4.2,SNR=30 | | | | | | | | | |
| **ILB** | **Eielson Array** | **69.88** | **26** | *e*P | | **P** | **16 58 00.0** | **-1.4** | | |
| **DHY** | **Denali Highway** | **70.56** | **27** | *e*P | | **P** | **16 58 03.6** | **-2.2** | | |
| | comp=Z,8.8nm,0.9s | | | | | | | | | |
| **KMBO** | **Kilima Mbogo** | **70.68** | **256** | P | | **P** | **16 58 06.5** | **-0.9** | | |
| | comp=Z,0.7nm,0.3s,baz=53,slow=12,SNR=9.3 | | | | | | | | | |
| **KMBO** | **Kilima Mbogo** | **70.68** | **256** | *ce*P | | **P** | **16 58 08.8** | **+1.4** | | |
| KMBO | | | | pmax | pmax | | | | | |
| | comp=Z,1.0nm,0.2s | | | | | | | | | |
| **KMBO** | **Kilima Mbogo** | **70.68** | **256** | *e*P | | **P** | **16 58 07.0** | **-0.4** | | |
| | comp=Z,2.0nm,0.8s | | | | | | | | | |
| **SML** | **Sawmill** | **70.82** | **29** | *e*P | | **P** | **16 58 06.4** | **-0.9** | | |
| SML | | | | pmax | pmax | | | | | |
| | comp=Z,22nm,0.9s | | | | | | | | | |
| **SML** | **Sawmill** | **70.82** | **29** | *e*P | | **P** | **16 58 06.4** | **-0.9** | | |
| | comp=Z,22nm,0.9s | | | | | | | | | |
| **KDAK** | **Kodiak Island** | **70.92** | **33** | *e*P | | **P** | **16 58 07.2** | **-0.6** | | |
| **KDAK** | **Kodiak Island** | **70.92** | **33** | *e*P | | **P** | **16 58 07.2** | **-0.6** | | |
| **WLF** | **Walferdange** | **71.50** | **317** | P | | **P** | **16 58 11.2** | **-0.4** | | |
| | comp=Z,13nm,1.3s | | | | | | | | | |
| **KLU** | **Klima** | **71.97** | **28** | *e*P | | **P** | **16 58 13.3** | **-0.9** | | |
| | comp=Z,18nm,0.8s | | | | | | | | | |
| **INK** | **Inuvik** | **72.17** | **19** | *e*P | | **P** | **16 58 13.8** | **-1.4** | | |
| INK | | | | pmax | pmax | | | | | |
| | comp=Z,13nm,0.8s | | | | | | | | | |
| **INK** | **Inuvik** | **72.17** | **19** | *e*P | | **P** | **16 58 13.8** | **-1.4** | | |
| | comp=Z,13nm,0.8s | | | | | | | | | |
| **STKA** | **Stephens Creek** | **72.21** | **147** | P | | **P** | **16 58 15.8** | **-0.1** | | |
| | comp=Z,3.5nm,0.7s,baz=331,slow=8.3,SNR=6.8 | | | | | | | | | |
| **STKA** | **Stephens Creek** | **72.21** | **147** | *e*P | | **P** | **16 58 14.9** | **-1.0** | | |
| STKA | | | | pmax | pmax | | | | | |
| | comp=Z,9.0nm,1.9s | | | | | | | | | |
| **STKA** | **Stephens Creek** | **72.21** | **147** | *e*P | | **P** | **16 58 14.9** | **-1.0** | | |
| | comp=Z,9.1nm,1.9s | | | | | | | | | |
| **DAWY** | **Dawson** | **72.98** | **24** | *e*P | | **P** | **16 58 18.6** | **-1.6** | | |
| | comp=Z,5.8nm,0.8s | | | | | | | | | |
| **SUMG** | **Summit** | **73.32** | **349** | *e*P | | **P** | **16 58 21.2** | **-1.3** | | |
| SUMG | | | | pmax | pmax | | | | | |
| | comp=Z,23nm,1.4s | | | | | | | | | |
| **SUMG** | **Summit** | **73.32** | **349** | *i* P | | **P** | **16 58 21.7** | **-0.8** | | |
| | comp=Z,8.6nm,0.9s | | | | | | | | | |
| **SUMG** | **Summit** | **73.32** | **349** | *e*P | | **P** | **16 58 21.2** | **-1.3** | | |
| | comp=Z,23nm,1.4s | | | | | | | | | |
| **KULLO** | **Kullorsuaq** | **73.77** | **355** | *i* P | | **P** | **16 58 24.3** | **-0.3** | | |
| KULLO | | | | pmax | pmax | | | | | |
| | comp=Z,16nm,1.0s | | | | | | | | | |
| **KULLO** | **Kullorsuaq** | **73.77** | **355** | *i* P | | **P** | **16 58 24.3** | **-0.3** | | |
| | comp=Z,16nm,1.0s | | | | | | | | | |
| **ESK** | **Eskdalemuir** | **73.78** | **325** | *i* P | | P | 16 58 31.6 | +6.6 | | |
| **SFJD** | **Kangerlussuaq** | **80.22** | **350** | LR | | LR | 17 36 16.9 | | | |
| | comp=Z,21nm,18.4s,baz=58,slow=37 | | | | | | | | | |
| **SFJD** | **Kangerlussuaq** | **80.22** | **350** | *e*P | | **P** | **16 58 59.0** | **-2.0** | | |
| **SFJD** | **Kangerlussuaq** | **80.22** | **350** | *i* P | | **P** | **16 58 59.0** | **-2.0** | | |
| **YKW3** | **Yellowknife Ar** | **81.64** | **17** | *e*P | | **P** | **16 59 07.1** | **-1.5** | | |
| | comp=Z,18nm,1.7s | | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **81.69** | **17** | P | | **P** | **16 59 07.6** | **-1.3** | | |
| | comp=Z,1.9nm,0.6s,baz=329,slow=5.1,SNR=39 | | | | | | | | | |
| YKA | | | | LR | | LR | 17 39 51.3 | | | |
| | comp=Z,13nm,18.5s,baz=0.0,slow=39 | | | | | | | | | |
| **ESDC** | **Sonseca Array** | **82.78** | **312** | P | | **P** | **16 59 13.5** | **-1.6** | | |
| | comp=Z,0.6nm,0.7s,baz=41,slow=5.1,SNR=5.8 | | | | | | | | | |
| **LSZ** | **Lusaka** | **85.95** | **250** | *e*P | | **P** | **16 59 31.1** | **-0.5** | | |
| LSZ | | | | pmax | pmax | | | | | |
| | comp=Z,5.0nm,1.0s | | | | | | | | | |
| **LSZ** | **Lusaka** | **85.95** | **250** | *e*P | | **P** | **16 59 31.1** | **-0.5** | | |
| | comp=Z,4.6nm,1.0s | | | | | | | | | |
| **LVP** | **Lakeview Peak** | **92.47** | **30** | *e*P | | **P** | **17 00 01.9** | **-0.1** | | |
| **TOA0** | **Torodi Ar. Sit** | **93.37** | **287** | *e*P | | **P** | **17 00 04.4** | **-2.1** | | |
| **TORD** | **Torodi Ar. Bea** | **93.37** | **287** | P | | **P** | **17 00 04.3** | **-2.2** | | |
| | comp=Z,2.4nm,1.0s,baz=44,slow=3.7,SNR=8.7 | | | | | | | | | |
| **ULM** | **Lac du Bonnet** | **97.07** | **13** | LR | | LR | 17 48 47.2 | | | |
| | comp=Z,67nm,18.8s,baz=36,slow=38 | | | | | | | | | |
| **TXAR** | **Lajitas Array** | **114.39** | **26** | PKP | | PKPdf | 17 05 29.9 | -1.2 | | |
| | comp=Z,0.2nm,0.5s,baz=70,slow=1.1,SNR=3.7 | | | | | | | | | |
| **QSPA** | **South Pole Qui** | **120.95** | **180** | *e*PKPdf | | **PKPdf** | **17 05 41.4** | **-1.0** | | |
| **RUSC** | **La Rusia** | **143.02** | **355** | *e*P | | **PKPdf** | **17 06 20.5** | **-5.5** | | |
| **YOPC** | **Yopal, Colombi** | **143.50** | **354** | *e*P | | **PKPdf** | **17 06 32.2** | **+5.9** | | |
| **CHIC** | **Chingaza** | **144.32** | **356** | *e*P | | **PKPab** | **17 06 24.3** | **-1.7** | | |
| **VILC** | **Villavicencio,** | **144.83** | **356** | *e*P | | **PKPab** | **17 06 26.4** | **-1.2** | | |
| **YOTC** | **Yotoco, Valle** | **145.04** | **0** | *e*P | | **PKPab** | **17 06 25.7** | **-2.6** | | |
| **FLOC** | **Florencia** | **147.42** | **359** | *e*P | | **PKPbc** | **17 06 34.8** | **-0.6** | | |
| **OTAV** | **Otavalo** | **148.68** | **4** | *e*P | | **PKPdf** | **17 06 37.3** | **+1.7** | | |
| **OTAV** | **Otavalo** | **148.68** | **4** | *e*PKPbc | | **PKPbc** | **17 06 37.9** | **-1.4** | | |

*ATH* ***25*** *16:52:31.3,39°.06N×29°.59E,h10km±31km,ML3.2/5,Error ellipse: s-maj=31.6km s-min=1.5km az=0.0*

*IASPEI* ***25*** *16:52:33.6±1.0,39°.08N±0°.02×29°.03E±0°.02,h3km±7km, Error ellipse: s-maj=3.0km s-min=2.5km az=14.4,GT5 selection from ISC bulletin GT5 identified by Bond¨jr and McLaughlin (2009) selection criteria Bond¨jr and McLaughlin, A new ground truth data set for seismic studies, Seism. Res. Let., 80, 465-472, 2009*

*CSEM* ***25*** *16:52:33.9±0.1,39°.08N×29°.05E,h2km,ML3.3, Error ellipse: s-maj=2.2km s-min=1.8km az=66.0*

*DDA* ***25*** *16:52:33.0,39°.10N×29°.00E,h7km,Ml3.5*

*ISK* ***25*** *16:52:33.1,39°.08N×29°.04E,h2km,ML3.3*

**ISC 25 16:52:33.6±1.1, 39°.09N±0°.01×29°.04E±0°.01, h1km±9km, n174, σ0.977/225, 6C-1D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **SIMA** | **Simav-Kutahya** | **0.04** | **261** | *e*PG | | **Pg** | **16 52 34.4** | **0.0** |
| **SIMA** | **Simav-Kutahya** | **0.04** | **261** | *e*Pg | | **Pg** | **16 52 34.4** | **0.0** |
| **DEMI** | **Demirci** | **0.25** | **259** | *i* P | | **Pg** | **16 52 38.2** | **-0.2** |
| DEMI | | | | *i* S | | **Sg** | **16 52 41.5** | **-0.2** |
| **DEMI** | **Demirci** | **0.25** | **259** | P | | **Pg** | **16 52 38.2** | **-0.2** |
| DEMI | | | | S | | **Sg** | **16 52 41.5** | **-0.2** |
| **GDZ** | **Gediz** | **0.35** | **90** | *i* P | | **Pg** | **16 52 40.1** | **-0.1** |
| GDZ | | | | *i* S | | **Sg** | **16 52 45.3** | **+0.5** |
| **GDZ** | **Gediz** | **0.35** | **90** | P | | **Pg** | **16 52 40.1** | **-0.1** |
| GDZ | | | | S | | **Sg** | **16 52 45.3** | **+0.5** |
| **TVSB** | **Tavsanli** | **0.49** | **43** | *e*PG | | **Pg** | **16 52 42.8** | **-0.1** |
| **TVSB** | **Tavsanli** | **0.49** | **43** | *e*Pg | | **Pg** | **16 52 42.8** | **-0.1** |
| **DST** | **Dursunbey** | **0.61** | **328** | *e*PG | | **Pg** | **16 52 45.4** | **+0.2** |
| **DST** | **Dursunbey** | **0.61** | **328** | *e*Pg | | **Pg** | **16 52 45.4** | **+0.2** |
| **MANT** | **Manisa** | **0.70** | **212** | *i* P | | **Pg** | **16 52 46.2** | **-0.9** |
| MANT | | | | *i* S | | **Sg** | **16 52 55.6** | **-0.6** |
| **MANT** | **Manisa** | **0.70** | **212** | P | | **Pg** | **16 52 46.2** | **-0.9** |
| MANT | | | | S | | **Sg** | **16 52 55.6** | **-0.6** |
| **KHAL** | **Karahalli** | **0.80** | **153** | *i* P | | **Pg** | **16 52 48.8** | **-0.1** |
| KHAL | | | | *i* S | | **Sn** | **16 53 04.3** | **-0.4** |
| **KHAL** | **Karahalli** | **0.80** | **153** | P | | **Pg** | **16 52 48.8** | **-0.1** |
| **KHL** | **Karahalli** | **0.86** | **153** | *e*PG | | **Pb** | **16 52 50.3** | **-0.9** |
| **KHL** | **Karahalli** | **0.86** | **153** | *e*Pg | | **Pb** | **16 52 50.3** | **-0.9** |
| **ORLT** | **Orhaneli** | **0.96** | **354** | *e*PG | | **Pb** | **16 52 52.5** | **-0.5** |
| ORLT | | | | *e*SG | | **Sb** | **16 53 06.8** | **+0.5** |
| **ORLT** | **Orhaneli** | **0.96** | **354** | *e*Pg | | **Pb** | **16 52 52.6** | **-0.5** |
| ORLT | | | | *e*Sg | | **Sb** | **16 53 06.8** | **+0.5** |
| **AKHS** | **Akhisar** | **0.97** | **258** | *i* P | | **Pg** | **16 52 51.7** | **-0.6** |
| AKHS | | | | *i* S | | **Sg** | **16 53 05.2** | **+0.3** |
| **AKHS** | **Akhisar** | **0.97** | **258** | P | | **Pg** | **16 52 51.7** | **-0.6** |
| AKHS | | | | S | | **Sg** | **16 53 05.2** | **+0.3** |
| **AKS** | **Akhisar** | **0.97** | **258** | *e*PG | | **Pb** | **16 52 52.9** | **-0.3** |
| **AKS** | **Akhisar** | **0.97** | **258** | *e*Pg | | **Pb** | **16 52 52.9** | **-0.3** |
| **BALB** | **Balikesir** | **1.05** | **302** | *e*PG | | **Pb** | **16 52 54.5** | **0.0** |
| **BALB** | **Balikesir** | **1.05** | **302** | *e*Pg | | **Pb** | **16 52 54.5** | **0.0** |
| **STEP** | **BALIKESIR_Sava** | **1.06** | **286** | *i* P | | **Pg** | **16 52 53.6** | **-0.2** |
| STEP | | | | *i* S | | **Sb** | **16 53 08.5** | **-0.6** |
| **STEP** | **BALIKESIR_Sava** | **1.06** | **286** | P | | **Pg** | **16 52 53.7** | **-0.2** |
| STEP | | | | S | | **Sb** | **16 53 08.5** | **-0.6** |
| **IGD** | **Bursa** | **1.18** | **6** | *i* P | | **Pb** | **16 52 56.2** | **-0.6** |
| IGD | | | | *i* S | | **Sn** | **16 53 13.6** | **-0.3** |
| **KZIL** | **AFYON_Kizioren** | **1.20** | **133** | *i* P | | **Pg** | **16 52 56.4** | **-0.2** |
| KZIL | | | | *i* S | | **Sb** | **16 53 13.2** | **0.0** |
| **KZIL** | **AFYON_Kizioren** | **1.20** | **133** | P | | **Pg** | **16 52 56.4** | **-0.2** |
| KZIL | | | | S | | **Sb** | **16 53 13.2** | **0.0** |
| **CAVI** | **Cavuskoy** | **1.27** | **29** | *e*PN | | **Pn** | **16 52 58.4** | **-0.1** |
| CAVI | | | | *e*SN | | **Sn** | **16 53 17.0** | **+0.7** |
| **CAVI** | **Cavuskoy** | **1.27** | **29** | *e*Pn | | **Pn** | **16 52 58.4** | **-0.1** |
| CAVI | | | | *e*Sn | | **Sn** | **16 53 17.0** | **+0.7** |
| **BALY** | **Balya** | **1.27** | **301** | *i* P | | **Pg** | **16 52 57.5** | **-0.5** |
| BALY | | | | *i* S | | **Sn** | **16 53 16.5** | **+0.2** |
| **BALY** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| EZN | Ezine | 2.22 290 | ePn | Pn | 16 53 12.6 | +1.1 | | |
| KIZT | Kizilcal | 2.23 95 | ePN | Pn | 16 53 12.6 | +0.9 | | |
| KIZT | Kizilcal | 2.23 95 | ePn | Pn | 16 53 12.6 | +0.9 | | |
| SLVT | Silivri | 2.23 344 | ePN | Pn | 16 53 12.6 | +1.0 | | |
| SLVT | Silivri | 2.23 344 | ePn | Pn | 16 53 12.6 | +1.0 | | |
| SUTC | Sutluce-Ispart | 2.23 136 | ePN | Pn | 16 53 12.3 | +0.5 | | |
| SUTC | Sutluce-Ispart | 2.23 136 | ePn | Pn | 16 53 12.3 | +0.5 | | |
| TURN | Turunc | 2.24 189 | ePN | Pb | 16 53 14.1 | -0.7 | | |
| TURN | Turunc | 2.24 189 | ePn | Pb | 16 53 14.1 | -0.7 | | |
| CRLT | Corlu | 2.27 334 | ePN | Pn | 16 53 13.0 | +0.9 | | |
| CRLT | Corlu | 2.27 334 | ePn | Pn | 16 53 13.0 | +0.9 | | |
| KORT | Korkueli | 2.33 153 | ePN | Pn | 16 53 13.7 | +0.6 | | |
| KORT | Korkueli | 2.33 153 | iP | Pn | 16 53 14.0 | +0.9 | | |
| KORT | Korkueli | 2.33 153 | ePn | Pn | 16 53 13.7 | +0.6 | | |
| KORT | Korkueli | 2.33 153 | P | Pn | 16 53 14.0 | +0.9 | | |
| GELI | Tayfur-Gelibol | 2.37 304 | ePN | Pn | 16 53 14.6 | +1.1 | | |
| GELI | Tayfur-Gelibol | 2.37 304 | ePn | Pn | 16 53 14.6 | +1.1 | | |
| BOZC | Bozcaada | 2.43 289 | ePN | Pn | 16 53 15.2 | +0.9 | | |
| BOZC | Bozcaada | 2.43 289 | iP | Pn | 16 53 13.7 | -0.6 | | |
| BOZC | | | iS | Sg | 16 53 49.9 | -1.7 | | |
| BOZC | Bozcaada | 2.43 289 | ePn | Pn | 16 53 15.2 | +0.9 | | |
| CHOS | Chios island | 2.43 254 | P | Pg | 16 53 20.4 | +0.2 | | |
| CHOS | | | S | Sg | 16 53 54.8 | +3.1 | | |
| CHOS | | | AML | AML | 16 53 59.3 | | | |
| | comp=N,277μm,0.7s | | | | | | | |
| CHOS | | | AML | AML | 16 54 05.8 | | | |
| | comp=E,341μm,1.0s | | | | | | | |
| ELL | Elmali | 2.44 163 | ePN | Pn | 16 53 14.6 | 0.0 | | |
| ELL | Elmali | 2.44 163 | ePn | Pn | 16 53 14.6 | 0.0 | | |
| BODT | Bodrum | 2.44 214 | ePN | Pn | 16 53 15.0 | +0.5 | | |
| BODT | Bodrum | 2.44 214 | ePn | Pn | 16 53 15.0 | +0.5 | | |
| CTYL | Yalikoy Yolu | 2.45 347 | ePN | Pn | 16 53 15.9 | +1.3 | | |
| CTYL | Yalikoy Yolu | 2.45 347 | ePn | Pn | 16 53 15.9 | +1.3 | | |
| KDHN | Kadinhani | 2.47 102 | iP | Pn | 16 53 14.9 | -0.2 | | |
| KDHN | Kadinhani | 2.47 102 | P | Pn | 16 53 14.9 | -0.2 | | |
| SIGR | SIGRI | 2.48 274 | P | Pg | 16 53 21.4 | +0.4 | | |
| SIGR | | | S | Sg | 16 53 54.5 | +1.4 | | |
| SIGR | | | AML | AML | 16 53 56.9 | | | |
| | comp=N,627μm,0.5s | | | | | | | |
| SIGR | | | AML | AML | 16 53 58.9 | | | |
| | comp=E,727μm,0.6s | | | | | | | |
| ERIK | Erikli-Kesan | 2.50 310 | ePN | Pn | 16 53 16.3 | +1.0 | | |
| ERIK | Erikli-Kesan | 2.50 310 | ePn | Pn | 16 53 16.3 | +1.0 | | |
| KESN | Edirne-Kesan | 2.51 315 | iP | Pn | 16 53 14.9 | -0.8 | | |
| KESN | | | iS | Sb | 16 53 51.7 | +0.7 | | |
| KESN | Edirne-Kesan | 2.51 315 | P | Pn | 16 53 14.9 | -0.8 | | |
| KESN | | | S | Sb | 16 53 51.7 | +0.7 | | |
| GADA | Gvkgeada | 2.66 295 | ePN | Pn | 16 53 18.5 | +1.0 | | |
| GADA | Gvkgeada | 2.66 295 | ePn | Pn | 16 53 18.5 | +1.0 | | |
| ALN | Alexandroupoli | 2.92 309 | P | Pb | 16 53 26.3 | -0.1 | | |
| ALN | | | S | Sb | 16 54 04.5 | +1.9 | | |
| ALN | | | AML | AML | 16 54 10.0 | | | |
| | comp=E,174μm,0.6s | | | | | | | |
| ALN | | | AML | AML | 16 54 13.8 | | | |
| | comp=N,207μm,0.6s | | | | | | | |
| ALN | Alexandroupoli | 2.92 309 | P | Pb | 16 53 26.3 | -0.1 | | |
| KSL | Kastellorizon | 2.97 171 | P | Pn | 16 53 20.2 | -1.5 | | |
| SMTH | Samothraki Isl | 3.03 298 | P | Pb | 16 53 29.0 | +0.7 | | |
| SMTH | | | S | Sb | 16 54 06.3 | +0.5 | | |
| SMTH | | | AML | AML | 16 54 13.3 | | | |
| | comp=E,225μm,0.6s | | | | | | | |
| SMTH | | | AML | AML | 16 54 17.6 | | | |
| | comp=N,285μm,0.9s | | | | | | | |
| LIA | Limnos Island | 3.09 286 | P | Pb | 16 53 29.1 | -0.1 | | |
| LIA | | | S | Sg | 16 54 12.1 | -0.7 | | |
| LIA | | | AML | AML | 16 54 15.7 | | | |
| | comp=N,172μm,0.5s | | | | | | | |
| LIA | | | AML | AML | 16 54 19.7 | | | |
| | comp=E,172μm,0.6s | | | | | | | |
| LIA | Limnos Island | 3.09 286 | P | Pb | 16 53 29.1 | -0.1 | | |
| VTS | Vitosha | 5.63 310 | iP | Sn | 16 55 01.9 | -2.1 | | |
| CFR | Carcaliu | 6.12 354 | iP | Pn | 16 54 05.8 | +0.8 | | |
| CFR | Carcaliu | 6.12 354 | iP | Pn | 16 54 05.8 | +0.8 | | |
| VOIR | | 7.00 336 | iP | Pn | 16 54 18.3 | +1.1 | | |
| VOIR | | 7.00 336 | iP | Pn | 16 54 18.3 | +1.1 | | |
| DOPR | Dopca | 7.38 340 | iP | Pn | 16 54 22.6 | +0.2 | | |
| DOPR | Dopca | 7.38 340 | iP | Pn | 16 54 22.6 | +0.2 | | |

*IDC* ***25*** *16:59:24.9±1.1, 3.°38S×146.°20E, h0km, mb3.9/7, mb1 4.1/8, mb1mx3.9/34, mbtmp3.9/8, ML1.9/1, MS3.3/7, Ms1 3.3/7, ms1mx3.1/35, Error ellipse: s-maj=40.7km s-min=18.5km az=102.0*

*NEIC* ***25*** *16:59:30.8±0.7, 3.°33S×146.°01E, h35km, mb4.2/2, Error ellipse: s-maj=16.8km s-min=11.5km az=95.0*

**ISC 25 16:59:28.8±0.8, 3.°38S±0.°08×146.°3E±0.°2, h25km, n17, σ0§87/14, mb3.9/6, MS3.4/5, Bismarck Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| PMG | Port Moresby | 6.05 | 172 | Pn | | Pn | 17 00 56.1 | -0.7 |
| | 1.7nm,0.3s,baz=32,slow=5.2,SNR=11 | | | | | | | |
| PMG | | | | Sn | | Sn | 17 02 05.2 | 0.0 |
| | baz=297,slow=16,SNR=2.2 | | | | | | | |
| PMG | | | | LR | | LR | 17 03 03.8 | |
| | comp=Z,103nm,19.6s,baz=354,slow=36 | | | | | | | |
| COEN | Coen | 10.96 | 196 | ePn | | Pn | 17 02 05.1 | +1.1 |
| HNR | Honiara | 14.84 | 115 | LR | | LR | 17 07 46.2 | |
| | comp=Z,88nm,20.5s,baz=310,slow=34 | | | | | | | |
| HNR | Honiara | 14.84 | 115 | eP | | P | 17 03 02.6 | -0.1 |
| CTA | Charters Tower | 16.61 | 180 | Pn | | P | 17 03 22.8 | +0.4 |
| | 0.1nm,0.3s,baz=356,slow=15,SNR=4.4 | | | | | | | |
| CTAO | Charters Tower | 16.61 | 180 | eP | | P | 17 03 23.2 | +0.8 |
| | 11nm,0.7s | | | | | | | |
| WRAB | Tennant Creek | 20.16 | 214 | eP | | P | 17 04 01.0 | -0.5 |
| | 12nm,0.8s | | | | | | | |
| WRA | Warramunga Arr | 20.18 | 214 | P | | P | 17 04 01.2 | -0.4 |
| | 9.8nm,1.0s,baz=38,slow=12,SNR=47 | | | | | | | |
| ASAR | Alice Springs | 23.46 | 210 | P | | P | 17 04 35.9 | -0.6 |
| | 5.4nm,0.8s,baz=46,slow=7.7,SNR=47 | | | | | | | |
| ASAR | | | | LR | | LR | 17 13 38.5 | |
| | comp=Z,72nm,19.5s,baz=26,slow=36 | | | | | | | |
| FITZ | Fitzroy Crossi | 24.97 | 233 | P | | P | 17 04 49.4 | -1.1 |
| | 6.3nm,0.8s,baz=46,slow=12,SNR=6.8 | | | | | | | |
| FITZ | | | | LR | | LR | 17 15 07.3 | |
| | comp=Z,140nm,18.7s,baz=60,slow=38 | | | | | | | |
| DZM | Mont Dzumac | 26.98 | 135 | LR | | LR | 17 14 53.1 | |
| | comp=Z,114nm,18.5s,baz=278,slow=34 | | | | | | | |
| NWAO | Narrogin (SRO) | 40.04 | 219 | LR | | LR | 17 22 34.3 | |
| | comp=Z,58nm,19.5s,baz=221,slow=35 | | | | | | | |
| KSRS | Korea Array | 44.06 | 339 | LR | | LR | 17 24 54.1 | |
| | comp=Z,26nm,18.3s,baz=345,slow=35 | | | | | | | |
| SONM | Songino Array | 61.78 | 331 | P | | P | 17 09 44.4 | -1.1 |
| | 0.3nm,0.8s,baz=116,slow=3.4,SNR=2.5 | | | | | | | |
| MKAR | Makanchi Array | 75.04 | 320 | P | | P | 17 11 09.1 | +0.7 |
| | 1.5nm,1.0s,baz=106,slow=8.9,SNR=4.4 | | | | | | | |
| ILAR | Eielson Array | 83.36 | 23 | P | | P | 17 11 54.8 | +1.4 |
| | 0.6nm,0.8s,baz=248,slow=3.6,SNR=6.2 | | | | | | | |
| YKA | Yellowknife Ar | 97.19 | 28 | P | | P | 17 12 58.4 | -0.5 |
| | 0.2nm,0.9s,baz=273,slow=4.1,SNR=2.8 | | | | | | | |

*ISK* ***25*** *17:07:17.7, 39.°08N×29.°07E, h3km, MD2.9*

*IASPEI* ***25*** *17:07:18.2±1.0, 39.°07N±0.°02×29.°04E±0.°02, h4km±7km, Error ellipse: s-maj=3.5km s-min=3.0km az=175.8, GT5 selection from ISC bulletin GT5 identified by Bond¨ jr and McLaughlin (2009) selection criteria Bond¨ jr and McLaughlin, A new ground truth data set for seismic studies, Seism. Res. Let., 80, 465-472, 2009*

*ISCJB* ***25*** *17:07:18.1±0.5, 39.°05N±0.°03×29.°04E±0.°03, h3km±5km, Error ellipse: s-maj=4.9km s-min=3.8km az=155.2*

*CSEM* ***25*** *17:07:18.2±0.1, 39.°06N×29.°04E, h2km, MD2.9, Error ellipse: s-maj=2.5km s-min=2.3km az=152.0*

*DDA* ***25*** *17:07:18.1, 39.°06N×29.°02E, h7km, Ml2.8*

**ISC 25 17:07:18.2±1.0, 39.°07N±0.°02×29.°04E±0.°02, h4km±7km, n43, σ0§41/64, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| SIMA | Simav-Kutahya | 0.05 | 291 | ePG | | Pg | 17 07 19.4 | -0.1 |
| SIMA | Simav-Kutahya | 0.05 | 291 | ePg | | Pg | 17 07 19.4 | -0.1 |
| DEMI | Demirci | 0.25 | 265 | iP | | Pg | 17 07 23.3 | +0.2 |
| DEMI | | | | iS | | Sg | 17 07 26.8 | +0.3 |
| DEMI | Demirci | 0.25 | 265 | P | | Pg | 17 07 23.3 | +0.2 |
| DEMI | | | | S | | Sg | 17 07 26.8 | +0.3 |
| GDZ | Gediz | 0.34 | 86 | iP | | Pg | 17 07 25.0 | +0.1 |
| GDZ | | | | iS | | Sg | 17 07 29.5 | +0.1 |
| GDZ | Gediz | 0.34 | 86 | P | | Pg | 17 07 25.0 | +0.1 |
| GDZ | | | | S | | Sg | 17 07 29.5 | +0.1 |
| TVSB | Tavsanli | 0.50 | 40 | ePG | | Pg | 17 07 27.6 | -0.3 |
| TVSB | Tavsanli | 0.50 | 40 | ePg | | Pg | 17 07 27.6 | -0.3 |
| MANT | Manisa | 0.69 | 214 | iP | | Pg | 17 07 31.1 | -0.3 |
| MANT | | | | iS | | Sg | 17 07 40.6 | +0.3 |
| MANT | Manisa | 0.69 | 214 | P | | Pg | 17 07 31.1 | -0.3 |
| MANT | | | | S | | Sg | 17 07 40.6 | +0.3 |
| KHAL | Karahalli | 0.78 | 153 | iP | | Pg | 17 07 33.6 | +0.5 |
| KHAL | | | | iS | | Sb | 17 07 44.5 | -0.8 |
| KHAL | Karahalli | 0.78 | 153 | P | | Pg | 17 07 33.6 | +0.5 |
| KHAL | | | | S | | Sb | 17 07 44.5 | -0.8 |
| AKHS | Akhisar | 0.97 | 259 | iP | | Pg | 17 07 37.0 | +0.1 |
| AKHS | | | | iS | | Sg | 17 07 49.6 | +0.2 |
| AKHS | Akhisar | 0.97 | 259 | P | | Pg | 17 07 37.0 | +0.1 |
| AKHS | | | | S | | Sg | 17 07 49.7 | +0.2 |
| ORLT | Orhaneli | 0.99 | 354 | ePG | | Pg | 17 07 37.4 | +0.3 |
| ORLT | | | | eSG | | Sb | 17 07 51.6 | +0.3 |
| ORLT | Orhaneli | 0.99 | 354 | ePg | | Pg | 17 07 37.4 | +0.3 |
| ORLT | | | | eSg | | Sb | 17 07 51.6 | +0.3 |
| BALB | Balikesir | 1.07 | 303 | ePN | | Pn | 17 07 39.8 | -0.1 |
| BALB | | | | eSN | | Sn | 17 07 55.3 | +0.1 |
| BALB | Balikesir | 1.07 | 303 | ePn | | Pn | 17 07 39.8 | -0.1 |
| BALB | | | | eSn | | Sn | 17 07 55.3 | +0.1 |
| STEP | BALIKESIR_Sava | 1.07 | 287 | iP | | Pg | 17 07 38.9 | +0.1 |
| STEP | | | | iS | | Sb | 17 07 53.7 | -0.1 |
| STEP | BALIKESIR_Sava | 1.07 | 287 | P | | Pg | 17 07 38.9 | +0.1 |
| STEP | | | | S | | Sb | 17 07 53.7 | -0.1 |
| IGD | Bursa | 1.20 | 6 | iP | | Pg | 17 07 41.3 | 0.0 |
| IGD | | | | iS | | Sn | 17 07 58.2 | -0.4 |
| BALY | Balya | 1.29 | 302 | iP | | Pg | 17 07 42.3 | -0.6 |
| BALY | | | | iS | | Sg | 17 07 59.7 | 0.0 |
| BALY | Balya | 1.29 | 302 | P | | Pg | 17 07 42.3 | -0.6 |
| BALY | | | | S | | Sg | 17 07 59.7 | 0.0 |
| CAVI | Cavuskoy | 1.29 | 28 | ePN | | Pg | 17 07 42.9 | -0.1 |
| CAVI | | | | eSN | | Sn | 17 08 00.9 | +0.1 |
| CAVI | Cavuskoy | 1.29 | 28 | ePn | | Pg | 17 07 42.9 | -0.1 |
| CAVI | | | | eSn | | Sn | 17 08 00.9 | +0.1 |
| KCTX | Karacabey (Bur | 1.31 | 336 | ePN | | Pb | 17 07 43.5 | +0.2 |
| KCTX | Karacabey (Bur | 1.31 | 336 | ePn | | Pb | 17 07 43.6 | +0.2 |
| GONE | Gonen-Balikesi | 1.44 | 314 | ePN | | Pn | 17 07 45.2 | +0.2 |
| GONE | Gonen-Balikesi | 1.44 | 314 | ePn | | Pn | 17 07 45.2 | +0.2 |
| ARMT | Armutlu | 1.50 | 355 | ePN | | Pn | 17 07 46.3 | +0.3 |
| ARMT | Armutlu | 1.50 | 355 | ePn | | Pn | 17 07 46.3 | +0.3 |
| YLV | Yalova | 1.52 | 10 | ePN | | Pn | 17 07 46.5 | +0.2 |
| YLV | Yalova | 1.52 | 10 | ePn | | Pn | 17 07 46.5 | +0.2 |
| EDC | Edincik | 1.57 | 325 | ePN | | Pb | 17 07 47.9 | +0.1 |
| EDC | Edincik | 1.57 | 325 | ePn | | Pb | 17 07 47.9 | +0.1 |
| GULT | Gulveren | 1.78 | 39 | ePN | | Pn | 17 07 50.0 | +0.2 |
| GULT | Gulveren | 1.78 | 39 | ePn | | Pn | 17 07 50.0 | +0.2 |
| SBT2 | Guzelce-Avcila | 1.86 | 348 | ePN | | Pb | 17 07 51.8 | -0.8 |
| SBT2 | Guzelce-Avcila | 1.86 | 348 | ePn | | Pb | 17 07 51.8 | -0.8 |
| SBT3 | Marmara-Eregli | 1.99 | 336 | ePN | | Pb | 17 07 54.0 | -0.9 |
| SBT3 | Marmara-Eregli | 1.99 | 336 | ePn | | Pb | 17 07 54.0 | -0.9 |
| CTKS | Kestanelik-??a | 2.21 | 349 | ePN | | Pn | 17 07 56.6 | +1.0 |
| CTKS | Kestanelik-??a | 2.21 | 349 | ePn | | Pn | 17 07 56.6 | +1.0 |

*ISCJB* ***25*** *17:14:25.4±0.4, 51.°49N±0.°02×6.°53E±0.°03, h0km, Error ellipse: s-maj=3.5km s-min=2.6km az=158.0*

*BUG* ***25*** *17:14:25.4, 51.°52N×6.°56E, h1km, ML2.3*

*UCC* ***25*** *17:14:26.4, 51.°48N×6.°65E, h4km, ML2.4*

*CSEM* ***25*** *17:14:26.2±0.2, 51.°48N×6.°56E, h1km, ML2.8/11, Error ellipse: s-maj=4.3km s-min=3.4km az=162.0*

*BGR* ***25*** *17:14:26.7±0.5, 51.°54N×6.°54E, h1km, ML2.2/5, Error ellipse: s-maj=6.7km s-min=4.4km az=136.0*

*LDG* ***25*** *17:14:26.8±0.2, 51.°50N×6.°59E, h1km, Ml2.6/11, Error ellipse: s-maj=3.6km s-min=2.7km az=147.0, Suspected Mining induced.*

*BNS* ***25*** *17:14:27.0±1.2, 51.°49N×6.°62E, h1km±34km, ML2.1*

**ISC 25 17:14:25.5±0.8, 51.°46N±0.°02×6.°52E±0.°02, h0km, n99, σ0§98/155, Germany**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| LAUG | Laupendahl | 0.28 | 112 | ePg | | Pg | 17 14 31.7 | +0.7 |
| LAUG | | | | eSg | | Sg | 17 14 35.4 | +0.8 |
| LAUG | Laupendahl | 0.28 | 112 | Pg | | Pg | 17 14 31.7 | +0.7 |
| LAUG | | | | Sg | | Sg | 17 14 35.4 | +0.8 |
| HES | Velbert-Hesper | 0.34 | 105 | ePg | | Pg | 17 14 31.8 | -0.2 |
| HES | | | | eSg | | Sg | 17 14 36.3 | 0.0 |
| HES | Velbert-Hesper | 0.34 | 105 | Pg | | Pg | 17 14 31.8 | -0.2 |
| HES | | | | Sg | | Sg | 17 14 36.3 | 0.0 |
| RWB | Wassenberg | 0.42 | 213 | eSg | | Sb | 17 14 42.9 | +0.1 |
| RWB | Wassenberg | 0.42 | 213 | Sg | | Sb | 17 14 42.9 | +0.1 |
| BUG | Bochum--Univer | 0.47 | 92 | ePg | | Pg | 17 14 34.8 | +0.4 |
| BUG | | | | Sg | | Sg | 17 14 41.3 | +0.8 |
| PLH | Pulheim | 0.49 | 158 | ePg | | Pg | 17 14 36.1 | +1.3 |
| PLH | | | | eSg | | Sg | 17 14 43.2 | +2.0 |
| | 187nm,0.2s | | | | | | | |
| PLH | Pulheim | 0.49 | 158 | Pg | | Pg | 17 14 36.1 | +1.3 |
| PLH | | | | Sg | | Sg | 17 14 43.2 | +2.0 |
| | 187nm,0.2s | | | | | | | |
| WTSB | Winterswijk | 0.54 | 18 | ePg | | Pg | 17 14 36.2 | +0.4 |
| WTSB | | | | eSg | | Sg | 17 14 43.9 | +1.1 |
| WTSB | Winterswijk | 0.54 | 18 | ePg | | Pg | 17 14 35.9 | +0.1 |
| WTSB | Winterswijk | 0.54 | 18 | Pg | | Pg | 17 14 35.9 | +0.1 |
| WTSB | | | | eSg | | Sg | 17 14 43.9 | +1.1 |
| ENTS | Ennepetalsperr | 0.60 | 111 | ePg | | Pg | 17 14 37.0 | +0.1 |
| ENTS | | | | eSg | | Sg | 17 14 44.8 | +0.2 |
| ENTS | Ennepetalsperr | 0.60 | 111 | Pg | | Pg | 17 14 37.0 | +0.1 |
| ENTS | | | | Sg | | Sg | 17 14 44.8 | +0.2 |
| BNS | Bensberg | 0.64 | 140 | ePg | | Pb | 17 14 39.1 | -0.5 |
| BNS | Bensberg | 0.64 | 140 | Pg | | Pb | 17 14 39.1 | -0.5 |
| HOBG | Hohbusch | 0.70 | 133 | ePg | | Pb | 17 14 40.1 | -0.4 |
| HOBG | Hohbusch | 0.70 | 133 | Pg | | Pb | 17 14 40.1 | -0.4 |
| GSH | Grosshau | 0.73 | 187 | ePg | | Pb | 17 14 41.0 | 0.0 |
| GSH | | | | eSg | | Sb | 17 14 52.0 | +0.5 |
| GSH | Grosshau | 0.73 | 187 | Pg | | Pb | 17 14 41.0 | 0.0 |
| GSH | | | | Sg | | Sb | 17 14 52.0 | +0.5 |
| HGN | Heimansgroeve | 0.79 | 209 | ePg | | Pn | 17 14 43.8 | 0.0 |
| HGN | | | | eSg | | Sn | 17 14 56.4 | +0.1 |
| HGN | Heimansgroeve | 0.79 | 209 | ePg | | Pb | 17 14 42.5 | +0.4 |
| HGN | | | | eSg | | Sb | 17 14 54.6 | +1.4 |
| HGN | Heimansgroeve | 0.79 | 209 | Pg | | Pb | 17 14 42.5 | +0.4 |
| HGN | | | | Sg | | Sb | 17 14 54.6 | +1.4 |
| DREG | Dreilaegerbach | 0.81 | 193 | ePg | | Pb | 17 14 42.7 | +0.2 |
| DREG | Dreilaegerbach | 0.81 | 193 | Pg | | Pb | 17 14 42.7 | +0.2 |
| KLL | Kalltalsperre | 0.82 | 189 | ePg | | Pb | 17 14 43.6 | +1.0 |
| KLL | Kalltalsperre | 0.82 | 189 | Pg | | Pb | 17 14 43.7 | +1.0 |
| BEBN | Eben Emael | 0.85 | 219 | P | | Pb | 17 14 44.1 | +0.9 |
| BEBN | Eben Emael | 0.85 | 219 | P | | Pb | 17 14 44.0 | +0.9 |
| STB | Steinbach | 0.89 | 167 | ePg | | Pb | 17 14 44.6 | +0.8 |
| STB | | | | eSg | | Sb | 17 14 56.6 | +0.5 |
| | 53nm,0.3s | | | | | | | |
| STB | Steinbach | 0.89 | 167 | Pg | | Pb | 17 14 44.6 | +0.8 |
| STB | | | | Sg | | Sb | 17 14 56.6 | +0.5 |
| | 53nm,0.3s | | | | | | | |
| MEM | Membach | 0.91 | 201 | P | | Pb | 17 14 44.3 | +0.3 |
| MEM | Membach | 0.91 | 201 | P | | Pb | 17 14 44.4 | +0.3 |
| MEM | Membach | 0.91 | 201 | ePg | | Pb | 17 14 44.5 | +0.4 |
| MEM | | | | eSg | | Sn | 17 14 58.6 | -0.7 |
| MEM | Membach | 0.91 | 201 | Pg | | Pb | 17 14 44.5 | +0.4 |
| MEM | | | | Sg | | Sn | 17 14 58.6 | -0.7 |
| TDN | Todenfeld | 0.92 | 163 | ePg | | Pb | 17 14 44.3 | -0.1 |
| TDN | | | | eSg | | Sb | 17 14 57.2 | +0.1 |
| | 42nm,0.1s | | | | | | | |
| TDN | Todenfeld | 0.92 | 163 | Pg | | Pb | 17 14 44.3 | -0.1 |
| TDN | | | | Sg | | Sb | 17 14 57.2 | +0.1 |
| | 42nm,0.1s | | | | | | | |
| BMOL | Mol | 0.93 | 256 | P | | Pn | 17 14 46.1 | +0.2 |
| BMOL | Mol | 0.93 | 256 | P | | Pn | 17 14 46.1 | +0.2 |
| BDSL | Dessel | 0.95 | 256 | P | | Pn | 17 14 46.0 | 0.0 |
| BDSL | Dessel | 0.95 | 256 | P | | Pn | 17 14 46.0 | 0.0 |
| OLFT | Oleftalsperre | 0.97 | 184 | ePg | | Pb | 17 14 45.5 | +0.4 |
| OLFT | | | | eSg | | Sb | 17 14 59.4 | +1.0 |
| OLFT | Oleftalsperre | 0.97 | 184 | Pg | | Pb | 17 14 45.5 | +0.4 |
| OLFT | | | | Sg | | Sb | 17 14 59.4 | +1.0 |
| AHRW | Bad Neuenahr-A | 0.98 | 159 | ePg | | Pn | 17 14 47.0 | +0.5 |
| AHRW | | | | eSg | | Sb | 17 15 00.3 | +1.5 |
| AHRW | Bad Neuenahr-A | 0.98 | 159 | Pg | | Pn | 17 14 47.0 | +0.5 |
| AHRW | | | | Sg | | Sb | 17 15 00.3 | +1.5 |
| BLCH | La Chartreuse | 1.00 | 216 | P | | Pn | 17 14 46.9 | +0.1 |
| BLCH | La Chartreuse | 1.00 | 216 | P | | Pn | 17 14 46.9 | +0.1 |
| BSTI | Sart Tilman | 1.06 | 215 | P | | Pn | 17 14 48.0 | +0.3 |
| BSTI | Sart Tilman | 1.06 | 215 | P | | Pn | 17 14 47.9 | +0.3 |
| HILG | Hillesheim | 1.17 | 175 | ePg | | Pn | 17 14 49.5 | +0.4 |
| HILG | Hillesheim | 1.17 | 175 | Pg | | Pn | 17 14 49.5 | +0.4 |
| BCLA | Clavier | 1.29 | 217 | P | | Pn | 17 14 51.5 | +0.7 |
| BCLA | | | | S | | Sn | 17 15 09.8 | +1.0 |
| BCLA | Clavier | 1.29 | 217 | P | | Pn | 17 14 51.5 | +0.7 |
| BCLA | | | | S | | Sn | 17 15 09.8 | +1.0 |
| BGG | Burgeitz | 1.35 | 157 | ePg | | Pn | 17 14 51.9 | +0.3 |
| BGG | Burgeitz | 1.35 | 157 | Pg | | Pn | 17 14 51.9 | +0.3 |
| BGES | Gesves | 1.41 | 221 | P | | Pg | 17 14 52.7 | +0.3 |
| BGES | Gesves | 1.41 | 221 | P | | Pg | 17 14 52.7 | +0.3 |
| GIVF | Givet | 1.73 | 219 | ePn | | Pn | 17 14 57.6 | +0.7 |
| GIVF | Givet | 1.73 | 219 | ePg | | Pg | 17 14 59.3 | +0.6 |
| GIVF | | | | eSg | | Sg | 17 15 22.4 | +1.3 |
| | 13nm,0.2s | | | | | | | |
| GIVF | Givet | 1.73 | 219 | ePn | | Pn | 17 14 57.6 | +0.7 |
| GIVF | Givet | 1.73 | 219 | ePg | | Pg | 17 14 59.3 | +0.6 |
| GIVF | | | | eSg | | Sg | 17 15 22.4 | +1.3 |
| | 6.7nm,0.2s | | | | | | | |
| TNS | Taunus Mts | 1.74 | 135 | ePn | | Pb | 17 14 57.9 | -0.4 |
| TNS | | | | eSn | | Sn | 17 15 20.0 | +0.2 |
| TNS | Taunus Mts | 1.74 | 135 | Pn | | Pb | 17 14 57.9 | -0.4 |
| TNS | | | | Sn | | Sn | 17 15 20.0 | +0.2 |
| WLF | Walferdange | 1.81 | 188 | ePg | | Pg | 17 15 01.3 | +1.1 |
| WLF | Walferdange | 1.81 | 188 | Pg | | Pg | 17 15 01.3 | +1.1 |
| BAIF | Baives | 2.03 | 227 | ePn | | Pb | 17 15 02.4 | -0.8 |
| BAIF | Baives | 2.03 | 227 | ePg | | Pg | 17 15 05.5 | +1.1 |
| BAIF | | | | eSg | | Sg | 17 15 31.5 | +0.8 |
| | 5.3nm,0.3s | | | | | | | |
| BAIF | Baives | 2.03 | 227 | ePn | | Pb | 17 15 02.4 | -0.8 |
| BAIF | Baives | 2.03 | 227 | ePg | | Pg | 17 15 05.5 | +1.1 |
| BAIF | | | | eSg | | Sg | 17 15 31.5 | +0.8 |
| | 2.7nm,0.3s | | | | | | | |
| PAGF | Fort de Pagny | 2.95 | 190 | ePg | | Pg | 17 15 22.3 | +0.3 |
| PAGF | | | | eSg | | Sg | 17 16 00.9 | +0.7 |
| | 1.7nm,0.4s | | | | | | | |
| PAGF | Fort de Pagny | 2.95 | 190 | ePg | | Pg | 17 15 22.3 | +0.3 |
| PAGF | | | | eSg | | Sg | 17 16 00.9 | +0.7 |
| | 0.9nm,0.4s | | | | | | | |
| CDF | Champ du Feu | 3.09 | 171 | ePn | | Pn | 17 15 15.6 | 0.0 |
| CDF | Champ du Feu | 3.09 | 171 | ePg | | Pg | 17 15 25.7 | +1.1 |
| CDF | | | | eSg | | Sg | 17 16 03.5 | -1.1 |
| | 2.7nm,0.3s | | | | | | | |
| CDF | Champ du Feu | 3.09 | 171 | ePn | | Pn | 17 15 15.6 | 0.0 |
| CDF | Champ du Feu | 3.09 | 171 | ePg | | Pg | 17 15 25.7 | +1.1 |
| CDF | | | | eSg | | Sg | 17 16 03.5 | -1.1 |
| | 1.4nm,0.3s | | | | | | | |
| MEZF | Maizieres J'vi | 3.11 | 198 | ePn | | Pn | 17 15 15.7 | 0.0 |
| MEZF | Maizieres J'vi | 3.11 | 198 | ePg | | Pg | 17 15 24.0 | -1.0 |
| MEZF | | | | eSg | | Sg | 17 16 05.1 | -0.2 |
| | 4.7nm,0.3s | | | | | | | |
| MEZF | Maizieres J'vi | 3.11 | 198 | ePn | | Pn | 17 15 15.7 | 0.0 |
| MEZF | Maizieres J'vi | 3.11 | 198 | ePg | | Pg | 17 15 24.0 | -1.0 |
| MEZF | | | | eSg | | Sg | 17 16 05.1 | -0.2 |
| | 2.3nm,0.3s | | | | | | | |
| SFTF | Sexfontaines | 3.39 | 197 | eSg | | Sg | 17 16 13.5 | -1.0 |
| SFTF | Sexfontaines | 3.39 | 197 | eSg | | Sg | 17 16 13.5 | -1.0 |
| HAU | Haudompre | 3.46 | 182 | eSg | | Sg | 17 16 15.9 | -0.6 |
| | 3.6nm,0.3s | | | | | | | |
| HAU | Haudompre | 3.46 | 182 | eSg | | Sg | 17 16 15.9 | -0.6 |
| | 1.8nm,0.3s | | | | | | | |
| HINF | Hinteralfeld | 3.65 | 177 | eSg | | Sg | 17 16 21.1 | -1.6 |
| | 1.8nm,0.3s | | | | | | | |
| HINF | Hinteralfeld | 3.65 | 177 | eSg | | Sg | 17 16 21.1 | -1.6 |
| | 0.9nm,0.3s | | | | | | | |
| LOR | Lormes | 4.54 | 204 | ePn | | Pn | 17 15 35.3 | -0.2 |
| | baz=32 | | | | | | | |
| LOR | | | | eSn | | Sn | 17 16 26.2 | -2.7 |
| LOR | | | | eSg | | Sg | 17 16 50.9 | -0.4 |
| | 2.0nm,0.2s,baz=11 | | | | | | | |
| LOR | Lormes | 4.54 | 204 | ePn | | Pn | 17 15 35.3 | -0.2 |
| LOR | | | | eSn | | Sn | 17 16 26.2 | -2.7 |
| LOR | | | | eSg | | Sg | 17 16 50.9 | -0.4 |
| | 1.0nm,0.2s | | | | | | | |
| SSF | Saint Saulge | 4.82 | 205 | ePn | | Pn | 17 15 39.2 | -0.1 |
| SSF | | | | eSn | | Sn | 17 16 32.3 | -3.5 |
| SSF | | | | eSg | | Sg | 17 16 58.7 | -1.6 |
| | 3.3nm,0.4s | | | | | | | |
| SSF | Saint Saulge | 4.82 | 205 | ePn | | Pn | 17 15 39.2 | -0.1 |
| SSF | | | | eSn | | Sn | 17 16 32.3 | -3.5 |
| SSF | | | | eSg | | Sg | 17 16 58.7 | -1.6 |
| | 1.6nm,0.4s | | | | | | | |
| CABF | La Chapelle | 4.86 | 184 | ePn | | Pn | 17 15 40.9 | +1.0 |
| CABF | | | | eSg | | Sg | 17 17 01.9 | +0.4 |
| CABF | La Chapelle | 4.86 | 184 | ePn | | Pn | 17 15 40.9 | +1.0 |
| CABF | | | | eSg | | Sg | 17 17 01.9 | +0.4 |
| AVF | Avril sur Loir | 5.11 | 205 | ePn | | Pn | 17 15 42.8 | -0.5 |
| AVF | | | | eSg | | Sg | 17 17 10.2 | +0.5 |
| AVF | Avril sur Loir | 5.11 | 205 | ePn | | Pn | 17 15 42.8 | -0.5 |
| AVF | | | | eSg | | Sg | 17 17 10.2 | +0.5 |
| SMF | Signal de Mont | 5.13 | 201 | ePn | | Pn | 17 15 43.6 | +0.1 |
| SMF | | | | eSn | | Sn | 17 16 39.7 | -3.7 |
| SMF | | | | eSg

0.1nm,0.4s,baz=287,slow=4.9,SNR=4.5

**MAN 25 17:41:12, 8˚60N×126˚43E, h1km, mb3.9, ML2.7, MS2.3, 1D, Mindanao**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **BIPH** | **Bislig** | **0.42** | **190** | ⇓ | *i* P | Pg | 17 41 20.8 | +0.7 |
| BIPH | | | | | *i* S | Sg | 17 41 25.4 | -0.1 |
| **BUTP** | **Butuan** | **0.88** | **295** | | *e* P | Pb | 17 41 30.0 | -0.2 |
| BUTP | | | | | *e* S | Sb | 17 41 42.5 | +0.1 |
| **BUKP** | **Musuan** | **1.53** | **242** | | *e* P | Pg | 17 41 41.4 | 0.0 |
| BUKP | | | | | *e* S | Sg | 17 42 02.8 | +1.5 |

*NIED* ***25*** *17:41:00, 36˚00N×140˚90E, h44km, Mw4.6 Best double couple: M0 8.56000×10^15 NP1:φs241.00000°, δ26.00000°, λ134.00000°. NP2:φs13.00000°, δ71.00000°, λ71.00000°.*

*MOS* ***25*** *17:41:36.9±0.4, 35˚86N±0˚02×140˚86E±0˚04, h51km±3km, mb4.8/97, MS3.8/12, Error ellipse: s-maj=4.8km s-min=4.0km az=15.3*

*ISCJB* ***25*** *17:41:36.3±0.1, 35˚90N×140˚84E, h41km±1km, M4.5 Broadband fault plane solution: P waves. NP1: φs39.00000°, δ74.00000°, λ90.00000°. NP2:φs218.00000°, δ16.00000°, λ88.00000°. Principal axes: T Plg61.0000°, Azm310.0000°; N Plg0.0000°, Azm39.0000°; P Plg29.0000°, Azm129.0000°;*

*JMA Felt II J1.*

*IDC* ***25*** *17:41:39.8±1.4, 35˚84N×140˚71E, h60km±14km, mb4.0/27, mb1 4.2/30, mb1mx4.1/40, mbtmp4.3/30, MS3.7/11, Ms1 3.7/11, ms1mx3.5/38 Error ellipse: s-maj=13.7km s-min=8.8km az=92.0*

*BJI* ***25*** *17:41:40.7, 35˚95N×140˚12E, h49km, mb4.5/46, mB5.2/32, Ms4.7/21, Ms7 4.2/21*

*NEIC* ***25*** *17:41:40.0±0.7, 35˚88N×140˚76E, h62km±6km, mb4.9/44, Error ellipse: s-maj=7.0km s-min=4.6km az=117.0*

*NEIC Recorded [2 JMA] in Chiba and Ibaraki.*

**ISC 25 17:41:37.8±0.5, 35˚94N±0˚04×140˚89E±0˚04, h44km±4km, h43km:pP-P, n260, σ1s70/278, mb4.8/97, MS3.8/13, 15C-18D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **CHOJ** | **Chosi** | **0.24** | **187** | ⇑ | P | **Pn** | **17 41 44.4** | **-1.4** |
| CHOJ | | | | | S | **Sn** | **17 41 49.7** | **-1.7** |
| **JYT** | **Yasato** | **0.63** | **297** | ⇓ | P | **Pn** | **17 41 49.6** | **-0.8** |
| JYT | | | | | S | **Sn** | **17 41 58.5** | **-1.0** |
| **JHO** | **Hitachi** | **0.71** | **339** | ⇓ | P | **Pn** | **17 41 51.2** | **-0.4** |
| **BSO3** | **Boso 3** | **1.18** | **195** | | P | **Pn** | **17 41 56.9** | **-0.7** |
| **MJAR** | **Matsushiro Arr** 51nm,0.3s,baz=104,slow=8.3,SNR=225 | **2.25** | **286** | | P | **Pn** | **17 42 13.3** | **+0.7** |
| MJAR | comp=Z,2μm,20.4s,baz=105,slow=44 | | | | LR | LR | 17 43 13.5 | |
| **MAJO** | **Matsushiro** | **2.25** | **286** | *d* | *i* P | **Pn** | **17 42 13.1** | **+0.5** |
| **MAJO** | **Matsushiro** | **2.25** | **286** | *e* | Pn | **Pn** | **17 42 13.4** | **+0.8** |
| **MAT** | **Matsushiro** | **2.25** | **286** | | P | **Pn** | **17 42 13.5** | **+0.9** |
| MAT | | | | | S | **Sn** | **17 42 40.2** | **+1.0** |
| **MJB9** | **Matsu-Tunnel** | **2.25** | **286** | *e* | Pn | **Pn** | **17 42 13.4** | **+0.8** |
| **JHJ2** | **Mitsune** | **2.96** | **198** | *e* | Pn | **Pn** | **17 42 26.2** | **+3.9** |
| JHJ2 | | | | *e* | Sn | **Sn** | **17 42 56.5** | **0.0** |
| **JHJ** | **Hachijo jima 2** 130nm,0.3s,baz=165,slow=3.7,SNR=11 | **2.96** | **198** | | P | **Pn** | **17 42 23.1** | **+0.8** |
| JHJ | 257nm,0.3s,baz=229,slow=19,SNR=15 | | | | S | **Sn** | **17 42 55.3** | **-1.4** |
| **INU** | **Inuyama** | **3.21** | **260** | *e* | Pn | **Pn** | **17 42 27.2** | **+1.5** |
| **ERM** | **Erimo** | **6.31** | **16** | *d* | *i* P | **Pn** | **17 43 07.5** | **-0.8** |
| **ERM** | **Erimo** | **6.31** | **16** | *e* | Pn | **Pn** | **17 43 08.1** | **-0.2** |
| ERM | | | | *e* | Sn | **Sn** | **17 44 16.6** | **-2.4** |
| **ASAJ** | **Asahikawa** 5.1nm,0.3s,baz=209,slow=10,SNR=44 | **8.27** | **9** | | P | **Pn** | **17 43 34.6** | **-0.5** |
| ASAJ | 1.6nm,0.3s,baz=282,slow=20,SNR=2.6 | | | | S | **Sn** | **17 45 06.0** | **-1.0** |
| **JNU** | **Nakatsue** 0.6nm,0.3s,baz=314,slow=2.4,SNR=6.5 | **8.73** | **254** | | P | **Pn** | **17 43 43.7** | **+2.2** |
| **JNU** | **Nakatsue** | **8.73** | **254** | *e* | Pn | **Pn** | **17 43 43.2** | **+1.7** |
| **CBIJ** | **Chichi jima** | **8.89** | **173** | *e* | Pn | **Pn** | **17 43 45.5** | **+1.8** |
| **YUK** | **Yuzh-Kuril'sk** | **8.93** | **24** | *e* | P | **Pn** | **17 43 41.6** | **-2.6** |
| YUK | | | | *i* | S | **Sn** | **17 45 16.3** | **-7.1** |
| YUK | comp=Z,86nm,0.3s | | | | pmax | pmax | | |
| YUK | comp=N,38nm,0.2s | | | | pmax | pmax | | |
| **SHO** | **Shikotan** | **9.13** | **28** | *e* | P | **Pn** | **17 43 46.6** | **-0.3** |
| SHO | comp=E,26nm,0.5s | | | | pmax | pmax | | |
| SHO | comp=Z,39nm,0.5s | | | | pmax | pmax | | |
| SHO | comp=N,8.0nm,0.2s | | | | pmax | pmax | | |
| **MSHR** | **Mys Shultsa** | **10.04** | **314** | *e* | P | **Pn** | **17 43 59.2** | **-0.1** |
| **KSRS** | **Korea Array** comp=N,0.5nm,0.3s,baz=95,slow=14,SNR=7.8 | **10.52** | **282** | | P | **Pn** | **17 44 09.7** | **+3.7** |
| KSRS | comp=N,355nm,20.0s,baz=76,slow=38 | | | | LR | LR | 17 48 12.2 | |
| **KS01** | **Wonju Array Si** | **10.55** | **282** | *e* | Pn | **Pn** | **17 44 09.4** | **+3.1** |
| **KSAR** | **Wonju Array Be** | **10.55** | **282** | | P | **Pn** | **17 44 09.7** | **+3.3** |
| **KSAR** | **Wonju Array Be** | **10.55** | **282** | | P | **Pn** | **17 44 09.7** | **+3.3** |
| **KUR** | **Kuril'sk** | **10.68** | **28** | *e* | P | **Pn** | **17 44 08.2** | **+0.1** |
| KUR | | | | *e* | S | **Sn** | **17 46 00.0** | **-6.2** |
| KUR | comp=Z,24nm,0.4s | | | | pmax | pmax | | |
| KUR | comp=N,9.0nm,0.2s | | | | pmax | pmax | | |
| KUR | comp=E,12nm,0.2s | | | | pmax | pmax | | |
| **USRK** | **Ussuriysk Ar.** comp=E,0.5nm,0.3s,baz=134,slow=12,SNR=9.4 | **10.70** | **323** | | P | **Pn** | **17 44 10.7** | **+2.4** |
| USRK | comp=E,542nm,19.6s,baz=144,slow=36 | | | | LR | LR | 17 48 00.7 | |
| **YSS** | **Yuzh-Sakhalins** | **11.09** | **7** | *e* | P | **Pn** | **17 44 15.2** | **+1.6** |
| **YSS** | **Yuzh-Sakhalins** | **11.09** | **7** | *e* | Pn | **Pn** | **17 44 15.2** | **+1.6** |
| **INCN** | **Inchon** | **11.55** | **282** | *e* | Pn | **Pn** | **17 44 23.0** | **+2.9** |
| **HABR** | **Khabarovsk** | **13.24** | **343** | *e* | P | **Pn** | **17 44 40.5** | **-2.5** |
| HABR | comp=Z,14nm,1.5s | | | | pmax | pmax | | |
| HABR | comp=N,23nm,1.3s | | | | pmax | pmax | | |
| HABR | comp=E,14nm,1.3s | | | | pmax | pmax | | |
| HABR | comp=Z,14nm,1.3s | | | | pmax | pmax | | |
| **JOW** | **Kunigami** | **14.08** | **233** | *e* | Pn | **Pn** | **17 44 56.7** | **+2.1** |
| **CN2** | **Changchun** | **14.21** | **308** | *e* | P | **Pn** | **17 44 53.3** | **-2.9** |
| CN2 | | | | *es* | P | P | 17 45 08.5 | +5.8 |
| CN2 | | | | *e* | S | **Sn** | **17 47 27.5** | **-4.9** |
| CN2 | | | | *e* | SS | **SnSn** | **17 47 45.0** | **0.0** |
| CN2 | comp=Z,400nm,10.0s | | | | LR | LR | | |
| CN2 | comp=Z,500nm,10.0s | | | | LR | LR | | |
| CN2 | comp=Z,200nm,10.0s | | | | LR | LR | | |
| **KLR** | **Kul'dur** comp=Z,0.0nm,0.3s,baz=157,slow=14,SNR=6.8 | **14.87** | **336** | | P | **Pn** | **17 45 06.8** | **+1.7** |
| KLR | comp=Z,20nm,20.3s,baz=150,slow=36 | | | | LR | LR | 17 50 32.2 | |
| **SKR** | **Severo-Kuril's** | **18.38** | **32** | *e* | P | **P** | **17 45 48.9** | **+0.1** |
| **NJ2** | **Nanjing** | **18.67** | **264** | *e* | P | **Pn** | **17 45 52.8** | **-0.1** |
| NJ2 | comp=Z,6.0nm,0.5s | | | | pmax | pmax | | |
| **YOJ** | **Yonaguni jima** | **19.20** | **238** | *e* | P | **Pn** | **17 46 00.0** | **+0.8** |
| YOJ | comp=Z,527nm,1.8s | | | | pmax | pmax | | |
| **YOJ** | **Yonaguni jima** comp=Z,527nm,1.8s | **19.20** | **238** | *e* | P | **Pn** | **17 45 60.0** | **+0.8** |
| **TIA** | **Tai'an** | **19.21** | **278** | | P | **P** | **17 45 56.0** | **-2.1** |
| TIA | comp=Z,7.0nm,1.1s | | | | pmax | pmax | | |
| **BJI** | **Beijing** | **19.89** | **289** | | P | **P** | **17 46 04.5** | **-0.9** |
| BJI | comp=Z,14nm,1.2s | | | | pmax | pmax | | |
| BJI | comp=Z,330nm,9.4s | | | | pmax | pmax | | |
| BJI | comp=Z,280nm,21.3s | | | | LR | LR | | |
| **YHNB** | **Yeheng** comp=Z,146nm,1.7s | **20.21** | **242** | *e* | P | **P** | **17 46 07.0** | **-2.2** |
| **NACB** | **Ninganchiao** comp=Z,27nm,1.0s | **20.37** | **240** | *e* | P | **P** | **17 46 08.7** | **-2.1** |
| **PETK** | **Petropavlovsk-** comp=Z,8.1nm,1.0s,baz=227,slow=17,SNR=3.9 | **20.84** | **29** | | P | **Pn** | 17 46 19.0 | +0.6 |
| PETK | comp=Z,56nm,18.2s,baz=230,slow=36 | | | | LR | LR | 17 54 17.7 | |
| **PETK** | **Petropavlovsk-** | **20.84** | **29** | | P | Pn | 17 46 19.0 | +0.5 |
| PETK | comp=Z,7.0nm,0.9s | | | | pmax | pmax | | |
| PETK | comp=Z,56nm,18.2s | | | | MLR | MLR | | |
| **PETK** | **Petropavlovsk-** | **20.84** | **29** | *e* | P | **P** | **17 46 15.7** | **0.0** |
| **SSLB** | **Suanglung** comp=Z,96nm,1.7s | **21.07** | **240** | *e* | P | **P** | **17 46 14.9** | **-3.5** |
| **YULB** | **Yu-li** comp=Z,36nm,1.1s | **21.08** | **239** | *e* | P | **P** | **17 46 17.9** | **-0.5** |
| **TPUB** | **Ta-pu** comp=Z,228nm,1.7s | **21.61** | **240** | *e* | P | **P** | **17 46 20.7** | **-3.4** |
| **TWG** | **Pinlang** comp=Z,207nm,1.4s | **21.61** | **238** | *e* | P | **P** | **17 46 22.0** | **-2.1** |
| **WHN** | **Wuhan** | **22.81** | **264** | | P | P | 17 46 26.0 | -11 |
| **HHC** | **Hu-ho-hao-te** | **23.45** | **291** | *e* | P | **P** | **17 46 43.5** | **+0.2** |
| HHC | | | | | S | **S** | **17 50 49.5** | **-4.1** |
| HHC | | | | | sS | sS | 17 51 08.0 | -5.0 |
| HHC | comp=Z,12nm,1.1s | | | | pmax | pmax | | |
| HHC | comp=Z,220nm,5.6s | | | | pmax | pmax | | |
| HHC | comp=Z,280nm,15.3s | | | | LR | LR | | |
| HHC | comp=Z,280nm,14.9s | | | | LR | LR | | |
| HHC | comp=Z,240nm,14.9s | | | | LR | LR | | |
| **CLNS** | **Chul'man** | **23.52** | **338** | *e* | P | **P** | **17 46 45.0** | **+1.3** |
| CLNS | comp=Z,14nm,0.8s | | | | pmax | pmax | | |
| CLNS | comp=E,9.0nm,1.0s | | | | pmax | pmax | | |
| CLNS | comp=N,11nm,1.2s | | | | pmax | pmax | | |
| **MA2** | **Magadan** comp=N,8.2nm,0.8s,baz=198,slow=7.2,SNR=5.9 | **24.50** | **12** | | P | **P** | **17 46 53.2** | **+0.5** |
| **XAN** | **Xi'an** | **26.20** | **275** | | P | **P** | **17 47 07.0** | **-1.5** |
| XAN | | | | | pP | pP | 17 47 18.8 | -1.3 |
| XAN | comp=N,14nm,1.2s | | | | pmax | pmax | | |
| XAN | comp=N,190nm,9.0s | | | | pmax | pmax | | |
| **YAK** | **Yakutsk** comp=N,11nm,0.4s,baz=264,slow=0.6,SNR=6.1 | **27.05** | **348** | | P | **P** | **17 47 15.7** | **0.0** |
| **YAK** | **Yakutsk** | **27.05** | **348** | *e* | P | **P** | **17 47 14.4** | **-1.3** |
| YAK | | | | *e** | PP | **pP** | **17 47 28.3** | **+1.0** |
| YAK | | | | *e* | | | 17 50 32.2 | |
| YAK | | | | *e* | S | **S** | **17 51 49.3** | **-0.9** |
| YAK | | | | *e** | SS | **sS** | **17 52 12.1** | **+2.4** |
| YAK | | | | *e* | | | 17 58 03.1 | |
| YAK | comp=Z,17nm,1.1s | | | | pmax | pmax | | |
| YAK | comp=N,7.0nm,1.3s | | | | pmax | pmax | | |
| YAK | comp=E,2.0nm,1.1s | | | | pmax | pmax | | |
| YAK | comp=Z,131nm,3.8s | | | | pmax | pmax | | |
| YAK | comp=N,125nm,4.1s | | | | pmax | pmax | | |
| YAK | comp=E,104nm,4.8s | | | | pmax | pmax | | |
| YAK | comp=N,216nm,4.6s | | | | smax | smax | | |
| YAK | comp=E,66nm,2.9s | | | | smax | smax | | |
| **YAK** | **Yakutsk** comp=E,29nm,1.2s | **27.05** | **348** | *e* | P | **P** | **17 47 15.8** | **+0.2** |
| **ULN** | **Ulaanbaatar** comp=Z,5.0nm,0.7s | **27.64** | **306** | *i* | P | **P** | **17 47 21.3** | **-0.1** |
| ULN | comp=Z,11nm,1.3s | | | | pmax | pmax | | |
| **ULN** | **Ulaanbaatar** | **27.64** | **306** | *e* | P | **P** | **17 47 21.1** | **-0.2** |
| **SEY** | **Seymchan** comp=Z,1.6nm,0.5s,baz=164,slow=6.1,SNR=4.6 | **27.94** | **11** | | P | **P** | **17 47 25.4** | **+1.7** |
| **H11N2** | **WAKE ISLAND Hy** baz=311,slow=75,SNR=123 | **27.98** | **118** | | T | T | 18 16 28.2 | |
| **H11N1** | **WAKE ISLAND Hy** baz=311,slow=75,SNR=86 | **27.98** | **118** | | T | T | 18 16 26.0 | |
| **H11N3** | **WAKE ISLAND Hy** baz=311,slow=75,SNR=114 | **27.99** | **118** | | T | T | 18 16 37.0 | |
| **SONA1** | **Songino Array** | **28.06** | **306** | *e* | P | **P** | **17 47 25.0** | **-0.1** |
| **SONM** | **Songino Array** comp=Z,3.4nm,0.6s,baz=106,slow=9.1,SNR=26 | **28.06** | **306** | | P | **P** | **17 47 24.5** | **-0.6** |
| SONM | comp=Z,313nm,18.7s,baz=138,slow=37 | | | | LR | LR | 17 59 03.2 | |
| **BOD** | **Bodaibo** | **28.24** | **329** | *e* | P | **P** | **17 47 25.7** | **-0.7** |
| BOD | comp=Z,9.0nm,1.0s | | | | pmax | pmax | | |
| **H11S1** | **WAKE ISLAND Hy** baz=312,slow=75,SNR=188 | **28.64** | **120** | | T | T | 18 17 25.4 | |
| **H11S3** | **WAKE ISLAND Hy** baz=312,slow=75,SNR=132 | **28.64** | **121** | | T | T | 18 17 22.6 | |
| **H11S2** | **WAKE ISLAND Hy** baz=312,slow=75,SNR=132 | **28.66** | **121** | | T | T | 18 17 23.4 | |
| **LZH** | **Lanzhou** | **29.85** | **281** | *e* | P | **P** | **17 47 40.5** | **-0.7** |
| LZH | | | | | pP | pP | 17 47 53.3 | +0.4 |
| LZH | | | | | sP | sP | 17 47 59.5 | +1.4 |
| LZH | | | | | PP | **PnPn** | **17 48 38.3** | **0.0** |
| LZH | | | | *e* | S | **S** | **17 52 31.5** | **-3.8** |
| LZH | | | | | sS | sS | 17 52 52.5 | -2.4 |
| LZH | comp=Z,25nm,1.3s | | | | pmax | pmax | | |
| LZH | comp=Z,330nm,6.0s | | | | pmax | pmax | | |
| LZH | comp=Z,580nm,12.0s | | | | LR | LR | | |
| LZH | comp=Z,640nm,12.5s | | | | LR | LR | | |
| LZH | comp=Z,690nm,14.5s | | | | LR | LR | | |
| **GYA** | **Guiyang** | **30.64** | **262** | | P | **P** | **17 47 46.0** | **-2.1** |
| GYA | | | | | pP | pP | 17 48 01.5 | +1.6 |
| GYA | | | | | PP | **PnPn** | **17 48 50.5** | **+1.8** |
| GYA | | | | | PcP | **PcP** | **17 50 46.3** | **+0.6** |
| GYA | | | | | S | **S** | **17 52 46.0** | **-1.6** |
| GYA | comp=Z,20nm,0.8s | | | | pmax | pmax | | |
| GYA | comp=Z,120nm,5.0s | | | | pmax | pmax | | |
| GYA | comp=Z,540nm,17.0s | | | | LR | LR | | |
| GYA | comp=Z,470nm,17.4s | | | | LR | LR | | |
| GYA | comp=Z,510nm,17.8s | | | | LR | LR | | |
| **CD2** | **Chengdu** | **31.27** | **272** | *e* | P | **P** | **17 47 53.5** | **-0.1** |
| CD2 | comp=Z,20nm,0.5s | | | | pmax | pmax | | |
| **QIZ** | **Qiongzhong** | **32.10** | **247** | | P | **P** | **17 48 00.5** | **-0.5** |
| **GTA** | **Gaotai** | **32.50** | **289** | *e* | P | **P** | **17 48 04.5** | **+0.1** |
| GTA | | | | | pP | pP | 17 48 15.8 | -0.4 |
| GTA | | | | | sP | sP | 17 48 21.5 | +0.1 |
| GTA | comp=Z,8.0nm,1.1s | | | | pmax | pmax | | |
| **KMI** | **Kunming** | **34.39** | **262** | | P | **P** | **17 48 21.8** | **+0.7** |
| KMI | comp=Z,5.0nm,0.8s | | | | pmax | pmax | | |
| KMI | comp=Z,230nm,5.5s | | | | pmax | pmax | | |
| **BILL** | **Bilibino** | **35.19** | **16** | ⇓ | *e* P | **P** | **17 48 28.5** | **+1.3** |
| BILL | | | | | *e** PP | **pP** | **17 48 38.3** | **-0.8** |
| BILL | | | | | *SP | **sP** | **17 48 44.0** | **-0.3** |
| BILL | | | | | *e* | | 17 51 01.5 | |
| BILL | comp=Z,5.0nm,1.2s | | | | pmax | pmax | | |
| BILL | comp=Z,132nm,21.0s | | | | MLR | MLR | | |
| **TIXI** | **Tiksi** comp=Z,2.0nm,0.4s,baz=156,slow=4.1,SNR=11 | **36.32** | **354** | | P | **P** | **17 48 37.2** | **+0.3** |
| **TIXI** | **Tiksi** comp=Z,3.0nm,0.8s | **36.32** | **354** | *e* | P | **P** | **17 48 37.0** | **+0.1** |
| **MYLDM** | **Lahad Datu** comp=Z,49nm,1.4s | **36.90** | **219** | *e* | P | **P** | **17 48 42.0** | **-0.4** |
| **TNTI** | **Ternate** comp=Z,34nm,1.3s | **37.18** | **203** | *e* | P | **P** | **17 48 43.5** | **-1.3** |
| **FAKI** | **Fak Fak** comp=Z,47nm,1.1s | **39.50** | **194** | *e* | P | **P** | **17 49 03.1** | **-1.2** |
| **CM31** | **Chiang Mai Arr** | **40.82** | **256** | *e* | P | **P** | **17 49 13.6** | **-1.7** |
| **CMAR** | **Chiang Mai Arr** comp=Z,1.0nm,0.7s,baz=49,slow=7.4,SNR=6.4 | **40.82** | **256** | *e* | P | **P** | **17 49 13.8** | **-1.5** |
| CMAR | comp=Z,128nm,19.5s,baz=40,slow=38 | | | | LR | LR | 18 07 37.5 | |
| **CMAR** | **Chiang Mai Arr** | **40.82** | **256** | *ce* | P | **P** | **17 49 16.0** | **+0.7** |
| CMAR | comp=Z,1.0nm,0.6s | | | | pmax | pmax | | |
| **CM01** | **Chiang Mai Arr** | **40.83** | **256** | *e* | P | **P** | **17 49 14.0** | **-1.4** |
| **WMQ** | **Urumqi** | **40.97** | **298** | | P | **P** | **17 49 17.8** | **+1.5** |
| WMQ | | | | | pP | sP | 17 49 31.3 | -2.1 |
| WMQ | | | | | sP | pP | 17 49 37.3 | +9.0 |
| WMQ | comp=Z,41nm,0.7s | | | | pmax | pmax | | |
| WMQ | comp=Z,2μm,8.3s | | | | pmax | pmax | | |
| WMQ | comp=Z,260nm,13.9s | | | | LR | LR | | |
| WMQ | comp=Z,720nm,22.1s | | | | LR | LR | | |
| WMQ | comp=Z,360nm,24.9s | | | | LR | LR | | |
| **ZAA0** | **Zalesovo Array** comp=Z,12nm,1.3s | **42.35** | **313** | *e* | P | **P** | **17 49 27.7** | **+0.4** |
| **ZALV** | **Zalesovo Beam** comp=Z,3.4nm,0.4s,baz=103,slow=8.3,SNR=26 | **42.35** | **313** | | P | **P** | **17 49 27.8** | **+0.4** |
| ZALV | | | | | PcP | **PcP** | **17 51 19.9** | **-0.2** |
| ZALV | comp=Z,1.8nm,0.5s,baz=110,slow=3.5,SNR=5.5 | | | | LR | LR | 18 08 47.2 | |
| **ZALV** | **Zalesovo Beam** | **42.35** | **313** | *e* | P | **P** | **17 49 27.0** | **-0.3** |
| ZALV | | | | *e* | PcP | **PcP** | **17 51 20.0** | **-0.2** |
| **NVS** | **Novosibirsk** | **43.30** | **315** | ⇓ | *i* P | **P** | **17 49 35.8** | **+0.8** |
| NVS | | | | *e* | | | 17 49 47.8 | |
| NVS | comp=E,4.0nm,0.4s | | | | pmax | pmax | | |
| NVS | comp=Z,5.0nm,0.4s | | | | pmax | pmax | | |
| **MK01** | **Makanchi Array** | **44.35** | **303** | *e* | P | **P** | **17 49 44.0** | **+0.4** |
| **MK31** | **Makanchi Array** | **44.35** | **303** | *e* | P | **P** | **17 49 44.3** | **+0.7** |
| **MK31** | **Makanchi Array** | **44.35** | **303** | *e* | P | **P** | **17 49 44.3** | **+0.7** |
| **MKAR** | **Makanchi Array** comp=Z,13nm,0.7s,baz=90,slow=9.8,SNR=118 | **44.35** | **303** | | P | **P** | **17 49 44.0** | **+0.3** |
| MKAR | comp=Z,274nm,18.2s,baz=322,slow=37 | | | | LR | LR | 18 08 47.2 | |
| **MKAR** | **Makanchi Array** | **44.35** | **303** | *e* | P | **P** | **17 49 44.3** | **+0.7** |
| MKAR | comp=Z,96nm,0.8s | | | | pmax | pmax | | |
| **MKAR** | **Makanchi Array** comp=Z,96nm,0.8s | **44.35** | **303** | *e* | P | **P** | **17 49 44.3** | **+0.7** |
| **KSM** | **Kuching** comp=Z,162nm,1.8s | **44.50** | **227** | *e* | P | **P** | **17 49 44.0** | **-1.1** |
| **MAKZ** | **Makanchi** comp=Z,14nm,0.8s | **44.56** | **303** | *e* | P | **P** | **17 49 46.0** | **+0.7** |
| MAKZ | comp=Z,14nm,0.8s | | | | pmax | pmax | | |
| **MAKZ** | **Makanchi** comp=Z,14nm,0.8s | **44.56** | **303** | *e* | P | **P** | **17 49 46.0** | **+0.7** |
| **TAPN** | **Taplejung** comp=Z,5.7nm,0.4s | **45.60** | **275** | *e* | P | **P** | **17 49 54.3** | **+0.1** |
| **ODAN** | **Odare** comp=Z,7.2nm,0.6s | **46.07** | **274** | *e* | P | **P** | **17 49 57.0** | **-0.8** |
| **KURK** | **Kurchatov** | **46.28** | **309** | *c* | *i* P | **P** | **17 49 58.7** | **-0.1** |
| KURK | comp=Z,118nm,1.2s | | | | pmax | pmax | | |
| **KURK** | **Kurchatov** comp=Z,23nm,0.8s | **46.28** | **309** | *e* | P | **P** | **17 49 59.2** | **+0.4** |
| **SVW2** | **Sparrevohn** comp=Z,38nm,1.8s | **46.64** | **37** | *e* | P | **P** | **17 50 02.6** | **+1.0** |
| **JIRN** | **Jiri** comp=Z,165nm,0.8s | **46.70** | **276** | *e* | P | **P** | **17 50 02.6** | **-0.3** |
| **GUN** | **Gumba** comp=Z,18nm,0.6s | **46.85** | **276** | *e* | P | **P** | **17 50 04.8** | **+0.7** |
| **PDGK** | **Podgornoye** comp=Z,20nm,1.0s | **46.92** | **299** | | P | **P** | **17 50 03.8** | **-0.3** |
| PDGK | | | | | pmax | pmax | | |
| **PKI** | **Pulchoki** comp=Z,7.3nm,0.6s | **47.37** | **276** | *e* | P | **P** | **17 50 07.5** | **-0.6** |
| **PKIN** | **Phulchoki** comp=Z,15nm,0.7s | **47.38** | **276** | *e* | P | **P** | **17 50 07.5** | **-0.6** |
| **KKN** | **Kakani** comp=Z,10nm,0.7s | **47.38** | **277** | *e* | P | **P** | **17 50 08.4** | **+0.3** |
| **DMN** | **Daman** comp=Z,16nm,0.9s | **47.60** | **276** | *e* | P | **P** | **17 50 09.9** | **+0.1** |
| **IMAR** | **Indian Mountai** | **47.80** | **30** | *e* | P | **P** | **17 50 12.7** | **+2.2** |
| **KDAK** | **Kodiak Island** comp=Z,13nm,0.9s,baz=230,slow=7.9,SNR=2.9 | **48.19** | **41** | | P | **P** | **17 50 14.8** | **+1.2** |
| KDAK | comp=Z,83nm,20.5s,baz=286,slow=36 | | | | LR | LR | 18 10 43.4 | |
| **IPM** | **Ipoh** comp=Z,38nm,1.3s | **48.22** | **239** | *e* | P | **P** | **17 50 13.3** | **-1.1** |
| **KOLN** | **Koldanda** comp=Z,27nm,1.1s | **48.75** | **277** | *e* | P | **P** | **17 50 18.5** | **-0.1** |
| **BRLK** | **Bradley Lake** comp=Z,116nm,1.9s | **48.97** | **39** | *e* | P | **P** | **17 50 21.6** | **+1.9** |
| **PYUN** | **Piuthan** comp=Z,46nm,0.8s | **49.10** | **278** | *e* | P | **P** | **17 50 21.0** | **-0.3** |
| **MTN** | **Manton Dam** comp=Z,112nm,1.6s | **49.39** | **193** | *e* | P | **P** | **17 50 22.5** | **-0.7** |
| **COEN** | **Coen** comp=Z,6.8nm,0.9s | **49.68** | **177** | *e* | P | **P** | **17 50 26.2** | **+0.8** |
| **TKM2** | **Tokmak 2** | **49.78** | **299** | | P | **P** | **17 50 26.9** | **+0.5** |
| TKM2 | comp=Z,11nm,0.7s | | | | pmax | pmax | | |
| **TKM2** | **Tokmak 2** SNR=19 | **49.78** | **299** | | P | **P** | **17 50 26.8** | **+0.5** |
| **RND** | **Reindeer** comp=Z,42nm,2.0s | **49.81** | **34** | *e* | P | **P** | **17 50 27.8** | **+1.7** |
| RND | comp=Z,42nm,2.0s | | | | pmax | pmax | | |
| **RND** | **Reindeer** | **49.81** | **34** | *e* | P | **P** | **17 50 27.8** | **+1.7** |
| **MDM** | **Murphy Dome** comp=Z,8.1nm,1.0s | **50.06** | **32** | *e* | P | **P** | **17 50 30.7** | **+2.9** |
| **KZA** | **Kyzart** SNR=11 | **50.26** | **298** | | P | **P** | **17 50 31.7** | **+1.5** |
| **KBK** | **Karagaybulak** SNR=15 | **50.32** | **299** | | P | **P** | **17 50 31.1** | **+0.8** |
| **CHMS** | **Chumysh** SNR=5.3 | **50.36** | **299** | | P | **P** | **17 50 30.8** | **+0.3** |
| **USP** | **Ospenovka** SNR=8.9 | **50.47** | **300** | | P | **P** | **17 50 31.7** | **+0.4** |
| **KSH** | **Kashi** | **50.47** | **295** | *e* | P | **P** | **17 50 35.5** | **+4.0** |
| KSH | | | | | pP | sP | 17 50 48.5 | -0.3 |
| KSH | | | | | PcP | **PcP** | **17 51 53.5** | **+4.4** |
| KSH | | | | | PP | **PP** | **17 52 33.5** | **+6.3** |
| KSH | | | | | S | **S** | **17 57 45.5** | **+3.2** |
| KSH | | | | | ScS | **ScS** | **18 00 19.3** | **+0.4** |
| KSH | | | | | SS | **SS** | **18 01 17.5** | **+1.3** |
| KSH | comp=Z,4.0nm,0.9s | | | | pmax | pmax | | |
| KSH | comp=Z,470nm,5.5s | | | | pmax | pmax | | |
| KSH | comp=Z,690nm,7.3s | | | | LR | LR | | |
| KSH | comp=Z,1μm,8.9s | | | | LR | LR | | |
| KSH | comp=Z,760nm,8.0s | | | | LR | LR | | |
| **SCM** | **Sheep Creek Mo** comp=Z,44nm,1.1s | **50.59** | **36** | *e* | P | **P** | **17 50 34.1** | **+2.1** |
| SCM | comp=Z,44nm,1.1s | | | | pmax | pmax | | |
| **SCM** | **Sheep Creek Mo** comp=Z,44nm,1.1s | **50.59** | **36** | *e* | P | **P** | **17 50 34.1** | **+2.1** |
| **IL1** | **Eielson Array** | **50.64** | **32** | *e* | P | **P** | **17 50 33.7** | **+1.6** |
| **ILAR** | **Eielson Array** comp=Z,2.5nm,0.8s,baz=266,slow=5.5,SNR=30 | **50.64** | **32** | | P | **P** | **17 50 33.6** | **+1.4** |
| **ILB** | **Eielson Array** | **50.64** | **32** | *e* | P | **P** | **17 50 33.6** | **+1.4** |
| **AAK** | **Ala-Archa** comp=Z,5.0nm,0.9s | **50.64** | **299** | *e* | P | **P** | **17 50 33.2** | **+0.4** |
| AAK | comp=Z,5.0nm,0.9s | | | | pmax | pmax | | |
| **AAK** | **Ala-Archa** comp=Z,5.0nm,0.9s | **50.64** | **299** | *e* | P | **P** | **17 50 33.2** | **+0.4** |
| **BVA0** | **Borovoye Array** comp=Z,7.0nm,0.9s | **51.00** | **313** | | P | **P** | **17 50 35.1** | **0.0** |
| BVA0 | comp=Z,7.0nm,0.9s | | | | pmax | pmax | | |
| **BRVK** | **Borovoye** comp=Z,6.0nm,0.6s | **51.06** | **313** | *e* | P | **P** | **17 50 35.8** | **+0.3** |
| BRVK | comp=Z,6.0nm,0.6s | | | | pmax | pmax | | |
| **BRVK** | **Borovoye** comp=Z,5.7nm,0.6s | **51.06** | **313** | *e* | P | **P** | **17 50 35.8** | **+0.3** |
| **KLU** | **Klutina** comp=Z,82nm,1.9s | **51.29** | **36** | *e* | P | **P** | **17 50 39.0** | **+1.7** |
| **AML** | **Almayashu** SNR=24 | **51.35** | **299** | | P | **P** | **17 50 39.3** | **+0.9** |
| **HARP** | **HAARP** comp=Z,124nm,1.9s | **51.56** | **35** | *e* | P | **P** | **17 50 42.3** | **+3.2** |
| **MNAS** | **Manas** | **52.10** | **299** | | P | **P** | **17 50 44.7** | **+1.1** |
| **SFK** | **Sufi-Kurgan** | **52.13** | **296** | | P | **P** | **17 50 43.9** | **-0.1** |
| SFK | comp=Z,5.0nm,0.8s | | | | pmax | pmax | | |
| **GSI** | **Gunungsitoli** comp=Z,90nm,1.7s | **52.88** | **239** | *e* | P | **P** | **17 50 47.9** | **-1.6** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **EGAK** | **Eagle** | **53.09** | **32** | *eP* | | **P** | **17 50 51.3** | **+0.9** |
| | comp=Z,24nm,1.9s | | | | | | | |
| **KK31** | **Karatay Array** | **53.31** | **301** | *i* P | | **P** | **17 50 52.3** | **-0.1** |
| KK31 | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,0.9s | | | | | | | |
| **KKAR** | **Karatay Array** | **53.31** | **301** | *eP* | | **P** | **17 50 52.1** | **-0.3** |
| KKAR | | | | pmax | pmax | | | |
| | comp=Z,53nm,0.9s | | | | | | | |
| **KKAR** | **Karatay Array** | **53.31** | **301** | *eP* | | **P** | **17 50 52.1** | **-0.3** |
| | comp=Z,53nm,0.9s | | | | | | | |
| **DAWY** | **Dawson** | **53.94** | **32** | *eP* | | **P** | **17 51 00.1** | **+3.4** |
| | comp=Z,17nm,1.7s | | | | | | | |
| **INK** | **Inuvik** | **55.55** | **27** | P | | **P** | **17 51 09.6** | **+1.4** |
| | comp=Z,1.7nm,0.6s,baz=312,slow=7.4,SNR=22 | | | | | | | |
| **INK** | **Inuvik** | **55.55** | **27** | *eP* | | **P** | **17 51 09.9** | **+1.7** |
| INK | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,0.7s | | | | | | | |
| **INK** | **Inuvik** | **55.55** | **27** | *eP* | | **P** | **17 51 09.9** | **+1.7** |
| | comp=Z,2.6nm,0.7s | | | | | | | |
| **SVE** | **Sverdlovsk** | **55.69** | **319**⇑ | *i* P | | **P** | **17 51 10.5** | **+1.1** |
| SVE | | | | pmax | pmax | | | |
| | comp=Z,11nm,0.9s | | | | | | | |
| **WRAB** | **Tennant Creek** | **55.92** | **187** | *eP* | | **P** | **17 51 10.9** | **-0.5** |
| WRAB | | | | pmax | pmax | | | |
| | comp=Z,15nm,1.0s | | | | | | | |
| **WRAB** | **Tennant Creek** | **55.92** | **187** | *eP* | | **P** | **17 51 10.9** | **-0.5** |
| | comp=Z,15nm,1.0s | | | | | | | |
| **WB2** | **Warramunga Arr** | **55.92** | **187** | *eP* | | **P** | **17 51 09.6** | **-1.8** |
| **WRA** | **Warramunga Arr** | **55.93** | **187** | *eP* | | **P** | **17 51 10.3** | **-1.1** |
| | comp=Z,7.3nm,0.8s,baz=3,1,slow=7.5,SNR=66 | | | | | | | |
| **WRA** | **Warramunga Arr** | **55.93** | **187** | *i* P | | **P** | **17 51 10.6** | **-0.9** |
| WRA | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,0.8s | | | | | | | |
| **DZET** | **Dzherino** | **55.95** | **296** | P | | **P** | **17 51 11.1** | **-0.6** |
| DZET | | | | pmax | pmax | | | |
| | comp=Z,9.0nm,0.7s | | | | | | | |
| **CTAO** | **Charters Tower** | **55.96** | **174** | *eP* | | **P** | **17 51 10.9** | **-0.7** |
| CTAO | | | | pmax | pmax | | | |
| | comp=Z,20nm,1.4s | | | | | | | |
| **CTAO** | **Charters Tower** | **55.96** | **174** | *eP* | | **P** | **17 51 10.9** | **-0.7** |
| | comp=Z,20nm,1.4s | | | | | | | |
| **WHY** | **Whitehorse** | **56.71** | **36** | *eP* | | **P** | **17 51 16.3** | **-0.5** |
| | comp=Z,34nm,1.8s | | | | | | | |
| **ARU** | **Arti** | **56.90** | **319** | *d* *i*P | | **P** | **17 51 18.5** | **+0.5** |
| ARU | | | | | | | 17 53 23.1 | |
| ARU | | | | S | | **S** | **17 59 10.8** | **+2.3** |
| ARU | | | | SS | | **SS** | **18 02 51.6** | **-5.0** |
| ARU | | | | pmax | pmax | | | |
| | comp=Z,20nm,1.0s | | | | | | | |
| **ARU** | **Arti** | **56.90** | **319** | *eP* | | **P** | **17 51 18.0** | **-0.1** |
| | comp=Z,16nm,0.9s | | | | | | | |
| **AB31** | **Akbulak array** | **58.32** | **311** | *eP* | | **P** | **17 51 28.0** | **-0.2** |
| AB31 | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,0.5s | | | | | | | |
| **ABKAR** | **Akbulak array** | **58.32** | **311** | *eP* | | **P** | **17 51 28.4** | **+0.2** |
| | comp=Z,73nm,0.6s | | | | | | | |
| **AS01** | **Alice Springs** | **59.65** | **187** | *eP* | | **P** | **17 51 36.4** | **-1.2** |
| **AS31** | **Alice Springs** | **59.65** | **187** | *eP* | | **P** | **17 51 37.1** | **-0.5** |
| | comp=Z,1.4nm,0.9s | | | | | | | |
| **ASAR** | **Alice Springs** | **59.65** | **187** | P | | **P** | **17 51 37.0** | **-0.6** |
| | comp=Z,3.0nm,0.8s,baz=15,slow=8.1,SNR=34 | | | | | | | |
| ASAR | | | | LR | | LR | 18 16 22.2 | |
| | comp=Z,53nm,21.6s,baz=22,slow=35 | | | | | | | |
| **ASAR** | **Alice Springs** | **59.65** | **187** | P | | **P** | **17 51 37.0** | **-0.6** |
| **MBWA** | **Marble Bar** | **60.22** | **203** | *eP* | | **P** | **17 51 40.6** | **-0.9** |
| | comp=Z,14nm,0.9s | | | | | | | |
| **LVZ** | **Lovozero** | **62.93** | **336** | *eP* | | **P** | **17 52 00.2** | **+0.9** |
| LVZ | | | | pmax | pmax | | | |
| | comp=Z,169nm,1.8s | | | | | | | |
| **LVZ** | **Lovozero** | **62.93** | **336** | *eP* | | **P** | **17 52 00.2** | **+0.9** |
| | comp=Z,169nm,1.8s | | | | | | | |
| **GEYT** | **Ailbeck** | **64.00** | **299** | P | | **P** | **17 52 06.5** | **-0.3** |
| | comp=Z,3.5nm,1.0s,baz=48,slow=2.2,SNR=7.6 | | | | | | | |
| **KEV** | **Kevo** | **64.31** | **339** | *eP* | | **P** | **17 52 09.2** | **+0.9** |
| KEV | | | | pmax | pmax | | | |
| | comp=Z,93nm,1.5s | | | | | | | |
| **KEV** | **Kevo** | **64.31** | **339** | *eP* | | **P** | **17 52 09.2** | **+0.9** |
| | comp=Z,93nm,1.5s | | | | | | | |
| **ARCES** | **ARCESS Array B** | **64.87** | **339** | P | | **P** | **17 52 12.6** | **+0.6** |
| | comp=Z,4.6nm,0.8s,baz=46,slow=8.7,SNR=8.3 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **64.87** | **339** | *eP* | | **P** | **17 52 12.9** | **+0.9** |
| **ARCES** | **ARCESS Array B** | **64.87** | **339** | *eP* | | **P** | **17 52 12.9** | **+0.9** |
| **ARE0** | **ARCESS Array S** | **64.87** | **339** | *eP* | | **P** | **17 52 13.2** | **+1.2** |
| | comp=Z,143nm,1.8s | | | | | | | |
| **YKA** | **Yellowknife Ar** | **64.96** | **30** | P | | **P** | **17 52 13.4** | **+0.8** |
| | comp=Z,0.6nm,0.7s,baz=304,slow=6.8,SNR=13 | | | | | | | |
| YKA | | | | LR | | LR | 18 23 53.8 | |
| | comp=Z,8.9nm,19.1s,baz=0.0,slow=39 | | | | | | | |
| **TULEG** | **Thule** | **66.23** | **7** | *eP* | | **P** | **17 52 21.8** | **+1.2** |
| | comp=Z,28nm,1.9s | | | | | | | |
| **FORT** | **Forrest** | **67.46** | **192** | *eP* | | **P** | **17 52 28.4** | **-0.5** |
| | comp=Z,234nm,0.8s | | | | | | | |
| **STKA** | **Stephens Creek** | **67.47** | **179** | P | | **P** | **17 52 28.8** | **-0.2** |
| | comp=Z,2.2nm,0.8s,baz=298,slow=22,SNR=3.9 | | | | | | | |
| **VRH** | **Novokhopyorsk** | **68.11** | **318** | *eP* | | **P** | **17 52 30.6** | **-2.3** |
| VRH | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,0.4s | | | | | | | |
| **OBN** | **Obninsk** | **68.72** | **323**⇑ | *eP* | | **P** | **17 52 36.9** | **+0.3** |
| OBN | | | | *e* | | | 17 52 56.3 | |
| OBN | | | | pmax | pmax | | | |
| | comp=Z,9.0nm,1.1s | | | | | | | |
| **LPSR** | **Galich'ya Gora** | **68.87** | **320** | *eP* | | **P** | **17 52 36.2** | **-1.4** |
| LPSR | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.9s | | | | | | | |
| **VSR** | **Storozhevoye** | **69.47** | **319** | *eP* | | **P** | **17 52 40.1** | **-1.3** |
| VSR | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,1.1s | | | | | | | |
| **FIA1** | **FINESS Array S** | **69.58** | **332** | *eP* | | **P** | **17 52 42.4** | **+0.5** |
| | comp=Z,59nm,1.4s | | | | | | | |
| **FINES** | **FINESS Array B** | **69.58** | **332** | P | | **P** | **17 52 42.1** | **+0.2** |
| | comp=Z,5.0nm,0.8s,baz=108,slow=4.2,SNR=8.4 | | | | | | | |
| **FINES** | **FINESS Array B** | **69.58** | **332** | *i* P | | **P** | **17 52 42.5** | **+0.6** |
| FINES | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,0.9s | | | | | | | |
| **KBZ** | **Khabaz** | **71.29** | **311** | P | | **P** | **17 52 53.2** | **+0.6** |
| | comp=Z,5.2nm,0.9s,baz=71,slow=3.5,SNR=10 | | | | | | | |
| **KIV** | **Kislovodsk** | **71.30** | **311** | *eP* | | **P** | **17 52 52.7** | **-0.2** |
| KIV | | | | pmax | pmax | | | |
| | comp=Z,12nm,1.0s | | | | | | | |
| **KIV** | **Kislovodsk** | **71.30** | **311** | *eP* | | **P** | **17 52 53.6** | **+0.7** |
| | comp=Z,9.2nm,0.8s | | | | | | | |
| **GNI** | **Garni** | **72.02** | **307** | *i* P | | **P** | **17 52 57.8** | **+0.5** |
| GNI | | | | pmax | pmax | | | |
| | comp=Z,31nm,1.2s | | | | | | | |
| **ANN** | **Anapa** | **73.98** | **314** | *eP* | | **P** | **17 53 04.9** | **-3.7** |
| ANN | | | | pmax | pmax | | | |
| | comp=Z,36nm,0.9s | | | | | | | |
| **AKASG** | **Malin Array Be** | **74.90** | **322** | P | | **P** | **17 53 13.4** | **-0.5** |
| | comp=Z,4.2nm,0.7s,baz=47,slow=6.2,SNR=23 | | | | | | | |
| **AKASG** | **Malin Array Be** | **74.90** | **322** | *i* P | | **P** | **17 53 14.0** | **+0.1** |
| AKASG | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,0.7s | | | | | | | |
| **AKBB** | **Malin Array Si** | **74.90** | **322** | *eP* | | **P** | **17 53 14.2** | **+0.3** |
| AKBB | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,0.7s | | | | | | | |
| **AKBB** | **Malin Array Si** | **74.90** | **322** | *eP* | | **P** | **17 53 14.2** | **+0.3** |
| | comp=Z,6.0nm,0.7s | | | | | | | |
| **NB2** | **NORSAR Subarra** | **75.03** | **337** | P | | **P** | **17 53 14.8** | **+0.3** |
| | comp=Z,15nm,1.2s,baz=40,slow=6.2 | | | | | | | |
| **NOA** | **NORSAR Array B** | **75.03** | **337** | P | | **P** | **17 53 15.1** | **+0.6** |
| | comp=Z,5.6nm,0.9s,baz=40,slow=5.8,SNR=5.3 | | | | | | | |
| **LRM** | **Limekiln Ridge** | **75.22** | **44** | *eP* | | **P** | **17 53 18.4** | **+2.2** |
| **NVAR** | **Mina Array Bea** | **75.98** | **53** | P | | **P** | **17 53 22.4** | **+1.8** |
| | comp=Z,0.4nm,0.4s,baz=296,slow=5.4,SNR=7.3 | | | | | | | |
| **MCMM** | **Convict Lake** | **76.08** | **54** | *eP* | | **P** | **17 53 24.7** | **+3.5** |
| **SORM** | **Soroca** | **76.97** | **321**⇑ | *i*P | | **P** | **17 53 24.3** | **-1.4** |
| **SORM** | **Soroca** | **76.97** | **321** | ⇑P | | **P** | **17 53 24.3** | **-1.4** |
| **H17A** | **Grant Village** | **77.14** | **44** | *eP* | | **P** | **17 53 31.0** | **+3.9** |
| | comp=Z,5.2nm,1.2s | | | | | | | |
| **PDAR** | **Pinedale Array** | **78.73** | **45** | P | | **P** | **17 53 37.1** | **+1.2** |
| | comp=Z,0.5nm,0.7s,baz=271,slow=1.0,SNR=7.2 | | | | | | | |
| **TESR** | **Tescani** | **78.90** | **320**⇓ | *i*P | | **P** | **17 53 34.9** | **-1.6** |
| **BURAR** | **Bucovina Array** | **78.90** | **322**⇓ | *i*P | | **P** | **17 53 34.9** | **-1.7** |
| **BURAR** | **Bucovina Array** | **78.90** | **322** | ⇓P | | **P** | **17 53 34.9** | **-1.7** |
| **CFR** | **Carcaliu** | **78.98** | **318**⇓ | *i*P | | P | 17 53 48.0 | +11 |
| **CFR** | **Carcaliu** | **78.98** | **318** | ⇓P | | P | 17 53 48.0 | +11 |
| **BRTR** | **Keskin Array B** | **79.26** | **311** | P | | **P** | **17 53 39.0** | **+0.3** |
| | comp=Z,1.4nm,0.7s,baz=77,slow=4.5,SNR=7.2 | | | | | | | |
| **VRI** | **Vrincioaia** | **79.28** | **320**⇑ | *i*P | | **P** | **17 53 38.1** | **-0.5** |
| **VRI** | **Vrincioaia** | **79.28** | **320** | ⇑P | | **P** | **17 53 38.1** | **-0.5** |
| **PLOR** | **Plostina** | **79.33** | **320**⇓ | *i*P | | **P** | **17 53 39.8** | **+0.9** |
| **PLOR** | **Plostina** | **79.33** | **320** | ⇓P | | **P** | **17 53 39.8** | **+0.9** |
| **STHS** | **Stebnicka Huta** | **79.61** | **325** | *eP* | | **P** | **17 53 41.9** | **+1.6** |
| **STHS** | **Stebnicka Huta** | **79.61** | **325** | *eP* | | **P** | **17 53 41.9** | **+1.6** |
| **BR231** | **Keskin MP Arra** | **79.71** | **312** | *eP* | | **P** | **17 53 38.7** | **-2.4** |
| **DOPR** | **Dopca** | **79.92** | **320**⇓ | *i*P | | **P** | **17 53 42.1** | **+0.1** |
| **MLR** | **Muntele Rosu** | **79.94** | **320**⇑ | *i*P | | **P** | **17 53 45.4** | **+3.1** |
| **MLR** | **Muntele Rosu** | **79.94** | **320** | ⇑P | | **P** | **17 53 45.4** | **+3.1** |
| **VOIR** | | **80.45** | **320** | *i*P | | **P** | **17 53 46.7** | **+1.7** |
| **VOIR** | | **80.45** | **320** | ⇑P | | **P** | **17 53 46.7** | **+1.7** |
| **RAYN** | **Ar Rayn** | **80.68** | **292** | *eP* | | **P** | **17 53 47.0** | **+0.4** |
| | comp=Z,13nm,1.4s | | | | | | | |
| **ARR** | **Arges** | **80.71** | **320**⇓ | *i*P | | **P** | **17 53 45.4** | **-1.0** |
| **LOT** | **Lotru** | **81.10** | **321**⇓ | *i*P | | P | 17 53 54.4 | +5.9 |
| **DPC** | **Dobruska-Polom** | **81.16** | **328** | *eP* | | **P** | **17 53 49.8** | **+1.2** |
| DPC | | | | *e*PCP | | **PcP** | **17 53 56.6** | **+1.7** |
| **DPC** | **Dobruska-Polom** | **81.16** | **328** | *eP* | | **P** | **17 53 49.8** | **+1.2** |
| **VYHS** | **Vyhne** | **81.38** | **325** | *eP* | | **P** | **17 53 50.5** | **+0.7** |
| **VYHS** | **Vyhne** | **81.38** | **325** | *eP* | | **P** | **17 53 50.1** | **+0.7** |
| **PV10** | **Paradox Valley** | **81.81** | **48** | *eP* | | **P** | **17 53 56.1** | **+3.5** |
| **CLL** | **Collm** | **81.83** | **330** | *i* P | | **P** | **17 53 52.2** | **+0.1** |
| **CLL** | **Collm** | **81.83** | **330** | *i* P | | **P** | **17 53 52.2** | **+0.1** |
| **BZS** | **Buzias** | **82.08** | **322**⇑ | *i*P | | **P** | **17 53 50.8** | **-2.7** |
| **BZS** | **Buzias** | **82.08** | **322** | ⇑P | | **P** | **17 53 50.8** | **-2.7** |
| **GOPC** | **GO Pecny, Ondr** | **82.14** | **328** | *eP* | | **P** | **17 53 56.2** | **+2.4** |
| **GOPC** | **GO Pecny, Ondr** | **82.14** | **328** | *eP* | | **P** | **17 53 56.2** | **+2.4** |
| **PRU** | **Pruhonice** | **82.19** | **328** | *eP* | | **P** | **17 53 53.5** | **-0.5** |
| **PRU** | **Pruhonice** | **82.19** | **328** | *eP* | | **P** | **17 53 53.5** | **-0.5** |
| **MDVR** | **Moldovita** | **82.62** | **321**⇓ | *i*P | | **P** | **17 53 56.8** | **+0.4** |
| **KHC** | **Kasperske Hory** | **83.25** | **328** | *eP* | | **P** | **17 53 57.9** | **-1.7** |
| KHC | | | | *ex* | | x | 17 54 00.4 | |
| KHC | | | | *ep*P | | **pP** | **17 54 13.4** | **+0.8** |
| **KHC** | **Kasperske Hory** | **83.25** | **328** | *eP* | | **P** | **17 53 57.9** | **-1.7** |
| KHC | | | | *e* | | | 17 54 13.4 | |
| **GERES** | **GERESS Array B** | **83.41** | **328** | P | | **P** | **17 54 00.1** | **-0.5** |
| | comp=Z,0.8nm,0.6s,baz=44,slow=4.4,SNR=4.7 | | | | | | | |
| **PMOR** | **Pomariorio Ree** | **84.13** | **113** | *eT* | | T | 19 26 31.9 | |
| | comp=Z,5.5nm,0.2s | | | | | | | |
| **PPT** | **Papeete** | **84.53** | **116** | LR | | LR | 18 22 21.8 | |
| | comp=Z,46nm,21.1s,baz=358,slow=29 | | | | | | | |
| **PPT2** | **Papeete2** | **84.54** | **116** | *e*LR | | LR | 18 20 42.3 | |
| | comp=Z,111nm,25.8s | | | | | | | |
| **MEM** | **Membach** | **85.09** | **333** | P | | **P** | **17 54 09.5** | **+0.6** |
| **BCLA** | **Clavier** | **85.50** | **333** | P | | **P** | **17 54 11.3** | **+0.3** |
| **ANMO** | **Albuquerque** | **85.61** | **49** | *i* P | | **P** | **17 54 12.6** | **+0.6** |
| ANMO | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,2.5s | | | | | | | |
| **WLF** | **Walferdange** | **85.81** | **332** | P | | **P** | **17 54 12.7** | **+0.2** |
| **BFO** | **Black Forest** | **86.05** | **330** | *i* P | | **P** | **17 54 15.1** | **+1.4** |
| **TX31** | **Lajitas Ar. Si** | **91.12** | **52** | *eP* | | **P** | **17 54 35.0** | **-3.3** |
| **TXAR** | **Lajitas Array** | **91.12** | **52** | P | | **P** | **17 54 39.7** | **+1.5** |
| | comp=Z,0.4nm,0.7s,baz=296,slow=3.1,SNR=11 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **117.79** | **314** | PKP | | **PKPdf** | **18 00 18.4** | **-1.5** |
| | comp=Z,0.4nm,0.5s,baz=36,slow=2.7,SNR=3.3 | | | | | | | |
| **LPAZ** | **La Paz** | **147.60** | **60** | PKPbc | | **PKPbc** | **18 01 18.9** | **+0.2** |
| | comp=Z,2.3nm,0.7s,baz=313,slow=2.0,SNR=5.7 | | | | | | | |

*ISCJB **25** 18:15:25.2±0.9, 15°.5N±0°.2×146°.3E±0°.3, h33km, mb3.3/5, Error ellipse: s-maj=40.6km s-min=10.9km az=31.4*
*IDC **25** 18:15:27.5±5.9, 15°.45N×146°.30E, h38km±52km, mb3.1/5, mb1 3.4/6, mb1mx3.2/36, mbtmp3.3/6, ML3.4/1, Error ellipse: s-maj=47.1km s-min=25.3km az=104.0*

**ISC 25 18:15:27.1±1.1, 15°.4N±0°.2×146°.3E±0°.3, h35km, n6, σ0°78/7, mb3.3/5, Mariana Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **GUMO** | **Guam** | **2.31** | **218** | P | | **Pn** | **18 16 03.3** | **+0.7** |
| | 10nm,0.3s,baz=49,slow=19,SNR=7.4 | | | | | | | |
| GUMO | | | | | Sn | **Sn** | **18 16 28.8** | **-0.9** |
| | 51nm,0.3s,baz=324,slow=23,SNR=14 | | | | | | | |
| **WRA** | **Warramunga Arr** | **37.07** | **199** | P | | **P** | **18 22 33.5** | **-0.6** |
| | 0.5nm,0.8s,baz=18,slow=9.0,SNR=4.8 | | | | | | | |
| **ASAR** | **Alice Springs** | **40.70** | **198** | P | | **P** | **18 23 05.2** | **+0.7** |
| | 0.3nm,0.8s,baz=26,slow=6.9,SNR=3.1 | | | | | | | |
| **MKAR** | **Makanchi Array** | **61.18** | **315** | P | | **P** | **18 25 38.5** | **+0.1** |
| | 0.1nm,0.4s,baz=94,slow=8.1,SNR=5.1 | | | | | | | |
| **ILAR** | **Eielson Array** | **66.32** | **25** | P | | **P** | **18 26 11.4** | **-0.4** |
| | 0.2nm,0.8s,baz=253,slow=5.6,SNR=6.6 | | | | | | | |
| **NVAR** | **Mina Array Bea** | **84.68** | **52** | P | | **P** | **18 27 57.9** | **0.0** |
| | 0.1nm,0.3s,baz=287,slow=4.5,SNR=3.1 | | | | | | | |

*ISK **25** 18:17:23.8, 38°.73N×43°.18E, h5km, MD2.6*
*CSEM **25** 18:17:25.1±0.3, 38°.71N×43°.25E, h10km, ML2.6, Error ellipse: s-maj=7.9km s-min=6.7km az=100.0*
*DDA **25** 18:17:25.5, 38°.69N×43°.28E, h7km, Ml2.6*

**ISC 25 18:17:24.6±1.1, 38°.67N±0°.03×43°.26E±0°.04, h28km±8km, n16, σ1°04/30, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.12** | **126** | *e*PG | | **Pb** | **18 17 30.0** | **0.0** |
| VANB | | | | *e*SG | | **Sb** | **18 17 36.2** | **+2.6** |
| **VANB** | **Van** | **0.12** | **126** | *e*Pg | | **Pb** | **18 17 30.0** | **0.0** |
| VANB | | | | *e*Sg | | **Sb** | **18 17 36.2** | **+2.6** |
| **TVAN** | **Van** | **0.18** | **140** | *i* P | | **Pb** | **18 17 28.7** | **-1.9** |
| TVAN | | | | *i* S | | **Sb** | **18 17 33.3** | **-1.3** |
| **TVAN** | **Van** | **0.18** | **140** | P | | **Pb** | **18 17 28.7** | **-1.9** |
| TVAN | | | | S | | **Sb** | **18 17 33.3** | **-1.3** |
| **GEVA** | **Gevas** | **0.39** | **204** | *i* P | | **Pb** | **18 17 33.5** | **+0.2** |
| GEVA | | | | *i* S | | **Sn** | **18 17 41.4** | **+0.2** |
| **GEVA** | **Gevas** | **0.39** | **204** | P | | **Pb** | **18 17 33.5** | **+0.2** |
| GEVA | | | | S | | **Sn** | **18 17 41.4** | **+0.2** |
| **VMUR** | **Van-Muradiye** | **0.40** | **37** | *i* P | | **Pb** | **18 17 32.7** | **-0.9** |
| VMUR | | | | *i* S | | **Sb** | **18 17 40.3** | **+0.7** |
| **VMUR** | **Van-Muradiye** | **0.40** | **37** | P | | **Pb** | **18 17 32.7** | **-0.9** |
| VMUR | | | | S | | **Sb** | **18 17 40.3** | **+0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.44** | **289** | *i* P | | **Pb** | **18 17 33.9** | **-0.2** |
| ADCV | | | | *i* S | | **Sn** | **18 17 42.2** | **-0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.44** | **289** | P | | **Pb** | **18 17 33.9** | **-0.2** |
| ADCV | | | | S | | **Sn** | **18 17 42.2** | **-0.3** |
| **CLDR** | **Caldiran** | **0.70** | **47** | *e*PG | | **Pb** | **18 17 38.6** | **+0.2** |
| CLDR | | | | *e*SG | | **Sn** | **18 17 49.3** | **+0.4** |
| **CLDR** | **Caldiran** | **0.70** | **47** | *e*Pg | | **Pb** | **18 17 38.6** | **+0.2** |
| CLDR | | | | *e*Sg | | **Sn** | **18 17 49.3** | **+0.4** |
| **TUTA** | **Tutak** | **0.81** | **335** | *i* P | | **Pb** | **18 17 39.9** | **-0.4** |
| **TUTA** | **Tutak** | **0.81** | **335** | P | | **Pb** | **18 17 39.9** | **-0.4** |
| **AGRB** | **Hanur-Agry** | **0.93** | **347** | *e*PG | | **Pb** | **18 17 41.7** | **-0.6** |
| AGRB | | | | *e*SG | | **Sb** | **18 17 54.1** | **-0.2** |
| **AGRB** | **Hanur-Agry** | **0.93** | **347** | *e*Pg | | **Pb** | **18 17 41.7** | **-0.6** |
| AGRB | | | | *e*Sg | | **Sb** | **18 17 54.1** | **-0.2** |

*ISK **25** 18:19:35.6, 38°.68N×43°.47E, h24km, MD2.6*
*CSEM **25** 18:19:36.6±0.3, 38°.72N×43°.31E, h10km, MD2.8, Error ellipse: s-maj=7.9km s-min=6.5km az=101.0*
*DDA **25** 18:19:37.0, 38°.73N×43°.28E, h7km, Md2.8*

**ISC 25 18:19:37.1±0.9, 38°.73N±0°.03×43°.31E±0°.03, h15km±9km, n18, σ1°17/30, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.14** | **155** | *e*PG | | **Pg** | **18 19 41.2** | **+0.1** |
| **VANB** | **Van** | **0.14** | **155** | *e*Pg | | **Pg** | **18 19 41.2** | **+0.1** |
| **TVAN** | **Van** | **0.21** | **159** | *i* P | | **Pg** | **18 19 41.2** | **-0.9** |
| TVAN | | | | *i* S | | **Sg** | **18 19 45.8** | **+0.4** |
| **TVAN** | **Van** | **0.21** | **159** | P | | **Pg** | **18 19 41.2** | **-0.9** |
| TVAN | | | | S | | **Sg** | **18 19 45.8** | **+0.4** |
| **VMUR** | **Van-Muradiye** | **0.33** | **38** | *i* P | | **Pb** | **18 19 45.1** | **+0.2** |
| VMUR | | | | *i* S | | **Sb** | **18 19 52.3** | **+2.1** |
| **VMUR** | **Van-Muradiye** | **0.33** | **38** | P | | **Pb** | **18 19 45.2** | **+0.2** |
| VMUR | | | | S | | **Sb** | **18 19 52.3** | **+2.1** |
| **GEVA** | **Gevas** | **0.46** | **206** | *i* P | | **Pg** | **18 19 45.0** | **-1.3** |
| GEVA | | | | *i* S | | **Sb** | **18 19 54.1** | **+0.4** |
| **GEVA** | **Gevas** | **0.46** | **206** | P | | **Pg** | **18 19 45.0** | **-1.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.47** | **280** | *i* P | | **Pg** | **18 19 45.8** | **-0.7** |
| ADCV | | | | *i* S | | **Sb** | **18 19 55.6** | **+1.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.47** | **280** | P | | **Pg** | **18 19 45.8** | **-0.7** |
| ADCV | | | | S | | **Sb** | **18 19 55.6** | **+1.7** |
| **CLDR** | **Caldiran** | **0.63** | **48** | *e*PG | | **Pg** | **18 19 48.0** | **-1.5** |
| CLDR | | | | *e*SG | | **Sg** | **18 19 56.7** | **-1.3** |
| **CLDR** | **Caldiran** | **0.63** | **48** | *i* P | | **Pg** | **18 19 49.1** | **-0.5** |
| **CLDR** | **Caldiran** | **0.63** | **48** | *e*Pg | | **Pg** | **18 19 48.1** | **-1.5** |
| **CLDR** | **Caldiran** | **0.63** | **48** | P | | **Pg** | **18 19 49.1** | **-0.5** |
| CLDR | | | | *e*Sg | | **Sg** | **18 19 56.7** | **-1.3** |
| **TUTA** | **Tutak** | **0.78** | **330** | *i* P | | **Pg** | **18 19 51.7** | **-0.7** |
| TUTA | | | | *i* S | | **Sb** | **18 20 04.5** | **+1.5** |
| **TUTA** | **Tutak** | **0.78** | **330** | P | | **Pg** | **18 19 51.7** | **-0.7** |
| TUTA | | | | S | | **Sb** | **18 20 04.5** | **+1.5** |
| **AGRB** | **Hanur-Agry** | **0.89** | **344** | *e*PG | | **Pb** | **18 19 54.1** | **-0.2** |
| AGRB | | | | *e*SG | | **Sn** | **18 20 07.6** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **0.89** | **344** | *e*Pg | | **Pb** | **18 19 54.1** | **-0.2** |

*IDC **25** 18:40:44.5±1.9, 2°.48S×127°.47E, h0km, mb3.5/2,*

*mb1 3.7/3, mb1mx3.4/25, mbtmp3.5/3, ML3.4/1, Error ellipse: s-maj=225.6km s-min=27.8km az=72.0*
*ISCJB **25** 18:40:55.2±0.8, 3°.60S±0°.05×127°.25E±0°.04, h10km, mb3.4/1, Error ellipse: s-maj=8.6km s-min=4.3km az=37.5*
*DJA **25** 18:40:57.0±0.9, 4°.5±6°×12°.7E±°, h25km±8km, M3.8/6, mb4.3/1, MLv3.5/6*

**ISC 25 18:40:56.2±1.1, 3°.60S±0°.07×127°.23E±0°.06, h10km, n11, σ1°01/17, Seram**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **NLAI** | **Namlea** | **0.38** | **340** | P | | **Pg** | **18 41 03.6** | **-0.2** |
| NLAI | | | | S | | **Sg** | **18 41 10.9** | **-1.0** |
| **AAI** | **Ambon** | **0.96** | **95** | P | | **Pg** | **18 41 14.5** | **-0.3** |
| AAI | | | | S | | **Sg** | **18 41 27.3** | **0.0** |
| **MSAI** | **Masohi** | **1.71** | **82** | P | | **Pn** | **18 41 27.2** | **+1.1** |
| MSAI | | | | S | | **Sn** | **18 41 47.1** | **-1.0** |
| **SANI** | **Sanana** | **1.98** | **321** | P | | **Pn** | **18 41 30.1** | **+0.3** |
| SANI | | | | S | | **Sn** | **18 41 53.0** | **-1.7** |
| **BNDI** | **Bandanaira** | **2.82** | **109** | S | | **Sn** | **18 42 14.2** | **-1.2** |
| **LBMI** | **Labuha** | **2.96** | **5** | P | | **Pn** | **18 41 44.7** | **+1.5** |
| LBMI | | | | S | | **Sn** | **18 42 19.7** | **+0.9** |
| **SWI** | **Sorong** | **4.86** | **56** | P | | **Pn** | **18 42 09.1** | **-0.3** |
| SWI | | | | S | | **Sn** | **18 43 05.5** | **-0.2** |
| **FAKI** | **Fak Fak** | **5.05** | **82** | P | | **Pn** | **18 42 12.2** | **+0.1** |
| FAKI | | | | S | | **Sn** | **18 43 09.9** | **-0.7** |
| **WRA** | **Warramunga Arr** | **17.66** | **157** | P | | **Pn** | **18 45 01.9** | **-0.6** |
| | 0.1nm,0.3s,baz=336,slow=12,SNR=7.3 | | | | | | | |
| **ASAR** | **Alice Springs** | **20.96** | **163** | P | | **P** | **18 45 41.3** | **+1.7** |
| | 2.7nm,0.8s,baz=344,slow=12,SNR=31 | | | | | | | |
| **SONM** | **Songino Array** | **54.38** | **343** | P | | P | 18 50 05.8 | -18 |
| | 0.3nm,0.6s,baz=156,slow=7.9,SNR=2.4 | | | | | | | |

*ISCJB **25** 19:08:34.9±0.7, 43°.73N±0°.05×105°.14W±0°.10, h0km, mb4.0/1, Error ellipse: s-maj=10.7km s-min=7.3km az=20.5*
*NEIC **25** 19:08:37.0±0.8, 43°.73N×105°.24W, h0km, MN2.7, Error ellipse: s-maj=12.7km s-min=8.4km az=112.0, Suspected Mining explosion.*
*NEIC 66 km [41 miles] SSE of Gillette.*
*IDC **25** 19:08:38.3±1.0, 43°.96N×105°.75W, h0km, mb3.9/1, mb1 3.6/6, mb1mx3.4/41, mbtmp3.3/6, ML2.8/4, Error ellipse: s-maj=25.8km s-min=8.5km az=145.0*

**ISC 25 19:08:35.8±0.9, 43°.76N±0°.05×105°.29W±0°.09, h0km, n20, σ2°35/20, Wyoming**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **K22A** | **Casper** | **1.43** | **220** | *e*Pn | | **Pg** | **19 09 00.8** | **-2.4** |
| **LAO** | **LASA Array** | **3.00** | **348** | *e*Pn | | **Pn** | **19 09 26.4** | **+1.6** |
| LAO | | | | *e*Sn | | **Sn** | **19 09 55.8** | **-5.7** |
| **RLMT** | **Red Lodge** | **3.16** | **297** | *e*Pn | | **Pn** | **19 09 29.4** | **+2.4** |
| **BW06** | **Boulder Array** | **3.27** | **254** | *e*Pn | | **Pn** | **19 09 30.5** | **+1.9** |
| **PDAR** | **Pinedale Array** | **3.27** | **254** | Pn | | **Pn** | **19 09 30.4** | **+1.8** |
| | 6.2nm,0.3s,baz=74,slow=14,SNR=89 | | | | | | | |
| PDAR | | | | | Lg | Lg | 19 10 12.8 | |
| | 8.2nm

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **DYBB** | **Diyarbakir** | **1.22** | **202** | *e*PN | **Pn** | **19 45 43.8** | **+0.5** |
| **DIY** | **Diyarbakir** | **1.25** | **198** | *e*Pn | **Pn** | **19 45 43.8** | **0.0** |
| **BTMN** | **Batman** | **1.27** | **160** | *i* P | **Pg** | **19 45 41.5** | **-2.5** |
| BTMN | | | | *i* S | **Sn** | **19 46 01.9** | **+0.3** |
| **SVRC** | **Sivrice-ELAZID** | **1.31** | **238** | *e*PN | **Pb** | **19 45 45.5** | **+0.8** |
| **SVRC** | **Sivrice-ELAZID** | **1.31** | **238** | *e*Pn | **Pb** | **19 45 45.5** | **+0.8** |
| **BAYT** | **Ayd¯–ntepe-Bay** | **1.38** | **342** | *e*PN | **Pg** | **19 45 46.6** | **+0.5** |
| **BAYT** | **Ayd¯–ntepe-Bay** | **1.38** | **342** | *e*Pn | **Pg** | **19 45 46.6** | **+0.5** |
| **SRTM** | **Siirt_Merkez** | **1.45** | **139** | *i* P | **Pb** | **19 45 47.4** | **+0.3** |
| SRTM | | | | *i* S | **Sg** | **19 46 07.2** | **+1.0** |
| **MAZI** | **Mazidag** | **1.64** | **187** | *e*PN | **Pb** | **19 45 50.6** | **+0.2** |
| **MAZI** | **Mazidag** | **1.64** | **187** | *e*Pn | **Pb** | **19 45 50.6** | **+0.2** |
| **ILIC** | **ilic-Erzincan** | **1.70** | **283** | *e*PN | **Pb** | **19 45 51.4** | **-0.1** |
| **ILIC** | **ilic-Erzincan** | **1.70** | **283** | *e*Pn | **Pb** | **19 45 51.4** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **1.84** | **74** | *e*PN | **Pb** | **19 45 53.2** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **1.84** | **74** | *e*Pn | **Pb** | **19 45 53.2** | **-0.6** |

*OTT* ***25*** *20:06:58.5±0.9, 60°.68N×57°.18W, h18km, ML3.5/4, LAlbertaRADOR Sea Seismic Zone. 422km east from Killinig, Qc*

**ISC 25 20:06:55.4±1.4, 60°.65N±0°.08×57°.69W±0°.10, h10km, n10, σ3.47/12, Davis Strait**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **FRB** | **Frobisher Bay** | **5.95** | **306** | SN | **Sn** | **20 09 34.4** | **+2.8** |
| FRB | | | | Trac | | 20 09 40.0 | |
| | comp=Z,4.0nm,0.1s | | | | | | |
| **KUQ** | **Kuujjuuaa** | **6.04** | **250** | PN | **Pn** | **20 08 27.7** | **+3.0** |
| KUQ | | | | SN | **Sn** | **20 09 31.7** | **-2.1** |
| KUQ | | | | Trac | | 20 09 37.4 | |
| | comp=Z,2.7nm,0.2s | | | | | | |
| **KNGQ** | **Kangiqsujuaq** | **6.97** | **284** | SN | **Sn** | **20 10 00.4** | **+3.8** |
| **SFJD** | **Kangerlussuaq** | **7.09** | **23** | PN | **Pn** | **20 08 39.2** | **+0.2** |
| SFJD | | | | SN | Sn | 20 09 49.1 | -10 |
| **SFJD** | **Kangerlussuaq** | **7.09** | **23** | *i* P | **Pn** | **20 08 39.0** | **0.0** |
| SFJD | | | | *i* S | Sn | 20 09 51.3 | -8.2 |
| **SCHQ** | **Schefferville** | **7.61** | **224** | PN | Pn | 20 08 51.6 | +5.4 |
| SCHQ | | | | SN | **Sn** | **20 10 13.3** | **+0.8** |
| SCHQ | | | | Trac | | 20 10 17.8 | |
| | comp=Z,4.0nm,0.2s | | | | | | |
| **INUQ** | **Inukjuak** | **10.59** | **267** | SN | **Sn** | **20 11 24.1** | **-1.4** |
| **YOSQ** | **Ashton Mining** | **11.13** | **232** | PN | **Pn** | **20 09 38.0** | **+3.6** |
| YOSQ | | | | SN | **Sn** | **20 11 34.2** | **-4.6** |
| YOSQ | | | | Trac | | 20 11 35.4 | |
| | comp=Z,4.6nm,0.3s | | | | | | |
| **SMQ** | **Clarke City** | **11.62** | **210** | PN | **Pn** | **20 09 42.0** | **+0.8** |
| **ILON** | **Igloolik, Nuna** | **13.32** | **321** | SN | **Sn** | **20 12 26.2** | **-6.0** |

*ISCJB* ***25*** *20:07:25.6±0.3, 10°.92S±0°.04×162°.06E±0°.05, h36km, mb4.8/56, MS4.1/21, Error ellipse: s-maj=6.8km s-min=6.4km az=173.5*
*NEIC* ***25*** *20:07:29.7±1.2, 10°.92S×162°.01E, h60km±11km, mb4.8/18, Error ellipse: s-maj=8.4km s-min=8.0km az=68.0*
*NEIC Felt at Kirakira.*
*BJI* ***25*** *20:07:30.6, 11°.00S×161°.73E, h69km, mb4.5/30, mB5.3/24, Ms5.1/8, Ms7 4.7/8*
*IDC* ***25*** *20:07:32.9±3.0, 10°.81S×161°.84E, h79km±25km, mb4.1/18, mb1 4.3/20, mb1mx4.2/40, mbtmp4.4/20, MS4.0/21, Ms1 4.0/21, ms1mx3.9/30, Error ellipse: s-maj=21.4km s-min=13.1km az=99.0*

**ISC 25 20:07:27.3±0.4, 10°.89S±0°.06×162°.15E±0°.07, h36km, n141, σ2.06/143, mb4.8/56, MS4.1/21, 2C-1D, Bougainville-Solomon Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **HNR** | **Honiara** | **2.61** | **304** | *e*P | **Pn** | **20 08 07.0** | **+0.1** |
| **HNR** | **Honiara** | **2.61** | **304** | P | **Pn** | **20 08 09.2** | **+2.2** |
| | 403nm,0.3s,baz=158,slow=8.9,SNR=35 | | | | | | |
| HNR | | | | LR | LR | 20 08 36.5 | |
| | comp=Z,328nm,18.3s,baz=134,slow=28 | | | | | | |
| HNR | | | | S | **Sn** | **20 08 43.5** | **+6.1** |
| | 1µm,0.3s,baz=162,slow=20,SNR=13 | | | | | | |
| **HNR** | **Honiara** | **2.61** | **304** | *e*Pn | **Pn** | **20 08 10.0** | **+3.1** |
| HNR | | | | S | **Sn** | **20 08 43.5** | **+6.1** |
| **DZM** | **Mont Dzumac** | **11.85** | **160** | P | **Pn** | **20 10 16.1** | **+2.2** |
| | 0.7nm,0.3s,baz=33,slow=9.8,SNR=18 | | | | | | |
| DZM | | | | S | **Sn** | **20 12 25.2** | **+0.1** |
| | 0.6nm,0.3s,baz=202,slow=16,SNR=2.8 | | | | | | |
| DZM | | | | LR | LR | 20 14 14.8 | |
| | comp=Z,779nm,19.8s,baz=17,slow=33 | | | | | | |
| **DZM** | **Mont Dzumac** | **11.85** | **160** | *e*Pn | **Pn** | **20 10 16.1** | **+2.2** |
| | 6.0nm,0.3s | | | | | | |
| DZM | | | | *e*Sn | **Sn** | **20 12 21.4** | **-3.7** |
| | 2.4nm,0.3s | | | | | | |
| DZM | | | | *e*LR | LR | 20 13 03.3 | |
| | 1µm,22.5s | | | | | | |
| **PMG** | **Port Moresby** | **14.83** | **274** | P | **P** | **20 10 57.8** | **-2.0** |
| | 0.4nm,0.3s,baz=268,slow=23,SNR=3.3 | | | | | | |
| PMG | | | | LR | LR | 20 16 39.3 | |
| | comp=Z,979nm,18.4s,baz=112,slow=38 | | | | | | |
| **PMG** | **Port Moresby** | **14.83** | **274** | *e*Pn | **Pn** | **20 10 51.6** | **-2.9** |
| **MSVF** | **Nonsavu** | **16.84** | **116** | *e*Pn | **Pn** | **20 11 20.8** | **+0.3** |
| | 24nm,1.0s | | | | | | |
| **EIDS** | **Eidsvold** | **17.81** | **215** | *e*P | **P** | **20 11 32.6** | **-0.3** |
| | 54nm,1.0s | | | | | | |
| **CTA** | **Charters Tower** | **17.83** | **237** | P | **P** | **20 11 33.5** | **+0.4** |
| | 3.8nm,0.3s,baz=69,slow=13,SNR=96 | | | | | | |
| **CTAO** | **Charters Tower** | **17.83** | **237** | *e*P | **P** | **20 11 34.6** | **+1.5** |
| | 99nm,0.9s | | | | | | |
| **COEN** | **Coen** | **18.78** | **259** | *e*P | **Pn** | **20 11 46.1** | **+1.8** |
| | 45nm,0.9s | | | | | | |
| **ARMA** | **Armidale** | **21.75** | **205** | *e*P | **P** | **20 12 16.4** | **+0.5** |
| | 36nm,1.0s | | | | | | |
| **JAY** | **Jayapura** | **22.85** | **290** | P | **P** | **20 12 27.3** | **-0.4** |
| | 189nm,0.8s | | | | | | |
| **GENI** | **Genyem** | **23.32** | **289** | P | **P** | **20 12 34.0** | **+1.6** |
| **AFI** | **Afiamalu** | **25.64** | **99** | LR | LR | 20 21 28.4 | |
| | comp=Z,427nm,18.8s,baz=292,slow=32 | | | | | | |
| **RAO** | **Raoul Island** | **26.08** | **137** | LR | LR | 20 22 13.7 | |
| | comp=Z,316nm,21.8s,baz=118,slow=33 | | | | | | |
| **STKA** | **Stephens Creek** | **28.22** | **219** | P | **P** | **20 13 16.7** | **-0.2** |
| | 7.9nm,0.8s,baz=55,slow=10,SNR=9.8 | | | | | | |
| STKA | | | | LR | LR | 20 24 18.6 | |
| | comp=Z,786nm,19.7s,baz=22,slow=36 | | | | | | |
| **STKA** | **Stephens Creek** | **28.22** | **219** | *e*P | **P** | **20 13 16.0** | **-0.9** |
| | 2.5nm,1.0s | | | | | | |
| **WRAB** | **Tennant Creek** | **28.23** | **248** | *e*P | **P** | **20 13 14.7** | **-2.4** |
| | 42nm,1.6s | | | | | | |
| **WB2** | **Warramunga Arr** | **28.23** | **248** | *e*P | **P** | **20 13 16.6** | **-0.5** |
| **WR1** | **Warramunga Arr** | **28.24** | **248** | *e*P | **P** | **20 13 15.6** | **-1.6** |
| | 27nm,1.4s | | | | | | |
| **WRA** | **Warramunga Arr** | **28.24** | **248** | P | **P** | **20 13 15.6** | **-1.6** |
| | 4.5nm,0.8s,baz=78,slow=9.5,SNR=19 | | | | | | |
| WRA | | | | LR | LR | 20 24 32.7 | |
| | comp=Z,886nm,18.2s,baz=70,slow=36 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.54** | **9** | T | T | 20 44 26.4 | |
| | baz=188,slow=76,SNR=286 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.54** | **9** | T | T | 20 44 26.2 | |
| | baz=188,slow=76,SNR=288 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.55** | **9** | T | T | 20 44 27.4 | |
| | baz=188,slow=76,SNR=284 | | | | | | |
| **ASAR** | **Alice Springs** | **29.74** | **241** | P | **P** | **20 13 29.3** | **-1.2** |
| | 1.8nm,0.5s,baz=64,slow=10.0,SNR=37 | | | | | | |
| ASAR | | | | PcP | **PcP** | **20 16 34.1** | **+0.1** |
| | 2.0nm,0.9s,baz=81,slow=4.2,SNR=5.4 | | | | | | |
| ASAR | | | | ScP | **ScP** | **20 20 13.7** | **+0.3** |
| | 1.2nm,0.9s,baz=57,slow=3.4,SNR=5.6 | | | | | | |
| ASAR | | | | LR | LR | 20 24 44.7 | |
| | comp=Z,431nm,19.6s,baz=63,slow=35 | | | | | | |
| **GUMO** | **Guam** | **29.76** | **324** | LR | LR | 20 24 16.8 | |
| | comp=Z,269nm,21.9s,baz=150,slow=34 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **30.77** | **9** | T | T | 20 45 58.2 | |
| | baz=188,slow=76,SNR=190 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **30.77** | **9** | T | T | 20 46 00.7 | |
| | baz=188,slow=76,SNR=194 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **30.79** | **9** | T | T | 20 45 58.9 | |
| | baz=188,slow=76,SNR=194 | | | | | | |
| **OXZ** | **Oxford** | **33.44** | **167** | *e*P | **P** | **20 14 01.8** | **-0.9** |
| | 65nm,1.7s | | | | | | |
| **RPZ** | **Rata Peaks** | **33.60** | **168** | P | **P** | **20 14 06.8** | **+2.6** |
| | 8.6nm,0.7s,baz=13,slow=4.1,SNR=7.8 | | | | | | |
| **RPZ** | **Rata Peaks** | **33.60** | **168** | *e*P | **P** | **20 14 03.6** | **-0.6** |
| | 10nm,0.9s | | | | | | |
| **MSAI** | **Masohi** | **33.78** | **280** | P | **P** | **20 14 06.4** | **+0.3** |
| | 10nm,0.7s | | | | | | |
| **AAI** | **Ambon** | **34.41** | **279** | P | **P** | **20 14 10.5** | **-1.0** |
| **LBMI** | **Labuha** | **35.90** | **284** | P | **P** | **20 14 25.3** | **+0.9** |
| | 36nm,0.8s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **36.02** | **254** | P | **P** | **20 14 24.3** | **-1.0** |
| | 13nm,0.5s,baz=80,slow=8.6,SNR=25 | | | | | | |
| **SANI** | **Sanana** | **36.95** | **281** | P | **P** | **20 14 34.3** | **+1.0** |
| | 41nm,0.7s | | | | | | |
| **MMRI** | **Maumere** | **39.38** | **270** | P | **P** | **20 14 53.1** | **-0.7** |
| | 60nm,1.1s | | | | | | |
| **MMRI** | **Maumere** | **39.38** | **270** | *e*P | P | 20 14 48.8 | -5.0 |
| | 47nm,0.8s | | | | | | |
| **KMSI** | **Cibinong** | **39.62** | **284** | P | **P** | **20 14 55.8** | **0.0** |
| | 57nm,0.6s | | | | | | |
| **EDFI** | **Ende, Flores** | **39.90** | **269** | P | **P** | **20 14 56.6** | **-1.7** |
| | 17nm,0.6s | | | | | | |
| **LUWI** | **Luwuk** | **40.31** | **281** | P | **P** | **20 15 03.3** | **+1.7** |
| | 58nm,0.9s,963nm | | | | | | |
| **LUWI** | **Luwuk** | **40.31** | **281** | *e*P | **P** | **20 14 57.7** | **-3.9** |
| | 42nm,0.8s | | | | | | |
| **APSI** | **Ampana** | **41.43** | **281** | P | **P** | **20 15 12.5** | **+1.7** |
| | 53nm,1.5s | | | | | | |
| **WBSI** | **Waikabubak, Su** | **42.07** | **268** | P | **P** | **20 15 15.2** | **-0.9** |
| | 71nm,0.7s,3µm | | | | | | |
| **KAPI** | **Kappang** | **42.36** | **274** | *e*P | **P** | **20 15 13.8** | **-4.6** |
| | 662nm,0.8s | | | | | | |
| **MPSI** | **Mapaga** | **43.45** | **282** | P | **P** | **20 15 27.6** | **+0.3** |
| **PLAI** | **Plampang** | **43.74** | **269** | P | **P** | **20 15 28.3** | **-1.3** |
| | 52nm,1.1s | | | | | | |
| **KBKI** | **Kotabaru** | **46.20** | **276** | P | **P** | **20 15 48.1** | **-1.1** |
| | 17nm,1.4s | | | | | | |
| **PPT** | **Papeete** | | **47.16** | **104** | LR | LR | 20 32 17.4 |
| | comp=Z,121nm,19.0s,baz=232,slow=31 | | | | | | |
| **PPT2** | **Papeete2** | | **47.16** | **104** | *e*LQ | LQ | 20 27 29.2 |
| | 310nm,26.8s | | | | | | |
| PPT2 | | | | | *e*LR | LR | 20 29 29.5 |
| | 157nm,22.2s | | | | | | |
| **JAGI** | **Jajag, Banyuwa** | **47.34** | **268** | P | **P** | **20 15 56.1** | **-2.0** |
| | 88nm,1.1s | | | | | | |
| **JAGI** | **Jajag, Banyuwa** | **47.34** | **268** | *e*P | **P** | **20 15 56.2** | **-1.9** |
| | 61nm,0.7s | | | | | | |
| **KMMI** | **Kalianget** | **47.71** | **270** | P | **P** | **20 16 00.4** | **-0.5** |
| **TGY** | **Tagaytay City** | **47.82** | **300** | LR | LR | 20 35 41.8 | |
| | comp=Z,198nm,21.6s,baz=110,slow=36 | | | | | | |
| **BLJI** | **Banyuglugur** | **47.98** | **269** | P | **P** | **20 16 01.6** | **-1.4** |
| | 48nm,1.0s,1µm | | | | | | |
| **PWJI** | **Pagerwojo** | **49.70** | **269** | P | **P** | **20 16 15.0** | **-1.2** |
| | 38nm,0.8s | | | | | | |
| **PCJI** | **Pacitan** | **50.29** | **268** | P | **P** | **20 16 19.3** | **-1.5** |
| **MJAR** | **Matsushiro Arr** | **52.29** | **336** | P | **P** | **20 16 35.9** | **+0.6** |
| | 0.7nm,0.5s,baz=131,slow=8.1,SNR=3.1 | | | | | | |
| **CISI** | **Cisompet, Garu** | **53.68** | **269** | *e*P | **P** | **20 16 44.2** | **-1.8** |
| | 53nm,0.8s | | | | | | |
| **KSRS** | **Korea Array** | **57.82** | **328** | P | **P** | **20 17 15.2** | **0.0** |
| | 1.3nm,0.7s,baz=131,slow=7.1,SNR=4.0 | | | | | | |
| KSRS | | | | | LR | LR | 20 38 37.5 |
| | comp=Z,127nm,21.8s,baz=84,slow=32 | | | | | | |
| **KS15** | **Wonju Array Si** | **57.83** | **328** | *e*P | **P** | **20 17 13.9** | **-1.4** |
| **KSAR** | **Wonju Array Be** | **57.83** | **328** | P | **P** | **20 17 15.2** | **-0.1** |
| **NJ2** | **Nanjing** | **59.47** | **317** | *e*P | **P** | **20 17 26.3** | **-0.5** |
| NJ2 | | | | | pmax | pmax | |
| | comp=Z,15nm,0.9s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **61.29** | **336** | P | **P** | **20 17 41.8** | **+2.8** |
| | 4.4nm,0.8s,baz=114,slow=6.3,SNR=6.2 | | | | | | |
| **WHN** | **Wuhan** | **61.69** | **313** | P | **P** | **20 17 44.5** | **+2.5** |
| **CN2** | **Changchun** | **63.85** | **331** | *e*P | **P** | **20 17 54.5** | **-1.6** |
| CN2 | | | | *e*S | **S** | **20 26 23.5** | **-5.5** |
| CN2 | | | | *e*SS | **SS** | **20 30 34.8** | **-3.2** |
| CN2 | | | | LR | LR | | |
| | comp=N,700nm,18.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=E,300nm,18.0s | | | | | | |
| CN2 | | | | LR | LR | | |
| | comp=Z,500nm,19.0s | | | | | | |
| **PETK** | **Petropavlovsk-** | **63.86** | **357** | P | **P** | **20 17 56.1** | **+0.2** |
| | 8.9nm,0.8s,baz=157,slow=7.6,SNR=6.5 | | | | | | |
| PETK | | | | | LR | LR | 20 40 27.9 |
| | comp=Z,82nm,20.3s,baz=156,slow=31 | | | | | | |
| **PEA1** | **Petropavlovsk-** | **63.86** | **357** | *e*P | **P** | **20 17 56.1** | **+0.1** |
| **KLR** | **Kul'dur** | **65.57** | **339** | P | **P** | **20 18 09.3** | **+2.1** |
| | 0.1nm,0.8s,baz=0.0,slow=20,SNR=2.7 | | | | | | |
| **BJI** | **Beijing** | **66.19** | **323** | P | **P** | **20 18 09.8** | **-1.6** |
| BJI | | | | | pmax | pmax | |
| | comp=Z,3.0nm,0.7s | | | | | | |
| BJI | | | | | pmax | pmax | |
| | comp=Z,70nm,3.6s | | | | | | |
| **VNDA** | **Vanda** | **66.62** | **180** | P | **P** | **20 18 15.8** | **+2.2** |
| | 5.9nm,0.8s,baz=343,slow=5.9,SNR=25 | | | | | | |
| VNDA | | | | | LR | LR | 20 42 38.8 |
| | comp=Z,111nm,19.8s,baz=350,slow=32 | | | | | | |
| **VNDA** | **Vanda** | **66.62** | **180** | *e*P | **P** | **20 18 14.7** | **+1.1** |
| **KMI** | **Kunming** | **68.05** | **303** | P | **P** | **20 18 25.5** | **+1.7** |
| KMI | | | | | pmax | pmax | |
| | comp=Z,13nm,0.6s | | | | | | |
| KMI | | | | | pmax | pmax | |
| | comp=Z,250nm,5.4s | | | | | | |
| **CM01** | **Chiang Mai Arr** | **68.80** | **295** | *e*P | **P** | **20 18 26.5** | **-1.9** |
| **CMAR** | **Chiang Mai Arr** | **68.83** | **295** | P | **P** | **20 18 28.0** | **-0.5** |
| | 2.4nm,1.1s,baz=130,slow=5.4,SNR=5.8 | | | | | | |
| CMAR | | | | | LR | LR | 20 47 42.8 |
| | comp=Z,23nm,20.4s,baz=200,slow=35 | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **69.46** | **321** | *e*P | **P** | **20 18 34.5** | **+2.3** |
| HHC | | | | S | **S** | **20 27 35.0** | **-2.3** |
| HHC | | | | sS | SKiKP | 20 28 10.0 | -8.6 |
| HHC | | | | ScS | **SKSac** | **20 28 25.8** | **-4.2** |
| HHC | | | | SS | **SS** | **20 32 07.0** | **+1.5** |
| HHC | | | | | pmax | pmax | |
| | comp=Z,22nm,1.1s | | | | | | |
| HHC | | | | | pmax | pmax | |
| | comp=Z,150nm,5.5s | | | | | | |
| HHC | | | | | LR | LR | |
| | comp=N,250nm,17.1s | | | | | | |
| HHC | | | | | LR | LR | |
| | comp=E,260nm,15.7s | | | | | | |
| HHC | | | | | LR | LR | |
| | comp=Z,190nm,17.3s | | | | | | |
| **LZH** | **Lanzhou** | **72.06** | **314** | *e*P | **P** | **20 18 50.5** | **+2.3** |
| LZH | | | | pP | PcP | 20 19 09.5 | +3.0 |
| LZH | | | | sP | sP | 20 19 18.0 | +14 |
| LZH | | | | PP | **PP** | **20 21 32.0** | **+3.2** |
| LZH | | | | *e*S | **S** | **20 28 05.0** | **-2.9** |
| LZH | | | | sS | sS | 20 28 35.0 | +8.7 |
| LZH | | | | SKS | **SKSac** | **20 28 43.0** | **-7.0** |
| LZH | | | | *e*SS | **SS** | **20 32 46.3** | **+0.5** |
| LZH | | | | pmax | pmax | | |
| | comp=Z,21nm,1.3s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,140nm,7.6s | | | | | | |
| **ULN** | **Ulaanbaatar** | **76.13** | **325** | *e*P | **P** | **20 19 08.5** | **-3.2** |
| | 5.7nm,1.0s | | | | | | |
| **GTA** | **Gaotai** | **76.43** | **315** | *e*P | **P** | **20 19 15.3** | **+1.8** |
| GTA | | | | | pmax | pmax | |
| | comp=Z,3.0nm,1.1s | | | | | | |
| **SONA0** | **Songino Array** | **76.48** | **325** | *e*P | **P** | **20 19 13.8** | **+0.2** |
| **SONM** | **Songino Array** | **76.48** | **325** | P | **P** | **20 19 13.8** | **+0.2** |
| | 3.2nm,0.6s,baz=144,slow=6.1,SNR=21 | | | | | | |
| SONM | | | | | LR | LR | 20 52 31.3 |
| | comp=Z,96nm,19.0s,baz=360,slow=35 | | | | | | |
| **SONA1** | **Songino Array** | **76.49** | **325** | *e*P | **P** | **20 19 13.3** | **-0.3** |
| **YAK** | **Yakutsk** | **76.99** | **345** | *e*P | **P** | **20 19 15.1** | **-0.9** |
| | 33nm,0.8s | | | | | | |
| **SVW2** | **Sparrevohn** | **79.10** | **19** | *e*P | **P** | **20 19 28.1** | **+0.4** |
| | 57nm,1.8s | | | | | | |
| **QSPA** | **South Pole Qui** | **79.11** | **180** | *e*P | **P** | **20 19 29.5** | **+1.5** |
| | 8.3nm,0.9s | | | | | | |
| **TAPN** | **Taplejung** | **81.45** | **300** | *e*P | **P** | **20 19 41.9** | **+0.3** |
| **ODAN** | **Odare** | **81.59** | **299** | *e*P | **P** | **20 19 41.7** | **-0.5** |
| | 23nm,1.2s | | | | | | |
| **JIRN** | **Jiri** | **82.84** | **300** | *e*P | **P** | **20 19 47.7** | **-1.2** |
| **MCK** | **McKinley** | **83.16** | **20** | *e*P | **P** | **20 19 50.1** | **+0.8** |
| | 17nm,1.2s | | | | | | |
| **GUN** | **Gumba** | **83.17** | **300** | *e*P | **P** | **20 19 51.0** | **+0.4** |
| **IMAR** | **Indian Mountai** | **83.26** | **17** | *e*P | **P** | **20 19 49.3** | **-0.4** |
| **PKI** | **Pulchoki** | **83.48** | **300** | *e*P | **P** | **20 19 50.9** | **-1.3** |
| | 15nm,1.0s | | | | | | |
| **PKIN** | **Phulchoki** | **83.49** | **300** | *e*P | **P** | **20 19 50.9** | **-1.2** |
| | 29nm,1.6s | | | | | | |
| **MAW** | **Mawson** | **83.53** | **202** | LR | LR | 20 51 45.8 | |
| | comp=Z,52nm,21.8s,baz=59,slow=32 | | | | | | |
| **KKN** | **Kakani** | **83.65** | **300** | *e*P | **P** | **20 19 52.1** | **-0.8** |
| **DMN** | **Daman** | **83.75** | **300** | *e*P | **P** | **20 19 52.7** | **-0.7** |
| | 26nm,0.9s | | | | | | |
| **H02S1** | **DAWSON INLET T** | **84.48** | **33** | T | T | 21 53 06.3 | |
| | SNR=5.7 | | | | | | |
| **IL1** | **Eielson Array** | **84.52** | **20** | *e*P | **P** | **20 19 56.2** | **0.0** |
| **ILAR** | **Eielson Array** | **84.52** | **20** | P | **P** | **20 19 56.3** | **+0.1** |
| | 1.9nm,0.6s,baz=250,slow=4.4,SNR=38 | | | | | | |
| ILAR | | | | | LR | LR | 20 52 53.4 |
| | comp=Z,140nm,19.4s,baz=252,slow=32 | | | | | | |
| **ILB** | **Eielson Array** | **84.52** | **20** | *e*P | **P** | **20 19 56.7** | **+0.5** |
| **KOLN** | **Koldanda** | **85.08** | **299** | *e*P | **P** | **20 19 58.8** | **-1.3** |
| | 11nm,0.8s | | | | | | |
| **PYUN** | **Piuthan** | **85.68** | **300** | *e*P | **P** | **20 20 01.3** | **-1.8** |
| **WMQ** | **Urumqi** | **86.50** | **316** | P | **P** | **20 20 07.5** | **+0.9** |
| WMQ | | | | pP | sP | 20 20 27.0 | +4.9 |
| WMQ | | | | sP | pP | 20 20 34.3 | +16 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,19nm,0.6s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,800nm,7.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,320nm,11.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,240nm,10.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,260nm,14.9s | | | | | | |
| **NV01** | **Mina Array Sit** | **88.64** | **51** | *e*P | **P** | **20 20 17.9** | **+0.7** |
| **NVAR** | **Mina Array Bea** | **88.64** | **51** | P | **P** | **20 20 19.3** | **+2.1** |
| | 1.5nm,0.8s,baz=238,slow=6.7,SNR=14 | | | | | | |
| NVAR | | | | | LR | LR | 20 53 41.2 |
| | comp=Z,144nm,18.3s,baz=296,slow=31 | | | | | | |
| **TPNV** | **Topopah Spring** | **89.85** | **52** | *e*P | **P** | **20 20 21.9** | **-1.0** |
| | 8.2nm,1.4s | | | | | | |
| **SHPR** | **Sheep Range** | **90.60** | **53** | *e*P | **P** | **20 20 27.1** | **+0.7** |
| | 5.2nm,1.2s | | | | | | |
| **INK** | **Inuvik** | **90.92** | **20** | P | **P** | **20 20 26.0** | **-0.9** |
| | 0.4nm,0.5s,baz=183,slow=5.2,SNR=2.7 | | | | | | |
| **MK01** | **Makanchi Array** | **90.99** | **317** | *e*P | **P** | **20 20 27.2** | **-0.6** |
| **MK32** | **Makanchi Array** | **91.01** | **317** | *e*P | **P** | **20 20 26.8** | **-1.0** |
| **MKAR** | **Makanchi Array** | **91.01** | **317** | P | **P** | **20 20 26.8** | **-1.0** |
| | 1.4nm,0.7s,baz=95,slow=6.0,SNR=13 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **91.38** | **325** | P | **P** | **20 20 28.0** | **-1.4** |
| | 0.3nm,0.3s,baz=77,slow=6.4,SNR=2.5 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **91.38** | **325** | *e*P | **P** | **20 20 28.0** | **-1.4** |
| **KSH** | **Kashi** | **93.92** | **309** | *e*P | **P** | **20 20 43.8** | **+2.2** |
| KSH | | | | pP | sP | 20 21 04.8 | +7.6 |
| KSH | | | | PP | **PP** | **20 24 33.0** | **+5.1** |
| KSH | | | | SKS | **SKSac** | **20 31 09.8** | **-4.2** |
| KSH | | | | S | **S** | **20 31 42.8** | **-6.6** |
| KSH | | | | SS | **SS** | **20 38 08.5** | **-1.0** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.4s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,130nm,5.7s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,260nm,4.7s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,200nm,5.0s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,380nm,6.4s | | | | | | |
| **KURK** | **Kurchatov** | **94.27** | **321** | *e*P | **P** | **20 20 41.3** | **-1.5** |
| **KURBB** | **Kurchatov Arra** | **94.31** | **321** | P | **P** | **20 20 41.3** | **-1.6** |
| | 0.3nm,0.7s,baz=121,slow=3.1,SNR=4.1 | | | | | | |
| **YKA** | **Yellowknife Ar** | **96.47** | **28** | P | **P** | **20 20 52.3** | **-0.2** |
| | 1.5nm,0.8s,baz=257,slow=4.7,SNR=24 | | | | | | |
| YKA | | | | | LR | LR | 20 56 20.3 |
| | comp=Z,8.9nm,20.8s,baz=0.0,slow=30 | | | | | | |
| **TXAR** | **Lajitas Array** | **98.86** | **62** | LR | LR | 21 01 21.6 | |
| | comp=Z,108nm,18.5s,baz=0.0,slow=33 | | | | | | |
| **BOSA** | **Boshof** | | **122.75** | **226** | PKP | **PKPdf** | **20 26 20.4** | **+0.1** |
| | 2.6nm,0.6s,baz=149,slow=2.8,SNR=11 | | | | | | |
| **AKASG** | **Malin Array Be** | | **124.77** | **325** | PKP | **PKPdf** | **20 26 23.2** | **0.0** |
| | 1.0nm,0.6s,baz=49,slow=2.9,SNR=5.6 | | | | | | |
| **MLR** | **Muntele Rosu** | | **129.21** | **321** | ⇓*i*P | **PKPdf** | **20 26 26.7** | **-5.4** |
| **STHS** | **Stebnicka Huta** | | **129.79** | **328** | *e*PKP | **PKPdf** | **20 26 34.4** | **+1.5** |
| **ARR** | **Arges** | | **130.07** | **322** | ⇑*i*P | PKPdf | 20 26 42.5 | +8.9 |
| **PSZ** | **Piszkesteto** | | **131.40** | **327** | ⇑*i*P | **PKPdf** | **20 26 35.0** | **-1.1** |
| **KHC** | **Kasperske Hory** | | **133.79** | **332** | *e*PKPdf | **PKPdf** | **20 26 43.3** | **+2.8** |
| **GERES** | **GERESS Array B** | | **133.94** | **331** | PKP | **PKPdf** | **20 26 41.3** | **+0.4** |
| | 0.7nm,0.7s,baz=29,slow=2.2,SNR=3.2 | | | | | | |
| **KEST** | **Kesra** | | **145.08** | **319** | PKP | **PKPbc** | **20 27 00.4** | **-0.5** |
| | 7.1nm,1.0s,baz=45,slow=2.9,SNR=4.1 | | | | | | |
| **POLO** | **Lamas de Olo** | | **148.37** | **345** | *e*PKPbc | **PKPbc** | **20 27 11.0** | **+0.7** |
| **PVRL** | **Vila Real** | | **148.45** | **345** | *e*PKPbc | **PKPbc** | **20 27 11.2** | **+0.7** |
| **ESDC** | **Sonseca Array** | | **148.79** | **339** | PKPbc | **PKPdf** | **20 27 09.3** | **+1.8** |
| | 0.4nm,0.5s,baz=1.6,slow=3.3,SNR=5.2 | | | | | | |
| **PVIS** | **Viseu** | | **149.02** | **345** | *e*PKPbc | **PKPbc** | **20 27 12.0** | **0.0** |
| **MTE** | **Manteigas** | | **149.23** | **345** | *e*PKPdf | **PKPdf** | **20 27 07.7** | **-0.5** |
| **MTE** | **Manteigas** | | **149.23** | **345** | *e*PKPbc | **PKPbc** | **20 27 13.3** | **+0.8** |
| **PMRV** | **Marv??o** | | **150.09** | **344** | *e*PKPbc | **PKPbc** | **20 27 15.4** | **+0.8** |
| **PMTG** | **Montargil** | | **150.65** | **345** | *e*PKPbc | **PKPbc** | **20 27 16.4** | **+0.5** |
| **PESTR** | **Estremoz** | | **150.67** | **344** | *e*PKPab | **PKPab** | **20 27 24.1** | **+1.3** |
| **EVO** | **Evora** | | **151.10** | **344** | *e*PKPbc | **PKPbc** | **20 27 17.5** | **+0.5** |
| **TORD** | **Torodi Ar. Bea** | | **160.75** | **279** | PKP | **PKPdf** | **20 27 24.2** | **-0.3** |
| | 2.7nm,1.0s,baz=47,slow=0.2,SNR=11 | | | | | | |

*TEH* ***25*** *20:24:53.0, 35°.09N×53°.16E, h7km, ML3.8*
*ISCJB* ***25*** *20:24:54.6±0.4, 35°.10N±0°.03×53°.16E±0°.04, h6km, Error ellipse: s-maj=4.8km s-min=3.7km az=147.4*
*CSEM* ***25*** *20:24:54.9±0.1, 35

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| IRAZ | | | | *e*AMB | AMB | 20 26 24.0 | | | |
| | comp=Z,6μm,0.2s | | | | | | | | |
| **IRAZ** | **Razeghan** | **2.65** | **278** | *e*Pn | **Pn** | **20 25 38.9** | **+0.5** | | |
| **IGZV** | **Ghazvin** | **2.71** | **299** | *e*Pn | **Pn** | **20 25 40.8** | **+1.5** | | |
| IGZV | | | | *e*AMB | AMB | 20 26 33.4 | | | |
| | comp=Z,3μm,0.2s | | | | | | | | |
| **IGZV** | **Ghazvin** | **2.71** | **299** | *e*Pn | **Pn** | **20 25 40.8** | **+1.5** | | |
| **IGAR** | **Gharneh** | **2.83** | **199** | *e*Pn | **Pn** | **20 25 42.6** | **+1.8** | | |
| IGAR | | | | *e*AMB | AMB | 20 26 32.4 | | | |
| | comp=Z,2μm,0.2s | | | | | | | | |
| **ISAD** | **Sadrabad** | **3.19** | **172** | *e*Pn | **Pn** | **20 25 46.6** | **+0.7** | | |
| ISAD | | | | *e*AMB | AMB | 20 26 45.3 | | | |
| | comp=Z,4μm,0.3s | | | | | | | | |
| **ISAD** | **Sadrabad** | **3.19** | **172** | *e*Pn | **Pn** | **20 25 46.6** | **+0.7** | | |
| **IRAM** | **Ramesheh** | **3.33** | **191** | *e*Pn | **Pn** | **20 25 49.1** | **+1.4** | | |
| IRAM | | | | *e*AMB | AMB | 20 26 50.3 | | | |
| | comp=Z,1μm,0.2s | | | | | | | | |
| **IRAM** | **Ramesheh** | **3.33** | **191** | *e*Pn | **Pn** | **20 25 49.1** | **+1.4** | | |
| **TABS** | **Tabas** | **3.58** | **112** | *e*Pn | **Pn** | **20 25 51.7** | **+0.6** | | |
| **IMEH** | **Mehriz** | **3.88** | **161** | *e*Pn | **Pn** | **20 25 56.5** | **+1.2** | | |
| IMEH | | | | *e*AMB | AMB | 20 27 10.5 | | | |
| | comp=Z,1μm,0.3s | | | | | | | | |
| **IMEH** | **Mehriz** | **3.88** | **161** | *e*Pn | **Pn** | **20 25 56.5** | **+1.2** | | |
| **ZNJK** | **Zanjan** | **3.95** | **295** | *e*Pn | **Pn** | **20 25 57.7** | **+1.3** | | |
| **ZNJK** | **Zanjan** | **3.95** | **295** | *e*Pn | **Pn** | **20 25 57.7** | **+1.3** | | |
| **ISFR** | **Sfrayin** | **4.39** | **62** | *e*Pn | **Pn** | **20 26 03.4** | **+1.0** | | |
| ISFR | | | | *e*AMB | AMB | 20 27 33.9 | | | |
| | comp=Z,770nm,0.3s | | | | | | | | |
| **ISFR** | **Sfrayin** | **4.39** | **62** | *e*Pn | **Pn** | **20 26 03.4** | **+1.0** | | |
| **IKRD** | **Kardeh** | **4.67** | **67** | *e*Pn | **Pb** | **20 26 17.6** | **+0.2** | | |
| IKRD | | | | *e*AMB | AMB | 20 28 12.2 | | | |
| | comp=Z,205nm,0.5s | | | | | | | | |
| **ITEG** | **Tejag** | **5.14** | **114** | *e*Pn | **Pn** | **20 26 13.1** | **+0.5** | | |
| ITEG | | | | *e*AMB | AMB | 20 28 07.7 | | | |
| | comp=Z,429nm,0.3s | | | | | | | | |
| **ITEG** | **Tejag** | **5.14** | **114** | *e*Pn | **Pn** | **20 26 13.1** | **+0.5** | | |
| **IKOO** | **Kooshah** | **5.55** | **117** | *e*Pn | **Pn** | **20 26 18.8** | **+0.5** | | |
| IKOO | | | | *e*AMB | AMB | 20 26 19.9 | | | |
| | comp=Z,609nm,0.1s | | | | | | | | |
| **IKOO** | **Kooshah** | **5.55** | **117** | *e*Pn | **Pn** | **20 26 18.8** | **+0.5** | | |

**IDC 25 20:49:47.3±1.9, 54°.94S × 28°.44W, h0 km, mb3.9/1, mb1 3.9/1, mb1mx3.3/18, mbtmp3.9/1, Error ellipse: s-maj=106.2km s-min=66.1km az=143.0, South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TORD** | **Torodi Ar. Bea** | **72.45** | **31** | P | P | 21 01 15.4 | 0.0 |
| | 0.8nm,0.7s,baz=202,slow=6.3,SNR=9.7 | | | | | | |
| **YKA** | **Yellowknife Ar** | **134.87** | **319** | PKP | PKPdf | 21 09 06.1 | -0.4 |
| | 0.1nm,0.8s,baz=124,slow=2.5,SNR=2.5 | | | | | | |
| **ILAR** | **Eielson Array** | **148.84** | **313** | PKPbc | PKPbc | 21 09 34.6 | -0.6 |
| | 0.7nm,0.7s,baz=117,slow=1.7,SNR=15 | | | | | | |
| **SONM** | **Songino Array** | **151.36** | **85** | PKPbc | PKPbc | 21 09 41.8 | -0.2 |
| | 0.4nm,0.6s,baz=224,slow=3.5,SNR=5.5 | | | | | | |

**MEX 25 20:50:30.8±0.8, 15°.77N × 93°.55W, h91 km±10 km, MD3.9, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PCIG** | | **0.32** | **102** | *e*P | Pn | 20 50 43.7 | -0.7 |
| PCIG | | | | *e*S | Sn | 20 50 52.1 | -2.4 |
| **TGIG** | | **1.08** | **22** | *i* P | Pn | 20 50 50.4 | -1.1 |
| TGIG | | | | *i* S | Sn | 20 51 05.3 | -1.8 |
| **CCIG** | **Comitan** | **1.45** | **69** | *e*P | Pn | 20 50 54.8 | -1.3 |
| CCIG | | | | *e*S | Sn | 20 51 13.6 | -1.6 |

*ISK 25 21:12:50.9, 38°.64N × 43°.08E, h12 km, MD2.5*
*CSEM 25 21:12:51.3±0.3, 38°.61N × 43°.16E, h20 km, MD2.6, Error ellipse: s-maj=6.6km s-min=4.6km az=18.0*
*DDA 25 21:12:51.8, 38°.65N × 43°.13E, h7 km, Md2.6*
*ISCJB 25 21:12:52.3±0.9, 38°.65N±0°.06 × 43°.15E±0°.05, h13 km±6 km, Error ellipse: s-maj=10.0km s-min=5.5km az=21.9*

**ISC 25 21:12:52.1±1.0, 38°.66N±0°.05 × 43°.15E±0°.03, h15 km±10 km, n20, σ0§54/32, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.20** | **109** | *e*PG | **Pb** | **21 12 57.2** | **-0.4** |
| **VANB** | **Van** | **0.20** | **109** | *e*Pg | **Pb** | **21 12 57.2** | **-0.4** |
| **TVAN** | **Van** | **0.24** | **123** | *i* P | **Pg** | **21 12 57.0** | **-0.6** |
| TVAN | | | | *i* S | **Sg** | **21 13 01.9** | **+0.7** |
| **TVAN** | **Van** | **0.24** | **123** | P | **Pg** | **21 12 57.0** | **-0.6** |
| TVAN | | | | S | **Sg** | **21 13 02.0** | **+0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.36** | **294** | *i* P | **Pb** | **21 12 59.9** | **-0.4** |
| ADCV | | | | *i* S | **Sb** | **21 13 06.8** | **+0.9** |
| **ADCV** | **BITLIS_Adilcev** | **0.36** | **294** | P | **Pb** | **21 12 59.9** | **-0.4** |
| ADCV | | | | S | **Sb** | **21 13 06.8** | **+0.9** |
| **ERCV** | **ERCIS-VAN** | **0.39** | **23** | *e*PG | **Pg** | **21 12 59.7** | **-0.4** |
| ERCV | | | | *e*SG | **Sb** | **21 13 06.5** | **-0.2** |
| **ERCV** | **ERCIS-VAN** | **0.39** | **23** | *e*Pg | **Pg** | **21 12 59.7** | **-0.4** |
| ERCV | | | | *e*Sg | **Sb** | **21 13 06.5** | **-0.2** |
| **VMUR** | **Van-Muradiye** | **0.47** | **45** | *i* P | **Pg** | **21 13 01.1** | **-0.4** |
| VMUR | | | | *i* S | **Sb** | **21 13 09.4** | **+0.4** |
| **VMUR** | **Van-Muradiye** | **0.47** | **45** | P | **Pg** | **21 13 01.1** | **-0.4** |
| VMUR | | | | S | **Sb** | **21 13 09.4** | **+0.4** |
| **CLDR** | **Caldiran** | **0.77** | **51** | *e*PG | **Pb** | **21 13 07.3** | **-0.1** |
| **CLDR** | **Caldiran** | **0.77** | **51** | *i* P | **Pg** | **21 13 06.5** | **-0.6** |
| CLDR | | | | *i* S | **Sb** | **21 13 18.6** | **+0.8** |
| **CLDR** | **Caldiran** | **0.77** | **51** | P | **Pg** | **21 13 06.6** | **-0.6** |
| **CLDR** | **Caldiran** | **0.77** | **51** | *e*Pg | **Pb** | **21 13 07.3** | **-0.1** |
| CLDR | | | | S | **Sb** | **21 13 18.6** | **+0.8** |
| **TUTA** | **Tutak** | **0.79** | **341** | *i* P | **Pg** | **21 13 07.1** | **-0.3** |
| TUTA | | | | *i* S | **Sb** | **21 13 18.7** | **+0.5** |
| **TUTA** | **Tutak** | **0.79** | **341** | P | **Pg** | **21 13 07.1** | **-0.3** |
| TUTA | | | | S | **Sb** | **21 13 18.7** | **+0.5** |
| **AGRB** | **Hanur-Agry** | **0.92** | **353** | *e*PG | **Pg** | **21 13 09.5** | **-0.5** |
| **AGRB** | **Hanur-Agry** | **0.92** | **353** | *e*Pg | **Pg** | **21 13 09.5** | **-0.5** |
| **EATA** | **Eleskirt** | **1.30** | **337** | *i* P | **Pn** | **21 13 16.0** | **-0.1** |
| **EATA** | **Eleskirt** | **1.30** | **337** | P | **Pn** | **21 13 16.0** | **-0.1** |

*NNC 25 21:44:21.5±3.4, 46°.58N × 79°.23E, h0 km, mb3.0, mpv2.6, Error ellipse: s-maj=35.9km s-min=14.0km az=138.0*
*SOME 25 21:44:21.0, 46°.60N × 78°.98E, h5 km*

**ISC 25 21:44:20.6±1.7, 46°.63N±0°.08 × 78°.96E±0°.08, h10 km, n7, σ1§72/13, 4D, Eastern Kazakhstan**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KAPS** | **Kapalarasan** | **1.37** | **168** | *e*P | **Pn** | **21 44 46.0** | **+0.2** |
| | 10nm,0.2s | | | | | | |
| KAPS | | | | *e*S | **Sb** | **21 45 03.3** | **-0.5** |
| | 6.4nm,0.1s | | | | | | |
| **MAKZ** | **Makanchi** | **2.08** | **84** | ⇓Pn | **Pn** | **21 44 54.9** | **-0.6** |
| | 4.3nm,0.5s | | | | | | |
| MAKZ | | | | ⇓Sn | **Sn** | **21 45 20.4** | **-1.1** |
| | 8.2nm,0.7s | | | | | | |
| **MK31** | **Makanchi Array** | **2.30** | **85** | Pn | **Pn** | **21 44 58.2** | **-0.3** |
| | 0.5nm,0.3s,baz=258,slow=16,SNR=26 | | | | | | |
| MK31 | | | | Sn | **Sn** | **21 45 27.2** | **+0.4** |
| | 2.6nm,0.5s,baz=260,slow=27,SNR=10 | | | | | | |
| **DJR** | **Jarkent** | **2.37** | **165** | *e*P | **Pb** | **21 45 04.2** | **+0.9** |
| | 3.0nm,0.1s | | | | | | |
| DJR | | | | *e*S | **Sb** | **21 45 34.0** | **+1.4** |
| | 9.0nm,0.4s | | | | | | |
| **KUU** | **Kurty** | **3.30** | **215** | *e*P | **Pb** | **21 45 20.6** | **+1.4** |
| | 0.9nm,0.2s | | | | | | |
| KUU | | | | *e*S | **Sg** | **21 46 03.8** | **-2.8** |
| | 4.2nm,0.3s | | | | | | |
| **PDGK** | **Podgornoye** | **3.32** | **173** | ⇓Pg | **Pb** | **21 45 21.8** | **+2.2** |
| | 2.5nm,1.0s | | | | | | |
| PDGK | | | | ⇓Lg | Lg | 21 46 03.7 | |
| | 3.2nm,0.6s | | | | | | |
| **KTMS** | **Ketmen** | **3.33** | **162** | *e*P | **Pb** | **21 45 21.7** | **+2.0** |
| | 1.7nm,0.1s | | | | | | |
| KTMS | | | | *e*S | **Sg** | **21 46 04.9** | **-2.5** |
| | 2.3nm,0.2s | | | | | | |

*ISCJB 25 22:03:20.4±1.2, 6°.0N±0°.2 × 126°.8E±0°.3, h100 km, mb3.6/5, Error ellipse: s-maj=49.6km s-min=10.4km az=147.0*
*IDC 25 22:03:21.6±3.6, 5°.93N × 126°.70E, h95 km±27 km, mb3.5/5, mb1 3.7/5, mb1mx3.3/30, mbtmp3.8/5, Error ellipse: s-maj=91.1km s-min=15.8km az=68.0*

**ISC 25 22:03:22.0±1.4, 5°.9N±0°.3 × 126°.7E±0°.4, h100 km, n7, σ1§03/8, mb3.6/5, Mindanao**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DAV** | **Davao City (W)** | **1.55** | **317** | P | **Pn** | **22 03 48.1** | **-0.8** |
| | 39nm,0.3s,baz=236,slow=7.3,SNR=6.4 | | | | | | |
| DAV | | | | S | **Sn** | **22 04 09.4** | **+0.1** |
| | 82nm,0.3s,baz=217,slow=20,SNR=7.7 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **23.91** | **182** | P | **P** | **22 08 26.9** | **+0.1** |
| | 2.7nm,1.0s,baz=355,slow=11,SNR=2.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **26.81** | **164** | P | **P** | **22 08 53.2** | **+0.2** |
| | 0.5nm,0.8s,baz=343,slow=10,SNR=6.6 | | | | | | |
| **ASAR** | **Alice Springs** | **30.27** | **167** | P | **P** | **22 09 23.7** | **-0.1** |
| | 0.3nm,0.5s,baz=343,slow=6.8,SNR=8.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **55.71** | **324** | P | **P** | **22 12 50.1** | **+1.9** |
| | 0.3nm,0.5s,baz=120,slow=8.9,SNR=4.6 | | | | | | |
| **ARCES** | **ARCESS Array B** | **88.36** | **340** | P | **P** | **22 16 01.6** | **-0.8** |
| | 3.9nm,1.0s,baz=72,slow=6.7,SNR=2.3 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **122.13** | **289** | PKP | **PKPdf** | **22 22 05.4** | **-0.7** |
| | 0.2nm,0.9s,baz=37,slow=2.3,SNR=2.2 | | | | | | |

**WEL 25 22:04:18.0±0.2, 43°.48S × 172°.76E, h8 km, ML3.6/18, 9C-1D, Error ellipse: s-maj=1.7km s-min=0.6km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.14** | **227** | ⇑PG | Pg | 22 04 21.3 | +0.2 |
| CRLZ | | | | SG | Sg | 22 04 23.7 | +0.6 |
| CRLZ | | | | AML | AML | 22 04 23.8 | |
| CRLZ | | | | AML | AML | 22 04 23.8 | |
| CRLZ | | | | AML | AML | 22 04 23.8 | |
| **MQZ** | **McQueen's Vall** | **0.24** | **199** | ⇑PG | Pg | 22 04 22.8 | 0.0 |
| MQZ | | | | SG | Sg | 22 04 26.5 | +0.4 |
| MQZ | | | | AML | AML | 22 04 28.1 | |
| **OXZ** | **Oxford** | **0.55** | **286** | ⇑P* | Pg | 22 04 28.6 | -0.1 |
| OXZ | | | | SG | Sg | 22 04 36.5 | +0.7 |
| OXZ | | | | AML | AML | 22 04 38.6 | |
| OXZ | | | | AML | AML | 22 04 42.4 | |
| **LTZ** | **Lake Taylor** | **0.78** | **332** | ⇑P* | Pg | 22 04 33.4 | +0.3 |
| LTZ | | | | S* | Sb | 22 04 44.4 | -0.3 |
| **KHZ** | **Kahutara** | **1.20** | **28** | P* | Pb | 22 04 39.1 | -1.9 |
| KHZ | | | | AML | AML | 22 05 04.0 | |
| KHZ | | | | AML | AML | 22 05 04.2 | |
| **INZ** | **Inchbonnie** | **1.23** | **307** | ⇑P* | Pb | 22 04 40.0 | -1.5 |
| **RPZ** | **Rata Peaks** | **1.27** | **259** | ⇓P* | Pn | 22 04 40.4 | -1.7 |
| RPZ | | | | AML | AML | 22 04 59.2 | |
| RPZ | | | | AML | AML | 22 05 05.8 | |
| **WVZ** | **Waitaha Valley** | **1.54** | **285** | PN | Pn | 22 04 44.7 | -1.0 |
| WVZ | | | | AML | AML | 22 05 11.5 | |
| WVZ | | | | AML | AML | 22 05 15.4 | |
| **THZ** | **Tophouse** | **1.72** | **4** | ⇑PN | Pn | 22 04 46.9 | -1.4 |
| THZ | | | | AML | AML | 22 05 11.2 | |
| THZ | | | | AML | AML | 22 05 24.8 | |
| **DSZ** | **Denniston Nort** | **1.87** | **337** | ⇑PN | Pn | 22 04 49.6 | -0.8 |
| DSZ | | | | AML | AML | 22 05 26.2 | |
| DSZ | | | | AML | AML | 22 05 26.9 | |
| **BSWZ** | **Blackbirch Sta** | **1.94** | **25** | ⇑PN | Pn | 22 04 50.1 | -1.3 |
| **LBZ** | **Lake Benmore** | **2.07** | **243** | PN | Pn | 22 04 52.2 | -1.0 |
| LBZ | | | | AML | AML | 22 05 27.5 | |
| LBZ | | | | AML | AML | 22 05 30.0 | |
| **FOZ** | **Fox Glacier** | **2.15** | **268** | PN | Pn | 22 04 54.2 | 0.0 |
| FOZ | | | | AML | AML | 22 05 35.5 | |
| **ODZ** | **Otahua Downs** | **2.18** | **223** | ⇑PN | Pn | 22 04 53.1 | -1.6 |
| ODZ | | | | AML | AML | 22 05 28.0 | |
| ODZ | | | | AML | AML | 22 05 28.0 | |
| ODZ | | | | AML | AML | 22 05 29.0 | |
| ODZ | | | | AML | AML | 22 05 35.1 | |
| **TUWZ** | **Tuamarina** | **2.23** | **23** | PN | Pn | 22 04 53.5 | -1.7 |
| **NNZ** | **Nelson** | **2.31** | **12** | PN | Pn | 22 04 55.4 | -0.9 |
| **TCW** | **Tory Channel** | **2.53** | **27** | PN | Pn | 22 04 57.4 | -2.0 |
| **BHW** | **Baring Head** | **2.59** | **38** | PN | Pn | 22 04 58.0 | -2.2 |
| **PLWZ** | **Palliser** | **2.65** | **45** | PN | Pn | 22 04 58.8 | -2.4 |
| **QRZ** | **Quartz Range** | **2.66** | **356** | PN | Pn | 22 04 60.0 | -1.2 |
| **DUWZ** | **D'Urville Isla** | **2.81** | **18** | PN | Pn | 22 05 01.7 | -1.6 |
| **HHSZ** | **Highcliff Hill** | **2.86** | **212** | PN | Pn | 22 05 02.2 | -1.8 |
| **CAW** | **Cannon Point** | **2.92** | **37** | PN | Pn | 22 05 02.5 | -2.3 |
| CAW | | | | AML | AML | 22 05 39.0 | |
| CAW | | | | AML | AML | 22 05 39.5 | |
| **JCZ** | **Jackson Bay** | **2.94** | **257** | PN | Pn | 22 05 04.2 | -1.0 |
| JCZ | | | | AML | AML | 22 06 03.3 | |
| **WKZ** | **Wanaka** | **3.02** | **242** | PN | Pn | 22 05 04.5 | -1.7 |
| WKZ | | | | AML | AML | 22 06 07.9 | |
| **EAZ** | **Earnscleugh** | **3.04** | **234** | PN | Pn | 22 05 04.9 | -1.5 |
| EAZ | | | | AML | AML | 22 05 57.6 | |
| EAZ | | | | AML | AML | 22 06 03.9 | |
| **KIW** | **Kapiti Island** | **3.06** | **32** | PN | Pn | 22 05 04.8 | -2.0 |
| **MTW** | **Mount Morrison** | **3.08** | **42** | PN | Pn | 22 05 04.3 | -2.7 |
| **OGWZ** | **Otaki Gorge** | **3.21** | **35** | PN | Pn | 22 05 06.3 | -2.4 |
| **TUZ** | **Tuapeka** | **3.33** | **221** | PN | Pn | 22 05 09.0 | -1.5 |
| TUZ | | | | AML | AML | 22 06 11.6 | |
| TUZ | | | | AML | AML | 22 06 17.8 | |
| **MRZ** | **Mangatainoka R** | **3.51** | **38** | PN | Pn | 22 05 10.5 | -2.4 |
| **TIWZ** | **Tintock** | **3.56** | **42** | AML | AML | 22 05 54.2 | |
| **BFZ** | **Birch Farm** | **3.81** | **44** | PN | Pn | 22 05 13.9 | -3.2 |
| **MLZ** | **Mavora Lakes** | **3.83** | **239** | PN | Pn | 22 05 15.6 | -1.7 |
| **SYZ** | **Scrubby Hill** | **4.00** | **219** | *e*PN | Pn | 22 05 18.3 | -1.2 |
| **WHZ** | **Wether Hill Ro** | **4.20** | **233** | PN | Pn | 22 05 19.9 | -2.5 |
| **APZ** | **The Paps** | **4.76** | **224** | PN | Pn | 22 05 28.4 | -1.7 |
| **OTVZ** | **Oturere** | **4.83** | **28** | PN | Pn | 22 05 29.7 | -1.6 |
| **HIZ** | **Hauiti** | **5.21** | **18** | PN | Pn | 22 05 35.1 | -1.2 |

**IDC 25 22:13:17.5±2.4, 2°.49N × 127°.41E, h0 km, mb3.2/3, mb1 3.4/3, mb1mx3.3/29, mbtmp3.2/3, Error ellipse: s-maj=186.4km s-min=26.5km az=67.0, Northern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **23.31** | **163** | P | P | 22 18 27.5 | +0.2 |
| | 0.2nm,0.4s,baz=342,slow=10,SNR=3.3 | | | | | | |
| **ASAR** | **Alice Springs** | **26.75** | **167** | P | P | 22 18 59.0 | -0.2 |
| | 0.1nm,0.4s,baz=349,slow=6.8,SNR=8.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **58.95** | **325** | P | P | 22 23 18.9 | 0.0 |
| | 0.2nm,0.4s,baz=114,slow=8.5,SNR=4.5 | | | | | | |

**IDC 25 23:08:59.0±12.0, 4°.21S × 126°.48E, h0 km, mb3.3/2, mb1 3.5/3, mb1mx3.2/34, mbtmp3.3/3, ML3.0/1, Error ellipse: s-maj=334.3km s-min=181.9km az=75.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **17.41** | **155** | P | Pn | 23 13 04.0 | +0.4 |
| | 0.1nm,0.3s,baz=332,slow=12,SNR=4.5 | | | | | | |
| **ASAR** | **Alice Springs** | **20.63** | **160** | P | P | 23 13 39.7 | -0.5 |
| | 0.1nm,0.3s,baz=344,slow=12,SNR=5.1 | | | | | | |
| **STKA** | **Stephens Creek** | **30.96** | **154** | P | P | 23 15 18.1 | +0.1 |
| | 1.1nm,0.7s,baz=355,slow=11,SNR=2.1 | | | | | | |

**IDC 25 23:12:01.1±5.4, 20°.32N × 45°.65W, h0 km, mb3.6/4, mb1 3.7/4, mb1mx3.4/38, mbtmp3.6/4, MS3.8/1, Ms1 3.8/1, ms1mx3.0/34, Error ellipse: s-maj=192.7km s-min=30.3km az=24.0, Northern Mid-Atlantic Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **H10N3** | **ASCENSION HYDR** | **41.50** | **129** | T | T | 00 03 47.8 | |
| | baz=312,slow=75,SNR=38 | | | | | | |
| **H10N2** | **ASCENSION HYDR** | **41.50** | **129** | T | T | 00 03 48.0 | |
| | baz=312,slow=75,SNR=38 | | | | | | |
| **H10N1** | **ASCENSION HYDR** | **41.52** | **129** | T | T | 00 03 42.7 | |
| | baz=312,slow=75,SNR=65 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **42.14** | **131** | T | T | 00 04 30.8 | |
| | baz=313,slow=75,SNR=14 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **42.14** | **131** | T | T | 00 04 31.0 | |
| | baz=313,slow=75,SNR=22 | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **42.16** | **131** | T | T | 00 04 32.0 | |
| | baz=313,slow=75,SNR=17 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **45.78** | **91** | P | P | 23 20 24.4 | -0.4 |
| | 1.7nm,1.0s,baz=304,slow=7.9,SNR=8.1 | | | | | | |
| TORD | | | | LR | LR | 23 37 45.4 | |
| | comp=Z,91nm,18.6s,baz=335,slow=34 | | | | | | |
| **YKA** | **Yellowknife Ar** | **62.47** | **331** | P | P | 23 22 25.1 | -0.9 |
| | 0.2nm,0.9s,baz=95,slow=7.0,SNR=3.4 | | | | | | |
| **BRTR** | **Keskin Array B** | **69.25** | **54** | P | P | 23 23 10.8 | +0.4 |
| | 1.0nm,0.9s,baz=262,slow=2.9,SNR=4.6 | | | | | | |
| **ILAR** | **Eielson Array** | **76.49** | **334** | P | P | 23 23 53.5 | +0.9 |
| | 0.3nm,0.9s,baz=68,slow=5.0,SNR=3.4 | | | | | | |

**MEX 25 23:27:07.8±0.3, 32°.24N × 115°.19W, h14 km±82 km, MD3.5, California-Baja California border region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MBIG** | **Mexicali** | **0.17** | **356** | *e*P | Pg | 23 27 11.4 | -0.6 |
| MBIG | | | | *i* S | Sg | 23 27 14.0 | -0.7 |
| **SPIG** | **San Pedro Mart** | **1.21** | **191** | *e*P | Pn | 23 27 26.7 | -3.9 |
| SPIG | | | | *e*S | Sb | 23 27 41.8 | -4.5 |
| **CBX** | **Cerro Bola** | **1.25** | **274** | *e*P | Pn | 23 27 27.3 | -3.7 |
| CBX | | | | *e*S | Sb | 23 27 42.1 | -5.2 |
| **TJIG** | **Tijuana** | **1.28** | **279** | *e*P | Pn | 23 27 28.0 | -3.2 |
| TJIG | | | | *e*S | Sb | 23 27 42.9 | -5.0 |

*IDC 25 23:38:29.1±4.6, 36°.40N × 70°.56E, h180 km±35 km, mb3.2/5, mb1 3.2/10, mb1mx2.9/57, mbtmp3.8/10, Error ellipse: s-maj=50.6km s-min=25.3km az=146.0*
*ISCJB 25 23:38:30.4±0.6, 36°.52N±0°.05 × 70°.65E±0°.06, h204 km, mb3.5/4, Error ellipse: s-maj=7.2km s-min=6.3km az=38.5*
*KRNET 25 23:38:30.5±0.1, 38°.85N × 78°.85E, mb4.5*
*NNC 25 23:38:35.8±1.3, 36°.90N × 70°.64E, h211 km±16 km, mb2.9, mpv4.0, Error ellipse: s-maj=13.4km s-min=10.5km az=56.0*

**ISC 25 23:38:30.6±0.8, 36°.52N±0°.07 × 70°.63E±0°.07, h204 km, n33, σ1§76/42, mb3.6/4, 10C-7D, Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SFK** | **Sufi-Kurgan** | **4.16** | **32** | ⇑*e*P | **Pn** | **23 39 36.4** | **+1.7** |
| | baz=287 | | | | | | |
| SFK | | | | ⇑*e*S | **S** | **23 40 24.6** | **-0.1** |
| | baz=287 | | | | | | |
| **SFK** | **Sufi-Kurgan** | **4.16** | **32** | ⇑P | **Pn** | **23 39 35.6** | **+0.9** |
| | 26nm,0.4s | | | | | | |
| SFK | | | | ⇓S | **S** | **23 40 24.5** | **-0.2** |
| | 24nm,0.4s | | | | | | |
| **ARSB** | **Arslanbob** | **5.14** | **20** | ⇓*e*P | **Pn** | **23 39 47.4** | **+0.4** |
| | baz=301 | | | | | | |
| ARSB | | | | ⇓*i*S | **S** | **23 40 44.5** | **-2.4** |
| | baz=301 | | | | | | |
| **TOKL** | **Toktogul** | **5.69** | **17** | ⇓*e*P | **Pn** | **23 39 55.0** | **+1.0** |
| | baz=306 | | | | | | |
| TOKL | | | | ⇓*e*S | **S** | **23 40 53.0** | **-6.6** |
| | baz=306 | | | | | | |
| **THN** | **Thein Dam** | **5.85** | **133** | *e*P | **Pn** | **23 39 55.5** | **-0.5** |
| THN | | | | *e*S | **S** | **23 41 01.0** | **-2.2** |
| **AML** | **Almayashu** | **6.09** | **22** | P | **Pn** | **23 40 00.2** | **+0.8** |
| | SNR=77 | | | | | | |
| **MNAS** | **Manas** | **6.14** | **13** | ⇑P | **Pn** | **23 40 00.0** | **+0.2** |
| | 5.5nm,0.7s | | | | | | |
| MNAS | | | | ⇑S | **S** | **23 41 07.9** | **-2.3** |
| | 44nm,0.5s | | | | | | |
| **UCH** | **Uchtor** | **6.45** | **27** | P | **Pn** | **23 40 04.8** | **+0.7** |
| | SNR=40 | | | | | | |
| **KK31** | **Karatay Array** | **6.58** | **359** | P | **Pn** | **23 40 06.5** | **+1.1** |
| | 4.0nm,0.5s,baz=233,slow=68,SNR=20 | | | | | | |
| KK31 | | | | ⇑S | **S** | **23 41 17.0** | **-3.5** |
| | 6.9nm,0.4s,baz=191,slow=24,SNR=11 | | | | | | |
| **EKS2** | **Erkin-Say** | **6.60** | **21** | P | **Pn** | **23 40 06.8** | **+1.1** |
| | SNR=7.6 | | | | | | |
| **KZA** | **Kyzart** | **6.61** | **31** | P | **Pn** | **23 40 06.2** | **+0.1** |
| | SNR=10 | | | | | | |
| **AAK** | **Ala-Archa** | **6.80** | **25** | P | **Pn** | **23 40 09.4** | **+1.1** |
| | 3.2nm,0.3s,baz=198,slow=19,SNR=53 | | | | | | |
| AAK | | | | S | **S** | **23 41 24.4** | **-1.4** |
| | 1.6nm,0.3s,baz=309,slow=20,SNR=17 | | | | | | |
| **AAK** | **Ala-Archa** | **6.80** | **25** | ⇑P | **Pn** | **23 40 09.3** | **+0.9** |
| | 11nm,0.7s | | | | | | |
| AAK | | | | ⇑S | **S** | **23 41 24.1** | **-1.7** |
| | 13nm,0.6s | | | | | | |
| **AAK** | **Ala-Archa** | **6.80** | **25** | P | **Pn** | **23 40 09.5** | **+1.1** |
| | SNR=20 | | | | | | |
| **KBK** | **Karagaybulak** | **6.98** | **27** | P | **Pn** | **23 40 12.0** | **+1.3** |
| | SNR=18 | | | | | | |
| **ULHL** | **Ulahol** | **7.18** | **35** | P | **Pn** | **23 40 14.3** | **+0.9** |
| | SNR=7.5 | | | | | | |
| **CHMS** | **Chumysh** | **7.21** | **25** | P | **Pn** | **23 40 14.5** | **+1.0** |
| | SNR=12 | | | | | | |
| **USP** | **Ospenovka** | **7.37** | **23** | P | **Pn** | **23 40 16.2** | **+0.6** |
| | SNR=8.4 | | | | | | |
| **TKM2** | **Tokmak 2** | **7.45** | **29** | ⇓P | **Pn** | **23 40 17.7** | **+0.9** |
| | 10nm,0.4s | | | | | | |
| TKM2 | | | | ⇓S | **S** | **23 41 38.8** | **-2.5** |
| | 4.1nm,0.8s | | | | | | |
| **TKM2** | **Tokmak 2** | **7.45** | **29** | P | **Pn** | **23 40 17.8** | **+0.9** |
| | SNR=38 | | | | | | |
| **MDOK** | **Medeo** | **8.27** | **35** | P | **Pn** | **23 40 28.5** | **+1.1** |
| **GEYT** | **Alibeck** | **10.08** | **282** | S | **S** | **23 42 41.3** | **-2.7** |
| | 0.2nm,0.3s,baz=85,slow=16,SNR=2.7 | | | | | | |
| **MK31** | **Makanchi Array** | **13.45** | **37** | ⇑P | **Pn** | **23 41 34.5** | **+1.0** |
| | 2.0nm,0.8s,baz=222,slow=14,SNR=9.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **13.45** | **37** | P | **Pn** | **23 41 34.4** | **+0.9** |
| | 0.2nm,0.3s,baz=222,slow=15,SNR=9.2 | | | | | | |
| **AB31** | **Akbulak array** | **14.93** | **332** | ⇑P | **Pn** | **23 41 51.9** | **+0.3** |
| | 0.4nm,0.3s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **15.21** | **19** | P | **Pn** | **23 41 55.0** | **+0.1** |
| | 0.0nm,0.3s,baz=206,slow=12,SNR=3.8 | | | | | | |
| **BVAR** | **Borovoye Array** | **16.51** | **359** | P | **Pn** | **23 42 11.9** | **+1.2** |
| | 0.4nm,0.3s,baz=165,slow=9.8,SNR=6.4 | | | | | | |
| **AKTO** | **Aktyubinsk** | **16.62** | **331** | P | **Pn** | **23 42 13.7** | **+1.7** |
| | 0.6nm,0.3s,baz=137,slow=8.8,SNR=15 | | | | | | |
| **ZALV** | **Zalesovo Beam** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 5.2nm,0.5s | | | | | | | |
| AAK | | | | | ⇓S | Sn | 23 44 43.8 | -0.3 |
| | 16nm,0.5s | | | | | | | |
| **AAK** | **Ala-Archa** | **6.41** | **23** | P | | **Pn** | **23 43 34.3** | **+2.5** |
| | SNR=12 | | | | | | | |
| **CHMS** | **Chumysh** | **6.82** | **23** | P | | Pn | 23 43 42.5 | +5.4 |
| | SNR=8.0 | | | | | | | |
| **USP** | **Ospenovka** | **6.99** | **20** | P | | **Pn** | **23 43 41.8** | **+2.4** |
| | SNR=6.1 | | | | | | | |
| **TKM2** | **Tokmak 2** | **7.04** | **28** | ⇑P | | **Pn** | **23 43 41.6** | **+1.3** |
| | 3.8nm,0.5s | | | | | | | |
| TKM2 | | | | | ⇓S | **Sn** | **23 44 58.9** | **-0.3** |
| | 14nm,1.1s | | | | | | | |
| **TKM2** | **Tokmak 2** | **7.04** | **28** | P | | **Pn** | **23 43 42.2** | **+2.0** |
| | SNR=7.6 | | | | | | | |
| **MDOK** | **Medeo** | **7.83** | **33** | ⇓P | | **Pn** | **23 43 53.3** | **+2.5** |
| **GEYT** | **Alibeck** | **10.45** | **280** | P | | **Pn** | **23 44 27.1** | **+1.6** |
| | 0.9nm,0.3s,baz=82,slow=8.9,SNR=15 | | | | | | | |
| GEYT | | | | S | | **Sn** | **23 46 21.0** | **-0.1** |
| | 1.0nm,0.3s,baz=128,slow=13,SNR=6.8 | | | | | | | |
| **MK31** | **Makanchi Array** | **13.01** | **36** | P | | **P** | **23 45 03.6** | **+0.1** |
| | 0.6nm,0.5s,baz=207,slow=11,SNR=16 | | | | | | | |
| **MKAR** | **Makanchi Array** | **13.01** | **36** | P | | **Pn** | **23 44 59.9** | **+1.2** |
| | 0.1nm,0.3s,baz=214,slow=17,SNR=3.9 | | | | | | | |
| **PYUN** | **Piuthan** | **13.19** | **127** | *eP* | | **Pn** | **23 44 59.5** | **-1.9** |
| | 13nm,0.4s | | | | | | | |
| **KOLN** | **Koldanda** | **13.81** | **127** | *eP* | | **Pn** | **23 45 07.8** | **-1.4** |
| | 12nm,0.4s | | | | | | | |
| **GKN** | **Gorkha** | **14.33** | **124** | *eP* | | **Pn** | **23 45 14.9** | **-0.9** |
| **KURBB** | **Kurchatov Arra** | **14.84** | **19** | P | | **Pn** | **23 45 22.0** | **+0.2** |
| | 0.0nm,0.3s,baz=207,slow=11,SNR=6.2 | | | | | | | |
| **KKN** | **Kakani** | **14.90** | **123** | *eP* | | **Pn** | **23 45 21.6** | **-1.4** |
| | 17nm,0.7s | | | | | | | |
| **DMN** | **Daman** | **14.90** | **124** | *eP* | | **Pn** | **23 45 22.4** | **-0.6** |
| | 12nm,0.4s | | | | | | | |
| **AB31** | **Akbulak array** | **14.93** | **330** | ⇑P | | **Pn** | **23 45 24.1** | **+1.3** |
| | 1.3nm,0.5s | | | | | | | |
| AB31 | | | | | ⇑S | **Sn** | **23 48 02.6** | **-5.9** |
| | 2.2nm,0.5s | | | | | | | |
| **PKIN** | **Phulchoki** | **15.12** | **123** | *eP* | | **Pn** | **23 45 24.4** | **-1.3** |
| | 13nm,0.4s | | | | | | | |
| **PKI** | **Pulchoki** | **15.13** | **123** | *eP* | | **Pn** | **23 45 24.6** | **-1.3** |
| | 29nm,0.6s | | | | | | | |
| **GUN** | **Gumba** | **15.24** | **121** | *eP* | | **Pn** | **23 45 25.7** | **-1.5** |
| | 15nm,0.5s | | | | | | | |
| **JIRN** | **Jiri** | **15.61** | **121** | *eP* | | **Pn** | **23 45 30.6** | **-1.2** |
| | 199nm,0.3s | | | | | | | |
| **BVAR** | **Borovoye Array** | **16.28** | **358** | P | | **Pn** | **23 45 40.2** | **+0.8** |
| | 0.2nm,0.3s,baz=156,slow=10,SNR=6.1 | | | | | | | |
| **RAMN** | **Ramite** | **16.34** | **122** | *eP* | | **Pn** | **23 45 38.8** | **-1.9** |
| | 24nm,0.5s | | | | | | | |
| **AKTO** | **Aktyubinsk** | **16.63** | **329** | P | | **Pn** | **23 45 45.9** | **+2.2** |
| | 0.6nm,0.3s,baz=140,slow=8.8,SNR=7.9 | | | | | | | |
| AKTO | | | | | S | **S** | **23 48 47.1** | **-1.1** |
| | 0.1nm,0.3s,baz=161,slow=15,SNR=6.0 | | | | | | | |
| **TAPN** | **Taplejung** | **16.86** | **119** | *eP* | | **P** | **23 45 46.2** | **-0.3** |
| | 14nm,0.4s | | | | | | | |
| **ODAN** | **Odare** | **16.94** | **121** | *eP* | | **P** | **23 45 46.9** | **-0.5** |
| | 19nm,0.6s | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **19.63** | **25** | P | | **P** | **23 46 16.1** | **-0.1** |
| | 0.5nm,0.3s,baz=231,slow=12,SNR=6.4 | | | | | | | |
| **SONM** | **Songino Array** | **28.09** | **56** | P | | **P** | **23 47 36.4** | **-0.7** |
| | 0.2nm,0.6s,baz=270,slow=10,SNR=2.6 | | | | | | | |
| **BRTR** | **Keskin Array B** | **29.48** | **287** | P | | **P** | **23 47 50.8** | **+1.3** |
| | 0.5nm,0.7s,baz=104,slow=8.5,SNR=3.3 | | | | | | | |
| **FINES** | **FINESS Array B** | **37.34** | **326** | P | | **P** | **23 48 58.3** | **+1.3** |
| | 6.1nm,1.0s,baz=118,slow=12,SNR=3.3 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **40.96** | **337** | P | | **P** | **23 49 27.2** | **+0.2** |
| | 3.7nm,1.0s,baz=110,slow=7.8,SNR=3.0 | | | | | | | |
| **ESDC** | **Sonseca Array** | **57.45** | **298** | P | | **P** | **23 51 33.0** | **+0.2** |
| | 0.2nm,0.5s,baz=60,slow=7.6,SNR=2.9 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **65.85** | **269** | P | | **P** | **23 52 27.8** | **-1.5** |
| | 0.8nm,0.5s,baz=50,slow=5.8,SNR=2.3 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **80.99** | **3** | P | | **P** | **23 53 55.6** | **-1.3** |
| | 0.1nm,0.4s,baz=351,slow=5.2,SNR=3.2 | | | | | | | |

*IDC **25** 23:43:29.7±1.5,2.2°20S×139.4°43E,h0km,mb3.5/5, mb1 3.7/6,mb1mx3.4/42,mbtmp3.5/6,ML3.4/1, Error ellipse: s-maj=60.0km s-min=22.1km az=100.0*

*ISCJB **25** 23:43:32.5±0.8,2.3S±0.1°×139.2°E±0.0°,h27km,mb3.5/4, Error ellipse: s-maj=15.8km s-min=8.1km az=8.8*

*DJA **25** 23:43:43.5±1.9,3.3°S±9.3°×147.0°E±*°,h10km,M3.3/2,MLv3.3/2*

**ISC 25 23:43:34.4±0.9,2.2°S±0.1°×139.2°E±0.0°,h27km,n8, σ1s76/10,mb3.6/4,Near north coast of Irian Jaya**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GENI** | **Genyem** | **0.97** | **114** | P | **Pb** | **23 43 55.6** | **+2.9** |
| GENI | | | | S | **Sb** | **23 44 03.9** | **-1.2** |
| **JAY** | **Jayapura** | **1.46** | **103** | P | **Pb** | **23 44 01.9** | **+0.9** |
| JAY | | | | S | **Sn** | **23 44 15.9** | **-1.4** |
| **WRA** | **Warramunga Arr** | **18.29** | **195** | P | **P** | **23 47 44.4** | **-2.0** |
| | 0.1nm,0.3s,baz=17,slow=12,SNR=11 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **20.71** | **219** | P | **P** | **23 48 14.3** | **+1.5** |
| | 3.8nm,1.1s,baz=51,slow=13,SNR=2.4 | | | | | | |
| **ASAR** | **Alice Springs** | **21.97** | **193** | P | **P** | **23 48 24.9** | **-1.5** |
| | 0.4nm,0.6s,baz=21,slow=10,SNR=5.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **69.73** | **322** | P | **P** | **23 54 41.6** | **-0.4** |
| | 0.5nm,0.6s,baz=119,slow=8.0,SNR=5.1 | | | | | | |
| **BVAR** | **Borovoye Array** | **79.22** | **325** | P | **P** | **23 55 37.2** | **+0.2** |
| | 0.4nm,0.4s,baz=116,slow=9.8,SNR=4.3 | | | | | | |
| **ILAR** | **Eielson Array** | **85.13** | **24** | P | **P** | **23 56 07.8** | **0.0** |
| | 0.3nm,0.9s,baz=253,slow=2.7,SNR=2.3 | | | | | | |

**IDC 25 23:48:33.7±28.0,23.49S×172.70W,h0km,mb3.8/4, mb1 3.9/4,mb1mx3.6/28,mbtmp3.8/4,Error ellipse: s-maj=518.3km s-min=162.9km az=78.0,Tonga Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CTA** | **Charters Tower** | **38.17** | **267** | P | P | 23 55 55.2 | 0.0 |
| | 2.3nm,0.3s,baz=81,slow=10,SNR=4.4 | | | | | | |
| **STKA** | **Stephens Creek** | **41.08** | **248** | P | P | 23 56 19.1 | -0.2 |
| | 0.8nm,0.5s,baz=104,slow=8.3,SNR=3.1 | | | | | | |
| **ASAR** | **Alice Springs** | **48.69** | **258** | P | P | 23 57 20.9 | +0.8 |
| | 0.2nm,0.6s,baz=98,slow=6.7,SNR=4.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **49.10** | **263** | P | P | 23 57 22.6 | -0.7 |
| | 0.4nm,0.5s,baz=104,slow=8.1,SNR=20 | | | | | | |

*IDC **26** 00:00:05.2±0.7,3.7°3S×127.7°19E,h0km,mb4.1/9, mb1 4.2/11,mb1mx4.0/42,mbtmp4.1/11,ML3.4/2,MS3.1/3, Ms1 3.1/3,ms1mx2.8/33,Error ellipse: s-maj=39.4km s-min=15.4km az=63.0*

*ISCJB **26** 00:00:08.8±0.4,3.7°8S±0.0°×127.7°38E±0.0°,h34km, mb4.1/8,MS3.2/1,Error ellipse: s-maj=7.3km s-min=4.5km az=32.2*

*NEIC **26** 00:00:10.2±0.4,3.2°81S×127.7°17E,h35km,mb4.3/3,Error ellipse: s-maj=14.3km s-min=8.7km az=56.0*

*DJA **26** 00:00:11.1±0.5,4.1°S±4.1°×127.7°E±*°,h15km±4km,M4.5/10, mb5.0/6,mB5.5/3,MLv4.2/10,Mw(mB)5.0/3*

**ISC 26 00:00:10.3±0.6,3.8°0S±0.0°×127.4°0E±0.0°,h34km,n34, σ1s88/41,mb4.2/8,Seram**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **NLAI** | **Namlea** | **0.63** | **332** | P | **Pn** | **00 00 18.8** | **-4.0** |
| NLAI | | | | Pg | **Pn** | **00 00 19.2** | **-3.6** |
| **AAI** | **Ambon** | **0.80** | **82** | P | **Pn** | **00 00 25.5** | **+0.4** |
| AAI | | | | Pg | **Pn** | **00 00 24.5** | **-0.6** |
| **MSAI** | **Masohi** | **1.59** | **74** | P | **Pb** | **00 00 39.2** | **+0.1** |
| **SANI** | **Sanana** | **2.24** | **321** | P | **Pn** | **00 00 44.1** | **-0.9** |
| SANI | | | | S | **Sn** | **00 01 09.7** | **-1.8** |
| **LBMI** | **Labuha** | **3.14** | **2** | P | **Pn** | **00 00 59.1** | **+1.7** |
| LBMI | | | | S | **Sn** | **00 01 34.8** | **+1.0** |
| **SWI** | **Sorong** | **4.83** | **53** | P | **Pn** | **00 01 21.6** | **+0.9** |
| SWI | | | | S | **Sn** | **00 02 14.5** | **-1.0** |
| **FAKI** | **Fak Fak** | **4.92** | **80** | P | **Pn** | **00 01 23.6** | **+1.8** |
| FAKI | | | | S | **Sn** | **00 02 15.5** | **-2.1** |
| **LUWI** | **Luwuk** | **5.38** | **301** | P | **Pn** | **00 01 29.1** | **+1.0** |
| | 126nm,0.7s,2µm0.4nm | | | | | | |
| **KMSI** | **Cibinong** | **5.53** | **322** | P | **Pn** | **00 01 31.4** | **+1.2** |
| | 185nm,0.6s,16µm1.1nm | | | | | | |
| **APSI** | **Ampana** | **6.42** | **296** | P | **Pn** | **00 01 44.5** | **+2.0** |
| | 188nm,0.9s,0.5nm | | | | | | |
| APSI | | | | S | **Sn** | **00 03 01.3** | **+6.5** |
| | 188nm,0.9s,0.5nm | | | | | | |
| **MRSI** | **Marisa** | **6.92** | **308** | P | **Pn** | **00 01 51.2** | **+1.9** |
| | 33nm,0.6s,0.1nm | | | | | | |
| MRSI | | | | S | **Sn** | **00 03 07.7** | **+0.8** |
| | 33nm,0.6s,0.1nm | | | | | | |
| **MPSI** | **Mapaga** | **8.55** | **299** | P | **Pn** | **00 02 13.2** | **+1.4** |
| MPSI | | | | S | **Sn** | **00 03 48.8** | **+1.7** |
| **DAV** | **Davao City (W)** | **10.95** | **350** | LR | LR | 00 07 33.0 | |
| | comp=Z,65nm,19.8s,baz=230,slow=41 | | | | | | |
| **BLJI** | **Banyuglugur** | **14.28** | **253** | P | **P** | **00 03 38.2** | **+1.2** |
| **FITZ** | **Fitzroy Crossi** | **14.32** | **187** | Pn | **Pn** | **00 03 28.6** | **-2.1** |
| | 0.1nm,0.3s,baz=16,slow=18,SNR=3.3 | | | | | | |
| FITZ | | | | LR | LR | 00 09 40.7 | |
| | comp=Z,62nm,18.3s,baz=32,slow=40 | | | | | | |
| **WRA** | **Warramunga Arr** | **17.41** | **158** | P | **Pn** | **00 04 10.7** | **-0.1** |
| | 0.2nm,0.3s,baz=342,slow=11,SNR=14 | | | | | | |
| **COEN** | **Coen** | **18.55** | **124** | *eP* | **Pn** | **00 04 26.1** | **+1.4** |
| | 11nm,0.9s | | | | | | |
| **CISI** | **Cisompet, Garu** | **19.84** | **258** | *eP* | **P** | **00 04 35.8** | **-2.7** |
| | 9.1nm,0.5s | | | | | | |
| **PMG** | **Port Moresby** | **20.39** | **107** | P | **P** | **00 04 45.8** | **+1.4** |
| | 4.0nm,0.4s,baz=270,slow=11,SNR=3.5 | | | | | | |
| **ASAR** | **Alice Springs** | **20.73** | **163** | P | Pn | 00 04 50.8 | +0.2 |
| | 45nm,1.0s,baz=341,slow=9.4,SNR=177 | | | | | | |
| ASAR | | | | PcP | **PcP** | **00 08 56.6** | **-0.5** |
| | 0.8nm,0.6s,baz=349,slow=2.0,SNR=8.1 | | | | | | |
| **CTA** | **Charters Tower** | **24.49** | **133** | P | **P** | **00 05 29.0** | **+2.5** |
| | 2.2nm,0.8s,baz=294,slow=9.1,SNR=2.5 | | | | | | |
| **STKA** | **Stephens Creek** | **30.95** | **156** | LR | LR | 00 21 30.5 | |
| | comp=Z,44nm,18.1s,baz=24,slow=41 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **47.96** | **4** | P | **P** | **00 08 45.6** | **0.0** |
| | 2.0nm,0.6s,baz=171,slow=8.8,SNR=4.9 | | | | | | |
| **SONM** | **Songino Array** | **54.62** | **343** | P | **P** | **00 09 35.3** | **-0.4** |
| | 1.8nm,1.0s,baz=157,slow=9.2,SNR=8.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **64.15** | **327** | P | **P** | **00 10 40.4** | **-1.0** |
| | 2.1nm,0.8s,baz=130,slow=7.6,SNR=17 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **67.59** | **334** | P | **P** | **00 11 02.5** | **-0.9** |
| | 1.9nm,0.8s,baz=113,slow=3.4,SNR=8.3 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **68.45** | **329** | P | **P** | **00 11 08.6** | **-0.2** |
| | 1.6nm,0.7s,baz=131,slow=5.6,SNR=17 | | | | | | |
| **KURK** | **Kurchatov** | **68.46** | **329** | P | **P** | **00 11 08.6** | **-0.3** |
| **RAYN** | **Ar Rayn** | **84.09** | **294** | *eP* | **P** | **00 12 37.2** | **-1.2** |
| | 4.5nm,1.3s | | | | | | |
| **ILAR** | **Eielson Array** | **91.58** | **25** | P | **P** | **00 13 12.5** | **-0.9** |
| | 0.3nm,0.8s,baz=234,slow=5.0,SNR=5.9 | | | | | | |
| **TXAR** | **Lajitas Array** | **125.42** | **56** | PKP | **PKPdf** | **00 19 08.8** | **+0.2** |
| | 0.3nm,0.8s,baz=225,slow=2.4,SNR=2.9 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **125.61** | **283** | PKP | **PKPdf** | **00 19 07.8** | **-1.4** |
| | 0.5nm,0.8s,baz=103,slow=1.1,SNR=3.8 | | | | | | |
| **PLCA** | **Paso Flores** | **132.73** | **161** | PKP | **PKPdf** | **00 19 22.8** | **+0.6** |
| | 1.2nm,0.6s,baz=189,slow=5.3,SNR=3.8 | | | | | | |
| **CPUP** | **Villa Florida** | **149.70** | **172** | PKPbc | **PKPbc** | **00 19 57.2** | **-0.1** |
| | 1.8nm,0.7s,baz=297,slow=2.8,SNR=2.9 | | | | | | |

*IDC **26** 00:05:00.9±0.7,6.3°1S×130.0°7E,h0km,mb4.0/9, mb1 4.2/12,mb1mx4.0/39,mbtmp4.1/12,ML4.3/3,Error ellipse: s-maj=38.3km s-min=15.6km az=67.0*

*NEIC **26** 00:05:11.9±2.0,6.5°9S×129.8°3E,h95km±20km,mb4.1/2, Error ellipse: s-maj=22.3km s-min=12.0km az=220.0*

*ISCJB **26** 00:05:14.9±0.5,6.8°8S±0.0°×129.6°6E±0.1°,h146km, mb3.8/9,Error ellipse: s-maj=14.5km s-min=7.8km az=158.5*

**ISC 26 00:05:16.4±0.6,6.8°9S±0.0°×129.7°E±0.1°,h146km,n20, σ2s52/20,mb3.9/9,Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SOEI** | **Soe** | **6.07** | **242** | Pn | **Pn** | **00 06 43.1** | **-1.0** |
| | 55nm,0.4s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **11.82** | **199** | Pn | **Pn** | **00 07 58.6** | **-1.9** |
| | 1.8nm,0.3s,baz=32,slow=10,SNR=35 | | | | | | |
| FITZ | | | | Sn | Sn | 00 09 59.9 | -11 |
| | 3.6nm,0.3s,baz=30,slow=20,SNR=4.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **13.74** | **161** | Pn | **Pn** | **00 08 23.6** | **-1.6** |
| | 1.3nm,0.3s,baz=346,slow=13,SNR=26 | | | | | | |
| WRA | | | | Sn | Sn | 00 10 45.4 | -12 |
| | 2.7nm,0.3s,baz=332,slow=23,SNR=6.4 | | | | | | |
| **COEN** | **Coen** | **15.00** | **119** | *ePn* | **Pn** | **00 08 41.4** | **+0.2** |
| | 8.9nm,0.6s | | | | | | |
| **ASAR** | **Alice Springs** | **17.17** | **167** | P | **Pn** | **00 09 10.1** | **+2.5** |
| | 1.1nm,0.3s,baz=338,slow=9.7,SNR=29 | | | | | | |
| ASAR | | | | S | **S** | **00 12 12.7** | **-5.8** |
| | 1.4nm,0.3s,baz=343,slow=25,SNR=6.9 | | | | | | |
| **CTA** | **Charters Tower** | **20.75** | **131** | P | **P** | **00 09 45.7** | **-0.1** |
| | 0.7nm,0.3s,baz=293,slow=7.7,SNR=2.5 | | | | | | |
| **STKA** | **Stephens Creek** | **27.23** | **157** | P | **P** | **00 10 52.0** | **+5.1** |
| | 0.9nm,0.3s,baz=299,slow=6.1,SNR=4.7 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **39.42** | **310** | P | **P** | **00 12 32.5** | **+0.1** |
| | 1.0nm,0.4s,baz=138,slow=7.2,SNR=4.2 | | | | | | |
| **MJAR** | **Matsushiro Ar** | **43.94** | **10** | P | **P** | **00 13 04.9** | **-3.9** |
| | 1.3nm,0.7s,baz=184,slow=9.3,SNR=4.6 | | | | | | |
| **SONM** | **Songino Array** | **58.24** | **342** | P | **P** | **00 14 55.8** | **+0.2** |
| | 0.4nm,0.4s,baz=158,slow=7.7,SNR=6.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.96** | **327** | P | **P** | **00 16 00.8** | **+1.2** |
| | 2.8nm,0.4s,baz=114,slow=8.8,SNR=62 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **71.35** | **334** | P | **P** | **00 16 20.7** | **+0.5** |
| | 0.6nm,0.3s,baz=134,slow=6.3,SNR=4.5 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **72.25** | **329** | P | **P** | **00 16 25.4** | **-0.2** |
| | 0.9nm,0.5s,baz=125,slow=4.7,SNR=8.6 | | | | | | |
| **KURK** | **Kurchatov** | **72.26** | **329** | P | **P** | **00 16 25.4** | **-0.2** |
| **ABKAR** | **Akbulak array** | **82.23** | **322** | *eP* | **P** | **00 17 21.9** | **+0.6** |
| | 1.1nm,0.5s | | | | | | |
| **ILAR** | **Eielson Array** | **93.38** | **25** | P | **P** | **00 18 13.1** | **-1.5** |
| | 0.4nm,0.6s,baz=245,slow=4.6,SNR=9.6 | | | | | | |
| **TXAR** | **Lajitas Array** | **125.14** | **59** | PKP | **PKPdf** | **00 24 02.6** | **+2.2** |
| | 0.2nm,0.5s,baz=114,slow=3.0,SNR=4.8 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **128.48** | **281** | PKhKP | PKPpre | 00 24 08.0 | |
| | 0.5nm,1.0s,baz=106,slow=1.9,SNR=4.4 | | | | | | |
| **CPUP** | **Villa Florida** | **146.28** | **169** | PKPbc | **PKPab** | **00 24 42.9** | **+1.3** |
| | 1.5nm,0.6s,baz=196,slow=3.2,SNR=3.9 | | | | | | |
| **LPAZ** | **La Paz** | **151.00** | **143** | PKPbc | **PKPbc** | **00 24 56.4** | **+2.6** |
| | 1.1nm,0.4s,baz=243,slow=2.3,SNR=6.1 | | | | | | |

**WEL 26 00:36:46.9±0.1,43.53S×172.78E,h10km,ML3.7/19, 6C-3D,Error ellipse: s-maj=1.2km s-min=0.6km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.12** | **248** | ⇓PG | Pg | 00 36 50.2 | +0.3 |
| CRLZ | | | | SG | Sg | 00 36 52.3 | +0.3 |
| CRLZ | | | | AML | AML | 00 36 52.4 | |
| CRLZ | | | | AML | AML | 00 36 52.4 | |
| CRLZ | | | | AML | AML | 00 36 52.4 | |
| **MQZ** | **McQueen's Vall** | **0.20** | **208** | ⇑PG | Pg | 00 36 51.4 | +0.2 |
| MQZ | | | | SG | Sg | 00 36 54.3 | +0.3 |
| MQZ | | | | AML | AML | 00 36 54.5 | |
| **OXZ** | **Oxford** | **0.58** | **290** | P* | Pg | 00 36 58.4 | +0.3 |
| OXZ | | | | AML | AML | 00 37 08.5 | |
| OXZ | | | | AML | AML | 00 37 08.5 | |
| OXZ | | | | AML | AML | 00 37 08.6 | |
| OXZ | | | | AML | AML | 00 37 08.7 | |
| **LTZ** | **Lake Taylor** | **0.84** | **333** | P* | Pb | 00 37 03.7 | +0.2 |
| LTZ | | | | AML | AML | 00 37 16.4 | |
| **KHZ** | **Kahutara** | **1.24** | **27** | P* | Pn | 00 37 09.4 | -0.8 |
| KHZ | | | | AML | AML | 00 37 29.8 | |
| KHZ | | | | AML | AML | 00 37 31.6 | |
| KHZ | | | | AML | AML | 00 37 31.6 | |
| KHZ | | | | AML | AML | 00 37 36.1 | |
| **INZ** | **Inchbonnie** | **1.27** | **309** | ⇑P* | Pn | 00 37 09.8 | -0.8 |
| **RPZ** | **Rata Peaks** | **1.27** | **261** | ⇓P* | Pn | 00 37 09.9 | -0.8 |
| RPZ | | | | AML | AML | 00 37 30.2 | |
| RPZ | | | | AML | AML | 00 37 34.1 | |
| **WVZ** | **Waitaha Valley** | **1.56** | **286** | PN | Pn | 00 37 14.5 | -0.2 |
| WVZ | | | | AML | AML | 00 37 37.6 | |
| WVZ | | | | AML | AML | 00 37 45.1 | |
| **THZ** | **Tophouse** | **1.77** | **3** | ⇑PN | Pn | 00 37 16.9 | -0.7 |
| THZ | | | | AML | AML | 00 37 50.3 | |
| THZ | | | | AML | AML | 00 37 58.1 | |
| **DSZ** | **Denniston Nort** | **1.92** | **338** | PN | Pn | 00 37 19.4 | -0.3 |
| DSZ | | | | AML | AML | 00 37 44.3 | |
| DSZ | | | | AML | AML | 00 37 48.4 | |
| DSZ | | | | AML | AML | 00 37 55.7 | |
| DSZ | | | | AML | AML | 00 37 55.9 | |
| **BSWZ** | **Blackbirch Sta** | **1.98** | **24** | ⇑PN | Pn | 00 37 20.0 | -0.5 |
| **LBZ** | **Lake Benmore** | **2.06** | **245** | PN | Pn | 00 37 21.3 | -0.3 |
| LBZ | | | | AML | AML | 00 38 01.5 | |
| LBZ | | | | AML | AML | 00 38 06.4 | |
| **ODZ** | **Otahua Downs** | **2.16** | **225** | PN | Pn | 00 37 22.0 | -0.9 |
| ODZ | | | | AML | AML | 00 38 00.3 | |
| ODZ | | | | AML | AML | 00 38 00.3 | |
| ODZ | | | | AML | AML | 00 38 01.3 | |
| ODZ | | | | AML | AML | 00 38 01.3 | |
| **FOZ** | **Fox Glacier** | **2.16** | **269** | ⇑PN | Pn | 00 37 23.9 | +1.1 |
| FOZ | | | | AML | AML | 00 37 50.5 | |
| FOZ | | | | AML | AML | 00 37 50.8 | |
| **TUWZ** | **Tuamarina** | **2.27** | **23** | PN | Pn | 00 37 23.6 | -0.7 |
| **NNZ** | **Nelson** | **2.35** | **11** | PN | Pn | 00 37 25.4 | -0.2 |
| **TCW** | **Tory Channel** | **2.57** | **26** | PN | Pn | 00 37 27.4 | -1.1 |
| **BHW** | **Baring Head** | **2.62** | **37** | PN | Pn | 00 37 27.9 | -1.4 |
| **PLWZ** | **Palliser** | **2.68** | **44** | PN | Pn | 00 37 28.4 | -1.7 |
| **QRZ** | **Quartz Range** | **2.71** | **356** | PN | Pn | 00 37 30.0 | -0.4 |
| QRZ | | | | AML | AML | 00 37 44.8 | |
| QRZ | | | | AML | AML | 00 38 06.1 | |
| QRZ | | | | AML | AML | 00 38 08.4 | |
| QRZ | | | | AML | AML | 00 38 18.1 | |
| **HHSZ** | **Highcliff Hill** | **2.82** | **213** | PN | Pn | 00 37 31.4 | -0.6 |
| **DUWZ** | **D'Urville Isla** | **2.85** | **18** | PN | Pn | 00 37 32.3 | -0.2 |
| **JCZ** | **Jackson Bay** | **2.94** | **258** | PN | Pn | 00 37 33.7 | -0.1 |
| JCZ | | | | AML | AML | 00 38 29.9 | |
| **CAW** | **Cannon Point** | **2.96** | **36** | PN | Pn | 00 37 32.5 | -1.4 |
| CAW | | | | AML | AML | 00 38 11.4 | |
| CAW | | | | AML | AML | 00 38 12.3 | |
| **WKZ** | **Wanaka** | **3.00** | **243** | PN | Pn | 00 37 34.4 | -0.2 |
| WKZ | | | | AML | AML | 00 38 32.3 | |
| WKZ | | | | AML | AML | 00 38 36.4 | |
| **EAZ** | **Earnscleugh** | **3.02** | **234** | ⇑PN | Pn | 00 37 34.1 | -0.5 |
| EAZ | | | | AML | AML | 00 38 24.5 | |
| EAZ | | | | AML | AML | 00 38 30.0 | |
| EAZ | | | | AML | AML | 00 38 33.7 | |
| EAZ | | | | AML | AML | 00 38 34.2 | |
| **KIW** | **Kapiti Island** | **3.10** | **31** | PN | Pn | 00 37 34.9 | -0.9 |
| **OGWZ** | **Otaki Gorge** | **3.24** | **34** | PN | Pn | 00 37 36.3 | -1.5 |
| OGWZ | | | | AML | AML | 00 38 18.4 | |
| **TUZ** | **Tuapeka** | **3.30** | **222** | PN | Pn | 00 37 38.2 | -0.4 |
| TUZ | | | | AML | AML | 00 38 36.7 | |
| TUZ | | | | AML | AML | 00 38 37.8 | |
| **MRZ** | **Mangatainoka R** | **3.54** | **37** | PN | Pn | 00 37 40.6 | -1.3 |
| **MLZ** | **Mavora Lakes** | **3.81** | **240** | ⇓PN | Pn | 00 37 44.9 | -0.8 |
| **BFZ** | **Birch Farm** | **3.84** | **43** | PN | Pn | 00 37 44.9 | -2.0 |
| **SYZ** | **Scrubby Hill** | **3.96** | **219** | PN | Pn | 00 37 47.5 | -0.2 |
| **WHZ** | **Wether Hill Ro** | **4.18** | **234** | PN | Pn | 00 37 49.1 | -1.6 |
| **KHEZ** | **Kahui Hut** | **4.33** | **13** | PN | Pn | 00 37 54.4 | +1.5 |
| **DCZ** | **Deep Cove** | **4.47** | **242** | PN | Pn | 00 37 53.7 | -0.9 |
| **WNVZ** | **Wahianoa** | **4.70** | **28** | PN | Pn | 00 37 58.5 | +0.5 |
| **TRVZ** | **Turoa** | **4.71** | **27** | PN | Pn | 00 37 58.3 | +0.2 |
| **BHHZ** | **Black Hill Sta** | **4.73** | **33** | PN | Pn | 00 37 57.8 | -0.5 |
| **APZ** | **The Paps** | **4.73** | **224** | PN | Pn | 00 37 58.0 | -0.2 |
| **OTVZ** | **Oturere** | **4.87** | **27** | PN | Pn | 00 38 00.4 | 0.0 |
| **HIZ** | **Hauiti** | **5.25** | **18** | PN | Pn | 00 38 05.1 | -0.3 |
| **NGRZ** | **Ngongotaha** | **6.01** | **27** | PN | Pn | 00 38 15.1 | -0.7 |

**WEL 26 01:12:33.4±0.1,43.49S×172.78E,h10km,ML3.3/6,4C-2D, Error ellipse: s-maj=1.0km s-min=0.6km az=90.0,South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.14** | **234** | ⇑PG | Pg | 01 12 36.9 | +0.3 |
| CRLZ | | | | SG | Sg | 01 12 38.8 | +0.1 |
| CRLZ | | | | AML | AML | 01 12 39.3 | |
| **MQZ** | **McQueen's Vall** | **0.23** | **203** | ⇑PG | Pg | 01 12 38.4 | +0.2 |
| MQZ | | | | SG | Sg | 01 12 41.3 | -0.1 |
| MQZ | | | | AML | AML | 01 12 42.2 | |
| **OXZ** | **Oxford** | **0.56** | **287** | ⇓P* | Pg | 01 12 44.4 | 0.0 |
| OXZ | | | | S* | Sg | 01 12 52.1 | +0.4 |
| OXZ | | | | AML | AML | 01 12 54.0 | |
| OXZ | | | | AML | AML | 01 12 54.6 | |
| OXZ | | | | AML | AML | 01 12 55.1 | |
| **LTZ** | **Lake Taylor** | **0.80** | **332** | ⇓P* | Pg | 01 12 49.1 | +0.3 |
| LTZ | | | | AML | AML | 01 13 01.1 | |
| **KHZ** | **Kahutara** | **1.21** | **28** | ⇑P* | Pn | 01 12 55.3 | -1.1 |
| **INZ** | **Inchbonnie** | **1.24** | **308** | P* | Pn | 01 12 55.5 | -1.4 |
| **RPZ** | **Rata Peaks** | **1.27** | **259** | P* | Pn | 01 12 55.9 | -1.3 |
| RPZ | | | | AML | AML | 01 13 15.0 | |
| **WVZ** | **Waitaha Valley** | **1.55** | **285** | PN | Pn | 01 13 00.5 | -0.6 |
| **THZ** | **Tophouse** | **1.73** | **3** | ⇑PN | Pn | 01 13 02.5 | -1.1 |
| **DSZ** | **Denniston Nort** | **1.89** | **337** | PN | Pn | 01 13 05.2 | -0.6 |
| DSZ | | | | AML | AML | 01 13 29.8 | |
| DSZ | | | | AML | AML | 01 13 29.8 | |
| **BSWZ** | **Blackbirch Sta** | **1.95** | **25** | PN | Pn | 01 13 05.8 | -0.8 |
| **LBZ** | **Lake Benmore** | **2.08** | **244** | PN | Pn | 01 13 07.8 | -0.5 |
| **FOZ** | **Fox Glacier** | **2.16** | **268** | PN | Pn | 01 13 09.9 | +0.5 |
| **ODZ** | **Otahua Downs** | **2.18** | **224** | PN | Pn | 01 13 08.7 | -1.0 |
| **NNZ** | **Nelson** | **2.32** | **11** | PN | Pn | 

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **JOU** | **Okura** | **0.70** | **195** | P | **Pg** | **01 24 24.3** | **+0.2** |
| JOU | | | | S | **Sg** | **01 24 33.7** | **+0.4** |
| **JYA** | **Atsumi** | **1.03** | **244** | P | **Pb** | **01 24 29.9** | **-0.3** |
| JYA | | | | S | **Sb** | **01 24 43.7** | **0.0** |
| **MJAR** | **Matsushiro Arr** | **3.28** | **221** | P | **Pn** | **01 25 03.9** | **+2.1** |
| | 1.8nm,0.3s,baz=21,slow=14,SNR=8.0 | | | | | | |
| MJAR | | | | S | **Sn** | **01 25 34.8** | **-6.0** |
| | 3.7nm,0.3s,baz=42,slow=20,SNR=5.7 | | | | | | |
| **MAT** | **Matsushiro** | **3.28** | **221** | P | **Pn** | **01 25 04.1** | **+2.3** |
| **USRK** | **Ussuriysk Ar.** | **8.43** | **311** | P | **Pn** | **01 26 12.6** | **+0.2** |
| | 0.3nm,0.3s,baz=114,slow=13,SNR=3.7 | | | | | | |
| **KSRS** | **Korea Array** | **10.33** | **265** | P | **Pn** | **01 26 42.6** | **+4.2** |
| | 0.4nm,0.3s,baz=73,slow=14,SNR=3.7 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **29.56** | **123** | T | T | 02 00 49.1 | |
| | baz=317,slow=75 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **29.57** | **123** | T | T | 02 00 49.8 | |
| | baz=317,slow=75 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **29.58** | **123** | T | T | 02 00 50.5 | |
| | baz=317,slow=75 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **30.32** | **125** | T | T | 02 01 46.0 | |
| | baz=318,slow=76 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **30.32** | **125** | T | T | 02 01 46.9 | |
| | baz=318,slow=76 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **30.34** | **125** | T | T | 02 01 44.8 | |
| | baz=318,slow=76 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **40.28** | **311** | P | **P** | **01 31 47.0** | **-0.2** |
| | 0.5nm,0.5s,baz=91,slow=7.2,SNR=2.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **42.73** | **300** | P | **P** | **01 32 06.5** | **-1.0** |
| | 0.3nm,0.8s,baz=96,slow=8.8,SNR=3.1 | | | | | | |
| **ILAR** | **Eielson Array** | **48.03** | **33** | P | **P** | **01 32 51.1** | **+1.9** |
| | 0.4nm,0.8s,baz=272,slow=6.9,SNR=5.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **59.00** | **187** | P | **P** | **01 34 10.3** | **+0.2** |
| | 0.5nm,0.4s,baz=3.0,slow=7.2,SNR=7.4 | | | | | | |
| **LPAZ** | **La Paz** | **145.98** | **56** | PKPbc | **PKPab** | **01 43 53.3** | **+1.5** |
| | 0.8nm,0.7s,baz=0.6,slow=3.6,SNR=3.7 | | | | | | |

*NIED* ***26*** *01:32:00,37.50N×142.60E,h14km,Mw3.7 Best double couple: M₀3.55000×10¹⁴ NP1:φ=2.00000°,δ46.00000°, λ-108.00000°. NP2:φ=207.00000°,δ47.00000°, λ-72.00000°.*

*IDC* ***26*** *01:32:01.1±1.1,37.30N×142.91E,h0km,mb3.5/6, mb1 3.7/8,mb1mx3.5/45,mbtmp3.6/8,ML3.7/2,Error ellipse: s-maj=26.1km s-min=20.8km az=86.0*

*JMA* ***26*** *01:32:03.1±0.2,37.46N×142.55E,h12km±3km,M3.9*

**ISC 26 01:32:02.5**±3.9,**37.42N**±0.05×**142.54E**±0.08,**h6**km±24km, **n23,**σ1°**42**/25,**mb3.5**/6,**Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **JFK** | **Kawauchi** | **1.32** | **268** | P | | **Pn** | **01 32 27.4** | **-0.2** |
| JFK | | | | *e*S | | **Sb** | **01 32 44.8** | **-0.3** |
| **ONAJ** | **Iwakimizuishiy** | **1.42** | **258** | P | | **Pn** | **01 32 29.3** | **+0.3** |
| **JMM** | **Marumori** | **1.45** | **288** | P | | **Pn** | **01 32 28.8** | **-0.5** |
| JMM | | | | *e*S | | **Sn** | **01 32 47.7** | **-1.0** |
| **JFT** | **Otama** | **1.75** | **274** | P | | **Pb** | **01 32 34.4** | **-0.7** |
| JFT | | | | *e*S | | **Sb** | **01 32 57.4** | **0.0** |
| **JOU** | **Okura** | **1.75** | **303** | P | | **Pn** | **01 32 33.9** | **+0.4** |
| JOU | | | | *e*S | | **Sb** | **01 32 56.9** | **-0.5** |
| **JMK** | **Ichinoseki** | **1.84** | **326** | P | | **Pn** | **01 32 34.9** | **+0.2** |
| JMK | | | | *e*S | | **Sn** | **01 32 57.4** | **-1.0** |
| **JYS** | **Shirataka** | **2.11** | **293** | P | | **Pb** | **01 32 40.1** | **-1.1** |
| **JOM** | **Ohasama** | **2.27** | **335** | P | | **Pn** | **01 32 40.7** | **+0.1** |
| JOM | | | | *e*S | | **Sn** | **01 33 07.9** | **-1.0** |
| **JYK** | **Kaneyama** | **2.27** | **312** | P | | **Pn** | **01 32 41.3** | **+0.7** |
| **MJAR** | **Matsushiro Arr** | **3.57** | **257** | Pn | | **Pn** | **01 33 02.3** | **+3.8** |
| | 1.8nm,0.3s,baz=86,slow=16,SNR=6.4 | | | | | | | |
| MJAR | | | | Sn | | **Sb** | **01 33 48.8** | **-1.0** |
| | 1.7nm,0.3s,baz=83,slow=16,SNR=3.6 | | | | | | | |
| **JHJ** | **Hachijo jima 2** | **4.85** | **208** | Pn | | **Pn** | **01 33 16.7** | **+0.7** |
| | 27nm,0.3s,baz=86,slow=19,SNR=4.9 | | | | | | | |
| JHJ | | | | Sn | | **Sn** | **01 34 10.2** | **-2.3** |
| | 18nm,0.3s,baz=90,slow=20,SNR=3.3 | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **27.59** | **123** | T | | T | 02 06 32.5 | |
| | baz=315,slow=75,SNR=51 | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **27.60** | **123** | T | | T | 02 06 48.0 | |
| | baz=315,slow=75,SNR=28 | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **27.61** | **123** | T | | T | 02 06 47.4 | |
| | baz=315,slow=75,SNR=37 | | | | | | | |
| **SONM** | **Songino Array** | **28.32** | **303** | P | | **P** | **01 37 58.5** | **+1.4** |
| | 0.4nm,0.5s,baz=108,slow=7.6,SNR=5.4 | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.33** | **125** | T | | T | 02 07 37.4 | |
| | baz=317,slow=76,SNR=34 | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.34** | **125** | T | | T | 02 07 39.3 | |
| | baz=317,slow=76,SNR=34 | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.35** | **125** | T | | T | 02 07 38.1 | |
| | baz=317,slow=76,SNR=31 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.32** | **312** | P | | **P** | **01 39 60.0** | **+3.1** |
| | 0.3nm,0.4s,baz=64,slow=6.6,SNR=2.3 | | | | | | | |
| **MKAR** | **Makanchi Array** | **44.67** | **302** | P | | **P** | **01 40 17.0** | **+0.9** |
| | 0.2nm,0.6s,baz=82,slow=11,SNR=2.5 | | | | | | | |
| **ILAR** | **Eielson Array** | **48.69** | **33** | P | | **P** | **01 40 46.6** | **-0.7** |
| | 0.2nm,0.9s,baz=266,slow=6.2,SNR=3.1 | | | | | | | |
| **WRA** | **Warramunga Arr** | **57.58** | **189** | P | | **P** | **01 41 51.8** | **-1.4** |
| | 1.4nm,0.7s,baz=7.8,slow=7.3,SNR=11 | | | | | | | |
| **ASAR** | **Alice Springs** | **61.30** | **189** | P | | **P** | **01 42 18.0** | **-0.9** |
| | 0.6nm,0.8s,baz=14,slow=8.6,SNR=5.4 | | | | | | | |

*ISK* ***26*** *01:35:03.1,38.61N×43.64E,h5km,MD2.7*

*ISCJB* ***26*** *01:35:05.5±1.0,38.56N±0.05×43.36E±0.1,h8km±8km, Error ellipse: s-maj=13.7km s-min=7.9km az=7.3*

*DDA* ***26*** *01:35:06.0,38.49N×43.54E,h7km,Ml2.1*

*CSEM* ***26*** *01:35:06.0±0.3,38.56N×43.52E,h2km,ML2.1,Error ellipse: s-maj=8.1km s-min=6.0km az=103.0*

**ISC 26 01:35:04.9**±1.3,**38.56N**±0.04×**43.57E**±0.07,**h9**km±9km, **n22,**σ1°**47**/27,**Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **TVAN** | **Van** | **0.13** | **257** | *i* P | | **Pg** | **01 35 07.5** | **-0.6** |
| TVAN | | | | *i* S | | **Sg** | **01 35 11.6** | **+1.2** |
| **TVAN** | **Van** | **0.13** | **257** | P | | **Pg** | **01 35 07.5** | **-0.6** |
| TVAN | | | | S | | **Sg** | **01 35 11.6** | **+1.2** |
| **VANB** | **Van** | **0.15** | **284** | *e*PG | | **Pg** | **01 35 07.8** | **-0.5** |
| VANB | | | | *e*SG | | **Sg** | **01 35 11.7** | **+1.1** |
| **VANB** | **Van** | **0.15** | **284** | *e*Pg | | **Pg** | **01 35 07.8** | **-0.5** |
| VANB | | | | *e*Sg | | **Sg** | **01 35 11.7** | **+1.1** |
| **VMUR** | **Van-Muradiye** | **0.43** | **360** | *i* P | | **Pn** | **01 35 15.1** | **-2.3** |
| VMUR | | | | *i* S | | **Sb** | **01 35 24.7** | **+3.3** |
| **VMUR** | **Van-Muradiye** | **0.43** | **360** | P | | **Pn** | **01 35 15.1** | **-2.3** |
| **GEVA** | **Gevas** | **0.47** | **239** | *i* P | | **Pb** | **01 35 14.5** | **-1.0** |
| **GEVA** | **Gevas** | **0.47** | **239** | P | | **Pb** | **01 35 14.5** | **-1.0** |
| **CLDR** | **Caldiran** | **0.64** | **25** | *i* P | | **Pn** | **01 35 19.1** | **-1.3** |
| **CLDR** | **Caldiran** | **0.64** | **25** | P | | **Pn** | **01 35 19.1** | **-1.3** |
| **HAKT** | **HAKKARI** | **1.00** | **174** | *i* P | | **Pn** | **01 35 24.8** | **-0.6** |
| **HAKT** | **HAKKARI** | **1.00** | **174** | P | | **Pn** | **01 35 24.8** | **-0.6** |
| **TUTA** | **Tutak** | **1.03** | **325** | *i* P | | **Pn** | **01 35 24.2** | **-1.5** |
| **TUTA** | **Tutak** | **1.03** | **325** | P | | **Pn** | **01 35 24.2** | **-1.5** |
| **AGRB** | **Hanur-Agry** | **1.11** | **336** | *e*PN | | **Pn** | **01 35 25.1** | **-1.7** |
| **AGRB** | **Hanur-Agry** | **1.11** | **336** | *e*Pn | | **Pn** | **01 35 25.1** | **-1.7** |
| **CUKT** | **Cukurca** | **1.31** | **179** | *e*PN | | **Pg** | **01 35 30.4** | **+0.3** |
| **CUKT** | **Cukurca** | **1.31** | **179** | *e*Pn | | **Pg** | **01 35 30.4** | **+0.3** |
| **EKAR** | **Karacoban** | **1.37** | **301** | *i* P | | **Pg** | **01 35 32.7** | **+1.5** |
| **EKAR** | **Karacoban** | **1.37** | **301** | P | | **Pg** | **01 35 32.7** | **+1.5** |
| **SIRT** | **Sirnak** | **1.39** | **221** | *e*PN | | **Pg** | **01 35 31.8** | **+0.3** |
| **SIRT** | **Sirnak** | **1.39** | **221** | *e*Pn | | **Pg** | **01 35 31.8** | **+0.3** |

*NNC* ***26*** *01:49:11.9±2.5,38.20N×57.29E,h0km,mb4.2,mpv5.3, Error ellipse: s-maj=32.5km s-min=11.1km az=29.0*

*ISCJB* ***26*** *01:49:12.1±0.6,37.77N±0.03×57.53E±0.02,h2km±4km, mb4.3/38,MS3.7/6,Error ellipse: s-maj=5.0km s-min=2.9km az=9.5*

*TEH* ***26*** *01:49:12.5,37.57N×57.63E,h6km,ML4.2*

*IDC* ***26*** *01:49:12.5±0.9,37.63N×57.37E,h0km,mb4.0/15, mb1 4.1/24,mb1mx4.0/44,mbtmp4.0/24,ML3.6/7,MS3.5/7, Ms1 3.5/7,ms1mx3.2/42,Error ellipse: s-maj=17.1km s-min=6.8km az=171.0*

*THR* ***26*** *01:49:13.6±0.9,37.62N×57.56E,h14km±7km,ML3.9*

*CSEM* ***26*** *01:49:13.7±0.1,37.68N×57.61E,h5km,mb4.7/12,Error ellipse: s-maj=4.9km s-min=3.2km az=11.0*

*NEIC* ***26*** *01:49:13.6±0.0,37.63N×57.57E,h14km,mb4.5/24, ML4.1(THR),MN4.2(TEH),After THR.*

*MOS* ***26*** *01:49:16.8±1.5,37.89N×57.53E,h33km,mb4.6/12,Error ellipse: s-maj=7.2km s-min=4.6km az=40.1*

**ISC 26 01:49:14.1**±0.9,**37.70N**±0.03×**57.60E**±0.02,**h11**km±6km, **n299,**σ2°**04**/321,**mb4.5**/38,**MS3.7**/6,**28C-21D, Iran-Turkmenistan border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **BJRD** | **Bojnurd** | **0.15** | **269** | *e*Pg | | **Pg** | **01 49 17.6** | **-0.1** |
| **BJRD** | **Bojnurd** | **0.15** | **269** | *e*Pg | | **Pg** | **01 49 17.6** | **-0.1** |
| BJRD | | | | AML | | AML | 01 49 21.0 | |
| | comp=N,27μm,0.1s | | | | | | | |
| **BJRD** | **Bojnurd** | **0.15** | **269** | Pg | | **Pg** | **01 49 17.0** | **-0.8** |
| **BJRD** | **Bojnurd** | **0.15** | **269** | Pg | | **Pg** | **01 49 17.0** | **-0.8** |
| **GEYT** | **Alibeck** | **0.47** | **61** | Pg | | **Pg** | **01 49 24.3** | **+1.0** |
| | comp=N,204nm,0.3s,baz=226,slow=18,SNR=1725 | | | | | | | |
| GEYT | | | | Lg | | Lg | 01 49 34.7 | |
| | comp=N,4μm,0.3s,baz=238,slow=46,SNR=204 | | | | | | | |
| **ASHT** | **Ashkhabad** | **0.66** | **69** | ⇓P | | **Pn** | **01 49 29.0** | **-0.4** |
| | comp=N,3μm,0.7s | | | | | | | |
| ASHT | | | | ⇑S | | **Sn** | **01 49 42.2** | **+2.4** |
| | comp=N,26μm,1.0s | | | | | | | |
| **ASHT** | **Ashkhabad** | **0.66** | **69** | P | | **Pn** | **01 49 29.0** | **-0.4** |
| **ASHT** | **Ashkhabad** | **0.66** | **69** | P | | **Pn** | **01 49 29.0** | **-0.4** |
| | comp=N,3μm,0.7s | | | | | | | |
| **ISFR** | **Sfrayin** | **0.72** | **154** | *e*Pg | | **Pg** | **01 49 25.7** | **-2.4** |
| ISFR | | | | *e*Sg | | **Sg** | **01 49 35.1** | **-2.5** |
| ISFR | | | | *e*AMB | | AMB | 01 49 42.7 | |
| | comp=Z,53μm,0.1s | | | | | | | |
| **ISFR** | **Sfrayin** | **0.72** | **154** | *e*Pg | | **Pg** | **01 49 25.7** | **-2.4** |
| ISFR | | | | *e*Sg | | **Sg** | **01 49 35.1** | **-2.5** |
| **ISFR** | **Sfrayin** | **0.72** | **154** | Pg | | **Pg** | **01 49 25.7** | **-2.4** |
| ISFR | | | | Sg | | **Sg** | **01 49 35.1** | **-2.5** |
| **IEMG** | **Emamgholi** | **0.88** | **109** | *e*Pg | | **Pg** | **01 49 30.0** | **-1.2** |
| IEMG | | | | *e*AMB | | AMB | 01 49 53.4 | |
| | comp=Z,94μm,0.2s | | | | | | | |
| **IEMG** | **Emamgholi** | **0.88** | **109** | Pg | | **Pg** | **01 49 29.9** | **-1.2** |
| **IEMG** | **Emamgholi** | **0.88** | **109** | Pg | | **Pg** | **01 49 29.9** | **-1.2** |
| **IQHU** | **Qucahn** | **0.98** | **130** | *e*Pg | | **Pg** | **01 49 31.2** | **-1.7** |
| IQHU | | | | *e*AMB | | AMB | 01 49 58.8 | |
| | comp=Z,17μm,0.2s | | | | | | | |
| **IQHU** | **Qucahn** | **0.98** | **130** | Pg | | **Pg** | **01 49 31.1** | **-1.8** |
| **IQHU** | **Qucahn** | **0.98** | **130** | Pg | | **Pg** | **01 49 31.1** | **-1.8** |
| **IKRD** | **Kardeh** | **1.18** | **142** | *e*Pn | | Pg | 01 49 45.2 | +8.4 |
| IKRD | | | | *e*AMB | | AMB | 01 50 16.4 | |
| | comp=Z,34μm,0.2s | | | | | | | |
| **IKRD** | **Kardeh** | **1.18** | **142** | Pn | | Pg | 01 49 45.1 | +8.3 |
| **MRVT** | **Maraveh tapeh** | **1.20** | **268** | *e*Pg | | **Pn** | **01 49 35.2** | **-1.7** |
| MRVT | | | | *e*Sg | | **Sb** | **01 49 51.4** | **-1.0** |
| MRVT | | | | AML | | AML | 01 49 58.3 | |
| | comp=N,3μm,0.5s | | | | | | | |
| **MRVT** | **Maraveh tapeh** | **1.20** | **268** | *e*Pg | | **Pn** | **01 49 35.2** | **-1.7** |
| MRVT | | | | *e*Sg | | **Sb** | **01 49 51.4** | **-1.0** |
| **MRVT** | **Maraveh tapeh** | **1.20** | **268** | Pg | | **Pn** | **01 49 35.0** | **-1.9** |
| MRVT | | | | Sg | | **Sb** | **01 49 51.0** | **-1.4** |
| **IAKL** | **Akhelmad** | **1.44** | **140** | *e*Pg | | **Pn** | **01 49 38.4** | **-1.9** |
| IAKL | | | | *e*AMB | | AMB | 01 50 09.0 | |
| | comp=Z,41μm,0.2s | | | | | | | |
| **IAKL** | **Akhelmad** | **1.44** | **140** | *e*Pg | | **Pn** | **01 49 38.4** | **-1.9** |
| **IAKL** | **Akhelmad** | **1.44** | **140** | Pg | | **Pn** | **01 49 38.4** | **-1.9** |
| **IPAY** | **Payeh** | **1.68** | **138** | *e*Pn | | **Pn** | **01 49 42.5** | **-1.1** |
| IPAY | | | | *e*AMB | | AMB | 01 50 13.5 | |
| | comp=Z,51μm,0.3s | | | | | | | |
| **IPAY** | **Payeh** | **1.68** | **138** | *e*Pn | | **Pn** | **01 49 42.5** | **-1.1** |
| **IPAY** | **Payeh** | **1.68** | **138** | Pn | | **Pn** | **01 49 42.4** | **-1.1** |
| **IMND** | **Minoodasht** | **1.80** | **256** | *e*Pn | | **Pb** | **01 49 47.2** | **+0.1** |
| IMND | | | | *e*AMB | | AMB | 01 50 15.4 | |
| | comp=Z,18μm,0.2s | | | | | | | |
| **IMND** | **Minoodasht** | **1.80** | **256** | *e*Pn | | **Pb** | **01 49 47.2** | **+0.1** |
| **ISRO** | **Mashad** | **2.04** | **132** | *e*Pn | | **Pn** | **01 49 49.2** | **+0.7** |
| **ISRO** | **Mashad** | **2.04** | **132** | *e*Pn | | **Pn** | **01 49 49.2** | **+0.7** |
| **IMOG** | **Moghan** | **2.12** | **138** | *e*Pn | | **Pn** | **01 49 50.6** | **+0.9** |
| IMOG | | | | *e*AMB | | AMB | 01 50 23.8 | |
| | comp=Z,36μm,0.2s | | | | | | | |
| **IMOG** | **Moghan** | **2.12** | **138** | Pn | | **Pn** | **01 49 50.5** | **+0.9** |
| **IMOG** | **Moghan** | **2.12** | **138** | Pn | | **Pn** | **01 49 50.5** | **+0.9** |
| **SHRO** | **Shahrood** | **2.13** | **217** | *e*Pg | | **Pn** | **01 49 49.9** | **+0.1** |
| SHRO | | | | *e*Sg | | **Sb** | **01 50 17.7** | **-1.6** |
| **SHRO** | **Shahrood** | **2.13** | **217** | *e*Pn | | **Pn** | **01 49 49.9** | **+0.1** |
| **IMYA** | **Miami** | **2.42** | **123** | *e*Pn | | **Pn** | **01 49 54.8** | **+1.1** |
| IMYA | | | | *e*AMB | | AMB | 01 50 43.6 | |
| | comp=Z,18μm,0.4s | | | | | | | |
| **IMYA** | **Miami** | **2.42** | **123** | *e*Pn | | **Pn** | **01 49 54.8** | **+1.1** |
| **IMYA** | **Miami** | **2.42** | **123** | Pn | | **Pn** | **01 49 54.8** | **+1.1** |
| **IGLO** | **Ghaloghah** | **3.25** | **249** | *e*Pn | | **Pn** | **01 50 06.9** | **+1.8** |
| IGLO | | | | *e*AMB | | AMB | 01 51 10.7 | |
| | comp=Z,7μm,0.3s | | | | | | | |
| **IGLO** | **Ghaloghah** | **3.25** | **249** | Pn | | **Pn** | **01 50 06.8** | **+1.7** |
| **IANJ** | **Anjilo** | **3.71** | **234** | *e*Pn | | **Pn** | **01 50 12.0** | **+0.4** |
| IANJ | | | | *e*AMB | | AMB | 01 51 28.2 | |
| | comp=Z,2μm,0.4s | | | | | | | |
| **IANJ** | **Anjilo** | **3.71** | **234** | Pn | | **Pn** | **01 50 11.9** | **+0.4** |
| **IANJ** | **Anjilo** | **3.71** | **234** | Pn | | **Pn** | **01 50 11.9** | **+0.4** |
| **TABS** | **Tabas** | **4.07** | **186** | *e*Pn | | **Pn** | **01 50 16.7** | **+0.4** |
| TABS | | | | *e*Sg | | **Sb** | **01 51 17.3** | **+2.4** |
| **TABS** | **Tabas** | **4.07** | **186** | *e*Pn | | **Pn** | **01 50 16.7** | **+0.4** |
| **TABS** | **Tabas** | **4.07** | **186** | Pn | | **Pn** | **01 50 16.0** | **-0.3** |
| TABS | | | | Sg | | **Sb** | **01 51 17.0** | **+2.1** |
| **IALA** | **Alasht** | **4.17** | **249** | *e*Pn | | **Pn** | **01 50 19.4** | **+1.5** |
| IALA | | | | *e*AMB | | AMB | 01 51 14.9 | |
| | comp=Z,3μm,0.2s | | | | | | | |
| **IALA** | **Alasht** | **4.17** | **249** | *e*Pn | | **Pn** | **01 50 19.4** | **+1.5** |
| **IALA** | **Alasht** | **4.17** | **249** | Pn | | **Pn** | **01 50 19.4** | **+1.5** |
| **IFIR** | **Firoozkooh** | **4.41** | **244** | *e*Pn | | **Pn** | **01 50 22.6** | **+1.5** |
| IFIR | | | | *e*AMB | | AMB | 01 50 27.1 | |
| | comp=Z,1μm,0.1s | | | | | | | |
| **IFIR** | **Firoozkooh** | **4.41** | **244** | *e*Pn | | **Pn** | **01 50 22.6** | **+1.5** |
| **IFIR** | **Firoozkooh** | **4.41** | **244** | Pn | | **Pn** | **01 50 22.6** | **+1.5** |
| **SHRT** | **Shahrakht** | **4.60** | **151** | *e*Pn | | **Pn** | **01 50 24.0** | **+0.4** |
| **SHRT** | **Shahrakht** | **4.60** | **151** | *e*Pn | | **Pn** | **01 50 24.0** | **+0.4** |
| **SHRT** | **Shahrakht** | **4.60** | **151** | Pn | | **Pn** | **01 50 24.0** | **+0.4** |
| **IDMV** | **Damavand** | **4.96** | **246** | *e*Pn | | **Pn** | **01 50 31.3** | **+2.6** |
| IDMV | | | | *e*AMB | | AMB | 01 52 21.9 | |
| | comp=Z,2μm,0.7s | | | | | | | |
| **IDMV** | **Damavand** | **4.96** | **246** | *e*Pn | | **Pn** | **01 50 31.3** | **+2.6** |
| **IDMV** | **Damavand** | **4.96** | **246** | Pn | | **Pn** | **01 50 31.3** | **+2.6** |
| **IGZV** | **Ghazvin** | **6.05** | **260** | *e*Pn | | **Pn** | **01 50 43.4** | **-0.3** |
| IGZV | | | | *e*AMB | | AMB | 01 50 45.7 | |
| | comp=Z,874nm,0.1s | | | | | | | |
| **IGZV** | **Ghazvin** | **6.05** | **260** | *e*Pn | | **Pn** | **01 50 43.4** | **-0.3** |
| **IGZV** | **Ghazvin** | **6.05** | **260** | Pn | | **Pn** | **01 50 43.4** | **-0.3** |
| **AKT** | **Akhty** | **8.50** | **299** | P | | **Pn** | **01 51 17.4** | **+0.2** |
| AKT | | | | S | | **Sn** | **01 52 50.9** | **-2.3** |
| **AKT** | **Akhty** | **8.50** | **299** | P | | **Pn** | **01 51 17.4** | **+0.2** |
| **MNGR** | **Mingechevir, A** | **8.72** | **294** | P | | **Pn** | **01 51 20.2** | **+0.2** |
| **MNGR** | **Mingechevir, A** | **8.72** | **294** | P | | **Pn** | **01 51 20.2** | **+0.2** |
| **SEKA** | **Sheki** | **8.78** | **297** | P | | **Pn** | **01 51 20.1** | **-0.8** |
| **SEKA** | **Sheki** | **8.78** | **297** | P | | **Pn** | **01 51 20.1** | **-0.8** |
| **GANJ** | **Ganja** | **9.24** | **292** | P | | **Pn** | **01 51 27.2** | **0.0** |
| **GANJ** | **Ganja** | **9.24** | **292** | P | | **Pn** | **01 51 27.2** | **0.0** |
| **ZKTA** | **Zakatala** | **9.33** | **298** | P | | **Pn** | **01 51 28.5** | **0.0** |
| **ZKTA** | **Zakatala** | **9.33** | **298** | P | | **Pn** | **01 51 28.5** | **0.0** |
| **GNBR** | **Gunib** | **9.40** | **303** | P | | **Pn** | **01 51 30.9** | **+1.4** |
| GNBR | | | | S | | **Sn** | **01 53 14.4** | **-0.8** |
| **GNBR** | **Gunib** | **9.40** | **303** | P | | **Pn** | **01 51 30.9** | **+1.4** |
| **NAX** | **Nakhchivan** | **9.61** | **283** | P | | **Pn** | **01 51 32.4** | **0.0** |
| **NAX** | **Nakhchivan** | **9.61** | **283** | P | | **Pn** | **01 51 32.4** | **0.0** |
| **KBL** | **Kabul** | **9.78** | **105** | P | | **Pn** | **01 51 37.2** | **+2.4** |
| **KBL** | **Kabul** | **9.78** | **105** | P | | **Pn** | **01 51 37.2** | **+2.4** |
| **KBL** | **Kabul** | **9.78** | **105** | *e*Pn | | **Pn** | **01 51 37.2** | **+2.4** |
| **BTLR** | **Botlikh** | **10.02** | **303** | P | | **Pn** | **01 51 38.9** | **+1.0** |
| BTLR | | | | S | | **Sn** | **01 53 28.1** | **-2.1** |
| **BTLR** | **Botlikh** | **10.02** | **303** | P | | **Pn** | **01 51 38.9** | **+1.0** |
| **GNI** | **Garni** | **10.31** | **288** | Pn | | **Pn** | **01 51 41.1** | **-1.0** |
| | comp=Z,0.2nm,0.3s,baz=97,slow=8.1,SNR=2.1 | | | | | | | |
| **GNI** | **Garni** | **10.31** | **288** | *e*P | | **Pn** | **01 51 45.1** | **+3.0** |
| **GNI** | **Garni** | **10.31** | **288** | *e*Pn | | **Pn** | **01 51 41.7** | **-0.4** |
| **GNI** | **Garni** | **10.31** | **288** | *e*Pn | | **Pn** | **01 51 41.6** | **-0.4** |
| **GROC** | **Groznyy** | **10.54** | **305** | *e*P | | **Pn** | **01 51 45.2** | **+0.3** |
| GROC | | | | *e*S | | **Sn** | **01 53 42.4** | **-0.5** |
| GROC | | | | *e*S | | **Sn** | **01 53 43.2** | **+0.3** |
| GROC | | | | pmax | | pmax | | |
| | comp=Z,41nm,1.3s | | | | | | | |
| GROC | | | | smax | | smax | | |
| | comp=N,48nm,1.4s | | | | | | | |
| **GROC** | **Groznyy** | **10.54** | **305** | *e*P | | **Pn** | **01 51 45.2** | **+0.3** |
| | comp=N,41nm,1.3s | | | | | | | |
| GROC | | | | *e*S | | **Sn** | **01 53 43.2** | **+0.3** |
| **KMGR** | **Komgaron** | **11.09** | **303** | P | | **Pn** | **01 51 52.9** | **+0.4** |
| KMGR | | | | S | | **Sn** | **01 53 54.8** | **-1.6** |
| **KMGR** | **Komgaron** | **11.09** | **303** | P | | **Pn** | **01 51 52.9** | **+0.4** |
| KMGR | | | | S | | **Sn** | **01 53 54.8** | **-1.6** |
| **KK31** | **Karatay Array** | **11.22** | **57** | ⇓Pn | | **Pn** | **01 51 53.4** | **-0.9** |
| | comp=N,1.9nm,0.5s,baz=251,slow=17 | | | | | | | |
| KK31 | | | | ⇑Sn | | **Sn** | **01 53 57.9** | **-1.8** |
| | comp=N,5.4nm,0.8s,baz=249,slow=20 | | | | | | | |
| **KK31** | **Karatay Array** | **11.22** | **57** | Pn | | **Pn** | **01 51 53.4** | **-0.9** |
| | comp=N,1.9nm,0.5s | | | | | | | |
| KK31 | | | | Sn | | **Sn** | **01 53 57.9** | **-1.8** |
| | comp=N,5.4nm,0.8s | | | | | | | |
| **KKAR** | **Karatay Array** | **11.22** | **57** | *e*P | | **Pn** | **01 51 54.1** | **-0.2** |
| KKAR | | | | *e*S | | **Sn** | **01 53 56.3** | **-3.4** |
| **KKAR** | **Karatay Array** | **11.22** | **57** | *e*P | | **Pn** | **01 51 54.1** | **-0.2** |
| **KKAR** | **Karatay Array** | **11.22** | **57** | *e*Pn | | **Pn** | **01 51 54.0** | **-0.2** |
| KKAR | | | | *e*S | | **Sn** | **01 53 56.3** | **-3.4** |
| **LACR** | **Lac** | **11.38** | **301** | P | | **Pn** | **01 51 56.1** | **-0.5** |
| LACR | | | | S | | **Sn** | **01 54 01.6** | **-2.1** |
| **LACR** | **Lac** | **11.38** | **301** | P | | **Pn** | **01 51 56.1** | **-0.5** |
| **ZEI** | **Tsey** | **11.63** | **300** | *e*P | | **Pn** | **01 52 02.1** | **+1.9** |
| ZEI | | | | pmax | | pmax | | |
| | comp=Z,11nm,0.6s | | | | | | | |
| **ZEI** | **Tsey** | **11.63** | **300** | *e*P | | **Pn** | **01 52 02.1** | **+1.9** |
| | comp=Z,11nm,0.6s | | | | | | | |
| **AB31** | **Akbulak array** | **11.67** | **8** | ⇑Pn | | **Pn** | **01 52 00.1** | **-0.3** |
| | comp=Z,2.5nm,0.6s,baz=196,slow=13,SNR=16 | | | | | | | |
| **AB31** | **Akbulak array** | **11.67** | **8** | Pn | | **Pn** | **01 52 00.1** | **-0.3** |
| | comp=Z,2.5nm,0.6s,SNR=16 | | | | | | | |
| **ABKAR** | **Akbulak array** | **11.67** | **8** | *e*Pn | | **Pn** | **01 52 00.4** | **0.0** |
| **ABKAR** | **Akbulak array** | **11.67** | **8** | *e*Pn | | **Pn** | **01 52 00.4** | **0.0** |
| ABKAR | | | | *e*S | | **Sn** | **01 54 05.7** | **-5.0** |
| **NCK** | **Nalchik** | **12.11** | **303** | *e*P | | **Pn** | **01 52 04.9** | **-1.6** |
| **NCK** | **Nalchik** | **12.11** | **303** | *e*P | | **Pn** | **01 52 04.9** | **-1.6** |
| **MNAS** | **Manas** | **12.37** | **63** | ⇑Pn | | **Pn** | **01 52 10.5** | **+0.3** |
| | comp=Z,1.4nm,0.6s | | | | | | | |
| MNAS | | | | ⇓Sn | | **Sn** | **01 54 28.0** | **0.0** |
| | comp=Z,13nm,0.7s | | | | | | | |
| **MNAS** | **Manas** | **12.37** | **63** | P | | **Pn** | **01 52 07.0** | **-3.2** |
| **MNAS** | **Manas** | **12.37** | **63** | Pn | | **Pn** | **01 52 10.5** | **+0.3** |
| | comp=Z,1.4nm,0.6s | | | | | | | |
| MNAS | | | | Sn | | **Sn** | **01 54 28.0** | **0.0** |
| | comp=Z,13nm,0.7s | | | | | | | |
| **NEY** | **Neytrino** | **12.61** | **301** | *e*P | | **Pn** | **01 52 14.4** | **+1.0** |
| **NEY** | **Neytrino** | **12.61** | **301** | *e*P | | **Pn** | **01 52 14.4** | **+1.0** |
| **SFK** | **Sufi-Kurgan** | **12.61** | **75** | ⇑Pn | | **Pn** | **01 52 13.8** | **+0.2** |
| | comp=Z,1.6nm,0.6s | | | | | | | |
| SFK | | | | ⇓Sn | | **Sn** | **01 54 34.2** | **+0.2** |
| | comp=Z,18nm,0.6s | | | | | | | |
| **SFK** | **Sufi-Kurgan** | **12.61** | **75** | P | | **Pn** | **01 52 11.0** | **-2.5** |
| **SFK** | **Sufi-Kurgan** | **12.61** | **75** | Pn | | **Pn** | **01 52 13.8** | **+0.2** |
| | comp=Z,1.6nm,0.6s | | | | | | | |
| SFK | | | | Sn | | **Sn** | **01 54 34.2** | **+0.2** |
| | comp=Z,18nm,0.6s | | | | | | | |
| **KBZ** | **Khabaz** | **12.67** | **303** | Pn | | **Pn** | **01 52 11.3** | **-2.8** |
| | comp=Z,0.7nm,0.3s,baz=120,slow=3.5,SNR=13 | | | | | | | |
| KBZ | | | | Sn |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **BR231** | **Keskin MP Arra** | **19.46** | **284** | *eP* | | **P** | | **01 53 41.0** | **+0.2** |
| **KURBB** | **Kurchatov Arra** | **19.72** | **42** | P | | **Pn** | | **01 53 45.3** | **+0.4** |
| | comp=Z,0.0nm,0.3s,baz=241,slow=11,SNR=21 | | | | | | | | |
| **LPSR** | **Galich'ya Gora** | **19.79** | **325** | *eP* | | **Pn** | | **01 53 46.7** | **+1.0** |
| LPSR | | | | pmax | pmax | | | | |
| | comp=Z,20nm,1.3s | | | | | | | | |
| **LPSR** | **Galich'ya Gora** | **19.79** | **325** | *eP* | | **Pn** | | **01 53 46.7** | **+1.0** |
| | comp=Z,20nm,1.3s | | | | | | | | |
| **KURK** | **Kurchatov** | **19.82** | **42** | P | | **P** | | **01 53 45.3** | **+0.8** |
| **KURK** | **Kurchatov** | **19.82** | **42** | *eP* | | **P** | | **01 53 44.7** | **+0.2** |
| | comp=Z,31nm,0.6s | | | | | | | | |
| **KURK** | **Kurchatov** | **19.82** | **42** | *eP* | | **P** | | **01 53 44.6** | **+0.2** |
| | comp=Z,31nm,0.6s | | | | | | | | |
| **MAKZ** | **Makanchi** | **20.14** | **55** | *eP* | | Pn | 01 53 49.7 | | -0.2 |
| MAKZ | | | | pmax | pmax | | | | |
| | comp=Z,9.0nm,0.8s | | | | | | | | |
| **MAKZ** | **Makanchi** | **20.14** | **55** | *eP* | | Pn | 01 53 49.7 | | -0.2 |
| | comp=Z,9.0nm,0.8s | | | | | | | | |
| **MAKZ** | **Makanchi** | **20.14** | **55** | *eP* | | Pn | 01 53 49.7 | | -0.2 |
| | comp=Z,9.0nm,0.8s | | | | | | | | |
| **MK01** | **Makanchi Array** | **20.34** | **56** | *eP* | | Pn | 01 53 52.2 | | -0.1 |
| **MK31** | **Makanchi Array** | **20.34** | **56** | *eP* | | Pn | 01 53 52.7 | | +0.4 |
| **MK31** | **Makanchi Array** | **20.34** | **56** | *eP* | | Pn | 01 53 52.7 | | +0.4 |
| **MK31** | **Makanchi Array** | **20.34** | **56** | *eP* | | Pn | 01 53 52.6 | | +0.4 |
| **MKAR** | **Makanchi Array** | **20.34** | **56** | P | | Pn | 01 53 52.6 | | +0.4 |
| | comp=Z,3.3nm,0.7s,baz=242,slow=12,SNR=20 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **20.34** | **56** | *eP* | | Pn | 01 53 52.7 | | +0.4 |
| MKAR | | | | pmax | pmax | | | | |
| | comp=Z,30nm,0.7s | | | | | | | | |
| **MKAR** | **Makanchi Array** | **20.34** | **56** | *eP* | | Pn | 01 53 52.7 | | +0.4 |
| | comp=Z,30nm,0.7s | | | | | | | | |
| **MKAR** | **Makanchi Array** | **20.34** | **56** | *eP* | | Pn | 01 53 52.6 | | +0.4 |
| | comp=Z,30nm,0.7s | | | | | | | | |
| **MOS** | **Moscow** | **22.51** | **330** | *eP* | | **P** | | **01 54 17.4** | **+4.0** |
| **OBN** | **Obninsk** | **22.51** | **327**⇑ | *eP* | | **P** | | **01 54 11.0** | **-2.5** |
| OBN | | | | *e* | | | | 01 54 33.6 | |
| OBN | | | | *eS* | | **S** | | **01 58 16.6** | **-3.5** |
| OBN | | | | pmax | pmax | | | | |
| | comp=Z,15nm,1.2s | | | | | | | | |
| **OBN** | **Obninsk** | **22.51** | **327** | *eP* | | **P** | | **01 54 15.6** | **+2.1** |
| | comp=Z,148nm,1.9s | | | | | | | | |
| **OBN** | **Obninsk** | **22.51** | **327** | *eP* | | **P** | | **01 54 15.6** | **+2.1** |
| | comp=Z,148nm,1.9s | | | | | | | | |
| **MANT** | **Manisa** | **22.83** | **281** | *eP* | | **P** | | **01 54 18.4** | **+1.0** |
| | comp=Z,27nm,0.9s | | | | | | | | |
| **MANT** | **Manisa** | **22.83** | **281** | *eP* | | **P** | | **01 54 18.4** | **+1.0** |
| | comp=Z,27nm,0.9s | | | | | | | | |
| **TIRR** | **Tirgusor** | **22.94** | **296** | *eP* | | **P** | | **01 54 18.9** | **+0.8** |
| TIRR | | | | pmax | pmax | | | | |
| | comp=Z,7.0nm,1.2s | | | | | | | | |
| **TIRR** | **Tirgusor** | **22.94** | **296** | *eP* | | **P** | | **01 54 18.9** | **+0.8** |
| | comp=Z,7.0nm,1.2s | | | | | | | | |
| **TIRR** | **Tirgusor** | **22.94** | **296** | *eP* | | **P** | | **01 54 18.9** | **+0.8** |
| | comp=Z,7.0nm,1.2s | | | | | | | | |
| **MILM** | **Milestii Mici** | **23.09** | **303**⇑ | *iP* | | **P** | | **01 54 25.8** | **+6.2** |
| **CFR** | **Carcaliu** | **23.23** | **298**⇓ | *iP* | | **P** | | **01 54 24.3** | **+3.3** |
| **CFR** | **Carcaliu** | **23.23** | **298** | ⇓P | | **P** | | **01 54 24.3** | **+3.3** |
| **PYUN** | **Piuthan** | **23.31** | **107** | *eP* | | **P** | | **01 54 21.8** | **-0.5** |
| | comp=Z,33nm,1.0s | | | | | | | | |
| **WMQ** | **Urumqi** | **23.52** | **65** | P | | **P** | | **01 54 27.0** | **+2.9** |
| WMQ | | | | pP | | sP | | 01 54 32.5 | +3.6 |
| WMQ | | | | pmax | pmax | | | | |
| | comp=Z,19nm,1.1s | | | | | | | | |
| **SORM** | **Soroca** | **23.69** | **305**⇑ | *iP* | | **P** | | **01 54 31.5** | **+5.9** |
| **SORM** | **Soroca** | **23.69** | **305** | ⇑P | | **P** | | **01 54 31.5** | **+5.9** |
| **DANN** | **Dangsing** | **23.77** | **105** | *eP* | | **P** | | **01 54 28.3** | **+1.4** |
| | comp=Z,2.4nm,0.9s | | | | | | | | |
| **AKASG** | **Malin Array Be** | **23.97** | **312** | P | | **P** | | **01 54 28.7** | **+0.4** |
| | comp=Z,0.7nm,0.5s,baz=110,slow=7.4,SNR=13 | | | | | | | | |
| **AKASG** | **Malin Array Be** | **23.97** | **312** | *ceP* | | **P** | | **01 54 29.2** | **+1.0** |
| AKASG | | | | pmax | pmax | | | | |
| | comp=Z,2.0nm,0.5s | | | | | | | | |
| **AKBB** | **Malin Array Si** | **23.97** | **312** | *eP* | | **P** | | **01 54 29.5** | **+1.3** |
| AKBB | | | | pmax | pmax | | | | |
| | comp=Z,35nm,1.5s | | | | | | | | |
| **AKBB** | **Malin Array Si** | **23.97** | **312** | *eP* | | **P** | | **01 54 29.5** | **+1.3** |
| | comp=Z,35nm,1.5s | | | | | | | | |
| **AKBB** | **Malin Array Si** | **23.97** | **312** | *eP* | | **P** | | **01 54 29.5** | **+1.3** |
| | comp=Z,35nm,1.5s | | | | | | | | |
| **PLOR** | **Plostina** | **24.36** | **299**⇑ | *iP* | | **P** | | **01 54 34.2** | **+2.2** |
| **PLOR** | **Plostina** | **24.36** | **299** | ⇑P | | **P** | | **01 54 34.2** | **+2.2** |
| **PLOR** | **Plostina** | **24.36** | **299** | P | | **P** | | **01 54 34.2** | **+2.2** |
| **NVS** | **Novosibirsk** | **24.43** | **37** | *eP* | | **P** | | **01 54 36.6** | **+4.1** |
| **TESR** | **Tescani** | **24.47** | **301**⇑ | *iP* | | **P** | | **01 54 33.0** | **+0.1** |
| **TESR** | **Tescani** | **24.47** | **301** | ⇑P | | **P** | | **01 54 33.0** | **+0.1** |
| **ZAA0** | **Zalesovo Array** | **24.75** | **40** | *eP* | | **P** | | **01 54 37.6** | **+2.2** |
| | comp=Z,6.4nm,0.6s | | | | | | | | |
| **ZAA0** | **Zalesovo Array** | **24.75** | **40** | *eP* | | **P** | | **01 54 37.6** | **+2.2** |
| | comp=Z,6.4nm,0.6s | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **24.75** | **40** | P | | **P** | | **01 54 37.4** | **+2.0** |
| | comp=Z,5.0nm,0.5s,baz=249,slow=11,SNR=18 | | | | | | | | |
| ZALV | | | | LR | | LR | | 02 04 34.3 | |
| | comp=Z,162nm,19.7s,baz=248,slow=37 | | | | | | | | |
| **MLR** | **Muntele Rosu** | **24.80** | **298** | P | | **P** | | **01 54 37.9** | **+1.8** |
| | comp=Z,1.2nm,0.9s,baz=72,slow=6.4,SNR=12 | | | | | | | | |
| **MLR** | **Muntele Rosu** | **24.80** | **298** | ⇑P | | **P** | | **01 54 39.4** | **+3.3** |
| **MLR** | **Muntele Rosu** | **24.80** | **298** | *eP* | | **P** | | **01 54 39.0** | **+2.9** |
| **PRAR** | **RASCA** | **24.91** | **303**⇓ | *iP* | | **P** | | **01 54 38.1** | **+1.2** |
| **PRAR** | **RASCA** | **24.91** | **303**⇓ | *iP* | | **P** | | **01 54 38.1** | **+1.2** |
| **DOPR** | **Dopca** | **25.25** | **299**⇓ | *iP* | | **P** | | **01 54 42.0** | **+2.0** |
| **DOPR** | **Dopca** | **25.25** | **299**⇓ | *iP* | | **P** | | **01 54 42.0** | **+2.0** |
| **MTUR** | **Matau** | **25.39** | **298**⇓ | *iP* | | **P** | | **01 54 44.4** | **+3.0** |
| **MTUR** | **Matau** | **25.39** | **298** | ⇓P | | **P** | | **01 54 44.4** | **+3.0** |
| **MTUR** | **Matau** | **25.39** | **298** | P | | **P** | | **01 54 44.4** | **+3.0** |
| **PKIN** | **Phulchoki** | **25.41** | **105** | *eP* | | **P** | | **01 54 43.9** | **+2.0** |
| | comp=Z,15nm,0.5s | | | | | | | | |
| **PKI** | **Pulchoki** | **25.42** | **105** | *eP* | | **P** | | **01 54 44.1** | **+2.0** |
| | comp=Z,26nm,0.7s | | | | | | | | |
| **VOIR** | | **25.42** | **298**⇓ | *iP* | | **P** | | **01 54 43.5** | **+1.9** |
| **VOIR** | | **25.42** | **298** | ⇓P | | **P** | | **01 54 43.6** | **+1.9** |
| **VOIR** | | **25.42** | **298** | P | | **P** | | **01 54 43.6** | **+1.9** |
| **GUN** | **Gumba** | **25.61** | **104** | *eP* | | **P** | | **01 54 46.2** | **+2.4** |
| | comp=Z,37nm,0.8s | | | | | | | | |
| **BURAR** | **Bucovina Array** | **25.63** | **303**⇑ | *iP* | | **P** | | **01 54 45.0** | **+1.5** |
| **BURAR** | **Bucovina Array** | **25.63** | **303** | ⇑P | | **P** | | **01 54 45.0** | **+1.5** |
| **BURAR** | **Bucovina Array** | **25.63** | **303**⇑ | *iP* | | **P** | | **01 54 45.0** | **+1.5** |
| **BUR04** | **Bucovina Ar. S** | **25.63** | **303** | *eP* | | **P** | | **01 54 45.0** | **+1.4** |
| **BUR04** | **Bucovina Ar. S** | **25.63** | **303** | *eP* | | **P** | | **01 54 45.0** | **+1.4** |
| **BUR08** | **Bucovina Ar. S** | **25.64** | **303** | *eP* | | **P** | | **01 54 45.2** | **+1.5** |
| **ARR** | **Arges** | **25.70** | **298**⇑ | *iP* | | **P** | | **01 54 45.9** | **+1.7** |
| **ARR** | **Arges** | **25.70** | **298**⇑ | *iP* | | **P** | | **01 54 45.9** | **+1.7** |
| **KLMR** | **Klimovskoe** | **25.82** | **340** | *eP* | | **P** | | **01 54 45.2** | **+0.2** |
| KLMR | | | | pmax | pmax | | | | |
| | comp=Z,22nm,1.5s | | | | | | | | |
| **KLMR** | **Klimovskoe** | **25.82** | **340** | *eP* | | **P** | | **01 54 45.2** | **+0.2** |
| | comp=Z,22nm,1.5s | | | | | | | | |
| **DAMY** | **Dhamar** | **25.85** | **210** | *eP* | | **P** | | **01 54 46.7** | **+0.7** |
| | comp=Z,20nm,1.1s | | | | | | | | |
| **JIRN** | **Jiri** | **25.97** | **104** | *eP* | | **P** | | **01 54 50.1** | **+2.9** |
| **ARCR** | **ARCALIA** | **26.11** | **302**⇓ | *iP* | | **P** | | **01 54 50.5** | **+2.6** |
| **ARCR** | **ARCALIA** | **26.11** | **302**⇓ | *iP* | | **P** | | **01 54 50.5** | **+2.6** |
| **LOT** | **Lotru** | **26.32** | **298**⇑ | *iP* | | **P** | | **01 54 51.5** | **+1.7** |
| **LOT** | **Lotru** | **26.32** | **298**⇑ | *iP* | | **P** | | **01 54 51.5** | **+1.7** |
| **CJR** | **Cluj-Napoca** | **26.57** | **301**⇑ | *iP* | | **P** | | **01 54 54.8** | **+2.7** |
| **CJR** | **Cluj-Napoca** | **26.57** | **301** | ⇑P | | **P** | | **01 54 54.8** | **+2.7** |
| **CJR** | **Cluj-Napoca** | **26.57** | **301**⇑ | *iP* | | **P** | | **01 54 54.8** | **+2.7** |
| **VTS** | **Vitosha** | **26.62** | **291** | *eP* | | **P** | | **01 54 54.1** | **+1.4** |
| VTS | | | | pmax | pmax | | | | |
| | comp=Z,3.0nm,1.0s | | | | | | | | |
| **VTS** | **Vitosha** | **26.62** | **291** | *eP* | | **P** | | **01 54 54.1** | **+1.4** |
| | comp=Z,3.3nm,1.0s | | | | | | | | |
| **DRGR** | | **27.19** | **301**⇓ | *iP* | | **P** | | **01 54 59.6** | **+2.0** |
| **DRGR** | | **27.19** | **301** | ⇓P | | **P** | | **01 54 59.6** | **+2.0** |
| **DRGR** | | **27.19** | **301**⇓ | *iP* | | **P** | | **01 54 59.6** | **+2.0** |
| **ODAN** | **Odare** | **27.30** | **105** | *eP* | | **P** | | **01 55 01.0** | **+2.0** |
| | comp=Z,29nm,0.9s | | | | | | | | |
| **ATD** | **Arta Tunnel** | **29.23** | **211** | LR | | LR | | 02 08 33.9 | |
| | comp=Z,85nm,19.7s,baz=75,slow=40 | | | | | | | | |
| **FINES** | **FINESS Array B** | **30.80** | **331** | P | | **P** | | **01 55 29.0** | **-0.4** |
| | comp=Z,10nm,1.1s,baz=129,slow=11,SNR=4.7 | | | | | | | | |
| FINES | | | | PP | | **PnPn** | | **01 56 30.0** | **+0.6** |
| | comp=Z,14nm,1.1s,baz=135,slow=14,SNR=4.1 | | | | | | | | |
| **DPC** | **Dobruska-Polom** | **31.84** | **307** | *eP* | | **P** | | **01 55 39.5** | **+0.6** |
| **DPC** | **Dobruska-Polom** | **31.84** | **307** | *eP* | | **P** | | **01 55 39.5** | **+0.6** |
| **DPC** | **Dobruska-Polom** | **31.84** | **307** | P | | **P** | | **01 55 39.5** | **+0.6** |
| **GTA** | **Gaotai** | **32.84** | **74** | *eP* | | **P** | | 01 55 53.5 | +5.7 |
| GTA | | | | pP | | sP | | 01 55 59.3 | +6.6 |
| GTA | | | | sP | | pP | | 01 56 02.5 | +11 |
| GTA | | | | pmax | pmax | | | | |
| | comp=Z,2.0nm,0.9s | | | | | | | | |
| **GERES** | **GERESS Array B** | **33.41** | **304** | P | | **P** | | **01 55 53.1** | **+0.5** |
| | comp=Z,0.3nm,0.6s,baz=70,slow=8.8,SNR=3.2 | | | | | | | | |
| **KHC** | **Kasperske Hory** | **33.51** | **304** | *eP* | | P | | 01 55 46.3 | -7.1 |
| **KHC** | **Kasperske Hory** | **33.51** | **304** | *eP* | | P | | 01 55 46.3 | -7.1 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **STU** | **Stuttgart** | **36.39** | **303** | *eP* | | **P** | | **01 56 18.8** | **+0.6** |
| STU | | | | pmax | pmax | | | | |
| | comp=Z,19nm,1.4s | | | | | | | | |
| **STU** | **Stuttgart** | **36.39** | **303** | *eP* | | **P** | | **01 56 18.8** | **+0.6** |
| | comp=Z,19nm,1.4s | | | | | | | | |
| **SONM** | **Songino Array** | **36.67** | **58** | P | | **P** | | **01 56 22.7** | **+1.9** |
| | comp=Z,0.6nm,0.6s,baz=282,slow=8.0,SNR=4.3 | | | | | | | | |
| **SONA1** | **Songino Array** | **36.67** | **58** | *eP* | | **P** | | **01 56 22.2** | **+1.4** |
| **NOA** | **NORSAR Array B** | **37.03** | **324** | P | | **P** | | **01 56 23.9** | **+0.3** |
| | comp=Z,1.9nm,0.7s,baz=109,slow=8.1,SNR=3.6 | | | | | | | | |
| **ULN** | **Ulaanbaatar** | **37.11** | **58** | *iP* | | **P** | | **01 56 26.4** | **+1.8** |
| ULN | | | | pmax | pmax | | | | |
| | comp=Z,8.0nm,1.2s | | | | | | | | |
| **ULN** | **Ulaanbaatar** | **37.11** | **58** | *eP* | | **P** | | **01 56 26.7** | **+2.1** |
| | comp=Z,5.0nm,0.9s | | | | | | | | |
| **VSL** | **Villasalto** | **37.38** | **288** | *eP* | | **P** | | **01 56 27.4** | **+0.7** |
| | comp=Z,58nm,1.2s | | | | | | | | |
| **KEST** | **Kesra** | **38.40** | **282** | LR | | LR | | 02 15 03.2 | |
| | comp=Z,146nm,18.0s,baz=300,slow=41 | | | | | | | | |
| **KMI** | **Kunming** | **40.15** | **95** | P | | **P** | | **01 56 52.3** | **+1.9** |
| KMI | | | | pmax | pmax | | | | |
| | comp=Z,17nm,1.1s | | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **40.81** | **106** | P | | **P** | | **01 56 57.5** | **+1.8** |
| | comp=Z,1.3nm,0.4s,baz=302,slow=9.6,SNR=4.2 | | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **41.34** | **68** | *eP* | | **P** | | **01 57 02.0** | **+2.0** |
| HHC | | | | sP | | sP | | 01 57 12.0 | +7.1 |
| HHC | | | | *eS* | | **S** | | **02 03 13.0** | **-1.3** |
| HHC | | | | pmax | pmax | | | | |
| | comp=Z,12nm,1.0s | | | | | | | | |
| HHC | | | | pmax | pmax | | | | |
| | comp=Z,360nm,5.9s | | | | | | | | |
| HHC | | | | LR | LR | | | | |
| | comp=N,350nm,11.8s | | | | | | | | |
| HHC | | | | LR | LR | | | | |
| | comp=E,250nm,12.6s | | | | | | | | |
| HHC | | | | LR | LR | | | | |
| | comp=Z,220nm,16.9s | | | | | | | | |
| **KMBO** | **Kilima Mbogo** | **42.98** | **211** | LR | | LR | | 02 16 51.4 | |
| | comp=Z,46nm,21.7s,baz=8.5,slow=39 | | | | | | | | |
| **ENH** | **Enshi** | **43.20** | **84** | *eP* | | **P** | | **01 57 15.8** | **+0.7** |
| | comp=Z,8.2nm,0.8s | | | | | | | | |
| **ENH** | **Enshi** | **43.20** | **84** | *eP* | | **P** | | **01 57 15.8** | **+0.7** |
| | comp=Z,8.2nm,0.8s | | | | | | | | |
| **CART** | **Cartagena** | **45.72** | **289** | *eP* | | **P** | | **01 57 35.8** | **+0.7** |
| | comp=Z,42nm,1.2s | | | | | | | | |
| **CART** | **Cartagena** | **45.72** | **289** | *eP* | | **P** | | **01 57 35.8** | **+0.7** |
| | comp=Z,42nm,1.2s | | | | | | | | |
| **TAM** | **Tamanrasset** | **46.81** | **267** | *eP* | | **P** | | **01 57 44.1** | **0.0** |
| TAM | | | | pmax | pmax | | | | |
| | comp=Z,13nm,1.9s | | | | | | | | |
| **TAM** | **Tamanrasset** | **46.81** | **267** | *eP* | | **P** | | **01 57 44.1** | **0.0** |
| | comp=Z,13nm,1.9s | | | | | | | | |
| **TAM** | **Tamanrasset** | **46.81** | **267** | *eP* | | **P** | | **01 57 44.1** | **0.0** |
| | comp=Z,13nm,1.9s | | | | | | | | |
| **ES19** | **SONSECA Array** | **47.20** | **292** | *eP* | | **P** | | **01 57 46.0** | **-0.8** |
| **ES19** | **SONSECA Array** | **47.20** | **292** | *eP* | | **P** | | **01 57 46.0** | **-0.8** |
| **ESDC** | **Sonseca Array** | **47.26** | **292** | P | | **P** | | **01 57 46.0** | **-1.3** |
| | comp=Z,0.5nm,0.7s,baz=70,slow=9.1,SNR=5.6 | | | | | | | | |
| **PAB** | **San Pablo** | **47.58** | **292** | *eP* | | **P** | | **01 57 50.7** | **+0.9** |
| PAB | | | | pmax | pmax | | | | |
| | comp=Z,55nm,1.9s | | | | | | | | |
| **PAB** | **San Pablo** | **47.58** | **292** | *eP* | | **P** | | **01 57 50.7** | **+0.9** |
| | comp=Z,55nm,1.9s | | | | | | | | |
| **PAB** | **San Pablo** | **47.58** | **292** | *eP* | | **P** | | **01 57 50.7** | **+0.9** |
| | comp=Z,55nm,1.9s | | | | | | | | |
| **LHMI** | **Lhok Sumawe** | **48.24** | **122** | *eP* | | **P** | | **01 57 57.1** | **+2.1** |
| | comp=Z,139nm,1.0s | | | | | | | | |
| **LHMI** | **Lhok Sumawe** | **48.24** | **122** | *eP* | | **P** | | **01 57 57.1** | **+2.1** |
| | comp=Z,139nm,1.0s | | | | | | | | |
| **TIXI** | **Tiksi** | **48.83** | **23** | *iP* | | **P** | | **01 57 59.2** | **+0.3** |
| TIXI | | | | pmax | pmax | | | | |
| | comp=Z,11nm,2.5s | | | | | | | | |
| **TIXI** | **Tiksi** | **48.83** | **23** | *iP* | | **P** | | **01 57 59.2** | **+0.3** |
| | comp=Z,11nm,2.5s | | | | | | | | |
| **TIXI** | **Tiksi** | **48.83** | **23** | *eP* | | **P** | | **01 58 00.8** | **+2.0** |
| | comp=Z,7.4nm,1.4s | | | | | | | | |
| **NJ2** | **Nanjing** | **49.79** | **77** | *eP* | | **P** | | **01 58 09.5** | **+2.7** |
| NJ2 | | | | pmax | pmax | | | | |
| | comp=Z,12nm,0.6s | | | | | | | | |
| **KLR** | **Kul'dur** | **52.99** | **52** | *eP* | | **P** | | **01 58 31.8** | **+1.2** |
| **KLR** | **Kul'dur** | **52.99** | **52** | *eP* | | **P** | | **01 58 31.8** | **+1.2** |
| **TOA0** | **Torodi Ar. Sit** | **55.20** | **259** | *eP* | | **P** | | **01 58 45.7** | **-1.4** |
| **TOA0** | **Torodi Ar. Sit** | **55.20** | **259** | *eP* | | **P** | | **01 58 45.6** | **-1.4** |
| **TORD** | **Torodi Ar. Bea** | **55.20** | **259** | P | | **P** | | **01 58 44.6** | **-2.5** |
| | comp=Z,1.8nm,1.1s,baz=62,slow=5.5,SNR=7.8 | | | | | | | | |
| **BILL** | **Bilibino** | **62.04** | **24**⇑ | *eP* | | **P** | | **01 59 34.3** | **+0.3** |
| BILL | | | | *e* | | | | 02 01 47.2 | |
| BILL | | | | *eSS* | | SS | | 02 11 52.9 | -7.1 |
| BILL | | | | pmax | pmax | | | | |
| | comp=Z,4.0nm,1.2s | | | | | | | | |
| BILL | | | | MLR | MLR | | | | |
| | comp=Z,91nm,19.0s | | | | | | | | |
| **BILL** | **Bilibino** | **62.04** | **24** | *eP* | | **P** | | **01 59 34.3** | **+0.3** |
| | comp=Z,4.0nm,1.2s | | | | | | | | |
| **INK** | **Inuvik** | **73.98** | **4** | P | | **P** | | **02 00 49.8** | **+0.8** |
| | comp=Z,1.7nm,1.0s,baz=18,slow=12,SNR=3.9 | | | | | | | | |
| **ILAR** | **Eielson Array** | **76.06** | **11** | P | | **P** | | **02 01 02.1** | **+1.0** |
| | comp=Z,0.8nm,1.1s,baz=311,slow=4.1,SNR=4.5 | | | | | | | | |
| **SCHQ** | **Schefferville** | **76.28** | **331** | P | | **P** | | **02 01 02.9** | **+0.3** |
| | comp=Z,2.8nm,0.7s,baz=30,slow=20,SNR=3.2 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **79.95** | **356** | P | | **P** | | **02 01 23.6** | **+0.9** |
| | comp=Z,1.5nm,0.8s,baz=359,slow=5.6,SNR=30 | | | | | | | | |
| **ULM** | **Lac du Bonnet** | **89.35** | **343** | P | | **P** | | **02 02 10.8** | **+0.5** |
| | comp=Z,3.2nm,1.1s,baz=9.3,slow=18,SNR=2.8 | | | | | | | | |

**IDC 26 02:06:24.6±1.7, 39.37N×110.55E, h0km, mb3.7/4, mb1 3.9/5, mb1mx3.5/35, mbtmpg3.7/5, ML2.9/1, Error ellipse: s-maj=38.2km s-min=24.2km az=91.0, Western Nei Mongol**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **SONM** | **Songino Array** | **8.98** | **342** | Pn | | Pn | 02 08 36.0 | +0.4 |
| | 0.1nm,0.3s,baz=158,slow=13,SNR=16 | | | | | | | |
| SONM | | | | Lg | | Lg | 02 11 07.8 | |
| | 0.2nm,0.3s,baz=156,slow=28,SNR=9.2 | | | | | | | |
| **MKAR** | **Makanchi Array** | **21.85** | **299** | P | | P | 02 11 19.2 | +0.6 |
| | 3.4nm,0.8s,baz=98,slow=12,SNR=25 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **23.12** | **209** | P | | P | 02 11 32.1 | -0.4 |
| | 2.2nm,0.6s,baz=11,slow=10,SNR=8.0 | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **25.09** | **307** | P | | P | 02 11 50.4 | -0.2 |
| | 2.2nm,1.0s,baz=107,slow=9.5,SNR=9.3 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **72.20** | **20** | P | | P | 02 17 51.1 | +0.2 |
| | 0.3nm,0.8s,baz=322,slow=5.6,SNR=6.4 | | | | | | | |

**IDC 26 02:28:16.4±6.1, 5.08N×94.58E, h0km, mb3.7/5, mb1 3.8/5, mb1mx3.5/48, mbtmpg3.7/5, Error ellipse: s-maj=305.0km s-min=22.3km az=57.0, Northern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **MKAR** | **Makanchi Array** | **42.89** | **348** | P | | P | 02 36 16.6 | -0.1 |
| | 0.3nm,0.4s,baz=158,slow=8.3,SNR=8.2 | | | | | | | |
| **WRA** | **Warramunga Arr** | **46.33** | **124** | P | | P | 02 36 44.2 | -0.2 |
| | 0.5nm,0.7s,baz=300,slow=9.9,SNR=5.7 | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **47.35** | **346** | P | | P | 02 36 52.0 | +0.1 |
| | 0.5nm,0.3s,baz=167,slow=7.2,SNR=5.3 | | | | | | | |
| **ASAR** | **Alice Springs** | **47.82** | **128** | P | | P | 02 36 56.3 | +0.1 |
| | 0.4nm,0.5s,baz=301,slow=8.1,SNR=4.6 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **49.37** | **352** | P | | P | 02 37 07.0 | -0.5 |
| | 1.2nm,0.5s,baz=179,slow=9.0,SNR=6.1 | | | | | | | |

**JMA 26 02:30:34.4, 37.79N×141.54E, h47km±1km, M3.7, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **JMM** | **Marumori** | **0.60** | **278** | P | | Pn | 02 30 46.6 | -0.1 |
| JMM | | | | *eS* | | Sn | 02 30 55.2 | -0.3 |
| **JFK** | **Kawauchi** | **0.68** | **232** | P | | Pn | 02 30 47.6 | -0.2 |
| JFK | | | | *eS* | | Sn | 02 30 56.7 | -0.7 |
| **JIO** | **Ouri** | **0.68** | **347** | P | | Pn | 02 30 47.9 | +0.1 |
| JIO | | | | *eS* | | Sn | 02 30 56.9 | -0.5 |
| **JOU** | **Okura** | **0.90** | **310** | P | | Pn | 02 30 50.7 | 0.0 |
| JOU | | | | *eS* | | Sn | 02 31 02.6 | -0.1 |
| **ONAJ** | **Iwakimizuishiy** | **0.91** | **221** | P | | Pn | 02 30 50.5 | -0.3 |
| ONAJ | | | | *eS* | | Sn | 02 31 02.0 | -0.8 |
| **JFT** | **Otama** | **0.99** | **255** | P | | Pn | 02 30 52.5 | +0.5 |
| JFT | | | | S | | Sn | 02 31 05.6 | +0.7 |
| **JMK** | **Ichinoseki** | **1.19** | **348** | P | | Pn | 02 30 55.0 | +0.4 |
| JMK | | | | *eS* | | Sn | 02 31 09.5 | -0.1 |
| **JYS** | **Shirataka** | **1.24** | **291** | P | | Pn | 02 30 55.6 | +0.3 |
| JYS | | | | *eS* | | Sn | 02 31 11.1 | +0.1 |
| **JYK** | **Kaneyama** | **1.46** | **321** | P | | Pn | 02 30 58.7 | +0.4 |
| JYK | | | | *eS* | | Sn | 02 31 16.3 | 0.0 |
| **JFY** | **Yanaizu** | **1.51** | **256** | P | | Pn | 02 30 59.5 | +0.5 |
| **MAT** | **Matsushiro** | **2.94** | **246** | P | | Pn | 02 31 20.2 | +1.6 |
| MAT | | | | *eS* | | Sn | 02 31 54.2 | +1.5 |

*IDC **26** 02:35:02.4±2.5, 37.56N×57.48E, h0km, mb3.2/4, mb1 3.6/7, mb1mx3.4/38, mbtmpg3.4/7, ML3.6/3, MS3.2/1, Ms1 3.2/1, ms1mx2.7/33, Error ellipse: s-maj=41.7km s-min=10.4km az=162.0*

*ISCJB **26** 02:35:03.1±0.6, 37.58N±0.04×57.52E±0.05, h12km±5km, mb3.2/3, Error ellipse: s-maj=7.2km s-min=6.1km az=10.5*

*CSEM **26** 02:35:03.9±0.3, 37.57N×57.56E, h2km, ML3.1, Error ellipse: s-maj=11.8km s-min=6.2km az=26.0*

*TEH **26** 02:35:04.7, 37.51N×57.58E, h4km, ML3.4*

**ISC 26 02:35:03.8±1.0, 37.56N±0.04×57.54E±0.03, h9km±8km, n23, σ0.91/24, mb3.1/3, Iran-Turkmenistan border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **BJRD** | **Bojnurd** | **0.17** | **323** | *eP* | g | **Pg** | **02 35 07.8** | **+0.2** |
| BJRD | | | | *eS* | g | **Sg** | **02 35 10.7** | **+0.5** |
| **GEYT** | **Alibeck** | **0.59** | **51** | Pg | | **Pg** | **02 35 14.1** | **-1.2** |
| | 45nm,0.3s,baz=233,slow=21,SNR=240 | | | | | | | |
| GEYT | | | | Lg | | Lg | 02 35 23.2 | |
| | 438nm,0.3s,baz=234,slow=39,SNR=170 | | | | | | | |
| **ISFR** | **Sfrayin** | **0.62** | **144** | *eP* | g | **Pg** | **02 35 15.5** | **-0.5** |
| ISFR | | | | *eAMB* | | AMB | 02 35 28.7 | |
| | comp=Z,64μm,0.1s | | | | | | | |
| **IEMG** | **Emamgholi** | **0.90** | **99** | *eP* | g | **Pg** | **02 35 20.2** | **-0.9** |
| IEMG | | | | *eAMB* | | AMB | 02 35 41.9 | |
| | comp=Z,17μm,0.1s | | | | | | | |
| **IEMG** | **Emamgholi** | **0.90** | **99** | *eP* | g | **Pg** | **02 35 20.2** | **-0.9** |
| **IKRD** | **Kardeh** | **1.10** | **135** | *eP* | n | Pn | 02 35 35.2 | +10 |
| IKRD | | | | *eAMB* | | AMB | 02 36 11.7 | |
| | comp=Z,4μm,0.3s | | | | | | | |
| **MRVT** | **Maraveh tapeh** | **1.16** | **275** | *eP* | g | **Pg** | **02 35 25.6** | **-0.4** |
| MRVT | | | | *eSg* | | **Sn** | **02 35 41.8** | **-0.4** |
| **IAKL** | **Akhelmad** | **1.36** | **134** | *eAMB* | | AMB | 02 35 54.7 | |
| | comp=Z,8μm,0.1s | | | | | | | |
| **IPAY** | **Payeh** | **1.61** | **133** | *ePn* | | **Pn** | **02 35 33.1** | **+0.5** |
| IPAY | | | | *eAMB* | | AMB | 02 36 01.5 | |
| | comp=Z,8μm,0.1s | | | | | | | |
| **IPAY** | **Payeh** | **1.61** | **133** | *ePn* | | **Pn** | **02 35 33.1** | **+0.5** |
| **SHRO** | **Shahrood** | **1.99** | **219** | *ePn* | | **Pb** | **02 35 39.9** | **-0.4** |
| SHRO | | | | *eSg* | | **Sg** | **02 36 07.8** | **0.0** |
| **IMOG** | **Moghan** | **2.05** | **135** | *ePn* | | **Pb** | **02 35 41.2** | **-0.1** |
| IMOG | | | | *eAMB* | | AMB | 02 36 14.8 | |
| | comp=Z,3μm,0.2s | | | | | | | |
| **IMOG** | **Moghan** | **2.05** | **135** | *ePn* | | **Pb** | **02 35 41.2** | **-0.1** |
| **IMYA** | **Miami** | **2.39** | **120** | *ePn* | | **Pn** | **02 35 44.8** | **+1.6** |
| IMYA | | | | *eSg* | | **Sb** | **02 36 17.4** | **+0.8** |
| I

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| BBLS | | | | eSn | Sg | 02 50 22.9 | +3.0 |
| **BEY** | **Berane** | **1.52** | **90** | ⇑iPg | **Pn** | **02 49 58.8** | **0.0** |
| **BEY** | **Berane** | **1.52** | **90** | P | **Pb** | **02 49 59.6** | **-0.1** |
| BEY | | | | eSg | **Sg** | **02 50 21.6** | **+1.5** |
| **IVA** | **Berane** | **1.52** | **90** | ⇑iPg | **Pn** | **02 49 58.8** | **0.0** |
| IVA | | | | eSg | **Sg** | **02 50 21.6** | **+1.5** |
| **PVY** | **Plav** | **1.60** | **100** | ⇑iPg | **Pn** | **02 50 00.0** | **+0.1** |
| PVY | | | | eSg | **Sg** | **02 50 23.7** | **+1.1** |
| **PVY** | **Plav** | **1.60** | **100** | ⇑iPg | **Pn** | **02 50 00.0** | **+0.1** |
| PVY | | | | eSg | **Sg** | **02 50 23.7** | **+1.1** |
| **SJES** | **Sjenica** | **1.62** | **76** | ePn | **Pn** | **02 50 00.2** | **0.0** |
| SJES | | | | eSn | **Sg** | **02 50 24.6** | **+1.3** |
| **BCI** | **Bajram Curri** | **1.74** | **107** | i PN | **Pb** | **02 50 02.7** | **-0.6** |
| BCI | | | | i SN | **Sg** | **02 50 29.3** | **+2.3** |
| **BCI** | **Bajram Curri** | **1.74** | **107** | i Pn | **Pb** | **02 50 02.7** | **-0.6** |
| BCI | | | | i Sn | **Sg** | **02 50 29.3** | **+2.3** |
| **PUK** | **Puka** | **1.75** | **118** | i PN | **Pb** | **02 50 03.4** | **-0.2** |
| PUK | | | | i SN | **Sg** | **02 50 30.0** | **+2.7** |
| **PUK** | **Puka** | **1.75** | **118** | i Pn | **Pb** | **02 50 03.4** | **-0.2** |
| PUK | | | | i Sn | **Sg** | **02 50 30.0** | **+2.7** |
| **MS1** | **Monte Sant'Ang** | **1.82** | **230** | ePn | **Pb** | **02 50 04.2** | **-0.6** |
| MS1 | | | | Sn | **Sn** | **02 50 25.7** | **-0.5** |
| **PEJK** | **Peje** | **1.83** | **97** | P | **Pb** | **02 50 04.9** | **0.0** |
| PEJK | | | | S | **Sg** | **02 50 31.8** | **+2.0** |
| **IVAS** | **Ivanjica** | **1.84** | **67** | ePn | **Pb** | **02 50 04.5** | **-0.6** |
| IVAS | | | | eSn | **Sg** | **02 50 29.5** | **-0.8** |
| **IVAS** | **Ivanjica** | **1.84** | **67** | ePn | **Pb** | **02 50 04.5** | **-0.6** |
| **DOB** | **Doboj** | **1.86** | **6** | ePn | **Pn** | **02 50 03.8** | **+0.5** |
| DOB | | | | eSn | **Sn** | **02 50 26.9** | **-0.1** |
| **BAI** | **Bari** | **1.91** | **202** | ePn | **Pb** | **02 50 06.9** | **+0.7** |
| BAI | | | | Sn | **Sn** | **02 50 27.3** | **-0.9** |
| **BLY** | **Banja Luka** | **1.92** | **346** | ePn | **Pn** | **02 50 04.7** | **+0.5** |
| BLY | | | | eSn | **Sn** | **02 50 29.1** | **+0.6** |
| **DIVS** | **Divibare** | **1.99** | **52** | ePn | **Pn** | **02 50 05.8** | **+0.5** |
| DIVS | | | | eSn | **Sg** | **02 50 34.5** | **-0.7** |
| **DIVS** | **Divibare** | **1.99** | **52** | ⇑iPn | **Pn** | **02 50 05.9** | **+0.6** |
| DIVS | | | | eSn | **Sn** | **02 50 30.9** | **+0.4** |
| **TEKS** | **Tekeris** | **2.08** | **36** | ePn | **Pn** | **02 50 07.0** | **+0.7** |
| TEKS | | | | eSn | **Sg** | **02 50 36.7** | **-1.1** |
| **TEKS** | **Tekeris** | **2.08** | **36** | ePn | **Pn** | **02 50 07.0** | **+0.7** |
| TEKS | | | | eSn | **Sn** | **02 50 33.1** | **+0.7** |
| **TIR** | **Tirane** | **2.16** | **135** | ⇑iP | **Pb** | **02 50 09.4** | **-1.1** |
| **TIR** | **Tirane** | **2.16** | **135** | ⇑iP | **Pb** | **02 50 09.4** | **-1.1** |
| **SG1** | **Sgolgore (BA)** | **2.21** | **203** | ePn | **Pg** | **02 50 12.8** | **-0.7** |
| SG1 | | | | Sn | **Sn** | **02 50 34.5** | **-1.3** |
| **UDBI** | **Udbina** | **2.22** | **319** | ePn | **Pb** | **02 50 10.6** | **-1.0** |
| UDBI | | | | Sn | **Sb** | **02 50 40.8** | **+1.6** |
| **UDBI** | **Udbina** | **2.22** | **319** | ePn | **Pb** | **02 50 10.5** | **-1.0** |
| UDBI | | | | Sn | **Sb** | **02 50 40.7** | **+1.6** |
| **PHP** | **Peshkopia** | **2.29** | **121** | i PN | **Pb** | **02 50 11.6** | **-1.1** |
| PHP | | | | i SN | **Sb** | **02 50 42.2** | **+1.1** |
| **PHP** | **Peshkopia** | **2.29** | **121** | i Pn | **Pb** | **02 50 11.6** | **-1.1** |
| PHP | | | | i Sn | **Sb** | **02 50 42.2** | **+1.1** |
| **SMRK** | **Smrekonice** | **2.29** | **89** | P | **Pb** | **02 50 11.2** | **-1.6** |
| **TRUS** | **Trudelj** | **2.31** | **54** | ePn | **Pn** | **02 50 10.4** | **+0.9** |
| **TRUS** | **Trudelj** | **2.31** | **54** | ePn | **Pn** | **02 50 10.4** | **+0.9** |
| **GRUS** | **Gruza** | **2.34** | **64** | ePn | **Pn** | **02 50 10.8** | **+0.9** |
| GRUS | | | | eSn | **Sb** | **02 50 42.8** | **+0.2** |
| **GRUS** | **Gruza** | **2.34** | **64** | ePn | **Pn** | **02 50 10.8** | **+0.9** |
| GRUS | | | | eSn | **Sb** | **02 50 42.8** | **+0.2** |
| **SELS** | **Selova** | **2.44** | **81** | ePn | **Pn** | **02 50 12.5** | **+1.1** |
| SELS | | | | eSn | **Sb** | **02 50 44.2** | **-1.4** |
| **SELS** | **Selova** | **2.44** | **81** | ePn | **Pn** | **02 50 12.5** | **+1.1** |
| SELS | | | | eSn | **Sb** | **02 50 44.2** | **-1.4** |
| **FGSL** | **Fruska Gora** | **2.69** | **32** | ePn | **Pn** | **02 50 14.4** | **-0.3** |
| **FRGS** | **Fruska Gora** | **2.69** | **32** | ePn | **Pn** | **02 50 14.4** | **-0.4** |
| **NVLJ** | **Novalja** | **2.72** | **309** | i Pn | **Pn** | **02 50 16.7** | **+1.6** |
| NVLJ | | | | Sn | **Sb** | **02 50 51.2** | **-2.2** |
| **NVLJ** | **Novalja** | **2.72** | **309** | i Pn | **Pn** | **02 50 16.6** | **+1.6** |
| NVLJ | | | | Sn | **Sb** | **02 50 51.2** | **-2.2** |
| **BEO** | **Beograd** | **2.72** | **44** | ePn | **Pn** | **02 50 17.0** | **+1.9** |
| BEO | | | | eSn | **Sb** | **02 50 51.5** | **-2.0** |
| **BEO** | **Beograd** | **2.72** | **44** | ePn | **Pn** | **02 50 17.0** | **+1.9** |
| BEO | | | | eSn | **Sb** | **02 50 51.5** | **-2.0** |
| **OHR** | **Ohrid** | **2.84** | **128** | ePn | **Pb** | **02 50 23.3** | **+1.1** |
| **BOVS** | **Bovan** | **2.94** | **74** | ePn | **Pn** | **02 50 19.1** | **+1.0** |
| BOVS | | | | eSn | **Sn** | **02 50 56.5** | **+2.9** |
| **BOVS** | **Bovan** | **2.94** | **74** | ePn | **Pn** | **02 50 19.1** | **+1.0** |
| **BARS** | **Barje** | **2.94** | **90** | ePn | **Pn** | **02 50 19.4** | **+1.2** |
| BARS | | | | eSn | **Sn** | **02 50 55.5** | **+1.8** |
| **BARS** | **Barje** | **2.94** | **90** | ePn | **Pn** | **02 50 19.4** | **+1.2** |
| **KRUS** | **Krusevo** | **2.97** | **120** | ePn | **Pn** | **02 50 19.9** | **+1.2** |
| **KUBS** | **Kucevo** | **3.19** | **60** | ePn | **Pn** | **02 50 22.6** | **+1.0** |
| **KUBS** | **Kucevo** | **3.19** | **60** | ePn | **Pn** | **02 50 22.6** | **+1.0** |
| **OZLJ** | **Ozalj** | **3.21** | **329** | i Pn | **Pn** | **02 50 24.3** | **+2.5** |
| OZLJ | | | | Sn | **Sn** | **02 51 03.3** | **+3.0** |
| **OZLJ** | **Ozalj** | **3.21** | **329** | i Pn | **Pn** | **02 50 24.3** | **+2.5** |
| OZLJ | | | | Sn | **Sn** | **02 51 03.3** | **+3.0** |
| **ZAG** | **Zagreb** | **3.22** | **337** | ePn | **Pn** | **02 50 22.2** | **+0.2** |
| ZAG | | | | eSn | **Sn** | **02 51 00.7** | **+0.1** |
| **ZAGS** | **Zajecar** | **3.35** | **72** | ePn | **Pn** | **02 50 24.7** | **+0.9** |
| ZAGS | | | | eSn | **Sn** | **02 51 07.0** | **+3.2** |
| **ZAGS** | **Zajecar** | **3.35** | **72** | ePn | **Pn** | **02 50 24.7** | **+0.9** |
| ZAGS | | | | eSn | **Sn** | **02 51 07.0** | **+3.2** |
| **CRES** | **Cresnjev** | **3.39** | **331** | ePn | **Pn** | **02 50 24.6** | **+0.2** |
| CRES | | | | eSn | **Sn** | **02 51 04.3** | **-0.6** |
| **MDVR** | **Moldovita** | **3.40** | **55** | ⇓iP | **Pn** | **02 50 25.1** | **+0.6** |
| **MDVR** | **Moldovita** | **3.40** | **55** | ⇓iP | **Pn** | **02 50 25.1** | **+0.6** |
| MDVR | | | | S | **Sn** | **02 51 04.3** | **-0.7** |
| **ZAPS** | **Zavoj** | **3.55** | **82** | ePn | **Pn** | **02 50 27.7** | **+1.1** |
| ZAPS | | | | eSn | **Sn** | **02 51 11.1** | **+2.3** |
| **ZAPS** | **Zavoj** | **3.55** | **82** | ePn | **Pn** | **02 50 27.7** | **+1.1** |
| ZAPS | | | | eSn | **Sn** | **02 51 11.1** | **+2.3** |
| **BEHE** | **Becsehely** | **3.66** | **349** | ⇓ex | **Pn** | **02 50 29.4** | **+1.3** |
| BEHE | | | | ex | **Sn** | **02 51 13.0** | **+1.5** |
| **BEHE** | **Becsehely** | **3.66** | **349** | ePn | **Pn** | **02 50 28.7** | **+0.6** |
| BEHE | | | | eSn | **Sn** | **02 51 11.1** | **-0.4** |
| **CEY** | **Cerknica** | **3.75** | **321** | ePn | **Pn** | **02 50 29.3** | **0.0** |
| CEY | | | | eSn | **Sn** | **02 51 12.9** | **-0.8** |
| **BZS** | **Buzias** | **3.86** | **44** | ⇓iP | **Pn** | **02 50 30.9** | **+0.1** |
| **BZS** | **Buzias** | **3.86** | **44** | ⇓iP | **Pn** | **02 50 30.9** | **+0.1** |
| **VTS** | **Vitosha** | **3.98** | **92** | ⇓iP | **Pn** | **02 50 35.0** | **+2.4** |
| **VTS** | **Vitosha** | **3.98** | **92** | S | **Sn** | **02 51 22.6** | **+3.0** |
| **VTS** | **Vitosha** | **3.98** | **92** | ⇓iP | **Pn** | **02 50 35.0** | **+2.4** |
| **PERS** | **Pernice** | **4.21** | **334** | i Pn | **Pn** | **02 50 36.8** | **+1.0** |
| PERS | | | | i | | 02 50 37.5 | |
| **PERS** | **Pernice** | **4.21** | **334** | Pn | **Pn** | **02 50 36.8** | **+1.0** |
| **SOKA** | **Soboth** | **4.28** | **333** | ePn | **Pn** | **02 50 38.3** | **+1.6** |
| | 6.4nm,0.4s | | | | | | |
| **SOKA** | **Soboth** | **4.28** | **333** | Pn | **Pn** | **02 50 38.3** | **+1.6** |
| | 6.4nm,0.4s | | | | | | |
| **SRE** | **Strehaia** | **4.29** | **64** | ⇓iP | **Pn** | **02 50 38.8** | **+2.1** |
| **SRE** | **Strehaia** | **4.29** | **64** | ⇓iP | **Pn** | **02 50 38.8** | **+2.1** |
| **OBKA** | **Obir** | **4.31** | **328** | i Pn | **Pn** | **02 50 40.4** | **+3.3** |
| | 0.3nm,0.1s | | | | | | |
| **OBKA** | **Obir** | **4.31** | **328** | Pn | **Pn** | **02 50 40.4** | **+3.3** |
| | 0.3nm,0.1s | | | | | | |
| **SIRR** | **Siria** | **4.36** | **38** | ⇑iP | **Pn** | **02 50 37.5** | **-0.1** |
| **SIRR** | **Siria** | **4.36** | **38** | ⇑iP | **Pn** | **02 50 37.5** | **-0.1** |
| SIRR | | | | S | **Sn** | **02 51 27.8** | **-0.8** |
| **CSKK** | **Csˆ‡kako** | **4.49** | **4** | ⇑ex | **Pn** | **02 50 41.3** | **+1.8** |
| **CSKK** | **Csˆ‡kako** | **4.49** | **4** | ⇑ePn | **Pn** | **02 50 41.3** | **+1.8** |
| **ARSA** | **Arzberg** | **4.66** | **340** | i Pn | **Pn** | **02 50 43.5** | **+1.7** |
| | 2.7nm,0.3s | | | | | | |
| ARSA | | | | eSn | **Sn** | **02 51 35.8** | **-0.3** |
| | 6.6nm,0.6s | | | | | | |
| **ARSA** | **Arzberg** | **4.66** | **340** | Pn | **Pn** | **02 50 43.5** | **+1.7** |
| | 2.7nm,0.3s | | | | | | |
| ARSA | | | | Sn | **Sn** | **02 51 35.8** | **-0.3** |
| | 6.6nm,0.6s | | | | | | |
| **MYKA** | **Terra Mystica** | **4.78** | **323** | ePn | **Pn** | **02 50 44.7** | **+1.1** |
| | 1.2nm,0.4s | | | | | | |
| MYKA | | | | Sg | **Sg** | **02 52 08.0** | **+3.4** |
| | 16nm,0.9s | | | | | | |
| **MYKA** | **Terra Mystica** | **4.78** | **323** | Pn | **Pn** | **02 50 44.7** | **+1.1** |
| | 1.2nm,0.4s | | | | | | |
| **SOP** | **Sopron** | **4.88** | **350** | ⇓ex | **Pn** | **02 50 45.4** | **+0.6** |
| SOP | | | | ex | **Sn** | **02 51 43.8** | **+2.3** |
| **SOP** | **Sopron** | **4.88** | **350** | ⇓ePn | **Pn** | **02 50 45.4** | **+0.6** |
| SOP | | | | eSn | **Sn** | **02 51 43.8** | **+2.3** |
| **LOT** | **Lotru** | **4.99** | **57** | ⇓iP | **Pn** | **02 50 48.4** | **+2.0** |
| **LOT** | **Lotru** | **4.99** | **57** | ⇓iP | **Pn** | **02 50 48.4** | **+2.0** |
| **CONA** | **Conrad Observa** | **5.23** | **345** | i Pn | **Pn** | **02 50 51.1** | **+1.4** |
| | 1.1nm,0.3s | | | | | | |
| CONA | | | | eSn | **Sn** | **02 51 50.4** | **+0.2** |
| | 7.0nm,0.5s | | | | | | |
| **CONA** | **Conrad Observa** | **5.23** | **345** | Pn | **Pn** | **02 50 51.1** | **+1.4** |
| | 1.1nm,0.3s | | | | | | |
| CONA | | | | Sn | **Sn** | **02 51 50.4** | **+0.2** |
| | 7.0nm,0.5s | | | | | | |
| **DRGR** | | **5.23** | **40** | ⇑iP | **Pn** | **02 50 50.8** | **+1.1** |
| **DRGR** | | **5.23** | **40** | ⇑iP | **Pn** | **02 50 50.8** | **+1.1** |
| DRGR | | | | S | **Sn** | **02 51 51.0** | **+0.7** |
| **PSZ** | **Piszkesteto** | **5.24** | **15** | ⇓iP | **Pn** | **02 50 50.2** | **+0.3** |
| **PSZ** | **Piszkesteto** | **5.24** | **15** | ⇓ex | **Pn** | **02 50 50.5** | **+0.6** |
| PSZ | | | | ex | **Sn** | **02 51 48.9** | **-1.6** |
| **PSZ** | **Piszkesteto** | **5.24** | **15** | ⇓iP | **Pn** | **02 50 50.2** | **+0.3** |
| **PSZ** | **Piszkesteto** | **5.24** | **15** | ⇓ePn | **Pn** | **02 50 50.5** | **+0.6** |
| **ABTA** | **Abfaltersbach** | **5.40** | **317** | ePn | **Pn** | **02 50 52.4** | **+0.4** |
| | 2.1nm,0.5s | | | | | | |
| ABTA | | | | i Sg | **Sg** | **02 52 26.5** | **+2.1** |
| | 19nm,0.9s | | | | | | |
| **ABTA** | **Abfaltersbach** | **5.40** | **317** | Pn | **Pn** | **02 50 52.4** | **+0.4** |
| | 2.1nm,0.5s | | | | | | |
| ABTA | | | | Sg | **Sg** | **02 52 26.5** | **+2.1** |
| | 19nm,0.9s | | | | | | |
| **ARR** | **Arges** | **5.50** | **61** | ⇓iP | **Pn** | **02 50 54.4** | **+1.0** |
| **ARR** | **Arges** | **5.50** | **61** | ⇓iP | **Pn** | **02 50 54.4** | **+1.0** |
| **MOA** | **Molln** | **5.56** | **334** | i Pn | **Pn** | **02 50 56.8** | **+2.6** |
| | 0.8nm,0.3s | | | | | | |
| MOA | | | | i Sn | **Sn** | **02 52 00.3** | **+2.0** |
| | 11nm,0.5s | | | | | | |
| **MOA** | **Molln** | **5.56** | **334** | Pn | **Pn** | **02 50 56.8** | **+2.6** |
| | 0.8nm,0.3s | | | | | | |
| MOA | | | | Sn | **Sn** | **02 52 00.3** | **+2.0** |
| | 11nm,0.5s | | | | | | |
| **CJR** | **Cluj-Napoca** | **5.62** | **45** | ⇓iP | **Pn** | **02 50 56.6** | **+1.6** |
| **CJR** | **Cluj-Napoca** | **5.62** | **45** | ⇓iP | **Pn** | **02 50 56.6** | **+1.6** |
| **SMOL** | **Smolenice** | **5.64** | **357** | eSn | **Sn** | **02 51 59.6** | **-0.6** |
| **SMOL** | **Smolenice** | **5.64** | **357** | eSN | **Sn** | **02 51 59.6** | **-0.6** |
| **VYHS** | **Vyhne** | **5.66** | **7** | ePN | **Pn** | **02 50 57.3** | **+1.8** |
| VYHS | | | | eSN | **Sn** | **02 52 01.3** | **+0.7** |
| **MTUR** | **Matau** | **5.72** | **63** | ⇑iP | **Pn** | **02 50 58.7** | **+2.2** |
| **MTUR** | **Matau** | **5.72** | **63** | ⇑iP | **Pn** | **02 50 58.7** | **+2.2** |
| **VOIR** | | **5.79** | **61** | ⇓iP | **Pn** | **02 51 00.0** | **+2.5** |
| **VOIR** | | **5.79** | **61** | ⇓iP | **Pn** | **02 51 00.0** | **+2.5** |
| **KECS** | **Kecovo** | **5.90** | **18** | ePn | **Pn** | **02 50 59.9** | **+1.0** |
| **KECS** | **Kecovo** | **5.90** | **18** | ePN | **Pn** | **02 50 59.9** | **+1.0** |
| KECS | | | | eSN | **Sn** | **02 52 04.7** | **-2.0** |
| **DOPR** | **Dopca** | **6.24** | **58** | ⇑iP | **Pn** | **02 51 05.6** | **+2.1** |
| **DOPR** | **Dopca** | **6.24** | **58** | ⇑iP | **Pn** | **02 51 05.6** | **+2.1** |
| **WATA** | **Walderalm** | **6.27** | **317** | ePn | **Pn** | **02 51 05.8** | **+1.7** |
| | 1.2nm,0.3s | | | | | | |
| **WATA** | **Walderalm** | **6.27** | **317** | Pn | **Pn** | **02 51 05.8** | **+1.7** |
| | 1.2nm,0.3s | | | | | | |
| **MLR** | **Muntele Rosu** | **6.40** | **63** | Pn | **Pn** | **02 51 09.1** | **+3.3** |
| | 0.0nm,0.3s,baz=266,slow=13,SNR=3.4 | | | | | | |
| MLR | | | | Sn | **Sn** | **02 52 22.0** | **+2.9** |
| | 0.0nm,0.3s,baz=246,slow=19,SNR=2.9 | | | | | | |
| **MLR** | **Muntele Rosu** | **6.40** | **63** | ⇑iP | **Pn** | **02 51 08.7** | **+2.9** |
| **MLR** | **Muntele Rosu** | **6.40** | **63** | ⇑iP | **Pn** | **02 51 08.7** | **+2.9** |
| **VRAC** | **Vranov** | **6.48** | **353** | Pn | **Pn** | **02 51 08.3** | **+1.5** |
| | 0.1nm,0.3s,baz=174,slow=17,SNR=2.3 | | | | | | |
| VRAC | | | | Sn | **Sn** | **02 52 20.6** | **-0.4** |
| | 0.1nm,0.3s,baz=347,slow=18,SNR=3.5 | | | | | | |
| **FETA** | **Feichten** | **6.51** | **312** | Pn | Pn | 02 51 12.3 | +4.9 |
| | 1.8nm,0.6s | | | | | | |
| FETA | | | | i Sn | **Sn** | **02 52 25.5** | **+3.5** |
| | 2.9nm,0.6s | | | | | | |
| **MOTA** | **Moosalm** | **6.51** | **316** | ePn | **Pn** | **02 51 08.7** | **+1.3** |
| | 2.0nm,0.4s | | | | | | |
| MOTA | | | | eSn | **Sn** | **02 52 27.5** | **+5.5** |
| | 2.4nm,0.5s | | | | | | |
| **MOTA** | **Moosalm** | **6.51** | **316** | Pn | **Pn** | **02 51 08.7** | **+1.3** |
| | 2.0nm,0.4s | | | | | | |
| **GERES** | **GERESS Array B** | **6.62** | **336** | Pn | **Pn** | **02 51 10.3** | **+1.6** |
| | 0.3nm,0.3s,baz=157,slow=13,SNR=9.7 | | | | | | |
| GERES | | | | Sn | **Sn** | **02 52 23.9** | **-0.5** |
| | 0.7nm,0.3s,baz=149,slow=24,SNR=8.7 | | | | | | |
| **RETA** | **Reutte** | **6.78** | **315** | ePn | **Pn** | **02 51 12.7** | **+1.7** |
| | 0.4nm,0.3s | | | | | | |
| RETA | | | | i Sn | **Sn** | **02 52 31.7** | **+3.2** |
| | 4.9nm,0.7s | | | | | | |
| **RETA** | **Reutte** | **6.78** | **315** | Pn | **Pn** | **02 51 12.7** | **+1.7** |
| | 0.4nm,0.3s | | | | | | |
| **DAVOX** | **Davos/Dischmat** | **6.86** | **307** | Pn | **Pn** | **02 51 11.5** | **-0.7** |
| | baz=136,slow=17 | | | | | | |
| DAVOX | | | | Sn | **Sn** | **02 52 29.0** | **-1.5** |
| | 0.3nm,0.3s,baz=139,slow=19,SNR=3.5 | | | | | | |
| **KHC** | **Kasperske Hory** | **6.91** | **336** | ePN | **Pn** | **02 51 14.0** | **+1.3** |
| KHC | | | | eSN | **Sn** | **02 52 28.9** | **-2.6** |
| KHC | | | | ex | x | 02 52 50.5 | |
| **KHC** | **Kasperske Hory** | **6.91** | **336** | Pn | **Pn** | **02 51 14.0** | **+1.3** |
| **BURAR** | **Bucovina Array** | **7.04** | **45** | ⇑iP | **Pn** | **02 51 17.4** | **+2.8** |
| **BURAR** | **Bucovina Array** | **7.04** | **45** | ⇑iP | **Pn** | **02 51 17.4** | **+2.8** |
| **DAVA** | **Damuels** | **7.13** | **311** | ePn | **Pn** | **02 51 20.0** | **+4.0** |
| | 2.4nm,0.5s | | | | | | |
| DAVA | | | | eSn | **Sn** | **02 52 38.8** | **+1.6** |
| | 3.9nm,0.5s | | | | | | |
| **PRU** | **Pruhonice** | **7.46** | **343** | eSN | **Sn** | **02 52 44.4** | **-0.5** |
| **PRU** | **Pruhonice** | **7.46** | **343** | Sn | **Sn** | **02 52 44.4** | **-0.5** |
| **DPC** | **Dobruska-Polom** | **7.54** | **353** | eSN | **Sn** | **02 52 45.8** | **-1.2** |
| **DPC** | **Dobruska-Polom** | **7.54** | **353** | Sn | **Sn** | **02 52 45.8** | **-1.2** |
| **SBF** | **Sospel** | **7.63** | **281** | eSn | **Sn** | **02 52 47.0** | **-2.3** |
| | 0.8nm,0.2s | | | | | | |
| **FRF** | **La Foret Royal** | **8.19** | **279** | eP | **Pn** | **02 51 31.2** | **+1.0** |
| **FRF** | **La Foret Royal** | **8.19** | **279** | eP | **Pn** | **02 51 31.2** | **+1.0** |
| **LPG** | **La Plagne** | **8.37** | **292** | eP | **Pn** | **02 51 34.8** | **+1.8** |
| LPG | | | | eSn | **Sn** | **02 53 00.8** | **-7.1** |
| | 0.2nm,0.2s | | | | | | |
| **LPG** | **La Plagne** | **8.37** | **292** | eP | **Pn** | **02 51 34.8** | **+1.8** |
| **LPL** | **La Plagne** | **8.39** | **292** | eP | **Pn** | **02 51 34.9** | **+1.7** |
| LPL | | | | eSn | **Sn** | **02 52 59.9** | **-8.3** |
| | 1.0nm,0.4s | | | | | | |
| **LPL** | **La Plagne** | **8.39** | **292** | eP | **Pn** | **02 51 34.9** | **+1.7** |
| **ORIF** | **Oris-en-Rattie** | **8.86** | **287** | eP | **Pn** | **02 51 41.2** | **+1.7** |
| **ORIF** | **Oris-en-Rattie** | **8.86** | **287** | eP | **Pn** | **02 51 41.2** | **+1.7** |
| **CABF** | **La Chapelle** | **9.14** | **298** | eP | **Pn** | **02 51 43.0** | **-0.4** |
| **CABF** | **La Chapelle** | **9.14** | **298** | eP | **Pn** | **02 51 43.0** | **-0.4** |
| **IDI** | **Anoyia** | **9.36** | **142** | Pn | **Pn** | **02 51 47.6** | **+1.1** |
| | 0.1nm,0.3s,baz=3.6,slow=16,SNR=2.2 | | | | | | |
| IDI | | | | Sn | **Sn** | **02 53 25.5** | **-6.5** |
| | 0.4nm,0.3s,baz=310,slow=18,SNR=3.3 | | | | | | |
| **KEST** | **Kesra** | **9.70** | **225** | Pn | Pn | 02 51 58.9 | +7.9 |
| | 0.1nm,0.3s,baz=54,slow=16,SNR=3.1 | | | | | | |
| **FINES** | **FINESS Array B** | **19.24** | **12** | P | **Pn** | **02 53 57.2** | **+0.7** |
| | 0.1nm,0.3s,baz=191,slow=9.3,SNR=3.9 | | | | | | |
| **GEYT** | **Alibeck** | **30.87** | **85** | LR | LR | 03 11 50.6 | |
| | comp=Z,90nm,19.3s,baz=340,slow=43 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.74** | **62** | P | **P** | **02 57 45.1** | **+0.3** |
| | 0.2nm,0.5s,baz=289,slow=4.9,SNR=2.1 | | | | | | |
| **YKA** | **Yellowknife Ar** | **68.26** | **338** | P | **P** | **03 00 31.2** | **-0.9** |
| | 0.1nm,0.4s,baz=36,slow=5.6,SNR=4.2 | | | | | | |
| **ILAR** | **Eielson Array** | **72.01** | **353** | P | **P** | **03 00 54.8** | **-0.2** |
| | 0.1nm,0.6s,baz=356,slow=5.7,SNR=3.3 | | | | | | |

---

*CSEM **26** 03:04:37.6±0.3, 38°.65N×43°.23E, h10km, MD2.6, Error ellipse: s-maj=8.3km s-min=6.3km az=80.0*
*DDA **26** 03:04:37.7, 38°.63N×43°.21E, h7km, Md2.6*
*ISCJB **26** 03:04:38.1±0.6, 38°.65N±0°.03×43°.23E±0°.05, h12km±7km, Error ellipse: s-maj=6.6km s-min=5.1km az=3.8*
**ISC 26 03:04:37.9**±1.1**, 38°.66N**±0°.03×**43°.20E**±0°.03**, h9**km±10km**, n20,** σ**0§68**/30**, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.16** | **115** | ePG | **Pg** | **03 04 41.5** | **+0.1** |
| **VANB** | **Van** | **0.16** | **115** | ePg | **Pg** | **03 04 41.5** | **+0.1** |
| **TVAN** | **Van** | **0.21** | **130** | i P | **Pg** | **03 04 41.5** | **-0.7** |
| TVAN | | | | i S | **Sg** | **03 04 45.2** | **0.0** |
| **TVAN** | **Van** | **0.21** | **130** | P | **Pg** | **03 04 41.5** | **-0.7** |
| TVAN | | | | S | **Sg** | **03 04 45.2** | **0.0** |
| **GEVA** | **Gevas** | **0.37** | **198** | i P | **Pg** | **03 04 44.8** | **-0.4** |
| GEVA | | | | i S | **Sb** | **03 04 52.4** | **-0.2** |
| **GEVA** | **Gevas** | **0.37** | **198** | P | **Pg** | **03 04 44.8** | **-0.4** |
| GEVA | | | | S | **Sb** | **03 04 52.4** | **-0.2** |
| **ERCV** | **ERCIS-VAN** | **0.37** | **16** | ePG | **Pg** | **03 04 45.0** | **-0.2** |
| ERCV | | | | eSG | **Sb** | **03 04 52.4** | **-0.3** |
| **ERCV** | **ERCIS-VAN** | **0.37** | **16** | ePg | **Pg** | **03 04 45.0** | **-0.2** |
| ERCV | | | | eSg | **Sb** | **03 04 52.4** | **-0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.40** | **291** | i P | **Pg** | **03 04 45.8** | **0.0** |
| ADCV | | | | i S | **Sb** | **03 04 53.1** | **-0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.40** | **291** | P | **Pg** | **03 04 45.8** | **0.0** |
| ADCV | | | | S | **Sb** | **03 04 53.1** | **-0.5** |
| **VMUR** | **Van-Muradiye** | **0.43** | **41** | i P | **Pg** | **03 04 46.7** | **+0.3** |
| VMUR | | | | i S | **Sb** | **03 04 54.1** | **-0.5** |
| **VMUR** | **Van-Muradiye** | **0.43** | **41** | P | **Pg** | **03 04 46.7** | **+0.3** |
| VMUR | | | | S | **Sb** | **03 04 54.1** | **-0.5** |
| **TUTA** | **Tutak** | **0.80** | **338** | i P | **Pg** | **03 04 53.0** | **-0.3** |
| **TUTA** | **Tutak** | **0.80** | **338** | P | **Pg** | **03 04 53.0** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **0.93** | **350** | ePG | **Pg** | **03 04 54.0** | **-1.7** |
| **AGRB** | **Hanur-Agry** | **0.93** | **350** | ePg | **Pg** | **03 04 54.0** | **-1.7** |
| **EKAR** | **Karacoban** | **1.07** | **304** | i P | **Pn** | **03 05 00.3** | **+1.1** |
| **EKAR** | **Karacoban** | **1.07** | **304** | P | **Pn** | **03 05 00.3** | **+1.1** |
| **HAKT** | **HAKKARI** | **1.17** | **160** | i P | **Pg** | **03 04 59.7** | **-0.7** |
| **HAKT** | **HAKKARI** | **1.17** | **160** | P | **Pg** | **03 04 59.7** | **-0.7** |

---

*IDC **26** 03:25:40.4±1.2, 37°.55N×57°.47E, h0km, mb3.4/7, mb1 3.8/14, mb1mx3.7/39, mbtmp3.6/14, ML3.7/5, Error ellipse: s-maj=19.4km s-min=7.3km az=165.0*
*THR **26** 03:25:41.7±0.8, 37°.62N×57°.57E, h14km±5km, ML3.5*
*ISCJB **26** 03:25:41.9±0.6, 37°.80N±0°.04×57°.55E±0°.04, h17km±5km, mb3.4/6, Error ellipse: s-maj=6.6km s-min=4.8km az=173.0*
*CSEM **26** 03:25:42.1±0.4, 37°.75N×57°.55E, h20km, ML3.6, Error ellipse: s-maj=11.1km s-min=9.4km az=3.0*
*TEH **26** 03:25:43.9, 37°.57N×57°.65E, h7km, ML3.7*
*NNC **26** 03:25:50.7±2.7, 38°.31N×57°.94E, h0km, mb3.9, Error ellipse: s-maj=22.7km s-min=11.9km az=24.0*
**ISC 26 03:25:41.9**±0.8**, 37°.67N**±0°.04×**57°.62E**±0°.03**, h13**km±6km**, n41,** σ**1§56**/53**, mb3.4**/6**, 2C-3D, Iran-Turkmenistan border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BJRD** | **Bojnurd** | **0.17** | **282** | ePg | **Pg** | **03 25 45.8** | **-0.2** |
| BJRD | | | | eSg | **Sg** | **03 25 48.7** | **-0.2** |
| BJRD | | | | AML | AML | 03 25 49.1 | |
| | comp=N,10μm,0.1s | | | | | | |
| **BJRD** | **Bojnurd** | **0.17** | **282** | ePg | **Pg** | **03 25 45.8** | **-0.2** |
| BJRD | | | | eSg | **Sg** | **03 25 48.7** | **-0.2** |
| **GEYT** | **Alibeck** | **0.47** | **56** | Pg | **Pb** | **03 25 52.3** | **+0.2** |
| | comp=N,68nm,0.3s,baz=228,slow=17,SNR=251 | | | | | | |
| GEYT | | | | Lg | Lg | 03 26 01.6 | |
| | comp=N,1μm,0.3s,baz=226,slow=43,SNR=171 | | | | | | |
| **ISFR** | **Sfrayin** | **0.68** | **153** | ePg | **Pg** | **03 25 53.8** | **-1.4** |
| ISFR | | | | eSg | **Sg** | **03 26 02.9** | **-1.3** |
| ISFR | | | | eAMB | AMB | 03 26 06.2 | |
| | comp=Z,70μm,0.1s | | | | | | |
| **IEMG** | **Emamgholi** | **0.86** | **107** | ePg | **Pg** | **03 25 58.3** | **-0.2** |
| IEMG | | | | eAMB | AMB | 03 26 14.5 | |
| | comp=Z,35μm,0.1s | | | | | | |
| **IEMG** | **Emamgholi** | **0.86** | **107** | ePg | **Pg** | **03 25 58.3** | **-0.2** |
| **IKRD** | **Kardeh** | **1.14** | **141** | ePn | Pg | 03 26 13.8 | +10 |
| IKRD | | | | eAMB | AMB | 03 26 44.7 | |
| | comp=Z,9μm,0.1s | | | | | | |
| **MRVT** | **Maraveh tapeh** | **1.21** | **270** | ePg | **Pn** | **03 26 03.6** | **-1.0** |
| MRVT | | | | eSg | **Sb** | **03 26 19.6** | **-0.7** |
| MRVT | | | | AML | AML | 03 26 26.4 | |
| | comp=N,980nm,0.6s | | | | | | |
| **MRVT** | **Maraveh tapeh** | **1.21** | **270** | ePg | **Pn** | **03 26 03.6** | **-1.0** |
| MRVT | | | | eSg | **Sb** | **03 26 19.6** | **-0.7** |
| **IAKL** | **Akhelmad** | **1.40** | **139** | eAMB | AMB | 03 26 34.2 | |
| | comp=Z,16μm,0.1s | | | | | | |
| **IPAY** | **Payeh** | **1.64** | **137** | ePn | **Pn** | **03 26 10.3** | **-0.3** |
| IPAY | | | | eAMB | AMB | 03 26 39.1 | |
| | comp=Z,13μm,0.1s | | | | | | |
| **IPAY** | **Payeh** | **1.64** | **137** | ePn | **Pn** | **03 26 10.3** | **-0.3** |
| **IMOG** | **Moghan** | **2.08** | **138** | ePn | **Pb** | **03 26 18.8** | **-0.8** |
| IMOG | | | | eAMB | AMB | 03 26 51.3 | |
| | comp=Z,10μm,0.2s | | | | | | |
| **IMOG** | **Moghan** | **2.08** | **138** | ePn | **Pb** | **03 26 18.8** | **-0.8** |
| **SHRO** | **Shahrood** | **2.11** | **218** | ePg | **Pn** | **03 26 18.3** | **+1.3** |
| SHRO | | | | eSg | **Sb** | **03 26 46.1** | **0.0** |
| **SHRO** | **Shahrood** | **2.11** | **218** | ePn | **Pn** | **03 26 18.0** | **+1.0** |
| SHRO | | | | eSg | **Sb** | **03 26 46.2** | **0.0** |
| **IMYA** | **Miami** | **2.39** | **123** | ePn | **Pb** | **03 26 23.0** | **-1.8** |
| IMYA | | | | eAMB | AMB | 03 27 11.5 | |
| | comp=N,16μm,0.4s | | | | | | |
| **IMYA** | **Miami** | **2.39** | **123** | ePn | **Pb** | **03 26 23.0** | **-1.8** |
| **IGLO** | **Ghaloghah** | **3.24** | **250** | ePn | **Pn** | **03 26 34.5** | **+1.9** |
| IGLO | | | | eAMB | AMB | 03 27 38.1 | |
| | comp=Z,3μm,0.3s | | | | | | |
| **TABS** | **Tabas** | **4.03** | **186** | ePn | **Pn** | **03 26 44.7** | **+1.4** |
| **TABS** | **Tabas** | **4.03** | **186** | ePn | **Pn** | **03 26 44.7** | **+1.4** |
| **IFIR** | **Firoozkooh** | **4.40** | **244** | ePn | **Pn** | **03 26 51.1** | **+2.5** |
| IFIR | | | | eAMB | AMB | 03 26 54.9 | |
| | comp=Z,463nm,0.2s | | | | | | |
| **IFIR** | **Firoozkooh** | **4.40** | **244** | ePn | **Pn** | **03 26 51.1** | **+2.5** |
| **GNI** | **Garni** | **10.34** | **288** | Pn | **Pn** | **03 28 10.5** | **+0.5** |
| | comp=Z,0.3nm,0.3s,baz=118,slow=12,SNR=2.7 | | | | | | |
| GNI | | | | Sn | **Sn** | **03 30 05.1** | **-0.6** |
| | comp=Z,0.2nm,0.3s,baz=131,slow=19,SNR=2.5 | | | | | | |
| **KK31** | **Karatay Array** | **11.23** | **57** | ⇑Pn | **Pn** | **03 28 25.3** | **+3.3** |
| | comp=Z,0.8nm,0.5s,baz=240,slow=13,SNR=4.3 | | | | | | |
| KK31 | | | | ⇑Sn | **Sn** | **03 30 26.2** | **-1.1** |
| | comp=Z,1.2nm,0.5s | | | | | | |
| **AB31** | **Akbulak array** | **11.71** | **8** | Pn | **Pn** | **03 28 28.5** | **0.0** |
| | comp=Z,1.1nm,0.6s,baz=187,slow=12,SNR=6.6 | | | | | | |
| AB31 | | | | ⇓Sn | **Sn** | **03 30 35.4** | **-3.5** |
| | comp=Z,4.8nm,0.9s,baz=190,slow=25,SNR=4.6 | | | | | | |
| **AB31** | **Akbulak array** | **11.71** | **8** | Pn | **Pn** | **03 28 28.5** | **0.0** |
| | comp=Z,1.1nm,0.6s,SNR=6.6 | | | | | | |
| AB31 | | | | Sn | **Sn** | **03 30 35.4** | **-3.5** |
| | comp=Z,4.8nm,0.9s,SNR=4.6 | | | | | | |
| **KBZ** | **Khabaz** | **12.70** | **303** | Pn | **Pn** | **03 28 40.5** | **-1.5** |
| | comp=Z,0.2nm,0.3s,baz=120,slow=4.1,SNR=5.5 | | | | | | |
| KBZ | | | | Sn | **Sn** | **03 31 01.7** | **-1.6** |
| | comp=Z,0.2nm,0.3s,baz=206,slow=2.6,SNR=3.7 | | | | | | |
| **AKTO** | **Aktyubinsk** | **12.77** | **1** | Pn | **Pn** | **03 28 44.7** | **+1.7** |
| | comp=Z,0.3nm,0.3s,baz=277,slow=9.5,SNR=3.8 | | | | | | |
| AKTO | | | | Sn | **Sn** | **03 31 04.6** | **-0.3** |
| | comp=Z,0.3nm,0.3s,baz=189,slow=19,SNR=4.3 | | | | | | |
| **AKTO** | **Aktyubinsk** | **12.77** | **1** | ⇓Pn | **Pn** | **03 28 45.1** | **+2.1** |
| | comp=Z,4.6nm,1.1s | | | | | | |
| AKTO | | | | ⇓Sn | **Sn** | **03 31 01.9** | **-3.0** |
| | comp=Z,4.3nm,0.7s | | | | | | |
| **KVAR** | **Kislovodsk Arr** | **12.93** | **304** | Pn | **Pn** | **03 28 44.1** | **-1.2** |
| | baz=42,slow=9.7,SNR=3.2 | | | | | | |
| KVAR | | | | Sn | **Sn** | **03 31 05.9** | **-3.0** |
| | baz=72,slow=19,SNR=3.1 | | | | | | |
| **AAK** | **Ala-Archa** | **13.82** | **64** | Pn | **Pn** | **03 28 58.0** | **+0.4** |
| | comp=Z,0.2nm,0.3s,baz=233,slow=13,SNR=4.1 | | | | | | |
| **BVAR** | **Borovoye Array** | **17.75** | **26** | P | **P** | **03 29 49.7** | **+0.4** |
| | comp=Z,0.7nm,0.3s,baz=206,slow=11,SNR=14 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **19.74** | **42** | P | **Pn** | **03 30 13.0** | **+0.4** |
| | baz=244,slow=11,SNR=2.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **20.35** | **56** | P | Pn | 03 30 19.9 | 0.0 |
| | comp=Z,1.3nm,0.7s,baz=244,slow=9.4,SNR=12 | | | | | | |
| **AKASG** | **Malin Array Be** | **24.00** | **312** | P | **P** | **03 30 56.8** | **+0.8** |
| | comp=Z,0.7nm,0.5s,baz=104,slow=8.1,SNR=4.8 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **24.77** | **40** | P | **P** | **03 31 05.3** | **+2.2** |
| | comp=Z,2.1nm,0.5s,baz=249,slow=9.3,SNR=9.5 | | | | | | |
| **MLR** | **Muntele Rosu** | **24.83** | **298** | P | **P** | **03 31 05.6** | **+1.7** |
| | comp=Z,0.3nm,0.7s,baz=103,slow=18,SNR=3.8 | | | | | | |
| **GERES** | **GERESS Array B** | **33.44** | **304** | P | **P** | **03 32 21.0** | **+0.6** |
| | comp=Z,0.3nm,0.7s,baz=115,slow=23,SNR=2.2 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **55.20** | **259** | P | **P** | **03 35 14.1** | **-0.4** |
| | comp=Z,0.3nm,0.8s,baz=56,slow=6.0,SNR=3.4 | | | | | | |
| **YKA** | **Yellowknife Ar** | **79.99** | **356** | P | **P** | **03 37 51.9** | **+1.6** |
| | comp=Z,0.3nm,0.5s,baz=5.5,slow=5.4,SNR=10.0 | | | | | | |

---

*ISCJB **26** 03:37:47.6±1.0, 39°.19N±0°.06×73°.03E±0°.07, h10km, Error ellipse: s-maj=9.6km s-min=6.6km az=137.8*
*SOME **26** 03:37:47.2, 39°.38N×72°.58E, h30km*
*NNC **26** 03:37:47.8±3.2, 39°.25N×72°.93E, h0km, mb3.3, mpv3.0, Error ellipse: s-maj=33.2km s-min=12.7km az=141.0*
*KRNET **26** 03:37:47.4±0.1, 39°.26N×73°.03E, mb2.8*
**ISC 26 03:37:48.5**±1.8**, 39°.26N**±0°.09×**72°.92E**±0°.05**, h10**km**, n20,** σ**1§72**/38**, 18C-16D, Kyrgyzstan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SFK** | **Sufi-Kurgan** | **0.88** | **31** | ⇓eP | **Pg** | **03 38 03.6** | **-1.9** |
| | baz=25 | | | | | | |
| SFK | | | | ⇓eS | **Sg** | **03 38 15.7** | **-1.3** |
| | baz=25 | | | | | | |
| **SFK** | **Sufi-Kurgan** | **0.88** | **31** | ⇑P | **Pg** | **03 38 03.7** | **-1.9** |
| | 15nm,0.3s | | | | | | |
| SFK | | | | ⇓S | **Sb** | **03 38 17.8** | **-0.1** |
| | 19nm,0.2s | | | | | | |
| **ARSB** | **Arslanbob** | **2.06** | **1** | ⇑eP | **Pn** | **03 38 24.2** | **+0.8** |
| | baz=359 | | | | | | |
| ARSB | | | | ⇑eS | **Sb** | **03 38 51.5** | **-0.4** |
| | baz=359 | | | | | | |
| **ARK** | **Arkit** | **2.64** | **344** | ⇑eP | **Pn** | **03 38 32.7** | **+1.4** |
| | baz=343 | | | | | | |
| ARK | | | | ⇑iS | **Sn** | **03 39 05.3** | **+1.9** |
| | baz=343 | | | | | | |
| **TOKL** | **Toktogul** | **2.68** | **359** | ⇓iP | **Pn** | **03 38 33.1** | **+1.3** |
| | baz=357 | | | | | | |
| TOKL | | | | ⇓iS | **Sn** | **03 39 06.3** | **+1.9** |
| | baz=357 | | | | | | |
| **AML** | **Almayashu** | **2.93** | **11** | ⇑eP | **Pn** | **03 38 36.4** | **+0.9** |
| | baz=10.0 | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| AML | | | | | ⇑*i*S | | **Sn** | 03 39 12.3 | **+1.3** |
| | baz=10.0 | | | | | | | | |
| **NRN** | **Naryn** | **3.20** | **46** | ⇓*i*P | | | **Pn** | 03 38 38.7 | **-0.5** |
| | baz=45 | | | | | | | | |
| NRN | | | | | ⇓*e*S | | **Sn** | 03 39 16.3 | **-1.3** |
| | baz=45 | | | | | | | | |
| **UCH** | **Uchtor** | **3.20** | **22** | ⇑*e*P | | | **Pn** | 03 38 40.4 | **+1.0** |
| | baz=20 | | | | | | | | |
| UCH | | | | | ⇑*i*S | | **Sn** | 03 39 18.9 | **+1.1** |
| | baz=20 | | | | | | | | |
| **DZET** | **Dzherino** | **3.22** | **263** | ⇑Pn | | | **Pn** | 03 38 40.1 | **+0.9** |
| | 2.5nm,0.4s | | | | | | | | |
| DZET | | | | | ⇑Lg | | Lg | 03 39 29.1 | |
| | 14nm,0.4s | | | | | | | | |
| **MNAS** | **Manas** | **3.24** | **355** | ⇑*e*P | | | **Pn** | 03 38 40.9 | **+1.4** |
| | baz=353 | | | | | | | | |
| MNAS | | | | | ⇑*e*S | | **Sn** | 03 39 20.3 | **+2.0** |
| | baz=353 | | | | | | | | |
| **MNAS** | **Manas** | **3.24** | **355** | ⇑Pn | | | **Pn** | 03 38 41.0 | **+1.4** |
| | 2.8nm,0.6s | | | | | | | | |
| MNAS | | | | | ⇓Sn | | **Sb** | 03 39 22.3 | **-3.5** |
| | 7.8nm,0.5s | | | | | | | | |
| **KZA** | **Kyzart** | **3.33** | **31** | ⇓*e*P | | | **Pn** | 03 38 41.9 | **+0.9** |
| | baz=30 | | | | | | | | |
| KZA | | | | | ⇓*i*S | | **Sn** | 03 39 21.2 | **+0.4** |
| | baz=30 | | | | | | | | |
| **EKS2** | **Erkin-Say** | **3.46** | **11** | ⇑*e*P | | | **Pn** | 03 38 44.0 | **+1.4** |
| | baz=9.0 | | | | | | | | |
| EKS2 | | | | | ⇑*e*S | | **Sn** | 03 39 24.9 | **+1.2** |
| | baz=9.0 | | | | | | | | |
| **MRKS** | **Merke** | **3.49** | **4** | *e*P | | | **Pn** | 03 38 45.9 | **+2.9** |
| | 2.8nm,0.3s | | | | | | | | |
| MRKS | | | | | *e*S | | **Sn** | 03 39 27.7 | **+3.3** |
| | 7.8nm,0.4s | | | | | | | | |
| **AAK** | **Ala-Archa** | **3.58** | **19** | ⇓*e*P | | | **Pn** | 03 38 45.4 | **+1.1** |
| | baz=18 | | | | | | | | |
| AAK | | | | | ⇓*i*S | | **Sn** | 03 39 27.3 | **+0.6** |
| | baz=18 | | | | | | | | |
| **AAK** | **Ala-Archa** | **3.58** | **19** | ⇓Pn | | | **Pn** | 03 38 47.0 | **+2.7** |
| | 4.0nm,0.5s | | | | | | | | |
| AAK | | | | | ⇑Lg | | Lg | 03 39 37.2 | |
| | 9.9nm,0.8s | | | | | | | | |
| **IUG** | **luzhnay** | **3.62** | **324** | *e*P | | | **Pn** | 03 38 44.2 | **-0.7** |
| | 7.6nm,0.4s | | | | | | | | |
| IUG | | | | | *e*S | | **Sn** | 03 39 25.4 | **-2.3** |
| | 26nm,0.4s | | | | | | | | |
| **KBK** | **Karagaybulak** | **3.73** | **24** | ⇓*i*P | | | **Pn** | 03 38 47.1 | **+0.8** |
| | baz=23 | | | | | | | | |
| KBK | | | | | ⇓*i*S | | **Sn** | 03 39 30.8 | **+0.5** |
| | baz=23 | | | | | | | | |
| **KK31** | **Karatay Array** | **4.25** | **335** | ⇓Pn | | | **Pn** | 03 38 53.7 | **+0.4** |
| | 0.3nm,0.3s,baz=161,slow=14,SNR=3.0 | | | | | | | | |
| KK31 | | | | | ⇑Sn | | **Sn** | 03 39 42.4 | **-0.6** |
| | 2.3nm,0.3s,baz=156,slow=25,SNR=8.1 | | | | | | | | |
| **DGS** | **Degeres** | **4.52** | **27** | *e*P | | | **Pb** | 03 39 10.8 | **+2.7** |
| | 3.3nm,0.5s | | | | | | | | |
| DGS | | | | | *e*S | | **Sg** | 03 40 11.0 | **-2.8** |
| | 4.2nm,0.6s | | | | | | | | |

*ISCJB **26** 03:38:04.0±1.5, 19.°9S±0.°5×179.°1W±0.°3, h550km, mb3.4/7, Error ellipse: s-maj=75.0km s-min=9.5km az=153.0*
*IDC **26** 03:38:06.2±2.1, 19.°71S×179.°05W, h563km±17km, mb3.0/7, mb1 3.4/9, mb1mx3.2/23, mbtmp4.0/9, Error ellipse: s-maj=84.6km s-min=11.0km az=156.0*
**ISC 26 03:38:05.1±1.7, 19.°8S±0.°5×179.°0W±0.°3, h550km, n12, σ1s38/15, mb3.4/7, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **AFI** | **Afiamalu** | **9.04** | **51** | P | | **P** | **03 40 15.1** | **+1.7** |
| | 1.8nm,0.3s,baz=263,slow=8.1,SNR=4.2 | | | | | | | |
| AFI | | | | S | | **S** | 03 41 57.0 | **-1.7** |
| | 2.0nm,0.3s,baz=231,slow=16,SNR=3.1 | | | | | | | |
| **DZM** | **Mont Dzumac** | **13.80** | **258** | P | | **P** | 03 41 04.5 | **+2.1** |
| | 0.4nm,0.3s,baz=72,slow=20,SNR=3.8 | | | | | | | |
| **ASAR** | **Alice Springs** | **43.78** | **256** | P | | **P** | 03 45 22.6 | **-0.2** |
| | 2.6nm,0.5s,baz=96,slow=7.5,SNR=56 | | | | | | | |
| ASAR | | | | ScP | | **ScP** | 03 49 54.9 | **-1.8** |
| | 0.3nm,0.7s,baz=110,slow=4.8,SNR=4.7 | | | | | | | |
| ASAR | | | | S | | **S** | 03 51 12.7 | **-1.1** |
| | 0.3nm,0.8s,baz=91,slow=15,SNR=3.5 | | | | | | | |
| **WRA** | **Warramunga Arr** | **43.78** | **262** | P | | **P** | 03 45 22.6 | **-0.2** |
| | 1.2nm,0.3s,baz=97,slow=7.6,SNR=98 | | | | | | | |
| WRA | | | | S | | **S** | 03 51 11.8 | **-2.1** |
| | 0.5nm,0.8s,baz=98,slow=14,SNR=3.0 | | | | | | | |
| **NVAR** | **Mina Array Bea** | **81.15** | **44** | P | | **P** | 03 49 23.5 | **-0.3** |
| | 0.4nm,0.6s,baz=234,slow=7.7,SNR=3.4 | | | | | | | |
| **TXAR** | **Lajitas Array** | **87.46** | **58** | P | | **P** | 03 49 53.8 | **-1.0** |
| | 0.6nm,0.9s,baz=227,slow=6.2,SNR=5.4 | | | | | | | |
| **ILAR** | **Eielson Array** | **87.83** | **13** | P | | **P** | 03 49 55.6 | **+0.1** |
| | 0.3nm,0.7s,baz=212,slow=5.2,SNR=6.5 | | | | | | | |
| **PDAR** | **Pinedale Array** | **89.08** | **44** | P | | **P** | 03 50 01.8 | **-0.4** |
| | 0.2nm,0.5s,baz=199,slow=1.9,SNR=3.1 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **96.25** | **25** | P | | **P** | 03 50 35.4 | **+1.2** |
| | 0.4nm,1.1s,baz=243,slow=4.4,SNR=2.9 | | | | | | | |
| **AKASG** | **Malin Array Be** | **141.94** | **331** | PKhKP | | PKPpre | 03 56 30.1 | |
| | 1.8nm,0.4s,baz=44,slow=4.5,SNR=8.2 | | | | | | | |
| **BRTR** | **Keskin Array B** | **145.67** | **312** | PKPbc | | **PKPdf** | **03 56 42.0** | **+0.6** |
| | 0.8nm,0.8s,baz=139,slow=3.9,SNR=4.9 | | | | | | | |
| **GERES** | **GERESS Array B** | **149.26** | **344** | PKPbc | | **PKPbc** | **03 56 51.1** | **-1.0** |
| | 0.2nm,0.5s,baz=60,slow=2.4,SNR=2.7 | | | | | | | |

**JMA 26 03:49:32.3±0.1, 37.°38N×141.°52E, h23km±2km, M3.7, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **JFK** | **Kawauchi** | **0.51** | **269** | P | | Pb | 03 49 42.4 | -0.3 |
| JFK | | | | S | | Sb | 03 49 49.4 | -0.4 |
| **ONAJ** | **Iwakimizuishiy** | **0.64** | **244** | P | | Pb | 03 49 44.5 | -0.3 |
| ONAJ | | | | S | | Sb | 03 49 53.1 | -0.3 |
| **JMM** | **Marumori** | **0.75** | **310** | P | | Pb | 03 49 46.3 | -0.5 |
| JMM | | | | S | | Sb | 03 49 56.3 | -0.3 |
| **JFT** | **Otama** | **0.95** | **279** | P | | Pn | 03 49 50.3 | 0.0 |
| JFT | | | | S | | Sn | 03 50 02.9 | -0.2 |
| **JIO** | **Ouri** | **1.08** | **353** | P | | Pn | 03 49 51.5 | -0.5 |
| **JOU** | **Okura** | **1.19** | **326** | P | | Pb | 03 49 54.1 | -0.2 |
| **MAT** | **Matsushiro** | **2.78** | **254** | P | | Pn | 03 50 17.7 | +2.2 |
| MAT | | | | S | | Sb | 03 50 55.6 | +0.6 |

**WEL 26 03:52:10.5±0.1, 37.°77S×176.°71E, h5km, ML3.5/33, 4C-6D, Error ellipse: s-maj=0.7km s-min=0.5km az=0.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **OPRZ** | **Ohinepanea** | **0.14** | **240** | ⇓PG | | Pg | 03 52 13.6 | +0.2 |
| OPRZ | | | | SG | | Sg | 03 52 16.2 | +0.8 |
| OPRZ | | | | AML | | AML | 03 52 22.1 | |
| **MARZ** | **Manawahe** | **0.21** | **188** | ⇑PG | | Pg | 03 52 15.0 | +0.2 |
| MARZ | | | | SG | | Sg | 03 52 18.4 | +0.8 |
| MARZ | | | | AML | | AML | 03 52 21.4 | |
| **WHRZ** | **Whale Island** | **0.22** | **112** | ⇑PG | | Pg | 03 52 14.9 | +0.1 |
| WHRZ | | | | SG | | Sg | 03 52 18.5 | +0.7 |
| **EDRZ** | **Edgecumbe** | **0.33** | **177** | PG | | Pg | 03 52 17.2 | +0.1 |
| EDRZ | | | | AML | | AML | 03 52 28.7 | |
| EDRZ | | | | AML | | AML | 03 52 31.7 | |
| **LIRZ** | **Lichensteins R** | **0.35** | **228** | PG | | Pg | 03 52 17.8 | +0.6 |
| LIRZ | | | | AML | | AML | 03 52 31.0 | |
| LIRZ | | | | AML | | AML | 03 52 33.4 | |
| **TGRZ** | **Tauranga** | **0.36** | **277** | PG | | Pg | 03 52 18.0 | +0.5 |
| TGRZ | | | | AML | | AML | 03 52 33.7 | |
| TGRZ | | | | AML | | AML | 03 52 35.5 | |
| **MKRZ** | **Makatiti** | **0.41** | **208** | PG | | Pg | 03 52 19.3 | +0.8 |
| MKRZ | | | | AML | | AML | 03 52 32.0 | |
| MKRZ | | | | AML | | AML | 03 52 32.3 | |
| **OMRZ** | **Omania** | **0.43** | **219** | ⇓PG | | Pg | 03 52 19.2 | +0.3 |
| OMRZ | | | | AML | | AML | 03 52 31.1 | |
| OMRZ | | | | AML | | AML | 03 52 40.6 | |
| **KARZ** | **Kaharoa** | **0.45** | **236** | ⇓PG | | Pg | 03 52 19.6 | +0.5 |
| KARZ | | | | AML | | AML | 03 52 34.7 | |
| KARZ | | | | AML | | AML | 03 52 36.4 | |
| **WIZ** | **White Island** | **0.45** | **57** | ⇓PG | | Pg | 03 52 19.1 | 0.0 |
| WIZ | | | | AML | | AML | 03 52 25.6 | |
| WIZ | | | | AML | | AML | 03 52 25.8 | |
| **TARZ** | **Mount Tarawera** | **0.49** | **200** | ⇑PG | | Pg | 03 52 20.7 | +0.7 |
| TARZ | | | | AML | | AML | 03 52 32.7 | |
| TARZ | | | | AML | | AML | 03 52 34.8 | |
| **NGRZ** | **Ngongotaha** | **0.53** | **232** | PG | | Pg | 03 52 21.4 | +0.7 |
| **HLRZ** | **Highlands Stat** | **0.56** | **211** | PG | | Pg | 03 52 22.0 | +0.7 |
| HLRZ | | | | AML | | AML | 03 52 37.6 | |
| HLRZ | | | | AML | | AML | 03 52 47.4 | |
| **URZ** | **Urewera** | **0.58** | **147** | PG | | Pg | 03 52 21.2 | -0.5 |
| URZ | | | | AML | | AML | 03 52 32.0 | |
| URZ | | | | AML | | AML | 03 52 36.6 | |
| **RRRZ** | **Republican Roa** | **0.59** | **196** | PG | | Pg | 03 52 21.9 | +0.1 |
| RRRZ | | | | AML | | AML | 03 52 36.1 | |
| RRRZ | | | | AML | | AML | 03 52 48.8 | |
| **KMRZ** | **Kaimai** | **0.62** | **263** | P* | | Pg | 03 52 22.8 | +0.5 |
| **MUGZ** | **Murupara** | **0.70** | **176** | P* | | Pg | 03 52 24.6 | +0.5 |
| **RUGZ** | **Raukumara Rang** | **0.79** | **104** | ⇓P* | | Pg | 03 52 25.3 | -0.4 |
| **ALRZ** | **Allen Road** | **0.84** | **200** | P* | | Pg | 03 52 27.1 | +0.4 |
| ALRZ | | | | AML | | AML | 03 52 30.4 | |
| ALRZ | | | | AML | | AML | 03 52 46.7 | |
| **HAZ** | **Te Kaha** | **0.85** | **89** | ⇓P* | | Pg | 03 52 26.3 | -0.4 |
| HAZ | | | | AML | | AML | 03 52 39.9 | |
| HAZ | | | | AML | | AML | 03 52 41.2 | |
| HAZ | | | | AML | | AML | 03 52 41.6 | |
| HAZ | | | | AML | | AML | 03 52 44.1 | |
| **MWZ** | **Matawai** | **0.85** | **131** | P* | | Pg | 03 52 26.4 | -0.5 |
| MWZ | | | | AML | | AML | 03 52 40.6 | |
| MWZ | | | | AML | | AML | 03 52 42.1 | |
| **RTZ** | **Ruatahuna** | **0.87** | **166** | P* | | Pg | 03 52 26.9 | -0.3 |
| **RAGZ** | **Rawiri** | **0.91** | **143** | P* | | Pg | 03 52 27.6 | -0.3 |
| RAGZ | | | | AML | | AML | 03 52 41.8 | |
| RAGZ | | | | AML | | AML | 03 52 42.7 | |
| **TOZ** | **Tahuroa Road** | **0.96** | **272** | P* | | Pg | 03 52 27.7 | -1.2 |
| TOZ | | | | AML | | AML | 03 52 33.5 | |
| TOZ | | | | AML | | AML | 03 52 42.4 | |
| **TWGZ** | **Tauwhareparae** | **1.08** | **112** | P* | | Pg | 03 52 30.9 | -0.3 |
| TWGZ | | | | AML | | AML | 03 52 51.7 | |
| TWGZ | | | | AML | | AML | 03 52 53.2 | |
| **MTHZ** | **Maungataniwha** | **1.08** | **175** | ⇑P* | | Pg | 03 52 30.7 | -0.6 |
| **TLZ** | **Tolley Road** | **1.08** | **239** | P* | | Pg | 03 52 30.9 | -0.4 |
| TLZ | | | | AML | | AML | 03 52 54.1 | |
| TLZ | | | | AML | | AML | 03 52 54.4 | |
| **MRHZ** | **Matea Rd** | **1.08** | **192** | P* | | Pg | 03 52 30.6 | -0.7 |
| MRHZ | | | | AML | | AML | 03 52 54.0 | |
| MRHZ | | | | AML | | AML | 03 52 54.5 | |
| **PKGZ** | **Pakihiroa** | **1.08** | **97** | P* | | Pg | 03 52 31.0 | -0.3 |
| PKGZ | | | | AML | | AML | 03 52 49.2 | |
| PKGZ | | | | AML | | AML | 03 52 53.5 | |
| **SNGZ** | **Shannon Statio** | **1.12** | **154** | P* | | Pg | 03 52 32.0 | -0.1 |
| SNGZ | | | | AML | | AML | 03 52 53.5 | |
| SNGZ | | | | AML | | AML | 03 52 54.5 | |
| **RIGZ** | **Rimuhau** | **1.25** | **139** | P* | | Pg | 03 52 34.2 | -0.1 |
| RIGZ | | | | AML | | AML | 03 52 56.9 | |
| RIGZ | | | | AML | | AML | 03 53 03.8 | |
| **PUZ** | **Puketiti** | **1.26** | **104** | P* | | Pg | 03 52 33.7 | -0.9 |
| PUZ | | | | AML | | AML | 03 52 56.4 | |
| PUZ | | | | AML | | AML | 03 53 03.9 | |
| **MXZ** | **Matakaoa Point** | **1.28** | **81** | P* | | Pn | 03 52 34.8 | -0.2 |
| **KUZ** | **Kuaotunu** | **1.30** | **322** | P* | | Pn | 03 52 33.7 | -1.6 |
| KUZ | | | | AML | | AML | 03 52 57.6 | |
| KUZ | | | | AML | | AML | 03 52 59.7 | |
| KUZ | | | | AML | | AML | 03 53 00.1 | |
| KUZ | | | | AML | | AML | 03 53 02.0 | |
| **WMGZ** | **Waiomatatini S** | **1.35** | **93** | PN | | Pn | 03 52 35.4 | -0.5 |
| WMGZ | | | | AML | | AML | 03 52 58.6 | |
| WMGZ | | | | AML | | AML | 03 53 01.6 | |
| **WHHZ** | **Waihua** | **1.36** | **163** | PN | | Pn | 03 52 35.4 | -0.9 |
| WHHZ | | | | AML | | AML | 03 53 00.3 | |
| WHHZ | | | | AML | | AML | 03 53 08.1 | |
| **KNZ** | **Kokohu** | **1.46** | **149** | PN | | Pn | 03 52 37.1 | -0.4 |
| KNZ | | | | AML | | AML | 03 53 07.0 | |
| KNZ | | | | AML | | AML | 03 53 14.2 | |
| **ARHZ** | **Aropaoanui** | **1.50** | **172** | PN | | Pn | 03 52 37.8 | -0.4 |
| ARHZ | | | | AML | | AML | 03 53 02.9 | |
| ARHZ | | | | AML | | AML | 03 53 04.5 | |
| **WIAZ** | **Waiheke Island** | **1.59** | **307** | PN | | Pn | 03 52 39.4 | 0.0 |
| WIAZ | | | | AML | | AML | 03 52 42.7 | |
| WIAZ | | | | AML | | AML | 03 52 42.7 | |
| **OTVZ** | **Oturere** | **1.61** | **210** | P* | | Pn | 03 52 38.9 | -0.9 |
| **HIZ** | **Hauiti** | **1.64** | **243** | PN | | Pn | 03 52 38.2 | -1.8 |
| HIZ | | | | AML | | AML | 03 53 16.0 | |
| **WNVZ** | **Wahianoa** | **1.78** | **209** | P* | | Pn | 03 52 42.5 | +0.4 |
| **BHHZ** | **Black Hill Sta** | **1.79** | **196** | P* | | Pb | 03 52 43.1 | -0.7 |
| **AWAZ** | **Awhitu Peninsu** | **1.79** | **293** | PN | | Pn | 03 52 42.2 | +0.1 |
| **GRZ** | **Great Barrier** | **1.82** | **326** | PN | | Pn | 03 52 42.5 | 0.0 |
| GRZ | | | | AML | | AML | 03 53 15.8 | |
| GRZ | | | | AML | | AML | 03 53 24.4 | |

*SOME **26** 03:59:11.9, 42.°15N×73.°17E, h0km*
*KRNET **26** 03:59:12.1±0.1, 42.°19N×73.°18E, h16km, mb2.5*
*NNC **26** 03:59:13.8±0.9, 42.°28N×73.°21E, h0km, mb2.7, mpv2.5, Error ellipse: s-maj=11.4km s-min=6.0km az=3.0*
*KNET **26** 03:59:14.2±0.4, 42.°22N×73.°31E, h12km±1km, ml1.7, Error ellipse: s-maj=2.4km s-min=1.1km az=75.0*
**ISC 26 03:59:12.2±1.2, 42.°22N±0.°02×73.°14E±0.°02, h0km±11km, n34, σ0s78/65, 31C-21D, Kyrgyzstan**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **TOKL** | **Toktogul** | **0.35** | **216** | ⇑*i*P | | **Pg** | **03 59 19.0** | **+0.2** |
| | baz=222 | | | | | | | |
| TOKL | | | | ⇑*i*S | | **Sg** | 03 59 23.4 | **+0.1** |
| | baz=222 | | | | | | | |
| **AML** | **Almayashu** | **0.42** | **102** | ⇑*i*P | | **Pg** | **03 59 20.3** | **+0.1** |
| | baz=99 | | | | | | | |
| AML | | | | ⇑*i*S | | **Sg** | 03 59 25.8 | **+0.1** |
| | baz=99 | | | | | | | |
| **AML** | **Almayashu** | **0.42** | **102** | P | | **Pg** | **03 59 20.3** | **+0.1** |
| | 20nm,0.1s,SNR=96 | | | | | | | |
| AML | | | | ⇑S | | **Sg** | 03 59 25.8 | **+0.1** |
| | 97nm,0.3s | | | | | | | |
| **MRKS** | **Merke** | **0.53** | **7** | *e*P | | **Pb** | **03 59 23.7** | **-0.7** |
| | 68nm,0.1s | | | | | | | |
| MRKS | | | | *e*S | | **Sb** | 03 59 31.5 | **-1.1** |
| | 71nm,0.3s | | | | | | | |
| **MNAS** | **Manas** | **0.54** | **300** | ⇑*i*P | | **Pb** | **03 59 23.9** | **-0.8** |
| | baz=301 | | | | | | | |
| MNAS | | | | ⇑*i*S | | **Sb** | 03 59 31.7 | **-1.4** |
| | baz=301 | | | | | | | |
| **MNAS** | **Manas** | **0.54** | **300** | ⇓P | | **Pb** | **03 59 24.0** | **-0.8** |
| | 5.1nm,0.3s | | | | | | | |
| MNAS | | | | ⇓S | | **Sb** | 03 59 32.1 | **-1.0** |
| | 5.9nm,0.1s | | | | | | | |
| **EKS2** | **Erkin-Say** | **0.64** | **47** | ⇑*i*P | | **Pg** | **03 59 25.2** | **+0.6** |
| | baz=43 | | | | | | | |
| EKS2 | | | | ⇑*i*S | | **Sg** | 03 59 33.5 | **+0.6** |
| | baz=43 | | | | | | | |
| **EKS2** | **Erkin-Say** | **0.64** | **47** | P | | **Pg** | **03 59 25.2** | **+0.6** |
| | 7.6nm,0.1s,SNR=60 | | | | | | | |
| EKS2 | | | | ⇑S | | **Sg** | 03 59 34.0 | **+1.1** |
| | 6.4nm,0.1s | | | | | | | |
| **ARSB** | **Arslanbob** | **0.90** | **188** | ⇓*e*P | | **Pg** | **03 59 29.2** | **-0.3** |
| | baz=190 | | | | | | | |
| ARSB | | | | ⇓*i*S | | **Sg** | 03 59 40.7 | **-0.5** |
| | baz=190 | | | | | | | |
| **ARK** | **Arkit** | **0.97** | **245** | ⇑*e*P | | **Pb** | **03 59 31.5** | **-0.5** |
| | baz=246 | | | | | | | |
| ARK | | | | ⇑*i*S | | **Sb** | 03 59 44.8 | **-0.7** |
| | baz=246 | | | | | | | |
| **UCH** | **Uchtor** | **1.02** | **89** | ⇓*i*P | | **Pg** | **03 59 31.3** | **-0.4** |
| | baz=88 | | | | | | | |
| UCH | | | | ⇓*i*S | | **Sg** | 03 59 45.1 | **+0.1** |
| | baz=88 | | | | | | | |
| **UCH** | **Uchtor** | **1.02** | **89** | P | | **Pg** | **03 59 31.4** | **-0.4** |
| | 9.2nm,0.2s,SNR=40 | | | | | | | |
| UCH | | | | ⇑S | | **Sg** | 03 59 45.0 | **+0.1** |
| | 23nm,0.3s | | | | | | | |
| **AAK** | **Ala-Archa** | **1.08** | **67** | ⇓*e*P | | **Pg** | **03 59 32.4** | **-0.6** |
| | baz=65 | | | | | | | |
| AAK | | | | ⇓*i*S | | **Sg** | 03 59 46.9 | **-0.1** |
| | baz=65 | | | | | | | |
| **AAK** | **Ala-Archa** | **1.08** | **67** | ⇑P | | **Pg** | **03 59 32.8** | **-0.2** |
| | 2.6nm,0.3s | | | | | | | |
| AAK | | | | ⇑S | | **Sg** | 03 59 46.6 | **-0.4** |
| | 5.6nm,0.5s | | | | | | | |
| **FRU1** | **Bishkek** | **1.25** | **61** | ⇑*i*P | | **Pb** | **03 59 35.9** | **-0.8** |
| | baz=60 | | | | | | | |
| FRU1 | | | | ⇑*i*S | | **Sg** | 03 59 52.4 | **+0.1** |
| | baz=60 | | | | | | | |
| **KBK** | **Karagaybulak** | **1.41** | **71** | ⇑*i*P | | **Pn** | **03 59 38.6** | **-0.6** |
| | baz=70 | | | | | | | |
| KBK | | | | ⇑*i*S | | **Sb** | 03 59 57.2 | **-0.8** |
| | baz=70 | | | | | | | |
| **KBK** | **Karagaybulak** | **1.41** | **71** | P | | **Pn** | **03 59 38.8** | **-0.4** |
| | 2.4nm,0.1s,SNR=18 | | | | | | | |
| **CHMS** | **Chumysh** | **1.42** | **56** | ⇑*i*P | | **Pn** | **03 59 38.4** | **-0.9** |
| | baz=55 | | | | | | | |
| CHMS | | | | ⇑*i*S | | **Sb** | 03 59 57.5 | **-0.7** |
| | baz=55 | | | | | | | |
| **USP** | **Ospenovka** | **1.45** | **43** | ⇑*i*P | | **Pn** | **03 59 39.6** | **-0.1** |
| | baz=42 | | | | | | | |
| USP | | | | ⇑*i*S | | **Sg** | 03 59 59.1 | **+0.4** |
| | baz=42 | | | | | | | |
| **USP** | **Ospenovka** | **1.45** | **43** | ⇓P | | **Pb** | **03 59 39.8** | **-0.2** |
| | 5.5nm,0.1s,SNR=8.2 | | | | | | | |
| USP | | | | ⇓S | | **Sg** | 03 59 59.5 | **+0.8** |
| | 9.5nm,0.2s | | | | | | | |
| **KZA** | **Kyzart** | **1.57** | **95** | ⇓*i*P | | **Pn** | **03 59 41.4** | **-0.3** |
| | baz=94 | | | | | | | |
| KZA | | | | ⇓*i*S | | **Sn** | 04 00 02.5 | **-0.5** |
| | baz=94 | | | | | | | |
| **KZA** | **Kyzart** | **1.57** | **95** | ⇓P | | **Pb** | **03 59 42.0** | **-0.4** |
| | 4.6nm,0.2s,SNR=12 | | | | | | | |
| KZA | | | | ⇓S | | **Sb** | 04 00 03.0 | **0.0** |
| | 16nm,0.2s | | | | | | | |
| **TKM2** | **Tokmak 2** | **1.94** | **68** | ⇑*i*P | | **Pb** | **03 59 47.5** | **-1.1** |
| | baz=67 | | | | | | | |
| TKM2 | | | | ⇑*i*S | | **Sb** | 04 00 12.5 | **-1.0** |
| | baz=67 | | | | | | | |
| **TKM2** | **Tokmak 2** | **1.94** | **68** | ⇑Pn | | **Pb** | **03 59 48.0** | **-0.6** |
| | 2.4nm,0.3s | | | | | | | |
| TKM2 | | | | Sn | | **Sb** | 04 00 14.1 | **+0.6** |
| | 2.5nm,0.3s | | | | | | | |
| **TKM2** | **Tokmak 2** | **1.94** | **68** | ⇓P | | **Pb** | **03 59 48.1** | **-0.6** |
| | 5.5nm,0.2s,SNR=12 | | | | | | | |
| **KK31** | **Karatay Array** | **2.13** | **295** | ⇓Pn | | **Pb** | **03 59 52.1** | **+0.4** |
| | 0.4nm,0.2s,baz=110,slow=15,SNR=31 | | | | | | | |
| KK31 | | | | ⇓Sn | | **Sg** | 04 00 21.9 | **+1.2** |
| | 2.3nm,0.3s,baz=93,slow=31,SNR=14 | | | | | | | |
| **DGS** | **Degeres** | **2.19** | **61** | *e*P | | **Pb** | **03 59 52.8** | **0.0** |
| | 18nm,0.4s | | | | | | | |
| DGS | | | | *e*S | | **Sg** | 04 00 22.3 | **-0.2** |
| | 12nm,0.2s | | | | | | | |
| **SFK** | **Sufi-Kurgan** | **2.22** | **173** | ⇓*e*P | | **Pn** | **03 59 51.6** | **+1.1** |
| | baz=173 | | | | | | | |
| SFK | | | | ⇓*e*S | | **Sn** | 04 00 19.4 | **+0.6** |
| | baz=173 | | | | | | | |
| **SFK** | **Sufi-Kurgan** | **2.22** | **173** | ⇑Pn | | **Pb** | **03 59 53.5** | **+0.2** |
| | 1.3nm,0.4s | | | | | | | |
| SFK | | | | ⇓Sn | | **Sb** | 04 00 22.2 | **+0.7** |
| | 5.2nm,0.4s | | | | | | | |
| **NRN** | **Naryn** | **2.28** | **109** | ⇑*e*P | | **Pb** | **03 59 53.2** | **-1.1** |
| | baz=109 | | | | | | | |
| NRN | | | | ⇑*i*S | | **Sb** | 04 00 22.1 | **-1.0** |
| | baz=109 | | | | | | | |
| **ULHL** | **Ulahol** | **2.30** | **88** | ⇑*e*P | | **Pn** | **03 59 52.6** | **+1.0** |
| | baz=88 | | | | | | | |
| ULHL | | | | ⇑*e*S | | **Sn** | 04 00 21.7 | **+1.0** |
| | baz=88 | | | | | | | |
| **ULHL** | **Ulahol** | **2.30** | **88** | ⇓P | | **Pb** | **03 59 54.0** | **-0.7** |
| | 5.1nm,0.3s,SNR=16 | | | | | | | |
| **IZV** | **Izvestkoviy** | **2.69** | **71** | *e*P | | **Pb** | **04 00 00.6** | **-0.7** |
| | 16nm,0.5s | | | | | | | |
| IZV | | | | *e*S | | **Sb** | 04 00 36.5 | **+1.7** |
| | 8.2nm,0.2s | | | | | | | |
| **ARXS** | **Arharly** | **3.96** | **58** | *e*P | | **Pb** | **04 00 25.5** | **+2.6** |
| | 5.7nm,0.4s | | | | | | | |
| ARXS | | | | *e*S | | **Sg** | **04 01 19.2** | **-0.3** |
| | 5.9nm,0.4s | | | | | | | |

*IDC **26** 04:03:12.0±0.9, 0.°54N×116.°75E, h0km, mb3.9/11, mb1 3.9/11, mb1mx3.7/58, mbtmp3.9/11, Error ellipse: s-maj=60.9km s-min=16.3km az=60.0*
*ISCJB **26** 04:03:15.0±0.8, 0.°5N±0.°2×116.°7E±0.°3, h33km, mb3.9/11, Error ellipse: s-maj=48.6km s-min=12.9km az=150.6*
**ISC 26 04:03:17.2±1.0, 0.°5N±0.°2×116.°7E±0.°4, h35km, n12, σ0s79/14, mb3.9/11, Borneo**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **26.69** | **141** | P | | **P** | **04 08 52.6** | **-0.6** |
| | 1.4nm,0.9s,baz=323,slow=10.0,SNR=6.4 | | | | | | | |
| WRA | | | | PcP | | **PcP** | 04 12 16.8 | **+0.2** |
| | 0.6nm,1.1s,baz=265,slow=23,SNR=3.0 | | | | | | | |
| **ASAR** | **Alice Springs** | **29.28** | **146** | P | | **P** | **04 09 16.4** | **0.0** |
| | 0.5nm,0.9s,baz=326,slow=8.1,SNR=3.2 | | | | | | | |
| ASAR | | | | PcP | | **PcP** | 04 12 22.8 | **0.0** |
| | 0.4nm,0.8s,baz=321,slow=2.6,SNR=3.6 | | | | | | | |
| **STKA** | **Stephens Creek** | **39.92** | **146** | P | | **P** | **04 10 48.4** | **+0.4** |
| | 2.0nm,0.9s,baz=323,slow=11,SNR=3.2 | | | | | | | |
| **SONM** | **Songino Array** | **47.97** | **351** | P | | **P** | **04 11 51.4** | **-1.2** |
| | 0.4nm,0.7s,baz=177,slow=7.2,SNR=3.0 | | | | | | | |
| **MKAR** | **Makanchi Array** | **55.02** | **332** | P | | **P** | **04 12 45.6** | **+0.4** |
| | 0.8nm,0.6s,baz=133,slow=9.6,SNR=7.2 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **59.39** | **339** | P | | **P** | **04 13 15.8** | **-0.2** |
| | 2.4nm,0.5s,baz=135,slow=6.5,SNR=8.2 | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **59.49** | **333** | P | | **P** | **04 13 17.3** | **+0.5** |
| | 1.0nm,0.7s,baz=132,slow=6.4,SNR=9.1 | | | | | | | |
| **PETK** | **Petropavlovsk-** | **62.46** | **26** | P | | **P** | **04 13 38.0** | **+1.2** |
| | 2.9nm,0.8s,baz=247,slow=7.4,SNR=2.4 | | | | | | | |
| **BVAR** | **Borovoye Array** | **64.89** | **331** | P | | **P** | **04 13 53.9** | **+1.0** |
| | 1.3nm,0.8s,baz=133,slow=10,SNR=5.0 | | | | | | | |
| **AKTO** | **Aktyubinsk** | **70.17** | **324** | P | | **P** | **04 14 26.6** | **+0.2** |
| | 1.5nm,0.7s,baz=95,slow=12,SNR=4.5 | | | | | | | |
| **ILAR** | **Eielson Array** | **92.26** | **25** | P | | **P** | **04 16 23.2** | **-0.2** |
| | 0.2nm,0.9s,baz=264,slow=4.3,SNR=3.1 | | | | | | | |
| **TXAR** | **Lajitas Array** | **131.35** | **49** | PKP | | **PKPdf** | **04 22 25.2** | **-1.5** |
| | 0.3nm,0.9s,baz=325,slow=1.1,SNR=3.0 | | | | | | | |

*TEH **26** 04:11:58.9, 37.°65N×57.°40E, h10km, ML3.6*
*ISCJB **26** 04:11:59.8±0.8, 37.°64N±0.°05×57.°54E±0.°05, h4km±6km, mb3.3/2, Error ellipse: s-maj=8.7km s-min=5.7km az=32.9*
*CSEM **26** 04:11:59.6±1.0, 37.°80N×57.°60E, h10km, ML3.6, Error ellipse: s-maj=31.3km s-min=8.5km az=8.0*
*IDC **26** 04:12:00.6±1.3, 37.°61N×57.°51E, h0km, mb3.4/3, mb1 3.6/6, mb1mx3.3/

comp=Z,0.6nm,0.7s,baz=242,slow=12,SNR=5.3

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **ZALV** | **Zalesovo Beam** | **24.75** | **40** | P | | **P** | **04 17 26.2** | **+3.1** |
| | comp=Z,1.2nm,0.5s,baz=248,slow=10,SNR=5.2 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **79.96** | **356** | P | | **P** | **04 24 10.6** | **+0.1** |
| | comp=Z,0.1nm,0.6s,baz=3.0,slow=5.5,SNR=4.7 | | | | | | | |

*ISCJB **26** 04:17:28.0±1.6,53.0S±0.1×10.6E±0.6,h10km,mb4.2/4, MS3.1/1,Error ellipse: s-maj=53.9km s-min=15.3km az=1.5*
*IDC **26** 04:17:28.3±4.0,53.00S×10.62E,h0km,mb4.1/4, mb1 4.2/4,mb1mx3.9/27,mbtmp4.1/4,MS3.2/1,Ms1 3.1/1, ms1mx2.8/22,Error ellipse: s-maj=124.2km s-min=38.4km az=129.0*

**ISC 26 04:17:30.2±1.7,53.0S±0.1×10.5E±0.4,h10km,n12, σ0s87/8,mb4.4/4,Southwest of Africa**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **SNAA** | **Sanae** | **19.66** | **193** | P | | **Pn** | **04 22 01.2** | **+1.0** |
| **VNA2** | **Neumayer--Watz** | **19.71** | **197** | P | | **Pn** | **04 21 59.5** | **-1.4** |
| | baz=27,slow=14 | | | | | | | |
| **VNA3** | **Neumayer Olymp** | **20.40** | **199** | P | | **P** | **04 22 07.1** | **+0.2** |
| **BOSA** | **Boshof** | **26.68** | **30** | LR | | LR | 04 32 31.9 | |
| | comp=Z,49nm,19.4s,baz=214,slow=34 | | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **48.40** | **326** | T | | T | 05 18 20.7 | |
| | baz=160,slow=74,SNR=4.4 | | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **48.41** | **326** | T | | T | 05 18 23.9 | |
| | baz=160,slow=74,SNR=4.9 | | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **48.41** | **326** | T | | T | 05 18 19.9 | |
| | baz=160 | | | | | | | |
| **CPUP** | **Villa Florida** | **56.21** | **270** | P | | **P** | **04 27 09.9** | **-0.4** |
| | 2.9nm,0.8s,baz=148,slow=7.1,SNR=6.3 | | | | | | | |
| **DBIC** | **Dimbokro** | **60.84** | **342** | P | | **P** | **04 27 42.8** | **+0.2** |
| | 1.9nm,0.7s,baz=140,slow=12,SNR=3.6 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **66.30** | **351** | P | | **P** | **04 28 18.4** | **-0.2** |
| | 0.6nm,0.8s,baz=168,slow=6.0,SNR=6.1 | | | | | | | |
| **LPAZ** | **La Paz** | **70.33** | **269** | P | | **P** | **04 28 45.5** | **+0.7** |
| | 3.0nm,0.8s,baz=130,slow=5.4,SNR=11 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **150.10** | **310** | PKPbc | | **PKPbc** | **04 37 19.1** | **-0.5** |
| | 1.2nm,0.9s,baz=94,slow=2.5,SNR=20 | | | | | | | |

**JMA 26 04:20:28.5,37.01N×140.55E,h10km±1km,M3.5,5C-1D Broadband fault plane solution: P waves. NP1:** φs103.00000°,δs59.00000°,λ-104.00000°. **NP2:** φs309.00000°,δs33.00000°,λ-68.00000°. **Principal axes:** T Plg13.0000°, Azm203.0000°; N Plg12.0000°, Azm110.0000°; P Plg72.0000°, Azm340.0000°; **Eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **ONAJ** | **Iwakimizuishiy** | **0.22** | **65** | ↑P | | Pg | 04 20 33.2 | +0.1 |
| ONAJ | | | | S | | Sg | 04 20 36.5 | +0.3 |
| **JHO** | **Hitachi** | **0.40** | **178** | ↑P | | Pg | 04 20 36.1 | -0.2 |
| JHO | | | | S | | Sg | 04 20 41.8 | +0.2 |
| **JFK** | **Kawauchi** | **0.44** | **36** | ↑P | | Pg | 04 20 37.0 | -0.2 |
| JFK | | | | S | | Sg | 04 20 43.2 | +0.2 |
| **JFT** | **Otama** | **0.54** | **342** | S | | Sg | 04 20 46.5 | +0.5 |
| **JFY** | **Yanaizu** | **0.78** | **301** | ↓P | | Pg | 04 20 43.3 | -0.3 |
| JFY | | | | S | | Sg | 04 20 53.5 | -0.3 |
| **JYT** | **Yasato** | **0.83** | **200** | ↑P | | Pg | 04 20 43.8 | -0.7 |
| JYT | | | | S | | Sg | 04 20 55.5 | +0.1 |
| **JMM** | **Marumori** | **0.88** | **13** | ↑P | | Pg | 04 20 44.6 | -0.8 |
| JMM | | | | S | | Sg | 04 20 56.7 | -0.1 |
| **MAT** | **Matsushiro** | **1.94** | **257** | P | | Pn | 04 21 02.4 | +0.9 |
| MAT | | | | S | | Sb | 04 21 27.4 | -0.8 |

**IDC 26 04:24:37.9±6.2,9.69S×161.25E,h171km±34km,mb3.1/3, mb1 3.4/4,mb1mx3.1/39,mbtmp3.7/4,MS2.9/1,Ms1 2.9/1, ms1mx2.5/12 Error ellipse: s-maj=161.1km s-min=26.4km az=132.0,Bougainville-Solomon Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **HNR** | **Honiara** | **1.31** | **281** | *e*P | | Pn | 04 25 06.0 | -1.4 |
| HNR | | | | *e*S | | Sn | 04 25 44.0 | +14 |
| **HNR** | **Honiara** | **1.31** | **281** | P | | Pn | 04 25 07.1 | -0.3 |
| | 19nm,0.3s,baz=124,slow=7.3,SNR=3.4 | | | | | | | |
| HNR | | | | S | | Sn | 04 25 44.2 | +14 |
| | 33nm,0.3s,baz=137,slow=19,SNR=4.5 | | | | | | | |
| **PMG** | **Port Moresby** | **13.90** | **270** | LR | | LR | 04 33 43.2 | |
| | comp=Z,44nm,18.2s,baz=178,slow=39 | | | | | | | |
| **CTA** | **Charters Tower** | **17.79** | **233** | P | | Pn | 04 28 35.4 | +0.3 |
| | 0.1nm,0.3s,baz=67,slow=13,SNR=4.1 | | | | | | | |
| **WRA** | **Warramunga Arr** | **27.90** | **246** | P | | P | 04 30 12.3 | +0.2 |
| | 0.8nm,0.8s,baz=75,slow=9.6,SNR=5.0 | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.51** | **11** | T | | T | 05 00 49.8 | |
| | baz=188,slow=76,SNR=280 | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.51** | **11** | T | | T | 05 00 57.3 | |
| | baz=188,slow=76,SNR=257 | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.53** | **11** | T | | T | 05 00 51.1 | |
| | baz=188,slow=76,SNR=156 | | | | | | | |
| **ASAR** | **Alice Springs** | **29.58** | **239** | P | | P | 04 30 25.9 | -1.1 |
| | 0.5nm,0.8s,baz=66,slow=2.2,SNR=4.3 | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **29.74** | **11** | T | | T | 05 02 26.9 | |
| | baz=188,slow=76,SNR=68 | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **29.75** | **11** | T | | T | 05 02 27.5 | |
| | baz=188,slow=76,SNR=110 | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **29.76** | **11** | T | | T | 05 02 28.4 | |
| | baz=188,slow=76,SNR=94 | | | | | | | |
| **ILAR** | **Eielson Array** | **83.69** | **20** | P | | P | 04 36 47.2 | +0.1 |
| | 0.5nm,0.9s,baz=231,slow=3.7,SNR=5.0 | | | | | | | |

**IDC 26 04:26:09.4±0.8,29.40S×178.94W,h198km±13km, mb3.0/2,mb1 3.4/3,mb1mx3.1/29,mbtmp3.7/3,Error ellipse: s-maj=34.4km s-min=24.9km az=98.0, Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **0.90** | **81** | P | | Pn | 04 26 38.9 | +0.6 |
| | 80nm,0.3s,baz=86,slow=23,SNR=4.1 | | | | | | | |
| RAO | | | | S | | Sn | 04 27 00.9 | +0.3 |
| | 202nm,0.3s,baz=133,slow=16,SNR=7.7 | | | | | | | |
| **URZ** | **Urewera** | **9.43** | **199** | P | | Pn | 04 28 20.9 | -0.2 |
| | 0.4nm,0.3s,baz=79,slow=5.2,SNR=2.6 | | | | | | | |
| URZ | | | | S | | Sn | 04 30 06.6 | 0.0 |
| | 3.0nm,0.3s,baz=248,slow=20,SNR=13 | | | | | | | |
| **ASAR** | **Alice Springs** | **42.35** | **266** | P | | P | 04 33 44.4 | +0.2 |
| | 0.3nm,0.5s,baz=103,slow=7.1,SNR=5.8 | | | | | | | |
| **WRA** | **Warramunga Arr** | **43.25** | **272** | P | | P | 04 33 51.2 | -0.3 |
| | 0.3nm,0.3s,baz=108,slow=7.9,SNR=23 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **163.82** | **182** | PKPab | | PKPab | 04 46 42.0 | -0.5 |
| | 0.4nm,1.0s,baz=161,slow=4.1,SNR=2.2 | | | | | | | |

*ISCJB **26** 04:30:31.6±0.6,39.32N±0.04×33.91E±0.03,h10km±5km, Error ellipse: s-maj=6.7km s-min=4.1km az=160.9*
*CSEM **26** 04:30:31.6±0.2,39.32N×33.92E,h10km,MD2.5,Error ellipse: s-maj=4.0km s-min=3.0km az=163.0*
*ISK **26** 04:30:31.0,39.30N×33.94E,h6km,MD2.5*
*DDA **26** 04:30:31.6,39.30N×33.87E,h7km,Md2.7*

**ISC 26 04:30:31.7±0.9,39.31N±0.03×33.92E±0.02,h12km±9km, n24,σ0s63/40,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **KAMT** | **Kaman** | **0.17** | **289** | *e*PG | | **Pg** | **04 30 35.8** | **+0.1** |
| KAMT | | | | *e*SG | | **Sg** | **04 30 38.2** | **-0.2** |
| **KAMT** | **Kaman** | **0.17** | **289** | *e*Pg | | **Pg** | **04 30 35.8** | **+0.1** |
| KAMT | | | | *e*Sg | | **Sg** | **04 30 38.2** | **-0.2** |
| **SERE** | **Sereflikochisa** | **0.46** | **218** | *e*PG | | **Pg** | **04 30 40.5** | **-0.3** |
| **SERE** | **Sereflikochisa** | **0.46** | **218** | *e*Pg | | **Pg** | **04 30 40.5** | **-0.3** |
| **CDAG** | **Cicekdag** | **0.47** | **48** | *i* P | | **Pg** | **04 30 40.9** | **0.0** |
| CDAG | | | | *i* S | | **Sg** | **04 30 47.2** | **+0.1** |
| **CDAG** | **Cicekdag** | **0.47** | **48** | P | | **Pg** | **04 30 40.9** | **0.0** |
| CDAG | | | | S | | **Sg** | **04 30 47.2** | **+0.1** |
| **BBAL** | **Bala** | **0.66** | **291** | *i* P | | **Pg** | **04 30 44.3** | **-0.3** |
| BBAL | | | | *i* S | | **Sg** | **04 30 53.6** | **+0.3** |
| **BBAL** | **Bala** | **0.66** | **291** | P | | **Pg** | **04 30 44.3** | **-0.3** |
| BBAL | | | | S | | **Sg** | **04 30 53.6** | **+0.3** |
| **AKSY** | **AKSARAY - Alti** | **0.67** | **191** | *i* P | | **Pg** | **04 30 44.4** | **-0.4** |
| AKSY | | | | *i* S | | **Sg** | **04 30 53.9** | **+0.3** |
| **AKSY** | **AKSARAY - Alti** | **0.67** | **191** | P | | **Pg** | **04 30 44.3** | **-0.4** |
| AKSY | | | | S | | **Sg** | **04 30 53.9** | **+0.3** |
| **AFSR** | **Afar-Bala (A** | **0.68** | **282** | *e*PG | | **Pg** | **04 30 44.7** | **-0.1** |
| **AFSR** | **Afar-Bala (A** | **0.68** | **282** | *e*Pg | | **Pg** | **04 30 44.7** | **-0.1** |
| **KKUL** | **Konya-Kulu** | **0.79** | **260** | *i* P | | **Pb** | **04 30 47.4** | **-0.1** |
| KKUL | | | | *i* S | | **Sg** | **04 30 56.2** | **-1.3** |
| **KKUL** | **Konya-Kulu** | **0.79** | **260** | P | | **Pb** | **04 30 47.4** | **-0.1** |
| KKUL | | | | S | | **Sg** | **04 30 56.2** | **-1.3** |
| **AVNS** | **Nevsehir-Avano** | **0.88** | **125** | *i* P | | **Pb** | **04 30 49.4** | **+0.5** |
| AVNS | | | | *i* S | | **Sb** | **04 31 01.4** | **+0.7** |
| **AVNS** | **Nevsehir-Avano** | **0.88** | **125** | P | | **Pb** | **04 30 49.4** | **+0.5** |
| AVNS | | | | S | | **Sb** | **04 31 01.4** | **+0.7** |
| **YOZ** | **Yozgat** | **1.13** | **73** | *e*PN | | **Pg** | **04 30 52.8** | **-0.6** |
| **YOZ** | **Yozgat** | **1.13** | **73** | *e*Pn | | **Pg** | **04 30 52.8** | **-0.6** |
| **SULT** | **Sultanhani-AKS** | **1.16** | **196** | *e*PN | | **Pg** | **04 30 53.4** | **-0.5** |
| **SULT** | **Sultanhani-AKS** | **1.16** | **196** | *e*Pn | | **Pg** | **04 30 53.4** | **-0.5** |
| **COAL** | **Corum-Alaca** | **1.25** | **41** | *i* P | | **Pg** | **04 30 55.9** | **+0.2** |
| COAL | | | | *i* S | | **Sg** | **04 31 10.2** | **-1.7** |
| **COAL** | **Corum-Alaca** | **1.25** | **41** | P | | **Pg** | **04 30 55.9** | **+0.2** |
| COAL | | | | S | | **Sg** | **04 31 10.2** | **-1.7** |
| **KDHN** | **Kadinhani** | **1.62** | **241** | *i* P | | **Pb** | **04 31 01.6** | **0.0** |
| KDHN | | | | *i* S | | **Sb** | **04 31 22.7** | **+0.8** |
| **KDHN** | **Kadinhani** | **1.62** | **241** | P | | **Pb** | **04 31 01.5** | **0.0** |
| KDHN | | | | S | | **Sb** | **04 31 22.7** | **+0.8** |

*ISCJB **26** 04:33:09.1±1.6,39.13N±0.05×142.5E±0.1,h27km±9km, mb3.7/5,Error ellipse: s-maj=13.8km s-min=8.0km az=179.2*
*JMA **26** 04:33:10.7±0.1,39.15N×142.41E,h30km±1km,M3.8*
*IDC **26** 04:33:16.9±4.4,39.07N×142.26E,h82km±39km,mb3.3/5, mb1 3.5/6,mb1mx3.2/51,mbtmp3.6/6,Error ellipse: s-maj=37.6km s-min=21.1km az=88.0*

**ISC 26 04:33:11.5±1.9,39.18N±0.06×142.4E±0.1,h30km±11km, n17,σ1s14/19,mb3.8/5,Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **OFUJ** | **Ofunato** | **0.55** | **259** | P | | **Pb** | **04 33 22.2** | **-0.5** |
| OFUJ | | | | S | | **Sb** | **04 33 30.4** | **+0.1** |
| **MIYJ** | **Miyakonagasawa** | **0.57** | **313** | P | | **Pb** | **04 33 22.7** | **-0.4** |
| MIYJ | | | | S | | **Sb** | **04 33 31.2** | **+0.2** |
| **JTH** | **Tanohata** | **0.84** | **333** | *e*S | | **Sn** | **04 33 38.4** | **-0.4** |
| **JOM** | **Ohasama** | **0.88** | **290** | P | | **Pn** | **04 33 27.7** | **-0.1** |
| JOM | | | | S | | **Sn** | **04 33 40.1** | **+0.6** |
| **JMK** | **Ichinoseki** | **0.92** | **256** | P | | **Pn** | **04 33 27.7** | **-0.6** |
| JMK | | | | S | | **Sn** | **04 33 40.2** | **-0.3** |
| **JKZ** | **Kuzumaki** | **1.13** | **315** | P | | **Pn** | **04 33 31.8** | **+0.5** |
| JKZ | | | | S | | **Sn** | **04 33 46.7** | **+0.9** |
| **JANG** | **Nango** | **1.35** | **332** | P | | **Pn** | **04 33 34.8** | **+0.4** |
| JANG | | | | S | | **Sn** | **04 33 53.0** | **+1.7** |
| **MAT** | **Matsushiro** | **4.21** | **233** | P | | Pn | 04 34 17.0 | +3.3 |
| **MJAR** | **Matsushiro Arr** | **4.21** | **233** | P | | **Pn** | **04 34 16.8** | **+3.1** |
| | 1.0nm,0.3s,baz=41,slow=11,SNR=17 | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.70** | **125** | T | | T | 05 09 39.4 | |
| | baz=318,slow=75,SNR=104 | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.70** | **125** | T | | T | 05 09 41.9 | |
| | baz=318,slow=75,SNR=70 | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.71** | **125** | T | | T | 05 09 40.3 | |
| | baz=318,slow=75,SNR=67 | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **45.30** | **306** | P | | **P** | **04 41 25.9** | **-0.4** |
| | 0.9nm,0.6s,baz=81,slow=8.4,SNR=3.2 | | | | | | | |
| **ILAR** | **Eielson Array** | **47.29** | **33** | P | | **P** | **04 41 42.5** | **+0.7** |
| | 0.3nm,0.7s,baz=270,slow=5.5,SNR=6.2 | | | | | | | |
| **WRA** | **Warramunga Arr** | **59.29** | **189** | P | | **P** | **04 43 08.7** | **-1.7** |
| | 0.7nm,0.6s,baz=6.2,slow=7.0,SNR=13 | | | | | | | |
| **ASAR** | **Alice Springs** | **63.02** | **189** | P | | **P** | **04 43 34.6** | **-1.0** |
| | 0.5nm,0.7s,baz=4.7,slow=4.9,SNR=4.2 | | | | | | | |
| **AKASG** | **Malin Array Be** | **73.06** | **322** | P | | **P** | **04 44 38.3** | **-0.1** |
| | 0.3nm,0.4s,baz=50,slow=6.1,SNR=3.7 | | | | | | | |

*NNC **26** 04:32:14.1±4.8,51.86N×96.32E,h0km,mb4.3,Error ellipse: s-maj=38.0km s-min=30.0km az=143.0*
*IDC **26** 04:33:21.5±0.8,51.24N×93.18E,h0km,mb3.6/6, mb1 3.7/11,mb1mx3.5/56,mbtmp3.5/11,ML3.2/5,MS3.2/1, Ms1 3.2/1,ms1mx2.6/47,Error ellipse: s-maj=20.6km s-min=11.5km az=177.0*
*MOS **26** 04:33:21.3±1.6,51.21N×93.20E,h14km,mb3.8/5,Error ellipse: s-maj=9.7km s-min=8.7km az=134.1*
*ASRS **26** 04:33:22.0±0.5,51.28N×92.98E,h15km,Ms3.6/4*
*OBM **26** 04:33:22.2±0.1,51.22N×93.13E,h2km,Ml4.0/4,Error ellipse: s-maj=1.9km s-min=0.9km az=165.0*

**ISC 26 04:33:23.9±0.5,51.30N±0.03×93.14E±0.03,h10km,n73, σ2s31/76,mb3.6/7,8C-6D,Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **HVS** | **Khovu-Aksy** | **0.39** | **114** | *e*PG | | **Pg** | **04 33 31.1** | **-0.5** |
| **KZLR** | **Kyzyl** | **0.92** | **63** | *e*Pg | | **Pg** | **04 33 40.8** | **-0.8** |
| KZLR | | | | *i* Sg | | **Sg** | **04 33 53.3** | **-0.2** |
| **KZLR** | **Kyzyl** | **0.92** | **63** | *e*PG | | **Pg** | **04 33 40.8** | **-0.8** |
| KZLR | | | | *i* | | | 04 33 53.3 | |
| **ULG** | **Ulaangom** | **1.50** | **208** | *e*Pg | | Pn | 04 33 48.8 | -2.2 |
| ULG | | | | *e*Sg | | **Sn** | **04 34 08.0** | **-2.6** |
| | 20μm,0.3s | | | | | | | |
| **CERR** | **Cheremushki** | **1.89** | **326** | *e*Pg | | **Pn** | **04 33 57.1** | **+0.9** |
| CERR | | | | *i* Sg | | **Sn** | **04 34 20.1** | **0.0** |
| **CERR** | **Cheremushki** | **1.89** | **326** | *e*PN | | **Pn** | **04 33 57.1** | **+0.9** |
| CERR | | | | *i* | | | 04 34 20.1 | |
| **ABNR** | **Abakan** | **2.65** | **338** | *e*PN | | **Pn** | **04 34 08.3** | **+1.7** |
| ABNR | | | | *i* S | | **Sn** | **04 34 39.0** | **+0.3** |
| **BYO** | **Bayan-Olgiy** | **3.11** | **222** | *e*Pn | | **Pn** | **04 34 13.0** | **-0.1** |
| **BYO** | **Bayan-Olgiy** | **3.11** | **222** | *e*Pg | | **Pn** | **04 34 17.3** | **+4.2** |
| BYO | | | | *e*Sg | | **Sn** | **04 34 56.5** | **+6.1** |
| | 2μm,0.5s | | | | | | | |
| **HBD** | **Hovd** | **3.43** | **197** | *e*Pn | | **Pn** | **04 34 18.0** | **+0.5** |
| **HBD** | **Hovd** | **3.43** | **197** | *e*Pg | | **Pn** | **04 34 22.2** | **+4.7** |
| HBD | | | | *e*Sg | | **Sb** | **04 35 07.9** | **+1.4** |
| **TASR** | **Tashtagol** | **3.56** | **296** | *e*Pg | | **Pb** | **04 34 26.5** | **-0.5** |
| TASR | | | | *e*Sg | | **Sb** | **04 35 10.0** | **-0.3** |
| **TASR** | **Tashtagol** | **3.56** | **296** | *e*PN | | **Pb** | **04 34 26.5** | **-0.5** |
| TASR | | | | *e* | | | 04 35 10.0 | |
| **AKAR** | **Aktash** | **3.63** | **257** | *e*Pn | | **Pn** | **04 34 21.0** | **+0.7** |
| AKAR | | | | *e*Sg | | **Sb** | **04 35 12.4** | **0.0** |
| **AKAR** | **Aktash** | **3.63** | **257** | *e*PN | | **Pn** | **04 34 21.0** | **+0.7** |
| AKAR | | | | *e* | | | 04 35 12.4 | |
| **MINR** | **Mina** | **3.67** | **10** | *e*Sg | | **Sb** | **04 35 18.6** | **+5.4** |
| **DGZ** | **Jazzator, Alta** | **3.98** | **249** | *d*PN | | **Pn** | **04 34 25.6** | **+0.6** |
| **TSC** | **Tosontsengel** | **4.15** | **126** | *e*Pn | | **Pn** | **04 34 28.0** | **+0.6** |
| **TSC** | **Tosontsengel** | **4.15** | **126** | *e*Pg | | **Pn** | **04 34 36.6** | **-0.5** |
| TSC | | | | *e*Sg | | **Sb** | **04 35 31.1** | **+3.8** |
| | 617nm,0.7s | | | | | | | |
| **HTG** | **Hatgal** | **4.53** | **98** | *e*Pn | | **Pn** | **04 34 32.9** | **+0.3** |
| **HTG** | **Hatgal** | **4.53** | **98** | *e*Pg | | **Pb** | **04 34 42.9** | **-0.7** |
| HTG | | | | *e*Sg | | **Sb** | **04 35 44.2** | **+6.0** |
| | 484nm,0.5s | | | | | | | |
| **ELT** | **Eltsovka** | **4.67** | **298** | *e*Pg | | **Pb** | **04 34 44.4** | **-1.4** |
| ELT | | | | *e*Sg | | **Sb** | **04 35 43.8** | **+1.7** |
| **ELT** | **Eltsovka** | **4.67** | **298** | *e*PN | | **Pb** | **04 34 44.4** | **-1.4** |
| ELT | | | | *e* | | | 04 35 43.8 | |
| **KRAR** | **Krasnoyarsk** | **4.73** | **358** | *e*PN | | **Pn** | **04 34 34.1** | **-1.1** |
| **MOY** | **Mondy** | **4.92** | **83** | *e*PN | | **Pb** | **04 34 49.3** | **-0.9** |
| MOY | | | | *i* | | | 04 34 51.4 | |
| MOY | | | | *e* | | | 04 35 53.7 | |
| **UKR** | **Ust'-Kan** | **5.28** | **269** | *e*Pg | | **Pn** | **04 34 46.9** | **+4.0** |
| UKR | | | | *e*Sg | | **Sb** | **04 36 02.8** | **+3.0** |
| **UKR** | **Ust'-Kan** | **5.28** | **269** | *e*PN | | **Pb** | **04 34 56.9** | **+0.6** |
| UKR | | | | *e* | | | 04 36 02.8 | |
| **ZALV** | **Zalesovo Beam** | **5.72** | **301** | Pn | | **Pn** | **04 34 48.3** | **-0.5** |
| | 1.2nm,0.3s,baz=117,slow=12,SNR=25 | | | | | | | |
| ZALV | | | | Pg | | **Pb** | **04 35 04.1** | **+0.4** |
| | 6.5nm,0.3s,baz=113,slow=16,SNR=26 | | | | | | | |
| ZALV | | | | Lg | | Lg | 04 36 15.0 | |
| | 9.2nm,0.3s,baz=121,slow=27,SNR=6.5 | | | | | | | |
| **ZAK** | **Zakamensk** | **6.49** | **94** | *e*PN | | **Pb** | **04 35 17.2** | **+0.3** |
| ZAK | | | | pmax | | pmax | | |
| | comp=Z,45nm,1.5s | | | | | | | |
| **TLY** | **Talaya** | **6.57** | **83** | Pg | | **Pb** | **04 35 19.7** | **+1.4** |
| | comp=Z,0.0nm,0.3s,baz=270,slow=14,SNR=3.8 | | | | | | | |
| TLY | | | | Lg | | Lg | 04 36 47.1 | |
| | comp=Z,0.0nm,0.3s,baz=203,slow=14,SNR=2.3 | | | | | | | |
| **TLY** | **Talaya** | **6.57** | **83** | *e*PN | | **Pb** | **04 35 19.5** | **+1.3** |
| TLY | | | | pmax | | pmax | | |
| | comp=Z,6.0nm,0.5s | | | | | | | |
| **TTS** | **Tsetserleg** | **6.63** | **122** | *e*Pg | | **Pb** | **04 35 21.0** | **+1.7** |
| TTS | | | | *e*Sg | | **Sg** | **04 36 50.1** | **-6.4** |
| **NVS** | **Novosibirsk** | **6.94** | **305** | *e*Pg | | **Pb** | **04 35 28.2** | **+3.7** |
| NVS | | | | *e*Sg | | **Sb** | **04 36 52.9** | **+5.6** |
| **NVS** | **Novosibirsk** | **6.94** | **305** | *e*PN | | **Pn** | **04 35 04.2** | **-1.3** |
| NVS | | | | *i* | | | 04 35 28.2 | |
| NVS | | | | *i* | | | 04 36 55.8 | |
| **BLGM** | **Bulgan** | **7.15** | **106** | *e*Pn | | **Pn** | **04 35 11.3** | **+2.8** |
| **BLGM** | **Bulgan** | **7.15** | **106** | *e*Pg | | **Pb** | **04 35 31.7** | **+3.7** |
| BLGM | | | | *e*Sg | | **Sg** | **04 37 10.4** | **-2.7** |
| | comp=Z,224nm,0.8s | | | | | | | |
| **MK31** | **Makanchi Array** | **8.43** | **242** | ↓Pg | | **Pn** | **04 35 24.8** | **-1.2** |
| | comp=Z,1.6nm,0.5s,baz=47,slow=16,SNR=8.7 | | | | | | | |
| MK31 | | | | ↑Lg | | Lg | 04 37 46.5 | |
| | comp=Z,28nm,0.7s,baz=63,slow=28,SNR=5.4 | | | | | | | |
| **MK31** | **Makanchi Array** | **8.43** | **242** | P | | **Pn** | **04 35 25.6** | **-0.4** |
| MK31 | | | | pmax | | pmax | | |
| | comp=Z,2.0nm,0.4s | | | | | | | |
| **MKAR** | **Makanchi Array** | **8.43** | **242** | Pn | | **Pn** | **04 35 26.3** | **+0.3** |
| | comp=Z,1.3nm,0.3s,baz=48,slow=17,SNR=33 | | | | | | | |
| MKAR | | | | Lg | | Lg | 04 37 47.8 | |
| | comp=Z,1.8nm,0.3s,baz=53,slow=22,SNR=3.6 | | | | | | | |
| MKAR | | | | LR | | LR | 04 38 34.8 | |
| | comp=Z,145nm,20.1s,baz=338,slow=37 | | | | | | | |
| **MK01** | **Makanchi Array** | **8.44** | **242** | *e*Pn | | **Pn** | **04 35 26.0** | **-0.1** |
| MK01 | | | | *e*Sg | | Sb | 04 37 43.6 | +13 |
| **MAKZ** | **Makanchi** | **8.59** | **243** | ↓Pg | | **Pn** | **04 35 29.2** | **+1.0** |
| | comp=Z,3.0nm,0.5s | | | | | | | |
| MAKZ | | | | ↑Lg | | Lg | 04 37 51.1 | |
| | comp=Z,33nm,0.7s | | | | | | | |
| **KURK** | **Kurchatov** | **9.18** | **272** | ↓Pg | | **Pn** | **04 35 37.3** | **+1.1** |
| | comp=Z,1.8nm,0.5s | | | | | | | |
| KURK | | | | ↓Lg | | Lg | 04 38 10.4 | |
| | comp=Z,36nm,0.7s | | | | | | | |
| **KURK** | **Kurchatov** | **9.18** | **272** | P | | **Pn** | **04 35 34.5** | **-1.7** |
| KURK | | | | | | | 04 37 14.6 | |
| **KURBB** | **Kurchatov Arra** | **9.25** | **272** | Pn | | Pn | 04 35 34.5 | -2.7 |
| | comp=Z,0.1nm,0.3s,baz=80,slow=16,SNR=11 | | | | | | | |
| KURBB | | | | Sn | | Sn | 04 37 14.6 | -6.6 |
| | baz=84,slow=26,SNR=2.7 | | | | | | | |
| KURBB | | | | Lg | | Lg | 04 38 10.2 | |
| | comp=Z,0.3nm,0.3s,baz=81,slow=35,SNR=8.4 | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **9.25** | **272** | ↑Pg | | **Pn** | **04 35 37.6** | **+0.4** |
| | comp=Z,6.0nm,0.5s | | | | | | | |
| KURBB | | | | ↑Lg | | Lg | 04 38 11.6 | |
| | comp=Z,152nm,1.2s | | | | | | | |
| **SONA0** | **Songino Array** | **9.28** | **107** | *e*Pg | | Pn | 04 36 08.1 | +30 |
| SONA0 | | | | *e*Sg | | Sn | 04 38 14.9 | +53 |
| **SONM** | **Songino Array** | **9.28** | **107** | Pn | | **Pn** | **04 35 36.0** | **-1.8** |
| | comp=Z,0.1nm,0.3s,baz=208,slow=6.0,SNR=2.5 | | | | | | | |
| SONM | | | | Pg | | | 04 36 08.5 | |
| | comp=Z,0.5nm,0.3s,baz=288,slow=17,SNR=14 | | | | | | | |
| SONM | | | | Lg | | Lg | 04 38 18.2 | |
| | comp=Z,1.7nm,0.3s,baz=292,slow=24,SNR=14 | | | | | | | |
| **SONM** | **Songino Array** | **9.28** | **107** | P | | **Pn** | **04 35 36.0** | **-1.8** |
| SONM | | | | pmax | | pmax | | |
| | comp=Z,1.0nm,0.3s | | | | | | | |
| **UB1M** | | **9.36** | **106** | *e*Pg | | Pn | 04 36 10.6 | +32 |
| **UB1M** | | **9.36** | **106** | *e*Pg | | Pn | 04 36 11.4 | +33 |
| UB1M | | | | *e*Sg | | Sn | 04 38 18.9 | +55 |
| UB1M | | | | *e*Sg | | | 04 38 21.4 | |
| | comp=Z,55nm,0.9s | | | | | | | |
| **ALFM** | | **9.45** | **105** | *e*Pg | | Pn | 04 36 13.3 | +33 |
| ALFM | | | | *e*Sg | | Sn | 04 38 18.8 | +52 |
| | comp=Z,78nm,0.9s | | | | | | | |
| **ULN** | **Ulaanbaatar** | **9.67** | **105** | *e*P | | **Pn** | **04 35 40.4** | **-2.7** |
| **SEMM** | | **9.76** | **107** | *e*Pg | | Pn | 04 36 19.4 | +35 |
| SEMM | | | | *e*Sg | | Sn | 04 38 33.2 | +59 |
| **ARTM** | | **9.77** | **105** | *e*Pg | | Pn | 04 36 19.8 | +35 |
| ARTM | | | | *e*Sg | | Sn | 04 38 32.3 | +58 |
| | comp=Z,64nm,0.8s | | | | | | | |
| **UGDM** | | **9.98** | **106** | *e*Pg | | Pn | 04 36 22.7 | +35 |
| UGDM | | | | *e*Sg | | Sn | 04 38 38.1 | +59 |
| | comp=Z,124nm,1.0s | | | | | | | |
| **DZBM** | | **10.71** | **130** | *e*Sg | | Sn | 04 38 55.7 | +58 |
| **PDGK** | **Podgornoye** | **12.20** | **235** | ↓Lg | | Lg | 04 39 44.2 | |
| | comp=Z,52nm,1.2s | | | | | | | |
| **BVAR** | **Borovoye Array** | **14.06** | **286** | Pn | | Pn | 04 36 40.5 | -2.4 |
| | comp=Z,0.2nm,0.3s,baz=74,slow=16,SNR=4.1 | | | | | | | |
| **BRVK** | **Borovoye** | **14.12** | **286** | *e*P | | **Pn** | **04 36 43.6** | **-0.2** |
| BRVK | | | | pmax | | pmax | | |
| | comp=Z,2.0nm,0.8s | | | | | | | |
| **TKM2** | **Tokmak 2** | **14.56** | **242** | ↑Lg | | Lg | 04 40 58.6 | |
| | comp=Z,1.1nm,1.1s | | | | | | | |
| **AAK** | **Ala-Archa** | **15.36** | **243** | Pn | | **Pn** | **04 37 01.9** | **+1.2** |
| | comp=Z,0.3nm,0.3s,baz=58,slow=9.5,SNR=4.1 | | | | | | | |
| **AAK** | **Ala-Archa** | **15.36** | **243** | ↑Lg | | Lg | 04 41 26.7 | |
| **AAK** | **Ala-Archa** | **15.36** | **243** | *e*P | | **Pn** | **04

comp=N,46nm,0.5s
**PNCL Nicolau / Gran 6.78 352** *e*P **Pn 04 35 35.4 +1.2**
PNCL *e*S **Sn 04 36 48.9 -2.5**
PNCL A A 04 36 55.0
comp=N,18nm,0.4s
**EVO Evora 7.15 356** *e*P **Pn 04 35 40.1 +0.8**
EVO *e*S **Sn 04 36 57.3 -3.2**
EVO A A 04 37 01.9
comp=N,24nm,0.8s
**PESTR Estremoz 7.46 358** *e*P **Pn 04 35 44.1 +0.5**
PESTR *e*S **Sn 04 37 04.7 -3.6**
PESTR A A 04 37 09.2
comp=N,8.1nm,0.6s
**PMST Lisbon--Monsan 7.49 349** *e*S **Sn 04 37 07.2 -1.6**
PMST A A 04 37 11.7
comp=N,32nm,0.3s
**PMTG Montargil 7.70 355** *e*P **Pn 04 35 47.5 +0.7**
PMTG *e*S **Sn 04 37 09.5 -4.5**
PMTG A A 04 37 14.4
comp=N,13nm,0.9s
**PMAFR Mafra 7.72 349** *e*P **Pn 04 35 48.2 +1.1**
PMAFR *e*S **Sn 04 37 13.5 -1.0**
PMAFR A A 04 37 16.6
comp=N,42nm,0.3s
**PMRV Marv??o 8.02 360** *e*P **Pn 04 35 51.7 +0.5**
PMRV *e*S **Sn 04 37 17.5 -4.5**
PMRV A A 04 37 23.3
comp=N,15nm,0.6s
**PTOM Tomar 8.26 354** *e*P **Pn 04 35 56.0 +1.5**
PTOM *e*S **Sn 04 37 23.4 -4.4**
PTOM A A 04 37 33.8
comp=N,17nm,0.4s
**PCBR Castelo Branco 8.43 359** *e*P **Pn 04 35 57.5 +0.6**
PCBR *e*S Sn 04 37 25.6 -6.5
PCBR A A 04 37 32.2
comp=N,6.5nm,0.4s
**PCAS Casmilo, Conde 8.70 354** *e*P **Pn 04 36 02.8 +2.3**
PCAS *e*S **Sn 04 37 33.8 -4.8**
PCAS A A 04 37 38.3
comp=N,11nm,0.4s
**ESDC Sonseca Array 8.71 17** Pn **Pn 04 36 00.7 0.0**
comp=N,1.3nm,0.3s,baz=202,slow=13,SNR=18
ESDC Sn Sn 04 37 31.5 -7.4
comp=N,2.6nm,0.3s,baz=202,slow=23,SNR=15
**MTE Manteigas 8.99 359** *e*P **Pn 04 36 05.2 +0.6**
MTE *e*S **Sn 04 37 42.7 -3.3**
MTE A A 04 37 46.6
comp=N,9.1nm,0.1s
**PVIS Viseu 9.32 357** *e*S **Sn 04 37 48.7 -5.2**
PVIS A A 04 37 53.7
comp=N,4.4nm,0.4s
**MVO Moncorvo 9.76 1** *e*P **Pn 04 36 15.9 +0.8**
MVO *e*S Sn 04 37 58.1 -6.7
MVO A A 04 38 05.6
comp=N,11nm,0.6s
**POLO Lamas de Olo 9.97 358** *e*P **Pn 04 36 19.4 +1.3**
POLO A A 04 38 14.7
comp=N,1.7nm,0.5s
**PBRG Braganca 10.40 2** *e*P **Pn 04 36 25.0 +1.1**
PBRG *e*S Sn 04 38 14.5 -6.1
PBRG A A 04 38 20.3
comp=N,3.4nm,0.9s
**PGAV Gavieira, Arco 10.58 356** *e*P **Pn 04 36 27.7 +1.3**
PGAV *e*S **Sn 04 38 20.5 -4.5**
PGAV A A 04 38 26.5
comp=N,5.6nm,0.8s
**TORD Torodi Ar. Bea 19.96 153** P **P 04 38 27.0 -0.1**
comp=N,0.1nm,0.3s,baz=328,slow=13,SNR=10
TORD S **S 04 42 03.7 -8.1**
comp=N,0.0nm,0.3s,baz=330,slow=23,SNR=3.2
**DAVOX Davos/Dischmat 20.29 36** P **P 04 38 31.6 +0.9**
comp=N,0.6nm,0.4s,baz=205,slow=11,SNR=2.3
**GERES GERESS Array B 23.59 36** P **P 04 39 06.1 +0.6**
comp=N,1.8nm,0.7s,baz=226,slow=9.1,SNR=12
**ASAR Alice Springs 144.90 87** PKP **PKPab 04 53 31.0 -0.7**
comp=N,0.5nm,0.8s,baz=316,slow=2.6,SNR=2.8

**IDC 26 04:36:00.7±2.3, 6.78S×149.77E, h0km, mb3.3/2, mb1 3.6/3, mb1mx3.3/33, mbtmp3.3/3, ML3.4/1, Error ellipse: s-maj=131.9km s-min=32.9km az=126.0, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **19.89** | **227** | P | | P | 04 40 33.6 | -0.3 |
| | 0.1nm,0.3s,baz=53,slow=10,SNR=8.9 | | | | | | | |
| **ASAR** | **Alice Springs** | **22.68** | **221** | P | | P | 04 41 04.0 | 0.0 |
| | 0.6nm,1.0s,baz=54,slow=9.3,SNR=4.2 | | | | | | | |
| **ILAR** | **Eielson Array** | **85.13** | **23** | P | | P | 04 48 38.5 | +0.1 |
| | 0.4nm,0.8s,baz=236,slow=4.9,SNR=2.9 | | | | | | | |

*MOS **26** 04:48:01.6±0.9, 16.01S×173.89W, h33km, mb6.1/87, MS5.0/6, Error ellipse: s-maj=6.9km s-min=5.4km az=61.9*
*ISCJB **26** 04:48:03.2±0.8, 16.14S±0.02×173.86W±0.02, h51km±7km, mb5.9/494, MS5.2/50, Error ellipse: s-maj=4.0km s-min=2.5km az=154.3*
*IDC **26** 04:48:03.9±1.3, 16.01S×173.75W, h41km±10km, mb5.6/37, mb1 5.6/41, mb1mx5.6/42, mbtmp5.8/41, ML5.4/4, MS5.0/25, Ms1 5.0/25, ms1mx4.9/28, Error ellipse: s-maj=11.2km s-min=8.2km az=139.0*
*BJI **26** 04:48:06.6, 15.71S×173.45W, h80km, mb5.7/61, mB6.0/58, Ms5.6/64, Ms7 5.4/66*
*NEIC **26** 04:48:08.0±0.0, 15.85S×173.80W, h80km Best double couple: NP1:ϕs41.00000°, δ90.00000°, λ-75.00000°. NP2:ϕs132.00000°, δ15.00000°, λ-178.00000°. Principal axes: T 0.9900, Plg42.0000°, Azm116.0000°; N 0.3900, Plg14.0000°, Azm220.0000°; P -1.3900, Plg43.0000°, Azm325.0000°;*
*NEIC **26** 04:48:08.9±0.1, 16.20S×173.86W, h90km, mb5.8/294, ME5.8, MW6.0, MW6.0 Error ellipse: s-maj=3.9km s-min=2.4km az=143.0 Best double couple: NP1: ϕs237.00000°, δ90.00000°, λ92.00000°. NP2: ϕs329.00000°, δ2.00000°, λ3.00000°. Principal axes: T 1.0400, Plg45.0000°, Azm149.0000°; N 0.2000, Plg2.0000°, Azm57.0000°; P -1.2400, Plg45.0000°, Azm324.0000°; Broadband fault plane solution: P waves. NP1:ϕs235.00000°, δ5.00000°, λ-90.00000°. NP2: ϕs55.00000°, δ85.00000°, λ-90.00000°. Principal axes: T Plg40.0000°, Azm145.0000°; N Plg0.0000°, Azm0.0000°; P Plg50.0000°, Azm325.0000°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.*
*NEIC Felt [II] at Apia, Samoa. Felt [II] at Pago Pago, American Samoa. Also felt at Faga'alu, Ili'ili and Nu'uuli.*
*GCMT **26** 04:48:08.9±0.1, 16.06S×173.61W, h95km, MW6.0/142, Moment Tensor Solution. s134,c312; s142,c480; Duration: 29s4 Moment tensor: Scale 10^18Nm; Mrr-0.13±.01; Mθθ-0.34±.01; Mϕϕ0.46±.01; Mrθ-0.90±.01; Mθϕ-0.52±.01; Mϕr-0.68±.01; Best double couple: M0 1.20900×10^18 NP1:ϕs33.00000°, δ89.00000°, λ-61.00000°. NP2:ϕs125.00000°, δ29.00000°, λ-178.00000°. Principal axes: T 0.9180, Plg37.0000°, Azm98.0000°; N 0.5820, Plg29.0000°, Azm213.0000°; P -1.5000, Plg39.0000°, Azm329.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

**ISC 26 04:48:06.2±0.3, 16.11S±0.03×173.72W±0.03, h67km±2km, h67km:pP-P, n1827, σ1937/1921, mb5.9/492, 45C-73D, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **AFI** | **Afiamalu** | **2.89** | **41** | P | | **Pn** | **04 48 48.0** | **-1.9** |
| | 2μm,0.3s,baz=65,slow=0.9,SNR=794 | | | | | | | |
| AFI | | | | LR | | LR | 04 49 15.3 | |
| | comp=Z,11μm,18.4s,baz=267,slow=25 | | | | | | | |
| AFI | | | | S | | **Sn** | **04 49 18.6** | **-5.0** |
| | 4μm,0.3s,baz=18,slow=24,SNR=4.4 | | | | | | | |
| **AFI** | **Afiamalu** | **2.89** | **41** | *e*Pn | | **Pn** | **04 48 49.6** | **-0.3** |
| AFI | | | | *e*Sn | | **Sn** | **04 49 18.3** | **-5.2** |
| **NIUE** | **Niue** | **4.67** | **130** | P | | **Pn** | **04 49 14.1** | **0.0** |
| | baz=4.5,SNR=1000 | | | | | | | |
| **MSVF** | **Nonsavu** | **8.04** | **257** | *e*P | | Pn | 04 50 08.3 | +7.9 |
| **MSVF** | **Nonsavu** | **8.04** | **257** | *e*Pn | | Pn | 04 50 08.3 | +7.9 |
| **FUNA** | **Funafuti** | **10.23** | **317** | *e*Pn | | **Pn** | **04 50 33.4** | **+3.2** |
| FUNA | | | | *e*Sn | | **Sn** | **04 52 25.4** | **+2.0** |
| **KNTN** | **Kanton** | **13.40** | **9** | *e*Pn | | **Pn** | **04 51 13.0** | **-0.4** |
| KNTN | | | | *e*Sn | | **Sn** | **04 53 34.1** | **-6.6** |
| **RAO** | **Raoul Island** | **13.64** | **196** | P | | **Pn** | **04 51 16.5** | **0.0** |
| | 60nm,0.3s,baz=77,slow=16,SNR=2.9 | | | | | | | |
| RAO | | | | S | | **Sn** | **04 53 41.9** | **-4.5** |
| | 93nm,0.3s,baz=276,slow=24,SNR=4.3 | | | | | | | |
| **RAO** | **Raoul Island** | **13.64** | **196** | *e*Pn | | **Pn** | **04 51 13.5** | **-3.0** |
| RAO | | | | S | | **Sn** | **04 53 41.9** | **-4.5** |
| **RAR** | **Rarotonga** | **14.16** | **113** | P | | **Pn** | **04 51 23.8** | **+0.4** |
| | 55nm,0.3s,baz=261,slow=7.7,SNR=76 | | | | | | | |
| RAR | | | | S | | Sn | 04 53 50.6 | -8.5 |
| | 15nm,0.3s,baz=114,slow=19,SNR=5.3 | | | | | | | |
| **RAR** | **Rarotonga** | **14.16** | **113** | *e*Pn | | **Pn** | **04 51 22.8** | **-0.6** |
| RAR | | | | *e*Sn | | **Sn** | **04 53 51.3** | **-7.8** |
| **DZM** | **Mont Dzumac** | **19.65** | **249** | P | | **P** | **04 52 30.4** | **+0.6** |
| | 3.0nm,0.3s,baz=90,slow=22,SNR=20 | | | | | | | |
| DZM | | | | LR | | LR | 04 59 36.4 | |
| | comp=Z,5μm,18.5s,baz=78,slow=35 | | | | | | | |
| **DZM** | **Mont Dzumac** | **19.65** | **249** | *e*P | | **P** | **04 52 28.5** | **-1.3** |
| | 946nm,1.6s | | | | | | | |
| **TARA** | **Tarawa** | **21.80** | **322** | *e*P | | **P** | **04 52 54.8** | **+1.9** |
| | 4μm,1.5s | | | | | | | |
| **OUZ** | **Ouvea** | **22.16** | **208** | *e*P | | **P** | **04 52 56.8** | **+0.3** |
| | 108nm,1.1s | | | | | | | |
| **MXZ** | **Matakaoa Point** | **22.50** | **197** | *e*P | | **P** | **04 52 57.8** | **-2.4** |
| | 104nm,0.9s | | | | | | | |
| **KUZ** | **Kuaotunu** | **22.59** | **203** | *e*PN | | **P** | **04 53 02.3** | **+1.1** |
| **WMGZ** | **Waiomatatini S** | **22.71** | **196** | PN | | **P** | **04 53 03.9** | **+1.5** |
| **HAZ** | **Te Kaha** | **22.83** | **198** | PN | | **P** | **04 53 04.4** | **+0.8** |
| **PUZ** | **Puketiti** | **22.99** | **196** | *e*PN | | **P** | **04 53 06.0** | **+0.6** |
| **RUGZ** | **Raukumara Rang** | **23.05** | **198** | *e*PN | | **P** | **04 53 06.0** | **-0.1** |
| **PAE** | **Paea** | **23.15** | **97** | *e*P | | **P** | **04 53 08.0** | **+0.9** |
| | 72nm,1.3s | | | | | | | |
| **PAE** | **Paea** | **23.15** | **97** | *e*T | | T | 05 16 24.4 | |
| | 29nm,0.4s | | | | | | | |
| **PPT** | **Papeete** | **23.16** | **97** | P | | **P** | **04 53 08.6** | **+1.4** |
| | 150nm,0.7s,baz=104,slow=4.8,SNR=20 | | | | | | | |
| PPT | | | | LR | | LR | 05 00 45.1 | |
| | comp=Z,3μm,18.5s,baz=263,slow=33 | | | | | | | |
| **PPT2** | **Papeete2** | **23.16** | **97** | *e*P | | **P** | **04 53 08.5** | **+1.3** |
| | 423nm,1.5s | | | | | | | |
| PPT2 | | | | *e*S | | **S** | **04 57 09.3** | **-4.4** |
| | 2μm,23.2s | | | | | | | |
| PPT2 | | | | *e*LQ | | LQ | 04 57 48.0 | |
| | 30μm,30.0s | | | | | | | |
| PPT2 | | | | *e*LR | | LR | 04 58 34.8 | |
| | 23μm,30.0s | | | | | | | |
| **PPT2** | **Papeete2** | **23.16** | **97** | *e*T | | T | 05 16 25.4 | |
| | 29nm,0.3s | | | | | | | |
| **PPTF** | **Pamatai, Papee** | **23.16** | **97** | *e*P | | **P** | **04 53 08.5** | **+1.2** |
| | 308nm,0.9s | | | | | | | |
| **TIAR** | **Tiarei** | **23.38** | **97** | *e*P | | **P** | **04 53 10.4** | **+1.2** |
| | 60nm,1.0s | | | | | | | |
| **TIAR** | **Tiarei** | **23.38** | **97** | *e*T | | T | 05 16 30.9 | |
| | 14nm,0.3s | | | | | | | |
| **MWZ** | **Matawai** | **23.44** | **198** | PN | | **P** | **04 53 08.1** | **-1.5** |
| **TVO** | **Taravao** | **23.46** | **98** | *e*P | | **P** | **04 53 11.5** | **+1.4** |
| | 84nm,0.8s | | | | | | | |
| **TVO** | **Taravao** | **23.46** | **98** | *e*T | | T | 05 16 41.2 | |
| | 9.6nm,0.3s | | | | | | | |
| **URZ** | **Urewera** | **23.49** | **198** | P | | **P** | **04 53 08.0** | **-2.0** |
| | 110nm,0.6s,baz=272,slow=3.9,SNR=38 | | | | | | | |
| URZ | | | | S | | **S** | **04 57 18.3** | **-0.4** |
| | 17nm,0.8s,baz=74,slow=19,SNR=4.7 | | | | | | | |
| URZ | | | | LR | | LR | 04 59 53.4 | |
| | comp=Z,1μm,21.2s,baz=30,slow=30 | | | | | | | |
| **URZ** | **Urewera** | **23.49** | **198** | *e*P | | **P** | **04 53 08.1** | **-1.9** |
| | 177nm,0.8s | | | | | | | |
| URZ | | | | *e*S | | **S** | **04 57 22.2** | **+3.5** |
| **URZ** | **Urewera** | **23.49** | **198** | PN | | **P** | **04 53 07.6** | **-2.4** |
| **RAGZ** | **Rawiri** | **23.62** | **198** | *e*PN | | **P** | **04 53 10.2** | **-1.2** |
| **KNZ** | **Kokohu** | **24.04** | **197** | PN | | **P** | **04 53 15.2** | **+0.3** |
| **XMAS** | **Kiritimati** | **24.17** | **43** | *e*P | | **P** | **04 53 16.2** | **-0.2** |
| | 557nm,0.8s | | | | | | | |
| **MRHZ** | **Matea Rd** | **24.23** | **199** | PN | | **P** | **04 53 14.6** | **-2.3** |
| **NMHZ** | **Naumai** | **24.36** | **198** | PN | | **P** | **04 53 17.5** | **-0.4** |
| **HIZ** | **Hauiti** | **24.47** | **202** | *e*P | | **P** | **04 53 19.4** | **+0.5** |
| | 330nm,1.1s | | | | | | | |
| **HIZ** | **Hauiti** | **24.47** | **202** | *e*PN | | **P** | **04 53 19.4** | **+0.5** |
| **RATZ** | **Rangitukua** | **24.47** | **200** | *e*PN | | **P** | **04 53 19.4** | **+0.4** |
| **BKZ** | **Black Stump Fm** | **24.51** | **199** | *e*P | | **P** | **04 53 16.7** | **-2.7** |
| | 38nm,0.8s | | | | | | | |
| **OTVZ** | **Oturere** | **24.77** | **200** | *e*PN | | **P** | **04 53 19.0** | **-2.8** |
| **PMOR** | **Pomariorio Ree** | **24.90** | **91** | *e*P | | **P** | **04 53 25.0** | **+1.9** |
| | 244nm,0.9s | | | | | | | |
| **PMOR** | **Pomariorio Ree** | **24.90** | **91** | *e*T | | T | 05 18 50.2 | |
| | 19nm,0.3s | | | | | | | |
| **BHHZ** | **Black Hill Sta** | **24.94** | **199** | PN | | **P** | **04 53 21.3** | **-2.0** |
| **WNVZ** | **Wahianoa** | **24.95** | **200** | PN | | **P** | **04 53 21.5** | **-2.0** |
| **VAH** | **Vaihoa** | **25.14** | **92** | *e*P | | **P** | **04 53 27.1** | **+1.9** |
| | 182nm,1.0s | | | | | | | |
| **VAH** | **Vaihoa** | **25.14** | **92** | *e*T | | T | 05 19 05.4 | |
| | 34nm,0.3s | | | | | | | |
| **BFZ** | **Birch Farm** | **25.98** | **198** | *e*P | | **P** | **04 53 30.3** | **-2.4** |
| | 121nm,0.7s | | | | | | | |
| **HNR** | **Honiara** | **26.50** | **281** | *e*P | | **P** | **04 53 37.0** | **-0.6** |
| **HNR** | **Honiara** | **26.50** | **281** | P | | **P** | **04 53 37.4** | **-0.3** |
| | 134nm,0.8s,baz=174,slow=7.1,SNR=4.9 | | | | | | | |
| HNR | | | | LR | | LR | 05 02 41.4 | |
| | comp=Z,13μm,21.0s,baz=114,slow=33 | | | | | | | |
| **HNR** | **Honiara** | **26.50** | **281** | *e*P | | **P** | **04 53 41.6** | **+4.0** |
| HNR | | | | *e*PP | | **pP** | **04 53 53.9** | **+0.3** |
| **HNR** | **Honiara** | **26.50** | **281** | *e*P | | **P** | **04 53 37.2** | **-0.4** |
| HNR | | | | *e*pP | | **pP** | **04 53 53.9** | **+0.3** |
| **SNZO** | **South Karori** | **27.03** | **199** | *e*P | | **P** | **04 53 40.6** | **-1.4** |
| | 87nm,0.8s | | | | | | | |
| **THZ** | **Tophouse** | **28.04** | **202** | *e*P | | **P** | **04 53 50.1** | **-1.0** |
| | 50nm,0.7s | | | | | | | |
| **KHZ** | **Kahutara** | **28.40** | **200** | *e*P | | **P** | **04 53 52.7** | **-1.5** |
| | 46nm,0.6s | | | | | | | |
| **LHI** | **Lord Howe Isla** | **29.13** | **233** | *e*P | | **P** | **04 53 58.1** | **-2.8** |
| | 290nm,1.0s | | | | | | | |
| **LTZ** | **Lake Taylor** | **29.16** | **201** | *e*P | | **P** | **04 53 56.7** | **-4.3** |
| | 86nm,0.7s | | | | | | | |
| **OXZ** | **Oxford** | **29.72** | **201** | *e*P | | **P** | **04 54 03.6** | **-2.3** |
| | 91nm,0.6s | | | | | | | |
| **MQZ** | **McQueen's Vall** | **29.85** | **200** | *e*P | | **P** | **04 54 04.7** | **-2.3** |
| | 35nm,0.9s | | | | | | | |
| **RPZ** | **Rata Peaks** | **30.41** | **202** | P | | **P** | **04 54 13.1** | **+1.0** |
| | 27nm,0.6s,baz=317,slow=2.4,SNR=13 | | | | | | | |
| **RPZ** | **Rata Peaks** | **30.41** | **202** | *e*P | | **P** | **04 54 12.5** | **+0.4** |
| | 46nm,0.7s | | | | | | | |
| **FOZ** | **Fox Glacier** | **30.71** | **204** | *e*P | | **P** | **04 54 12.4** | **-2.3** |
| | 47nm,0.8s | | | | | | | |
| **KWAJ** | **Kwajalein Atol** | **30.89** | **322** | *e*P | | **P** | **04 54 15.5** | **-1.1** |
| KWAJ | | | | | pmax | pmax | | |
| | comp=Z,730nm,1.1s | | | | | | | |
| **KWAJ** | **Kwajalein Atol** | **30.89** | **322** | *e*P | | **P** | **04 54 15.5** | **-1.1** |
| | comp=Z,730nm,1.1s | | | | | | | |
| **LBZ** | **Lake Benmore** | **31.30** | **202** | *e*P | | **P** | **04 54 17.1** | **-2.9** |
| | comp=Z,25nm,0.9s | | | | | | | |
| **ODZ** | **Otahua Downs** | **31.71** | **201** | *e*P | | **P** | **04 54 21.6** | **-1.9** |
| | comp=Z,47nm,1.4s | | | | | | | |
| **WKZ** | **Wanaka** | **32.12** | **203** | *e*P | | **P** | **04 54 24.1** | **-3.0** |
| | comp=Z,37nm,0.8s | | | | | | | |
| **MLZ** | **Mavora Lakes** | **32.91** | **204** | *e*P | | **P** | **04 54 31.9** | **-2.2** |
| | comp=Z,88nm,0.8s | | | | | | | |
| **DCZ** | **Deep Cove** | **33.38** | **205** | *e*P | | **P** | **04 54 37.1** | **-1.0** |
| | comp=Z,55nm,0.9s | | | | | | | |
| **WHZ** | **Wether Hill Ro** | **33.42** | **204** | *e*P | | **P** | **04 54 38.0** | **-0.5** |
| | comp=Z,123nm,1.0s | | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **33.53** | **82** | *e*LR | | LR | 05 03 16.8 | |
| | comp=Z,12μm,31.2s | | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **33.53** | **82** | *e*T | | T | 05 29 07.1 | |
| | comp=Z,242nm,0.2s | | | | | | | |
| **EIDS** | **Eidsvold** | **34.09** | **248** | P | | **P** | **04 54 43.0** | **-1.6** |
| | baz=34,SNR=27 | | | | | | | |
| **EIDS** | **Eidsvold** | **34.09** | **248** | *e*P | | **P** | **04 54 43.0** | **-1.6** |
| | comp=Z,138nm,1.3s | | | | | | | |
| **PYZ** | **Puysegur Point** | **34.14** | **205** | *e*P | | **P** | **04 54 44.2** | **-0.5** |
| | comp=Z,68nm,1.0s | | | | | | | |
| **ARMA** | **Armidale** | **34.71** | **240** | P | | **P** | **04 54 49.6** | **-0.4** |
| | baz=35,SNR=68 | | | | | | | |
| **ARMA** | **Armidale** | **34.71** | **240** | *e*P | | **P** | **04 54 49.2** | **-0.8** |
| | comp=Z,89nm,0.9s | | | | | | | |
| **RABL** | **Rabaul** | **35.54** | **286** | *e*P | | **P** | **04 54 55.5** | **-1.6** |
| | comp=Z,266nm,1.4s | | | | | | | |
| **PATS** | **Pohnpei** | **35.86** | **307** | P | | **P** | **04 55 02.9** | **+3.0** |
| | baz=36,SNR=4.2 | | | | | | | |
| **PATS** | **Ponpei** | **35.86** | **307** | *e*P | | **P** | **04 54 58.6** | **-1.2** |
| | comp=Z,390nm,1.1s | | | | | | | |
| **MGCD** | **Mangrove Creek** | **35.99** | **235** | P | | **P** | **04 55 00.3** | **-0.5** |
| | baz=36,SNR=9.5 | | | | | | | |
| **RMQ** | **Roma** | **36.33** | **247** | P | | **P** | **04 55 02.8** | **-1.0** |
| | baz=36,SNR=96 | | | | | | | |
| **RKT** | **Rikitea** | **37.08** | **107** | *e*P | | **P** | **04 55 12.6** | **+2.4** |
| | comp=Z,102nm,1.0s | | | | | | | |
| RKT | | | | *e*LR | | LR | 05 04 57.8 | |
| | comp=Z,16μm,30.8s | | | | | | | |
| **RKT** | **Rikitea** | **37.08** | **107** | *e*T | | T | 05 33 47.8 | |
| | comp=Z,27nm,0.3s | | | | | | | |
| **CNB** | **Canberra Magne** | **38.07** | **233** | P | | **P** | **04 55 17.7** | **-0.8** |
| | baz=38,SNR=41 | | | | | | | |
| **CTA** | **Charters Tower** | **38.19** | **258** | P | | **P** | **04 55 18.6** | **-1.0** |
| | comp=Z,22nm,0.4s,baz=100,slow=9.2 | | | | | | | |
| CTA | | | | PcP | | **PcP** | **04 57 34.8** | **+1.6** |
| | comp=Z,35nm,1.1s,baz=86,slow=2.1,SNR=5.4 | | | | | | | |
| CTA | | | | LR | | LR | 05 09 19.4 | |
| | comp=Z,3μm,18.8s,baz=82,slow=33 | | | | | | | |
| **CTAO** | **Charters Tower** | **38.19** | **258** | *e*P | | **P** | **04 55 18.6** | **-1.0** |
| CTAO | | | | pmax | | pmax | | |
| | comp=Z,98nm,1.2s | | | | | | | |
| **CTAO** | **Charters Tower** | **38.19** | **258** | *e*P | | **P** | **04 55 18.6** | **-1.0** |
| | comp=Z,98nm,1.3s | | | | | | | |
| **CAN** | **Canberra** | **38.35** | **233** | *e*P | | **P** | **04 55 19.8** | **-1.1** |
| CAN | | | | pmax | | pmax | | |
| | comp=Z,120nm,1.0s | | | | | | | |
| **CAN** | **Canberra** | **38.35** | **233** | *e*P | | **P** | **04 55 18.7** | **-2.2** |
| | comp=Z,122nm,1.0s | | | | | | | |
| **YNG** | **Young** | **38.48** | **235** | P | | **P** | **04 55 21.4** | **-0.5** |
| | baz=38,SNR=7.1 | | | | | | | |
| **PMG** | **Port Moresby** | **38.68** | **275** | P | | **P** | **04 55 24.5** | **+0.7** |
| | comp=Z,282nm,0.9s,baz=80,slow=5.3,SNR=84 | | | | | | | |
| PMG | | | | LR | | LR | 05 09 17.6 | |
| | comp=Z,5μm,21.0s,baz=92,slow=33 | | | | | | | |
| **PMG** | **Port Moresby** | **38.68** | **275** | *e*P | | **P** | **04 55 24.9** | **+1.1** |
| PMG | | | | pmax | | pmax | | |
| | comp=Z,320nm,0.9s | | | | | | | |
| **PMG** | **Port Moresby** | **38.68** | **275** | *e*P | | **P** | **04 55 24.9** | **+1.1** |
| | comp=Z,317nm,0.9s | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **39.41** | **330** | T | | T | 05 36 40.9 | |
| | baz=146,slow=75,SNR=271 | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **39.43** | **330** | T | | T | 05 36 46.4 | |
| | baz=146,slow=75,SNR=262 | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **39.43** | **330** | T | | T | 05 36 42.2 | |
| | baz=146,slow=75,SNR=101 | | | | | | | |
| **MLOA** | **Mauna Loa Obse** | **39.66** | **27** | *e*P | | **P** | **04 55 31.4** | **-0.9** |
| | comp=Z,891nm,2.0s | | | | | | | |
| **PUH** | **Pauahi** | **39.68** | **28** | *e*P | | **P** | **04 55 30.6** | **-1.5** |
| **MLH** | **Mauna Loa** | **39.71** | **28** | *e*P | | **P** | **04 55 31.9** | **-0.6** |
| **STCH** | **Steam Cracks** | **39.73** | **28** | *e*P | | **P** | **04 55 32.3** | **-0.2** |
| **NPOC** | **North of Pu'u** | **39.75** | **28** | *e*P | | **P** | **04 55 34.5** | **+1.9** |
| **HULD** | **Heiheiahulu Di** | **39.83** | **28** | *e*P | | **P** | **04 55 34.3** | **+1.1** |
| **POHA** | **Pohakuloa** | **39.88** | **27** | *e*P | | **P** | **04 55 34.5** | **+0.6** |
| | comp=Z,179nm,0.9s | | | | | | | |
| **CMSA** | **Cobar Meteorol** | **39.93** | **240** | P | | **P** | **04 55 32.7** | **-1.3** |
| | baz=40,SNR=223 | | | | | | | |
| **HPAH** | **Hawaii Prepara** | **40.05** | **27** | *e*P | | **P** | **04 55 36.4** | **+1.3** |
| | comp=Z,295nm,0.8s | | | | | | | |
| **MTSU** | **Mount Surprise** | **40.09** | **261** | P | | **P** | **04 55 34.3** | **-1.3** |
| | baz=40,SNR=64 | | | | | | | |
| **WAKE** | **Wake Island** | **40.12** | **331** | *e*P | | **P** | **04 55 35.7** | **+0.1** |
| | comp=Z,1μm,0.8s | | | | | | | |
| **KEKH** | **Kekaha** | **40.27** | **20** | *e*P | | **P** | **04 55 36.3** | **-0.5** |
| | comp=Z,484nm,0.9s | | | | | | | |
| **HON** | **Honolulu** | **40.27** | **23** | *e*P | | **P** | **04 55 39.2** | **+2.4** |
| **HON** | **Honolulu** | **40.27** | **23** | *e*P | | **P** | **04 55 36.5** | **-0.4** |
| **QLP** | **Quilpie** | **40.36** | **248** | P | | **P** | **04 55 35.9** | **-1.7** |
| | baz=40,SNR=136 | | | | | | | |
| **KIP** | **Kipapa** | **40.36** | **23** | *ce*P | | **P** | **04 55 39.5** | **+1.9** |
| KIP | | | | pmax | | pmax | | |
| | comp=Z,3μm,1.2s | | | | | | | |
| **KIP** | **Kipapa** | **40.36** | **23** | *e*P | | **P** | **04 55 38.0** | **+0.4** |
| | comp=Z,328nm,0.8s | | | | | | | |
| **HLK** | **Haleakala** | **40.46** | **26** | *e*P | | **P** | **04 55 38.1** | **-0.6** |
| | comp=Z,380nm,0.9s | | | | | | | |
| **MANU** | **Manus Island** | **40.78** | **286** | *e*P | | **P** | **04 55 41.2** | **0.0** |
| | comp=Z,728nm,1.8s | | | | | | | |
| **COEN** | **Coen** | **41.63** | **267** | P | | **P** | **04 55 48.5** | **+0.3** |
| | baz=42,SNR=80 | | | | | | | |
| **COEN** | **Coen** | **41.63** | **267** | *e*P | | **P** | **04 55 47.6** | **-0.6** |
| | comp=Z,275nm,1.5s | | | | | | | |
| **PTCN** | **Pitcairn Islan** | **41.65** | **110** | *e*P | | **P** | **04 55 50.9** | **+2.6** |
| | comp=Z,268nm,1.2s | | | | | | | |
| **TOO** | **Toolangi** | **41.78** | **231** | P | | **P** | **04 55 47.7** | **-1.5** |
| | baz=42,SNR=4.4 | | | | | | | |
| **MOO** | **Moorlands** | **42.46** | **224** | P | | **P** | **04 55 54.4** | **-0.3** |
| | baz=42,SNR=4.2 | | | | | | | |
| **TAU** | **Tasmania Unive** | **42.59** | **223** | *e*P | | **P** | **04 55 54.5** | **-1.1** |
| TAU | | | | pmax | | pmax | | |
| | comp=Z,59nm,1.3s | | | | | | | |
| **TAU** | **Tasmania Unive** | **42.59** | **223** | *e*P | | **P** | **04 55 54.5** | **-1.1** |
| | comp=Z,58nm,1.3s | | | | | | | |
| **STKA** | **Stephens Creek** | **43.41** | **241** | P | | **P** | **04 56 01.7** | **-0.8** |
| | comp=Z,156nm,0.9s,baz=93,slow=10,SNR=114 | | | | | | | |
| STKA | | | | PcP | | **PcP** | **04 57 50.9** | **+0.9** |
| | comp=Z,25nm,0.7s,baz=45,slow=3.1,SNR=3.2 | | | | | | | |
| STKA | | | | ScP | | **ScP** | **05 01 38.3** | **+2.7** |
| | comp=Z,6.3nm,0.9s,baz=102,slow=3.6,SNR=3.3 | | | | | | | |
| STKA | | | | LR | | LR | 05 12 37.2 | |
| | comp=Z,2μm,18.4s,baz=69,slow=34 | | | | | | | |
| **STKA** | **Stephens Creek** | **43.41** | **241** | P | | **P** | **04 56 01.8** | **-0.8** |
| | baz=43,SNR=103 | | | | | | | |
| **STKA** | **Stephens Creek** | **43.41** | **241** | *e*P | | **P** | **04 56 01.7** | **-0.8** |
| STKA | | | | pmax | | pmax | | |
| | comp=Z,38nm,0.9s | | | | | | | |
| **STKA** | **Stephens Creek** | **43.41** | **241** | *e*P | | **P** | **04 56 01.7** | **-0.8** |
| | comp=Z,38nm,0.9s | | | | | | | |
| STKA | | | | PcP | | **PcP** | **04 57 50.9** | **+0.9** |
| STKA | | | | ScP | | **ScP** | **05 01 38.3** | **+2.7** |
| **MCQ** | **Macquarie Isla** | **43.77** | **203** | *e*P | | **P** | **04 56 04.1** | **-0.8** |
| MCQ | | | | pmax | | pmax | | |
| | comp=Z,257nm,1.8s | | | | | | | |
| **MCQ** | **Macquarie Isla** | **43.77** | **203** | *e*P | | **P** | **04 56 04.1** | **-0.8** |
| | comp=Z,257nm,1.8s | | | | | | | |
| **ARPS** | **Mount Arapiles** | **44.32** | **234** | P | | **P** | **04 56 08.6** | **-1.1** |
| | baz=44,SNR=14 | | | | | | | |
| **QIS** | **Mount Isa** | **44.41** | **257** | P | | **P** | **04 56 09.9** | **-0.8** |
| | baz=44,SNR=17 | | | | | | | |
| **MMPI** | **Merauke** | **45.40** | **274** | P | | **P** | **04 56 17.9** | **-0.6** |
| **JAY** | **Jayapura** | **46.82** | **282** | P | | **P** | **04 56 29.9** | **+0.1** |
| | comp=Z,2μm,1.9s,comp=Z,30μm | | | | | | | |
| **GENI** | **Genyem** | **47.30** | **282** | P | | **P** | **04 56 34.3** | **+0.8** |
| | comp=Z,518nm,1.5s,comp=Z,10μm | | | | | | | |
| **BBOO** | **Buckleboo** | **48.19** | **240** | P | | **P** | **04 56 38.8** | **-1.4** |
| | baz=48,SNR=150 | | | | | | | |
| **BBOO** | **Buckleboo** | **48.19** | **240** | *e*P | | **P** | **04 56 38.7** | **-1.4** |
| | comp=Z,194nm,1.0s | | | | | | | |
| **W

KDU **Kakadu** 52.11 266 P P 04 57 09.8 -0.2
baz=52,SNR=19
RKPI **Ransiki, Papua** 53.31 280 P P 04 57 19.2 +0.3
comp=Z,182nm,0.9s,comp=Z,5µm
MTN **Manton Dam** 53.37 266 P P 04 57 18.8 -0.5
baz=53,SNR=56
MTN **Manton Dam** 53.37 266 *eP* P 04 57 18.2 -1.1
comp=Z,388nm,0.9s
SAUI **Saumlaki** 54.24 272 P P 04 57 26.9 +1.2
comp=Z,604nm,1.1s
WRKA **Warakurna** 54.66 251 P P 04 57 27.3 -1.4
baz=55,SNR=363
FAKI **Fak Fak** 54.70 278 P P 04 57 28.4 -0.7
comp=Z,49nm,0.9s,comp=Z,3µm
FAKI **Fak Fak** 54.70 278 *eP* P 04 57 28.3 -0.8
comp=Z,335nm,1.6s
FORT **Forrest** 54.82 244 P P 04 57 28.6 -1.1
baz=55,SNR=96
FORT **Forrest** 54.82 244 *eP* P 04 57 28.1 -1.6
comp=Z,1µm,0.6s
KNRA **Kununurra** 55.16 262 P P 04 57 31.6 -0.7
baz=55,SNR=70
SWI **Sorong** 56.28 280 P P 04 57 40.2 -0.2
comp=Z,1µm,1.2s,comp=Z,9µm
PALU **Palau** 56.32 290 P P 04 57 42.3 +1.6
baz=56,SNR=17
BNDI **Bandamaira** 56.48 275 P P 04 57 41.7 -0.1
MSAI **Masohi** 57.74 276 P P 04 57 50.1 -0.6
comp=Z,28nm,0.7s,comp=Z,1µm
AAI **Ambon** 58.35 276 P P 04 57 54.2 -0.8
comp=Z,232nm,1.3s,comp=Z,3µm
NLAI **Namlea** 59.52 276 P P 04 58 03.0 -0.1
comp=Z,243nm,1.5s,comp=Z,4µm
LBMI **Labuha** 59.91 279 P P 04 58 05.7 -0.1
comp=Z,595nm,1.1s,comp=Z,6µm
KMBL **Kambalda** 60.12 243 P P 04 58 05.7 -1.3
baz=60,SNR=13
RPN **Rapa Nui** 60.30 112 *eP* P 04 58 12.0 +3.7
RPN pmax pmax
comp=Z,190nm,1.1s
RPN **Rapa Nui** 60.30 112 *eP* P 04 58 08.4 +0.1
comp=Z,194nm,1.1s
TNTI **Ternate** 60.49 280 *eP* P 04 58 10.0 +0.2
comp=Z,301nm,1.2s
SOEI **Soe** 60.59 268 P P 04 58 11.5 +1.0
comp=Z,800nm,0.9s,comp=Z,6µm
SOEI **Soe** 60.59 268 *eP* P 04 58 11.6 +1.0
comp=Z,612nm,0.9s
SANI **Sanana** 60.93 277 P P 04 58 11.6 -1.1
comp=Z,234nm,1.9s,comp=Z,3µm
SBA **Scott Base** 62.52 185 *eP* P 04 58 25.0 +2.6
SBA pmax pmax
comp=Z,170nm,0.9s
SBA **Scott Base** 62.52 185 *eP* P 04 58 25.0 +2.6
comp=Z,168nm,0.9s
VNDA **Vanda** 62.64 186 P P 04 58 25.0 +1.9
comp=Z,96nm,0.9s,baz=7.4,slow=6.7,SNR=186
VNDA LR LR 05 21 47.4
comp=Z,480nm,20.7s,baz=14,slow=32
VNDA **Vanda** 62.64 186 *eP* P 04 58 25.1 +1.9
VNDA pmax pmax
comp=Z,140nm,1.0s
VNDA **Vanda** 62.64 186 *eP* P 04 58 24.8 +1.7
comp=Z,136nm,0.9s
MMRI **Maumere** 62.79 268 P P 04 58 25.3 +0.1
comp=Z,398nm,1.3s,comp=Z,5µm
MMRI **Maumere** 62.79 268 *eP* P 04 58 24.6 -0.6
comp=Z,288nm,0.8s
MBWA **Marble Bar** 62.87 254 *eP* P 04 58 24.8 -0.8
comp=Z,160nm,0.8s
MEEK **Meekatharra** 63.26 248 P P 04 58 26.9 -1.3
baz=63,SNR=19
EDFI **Ende, Flores** 63.29 268 P P 04 58 26.0 -2.7
comp=Z,596nm,0.9s,comp=Z,5µm
KLBR **Kellerberrin** 63.63 242 P P 04 58 29.6 -1.0
baz=64,SNR=96
KMSI **Cibinong** 63.63 279 P P 04 58 31.4 +0.6
comp=Z,363nm,0.8s
NWAO **Narrogin (SRO)** 64.00 241 P P 04 58 32.1 -0.8
baz=64,SNR=39
NWAO P P 04 58 32.1 -0.8
baz=64,SNR=39
NWAO **Narrogin (SRO)** 64.00 241 *eP* P 04 58 31.9 -1.1
NWAO pmax pmax
comp=Z,100nm,1.1s
NWAO **Narrogin (SRO)** 64.00 241 *eP* P 04 58 31.9 -1.1
comp=Z,100nm,1.1s
BASI **Baing, Sumba** 64.02 266 P P 04 58 33.7 +0.3
comp=Z,473nm,1.6s,comp=Z,7µm
RKGY **Rocky Gully** 64.14 239 P P 04 58 33.8 0.0
baz=64,SNR=29
LUWI **Luwuk** 64.30 277 P P 04 58 35.4 +0.2
comp=Z,514nm,1.4s,comp=Z,7µm
LUWI **Luwuk** 64.30 277 *eP* P 04 58 35.1 -0.1
comp=Z,1µm,1.5s
DAV **Davao City (W)** 64.33 286 P P 04 58 36.3 +1.0
comp=Z,205nm,0.4s,baz=256,slow=0.1,SNR=5.5
DAV **Davao City (W)** 64.33 286 *eP* P 04 58 34.9 -0.5
comp=Z,394nm,0.4s
BLDU **Ballidu** 64.59 243 P P 04 58 35.4 -1.4
baz=65,SNR=70
MUN **Mundaring** 64.92 242 P P 04 58 38.1 -0.9
baz=65,SNR=59
BSSI **Bau Bau, Buton** 65.08 271 P P 04 58 39.5 -0.8
comp=Z,176nm,0.9s
WBSI **Waikabubak, Su** 65.29 267 P P 04 58 41.1 -0.6
comp=Z,263nm,1.5s,comp=Z,3µm
MORW **Morawa** 65.30 245 P P 04 58 40.4 -1.1
baz=65,SNR=12
APSI **Ampana** 65.41 277 P P 04 58 42.9 +0.5
comp=Z,624nm,1.5s,comp=Z,8µm
MRSI **Marisa** 65.54 278 P P 04 58 43.2 -0.1
comp=Z,108nm,1.1s,comp=Z,2µm
JHJ2 **Mitsune** 66.06 318 *eP* P 04 58 45.0 -1.1
comp=Z,428nm,1.0s
JHJ **Hachijo jima 2** 66.09 318 P P 04 58 46.1 -0.2
comp=Z,256nm,0.7s,baz=183,slow=8.0,SNR=5.7
SPSI **Sidrap Palu** 66.35 273 P P 04 58 47.3 -1.1
comp=Z,101nm,1.5s,comp=Z,1µm
H01W1 **Cape Leeuwin H** 66.45 239 P P 04 58 50.1 +1.7
baz=97,slow=7.5,SNR=11
H01W3 **Cape Leeuwin H** 66.46 239 P P 04 58 50.3 +1.7
baz=97,slow=7.5,SNR=7.1
H01W2 **Cape Leeuwin H** 66.46 239 P P 04 58 50.3 +1.7
baz=97,slow=7.5,SNR=6.4
TTSI **Tana Toraja** 66.55 274 P P 04 58 49.9 +0.2
comp=Z,101nm,1.5s
PLAI **Plampang** 67.03 267 P P 04 58 52.4 -0.4
comp=Z,453nm,1.1s,comp=Z,4µm
MPSI **Mapaga** 67.45 277 P P 04 58 55.3 -0.1
comp=Z,310nm,0.9s,comp=Z,3µm
GIRL **Giralia** 67.71 252 P P 04 58 57.8 +0.9
baz=68,SNR=24
GSTR **Great Sitkin T** 67.95 358 *eP* P 04 58 56.3 -1.4
ATKA **Atka Island** 68.03 360 *eP* P 04 58 58.7 +0.5
comp=Z,687nm,1.2s
NIKH **Nikolski High** 68.93 3 *eP* P 04 59 03.2 -0.6
comp=Z,458nm,0.8s
INU **Inuyama** 69.27 319 *eP* P 04 59 05.9 -0.4
comp=Z,74nm,1.2s
MJAR **Matsushiro Arr** 69.28 320 P P 04 59 05.9 -0.5
comp=Z,16nm,0.5s,baz=152,slow=5.9,SNR=25
MJAR LR LR 05 23 49.4
comp=Z,539nm,21.5s,baz=130,slow=31
MAJO **Matsushiro** 69.28 320 ‖ *i* P P 04 59 05.9 -0.5
MAJO pmax pmax
comp=Z,24nm,0.5s
MAJO **Matsushiro** 69.28 320 *eP* P 04 59 06.5 +0.1
comp=Z,97nm,1.3s
MAT **Matsushiro** 69.28 320 P P 04 59 06.3 -0.1
MAT S S 05 08 04.2 -3.7
MJB9 **Matsu-Tunnel** 69.29 320 *eP* P 04 59 06.7 +0.2
comp=Z,103nm,1.3s
SMY **Shemya** 69.36 352 *eP* P 04 59 07.4 +0.9
SMY pmax pmax
comp=Z,1µm,1.9s
SMY **Shemya** 69.36 352 *eP* P 04 59 07.4 +0.9
comp=Z,1µm,1.9s
DNP **Denpasar** 69.53 267 P P 04 59 09.5 +1.1
comp=Z,1µm,0.9s
SRBI **Singaraja** 69.67 267 P P 04 59 09.8 +0.5
comp=Z,327nm,1.2s,comp=Z,4µm
SMKI **Samarinda** 69.79 276 P P 04 59 10.4 +0.4
UNV **Unalaska Valle** 69.95 5 *eP* P 04 59 10.0 -0.1
comp=Z,252nm,0.8s
KBKI **Kotabaru** 69.98 272 P P 04 59 11.8 +0.6
comp=Z,248nm,1.3s,comp=Z,3µm
ERM **Erimo** 70.19 327 *i* P P 04 59 13.3 +1.5
ERM pmax pmax
comp=Z,96nm,1.0s
ERM **Erimo** 70.19 327 *eP* P 04 59 11.5 -0.3
comp=Z,86nm,1.0s
MYLDM **Lahad Datu** 70.28 282 *eP* P 04 59 14.0 +1.0
comp=Z,256nm,1.0s
AKUT **Akutan** 70.29 5 *eP* P 04 59 11.9 -0.3
comp=Z,248nm,0.7s
KUR **Kuril'sk** 70.30 332 *ceP* P 04 59 13.6 +1.2
KUR *eS* S 05 08 22.4 +3.1
KUR pmax pmax
comp=E,81nm,1.0s
KUR pmax pmax
comp=Z,716nm,1.0s
KUR pmax pmax
comp=N,146nm,0.9s
KUR pmax pmax
comp=Z,4µm,3.6s
YUK **Yuzh-Kuril'sk** 70.32 330 *eP* P 04 58 59.0 -14
YUK PPP PPP 05 03 34.1
YUK pmax pmax
comp=Z,2µm,4.6s
YUK pmax pmax
comp=N,331nm,1.1s
YUK pmax pmax
comp=Z,774nm,1.1s
YUK pmax pmax
comp=E,294nm,0.9s
JAGI **Jajag, Banyuwa** 70.60 267 P P 04 59 13.7 -1.3
comp=E,987nm,1.0s,comp=E,10µm
JAGI **Jajag, Banyuwa** 70.60 267 *eP* P 04 59 13.4 -1.6
comp=E,950nm,1.1s
JOW **Kunigami** 70.65 307 *eP* P 04 59 13.8 -1.2
comp=E,240nm,1.2s
ABJI **Asem Bagus** 70.68 267 P P 04 59 15.0 -0.5
comp=E,324nm,1.1s,comp=E,3µm
H06E1 **SCORRO T-PHAS** 70.85 63 T T 06 16 10.3
SNR=7.6
KMMI **Kalianget** 71.12 268 P P 04 59 18.9 +0.7
comp=E,442nm,1.1s,comp=E,5µm
TGY **Tagaytay City** 71.19 291 P P 04 59 20.1 +1.5
comp=E,230nm,0.4s,baz=41,slow=8.0,SNR=3.7
FALS **False Pass** 71.23 6 *eP* P 04 59 18.0 +0.2
SNCC **San Nicolas Is** 71.30 46 P P 04 59 20.7 +1.9
baz=235
SNCC **San Nicolas Is** 71.30 46 *eP* P 04 59 18.4 -0.4
comp=E,91nm,1.0s
BLJI **Banyuglugur** 71.31 267 P P 04 59 19.0 -0.3
comp=E,993nm,0.8s,comp=E,9µm
SKR **Severo-Kuril's** 71.58 340 *eP* P 04 59 18.4 -1.7
SKR *eS* S 05 08 32.8 -1.2
SKR pmax pmax
comp=Z,449nm,1.0s
SKR pmax pmax
comp=Z,3µm,11.0s
SKR pmax pmax
comp=Z,1µm,14.6s
SKR MLR MLR
comp=Z,1µm,20.0s
SCZ2 **Santa Cruz Isl** 71.64 45 P P 04 59 22.9 +2.0
baz=235,SNR=8.9
SCI2 **San Clemente I** 71.82 47 P P 04 59 24.0 +2.0
baz=236,SNR=7.8
SBC **Santa Barbara** 71.85 45 P P 04 59 24.1 +2.0
baz=235
MTKI **Muara Teweh, K** 71.86 274 P P 04 59 23.9 +1.3
ASAJ **Asahikawa** 71.98 328 P P 04 59 23.4 +0.8
comp=Z,223nm,0.7s,baz=200,slow=5.8,SNR=74
ASAJ **Asahikawa** 71.98 328 *eP* P 04 59 23.3 +0.7
comp=Z,242nm,0.8s
MCCM **Marconi Confer** 72.01 40 *eP* P 04 59 25.0 +2.1
comp=Z,115nm,1.1s
PKM **Mcpherson Peak** 72.04 44 P P 04 59 25.3 +1.9
baz=235,SNR=12
JNU **Nakatsue** 72.06 313 P P 04 59 23.3 -0.1
comp=E,69nm,0.7s,baz=80,slow=3.6,SNR=35
JNU **Nakatsue** 72.06 313 *eP* P 04 59 23.4 0.0
comp=Z,91nm,1.0s
SDPT **Sand Point** 72.06 8 *eP* P 04 59 23.2 +0.4
comp=Z,649nm,0.8s
SAO **San Andreas Ge** 72.07 42 *eP* P 04 59 25.7 +2.4
SAO pmax pmax
comp=Z,140nm,1.2s
SAO **San Andreas Ge** 72.07 42 *eP* P 04 59 24.6 +1.3
comp=Z,135nm,1.2s
CIS **Catalina Islan** 72.15 46 P P 04 59 25.6 +1.6
baz=236,SNR=7.7
PMPB **Monarch Peak** 72.16 43 *eP* P 04 59 26.6 +2.6
comp=Z,536nm,1.8s
SMMC **Simmler** 72.16 44 P P 04 59 25.9 +2.0
baz=234,SNR=14
PAGB **Antelope Grade** 72.23 43 *eP* P 04 59 26.8 +2.4
comp=Z,394nm,1.9s
FMP **Fort Macarthur** 72.41 46 P P 04 59 27.4 +2.0
baz=236
HOPS **Hopland Field** 72.42 39 *eP* P 04 59 27.7 +2.3
comp=Z,284nm,1.4s
GDXM **Geysers** 72.47 40 *eP* P 04 59 24.4 -1.4
comp=Z,172nm,1.6s
KCPM **Cahto Peak** 72.55 38 *eP* P 04 59 28.4 +2.1
comp=Z,262nm,1.4s
GRJI **Gresik** 72.59 268 P P 04 59 27.5 +0.6
comp=Z,293nm,0.9s,comp=Z,3µm
OSI **Osito Audit. C** 72.62 45 *eP* P 04 59 28.4 +1.7
comp=Z,93nm,0.5s
DECC **Green Verdugo** 72.68 46 P P 04 59 28.7 +1.6
baz=236,SNR=5.8
KKM **Kota Kinabalu** 72.72 282 *eP* P 04 59 27.9 0.0
comp=Z,141nm,0.8s
PASC **Pasadena Art C** 72.74 46 *eP* P 04 59 27.5 +0.1
comp=Z,69nm,1.2s
109C **Camp Elliot, M** 72.79 47 P P 04 59 29.3 +1.6
baz=237,SNR=12
KMRM **Mail Ridge** 72.81 38 *eP* P 04 59 29.7 +1.9
comp=Z,261nm,0.8s
ARVC **Arvin** 72.83 45 P P 04 59 29.6 +1.7
baz=235,SNR=20
MWC **Mount Wilson** 72.85 46 *eP* P 04 59 29.4 +1.1
MWC pmax pmax
comp=Z,69nm,0.9s
MWC **Mount Wilson** 72.85 46 *eP* P 04 59 29.4 +1.1
comp=Z,69nm,0.8s
PET **Petropavlovsk** 72.86 343 ‖ *i* P P 04 59 28.3 +0.7
PET *eS* S 05 08 47.8 -0.7
PET *e*'SS SKSac 05 09 22.8 -4.2
PET pmax pmax
comp=Z,61nm,0.8s
PET pmax pmax
comp=Z,1µm,13.9s
PET **Petropavlovsk** 72.86 343 *eP* P 04 59 27.4 -0.3
comp=Z,541nm,1.5s
PWJI **Pagerwojo** 72.96 266 P P 04 59 29.1 0.0
comp=Z,348nm,1.1s,comp=Z,4µm
BAR **Barrett** 72.98 48 *eP* P 04 59 29.7 +0.8
comp=Z,30nm,0.9s
JCC **Jacoby Creek,** 73.00 37 *eP* P 04 59 30.7 +1.9
comp=Z,142nm,1.5s
SPIA **Saint Paul Isl** 73.07 2 *eP* P 04 59 30.3 +1.5
comp=Z,427nm,1.0s
VES **Vestal, Richgr** 73.07 44 P P 04 59 31.0 +1.7
baz=235,SNR=47
MURC **Murrieta** 73.11 47 P P 04 59 31.2 +1.5
baz=237,SNR=31
BFSC **Mount Baldy Ra** 73.14 46 P P 04 59 31.2 +1.3
baz=236,SNR=29
PEA0B **Petropavlovsk-** 73.21 342 *eP* P 04 59 30.0 +0.3
comp=Z,538nm,0.9s
PETK **Petropavlovsk-** 73.21 342 P P 04 59 29.7 -0.1
comp=Z,318nm,0.8s,baz=115,slow=7.1,SNR=209
PETK LR LR 05 25 46.7
comp=Z,207nm,21.1s,baz=149,slow=31
PETK **Petropavlovsk-** 73.21 342 *eP* P 04 59 29.9 +0.1
PETK **Petropavlovsk-** 73.21 342 *eP* P 04 59 29.9 +0.1
KHMM **Horse Mountain** 73.21 37 *eP* P 04 59 31.4 +1.2
comp=Z,178nm,1.2s
TBJI **Tambak Boyo** 73.22 268 P P 04 59 31.3 +0.6
comp=Z,730nm,1.2s,comp=Z,8µm
RCTC **Rector, Farmer** 73.23 43 P P 04 59 32.1 +1.9
baz=235
EDW2 **Edwards Air Fo** 73.26 45 P P 04 59 32.1 +1.5
baz=236,SNR=87
MONP2 **Monument Peak** 73.27 48 P P 04 59 32.4 +1.6
baz=238,SNR=62
CHGN **Chignik** 73.27 9 *eP* P 04 59 29.7 -0.3
comp=Z,409nm,0.9s
IKP **In-Ko-Pah, Jac** 73.37 48 P P 04 59 33.0 +1.7
baz=238,SNR=47
ISA **Isabella, Lake** 73.38 44 P P 04 59 33.0 +1.8
baz=235,SNR=19
ISA **Isabella, Lake** 73.38 44 *eP* P 04 59 32.6 +1.4
ISA pmax pmax
comp=Z,344nm,1.9s
ISA **Isabella, Lake** 73.38 44 *eP* P 04 59 32.6 +1.4
comp=Z,344nm,1.9s
CMB **Columbia Colle** 73.50 41 *eP* P 04 59 32.5 +0.6
CMB pmax pmax
comp=Z,88nm,1.1s
CMB **Columbia Colle** 73.50 41 *eP* P 04 59 32.5 +0.6
comp=Z,88nm,1.1s
PCJI **Pacitan** 73.52 266 P P 04 59 32.4 0.0
comp=Z,1µm,1.1s,comp=Z,14µm
KRMB **Red Mountain** 73.53 37 *eP* P 04 59 34.7 +2.7
comp=Z,505nm,1.8s
SRIG **Santa Rosalia** 73.60 55 *eP* P 04 59 33.1 +0.6
comp=Z,170nm,1.1s
PFO **Pinyon Flats O** 73.63 47 P P 04 59 34.5 +1.7
baz=237,SNR=38
PFO **Pinyon Flats O** 73.63 47 *eP* P 04 59 33.9 +1.0
PFO pmax pmax
comp=Z,74nm,1.1s
PFO **Pinyon Flats O** 73.63 47 *eP* P 04 59 33.9 +1.0
comp=Z,74nm,1.1s
TPFO **Pinon Flats** 73.63 47 P P 04 59 34.5 +1.6
baz=237,SNR=42
XPFO **Piæon Flat** 73.63 47 *eP* P 04 59 33.9 +1.0
comp=Z,79nm,1.1s
BBRC **Big Bear Solar** 73.66 46 P P 04 59 34.7 +1.6
baz=237,SNR=6.3
AFDM **Forest Hills D** 73.68 40 *eP* P 04 59 33.9 +1.0
comp=Z,79nm,1.0s
YOJ **Yonaguni jima** 73.71 302 *eP* P 04 59 34.0 +0.7
YOJ pmax pmax
comp=Z,270nm,0.9s
YOJ **Yonaguni jima** 73.71 302 *eP* P 04 59 33.2 -0.1
comp=Z,265nm,0.9s
ORV **Oroville** 73.72 40 *eP* P 04 59 34.0 +0.9
ORV pmax pmax
comp=Z,60nm,1.0s
ORV **Oroville** 73.72 40 *eP* P 04 59 34.0 +0.9
comp=Z,60nm,1.0s
WDC **Whiskeytown Da** 73.73 38 *eP* P 04 59 34.4 +1.3
WDC pmax pmax
comp=Z,410nm,1.8s
WDC **Whiskeytown Da** 73.73 38 *eP* P 04 59 34.4 +1.3
comp=Z,413nm,1.8s
SWSC **Sam W. Stewart** 73.74 48 P P 04 59 35.1 +1.8
baz=238,SNR=35
SLBS **Sierra La Lagu** 73.79 59 *eP* P 04 59 36.1 +2.2
comp=Z,159nm,1.5s
KBO **Bosley Butte** 73.79 36 *eP* P 04 59 34.7 +1.2
comp=Z,242nm,1.4s
LRMC **Laurel Mtn Rad** 73.81 45 P P 04 59 35.6 +1.7
baz=236,SNR=52
N02D **Trinity Center** 73.88 38 P P 04 59 36.1 +2.1
baz=231,SNR=52
QSPA **South Pole Qui** 73.94 180 *eP* P 04 59 35.2 +1.1
comp=Z,210nm,1.0s
RRX **Edison Barstow** 73.94 46 P P 04 59 36.3 +1.8
baz=237,SNR=10
YSS **Yuzh-Sakhalins** 73.95 331 ‖ *i* P P 04 59 34.4 +0.2
YSS *eS* SKiKP 05 08 58.9 +2.1
YSS pmax pmax
comp=Z,3µm,3.5s
YSS pmax pmax
comp=Z,640nm,0.8s
YSS **Yuzh-Sakhalins** 73.95 331 *eP* P 04 59 35.5 +1.4
comp=Z,643nm,0.9s
O03D **Paynes Creek** 73.99 39 P P 04 59 36.5 +1.7
baz=232,SNR=41
M02C **Callahan** 74.05 37 P P 04 59 37.2 +2.1
baz=231,SNR=33
CWC **Cottonwood Cre** 74.08 44 P P 04 59 37.2 +1.8
baz=236
MDPB **Devils Postpil** 74.10 42 *eP* P 04 59 36.5 +0.8
comp=Z,101nm,1.3s
L02D **Cave Junction,** 74.11 36 P P 04 59 37.5 +2.3
baz=230,SNR=9.9
KEBM **Edson Butte** 74.16 35 *eP* P 04 59 37.2 +1.6
comp=Z,244nm,1.2s
BELC **Belle Mtn. Jos** 74.16 47 P P 04 59 37.7 +1.8
baz=238,SNR=54
UWJI **Ujung Watu** 74.18 268 P P 04 59 36.5 +0.2
comp=Z,123nm,1.4s,comp=Z,7µm
UGM **Wanagama** 74.21 266 P P 04 59 37.1 +0.5
comp=Z,542nm,1.3s
UGM **Wanagama** 74.21 266 *eP* P 04 59 36.7 +0.1
comp=Z,807nm,1.3s
MLAC **Mammoth, Mammo** 74.26 42 P P 04 59 38.3 +1.8
baz=235,SNR=15
MPMC **Manual Prospec** 74.26 44 P P 04 59 38.3 +1.7
baz=236,SNR=108
DAC **Darwin (Calif)** 74.31 44 *eP* P 04 59 38.5 +1.6
DAC pmax pmax
comp=Z,250nm,1.9s
DAC **Darwin (Calif)** 74.31 44 *eP* P 04 59 38.5 +1.6
comp=Z,253nm,1.9s
TIN **Tinemaha, Big** 74.33 43 P P 04 59 38.8 +2.0
baz=235,SNR=9.3
YBH **Yreka Blue Hor** 74.35 37 *eP* P 04 59 38.1 +1.3
YBH pmax pmax
comp=Z,120nm,0.9s
YBH **Yreka Blue Hor** 74.35 37 *eP* P 04 59 38.1 +1.3
comp=Z,125nm,0.8s
BC3 **Big Chuckawall** 74.36 47 P P 04 59 38.8 +1.7
baz=238,SNR=47
HEC **Hector,Ludlow** 74.37 46 P P 04 59 38.8 +1.7
baz=237,SNR=14
WAKR **Walker** 74.38 41 *eP* P 04 59 38.6 +1.4
comp=Z,340nm,1.8s
PBKI **Pangkalan Bun** 74.47 272 P P 04 59 39.1 +1.1
comp=Z,1µm,1.1s,comp=Z,11µm
GLA **Glamis** 74.50 48 P P 04 59 39.6 +1.8
baz=239,SNR=37
GLA **Glamis** 74.50 48 *eP* P 04 59 39.5 +1.8
GLA pmax pmax
comp=Z,130nm,1.1s
GLA **Glamis** 74.50 48 *eP* P 04 59 39.5 +1.7
comp=Z,134nm,1.1s
SMRI **Semarang** 74.51 267 P P 04 59 38.8 +0.5
SMRI **Semarang** 74.51 267 *eP* P 04 59 37.1 -1.1
comp=Z,355nm,1.0s
TWG **Pinlang** 74.60 300 *eP* P 04 59 36.9 -1.6
comp=Z,266nm,0.9s
BEKR **Beckworth** 74.61 40 *eP* P 04 59 39.1 +0.7
comp=Z,97nm,1.0s
PNTR **Pine Nut** 74.62 41 *eP* P 04 59 39.9 +1.3
comp=Z,144nm,1.0s
YULB **Yu-li** 74.65 300 *eP* P 04 59 37.9 -1.0
comp=Z,88nm,1.0s
NACB **Ninganchiao** 74.75 301 *eP* P 04 59 38.9 -0.5
comp=Z,325nm,1.0s
HUMO **Hull Mountain** 74.76 36 *eP* P 04 59 40.7 +1.6
comp=Z,400nm,1.8s
YERR **Yerington** 74.79 41 *eP* P 04 59 40.2 +0.7
comp=Z,120nm,1.1s
GMRC **Granite Mounta** 74.82 46 P P 04 59 41.1 +1.4
baz=238,SNR=49
IRM **Iron Mountain** 74.85 47 P P 04 59 41.3 +1.5
baz=238,SNR=80
GRAC **Grapevine Rang** 74.86 44 P P 04 59 41.7 +1.9
baz=236,SNR=36
M04C **Macdoel** 74.89 38 P P 04 59 41.9 +1.9
baz=232,SNR=39
FURC **Furnace Creek,** 74.91 44 P P 04 59 41.9 +1.9
baz=236,SNR=42
TUQ **Turquoise Moun** 74.98 46 P P 04 59 42.3 +1.7
baz=237,SNR=38
SHOC **Shoshone, Teco** 75.00 45 P P 04 59 42.2 +1.6
baz=237,SNR=40
OHAK **Old Harbor** 75.02 11 *eP* P 04 59 40.4 +0.3
comp=Z,199nm,1.0s
NV01 **Mina Array Sit** 75.06 42 *eP* P 04 59 42.3 +1.1
NVAR **Mina Array Bea** 75.06 42 P P 04 59 42.2 +1.1
comp=Z,48nm,0.9s,baz=227,slow=8.6,SNR=188
NVAR LR LR 05 25 32.6
comp=Z,2µm,20.7s,baz=242,slow=30
Y12C **Blythe** 75.07 48 P P 04 59 42.7 +1.7
baz=239,SNR=53
Y12C **Blythe** 75.07 48 *eP* P 04 59 42.5 +1.4
comp=Z,98nm,1.1s
SSLB **Suanglung** 75.11 301 *eP* P 04 59 39.6 -1.9
comp=Z,114nm,0.9s
113A **Mohawk Valley,** 75.11 49 *eP* P 04 59 42.1 +0.9
comp=Z,100nm,1.1s
PAHR **Pah Rah Range** 75.12 40 *eP* P 04 59 42.2 +0.8
comp=Z,106nm,1.1s

YHNB **Yeheng** 75.14 302 *e*P P 04 59 41.2 -0.5
comp=Z,229nm,1.0s
NV11 **Mina Array Sit** 75.16 42 *e*P P 04 59 42.4 +0.8
comp=Z,15nm,1.3s
TPUB **Ta-pu** 75.17 300 *e*P P 04 59 40.5 -1.4
comp=Z,344nm,0.9s
TATO **Taipei** 75.18 302 *e*P P 04 59 40.2 -1.6
comp=Z,425nm,1.0s
I03D **Drain, OR** 75.24 35 P P 04 59 43.7 +2.0
baz=230,SNR=7.3
LDFC **Landfair** 75.36 46 *e*P P 04 59 44.8 +2.0
comp=Z,183nm,1.0s
SBUM **Sibu** 75.40 277 *e*P P 04 59 44.4 +1.1
comp=Z,81nm,1.0s
HSIG 75.40 54 *e*P P 04 59 43.6 +0.5
comp=Z,92nm,1.2s
214A **Organ Pipe Nat** 75.41 50 P P 04 59 44.7 +1.7
baz=240
STKI **Sintang** 75.42 274 P P 04 59 43.3 -0.2
comp=Z,230nm,1.3s
K04D **Chiloquin, OR** 75.46 37 P P 04 59 45.2 +1.9
baz=231,SNR=12
NEE2 **Needles Airpor** 75.54 47 P P 04 59 45.6 +1.9
baz=238,SNR=11
TPNV **Topopah Spring** 75.58 44 P P 04 59 45.9 +1.7
baz=237,SNR=44
TPNV **Topopah Spring** 75.58 44 *e*P P 04 59 45.0 +0.8
TPNV pmax pmax
comp=Z,100nm,1.4s
TPNV **Topopah Spring** 75.58 44 *e*P P 04 59 45.0 +0.8
comp=Z,103nm,1.4s
PDMCI **Parker Dam,Lak** 75.63 47 P P 04 59 46.1 +1.8
baz=239,SNR=30
J04D **Umpqua Nationa** 75.65 36 P P 04 59 46.4 +2.0
baz=231,SNR=32
KDAK **Kodiak Island** 75.68 12 P P 04 59 44.6 +0.7
comp=Z,164nm,0.8s,baz=196,slow=2.9,SNR=66
KDAK **Kodiak Island** 75.68 12 *e*P P 04 59 45.0 +1.1
KDAK pmax pmax
comp=Z,270nm,0.9s
KDAK **Kodiak Island** 75.68 12 *e*P P 04 59 45.0 +1.1
comp=Z,270nm,0.9s
I04A **Tendick Farm,** 75.83 36 P P 04 59 47.1 +1.9
baz=231,SNR=9.9
MOD **Modoc Plateau** 75.87 38 *e*P P 04 59 46.5 +0.9
comp=Z,118nm,0.9s
KPJI **Karang Pucung** 75.89 266 P P 04 59 46.1 0.0
comp=Z,303nm,0.7s,comp=Z,3µm
SHPR **Sheep Range** 76.08 45 *e*P P 04 59 48.4 +1.4
comp=Z,368nm,2.0s
J05D **Fort Rock, OR** 76.17 37 P P 04 59 49.2 +1.9
baz=232,SNR=50
W13A **Hualapai Mount** 76.22 47 *e*P P 04 59 49.0 +1.1
comp=Z,63nm,1.1s
TJN **Taejon** 76.25 315 ⇓*i*P P 04 59 47.9 +0.2
Y14A **Wickenburg** 76.26 48 *e*P P 04 59 48.8 +0.9
comp=Z,384nm,1.0s
G03D **McMinnville, O** 76.26 34 P P 04 59 49.5 +2.0
baz=230,SNR=5.1
KSRS **Korea Array** 76.45 316 P P 04 59 49.5 +0.7
comp=Z,41nm,1.0s,baz=128,slow=6.8,SNR=58
KSRS LR LR 05 27 23.0
comp=Z,426nm,21.4s,baz=122,slow=31
KSRS **Korea Array** 76.45 316 P P 04 59 49.5 +0.7
KSRS pmax pmax
comp=Z,40nm,1.0s
KS15 **Wonju Array Si** 76.47 316 *e*P P 04 59 50.1 +1.2
KSAR **Wonju Array Be** 76.47 316 P P 04 59 49.5 +0.6
KSAR **Wonju Array Be** 76.47 316 P P 04 59 49.5 +0.6
KS01 **Wonju Array Si** 76.48 316 *e*P P 04 59 50.1 +1.1
H04A **Detroit Lake** 76.51 35 *e*P P 04 59 50.2 +1.2
comp=Z,258nm,1.5s
MIR **Mirnyy** 76.65 204 *i* P P 04 59 50.0 +0.5
MIR pmax pmax
comp=Z,18nm,1.5s
JCJI **Jatiwangi** 76.74 267 P P 04 59 51.4 +0.4
I05D **Terrebonne, OR** 76.77 36 P P 04 59 52.4 +1.8
baz=231,SNR=14
R11A **Troy Canyon, C** 76.79 43 P P 04 59 52.1 +1.2
baz=237,SNR=62
R11A **Troy Canyon, C** 76.79 43 *e*P P 04 59 51.5 +0.5
comp=Z,95nm,1.4s
TYV **Tymovskoe** 76.84 333 *e*P P 04 59 50.0 -0.7
TYV pmax pmax
comp=Z,2µm,4.6s
TYV pmax pmax
comp=Z,400nm,0.9s
BMN **Battle Mountai** 76.89 41 *e*P P 04 59 52.3 +0.8
BMN pmax pmax
comp=Z,100nm,1.0s
BMN **Battle Mountai** 76.89 41 *e*P P 04 59 52.2 +0.8
comp=Z,100nm,1.0s
CISI **Cisompet, Garu** 76.90 266 P P 04 59 51.3 -0.7
comp=Z,648nm,0.8s
CISI **Cisompet, Garu** 76.90 266 *e*P P 04 59 50.7 -1.3
comp=Z,348nm,0.6s
KSM **Kuching** 76.94 275 *e*P P 04 59 53.2 +1.1
comp=Z,850nm,1.5s
F04D **Rainier, OR** 76.96 34 P P 04 59 53.7 +2.2
baz=230
E03A **Lebam** 76.97 33 *e*P P 04 59 52.1 +0.6
comp=Z,243nm,1.3s
TUC **Tucson** 77.08 51 P P 04 59 54.1 +1.5
baz=241
TUC **Tucson** 77.08 51 *e*P P 04 59 53.9 +1.3
TUC pmax pmax
comp=Z,110nm,1.1s
TUC **Tucson** 77.08 51 *e*P P 04 59 53.9 +1.3
comp=Z,109nm,1.1s
WVOR **Wild Horse Val** 77.18 39 *e*P P 04 59 53.6 +0.6
WVOR pmax pmax
comp=Z,130nm,1.1s
WVOR **Wild Horse Val** 77.18 39 *e*P P 04 59 53.6 +0.6
comp=Z,129nm,1.1s
MSHR **Mys Shultsa** 77.29 322 ⇑*e*P P 04 59 54.1 +0.7
INCN **Inchon** 77.33 315 *e*P P 04 59 53.7 -0.1
comp=Z,164nm,0.9s
G05D **Wamic, OR** 77.34 35 P P 04 59 55.4 +1.6
baz=231,SNR=5.9
QZH **Quanzhou** 77.55 301 ⇓*i*P P 04 59 55.3 +0.1
QZH S S 05 09 39.0 -2.6
QZH pmax pmax
comp=Z,110nm,1.1s
QZH pmax pmax
comp=Z,2µm,3.0s
QZH LR LR
comp=Z,4µm,34.5s
CNPM **China Poot** 77.56 12 *e*P P 04 59 55.1 +0.5
comp=Z,313nm,1.0s
HOM **Homer** 77.61 11 *e*P P 04 59 53.2 -1.6
comp=Z,595nm,1.2s
DIB **Dawson Inlet,** 77.62 24 *e*P P 04 59 56.7 +1.7
comp=Z,133nm,1.3s
CNJI **Cibinong** 77.62 266 P P 04 59 55.0 -0.9
comp=Z,551nm,1.1s,comp=Z,5µm
I07A **Izee** 77.65 37 *e*P P 04 59 56.2 +0.6
comp=Z,90nm,1.0s
LCMT **Little Creek M** 77.66 45 *e*P P 04 59 57.2 +1.4
comp=Z,70nm,1.0s
G06A **Carlson Farm,** 77.72 35 *e*P P 04 59 57.0 +1.2
comp=Z,278nm,1.7s
USRK **Ussuriysk Ar.** 77.76 323 P P 04 59 56.5 +0.5
comp=Z,48nm,0.9s,baz=116,slow=4.4,SNR=32
319A **Douglas** 77.77 52 *e*P P 04 59 58.0 +1.4
comp=Z,155nm,1.0s
J08A **Circle Bar Ran** 77.82 38 *e*P P 04 59 57.1 +0.6
comp=Z,149nm,1.2s
BRLK **Bradley Lake** 77.85 12 *e*P P 04 59 56.7 +0.5
comp=Z,356nm,1.1s
CCUT **Cedar City** 77.85 45 *e*P P 04 59 58.2 +1.2
comp=Z,86nm,1.0s
U15A **North Rim** 78.02 46 *e*P P 04 59 59.2 +1.3
comp=Z,143nm,1.0s
LON **Longmire** 78.03 34 *e*P P 04 59 58.7 +1.2
LON pmax pmax
comp=Z,190nm,1.8s
LON **Longmire** 78.03 34 *e*P P 04 59 57.8 +0.3
comp=Z,190nm,1.8s
PSUT **Pine Spring** 78.03 44 *e*P P 04 59 58.7 +0.7
comp=Z,56nm,0.8s
SZCU **Shurtz Canyon** 78.06 45 *e*P P 04 59 59.7 +1.6
comp=Z,98nm,1.1s
SSE **Sheshan** 78.14 307 ⇓P P 04 59 58.5 +0.1
SSE PcP PcP 05 00 08.3 +0.6
SSE pP pP 05 00 18.0 +1.4
SSE S S 05 09 46.3 -1.5
SSE sS sS 05 10 23.5 +4.8
SSE pmax pmax
comp=Z,46nm,1.0s
SSE pmax pmax
comp=Z,480nm,6.3s
SSE LR LR
comp=Z,560nm,24.0s
SSE LR LR
comp=Z,860nm,24.0s
SSE LR LR
comp=Z,760nm,21.2s
RSO **Redoubt South** 78.16 10 *e*P P 04 59 57.3 -0.8
EKU **East Kanab** 78.20 46 *e*P P 05 00 00.1 +1.3
WUAZ **Wupatki** 78.21 48 P P 05 00 00.4 +1.5
baz=240
WUAZ **Wupatki** 78.21 48 *e*P P 05 00 00.1 +1.2
comp=Z,115nm,1.1s
D05A **Enumclaw** 78.21 33 *e*P P 05 00 00.7 +2.2
comp=Z,374nm,1.4s
SKJI **Sukabumi** 78.25 266 P P 05 00 00.0 +0.6
comp=Z,1µm,0.7s,comp=Z,11µm
PGC **Sidney** 78.41 31 *e*P P 05 00 01.2 +1.8
comp=Z,207nm,1.4s
MID **Middleton Isla** 78.51 14 *e*P P 05 00 00.9 +1.2
MID pmax pmax
comp=Z,367nm,1.1s
MID **Middleton Isla** 78.51 14 *e*P P 05 00 00.9 +1.2
comp=Z,367nm,1.1s
F07A **Phinny Hill Vi** 78.52 35 *e*P P 05 00 02.2 +2.0
comp=Z,190nm,1.7s
PKCU **Pink Cliffs** 78.52 45 *e*P P 05 00 03.1 +2.4
comp=Z,131nm,1.1s
G08A **Pilot Rock** 78.69 36 *e*P P 05 00 02.5 +1.2
comp=Z,135nm,1.1s
X18A **Snowflake** 78.75 49 *e*P P 05 00 04.0 +2.0
comp=Z,60nm,1.0s
HABR **Khabarovsk** 78.77 328 *de*P P 05 00 00.0 -1.5
HABR *e* 05 00 08.5
HABR *e**SP **pP** 05 00 14.4 -5.3
HABR *e* 05 02 57.1
HABR *e*PPP PPP 05 04 45.7
HABR *e*S **S** 05 09 54.5 +0.7
HABR *e* 05 10 07.8
HABR *e* 05 10 18.0
HABR *e*SS **SS** 05 14 59.0 -1.1
HABR *e*SSS SSS 05 18 25.9
HABR pmax pmax
comp=N,42nm,1.0s
HABR pmax pmax
comp=E,90nm,1.0s
HABR pmax pmax
comp=Z,371nm,1.0s
HABR pmax pmax
comp=Z,1µm,2.2s
HABR MLR MLR
comp=Z,433nm,19.0s
A04D **Lummi Island** 78.83 32 P P 05 00 03.7 +2.0
baz=230
B05A **Bryant** 78.84 32 P P 05 00 03.5 +1.6
baz=230,SNR=21
SBJI **Serang** 78.89 267 P P 05 00 03.0 +0.1
comp=Z,633nm,1.2s,comp=Z,7µm
MTPU **Mount Pierson** 78.91 45 *e*P P 05 00 04.6 +1.7
comp=Z,476nm,2.0s
LTY **Liberty** 78.95 34 *e*P P 05 00 03.7 +1.1
comp=Z,222nm,1.8s
SPU **Mount Spurr** 78.96 11 *e*P P 05 00 02.0 -0.3
FSU **Fish Springs** 78.97 43 *e*P P 05 00 03.9 +0.9
TCRU **Three Creeks R** 79.02 44 *e*P P 05 00 05.4 +1.9
comp=Z,83nm,1.1s
HAWA **Hanford** 79.04 35 *e*P P 05 00 04.4 +1.4
comp=Z,310nm,1.8s
CRAG **Craig** 79.11 22 *e*P P 05 00 05.4 +2.2
comp=Z,122nm,1.0s
MSU **Marysvale** 79.15 45 *e*P P 05 00 05.6 +1.5
MSU **Marysvale** 79.15 45 *e*P P 05 00 05.6 +1.5
W18A **Petrified Fore** 79.19 49 P P 05 00 05.7 +1.3
baz=242
W18A **Petrified Fore** 79.19 49 *e*P P 05 00 05.7 +1.3
comp=Z,155nm,1.5s
C06D **Leavenworth** 79.25 33 P P 05 00 05.7 +1.6
baz=231
RC01 **Rabbit Creek A** 79.30 12 *e*P P 05 00 04.3 +0.2
comp=Z,375nm,1.1s
B06A **Marblemount** 79.32 32 *e*P P 05 00 05.2 +0.8
comp=Z,110nm,1.4s
E08A **Dider Farm, El** 79.36 35 *e*P P 05 00 05.2 +0.5
comp=Z,238nm,1.5s
BMO **Blue Mountains** 79.38 37 *e*P P 05 00 05.0 -0.1
BMO pmax pmax
comp=Z,79nm,1.1s
BMO **Blue Mountains** 79.38 37 *e*P P 05 00 05.0 -0.1
comp=Z,79nm,1.1s
MDJ **Mudanjiang** 79.40 323 *e*P P 05 00 04.7 -0.3
comp=Z,152nm,1.2s
121A **Cookes Peak, D** 79.43 52 P P 05 00 06.9 +1.2
baz=243,SNR=73
MFID **Camas Ranch** 79.43 39 *e*P P 05 00 06.3 +0.9
comp=Z,85nm,1.1s
MMU **Miners Mountai** 79.59 45 *e*P P 05 00 07.6 +1.0
DUG **Dugway, Tooele** 79.59 43 P P 05 00 07.4 +1.0
baz=239
DUG **Dugway, Tooele** 79.59 43 *e*P P 05 00 06.8 +0.4
DUG pmax pmax
comp=Z,46nm,1.0s
DUG **Dugway, Tooele** 79.59 43 *e*P P 05 00 06.8 +0.4
comp=Z,46nm,0.9s
FLU **Fool Peak** 79.59 44 *e*P P 05 00 07.6 +1.1
ZAIG **Zacatecas** 79.61 63 *e*P P 05 00 07.6 +0.6
comp=Z,43nm,1.1s
EYAK **Cordova Ski Ar** 79.64 14 *e*P P 05 00 05.3 -0.6
comp=Z,124nm,0.9s
GAMB **Gambell** 79.65 1 *e*P P 05 00 06.5 +0.6
comp=Z,289nm,1.2s
MOIG **Morelia** 79.66 66 *e*P P 05 00 07.2 -0.1
comp=Z,40nm,1.0s
FID **Port Fidalgo** 79.66 13 *e*P P 05 00 06.5 +0.4
comp=Z,135nm,0.9s
RAGM **Ragged Mountai** 79.75 14 *e*P P 05 00 07.6 +1.0
comp=Z,306nm,1.3s
D08A **Wollman Farm,** 79.77 35 *e*P P 05 00 07.8 +0.8
comp=Z,176nm,1.2s
BGU **Big Grassy Mou** 79.83 42 *e*P P 05 00 08.4 +0.7
comp=Z,43nm,1.4s
E09A **Wood Farm, Sta** 79.88 35 *e*P P 05 00 08.8 +1.2
comp=Z,85nm,1.1s
PMR **Palmer** 79.88 12 *e*P P 05 00 06.0 -1.2
PMR **Palmer** 79.88 12 *e*P P 05 00 06.0 -1.2
BLSI **Bandar Lampung** 79.93 267 P P 05 00 07.8 -0.8
comp=Z,303nm,0.9s
BLSI pP PcP 05 00 20.6 +4.6
comp=Z,303nm,0.9s
PPBI **Pangkal Pinang** 79.93 271 P P 05 00 06.8 -1.8
comp=Z,1.0nm,0.8s,comp=Z,240nm
NLU **North Lily Min** 79.95 43 *e*P P 05 00 10.1 +1.7
comp=Z,41nm,1.3s
F10A **Beach Ranch, E** 80.07 36 *e*P P 05 00 09.2 +0.4
comp=Z,101nm,0.9s
WRAK **Wrangell Islan** 80.12 22 *e*P P 05 00 09.4 +0.8
DIV **Divide** 80.16 13 *e*P P 05 00 09.0 +0.2
comp=Z,326nm,0.8s
TMUT **Trail Mountain** 80.20 44 *e*P P 05 00 11.5 +1.7
comp=Z,105nm,0.9s
SML **Sawmill** 80.23 12 *e*P P 05 00 09.4 +0.2
SML pmax pmax
comp=Z,430nm,1.5s
SML **Sawmill** 80.23 12 *e*P P 05 00 09.4 +0.2
comp=Z,430nm,1.6s
MPU **Maple Canyon** 80.28 44 *e*P P 05 00 11.7 +1.5
comp=Z,39nm,1.0s
B08A **Colville Reser** 80.34 33 *e*P P 05 00 09.7 -0.4
comp=Z,97nm,1.1s
NJ2 **Nanjing** 80.34 307 *e*P P 05 00 11.8 +1.4
NJ2 S S 05 10 12.0 +0.8
NJ2 pmax pmax
comp=Z,22nm,0.8s
NJ2 LR LR
comp=Z,940nm,24.9s
NJ2 LR LR
comp=Z,2µm,22.7s
NJ2 LR LR
comp=Z,4µm,22.0s
HLID **Hailey** 80.37 39 P P 05 00 11.8 +1.2
baz=237
HLID **Hailey** 80.37 39 *e*P P 05 00 12.0 +1.5
comp=Z,94nm,0.9s
SPUT **South Promonto** 80.41 42 *e*P P 05 00 11.7 +0.9
comp=Z,103nm,1.3s
HVU **Hansel Valley** 80.44 42 *e*P P 05 00 11.4 +0.5
HVU pmax pmax
comp=Z,56nm,0.8s
HVU **Hansel Valley** 80.44 42 *e*P P 05 00 11.4 +0.5
comp=Z,56nm,0.8s
KLU **Klutina** 80.45 13 *e*P P 05 00 10.7 +0.3
comp=Z,196nm,1.1s
LLLB **Lillooet** 80.45 31 *e*P P 05 00 11.6 +0.9
comp=Z,132nm,1.1s
SCM **Sheep Creek Mo** 80.46 12 *e*P P 05 00 10.4 0.0
SCM pmax pmax
comp=Z,320nm,0.8s
SCM **Sheep Creek Mo** 80.46 12 *e*P P 05 00 10.4 0.0
comp=Z,321nm,0.8s
PPLA **Purkeypile** 80.54 10 *e*P P 05 00 10.2 -0.7
comp=Z,100nm,1.1s
CTU **Camp Tracy** 80.54 43 *e*P P 05 00 12.0 +0.4
comp=Z,57nm,1.2s
SRU **San Rafael Swe** 80.57 45 *e*P P 05 00 12.8 +1.1
SRU pmax pmax
comp=Z,75nm,1.0s
SRU **San Rafael Swe** 80.57 45 *e*P P 05 00 12.8 +1.1
comp=Z,74nm,1.0s
C09A **Chrisman Ranch** 80.57 34 *e*P P 05 00 11.8 +0.5
comp=Z,76nm,1.0s
P17A **Butcher Ranch,** 80.60 44 *e*P P 05 00 13.9 +2.1
comp=Z,104nm,1.2s
KASI **Kota Agung** 80.61 267 P P 05 00 12.3 0.0
KASI pP PcP 05 00 23.1 +4.2
MTUT **Morton Thiokol** 80.61 42 *e*P P 05 00 12.2 +0.4
PCA **Pinnacle** 80.61 16 *e*P P 05 00 12.3 +1.0
comp=Z,95nm,0.9s
JLU **Jordanelle** 80.69 43 *e*P P 05 00 13.7 +1.3
comp=Z,49nm,1.0s
MA2 **Magadan** 80.75 343 P P 05 00 12.4 +0.5
comp=Z,128nm,0.8s,baz=150,slow=6.1,SNR=33
MA2 **Magadan** 80.75 343 *d*iP P 05 00 11.9 0.0
LAZ **Ladron** 80.75 50 *e*P P 05 00 14.1 +1.3
Y22D **IRIS P PASSCAL I** 80.77 51 P P 05 00 14.6 +1.7
baz=243,SNR=5.8
Y22D **IRIS PASSCAL I** 80.77 51 *e*P P 05 00 15.7 +2.8
comp=Z,142nm,1.0s
Y22E **IRIS PASSCAL I** 80.77 51 P P 05 00 14.5 +1.6
baz=243,SNR=5.5
WVUT **Wellsville** 80.88 42 *e*P P 05 00 13.8 +0.5
MNTX **Cornudas Mount** 80.90 53 P P 05 00 14.4 +1.0
baz=245,SNR=156
MNTX **Cornudas Mount** 80.90 53 *e*P P 05 00 14.5 +1.0
comp=Z,108nm,1.0s
KLR **Kul'dur** 80.94 327 P P 05 00 13.6 +0.4
comp=Z,3.5nm,0.8s,baz=100,slow=4.3,SNR=88
KLR **Kul'dur** 80.94 327 *d*iP P 05 00 13.2 0.0
BESE **Bessie Mountai** 80.96 19 *e*P P 05 00 14.8 +1.7
comp=Z,156nm,1.0s
TCUT **Toone Canyon** 80.98 43 *e*P P 05 00 15.1 +1.1
comp=Z,234nm,1.0s
P18A **Preston Nutter** 81.01 44 *e*P P 05 00 15.8 +1.5
comp=Z,191nm,2.0s
BNM **Barren Site** 81.02 51 *e*P P 05 00 15.5 +1.2
PMBI **Palembang** 81.04 270 P P 05 00 13.6 -0.9
comp=Z,912nm,0.9s,comp=Z,52µm
PV05 **Paradox Valley** 81.04 46 *e*P P 05 00 16.1 +1.8
MVCO **Mesa Verde** 81.05 47 P P 05 00 15.1 +0.7
baz=242,SNR=23
MVCO **Mesa Verde** 81.05 47 *e*P P 05 00 15.9 +1.5
comp=Z,137nm,1.7s
LPM **Los Pinos Moun** 81.09 51 *e*P P 05 00 16.4 +1.8
LWLI **Liwa** 81.16 267 P P 05 00 15.3 -0.1
comp=Z,340nm,0.9s
PV09 **Paradox Valley** 81.22 46 *e*P P 05 00 16.2 +0.9
PV10 **Paradox Valley** 81.23 46 *e*P P 05 00 16.0 +0.7
GZH **Guangzhou** 81.24 297 P P 05 00 15.0 -0.4
GZH S S 05 10 19.5 -1.4
GZH pmax pmax
comp=Z,1µm,7.1s
GZH LR LR
comp=Z,5µm,31.9s
TLIG **Tlapa** 81.25 69 *e*P P 05 00 18.0 +2.3
comp=Z,49nm,1.3s
TX31 **Lajitas Ar. Si** 81.27 56 *e*P P 05 00 16.1 +0.6
TXAR **Lajitas Array** 81.27 56 P P 05 00 16.7 +1.1
comp=Z,63nm,1.1s,baz=222,slow=6.7,SNR=196
TXAR PKKPbc **PKKPbc** 05 18 52.8 +1.4
comp=Z,1.6nm,1.1s,baz=134,slow=2.8,SNR=6.2
TXAR LR LR 05 28 53.7
comp=Z,919nm,20.9s,baz=0.0,slow=30
UNM **Universidad Na** 81.31 67 *e*P P 05 00 17.0 +0.8
UNM pmax pmax
comp=Z,51nm,0.6s
UNM **Universidad Na** 81.31 67 *e*P P 05 00 17.0 +0.8
comp=Z,50nm,0.6s
KTH **Kantishna Hill** 81.36 10 *e*P P 05 00 14.2 -1.0
comp=Z,277nm,1.2s
TRF **Thorofare Moun** 81.38 10 *e*P P 05 00 14.8 -0.6
comp=Z,269nm,0.9s
CN2 **Changchun** 81.43 320 *e*P P 05 00 16.0 +0.1
CN2 *es*P sP 05 00 44.8 +3.2
CN2 *e*PP **PP** 05 03 25.8 +2.8
CN2 *e*S S 05 10 20.5 -1.5
CN2 SS SS 05 15 42.0 +1.9
CN2 pmax pmax
comp=Z,400nm,11.0s
CN2 LR LR
comp=Z,900nm,27.0s
HARP **HAARP** 81.43 13 *e*P P 05 00 16.6 +1.0
comp=Z,223nm,1.0s
PV01 **Paradox Valley** 81.44 46 *e*P P 05 00 17.1 +0.6
DL2 **Dalian** 81.45 315 P P 05 00 16.3 +0.2
DL2 sP sP 05 00 48.0 +6.2
DL2 S S 05 10 24.3 +1.9
DL2 pmax pmax
comp=Z,170nm,0.8s
DL2 pmax pmax
comp=Z,2µm,8.0s
DL2 LR LR
comp=Z,930nm,24.1s
DL2 LR LR
comp=Z,780nm,27.7s
DL2 LR LR
comp=Z,3µm,33.8s
NEW **Newport** 81.47 34 P P 05 00 17.1 +1.0
baz=234,SNR=13
NEW **Newport** 81.47 34 *e*P P 05 00 16.6 +0.5
NEW pmax pmax
comp=Z,110nm,1.7s
NEW **Newport** 81.47 34 *e*P P 05 00 16.6 +0.5
comp=Z,110nm,1.7s
ANMO **Albuquerque** 81.50 50 P P 05 00 17.5 +0.8
baz=244
ANMO **Albuquerque** 81.50 50 *d*iP P 05 00 18.4 +1.6
ANMO pmax pmax
comp=Z,211nm,1.7s
ANMO **Albuquerque** 81.50 50 *e*P P 05 00 17.7 +1.0
comp=Z,355nm,1.7s
SKAG **Skagway** 81.51 19 *e*P P 05 00 17.9 +1.9
comp=Z,188nm,1.0s
DHY **Denali Highway** 81.57 12 *e*P P 05 00 16.1 -0.4
comp=Z,179nm,1.1s
SNY **Shenyang** 81.59 318 ⇓P P 05 00 16.8 0.0
SNY S S 05 10 23.8 +0.1
SNY pmax pmax
comp=Z,100nm,1.3s
SNY LR LR
comp=Z,740nm,19.6s
SNY LR LR
comp=Z,1µm,36.7s
SNY LR LR
comp=Z,3µm,38.4s
RND **Reindeer** 81.59 11 *e*P P 05 00 16.0 -0.4
RND pmax pmax
comp=Z,410nm,1.0s
RND **Reindeer** 81.59 11 *e*P P 05 00 16.0 -0.4
comp=Z,412nm,1.0s
BPAW **Bear Paw Mtn.** 81.86 10 *e*P P 05 00 16.4 -1.4
comp=Z,112nm,1.0s
PAX **Paxson** 81.87 13 *e*P P 05 00 17.8 -0.1
PAX pmax pmax
comp=Z,120nm,1.0s
PAX **Paxson** 81.87 13 *e*P P 05 00 17.8 -0.1
comp=Z,120nm,1.0s
MCK **McKinley** 81.88 11 *e*P P 05 00 17.5 -0.4
MCK pmax pmax
comp=Z,570nm,0.9s
MCK **McKinley** 81.88 11 *e*P P 05 00 17.4 -0.4
comp=Z,569nm,0.9s
DSRI **Dabo** 81.89 272 P P 05 00 18.6 -0.5

comp=Z,509nm,1.4s,comp=Z,8μm
**HYT Haines Junctio 81.98 17** *e*P **P 05 00 19.2 +0.6**
comp=Z,203nm,1.1s
**MCMT McKenzie Canyo 82.00 39** *e*P **P 05 00 19.9 +0.7**
**AHID Auburn Hatcher 82.02 41** *e*P **P 05 00 20.4 +1.1**
comp=Z,147nm,1.3s
**MENT Mentasta 82.22 13** *e*P **P 05 00 20.0 +0.3**
comp=Z,164nm,1.0s
**TPRI Tanjung Pinang 82.33 273** P **P 05 00 24.3 +3.0**
comp=Z,116nm,1.5s,comp=Z,34μm
**MNAI Manna 82.40 268** P **P 05 00 22.3 +0.6**
comp=Z,594nm,1.3s
MNAI pP **PcP 05 00 32.7 +5.9**
comp=Z,594nm,1.3s
**MNAI Manna 82.40 268** *e*P **P 05 00 21.2 -0.5**
comp=Z,2μm,1.8s
**MSO Missoula 82.44 37** P **P 05 00 22.2 +0.9**
baz=237,SNR=50
**MSO Missoula 82.44 37** *e*P **P 05 00 20.9 -0.4**
comp=Z,152nm,1.4s
**DLMT Dillon 82.44 39** *e*P **P 05 00 22.4 +1.0**
comp=Z,96nm,1.0s
**DLBC Dease Lake 82.47 22** *e*P **P 05 00 22.5 +1.4**
comp=Z,103nm,1.0s
**REDW Red Top Meadow 82.47 41** *e*P **P 05 00 22.1 +0.4**
comp=Z,184nm,1.2s
**TPAW Teton Pass 82.48 41** *e*P **P 05 00 22.9 +1.1**
comp=Z,117nm,0.9s
**S22A 4UR Ranch, Cre 82.48 47** P **P 05 00 23.2 +1.2**
baz=243,SNR=206
**S22A 4UR Ranch, Cre 82.48 47** *e*P **P 05 00 23.2 +1.2**
comp=Z,180nm,1.0s
**FXWY Fox Creek 82.50 41** *e*P **P 05 00 22.4 +0.5**
comp=Z,176nm,1.5s
**SNOW Snow King Moun 82.59 41** *e*P **P 05 00 23.0 +0.7**
comp=Z,160nm,1.0s
**O20A White River Ci 82.60 45** P **P 05 00 23.3 +0.9**
baz=242,SNR=49
**O20A White River Ci 82.60 45** *e*P **P 05 00 23.3 +0.9**
comp=Z,426nm,1.9s
**WHY Whitehorse 82.61 18** *e*P **P 05 00 22.1 +0.3**
comp=Z,341nm,1.7s
**CPRX Cap Rock 82.62 53** *e*P **P 05 00 24.6 +1.9**
**MCID Moose Creek 82.69 40** *e*P **P 05 00 24.9 +2.0**
**IMW Indian Meadow 82.69 40** *e*P **P 05 00 23.7 +0.8**
comp=Z,109nm,0.8s
**MOOW Moose Ponds 82.74 41** *e*P **P 05 00 24.7 +1.6**
comp=Z,95nm,1.3s
**JTMT Jette 82.74 36** *e*P **P 05 00 23.3 +0.4**
comp=Z,36nm,1.0s
**LOHW Long Hollow 82.76 41** *e*P **P 05 00 23.1 -0.1**
comp=Z,81nm,1.0s
**DOT Dot Lake 82.77 13** *e*P **P 05 00 22.4 -0.1**
comp=Z,568nm,0.8s
**LRM Limekiln Ridge 82.77 38** *e*P **P 05 00 24.3 +1.1**
**MLY Manley 82.77 10** *e*P **P 05 00 21.7 -0.8**
comp=Z,217nm,0.9s
**HDA Harding Lake 82.86 11** *e*P **P 05 00 23.6 +0.6**
comp=Z,257nm,0.8s
**QLMT Earthquake Lak 82.86 39** *e*P **P 05 00 24.9 +1.2**
**QIZ Qiongzhong 82.88 292** P **P 05 00 24.5 +0.4**
QIZ sP **sP 05 00 52.5 +2.7**
QIZ S **S 05 10 38.8 +0.9**
QIZ sS **sS 05 11 14.3 +5.2**
QIZ pmax pmax
comp=Z,860nm,6.2s
QIZ LR LR
comp=Z,1μm,21.0s
QIZ LR LR
comp=Z,3μm,37.8s
**CCB Clear Creek Bu 82.92 11** *e*P **P 05 00 22.7 -0.6**
comp=Z,400nm,0.8s
**YPP Pitchstone Pla 82.96 40** *e*P **P 05 00 26.1 +1.8**
comp=Z,197nm,1.9s
**YHB Horse Butte 82.97 40** *e*P **P 05 00 25.8 +1.6**
comp=Z,165nm,0.9s
**BW06 Boulder Array 83.00 42** P **P 05 00 25.3 +0.8**
baz=241,SNR=137
**BW06 Boulder Array 83.00 42** *e*P **P 05 00 25.3 +0.8**
comp=Z,121nm,1.0s
**PD31 Pinedale Array 83.00 42** *e*P **P 05 00 24.5 0.0**
**PDAR Pinedale Array 83.00 42** P **P 05 00 24.3 -0.2**
comp=Z,70nm,0.7s,baz=216,slow=2.2,SNR=300
PDAR PKKPbc **PKKPbc 05 18 47.1 -1.2**
comp=Z,1.5nm,0.9s,baz=113,slow=3.4,SNR=9.5
PDAR LR LR 05 30 13.2
comp=Z,1μm,20.7s,baz=256,slow=30
**PDAR Pinedale Array 83.00 42** *e*P **P 05 00 25.4 +0.9**
PDAR PKKPbc **PKKPbc 05 18 47.1 -1.2**
**SMCO Snowmass 83.03 46** *e*P **P 05 00 25.7 +0.7**
comp=Z,99nm,0.8s
**YFT Old Faithful 83.03 40** *e*P **P 05 00 27.4 +2.8**
comp=Z,80nm,1.0s
**YMR Madison River 83.07 40** *e*P **P 05 00 26.9 +2.2**
comp=Z,141nm,0.9s
**COLA College 83.12 11** *e*P **P 05 00 24.0 -0.2**
COLA pmax pmax
comp=Z,580nm,0.9s
**COLA College 83.12 11** *e*P **P 05 00 24.0 -0.2**
comp=Z,581nm,0.8s
**SEY Seymchan 83.12 345** P **P 05 00 23.9 -0.5**
comp=Z,264nm,0.9s,baz=144,slow=5.6,SNR=250
**MDM Murphy Dome 83.13 11** *e*P **P 05 00 23.7 -0.7**
comp=Z,641nm,1.3s
**BOZ Bozeman (W) 83.14 39** P **P 05 00 26.1 +1.1**
baz=239,SNR=36
**BOZ Bozeman (W) 83.14 39** *e*P **P 05 00 25.5 +0.4**
BOZ pmax pmax
comp=Z,106nm,1.0s
**BOZ Bozeman (W) 83.14 39** *e*P **P 05 00 25.4 +0.4**
comp=Z,106nm,1.0s
**H17A Grant Village 83.17 40** P **P 05 00 27.0 +1.6**
baz=240,SNR=79
**H17A Grant Village 83.17 40** *e*P **P 05 00 27.1 +1.8**
comp=Z,79nm,0.8s
**YHH Holmes Hill 83.20 40** *e*P **P 05 00 26.9 +1.4**
comp=Z,80nm,0.9s
**ILAR Eielson Array 83.20 11** P **P 05 00 24.8 +0.1**
comp=Z,65nm,0.8s,baz=213,slow=5.4,SNR=322
ILAR PP **PP 05 03 30.3 -6.8**
comp=Z,5.8nm,0.9s,baz=204,slow=6.9,SNR=4.0
ILAR PKKP **PKKPdf 05 18 44.2 +4.3**
comp=Z,0.5nm,0.7s,baz=338,slow=2.5,SNR=5.1
ILAR LR LR 05 30 38.1
comp=Z,445nm,21.1s,baz=220,slow=31
**ILB Eielson Array 83.20 11** *e*P **P 05 00 25.1 +0.4**
**IL1 Eielson Array 83.20 11** *e*P **P 05 00 24.6 -0.1**
**IMAR Indian Mountai 83.22 8** *e*P **P 05 00 25.4 +0.6**
**WHN Wuhan 83.23 304** ⇓P **P 05 00 26.5 +0.9**
WHN S **S 05 10 33.5 -7.5**
WHN LR LR
comp=Z,12μm,36.8s
**YNR Norris Junctio 83.27 40** *e*P **P 05 00 27.2 +1.4**
comp=Z,86nm,1.1s
**LKWY Lake 83.36 40** *e*P **P 05 00 28.6 +2.3**
LKWY pmax pmax
comp=Z,130nm,0.9s
**LKWY Lake 83.36 40** *e*P **P 05 00 28.6 +2.3**
comp=Z,131nm,0.9s
**MASI Maura Aman, Be 83.41 269** P **P 05 00 27.3 +0.3**
comp=Z,310nm,1.5s
**SDCO Great Sand Dun 83.42 48** P **P 05 00 27.2 +0.3**
baz=244,SNR=83
**SDCO Great Sand Dun 83.42 48** *e*P **P 05 00 27.3 +0.5**
comp=Z,69nm,1.0s
**TIA Tai'an 83.43 310** P **P 05 00 27.5 +0.9**
TIA pmax pmax
comp=Z,68nm,0.9s
TIA pmax pmax
comp=Z,1μm,4.0s
TIA LR LR
comp=Z,770nm,12.8s
TIA LR LR
comp=Z,850nm,12.8s
TIA LR LR
comp=Z,630nm,13.5s
**HRY Holter Researc 83.60 38** *e*P **P 05 00 28.5 +1.2**
**WALA Waterton Lakes 83.67 35** *e*P **P 05 00 28.0 +0.4**
comp=Z,267nm,1.8s
**HGTCO Madrid Canyon 83.74 49** *e*P **P 05 00 28.6 +0.2**
comp=Z,51nm,1.4s
**MSTX Muleshoe 83.84 52** P **P 05 00 29.4 +0.6**
baz=246
**MSTX Muleshoe 83.84 52** *e*P **P 05 00 29.4 +0.6**
comp=Z,272nm,1.0s
**T25A Trinidad 83.94 49** P **P 05 00 29.8 +0.4**
baz=245,SNR=27
**T25A Trinidad 83.94 49** *e*P **P 05 00 30.9 +1.4**
comp=Z,66nm,1.1s
**RWWY Rawlins 84.02 44** *e*P **P 05 00 30.7 +0.9**
comp=Z,246nm,1.1s
**RGRI Rengat 84.08 271** pP P 05 00 40.2 +10
**DAWY Dawson 84.19 14** *e*P **P 05 00 30.6 +0.8**
comp=Z,220nm,1.0s
**Q24A Divide 84.20 47** P **P 05 00 31.4 +0.5**
baz=244,SNR=36
**Q24A Divide 84.20 47** *e*P **P 05 00 32.2 +1.3**
comp=Z,155nm,1.4s
**ISCO Idaho Springs 84.25 46** P **P 05 00 31.5 +0.5**
baz=244,SNR=37
**ISCO Idaho Springs 84.25 46** *e*P **P 05 00 31.4 +0.4**
ISCO pmax pmax
comp=Z,47nm,1.1s
**ISCO Idaho Springs 84.25 46** *e*P **P 05 00 31.4 +0.4**
comp=Z,46nm,1.1s
**833A Chaparral WMA, 84.33 59** P **P 05 00 31.9 +0.6**
baz=248,SNR=14
**RLMT Red Lodge 84.34 40** P **P 05 00 32.1 +0.8**
baz=241,SNR=8.9
**RLMT Red Lodge 84.34 40** *e*P **P 05 00 32.8 +1.5**
comp=Z,94nm,0.9s
**EGAK Eagle 84.38 13** *e*P **P 05 00 30.6 -0.1**
comp=Z,245nm,1.1s
**GCMT Greycliff 84.42 39** *e*P **P 05 00 33.1 +1.5**
**N23A Red Feather La 84.51 45** P **P 05 00 32.9 +0.6**
baz=243,SNR=51
**N23A Red Feather La 84.51 45** *e*P **P 05 00 33.6 +1.3**
comp=Z,118nm,1.1s
**GO09 Cerro Castillo 84.53 142** *e*P **P 05 00 32.7 +0.7**
comp=Z,232nm,2.0s
**SDSI Sungai Dareh 84.79 271** pP P 05 00 44.6 +11
comp=Z,0.1nm,0.9s
**JCT Junction City 84.80 56** P **P 05 00 34.2 +0.6**
baz=248,SNR=19
**JCT Junction City 84.80 56** *e*P **P 05 00 34.3 +0.6**
JCT pmax pmax
comp=Z,33nm,1.0s
**JCT Junction City 84.80 56** *e*P **P 05 00 34.3 +0.6**
comp=Z,33nm,0.9s
**COLD Coldfoot 84.89 9** *e*P **P 05 00 33.9 +0.6**
comp=Z,338nm,1.1s
**K22A Casper 84.92 43** P **P 05 00 35.0 +0.8**
baz=243,SNR=20
**K22A Casper 84.92 43** *e*P **P 05 00 35.3 +1.1**
comp=Z,134nm,1.4s
**PHWY Pilot Hill 85.02 45** *e*P **P 05 00 35.5 +0.7**
comp=Z,115nm,1.6s
**AMTX Amarillo 85.03 52** P **P 05 00 35.4 +0.5**
baz=246
**AMTX Amarillo 85.03 52** *e*P **P 05 00 35.0 +0.2**
comp=Z,148nm,1.0s
**FYU Fort Yukon 85.12 11** *e*P **P 05 00 35.1 +0.7**
comp=Z,57nm,1.0s
**BILL Bilibino 85.17 353** *d*iP **P 05 00 33.9 -0.7**
BILL *e* 05 03 52.2
BILL pmax pmax
comp=Z,399nm,1.2s
**KVTX Kingsville 85.29 60** *e*P **P 05 00 37.7 +1.5**
comp=Z,133nm,1.3s
**EGMT Eagleton 85.48 37** P **P 05 00 37.6 +0.9**
baz=240
**EGMT Eagleton 85.48 37** *e*P **P 05 00 37.2 +0.4**
comp=Z,64nm,0.9s
**BKNI Bangkinang 85.51 272** P **P 05 00 37.3 -0.3**
comp=Z,245nm,1.7s,comp=Z,4μm
BKNI pP **pP 05 00 48.8 -7.3**
comp=Z,245nm,1.7s,comp=Z,4μm
**BKNI Bangkinang 85.51 272** *e*P **P 05 00 38.0 +0.4**
comp=Z,239nm,1.1s
**CHRN Cochrane 85.67 138** *e*P **P 05 00 39.5 +1.8**
comp=Z,6.9nm,0.9s
**ABTX Abilene, Hawle 85.73 54** P **P 05 00 39.0 +0.7**
baz=248
**ABTX Abilene, Hawle 85.73 54** *e*P **P 05 00 38.8 +0.5**
comp=Z,365nm,1.0s
**BJT Baijiatuan 85.73 314** *e*P **P 05 00 39.3 +1.3**
**BJT Baijiatuan 85.73 314** *e*P **P 05 00 38.2 +0.1**
BJT *e*PcP **P 05 00 39.3 +1.3**
**BJI Beijing 85.73 314** P **P 05 00 38.3 +0.3**
BJI sP **sP 05 01 04.3 +0.5**
BJI S **S 05 11 09.3 +3.8**
BJI SS **SS 05 16 42.8 -1.1**
BJI pmax pmax
comp=Z,130nm,1.5s
BJI LR LR
comp=Z,770nm,21.7s
BJI LR LR
comp=Z,850nm,26.0s
BJI LR LR
comp=Z,2μm,40.7s
**CCIG Comitan 86.66 72** *e*P **P 05 00 45.8 +2.5**
comp=Z,120nm,1.2s
**IPM Ipoh 86.68 276** *e*P **P 05 00 44.6 +1.3**
comp=Z,94nm,1.0s
**435B Jarrell 86.69 57** P **P 05 00 43.4 +0.4**
baz=249,SNR=45
**LAO LASA Array 86.95 40** P **P 05 00 45.5 +1.5**
baz=243
**LAO LASA Array 86.95 40** *e*P **P 05 00 45.6 +1.6**
comp=Z,113nm,1.0s
**MAW Mawson 87.02 199** P **P 05 00 43.0 -0.9**
comp=Z,41nm,0.5s,baz=156,slow=3.9,SNR=74
MAW LR LR 05 37 30.7
comp=Z,1μm,20.3s,baz=110,slow=34
**MAW Mawson 87.02 199** P **P 05 00 43.1 -0.9**
baz=87,SNR=82
**MAW Mawson 87.02 199** *e*P **P 05 00 44.2 +0.3**
MAW pmax pmax
comp=Z,42nm,1.3s
**MAW Mawson 87.02 199** *e*P **P 05 00 44.2 +0.3**
comp=Z,42nm,1.3s
**ENH Enshi 87.04 303** *e*P **P 05 00 45.3 +0.6**
comp=Z,128nm,0.9s
**WMOK Wichita Mounta 87.18 53** P **P 05 00 45.7 +0.3**
baz=248,SNR=10
**WMOK Wichita Mounta 87.18 53** *e*P **P 05 00 45.7 +0.3**
WMOK pmax pmax
comp=Z,27nm,1.3s
**WMOK Wichita Mounta 87.18 53** *e*P **P 05 00 45.7 +0.3**
comp=Z,27nm,1.4s
**RSSD Black Hills 87.19 43** P **P 05 00 45.5 +0.1**
baz=244
**RSSD Black Hills 87.19 43** *e*P **P 05 00 45.2 -0.2**
RSSD pmax pmax
comp=Z,37nm,0.9s
**RSSD Black Hills 87.19 43** *e*P **P 05 00 45.2 -0.2**
comp=Z,37nm,0.9s
**OGNE Ogallala 87.21 46** P **P 05 00 46.1 +0.6**
baz=246
**OGNE Ogallala 87.21 46** *e*P **P 05 00 46.0 +0.6**
comp=Z,21nm,0.9s
**WHTX Lake Whitney, 87.22 56** P **P 05 00 46.2 +0.7**
baz=249,SNR=16
**WHTX Lake Whitney, 87.22 56** *e*P **P 05 00 47.1 +1.5**
comp=Z,167nm,1.3s
**TIY Taiyuan 87.47 310** *e*P **P 05 00 46.8 +0.1**
TIY pP **sP 05 01 14.3 +1.8**
TIY SKS **SKSac 05 11 04.5 -4.4**
TIY S **S 05 11 22.5 -0.1**
TIY sS sS 05 12 02.0 +7.8
TIY SS **SS 05 17 09.3 -0.4**
TIY pmax pmax
comp=Z,110nm,0.8s
TIY pmax pmax
comp=Z,1μm,4.1s
TIY LR LR
comp=Z,340nm,7.4s
TIY LR LR
comp=Z,330nm,7.1s
TIY LR LR
comp=Z,420nm,13.6s
**SKNT Sakolnakorn 87.52 288** P **P 05 00 48.7 +1.4**
comp=Z,60nm,1.1s
**HIA Hailar 87.57 323** *e*P **P 05 00 46.8 -0.1**
HIA pmax pmax
comp=Z,110nm,1.0s
**HIA Hailar 87.57 323** *e*P **P 05 00 46.8 -0.1**
comp=Z,106nm,1.0s
**U32A Winter Ranch, 87.62 51** P **P 05 00 48.2 +0.8**
baz=248
**HKT Hockley 87.82 58** *e*P **P 05 00 50.1 +1.7**
HKT pmax pmax
comp=Z,190nm,1.8s
**HKT Hockley 87.82 58** *e*P **P 05 00 50.1 +1.7**
comp=Z,191nm,1.8s
**236A Katherine and 87.96 56** P **P 05 00 50.2 +1.1**
baz=250,SNR=19
**CBKS Cedar Bluff 87.99 49** P **P 05 00 49.8 +0.6**
baz=248
**CBKS Cedar Bluff 87.99 49** *e*P **P 05 00 49.8 +0.6**
CBKS pmax pmax
comp=Z,68nm,1.1s
**CBKS Cedar Bluff 87.99 49** *e*P **P 05 00 49.8 +0.6**
comp=Z,68nm,1.1s
**GYA Guiyang 88.10 298** ⇑*i*P **P 05 00 49.5 -0.5**
GYA sP sP 05 01 21.0 +5.1
GYA PP **PP 05 04 21.3 +3.4**
GYA SKS **SKSac 05 11 10.3 -3.0**
GYA S **S 05 11 27.5 -1.7**
GYA sS sS 05 12 04.8 +4.0
GYA SS **SS 05 17 20.0 +0.6**
GYA pmax pmax
comp=Z,130nm,1.1s
GYA pmax pmax
comp=Z,870nm,7.1s
GYA LR LR
comp=Z,680nm,21.7s
GYA LR LR
comp=Z,790nm,24.2s
GYA LR LR
comp=Z,950nm,23.3s
**136A Ennis 88.12 56** P **P 05 00 50.5 +0.7**
baz=250,SNR=20
**PSI Prapat 88.23 273** *e*P **P 05 00 51.0 +0.1**
PSI pmax pmax
comp=Z,100nm,1.1s
**PSI Prapat 88.23 273** *e*P **P 05 00 51.0 +0.1**
comp=Z,104nm,1.1s
**Y35A Marietta 88.23 54** P **P 05 00 51.0 +0.6**
baz=249,SNR=6.9
**SCIG Sabancuy 88.34 70** *e*P **P 05 00 52.7 +1.5**
comp=Z,218nm,1.3s
**KHON Khomkaen 88.39 287** P **P 05 00 54.9 +3.5**
comp=Z,16nm,0.8s
**SRAK Srakaew 88.43 285** P **P 05 00 52.8 +1.2**
comp=Z,80nm,1.2s,comp=Z,1μm
**X35A Drake 88.45 54** P **P 05 00 52.1 +0.8**
baz=249,SNR=12
**X35A Drake 88.45 54** *e*P **P 05 00 52.0 +0.7**
comp=Z,30nm,1.0s
**Z36A Blue Ridge 88.48 55** P **P 05 00 52.1 +0.6**
baz=250,SNR=11
**237A Washetta, Mont 88.54 56** P **P 05 00 53.4 +1.6**
baz=250
**CLNS Chul'man 88.70 331** *e*P **P 05 00 51.6 -0.5**
CLNS *e**PP **pP 05 01 07.4 -3.3**
CLNS *e* 05 04 19.9
CLNS *e*S **SKSac 05 11 16.3 +0.9**
CLNS pmax pmax
comp=Z,117nm,0.9s
CLNS pmax pmax
comp=E,39nm,1.1s
CLNS pmax pmax
comp=N,34nm,1.0s
CLNS pmax pmax
comp=N,15nm,1.1s
CLNS pmax pmax
comp=Z,8.0nm,1.1s
CLNS pmax pmax
comp=E,10.0nm,1.1s
CLNS smax smax
comp=E,605nm,15.1s
CLNS smax smax
comp=N,541nm,14.1s
CLNS MLR MLR
comp=Z,258nm,18.0s
CLNS MLR MLR
comp=N,367nm,18.0s
CLNS MLR MLR
comp=E,356nm,13.0s
**TSI Tuntungan 88.76 274** P **P 05 00 52.0 -1.3**
comp=E,210nm,0.4s
**137A Heron Place, G 88.78 56** P **P 05 00 54.0 +1.1**
baz=250,SNR=13
**W35A Tecumseh 88.79 53** P **P 05 00 53.6 +0.7**
baz=249,SNR=17
**W35A Tecumseh 88.79 53** *e*P **P 05 00 53.4 +0.4**
comp=E,152nm,1.4s
**XAN Xi'an 88.79 306** P **P 05 00 49.0 -4.0**
XAN pmax pmax
comp=E,120nm,1.4s
XAN pmax pmax
comp=E,860nm,6.4s
XAN LR LR
comp=E,720nm,40.0s
XAN LR LR
comp=E,2μm,40.8s
XAN LR LR
comp=E,3μm,38.2s
**Y36A Durant 88.81 54** P **P 05 00 53.8 +0.7**
baz=250,SNR=27
**TRTT Trang 88.89 278** P **P 05 00 56.1 +2.2**
comp=E,58nm,1.2s,comp=E,1μm
**OK020 N3440 Road, Me 88.92 53** *e*P **P 05 00 54.0 +0.4**
comp=E,30nm,0.9s
**X36A Centrahoma 88.99 54** P **P 05 00 54.2 +0.3**
baz=250,SNR=15
**CHAI Chaiyaphum 89.03 287** P **P 05 00 56.2 +1.7**
comp=E,8.8nm,0.9s
**INK Inuvik 89.03 14** P **P 05 00 52.8 -0.5**
comp=E,45nm,1.1s,baz=225,slow=5.6,SNR=67
**INK Inuvik 89.03 14** *e*P **P 05 00 52.7 -0.5**
comp=E,219nm,1.4s
**V35A Meyer Ranch, C 89.03 52** P **P 05 00 54.8 +0.7**
baz=249
**V35A Meyer Ranch, C 89.03 52** *e*P **P 05 00 53.8 -0.3**
comp=E,26nm,1.1s
**OK021 N3530 Road, Sp 89.07 53** *e*P **P 05 00 53.5 -0.8**
comp=E,39nm,0.9s
**OK022 N3560 Road, Pr 89.08 53** *e*P **P 05 00 54.7 +0.4**
comp=E,30nm,0.9s
**Z37A Pogue Cattle C 89.09 55** P **P 05 00 55.6 +1.3**
baz=250,SNR=11
**GSI Gunungsitoli 89.11 272** P **P 05 00 56.2 +1.3**
comp=E,272nm,1.7s,comp=E,4μm
**GSI Gunungsitoli 89.11 272** *e*P **P 05 00 56.3 +1.3**
comp=E,206nm,1.0s
**T34A McClaskey Farm 89.21 51** P **P 05 00 55.6 +0.7**
baz=249,SNR=18
**PLCA Paso Flores 89.27 132** P **P 05 00 56.7 +1.4**
comp=E,21nm,1.0s,baz=267,slow=5.4,SNR=25
PLCA LR LR 05 32 49.0
comp=E,1μm,21.5s,baz=288,slow=30
**PLCA Paso Flores 89.27 132** *e*P **P 05 00 57.7 +2.4**
PLCA pmax pmax
comp=Z,31nm,1.0s
**PLCA Paso Flores 89.27 132** *e*P **P 05 00 56.7 +1.4**
comp=Z,31nm,1.0s
**HHC Hu-ho-hao-te 89.28 313** *e*P **P 05 00 56.0 +0.8**
HHC pP sP 05 01 19.3 -1.8
HHC sP pP 05 01 24.0 +10
HHC SKS **SKSac 05 11 17.3 -2.4**
HHC S **S 05 11 36.8 -2.9**
HHC sS sS 05 12 13.8 +2.5
HHC pmax pmax
comp=Z,100nm,1.0s
HHC LR LR
comp=Z,540nm,18.8s
HHC LR LR
comp=Z,410nm,15.9s
HHC LR LR
comp=Z,700nm,22.9s
**W36A Wetumka 89.28 53** P **P 05 00 55.9 +0.7**
baz=250
**W36A Wetumka 89.28 53** *e*P **P 05 00 56.2 +0.9**
comp=Z,119nm,1.8s
**U35A Pawnee 89.33 52** P **P 05 00 56.0 +0.6**
baz=249
**U35A Pawnee 89.33 52** *e*P **P 05 00 56.1 +0.7**
comp=Z,23nm,1.0s
**138A Matatall Enter 89.33 56** P **P 05 00 57.0 +1.5**
baz=250,SNR=18
**Y37A Hugo 89.36 54** P **P 05 00 56.7 +1.1**
baz=250,SNR=26
**NATX Nacogdoches 89.38 57** P **P 05 00 57.1 +1.3**
baz=251,SNR=10
**NATX Nacogdoches 89.38 57** *e*P **P 05 00 57.3 +1.5**
comp=Z,186nm,1.4s
**S34A Willow Spring 89.51 51** P **P 05 00 56.4 +0.1**
baz=249,SNR=22
**KCSI Kotacane, Aceh 89.53 274** P **P 05 00 55.9 -1.0**

comp=Z,66nm,1.0s,comp=Z,2µm
**Z38A Mt. Pleasant 89.61 55** P **P 05 00 58.2 +1.4**
baz=250,SNR=8.7
**R34A Isabella, Hill 89.62 50** P **P 05 00 57.4 +0.6**
baz=249,SNR=12
**YAK Yakutsk 89.64 337** P **P 05 00 55.5 -0.7**
comp=Z,124nm,0.8s,baz=57,slow=1.4,SNR=34
**YAK Yakutsk 89.64 337** *d iP* **P 05 00 54.8 -1.4**
YAK *e**PP **PcP 05 01 04.1 +6.6**
YAK *e* 05 04 26.7
YAK *e*S **SKSac 05 11 22.4 +1.9**
YAK *e**SS **S 05 11 43.8 +2.0**
YAK *e*PS **PnS 05 12 50.2 -5.9**
YAK *e*SS **SS 05 17 46.8 +6.9**
YAK *e*SSS SSS 05 21 17.7
YAK pmax pmax
comp=Z,138nm,0.9s
YAK pmax pmax
comp=N,38nm,1.3s
YAK pmax pmax
comp=E,61nm,1.2s
YAK pmax pmax
comp=Z,250nm,3.8s
YAK pmax pmax
comp=E,106nm,2.7s
YAK pmax pmax
comp=N,163nm,2.9s
YAK smax smax
comp=E,474nm,4.2s
YAK smax smax
comp=N,369nm,4.1s
**YAK Yakutsk 89.64 337** *eP* **P 05 00 54.9 -1.4**
comp=N,210nm,1.0s
**T35A Sooner Cattle 89.68 51** P **P 05 00 57.7 +0.6**
baz=250,SNR=16
**V36A Jenks 89.72 53** P **P 05 00 57.9 +0.6**
baz=250,SNR=9.2
**V36A Jenks 89.72 53** *eP* **P 05 00 57.2 0.0**
comp=N,26nm,0.9s
**X37A Clayton 89.76 54** P **P 05 00 58.0 +0.6**
baz=250,SNR=6.7
**X37A Clayton 89.76 54** *eP* **P 05 00 57.2 -0.3**
comp=N,30nm,1.4s
**TUL1 Leonard 89.88 53** P **P 05 00 58.8 +0.7**
baz=250,SNR=9.0
**TUL1 Leonard 89.88 53** *eP* **P 05 00 58.0 0.0**
comp=N,23nm,1.0s
**139A Bunkhouse Ranc 89.89 56** P **P 05 00 59.3 +1.2**
baz=251
**W37B Quinton 89.89 53** P **P 05 00 58.8 +0.7**
baz=250,SNR=15
**W37B Quinton 89.89 53** *eP* **P 05 00 57.3 -0.8**
comp=N,27nm,0.9s
**O33A Hebron 90.01 48** P **P 05 00 59.3 +0.7**
baz=249,SNR=14
**TPTI 90.03 273** P **P 05 01 00.8 +1.6**
comp=N,219nm,1.0s,comp=N,3µm
**Y38A Idabel 90.04 55** P **P 05 00 59.3 +0.5**
baz=251,SNR=10
**Q34A Chapman 90.06 49** P **P 05 00 59.1 +0.3**
baz=249,SNR=18
**U36A Oologah 90.09 52** P **P 05 00 59.7 +0.7**
baz=250,SNR=5.1
**S35A Otter Creek Ra 90.09 51** P **P 05 00 59.6 +0.6**
baz=250,SNR=14
**BGNE Belgrade 90.09 47** P **P 05 00 59.6 +0.7**
baz=248
**BGNE Belgrade 90.09 47** *eP* **P 05 00 59.0 0.0**
comp=N,112nm,1.4s
**K31A O'Neill 90.12 45** P **P 05 00 59.7 +0.7**
baz=248
**PBKT Sadao Pong 90.16 287** P **P 05 01 01.5 +1.8**
comp=N,76nm,0.9s,comp=N,2µm
**240A Hunter Patters 90.19 57** P **P 05 01 01.1 +1.6**
baz=251,SNR=6.1
**X38A Whitesboro 90.20 54** P **P 05 01 00.6 +1.0**
baz=250,SNR=11
**T36A Boggs Farm, Ca 90.21 51** P **P 05 01 00.3 +0.7**
baz=250,SNR=11
**GO05 HualaæØ 90.22 127** *eP* **P 05 01 00.8 +1.0**
comp=N,53nm,1.1s
**Z39A Irene McRaven, 90.24 56** P **P 05 01 01.1 +1.4**
baz=251,SNR=7.1
**BTO Baotou 90.28 312** *eP* **P 05 01 00.0 +0.1**
**P34A Walnut Farm, R 90.37 49** P **P 05 01 00.8 +0.5**
baz=249,SNR=19
**V37A Hulbert 90.37 53** P **P 05 01 00.9 +0.6**
baz=250,SNR=11
**KSU1 Kansas State U 90.37 49** P **P 05 01 00.9 +0.7**
baz=250,SNR=16
**KSU1 Kansas State U 90.37 49** *eP* **P 05 01 01.0 +0.8**
comp=N,41nm,1.0s
**J31A Geddes 90.38 45** P **P 05 01 00.5 +0.3**
baz=248,SNR=5.4
**R35A Emporia Munici 90.40 50** P **P 05 01 01.6 +1.2**
baz=250
**341A Kurthwood 90.44 58** P **P 05 01 02.1 +1.4**
baz=251,SNR=8.8
**TGUH Tegucigalpa,Un 90.50 76** *eP* **P 05 01 02.3 +1.0**
comp=N,44nm,1.0s
**140A Cam and Jess, 90.53 56** P **P 05 01 02.6 +1.5**
baz=251,SNR=20
**Y39A Lockesburg 90.54 55** P **P 05 01 01.8 +0.7**
baz=251,SNR=12
**U37A Salina 90.56 52** P **P 05 01 01.9 +0.7**
baz=250,SNR=10
**W38A Poteau 90.58 54** P **P 05 01 02.3 +1.0**
baz=251,SNR=7.8
**S36A Lake Cedric, C 90.65 51** P **P 05 01 02.3 +0.8**
baz=250,SNR=10.0
**SUSD Miller 90.66 44** P **P 05 01 01.9 +0.4**
baz=248
**K32A Verdigre 90.67 46** P **P 05 01 02.4 +0.8**
baz=249,SNR=5.3
**O34A Beatrice 90.69 48** P **P 05 01 02.5 +0.8**
baz=250
**Q35A Mercer Eighty, 90.70 50** P **P 05 01 02.5 +0.7**
baz=250,SNR=12
**X39A Fountain Ranch 90.71 54** P **P 05 01 02.9 +1.0**
baz=251,SNR=6.6
**M33A Taylor Creek F 90.82 47** P **P 05 01 03.0 +0.7**
baz=249,SNR=6.4
**442A Mamou 90.85 58** P **P 05 01 03.5 +0.9**
baz=252
**241A Mo Tay, Goldon 90.86 57** P **P 05 01 04.0 +1.4**
baz=252,SNR=5.8
**Z40A Long Farm, Mag 90.87 56** P **P 05 01 03.8 +1.1**
baz=251
**YKA Yellowknife Ar 90.87 23** P **P 05 01 02.1 +0.1**
comp=N,24nm,0.9s,baz=236,slow=4.2,SNR=178
YKA PP **PP 05 04 34.2 -4.6**
comp=N,1.0nm,0.8s,baz=238,slow=8.1,SNR=4.6
YKA PKKP **PKKPdf 05 18 25.1 -1.1**
comp=N,0.3nm,0.4s,baz=41,slow=2.1,SNR=13
YKA PKKPbc **PKKPbc 05 18 32.3 +2.7**
comp=N,0.3nm,0.5s,baz=42,slow=2.0,SNR=6.9
YKA PKPPKP **P'P'df 05 26 38.6 +4.2**
comp=N,1.2nm,1.1s,baz=42,slow=2.5,SNR=8.7
YKA LR LR 05 33 51.4
comp=N,70nm,22.0s,baz=180,slow=30
**YKW3 Yellowknife Ar 90.91 23** *eP* **P 05 01 02.3 +0.2**
comp=N,67nm,1.2s
**R36A Gordon, Harris 90.92 50** P **P 05 01 03.3 +0.5**
baz=250
**V38A Canehill 90.92 53** P **P 05 01 03.5 +0.5**
baz=251,SNR=14
**P35A Duane Minner, 90.95 49** P **P 05 01 03.7 +0.8**
baz=250,SNR=12
**T37A Cheneyville 18 90.95 52** P **P 05 01 03.7 +0.7**
baz=250,SNR=24
**L33A Hoskins 90.98 46** P **P 05 01 03.5 +0.5**
baz=249
**H31A Wolsey 90.99 44** P **P 05 01 03.4 +0.3**
baz=248
**J32A Parkston 91.01 45** P **P 05 01 03.1 -0.1**
baz=249,SNR=6.8
**NANT Nan 91.04 289** P **P 05 01 05.1 +1.3**
comp=N,31nm,1.1s,comp=N,245nm
**KMI Kunming 91.05 296** P **P 05 01 05.3 +1.3**
KMI pP sP 05 01 25.5 -4.4
KMI sP pP 05 01 33.5 +11
KMI PP **PP 05 04 39.5 -2.0**
KMI SKS **SKSac 05 11 29.5 -1.4**
KMI S **S 05 11 54.3 -2.6**
KMI sS sS 05 12 30.3 +1.6
KMI SS **SS 05 18 04.0 +1.6**
KMI pmax pmax
comp=N,90nm,1.3s
KMI pmax pmax
comp=N,930nm,4.8s
KMI LR LR
comp=N,520nm,38.9s
KMI LR LR
comp=N,990nm,37.8s
KMI LR LR
comp=N,4µm,38.3s
**N34A Lincoln 91.05 48** P **P 05 01 04.1 +0.8**
baz=250,SNR=5.3
**141A Papa Simpson, 91.06 56** P **P 05 01 05.1 +1.6**
baz=252,SNR=11
**U38A Gravette 91.13 52** P **P 05 01 04.0 +0.1**
baz=251,SNR=14
**MIAR Mount Ida 91.14 54** P **P 05 01 05.0 +1.1**
baz=251,SNR=14
**MIAR Mount Ida 91.14 54** *eP* **P 05 01 05.2 +1.3**
MIAR pmax pmax
comp=Z,52nm,1.4s
**MIAR Mount Ida 91.14 54** *eP* **P 05 01 04.1 +0.2**
comp=Z,52nm,1.4s
**342A Flagon Creek P 91.14 58** P **P 05 01 05.3 +1.3**
baz=252
**Q36A Arnold C. Orve 91.16 50** P **P 05 01 04.8 +0.8**
baz=250
**W39A Magazine 91.19 54** P **P 05 01 04.5 +0.4**
baz=251,SNR=11
**Y40A Okolona 91.20 55** P **P 05 01 05.4 +1.1**
baz=251,SNR=22
**M34A Aspy Farms, Fr 91.22 47** P **P 05 01 04.9 +0.7**
baz=250,SNR=8.9
**S37A Fort Scott 91.23 51** P **P 05 01 05.0 +0.7**
baz=251,SNR=15
**SRDT SRDT 91.24 284** P **P 05 01 07.3 +2.5**
comp=Z,90nm,1.6s
**O35A Humboldt 91.28 48** P **P 05 01 05.1 +0.6**
baz=250,SNR=7.1
**UTHA Uthaitani 91.28 286** P **P 05 01 06.9 +2.0**
comp=Z,22nm,1.0s,comp=Z,202nm
**Z41A Richland Creek 91.34 56** P **P 05 01 06.2 +1.4**
baz=252,SNR=12
**PHRA Phrae 91.38 289** P **P 05 01 08.0 +2.6**
comp=Z,23nm,1.9s
**T38A Diamond 91.39 52** P **P 05 01 05.8 +0.7**
baz=251,SNR=23
**443A Delano Plantat 91.40 58** P **P 05 01 06.3 +1.1**
baz=252
**HHAR Hobbs 91.42 53** *eP* **P 05 01 04.2 -1.1**
comp=Z,80nm,1.9s
**G31A Conde 91.44 43** P **P 05 01 05.2 +0.1**
baz=249
**242A Grayson 91.49 57** P **P 05 01 07.3 +1.7**
baz=252,SNR=14
**V39A Pettigrew 91.50 53** P **P 05 01 06.2 +0.6**
baz=251,SNR=25
**I32A Karley and Nic 91.51 45** P **P 05 01 05.7 +0.3**
baz=249
**MDND Maddock 91.53 40** P **P 05 01 06.1 +0.7**
baz=248,SNR=5.6
**MDND Maddock 91.53 40** *eP* **P 05 01 04.9 -0.5**
comp=Z,66nm,0.9s
**L34A Svendsen Farm, 91.53 47** P **P 05 01 06.2 +0.6**
baz=250
**P36A Good Intent, A 91.57 49** P **P 05 01 06.5 +0.7**
baz=250,SNR=27
**J33A Davis 91.59 45** P **P 05 01 06.0 +0.2**
baz=249,SNR=12
**JTS JuntasAbangare 91.64 80** *i* P **P 05 01 09.3 +2.6**
**F31A Hecla 91.65 43** P **P 05 01 05.9 -0.1**
baz=249,SNR=11
**N35A Tabor 91.67 48** P **P 05 01 07.5 +1.2**
baz=250
**Y41A Eaglette Beard 91.69 55** P **P 05 01 07.7 +1.3**
baz=252,SNR=30
**H32A Carlson Farm, 91.70 44** P **P 05 01 06.5 +0.2**
baz=249,SNR=14
**X40A Basin Creek Fa 91.70 55** P **P 05 01 07.6 +1.1**
baz=252
**W40A Ferguson Farm, 91.74 54** P **P 05 01 07.9 +1.2**
baz=252,SNR=17
**W40A Ferguson Farm, 91.74 54** *eP* **P 05 01 08.1 +1.4**
comp=Z,114nm,1.4s
**U39A Green Forest 91.80 53** P **P 05 01 07.4 +0.5**
baz=251,SNR=19
**142A Monroe 91.81 57** P **P 05 01 08.3 +1.3**
baz=252,SNR=7.3
**PEL Peldehue 91.83 125** *eP* **P 05 01 09.3 +2.0**
PEL pmax pmax
comp=Z,150nm,1.4s
**PEL Peldehue 91.83 125** *eP* **P 05 01 07.6 +0.2**
comp=Z,145nm,1.4s
**M35A Neola 91.84 47** P **P 05 01 07.8 +0.8**
baz=250
**SYO Syowa Base 91.84 191** ‖ *eP* **P 05 01 04.6 -1.9**
**SYO Syowa Base 91.84 191** ‖ *i*PcP **P 05 01 05.2 -1.3**
**SYO Syowa Base 91.84 191** ‖ *e*SKSac **SKSac 05 11 29.4 -3.9**
**Q37A Longview Farm, 91.88 50** P **P 05 01 07.7 +0.4**
baz=251,SNR=9.4
**S38A Stockton 91.88 51** P **P 05 01 07.8 +0.5**
baz=251,SNR=15
**CD2 Chengdu 91.91 301** ⇑ *i*P **P 05 01 09.0 +1.3**
CD2 SKS **SKSac 05 11 32.3 -2.8**
CD2 S **S 05 12 05.5 +1.4**
CD2 pmax pmax
comp=Z,40nm,1.2s
CD2 pmax pmax
comp=Z,1µm,6.0s
CD2 LR LR
comp=Z,910nm,25.0s
CD2 LR LR
comp=Z,1µm,29.7s
CD2 LR LR
comp=Z,3µm,29.7s
**O36A Bolckow 91.91 49** P **P 05 01 07.9 +0.6**
baz=251,SNR=12
**G32A Webster 91.92 43** P **P 05 01 07.2 -0.2**
baz=249
**X41A Kaden, Bauxite 91.96 55** P **P 05 01 09.0 +1.3**
baz=252,SNR=23
**I33A Coleman 91.96 45** P **P 05 01 07.8 +0.3**
baz=250
**K34A Le Mars 91.97 46** P **P 05 01 07.5 -0.1**
baz=250,SNR=5.1
**243A Waterproof 91.98 58** P **P 05 01 09.1 +1.3**
baz=252
**ECSD EROS Data Cent 91.98 45** P **P 05 01 07.8 +0.2**
baz=250,SNR=22
**ECSD EROS Data Cent 91.98 45** *eP* **P 05 01 06.7 -0.9**
comp=Z,41nm,1.3s
**Z42A Norrel Spur, H 92.03 56** P **P 05 01 08.9 +0.9**
baz=252,SNR=6.1
**R38A Fenwick Farm, 92.06 51** P **P 05 01 08.5 +0.4**
baz=251,SNR=33
**T39A Clever 92.08 52** P **P 05 01 08.8 +0.5**
baz=251,SNR=14
**V40A Witts Springs 92.12 53** P **P 05 01 08.7 +0.2**
baz=252,SNR=26
**E31A Nome 92.14 42** P **P 05 01 08.3 0.0**
baz=249
**N36A Muff Farm, Cla 92.14 48** P **P 05 01 08.7 +0.3**
baz=251,SNR=6.0
**L35A Bielow Farm, R 92.16 47** P **P 05 01 08.8 +0.3**
baz=250
**UALR University of 92.18 55** *eP* **P 05 01 09.1 +0.4**
comp=Z,67nm,1.0s
**VNA3 Neumayer Olymp 92.18 175** P **P 05 01 08.9 +0.8**
**P37A Lathrop 92.18 49** P **P 05 01 09.0 +0.4**
baz=251,SNR=44
**SNAA Sanae 92.22 177** P **P 05 01 09.0 +0.6**
**SNAA Sanae 92.22 177** P **P 05 01 09.2 +0.8**
comp=Z,36nm,1.0s,baz=200,slow=3.5,SNR=27
**SNAA Sanae 92.22 177** *o iP* **P 05 01 08.7 +0.3**
**SNAA Sanae 92.22 177** *eP* **P 05 01 08.2 -0.1**
comp=Z,76nm,1.2s
**H33A Prehn Over Nor 92.22 44** P **P 05 01 09.0 +0.3**
baz=250,SNR=7.6
**U40A Yellville 92.27 53** P **P 05 01 09.8 +0.6**
baz=252,SNR=22
**J34A George 92.27 46** P **P 05 01 09.1 +0.1**
baz=250
**X301 Greenbrier Sit 92.28 54** *eP* **P 05 01 09.1 -0.1**
comp=Z,86nm,1.2s
**143A Socs Landing, 92.29 57** P **P 05 01 09.9 +0.6**
baz=252,SNR=7.4
**CIT Chita 92.32 324** *eP* **P 05 01 10.4 +1.4**
CIT *e* 05 01 22.1
CIT pmax pmax
comp=Z,296nm,1.3s
**S39A Bolivar 92.34 52** P **P 05 01 09.5 +0.1**
baz=252,SNR=18
**CCAR Cane Creek 92.36 55** *eP* **P 05 01 10.5 +0.9**
comp=Z,52nm,0.8s
**W41B Gary Mavity, V 92.38 54** P **P 05 01 10.2 +0.6**
baz=252,SNR=20
**WHAR Wooly Hollow 92.38 54** *eP* **P 05 01 11.0 +1.4**
comp=Z,83nm,1.2s
**344A Westbrook Farm 92.46 58** P **P 05 01 11.0 +0.9**
baz=253,SNR=11
**M36A Felix, Anita 92.47 48** P **P 05 01 10.5 +0.6**
baz=251
**CM01 Chiang Mai Arr 92.52 288** *eP* **P 05 01 12.7 +2.0**
**O37A Wolven Farm, M 92.52 49** P **P 05 01 10.5 +0.4**
baz=251,SNR=9.5
**Q38A Cooks Store, C 92.52 50** P **P 05 01 10.4 +0.2**
baz=251,SNR=20
**CM31 Chiang Mai Arr 92.54 288** *eP* **P 05 01 12.1 +1.3**
**CMAR Chiang Mai Arr 92.54 288** P **P 05 01 11.7 +0.9**
comp=Z,72nm,1.1s,baz=92,slow=2.8,SNR=98
CMAR PP **PP 05 04 53.9 +0.8**
comp=Z,1.6nm,0.4s,baz=99,slow=4.7,SNR=4.6
CMAR PKKP **PKKPbc 05 18 24.0 +0.5**
comp=Z,1.1nm,0.4s,baz=278,slow=4.5,SNR=4.5
CMAR LR LR 05 38 29.0
comp=Z,566nm,21.8s,baz=106,slow=33
**CMAR Chiang Mai Arr 92.54 288** *i* P **P 05 01 12.6 +1.8**
CMAR pmax pmax
comp=Z,56nm,0.9s
CMAR pmax pmax
comp=Z,1.0nm,0.4s
**Z43A Armstrong Fami 92.57 56** P **P 05 01 10.7 +0.2**
baz=252
**445A Amite 92.57 59** P **P 05 01 10.4 -0.2**
baz=253
**K35A Storm Lake 92.58 46** P **P 05 01 10.9 +0.5**
baz=250
**I34A Hadley 92.60 45** P **P 05 01 10.7 +0.2**
baz=250
**G33A Ortonville 92.60 44** P **P 05 01 10.5 +0.1**
baz=250,SNR=10
**V41A Mountainview 92.63 54** P **P 05 01 11.2 +0.4**
baz=252,SNR=14
**CMMT Chiang Mai 92.64 289** P **P 05 01 12.5 +1.3**
comp=Z,75nm,1.4s,comp=Z,1µm
**CHTO Chiang Mai 92.64 289** P **P 05 01 12.5 +1.3**
comp=Z,332nm,1.4s,comp=Z,5µm
**CHTO Chiang Mai 92.64 289** *eP* **P 05 01 12.9 +1.7**
CHTO pmax pmax
comp=Z,120nm,1.3s
**CHTO Chiang Mai 92.64 289** *eP* **P 05 01 10.6 -0.6**
comp=Z,125nm,1.3s
**N37A Lee Faris, Mou 92.66 48** P **P 05 01 11.2 +0.3**
baz=251,SNR=8.2
**VNA2 Neumayer--Watz 92.67 176** P **P 05 01 11.5 +1.2**
baz=171,slow=3.2
**X42A Stuttgart 92.67 55** P **P 05 01 12.1 +1.1**
baz=252
**244A Avery, Jackson 92.67 58** P **P 05 01 12.1 +1.1**
baz=253,SNR=7.6
**C31A Landman Farms, 92.68 41** P **P 05 01 11.0 +0.2**
baz=249,SNR=6.3
**R39A Chumby, Stover 92.75 51** P **P 05 01 11.5 +0.2**
baz=252,SNR=49
**L36A Harm Buss Farm 92.78 47** P **P 05 01 11.7 +0.4**
baz=251
**T40A Mansfield 92.78 52** P **P 05 01 11.9 +0.5**
baz=252,SNR=22
**P38A Dawn 92.79 50** P **P 05 01 11.9 +0.5**
baz=251,SNR=12
**J35A Milford 92.82 46** P **P 05 01 12.4 +0.9**
baz=251
**VBMS Vicksburg 92.86 57** P **P 05 01 13.3 +1.4**
baz=253
**VBMS Vicksburg 92.86 57** *eP* **P 05 01 13.0 +1.1**
comp=Z,152nm,1.7s
**FFC Flin Flon 92.87 33** *eP* **P 05 01 11.7 +0.3**
FFC pmax pmax
comp=Z,50nm,1.4s
**FFC Flin Flon 92.87 33** *eP* **P 05 01 11.7 +0.3**
comp=Z,50nm,1.4s
**VNA1 Neumayer--Stat 92.87 175** P **P 05 01 12.6 +1.3**
**F33A 5 Mile Ranch, 92.92 43** P **P 05 01 12.0 +0.1**
baz=250,SNR=12
**S40A Lebanon 92.93 52** P **P 05 01 12.1 0.0**
baz=252,SNR=38
**B31A Greenbush Farm 92.96 40** P **P 05 01 12.3 +0.3**
baz=249
**W42A Bald Knob 92.97 54** P **P 05 01 13.6 +1.3**
baz=252,SNR=12
**M37A Trindle Farm, 92.98 48** P **P 05 01 13.1 +0.8**
baz=251,SNR=24
**U41A Viola 92.99 53** P **P 05 01 13.3 +0.9**
baz=252,SNR=34
**O38A Galt 92.99 49** P **P 05 01 12.8 +0.4**
baz=252,SNR=10
**345A Thompson Farm, 92.99 58** P **P 05 01 12.8 +0.3**
baz=253
**Q39A Willow Grove F 93.02 50** P **P 05 01 12.9 +0.4**
baz=252,SNR=18
**Y43A Makayla and Ka 93.03 56** P **P 05 01 13.9 +1.2**
baz=253,SNR=7.0
**K36A Gilmore City 93.10 47** P **P 05 01 14.3 +1.5**
baz=251,SNR=13
**I35A Creekview Farm 93.13 45** P **P 05 01 13.7 +0.8**
baz=251
**G34A Benson 93.15 44** P **P 05 01 13.4 +0.4**
baz=250
**V42A Cord 93.23 54** P **P 05 01 13.9 +0.3**
baz=252,SNR=23
**Z44A Pea Ridge, Bel 93.24 56** P **P 05 01 14.3 +0.6**
baz=253
**LCO Las Campanas 93.25 121** *eP* **P 05 01 13.6 -0.6**
comp=Z,42nm,1.1s
**NVL N'lazarevskaya 93.26 182** *eP* **P 05 01 12.5 -0.6**
NVL *e*S **SKSac 05 11 37.7 -3.5**
NVL *e**SS **S 05 12 14.6 0.0**
NVL *e*PS **PS 05 13 35.7 +0.2**
NVL MLR MLR
comp=Z,1µm,25.0s
**245A Little AP, Sta 93.31 58** P **P 05 01 14.8 +0.8**
baz=253
**R40A Maddies Statio 93.31 51** P **P 05 01 14.2 +0.3**
baz=252,SNR=48
**T41A Mountain View 93.32 53** P **P 05 01 14.4 +0.4**
baz=252,SNR=50
**P39B Salisbury 93.32 50** P **P 05 01 14.1 +0.2**
baz=252,SNR=32
**E33A Westby DABS, E 93.34 43** P **P 05 01 14.0 +0.2**
baz=250
**N38A Joes South For 93.38 49** P **P 05 01 14.2 +0.1**
baz=252,SNR=21
**446A Poplarville 93.39 59** P **P 05 01 15.2 +0.8**
baz=253
**LZH Lanzhou 93.39 306** ‖ P **P 05 01 14.8 +0.3**
LZH pP sP 05 01 36.0 -4.4
LZH sP pP 05 01 45.3 +12
LZH PP **PP 05 05 03.5 +3.8**
LZH SKS **SKSac 05 11 39.0 -4.4**
LZH *e*S **S 05 12 15.5 -1.8**
LZH sS sS 05 12 50.5 +1.3
LZH SS **SS 05 18 36.5 +1.0**
LZH pmax pmax
comp=Z,100nm,1.0s
LZH pmax pmax
comp=Z,510nm,8.3s
LZH LR LR
comp=Z,670nm,16.9s
LZH LR LR
comp=Z,780nm,16.8s
LZH LR LR
comp=Z,1µm,18.3s
**J36A Seneca 1, Swea 93.40 46** P **P 05 01 14.8 +0.6**
baz=251,SNR=6.5
**L37A Phoenix Point, 93.43 47** P **P 05 01 14.5 +0.2**
baz=251
**145A Houston Renfro 93.45 57** P **P 05 01 14.9 +0.3**
baz=253
**346A Big Creek Wild 93.48 58** P **P 05 01 14.9 +0.1**
baz=253
**S41A Jillco Farms, 93.50 52** P **P 05 01 15.1 +0.3**
baz=252,SNR=45
**H35A Sunnyside Ranc 93.51 45** P **P 05 01 15.2 +0.5**
baz=251
**U42A Revenden 93.51 53** P **P 05 01 15.2 +0.4**
baz=253,SNR=24
**W43A Forest City 93.55 55** P **P 05 01 16.0 +1.0**

baz=253
F34A **Alexandria** 93.59 43 P P 05 01 15.5 +0.5
baz=251
M38A **Pleasantville** 93.60 48 P P 05 01 15.3 +0.2
baz=252,SNR=34
Y44A **Strider, Charl** 93.62 56 P P 05 01 16.6 +1.2
baz=253
B32A **Ashes, Strandq** 93.64 41 P P 05 01 15.1 -0.1
baz=250,SNR=26
D33A **AnnSam, Waubun** 93.66 42 P P 05 01 15.4 +0.2
baz=250
Q40A **Laux Farm, Aux** 93.67 51 P P 05 01 15.8 +0.2
baz=252,SNR=22
K37A **Belmond** 93.71 47 P P 05 01 16.0 +0.4
baz=252,SNR=23
O39A **Kirksville** 93.71 49 P P 05 01 16.0 +0.4
baz=252,SNR=16
HBAR **Harrisburg** 93.73 54 *e*P P 05 01 16.5 +0.7
comp=Z,114nm,1.0s
SCIA **State Center** 93.74 48 P P 05 01 16.1 +0.3
baz=252,SNR=8.0
SCIA **State Center** 93.74 48 *e*P P 05 01 15.8 +0.1
comp=Z,142nm,1.4s
X44A **Crenshaw** 93.82 55 P P 05 01 16.5 +0.2
baz=253
T42A **Van Buren** 93.83 53 P P 05 01 16.7 +0.4
baz=253,SNR=22
I36A **Fitzsimmons Fa** 93.85 45 P P 05 01 17.1 +0.9
baz=251,SNR=8.3
A32A **Rocking H Ranc** 93.85 40 P P 05 01 16.1 +0.1
baz=250,SNR=19
P40A **Paris** 93.85 50 P P 05 01 16.6 +0.3
baz=252,SNR=24
Z45A **Winona** 93.86 57 P P 05 01 16.6 +0.1
baz=253
E34A **Wadena** 93.88 43 P P 05 01 16.5 +0.2
baz=251,SNR=8.0
V43A **Jonesboro** 93.88 54 P P 05 01 17.0 +0.4
baz=253,SNR=14
C33A **Trail** 93.91 41 P P 05 01 16.5 +0.1
baz=250
G35A **Watkins** 93.91 44 P P 05 01 16.9 +0.4
baz=251
N39A **Derby Farms, D** 93.93 49 P P 05 01 16.8 +0.2
baz=252,SNR=34
J37A **Redenius Farm,** 93.94 46 P P 05 01 17.2 +0.5
baz=252,SNR=12
R41A **Rosebud** 93.98 51 P P 05 01 17.0 +0.1
baz=253,SNR=15
L38A **Oak Wood Farm,** 93.99 47 P P 05 01 17.5 +0.5
baz=252,SNR=18
CCM **Cathedral Cave** 94.01 52 P P 05 01 17.2 +0.1
baz=253
CCM **Cathedral Cave** 94.01 52 *e*P P 05 01 17.2 +0.1
CCM pmax pmax
comp=Z,38nm,1.1s
CCM **Cathedral Cave** 94.01 52 *e*P P 05 01 15.4 -1.7
comp=Z,38nm,1.1s
AGMN **Agassiz Nation** 94.03 41 P P 05 01 16.9 -0.1
baz=250,SNR=12
AGMN **Agassiz Nation** 94.03 41 *e*P P 05 01 16.2 -0.8
comp=Z,76nm,1.3s
F35A **Swanville** 94.06 43 P P 05 01 17.6 +0.5
baz=251,SNR=18
H36A **Jessenland, He** 94.08 45 P P 05 01 18.0 +0.7
baz=252,SNR=7.6
Y45A **Yeager Farm, C** 94.12 56 P P 05 01 18.0 +0.3
baz=253
O40A **La Belle** 94.16 50 P P 05 01 18.2 +0.5
baz=252,SNR=29
U43A **Rector** 94.16 53 P P 05 01 18.4 +0.5
baz=253,SNR=6.0
146A **Union** 94.17 57 P P 05 01 18.3 +0.4
baz=254
MET **Memphis--Engin** 94.17 55 *e*P P 05 01 17.1 -0.8
comp=Z,58nm,0.6s
B33A **Robert and Kas** 94.20 41 P P 05 01 18.0 +0.3
baz=251,SNR=12
347A **Saraland** 94.24 59 P P 05 01 19.1 +0.8
baz=254
PBMO **Poplar Bluff** 94.26 53 *e*P P 05 01 17.7 -0.5
comp=Z,39nm,1.1s
I37A **Lemond, Waseca** 94.27 45 P P 05 01 18.7 +0.5
baz=252,SNR=29
W44A **Shelby Farms P** 94.27 55 P P 05 01 19.4 +1.1
baz=253
S42A **Caledonia** 94.27 52 P P 05 01 18.5 +0.2
baz=253,SNR=17
K38A **Parkersburg** 94.28 47 P P 05 01 18.7 +0.5
baz=252,SNR=15
Q41A **Truxton** 94.29 51 P P 05 01 18.6 +0.3
baz=253,SNR=17
GNAR **Gosnell** 94.34 54 *e*P P 05 01 17.4 -1.3
comp=Z,104nm,1.1s
M39A **Webster** 94.35 48 P P 05 01 19.1 +0.5
baz=252,SNR=22
247A **Quitman** 94.37 58 P P 05 01 19.8 +1.0
baz=254
BOD **Bodaibo** 94.38 329 *e*P P 05 01 17.3 -1.0
BOD pmax pmax
comp=Z,3.0nm,1.1s
E35A **Pequot Lakes** 94.40 43 P P 05 01 19.0 +0.3
baz=251
X45A **UM Field Stati** 94.40 56 P P 05 01 19.8 +0.8
baz=254,SNR=7.2
V44A **Blytheville** 94.40 54 P P 05 01 20.0 +1.1
baz=253
G36A **St. Michael** 94.41 44 P P 05 01 19.0 +0.2
baz=252,SNR=8.3
OXF **Oxford** 94.41 56 P P 05 01 19.4 +0.4
baz=254,SNR=6.7
OXF **Oxford** 94.41 56 *e*P P 05 01 19.9 +0.9
OXF pmax pmax
comp=Z,57nm,1.2s
OXF **Oxford** 94.41 56 *e*P P 05 01 18.9 -0.1
comp=Z,57nm,1.2s
Z46A **Louisville** 94.42 57 P P 05 01 19.2 +0.2
baz=254
R42A **Luebbering** 94.42 52 P P 05 01 19.5 +0.6
baz=253
C34A **RKJ Ranch, Bem** 94.42 42 P P 05 01 19.0 +0.2
baz=251,SNR=5.2
T43A **Greenville** 94.46 53 P P 05 01 19.4 +0.3
baz=253,SNR=32
A33A **Warroad** 94.54 40 P P 05 01 19.7 +0.4
baz=251,SNR=25
N40A **Mertquake, Sal** 94.60 49 P P 05 01 20.1 +0.4
baz=253,SNR=23
FVM **French Village** 94.61 52 *e*P P 05 01 20.6 +0.7
FVM pmax pmax
comp=Z,48nm,1.0s
FVM **French Village** 94.61 52 *e*P P 05 01 19.6 -0.3
comp=Z,48nm,1.0s
P41A **Barry, Barry** 94.62 50 P P 05 01 20.3 +0.5
baz=253,SNR=35
L39A **Vinton** 94.67 48 P P 05 01 20.3 +0.2
baz=253,SNR=17
Y46A **Houston** 94.67 56 P P 05 01 20.6 +0.4
baz=254,SNR=19
ULM **Lac du Bonnet** 94.68 39 P P 05 01 19.6 -0.2
comp=Z,19nm,0.8s,baz=261,slow=4.4,SNR=33
ULM PP PP 05 05 06.3 -2.8
comp=Z,2.1nm,0.8s,baz=240,slow=5.7,SNR=3.6
ULM LR LR 05 37 00.9
comp=Z,964nm,21.2s,baz=258,slow=31
ULM **Lac du Bonnet** 94.68 39 *e*P P 05 01 19.5 -0.4
comp=Z,106nm,1.5s
ULM PP PP 05 05 06.3 -2.8
J38A **Wedel Dairy, R** 94.69 46 P P 05 01 20.4 +0.3
baz=252,SNR=14
PVMO **Portageville** 94.72 54 *e*P P 05 01 21.1 +0.7
comp=Z,295nm,0.3s
PARMO **Parma** 94.75 53 *e*P P 05 01 20.5 0.0
comp=Z,103nm,1.0s
ULN **Ulaanbaatar** 94.75 318 *d i*P P 05 01 20.5 0.0
ULN pmax pmax
comp=Z,22nm,1.0s
ULN **Ulaanbaatar** 94.75 318 *e*P P 05 01 19.8 -0.7
comp=Z,18nm,0.9s
U44A **Portageville** 94.76 54 P P 05 01 21.0 +0.5
baz=254
F36A **Milaca** 94.76 44 P P 05 01 20.6 +0.3
baz=252,SNR=23
S43A **Fulton Ridge,** 94.76 52 P P 05 01 20.9 +0.4
baz=253,SNR=15
W45A **Hickory Valley** 94.77 55 P P 05 01 21.1 +0.5
baz=254,SNR=9.3
348A **Jackson** 94.77 59 P P 05 01 20.7 0.0
baz=254
H37A **Dierke Farm, C** 94.77 45 P P 05 01 20.8 +0.4
baz=252,SNR=12
D35A **Remer** 94.79 42 P P 05 01 20.4 -0.1
baz=252,SNR=12
Q42A **Golden Eagle** 94.80 51 P P 05 01 21.5 +0.8
baz=253,SNR=9.4
M40A **Post Highland** 94.80 48 P P 05 01 20.9 +0.3
baz=253,SNR=36
147A **Livingston** 94.81 58 P P 05 01 21.3 +0.5
baz=254
B34A **Aery, Baudette** 94.86 41 P P 05 01 20.5 -0.2
baz=251,SNR=21
HALT **Halls** 94.86 54 *e*P P 05 01 21.4 +0.4
comp=Z,107nm,1.3s
Q41A **Passleys Farm,** 94.89 50 P P 05 01 21.4 +0.3
baz=253,SNR=27
K39A **Oelwein** 94.92 47 P P 05 01 21.2 0.0
baz=253,SNR=16
SLM **Saint Louis** 94.94 51 *e*P P 05 01 22.2 +0.9
SLM pmax pmax
comp=Z,56nm,1.3s
SLM **Saint Louis** 94.94 51 *e*P P 05 01 19.9 -1.5
comp=Z,56nm,1.4s
U44B **Burton Farm, H** 94.97 54 P P 05 01 21.8 +0.2
baz=254,SNR=8.6
T44A **Benton** 94.99 53 P P 05 01 22.0 +0.4
baz=254,SNR=9.6
GLAT **Glass** 95.00 54 *e*P P 05 01 22.1 +0.4
comp=Z,113nm,1.0s
I38A **Scanlan Farm,** 95.01 46 P P 05 01 21.8 +0.2
baz=252,SNR=47
C35A **Jirik Farms, M** 95.04 42 P P 05 01 21.3 -0.3
baz=252,SNR=20
SPMN **Marine on St.** 95.04 44 P P 05 01 22.3 +0.6
baz=252,SNR=27
SPMN **Marine on St.** 95.04 44 *e*P P 05 01 22.3 +0.6
comp=Z,94nm,1.1s
R43A **Red Bud** 95.07 52 P P 05 01 22.3 +0.4
baz=254,SNR=6.7
N41A **Harden Midland** 95.08 49 P P 05 01 22.3 +0.4
baz=253,SNR=6.5
X46A **Booneville** 95.08 56 P P 05 01 22.4 +0.4
baz=254
248A **Dixon Mills** 95.09 58 P P 05 01 22.7 +0.5
baz=254
Z47A **Carrollton** 95.12 57 P P 05 01 22.4 +0.1
baz=254
P42A **Winchester** 95.13 50 P P 05 01 22.9 +0.7
baz=253,SNR=22
E36A **McGregor** 95.14 43 P P 05 01 22.4 +0.3
baz=252,SNR=15
SONA1 **Songino Array** 95.16 318 *e*P P 05 01 21.9 -0.4
SONM **Songino Array** 95.17 318 P P 05 01 22.4 +0.1
comp=Z,7.2nm,0.8s,baz=127,slow=3.8,SNR=45
SONM PP PP 05 05 08.5 -4.6
comp=Z,5.2nm,1.1s,baz=124,slow=5.1,SNR=6.8
SONM LR LR 05 41 29.0
comp=Z,260nm,19.8s,baz=125,slow=34
L40A **Anamosa** 95.20 48 P P 05 01 22.9 +0.4
baz=253,SNR=20
H38A **Maiden Rock** 95.23 45 P P 05 01 22.8 +0.3
baz=253,SNR=17
J39A **Denaraland** 95.23 47 P P 05 01 22.7 +0.2
baz=253,SNR=30
F37A **Hinrichs Farm,** 95.31 44 P P 05 01 23.4 +0.5
baz=252,SNR=15
UTMT **University of** 95.35 54 *e*P P 05 01 23.9 +0.7
comp=Z,150nm,1.0s
D36A **Goodland** 95.40 43 P P 05 01 23.3 +0.1
baz=252,SNR=32
B35A **Bob, Littlefor** 95.40 41 P P 05 01 23.2 0.0
baz=252,SNR=16
BRAL **Brewton** 95.41 59 P P 05 01 24.4 +0.8
baz=254
S44A **Carbondale** 95.42 52 P P 05 01 23.9 +0.4
baz=254,SNR=6.9
U45A **Rockin P Farm,** 95.43 54 P P 05 01 23.9 +0.3
baz=254,SNR=13
Q43A **New Douglas** 95.43 51 P P 05 01 23.8 +0.2
baz=254,SNR=7.5
K40A **Colesburg** 95.45 47 P P 05 01 23.7 +0.1
baz=253,SNR=6.3
SIUC **Southern Illin** 95.45 52 *e*P P 05 01 23.6 -0.1
comp=Z,48nm,1.2s
Y47A **UCPARC, Winfie** 95.49 56 P P 05 01 24.0 +0.1
baz=254
M41A **Milan** 95.49 49 P P 05 01 24.0 +0.2
baz=254,SNR=14
O42A **Bath** 95.50 50 P P 05 01 24.2 +0.4
baz=254,SNR=8.9
I39A **Houston** 95.51 46 P P 05 01 23.7 -0.1
baz=253,SNR=22
Z48A **Northport** 95.58 57 P P 05 01 24.6 +0.2
baz=254
PLAL **Pickwick Lake** 95.60 55 *e*P P 05 01 24.6 +0.2
comp=Z,82nm,1.9s
TIXI **Tiksi** 95.60 344 P P 05 01 23.8 +0.3
comp=Z,38nm,1.1s,baz=134,slow=7.3,SNR=9.8
TIXI PP PP 05 05 15.7 0.0
comp=Z,3.3nm,0.6s,baz=119,slow=11,SNR=3.5
TIXI **Tiksi** 95.60 344 *d i*P P 05 01 22.9 -0.7
TIXI pmax pmax
comp=Z,55nm,1.2s
TIXI **Tiksi** 95.60 344 *e*P P 05 01 22.6 -1.0
comp=Z,41nm,1.0s
TIXI PP PP 05 05 15.7 0.0
X47A **Russelville** 95.64 56 P P 05 01 24.7 +0.1
baz=254,SNR=7.4
G38A **Ridgeland** 95.67 45 P P 05 01 24.7 +0.2
baz=253,SNR=31
R44A **Waltonville** 95.70 52 P P 05 01 25.4 +0.5
baz=254
N42A **Yates City** 95.71 49 P P 05 01 25.3 +0.5
baz=254,SNR=6.8
E37A **Wrenshall** 95.72 43 P P 05 01 25.1 +0.4
baz=253,SNR=5.7
L41A **Preston** 95.72 48 P P 05 01 25.2 +0.3
baz=254,SNR=5.7
P43A **Skaggs, Pawnee** 95.75 51 P P 05 01 25.3 +0.3
baz=254,SNR=12
C36A **Pine Crest Far** 95.79 42 P P 05 01 24.9 -0.1
baz=252,SNR=15
D37A **Cotton** 95.87 43 P P 05 01 25.7 +0.3
baz=253,SNR=18
F38A **Pierce - Schro** 95.88 44 P P 05 01 25.8 +0.4
baz=253,SNR=21
U46A **Springville** 95.89 54 P P 05 01 26.1 +0.4
baz=254
H39A **Augusta** 95.92 45 P P 05 01 26.0 +0.3
baz=253,SNR=30
J40A **Soldiers Grove** 95.92 47 P P 05 01 25.9 +0.1
baz=254,SNR=27
S45A **Carrier Mills** 95.93 53 P P 05 01 26.0 +0.2
baz=254,SNR=8.3
Q44A **Meyer Farm, Va** 95.93 51 P P 05 01 26.3 +0.4
baz=254
LRAL **Lakeview Retre** 95.94 57 P P 05 01 26.2 +0.2
baz=255
K41A **Shullsburg** 96.01 48 P P 05 01 26.3 +0.2
baz=254,SNR=20
Y48A **Jasper** 96.03 57 P P 05 01 26.3 -0.2
baz=255
M42A **Sheffield** 96.08 49 P P 05 01 26.5 +0.1
baz=254,SNR=5.9
O43A **Sugar Creek Fa** 96.09 50 P P 05 01 26.8 +0.3
baz=254,SNR=8.4
WVT **Waverly** 96.09 54 P P 05 01 26.6 0.0
baz=255
WVT **Waverly** 96.09 54 *e*P P 05 01 27.0 +0.3
WVT pmax pmax
comp=Z,22nm,1.2s
WVT **Waverly** 96.09 54 *e*P P 05 01 27.0 +0.3
comp=Z,22nm,1.3s
JFWS **Jewell Farm** 96.14 47 P P 05 01 26.6 -0.1
baz=254,SNR=12
JFWS **Jewell Farm** 96.14 47 *e*P P 05 01 26.4 -0.3
JFWS pmax pmax
comp=Z,82nm,1.0s
JFWS **Jewell Farm** 96.14 47 *e*P P 05 01 26.4 -0.3
comp=Z,82nm,1.0s
I40A **Norwalk** 96.15 46 P P 05 01 26.7 -0.1
baz=254,SNR=11
G39A **Holcombe** 96.17 45 P P 05 01 27.0 +0.2
baz=253,SNR=16
HDIL **Hopedale** 96.17 50 P P 05 01 27.0 0.0
baz=254,SNR=9.6
HDIL **Hopedale** 96.17 50 *e*P P 05 01 27.4 +0.5
comp=Z,56nm,1.1s
C37A **Embarrass** 96.20 42 P P 05 01 26.7 -0.1
baz=253,SNR=10
X48A **Hartselle** 96.27 56 P P 05 01 27.3 -0.2
baz=255,SNR=5.3
E38A **The Farm, Brul** 96.28 43 P P 05 01 27.5 +0.2
baz=253,SNR=6.9
T46A **Princeton** 96.29 53 P P 05 01 28.4 +0.9
baz=255,SNR=13
L42A **Oliver, Polo** 96.30 48 P P 05 01 27.5 +0.1
baz=254,SNR=9.9
R45A **Skylar, Fairfi** 96.32 52 P P 05 01 28.0 +0.4
baz=254,SNR=7.6
Z49A **Columbiana** 96.36 57 P P 05 01 28.5 +0.6
baz=255
N43A **Stutzman Famil** 96.36 49 P P 05 01 28.3 +0.5
baz=254
P44A **Sand Creek, Wi** 96.38 51 P P 05 01 28.4 +0.5
baz=254
J41A **Loganville** 96.42 47 P P 05 01 28.0 0.0
baz=254,SNR=18
H40A **Chili** 96.51 46 P P 05 01 28.5 +0.1
baz=254,SNR=25
PBA **Port Blair** 96.51 280 *e*P P 05 01 28.1 -1.0
F39A **Loretta** 96.51 44 P P 05 01 28.6 +0.3
baz=254,SNR=22
Q45A **Warren Harvey,** 96.57 52 P P 05 01 29.0 +0.2
baz=255
S46A **Don Dixon Farm** 96.59 53 P P 05 01 29.1 +0.2
baz=255
U47A **Clarksville** 96.60 54 P P 05 01 29.2 +0.3
baz=255,SNR=11
Y49A **Blount Mountai** 96.63 57 P P 05 01 29.3 +0.1
baz=255
M43A **Waltham Townsh** 96.66 49 P P 05 01 29.0 0.0
baz=254,SNR=6.6
O44A **Mansfield** 96.67 50 P P 05 01 29.6 +0.4
baz=255
EYMN **Ely** 96.71 42 P P 05 01 29.2 +0.1
baz=254,SNR=7.4
EYMN **Ely** 96.71 42 *e*P P 05 01 27.9 -1.3
comp=Z,57nm,1.4s
I41A **Arkdale** 96.72 46 P P 05 01 29.5 +0.2
baz=254,SNR=10
DGPR **DIGLIPUR** 96.73 282 *e*P P 05 01 31.8 +1.9
K42A **Prairie Point,** 96.74 48 P P 05 01 29.6 +0.2
baz=254,SNR=14
V48A **Smith Brothers** 96.78 55 P P 05 01 29.9 0.0
baz=255
C38A **Sawbill Land.** 96.78 42 P P 05 01 29.2 -0.4
baz=254,SNR=9.0
G40A **Rib Lake** 96.82 45 P P 05 01 30.2 +0.4
baz=254,SNR=10.0
X49A **Woodville** 96.86 56 P P 05 01 30.5 +0.3
baz=255,SNR=5.3
T47A **Sharon Grove** 96.88 54 P P 05 01 30.5 +0.3
baz=255,SNR=8.5
E39A **Mellen** 96.88 44 P P 05 01 30.2 +0.2
baz=254,SNR=11
L43A **Garden Prairie** 97.01 48 P P 05 01 30.8 +0.1
baz=255
H41A **Junction City** 97.02 46 P P 05 01 30.9 +0.2
baz=254,SNR=13
J42A **Columbus** 97.04 47 P Pdif 05 01 31.1 +0.2
baz=255,SNR=6.4
F40A **Park Falls** 97.05 44 P Pdif 05 01 31.1 +0.2
baz=254,SNR=13
P45A **Graceland, Par** 97.05 51 P P 05 01 31.1 +0.2
baz=255
N44A **Piper City** 97.09 50 P Pdif 05 01 31.6 +0.5
baz=255
U48A **Cassie Pea, Po** 97.20 54 P P 05 01 31.9 +0.2
baz=255,SNR=7.9
O45A **Potomac** 97.25 50 P Pdif 05 01 32.2 +0.3
baz=255
M44A **Midewin, Midew** 97.31 49 P Pdif 05 01 32.4 +0.3
baz=255
PB11 **IPOC Station P** 97.32 113 *e*P P 05 01 33.0 +0.1
comp=Z,17nm,1.0s
I42A **Draeger Farm,** 97.33 47 P P 05 01 32.0 -0.1
baz=255,SNR=5.5
E40A **Wakefield** 97.34 44 P Pdif 05 01 32.4 +0.3
baz=254,SNR=11
SWET **Sewanee** 97.35 56 *e*P P 05 01 32.1 -0.4
comp=Z,14nm,0.4s
GTA **Gaotai** 97.38 309 ⇓P Pdif 05 01 32.8 +0.1
GTA pP pP 05 01 50.0 -1.3
GTA PP **PP** **05 05 33.5 +3.0**
GTA SKS **SKSac** **05 12 03.5 -0.8**
GTA S **S** **05 12 49.5 -2.2**
GTA SS **SS** **05 19 34.0 +2.1**
GTA pmax pmax
comp=Z,19nm,1.3s
GTA pmax pmax
comp=Z,280nm,5.2s
GTA LR LR
comp=Z,750nm,19.7s
GTA LR LR
comp=Z,920nm,22.3s
GTA LR LR
comp=Z,1μm,22.3s
X50A **Fort Payne** 97.39 56 P P 05 01 32.5 -0.2
baz=256
K43A **Burlington** 97.44 48 P Pdif 05 01 33.1 +0.4
baz=255
T48A **Bowling Green** 97.46 54 P Pdif 05 01 33.1 +0.2
baz=256
P46A **Rosedale** 97.47 51 P Pdif 05 01 33.4 +0.5
baz=255
G41A **Antigo** 97.50 45 P P 05 01 32.8 0.0
baz=255,SNR=7.0
J43A **Natural Harves** 97.55 47 P P 05 01 33.2 +0.1
baz=255
C39A **Grand Marais** 97.56 43 P P 05 01 32.7 -0.3
baz=254
N45A **Kentland** 97.56 50 P Pdif 05 01 33.6 +0.4
baz=255
MNMC **Minye Minye** 97.58 112 *e*P Pdif 05 01 36.8 +2.5
comp=Z,17nm,1.2s
L44A **Lake County Fo** 97.60 48 P Pdif 05 01 33.6 +0.2
baz=255
R47A **Wooly Knot Far** 97.66 52 P Pdif 05 01 34.0 +0.3
baz=256
F41A **Three Lakes** 97.69 45 P Pdif 05 01 34.2 +0.5
baz=255,SNR=12
SFIN **Lafayette** 97.75 50 P Pdif 05 01 34.5 +0.4
baz=256
SFIN **Lafayette** 97.75 50 *e*P Pdif 05 01 35.0 +0.9
comp=Z,24nm,1.1s
H42A **Shiocton** 97.76 46 P Pdif 05 01 34.4 +0.3
baz=255
WCI **Wyandotte Cave** 97.82 53 P Pdif 05 01 34.7 +0.2
baz=256
S48A **Wiedeman Farm,** 97.86 53 P P 05 01 34.8 +0.2
baz=256
ZAK **Zakamensk** 97.86 320 *e*P P 05 01 33.5 -1.0
ZAK pmax pmax
comp=Z,7.0nm,1.3s
I43A **Langenfeld Bro** 97.87 47 P P 05 01 34.6 +0.1
baz=255
M45A **Boilermakers S** 97.88 49 P Pdif 05 01 35.0 +0.3
baz=256
Q47A **Bedord North L** 97.89 52 P P 05 01 34.9 +0.1
baz=256
E41A **Kenton** 97.97 44 P Pdif 05 01 35.2 +0.3
baz=255,SNR=7.9
TLY **Talaya** 98.00 321 *e*P P 05 01 33.3 -1.6
TLY *e*S **SKSac** **05 12 07.8 +1.2**
TLY pmax pmax
comp=Z,6.0nm,0.7s
TLY **Talaya** 98.00 321 *e*P P 05 01 33.5 -1.4
comp=Z,9.4nm,0.8s
G42A **Mountain** 98.02 45 P P 05 01 35.2 0.0
baz=255
N46A **Monticello** 98.14 50 P P 05 01 35.9 +0.1
baz=256
P47A **Martinsville** 98.14 51 P Pdif 05 01 36.2 +0.3
baz=256
H43A **Windswept, Lux** 98.28 46 P P 05 01 36.2 -0.2
baz=256
TIGA **Tifton** 98.34 60 P P 05 01 36.6 -0.3
baz=256
F42A **Maple Grove Fa** 98.35 45 P P 05 01 36.8 +0.2
baz=256
D41A **Chassel** 98.38 44 P Pdif 05 01 37.0 +0.2
baz=256,SNR=5.3
O47A **Sheridan** 98.39 51 P P 05 01 37.1 +0.2
baz=256

**G43A Wallace** 98.53 45 P **P** 05 01 36.9 -0.5
baz=256
**M46A Old House Fiel** 98.54 49 P Pdif 05 01 37.9 +0.2
baz=256
**E42A Champion** 98.66 44 P Pdif 05 01 38.4 +0.3
baz=256,SNR=6.0
**GOGA Godfrey** 98.90 58 *e*P Pdif 05 01 42.7 +3.3
GOGA pmax pmax
comp=Z,41nm,1.7s
**GOGA Godfrey** 98.90 58 *e*P Pdif 05 01 40.7 +1.3
comp=Z,41nm,1.7s
**F43A Flat Rock, Esc** 99.02 45 P **Pdif** 05 01 39.9 +0.3
baz=256
**TKL Tuckaleechee C** 99.17 56 *e*P **Pdif** 05 01 40.5 -0.1
TKL pmax pmax
comp=Z,79nm,2.0s
**TKL Tuckaleechee C** 99.17 56 *e*P **Pdif** 05 01 38.0 -2.6
comp=Z,79nm,2.0s
**E43A Lone Tree Farm** 99.27 44 P **Pdif** 05 01 41.1 +0.4
baz=256
**F44A Big Bay de Noc** 99.56 45 P **Pdif** 05 01 42.3 +0.3
baz=257
**MOY Mondy** 99.59 321 *e*P **Pdif** 05 01 42.8 +0.6
**LPAZ La Paz** 99.86 110 P **Pdif** 05 01 45.8 +1.0
comp=Z,1.3nm,0.8s,baz=280,slow=4.0,SNR=4.8
LPAZ PP **PP** 05 05 51.7 +1.5
comp=Z,1.5nm,0.8s,baz=206,slow=4.2,SNR=4.2
LPAZ LR LR 05 38 31.8
comp=Z,495nm,20.5s,baz=228,slow=30
**E44A Grand Marais A** 100.04 44 P **Pdif** 05 01 44.2 0.0
baz=257
**F45A CMU Biological** 100.11 45 P **Pdif** 05 01 45.0 +0.5
baz=257
**E45A Wooded Hills,** 100.49 45 P **Pdif** 05 01 46.8 +0.6
baz=258,SNR=5.4
**F46A Macinaw City C** 100.65 45 P **Pdif** 05 01 47.0 +0.1
baz=258
**SHL Shillong** 100.65 294 *e*P **Pdif** 05 01 46.4 -1.3
**SHL Shillong** 100.65 294 *e*P **Pdif** 05 01 49.0 +1.4
**KMSC Kings Mountain** 101.00 57 P **Pdif** 05 01 48.9 +0.2
baz=258
**BOK Bokaro** 105.63 291 *e*P **Pdif** 05 02 08.3 -1.3
**VIS Vishakhapatnam** 106.78 284 *e*P **Pdif** 05 02 13.5 -1.3
**WMQ Urumqi** 107.10 312 Pdif **Pdif** 05 02 16.0 +0.3
WMQ PP **PP** 05 06 46.3 +3.1
WMQ SS SS 05 21 46.0 +0.1
WMQ LR LR
comp=Z,3µm,26.5s
WMQ LR LR
comp=Z,2µm,35.5s
WMQ LR LR
comp=Z,2µm,39.2s
**MDRS Chennai** 108.70 279 *e*P **Pdif** 05 02 19.7 -3.6
**ZSN Zaisan** 109.37 315 *e*PKiKP **PKiKP** 05 06 28.7 -0.2
ZSN *e*PP **PP** 05 06 58.9 -0.6
**ZAA0 Zalesovo Array** 109.59 322 *e*Pdif **Pdif** 05 02 24.6 -1.8
**ZALV Zalesovo Beam** 109.59 322 Pdiff **Pdif** 05 02 26.4 -0.1
comp=Z,0.8nm,0.3s,baz=96,slow=4.5,SNR=8.5
ZALV PKiKP **PKiKP** 05 06 29.0 0.0
comp=Z,3.2nm,0.7s,baz=135,slow=0.8,SNR=9.9
ZALV PP **PP** 05 06 59.3 -1.6
comp=Z,6.5nm,0.9s,baz=102,slow=5.6,SNR=6.7
ZALV PKKPab **PKKPab** 05 17 45.6 +1.1
comp=Z,1.1nm,0.8s,baz=260,slow=4.2,SNR=4.0
**ZALV Zalesovo Beam** 109.59 322 *e*P **Pdif** 05 02 24.4 -2.0
ZALV 05 06 59.3
**ZALV Zalesovo Beam** 109.59 322 *e*Pdif **Pdif** 05 02 24.4 -2.0
ZALV PKiKP **PKiKP** 05 06 29.0 0.0
ZALV PP **PP** 05 06 59.3 -1.6
ZALV PKKPab **PKKPab** 05 17 45.6 +1.1
**NVS Novosibirsk** 110.52 323 *e*PKiKP PKiKP 05 06 48.4 +18
**MK01 Makanchi Array** 111.09 314 *e*Pdif **Pdif** 05 02 34.9 +1.5
**MK31 Makanchi Array** 111.10 314 *i* PKiKP **PKiKP** 05 06 31.4 -0.8
MK31 pmax pmax
comp=Z,6.0nm,0.6s
**MK31 Makanchi Array** 111.10 314 *e*Pdif **Pdif** 05 02 35.9 +2.5
**MKAR Makanchi Array** 111.10 314 Pdiff **Pdif** 05 02 34.0 +0.6
comp=Z,1.5nm,0.7s,baz=86,slow=4.4,SNR=12
MKAR PKiKP **PKiKP** 05 06 32.0 -0.2
comp=Z,6.8nm,0.5s,baz=164,slow=0.7,SNR=65
MKAR PP **PP** 05 07 08.5 -3.6
comp=Z,7.3nm,1.0s,baz=92,slow=7.3,SNR=7.3
MKAR PKKPbc **PKKPbc** 05 17 29.3 -1.0
comp=Z,0.7nm,0.8s,baz=299,slow=2.5,SNR=4.3
MKAR PKKPab **PKKPab** 05 17 40.4 +2.2
comp=Z,3.3nm,0.9s,baz=270,slow=3.8,SNR=7.7
**MKAR Makanchi Array** 111.10 314 *e*Pdif **Pdif** 05 02 34.9 +1.5
MKAR PKiKP **PKiKP** 05 06 32.0 -0.2
MKAR PP **PP** 05 07 08.5 -3.6
MKAR PKKPbc **PKKPbc** 05 17 29.3 -1.0
MKAR PKKPab **PKKPab** 05 17 40.4 +2.2
**HYB Hyderabad** 111.19 283 *e*P **PKiKP** 05 06 31.1 -2.1
**NGP Nagpur** 111.39 287 *e*P **PKiKP** 05 06 32.7 -0.8
**PTGA Pitinga** 112.56 98 PKiKP **PKiKP** 05 06 36.0 +0.1
comp=Z,2.4nm,0.4s,baz=76,slow=0.9,SNR=4.5
**SHLS Shalkode** 113.04 310 *e*PKiKP **PKiKP** 05 06 34.4 -1.7
SHLS *e*PP **PP** 05 07 20.7 -5.5
**AKL Akola** 113.19 286 *ex* x 05 06 56.0
**BHPL Bhopal** 113.20 289 *e*P **PKiKP** 05 06 35.2 -1.6
**UZB Uzynbulak** 113.37 310 *e*PKiKP **PKiKP** 05 06 35.7 -1.1
UZB *e*PP **PP** 05 07 25.4 -3.2
**KURK Kurchatov** 113.47 319 PKiKP **PKiKP** 05 06 36.2 -0.3
KURK 05 07 24.6
**KURK Kurchatov** 113.47 319 PKiKP **PKiKP** 05 06 36.2 -0.3
KURK PP **PP** 05 07 24.6 -4.2
**DDI Dehra Dun** 113.48 296 *e*P **PKiKP** 05 06 36.5 -0.7
**KURBB Kurchatov Arra** 113.53 319 PKiKP **PKiKP** 05 06 36.2 -0.4
comp=Z,8.4nm,0.8s,baz=91,slow=1.8,SNR=36
KURBB PP **PP** 05 07 24.6 -4.6
comp=Z,8.3nm,1.0s,baz=88,slow=6.8,SNR=13
**SMLA Simla** 114.31 297 *e*P PKPdf 05 06 37.5 -1.1
**MDOK Medeo** 114.81 310 *e*PKP PKPdf 05 06 38.4 -1.2
MDOK *e*PP **PP** 05 07 35.7 -3.1
**DHRM DHARAMSHALA** 115.13 298 *e*P **PKPdf** 05 06 40.4 -0.2
DHRM AMS AMS 05 49 08.8
comp=Z,2µm,34.0s
**GOA Goa** 115.29 280 *e*P **PKPdf** 05 06 39.0 -2.0
**KUU Kurty** 115.31 311 *e*PKP **PKPdf** 05 06 39.4 -0.9
KUU *e*PP **PP** 05 07 38.9 -3.2
**ULHL Ulahol** 115.42 309 P **PKPdf** 05 06 41.3 +0.5
SNR=6.7
**KSH Kashi** 115.64 306 *e*PKP **PKPdf** 05 06 40.0 -1.2
KSH sPKP 05 07 17.0
KSH PP **PP** 05 07 49.8 +5.1
KSH PKS **PKSdf** 05 10 14.8 -3.2
KSH SKS **SKSdf** 05 13 41.0 -6.8
KSH SKKS **SKKSac** 05 14 31.8 -8.2
KSH SS **SS** 05 23 39.5 -0.6
KSH AMB AMB
comp=Z,280nm,3.8s
KSH LR LR
comp=Z,450nm,6.4s
KSH LR LR
comp=Z,620nm,6.9s
KSH LR LR
comp=Z,340nm,6.3s
**POO Poona** 115.79 283 *e*P **PKPdf** 05 06 39.3 -2.6
POO AMS AMS 05 48 04.1
comp=Z,3µm,19.1s
**POO Poona** 115.79 283 *e*P PKPdf 05 06 34.0 -8.0
**TKM2 Tokmak 2** 115.88 310 PKiKP **PKPdf** 05 06 40.8 -0.9
TKM2 pmax pmax
comp=Z,17nm,1.5s
**TKM2 Tokmak 2** 115.88 310 P **PKPdf** 05 06 40.9 -0.8
SNR=12
**KZA Kyzart** 116.16 309 P **PKPdf** 05 06 39.9 -2.6
SNR=6.1
**KBK Karagaybulak** 116.37 310 P **PKPdf** 05 06 42.7 +0.1
SNR=6.2
**CHMS Chumysh** 116.50 310 P **PKPdf** 05 06 42.1 -0.5
SNR=6.7
**FRU Bishkek** 116.60 310 *e*PKiKP **PKPdf** 05 06 44.0 +1.1
**USP Ospenovka** 116.67 311 P **PKPdf** 05 06 42.7 -0.3
SNR=6.4
**AAK Ala-Archa** 116.70 310 PKP **PKPdf** 05 06 43.5 +0.3
comp=Z,4.5nm,0.7s,baz=172,slow=3.2,SNR=7.1
AAK PP **PP** 05 07 50.0 -2.1
comp=Z,2.3nm,0.7s,baz=112,slow=6.1,SNR=3.6
AAK PKKPbc **PKKPbc** 05 17 10.6 -0.7
comp=Z,4.6nm,1.0s,baz=198,slow=4.8,SNR=9.6
**AAK Ala-Archa** 116.70 310 ⇑*i*PKIKP **PKPdf** 05 06 43.4 +0.2
**AAK Ala-Archa** 116.70 310 P **PKPdf** 05 06 43.3 +0.1
SNR=5.7
**UCH Uchtor** 116.70 309 P **PKPdf** 05 06 44.2 +0.6
SNR=14

**KBS Kingsbay** 117.10 359 *e*PKIKP **PKPdf** 05 06 44.2 +1.4
**KBS Kingsbay** 117.10 359 *e*PKPdf **PKPdf** 05 06 44.2 +1.4
**EKS2 Erkin-Say** 117.23 310 P **PKPdf** 05 06 44.5 +0.4
SNR=6.4
**AML Almayashu** 117.32 309 P **PKPdf** 05 06 44.8 +0.1
SNR=12
**SFK Sufi-Kurgan** 117.54 307 PKIKP **PKPdf** 05 06 44.9 -0.1
SFK pmax pmax
comp=Z,37nm,0.9s
**SUMG Summit** 117.95 14 *e*PKIKP **PKPdf** 05 06 45.8 +0.8
**SUMG Summit** 117.95 14 *e*PKPdf **PKPdf** 05 06 44.2 -0.8
**MNAS Manas** 118.18 310 PKIKP **PKPdf** 05 06 46.0 0.0
MNAS pmax pmax
comp=Z,21nm,0.8s
**BVAR Borovoye Array** 118.25 322 PKP **PKPdf** 05 06 45.4 -0.3
comp=Z,16nm,0.7s,baz=85,slow=1.8,SNR=60
**BRVK Borovoye** 118.31 322 ⇑*i*PKIKP **PKPdf** 05 06 46.1 +0.4
**BRVK Borovoye** 118.31 322 *e*PKPdf **PKPdf** 05 06 44.5 -1.3
**KK31 Karatay Array** 119.59 311 *i* PKIKP **PKPdf** 05 06 48.2 -0.4
KK31 pmax pmax
comp=Z,7.0nm,0.8s
**KKAR Karatay Array** 119.59 311 *e*PKIKP **PKPdf** 05 06 48.4 -0.2
**KKAR Karatay Array** 119.59 311 *e*PKPdf **PKPdf** 05 06 47.9 -0.7
**IUG luzhnay** 120.03 310 *i* PKP **PKPdf** 05 06 48.4 -1.1
IUG *e*PP **PP** 05 08 12.0 -3.0
**BRLS Borolday** 120.09 311 *e*PKP **PKPdf** 05 06 48.9 -0.7
BRLS *e*PP **PP** 05 08 13.2 -2.1
**CHM Chimkent** 120.33 310 *e*PKP **PKPdf** 05 06 49.1 -0.9
**KBL Kabul** 121.25 301 *e*PKIKP **PKPdf** 05 06 52.5 +0.2
**KBL Kabul** 121.25 301 *e*PKPdf **PKPdf** 05 06 52.5 +0.2
**SVE Sverdlovsk** 122.57 328 *e*PKIKP **PKPdf** 05 06 54.4 +0.6
SVE pmax pmax
comp=Z,52nm,1.2s
**ARU Arti** 123.78 328 PKP **PKPdf** 05 06 56.0 -0.1
comp=Z,26nm,0.6s,baz=54,slow=1.3,SNR=7.1
ARU PP **PP** 05 08 37.4 -2.2
comp=Z,5.2nm,0.2s,baz=82,slow=5.3,SNR=8.7
**ARU Arti** 123.78 328 *i* PKIKP **PKPdf** 05 06 56.5 +0.4
ARU 05 08 36.2
ARU 05 14 05.4
ARU SS SS 05 25 18.1 -4.9
**ARU Arti** 123.78 328 *e*PKPdf **PKPdf** 05 06 57.1 +1.0
ARU PP **PP** 05 08 37.4 -2.2
**KEV Kevo** 124.85 351 *e*PKIKP **PKPdf** 05 06 58.2 +0.4
**KEV Kevo** 124.85 351 *e*PKPdf **PKPdf** 05 06 58.2 +0.4
**LVZ Lovozero** 125.12 347 *e*PKIKP **PKPdf** 05 06 58.6 +0.1
**LVZ Lovozero** 125.12 347 *e*PKPdf **PKPdf** 05 06 58.6 +0.1
**ARCES ARCESS Array B** 125.27 352 PKP **PKPdf** 05 06 58.9 +0.3
comp=Z,76nm,0.7s,baz=8.1,slow=1.3,SNR=167
**ARCES ARCESS Array B** 125.27 352 *e*PKPdf **PKPdf** 05 06 58.8 +0.1
**ARE0 ARCESS Array S** 125.27 352 *e*PKPdf **PKPdf** 05 06 58.9 +0.2
**ABKAR Akbulak array** 125.56 320 *e*PKPdf **PKPdf** 05 06 59.9 +0.1
**APA Apatity** 125.66 348 ⇑*i*PKIKP **PKPdf** 05 06 58.9 -0.5
APA pmax pmax
comp=Z,39nm,0.7s
**ABPO Ambohimpanom** 126.69 231 *e*PKIKP **PKPdf** 05 07 04.3 +1.2
**ABPO Ambohimpanom** 126.69 231 *e*PKPdf **PKPdf** 05 07 04.3 +1.2
**TMCR Tamitsa** 127.30 343 *e*PKIKP **PKPdf** 05 07 02.6 0.0
TMCR pmax pmax
comp=Z,68nm,1.1s
**KLMR Klimovskoe** 129.35 340 *e*PKIKP **PKPdf** 05 07 04.6 -2.0
KLMR pmax pmax
comp=Z,113nm,1.4s
**GEYT Alibeck** 129.68 306 PKhKP PKPpre 05 06 57.0
comp=Z,2.6nm,0.7s,baz=191,slow=3.0,SNR=4.7
GEYT PKP **PKPdf** 05 07 08.5 +0.5
comp=Z,8.3nm,0.7s,baz=222,slow=2.0,SNR=13
GEYT PP **PP** 05 09 16.3 -3.2
comp=Z,3.6nm,0.7s,baz=64,slow=6.6,SNR=5.0
**SUR Sutherland** 129.81 196 *e*PKPdf **PKPdf** 05 07 10.7 +1.9
**BIDO Bidbid** 130.88 287 P **PKPdf** 05 07 12.2 +1.5
SNR=7.1
**BIDO Bidbid** 130.88 287 PKiKP **PKPdf** 05 07 12.2 +1.5
SNR=7.1
**BOSA Boshof** 131.90 203 PKP **PKPdf** 05 07 15.1 +2.3
comp=Z,7.7nm,0.6s,baz=154,slow=2.6,SNR=16
**BOSA Boshof** 131.90 203 *e*PKPdf **PKPdf** 05 07 14.5 +1.8
**FIA1 FINESS Array S** 132.56 347 *e*PKPdf **PKPdf** 05 07 13.4 +0.7
**FINES FINESS Array B** 132.57 347 PKhKP PKPpre 05 07 01.6
comp=Z,5.3nm,0.7s,baz=124,slow=1.6,SNR=11
FINES PKP **PKiKP** 05 07 13.8 0.0
comp=Z,22nm,0.5s,baz=15,slow=1.4,SNR=66
**UOSS Minazif** 132.64 289 *e*PKPdf **PKPdf** 05 07 14.1 +0.1
**HATD Hatta, Dubai** 132.71 289 P **PKPdf** 05 07 16.0 +1.8
SNR=9.8
**HATD Hatta, Dubai** 132.71 289 PKiKP **PKPdf** 05 07 16.0 +1.8
SNR=9.8
**ASHO Ashiyiah** 132.78 289 P **PKPdf** 05 07 15.8 +1.5
SNR=8.8
**ASHO Ashiyiah** 132.78 289 PKiKP **PKPdf** 05 07 15.8 +1.5
SNR=8.8
**NAZ Nazwa, Dubai** 133.13 289 P **PKPdf** 05 07 17.0 +2.0
SNR=5.4
**NAZ Nazwa, Dubai** 133.13 289 PKiKP **PKPdf** 05 07 17.0 +2.0
SNR=5.4
**MOS Moscow** 133.77 336 *e*PKIKP **PKPdf** 05 07 15.8 +0.7
MOS *e* 05 09 43.9
**OBN Obninsk** 134.63 336 ⇑*i*PKIKP **PKPdf** 05 07 17.2 +0.4
OBN *e* 05 09 48.4
OBN pmax pmax
comp=Z,110nm,1.4s
**NC303 NORSAR Array S** 134.80 357 *e*PKPpre PKPpre 05 07 05.1
NC303 *e*PKPdf **PKPdf** 05 07 16.8 -0.2
**NC405 NORSAR Array S** 134.89 356 *e*PKPdf **PKPdf** 05 07 17.2 +0.1
**NB201 NORSAR Array S** 134.98 357 *e*PKPdf **PKPdf** 05 07 17.7 +0.3
**LBTB Lobatse** 134.99 205 *e*PKIKP **PKPdf** 05 07 20.0 +1.4
**LBTB Lobatse** 134.99 205 *e*PKPdf **PKPdf** 05 07 18.1 -0.5
**NB2 NORSAR Subarra** 134.99 357 PKP PKPpre 05 07 05.8
comp=Z,45nm,1.1s,baz=11,slow=4.0
**NB2 NORSAR Subarra** 134.99 357 PKP PKPpre 05 07 05.8
baz=11,slow=4.0
**NOA NORSAR Array B** 134.99 357 PKhKP PKPpre 05 07 05.4
comp=Z,1.4nm,0.7s,baz=23,slow=4.3,SNR=4.4
NOA PKP **PKPdf** 05 07 18.3 +0.9
comp=Z,14nm,0.9s,baz=14,slow=4.0,SNR=13
NOA PP **PP** 05 09 56.1 +4.0
comp=Z,2.3nm,0.8s,baz=0.2,slow=6.2,SNR=3.7
**VRH Novokhopyorsk** 134.99 329 *e*PKIKP **PKPdf** 05 07 17.5 -0.1
VRH pmax pmax
comp=Z,50nm,1.0s
**NBO02 NORSAR Array S** 135.00 357 *e*PKPdf **PKPdf** 05 07 18.3 +0.9
**NBO00 NORSAR Array S** 135.03 357 *e*PKPdf **PKPdf** 05 07 18.6 +1.2
**NC602 NORSAR Array S** 135.28 356 *e*PKPdf **PKPdf** 05 07 19.3 +1.4
**LPSR Galich'ya Gora** 135.41 332 *e*PKIKP **PKPdf** 05 07 18.3 0.0
LPSR pmax pmax
comp=Z,30nm,1.0s
**VSR Storozhevoye** 136.22 330 *e*PKIKP **PKPdf** 05 07 19.1 -0.8
VSR pmax pmax
comp=Z,50nm,1.4s
**KONO Kongsberg** 136.46 358 *e*PKIKP **PKPdf** 05 07 20.3 +0.2
**KONO Kongsberg** 136.46 358 *e*PKPdf **PKPdf** 05 07 20.3 +0.2
**GROC Groznyy** 136.91 317 *i* PKIKP **PKPdf** 05 07 22.1 +0.7
GROC *i* 05 10 01.4
GROC pmax pmax
comp=Z,62nm,1.4s
**NCK Nalchik** 138.20 319 *i* PKIKP **PKPdf** 05 07 26.1 +2.2
**ZEI Tsey** 138.34 317 *i* PKIKP PKPpre 05 07 19.4
ZEI pmax pmax
comp=Z,44nm,1.2s
**KBZ Khabaz** 138.53 319 PKhKP PKPpre 05 07 17.9
comp=Z,2.1nm,0.8s,baz=138,slow=2.2,SNR=6.0
KBZ PP **PP** 05 10 15.7 +0.6
comp=Z,8.8nm,0.9s,baz=34,slow=6.3,SNR=6.2
**KIV Kislovodsk** 138.54 320 *i* PKIKP **PKPdf** 05 07 25.3 +0.7
KIV *e* 05 10 13.1
KIV *e*SS SS 05 28 23.9 -0.2
KIV pmax pmax
comp=Z,17nm,1.0s
KIV MLR MLR
comp=Z,656nm,22.0s
**NEY Neytrino** 138.87 319 *i* PKIKP **PKPdf** 05 07 24.0 -1.3
**GNI Garni** 138.94 313 *i* PKIKP **PKPdf** 05 07 25.1 -0.4
**GNI Garni** 138.94 313 *e*PKPdf **PKPdf** 05 07 25.6 +0.1
**EAK Akyaka** 139.49 315 *i* P **PKPdf** 05 07 25.9 -0.6
**CLDR Caldiran** 139.93 312 *i* P **PKPdf** 05 07 27.0 -0.4
**SUW Suwalki** 139.94 345 *e*PKP PKPpre 05 07 15.2
**SUW Suwalki** 139.94 345 *e*PKHKP PKPpre 05 07 15.2
**ARTV Artvin** 140.39 316 *i* P **PKPdf** 05 07 28.0 -0.2
**ARTV Artvin** 140.39 316 *e*PKPdf **PKPdf** 05 07 25.6 -2.6
**SOC Sochi** 140.56 321 *i* PKIKP **PKPdf** 05 07 30.3 +2.2
SOC *e*PPP PPP 05 13 40.8
**AKASG Malin Array Be** 140.87 337 PKhKP PKPpre 05 07 22.1
comp=Z,17nm,0.8s,baz=39,slow=4.1,SNR=47
AKASG PKP **PKPdf** 05 07 27.3 -1.1
comp=Z,19nm,0.8s,baz=40,slow=3.9,SNR=16
AKASG PP **PP** 05 10 26.1 -2.8
comp=Z,3.0nm,0.6s,baz=34,slow=7.4,SNR=8.1
AKASG SKP 05 10 59.8
comp=Z,7.3nm,1.0s,baz=34,slow=3.5,SNR=5.6
**AKASG Malin Array Be** 140.87 337 PKIKP **PKPdf** 05 07 27.3 -1.1
AKASG 05 10 26.1
AKASG pmax pmax
comp=Z,9.0nm,0.6s
AKASG pmax pmax
comp=Z,3.0nm,0.6s
AKASG pmax pmax
comp=N,7.0nm,1.0s
**AKBB Malin Array Si** 140.87 337 *e*PKHKP PKPpre 05 07 21.9
**AKBB Malin Array Si** 140.87 337 *e*PKPpre PKPpre 05 07 21.3
**KIEV Kiev** 140.88 337 *e*PKHKP PKPpre 05 07 21.3
**KIEV Kiev** 140.88 337 *e*PKPpre PKPpre 05 07 21.3
**AK11 Malin Array Si** 140.91 337 *e*PKPpre PKPpre 05 07 21.8
**SRTM Siirt_Merkez** 141.83 312 *i* P **PKPdf** **05 07 28.8 -2.0**
**KOPT Kop Dagi** 141.91 316 *i* P **PKPdf** **05 07 35.9 +4.9**
**KOPT Kop Dagi** 141.91 316 *e*PKPdf **PKPdf** **05 07 29.3 -1.7**
**GKP Gorka Klasztor** 141.94 349 *e*PKP PKPpre 05 07 12.9
**GKP Gorka Klasztor** 141.94 349 *e*PKHKP PKPpre 05 07 12.9
**LSZ Lusaka** 142.04 216 *e*PKHKP PKPpre 05 07 27.7
**LSZ Lusaka** 142.04 216 *e*PKPpre PKPpre 05 07 27.7
**BTMN Batman** 142.34 312 *i* P **PKPdf** **05 07 29.0 -2.6**
**RAYN Ar Rayn** 142.46 288 *e*PKPpre PKPpre 05 07 29.0
**BEL Belsk** 142.53 345 *e*PKP PKPpre 05 07 28.0
**BEL Belsk** 142.53 345 *e*PKIKP PKPpre 05 07 28.0
**FOEL Foel Wylfa** 142.55 9 *e*P PKPpre 05 07 27.3
**KELT Kelkit** 142.67 317 *i* P PKPpre 05 07 26.9
**SIM Simferopol'** 142.92 327 *e*PKIKP **PKPdf** **05 07 31.4 -0.9**
SIM pmax pmax
comp=Z,41nm,0.8s
**MARD Mardin** 142.94 311 *e*PKPpre PKPpre 05 07 29.7
**HLM1 Long Mynd** 142.96 9 *e*P PKPpre 05 07 29.1
**CWF Charnwood Fore** 142.97 8 *e*P PKPpre 05 07 28.2
**CWF Charnwood Fore** 142.97 8 *e*PKPpre PKPpre 05 07 29.4
**TNCL Tunceli-Merkez** 142.99 315 *i* P PKPpre 05 07 28.9
**ORDU Ordu-Boztepe** 143.14 319 *i* P PKPbc 05 07 29.7 -0.2
**DIYA Diyarbakir** 143.15 313 *i* P PKPab 05 07 28.9 +0.2
**DAMY Dhamar** 143.24 273 *e*PKPdf PKPbc 05 07 32.2 +1.0
**SORM Soroca** 143.27 335 ⇑*i*P PKPbc 05 07 29.7 -0.2
**SORM Soroca** 143.27 335 ⇑*i*PKIKP PKPbc 05 07 29.7 -0.2
**SUSE Susehri** 143.33 317 *i* P PKPbc 05 07 30.4 -0.2
**REFA Refahiye_ERZ** 143.38 316 *i* P PKPab 05 07 29.8 +0.2
**LVV L'vov** 143.43 341 *e*PKHKP PKPab 05 07 28.6 -0.7
**MCH1 Michaelchurch** 143.44 10 *e*P PKPbc 05 07 30.3 0.0
**KEMA Kemaliye** 143.62 316 *i* P PKPab 05 07 28.8 -1.7
**MONM Monmouth** 143.63 10 *e*P PKPbc 05 07 30.7 -0.1
**SSW Stow on the Wo** 143.65 8 *e*P PKPbc 05 07 31.0 +0.1
**CUZAR Zara_SIVAS** 143.78 317 *i* P PKPab 05 07 30.6 -0.6
**STRD Stroud** 143.79 9 *e*P PKPab 05 07 30.4 -0.2
**KWP Kalwaria Pacla** 144.00 342 *e*PKP PKPbc 05 07 32.8 +0.7
**KWP Kalwaria Pacla** 144.00 342 *e*PKIKP PKPbc 05 07 32.8 +0.7
**ERBA Erbaa** 144.01 319 *i* P PKPab 05 07 29.6 -2.3
**MILM Milestii Mici** 144.04 333 ⇑*i*P PKPbc 05 07 32.2 0.0
**SWN1 Swindon** 144.10 9 *e*P PKPbc 05 07 33.1 +0.9
**SINO SINOP_Merkez** 144.18 322 *i* P **PKPab** **05 07 32.6 +0.2**
**HEKM Malatya_Hekimh** 144.18 316 *i* P **PKPab** **05 07 31.4 -1.4**
**SCER sogukcermik** 144.22 318 *i* P PKPbc 05 07 33.4 +0.1
**WTSB Winterswijk** 144.23 359 *e*PKPdf **PKPab** **05 07 31.0 -1.3**
comp=Z,567nm,1.9s
**ATD Arta Tunnel** 144.23 267 *e*PKPdf **PKPdf** **05 07 35.5 0.0**
**OJC Ojcow** 144.26 345 *e*PKP **PKPab** **05 07 30.6 -1.9**
**OJC Ojcow** 144.26 345 *e*PKHKP **PKPab** **05 07 30.6 -1.9**
**OJC Ojcow** 144.26 345 *e*PKPdf PKPbc 05 07 33.5 +0.6
**CUKAN kangal_SIVAS** 144.28 317 *i* P PKPbc 05 07 33.5 0.0
**WOL Wolverton** 144.37 8 *e*P PKPbc 05 07 33.2 +0.1
**TOKA Tokat** 144.38 319 *i* P **PKPab** **05 07 31.9 -1.4**
**TOKA Tokat** 144.38 319 *e*PKPdf **PKPdf** **05 07 34.8 -0.3**
**HAVZ Havza** 144.43 320 *i* P **PKPab** **05 07 33.6 +0.2**
**KSP Ksiaz** 144.43 349 *e*PKP **PKPab** **05 07 33.1 0.0**
**KSP Ksiaz** 144.43 349 *e*PKIKP **PKPab** **05 07 33.1 0.0**
**CLL Collm** 144.48 353 *e*PKIKP **PKPab** **05 07 33.4 +0.2**
**CLL Collm** 144.48 353 *e*PKPdf PKPbc 05 07 34.0 +0.5
comp=Z,74nm,1.0s
CLL *e*PP **PP** **05 10 49.0 -1.3**
CLL *e*PPS PPS 05 23 24.0
CLL *e*(SS) 05 30 18.0
CLL L L 06 05 00.0
comp=Z,600nm,19.9s
**CLL Collm** 144.48 353 *e*PKPdf PKPbc 05 07 33.7 +0.2
**PSET Sete Cidades** 144.48 46 *e*PKPdf **PKPdf** **05 07 34.9 -0.4**
**AKCD Akcadag** 144.50 315 *i* P **PKPab** **05 07 33.7 -0.2**
**PDA Ponta Delgada** 144.56 46 *e*PKPdf PKPbc 05 07 34.8 +0.6
**STHS Stebnicka Huta** 144.62 343 *e*PKIKP **PKPdf** **05 07 35.0 -0.2**
**STHS Stebnicka Huta** 144.62 343 *e*PKP **PKPdf** **05 07 35.0 -0.2**
STHS *e*PP PP 05 10 41.0 -10
**ATAB Bozova** 144.64 313 *i* P PKPbc 05 07 34.7 +0.2
**GRON Grota Negra** 144.64 46 *e*PKPdf **PKPdf** **05 07 36.5 +0.9**
**CMLA Cha da Macela** 144.65 46 *e*PKIKP **PKPdf** **05 07 37.1 +1.5**
**CMLA Cha da Macela** 144.65 46 *e*PKPdf **PKPdf** **05 07 35.8 +0.2**
**CMLA Cha da Macela** 144.65 46 *e*PKPdf **PKPdf** **05 07 36.6 +1.1**
**PCALD Caldeiras da R** 144.66 46 *e*PKPdf **PKPdf** **05 07 35.7 +0.1**
**SURC SANLIURFA_SURC** 144.69 312 *i* P **PKPab** **05 07 33.5 -1.1**
**CUGUR Gurin_S˙VAS** 144.72 316 *i* P PKPbc 05 07 35.2 +0.3
**PRAR RASCA** 144.74 336 ⇑*i*P **PKPab** **05 07 34.2 -0.1**
**CUALT Altinyayla-SIV** 144.77 317 *i* P **PKPdf** **05 07 35.7 -0.2**
**BRG Berggiesshubel** 144.78 352 *i* PKP PKPbc 05 07 34.8 +0.4
comp=Z,228nm,1.6s
BRG *e* 05 08 08.6
comp=Z,80nm,1.8s
BRG *e* 05 10 59.1
comp=Z,24nm,1.1s
comp=N,1µm,24.4s
comp=E,1µm,27.2s
comp=Z,1µm,18.4s
**BRG Berggiesshubel** 144.78 352 *i* PKIKP PKPbc 05 07 34.8 +0.4
BRG *e* 05 10 59.1
BRG pmax pmax
comp=Z,228nm,1.6s
BRG pmax pmax
comp=Z,80nm,1.8s
BRG pmax pmax
comp=Z,25nm,1.1s
BRG MLR MLR
comp=N,1µm,24.4s
BRG MLR MLR
comp=E,1µm,27.2s
BRG MLR MLR
comp=Z,1µm,18.4s
**DYA Yadsworthy** 144.78 11 *e*PKPbc **PKPab** **05 07 33.9 -0.5**
**UPC Upice** 144.80 349 *e*PKP **PKPab** **05 07 34.5 0.0**
UPC *e*pPKP **sPKPdf** **05 08 01.6 -0.3**
**UPC Upice** 144.80 349 *e*PKIKP **PKPab** **05 07 34.5 0.0**
**NIE Niedzica** 144.87 344 *e*PKP **PKPdf** **05 07 35.5 -0.1**
**NIE Niedzica** 144.87 344 *e*PKIKP **PKPdf** **05 07 35.5 -0.1**
**BUR08 Bucovina Ar. S** 144.89 338 *e*PKPbc **PKPdf** **05 07 35.7 -0.1**
**BART Pico Bartolome** 144.89 46 *e*PKPdf PKPbc 05 07 35.8 +0.5
**DPC Dobruska-Polom** 144.90 349 *e*PKP **PKPab** **05 07 34.5 -0.4**
DPC *e*pPKP **sPKPdf** **05 08 01.7 -0.4**
**DPC Dobruska-Polom** 144.90 349 *e*PKIKP **PKPab** **05 07 34.5 -0.4**
**BUR04 Bucovina Ar. S** 144.91 338 *e*PKPbc **PKPdf** **05 07 35.9 0.0**
**BURAR Bucovina Array** 144.91 338 ||*i*P **PKPab** **05 07 35.2 +0.1**
**BURAR Bucovina Array** 144.91 338 ||PKIKP **PKPab** **05 07 35.2 +0.1**
**KMBO Kilima Mbogo** 144.94 244 PKP **PKPdf** **05 07 37.7 +0.6**
comp=Z,174nm,1.0s,baz=103,slow=3.8,SNR=226
**KMBO Kilima Mbogo** 144.94 244 *e*PKPbc **PKPdf** **05 07 37.4 +0.3**
**HMNX Herstmonceux** 145.00 7 *e*P **PKPdf** **05 07 36.1 +0.5**
**OKC Ostrava-Krasne** 145.01 347 *e*PKP **PKPab** **05 07 35.1 -0.1**
OKC *e*pPKP **sPKPdf** **05 08 01.5 -0.7**
**OKC Ostrava-Krasne** 145.01 347 *e*PKIKP **PKPab** **05 07 35.1 -0.1**
**UZH Uzhgorod** 145.01 341 *e*PKIKP PKPbc 05 07 33.6 -1.6
UZH *e* 05 07 44.6
**ELBS KAHRAMANMARAS** 145.02 315 *i* P PKPbc 05 07 35.1 -0.7
**CRVS Cervenica-Dubn** 145.02 342 *e*PKIKP **PKPab** **05 07 35.6 +0.3**
**CRVS Cervenica-Dubn** 145.02 342 *e*PKP **PKPab** **05 07 35.6 +0.3**
**PVCC Panska Ves** 145.02 351 *e*PKP **PKPdf** **05 07 35.7 -0.1**
**PVCC Panska Ves** 145.02 351 *e*PKIKP **PKPdf** **05 07 35.7 -0.1**
**CUSAR Sarkisla-SIVAS** 145.03 318 *i* P PKPbc 05 07 35.7 -0.1
**KRLC Kraliky** 145.07 348 *e*PKP **PKPab** **05 07 35.7 +0.2**
**KRLC Kraliky** 145.07 348 *e*PKIKP **PKPab** **05 07 35.7 +0.2**
**MORC Moravsky Berou** 145.20 347 ||*i*P **PKPbc** **05 07 35.7 -0.2**
**MORC Moravsky Berou** 145.20 347 *e*PKIKP **PKPdf** **05 07 36.8 +0.6**
**MORC Moravsky Berou** 145.20 347 *e*PKPbc **PKPdf** **05 07 36.8 +0.6**
**TESR Tescani** 145.26 335 ||*i*P **PKPbc** **05 07 33.8 -2.4**
**PSMA Santa Maria** 145.29 47 *e

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PSMN | Pico do Norte, | 145.34 | 47 | ePKPdf | PKPab | 05 07 37.3 | +0.4 | | |
| COAL | Corum-Alaca | 145.36 | 320 | *i* P | PKPbc | 05 07 35.7 | -1.1 | | |
| UCC | Uccle | 145.37 | 2 | PKP | PKPab | 05 07 37.1 | +0.6 | | |
| TLCR | | 145.37 | 332 | ⇓*i*P | PKPdf | 05 07 36.7 | +0.2 | | |
| TLCR | | 145.37 | 332 | ⇓PKIKP | PKPdf | 05 07 36.7 | +0.2 | | |
| BEBN | Eben Emael | 145.40 | 1 | PKP | PKPbc | 05 07 36.2 | -0.2 | | |
| BEBN | | | | APKP | sPKPdf | 05 08 00.8 | -2.0 | | |
| HGN | Heimansgroeve | 145.43 | 0 | ePKPdf | PKPbc | 05 07 36.3 | -0.2 | | |
| | comp=Z,2µm,1.9s | | | | | | | | |
| HGN | | | | *ep*PKPdf | sPKPdf | 05 08 01.9 | -1.0 | | |
| BMR | Baia Mare | 145.47 | 339 | ⇓*i*P | PKPdf | 05 07 35.2 | -1.4 | | |
| BMR | Baia Mare | 145.47 | 339 | ⇓PKP2 | PKPdf | 05 07 35.2 | -1.4 | | |
| PRU | Pruhonice | 145.55 | 351 | ePKP | PKPdf | 05 07 36.6 | -0.1 | | |
| PRU | | | | *ep*PKP | sPKPab | 05 08 03.4 | +0.1 | | |
| PRU | Pruhonice | 145.55 | 351 | ePKIKP | PKPdf | 05 07 36.6 | -0.1 | | |
| GOPC | GO Pecny, Ondr | 145.59 | 350 | ePKP | PKPab | 05 07 37.6 | +0.2 | | |
| GOPC | | | | *ep*PKP | sPKPab | 05 08 03.5 | 0.0 | | |
| GOPC | GO Pecny, Ondr | 145.59 | 350 | ePKIKP | PKPab | 05 07 37.6 | +0.2 | | |
| MEM | Membach | 145.59 | 0 | PKP | PKPbc | 05 07 37.1 | +0.1 | | |
| MEM | | | | APKP | sPKPab | 05 08 03.1 | -0.3 | | |
| NKC | Novy Kostel | 145.60 | 353 | ePKP | PKPdf | 05 07 37.0 | +0.2 | | |
| NKC | Novy Kostel | 145.60 | 353 | ePKIKP | PKPdf | 05 07 37.0 | +0.2 | | |
| ILGA | Ilgaz | 145.65 | 322 | ePKPdf | PKPab | 05 07 39.5 | +1.3 | | |
| SNF | Seneffe | 145.65 | 2 | PKP | PKPab | 05 07 38.4 | +0.9 | | |
| SNF | | | | APKP | sPKPab | 05 08 03.7 | 0.0 | | |
| PETR | Petresti | 145.65 | 334 | ⇓*i*P | PKPab | 05 07 37.9 | +0.2 | | |
| ARCR | ARCALIA | 145.67 | 338 | ⇓*i*P | PKPbc | 05 07 37.4 | 0.0 | | |
| KECS | Kecovo | 145.68 | 343 | ePKP2 | PKPab | 05 07 38.5 | +0.7 | | |
| KECS | Kecovo | 145.68 | 343 | ePKP | PKPab | 05 07 38.5 | +0.7 | | |
| CFR | Carcaliu | 145.68 | 332 | ⇓*i*P | PKPdf | 05 07 36.8 | -0.3 | | |
| CFR | Carcaliu | 145.68 | 332 | ⇓PKP2 | PKPdf | 05 07 36.8 | -0.3 | | |
| ODBI | Odobesti | 145.70 | 334 | ⇓*i*P | PKPab | 05 07 38.7 | +0.8 | | |
| VRI | Vrincioaia | 145.75 | 334 | ⇑*i*P | PKPdf | 05 07 37.6 | +0.4 | | |
| VRI | Vrincioaia | 145.75 | 334 | ⇑PKP2 | PKPdf | 05 07 37.6 | +0.4 | | |
| BCLA | Clavier | 145.77 | 1 | PKP | PKPab | 05 07 38.4 | +0.4 | | |
| BCLA | | | | APKP | sPKPab | 05 08 03.6 | -0.5 | | |
| PLOR | Plostina | 145.80 | 334 | ⇓*i*P | PKPdf | 05 07 37.3 | 0.0 | | |
| PLOR | Plostina | 145.80 | 334 | ⇓PKP2 | PKPdf | 05 07 37.3 | 0.0 | | |
| KUZU | Kuzuini | 145.83 | 313 | *i* P | PKPdf | 05 07 36.8 | -0.9 | | |
| VRAC | Vranov | 145.84 | 348 | ⇓*i*P | PKPbc | 05 07 37.9 | 0.0 | | |
| VRAC | Vranov | 145.84 | 348 | ⇓PKP2 | PKPbc | 05 07 37.9 | 0.0 | | |
| SAIM | ADANA | 145.91 | 316 | *i* P | PKPdf | 05 07 37.0 | -0.8 | | |
| ANDN | Andirin | 145.93 | 315 | *i* P | PKPdf | 05 07 37.2 | -0.7 | | |
| GRER | | 146.03 | 334 | ⇑*i*P | PKPab | 05 07 40.6 | +1.4 | | |
| DOU | Dourbes | 146.08 | 2 | PKP | PKPab | 05 07 39.1 | -0.1 | | |
| DOU | | | | APKP | sPKPab | 05 08 03.7 | -1.6 | | |
| VYHS | Vyhne | 146.10 | 345 | ePKP2 | PKPbc | 05 07 39.0 | +0.3 | | |
| VYHS | | | | *e* | | 05 11 01.9 | | | |
| VYHS | Vyhne | 146.10 | 345 | ePKP | PKPbc | 05 07 39.0 | +0.3 | | |
| VYHS | | | | *ep*PP | PP | 05 11 01.9 | +1.8 | | |
| CDAG | Cicekdag | 146.11 | 319 | *i* P | PKPdf | 05 07 37.9 | -0.2 | | |
| TIRR | Tirgusor | 146.11 | 331 | ⇑*i*P | PKPdf | 05 07 36.4 | -1.4 | | |
| TIRR | Tirgusor | 146.11 | 331 | ⇑PKIKP | PKPdf | 05 07 36.4 | -1.4 | | |
| TIRR | Tirgusor | 146.11 | 331 | ePKPdf | PKPab | 05 07 39.9 | +0.4 | | |
| BTIN | Bart¯–n | 146.13 | 324 | *i* P | PKPdf | 05 07 36.1 | -1.8 | | |
| ELDT | Eldivan | 146.17 | 321 | *i* P | PKPdf | 05 07 38.3 | 0.0 | | |
| DOPR | Dopca | 146.21 | 336 | ⇑*i*P | PKPab | 05 07 39.7 | -0.2 | | |
| CJR | Cluj-Napoca | 146.26 | 338 | ⇑*i*P | PKPbc | 05 07 39.8 | +0.5 | | |
| CJR | Cluj-Napoca | 146.26 | 338 | ⇑PKP2 | PKPab | 05 07 39.9 | -0.2 | | |
| GRFO | Grafenberg | 146.27 | 354 | ePKP2 | PKPab | 05 07 40.9 | +0.9 | | |
| GRFO | Grafenberg | 146.27 | 354 | ePKPdf | PKPab | 05 07 40.9 | +0.9 | | |
| AVNS | Nevsehir-Avano | 146.27 | 318 | *i* P | PKPdf | 05 07 39.0 | +0.5 | | |
| JRS | Jersey | 146.31 | 10 | *e*P | PKPbc | 05 07 39.6 | +0.4 | | |
| JQE | Queens East | 146.31 | 10 | *e*P | PKPab | 05 07 40.2 | +0.1 | | |
| YAHY | KAYSERI_Yahyal | 146.33 | 316 | *i* P | PKPbc | 05 07 39.4 | 0.0 | | |
| PSZ | Piszkesteto | 146.35 | 343 | ⇓*i*P | PKPbc | 05 07 39.9 | +0.4 | | |
| PSZ | Piszkesteto | 146.35 | 343 | ⇓PKP2 | PKPbc | 05 07 39.9 | +0.4 | | |
| PSZ | Piszkesteto | 146.35 | 343 | ⇓*ep*PKPdf | PKPbc | 05 07 40.0 | +0.4 | | |
| PSZ | Piszkesteto | 146.35 | 343 | ePKPdf | PKPbc | 05 07 39.9 | +0.4 | | |
| MLR | Muntele Rosu | 146.38 | 335 | ⇑*i*P | PKPdf | 05 07 38.9 | +0.4 | | |
| MLR | Muntele Rosu | 146.38 | 335 | ⇑PKP2 | PKPdf | 05 07 38.9 | +0.4 | | |
| MLR | Muntele Rosu | 146.38 | 335 | ePKPdf | PKPbc | 05 07 39.6 | -0.1 | | |
| SMOL | Smolenice | 146.41 | 347 | ePKP2 | PKPab | 05 07 41.2 | +0.6 | | |
| SMOL | Smolenice | 146.41 | 347 | ePKP | PKPab | 05 07 41.2 | +0.6 | | |
| ISR | Istrita | 146.43 | 334 | ⇑*i*P | PKPbc | 05 07 39.9 | +0.1 | | |
| ISR | Istrita | 146.43 | 334 | ⇑PKP2 | PKPbc | 05 07 39.9 | +0.1 | | |
| AMRR | Amara | 146.48 | 332 | ⇓*i*P | PKPab | 05 07 56.8 | +16 | | |
| AMRR | Amara | 146.48 | 332 | ⇓PKP2 | PKPab | 05 07 56.8 | +16 | | |
| DRGR | | 146.50 | 339 | ⇑*i*P | PKPbc | 05 07 39.6 | -0.4 | | |
| DRGR | | 146.50 | 339 | ⇑PKP2 | PKPbc | 05 07 39.6 | -0.4 | | |
| BR131 | Keskin Array S | 146.50 | 320 | ePKPbc | PKPbc | 05 07 41.0 | +0.6 | | |
| BRTR | Keskin Array B | 146.50 | 320 | PKPbc | PKPab | 05 07 41.4 | 0.0 | | |
| | comp=Z,198nm,0.9s,baz=139,slow=2.6,SNR=352 | | | | | | | | |
| MANR | Mangalia | 146.51 | 330 | ⇓*i*P | PKPbc | 05 07 40.1 | +0.1 | | |
| KHC | Kasperske Hory | 146.53 | 351 | ePKP | PKPdf | 05 07 39.4 | +0.9 | | |
| KHC | | | | *ex* | x | 05 07 52.5 | | | |
| KHC | | | | *ep*PKP | sPKPab | 05 08 06.8 | -0.4 | | |
| KHC | Kasperske Hory | 146.53 | 351 | ePKP2 | PKPdf | 05 07 39.4 | +0.9 | | |
| KHC | Kasperske Hory | 146.53 | 351 | ePKPbc | PKPab | 05 07 41.1 | +0.1 | | |
| WLF | Walferdange | 146.53 | 0 | PKP | PKPab | 05 07 41.3 | +0.4 | | |
| WLF | | | | APKP | sPKPbc | 05 08 04.2 | -2.0 | | |
| WLF | Walferdange | 146.53 | 0 | ePKP2 | PKPab | 05 07 41.6 | +0.6 | | |
| WLF | Walferdange | 146.53 | 0 | ePKPbc | PKPab | 05 07 41.6 | +0.6 | | |
| SECR | | 146.70 | 334 | ⇑*i*P | PKPab | 05 07 41.3 | -0.5 | | |
| CMDR | Camlidere-ANKA | 146.73 | 322 | *i* P | PKPdf | 05 07 39.5 | +0.3 | | |
| BCAM | Yenicaga | 146.77 | 323 | *i* P | PKPdf | 05 07 39.8 | +0.6 | | |
| VOIR | | 146.78 | 336 | ⇑*i*P | PKPdf | 05 07 39.9 | +0.8 | | |
| VOIR | | 146.78 | 336 | ⇑PKP2 | PKPdf | 05 07 39.9 | +0.8 | | |
| ZST | Bratislava | 146.79 | 347 | ePKP2 | PKPbc | 05 07 41.0 | +0.3 | | |
| ZST | Bratislava | 146.79 | 347 | ePKP | PKPbc | 05 07 40.9 | +0.3 | | |
| GEC2 | GERESS Array S | 146.79 | 351 | ePKP2 | PKPbc | 05 07 40.7 | -0.1 | | |
| GEC2 | GERESS Array S | 146.79 | 351 | ePKPdf | PKPbc | 05 07 40.7 | -0.1 | | |
| GERES | GERESS Array B | 146.79 | 351 | PKPbc | PKPbc | 05 07 41.1 | +0.2 | | |
| | comp=Z,64nm,0.8s,baz=29,slow=2.9,SNR=156 | | | | | | | | |
| GERES | | | | PP | PP | 05 11 00.8 | -3.4 | | |
| | comp=Z,2.4nm,1.0s,baz=10,slow=6.2,SNR=4.0 | | | | | | | | |
| GEA0 | GERESS Array S | 146.80 | 351 | ePKPbc | PKPbc | 05 07 41.6 | +0.8 | | |
| PSN | Preselentsi | 146.81 | 330 | *e*P | PKPab | 05 07 42.0 | -0.2 | | |
| SULR | | 146.90 | 333 | ⇑*i*P | PKPbc | 05 07 41.8 | +0.7 | | |
| BBAL | Bala | 146.93 | 320 | *i* P | PKPdf | 05 07 40.6 | +1.0 | | |
| ANTO | Ankara | 146.94 | 321 | ePKP2 | PKPdf | 05 07 40.2 | +0.7 | | |
| ANTO | Ankara | 146.94 | 321 | ePKPdf | PKPdf | 05 07 40.0 | +0.5 | | |
| ANTO | | | | *ep*PKPbc | PKPbc | 05 07 42.7 | -0.3 | | |
| BR231 | Keskin MP Arra | 146.96 | 321 | ePKPbc | PKPbc | 05 07 41.9 | +0.3 | | |
| BUD | Budapest | 146.99 | 344 | ⇓*ep*PKPdf | PKPbc | 05 07 41.6 | +0.3 | | |
| ARR | Arges | 147.01 | 336 | ⇓*i*P | PKPbc | 05 07 42.3 | +0.8 | | |
| AKSY | AKSARAY - Alti | 147.06 | 318 | *i* P | PKPdf | 05 07 40.0 | +0.2 | | |
| LANF | Langenberg | 147.20 | 358 | PKP | PKPab | 05 07 43.5 | -0.1 | | |
| DEV | Deva | 147.22 | 338 | ⇓*i*P | PKPbc | 05 07 41.8 | -0.2 | | |
| DEV | Deva | 147.22 | 338 | ⇓PKP2 | PKPbc | 05 07 41.8 | -0.2 | | |
| LOT | Lotru | 147.27 | 337 | ⇑*i*P | PKPbc | 05 07 41.3 | -1.0 | | |
| KKUL | Konya-Kulu | 147.28 | 320 | *i* P | PKPbc | 05 07 41.5 | -1.0 | | |
| CSKK | Cs¯‡kako | 147.30 | 345 | ⇓*ep*PKPdf | PKPdf | 05 07 40.7 | +0.9 | | |
| CONA | Conrad Observa | 147.30 | 348 | ePKPbc | PKPdf | 05 07 40.5 | +0.6 | | |
| | comp=Z,39nm,1.3s,SNR=91 | | | | | | | | |
| CONA | | | | *i* PKiKP | PKPab | 05 07 43.9 | -0.3 | | |
| | comp=Z,146nm,0.8s | | | | | | | | |
| SIRR | Siria | 147.31 | 340 | ⇑*i*P | PKPdf | 05 07 40.7 | +0.9 | | |
| STU | Stuttgart | 147.34 | 356 | ePKIKP | PKPdf | 05 07 40.8 | +1.0 | | |
| STU | Stuttgart | 147.34 | 356 | ePKPdf | PKPdf | 05 07 40.3 | +0.5 | | |
| STU | | | | *ep*PKPbc | PKPab | 05 07 43.4 | -0.8 | | |
| SOP | Sopron | 147.39 | 347 | ⇓*ep*PKPdf | PKPbc | 05 07 42.9 | +0.5 | | |
| SAHE | Sakarya_HENDEK | 147.44 | 324 | *i* P | PKPdf | 05 07 41.0 | +0.7 | | |
| KERG | Konya-Eregli | 147.52 | 316 | *i* P | PKPdf | 05 07 40.3 | -0.4 | | |
| BTAS | Taskesti | 147.54 | 324 | *i* P | PKPdf | 05 07 40.6 | +0.1 | | |
| HUMR | Humele | 147.56 | 335 | ⇓*i*P | PKPdf | 05 07 39.0 | -1.3 | | |
| STR | Strasbourg | 147.59 | 358 | PKP | PKPab | 05 07 44.9 | -0.2 | | |
| FURI | Furi | 147.60 | 261 | ePKPbc | PKPab | 05 07 46.7 | 0.0 | | |
| MOA | Molln | 147.67 | 350 | *i* PKPbc | PKPdf | 05 07 40.8 | +0.4 | | |
| | comp=Z,18nm,1.6s | | | | | | | | |
| MOA | | | | *i* PKPab | PKPbc | 05 07 44.4 | +1.1 | | |
| | comp=Z,79nm,0.7s,SNR=22 | | | | | | | | |
| HWQ | Hawqa | 147.80 | 310 | *e*P | PKPbc | 05 07 44.7 | +0.6 | | |
| BFO | Black Forest | 147.83 | 357 | ePKIKP | PKPdf | 05 07 41.3 | +0.6 | | |
| BFO | | | | *e* | | 05 07 44.8 | | | |
| BFO | Black Forest | 147.83 | 357 | ePKPdf | PKPdf | 05 07 41.3 | +0.6 | | |
| BFO | | | | *ep*PKPbc | PKiKP | 05 07 44.8 | -0.8 | | |
| BZS | Buzias | 147.89 | 340 | ⇓*i*P | PKPbc | 05 07 43.7 | -0.1 | | |
| BZS | Buzias | 147.89 | 340 | ⇓PKP2 | PKPbc | 05 07 43.7 | -0.1 | | |
| TIM | Timisoara | 147.92 | 340 | ⇓*i*P | PKPbc | 05 07 43.6 | -0.3 | | |
| TIM | Timisoara | 147.92 | 340 | ⇓PKP2 | PKPbc | 05 07 43.6 | -0.3 | | |
| THEF | They Montfort | 147.97 | 0 | PKP | PKPbc | 05 07 45.4 | +1.4 | | |
| ECH | Echery | 147.98 | 359 | PKP | PKPbc | 05 07 45.0 | +1.0 | | |
| ECH | Echery | 147.98 | 359 | ePKIKP | PKPdf | 05 07 42.1 | +1.2 | | |
| ECH | Echery | 147.98 | 359 | ePKPbc | PKPbc | 05 07 44.8 | +0.7 | | |
| GEYV | SAKARYA_Geyve | 148.00 | 324 | *i* P | PKPbc | 05 07 43.0 | -1.3 | | |
| KIZK | Mersin | 148.01 | 315 | *i* P | PKPdf | 05 07 42.2 | +0.9 | | |
| ARSA | Arzberg | 148.02 | 348 | *i* PKPdf | PKPdf | 05 07 41.2 | +0.2 | | |
| | comp=Z,26nm,1.6s,SNR=33 | | | | | | | | |
| ARSA | | | | *i* PKiKP | PKPbc | 05 07 45.2 | +1.0 | | |
| | comp=Z,105nm,1.1s | | | | | | | | |
| ZIMR | | 148.10 | 333 | ⇓*i*P | PKPbc | 05 07 45.5 | +1.1 | | |
| ZIMR | | 148.10 | 333 | ⇓PKP2 | PKPbc | 05 07 45.6 | +1.1 | | |
| SRE | Strehaia | 148.15 | 337 | ⇓*i*P | PKPbc | 05 07 43.7 | -0.9 | | |
| SRE | Strehaia | 148.15 | 337 | ⇓PKP2 | PKPbc | 05 07 43.7 | -0.9 | | |
| SZH | Strazhica | 148.16 | 332 | *e*P | PKPbc | 05 07 44.3 | -0.3 | | |
| KDHN | Kadinhani | 148.18 | 320 | *i* P | PKPdf | 05 07 43.0 | +1.3 | | |
| BHL | Bhannes | 148.19 | 309 | *e*P | PKPbc | 05 07 45.0 | -0.1 | | |
| RCY | Rachaya | 148.23 | 308 | *e*P | PKPbc | 05 07 46.2 | +0.9 | | |
| BANR | Banloc | 148.26 | 340 | ⇑*i*P | PKPbc | 05 07 44.8 | 0.0 | | |
| ESKT | Eskisehir | 148.32 | 322 | *i* P | PKPbc | 05 07 44.0 | -1.3 | | |
| DQRL | Deir Qamar | 148.34 | 309 | *e*P | PKPbc | 05 07 46.5 | +1.0 | | |
| MOF | Molkenrain | 148.34 | 359 | PKP | PKPbc | 05 07 46.2 | +1.1 | | |
| KONT | Konya--Tatoy | 148.37 | 318 | *i* P | PKPdf | 05 07 42.8 | +0.9 | | |
| KMER | Konya-Meram | 148.47 | 318 | *i* P | PKPbc | 05 07 44.4 | -1.4 | | |
| PVL | Pavlikeni | 148.47 | 333 | *e*P | PKPbc | 05 07 46.1 | +0.7 | | |
| BEHE | Becsehely | 148.49 | 346 | ⇓*e*PKPdf | PKPbc | 05 07 45.4 | 0.0 | | |
| JMB | Yambol | 148.49 | 331 | *e*P | PKPbc | 05 07 45.7 | +0.2 | | |
| RETA | Reutte | 148.50 | 354 | *i* PKPdf | PKPdf | 05 07 42.2 | +0.4 | | |
| | comp=Z,111nm,1.4s | | | | | | | | |
| RETA | | | | *i* PKiKP | PKPbc | 05 07 46.2 | +0.7 | | |
| | comp=Z,120nm,1.0s,SNR=37 | | | | | | | | |
| ELBA | Catalca | 148.55 | 327 | *i* P | PKPdf | 05 07 43.2 | +1.2 | | |
| WATA | Walderalm | 148.56 | 353 | *i* PKPdf | PKPdf | 05 07 42.2 | +0.2 | | |
| | comp=Z,22nm,1.3s,SNR=55 | | | | | | | | |
| WATA | | | | *i* PKiKP | PKiKP | 05 07 47.0 | -0.3 | | |
| | comp=Z,39nm,0.6s | | | | | | | | |
| KBA | Koelnbreinsper | 148.57 | 351 | *i* PKPdf | PKPdf | 05 07 42.2 | +0.1 | | |
| | comp=Z,20nm,1.2s,SNR=24 | | | | | | | | |
| KBA | | | | *i* PKiKP | PKPbc | 05 07 46.3 | +0.5 | | |
| | comp=Z,83nm,1.1s | | | | | | | | |
| MDVR | Moldovita | 148.59 | 339 | ⇓*i*P | PKPbc | 05 07 45.4 | -0.4 | | |
| MOTA | Moosalm | 148.60 | 354 | *i* PKPdf | PKPdf | 05 07 42.5 | +0.4 | | |
| | comp=Z,21nm,1.1s,SNR=69 | | | | | | | | |
| MOTA | | | | *i* PKiKP | PKiKP | 05 07 46.8 | -0.5 | | |
| | comp=Z,112nm,1.0s | | | | | | | | |
| WTTA | Wattenberg | 148.62 | 353 | *i* PKPdf | PKPdf | 05 07 42.8 | +0.6 | | |
| | comp=Z,25nm,1.7s | | | | | | | | |
| WTTA | | | | *i* PKiKP | PKPbc | 05 07 46.5 | +0.6 | | |
| | comp=Z,90nm,0.6s,SNR=24 | | | | | | | | |
| KOGS | Kog | 148.63 | 347 | *e*PKPdf | PKPdf | 05 07 41.7 | -0.3 | | |
| KOGS | | | | *e*PKPbc | PKPbc | 05 07 45.8 | +0.1 | | |
| SOKA | Soboth | 148.66 | 348 | *i* PKPdf | PKPdf | 05 07 42.4 | +0.3 | | |
| | comp=Z,30nm,1.3s,SNR=34 | | | | | | | | |
| SOKA | | | | *i* PKiKP | PKPbc | 05 07 46.4 | +0.5 | | |
| | comp=Z,178nm,1.2s | | | | | | | | |
| DOGA | KONYA_Doganhis | 148.71 | 319 | *i* P | PKPdf | 05 07 44.0 | +1.5 | | |
| ERMK | Ermenek | 148.75 | 316 | *i* P | PKPdf | 05 07 42.1 | -0.7 | | |
| BOLV | Bolvadin | 148.77 | 321 | *i* P | PKPbc | 05 07 46.1 | -0.4 | | |
| BOLV | Bolvadin | 148.77 | 321 | *e*PKPdf | PKPdf | 05 07 42.8 | +0.2 | | |
| BOLV | | | | *e*PKPbc | PKPbc | 05 07 47.2 | +0.7 | | |
| DAVA | Damuels | 148.77 | 355 | *i* PKPdf | PKPdf | 05 07 42.8 | +0.4 | | |
| | comp=Z,22nm,1.6s | | | | | | | | |
| DAVA | | | | *i* PKiKP | PKiKP | 05 07 47.2 | -0.5 | | |
| | comp=Z,233nm,1.1s,SNR=30 | | | | | | | | |
| OBKA | Obir | 148.92 | 349 | *i* PKiKP | PKPbc | 05 07 46.7 | +0.1 | | |
| | comp=Z,122nm,1.7s,SNR=11 | | | | | | | | |
| FETA | Feichten | 148.96 | 354 | *i* PKPbc | PKPdf | 05 07 43.7 | +0.9 | | |
| | comp=Z,19nm,1.0s,SNR=54 | | | | | | | | |
| FETA | | | | *i* PKiKP | PKiKP | 05 07 48.0 | -0.1 | | |
| | comp=Z,246nm,1.5s | | | | | | | | |
| MYKA | Terra Mystica | 148.96 | 350 | *i* PKPdf | PKPdf | 05 07 42.6 | 0.0 | | |
| | comp=Z,17nm,1.3s | | | | | | | | |
| MYKA | | | | *i* PKPbc | PKPbc | 05 07 46.6 | -0.1 | | |
| | comp=Z,67nm,0.7s,SNR=17 | | | | | | | | |
| BEO | Beograd | 148.99 | 340 | ePKIKP | PKPdf | 05 07 43.3 | +0.7 | | |
| BEO | | | | *e* | | 05 07 47.5 | | | |
| BEO | Beograd | 148.99 | 340 | ePKPdf | PKPdf | 05 07 43.2 | +0.7 | | |
| BEO | | | | *e*PKPbc | PKPbc | 05 07 47.5 | +0.8 | | |
| ABTA | Abfaltersbach | 149.02 | 352 | *i* PKPdf | PKPdf | 05 07 42.9 | +0.1 | | |
| | comp=Z,24nm,1.1s,SNR=56 | | | | | | | | |
| ABTA | | | | *i* PKiKP | PKPbc | 05 07 47.4 | +0.5 | | |
| | comp=Z,143nm,0.9s | | | | | | | | |
| DIM | Dimitrovgrad | 149.30 | 331 | *e*P | PKPbc | 05 07 48.5 | +0.9 | | |
| BAGO | Egridir - ISPA | 149.32 | 320 | *i* P | PKPbc | 05 07 46.8 | -1.1 | | |
| MAMC | Mammari | 149.34 | 313 | P | PKPbc | 05 07 48.7 | +0.8 | | |
| CSS | Mathiatis | 149.36 | 313 | ePKPbc | PKPbc | 05 07 48.5 | +0.6 | | |
| CSS | Mathiatis | 149.36 | 313 | P | PKPbc | 05 07 49.0 | +1.0 | | |
| LJU | Ljubljana | 149.37 | 349 | ePKPdf | PKPdf | 05 07 43.3 | +0.1 | | |
| LJU | | | | *e*PKPbc | PKPbc | 05 07 47.2 | -0.4 | | |
| GAZI | Gazipasa | 149.38 | 316 | *i* P | PKPbc | 05 07 46.2 | -1.8 | | |
| GDZ | Gediz | 149.40 | 323 | *i* P | PKPbc | 05 07 47.7 | -0.4 | | |
| FUORN | Ofenpass-Fuorn | 149.40 | 355 | ePKPdf | PKPdf | 05 07 44.5 | +0.9 | | |
| FUORN | | | | *e*PKPbc | PKiKP | 05 07 49.4 | +0.2 | | |
| KEPZ | Antalya-Kepez | 149.47 | 318 | *i* P | PKPdf | 05 07 45.9 | +2.2 | | |
| PGB | Panagyurishte | 149.51 | 333 | *e*P | PKPbc | 05 07 48.0 | -0.2 | | |
| SART | Tekirdag | 149.53 | 328 | *i* P | PKPbc | 05 07 47.0 | -1.3 | | |
| KZIL | AFYON_Kizioren | 149.55 | 321 | *i* P | PKPbc | 05 07 47.7 | -0.8 | | |
| OZLJ | Ozalj | 149.59 | 347 | P | PKPbc | 05 07 48.9 | +0.7 | | |
| TUE | Stuetta | 149.62 | 356 | ePKPdf | PKPdf | 05 07 44.6 | +0.8 | | |
| TUE | | | | *e*PKPbc | PKiKP | 05 07 49.4 | -0.1 | | |
| PLD | Plovdiv | 149.64 | 332 | *e*P | PKPbc | 05 07 48.0 | -0.4 | | |
| KDZ | Kurdzhali | 149.67 | 331 | *e*P | PKPbc | 05 07 48.0 | -0.5 | | |
| KESN | Edirne-Kesan | 149.69 | 328 | *i* P | PKPbc | 05 07 47.0 | -2.0 | | |
| BOJS | Bojanci | 149.74 | 347 | ePKPdf | PKPdf | 05 07 44.4 | +0.6 | | |
| BOJS | | | | *e*PKPbc | PKPbc | 05 07 48.7 | +0.1 | | |
| ALFC | Alefka | 149.77 | 314 | P | PKPbc | 05 07 49.3 | +0.3 | | |
| SZAC | Sozni | 149.79 | 313 | P | PKPbc | 05 07 49.9 | +0.8 | | |
| SENIN | Lac Senin/Sane | 149.83 | 359 | ePKPdf | PKPdf | 05 07 46.0 | +1.8 | | |
| SENIN | | | | *e*PKPbc | PKiKP | 05 07 50.1 | +0.1 | | |
| TRI | Trieste | 149.83 | 350 | ePKP2 | PKPbc | 05 07 49.0 | +0.3 | | |
| TRI | Trieste | 149.83 | 350 | ePKPbc | PKPbc | 05 07 49.0 | +0.3 | | |
| VTS | Vitosha | 149.88 | 335 | ⇑*i*P | PKPdf | 05 07 44.5 | +0.2 | | |
| VTS | Vitosha | 149.88 | 335 | ⇑PKHKP | PKPdf | 05 07 44.5 | +0.2 | | |
| VTS | Vitosha | 149.88 | 335 | *e*P | PKPbc | 05 07 48.5 | -0.7 | | |
| VTS | Vitosha | 149.88 | 335 | ePKPdf | PKPdf | 05 07 44.8 | +0.4 | | |
| VTS | | | | *e*PKPbc | PKiKP | 05 07 50.0 | -0.1 | | |
| BRDR | BURDUR-Merkez | 149.96 | 320 | *i* P | PKPbc | 05 07 48.4 | -1.1 | | |
| RZN | Rozhen | 149.97 | 332 | *e*P | PKPbc | 05 07 48.6 | -0.9 | | |
| BLY | Banja Luka | 150.00 | 344 | ePKPbc | PKPbc | 05 07 50.0 | +0.8 | | |
| BLY | | | | *e*PKPab | PKPab | 05 07 55.7 | +0.6 | | |
| AGO | Saint Agoulin | 150.03 | 4 | PKP | PKPbc | 05 07 50.5 | +1.2 | | |
| PPCY | Paphos | 150.09 | 314 | P | PKPbc | 05 07 49.9 | +0.2 | | |
| PLDF | La Plantade | 150.15 | 4 | PKP | PKPbc | 05 07 51.2 | +1.6 | | |
| KORT | Korkueli | 150.21 | 319 | P | PKPbc | 05 07 50.4 | -1.8 | | |
| PYM | Petit Puy Mans | 150.32 | 5 | PKP | PKPbc | 05 07 52.1 | +2.0 | | |
| MANT | Manisa | 150.34 | 323 | *i* P | PKPbc | 05 07 50.1 | -0.4 | | |
| MANT | Manisa | 150.34 | 323 | ePKPbc | PKPbc | 05 07 51.0 | +0.5 | | |
| MANT | | | | *e*PKPab | PKPab | 05 07 57.7 | +0.8 | | |
| MMB | Musomiste | 150.49 | 333 | *e*P | PKPbc | 05 07 50.1 | -0.4 | | |
| AKHS | Akhisar | 150.49 | 324 | *i* P | PKPbc | 05 07 50.3 | -0.3 | | |
| KKB | Krupnik | 150.54 | 334 | *e*P | PKPbc | 05 07 50.5 | -0.1 | | |
| GOLH | Golhisar | 150.56 | 320 | *i* P | PKPbc | 05 07 50.0 | -0.9 | | |
| UDBI | Udbina | 150.56 | 346 | P | PKPbc | 05 07 50.5 | -0.1 | | |
| PLE | Pljevlja | 150.66 | 340 | ⇓*i*PKP | PKPbc | 05 07 51.0 | 0.0 | | |
| NVLJ | Novalja | 150.72 | 347 | P | PKPbc | 05 07 50.8 | -0.1 | | |
| BOZC | Bozcaada | 150.74 | 328 | *i* P | PKPbc | 05 07 50.6 | -0.5 | | |
| TAVA | DENIZLI_Tavas | 150.80 | 321 | *i* P | PKPbc | 05 07 48.9 | -2.6 | | |
| LBL | Lubilhac | 150.86 | 4 | PKP | PKPbc | 05 07 53.0 | +1.7 | | |
| SSB | Saint Sauveur | 150.89 | 3 | PKP | PKPbc | 05 07 53.1 | +1.7 | | |
| SSB | Saint Sauveur | 150.89 | 3 | ePKIKP | PKPdf | 05 07 46.5 | +0.9 | | |
| SSB | Saint Sauveur | 150.89 | 3 | ePKPdf | PKPdf | 05 07 46.5 | +0.9 | | |
| SSB | | | | *e*PKPbc | PKiKP | 05 07 52.7 | +0.8 | | |
| IVA | Berane | 150.90 | 339 | ePKP | PKPbc | 05 07 51.8 | +0.3 | | |
| UPM | Unac-Piva | 150.93 | 341 | ⇓*i*PKP | PKPbc | 05 07 50.9 | -0.8 | | |
| GRN | Grenoble | 150.96 | 1 | PKP | PKPbc | 05 07 53.7 | +2.1 | | |
| GDM | Grand'Maison | 151.00 | 0 | PKP | PKPbc | 05 07 53.7 | +1.9 | | |
| KOME | Kolasin | 151.04 | 340 | ⇓*i*PKP | PKPbc | 05 07 52.0 | +0.1 | | |
| SKO | Skopje | 151.11 | 336 | ⇑*i*PKP | PKPbc | 05 07 52.9 | +0.9 | | |
| PVY | Plav | 151.12 | 339 | ⇓*i*PKP | PKPbc | 05 07 52.1 | 0.0 | | |
| BNI | Bardonecchia | 151.15 | 359 | ePKIKP | PKPdf | 05 07 47.7 | +1.5 | | |
| BNI | Bardonecchia | 151.15 | 359 | ePKPdf | PKPdf | 05 07 47.7 | +1.5 | | |
| BNI | | | | *e*PKPbc | PKiKP | 05 07 53.7 | +1.1 | | |
| SACV | Santiago Islan | 151.20 | 88 | ePKPbc | PKPbc | 05 07 52.0 | -0.9 | | |
| VAY | Valandovo | 151.20 | 334 | ⇑*i*PKP | PKPbc | 05 07 52.4 | +0.3 | | |
| NKY | Niksic | 151.25 | 340 | ⇓*i*PKP | PKPbc | 05 07 52.5 | +0.1 | | |
| NKME | Niksic | 151.30 | 340 | ⇓*i*PKP | PKPbc | 05 07 52.3 | -0.1 | | |
| BRY | Bratogost | 151.31 | 341 | ⇓*i*PKP | PKPbc | 05 07 52.5 | -0.1 | | |
| PGAV | Gavieira, Arco | 151.35 | 23 | ePKPdf | PKPdf | 05 07 47.9 | +1.3 | | |
| PGAV | Gavieira, Arco | 151.35 | 23 | ePKPbc | PKPbc | 05 07 53.9 | +1.3 | | |
| TURN | Turunc | 151.38 | 321 | *i* P | PKPbc | 05 07 52.3 | -0.3 | | |
| PDG | Podgorica | 151.50 | 340 | ⇓*i*P | PKPbc | 05 07 49.9 | -2.9 | | |
| TTG | Podgorica | 151.50 | 340 | ⇓*i*PKP | PKPbc | 05 07 53.0 | +0.2 | | |
| CEME | Cevo | 151.51 | 340 | ⇓*i*PKP | PKPbc | 05 07 52.1 | -0.8 | | |
| STON | Ston | 151.59 | 342 | P | PKPbc | 05 07 52.5 | -0.5 | | |
| HCY | Herceg Novi | 151.74 | 341 | ⇓*i*PKP | PKPbc | 05 07 53.2 | -0.2 | | |
| BUM | Brajici-Budva | 151.74 | 340 | ⇓*i*PKP | PKPbc | 05 07 52.5 | -1.0 | | |
| DRME | Dracevica, Mon | 151.75 | 339 | ⇓*i*PKP | PKPbc | 05 07 53.1 | -0.3 | | |
| VLC | Villacollemand | 151.83 | 354 | ePKPbc | PKPbc | 05 07 53.4 | -0.1 | | |
| OG25 | Le Caire | 151.83 | 0 | PKP | PKPbc | 05 07 55.2 | +1.6 | | |

*After AEIC.*

**ISC 26 05:03:46.9±1.0, 60.51N±0.03×151.95W±0.04, h82km±7km, n72, σ0°78/88, Kenai Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RDT** | **Redoubt** | **0.23** | **286** | P | **Pn** | **05 03 59.0** | **-0.2** |
| **DFR** | **Drift River** | **0.37** | **283** | P | **Pn** | **05 03 59.6** | **-0.4** |
| DFR | | | | S | **Sn** | **05 04 09.3** | **-0.4** |
| **REF** | **Redoubt East F** | **0.37** | **267** | P | **Pn** | **05 03 59.9** | **-0.2** |
| REF | | | | S | **Sn** | **05 04 09.7** | **-0.2** |
| **RED** | **Redoubt Volcan** | **0.42** | **258** | P | **Pn** | **05 03 60.0** | **-0.3** |
| RED | | | | S | **Sn** | **05 04 10.0** | **-0.3** |
| **RDJH** | **Redoubt Jeurge** | **0.43** | **281** | P | **Pn** | **05 04 00.3** | **-0.2** |
| **RDWB** | **Redoubt West** | **0.44** | **268** | P | **Pn** | **05 04 00.3** | **-0.3** |
| RDWB | | | | S | **Sn** | **05 04 10.4** | **-0.3** |
| **NCT** | **North Crescent** | **0.49** | **277** | P | **Pn** | **05 04 00.6** | **-0.2** |
| **SPU** | **Mount Spurr** | **0.68** | **356** | P | **Pn** | **05 04 02.6** | **0.0** |
| **CKL** | **Chakachamna La** | **0.71** | **345** | P | **Pn** | **05 04 02.9** | **-0.1** |
| **INE** | **Iliamna NE** | **0.71** | **231** | P | **Pn** | **05 04 03.3** | **+0.3** |
| **IVE** | **Iliamna Volcan** | **0.73** | **228** | P | **Pn** | **05 04 03.0** | **-0.1** |
| **ILW** | **Iliamna West** | **0.74** | **233** | P | **Pn** | **05 04 03.4** | **0.0** |
| **SPCP** | **Crater Peak Br** | **0.77** | **353** | P | **Pn** | **05 04 03.5** | **-0.1** |
| SPCP | | | | S | **Sn** | **05 04 16.3** | **+0.3** |
| **CRP** | **Crater Peak** | **0.77** | **353** | P | **Pn** | **05 04 04.0** | **+0.3** |
| **SPBG** | **Spurr Blockage** | **0.78** | **345** | P | **Pn** | **05 04 03.9** | **+0.2** |
| SPBG | | | | S | **Sn** | **05 04 16.1** | **-0.1** |
| **SPCG** | **Spurr Capps Gl** | **0.79** | **357** | P | **Pn** | **05 04 04.0** | **+0.2** |
| SPCG | | | | S | **Sn** | **05 04 16.2** | **-0.1** |
| **ILS** | **Iliamna Low So** | **0.79** | **226** | P | **Pn** | **05 04 03.8** | **+0.1** |
| **SPWE** | **Spurr West** | **0.82** | **339** | P | **Pn** | **05 04 04.3** | **+0.2** |
| **SLKM** | **Skilak Lake** | **0.85** | **89** | P | **Pn** | **05 04 04.5** | **0.0** |
| **HOM** | **Homer** | **0.87** | **170** | P | **Pn** | **05 04 05.7** | **+1.2** |
| HOM | | | | S | **Sn** | **05 04 18.8** | **+1.2** |
| **VOGL** | **Vogel Lake** | **0.89** | **56** | P | **Pn** | **05 04 06.2** | **+1.4** |
| **BRLK** | **Bradley Lake** | **0.92** | **144** | P | **Pn** | **05 04 05.6** | **+0.4** |
| BRLK | | | | S | **Sn** | **05 04 19.6** | **+0.9** |
| **STLK** | **Strandline Lak** | **0.99** | **3** | P | **Pn** | **05 04 06.4** | **+0.4** |
| **CNPM** | **China Poot** | **1.05** | **160** | P | **Pn** | **05 04 07.2** | **+0.5** |
| CNPM | | | | S | **Sn** | **05 04 22.6** | **+1.1** |
| **FIB** | **Fire Island** | **1.09** | **52** | P | **Pn** | **05 04 08.5** | **+1.4** |
| **RC01** | **Rabbit Creek A** | **1.23** | **61** | P | **Pn** | **05 04 09.0** | **+0.2** |
| RC01 | | | | S | **Sn** | **05 04 26.5** | **+1.1** |
| **AUE** | **Augustine Isla** | **1.36** | **212** | P | **Pn** | **05 04 10.9** | **+0.5** |
| **AUJK** | **Augustine Jueg** | **1.38** | **213** | P | **Pn** | **05 04 11.3** | **+0.6** |
| **AUW** | **Augustine West** | **1.38** | **214** | P | **Pn** | **05 04 11.3** | **+0.6** |
| **AUI** | **Augustine Isla** | **1.39** | **213** | P | **Pn** | **05 04 11.7** | **+0.8** |
| **PMR** | **Palmer** | **1.75** | **50** | P | **Pn** | **05 04 16.0** | **+0.5** |
| **CDD** | **Cape Douglas** | **1.80** | **209** | P | **Pn** | **05 04 16.8** | **+0.6** |
| **FOPK** | **Fourpeaked Vol** | **1.92** | **204** | P | **Pn** | **05 04 18.3** | **+0.5** |
| **KNK** | **Knik Glacier** | **1.93** | **60** | P | **Pn** | **05 04 17.9** | **0.0** |
| **FOSS** | **Fourpeaked Sta** | **1.93** | **208** | P | **Pn** | **05 04 18.6** | **+0.6** |
| **GHO** | **Glory Hole Cre** | **1.94** | **48** | P | **Pn** | **05 04 18.1** | **0.0** |
| **FONW** | **Fourpeaked Sta** | **1.96** | **212** | P | **Pn** | **05 04 18.9** | **+0.6** |
| **SML** | **Sawmill** | **2.18** | **52** | *e*Pn | **Pn** | **05 04 20.7** | **-0.6** |
| SML | | | | *e*Sn | **Sn** | **05 04 47.0** | **-0.6** |
| **PPLA** | **Purkeypile** | **2.40** | **357** | P | **Pn** | **05 04 25.3** | **+1.0** |
| **KAHC** | **Katmai Hardscr** | **2.43** | **221** | P | **Pn** | **05 04 26.2** | **+1.5** |
| **SCM** | **Sheep Creek Mo** | **2.60** | **57** | P | **Pn** | **05 04 26.9** | **-0.1** |
| **FID** | **Port Fidalgo** | **2.71** | **83** | P | **Pn** | **05 04 26.4** | **-1.8** |
| **KDAK** | **Kodiak Island** | **2.75** | **187** | P | **Pn** | **05 04 28.6** | **-0.2** |
| | 1.8nm,0.3s,baz=16,slow=13,SNR=150 | | | | | | |
| KDAK | | | | S | **Sn** | **05 04 59.8** | **-1.4** |
| | 9.1nm,0.3s,baz=244,slow=16,SNR=8.0 | | | | | | |
| **VLZ** | **Valdez** | **2.82** | **75** | P | **Pn** | **05 04 29.0** | **-0.7** |
| **KELA** | **Mount Kelaz** | **2.84** | **225** | P | **Pn** | **05 04 30.9** | **+0.8** |
| **TRF** | **Thorofare Moun** | **3.05** | **14** | P | **Pn** | **05 04 34.0** | **+1.0** |
| **DIV** | **Divide** | **3.09** | **76** | *e*Pn | **Pn** | **05 04 32.6** | **-0.9** |
| DIV | | | | *e*Sn | **Sn** | **05 05 07.3** | **-2.0** |
| **TT01** | **Tatalina** | **3.09** | **323** | P | **Pn** | **05 04 33.8** | **+0.4** |
| **KTH** | **Kantishna Hill** | **3.09** | **9** | P | **Pn** | **05 04 34.7** | **+1.2** |
| **KLU** | **Klutina** | **3.10** | **69** | P | **Pn** | **05 04 33.0** | **-0.5** |
| **TTA** | **Tatalina** | **3.10** | **323** | P | **Pn** | **05 04 33.8** | **+0.2** |
| **RND** | **Reindeer** | **3.25** | **25** | P | **Pn** | **05 04 36.5** | **+0.8** |
| **DHY** | **Denali Highway** | **3.37** | **38** | P | **Pn** | **05 04 38.5** | **+1.2** |
| **OHAK** | **Old Harbor** | **3.37** | **192** | P | **Pn** | **05 04 37.5** | **+0.3** |
| **MCK** | **McKinley** | **3.53** | **22** | P | **Pn** | **05 04 40.3** | **+0.9** |
| **BPAW** | **Bear Paw Mtn.** | **3.63** | **7** | P | **Pn** | **05 04 41.5** | **+0.7** |
| **HARP** | **HAARP** | **3.77** | **57** | P | **Pn** | **05 04 43.2** | **+0.5** |
| **PAX** | **Paxson** | **3.95** | **48** | P | **Pn** | **05 04 45.6** | **+0.5** |
| **HDA** | **Harding Lake** | **4.55** | **29** | P | **Pn** | **05 04 53.7** | **+0.5** |
| **CCB** | **Clear Creek Bu** | **4.57** | **23** | P | **Pn** | **05 04 54.0** | **+0.6** |
| **MLY** | **Manley** | **4.57** | **6** | P | **Pn** | **05 04 54.1** | **+0.5** |
| **MENT** | **Mentasta** | **4.61** | **55** | P | **Pn** | **05 04 54.0** | **0.0** |
| **COLA** | **College** | **4.77** | **22** | P | **Pn** | **05 04 56.9** | **+0.7** |
| **MDM** | **Murphy Dome** | **4.78** | **19** | P | **Pn** | **05 04 57.4** | **+1.0** |
| **DOT** | **Dot Lake** | **4.86** | **46** | *e*Pn | **Pn** | **05 04 57.8** | **+0.3** |
| DOT | | | | *e*Sn | **Sn** | **05 04 54.7** | **+2.3** |
| **ILAR** | **Eielson Array** | **4.87** | **26** | P | **Pn** | **05 04 57.6** | **0.0** |
| | 3.8nm,0.3s,baz=214,slow=13,SNR=62 | | | | | | |
| ILAR | | | | S | **Sn** | **05 05 50.9** | **-1.7** |
| | 1.8nm,0.3s,baz=192,slow=12,SNR=4.9 | | | | | | |
| **ILB** | **Eielson Array** | **4.87** | **26** | P | **Pn** | **05 04 58.0** | **+0.4** |
| **IM3** | **Indian Mountai** | **5.55** | **352** | P | **Pn** | **05 05 07.1** | **+0.2** |
| **PNL** | **Peninsula** | **6.34** | **92** | P | **Pn** | **05 05 17.4** | **-0.2** |
| **BM3** | **Burnt Mountain** | **7.64** | **22** | P | **Pn** | **05 05 34.0** | **-1.4** |
| **YKA** | **Yellowknife Ar** | **17.77** | **67** | P | **P** | **05 07 48.7** | **+0.7** |
| | 0.1nm,0.3s,baz=280,slow=9.9,SNR=6.3 | | | | | | |
| **ARCES** | **ARCESS Array B** | **50.23** | **1** | P | **P** | **05 12 33.0** | **-0.8** |
| | 4.3nm,1.0s,baz=0.0,slow=6.4,SNR=3.6 | | | | | | |

*ISCJB **26** 05:47:52.0±0.5, 36.69N×0.03×71.23E±0.07, h150km, mb3.3/4, Error ellipse: s-maj=8.5km s-min=4.1km az=161.4*

*IDC **26** 05:47:52.2±3.3, 36.51N×71.32E, h168km±29km, mb3.1/4, mb1 3.2/11, mb1mx3.0/63, mbtmp3.7/11, MS4.0/1, Ms1 4.1/1, ms1mx3.3/22, Error ellipse: s-maj=28.1km s-min=19.6km az=168.0*

*NNC **26** 05:47:59.2±1.8, 37.11N×71.29E, h184km±12km, mb2.9, mpv3.9, Error ellipse: s-maj=16.4km s-min=7.7km az=162.0*

**ISC 26 05:47:52.2±0.7, 36.67N±0.06×71.33E±0.06, h150km, n37, σ2s06/45, mb3.4/4, 9C-6D, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZET** | **Dzherino** | **2.91** | **318** | ⇑P | **Pn** | **05 48 42.1** | **+3.6** |
| | 54nm,0.5s | | | | | | |
| DZET | | | | ⇑S | **Sn** | **05 49 18.5** | **+4.2** |
| | 322nm,0.4s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **3.75** | **26** | ⇑P | **Pn** | **05 48 53.0** | **+3.6** |
| | 10.0nm,0.2s | | | | | | |
| SFK | | | | ⇑S | **Sn** | **05 49 35.0** | **+1.2** |
| | 92nm,0.5s | | | | | | |
| **THN** | **Thein Dam** | **5.57** | **138** | *e*P | **Pn** | **05 49 16.0** | **+2.9** |
| THN | | | | *e*S | **Sn** | **05 50 19.8** | **+3.5** |
| **AML** | **Almayashu** | **5.75** | **18** | P | **Pn** | **05 49 17.9** | **+2.0** |
| | SNR=36 | | | | | | |
| **MNAS** | **Manas** | **5.88** | **9** | ⇓P | **Pn** | **05 49 19.8** | **+2.5** |
| | 5.0nm,0.3s | | | | | | |
| MNAS | | | | ⇑S | **Sn** | **05 50 22.5** | **-1.4** |
| | 38nm,0.5s | | | | | | |
| **UCH** | **Uchtor** | **6.07** | **23** | P | **Pn** | **05 49 22.9** | **+2.7** |
| | SNR=12 | | | | | | |
| **EKS2** | **Erkin-Say** | **6.27** | **17** | P | **Pn** | **05 49 25.3** | **+2.7** |
| | SNR=6.3 | | | | | | |
| **AAK** | **Ala-Archa** | **6.44** | **21** | P | **Pn** | **05 49 27.3** | **+2.5** |
| | 2.1nm,0.3s,baz=189,slow=15,SNR=11 | | | | | | |
| AAK | | | | S | **Sn** | **05 50 36.0** | **-1.4** |
| | 1.8nm,0.3s,baz=326,slow=22,SNR=16 | | | | | | |
| **AAK** | **Ala-Archa** | **6.44** | **21** | ⇑P | **Pn** | **05 49 27.9** | **+3.1** |
| | 3.7nm,0.5s | | | | | | |
| AAK | | | | ⇓S | **Sn** | **05 50 36.2** | **-1.1** |
| | 16nm,0.7s | | | | | | |
| **KK31** | **Karatay Array** | **6.45** | **355** | ⇓P | **Pn** | **05 49 26.6** | **+1.8** |
| | 3.2nm,0.3s,baz=175,slow=12,SNR=61 | | | | | | |
| KK31 | | | | ⇑S | **Sn** | **05 50 35.4** | **-2.1** |
| | 7.8nm,0.4s,baz=185,slow=16,SNR=20 | | | | | | |
| **KBK** | **Karagaybulak** | **6.60** | **24** | P | **Pn** | **05 49 29.7** | **+2.7** |
| | SNR=6.0 | | | | | | |
| **TKM2** | **Tokmak 2** | **7.05** | **26** | ⇑P | **Pn** | **05 49 35.6** | **+2.5** |
| | 4.8nm,0.5s | | | | | | |
| TKM2 | | | | ⇓S | **Sn** | **05 50 52.0** | **-0.2** |
| | 9.5nm,1.0s | | | | | | |
| **TKM2** | **Tokmak 2** | **7.05** | **26** | P | **Pn** | **05 49 35.8** | **+2.8** |
| | SNR=12 | | | | | | |
| **GEYT** | **Alibeck** | **10.60** | **281** | P | **Pn** | **05 50 20.1** | **0.0** |
| | 0.6nm,0.3s,baz=105,slow=11,SNR=6.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **13.00** | **36** | P | **Pn** | **05 50 52.3** | **+1.1** |
| | 0.1nm,0.3s,baz=210,slow=11,SNR=2.5 | | | | | | |
| **PYUN** | **Piuthan** | **13.04** | **128** | *e*P | **Pn** | **05 50 52.9** | **+0.8** |
| | 9.5nm,0.3s | | | | | | |
| **KOLN** | **Koldanda** | **13.65** | **127** | *e*P | **Pn** | **05 51 00.7** | **+0.8** |
| | 7.7nm,0.4s | | | | | | |
| **GKN** | **Gorkha** | **14.18** | **124** | *e*P | **Pn** | **05 51 07.8** | **+1.3** |
| | 0.6nm,0.3s | | | | | | |
| **DMN** | **Daman** | **14.75** | **124** | *e*P | **Pn** | **05 51 15.3** | **+1.6** |
| | 17nm,0.5s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **14.88** | **18** | P | **Pn** | **05 51 15.5** | **+0.7** |
| | 0.1nm,0.3s,baz=207,slow=11,SNR=5.2 | | | | | | |
| **PKIN** | **Phulchoki** | **14.96** | **123** | *e*P | **Pn** | **05 51 17.6** | **+1.2** |
| | 18nm,0.5s | | | | | | |
| **PKI** | **Pulchoki** | **14.98** | **123** | *e*P | **Pn** | **05 51 17.8** | **+1.1** |
| | 6.9nm,0.2s | | | | | | |
| **AB31** | **Akbulak array** | **15.06** | **330** | ⇓P | **Pn** | **05 51 17.2** | **0.0** |
| | 0.7nm,0.4s,baz=144,slow=12,SNR=41 | | | | | | |
| AB31 | | | | S | Sn | 05 53 55.6 | -8.8 |
| | 2.4nm,0.6s,baz=146,slow=24,SNR=13 | | | | | | |
| **GUN** | **Gumba** | **15.08** | **121** | *e*P | **Pn** | **05 51 18.8** | **+0.9** |
| | 14nm,0.5s | | | | | | |
| **JIRN** | **Jiri** | **15.45** | **121** | *e*P | **Pn** | **05 51 23.7** | **+1.1** |
| | 191nm,0.4s | | | | | | |
| **RAMN** | **Ramite** | **16.18** | **122** | *e*P | **Pn** | **05 51 31.7** | **+0.3** |
| | 23nm,0.5s | | | | | | |
| **BVAR** | **Borovoye Array** | **16.36** | **358** | P | **Pn** | **05 51 33.4** | **+0.3** |
| | 0.3nm,0.3s,baz=171,slow=11,SNR=5.1 | | | | | | |
| **TAPN** | **Taplejung** | **16.70** | **119** | *e*P | **P** | **05 51 36.9** | **-0.6** |
| **AKTO** | **Aktyubinsk** | **16.76** | **329** | P | **P** | **05 51 37.5** | **-0.2** |
| | 0.8nm,0.3s,baz=136,slow=10,SNR=9.5 | | | | | | |
| **AKTO** | **Aktyubinsk** | **16.76** | **329** | ⇑P | **P** | **05 51 37.8** | **+0.1** |
| | 2.8nm,0.6s | | | | | | |
| AKTO | | | | ⇓S | **S** | **05 54 43.8** | **-0.4** |
| | 2.2nm,0.8s | | | | | | |
| **ODAN** | **Odare** | **16.78** | **121** | *e*P | **P** | **05 51 34.6** | **-3.7** |
| | 8.9nm,0.2s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **19.65** | **24** | P | **P** | **05 52 08.9** | **-0.2** |
| | 0.1nm,0.3s,baz=220,slow=13,SNR=5.6 | | | | | | |
| **FINES** | **FINESS Array B** | **37.49** | **326** | P | **P** | **05 54 51.2** | **+0.3** |
| | 2.1nm,0.8s,baz=110,slow=12,SNR=3.0 | | | | | | |
| **NOA** | **NORSAR Array B** | **44.40** | **323** | LR | LR | 06 15 25.7 | |
| | comp=Z,201nm,21.5s,baz=125,slow=37 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **65.98** | **269** | P | **P** | **05 58 20.4** | **-2.3** |
| | 0.8nm,0.6s,baz=48,slow=5.8,SNR=11 | | | | | | |
| **YKA** | **Yellowknife Ar** | **81.06** | **3** | P | **P** | **05 59 48.6** | **-1.5** |
| | 0.1nm,0.4s,baz=351,slow=5.3,SNR=6.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **81.86** | **122** | P | **P** | **05 59 52.8** | **-2.1** |
| | 0.2nm,0.8s,baz=319,slow=4.2,SNR=3.5 | | | | | | |

*DDA **26** 05:49:29.9, 39.52N×34.68E, h7km, Ml2.7*

*CSEM **26** 05:49:30.3±0.2, 39.50N×34.67E, h2km, ML2.7, Error ellipse: s-maj=4.3km s-min=3.2km az=167.0*

*ISK **26** 05:49:30.0, 39.54N×34.62E, h5km, MD2.8*

**ISC 26 05:49:30.4±1.0, 39.51N±0.03×34.67E±0.02, h9km±9km, n28, σ0°57/46, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CDAG** | **Cicekdag** | **0.26** | **296** | *i* P | **Pg** | **05 49 35.5** | **-0.2** |
| CDAG | | | | *i* S | **Sg** | **05 49 39.4** | **+0.2** |
| **CDAG** | **Cicekdag** | **0.26** | **296** | P | **Pg** | **05 49 35.5** | **-0.2** |
| CDAG | | | | S | **Sg** | **05 49 39.4** | **+0.2** |
| **YOZ** | **Yozgat** | **0.52** | **75** | *e*PG | **Pg** | **05 49 40.9** | **+0.4** |
| **YOZ** | **Yozgat** | **0.52** | **75** | *e*Pg | **Pg** | **05 49 40.9** | **+0.4** |
| **AVNS** | **Nevsehir-Avano** | **0.72** | **169** | *i* P | **Pg** | **05 49 44.3** | **0.0** |
| AVNS | | | | *i* S | **Sg** | **05 49 54.2** | **+0.6** |
| **AVNS** | **Nevsehir-Avano** | **0.72** | **169** | P | **Pg** | **05 49 44.3** | **0.0** |
| AVNS | | | | S | **Sg** | **05 49 54.2** | **+0.6** |
| **KAMT** | **Kaman** | **0.76** | **260** | *e*PG | **Pg** | **05 49 44.5** | **-0.6** |
| KAMT | | | | *e*SG | **Sg** | **05 49 54.8** | **-0.1** |
| **KAMT** | **Kaman** | **0.76** | **260** | *e*Pg | **Pg** | **05 49 44.5** | **-0.6** |
| KAMT | | | | *e*Sg | **Sg** | **05 49 54.8** | **-0.1** |
| **COAL** | **Corum-Alaca** | **0.78** | **18** | *i* P | **Pg** | **05 49 45.4** | **-0.1** |
| COAL | | | | *i* S | **Sg** | **05 49 55.9** | **+0.2** |
| **COAL** | **Corum-Alaca** | **0.78** | **18** | P | **Pg** | **05 49 45.4** | **-0.1** |
| COAL | | | | S | **Sg** | **05 49 55.9** | **+0.2** |
| **SERE** | **Sereflikochisa** | **1.03** | **237** | *e*PG | **Pg** | **05 49 50.2** | **0.0** |
| SERE | | | | *e*SG | **Sg** | **05 50 03.9** | **+0.3** |
| **SERE** | **Sereflikochisa** | **1.03** | **237** | *e*Pg | **Pg** | **05 49 50.2** | **0.0** |
| SERE | | | | *e*Sg | **Sg** | **05 50 03.9** | **+0.3** |
| **BBAL** | **Bala** | **1.20** | **272** | *i* P | **Pb** | **05 49 52.8** | **-0.6** |
| BBAL | | | | *i* S | **Sb** | **05 50 08.7** | **-0.4** |
| **BBAL** | **Bala** | **1.20** | **272** | P | **Pb** | **05 49 52.8** | **-0.6** |
| BBAL | | | | S | **Sb** | **05 50 08.7** | **-0.4** |
| **CUSAR** | **Sarkisla-SIVAS** | **1.22** | **94** | *i* P | **Pb** | **05 49 52.9** | **-0.9** |
| CUSAR | | | | *i* S | **Sn** | **05 50 10.6** | **0.0** |
| **CUSAR** | **Sarkisla-SIVAS** | **1.22** | **94** | P | **Pb** | **05 49 52.9** | **-0.9** |
| CUSAR | | | | S | **Sn** | **05 50 10.6** | **0.0** |
| **AFSR** | **Af ar-Bala (A** | **1.24** | **268** | *e*PN | **Pn** | **05 49 53.3** | **-0.8** |
| **AFSR** | **Af ar-Bala (A** | **1.24** | **268** | *e*Pn | **Pn** | **05 49 53.3** | **-0.8** |
| **ELDT** | **Eldivan** | **1.37** | **316** | *i* P | **Pg** | **05 49 57.7** | **+1.0** |
| ELDT | | | | *i* S | **Sg** | **05 50 15.5** | **+1.0** |
| **ELDT** | **Eldivan** | **1.37** | **316** | P | **Pg** | **05 49 57.7** | **+1.0** |
| ELDT | | | | S | **Sg** | **05 50 15.5** | **+1.0** |
| **KKUL** | **Konya-Kulu** | **1.40** | **257** | *i* P | **Pn** | **05 49 56.7** | **+0.4** |
| KKUL | | | | *i* S | **Sg** | **05 50 16.7** | **+1.1** |
| **KKUL** | **Konya-Kulu** | **1.40** | **257** | P | **Pn** | **05 49 56.7** | **+0.4** |
| KKUL | | | | S | **Sg** | **05 50 16.7** | **+1.1** |
| **SULT** | **Sultanhani-AKS** | **1.59** | **215** | *e*PN | **Pb** | **05 49 60.0** | **-0.1** |
| **SULT** | **Sultanhani-AKS** | **1.59** | **215** | *e*Pn | **Pb** | **05 50 00.0** | **-0.1** |
| **CHBY** | **Cihanbeyli** | **1.67** | **237** | *e*PN | **Pn** | **05 50 00.5** | **+0.5** |
| **CHBY** | **Cihanbeyli** | **1.67** | **237** | *e*Pn | **Pn** | **05 50 00.5** | **+0.5** |
| **KIZT** | **Kizilcal** | **2.26** | **255** | *e*PN | **Pn** | **05 50 08.6** | **+0.5** |
| **KIZT** | **Kizilcal** | **2.26** | **255** | *e*Pn | **Pn** | **05 50 08.6** | **+0.5** |

**IDC 26 06:19:58.2±6.4, 9.64S×127.60E, h0km, mb3.6/1, mb1 3.9/3, mb1mx3.5/31, mbtmp3.7/3, ML3.7/2, Error ellipse: s-maj=113.1km s-min=73.5km az=64.0, Timor Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **12.14** | **148** | Pn | Pn | 06 22 51.8 | -0.7 |
| | 0.6nm,0.3s,baz=320,slow=13,SNR=40 | | | | | | |
| WRA | | | | Sn | Sn | 06 25 09.7 | +1.0 |
| | 0.4nm,0.3s,baz=329,slow=25,SNR=6.4 | | | | | | |
| **ASAR** | **Alice Springs** | **15.20** | **157** | Pn | Pn | 06 23 34.1 | -0.2 |
| | 0.2nm,0.3s,baz=330,slow=9.6,SNR=30 | | | | | | |
| ASAR | | | | Sn | Sn | 06 26 26.7 | +3.2 |
| | 0.1nm,0.3s,baz=322,slow=19,SNR=4.4 | | | | | | |
| **STKA** | **Stephens Creek** | **25.66** | **152** | P | P | 06 25 30.0 | +0.2 |
| | 0.7nm,0.5s,baz=319,slow=9.6,SNR=3.2 | | | | | | |

**MAN 26 06:20:47, 12.94N×125.01E, h14km, mb4.7, ML3.6, MS3.5, Samar**

**IDC 26 06:32:49.2±1.7, 29.50N×140.64E, h90km±18km, mb3.1/4, mb1 3.4/6, mb1mx3.1/54, mbtmp3.5/6, Error ellipse: s-maj=42.1km s-min=13.6km az=86.0, Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JCJ** | **Chichijima** | **2.75** | **150** | P | Pn | 06 33 31.9 | +0.5 |
| | baz=270,slow=18 | | | | | | |
| **JHJ** | **Hachijo jima 2** | **3.69** | **349** | P | Pn | 06 33 43.1 | -0.8 |
| | 6.9nm,0.3s,baz=72,slow=20,SNR=2.6 | | | | | | |
| JHJ | | | | S | Sn | 06 34 26.2 | -0.1 |
| | 19nm,0.3s,baz=72,slow=22,SNR=2.1 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **7.32** | **344** | P | Pn | 06 34 35.0 | +1.7 |
| | 1.0nm,0.3s,baz=226,slow=52,SNR=3.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **49.53** | **188** | P | P | 06 41 29.9 | -1.0 |
| | 0.4nm,0.3s,baz=6.0,slow=7.7,SNR=15 | | | | | | |
| WRA | | | | PcP | PcP | 06 42 53.3 | +1.9 |
| | 0.2nm,0.8s,baz=2.9,slow=4.1,SNR=3.5 | | | | | | |
| **ASAR** | **Alice Springs** | **53.25** | **188** | P | P | 06 41 58.0 | -0.7 |
| | 0.2nm,0.4s,baz=359,slow=4.5,SNR=5.9 | | | | | | |
| **ILAR** | **Eielson Array** | **56.28** | **29** | P | P | 06 42 19.6 | -0.4 |
| | 0.4nm,0.8s,baz=266,slow=5.4,SNR=5.4 | | | | | | |
| **YKA** | **Yellowknife Ar** | **70.68** | **28** | P | P | 06 43 54.7 | -0.2 |
| | 0.2nm,0.6s,baz=294,slow=6.3,SNR=4.4 | | | | | | |

**IDC 26 06:32:52.5±4.9, 16.78S×174.06W, h0km, mb3.8/4, mb1 4.0/4, mb1mx3.6/40, mbtmp3.8/4, Error ellipse: s-maj=216.0km s-min=34.3km az=137.0, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **STKA** | **Stephens Creek** | **42.81** | **241** | P | P | 06 40 52.2 | 0.0 |
| | 2.6nm,0.9s,baz=66,slow=10.0,SNR=4.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **48.92** | **258** | P | P | 06 41 40.9 | +0.1 |
| | 0.1nm,0.3s,baz=96,slow=7.4,SNR=6.3 | | | | | | |
| **ASAR** | **Alice Springs** | **49.09** | **253** | P | P | 06 41 41.7 | -0.3 |
| | 2.2nm,0.6s,baz=88,slow=8.3,SNR=42 | | | | | | |
| **ILAR** | **Eielson Array** | **83.92** | **11** | P | P | 06 45 23.8 | 0.0 |
| | 0.2nm,0.6s,baz=226,slow=5.8,SNR=6.0 | | | | | | |

*ISCJB **26** 06:49:52.9±0.9, 26.32N±0.09×111.7W±0.2, h10km, mb3.1/2, Error ellipse: s-maj=23.9km s-min=6.5km az=150.9*

*IDC **26** 06:49:52.0±1.4, 26.21N×111.83W, h0km, mb3.1/2, mb1 3.5/4, mb1mx3.4/45, mbtmp3.2/4, ML3.7/2, MS2.7/1, Ms1 2.7/1, ms1mx2.5/10, Error ellipse: s-maj=37.6km s-min=22.0km az=62.0*

*MEX **26** 06:49:55.3±0.6, 26.34N×111.66W, h5km, MD3.8*

**ISC 26 06:49:52.8±1.0, 26.27N±0.08×111.9W±0.2, h10km, n8, σ1s47/11, Gulf of California**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SRIG** | **Santa Rosalia** | **1.09** | **345** | *e*P | **Pb** | **06 50 13.1** | **-0.6** |
| SRIG | | | | *i* S | **Sn** | **06 50 28.8** | **-0.4** |
| **LPIG** | **La Paz** | **2.60** | **146** | Pn | **Pn** | **06 50 35.2** | **+0.2** |
| | 47nm,0.3s,baz=329,slow=6.8,SNR=28 | | | | | | |
| LPIG | | | | Sn | **Sn** | **06 51 07.4** | **+0.8** |
| | 59nm,0.3s,baz=63,slow=16,SNR=13 | | | | | | |
| LPIG | | | | LR | LR | 06 51 42.1 | |
| | comp=Z,166nm,20.8s,baz=32,slow=44 | | | | | | |
| **LPIG** | **La Paz** | **2.60** | **146** | *e*P | **Pn** | **06 50 34.6** | **-0.3** |
| LPIG | | | | *e*S | **Sn** | **06 51 04.8** | **-1.9** |
| **TXAR** | **Lajitas Array** | **7.92** | **65** | Pn | **Pn** | **06 51 48.0** | **-0.2** |
| | 0.1nm,0.3s,baz=239,slow=13,SNR=9.1 | | | | | | |
| **NVAR** | **Mina Array Bea** | **13.27** | **338** | Pn | **P** | **06 53 09.1** | **-2.3** |
| | baz=152,slow=12,SNR=2.5 | | | | | | |
| **YKA** | **Yellowknife Ar** | **36.26** | **358** | P | **P** | **06 56 57.6** | **+1.6** |
| | 0.1nm,0.7s,baz=166,slow=6.0,SNR=3.2 | | | | | | |
| **ILAR** | **Eielson Array** | **44.52** | **339** | P | **P** | **06 58 06.3** | **+2.1** |
| | 0.5nm,0.9s,baz=152,slow=6.6,SNR=5.0 | | | | | | |
| **ASAR** | **Alice Springs** | **120.85** | **257** | PKP | **PKPdf** | **07 08 45.5** | **-0.4** |
| | 0.4nm,0.9s,baz=63,slow=2.0,SNR=3.7 | | | | | | |

**IDC 26 07:12:40.6±1.6, 54.57N×83.44E, h0km, mb1 2.8/3, mb1mx2.7/53, mbtmp2.8/3, ML2.4/3, Error ellipse: s-maj=15.7km s-min=10.0km az=5.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **I46RU** | **ZALESOVO INFRA** | **1.02** | **127** | *i* | | 07 18 45.0 | |
| | baz=312,slow=325,SNR=14 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **1.02** | **127** | Pg | Pg | 06 12 59.8 | -0.4 |
| | 0.9nm,0.3s,baz=310,slow=16,SNR=11 | | | | | | |
| ZALV | | | | Lg | Lg | 07 13 14.9 | |
| | 5.1nm,0.3s,baz=307,slow=29,SNR=45 | | | | | | |
| ZALV | | | | Rg | Rg | 07 13 24.4 | |
| | 15nm,0.8s,baz=309,slow=28,SNR=11 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **4.96** | **219** | Pn | Pn | 07 13 55.1 | -1.2 |
| | 0.1nm,0.3s,baz=36,slow=13,SNR=4.1 | | | | | | |
| KURBB | | | | Pg | Pg | 07 14 12.9 | -2.7 |
| | 0.1nm,0.3s,baz=39,slow=18,SNR=6.9 | | | | | | |
| KURBB | | | | Lg | Lg | 07 15 18.1 | |
| | 0.1nm,0.3s,baz=44,slow=34,SNR=5.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **7.82** | **186** | Pn | Pn | 07 14 36.8 | +1.1 |
| | 0.1nm,0.3s,baz=8.2,slow=12,SNR=5.8 | | | | | | |
| MKAR | | | | Lg | Lg | 07 16 46.5 | |
| | 0.0nm,0.3s,baz=3.9,slow=23,SNR=3.9 | | | | | | |
| **BVAR** | **Borovoye Array** | **7.88** | **264** | Pn | Pn | 07 14 36.3 | -0.1 |
| | 0.1nm,0.3s,baz=81,slow=18,SNR=4.2 | | | | | | |

*NIED **26** 07:16:00, 36.40N×141.20E, h50km, Mw3.8 Best double couple: M0 6.10000×10^14 NP1:φs74.00000°, δ32.00000°, λ-79.00000°. NP2:φs242.00000°, δ59.00000°, λ-97.00000°.*

*ISCJB **26** 07:16:38.3±1.0, 36.40N±0.04×141.26E±0.06, h28km±6km, mb3.6/11, Error ellipse: s-maj=7.6km s-min=6.2km az=18.2*

*JMA **26** 07:16:40.2±0.1, 36.44N×141.13E, h45km±2km, M3.9*

*JMA Felt II J1.*

*IDC **26** 07:16:40.6

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **ASAR** | **Alice Springs** | **41.32 269** | P | P | 07 29 21.7 | -0.2 |
| | 0.4nm,0.3s,baz=107,slow=7.3,SNR=16 | | | | | |
| **WRA** | **Warramunga Arr** | **42.43 275** | P | P | 07 29 30.6 | -0.3 |
| | 0.7nm,0.3s,baz=112,slow=7.9,SNR=7.7 | | | | | |
| **FINES** | **FINESS Array B** | **145.77 338** | PKPbc | PKPdf | 07 41 06.6 | -0.1 |
| | 7.8nm,1.0s,baz=53,slow=3.6,SNR=3.5 | | | | | |

*IDC **26** 08:02:47.0±0.5, 8.67S×124.07E, h0km, mb4.7/22, mb1 4.8/24, mb1mx4.6/38, mbtmp4.7/24, ML5.0/2, MS3.5/5, Ms1 3.6/5, ms1mx3.2/29, Error ellipse: s-maj=19.1km s-min=12.1km az=63.0*
*ISCJB **26** 08:02:56.8±0.2, 8.81S±0.03×124.36E±0.03, h100km, mb4.7/47, Error ellipse: s-maj=4.9km s-min=3.8km az=32.6*
*NEIC **26** 08:02:58.4±0.6, 8.79S×124.23E, h96km±6km, mb4.8/23, Error ellipse: s-maj=8.6km s-min=5.7km az=51.0*
*BJI **26** 08:02:58.1, 9.00S×124.10E, h113km, mb5.0/40, mB5.3/16*
*DJA **26** 08:03:00.9±0.2, 9°S±2'×12'4E±', h111km±4km, M4.9/25, mb5.0/25, mB5.3/7, MLv5.0/12, Mw(mB)4.7/7*

**ISC 26 08:02:59.0**±0.3, **8.89S**±0.04×**124.26E**±0.04, **h100**km, **n142**, σ2**s25**/146, **mb4.8**/47, **Timor region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SOEI** | **Soe** | **0.86** | **179** | P | **Pn** | **08 03 21.0** | **+2.8** |
| **SOEI** | **Soe** | **0.86** | **179** | *e*Pn | **Pn** | **08 03 20.9** | **+2.7** |
| SOEI | | | | *e*Sn | **Sn** | **08 03 35.2** | **+2.8** |
| **MMRI** | **Maumere** | **2.01** | **277** | P | **Pn** | **08 03 34.3** | **+2.5** |
| MMRI | | | | S | **Sn** | **08 04 00.5** | **+3.7** |
| **MMRI** | **Maumere** | **2.01** | **277** | *e*Pn | **Pn** | **08 03 33.0** | **+1.2** |
| MMRI | | | | *e*Sn | **Sn** | **08 03 51.7** | **-5.1** |
| **EDFI** | **Ende, Flores** | **2.54** | **273** | P | **Pn** | **08 03 41.3** | **+2.5** |
| **BBSI** | **Bau Bau** | **3.77** | **334** | P | **Pn** | **08 03 57.3** | **+2.1** |
| BBSI | | | | S | **Sn** | **08 04 42.6** | **+3.9** |
| **BASI** | **Baing, Sumba** | **3.86** | **250** | P | **Pn** | **08 03 57.9** | **+1.5** |
| **BSSI** | **Bau Bau, Buton** | **4.63** | **306** | P | **Pn** | **08 04 09.9** | **+3.2** |
| BSSI | | | | S | **Sn** | **08 05 02.9** | **+3.5** |
| **WBSI** | **Waikabubak, Su** | **4.86** | **261** | P | **Pn** | **08 04 10.7** | **+0.7** |
| WBSI | | | | S | **Sn** | **08 05 05.0** | **-0.1** |
| **NLAI** | **Namlea** | **6.29** | **27** | P | Pn | 08 04 39.2 | +10 |
| **PLAI** | **Plampang** | **6.41** | **270** | P | **Pn** | **08 04 32.4** | **+1.5** |
| | 259nm,0.8s,4μm1.8nm | | | | | | |
| **SPSI** | **Sidrap Palu** | **6.62** | **317** | P | Pn | 08 04 37.3 | +3.5 |
| | 46nm,0.7s,0.2nm | | | | | | |
| **SANI** | **Sanana** | **7.01** | **14** | P | Pn | 08 04 42.5 | +3.4 |
| | 56nm,0.6s,0.2nm | | | | | | |
| **SAUI** | **Saumlaki** | **7.02** | **83** | P | **Pn** | **08 04 40.4** | **+1.1** |
| | 969nm,0.9s,2.9nm | | | | | | |
| **SAUI** | **Saumlaki** | **7.02** | **83** | *e*Pn | **Pn** | **08 04 38.8** | **-0.5** |
| SAUI | | | | *e*Sn | **Sn** | **08 05 50.8** | **-6.9** |
| **TTSI** | **Tana Toraja** | **7.29** | **322** | P | Pn | 08 04 46.5 | +3.5 |
| | 96nm,0.8s,2μm0.4nm | | | | | | |
| **MTN** | **Manton Dam** | **7.81** | **121** | *e*Pn | **Pn** | **08 04 49.5** | **-0.5** |
| MTN | | | | *e*Sn | **Sn** | **08 06 10.6** | **-6.3** |
| **LUWI** | **Luwuk** | **7.94** | **349** | P | Pn | 08 04 55.1 | +3.4 |
| | 160nm,0.8s,2μm | | | | | | |
| **LUWI** | **Luwuk** | **7.94** | **349** | *e*Pn | **Pn** | **08 04 48.8** | **-2.9** |
| LUWI | | | | *e*Sn | Sn | 08 06 09.3 | -11 |
| **APSI** | **Ampana** | **8.34** | **342** | P | Pn | 08 05 00.4 | +3.1 |
| **SRBI** | **Singaraja** | **8.98** | **274** | P | **Pn** | **08 05 05.8** | **-0.2** |
| | 32nm,0.5s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **9.25** | **172** | Pn | **Pn** | **08 05 08.2** | **-1.4** |
| | 7.9nm,0.3s,baz=6.7,slow=8.3,SNR=136 | | | | | | |
| FITZ | | | | Sn | Sn | 08 06 44.0 | -8.0 |
| | 39nm,0.3s,baz=74,slow=23,SNR=16 | | | | | | |
| **FAKI** | **Fak Fak** | **9.91** | **54** | P | **Pn** | **08 05 21.9** | **+3.2** |
| FAKI | | | | S | **Sn** | **08 07 06.3** | **-1.9** |
| **FAKI** | **Fak Fak** | **9.91** | **54** | *e*Pn | **Pn** | **08 05 18.6** | **-0.1** |
| **JAGI** | **Jajag, Banyuwa** | **10.00** | **272** | P | **Pn** | **08 05 19.0** | **-0.8** |
| | 50nm,0.5s | | | | | | |
| JAGI | | | | S | **Sn** | **08 07 01.9** | **-8.3** |
| | 50nm,0.5s | | | | | | |
| **JAGI** | **Jajag, Banyuwa** | **10.00** | **272** | *e*Pn | **Pn** | **08 05 16.6** | **-3.3** |
| JAGI | | | | *e*Sn | **Sn** | **08 07 03.0** | **-7.2** |
| **TNTI** | **Ternate** | **10.09** | **18** | *e*Pn | **Pn** | **08 05 18.1** | **-2.9** |
| **MPSI** | **Mapaga** | **10.14** | **334** | P | Pn | 08 05 26.2 | +4.4 |
| | 42nm,1.0s,646nm | | | | | | |
| **MTKI** | **Muara Teweh, K** | **12.22** | **310** | P | **P** | **08 06 01.5** | **+3.5** |
| **PWJI** | **Pagerwojo** | **12.35** | **273** | P | **Pn** | **08 05 51.1** | **-0.4** |
| | 66nm,0.5s | | | | | | |
| **PCJI** | **Pacitan** | **12.96** | **272** | P | **Pn** | **08 05 59.1** | **-0.3** |
| **UGM** | **Wanagama** | **13.62** | **273** | P | **Pn** | **08 06 08.8** | **+0.6** |
| | 147nm,1.0s | | | | | | |
| **WR1** | **Warramunga Arr** | **14.69** | **140** | *e*Pn | **Pn** | **08 06 18.8** | **-3.1** |
| WR1 | | | | *e*Sn | Sn | 08 08 49.0 | -15 |
| **WRA** | **Warramunga Arr** | **14.69** | **140** | Pn | **Pn** | **08 06 18.8** | **-3.1** |
| | 7.4nm,0.3s,baz=320,slow=13,SNR=223 | | | | | | |
| WRA | | | | Sn | Sn | 08 08 49.0 | -15 |
| | 7.3nm,0.3s,baz=312,slow=24,SNR=27 | | | | | | |
| WRA | | | | LR | LR | 08 12 58.5 | |
| | comp=Z,157nm,21.0s,baz=310,slow=41 | | | | | | |
| **WRAB** | **Tennant Creek** | **14.69** | **139** | *e*Pn | **Pn** | **08 06 18.5** | **-3.4** |
| WRAB | | | | *e*Sn | Sn | 08 08 49.1 | -15 |
| **WB2** | **Warramunga Arr** | **14.70** | **139** | *e*Pn | Pn | 08 06 18.0 | -4.0 |
| **MYLDM** | **Lahad Datu** | **15.11** | **337** | *e*Pn | Pn | 08 06 21.1 | -6.2 |
| **KPJI** | **Karang Pucung** | **15.25** | **275** | P | **P** | **08 06 37.1** | **+5.4** |
| **STKI** | **Sintang** | **15.53** | **304** | P | **P** | **08 06 38.3** | **+3.5** |
| **CISI** | **Cisompet, Garu** | **16.33** | **273** | P | **Pn** | **08 06 42.7** | **+0.1** |
| | 115nm,0.4s | | | | | | |
| **CISI** | **Cisompet, Garu** | **16.33** | **273** | *e*Pn | **Pn** | **08 06 41.1** | **-1.4** |
| | 112nm,0.4s | | | | | | |
| **SBUM** | **Sibu** | **16.46** | **313** | *e*Pn | **P** | **08 06 46.5** | **+1.4** |
| | 30nm,0.9s | | | | | | |
| **KKM** | **Kota Kinabalu** | **16.86** | **331** | *e*Pn | **P** | **08 06 49.9** | **+0.2** |
| | 77nm,0.9s | | | | | | |
| **CNJI** | **Cibinong** | **17.03** | **274** | P | **P** | **08 06 52.1** | **+0.7** |
| | 131nm,0.7s,2μm | | | | | | |
| **AS31** | **Alice Springs** | **17.35** | **149** | *e*Pn | **P** | **08 06 54.8** | **-0.1** |
| | 30nm,1.0s | | | | | | |
| **ASAR** | **Alice Springs** | **17.35** | **149** | P | **P** | **08 06 54.5** | **-0.4** |
| | 4.1nm,0.3s,baz=319,slow=11,SNR=367 | | | | | | |
| ASAR | | | | S | Sn | 08 09 57.9 | -10 |
| | 6.3nm,0.3s,baz=318,slow=21,SNR=11 | | | | | | |
| ASAR | | | | LR | LR | 08 14 09.4 | |
| | comp=Z,136nm,18.8s,baz=316,slow=39 | | | | | | |
| **AS01** | **Alice Springs** | **17.38** | **149** | *e*Pn | **P** | **08 06 54.8** | **-0.4** |
| **COEN** | **Coen** | **19.21** | **107** | *e*P | **Pn** | **08 07 16.7** | **-0.6** |
| | 44nm,0.8s | | | | | | |
| **KASI** | **Kota Agung** | **19.89** | **278** | P | **Pn** | **08 07 27.0** | **+1.8** |
| **FORT** | **Forrest** | **22.07** | **171** | *e*P | **P** | **08 07 46.6** | **+0.8** |
| | 968nm,1.0s | | | | | | |
| FORT | | | | *e*S | **S** | **08 11 45.6** | **+2.6** |
| **PMG** | **Port Moresby** | **22.61** | **93** | P | **P** | **08 07 52.6** | **+0.9** |
| | 9.0nm,0.6s,baz=304,slow=8.2,SNR=5.4 | | | | | | |
| PMG | | | | S | **S** | **08 12 00.9** | **+8.5** |
| | 3.6nm,0.6s,baz=167,slow=19,SNR=5.6 | | | | | | |
| **PMG** | **Port Moresby** | **22.61** | **93** | *e*P | **P** | **08 07 53.0** | **+1.3** |
| | 51nm,0.8s | | | | | | |
| **CTA** | **Charters Tower** | **24.00** | **120** | P | **P** | **08 08 06.0** | **+1.3** |
| | 38nm,1.0s,baz=292,slow=12,SNR=28 | | | | | | |
| **CTAO** | **Charters Tower** | **24.00** | **120** | *e*P | **P** | **08 08 06.5** | **+1.9** |
| | 31nm,0.8s | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **24.79** | **194** | P | **P** | **08 08 12.3** | **+0.6** |
| | 6.2nm,0.7s,baz=260,slow=7.2,SNR=8.8 | | | | | | |
| **BBOO** | **Buckleboo** | **26.19** | **157** | *e*P | **P** | **08 08 25.8** | **+1.4** |
| | 20nm,0.8s | | | | | | |
| **PSI** | **Prapat** | **27.80** | **294** | P | **P** | **08 08 37.0** | **-2.1** |
| | 4.3nm,0.3s,baz=179,slow=4.7,SNR=6.1 | | | | | | |
| **PSI** | **Prapat** | **27.80** | **294** | *e*P | **P** | **08 08 38.2** | **-1.0** |
| | 23nm,1.1s | | | | | | |
| **STKA** | **Stephens Creek** | **27.97** | **147** | P | **P** | **08 08 42.3** | **+1.9** |
| | 12nm,0.8s,baz=313,slow=9.6,SNR=18 | | | | | | |
| **STKA** | **Stephens Creek** | **27.97** | **147** | *e*P | **P** | **08 08 41.9** | **+1.5** |
| | 3.9nm,1.0s | | | | | | |
| **ARMA** | **Armidale** | **33.34** | **134** | *e*P | **P** | **08 09 29.1** | **+1.2** |
| | 11nm,0.7s | | | | | | |
| **CM01** | **Chiang Mai Arr** | **36.88** | **317** | *e*P | **P** | **08 09 59.5** | **+1.4** |
| **CMAR** | **Chiang Mai Arr** | **36.91** | **317** | P | **P** | **08 09 57.0** | **-1.5** |
| | 11nm,0.8s,baz=141,slow=6.7,SNR=31 | | | | | | |
| CMAR | | | | LR | LR | 08 28 17.2 | |
| | comp=Z,58nm,19.1s,baz=115,slow=42 | | | | | | |
| **CMMT** | **Chiang Mai** | **37.16** | **318** | P | **P** | **08 10 02.7** | **+2.1** |
| | 16nm,0.7s | | | | | | |
| **CHTO** | **Chiang Mai** | **37.16** | **318** | P | **P** | **08 10 02.7** | **+2.1** |
| | 65nm,0.9s | | | | | | |
| **CHTO** | **Chiang Mai** | **37.16** | **318** | *e*P | **P** | **08 10 00.8** | **+0.3** |
| | 11nm,0.8s | | | | | | |
| **KMI** | **Kunming** | **39.78** | **329** | P | **P** | **08 10 25.3** | **+2.6** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,16nm,0.5s | | | | | | |
| **NJ2** | **Nanjing** | **41.04** | **353** | *e*P | **P** | **08 10 35.5** | **+2.9** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,12nm,0.6s | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **CD2** | **Chengdu** | **44.19** | **334** | P | **P** | **08 10 58.5** | **+0.3** |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,30nm,1.2s | | | | | | |
| **XAN** | **Xi'an** | **45.11** | **342** | P | **P** | **08 11 03.5** | **-2.0** |
| XAN | | | | pmax | pmax | | |
| | comp=Z,26nm,0.8s | | | | | | |
| XAN | | | | pmax | pmax | | |
| | comp=Z,160nm,6.5s | | | | | | |
| **KSRS** | **Korea Array** | **46.23** | **4** | P | **P** | **08 11 12.8** | **-1.3** |
| | 1.8nm,0.5s,baz=175,slow=9.9,SNR=5.9 | | | | | | |
| **MAT** | **Matsushiro** | **47.06** | **15** | P | **P** | **08 11 19.2** | **-1.5** |
| **MJAR** | **Matsushiro Arr** | **47.06** | **15** | P | **P** | **08 11 19.4** | **-1.3** |
| | 5.2nm,0.7s,baz=191,slow=8.8,SNR=13 | | | | | | |
| **LZH** | **Lanzhou** | **48.69** | **338** | *e*P | **P** | **08 11 33.5** | **0.0** |
| LZH | | | | pP | pP | 08 12 00.0 | +2.6 |
| LZH | | | | sP | sP | 08 12 15.5 | +6.9 |
| LZH | | | | PP | **PP** | **08 13 27.3** | **-0.3** |
| LZH | | | | pmax | pmax | | |
| | comp=Z,39nm,1.0s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,160nm,4.5s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=N,560nm,14.6s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=E,600nm,15.4s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,690nm,16.5s | | | | | | |
| **BJI** | **Beijing** | **49.26** | **352** | P | **P** | **08 11 35.5** | **-2.0** |
| BJI | | | | pmax | pmax | | |
| | comp=Z,12nm,0.9s | | | | | | |
| **ODAN** | **Odare** | **50.42** | **316** | *e*P | **P** | **08 11 46.0** | **-0.9** |
| | 27nm,0.7s | | | | | | |
| **TAPN** | **Taplejung** | **50.51** | **317** | *e*P | **P** | **08 11 47.0** | **-0.7** |
| | 33nm,0.7s | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **50.86** | **348** | *e*P | P | 08 11 54.8 | +5.0 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,15nm,1.0s | | | | | | |
| **RAMN** | **Ramite** | **51.02** | **315** | *e*P | **P** | **08 11 50.9** | **-0.5** |
| | 63nm,0.7s | | | | | | |
| **JIRN** | **Jiri** | **51.75** | **316** | *e*P | **P** | **08 11 56.2** | **-0.8** |
| | 293nm,0.7s | | | | | | |
| **GUN** | **Gumba** | **52.12** | **316** | *e*P | **P** | **08 11 58.1** | **-1.6** |
| **PKI** | **Pulchoki** | **52.23** | **315** | *e*P | **P** | **08 11 59.4** | **-1.1** |
| | 12nm,0.3s | | | | | | |
| **PKIN** | **Phulchoki** | **52.24** | **315** | *e*P | **P** | **08 11 59.3** | **-1.3** |
| | 20nm,0.5s | | | | | | |
| **KKN** | **Kakani** | **52.46** | **315** | *e*P | **P** | **08 12 01.0** | **-1.1** |
| | 25nm,0.7s | | | | | | |
| **DMN** | **Daman** | **52.47** | **315** | *e*P | **P** | **08 12 00.9** | **-1.3** |
| | 28nm,0.8s | | | | | | |
| **GKN** | **Gorkha** | **53.04** | **315** | *e*P | **P** | **08 12 05.3** | **-1.0** |
| | 0.5nm,0.3s | | | | | | |
| **GTA** | **Gaotai** | **53.14** | **336** | *e*P | **P** | **08 12 07.0** | **+0.2** |
| GTA | | | | pP | pP | 08 12 32.0 | +1.0 |
| GTA | | | | sP | sP | 08 12 45.3 | +3.2 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.0s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **53.30** | **7** | P | **P** | **08 12 07.4** | **-0.3** |
| | 12nm,0.7s,baz=190,slow=7.3,SNR=22 | | | | | | |
| **RPZ** | **Rata Peaks** | **53.40** | **139** | *e*P | **P** | **08 12 10.7** | **+2.2** |
| | 15nm,0.8s | | | | | | |
| **MDJ** | **Mudanjiang** | **53.47** | **5** | *e*P | **P** | **08 12 08.6** | **-0.4** |
| | 45nm,0.9s | | | | | | |
| **KOLN** | **Koldanda** | **53.62** | **314** | *e*P | **P** | **08 12 09.8** | **-0.8** |
| | 30nm,0.8s | | | | | | |
| **PYUN** | **Piuthan** | **54.25** | **314** | *e*P | **P** | **08 12 14.4** | **-0.8** |
| | 41nm,0.8s | | | | | | |
| **ULN** | **Ulaanbaatar** | **58.53** | **346** | *e*P | **P** | **08 12 44.3** | **-0.8** |
| | 8.4nm,1.1s | | | | | | |
| **SONA0** | **Songino Array** | **58.65** | **346** | *e*P | **P** | **08 12 44.8** | **-1.1** |
| **SONM** | **Songino Array** | **58.65** | **346** | P | **P** | **08 12 44.8** | **-1.1** |
| | 2.9nm,0.7s,baz=164,slow=8.2,SNR=20 | | | | | | |
| **SONA1** | **Songino Array** | **58.66** | **346** | *e*P | **P** | **08 12 44.6** | **-1.4** |
| **WMQ** | **Urumqi** | **62.06** | **331** | *e*P | **P** | **08 13 10.5** | **+1.3** |
| WMQ | | | | sP | PcP | 08 13 51.0 | +2.3 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,22nm,0.8s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,390nm,7.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,260nm,17.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,200nm,12.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,190nm,17.9s | | | | | | |
| **KSH** | **Kashi** | **65.71** | **321** | P | P | 08 13 38.3 | +5.0 |
| KSH | | | | pP | PcP | 08 14 05.5 | +1.6 |
| KSH | | | | PcP | sP | 08 14 07.5 | -1.8 |
| KSH | | | | S | **S** | **08 22 15.3** | **+3.5** |
| KSH | | | | ScS | **ScS** | **08 23 19.5** | **-0.6** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.3s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,340nm,6.7s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,500nm,7.3s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,430nm,8.0s | | | | | | |
| **MK01** | **Makanchi Array** | **66.82** | **330** | *e*P | **P** | **08 13 39.0** | **-1.1** |
| **MK31** | **Makanchi Array** | **66.84** | **330** | *e*P | **P** | **08 13 39.3** | **-1.0** |
| **MK32** | **Makanchi Array** | **66.84** | **330** | *e*P | **P** | **08 13 39.2** | **-1.0** |
| **MKAR** | **Makanchi Array** | **66.84** | **330** | P | **P** | **08 13 39.2** | **-1.0** |
| | 8.5nm,0.8s,baz=136,slow=8.1,SNR=61 | | | | | | |
| MKAR | | | | LR | LR | 08 44 07.3 | |
| | comp=Z,53nm,18.6s,baz=302,slow=37 | | | | | | |
| **MKAR** | **Makanchi Array** | **66.84** | **330** | *e*P | **P** | **08 13 39.2** | **-1.0** |
| | 66nm,0.9s | | | | | | |
| **MAKZ** | **Makanchi** | **67.01** | **330** | *e*P | **P** | **08 13 39.0** | **-2.2** |
| | 8.0nm,1.0s | | | | | | |
| **KBL** | **Kabul** | **67.75** | **313** | *e*P | **P** | **08 13 45.0** | **-1.4** |
| | 20nm,0.8s | | | | | | |
| **TKM2** | **Tomak 2** | **67.96** | **323** | P | **P** | **08 13 46.8** | **-0.9** |
| | SNR=6.8 | | | | | | |
| **PETK** | **Petropavlovsk-** | **68.00** | **21** | P | **P** | **08 13 47.0** | **-0.3** |
| | 3.2nm,0.4s,baz=181,slow=5.9,SNR=4.8 | | | | | | |
| **PEA1** | **Petropavlovsk-** | **68.00** | **21** | *e*P | **P** | **08 13 47.0** | **-0.3** |
| **UCH** | **Uchtor** | **68.20** | **322** | P | **P** | **08 13 49.0** | **-0.4** |
| | SNR=5.7 | | | | | | |
| **AAK** | **Ala-Archa** | **68.45** | **323** | P | **P** | **08 13 50.0** | **-0.6** |
| | SNR=8.7 | | | | | | |
| **AAK** | **Ala-Archa** | **68.45** | **323** | *e*P | **P** | **08 13 49.8** | **-0.8** |
| | 8.6nm,0.8s | | | | | | |
| **AML** | **Almayashu** | **68.64** | **322** | P | **P** | **08 13 51.9** | **-0.2** |
| | SNR=6.4 | | | | | | |
| **EKS2** | **Erkin-Say** | **68.89** | **322** | P | **P** | **08 13 52.7** | **-0.6** |
| | SNR=6.0 | | | | | | |
| **ZAA0** | **Zalesovo Array** | **70.90** | **337** | *e*P | **P** | **08 14 02.8** | **-2.3** |
| | 13nm,1.0s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **70.90** | **337** | P | **P** | **08 14 03.1** | **-2.1** |
| | 8.9nm,0.8s,baz=131,slow=4.2,SNR=26 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **70.90** | **337** | *e*P | **P** | **08 14 03.1** | **-2.1** |
| **KKAR** | **Karatay Array** | **71.13** | **321** | *e*P | **P** | **08 14 05.5** | **-1.4** |
| **KURK** | **Kurchatov** | **71.30** | **331** | *e*P | **P** | **08 14 06.2** | **-1.4** |
| | 14nm,0.8s | | | | | | |
| **VNDA** | **Vanda** | **71.33** | **172** | LR | LR | 08 42 53.6 | |
| | comp=Z,45nm,21.2s,baz=288,slow=34 | | | | | | |
| **VNDA** | **Vanda** | **71.33** | **172** | *e*P | **P** | **08 14 08.9** | **+1.5** |
| **MA2** | **Magadan** | **71.47** | **14** | P | **P** | **08 14 08.1** | **-0.4** |
| | 12nm,0.8s,baz=159,slow=6.3,SNR=5.1 | | | | | | |
| **BVAR** | **Borovoye Array** | **76.73** | **330** | P | **P** | **08 14 38.2** | **-1.1** |
| | 1.6nm,0.8s,baz=142,slow=7.5,SNR=8.2 | | | | | | |
| **GEYT** | **Alibeck** | **77.17** | **312** | P | **P** | **08 14 41.6** | **-0.5** |
| | 3.8nm,0.8s,baz=106,slow=5.3,SNR=6.6 | | | | | | |
| **TIXI** | **Tiksi** | **80.42** | **1** | P | **P** | **08 14 57.2** | **-2.0** |
| | 3.9nm,0.3s,baz=129,slow=3.2,SNR=8.9 | | | | | | |
| **ABKAR** | **Akbulak array** | **80.53** | **323** | *e*P | **P** | **08 14 59.1** | **-1.0** |
| | 98nm,1.8s | | | | | | |
| **AKTO** | **Aktyubinsk** | **82.15** | **324** | P | **P** | **08 15 07.4** | **-1.4** |
| | 6.1nm,0.9s,baz=112,slow=4.9,SNR=12 | | | | | | |
| **RAYN** | **Ar Rayn** | **83.34** | **295** | *e*P | **P** | **08 15 15.2** | **-0.4** |
| | 7.0nm,0.9s | | | | | | |
| **ARU** | **Arti** | **84.36** | **329** | P | **P** | **08 15 18.3** | **-1.6** |
| | 4.6nm,0.2s,baz=54,slow=4.2,SNR=4.2 | | | | | | |
| **KMBO** | **Kilima Mbogo** | **86.87** | **269** | P | **P** | **08 15 34.2** | **+0.5** |
| | 1.1nm,0.4s,baz=35,slow=6.0,SNR=4.2 | | | | | | |
| **KBZ** | **Khabaz** | **89.89** | **314** | P | **P** | **08 15 46.0** | **-0.9** |
| | 1.9nm,0.8s,baz=147,slow=6.2,SNR=4.4 | | | | | | |
| **BOSA** | **Boshof** | **93.60** | **240** | P | **P** | **08 16 05.5** | **+0.8** |
| | 5.1nm,1.2s,baz=72,slow=3.2,SNR=4.2 | | | | | | |
| **FLSC** | **Flasi Two Peak** | **118.51** | **55** | *e*PKPdf | **PKPdf** | **08 21 36.0** | **+0.2** |
| **TOA0** | **Torodi Ar. Sit** | **123.56** | **280** | *e*PKPdf | **PKPdf** | **08 21 45.8** | **0.0** |
| **TORD** | **Torodi Ar. Bea** | **123.56** | **280** | PKP | **PKPdf** | **08 21 45.6** | **-0.2** |
| | 2.1nm,0.7s,baz=80,slow=2.0,SNR=14 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **123.56** | **280** | *e*PKPdf | **PKPdf** | **08 21 45.6** | **-0.2** |
| **HGTCO** | **Madrid Canyon** | **127.68** | **50** | *e*PKPpre | PKPpre | 08 21 43.6 | |
| **DBIC** | **Dimbokro** | **129.56** | **271** | PKP | **PKPdf** | **08 21 59.2** | **+1.9** |
| | 1.3nm,0.5s,baz=72,slow=9.6,SNR=2.8 | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **DBIC** | **Dimbokro** | **129.56** | **271** | *e*PKPdf | **PKPdf** | **08 21 58.2** | **+0.9** |
| **LTX** | **Lajitas** | **130.77** | **59** | *e*PKPdf | **PKPdf** | **08 22 01.3** | **+2.0** |
| **TXAR** | **Lajitas Array** | **130.77** | **59** | PKP | **PKPdf** | **08 22 01.3** | **+2.0** |
| | 0.5nm,0.9s,baz=238,slow=2.4,SNR=4.0 | | | | | | |
| **CPUP** | **Villa Florida** | **144.96** | **178** | PKPbc | **PKPdf** | **08 22 26.8** | **+1.4** |
| | 4.4nm,0.8s,baz=163,slow=4.1,SNR=8.8 | | | | | | |
| **LPAZ** | **La Paz** | **152.14** | **154** | PKPbc | **PKPbc** | **08 22 47.1** | **+2.4** |
| | 0.5nm,0.5s,baz=239,slow=5.9,SNR=3.7 | | | | | | |
| LPAZ | | | | PKPab | **PKPab** | **08 22 56.9** | **+2.5** |
| | 2.9nm,0.5s,baz=212,slow=3.4,SNR=11 | | | | | | |

*CSEM **26** 08:09:42.7, 38.69N×22.81E, h16km, ML2.1/5*
**ATH 26 08:09:42.7, 38.69N×22.81E, h16**km±3km, **ML2.1**/5, **Error ellipse: s-maj=3.7km s-min=0.7km az=310.0, Greece**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **AXAR** | **Agios Charalam** | **0.14** | **303** | P | Pb | 08 09 47.0 | +0.2 |
| AXAR | | | | AML | AML | 08 09 50.0 | |
| | comp=N,4986μm,0.3s | | | | | | |
| AXAR | | | | S | Sb | 08 09 50.1 | +0.5 |
| AXAR | | | | AML | AML | 08 09 50.3 | |
| | comp=E,2473μm,0.1s | | | | | | |
| **AXAR** | **Agios Charalam** | **0.14** | **303** | P | Pb | 08 09 47.0 | +0.1 |
| AXAR | | | | S | Sb | 08 09 50.1 | +0.5 |
| **DSF** | **Desfina** | **0.36** | **218** | P | Pg | 08 09 49.2 | -0.8 |
| DSF | | | | S | Sg | 08 09 55.2 | 0.0 |
| **DSF** | **Desfina** | **0.36** | **218** | P | Pg | 08 09 49.2 | -0.9 |
| DSF | | | | S | Sg | 08 09 55.2 | +0.1 |
| **SMIA** | **Simia** | **0.37** | **59** | P | Pg | 08 09 49.8 | -0.5 |
| SMIA | | | | S | Sg | 08 09 53.9 | -1.5 |
| SMIA | | | | AML | AML | 08 09 56.5 | |
| | comp=N,1547μm,0.4s | | | | | | |
| SMIA | | | | AML | AML | 08 09 57.0 | |
| | comp=E,863μm,0.3s | | | | | | |
| **SMIA** | **Simia** | **0.37** | **59** | P | Pg | 08 09 49.8 | -0.4 |
| SMIA | | | | S | Sg | 08 09 53.9 | -1.5 |
| **PROD** | **Prodromos** | **0.44** | **170** | P | Pg | 08 09 50.7 | -0.8 |
| **PROD** | **Prodromos** | **0.44** | **170** | P | Pg | 08 09 50.7 | -0.9 |
| **AGG** | **Agios Georgios** | **0.49** | **312** | P | Pg | 08 09 52.5 | -0.1 |
| AGG | | | | S | Sg | 08 09 59.3 | +0.1 |
| AGG | | | | AML | AML | 08 10 00.1 | |
| | comp=N,364μm,0.5s | | | | | | |
| AGG | | | | AML | AML | 08 10 02.3 | |
| | comp=E,468μm,0.3s | | | | | | |
| **AGG** | **Agios Georgios** | **0.49** | **312** | P | Pg | 08 09 52.5 | -0.1 |
| AGG | | | | S | Sg | 08 09 59.3 | 0.0 |
| **KALE** | **Kalithea** | **0.60** | **240** | P | Pg | 08 09 53.2 | -1.4 |
| KALE | | | | S | Sb | 08 10 03.0 | -0.1 |
| KALE | | | | AML | AML | 08 10 05.9 | |
| | comp=N,357μm,0.2s | | | | | | |
| KALE | | | | AML | AML | 08 10 06.0 | |
| | comp=E,220μm,0.2s | | | | | | |
| **KALE** | **Kalithea** | **0.60** | **240** | P | Pg | 08 09 53.2 | -1.4 |
| KALE | | | | S | Sb | 08 10 03.0 | -0.1 |
| **VIL2** | **Platees** | **0.60** | **143** | P | Pb | 08 09 55.3 | +0.5 |
| VIL2 | | | | S | Sn | 08 10 06.1 | +0.1 |
| **SERG** | **Sergoula** | **0.65** | **245** | P | Pg | 08 09 55.4 | -0.1 |
| SERG | | | | S | Sn | 08 10 06.0 | -1.1 |
| SERG | | | | AML | AML | 08 10 06.4 | |
| | comp=N,384μm,0.4s | | | | | | |
| SERG | | | | AML | AML | 08 10 07.4 | |
| | comp=E,276μm,0.3s | | | | | | |
| **SERG** | **Sergoula** | **0.65** | **245** | P | Pg | 08 09 55.4 | -0.1 |
| SERG | | | | S | Sn | 08 10 06.0 | -1.1 |
| **TRIZ** | **Trizonia** | **0.66** | **241** | P | Pg | 08 09 54.9 | -0.8 |
| TRIZ | | | | S | Sg | 08 10 04.5 | +0.1 |
| **TRIZ** | **Trizonia** | **0.66** | **241** | P | Pg | 08 09 54.9 | -0.7 |
| TRIZ | | | | S | Sg | 08 10 04.5 | +0.1 |
| **VILL** | **Villia** | **0.66** | **143** | P | Pg | 08 09 55.3 | -0.4 |
| VILL | | | | S | Sb | 08 10 06.1 | +1.3 |
| **LTK** | **Loutraki** | **0.68** | **169** | P | Pg | 08 09 56.1 | 0.0 |
| **LTK** | **Loutraki** | **0.68** | **169** | P | Pb | 08 09 56.1 | 0.0 |
| **NEO** | **Neokhori** | **0.69** | **28** | P | Pb | 08 09 56.9 | +0.6 |
| **NEO** | **Neokhori** | **0.69** | **28** | P | Pb | 08 09 56.9 | +0.5 |
| **SKIA** | **Skiathos** | **0.70** | **47** | P | Pg | 08 09 56.4 | 0.0 |
| SKIA | | | | S | Sb | 08 10 06.3 | +0.5 |
| **SKIA** | **Skiathos** | **0.70** | **47** | P | Pg | 08 09 56.3 | -0.1 |
| SKIA | | | | S | Sb | 08 10 06.3 | +0.5 |
| **FYTO** | **Fytoko, Volos** | **0.72** | **8** | P | Pg | 08 09 56.2 | -0.6 |
| **FYTO** | **Fytoko, Volos** | **0.72** | **8** | P | Pg | 08 09 56.2 | -0.6 |
| **XOR** | **Xorichti** | **0.74** | **24** | P | Pb | 08 09 57.4 | +0.3 |
| XOR | | | | S | Sg | 08 10 05.7 | -1.1 |
| **XOR** | **Xorichti** | **0.74** | **24** |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| KLYT | Kilyos | 2.24 | 113 | *e*PN | | Pn | 08 10 51.5 | +0.3 |
| KLYT | Kilyos | 2.24 | 113 | *e*Pn | | Pn | 08 10 51.5 | +0.3 |
| EZN | Ezine | 2.33 | 180 | *e*PN | | Pn | 08 10 54.2 | +1.7 |
| ISK | Istanbul-Kandi | 2.33 | 117 | *e*PN | | Pn | 08 10 52.5 | 0.0 |
| ISK | Istanbul-Kandi | 2.33 | 117 | *e*Pn | | Pn | 08 10 52.5 | 0.0 |
| KAVV | Kandilli-Istan | 2.33 | 117 | *e*PN | | Pn | 08 10 52.9 | +0.4 |
| KAVV | Kandilli-Istan | 2.33 | 117 | *e*Pn | | Pn | 08 10 52.9 | +0.4 |
| VTS | Vitosha | 2.34 | 282 | *e*Pn | | Pn | 08 10 53.7 | +1.0 |
| VTS | | | | *e*Sn | | Sn | 08 11 20.9 | -0.3 |
| VTS | Vitosha | 2.34 | 282 | ⇑*i*P | | Pn | 08 10 53.8 | +1.0 |
| VTS | Vitosha | 2.34 | 282 | S | | Sn | 08 11 22.3 | +1.1 |
| VTS | Vitosha | 2.34 | 282 | *i* P | | Pn | 08 10 53.5 | +0.7 |
| VTS | Vitosha | 2.34 | 282 | *e*Pn | | Pn | 08 10 53.7 | +1.0 |
| VTS | | | | *e*Sn | | Sn | 08 11 20.9 | -0.3 |
| BAYC | CANAKKALE_Bayr | 2.42 | 176 | *i* P | | Pn | 08 10 56.6 | +2.9 |
| BAYC | | | | *i* S | | Sb | 08 11 26.8 | -0.8 |
| KCTX | Karacabey (Bur | 2.44 | 140 | *e*PN | | Pn | 08 10 54.5 | +0.5 |
| ARMT | Armutlu | 2.50 | 129 | *e*PN | | Pn | 08 10 55.1 | +0.3 |
| ARMT | Armutlu | 2.50 | 129 | *e*Pn | | Pn | 08 10 55.1 | +0.3 |
| SULR | | 2.52 | 359 | ⇑*i*P | | Pg | 08 11 01.1 | -2.1 |
| SULR | | 2.52 | 359 | S | | Sg | 08 11 43.4 | +7.6 |
| SULR | | 2.52 | 359 | ⇑*i*P | | Pg | 08 11 01.1 | -2.1 |
| HUMR | Humele | 2.56 | 338 | ⇓*i*P | | Pg | 08 11 02.9 | -1.1 |
| HUMR | Humele | 2.56 | 338 | ⇓*i*P | | Pg | 08 11 02.9 | -1.1 |
| HUMR | | | | S | | Sg | 08 11 41.5 | +4.4 |
| TIRR | Tirgusor | 2.76 | 33 | ⇓*i*P | | Pb | 08 11 03.8 | 0.0 |
| TIRR | Tirgusor | 2.76 | 33 | ⇓*i*P | | Pb | 08 11 03.8 | 0.0 |
| TIRR | | | | S | | Sg | 08 11 44.0 | +0.4 |
| VAY | Valandovo | 2.92 | 255 | *e*Pn | | Pn | 08 11 02.7 | +2.1 |
| ZAPS | Zavoj | 2.93 | 294 | *e*Pn | | Pn | 08 11 02.3 | +1.5 |
| ZAPS | | | | *e*Sn | | Sn | 08 11 35.9 | +0.3 |
| ISR | Istrita | 2.96 | 3 | ⇑*i*P | | Pb | 08 11 08.5 | +1.2 |
| ISR | Istrita | 2.96 | 3 | ⇑*i*P | | Pb | 08 11 08.5 | +1.2 |
| ISR | | | | S | | Sg | 08 11 54.2 | +4.1 |
| KAND | Kocaeli-Kandir | 3.10 | 109 | *i* P | | Pb | 08 11 09.2 | -0.3 |
| KAND | | | | *i* S | | Sg | 08 11 52.2 | -2.2 |
| CFR | Carcaliu | 3.29 | 23 | ⇑*i*P | | Pb | 08 11 12.4 | -0.5 |
| CFR | Carcaliu | 3.29 | 23 | ⇑*i*P | | Pb | 08 11 12.4 | -0.5 |
| CFR | | | | S | | Sg | 08 11 56.2 | -4.5 |
| MLR | Muntele Rosu | 3.34 | 356 | ⇑*i*P | | Pb | 08 11 13.2 | -0.6 |
| MLR | Muntele Rosu | 3.34 | 356 | S | | Sg | 08 12 04.2 | +2.0 |
| MLR | Muntele Rosu | 3.34 | 356 | ⇑*i*P | | Pb | 08 11 13.2 | -0.6 |
| SRE | Strehaia | 3.37 | 319 | S | | Sg | 08 12 03.2 | 0.0 |
| BARS | Barje | 3.39 | 283 | *e*Pn | | Pn | 08 11 07.8 | +0.7 |
| BARS | Barje | 3.39 | 283 | *e*Pn | | Pn | 08 11 07.8 | +0.7 |
| VOIR | | 3.40 | 345 | ⇑*i*P | | Pb | 08 11 14.6 | -0.2 |
| VOIR | | 3.40 | 345 | S | | Sg | 08 12 05.5 | +1.4 |
| VOIR | | 3.40 | 345 | ⇑*i*P | | Pb | 08 11 14.6 | -0.2 |
| ZAGS | Zajecar | 3.42 | 300 | *e*Pn | | Pn | 08 11 07.2 | -0.2 |
| ZAGS | | | | *e*Sn | | Sn | 08 11 46.4 | -1.2 |
| ZAGS | Zajecar | 3.42 | 300 | *e*Pn | | Pn | 08 11 07.2 | -0.2 |
| ARR | Arges | 3.43 | 340 | ⇑*i*P | | Pb | 08 11 14.0 | -1.2 |
| ARR | Arges | 3.43 | 340 | ⇑*i*P | | Pb | 08 11 14.0 | -1.2 |
| ARR | | | | S | | Sg | 08 12 02.8 | -2.2 |
| ODBI | Odobesti | 3.64 | 8 | S | | Sg | 08 12 14.9 | +3.1 |
| BOVS | Bovan | 3.69 | 295 | *e*Pn | | Pn | 08 11 12.3 | +1.1 |
| BOVS | | | | *e*Sn | | Sn | 08 11 53.1 | -1.2 |
| BOVS | Bovan | 3.69 | 295 | *e*Pn | | Pn | 08 11 12.3 | +1.1 |
| BOVS | | | | *e*Sn | | Sn | 08 11 53.1 | -1.2 |
| PLOR | Plostina | 3.70 | 4 | ⇓*i*P | | Pb | 08 11 18.2 | -1.6 |
| PLOR | Plostina | 3.70 | 4 | S | | Sg | 08 12 12.7 | -0.9 |
| PLOR | Plostina | 3.70 | 4 | ⇓*i*P | | Pb | 08 11 18.2 | -1.6 |
| VRI | Vrincioaia | 3.72 | 4 | ⇑*i*P | | Pb | 08 11 18.5 | -1.6 |
| VRI | Vrincioaia | 3.72 | 4 | S | | Sg | 08 12 13.1 | -1.2 |
| VRI | Vrincioaia | 3.72 | 4 | ⇑*i*P | | Pb | 08 11 18.5 | -1.6 |
| DOPR | Dopca | 3.86 | 350 | ⇑*i*P | | Pb | 08 11 21.0 | -1.6 |
| DOPR | Dopca | 3.86 | 350 | S | | Sg | 08 12 23.7 | +4.8 |
| DOPR | Dopca | 3.86 | 350 | ⇑*i*P | | Pb | 08 11 21.0 | -1.6 |
| SELS | Selova | 3.97 | 287 | *e*Pn | | Pn | 08 11 15.1 | 0.0 |
| SELS | Selova | 3.97 | 287 | *e*Pn | | Pn | 08 11 15.1 | 0.0 |
| KUBS | Kucevo | 4.07 | 305 | *e*Pn | | Pn | 08 11 15.6 | -0.7 |
| KUBS | | | | *e*Sn | | Sn | 08 12 01.1 | -2.4 |
| KUBS | Kucevo | 4.07 | 305 | *e*Pn | | Pn | 08 11 15.6 | -0.7 |
| MDVR | Moldovita | 4.25 | 310 | ⇑*i*P | | Pn | 08 11 19.4 | +0.5 |
| MDVR | Moldovita | 4.25 | 310 | S | | Sg | 08 12 27.3 | -4.0 |
| MDVR | Moldovita | 4.25 | 310 | ⇑*i*P | | Pn | 08 11 19.4 | +0.5 |
| GRUS | Gruza | 4.45 | 295 | *e*Pn | | Pn | 08 11 22.3 | +0.7 |
| GRUS | Gruza | 4.45 | 295 | *e*Pn | | Pn | 08 11 22.3 | +0.7 |
| IVAS | Ivanjica | 4.74 | 289 | *e*Pn | | Pn | 08 11 26.3 | +0.6 |
| IVAS | Ivanjica | 4.74 | 289 | *e*Pn | | Pn | 08 11 26.3 | +0.6 |
| TRUS | Trudelj | 4.78 | 298 | *e*Pn | | Pn | 08 11 26.5 | +0.3 |
| TRUS | Trudelj | 4.78 | 298 | *e*Pn | | Pn | 08 11 26.5 | +0.3 |
| BZS | Buzias | 4.84 | 317 | ⇑*i*P | | Pn | 08 11 31.3 | +4.3 |
| BZS | Buzias | 4.84 | 317 | S | | Sg | 08 12 44.2 | -6.1 |
| BZS | Buzias | 4.84 | 317 | ⇑*i*P | | Pn | 08 11 31.3 | +4.3 |
| DIVS | Divibare | 5.01 | 295 | *e*Pn | | Pn | 08 11 29.9 | +0.4 |
| DIVS | Divibare | 5.01 | 295 | *e*Pn | | Pn | 08 11 29.9 | +0.4 |
| DRGR | | 5.30 | 332 | ⇑*i*P | | Pn | 08 11 39.4 | +6.1 |
| DRGR | | 5.30 | 332 | S | | Sb | 08 12 52.4 | +2.0 |
| DRGR | | 5.30 | 332 | ⇑*i*P | | Pn | 08 11 39.4 | +6.1 |
| BBLS | Lazići | 5.34 | 291 | *e*Pg | | Pb | 08 11 49.3 | +1.5 |

*MDD **26** 08:16:16.2₀1.2,36˚.09N×14˚.17W,h30ᵏᵐ,mb4.3/6, Error ellipse: s-maj=22.9km s-min=10.2km az=140.0, PRXIMO*
*INMG **26** 08:16:19.2₀1.6,36˚.08N×14˚.24W,h10ᵏᵐ₀19ᵏᵐ,ML2.5, Error ellipse: s-maj=8.0km s-min=4.6km az=130.0*

**ISC 26 08:16:11.5**±1.4,**36°23N**±0˚.06×**14°12W**±0˚.07,**h10ᵏᵐ,n40,**
**σ3ˢ54/70,1D,Azores-Cape St. Vincent Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PMPS** | **Porto Santo** | **3.66** | **211** | *e*Pn | **Pn** | **08 17 07.3** | **-0.8** |
| PMPS | | | | *e*Sn | Sn | 08 17 42.5 | -8.8 |
| PMPS | | | | A | A | 08 17 50.2 | |
| | 14nm,0.7s | | | | | | |
| **PMAR** | **Madeira** | **4.19** | **214** | *e*Pn | **Pn** | **08 17 14.8** | **-0.9** |
| PMAR | | | | *e*Sn | Sn | 08 17 56.5 | -8.3 |
| PMAR | | | | A | A | 08 18 00.6 | |
| | 13nm,0.2s | | | | | | |
| **PMOZ** | **Porto Moniz, M** | **4.25** | **218** | P | **Pn** | **08 17 15.4** | **-0.9** |
| | 8.7nm,0.2s,SNR=7.9 | | | | | | |
| PMOZ | | | | S | **Sn** | **08 18 00.0** | **-6.0** |
| | 15nm,0.2s,SNR=4.0 | | | | | | |
| **PMOZ** | **Porto Moniz, M** | **4.25** | **218** | *e*Pn | **Pn** | **08 17 15.8** | **-0.5** |
| **PFVI** | **Vila Bisbo** | **4.35** | **77** | P | **Pn** | **08 17 21.1** | **+3.5** |
| | 1.5nm,0.1s,SNR=7.9 | | | | | | |
| PFVI | | | | S | **Sn** | **08 18 06.9** | **-1.4** |
| | 9.5nm,0.3s,SNR=7.9 | | | | | | |
| **PFVI** | **Vila Bisbo** | **4.35** | **77** | ⇓*e*Pn | **Pn** | **08 17 21.1** | **+3.5** |
| PFVI | | | | *e*Sn | **Sn** | **08 18 06.9** | **-1.4** |
| **PMAFR** | **Mafra** | **4.70** | **53** | P | **Pn** | **08 17 26.9** | **+4.4** |
| | 4.2nm,0.2s,SNR=7.9 | | | | | | |
| PMAFR | | | | S | **Sn** | **08 18 15.7** | **-1.5** |
| | 10.0nm,0.1s,SNR=6.7 | | | | | | |
| **PMAFR** | **Mafra** | **4.70** | **53** | *e*Pn | **Pn** | **08 17 26.9** | **+4.4** |
| PMAFR | | | | *e*Sn | **Sn** | **08 18 17.1** | **0.0** |
| PMAFR | | | | A | A | 08 18 22.2 | |
| | 15nm,0.5s | | | | | | |
| **PNCL** | **Nicolau / Gran** | **4.84** | **66** | *e*Pn | **Pn** | **08 17 27.5** | **+3.1** |
| PNCL | | | | *e*Sn | **Sn** | **08 18 19.4** | **-1.1** |
| PNCL | | | | A | A | 08 18 24.9 | |
| | 3.9nm,0.3s | | | | | | |
| **MESJ** | **Messejana** | **4.98** | **69** | *e*Pn | **Pn** | **08 17 30.1** | **+3.8** |
| MESJ | | | | *e*Sn | **Sn** | **08 18 22.1** | **-1.9** |
| MESJ | | | | A | A | 08 18 27.7 | |
| | 3.2nm,0.7s | | | | | | |
| **PCVE** | **Castro Verde** | **5.07** | **72** | *e*Pn | **Pn** | **08 17 31.5** | **+4.0** |
| PCVE | | | | *e*Sn | **Sn** | **08 18 24.1** | **-1.9** |
| PCVE | | | | A | A | 08 18 25.8 | |
| | 3.0nm,0.5s | | | | | | |
| **PBDV** | **Barranco-do-Ve** | **5.07** | **77** | *e*Pn | **Pn** | **08 17 31.6** | **+4.0** |
| PBDV | | | | *e*Sn | **Sn** | **08 18 25.6** | **-0.6** |
| PBDV | | | | A | A | 08 18 30.0 | |
| | 6.3nm,0.8s | | | | | | |
| **PVAQ** | **Vaqueiros** | **5.27** | **75** | *e*Pn | **Pn** | **08 17 34.1** | **+3.9** |
| PVAQ | | | | *e*Sn | **Sn** | **08 18 29.4** | **-1.6** |
| PVAQ | | | | A | A | 08 18 37.2 | |
| | 3.0nm,0.5s | | | | | | |
| **EVO** | **Evora** | **5.38** | **63** | *e*Sn | **Sn** | **08 18 30.9** | **-2.8** |
| EVO | | | | A | A | 08 18 37.5 | |
| | 5.4nm,0.3s | | | | | | |
| **PMTG** | **Montargil** | **5.46** | **57** | *e*Pn | **Pn** | **08 17 37.0** | **+4.0** |
| PMTG | | | | *e*Sn | **Sn** | **08 18 34.4** | **-1.5** |
| PMTG | | | | A | A | 08 18 44.6 | |
| | 1.9nm,0.6s | | | | | | |
| **EGRO** | **El Granado** | **5.47** | **74** | S | **Sn** | **08 18 32.8** | **-3.3** |
| | 3.3nm,0.3s,SNR=7.9 | | | | | | |
| **PTOM** | **Tomar** | **5.64** | **51** | *e*Pn | **Pn** | **08 17 39.7** | **+4.4** |
| PTOM | | | | *e*Sn | **Sn** | **08 18 39.9** | **-0.2** |
| **PESTR** | **Estremoz** | **5.81** | **61** | *e*Sn | **Sn** | **08 18 41.4** | **-3.1** |
| PESTR | | | | A | A | 08 19 09.4 | |
| | 1.6nm,0.6s | | | | | | |
| **PCAS** | **Casmilo, Conde** | **5.84** | **48** | *e*Pn | **Pn** | **08 17 41.9** | **+3.7** |
| PCAS | | | | *e*Sn | **Sn** | **08 18 42.8** | **-2.4** |
| **PBAR** | **Barrancos** | **5.97** | **69** | *e*Pn | **Pn** | **08 17 43.7** | **+3.8** |
| PBAR | | | | *e*Sn | **Sn** | **08 18 45.0** | **-3.4** |
| PBAR | | | | A | A | 08 18 48.9 | |
| | 4.3nm,0.6s | | | | | | |
| **EMIN** | **Mina Concepcio** | **6.15** | **73** | P | **Pn** | **08 17 45.7** | **+3.3** |
| | 0.4nm,0.1s,SNR=7.9 | | | | | | |
| EMIN | | | | S | **Sn** | **08 18 48.5** | **-4.3** |
| | 0.8nm,0.2s,SNR=7.9 | | | | | | |
| **EBAD** | **Badajoz** | **6.18** | **64** | P | **Pn** | **08 17 47.5** | **+4.7** |
| | 0.8nm,0.2s,SNR=7.9 | | | | | | |
| EBAD | | | | S | **Sn** | **08 18 50.0** | **-3.6** |
| | 3.3nm,0.2s,SNR=7.9 | | | | | | |
| **PMRV** | **Marv??o** | **6.21** | **57** | *e*Pn | **Pn** | **08 17 45.5** | **+2.3** |
| PMRV | | | | *e*Sn | **Sn** | **08 18 51.5** | **-2.7** |
| **PCBR** | **Castelo Branco** | **6.36** | **54** | *e*Sn | **Sn** | **08 18 56.2** | **-1.7** |
| **PVIS** | **Viseu** | **6.62** | **46** | *e*Pn | **Pn** | **08 17 52.5** | **+3.6** |
| PVIS | | | | *e*Sn | **Sn** | **08 19 02.6** | **-1.9** |
| PVIS | | | | A | A | 08 19 05.4 | |
| | 4.6nm,0.2s | | | | | | |
| **ESPR** | **Espera** | **6.68** | **82** | P | **Pn** | **08 17 52.7** | **+3.1** |
| | 0.8nm,0.1s,SNR=7.9 | | | | | | |
| ESPR | | | | S | **Sn** | **08 19 03.3** | **-2.5** |
| | 4.2nm,0.2s,SNR=7.9 | | | | | | |
| **POLO** | **Lamas de Olo** | **7.12** | **42** | *e*Pn | **Pn** | **08 17 59.9** | **+4.1** |
| POLO | | | | *e*Sn | **Sn** | **08 19 14.5** | **-2.3** |
| POLO | | | | A | A | 08 19 14.5 | |
| | 0.8nm,0.8s | | | | | | |
| **ECAB** | **El Cabril** | **7.19** | **73** | P | **Pn** | **08 17 59.5** | **+2.8** |
| | 1.0nm,0.2s,SNR=9.4 | | | | | | |
| ECAB | | | | S | **Sn** | **08 19 12.9** | **-5.4** |
| | 1.1nm,0.4s,SNR=7.9 | | | | | | |
| **PGAV** | **Gavieira, Arco** | **7.31** | **37** | *e*Pn | **Pn** | **08 18 02.7** | **+4.3** |
| PGAV | | | | *e*Sn | **Sn** | **08 19 18.7** | **-2.7** |
| PGAV | | | | A | A | 08 19 27.6 | |
| | 1.6nm,0.3s | | | | | | |
| **ELOB** | **Lobios** | **7.34** | **38** | P | **Pn** | **08 18 03.2** | **+4.4** |
| | 0.5nm,0.1s,SNR=7.9 | | | | | | |
| ELOB | | | | S | **Sn** | **08 19 19.0** | **-3.2** |
| | 1.0nm,0.1s,SNR=7.9 | | | | | | |
| **MVO** | **Moncorvo** | **7.41** | **46** | P | **Pn** | **08 18 02.9** | **+3.2** |
| | 0.7nm,0.1s,SNR=7.9 | | | | | | |
| MVO | | | | S | **Sn** | **08 19 20.1** | **-3.8** |
| | 1.1nm,0.1s,SNR=7.9 | | | | | | |
| **MVO** | **Moncorvo** | **7.41** | **46** | *e*Pn | **Pn** | **08 18 03.0** | **+3.2** |
| MVO | | | | *e*Sn | **Sn** | **08 19 21.4** | **-2.5** |
| MVO | | | | A | A | 08 19 26.5 | |
| | 1.9nm,0.2s | | | | | | |
| **EMAZ** | **Mazaricos** | **7.79** | **29** | P | **Pn** | **08 18 08.6** | **+3.7** |
| | 1.6nm,0.2s,SNR=7.9 | | | | | | |
| EMAZ | | | | S | **Sn** | **08 19 26.5** | **-6.7** |
| | 1.7nm,0.1s,SNR=7.9 | | | | | | |
| **EADA** | **Adamuz** | **7.86** | **73** | P | **Pn** | **08 18 09.1** | **+3.3** |
| | 0.3nm,0.1s,SNR=7.9 | | | | | | |
| EADA | | | | S | **Sn** | **08 19 30.4** | **-4.4** |
| | 0.5nm,0.1s,SNR=7.9 | | | | | | |
| **EAGO** | **Agolada(Pontev** | **8.04** | **34** | P | **Pn** | **08 18 11.4** | **+3.0** |
| | 1.1nm,0.1s,SNR=7.9 | | | | | | |
| EAGO | | | | S | **Sn** | **08 19 33.2** | **-6.2** |
| | 1.1nm,0.1s,SNR=7.9 | | | | | | |
| **ECAL** | **Calabor** | **8.09** | **43** | P | **Pn** | **08 18 12.4** | **+3.4** |
| | 1.9nm,0.2s,SNR=7.9 | | | | | | |
| ECAL | | | | S | **Sn** | **08 19 38.4** | **-2.1** |
| | 1.2nm,0.2s,SNR=7.9 | | | | | | |
| **PAB** | **San Pablo** | **8.40** | **64** | S | **Sn** | **08 19 43.2** | **-5.1** |
| | 0.1nm,0.1s,SNR=4.0 | | | | | | |
| **ELGU** | **Los Guajares,** | **8.47** | **83** | S | **Sn** | **08 19 45.9** | **-4.1** |
| | 1.6nm,0.1s,SNR=7.9 | | | | | | |
| **ESDC** | **Sonseca Array** | **8.72** | **64** | P | **Pn** | **08 18 20.3** | **+2.5** |
| | 0.6nm,0.1s,baz=251,slow=13,SNR=7.9 | | | | | | |
| **EPON** | **Pontenova** | **8.88** | **35** | P | **Pn** | **08 18 24.4** | **+4.5** |
| | 0.4nm,0.1s,SNR=7.9 | | | | | | |
| EPON | | | | S | **Sn** | **08 19 53.1** | **-6.9** |
| | 0.8nm,0.2s,SNR=4.0 | | | | | | |

*MOS **26** 08:35:43.6₀0.9,36˚.42N×70˚.88E,h178ᵏᵐ,mb4.9/42, Error ellipse: s-maj=6.2km s-min=4.2km az=91.1*
*ISCJB **26** 08:35:43.2₀0.2,36˚.41N₀0˚.02×70˚.87E₀1˚.02,h173ᵏᵐ₀2ᵏᵐ, mb4.6/94, Error ellipse: s-maj=3.2km s-min=2.7km az=167.7*
*BJI **26** 08:35:44.1,36˚.51N×70˚.89E,h174ᵏᵐ,mb4.8/51,mB5.0/34*
*NEIC **26** 08:35:44.6₀0.6,36˚.41N×70˚.89E,h174ᵏᵐ₀5ᵏᵐ,mb4.8/42, Error ellipse: s-maj=5.3km s-min=4.3km az=149.0*
*IDC **26** 08:35:46.8₀0.9,36˚.36N×70˚.85E,h196ᵏᵐ₀8ᵏᵐ,mb4.1/31, mb1 4.2/34,mb1mx4.1/52,mbtmp4.7/34, Error ellipse: s-maj=9.9km s-min=7.4km az=6.0*
*NNC **26** 08:35:48.3₀2.0,36˚.83N×70˚.78E,h188ᵏᵐ₀16ᵏᵐ,mb3.9, mpv4.8, Error ellipse: s-maj=20.4km s-min=9.6km az=163.0*

**ISC 26 08:35:44.6**±0.4,**36°44N**±0˚.03×**70°85E**±0˚.03,**h174**ᵏᵐ₀3ᵏᵐ,
**h174ᵏᵐ:pP-P,n308,σ2ˢ10/384,mb4.7/94,32C-29D,Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KBL** | **Kabul** | **2.40** | **218** | *e*PN | **Pn** | **08 36 26.3** | **+0.3** |
| KBL | | | | *e* | | 08 36 57.6 | |
| **KBL** | **Kabul** | **2.40** | **218** | *e*Pn | **Pn** | **08 36 26.3** | **+0.3** |
| KBL | | | | *e*Sn | **Sn** | **08 36 57.6** | **-0.5** |
| **CEP** | **Cherat** | **2.75** | **161** | ⇑P | **Pn** | **08 36 31.2** | **+1.1** |
| CEP | | | | S | **Sn** | **08 37 05.0** | **-0.5** |
| **DZET** | **Dzherino** | **2.85** | **326** | ⇓P | **Pn** | **08 36 31.2** | **-0.1** |
| | 156nm,0.4s | | | | | | |
| DZET | | | | ⇑S | **Sn** | **08 37 05.8** | **-1.9** |
| | 1μm,0.4s | | | | | | |
| **DZET** | **Dzherino** | **2.85** | **326** | PN | **Pn** | **08 36 31.1** | **-0.1** |
| DZET | | | | pmax | pmax | | |
| | comp=Z,156nm,0.4s | | | | | | |
| **CHCP** | **Chirah Chowk** | **3.41** | **144** | P | **Pn** | **08 36 39.4** | **+1.3** |
| **THW** | **Thamme Wali** | **3.71** | **168** | ⇑P | **Pn** | **08 36 42.5** | **+0.6** |
| **SRNI** | **Srinagar** | **4.02** | **124** | *e*P | Pn | 08 36 39.0 | -6.7 |
| SRNI | | | | *e*S | Sn | 08 37 21.0 | -13 |
| **SFK** | **Sufi-Kurgan** | **4.13** | **30** | ⇓P | **Pn** | **08 36 48.5** | **+1.1** |
| | comp=Z,244nm,0.4s | | | | | | |
| SFK | | | | ⇓S | **Sn** | **08 37 35.4** | **-1.1** |
| | comp=Z,1μm,0.4s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **4.13** | **30** | PN | **Pn** | **08 36 48.1** | **+0.7** |
| SFK | | | | S | **Sn** | **08 37 35.4** | **-1.1** |
| SFK | | | | pmax | pmax | | |
| | comp=Z,245nm,0.4s | | | | | | |
| SFK | | | | smax | smax | | |
| | comp=N,1μm,0.4s | | | | | | |
| **SARP** | **Sargodha** | **4.75** | **161** | ⇑P | **Pn** | **08 36 55.0** | **-0.3** |
| **KSH** | **Kashi** | **5.08** | **51** | P | **Pn** | **08 36 55.3** | **-4.2** |
| KSH | | | | S | Sn | 08 37 48.8 | -10 |
| KSH | | | | smax | smax | | |
| | comp=N,3μm,0.5s | | | | | | |
| KSH | | | | smax | smax | | |
| | comp=N,2μm,0.4s | | | | | | |
| **THN** | **Thein Dam** | **5.67** | **133** | *e*P | **Pn** | **08 37 06.0** | **-1.2** |
| THN | | | | *e*S | **Sn** | **08 38 05.2** | **-6.8** |
| **AML** | **Almayashu** | **6.10** | **20** | P | **Pn** | **08 37 13.0** | **0.0** |
| | SNR=248 | | | | | | |
| **DHRM** | **DHARAMSHALA** | **6.15** | **131** | *e*P | **Pn** | **08 37 12.7** | **-1.0** |
| DHRM | | | | *e*S | **Sn** | **08 38 20.6** | **-3.2** |
| **PONG** | **Pong** | **6.16** | **135** | *e*P | **Pn** | **08 37 11.0** | **-2.5** |
| PONG | | | | *e*S | **Sn** | **08 38 17.0** | **-6.5** |
| **MNAS** | **Manas** | **6.17** | **11** | ⇑P | **Pn** | **08 37 13.7** | **-0.2** |
| | comp=N,42nm,0.5s | | | | | | |
| MNAS | | | | ⇓S | **Sn** | **08 38 21.2** | **-2.9** |
| | comp=N,342nm,0.6s | | | | | | |
| **MNAS** | **Manas** | **6.17** | **11** | PN | **Pn** | **08 37 13.6** | **-0.2** |
| MNAS | | | | pmax | pmax | | |
| | comp=Z,63nm,0.4s | | | | | | |
| **UCH** | **Uchtor** | **6.44** | **25** | P | **Pn** | **08 37 17.5** | **-0.1** |
| | SNR=162 | | | | | | |
| **JWA** | **Jwalamukhi** | **6.44** | **134** | *e*P | **Pn** | **08 37 16.0** | **-1.3** |
| JWA | | | | *e*S | **Sn** | **08 38 25.0** | **-5.3** |
| **KZA** | **Kyzart** | **6.58** | **30** | P | **Pn** | **08 37 19.0** | **-0.5** |
| | SNR=19 | | | | | | |
| **EKS2** | **Erkin-Say** | **6.61** | **19** | P | **Pn** | **08 37 19.7** | **+0.1** |
| | SNR=56 | | | | | | |
| **KK31** | **Karatay Array** | **6.66** | **358** | ⇓P | **Pn** | **08 37 19.8** | **-0.4** |
| | comp=Z,14nm,0.3s,baz=181,slow=13,SNR=638 | | | | | | |
| KK31 | | | | ⇑S | **Sn** | **08 38 30.7** | **-4.8** |
| | comp=Z,33nm,0.3s,baz=171,slow=22,SNR=10.0 | | | | | | |
| **KK31** | **Karatay Array** | **6.66** | **358** | *e*PN | **Pn** | **08 37 19.7** | **-0.4** |
| KK31 | | | | pmax | pmax | | |
| | comp=Z,24nm,0.4s | | | | | | |
| **KKAR** | **Karatay Array** | **6.66** | **358** | *e*Pn | **Pn** | **08 37 19.8** | **-0.3** |
| KKAR | | | | *e*Sn | **Sn** | **08 38 30.6** | **-4.9** |
| **AAK** | **Ala-Archa** | **6.80** | **23** | P | **Pn** | **08 37 22.5** | **+0.4** |
| | comp=Z,14nm,0.3s,baz=173,slow=6.6,SNR=150 | | | | | | |
| AAK | | | | S | **Sn** | **08 38 36.7** | **-2.3** |
| | comp=Z,18nm,0.3s,baz=309,slow=22,SNR=20 | | | | | | |
| **AAK** | **Ala-Archa** | **6.80** | **23** | ⇓P | **Pn** | **08 37 22.0** | **-0.1** |
| | comp=Z,28nm,0.5s | | | | | | |
| AAK | | | | ⇑S | **Sn** | **08 38 36.3** | **-2.7** |
| | comp=Z,137nm,0.5s | | | | | | |
| **AAK** | **Ala-Archa** | **6.80** | **23** | *c*ePN | **Pn** | **08 37 22.3** | **+0.2** |
| AAK | | | | pmax | pmax | | |
| | comp=Z,28nm,0.4s | | | | | | |
| **AAK** | **Ala-Archa** | **6.80** | **23** | P | **Pn** | **08 37 22.3** | **+0.2** |
| | SNR=80 | | | | | | |
| **AAK** | **Ala-Archa** | **6.80** | **23** | *e*Pn | **Pn** | **08 37 22.1** | **0.0** |
| AAK | | | | *e*Sn | **Sn** | **08 38 37.9** | **-1.0** |
| **AAK** | **Ala-Archa** | **6.80** | **23** | Pn | **Pn** | **08 37 22.5** | **+0.4** |
| | SNR=18 | | | | | | |
| **AAK** | **Ala-Archa** | **6.80** | **23** | P | **Pn** | **08 37 22.5** | **+0.4** |
| | SNR=18 | | | | | | |
| **BHK** | **Bhakra** | **6.82** | **136** | *e*P | **Pn** | **08 37 19.0** | **-3.4** |
| BHK | | | | *e*S | **Sn** | **08 38 31.2** | **-8.2** |
| **KBK** | **Karagaybulak** | **6.97** | **26** | P | **Pn** | **08 37 24.7** | **+0.4** |
| | SNR=22 | | | | | | |
| **FRU** | **Bishkek** | **7.01** | **23** | ⇓*e*PN | **Pn** | **08 37 26.0** | **+1.2** |
| FRU | | | | *i* S | **Sn** | **08 38 44.0** | **+0.1** |
| FRU | | | | pmax | pmax | | |
| | comp=Z,120nm,1.9s | | | | | | |
| FRU | | | | smax | smax | | |
| | comp=E,2μm,2.0s | | | | | | |
| **SDNR** | **Sundarnagar** | **7.08** | **132** | *e*P | **Pn** | **08 37 24.0** | **-1.8** |
| SDNR | | | | *e*S | **Sn** | **08 38 40.0** | **-5.6** |
| **ULHL** | **Ulahol** | **7.14** | **34** | P | **Pn** | **08 37 26.4** | **-0.4** |
| | SNR=31 | | | | | | |
| **CHMS** | **Chumysh** | **7.21** | **23** | P | **Pn** | **08 37 27.1** | **-0.3** |
| | SNR=46 | | | | | | |
| **USP** | **Ospenovka** | **7.37** | **21** | P | **Pn** | **08 37 28.7** | **-0.8** |
| | SNR=26 | | | | | | |
| **TKM2** | **Tokmak 2** | **7.43** | **28** | ⇑P | **Pn** | **08 37 30.2** | **-0.3** |
| | comp=E,42nm,0.6s | | | | | | |
| TKM2 | | | | ⇑S | **Sn** | **08 38 51.1** | **-3.1** |
| | comp=E,191nm,1.3s | | | | | | |
| **TKM2** | **Tokmak 2** | **7.43** | **28** | PN | **Pn** | **08 37 30.2** | **-0.3** |
| TKM2 | | | | pmax | pmax | | |
| | comp=Z,42nm,0.6s | | | | | | |
| **TKM2** | **Tokmak 2** | **7.43** | **28** | P | **Pn** | **08 37 30.5** | **0.0** |
| | SNR=36 | | | | | | |
| **SMLA** | **Simla** | **7.46** | **133** | *e*P | **Pn** | **08 37 30.0** | **-0.8** |
| SMLA | | | | *e*S | **Sn** | **08 38 50.0** | **-4.6** |
| **MDOK** | **Medeo** | **8.23** | **33** | ⇓P | **Pn** | **08 37 41.6** | **+0.5** |
| **DDI** | **Dehra Dun** | **8.57** | **133** | *e*P | **Pn** | **08 37 44.3** | **-1.1** |
| DDI | | | | *e*S | **Sn** | **08 39 13.7** | **-7.7** |
| **BHGR** | **Bahadurgarh** | **9.28** | **145** | *e*P | **Pn** | **08 37 52.1** | **-2.6** |
| **KHET** | **Khetri** | **9.34** | **152** | *e*P | **Pn** | **08 37 53.0** | **-2.5** |
| KHET | | | | *e*S | **Sn** | **08 39 31.1** | **-8.5** |
| KHET | | | | AML | AML | 08 39 35.5 | |
| | comp=E,447nm,0.5s | | | | | | |
| KHET | | | | AML | AML | 08 39 35.7 | |
| | comp=N,442nm,0.3s | | | | | | |
| **JOSI** | **Joshimath** | **9.34** | **126** | *e*P | **Pn** | **08 37 54.5** | **-1.3** |
| JOSI | | | | *e*S | **Sn** | **08 39 33.5** | **-6.5** |
| **NDI** | **New Delhi** | **9.41** | **143** | *e*P | **Pn** | **08 37 54.0** | **-2.6** |
| NDI | | | | *e*S | **Sn** | **08 39 33.0** | **-8.4** |
| **PDGK** | **Podgornoye** | **9.56** | **41** | ⇓P | **Pn** | **08 37 57.5** | **-0.9** |
| | comp=N,35nm,0.7s | | | | | | |
| PDGK | | | | ⇑S | **Sn** | **08 39 38.4** | **-6.4** |
| | comp=N,62nm,1.3s | | | | | | |
| **PDGK** | **Podgornoye** | **9.56** | **41** | P | **Pn** | **08 37 56.7** | **-1.7** |
| PDGK | | | | pmax | pmax | | |
| | comp=Z,35nm,0.7s | | | | | | |
| **SONA** | **Sohna** | **9.72** | **145** | *e*P | **Pn** | **08 37 59.0** | **-1.5** |
| SONA | | | | *e*S | Sn | 08 39 38.6 | -10 |
| SONA | | | | AML | AML | 08 39 40.9 | |
| | comp=N,309nm,0.3s | | | | | | |
| SONA | | | | AML | AML | 08 39 43.5 | |
| | comp=E,665nm,0.2s | | | | | | |
| **GEYT** | **Alibeck** | **10.27** | **282** | P | **Pn** | **08 38 05.2** | **-2.5** |
| | comp=E,12nm,0.3s,baz=106,slow=11

**BRVK Borovoye 16.62 359** *e*P **P** **08 39 26.4 -0.4**
comp=Z,45nm,0.8s
**BRVK Borovoye 16.62 359** P **P** **08 39 26.8 0.0**
SNR=27
**BRVK Borovoye 16.62 359** P **P** **08 39 26.8 0.0**
SNR=27
**AKTO Aktyubinsk 16.77 331** P **Pn** **08 39 29.8 +0.5**
comp=Z,3.7nm,0.3s,baz=144,slow=11,SNR=113
AKTO S **S** **08 42 27.8 -6.4**
comp=Z,1.1nm,0.3s,baz=338,slow=19,SNR=4.6
**AKTO Aktyubinsk 16.77 331** ⇓P **Pn** **08 39 29.3 0.0**
comp=Z,64nm,0.9s
**NGP Nagpur 16.83 153** *e*P **Pn** **08 39 30.2 0.0**
NGP *ex* x 08 42 27.8
**WSAR Wadi Sarin 16.87 222** P **Pn** **08 39 31.1 +0.4**
comp=Z,0.8nm,0.3s,baz=68,slow=10,SNR=25
**UOSS Minazif 17.00 232** *e*P **P** **08 39 31.4 +0.1**
comp=Z,62nm,0.8s
**HATD Hatta, Dubai 17.13 232** *i* P **Pn** **08 39 33.4 -0.4**
SNR=25
**HATD Hatta, Dubai 17.13 232** Pn **Pn** **08 39 36.1 +2.3**
SNR=8.3
**HATD Hatta, Dubai 17.13 232** P **Pn** **08 39 36.1 +2.3**
SNR=8.3
**WBK Wadi Bani Khal 17.21 220** Pn **Pn** **08 39 38.0 +3.3**
SNR=6.8
**WBK Wadi Bani Khal 17.21 220** P **Pn** **08 39 38.0 +3.3**
SNR=6.8
**ASHO Ashiyiah 17.28 231** *i* P **P** **08 39 34.5 +0.2**
SNR=52
**ASHO Ashiyiah 17.28 231** Pn **Pn** **08 39 37.7 +2.1**
SNR=27
**ASHO Ashiyiah 17.28 231** P **Pn** **08 39 37.7 +2.1**
SNR=27
**NAZ Nazwa, Dubai 17.32 233** *i* P **Pn** **08 39 36.7 +0.7**
SNR=14
**NAZ Nazwa, Dubai 17.32 233** Pn **Pn** **08 39 38.0 +2.0**
SNR=9.1
**NAZ Nazwa, Dubai 17.32 233** P **Pn** **08 39 38.0 +2.0**
SNR=9.1
**JMDO Jabal Madar 17.86 222** P **Pn** **08 39 47.0 +4.6**
SNR=5.5
**DGZ Jazzator, Alta 17.90 37***c* *i*P **Pn** **08 39 42.1 -0.7**
DGZ pmax pmax
comp=Z,58nm,1.4s
**ARQ Araqi 18.00 227** P Pn 08 39 52.0 +8.0
SNR=6.3
**POO Poona 18.04 171** *i* S **S** **08 43 02.0 +1.5**
**BSY Bisya 18.06 225** P **Pn** **08 39 48.0 +3.2**
SNR=8.4
**BSY Bisya 18.06 225** P **Pn** **08 39 48.0 +3.2**
SNR=8.4
**BOK Bokaro 18.08 130** *e*P **Pn** **08 39 44.4 -0.6**
BOK *e*P **P** **08 39 44.8 +1.7**
BOK AMB AMB 08 39 45.4
comp=Z,88nm,0.8s
BOK *ex* x 08 42 51.7
**LSA Lhasa 18.28 106** *e*P **Pn** **08 39 49.4 +1.7**
LSA pmax pmax
comp=Z,61nm,0.6s
**LSA Lhasa 18.28 106** *e*P **Pn** **08 39 49.4 +1.7**
comp=Z,60nm,0.6s
**SEKA Sheki 19.01 292** P **P** **08 39 52.1 -1.0**
**MNGR Mingechevir, A 19.05 290** P **P** **08 39 53.3 -0.1**
**ZKTA Zakatala 19.50 293** P **P** **08 39 58.0 -0.2**
**GANJ Ganja 19.62 290** P **P** **08 39 59.3 -0.3**
**TURI Tura 19.88 118** *e*P **P** **08 40 03.1 +0.5**
TURI *ex* x 08 43 33.1
**ZAA0 Zalesovo Array 20.02 25** *e*P **P** **08 40 03.6 -0.1**
comp=Z,79nm,0.9s
**ZALV Zalesovo Beam 20.02 25** P **P** **08 40 04.2 +0.5**
comp=Z,54nm,0.3s,baz=215,slow=11,SNR=202
ZALV S **S** **08 43 36.3 -2.6**
comp=Z,4.9nm,0.8s,baz=219,slow=15,SNR=4.3
**ZALV Zalesovo Beam 20.02 25** P **P** **08 40 04.2 +0.5**
ZALV S **S** **08 43 36.3 -2.6**
ZALV pmax pmax
comp=Z,53nm,0.4s
ZALV smax smax
comp=N,5.0nm,0.8s
**ZALV Zalesovo Beam 20.02 25** *e*P **P** **08 40 02.9 -0.8**
**ZAA1 Zalesovo Array 20.02 25** *e*P **P** **08 40 04.2 +0.5**
ZAA1 *e*S **S** **08 43 36.3 -2.7**
**HYB Hyderabad 20.14 158** *i* P **P** **08 40 07.0 +1.6**
HYB *e*S **S** **08 43 45.0 +3.0**
**HYB Hyderabad 20.14 158** *ex* **S** **08 43 41.1 -0.9**
**NAX Nakhchivan 20.20 285** P **P** **08 40 05.6 -0.3**
**NVS Novosibirsk 20.28 21**⇑ *i*P **P** **08 40 07.6 +1.1**
NVS *e**PP pP 08 40 44.6 +8.3
NVS *i* S **S** **08 43 43.6 -0.5**
NVS pmax pmax
comp=Z,110nm,1.5s
NVS pmax pmax
comp=N,91nm,1.4s
NVS pmax pmax
comp=E,33nm,1.4s
NVS smax smax
comp=N,36nm,1.4s
NVS smax smax
comp=E,23nm,1.4s
**GROC Groznyy 20.35 297** *e*P **P** **08 40 07.9 +0.6**
GROC *e**PP **pP** **08 40 38.6 +1.4**
GROC *e*S **S** **08 43 47.1 +1.4**
GROC pmax pmax
comp=Z,105nm,1.5s
**GNI Garni 20.80 288** P **P** **08 40 14.7 +2.4**
comp=Z,52nm,0.9s,baz=174,slow=1.7,SNR=14
**GNI Garni 20.80 288** *i* P **P** **08 40 14.9 +2.5**
SNR=9.6
**GNI Garni 20.80 288***d* *i*P **P** **08 40 14.8 +2.5**
GNI pmax pmax
comp=Z,231nm,1.0s
**GNI Garni 20.80 288** *e*P Pn 08 40 15.3 -2.2
**GNI Garni 20.80 288** P Pn 08 40 17.0 -0.4
SNR=8.9
**SHL Shillong 20.99 115** *e*P **P** **08 40 14.0 -0.6**
SHL *e*S **S** **08 43 58.8 +0.1**
**SVE Sverdlovsk 21.52 345**⇓ *i*P **P** **08 40 20.6 +1.0**
SVE pmax pmax
comp=Z,84nm,1.3s
**ARU Arti 21.65 341** P **P** **08 40 22.2 +1.2**
comp=Z,12nm,0.4s,baz=136,slow=6.9,SNR=30
ARU S **S** **08 44 07.1 -1.8**
comp=Z,1.6nm,0.3s,baz=87,slow=19,SNR=1.4
**ARU Arti 21.65 341***d* *i*P **P** **08 40 22.1 +1.2**
ARU 08 40 51.4
ARU S **S** **08 44 12.4 +3.5**
ARU SS **SnSn** **08 44 59.1 +5.7**
ARU pmax pmax
comp=Z,96nm,1.2s
**ARU Arti 21.65 341** *e*P **P** **08 40 22.3 +1.2**
comp=Z,70nm,1.0s
**ZEI Tsey 21.65 295** *e*P **P** **08 40 21.9 +0.5**
ZEI pmax pmax
comp=Z,36nm,1.2s
**VIS Vishakhapatnam 21.67 146** *ex* P 08 40 28.8 +7.3
VIS *i* x 08 45 04.2
**HVS Khovu-Aksy 21.96 41**⇑ *e*P **P** **08 40 24.7 +0.3**
HVS pmax pmax
comp=Z,76nm,1.2s
**NCK Nalchik 21.98 297**⇓ *e*P **P** **08 40 24.6 0.0**
NCK pmax pmax
comp=Z,33nm,0.4s
**KBZ Khabaz 22.52 297** P **P** **08 40 29.5 -0.1**
comp=Z,6.0nm,0.8s,baz=112,slow=6.3,SNR=12
**KOHI KOHIMA 22.55 112** *e*S **S** **08 44 26.4 +1.9**
**NEY Neytrino 22.57 296**⇓ *e*P **P** **08 40 32.9 +2.5**
NEY pmax pmax
comp=Z,4.0nm,1.4s
**KVAR Kislovodsk Arr 22.70 298** P **P** **08 40 33.5 +2.1**
comp=Z,4.4nm,0.4s,baz=90,slow=11,SNR=4.4
**KIV Kislovodsk 22.71 298** *e*P **P** **08 40 34.0 +2.5**
KIV pmax pmax
comp=Z,14nm,1.1s
**GTA Gaotai 23.00 74** ⇑P **P** **08 40 36.0 +1.8**
GTA pP pP 08 41 07.5 +1.2
GTA sP sP 08 41 27.0 -1.0
GTA S **S** **08 44 31.8 +0.4**
GTA SS **SnSn** **08 45 33.5 +7.3**
GTA pmax pmax
comp=Z,28nm,1.4s
GTA pmax pmax
comp=Z,170nm,5.2s
GTA LR LR
comp=Z,280nm,14.7s
GTA LR LR
comp=Z,270nm,15.9s
GTA LR LR
comp=Z,340nm,16.4s
**MDRS Chennai 24.76 158** *e*P **P** **08 40 48.9 -1.3**
**RAYN Ar Rayn 25.36 247** *e*P **P** **08 40 54.3 -1.4**
comp=Z,21nm,0.9s
**VRH Novokhopyorsk 25.46 315** *e*P **P** **08 40 55.9 -0.3**
VRH pmax pmax
comp=Z,20nm,1.2s
**MOY Mondy 26.23 45** *e*P **P** **08 41 05.0 +1.7**
MOY pmax pmax
comp=Z,18nm,1.5s
**LZH Lanzhou 26.54 81** *e*P **P** **08 41 08.0 +1.7**
LZH pP pP 08 41 42.0 0.0
LZH PP **PnPn** **08 41 58.5 +0.8**
LZH sP sP 08 42 00.0 -2.2
LZH *e*S **S** **08 45 25.5 -2.3**
LZH sS sS 08 46 28.3 -3.1
LZH *e*SS **SnSn** **08 46 54.5 +2.7**
LZH pmax pmax
comp=Z,31nm,1.0s
LZH pmax pmax
comp=Z,320nm,6.5s
**ANN Anapa 26.56 299** *e*P **P** **08 41 05.3 -0.8**
ANN *e**PP **pP** **08 41 41.0 -0.8**
ANN *e* 08 41 58.5
ANN *e*S **S** **08 45 27.3 -0.2**
ANN pmax pmax
comp=Z,26nm,1.1s
**VSR Storozhevoye 26.95 313** *e*P **P** **08 41 10.2 +0.6**
VSR *e**PP **pP** **08 41 44.1 -1.3**
VSR pmax pmax
comp=Z,10.0nm,1.0s
**ZAK Zakamensk 27.12 49** *e*P **P** **08 41 10.1 -1.2**
ZAK pmax pmax
comp=Z,4.0nm,1.1s
ZAK pmax pmax
comp=Z,4.0nm,1.3s
**LPSR Galich'ya Gora 27.61 316** *e*P **P** **08 41 15.6 +0.2**
LPSR pmax pmax
comp=Z,20nm,1.1s
**TLY Talaya 27.77 46**⇑ *e*P **P** **08 41 18.4 +1.5**
TLY pmax pmax
comp=Z,4.0nm,0.7s
**CD2 Chengdu 27.85 92** *e*P **P** **08 41 20.0 +2.1**
CD2 pP pP 08 41 59.3 +5.5
CD2 sP sP 08 42 16.0 +2.0
CD2 pmax pmax
comp=Z,30nm,1.0s
**SONA0 Songino Array 28.47 55** *e*P **P** **08 41 24.5 +1.2**
**SONM Songino Array 28.47 55** P **P** **08 41 24.5 +1.2**
comp=Z,2.8nm,0.4s,baz=256,slow=9.7,SNR=37
SONM pP **pP** **08 42 04.9 +5.6**
comp=Z,2.9nm,1.1s,baz=259,slow=9.2,SNR=2.6
**SONA1 Songino Array 28.48 55** *e*P **P** **08 41 24.0 +0.7**
**ULN Ulaanbaatar 28.91 55**⇑ *i*P **P** **08 41 28.0 +0.8**
ULN pmax pmax
comp=Z,17nm,2.0s
**ULN Ulaanbaatar 28.91 55** *e*P **P** **08 41 27.1 -0.2**
comp=Z,5.4nm,0.9s
**BR101 Keskin Array S 29.34 288** *e*P **P** **08 41 32.3 +1.2**
**BRTR Keskin Array B 29.34 288** P **P** **08 41 32.3 +1.2**
comp=Z,1.0nm,0.7s,baz=104,slow=9.9,SNR=6.1
BRTR ScP **ScP** **08 47 55.6 -2.6**
comp=Z,0.3nm,0.3s,baz=141,slow=5.5,SNR=4.3
**BRTR Keskin Array B 29.34 288** *i* P **P** **08 41 33.0 +1.9**
BRTR pmax pmax
comp=Z,1.0nm,0.6s
**KMI Kunming 29.50 103** P **P** **08 41 33.8 +1.0**
KMI pmax pmax
comp=Z,17nm,0.5s
**OBN Obninsk 29.90 320**⇑ *e*P **P** **08 41 36.7 +1.0**
OBN *e**PP **pP** **08 42 13.3 +1.5**
OBN *e* 08 42 40.8
OBN pmax pmax
comp=Z,49nm,1.3s
**CMAR Chiang Mai Arr 30.53 118** P **P** **08 41 43.0 +1.3**
comp=Z,3.7nm,0.7s,baz=301,slow=8.3,SNR=12
**CMAR Chiang Mai Arr 30.53 118** P **P** **08 41 43.0 +1.3**
**XAN Xi'an 31.06 83** P **P** **08 41 46.8 +0.6**
XAN pmax pmax
comp=Z,41nm,1.0s
XAN pmax pmax
comp=Z,89nm,8.1s
**KLMR Klimovskoe 31.47 331** *e*P **P** **08 41 46.4 -3.0**
KLMR pmax pmax
comp=Z,44nm,1.3s
**HHC Hu-ho-hao-te 31.90 69** *e*P **P** **08 41 55.0 +1.5**
HHC S **S** **08 46 47.0 -4.5**
HHC pmax pmax
comp=Z,20nm,0.9s
HHC pmax pmax
comp=Z,280nm,5.7s
HHC LR LR
comp=Z,280nm,13.3s
HHC LR LR
comp=Z,340nm,8.0s
**GYA Guiyang 31.98 98** P **P** **08 41 55.8 +1.4**
GYA sP sP 08 42 54.0 +3.3
GYA PcP **PcP** **08 44 41.8 +1.6**
GYA S **S** **08 46 51.8 -1.2**
GYA sS sS 08 47 58.3 +1.1
GYA ScP **ScP** **08 48 06.0 -1.1**
GYA ScS **ScS** **08 52 04.5 -1.8**
GYA pmax pmax
comp=Z,20nm,0.8s
GYA pmax pmax
comp=Z,120nm,4.9s
**ENH Enshi 32.70 89** *e*P **P** **08 42 02.3 +1.7**
comp=Z,9.7nm,0.6s
**AKASG Malin Array Be 32.89 309** P **P** **08 42 02.6 +0.7**
comp=Z,5.0nm,0.6s,baz=80,slow=7.2,SNR=25
AKASG pP **pP** **08 42 41.5 +3.2**
comp=Z,0.5nm,0.4s,baz=81,slow=7.2,SNR=1.5
AKASG ScP **ScP** **08 48 06.2 -3.4**
comp=Z,0.2nm,0.3s,baz=78,slow=3.4,SNR=5.8
**AKBB Malin Array Si 32.89 309** *e*P **P** **08 42 02.9 +1.0**
AKBB pmax pmax
comp=Z,21nm,1.5s
**AKBB Malin Array Si 32.89 309** *e*P **P** **08 42 02.9 +1.0**
comp=Z,21nm,1.5s
**AK11 Malin Array Si 32.92 309** *e*P **P** **08 42 02.7 +0.6**
**VRI Vrincioaia 34.15 300**⇓ *i*P **P** **08 42 14.1 +1.2**
**VRI Vrincioaia 34.15 300** ⇓P **P** **08 42 14.1 +1.2**
**PLOR Plostina 34.20 300**⇓ *i*P **P** **08 42 15.0 +1.6**
**PLOR Plostina 34.20 300** ⇓P **P** **08 42 15.0 +1.6**
**MLR Muntele Rosu 34.70 299**⇓ *i*P **P** **08 42 20.1 +2.3**
**MLR Muntele Rosu 34.70 299** ⇓P **P** **08 42 20.1 +2.3**
**DOPR Dopca 35.09 300**⇑ *i*P **P** **08 42 21.5 +0.6**
**BURAR Bucovina Array 35.22 303**⇑ *i*P **P** **08 42 23.6 +1.5**
**BURAR Bucovina Array 35.22 303** ⇑P **P** **08 42 23.6 +1.5**
**VOIR 35.33 299**⇑ *i*P **P** **08 42 24.2 +1.1**
**VOIR 35.33 299** ⇑P **P** **08 42 24.2 +1.1**
**BOD Bodaibo 35.47 39** *e*P **P** **08 42 22.8 -1.2**
BOD pmax pmax
comp=Z,15nm,1.3s
**BJI Beijing 35.49 70** P **P** **08 42 24.5 +0.1**
BJI pmax pmax
comp=Z,15nm,0.8s
BJI pmax pmax
comp=Z,320nm,7.5s
**ARR Arges 35.63 299**⇑ *i*P **P** **08 42 27.1 +1.5**
**TIA Tai'an 37.00 76** P **P** **08 42 39.3 +2.0**
TIA pmax pmax
comp=Z,25nm,1.3s
**HIA Hailar 37.43 54**⇓ *e*P **P** **08 42 42.4 +1.7**
HIA pmax pmax
comp=Z,8.0nm,0.8s
**FIA0 FINESS Array S 37.47 326** *e*P **P** **08 42 41.6 +0.8**
**FIA0 FINESS Array S 37.47 326** *e*P **P** **08 42 41.6 +0.8**
**FINES FINESS Array B 37.47 326** P **P** **08 42 41.6 +0.8**
comp=Z,10.0nm,0.7s,baz=115,slow=8.4,SNR=25
**STHS Stebnicka Huta 37.89 306** *e*P **P** **08 42 45.1 +0.5**
**STHS Stebnicka Huta 37.89 306** *e*P **P** **08 42 45.1 +0.5**
**QIZ Qiongzhong 38.32 106** P **P** **08 42 49.0 +0.5**
QIZ sP **sP** **08 43 43.3 -2.2**
QIZ S **S** **08 48 35.0 +5.1**
QIZ sS **sS** **08 49 34.5 -0.7**
QIZ pmax pmax
comp=Z,28nm,1.6s
**KECS Kecovo 38.39 304** *e*P **P** **08 42 49.0 +0.2**
**KECS Kecovo 38.39 304** *e*P **P** **08 42 49.0 +0.2**
**VYHS Vyhne 39.49 304** *e*P **P** **08 42 58.4 +0.5**
**VYHS Vyhne 39.49 304** *e*P **P** **08 42 58.4 +0.5**
**DPC Dobruska-Polom 41.07 307** *e*P **P** **08 43 12.1 +1.2**
DPC *e*PP **PP** **08 44 46.3 -2.9**
**DPC Dobruska-Polom 41.07 307** *e*P **P** **08 43 12.1 +1.2**
DPC *e* 08 44 46.3
**ARA0 ARCESS Array S 41.15 338** *e*P **P** **08 43 12.3 +1.1**
**ARCES ARCESS Array B 41.15 338** P **P** **08 43 12.3 +1.1**
comp=Z,20nm,0.7s,baz=112,slow=8.5,SNR=48
**ARCES ARCESS Array B 41.15 338** *e*P **P** **08 43 12.1 +0.8**
**PRU Pruhonice 42.23 307** *e*P **P** **08 43 21.6 +1.3**
PRU *e*PP **PP** **08 45 03.6 +2.0**
**PRU Pruhonice 42.23 307** *e*P **P** **08 43 21.6 +1.3**
PRU *e* 08 45 03.6
**PSI Prapat 42.32 136** *e*P **P** **08 43 21.3 -0.3**
PSI pmax pmax
comp=Z,26nm,1.0s
**PSI Prapat 42.32 136** *e*P **P** **08 43 21.3 -0.3**
comp=Z,26nm,1.0s
**GSI Gunungsitoli 42.83 139** *e*P **P** **08 43 26.5 +1.1**
comp=Z,41nm,0.7s
**GEC2 GERESS Array S 42.86 305** *e*P **P** **08 43 25.9 +0.4**
GEC2 pmax pmax
comp=Z,26nm,2.0s
**GEC2 GERESS Array S 42.86 305** *e*P **P** **08 43 25.9 +0.4**
comp=Z,26nm,2.0s
**GERES GERESS Array B 42.86 305** P **P** **08 43 25.9 +0.4**
comp=Z,0.5nm,0.5s,baz=55,slow=12,SNR=3.6
GERES PP **PP** **08 45 10.3 +1.9**
comp=Z,0.9nm,0.7s,baz=76,slow=8.2,SNR=3.8
**KHC Kasperske Hory 42.92 306** *e*P **P** **08 43 27.3 +1.4**
KHC *e*PP **PP** **08 45 10.3 +1.3**
**KHC Kasperske Hory 42.92 306** *e*P **P** **08 43 27.3 +1.4**
KHC *e* 08 45 10.3
**YAK Yakutsk 44.09 35** *e*P **P** **08 43 35.4 +0.5**
YAK pmax pmax
comp=Z,31nm,0.7s
**NB2 NORSAR Subarra 44.35 323** P **P** **08 43 37.2 0.0**
comp=Z,5.0nm,0.6s,baz=96,slow=7.9
**NB200 NORSAR Array S 44.35 323** *e*P **P** **08 43 37.4 +0.3**
**NOA NORSAR Array B 44.35 323** P **P** **08 43 37.4 +0.3**
comp=Z,6.9nm,0.7s,baz=96,slow=7.8,SNR=18
**KS01 Wonju Array Si 44.99 71** *e*P **P** **08 43 42.6 +0.2**
**KSAR Wonju Array Be 44.99 71** P **P** **08 43 43.2 +0.7**
**KSAR Wonju Array Be 44.99 71** P **P** **08 43 43.1 +0.7**
**KSRS Korea Array 45.01 71** P **P** **08 43 43.1 +0.5**
comp=Z,9.4nm,1.0s,baz=285,slow=7.0,SNR=12
KSRS PcP **PcP** **08 45 20.0 -0.6**
comp=Z,2.5nm,0.7s,baz=272,slow=4.6,SNR=4.9
**KONO Kongsberg 45.05 321**⇑ *e*P **P** **08 43 43.6 +1.0**
KONO pmax pmax
comp=Z,52nm,1.5s
**KLR Kul'dur 45.28 54** P **P** **08 43 44.9 +0.4**
comp=Z,0.9nm,0.9s,baz=276,slow=8.6,SNR=15
**KLR Kul'dur 45.28 54**⇑ *e*P **P** **08 43 44.8 +0.2**
**TIXI Tiksi 45.87 22** *e*P **P** **08 43 49.4 +0.5**
TIXI pmax pmax
comp=Z,30nm,0.9s
**TIXI Tiksi 45.87 22** *e*P **P** **08 43 49.4 +0.5**
comp=Z,30nm,0.9s
**USRK Ussuriysk Ar. 46.30 61** P **P** **08 43 53.2 +0.5**
comp=Z,2.8nm,0.8s,baz=274,slow=6.7,SNR=5.0
**SENIN Lac Senin/Sane 47.52 303** *e*P **P** **08 44 02.3 0.0**
comp=Z,47nm,1.9s
**KMBO Kilima Mbogo 48.70 227** P **P** **08 44 12.5 +0.8**
comp=Z,1.1nm,0.2s,baz=41,slow=20,SNR=4.0
**MJAR Matsushiro Arr 53.09 68** P **P** **08 44 43.9 -0.2**
comp=Z,3.7nm,1.0s,baz=325,slow=6.4,SNR=4.8
**MA2 Magadan 54.48 38** P **P** **08 44 53.5 -0.3**
comp=Z,10nm,0.9s,baz=150,slow=20,SNR=3.1
**MA2 Magadan 54.48 38**⇑ *e*P **P** **08 44 53.2 -0.6**
**SEY Seymchan 54.53 34** P **P** **08 44 55.2 +1.2**
comp=Z,9.0nm,1.0s,baz=276,slow=10,SNR=8.8
**SEY Seymchan 54.53 34**⇓ *e*P **P** **08 44 55.1 +1.0**
**DAG Danmarks Havn 54.75 344** *i* P **P** **08 44 56.2 +0.8**
DAG pmax pmax
comp=Z,16nm,0.7s
**DAG Danmarks Havn 54.75 344** *i* P **P** **08 44 56.2 +0.8**
comp=Z,16nm,0.7s
**ESDC Sonseca Array 57.38 298** P **P** **08 45 15.1 +0.4**
comp=Z,0.2nm,0.3s,baz=55,slow=7.8,SNR=4.4
**BILL Bilibino 58.71 26***c* *i*P **P** **08 45 24.1 +0.7**
BILL *e**PP **pP** **08 46 02.7 -0.9**
BILL *e* 08 47 35.5
BILL pmax pmax
comp=Z,20nm,1.0s
**ABPO Ambohimpanom 59.51 206** *i* P **P** **08 45 31.3 +1.6**
**SUMG Summit 61.08 341** *i* P **P** **08 45 41.3 +1.3**
SUMG *i* 08 46 43.3
SUMG pmax pmax
comp=Z,33nm,1.3s
**SUMG Summit 61.08 341** *i* P **P** **08 45 41.3 +1.3**
comp=Z,33nm,1.3s
SUMG *i* 08 46 43.3
**SUMG Summit 61.08 341** *e*P **P** **08 45 41.1 +1.2**
comp=Z,32nm,1.3s
**TULEG Thule 64.47 350** *e*P **P** **08 46 02.1 +0.3**
comp=Z,28nm,1.4s
**TOA1 Torodi Ar. Sit 65.59 269** *e*P **P** **08 46 08.3 -1.7**
**TOA0 Torodi Ar. Sit 65.59 269** *e*P **P** **08 46 08.4 -1.6**
**TORD Torodi Ar. Bea 65.59 269** P **P** **08 46 08.3 -1.7**
comp=Z,4.7nm,0.5s,baz=48,slow=5.7,SNR=54
TORD pP **pP** **08 46 54.7 +3.6**
comp=Z,2.4nm,0.8s,baz=49,slow=6.0,SNR=2.4
**GAMB Gambell 68.61 25** *e*P **P** **08 46 29.0 +0.8**
comp=Z,18nm,1.5s
**KOWA Kowa 69.45 273** *e*P **P** **08 46 33.3 -0.9**
comp=Z,5.0nm,0.8s
**COLD Coldfoot 72.06 16** *e*P **P** **08 46 49.5 +0.4**
comp=Z,17nm,1.0s
**IM3 Indian Mountai 72.27 18** *e*P **P** **08 46 50.1 -0.3**
**IMAR Indian Mountai 72.27 18** *e*P **P** **08 46 50.1 -0.3**
**FYU Fort Yukon 73.66 14** *e*P **P** **08 46 59.5 +1.0**
comp=Z,63nm,1.6s
**MLY Manley 73.77 17** *e*P **P** **08 46 59.9 +0.6**
comp=Z,12nm,1.1s
**INK Inuvik 73.98 9** P **P** **08 47 00.9 +0.7**
comp=Z,6.6nm,0.5s,baz=348,slow=6.5,SNR=62
**INK Inuvik 73.98 9** *e*P **P** **08 47 01.0 +0.7**
INK pmax pmax
comp=Z,45nm,1.4s
**INK Inuvik 73.98 9** *e*P **P** **08 47 01.0 +0.7**
comp=Z,45nm,1.4s
**MDM Murphy Dome 74.41 16** *e*P **P** **08 47 02.0 -1.0**
comp=Z,15nm,1.0s
**LBTB Lobatse 74.55 222** *e*P **P** **08 47 05.3 +0.9**
**LBTB Lobatse 74.55 222** *e*P **P** **08 47 05.3 +0.9**
**COLA College 74.57 16** *e*P **P** **08 47 04.7 +0.9**
COLA pmax pmax
comp=Z,20nm,0.9s
**COLA College 74.57 16** *e*P **P** **08 47 04.7 +0.9**
comp=Z,20nm,0.9s
**DBIC Dimbokro 74.57 267** P **P** **08 47 04.0 -0.7**
comp=Z,2.6nm,0.8s,baz=58,slow=9.5,SNR=3.9
**DBIC Dimbokro 74.57 267** P **P** **08 47 04.0 -0.7**
DBIC pmax pmax
comp=Z,3.0nm,0.8s
**DBIC Dimbokro 74.57 267** *e*P **P** **08 47 02.1 -2.5**
comp=Z,42nm,1.9s
**CCB Clear Creek Bu 74.77 16** *e*P **P** **08 47 04.0 -1.0**
comp=Z,10nm,1.3s
**IL1 Eielson Array 74.87 16** *e*P **P** **08 47 04.9 -0.7**
**ILAR Eielson Array 74.87 16** P **P** **08 47 05.3 -0.2**
comp=Z,5.5nm,1.0s,baz=318,slow=4.7,SNR=40
ILAR PP **PP** **08 49 56.0 +1.2**
comp=Z,1.0nm,1.1s,baz=312,slow=8.0,SNR=4.2
**ILB Eielson Array 74.87 16** *e*P **P** **08 47 05.0 -0.6**
**FITZ Fitzroy Crossi 74.96 126** P **P** **08 47 06.3 -0.4**
comp=Z,3.7nm,1.0s,baz=291,slow=2.6,SNR=6.7
**KTH Kantishna Hill 74.96 18** *e*P **P** **08 47 06.2 0.0**
comp=Z,21nm,1.0s
**RND Reindeer 75.59 17** *e*P **P** **08 47 09.5 -0.3**
RND pmax pmax
comp=Z,28nm,1.6s
**RND Reindeer 75.59 17** *e*P **P** **08 47 09.5 -0.3**
comp=Z,28nm,1.6s
**EGAK Eagle 76.03 14** *e*P **P** **08 47 12.9 +0.8**
comp=Z,12nm,1.2s
**DHY Denali Highway 76.22 17** *e*P **P** **08 47 13.2 -0.3**
comp=Z,8.7nm,0.7s
**PAX Paxson 76.75 16** *e*P **P** **08 47 16.3 -0.1**
PAX pmax pmax
comp=Z,36nm,1.6s
**PAX Paxson 76.75 16** *e*P **P** **08 47 16.3 -0.1**
comp=Z,36nm,1.6s
**DAWY Dawson 77.01 13** *e*P **P** **08 47 18.2 +0.5**
comp=Z,22nm,1.3s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **SML** | **Sawmill** | **77.08** | **18** | *eP* | **P** | | **08 47 18.4** | **+0.3** |
| SML | | | | pmax | pmax | | | |
| | comp=Z,22nm,0.8s | | | | | | | |
| **SML** | **Sawmill** | **77.08** | **18** | *eP* | **P** | | **08 47 18.4** | **+0.3** |
| | comp=Z,22nm,0.8s | | | | | | | |
| **HARP** | **HAARP** | **77.31** | **16** | *eP* | **P** | | **08 47 19.5** | **+0.1** |
| | comp=Z,41nm,0.8s | | | | | | | |
| **BOSA** | **Boshof** | **77.62** | **220** | P | **P** | | **08 47 21.5** | **-0.1** |
| | comp=Z,5.8nm,0.8s,baz=20,slow=2.3,SNR=9.2 | | | | | | | |
| **KDAK** | **Kodiak Island** | **79.30** | **22** | P | **P** | | **08 47 30.6** | **+0.2** |
| | comp=Z,15nm,0.8s,baz=1.9,slow=4.6,SNR=29 | | | | | | | |
| **KDAK** | **Kodiak Island** | **79.30** | **22** | *i* P | **P** | | **08 47 30.8** | **+0.5** |
| **KDAK** | **Kodiak Island** | **79.30** | **22** | *eP* | **P** | | **08 47 30.6** | **+0.2** |
| | comp=Z,210nm,1.9s | | | | | | | |
| **HYT** | **Haines Junctio** | **80.34** | **14** | *eP* | **P** | | **08 47 36.0** | **-0.1** |
| | comp=Z,11nm,1.1s | | | | | | | |
| **YKA** | **Yellowknife Ar** | **81.31** | **3** | P | **P** | | **08 47 40.9** | **0.0** |
| | comp=Z,4.8nm,0.8s,baz=350,slow=5.3,SNR=48 | | | | | | | |
| YKA | | | | PP | **PP** | | **08 50 48.9** | **+0.7** |
| | comp=Z,0.6nm,0.8s,baz=350,slow=7.4,SNR=4.1 | | | | | | | |
| **WRA** | **Warramunga Arr** | **82.06** | **122** | P | **P** | | **08 47 44.4** | **-1.2** |
| | comp=Z,12nm,0.9s,baz=324,slow=5.0,SNR=53 | | | | | | | |
| **WRA** | **Warramunga Arr** | **82.06** | **122** | P | **P** | | **08 47 44.4** | **-1.2** |
| WRA | | | | pmax | pmax | | | |
| | comp=Z,13nm,0.9s | | | | | | | |
| **WR1** | **Warramunga Arr** | **82.06** | **122** | *eP* | **P** | | **08 47 44.4** | **-1.2** |
| | comp=Z,18nm,0.9s | | | | | | | |
| **WRAB** | **Tennant Creek** | **82.06** | **122** | *c iP* | **P** | | **08 47 44.2** | **-1.4** |
| WRAB | | | | pmax | pmax | | | |
| | comp=Z,18nm,0.9s | | | | | | | |
| **WRAB** | **Tennant Creek** | **82.06** | **122** | *eP* | **P** | | **08 47 44.6** | **-1.0** |
| | comp=Z,19nm,0.9s | | | | | | | |
| **WB2** | **Warramunga Arr** | **82.07** | **122** | *eP* | **P** | | **08 47 44.2** | **-1.4** |
| | comp=Z,20nm,0.9s | | | | | | | |
| **AS31** | **Alice Springs** | **84.32** | **125** | *eP* | **P** | | **08 47 56.1** | **-1.0** |
| | comp=Z,2.6nm,0.6s | | | | | | | |
| **ASAR** | **Alice Springs** | **84.32** | **125** | P | **P** | | **08 47 55.7** | **-1.4** |
| | comp=Z,10nm,0.8s,baz=310,slow=4.8,SNR=70 | | | | | | | |
| **AS01** | **Alice Springs** | **84.35** | **125** | *eP* | **P** | | **08 47 55.7** | **-1.5** |
| **PMG** | **Port Moresby** | **84.70** | **106** | P | **P** | | **08 47 58.8** | **-0.4** |
| | comp=Z,9.0nm,0.9s,baz=202,slow=1.0,SNR=3.9 | | | | | | | |
| **PMG** | **Port Moresby** | **84.70** | **106** | *eP* | **P** | | **08 47 58.7** | **-0.4** |
| PMG | | | | pmax | pmax | | | |
| | comp=Z,42nm,0.9s | | | | | | | |
| **FFC** | **Flin Flon** | **88.99** | **356** | *eP* | **P** | | **08 48 19.8** | **+0.5** |
| FFC | | | | pmax | pmax | | | |
| | comp=Z,21nm,1.8s | | | | | | | |
| **FFC** | **Flin Flon** | **88.99** | **356** | *eP* | **P** | | **08 48 19.8** | **+0.5** |
| | comp=Z,21nm,1.8s | | | | | | | |
| **CTA** | **Charters Tower** | **90.63** | **115** | P | **P** | | **08 48 26.4** | **-0.9** |
| | comp=Z,8.8nm,0.8s,baz=300,slow=7.0,SNR=11 | | | | | | | |
| **ULM** | **Lac du Bonnet** | **92.89** | **352** | P | **P** | | **08 48 35.2** | **-2.2** |
| | comp=Z,2.3nm,0.9s,baz=325,slow=2.9,SNR=3.4 | | | | | | | |
| **CPUP** | **Villa Florida** | **135.09** | **268** | PKP | **PKPdf** | | **08 54 43.4** | **+0.1** |
| | comp=Z,1.4nm,0.6s,baz=94,slow=1.7,SNR=5.4 | | | | | | | |
| **LPAZ** | **La Paz** | **138.51** | **288** | PKP | **PKPdf** | | **08 54 51.7** | **+1.0** |
| | comp=Z,0.9nm,0.7s,baz=84,slow=8.8,SNR=3.6 | | | | | | | |
| **PLCA** | **Paso Flores** | **149.69** | **250** | PKPbc | **PKPbc** | | **08 55 13.3** | **-0.2** |
| | comp=Z,5.4nm,0.9s,baz=67,slow=0.7,SNR=12 | | | | | | | |

**IDC 26 08:37:36.5±5.1, 4°13'S×148°32'E, h0km, mb3.3/2, mb1 3.7/2, mb1mx3.2/39, mbtmp3.4/2, MS3.7/2, Ms1 3.8/2, ms1mx3.6/9, Error ellipse: s-maj=203.3km s-min=52.2km az=109.0, Bismarck Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **20.80** | **220** | P | P | 08 42 20.7 | +1.1 |
| | 1.4nm,0.9s,baz=44,slow=11,SNR=5.0 | | | | | | |
| **ASAR** | **Alice Springs** | **23.89** | **214** | P | P | 08 42 51.7 | -0.4 |
| | 1.1nm,1.0s,baz=51,slow=9.5,SNR=5.6 | | | | | | |
| **AFI** | **Afiamalu** | **40.53** | **107** | LR | LR | 09 00 47.5 | |
| | comp=Z,136nm,18.2s,baz=273,slow=34 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **53.56** | **296** | LR | LR | 09 07 58.5 | |
| | comp=Z,44nm,21.9s,baz=128,slow=34 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **145.85** | **287** | PKPbc | PKPdf | 08 57 17.7 | -0.7 |
| | 0.5nm,0.9s,baz=94,slow=1.9,SNR=3.2 | | | | | | |

*IDC **26** 08:37:55.4±1.3, 3°48'S×148°59'E, h0km, mb4.1/6, mb1 4.2/7, mb1mx3.8/40, mbtmp4.0/7, ML1.5/1, MS3.9/14, Ms1 3.9/14, ms1mx3.7/33, Error ellipse: s-maj=55.7km s-min=19.4km az=114.0*
*NEIC **26** 08:37:56.4±1.0, 3°70'S×148°82'E, h10km, mb4.2/2, Error ellipse: s-maj=42.6km s-min=14.4km az=113.0*
*ISCJB **26** 08:37:57.1±1.0, 3°51'S±0°09'×148°5'E±0°2', h21km, mb4.0/8, MS4.0/14, Error ellipse: s-maj=36.2km s-min=10.3km az=14.2*
*GCMT **26** 08:38:00.0±0.2, 3°31'S×149°04'E, h22km±1km, MW5.0/86, Moment Tensor Solution. s20,c23; s86,c119; Duration: 0 Moment tensor: Scale $10^{16}$Nm; $M_{rr}$-0.26±.17; $M_{\theta\theta}$2.14±.12; $M_{\phi\phi}$-1.87±.13; $M_{r\theta}$0.48±.20; $M_{r\phi}$2.59±.09; $M_{\theta\phi}$-0.19±.19; Best double couple: M○3.31600×$10^{16}$ NP1:○$_{\theta}$289.00000°, δ89.00000°, λ-9.00000°. NP2: ○$_{\phi}$19.00000°, δ81.00000°, λ-178.00000°. Principal axes: T 3.4430, Plg5.0000°, Azm334.0000°; N -0.2450, Plg81.0000°, Azm100.0000°; P -3.1900, Plg7.0000°, Azm243.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

**ISC 26 08:37:58.3±1.0, 3°5'S±0°1'×148°6'E±0°3, h21km, n30, σ1°94/13, mb4.1/8, MS4.1/14, Bismarck Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PMG** | **Port Moresby** | **6.02** | **194** | | **Pn** | **08 39 24.9** | **-1.3** |
| | 0.7nm,0.3s,baz=6.3,slow=6.6,SNR=1.9 | | | | | | |
| PMG | | | | Sn | **Sn** | 08 40 37.9 | +3.4 |
| | 0.4nm,0.3s,baz=339,slow=14,SNR=1.7 | | | | | | |
| **PMG** | **Port Moresby** | **6.02** | **194** | *e*Pn | **Pn** | **08 39 23.6** | **-2.6** |
| | 20nm,0.8s | | | | | | |
| PMG | | | | *e*Sn | **Sn** | **08 40 36.7** | **+2.2** |
| **WRAB** | **Tennant Creek** | **21.43** | **219** | *eP* | **P** | **08 42 44.7** | **-0.5** |
| | 15nm,0.9s | | | | | | |
| **WRA** | **Warramunga Arr** | **21.45** | **219** | P | **P** | **08 42 45.3** | **-0.1** |
| | 6.6nm,0.9s,baz=43,slow=12,SNR=9.5 | | | | | | |
| **ASAR** | **Alice Springs** | **24.55** | **214** | P | **P** | **08 43 16.7** | **-0.1** |
| | 6.5nm,0.9s,baz=50,slow=7.6,SNR=15 | | | | | | |
| **DZM** | **Mont Dzumac** | **25.29** | **138** | LR | LR | 08 51 55.1 | |
| | comp=Z,702nm,19.3s,baz=290,slow=33 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **26.75** | **236** | P | **P** | **08 43 38.9** | **+2.2** |
| | 16nm,0.9s,baz=76,slow=8.1,SNR=12 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.22** | **39** | T | T | 09 12 54.6 | |
| | baz=220,slow=76,SNR=52 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.22** | **39** | T | T | 09 12 53.1 | |
| | baz=220,slow=76,SNR=83 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.23** | **39** | T | T | 09 12 56.0 | |
| | baz=220,slow=76,SNR=70 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **29.27** | **37** | T | T | 09 14 12.2 | |
| | baz=219,slow=76,SNR=43 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **29.28** | **37** | T | T | 09 14 13.9 | |
| | baz=219,slow=76,SNR=48 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **29.28** | **37** | T | T | 09 14 13.2 | |
| | baz=219,slow=76,SNR=32 | | | | | | |
| **BBOO** | **Buckleboo** | **31.41** | **201** | *eP* | **P** | **08 44 15.9** | **-2.2** |
| | 1.7nm,0.6s | | | | | | |
| **BRDH** | **Bariadhala** | **61.36** | **298** | LR | LR | 09 15 18.5 | |
| | comp=Z,61nm,19.9s,baz=70,slow=37 | | | | | | |
| **PPT** | **Papeete** | **62.10** | **108** | LR | LR | 09 11 07.1 | |
| | comp=Z,37nm,19.1s,baz=334,slow=32 | | | | | | |
| **PPT2** | **Papeete2** | **62.10** | **108** | *e*LR | LR | 09 04 33.2 | |
| | 108nm,25.2s | | | | | | |
| **SONM** | **Songino Array** | **63.06** | **329** | LR | LR | 09 15 11.5 | |
| | comp=Z,125nm,20.3s,baz=108,slow=36 | | | | | | |
| **TLY** | **Talaya** | **66.92** | **331** | LR | LR | 09 15 31.8 | |
| | comp=Z,132nm,21.8s,baz=156,slow=34 | | | | | | |
| **VNDA** | **Vanda** | **74.28** | **177** | LR | LR | 09 20 36.2 | |
| | comp=Z,61nm,19.6s,baz=300,slow=34 | | | | | | |
| **MKAR** | **Makanchi Array** | **76.63** | **320** | P | **P** | **08 49 47.2** | **-0.4** |
| | 0.7nm,0.8s,baz=121,slow=7.0,SNR=3.3 | | | | | | |
| MKAR | | | | LR | LR | 09 24 37.0 | |
| | comp=Z,118nm,18.2s,baz=347,slow=37 | | | | | | |
| **KDAK** | **Kodiak Island** | **76.98** | **28** | LR | LR | 09 17 15.7 | |
| | comp=Z,52nm,22.0s,baz=250,slow=31 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **77.79** | **327** | LR | LR | 09 23 14.1 | |
| | comp=Z,105nm,21.2s,baz=124,slow=35 | | | | | | |
| **ILAR** | **Eielson Array** | **82.59** | **23** | P | **P** | **08 50 20.1** | **+0.5** |
| | 0.4nm,0.9s,baz=251,slow=5.6,SNR=2.7 | | | | | | |
| **MAW** | **Mawson** | **85.13** | **203** | LR | LR | 09 26 41.5 | |
| | comp=Z,130nm,20.2s,baz=64,slow=34 | | | | | | |
| **AKTO** | **Aktyubinsk** | **93.06** | **320** | LR | LR | 09 32 18.9 | |
| | comp=Z,114nm,21.4s,baz=3.7,slow=35 | | | | | | |
| **NVAR** | **Mina Array Bea** | **94.60** | **52** | LR | LR | 09 29 37.7 | |
| | comp=Z,87nm,18.6s,baz=303,slow=33 | | | | | | |
| **NEW** | **Newport** | **95.46** | **42** | LR | LR | 09 28 06.3 | |
| | comp=Z,51nm,19.4s,baz=284,slow=32 | | | | | | |
| **YKA** | **Yellowknife Ar** | **96.25** | **28** | P | **P** | **08 51 26.3** | **+1.5** |
| | 0.2nm,0.6s,baz=274,slow=5.0,SNR=4.8 | | | | | | |
| YKA | | | | LR | LR | 09 32 26.8 | |
| | comp=Z,7.1nm,21.8s,baz=0.0,slow=34 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **145.93** | **288** | PKPbc | **PKPdf** | **08 57 36.3** | **-0.4** |
| | 1.0nm,0.7s,baz=55,slow=3.0,SNR=5.3 | | | | | | |

**IDC 26 08:47:18.4±5.7, 3°09'S×149°92'E, h0km, mb3.8/4, mb1 4.1/4, mb1mx3.6/45, mbtmp3.9/4, MS3.3/3, Ms1 3.3/3, ms1mx2.9/40, Error ellipse: s-maj=165.8km s-min=33.0km az=102.0, Bismarck Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PMG** | **Port Moresby** | **6.85** | **203** | LR | LR | 08 51 40.1 | |
| | comp=Z,204nm,19.9s,baz=325,slow=38 | | | | | | |
| **GUMO** | **Guam** | **17.31** | **343** | LR | LR | 08 57 17.3 | |
| | comp=Z,82nm,21.4s,baz=338,slow=35 | | | | | | |
| **WRA** | **Warramunga Arr** | **22.62** | **221** | P | P | 08 52 19.7 | -1.4 |
| | 1.6nm,0.7s,baz=42,slow=11,SNR=7.0 | | | | | | |
| **DZM** | **Mont Dzumac** | **24.77** | **141** | LR | LR | 09 01 29.5 | |
| | comp=Z,134nm,19.1s,baz=48,slow=34 | | | | | | |
| **ASAR** | **Alice Springs** | **25.66** | **216** | P | P | 08 52 50.6 | +0.4 |
| | 2.8nm,1.0s,baz=52,slow=7.8,SNR=13 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **27.07** | **37** | T | T | 09 20 32.7 | |
| | baz=229 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **27.08** | **37** | T | T | 09 20 39.0 | |
| | baz=229 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **27.09** | **37** | T | T | 09 20 30.0 | |
| | baz=229 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **28.08** | **236** | P | P | 08 53 13.0 | +0.9 |
| | 5.2nm,1.0s,baz=63,slow=13,SNR=3.5 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.14** | **36** | T | T | 09 22 03.0 | |
| | baz=223 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.15** | **36** | T | T | 09 22 02.6 | |
| | baz=223 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.15** | **36** | T | T | 09 22 04.8 | |
| | baz=223 | | | | | | |
| **SONM** | **Songino Array** | **63.37** | **329** | P | P | 08 57 49.5 | -0.3 |
| | 0.3nm,0.7s,baz=114,slow=5.4,SNR=2.0 | | | | | | |

**IDC 26 08:49:20.2±3.2, 10°96S×162°85E, h0km, mb3.6/3, mb1 3.9/5, mb1mx3.5/47, mbtmp3.8/5, ML3.7/2, Error ellipse: s-maj=53.8km s-min=41.9km az=80.0, Bougainville-Solomon Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **HNR** | **Honiara** | **3.23** | **298** | *eP* | Pb | 08 50 16.0 | -2.6 |
| HNR | | | | *eS* | Sn | 08 50 51.0 | -0.5 |
| **HNR** | **Honiara** | **3.23** | **298** | Pn | Pn | 08 50 13.3 | +1.0 |
| | 15nm,0.3s,baz=4.4,slow=1.7,SNR=4.7 | | | | | | |
| HNR | | | | Sn | Sn | 08 50 51.4 | -0.1 |
| | 24nm,0.3s,baz=180,slow=20,SNR=2.1 | | | | | | |
| **CTA** | **Charters Tower** | **18.37** | **238** | P | Pn | 08 53 36.4 | -0.2 |
| | 0.1nm,0.3s,baz=55,slow=11,SNR=3.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **28.85** | **249** | P | P | 08 55 20.4 | -0.3 |
| | 1.9nm,1.2s,baz=79,slow=9.2,SNR=2.8 | | | | | | |
| **ASAR** | **Alice Springs** | **30.31** | **242** | P | P | 08 55 33.9 | +0.3 |
| | 0.3nm,0.8s,baz=57,slow=10,SNR=2.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **91.52** | **317** | P | P | 09 02 28.7 | -0.2 |
| | 0.3nm,0.6s,baz=103,slow=4.4,SNR=4.0 | | | | | | |

**IDC 26 08:58:37.4±4.0, 3°44S×148°29E, h0km, mb3.9/3, mb1 4.1/4, mb1mx3.5/46, mbtmp3.9/4, ML0.9/1, MS3.1/1, Ms1 3.1/1, ms1mx2.6/28, Error ellipse: s-maj=105.8km s-min=37.7km az=94.0, Bismarck Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PMG** | **Port Moresby** | **6.03** | **191** | Pn | Pn | 09 00 09.3 | +1.3 |
| | 0.2nm,0.3s,baz=350,slow=17,SNR=1.9 | | | | | | |
| PMG | | | | Sn | Sn | 09 01 17.4 | -0.5 |
| | 0.1nm,0.3s,baz=326,slow=11,SNR=3.2 | | | | | | |
| **HNR** | **Honiara** | **13.02** | **118** | LR | LR | 09 06 13.7 | |
| | comp=Z,82nm,18.6s,baz=304,slow=35 | | | | | | |
| **WRA** | **Warramunga Arr** | **21.32** | **219** | P | P | 09 03 26.0 | -0.1 |
| | 2.2nm,0.9s,baz=39,slow=11,SNR=6.0 | | | | | | |
| **ASAR** | **Alice Springs** | **24.45** | **213** | P | P | 09 03 57.7 | -0.5 |
| | 1.7nm,0.8s,baz=46,slow=6.2,SNR=14 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **26.54** | **235** | P | P | 09 04 17.7 | +0.5 |
| | 9.3nm,1.0s,baz=34,slow=3.6,SNR=2.7 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.35** | **39** | T | T | 09 33 35.2 | |
| | baz=220,slow=76,SNR=89 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.35** | **39** | T | T | 09 33 35.9 | |
| | baz=220,slow=76,SNR=124 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.36** | **39** | T | T | 09 33 36.7 | |
| | baz=220,slow=76,SNR=115 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **29.39** | **38** | T | T | 09 34 53.4 | |
| | baz=219,slow=76,SNR=68 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **29.40** | **38** | T | T | 09 34 54.5 | |
| | baz=219,slow=76,SNR=54 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **29.40** | **38** | T | T | 09 34 54.7 | |
| | baz=219,slow=76,SNR=101 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **145.61** | **288** | PKPbc | PKPdf | 09 18 18.2 | -0.7 |
| | 0.5nm,0.7s,baz=50,slow=2.9,SNR=3.8 | | | | | | |

**IDC 26 09:05:45.0±2.3, 1°28N×126°65E, h0km, mb3.4/3, mb1 3.6/3, mb1mx3.2/52, mbtmp3.4/3, MS3.5/1, Ms1 3.7/1, ms1mx2.9/16, Error ellipse: s-maj=182.4km s-min=27.7km az=66.0, Northern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **22.39** | **161** | P | P | 09 10 44.3 | -1.0 |
| | 0.9nm,0.5s,baz=339,slow=11,SNR=20 | | | | | | |
| **ASAR** | **Alice Springs** | **25.78** | **165** | P | P | 09 11 18.5 | +0.7 |
| | 0.4nm,0.3s,baz=344,slow=11,SNR=13 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **32.10** | **304** | LR | LR | 09 27 03.9 | |
| | comp=Z,71nm,18.1s,baz=164,slow=40 | | | | | | |
| **MKAR** | **Makanchi Array** | **59.52** | **326** | P | P | 09 15 50.2 | -0.1 |
| | 0.2nm,0.4s,baz=113,slow=6.9,SNR=1.8 | | | | | | |

**IDC 26 09:07:28.6±4.1, 3°66S×149°46E, h0km, mb4.1/3, mb1 4.2/4, mb1mx3.6/51, mbtmp4.1/4, ML1.3/1, MS3.2/4, Ms1 3.2/4, ms1mx2.9/25, Error ellipse: s-maj=121.4km s-min=45.8km az=106.0, Bismarck Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PMG** | **Port Moresby** | **6.15** | **202** | Pn | Pn | 09 09 01.5 | +0.8 |
| | 0.5nm,0.3s,baz=306,slow=19,SNR=1.7 | | | | | | |
| PMG | | | | Sn | Sb | 09 10 24.7 | -6.1 |
| | 0.6nm,0.3s,baz=3.3,slow=21,SNR=5.2 | | | | | | |
| **HNR** | **Honiara** | **11.89** | **119** | LR | LR | 09 15 10.1 | |
| | comp=Z,98nm,20.3s,baz=287,slow=39 | | | | | | |
| **WRA** | **Warramunga Arr** | **21.89** | **221** | P | P | 09 12 22.0 | -1.4 |
| | 3.0nm,0.9s,baz=42,slow=12,SNR=9.2 | | | | | | |
| WRA | | | | LR | LR | 09 21 01.2 | |
| | comp=Z,39nm,19.6s,baz=25,slow=37 | | | | | | |
| **ASAR** | **Alice Springs** | **24.93** | **216** | P | P | 09 12 54.0 | +0.3 |
| | 3.3nm,0.9s,baz=50,slow=8.7,SNR=24 | | | | | | |
| ASAR | | | | LR | LR | 09 22 48.8 | |
| | comp=Z,84nm,18.2s,baz=66,slow=37 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **27.38** | **237** | P | P | 09 13 16.4 | +0.5 |
| | 9.9nm,0.8s,baz=53,slow=5.1,SNR=7.9 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **27.80** | **37** | T | T | 09 42 30.9 | |
| | baz=220,slow=76,SNR=167 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **27.81** | **37** | T | T | 09 42 31.2 | |
| | baz=220,slow=76,SNR=232 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **27.82** | **37** | T | T | 09 42 31.8 | |
| | baz=220,slow=76,SNR=182 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.86** | **36** | T | T | 09 43 49.9 | |
| | baz=219,slow=76,SNR=80 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.88** | **36** | T | T | 09 43 51.3 | |
| | baz=219,slow=76,SNR=83 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.88** | **36** | T | T | 09 43 51.5 | |
| | baz=219,slow=76,SNR=119 | | | | | | |
| **KSRS** | **Korea Array** | **45.54** | **336** | LR | LR | 09 34 19.5 | |
| | comp=Z,30nm,18.3s,baz=165,slow=35 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **146.78** | **288** | PKPbc | PKPdf | 09 27 12.9 | +0.8 |
| | 0.9nm,0.8s,baz=52,slow=4.5,SNR=3.5 | | | | | | |

**MAN 26 09:14:46, 10°03N×125°74E, h14km, mb3.6, ML2.3, MS1.8, 1D, Leyte**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SCPH** | **Surigao** | **0.35** | **225** | *eP* | Pb | 09 14 55.3 | +1.3 |
| SCPH | | | | *eS* | Sn | 09 15 04.6 | +1.2 |
| **MSLP** | **Maasin** | **0.87** | **277** | *eP* | Pg | 09 15 02.2 | -0.7 |
| MSLP | | | | *eS* | Sn | 09 15 17.7 | +1.4 |
| **BUTP** | **Butuan** | **1.06** | **186** | *eP* | Pb | 09 15 05.7 | -0.5 |
| BUTP | | | | *eS* | Sn | 09 15 28.5 | +7.5 |

*ISCJB **26** 09:15:05.2±0.5, 67°78N±0°02'×20°39E±0°08', h0km, Error ellipse: s-maj=4.7km s-min=3.4km az=168.0*
*HEL **26** 09:15:05.9±0.2, 67°78N×20°15E, h0km, ML1.5, Explosion*
*UPP **26** 09:15:06.3±0.5, 67°82N×20°20E, h1km±3km, ML2.7*

**ISC 26 09:15:06.7±0.9, 67°82N±0°03'×20°25E±0°03', h0km, n19, σ0°92/28, Sweden**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KUA** | **Kurravaara** | **0.14** | **13** | P | **Pg** | **09 15 09.1** | **-0.3** |
| KUA | | | | S | **Sg** | **09 15 11.1** | **-0.3** |
| **RATU** | **Laukkuluspa** | **0.25** | **272** | P | **Pg** | **09 15 10.8** | **-0.7** |
| **NIKU** | **Nikkaluokta** | **0.46** | **277** | P | **Pg** | **09 15 14.7** | **-0.9** |
| **LANU** | **Lannavaara** | **0.70** | **70** | P | **Pg** | **09 15 19.5** | **-0.6** |
| **LANU** | **Lannavaara** | **0.70** | **70** | PG | **Pg** | **09 15 19.4** | **-0.7** |
| LANU | | | | SG | **Sg** | **09 15 28.9** | **-0.2** |
| **DUNU** | **Dundret** | **0.71** | **170** | P | **Pg** | **09 15 19.6** | **-0.6** |
| **MASU** | **Masugnsbyn** | **0.76** | **117** | P | **Pg** | **09 15 20.7** | **-0.6** |
| **KIF** | **Kilpisjarvi** | **1.21** | **9** | PG | **Pg** | **09 15 29.4** | **-0.5** |
| KIF | | | | SG | **Sg** | **09 15 45.4** | **-0.3** |
| **PAJU** | **Pajala** | **1.36** | **124** | P | **Pg** | **09 15 31.3** | **-1.4** |
| **HEF** | **Hetta** | **1.41** | **63** | PG | **Pn** | **09 15 32.1** | **-1.5** |
| | baz=242 | | | | | | |
| HEF | | | | MSG | | 09 15 49.7 | |
| | comp=Z,3.9nm,0.2s | | | | | | |
| HEF | | | | SG | **Sg** | **09 15 50.8** | **-1.2** |
| **ERTU** | **Ertsjaerv** | **1.48** | **148** | P | **Pn** | **09 15 33.2** | **-1.3** |
| **ERTU** | **Ertsjaerv** | **1.48** | **148** | PN | **Pn** | **09 15 33.2** | **-1.3** |
| | baz=327 | | | | | | |
| ERTU | | | | SN | **Sg** | **09 15 53.7** | **-0.3** |
| **KALU** | **Kalix** | **2.32** | **147** | P | **Pn** | **09 15 46.7** | **+0.6** |
| **KALU** | **Kalix** | **2.32** | **147** | PG | **Pn** | **09 15 46.6** | **+0.6** |
| | baz=328 | | | | | | |
| KALU | | | | SG | **Sb** | **09 16 18.7** | **+0.3** |
| **TOF** | **Tornio** | **2.37** | **135** | PG | **Pn** | **09 15 47.8** | **+1.0** |
| TOF | | | | SG | **Sb** | **09 16 19.8** | **-0.1** |
| **SGF** | **Sodankyl** | **2.43** | **96** | PG | **Pn** | **09 15 48.9** | **+1.3** |
| SGF | | | | SG | **Sb** | **09 16 21.6** | **-0.1** |
| **ARE0** | **ARCESS Array S** | **2.58** | **46** | PN | **Pn** | **09 15 49.8** | **0.0** |
| | baz=227 | | | | | | |
| ARE0 | | | | SB | **Sn** | **09 16 23.4** | **+1.6** |
| **BURU** | **Burvik** | **3.28** | **171** | PB | **Pn** | **09 16 00.7** | **+1.4** |
| **KU6** | **Riekki** | **4.20** | **111** | PG | **Pb** | **09 16 22.0** | **+0.6** |

**MEX 26 09:36:10.8±0.3, 30°28N×114°24W, h10km, MD3.8, Gulf of California**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SPIG** | **San Pedro Mart** | **1.30** | **306** | *eP* | Pn | 09 36 31.6 | -3.8 |
| SPIG | | | | *eS* | Sb | 09 36 47.9 | -4.7 |
| **HSIG** | | **3.13** | **113** | *eP* | Pn | 09 36 57.6 | -2.6 |
| HSIG | | | | *i* S | Sn | 09 37 34.1 | -3.5 |

*IDC **26** 09:49:29.1±1.1, 12°41S×165°54E, h0km, mb3.7/7, mb1 4.0/9, mb1mx3.8/26, mbtmp3.8/9, ML3.7/2, MS3.0/3, Ms1 3.0/3, ms1mx2.8/36, Error ellipse: s-maj=35.1km s-min=22.8km az=133.0*
*ISCJB **26** 09:49:32.6±0.8, 12°55S±0°1×165°4E±0°1, h33km, mb3.5/7, MS3.0/2, Error ellipse: s-maj=18.1km s-min=15.3km az=171.6*

**ISC 26 09:49:34.5±0.9, 12°4S±0°1×165°5E±0°1, h35km, n10, σ1°54/9, mb3.4/7, Santa Cruz Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **HNR** | **Honiara** | **6.23** | **298** | | **Pn** | **09 51 04.2** | **+0.1** |
| | 8.1nm,0.3s,baz=7.8,slow=6.8,SNR=4.6 | | | | | | |
| HNR | | | | LR | LR | 09 53 23.8 | |
| | comp=Z,70nm,22.0s,baz=130,slow=38 | | | | | | |
| **DZM** | **Mont Dzumac** | **9.62** | **175** | Pn | **Pn** | **09 51 50.9** | **+0.2** |
| | 0.1nm,0.3s,baz=217,slow=20,SNR=5.7 | | | | | | |
| **AFI** | **Afiamalu** | **22.16** | **96** | LR | LR | 10 00 53.6 | |
| | comp=Z,386nm,20.8s,baz=278,slow=31 | | | | | | |
| **STKA** | **Stephens Creek** | **29.29** | **225** | P | **P** | **09 55 34.6** | **+0.9** |
| | 0.6nm,0.6s,baz=15,slow=12,SNR=2.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **30.81** | **252** | P | **P** | **09 55 46.6** | **-0.8** |
| | 0.4nm,0.9s,baz=80,slow=6.8,SNR=1.7 | | | | | | |
| **ASAR** | **Alice Springs** | **31.98** | **245** | P | **P** | **09 55 56.0** | **-1.7** |
| | 0.3nm,0.8s,baz=71,slow=8.9,SNR=7.0 | | | | | | |
| ASAR | | | | LR | LR | 10 07 13.8 | |
| | comp=Z,44nm,18.6s,baz=156,slow=33 | | | | | | |
| **SONM** | **Songino Array** | **79.65** | **324** | P | **P** | **10 01 40.5** | **+1.9** |
| | 0.3nm,0.7s,baz=149,slow=6.7,SNR=1.8 | | | | | | |
| **ILAR** | **Eielson Array** | **84.90** | **19** | P | **P** | **10 02 04.5** | **-0.9** |
| | 0.6nm,0.8s,baz=207,slow=5.7,SNR=8.3 | | | | | | |
| **NVAR** | **Mina Array Bea** | **87.09** | **50** | P | **P** | **10 02 18.6** | **+1.4** |
| | 0.1nm,0.4s,baz=260,slow=5.4,SNR=2.2 | | | | | | |
| **YKA** | **Yellowknife Ar** | **96.31** | **27** | P | **P** | **10 02 57.3** | **-1.9** |
| | 0.2nm,0.5s,

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **CAW** | **Cannon Point** | **2.91** | **36** | PN | Pn | 10 14 02.3 | -1.9 | |
| **JCZ** | **Jackson Bay** | **2.98** | **257** | PN | Pn | 10 14 04.5 | -0.8 | |
| **WKZ** | **Wanaka** | **3.04** | **243** | PN | Pn | 10 14 05.4 | -0.8 | |
| **EAZ** | **Earnscleugh** | **3.06** | **234** | PN | Pn | 10 14 05.4 | -1.0 | |
| **TUZ** | **Tuapeka** | **3.35** | **222** | PN | Pn | 10 14 09.6 | -0.8 | |
| TUZ | | | | AML | AML | 10 15 12.2 | | |
| TUZ | | | | AML | AML | 10 15 21.4 | | |
| **MRZ** | **Mangatainoka R** | **3.49** | **37** | PN | Pn | 10 14 09.7 | -2.6 | |
| **BFZ** | **Birch Farm** | **3.79** | **43** | PN | Pn | 10 14 13.5 | -2.9 | |
| **MLZ** | **Mavora Lakes** | **3.85** | **239** | ⇓PN | Pn | 10 14 16.1 | -1.2 | |
| **SYZ** | **Scrubby Hill** | **4.01** | **219** | PN | Pn | 10 14 18.8 | -0.6 | |
| **WHZ** | **Wether Hill Ro** | **4.22** | **234** | PN | Pn | 10 14 20.5 | -1.9 | |
| **NEZ** | **North Egmont** | **4.32** | **13** | PN | Pn | 10 14 24.0 | +0.2 | |
| **DCZ** | **Deep Cove** | **4.51** | **242** | PN | Pn | 10 14 25.6 | -0.7 | |
| **VRZ** | **Vera Road** | **4.60** | **19** | PN | Pn | 10 14 27.5 | 0.0 | |
| **WNVZ** | **Wahianoa** | **4.65** | **28** | PN | Pn | 10 14 28.4 | 0.0 | |
| **TRVZ** | **Turoa** | **4.66** | **27** | PN | Pn | 10 14 28.6 | 0.0 | |
| **APZ** | **The Paps** | **4.78** | **224** | PN | Pn | 10 14 28.9 | -1.1 | |
| **OTVZ** | **Oturere** | **4.82** | **27** | PN | Pn | 10 14 30.1 | -0.6 | |
| **HIZ** | **Hauiti** | **5.20** | **18** | PN | Pn | 10 14 35.2 | -0.6 | |

*NEIC **26** 10:16:43.5±0.0, 17°.56N×102°.55W, h16km, MD4.0(MEX), After MEX.*

**MEX 26 10:16:43.5±1.5, 17°.56N×102°.55W, h16km±28km, MD4.0, Near coast of Michoacan**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ZIIG** | **Zihuatanejo** | **1.04** | **87** | *i* P | Pb | 10 16 59.6 | -3.5 |
| ZIIG | | | | *i* S | Sb | 10 17 11.5 | -5.0 |
| **ZIIG** | **Zihuatanejo** | **1.04** | **87** | *i* P | Pb | 10 16 59.6 | -3.5 |
| ZIIG | | | | *i* S | Sb | 10 17 11.5 | -5.0 |
| **MMIG** | **Aquila** | **1.05** | **314** | *e*P | Pb | 10 16 59.3 | -4.0 |
| MMIG | | | | *e*S | Sb | 10 17 11.6 | -5.1 |
| **MMIG** | **Aquila** | **1.05** | **314** | *e*P | Pb | 10 16 59.3 | -4.0 |
| MMIG | | | | *e*S | Sb | 10 17 11.6 | -5.1 |
| **R15V** | | **2.10** | **320** | *e*P | Pn | 10 17 14.6 | -3.5 |
| R15V | | | | *e*S | Sn | 10 17 39.4 | -4.5 |
| **EZ5V** | | **2.15** | **333** | *i* P | Pn | 10 17 17.0 | -2.0 |
| EZ5V | | | | *e*S | Sn | 10 17 40.8 | -4.7 |
| **ARIG** | **Puente Sto Nin** | **2.22** | **71** | *e*P | Pn | 10 17 16.8 | -2.9 |
| ARIG | | | | *i* S | Sn | 10 17 41.8 | -5.1 |
| **CAIG** | **El Cayaco** | **2.24** | **103** | *e*P | Pn | 10 17 19.2 | -0.8 |
| **CAIG** | **El Cayaco** | **2.24** | **103** | *e*P | Pn | 10 17 19.2 | -0.8 |
| **MEIG** | **Mezcala** | **2.82** | **82** | *e*P | Pn | 10 17 25.7 | -2.3 |
| **MEIG** | **Mezcala** | **2.82** | **82** | *e*P | Pn | 10 17 25.7 | -2.3 |
| **PLIG** | **Platanillo** | **3.02** | **74** | *e*P | Pn | 10 17 28.8 | -2.0 |
| **PLIG** | **Platanillo** | **3.02** | **74** | *e*P | Pn | 10 17 28.8 | -2.0 |

*OBM **26** 10:18:15.8±0.2, 50°.02N×87°.23E, h2km, Ml3.5/1, Error ellipse: s-maj=4.0km s-min=2.6km az=176.0*
*IDC **26** 10:18:18.6±1.4, 50°.28N×87°.75E, h0km, mb3.3/2, mb1 3.6/7, mb1mx3.4/48, mbtmp3.6/7, ML3.4/5, Error ellipse: s-maj=15.3km s-min=11.3km az=113.0*
*MOS **26** 10:18:19.8±3.0, 50°.21N×87°.47E, h8km, mb4.2/1, Error ellipse: s-maj=11.4km s-min=7.1km az=78.6*
*NNC **26** 10:18:22.7±1.8, 50°.30N×87°.25E, h0km, mb4.0, mpv3.7, Error ellipse: s-maj=20.3km s-min=6.1km az=100.0*

**ISC 26 10:18:20.5±1.3, 50°.27N±0°.04×87°.53E±0°.04, h5km±9km, n41, σ2s78/48, 14C-10D, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **AKAR** | **Aktash** | **0.08** | **52** | *i* PG | **Pg** | **10 18 21.6** | **-0.7** |
| **DGZ** | **Jazzator, Alta** | **0.58** | **186** | *d* iPG | **Pg** | **10 18 28.7** | **-2.8** |
| **UKR** | **Ust'-Kan** | **1.88** | **292** | *e*PN | **Pn** | **10 18 54.3** | **+1.0** |
| UKR | | | | *e* | | 10 19 21.2 | |
| **BYO** | **Bayan-Olgiy** | **2.06** | **129** | *e*Pg | **Pn** | **10 18 52.6** | **-3.3** |
| BYO | | | | *e*Sg | **Sn** | **10 19 17.1** | **-5.0** |
| | 2μm,0.4s | | | | | | |
| **TASR** | **Tashtagol** | **2.50** | **5** | *e*PN | **Pb** | **10 19 06.1** | **+0.2** |
| TASR | | | | *e* | | 10 19 38.2 | |
| **ULG** | **Ulaangom** | **2.94** | **94** | *e*Pg | **Pb** | **10 19 12.6** | **-0.7** |
| ULG | | | | *e*Sg | **Sb** | **10 19 50.0** | **+0.5** |
| **ELT** | **Eltsovka** | **3.10** | **346** | *e*PN | **Pb** | **10 19 13.3** | **-2.7** |
| ELT | | | | *e* | | 10 19 52.3 | |
| **CERR** | **Cheremushki** | **3.54** | **42** | *i* PN | **Pb** | **10 19 25.8** | **+2.1** |
| CERR | | | | *i* | | 10 20 09.1 | |
| **HVS** | **Khovu-Aksy** | **4.02** | **75** | ⇓ePN | **Pn** | **10 19 23.1** | **+0.3** |
| **ZAA0** | **Zalesovo Array** | **4.04** | **337** | ⇑Pn | **Pn** | **10 19 24.0** | **+1.1** |
| | 1.4nm,0.5s | | | | | | |
| ZAA0 | | | | ⇑Sn | **Sn** | **10 20 12.7** | **+2.0** |
| | 3.1nm,0.3s | | | | | | |
| ZAA0 | | | | ⇑Lg | Lg | 10 20 26.2 | |
| | 7.6nm,0.5s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **4.04** | **337** | Pn | **Pn** | **10 19 24.2** | **+1.2** |
| | 6.9nm,0.3s,baz=158,slow=14,SNR=52 | | | | | | |
| ZALV | | | | Sn | **Sn** | **10 20 07.3** | **-3.3** |
| | 3.4nm,0.3s,baz=147,slow=17,SNR=3.2 | | | | | | |
| ZALV | | | | Lg | Lg | 10 20 26.8 | |
| | 13nm,0.3s,baz=152,slow=25,SNR=6.0 | | | | | | |
| **ABNR** | **Abakan** | **4.22** | **33** | ⇑ePN | **Pn** | **10 19 24.2** | **-1.2** |
| **MK31** | **Makanchi Array** | **4.92** | **227** | Pn | **Pn** | **10 19 37.9** | **+2.8** |
| | 0.7nm,0.2s,baz=46,slow=13,SNR=277 | | | | | | |
| MK31 | | | | ⇓Pg | **Pb** | **10 19 50.2** | **+3.1** |
| | 13nm,0.5s,baz=50,slow=11,SNR=4.5 | | | | | | |
| MK31 | | | | ⇓Sn | **Sn** | **10 20 34.7** | **+2.3** |
| | 6.8nm,0.4s,baz=198,slow=58,SNR=5.9 | | | | | | |
| MK31 | | | | ⇑Lg | Lg | 10 20 54.8 | |
| | 38nm,0.5s,baz=46,slow=26,SNR=16 | | | | | | |
| **MK31** | **Makanchi Array** | **4.92** | **227** | PN | **Pn** | **10 19 37.8** | **+2.8** |
| MK31 | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.5s | | | | | | |
| **MKAR** | **Makanchi Array** | **4.92** | **227** | Pn | **Pn** | **10 19 37.6** | **+2.5** |
| | comp=Z,3.5nm,0.3s,baz=46,slow=13,SNR=113 | | | | | | |
| MKAR | | | | Sn | **Sn** | **10 20 35.9** | **+3.5** |
| | comp=Z,8.2nm,0.3s,baz=61,slow=30,SNR=11 | | | | | | |
| MKAR | | | | Lg | Lg | 10 20 55.4 | |
| | comp=Z,11nm,0.3s,baz=49,slow=31,SNR=10 | | | | | | |
| **MK01** | **Makanchi Array** | **4.93** | **227** | *e*Pg | **Pn** | **10 19 38.3** | **+3.0** |
| MK01 | | | | *e*Sg | **Sn** | **10 20 40.2** | **+7.5** |
| | comp=Z,129nm,0.8s | | | | | | |
| **MAKZ** | **Makanchi** | **5.06** | **229** | ⇑Pn | **Pn** | **10 19 39.6** | **+2.6** |
| | comp=Z,6.7nm,0.5s | | | | | | |
| MAKZ | | | | ⇓Lg | Lg | 10 20 58.7 | |
| | comp=Z,56nm,0.7s | | | | | | |
| **MAKZ** | **Makanchi** | **5.06** | **229** | PN | **Pn** | **10 19 39.6** | **+2.6** |
| **NVS** | **Novosibirsk** | **5.27** | **332** | *e*PN | **Pn** | **10 19 40.6** | **+0.8** |
| NVS | | | | *e* | | 10 19 58.5 | |
| NVS | | | | *e* | | 10 20 42.4 | |
| NVS | | | | *e* | | 10 21 05.7 | |
| **KURK** | **Kurchatov** | **5.70** | **278** | ⇓Pn | **Pn** | **10 19 46.4** | **+0.6** |
| | comp=Z,4.4nm,0.6s | | | | | | |
| KURK | | | | ⇑Lg | Lg | 10 21 19.7 | |
| | comp=Z,54nm,0.6s | | | | | | |
| **KURK** | **Kurchatov** | **5.70** | **278** | PN | **Pn** | **10 19 47.6** | **+1.8** |
| KURK | | | | | | 10 20 56.2 | |
| KURK | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.3s | | | | | | |
| KURK | | | | smax | smax | | |
| | comp=N,1.0nm,0.3s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **5.76** | **277** | Pn | **Pn** | **10 19 47.6** | **+1.1** |
| | comp=N,0.7nm,0.3s,baz=88,slow=15,SNR=11 | | | | | | |
| KURBB | | | | Sn | **Sn** | **10 20 56.1** | **+3.2** |
| | comp=N,1.2nm,0.3s,baz=84,slow=28,SNR=7.3 | | | | | | |
| KURBB | | | | Lg | Lg | 10 21 23.2 | |
| | comp=N,2.1nm,0.3s,baz=90,slow=34,SNR=20 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **5.76** | **277** | ⇑Pn | **Pn** | **10 19 47.7** | **+1.1** |
| | comp=N,11nm,0.3s | | | | | | |
| KURBB | | | | ⇓Lg | Lg | 10 21 22.2 | |
| | comp=N,82nm,0.6s | | | | | | |
| **TSC** | **Tosontsengel** | **7.14** | **98** | *e*Sg | **Sb** | **10 21 58.3** | **+7.8** |
| | comp=N,39nm,0.8s | | | | | | |
| **PDGK** | **Podgornoye** | **8.86** | **221** | ⇑Pn | **Pn** | **10 20 30.8** | **+1.5** |
| | comp=N,4.1nm,0.5s | | | | | | |
| PDGK | | | | ⇑Sn | **Sn** | **10 22 06.4** | **-3.2** |
| | comp=N,7.5nm,0.9s | | | | | | |
| PDGK | | | | ⇓Lg | Lg | 10 22 55.4 | |
| | comp=N,12nm,0.7s | | | | | | |
| **PDGK** | **Podgornoye** | **8.86** | **221** | P | **Pn** | **10 20 30.7** | **+1.5** |
| PDGK | | | | | | 10 22 06.3 | |
| PDGK | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.5s | | | | | | |
| PDGK | | | | smax | smax | | |
| | comp=N,8.0nm,0.9s | | | | | | |
| PDGK | | | | pmax | pmax | | |
| | comp=N,12nm,0.7s | | | | | | |
| **TTS** | **Tsetserleg** | **9.59** | **102** | *e*Sg | Sn | 10 23 18.1 | +51 |
| | comp=N,22nm,0.8s | | | | | | |
| **BLGM** | **Bulgan** | **10.51** | **92** | *e*Sg | | 10 23 53.5 | |
| | comp=N,7.6nm,0.6s | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **BVA0** | **Borovoye Array** | **11.00** | **291** | ⇓Pn | **Pn** | **10 20 55.4** | **-3.0** | |
| | comp=N,2.3nm,0.8s,baz=84,slow=13,SNR=4.1 | | | | | | | |
| BVA0 | | | | Sn | **Sn** | **10 23 00.5** | **-1.2** | |
| | comp=N,3.2nm,0.6s,baz=105,slow=24,SNR=4.7 | | | | | | | |
| **BVA0** | **Borovoye Array** | **11.00** | **291** | P | **Pn** | **10 20 55.4** | **-3.0** | |
| **BVAR** | **Borovoye Array** | **11.00** | **291** | Pn | **Pn** | **10 20 57.9** | **-0.4** | |
| | comp=N,0.6nm,0.3s,baz=103,slow=14,SNR=9.3 | | | | | | | |
| BVAR | | | | Sn | **Sn** | **10 22 58.6** | **-3.0** | |
| | comp=N,0.8nm,0.3s,baz=106,slow=15,SNR=6.3 | | | | | | | |
| BVAR | | | | Lg | Lg | 10 24 12.7 | | |
| | comp=N,0.4nm,0.3s,baz=105,slow=28,SNR=2.2 | | | | | | | |
| **TKM2** | **Tokmak 2** | **11.01** | **233** | ⇑Pn | **Pn** | **10 20 58.6** | **-0.1** | |
| | comp=N,1.3nm,0.6s | | | | | | | |
| TKM2 | | | | ⇓Lg | Lg | 10 24 11.6 | | |
| | comp=N,4.1nm,0.8s | | | | | | | |
| **BRVK** | **Borovoye** | **11.06** | **291** | ⇑*e*P | **Pn** | **10 21 01.6** | **+2.3** | |
| **AAK** | **Ala-Archa** | **11.78** | **235** | Pn | **Pn** | **10 21 08.9** | **-0.4** | |
| | comp=N,0.2nm,0.3s,baz=14,slow=12,SNR=2.8 | | | | | | | |
| AAK | | | | Sn | **Sn** | **10 23 19.7** | **-1.5** | |
| | comp=N,0.2nm,0.3s,baz=196,slow=18,SNR=2.6 | | | | | | | |
| AAK | | | | Lg | Lg | 10 24 34.8 | | |
| | comp=N,0.2nm,0.3s,baz=233,slow=16,SNR=4.2 | | | | | | | |
| **AAK** | **Ala-Archa** | **11.78** | **235** | ⇑Lg | Lg | 10 24 34.0 | | |
| | comp=N,7.3nm,0.9s | | | | | | | |
| **AAK** | **Ala-Archa** | **11.78** | **235** | ⇑*e*P | **Pn** | **10 21 10.7** | **+1.4** | |
| **SONA0** | **Songino Array** | **12.62** | **94** | *e*Sg | | 10 24 55.1 | | |
| **SONM** | **Songino Array** | **12.62** | **94** | Lg | Lg | 10 24 53.9 | | |
| | comp=N,0.1nm,0.3s,baz=274,slow=29,SNR=3.8 | | | | | | | |
| **ALFM** | | **12.81** | **93** | *e*Sg | | 10 25 01.2 | | |
| | comp=N,12nm,1.0s | | | | | | | |
| **BRTR** | **Keskin Array B** | **38.75** | **275** | P | **P** | **10 25 44.3** | **-1.5** | |
| | comp=N,0.5nm,0.7s,baz=78,slow=4.3,SNR=2.1 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **66.21** | **11** | P | **P** | **10 29 07.1** | **-1.6** | |
| | comp=N,0.1nm,0.7s,baz=339,slow=6.4,SNR=2.8 | | | | | | | |

*ISK **26** 10:19:56.6, 39°.61N×40°.18E, h6km, ML2.2*
*DDA **26** 10:19:57.9, 39°.66N×40°.14E, h7km, Ml2.3*
*CSEM **26** 10:19:57.5±0.2, 39°.61N×40°.14E, h2km, ML2.2, Error ellipse: s-maj=6.2km s-min=5.4km az=11.0*

**ISC 26 10:19:57.6±1.1, 39°.59N±0°.03×40°.14E±0°.02, h3km±11km, n38, σ0s70/47, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ERZN** | **Erzincan** | **0.32** | **270** | *e*PG | **Pg** | **10 20 04.1** | **+0.3** |
| **YEDI** | **Yedisu-Bingol** | **0.35** | **116** | *e*PG | **Pg** | **10 20 03.7** | **-0.6** |
| YEDI | | | | *e*SG | **Sg** | **10 20 08.9** | **0.0** |
| **YEDI** | **Yedisu-Bingol** | **0.35** | **116** | *e*Pg | **Pg** | **10 20 03.7** | **-0.6** |
| YEDI | | | | *e*Sg | **Sg** | **10 20 08.9** | **0.0** |
| **EUZM** | **Uzumlu** | **0.36** | **289** | *i* P | **Pg** | **10 20 05.5** | **+1.0** |
| EUZM | | | | *i* S | **Sb** | **10 20 11.7** | **-1.1** |
| **EUZM** | **Uzumlu** | **0.36** | **289** | *i* P | **Pg** | **10 20 05.6** | **+1.0** |
| **EUZM** | **Uzumlu** | **0.36** | **289** | P | **Pb** | **10 20 05.6** | **-1.1** |
| **EZZC** | **Erzincan** | **0.63** | **285** | *e*Pg | Pg | 10 20 04.1 | -5.5 |
| **ECAT** | **Cat-ERZURUM** | **0.65** | **88** | *i* P | **Pg** | **10 20 09.4** | **-0.6** |
| ECAT | | | | *i* S | **Sg** | **10 20 19.1** | **+0.8** |
| **ECAT** | **Cat-ERZURUM** | **0.65** | **88** | P | **Pg** | **10 20 09.4** | **-0.6** |
| ECAT | | | | S | **Sg** | **10 20 19.1** | **+0.8** |
| **TNCL** | **Tunceli-Merkez** | **0.66** | **225** | *i* P | **Pg** | **10 20 10.1** | **-0.1** |
| **BNGB** | **Bing¯¶i** | **0.73** | **145** | *e*PG | **Pg** | **10 20 10.8** | **-0.7** |
| **BINT** | **Bingol** | **0.76** | **159** | *e*Pg | **Pg** | **10 20 10.8** | **-1.4** | |
| **BAYT** | **Ayd¯–ntepe-Bay** | **0.80** | **0** | *e*PG | **Pg** | **10 20 12.2** | **-0.8** |
| BAYT | | | | *e*SG | **Sg** | **10 20 23.5** | **+0.1** |
| **BAYT** | **Ayd¯–ntepe-Bay** | **0.80** | **0** | *e*Pg | **Pg** | **10 20 12.2** | **-0.8** |
| BAYT | | | | *e*Sg | **Sg** | **10 20 23.5** | **+0.1** |
| **KELT** | **Kelkit** | **0.88** | **310** | *i* P | **Pb** | **10 20 15.6** | **0.0** |
| KELT | | | | *i* S | **Sb** | **10 20 29.1** | **+1.2** |
| **PTK** | **Pertek** | **0.91** | **220** | *e*PG | **Pb** | **10 20 15.2** | **-0.8** |
| **PTK** | **Pertek** | **0.91** | **220** | *e*Pg | **Pb** | **10 20 15.2** | **-0.8** |
| **ERZM** | **Erzurum** | **1.00** | **71** | *i* P | **Pg** | **10 20 17.1** | **+0.4** |
| **ERZM** | **Erzurum** | **1.00** | **71** | P | **Pg** | **10 20 17.1** | **+0.4** |
| **BNGL** | **BINGOL** | **1.01** | **129** | *i* P | **Pn** | **10 20 18.5** | **-0.2** |
| **HANI** | **Diyarbakir_Han** | **1.19** | **170** | *i* P | **Pn** | **10 20 22.1** | **+1.0** |
| **HANI** | **Diyarbakir_Han** | **1.19** | **170** | P | **Pn** | **10 20 22.1** | **+1.0** |
| **ILIC** | **ilic-Erzincan** | **1.22** | **264** | *e*PN | **Pg** | **10 20 20.9** | **-0.1** |
| **ILIC** | **ilic-Erzincan** | **1.22** | **264** | *e*Pn | **Pg** | **10 20 20.9** | **-0.1** |
| **KEMA** | **Kemaliye** | **1.31** | **256** | *i* P | **Pn** | **10 20 23.0** | **+0.1** |
| KEMA | | | | *i* S | **Sn** | **10 20 41.5** | **+0.6** |
| **KEMA** | **Kemaliye** | **1.31** | **256** | P | **Pn** | **10 20 23.0** | **+0.1** |
| KEMA | | | | S | **Sn** | **10 20 41.5** | **+0.6** |
| **KTUT** | **Trabzon** | **1.43** | **349** | *e*PN | **Pn** | **10 20 23.8** | **-0.5** |
| **KTUT** | **Trabzon** | **1.43** | **349** | *e*Pn | **Pn** | **10 20 23.8** | **-0.5** |
| **EKAR** | **Karacoban** | **1.53** | **102** | *i* P | **Pg** | **10 20 27.9** | **+1.1** |
| **EKAR** | **Karacoban** | **1.53** | **102** | P | **Pg** | **10 20 27.9** | **+1.1** |
| **ESPY** | **Espiye-Giresun** | **1.71** | **321** | *e*PN | **Pn** | **10 20 27.8** | **-0.5** |
| **ESPY** | **Espiye-Giresun** | **1.71** | **321** | *e*Pn | **Pn** | **10 20 27.8** | **-0.5** |
| **EATA** | **Eleskirt** | **1.83** | **81** | *i* P | **Pb** | **10 20 32.2** | **+0.3** |
| **EATA** | **Eleskirt** | **1.83** | **81** | P | **Pb** | **10 20 32.2** | **+0.3** |
| **MAZI** | **Mazidag** | **2.14** | **173** | *e*PN | **Pn** | **10 20 34.1** | **-0.1** |
| **MAZI** | **Mazidag** | **2.14** | **173** | *e*Pn | **Pn** | **10 20 34.1** | **-0.1** |
| **BCA** | **Borcka** | **2.17** | **31** | *e*PN | **Pn** | **10 20 33.8** | **-0.8** |
| **BCA** | **Borcka** | **2.17** | **31** | *e*Pn | **Pn** | **10 20 33.8** | **-0.8** |

*NIED **26** 10:32:00, 37°.40N×141°.90E, h32km, Mw3.6 Best double couple: M0 2.58000×10^14 NP1:φ=177.00000°, δ=43.00000°, λ=139.00000°. NP2:φ=299.00000°, δ=64.00000°, λ=55.00000°.*
*ISCJB **26** 10:32:46.4±1.4, 37°.36N±0°.05×141°.93E±0°.08, h24km±7km, mb2.3/3, Error ellipse: s-maj=11.9km s-min=7.0km az=29.7*
*IDC **26** 10:32:46.2±3.3, 37°.91N×141°.72E, h0km, mb3.3/3, mb1 3.4/4, mb1mx3.2/44, mbtmp3.2/4, ML3.0/1, Error ellipse: s-maj=77.8km s-min=26.4km az=149.0*
*JMA **26** 10:32:48.0±0.1, 37°.36N×141°.85E, h38km±3km, M3.5*

**ISC 26 10:32:44.9±1.9, 37°.33N±0°.05×141°.83E±0°.08, h13km±10km, n20, σ1s28/23, mb3.2/3, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JFK** | **Kawauchi** | **0.76** | **273** | P | **Pn** | **10 33 02.7** | **+1.3** |
| JFK | | | | S | **Sn** | **10 33 12.6** | **-0.1** |
| **ONAJ** | **Iwakimizuishiy** | **0.85** | **255** | P | **Pn** | **10 33 04.1** | **+1.4** |
| ONAJ | | | | S | **Sn** | **10 33 15.2** | **+0.2** |
| **JMM** | **Marumori** | **0.98** | **304** | P | **Pn** | **10 33 05.6** | **+1.2** |
| JMM | | | | S | **Sn** | **10 33 18.2** | **+0.1** |
| **JIO** | **Ouri** | **1.19** | **342** | P | **Pg** | **10 33 08.1** | **+0.3** |
| JIO | | | | S | **Sb** | **10 33 21.8** | **-0.7** |
| **JFT** | **Otama** | **1.20** | **280** | P | **Pg** | **10 33 09.7** | **+1.6** |
| JFT | | | | S | **Sn** | **10 33 25.2** | **+1.6** |
| **JHO** | **Hitachi** | **1.23** | **235** | P | **Pg** | **10 33 09.3** | **+0.6** |
| JHO | | | | S | **Sn** | **10 33 24.4** | **0.0** |
| **JOU** | **Okura** | **1.39** | **319** | P | **Pg** | **10 33 11.7** | **+0.1** |
| JOU | | | | *e*S | **Sg** | **10 33 29.1** | **-0.5** |
| **JYS** | **Shirataka** | **1.66** | **303** | P | **Pg** | **10 33 16.5** | **-0.2** |
| **JMK** | **Ichinoseki** | **1.69** | **344** | P | **Pb** | **10 33 15.6** | **-0.3** |
| **MJAR** | **Matsushiro Arr** | **3.00** | **256** | Pn | **Pb** | **10 33 36.1** | **-2.2** |
| | 1.9nm,0.3s,baz=82,slow=15,SNR=11 | | | | | | |
| MJAR | | | | Sn | **Sb** | **10 34 16.8** | **+2.0** |
| | 1.7nm,0.3s,baz=50,slow=15,SNR=4.3 | | | | | | |
| **MAT** | **Matsushiro** | **3.00** | **256** | P | **Pb** | **10 33 36.6** | **-1.7** |
| MAT | | | | S | **Sb** | **10 34 12.4** | **-2.5** |
| **SONM** | **Songino Array** | **27.90** | **303** | P | **P** | **10 38 35.3** | **+0.7** |
| | 0.2nm,0.6s,baz=113,slow=11,SNR=2.5 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.02** | **122** | T | T | 11 08 09.1 | |
| | baz=314,slow=76 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.03** | **122** | T | T | 11 08 09.7 | |
| | baz=314 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.04** | **122** | T | T | 11 08 17.5 | |
| | baz=314,slow=76 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.75** | **124** | T | T | 11 08 59.9 | |
| | baz=316,slow=76,SNR=6.1 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.75** | **124** | T | T | 11 09 02.7 | |
| | baz=316,slow=76,SNR=6.2 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.76** | **124** | T | T | 11 09 03.8 | |
| | baz=316,slow=76,SNR=6.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.24** | **302** | P | **P** | **10 40 52.9** | **-1.0** |
| | 0.2nm,0.5s,baz=80,slow=12,SNR=2.7 | | | | | | |
| **ILAR** | **Eielson Array** | **49.07** | **32** | P | **P** | **10 41 31.4** | **0.0** |
| | 0.6nm,0.9s,baz=261,slow=8.1,SNR=5.1 | | | | | | |

*IDC **26** 10:33:44.4±1.0, 27°.48S×176°.35W, h0km, mb3.9/5, mb1 4.2/6, mb1mx4.0/27, mbtmp4.0/6, ML4.7/1, MS3.2/1, Ms1 3.2/1, ms1mx2.5/31, Error ellipse: s-maj=41.6km s-min=20.0km az=144.0*
*NEIC **26** 10:33:46.0±0.4, 27°.23S×176°.48W, h10km, mb4.3/7, Error ellipse: s-maj=15.7km s-min=6.8km az=120.0*
*ISCJB **26** 10:33:47.6±0.6, 27°.27S±0°.08×176°.5W±0°.1, h34km, mb4.1/8, Error ellipse: s-maj=19.1km s-min=8.2km az=30.5*

**ISC 26 10:33:48.5±0.6, 27°.25S±0°.10×176°.4W±0°.2, h34km, n34, σ1s95/33, mb4.0/8, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **2.39** | **213** | Pn | **Pn** | **10 34 24.6** | **-0.6** |
| | 222nm,0.3s,baz=76,slow=11,SNR=9.7 | | | | | | |
| RAO | | | | Sn | **Sn** | **10 34 53.6** | **+0.3** |
| | 410nm,0.3s,baz=54,slow=23,SNR=8.9 | | | | | | |
| **RAO** | **Raoul Island** | **2.39** | **213** | *e*Pn | **Pn** | **10 34 24.6** | **-0.6** |
| RAO | | | | *e*Pn | Pb | 10 34 25.2 | -5.7 |
| RAO | | | | *e*Sn | **Sn** | **10 34 53.6** | **+0.3** |
| **MXZ** | **Matakaoa Point** | **11.20** | **202** | *e*Pn | **Pn** | **10 36 27.1** | **+1.0** |
| **URZ** | **Urewera** | **12.25** | **205** | Pn | Pn | 10 36 34.9 | -5.6 |
| | 0.5nm,0.3s,baz=82,slow=15,SNR=5.3 | | | | | | |
| URZ | | | | Sn | Sn | 10 38 44.9 | -11 |
| | 0.8nm,0.3s,baz=196,slow=23,SNR=8.4 | | | | | | |
| **AFI** | **Afiamalu** | **13.97** | **19** | Pn | **Pn** | **10 37 01.0** | **-3.1** |
| | 0.8nm,0.3s,baz=345,slow=20,SNR=2.4 | | | | | | |
| AFI | | | | Sn | Sn | 10 39 28.5 | -10 |
| | 0.8nm,0.3s,baz=143,slow=20,SNR=2.4 | | | | | | |
| **AFI** | **Afiamalu** | **13.97** | **19** | *e*Pn | **Pn** | **10 37 02.5** | **-1.6** |
| AFI | | | | Sn | Sn | 10 39 28.5 | -10 |
| AFI | | | | *e*Sn | **Sn** | **10 39 35.9** | **-2.1** |
| **RAR** | **Rarotonga** | **16.33** | **72** | LR | LR | 10 43 04.1 | |
| | comp=Z,83nm,20.0s,baz=270,slow=34 | | | | | | |
| **THZ** | **Tophouse** | **16.91** | **208** | *e*Pn | **Pn** | **10 37 42.3** | **-0.2** |
| | 9.8nm,0.9s | | | | | | |
| **KHZ** | **Kahutara** | **17.20** | **206** | *e*Pn | **Pn** | **10 37 45.8** | **-0.3** |
| | 22nm,1.1s | | | | | | |
| **OXZ** | **Oxford** | **18.57** | **207** | *e*P | **P** | **10 37 57.7** | **-4.8** |
| | 13nm,0.5s | | | | | | |
| **RPZ** | **Rata Peaks** | **19.30** | **208** | P | **P** | **10 38 05.5** | **-5.0** |
| | 0.7nm,0.3s,baz=27,slow=6.8,SNR=5.2 | | | | | | |
| **LBZ** | **Lake Benmore** | **20.21** | **209** | *e*P | **P** | **10 38 20.4** | **0.0** |
| | 35nm,1.6s | | | | | | |
| **STKA** | **Stephens Creek** | **36.64** | **252** | P | **P** | **10 40 52.6** | **+0.7** |
| | 1.6nm,0.4s,baz=100,slow=12,SNR=11 | | | | | | |
| **AS31** | **Alice Springs** | **44.76** | **263** | *e*P | **P** | **10 41 59.0** | **0.0** |
| | 1.4nm,1.2s | | | | | | |
| **ASAR** | **Alice Springs** | **44.76** | **263** | P | **P** | **10 41 59.6** | **+0.7** |
| | 0.6nm,0.4s,baz=83,slow=6.7,SNR=19 | | | | | | |
| **WR1** | **Warramunga Arr** | **45.47** | **268** | *e*P | **P** | **10 42 05.4** | **+0.8** |
| | 42nm,1.9s | | | | | | |
| **WRA** | **Warramunga Arr** | **45.47** | **268** | P | **P** | **10 42 05.4** | **+0.8** |
| | 0.9nm,0.4s,baz=104,slow=8.0,SNR=23 | | | | | | |
| **QSPA** | **South Pole Qui** | **62.85** | **180** | *e*P | **P** | **10 44 11.4** | **+0.6** |
| | 7.4nm,1.0s | | | | | | |
| **NV01** | **Mina Array Sit** | **84.99** | **42** | *e*P | **P** | **10 46 20.4** | **-0.2** |
| **NVAR** | **Mina Array Bea** | **84.99** | **42** | P | **P** | **10 46 23.1** | **+2.5** |
| | 0.9nm,1.0s,baz=232,slow=6.8,SNR=3.7 | | | | | | |
| **LTX** | **Lajitas** | **89.52** | **57** | *e*P | **P** | **10 46 44.4** | **+1.7** |
| **TXAR** | **Lajitas Array** | **89.52** | **57** | P | **P** | **10 46 44.4** | **+1.7** |
| | 0.6nm,1.1s,baz=224,slow=8.7,SNR=4.6 | | | | | | |
| **MK32** | **Makanchi Array** | **116.78** | **311** | *e*PKPdf | **PKPdf** | **10 52 32.0** | **+2.9** |
| **MKAR** | **Makanchi Array** | **116.78** | **311** | PKP | **PKPdf** | **10 52 32.0** | **+2.9** |
| | 0.5nm,0.8s,baz=54,slow=3.7,SNR=3.5 | | | | | | |
| **ARA0** | **ARCESS Array S** | **135.79** | **349** | *e*PKPdf | **PKPdf** | **10 53 05.7** | **+1.0** |
| **ARCES** | **ARCESS Array B** | **135.79** | **349** | PKP | **PKPdf** | **10 53 05.7** | **+1.0** |
| | 7.8nm,1.1s,baz=15,slow=3.7,SNR=5.8 | | | | | | |
| **FIA0** | **FINESS Array S** | **142.62** | **342** | *e*PKPpre | PKPpre | 10 53 15.2 | |
| **FINES** | **FINESS Array B** | **142.62** | **342** | PKhKP | PKPpre | 10 53 15.2 | |
| | 4.1nm,0.8s,baz=90,slow=2.8,SNR=7.7 | | | | | | |
| **NB200** | **NORSAR Array S** | **145.82** | **353** | *e*PKPdf | **PKPab** | **10 53 25.1** | **+1.1

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| AKASG | **Malin Array Be** | **56.47** | **316** | P | | **P** | | **10 50 05.0** | **+0.6** |
| | 0.8nm,0.4s,baz=85,slow=6.1,SNR=4.7 | | | | | | | | |
| **AKBB** | **Malin Array Si** | **56.47** | **316** | *e*P | | **P** | | **10 50 05.0** | **+0.5** |
| | 24nm,1.8s | | | | | | | | |
| **WR1** | **Warramunga Arr** | **58.25** | **134** | *e*P | | **P** | | **10 50 16.9** | **-0.4** |
| | 20nm,1.5s | | | | | | | | |
| **WRA** | **Warramunga Arr** | **58.25** | **134** | P | | **P** | | **10 50 16.9** | **-0.4** |
| | 0.5nm,0.7s,baz=320,slow=7.4,SNR=16 | | | | | | | | |
| **AS31** | **Alice Springs** | **60.66** | **138** | *e*P | | **P** | | **10 50 33.5** | **-0.4** |
| | 1.4nm,0.8s | | | | | | | | |
| **ASAR** | **Alice Springs** | **60.66** | **138** | P | | **P** | | **10 50 33.8** | **-0.1** |
| | 0.6nm,0.6s,baz=319,slow=6.8,SNR=14 | | | | | | | | |
| **ARA0** | **ARCESS Array S** | **60.91** | **338** | *e*P | | **P** | | **10 50 34.6** | **-0.4** |
| ARCES | **ARCESS Array B** | **60.91** | **338** | P | | **P** | | **10 50 34.6** | **-0.4** |
| | 2.4nm,0.8s,baz=96,slow=7.3,SNR=4.3 | | | | | | | | |
| **GEC2** | **GERESS Array S** | **66.59** | **315** | *e*P | | **P** | | **10 51 13.7** | **+0.8** |
| | 11nm,1.8s | | | | | | | | |
| GERES | **GERESS Array B** | **66.59** | **315** | P | | **P** | | **10 51 13.7** | **+0.8** |
| | 0.4nm,0.5s,baz=75,slow=4.2,SNR=3.5 | | | | | | | | |
| **LTX** | **Lajitas** | **125.02** | **19** | *e*PKPdf | | **PKPdf** | | **10 59 23.7** | **+0.7** |
| **TXAR** | **Lajitas Array** | **125.02** | **19** | PKP | | **PKPdf** | | **10 59 23.7** | **+0.7** |
| | 0.1nm,0.6s,baz=333,slow=1.0,SNR=2.6 | | | | | | | | |

*ISCJB* ***26*** *10:44:05.1±0.8, 19.9°S±0.2°×178.0°W±0.1°, h600km, mb3.8/10, Error ellipse: s-maj=25.0km s-min=9.6km az=142.4*

*IDC* ***26*** *10:44:06.8±2.1, 19.58°S×178.27°W, h581km±24km, mb3.4/10, mb1 3.6/12, mb1mx3.3/31, mbtmp4.2/12, Error ellipse: s-maj=28.7km s-min=14.1km az=148.0*

**ISC 26 11:44:06.9±0.8, 19.7°S±0.2°×178.1°W±0.1°, h600km, n17, σ1°59/18, mb3.9/10, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | h m s | ISC |
| **AFI** | **Afiamalu** | **8.34** | **47** | P | | **P** | | **10 46 08.6** | **-1.0** |
| | 2.6nm,0.3s,baz=269,slow=5.3,SNR=5.8 | | | | | | | | |
| AFI | | | | S | | **S** | | **10 47 47.0** | **-3.2** |
| | 2.0nm,0.3s,baz=299,slow=19,SNR=3.4 | | | | | | | | |
| **DZM** | **Mont Dzumac** | **14.68** | **258** | P | | **P** | | **10 47 12.3** | **0.0** |
| | 0.4nm,0.3s,baz=74,slow=18,SNR=4.1 | | | | | | | | |
| **URZ** | **Urewera** | **18.93** | **192** | P | | **P** | | **10 47 48.5** | **-2.3** |
| | 1.1nm,0.3s,baz=258,slow=4.0,SNR=7.5 | | | | | | | | |
| **CTA** | **Charters Tower** | **33.53** | **263** | P | | **P** | | **10 49 58.7** | **0.0** |
| | 6.2nm,0.3s,baz=87,slow=10,SNR=22 | | | | | | | | |
| **ASAR** | **Alice Springs** | **44.65** | **256** | P | | **P** | | **10 51 27.5** | **-0.4** |
| | 2.4nm,0.5s,baz=87,slow=8.2,SNR=44 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **44.67** | **261** | P | | **P** | | **10 51 27.2** | **-0.9** |
| | 1.5nm,0.4s,baz=97,slow=7.6,SNR=42 | | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **53.09** | **262** | P | | **P** | | **10 52 29.4** | **-0.6** |
| | 5.1nm,1.1s,baz=111,slow=2.8,SNR=6.3 | | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **69.57** | **324** | P | | **P** | | **10 54 16.8** | **-0.2** |
| | 2.9nm,0.6s,baz=160,slow=5.8,SNR=10 | | | | | | | | |
| **PETK** | **Petropavlovsk-** | **75.52** | **345** | P | | **P** | | **10 54 50.9** | **+0.3** |
| | 2.7nm,0.6s,baz=130,slow=7.8,SNR=2.9 | | | | | | | | |
| **TXAR** | **Lajitas Array** | **86.68** | **57** | P | | **P** | | **10 55 51.8** | **+3.3** |
| | 1.0nm,0.8s,baz=216,slow=8.2,SNR=13 | | | | | | | | |
| **ILAR** | **Eielson Array** | **87.58** | **13** | P | | **P** | | **10 55 52.5** | **+0.7** |
| | 2.4nm,1.1s,baz=216,slow=5.5,SNR=18 | | | | | | | | |
| **SONM** | **Songino Array** | **95.15** | **319** | P | | **P** | | **10 56 27.8** | **+0.6** |
| | 0.3nm,1.0s,baz=132,slow=2.1,SNR=2.3 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **95.84** | **20** | P | | **P** | | **10 56 30.6** | **+0.9** |
| | 0.1nm,0.5s,baz=233,slow=4.5,SNR=4.1 | | | | | | | | |
| AKASG | **Malin Array Be** | **142.32** | **332** | PKhKP | | PKPpre | | 11 02 28.8 | |
| | 0.8nm,0.3s,baz=46,slow=5.5,SNR=6.3 | | | | | | | | |
| **BRTR** | **Keskin Array B** | **146.29** | **313** | PKPbc | | **PKPab** | | **11 02 42.2** | **-2.1** |
| | 0.6nm,0.5s,baz=132,slow=3.7,SNR=3.9 | | | | | | | | |
| GERES | **GERESS Array B** | **149.45** | **345** | PKPbc | | **PKPbc** | | **11 02 49.9** | **+0.5** |
| | 0.2nm,0.4s,baz=8.8,slow=8.9,SNR=5.1 | | | | | | | | |
| GERES | | | | PKPab | | **PKPab** | | **11 02 56.9** | **+0.1** |
| | 0.2nm,0.6s,baz=17,slow=10,SNR=2.8 | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **173.45** | **178** | PKPab | | **PKPab** | | **11 04 43.5** | **+1.4** |
| | 0.4nm,0.8s,baz=198,slow=3.8,SNR=2.4 | | | | | | | | |

*ISCJB* ***26*** *11:03:22.8±1.1, 51.1°N±0.1°×74.0°E±0.1°, h0km, mb3.4/1, Error ellipse: s-maj=17.4km s-min=9.0km az=13.2*

*NNC* ***26*** *11:03:23.2±1.4, 50.63°N×73.68°E, h0km, mb3.5, mpv3.2, Error ellipse: s-maj=21.7km s-min=9.6km az=21.0, Suspected Mining explosion.*

*IDC* ***26*** *11:03:24.2±1.2, 51.10°N×73.94°E, h0km, mb3.2/1, mb1 3.1/4, mb1mx3.0/60, mbtmp2.9/4, ML2.5/3, Error ellipse: s-maj=33.2km s-min=9.5km az=35.0*

**ISC 26 11:03:22.6±1.4, 50.9°N±0.1°×73.8°E±0.1°, h0km, n14, σ1°55/11, 10C-1D, Central Kazakhstan**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | h m s | ISC |
| **BVA0** | **Borovoye Array** | **2.96** | **316** | ⇑Pn | | **Pn** | | **11 04 12.7** | **+1.9** |
| | 2.2nm,0.4s,baz=139,slow=13,SNR=34 | | | | | | | | |
| BVA0 | | | | Sn | | **Sg** | | **11 04 56.8** | **-0.7** |
| | 23nm,0.7s,baz=124,slow=27,SNR=6.8 | | | | | | | | |
| **BVAR** | **Borovoye Array** | **2.96** | **316** | Pn | | **Pn** | | **11 04 12.0** | **+1.3** |
| | 1.1nm,0.3s,baz=141,slow=14,SNR=15 | | | | | | | | |
| BVAR | | | | Pg | | **Pb** | | **11 04 15.7** | **-0.4** |
| | 2.1nm,0.3s,baz=140,slow=17,SNR=20 | | | | | | | | |
| BVAR | | | | Lg | | Lg | | 11 04 56.4 | |
| | 3.4nm,0.3s,baz=126,slow=28,SNR=8.7 | | | | | | | | |
| KURBB | **Kurchatov Arra** | **3.04** | **94** | ⇓Pn | | **Pn** | | **11 04 13.9** | **+1.9** |
| | 16nm,0.7s | | | | | | | | |
| KURBB | | | | ⇑Lg | | Lg | | 11 04 59.4 | |
| | 140nm,0.7s | | | | | | | | |
| **KURK** | **Kurchatov** | **3.09** | **92** | ⇑Pn | | **Pn** | | **11 04 14.7** | **+2.2** |
| | 7.0nm,0.7s | | | | | | | | |
| KURK | | | | ⇑Lg | | Lg | | 11 05 02.2 | |
| | 64nm,0.9s | | | | | | | | |
| **MK31** | **Makanchi Array** | **6.99** | **123** | Pg | | **Pb** | | **11 05 23.0** | **-1.7** |
| | 0.6nm,0.6s,baz=295,slow=11,SNR=5.0 | | | | | | | | |
| MK31 | | | | ⇑Lg | | Lg | | 11 07 05.5 | |
| | 23nm,1.1s,baz=314,slow=26,SNR=7.0 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **6.99** | **123** | Pn | | **Pn** | | **11 05 07.2** | **+1.1** |
| | 0.1nm,0.3s,baz=296,slow=12,SNR=6.2 | | | | | | | | |
| MKAR | | | | Lg | | Lg | | 11 07 02.8 | |
| | 0.7nm,0.3s,baz=313,slow=27,SNR=10 | | | | | | | | |
| **I46RU** | **ZALESOVO INFRA** | **7.40** | **62** | *i* | | | | 11 46 25.0 | |
| | baz=247,slow=303,SNR=6.9 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **7.40** | **62** | Pn | | **Pn** | | **11 05 12.4** | **+0.7** |
| | 0.2nm,0.3s,baz=260,slow=16,SNR=3.6 | | | | | | | | |
| ZALV | | | | Sn | | **Sn** | | **11 06 35.8** | **-0.4** |
| | 0.1nm,0.3s,baz=251,slow=24,SNR=3.0 | | | | | | | | |
| **KK31** | **Karatay Array** | **8.15** | **197** | ⇑Lg | | Lg | | 11 07 32.0 | |
| | 9.2nm,0.8s,baz=13,slow=25,SNR=4.4 | | | | | | | | |
| **MNAS** | **Manas** | **8.50** | **186** | ⇑Lg | | Lg | | 11 07 45.3 | |
| | 8.4nm,1.1s | | | | | | | | |
| **PDGK** | **Podgornoye** | **8.55** | **151** | ⇑Lg | | Lg | | 11 07 51.3 | |
| | 12nm,1.2s | | | | | | | | |
| **AB31** | **Akbulak array** | **9.05** | **265** | ⇑Lg | | Lg | | 11 08 04.4 | |
| | 1.8nm,0.8s,baz=80,slow=28,SNR=3.7 | | | | | | | | |
| **AKTO** | **Aktyubinsk** | **10.01** | **273** | ⇑Lg | | Lg | | 11 08 37.1 | |
| | 7.6nm,1.2s | | | | | | | | |
| **ILAR** | **Eielson Array** | **60.40** | **19** | P | | **P** | | **11 13 33.2** | **+0.1** |
| | 0.2nm,0.6s,baz=340,slow=5.3,SNR=6.2 | | | | | | | | |

*MOS* ***26*** *11:30:27.0±1.3, 35.76°N×70.08°E, h33km, mb4.6/5, Error ellipse: s-maj=13.6km s-min=5.4km az=79.8*

*NEIC* ***26*** *11:30:28.4±2.3, 35.76°N×70.18°E, h31km±16km, mb4.5/6, Error ellipse: s-maj=9.8km s-min=8.0km az=151.0*

*ISCJB* ***26*** *11:30:28.9±0.3, 35.96°N±0.03°×70.03°E±0.04°, h35km, mb3.9/16, Error ellipse: s-maj=5.4km s-min=4.1km az=144.3*

*IDC* ***26*** *11:30:32.8±3.2, 36.02°N×70.33°E, h62km±26km, mb3.5/13, mb1 3.7/17, mb1mx3.5/48, mbtmp3.9/17, ML4.1/5, Error ellipse: s-maj=22.3km s-min=15.1km az=173.0*

*BJI* ***26*** *11:30:38.2, 36.57°N×70.38°E, h98km, mb3.5/1*

*NNC* ***26*** *11:30:47.2±8.9, 36.99°N×70.58°E, h218km±81km, mb3.4, mpv4.2, Error ellipse: s-maj=78.2km s-min=53.9km az=22.0*

**ISC 26 11:30:29.1±0.5, 35.88°N±0.05°×70.12°E±0.06°, h35km, n104, σ2°16/16, mb3.8/16, 9C-5D, Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | h m s | ISC |
| **KBL** | **Kabul** | **1.60** | **214** | *e*PG | | **Pn** | | **11 30 52.3** | **-2.8** |
| KBL | | | | *e* | | | | 11 31 13.2 | |
| **KBL** | **Kabul** | **1.60** | **214** | *e*Pn | | **Pn** | | **11 30 52.2** | **-2.8** |
| KBL | | | | *e*Sn | | **Sn** | | **11 31 13.2** | **-1.4** |
| **CEP** | **Cherat** | **2.52** | **144** | P | | Pn | | 11 31 22.6 | +15 |
| CEP | | | | S | | Sn | | 11 31 56.0 | +19 |
| **THW** | **Thamme Wali** | **3.35** | **156** | P | | Pn | | 11 31 33.8 | +15 |
| **CHCP** | **Chirah Chowk** | **3.40** | **130** | P | | Pn | | 11 31 32.8 | +13 |
| **SARP** | **Sargodha** | **4.48** | **151** | P | | Pn | | 11 31 47.2 | +13 |
| **SFK** | **Sufi-Kurgan** | **4.92** | **32** | PN | | **Pn** | | **11 31 44.9** | **+4.1** |
| SFK | | | | | pmax | pmax | | | |
| | comp=Z,33nm,0.2s | | | | | | | | |
| **KSH** | **Kashi** | **5.89** | **50** | P | | **Pn** | | **11 31 53.5** | **-0.6** |
| KSH | | | | S | | Sn | | 11 32 47.3 | -13 |
| KSH | | | | | smax | smax | | | |
| | comp=Z,980nm,0.7s | | | | | | | | |
| KSH | | | | | smax | smax | | | |
| | comp=Z,540nm,0.4s | | | | | | | | |
| **AML** | **Almayashu** | **6.84** | **23** | P | | **Pn** | | **11 32 09.6** | **+2.3** |
| | SNR=148 | | | | | | | | |
| **MNAS** | **Manas** | **6.86** | **15** | PN | | **Pn** | | **11 32 09.8** | **+2.5** |
| MNAS | | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.4s | | | | | | | | |
| **SDNR** | **Sundarnagar** | **7.18** | **125** | *e*P | | Pn | | 11 32 24.0 | +12 |
| SDNR | | | | *e*S | | **Sn** | | **11 33 38.0** | **+5.9** |
| **UCH** | **Uchtor** | **7.21** | **27** | P | | **Pn** | | **11 32 14.5** | **+2.2** |
| | SNR=78 | | | | | | | | |
| **KK31** | **Karatay Array** | **7.22** | **2** | ⇑P | | **Pn** | | **11 32 14.4** | **+2.1** |
| | comp=Z,5.9nm,0.3s,baz=170,slow=12,SNR=157 | | | | | | | | |
| KK31 | | | | ⇑S | | **Sn** | | **11 33 27.0** | **-6.0** |
| | comp=Z,5.2nm,0.3s,baz=178,slow=26,SNR=4.0 | | | | | | | | |
| **KK31** | **Karatay Array** | **7.22** | **2** | P | | **Pn** | | **11 32 14.4** | **+2.1** |
| KK31 | | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,0.3s | | | | | | | | |
| **KKAR** | **Karatay Array** | **7.22** | **2** | *e*P | | **Pn** | | **11 32 14.1** | **+1.9** |
| **KKAR** | **Karatay Array** | **7.22** | **2** | *e*Pn | | **Pn** | | **11 32 14.1** | **+1.9** |
| **EKS2** | **Erkin-Say** | **7.35** | **22** | P | | **Pn** | | **11 32 16.4** | **+2.4** |
| | SNR=24 | | | | | | | | |
| **KZA** | **Kyzart** | **7.37** | **31** | P | | **Pn** | | **11 32 16.6** | **+2.0** |
| | SNR=59 | | | | | | | | |
| **AAK** | **Ala-Archa** | **7.56** | **25** | P | | **Pn** | | **11 32 19.3** | **+2.4** |
| | comp=Z,12nm,0.3s,baz=153,slow=3.9,SNR=89 | | | | | | | | |
| AAK | | | | S | | **Sn** | | **11 33 36.5** | **-4.9** |
| | comp=Z,3.7nm,0.3s,baz=307,slow=23,SNR=15 | | | | | | | | |
| **AAK** | **Ala-Archa** | **7.56** | **25** | ⇑P | | **Pn** | | **11 32 19.1** | **+2.2** |
| | comp=Z,11nm,0.3s | | | | | | | | |
| AAK | | | | ⇑S | | **Sn** | | **11 33 35.9** | **-5.5** |
| | comp=Z,47nm,0.6s | | | | | | | | |
| **AAK** | **Ala-Archa** | **7.56** | **25** | *e*P | | **Pn** | | **11 32 18.8** | **+1.9** |
| AAK | | | | *e* | | | | 11 33 36.5 | |
| **AAK** | **Ala-Archa** | **7.56** | **25** | P | | **Pn** | | **11 32 19.3** | **+2.4** |
| | SNR=46 | | | | | | | | |
| **AAK** | **Ala-Archa** | **7.56** | **25** | *e*Pn | | **Pn** | | **11 32 18.8** | **+1.9** |
| AAK | | | | *e*Pn | | Pn | | 11 32 19.3 | +2.4 |
| AAK | | | | *e*Sn | | **Sn** | | **11 33 36.5** | **-4.9** |
| **KBK** | **Karagaybulak** | **7.74** | **27** | P | | **Pn** | | **11 32 22.1** | **+2.7** |
| | SNR=19 | | | | | | | | |
| **FRU** | **Bishkek** | **7.77** | **25** | *e*P | | **Pn** | | **11 32 23.0** | **+3.2** |
| **ULHL** | **Ulahol** | **7.94** | **35** | P | | **Pn** | | **11 32 25.5** | **+3.2** |
| | SNR=11 | | | | | | | | |
| **CHMS** | **Chumysh** | **7.96** | **25** | P | | **Pn** | | **11 32 24.6** | **+2.2** |
| | SNR=37 | | | | | | | | |
| **USP** | **Ospenovka** | **8.12** | **23** | P | | **Pn** | | **11 32 26.6** | **+2.0** |
| | SNR=13 | | | | | | | | |
| **TKM2** | **Tokmak 2** | **8.21** | **29** | P | | **Pn** | | **11 32 27.6** | **+1.6** |
| TKM2 | | | | | pmax | pmax | | | |
| | comp=Z,14nm,0.5s | | | | | | | | |
| **TKM2** | **Tokmak 2** | **8.21** | **29** | P | | **Pn** | | **11 32 28.2** | **+2.3** |
| | SNR=8.3 | | | | | | | | |
| **GEYT** | **Alibeck** | **9.83** | **286** | P | | Pn | | 11 32 54.4 | +6.4 |
| | comp=Z,0.8nm,0.3s,baz=107,slow=16,SNR=6.4 | | | | | | | | |
| GEYT | | | | S | | **Sn** | | **11 34 39.8** | **+2.7** |
| | comp=Z,1.5nm,0.3s,baz=91,slow=26,SNR=5.9 | | | | | | | | |
| **PYUN** | **Piuthan** | **13.38** | **122** | *e*P | | **P** | | **11 33 41.2** | **-4.7** |
| **KOLN** | **Koldanda** | **14.01** | **121** | *e*P | | **P** | | **11 33 49.5** | **-3.3** |
| **MAKZ** | **Makanchi** | **14.07** | **35** | *e*P | | **Pn** | | **11 33 47.7** | **+1.8** |
| **MAKZ** | **Makanchi** | **14.07** | **35** | *e*Pn | | **Pn** | | **11 33 47.7** | **+1.8** |
| **MK01** | **Makanchi Array** | **14.20** | **36** | *e*Pn | | **Pn** | | **11 33 48.7** | **+1.0** |
| **MK31** | **Makanchi Array** | **14.21** | **36** | *e*P | | **Pn** | | **11 33 48.5** | **+0.6** |
| **MK31** | **Makanchi Array** | **14.21** | **36** | *e*Pn | | **Pn** | | **11 33 48.5** | **+0.6** |
| **MK32** | **Makanchi Array** | **14.21** | **36** | *e*Pn | | **Pn** | | **11 33 46.9** | **-1.0** |
| **MKAR** | **Makanchi Array** | **14.21** | **36** | P | | **Pn** | | **11 33 46.9** | **-1.0** |
| | comp=Z,0.2nm,0.3s,baz=231,slow=16,SNR=12 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **14.21** | **36** | *e*P | | **Pn** | | **11 33 49.7** | **+1.9** |
| **MKAR** | **Makanchi Array** | **14.21** | **36** | *e*Pn | | **Pn** | | **11 33 48.9** | **+1.0** |
| **GKN** | **Gorkha** | **14.60** | **118** | *e*P | | **P** | | **11 33 57.7** | **-1.6** |
| | comp=Z,0.4nm,0.2s | | | | | | | | |
| **DMN** | **Daman** | **15.17** | **119** | *e*P | | **P** | | **11 34 04.7** | **-1.0** |
| **KKN** | **Kakani** | **15.19** | **118** | *e*P | | **P** | | **11 34 04.7** | **-1.2** |
| | comp=Z,13nm,0.4s | | | | | | | | |
| **AB31** | **Akbulak array** | **15.31** | **334** | ⇑P | | **Pn** | | **11 34 02.8** | **+0.3** |
| | comp=Z,5.9nm,0.3s,baz=150,slow=12,SNR=238 | | | | | | | | |
| AB31 | | | | ⇓S | | Sn | | 11 36 38.3 | -13 |
| | comp=Z,2.7nm,0.5s | | | | | | | | |
| **AB31** | **Akbulak array** | **15.31** | **334** | *e*P | | **Pn** | | **11 34 02.7** | **+0.3** |
| AB31 | | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,0.3s | | | | | | | | |
| **ABKAR** | **Akbulak array** | **15.31** | **334** | *e*Pn | | **Pn** | | **11 34 02.8** | **+0.3** |
| | comp=Z,265nm,0.6s | | | | | | | | |
| **PKIN** | **Phulchoki** | **15.39** | **118** | *e*P | | **P** | | **11 34 07.4** | **-0.9** |
| **PKI** | **Pulchoki** | **15.41** | **118** | *e*P | | **P** | | **11 34 07.6** | **-0.9** |
| **GUN** | **Gumba** | **15.55** | **116** | *e*P | | **P** | | **11 34 09.4** | **-0.7** |
| **JIRN** | **Jiri** | **15.92** | **116** | *e*P | | **P** | | **11 34 14.1** | **-0.1** |
| KURBB | **Kurchatov Arra** | **15.95** | **20** | P | | **Pn** | | **11 34 07.6** | **-3.1** |
| | comp=Z,0.1nm,0.3s,baz=211,slow=12,SNR=2.3 | | | | | | | | |
| KURBB | **Kurchatov Arra** | **15.95** | **20** | ⇑P | | **Pn** | | **11 34 06.8** | **-3.8** |
| | comp=Z,6.7nm,0.7s | | | | | | | | |
| **KURK** | **Kurchatov** | **16.05** | **20** | ⇑*e*P | | **P** | | **11 34 15.0** | **-0.1** |
| KURK | | | | | pmax | pmax | | | |
| | comp=Z,8.0nm,0.7s | | | | | | | | |
| **KURK** | **Kurchatov** | **16.05** | **20** | *e*Pn | | **Pn** | | **11 34 07.6** | **-4.5** |
| KURK | | | | *e*Pn | | **P** | | **11 34 12.3** | **-2.8** |
| **RAMN** | **Ramite** | **16.63** | **118** | *e*P | | **P** | | **11 34 20.7** | **-1.2** |
| **AKTO** | **Aktyubinsk** | **16.99** | **333** | P | | **P** | | **11 34 26.8** | **+1.3** |
| | comp=Z,1.5nm,0.3s,baz=141,slow=13,SNR=24 | | | | | | | | |
| AKTO | | | | S | | Sn | | 11 37 19.2 | -12 |
| | comp=Z,0.2nm,0.3s,baz=183,slow=20,SNR=3.6 | | | | | | | | |
| **AKTO** | **Aktyubinsk** | **16.99** | **333** | ⇓P | | **P** | | **11 34 26.6** | **+1.2** |
| | comp=Z,4.6nm,0.6s | | | | | | | | |
| AKTO | | | | ⇓S | | Sn | | 11 37 20.1 | -11 |
| | comp=Z,11nm,1.4s | | | | | | | | |
| **BVAR** | **Borovoye Array** | **17.15** | **1** | P | | **P** | | **11 34 26.3** | **-0.9** |
| | comp=Z,0.6nm,0.3s,baz=164,slow=13,SNR=12 | | | | | | | | |
| **BRVK** | **Borovoye** | **17.18** | **0** | ⇑*i*P | | **P** | | **11 34 27.7** | **+0.1** |
| BRVK | | | | | pmax | pmax | | | |
| | comp=Z,12nm,1.0s | | | | | | | | |
| **BRVK** | **Borovoye** | **17.18** | **0** | *e*Pn | | **P** | | **11 34 27.1** | **-0.5** |
| | comp=Z,5.4nm,0.8s | | | | | | | | |
| **DGZ** | **Jazzator, Alta** | **18.71** | **37** | *d i*P | | **Pn** | | **11 34 45.6** | **+0.4** |
| **ZAA0** | **Zalesovo Array** | **20.78** | **25** | *e*P | | **P** | | **11 35 06.5** | **-0.5** |
| | comp=Z,13nm,0.8s | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **20.78** | **25** | P | | **P** | | **11 35 06.5** | **-0.5** |
| | comp=Z,11nm,0.4s,baz=220,slow=11,SNR=71 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **20.78** | **25** | P | | **P** | | **11 35 06.5** | **-0.5** |
| ZALV | | | | | pmax | pmax | | | |
| | comp=Z,12nm,0.4s | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **20.78** | **25** | *e*P | | **P** | | **11 35 06.3** | **-0.6** |
| **ZAA1** | **Zalesovo Array** | **20.78** | **25** | *e*P | | **P** | | **11 35 06.5** | **-0.5** |
| **NVS** | **Novosibirsk** | **21.02** | **21** | *e*P | | **P** | | **11 35 09.1** | **-0.4** |
| **ARU** | **Arti** | **22.00** | **343** | P | | **P** | | **11 35 21.1** | **+1.1** |
| | comp=Z,2.8nm,0.5s,baz=130,slow=7.3,SNR=6.1 | | | | | | | | |
| **ARU** | **Arti** | **22.00** | **343** | *d i*P | | **P** | | **11 35 22.4** | **+2.3** |
| ARU | | | | | | | | 11 35 52.8 | |
| ARU | | | | S | | **S** | | **11 39 20.8** | **+0.1** |
| ARU | | | | SS | | **SnSn** | | **11 39 51.1** | **+3.3** |
| ARU | | | | | pmax | pmax | | | |
| | comp=Z,9.0nm,0.9s | | | | | | | | |
| **ARU** | **Arti** | **22.00** | **343** | *e*P | | **P** | | **11 35 21.1** | **+1.1** |
| | comp=Z,8.7nm,1.0s | | | | | | | | |
| **GTA** | **Gaotai** | **23.73** | **73** | *e*P | | **P** | | **11 35 40.0** | **+1.9** |
| GTA | | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.8s | | | | | | | | |
| **SONA0** | **Songino Array** | **29.28** | **55** | *e*P | | **P** | | **11 36 29.1** | **+1.0** |
| **SONM** | **Songino Array** | **29.28** | **55** | P | | **P** | | **11 36 29.1** | **+1.0** |
| | comp=Z,0.2nm,0.4s,baz=251,slow=9.0,SNR=2.8 | | | | | | | | |
| AKASG | **Malin Array Be** | **32.79** | **310** | P | | **P** | | **11 37 00.8** | **+2.0** |
| | comp=Z,0.2nm,0.3s,baz=82,slow=7.8,SNR=3.6 | | | | | | | | |
| **AKBB** | **Malin Array Si** | **32.79** | **310** | *e*P | | **P** | | **11 36 58.9** | **+0.1** |
| AKBB | | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,1.3s | | | | | | | | |
| **AKBB** | **Malin Array Si** | **32.79** | **310** | *e*P | | **P** | | **11 36 58.9** | **+0.1** |
| | comp=Z,9.7nm,1.3s | | | | | | | | |
| **FIA0** | **FINESS Array S** | **37.61** | **327** | *e*P | | **P** | | **11 37 41.6** | **+1.5** |
| **FIA0** | **FINESS Array S** | **37.61** | **327** | *e*P | | **P** | | **11 37 41.6** | **+1.5** |
| **FINES** | **FINESS Array B** | **37.61** | **327** | P | | **P** | | **11 37 41.6** | **+1.5** |
| | comp=Z,3.6nm,0.7s,baz=114,slow=4.6,SNR=5.5 | | | | | | | | |
| **FINES** | **FINESS Array B** | **37.61** | **327** | *e*P | | **P** | | **11 37 42.3** | **+2.2** |
| FINES | | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,0.7s | | | | | | | | |
| **ARA0** | **ARCESS Array S** | **41.45** | **338** | *e*P | | **P** | | **11 38 13.4** | **+1.3** |
| ARCES | **ARCESS Array B** | **41.45** | **338** | P | | **P** | | **11 38 13.4** | **+1.3** |
| | comp=Z,2.9nm,0.9s,baz=93,slow=6.6,SNR=7.9 | | | | | | | | |
| **MSEY** | **Mahe Island** | **42.61** | **202** | *i* P | | P | | 11 38 27.2 | +5.1 |
| **KHC** | **Kasperske Hory** | **42.77** | **306** | *e*P | | **P** | | **11 38 20.4** | **-2.8** |
| **KHC** | **Kasperske Hory** | **42.77** | **306** | *e*P | | **P** | | **11 38 20.4** | **-2.8** |
| **CLL** | **Collm** | **43.03** | **309** | *e*(P) | | P | | 11 38 29.0 | +3.8 |
| **NB2** | **NORSAR Subarra** | **44.45** | **323** | P | | **P** | | **11 38 37.3** | **+0.8** |
| | comp=Z,0.6nm,0.4s,baz=97,slow=8.6 | | | | | | | | |
| **NB200** | **NORSAR Array S** | **44.45** | **323** | *e*P | | **P** | | **11 38 36.9** | **+0.3** |
| **NOA** | **NORSAR Array B** | **44.45** | **323** | P | | **P** | | **11 38 36.9** | **+0.3** |
| | comp=Z,0.5nm,0.4s,baz=105,slow=7.8,SNR=4.1 | | | | | | | | |
| **TIXI** | **Tiksi** | **46.62** | **22** | ⇑*e*P | | **P** | | **11 38 53.1** | **-0.3** |
| TIXI | | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,2.5s | | | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **64.99** | **268** | *e*P | | **P** | | **11 41 07.2** | **+1.3** |
| **TORD** | **Torodi Ar. Bea** | **64.99** | **268** | P | | **P** | | **11 41 07.2** | **+1.3** |
| | comp=Z,0.4nm,0.5s,baz=46,slow=5.8,SNR=5.9 | | | | | | | | |
| **INK** | **Inuvik** | **74.63** | **9** | P | | **P** | | **11 42 04.0** | **-0.3** |
| | comp=Z,1.2nm,0.6s,baz=332,slow=4.9,SNR=9.4 | | | | | | | | |
| **INK** | **Inuvik** | **74.63** | **9** | *e*P | | **P** | | **11 42 04.0** | **-0.3** |
| INK | | | | | pmax | pmax | | | |
| | comp=Z,22nm,2.0s | | | | | | | | |
| **INK** | **Inuvik** | **74.63** | **9** | *e*P | | **P** | | **11 42 04.0** | **-0.3** |
| | comp=Z,22nm,2.0s | | | | | | | | |
| **ILAR** | **Eielson Array** | **75.57** | **15** | P | | **P** | | **11 42 08.7** | **-1.2** |
| | comp=Z,0.3nm,0.8s,baz=298,slow=4.6,SNR=9.9 | | | | | | | | |
| **ILB** | **Eielson Array** | **75.57** | **15** | *e*P | | **P** | | **11 42 08.7** | **-1.2** |
| **YKA** | **Yellowknife Ar** | **81.90** | **2** | P | | **P** | | **11 42 43.8** | **-0.7** |
| | comp=Z,0.2nm,0.5s,baz=351,slow=5.4,SNR=12 | | | | | | | | |
| **WR1** | **Warramunga Arr** | **82.27** | **121** | *e*P | | **P** | | **11 42 47.0** | **-0.1** |
| | comp=Z,28nm,1.5s | | | | | | | | |
| **WRA** | **Warramunga Arr** | **82.27** | **121** | P | | **P** | | **11 42 47.0** | **-0.1** |
| | comp=Z,0.3nm,0.7s,baz=325,slow=5.0,SNR=8.1 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **82.27** | **121** | *e*P | | **P** | | **11 42 47.8** | **+0.6** |
| **ASAR** | **Alice Springs** | **84.49** | **124** | P | | **P** | | **11 42 58.4** | **-0.2** |
| | comp=Z,0.3nm,0.6s,baz=316,slow=4.2,SNR=6.5 | | | | | | | | |

**MEX 26 11:30:33.0±0.3, 32.25°N×115.11°W, h13km±34km, MD3.5, California-Baja California border region**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | h m s | ISC |
| **MBIG** | **Mexicali** | **0.18** | **334** | *e*P | | Pg | | 11 30 36.6 | -0.5 |
| MBIG | | | | *i* S | | Sg | | 11 30 39.2 | -0.7 |
| **SPIG** | **San Pedro Mart** | **1.24** | **195** | *e*P | | Pn | | 11 30 52.6 | -3.7 |
| SPIG | | | | *e*S | | Sb | | 11 31 07.8 | -4.6 |
| **CBX** | **Cerro Bola** | **1.32** | **273** | *e*P | | Pn | | 11 30 53.6 | -3.7 |
| CBX | | | | *e*S | | Sb | | 11 31 09.5 | -5.2 |
| **TJIG** | **Tijuana** | **1.34** | **278** | *e*P | | Pn | | 11 30 53.3 | -4.1 |

**IDC 26 11:34:40.2±5.9, 21.04°S×176.12°W, h0km, mb3.6/3, mb1 3.9/4, mb1mx3.6/26, mbtmp3.8/4, ML3.8/1, MS3.6/1, Ms1 3.6/1, ms1mx2.6/33, Error ellipse: s-maj=204.0km s-min=27.9km az=134.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | h m s | ISC |
| **AFI** | **Afiamalu** | **8.21** | **31** | P | | P

**IDC 26 12:00:27.4±2.0, 0°48′S×125°28′E, h0km, mb3.1/3, mb1 3.3/3, mb1mx3.1/46, mbtmp3.2/3, Error ellipse: s-maj=169.9km s-min=28.3km az=64.0, Southern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **21.28** | **156** | P | | 12 05 16.9 | +1.1 |
| | 0.3nm,0.4s,baz=334,slow=11,SNR=15 | | | | | | |
| **ASAR** | **Alice Springs** | **24.52** | **161** | P | P | 12 05 47.9 | -1.0 |
| | 0.2nm,0.5s,baz=345,slow=6.9,SNR=8.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **60.23** | **327** | P | P | 12 10 37.7 | +0.2 |
| | 0.3nm,0.8s,baz=111,slow=8.2,SNR=2.6 | | | | | | |

**IDC 26 12:21:39.0±4.1, 5.78S×148.67E, h196km±43km, mb2.9/3, mb1 3.1/5, mb1mx2.9/31, mbtmp3.4/5, MS2.8/1, Ms1 2.8/1, ms1mx2.4/11, Error ellipse: s-maj=89.8km s-min=27.8km az=135.0, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PMG** | **Port Moresby** | **3.90** | **202** | P | Pn | 12 22 39.5 | +0.1 |
| | 0.6nm,0.3s,baz=98,slow=20,SNR=1.7 | | | | | | |
| PMG | | | | S | Sn | 12 23 22.5 | -4.3 |
| | 1.2nm,0.3s,baz=175,slow=22,SNR=5.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **19.80** | **223** | P | P | 12 25 54.6 | -0.1 |
| | 0.2nm,0.3s,baz=51,slow=11,SNR=14 | | | | | | |
| WRA | | | | LR | LR | 12 34 07.6 | |
| | comp=Z,32nm,21.5s,baz=245,slow=38 | | | | | | |
| **ASAR** | **Alice Springs** | **22.76** | **217** | P | P | 12 26 25.8 | +1.0 |
| | 0.3nm,0.6s,baz=55,slow=8.2,SNR=5.9 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **25.60** | **239** | P | P | 12 26 49.8 | -0.7 |
| | 2.9nm,1.0s,baz=51,slow=10,SNR=7.4 | | | | | | |
| **ILAR** | **Eielson Array** | **84.63** | **23** | P | P | 12 33 50.2 | 0.0 |
| | 0.2nm,0.5s,baz=252,slow=4.8,SNR=5.5 | | | | | | |

**IDC 26 12:43:03.8±1.0, 20.49S×178.13W, h0km, mb3.7/9, mb1 4.0/9, mb1mx3.9/34, mbtmp3.7/9, Error ellipse: s-maj=47.0km s-min=20.8km az=150.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **STKA** | **Stephens Creek** | **37.69** | **244** | P | P | 12 50 20.7 | -0.4 |
| | 1.8nm,0.8s,baz=110,slow=12,SNR=3.6 | | | | | | |
| **ASAR** | **Alice Springs** | **44.41** | **257** | P | P | 12 51 16.4 | -0.2 |
| | 1.1nm,0.7s,baz=96,slow=7.9,SNR=16 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.48** | **262** | P | P | 12 51 17.4 | +0.2 |
| | 0.4nm,0.3s,baz=96,slow=8.1,SNR=23 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **52.91** | **262** | P | P | 12 52 21.4 | -0.7 |
| | 2.4nm,1.1s,baz=98,slow=7.1,SNR=1.2 | | | | | | |
| **VNDA** | **Vanda** | **57.91** | **185** | P | P | 12 52 57.6 | +0.4 |
| | 0.6nm,0.7s,baz=63,slow=6.8,SNR=2.5 | | | | | | |
| **NVAR** | **Mina Array Bea** | **81.10** | **43** | P | P | 12 55 21.8 | +0.5 |
| | 0.3nm,0.5s,baz=230,slow=6.9,SNR=3.6 | | | | | | |
| **TXAR** | **Lajitas Array** | **87.15** | **57** | P | P | 12 55 51.5 | -0.7 |
| | 0.2nm,0.7s,baz=214,slow=4.4,SNR=2.4 | | | | | | |
| **ILAR** | **Eielson Array** | **88.33** | **13** | P | P | 12 55 57.9 | +0.9 |
| | 0.2nm,0.4s,baz=217,slow=5.5,SNR=8.6 | | | | | | |
| **PDAR** | **Pinedale Array** | **89.04** | **43** | P | P | 12 55 59.7 | -1.3 |
| | 0.3nm,0.7s,baz=198,slow=4.7,SNR=2.5 | | | | | | |

*ISCJB **26** 12:50:17.8±0.7, 39.89N±0.03×32.95E±0.05, h5km±5km, Error ellipse: s-maj=6.0km s-min=5.6km az=29.8*
*CSEM **26** 12:50:17.8±0.2, 39.88N×32.93E, h5km, MD2.6, Error ellipse: s-maj=4.9km s-min=4.7km az=53.0*
*ISK **26** 12:50:17.9, 39.82N×32.91E, h5km, MD2.6*
*DDA **26** 12:50:18.5, 39.86N×33.04E, h7km, Md2.5*

**ISC 26 12:50:17.7±1.2, 39.90N±0.03×32.99E±0.03, h1km±12km, n26, σ1§64/40, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **LOD** | **Lodumlu** | **0.18** | **265** | *e*PG | **Pg** | **12 50 21.2** | **+0.1** |
| **LOD** | **Lodumlu** | **0.18** | **265** | *e*Pg | **Pg** | **12 50 21.2** | **+0.1** |
| **BBAL** | **Bala** | **0.37** | **164** | *i* P | **Pg** | **12 50 24.9** | **0.0** |
| BBAL | | | | *i* S | **Sg** | **12 50 30.7** | **+1.0** |
| **BBAL** | **Bala** | **0.37** | **164** | P | **Pg** | **12 50 24.9** | **0.0** |
| BBAL | | | | S | **Sg** | **12 50 30.7** | **+1.0** |
| **AFSR** | **Afar-Bala (A** | **0.46** | **173** | *e*PG | **Pg** | **12 50 26.6** | **+0.1** |
| AFSR | | | | *e*SG | **Sg** | **12 50 33.2** | **+0.7** |
| **AFSR** | **Afar-Bala (A** | **0.46** | **173** | *e*Pg | **Pg** | **12 50 26.6** | **+0.1** |
| AFSR | | | | *e*Sg | **Sg** | **12 50 33.2** | **+0.7** |
| **ELDT** | **Eldivan** | **0.67** | **29** | *i* P | **Pb** | **12 50 32.0** | **-0.4** |
| ELDT | | | | *i* S | **Sb** | **12 50 42.4** | **+0.1** |
| **ELDT** | **Eldivan** | **0.67** | **29** | P | **Pb** | **12 50 32.0** | **-0.4** |
| ELDT | | | | S | **Sb** | **12 50 42.4** | **+0.1** |
| **KKUL** | **Konya-Kulu** | **0.73** | **185** | *i* P | **Pg** | **12 50 31.6** | **-0.1** |
| KKUL | | | | *i* S | **Sb** | **12 50 44.3** | **+0.3** |
| **KKUL** | **Konya-Kulu** | **0.73** | **185** | P | **Pg** | **12 50 31.6** | **-0.1** |
| KKUL | | | | S | **Sb** | **12 50 44.3** | **+0.3** |
| **KAMT** | **Kaman** | **0.77** | **134** | *e*PG | **Pb** | **12 50 33.7** | **-0.3** |
| **KAMT** | **Kaman** | **0.77** | **134** | *e*Pg | **Pb** | **12 50 33.7** | **-0.3** |
| **CDAG** | **Cicekdag** | **1.10** | **104** | *i* P | **Pg** | **12 50 38.5** | **-0.3** |
| CDAG | | | | *i* S | **Sb** | **12 50 54.0** | **-0.5** |
| **CDAG** | **Cicekdag** | **1.10** | **104** | P | **Pg** | **12 50 38.5** | **-0.3** |
| CDAG | | | | S | **Sb** | **12 50 54.0** | **-0.5** |
| **BCAM** | **Yenicaga** | **1.15** | **322** | *i* P | **Pg** | **12 50 39.8** | **-0.1** |
| BCAM | | | | *i* S | **Sn** | **12 50 59.2** | **+1.6** |
| **BCAM** | **Yenicaga** | **1.15** | **322** | P | **Pg** | **12 50 39.8** | **-0.1** |
| BCAM | | | | S | **Sn** | **12 50 59.2** | **+1.6** |
| **SVRH** | **Sivrihisar-ESK** | **1.22** | **249** | *e*PN | **Pg** | **12 50 40.7** | **-0.4** |
| SVRH | | | | *e*SN | **Sg** | **12 50 57.3** | **+0.3** |
| **SVRH** | **Sivrihisar-ESK** | **1.22** | **249** | *e*Pn | **Pg** | **12 50 40.7** | **-0.4** |
| SVRH | | | | *e*Sn | **Sg** | **12 50 57.3** | **+0.3** |
| **CHBY** | **Cihanbeyli** | **1.32** | **184** | *e*PN | **Pn** | **12 50 42.8** | **-0.6** |
| **CHBY** | **Cihanbeyli** | **1.32** | **184** | *e*Pn | **Pn** | **12 50 42.8** | **-0.6** |
| **KIZT** | **Kizilcal** | **1.34** | **221** | *e*PN | **Pn** | **12 50 42.3** | **-1.3** |
| **KIZT** | **Kizilcal** | **1.34** | **221** | *e*Pn | **Pn** | **12 50 42.3** | **-1.3** |
| **COAL** | **Corum-Alaca** | **1.57** | **76** | *i* P | **Pn** | **12 50 46.2** | **-0.6** |
| **COAL** | **Corum-Alaca** | **1.57** | **76** | P | **Pn** | **12 50 46.2** | **-0.6** |
| **YOZ** | **Yozgat** | **1.81** | **98** | *e*PN | **Pg** | **12 50 52.5** | **0.0** |
| **YOZ** | **Yozgat** | **1.81** | **98** | *e*Pn | **Pg** | **12 50 52.5** | **0.0** |

*CSEM **26** 13:04:43.1±0.3, 38.38N×43.39E, h10km, ML2.4, Error ellipse: s-maj=6.5km s-min=6.4km az=4.0*
*DDA **26** 13:04:43.6, 38.38N×43.38E, h7km, Ml2.9*
*ISK **26** 13:04:44.9, 38.52N×43.34E, h4km, ML2.4*
*ISCJB **26** 13:04:45.3±0.5, 38.49N±0.03×43.36E±0.04, h8km±4km, Error ellipse: s-maj=5.7km s-min=4.6km az=28.0*

**ISC 26 13:04:44.9±0.9, 38.45N±0.03×43.38E±0.03, h6km±7km, n24, σ1§26/41, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TVAN** | **Van** | **0.08** | **12** | *i* P | **Pg** | **13 04 46.7** | **-0.3** |
| TVAN | | | | *i* S | **Sg** | **13 04 48.7** | **+0.1** |
| **TVAN** | **Van** | **0.08** | **12** | P | **Pg** | **13 04 46.7** | **-0.3** |
| TVAN | | | | S | **Sg** | **13 04 48.7** | **+0.1** |
| **VANB** | **Van** | **0.15** | **1** | *e*PG | **Pg** | **13 04 46.4** | **-1.6** |
| **VANB** | **Van** | **0.15** | **1** | *e*Pg | **Pg** | **13 04 46.4** | **-1.6** |
| **GEVA** | **Gevas** | **0.29** | **242** | *i* P | **Pg** | **13 04 50.0** | **-0.6** |
| GEVA | | | | *i* S | **Sg** | **13 04 57.0** | **+2.5** |
| **GEVA** | **Gevas** | **0.29** | **242** | P | **Pg** | **13 04 50.0** | **-0.6** |
| GEVA | | | | S | **Sg** | **13 04 57.0** | **+2.5** |
| **VMUR** | **Van-Muradiye** | **0.56** | **15** | *i* P | **Pg** | **13 04 56.2** | **+0.4** |
| VMUR | | | | *i* S | **Sg** | **13 05 04.8** | **+1.6** |
| **VMUR** | **Van-Muradiye** | **0.56** | **15** | P | **Pg** | **13 04 56.2** | **+0.4** |
| VMUR | | | | S | **Sg** | **13 05 04.8** | **+1.6** |
| **BASK** | **Baskale_VAN** | **0.63** | **129** | *i* P | **Pg** | **13 04 54.4** | **-2.6** |
| BASK | | | | *i* S | **Sb** | **13 05 07.3** | **-0.2** |
| **BASK** | **Baskale_VAN** | **0.63** | **129** | P | **Pg** | **13 04 54.4** | **-2.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.63** | **305** | *i* P | **Pg** | **13 04 56.5** | **-0.6** |
| ADCV | | | | *i* S | **Sb** | **13 05 06.8** | **-0.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.63** | **305** | P | **Pg** | **13 04 56.5** | **-0.6** |
| ADCV | | | | S | **Sb** | **13 05 06.8** | **-0.8** |
| **CLDR** | **Caldiran** | **0.81** | **31** | *e*PG | **Pg** | **13 05 00.3** | **-0.2** |
| CLDR | | | | *e*SG | **Sg** | **13 05 11.6** | **+0.5** |
| **CLDR** | **Caldiran** | **0.81** | **31** | *i* P | **Pb** | **13 05 01.4** | **-0.2** |
| CLDR | | | | *i* S | **Sb** | **13 05 14.5** | **+1.6** |
| **CLDR** | **Caldiran** | **0.81** | **31** | *e*Pg | **Pg** | **13 05 00.3** | **-0.2** |
| **CLDR** | **Caldiran** | **0.81** | **31** | P | **Pb** | **13 05 01.4** | **-0.2** |
| CLDR | | | | *e*Sg | **Sg** | **13 05 11.6** | **+0.5** |
| CLDR | | | | S | **Sb** | **13 05 14.5** | **+1.6** |
| **TUTA** | **Tutak** | **1.05** | **335** | *i* P | **Pg** | **13 05 04.5** | **-0.7** |
| TUTA | | | | *i* S | **Sg** | **13 05 17.7** | **-1.1** |
| **TUTA** | **Tutak** | **1.05** | **335** | P | **Pg** | **13 05 04.4** | **-0.7** |
| TUTA | | | | S | **Sg** | **13 05 17.7** | **-1.1** |
| **AGRB** | **Hanur-Agry** | **1.17** | **345** | *e*PN | **Pg** | **13 05 06.6** | **-0.7** |
| AGRB | | | | *e*SN | **Sg** | **13 05 21.8** | **-0.7** |
| **AGRB** | **Hanur-Agry** | **1.17** | **345** | *e*Pn | **Pg** | **13 05 06.6** | **-0.7** |
| AGRB | | | | *e*Sn | **Sg** | **13 05 21.8** | **-0.7** |
| **SIRT** | **Sirnak** | **1.20** | **219** | *e*PN | **Pn** | **13 05 09.2** | **+0.8** |
| **CUKT** | **Cukurca** | **1.21** | **172** | *e*PN | **Pn** | **13 05 10.4** | **+1.9** |
| **BNGB** | **Bing¶ll** | **2.19** | **285** | *e*PN | **Pn** | **13 05 22.1** | **+0.2** |
| **BINT** | **Bingol** | **2.31** | **282** | *e*Pn | **Pn** | **13 05 22.1** | **-1.5** |

*ISCJB **26** 13:05:27.1±0.5, 18.43S±0.03×177.83W±0.03, h561km±6km, mb4.8/268, Error ellipse: s-maj=5.4km s-min=3.3km az=151.7*
*BJI **26** 13:05:28.9, 18.03S×177.21W, h592km, mb5.1/48, mB5.3/30*
*MOS **26** 13:05:29.9±1.2, 18.24S×177.85W, h586km, mb4.9/41, Error ellipse: s-maj=8.5km s-min=7.5km az=64.0*
*NEIC **26** 13:05:30.0±0.1, 18.43S×177.83W, mb4.9/220, Error ellipse: s-maj=4.0km s-min=2.5km az=137.0*
*GCMT **26** 13:05:30.0±0.4, 18.39S×177.75W, h589km±3km, MW5.2/60, Moment Tensor Solution. s60,c74; Duration: 1§0 Moment tensor: Scale $10^{17}$Nm; $M_{rr}$=0.71±.03; $M_{\theta\theta}$=0.17±.06; $M_{\phi\phi}$=0.53±.05; $M_{r\theta}$=-0.51±.06; $M_{r\phi}$=-0.12±.05; $M_{\theta\phi}$=-0.31±.06; Best double couple: $M_0$=0.81300×$10^{17}$ NP1:$\phi_s$=20.00000°,δ37.00000°,λ=90.00000°; NP2: $\phi_s$=154.00000°,δ53.00000°,λ=-30.00000°. Principal axes: T 0.6110, Plg14.0000°, Azm92.0000°; N 0.4020, Plg23.0000°, Azm188.0000°; P -1.0140, Plg63.0000°, Azm333.0000°; nsta1 refers to body waves, cutoff=40s.*
*IDC **26** 13:05:31.2±0.7, 18.38S×177.82W, h594km±8km, mb4.4/25, mb1 4.5/27, mb1mx4.4/33, mbtmp5.3/27 Error ellipse: s-maj=9.7km s-min=7.6km az=162.0*

**ISC 26 13:05:30.0±0.4, 18.38S±0.04×177.72W±0.04, h589km±3km, h589km:pP-P, n914, σ1§15/981, mb4.8/268, 41C-47D, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MSVF** | **Nonsavu** | **4.07** | **278** | *e*P | **P** | **13 06 55.1** | **-0.2** |
| **MSVF** | **Nonsavu** | **4.07** | **278** | *e*P | **P** | **13 06 55.1** | **-0.2** |
| **AFI** | **Afiamalu** | **7.24** | **53** | P | **P** | **13 07 18.6** | **-3.3** |
| | 55nm,0.3s,baz=171,slow=1.3,SNR=84 | | | | | | |
| AFI | | | | S | **S** | **13 08 47.3** | **-6.2** |
| | 17nm,0.3s,baz=65,slow=22,SNR=3.4 | | | | | | |
| **AFI** | **Afiamalu** | **7.24** | **53** | *e*P | **P** | **13 07 18.3** | **-3.6** |
| AFI | | | | *e*S | **S** | **13 08 51.5** | **-2.0** |
| **AFI** | **Afiamalu** | **7.24** | **53** | *e*P | **P** | **13 07 18.3** | **-3.6** |
| AFI | | | | *e*S | **S** | **13 08 51.5** | **-2.0** |
| **NIUE** | **Niue** | **7.42** | **97** | P | **P** | **13 07 22.2** | **-1.3** |
| | baz=7.3,SNR=21 | | | | | | |
| **FUNA** | **Funafuti** | **10.24** | **343** | *e*P | **P** | **13 07 52.0** | **+0.9** |
| **DZM** | **Mont Dzumac** | **15.31** | **253** | P | **P** | **13 08 39.7** | **-1.9** |
| | 6.9nm,0.3s,baz=111,slow=5.1,SNR=38 | | | | | | |
| **DZM** | **Mont Dzumac** | **15.31** | **253** | *e*P | **P** | **13 08 40.5** | **-1.1** |
| | 22nm,0.3s | | | | | | |
| **DZM** | **Mont Dzumac** | **15.31** | **253** | *e*P | **P** | **13 08 40.0** | **-1.6** |
| | 502nm,2.0s | | | | | | |
| **KNTN** | **Kanton** | **16.58** | **21** | *e*P | **P** | **13 08 52.3** | **-1.1** |
| | 241nm,1.2s | | | | | | |
| **NFK** | **Norfolk Island** | **16.87** | **228** | P | **P** | **13 08 58.0** | **+2.2** |
| | baz=17,SNR=3.2 | | | | | | |
| **RAR** | **Rarotonga** | **17.13** | **102** | P | **P** | **13 08 58.5** | **+0.3** |
| | 2.1nm,0.3s,baz=263,slow=7.4,SNR=13 | | | | | | |
| **RAR** | **Rarotonga** | **17.13** | **102** | *e*P | **P** | **13 08 58.6** | **+0.4** |
| RAR | | | | pmax | pmax | | |
| | comp=Z,99nm,0.8s | | | | | | |
| **RAR** | **Rarotonga** | **17.13** | **102** | *e*P | **P** | **13 08 58.6** | **+0.4** |
| | comp=Z,99nm,0.8s | | | | | | |
| **OUZ** | **Omahuta** | **18.46** | **203** | *e*P | **P** | **13 09 12.1** | **+1.9** |
| | comp=Z,108nm,0.7s | | | | | | |
| **URZ** | **Urewera** | **20.32** | **192** | P | **P** | **13 09 24.4** | **-2.6** |
| | comp=Z,91nm,0.5s,baz=2.1,slow=2.1,SNR=53 | | | | | | |
| URZ | | | | S | **S** | **13 12 32.9** | **-5.5** |
| | comp=Z,111nm,0.9s,baz=106,slow=2.4,SNR=2.8 | | | | | | |
| **URZ** | **Urewera** | **20.32** | **192** | *e*P | **P** | **13 09 24.2** | **-2.7** |
| | comp=Z,110nm,0.8s | | | | | | |
| URZ | | | | S | **S** | **13 12 32.9** | **-5.5** |
| **HIZ** | **Hauiti** | **21.08** | **196** | *e*P | **P** | **13 09 34.1** | **+0.2** |
| | comp=Z,92nm,1.2s | | | | | | |
| **BKZ** | **Black Stump Fm** | **21.32** | **192** | *e*P | **P** | **13 09 33.2** | **-2.9** |
| | comp=Z,200nm,0.5s | | | | | | |
| BKZ | | | | *e*S | **S** | **13 12 51.9** | **-2.4** |
| **TARA** | **Tarawa** | **21.66** | **334** | *e*P | **P** | **13 09 37.4** | **-2.0** |
| | comp=Z,124nm,0.6s | | | | | | |
| **BFZ** | **Birch Farm** | **22.83** | **192** | *e*P | **P** | **13 09 47.9** | **-1.5** |
| | comp=Z,85nm,1.3s | | | | | | |
| **SNZO** | **South Karori** | **23.76** | **194** | *e*P | **P** | **13 09 55.7** | **-1.9** |
| | comp=Z,94nm,0.8s | | | | | | |
| **NNZ** | **Nelson** | **24.01** | **197** | PN | **P** | **13 09 58.4** | **-1.4** |
| NNZ | | | | SN | **S** | **13 13 34.0** | **-2.5** |
| **THZ** | **Tophouse** | **24.65** | **197** | *e*P | **P** | **13 10 03.9** | **-1.7** |
| | comp=Z,42nm,0.6s | | | | | | |
| THZ | | | | *e*S | **S** | **13 13 42.7** | **-3.9** |
| **DSZ** | **Denniston Nort** | **24.95** | **199** | PN | **P** | **13 10 07.3** | **-1.0** |
| **KHZ** | **Kahutara** | **25.09** | **195** | *e*P | **P** | **13 10 07.7** | **-1.7** |
| | comp=Z,52nm,0.7s | | | | | | |
| **LTZ** | **Lake Taylor** | **25.77** | **197** | *e*P | **P** | **13 10 13.3** | **-2.1** |
| | comp=Z,57nm,0.8s | | | | | | |
| **LTZ** | **Lake Taylor** | **25.77** | **197** | PN | **P** | **13 10 13.1** | **-2.3** |
| **INZ** | **Inchbonnie** | **25.96** | **198** | PN | **P** | **13 10 15.7** | **-1.3** |
| **OXZ** | **Oxford** | **26.34** | **197** | *e*P | **P** | **13 10 18.2** | **-2.2** |
| | comp=Z,65nm,0.7s | | | | | | |
| OXZ | | | | *e*PcP | **PcP** | **13 13 26.3** | **+0.3** |
| OXZ | | | | *e*S | **S** | **13 14 10.6** | **-2.3** |
| **OXZ** | **Oxford** | **26.34** | **197** | PN | **P** | **13 10 18.5** | **-1.9** |
| **CRLZ** | **Canterbury Las** | **26.41** | **196** | *e*P | **P** | **13 10 19.2** | **-1.8** |
| | comp=Z,100nm,1.4s | | | | | | |
| **CRLZ** | **Canterbury Las** | **26.41** | **196** | PN | **P** | **13 10 19.6** | **-1.3** |
| **WVZ** | **Waitaha Valley** | **26.49** | **199** | PN | **P** | **13 10 20.6** | **-1.0** |
| **MQZ** | **McQueen's Vall** | **26.53** | **196** | *e*P | **P** | **13 10 20.4** | **-1.5** |
| | comp=Z,157nm,1.8s | | | | | | |
| **MQZ** | **McQueen's Vall** | **26.53** | **196** | PN | **P** | **13 10 20.9** | **-1.0** |
| **PAE** | **Paea** | **26.76** | **93** | *e*P | **P** | **13 10 23.8** | **-0.6** |
| | comp=Z,22nm,1.0s | | | | | | |
| **PPT2** | **Papeete2** | **26.77** | **93** | *e*P | **P** | **13 10 24.5** | **-0.1** |
| | comp=Z,87nm,1.1s | | | | | | |
| **PPT** | **Papeete** | **26.78** | **93** | P | **P** | **13 10 24.6** | **+0.1** |
| | comp=Z,52nm,0.5s,baz=75,slow=3.7,SNR=20 | | | | | | |
| **PPT** | **Papeete** | **26.78** | **93** | *e*P | **P** | **13 10 25.5** | **+0.9** |
| **PPT** | **Papeete** | **26.78** | **93** | *e*P | **P** | **13 10 25.5** | **+0.9** |
| **PPTF** | **Pamatai, Papee** | **26.78** | **93** | *e*P | **P** | **13 10 24.6** | **-0.1** |
| | comp=Z,108nm,1.0s | | | | | | |
| **RPZ** | **Rata Peaks** | **26.98** | **198** | P | **P** | **13 10 25.4** | **-0.6** |
| | comp=Z,27nm,0.5s,baz=233,slow=1.1,SNR=24 | | | | | | |
| **RPZ** | **Rata Peaks** | **26.98** | **198** | *e*P | **P** | **13 10 24.8** | **-1.2** |
| | comp=Z,33nm,0.6s | | | | | | |
| **RPZ** | **Rata Peaks** | **26.98** | **198** | PN | **P** | **13 10 24.8** | **-1.2** |
| **TIAR** | **Tiarei** | **27.00** | **93** | *e*P | **P** | **13 10 26.3** | **-0.2** |
| | comp=Z,23nm,0.8s | | | | | | |
| **TVO** | **Taravao** | **27.06** | **93** | *e*P | **P** | **13 10 26.8** | **-0.3** |
| | comp=Z,16nm,0.7s | | | | | | |
| **FOZ** | **Fox Glacier** | **27.20** | **200** | *e*P | **P** | **13 10 26.6** | **-1.3** |
| | comp=Z,130nm,0.8s | | | | | | |
| **FOZ** | **Fox Glacier** | **27.20** | **200** | PN | **P** | **13 10 26.5** | **-1.4** |
| **LBZ** | **Lake Benmore** | **27.85** | **199** | *e*P | **P** | **13 10 31.3** | **-2.2** |
| | comp=Z,43nm,0.7s | | | | | | |
| **LBZ** | **Lake Benmore** | **27.85** | **199** | PN | **P** | **13 10 31.6** | **-1.9** |
| **JCZ** | **Jackson Bay** | **28.02** | **201** | PN | **P** | **13 10 34.3** | **-0.9** |
| **ODZ** | **Otahua Downs** | **28.31** | **198** | *e*P | **P** | **13 10 36.1** | **-1.5** |
| | comp=Z,49nm,1.7s | | | | | | |
| **WKZ** | **Wanaka** | **28.61** | **200** | *e*P | **P** | **13 10 38.2** | **-2.0** |
| | comp=Z,51nm,0.7s | | | | | | |
| **PMOR** | **Pomariorio Ree** | **28.75** | **88** | *e*P | **P** | **13 10 40.3** | **-1.5** |
| | comp=Z,214nm,1.1s | | | | | | |
| **VAH** | **Vaihoa** | **28.96** | **88** | *e*P | **P** | **13 10 41.8** | **-1.8** |
| | comp=Z,90nm,0.8s | | | | | | |
| **MLZ** | **Mavora Lakes** | **29.39** | **201** | *e*P | **P** | **13 10 46.5** | **-0.4** |
| | comp=Z,146nm,0.6s | | | | | | |
| **MLZ** | **Mavora Lakes** | **29.39** | **201** | PN | **P** | **13 10 46.7** | **-0.2** |
| **EIDS** | **Eidsvold** | **29.73** | **251** | P | **P** | **13 10 49.7** | **-0.4** |
| | baz=30,SNR=17 | | | | | | |
| **EIDS** | **Eidsvold** | **29.73** | **251** | *e*P | **P** | **13 10 49.1** | **-1.0** |
| | comp=Z,35nm,0.6s | | | | | | |
| **DCZ** | **Deep Cove** | **29.80** | **202** | *e*P | **P** | **13 10 50.1** | **-0.3** |
| | comp=Z,42nm,0.6s | | | | | | |
| **WHZ** | **Wether Hill Ro** | **29.91** | **200** | *e*P | **P** | **13 10 50.8** | **-0.5** |
| | comp=Z,140nm,0.6s | | | | | | |
| **WHZ** | **Wether Hill Ro** | **29.91** | **200** | PN | **P** | **13 10 51.1** | **-0.2** |
| **ARMA** | **Armidale** | **30.28** | **241** | P | **P** | **13 10 55.5** | **+0.6** |
| | baz=30,SNR=70 | | | | | | |
| **ARMA** | **Armidale** | **30.28** | **241** | *e*P | **P** | **13 10 55.0** | **+0.1** |
| | comp=Z,37nm,0.6s | | | | | | |
| **KWAJ** | **Kwajalein Atol** | **30.64** | **331** | *e*P | **P** | **13 10 57.4** | **-0.6** |
| KWAJ | | | | pmax | pmax | | |
| | comp=Z,651nm,1.2s | | | | | | |
| **KWAJ** | **Kwajalein Atol** | **30.64** | **331** | *e*P | **P** | **13 10 57.4** | **-0.6** |
| | comp=Z,651nm,1.2s | | | | | | |
| **MGCD** | **Mangrove Creek** | **31.57** | **236** | P | **P** | **13 11 06.6** | **+0.9** |
| | baz=32,SNR=13 | | | | | | |
| **RMQ** | **Roma** | **31.95** | **249** | P | **P** | **13 11 09.3** | **+0.2** |
| | baz=32,SNR=32 | | | | | | |
| **RABL** | **Rabaul** | **32.64** | **292** | *e*P | **P** | **13 11 13.3** | **-1.8** |
| | comp=Z,40nm,0.4s | | | | | | |
| **CNB** | **Canberra Magne** | **33.67** | **233** | P | **P** | **13 11 24.0** | **+0.5** |
| | baz=34,SNR=44 | | | | | | |
| **CAN** | **Canberra** | **33.95** | **233** | *e*P | **P** | **13 11 26.0** | **+0.2** |
| CAN | | | | pmax | pmax | | |
| | comp=Z,55nm,0.8s | | | | | | |
| **CAN** | **Canberra** | **33.95** | **233** | *e*P | **P** | **13 11 26.0** | **+0.2** |
| | comp=Z,55nm,0.8s | | | | | | |
| **CTA** | **Charters Tower** | **34.02** | **261** | P | **P** | **13 11 26.2** | **-0.4** |
| | comp=Z,29nm,0.6s,baz=96,slow=9.5,SNR=38 | | | | | | |
| **CTAO** | **Charters Tower** | **34.02** | **261** | *e*P | **P** | **13 11 26.2** | **-0.4** |
| CTAO | | | | pmax | pmax | | |
| | comp=Z,32nm,0.6s | | | | | | |
| **CTAO** | **Charters Tower** | **34.02** | **261** | *e*P | **P** | **13 11 26.1** | **-0.4** |
| | comp=Z,32nm,0.6s | | | | | | |
| **PMG** | **Port Moresby** | **35.18** | **280** | P | **P** | **13 11 36.9** | **+0.6** |
| | comp=Z,84nm,0.8s,baz=78,slow=5.1,SNR=38 | | | | | | |
| **PMG** | **Port Moresby** | **35.18** | **280** | *d* P | **P** | **13 11 36.7** | **+0.4** |
| PMG | | | | pmax | pmax | | |
| | comp=Z,411nm,0.9s | | | | | | |
| **PMG** | **Port Moresby** | **35.18** | **280** | *e*P | **P** | **13 11 36.5** | **+0.3** |
| | comp=Z,101nm,0.9s | | | | | | |
| **CMSA** | **Cobar Meteorol** | **35.49** | **241** | P | **P** | **13 11 38.7** | **0.0** |
| | baz=36,SNR=135 | | | | | | |
| **QLP** | **Quilpie** | **35.98** | **250** | P | **P** | **13 11 42.3** | **-0.5** |
| | baz=36,SNR=88 | | | | | | |
| **MTSU** | **Mount Surprise** | **36.01** | **264** | P | **P** | **13 11 42.7** | **-0.5** |
| | baz=36,SNR=20 | | | | | | |
| **TOO** | **Toolangi** | **37.39** | **232** | P | **P** | **13 11 54.6** | **+0.4** |
| | baz=38,SNR=44 | | | | | | |
| **COEN** | **Coen** | **37.76** | **271** | P | **P** | **13 11 57.5** | **+0.1** |
| | baz=38,SNR=33 | | | | | | |
| **COEN** | **Coen** | **37.76** | **271** | *e*P | **P** | **13 11 57.3** | **-0.2** |
| | comp=Z,22nm,0.9s | | | | | | |
| **MANU** | **Manus Island** | **37.88** | **291** | *e*P | **P** | **13 11 58.8** | **+0.4** |
| | comp=Z,66nm,0.9s | | | | | | |
| **TAU** | **Tasmania Unive** | **38.34** | **223** | *e*P | **P** | **13 12 01.5** | **-0.2** |
| **TAU** | **Tasmania Unive** | **38.34** | **223** | *e*P | **P** | **13 12 01.5** | **-0.2** |
| **STKA** | **Stephens Creek** | **38.98** | **242** | P | **P** | **13 12 07.6** | **+0.5** |
| | comp=Z,36nm,0.7s,baz=93,slow=9.8,SNR=66 | | | | | | |
| STKA | | | | PcP | **PcP** | **13 14 03.5** | **+1.4** |
| | comp=Z,3.2nm,0.6s,baz=74,slow=8.4,SNR=3.0 | | | | | | |
| **STKA** | **Stephens Creek** | **38.98** | **242** | P | **P** | **13 12 07.7** | **+0.5** |
| | baz=39,SNR=57 | | | | | | |
| **STKA** | **Stephens Creek** | **38.98** | **242** | *e*P | **P** | **13 12 07.3** | **+0.2** |
| STKA | | | | | | 13 14 03.6 | |
| STKA | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.9s | | | | | | |
| **STKA** | **Stephens Creek** | **38.98** | **242** | *e*P | **P** | **13 12 07.3** | **+0.2** |
| | comp=Z,9.7nm,0.9s | | | | | | |
| STKA | | | | PcP | **PcP** | **13 14 03.5** | **+1.4** |
| **RKT** | **Rikitea** | **40.15** | **104** | *e*P | **P** | **13 12 16.8** | **+0.2** |
| | comp=Z,54nm,1.0s | | | | | | |
| **WAKE** | **Wake Island** | **40.45** | **337** | *e*P | **P** | **13 12 18.5** | **-0.4** |
| | comp=Z,121nm,0.6s | | | | | | |
| **BBOO** | **Buckleboo** | **43.76** | **242** | *e*P | **P** | **13 12 44.6** | **-0.1** |
| | comp=Z,19nm,0.7s | | | | | | |
| **WB2** | **Warramunga Arr** | **45.18** | **260** | *e*P | **P** | **13 12 54.7** | **-1.1** |
| | comp=Z,27nm,1.1s | | | | | | |
| WB2 | | | | *e*S | **S** | **13 18 50.7** | **-3.1** |
| **WRAB** | **Tennant Creek** | **45.18** | **260** | *i* P | **P** | **13 12 54.9** | **-0.9** |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,15nm,1.0s | | | | | | |
| **WRAB** | **Tennant Creek** | **45.18** | **260** | *e*P | **P** | **13 12 55.0** | **-0.9** |
| | comp=Z,20nm,1.1s | | | | | | |
| **WRA** | **Warramunga Arr** | **45.19** | **260** | P | **P** | **13 12 55.0** | **-0.9** |
| | comp=Z,6.5nm,0.4s,baz=95,slow=7.0,SNR=255 | | | | | | |
| WRA | | | | PcP | **PcP** | **13 14 23.7** | **+0.3** |
| | comp=Z,15nm,0.8s,baz=90,slow=3.8,S

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| PET | **Petropavlovsk** | **73.99** | **345**⇑ | *e*P | | **P** | **13 16 05.9** | **-0.2** |
| PET | | | | pmax | pmax | | | | | |
| | comp=Z,58nm,1.2s | | | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **74.12** | **333**⇓ | *e*P | | **P** | **13 16 07.5** | **+0.4** |
| YSS | | | | pmax | pmax | | | | | |
| | comp=Z,80nm,0.9s | | | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **74.12** | **333** | *e*P | | **P** | **13 16 07.9** | **+0.8** |
| | comp=Z,119nm,1.1s | | | | | | | | | |
| **PEA0B** | **Petropavlovsk-** | **74.30** | **345** | *e*P | | **P** | **13 16 07.8** | **-0.1** |
| | comp=Z,110nm,0.9s | | | | | | | | | |
| **PETK** | **Petropavlovsk-** | **74.30** | **345** | P | | **P** | **13 16 08.0** | **0.0** |
| | comp=Z,88nm,0.8s,baz=105,slow=8.3,SNR=90 | | | | | | | | | |
| **PETK** | **Petropavlovsk-** | **74.30** | **345** | *e*P | | **P** | **13 16 07.7** | **-0.3** |
| **PETK** | **Petropavlovsk-** | **74.30** | **345** | *e*P | | **P** | **13 16 07.7** | **-0.3** |
| **KSRS** | **Korea Array** | **75.48** | **318** | P | | **P** | **13 16 15.9** | **+1.0** |
| | comp=Z,8.4nm,0.8s,baz=139,slow=6.2,SNR=22 | | | | | | | | | |
| **KS15** | **Wonju Array Si** | **75.50** | **318** | *e*P | | **P** | **13 16 15.9** | **+0.9** |
| **KSAR** | **Wonju Array Be** | **75.50** | **318** | P | | **P** | **13 16 15.9** | **+0.9** |
| **KSAR** | **Wonju Array Be** | **75.50** | **318** | P | | **P** | **13 16 15.9** | **+0.9** |
| **KS01** | **Wonju Array Si** | **75.51** | **318** | *e*P | | **P** | **13 16 15.1** | **+0.1** |
| **SCI2** | **San Clemente I** | **76.16** | **48** | P | | **P** | **13 16 20.1** | **+1.4** |
| | baz=237 | | | | | | | | | |
| **INCN** | **Inchon** | **76.32** | **317** | *e*P | | **P** | **13 16 20.1** | **+0.5** |
| | comp=Z,91nm,1.2s | | | | | | | | | |
| **CIS** | **Catalina Islan** | **76.48** | **48** | P | | **P** | **13 16 22.1** | **+1.6** |
| | baz=237 | | | | | | | | | |
| **MSHR** | **Mys Shultsa** | **76.76** | **324**⇑ | *e*P | | **P** | **13 16 23.6** | **+1.8** |
| **KMRM** | **Mail Ridge** | **76.95** | **39** | *e*P | | **P** | **13 16 24.4** | **+1.4** |
| | comp=Z,57nm,0.9s | | | | | | | | | |
| **PASC** | **Pasadena Art C** | **77.06** | **47** | *e*P | | **P** | **13 16 24.5** | **+0.9** |
| | comp=Z,14nm,0.8s | | | | | | | | | |
| **ARVC** | **Arvin** | **77.13** | **46** | P | | **P** | **13 16 25.8** | **+1.7** |
| | baz=236 | | | | | | | | | |
| **MWC** | **Mount Wilson** | **77.17** | **47** | *e*P | | **P** | **13 16 25.0** | **+0.5** |
| MWC | | | | pmax | pmax | | | | | |
| | comp=Z,18nm,0.8s | | | | | | | | | |
| **MWC** | **Mount Wilson** | **77.17** | **47** | *e*P | | **P** | **13 16 25.0** | **+0.5** |
| | comp=Z,18nm,0.8s | | | | | | | | | |
| **TYV** | **Tymovskoe** | **77.22** | **336** | *e*P | | **P** | **13 16 23.7** | **-0.4** |
| TYV | | | | pmax | pmax | | | | | |
| | comp=Z,72nm,0.9s | | | | | | | | | |
| TYV | | | | pmax | pmax | | | | | |
| | comp=Z,1μm,4.6s | | | | | | | | | |
| **BAR** | **Barrett** | **77.33** | **49** | *e*P | | **P** | **13 16 26.1** | **+0.9** |
| | comp=Z,11nm,1.1s | | | | | | | | | |
| **VES** | **Vestal, Richgr** | **77.36** | **45** | P | | **P** | **13 16 26.4** | **+1.2** |
| | baz=236,SNR=12 | | | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **77.37** | **325** | P | | **P** | **13 16 26.2** | **+1.2** |
| | comp=Z,10nm,0.7s,baz=130,slow=3.6,SNR=13 | | | | | | | | | |
| **MURC** | **Murrieta** | **77.44** | **48** | P | | **P** | **13 16 27.1** | **+1.3** |
| | baz=238,SNR=6.4 | | | | | | | | | |
| **BFSC** | **Mount Baldy Ra** | **77.46** | **47** | P | | **P** | **13 16 27.0** | **+1.0** |
| | baz=237,SNR=8.8 | | | | | | | | | |
| **EDW2** | **Edwards Air Fo** | **77.57** | **47** | P | | **P** | **13 16 27.8** | **+1.3** |
| | baz=237,SNR=21 | | | | | | | | | |
| **MONP2** | **Monument Peak** | **77.62** | **49** | P | | **P** | **13 16 28.3** | **+1.3** |
| | baz=238,SNR=18 | | | | | | | | | |
| **ISA** | **Isabella, Lake** | **77.67** | **46** | P | | **P** | **13 16 28.6** | **+1.6** |
| | baz=237,SNR=8.0 | | | | | | | | | |
| **IKP** | **In-Ko-Pah, Jac** | **77.72** | **49** | P | | **P** | **13 16 28.9** | **+1.6** |
| | baz=239,SNR=10.0 | | | | | | | | | |
| **CMB** | **Columbia Colle** | **77.73** | **43** | *e*P | | **P** | **13 16 28.2** | **+0.9** |
| CMB | | | | pmax | pmax | | | | | |
| | comp=Z,13nm,0.8s | | | | | | | | | |
| **CMB** | **Columbia Colle** | **77.73** | **43** | *e*P | | **P** | **13 16 28.2** | **+0.9** |
| | comp=Z,14nm,0.8s | | | | | | | | | |
| **WDC** | **Whiskeytown Da** | **77.88** | **40** | *e*P | | **P** | **13 16 29.3** | **+1.4** |
| WDC | | | | pmax | pmax | | | | | |
| | comp=Z,39nm,1.6s | | | | | | | | | |
| **WDC** | **Whiskeytown Da** | **77.88** | **40** | *e*P | | **P** | **13 16 29.3** | **+1.4** |
| | comp=Z,39nm,1.6s | | | | | | | | | |
| **AFDM** | **Forest Hills D** | **77.89** | **42** | *e*P | | **P** | **13 16 29.0** | **+0.9** |
| | comp=Z,17nm,1.1s | | | | | | | | | |
| **ORV** | **Oroville** | **77.91** | **41** | *e*P | | **P** | **13 16 29.2** | **+1.1** |
| ORV | | | | pmax | pmax | | | | | |
| | comp=Z,14nm,1.0s | | | | | | | | | |
| **ORV** | **Oroville** | **77.91** | **41** | *e*P | | **P** | **13 16 29.2** | **+1.1** |
| | comp=Z,14nm,1.0s | | | | | | | | | |
| **PFO** | **Pinyon Flats O** | **77.97** | **48** | P | | **P** | **13 16 30.1** | **+1.4** |
| | baz=238,SNR=5.2 | | | | | | | | | |
| **PFO** | **Pinyon Flats O** | **77.97** | **48** | *e*P | | **P** | **13 16 29.9** | **+1.2** |
| PFO | | | | pmax | pmax | | | | | |
| | comp=Z,10.0nm,1.0s | | | | | | | | | |
| **PFO** | **Pinyon Flats O** | **77.97** | **48** | *e*P | | **P** | **13 16 29.9** | **+1.2** |
| | comp=Z,10.0nm,1.0s | | | | | | | | | |
| **TPFO** | **Pinon Flats** | **77.97** | **48** | P | | **P** | **13 16 29.9** | **+1.2** |
| | baz=238 | | | | | | | | | |
| **XPFO** | **Piæon Flat** | **77.97** | **48** | *e*P | | **P** | **13 16 29.8** | **+1.0** |
| | comp=Z,11nm,1.0s | | | | | | | | | |
| **N02D** | **Trinity Center** | **78.02** | **39** | P | | **P** | **13 16 30.6** | **+1.8** |
| | baz=233,SNR=7.2 | | | | | | | | | |
| **OHAK** | **Old Harbor** | **78.03** | **13** | *e*P | | **P** | **13 16 28.4** | **+0.2** |
| | comp=Z,45nm,0.7s | | | | | | | | | |
| **SWSC** | **Sam W. Stewart** | **78.10** | **49** | P | | **P** | **13 16 30.6** | **+1.4** |
| | baz=239,SNR=6.2 | | | | | | | | | |
| **LRMC** | **Laurel Mtn Rad** | **78.11** | **46** | P | | **P** | **13 16 30.9** | **+1.5** |
| | baz=237 | | | | | | | | | |
| **O03D** | **Paynes Creek** | **78.16** | **40** | P | | **P** | **13 16 30.8** | **+1.2** |
| | baz=233,SNR=6.6 | | | | | | | | | |
| **M02C** | **Callahan** | **78.18** | **39** | P | | **P** | **13 16 31.3** | **+1.6** |
| | baz=232,SNR=6.8 | | | | | | | | | |
| **MDPB** | **Devils Postpil** | **78.36** | **44** | *e*P | | **P** | **13 16 32.1** | **+1.2** |
| | comp=Z,19nm,0.9s | | | | | | | | | |
| **CWC** | **Cottonwood Cre** | **78.36** | **45** | P | | **P** | **13 16 32.1** | **+1.2** |
| | baz=237 | | | | | | | | | |
| **YBH** | **Yreka Blue Hor** | **78.48** | **39** | *e*P | | **P** | **13 16 32.6** | **+1.4** |
| YBH | | | | pmax | pmax | | | | | |
| | comp=Z,20nm,1.0s | | | | | | | | | |
| **YBH** | **Yreka Blue Hor** | **78.48** | **39** | *e*P | | **P** | **13 16 32.6** | **+1.4** |
| | comp=Z,20nm,1.0s | | | | | | | | | |
| **BELC** | **Belle Mtn. Jos** | **78.50** | **48** | P | | **P** | **13 16 32.9** | **+1.3** |
| | baz=238,SNR=9.4 | | | | | | | | | |
| **MLAC** | **Mammoth, Mammo** | **78.52** | **44** | P | | **P** | **13 16 33.0** | **+1.3** |
| | baz=236 | | | | | | | | | |
| **MPMC** | **Manual Prospec** | **78.56** | **46** | P | | **P** | **13 16 33.3** | **+1.4** |
| | baz=237,SNR=10 | | | | | | | | | |
| **TIN** | **Tinemaha, Big** | **78.60** | **45** | P | | **P** | **13 16 33.5** | **+1.5** |
| | baz=236 | | | | | | | | | |
| **DAC** | **Darwin (Calif)** | **78.60** | **46** | *e*P | | **P** | **13 16 33.3** | **+1.2** |
| DAC | | | | pmax | pmax | | | | | |
| | comp=Z,26nm,1.8s | | | | | | | | | |
| **DAC** | **Darwin (Calif)** | **78.60** | **46** | *e*P | | **P** | **13 16 33.3** | **+1.2** |
| | comp=Z,26nm,1.8s | | | | | | | | | |
| **WAKR** | **Walker** | **78.61** | **43** | *e*P | | **P** | **13 16 33.5** | **+1.3** |
| | comp=Z,21nm,0.9s | | | | | | | | | |
| **HEC** | **Hector,Ludlow** | **78.70** | **47** | P | | **P** | **13 16 34.0** | **+1.5** |
| | baz=236 | | | | | | | | | |
| **KDAK** | **Kodiak Island** | **78.70** | **13** | *e*P | | **P** | **13 16 32.3** | **+0.5** |
| KDAK | | | | pmax | pmax | | | | | |
| | comp=Z,61nm,1.1s | | | | | | | | | |
| **KDAK** | **Kodiak Island** | **78.70** | **13** | *e*P | | **P** | **13 16 32.3** | **+0.5** |
| | comp=Z,61nm,1.1s | | | | | | | | | |
| **BC3** | **Big Chuckawall** | **78.71** | **49** | P | | **P** | **13 16 34.5** | **+1.8** |
| | baz=239,SNR=6.3 | | | | | | | | | |
| **NJ2** | **Nanjing** | **78.74** | **309** | *e*P | | **P** | **13 16 34.0** | **+1.3** |
| NJ2 | | | | pmax | pmax | | | | | |
| | comp=Z,27nm,0.7s | | | | | | | | | |
| **HABR** | **Khabarovsk** | **78.74** | **330** | *e*P | | **P** | **13 16 31.4** | **-0.9** |
| HABR | | | | *e* | | | 13 16 37.4 | | | |
| HABR | | | | *e**PP | | **pP** | **13 18 34.4** | **-1.3** |
| HABR | | | | *e**SP | | **sP** | **13 19 35.3** | **-0.2** |
| HABR | | | | *e* | | | 13 19 39.9 | | | |
| HABR | | | | *e*PPP | | PPP | 13 21 33.6 | | | |
| HABR | | | | *e*S | | **S** | **13 25 41.2** | **-1.1** |
| HABR | | | | *e* | | | 13 25 57.9 | | | |
| HABR | | | | *e*SS | | **SS** | **13 31 02.2** | **-2.5** |
| HABR | | | | *e*SSS | | SSS | 13 34 34.4 | | | |
| HABR | | | | pmax | pmax | | | | | |
| | comp=N,12nm,0.9s | | | | | | | | | |
| HABR | | | | pmax | pmax | | | | | |
| | comp=E,17nm,0.9s | | | | | | | | | |
| HABR | | | | pmax | pmax | | | | | |
| | comp=Z,130nm,0.9s | | | | | | | | | |
| HABR | | | | MLR | MLR | | | | | |
| | comp=Z,90nm,17.0s | | | | | | | | | |
| **BEKR** | **Beckworth** | **78.81** | **41** | *e*P | | **P** | **13 16 33.7** | **+0.6** |
| | comp=Z,36nm,1.5s | | | | | | | | | |
| **PNTR** | **Pine Nut** | **78.84** | **42** | *e*P | | **P** | **13 16 34.4** | **+1.0** |
| | comp=Z,38nm,0.8s | | | | | | | | | |
| **GLA** | **Glamis** | **78.86** | **50** | P | | **P** | **13 16 34.7** | **+1.3** |
| | baz=239,SNR=7.0 | | | | | | | | | |
| **GLA** | **Glamis** | **78.86** | **50** | *e*P | | **P** | **13 16 35.3** | **+1.9** |
| GLA | | | | pmax | pmax | | | | | |
| | comp=Z,19nm,1.0s | | | | | | | | | |
| **GLA** | **Glamis** | **78.86** | **50** | *e*P | | **P** | **13 16 35.3** | **+1.9** |
| | comp=Z,19nm,1.0s | | | | | | | | | |
| **HUMO** | **Hull Mountain** | **78.86** | **38** | *e*P | | **P** | **13 16 34.9** | **+1.7** |
| | comp=Z,35nm,1.3s | | | | | | | | | |
| **MDJ** | **Mudanjiang** | **78.94** | **325** | *e*P | | **P** | **13 16 34.8** | **+1.3** |
| | comp=Z,86nm,0.9s | | | | | | | | | |
| **YERR** | **Yerington** | **79.01** | **43** | *e*P | | **P** | **13 16 35.0** | **+0.8** |
| | comp=Z,26nm,0.7s | | | | | | | | | |
| **M04C** | **Macdoel** | **79.03** | **39** | P | | **P** | **13 16 35.6** | **+1.4** |
| | baz=233,SNR=6.4 | | | | | | | | | |
| **GMRC** | **Granite Mounta** | **79.15** | **48** | P | | **P** | **13 16 36.0** | **+1.0** |
| | baz=239,SNR=6.2 | | | | | | | | | |
| **IRM** | **Iron Mountain** | **79.19** | **49** | P | | **P** | **13 16 36.9** | **+1.8** |
| | baz=239,SNR=10 | | | | | | | | | |
| **FURC** | **Furnace Creek,** | **79.20** | **46** | P | | **P** | **13 16 36.6** | **+1.5** |
| | baz=238 | | | | | | | | | |
| **SHOC** | **Shoshone, Teco** | **79.30** | **47** | P | | **P** | **13 16 36.9** | **+1.3** |
| | baz=238,SNR=5.4 | | | | | | | | | |
| **TUQ** | **Turquoise Moun** | **79.30** | **47** | P | | **P** | **13 16 37.1** | **+1.3** |
| | baz=238,SNR=8.3 | | | | | | | | | |
| **NV01** | **Mina Array Sit** | **79.31** | **43** | *e*P | | **P** | **13 16 36.6** | **+0.7** |
| **NVAR** | **Mina Array Bea** | **79.31** | **43** | P | | **P** | **13 16 36.8** | **+0.9** |
| | comp=Z,11nm,0.7s,baz=223,slow=8.9,SNR=111 | | | | | | | | | |
| **PAHR** | **Pah Rah Range** | **79.33** | **42** | *e*P | | **P** | **13 16 36.7** | **+0.9** |
| | comp=Z,22nm,1.1s | | | | | | | | | |
| **NV11** | **Mina Array Sit** | **79.41** | **44** | *e*P | | **P** | **13 16 37.3** | **+1.0** |
| | comp=Z,1.2nm,0.9s | | | | | | | | | |
| **Y12C** | **Blythe** | **79.43** | **49** | P | | **P** | **13 16 38.2** | **+1.9** |
| | baz=240,SNR=9.2 | | | | | | | | | |
| **Y12C** | **Blythe** | **79.43** | **49** | *e*P | | **P** | **13 16 37.6** | **+1.3** |
| | comp=Z,12nm,0.8s | | | | | | | | | |
| **113A** | **Mohawk Valley,** | **79.48** | **50** | *e*P | | **P** | **13 16 38.1** | **+1.5** |
| | comp=Z,9.7nm,0.9s | | | | | | | | | |
| **LDFC** | **Landfair** | **79.69** | **48** | *e*P | | **P** | **13 16 39.4** | **+1.6** |
| | comp=Z,28nm,0.9s | | | | | | | | | |
| **J04D** | **Umpqua Nationa** | **79.74** | **38** | P | | **P** | **13 16 39.7** | **+1.6** |
| | baz=233 | | | | | | | | | |
| **KVN** | **Kaiserville** | **79.79** | **43** | *e*P | | **P** | **13 16 39.3** | **+1.0** |
| KVN | | | | pmax | pmax | | | | | |
| | comp=Z,15nm,0.8s | | | | | | | | | |
| **KVN** | **Kaiserville** | **79.79** | **43** | *e*P | | **P** | **13 16 39.3** | **+1.0** |
| | comp=Z,15nm,0.8s | | | | | | | | | |
| **214A** | **Organ Pipe Nat** | **79.79** | **51** | P | | **P** | **13 16 39.7** | **+1.4** |
| | baz=241 | | | | | | | | | |
| **TPNV** | **Topopah Spring** | **79.88** | **46** | P | | **P** | **13 16 40.1** | **+1.3** |
| | baz=238,SNR=9.5 | | | | | | | | | |
| **TPNV** | **Topopah Spring** | **79.88** | **46** | *e*P | | **P** | **13 16 39.9** | **+1.1** |
| TPNV | | | | pmax | pmax | | | | | |
| | comp=Z,12nm,0.9s | | | | | | | | | |
| **TPNV** | **Topopah Spring** | **79.88** | **46** | *e*P | | **P** | **13 16 39.9** | **+1.1** |
| | comp=Z,12nm,0.9s | | | | | | | | | |
| **I04A** | **Tendick Farm,** | **79.90** | **37** | P | | **P** | **13 16 39.8** | **+1.2** |
| | baz=232 | | | | | | | | | |
| **PDMCI** | **Parker Dam,Lak** | **79.98** | **49** | P | | **P** | **13 16 41.2** | **+2.0** |
| | baz=240,SNR=6.0 | | | | | | | | | |
| **MOD** | **Modoc Plateau** | **80.02** | **40** | *e*P | | **P** | **13 16 40.2** | **+0.8** |
| | comp=Z,22nm,0.8s | | | | | | | | | |
| **J05D** | **Fort Rock, OR** | **80.28** | **38** | P | | **P** | **13 16 42.4** | **+1.7** |
| | baz=233,SNR=23 | | | | | | | | | |
| **G03D** | **McMinnville, O** | **80.30** | **36** | P | | **P** | **13 16 42.2** | **+1.7** |
| | baz=232 | | | | | | | | | |
| **SHPR** | **Sheep Range** | **80.39** | **46** | *e*P | | **P** | **13 16 42.7** | **+1.2** |
| | comp=Z,7.4nm,1.0s | | | | | | | | | |
| **W13A** | **Hualapai Mount** | **80.56** | **48** | *e*P | | **P** | **13 16 43.0** | **+0.6** |
| | comp=Z,4.7nm,0.9s | | | | | | | | | |
| **H04A** | **Detroit Lake** | **80.57** | **37** | *e*P | | **P** | **13 16 42.8** | **+0.7** |
| | comp=Z,110nm,1.8s | | | | | | | | | |
| **Y14A** | **Wickenburg** | **80.61** | **50** | *e*P | | **P** | **13 16 44.0** | **+1.5** |
| | comp=Z,50nm,1.1s | | | | | | | | | |
| **CN2** | **Changchun** | **80.79** | **322** | *e*P | | **P** | **13 16 43.8** | **+0.7** |
| CN2 | | | | pmax | pmax | | | | | |
| | comp=Z,40nm,1.3s | | | | | | | | | |
| **KLR** | **Kul'dur** | **80.84** | **329** | P | | **P** | **13 16 44.4** | **+1.1** |
| | comp=Z,1.6nm,1.0s,baz=112,slow=5.6 | | | | | | | | | |
| **KLR** | **Kul'dur** | **80.84** | **329** | *de*P | | **P** | **13 16 44.0** | **+0.7** |
| **I05D** | **Terrebonne, OR** | **80.85** | **37** | P | | **P** | **13 16 45.0** | **+1.5** |
| | baz=233 | | | | | | | | | |
| **F04D** | **Rainier, OR** | **80.97** | **35** | P | | **P** | **13 16 46.0** | **+2.0** |
| | baz=232 | | | | | | | | | |
| **R11A** | **Troy Canyon, C** | **81.06** | **45** | P | | **P** | **13 16 46.1** | **+1.2** |
| | baz=238,SNR=11 | | | | | | | | | |
| **R11A** | **Troy Canyon, C** | **81.06** | **45** | *e*P | | **P** | **13 16 45.9** | **+0.9** |
| | comp=Z,9.7nm,1.0s | | | | | | | | | |
| **BMN** | **Battle Mountai** | **81.11** | **42** | *e*P | | **P** | **13 16 46.2** | **+1.1** |
| BMN | | | | pmax | pmax | | | | | |
| | comp=Z,24nm,0.9s | | | | | | | | | |
| **BMN** | **Battle Mountai** | **81.11** | **42** | *e*P | | **P** | **13 16 46.2** | **+1.1** |
| | comp=Z,24nm,0.9s | | | | | | | | | |
| **RSO** | **Redoubt South** | **81.12** | **12** | *e*P | | **P** | **13 16 44.1** | **-0.6** |
| **SVW2** | **Sparrevohn** | **81.17** | **11** | *e*P | | **P** | **13 16 44.7** | **0.0** |
| | comp=Z,20nm,1.2s | | | | | | | | | |
| **WVOR** | **Wild Horse Val** | **81.34** | **40** | *e*P | | **P** | **13 16 47.3** | **+1.1** |
| WVOR | | | | pmax | pmax | | | | | |
| | comp=Z,36nm,1.1s | | | | | | | | | |
| **WVOR** | **Wild Horse Val** | **81.34** | **40** | *e*P | | **P** | **13 16 47.3** | **+1.1** |
| | comp=Z,36nm,1.1s | | | | | | | | | |
| **G05D** | **Wamic, OR** | **81.40** | **37** | P | | **P** | **13 16 47.7** | **+1.4** |
| | baz=233 | | | | | | | | | |
| **TUC** | **Tucson** | **81.47** | **52** | P | | **P** | **13 16 48.9** | **+1.9** |
| | baz=242 | | | | | | | | | |
| **TUC** | **Tucson** | **81.47** | **52** | *e*P | | **P** | **13 16 48.8** | **+1.8** |
| TUC | | | | pmax | pmax | | | | | |
| | comp=Z,20nm,1.0s | | | | | | | | | |
| **TUC** | **Tucson** | **81.47** | **52** | *e*P | | **P** | **13 16 48.8** | **+1.8** |
| | comp=Z,20nm,1.0s | | | | | | | | | |
| **I07A** | **Izee** | **81.77** | **38** | *e*P | | **P** | **13 16 49.3** | **+1.0** |
| | comp=Z,27nm,0.8s | | | | | | | | | |
| **G06A** | **Carlson Farm,** | **81.79** | **37** | *e*P | | **P** | **13 16 49.2** | **+0.9** |
| | comp=Z,20nm,1.0s | | | | | | | | | |
| **MA2** | **Magadan** | **81.82** | **344** | *d*P | | **P** | **13 16 47.3** | **-0.7** |
| **SPU** | **Mount Spurr** | **81.92** | **12** | *e*P | | **P** | **13 16 47.7** | **-0.9** |
| **J08A** | **Circle Bar Ran** | **81.96** | **39** | *e*P | | **P** | **13 16 50.1** | **+0.8** |
| | comp=Z,41nm,1.2s | | | | | | | | | |
| **LCMT** | **Little Creek M** | **81.97** | **47** | *e*P | | **P** | **13 16 50.2** | **+0.7** |
| | comp=Z,14nm,0.9s | | | | | | | | | |
| **GAMB** | **Gambell** | **82.02** | **3** | *e*P | | **P** | **13 16 49.1** | **+0.2** |
| **LON** | **Longmire** | **82.04** | **35** | *e*P | | **P** | **13 16 50.3** | **+0.7** |
| LON | | | | pmax | pmax | | | | | |
| | comp=Z,11nm,0.8s | | | | | | | | | |
| **LON** | **Longmire** | **82.04** | **35** | *e*P | | **P** | **13 16 50.3** | **+0.7** |
| | comp=Z,11nm,0.8s | | | | | | | | | |
| **TIA** | **Tai'an** | **82.04** | **312** | P | | **P** | **13 16 50.8** | **+1.1** |
| TIA | | | | pmax | pmax | | | | | |
| | comp=Z,16nm,1.0s | | | | | | | | | |
| **CCUT** | **Cedar City** | **82.16** | **46** | *e*P | | **P** | **13 16 51.7** | **+1.1** |
| | comp=Z,14nm,0.8s | | | | | | | | | |
| **319A** | **Douglas** | **82.18** | **53** | *e*P | | **P** | **13 16 52.5** | **+1.9** |
| | comp=Z,33nm,1.0s | | | | | | | | | |
| **D05A** | **Enumclaw** | **82.21** | **35** | *e*P | | **P** | **13 16 52.1** | **+1.8** |
| | comp=Z,138nm,1.5s | | | | | | | | | |
| **RC01** | **Rabbit Creek A** | **82.32** | **13** | *e*P | | **P** | **13 16 50.3** | **-0.2** |
| | comp=Z,44nm,1.0s | | | | | | | | | |
| **PSUT** | **Pine Spring** | **82.32** | **45** | *e*P | | **P** | **13 16 51.0** | **-0.4** |
| **U15A** | **North Rim** | **82.34** | **48** | *e*P | | **P** | **13 16 52.7** | **+1.1** |
| | comp=Z,31nm,0.8s | | | | | | | | | |
| **SZCU** | **Shurtz Canyon** | **82.37** | **46** | *e*P | | **P** | **13 16 53.2** | **+1.5** |
| | comp=Z,14nm,0.9s | | | | | | | | | |
| **WUAZ** | **Wupatki** | **82.56** | **49** | P | | **P** | **13 16 53.8** | **+1.2** |
| | baz=241 | | | | | | | | | |
| **WUAZ** | **Wupatki** | **82.56** | **49** | *e*P | | **P** | **13 16 54.0** | **+1.4** |
| | comp=Z,21nm,1.1s | | | | | | | | | |
| **F07A** | **Phinny Hill Vi** | **82.58** | **37** | *e*P | | **P** | **13 16 53.3** | **+1.1** |
| | comp=Z,21nm,0.9s | | | | | | | | | |
| **GLI** | **Glacier Island** | **82.74** | **15** | *e*P | | **P** | **13 16 52.1** | **-0.6** |
| | comp=Z,78nm,0.8s | | | | | | | | | |
| **FID** | **Port Fidalgo** | **82.77** | **15** | *e*P | | **P** | **13 16 52.5** | **-0.3** |
| | comp=Z,78nm,1.2s | | | | | | | | | |
| **G08A** | **Pilot Rock** | **82.78** | **37** | *e*P | | **P** | **13 16 54.4** | **+1.0** |
| | comp=Z,31nm,1.1s | | | | | | | | | |
| **B05A** | **Bryant** | **82.81** | **34** | P | | **P** | **13 16 54.7** | **+1.4** |
| | baz=232,SNR=5.4 | | | | | | | | | |
| **PMR** | **Palmer** | **82.90** | **13** | *e*P | | **P** | **13 16 52.9** | **-0.5** |
| PMR | | | | pmax | pmax | | | | | |
| | comp=Z,81nm,1.4s | | | | | | | | | |
| **PMR** | **Palmer** | **82.90** | **13** | *e*P | | **P** | **13 16 52.9** | **-0.5** |
| | comp=Z,81nm,1.4s | | | | | | | | | |
| **LTY** | **Liberty** | **82.97** | **35** | *e*P | | **P** | **13 16 54.7** | **+0.5** |
| | comp=Z,22nm,1.1s | | | | | | | | | |
| **HAWA** | **Hanford** | **83.09** | **36** | *e*P | | **P** | **13 16 55.7** | **+1.0** |
| | comp=Z,30nm,1.0s | | | | | | | | | |
| **X18A** | **Snowflake** | **83.12** | **50** | *e*P | | **P** | **13 16 56.8** | **+1.4** |
| | comp=Z,8.7nm,0.8s | | | | | | | | | |
| **IPM** | **Ipoh** | **83.13** | **277** | *e*P | | **P** | **13 16 56.4** | **+0.7** |
| | comp=Z,72nm,0.8s | | | | | | | | | |
| **MTPU** | **Mount Pierson** | **83.21** | **46** | *e*P | | **P** | **13 16 58.0** | **+1.9** |
| **C06D** | **Leavenworth** | **83.25** | **35** | P | | **P** | **13 16 57.1** | **+1.6** |
| | baz=233 | | | | | | | | | |
| **SML** | **Sawmill** | **83.27** | **14** | *e*P | | **P** | **13 16 55.2** | **-0.1** |
| SML | | | | pmax | pmax | | | | | |
| | comp=Z,105nm,1.6s | | | | | | | | | |
| **SML** | **Sawmill** | **83.27** | **14** | *e*P | | **P** | **13 16 55.2** | **-0.1** |
| | comp=Z,105nm,1.6s | | | | | | | | | |
| **DIV** | **Divide** | **83.28** | **15** | *e*P | | **P** | **13 16 55.3** | **-0.1** |
| | comp=Z,57nm,0.8s | | | | | | | | | |
| **B06A** | **Marblemount** | **83.29** | **34** | *e*P | | **P** | **13 16 55.9** | **+0.3** |
| | comp=Z,23nm,1.1s | | | | | | | | | |
| **E08A** | **Dider Farm, El** | **83.41** | **36** | *e*P | | **P** | **13 16 56.9** | **+0.5** |
| | comp=Z,134nm,1.9s | | | | | | | | | |
| **MSU** | **Marysvale** | **83.45** | **46** | *e*P | | **P** | **13 16 57.5** | **+0.5** |
| **MSU** | **Marysvale** | **83.45** | **46** | *e*P | | **P** | **13 16 57.5** | **+0.5** |
| **PPLA** | **Purkeypile** | **83.46** | **11** | *e*P | | **P** | **13 16 55.1** | **-1.2** |
| | comp=Z,53nm,1.5s | | | | | | | | | |
| **BMO** | **Blue Mountains** | **83.50** | **39** | *e*P | | **P** | **13 16 57.3** | **+0.4** |
| BMO | | | | pmax | pmax | | | | | |
| | comp=Z,8.0nm,0.8s | | | | | | | | | |
| **BMO** | **Blue Mountains** | **83.50** | **39** | *e*P | | **P** | **13 16 57.3** | **+0.4** |
| | comp=Z,7.8nm,0.8s | | | | | | | | | |
| **SCM** | **Sheep Creek Mo** | **83.52** | **14** | *e*P | | **P** | **13 16 56.6** | **0.0** |
| SCM | | | | pmax | pmax | | | | | |
| | comp=Z,82nm,0.6s | | | | | | | | | |
| **SCM** | **Sheep Creek Mo** | **83.52** | **14** | *e*P | | **P** | **13 16 56.6** | **0.0** |
| | comp=Z,82nm,0.6s | | | | | | | | | |
| **KLU** | **Klutina** | **83.55** | **15** | *e*P | | **P** | **13 16 56.7** | **-0.1** |
| | comp=Z,26nm,1.1s | | | | | | | | | |
| **MAW** | **Mawson** | **83.64** | **200** | P | | **P** | **13 16 58.1** | **+0.9** |
| | comp=Z,4.0nm,0.4s,baz=150,slow=3.5,SNR=17 | | | | | | | | | |
| MAW | | | | pP | | **pP** | **13 19 02.6** | **+0.1** |
| | comp=Z,4.5nm,0.9s,baz=99,slow=8.0,SNR=5.2 | | | | | | | | | |
| **MAW** | **Mawson** | **83.64** | **200** | *e*P | | **P** | **13 16 57.8** | **+0.6** |
| MAW | | | | *e**PP | | **pP** | **13 19 02.9** | **+0.4** |
| MAW | | | | pmax | pmax | | | | | |
| | comp=Z,5.0nm,1.3s | | | | | | | | | |
| **MAW** | **Mawson** | **83.64** | **200** | *e*P | | **P** | **13 16 57.8** | **+0.6** |
| | comp=Z,5.2nm,1.3s | | | | | | | | | |
| MAW | | | | *e*pP | | **pP** | **13 19 02.9** | **+0.4** |
| **D08A** | **Wollman Farm,** | **83.82** | **36** | *e*P | | **P** | **13 16 59.2** | **+0.8** |
| | comp=Z,24nm,1.0s | | | | | | | | | |
| **121A** | **Cookes Peak, D** | **83.83** | **53** | P | | **P** | **13 17 00.6** | **+1.6** |
| | baz=244,SNR=5.4 | | | | | | | | | |
| **DUG** | **Dugway, Tooele** | **83.86** | **44** | P | | **P** | **13 17 00.1** | **+1.2** |
| | baz=240 | | | | | | | | | |
| **DUG** | **Dugway, Tooele** | **83.86** | **44** | *e*P | | **P** | **13 16 59.0** | **+0.1** |
| DUG | | | | pmax | pmax | | | | | |
| | comp=Z,19nm,1.9s | | | | | | | | | |
| **DUG** | **Dugway, Tooele** | **83.86** | **44** | *e*P | | **P** | **13 16 59.0** | **+0.1** |
| | comp=Z,19nm,1.9s | | | | | | | | | |
| **E09A** | **Wood Farm, Sta** | **83.94** | **37** | *e*P | | **P** | **13 16 59.7** | **+0.7** |
| | comp=Z,22nm,1.3s | | | | | | | | | |
| **F10A** | **Beach Ranch, E** | **84.17** | **38** | *e*P | | **P** | **13 17 00.8** | **+0.6** |
| | comp=Z,32nm,0.9s | | | | | | | | | |
| **KTH** | **Kantishna Hill** | **84.30** | **12** | *e*P | | **P** | **13 16 59.5** | **-0.9** |
| | comp=Z,42nm,0.9s | | | | | | | | | |
| **TRF** | **Thorofare Moun** | **84.33** | **12** | *e*P | | **P** | **13 16 59.8** | **-0.9** |
| | comp=Z,70nm,0.6s | | | | | | | | | |
| **B08A** | **Colville Reser** | **84.35** | **35** | *e*P | | **P** | **13 17 00.6** | **-0.4** |
| | comp=Z,22nm,0.9s | | | | | | | | | |
| **LLLB** | **Lillooet** | **84.36** | **32** | *e*P | | **P** | **13 17 01.2** | **+0.3** |
| | comp=Z,16nm,1.0s | | | | | | | | | |
| **SEY** | **Seymchan** | **84.38** | **347** | *de*P | | **P** | **13 17 00.8** | **+0.1** |
| **TMUT** | **Trail Mountain** | **84.49** | **46** | *e*P | | **P** | **13 17 03.7** | **+1.4** |
| | comp=Z,11nm,0.9s | | | | | | | | | |
| **HARP** | **HAARP** | **84.53** | **15** | *e*P | | **P** | **13 17 01.8** | **+0.3** |
| | comp=Z,66nm,0.9s | | | | | | | | | |
| **HLID** | **Hailey** | **84.55** | **41** | P | | **P** | **13 17 03.9** | **+1.6** |
| | baz=238 | | | | | | | | | |
| **HLID** | **Hailey** | **84.55** | **41** | *e*P | | **P** | **13 17 03.4** | **+1.1** |
| | comp=Z,14nm,0.8s | | | | | | | | | |
| **MPU** | **Maple Canyon** | **84.55** | **45** | *e*P | | **P** | **13 17 03.2** | **+0.8** |
| | comp=Z,4.3nm,0.9s | | | | | | | | | |
| **BJT** | **Baijiatuao** | **84.57** | **315** | *e*P | | **P** | **13 17 02.8** | **+0.6** |
| BJT | | | | pmax | pmax | | | | | |
| | comp=Z,140nm,1.6s | | | | | | | | | |
| **BJT** | **Baij

GYA pP pP 13 19 15.8 +0.8
GYA sP sP 13 20 13.3 -0.9
GYA PP **PP** **13 20 42.0 +2.2**
GYA SKS **SKSac** **13 26 38.5 -0.7**
GYA S **S** **13 26 54.5 +0.6**
GYA pmax pmax
comp=Z,10.0nm,1.0s
**DOT Dot Lake 85.85 14** *e*P **P** **13 17 07.9 +0.1**
comp=Z,72nm,0.9s
**HDA Harding Lake 85.86 13** *e*P **P** **13 17 07.3 -0.5**
comp=Z,33nm,0.8s
**ANMO Albuquerque 85.88 51** P **P** **13 17 10.3 +1.5**
baz=244
**ANMO Albuquerque 85.88 51** ⇓*i*P **P** **13 17 09.0 +0.1**
ANMO pmax pmax
comp=Z,13nm,1.2s
**ANMO Albuquerque 85.88 51** *e*P **P** **13 17 09.2 +0.4**
comp=Z,8.6nm,0.9s
**CCB Clear Creek Bu 85.89 12** *e*P **P** **13 17 07.0 -1.0**
comp=Z,86nm,1.2s
**WHY Whitehorse 85.97 20** *e*P **P** **13 17 09.0 +0.4**
comp=Z,18nm,0.9s
**DLBC Dease Lake 86.00 23** *e*P **P** **13 17 09.6 +0.9**
comp=Z,54nm,1.8s
**IMAR Indian Mountai 86.03 10** *e*P **P** **13 17 08.2 -0.4**
**CHAI Chaiyaphum 86.06 288** P **P** **13 17 10.8 +1.0**
comp=Z,5.6nm,0.8s
**MDM Murphy Dome 86.08 12** *e*P **P** **13 17 08.0 -0.9**
comp=Z,50nm,1.0s
**COLA College 86.09 12** *e*P **P** **13 17 07.9 -0.9**
COLA pmax pmax
comp=Z,49nm,0.6s
**COLA College 86.09 12** *e*P **P** **13 17 07.9 -0.9**
comp=Z,49nm,0.6s
**MCMT McKenzie Canyo 86.17 40** *e*P **P** **13 17 10.9 +0.9**
**ILAR Eielson Array 86.19 13** P **P** **13 17 08.6 -0.8**
comp=Z,10.0nm,0.4s,baz=217,slow=4.9,SNR=311
ILAR PP **PP** **13 20 42.9 +1.3**
comp=Z,1.6nm,1.1s,baz=221,slow=7.1,SNR=4.2
ILAR PKKPbc **PKKPbc** **13 35 03.6 -3.2**
comp=Z,0.4nm,0.6s,baz=330,slow=2.5,SNR=5.8
**ILB Eielson Array 86.19 13** *e*P **P** **13 17 08.4 -1.0**
**IL1 Eielson Array 86.19 13** *e*P **P** **13 17 08.5 -0.9**
**AHID Auburn Hatcher 86.24 43** *e*P **P** **13 17 11.2 +0.8**
comp=Z,30nm,1.6s
**MSO Missoula 86.55 38** P **P** **13 17 12.2 +0.6**
baz=239,SNR=6.8
**MSO Missoula 86.55 38** *e*P **P** **13 17 11.7 0.0**
comp=Z,18nm,1.5s
**DLMT Dillon 86.59 40** *e*P **P** **13 17 13.1 +1.1**
comp=Z,19nm,0.8s
**REDW Red Top Meadow 86.69 42** *e*P **P** **13 17 13.8 +1.2**
comp=Z,32nm,1.2s
**FXWY Fox Creek 86.72 42** *e*P **P** **13 17 13.9 +1.2**
comp=Z,29nm,1.8s
**SNOW Snow King Moun 86.80 42** *e*P **P** **13 17 14.2 +1.1**
comp=Z,18nm,0.9s
**S22A 4UR Ranch, Cre 86.82 49** P **P** **13 17 14.7 +1.3**
baz=244,SNR=11
**S22A 4UR Ranch, Cre 86.82 49** *e*P **P** **13 17 14.7 +1.3**
comp=Z,11nm,1.0s
**IMW Indian Meadow 86.90 42** *e*P **P** **13 17 14.9 +1.3**
comp=Z,22nm,0.9s
**O20A White River Ci 86.90 46** P **P** **13 17 14.8 +1.2**
baz=243
**O20A White River Ci 86.90 46** *e*P **P** **13 17 14.4 +0.8**
comp=Z,7.3nm,0.9s
**LRM Limekiln Ridge 86.92 40** *e*P **P** **13 17 14.6 +1.1**
**MOOW Moose Ponds 86.95 42** *e*P **P** **13 17 14.8 +1.1**
comp=Z,6.4nm,1.0s
**BILL Bilibino 86.96 354** *d*iP **P** **13 17 12.6 -0.3**
BILL *e**PP **pP** **13 19 22.8 +3.1**
BILL *e* 13 20 52.5
BILL pmax pmax
comp=Z,28nm,1.3s
**XAN Xi'an 87.06 307** P **P** **13 17 15.0 +0.7**
XAN pmax pmax
comp=Z,91nm,1.2s
XAN pmax pmax
comp=Z,350nm,7.8s
**HIA Hailar 87.12 324** *e*P **P** **13 17 14.4 +0.2**
HIA pmax pmax
comp=Z,48nm,1.4s
**HIA Hailar 87.12 324** *e*P **P** **13 17 14.4 +0.2**
comp=Z,48nm,1.4s
**YHB Horse Butte 87.15 41** *e*P **P** **13 17 16.3 +1.6**
comp=Z,30nm,1.0s
**YPP Pitchstone Pla 87.16 41** *e*P **P** **13 17 16.1 +1.3**
comp=Z,11nm,1.1s
**PHET Kaeng Krachan 87.19 284** P **P** **13 17 17.7 +2.5**
comp=Z,24nm,0.8s,comp=Z,204nm
**PBKT Sadao Pong 87.20 288** P **P** **13 17 16.7 +1.5**
comp=Z,16nm,1.0s
**YFT Old Faithful 87.23 41** *e*P **P** **13 17 17.5 +2.4**
comp=Z,16nm,0.9s
**BW06 Boulder Array 87.24 43** P **P** **13 17 16.2 +1.0**
baz=242,SNR=13
**BW06 Boulder Array 87.24 43** *e*P **P** **13 17 15.4 +0.2**
comp=Z,11nm,0.9s
**PD31 Pinedale Array 87.24 43** *e*P **P** **13 17 15.4 +0.3**
**PDAR Pinedale Array 87.24 43** P **P** **13 17 15.8 +0.7**
comp=Z,7.1nm,0.8s,baz=217,slow=3.0,SNR=64
PDAR PKKPbc **PKKPbc** **13 35 02.9 -0.8**
comp=Z,0.4nm,0.6s,baz=87,slow=6.1,SNR=4.3
**PDAR Pinedale Array 87.24 43** *e*P **P** **13 17 15.3 +0.1**
PDAR PKKPbc **PKKPbc** **13 35 02.9 -0.8**
**YMR Madison River 87.26 41** *e*P **P** **13 17 15.8 +0.7**
comp=Z,24nm,0.8s
**BOZ Bozeman (W) 87.30 40** P **P** **13 17 16.8 +1.5**
baz=240,SNR=22
**BOZ Bozeman (W) 87.30 40** *e*P **P** **13 17 16.3 +1.0**
BOZ pmax pmax
comp=Z,25nm,1.1s
**BOZ Bozeman (W) 87.30 40** *e*P **P** **13 17 16.3 +1.0**
comp=Z,25nm,1.1s
**SMCO Snowmass 87.35 47** *e*P **P** **13 17 16.4 +0.5**
comp=Z,5.1nm,0.8s
**DAWY Dawson 87.36 16** *e*P **P** **13 17 15.1 +0.2**
comp=Z,44nm,1.3s
**H17A Grant Village 87.37 41** P **P** **13 17 17.7 +1.9**
baz=241,SNR=14
**H17A Grant Village 87.37 41** *e*P **P** **13 17 17.9 +2.2**
comp=Z,16nm,0.8s
**YHH Holmes Hill 87.39 41** *e*P **P** **13 17 17.3 +1.4**
comp=Z,17nm,1.1s
**YNR Norris Junctio 87.46 41** *e*P **P** **13 17 17.8 +1.6**
comp=Z,14nm,1.1s
**EGAK Eagle 87.49 15** *e*P **P** **13 17 15.8 +0.3**
comp=Z,26nm,0.9s
**WALA Waterton Lakes 87.72 36** *e*P **P** **13 17 17.9 +0.8**
comp=Z,10.0nm,0.8s
**HRY Holter Researc 87.73 39** *e*P **P** **13 17 18.1 +0.9**
**COLD Coldfoot 87.75 10** *e*P **P** **13 17 17.0 +0.4**
comp=Z,27nm,0.8s
**SDCO Great Sand Dun 87.77 49** P **P** **13 17 19.2 +1.3**
baz=245,SNR=6.9
**SDCO Great Sand Dun 87.77 49** *e*P **P** **13 17 18.1 +0.2**
comp=Z,3.7nm,0.9s
**HHC Hu-ho-hao-te 88.06 314** *e*P **P** **13 17 19.8 +0.9**
HHC S **S** **13 27 13.5 -0.6**
HHC pmax pmax
comp=Z,42nm,1.0s
HHC pmax pmax
comp=Z,200nm,5.2s
**FYU Fort Yukon 88.10 12** *e*P **P** **13 17 17.6 -0.6**
comp=Z,12nm,0.6s
**NANT Nan 88.20 290** P **P** **13 17 21.0 +1.1**
comp=Z,5.8nm,0.9s,comp=Z,398nm
**UTHA Uthaitani 88.24 287** P **P** **13 17 22.4 +2.3**
comp=Z,7.7nm,1.1s
**MSTX Muleshoe 88.24 53** P **P** **13 17 21.2 +1.3**
baz=246
**MSTX Muleshoe 88.24 53** *e*P **P** **13 17 19.7 -0.2**
comp=Z,24nm,1.1s
**T25A Trinidad 88.31 50** P **P** **13 17 21.2 +1.0**
baz=245
**T25A Trinidad 88.31 50** *e*P **P** **13 17 20.5 +0.3**
comp=Z,5.4nm,0.8s
**PHRA Phrae 88.52 290** P **P** **13 17 23.2 +1.9**
comp=Z,14nm,2.7s
**RLMT Red Lodge 88.53 41** P **P** **13 17 22.8 +1.7**
baz=242,SNR=13
**RLMT Red Lodge 88.53 41** *e*P **P** **13 17 22.5 +1.4**
comp=Z,12nm,0.9s
**ISCO Idaho Springs 88.57 47** P **P** **13 17 22.9 +1.4**
baz=245
**KMI Kunming 88.62 297** P **P** **13 17 23.5 +1.5**
KMI pmax pmax
comp=Z,27nm,1.0s
**833A Chaparral WMA, 88.77 60** P **P** **13 17 23.7 +1.4**
baz=248
**N23A Red Feather La 88.81 46** P **P** **13 17 23.7 +1.1**
baz=244,SNR=5.1
**N23A Red Feather La 88.81 46** *e*P **P** **13 17 23.6 +1.1**
comp=Z,14nm,1.1s
**K22A Casper 89.18 44** P **P** **13 17 25.2 +1.1**
baz=244
**K22A Casper 89.18 44** *e*P **P** **13 17 24.8 +0.6**
comp=Z,16nm,1.2s
**JCT Junction City 89.23 58** P **P** **13 17 25.9 +1.5**
baz=248
**JCT Junction City 89.23 58** *e*P **P** **13 17 25.0 +0.5**
JCT pmax pmax
comp=Z,9.0nm,0.8s
**JCT Junction City 89.23 58** *e*P **P** **13 17 25.0 +0.5**
comp=Z,8.7nm,0.8s
**AMTX Amarillo 89.43 53** P **P** **13 17 26.5 +1.2**
baz=247
**AMTX Amarillo 89.43 53** *e*P **P** **13 17 26.0 +0.6**
comp=Z,15nm,1.1s
**CM01 Chiang Mai Arr 89.63 289** *e*P **P** **13 17 27.5 +1.0**
CM01 *e*pP **pP** **13 19 34.8 +0.8**
**CM31 Chiang Mai Arr 89.66 289** *e*P **P** **13 17 28.0 +1.4**
**CMAR Chiang Mai Arr 89.66 289** P **P** **13 17 27.9 +1.2**
comp=Z,18nm,0.9s,baz=111,slow=2.9,SNR=74
CMAR pP **pP** **13 19 36.9 +2.7**
comp=Z,1.7nm,0.8s,baz=107,slow=3.2,SNR=4.9
**CHTO Chiang Mai 89.77 290** P **P** **13 17 28.3 +1.1**
comp=Z,165nm,1.0s
**CHTO Chiang Mai 89.77 290** *e*P **P** **13 17 28.1 +1.0**
CHTO pmax pmax
comp=Z,24nm,0.8s
**CHTO Chiang Mai 89.77 290** *e*P **P** **13 17 28.1 +1.0**
comp=Z,24nm,0.8s
**CD2 Chengdu 89.87 303** P **P** **13 17 28.5 +1.1**
CD2 pmax pmax
comp=Z,30nm,1.3s
**SNAA Sanae 90.12 178** ⇑*i*P **P** **13 17 28.2 +0.4**
**SNAA Sanae 90.12 178** *e*P **P** **13 17 28.1 +0.2**
comp=Z,9.4nm,0.8s
**ABTX Abilene, Hawle 90.15 56** P **P** **13 17 29.7 +1.1**
baz=248
**ABTX Abilene, Hawle 90.15 56** *e*P **P** **13 17 29.3 +0.6**
comp=Z,20nm,0.8s
**YAK Yakutsk 90.25 338** P **P** **13 17 27.9 -0.4**
comp=Z,25nm,0.7s,baz=99,slow=0.8,SNR=18
**YAK Yakutsk 90.25 338** *e*P **P** **13 17 26.6 -1.7**
YAK pmax pmax
comp=Z,37nm,0.8s
YAK pmax pmax
comp=E,14nm,1.4s
YAK pmax pmax
comp=N,7.0nm,1.5s
**YAK Yakutsk 90.25 338** *e*P **P** **13 17 27.6 -0.8**
comp=N,37nm,0.8s
**PLCA Paso Flores 90.54 133** P **P** **13 17 31.5 +1.1**
comp=N,3.5nm,0.6s,baz=262,slow=5.2,SNR=15
**NVL N'lazarevskaya 90.84 183** *e*P **P** **13 17 31.4 +0.3**
**RSSD Black Hills 91.45 44** P **P** **13 17 35.5 +0.9**
baz=246
**RSSD Black Hills 91.45 44** *e*P **P** **13 17 35.1 +0.5**
RSSD pmax pmax
comp=Z,14nm,0.9s
**RSSD Black Hills 91.45 44** *e*P **P** **13 17 35.1 +0.5**
comp=Z,14nm,0.9s
**WMOK Wichita Mounta 91.59 54** P **P** **13 17 36.3 +1.1**
baz=249
**WHTX Lake Whitney, 91.65 57** P **P** **13 17 36.6 +1.1**
baz=249
**LZH Lanzhou 91.69 307** *e*P **P** **13 17 36.8 +0.9**
LZH pP pP 13 19 46.8 +3.1
LZH sP sP 13 20 46.3 +4.0
LZH PP **PP** **13 21 31.0 +5.5**
LZH pmax pmax
comp=Z,58nm,1.8s
LZH pmax pmax
comp=Z,660nm,5.3s
**U32A Winter Ranch, 92.01 52** P **P** **13 17 38.3 +1.2**
baz=249
**INK Inuvik 92.16 15** P **P** **13 17 36.9 -0.1**
comp=Z,22nm,0.9s,baz=229,slow=4.4,SNR=58
**INK Inuvik 92.16 15** *e*P **P** **13 17 37.0 0.0**
INK pmax pmax
comp=Z,27nm,0.9s
**INK Inuvik 92.16 15** *e*P **P** **13 17 37.0 0.0**
comp=Z,27nm,0.9s
**CBKS Cedar Bluff 92.36 50** P **P** **13 17 39.7 +1.0**
baz=248
**X35A Drake 92.86 55** P **P** **13 17 42.0 +1.0**
baz=250
**W35A Tecumseh 93.20 54** P **P** **13 17 43.6 +1.0**
baz=250
**Y36A Durant 93.23 55** P **P** **13 17 44.0 +1.2**
baz=250
**X36A Centrahoma 93.41 55** P **P** **13 17 44.4 +0.9**
baz=250
**T34A McClaskey Farm 93.60 52** P **P** **13 17 45.6 +1.2**
baz=250
**W36A Wetumka 93.69 54** P **P** **13 17 45.9 +1.1**
baz=250
**S34A Willow Spring 93.89 52** P **P** **13 17 47.4 +1.7**
baz=250
**ULN Ulaanbaatar 93.93 319** *ce*P **P** **13 17 45.8 0.0**
ULN pmax pmax
comp=Z,17nm,1.0s
**ULN Ulaanbaatar 93.93 319** *e*P **P** **13 17 45.6 -0.2**
comp=Z,18nm,1.1s
**R34A Isabella, Hill 94.00 51** P **P** **13 17 47.8 +1.6**
baz=250
**SONA1 Songino Array 94.33 319** *e*P **P** **13 17 47.0 -0.6**
**SONM Songino Array 94.33 319** P **P** **13 17 47.6 0.0**
comp=Z,4.4nm,1.0s,baz=123,slow=3.5,SNR=17
SONM PP **PP** **13 21 41.8 -3.7**
comp=Z,1.0nm,0.8s,baz=125,slow=4.4,SNR=4.2
**O33A Hebron 94.37 49** P **P** **13 17 49.0 +1.2**
baz=250
**Q34A Chapman 94.44 51** P **P** **13 17 49.4 +1.2**
baz=250
**S35A Otter Creek Ra 94.48 52** P **P** **13 17 49.4 +1.1**
baz=250
**YKA Yellowknife Ar 94.48 25** P **P** **13 17 47.4 -0.3**
comp=Z,4.9nm,0.6s,baz=242,slow=4.4,SNR=104
YKA PKKPbc **PKKPdf** **13 34 43.2 -1.8**
comp=Z,0.2nm,0.4s,baz=50,slow=2.1,SNR=10
**YKW3 Yellowknife Ar 94.51 24** *e*P **P** **13 17 47.8 -0.1**
comp=Z,6.0nm,0.7s
**T36A Boggs Farm, Ca 94.60 53** P **P** **13 17 49.5 +0.6**
baz=250
**P34A Walnut Farm, R 94.73 50** P **P** **13 17 50.6 +1.1**
baz=250
**KSU1 Kansas State U 94.74 50** P **P** **13 17 50.8 +1.3**
baz=250
**KSU1 Kansas State U 94.74 50** *e*P **P** **13 17 50.6 +1.1**
comp=Z,14nm,0.7s
**V37A Hulbert 94.78 54** P **P** **13 17 51.1 +1.4**
baz=251
**S36A Lake Cedric, C 95.04 52** P **P** **13 17 52.4 +1.5**
baz=251
**O34A Beatrice 95.04 49** P **P** **13 17 52.5 +1.6**
baz=250
**V38A Canehill 95.33 54** P **P** **13 17 53.6 +1.4**
baz=251
**T37A Cheneyville 18 95.35 53** P **P** **13 17 53.4 +1.1**
baz=251
**T38A Diamond 95.79 53** P **P** **13 17 55.4 +1.0**
baz=251
**GTA Gaotai 95.83 309** ⇑P **P** **13 17 55.0 +0.4**
GTA pP pP 13 20 06.3 +3.5
GTA sP sP 13 21 04.3 +3.0
GTA pmax pmax
comp=Z,8.0nm,1.2s
**V39A Pettigrew 95.91 54** P **P** **13 17 55.8 +0.8**
baz=252
**P36A Good Intent, A 95.94 50** P **P** **13 17 56.0 +1.1**
baz=251
**ECSD EROS Data Cent 96.28 46** *e*P **P** **13 17 56.5 +0.1**
comp=Z,13nm,1.4s
**R38A Fenwick Farm, 96.45 52** P **P** **13 17 58.3 +1.1**
baz=252
**P37A Lathrop 96.56 51** P **P** **13 17 58.7 +1.0**
baz=252
**U40A Yellville 96.68 54** P **P** **13 17 59.2 +0.9**
baz=252
**S39A Bolivar 96.73 53** P **P** **13 17 59.4 +0.9**
baz=252
**TIXI Tiksi 96.77 345** P **P** **13 17 56.6 -1.2**
comp=Z,8.6nm,0.7s,baz=112,slow=4.3,SNR=12
**TIXI Tiksi 96.77 345** ⇑*i*P **P** **13 17 57.2 -0.6**
TIXI pmax pmax
comp=Z,7.0nm,0.9s
**TIXI Tiksi 96.77 345** *e*P **P** **13 17 57.1 -0.8**
comp=Z,8.0nm,0.8s
**Q38A Cooks Store, C 96.90 51** P **P** **13 18 00.2 +1.0**
baz=252
**ZAK Zakamensk 97.16 321** *e*P Pdif 13 17 58.9 -1.3
ZAK pmax pmax
comp=Z,3.0nm,1.1s
**P38A Dawn 97.17 51** P **P** **13 18 01.4 +1.0**
baz=252
**M37A Trindle Farm, 97.33 49** P **P** **13 18 02.1 +1.0**
baz=252
**Q39A Willow Grove F 97.40 51** P **P** **13 18 02.4 +1.0**
baz=252
**P39B Salisbury 97.70 51** P **P** **13 18 03.9 +1.2**
baz=253
**T41A Mountain View 97.72 54** P **P** **13 18 04.4 +1.4**
baz=253
**S41A Jillco Farms, 97.90 53** P **P** **13 18 05.1 +1.3**
baz=253
**M38A Pleasantville 97.95 49** P **P** **13 18 04.9 +1.0**
baz=253
**N39A Derby Farms, D 98.30 50** P **P** **13 18 06.9 +1.5**
baz=253
**F36A Milaca 99.04 45** P **Pdif** **13 18 09.5 +1.0**
baz=253
**I38A Scanlan Farm, 99.33 47** P **Pdif** **13 18 11.5 +1.6**
baz=254
**J39A Decorah 99.56 48** P **Pdif** **13 18 12.3 +1.4**
baz=254
**H39A Augusta 100.22 46** P **Pdif** **13 18 14.8 +0.9**
baz=254
**J40A Soldiers Grove 100.26 48** P **Pdif** **13 18 15.5 +1.5**
baz=254
**WMQ Urumqi 105.73 311** Pdif **Pdif** **13 18 36.0 -2.5**
WMQ PP **PP** **13 23 14.0 +3.7**
WMQ S **Sdif** **13 29 45.5 +0.6**
WMQ SS **SS** **13 37 24.5 -1.8**
WMQ AMB AMB
comp=Z,260nm,8.7s
**ZALV Zalesovo Beam 109.00 322** Pdiff **Pdif** **13 18 51.9 -0.8**
comp=Z,0.3nm,0.3s,baz=129,slow=2.1,SNR=3.5
ZALV PKiKP **PKiKP** **13 22 52.5 -0.7**
comp=Z,3.3nm,0.6s,baz=168,slow=1.1,SNR=15
ZALV PP **PP** **13 23 28.6 -4.8**
comp=Z,0.5nm,0.3s,baz=108,slow=4.7,SNR=2.8
**MKAR Makanchi Array 109.93 314** Pdiff **Pdif** **13 18 57.0 0.0**
comp=Z,0.4nm,0.6s,baz=83,slow=6.0,SNR=4.5
MKAR PKiKP **PKiKP** **13 22 54.7 -0.5**
comp=Z,2.9nm,0.5s,baz=202,slow=0.7,SNR=46
MKAR PKKPbc **PKKPbc** **13 34 00.3 -0.3**
comp=Z,0.9nm,0.7s,baz=279,slow=3.7,SNR=8.6
**KURK Kurchatov 112.61 318** ⇑*i*PKiKP **PKiKP** **13 22 59.5 -0.6**
KURK pmax pmax
comp=Z,56nm,1.7s
**KURK Kurchatov 112.61 318** *e*PKiKP **PKiKP** **13 22 59.1 -1.0**
KURK PP PP 13 23 50.7 -8.2
**KURBB Kurchatov Arra 112.66 318** PKiKP **PKiKP** **13 22 59.6 -0.6**
comp=Z,5.6nm,0.7s,baz=95,slow=1.8,SNR=49
KURBB PP PP 13 23 50.7 -8.6
comp=Z,0.4nm,0.3s,baz=92,slow=6.0,SNR=5.2
**KSH Kashi 113.88 306** PKP **PKiKP** **13 23 03.0 -0.1**
KSH PP **PP** **13 24 15.0 +6.7**
KSH sPKP 13 26 18.8
KSH PKS **PKSdf** **13 26 37.5 -2.4**
KSH SKS **SKSdf** **13 29 17.8 -2.4**
KSH SKKS **SKKSac** **13 30 04.8 -3.9**
KSH SS **SS** **13 39 18.5 +4.2**
KSH AMB AMB
comp=Z,400nm,5.8s
**AAK Ala-Archa 115.18 309** PKP **PKPdf** **13 23 05.0 -0.6**
comp=Z,3.5nm,0.8s,baz=155,slow=2.0,SNR=9.4
**AAK Ala-Archa 115.18 309** ⇑*i*PKiKP **PKPdf** **13 23 05.5 -0.1**
**AAK Ala-Archa 115.18 309** *e*PKPdf **PKPdf** **13 23 05.1 -0.5**
**BVAR Borovoye Array 117.62 321** PKP **PKPdf** **13 23 09.6 -0.2**
comp=Z,5.1nm,0.5s,baz=106,slow=0.7,SNR=38
**BRVK Borovoye 117.68 321** ⇑*i*PKiKP **PKPdf** **13 23 09.7 -0.1**
BRVK pmax pmax
comp=Z,32nm,1.0s
**BRVK Borovoye 117.68 321** *e*PKPdf **PKPdf** **13 23 08.8 -1.0**
**KKAR Karatay Array 118.11 310** *e*PKiKP **PKPdf** **13 23 10.3 -0.8**
**KKAR Karatay Array 118.11 310** *e*PKPdf **PKPdf** **13 23 10.2 -0.8**
**KBL Kabul 119.08 300** *e*PKiKP **PKPdf** **13 23 13.4 0.0**
**KBL Kabul 119.08 300** *e*PKPdf **PKPdf** **13 23 13.4 0.0**
**SUMG Summit 121.04 13** *e*PKiKP **PKPdf** **13 23 16.4 +0.1**
**SUMG Summit 121.04 13** *e*PKPdf **PKPdf** **13 23 16.4 +0.1**
**SVE Sverdlovsk 122.39 326** *e*PKiKP **PKPdf** **13 23 19.0 +0.2**
SVE pmax pmax
comp=Z,24nm,0.9s
**OPO Ambohidratompo 122.60 233** PKP **PKPdf** **13 23 21.1 +0.5**
comp=Z,5.8nm,1.1s,baz=144,slow=7.8,SNR=3.8
**ARU Arti 123.60 326** PKP **PKPdf** **13 23 21.3 +0.1**
comp=Z,19nm,0.8s,baz=100,slow=1.1,SNR=28
**ARU Arti 123.60 326** *i* PKiKP **PKPdf** **13 23 21.2 +0.1**
ARU 13 25 12.2
ARU 13 29 37.0
ARU SS SS 13 41 10.4 -5.9
**ARU Arti 123.60 326** *e*PKPdf **PKPdf** **13 23 21.0 -0.1**
**ABKAR Akbulak array 124.72 318** *e*PKPdf **PKPdf** **13 23 23.5 0.0**
**AKTO Aktyubinsk 125.64 319** PKP **PKPdf** **13 23 25.4 +0.1**
comp=Z,8.1nm,0.9s,baz=66,slow=2.2,SNR=25
**LVZ Lovozero 126.41 345** ⇓*i*PKiKP **PKPdf** **13 23 26.4 +0.2**
LVZ pmax pmax
comp=Z,127nm,2.5s
**ARCES ARCESS Array B 126.89 350** PKP **PKPdf** **13 23 27.1 +0.1**
comp=Z,14nm,0.6s,baz=25,slow=1.4,SNR=46
**GEYT Alibeck 127.84 304** PKP **PKPdf** **13 23 30.4 +0.5**
comp=Z,13nm,1.0s,baz=232,slow=1.7,SNR=20
**BOSA Boshof 128.27 206** PKP **PKPdf** **13 23 31.1 -0.1**
comp=Z,3.9nm,0.8s,baz=128,slow=2.5,SNR=7.6
**UOSS Minazif 129.72 287** *e*PKPdf **PKPdf** **13 23 32.9 -0.9**
**KLMR Klimovskoe 130.04 337** *e*PKiKP **PKPdf** **13 23 31.1 -2.1**
KLMR pmax pmax
comp=Z,26nm,0.9s
**LBTB Lobatse 131.26 209** PKP **PKPdf** **13 23 37.5 +0.6**
comp=Z,2.4nm,0.5s,baz=163,slow=4.2,SNR=9.6
**MATP Matopo 133.65 215** PKhKP PKPpre 13 23 28.9
comp=Z,0.8nm,0.4s,baz=130,slow=2.6,SNR=4.5
MATP PKP **PKPdf** **13 23 40.9 -0.6**
comp=Z,8.5nm,1.0s,baz=235,slow=1.3,SNR=7.9
**FINES FINESS Array B 133.81 344** PKhKP PKPpre 13 23 28.8
comp=Z,2.2nm,0.7s,baz=14,slow=3.9,SNR=7.5
FINES PKP **PKPdf** **13 23 40.4 0.0**
comp=Z,8.1nm,0.5s,baz=25,slow=3.2,SNR=17
**VRH Novokhopyorsk 134.82 326** *e*PKiKP **PKPdf** **13 23 42.4 -0.1**
VRH pmax pmax
comp=Z,10.0nm,0.6s
**OBN Obninsk 135.01 333** ⇓*i*PKiKP **PKPdf** **13 23 44.2 +1.5**
OBN *e* 13 26 24.8
OBN pmax pmax
comp=Z,21nm,0.9s
**LPSR Galich'ya Gora 135.48 329** *e*PKiKP **PKPdf** **13 23 43.8 +0.1**
LPSR pmax pmax
comp=Z,20nm,1.1s
**VSR Storozhevoye 136.16 327** *e*PKiKP **PKPdf** **13 23 42.2 -2.8**
VSR pmax pmax
comp=Z,10.0nm,0.8s
**NB2 NORSAR Subarra 136.91 354** PKP PKPpre 13 23 33.9
comp=Z,7.8nm,1.0s,baz=20,slow=3.6
**NOA NORSAR Array B 136.91 354** PKhKP PKPpre 13 23 36.3
comp=Z,1.2nm,0.7s,baz=358,slow=1.6,SNR=6.2
NOA PKP **PKPdf** **13 23 46.9 +0.7**
comp=Z,5.9nm,0.8s,baz=14,slow=4.1,SNR=9.8
**ZEI Tsey 137.28 314** *i* PKiKP **PKPdf** **13 23 47.5 -0.2**
ZEI pmax pmax
comp=Z,12nm,0.9s
**KBZ Khabaz 137.59 316** PKP **PKPdf** **13 23 47.5 -0.4**
comp=Z,3.6nm,0.9s,baz=154,slow=1.0,SNR=6.2
**KIV Kislovodsk 137.64 316** *e*PKiKP **PKPdf** **13 23 48.9 +0.7**
KIV pmax pmax
comp=Z,9.0nm,1.0s
**NEY Neytrino 137.90 315** ⇓*i*PKiKP **PKPdf** **13 23 48.5 -0.3**
**LSZ Lusaka 137.93 219** PKP **PKPdf** **13 23 51.4 +1.9**
comp=Z,6.3nm,0.7s,baz=158,slow=2.0,SNR=11
**ARTV Artvin 139.24 312** *e*PKPdf **PKPdf** **13 23 51.6 +0.3**
**RAYN Ar Rayn 139.42 285** *e*PKPpre PKPpre 13 23 46.2
**KMBO Kilima Mbogo 140.52 244** PKhKP PKPpre 13 23 49.7
comp=Z,1.9nm,0.4s,baz=66,slow=5.5,SNR=10.0
**SUW Suwalki 140.94 340** *e*PKP **PKPdf** **13 23 51.1 -2.6**
**AKASG Malin Array Be 141.27 333** PKhKP PKPpre 13 23 48.8
comp=Z,12nm,0.5s,baz=42,slow=4.3,SNR=68

AKBB Malin Array Si 141.27 333 ePKHKP PKPpre 13 23 48.8
AKBB Malin Array Si 141.27 333 ePKPpre PKPpre 13 23 48.8
KIEV Kiev 141.28 333 cePKIKP PKPdf 13 23 57.0 +2.6
KIEV Kiev 141.28 333 ePKPpre PKPpre 13 23 49.0
AK11 Malin Array Si 141.31 333 ePKPpre PKPpre 13 23 48.8
MARD Mardin 141.41 307 ePKPpre PKPpre 13 23 50.9
COP Copenhagen 141.96 351 iPKHKP PKPpre 13 23 47.8
BSD Bornholm Skovb 142.08 348 iPKHKP PKPpre 13 23 52.5
SIM Simferopol' 142.51 322 oPKIKP PKPdf 13 23 55.3 -1.5
SIM pmax pmax
comp=Z,76nm,0.9s
HEKM Malatya_Hekimh 142.93 311 iP PKPdf 13 23 56.9 -1.1
CUKAN kangal_SIVAS 143.11 312 iP PKPdf 13 23 57.5 -0.7
GAL1 Galloway 143.18 7 eP PKPab 13 23 55.7 +0.1
AKCD Akcadag 143.19 310 iP PKPdf 13 23 57.8 -0.5
GKP Gorka Klasztor 143.28 345 ePKP PKPbc 13 23 56.7 +0.4
GKP Gorka Klasztor 143.28 345 ePKIKP PKPbc 13 23 56.7 +0.3
EDMD Edmundbyers 143.47 4 eP PKPab 13 23 56.7 -0.1
CUGUR Gurin_S^VAS 143.49 311 iP PKPdf 13 23 59.2 +0.4
SORM Soroca 143.52 330 ⇑iP PKPab 13 23 57.2 0.0
SORM Soroca 143.52 330 ⇑PKIKP PKPab 13 23 57.2 0.0
BEL Belsk 143.56 341 ePKP PKPdf 13 23 58.1 -0.2
BEL Belsk 143.56 341 ePKIKP PKPdf 13 23 58.1 -0.2
KESW Keswick, Cumbr 143.62 5 eP PKPab 13 23 57.3 0.0
GMM Mts of Mourne 143.65 8 eP PKPbc 13 23 57.7 +0.2
WIM Isle of Man 143.89 7 eP PKPbc 13 23 58.3 0.0
KIS Kishinev 144.09 329 ⇑iPKP PKPbc 13 23 59.0 -0.1
KIS M M 13 23 59.5
comp=Z,400nm,1.0s
KIS Kishinev 144.09 329 ⇑iPKIKP PKPbc 13 23 59.0 -0.1
KIS pmax pmax
comp=Z,400nm,1.0s
LVV L'vov 144.10 336 ePKIKP PKPab 13 23 59.2 -0.2
DSB Dublin 144.55 9 ePKPbc PKPbc 13 24 00.5 +0.2
WME Myndd Eilian 144.68 7 eP PKPbc 13 24 00.9 +0.2
KWP Kalwaria Pacla 144.75 337 ePKP PKPab 13 24 01.6 -0.3
KWP Kalwaria Pacla 144.75 337 ePKIKP PKPab 13 24 01.6 -0.3
WLF1 Llynfaes 144.77 7 eP PKPbc 13 24 01.2 +0.3
WPM1 Penmaenmawr 144.85 6 eP PKPbc 13 24 01.3 +0.1
ILGA Ilgaz 144.86 317 ePKPdf PKPab 13 24 02.6 -0.3
LBWR Ladybower, Pea 144.90 4 eP PKPbc 13 24 01.6 +0.2
LMK Market Rasen 144.93 3 eP PKPbc 13 24 01.7 +0.3
PRAR RASCA 145.06 331 ⇑iP PKPab 13 24 02.8 -0.4
OJC Ojcow 145.27 340 ePKPdf PKPdf 13 24 01.7 +0.3
OJC ePKPab PKPbc 13 24 03.1 +0.5
OJC Ojcow 145.27 340 ePKP2 PKPbc 13 24 03.1 +0.5
OJC Ojcow 145.27 340 ePKPdf PKPbc 13 24 02.7 +0.1
FOEL Foel Wylfa 145.29 6 eP PKPbc 13 24 02.9 +0.3
BUR08 Bucovina Ar. S 145.31 332 ePKPdf PKPab 13 24 03.7 -0.6
TLCR 145.32 326 ⇓iP PKPab 13 24 03.9 -0.3
TLCR 145.32 326 ⇓PKP2 PKPab 13 24 03.9 -0.3
BUR04 Bucovina Ar. S 145.33 332 ePKPdf PKPbc 13 24 03.2 +0.2
BURAR Bucovina Array 145.33 332 ⇓iP PKPbc 13 24 03.5 +0.5
BURAR Bucovina Array 145.33 332 ⇓PKP2 PKPbc 13 24 03.5 +0.5
STHS Stebnicka Huta 145.47 338 ePKP2 PKPab 13 24 04.5 -0.2
STHS Stebnicka Huta 145.47 338 ePKP PKPab 13 24 04.5 -0.2
TESR Tescani 145.49 330 ⇓iP PKPbc 13 24 03.8 +0.5
BR131 Keskin Array S 145.57 315 ePKPdf PKPdf 13 24 01.2 -1.2
BR131 ePKPbc PKPbc 13 24 04.2 +0.3
BRTR Keskin Array B 145.57 315 PKP PKPdf 13 24 02.2 -0.2
comp=Z,43nm,0.9s,baz=155,slow=1.8,SNR=112
BRTR PKPbc PKPbc 13 24 04.3 +0.4
comp=Z,49nm,1.0s,baz=135,slow=3.6,SNR=113
BRTR PP PP 13 27 32.8 +2.2
comp=Z,4.3nm,1.2s,baz=62,slow=3.2,SNR=3.7
CWF Charnwood Fore 145.59 4 eP PKPbc 13 24 02.9 -0.5
CWF Charnwood Fore 145.59 4 ePKPdf PKPbc 13 24 03.4 0.0
CFR Carcaliu 145.68 327 ⇑iP PKPbc 13 24 04.3 +0.4
CFR Carcaliu 145.68 327 ⇑PKP2 PKPbc 13 24 04.3 +0.4
HLM1 Long Mynd 145.69 6 eP PKPbc 13 24 03.8 +0.1
WACR West Acre 145.70 2 eP PKPbc 13 24 03.9 +0.2
UZH Uzhgorod 145.73 336 ⇓iPKP2 PKPbc 13 24 04.6 +0.7
KSP Ksiaz 145.74 344 ePKPdf PKPbc 13 24 03.3 -0.6
KSP ePKPab PKPab 13 24 04.9 -0.8
KSP Ksiaz 145.74 344 ePKIKP PKPbc 13 24 03.3 -0.6
PETR Petresti 145.77 328 ⇑iP PKPab 13 24 05.7 -0.2
NIE Niedzica 145.79 339 ePKPdf PKPbc 13 24 03.6 -0.6
NIE ePKPab PKPab 13 24 05.3 -0.7
NIE Niedzica 145.79 339 ePKIKP PKPbc 13 24 03.6 -0.6
CRVS Cervenica-Dubn 145.82 337 ePKP2 PKPab 13 24 05.3 -0.8
CRVS Cervenica-Dubn 145.82 337 ePKP PKPab 13 24 05.3 -0.8
ODBI Odobesti 145.82 329 ⇑iP PKPab 13 24 06.0 -0.2
VRI Vrincioaia 145.91 329 ⇑iP PKPbc 13 24 05.1 +0.5
VRI Vrincioaia 145.91 329 ⇑PKP2 PKPbc 13 24 05.1 +0.5
PLOR Plostina 145.96 329 ⇑iP PKPbc 13 24 05.2 +0.5
PLOR Plostina 145.96 329 ⇑PKP2 PKPbc 13 24 05.2 +0.5
LPW Lampeter 145.96 7 eP PKPbc 13 24 04.6 +0.2
ASF Jabal al Asfar 145.97 301 PKPbc PKPbc 13 24 06.1 +0.8
comp=Z,25nm,0.9s,baz=53,slow=2.1,SNR=27
TIRR Tirgusor 146.02 326 ⇓iP PKPbc 13 24 05.6 +0.8
TIRR Tirgusor 146.02 326 ⇓PKP2 PKPbc 13 24 05.6 +0.8
TIRR Tirgusor 146.02 326 ePKPbc PKPbc 13 24 05.2 +0.3
BMR Baia Mare 146.02 334 ⇓iP PKPbc 13 24 05.5 +0.7
BMR Baia Mare 146.02 334 ⇓PKP2 PKPbc 13 24 05.5 +0.7
CLL Collm 146.06 348 ⇓iPKP2 PKPbc 13 24 05.5 +0.8
CLL pmax pmax
comp=Z,197nm,0.8s
CLL Collm 146.06 348 ePKPdf PKPdf 13 24 03.0 +0.3
CLL ⇓iPKPbc PKPbc 13 24 05.5 +0.8
comp=Z,197nm,0.8s
CLL Collm 146.06 348 ePKPdf PKPdf 13 24 02.6 0.0
CLL ePKPbc PKPbc 13 24 05.3 +0.5
ANTO Ankara 146.07 316 ePKP2 PKPbc 13 24 06.0 +0.7
ANTO Ankara 146.07 316 ePKPbc PKPbc 13 24 06.0 +0.7
BR231 Keskin MP Arra 146.09 316 ePKPdf PKPdf 13 24 02.4 -0.9
BR231 ePKPbc PKPbc 13 24 04.8 -0.6
ARCR ARCALIA 146.11 333 ⇑iP PKPab 13 24 06.4 -0.9
UPC Upice 146.12 344 ePKP PKPbc 13 24 04.1 -0.9
UPC ex x 13 24 06.0
UPC Upice 146.12 344 ePKIKP PKPbc 13 24 04.1 -0.9
UPC e 13 24 06.0
HARR Harsova 146.12 326 ⇓iP PKPbc 13 24 06.2 +1.1
HARR Harsova 146.12 326 ⇓PKP2 PKPbc 13 24 06.2 +1.1
OKC Ostrava-Krasne 146.12 341 ePKP PKPbc 13 24 06.0 +1.0
OKC ex x 13 24 10.4
OKC Ostrava-Krasne 146.12 341 ePKP2 PKPbc 13 24 06.0 +1.0
GRER 146.13 328 ⇓iP PKPbc 13 24 05.2 0.0
DPC Dobruska-Polom 146.18 344 ePKP PKPdf 13 24 03.9 +0.9
DPC ex x 13 24 06.4
DPC Dobruska-Polom 146.18 344 ePKIKP PKPdf 13 24 03.9 +0.9
DPC e 13 24 06.4
BRG Berggiesshubel 146.27 347 iPKP PKPdf 13 24 03.8 +0.8
comp=Z,15nm,1.1s
BRG Berggiesshubel 146.27 347 iPKP PKPbc 13 24 06.0 +0.7
comp=Z,87nm,0.9s
BRG Berggiesshubel 146.27 347 iPKIKP PKPdf 13 24 03.8 +0.8
BRG i 13 24 06.0
BRG pmax pmax
comp=Z,15nm,1.1s
BRG pmax pmax
comp=Z,87nm,0.9s
WTSB Winterswijk 146.29 355 ePKPdf PKPbc 13 24 05.8 +0.5
comp=Z,121nm,0.8s
KRLC Kraliky 146.30 343 ePKP PKPdf 13 24 04.3 +1.1
KRLC ex x 13 24 06.4
KRLC Kraliky 146.30 343 ePKIKP PKPdf 13 24 04.3 +1.1
KRLC e 13 24 06.4
LANS Liptovska Anna 146.30 340 ePKP2 PKPab 13 24 07.3 -0.8
LANS Liptovska Anna 146.30 340 ePKP PKPab 13 24 07.3 -0.8
SSW Stow on the Wo 146.32 5 eP PKPbc 13 24 06.0 +0.6
MORC Moravsky Berou 146.35 342 ⇓iP PKPbc 13 24 06.3 +0.6
MORC Moravsky Berou 146.35 342 ⇓PKP2 PKPbc 13 24 06.3 +0.6
MORC Moravsky Berou 146.35 342 ePKPdf PKPdf 13 24 03.3 0.0
MORC ePKPbc PKPbc 13 24 06.1 +0.4
MONM Monmouth 146.37 6 eP PKPbc 13 24 05.7 +0.1
PVCC Panska Ves 146.45 346 ePKP PKPbc 13 24 04.7 -1.2
PVCC ex x 13 24 06.9
PVCC Panska Ves 146.45 346 ePKIKP PKPbc 13 24 04.7 -1.2
PVCC e 13 24 06.9
DOPR Dopca 146.48 330 ⇓iP PKPbc 13 24 07.4 +1.3
AMRR Amara 146.49 327 ⇑iP PKPab 13 24 23.7 +15
AMRR Amara 146.49 327 ⇑PKP2 PKPab 13 24 23.7 +15
STRD Stroud 146.49 5 eP PKPbc 13 24 05.9 0.0
KECS Kecovo 146.52 338 ePKP2 PKPbc 13 24 06.6 +0.5
KECS Kecovo 146.52 338 ePKP PKPbc 13 24 06.6 +0.5
ISR Istrita 146.54 328 ⇓iP PKPbc 13 24 07.2 +0.8
ISR Istrita 146.54 328 ⇓PKP2 PKPbc 13 24 07.2 +0.8
MLR Muntele Rosu 146.56 329 PKPbc PKPbc 13 24 06.9 +0.3
comp=Z,13nm,0.9s,baz=343,slow=4.8,SNR=47
MLR Muntele Rosu 146.56 329 ⇑PKP2 PKPbc 13 24 07.0 +0.5
MLR Muntele Rosu 146.56 329 ePKPdf PKPdf 13 24 03.6 -0.3
MLR ePKPbc PKPbc 13 24 06.9 +0.3
HGH Gray Hill 146.57 6 eP PKPbc 13 24 06.1 0.0
PSN Preselentsi 146.65 325 eP PKPbc 13 24 07.1 +0.5
CJR Cluj-Napoca 146.73 333 ⇓iP PKPbc 13 24 07.3 +0.5
CJR Cluj-Napoca 146.73 333 ⇓PKP2 PKPbc 13 24 07.3 +0.5
SWN1 Swindon 146.78 5 eP PKPbc 13 24 07.1 +0.4
BATH Bath 146.80 5 eP PKPbc 13 24 06.8 0.0
SECR 146.83 328 ⇑iP PKPbc 13 24 07.9 +0.8
MMAI Mount Meron Ar 146.94 303 PKPbc PKPbc 13 24 08.7 +0.9
comp=Z,20nm,0.5s,baz=61,slow=4.3,SNR=23
PRU Pruhonice 146.96 345 ePKP PKPdf 13 24 05.2 +1.0
PRU ex x 13 24 08.0
PRU ePKP ?PKPdf 13 26 19.9 -1.1
PRU Pruhonice 146.96 345 ePKIKP PKPdf 13 24 05.2 +1.0
PRU e 13 24 11.4
PRU e 13 26 19.9
GOPC GO Pecny, Ondr 146.97 345 ePKP PKPbc 13 24 08.2 +0.9
GOPC GO Pecny, Ondr 146.97 345 ePKP2 PKPbc 13 24 08.2 +0.9
SULR 146.99 328 ⇑iP PKPbc 13 24 08.1 +0.6
WOL Wolverton 147.02 4 eP PKPbc 13 24 07.4 +0.1
VOIR 147.03 330 ⇓iP PKPbc 13 24 08.4 +0.7
VOIR 147.03 330 ⇓PKP2 PKPbc 13 24 08.4 +0.7
DRGR 147.04 334 ⇓iP PKPbc 13 24 07.8 +0.1
DRGR 147.04 334 ⇓PKP2 PKPbc 13 24 07.9 +0.2
VRAC Vranov 147.05 343 ⇓PKP2 PKPbc 13 24 08.3 +0.8
VYHS Vyhne 147.08 340 ePKP2 PKPbc 13 24 08.3 +0.7
VYHS Vyhne 147.08 340 ePKP PKPbc 13 24 08.3 +0.7
MTUR Matau 147.18 330 ⇓iP PKPbc 13 24 08.7 +0.6
MTUR Matau 147.18 330 ⇓PKP2 PKPbc 13 24 08.7 +0.6
NKC Novy Kostel 147.19 348 ePKP PKPdf 13 24 05.9 +1.3
NKC ex x 13 24 08.8
NKC Novy Kostel 147.19 348 ePKIKP PKPdf 13 24 05.9 +1.3
NKC e 13 24 08.8
PSZ Piszkesteto 147.21 338 ePKIKP PKPdf 13 24 04.5 -0.3
PSZ Piszkesteto 147.21 338 ePKPdf PKPdf 13 24 04.5 -0.3
PSZ ePKPbc PKPbc 13 24 08.5 +0.4
ARR Arges 147.28 330 ⇑iP PKPbc 13 24 09.4 +1.1
SMOL Smolenice 147.51 341 ePKP2 PKPbc 13 24 10.3 +1.5
SMOL Smolenice 147.51 341 ePKP PKPbc 13 24 10.3 +1.5
BEBN Eben Emael 147.54 356 PKPbc PKPbc 13 24 09.3 +0.6
HGN Heimansgroeve 147.55 356 ePKPdf PKPbc 13 24 09.4 +0.7
comp=Z,78nm,1.1s
LOT Lotru 147.62 331 ⇑iP PKPbc 13 24 09.4 +0.1
DEV Deva 147.68 333 ⇓iP PKPbc 13 24 09.9 +0.7
DEV Deva 147.68 333 ⇓PKP2 PKPbc 13 24 09.9 +0.7
MEM Membach 147.70 356 PKPbc PKPbc 13 24 09.6 +0.5
HUMR Humele 147.74 329 ⇑iP PKPbc 13 24 09.6 +0.2
CSS Mathiatis 147.88 307 ePKPbc PKPbc 13 24 10.0 -0.1
BUD Budapest 147.89 338 ex PKPbc 13 24 10.4 +0.7
SIRR Siria 147.90 334 ⇑iP PKPbc 13 24 10.7 +0.9
SNF Seneffe 147.90 358 PKPbc PKPbc 13 24 10.5 +0.9
SNF PKPab PKPab 13 24 14.4 0.0
BCLA Clavier 147.94 356 PKPbc PKPbc 13 24 10.9 +1.2
BCLA PKPab PKPab 13 24 14.8 +0.3
GRFO Grafenberg 147.94 349 ePKP2 PKPbc 13 24 10.5 +0.7
GRFO Grafenberg 147.94 349 ePKPbc PKPbc 13 24 10.5 +0.7
KHC Kasperske Hory 147.99 346 ePKP PKPdf 13 24 06.6 +0.6
KHC ex x 13 24 10.8
KHC ex x 13 24 16.0
KHC ex x 13 25 02.5
KHC epPKP ?PKPab 13 26 26.6 +1.0
KHC Kasperske Hory 147.99 346 ePKPdf PKPdf 13 24 06.0 0.0
KHC ePKPbc PKPbc 13 24 10.9 -0.4
SZH Strazhica 148.14 326 eP PKPbc 13 24 11.3 +0.8
ZIMR 148.17 327 ⇓iP PKPbc 13 24 11.3 +0.8
ZIMR 148.17 327 ⇓PKP2 PKPbc 13 24 11.3 +0.8
EIL Elat 148.21 297 PKPbc PKPbc 13 24 11.7 +0.6
comp=Z,24nm,0.8s,baz=74,slow=1.8,SNR=13
GEC2 GERESS Array S 148.23 346 ePKIKP PKPdf 13 24 06.2 -0.3
GEC2 GERESS Array S 148.23 346 ePKPdf PKPdf 13 24 06.2 -0.3
GEC2 ePKPbc PKPbc 13 24 11.1 +0.5
GERES GERESS Array B 148.23 346 PKP PKPdf 13 24 06.5 0.0
comp=Z,30nm,0.7s,baz=48,slow=2.0,SNR=64
GERES PKPbc PKPbc 13 24 11.1 +0.5
comp=Z,30nm,0.7s,baz=25,slow=3.2,SNR=201
GEA0 GERESS Array S 148.23 346 ePKPdf PKPdf 13 24 05.9 -0.6
GEA0 ePKPbc PKPbc 13 24 11.1 +0.4
CSKK Cs^tkako 148.26 339 iex PKPbc 13 24 11.4 +0.8
DOU Dourbes 148.30 357 PKPbc PKPbc 13 24 11.4 +0.7
SZAC Souni 148.30 307 P PKPbc 13 24 11.6 +0.4
JMB Yambol 148.34 325 eP PKPbc 13 24 11.4 +0.4
ALFC Alefka 148.35 308 P PKPbc 13 24 11.2 -0.1
BZS Buzias 148.44 334 ⇓iP PKPbc 13 24 10.8 -0.4
SRE Strehaia 148.48 331 ⇑iP PKPbc 13 24 11.7 +0.4
PVL Pavlikeni 148.49 327 eP PKPbc 13 24 12.3 +1.0
CONA Conrad Observa 148.50 342 iPKiKP PKiKP 13 24 12.1 -0.4
SNR=27
SOP Sopron 148.52 341 ⇓ex PKPbc 13 24 12.1 +0.8
WLF Walferdange 148.63 355 PKPbc PKPbc 13 24 12.8 +1.3
WLF PKPab PKPab 13 24 17.8 +0.4
WLF Walferdange 148.63 355 ePKP PKPbc 13 24 12.4 +0.9
WLF Walferdange 148.63 355 ePKPbc PKPbc 13 24 12.4 +0.9
BANR Banloc 148.83 334 ⇑iP PKPbc 13 24 13.6 +1.5
MOA Molln 149.01 344 iPKiKP PKiKP 13 24 13.3 -0.1
SNR=10
MDVR Moldovita 149.06 333 ⇑iP PKPbc 13 24 13.4 +0.6
LANF Langenberg 149.14 353 PKP PKPbc 13 24 13.6 +0.8
STU Stuttgart 149.16 351 ePKPdf PKPdf 13 24 08.7 +0.8
STU ePKPbc PKiKP 13 24 13.3 -0.4
DIM Dimitrovgrad 149.19 325 eP PKPbc 13 24 13.7 +0.6
ARSA Arzberg 149.22 342 iPKiKP PKiKP 13 24 13.6 -0.2
SNR=9.9
KDZ Kurdzhali 149.53 324 eP PKPbc 13 24 13.9 0.0
BEHE Becsehely 149.53 340 ex PKPbc 13 24 14.6 +0.8
STR Strasbourg 149.54 353 PKP PKPbc 13 24 15.2 +1.5
BEO Beograd 149.57 334 ePKPbc PKPbc 13 24 14.2 +0.3
PGB Panagyurishte 149.57 327 eP PKPbc 13 24 14.5 +0.4
MANT Manisa 149.59 317 ePKPbc PKPbc 13 24 14.7 +0.2
BFO Black Forest 149.72 352 ePKHKP PKPdf 13 24 09.6 +0.8
BFO Black Forest 149.72 352 ePKPdf PKPdf 13 24 09.6 +0.8
BFO ePKPbc PKiKP 13 24 14.6 -0.2
KOGS Kog 149.72 341 iPKP PKPbc 13 24 14.1 -0.1
RDO Rodhopi 149.80 324 ePKPbc PKPbc 13 24 15.2 +0.7
RDO Rodhopi 149.80 324 P PKPbc 13 24 15.2 +0.7
SOKA Soboth 149.88 342 iPKPbc PKPbc 13 24 14.5 -0.2
SNR=13
RZN Rozhen 149.89 325 eP PKPbc 13 24 14.9 -0.1
PERS Pernice 149.89 342 iPKPbc PKPbc 13 24 14.4 -0.3
PERS iPKPab PKPab 13 24 23.1 +0.2
KBA Koelnbreinsper 149.96 345 iPKiKP PKPbc 13 24 15.1 +0.1
SNR=8.0
ECH Echery 149.97 353 PKP PKPbc 13 24 15.3 +0.5
ECH Echery 149.97 353 ePKIKP PKPdf 13 24 08.9 -0.2
ECH Echery 149.97 353 ePKPdf PKPdf 13 24 08.9 -0.2
ECH ePKPbc PKPbc 13 24 14.9 +0.1
VTS Vitosha 150.03 328 ⇓iP PKPbc 13 24 15.2 -0.1
VTS Vitosha 150.03 328 ePKHKP PKPbc 13 24 15.2 -0.1
VTS Vitosha 150.03 328 eP PKPbc 13 24 15.4 +0.1
VTS Vitosha 150.03 328 ePKPbc PKPbc 13 24 15.2 -0.1
VTS Vitosha 150.03 328 P PKPbc 13 24 16.2 +0.9
THEF They Montfort 150.07 355 PKP PKPbc 13 24 15.5 +0.5
WATA Walderalm 150.12 347 iPKiKP PKPbc 13 24 15.6 +0.3
SNR=18
RETA Reutte 150.14 348 iPKiKP PKiKP 13 24 15.8 0.0
SNR=9.9
OBKA Obir 150.17 343 iPKiKP PKPbc 13 24 15.4 0.0
SNR=5.8
WTTA Wattenberg 150.18 347 iPKiKP PKiKP 13 24 16.1 0.0
SNR=19
SMTH Samothraki Isl 150.25 323 ePKPbc PKPbc 13 24 15.4 -0.3
SMTH Samothraki Isl 150.25 323 P PKPbc 13 24 15.4 -0.3
MYKA Terra Mystica 150.30 344 iPKPbc PKPbc 13 24 15.4 -0.3
SNR=15
MOF Molkenrain 150.33 353 PKP PKPbc 13 24 15.8 +0.1
KAVA Kavala 150.47 324 ePKPbc PKPbc 13 24 17.0 +0.9
KAVA Kavala 150.47 324 P PKPbc 13 24 17.0 +0.9
MMB Musomiste 150.48 326 eP PKPbc 13 24 16.2 0.0
DAVA Damuels 150.50 349 iPKiKP PKiKP 13 24 17.0 +0.3
SNR=15
LJU Ljubljana 150.60 342 iPKPdf PKPdf 13 24 09.0 -1.1
LJU iPKPbc PKPbc 13 24 16.4 +0.1
LJU ePKPab PKPab 13 24 25.4 -0.4
KKB Krupnik 150.62 327 eP PKPbc 13 24 16.8 +0.3
OZLJ Ozalj 150.71 341 iP PKPbc 13 24 17.2 +0.7
BOJS Bojanci 150.87 341 iPKPdf PKPdf 13 24 11.1 +0.5
BOJS iPKPbc PKiKP 13 24 17.4 +0.1
BLY Banja Luka 150.90 338 ePKPbc PKPbc 13 24 16.7 -0.3
BLY ePKPab PKPab 13 24 27.1 0.0
FUORN Ofenpass-Fuorn 151.07 349 ePKPdf PKPdf 13 24 09.6 -1.6
FUORN ePKPbc PKiKP 13 24 18.2 +0.2
ARG Arkhangelos 151.10 313 PKIKP PKPbc 13 24 18.1 +0.4
ARG Arkhangelos 151.10 313 P PKPbc 13 24 18.1 +0.4
TRI Trieste 151.12 343 ePKIKP PKPbc 13 24 17.3 -0.1
TRI Trieste 151.12 343 ePKPbc PKPbc 13 24 17.3 -0.1
SMG Samos 151.15 317 P PKPbc 13 24 17.7 -0.1
SMG Samos 151.15 317 P PKPbc 13 24 17.7 -0.1
KNT Kendrikon 151.23 326 PKIKP PKPbc 13 24 17.1 -0.8
KNT Kendrikon 151.23 326 P PKPbc 13 24 17.1 -0.8
KNT Kendrikon 151.23 326 P PKPbc 13 24 17.1 -0.8
VAY Valandovo 151.28 327 iPKP PKPbc 13 24 17.6 -0.3
SKO Skopje 151.36 329 iPKP PKPbc 13 24 18.2 0.0
TUE Stuetta 151.38 350 ePKPdf PKPdf 13 24 11.9 +0.3
TUE ePKPbc PKPbc 13 24 18.4 +0.1
HORT Hortiatis 151.52 325 P PKPbc 13 24 17.7 -0.9
HORT Hortiatis 151.52 325 P PKPbc 13 24 17.7 -0.9
UDBI Udbina 151.58 339 iP PKPbc 13 24 18.9 +0.3
SENIN Lac Senin/Sane 151.78 353 ePKPbc PKPbc 13 24 19.6 +0.3
SENIN ePKPab PKPab 13 24 31.3 +0.3
NVLJ Novalja 151.84 341 iP PKPbc 13 24 18.7 -0.4
KRUS Krusevo 151.91 329 iPKP PKPbc 13 24 19.2 -0.3
PDG Podgorica 152.01 333 ⇑iP PKPbc 13 24 19.8 +0.3
KARP Karpathos 152.11 313 ePKPbc PKPbc 13 24 19.8 -0.2
BIA Bitola 152.14 328 ePKP PKPbc 13 24 20.1 +0.1
LIT Litokhoron 152.20 325 ePKIKP PKPbc 13 24 19.3 -0.8
LIT Litokhoron 152.20 325 ePKPbc PKPbc 13 24 19.3 -0.8
LIT Litokhoron 152.20 325 P PKPbc 13 24 19.3 -0.8
FNA Florina 152.29 328 PKIKP PKPbc 13 24 20.6 +0.3
FNA Florina 152.29 328 P PKPbc 13 24 20.6 +0.3
FNA Florina 152.29 328 P PKPbc 13 24 20.6 +0.3
STON Ston 152.30 335 iP PKPbc 13 24 19.6 -0.5
OHR Ohrid 152.33 329 iPKP PKPbc 13 24 20.8 +0.4
AGO Saint Agoulin 152.39 359 PKP PKPbc 13 24 21.3 +1.0
PLDF La Plantade 152.46 358 PKP PKPbc 13 24 21.6 +1.1
PYM Petit Puy Mans 152.69 359 PKP PKPbc 13 24 22.2 +1.1
NEST Nestorio 152.73 328 P PKPbc 13 24 21.2 -0.1
PTL Penteli 152.81 321 ePKPbc PKPbc 13 24 20.4 -1.1
PTL Penteli 152.81 321 P PKPbc 13 24 20.4 -1.1
KPRO Kipourio 152.91 327 P PKPbc 13 24 21.6 -0.1
ATHU Athens Univers 152.91 320 ePKPbc PKPbc 13 24 20.5 -1.2
ATHU Athens Univers 152.91 320 P PKPbc 13 24 20.5 -1.2
AGG Agios Georgios 153.05 324 ePKIKP PKPbc 13 24 21.3 -0.7
AGG Agios Georgios 153.05 324 ePKPbc PKPbc 13 24 21.3 -0.7
AGG Agios Georgios 153.05 324 P PKPbc 13 24 19.9 -2.1
SSB Saint Sauveur 153.11 356 ePKIKP PKPbc 13 24 21.9 0.0
SSB Saint Sauveur 153.11 356 ePKPbc PKPbc 13 24 21.9 0.0
BNI Bardonecchia 153.15 353 ePKIKP PKPbc 13 24 23.0 +0.9
BNI Bardonecchia 153.15 353 ePKPbc PKPbc 13 24 23.0 +0.9
LBL Lubilhac 153.21 358 PKP PKPbc 13 24 23.5 +1.3
DSF Desfina 153.35 323 ePKPbc PKPbc 13 24 21.9 -0.8
DSF Desfina 153.35 323 P PKPbc 13 24 21.9 -0.8
LAST Lasithi 153.48 314 P PKPbc 13 24 22.0 -1.1
LAST Lasithi 153.48 314 P PKPbc 13 24 22.0 -1.1
DID Didima 153.53 320 ePKPbc PKPbc 13 24 22.1 -1.0
DID Didima 153.53 320 P PKPbc 13 24 22.1 -1.0
DSL Palaion Diasel 153.64 326 ePKPdf PKPdf 13 24 14.8 -0.1
DSL Palaion Diasel 153.64 326 P PKPdf 13 24 14.8 -0.1
EFP Efpalio 153.70 323 P PKPbc 13 24 24.4 +1.1
IDI Anoyia 153.81 315 PKPbc PKPbc 13 24 24.8 +1.1
comp=Z,14nm,0.7s,baz=335,slow=4.6,SNR=8.0
KEK Kerkira 153.89 328 P PKPbc 13 24 23.6 -0.1
KEK Kerkira 153.89 328 P PKPbc 13 24 23.6 -0.1
PBRG Braganca 155.41 16 ePKPab PKPab 13 24 47.0 +0.6
POLO Lamas de Olo 155.51 19 ePKPdf PKPdf 13 24 18.9 +1.5
MVO Moncorvo 155.92 17 ePKPdf PKPdf 13 24 19.3 +1.3
MVO Moncorvo 155.92 17 ePKPab PKPab 13 24 49.1 +0.4
MTE Manteigas 156.47 19 ePKPab PKPab 13 24 51.8 +0.7
PCAS Casmilo, Conde 156.48 21 ePKPab PKPab 13 24 51.5 +0.4
PCBR Castelo Branco 157.00 20 ePKPdf PKPdf 13 24 20.6 +1.3
PCBR Castelo Branco 157.00 20 ePKPab PKPab 13 24 53.8 +0.5
PMAFR Mafra 157.16 24 ePKPab PKPab 13 24 54.7 +0.6
PMRV Marv??o 157.41 20 ePKPab PKPab 13 24 55.3 +0.2
PMTG Montargil 157.45 22 ePKPab PKPab 13 24 55.0 -0.3
PESTR Estremoz 157.85 21 ePKPab PKPab 13 24 57.2 +0.1
EVO Evora 158.00 22 ePKPab PKPab 13 24 58.2 +0.5
ES19 SONSECA Array 158.09 13 ePKPdf PKPdf 13 24 20.5 -0.2
ES19 ePKPab PKPab 13 24 58.4 +0.3
ESDC Sonseca Array 158.10 13 PKP PKPdf 13 24 20.5 -0.2
comp=Z,1.1nm,0.7s,baz=350,slow=2.3,SNR=7.7
ESDC PKPab PKPab 13 24 58.1 0.0
comp=Z,4.7nm,0.8s,baz=345,slow=4.1,SNR=17
ESLA Sonseca Array 158.10 13 ePKPab PKPab 13 24 59.4 +1.2
PNCL Nicolau / Gran 158.19 23 ePKPab PKPab 13 24 58.8 +0.3
MESJ Messejana 158.54 23 ePKPdf PKPdf 13 24 22.5 +1.3
MESJ Messejana 158.54 23 ePKPab PKPab 13 25 00.0 -0.1
PBAR Barrancos 158.66 21 ePKPdf PKPdf 13 24 22.2 +0.9
PBAR Barrancos 158.66 21 ePKPab PKPab 13 25 01.0 +0.4
PVAQ Vaqueiros 159.11 23 ePKPab PKPab 13 25 03.1 +0.5
KEST Kesra 161.61 341 PKPab PKPab 13 25 14.2 +0.5
comp=Z,17nm,0.7s,baz=299,slow=1.5,SNR=14
LIC Lamto 165.98 149 ePKIKP PKPdf 13 24 28.7 -0.5
comp=Z,76nm,1.2s
KIC Kosan Boka 166.24 149 ePKIKP PKPdf 13 24 29.0 -0.4
comp=Z,48nm,1.0s
TIC Toumodi 166.34 148 ePKIKP PKPdf 13 24 28.8 -0.7
DBIC Dimbokro 166.45 148 PKP PKPdf 13 24 28.7 -0.8
comp=Z,7.0nm,0.6s,baz=105,slow=1.8,SNR=15
DBIC PKPab PKPab 13 25 36.3 +0.9
comp=Z,1.8nm,0.8s,baz=203,slow=8.0,SNR=3.4
DBIC Dimbokro 166.45 148 ePKIKP PKPdf 13 24 28.0 -1.5
DBIC 13 25 36.3
DBIC Dimbokro 166.45 148 ePKPdf PKPdf 13 24 28.0 -1.5
DBIC PKPab PKPab 13 25 36.3 +0.9
KOWA Kowa 172.84 122 ePKPdf PKPdf 13 24 33.0 -0.1
TAM Tamanrasset 174.66 326 ePKIKP PKPdf 13 24 35.2 +1.4
TAM e 13 26 12.5
TAM Tamanrasset 174.66 326 ePKPdf PKPdf 13 24 35.2 +1.4
TAM ePKPab PKPab 13 26 12.5 +0.7
TOA0 Torodi Ar. Sit 174.77 174 ePKPdf PKPdf 13 24 33.4 -0.5
TOA0 ePKPab PKPab 13 26 13.3 +1.1
TORD Torodi Ar. Bea 174.77 174 PKP PKPdf 13 24 33.5 -0.3
comp=Z,9.5nm,1.1s,baz=338,slow=0.9,SNR=33
TORD PKPab PKPab 13 26 12.9 +0.8
comp=Z,1.8nm,0.7s,baz=177,slow=3.7,SNR=8.5
TORD PKKPbc ?PKPab 13 28 19.1 -1.6
comp=Z,1.6nm,0.9s,baz=194,slow=2.6,SNR=5.0
TORD PP PP 13 30 06.7 +3.0
comp=Z,1.2nm,0.9s,baz=170,slow=4.5,SNR=4.5
TORD PKKP 13 32 14.0
comp=Z,1.1nm,1.1s,baz=172,slow=4.2,SNR=3.6

*SOME **26** 13:07:27.3,44°.35N×82°.97E,h10km*
*NNC **26** 13:07:30.3±3.6,44°.33N×82°.96E,h0km,mb2.6,mpv2.1,*
*Error ellipse: s-maj=35.7km s-min=14.7km az=124.0*

**ISC 26 13:07:26.0±2.2,44°33'N±0'07×83°0'E±0'.1,h10km,n8,**
**σ1s71/16,4C-2D,Northern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **KTMS** | **Ketmen** | **2.13** | **246** | *eP* | **Pg** | | **13 08 05.9** | **-0.9** |
| | 14nm,0.2s | | | | | | | |
| KTMS | | | | *eS* | **Sg** | | **13 08 33.4** | **-1.1** |
| | 26nm,0.3s | | | | | | | |
| **DJR** | **Jarkent** | **2.33** | **271** | *eP* | **Pb** | | **13 08 08.9** | **+0.8** |
| | 12nm,0.3s | | | | | | | |
| DJR | | | | *eS* | **Sg** | | **13 08 39.6** | **-1.2** |
| | 10nm,0.4s | | | |

**MEX 26 13:23:16.1±0.4, 17°.99N×101°.74W, h4km±8km, MD3.8, Near coast of Guerrero**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **ZIIG** | **Zihuatanejo** | **0.46** | **145** | *eP* | | Pg | 13 23 24.6 | -0.4 |
| ZIIG | | | | *eS* | | Sg | 13 23 31.6 | +0.6 |
| **ARIG** | **Puente Sto Nin** | **1.36** | **77** | *eP* | | Pn | 13 23 38.2 | -3.7 |
| ARIG | | | | *i* S | | Sg | 13 23 54.5 | -5.3 |
| **MMIG** | **Aquila** | **1.55** | **281** | *eP* | | Pn | 13 23 41.0 | -3.6 |
| MMIG | | | | *eS* | | Sn | 13 23 59.9 | -5.2 |
| **CAIG** | **El Cayaco** | **1.69** | **123** | *i* P | | Pn | 13 23 43.3 | -3.1 |
| CAIG | | | | *eS* | | Sn | 13 24 03.9 | -4.6 |
| **MEIG** | **Mezcala** | **2.02** | **91** | *eP* | | Pn | 13 23 49.7 | -1.4 |
| MEIG | | | | *eS* | | Sn | 13 24 13.3 | -3.6 |
| **PLIG** | **Platanillo** | **2.17** | **79** | *eP* | | Pn | 13 23 51.1 | -2.0 |
| PLIG | | | | *i* S | | Sn | 13 24 20.3 | -0.2 |

*ISCJB **26** 13:30:15.1±1.0, 19°.3S±0°.2×169°.5E±0°.2, h246km, mb3.8/7, Error ellipse: s-maj=35.9km s-min=12.7km az=44.8*
*IDC **26** 13:30:15.2±2.4, 19°.28S×169°.56E, h237km±20km, mb3.6/7, mb1 3.7/8, mb1mx3.4/39, mbtmp4.1/8, Error ellipse: s-maj=34.8km s-min=20.5km az=154.0*
**ISC 26 13:30:16.2±1.1, 19°.2S±0°.2×169°.4E±0°.2, h246km, n10, σ1§74/12, mb3.8/7, Vanuatu Islands**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **3.99** | **224** | P | | **Pn** | **13 31 20.5** | **+0.8** |
| | 0.8nm,0.3s,baz=115,slow=18,SNR=11 | | | | | | | |
| DZM | | | | S | | **S** | **13 32 08.6** | **-1.6** |
| | 4.8nm,0.3s,baz=61,slow=13,SNR=5.5 | | | | | | | |
| **CTA** | **Charters Tower** | **21.84** | **264** | P | | **P** | **13 34 50.6** | **+1.4** |
| | 2.2nm,0.8s,baz=88,slow=6.3,SNR=5.6 | | | | | | | |
| **STKA** | **Stephens Creek** | **28.01** | **238** | P | | **P** | **13 35 46.8** | **+2.1** |
| | 2.7nm,0.7s,baz=74,slow=10,SNR=8.8 | | | | | | | |
| **WRA** | **Warramunga Arr** | **33.03** | **263** | P | | **P** | **13 36 29.0** | **+0.1** |
| | 0.9nm,0.6s,baz=90,slow=8.5,SNR=29 | | | | | | | |
| **ASAR** | **Alice Springs** | **33.31** | **256** | P | | **P** | **13 36 32.0** | **+0.8** |
| | 7.6nm,0.6s,baz=81,slow=9.0,SNR=196 | | | | | | | |
| ASAR | | | | pP | | **pP** | **13 37 16.9** | **-3.6** |
| | 0.7nm,0.7s,baz=88,slow=8.4,SNR=1.8 | | | | | | | |
| **MAW** | **Mawson** | **78.52** | **202** | P | | **P** | **13 41 49.2** | **-0.7** |
| | 1.5nm,0.5s,baz=75,slow=12,SNR=4.7 | | | | | | | |
| **NVAR** | **Mina Array Bea** | **88.65** | **48** | P | | **P** | **13 42 42.9** | **+1.0** |
| | 1.1nm,0.8s,baz=222,slow=7.2,SNR=6.8 | | | | | | | |
| **ILAR** | **Eielson Array** | **90.16** | **17** | P | | **P** | **13 42 46.8** | **-1.3** |
| | 0.5nm,0.8s,baz=241,slow=5.3,SNR=10 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **100.56** | **27** | P | | **Pdif** | **13 43 36.0** | **+0.7** |
| | 0.2nm,0.4s,baz=256,slow=5.0,SNR=6.5 | | | | | | | |
| **GERES** | **GERESS Array B** | **144.56** | **332** | PKP | | **PKPdf** | **13 49 22.6** | **-0.7** |
| | 0.5nm,0.6s,baz=48,slow=4.2,SNR=7.0 | | | | | | | |

**IDC 26 13:34:08.6±1.3, 42°.38N×127°.25E, h0km, mb3.6/2, mb1 3.4/5, mb1mx3.2/49, mbtmp3.3/5, ML2.5/3, MS3.3/1, Ms1 3.3/1, ms1mx2.4/38, Error ellipse: s-maj=22.1km s-min=15.4km az=119.0, Northeastern China**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **USRK** | **Ussuriysk Ar.** | **3.91** | **61** | Pn | | Pn | 13 35 10.0 | +0.1 |
| | 1.2nm,0.3s,baz=248,slow=13,SNR=14 | | | | | | | |
| USRK | | | | Pg | | Pb | 13 35 18.7 | +0.3 |
| | 2.1nm,0.3s,baz=248,slow=15,SNR=10 | | | | | | | |
| USRK | | | | Lg | | Lg | 13 36 12.7 | |
| | 17nm,0.3s,baz=242,slow=31,SNR=25 | | | | | | | |
| **KSRS** | **Korea Array** | **4.95** | **174** | Pn | | Pn | 13 35 24.4 | +0.3 |
| | 0.6nm,0.3s,baz=357,slow=13,SNR=6.8 | | | | | | | |
| KSRS | | | | Pg | | Pg | 13 35 40.5 | -2.9 |
| | 2.4nm,0.3s,baz=357,slow=17,SNR=10 | | | | | | | |
| KSRS | | | | Lg | | Lg | 13 36 44.6 | |
| | 14nm,0.3s,baz=351,slow=29,SNR=17 | | | | | | | |
| **KLR** | **Kul'dur** | **7.54** | **23** | Pn | | Pn | 13 35 59.2 | -0.5 |
| | 0.1nm,0.3s,baz=213,slow=11,SNR=9.1 | | | | | | | |
| KLR | | | | Pg | | Pg | 13 36 27.9 | -5.0 |
| | 0.0nm,0.3s,baz=196,slow=17,SNR=3.1 | | | | | | | |
| KLR | | | | Lg | | Lg | 13 38 03.4 | |
| | 0.0nm,0.3s,baz=109,slow=15,SNR=6.1 | | | | | | | |
| **TLY** | **Talaya** | **18.51** | **308** | LR | | LR | 13 45 51.7 | |
| | comp=Z,89nm,19.3s,baz=318,slow=38 | | | | | | | |
| **AAK** | **Ala-Archa** | **38.36** | **289** | P | | P | 13 41 31.2 | -0.2 |
| | 1.0nm,0.5s,baz=95,slow=11,SNR=5.5 | | | | | | | |
| **ILAR** | **Eielson Array** | **50.98** | **33** | P | | P | 13 43 11.5 | 0.0 |
| | 0.4nm,0.9s,baz=292,slow=7.7,SNR=3.3 | | | | | | | |

**IDC 26 13:39:36.1±2.2, 2°.08S×134°.69E, h0km, mb3.6/2, mb1 4.0/3, mb1mx3.6/35, mbtmp3.7/3, ML3.4/1, Error ellipse: s-maj=138.3km s-min=30.7km az=99.0, Irian Jaya region**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **17.75** | **181** | P | | P | 13 43 45.8 | 0.0 |
| | 0.1nm,0.3s,baz=0.6,slow=12,SNR=12 | | | | | | | |
| **ASAR** | **Alice Springs** | **21.47** | **182** | P | | P | 13 44 25.2 | -1.2 |
| | 3.6nm,0.9s,baz=5.7,slow=12,SNR=15 | | | | | | | |
| **ILAR** | **Eielson Array** | **86.94** | **25** | P | | P | 13 52 23.2 | +0.4 |
| | 0.2nm,0.6s,baz=256,slow=4.5,SNR=5.8 | | | | | | | |

*CSEM **26** 13:42:29.4±0.5, 38°.43N×31°.96E, h2km, MD2.6, Error ellipse: s-maj=14.9km s-min=10.6km az=102.0*
*DDA **26** 13:42:29.0, 38°.39N×31°.89E, h7km, Md2.4*
*ISK **26** 13:42:29.5, 38°.50N×32°.10E, h8km, MD2.6*
**ISC 26 13:42:29.6±1.2, 38°.41N±0°.03×31°.91E±0°.04, h2km±14km, n13, σ1§42/22, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **KDHN** | **Kadinhani** | **0.19** | **56** | *i* P | | **Pg** | **13 42 33.5** | **+0.1** |
| KDHN | | | | *i* S | | **Sg** | **13 42 37.7** | **+1.8** |
| **KDHN** | **Kadinhani** | **0.19** | **56** | P | | **Pg** | **13 42 33.5** | **+0.1** |
| KDHN | | | | S | | **Sg** | **13 42 37.7** | **+1.8** |
| **DOGA** | **KONYA_Doganhis** | **0.36** | **212** | *i* P | | **Pg** | **13 42 35.5** | **-1.1** |
| DOGA | | | | *i* S | | **Sg** | **13 42 41.5** | **+0.2** |
| **DOGA** | **KONYA_Doganhis** | **0.36** | **212** | P | | **Pg** | **13 42 35.5** | **-1.1** |
| DOGA | | | | S | | **Sg** | **13 42 41.5** | **+0.2** |
| **KIZT** | **Kizilcal** | **0.47** | **357** | *e*PG | | **Pg** | **13 42 38.1** | **-0.5** |
| KIZT | | | | *e*SG | | **Sg** | **13 42 44.4** | **-0.3** |
| **KIZT** | **Kizilcal** | **0.47** | **357** | *e*Pg | | **Pg** | **13 42 38.1** | **-0.5** |
| KIZT | | | | *e*Sg | | **Sg** | **13 42 44.4** | **-0.3** |
| **KONT** | **Konya--Tatoy** | **0.58** | **143** | *e*PG | | **Pg** | **13 42 41.2** | **+0.4** |
| KONT | | | | *e*SG | | **Sb** | **13 42 49.8** | **-1.6** |
| **KONT** | **Konya--Tatoy** | **0.58** | **143** | *i* P | | **Pb** | **13 42 42.2** | **-0.4** |
| KONT | | | | *i* S | | **Sg** | **13 42 49.0** | **+0.6** |
| **KONT** | **Konya--Tatoy** | **0.58** | **143** | *e*Pg | | **Pg** | **13 42 41.2** | **+0.4** |
| KONT | | | | *e*Sg | | **Sb** | **13 42 49.8** | **-1.6** |
| **CHBY** | **Cihanbeyli** | **0.79** | **77** | *e*PG | | **Pg** | **13 42 42.1** | **-2.6** |
| **CHBY** | **Cihanbeyli** | **0.79** | **77** | *e*Pg | | **Pg** | **13 42 42.1** | **-2.6** |
| **SUTC** | **Sutluce-Ispart** | **1.18** | **218** | *e*PN | | **Pn** | **13 42 55.2** | **+1.9** |
| **SUTC** | **Sutluce-Ispart** | **1.18** | **218** | *e*Pn | | **Pn** | **13 42 55.2** | **+1.9** |

**IDC 26 13:50:27.9±2.3, 5°.82S×130°.54E, h0km, mb3.8/1, mb1 3.6/4, mb1mx3.4/28, mbtmp3.4/4, ML3.3/3, MS3.3/2, Ms1 3.3/2, ms1mx2.9/27, Error ellipse: s-maj=95.6km s-min=28.7km az=78.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **13.12** | **201** | Pn | | Pn | 13 53 34.8 | -0.8 |
| | 0.2nm,0.3s,baz=36,slow=9.8,SNR=15 | | | | | | | |
| FITZ | | | | Sn | | Sn | 13 55 47.8 | -15 |
| **WRA** | **Warramunga Arr** | **14.52** | **166** | Pn | | Pn | 13 53 55.0 | +0.1 |
| | 0.1nm,0.3s,baz=350,slow=13,SNR=8.3 | | | | | | | |
| WRA | | | | Sn | | Sn | 13 56 23.6 | -13 |
| | 0.4nm,0.3s,baz=332,slow=23,SNR=10 | | | | | | | |
| **ASAR** | **Alice Springs** | **18.04** | **170** | Pn | | P | 13 54 40.9 | 0.0 |
| | 0.1nm,0.3s,baz=344,slow=10,SNR=5.6 | | | | | | | |
| ASAR | | | | Sn | | Sn | 13 57 52.2 | -10 |
| | 0.1nm,0.3s,baz=357,slow=27,SNR=6.1 | | | | | | | |
| **HNR** | **Honiara** | **29.36** | **99** | LR | | LR | 14 09 13.9 | |
| | comp=Z,35nm,18.6s,baz=75,slow=38 | | | | | | | |
| **BRDH** | **Bariadhala** | **47.42** | **308** | LR | | LR | 14 22 42.8 | |
| | comp=Z,40nm,18.8s,baz=341,slow=41 | | | | | | | |
| **MKAR** | **Makanchi Array** | **67.54** | **326** | P | | P | 14 01 26.2 | 0.0 |
| | 0.4nm,0.4s,baz=113,slow=8.2,SNR=11 | | | | | | | |

**JMA 26 13:53:49.0, 35°.01N×137°.87E, h12km, M2.5, 3C-1D**

**Broadband fault plane solution: P waves. NP1: φs142.00000°, δ76.00000°, λ-94.00000°. NP2: φs337.00000°, δ14.00000°, λ-76.00000°. Principal axes: T Plg31.0000°, Azm235.0000°; N Plg4.0000°, Azm143.0000°; P Plg59.0000°, Azm47.0000°; Eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **HMMJ** | **Hamamatsu 2** | **0.20** | **218** | ⇓P | | Pg | 13 53 53.4 | +0.1 |
| HMMJ | | | | S | | Sg | 13 53 56.1 | -0.1 |
| **JHMK** | **Hamakita** | **0.21** | **205** | P | | Pg | 13 53 53.4 | -0.1 |
| JHMK | | | | S | | Sg | 13 53 56.5 | -0.1 |
| **SHZ3** | **Shizuoka 3** | **0.28** | **79** | ⇑P | | Pg | 13 53 54.8 | -0.1 |
| SHZ3 | | | | S | | Sg | 13 53 58.9 | +0.1 |
| **JNY** | **Yasuok** | **0.35** | **359** | ⇑P | | Pg | 13 53 56.0 | -0.1 |
| JNY | | | | S | | Sg | 13 54 00.9 | +0.1 |
| **TK04** | **Tokai 4** | **0.62** | **180** | ⇑P | | Pg | 13 54 01.4 | +0.3 |
| **JYN** | **Shimob** | **0.74** | **48** | P | | Pg | 13 54 02.7 | -0.6 |
| JYN | | | | *e*S | | Sg | 13 54 13.1 | +0.1 |
| **JIZS** | **Izushimoda** | **0.88** | **109** | S | | Sg | 13 54 16.8 | -0.7 |
| **MAT** | **Matsushiro** | **1.55** | **10** | P | | Pn | 13 54 16.7 | +0.2 |
| MAT | | | | S | | Sn | 13 54 36.3 | -0.3 |

*IASPEI **26** 13:56:59.1±0.8, 36°.40N±0°.02×25°.39E±0°.03, h11km±4km Error ellipse: s-maj=4.2km s-min=3.5km az=90.7, GT5 selection from ISC bulletin GT5 identified by Bond˜jr and McLaughlin (2009) selection criteria Bond˜jr and McLaughlin, A new ground truth data set for seismic studies, Seism. Res. Let., 80, 465-472, 2009*
*ISCJB **26** 13:56:59.6±0.3, 36°.41N±0°.02×25°.41E±0°.04, h7km±2km, Error ellipse: s-maj=5.5km s-min=3.4km az=171.1*
*THE **26** 13:56:59.1, 36°.41N×25°.36E, h8km±1km, ML3.3/5, Error ellipse: s-maj=1.6km s-min=0.5km az=124.0*
*CSEM **26** 13:56:59.5±0.2, 36°.38N×25°.43E, h4km±1km, ML3.3, Error ellipse: s-maj=5.4km s-min=3.8km az=78.0*
*ATH **26** 13:56:59.0, 36°.39N×25°.39E, h10km±1km, ML2.8/8, Error ellipse: s-maj=1.7km s-min=1.0km az=74.0*
**ISC 26 13:56:59.2±0.8, 36°.41N±0°.02×25°.40E±0°.02, h9km±3km, n80, σ0§60/118, Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **THR3** | **Thira Island,** | **0.00** | **36** | P | | **Pg** | **13 57 00.7** | **-0.2** |
| **THR3** | **Thira Island,** | **0.00** | **36** | P | | **Pg** | **13 57 00.5** | **-0.3** |
| **THR3** | **Thira Island,** | **0.00** | **36** | P | | **Pg** | **13 57 00.6** | **-0.2** |
| **THR3** | **Thira Island,** | **0.00** | **36** | P | | **Pg** | **13 57 00.6** | **-0.2** |
| **THR7** | **Fira-Santorini** | **0.03** | **56** | P | | **Pg** | **13 57 01.1** | **+0.3** |
| **THR7** | **Fira-Santorini** | **0.03** | **56** | P | | **Pg** | **13 57 01.2** | **+0.3** |
| **THR7** | **Fira-Santorini** | **0.03** | **56** | P | | **Pg** | **13 57 00.9** | **0.0** |
| **THR7** | **Fira-Santorini** | **0.03** | **56** | P | | **Pg** | **13 57 00.9** | **0.0** |
| **THT1** | **Athinios (Pele** | **0.03** | **129** | P | | **Pg** | **13 57 01.3** | **+0.4** |
| THT1 | | | | S | | **Sg** | **13 57 01.9** | **-0.1** |
| THT1 | | | | AML | AML | | 13 57 02.0 | |
| | comp=N,31555μm,0.1s | | | | | | | |
| THT1 | | | | AML | AML | | 13 57 02.1 | |
| | comp=E,16026μm,0.2s | | | | | | | |
| **THT1** | **Athinios (Pele** | **0.03** | **129** | P | | **Pg** | **13 57 01.1** | **+0.2** |
| THT1 | | | | S | | **Sg** | **13 57 01.5** | **-0.6** |
| THT1 | | | | AML | AML | | 13 57 02.0 | |
| | comp=N,31555μm,0.1s | | | | | | | |
| THT1 | | | | AML | AML | | 13 57 02.1 | |
| | comp=E,16026μm,0.2s | | | | | | | |
| **THT1** | **Athinios (Pele** | **0.03** | **129** | P | | **Pg** | **13 57 00.9** | **0.0** |
| THT1 | | | | S | | **Sg** | **13 57 02.0** | **-0.1** |
| **THT1** | **Athinios (Pele** | **0.03** | **129** | P | | **Pg** | **13 57 00.9** | **0.0** |
| THT1 | | | | S | | **Sg** | **13 57 02.0** | **-0.1** |
| **THT2** | **Imerovigli** | **0.04** | **33** | P | | **Pg** | **13 57 01.1** | **+0.1** |
| THT2 | | | | S | | **Sg** | **13 57 02.4** | **+0.2** |
| **THT2** | **Imerovigli** | **0.04** | **33** | P | | **Pg** | **13 57 01.1** | **+0.1** |
| THT2 | | | | S | | **Sg** | **13 57 02.4** | **+0.2** |
| **SAP2K** | **Karterados** | **0.04** | **83** | P | | **Pg** | **13 57 01.5** | **+0.5** |
| SAP2K | | | | S | | **Sg** | **13 57 03.4** | **+1.2** |
| SAP2K | | | | AML | AML | | 13 57 03.4 | |
| | comp=E,95309μm,0.2s | | | | | | | |
| SAP2K | | | | AML | AML | | 13 57 04.2 | |
| **SAP2K** | **Karterados** | **0.04** | **83** | P | | **Pg** | **13 57 01.2** | **+0.2** |
| SAP2K | | | | S | | **Sg** | **13 57 02.8** | **+0.6** |
| **THR5** | **Thira Island,** | **0.04** | **285** | P | | **Pg** | **13 57 00.1** | **-0.9** |
| **THR5** | **Thira Island,** | **0.04** | **285** | P | | **Pg** | **13 57 00.9** | **-0.1** |
| **THR5** | **Thira Island,** | **0.04** | **285** | P | | **Pg** | **13 57 00.6** | **-0.4** |
| **THR5** | **Thira Island,** | **0.04** | **285** | P | | **Pg** | **13 57 00.6** | **-0.4** |
| **SAP1** | **Santorini-Akro** | **0.05** | **182** | P | | **Pg** | **13 57 01.7** | **+0.6** |
| SAP1 | | | | S | | **Sg** | **13 57 02.9** | **+0.6** |
| SAP1 | | | | AML | AML | | 13 57 03.5 | |
| | comp=E,74302μm,0.1s | | | | | | | |
| SAP1 | | | | AML | AML | | 13 57 03.8 | |
| **SAP1** | **Santorini-Akro** | **0.05** | **182** | P | | **Pg** | **13 57 01.3** | **+0.3** |
| SAP1 | | | | S | | **Sg** | **13 57 02.2** | **-0.1** |
| **SAP1** | **Santorini-Akro** | **0.05** | **182** | P | | **Pg** | **13 57 01.3** | **+0.3** |
| SAP1 | | | | S | | **Sg** | **13 57 02.2** | **-0.1** |
| **THR2** | **Thira island,** | **0.05** | **36** | P | | **Pg** | **13 57 01.0** | **-0.1** |
| **THR2** | **Thira island,** | **0.05** | **36** | P | | **Pg** | **13 57 00.6** | **-0.5** |
| **THR2** | **Thira island,** | **0.05** | **36** | P | | **Pg** | **13 57 01.0** | **-0.1** |
| **THR6** | **Thira Island,** | **0.05** | **181** | P | | **Pg** | **13 57 00.9** | **-0.1** |
| **THR6** | **Thira Island,** | **0.05** | **181** | P | | **Pg** | **13 57 01.0** | **-0.1** |
| **THR6** | **Thira Island,** | **0.05** | **181** | P | | **Pg** | **13 57 00.9** | **-0.1** |
| **THR6** | **Thira Island,** | **0.05** | **181** | P | | **Pg** | **13 57 00.7** | **-0.4** |
| **THR9** | **Santorini-Faro** | **0.06** | **215** | P | | **Pg** | **13 57 00.1** | **-1.0** |
| **THR9** | **Santorini-Faro** | **0.06** | **215** | P | | **Pg** | **13 57 00.3** | **-0.8** |
| **THR9** | **Santorini-Faro** | **0.06** | **215** | P | | **Pg** | **13 57 00.7** | **-0.4** |
| **THR9** | **Santorini-Faro** | **0.06** | **215** | P | | **Pg** | **13 57 00.7** | **-0.4** |
| **SANT** | **Santorini** | **0.06** | **125** | P | | **Pg** | **13 57 02.4** | **+1.2** |
| SANT | | | | AML | AML | | 13 57 03.1 | |
| | comp=N,15108μm,0.2s | | | | | | | |
| SANT | | | | AML | AML | | 13 57 03.2 | |
| | comp=E,36997μm,0.1s | | | | | | | |
| **SANT** | **Santorini** | **0.06** | **125** | P | | **Pg** | **13 57 01.8** | **+0.5** |
| SANT | | | | AML | AML | | 13 57 03.1 | |
| | comp=N,15108μm,0.2s | | | | | | | |
| SANT | | | | S | | **Sg** | **13 57 03.2** | **+0.6** |
| SANT | | | | AML | AML | | 13 57 03.2 | |
| | comp=E,36997μm,0.1s | | | | | | | |
| **SANT** | **Santorini** | **0.06** | **125** | P | | **Pg** | **13 57 01.5** | **+0.3** |
| SANT | | | | S | | **Sg** | **13 57 02.9** | **+0.2** |
| **SANT** | **Santorini** | **0.06** | **125** | P | | **Pg** | **13 57 01.5** | **+0.3** |
| SANT | | | | S | | **Sg** | **13 57 02.9** | **+0.2** |
| **THR8** | **Santorini-Mono** | **0.07** | **89** | P | | **Pg** | **13 57 00.6** | **-0.6** |
| **THR8** | **Santorini-Mono** | **0.07** | **89** | P | | **Pg** | **13 57 00.1** | **-1.1** |
| **THR8** | **Santorini-Mono** | **0.07** | **89** | P | | **Pg** | **13 57 00.6** | **-0.6** |
| **APE** | **Apeiranthos** | **0.67** | **9** | P | | **Pg** | **13 57 11.9** | **-0.3** |
| APE | | | | S | | **Sg** | **13 57 20.2** | **-0.8** |
| APE | | | | AML | AML | | 13 57 24.8 | |
| | comp=E,1031μm,0.4s | | | | | | | |
| APE | | | | AML | AML | | 13 57 25.6 | |
| | comp=N,688μm,0.2s | | | | | | | |
| **APE** | **Apeiranthos** | **0.67** | **9** | P | | **Pg** | **13 57 11.7** | **-0.5** |
| APE | | | | S | | **Sb** | **13 57 22.9** | **+0.3** |
| APE | | | | AML | AML | | 13 57 24.8 | |
| | comp=E,1031μm,0.4s | | | | | | | |
| APE | | | | AML | AML | | 13 57 25.6 | |
| | comp=N,688μm,0.2s | | | | | | | |
| **APE** | **Apeiranthos** | **0.67** | **9** | P | | **Pg** | **13 57 12.0** | **-0.2** |
| APE | | | | S | | **Sg** | **13 57 20.2** | **-0.8** |
| **APE** | **Apeiranthos** | **0.67** | **9** | P | | **Pg** | **13 57 12.0** | **-0.2** |
| APE | | | | S | | **Sb** | **13 57 21.8** | **-0.8** |
| **MHLO** | **Agia Marina, M** | **0.85** | **290** | P | | **Pb** | **13 57 16.4** | **+0.2** |
| MHLO | | | | S | | **Sb** | **13 57 28.5** | **+0.8** |
| MHLO | | | | AML | AML | | 13 57 29.7 | |
| | comp=E,1542μm,0.4s | | | | | | | |
| MHLO | | | | AML | AML | | 13 57 32.9 | |
| | comp=N,1253μm,0.6s | | | | | | | |
| **MHLO** | **Agia Marina, M** | **0.85** | **290** | P | | **Pg** | **13 57 15.3** | **-0.3** |
| MHLO | | | | S | | **Sb** | **13 57 27.6** | **-0.1** |
| MHLO | | | | AML | AML | | 13 57 29.7 | |
| | comp=E,1542μm,0.4s | | | | | | | |
| MHLO | | | | AML | AML | | 13 57 32.9 | |
| | comp=N,1253μm,0.6s | | | | | | | |
| **MHLO** | **Agia Marina, M** | **0.85** | **290** | P | | **Pb** | **13 57 16.4** | **+0.2** |
| MHLO | | | | S | | **Sb** | **13 57 28.5** | **+0.8** |
| **MHLA** | **Plaka, Milos I** | **0.86** | **294** | P | | **Pn** | **13 57 17.2** | **-0.3** |
| MHLA | | | | S | | **Sg** | **13 57 27.2** | **+0.4** |
| MHLA | | | | AML | AML | | 13 57 28.8 | |
| | comp=N,1387μm,0.9s | | | | | | | |
| MHLA | | | | AML | AML | | 13 57 34.5 | |
| | comp=E,1819μm,0.9s | | | | | | | |
| **MHLA** | **Plaka, Milos I** | **0.86** | **294** | P | | **Pg** | **13 57 14.8** | **-0.9** |
| MHLA | | | | S | | **Sb** | **13 57 28.0** | **+0.1** |
| **MHLA** | **Plaka, Milos I** | **0.86** | **294** | P | | **Pn** | **13 57 17.2** | **-0.3** |
| MHLA | | | | S | | **Sg** | **13 57 27.2** | **+0.4** |
| MHLA | | | | S | | **Sg** | **13 57 27.2** | **+0.4** |
| **SERI** | **Serifos** | **1.05** | **316** | P | | **Pn** | **13 57 20.3** | **+0.1** |
| SERI | | | | S | | **Sg** | **13 57 33.2** | **+0.1** |
| **SERI** | **Serifos** | **1.05** | **316** | P | | **Pn** | **13 57 20.3** | **+0.1** |
| SERI | | | | S | | **Sg** | **13 57 33.2** | **+0.1** |
| **NPS** | **Neapolis** | **1.15** | **171** | P | | **Pb** | **13 57 21.1** | **-0.3** |
| NPS | | | | AML | AML | | 13 57 41.8 | |
| | comp=N,348μm,0.4s | | | | | | | |
| NPS | | | | AML | AML | | 13 57 42.9 | |
| | comp=E,405μm,0.4s | | | | | | | |
| **NPS** | **Neapolis** | **1.15** | **171** | P | | **Pb** | **13 57 21.1** | **-0.3** |
| NPS | | | | S | | **Sg** | **13 57 35.9** | **-0.5** |
| NPS | | | | AML | AML | | 13 57 41.8 | |
| | comp=N,348μm,0.4s | | | | | | | |
| NPS | | | | AML | AML | | 13 57 42.9 | |
| | comp=E,406μm,0.4s | | | | | | | |
| **NPS** | **Neapolis** | **1.15** | **171** | P | | **Pb** | **13 57 21.1** | **-0.3** |
| **IDI** | **Anoyia** | **1.19** | **200** | P | | **Pb** | **13 57 20.5** | **-1.5** |
| IDI | | | | AML | AML | | 13 57 40.4 | |
| | comp=N,138μm,0.4s | | | | | | | |
| IDI | | | | AML | AML | | 13 57 44.6 | |
| | comp=E,186μm,0.4s | | | | | | | |
| **IDI** | **Anoyia** | **1.19** | **200** | P | | **Pb** | **13 57 20.8** | **-1.2** |
| IDI | | | | S | | **Sb** | **13 57 36.4** | **-1.2** |
| IDI | | | | AML | AML | | 13 57 40.4 | |
| | comp=N,138μm,0.4s | | | | | | | |
| IDI | | | | AML | AML | | 13 57 44.6 | |
| | comp=E,186μm,0.4s | | | | | | | |
| **IDI** | **Anoyia** | **1.19** | **200** | P | | **Pb** | **13 57 20.5** | **-1.5** |
| **LAST** | **Lasithi** | **1.24** | **177** | P | | **Pn** | **13 57 20.9** | **-2.0** |
| LAST | | | | S | | **Sn** | **13 57 40.5** | **+0.7** |
| LAST | | | | AML | AML | | 13 57 43.0 | |
| | comp=N,190μm,0.4s | | | | | | | |
| LAST | | | | AML | AML | | 13 57 43.6 | |
| | comp=E,139μm,0.4s | | | | | | | |
| **LAST** | **Lasithi** | **1.24** | **177** | P | | **Pn** | **13 57 20.9** | **-2.0** |
| LAST | | | | S | | **Sn** | **13 57 40.5** | **+0.7** |
| **VAM** | **Vamos** | **1.39** | **225** | P | | **Pg** | **13 57 26.6** | **+0.7** |
| VAM | | | | S | | **Sg** | **13 57 44.3** | **+0.2** |
| VAM | | | | AML | AML | | 13 57 46.5 | |
| | comp=N,370μm,0.4s | | | | | | | |
| VAM | | | | AML | AML | | 13 57 52.8 | |
| | comp=E,286μm,0.6s | | | | | | | |
| **VAM** | **Vamos** | **1.39** | **225** | P | | **Pg** | **13 57 26.6** | **+0.7** |
| VAM | | | | S | | **Sg** | **13 57 44.3** | **+0.2** |
| **ZKR** | **Zakros** | **1.45** | **152** | P | | **Pg** | **13 57 27.1** | **0.0** |
| ZKR | | | | AML | AML | | 13 57 46.6 | |
| | comp=E,254μm,1.0s | | | | | | | |
| ZKR | | | | AML | AML | | 13 57 51.5 | |
| | comp=N,62μm,0.6s | | | | | | | |
| **ZKR** | **Zakros** | **1.45** | **152** | P | | **Pg** | **13 57 27.8** | **+0.7** |
| **ZKR** | **Zakros** | **1.45** | **152** | P | | **Pg** | **13 57 27.1** | **0.0** |
| **SIVA** | **Sivas** | **1.47** | **199** | P | | **Pb** | **13 57 26.6** | **0.0** |
| SIVA | | | | S | | **Sb** | **13 57 45.5** | **+0.1** |
| SIVA | | | | AML | AML | | 13 57 48.2 | |
| | comp=E,496μm,0.5s | | | | | | | |
| SIVA | | | | AML | AML | | 13 57 54.1 | |
| | comp=N,331μm,0.5s | | | | | | | |
| **SIVA** | **Sivas** | **1.47** | **199** | P | | **Pb** | **13 57 26.6** | **0.0** |
| SIVA | | | | S | | **Sb** | **13 57 45.5** | **+0.1** |
| **IMMV** | **Iera Moni Meta** | **1.49** | **231** | P | | **Pn** | **13 57 26.3** | **+0.2** |
| IMMV | | | | S | | **Sg** | **13 57 48.4** | **+1.3** |
| **IMMV** | **Iera Moni Meta** | **1.49** | **231** | P | | **Pb** | **13 57 26.9** | **-0.2** |
| **IMMV** | **Iera Moni Meta** | **1.49** | **231** | P | | **Pn** | **13 57 26.3** | **+0.2** |
| IMMV | | | | S | | **Sg** | **13 57 48.4** | **+1.3** |
| **KARP** | **Karpathos** | **1.67** | **120** | P | | **Pn** | **13 57 28.6** | **-0.1** |
| **KARP** | **Karpathos** | **1.67** | **120** | P | | **Pn** | **13 57 29.2** | **+0.5** |
| **KARP** | **Karpathos** | **1.67** | **120** | P | | **Pn** | **13 57 28.6** | **-0.1** |
| **SMG** | **Samos** | **1.74** | **41** | P | | **Pg** | **13 57 32.6** | **0.0** |
| SMG | | | | AML | AML | | 13 58 02.9 | |
| | comp=E,141μm,0.4s | | | | | | | |
| SMG | | | | AML | AML | | 13 58 03.5 | |
| | comp=N,156μm,0.4s | | | | | | | |
| **SMG** | **Samos** | **1.74** | **41** | P | | **Pg** | **13 57 32.6** | **0.0** |
| **VLY** | **Voula,Athens** | **1.93** | **319** | P | | **Pn** | **13 57 33.2** | **+0.9** |
| VLY | | | | S | | **Sg** | **13 58 00.8** | **-0.5** |
| VLY | | | | AML | AML | | 13 58 05.2 | |
| | comp=N,235μm,0.8s | | | | | | | |
| VLY | | | | AML | AML | | 13 58 12.2 | |
| | comp=E,275μm,1.0s | | | | | | | |
| **VLY** | **Voula,Athens** | **1.93** | **319** | P | | **Pn** | **13 57 33.2** | **+0.9** |
| VLY | | | | S | | **Sg** | **13 58 00.8** | **-0.5** |
| **CHOS** | **Chios island** | **2.04** | **15** | P | | **Pn** | **13 57 34.1** | **+0.2** |
| CHOS | | | | AML | AML | | 13 58 02.9 | |
| | comp=E,268μm,2.1s | | | | | | | |
| CHOS | | | | AML | AML | | 13 58 08.8 | |
| | comp=N,174μm,1.4s | | | | | | | |
| **CHOS** | **Chios island** | **2.04** | **15** | P | | **Pn** | **13 57 34.1** | **+0.2** |

*ISCJB **26** 14:05:09.8±0.9, 17°.1S±0°.4×179°.2W±0°.2, h500km, mb3.5/8, Error ellipse: s-maj=60.2km s-min=10.5km az=157.0*
*IDC **26** 14:05:10.2±1.8, 17°.19S×179°.08W, h495km±27km, mb3.1/8, mb1 3.5/9, mb1mx3.2/33, mbtmp4.0/9, Error ellipse: s-maj=80.6km s-min=12.5km az=152.0*
**ISC 26 14:05:10.6±1.1, 17°.2S±0°.4×179°.1W±0°.2, h500km, n11, σ0§96/11, mb3.4/8, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **AFI** | **Afiamalu** | **7.76** | **66** | P | | **P** | **14 07 03.9** | **-0.8** |
| | 4.9nm,0.3s,baz=303,slow=2.8,SNR=11 | | | | | | | |
| AFI | | | | S | | **S** | **14 08 38.6** | **+0.5** |
| | 1.0nm,0.3s,baz=152,

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **WESE** | **West Dahl East** | **3.93** | **67** | P | | **Pn** | 14 11 30.6 | **+1.6** |
| **WESN** | **West Dahl Nort** | **3.96** | **66** | P | | **Pn** | 14 11 30.7 | **+1.3** |
| **ISLZ** | **Isanotski Laza** | **4.50** | **66** | P | | **Pn** | 14 11 37.6 | **+1.1** |
| **FALS** | **False Pass** | **4.70** | **65** | P | | **Pn** | 14 11 40.2 | **+1.1** |
| **DRIA** | **Deer Island** | **5.37** | **66** | P | | **Pn** | 14 11 48.2 | **+0.2** |
| **DT1** | **Dutton Round H** | **5.40** | **65** | P | | **Pn** | 14 11 49.0 | **+0.6** |
| **DOL** | **Dolgoi Island** | **5.64** | **65** | P | | **Pn** | 14 11 52.2 | **+0.6** |
| **PS4A** | **Pavlof South-4** | **5.71** | **63** | P | | **Pn** | 14 11 54.1 | **+1.6** |
| **SDPT** | **Sand Point** | **6.46** | **65** | P | | **Pn** | 14 12 02.3 | **-0.2** |
| **KDAK** | **Kodiak Island** | **11.35** | **58** | P | | Pn | 14 13 04.2 | -3.6 |
| | 2.0nm,0.3s,baz=202,slow=3.6,SNR=39 | | | | | | | |
| KDAK | | | | S | | Sn | 14 15 03.2 | -10 |
| | 0.1nm,0.3s,baz=227,slow=23,SNR=2.2 | | | | | | | |
| **ILAR** | **Eielson Array** | **16.87** | **37** | P | | **P** | 14 14 16.2 | **-1.0** |
| | 0.2nm,0.3s,baz=224,slow=9.4,SNR=17 | | | | | | | |
| ILAR | | | | | ScP | **ScP** | 14 22 17.4 | **0.0** |
| | 0.0nm,0.3s,baz=276,slow=3.6,SNR=4.5 | | | | | | | |
| **PETK** | **Petropavlovsk-** | **18.85** | **283** | P | | **P** | 14 14 36.0 | **-3.1** |
| | 0.1nm,0.3s,baz=74,slow=16,SNR=3.8 | | | | | | | |
| **SEY** | **Seymchan** | **21.55** | **312** | P | | **P** | 14 15 07.7 | **-0.2** |
| | 3.9nm,1.2s,baz=298,slow=17,SNR=7.7 | | | | | | | |
| **INK** | **Inuvik** | **23.24** | **35** | P | | **P** | 14 15 24.2 | **-0.1** |
| | 1.0nm,0.5s,baz=258,slow=8.3,SNR=9.2 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **30.43** | **50** | P | | **P** | 14 16 27.0 | **-1.7** |
| | 0.2nm,0.9s,baz=270,slow=7.4,SNR=5.6 | | | | | | | |
| **NVAR** | **Mina Array Bea** | **38.54** | **91** | P | | **P** | 14 17 40.7 | **+1.7** |
| | 0.7nm,0.6s,baz=308,slow=7.8,SNR=7.2 | | | | | | | |
| **PDAR** | **Pinedale Array** | **41.11** | **79** | P | | **P** | 14 18 01.3 | **+1.0** |
| | 1.6nm,0.6s,baz=293,slow=3.9,SNR=17 | | | | | | | |
| **ULM** | **Lac du Bonnet** | **44.58** | **62** | P | | **P** | 14 18 28.0 | **+0.2** |
| | 0.8nm,0.4s,baz=179,slow=22,SNR=2.9 | | | | | | | |
| **TXAR** | **Lajitas Array** | **53.59** | **88** | P | | **P** | 14 19 37.5 | **+0.8** |
| | 0.7nm,0.5s,baz=308,slow=5.6,SNR=16 | | | | | | | |
| TXAR | | | | | pP | **pP** | 14 20 08.8 | **-0.1** |
| | 0.9nm,1.0s,baz=303,slow=5.9,SNR=3.8 | | | | | | | |
| **ASAR** | **Alice Springs** | **90.20** | **229** | P | | **P** | 14 23 13.8 | **-0.7** |
| | 0.3nm,0.9s,baz=21,slow=4.3,SNR=5.6 | | | | | | | |
| **BOSA** | **Boshof** | **152.83** | **328** | PKPbc | | **PKPbc** | 14 30 10.7 | **+0.4** |
| | 2.6nm,1.0s,baz=317,slow=1.3,SNR=3.7 | | | | | | | |

*ISCJB **26** 14:20:06.7±2.1,44.°67N±0.°05×81.°6E±0.°1,h2km±15km, Error ellipse: s-maj=15.1km s-min=5.5km az=31.7*
*SOME **26** 14:20:07.4,44.°70N×81.°65E,h25km*
*NNC **26** 14:20:07.1±3.4,44.°72N×81.°53E,h0km,mb2.5,mpv2.1, Error ellipse: s-maj=73.9km s-min=8.6km az=118.0*

**ISC 26 14:20:07.2±1.4,44.°69N±0.°07×81.°66E±0.°09,h20km±16km, n8,σ0§68/16,4C-2D,Northern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **DJR** | **Jarkent** | **1.38** | **256** | *eP* | | **Pb** | **14 20 32.3** | **0.0** |
| | 5.3nm,0.1s | | | | | | | |
| DJR | | | | *eS* | | **Sb** | 14 20 50.0 | **+0.4** |
| | 4.2nm,0.1s | | | | | | | |
| **KTMS** | **Ketmen** | **1.56** | **218** | *eP* | | **Pn** | 14 20 34.6 | **+0.7** |
| | 3.0nm,0.2s | | | | | | | |
| KTMS | | | | *eS* | | **Sn** | 14 20 53.8 | **+0.3** |
| | 14nm,0.2s | | | | | | | |
| **KAPS** | **Kapalarasan** | **1.74** | **291** | *eP* | | **Pb** | 14 20 38.2 | **-0.2** |
| | 0.9nm,0.1s | | | | | | | |
| KAPS | | | | *eS* | | **Sb** | 14 20 59.8 | **+0.1** |
| | 7.5nm,0.3s | | | | | | | |
| **PDGK** | **Podgornoye** | **2.07** | **230** | ⇑Pn | | **Pn** | 14 20 41.6 | **+0.6** |
| | 0.4nm,0.3s | | | | | | | |
| PDGK | | | | ⇑Sn | | **Sb** | 14 21 10.1 | **+0.6** |
| | 1.7nm,0.3s | | | | | | | |
| **MAKZ** | **Makanchi** | **2.13** | **6** | ⇓Pn | | **Pb** | 14 20 44.3 | **-0.8** |
| | 1.3nm,0.6s | | | | | | | |
| MAKZ | | | | ⇑Sn | | **Sb** | 14 21 11.4 | **+0.3** |
| | 3.0nm,0.5s | | | | | | | |
| **MK31** | **Makanchi Array** | **2.15** | **12** | ⇑Pn | | **Pb** | 14 20 45.9 | **+0.5** |
| | 0.2nm,0.2s,baz=192,slow=16,SNR=11 | | | | | | | |
| MK31 | | | | ⇓Sn | | **Sb** | 14 21 11.2 | **-0.5** |
| | 0.6nm,0.2s,baz=176,slow=35,SNR=4.8 | | | | | | | |
| **SHLS** | **Shalkode** | **2.20** | **227** | *eP* | | **Pn** | 14 20 42.6 | **-0.1** |
| | 3.0nm,0.2s | | | | | | | |
| SHLS | | | | *eS* | | **Sn** | 14 21 08.1 | **-1.4** |
| | 29nm,0.3s | | | | | | | |
| **UZB** | **Uzynbulak** | **2.45** | **232** | *eP* | | **Pb** | 14 20 49.6 | **-0.9** |
| | 1.0nm,0.2s | | | | | | | |
| UZB | | | | *eS* | | **Sb** | 14 21 20.6 | **+0.2** |
| | 3.7nm,0.2s | | | | | | | |

*IDC **26** 14:35:05.6±2.7,29.°45S×175.°93W,h0km,mb4.0/4, mb1 4.2/5,mb1mx3.8/37,mbtmp4.0/5,ML3.4/1,MS3.8/1, Ms1 3.8/1,ms1mx2.6/28,Error ellipse: s-maj=51.2km s-min=40.1km az=119.0*
*NEIC **26** 14:35:07.5±1.9,29.°51S×175.°99W,h10km,mb4.4/1,Error ellipse: s-maj=33.0km s-min=24.4km az=84.0*

**ISC 26 14:35:10.7±1.7,29.°5S±0.°1×176.°1W±0.°1,h28km,n10, σ1§13/12,mb4.2/5,Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **RAO** | **Raoul Island** | **1.64** | **278** | Pn | | **Pn** | **14 35 38.2** | **+0.5** |
| | 84nm,0.3s,baz=263,slow=20,SNR=5.5 | | | | | | | |
| RAO | | | | Sn | | **Sn** | 14 35 57.4 | **-0.4** |
| | 160nm,0.3s,baz=93,slow=22,SNR=9.0 | | | | | | | |
| **RAO** | **Raoul Island** | **1.64** | **278** | *e*Pn | | **Pn** | 14 35 37.2 | **-0.4** |
| RAO | | | | Sn | | **Sn** | 14 35 57.4 | **-0.4** |
| **URZ** | **Urewera** | **10.43** | **211** | Pn | | **Pn** | 14 37 36.9 | **-1.4** |
| | 0.3nm,0.3s,baz=190,slow=20,SNR=1.6 | | | | | | | |
| URZ | | | | Sn | | **Sn** | 14 39 35.4 | **+1.1** |
| | 0.4nm,0.3s,baz=160,slow=20,SNR=1.8 | | | | | | | |
| **CTA** | **Charters Tower** | **35.34** | **277** | P | | **P** | 14 42 04.5 | **+0.6** |
| | 1.7nm,0.6s,baz=95,slow=16,SNR=1.4 | | | | | | | |
| **STKA** | **Stephens Creek** | **36.33** | **255** | P | | **P** | 14 42 14.2 | **+1.9** |
| | 1.9nm,0.8s,baz=108,slow=5.4,SNR=3.4 | | | | | | | |
| **ASAR** | **Alice Springs** | **44.85** | **265** | P | | **P** | 14 43 21.9 | **-0.9** |
| | 1.2nm,0.6s,baz=101,slow=6.4,SNR=29 | | | | | | | |
| **WRAB** | **Tennant Creek** | **45.75** | **270** | *e*P | | **P** | 14 43 29.5 | **-0.4** |
| | 4.2nm,0.9s | | | | | | | |
| **WRA** | **Warramunga Arr** | **45.76** | **270** | P | | **P** | 14 43 28.4 | **-1.6** |
| | 2.4nm,0.8s,baz=109,slow=8.0,SNR=8.9 | | | | | | | |
| **GUMO** | **Guam** | **57.05** | **313** | LR | | LR | 15 04 30.0 | |
| | comp=Z,84nm,21.6s,baz=304,slow=31 | | | | | | | |
| **AKASG** | **Malin Array Be** | **151.55** | **325** | PKPbc | | **PKPbc** | 14 55 01.9 | **0.0** |
| | 0.8nm,0.6s,baz=40,slow=2.0,SNR=2.3 | | | | | | | |

*SOME **26** 14:43:48.9,44.°33N×83.°00E,h15km*
*NNC **26** 14:43:50.6±1.7,44.°23N×83.°18E,h0km,mb2.6,mpv2.2, Error ellipse: s-maj=17.3km s-min=5.0km az=118.0*

**ISC 26 14:43:49.6±2.4,44.°25N±0.°08×83.°1E±0.°1,h24km,n8, σ1§06/16,2C-4D,Northern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **KTMS** | **Ketmen** | **2.17** | **249** | *eP* | | **Pb** | **14 44 27.5** | **-0.6** |
| | 9.5nm,0.2s | | | | | | | |
| KTMS | | | | *eS* | | **Sb** | 14 44 54.9 | **+0.4** |
| | 27nm,0.4s | | | | | | | |
| **DJR** | **Jarkent** | **2.40** | **273** | *eP* | | **Pb** | 14 44 31.3 | **-0.7** |
| | 9.1nm,0.3s | | | | | | | |
| DJR | | | | *eS* | | **Sb** | 14 45 02.1 | **+0.8** |
| | 6.1nm,0.4s | | | | | | | |
| **MK31** | **Makanchi Array** | **2.61** | **347** | ⇑Pn | | **Pb** | 14 44 34.4 | **-1.2** |
| | 0.2nm,0.2s,baz=157,slow=14,SNR=17 | | | | | | | |
| MK31 | | | | ⇓Sn | | **Sb** | 14 45 07.8 | **+0.5** |
| | 1.0nm,0.2s,baz=169,slow=27,SNR=12 | | | | | | | |
| **MAKZ** | **Makanchi** | **2.68** | **343** | ⇑Pn | | **Pb** | 14 44 35.8 | **-1.1** |
| | 0.7nm,0.5s | | | | | | | |
| MAKZ | | | | ⇓Sn | | **Sb** | 14 45 10.3 | **+1.0** |
| | 1.5nm,0.5s | | | | | | | |
| **PDGK** | **Podgornoye** | **2.79** | **252** | ⇓Pn | | **Pb** | 14 44 37.0 | **-1.8** |
| | 0.4nm,0.2s | | | | | | | |
| PDGK | | | | ⇓Sn | | **Sb** | 14 45 13.0 | **+0.4** |
| | 2.3nm,0.4s | | | | | | | |
| **SHLS** | **Shalkode** | **2.88** | **249** | *eP* | | **Pn** | 14 44 35.1 | **+1.1** |
| | 8.3nm,0.2s | | | | | | | |
| SHLS | | | | *eS* | | **Sn** | 14 45 08.6 | **+0.7** |
| | 17nm,0.4s | | | | | | | |
| **KAPS** | **Kapalarasan** | **2.88** | **292** | *eP* | | **Pb** | 14 44 39.0 | **-1.3** |
| | 0.3nm,0.1s | | | | | | | |
| KAPS | | | | *eS* | | **Sb** | 14 45 14.6 | **-0.4** |
| | 2.2nm,0.4s | | | | | | | |
| **UZB** | **Uzynbulak** | **3.18** | **251** | *eP* | | **Pb** | 14 44 43.8 | **-1.5** |
| | 0.9nm,0.1s | | | | | | | |
| UZB | | | | *eS* | | **Sb** | 14 45 23.8 | **+0.1** |
| | 2.1nm,0.2s | | | | | | | |

**SJA 26 14:45:42.4±0.3,31.°60S×68.°42W,h91km±2km,ML4.1,**

**MW2.5,San Juan Province**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **RTCV** | **Cerro Valdivia** | **0.28** | **202** | *eP* | | Pn | 14 45 56.5 | +0.6 |
| **AMOG** | **MOGNA** | **0.67** | **355** | *eP* | | Pn | 14 45 59.5 | +0.7 |
| AMOG | | | | *eS* | | Sn | 14 46 12.2 | +1.3 |
| AMOG | | | | IAML | | | 14 46 14.0 | |
| | comp=Z,4μm,0.2s | | | | | | | |
| **RTLS** | **Leoncito** | **0.77** | **255** | *eP* | | Pn | 14 46 01.3 | +1.3 |
| RTLS | | | | *eS* | | Sn | 14 46 15.3 | +2.1 |
| **ASAL** | **Salagasta** | **1.05** | **200** | *eP* | | Pn | 14 46 03.9 | +1.0 |
| **ACAN** | **Cantantal** | **1.24** | **123** | *eP* | | Pn | 14 46 06.0 | +0.9 |
| ACAN | | | | *eS* | | Sn | 14 46 23.7 | +1.6 |
| **AAGR** | **Agrelo** | **1.52** | **193** | *eP* | | Pn | 14 46 09.8 | +1.2 |
| AAGR | | | | *eS* | | Sn | 14 46 30.1 | +1.8 |
| **AGUA** | **GUANDACOL** | **2.11** | **358** | *eP* | | Pn | 14 46 17.6 | +1.4 |

**IDC 26 14:50:19.9±6.5,19.°09S×178.°03W,h0km,mb3.8/3, mb1 4.1/3,mb1mx3.7/25,mbtmp3.8/3,Error ellipse: s-maj=282.2km s-min=37.4km az=144.0,Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **WRA** | **Warramunga Arr** | **44.79** | **261** | P | | P | 14 58 35.9 | 0.0 |
| | 0.7nm,0.3s,baz=97,slow=7.5,SNR=26 | | | | | | | |
| **ASAR** | **Alice Springs** | **44.83** | **255** | P | | P | 14 58 35.9 | -0.3 |
| | 1.5nm,0.5s,baz=90,slow=8.0,SNR=49 | | | | | | | |
| **ILAR** | **Eielson Array** | **86.95** | **13** | P | | P | 15 03 06.5 | 0.0 |
| | 0.1nm,0.5s,baz=215,slow=5.5,SNR=5.6 | | | | | | | |

**DDA 26 14:54:13.8,37.°34N×27.°57E,h7km,Md2.4,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **BDRM** | **Kayabasi** | **0.29** | **201** | *i* P | | Pg | 14 54 18.7 | -0.8 |
| BDRM | | | | *i* S | | Sb | 14 54 25.4 | -1.0 |
| **AYDN** | **Tasoluk** | **0.40** | **37** | *i* P | | Pg | 14 54 21.7 | +0.1 |
| AYDN | | | | *i* S | | Sb | 14 54 28.4 | -1.2 |
| **TAVA** | **DENIZLI_Tavas** | **1.07** | **83** | *i* P | | Pg | 14 54 27.6 | -6.8 |

**PRU 26 15:07:07.2,51.°15N×19.°13E,h0km,Belchatow,Poland**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **OKC** | **Ostrava-Krasne** | **1.46** | **206** | *e*SG | | Sb | 15 07 54.1 | -0.1 |
| **KRLC** | **Kraliky** | **1.84** | **235** | *e*PG | | Pn | 15 07 40.9 | +0.8 |
| KRLC | | | | *e*SG | | Sg | 15 08 05.9 | -0.5 |
| **DPC** | **Dobruska-Polom** | **1.96** | **247** | *e*PG | | Pb | 15 07 43.7 | 0.0 |
| DPC | | | | *e*SG | | Sg | 15 08 10.1 | +0.1 |

*IDC **26** 15:08:20.7±1.6,0.°76S×119.°65E,h0km,mb3.1/3, mb1 3.4/3,mb1mx3.2/35,mbtmp3.1/3,Error ellipse: s-maj=427.7km s-min=25.0km az=58.0*
*ISCJB **26** 15:08:21.4±0.7,0.°05S±0.°06×119.°70E±0.°03,h94km±9km, mb2.9/3,Error ellipse: s-maj=9.4km s-min=4.6km az=168.9*
*DJA **26** 15:08:21.7±0.4,0.°3S±3.°×12.°0E±.°,h86km±7km,M4.3/11, mb5.1/1,MLv3.9/11*

**ISC 26 15:08:23.0±1.2,0.°06S±0.°07×119.°69E±0.°04,h89km±12km, n14,σ1§49/23,mb3.1/3,Minahassa Peninsula, Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **MPSI** | **Mapaga** | **0.45** | **28** | P | | **Pn** | **15 08 38.0** | **+0.7** |
| MPSI | | | | S | | **Sn** | **15 08 47.8** | **0.0** |
| **APSI** | **Ampana** | **2.13** | **113** | P | | **Pn** | **15 08 56.5** | **-0.4** |
| APSI | | | | S | | **Sn** | **15 09 21.8** | **-1.1** |
| **SGKI** | **Sangatta, Kali** | **2.14** | **257** | P | | **Pn** | **15 08 56.2** | **-0.9** |
| SGKI | | | | S | | **Sn** | **15 09 21.8** | **-1.3** |
| **MRSI** | **Marisa** | **2.31** | **77** | P | | **Pn** | **15 08 58.3** | **-1.0** |
| MRSI | | | | S | | **Sn** | **15 09 26.8** | **-0.3** |
| **SMKI** | **Samarinda** | **2.51** | **261** | P | | **Pn** | **15 09 00.4** | **-1.6** |
| SMKI | | | | S | | **Sn** | **15 09 31.3** | **-0.7** |
| **TTSI** | **Tana Toraja** | **2.97** | **178** | P | | **Pn** | **15 09 07.2** | **-1.0** |
| TTSI | | | | S | | **Sn** | **15 09 43.7** | **+0.8** |
| **LUWI** | **Luwuk** | **3.23** | **108** | P | | **Pn** | **15 09 10.5** | **-1.2** |
| LUWI | | | | S | | **Sn** | **15 09 47.3** | **-1.9** |
| **SPSI** | **Sidrap Palu** | **3.88** | **179** | P | | **Pn** | **15 09 19.2** | **-1.3** |
| SPSI | | | | S | | **Sn** | **15 10 05.2** | **+0.2** |
| **KMSI** | **Cibinong** | **4.33** | **82** | P | | **Pn** | **15 09 24.0** | **-2.6** |
| KMSI | | | | S | | **Sn** | **15 10 15.3** | **-0.7** |
| **KBKI** | **Kotabaru** | **4.77** | **228** | P | | **Pn** | **15 09 30.6** | **-2.0** |
| KBKI | | | | S | | **Sn** | **15 10 27.0** | **+0.3** |
| **BBKI** | **Banjar Baru** | **5.91** | **235** | P | | **Pn** | **15 09 48.2** | **+0.1** |
| **WRA** | **Warramunga Arr** | **24.42** | **145** | P | | **P** | **15 13 36.5** | **+3.0** |
| | 0.5nm,0.6s,baz=323,slow=10.0,SNR=4.0 | | | | | | | |
| **ASAR** | **Alice Springs** | **27.22** | **151** | P | | **P** | **15 14 01.1** | **+2.3** |
| | 0.2nm,0.7s,baz=329,slow=8.1,SNR=3.8 | | | | | | | |
| **MKAR** | **Makanchi Array** | **56.97** | **330** | P | | P | 15 18 12.1 | +13 |
| | 0.1nm,0.5s,baz=131,slow=6.5,SNR=2.7 | | | | | | | |

*ISK **26** 15:11:11.0,40.°27N×27.°82E,h2km,MD2.6*
*CSEM **26** 15:11:12.3±0.1,40.°29N×27.°84E,h8km,MD2.6,Error ellipse: s-maj=3.7km s-min=2.6km az=173.0*
*DDA **26** 15:11:12.4,40.°33N×27.°90E,h7km,Md2.5*

**ISC 26 15:11:12.2±1.2,40.°30N±0.°03×27.°83E±0.°02,h2km±11km, n42,σ0§46/50,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **EDC** | **Edincik** | **0.06** | **27** | *e*PG | | **Pg** | **15 11 13.1** | **-0.3** |
| **EDC** | **Edincik** | **0.06** | **27** | *e*Pg | | **Pg** | **15 11 13.1** | **-0.3** |
| **KCTX** | **Karacabey (Bur** | **0.40** | **94** | *e*PG | | **Pg** | **15 11 19.8** | **-0.2** |
| KCTX | | | | *e*SG | | **Sg** | **15 11 26.0** | **+0.8** |
| **KCTX** | **Karacabey (Bur** | **0.40** | **94** | *e*Pg | | **Pg** | **15 11 19.8** | **-0.2** |
| KCTX | | | | *e*Sg | | **Sg** | **15 11 26.0** | **+0.8** |
| **KRBG** | **Karabiga-Canak** | **0.42** | **283** | *e*PG | | **Pg** | **15 11 20.3** | **0.0** |
| **KRBG** | **Karabiga-Canak** | **0.42** | **283** | *e*Pg | | **Pg** | **15 11 20.3** | **0.0** |
| **BALY** | **Balya** | **0.58** | **196** | *i* P | | **Pg** | **15 11 23.6** | **+0.3** |
| **BALY** | **Balya** | **0.58** | **196** | P | | **Pg** | **15 11 23.6** | **+0.3** |
| **SBT3** | **Marmara-Eregli** | **0.60** | **11** | *e*PG | | **Pg** | **15 11 24.1** | **+0.4** |
| SBT3 | | | | *e*SG | | **Sb** | **15 11 33.9** | **-0.3** |
| **SBT3** | **Marmara-Eregli** | **0.60** | **11** | *e*Pg | | **Pg** | **15 11 24.1** | **+0.4** |
| SBT3 | | | | *e*Sg | | **Sb** | **15 11 33.9** | **-0.3** |
| **RKY** | **Sarkoy-Tekirda** | **0.63** | **308** | *e*PG | | **Pg** | **15 11 24.4** | **+0.1** |
| **RKY** | **Sarkoy-Tekirda** | **0.63** | **308** | *e*Pg | | **Pg** | **15 11 24.4** | **+0.1** |
| **SBT2** | **Guzelce-Avcila** | **0.78** | **42** | *e*PG | | **Pg** | **15 11 27.6** | **+0.4** |
| **SBT2** | **Guzelce-Avcila** | **0.78** | **42** | *e*Pg | | **Pg** | **15 11 27.6** | **+0.4** |
| **ARMT** | **Armutlu** | **0.83** | **71** | *e*PG | | **Pg** | **15 11 27.8** | **-0.4** |
| **ARMT** | **Armutlu** | **0.83** | **71** | *e*Pg | | **Pg** | **15 11 27.8** | **-0.4** |
| **SLVT** | **Silivri** | **0.97** | **17** | *e*PG | | **Pg** | **15 11 31.2** | **+0.2** |
| **SLVT** | **Silivri** | **0.97** | **17** | *e*Pg | | **Pg** | **15 11 31.2** | **+0.2** |
| **KESN** | **Edirne-Kesan** | **1.02** | **301** | *i* P | | **Pb** | **15 11 32.8** | **-0.2** |
| KESN | | | | *i* S | | **Sb** | **15 11 47.5** | **+0.5** |
| **KESN** | **Edirne-Kesan** | **1.02** | **301** | P | | **Pb** | **15 11 32.8** | **-0.2** |
| KESN | | | | S | | **Sb** | **15 11 47.5** | **+0.5** |
| **GELI** | **Tayfur-Gelibol** | **1.04** | **276** | *e*PG | | **Pg** | **15 11 31.9** | **-0.2** |
| **GELI** | **Tayfur-Gelibol** | **1.04** | **276** | *e*Pg | | **Pg** | **15 11 32.0** | **-0.2** |
| **CTKS** | **Kestanelik-??a** | **1.07** | **28** | *e*PN | | **Pb** | **15 11 33.1** | **-0.3** |
| **CTKS** | **Kestanelik-??a** | **1.07** | **28** | *e*Pn | | **Pb** | **15 11 33.2** | **-0.3** |
| **ERIK** | **Erikli-Kesan** | **1.07** | **291** | *e*PG | | **Pg** | **15 11 32.5** | **-0.3** |
| **ERIK** | **Erikli-Kesan** | **1.07** | **291** | *e*Pg | | **Pg** | **15 11 32.5** | **-0.3** |
| **BAYC** | **CANAKKALE_Bayr** | **1.13** | **241** | *i* P | | Pn | 15 11 35.0 | -0.1 |
| BAYC | | | | *i* S | | **Sn** | **15 11 52.1** | **+0.8** |
| **BAYC** | **CANAKKALE_Bayr** | **1.13** | **241** | P | | Pn | 15 11 35.0 | -0.1 |
| BAYC | | | | S | | **Sn** | **15 11 52.1** | **+0.8** |
| **YLV** | **Yalova** | **1.21** | **77** | *e*PN | | **Pg** | **15 11 35.3** | **-0.1** |
| **YLV** | **Yalova** | **1.21** | **77** | *e*Pn | | **Pg** | **15 11 35.3** | **-0.1** |
| **ISK** | **Istanbul-Kandi** | **1.21** | **50** | *e*PN | | **Pg** | **15 11 35.5** | **+0.1** |
| **ISK** | **Istanbul-Kandi** | **1.21** | **50** | *e*Pn | | **Pg** | **15 11 35.5** | **+0.1** |
| **CTYL** | **Yalikoy Yolu** | **1.23** | **16** | *e*PN | | **Pn** | **15 11 36.0** | **-0.5** |
| **CTYL** | **Yalikoy Yolu** | **1.23** | **16** | *e*Pn | | **Pn** | **15 11 36.0** | **-0.5** |
| **EZN** | **Ezine** | **1.25** | **248** | *e*PN | | **Pn** | **15 11 35.5** | **-1.2** |
| **EZN** | **Ezine** | **1.25** | **248** | *e*Pn | | **Pn** | **15 11 35.5** | **-1.2** |
| **ENEZ** | **Enez** | **1.35** | **289** | *e*PN | | **Pb** | **15 11 37.9** | **-0.4** |
| **ENEZ** | **Enez** | **1.35** | **289** | *e*Pn | | **Pb** | **15 11 37.9** | **-0.4** |
| **TVSB** | **Tavsanli** | **1.51** | **123** | *e*PN | | **Pn** | **15 11 39.9** | **-0.6** |
| **TVSB** | **Tavsanli** | **1.51** | **123** | *e*Pn | | **Pn** | **15 11 39.9** | **-0.6** |
| **CAVI** | **Cavuskoy** | **1.54** | **93** | *e*PN | | **Pn** | **15 11 40.6** | **-0.2** |
| **CAVI** | **Cavuskoy** | **1.54** | **93** | *e*Pn | | **Pn** | **15 11 40.6** | **-0.2** |

*NIED **26** 15:20:00,33.°10N×136.°90E,h8km,Mw3.8 Best double couple: Mo5.63000×10^14 NP1:φs241.00000°,δ24.00000°, λ62.00000°. NP2:φs92.00000°,δ69.00000°,λ102.00000°.*

*IDC **26** 15:20:29.1±0.8,33.°18N×136.°96E,h0km,mb3.7/10, mb1 3.9/14,mb1mx3.7/52,mbtmp3.6/14,ML3.2/4,MS3.1/2, Ms1 3.1/2,ms1mx2.5/56,Error ellipse: s-maj=21.1km s-min=19.5km az=7.0*
*JMA **26** 15:20:31.5±0.1,33.°09N×136.°94E,h52km±2km,M3.9*

**ISC 26 15:20:30.9±1.8,33.°13N±0.°05×136.°93E±0.°03,h14km±11km, n38,σ1§06/42,mb3.7/10,15D,Near south coast of western Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **TTO1** | **TONANKAI O.B.S** | **0.50** | **346** | ⇓P | | **Pn** | **15 20 43.5** | **+0.1** |
| **TTO2** | **TONANKAI O.B.S** | **0.61** | **8** | ⇓P | | **Pn** | **15 20 44.9** | **+0.1** |
| TTO2 | | | | X | | | 15 20 55.3 | |
| **TTO3** | **TONANKAI O.B.S** | **0.83** | **28** | ⇓P | | **Pb** | **15 20 47.7** | **+0.7** |
| TTO3 | | | | X | | | 15 20 59.5 | |
| **TK01** | **Tokai 1** | **0.84** | **41** | P | | **Pg** | **15 20 47.1** | **-0.1** |
| TK01 | | | | X | | | 15 20 58.0 | |
| **TTO4** | **TONANKAI O.B.S** | **1.01** | **30** | ⇓P | | **Pb** | **15 20 49.9** | **-0.2** |
| TTO4 | | | | X | | | 15 21 03.0 | |
| **TK02** | **Tokai 2** | **1.07** | **40** | ⇓P | | **Pb** | **15 20 50.5** | **-0.6** |
| TK02 | | | | X | | | 15 21 04.4 | |
| **JWZ** | **Kozaga** | **1.09** | **292** | ⇓P | | **Pb** | **15 20 51.0** | **-0.5** |
| JWZ | | | | S | | **Sb** | **15 21 04.5** | **-1.1** |
| **JKN2** | **Miekihoku** | **1.23** | **334** | ⇓P | | **Pn** | **15 20 53.5** | **-0.2** |
| JKN2 | | | | *e*S | | **Sb** | **15 21 08.2** | **-1.5** |
| **JIE** | **Ise** | **1.27** | **352** | ⇓P | | **Pn** | **15 20 54.2** | **0.0** |
| JIE | | | | S | | **Sb** | **15 21 10.0** | **-0.8** |
| **TTO5** | **TONANKAI O.B.S** | **1.30** | **30** | ⇓P | | **Pn** | **15 20 53.9** | **-0.6** |
| TTO5 | | | | X | | | 15 21 10.0 | |
| **TK03** | **Tokai 3** | **1.35** | **40** | ⇓P | | **Pn** | **15 20 54.4** | **-0.8** |
| TK03 | | | | X | | | 15 21 11.4 | |
| **TK04** | **Tokai 4** | **1.48** | **32** | ⇓P | | **Pn** | **15 20 56.7** | **-0.3** |
| TK04 | | | | X | | | 15 21 14.8 | |
| **JWM** | **Minabe** | **1.50** | **299** | ⇓P | | **Pn** | **15 20 57.0** | **-0.3** |
| JWM | | | | S | | **Sn** | **15 21 14.8** | **-1.8** |
| **JWY** | **Kouya** | **1.55** | **315** | ⇓P | | **Pn** | **15 20 58.6** | **+0.4** |
| JWY | | | | S | | **Sn** | **15 21 17.2** | **-0.9** |
| **TSUJ** | **Tsu 2** | **1.63** | **345** | ⇓P | | **Pn** | **15 20 59.3** | **+0.1** |
| TSUJ | | | | S | | **Sn** | **15 21 19.0** | **-0.9** |
| **JHE** | **Heguri** | **1.83** | **326** | ⇓P | | **Pn** | **15 21 02.5** | **+0.5** |
| JHE | | | | S | | **Sn** | **15 21 24.9** | **-0.1** |
| **JHJ** | **Hachijo jima 2** | **2.40** | **90** | Pn | | **Pn** | **15 21 09.5** | **-0.2** |
| | 20nm,0.3s,baz=285,slow=12,SNR=2.8 | | | | | | | |
| JHJ | | | | Sn | | **Sn** | **15 21 36.2** | **-2.7** |
| | 43nm,0.3s,baz=82,slow=22,SNR=6.7 | | | | | | | |
| **MAT** | **Matsushiro** | **3.56** | **17** | P | | **Pn** | **15 21 26.9** | **+1.1** |
| MAT | | | | S | | **Sn** | **15 22 06.8** | **-0.9** |
| **MJAR** | **Matsushiro Arr** | **3.56** | **17** | Pn | | **Pn** | **15 21 26.4** | **+0.6** |
| | 6.4nm,0.3s,baz=203,slow=14,SNR=49 | | | | | | | |
| MJAR | | | | Sn | | **Sn** | **15 22 07.0** | **-0.7** |
| | 20nm,0.3s,baz=168,slow=22,SNR=17 | | | | | | | |
| **JNU** | **Nakatsue** | **5.07** | **272** | Pn | | **Pn** | **15 21 47.4** | **+0.8** |
| | 0.7nm,0.3s,baz=71,slow=6.3,SNR=9.8 | | | | | | | |
| JNU | | | | Sn | | **Sn** | **15 22 42.1** | **-2.9** |
| | 0.6nm,0.3s,baz=251,slow=18,SNR=3.9 | | | | | | | |
| **KSRS** | **Korea Array** | **8.53** | **303** | Pn | | **Pn** | **15 22 34.8** | **+0.9** |
| | 0.2nm,0.3s,baz=116,slow=14,SNR=3.7 | | | | | | | |
| KSRS | | | | Sn | | Sn | 15 24 19.1 | +9.1 |
| | 0.3nm,0.3s,baz=124,slow=31,SNR=4.8 | | | | | | | |
| KSRS | | | | LR | | LR | 15 25 34.4 | |
| | comp=Z,24nm,19.4s,baz=350,slow=36 | | | | | | | |
| **SONM** | **Songino Array** | **27.26** | **312** | P | | **P** | **15 26 15.9** | **+1.2** |
| | 0.5nm,0.7s,baz=139,slow=7.5,SNR=3.7 | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **29.86** | **109** | T | | T | 15 56 08.8 | |
| | baz=303,slow=75,SNR=4.2 | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **29.86** | **109** | T | | T | 15 56 18.0 | |
| | baz=303,slow=75,SNR=3.2 | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **29.87** | **109** | T | | T | 15 56 16.7 | |
| | baz=303,slow=75,SNR=5.5 | | | | | | | |
| **H11S3** | **W

| | | | | | | |
|---|---|---|---|---|---|---|
| **MWZ** | **Matawai** | **2.91** | **190** | ⇑PN | **Pn** | **15 30 23.4 +1.9** |
| MWZ | | | | AML | AML | 15 31 09.1 |
| MWZ | | | | AML | AML | 15 31 10.6 |
| **URZ** | **Urewera** | **2.92** | **196** | P | **Pn** | **15 30 22.2 +0.8** |
| | 26nm,0.3s,baz=276,slow=5.5,SNR=411 | | | | | |
| URZ | | | | S | **S** | **15 31 04.0 +1.7** |
| | 18nm,0.3s,baz=42,slow=6.3,SNR=13 | | | | | |
| **URZ** | **Urewera** | **2.92** | **196** | P | **Pn** | **15 30 22.2 +0.8** |
| URZ | | | | Pn | Pn | 15 30 23.6 +2.1 |
| URZ | | | | S | **S** | **15 31 04.0 +1.7** |
| **URZ** | **Urewera** | **2.92** | **196** | ⇓PN | **Pn** | **15 30 23.5 +2.1** |
| URZ | | | | AML | AML | 15 31 10.0 |
| URZ | | | | AML | AML | 15 31 12.3 |
| **MTAZ** | **Motutapu** | **2.94** | **242** | PN | **Pn** | **15 30 26.4 +4.7** |
| **TKGZ** | **Te Karaka** | **2.99** | **184** | Pn | **Pn** | **15 30 23.3 +1.0** |
| **TKGZ** | **Te Karaka** | **2.99** | **184** | PN | **Pn** | **15 30 23.2 +1.0** |
| TKGZ | | | | AML | AML | 15 31 10.8 |
| TKGZ | | | | AML | AML | 15 31 11.1 |
| **TARZ** | **Mount Tarawera** | **3.07** | **205** | Pn | **Pn** | **15 30 27.6 +4.4** |
| **TARZ** | **Mount Tarawera** | **3.07** | **205** | PN | **Pn** | **15 30 27.6 +4.4** |
| **RAGZ** | **Rawiri** | **3.09** | **191** | Pn | **Pn** | **15 30 25.7 +2.2** |
| **RAGZ** | **Rawiri** | **3.09** | **191** | PN | **Pn** | **15 30 25.7 +2.2** |
| RAGZ | | | | AML | AML | 15 31 14.8 |
| RAGZ | | | | AML | AML | 15 31 18.3 |
| **RRRZ** | **Republican Roa** | **3.16** | **204** | Pn | **Pn** | **15 30 27.4 +3.2** |
| **RRRZ** | **Republican Roa** | **3.16** | **204** | PN | **Pn** | **15 30 27.4 +3.2** |
| **MUGZ** | **Murupara** | **3.21** | **200** | ⇓PN | **Pn** | **15 30 26.9 +2.2** |
| **RIGZ** | **Rimuhau** | **3.26** | **185** | PN | **Pn** | **15 30 26.7 +1.5** |
| RIGZ | | | | AML | AML | 15 31 17.0 |
| RIGZ | | | | AML | AML | 15 31 17.0 |
| **RTZ** | **Ruatahuna** | **3.29** | **196** | PN | **Pn** | **15 30 27.3 +1.7** |
| **PRRZ** | **Plateau Road** | **3.34** | **204** | Pn | **Pn** | **15 30 29.1 +2.9** |
| **PRRZ** | **Plateau Road** | **3.34** | **204** | PN | **Pn** | **15 30 29.1 +2.9** |
| **SNGZ** | **Shannon Statio** | **3.38** | **191** | Pn | **Pn** | **15 30 28.6 +2.0** |
| **SNGZ** | **Shannon Statio** | **3.38** | **191** | PN | **Pn** | **15 30 28.6 +2.0** |
| SNGZ | | | | AML | AML | 15 31 20.0 |
| SNGZ | | | | AML | AML | 15 31 22.3 |
| **ALRZ** | **Allen Road** | **3.42** | **204** | PN | **Pn** | **15 30 29.9 +2.9** |
| **WPRZ** | **Whakapapataprin** | **3.44** | **207** | Pn | **Pn** | **15 30 31.4 +4.0** |
| **WPRZ** | **Whakapapataprin** | **3.44** | **207** | PN | **Pn** | **15 30 31.2 +3.8** |
| **PRGZ** | **Paritu Road** | **3.46** | **183** | Pn | **Pn** | **15 30 29.3 +1.7** |
| **PRGZ** | **Paritu Road** | **3.46** | **183** | PN | **Pn** | **15 30 29.3 +1.7** |
| PRGZ | | | | AML | AML | 15 31 22.0 |
| PRGZ | | | | AML | AML | 15 31 23.9 |
| **MTHZ** | **Maungataniwha** | **3.55** | **197** | PN | **Pn** | **15 30 30.8 +2.3** |
| **TLZ** | **Tolley Road** | **3.55** | **215** | Pn | **Pn** | 15 30 33.3 +4.8 |
| **TLZ** | **Tolley Road** | **3.55** | **215** | PN | **Pn** | 15 30 33.3 +4.8 |
| **KNZ** | **Kokohu** | **3.58** | **186** | Pn | **Pn** | **15 30 30.1 +1.3** |
| **KNZ** | **Kokohu** | **3.58** | **186** | ⇑PN | **Pn** | **15 30 30.0 +1.3** |
| KNZ | | | | AML | AML | 15 31 23.2 |
| KNZ | | | | AML | AML | 15 31 23.5 |
| **MRHZ** | **Matea Rd** | **3.64** | **202** | ⇑PN | **Pn** | **15 30 31.6 +2.0** |
| MRHZ | | | | AML | AML | 15 31 26.3 |
| MRHZ | | | | AML | AML | 15 31 26.5 |
| **WHHZ** | **Waihua** | **3.69** | **191** | PN | **Pn** | **15 30 32.0 +1.9** |
| WHHZ | | | | AML | AML | 15 31 26.8 |
| WHHZ | | | | AML | AML | 15 31 27.3 |
| **MHGZ** | **Mahia Peninsul** | **3.69** | **183** | Pn | **Pn** | **15 30 31.7 +1.5** |
| **MHGZ** | **Mahia Peninsul** | **3.69** | **183** | PN | **Pn** | **15 30 31.7 +1.5** |
| MHGZ | | | | AML | AML | 15 31 25.2 |
| MHGZ | | | | AML | AML | 15 31 30.3 |
| **OUZ** | **Omahuta** | **3.73** | **272** | PN | **Pn** | **15 30 30.6 0.0** |
| **NMHZ** | **Naumai** | **3.79** | **196** | Pn | **Pn** | **15 30 33.7 +2.4** |
| **NMHZ** | **Naumai** | **3.79** | **196** | PN | **Pn** | **15 30 33.7 +2.4** |
| NMHZ | | | | AML | AML | 15 31 27.9 |
| NMHZ | | | | AML | AML | 15 31 35.7 |
| **RATZ** | **Rangitukua** | **3.90** | **208** | Pn | **Pn** | **15 30 36.1 +3.5** |
| **RATZ** | **Rangitukua** | **3.90** | **208** | PN | **Pn** | **15 30 36.1 +3.5** |
| **BKZ** | **Black Stump Fm** | **3.93** | **199** | Pn | **Pn** | **15 30 34.5 +1.6** |
| **BKZ** | **Black Stump Fm** | **3.93** | **199** | ⇓PN | **Pn** | **15 30 34.6 +1.6** |
| BKZ | | | | AML | AML | 15 31 30.3 |
| BKZ | | | | AML | AML | 15 31 30.9 |
| **KRVZ** | **Karewarewa** | **4.14** | **208** | Pn | **Pn** | **15 30 39.0 +3.5** |
| **KRVZ** | **Karewarewa** | **4.14** | **208** | PN | **Pn** | **15 30 39.0 +3.5** |
| **MCHZ** | **McNeill Hill** | **4.14** | **196** | Pn | **Pn** | **15 30 37.6 +2.2** |
| **MCHZ** | **McNeill Hill** | **4.14** | **196** | PN | **Pn** | **15 30 37.6 +2.2** |
| MCHZ | | | | AML | AML | 15 31 38.4 |
| MCHZ | | | | AML | AML | 15 31 38.6 |
| **WTVZ** | **West Tongariro** | **4.18** | **208** | Pn | **Pn** | **15 30 38.7 +2.7** |
| **WTVZ** | **West Tongariro** | **4.18** | **208** | PN | **Pn** | **15 30 38.6 +2.7** |
| **KWHZ** | **Kaweka Forest** | **4.19** | **199** | PN | **Pn** | **15 30 37.6 +1.6** |
| KWHZ | | | | AML | AML | 15 31 37.4 |
| KWHZ | | | | AML | AML | 15 31 40.1 |
| **OTVZ** | **Oturere** | **4.19** | **207** | Pn | **Pn** | **15 30 39.0 +2.8** |
| **OTVZ** | **Oturere** | **4.19** | **207** | ⇓PN | **Pn** | **15 30 39.0 +2.8** |
| **TWVZ** | **Taurewa** | **4.20** | **210** | Pn | **Pn** | **15 30 39.0 +2.8** |
| **TWVZ** | **Taurewa** | **4.20** | **210** | PN | **Pn** | **15 30 39.0 +2.8** |
| **NGZ** | **Ngauruhoe** | **4.23** | **208** | Pn | **Pn** | **15 30 39.5 +3.0** |
| **NGZ** | **Ngauruhoe** | **4.23** | **208** | PN | **Pn** | **15 30 39.5 +3.0** |
| **CKHZ** | **Cape Kidnapper** | **4.28** | **191** | Pn | **Pn** | **15 30 38.5 +1.5** |
| **CKHZ** | **Cape Kidnapper** | **4.28** | **191** | PN | **Pn** | **15 30 38.5 +1.5** |
| CKHZ | | | | AML | AML | 15 31 37.7 |
| CKHZ | | | | AML | AML | 15 31 38.0 |
| **TUVZ** | **Tukino** | **4.29** | **207** | Pn | **Pn** | **15 30 39.7 +2.4** |
| **TUVZ** | **Tukino** | **4.29** | **207** | PN | **Pn** | **15 30 39.7 +2.4** |
| **FWVZ** | **Far West T-bar** | **4.32** | **208** | Pn | **Pn** | **15 30 40.3 +2.6** |
| **FWVZ** | **Far West T-bar** | **4.32** | **208** | ⇑PN | **Pn** | **15 30 40.3 +2.6** |
| **WHVZ** | **Whangaehu Hut** | **4.33** | **207** | Pn | **Pn** | **15 30 40.3 +2.4** |
| **WHVZ** | **Whangaehu Hut** | **4.33** | **207** | PN | **Pn** | **15 30 40.3 +2.4** |
| **BHHZ** | **Black Hill Sta** | **4.35** | **202** | Pn | **Pn** | **15 30 39.5 +1.6** |
| **BHHZ** | **Black Hill Sta** | **4.35** | **202** | PN | **Pn** | **15 30 39.5 +1.6** |
| BHHZ | | | | AML | AML | 15 31 40.1 |
| BHHZ | | | | AML | AML | 15 31 41.3 |
| **TRVZ** | **Turoa** | **4.36** | **208** | Pn | **Pn** | **15 30 40.5 +2.4** |
| **TRVZ** | **Turoa** | **4.36** | **208** | PN | **Pn** | **15 30 40.5 +2.4** |
| **WNVZ** | **Wahianoa** | **4.36** | **207** | Pn | **Pn** | **15 30 40.3 +2.1** |
| **WNVZ** | **Wahianoa** | **4.36** | **207** | PN | **Pn** | **15 30 40.3 +2.1** |
| **MOVZ** | **Moawhango** | **4.38** | **205** | Pn | **Pn** | **15 30 39.9 +1.7** |
| **MOVZ** | **Moawhango** | **4.38** | **205** | PN | **Pn** | **15 30 39.9 +1.7** |
| **KRHZ** | **Kereru** | **4.41** | **198** | PN | **Pn** | **15 30 39.8 +1.2** |
| KRHZ | | | | AML | AML | 15 31 40.1 |
| KRHZ | | | | AML | AML | 15 31 40.6 |
| **PKVZ** | **Pokaka** | **4.43** | **209** | Pn | **Pn** | **15 30 41.2 +2.3** |
| **PKVZ** | **Pokaka** | **4.43** | **209** | PN | **Pn** | **15 30 41.2 +2.3** |
| **KAHZ** | **Kahuranaki** | **4.45** | **193** | Pn | **Pn** | **15 30 40.5 +1.4** |
| **KAHZ** | **Kahuranaki** | **4.45** | **193** | PN | **Pn** | **15 30 40.5 +1.4** |
| KAHZ | | | | AML | AML | 15 31 42.8 |
| KAHZ | | | | AML | AML | 15 31 44.4 |
| **MTVZ** | **Mangateitei** | **4.46** | **208** | Pn | **Pn** | **15 30 41.0 +1.8** |
| **MTVZ** | **Mangateitei** | **4.46** | **208** | PN | **Pn** | **15 30 41.7 +2.5** |
| **VRZ** | **Vera Road** | **4.55** | **215** | Pn | **Pn** | **15 30 44.1 +3.9** |
| **VRZ** | **Vera Road** | **4.55** | **215** | ⇑PN | **Pn** | **15 30 44.2 +3.9** |
| **PXZ** | **Pawanui** | **4.68** | **192** | Pn | **Pn** | **15 30 42.5 +0.8** |
| **PXZ** | **Pawanui** | **4.68** | **192** | PN | **Pn** | **15 30 42.5 +0.8** |
| PXZ | | | | AML | AML | 15 31 45.3 |
| PXZ | | | | AML | AML | 15 31 45.3 |
| PXZ | | | | AML | AML | 15 31 45.5 |
| PXZ | | | | AML | AML | 15 31 45.6 |
| **PNHZ** | **Pukenui** | **4.71** | **199** | Pn | **Pn** | **15 30 43.0 +0.8** |
| **PNHZ** | **Pukenui** | **4.71** | **199** | PN | **Pn** | **15 30 43.0 +0.8** |
| PNHZ | | | | AML | AML | 15 31 45.9 |
| PNHZ | | | | AML | AML | 15 31 47.2 |
| **WPHZ** | **Waipukurau** | **4.79** | **196** | Pn | **Pn** | **15 30 44.3 +1.1** |
| **WPHZ** | **Waipukurau** | **4.79** | **196** | PN | **Pn** | **15 30 44.3 +1.1** |
| WPHZ | | | | AML | AML | 15 31 50.6 |
| WPHZ | | | | AML | AML | 15 31 56.4 |
| **TSZ** | **Takapari Road** | **4.91** | **200** | Pn | **Pn** | **15 30 45.1 +0.5** |
| **TSZ** | **Takapari Road** | **4.91** | **200** | ⇑PN | **Pn** | **15 30 45.1 +0.5** |
| TSZ | | | | AML | AML | 15 31 51.5 |
| **PRHZ** | **Porangahau** | **4.95** | **194** | Pn | **Pn** | **15 30 46.0 +1.0** |
| **PRHZ** | **Porangahau** | **4.95** | **194** | PN | **Pn** | **15 30 46.0 +1.0** |
| PRHZ | | | | AML | AML | 15 31 52.0 |
| PRHZ | | | | AML | AML | 15 31 52.1 |
| **WAZ** | **Wanganui** | **4.97** | **209** | Pn | **Pn** | **15 30 47.2 +1.9** |
| **WAZ** | **Wanganui** | **4.97** | **209** | PN | **Pn** | **15 30 47.2 +1.9** |
| **NEZ** | **North Egmont** | **4.99** | **219** | Pn | **Pn** | **15 30 50.2 +4.5** |
| **NEZ** | **North Egmont** | **4.99** | **219** | PN | **Pn** | **15 30 50.2 +4.5** |
| **PREZ** | **Palmer Road** | **5.01** | **218** | Pn | **Pn** | **15 30 50.2 +4.3** |
| **PREZ** | **Palmer Road** | **5.01** | **218** | PN | **Pn** | **15 30 50.2 +4.3** |
| **DVHZ** | **Dannevirke** | **5.08** | **197** | Pn | **Pn** | **15 30 47.2 +0.5** |
| **DVHZ** | **Dannevirke** | **5.08** | **197** | PN | **Pn** | **15 30 47.2 +0.5** |
| DVHZ | | | | AML | AML | 15 31 53.3 |
| DVHZ | | | | AML | AML | 15 31 59.2 |
| **ANWZ** | **Angora Road** | **5.17** | **194** | PN | **Pn** | **15 30 48.8 +1.1** |
| ANWZ | | | | AML | AML | 15 31 57.5 |
| ANWZ | | | | AML | AML | 15 31 59.0 |
| **OHWZ** | **Ohakea** | **5.24** | **204** | PN | **Pn** | **15 30 50.3 +1.7** |
| **POWZ** | **Post Office Ro** | **5.27** | **200** | Pn | **Pn** | **15 30 49.8 +0.8** |
| **POWZ** | **Post Office Ro** | **5.27** | **200** | PN | **Pn** | **15 30 49.8 +0.8** |
| POWZ | | | | AML | AML | 15 32 01.6 |
| POWZ | | | | AML | AML | 15 32 05.1 |
| **PRWZ** | **Pori Road** | **5.37** | **198** | Pn | **Pn** | **15 30 50.9 +0.7** |
| **PRWZ** | **Pori Road** | **5.37** | **198** | PN | **Pn** | **15 30 50.9 +0.7** |
| PRWZ | | | | AML | AML | 15 32 01.0 |
| PRWZ | | | | AML | AML | 15 32 01.1 |
| **BFZ** | **Birch Farm** | **5.43** | **195** | Pn | **Pn** | **15 30 51.2 +0.3** |
| **BFZ** | **Birch Farm** | **5.43** | **195** | PN | **Pn** | **15 30 51.2 +0.3** |
| BFZ | | | | AML | AML | 15 32 00.8 |
| BFZ | | | | AML | AML | 15 32 00.8 |
| BFZ | | | | AML | AML | 15 32 03.1 |
| BFZ | | | | AML | AML | 15 32 03.1 |
| **MRZ** | **Mangatainoka R** | **5.58** | **201** | Pn | **Pn** | **15 30 52.7 0.0** |
| **MRZ** | **Mangatainoka R** | **5.58** | **201** | ⇑PN | **Pn** | **15 30 52.7 0.0** |
| MRZ | | | | AML | AML | 15 32 03.3 |
| MRZ | | | | AML | AML | 15 32 04.0 |
| **TIWZ** | **Tintock** | **5.60** | **198** | Pn | **Pn** | **15 30 53.4 +0.3** |
| **TIWZ** | **Tintock** | **5.60** | **198** | ⇓PN | **Pn** | **15 30 53.4 +0.3** |
| TIWZ | | | | AML | AML | 15 32 05.7 |
| TIWZ | | | | AML | AML | 15 32 05.8 |
| **CPWZ** | **Castlepoint** | **5.66** | **195** | Pn | **Pn** | **15 30 55.0 +1.3** |
| **CPWZ** | **Castlepoint** | **5.66** | **195** | PN | **Pn** | **15 30 55.0 +1.3** |
| CPWZ | | | | AML | AML | 15 32 07.7 |
| CPWZ | | | | AML | AML | 15 32 08.3 |
| **HOWZ** | **Holdsworth Sta** | **5.81** | **200** | Pn | **Pn** | **15 30 55.3 -0.4** |
| **HOWZ** | **Holdsworth Sta** | **5.81** | **200** | PN | **Pn** | **15 30 55.3 -0.4** |
| HOWZ | | | | AML | AML | 15 32 08.2 |
| HOWZ | | | | AML | AML | 15 32 08.9 |
| **OGWZ** | **Otaki Gorge** | **5.84** | **203** | Pn | **Pn** | **15 30 55.3 -0.7** |
| **OGWZ** | **Otaki Gorge** | **5.84** | **203** | PN | **Pn** | **15 30 55.3 -0.7** |
| OGWZ | | | | AML | AML | 15 32 10.0 |
| OGWZ | | | | AML | AML | 15 32 11.7 |
| **TMWZ** | **Te Maipa** | **5.91** | **197** | Pn | **Pn** | **15 30 57.2 +0.2** |
| **TMWZ** | **Te Maipa** | **5.91** | **197** | PN | **Pn** | **15 30 57.2 +0.2** |
| TMWZ | | | | AML | AML | 15 32 11.7 |
| TMWZ | | | | AML | AML | 15 32 12.2 |
| **KIW** | **Kapiti Island** | **5.97** | **204** | Pn | **Pn** | **15 30 57.6 0.0** |
| **KIW** | **Kapiti Island** | **5.97** | **204** | PN | **Pn** | **15 30 57.6 0.0** |
| KIW | | | | AML | AML | 15 32 12.2 |
| KIW | | | | AML | AML | 15 32 13.7 |
| **MTW** | **Mount Morrison** | **6.06** | **199** | Pn | **Pn** | **15 30 58.5 -0.2** |
| **MTW** | **Mount Morrison** | **6.06** | **199** | PN | **Pn** | **15 30 58.5 -0.2** |
| MTW | | | | AML | AML | 15 32 14.7 |
| MTW | | | | AML | AML | 15 32 15.2 |
| **CAW** | **Cannon Point** | **6.14** | **202** | Pn | **Pn** | **15 30 59.2 -0.5** |
| **CAW** | **Cannon Point** | **6.14** | **202** | PN | **Pn** | **15 30 59.2 -0.5** |
| CAW | | | | AML | AML | 15 32 16.6 |
| CAW | | | | AML | AML | 15 32 19.9 |
| **TRWZ** | **Traveller** | **6.24** | **197** | Pn | **Pn** | **15 31 01.3 +0.3** |
| **TRWZ** | **Traveller** | **6.24** | **197** | PN | **Pn** | **15 31 01.3 +0.3** |
| TRWZ | | | | AML | AML | 15 32 20.1 |
| TRWZ | | | | AML | AML | 15 32 21.0 |
| **PAWZ** | **Paruwai Farm** | **6.29** | **199** | Pn | **Pn** | **15 31 01.4 -0.3** |
| **PAWZ** | **Paruwai Farm** | **6.29** | **199** | PN | **Pn** | **15 31 01.4 -0.3** |
| PAWZ | | | | AML | AML | 15 32 18.7 |
| PAWZ | | | | AML | AML | 15 32 19.6 |
| **DUWZ** | **D'Urville Isla** | **6.29** | **211** | Pn | **Pn** | **15 31 01.5 -0.2** |
| **DUWZ** | **D'Urville Isla** | **6.29** | **211** | PN | **Pn** | **15 31 01.5 -0.2** |
| **MSWZ** | **Moikau Station** | **6.37** | **200** | Pn | **Pn** | **15 31 02.5 -0.2** |
| **MSWZ** | **Moikau Station** | **6.37** | **200** | PN | **Pn** | **15 31 02.5 -0.2** |
| MSWZ | | | | AML | AML | 15 32 21.6 |
| MSWZ | | | | AML | AML | 15 32 22.8 |
| **WEL** | **Wellington** | **6.39** | **204** | Pn | **Pn** | **15 31 02.7 -0.2** |
| **WEL** | **Wellington** | **6.39** | **204** | PN | **Pn** | **15 31 02.7 -0.2** |
| WEL | | | | AML | AML | 15 32 22.7 |
| WEL | | | | AML | AML | 15 32 22.7 |
| WEL | | | | AML | AML | 15 32 22.9 |
| WEL | | | | AML | AML | 15 32 22.9 |
| **BHW** | **Baring Head** | **6.47** | **202** | Pn | **Pn** | **15 31 03.0 -0.9** |
| **BHW** | **Baring Head** | **6.47** | **202** | PN | **Pn** | **15 31 03.5 -0.4** |
| BHW | | | | AML | AML | 15 32 23.8 |
| BHW | | | | AML | AML | 15 32 24.0 |
| **TCW** | **Tory Channel** | **6.50** | **207** | Pn | **Pn** | **15 31 04.0 -0.3** |
| **TCW** | **Tory Channel** | **6.50** | **207** | PN | **Pn** | **15 31 04.0 -0.3** |
| TCW | | | | AML | AML | 15 32 23.7 |
| TCW | | | | AML | AML | 15 32 25.5 |
| **PLWZ** | **Palliser** | **6.51** | **200** | Pn | **Pn** | **15 31 03.9 -0.5** |
| **PLWZ** | **Palliser** | **6.51** | **200** | PN | **Pn** | **15 31 03.9 -0.5** |
| PLWZ | | | | AML | AML | 15 32 24.3 |
| PLWZ | | | | AML | AML | 15 32 24.9 |
| **TUWZ** | **Tuamarina** | **6.81** | **208** | Pn | **Pn** | **15 31 07.6 -0.6** |
| **TUWZ** | **Tuamarina** | **6.81** | **208** | PN | **Pn** | **15 31 07.6 -0.6** |
| TUWZ | | | | AML | AML | 15 32 31.3 |
| TUWZ | | | | AML | AML | 15 32 35.1 |
| **NNZ** | **Nelson** | **6.86** | **212** | Pn | **Pn** | **15 31 07.9 -0.9** |
| **NNZ** | **Nelson** | **6.86** | **212** | PN | **Pn** | **15 31 07.9 -0.9** |
| **QRZ** | **Quartz Range** | **6.95** | **218** | Pn | **Pn** | **15 31 09.5 -0.4** |
| **QRZ** | **Quartz Range** | **6.95** | **218** | PN | **Pn** | **15 31 09.5 -0.4** |
| **BSWZ** | **Blackbirch Sta** | **7.09** | **207** | Pn | **Pn** | **15 31 11.4 -0.2** |
| **BSWZ** | **Blackbirch Sta** | **7.09** | **207** | PN | **Pn** | **15 31 11.4 -0.2** |
| **THZ** | **Tophouse** | **7.51** | **212** | Pn | **Pn** | **15 31 16.1 -0.9** |
| **THZ** | **Tophouse** | **7.51** | **212** | PN | **Pn** | **15 31 16.1 -0.9** |
| **KHZ** | **Kahutara** | **7.82** | **206** | Pn | **Pn** | **15 31 20.0 -0.9** |
| **KHZ** | **Kahutara** | **7.82** | **206** | ⇑PN | **Pn** | **15 31 20.0 -0.9** |
| KHZ | | | | AML | AML | 15 32 52.3 |
| **DSZ** | **Denniston Nort** | **8.00** | **216** | Pn | **Pn** | **15 31 21.6 -1.6** |
| **DSZ** | **Denniston Nort** | **8.00** | **216** | PN | **Pn** | **15 31 21.6 -1.6** |
| **LTZ** | **Lake Taylor** | **8.62** | **210** | Pn | Pn | 15 31 24.6 -6.5 |
| **LTZ** | **Lake Taylor** | **8.62** | **210** | PN | **Pn** | **15 31 30.2 -0.9** |
| **INZ** | **Inchbonnie** | **8.93** | **214** | PN | **Pn** | **15 31 33.8 -1.1** |
| **CRLZ** | **Canterbury Las** | **9.16** | **206** | Pn | Pn | 15 31 31.2 -6.5 |
| **CRLZ** | **Canterbury Las** | **9.16** | **206** | PN | Pn | 15 31 31.2 -6.5 |
| **OXZ** | **Oxford** | **9.17** | **209** | PN | **Pn** | **15 31 36.1 -1.9** |
| **CTZ** | **Chatham Island** | **9.20** | **156** | PN | **P** | **15 31 47.3 +2.0** |
| **WVZ** | **Waitaha Valley** | **9.53** | **215** | Pn | **Pn** | **15 31 41.1 -1.4** |
| **WVZ** | **Waitaha Valley** | **9.53** | **215** | ⇑PN | **Pn** | **15 31 41.1 -1.4** |
| **RPZ** | **Rata Peaks** | **9.89** | **211** | P | **Pn** | **15 31 44.7 -2.3** |
| | 2.7nm,0.3s,baz=224,slow=2.2,SNR=33 | | | | | |
| RPZ | | | | S | **S** | **15 33 35.7 -2.6** |
| | 2.3nm,0.3s,baz=1.1,slow=22,SNR=10 | | | | | |
| **RPZ** | **Rata Peaks** | **9.89** | **211** | Pn | **Pn** | **15 31 45.5 -1.6** |
| RPZ | | | | S | **S** | **15 33 35.8 -2.6** |
| **RPZ** | **Rata Peaks** | **9.89** | **211** | PN | **Pn** | **15 31 45.4 -1.6** |
| **FOZ** | **Fox Glacier** | **10.31** | **216** | Pn | **Pn** | **15 31 50.8 -1.5** |
| **FOZ** | **Fox Glacier** | **10.31** | **216** | PN | **Pn** | **15 31 50.8 -1.5** |
| **LBZ** | **Lake Benmore** | **10.80** | **212** | Pn | **Pn** | **15 31 57.1 -1.5** |
| **LBZ** | **Lake Benmore** | **10.80** | **212** | PN | **Pn** | **15 31 57.1 -1.5** |
| **ODZ** | **Otahua Downs** | **11.15** | **209** | Pn | **Pn** | **15 32 02.9 0.0** |
| **ODZ** | **Otahua Downs** | **11.15** | **209** | PN | **Pn** | **15 32 02.8 0.0** |
| **JCZ** | **Jackson Bay** | **11.21** | **217** | Pn | **Pn** | **15 32 02.1 -1.6** |
| **JCZ** | **Jackson Bay** | **11.21** | **217** | PN | **Pn** | **15 32 02.1 -1.6** |
| **WKZ** | **Wanaka** | **11.67** | **214** | Pn | **Pn** | **15 32 07.1 -2.3** |
| **WKZ** | **Wanaka** | **11.67** | **214** | PN | **Pn** | **15 32 07.1 -2.3** |
| **EAZ** | **Earnscleugh** | **11.86** | **212** | Pn | **Pn** | **15 32 09.7 -1.9** |
| **EAZ** | **Earnscleugh** | **11.86** | **212** | PN | **Pn** | **15 32 09.7 -1.9** |
| **MLZ** | **Mavora Lakes** | **12.49** | **215** | Pn | **Pn** | **15 32 18.9 -0.7** |
| **MLZ** | **Mavora Lakes** | **12.49** | **215** | PN | **Pn** | **15 32 18.9 -0.7** |
| **WHZ** | **Wether Hill Ro** | **12.97** | **213** | Pn | **Pn** | **15 32 23.8 -1.6** |
| **DCZ** | **Deep Cove** | **13.02** | **217** | Pn | **Pn** | **15 32 24.9 -1.1** |
| **STKA** | **Stephens Creek** | **30.52** | **266** | P | **P** | **15 35 20.4 +0.2** |
| | 1.9nm,0.5s,baz=112,slow=13,SNR=10 | | | | | |
| **ASAR** | **Alice Springs** | **39.94** | **275** | P | **P** | **15 36 38.5 -1.9** |
| | 13nm,0.5s,baz=114,slow=7.9,SNR=495 | | | | | |
| ASAR | | | | S | **S** | **15 42 28.4 +1.9** |
| | 0.2nm,0.7s,baz=114,slow=15,SNR=3.3 | | | | | |
| **WRA** | **Warramunga Arr** | **41.40** | **280** | P | **P** | **15 36 49.8 -2.6** |
| | 14nm,0.5s,baz=119,slow=7.5,SNR=208 | | | | | |
| **FINES** | **FINESS Array B** | **148.54** | **334** | PKPbc | **PKPdf** | **15 48 39.5 -2.9** |
| | 7.9nm,1.1s,baz=45,slow=4.3,SNR=4.7 | | | | | |

*CSEM* ***26*** *15:44:41.5±0.1,38°.39N×31°.82E,h5km,ML2.6, Error ellipse: s-maj=2.7km s-min=2.5km az=177.0*
*DDA* ***26*** *15:44:41.5,38°.40N×31°.83E,h7km,Ml2.6*
*ISK* ***26*** *15:44:41.2,38°.41N×31°.84E,h5km,MD2.8*
**ISC 26 15:44:41.7±1.1,38°.40N±0°.03×31°.84E±0°.02,h6km±10km, n34,σ0°33/43,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **KDHN** | **Kadinhani** | **0.25** | **61** | *i* P | | **Pg** | **15 44 46.2** | **-0.5** |
| KDHN | | | | *i* S | | **Sg** | **15 44 50.6** | **+0.5** |
| **KDHN** | **Kadinhani** | **0.25** | **61** | P | | **Pg** | **15 44 46.2** | **-0.5** |
| KDHN | | | | S | | **Sg** | **15 44 50.6** | **+0.5** |
| **DOGA** | **KONYA_Doganhis** | **0.32** | **205** | *i* P | | **Pg** | **15 44 47.9** | **-0.1** |
| **DOGA** | **KONYA_Doganhis** | **0.32** | **205** | P | | **Pg** | **15 44 47.9** | **-0.1** |
| **KIZT** | **Kizilcal** | **0.48** | **4** | *e*PG | | **Pg** | **15 44 50.9** | **-0.2** |
| KIZT | | | | *e*SG | | **Sg** | **15 44 58.0** | **+0.6** |
| **KIZT** | **Kizilcal** | **0.48** | **4** | *e*Pg | | **Pg** | **15 44 50.9** | **-0.2** |
| KIZT | | | | *e*Sg | | **Sg** | **15 44 58.0** | **+0.6** |
| **KONT** | **Konya--Tatoy** | **0.61** | **137** | *e*PG | | **Pg** | **15 44 53.3** | **-0.2** |
| **KONT** | **Konya--Tatoy** | **0.61** | **137** | *i* P | | **Pg** | **15 44 53.1** | **-0.4** |
| **KONT** | **Konya--Tatoy** | **0.61** | **137** | *e*Pg | | **Pg** | **15 44 53.3** | **-0.2** |
| **KMER** | **Konya-Meram** | **0.76** | **146** | *i* P | | **Pb** | **15 44 57.0** | **-0.3** |
| **KMER** | **Konya-Meram** | **0.76** | **146** | P | | **Pb** | **15 44 57.0** | **-0.3** |
| **BOLV** | **Bolvadin** | **0.77** | **295** | *i* P | | **Pg** | **15 44 56.0** | **-0.4** |
| BOLV | | | | *i* S | | **Sb** | **15 45 08.3** | **+0.1** |
| **BOLV** | **Bolvadin** | **0.77** | **295** | P | | **Pg** | **15 44 56.0** | **-0.4** |
| BOLV | | | | S | | **Sb** | **15 45 08.3** | **+0.1** |
| **CHBY** | **Cihanbeyli** | **0.85** | **77** | *e*PG | | **Pg** | **15 44 57.9** | **-0.1** |
| **CHBY** | **Cihanbeyli** | **0.85** | **77** | *e*Pg | | **Pg** | **15 44 57.9** | **-0.1** |
| **BAGO** | **Egridir - ISPA** | **0.92** | **244** | *i* P | | **Pg** | **15 44 59.4** | **0.0** |
| BAGO | | | | *i* S | | **Sn** | **15 45 15.7** | **+0.9** |
| **SHUT** | **Suhut-Afyon** | **1.02** | **279** | *e*PG | | **Pg** | **15 45 01.1** | **-0.2** |
| **SHUT** | **Suhut-Afyon** | **1.02** | **279** | *e*Pg | | **Pg** | **15 45 01.1** | **-0.2** |
| **SVRH** | **Sivrihisar-ESK** | **1.08** | **347** | *e*PG | | **Pg** | **15 45 02.1** | **-0.3** |
| **SVRH** | **Sivrihisar-ESK** | **1.08** | **347** | *e*Pg | | **Pg** | **15 45 02.1** | **-0.3** |
| **SUTC** | **Sutluce-Ispart** | **1.13** | **216** | *e*PN | | **Pb** | **15 45 03.4** | **-0.4** |
| **SUTC** | **Sutluce-Ispart** | **1.13** | **216** | *e*Pn | | **Pb** | **15 45 03.4** | **-0.4** |
| **KKUL** | **Konya-Kulu** | **1.15** | **47** | *i* P | | **Pn** | **15 45 04.3** | **-0.1** |
| KKUL | | | | *i* S | | **Sn** | **15 45 20.4** | **-0.1** |
| **KKUL** | **Konya-Kulu** | **1.15** | **47** | P | | **Pn** | **15 45 04.3** | **-0.1** |
| KKUL | | | | S | | **Sn** | **15 45 20.4** | **-0.1** |
| **SULT** | **Sultanhani-AKS** | **1.34** | **98** | *e*PN | | **Pn** | **15 45 07.0** | **0.0** |
| **SULT** | **Sultanhani-AKS** | **1.34** | **98** | *e*Pn | | **Pn** | **15 45 07.0** | **0.0** |
| **KZIL** | **AFYON_Kizioren** | **1.34** | **265** | *i* P | | **Pn** | **15 45 06.8** | **-0.3** |
| **KZIL** | **AFYON_Kizioren** | **1.34** | **265** | P | | **Pn** | **15 45 06.8** | **-0.3** |
| **ESKT** | **Eskisehir** | **1.36** | **326** | *i* P | | **Pn** | **15 45 07.3** | **-0.1** |
| **SEYT** | **Eskypehyr** | **1.36** | **326** | P | | **Pn** | **15 45 07.3** | **-0.1** |
| **AFSR** | **Afˇar-Bala (A** | **1.42** | **42** | *e*PN | | **Pb** | **15 45 08.6** | **-0.1** |
| **AFSR** | **Afˇar-Bala (A** | **1.42** | **42** | *e*Pn | | **Pb** | **15 45 08.6** | **-0.1** |
| **KAMT** | **Kaman** | **1.76** | **56** | *e*PN | | **Pn** | **15 45 13.0** | **+0.2** |
| **KAMT** | **Kaman** | **1.76** | **56** | *e*Pn | | **Pn** | **15 45 13.0** | **+0.2** |

*ISCJB* ***26*** *15:47:35.0±0.8,5°.43S±0°.07×147°.3E±0°.2,h195km, mb3.7/9, Error ellipse: s-maj=22.5km s-min=9.5km az=10.4*
*IDC* ***26*** *15:47:36.5±0.8,5°.49S×147°.14E,h194km±7km,mb3.6/9, mb1 3.8/12,mb1mx3.5/42,mbtmpx4.2/12, Error ellipse: s-maj=22.7km s-min=9.1km az=107.0*
**ISC 26 15:47:36.3±0.8,5°.54S±0°.07×147°.2E±0°.2,h195km,n14, σ1ˢ14/20,mb3.9/9,Eastern New Guinea region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.25** | **343** | P | **Pg** | **16 09 59.8** | **-0.3** |
| **VANB** | **Van** | **0.27** | **234** | *e*PG | **Pg** | **16 10 00.5** | **+0.1** |
| VANB | | | | *e*SG | **Sb** | **16 10 05.8** | **-0.2** |
| **VANB** | **Van** | **0.27** | **234** | *e*Pg | **Pg** | **16 10 00.5** | **+0.1** |
| VANB | | | | *e*Sg | **Sb** | **16 10 05.8** | **-0.2** |
| **TVAN** | **Van** | **0.30** | **222** | *i* P | **Pg** | **16 10 00.4** | **-0.7** |
| TVAN | | | | *i* S | **Sg** | **16 10 06.0** | **+0.6** |
| **TVAN** | **Van** | **0.30** | **222** | P | **Pg** | **16 10 00.4** | **-0.7** |
| TVAN | | | | S | **Sg** | **16 10 06.0** | **+0.6** |
| **GEVA** | **Gevas** | **0.65** | **227** | *i* P | **Pg** | **16 10 06.0** | **-1.3** |
| **GEVA** | **Gevas** | **0.65** | **227** | P | **Pg** | **16 10 06.1** | **-1.3** |
| **TUTA** | **Tutak** | **0.93** | **315** | *i* P | **Pg** | **16 10 12.3** | **-0.4** |
| **TUTA** | **Tutak** | **0.93** | **315** | P | **Pg** | **16 10 12.3** | **-0.4** |
| **AGRB** | **Hanur-Agry** | **0.97** | **328** | *e*PG | **Pb** | **16 10 12.4** | **-1.2** |
| **AGRB** | **Hanur-Agry** | **0.97** | **328** | *e*Pg | **Pb** | **16 10 12.4** | **-1.2** |
| **HAKT** | **HAKKARI** | **1.20** | **178** | *i* P | **Pb** | **16 10 15.9** | **-1.5** |
| **HAKT** | **HAKKARI** | **1.20** | **178** | P | **Pb** | **16 10 15.9** | **-1.5** |
| **YOVA** | **Hakkari_Y˜…kse** | **1.27** | **157** | *i* P | **Pg** | **16 10 19.1** | **0.0** |
| **YOVA** | **Hakkari_Y˜…kse** | **1.27** | **157** | P | **Pg** | **16 10 19.1** | **0.0** |
| **TASB** | **TASBURUN-IGDIR** | **1.31** | **20** | *e*PN | **Pn** | **16 10 19.4** | **+0.6** |
| **TASB** | **TASBURUN-IGDIR** | **1.31** | **20** | *e*Pn | **Pn** | **16 10 19.4** | **+0.6** |
| **EKAR** | **Karacoban** | **1.34** | **292** | *i* P | **Pg** | **16 10 21.3** | **+0.7** |
| **EKAR** | **Karacoban** | **1.34** | **292** | P | **Pg** | **16 10 21.3** | **+0.7** |
| **EATA** | **Eleskirt** | **1.43** | **321** | *i* P | **Pn** | **16 10 21.4** | **+0.7** |
| **EATA** | **Eleskirt** | **1.43** | **321** | P | **Pn** | **16 10 21.4** | **+0.7** |
| **CUKT** | **Cukurca** | **1.50** | **182** | *e*PN | **Pb** | **16 10 22.7** | **+0.1** |
| **CUKT** | **Cukurca** | **1.50** | **182** | *i* P | **Pb** | **16 10 23.0** | **+0.4** |
| **CUKT** | **Cukurca** | **1.50** | **182** | *e*Pn | **Pb** | **16 10 22.7** | **+0.1** |
| **CUKT** | **Cukurca** | **1.50** | **182** | P | **Pb** | **16 10 23.0** | **+0.4** |
| **SRTM** | **Siirt_Merkez** | **1.57** | **241** | *i* P | **Pb** | **16 10 23.4** | **-0.3** |
| **SRTM** | **Siirt_Merkez** | **1.57** | **241** | P | **Pb** | **16 10 23.4** | **-0.3** |
| **SIRT** | **Sirnak** | **1.58** | **218** | *e*PN | **Pn** | **16 10 23.1** | **+0.6** |
| **SIRT** | **Sirnak** | **1.58** | **218** | *e*Pn | **Pn** | **16 10 23.1** | **+0.6** |

*MOS* ***26*** *16:12:31.0±1.0, 19˚.12S×168˚.74E, h33km, mb5.9/45, MS5.0/6, Error ellipse: s-maj=7.4km s-min=6.6km az=100.5*

*IDC* ***26*** *16:12:33.8±0.6, 19˚.13S×168˚.83E, h48km±5km, mb5.1/30, mb1 5.2/33, mb1mx5.2/35, mbtmp5.4/33, MS4.7/25, Ms1 4.7/25, ms1mx4.6/34, Error ellipse: s-maj=12.1km s-min=10.5km az=99.0*

*GCMT* ***26*** *16:12:33.2±0.1, 19˚.16S×168˚.45E, h51km, MW5.5/108, Moment Tensor Solution. s108,c179; s108,c217; Duration: 1s4 Moment tensor: Scale 10¹⁷Nm; Mrr2.45±.04; Mθθ-0.27±.03; Mϕϕ-2.18±.03; Mrθ-0.23±.02; Mθϕ0.84±.02; Mϕr0.48±.02; Best double couple: M₀2.53000×10¹⁷ NP1:ϕs338.00000°, δ51.00000°, λ89.00000°. NP2:ϕs161.00000°, δ39.00000°, λ92.00000°. Principal axes: T 2.5070, Plg84.0000°, Azm238.0000°; N 0.0440, Plg1.0000°, Azm339.0000°; P -2.5520, Plg6.0000°, Azm69.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

*NEIC* ***26*** *16:12:33.2±0.9, 19˚.17S×168˚.70E, mb5.6/182, MS5.1/59, MW5.6, MW5.5 Error ellipse: s-maj=3.4km s-min=3.0km az=135.0, Moment Tensor Solution. s32 Moment tensor: Scale 10¹⁷Nm; Mrr3.25; Mθθ-2.72; Mϕϕ-0.54; Mrθ0.34; Mθϕ1.96; Mϕr0.25; Best double couple: M₀3.60000×10¹⁷ NP1:ϕs112.00000°, δ47.00000°, λ79.00000°. NP2: ϕs309.00000°, δ44.00000°, λ102.00000°. Principal axes: T 3.3100, Plg82.0000°, Azm310.0000°; N 0.5600, Plg8.0000°, Azm120.0000°; P -3.8700, Plg1.0000°, Azm210.0000°;*

*NEIC Felt at Port-Vila.*

*ISCJB* ***26*** *16:12:33.2±0.9, 19˚.13S±0˚.02×168˚.66E±0˚.02, h52km±7km, mb5.6/247, MS5.0/100 Error ellipse: s-maj=4.0km s-min=3.2km az=15.3*

*BJI* ***26*** *16:12:35.4, 18˚.77S×169˚.04E, h71km, mb5.5/75, mB5.5/55, Ms5.2/45, Ms7 4.9/49*

*NEIC* ***26*** *16:12:36.0±0.0, 19˚.05S×168˚.47E, h60km, Moment Tensor Solution. s17 Moment tensor: Scale 10¹⁷Nm; Mrr2.17; Mθθ-0.38; Mϕϕ-1.79; Mrθ-0.04; Mθϕ1.04; Mϕr0.30; Best double couple: M₀2.30000×10¹⁷ NP1:ϕs335.00000°, δ49.00000°, λ94.00000°. NP2:ϕs149.00000°, δ41.00000°, λ85.00000°. Principal axes: T 2.1900, Plg85.0000°, Azm282.0000°; N 0.1700, Plg3.0000°, Azm152.0000°; P -2.3600, Plg3.0000°, Azm62.0000°;*

**ISC 26 16:12:34.2±0.4, 19.17S±0.04×168.80E±0.04, h55km±2km, h55km;pP-P,n1112,s1932/1087, mb5.6/241, MS5.0/100, 38C-47D, Vanuatu Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **I22FR** | **PORTLAGUERRE I** | **3.51** | **211** | *i* | | | 16 36 40.0 | |
| | baz=33,slow=316,SNR=0.4 | | | | | | | |
| **DZM** | **Mont Dzumac** | **3.63** | **217** | P | | **Pn** | **16 13 27.1** | **-0.9** |
| | 72nm,0.3s,baz=67,slow=11,SNR=446 | | | | | | | |
| DZM | | | | S | | **Sn** | **16 14 07.7** | **-2.0** |
| | 726nm,0.3s,baz=146,slow=15,SNR=7.1 | | | | | | | |
| DZM | | | | LR | | LR | 16 14 36.7 | |
| | comp=Z,14μm,19.6s,baz=66,slow=33 | | | | | | | |
| **DZM** | **Mont Dzumac** | **3.63** | **217** | *e*Pn | | **Pn** | **16 13 27.2** | **-0.9** |
| | 360nm,0.2s | | | | | | | |
| DZM | | | | *e*Sn | | **Sn** | **16 14 06.8** | **-3.0** |
| | 2μm,0.2s | | | | | | | |
| **DZM** | **Mont Dzumac** | **3.63** | **217** | *e*Pn | | **Pn** | **16 13 25.8** | **-2.3** |
| DZM | | | | S | | **Sn** | **16 14 07.7** | **-2.0** |
| **MSVF** | **Nonsavu** | **8.89** | **82** | *e*P | | Pn | 16 14 45.6 | +5.5 |
| **MSVF** | **Nonsavu** | **8.89** | **82** | *e*Pn | | Pn | 16 14 45.5 | +5.4 |
| **NFK** | **Norfolk Island** | **9.86** | **184** | P | | **Pn** | **16 14 55.7** | **+2.4** |
| | baz=10.0,SNR=11 | | | | | | | |
| **HNR** | **Honiara** | **12.93** | **317** | *e*P | | **Pn** | **16 15 35.0** | **-0.3** |
| HNR | | | | *e*S | | Sn | 16 17 25.0 | -33 |
| **HNR** | **Honiara** | **12.93** | **317** | P | | **Pn** | **16 15 35.8** | **+0.4** |
| | 25nm,0.3s,baz=26,slow=0.7,SNR=9.1 | | | | | | | |
| HNR | | | | S | | **Sn** | **16 17 55.1** | **-2.7** |
| | baz=315,slow=16,SNR=2.1 | | | | | | | |
| HNR | | | | LR | | LR | 16 19 43.8 | |
| | comp=Z,3μm,20.4s,baz=150,slow=33 | | | | | | | |
| **HNR** | **Honiara** | **12.93** | **317** | *e*P | | **Pn** | **16 15 36.0** | **+0.7** |
| **HNR** | **Honiara** | **12.93** | **317** | *e*Pn | | **Pn** | **16 15 35.3** | **0.0** |
| HNR | | | | S | | **Sn** | **16 17 55.1** | **-2.7** |
| **FUNA** | **Funafuti** | **14.61** | **45** | *e*Pn | | **Pn** | **16 15 58.7** | **+0.8** |
| **OUZ** | **Omahuta** | **16.54** | **166** | *e*Pn | | **P** | **16 16 24.2** | **0.0** |
| | 93nm,0.9s | | | | | | | |
| **EIDS** | **Eidsvold** | **17.52** | **246** | P | | **P** | **16 16 35.0** | **-0.2** |
| | baz=18,SNR=13 | | | | | | | |
| **EIDS** | **Eidsvold** | **17.52** | **246** | *e*Pn | | **P** | **16 16 36.4** | **+1.2** |
| | 212nm,1.8s | | | | | | | |
| **ARMA** | **Armidale** | **19.17** | **231** | P | | **Pn** | **16 16 55.6** | **+0.8** |
| | baz=19,SNR=15 | | | | | | | |
| **ARMA** | **Armidale** | **19.17** | **231** | *e*P | | **Pn** | **16 16 56.4** | **+1.6** |
| | 277nm,1.9s | | | | | | | |
| **AFI** | **Afiamalu** | **19.33** | **77** | P | | **P** | **16 16 55.5** | **+0.2** |
| | 1.9nm,0.3s,baz=81,slow=10,SNR=3.6 | | | | | | | |
| AFI | | | | LR | | LR | 16 24 14.5 | |
| | comp=Z,867nm,18.6s,baz=242,slow=36 | | | | | | | |
| **AFI** | **Afiamalu** | **19.33** | **77** | *e*P | | **Pn** | **16 16 56.3** | **-0.5** |
| AFI | | | | pmax | | pmax | | |
| | comp=Z,720nm,1.4s | | | | | | | |
| **AFI** | **Afiamalu** | **19.33** | **77** | *e*P | | **P** | **16 16 55.5** | **+0.2** |
| | comp=Z,721nm,1.4s | | | | | | | |
| **RMQ** | **Roma** | **19.84** | **245** | P | | **Pn** | **16 17 03.4** | **+0.7** |
| | baz=20,SNR=73 | | | | | | | |
| **HIZ** | **Hauiti** | **19.98** | **166** | *e*P | | **P** | **16 17 02.9** | **+0.9** |
| | comp=Z,139nm,1.0s | | | | | | | |
| **HIZ** | **Hauiti** | **19.98** | **166** | PN | | **Pn** | **16 17 04.3** | **+0.2** |
| **NIUE** | **Niue** | **20.10** | **93** | P | | Pn | 16 17 04.6 | -1.1 |
| | baz=20,SNR=4.2 | | | | | | | |
| **HAZ** | **Te Kaha** | **20.11** | **159** | *e*PN | | Pn | 16 17 05.8 | +0.1 |
| HAZ | | | | SN | | Sn | 16 20 55.6 | +4.4 |
| **URZ** | **Urewera** | **20.35** | **161** | P | | Pn | 16 17 08.2 | -0.3 |
| | comp=Z,56nm,0.7s,baz=334,slow=9.4,SNR=16 | | | | | | | |
| URZ | | | | S | | Sn | 16 20 58.7 | +1.7 |
| | comp=Z,8.0nm,0.9s,baz=9.5,slow=18,SNR=2.8 | | | | | | | |
| **URZ** | **Urewera** | **20.35** | **161** | *e*P | | **P** | **16 17 07.2** | **+1.2** |
| | comp=Z,602nm,1.6s | | | | | | | |
| URZ | | | | S | | Sn | 16 20 58.7 | +1.7 |
| **URZ** | **Urewera** | **20.35** | **161** | PN | | Pn | 16 17 08.8 | +0.3 |
| URZ | | | | SN | | Sn | 16 20 59.6 | +2.6 |
| **MUGZ** | **Murupara** | **20.45** | **162** | *e*PN | | Pn | 16 17 09.3 | -0.3 |
| **MWZ** | **Matawai** | **20.55** | **160** | PN | | Pn | 16 17 11.7 | +0.8 |
| **TWGZ** | **Tauwhareparae** | **20.55** | **159** | PN | | Pn | 16 17 10.8 | -0.2 |
| **PUZ** | **Puketiti** | **20.55** | **158** | PN | | Pn | 16 17 10.0 | -1.0 |
| PUZ | | | | SN | | Sn | 16 21 04.2 | +2.2 |
| **RTZ** | **Ruatahuna** | **20.64** | **162** | PN | | Pn | 16 17 11.6 | -0.4 |
| **OTVZ** | **Oturere** | **20.79** | **165** | PN | | Pn | 16 17 14.0 | +0.2 |
| **TARA** | **Tarawa** | **20.80** | **12** | *e*P | | **P** | **16 17 11.3** | **+0.3** |
| | comp=Z,503nm,1.1s | | | | | | | |
| **SNGZ** | **Shannon Statio** | **20.90** | **161** | *e*PN | | Pn | 16 17 15.1 | +0.1 |
| **WNVZ** | **Wahianoa** | **20.93** | **165** | PN | | **P** | **16 17 13.8** | **+1.3** |
| **RIGZ** | **Rimuhau** | **20.96** | **160** | *e*PN | | **P** | **16 17 14.2** | **+1.5** |
| **BKZ** | **Black Stump Fm** | **21.01** | **163** | *e*P | | **P** | **16 17 14.5** | **+1.2** |
| | comp=Z,136nm,1.0s | | | | | | | |
| **MGCD** | **Mangrove Creek** | **21.11** | **225** | P | | **P** | **16 17 16.3** | **+2.0** |
| | baz=21,SNR=14 | | | | | | | |
| **WHHZ** | **Waihua** | **21.14** | **162** | *e*PN | | **P** | **16 17 18.1** | **+3.5** |
| **KNZ** | **Kokohu** | **21.22** | **161** | PN | | **P** | **16 17 17.2** | **+1.8** |
| KNZ | | | | SN | | Sn | 16 21 15.0 | -2.9 |
| **KWHZ** | **Kaweka Forest** | **21.23** | **164** | *e*PN | | **P** | **16 17 18.7** | **+3.1** |
| **CTA** | **Charters Tower** | **21.26** | **264** | P | | **P** | **16 17 18.3** | **+2.2** |
| | comp=Z,52nm,0.8s,baz=92,slow=11,SNR=33 | | | | | | | |
| **CTAO** | **Charters Tower** | **21.26** | **264** | *e*P | | **P** | **16 17 18.3** | **+2.2** |
| CTAO | | | | pmax | | pmax | | |
| | comp=Z,360nm,1.6s | | | | | | | |
| **CTAO** | **Charters Tower** | **21.26** | **264** | *e*P | | **P** | **16 17 18.3** | **+2.2** |
| | comp=Z,357nm,1.6s | | | | | | | |
| CTAO | | | | LR | | LR | | |
| | comp=Z,7μm,22.0s | | | | | | | |
| **QRZ** | **Quartz Range** | **21.82** | **172** | *e*PN | | **P** | **16 17 25.2** | **+3.4** |
| **DUWZ** | **D'Urville Isla** | **22.00** | **170** | PN | | **P** | **16 17 29.9** | **+6.2** |
| **RABL** | **Rabaul** | **22.04** | **310** | *e*P | | **P** | **16 17 22.7** | **-1.8** |
| | comp=Z,149nm,0.6s | | | | | | | |
| **MRZ** | **Mangatainoka R** | **22.19** | **166** | PN | | **P** | **16 17 26.5** | **+0.7** |
| **BFZ** | **Birch Farm** | **22.37** | **165** | *e*P | | **P** | **16 17 28.0** | **+0.3** |
| | comp=Z,86nm,0.9s | | | | | | | |
| **BFZ** | **Birch Farm** | **22.37** | **165** | PN | | **P** | **16 17 28.1** | **+0.3** |
| **SNZO** | **South Karori** | **22.64** | **168** | *e*P | | **P** | **16 17 29.9** | **-0.7** |
| | comp=Z,259nm,1.5s | | | | | | | |
| **DSZ** | **Denniston Nort** | **22.65** | **174** | *e*PN | | **P** | **16 17 32.7** | **+2.0** |
| **THZ** | **Tophouse** | **22.79** | **172** | *e*P | | **P** | **16 17 32.6** | **+0.4** |
| | comp=Z,94nm,0.9s | | | | | | | |
| **THZ** | **Tophouse** | **22.79** | **172** | PN | | **P** | **16 17 33.3** | **+1.0** |
| **PMG** | **Port Moresby** | **23.09** | **292** | P | | **P** | **16 17 35.8** | **+0.4** |
| | comp=Z,152nm,1.1s,baz=121,slow=7.6,SNR=59 | | | | | | | |
| **PMG** | **Port Moresby** | **23.09** | **292** | *d* P | | **P** | **16 17 35.1** | **-0.3** |
| PMG | | | | pmax | | pmax | | |
| | comp=Z,1μm,1.3s | | | | | | | |
| **PMG** | **Port Moresby** | **23.09** | **292** | *e*P | | **P** | **16 17 35.0** | **-0.5** |
| | comp=Z,283nm,1.2s | | | | | | | |
| PMG | | | | LR | | LR | | |
| | comp=Z,3μm,20.0s | | | | | | | |
| **MTSU** | **Mount Surprise** | **23.22** | **269** | P | | **P** | **16 17 37.8** | **+1.0** |
| | baz=23,SNR=149 | | | | | | | |
| **KHZ** | **Kahutara** | **23.52** | **171** | *e*P | | **P** | **16 17 38.8** | **-0.5** |
| | comp=Z,132nm,0.9s | | | | | | | |
| **KHZ** | **Kahutara** | **23.52** | **171** | PN | | **P** | **16 17 39.0** | **-0.2** |
| **CNB** | **Canberra Magne** | **23.54** | **223** | P | | **P** | **16 17 41.3** | **+1.6** |
| | baz=24,SNR=76 | | | | | | | |
| **YNG** | **Young** | **23.58** | **226** | P | | **P** | **16 17 41.6** | **+1.6** |
| | baz=24,SNR=25 | | | | | | | |
| **INZ** | **Inchbonnie** | **23.59** | **175** | *e*PN | | **P** | **16 17 40.8** | **+0.8** |
| **LTZ** | **Lake Taylor** | **23.72** | **174** | *e*P | | **P** | **16 17 42.0** | **+0.8** |
| | comp=Z,152nm,0.8s | | | | | | | |
| **CAN** | **Canberra** | **23.78** | **223** | *e*P | | **P** | **16 17 43.2** | **+1.3** |
| CAN | | | | pmax | | pmax | | |
| | comp=Z,64nm,0.8s | | | | | | | |
| **CAN** | **Canberra** | **23.78** | **223** | *e*P | | **P** | **16 17 42.6** | **+0.7** |
| | comp=Z,64nm,0.8s | | | | | | | |
| CAN | | | | LR | | LR | | |
| | comp=Z,3μm,22.0s | | | | | | | |
| **QLP** | **Quilpie** | **23.78** | **247** | P | | **P** | **16 17 42.6** | **+0.6** |
| | baz=24,SNR=82 | | | | | | | |
| **CMSA** | **Cobar Meteorol** | **24.19** | **235** | P | | **P** | **16 17 46.2** | **+0.7** |
| | baz=24,SNR=80 | | | | | | | |
| **OXZ** | **Oxford** | **24.23** | **174** | *e*P | | **P** | **16 17 45.8** | **-0.1** |
| | comp=Z,108nm,0.9s | | | | | | | |
| **OXZ** | **Oxford** | **24.23** | **174** | PN | | **P** | **16 17 46.8** | **+0.9** |
| **FOZ** | **Fox Glacier** | **24.30** | **178** | *e*P | | **P** | **16 17 47.3** | **+0.9** |
| | comp=Z,311nm,1.1s | | | | | | | |
| **FOZ** | **Fox Glacier** | **24.30** | **178** | PN | | **P** | **16 17 47.2** | **+0.7** |
| **CRLZ** | **Canterbury Las** | **24.54** | **173** | *e*P | | **P** | **16 17 48.3** | **-0.4** |
| | comp=Z,123nm,1.2s | | | | | | | |
| **CRLZ** | **Canterbury Las** | **24.54** | **173** | PN | | **P** | **16 17 48.8** | **+0.1** |
| **RPZ** | **Rata Peaks** | **24.54** | **176** | P | | **P** | **16 17 50.0** | **+1.3** |
| | comp=Z,71nm,0.7s,baz=3.0,slow=10,SNR=62 | | | | | | | |
| RPZ | | | | LR | | LR | 16 26 55.7 | |
| | comp=Z,3μm,19.5s,baz=33,slow=35 | | | | | | | |
| **RPZ** | **Rata Peaks** | **24.54** | **176** | *e*P | | **P** | **16 17 49.8** | **+1.1** |
| | comp=Z,393nm,1.6s | | | | | | | |
| **RPZ** | **Rata Peaks** | **24.54** | **176** | PN | | **P** | **16 17 50.1** | **+1.4** |
| **MQZ** | **McQueen's Vall** | **24.68** | **173** | *e*P | | **P** | **16 17 49.2** | **-0.7** |
| | comp=Z,86nm,1.0s | | | | | | | |
| **MQZ** | **McQueen's Vall** | **24.68** | **173** | PN | | **P** | **16 17 47.4** | **-2.4** |
| **MILA** | **Mila** | **24.77** | **220** | P | | **P** | **16 17 53.1** | **+2.2** |
| | baz=25,SNR=6.3 | | | | | | | |
| **JCZ** | **Jackson Bay** | **24.83** | **180** | PN | | **P** | **16 17 52.8** | **+1.4** |
| **COEN** | **Coen** | **25.09** | **278** | P | | **P** | **16 17 55.0** | **+1.0** |
| | baz=25,SNR=40 | | | | | | | |
| **COEN** | **Coen** | **25.09** | **278** | *e*P | | **P** | **16 17 53.7** | **-0.3** |
| | comp=Z,251nm,1.6s | | | | | | | |
| **LBZ** | **Lake Benmore** | **25.17** | **178** | *e*P | | **P** | **16 17 54.5** | **+0.2** |
| | comp=Z,99nm,1.2s | | | | | | | |
| **LBZ** | **Lake Benmore** | **25.17** | **178** | PN | | **P** | **16 17 55.3** | **+0.9** |
| **WKZ** | **Wanaka** | **25.58** | **180** | *e*P | | **P** | **16 17 58.5** | **+0.4** |
| | comp=Z,248nm,1.6s | | | | | | | |
| **ODZ** | **Otahua Downs** | **25.84** | **177** | *e*P | | **P** | **16 17 59.8** | **-0.7** |
| | comp=Z,136nm,1.8s | | | | | | | |
| **ODZ** | **Otahua Downs** | **25.84** | **177** | PN | | **P** | **16 18 00.4** | **0.0** |
| **MLZ** | **Mavora Lakes** | **26.13** | **181** | *e*P | | **P** | **16 18 03.5** | **+0.4** |
| | comp=Z,92nm,1.2s | | | | | | | |
| **DCZ** | **Deep Cove** | **26.26** | **183** | *e*P | | **P** | **16 18 04.9** | **+0.8** |
| | comp=Z,92nm,1.0s | | | | | | | |
| **WHZ** | **Wether Hill Ro** | **26.66** | **181** | *e*P | | **P** | **16 18 08.0** | **+0.2** |
| | comp=Z,55nm,1.1s | | | | | | | |
| **TOO** | **Toolangi** | **27.39** | **223** | P | | **P** | **16 18 16.2** | **+1.6** |
| | baz=28,SNR=6.2 | | | | | | | |
| **QIS** | **Mount Isa** | **27.48** | **262** | P | | **P** | **16 18 16.3** | **+0.7** |
| | baz=28,SNR=12 | | | | | | | |
| **STKA** | **Stephens Creek** | **27.54** | **237** | P | | **P** | **16 18 16.8** | **+0.9** |
| | comp=Z,22nm,0.8s,baz=65,slow=8.6,SNR=37 | | | | | | | |
| STKA | | | | PcP | | **PcP** | **16 21 33.6** | **+0.7** |
| | comp=Z,32nm,0.8s,baz=54,slow=2.7,SNR=10 | | | | | | | |
| STKA | | | | LR | | LR | 16 28 38.9 | |
| | comp=Z,3μm,20.3s,baz=71,slow=35 | | | | | | | |
| **STKA** | **Stephens Creek** | **27.54** | **237** | P | | **P** | **16 18 16.6** | **+0.7** |
| | baz=28,SNR=30 | | | | | | | |
| **STKA** | **Stephens Creek** | **27.54** | **237** | *e*P | | **P** | **16 18 16.1** | **+0.2** |
| | comp=Z,30nm,1.6s | | | | | | | |
| STKA | | | | PcP | | **PcP** | **16 21 33.6** | **+0.7** |
| **ARPS** | **Mount Arapiles** | **29.42** | **228** | P | | **P** | **16 18 33.5** | **+0.9** |
| | baz=30,SNR=8.8 | | | | | | | |
| **RAR** | **Rarotonga** | **29.54** | **99** | LR | | LR | 16 27 57.3 | |
| | comp=Z,1μm,21.8s,baz=278,slow=31 | | | | | | | |
| **MOO** | **Moorlands** | **29.55** | **214** | P | | **P** | **16 18 35.4** | **+1.7** |
| | baz=30,SNR=3.2 | | | | | | | |
| **JAY** | **Jayapura** | **32.09** | **298** | P | | **P** | **16 18 56.7** | **+0.3** |
| | comp=Z,256nm,1.2s | | | | | | | |
| **BBOO** | **Buckleboo** | **32.27** | **239** | P | | **P** | **16 18 58.2** | **+0.4** |
| | baz=32,SNR=11 | | | | | | | |
| **BBOO** | **Buckleboo** | **32.27** | **239** | *e*P | | **P** | **16 18 57.4** | **-0.4** |
| | comp=Z,30nm,0.9s | | | | | | | |
| **WB2** | **Warramunga Arr** | **32.44** | **263** | *e*P | | **P** | **16 18 58.1** | **-1.3** |
| **WRAB** | **Tennant Creek** | **32.45** | **263** | *c i* P | | **P** | **16 18 58.5** | **-1.0** |
| WRAB | | | | pmax | | pmax | | |
| | comp=Z,65nm,1.2s | | | | | | | |
| **WRAB** | **Tennant Creek** | **32.45** | **263** | *e*P | | **P** | **16 18 58.0** | **-1.5** |
| | comp=Z,27nm,0.9s | | | | | | | |
| WRAB | | | | LR | | LR | | |
| | comp=Z,3μm,21.0s | | | | | | | |
| **WRA** | **Warramunga Arr** | **32.45** | **263** | P | | **P** | **16 18 58.5** | **-1.1** |
| | comp=Z,15nm,0.8s,baz=93,slow=8.6,SNR=77 | | | | | | | |
| WRA | | | | PcP | | **PcP** | **16 21 46.2** | **+0.4** |
| | comp=Z,7.7nm,0.6s,baz=87,slow=2.8,SNR=7.7 | | | | | | | |
| WRA | | | | ScP | | **ScP** | **16 25 27.7** | **+2.5** |
| | comp=Z,3.7nm,1.2s,baz=75,slow=3.7,SNR=3.5 | | | | | | | |
| WRA | | | | PKiKP | | **PKiKP** | **16 29 11.5** | **-1.8** |
| | comp=Z,1.9nm,0.7s,baz=24,slow=0.3,SNR=14 | | | | | | | |
| WRA | | | | LR | | LR | 16 31 08.9 | |
| | comp=Z,2μm,21.6s,baz=95,slow=34 | | | | | | | |
| **GENI** | **Genyem** | **32.50** | **297** | P | | **P** | **16 19 00.1** | **+0.2** |
| | comp=Z,206nm,1.2s,comp=Z,3μm | | | | | | | |
| **AS01** | **Alice Springs** | **32.70** | **256** | *e*P | | **P** | **16 19 00.5** | **-1.2** |
| **AS31** | **Alice Springs** | **32.74** | **256** | *e*P | | **P** | **16 19 01.2** | **-0.9** |
| | comp=Z,23nm,0.8s | | | | | | | |
| **ASAR** | **Alice Springs** | **32.74** | **256** | P | | **P** | **16 19 01.4** | **-0.8** |
| | comp=Z,53nm,0.7s,baz=84,slow=8.9,SNR=564 | | | | | | | |
| ASAR | | | | PcP | | **PcP** | **16 21 46.9** | **+0.3** |
| | comp=Z,6.4nm,0.8s,baz=103,slow=2.9,SNR=5.7 | | | | | | | |
| ASAR | | | | S | | **S** | **16 24 11.2** | **-4.1** |
| | comp=Z,2.7nm,0.9s,baz=80,slow=17,SNR=4.1 | | | | | | | |
| ASAR | | | | ScP | | **ScP** | **16 25 28.5** | **+2.3** |
| | comp=Z,1.7nm,0.9s,baz=91,slow=3.7,SNR=5.6 | | | | | | | |
| ASAR | | | | PKiKP | | **PKiKP** | **16 29 11.6** | **-1.9** |
| | comp=Z,1.3nm,0.7s,baz=116,slow=1.4,SNR=13 | | | | | | | |
| ASAR | | | | LR | | LR | 16 31 58.7 | |
| | comp=Z,4μm,20.4s,baz=102,slow=36 | | | | | | | |
| **KDU** | **Kakadu** | **35.48** | **275** | P | | **P** | **16 19 25.6** | **-0.2** |
| | baz=36,SNR=5.0 | | | | | | | |
| **MCQ** | **Macquarie Isla** | **36.06** | **190** | P | | **P** | **16 19 31.8** | **+1.5** |
| | baz=36,SNR=4.4 | | | | | | | |
| **MTN** | **Manton Dam** | **36.70** | **274** | P | | **P** | **16 19 36.1** | **-0.1** |
| | baz=37,SNR=40 | | | | | | | |
| **MTN** | **Manton Dam** | **36.70** | **274** | *e*P | | **P** | **16 19 35.8** | **-0.5** |
| | comp=Z,186nm,0.6s | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **37.48** | **357** | T | | T | 16 59 13.6 | |
| | baz=181,slow=76,SNR=7.3 | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **37.49** | **357** | T | | T | 16 59 20.3 | |
| | baz=181,slow=76,SNR=6.2 | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **37.50** | **357** | T | | T | 16 59 24.5 | |
| | baz=181,slow=76,SNR=5.0 | | | | | | | |
| **WRKA** | **Warakurna** | **37.88** | **254** | P | | **P** | **16 19 45.6** | **-0.6** |
| | baz=38,SNR=27 | | | | | | | |
| **KNRA** | **Kununurra** | **38.30** | **269** | P | | **P** | **16 19 49.4** | **-0.4** |
| | baz=38,SNR=27 | | | | | | | |
| **FORT** | **Forrest** | **38.51** | **244** | P | | **P** | **16 19 51.2** | **-0.2** |
| | baz=38,SNR=19 | | | | | | | |
| **FORT** | **Forrest** | **38.51** | **244** | *e*P | | **P** | **16 19 50.9** | **-0.5** |
| | comp=Z,766nm,0.8s | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **38.69** | **357** | T | | T | 17 00 45.0 | |
| | baz=169,slow=76,SNR=7.8 | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **38.69** | **357** | T | | T | 17 00 45.8 | |
| | baz=169,slow=76,SNR=8.0 | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **38.71** | **357** | T | | T | 17 00 53.8 | |
| | baz=169,slow=76,SNR=6.5 | | | | | | | |
| **FAKI** | **Fak Fak** | **39.21** | **290** | P | | **P** | **16 19 57.0** | **-0.4** |
| | comp=Z,101nm,0.9s,comp=Z,1μm | | | | | | | |
| **FAKI** | **Fak Fak** | **39.21** | **290** | *e*P | | **P** | **16 19 56.4** | **-1.1** |
| | comp=Z,63nm,0.7s | | | | | | | |
| **PPT2** | **Papeete2** | **39.46** | **95** | *e*S | | **S** | **16 25 58.6** | **+0.6** |
| | comp=Z,707nm,35.0s | | | | | | | |
| PPT2 | | | | *e*LQ | | LQ | 16 29 16.8 | |
| | comp=Z,5μm,35.2s | | | | | | | |
| PPT2 | | | | *e*LR | | LR | 16 30 56.7 | |
| | comp=Z,5μm,27.5s,baz=251 | | | | | | | |
| **PPT** | **Papeete** | **39.47** | **95** | P | | **P** | **16 20 00.9** | **+1.4** |
| | comp=Z,37nm,0.7s,baz=0.6,slow=6.8,SNR=4.9 | | | | | | | |
| PPT | | | | LR | | LR | 16 32 20.9 | |
| | comp=Z,897nm,21.8s,baz=259,slow=30 | | | | | | | |
| **PPTF** | **Pamatai, Papee** | **39.47** | **95** | *e*P | | **P** | **16 20 01.0** | **+1.3** |
| | comp=Z,270nm,1.5s | | | | | | | |
| **GUMO** | **Guam** | **40.20** | **322** | LR | | LR | 16 34 32.3 | |
| | comp=Z,987nm,22.0s,baz=134,slow=33 | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **40.84** | **264** | P | | **P** | **16 20 10.9** | **0.0** |
| | baz=41,SNR=48 | | | | | | | |
| **SWI** | **Sorong** | **41.04** | **292** | P | | **P** | **16 20 12.4** | **-0.2** |
| | comp=Z,121nm,0.8s | | | | | | | |
| **AAI** | **Ambon** | **42.53** | **286** | P | | **P** | **16 20 24.9** | **+0.2** |
| | comp=Z,50nm,0.7s | | | | | | | |
| **PALU** | **Palau** | **42.88** | **305** | P | | **P** | **16 20 28.9** | **+1.3** |
| | baz=43,SNR=10 | | | | | | | |
| **NLAI** | **Namlea** | **43.71** | **286** | P | | **P** | **16 20 33.7** | **-0.6** |
| | comp=Z,96nm,1.8s,comp=Z,1μm | | | | | | | |
| **KMBL** | **Kambalda** | **43.84** | **244** | P | | **P** | **16 20 35.2** | **0.0** |
| | baz=44,SNR=19 | | | | | | | |
| **SOEI** | **Soe** | **44.02** | **276** | P | | **P** | **16 20 36.8** | **-0.1** |
| | comp=Z,159nm,1.2s | | | | | | | |
| **SOEI** | **Soe** | **44.02** | **276** | *e*P | | **P** | **16 20 36.9** | **-0.1** |
| | comp=Z,439nm,1.6s | | | | | | | |
| **LBMI** | **Labuha** | **44.47** | **290** | P | | **P** | **16 20 40.2** | **-0.2** |
| | comp=Z,81nm,0.8s,comp=Z,1μm | | | | | | | |
| **SANI** | **Sanana** | **45.21** | **287** | P | | **P** | **16 20 45.8** | **-0.5** |
| | comp=Z,146nm,1.1s,comp=Z,2μm | | | | | | | |
| **MBWA** | **Marble Bar** | **45.96** | **259** | *e*P | | **P** | **16 20 52.3** | **+0.1** |
| | comp=Z,115nm,1.0s | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **VNDA** | **Vanda** | **58.48** | **182** | *e*P | | **P** | **16** | **22** | **24.3 +0.1** |
| | comp=Z,16nm,0.8s | | | | | | | | |
| **SBA** | **Scott Base** | **58.73** | **181** | *e*P | | **P** | **16** | **22** | **27.4 +1.5** |
| SBA | | | | | pmax | pmax | | | |
| | comp=Z,104nm,0.9s | | | | | | | | |
| **SBA** | **Scott Base** | **58.73** | **181** | *e*P | | **P** | **16** | **22** | **27.4 +1.5** |
| | comp=Z,104nm,0.9s | | | | | | | | |
| **KPJI** | **Karang Pucung** | **59.20** | **273** | P | | **P** | **16** | **22** | **31.0 +0.8** |
| **STKI** | **Sintang** | **59.34** | **282** | P | | **P** | **16** | **22** | **31.8 +0.6** |
| **CISI** | **Cisompet, Garu** | **60.19** | **272** | P | | **P** | **16** | **22** | **37.0 -0.1** |
| **CISI** | **Cisompet, Garu** | **60.19** | **272** | *e*P | | **P** | **16** | **22** | **36.7 -0.4** |
| | comp=Z,114nm,0.8s | | | | | | | | |
| **CNJI** | **Cibinong** | **60.91** | **272** | P | | **P** | **16** | **22** | **41.6 -0.3** |
| **KSM** | **Kuching** | **60.96** | **283** | *e*P | | **P** | **16** | **22** | **42.1 -0.1** |
| | comp=Z,112nm,0.8s | | | | | | | | |
| KSM | | | | | LR | LR | | | |
| | comp=Z,547nm,20.0s | | | | | | | | |
| **SKJI** | **Sukabumi** | **61.55** | **272** | P | | **P** | **16** | **22** | **46.1 -0.1** |
| **INU** | **Inuyama** | **62.05** | **331** | *e*P | | **P** | **16** | **22** | **49.3 +0.2** |
| | comp=Z,212nm,1.5s | | | | | | | | |
| **YOJ** | **Yonaguni jima** | **62.22** | **312** | *e*P | | **P** | **16** | **22** | **50.8 +0.4** |
| YOJ | | | | | pmax | pmax | | | |
| | comp=Z,171nm,0.8s | | | | | | | | |
| **YOJ** | **Yonaguni jima** | **62.22** | **312** | *e*P | | **P** | **16** | **22** | **50.8 +0.4** |
| | comp=Z,171nm,0.8s | | | | | | | | |
| **SBJI** | **Serang** | **62.22** | **273** | P | | **P** | **16** | **22** | **51.1 +0.3** |
| **MJAR** | **Matsushiro Arr** | **62.50** | **332** | P | | **P** | **16** | **22** | **51.9 -0.3** |
| | comp=Z,86nm,1.1s,baz=166,slow=6.7,SNR=54 | | | | | | | | |
| MJAR | | | | | LR | LR | 16 | 51 | 12.0 |
| | comp=Z,136nm,18.7s,baz=140,slow=37 | | | | | | | | |
| MJAR | | | | | PKPPKP | P'P'df | 16 | 52 | 02.1 +8.5 |
| | comp=Z,2.4nm,1.0s,baz=341,slow=1.3,SNR=4.0 | | | | | | | | |
| **MAJO** | **Matsushiro** | **62.50** | **332** | *e*P | | **P** | **16** | **22** | **52.3 +0.2** |
| MAJO | | | | | pmax | pmax | | | |
| | comp=Z,220nm,1.4s | | | | | | | | |
| **MAJO** | **Matsushiro** | **62.50** | **332** | *e*P | | **P** | **16** | **22** | **51.9 -0.2** |
| | comp=Z,222nm,1.4s | | | | | | | | |
| **MAT** | **Matsushiro** | **62.50** | **332** | P | | **P** | **16** | **22** | **52.0 -0.1** |
| **MJB9** | **Matsu-Tunnel** | **62.51** | **332** | *e*P | | **P** | **16** | **22** | **51.8 -0.4** |
| | comp=Z,238nm,1.4s | | | | | | | | |
| **TWG** | **Pinlang** | **62.57** | **310** | P | | **P** | **16** | **22** | **50.7 -2.1** |
| | comp=Z,400nm,1.3s | | | | | | | | |
| **YULB** | **Yu-li** | **62.76** | **310** | *e*P | | **P** | **16** | **22** | **54.3 +0.2** |
| | comp=Z,48nm,1.0s | | | | | | | | |
| **NACB** | **Ninganchiao** | **63.03** | **311** | *e*P | | **P** | **16** | **22** | **55.5 -0.4** |
| | comp=Z,438nm,1.5s | | | | | | | | |
| **TPUB** | **Ta-pu** | **63.18** | **310** | *e*P | | **P** | **16** | **22** | **56.5 -0.5** |
| | comp=Z,478nm,1.5s | | | | | | | | |
| **SSLB** | **Suanglung** | **63.25** | **310** | *e*P | | **P** | **16** | **22** | **56.9 -0.5** |
| | comp=Z,109nm,0.9s | | | | | | | | |
| **JNU** | **Nakatsue** | **63.37** | **325** | *e*P | | **P** | **16** | **22** | **58.1 +0.1** |
| | comp=Z,93nm,1.0s | | | | | | | | |
| **YHNB** | **Yeheng** | **63.50** | **312** | *e*P | | **P** | **16** | **22** | **58.8 -0.3** |
| | comp=Z,228nm,0.9s | | | | | | | | |
| **TATO** | **Taipei** | **63.61** | **312** | *e*P | | **P** | **16** | **22** | **59.3 -0.4** |
| | comp=Z,806nm,1.4s | | | | | | | | |
| **KASI** | **Kota Agung** | **63.95** | **273** | P | | **P** | **16** | **23** | **01.3 -0.9** |
| **LWLI** | **Liwa** | **64.53** | **274** | P | | **P** | **16** | **23** | **05.5 -0.6** |
| **PMBI** | **Palembang** | **64.54** | **276** | P | | **P** | **16** | **23** | **07.4 +1.3** |
| **ERM** | **Erimo** | **65.34** | **339**⇓ | *e*P | | **P** | **16** | **23** | **12.2 +1.6** |
| ERM | | | | | pmax | pmax | | | |
| | comp=Z,86nm,1.0s | | | | | | | | |
| **ERM** | **Erimo** | **65.34** | **339** | *e*P | | **P** | **16** | **23** | **10.5 -0.1** |
| | comp=Z,278nm,1.7s | | | | | | | | |
| ERM | | | | | LR | LR | | | |
| | comp=Z,1μm,21.0s | | | | | | | | |
| **QZH** | **Quanzhou** | **65.66** | **310**⇑ | *i*P | | **P** | **16** | **23** | **14.3 +1.3** |
| **MNAI** | **Manna** | **65.78** | **274** | P | | **P** | **16** | **23** | **13.7 -0.4** |
| **TPRI** | **Tanjung Pinang** | **66.11** | **280** | P | | **P** | **16** | **23** | **16.7 +0.5** |
| **MASI** | **Maura Aman, Be** | **66.85** | **275** | P | | **P** | **16** | **23** | **20.6 -0.4** |
| **MIR** | **Mirnyy** | **66.92** | **205** | *e*P | | **P** | **16** | **23** | **22.0 +1.5** |
| MIR | | | | | pmax | pmax | | | |
| | comp=Z,13nm,1.1s | | | | | | | | |
| **MYKOM** | **Kota Tinggi** | **67.06** | **280** | *e*P | | **P** | **16** | **23** | **21.6 -0.6** |
| | comp=Z,54nm,0.9s | | | | | | | | |
| **ASAJ** | **Asahikawa** | **67.39** | **340** | *e*P | | **P** | **16** | **23** | **24.6 +0.9** |
| | comp=Z,166nm,0.8s | | | | | | | | |
| **TJN** | **Taejon** | **67.72** | **325**⇓ | *e*P | | **P** | **16** | **23** | **26.9 +0.9** |
| **SSE** | **Sheshan** | **67.74** | **317** | P | | **P** | **16** | **23** | **27.0 +0.8** |
| SSE | | | | pP | | **sP** | **16** | **23** | **46.0 -1.5** |
| SSE | | | | S | | **S** | **16** | **32** | **20.5 +0.5** |
| SSE | | | | sS | | **sS** | **16** | **32** | **51.5 +6.0** |
| SSE | | | | | pmax | pmax | | | |
| | comp=Z,70nm,0.8s | | | | | | | | |
| SSE | | | | | pmax | pmax | | | |
| | comp=Z,120nm,5.2s | | | | | | | | |
| SSE | | | | | LR | LR | | | |
| | comp=Z,17nm,22.6s | | | | | | | | |
| SSE | | | | | LR | LR | | | |
| | comp=Z,75nm,22.5s | | | | | | | | |
| SSE | | | | | LR | LR | | | |
| | comp=Z,160nm,21.2s | | | | | | | | |
| **KSRS** | **Korea Array** | **68.22** | **326** | P | | **P** | **16** | **23** | **29.9 +0.9** |
| | comp=Z,15nm,0.8s,baz=146,slow=6.2,SNR=39 | | | | | | | | |
| KSRS | | | | | PKP2bc | | 16 | 51 | 45.1 |
| | comp=Z,2.1nm,1.0s,baz=316,slow=3.5,SNR=5.6 | | | | | | | | |
| **KS15** | **Wonju Array Si** | **68.23** | **326** | *e*P | | **P** | **16** | **23** | **29.9 +0.8** |
| **KSAR** | **Wonju Array Be** | **68.23** | **326** | P | | **P** | **16** | **23** | **30.0 +0.8** |
| **KSAR** | **Wonju Array Be** | **68.23** | **326** | P | | **P** | **16** | **23** | **29.9 +0.8** |
| KSAR | | | | ⇑*e* | | | 16 | 51 | 45.1 |
| **KS01** | **Wonju Array Si** | **68.25** | **326** | *e*P | | **P** | **16** | **23** | **29.2 -0.1** |
| **GZH** | **Guangzhou** | **68.52** | **305** | *e*P | | **P** | **16** | **23** | **33.5 +2.3** |
| **INCN** | **Inchon** | **68.93** | **325** | *e*P | | **P** | **16** | **23** | **34.3 +0.8** |
| | comp=Z,249nm,1.1s | | | | | | | | |
| INCN | | | | | LR | LR | | | |
| | comp=Z,393nm,22.0s | | | | | | | | |
| **INCN** | **Inchon** | **68.93** | **325** | P | | **P** | **16** | **23** | **35.3 +1.8** |
| | SNR=6.2 | | | | | | | | |
| **INCN** | **Inchon** | **68.93** | **325** | P | | **P** | **16** | **23** | **35.3 +1.8** |
| | SNR=6.2 | | | | | | | | |
| **PPSI** | **Pulau Pagai** | **69.08** | **274** | P | | **P** | **16** | **23** | **36.0 +1.0** |
| **BKNI** | **Bangkinang** | **69.16** | **278** | P | | **P** | **16** | **23** | **36.4 +0.9** |
| **BKNI** | **Bangkinang** | **69.16** | **278** | *e*P | | **P** | **16** | **23** | **35.7 +0.2** |
| | comp=Z,652nm,1.3s | | | | | | | | |
| **QIZ** | **Qiongzhong** | **69.19** | **300** | P | | **P** | **16** | **23** | **37.0 +1.5** |
| QIZ | | | | pP | | **pP** | **16** | **23** | **52.3 +1.6** |
| QIZ | | | | sP | | **PcP** | **16** | **24** | **01.0 +1.9** |
| QIZ | | | | S | | **S** | **16** | **32** | **40.0 +2.3** |
| QIZ | | | | | pmax | pmax | | | |
| | comp=Z,390nm,5.4s | | | | | | | | |
| QIZ | | | | | LR | LR | | | |
| | comp=Z,720nm,11.7s | | | | | | | | |
| **PDSI** | **Padang** | **69.27** | **276** | P | | **P** | **16** | **23** | **34.9 -1.3** |
| **NJ2** | **Nanjing** | **69.88** | **316** | *e*P | | **P** | **16** | **23** | **40.5 +1.0** |
| NJ2 | | | | | pmax | pmax | | | |
| | comp=Z,73nm,0.6s | | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **69.88** | **341**⇓ | *i*P | | **P** | **16** | **23** | **41.1 +1.9** |
| YSS | | | | | pmax | pmax | | | |
| | comp=Z,190nm,1.0s | | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **69.88** | **341** | *e*P | | **P** | **16** | **23** | **40.6 +1.4** |
| | comp=Z,297nm,1.3s | | | | | | | | |
| **SISI** | **Saibi** | **70.42** | **276** | P | | **P** | **16** | **23** | **43.9 +0.7** |
| **SKR** | **Severo-Kuril's** | **70.44** | **351** | *e*P | | P | 16 | 23 | 58.4 +16 |
| SKR | | | | *e*S | | **SKiKP** | **16** | **33** | **32.5 +10** |
| SKR | | | | | MLR | MLR | | | |
| | comp=Z,900nm,21.0s | | | | | | | | |
| SKR | | | | | MLR | MLR | | | |
| | comp=Z,3μm,20.0s | | | | | | | | |
| **MSHR** | **Mys Shultsa** | **70.57** | **331**⇓ | *e*P | | **P** | **16** | **23** | **45.2 +1.8** |
| **IPM** | **Ipoh** | **70.67** | **282** | *e*P | | **P** | **16** | **23** | **44.8 0.0** |
| | comp=Z,76nm,0.9s | | | | | | | | |
| **VLA** | **Vladivostok** | **70.67** | **332** | *ce*P | | **P** | **16** | **23** | **45.5 +1.4** |
| VLA | | | | | pmax | pmax | | | |
| | comp=Z,144nm,1.3s | | | | | | | | |
| **QSPA** | **South Pole Qui** | **70.88** | **180** | *e*P | | **P** | **16** | **23** | **45.5 +0.2** |
| | comp=Z,134nm,1.0s | | | | | | | | |
| **KULM** | **Kulim** | **71.32** | **283** | *e*P | | **P** | **16** | **23** | **48.1 -0.6** |
| | comp=Z,59nm,1.0s | | | | | | | | |
| KULM | | | | | LR | LR | | | |
| | comp=Z,994nm,21.0s | | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **71.49** | **333** | P | | **P** | **16** | **23** | **50.1 +1.1** |
| | comp=Z,92nm,0.9s,baz=142,slow=4.4,SNR=67 | | | | | | | | |
| USRK | | | | | LR | LR | 16 | 52 | 30.5 |
| | comp=Z,284nm,20.9s,baz=149,slow=34 | | | | | | | | |
| **PBSI** | **Pulau Batu** | **71.61** | **277** | P | | **P** | **16** | **23** | **50.5 0.0** |
| **WHN** | **Wuhan** | **72.00** | **312** | ⇓P | | **P** | **16** | **23** | **53.5 +1.1** |
| WHN | | | | S | | **S** | **16** | **33** | **13.0 +3.0** |
| WHN | | | | | pmax | pmax | | | |
| | comp=Z,230nm,1.0s | | | | | | | | |
| WHN | | | | | LR | LR | | | |
| | comp=Z,2μm,25.7s | | | | | | | | |
| **PSI** | **Prapat** | **72.01** | **280** | LR | | LR | 16 | 54 | 56.6 |
| | comp=Z,120nm,20.5s,baz=122,slow=35 | | | | | | | | |
| **PSI** | **Prapat** | **72.01** | **280** | *e*P | | **P** | **16** | **23** | **52.8 -0.2** |
| PSI | | | | | pmax | pmax | | | |
| | comp=Z,93nm,0.9s | | | | | | | | |
| **PSI** | **Prapat** | **72.01** | **280** | *e*P | | **P** | **16** | **23** | **52.1 -0.9** |
| | comp=Z,93nm,0.9s | | | | | | | | |
| **PET** | **Petropavlovsk** | **72.43** | **354**⇑ | *i*P | | **P** | **16** | **23** | **55.2 +0.8** |
| PET | | | | *e*S | | **S** | **16** | **33** | **17.2 +3.3** |
| PET | | | | | pmax | pmax | | | |
| | comp=Z,38nm,0.6s | | | | | | | | |
| PET | | | | | pmax | pmax | | | |
| | comp=Z,300nm,10.0s | | | | | | | | |
| **ATKA** | **Atka Island** | **72.60** | **11** | *e*P | | **P** | **16** | **23** | **55.5 +0.1** |
| | comp=Z,118nm,1.0s | | | | | | | | |
| **PEA0B** | **Petropavlovsk-** | **72.62** | **353** | *e*P | | **P** | **16** | **23** | **56.1 +0.6** |
| | comp=Z,177nm,1.1s | | | | | | | | |
| **PETK** | **Petropavlovsk-** | **72.62** | **353** | P | | **P** | **16** | **23** | **56.5 +0.9** |
| | comp=Z,83nm,1.0s,baz=133,slow=5.2,SNR=61 | | | | | | | | |
| PETK | | | | | LR | LR | 16 | 50 | 40.6 |
| | comp=Z,652nm,21.2s,baz=165,slow=32 | | | | | | | | |
| **PETK** | **Petropavlovsk-** | **72.62** | **353** | *e*P | | **P** | **16** | **23** | **56.1 +0.5** |
| **DL2** | **Dalian** | **72.72** | **323** | P | | **P** | **16** | **23** | **57.8 +1.4** |
| DL2 | | | | S | | **S** | **16** | **33** | **19.8 +2.0** |
| DL2 | | | | | pmax | pmax | | | |
| | comp=Z,230nm,1.0s | | | | | | | | |
| DL2 | | | | | pmax | pmax | | | |
| | comp=Z,760nm,6.6s | | | | | | | | |
| DL2 | | | | | LR | LR | | | |
| | comp=Z,510nm,28.2s | | | | | | | | |
| DL2 | | | | | LR | LR | | | |
| | comp=Z,650nm,32.0s | | | | | | | | |
| DL2 | | | | | LR | LR | | | |
| | comp=Z,850nm,28.0s | | | | | | | | |
| **GSI** | **Gunungsitoli** | **72.74** | **278** | P | | **P** | **16** | **23** | **58.0 +0.8** |
| **GSI** | **Gunungsitoli** | **72.74** | **278** | *e*P | | **P** | **16** | **23** | **57.0 -0.2** |
| | comp=Z,154nm,0.9s | | | | | | | | |
| **MDJ** | **Mudanjiang** | **72.87** | **332** | P | | **P** | **16** | **23** | **58.0 +0.7** |
| MDJ | | | | pP | | PcP | 16 | 24 | 13.5 -0.6 |
| MDJ | | | | sP | | sP | 16 | 24 | 21.0 +2.3 |
| MDJ | | | | PP | | **PP** | **16** | **26** | **39.8 -0.5** |
| MDJ | | | | S | | **S** | **16** | **33** | **19.0 -0.3** |
| MDJ | | | | sS | | sS | 16 | 33 | 46.5 +1.4 |
| MDJ | | | | | pmax | pmax | | | |
| | comp=Z,220nm,1.0s | | | | | | | | |
| MDJ | | | | | pmax | pmax | | | |
| | comp=Z,270nm,6.1s | | | | | | | | |
| MDJ | | | | | LR | LR | | | |
| | comp=Z,140nm,4.6s | | | | | | | | |
| MDJ | | | | | LR | LR | | | |
| | comp=Z,400nm,6.1s | | | | | | | | |
| MDJ | | | | | LR | LR | | | |
| | comp=Z,430nm,8.6s | | | | | | | | |
| **MDJ** | **Mudanjiang** | **72.87** | **332** | *e*P | | **P** | **16** | **23** | **58.1 +0.9** |
| | comp=Z,199nm,0.9s | | | | | | | | |
| **SKNT** | **Sakolnakorn** | **73.14** | **295** | P | | **P** | **16** | **24** | **00.6 +1.2** |
| | comp=Z,42nm,1.4s | | | | | | | | |
| **TRTT** | **Trang** | **73.16** | **285** | P | | **P** | **16** | **24** | **01.7 +2.0** |
| | comp=Z,19nm,1.6s | | | | | | | | |
| **KCSI** | **Kotacane, Aceh** | **73.34** | **280** | P | | **P** | **16** | **23** | **59.6 -1.2** |
| **TYV** | **Tymovskoe** | **73.43** | **343** | *e*P | | **P** | **16** | **24** | **01.7 +1.3** |
| TYV | | | | *e*S | | **S** | **16** | **33** | **25.6 +0.2** |
| TYV | | | | | pmax | pmax | | | |
| | comp=Z,77nm,1.6s | | | | | | | | |
| TYV | | | | | pmax | pmax | | | |
| | comp=Z,2μm,5.9s | | | | | | | | |
| TYV | | | | | smax | smax | | | |
| | comp=E,3μm,4.8s | | | | | | | | |
| **TIA** | **Tai'an** | **73.62** | **319** | P | | **P** | **16** | **24** | **02.8 +0.9** |
| TIA | | | | | pmax | pmax | | | |
| | comp=E,76nm,1.3s | | | | | | | | |
| **SNY** | **Shenyang** | **73.70** | **326** | ⇑P | | **P** | **16** | **24** | **02.3 +0.1** |
| SNY | | | | | pmax | pmax | | | |
| | comp=E,46nm,0.9s | | | | | | | | |
| **HABR** | **Khabarovsk** | **73.78** | **337** | *e*P | | **P** | **16** | **24** | **01.7 -0.8** |
| HABR | | | | *e**PP | | **PcP** | **16** | **24** | **20.4 +2.5** |
| HABR | | | | *e* | | | 16 | 26 | 46.3 |
| HABR | | | | *e*PPP | | PPP | 16 | 28 | 31.1 |
| HABR | | | | *e*S | | **SKiKP** | **16** | **33** | **26.9 -0.2** |
| HABR | | | | *e**SS | | **sS** | **16** | **33** | **59.4 +4.1** |
| HABR | | | | *e* | | | 16 | 34 | 04.5 |
| HABR | | | | *e*SS | | **SS** | **16** | **38** | **12.0 -2.7** |
| HABR | | | | *e*SSS | | SSS | 16 | 41 | 33.5 |
| HABR | | | | | pmax | pmax | | | |
| | comp=N,30nm,1.1s | | | | | | | | |
| HABR | | | | | pmax | pmax | | | |
| | comp=Z,200nm,1.1s | | | | | | | | |
| HABR | | | | | pmax | pmax | | | |
| | comp=E,6.0nm,0.6s | | | | | | | | |
| HABR | | | | | pmax | pmax | | | |
| | comp=Z,623nm,2.5s | | | | | | | | |
| HABR | | | | | MLR | MLR | | | |
| | comp=Z,115nm,18.0s | | | | | | | | |
| **TPTI** | | **73.80** | **279** | P | | **P** | **16** | **24** | **03.0 -0.4** |
| **KHON** | **Khomkaen** | **73.85** | **294** | P | | **P** | **16** | **24** | **06.1 +2.5** |
| | comp=Z,14nm,0.8s | | | | | | | | |
| **CN2** | **Changchun** | **74.19** | **329** | *e*P | | **P** | **16** | **24** | **05.8 +0.8** |
| CN2 | | | | *ep*P | | sP | 16 | 24 | 25.8 -0.7 |
| CN2 | | | | *e*S | | **S** | **16** | **33** | **32.8 -1.5** |
| CN2 | | | | | pmax | pmax | | | |
| | comp=Z,20nm,1.0s | | | | | | | | |
| CN2 | | | | | pmax | pmax | | | |
| | comp=Z,200nm,6.0s | | | | | | | | |
| CN2 | | | | | LR | LR | | | |
| | comp=Z,300nm,20.0s | | | | | | | | |
| CN2 | | | | | LR | LR | | | |
| | comp=Z,400nm,20.0s | | | | | | | | |
| CN2 | | | | | LR | LR | | | |
| | comp=Z,400nm,23.0s | | | | | | | | |
| **CHAI** | **Chaiyaphum** | **74.39** | **293** | P | | **P** | **16** | **24** | **07.5 +0.7** |
| | comp=Z,7.3nm,1.2s | | | | | | | | |
| **NIKH** | **Nikolski High** | **74.41** | **14** | *e*P | | **P** | **16** | **24** | **05.5 -0.6** |
| | comp=Z,241nm,0.7s | | | | | | | | |
| **MLSI** | **Meulaboh, Aceh** | **74.88** | **280** | P | | **P** | **16** | **24** | **09.5 -0.2** |
| **ENH** | **Enshi** | **75.31** | **310** | *e*P | | **P** | **16** | **24** | **11.8 -0.1** |
| | comp=Z,328nm,1.8s | | | | | | | | |
| **GYA** | **Guiyang** | **75.44** | **305**⇑ | *i*P | | **P** | **16** | **24** | **13.0 +0.1** |
| GYA | | | | PcP | | **pP** | **16** | **24** | **26.8 -1.4** |
| GYA | | | | pP | | sP | 16 | 24 | 33.0 -1.3 |
| GYA | | | | sP | | PcP | 16 | 24 | 40.5 +15 |
| GYA | | | | PP | | **PP** | **16** | **27** | **06.3 +3.6** |
| GYA | | | | S | | **S** | **16** | **33** | **48.8 -0.5** |
| GYA | | | | SKS | | **SKSac** | **16** | **34** | **13.3 -5.1** |
| GYA | | | | ScS | | **SKKSac** | **16** | **34** | **19.0 +0.2** |
| GYA | | | | SS | | **SS** | **16** | **38** | **43.8 +2.7** |
| GYA | | | | | pmax | pmax | | | |
| | comp=Z,50nm,1.1s | | | | | | | | |
| GYA | | | | | pmax | pmax | | | |
| | comp=Z,240nm,6.2s | | | | | | | | |
| GYA | | | | | LR | LR | | | |
| | comp=Z,580nm,20.7s | | | | | | | | |
| GYA | | | | | LR | LR | | | |
| | comp=Z,590nm,20.2s | | | | | | | | |
| GYA | | | | | LR | LR | | | |
| | comp=Z,550nm,20.3s | | | | | | | | |
| **PBKT** | **Sadao Pong** | **75.55** | **293** | P | | **P** | **16** | **24** | **15.0 +1.5** |
| | comp=Z,26nm,1.7s | | | | | | | | |
| **KLR** | **Kul'dur** | **75.64** | **336** | P | | **P** | **16** | **24** | **14.2 +0.9** |
| | comp=Z,7.0nm,0.9s,baz=141,slow=3.5,SNR=122 | | | | | | | | |
| **UNV** | **Unalaska Valle** | **75.77** | **15** | *e*P | | **P** | **16** | **24** | **13.2 -0.6** |
| | comp=Z,429nm,1.9s | | | | | | | | |
| **BJT** | **Baijiatuau** | **76.62** | **321** | *e*P | | **P** | **16** | **24** | **19.8 +0.7** |
| BJT | | | | | pmax | pmax | | | |
| | comp=Z,78nm,1.0s | | | | | | | | |
| **BJT** | **Baijiatuau** | **76.62** | **321** | *e*P | | **P** | **16** | **24** | **19.8 +0.7** |
| | comp=Z,78nm,1.0s | | | | | | | | |
| **BJI** | **Beijing** | **76.63** | **321** | P | | **P** | **16** | **24** | **20.5 +1.4** |
| BJI | | | | S | | **S** | **16** | **34** | **05.3 +3.9** |
| BJI | | | | sS | | **ScS** | **16** | **34** | **30.8 +0.1** |
| BJI | | | | | pmax | pmax | | | |
| | comp=Z,75nm,1.1s | | | | | | | | |
| BJI | | | | | pmax | pmax | | | |
| | comp=Z,670nm,4.9s | | | | | | | | |
| BJI | | | | | LR | LR | | | |
| | comp=Z,340nm,35.1s | | | | | | | | |
| BJI | | | | | LR | LR | | | |
| | comp=Z,400nm,26.4s | | | | | | | | |
| BJI | | | | | LR | LR | | | |
| | comp=Z,730nm,33.9s | | | | | | | | |
| **TIY** | **Taiyuan** | **77.51** | **317** | *e*P | | **P** | **16** | **24** | **24.8 +0.6** |
| TIY | | | | | PP | **PP** | **16** | **27** | **23.0 +3.2** |
| TIY | | | | | S | **S** | **16** | **34** | **15.8 +4.5** |
| TIY | | | | | pmax | pmax | | | |
| | comp=Z,53nm,1.0s | | | | | | | | |
| TIY | | | | | pmax | pmax | | | |
| | comp=Z,420nm,3.7s | | | | | | | | |
| TIY | | | | | LR | LR | | | |
| | comp=Z,240nm,5.6s | | | | | | | | |
| TIY | | | | | LR | LR | | | |
| | comp=Z,290nm,5.5s | | | | | | | | |
| TIY | | | | | LR | LR | | | |
| | comp=Z,470nm,19.1s | | | | | | | | |
| **XAN** | **Xi'an** | **77.76** | **313** | | P | **P** | **16** | **24** | **26.0 +0.3** |
| XAN | | | | | pP | sP | 16 | 24 | 46.0 -1.2 |
| XAN | | | | | sP | pP | 16 | 24 | 54.8 +14 |
| XAN | | | | | S | **S** | **16** | **34** | **09.0 -5.2** |
| XAN | | | | | sS | ScS | 16 | 34 | 43.8 +3.5 |
| XAN | | | | | SS | **SS** | **16** | **39** | **11.5 -4.3** |
| XAN | | | | | pmax | pmax | | | |
| | comp=Z,72nm,1.0s | | | | | | | | |
| XAN | | | | | pmax | pmax | | | |
| | comp=Z,550nm,7.3s | | | | | | | | |
| XAN | | | | | LR | LR | | | |
| | comp=Z,360nm,21.4s | | | | | | | | |
| XAN | | | | | LR | LR | | | |
| | comp=Z,390nm,22.3s | | | | | | | | |
| XAN | | | | | LR | LR | | | |
| | comp=Z,680nm,21.9s | | | | | | | | |
| **KMI** | **Kunming** | **77.89** | **302** | | P | **P** | **16** | **24** | **28.3 +1.5** |
| KMI | | | | | pP | pP | 16 | 24 | 42.0 -0.3 |
| KMI | | | | | S | **S** | **16** | **34** | **19.5 +3.3** |
| KMI | | | | | sS | ScS | 16 | 34 | 43.3 +1.2 |
| KMI | | | | | pmax | pmax | | | |
| | comp=Z,140nm,1.3s | | | | | | | | |
| KMI | | | | | pmax | pmax | | | |
| | comp=Z,690nm,3.4s | | | | | | | | |
| KMI | | | | | LR | LR | | | |
| | comp=Z,230nm,27.6s | | | | | | | | |
| KMI | | | | | LR | LR | | | |
| | comp=Z,490nm,22.2s | | | | | | | | |
| KMI | | | | | LR | LR | | | |
| | comp=Z,500nm,29.8s | | | | | | | | |
| **CM01** | **Chiang Mai Arr** | **78.07** | **294** | *e*P | | **P** | **16** | **24** | **28.4 +0.7** |
| **CM31** | **Chiang Mai Arr** | **78.10** | **294** | *e*P | | **P** | **16** | **24** | **28.9 +1.0** |
| **CMAR** | **Chiang Mai Arr** | **78.10** | **294** | P | | **P** | **16** | **24** | **29.1 +1.2** |
| | comp=Z,16nm,0.9s,baz=129,slow=4.1,SNR=66 | | | | | | | | |
| CMAR | | | | | pP | **pP** | **16** | **24** | **42.3 -1.0** |
| | comp=Z,8.1nm,0.7s,baz=134,slow=4.4,SNR=5.0 | | | | | | | | |
| CMAR | | | | | PKKPbc | **PKKPbc** | **16** | **43** | **27.4 +0.1** |
| | comp=Z,0.6nm,0.4s,baz=269,slow=3.3,SNR=4.6 | | | | | | | | |
| **CMMT** | **Chiang Mai** | **78.25** | **295** | P | | **P** | **16** | **24** | **30.0 +1.3** |
| | comp=Z,40nm,1.3s | | | | | | | | |
| **CHTO** | **Chiang Mai** | **78.25** | **295** | P | | **P** | **16** | **24** | **30.1 +1.4** |
| | comp=Z,180nm,1.3s | | | | | | | | |
| **CHTO** | **Chiang Mai** | **78.25** | **295** | *e*P | | **P** | **16** | **24** | **29.4 +0.7** |
| CHTO | | | | | pmax | pmax | | | |
| | comp=Z,93nm,1.4s | | | | | | | | |
| **CHTO** | **Chiang Mai** | **78.25** | **295** | *e*P | | **P** | **16** | **24** | **29.3 +0.6** |
| | comp=Z,93nm,1.4s | | | | | | | | |
| CHTO | | | | | LR | LR | | | |
| | comp=Z,302nm,21.0s | | | | | | | | |
| **CHTO** | **Chiang Mai** | **78.25** | **295** | P | | **P** | **16** | **24** | **31.0 +2.4** |
| | SNR=7.0 | | | | | | | | |
| **MAW** | **Mawson** | **78.34** | **202** | P | | **P** | **16** | **24** | **29.5 +1.2** |
| | comp=Z,36nm,0.9s,baz=110,slow=7.5,SNR=58 | | | | | | | | |
| MAW | | | | | LR | LR | 16 | 55 | 20.6 |
| | comp=Z,950nm,19.6s,baz=78,slow=33 | | | | | | | | |
| **MAW** | **Mawson** | **78.34** | **202** | P | | **P** | **16** | **24** | **30.0 +1.7** |
| | baz=78,SNR=40 | | | | | | | | |
| **MAW** | **Mawson** | **78.34** | **202** | *e*P | | **P** | **16** | **24** | **29.5 +1.2** |
| MAW | | | | | pmax | pmax | | | |
| | comp=Z,15nm,1.0s | | | | | | | | |
| **MAW** | **Mawson** | **78.34** | **202** | *e*P | | **P** | **16** | **24** | **29.2 +0.9** |
| | comp=Z,15nm,1.0s | | | | | | | | |
| **SDPT** | **Sand Point** | **78.69** | **17** | *e*P | | **P** | **16** | **24** | **29.3 -0.9** |
| **MA2** | **Magadan** | **79.84** | **351** | P | | **P** | **16** | **24** | **36.7 +0.3** |
| | comp=Z,61nm,0.9s,baz=144,slow=4.7,SNR=28 | | | | | | | | |
| **MA2** | **Magadan** | **79.84** | **351** | *ce*P | | **P** | **16** | **24** | **36.2 -0.2** |
| **CD2** | **Chengdu** | **79.87** | **308**⇓ | *i*P | | **P** | **16** | **24** | **38.5 +1.2** |
| CD2 | | | | | S | **S** | **16** | **34** | **37.5 +0.7** |
| CD2 | | | | | pmax | pmax | | | |
| | comp=Z,80nm,1.2s | | | | | | | | |
| CD2 | | | | | pmax | pmax | | | |
| | comp=Z,410nm,10.7s | | | | | | | | |
| CD2 | | | | | LR | LR | | | |
| | comp=Z,640nm,16.6s | | | | | | | | |
| CD2 | | | | | LR | LR | | | |
| | comp=Z,680nm,17.8s | | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **79.90** | **320** | *e*P | | **P** | **16** | **24** | **38.5 +1.1** |
| HHC | | | | | pP | sP | 16 | 24 | 58.3 -0.6 |
| HHC | | | | | PP | **PP** | **16** | **27** | **41.3 +1.5** |
| HHC | | | | *e*S | | **S** | **16** | **34** | **36.8 0.0** |
| HHC | | | | | sS | sS | 16 | 35 | 09.0 +6.0 |
| HHC | | | | | pmax | pmax | | | |
| | comp=Z,65nm,1.1s | | | | | | | | |
| HHC | | | | | pmax | pmax | | | |
| | comp=Z,320nm,4.7s | | | | | | | | |
| HHC | | | | | LR | LR | | | |
| | comp=Z,140nm,15.9s | | | | | | | | |
| HHC | | | | | LR | LR | | | |
| | comp=Z,380nm,15.9s | | | | | | | | |
| HHC | | | | | LR | LR | | | |
| | comp=Z,500nm,15.9s | | | | | | | | |
| **BTO** | **Baotou** | **80.72** | **319** | *e*P | | **P** | **16** | **24** | **42.5 +0.8** |
| **HIA** | **Hailar** | **80.85** | **330** | *e*P | | **P** | **16** | **24** | **41.8 -0.3** |
| HIA | | | | | pmax | pmax | | | |
| | comp=Z,74nm,1.0s | | | | | | | | |
| **HIA** | **Hailar** | **80.85** | **330** | *e*P | | **P** | **16** | **24** | **41.8 -0.3** |
| | comp=Z,74nm,1.0s | | | | | | | | |
| **LZH** | **Lanzhou** | **82.38** | **312** | *e*P | | **P** | **16** | **24** | **53.0 +2.3** |
| LZH | | | | | sP | sP | 16 | 25 | 22.0 +10 |
| LZH | | | | | S | **S** | **16** | **35** | **05.0 +2.1** |
| LZH | | | | | sS | sS | 16 | 35 | 36.3 +7.2 |
| LZH | | | | | pmax | pmax | | | |
| | comp=Z,310nm,1.5s | | | | | | | | |
| LZH | | | | | pmax | pmax | | | |
| | comp=Z,1μm,4.9s | | | | | | | | |
| **OHAK** | **Old Harbor** | **82.43** | **20** | *e*P | | **P** | **16** | **24** | **50.6 +0.5** |
| | comp=Z,82nm,0.6s | | | | | | | | |
| **SEY** | **Seymchan** | **82.85** | **353** | P | | **P** | **16** | **24** | **52.5 +0.3** |
| | comp=Z,41nm,1.0s,baz=157,slow=6.2 | | | | | | | | |
| **SEY** | **Seymchan** | **82.85** | **353**⇓ | *i*P | | **P** | **16** | **24** | **53.0 +0.7** |
| **KDAK** | **Kodiak Island** | **83.11** | **20** | P | | **P** | **16** | **24** | **54.7 +1.0** |
| | comp=Z,35nm,0.8s,baz=234,slow=6.0,SNR=15 | | | | | | | | |
| **KDAK** | **Kodiak Island** | **83.11** | **20** | *e*P | | **P** | **16** | **24** | **55.2 +1.5** |
| KDAK | | | | | p

comp=Z,126nm,1.7s
**SMMC Simmler** 86.49 51 P P 16 25 13.2 +1.8
baz=244
**SCI2 San Clemente I** 86.56 53 P P 16 25 13.2 +1.5
baz=245
**ULN Ulaanbaatar** 86.57 324 *c iP* P 16 25 11.8 +0.2
ULN pmax pmax
comp=Z,167nm,1.2s
**ULN Ulaanbaatar** 86.57 324 *eP* P 16 25 11.9 +0.3
comp=Z,164nm,1.2s
ULN LR LR
comp=Z,447nm,22.0s
**ULN Ulaanbaatar** 86.57 324 P P 16 25 12.4 +0.8
SNR=51
**ULN Ulaanbaatar** 86.57 324 P P 16 25 12.4 +0.8
SNR=51
**RC01 Rabbit Creek A** 86.62 19 *eP* P 16 25 11.1 -0.3
comp=Z,109nm,1.9s
**KRMB Red Mountain** 86.65 44 *eP* P 16 25 11.6 -0.5
comp=Z,47nm,1.0s
**YAK Yakutsk** 86.69 343 P P 16 25 12.0 +0.5
comp=Z,177nm,0.8s,baz=45,slow=1.8,SNR=136
**YAK Yakutsk** 86.69 343 *eP* P 16 25 11.2 -0.4
YAK *e**PP pP 16 25 24.3 -2.9
YAK *eS* SKSac 16 35 30.9 -2.4
YAK *e* 16 35 46.6
YAK pmax pmax
comp=Z,202nm,0.8s
YAK pmax pmax
comp=N,54nm,1.5s
YAK pmax pmax
comp=E,33nm,1.6s
YAK pmax pmax
comp=Z,8.0nm,0.9s
YAK pmax pmax
comp=N,13nm,1.4s
YAK pmax pmax
comp=E,8.0nm,1.1s
YAK smax smax
comp=N,169nm,4.7s
YAK smax smax
comp=E,152nm,3.8s
**YAK Yakutsk** 86.69 343 *eP* P 16 25 11.8 +0.2
comp=E,310nm,0.9s
**GTA Gaotai** 86.78 314 ⇑P P 16 25 13.5 +0.7
GTA SKS SKSac 16 35 33.8 -1.5
GTA S S 16 35 47.3 +0.8
GTA pmax pmax
comp=E,41nm,1.6s
GTA pmax pmax
comp=E,310nm,4.8s
GTA LR LR
comp=E,210nm,18.1s
GTA LR LR
comp=E,290nm,17.1s
GTA LR LR
comp=E,430nm,19.5s
**CIS Catalina Islan** 86.83 53 P P 16 25 14.2 +1.1
baz=245
**SONM Songino Array** 86.92 323 P P 16 25 14.2 +1.0
comp=E,67nm,1.1s,baz=143,slow=4.5,SNR=172
SONM pP pP 16 25 27.4 -1.5
comp=E,15nm,0.8s,baz=147,slow=3.5,SNR=5.7
SONM PKKPbc PKKPbc 16 43 06.4 -2.1
comp=E,2.1nm,0.8s,baz=256,slow=2.6,SNR=11
SONM PKPPKP P'P'df 16 51 12.1 +0.4
comp=E,1.3nm,0.9s,baz=288,slow=2.6,SNR=5.8
SONM LR LR 17 01 49.6
comp=E,178nm,21.6s,baz=149,slow=34
**SONA1 Songino Array** 86.92 323 *eP* P 16 25 13.0 -0.3
**SHL Shillong** 86.96 298 ⇓ *iP* P 16 25 17.0 +3.0
**BILL Bilibino** 86.98 359 *c iP* P 16 25 12.6 -0.3
BILL *e* 16 28 36.7
BILL *i* S S 16 35 38.5 -8.4
BILL pmax pmax
comp=Z,202nm,1.2s
BILL MLR MLR
comp=Z,228nm,19.0s
**FMP Fort Macarthur** 87.06 53 P P 16 25 15.7 +1.6
baz=245
**WDC Whiskeytown Da** 87.10 45 *eP* P 16 25 15.2 +1.0
**WDC Whiskeytown Da** 87.10 45 *eP* P 16 25 14.8 +0.6
comp=Z,35nm,0.9s
**OSI Osito Audit: C** 87.12 52 P P 16 25 16.0 +1.5
baz=244
**OSI Osito Audit: C** 87.12 52 *eP* P 16 25 17.2 +2.7
**L02D Cave Junction,** 87.16 43 P P 16 25 16.2 +1.8
baz=241
**N02D Trinity Center** 87.18 45 P P 16 25 16.3 +1.7
baz=242,SNR=32
**PMR Palmer** 87.20 19 *eP* P 16 25 13.3 -0.8
**PMR Palmer** 87.20 19 *eP* P 16 25 13.3 -0.8
**DECC Green Verdugo** 87.26 52 P P 16 25 16.3 +1.1
baz=245
**ARVC Arvin** 87.26 51 P P 16 25 16.6 +1.5
baz=244
**M02C Callahan** 87.28 44 P P 16 25 16.5 +1.4
baz=242,SNR=29
**ORV Oroville** 87.33 47 *eP* P 16 25 16.0 +0.6
**ORV Oroville** 87.33 47 *eP* P 16 25 15.9 +0.6
comp=Z,38nm,0.8s
**PASC Pasadena Art C** 87.33 53 *eP* P 16 25 16.5 +1.1
**VES Vestal, Richgr** 87.39 51 P P 16 25 16.7 +1.1
baz=244,SNR=11
**CMB Columbia Colle** 87.42 48 *eP* P 16 25 16.0 +0.2
**CMB Columbia Colle** 87.42 48 *eP* P 16 25 16.0 +0.2
**AFDM Forest Hills D** 87.42 47 *eP* P 16 25 16.2 +0.4
comp=Z,47nm,0.9s
**MWC Mount Wilson** 87.45 53 *eP* P 16 25 16.7 +0.4
**MWC Mount Wilson** 87.45 53 *eP* P 16 25 16.5 +0.2
comp=Z,29nm,0.8s
**O03D Paynes Creek** 87.47 46 P P 16 25 17.3 +1.2
baz=242,SNR=25
**RCTC Rector, Farmer** 87.47 50 P P 16 25 17.2 +1.2
baz=244
**YBH Yreka Blue Hor** 87.54 44 *eP* P 16 25 17.3 +0.9
YBH pmax pmax
comp=Z,28nm,0.8s
**YBH Yreka Blue Hor** 87.54 44 *eP* P 16 25 17.3 +0.9
comp=Z,28nm,0.8s
**SML Sawmill** 87.61 19 *eP* P 16 25 18.4 +2.3
**SML Sawmill** 87.61 19 *eP* P 16 25 18.4 +2.3
**109C Camp Elliot, M** 87.62 54 P P 16 25 18.1 +1.3
baz=245,SNR=7.7
**ISA Isabella, Lake** 87.76 51 P P 16 25 18.7 +1.1
baz=245,SNR=18
**BFSC Mount Baldy Ra** 87.76 53 P P 16 25 18.5 +0.8
baz=245,SNR=16
**EDW2 Edwards Air Fo** 87.78 52 P P 16 25 18.7 +1.1
baz=245,SNR=21
**HUMO Hull Mountain** 87.79 43 *eP* P 16 25 19.4 +1.9
**MURC Murrieta** 87.84 53 P P 16 25 19.0 +1.0
baz=245,SNR=8.9
**BAR Barrett** 87.86 54 *eP* P 16 25 19.2 +1.1
**DIV Divide** 87.91 20 *eP* P 16 25 18.7 +1.1
**SCM Sheep Creek Mo** 87.94 19 *eP* P 16 25 17.4 -0.4
**SCM Sheep Creek Mo** 87.94 19 *eP* P 16 25 17.4 -0.4
**I03D Drain, OR** 88.06 42 P P 16 25 20.2 +1.6
baz=241
**KLU Klutina** 88.13 20 *eP* P 16 25 19.4 +0.8
comp=Z,27nm,1.1s
**M04C Macdoel** 88.14 44 P P 16 25 20.5 +1.3
baz=242,SNR=16
**MONP2 Monument Peak** 88.14 54 P P 16 25 20.5 +0.9
baz=246,SNR=28
**MDPB Devils Postpil** 88.17 49 *eP* P 16 25 20.5 +0.8
comp=Z,22nm,1.0s
**KTH Kantishna Hill** 88.22 17 *eP* P 16 25 17.5 -1.6
comp=Z,23nm,1.0s
**BEKR Beckworth** 88.26 47 *eP* P 16 25 19.9 -0.1
comp=Z,19nm,0.7s
**LRMC Laurel Mtn Rad** 88.26 52 P P 16 25 21.1 +1.0
baz=245,SNR=30
**IKP In-Ko-Pah, Jac** 88.28 55 P P 16 25 21.4 +1.2
baz=246,SNR=15
**WAKR Walker** 88.30 48 *eP* P 16 25 20.4 +0.2
comp=Z,56nm,1.4s
**TRF Thorofare Moun** 88.32 17 *eP* P 16 25 17.7 -1.9
comp=Z,15nm,0.8s
**BBRC Big Bear Solar** 88.33 53 P P 16 25 21.4 +0.9
baz=246,SNR=6.7
**CWC Cottonwood Cre** 88.38 51 P P 16 25 21.6 +1.0
baz=245
**PFO Pinyon Flats O** 88.41 54 P P 16 25 21.8 +1.1
baz=246,SNR=7.4
**PFO Pinyon Flats O** 88.41 54 *eP* P 16 25 22.0 +1.3
**PFO Pinyon Flats O** 88.41 54 *eP* P 16 25 20.5 -0.2
comp=Z,12nm,0.8s
**TPFO Pinon Flats** 88.41 54 P P 16 25 21.9 +1.1
baz=246,SNR=7.9
**XPFO Piæon Flat** 88.41 54 *eP* P 16 25 21.2 +0.4
comp=Z,13nm,0.8s
**PNTR Pine Nut** 88.44 48 *eP* P 16 25 21.3 +0.5
comp=Z,30nm,0.8s
**TIN Tinemaha, Big** 88.53 50 P P 16 25 22.5 +1.3
baz=245
**K04D Chiloquin, OR** 88.58 44 P P 16 25 22.7 +1.4
baz=242
**J04D Umppqua Nationa** 88.64 43 P P 16 25 23.0 +1.3
baz=242,SNR=6.0
**SWSC Sam W. Stewart** 88.64 54 P P 16 25 22.9 +1.2
baz=246,SNR=14
**YERR Yerington** 88.64 48 *eP* P 16 25 22.2 +0.4
comp=Z,33nm,1.2s
**MPMC Manual Prospec** 88.65 51 P P 16 25 23.3 +1.4
baz=245,SNR=19
**DAC Darwin (Calif)** 88.66 51 *eP* P 16 25 23.2 +1.2
**DAC Darwin (Calif)** 88.66 51 *eP* P 16 25 22.5 +0.6
comp=Z,30nm,1.4s
**RND Reindeer** 88.69 18 *eP* P 16 25 20.5 -0.8
RND pmax pmax
comp=Z,33nm,0.9s
**RND Reindeer** 88.69 18 *eP* P 16 25 20.5 -0.8
comp=Z,33nm,0.9s
**I04A Tendick Farm,** 88.71 42 P P 16 25 23.3 +1.5
baz=242,SNR=5.9
**G03D McMinnville, O** 88.85 41 P P 16 25 23.8 +1.5
baz=241
**PAHR Pah Rah Range** 88.86 47 *eP* P 16 25 24.2 +1.4
**DHY Denali Highway** 88.87 18 *eP* P 16 25 22.8 +0.6
**NVL N'lazarevskaya** 88.87 187 *eP* P 16 25 22.6 +0.5
NVL *eS* SKSac 16 35 47.9 +1.1
**MCK McKinley** 88.92 17 *eP* P 16 25 21.7 -0.6
**MCK McKinley** 88.92 17 *eP* P 16 25 21.4 -0.8
comp=Z,81nm,1.6s
**BELC Belle Mtn. Jos** 88.92 53 P P 16 25 24.1 +1.0
baz=246,SNR=56
**HEC Hector,Ludlow** 89.00 53 P P 16 25 24.5 +1.1
baz=246,SNR=23
**NV01 Mina Array Sit** 89.06 49 *eP* P 16 25 23.4 -0.5
**NVAR Mina Array Bea** 89.06 49 P P 16 25 24.2 +0.4
comp=Z,11nm,0.7s,baz=227,slow=8.1,SNR=74
NVAR PKKPbc PKKPbc 16 43 02.8 0.0
comp=Z,0.3nm,0.4s,baz=48,slow=1.3,SNR=3.7
NVAR PKPPKP P'P'df 16 51 02.3 -6.7
comp=Z,0.5nm,0.3s,baz=100,slow=3.5,SNR=20
NVAR LR LR 16 56 46.6
comp=Z,827nm,22.0s,baz=258,slow=30
**BOD Bodaibo** 89.09 334 *eP* P 16 25 22.5 -0.7
BOD pmax pmax
comp=Z,94nm,1.4s
**LSA Lhasa** 89.14 302 *eP* P 16 25 24.1 -0.6
LSA pmax pmax
comp=Z,14nm,0.7s
**LSA Lhasa** 89.14 302 *eP* P 16 25 24.1 -0.6
comp=Z,14nm,0.7s
**NV11 Mina Array Sit** 89.17 49 *eP* P 16 25 24.1 -0.1
comp=Z,1.6nm,0.9s
**BC3 Big Chuckawall** 89.19 54 P P 16 25 25.7 +1.3
baz=246,SNR=13
**SNAA Sanae** 89.21 183 P P 16 25 23.7 -0.1
**SNAA Sanae** 89.21 183 *c iP* P 16 25 23.1 -0.7
**SNAA Sanae** 89.21 183 *eP* P 16 25 22.9 -0.9
comp=Z,118nm,1.3s
**MOD Modoc Plateau** 89.21 45 *eP* P 16 25 24.1 -0.2
comp=Z,45nm,0.8s
**J05D Fort Rock, OR** 89.23 43 P P 16 25 25.7 +1.4
baz=243,SNR=75
**H04A Detroit Lake** 89.27 42 *eP* P 16 25 24.7 +0.3
comp=Z,51nm,0.8s
**FURC Furnace Creek,** 89.28 51 P P 16 25 26.2 +1.6
baz=246,SNR=9.7
**E03A Lebam** 89.31 40 *eP* P 16 25 26.6 +2.2
**F04D Rainier, OR** 89.42 40 P P 16 25 26.6 +1.6
baz=241
**GLA Glamis** 89.43 55 P P 16 25 27.0 +1.6
baz=247,SNR=18
**GLA Glamis** 89.43 55 *eP* P 16 25 27.3 +1.8
**GLA Glamis** 89.43 55 *eP* P 16 25 26.7 +1.3
comp=Z,34nm,0.8s
**MLY Manley** 89.44 16 *eP* P 16 25 23.9 -0.9
comp=Z,9.7nm,0.9s
**IMAR Indian Mountai** 89.47 14 *eP* P 16 25 24.2 -0.5
**KVN Kaiserville** 89.47 48 *eP* P 16 25 26.0 +0.3
KVN pmax pmax
comp=Z,20nm,0.9s
**KVN Kaiserville** 89.47 48 *eP* P 16 25 26.0 +0.3
comp=Z,20nm,0.9s
**SHOC Shoshone, Teco** 89.48 52 P P 16 25 26.9 +1.3
baz=246,SNR=18
**GMRC Granite Mounta** 89.49 53 P P 16 25 26.8 +1.0
baz=246,SNR=14
**TUQ Turquoise Moun** 89.55 52 P P 16 25 27.1 +1.1
baz=246,SNR=38
**IRM Iron Mountain** 89.63 54 P P 16 25 27.4 +1.1
baz=246,SNR=24
**I05D Terrebonne, OR** 89.64 42 P P 16 25 27.6 +1.4
baz=242,SNR=12
**F04A Amboy** 89.71 41 *eP* P 16 25 27.1 +0.8
comp=Z,81nm,1.1s
**LPIG La Paz** 89.76 64 P P 16 25 26.2 -0.9
comp=Z,31nm,0.3s,baz=148,slow=2.9,SNR=3.6
**VNA3 Neumayer Olymp** 89.82 180 P P 16 25 26.6 0.0
**MENT Mentasta** 89.89 20 *eP* P 16 25 26.6 -0.2
**SLBS Sierra La Lagu** 89.92 65 *eP* P 16 25 29.8 +1.8
comp=Z,87nm,0.9s
**TPNV Topopah Spring** 89.93 51 P P 16 25 28.9 +1.1
baz=246,SNR=37
**TPNV Topopah Spring** 89.93 51 *eP* P 16 25 28.8 +1.0
**TPNV Topopah Spring** 89.93 51 *eP* P 16 25 28.4 +0.6
comp=Z,32nm,0.9s
**CCB Clear Creek Bu** 89.94 17 *eP* P 16 25 25.4 -1.6
comp=Z,56nm,1.7s
**Y12C Blythe** 89.94 54 P P 16 25 29.3 +1.6
baz=247,SNR=14
**Y12C Blythe** 89.94 54 *eP* P 16 25 29.5 +1.7
**HDA Harding Lake** 90.00 18 *eP* P 16 25 26.4 -0.9
comp=Z,49nm,1.4s
**ZAK Zakamensk** 90.00 324 *eP* P 16 25 27.2 -0.6
ZAK pmax pmax
comp=Z,38nm,1.4s
**LDFC Landfair** 90.02 53 *eP* P 16 25 28.9 +0.6
comp=Z,59nm,0.9s
**MDM Murphy Dome** 90.06 17 *eP* P 16 25 26.1 -1.4
comp=Z,36nm,1.2s
**G05D Wamic, OR** 90.07 42 P P 16 25 29.6 +1.4
baz=243,SNR=5.8
**COLA College** 90.10 17 *eP* P 16 25 26.8 -0.9
**COLA College** 90.10 17 *eP* P 16 25 26.8 -0.9
COLA LR LR
comp=Z,753nm,19.0s
**VNA2 Neumayer--Watz** 90.10 181 P P 16 25 28.2 +0.2
baz=169,slow=4.1
**113A Mohawk Valley,** 90.14 55 *eP* P 16 25 29.8 +1.1
comp=Z,19nm,0.9s
**BESE Bessie Mountai** 90.21 26 *eP* P 16 25 29.5 +1.0
**NEE2 Needles Airpor** 90.27 53 P P 16 25 30.8 +1.5
baz=247
**ILAR Eielson Array** 90.29 17 P P 16 25 27.0 -1.6
comp=Z,8.7nm,0.8s,baz=236,slow=4.7,SNR=124
ILAR PKiKP PKiKP 16 30 24.4 +0.8
comp=Z,0.5nm,0.9s,baz=299,slow=4.0,SNR=4.1
ILAR LR LR 17 00 56.9
comp=Z,564nm,19.8s,baz=242,slow=32
**ILB Eielson Array** 90.29 17 *eP* P 16 25 26.8 -1.9
**IL1 Eielson Array** 90.29 17 *eP* P 16 25 27.0 -1.6
**DOT Dot Lake** 90.30 19 *eP* P 16 25 29.5 +0.7
**VNA1 Neumayer--Stat** 90.39 181 P P 16 25 29.9 +0.7
**PGC Sidney** 90.40 38 *eP* P 16 25 31.4 +1.9
**IRK Irkutsk** 90.43 326 *eP* P 16 25 29.1 -0.5
IRK pmax pmax
comp=Z,62nm,2.4s
**PDMCI Parker Dam,Lak** 90.45 54 P P 16 25 31.7 +1.6
baz=247,SNR=22
**LON Longmire** 90.47 40 *eP* P 16 25 30.9 +0.9
**LON Longmire** 90.47 40 *eP* P 16 25 30.3 +0.3
comp=Z,28nm,0.9s
**TLY Talaya** 90.47 326 P P 16 25 28.8 -1.1
baz=159,slow=4.4
**TLY Talaya** 90.47 326 *eP* P 16 25 30.2 +0.4
TLY pmax pmax
comp=Z,40nm,1.0s
**TLY Talaya** 90.47 326 *eP* P 16 25 30.3 +0.5
**TLY Talaya** 90.47 326 P P 16 25 30.6 +0.8
SNR=7.9
**TLY Talaya** 90.47 326 P P 16 25 30.6 +0.8
SNR=7.9
**G06A Carlson Farm,** 90.50 42 *eP* P 16 25 30.6 +0.4
comp=Z,27nm,0.9s
**SHPR Sheep Range** 90.55 51 *eP* P 16 25 30.7 0.0
comp=Z,18nm,0.9s
**WVOR Wild Horse Val** 90.56 45 *eP* P 16 25 31.5 +0.9
**WVOR Wild Horse Val** 90.56 45 *eP* P 16 25 30.8 +0.2
comp=Z,66nm,1.0s
**SKAG Skagway** 90.56 25 *eP* P 16 25 30.8 +0.8
**D05A Enumclaw** 90.56 40 *eP* P 16 25 32.0 +1.7
**PALK Pallekele** 90.57 277 LR LR 17 06 22.5
comp=Z,439nm,21.9s,baz=116,slow=36
**214A Organ Pipe Nat** 90.58 56 P P 16 25 32.3 +1.5
baz=248
**214A Organ Pipe Nat** 90.58 56 *eP* P 16 25 32.2 +1.3
comp=Z,152nm,1.1s
**BMN Battle Mountai** 90.67 47 *eP* P 16 25 32.2 +1.0
**BMN Battle Mountai** 90.67 47 *eP* P 16 25 31.5 +0.3
comp=Z,40nm,0.9s
**I07A Izee** 90.71 43 *eP* P 16 25 31.9 +0.6
comp=Z,63nm,0.8s
**A04D Lummi Island** 90.86 38 P P 16 25 33.4 +1.8
baz=242
**W13A Hualapai Mount** 90.95 53 *eP* P 16 25 33.3 +0.6
comp=Z,26nm,0.8s
**R11A Troy Canyon, C** 90.97 50 P P 16 25 33.5 +0.8
baz=246,SNR=20
**R11A Troy Canyon, C** 90.97 50 *eP* P 16 25 33.1 +0.4
comp=Z,7.3nm,0.8s
**HSIG** 90.99 60 *eP* P 16 25 34.1 +1.3
**B05A Bryant** 91.01 39 P P 16 25 33.8 +1.5
baz=242
**J08A Circle Bar Ran** 91.06 44 *eP* P 16 25 34.5 +1.5
**Y14A Wickenburg** 91.18 54 *eP* P 16 25 34.5 +0.9
**F07A Phinny Hill Vi** 91.24 41 *eP* P 16 25 34.8 +1.3
**COLD Coldfoot** 91.31 15 *eP* P 16 25 33.9 +0.5
comp=Z,17nm,0.9s
**LTY Liberty** 91.39 40 *eP* P 16 25 34.1 -0.2
comp=Z,40nm,1.0s
**WHY Whitehorse** 91.48 24 *eP* P 16 25 33.9 -0.6
comp=Z,27nm,1.2s
**B06A Marblemount** 91.48 39 *eP* P 16 25 35.5 +1.0
**C06D Leavenworth** 91.56 39 P P 16 25 36.3 +1.3
baz=243
**G08A Pilot Rock** 91.58 42 *eP* P 16 25 36.1 +0.8
comp=Z,60nm,0.9s
**HAWA Hanford** 91.71 41 *eP* P 16 25 36.9 +1.2
comp=Z,58nm,0.8s
HAWA LR LR
comp=Z,680nm,21.0s
**MOY Mondy** 91.89 325 *eP* P 16 25 37.4 +0.8
MOY pmax pmax
comp=Z,58nm,2.2s
**EGAK Eagle** 92.00 19 *eP* P 16 25 36.4 -0.1
**E08A Dider Farm, El** 92.04 41 *eP* P 16 25 38.6 +1.4
**DAWY Dawson** 92.07 20 *eP* P 16 25 36.2 -0.8
comp=Z,53nm,1.8s
**LCMT Little Creek M** 92.16 52 *eP* P 16 25 38.6 +0.4
comp=Z,31nm,0.9s
**DLBC Dease Lake** 92.17 27 *eP* P 16 25 38.0 +0.3
comp=Z,44nm,1.1s
**LLLB Lillooet** 92.23 37 *eP* P 16 25 38.6 +0.6
comp=Z,24nm,0.8s
**CCUT Cedar City** 92.28 51 *eP* P 16 25 39.6 +0.8
comp=Z,18nm,0.9s
**PSUT Pine Spring** 92.30 50 *eP* P 16 25 38.7 -0.2
comp=Z,9.9nm,0.8s
**TUC Tucson** 92.31 57 P P 16 25 40.4 +1.4
baz=249
**TUC Tucson** 92.31 57 *eP* P 16 25 40.3 +1.4
**TUC Tucson** 92.31 57 *eP* P 16 25 39.9 +1.0
comp=Z,33nm,1.0s
**D08A Wollman Farm,** 92.38 41 *eP* P 16 25 39.5 +0.8
comp=Z,16nm,0.8s
**BMO Blue Mountains** 92.46 43 *eP* P 16 25 40.1 +0.8
**BMO Blue Mountains** 92.46 43 *eP* P 16 25 39.4 +0.1
comp=Z,12nm,1.0s
BMO LR LR
comp=Z,1µm,20.0s
**SZCU Shurtz Canyon** 92.50 51 *eP* P 16 25 41.5 +1.6
**E09A Wood Farm, Sta** 92.62 41 *eP* P 16 25 40.5 +0.6
comp=Z,16nm,0.9s
**U15A North Rim** 92.65 52 *eP* P 16 25 41.0 +0.4
comp=Z,49nm,0.8s
**B08A Colville Reser** 92.69 39 *eP* P 16 25 40.5 +0.3
comp=Z,15nm,0.9s
**F10A Beach Ranch, E** 92.97 42 *eP* P 16 25 41.9 +0.2
comp=Z,18nm,0.8s
**WUAZ Wupatki** 93.01 54 P P 16 25 43.0 +0.8
baz=249
**WUAZ Wupatki** 93.01 54 *eP* P 16 25 43.2 +1.1
comp=Z,30nm,0.8s
**PKCU Pink Cliffs** 93.02 51 *eP* P 16 25 43.1 +0.7
comp=Z,19nm,0.8s
**C09A Chrisman Ranch** 93.09 40 *eP* P 16 25 42.8 +0.7
comp=Z,4nm,0.9s
**319A Douglas** 93.18 58 *eP* P 16 25 44.0 +1.0
comp=Z,86nm,0.8s
**MTPU Mount Pierson** 93.33 51 *eP* P 16 25 44.9 +1.0
comp=Z,19nm,0.8s
**MSU Marysvale** 93.51 50 *eP* P 16 25 46.4 +1.9
**MSU Marysvale** 93.51 50 *eP* P 16 25 45.6 +1.1
**DUG Dugway, Tooele** 93.67 49 P P 16 25 46.1 +1.0
baz=248
**DUG Dugway, Tooele** 93.67 49 *eP* P 16 25 45.6 +0.5
**DUG Dugway, Tooele** 93.67 49 *eP* P 16 25 45.3 +0.2
comp=Z,29nm,1.7s
DUG LR LR
comp=Z,966nm,19.0s
**X18A Snowflake** 93.75 55 *eP* P 16 25 45.0 -0.6
comp=Z,16nm,0.9s
**BGU Big Grassy Mou** 93.79 48 *eP* P 16 25 44.8 -0.9
comp=Z,5.5nm,0.8s
**HLID Hailey** 93.84 45 P P 16 25 47.0 +1.1
baz=247
**HLID Hailey** 93.84 45 *eP* P 16 25 46.3 +0.4
comp=Z,14nm,0.8s
**NEW Newport** 93.99 40 P P 16 25 46.5 +0.3
comp=Z,9.7nm,1.0s,baz=242,slow=3.6,SNR=12
**NEW Newport** 93.99 40 P P 16 25 47.6 +1.3
baz=246
**NEW Newport** 93.99 40 *eP* P 16 25 47.3 +1.1
**NEW Newport** 93.99 40 *eP* P 16 25 47.3 +1.1
**NLU North Lily Min** 94.11 49 *eP* P 16 25 47.4 +0.1
comp=Z,5.8nm,0.9s
**W18A Petrified Fore** 94.12 54 P P 16 25 48.2 +0.9
baz=250
**W18A Petrified Fore** 94.12 54 *eP* P 16 25 48.8 +1.5
**HVU Hansel Valley** 94.29 47 *eP* P 16 25 49.0 +1.1
**HVU Hansel Valley** 94.29 47 *eP* P 16 25 49.0 +1.1
**SPUT South Promonto** 94.34 48 *eP* P 16 25 48.2 +0.1
comp=Z,27nm,1.5s
**MPU Maple Canyon** 94.45 49 *eP* P 16 25 49.1 +0.4
comp=Z,8.9nm,1.1s
**TMUT Trail Mountain** 94.50 50 *eP* P 16 25 51.1 +1.9
**TIXI Tiksi** 94.59 348 P P 16 25 47.1 -1.3
comp=Z,13nm,0.9s,baz=156,slow=5.7,SNR=14
TIXI LR LR 17 03 04.4
comp=Z,230nm,21.1s,baz=202,slow=32
**TIXI Tiksi** 94.59 348 *eP* P 16 25 47.8 -0.5
TIXI pmax pmax
comp=Z,17nm,1.0s
**TIXI Tiksi** 94.59 348 *eP* P 16 25 47.8 -0.5
comp=Z,17nm,1.0s
**CTU Camp Tracy** 94.61 49 *eP* P 16 25 50.4 +0.9
**121A Cookes Peak, D** 94.77 57 P P 16 25 51.1 +0.8
baz=250
**121A Cookes Peak, D** 94.77 57 *eP* P 16 25 50.4 0.0
comp=Z,10nm,0.8s
**JLU Jordanelle** 94.79 49 *eP* P 16 25 51.4 +1.1
**SRU San Rafael Swe** 94.93 50 *eP* P 16 25 52.1 +1.2
**SRU San Rafael Swe** 94.93 50 *eP* P 16 25 52.1 +1.2
**TCUT Toone Canyon** 95.00 48 *eP* P 16 25 52.4 +1.1
**P18A Preston Nutter** 95.31 50 *eP* P 16 25 53.6 +0.8
**MCMT McKenzie Canyo** 95.36 44 *eP* P 16 25 53.8 +0.9
**MSO Missoula** 95.40 42 P P 16 25 54.0 +1.1
baz=248
**MSO Missoula** 95.40 42 *eP* P 16 25 55.3 +2.5
**PV05 Paradox Valley** 95.62 52 *eP* P 16 25 56.2 +2.1
**DLMT Dillon** 95.73 44 *eP* P 16 25 55.4 +1.0
**PV09 Paradox Valley** 95.74 51 *eP* P 16 25 55.2 +0.5
**HVS Khovu-Aksy** 95.76 322 ⇑ *iP* P 16 25 54.7 +0.4
HVS pmax pmax
comp=Z,18nm,0.8s

**PV10 Paradox Valley 95.76 51** *e*P **P 16 25 55.4 +0.5**
**MVCO Mesa Verde 95.78 53** P **P 16 25 56.1 +1.2**
baz=250
**MVCO Mesa Verde 95.78 53** *e*P **P 16 25 57.4 +2.5**
**AHID Auburn Hatcher 95.80 47** PFAKE 16 26 10.0 +15
AHID LR LR
comp=Z,594nm,20.0s
**PV04 Paradox Valley 95.87 52** *e*P **P 16 25 56.0 +0.7**
**ZAIG Zacatecas 96.01 68** *e*P **P 16 25 58.9 +2.6**
**PV01 Paradox Valley 96.03 52** *e*P **P 16 25 57.5 +1.5**
**FXWY Fox Creek 96.16 46** *e*P **P 16 25 57.3 +0.8**
**REDW Red Top Meadow 96.18 46** *e*P **P 16 25 57.8 +1.2**
**BNM Barren Site 96.21 56** *e*P **P 16 25 57.5 +0.5**
**LPM Los Pinos Moun 96.26 56** *e*P **P 16 25 58.1 +0.9**
**MOOW Moose Ponds 96.39 46** *e*P **P 16 25 57.6 +0.1**
comp=Z,2.9nm,0.9s
**MNTX Cornudas Mount 96.42 59** P **P 16 25 58.5 +0.8**
baz=252
**MNTX Cornudas Mount 96.42 59** *e*P **P 16 25 58.3 +0.6**
comp=Z,8.9nm,0.9s
MNTX LR LR
comp=Z,473nm,21.0s
**YHB Horse Butte 96.44 45** *e*P **P 16 25 59.5 +1.8**
**BOZ Bozeman (W) 96.45 44** P **P 16 25 58.7 +1.1**
baz=249
**BOZ Bozeman (W) 96.45 44** *e*P **P 16 25 58.8 +1.1**
**BOZ Bozeman (W) 96.45 44** *e*P **P 16 25 58.8 +1.1**
BOZ LR LR
comp=Z,1μm,19.0s
**YMR Madison River 96.56 45** *e*P **P 16 26 01.4 +3.2**
**ANMO Albuquerque 96.60 55** P **P 16 25 59.2 +0.6**
baz=251
**ANMO Albuquerque 96.60 55** *e*P **P 16 25 59.5 +0.8**
**ANMO Albuquerque 96.60 55** *e*P **P 16 25 59.5 +0.8**
ANMO LR LR
comp=Z,490nm,19.0s
**INK Inuvik 96.61 18** P **P 16 25 56.6 -1.0**
comp=Z,10.0nm,1.0s,baz=263,slow=5.0,SNR=16
INK PKKP **PKKPbc 16 42 43.6 -0.4**
comp=Z,0.6nm,0.5s,baz=340,slow=6.5,SNR=6.1
INK LR LR 17 05 13.3
comp=Z,192nm,18.7s,baz=314,slow=33
**INK Inuvik 96.61 18** *e*P **P 16 25 57.2 -0.4**
INK pmax pmax
comp=Z,14nm,1.0s
**INK Inuvik 96.61 18** *e*P **P 16 25 57.2 -0.4**
comp=Z,14nm,1.0s
INK PKKP **PKKPbc 16 42 43.6 -0.4**
**YHH Holmes Hill 96.68 45** *e*P **P 16 26 03.6 +4.6**
**HRY Holter Researc 96.71 43** *e*P **P 16 26 00.7 +1.9**
**H17A Grant Village 96.73 45** P **P 16 25 59.8 +0.7**
baz=250
**H17A Grant Village 96.73 45** *e*P **P 16 26 01.4 +2.3**
**WMQ Urumqi 96.86 314** P **P 16 26 00.0 +0.5**
WMQ sP sP 16 26 26.5 +5.2
WMQ pmax pmax
comp=Z,50nm,1.9s
WMQ pmax pmax
comp=Z,320nm,4.9s
WMQ LR LR
comp=Z,510nm,23.1s
WMQ LR LR
comp=Z,680nm,25.7s
WMQ LR LR
comp=Z,820nm,29.7s
**BW06 Boulder Array 96.87 47** P **P 16 26 00.4 +0.6**
baz=250
**BW06 Boulder Array 96.87 47** *e*P **P 16 25 58.8 -0.9**
BW06 LR LR
comp=Z,496nm,19.0s
**PD31 Pinedale Array 96.87 47** *e*P **P 16 25 59.7 0.0**
**PDAR Pinedale Array 96.87 47** P **P 16 25 59.6 -0.2**
comp=Z,1.3nm,0.7s,baz=215,slow=1.8,SNR=13
PDAR PP **PP 16 29 51.8 -4.1**
comp=Z,0.8nm,0.8s,baz=239,slow=6.2,SNR=4.7
PDAR PKKP **PKKPbc 16 42 42.0 -0.6**
comp=Z,0.6nm,0.7s,baz=113,slow=3.4,SNR=6.1
PDAR LR LR 17 04 47.3
comp=Z,252nm,19.2s,baz=258,slow=32
**PDAR Pinedale Array 96.87 47** *e*P **P 16 25 58.4 -1.4**
PDAR PP **PP 16 29 51.8 -4.1**
PDAR PKKP **PKKPbc 16 42 42.0 -0.6**
**LKWY Lake 96.90 45** PFAKE 16 26 10.0 +10
LKWY LR LR
comp=Z,878nm,19.0s
**O20A White River Ci 96.93 50** P **P 16 26 00.7 +0.6**
baz=251
**O20A White River Ci 96.93 50** *e*P **P 16 26 00.4 +0.3**
comp=Z,6.5nm,0.9s
**TX31 Lajitas Ar. Si 97.09 62** *e*P Pdif 16 26 01.3 +0.2
**TXAR Lajitas Array 97.09 62** P Pdif 16 26 02.2 +1.2
comp=Z,9.2nm,0.8s,baz=221,slow=5.0,SNR=74
TXAR PKKP **PKKPbc 16 42 40.3 -0.9**
comp=Z,1.0nm,0.8s,baz=102,slow=4.4,SNR=8.8
TXAR LR LR 17 01 07.5
comp=Z,593nm,21.7s,baz=0.0,slow=30
**S22A 4UR Ranch, Cre 97.21 53** P Pdif 16 26 02.2 +0.6
baz=252
**S22A 4UR Ranch, Cre 97.21 53** *e*P Pdif 16 26 02.5 +0.9
comp=Z,5.5nm,0.8s
**SMCO Snowmass 97.55 51** *e*P Pdif 16 26 04.6 +1.4
**RLMT Red Lodge 97.85 45** P Pdif 16 26 05.0 +0.8
baz=251
**RLMT Red Lodge 97.85 45** *e*P Pdif 16 26 05.4 +1.3
**SDCO Great Sand Dun 98.21 53** P Pdif 16 26 06.5 +0.5
baz=252
**SDCO Great Sand Dun 98.21 53** *e*P Pdif 16 26 08.3 +2.3
**EFI East Falkland 98.45 153** PFAKE 16 26 20.0 +14
EFI LR LR
comp=Z,574nm,20.0s
**N23A Red Feather La 98.83 50** P Pdif 16 26 09.3 +0.6
baz=252
**N23A Red Feather La 98.83 50** *e*P Pdif 16 26 10.3 +1.6
**Q24A Divide 98.84 52** P Pdif 16 26 09.3 +0.5
baz=253
**T25A Trinidad 98.85 54** P Pdif 16 26 09.2 +0.4
baz=253
**PLCA Paso Flores 98.86 139** P Pdif 16 26 09.3 +0.6
comp=Z,2.1nm,0.9s,baz=220,slow=7.0,SNR=3.5
PLCA LR LR 17 00 43.2
comp=Z,174nm,22.0s,baz=284,slow=29
**DGZ Jazzator, Alta 98.99 319** *ce*P Pdif 16 26 09.2 +0.2
DGZ pmax pmax
comp=Z,13nm,1.5s
**MSTX Muleshoe 99.20 57** P **Pdif 16 26 10.9 +0.6**
baz=253
**MSTX Muleshoe 99.20 57** *e*P **Pdif 16 26 09.8 -0.5**
comp=Z,12nm,0.9s
**PHWY Pilot Hill 99.31 50** *e*P **Pdif 16 26 10.7 -0.1**
comp=Z,3.7nm,0.8s
**ZSN Zaisan 99.90 317** *i* P **Pdif 16 26 13.0 0.0**
comp=Z,24nm,0.8s
ZSN *i* PP **PP 16 30 18.6 0.0**
**PAYG Puerto Ayora 100.08 94** PFAKE 16 26 30.0 +15
PAYG LR LR
comp=Z,778nm,19.0s
**AMTX Amarillo 100.33 57** P **Pdif 16 26 15.9 +0.6**
baz=254
**AMTX Amarillo 100.33 57** *e*Pdif **Pdif 16 26 14.8 -0.4**
**833A Chaparral WMA, 100.39 64** P **Pdif 16 26 17.4 +1.9**
baz=254
**JCT Junction City 100.64 61** P **Pdif 16 26 17.1 +0.5**
baz=254
**YKA Yellowknife Ar 100.80 27** P **Pdif 16 26 17.2 +0.7**
comp=Z,5.8nm,0.7s,baz=255,slow=4.7,SNR=78
YKA PP **PP 16 30 21.6 -3.4**
comp=Z,0.6nm,0.8s,baz=246,slow=6.4,SNR=3.8
YKA PKiKP **PKiKP 16 30 40.9 -1.1**
comp=Z,0.3nm,0.6s,baz=236,slow=1.3,SNR=6.3
YKA PKKPbc **PKKPbc 16 42 29.5 -2.5**
comp=Z,0.4nm,0.7s,baz=76,slow=2.7,SNR=6.1
**YKW3 Yellowknife Ar 100.82 27** *e*Pdif **Pdif 16 26 16.9 +0.3**
**RSSD Black Hills 101.11 47** P **Pdif 16 26 19.3 +0.6**
baz=254
**RSSD Black Hills 101.11 47** *e*P **Pdif 16 26 19.0 +0.3**
RSSD pmax pmax
comp=Z,5.0nm,0.8s
**RSSD Black Hills 101.11 47** *e*Pdif **Pdif 16 26 19.0 +0.3**
comp=Z,5.2nm,0.8s
**ABTX Abilene, Hawle 101.35 59** P **Pdif 16 26 20.3 +0.5**
baz=254
**ABTX Abilene, Hawle 101.35 59** *e*Pdif **Pdif 16 26 20.9 +1.1**
**MK01 Makanchi Array 101.39 316** *e*Pdif **Pdif 16 26 19.7 +0.1**
**MK31 Makanchi Array 101.40 316** *e*P **Pdif 16 26 20.1 +0.5**
**MK31 Makanchi Array 101.40 316** *e*Pdif **Pdif 16 26 20.1 +0.5**
**MKAR Makanchi Array 101.40 316** P **Pdif 16 26 20.2 +0.5**
comp=Z,4.7nm,0.6s,baz=92,slow=6.4,SNR=25
MKAR PKKPbc **PKKPbc 16 42 26.5 -3.2**
comp=Z,1.7nm,0.6s,baz=271,slow=4.2,SNR=18
**MKAR Makanchi Array 101.40 316** *e*Pdif **Pdif 16 26 18.1 -1.6**
MKAR PKKPbc **PKKPbc 16 42 26.5 -3.2**
**KVTX Kingsville 101.45 65** PFAKE 16 26 30.0 +10
KVTX LR LR
comp=Z,673nm,19.0s
**MAKZ Makanchi 101.61 316** *e*P **Pdif 16 26 20.9 +0.3**
**MAKZ Makanchi 101.61 316** *e*Pdif **Pdif 16 26 20.9 +0.3**
**ZAA0 Zalesovo Array 101.81 323** *e*Pdif **Pdif 16 26 20.7 -0.5**
**ZALV Zalesovo Beam 101.81 323** P **Pdif 16 26 21.1 -0.2**
comp=Z,3.1nm,0.6s,baz=108,slow=4.8,SNR=11
ZALV PKiKP **PKiKP 16 30 43.4 -0.7**
comp=Z,1.4nm,0.6s,baz=306,slow=1.2,SNR=5.2
ZALV PKKPbc **PKKPbc 16 42 26.4 -2.3**
comp=Z,1.7nm,0.6s,baz=321,slow=1.6,SNR=7.1
**ZALV Zalesovo Beam 101.81 323** *e*P **Pdif 16 26 20.3 -1.0**
**ZALV Zalesovo Beam 101.81 323** *e*Pdif **Pdif 16 26 20.2 -1.0**
ZALV PKiKP **PKiKP 16 30 43.4 -0.7**
ZALV PKKPbc **PKKPbc 16 42 26.4 -2.3**
**SHLS Shalkode 102.39 311** *i* P **Pdif 16 26 21.1 -3.1**
SHLS *i* PP **PP 16 30 32.9 -4.8**
**UZB Uzynbulak 102.70 311** *i* P **Pdif 16 26 24.2 -1.5**
UZB *e*PP **PP 16 30 37.7 -2.3**
**CBKS Cedar Bluff 102.86 53** PFAKE 16 26 40.0 +14
CBKS LR LR
comp=Z,488nm,22.0s
**NVS Novosibirsk 102.95 324** *e*P **Pdif 16 26 24.9 -1.3**
**SEM Semipalatinsk 103.63 319** *e*PP PP 16 30 44.5 -2.3
**MDOK Medeo 104.11 311** *i* Pdif **Pdif 16 26 30.2 -1.7**
MDOK *e*PP **PKiKP 16 30 47.8 -1.1**
**KURK Kurchatov 104.71 319** P **Pdif 16 26 35.2 +1.0**
KURK MLR MLR
comp=Z,720nm,19.0s
**KURK Kurchatov 104.71 319** Pdif **Pdif 16 26 35.2 +1.0**
KURK PKiKP **PKiKP 16 30 49.2 -0.3**
KURK PKKPbc **PKKPbc 16 42 17.7 -2.2**
KURK LR LR
comp=Z,720nm,19.0s
**KURBB Kurchatov Arra 104.75 319** Pdiff **Pdif 16 26 35.2 +0.9**
comp=Z,1.4nm,0.8s,baz=98,slow=4.2,SNR=8.0
KURBB PKiKP **PKiKP 16 30 49.2 -0.3**
comp=Z,1.9nm,0.8s,baz=97,slow=1.8,SNR=6.8
KURBB PKKPbc **PKKPbc 16 42 17.7 -2.1**
comp=Z,3.3nm,0.7s,baz=282,slow=3.5,SNR=24
**KUU Kurty 104.77 312** *i* Pdif **Pdif 16 26 33.4 -1.3**
comp=Z,31nm,2.0s
KUU *e*PP **PP 16 30 53.0 -2.2**
**FFC Flin Flon 104.98 37** PFAKE 16 31 00.0
FFC LR LR
comp=Z,690nm,20.0s
**BMNS Besmoynak 105.08 311** *i* PP PP 16 30 55.1 -2.6
**KSU1 Kansas State U 105.30 54** PFAKE 16 31 00.0
KSU1 LR LR
comp=Z,544nm,20.0s
**AAK Ala-Archa 105.83 310** PKKPbc PKKPbc 16 42 15.1 -1.3
comp=Z,1.2nm,0.6s,baz=276,slow=5.3,SNR=5.9
**AAK Ala-Archa 105.83 310** *e*PKiKP **PKiKP 16 30 53.0 +0.9**
AAK PKKPbc **PKKPbc 16 42 15.1 -1.3**
AAK LR LR
comp=Z,354nm,19.0s
**ECSD EROS Data Cent 106.24 49** PFAKE 16 31 00.0
ECSD LR LR
comp=Z,802nm,21.0s
**ULM Lac du Bonnet 107.85 42** PKiKP **PKiKP 16 30 53.1 -2.3**
comp=Z,1.6nm,0.7s,baz=178,slow=1.7,SNR=5.0
ULM PKKPbc **PKKPbc 16 42 09.7 -0.5**
comp=Z,2.8nm,1.0s,baz=147,slow=2.4,SNR=4.3
**JTS JuntasAbangare 108.55 85** PFAKE 16 31 10.0
JTS LR LR
comp=Z,669nm,22.0s
**KKAR Karatay Array 108.79 310** *e*P **PKiKP 16 30 56.9 -0.5**
**KKAR Karatay Array 108.79 310** *e*PKiKP **PKiKP 16 30 56.9 -0.5**
**KKAR Karatay Array 108.79 310** *e*P **PKiKP 16 30 56.8 -0.5**
comp=Z,45nm,0.7s
**BVAR Borovoye Array 110.10 320** Pdiff **Pdif 16 26 58.7 +0.6**
comp=Z,1.0nm,0.7s,baz=72,slow=4.8,SNR=5.3
BVAR PKiKP **PKiKP 16 30 58.5 -1.0**
comp=Z,3.9nm,0.9s,baz=90,slow=3.0,SNR=12
BVAR PKKPbc **PKKPbc 16 42 00.9 -2.2**
comp=Z,2.3nm,0.7s,baz=268,slow=4.5,SNR=16
**BRVK Borovoye 110.17 321** *i*/PKiKP **PKiKP 16 30 59.6 0.0**
BRVK pmax pmax
comp=Z,21nm,1.2s
**BRVK Borovoye 110.17 321** PFAKE 16 31 10.0
BRVK LR LR
comp=Z,350nm,20.0s
**MSEY Mahe Island 110.28 257** PFAKE 16 31 10.0
MSEY LR LR
comp=Z,1μm,21.0s
**EYMN Ely 110.41 45** PFAKE 16 31 10.0
EYMN LR LR
comp=Z,852nm,22.0s
**JFWS Jewell Farm 110.69 50** PFAKE 16 31 10.0
JFWS LR LR
comp=Z,952nm,22.0s
**HDIL Hopedale 111.10 53** PFAKE 16 31 10.0
HDIL LR LR
comp=Z,440nm,22.0s
**ABPO Ambohimpanom 111.26 240** PFAKE 16 31 10.0
ABPO LR LR
comp=Z,549nm,21.0s
**OTAV Otavalo 111.52 98** PFAKE 16 31 20.0
OTAV LR LR
comp=Z,281nm,21.0s
**BCIP Isla Barro Col 113.05 88** PFAKE 16 31 20.0
BCIP LR LR
comp=Z,316nm,20.0s
**LPAZ La Paz 113.85 118** PKiKP **PKiKP 16 31 07.8 -0.7**
comp=Z,1.5nm,0.7s,baz=44,slow=3.2,SNR=5.3
**GOGA Godfrey 114.81 61** PFAKE 16 31 20.0 +11
GOGA LR LR
comp=Z,495nm,20.0s
**GLMI Grayling 114.91 49** PFAKE 16 31 20.0 +11
GLMI LR LR
comp=Z,980nm,22.0s
**AAM Ann Arbor 115.48 52** PFAKE 16 31 20.0 +10
AAM LR LR
comp=Z,546nm,20.0s
**CPUP Villa Florida 116.35 134** PKP **PKPdf 16 31 11.4 -0.9**
comp=Z,1.6nm,0.7s,baz=259,slow=4.4,SNR=5.3
**ABKAR Akbulak array 116.54 316** *e*PKPdf **PKPdf 16 31 11.0 -0.9**
**ARU Arti 116.94 324** PKP **PKPdf 16 31 08.8 -3.7**
comp=Z,14nm,0.7s,baz=108,slow=1.0,SNR=28
ARU PKKPbc **PKKPbc 16 41 38.2 -1.7**
comp=Z,3.6nm,0.6s,baz=276,slow=3.3,SNR=6.2
**ARU Arti 116.94 324** *i* PKiKP **PKPdf 16 31 12.2 -0.3**
ARU 16 32 18.6
ARU 16 38 17.8
**ARU Arti 116.94 324** *e*PKPdf **PKPdf 16 31 12.0 -0.5**
ARU PKKPbc **PKKPbc 16 41 38.2 -1.7**
**MTDJ Mount Denham 117.52 79** PFAKE 16 31 30.0 +15
MTDJ LR LR
comp=Z,444nm,20.0s
**GEYT Alibeck 117.64 303** PKP **PKPdf 16 31 12.6 -1.9**
comp=Z,5.5nm,0.7s,baz=225,slow=1.9,SNR=16
**AKTO Aktyubinsk 117.74 318** PKP **PKPdf 16 31 12.5 -1.7**
comp=Z,3.8nm,0.6s,baz=120,slow=2.0,SNR=16
AKTO PKKPbc **PKKPbc 16 41 35.2 -1.7**
comp=Z,1.5nm,0.7s,baz=24,slow=4.9,SNR=4.4
**RUSC La Rusia 118.45 94** *e*PKPdf **PKPdf 16 31 15.8 -1.5**
**CBN Corbin Frederi 120.12 56** PFAKE 16 31 30.0 +11
CBN LR LR
comp=Z,629nm,19.0s
**SUR Sutherland 120.28 211** *e*PKPdf **PKPdf 16 31 19.5 -0.5**
**BOSA Boshof 120.86 217** PKP **PKPdf 16 31 20.9 -0.2**
comp=Z,30nm,0.9s,baz=130,slow=1.9,SNR=23
BOSA pPKP **pPKPdf 16 31 36.1 -1.3**
comp=Z,3.7nm,0.6s,baz=127,slow=5.1,SNR=2.3
**SAML Samuel 121.64 114** *e*PKPdf **PKPdf 16 31 21.8 -1.1**
**SDV Santo Domingo 121.67 91** *e*PKPdf **PKPdf 16 31 21.8 -1.3**
**LBTB Lobatse 123.33 221** *e*PKiKP **PKPdf 16 31 26.0 0.0**
**LBTB Lobatse 123.33 221** *e*PKPdf **PKPdf 16 31 26.0 0.0**
**APA Apatity 124.04 341** *i*/PKiKP **PKPdf 16 31 25.0 -0.8**
APA pmax pmax
comp=Z,17nm,0.9s
APA MLR MLR
comp=Z,3μm,24.0s
**GRTK Grand Turk 124.05 77** PFAKE 16 31 40.0 +13
GRTK LR LR
comp=Z,449nm,21.0s
**TMCR Tamitsa 124.33 336** *e*PKiKP **PKPdf 16 31 25.7 -0.7**
TMCR pmax pmax
comp=Z,16nm,0.6s
**MATP Matopo 124.67 227** PKP **PKPdf 16 31 28.3 -0.4**
comp=Z,41nm,0.8s,baz=144,slow=1.8,SNR=6.4
**ARCES ARCESS Array B 124.90 345** PKP **PKPdf 16 31 26.8 -0.6**
comp=Z,28nm,0.7s,baz=74,slow=1.2,SNR=66
ARCES pPKP **pPKPdf 16 31 41.3 -2.4**
comp=Z,5.6nm,0.5s,baz=49,slow=1.2,SNR=3.7
**SCHQ Schefferville 125.09 36** PKP **PKPdf 16 31 26.9 -1.3**
comp=Z,8.1nm,0.8s,baz=346,slow=0.5,SNR=5.6
**KLMR Klimovskoe 125.28 332** *e*PKIKP **PKPdf 16 31 25.5 -2.8**
KLMR pmax pmax
comp=Z,76nm,1.3s
**PQI Presque Isle 126.36 46** *e*PKPdf **PKPdf 16 31 29.4 -1.5**
**RAYN Ar Rayn 127.29 285** *e*PKPdf **PKPdf 16 31 33.7 +0.3**
**VRH Novokhopyorsk 127.76 321** *e*PKIKP **PKPdf 16 31 33.4 0.0**
VRH pmax pmax
comp=Z,40nm,1.0s
**GNI Garni 127.98 306** *d*/PKIKP **PKPdf 16 31 35.1 +0.7**
**GNI Garni 127.98 306** PFAKE 16 31 50.0 +16
GNI LR LR
comp=Z,390nm,20.0s
**SJG San Juan 128.10 82** *e*PKIKP **PKPdf 16 31 33.9 -1.1**
**SJG San Juan 128.10 82** *e*PKPdf **PKPdf 16 31 33.9 -1.1**
**PTGA Pitinga 128.23 107** *e*PKPdf **PKPdf 16 31 34.5 -1.0**
**LSZ Lusaka 128.29 231** PKP **PKPdf 16 31 36.7 +1.1**
comp=Z,24nm,1.0s,baz=134,slow=2.1,SNR=18
**LSZ Lusaka 128.29 231** *e*PKPdf **PKPdf 16 31 36.1 +0.5**
LSZ LR LR
comp=Z,436nm,21.0s
**KMBO Kilima Mbogo 128.35 253** PKP **PKPdf 16 31 37.6 +1.7**
comp=Z,10nm,1.0s,baz=48,slow=0.4,SNR=8.2
**KMBO Kilima Mbogo 128.35 253** *e*PKPdf **PKPdf 16 31 37.4 +1.4**
**NCK Nalchik 128.35 311** *i*/PKIKP **PKPdf 16 31 35.2 +0.4**
**HUMP Col San Antoni 128.39 82** *e*PKPdf **PKPdf 16 31 34.7 -0.8**
**MOS Moscow 128.40 327** *e*PKIKP **PKPdf 16 31 33.9 -0.5**
MOS pmax pmax
comp=Z,68nm,1.0s
**MTP Monte Pirata 128.66 82** *e*PKPdf **PKPdf 16 31 34.9 -1.1**
**AKH Akhalkalaki 128.76 308** *i*/P **PKPdf 16 31 37.2 +1.3**
**KVAR Kislovodsk Arr 128.91 311** PKP **PKPdf 16 31 35.1 -0.8**
comp=Z,22nm,1.1s,baz=306,slow=1.6,SNR=8.4
**KIV Kislovodsk 128.91 311** *i* PKIKP **PKPdf 16 31 36.4 +0.4**
KIV *e* 16 33 42.4
KIV pmax pmax
comp=Z,23nm,1.1s
**KIV Kislovodsk 128.91 311** *e*PKPdf **PKPdf 16 31 35.8 -0.2**
KIV LR LR
comp=Z,400nm,20.0s
**LPSR Galich'ya Gora 128.93 323** *e*PKIKP **PKPdf 16 31 35.8 +0.3**
LPSR pmax pmax
comp=Z,110nm,1.3s
**NEY Neytrino 129.02 311** *i*/PKIKP **PKPdf 16 31 38.1 +1.8**
**OBN Obninsk 129.21 327** PKP **PKPdf 16 31 36.5 +0.6**
comp=Z,14nm,0.5s,baz=295,slow=0.3,SNR=6.8
**OBN Obninsk 129.21 327** *i*/PKIKP **PKPdf 16 31 36.1 +0.1**
OBN *e* 16 33 42.8
OBN pmax pmax
comp=Z,73nm,1.4s
OBN MLR MLR
comp=Z,345nm,22.0s
**OBN Obninsk 129.21 327** *e*PKPdf **PKPdf 16 31 36.1 +0.1**
**VSR Storozhevoye 129.27 321** *e*PKIKP **PKPdf 16 31 36.5 +0.2**
VSR pmax pmax
comp=Z,40nm,1.1s
**PUL Pulkovo 129.77 334** *i*/PKIKP **PKPdf 16 31 38.6 +1.7**
**ARTV Artvin 129.96 308** *e*PKPdf **PKPdf 16 31 38.6 +0.4**
**FIA1 FINESS Array S 130.37 338** *e*PKPdf **PKPdf 16 31 38.0 -0.1**
**FINES FINESS Array B 130.37 338** PKP **PKPdf 16 31 37.6 -0.4**
comp=Z,17nm,1.0s,baz=62,slow=3.3,SNR=12
**GRGR Grenville 131.05 90** PFAKE 16 31 50.0 +9.3
GRGR LR LR
comp=Z,414nm,20.0s
**FDF Fort de France 132.14 87** PFAKE 16 31 50.0 +7.2
FDF LR LR
comp=Z,297nm,20.0s
**ANN Anapa 132.38 314** *i* PKIKP **PKPdf 16 31 41.0 -1.3**
ANN pmax pmax
comp=Z,27nm,1.1s
**ANN Anapa 132.38 314** *i* P **PKPdf 16 31 41.0 -1.3**
ANN pmax pmax
comp=Z,27nm,1.1s
**IDID Didziasalis 133.95 331** *e*P **PKPdf 16 31 44.9 -0.1**
IDID IAmb IAmb 16 31 47.4
comp=Z,19nm,0.8s
**IDID Didziasalis 133.95 331** *e*P **PKPdf 16 31 44.9 -0.1**
**IIGN Ignalina 134.16 331** *e*P **PKPdf 16 31 44.9 -0.5**
IIGN IAmb IAmb 16 31 47.9
comp=Z,19nm,0.8s
**IIGN Ignalina 134.16 331** *e*P **PKPdf 16 31 44.9 -0.5**
**NACGM Naroch 134.17 330** *e* **PKPdf 16 31 45.0 -0.4**
**NC303 NORSAR Array S 135.07 345** *e*PKPdf **PKPdf 16 31 46.9 -0.1**
**ASF Jabal al Asfar 135.10 297** PKP **PKPdf 16 31 48.3 +0.2**
comp=Z,3.5nm,0.7s,baz=84,slow=4.8,SNR=4.6
**AKASG Malin Array Be 135.20 324** PKP **PKPdf 16 31 47.3 -0.1**
comp=Z,7.9nm,0.8s,baz=62,slow=2.3,SNR=22
AKASG pPKP **pPKPdf 16 32 01.4 -2.4**
comp=Z,2.4nm,0.7s,baz=63,slow=2.1,SNR=2.8
AKASG PP **PP 16 34 22.6 -0.8**
comp=Z,2.9nm,0.9s,baz=50,slow=6.7,SNR=9.1
AKASG SKP 16 35 15.3
comp=Z,2.7nm,0.8s,baz=46,slow=3.9,SNR=6.3
**AKBB Malin Array Si 135.20 324** *e*PKIKP **PKPdf 16 31 47.1 -0.4**
**AKBB Malin Array Si 135.20 324** *e*PKPdf **PKPdf 16 31 47.1 -0.4**
**KIEV Kiev 135.21 324** ⇑*i*/PKIKP **PKPdf 16 31 47.6 +0.1**
**KIEV Kiev 135.21 324** *e*PKPdf **PKPdf 16 31 47.2 -0.3**
**AK11 Malin Array Si 135.24 324** *e*PKPdf **PKPdf 16 31 46.5 -1.0**
**NB2 NORSAR Subarra 135.27 345** PKP PKPpre 16 31 38.6
comp=Z,5.5nm,0.7s,baz=17,slow=2.6
**NOA NORSAR Array B 135.27 345** PKP **PKPdf 16 31 47.4 +0.1**
comp=Z,8.3nm,0.7s,baz=35,slow=2.1,SNR=17
**NBO02 NORSAR Array S 135.35 345** *e*PKPdf **PKPdf 16 31 47.5 0.0**
**MMAI Mount Meron Ar 136.28 298** PKP **PKPdf 16 31 52.1 +2.0**
comp=Z,5.4nm,0.6s,baz=48,slow=4.7,SNR=6.5
MMAI SKPbc **SKPbc 16 35 20.1 +2.3**
comp=Z,2.4nm,0.7s,baz=76,slow=6.1,SNR=3.5
**SUW Suwalki 136.38 331** *e*PKP **PKPdf 16 31 46.0 -3.5**
**SUW Suwalki 136.38 331** *e*PKIKP **PKPdf 16 31 46.0 -3.5**
**BRTR Keskin Array B 136.45 308** PKP **PKPdf 16 31 51.8 +1.4**
comp=Z,2.8nm,0.7s,baz=85,slow=2.1,SNR=9.1
BRTR PP **PP 16 34 31.2 -0.9**
comp=Z,8.0nm,1.2s,baz=62,slow=3.7,SNR=9.7
**KONO Kongsberg 136.88 345** *i* PKIKP **PKPdf 16 31 50.7 +0.4**
**EIL Elat 136.94 293** PKP **PKPdf 16 31 52.1 +0.7**
comp=Z,6.4nm,0.5s,baz=90,slow=1.0,SNR=6.1
**ANTO Ankara 137.04 308** *e*PKIKP **PKPdf 16 31 49.1 -2.3**
ANTO MLR MLR
comp=Z,267nm,20.0s
**ANTO Ankara 137.04 308** *e*PKPdf **PKPdf 16 31 49.0 -2.3**
ANTO LR LR
comp=Z,267nm,20.0s
**KLNR Kaliningrad 137.30 333** *i* PKIKP **PKPdf 16 31 51.4 +0.2**
**CSS Mathiatis 137.71 301** *e*PKPdf **PKPdf 16 31 50.8 -1.9**
CSS LR LR
comp=Z,97nm,22.0s
**CFR Carcaliu 138.41 318** ⇑*i*/P PKPpre 16 31 48.8
**CFR Carcaliu 138.41 318** ⇑PKIKP PKPpre 16 31 48.8
**LVV L'vov 138.49 326** *e*PKIKP **PKPdf 16 31 53.8 +0.2**
**VRI Vrincioaia 138.98 319** ⇑*i*/P **PKPdf 16 31 54.9 +0.2**
**VRI Vrincioaia 138.98 319** ⇑PKIKP **PKPdf 16 31 54.9 +0.2**
**BUR08 Bucovina Ar. S 139.02 322** *e*PKPdf **PKPdf 16 31 55.5 +0.7**
**BUR04 Bucovina Ar. S 139.03 322** *e*PKPdf **PKPdf 16 31 55.0 +0.2**
**BURAR Bucovina Array 139.03 322** ⇑*i*/P **PKPdf 16 31 55.7 +0.9**
**BURAR Bucovina Array 139.03 322** ⇑PKIKP **PKPdf 16 31 55.7 +0.9**
**PLOR Plostina 139.04 319** ⇑*i*/P **PKPdf 16 31 55.0 +0.2**
**PLOR Plostina 139.04 319** ⇑PKIKP **PKPdf 16 31 55.0 +0.2**
**MLR Muntele Rosu 139.64 319** PKhKP PKPpre 16 31 51.6
comp=Z,2.4nm,1.0s,baz=300,slow=22,SNR=5.2
**MLR Muntele Rosu 139.64 319** ⇓*i*/P **PKPdf 16 31 56.5 +0.5**
**MLR Muntele Rosu 139.64 319** ⇓PKIKP **PKPdf 16 31 56.5 +0.5**
**DOPR Dopca 139.76 320** ⇓*i*/P PKPpre 16 31 49.2
**UZH Uzhgorod 140.10 325** *e*PKHKP PKPpre 16 31 50.6
**STHS Stebnicka Huta 140.19 327** *e*PKIKP **PKPdf 16 31 53.1 -3.7**
STHS *e* 16 31 57.7
**STHS Stebnicka Huta 140.19 327** *e*PKP **PKPdf 16 31 53.1 -3.7**
STHS *e* 16 31 57.7
**VOIR 140.22 319** ⇓*i*/P **PKPdf 16 31 57.7 +0.7**
**VOIR 140.22 319** ⇓PKIKP **PKPdf 16 31 57.7 +0.7**
**TRPA Tarpa 140.26 324** ⇓*e*PKPdf **PKPdf 16 31 57.3 +0.4**
**CRVS Cervenica-Dubn 140.39 326** *e*PKIKP **PKPdf 16 31 55.2 -1.9**
**CRVS Cervenica-Dubn 140.39 326** *e*PKP **PKPdf 16 31 55.2 -1.9**
CRVS *e* 16 31 58.3
**OJC Ojcow 140.41 329** *e*PKP **PKPdf 16 31 57.8 +0.6**
**OJC Ojcow 140.41 329** *e*PKIKP **PKPdf 16 31 57.7 +0.6**
**OJC Ojcow 140.41 329** *e*PKPdf **PKPdf 16 31 56.8 -0.3**
**ARR Arges 140.51 320** ⇑*i*/P PKPpre 16 31 53.2

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| NIE | Niedzica | 140.67 327 | *e*PKP | PKPpre | 16 31 52.6 | | |
| NIE | Niedzica | 140.67 327 | *e*PKHKP | PKPpre | 16 31 52.6 | | |
| DRGR | | 140.91 323 | ⫴*i*P | PKPpre | 16 31 52.4 | | |
| DRGR | | 140.91 323 | ⫴PKHKP | PKPpre | 16 31 52.4 | | |
| LOT | Lotru | 141.00 320 | ⫴*i*P | PKPpre | 16 31 53.5 | | |
| KECS | Kecovo | 141.16 326 | *e*PKIKP | PKPpre | 16 31 54.2 | | |
| KECS | Kecovo | 141.16 326 | *e*PKP | PKPpre | 16 31 54.2 | | |
| LANS | Liptovska Anna | 141.27 328 | *e*PKIKP | **PKPdf** | **16 31 56.8** | **-1.9** | |
| LANS | | | *e* | | 16 32 02.7 | | |
| LANS | Liptovska Anna | 141.27 328 | *e*PKP | **PKPdf** | **16 31 56.8** | **-1.9** | |
| LANS | | | *e* | | 16 32 02.7 | | |
| KSP | Ksiaz | 141.63 332 | *e*PKP | PKPpre | 16 31 54.1 | | |
| KSP | Ksiaz | 141.63 332 | *e*PKHKP | PKPpre | 16 31 54.1 | | |
| MORC | Moravsky Berou | 141.80 330 | ⇑*i*P | PKPpre | 16 31 55.1 | | |
| MORC | Moravsky Berou | 141.80 330 | ⇑PKHKP | PKPpre | 16 31 55.1 | | |
| MORC | Moravsky Berou | 141.80 330 | *e*PKPdf | **PKPdf** | **16 31 60.0** | **+0.3** | |
| SIRR | Siria | 141.81 323 | ⇑*i*P | PKPpre | 16 31 55.9 | | |
| PSZ | Piszkesteto | 141.82 326 | ⇑*i*P | **PKPdf** | **16 31 58.8** | **-1.0** | |
| PSZ | Piszkesteto | 141.82 326 | ⇑PKIKP | **PKPdf** | **16 31 58.8** | **-1.0** | |
| PSZ | Piszkesteto | 141.82 326 | ⫴*e*PKPdf | PKPpre | 16 31 55.7 | | |
| PSZ | Piszkesteto | 141.82 326 | *e*PKPdf | **PKPdf** | **16 32 00.3** | **+0.5** | |
| KRLC | Kraliky | 141.95 331 | *e*PKP | PKPpre | 16 31 56.0 | | |
| KRLC | Kraliky | 141.95 331 | *e*PKIKP | PKPpre | 16 31 56.0 | | |
| DPC | Dobruska-Polom | 141.97 331 | *e*PKP | PKPpre | 16 31 55.1 | | |
| DPC | Dobruska-Polom | 141.97 331 | *e*PKHKP | PKPpre | 16 31 55.1 | | |
| UPC | Upice | 142.00 332 | *e*PKP | PKPpre | 16 31 55.4 | | |
| UPC | Upice | 142.00 332 | *e*PKHKP | PKPpre | 16 31 55.4 | | |
| VYHS | Vyhne | 142.01 327 | *e*PKIKP | PKPpre | 16 31 56.8 | | |
| VYHS | Vyhne | 142.01 327 | *e*PKP | PKPpre | 16 31 56.8 | | |
| HERR | Herculane | 142.11 320 | ⫴*i*P | PKPpre | 16 31 55.4 | | |
| BZS | Buzias | 142.19 322 | ⇑*i*P | PKPpre | 16 31 56.6 | | |
| BZS | Buzias | 142.19 322 | ⇑PKIKP | PKPpre | 16 31 56.6 | | |
| VRAC | Vranov | 142.57 330 | PKP | **PKPdf** | **16 31 58.4** | **-2.6** | |
| | comp=Z,9.9nm,0.9s,baz=83,slow=2.6,SNR=14 | | | | | | |
| VRAC | Vranov | 142.57 330 | ⇑*i*P | PKPpre | 16 31 57.0 | | |
| MDVR | Moldovita | 142.59 320 | ⫴*i*P | **PKPdf** | **16 31 59.4** | **-1.9** | |
| PVCC | Panska Ves | 142.62 333 | *e*PKP | PKPpre | 16 31 57.5 | | |
| PVCC | Panska Ves | 142.62 333 | *e*PKIKP | PKPpre | 16 31 57.5 | | |
| BRG | Berggiesshubel | 142.63 334 | *e*PKP | PKPpre | 16 31 57.5 | | |
| | comp=Z,18nm,0.9s | | | | | | |
| BRG | | | *e* | | 16 32 11.7 | | |
| | comp=Z,13nm,0.9s | | | | | | |
| BRG | Berggiesshubel | 142.63 334 | *e*PKIKP | PKPpre | 16 31 57.5 | | |
| BRG | | | *e* | | 16 32 11.7 | | |
| BRG | | | pmax | pmax | | | |
| | comp=Z,18nm,0.9s | | | | | | |
| BRG | | | pmax | pmax | | | |
| | comp=Z,13nm,0.9s | | | | | | |
| CLL | Collm | 142.68 335 | ⫴*i*PKIKP | PKPpre | 16 31 57.5 | | |
| CLL | | | pmax | pmax | | | |
| | comp=Z,20nm,1.1s | | | | | | |
| CLL | Collm | 142.68 335 | ⫴*i*PKPdf | PKPpre | 16 31 57.5 | | |
| | comp=Z,20nm,1.1s | | | | | | |
| CLL | | | *i* PKiKP | **PKPdf** | **16 32 02.2** | **+1.1** | |
| CLL | | | LmV | | 17 36 00.0 | | |
| | comp=Z,400nm,22.0s | | | | | | |
| CLL | Collm | 142.68 335 | *e*PKPpre | PKPpre | 16 31 56.2 | | |
| SMOL | Smolenice | 142.70 328 | *e*PKIKP | **PKPdf** | **16 31 58.9** | **-2.4** | |
| SMOL | Smolenice | 142.70 328 | *e*PKP | **PKPdf** | **16 31 58.9** | **-2.4** | |
| VTS | Vitosha | 142.75 316 | ⫴*i*P | **PKPdf** | **16 31 59.4** | **-2.4** | |
| VTS | Vitosha | 142.75 316 | ⫴PKIKP | **PKPdf** | **16 31 59.4** | **-2.4** | |
| GOPC | GO Pecny, Ondr | 142.97 332 | *e*PKP | **PKPdf** | **16 31 59.1** | **-2.6** | |
| GOPC | GO Pecny, Ondr | 142.97 332 | *e*PKIKP | **PKPdf** | **16 31 59.1** | **-2.6** | |
| CSKK | Cs˘˙tkako | 143.03 326 | ⫴*e*PKPdf | PKPbc | 16 31 59.4 | +0.6 | |
| PRU | Pruhonice | 143.03 332 | *e*PKP | PKPbc | 16 31 58.8 | +0.1 | |
| PRU | Pruhonice | 143.03 332 | *e*PKIKP | PKPbc | 16 31 58.8 | +0.1 | |
| EKA | Eskdalemuir Ar | 143.39 352 | PKhKP | PKPpre | 16 31 57.0 | | |
| | comp=Z,5.4nm,0.6s,baz=2.2,slow=1.9,SNR=12 | | | | | | |
| PLG | Polygyros | 143.59 313 | P | PKPbc | 16 32 00.2 | -0.4 | |
| KNT | Kendrikon | 143.62 314 | P | PKPab | 16 31 59.6 | -0.2 | |
| SOP | Sopron | 143.69 328 | ⫴*e*PKPdf | **PKPdf** | **16 32 01.8** | **-1.2** | |
| HORT | Hortiatis | 143.73 314 | P | PKPab | 16 31 59.1 | -1.2 | |
| NKC | Novy Kostel | 143.74 334 | *e*PKP | PKPbc | 16 32 00.7 | 0.0 | |
| NKC | Novy Kostel | 143.74 334 | *e*PKIKP | PKPbc | 16 32 00.7 | 0.0 | |
| VAY | Valandovo | 143.76 315 | P | PKPbc | 16 32 00.7 | -0.3 | |
| VAY | Valandovo | 143.76 315 | *i* PKP | PKPab | 16 32 00.2 | -0.1 | |
| NPS | Neapolis | 143.80 304 | PKIKP | PKPbc | 16 32 01.5 | +0.1 | |
| NPS | Neapolis | 143.80 304 | P | PKPbc | 16 32 01.5 | +0.1 | |
| NPS | Neapolis | 143.80 304 | P | PKPbc | 16 32 01.5 | +0.1 | |
| CONA | Conrad Observa | 143.87 329 | *i* PKPdf | **PKPdf** | **16 32 02.4** | **-1.0** | |
| | comp=Z,122nm,1.3s,SNR=43 | | | | | | |
| LAST | Lasithi | 143.93 304 | P | PKPbc | 16 32 02.5 | +0.6 | |
| LAST | Lasithi | 143.93 304 | P | PKPbc | 16 32 02.5 | +0.6 | |
| GAL1 | Galloway | 144.03 354 | *e*P | PKPbc | 16 32 01.2 | -0.1 | |
| GRG | Griva | 144.04 314 | P | **PKPab** | **16 32 00.7** | **-0.7** | |
| KHC | Kasperske Hory | 144.08 332 | *e*PKP | PKPbc | 16 32 02.1 | +0.3 | |
| KHC | | | *ep*PKP | pPKPdf | 16 32 21.5 | +1.4 | |
| KHC | | | *e*PP | **PP** | **16 35 19.0** | **+1.1** | |
| KHC | Kasperske Hory | 144.08 332 | *e*PKIKP | PKPbc | 16 32 02.1 | +0.3 | |
| KHC | | | *e* | | 16 35 19.0 | | |
| KHC | Kasperske Hory | 144.08 332 | *e*PKPdf | PKPbc | 16 32 02.3 | +0.5 | |
| SKO | Skopje | 144.20 317 | P | PKPbc | 16 32 02.9 | +0.5 | |
| SKO | Skopje | 144.20 317 | *i* PKP | PKPbc | 16 32 03.1 | +0.7 | |
| PTL | Penteli | 144.21 309 | P | **PKPab** | **16 32 01.8** | **-0.4** | |
| GEC2 | GERESS Array S | 144.24 332 | *e*PKIKP | PKPbc | 16 32 02.8 | +0.4 | |
| GEC2 | GERESS Array S | 144.24 332 | *e*PKPdf | PKPbc | 16 32 02.8 | +0.4 | |
| GERES | GERESS Array B | 144.24 332 | PKP | PKPbc | 16 32 02.9 | +0.5 | |
| | comp=Z,27nm,0.7s,baz=34,slow=2.9,SNR=247 | | | | | | |
| GEA0 | GERESS Array S | 144.24 332 | *e*PKPdf | PKPbc | 16 32 02.6 | +0.2 | |
| ATHU | Athens Univers | 144.30 309 | P | **PKPab** | **16 32 01.6** | **-0.9** | |
| VLY | Voula,Athens | 144.34 309 | P | **PKPab** | **16 32 02.3** | **-0.3** | |
| IDI | Anoyia | 144.35 304 | PKP | **PKPab** | **16 32 02.7** | **-0.2** | |
| | comp=Z,37nm,0.6s,baz=34,slow=0.9,SNR=26 | | | | | | |
| IDI | Anoyia | 144.35 304 | P | PKPbc | 16 32 03.1 | -0.1 | |
| WTSB | Winterswijk | 144.36 341 | *e*PKPdf | PKPbc | 16 32 02.7 | +0.2 | |
| | comp=Z,104nm,1.1s | | | | | | |
| LIT | Litokhoron | 144.36 313 | P | **PKPab** | **16 32 02.0** | **-0.7** | |
| BEHE | Becsehely | 144.38 326 | ⫴*e*PKPdf | **PKPdf** | **16 32 03.8** | **-0.5** | |
| SIVA | Sivas | 144.50 304 | P | **PKPdf** | **16 32 04.2** | **-0.6** | |
| SIVA | Sivas | 144.50 304 | P | **PKPdf** | **16 32 04.2** | **-0.6** | |
| ARSA | Arzberg | 144.50 328 | *i* PKPdf | PKPbc | 16 32 03.7 | +0.5 | |
| | comp=Z,118nm,1.2s,SNR=36 | | | | | | |
| KRUS | Krusevo | 144.62 316 | *i* PKP | **PKPab** | **16 32 03.7** | **0.0** | |
| GRFO | Grafenberg | 144.66 335 | *e*PKIKP | PKPbc | 16 32 03.7 | +0.1 | |
| GRFO | Grafenberg | 144.66 335 | *e*PKPdf | PKPbc | 16 32 03.7 | +0.2 | |
| KOGS | Kog | 144.67 327 | *i* PKPbc | **PKPab** | **16 32 03.4** | **-0.1** | |
| SHEL | Horse Pasture | 144.68 189 | *i* PKIKP | **PKPdf** | **16 32 06.9** | **+1.1** | |
| SHEL | Horse Pasture | 144.68 189 | *e*PKPdf | PKPbc | 16 32 05.1 | +0.5 | |
| MOA | Molln | 144.70 330 | *i* PKPdf | **PKPdf** | **16 32 04.4** | **-0.5** | |
| | comp=Z,200nm,0.8s,SNR=62 | | | | | | |
| IVA | Berane | 144.72 319 | ⫴*i*PKP | PKPbc | 16 32 04.2 | +0.1 | |
| PLE | Pljevlja | 144.78 320 | ⫴*i*PKP | **PKPab** | **16 32 04.1** | **-0.1** | |
| FNA | Florina | 144.81 315 | P | **PKPab** | **16 32 03.4** | **-1.0** | |
| PVY | Plav | 144.83 318 | ⫴*i*PKP | **PKPab** | **16 32 04.2** | **-0.2** | |
| VAM | Vamos | 144.86 305 | P | PKPbc | 16 32 05.0 | +0.3 | |
| DID | Didima | 144.88 309 | P | **PKPab** | **16 32 03.0** | **-1.7** | |
| LTK | Loutraki | 144.88 310 | P | **PKPab** | **16 32 02.0** | **-2.6** | |
| LTK | Loutraki | 144.88 310 | P | **PKPab** | **16 32 02.0** | **-2.6** | |
| THL | Klokotos Trika | 144.93 313 | P | **PKPab** | **16 32 03.0** | **-1.7** | |
| AGG | Agios Georgios | 144.94 312 | P | **PKPab** | **16 32 02.0** | **-2.8** | |
| OHR | Ohrid | 145.04 316 | *i* PKP | **PKPab** | **16 32 05.2** | **0.0** | |
| DSF | Desfina | 145.04 310 | P | **PKPbc** | **16 32 03.7** | **-1.5** | |
| DSF | Desfina | 145.04 310 | P | **PKPbc** | **16 32 03.7** | **-1.5** | |
| LBWR | Ladybower, Pea | 145.06 350 | *e*P | **PKPbc** | **16 32 04.3** | **-0.4** | |
| PERS | Pernice | 145.12 328 | *i* PKPbc | **PKPbc** | **16 32 05.0** | **-0.2** | |
| SOKA | Soboth | 145.14 328 | *i* PKPdf | **PKPbc** | **16 32 05.2** | **-0.1** | |
| | comp=Z,173nm,1.1s,SNR=48 | | | | | | |
| UPM | Unac-Piva | 145.15 320 | ⫴*i*PKP | **PKPbc** | **16 32 05.1** | **-0.5** | |
| KPRO | Kipourio | 145.20 314 | P | **PKPbc** | **16 32 05.0** | **-0.7** | |
| NEST | Nestorio | 145.21 314 | P | **PKPbc** | **16 32 05.2** | **-0.5** | |
| RCBR | Riachuelo | 145.22 133 | *e*PKPbc | **PKPbc** | **16 32 05.6** | **-0.9** | |
| BLY | Banja Luka | 145.25 324 | *e*PKPbc | **PKPdf** | **16 32 05.7** | **-0.1** | |
| PENT | Pentalofos | 145.25 314 | P | **PKPbc** | **16 32 05.1** | **-0.8** | |
| WACR | West Acre | 145.27 347 | *e*P | **PKPbc** | **16 32 05.3** | **0.0** | |
| NKY | Niksic | 145.31 319 | ⇑*i*PKP | **PKPbc** | **16 32 06.2** | **0.0** | |
| KALE | Kalithea | 145.33 311 | P | **PKPbc** | **16 32 05.0** | **-1.2** | |
| KALE | Kalithea | 145.33 311 | P | **PKPbc** | **16 32 05.0** | **-1.2** | |
| EVR | Evrytania | 145.35 312 | P | **PKPbc** | **16 32 05.7** | **-0.6** | |
| PDG | Podgorica | 145.36 319 | ⇑*i*P | **PKPab** | **16 32 06.4** | **+0.2** | |
| PDG | Podgorica | 145.36 319 | P | **PKPbc** | **16 32 05.8** | **-0.2** | |
| TTG | Podgorica | 145.36 319 | ⫴*i*PKP | **PKPdf** | **16 32 06.0** | **-0.1** | |
| GUR | Goura | 145.37 310 | P | **PKPbc** | **16 32 05.2** | **-1.1** | |
| GUR | Goura | 145.37 310 | P | **PKPbc** | **16 32 05.2** | **-1.1** | |
| SERG | Sergoula | 145.38 311 | P | **PKPbc** | **16 32 05.1** | **-1.2** | |
| SERG | Sergoula | 145.38 311 | P | **PKPbc** | **16 32 05.1** | **-1.2** | |
| VLI | Velíai | 145.38 307 | P | **PKPbc** | **16 32 05.0** | **-1.3** | |
| WPS | Cemaes, Angles | 145.44 353 | *e*P | **PKPdf** | **16 32 05.5** | **-0.3** | |
| KYTH | Kithira | 145.46 307 | P | **PKPab** | **16 32 06.9** | **0.0** | |
| KLV | Kalavryta, Ach | 145.46 310 | P | **PKPdf** | **16 32 06.1** | **-0.4** | |
| KLV | Kalavryta, Ach | 145.46 310 | P | **PKPdf** | **16 32 06.1** | **-0.4** | |
| EFP | Efpalio | 145.48 311 | P | **PKPdf** | **16 32 05.8** | **-0.6** | |
| EFP | Efpalio | 145.48 311 | P | **PKPdf** | **16 32 05.8** | **-0.6** | |
| OBKA | Obir | 145.50 328 | *i* PKPab | **PKPdf** | **16 32 06.2** | **-0.1** | |
| | comp=Z,110nm,0.9s,SNR=24 | | | | | | |
| LAKA | Lakka | 145.51 310 | P | **PKPab** | **16 32 06.8** | **-0.2** | |
| LAKA | Lakka | 145.51 310 | P | **PKPab** | **16 32 06.8** | **-0.2** | |
| TIR | Tirane | 145.53 317 | ⇑*i*P | **PKPab** | **16 32 07.3** | **+0.4** | |
| TIR | Tirane | 145.53 317 | ⇑PKIKP | **PKPab** | **16 32 07.3** | **+0.4** | |
| TIR | Tirane | 145.53 317 | *e*PKPdf | **PKPbc** | **16 32 06.6** | **0.0** | |
| BRY | Bratogost | 145.54 320 | ⫴*i*PKP | **PKPdf** | **16 32 06.0** | **-0.6** | |
| VLX | Vlachokerasia | 145.56 309 | P | **PKPdf** | **16 32 06.6** | **-0.1** | |
| ULC | Ulcinj | 145.61 318 | ⫴*i*PKP | **PKPbc** | **16 32 06.7** | **-0.2** | |
| CWF | Charnwood Fore | 145.62 346 | *e*P | **PKPdf** | **16 32 05.7** | **-0.5** | |
| CWF | Charnwood Fore | 145.62 349 | *e*PKPdf | **PKPdf** | **16 32 06.0** | **-0.2** | |
| BUM | Brajici-Budva | 145.65 319 | ⫴*i*PKP | **PKPab** | **16 32 07.4** | **0.0** | |
| HGN | Heimansgroeve | 145.67 341 | *e*PKPdf | **PKPab** | **16 32 07.6** | **+0.5** | |
| | comp=Z,210nm,0.8s | | | | | | |
| HGN | | | *ep*PKPdf | **pPKPdf** | **16 32 21.0** | **-1.7** | |
| PVO | Paravola | 145.68 311 | P | **PKPab** | **16 32 07.4** | **-0.1** | |
| KBA | Koelnbreinsper | 145.69 330 | *i* PKPab | **PKPdf** | **16 32 06.5** | **-0.2** | |
| | comp=Z,152nm,1.0s,SNR=38 | | | | | | |
| JAN | Janina | 145.69 313 | P | **PKPab** | **16 32 07.8** | **+0.2** | |
| BEBN | Eben Emael | 145.72 341 | PKP | **PKPab** | **16 32 07.2** | **-0.1** | |
| DSL | Palaion Diasel | 145.75 312 | P | **PKPbc** | **16 32 07.3** | **-0.1** | |
| FOEL | Foel Wylfa | 145.78 351 | *e*P | **PKPab** | **16 32 07.2** | **-0.3** | |
| MEM | Membach | 145.78 340 | PKP | **PKPbc** | **16 32 07.2** | **+0.1** | |
| DSB | Dublin | 145.79 355 | *e*PKPdf | **PKPbc** | **16 32 06.9** | **-0.1** | |
| DRO | Drossia | 145.82 310 | P | **PKPbc** | **16 32 07.8** | **+0.1** | |
| DRO | Drossia | 145.82 310 | P | **PKPbc** | **16 32 07.8** | **+0.1** | |
| HCY | Herceg Novi | 145.82 319 | ⫴*i*PKP | **PKPdf** | **16 32 05.6** | **-1.3** | |
| LJU | Ljubljana | 145.83 327 | *e*PKPbc | **PKPbc** | **16 32 07.6** | **+0.2** | |
| MYKA | Terra Mystica | 145.86 329 | *i* PKPbc | **PKPdf** | **16 32 06.4** | **-0.6** | |
| | comp=Z,87nm,0.9s,SNR=30 | | | | | | |
| PDO | Prodromos | 145.93 312 | P | **PKPdf** | **16 32 07.5** | **+0.3** | |
| RLS | Riolos of Patr | 145.95 310 | P | **PKPab** | **16 32 08.4** | **-0.2** | |
| RLS | Riolos of Patr | 145.95 310 | P | **PKPab** | **16 32 08.4** | **-0.2** | |
| ITM | Ithomi | 145.97 309 | P | **PKPbc** | **16 32 07.7** | **-0.4** | |
| AMT | Artemida-Makis | 145.99 309 | P | **PKPbc** | **16 32 08.1** | **-0.1** | |
| HLM1 | Long Mynd | 146.09 351 | *e*P | **PKPdf** | **16 32 07.4** | **+0.3** | |
| UCC | Uccle | 146.11 342 | PKP | **PKPab** | **16 32 08.6** | **-0.1** | |
| SGD | Sagiada | 146.13 314 | P | **PKPbc** | **16 32 08.5** | **0.0** | |
| BCLA | Clavier | 146.17 341 | PKP | **PKPbc** | **16 32 08.1** | **-0.2** | |
| UDBI | Udbina | 146.17 324 | *i* P | **PKPbc** | **16 32 08.3** | **-0.3** | |
| STU | Stuttgart | 146.19 336 | *e*PKIKP | **PKPdf** | **16 32 07.4** | **+0.1** | |
| STU | Stuttgart | 146.19 336 | *e*PKPdf | **PKPdf** | **16 32 07.4** | **+0.1** | |
| VTN | Vitineika | 146.21 310 | P | **PKPdf** | **16 32 07.2** | **-0.5** | |
| VTN | Vitineika | 146.21 310 | P | **PKPdf** | **16 32 07.2** | **-0.5** | |
| LKD2 | Lefkada island | 146.21 312 | P | **PKPbc** | **16 32 08.4** | **-0.4** | |
| WATA | Walderalm | 146.31 332 | *i* PKPbc | **PKPdf** | **16 32 07.6** | **-0.2** | |
| | SNR=50 | | | | | | |
| ABTA | Abfaltersbach | 146.32 330 | *i* PKPbc | **PKPdf** | **16 32 07.4** | **-0.3** | |
| | comp=Z,165nm,1.6s,SNR=31 | | | | | | |
| WTTA | Wattenberg | 146.34 332 | *i* PKPbc | **PKPdf** | **16 32 08.2** | **+0.3** | |
| | comp=Z,131nm,1.2s,SNR=31 | | | | | | |
| SNF | Seneffe | 146.39 342 | PKP | **PKPdf** | **16 32 07.7** | **+0.1** | |
| TRI | Trieste | 146.44 328 | *e*PKIKP | **PKPdf** | **16 32 07.4** | **-0.4** | |
| TRI | Trieste | 146.44 328 | *e*PKPdf | **PKPdf** | **16 32 07.4** | **-0.4** | |
| SSW | Stow on the Wo | 146.46 350 | *e*P | **PKPbc** | **16 32 09.2** | **+0.2** | |
| MOTA | Moosalm | 146.52 332 | *i* PKPbc | **PKPdf** | **16 32 07.9** | **-0.2** | |
| | comp=Z,121nm,0.8s,SNR=102 | | | | | | |
| VLS | Valsamata | 146.53 311 | P | **PKPbc** | **16 32 10.2** | **+0.4** | |
| LANF | Langenberg | 146.55 337 | PKP | **PKPab** | **16 32 10.4** | **-0.1** | |
| WLF | Walferdange | 146.55 339 | PKP | **PKPab** | **16 32 10.2** | **-0.3** | |
| WLF | Walferdange | 146.55 339 | *e*PKP2 | **PKPab** | **16 32 10.4** | **-0.1** | |
| WLF | Walferdange | 146.55 339 | *e*PKPbc | **PKPab** | **16 32 10.4** | **-0.1** | |
| RETA | Reutte | 146.56 333 | *i* PKPbc | **PKPbc** | **16 32 09.1** | **-0.5** | |
| | comp=Z,129nm,1.4s,SNR=33 | | | | | | |
| MCH1 | Michaelchurch | 146.62 351 | *e*P | **PKPbc** | **16 32 09.2** | **-0.3** | |
| LPW | Lampeter | 146.65 352 | *e*P | **PKPbc** | **16 32 09.1** | **-0.5** | |
| DOU | Dourbes | 146.67 341 | PKP | **PKPbc** | **16 32 09.9** | **+0.1** | |
| STRD | Stroud | 146.70 350 | *e*P | **PKPbc** | **16 32 09.3** | **-0.4** | |
| MONM | Monmouth | 146.74 350 | *e*P | **PKPbc** | **16 32 09.6** | **-0.2** | |
| SWN1 | Swindon | 146.89 349 | *e*P | **PKPbc** | **16 32 10.6** | **+0.3** | |
| BFO | Black Forest | 146.89 336 | *e*PKIKP | **PKPdf** | **16 32 07.8** | **-0.7** | |
| BFO | | | *e* | | 16 32 10.7 | | |
| BFO | Black Forest | 146.89 336 | *e*PKPdf | **PKPdf** | **16 32 07.8** | **-0.7** | |
| BFO | | | *e*PKPbc | PKPbc | **16 32 10.7** | **+0.2** | |
| STR | Strasbourg | 146.89 337 | PKP | **PKPab** | **16 32 11.7** | **-0.1** | |
| FETA | Feichten | 146.93 332 | *i* PKPdf | **PKPdf** | **16 32 08.6** | **-0.3** | |
| | comp=Z,104nm,0.7s,SNR=69 | | | | | | |
| HGH | Gray Hill | 146.93 350 | *e*P | **PKPbc** | **16 32 10.2** | **-0.2** | |
| WOL | Wolverton | 146.97 348 | *e*P | **PKPbc** | **16 32 10.1** | **-0.5** | |
| HMNX | Herstmonceux | 147.08 347 | *e*P | **PKPbc** | **16 32 11.1** | **+0.2** | |
| DAVA | Damuels | 147.09 333 | *i* PKPbc | **PKPdf** | **16 32 09.2** | **+0.1** | |
| | comp=Z,74nm,0.9s,SNR=32 | | | | | | |
| ECH | Echery | 147.43 337 | PKP | **PKPbc** | **16 32 12.2** | **+0.2** | |
| ECH | Echery | 147.43 337 | *e*PKIKP | **PKPdf** | **16 32 08.9** | **-0.5** | |
| ECH | | | *e* | | 16 32 12.0 | | |
| ECH | Echery | 147.43 337 | *e*PKPdf | **PKPdf** | **16 32 08.9** | **-0.5** | |
| ECH | | | *e*PKPbc | PKPbc | **16 32 12.0** | **+0.1** | |
| FUORN | Ofenpass-Fuorn | 147.44 332 | *e*PKPdf | **PKPdf** | **16 32 09.6** | **-0.2** | |
| FUORN | | | *e*PKPbc | PKPbc | **16 32 13.3** | **+0.9** | |
| DAVOX | Davos/Dischmat | 147.49 333 | PKPbc | **PKPdf** | **16 32 10.3** | **+0.5** | |
| | comp=Z,146nm,0.6s,baz=292,slow=0.3,SNR=223 | | | | | | |
| MOF | Molkenrain | 147.74 337 | PKP | **PKPbc** | **16 32 12.4** | **-0.5** | |
| HTL | Hartland | 147.80 352 | *e*P | **PKPbc** | **16 32 12.9** | **+0.1** | |
| THEF | They Montfort | 147.84 338 | PKP | **PKPbc** | **16 32 13.5** | **+0.4** | |
| TUE | Stuetta | 147.96 333 | *e*PKPdf | **PKPdf** | **16 32 10.5** | **-0.1** | |
| TUE | | | *e*PKPbc | PKPbc | **16 32 14.3** | **+0.7** | |
| TIP | Timpagrande | 148.69 315 | *e*PKPbc | **PKPbc** | **16 32 16.0** | **+0.3** | |
| TIP | Timpagrande | 148.69 315 | P | **PKPbc** | **16 32 15.8** | **+0.1** | |
| CCA1 | Carnmenellis | 148.69 353 | *e*P | **PKPdf** | **16 32 12.9** | **+1.5** | |
| CUC | Castrococco | 148.86 318 | *e*PKPbc | **PKPbc** | **16 32 15.1** | **-0.9** | |
| CUC | | | LR | LR | | | |
| | comp=Z,263nm,20.0s | | | | | | |
| AQU | L'Aquila | 148.89 323 | *e*PKP2 | **PKPbc** | **16 32 16.0** | **-0.1** | |
| AQU | | | MLR | MLR | | | |
| | comp=Z,653nm,21.0s | | | | | | |
| AQU | L'Aquila | 148.89 323 | *e*PKPbc | **PKPbc** | **16 32 16.0** | **-0.1** | |
| AQU | | | LR | LR | | | |
| | comp=Z,653nm,21.0s | | | | | | |
| SENIN | Lac Senin/Sane | 148.90 335 | *e*PKPbc | **PKPbc** | **16 32 16.4** | **+0.2** | |
| VLC | Villacollemand | 149.23 329 | *e*PKPbc | **PKPbc** | **16 32 16.7** | **-0.1** | |
| BNI | Bardonecchia | 150.22 334 | *e*PKIKP | **PKPdf** | **16 32 14.3** | **+0.1** | |
| BNI | | | *e* | | 16 32 20.2 | | |
| BNI | | | MLR | MLR | | | |
| | comp=Z,823nm,20.0s | | | | | | |
| BNI | Bardonecchia | 150.22 334 | *e*PKPdf | **PKPdf** | **16 32 14.3** | **+0.1** | |
| BNI | | | *e*PKPbc | **PKiKP** | **16 32 20.1** | **0.0** | |
| BNI | | | LR | LR | | | |
| | comp=Z,823nm,20.0s | | | | | | |
| GDM | Grand'Maison | 150.32 335 | PKP | **PKPbc** | **16 32 20.4** | **+0.8** | |
| GRN | Grenoble | 150.44 335 | PKP | **PKPbc** | **16 32 20.8** | **+1.0** | |
| PLDF | La Plantade | 150.60 339 | PKP | **PKPbc** | **16 32 21.4** | **+1.2** | |
| AGO | Saint Agoulin | 150.72 339 | PKP | **PKPbc** | **16 32 21.2** | **+0.9** | |
| SSB | Saint Sauveur | 150.87 337 | PKP | **PKPbc** | **16 32 21.4** | **+0.6** | |
| SSB | Saint Sauveur | 150.87 337 | *e*PKIKP | **PKPdf** | **16 32 15.5** | **+0.4** | |
| SSB | | | *e* | | 16 32 20.5 | | |
| SSB | Saint Sauveur | 150.87 337 | *e*PKPdf | **PKPdf** | **16 32 15.5** | **+0.4** | |
| SSB | | | *e*PKPbc | PKPbc | **16 32 20.5** | **-0.3** | |
| PYM | Petit Puy Mans | 151.00 339 | PKP | PKPbc | **16 32 22.3** | **+1.2** | |
| OG25 | Le Caire | 151.02 334 | PKP | **PKPbc** | **16 32 21.5** | **+0.3** | |
| VAE | Valguarnera | 151.15 315 | PKPab | **PKPab** | **16 32 29.7** | **+0.1** | |
| | comp=Z,32nm,0.8s,baz=66,slow=11,SNR=8.0 | | | | | | |
| LBL | Lubilhac | 151.38 338 | PKP | **PKPbc** | **16 32 23.6** | **+1.6** | |
| CLTB | Caltabellotta | 151.89 316 | *e*PKPbc | **PKPbc** | **16 32 23.5** | **+0.1** | |
| VSL | Villasalto | 153.06 323 | *e*PKPbc | **PKPbc** | **16 32 25.7** | **-0.2** | |
| KEST | Kesra | 155.50 317 | PKP | **PKPdf** | **16 32 23.6** | **+1.4** | |
| | comp=Z,9.7nm,1.0s,baz=207,slow=2.3,SNR=4.5 | | | | | | |
| KEST | | | PKPab | pPKPbc | 16 32 47.3 | -0.3 | |
| | comp=Z,13nm,0.8s,baz=76,slow=3.8,SNR=5.6 | | | | | | |
| PBRG | Braganca | 157.12 351 | *e*PKPab | **PKPab** | **16 32 54.7** | **+0.1** | |
| PGAV | Gavieira, Arco | 157.14 354 | *e*PKPdf | **PKPdf** | **16 32 23.8** | **-0.3** | |
| PGAV | Gavieira, Arco | 157.14 354 | *e*PKPab | **PKPab** | **16 32 55.1** | **+0.3** | |
| POLO | Lamas de Olo | 157.68 353 | *e*PKPdf | **PKPdf** | **16 32 25.1** | **+0.3** | |
| POLO | Lamas de Olo | 157.68 353 | *e*PKPab | **PKPab** | **16 32 57.5** | **+0.4** | |
| PVRL | Vila Real | 157.77 353 | *e*PKPdf | **PKPdf** | **16 32 25.4** | **+0.5** | |
| PVRL | Vila Real | 157.77 353 | *e*PKPab | **PKPab** | **16 32 57.6** | **+0.2** | |
| MVO | Moncorvo | 157.79 352 | *e*PKPdf | **PKPdf** | **16 32 24.8** | **-0.1** | |
| MVO | Moncorvo | 157.79 352 | *e*PKPab | **PKPab** | **16 32 57.7** | **+0.1** | |
| PVIS | Viseu | 158.34 353 | *e*PKPab | **PKPab** | **16 33 00.2** | **+0.3** | |
| MTE | Manteigas | 158.61 352 | *e*PKPdf | **PKPdf** | **16 32 26.0** | **+0.1** | |
| MTE | Manteigas | 158.61 352 | *e*PKPdf | **PKPdf** | **16 32 26.3** | **+0.4** | |
| MTE | Manteigas | 158.61 352 | *e*PKPab | **PKPab** | **16 33 01.6** | **+0.5** | |
| ESDC | Sonseca Array | 158.63 345 | PKP | **PKPdf** | **16 32 26.0** | **0.0** | |
| | comp=Z,1.0nm,0.7s,baz=342,slow=3.5,SNR=4.5 | | | | | | |
| ESDC | | | PKPab | **PKPab** | **16 33 01.4** | **+0.1** | |
| | comp=Z,11nm,0.7s,baz=17,slow=3.8,SNR=29 | | | | | | |
| COI | Coimbra | 158.90 354 | *e*PKPab | **PKPab** | **16 33 02.7** | **+0.4** | |
| PCAS | Casmilo, Conde | 159.06 354 | *e*PKPab | **PKPab** | **16 33 03.3** | **+0.3** | |
| PCBR | Castelo Branco | 159.15 352 | *e*PKPdf | **PKPdf** | **16 32 26.8** | **+0.3** | |
| PCBR | Castelo Branco | 159.15 352 | *e*PKPab | **PKPab** | **16 33 03.5** | **+0.1** | |
| PTOM | Tomar | 159.48 354 | *e*PKPab | **PKPab** | **16 33 05.5** | **+0.7** | |
| PMRV | Marv??o | 159.55 352 | *e*PKPdf | **PKPdf** | **16 32 27.3** | **+0.3** | |
| PMRV | Marv??o | 159.55 352 | *e*PKPab | **PKPab** | **16 33 05.5** | **+0.3** | |
| PMTG | Montargil | 160.00 353 | *e*PKPab | **PKPab** | **16 33 07.5** | **+0.4** | |
| PESTR | Estremoz | 160.12 352 | *e*PKPab | **PKPab** | **16 33 07.9** | **+0.2** | |
| PMAFR | Mafra | 160.22 356 | *e*PKPab | **PKPab** | **16 33 09.1** | **+1.0** | |
| EVO | Evora | 160.51 353 | *e*PKPdf | **PKPdf** | **16 32 28.3** | **+0.2** | |
| EVO | Evora | 160.51 353 | *e*PKPab | **PKPab** | **16 33 09.7** | **+0.4** | |
| PBAR | Barrancos | 160.72 350 | *e*PKPab | **PKPab** | **16 33 10.3** | **0.0** | |
| PNCL | Nicolau / Gran | 160.99 354 | *e*PKPdf | **PKPdf** | **16 32 28.6** | **0.0** | |
| PNCL | Nicolau / Gran | 160.99 354 | *e*PKPab | **PKPab** | **16 33 11.8** | **+0.4** | |
| PBEJ | Beja | 160.99 352 | *e*PKPab | **PKPab** | **16 33 11.7** | **+0.2** | |
| MESJ | Messejana | 161.22 353 | *e*P | **PKPdf** | **16 32 28.

**LKRN Lenkeran, Azer 30.58 345** P **P** **16 30 17.8 +0.5**
**LKRN Lenkeran, Azer 30.58 345** P **P** **16 30 17.8 +0.5**
**DMN Daman 31.31 51** *eP* **P** **16 30 26.5 +2.3**
comp=Z,45nm,1.1s
**PKIN Phulchoki 31.52 51** *eP* **P** **16 30 28.9 +2.8**
comp=Z,16nm,0.7s
**PKI Pulchoki 31.52 51** *eP* **P** **16 30 28.0 +1.8**
comp=Z,40nm,1.0s
**KKN Kakani 31.53 50** *eP* **P** **16 30 28.3 +2.1**
comp=Z,42nm,1.0s
**MMAI Mount Meron Ar 31.69 322** LR LR 16 43 21.3
comp=Z,182nm,18.2s,baz=175,slow=36
**NAX Nakhchivan 31.95 341** P **P** **16 30 29.8 +0.3**
**NAX Nakhchivan 31.95 341** P **P** **16 30 29.8 +0.3**
**GUN Gumba 32.05 51** *eP* **P** **16 30 32.7 +1.8**
comp=Z,71nm,1.2s
**RAMN Ramite 32.15 53** *eP* **P** **16 30 35.0 +3.4**
comp=Z,8.8nm,0.5s
**JIRN Jiri 32.17 51** *eP* **P** **16 30 33.9 +2.0**
comp=Z,234nm,0.9s
**ODAN Odare 32.73 54** *eP* P 16 30 40.3 +3.6
comp=Z,20nm,1.0s
**MNGR Mingechevir, A 32.96 344** P **P** **16 30 38.7 +0.5**
**MNGR Mingechevir, A 32.96 344** P **P** **16 30 38.7 +0.5**
**GANJ Ganja 33.05 343** P **P** **16 30 39.5 +0.4**
**GANJ Ganja 33.05 343** P **P** **16 30 39.5 +0.4**
**GNI Garni 33.07 341** LR LR 16 45 29.7
comp=Z,453nm,18.5s,baz=162,slow=39
**GNI Garni 33.07 341**⇓ *eP* **P** **16 30 39.5 +0.1**
GNI pmax pmax
comp=Z,74nm,1.3s
**GNI Garni 33.07 341** *eP* **P** **16 30 39.5 +0.1**
comp=Z,74nm,1.3s
**TAPN Taplejung 33.21 53** *eP* **P** **16 30 42.9 +1.9**
comp=Z,30nm,1.0s
**SEKA Sheki 33.34 345** P **P** **16 30 41.7 +0.1**
**SEKA Sheki 33.34 345** P **P** **16 30 41.7 +0.1**
**SFK Sufi-Kurgan 33.59 22** P **P** **16 30 45.2 +1.1**
**SFK Sufi-Kurgan 33.59 22** P **P** **16 30 45.2 +1.1**
**ZKTA Zakatala 33.89 344** P **P** **16 30 46.8 +0.4**
**ZKTA Zakatala 33.89 344** P **P** **16 30 46.8 +0.4**
**MALT Malatya 34.01 332** P **P** **16 30 49.9 +2.3**
**KSH Kashi 34.13 25** P **P** **16 30 46.3 -2.3**
KSH pP pP 16 30 49.5 -2.2
KSH PP **PnPn** **16 31 59.5 -2.7**
KSH PcP **PcP** **16 33 25.5 -0.4**
KSH S **S** **16 36 08.5 -6.3**
KSH ScS **ScS** **16 41 08.3 -5.0**
KSH pmax pmax
comp=Z,24nm,1.2s
KSH pmax pmax
comp=Z,240nm,3.7s
KSH LR LR
comp=Z,190nm,5.6s
KSH LR LR
comp=Z,230nm,5.4s
KSH LR LR
comp=Z,210nm,4.3s
**BRDH Bariadhala 34.75 63** LR LR 16 44 56.3
comp=Z,534nm,18.1s,baz=241,slow=36
**ZEI Tsey 35.73 342** *eP* **P** **16 31 03.8 +1.3**
ZEI pmax pmax
comp=Z,17nm,1.0s
**AAK Ala-Archa 36.26 21** P **P** **16 31 09.2 +2.3**
comp=Z,5.2nm,0.9s,baz=216,slow=8.7,SNR=13
AAK LR LR 16 46 19.7
comp=Z,545nm,21.8s,baz=204,slow=37
**AAK Ala-Archa 36.26 21**⇓ *eP* **P** **16 31 05.9 -1.1**
AAK pmax pmax
comp=Z,8.0nm,1.0s
AAK MLR MLR
comp=Z,604nm,22.0s
**AAK Ala-Archa 36.26 21** *eP* **P** **16 31 05.9 -1.1**
comp=Z,604nm,22.0s
**NCK Nalchik 36.47 342**⇓ *eP* **P** **16 31 10.3 +1.7**
NCK pmax pmax
comp=Z,9.0nm,0.4s
**NCK Nalchik 36.47 342** *eP* **P** **16 31 10.3 +1.7**
comp=Z,9.0nm,0.4s
**FRU Bishkek 36.47 20** *eP* P 16 31 13.0 +4.4
FRU *e* 16 31 17.0
**KBZ Khabaz 36.89 341** P **P** **16 31 14.1 +2.0**
comp=Z,2.9nm,0.7s,baz=165,slow=8.8,SNR=5.0
KBZ LR LR 16 48 58.0
comp=Z,308nm,19.0s,baz=162,slow=40
**KBZ Khabaz 36.89 341** PKHKP **P** **16 31 14.1 +2.0**
**LSA Lhasa 36.97 52** *eP* **P** **16 31 14.3 +0.7**
LSA pmax pmax
comp=Z,8.0nm,1.0s
**LSA Lhasa 36.97 52** *eP* **P** **16 31 14.3 +0.7**
comp=Z,8.0nm,1.0s
**LSA Lhasa 36.97 52** *eP* **P** **16 31 14.3 +0.7**
comp=Z,8.2nm,1.0s
**KVAR Kislovodsk Arr 37.16 341** P **P** **16 31 16.7 +2.2**
comp=Z,6.0nm,0.9s,baz=142,slow=5.8,SNR=5.4
**KIV Kislovodsk 37.16 341** *eP* **P** **16 31 16.5 +1.9**
KIV pmax pmax
comp=Z,11nm,1.0s
KIV MLR MLR
comp=Z,189nm,16.0s
**KIV Kislovodsk 37.16 341** *eP* **P** **16 31 16.5 +1.9**
comp=Z,189nm,16.0s
**BR131 Keskin Array S 37.47 328** *eP* **P** **16 31 15.2 -2.1**
**BR131 Keskin Array S 37.47 328** *eP* **P** **16 31 15.2 -2.1**
**BRTR Keskin Array B 37.47 328** P **P** **16 31 18.7 +1.4**
comp=Z,2.7nm,0.9s,baz=154,slow=8.6,SNR=16
BRTR LR LR 16 47 47.8
comp=Z,150nm,18.2s,baz=72,slow=38
**BR231 Keskin MP Arra 38.01 328** *eP* **P** **16 31 19.2 -2.6**
**BR231 Keskin MP Arra 38.01 328** *eP* **P** **16 31 19.2 -2.6**
**LSZ Lusaka 38.40 231** P **P** **16 31 26.1 +0.7**
comp=Z,4.1nm,0.7s,baz=45,slow=7.0,SNR=10
**LSZ Lusaka 38.40 231** *eP* **P** **16 31 25.6 +0.2**
LSZ pmax pmax
comp=Z,46nm,1.2s
**LSZ Lusaka 38.40 231** *eP* **P** **16 31 25.6 +0.2**
comp=Z,46nm,1.2s
**LSZ Lusaka 38.40 231** *eP* **P** **16 31 25.6 +0.2**
comp=Z,46nm,1.2s
**PDGK Podgornoye 38.76 25** P **P** **16 31 29.9 +1.8**
**CMAR Chiang Mai Arr 40.55 72** P **P** **16 31 44.8 +1.5**
comp=Z,1.3nm,0.8s,baz=272,slow=8.1,SNR=9.5
CMAR LR LR 16 48 49.7
comp=Z,84nm,19.1s,baz=125,slow=37
**CM01 Chiang Mai Arr 40.56 72** *eP* **P** **16 31 43.1 -0.2**
**CM01 Chiang Mai Arr 40.56 72** *eP* **P** **16 31 43.1 -0.2**
**AKTO Aktyubinsk 41.11 360** LR LR 16 49 10.5
comp=Z,154nm,19.2s,baz=191,slow=37
**MKAR Makanchi Array 42.73 24** P **P** **16 32 01.2 +0.4**
comp=Z,0.5nm,0.4s,baz=218,slow=9.4,SNR=8.2
MKAR PcP **PcP** **16 33 52.5 +0.1**
comp=Z,1.6nm,0.8s,baz=236,slow=1.3,SNR=5.0
MKAR LR LR 16 51 05.7
comp=Z,192nm,20.1s,baz=208,slow=38
**WMQ Urumqi 42.99 32** P **P** **16 32 04.5 +1.5**
WMQ pP sP 16 32 09.5 +2.2
WMQ PP **PcP** **16 33 52.0 -1.3**
WMQ pmax pmax
comp=Z,18nm,0.7s
WMQ pmax pmax
comp=Z,510nm,3.9s
WMQ LR LR
comp=Z,450nm,23.3s
WMQ LR LR
comp=Z,390nm,19.3s
WMQ LR LR
comp=Z,430nm,26.1s
**TIRR Tirgusor 43.57 329** *eP* **P** **16 32 07.3 -0.2**
TIRR pmax pmax
comp=Z,11nm,0.9s
**TIRR Tirgusor 43.57 329** *eP* **P** **16 32 07.3 -0.2**
comp=Z,11nm,0.9s
**TIRR Tirgusor 43.57 329** *eP* **P** **16 32 07.3 -0.2**
comp=Z,11nm,0.9s
**KURBB Kurchatov Arra 44.60 18** P **P** **16 32 16.3 +0.6**
comp=Z,1.9nm,0.7s,baz=219,slow=7.8,SNR=9.5
**KURK Kurchatov 44.71 18**⇓ *eP* **P** **16 32 17.0 +0.5**
KURK pmax pmax
comp=Z,7.0nm,1.8s
**KURK Kurchatov 44.71 18** *eP* **P** **16 32 17.0 +0.5**
comp=Z,7.0nm,1.8s
**KURK Kurchatov 44.71 18** P **P** **16 32 14.9 -1.6**
comp=Z,32nm,1.1s
**BVAR Borovoye Array 44.81 10** P **P** **16 32 17.6 +0.2**
comp=Z,1.7nm,0.8s,baz=201,slow=7.7,SNR=3.6
**KMI Kunming 45.19 64** P **P** **16 32 22.0 +0.9**
KMI pmax pmax
comp=Z,14nm,0.9s
**MLR Muntele Rosu 45.55 328** *eP* **P** **16 32 23.3 -0.2**
MLR pmax pmax
comp=Z,28nm,1.4s
**MLR Muntele Rosu 45.55 328** *eP* **P** **16 32 23.3 -0.2**
comp=Z,28nm,1.4s
**MLR Muntele Rosu 45.55 328** *eP* **P** **16 32 23.3 -0.2**
comp=Z,28nm,1.4s
**LBTB Lobatse 46.53 222** *eP* **P** **16 32 30.3 -1.1**
LBTB pmax pmax
comp=Z,18nm,0.8s
**LBTB Lobatse 46.53 222** *eP* **P** **16 32 30.3 -1.1**
comp=Z,18nm,0.8s
**LBTB Lobatse 46.53 222** *eP* **P** **16 32 30.3 -1.1**
comp=Z,18nm,0.8s
**ARU Arti 47.12 0** *c iP* **P** **16 32 35.9 +0.4**
ARU 16 34 24.0
ARU S **S** **16 39 31.2 +3.5**
ARU pmax pmax
comp=Z,17nm,1.1s
**ARU Arti 47.12 0** *i* P **P** **16 32 35.9 +0.4**
comp=Z,17nm,1.1s
**CD2 Chengdu 47.53 56** *eP* **P** **16 32 39.3 +0.1**
CD2 pmax pmax
comp=Z,10.0nm,1.0s
**GTA Gaotai 47.77 44** P **P** **16 32 41.8 +0.8**
GTA pP sP 16 32 47.5 +2.1
GTA sP pP 16 32 50.5 +6.3
GTA pmax pmax
comp=Z,2.0nm,1.3s
**AKASG Malin Array Be 47.79 335** P **P** **16 32 40.3 -0.5**
comp=Z,2.0nm,0.7s,baz=141,slow=7.0,SNR=10
AKASG LR LR 16 55 19.0
comp=Z,102nm,19.0s,baz=325,slow=39
**KIEV Kiev 47.79 335**⇑ *eP* **P** **16 32 40.5 -0.3**
KIEV pmax pmax
comp=Z,19nm,1.5s
**KIEV Kiev 47.79 335** *eP* **P** **16 32 40.5 -0.3**
comp=Z,19nm,1.5s
**BOSA Boshof 49.23 219** P **P** **16 32 52.7 +0.3**
comp=Z,11nm,0.8s,baz=46,slow=7.5,SNR=8.2
BOSA LR LR 16 51 06.2
comp=Z,396nm,21.1s,baz=76,slow=33
**BOSA Boshof 49.23 219** *eP* **P** **16 32 51.2 -1.2**
BOSA pmax pmax
comp=Z,14nm,0.9s
**BOSA Boshof 49.23 219** *eP* **P** **16 32 51.2 -1.2**
comp=Z,14nm,0.9s
**BOSA Boshof 49.23 219** *eP* **P** **16 32 51.2 -1.2**
comp=Z,14nm,0.9s
**LZH Lanzhou 49.30 50** *eP* **P** **16 32 52.0 -0.9**
LZH pP sP 16 32 58.0 +0.7
LZH sP pP 16 32 59.3 +3.2
LZH pmax pmax
comp=Z,26nm,1.3s
LZH pmax pmax
comp=Z,96nm,4.2s
**ZAA0 Zalesovo Array 49.48 20** *eP* **P** **16 32 53.8 +0.1**
comp=Z,15nm,0.9s
**ZAA0 Zalesovo Beam 49.48 20** P **P** **16 32 53.9 +0.1**
comp=Z,15nm,0.9s
**ZALV Zalesovo Beam 49.48 20** P **P** **16 32 53.9 +0.2**
comp=Z,5.7nm,0.8s,baz=227,slow=7.6,SNR=14
**ZALV Zalesovo Beam 49.48 20** *eP* **P** **16 32 53.3 -0.4**
**ZALV Zalesovo Beam 49.48 20** *eP* **P** **16 32 53.3 -0.4**
**ZALV Zalesovo Beam 49.48 20** *eP* **P** **16 32 53.3 -0.4**
**NVS Novosibirsk 49.70 19** *eP* **P** **16 32 55.3 0.0**
NVS *e* 16 34 57.0
NVS pmax pmax
comp=N,8.0nm,1.3s
NVS pmax pmax
comp=Z,17nm,1.3s
**NVS Novosibirsk 49.70 19** *eP* **P** **16 32 55.3 0.0**
**ENH Enshi 52.15 59** *eP* **P** **16 33 12.8 -1.5**
comp=Z,20nm,1.2s
**ENH Enshi 52.15 59** *eP* **P** **16 33 12.8 -1.5**
comp=Z,20nm,1.2s
**DPC Dobruska-Polom 53.63 328** *eP* **P** **16 33 24.0 -1.0**
**DPC Dobruska-Polom 53.63 328** *eP* **P** **16 33 24.0 -1.0**
**DPC Dobruska-Polom 53.63 328** *eP* **P** **16 33 24.0 -1.0**
**UPC Upice 53.89 328** *eP* **P** **16 33 26.4 -0.4**
**UPC Upice 53.89 328** *eP* **P** **16 33 26.4 -0.4**
**UPC Upice 53.89 328** *eP* **P** **16 33 26.4 -0.4**
**GERES GERESS Array B 54.23 325** LR LR 16 57 29.7
comp=Z,153nm,19.4s,baz=348,slow=37
**PRU Pruhonice 54.38 327** *eP* **P** **16 33 30.3 -0.1**
**PRU Pruhonice 54.38 327** *eP* **P** **16 33 30.3 -0.1**
**PRU Pruhonice 54.38 327** *eP* **P** **16 33 30.3 -0.1**
**SONM Songino Array 55.90 37** P **P** **16 33 42.3 +0.7**
comp=Z,0.8nm,0.5s,baz=231,slow=8.4,SNR=8.2
**CLL Collm 55.92 327** *i* P **P** **16 33 41.2 -0.2**
**CLL Collm 55.92 327** *i* P **P** **16 33 41.2 -0.2**
**CLL Collm 55.92 327** *i* P **P** **16 33 41.2 -0.2**
**HHC Hu-ho-hao-te 56.62 47** *eP* **P** **16 33 47.5 +0.7**
HHC pP sP 16 33 54.5 +3.3
HHC PP **PP** **16 35 54.3 +1.5**
HHC *eS* **S** **16 41 33.5 -5.6**
HHC pmax pmax
comp=Z,21nm,1.0s
HHC pmax pmax
comp=Z,130nm,4.2s
HHC LR LR
comp=Z,260nm,12.9s
HHC LR LR
comp=Z,310nm,17.7s
HHC LR LR
comp=Z,510nm,15.9s
**FINES FINESS Array B 57.24 342** P **P** **16 33 50.3 -0.4**
comp=Z,4.0nm,0.9s,baz=109,slow=7.5,SNR=4.0
FINES PcP **PcP** **16 34 45.3 +0.3**
comp=Z,4.8nm,0.9s,baz=120,slow=6.8,SNR=4.5
**WLF Walferdange 58.98 323** P **P** **16 34 03.5 +0.4**
**WLF Walferdange 58.98 323** P **P** **16 34 03.5 +0.4**
**BJI Beijing 59.77 49** P **P** **16 34 09.5 +0.8**
BJI pmax pmax
comp=Z,10.0nm,1.0s
**DOU Dourbes 60.08 323** P **P** **16 34 11.3 +0.7**
**DOU Dourbes 60.08 323** P **P** **16 34 11.3 +0.7**
**NJ2 Nanjing 60.36 58** *eP* **P** **16 34 12.0 -0.9**
NJ2 pmax pmax
comp=Z,13nm,0.6s
**HFS Hagfors 60.66 336** P **P** **16 34 13.9 -0.6**
comp=Z,3.4nm,0.6s,baz=126,slow=7.3,SNR=10
**NOA NORSAR Array B 62.19 336** P **P** **16 34 23.4 -1.4**
comp=Z,1.1nm,0.8s,baz=118,slow=7.5,SNR=3.4
NOA LR LR 17 03 45.1
comp=Z,183nm,18.5s,baz=15,slow=38
**ES19 SONSECA Array 62.77 310** *eP* **P** **16 34 28.8 -0.3**
**ES19 SONSECA Array 62.77 310** *eP* **P** **16 34 28.8 -0.3**
**ESDC Sonseca Array 62.81 310** P **P** **16 34 28.9 -0.5**
comp=Z,2.0nm,0.5s,baz=86,slow=5.7,SNR=9.1
**ARCES ARCESS Array B 63.84 348** P **P** **16 34 35.3 -0.3**
comp=Z,2.9nm,0.8s,baz=133,slow=6.4,SNR=3.1
**EKA Eskdalemuir Ar 66.37 327** P **P** **16 34 51.5 -0.8**
comp=Z,2.0nm,0.5s,baz=112,slow=6.9,SNR=6.6
**CN2 Changchun 67.31 46** *eP* **P** **16 34 58.8 +0.3**
CN2 *es*P sP 16 35 05.8 +2.8
CN2 *eS* **S** **16 43 51.5 -2.4**
CN2 pmax pmax
comp=Z,10.0nm,0.6s
CN2 pmax pmax
comp=Z,200nm,3.0s
CN2 LR LR
comp=Z,400nm,18.0s
CN2 LR LR
comp=Z,200nm,18.0s
CN2 LR LR
comp=Z,200nm,19.0s
**KSAR Wonju Array Be 68.36 53** P **P** **16 35 04.8 -0.5**
**KSAR Wonju Array Be 68.36 53** P **P** **16 35 04.8 -0.5**
**KSAR Wonju Array Be 68.36 53** P **P** **16 35 04.8 -0.5**
**KSRS Korea Array 68.39 53** P **P** **16 35 04.8 -0.7**
comp=Z,2.1nm,0.6s,baz=270,slow=6.2,SNR=10
KSRS LR LR 17 07 09.2
comp=Z,104nm,18.7s,baz=150,slow=38
**KLR Kul'dur 72.36 41** P **P** **16 35 28.9 -0.7**
comp=Z,0.1nm,0.6s,baz=287,slow=6.3,SNR=3.6
KLR LR LR 17 08 25.7
comp=Z,27nm,21.0s,slow=37
**BBTS Babate 73.04 283** LR LR 17 08 08.9
comp=Z,58nm,18.5s,baz=34,slow=36
**YAK Yakutsk 73.28 28** P **P** **16 35 34.6 -0.1**
comp=Z,3.5nm,0.5s,baz=255,slow=2.5,SNR=4.0
**TIXI Tiksi 75.28 18** P **P** **16 35 45.3 -0.9**
comp=Z,1.7nm,0.4s,baz=342,slow=3.4,SNR=3.8
**MAW Mawson 76.67 178** P **P** **16 35 54.5 +0.5**
comp=Z,2.8nm,0.8s,baz=356,slow=5.7,SNR=6.1
**WRA Warramunga Arr 80.30 112** P **P** **16 36 14.5 -0.7**
comp=Z,1.4nm,0.9s,baz=295,slow=4.5,SNR=5.1
**ASAR Alice Springs 80.80 116** P **P** **16 36 16.9 -1.0**
comp=Z,1.1nm,0.9s,baz=286,slow=5.5,SNR=7.6
**AS01 Alice Springs 80.84 116** *eP* **P** **16 36 16.0 -2.1**
**AS01 Alice Springs 80.84 116** *eP* **P** **16 36 16.0 -2.1**
**SFJD Kangerlussuaq 88.81 338** LR LR 17 19 05.0
comp=Z,395nm,21.9s,baz=312,slow=37
**RCBR Riachuelo 94.94 265** LR LR 17 18 13.4
comp=Z,56nm,18.6s,baz=1.5,slow=34
**ILAR Eielson Array 103.88 11** PKiKP **PKiKP** **16 42 25.3 +1.9**
comp=Z,0.5nm,0.9s,baz=316,slow=2.5,SNR=4.2
**PDAR Pinedale Array 127.09 349** PKP **PKPdf** **16 43 08.5 0.0**
comp=Z,1.4nm,0.9s,baz=54,slow=2.3,SNR=6.0
**NVAR Mina Array Bea 132.51 356** PKP **PKPdf** **16 43 20.0 +1.0**
comp=Z,0.6nm,0.5s,baz=354,slow=1.8,SNR=6.3
**NVAR Mina Array Bea 132.51 356** PKIKP **PKPdf** **16 43 20.0 +1.0**

*ISCJB* ***26*** *16:26:21.6±2.0, 19°.9S±0°.5×177°.4W±0°.4, h550km, mb3.8/5, Error ellipse: s-maj=76.7km s-min=11.7km az=143.3*
*IDC* ***26*** *16:26:22.4±2.5, 19°.96S×177°.50W, h533km±29km, mb3.3/5, mb1 3.5/6, mb1mx3.0/38, mbtmp4.2/6, Error ellipse: s-maj=73.5km s-min=18.4km az=140.0*
**ISC 26 16:26:22.5±2.1, 19°.9S±0°.4×177°.3W±0°.3, h550km, n8, σ1°91/9, mb4.0/5, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **AFI** | **Afiamalu** | **7.96** | **43** | P | | **P** | **P** | **16 28 21.3** | **+1.4** |
| | 1.6nm,0.3s,baz=1.2,slow=3.8,SNR=3.4 | | | | | | | | |
| AFI | | | | S | | **S** | **S** | **16 29 52.7** | **-3.5** |
| | 4.3nm,0.3s,baz=54,slow=24,SNR=9.2 | | | | | | | | |
| **STKA** | **Stephens Creek** | **38.64** | **244** | P | | **P** | **P** | **16 32 58.2** | **-1.0** |
| | 1.7nm,0.5s,baz=79,slow=11,SNR=10 | | | | | | | | |
| **ASAR** | **Alice Springs** | **45.30** | **256** | P | | **P** | **P** | **16 33 51.4** | **-0.4** |
| | 5.0nm,0.5s,baz=90,slow=7.6,SNR=150 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **45.34** | **261** | P | | **P** | **P** | **16 33 51.6** | **-0.5** |
| | 3.2nm,0.4s,baz=96,slow=7.6,SNR=220 | | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **70.11** | **323** | P | | **P** | **P** | **16 36 40.5** | **+0.7** |
| | 1.0nm,0.6s,baz=172,slow=5.7,SNR=4.6 | | | | | | | | |
| **ILAR** | **Eielson Array** | **87.57** | **13** | P | | **P** | **P** | **16 38 13.7** | **+1.9** |
| | 0.7nm,1.1s,baz=227,slow=5.6,SNR=4.5 | | | | | | | | |
| **BRTR** | **Keskin Array B** | **146.90** | **313** | PKPbc | | **PKPab** | **PKPab** | **16 45 05.6** | **-1.4** |
| | 0.5nm,0.5s,baz=159,slow=1.2,SNR=3.1 | | | | | | | | |
| **GERES** | **GERESS Array B** | **149.78** | **345** | PKPbc | | **PKPbc** | **PKPbc** | **16 45 11.3** | **+0.6** |
| | 0.2nm,0.6s,baz=28,slow=2.3,SNR=3.8 | | | | | | | | |

*CSEM* ***26*** *16:32:36.8±0.3, 38°.93N×43°.78E, h5km, ML2.6, Error ellipse: s-maj=7.6km s-min=3.9km az=95.0*
*ISK* ***26*** *16:32:36.4, 38°.91N×43°.67E, h3km, MD2.7*
*ISCJB* ***26*** *16:32:37.0±1.3, 38°.93N±0°.03×43°.8E±0°.1, h11km±6km, Error ellipse: s-maj=13.6km s-min=5.7km az=4.3*
*DDA* ***26*** *16:32:37.5, 38°.83N×43°.67E, h6km, Ml2.6*
**ISC 26 16:32:37.4±1.3, 38°.90N±0°.03×43°.71E±0°.06, h13km±9km, n19, σ0°66/28, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.14** | **310** | *i* P | | **Pg** | **Pg** | **16 32 40.8** | **-0.2** |
| VMUR | | | | *i* S | | **Sb** | **Sb** | **16 32 45.3** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.14** | **310** | P | | **Pg** | **Pg** | **16 32 40.8** | **-0.2** |
| VMUR | | | | S | | **Sb** | **Sb** | **16 32 45.3** | **+0.3** |
| **VANB** | **Van** | **0.40** | **219** | *e*PG | | **Pg** | **Pg** | **16 32 45.9** | **+0.6** |
| VANB | | | | *e*SG | | **Sb** | **Sb** | **16 32 53.0** | **+0.7** |
| **VANB** | **Van** | **0.40** | **219** | *e*Pg | | **Pg** | **Pg** | **16 32 45.9** | **+0.6** |
| VANB | | | | *e*Sg | | **Sb** | **Sb** | **16 32 53.0** | **+0.7** |
| **TVAN** | **Van** | **0.44** | **212** | *i* P | | **Pg** | **Pg** | **16 32 45.6** | **-0.5** |
| TVAN | | | | *i* S | | **Sb** | **Sb** | **16 32 54.2** | **+0.5** |
| **TVAN** | **Van** | **0.44** | **212** | P | | **Pg** | **Pg** | **16 32 45.7** | **-0.5** |
| TVAN | | | | S | | **Sb** | **Sb** | **16 32 54.2** | **+0.5** |
| **GEVA** | **Gevas** | **0.78** | **221** | *i* P | | **Pb** | **Pb** | **16 32 50.9** | **-2.0** |
| GEVA | | | | *i* S | | **Sg** | **Sg** | **16 33 03.6** | **+0.9** |
| **AGRB** | **Hanur-Agry** | **0.87** | **321** | *e*PG | | **Pb** | **Pb** | **16 32 53.5** | **-1.0** |
| AGRB | | | | *e*SG | | **Sb** | **Sb** | **16 33 05.9** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **0.87** | **321** | *e*Pg | | **Pb** | **Pb** | **16 32 53.5** | **-1.0** |
| AGRB | | | | *e*Sg | | **Sb** | **Sb** | **16 33 05.9** | **-0.3** |
| **TASB** | **TASBURUN-IGDIR** | **1.16** | **21** | *e*PN | | **Pb** | **Pb** | **16 32 59.3** | **0.0** |
| **TASB** | **TASBURUN-IGDIR** | **1.16** | **21** | *e*Pn | | **Pb** | **Pb** | **16 32 59.3** | **0.0** |
| **EKAR** | **Karacoban** | **1.33** | **286** | *i* P | | **Pg** | **Pg** | **16 33 02.8** | **-0.1** |
| **EKAR** | **Karacoban** | **1.33** | **286** | P | | **Pg** | **Pg** | **16 33 02.8** | **-0.1** |
| **HAKT** | **HAKKARI** | **1.34** | **180** | *i* P | | **Pg** | **Pg** | **16 33 03.0** | **-0.2** |
| **HAKT** | **HAKKARI** | **1.34** | **180** | P | | **Pg** | **Pg** | **16 33 03.0** | **-0.2** |
| **EATA** | **Eleskirt** | **1.34** | **316** | *i* P | | **Pb** | **Pb** | **16 33 03.0** | **+0.4** |
| **EATA** | **Eleskirt** | **1.34** | **316** | P | | **Pb** | **Pb** | **16 33 03.0** | **+0.4** |
| **SRTM** | **Siirt_Merkez** | **1.67** | **238** | *i* P | | **Pb** | **Pb** | **16 33 08.0** | **0.0** |
| **SRTM** | **Siirt_Merkez** | **1.67** | **238** | P | | **Pb** | **Pb** | **16 33 08.0** | **0.0** |

*ISCJB* ***26*** *16:40:20.7±0.2, 29°.75S±0°.04×176°.29W±0°.05, h44km, mb4.8/49, MS4.2/16, Error ellipse: s-maj=7.3km s-min=4.4km az=36.6*
*NEIC* ***26*** *16:40:22.5±0.2, 29°.53S×176°.27W, mb4.8/35, Error ellipse: s-maj=11.3km s-min=5.9km az=150.0*
*BJI* ***26*** *16:40:22.3, 29°.82S×176°.53W, h42km, mb5.2/11, Ms5.0/2, Ms7 4.7/2*
*IDC* ***26*** *16:40:23.2±0.4, 29°.07S×176°.37W, h42km±3km, mb4.3/16, mb1 4.4/16, mb1mx4.3/26, mbtmp4.5/16, MS4.0/19, Ms1 4.0/19, ms1mx3.9/41, Error ellipse: s-maj=18.4km s-min=5.8km az=169.0*
**ISC 26 16:40:22.8±0.4, 29°.32S±0°.06×176°.31W±0°.06, h40km±3km, h40km:pP-P, n137, σ1°48/125, mb4.8/49, MS4.1/16, 2D, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **1.41** | **272** | P | | **Pn** | **Pn** | **16 40 46.4** | **+0.5** |
| | 565nm,0.3s,baz=216,slow=22,SNR=34 | | | | | | | | |
| RAO | | | | S | | **Sn** | **Sn** | **16 41 02.5** | **-0.9** |
| | 1μm,0.3s,baz=98,slow=19,SNR=20 | | | | | | | | |
| RAO | | | | LR | | LR | LR | 16 41 04.9 | |
| | comp=Z,1μm,18.5s,baz=134,slow=31 | | | | | | | | |
| **RAO** | **Raoul Island** | **1.41** | **272** | *e*Pn | | **Pn** | **Pn** | **16 40 47.2** | **+1.2** |
| RAO | | | | S | | **Sn** | **Sn** | **16 41 02.5** | **-0.9** |
| **WMGZ** | **Waiomatatini S** | **9.55** | **206** | *e*PN | | Pn | Pn | 16 42 32.9 | -4.9 |
| WMGZ | | | | SN | | **Sn** | **Sn** | **16 44 22.7** | **-1.1** |
| **HAZ** | **Te Kaha** | **9.75** | **209** | PN | | Pn | Pn | 16 42 35.9 | -4.6 |
| HAZ | | | | SN | | **Sn** | **Sn** | **16 44 28.4** | **-0.3** |
| **PUZ** | **Puketiti** | **9.83** | **206** | *e*PN | | Pn | Pn | 16 42 36.5 | -5.2 |
| PUZ | | | | SN | | **Sn** | **Sn** | **16 44 27.5** | **-3.2** |
| **RUGZ** | **Raukumara Rang** | **9.97** | **209** | PN | | Pn | Pn | 16 42 37.8 | -5.9 |
| **MWZ** | **Matawai** | **10.35** | **208** | *e*PN | | Pn | Pn | 16 42 41.0 | -7.7 |
| **URZ** | **Urewera** | **10.46** | **210** | P | | Pn | Pn | 16 42 44.2 | -6.0 |
| | 1.9nm,0.3s,baz=217,slow=7.0,SNR=11 | | | | | | | | |
| URZ | | | | S | | **Sn** | **Sn** | **16 44 44.0** | **-2.1** |
| | 3.5nm,0.3s,baz=74,slow=22,SNR=8.6 | | | | | | | | |
| URZ | | | | LR | | LR | LR | 16 46 57.5 | |
| | comp=Z,653nm,18.9s,baz=28,slow=37 | | | | | | | | |
| **URZ** | **Urewera** | **10.46** | **210** | *e*PN | | Pn | Pn | 16 42 44.2 | -6.0 |
| URZ | | | | SN | | **Sn** | **Sn** | **16 44 42.3** | **-3.8** |
| **RIGZ** | **Rimuhau** | **10.58** | **206** | PN | | Pn | Pn | 16 42 46.6 | -5.2 |
| **MUGZ** | **Murupara** | **10.79** | **210** | *e*PN | | Pn | Pn | 16 42 46.9 | -7.8 |
| **KNZ** | **Kokohu** | **10.88** | **206** | PN | | Pn | Pn | 16 42 49.3 | -6.7 |
| **BKZ** | **Black Stump Fm** | **11.48** | **209** | *e*Pn | | Pn | Pn | 16 42 59.8 | -4.5 |
| **MSVF** | **Nonsavu** | **12.63** | **335** | *e*Pn | | **Pn** | **Pn** | **16 43 17.9** | **-2.2** |
| **BFZ** | **Birch Farm** | **12.87** | **206** | PN | | Pn | Pn | 16 43 16.2 | -6.9 |
| **CTZ** | **Chatham Island** | **14.39** | **181** | PN | | Pn | Pn | 16 43 38.5 | -5.4 |
| CTZ | | | | SN | | Sn | Sn | 16 46 04.6 | -17 |
| **NNZ** | **Nelson** | **14.54** | **213** | *e*PN | | Pn | Pn | 16 43 39.2 | -6.6 |
| **THZ** | **Tophouse** | **15.19** | **212** | *e*Pn | | Pn | Pn | 16 43 47.6 | -6.9 |
| | 33nm,0.6s | | | | | | | | |
| **KHZ** | **Kahutara** | **15.43** | **209** | *e*Pn | | Pn | Pn | 16 43 52.2 | -5.3 |
| | 68nm,0.9s | | | | | | | | |
| **KHZ** | **Kahutara** | **15.43** | **209** | *e*PN | | Pn | Pn | 16 43 52.2 | -5.4 |
| **DSZ** | **Denniston Nort** | **15.71** | **215** | PN | | Pn | Pn | 16 43 55.4 | -5.8 |
| **AFI** | **Afiamalu** | **15.90** | **16** | LR | | LR | LR | 16 52 02.7 | |
| | comp=Z,89nm,18.8s,baz=166,slow=45 | | | | | | | | |
| **INZ** | **Inchbonnie** | **16.62** | **213** | PN | | Pn | Pn | 16 44 06.8 | -6.0 |
| **OXZ** | **Oxford** | **16.82** | **211** | *e*Pn | | Pn | Pn | 16 44 08.5 | -6.8 |
| | 33nm,0.7s | | | | | | | | |
| **RAR** | **Rarotonga** | **16.98** | **65** | LR | | LR | LR | 16 48 54.0 | |
| | comp=Z,997nm,19.8s,baz=264,slow=30 | | | | | | | | |
| **DZM** | **Mont Dzumac** | **17.13** | **291** | LR | | LR | LR | 16 49 56.7 | |
| | comp=Z,1μm,18.1s,baz=62,slow=34 | | | | | | | | |
| **DZM** | **Mont Dzumac** | **17.13** | **291** | *e*LR | | LR | LR | 16 48 33.2 | |
| | 2μm,26.5s | | | | | | | | |
| **RPZ** | **Rata Peaks** | **17.57** | **212** | P | | **Pn** | **Pn** | **16 44 23.3** | **-1.2** |
| | 1.2nm,0.3s,baz=282,slow=2.4,SNR=6.1 | | | | | | | | |
| RPZ | | | | LR | | LR | LR | 16 51 39.6 | |

comp=Z,399nm,19.2s,baz=22,slow=38
**RPZ Rata Peaks 17.57 212** *e*Pn **Pn 16 44 22.5 -2.1**
22nm,0.8s
**ODZ Otahua Downs 18.79 210** *e*P **P 16 44 40.0 +1.3**
21nm,0.7s
**JCZ Jackson Bay 18.92 215** PN P 16 44 35.0 -5.2
**PAE Paea 27.05 71** *e*T T 17 12 54.8
1.8nm,0.3s
**PPT2 Papeete2 27.09 70** *e*LQ LQ 16 51 09.4
755nm,25.8s
PPT2 *e*LR LR 16 52 15.0
887nm,28.0s
**PPT Papeete 27.10 70** LR LR 16 53 13.8
comp=Z,317nm,21.6s,baz=196,slow=28
**EIDS Eidsvold 29.18 270** *e*P **P 16 46 20.8 +0.3**
8.5nm,0.8s
**HNR Honiara 29.77 307** LR LR 16 56 42.4
comp=Z,129nm,20.4s,baz=179,slow=33
**VAH Vaihoa 29.91 68** *e*T T 17 16 33.3
4.4nm,0.2s
**CTA Charters Tower 35.11 277** P **P 16 47 12.9 +0.4**
11nm,0.7s,baz=110,slow=11,SNR=19
CTA pP **pP 16 47 25.1 +1.4**
7.1nm,0.7s,baz=106,slow=9.8,SNR=4.5
**CTAO Charters Tower 35.11 277** *e*P **P 16 47 12.5 0.0**
16nm,0.8s
**STKA Stephens Creek 36.17 255** P **P 16 47 22.2 +0.7**
8.8nm,0.8s,baz=91,slow=9.4,SNR=17
STKA LR LR 17 01 37.3
comp=Z,671nm,18.1s,baz=59,slow=35
**STKA Stephens Creek 36.17 255** *e*P **P 16 47 22.0 +0.5**
2.1nm,0.8s
**RKT Rikitea 37.45 90** *e*LR LR 16 56 58.4
767nm,29.5s
**PMG Port Moresby 39.51 293** LR LR 17 03 20.0
comp=Z,325nm,18.1s,baz=201,slow=35
**TAOE Nuku Hiva Isla 39.53 66** *e*LR LR 16 58 00.3
477nm,26.4s
**BBOO Buckleboo 40.69 253** *e*P **P 16 47 59.5 0.0**
16nm,0.8s
**AS01 Alice Springs 44.61 265** *e*P **P 16 48 31.0 -0.5**
**AS31 Alice Springs 44.65 265** *e*P **P 16 48 31.3 -0.5**
2.1nm,0.7s
**ASAR Alice Springs 44.65 265** P **P 16 48 30.6 -1.3**
6.5nm,0.7s,baz=99,slow=8.1,SNR=89
ASAR pP **pP 16 48 44.0 +0.8**
4.5nm,0.6s,baz=106,slow=7.9,SNR=11
**WB2 Warramunga Arr 45.53 270** *e*P **P 16 48 37.4 -1.4**
11nm,0.8s
**WRAB Tennant Creek 45.54 270** *e*P **P 16 48 38.2 -0.7**
11nm,0.9s
**WRA Warramunga Arr 45.55 270** P **P 16 48 37.3 -1.6**
10nm,0.8s,baz=109,slow=8.1,SNR=45
WRA pP **pP 16 48 50.9 +0.5**
4.6nm,0.6s,baz=111,slow=6.9,SNR=6.5
**FORT Forrest 47.75 254** *e*P **P 16 48 55.1 -1.0**
160nm,0.7s
**JAY Jayapura 48.74 295** LR LR 17 06 34.6
comp=Z,203nm,21.2s,baz=212,slow=32
**VNDA Vanda 49.32 186** P **P 16 49 10.0 +2.6**
2.6nm,1.0s,baz=7.2,slow=7.3,SNR=6.5
**FITZ Fitzroy Crossi 53.85 268** P **P 16 49 41.2 -0.9**
4.5nm,0.7s,baz=206,slow=6.8,SNR=8.2
FITZ LR LR 17 12 26.7
comp=Z,324nm,18.4s,slow=36
**NWAO Narrogin (SRO) 56.16 248** LR LR 17 13 16.5
comp=Z,185nm,18.5s,baz=182,slow=35
**GUMO Guam 56.78 313** LR LR 17 13 06.4
comp=Z,116nm,18.3s,baz=139,slow=35
**SIJI Sorong 57.33 290** LR LR 17 14 44.4
comp=Z,128nm,18.8s,baz=124,slow=36
**RPN Rapa Nui 58.30 105** LR LR 17 11 16.7
comp=Z,96nm,18.6s,baz=61,slow=32
**BATI Baumata 58.99 276** LR LR 17 14 31.4
comp=Z,476nm,19.7s,baz=144,slow=35
**QSPA South Pole Qui 60.79 180** *e*P **P 16 50 28.8 -1.7**
16nm,1.1s
**DAV Davao City (W) 66.53 293** LR LR 17 17 21.1
comp=Z,88nm,18.2s,baz=153,slow=33
**MAW Mawson 73.83 200** P **P 16 51 54.5 +1.7**
6.3nm,1.0s,baz=118,slow=6.6,SNR=7.9
MAW pP **pP 16 52 07.1 +2.2**
2.3nm,0.7s,baz=137,slow=8.1,SNR=2.9
**MAW Mawson 73.83 200** *e*P **P 16 51 51.9 -0.9**
2.3nm,1.1s
MAW pP **pP 16 52 07.1 +2.2**
**SYO Syowa Base 78.49 192**⇓ *e*P P 16 52 14.2 -5.1
**SYO Syowa Base 78.49 192**⇓ *e*pP pP 16 52 28.2 -3.2
**VNA3 Neumayer Olymp 79.28 176** P **P 16 52 24.1 +0.5**
**VNA2 Neumayer--Watz 79.73 176** P **P 16 52 26.6 +0.6**
baz=141,slow=2.1
**JNU Nakatsue 79.75 317** P **P 16 52 26.4 -0.2**
4.1nm,0.7s,baz=98,slow=7.1,SNR=4.7
**VNA1 Neumayer--Stat 79.95 176** P **P 16 52 28.3 +1.1**
**PLCA Paso Flores 82.16 132** P **P 16 52 40.6 +0.9**
2.6nm,1.0s,baz=275,slow=6.3,SNR=3.5
PLCA pP **pP 16 52 53.1 +1.2**
2.9nm,0.9s,baz=237,slow=5.4,SNR=3.8
**KSRS Korea Array 84.49 319** LR LR 17 29 37.4
comp=Z,43nm,18.2s,baz=165,slow=35
**PETK Petropavlovsk- 85.15 345** P **P 16 52 53.1 -1.2**
12nm,1.1s,baz=297,slow=6.5,SNR=4.2
PETK pP **pP 16 53 04.8 -1.7**
1.9nm,0.6s,baz=96,slow=9.7,SNR=1.8
**ORV Oroville 85.40 39** *e*P **P 16 52 55.5 -0.4**
11nm,1.4s
**WDC Whiskeytown Da 85.55 38** *e*P **P 16 52 57.2 +0.6**
25nm,1.4s
**WAKR Walker 85.84 41** *e*P **P 16 52 59.3 +0.9**
6.4nm,1.1s
**LDFC Landfair 86.19 46** *e*P **P 16 53 00.6 +0.5**
32nm,1.3s
**BEKR Beckworth 86.25 40** *e*P **P 16 52 59.6 -0.7**
3.6nm,1.0s
**YERR Yerington 86.28 41** *e*P **P 16 52 59.7 -0.9**
11nm,1.2s
**NV01 Mina Array Sit 86.45 42** *e*P **P 16 53 00.1 -1.3**
**NVAR Mina Array Bea 86.45 42** P **P 16 53 01.0 -0.4**
2.0nm,0.7s,baz=224,slow=8.4,SNR=12
NVAR pP **pP 16 53 13.8 0.0**
2.7nm,0.8s,baz=223,slow=9.0,SNR=8.8
**NJ2 Nanjing 86.67 310** *e*P **P 16 53 03.8 +1.5**
NJ2 pmax pmax
comp=Z,21nm,0.6s
**PAHR Pah Rah Range 86.69 40** *e*P **P 16 53 01.4 -1.1**
4.6nm,1.1s
**PSI Prapat 86.80 275** P **P 16 53 03.5 -0.1**
3.1nm,0.5s,baz=173,slow=3.7,SNR=5.2
**W13A Hualapai Mount 86.98 47** *e*P **P 16 53 02.4 -1.7**
4.9nm,1.1s
**TUC Tucson 87.29 50** *e*P **P 16 53 07.5 +2.1**
5.3nm,0.9s
**BMN Battle Mountai 88.41 41** *e*P **P 16 53 11.9 +1.2**
0.9nm,0.6s
**LCMT Little Creek M 88.58 46** *e*P **P 16 53 11.9 +0.3**
7.4nm,1.4s
**U15A North Rim 88.82 46** *e*P **P 16 53 13.2 +0.2**
8.8nm,1.3s
**WUAZ Wupatki 88.85 48** *e*P **P 16 53 12.8 -0.1**
7.6nm,1.1s
**CCUT Cedar City 88.85 45** *e*P **P 16 53 13.8 +0.8**
3.0nm,1.0s
**SZCU Shurtz Canyon 89.05 45** *e*P **P 16 53 14.2 +0.4**
3.5nm,1.0s
**X18A Snowflake 89.18 49** *e*P **P 16 53 15.4 +0.8**
4.3nm,1.3s
**G06A Carlson Farm, 89.81 36** *e*P **P 16 53 15.2 -1.8**
9.3nm,1.2s
**MTPU Mount Pierson 89.88 45** *e*P **P 16 53 18.4 +0.5**
10nm,1.3s
**CN2 Changchun 90.18 322** *e*P **P 16 53 22.0 +3.3**
CN2 pmax pmax
comp=Z,10.0nm,0.6s
**TX31 Lajitas Ar. Si 90.57 56** *e*P **P 16 53 20.3 -0.7**
**TXAR Lajitas Array 90.57 56** P **P 16 53 21.2 +0.2**
1.0nm,0.9s,baz=207,slow=5.8,SNR=8.8
TXAR pP **pP 16 53 33.5 +0.1**
2.6nm,1.1s,baz=207,slow=5.3,SNR=7.3
**SRU San Rafael Swe 91.57 45** *e*P **P 16 53 26.0 +0.4**
7.6nm,1.2s
**HVU Hansel Valley 91.85 42** *e*P **P 16 53 25.6 -1.2**
9.0nm,1.5s
**D08A Wollman Farm, 91.93 35** *e*P **P 16 53 24.9 -1.9**
D08A *e*pP **pP 16 53 39.5 +0.3**
**HLID Hailey 92.03 40** *e*pP pP 16 53 40.6 +0.7
**F10A Beach Ranch, E 92.07 37** *e*P **P 16 53 26.4 -1.2**
F10A *e*pP **pP 16 53 39.2 -0.8**
**ENH Enshi 92.22 304** *e*P **P 16 53 29.3 +0.8**
22nm,1.1s
**TCUT Toone Canyon 92.25 43** *e*pP pP 16 53 42.0 +0.9
**IMW Indian Meadow 94.21 41** *e*pP pP 16 53 49.5 -0.6
**PDAR Pinedale Array 94.34 43** P **P 16 53 37.5 -0.8**
0.6nm,0.8s,baz=184,slow=5.4,SNR=4.3
**CM01 Chiang Mai Arr 94.41 289** *e*P **P 16 53 40.5 +1.6**
**CMAR Chiang Mai Arr 94.44 289** P **P 16 53 40.0 +1.0**
0.3nm,0.3s,baz=152,slow=4.1,SNR=4.4
**KMI Kunming 94.66 296** P **P 16 53 40.5 +0.3**
KMI pmax pmax
comp=Z,9.0nm,1.2s
**HHC Hu-ho-hao-te 96.55 313** *e*P **P 16 53 51.3 +3.0**
HHC S **S 17 05 03.8 -2.4**
HHC pmax pmax
comp=Z,20nm,1.0s
HHC LR LR
comp=E,260nm,12.5s
HHC LR LR
comp=Z,200nm,12.4s
**ILAR Eielson Array 96.55 12** P **P 16 53 46.0 -1.5**
0.6nm,0.7s,baz=223,slow=5.3,SNR=11
ILAR pP **pP 16 53 59.2 -0.7**
0.8nm,0.6s,baz=228,slow=4.3,SNR=4.5
**LPAZ La Paz 97.23 113** LR LR 17 31 47.2
comp=Z,41nm,18.0s,baz=67,slow=32
**LZH Lanzhou 99.27 306** *e*P **Pdif 16 54 04.5 +3.8**
LZH pP pP 16 54 10.3 -2.8
LZH pmax pmax
comp=Z,11nm,0.5s
**WMQ Urumqi 113.71 308** *e*PKP **PKiKP 16 58 58.8 +1.9**
WMQ LR LR
comp=N,140nm,20.1s
WMQ LR LR
comp=Z,130nm,16.5s
**MK01 Makanchi Array 118.19 310** *e*PKPdf **PKPdf 16 59 03.9 -1.5**
**ZALV Zalesovo Beam 118.20 318** PKP **PKPdf 16 59 03.6 -1.5**
0.6nm,0.7s,baz=297,slow=1.0,SNR=3.6
**MKAR Makanchi Array 118.20 310** PKP **PKPdf 16 59 04.0 -1.4**
0.9nm,0.7s,baz=62,slow=2.0,SNR=9.3
MKAR pPKP **pPKPdf 16 59 17.3 -0.8**
0.4nm,0.6s,baz=206,slow=1.4,SNR=3.2
**KSH Kashi 120.95 301** PKP **PKPdf 16 59 10.0 -1.0**
KSH PP **PP 17 00 46.0 +5.0**
KSH PKS **PKSdf 17 02 45.3 -2.5**
KSH SKS **SKSdf 17 06 17.3 -2.7**
KSH SKKS **SKKSac 17 07 34.0 -3.0**
KSH SS **SS 17 17 15.0 +4.4**
**BVAR Borovoye Array 126.65 316** PKP **PKPdf 16 59 21.4 +0.1**
1.3nm,0.8s,baz=56,slow=3.9,SNR=6.7
**FINES FINESS Array B 144.61 342** PKP PKPbc 16 59 52.5 -0.6
7.2nm,0.8s,baz=90,slow=3.8,SNR=8.8
FINES pPKP pPKPdf 17 00 04.7 -2.4
3.6nm,0.6s,baz=69,slow=3.1,SNR=2.8
**KBZ Khabaz 145.70 306** PKPbc **PKPdf 16 59 56.8 0.0**
2.8nm,0.8s,baz=90,slow=3.0,SNR=3.8
**NC303 NORSAR Array S 147.68 353** *e*PKPbc **PKPbc 17 00 01.8 -0.5**
**NB2 NORSAR Subarra 147.88 353** PKP **PKPbc 17 00 02.0 -1.0**
comp=Z,3.3nm,0.7s,baz=11,slow=2.9
**NOA NORSAR Array B 147.88 353** PKPbc **PKPbc 17 00 02.3 -0.7**
comp=Z,4.7nm,0.8s,baz=13,slow=4.4,SNR=11
NOA pPKPbc **pPKPbc 17 00 15.0 -0.7**
comp=Z,3.2nm,0.5s,baz=12,slow=4.5,SNR=5.7
**AKASG Malin Array Be 151.29 325** PKPbc **PKPbc 17 00 10.7 -1.0**
comp=Z,4.5nm,0.7s,baz=44,slow=2.8,SNR=24
AKASG pPKPbc **pPKPbc 17 00 23.9 -0.4**
comp=Z,2.0nm,0.5s,baz=43,slow=3.1,SNR=5.9
**KIEV Kiev 151.31 325** *e*PKPbc **PKPbc 17 00 10.2 -1.4**
**AK11 Malin Array Si 151.34 325** *e*PKPbc **PKPbc 17 00 10.6 -1.1**
**ASF Jabal al Asfar 151.38 284** PKPbc **PKPbc 17 00 11.7 -0.9**
comp=Z,4.1nm,0.8s,baz=7.6,slow=1.9,SNR=7.2
**MMAI Mount Meron Ar 152.67 286** PKPbc **PKPbc 17 00 16.1 +0.7**
comp=Z,1.9nm,0.6s,baz=106,slow=5.6,SNR=5.6
MMAI PKPab **pPKPbc 17 00 27.9 -0.3**
comp=Z,2.2nm,0.5s,baz=83,slow=8.6,SNR=5.8
**BR131 Keskin Array S 153.34 301** *e*PKPab **PKPab 17 00 28.5 -0.5**
**BRTR Keskin Array B 153.34 301** PKPbc **PKPbc 17 00 16.2 -0.6**
comp=Z,1.2nm,0.9s,baz=47,slow=1.8,SNR=5.6
BRTR pPKPbc **pPKPbc 17 00 29.9 +0.3**
comp=Z,2.2nm,0.7s,baz=117,slow=3.5,SNR=9.4
**BR231 Keskin MP Arra 153.96 302** *e*PKPbc **PKPbc 17 00 16.4 -1.8**
BR231 *e*PKPab **pPKPbc 17 00 30.1 -0.8**
**DPC Dobruska-Polom 156.93 339** *e*PKPAB **PKPab 17 00 44.0 +0.3**
DPC epPKP **sPKPab 17 00 58.5 -2.2**
**KHC Kasperske Hory 158.82 342** *e*PKPAB **PKPab 17 00 51.4 -0.5**
**TOA0 Torodi Ar. Sit 163.80 173** *e*PKPdf **PKPdf 17 00 22.3 0.0**
TOA0 *e*PKPab **PKPab 17 01 14.3 -0.1**
**TORD Torodi Ar. Bea 163.80 173** PKP **PKPdf 17 00 22.0 -0.2**
comp=Z,1.1nm,1.0s,baz=281,slow=0.8,SNR=5.2
TORD pPKP **pPKPdf 17 00 36.2 +1.2**
comp=Z,0.9nm,0.9s,baz=107,slow=0.4,SNR=3.8
TORD PKPab **PKPab 17 01 14.7 +0.3**
comp=Z,2.0nm,0.9s,baz=193,slow=3.9,SNR=8.7
TORD pPKPab **pPKPab 17 01 27.6 +0.7**
comp=Z,1.2nm,0.7s,baz=180,slow=4.2,SNR=4.8

*IDC **26** 16:44:38.8±1.4,5°32S×146°19E,h0km,mb3.6/3, mb1 4.1/5,mb1mx3.7/31,mbtmp4.0/5,ML2.3/1,MS3.2/1, Ms1 3.2/1,ms1mx2.7/40,Error ellipse: s-maj=48.8km s-min=27.0km az=109.0*
*ISCJB **26** 16:44:42.8±1.4,5.4S±0.1°×146.2E±0.2,h35km,mb3.6/3, Error ellipse: s-maj=30.6km s-min=19.8km az=177.0*
**ISC 26 16:44:45.6±1.3,5.6S±0.1°×146.4E±0.2,h35km,n8,σ3e29/8, mb3.8/3,Eastern New Guinea region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **3.86** | **168** | | | Pn | **Pn** | **16 45 43.6** | **+1.1** |
| | 12nm,0.3s,baz=326,slow=5.5,SNR=48 | | | | | | | | |
| PMG | | | | | | Sn | **Sn** | **16 46 23.0** | **-3.7** |
| | 9.1nm,0.3s,baz=274,slow=22,SNR=9.2 | | | | | | | | |
| **CTA** | **Charters Tower** | **14.40** | **180** | | | Pn | **Pn** | **16 48 09.7** | **+2.7** |
| | 2.3nm,0.3s,baz=360,slow=14,SNR=17 | | | | | | | | |
| **GUMO** | **Guam** | **19.12** | **356** | LR | | LR | LR | 16 54 08.7 | |
| | comp=Z,77nm,20.8s,baz=28,slow=30 | | | | | | | | |
| **ASAR** | **Alice Springs** | **21.61** | **213** | P | | P | **P** | **16 49 31.5** | **-1.2** |
| | 0.7nm,0.8s,baz=46,slow=8.5,SNR=2.1 | | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **23.75** | **237** | P | | P | **P** | **16 49 53.5** | **-1.4** |
| | 4.2nm,0.7s,baz=56,slow=11,SNR=7.3 | | | | | | | | |
| **ILAR** | **Eielson Array** | **85.36** | **23** | P | | P | **P** | **16 57 16.9** | **-2.0** |
| | 0.4nm,0.6s,baz=241,slow=4.9,SNR=5.4 | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **144.38** | **285** | PKP | | **PKPab** | **pPKPab** | **17 04 15.8** | **-1.5** |
| | 1.0nm,0.6s,baz=82,slow=3.0,SNR=7.2 | | | | | | | | |
| **DBIC** | **Dimbokro** | **151.37** | **274** | PKPbc | | **PKPdf** | **PKPdf** | **17 04 35.4** | **+4.7** |
| | 1.1nm,0.5s,baz=40,slow=5.0,SNR=4.7 | | | | | | | | |

*IDC **26** 17:01:25.3±4.3,23°26N×32°78E,h0km,mb3.7/4, mb1 3.9/7,mb1mx3.4/88,mbtmp3.8/7,ML3.3/3,MS3.7/1, Ms1 3.7/1,ms1mx2.7/50,Error ellipse: s-maj=99.9km s-min=22.3km az=126.0*
*IASPEI **26** 17:01:26.0±1.2,23°55N±0.04×32°54E±0.06,h13km±11km, mb3.6/4,Error ellipse: s-maj=9.2km s-min=5.4km az=107.1*
*HLW **26** 17:01:27.5±2.1,23°55N×32°52E,h10km±12km*
**ISC 26 17:01:26.0±1.5,23°58N±0.04×32°62E±0.04,h2km±12km, n38,σ2e30/38,mb3.6/4,14C-6D,Egypt**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **ANMR** | **North Marawa** | **0.16** | **343** | ⇓ *i* | Pn | **Pg** | | **17 01 30.5** | **+1.3** |
| **NGMR** | **NGMR** | **0.20** | **254** | ⇓ *i* | Pn | **Pg** | | **17 01 30.1** | **+0.2** |
| **AWAL** | **West Alisa** | **0.20** | **189** | ⇑ *i* | Pn | **Pg** | | **17 01 29.9** | **+0.1** |
| **AWKL** | **West Kalabsha** | **0.22** | **225** | ⇑ *i* | Pn | **Pg** | | **17 01 30.4** | **+0.2** |
| **NSKD** | **NSKD** | **0.23** | **291** | ⇓ *i* | Pn | **Pg** | | **17 01 30.9** | **+0.5** |
| **NAHD** | **NAHD** | **0.27** | **34** | ⇑ *i* | Pn | **Pg** | | **17 01 32.4** | **+1.2** |
| **NNAL** | **NNAL** | **0.29** | **171** | ⇑ *i* | Pn | **Pg** | | **17 01 31.8** | **+0.2** |
| **AKUR** | **Kurkur** | **0.35** | **25** | ⇑ *i* | Pn | **Pb** | | **17 01 35.3** | **+0.4** |
| **NMAN** | **Kulet Umm Tihe** | **0.54** | **51** | ⇑ *i* | Pn | **Pg** | | **17 01 37.3** | **+0.9** |
| **HEDF** | **Idfu** | **1.60** | **19** | ⇓ *e* | P | **Pn** | | **17 01 55.0** | **-0.2** |
| **HAGS** | **Hagol** | **2.31** | **69** | ⇓ *e* | P | **Pn** | | **17 02 05.3** | **+0.2** |
| **EMRS** | **Mersa Alam** | **2.48** | **54** | ⇓ *e* | P | **Pn** | | **17 02 07.8** | **+0.3** |
| **HADB** | | **2.54** | **46** | *e* | P | **Pn** | | **17 02 08.3** | **0.0** |
| **HSHL** | **Bi'r Shalatayn** | **2.60** | **100** | *e* | P | **Pn** | | **17 02 09.3** | **+0.2** |
| **GTR** | **Jabal at Tayr** | **2.68** | **316** | *e* | P | **Pn** | | **17 02 11.3** | **+1.1** |
| **HQSR** | | **2.70** | **36** | ⇓ *i* | P | **Pn** | | **17 02 10.9** | **+0.4** |
| HQSR | | | | *e* | P | **Pn** | | **17 02 10.9** | **+0.4** |
| **AKRG** | **Al Kharijah** | **2.72** | **315** | *e* | P | **Pn** | | **17 02 11.2** | **+0.5** |
| **HSFG** | | **3.21** | **22** | ⇑ *e* | P | **Pn** | | **17 02 16.4** | **-1.0** |
| **HDK1** | **Dakhla** | **3.52** | **304** | *e* | P | **Pn** | | **17 02 21.9** | **+0.1** |
| **HHRG** | **Al Ghardaqah** | **3.73** | **13** | *e* | P | **Pb** | | **17 02 29.8** | **-2.8** |
| **ASUT** | | **3.92** | **346** | *e* | P | **Pn** | | **17 02 28.0** | **+0.7** |
| **GRB** | **Gharib** | **4.68** | **2** | *e* | P | **Pn** | | **17 02 36.9** | **-0.8** |
| **HFRF** | **Wahat Farafira** | **5.27** | **313** | *e* | P | **Pn** | | **17 02 45.4** | **-0.5** |
| **SUZ** | **Suez** | **6.24** | **2** | *e* | P | **Pn** | | **17 02 59.8** | **+0.7** |
| **EIL** | **Elat** | **6.42** | **19** | Pn | | Pn | | **17 03 03.5** | **+1.9** |
| | 0.9nm,0.3s,baz=197,slow=11,SNR=6.9 | | | | | | | | |
| EIL | | | | | | Sn | **Sb** | **17 04 26.9** | **-8.7** |
| | 1.3nm,0.3s,baz=26,slow=19,SNR=3.8 | | | | | | | | |
| EIL | | | | | | Lg | Lg | 17 04 58.1 | |
| | 4.6nm,0.3s,baz=353,slow=18,SNR=6.4 | | | | | | | | |
| **MMAI** | **Mount Meron Ar** | **9.72** | **14** | Pn | | Pn | | **17 03 48.3** | **+1.4** |
| | 0.4nm,0.3s,baz=187,slow=13,SNR=4.1 | | | | | | | | |
| **BRTR** | **Keskin Array B** | **16.12** | **3** | Pn | | P | | **17 05 16.4** | **-0.9** |
| | 0.1nm,0.3s,baz=181,slow=10,SNR=10 | | | | | | | | |
| **AKH** | **Akhalkalaki** | **19.98** | **25** | ⇑ *i* | P | Pn | | 17 06 04.5 | +3.0 |
| **VAE** | **Valguarnera** | **20.87** | **316** | LR | | LR | | 17 14 37.0 | |
| | comp=Z,184nm,18.6s,baz=148,slow=37 | | | | | | | | |
| **KBZ** | **Khabaz** | **21.81** | **20** | P | | P | | **17 06 22.5** | **+3.1** |
| | 2.5nm,0.9s,baz=220,slow=16,SNR=5.5 | | | | | | | | |
| **MLR** | **Muntele Rosu** | **22.52** | **348** | ⇑ *i* | P | P | | **17 06 32.9** | **+5.7** |
| **VOIR** | | **22.66** | **346** | ⇑ *i* | P | P | | **17 06 31.0** | **+2.4** |
| **BZS** | **Buzias** | **23.73** | **341** | ⇑ *i* | P | P | | **17 06 38.4** | **-1.0** |
| **SIRR** | **Siria** | **24.31** | **341** | ⇑ *i* | P | P | | **17 06 42.3** | **-2.6** |
| **BURAR** | **Bucovina Array** | **24.70** | **348** | ⇑ *i* | P | P | | **17 06 50.4** | **+1.8** |
| **AKASG** | **Malin Array Be** | **27.20** | **355** | P | | P | | **17 07 14.5** | **+3.5** |
| | 0.9nm,0.7s,baz=180,slow=9.0,SNR=5.8 | | | | | | | | |
| **GERES** | **GERESS Array B** | **29.31** | **334** | P | | P | | **17 07 32.9** | **+2.9** |
| | 0.4nm,0.5s,baz=145,slow=8.5,SNR=7.0 | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **31.06** | **256** | P | | P | | **17 07 45.6** | **0.0** |
| | 0.6nm,0.5s,baz=58,slow=9.3,SNR=6.4 | | | | | | | | |

*IDC **26** 17:04:33.3±2.4,36°31N×70°46E,h174km±22km,mb3.5/12, mb1 3.5/18,mb1mx3.2/92,mbtmp4.0/18,Error ellipse: s-maj=18.1km s-min=13.2km az=153.0*
*ISCJB **26** 17:04:36.0±0.3,36°57N±0.03×70°31E±0.05,h204km, mb3.6/11,Error ellipse: s-maj=5.5km s-min=4.1km az=177.8*
*NNC **26** 17:04:39.5±3.0,36°82N×70°24E,h189km±28km,mb3.2, mpv4.3,Error ellipse: s-maj=28.0km s-min=23.5km az=2.0*
**ISC 26 17:04:36.6±0.5,36°53N±0.05×70°36E±0.06,h204km,n47, σ1e51/56,mb3.6/11,7C-6D,Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **CEP** | **Cherat** | **2.99** | **154** | P | | P | **Pn** | **17 05 26.5** | **0.0** |
| CEP | | | | S | | S | **S** | **17 06 04.0** | **-0.9** |
| **THW** | **Thamme Wali** | **3.90** | **163** | P | | P | **Pn** | **17 05 37.1** | **-0.3** |
| **SFK** | **Sufi-Kurgan** | **4.27** | **35** | ⇓ P | | P | **Pn** | **17 05 42.2** | **+0.2** |
| | 7.1nm,0.3s | | | | | | | | |
| SFK | | | | ⇑ S | | S | **S** | **17 06 31.6** | **-1.4** |
| | 82nm,0.3s | | | | | | | | |
| **THN** | **Thein Dam** | **6.03** | **131** | *e* | P | Pn | **Pn** | **17 06 02.0** | **-2.3** |
| THN | | | | *e* | S | S | **S** | **17 07 09.0** | **-4.4** |
| **AML** | **Almayashu** | **6.16** | **24** | P | | P | **Pn** | **17 06 03.1** | **+0.1** |
| | SNR=193 | | | | | | | | |
| **MNAS** | **Manas** | **6.17** | **15** | ⇓ P | | P | **Pn** | **17 06 06.6** | **+0.4** |
| | 31nm,0.9s | | | | | | | | |
| MNAS | | | | ⇑ S | | S | **S** | **17 07 14.8** | **-2.2** |
| | 57nm,0.5s | | | | | | | | |
| **UCH** | **Uchtor** | **6.53** | **28** | P | | P | **Pn** | **17 06 11.4** | **+0.2** |
| | SNR=116 | | | | | | | | |
| **KK31** | **Karatay Array** | **6.56** | **1** | ⇑ P | | P | **Pn** | **17 06 10.9** | **-0.3** |
| | 3.8nm,0.3s,baz=180,slow=12,SNR=73 | | | | | | | | |
| KK31 | | | | ⇑ S | | S | **S** | **17 07 22.7** | **-3.3** |
| | 8.0nm,0.4s,baz=187,slow=25,SNR=6.8 | | | | | | | | |
| **EKS2** | **Erkin-Say** | **6.67** | **22** | P | | P | **Pn** | **17 06 13.0** | **+0.4** |
| | SNR=26 | | | | | | | | |
| **KZA** | **Kyzart** | **6.71** | **33** | P | | P | **Pn** | **17 06 13.3** | **-0.2** |
| | SNR=25 | | | | | | | | |
| **AAK** | **Ala-Archa** | **6.88** | **26** | P | | P | **Pn** | **17 06 15.9** | **+0.5** |
| | 5.7nm,0.3s,baz=162,slow=6.2,SNR=95 | | | | | | | | |
| AAK | | | | S | | S | **S** | **17 07 31.3** | **-2.4** |
| | 3.4nm,0.3s,baz=322,slow=18,SNR=24 | | | | | | | | |
| **AAK** | **Ala-Archa** | **6.88** | **26** | ⇑ P | | Pn | **Pn** | **17 06 15.4** | **0.0** |
| | 14nm,0.6s | | | | | | | | |
| AAK | | | | ⇓ S | | S | **S** | **17 07 31.4** | **-2.4** |
| | 54nm,0.7s | | | | | | | | |
| **AAK** | **Ala-Archa** | **6.88** | **26** | P | | P | **Pn** | **17 06 15.7** | **+0.3** |
| | SNR=32 | | | | | | | | |
| **KBK** | **Karagaybulak** | **7.07** | **29** | P | | P | **Pn** | **17 06 18.4** | **+0.6** |
| | SNR=28 | | | | | | | | |
| **CHMS** | **Chumysh** | **7.29** | **26** | P | | P | **Pn** | **17 06 20.7** | **+0.2** |
| | SNR=30 | | | | | | | | |
| **ULHL** | **Ulahol** | **7.30** | **37** | P | | P | **Pn** | **17 06 21.0** | **+0.1** |
| | SNR=13 | | | | | | | | |
| **USP** | **Ospenovka** | **7.44** | **24** | P | | P | **Pn** | **17 06 22.2** | **-0.3** |
| | SNR=39 | | | | | | | | |
| **TKM2** | **Tokmak 2** | **7.55** | **31** | ⇓ P | | P | **Pn** | **17 06 24.3** | **+0.2** |
| | 30nm,0.5s | | | | | | | | |
| TKM2 | | | | ⇓ S | | S | **S** | **17 07 47.0** | **-2.6** |
| | 15nm,0.8s | | | | | | | | |
| **TKM2** | **Tokmak 2** | **7.55** | **31** | P | | P | **Pn** | **17 06 24.2** | **+0.1** |
| | SNR=96 | | | | | | | | |
| **PDGK** | **Podgornoye** | **9.76** | **43** | ⇓ P | | P | **Pn** | **17 06 52.3** | **-0.3** |
| | 4.6nm,0.8s | | | | | | | | |
| **GEYT** | **Alibeck** | **9.86** | **282** | P | | P | **Pn** | **17 06 52.1** | **-1.9** |
| | 0.2nm,0.3s,baz=89,slow=15,SNR=3.5 | | | | | | | | |
| GEYT | | | | S | | S | **S** | **17 08 42.6** | **-1.8** |
| | 0.5nm,0.3s,baz=106,slow=14,SNR=4.1 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **13.57** | **37** | P | | Pn | | **17 07 41.4** | **+0.4** |
| | 0.6nm,0.3s,baz=233,slow=3.6,SNR=24 | | | | | | | | |
| **GKN** | **Gorkha** | **14.76** | **121** | *e* | P | P | | **17 07 58.9** | **+2.1** |
| | 0.4nm,0.2s | | | | | | | | |
| **AB31** | **Akbulak array** | **14.81** | **332** | P | | Pn | | **17 07 55.5** | **-0.6** |
| | 0.9nm,0.4s,baz=145,slow=12,SNR=31 | | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **15.26** | **20** | P | | Pn | | **17 08 01.3** | **-0.4** |
| | 0.1nm,0.3s,baz=212,slow=10,SNR=10.0 | | | | | | | | |
| **KKN** | **Kakani** | **15.34** | **120** | *e* | P | P | | **17 08 05.7** | **+2.4** |
| | 8.1nm,0.3s | | | | | | | | |
| **PKIN** | **Phulchoki** | **15.55** | **121** | *e* | P | Pn | | **17 08 08.1** | **+2.4** |
| | 7.3nm,0.3s | | | | | | | | |
| **PKI** | **Pulchoki** | **15.56** | **121** | *e* | P | Pn | | **17 08 08.3** | **+2.4** |
| | 8.8nm,0.5s | | | | | | | | |
| **GUN** | **Gumba** | **15.69** | **119** | *e* | P | Pn | | **17 08 09.0** | **+1.6** |
| | 12nm,0.6s | | | | | | | | |
| **JIRN** | **Jiri** | **16.05** | **119** | *e* | P | Pn | | **17 08 13.8** | **+2.0** |
| | 93nm,0.5s | | | | | | | | |
| **BVAR** | **Borovoye Array** | **16.49** | **0** | P | | Pn | | **17 08 17.0** | **+0.6** |
| | 0.6nm,0.3s,baz=162,slow=11,SNR=12 | | | | | | | | |
| **AKTO** | **Aktyubinsk** | **16.50** | **331** | P | | Pn | | **17 08 17.4** | **+0.9** |
| | 0.4nm,0.3s,baz=147,slow=11,SNR=25 | | | | | | | | |
| **AKTO** | **Aktyubinsk** | **16.50** | **331** | ⇑ P | | Pn | | **17 08 17.5** | **+1.0** |
| | 8.9nm,0.9s | | | | | | | | |
| **TAPN** | **Taplejung** | **17.32** | **117** | *e* | P | Pn | | **17 08 26.6** | **-0.2** |
| | 5.8nm,0.6s | | | | | | | | |
| **ZAA0** | **Zalesovo Array** | **20.10** | **25** | ⇑ P | | P | | **17 08 55.8** | **+1.3** |
| | 0.4nm,0.6s | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **20.10** | **25** | P | | P | | **17 08 55.7** | **+1.1** |
| | 4.2nm,0.4s,baz=215,slow=11,SNR=25 | | | | | | | | |
| **ARU** | **Arti** | **21.44** | **342** | P | | P | | **17 09 09.6** | **+1.0** |
| | 1.6nm,0.4s,baz=120,slow=7.0,SNR=4.6 | | | | | | | | |
| **BRTR** | **Keskin Array B** | **28.93** | **288** | P | | P | | **17 10 18.5** | **+1.7** |
| | 0

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ASAR | | | | PcP | **PcP** | **17 18 00.8** | **+0.9** |
| | 0.4nm,0.7s,baz=107,slow=3.9,SNR=6.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.23** | **263** | P | **P** | **17 16 28.3** | **-0.5** |
| | 1.1nm,0.7s,baz=97,slow=7.4,SNR=12 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **52.66** | **263** | P | **P** | **17 17 31.5** | **+0.3** |
| | 3.6nm,1.1s,baz=153,slow=4.5,SNR=3.4 | | | | | | |
| **ILAR** | **Eielson Array** | **88.77** | **13** | P | **P** | **17 21 02.3** | **+0.6** |
| | 1.2nm,1.2s,baz=202,slow=4.6,SNR=4.7 | | | | | | |
| **AKASG** | **Malin Array Be** | **143.21** | **331** | PKP | **PKPdf** | **17 27 36.5** | **-1.5** |
| | 0.8nm,0.6s,baz=40,slow=4.3,SNR=11 | | | | | | |
| **BRTR** | **Keskin Array B** | **146.87** | **312** | PKPbc | **PKPbc** | **17 27 46.8** | **-1.1** |
| | 0.5nm,0.7s,baz=115,slow=4.2,SNR=3.8 | | | | | | |
| **GERES** | **GERESS Array B** | **150.50** | **344** | PKPbc | **PKPbc** | **17 27 56.9** | **+0.5** |
| | 0.5nm,0.8s,baz=347,slow=4.0,SNR=3.7 | | | | | | |

*NEIC* ***26*** *17:13:27.0±0.0, 37.26S×179.81W, h22km, ML4.0(WEL), After WEL.*

**WEL 26 17:13:27.9±0.4, 37.29S×179.94E, h5km, ML3.9/19, 1C-2D, Error ellipse: s-maj=3.5km s-min=3.4km az=90.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WMGZ** | **Waiomatatini S** | **1.32** | **246** | Pn | Pn | 17 13 52.5 | -0.5 |
| **WMGZ** | **Waiomatatini S** | **1.32** | **246** | P* | Pn | 17 13 52.5 | -0.5 |
| WMGZ | | | | S* | Sg | 17 14 10.4 | 0.0 |
| WMGZ | | | | AML | AML | 17 14 15.8 | |
| **MXZ** | **Matakaoa Point** | **1.33** | **258** | Pn | Pn | 17 13 51.8 | -1.2 |
| **MXZ** | **Matakaoa Point** | **1.33** | **258** | ⇑P* | Pn | 17 13 51.8 | -1.2 |
| MXZ | | | | AML | AML | 17 14 09.5 | |
| MXZ | | | | AML | AML | 17 14 11.1 | |
| **PUZ** | **Puketiti** | **1.55** | **239** | Pn | Pn | 17 13 55.1 | -1.1 |
| **PUZ** | **Puketiti** | **1.55** | **239** | Pn | Pn | 17 13 55.1 | -1.1 |
| PUZ | | | | AML | AML | 17 14 18.0 | |
| PUZ | | | | AML | AML | 17 14 19.7 | |
| **PKGZ** | **Pakihiroa** | **1.60** | **247** | PN | Pn | 17 13 55.9 | -1.0 |
| PKGZ | | | | SN | Sn | 17 14 17.1 | -0.7 |
| PKGZ | | | | AML | AML | 17 14 18.2 | |
| **HAZ** | **Te Kaha** | **1.78** | **254** | ⇓PN | Pn | 17 13 59.0 | -0.2 |
| HAZ | | | | AML | AML | 17 14 23.9 | |
| HAZ | | | | AML | AML | 17 14 24.0 | |
| HAZ | | | | AML | AML | 17 14 26.4 | |
| HAZ | | | | AML | AML | 17 14 28.6 | |
| **RUGZ** | **Raukumara Rang** | **1.92** | **249** | PN | Pn | 17 14 00.8 | -0.5 |
| **TKGZ** | **Te Karaka** | **2.02** | **235** | Pn | Pn | 17 14 01.9 | -0.6 |
| **TKGZ** | **Te Karaka** | **2.02** | **235** | PN | Pn | 17 14 01.9 | -0.6 |
| TKGZ | | | | AML | AML | 17 14 28.0 | |
| TKGZ | | | | AML | AML | 17 14 28.8 | |
| **MWZ** | **Matawai** | **2.18** | **241** | Pn | Pn | 17 14 04.0 | -0.8 |
| **MWZ** | **Matawai** | **2.18** | **241** | PN | Pn | 17 14 03.9 | -0.9 |
| MWZ | | | | AML | AML | 17 14 39.0 | |
| MWZ | | | | AML | AML | 17 14 43.0 | |
| **RIGZ** | **Rimuhau** | **2.23** | **230** | PN | Pn | 17 14 04.8 | -0.7 |
| RIGZ | | | | AML | AML | 17 14 35.0 | |
| RIGZ | | | | AML | AML | 17 14 38.5 | |
| **PRGZ** | **Paritu Road** | **2.30** | **224** | PN | Pn | 17 14 05.9 | -0.6 |
| PRGZ | | | | AML | AML | 17 14 36.3 | |
| PRGZ | | | | AML | AML | 17 14 39.7 | |
| **RAGZ** | **Rawiri** | **2.33** | **238** | Pn | Pn | 17 14 06.3 | -0.7 |
| **RAGZ** | **Rawiri** | **2.33** | **238** | PN | Pn | 17 14 06.3 | -0.7 |
| RAGZ | | | | AML | AML | 17 14 45.3 | |
| RAGZ | | | | AML | AML | 17 14 50.9 | |
| **URZ** | **Urewera** | **2.44** | **246** | Pn | Pn | 17 14 08.0 | -0.4 |
| **URZ** | **Urewera** | **2.44** | **246** | ⇓PN | Pn | 17 14 08.0 | -0.4 |
| URZ | | | | AML | AML | 17 14 38.4 | |
| URZ | | | | AML | AML | 17 14 42.9 | |
| **MHGZ** | **Mahia Peninsul** | **2.46** | **220** | PN | Pn | 17 14 08.2 | -0.4 |
| **KNZ** | **Kokohu** | **2.49** | **225** | PN | Pn | 17 14 07.7 | -1.3 |
| **SNGZ** | **Shannon Statio** | **2.54** | **233** | Pn | Pn | 17 14 08.9 | -0.9 |
| **SNGZ** | **Shannon Statio** | **2.54** | **233** | PN | Pn | 17 14 08.9 | -0.9 |
| SNGZ | | | | AML | AML | 17 14 40.2 | |
| SNGZ | | | | AML | AML | 17 14 56.2 | |
| **RTZ** | **Ruatahuna** | **2.69** | **240** | PN | Pn | 17 14 11.4 | -0.5 |
| **MUGZ** | **Murupara** | **2.78** | **244** | PN | Pn | 17 14 12.2 | -0.8 |
| **WHHZ** | **Waihua** | **2.78** | **229** | PN | Pn | 17 14 12.2 | -0.8 |
| WHHZ | | | | AML | AML | 17 14 47.8 | |
| WHHZ | | | | AML | AML | 17 15 01.1 | |
| **TARZ** | **Mount Tarawera** | **2.88** | **250** | PN | Pn | 17 14 13.8 | -0.8 |
| TARZ | | | | AML | AML | 17 14 47.5 | |
| TARZ | | | | AML | AML | 17 14 47.9 | |
| **MTHZ** | **Maungataniwha** | **2.90** | **237** | PN | Pn | 17 14 14.1 | -0.7 |
| **NMHZ** | **Naumai** | **3.06** | **233** | Pn | Pn | 17 14 16.2 | -0.8 |
| **NMHZ** | **Naumai** | **3.06** | **233** | PN | Pn | 17 14 16.2 | -0.8 |
| NMHZ | | | | AML | AML | 17 14 54.5 | |
| NMHZ | | | | AML | AML | 17 14 56.0 | |
| **MRHZ** | **Matea Rd** | **3.18** | **240** | PN | Pn | 17 14 17.8 | -0.8 |
| MRHZ | | | | AML | AML | 17 14 57.2 | |
| MRHZ | | | | AML | AML | 17 14 58.5 | |
| **BKZ** | **Black Stump Fm** | **3.30** | **234** | Pn | Pn | 17 14 18.6 | -1.6 |
| **BKZ** | **Black Stump Fm** | **3.30** | **234** | PN | Pn | 17 14 18.6 | -1.6 |
| BKZ | | | | AML | AML | 17 14 58.3 | |
| BKZ | | | | AML | AML | 17 14 58.8 | |
| **MCHZ** | **McNeill Hill** | **3.34** | **229** | Pn | Pn | 17 14 19.7 | -1.0 |
| **MCHZ** | **McNeill Hill** | **3.34** | **229** | PN | Pn | 17 14 19.7 | -1.0 |
| MCHZ | | | | AML | AML | 17 15 03.1 | |
| MCHZ | | | | AML | AML | 17 15 04.5 | |
| **KUZ** | **Kuaotunu** | **3.42** | **278** | PN | Pn | 17 14 20.6 | -1.3 |
| **KAHZ** | **Kahuranaki** | **3.47** | **223** | PN | Pn | 17 14 20.9 | -1.7 |
| **KWHZ** | **Kaweka Forest** | **3.49** | **231** | PN | Pn | 17 14 21.4 | -1.5 |
| KWHZ | | | | AML | AML | 17 15 06.0 | |
| KWHZ | | | | AML | AML | 17 15 08.4 | |
| **PXZ** | **Pawanui** | **3.65** | **220** | PN | Pn | 17 14 24.0 | -1.0 |
| **GRZ** | **Great Barrier** | **3.75** | **285** | PN | Pn | 17 14 25.6 | -0.7 |
| **BHHZ** | **Black Hill Sta** | **3.76** | **233** | PN | Pn | 17 14 25.1 | -1.4 |
| **OTVZ** | **Oturere** | **3.85** | **240** | PN | Pn | 17 14 26.8 | -1.1 |
| **WNVZ** | **Wahianoa** | **3.98** | **238** | PN | Pn | 17 14 28.6 | -1.1 |
| **TSZ** | **Takapari Road** | **4.17** | **227** | PN | Pn | 17 14 29.4 | -2.7 |
| **DVHZ** | **Dannevirke** | **4.21** | **223** | PN | Pn | 17 14 30.7 | -2.0 |
| **BFZ** | **Birch Farm** | **4.45** | **219** | PN | Pn | 17 14 33.6 | -2.3 |
| **PRWZ** | **Pori Road** | **4.50** | **222** | PN | Pn | 17 14 34.7 | -2.0 |
| **TIWZ** | **Tintock** | **4.70** | **221** | PN | Pn | 17 14 36.9 | -2.5 |
| **MRZ** | **Mangatainoka R** | **4.79** | **224** | PN | Pn | 17 14 37.5 | -3.1 |
| **HOWZ** | **Holdsworth Sta** | **4.98** | **222** | PN | Pn | 17 14 37.8 | -5.5 |
| **DUWZ** | **D'Urville Isla** | **5.85** | **231** | PN | Pn | 17 14 52.9 | -2.3 |

**GUC 26 17:25:40.9±0.6, 20.89S×69.56W, h69km±3km, ML4.1, 2C-3D, Northern Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PB01** | **IPOC Station P** | **0.17** | **155** | ⇓*i*P | Pn | 17 25 51.6 | +0.2 |
| PB01 | | | | *e*S | Sn | 17 25 59.5 | +0.5 |
| PB01 | | | | IAML | | 17 25 59.7 | |
| | comp=N,36μm,0.2s | | | | | | |
| **PB02** | **IPOC Station P** | **0.53** | **216** | ⇓*i*P | Pn | 17 25 54.8 | +0.7 |
| PB02 | | | | *e*S | Sn | 17 26 04.4 | +0.8 |
| PB02 | | | | IAML | | 17 26 05.5 | |
| | comp=E,9μm,0.2s | | | | | | |
| **PB07** | **IPOC Station P** | **0.88** | **200** | ⇑*i*P | Pn | 17 25 58.5 | +0.3 |
| PB07 | | | | *e*S | Sn | 17 26 11.5 | +0.6 |
| **PB09** | **IPOC Station P** | **0.95** | **162** | ⇑*i*P | Pn | 17 25 59.4 | +0.5 |
| PB09 | | | | *e*S | Sn | 17 26 13.5 | +1.3 |
| PB09 | | | | IAML | | 17 26 14.8 | |
| | comp=E,5μm,0.5s | | | | | | |
| **PB11** | **IPOC Station P** | **1.13** | **356** | ⇓*i*P | Pn | 17 26 01.5 | +0.3 |
| PB11 | | | | *i*S | Sn | 17 26 17.5 | +1.3 |
| PB11 | | | | IAML | | 17 26 17.9 | |
| | comp=E,10μm,0.3s | | | | | | |
| **PSGC** | **Pisagua** | **1.39** | **338** | *e*P | Pn | 17 26 04.6 | +0.1 |
| PSGC | | | | *i*S | Sn | 17 26 22.7 | +0.4 |

*ISK* ***26*** *17:39:29.5, 38.75N×43.17E, h5km, MD2.7*
*ISCJB* ***26*** *17:39:30.5±0.6, 38.77N±0.03×43.16E±0.06, h4km±8km, Error ellipse: s-maj=7.8km s-min=4.6km az=4.5*
*CSEM* ***26*** *17:39:30.2±0.2, 38.77N×43.17E, h10km, MD2.7, Error ellipse: s-maj=6.6km s-min=4.3km az=85.0*
*DDA* ***26*** *17:39:30.2, 38.76N×43.17E, h7km, Ml2.8*

**ISC 26 17:39:30.8±1.0, 38.76N±0.03×43.18E±0.04, h15km±8km, n24, σ1§04/36, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.23** | **134** | *e*PG | **Pg** | **17 39 36.1** | **+0.1** |
| VANB | | | | *e*SG | **Sg** | **17 39 40.8** | **+1.3** |
| **VANB** | **Van** | **0.23** | **134** | *e*Pg | **Pg** | **17 39 36.1** | **+0.1** |
| VANB | | | | *e*Sg | **Sg** | **17 39 40.8** | **+1.3** |
| **TVAN** | **Van** | **0.29** | **142** | *i*P | **Pg** | **17 39 36.0** | **-1.0** |
| TVAN | | | | *i*S | **Sg** | **17 39 41.2** | **-0.1** |
| **VMUR** | **Van-Muradiye** | **0.39** | **53** | *i*P | **Pg** | **17 39 37.9** | **-0.8** |
| VMUR | | | | *i*S | **Sb** | **17 39 44.4** | **-0.9** |
| **VMUR** | **Van-Muradiye** | **0.39** | **53** | P | **Pg** | **17 39 37.9** | **-0.8** |
| VMUR | | | | S | **Sb** | **17 39 44.4** | **-0.9** |
| **GEVA** | **Gevas** | **0.46** | **192** | *i*P | **Pg** | **17 39 38.6** | **-1.3** |
| GEVA | | | | *i*S | **Sb** | **17 39 46.6** | **-0.7** |
| **GEVA** | **Gevas** | **0.46** | **192** | P | **Pg** | **17 39 38.6** | **-1.3** |
| GEVA | | | | S | **Sb** | **17 39 46.6** | **-0.7** |
| **TUTA** | **Tutak** | **0.70** | **336** | *i*P | **Pg** | **17 39 43.6** | **-1.0** |
| **TUTA** | **Tutak** | **0.70** | **336** | P | **Pg** | **17 39 43.6** | **-1.0** |
| **AGRB** | **Hanur-Agry** | **0.83** | **350** | *e*PG | **Pg** | **17 39 45.8** | **-1.1** |
| **AGRB** | **Hanur-Agry** | **0.83** | **350** | *e*Pg | **Pg** | **17 39 45.8** | **-1.1** |
| **EATA** | **Eleskirt** | **1.22** | **334** | *i*P | **Pg** | **17 39 53.2** | **-1.2** |
| EATA | | | | *i*S | **Sn** | **17 40 11.4** | **+1.2** |
| **EATA** | **Eleskirt** | **1.22** | **334** | P | **Pg** | **17 39 53.2** | **-1.2** |
| EATA | | | | S | **Sn** | **17 40 11.4** | **+1.2** |
| **SRTM** | **Siirt_Merkez** | **1.25** | **233** | *i*P | **Pn** | **17 39 54.5** | **+0.7** |
| SRTM | | | | *i*S | **Sn** | **17 40 12.1** | **+1.6** |
| **SRTM** | **Siirt_Merkez** | **1.25** | **233** | P | **Pn** | **17 39 54.5** | **+0.7** |
| SRTM | | | | S | **Sn** | **17 40 12.1** | **+1.6** |
| **HAKT** | **HAKKARI** | **1.27** | **161** | *i*P | **Pn** | **17 39 52.8** | **-1.4** |
| **HAKT** | **HAKKARI** | **1.27** | **161** | P | **Pn** | **17 39 52.8** | **-1.4** |
| **SIRT** | **Sirnak** | **1.38** | **205** | *e*PN | **Pn** | **17 39 55.9** | **+0.2** |
| **SIRT** | **Sirnak** | **1.38** | **205** | *e*Pn | **Pn** | **17 39 55.9** | **+0.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.48** | **34** | *e*PN | **Pn** | **17 39 57.6** | **+0.6** |
| **TASB** | **TASBURUN-IGDIR** | **1.48** | **34** | *e*Pn | **Pn** | **17 39 57.6** | **+0.6** |
| **CUKT** | **Cukurca** | **1.55** | **167** | *e*PN | **Pn** | **17 39 58.4** | **+0.4** |
| **CUKT** | **Cukurca** | **1.55** | **167** | *e*Pn | **Pn** | **17 39 58.4** | **+0.4** |

**IDC 26 17:41:50.7±3.9, 9.55N×58.00E, h0km, mb3.5/5, mb1 3.7/5, mb1mx3.3/58, mbtmp3.5/5, MS3.6/5, Ms1 3.7/5, ms1mx3.2/35, Error ellipse: s-maj=98.7km s-min=32.8km az=136.0, Carlsberg Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WSAR** | **Wadi Sarin** | **13.63** | **2** | LR | LR | 17 49 33.4 | |
| | comp=Z,282nm,19.4s,baz=196,slow=34 | | | | | | |
| **KMBO** | **Kilima Mbogo** | **23.22** | **244** | P | P | 17 47 00.1 | +0.2 |
| | 0.6nm,0.3s,baz=60,slow=15,SNR=3.0 | | | | | | |
| **BRTR** | **Keskin Array B** | **37.07** | **328** | LR | LR | 18 04 28.6 | |
| | comp=Z,103nm,19.0s,baz=306,slow=37 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **40.62** | **73** | LR | LR | 18 05 31.1 | |
| | comp=Z,20nm,18.1s,baz=265,slow=35 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **49.22** | **21** | P | P | 17 50 40.6 | -0.1 |
| | 0.6nm,0.4s,baz=209,slow=8.3,SNR=4.5 | | | | | | |
| **GERES** | **GERESS Array B** | **53.84** | **325** | P | P | 17 51 14.3 | -1.3 |
| | 0.3nm,0.7s,baz=102,slow=9.2,SNR=5.3 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **55.23** | **279** | P | P | 17 51 24.9 | -1.2 |
| | 0.7nm,1.0s,baz=93,slow=5.8,SNR=3.5 | | | | | | |
| **ESDC** | **Sonseca Array** | **62.44** | **310** | P | P | 17 52 17.6 | +1.6 |
| | 0.1nm,0.3s,baz=75,slow=4.5,SNR=3.3 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **71.94** | **47** | LR | LR | 18 24 58.6 | |
| | comp=Z,76nm,21.1s,baz=317,slow=36 | | | | | | |
| **TIXI** | **Tiksi** | **75.01** | **18** | LR | LR | 18 31 22.1 | |
| | comp=Z,79nm,18.0s,baz=308,slow=40 | | | | | | |

*ISCJB* ***26*** *17:49:21.2±0.6, 38.08N±0.03×42.62E±0.04, h4km±6km, Error ellipse: s-maj=6.0km s-min=4.2km az=139.1*
*CSEM* ***26*** *17:49:21.3±0.2, 38.07N×42.61E, h8km, ML2.7, Error ellipse: s-maj=3.9km s-min=3.2km az=157.0*
*DDA* ***26*** *17:49:21.7, 38.07N×42.60E, h7km, Ml2.7*
*ISK* ***26*** *17:49:21.0, 38.06N×42.59E, h10km, MD2.9*

**ISC 26 17:49:21.5±1.1, 38.07N±0.03×42.60E±0.02, h8km±10km, n32, σ0§57/46, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GEVA** | **Gevas** | **0.44** | **56** | *i*P | **Pg** | **17 49 30.5** | **+0.4** |
| **GEVA** | **Gevas** | **0.44** | **56** | P | **Pg** | **17 49 30.5** | **+0.4** |
| **SRTM** | **Siirt_Merkez** | **0.54** | **262** | *i*P | **Pg** | **17 49 31.3** | **-0.7** |
| SRTM | | | | *i*S | **Sb** | **17 49 40.9** | **-0.4** |
| **SRTM** | **Siirt_Merkez** | **0.54** | **262** | P | **Pg** | **17 49 31.3** | **-0.7** |
| SRTM | | | | S | **Sb** | **17 49 40.9** | **-0.4** |
| **SIRT** | **Sirnak** | **0.58** | **193** | *e*PG | **Pg** | **17 49 32.3** | **-0.4** |
| SIRT | | | | *e*SG | **Sg** | **17 49 41.2** | **+1.0** |
| **SIRT** | **Sirnak** | **0.58** | **193** | *e*Pg | **Pg** | **17 49 32.3** | **-0.4** |
| SIRT | | | | *e*Sg | **Sg** | **17 49 41.3** | **+1.0** |
| **SIRN** | **S¨¨rnak** | **0.59** | **195** | *i*P | **Pg** | **17 49 32.6** | **-0.3** |
| SIRN | | | | *i*S | **Sb** | **17 49 42.5** | **-0.2** |
| **SIRN** | **S¨¨rnak** | **0.59** | **195** | P | **Pg** | **17 49 32.6** | **-0.3** |
| SIRN | | | | S | **Sb** | **17 49 42.5** | **-0.2** |
| **VANB** | **Van** | **0.81** | **49** | *e*PG | **Pg** | **17 49 36.1** | **-1.1** |
| VANB | | | | *e*SG | **Sb** | **17 49 48.2** | **-1.0** |
| **VANB** | **Van** | **0.81** | **49** | *e*Pg | **Pg** | **17 49 36.1** | **-1.1** |
| VANB | | | | *e*Sg | **Sb** | **17 49 48.2** | **-1.0** |
| **HAKT** | **HAKKARI** | **1.01** | **120** | *i*P | **Pb** | **17 49 41.6** | **+0.1** |
| **HAKT** | **HAKKARI** | **1.01** | **120** | P | **Pb** | **17 49 41.6** | **+0.1** |
| **BTMN** | **Batman** | **1.06** | **261** | *i*P | **Pg** | **17 49 41.7** | **-0.3** |
| BTMN | | | | *i*S | **Sn** | **17 49 57.9** | **0.0** |
| **BTMN** | **Batman** | **1.06** | **261** | P | **Pg** | **17 49 41.7** | **-0.3** |
| BTMN | | | | S | **Sn** | **17 49 57.9** | **0.0** |
| **CUKT** | **Cukurca** | **1.15** | **135** | *e*PN | **Pg** | **17 49 43.2** | **-0.3** |
| **CUKT** | **Cukurca** | **1.15** | **135** | *i*P | **Pg** | **17 49 43.2** | **-0.3** |
| **CUKT** | **Cukurca** | **1.15** | **135** | *e*Pn | **Pg** | **17 49 43.2** | **-0.3** |
| **CUKT** | **Cukurca** | **1.15** | **135** | P | **Pn** | **17 49 43.9** | **-0.1** |
| **EKAR** | **Karacoban** | **1.26** | **341** | *i*P | **Pg** | **17 49 45.5** | **-0.2** |
| EKAR | | | | *i*S | **Sn** | **17 50 04.8** | **+1.9** |
| **EKAR** | **Karacoban** | **1.26** | **341** | P | **Pg** | **17 49 45.5** | **-0.2** |
| **BNGL** | **BINGOL** | **1.44** | **308** | *i*P | **Pg** | **17 49 49.1** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **1.54** | **11** | *e*PN | **Pn** | **17 49 49.4** | **0.0** |
| **AGRB** | **Hanur-Agry** | **1.54** | **11** | *e*Pn | **Pn** | **17 49 49.4** | **0.0** |
| **MARD** | **Mardin** | **1.63** | **243** | *i*P | **Pn** | **17 49 50.6** | **0.0** |
| MARD | | | | *i*S | **Sg** | **17 50 13.6** | **-0.3** |
| **HANI** | **Diyarbakir_Han** | **1.77** | **282** | *i*P | **Pn** | **17 49 52.1** | **-0.4** |
| HANI | | | | *i*S | **Sb** | **17 50 16.4** | **-0.2** |
| **HANI** | **Diyarbakir_Han** | **1.77** | **282** | P | **Pn** | **17 49 52.1** | **-0.4** |
| HANI | | | | S | **Sb** | **17 50 16.4** | **-0.2** |
| **MAZI** | **Mazidag** | **1.81** | **251** | *e*PN | **Pn** | **17 49 52.9** | **-0.2** |
| **MAZI** | **Mazidag** | **1.81** | **251** | *e*Pn | **Pn** | **17 49 52.9** | **-0.2** |
| **DIY** | **Diyarbakir** | **1.88** | **265** | *e*Pn | **Pn** | **17 49 54.8** | **+0.7** |
| **DYBB** | **Diyarbakir** | **1.95** | **267** | *e*PN | **Pn** | **17 49 54.8** | **-0.1** |
| **PTK** | **Pertek** | **2.65** | **289** | *e*PN | **Pn** | **17 50 04.8** | **+0.1** |
| **PTK** | **Pertek** | **2.65** | **289** | *e*Pn | **Pn** | **17 50 04.8** | **+0.1** |

*ISK* ***26*** *17:51:44.2, 38.03N×42.68E, h4km, MD2.7*
*CSEM* ***26*** *17:51:45.4±0.2, 38.03N×42.67E, h10km, ML2.6, Error ellipse: s-maj=4.7km s-min=4.4km az=162.0*
*DDA* ***26*** *17:51:45.6, 38.03N×42.65E, h7km, Ml2.6*

**ISC 26 17:51:45.2±1.2, 38.03N±0.03×42.67E±0.02, h3km±11km, n25, σ0§73/37, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GEVA** | **Gevas** | **0.42** | **47** | *i*P | **Pg** | **17 51 53.5** | **+0.2** |
| GEVA | | | | *i*S | **Sb** | **17 52 01.4** | **-0.8** |
| **GEVA** | **Gevas** | **0.42** | **47** | P | **Pg** | **17 51 53.5** | **+0.2** |
| GEVA | | | | S | **Sb** | **17 52 01.4** | **-0.8** |
| **SIRT** | **Sirnak** | **0.55** | **199** | *e*PG | **Pg** | **17 51 55.8** | **0.0** |
| SIRT | | | | *e*SG | **Sg** | **17 52 04.3** | **+1.3** |
| **SIRT** | **Sirnak** | **0.55** | **199** | *e*Pg | **Pg** | **17 51 55.8** | **0.0** |
| SIRT | | | | *e*Sg | **Sg** | **17 52 04.3** | **+1.3** |
| **SIRN** | **S¨¨rnak** | **0.57** | **201** | *i*P | **Pb** | **17 51 57.1** | **-0.7** |
| SIRN | | | | *i*S | **Sb** | **17 52 06.3** | **-0.1** |
| **SIRN** | **S¨¨rnak** | **0.57** | **201** | P | **Pb** | **17 51 57.1** | **-0.7** |
| SIRN | | | | S | **Sb** | **17 52 06.3** | **-0.1** |
| **SRTM** | **Siirt_Merkez** | **0.59** | **267** | *i*P | **Pg** | **17 51 56.7** | **+0.1** |
| SRTM | | | | *i*S | **Sg** | **17 52 04.0** | **-0.3** |
| **SRTM** | **Siirt_Merkez** | **0.59** | **267** | P | **Pg** | **17 51 56.7** | **+0.1** |
| SRTM | | | | S | **Sg** | **17 52 04.0** | **-0.3** |
| **HAKT** | **HAKKARI** | **0.94** | **119** | *i*P | **Pb** | **17 52 04.1** | **-0.3** |
| HAKT | | | | *i*S | **Sn** | **17 52 20.1** | **+0.4** |
| **HAKT** | **HAKKARI** | **0.94** | **119** | P | **Pb** | **17 52 04.1** | **-0.3** |
| **CUKT** | **Cukurca** | **1.08** | **136** | *e*PG | **Pg** | **17 52 05.4** | **-0.5** |
| **CUKT** | **Cukurca** | **1.08** | **136** | *i*P | **Pb** | **17 52 06.6** | **0.0** |
| CUKT | | | | *i*S | **Sn** | **17 52 25.2** | **+2.3** |
| **CUKT** | **Cukurca** | **1.08** | **136** | *e*Pg | **Pg** | **17 52 05.4** | **-0.5** |
| **CUKT** | **Cukurca** | **1.08** | **136** | P | **Pb** | **17 52 06.6** | **0.0** |
| **BTMN** | **Batman** | **1.11** | **264** | *i*P | **Pg** | **17 52 06.2** | **-0.4** |
| BTMN | | | | *i*S | **Sb** | **17 52 22.4** | **+0.2** |
| **BTMN** | **Batman** | **1.11** | **264** | P | **Pg** | **17 52 06.2** | **-0.4** |
| BTMN | | | | S | **Sb** | **17 52 22.4** | **+0.2** |
| **EKAR** | **Karacoban** | **1.32** | **339** | *i*P | **Pg** | **17 52 11.4** | **+0.9** |
| **EKAR** | **Karacoban** | **1.32** | **339** | P | **Pg** | **17 52 11.4** | **+0.9** |
| **BNGL** | **BINGOL** | **1.51** | **308** | *i*P | **Pb** | **17 52 14.0** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **1.57** | **9** | *e*PN | **Pn** | **17 52 13.5** | **-0.7** |
| **AGRB** | **Hanur-Agry** | **1.57** | **9** | *e*Pn | **Pn** | **17 52 13.5** | **-0.7** |
| **BNGB** | **Bing¨¶l** | **1.83** | **302** | *e*PN | **Pn** | **17 52 17.4** | **-0.4** |
| **MAZI** | **Mazidag** | **1.85** | **253** | *e*PN | **Pn** | **17 52 17.7** | **-0.3** |
| **MAZI** | **Mazidag** | **1.85** | **253** | *e*Pn | **Pn** | **17 52 17.7** | **-0.3** |
| **BINT** | **Bingol** | **1.91** | **297** | *e*Pn | **Pn** | **17 52 17.4** | **-1.4** |

*ISCJB* ***26*** *17:55:49.0±0.9, 4.79S±0.04×153.45E±0.05, h84km±8km, mb4.5/43, Error ellipse: s-maj=7.5km s-min=6.3km az=174.2*
*NEIC* ***26*** *17:55:50.2±0.2, 4.77S×153.43E, mb4.7/21, Error ellipse: s-maj=6.7km s-min=5.1km az=99.0*
*IDC* ***26*** *17:55:50.6±0.5, 4.79S×153.44E, h81km±4km, mb4.0/21, mb1 4.2/24, mb1mx4.1/41, mbtmp4.4/24, MS3.5/4, Ms1 3.6/4, ms1mx3.0/32, Error ellipse: s-maj=13.6km s-min=9.6km az=94.0*

**ISC 26 17:55:50.3±0.5, 4.73S±0.05×153.49E±0.06, h80km±4km, h80:pP-P, n108, σ1§58/123, mb4.5/43, 1D, New Ireland region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RABL** | **Rabaul** | **1.43** | **292** | *e*Pn | **Pn** | **17 56 14.4** | **-0.4** |
| **MANU** | **Manus Island** | **6.67** | **293** | *e*Pn | **Pn** | **17 57 25.6** | **-0.2** |
| **PMG** | **Port Moresby** | **7.81** | **233** | P | **Pn** | **17 57 40.9** | **-0.4** |
| | 25nm,0.3s,baz=45,slow=5.2,SNR=87 | | | | | | |
| PMG | | | | S | **Sn** | **17 59 07.6** | **-0.7** |
| | 34nm,0.3s,baz=154,slow=21,SNR=24 | | | | | | |
| **HNR** | **Honiara** | **7.92** | **126** | *e*P | **Pn** | **17 57 44.0** | **+1.2** |
| HNR | | | | *e*S | **Sn** | **17 59 09.0** | **-2.0** |
| **HNR** | **Honiara** | **7.92** | **126** | P | **Pn** | **17 57 43.6** | **+0.7** |
| | 14nm,0.3s,baz=176,slow=7.2,SNR=8.3 | | | | | | |
| HNR | | | | S | **Sn** | **17 59 11.2** | **+0.2** |
| | 19nm,0.3s,baz=358,slow=24,SNR=5.8 | | | | | | |
| HNR | | | | LR | LR | 18 01 10.3 | |
| | comp=Z,206nm,22.0s,baz=288,slow=40 | | | | | | |
| **PATS** | **Pohnpei** | **12.46** | **23** | P | **Pn** | **17 58 41.9** | **-2.8** |
| | baz=12 | | | | | | |
| **COEN** | **Coen** | **13.69** | **227** | P | **Pn** | **17 59 01.6** | **+0.5** |
| | baz=14,SNR=18 | | | | | | |
| **COEN** | **Coen** | **13.69** | **227** | *e*Pn | **Pn** | **17 59 01.1** | **0.0** |
| **MTSU** | **Mount Surprise** | **16.06** | **213** | P | **Pn** | **17 59 30.7** | **-0.8** |
| | baz=16,SNR=20 | | | | | | |
| **CTA** | **Charters Tower** | **16.81** | **204** | P | **P** | **17 59 41.5** | **-0.2** |
| | 0.5nm,0.3s,baz=26,slow=13,SNR=14 | | | | | | |
| **CTAO** | **Charters Tower** | **16.81** | **204** | *e*Pn | **Pn** | **17 59 41.2** | **+0.4** |
| | 31nm,1.3s | | | | | | |
| **EIDS** | **Eidsvold** | **20.65** | **186** | P | **P** | **18 00 22.8** | **-0.8** |
| | baz=21,SNR=3.6 | | | | | | |
| **EIDS** | **Eidsvold** | **20.65** | **186** | *e*P | **P** | **18 00 23.8** | **+0.1** |
| | 16nm,0.8s | | | | | | |
| **QIS** | **Mount Isa** | **20.73** | **219** | P | **P** | **18 00 24.3** | **-0.3** |
| | baz=21,SNR=32 | | | | | | |
| **FAKI** | **Fak Fak** | **21.27** | **274** | *e*P | **P** | **18 00 29.1** | **-1.3** |
| | 79nm,0.8s | | | | | | |
| **DZM** | **Mont Dzumac** | **21.32** | **145** | P | **P** | **18 00 30.1** | **-0.8** |
| | 14nm,0.7s,baz=333,slow=18,SNR=16 | | | | | | |
| **RMQ** | **Roma** | **22.10** | **191** | P | **P** | **18 00 39.4** | **+0.2** |
| | baz=22,SNR=9.8 | | | | | | |
| **KDU** | **Kakadu** | **22.21** | **248** | P | **P** | **18 00 38.6** | **-1.9** |
| | baz=22,SNR=7.5 | | | | | | |
| **QLP** | **Quilpie** | **23.46** | **201** | P | **P** | **18 00 52.3** | **-0.6** |
| | baz=24,SNR=41 | | | | | | |
| **MTN** | **Manton Dam** | **23.50** | **248** | P | **P** | **18 00 52.2** | **-1.2** |
| | baz=24,SNR=33 | | | | | | |
| **MTN** | **Manton Dam** | **23.50** | **248** | *e*P | **P** | **18 00 52.4** | **-1.0** |
| | 29nm,0.6s | | | | | | |
| **WRAB** | **Tennant Creek** | **24.00** | **229** | *e*P | **P** | **18 00 57.3** | **-0.5** |
| | 39nm,0.6s | | | | | | |
| **WB2** | **Warramunga Arr** | **24.00** | **229** | *e*P | **P** | **18 00 57.2** | **-0.6** |
| | 33nm,0.6s | | | | | | |
| **WR1** | **Warramunga Arr** | **24.01** | **229** | *e*P | **P** | **18 00 57.2** | **-0.7** |
| | 28nm,0.6s | | | | | | |
| WR1 | | | | *e*S | **S** | **18 05 17.9** | **+8.4** |
| WR1 | | | | *e*ScP | **ScP** | **18 08 10.1** | **+0.3** |
| WR1 | | | | *e* | | 18 

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **LZH** | **Lanzhou** | **61.67** | **315** | *e*P | **P** | **18 06 01.0** | **+0.7** |
| LZH | | | | pP | sP | 18 06 25.5 | -4.1 |
| LZH | | | | sP | PcP | 18 06 36.8 | -4.3 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,11nm,0.7s | | | | | | |
| **MA2** | **Magadan** | **64.14** | **358** | P | **P** | **18 06 14.7** | **-1.4** |
| | comp=Z,3.3nm,0.6s,baz=144,slow=14,SNR=2.9 | | | | | | |
| **GTA** | **Gaotai** | **66.08** | **317** | *e*P | **P** | **18 06 32.0** | **+2.8** |
| GTA | | | | pP | pP | 18 06 52.5 | +2.7 |
| GTA | | | | sP | PcP | 18 07 00.8 | +1.7 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.3s | | | | | | |
| **SONA0** | **Songino Array** | **66.64** | **327** | *e*P | **P** | **18 06 32.2** | **-0.4** |
| **SONM** | **Songino Array** | **66.64** | **327** | P | **P** | **18 06 32.2** | **-0.4** |
| | comp=Z,0.9nm,0.5s,baz=138,slow=5.7,SNR=16 | | | | | | |
| **SEY** | **Seymchan** | **67.48** | **359** | P | **P** | **18 06 37.1** | **-0.4** |
| | comp=Z,1.3nm,0.6s,baz=169,slow=9.5,SNR=5.5 | | | | | | |
| **YAK** | **Yakutsk** | **69.05** | **348** | P | **P** | **18 06 48.2** | **+0.9** |
| | comp=Z,2.7nm,0.4s,baz=175,slow=1.1,SNR=2.3 | | | | | | |
| **YAK** | **Yakutsk** | **69.05** | **348** | *e*P | **P** | **18 06 48.2** | **+0.9** |
| | comp=Z,5.2nm,0.5s | | | | | | |
| **TAPN** | **Taplejung** | **70.96** | **301** | *e*P | **P** | **18 06 57.3** | **-2.8** |
| | comp=Z,62nm,1.9s | | | | | | |
| **ODAN** | **Odare** | **71.11** | **300** | *e*P | **P** | **18 07 01.1** | **+0.2** |
| | comp=Z,9.9nm,0.6s | | | | | | |
| **JIRN** | **Jiri** | **72.35** | **301** | *e*P | **P** | **18 07 06.7** | **-1.8** |
| | comp=Z,24nm,0.3s | | | | | | |
| **GUN** | **Gumba** | **72.68** | **301** | *e*P | **P** | **18 07 08.2** | **-2.3** |
| | comp=Z,8.2nm,0.4s | | | | | | |
| **VNDA** | **Vanda** | **72.87** | **178** | P | **P** | **18 07 10.0** | **-0.3** |
| | comp=Z,3.7nm,0.8s,baz=320,slow=6.8,SNR=11 | | | | | | |
| **VNDA** | **Vanda** | **72.87** | **178** | *e*P | **P** | **18 07 09.7** | **-0.6** |
| | comp=Z,4.7nm,0.8s | | | | | | |
| **PKI** | **Pulchoki** | **72.99** | **301** | *e*P | **P** | **18 07 12.1** | **-0.2** |
| | comp=Z,16nm,1.3s | | | | | | |
| **PKIN** | **Phulchoki** | **73.01** | **301** | *e*P | **P** | **18 07 12.2** | **-0.1** |
| | comp=Z,26nm,1.4s | | | | | | |
| **KKN** | **Kakani** | **73.16** | **301** | *e*P | **P** | **18 07 12.1** | **-1.0** |
| | comp=Z,6.5nm,0.5s | | | | | | |
| **DMN** | **Daman** | **73.26** | **301** | *e*P | **P** | **18 07 14.1** | **+0.3** |
| | comp=Z,12nm,0.7s | | | | | | |
| **PYUN** | **Piuthan** | **75.20** | **301** | *e*P | **P** | **18 07 26.4** | **+1.4** |
| | comp=Z,29nm,0.8s | | | | | | |
| **WMQ** | **Urumqi** | **76.16** | **317** | *e*P | **P** | **18 07 30.5** | **+0.5** |
| WMQ | | | | pP | pP | 18 07 54.5 | +3.4 |
| WMQ | | | | sP | sP | 18 08 04.8 | +5.1 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.7s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,560nm,5.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,170nm,15.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,150nm,20.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,160nm,17.3s | | | | | | |
| **MCK** | **McKinley** | **80.54** | **22** | *e*P | **P** | **18 07 53.9** | **+0.3** |
| | comp=Z,13nm,0.9s | | | | | | |
| **MLY** | **Manley** | **80.57** | **21** | *e*P | **P** | **18 07 54.3** | **+0.5** |
| | comp=Z,9.8nm,1.0s | | | | | | |
| **MK01** | **Makanchi Array** | **80.72** | **319** | *e*P | **P** | **18 07 54.8** | **-0.2** |
| **MK31** | **Makanchi Array** | **80.73** | **319** | *e*P | **P** | **18 07 54.7** | **-0.4** |
| **MK32** | **Makanchi Array** | **80.73** | **319** | *e*P | **P** | **18 07 54.9** | **-0.2** |
| **MKAR** | **Makanchi Array** | **80.73** | **319** | P | **P** | **18 07 54.9** | **-0.2** |
| | comp=Z,0.8nm,0.5s,baz=94,slow=7.8,SNR=19 | | | | | | |
| **MKAR** | **Makanchi Array** | **80.73** | **319** | *e*P | **P** | **18 07 54.9** | **-0.2** |
| | comp=Z,22nm,1.2s | | | | | | |
| **MAKZ** | **Makanchi** | **80.94** | **319** | *e*P | **P** | **18 07 56.1** | **-0.1** |
| | comp=Z,3.4nm,0.6s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **81.48** | **326** | P | **P** | **18 07 57.6** | **-1.2** |
| | comp=Z,0.6nm,0.4s,baz=124,slow=5.6,SNR=5.1 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **81.48** | **326** | *e*P | **P** | **18 07 57.6** | **-1.2** |
| **ILAR** | **Eielson Array** | **81.84** | **22** | P | **P** | **18 08 00.7** | **+0.2** |
| | comp=Z,1.2nm,0.6s,baz=244,slow=5.6,SNR=30 | | | | | | |
| ILAR | | | | pP | **pP** | **18 08 21.6** | **-0.2** |
| | comp=Z,3.4nm,0.8s,baz=247,slow=5.7,SNR=12 | | | | | | |
| **ILB** | **Eielson Array** | **81.84** | **22** | *e*P | **P** | **18 08 00.7** | **+0.2** |
| **KSH** | **Kashi** | **83.42** | **311** | P | **P** | **18 08 11.0** | **+1.6** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,60nm,1.7s | | | | | | |
| **AAK** | **Ala-Archa** | **85.12** | **313** | *e*P | **P** | **18 08 18.8** | **+0.8** |
| | comp=Z,3.8nm,0.8s | | | | | | |
| **QSPA** | **South Pole Qui** | **85.23** | **180** | *e*P | **P** | **18 08 17.6** | **-0.4** |
| | comp=Z,9.4nm,1.1s | | | | | | |
| **MAW** | **Mawson** | **85.90** | **203** | P | **P** | **18 08 21.1** | **0.0** |
| | comp=Z,1.9nm,0.5s,baz=102,slow=6.7,SNR=10.0 | | | | | | |
| MAW | | | | pP | **pP** | **18 08 44.5** | **+2.0** |
| | comp=Z,4.7nm,0.6s,baz=107,slow=5.6,SNR=6.5 | | | | | | |
| **MAW** | **Mawson** | **85.90** | **203** | P | **P** | **18 08 19.2** | **-1.9** |
| | baz=86,SNR=4.6 | | | | | | |
| **MAW** | **Mawson** | **85.90** | **203** | *e*P | **P** | **18 08 19.3** | **-1.8** |
| | comp=Z,1.2nm,0.7s | | | | | | |
| MAW | | | | pP | **pP** | **18 08 44.5** | **+2.0** |
| **INK** | **Inuvik** | **88.15** | **21** | P | **P** | **18 08 32.3** | **+0.4** |
| | comp=Z,0.7nm,0.4s,baz=290,slow=4.5,SNR=7.5 | | | | | | |
| **INK** | **Inuvik** | **88.15** | **21** | *e*P | **P** | **18 08 32.3** | **+0.4** |
| | comp=Z,4.9nm,1.2s | | | | | | |
| **NVAR** | **Mina Array Bea** | **91.50** | **52** | P | **P** | **18 08 50.4** | **+1.8** |
| | comp=Z,0.5nm,0.6s,baz=254,slow=6.9,SNR=4.4 | | | | | | |
| NVAR | | | | pP | **pP** | **18 09 12.1** | **+1.9** |
| | comp=Z,1.1nm,0.8s,baz=265,slow=5.1,SNR=4.3 | | | | | | |
| NVAR | | | | LR | LR | 18 43 10.0 | |
| | comp=Z,136nm,20.4s,baz=80,slow=31 | | | | | | |
| **SYO** | **Syowa Base** | **93.96** | **199** | *e*X | P | 18 08 52.6 | -6.4 |
| **YKA** | **Yellowknife Ar** | **95.05** | **28** | P | **P** | **18 09 05.0** | **+1.0** |
| | comp=Z,0.4nm,0.8s,baz=267,slow=4.8,SNR=7.4 | | | | | | |
| YKA | | | | pP | **pP** | **18 09 26.6** | **+0.9** |
| | comp=Z,1.0nm,0.9s,baz=267,slow=4.6,SNR=6.8 | | | | | | |
| **GERES** | **GERESS Array B** | **124.36** | **329** | PKP | **PKPdf** | **18 14 42.6** | **+2.3** |
| | comp=Z,0.2nm,0.6s,baz=110,slow=2.0,SNR=3.6 | | | | | | |
| GERES | | | | pPKP | **pPKPdf** | **18 15 04.3** | **+1.5** |
| | comp=Z,1.0nm,0.7s,baz=48,slow=2.0,SNR=7.5 | | | | | | |
| **LPAZ** | **La Paz** | **133.84** | **118** | PKP | **PKPdf** | **18 15 01.7** | **+1.7** |
| | comp=Z,0.8nm,0.5s,baz=284,slow=4.2,SNR=3.5 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **150.94** | **289** | PKPbc | **PKPbc** | **18 15 33.9** | **-1.1** |
| | comp=Z,1.7nm,0.4s,baz=83,slow=2.0,SNR=19 | | | | | | |
| TORD | | | | pPKPbc | **pPKPbc** | **18 15 57.0** | **-0.4** |
| | comp=Z,6.9nm,0.7s,baz=67,slow=2.6,SNR=13 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **150.94** | **289** | *e*PKPbc | **PKPbc** | **18 15 33.9** | **-1.1** |
| TOA1 | | | | *ep*PKPdf | **pPKPbc** | **18 15 57.0** | **-0.4** |

*ISCJB **26** 17:56:00.0±0.6,37.°98N×0.°04×141.°74E±0.°07,h92km±4km, mb3.8/15,Error ellipse: s-maj=10.0km s-min=5.2km az=23.5*
*NIED **26** 17:56:00,38.°00N×141.°70E,h89km,Mw4.1 Best double couple: M0 1.84000×10^15 NP1:φs 177.00000°,δ47.00000°, λ-57.00000°. NP2:φs 314.00000°,δ52.00000°, λ-120.00000°.*
*IDC **26** 17:56:00.7±1.6,37.°91N×141.°72E,h86km±16km,mb3.6/15, mb1 3.8/22,mb1mx3.7/52,mbtmp4.0/22,MS3.0/2, Ms1 3.0/2,ms1mx2.6/41,Error ellipse: s-maj=16.5km s-min=11.4km az=100.0*
*JMA **26** 17:56:01.6±0.1,38.°01N×141.°63E,h89km±1km,M4.0*
*JMA Felt II J1.*

**ISC 26 17:56:01.1±0.9,38.°00N±0.°05×141.°73E±0.°08,h87km±7km, n45,σ1°s10/53,mb3.8/15,Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JIO** | **Ouri** | **0.55** | **327** | P | **Pn** | **17 56 16.5** | **+0.7** |
| JIO | | | | S | **Sn** | **17 56 27.0** | **+0.2** |
| **JMM** | **Marumori** | **0.75** | **260** | P | **Pn** | **17 56 17.9** | **+0.2** |
| JMM | | | | S | **Sn** | **17 56 29.7** | **-0.5** |
| **JOU** | **Okura** | **0.91** | **294** | P | **Pn** | **17 56 19.6** | **0.0** |
| JOU | | | | S | **Sn** | **17 56 33.5** | **+0.1** |
| **JFK** | **Kawauchi** | **0.92** | **227** | P | **Pn** | **17 56 19.8** | **+0.1** |
| JFK | | | | S | **Sn** | **17 56 33.2** | **-0.4** |
| **JMK** | **Ichinoseki** | **1.03** | **338** | P | **Pn** | **17 56 21.3** | **+0.4** |
| JMK | | | | S | **Sn** | **17 56 35.7** | **-0.1** |
| **JFT** | **Otama** | **1.20** | **247** | P | **Pn** | **17 56 23.1** | **+0.2** |
| JFT | | | | S | **Sn** | **17 56 39.2** | **-0.1** |
| **JYS** | **Shirataka** | **1.33** | **280** | P | **Pn** | **17 56 24.7** | **+0.2** |
| JYS | | | | S | **Sn** | **17 56 42.4** | **+0.2** |
| **JYK** | **Kaneyama** | **1.41** | **311** | P | **Pn** | **17 56 25.7** | **+0.2** |
| JYK | | | | S | **Sn** | **17 56 44.0** | **0.0** |
| **JOM** | **Ohasama** | **1.51** | **347** | P | **Pn** | **17 56 27.0** | **+0.2** |
| JOM | | | | S | **Sn** | **17 56 46.0** | **-0.3** |
| **JRG** | **Rokugo** | **1.64** | **329** | P | **Pn** | **17 56 28.8** | **+0.4** |
| JRG | | | | *e*S | **Sn** | **17 56 49.1** | **-0.1** |
| **JYA** | **Atsumi** | **1.69** | **291** | P | **Pn** | **17 56 29.3** | **+0.2** |
| JYA | | | | S | **Sn** | **17 56 49.8** | **-0.6** |
| **JFY** | **Yanaizu** | **1.71** | **251** | P | **Pn** | **17 56 29.5** | **+0.2** |
| JFY | | | | S | **Sn** | **17 56 50.8** | **0.0** |
| **JNS** | **Sasagawa** | **1.91** | **265** | P | **Pn** | **17 56 32.2** | **+0.2** |
| **JAW** | **Awa shima** | **2.00** | **284** | P | **Pn** | **17 56 33.4** | **+0.2** |
| **MJAR** | **Matsushiro Arr** | **3.16** | **244** | P | **Pn** | **17 56 49.0** | **+0.4** |
| | 20nm,0.3s,baz=53,slow=11,SNR=146 | | | | | | |
| MJAR | | | | S | Sn | 17 57 13.2 | -12 |
| | 10nm,0.3s,baz=4.0,slow=21,SNR=9.1 | | | | | | |
| **MAT** | **Matsushiro** | **3.16** | **244** | P | **Pn** | **17 56 49.3** | **+0.6** |
| MAT | | | | S | **Sn** | **17 57 26.1** | **+0.7** |
| **JHJ** | **Hachijo jima 2** | **5.12** | **199** | P | **Pn** | **17 57 14.8** | **-0.4** |
| | 12nm,0.3s,baz=294,slow=23,SNR=6.2 | | | | | | |
| JHJ | | | | S | **Sn** | **17 58 09.0** | **-4.0** |
| | 50nm,0.3s,baz=87,slow=23,SNR=8.5 | | | | | | |
| **ASAJ** | **Asahikawa** | **6.15** | **6** | P | **Pn** | **17 57 28.2** | **-1.1** |
| | 3.4nm,0.3s,baz=203,slow=11,SNR=34 | | | | | | |
| ASAJ | | | | S | **Sn** | **17 58 33.3** | **-4.8** |
| | 2.9nm,0.3s,baz=145,slow=30,SNR=5.8 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **9.61** | **313** | P | **Pn** | **17 58 17.8** | **+1.4** |
| | 0.5nm,0.3s,baz=115,slow=18,SNR=5.4 | | | | | | |
| **JNU** | **Nakatsue** | **10.08** | **244** | P | **Pn** | **17 58 22.5** | **-0.5** |
| | 0.2nm,0.3s,baz=87,slow=7.4,SNR=4.8 | | | | | | |
| **KSRS** | **Korea Array** | **10.95** | **271** | P | **Pn** | **17 58 36.4** | **+1.8** |
| | 0.2nm,0.3s,baz=92,slow=14,SNR=7.9 | | | | | | |
| KSRS | | | | LR | LR | 18 02 25.2 | |
| | comp=Z,34nm,19.3s,baz=5.0,slow=35 | | | | | | |
| **PETK** | **Petropavlovsk-** | **18.74** | **31** | P | **Pn** | **18 00 14.2** | **+0.1** |
| | 0.1nm,0.3s,baz=212,slow=5.3,SNR=4.0 | | | | | | |
| **YAK** | **Yakutsk** | **25.19** | **347** | P | **P** | **18 01 17.1** | **-1.1** |
| | 5.4nm,0.3s,baz=318,slow=0.8,SNR=5.2 | | | | | | |
| **SEY** | **Seymchan** | **25.80** | **11** | P | **P** | **18 01 23.3** | **-0.3** |
| | 1.2nm,0.8s,baz=193,slow=18,SNR=2.5 | | | | | | |
| **SONM** | **Songino Array** | **27.47** | **302** | P | **P** | **18 01 38.8** | **-0.2** |
| | 2.0nm,0.7s,baz=101,slow=8.6,SNR=15 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.44** | **123** | T | T | 18 32 15.9 | |
| | baz=316,slow=76,SNR=9.6 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.45** | **123** | T | T | 18 32 25.3 | |
| | baz=316,slow=76,SNR=121 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.46** | **123** | T | T | 18 32 18.8 | |
| | baz=316,slow=76,SNR=124 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.19** | **125** | T | T | 18 33 14.8 | |
| | baz=318,slow=76,SNR=56 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.19** | **125** | T | T | 18 33 16.1 | |
| | baz=318,slow=76,SNR=87 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.20** | **125** | T | T | 18 33 24.6 | |
| | baz=318,slow=76,SNR=43 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.46** | **312** | P | **P** | **18 03 40.7** | **+1.7** |
| | 0.6nm,0.5s,baz=77,slow=6.4,SNR=2.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.83** | **301** | P | **P** | **18 03 58.9** | **+0.6** |
| | 1.2nm,0.6s,baz=88,slow=10,SNR=16 | | | | | | |
| **ILAR** | **Eielson Array** | **48.55** | **33** | P | **P** | **18 04 35.5** | **+0.4** |
| | 0.7nm,0.6s,baz=262,slow=6.9,SNR=7.1 | | | | | | |
| **INK** | **Inuvik** | **53.42** | **27** | P | **P** | **18 05 12.3** | **+0.8** |
| | 1.2nm,0.6s,baz=273,slow=4.7,SNR=6.0 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **57.81** | **198** | LR | LR | 18 31 01.2 | |
| | comp=Z,32nm,19.8s,slow=36 | | | | | | |
| **WRA** | **Warramunga Ar** | **58.05** | **188** | P | **P** | **18 05 44.3** | **-0.8** |
| | 1.9nm,0.5s,baz=5.9,slow=7.1,SNR=6.9 | | | | | | |
| **ASAR** | **Alice Springs** | **61.77** | **188** | P | **P** | **18 06 10.0** | **-0.6** |
| | 1.0nm,0.6s,baz=14,slow=7.2,SNR=4.6 | | | | | | |
| **YKA** | **Yellowknife Ar** | **62.85** | **30** | P | **P** | **18 06 17.0** | **-0.3** |
| | 0.4nm,0.7s,baz=299,slow=6.4,SNR=7.2 | | | | | | |
| **AKASG** | **Malin Array Be** | **73.69** | **322** | P | **P** | **18 07 24.3** | **-0.9** |
| | 0.3nm,0.4s,baz=46,slow=6.8,SNR=3.7 | | | | | | |
| **NVAR** | **Mina Array Bea** | **74.22** | **53** | P | **P** | **18 07 30.1** | **+1.3** |
| | 0.7nm,0.6s,baz=288,slow=6.0,SNR=6.5 | | | | | | |
| **PDAR** | **Pinedale Array** | **76.82** | **46** | P | **P** | **18 07 44.1** | **+0.5** |
| | 0.6nm,0.6s,baz=90,slow=0.3,SNR=7.2 | | | | | | |
| **GERES** | **GERESS Array B** | **82.03** | **328** | P | **P** | **18 08 10.4** | **-1.2** |
| | 4.3nm,1.4s,baz=26,slow=4.8,SNR=3.6 | | | | | | |
| **TXAR** | **Lajitas Array** | **89.34** | **53** | P | **P** | **18 08 48.6** | **+0.5** |
| | 0.7nm,0.6s,baz=286,slow=2.9,SNR=11 | | | | | | |
| **LPAZ** | **La Paz** | **145.99** | **59** | PKPbc | **PKPdf** | **18 15 31.1** | **0.0** |
| | 0.6nm,0.5s,baz=270,slow=2.0,SNR=4.0 | | | | | | |

*ISCJB **26** 18:02:23.7±0.6,38.°16N±0.°04×30.°93E±0.°05,h12km±7km, Error ellipse: s-maj=7.3km s-min=6.1km az=26.1*
*CSEM **26** 18:02:23.5±0.3,38.°15N×30.°95E,h10km,MD2.6,Error ellipse: s-maj=7.1km s-min=4.8km az=14.0*
*DDA **26** 18:02:23.8,38.°17N×30.°94E,h7km,Ml2.5*
*ISK **26** 18:02:23.1,38.°16N×30.°95E,h9km,MD2.6*

**ISC 26 18:02:23.8±1.0,38.°17N±0.°04×30.°95E±0.°03,h11km±9km, n16,σ0°s47/26,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BAGO** | **Egridir - ISPA** | **0.22** | **216** | *i* P | **Pg** | **18 02 28.4** | **-0.2** |
| BAGO | | | | *i* S | **Sg** | **18 02 32.2** | **+0.5** |
| **SHUT** | **Suhut-Afyon** | **0.50** | **321** | *e*Pg | **Pg** | **18 02 33.2** | **-0.4** |
| SHUT | | | | *e*SG | **Sg** | **18 02 40.8** | **+0.6** |
| **SHUT** | **Suhut-Afyon** | **0.50** | **321** | *e*Pg | **Pg** | **18 02 33.2** | **-0.4** |
| SHUT | | | | *e*Sg | **Sg** | **18 02 40.8** | **+0.6** |
| **DOGA** | **KONYA_Doganhis** | **0.57** | **96** | *i* P | **Pg** | **18 02 34.6** | **-0.3** |
| DOGA | | | | *i* S | **Sb** | **18 02 44.4** | **+0.5** |
| **DOGA** | **KONYA_Doganhis** | **0.57** | **96** | P | **Pg** | **18 02 34.6** | **-0.3** |
| DOGA | | | | S | **Sb** | **18 02 44.4** | **+0.5** |
| **KZIL** | **AFYON_Kizioren** | **0.65** | **278** | *i* P | **Pb** | **18 02 36.6** | **-0.6** |
| KZIL | | | | *i* S | **Sn** | **18 02 49.4** | **+0.1** |
| **KZIL** | **AFYON_Kizioren** | **0.65** | **278** | P | **Pb** | **18 02 36.6** | **-0.6** |
| **SUTC** | **Sutluce-Ispart** | **0.69** | **177** | *e*PG | **Pg** | **18 02 36.9** | **-0.3** |
| **SUTC** | **Sutluce-Ispart** | **0.69** | **177** | *e*Pg | **Pg** | **18 02 36.9** | **-0.3** |
| **KDHN** | **Kadinhani** | **0.98** | **69** | *i* P | **Pg** | **18 02 42.1** | **-0.6** |
| KDHN | | | | *i* S | **Sn** | **18 02 57.8** | **+0.3** |
| **KDHN** | **Kadinhani** | **0.98** | **69** | P | **Pg** | **18 02 42.1** | **-0.6** |
| KDHN | | | | S | **Sn** | **18 02 57.8** | **+0.3** |
| **KIZT** | **Kizilcal** | **1.02** | **45** | *e*PG | **Pb** | **18 02 43.4** | **-0.1** |
| **KIZT** | **Kizilcal** | **1.02** | **45** | *e*Pg | **Pb** | **18 02 43.4** | **-0.1** |
| **KONT** | **Konya--Tatoy** | **1.13** | **101** | *e*PN | **Pg** | **18 02 44.8** | **-0.8** |
| KONT | | | | *e*SN | **Sn** | **18 03 01.3** | **+0.2** |
| **KONT** | **Konya--Tatoy** | **1.13** | **101** | *i* P | **Pn** | **18 02 45.6** | **0.0** |
| **KONT** | **Konya--Tatoy** | **1.13** | **101** | *e*Pn | **Pg** | **18 02 44.8** | **-0.8** |
| KONT | | | | *e*Sn | **Sn** | **18 03 01.3** | **+0.2** |

*GUC **26** 18:04:02.9±0.6,26.°30S×70.°84W,h50km±4km,ML3.7*
*SJA **26** 18:04:06.3±0.6,26.°28S×70.°73W,h30km,ML3.1,MW3.1*

**ISC 26 18:03:56.9±1.8,26.°31S±0.°03×71.°3W±0.°1,h1km±13km,n17, σ2°s01/23,3C,Off coast of northern Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CDCH** | **Caldera** | **0.85** | **153** | *e*P | **Pn** | **18 04 18.2** | **+2.2** |
| CDCH | | | | *i* S | **Sn** | **18 04 28.5** | **-0.7** |
| **CPCH** | **Copiapo** | **1.32** | **143** | *e*P | **Pg** | **18 04 21.4** | **+1.9** |
| CPCH | | | | *i* S | **Sg** | **18 04 38.6** | **-0.8** |
| **GO03** | **Copiap** | **1.57** | **145** | *e*P | **Pg** | **18 04 27.5** | **+0.4** |
| GO03 | | | | *i* S | **Sb** | **18 04 45.6** | **-1.6** |
| GO03 | | | | IAML | | 18 04 49.0 | |
| | comp=N,1μm,0.2s | | | | | | |
| **PB14** | **IPOC Station P** | **1.84** | **25** | *e*P | **Pg** | **18 04 32.8** | **+0.4** |
| PB14 | | | | *e*S | **Sb** | **18 04 55.3** | **0.0** |
| **PB14** | **IPOC Station P** | **1.84** | **25** | *e*P | **Pg** | **18 04 32.6** | **+0.4** |
| PB14 | | | | *i* S | **Sn** | **18 04 53.9** | **-0.2** |
| PB14 | | | | IAML | | 18 05 02.1 | |
| | comp=E,996nm,0.4s | | | | | | |
| **ANCH** | **Antofagasta** | **2.73** | **17** | *e*P | **Pn** | **18 04 43.5** | **+1.7** |
| **LCO** | **Las Campanas** | **2.74** | **170** | *e*P | **Pb** | **18 04 46.5** | **-0.4** |
| LCO | | | | *e*S | **Sb** | **18 05 20.0** | **-1.0** |
| **LCO** | **Las Campanas** | **2.74** | **170** | ⇑*i*P | **Pb** | **18 04 46.4** | **-0.4** |
| LCO | | | | *i* S | **Sb** | **18 05 19.0** | **-2.0** |
| LCO | | | | IAML | | 18 05 32.0 | |
| | comp=E,247nm,0.3s | | | | | | |
| **PB10** | **IPOC Station P** | **2.85** | **13** | *e*P | **Pb** | **18 04 46.3** | **-2.4** |
| **PB10** | **IPOC Station P** | **2.85** | **13** | ⇑*i*P | **Pb** | **18 04 46.2** | **-2.4** |
| PB10 | | | | IAML | | 18 05 36.4 | |
| | comp=N,572nm,0.4s | | | | | | |
| **VCA** | **Vinchina** | **3.63** | **132** | *e*P | **Pb** | **18 04 59.8** | **-2.2** |
| **PB06** | **IPOC Station P** | **3.90** | **24** | ⇑*i*P | **Pn** | **18 05 00.4** | **+2.2** |
| **AGUA** | **GUANDACOL** | **4.00** | **143** | *e*P | **Pb** | **18 05 05.1** | **-3.2** |
| **FSA** | **Cafayete** | **4.75** | **89** | *e*P | **Pn** | **18 05 13.0** | **+3.2** |
| **AMOG** | **MOGNA** | **5.21** | **153** | *e*P | Pn | 18 05 20.6 | +4.5 |
| **CYA** | **Choya** | **5.29** | **115** | *e*P | **Pn** | **18 05 19.0** | **+1.8** |
| CYA | | | | IAML | | 18 05 22.5 | |
| | comp=Z,14nm,0.3s | | | | | | |
| **AZAP** | **Zapla** | **5.98** | **71** | *e*P | **Pn** | **18 05 29.9** | **+3.1** |

**IDC 26 18:08:30.4±2.5,3.°50N×129.°09E,h0km,mb3.4/3, mb1 3.6/3,mb1mx3.2/38,mbtmp3.4/3,Error ellipse: s-maj=182.7km s-min=24.2km az=70.0,North of Halmahera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **23.86** | **168** | P | P | 18 13 45.1 | -0.5 |
| | 0.4nm,0.4s,baz=344,slow=9.4,SNR=11 | | | | | | |
| **ASAR** | **Alice Springs** | **27.41** | **170** | P | P | 18 14 16.1 | -1.8 |
| | 0.6nm,1.1s,baz=349,slow=8.3,SNR=5.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **59.10** | **324** | P | P | 18 18 34.3 | +1.6 |
| | 0.3nm,0.5s,baz=120,slow=8.4,SNR=6.3 | | | | | | |

*ISK **26** 18:08:50.1,38.°73N×43.°56E,h5km,MD2.8*
*CSEM **26** 18:08:50.7±0.3,38.°72N×43.°63E,h2km,MD2.8,Error ellipse: s-maj=7.2km s-min=4.1km az=77.0*
*DDA **26** 18:08:50.7,38.°72N×43.°62E,h7km,Ml2.9*

**ISC 26 18:08:51.6±1.0,38.°71N±0.°02×43.°58E±0.°04,h10km±9km, n39,σ1°s27/54,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.19** | **231** | *e*PG | **Pg** | **18 08 56.4** | **+0.7** |
| **VANB** | **Van** | **0.19** | **231** | *e*Pg | **Pg** | **18 08 56.4** | **+0.7** |
| **TVAN** | **Van** | **0.23** | **216** | *i* P | **Pg** | **18 08 54.8** | **-1.6** |
| TVAN | | | | *i* S | **Sg** | **18 09 00.8** | **+1.2** |
| **TVAN** | **Van** | **0.23** | **216** | P | **Pg** | **18 08 54.8** | **-1.6** |
| TVAN | | | | S | **Sg** | **18 09 00.8** | **+1.2** |
| **VMUR** | **Van-Muradiye** | **0.28** | **359** | *i* P | **Pg** | **18 08 55.9** | **-1.4** |
| VMUR | | | | *i* S | **Sb** | **18 09 03.4** | **-0.3** |
| **VMUR** | **Van-Muradiye** | **0.28** | **359** | P | **Pg** | **18 08 55.9** | **-1.4** |
| VMUR | | | | S | **Sb** | **18 09 03.4** | **-0.3** |
| **ERCV** | **ERCIS-VAN** | **0.36** | **329** | *e*PG | **Pg** | **18 08 57.9** | **-0.9** |
| **ERCV** | **ERCIS-VAN** | **0.36** | **329** | *e*Pg | **Pg** | **18 08 57.9** | **-0.9** |
| **GEVA** | **Gevas** | **0.57** | **226** | *i* P | **Pg** | **18 09 00.4** | **-2.3** |
| GEVA | | | | *i* S | **Sb** | **18 09 11.8** | **-0.3** |
| **GEVA** | **Gevas** | **0.57** | **226** | P | **Pg** | **18 09 00.4** | **-2.3** |
| GEVA | | | | S | **Sb** | **18 09 11.8** | **-0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.67** | **278** | *i* P | **Pg** | **18 09 04.0** | **-0.7** |
| ADCV | | | | *i* S | **Sb** | **18 09 14.9** | **-0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.67** | **278** | P | **Pg** | **18 09 04.0** | **-0.7** |
| ADCV | | | | S | **Sb** | **18 09 14.9** | **-0.2** |
| **TUTA** | **Tutak** | **0.91** | **319** | *i* P | **Pg** | **18 09 08.1** | **-1.1** |
| TUTA | | | | *i* S | **Sg** | **18 09 21.5** | **+0.5** |
| **TUTA** | **Tutak** | **0.91** | **319** | P | **Pg** | **18 09 08.1** | **-1.1** |
| TUTA | | | | S | **Sg** | **18 09 21.5** | **+0.5** |
| **AGRB** | **Hanur-Agry** | **0.97** | **332** | *e*PG | **Pg** | **18 09 09.2** | **-1.2** |
| AGRB | | | | *e*SG | **Sg** | **18 09 23.7** | **+0.6** |
| **AGRB** | **Hanur-Agry** | **0.97** | **332** | *e*Pg | **Pg** | **18 09 09.2** | **-1.2** |
| AGRB | | | | *e*Sg | **Sg** | **18 09 23.7** | **+0.6** |
| **HAKT** | **HAKKARI** | **1.16** | **175** | *i* P | **Pb** | **18 09 12.5** | **-1.4** |
| **HAKT** | **HAKKARI** | **1.16** | **175** | P | **Pb** | **18 09 12.5** | **-1.4** |
| **YOVA** | **Hakkari_Y˙…kse** | **1.26** | **153** | *i* P | **Pn** | **18 09 14.7** | **-0.8** |
| **YOVA** | **Hakkari_Y˙…kse** | **1.26** | **153** | P | **Pn** | **18 09 14.7** | **-0.8** |
| **EKAR** | **Karacoban** | **1.30** | **295** | *i* P | **Pg** | **18 09 17.0** | **+0.4** |
| **EKAR** | **Karacoban** | **1.30** | **295** | P | **Pg** | **18 09 17.0** | **+0.4** |
| **TASB** | **TASBURUN-IGDIR** | **1.37** | **22** | *e*PN | **Pn** | **18 09 17.3** | **+0.4** |
| **TASB** | **TASBURUN-IGDIR** | **1.37** | **22** | *e*Pn | **Pn** | **18 09 17.3** | **+0.4** |
| **EATA** | **Eleskirt** | **1.42** | **324** | *i* P | **Pn** | **18 09 18.1** | **+0.2** |
| EATA | | | | *i* S | **Sg** | **18 09 38.5** | **+1.0** |
| **EATA** | **Eleskirt** | **1.42** | **324** | P | **Pn** | **18 09 18.1** | **+0.2** |
| EATA | | | | S | **Sg** | **18 09 38.5** | **+1.0** |
| **CUKT** | **Cukurca** | **1.46** | **179** | *e*PN | **Pn** | **18 09 18.6** | **+0.3** |
| **CUKT** | **Cukurca** | **1.46** | **179** | *i* P | **Pg** | **18 09 19.6** | **-0.2** |
| CUKT | | | | *i* S | **Sg** | **18 09 43.8** | **+5.1** |
| **CUKT** | **Cukurca** | **1.46** | **179** | *e*Pn | **Pn** | **18 09 18.6** | **+0.3** |
| **CUKT** | **Cukurca** | **1.46** | **179** | P | **Pg** | **18 09 19.6** | **-0.2** |
| **SRTM** | **Siirt_Merkez** | **1.49** | **241** | *i* P | **Pn** | **

358nm,0.3s
DZM eLR LR 18 34 06.0
2µm,25.8s
**NFK Norfolk Island 7.42 206** P Pn 18 33 25.6 -5.3
baz=7.7,SNR=60
**MSVF Nonsavu 7.57 53** eP **Pn 18 33 31.3 -1.7**
**RAO Raoul Island 11.57 128** LR LR 18 37 07.5
comp=Z,244nm,21.1s,baz=119,slow=27
**URZ Urewera 16.47 165** P **Pn 18 35 27.9 -2.1**
0.4nm,0.3s,baz=358,slow=5.4,SNR=8.8
URZ LR LR 18 39 42.5
comp=Z,88nm,20.1s,baz=349,slow=29
**AFI Afiamalu 17.82 64** LR LR 18 41 16.8
comp=Z,237nm,19.7s,baz=216,slow=32
**EIDS Eidsvold 19.08 257** P **Pn 18 36 02.5 +0.8**
baz=19,SNR=18
**EIDS Eidsvold 19.08 257** eP **Pn 18 36 02.4 +0.8**
56nm,0.9s
**ARMA Armidale 19.64 242** P **Pn 18 36 08.6 +0.3**
baz=20,SNR=16
**ARMA Armidale 19.64 242** eP **Pn 18 36 08.4 +0.1**
25nm,0.8s
**RPZ Rata Peaks 21.26 181** LR LR 18 43 30.5
comp=Z,111nm,20.5s,baz=334,slow=33
**RMQ Roma 21.27 254** P **P 18 36 26.1 +2.8**
baz=22,SNR=92
**CNB Canberra Magne 23.34 232** P **P 18 36 46.1 +1.7**
baz=24,SNR=12
**CAN Canberra 23.61 232** eP **P 18 36 48.9 +2.1**
28nm,1.0s
**YNG Young 23.62 235** P **P 18 36 49.0 +2.1**
baz=24,SNR=14
**CTA Charters Tower 23.82 271** P **P 18 36 48.0 -0.7**
2.5nm,0.6s,baz=79,slow=16,SNR=2.7
CTA LR LR 18 45 41.5
comp=Z,217nm,21.7s,baz=64,slow=35
**CTAO Charters Tower 23.82 271** eP **P 18 36 47.9 -0.9**
70nm,2.0s
**CMSA Cobar Meteorol 24.85 243** P **P 18 36 59.2 +1.2**
baz=25,SNR=50
**QLP Quilpie 25.31 255** P **P 18 37 03.4 +1.1**
baz=26,SNR=22
**MTSU Mount Surprise 26.02 274** P **P 18 37 10.6 +1.9**
baz=26,SNR=31
**RAR Rarotonga 26.50 93** LR LR 18 46 04.1
comp=Z,58nm,18.6s,baz=274,slow=32
**PMG Port Moresby 26.85 295** P **P 18 37 15.9 -0.3**
5.6nm,0.6s,baz=108,slow=6.4,SNR=3.9
PMG LR LR 18 45 50.8
comp=Z,135nm,21.2s,baz=127,slow=32
**STKA Stephens Creek 28.32 244** P **P 18 37 30.6 +1.3**
9.3nm,0.7s,baz=90,slow=12,SNR=25
STKA LR LR 18 47 49.3
comp=Z,111nm,21.3s,baz=57,slow=34
**STKA Stephens Creek 28.32 244** P **P 18 37 30.6 +1.3**
baz=29,SNR=14
**STKA Stephens Creek 28.32 244** eP **P 18 37 30.4 +1.2**
3.1nm,0.9s
**ARPS Mount Arapiles 29.50 234** P **P 18 37 40.7 +1.1**
baz=30,SNR=6.0
**BBOO Buckleboo 33.10 244** P **P 18 38 12.2 +0.9**
baz=33,SNR=7.3
**BBOO Buckleboo 33.10 244** eP **P 18 38 12.3 +0.9**
39nm,1.0s
**AS01 Alice Springs 34.69 260** eP **P 18 38 25.6 +0.4**
**AS31 Alice Springs 34.73 260** eP **P 18 38 25.3 -0.3**
2.8nm,0.9s
**ASAR Alice Springs 34.74 260** P **P 18 38 25.9 +0.3**
5.9nm,0.8s,baz=89,slow=8.9,SNR=44
ASAR LR LR 18 52 57.5
comp=Z,120nm,19.7s,baz=119,slow=37
**WB2 Warramunga Arr 34.85 267** eP **P 18 38 25.7 -0.9**
**WRAB Tennant Creek 34.86 267** eP **P 18 38 26.1 -0.6**
31nm,1.9s
**WR1 Warramunga Arr 34.86 267** eP **P 18 38 26.2 -0.5**
30nm,1.9s
**WRA Warramunga Arr 34.87 267** P **P 18 38 26.2 -0.5**
1.8nm,0.6s,baz=102,slow=8.5,SNR=58
**PPT2 Papeete2 36.64 90** eS **S 18 44 17.9 +0.3**
58nm,26.8s
PPT2 eLR LR 18 48 17.7
210nm,27.8s,baz=252
**PPT Papeete 36.64 90** LR LR 18 49 08.4
comp=Z,110nm,20.8s,baz=186,slow=28
**WRKA Warakurna 39.70 257** P **P 18 39 08.3 +0.8**
baz=40,SNR=9.9
**FORT Forrest 39.70 248** P **P 18 39 08.3 +0.9**
baz=40,SNR=14
**FORT Forrest 39.70 248** eP **P 18 39 07.7 +0.3**
196nm,0.8s
**MTN Manton Dam 39.70 277** P **P 18 39 08.3 +0.7**
baz=40,SNR=3.8
**H11S2 WAKE ISLAND Hy 40.94 353** T T 19 23 11.2
baz=171,slow=76,SNR=13
**H11S3 WAKE ISLAND Hy 40.95 353** T T 19 23 11.7
baz=171,slow=76,SNR=13
**H11S1 WAKE ISLAND Hy 40.96 353** T T 19 23 09.1
baz=171,slow=76,SNR=13
**FITZ Fitzroy Crossi 43.30 267** LR LR 18 58 03.2
comp=Z,80nm,19.0s,baz=132,slow=37
**FITZ Fitzroy Crossi 43.30 267** P **P 18 39 38.2 +1.3**
baz=44,SNR=12
**MEEK Meekatharra 48.20 254** P **P 18 40 16.0 +0.5**
baz=48,SNR=5.0
**KLBR Kellerberrin 48.52 247** P **P 18 40 18.1 +0.3**
baz=49,SNR=5.9
**NWAO Narrogin (SRO) 48.90 245** P **P 18 40 21.1 +0.4**
14nm,1.0s,baz=345,slow=8.1,SNR=4.0
**BLDU Balliduu 49.47 248** P **P 18 40 25.2 +0.1**
baz=50,SNR=6.8
**MORW Morawa 50.19 250** P **P 18 40 31.0 +0.4**
baz=50,SNR=5.4
**VNDA Vanda 55.37 183** LR LR 19 01 00.2
comp=Z,81nm,19.6s,baz=291,slow=32
**QSPA South Pole Qui 67.66 180** eP **P 18 42 30.2 -0.7**
6.8nm,1.2s
**KSRS Korea Array 72.41 325** P **P 18 43 01.7 +1.6**
1.1nm,0.8s,baz=159,slow=4.7,SNR=3.4
**KSAR Wonju Array Be 72.42 325** P **P 18 43 01.7 +1.5**
**NJ2 Nanjing 74.07 315** eP P 18 43 02.5 -7.5
NJ2 pmax pmax
comp=Z,18nm,0.8s
**PETK Petropavlovsk- 76.18 351** P **P 18 43 22.9 +1.4**
1.5nm,0.5s,baz=190,slow=7.2,SNR=4.8
**GYA Guiyang 79.50 304** eP P 18 43 35.0 -5.8
GYA pmax pmax
comp=Z,10.0nm,0.8s
**BJI Beijing 80.83 320** P P 18 43 39.5 -8.0
BJI pmax pmax
comp=Z,5.0nm,1.2s
**KMI Kunming 81.88 301** P P 18 43 47.8 -5.9
KMI pmax pmax
comp=Z,7.0nm,0.9s
**HHC Hu-ho-hao-te 84.11 319** eP P 18 43 57.5 -7.1
HHC pmax pmax
comp=Z,11nm,1.3s
**LZH Lanzhou 86.54 311** eP P 18 44 10.5 -6.4
LZH pP PcP 18 44 15.8 -3.4
LZH sP pP 18 44 17.5 -27
LZH pmax pmax
comp=Z,12nm,0.7s
**NVAR Mina Array Bea 89.20 48** P **P 18 44 30.4 +0.8**
0.7nm,0.6s,baz=224,slow=8.3,SNR=6.2
NVAR pP **pP 18 44 57.6 +0.4**
0.6nm,0.5s,baz=223,slow=7.3,SNR=2.1
NVAR LR LR 19 16 40.0
comp=Z,70nm,19.9s,baz=262,slow=30
**SONM Songino Array 91.12 322** pP **pP 18 45 04.5 -1.2**
1.0nm,0.9s,baz=116,slow=3.4,SNR=4.3
SONM LR LR 19 26 46.9
comp=Z,36nm,18.8s,baz=278,slow=36
**ILAR Eielson Array 92.58 16** P **P 18 44 44.1 -0.3**
0.3nm,0.6s,baz=237,slow=5.3,SNR=4.0
ILAR pP **pP 18 45 11.5 -0.5**
0.6nm,0.8s,baz=232,slow=4.6,SNR=3.8
ILAR LR LR 19 24 26.5
comp=Z,43nm,18.0s,baz=238,slow=34
**TXAR Lajitas Array 96.27 61** LR LR 19 20 06.3
comp=Z,56nm,21.2s,baz=0.0,slow=30
**PDAR Pinedale Array 97.09 47** LR LR 19 19 24.6
comp=Z,46nm,21.8s,baz=306,slow=29
**KSH Kashi 108.16 306** ePdif **Pdif 18 45 52.3 -2.8**
KSH PP **PP 18 50 27.8 +1.6**
KSH S **Sdif 18 57 58.5 +5.8**
KSH SS SS 19 05 41.5 +8.9
KSH LR LR
comp=Z,100nm,4.3s
**GERES GERESS Array B 148.35 332** PKPbc **PKPab 18 51 20.1 -2.8**
0.6nm,0.7s,baz=79,slow=2.1,SNR=5.3
GERES pPKPbc **pPKPbc 18 51 47.2 -0.7**
1.0nm,0.7s,baz=37,slow=3.3,SNR=4.6
**TORD Torodi Ar. Bea 166.76 228** PKPab **PKPab 18 52 42.9 +0.3**
1.5nm,0.9s,baz=126,slow=3.7,SNR=7.1

*JMA **26** 18:36:10.8±0.1, 23.52N×121.62E, h33km±2km, M2.9*
*ISCJB **26** 18:36:12.0±0.4, 23.54N±0.02×121.63E±0.02, h29km±2km,*
*Error ellipse: s-maj=4.0km s-min=2.3km az=41.8*
*TAP **26** 18:36:12.5, 23.57N×121.55E, h25km, ML3.3, D*
**ISC 26 18:36:12.1±0.9, 23.55N±0.02×121.59E±0.03, h31km±6km, n47, σ0.963/92, 1C, Taiwan**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **TEGC** | **Jichi Village** | **0.16** | **344** | P | | **Pn** | **18 36 19.0** | **+0.5** |
| | baz=357 | | | | | | | |
| TEGC | | | | S | | **Sb** | **18 36 24.0** | **+1.9** |
| | baz=357 | | | | | | | |
| **EHY** | **Hungye** | **0.25** | **259** | *i* P | | **Pb** | **18 36 18.6** | **-0.4** |
| | baz=252 | | | | | | | |
| EHY | | | | *i* S | | **Sb** | **18 36 23.2** | **-0.5** |
| | baz=252 | | | | | | | |
| **ESL** | **Shilin** | **0.30** | **331** | ⇑*i* P | | **Pb** | **18 36 19.2** | **-0.5** |
| | baz=336 | | | | | | | |
| ESL | | | | *i* S | | **Sb** | **18 36 24.4** | **-0.4** |
| | baz=336 | | | | | | | |
| **ESF** | **Shoufeng Towns** | **0.33** | **346** | *e*P | | **Pn** | **18 36 20.8** | **+0.1** |
| | baz=351 | | | | | | | |
| ESF | | | | *e*S | | **Sn** | **18 36 26.1** | **-0.3** |
| | baz=351 | | | | | | | |
| **HWA** | **Hwalien** | **0.42** | **2** | P | | **Pn** | **18 36 22.0** | **0.0** |
| | baz=7.0 | | | | | | | |
| HWA | | | | *e*S | | **Sn** | **18 36 28.6** | **-0.1** |
| | baz=7.0 | | | | | | | |
| **TWD** | **Chiawan** | **0.53** | **1** | P | | **Pb** | **18 36 22.8** | **-0.2** |
| | baz=5.0 | | | | | | | |
| TWD | | | | S | | **Sn** | **18 36 31.2** | **-0.1** |
| | baz=5.0 | | | | | | | |
| **YUS** | **Yu-Shan** | **0.59** | **264** | *i* P | | **Pn** | **18 36 24.1** | **-0.6** |
| | baz=261 | | | | | | | |
| YUS | | | | *i* S | | **Sb** | **18 36 32.1** | **-0.6** |
| | baz=261 | | | | | | | |
| **ELDTW** | **Lidau** | **0.64** | **236** | P | | **Pb** | **18 36 23.8** | **-1.1** |
| | baz=231 | | | | | | | |
| ELDTW | | | | S | | **Sb** | **18 36 32.1** | **-1.5** |
| | baz=231 | | | | | | | |
| **WHF** | **Hehuan Shan** | **0.66** | **333** | P | | **Pb** | **18 36 24.6** | **-0.8** |
| | baz=335 | | | | | | | |
| WHF | | | | *i* S | | **Sb** | **18 36 33.7** | **-0.9** |
| | baz=335 | | | | | | | |
| **ALS** | **Alishan** | **0.72** | **267** | P | | **Pn** | **18 36 26.3** | **-0.1** |
| | baz=264 | | | | | | | |
| ALS | | | | S | | **Sn** | **18 36 36.0** | **-0.6** |
| | baz=264 | | | | | | | |
| **TYC** | **Yuchr** | **0.76** | **298** | *i* P | | **Pb** | **18 36 26.2** | **-0.6** |
| | baz=297 | | | | | | | |
| TYC | | | | *i* S | | **Sn** | **18 36 37.1** | **+0.1** |
| | baz=297 | | | | | | | |
| **TWT** | **Tachien** | **0.79** | **332** | *i* P | | **Pn** | **18 36 27.4** | **+0.1** |
| | baz=332 | | | | | | | |
| TWT | | | | *i* S | | **Sb** | **18 36 37.1** | **-1.0** |
| | baz=332 | | | | | | | |
| **CHN5** | **Tsauling** | **0.84** | **273** | *i* P | | **Pb** | **18 36 28.4** | **+0.2** |
| | baz=271 | | | | | | | |
| CHN5 | | | | S | | **Sn** | **18 36 39.8** | **+0.6** |
| | baz=271 | | | | | | | |
| **STYT** | **Tauyuan** | **0.86** | **243** | P | | **Pb** | **18 36 27.9** | **-0.6** |
| | baz=240 | | | | | | | |
| STYT | | | | S | | **Sn** | **18 36 39.4** | **-0.2** |
| | baz=240 | | | | | | | |
| **TWG** | **Pinlang** | **0.87** | **213** | *e*P | | **Pb** | **18 36 28.4** | **-0.3** |
| | baz=210 | | | | | | | |
| TWG | | | | *e*S | | **Sn** | **18 36 41.0** | **+1.1** |
| | baz=210 | | | | | | | |
| **ENA** | **Nanau** | **0.88** | **9** | *e*P | | **Pb** | **18 36 28.5** | **-0.4** |
| | baz=11 | | | | | | | |
| ENA | | | | *e*S | | **Sn** | **18 36 41.8** | **+1.6** |
| | baz=11 | | | | | | | |
| **WNT** | **Mingjian** | **0.89** | **292** | *e*P | | **Pb** | **18 36 29.1** | **+0.1** |
| | baz=291 | | | | | | | |
| WNT | | | | *e*S | | **Sn** | **18 36 40.9** | **+0.6** |
| | baz=291 | | | | | | | |
| **NNS** | **Nan Shan** | **0.91** | **347** | *e*P | | **Pb** | **18 36 29.3** | **-0.1** |
| | baz=349 | | | | | | | |
| NNS | | | | *e*S | | **Sb** | **18 36 40.8** | **-0.4** |
| | baz=349 | | | | | | | |
| **CHN4** | **Tsaushan** | **0.94** | **258** | *i* P | | **Pb** | **18 36 30.2** | **+0.4** |
| | baz=256 | | | | | | | |
| CHN4 | | | | S | | **Sb** | **18 36 43.0** | **+1.1** |
| | baz=256 | | | | | | | |
| **WTP** | **Ta-pu** | **0.95** | **251** | P | | **Pb** | **18 36 29.8** | **-0.2** |
| | baz=249 | | | | | | | |
| WTP | | | | S | | **Sb** | **18 36 42.9** | **+0.6** |
| | baz=249 | | | | | | | |
| **WGK** | **Gukeng** | **0.95** | **278** | P | | **Pb** | **18 36 30.0** | **-0.1** |
| | baz=277 | | | | | | | |
| WGK | | | | *e*S | | **Sb** | **18 36 42.6** | **+0.3** |
| | baz=277 | | | | | | | |
| **CHN2** | **Minshiung** | **1.02** | **269** | *e*P | | **Pb** | **18 36 31.3** | **+0.1** |
| | baz=267 | | | | | | | |
| CHN2 | | | | *e*S | | **Sb** | **18 36 45.0** | **+0.6** |
| | baz=267 | | | | | | | |
| **TCU** | **Taichung** | **1.03** | **305** | *e*P | | **Pb** | **18 36 31.5** | **+0.2** |
| | baz=305 | | | | | | | |
| TCU | | | | *e*S | | **Sb** | **18 36 44.0** | **-0.4** |
| | baz=305 | | | | | | | |
| **SGST** | **Jiashian** | **1.04** | **243** | P | | **Pb** | **18 36 31.2** | **-0.3** |
| | baz=241 | | | | | | | |
| SGST | | | | S | | **Sb** | **18 36 45.4** | **+0.6** |
| | baz=241 | | | | | | | |
| **CHN1** | **Nanshi** | **1.04** | **250** | *e*P | | **Pb** | **18 36 32.0** | **+0.4** |
| | baz=247 | | | | | | | |
| CHN1 | | | | S | | **Sb** | **18 36 46.0** | **+1.0** |
| | baz=247 | | | | | | | |
| **TWK** | **Hsinying** | **1.05** | **255** | *e*P | | **Pb** | **18 36 31.9** | **+0.1** |
| | baz=252 | | | | | | | |
| TWK | | | | S | | **Sb** | **18 36 45.9** | **+0.6** |
| | baz=252 | | | | | | | |
| **CHY** | **Chiayi** | **1.07** | **267** | *e*P | | **Pb** | **18 36 32.1** | **+0.1** |
| | baz=265 | | | | | | | |
| CHY | | | | *e*S | | **Sb** | **18 36 45.9** | **+0.1** |
| | baz=265 | | | | | | | |
| **TWC** | **Suao** | **1.08** | **13** | *e*P | | **Pb** | **18 36 32.4** | **+0.2** |
| | baz=15 | | | | | | | |
| TWC | | | | *e*S | | **Sb** | **18 36 46.9** | **+0.9** |
| | baz=15 | | | | | | | |
| **ENTT** | **Nioudou** | **1.08** | **359** | *e*P | | **Pn** | **18 36 31.2** | **0.0** |
| ENTT | | | | *e*S | | **Sn** | **18 36 45.2** | **+0.1** |
| **TWQ1** | **Liyutan** | **1.09** | **317** | P | | **Pb** | **18 36 32.6** | **+0.3** |
| | baz=317 | | | | | | | |
| TWQ1 | | | | *e*S | | **Sb** | **18 36 47.5** | **+1.2** |
| | baz=317 | | | | | | | |
| **ECL** | **Taimali** | **1.12** | **212** | *e*P | | **Pn** | **18 36 31.3** | **-0.3** |
| | baz=209 | | | | | | | |
| ECL | | | | *e*S | | **Sb** | **18 36 47.6** | **+0.6** |
| | baz=209 | | | | | | | |
| **NSK** | **Sanguang** | **1.14** | **349** | *e*P | | **Pb** | **18 36 32.4** | **-0.9** |
| | baz=351 | | | | | | | |
| NSK | | | | *e*S | | **Sn** | **18 36 46.2** | **-0.4** |
| | baz=351 | | | | | | | |
| **NSY** | **Sanyi** | **1.15** | **319** | *e*P | | **Pb** | **18 36 33.3** | **-0.1** |
| | baz=319 | | | | | | | |
| NSY | | | | *e*S | | **Sb** | **18 36 47.3** | **-0.6** |
| | baz=319 | | | | | | | |
| **TWE** | **Neicheng** | **1.17** | **3** | *e*P | | **Pn** | **18 36 32.5** | **+0.2** |
| | baz=5.0 | | | | | | | |
| TWE | | | | *e*S | | **Sb** | **18 36 48.1** | **-0.3** |
| | baz=5.0 | | | | | | | |
| **SSD** | **Sandimen** | **1.19** | **228** | *e*P | | **Pn** | **18 36 32.9** | **+0.2** |
| | baz=225 | | | | | | | |
| SSD | | | | *e*S | | **Sb** | **18 36 49.8** | **+0.6** |
| | baz=225 | | | | | | | |
| **NSTT** | **Nanjuang** | **1.20** | **333** | *e*P | | **Pb** | **18 36 33.7** | **-0.6** |
| | baz=334 | | | | | | | |
| NSTT | | | | *e*S | | **Sb** | **18 36 49.5** | **0.0** |
| | baz=334 | | | | | | | |
| **WTCT** | **Ta-ch'eng** | **1.24** | **285** | *e*P | | **Pb** | **18 36 34.2** | **-0.7** |
| | baz=284 | | | | | | | |
| WTCT | | | | *e*S | | **Sb** | **18 36 50.0** | **-0.5** |
| | baz=284 | | | | | | | |
| **WSF** | **Szhu** | **1.26** | **274** | *e*P | | **Pb** | **18 36 34.2** | **-1.0** |
| | baz=273 | | | | | | | |
| WSF | | | | *e*S | | **Sb** | **18 36 50.9** | **-0.2** |
| | baz=273 | | | | | | | |
| **CHN8** | **Yiju** | **1.28** | **261** | *e*P | | **Pb** | **18 36 35.1** | **-0.5** |
| | baz=259 | | | | | | | |
| CHN8 | | | | *e*S | | **Sb** | **18 36 51.5** | **-0.3** |
| | baz=259 | | | | | | | |
| **TWM1** | **Shoushan** | **1.30** | **236** | *e*P | | **Pb** | **18 36 35.4** | **-0.5** |
| | baz=234 | | | | | | | |
| TWM1 | | | | *e*S | | **Sb** | **18 36 51.2** | **-1.0** |
| | baz=234 | | | | | | | |
| **SCZT** | **Fangliau** | **1.48** | **217** | *e*P | | **Pb** | **18 36 38.4** | **-0.5** |
| | baz=215 | | | | | | | |
| SCZT | | | | *e*S | | **Sn** | **18 36 55.3** | **+0.5** |
| | baz=215 | | | | | | | |
| **NWF** | **Wu-fen Shan** | **1.52** | **7** | *e*P | | **Pn** | **18 36 38.2** | **+0.9** |
| | baz=7.0 | | | | | | | |
| NWF | | | | *e*S | | **Sb** | **18 36 58.3** | **-0.4** |
| | baz=7.0 | | | | | | | |
| **JYNG** | **Yonagunijimaku** | **1.53** | **54** | S | | **Sn** | **18 36 56.9** | **+0.8** |
| **PNG** | **Penghu** | **1.87** | **271** | *e*P | | **Pn** | **18 36 42.4** | **+0.5** |
| | baz=269 | | | | | | | |
| PNG | | | | S | | **Sn** | **18 37 05.0** | **+0.5** |
| | baz=269 | | | | | | | |
| **JKRS** | **Kuro-shima** | **2.32** | **72** | *e*S | | **Sn** | **18 37 15.4** | **-0.1** |
| **JIJ** | **Ishigaki jima** | **2.47** | **70** | P | | **Pn** | **18 36 50.6** | **+0.4** |
| JIJ | | | | S | | **Sn** | **18 37 18.5** | **-0.8** |
| **JISG** | **Ishigakijimahi** | **2.69** | **67** | P | | **Pn** | **18 36 53.2** | **0.0** |
| JISG | | | | *e*S | | **Sn** | **18 37 24.0** | **-0.8** |

**IDC 26 18:37:21.5±6.9, 55.57S×130.41W, h0km, mb4.0/2, mb1 4.2/2, mb1mx3.7/27, mbtmp4.0/2, Error ellipse: s-maj=699.8km s-min=117.3km az=152.0, Pacific-Antarctic Ridge**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **ASAR** | **Alice Springs** | **73.93** | **252** | P | | P | 18 48 58.6 | +0.2 |
| | 1.2nm,0.8s,baz=144,slow=7.5,SNR=13 | | | | | | | |
| **WRA** | **Warramunga Arr** | **76.70** | **254** | P | | P | 18 49 14.5 | 0.0 |
| | 0.8nm,0.6s,baz=140,slow=5.5,SNR=16 | | | | | | | |
| **SONM** | **Songino Array** | **144.86** | **282** | PKP | | PKPab | 18 56 58.6 | -0.1 |
| | 0.9nm,0.6s,baz=151,slow=3.7,SNR=6.6 | | | | | | | |

*ISCJB **26** 18:40:55.8±0.3, 51.52N±0.02×16.13E±0.02, h0km, Error ellipse: s-maj=2.4km s-min=1.8km az=5.9*
*LDG **26** 18:40:55.6±0.4, 51.61N×16.25E, h1km, Ml3.5/3, Error ellipse: s-maj=10.6km s-min=4.8km az=26.0, Suspected Mining induced.*
*MOS **26** 18:40:56.4±0.9, 51.61N×16.15E, h8km, mb4.0/1, Error ellipse: s-maj=11.0km s-min=5.8km az=86.7*
*CSEM **26** 18:40:57.6±0.1, 51.53N×16.13E, h2km, ML3.7/18, Error ellipse: s-maj=3.0km s-min=2.0km az=6.0*
*IPEC **26** 18:40:57.0±0.3, 51.59N×16.23E, h0km, ML3.0/3, Error ellipse: s-maj=3.2km s-min=1.7km az=66.0*
*WAR **26** 18:40:58.8, 51.52N×16.11E, h1km, Mw2.9*
*BGR **26** 18:40:59.0±0.3, 51.51N×16.12E, h1km, ML3.3/16, Error ellipse: s-maj=4.4km s-min=2.2km az=11.0*
*IDC **26** 18:40:59.6±1.0, 51.47N×16.06E, h0km, mb1 3.6/4, mb1mx3.2/35, mbtmp3.4/4, ML3.0/4, Error ellipse: s-maj=16.8km s-min=8.1km az=136.0*
*UPP **26** 18:41:03.0±3.1, 51.90N×15.86E, h0km, ML2.2*
**ISC 26 18:40:57.1±0.6, 51.58N±0.02×16.15E±0.02, h0km, n154, σ1.319/256, 4C-25D, Poland**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **KSP** | **Ksiaz** | **0.75** | **173** | *i* Pg | | **Pg** | **18 41 11.7** | **+0.3** |
| KSP | | | | *e*Sg | | **Sg** | **18 41 20.7** | **-0.4** |
| **KSP** | **Ksiaz** | **0.75** | **173** | ⇓*i* P | | **Pg** | **18 41 11.7** | **+0.3** |
| KSP | | | | *e* | | | 18 41 20.7 | |
| **KSP** | **Ksiaz** | **0.75** | **173** | *e*Pg | | **Pg** | **18 41 11.8** | **+0.3** |
| KSP | | | | *e*Sg | | **Sg** | **18 41 20.9** | **-0.2** |
| **KSP** | **Ksiaz** | **0.75** | **173** | *i* Pg | | **Pg** | **18 41 11.7** | **+0.3** |
| KSP | | | | *e*Sg | | **Sg** | **18 41 20.7** | **-0.4** |
| **KSP** | **Ksiaz** | **0.75** | **173** | *i* Pg | | **Pg** | **18 41 11.7** | **+0.3** |
| KSP | | | | *e*Sg | | **Sg** | **18 41 20.7** | **-0.4** |
| **UPC** | **Upice** | **1.08** | **185** | ⇓*i*PG | | **Pg** | **18 41 17.7** | **-0.1** |
| UPC | | | | *e*SG | | **Sg** | **18 41 31.3** | **-0.5** |
| | comp=Z,181nm,0.4s | | | | | | | |
| **UPC** | **Upice** | **1.08** | **185** | ⇓*i* P | | **Pg** | **18 41 17.7** | **-0.1** |
| UPC | | | | *e* | | | 18 41 31.3 | |
| UPC | | | | smax | | smax | | |
| | comp=N,181nm,0.4s | | | | | | | |
| **UPC** | **Upice** | **1.08** | **185** | Pg | | **Pg** | **18 41 17.7** | **-0.1** |
| UPC | | | | Sg | | **Sg** | **18 41 31.3** | **-0.5** |
| | comp=N,181nm,0.4s | | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.24** | **175** | ⇓*i*PG | | **Pg** | **18 41 20.5** | **-0.3** |
| DPC | | | | *e*SG | | **Sg** | **18 41 35.8** | **-1.1** |
| | comp=N,76nm,0.3s | | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.24** | **175** | ⇓*i* P | | **Pg** | **18 41 20.5** | **-0.3** |
| DPC | | | | *e* | | | 18 41 35.8 | |
| DPC | | | | smax | | smax | | |
| | comp=N,76nm,0.3s | | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.24** | **175** | *e*Pg | | **Pg** | **18 41 20.5** | **-0.3** |
| DPC | | | | *e*Sg | | **Sg** | **18 41 36.2** | **-0.7** |
| **DPC** | **Dobruska-Polom** | **1.24** | **175** | *i* P | | **Pg** | **18 41 20.5** | **-0.3** |
| | comp=N,76nm,0.3s | | | | | | | |
| DPC | | | | Sg | | **Sg** | **18 41 35.8** | **-1.1** |
| | comp=N,76nm,0.3s | | | | | | | |
| **PVCC** | **Panska Ves** | **1.45** | **224** | ⇓*i*PG | | **Pn** | **18 41 24.3** | **-0.3** |
| PVCC | | | | *e*SG | | **Sg** | **18 41 43.6** | **-0.1** |
| | comp=N,205nm,0.3s | | | | | | | |
| **PVCC** | **Panska Ves** | **1.45** | **224** | ⇓*i* P | | **Pn** | **18 41 24.3** | **-0.3** |
| PVCC | | | | *e* | | | 18 41 43.6 | |
| PVCC | | | | smax | | smax | | |
| | comp=N,205nm,0.3s | | | | | | | |
| **PVCC** | **Panska Ves** | **1.45** | **224** | Pg | | **Pn** | **18 41 24.3** | **-0.3** |
| PVCC | | | | Sg | | **Sg** | **18 41 43.6** | **-0.1** |
| | comp=N,205nm,0.3s | | | | | | | |
| **BRG** | **Berggiesshubel** | **1.56** | **244** | PN | | **Pn** | **18 41 25.3** | **-0.8** |
| BRG | | | | PG | | **Pg** | **18 41 27.2** | **+0.2** |
| BRG | | | | SG | | **Sg** | **18 41 47.2** | **+0.1** |
| | comp=N,211nm,0.4s | | | | | | | |
| **BRG** | **Berggiesshubel** | **1.56** | **244** | P | | **Pn** | **18 41 25.3** | **-0.8** |
| BRG | | | | | | | 18 41 47.2 | |
| BRG | | | | smax | | smax | | |
| | comp=N,211nm,0.4s | | | | | | | |
| **BRG** | **Berggiesshubel** | **1.56** | **244** | *e*Pn | | **Pn** | **18 41 25.3** | **-0.8** |
| BRG | | | | *e*Pg | | **Pg** | **18 41 26.9** | **0.0** |
| BRG | | | | *e*Sg | | **Sg** | **18 41 47.4** | **+0.2** |
| **BRG** | **Berggiesshubel** | **1.56** | **244** | Pn | | **Pn** | **18 41 25.3** | **-0.8** |
| **KRLC** | **Kraliky** | **1.56** | **165** | ⇓*i*PG | | **Pn** | **18 41 26.4** | **+0.2** |
| KRLC | | | | *e*SG | | **Sn** | **18 41 46.6** | **-0.5** |
| | comp=N,25nm,0.3s | | | | | | | |
| **KRLC** | **Kraliky** | **1.56** | **165** | ⇓*i* P | | **Pn** | **18 41 26.4** | **+0.2** |
| KRLC | | | | *e* | | | 18 41 46.6 | |
| KRLC | | | | smax | | smax | | |
| | comp=N,25nm,0.3s | | | | | | | |
| **KRLC** | **Kraliky** | **1.56** | **165** | Pg | | **Pn** | **18 41 26.4** | **+0.2** |
| KRLC | | | | Sg | | **Sn** | **18 41 46.6** | **-0.5** |
| | comp=N,25nm,0.3s | | | | | | | |
| **FBE** | **Freiberg** | **1.88** | **250** | *e*Pg | | **Pg** | **18 41 33.0** | **0.0** |
| FBE | | | | *e*Sg | | **Sg** | **18 41 57.2** | **-0.2** |
| **FBE** | **Freiberg** | **1.88** | **250** | Pg | | **Pg** | **18 41 33.0** | **0.0** |
| FBE | | | | Sg | | **Sg** | **18 41 57.2** | **-0.2** |
| **GOPC** | **GO Pecny, Ondr** | **1.88** | **208** | ⇓*e*PN | | **Pn** | **18 41 29.9** | **-0.6** |
| GOPC | | | | *i* PG | | **Pb** | **18 41 32.1** | **-0.2** |
| GOPC | | | | *e*SG | | **Sb** | **18 41 55.9** | **-0.5** |
| | comp=N,52nm,0.4s | | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **1.88** | **208** | ⇓*e*P | | **Pn** | **18 41 29.9** | **-0.6** |
| GOPC | | | | *e* | | | 18 41 55.9 | |
| GOPC | | | | smax | | smax | | |
| | comp=N,52nm,0.4s | | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **1.88** | **208** | Pn | | **Pn** | **18 41 29.9** | **-0.6** |
| **GOPC** | **GO Pecny, Ondr** | **1.88** | **208** | Pg | | **Pb** | **18 41 32.1** | **-0.2** |
| GOPC | | | | Sg | | **Sb** | **18 41 55.9** | **-0.5** |
| | comp=N,52nm,0.4s | | | | | | | |
| **PRU** | **Pruhonice** | **1.90** | **213** | ⇓*e*PN | | **Pn** | **18 41 30.1** | **-0.6** |
| PRU | | | | *i* PG | | **Pb** | **18 41 32.3** | **-0.2** |
| PRU | | | | *e*SG | | **Sb** | **18 41 56.3** | **-0.4** |
| | comp=N,122nm,0.3s | | | | | | | |
| **PRU** | **Pruhonice** | **1.90** | **213** | ⇓*e*P | | **Pn** | **18 41 30.1** | **-0.6** |
| PRU | | | | *e* | | | 18 41 56.3 | |
| PRU | | | | smax | | smax | | |
| | comp=N,122nm,0.3s | | | | | | | |
| **PRU** | **Pruhonice** | **1.90** | **213** | Pn | | **Pn** | **18 41 30.1** | **-0.6** |
| **PRU** | **Pruhonice** | **1.90** | **213** | Pg | | **Pb** | **18 41 32.3** | **-0.2** |
| PRU | | | | Sg | | **Sb** | **18 41 56.3** | **-0.4** |
| | comp=N,122nm,0.3s | | | | | | | |
| **RAC** | **Raciborz** | **1.98** | **138** | *e*P | | **Pg** | **18 41 34.8** | **-0.3** |
| RAC | | | | *e* | | | 18 42 00.3 | |
| **RAC** | **Raciborz** | **1.98** | **138** | *e*Pg | | **Pg** | **18 41 34.8** | **-0.3** |
| RAC | | | | *e*Sg | | **Sg** | **18 42 00.3** | **-0.5** |
| **CLL** | **Collm** | **1.99** | **263** | *i* P | | **Pn** | **18 41 31.5** | **-0.4** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CLL | | | | *i* | | | 18 42 01.3 | |
| CLL | | | | | pmax | pmax | | |
| | comp=Z,12nm,0.4s | | | | | | | |
| **CLL** | **Collm** | **1.99 263** | | *i* Pn | | **Pn** | **18 41 31.5** | **-0.4** |
| | comp=Z,12nm,0.4s | | | | | | | |
| CLL | | | | *i* Pg | | **Pg** | **18 41 34.8** | **-0.4** |
| CLL | | | | *i* | | | 18 41 38.8 | |
| CLL | | | | *i* Sg | | **Sg** | **18 42 01.3** | **+0.4** |
| | comp=Z,57nm,0.5s | | | | | | | |
| **CLL** | **Collm** | **1.99 263** | | *e*Pn | | **Pn** | **18 41 31.6** | **-0.4** |
| CLL | | | | *e*Pg | | **Pg** | **18 41 35.0** | **-0.2** |
| CLL | | | | *e*Sg | | **Sg** | **18 42 00.9** | **0.0** |
| **CLL** | **Collm** | **1.99 263** | | Pn | | **Pn** | **18 41 31.6** | **-0.4** |
| **CLL** | **Collm** | **1.99 263** | | Pg | | **Pg** | **18 41 35.0** | **-0.2** |
| CLL | | | | Sg | | **Sg** | **18 42 00.9** | **0.0** |
| CLL | | | | *i* S | | **Sg** | **18 42 01.3** | **+0.4** |
| **MORC** | **Moravsky Berou** | **2.02 153** | ‖ | *i*P | | **Pn** | **18 41 32.1** | **-0.2** |
| **MORC** | **Moravsky Berou** | **2.02 153** | | S | | **Sn** | **18 41 56.7** | **-1.6** |
| **MORC** | **Moravsky Berou** | **2.02 153** | | *e*Pn | | **Pn** | **18 41 32.2** | **-0.2** |
| MORC | | | | *e*Pg | | **Pg** | **18 41 35.6** | **-0.1** |
| **MORC** | **Moravsky Berou** | **2.02 153** | | Pn | | **Pn** | **18 41 32.2** | **-0.2** |
| **MORC** | **Moravsky Berou** | **2.02 153** | | Pg | | **Pg** | **18 41 35.6** | **-0.1** |
| MORC | | | | *e*Sg | | **Sb** | **18 41 59.5** | **-0.7** |
| | comp=Z,101nm,0.6s | | | | | | | |
| **OKC** | **Ostrava-Krasne** | **2.16 143** | ‖ | *e*PN | | **Pn** | **18 41 34.1** | **-0.2** |
| OKC | | | | *i* PG | | **Pg** | **18 41 38.2** | **-0.3** |
| OKC | | | | *e*SG | | **Sb** | **18 42 04.9** | **+0.5** |
| | comp=Z,64nm,0.5s | | | | | | | |
| **OKC** | **Ostrava-Krasne** | **2.16 143** | ‖ | *e*P | | **Pn** | **18 41 34.1** | **-0.2** |
| OKC | | | | *e* | | | 18 42 04.9 | |
| OKC | | | | | smax | smax | | |
| | comp=N,64nm,0.5s | | | | | | | |
| **OKC** | **Ostrava-Krasne** | **2.16 143** | | *e*Pn | | **Pn** | **18 41 34.1** | **-0.2** |
| OKC | | | | *e*Pg | | **Pg** | **18 41 38.3** | **-0.3** |
| OKC | | | | *e*Sg | | **Sg** | **18 42 06.0** | **-0.5** |
| **OKC** | **Ostrava-Krasne** | **2.16 143** | | *e*P | | **Pn** | **18 41 34.1** | **-0.2** |
| **VRAC** | **Vranov** | **2.30 173** | ‖ | *i*P | | **Pn** | **18 41 36.5** | **+0.3** |
| **VRAC** | **Vranov** | **2.30 173** | | S | | **Sb** | **18 42 09.2** | **+0.9** |
| **VRAC** | **Vranov** | **2.30 173** | | *e*Pn | | **Pn** | **18 41 36.0** | **-0.2** |
| **VRAC** | **Vranov** | **2.30 173** | ‖ | *i*P | | **Pn** | **18 41 36.5** | **+0.3** |
| VRAC | | | | *e*Sg | | **Sb** | **18 42 08.8** | **+0.5** |
| | comp=N,62nm,0.5s | | | | | | | |
| **KRUC** | **Moravsky** | **2.53 176** | | *e*Pn | | **Pn** | **18 41 39.3** | **-0.1** |
| KRUC | | | | *e*Sg | | **Sb** | **18 42 16.3** | **+1.3** |
| | comp=N,60nm,0.8s | | | | | | | |
| **WERD** | **Werda** | **2.68 246** | | *e*Pn | | **Pn** | **18 41 41.6** | **+0.1** |
| WERD | | | | *e*Sg | | **Sg** | **18 42 21.8** | **-1.3** |
| **WERD** | **Werda** | **2.68 246** | | Pn | | **Pn** | **18 41 41.6** | **+0.1** |
| WERD | | | | Sg | | **Sg** | **18 42 21.8** | **-1.3** |
| **OJC** | **Ojcow** | **2.69 119** | | *e*Pn | | **Pn** | **18 41 41.0** | **-0.5** |
| OJC | | | | *e*Pg | | **Pg** | **18 41 48.6** | **+0.1** |
| OJC | | | | *e*Sg | | **Sg** | **18 42 23.7** | **+0.4** |
| **OJC** | **Ojcow** | **2.69 119** | | *e*P | | **Pn** | **18 41 41.0** | **-0.5** |
| OJC | | | | *e* | | | 18 42 23.7 | |
| **OJC** | **Ojcow** | **2.69 119** | | *e*Pn | | **Pn** | **18 41 40.9** | **-0.6** |
| OJC | | | | *e*Pg | | **Pg** | **18 41 48.6** | **+0.1** |
| OJC | | | | *e*Sg | | **Sg** | **18 42 24.4** | **+1.1** |
| **OJC** | **Ojcow** | **2.69 119** | | *e*Pn | | **Pn** | **18 41 41.0** | **-0.6** |
| **OJC** | **Ojcow** | **2.69 119** | | *e*Pn | | **Pn** | **18 41 41.0** | **-0.6** |
| OJC | | | | *e*Pg | | **Pg** | **18 41 48.6** | **+0.1** |
| OJC | | | | *e*Sg | | **Sg** | **18 42 23.7** | **+0.4** |
| **NKC** | **Novy Kostel** | **2.71 241** | ‖ | *e*PN | | **Pn** | **18 41 42.0** | **+0.2** |
| NKC | | | | *i* PG | | **Pg** | **18 41 48.3** | **-0.6** |
| NKC | | | | *e*SG | | **Sg** | **18 42 24.2** | **+0.3** |
| | comp=N,97nm,0.4s | | | | | | | |
| **NKC** | **Novy Kostel** | **2.71 241** | ‖ | *e*P | | **Pn** | **18 41 42.0** | **+0.2** |
| NKC | | | | *e* | | | 18 42 24.2 | |
| NKC | | | | | smax | smax | | |
| | comp=N,97nm,0.4s | | | | | | | |
| **NKC** | **Novy Kostel** | **2.71 241** | | Pn | | **Pn** | **18 41 42.0** | **+0.2** |
| **KHC** | **Kasperske Hory** | **2.96 215** | ‖ | *e*PN | | **Pn** | **18 41 44.8** | **-0.5** |
| KHC | | | | *i* PG | | **Pb** | **18 41 50.8** | **+0.2** |
| KHC | | | | *e*SN | | **Sn** | **18 42 19.9** | **-1.6** |
| KHC | | | | *e*SG | | **Sb** | **18 42 29.1** | **+1.8** |
| | comp=N,30nm,0.4s | | | | | | | |
| **KHC** | **Kasperske Hory** | **2.96 215** | ‖ | *e*P | | **Pn** | **18 41 44.8** | **-0.5** |
| KHC | | | | *e* | | | 18 42 19.9 | |
| KHC | | | | | smax | smax | | |
| | comp=N,30nm,0.4s | | | | | | | |
| **KHC** | **Kasperske Hory** | **2.96 215** | | Pn | | **Pn** | **18 41 44.8** | **-0.5** |
| **MOX** | **Moxa** | **3.01 254** | | *e*Pn | | **Pn** | **18 41 46.5** | **+0.5** |
| MOX | | | | *e*Pg | | **Pg** | **18 41 54.1** | **-0.6** |
| MOX | | | | *e*Sg | | **Sg** | **18 42 34.4** | **+0.8** |
| **MOX** | **Moxa** | **3.01 254** | | Pn | | **Pn** | **18 41 46.5** | **+0.5** |
| **MANZ** | **Manzenberg** | **3.02 240** | | *e*Pn | | **Pn** | **18 41 46.4** | **+0.2** |
| MANZ | | | | *e*Sg | | **Sg** | **18 42 34.0** | **-0.1** |
| **MANZ** | **Manzenberg** | **3.02 240** | | Pn | | **Pn** | **18 41 46.4** | **+0.2** |
| MANZ | | | | Sg | | **Sg** | **18 42 34.0** | **-0.1** |
| **ROTZ** | **Rotzenmuhle** | **3.10 236** | | *e*Pn | | **Pn** | **18 41 47.5** | **+0.3** |
| ROTZ | | | | *e*Sg | | **Sg** | **18 42 34.1** | **-2.5** |
| **ROTZ** | **Rotzenmuhle** | **3.10 236** | | Pn | | **Pn** | **18 41 47.5** | **+0.3** |
| ROTZ | | | | Sg | | **Sg** | **18 42 34.1** | **-2.5** |
| **GEC2** | **GERESS Array S** | **3.16 211** | | *e*Pn | | **Pn** | **18 41 49.0** | **+0.8** |
| GEC2 | | | | *e*Sg | | **Sb** | **18 42 35.5** | **+2.2** |
| **GEC2** | **GERESS Array S** | **3.16 211** | | Pn | | **Pn** | **18 41 49.0** | **+0.8** |
| GEC2 | | | | Sg | | **Sb** | **18 42 35.5** | **+2.2** |
| **GERES** | **GERESS Array B** | **3.16 211** | | Pn | | **Pn** | **18 41 48.2** | **+0.1** |
| | comp=N,1.6nm,0.3s,baz=31,slow=12,SNR=68 | | | | | | | |
| GERES | | | | | Pg | **Pb** | **18 41 55.1** | **+0.9** |
| | comp=N,2.8nm,0.3s,baz=27,slow=18,SNR=28 | | | | | | | |
| GERES | | | | | Sn | **Sn** | **18 42 26.9** | **+0.3** |
| | comp=N,3.3nm,0.3s,baz=20,slow=21,SNR=8.9 | | | | | | | |
| GERES | | | | | Lg | Lg | 18 42 34.7 | |
| | comp=N,10nm,0.3s,baz=34,slow=27,SNR=9.5 | | | | | | | |
| **SMOL** | **Smolenice** | **3.18 164** | | *e*P | | **Pg** | **18 41 58.3** | **+0.2** |
| **SMOL** | **Smolenice** | **3.18 164** | | *e*Pg | | **Pg** | **18 41 58.3** | **+0.2** |
| SMOL | | | | *e*Sg | | **Sg** | **18 42 38.5** | **-0.8** |
| **SMOL** | **Smolenice** | **3.18 164** | | *e*PG | | **Pg** | **18 41 58.3** | **+0.2** |
| SMOL | | | | *e*SG | | **Sg** | **18 42 38.5** | **-0.8** |
| **WET** | **Wettzell** | **3.22 222** | | *e*Pn | | **Pn** | **18 41 49.1** | **+0.2** |
| WET | | | | *e*Sg | | **Sg** | **18 42 38.8** | **-1.6** |
| **WET** | **Wettzell** | **3.22 222** | | Pn | | **Pn** | **18 41 49.1** | **+0.2** |
| WET | | | | Sg | | **Sg** | **18 42 38.8** | **-1.6** |
| **LANS** | **Liptovska Anna** | **3.23 138** | | *e*P | | **Pn** | **18 41 49.6** | **+0.5** |
| **LANS** | **Liptovska Anna** | **3.23 138** | | *e*P | | **Pn** | **18 41 49.6** | **+0.5** |
| **LANS** | **Liptovska Anna** | **3.23 138** | | *e*Pg | | **Pg** | **18 41 58.6** | **-0.4** |
| LANS | | | | *e*Sg | | **Sg** | **18 42 38.9** | **-2.0** |
| **LANS** | **Liptovska Anna** | **3.23 138** | | *e* | | **Pn** | **18 41 49.6** | **+0.5** |
| **LANS** | **Liptovska Anna** | **3.23 138** | | *e*PG | | **Pg** | **18 41 58.6** | **-0.4** |
| LANS | | | | *e*SG | | **Sg** | **18 42 38.9** | **-2.0** |
| **NIE** | **Niedzica** | **3.42 128** | | *e*P | | **Pg** | **18 42 03.6** | **+0.9** |
| NIE | | | | *e*S | | **Sg** | **18 42 47.9** | **+0.9** |
| **NIE** | **Niedzica** | **3.42 128** | | *e*P | | **Pg** | **18 42 03.6** | **+0.9** |
| **NIE** | **Niedzica** | **3.42 128** | | *e*P | | **Pg** | **18 42 03.6** | **+0.9** |
| NIE | | | | *e*S | | **Sg** | **18 42 47.9** | **+0.9** |
| **VYHS** | **Vyhne** | **3.55 150** | | *e*P | | **Pn** | **18 41 52.7** | **-0.7** |
| **VYHS** | **Vyhne** | **3.55 150** | | *e*P | | **Pn** | **18 41 52.7** | **-0.7** |
| **VYHS** | **Vyhne** | **3.55 150** | | *e*Pg | | **Pg** | **18 42 04.2** | **-0.8** |
| VYHS | | | | *e*Sg | | **Sg** | **18 42 49.4** | **-1.5** |
| **VYHS** | **Vyhne** | **3.55 150** | | *e* | | **Pn** | **18 41 52.7** | **-0.7** |
| **VYHS** | **Vyhne** | **3.55 150** | | *e*PG | | **Pg** | **18 42 04.2** | **-0.8** |
| VYHS | | | | *e*SG | | **Sg** | **18 42 49.4** | **-1.5** |
| **CLZ** | **Clausthal** | **3.60 276** | | *e*Pn | | **Pn** | **18 41 55.3** | **+1.1** |
| **CLZ** | **Clausthal** | **3.60 276** | | Pn | | **Pn** | **18 41 55.3** | **+1.1** |
| **BSD** | **Bornholm Skovb** | **3.61 349** | | *i* P | | **Pn** | **18 41 54.8** | **+0.5** |
| BSD | | | | *e*S | | **Sn** | **18 42 33.6** | **-4.0** |
| **BSD** | **Bornholm Skovb** | **3.61 349** | | *i* P | | **Pn** | **18 41 54.8** | **+0.5** |
| BSD | | | | *e*S | | **Sn** | **18 42 33.6** | **-4.0** |
| **BSD** | **Bornholm Skovb** | **3.61 349** | | *i* P | | **Pn** | **18 41 54.8** | **+0.5** |
| BSD | | | | *e*S | | **Sn** | **18 42 33.7** | **-3.9** |
| | SNR=49 | | | | | | | |
| **GRA1** | **Grafenberg Arr** | **3.66 241** | | Pn | | **Pn** | **18 41 55.5** | **+0.5** |
| GRA1 | | | | Sg | | **Sg** | **18 42 54.5** | **-0.2** |
| **GRF** | **Grafenberg Arr** | **3.66 241** | | *e*Pn | | **Pn** | **18 41 55.5** | **+0.5** |
| GRF | | | | *e*Sg | | **Sg** | **18 42 54.5** | **-0.2** |
| **CONA** | **Conrad Observa** | **3.67 183** | | *i* Pn | | **Pn** | **18 41 55.6** | **+0.5** |
| | comp=N,1.5nm,0.2s | | | | | | | |
| CONA | | | | Sg | | **Sg** | **18 42 52.3** | **-2.5** |
| | comp=N,33nm,0.5s | | | | | | | |
| **CONA** | **Conrad Observa** | **3.67 183** | | Pn | | **Pn** | **18 41 55.6** | **+0.5** |
| | comp=N,1.5nm,0.2s | | | | | | | |
| CONA | | | | Sg | | **Sg** | **18 42 52.3** | **-2.5** |
| | comp=N,33nm,0.5s | | | | | | | |
| **STHS** | **Stebnicka Huta** | **3.91 122** | | *e*P | | **Pn** | **18 41 59.1** | **+0.7** |
| STHS | | | | | pmax | pmax | | |
| | comp=N,24nm,0.9s | | | | | | | |
| **STHS** | **Stebnicka Huta** | **3.91 122** | | *e*P | | **Pn** | **18 41 59.1** | **+0.7** |
| | comp=N,24nm,0.9s | | | | | | | |
| **STHS** | **Stebnicka Huta** | **3.91 122** | | *e*Pg | | **Pg** | **18 42 12.6** | **+0.6** |
| STHS | | | | *e*Sg | | **Sg** | **18 43 05.2** | **+2.6** |
| **STHS** | **Stebnicka Huta** | **3.91 122** | | *e* | | **Pn** | **18 41 59.1** | **+0.7** |
| **STHS** | **Stebnicka Huta** | **3.91 122** | | *e*PG | | **Pg** | **18 42 12.6** | **+0.6** |
| STHS | | | | *e*SG | | **Sg** | **18 43 05.2** | **+2.6** |
| STHS | | | | *e*LG | | Lg | 18 43 17.3 | |
| **MOA** | **Molln** | **3.93 199** | | *i* Pn | | **Pn** | **18 41 59.2** | **+0.5** |
| MOA | comp=N,3.1nm,0.2s | | | *i* Sg | | **Sg** | **18 43 00.4** | **-3.0** |
| | comp=N,18nm,0.3s | | | | | | | |
| **MOA** | **Molln** | **3.93 199** | | Pn | | **Pn** | **18 41 59.2** | **+0.5** |
| MOA | comp=N,3.1nm,0.2s | | | Sg | | **Sg** | **18 43 00.4** | **-3.0** |
| | comp=N,18nm,0.3s | | | | | | | |
| **KECS** | **Kecovo** | **4.18 136** | | *e*P | | **Pg** | **18 42 17.7** | **+0.6** |
| KECS | | | | | pmax | pmax | | |
| | comp=N,5.0nm,0.7s | | | | | | | |
| **KECS** | **Kecovo** | **4.18 136** | | *e*Pg | | **Pg** | **18 42 17.7** | **+0.6** |
| KECS | | | | *e*Sg | | **Sg** | **18 43 10.1** | **-1.1** |
| **KECS** | **Kecovo** | **4.18 136** | | *e*PG | | **Pg** | **18 42 17.7** | **+0.6** |
| KECS | | | | *e*SG | | **Sg** | **18 43 10.1** | **-1.1** |
| KECS | | | | *e*LG | | Lg | 18 43 23.5 | |
| **CRVS** | **Cervenica-Dubn** | **4.34 126** | | *e*P | | **Pg** | **18 42 20.6** | **+0.4** |
| **CRVS** | **Cervenica-Dubn** | **4.34 126** | | *e*Pg | | **Pg** | **18 42 20.6** | **+0.4** |
| CRVS | | | | *e*Sg | | **Sg** | **18 43 16.1** | **-0.3** |
| **CRVS** | **Cervenica-Dubn** | **4.34 126** | | *e*PG | | **Pg** | **18 42 20.6** | **+0.4** |
| CRVS | | | | *e*SG | | **Sg** | **18 43 16.1** | **-0.3** |
| **ARSA** | **Arzberg** | **4.36 186** | | *e*Pn | | **Pn** | **18 42 06.0** | **+1.4** |
| ARSA | comp=N,1.0nm,0.2s | | | Sg | | **Sg** | **18 43 14.2** | **-2.8** |
| | comp=N,33nm,0.7s | | | | | | | |
| **ARSA** | **Arzberg** | **4.36 186** | | Pn | | **Pn** | **18 42 06.0** | **+1.4** |
| ARSA | comp=N,1.0nm,0.2s | | | Sg | | **Sg** | **18 43 14.2** | **-2.8** |
| | comp=N,33nm,0.7s | | | | | | | |
| **BLEU** | **Blekinge** | **4.73 358** | | P | | **Pn** | **18 42 09.9** | **+0.3** |
| BLEU | | | | S | | **Sn** | **18 43 01.8** | **-3.4** |
| **SOKA** | **Soboth** | **4.96 189** | | *i* Sg | | **Sg** | **18 43 35.1** | **-1.4** |
| | comp=N,0.3nm,0.2s | | | | | | | |
| **SOKA** | **Soboth** | **4.96 189** | | Sg | | **Sg** | **18 43 35.1** | **-1.4** |
| | comp=N,0.3nm,0.2s | | | | | | | |
| **WATA** | **Walderalm** | **5.19 217** | | *e*Pn | | **Pn** | **18 42 17.4** | **+1.2** |
| WATA | comp=N,0.9nm,0.2s | | | Sg | | **Sg** | **18 43 44.5** | **+0.7** |
| | comp=N,6.2nm,0.5s | | | | | | | |
| **WATA** | **Walderalm** | **5.19 217** | | Pn | | **Pn** | **18 42 17.4** | **+1.2** |
| WATA | comp=N,0.9nm,0.2s | | | Sg | | **Sg** | **18 43 44.5** | **+0.7** |
| | comp=N,6.2nm,0.5s | | | | | | | |
| **MYKA** | **Terra Mystica** | **5.22 199** | | *i* Sg | | **Sg** | **18 43 44.6** | **-0.3** |
| | comp=N,11nm,0.8s | | | | | | | |
| **MYKA** | **Terra Mystica** | **5.22 199** | | Sg | | **Sg** | **18 43 44.6** | **-0.3** |
| | comp=N,11nm,0.8s | | | | | | | |
| **MOTA** | **Moosalm** | **5.37 220** | | *i* Pn | | **Pn** | **18 42 18.6** | **+0.1** |
| | comp=N,1.0nm,0.2s | | | | | | | |
| **MOTA** | **Moosalm** | **5.37 220** | | Pn | | **Pn** | **18 42 18.6** | **+0.1** |
| | comp=N,1.0nm,0.2s | | | | | | | |
| **RETA** | **Reutte** | **5.39 223** | | *e*Pn | | **Pn** | **18 42 19.2** | **+0.4** |
| | comp=N,0.8nm,0.2s | | | | | | | |
| RETA | | | | Sg | | **Sg** | **18 43 48.8** | **-1.5** |
| | comp=N,0.2nm,0.2s | | | | | | | |
| **RETA** | **Reutte** | **5.39 223** | | Pn | | **Pn** | **18 42 19.2** | **+0.4** |
| | comp=N,0.8nm,0.2s | | | | | | | |
| RETA | | | | Sg | | **Sg** | **18 43 48.8** | **-1.5** |
| | comp=N,0.2nm,0.2s | | | | | | | |
| **VXJU** | **Vaexsjoe** | **5.39 353** | | P | | **Pn** | **18 42 19.5** | **+0.8** |
| **ABTA** | **Abfaltersbach** | **5.40 208** | | Pg | | **Pn** | **18 42 20.1** | **+1.2** |
| | comp=N,0.9nm,0.3s | | | | | | | |
| ABTA | | | | Sg | | **Sg** | **18 43 48.7** | **-1.7** |
| | comp=N,21nm,0.9s | | | | | | | |
| **BYXU** | **Byxelkrok** | **5.74 5** | | P | | **Pn** | **18 42 24.4** | **+0.9** |
| BYXU | | | | S | | **Sn** | **18 43 26.8** | **-3.1** |
| **FABU** | **Falkenberg** | **5.79 341** | | P | | **Pn** | **18 42 23.9** | **-0.2** |
| **DRGR** | | **6.44 136** | ‖ | *i*P | | **Pn** | **18 42 33.3** | **+0.1** |
| **DRGR** | | **6.44 136** | | P | | **Pn** | **18 42 33.3** | **+0.1** |
| **DRGR** | | **6.44 136** | | P | | **Pn** | **18 42 33.3** | **+0.1** |
| **SIRR** | **Siria** | **6.44 144** | ‖ | *i*P | | **Pn** | **18 42 33.5** | **+0.4** |
| **SIRR** | **Siria** | **6.44 144** | ‖ | *i*P | | **Pn** | **18 42 33.5** | **+0.4** |
| **CDF** | **Champ du Feu** | **6.54 244** | | *e*P | | **Pn** | **18 42 34.7** | **+0.1** |
| CDF | | | | *e*Sg | | **Sg** | **18 44 26.9** | **-0.2** |
| | comp=N,21nm,0.8s | | | | | | | |
| **CDF** | **Champ du Feu** | **6.54 244** | | *e*P | | **Pn** | **18 42 34.7** | **+0.1** |
| CDF | | | | *e*Sg | | **Sg** | **18 44 26.9** | **-0.2** |
| | comp=N,11nm,0.8s | | | | | | | |
| **LNKU** | **Linkoeping** | **6.66 357** | | P | | **Pn** | **18 42 36.6** | **+0.5** |
| **BURAR** | **Bucovina Array** | **7.11 120** | ‖ | *i*P | | **Pn** | **18 42 40.1** | **-2.3** |
| **BURAR** | **Bucovina Array** | **7.11 120** | | P | | **Pn** | **18 42 40.0** | **-2.3** |
| **BURAR** | **Bucovina Array** | **7.11 120** | ‖ | *i*P | | **Pn** | **18 42 40.1** | **-2.3** |
| **HINF** | **Hinteralfeld** | **7.11 242** | | *e*P | | **Pn** | **18 42 43.2** | **+0.9** |
| HINF | | | | *e*Sg | | **Sg** | **18 44 41.8** | **-3.5** |
| | comp=N,8.2nm,0.6s | | | | | | | |
| **HINF** | **Hinteralfeld** | **7.11 242** | | *e*P | | **Pn** | **18 42 43.2** | **+0.9** |
| **HAU** | **Haudompre** | **7.28 244** | | *e*Sg | | **Sg** | **18 44 53.7** | **+2.9** |
| | comp=N,10nm,0.6s | | | | | | | |
| **KIEV** | **Kiev** | **8.27 91** | ‖ | *e*P | | **Pn** | **18 43 00.8** | **+2.7** |
| KIEV | | | | | pmax | pmax | | |
| | comp=Z,55nm,3.7s | | | | | | | |
| **KIEV** | **Kiev** | **8.27 91** | | *e*P | | **Pn** | **18 43 00.8** | **+2.7** |
| | comp=Z,55nm,3.7s | | | | | | | |
| **AKASG** | **Malin Array Be** | **8.27 91** | | Pn | | **Pn** | **18 42 58.3** | **+0.1** |
| | comp=Z,1.0nm,0.3s,baz=279,slow=12,SNR=5.4 | | | | | | | |
| AKASG | | | | Sn | | **Sn** | **18 44 28.0** | **-4.3** |
| | comp=Z,0.7nm,0.3s,baz=244,slow=13,SNR=2.1 | | | | | | | |
| **LOR** | **Lormes** | **9.10 246** | | *e*P | | **Pn** | **18 43 08.2** | **-1.4** |
| **LOR** | **Lormes** | **9.10 246** | | *e*P | | **Pn** | **18 43 08.2** | **-1.4** |
| **FINES** | **FINESS Array B** | **11.29 25** | | Pn | | **Pn** | **18 43 38.9** | **-0.5** |
| | comp=Z,0.1nm,0.3s,baz=220,slow=12,SNR=5.2 | | | | | | | |
| **OBN** | **Obninsk** | **12.69 66** | ‖ | *e*P | | **Pn** | **18 44 01.9** | **+3.3** |
| OBN | | | | *e*S | | **Sn** | **18 46 25.3** | **+4.8** |
| OBN | | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.5s | | | | | | | |
| OBN | | | | | MLR | MLR | | |
| | comp=Z,258nm,19.0s | | | | | | | |
| **ARCES** | **ARCESS Array B** | **18.55 10** | | Pn | | **P** | **18 45 14.3** | **-0.6** |
| | comp=Z,0.2nm,0.3s,baz=203,slow=11,SNR=3.3 | | | | | | | |

**IDC 26 18:43:20.0±13.0, 55.79S×28.41W, h0km, mb3.5/1, mb1 3.5/1, mb1mx3.4/17, mbtmp3.5/1, Error ellipse: s-maj=814.2km s-min=73.0km az=144.0, South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **H10S2** | **ASCENSION HYDR** | **47.96** | **18** | | | T | T | 19 43 59.6 | |
| | baz=190,slow=75,SNR=58 | | | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **47.96** | **18** | | | T | T | 19 43 59.8 | |
| | baz=190,slow=75,SNR=79 | | | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **47.98** | **18** | | | T | T | 19 44 00.8 | |
| | baz=190,slow=75,SNR=75 | | | | | | | | |
| **H10N1** | **ASCENSION HYDR** | **49.08** | **18** | | | T | T | 19 45 23.8 | |
| | baz=188,slow=74,SNR=11 | | | | | | | | |
| **H10N3** | **ASCENSION HYDR** | **49.08** | **18** | | | T | T | 19 45 23.7 | |
| | baz=188,slow=74,SNR=41 | | | | | | | | |
| **H10N2** | **ASCENSION HYDR** | **49.09** | **18** | | | T | T | 19 45 25.1 | |
| | baz=188,slow=74,SNR=24 | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **73.17** | **31** | P | | P | P | 18 54 52.4 | 0.0 |
| | 0.3nm,0.5s,baz=199,slow=7.3,SNR=4.7 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **135.52** | **319** | PKP | | PKPdf | | 19 02 40.1 | -0.3 |
| | 0.1nm,0.5s,baz=142,slow=1.9,SNR=3.1 | | | | | | | | |
| **ILAR** | **Eielson Array** | **149.43** | **312** | PKPbc | | PKPbc | | 19 03 08.8 | -0.5 |
| | 0.5nm,0.6s,baz=121,slow=2.1,SNR=9.0 | | | | | | | | |

**BJI 26 18:46:58.5, 36.83N×104.89E, h7km, mb3.5/1, ML3.5/11, Ms3.4/1, Ms7 3.1/1, Gansu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **LZH** | **Lanzhou** | **1.12** | **229** | | | Pg | Pg | 18 47 17.5 | -2.6 |
| LZH | | | | | | Sg | Sg | 18 47 31.5 | -3.1 |
| LZH | | | | | smax | smax | | | |
| | comp=N,2μm,0.6s | | | | | | | | |
| LZH | | | | | smax | smax | | | |
| | comp=E,2μm,0.9s | | | | | | | | |
| **XAN** | **Xi'an** | **4.31** | **129** | | Pg | Pb | 18 48 15.8 | +1.2 | |
| XAN | | | | | Sg | Sb | 18 49 10.3 | +3.4 | |
| XAN | | | | | smax | smax | | | |
| | comp=N,59nm,0.5s | | | | | | | | |
| XAN | | | | | smax | smax | | | |
| | comp=E,45nm,0.5s | | | | | | | | |
| **GTA** | **Gaotai** | **4.76** | **304** | | Pn | Pn | 18 48 14.8 | +4.0 | |
| GTA | | | | | Pg | Pb | 18 48 25.5 | +3.2 | |
| GTA | | | | | Sn | Sn | 18 49 06.0 | -0.3 | |
| GTA | | | | | Sg | Sb | 18 49 25.0 | +5.1 | |
| GTA | | | | | smax | smax | | | |
| | comp=N,55nm,0.7s | | | | | | | | |
| GTA | | | | | smax | smax | | | |
| | comp=E,92nm,0.8s | | | | | | | | |
| GTA | | | | | LR | LR | | | |
| | comp=N,210nm,7.0s | | | | | | | | |
| GTA | | | | | LR | LR | | | |
| | comp=E,200nm,5.7s | | | | | | | | |
| GTA | | | | | LR | LR | | | |
| | comp=Z,110nm,5.1s | | | | | | | | |
| **WMQ** | **Urumqi** | **14.85** | **303** | *e*P | | Pn | | 18 50 29.0 | +0.2 |

*IDC **26** 18:49:44.1±1.7, 3.84S×133.78E, h0km, mb3.6/2, mb1 4.0/5, mb1mx3.5/40, mbtmp3.8/5, ML3.8/3, Error ellipse: s-maj=65.7km s-min=25.0km az=71.0*
*ISCJB **26** 18:49:46.1±0.5, 3.89S±0.04×133.64E±0.05, h33km, mb3.5/1, Error ellipse: s-maj=7.3km s-min=5.5km az=178.4*
*DJA **26** 18:49:48.2±0.4, 4°S±4°×13°4E±°, h28km±3km, M4.3/9, mB5.3/2, mb4.6/4, MLv4.2/9, Mw(mB)4.7/2*

**ISC 26 18:49:47.3±0.8, 3.92S±0.06×133.67E±0.07, h35km, n14, σ2s09/20, Irian Jaya region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **KMPI** | **Kaimana, Papua** | **0.26** | **7** | P | | P | **Pn** | **18 49 53.4** | **-1.4** |
| KMPI | | | | S | | S | **Sn** | **18 49 59.5** | **-0.4** |
| **FAKI** | **Fak Fak** | **1.74** | **305** | P | | P | **Pn** | **18 50 14.5** | **-0.5** |
| FAKI | | | | S | | S | **Sn** | **18 50 33.5** | **-2.4** |
| **RKPI** | **Ransiki, Papua** | **2.45** | **12** | P | | P | **Pn** | **18 50 23.8** | **-1.0** |
| RKPI | | | | S | | S | **Sn** | **18 50 51.5** | **-2.0** |
| **BNDI** | **Bandanaira** | **3.81** | **261** | P | | P | **Pn** | **18 50 45.2** | **+1.7** |
| **SWI** | **Sorong** | **3.88** | **322** | P | | P | **Pn** | **18 50 43.9** | **-0.6** |
| SWI | | | | S | | S | Sn | 18 51 01.5 | -27 |
| **MSAI** | **Masohi** | **4.77** | **277** | P | | P | **Pn** | **18 50 57.0** | **+0.3** |
| **AAI** | **Ambon** | **5.47** | **272** | P | | P | **Pn** | **18 51 06.4** | **0.0** |
| **GENI** | **Genyem** | **6.62** | **79** | P | | P | **Pn** | **18 51 23.9** | **+1.8** |
| **LBMI** | **Labuha** | **6.98** | **298** | P | | P | **Pn** | **18 51 27.1** | **0.0** |
| | 20nm,1.2s,1μm0.1nm | | | | | | | | |
| **WRA** | **Warramunga Arr** | **15.94** | **178** | Pn | | | **Pn** | **18 53 28.9** | **-0.1** |
| | 0.2nm,0.3s,baz=353,slow=13,SNR=18 | | | | | | | | |
| WRA | | | | Sn | | | **Sn** | **18 56 20.9** | **-3.8** |
| | 0.1nm,0.3s,baz=350,slow=22,SNR=5.3 | | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **16.14** | **209** | Pn | | | **Pn** | **18 53 34.2** | **+2.6** |
| | 0.7nm,0.3s,baz=40,slow=16,SNR=24 | | | | | | | | |
| FITZ | | | | Sn | | | **Sn** | **18 56 26.4** | **-3.2** |
| | 0.1nm,0.3s,baz=100,slow=17,SNR=3.6 | | | | | | | | |
| **ASAR** | **Alice Springs** | **19.63** | **179** | P | | | **Pn** | **18 54 16.3** | **+1.7** |
| | 0.3nm,0.3s,baz=4.8,slow=12,SNR=35 | | | | | | | | |
| ASAR | | | | S | | | **S** | **18 57 49.0** | **-3.7** |
| | 0.0nm,0.3s,baz=360,slow=29,SNR=3.4 | | | | | | | | |
| **CTA** | **Charters Tower** | **20.21** | **144** | P | | | **P** | **18 54 20.7** | **+1.4** |
| | 3.4nm,0.8s,baz=323,slow=14,SNR=3.3 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **67.76** | **325** | P | | | **P** | **19 00 43.7** | **+2.2** |
| | 0.3nm,0.6s,baz=119,slow=8.0,SNR=4.0 | | | | | | | | |

*IDC **26** 18:52:35.4±3.3, 9.39N×58.13E, h0km, mb3.9/5, mb1 3.9/5, mb1mx3.4/46, mbtmp3.9/5, MS3.4/10, Ms1 3.4/10, ms1mx3.2/35, Error ellipse: s-maj=86.4km s-min=28.9km az=135.0*
*ISCJB **26** 18:52:37.1±1.6, 9.5N±0.2×58.0E±0.2, h17km, mb4.3/9, MS3.3/8, Error ellipse: s-maj=40.9km s-min=13.8km az=139.7*
*NEIC **26** 18:52:37.7±1.4, 9.46N×57.98E, h10km, mb4.5/5, Error ellipse: s-maj=37.0km s-min=12.3km az=140.0*
*CSEM **26** 18:52:37.7, 9.46N×57.98E, h10km, mb4.5/5*

**ISC 26 18:52:39.4±2.3, 9.5N±0.3×57.9E±0.3, h17km, n35, σ0s98/25, mb4.2/9, MS3.4/8, Carlsberg Ridge**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **WSAR** | **Wadi Sarin** | **13.67** | **3** | LR | | LR | LR | 19 00 31.5 | |
| | comp=Z,326nm,18.9s,baz=208,slow=34 | | | | | | | | |
| **

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| KARP | Karpathos | 1.40 | 169 | ePN | Pn | 19 19 56.5 | +1.1 |
| KARP | Karpathos | 1.40 | 169 | ePn | Pn | 19 19 56.5 | +1.1 |
| TURN | Turunc | 1.43 | 91 | ePN | Pn | 19 19 52.9 | -2.9 |
| TURN | Turunc | 1.43 | 91 | iP | Pn | 19 19 53.1 | -2.7 |
| TURN | | | | iS | Sn | 19 20 09.7 | -4.5 |
| TURN | Turunc | 1.43 | 91 | ePn | Pn | 19 19 52.9 | -2.9 |
| URLA | Izmir | 1.45 | 353 | ePN | Pb | 19 19 57.1 | -0.2 |
| URLA | Izmir | 1.45 | 353 | ePn | Pb | 19 19 57.1 | -0.2 |
| FETY | Fethiye | 1.83 | 98 | ePN | Pn | 19 20 03.0 | +1.5 |
| FETY | Fethiye | 1.83 | 98 | ePn | Pn | 19 20 03.0 | +1.5 |

*ISCJB **26** 19:22:47.1±0.7,25°.12S±0'.05×179°.4E±0'.1, h507km, mb3.5/7, Error ellipse: s-maj=17.3km s-min=6.7km az=0.3*
*IDC **26** 19:22:50.5±1.3,25°.38S×179°.52E, h546km±18km, mb3.1/7, mb1 3.4/10, mb1mx3.2/26, mbtmp4.1/10, Error ellipse: s-maj=24.0km s-min=16.3km az=164.0*

**ISC 26 19:22:48.5±0.8, 25°.21S±0'.08×179°.4E±0'.1, h507km, n25, σ2s09/32, mb3.7/7, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **4.68** | **150** | P | **P** | **19 24 15.2** | **+2.3** |
| | 168nm,0.3s,baz=76,slow=10,SNR=19 | | | | | | |
| RAO | | | | S | **S** | **19 25 26.3** | **+4.4** |
| | 45nm,0.3s,baz=90,slow=20,SNR=2.9 | | | | | | |
| **DZM** | **Mont Dzumac** | **12.27** | **282** | P | **P** | **19 25 33.1** | **+3.0** |
| | 0.8nm,0.3s,baz=71,slow=6,SNR=7.0 | | | | | | |
| **URZ** | **Urewera** | **13.15** | **188** | P | **P** | **19 25 38.0** | **-0.9** |
| | 3.2nm,0.3s,baz=7.8,slow=3.6,SNR=16 | | | | | | |
| URZ | | | | S | **S** | **19 27 57.9** | **-1.6** |
| | 1.5nm,0.3s,baz=249,slow=24,SNR=7.4 | | | | | | |
| **RTZ** | **Ruatahuna** | **13.52** | **188** | ePN | **P** | **19 25 41.6** | **-1.3** |
| RTZ | | | | SN | **S** | **19 28 07.0** | **+0.2** |
| **MTHZ** | **Maungataniwha** | **13.77** | **188** | ePN | **P** | **19 25 47.0** | **+1.4** |
| **MRHZ** | **Matea Rd** | **13.81** | **190** | ePN | **P** | **19 25 47.4** | **+1.4** |
| **NMHZ** | **Naumai** | **14.02** | **188** | PN | **P** | **19 25 51.4** | **+3.2** |
| **BKZ** | **Black Stump Fm** | **14.13** | **189** | ePN | **P** | **19 25 48.5** | **-0.8** |
| **OTVZ** | **Oturere** | **14.26** | **192** | PN | **P** | **19 25 48.8** | **-2.0** |
| **MCHZ** | **McNeill Hill** | **14.37** | **188** | ePN | **P** | **19 25 49.2** | **-2.6** |
| MCHZ | | | | SN | **S** | **19 28 22.2** | **-0.9** |
| **KWHZ** | **Kaweka Forest** | **14.39** | **189** | ePN | **P** | **19 25 52.0** | **-0.1** |
| KWHZ | | | | SN | **S** | **19 28 21.4** | **-2.2** |
| **BHHZ** | **Black Hill Sta** | **14.51** | **190** | ePN | **P** | **19 25 49.3** | **-4.0** |
| **PXZ** | **Pawanui** | **14.93** | **188** | SN | **S** | **19 28 29.9** | **-3.7** |
| **TSZ** | **Takapari Road** | **15.08** | **190** | ePN | **P** | **19 25 59.5** | **+0.2** |
| TSZ | | | | SN | **S** | **19 28 34.2** | **-2.4** |
| **BFZ** | **Birch Farm** | **15.65** | **189** | ePN | **P** | **19 26 03.5** | **-1.7** |
| BFZ | | | | SN | **S** | **19 28 44.8** | **-2.5** |
| **RPZ** | **Rata Peaks** | **19.68** | **198** | P | **P** | **19 26 42.0** | **-1.6** |
| | 0.4nm,0.3s,baz=19,slow=18,SNR=3.7 | | | | | | |
| **STKA** | **Stephens Creek** | **33.74** | **250** | P | **P** | **19 28 48.3** | **+0.9** |
| | 1.5nm,0.5s,baz=95,slow=11,SNR=8.8 | | | | | | |
| **ASAR** | **Alice Springs** | **41.30** | **262** | P | **P** | **19 29 49.7** | **+0.2** |
| | 0.8nm,0.3s,baz=93,slow=7.8,SNR=54 | | | | | | |
| **WRA** | **Warramunga Arr** | **41.79** | **268** | P | **P** | **19 29 53.0** | **-0.3** |
| | 0.7nm,0.3s,baz=99,slow=6.9,SNR=57 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **72.67** | **326** | P | **P** | **19 33 23.4** | **-1.0** |
| | 2.3nm,0.8s,baz=159,slow=4.4,SNR=5.2 | | | | | | |
| **KSRS** | **Korea Array** | **78.90** | **321** | P | **P** | **19 33 59.0** | **+0.1** |
| | 1.0nm,0.6s,baz=132,slow=7.0,SNR=5.2 | | | | | | |
| **NVAR** | **Mina Array Bea** | **86.07** | **44** | P | **P** | **19 34 34.7** | **-0.7** |
| | 0.4nm,0.8s,baz=226,slow=8.7,SNR=3.4 | | | | | | |
| **TXAR** | **Lajitas Array** | **91.59** | **58** | P | **P** | **19 34 59.7** | **-1.5** |
| | 0.3nm,0.6s,baz=224,slow=6.3,SNR=4.9 | | | | | | |
| **AKASG** | **Malin Array Be** | **145.75** | **326** | PKPbc | **PKPdf** | **19 41 27.1** | **-1.5** |
| | 0.4nm,0.4s,baz=51,slow=4.3,SNR=4.1 | | | | | | |
| **BRTR** | **Keskin Array B** | **147.90** | **305** | PKPbc | **PKPbc** | **19 41 35.3** | **-1.3** |
| | 0.3nm,0.6s,baz=117,slow=5.0,SNR=2.0 | | | | | | |

**IDC 26 19:25:08.1±5.1, 29°.24S×178°.43W, h0km, mb3.6/3, mb1 3.8/3, mb1mx3.6/19, mbtmp3.6/3, MS2.6/1, Ms1 2.6/1, ms1mx2.5/18, Error ellipse: s-maj=187.8km s-min=78.5km az=157.0, Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **AFI** | **Afiamalu** | **16.46** | **23** | LR | LR | 19 34 36.8 | |
| | comp=Z,23nm,19.6s,baz=355,slow=35 | | | | | | |
| **STKA** | **Stephens Creek** | **34.39** | **255** | P | P | 19 31 57.6 | +0.5 |
| | 2.0nm,1.0s,baz=70,slow=12,SNR=3.2 | | | | | | |
| **ASAR** | **Alice Springs** | **42.81** | **266** | P | P | 19 33 06.9 | -1.0 |
| | 0.2nm,0.5s,baz=105,slow=7.1,SNR=3.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.69** | **271** | P | P | 19 33 15.2 | +0.1 |
| | 0.5nm,0.4s,baz=110,slow=8.1,SNR=9.6 | | | | | | |
| **FINES** | **FINESS Array B** | **143.93** | **340** | PKP | PKPdf | 19 44 44.4 | -0.4 |
| | 1.6nm,0.8s,baz=37,slow=0.7,SNR=6.2 | | | | | | |

*DJA **26** 19:44:32.0±0.5,2°.N±2°×9°.6E±°, h154km±5km, M4.2/15, mB2.6/1, mb3.5/3, MLv4.5/15, Mw(mB)1.1/1*
*ISCJB **26** 19:44:39.5±0.9,1°.77N±0'.04×96°.97E±0'.07, h35km±7km, mb4.3/24, MS3.8/3, Error ellipse: s-maj=12.5km s-min=5.3km az=152.5*
*NEIC **26** 19:44:40.5±0.4,1°.85N×96°.95E, h25km±3km, mb4.6/13, Error ellipse: s-maj=6.9km s-min=4.9km az=55.0*
*IDC **26** 19:44:41.0±0.8,1°.86N×97°.03E, h25km±4km, mb4.0/12, mb1 4.1/13, mb1mx3.9/43, mbtmp4.1/13, ML2.5/1, MS3.6/5, Ms1 3.6/5, ms1mx3.2/45, Error ellipse: s-maj=22.5km s-min=13.6km az=50.0*

**ISC 26 19:44:40.1±0.7, 1°.75N±0'.04×96°.87E±0'.06, h25km±4km, h25km:pP-P,n70, σ1s59/80, mb4.3/25, MS3.7/3, Off west coast of northern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GSI** | **Gunungsitoli** | **0.84** | **122** | P | **Pn** | **19 44 57.7** | **+1.3** |
| GSI | | | | S | Sn | 19 45 21.8 | +14 |
| **GSI** | **Gunungsitoli** | **0.84** | **122** | ePn | **Pn** | **19 44 56.9** | **+0.6** |
| **SNSI** | **Sinabang, Aceh** | **0.85** | **321** | P | **Pb** | **19 44 56.1** | **-0.1** |
| SNSI | | | | S | **Sn** | **19 45 15.4** | **+7.3** |
| **TPTI** | | **1.53** | **12** | P | **Pn** | **19 45 03.7** | **-2.2** |
| **KCSI** | **Kotacane, Aceh** | **1.98** | **27** | P | **Pn** | **19 45 11.4** | **-0.7** |
| **PBSI** | **Pulau Batu** | **2.28** | **142** | P | **Pn** | **19 45 13.9** | **-2.4** |
| **PSI** | **Prapat** | **2.31** | **63** | Pn | **Pn** | **19 45 15.9** | **-0.8** |
| | 1.5nm,0.3s,baz=268,slow=4.5,SNR=14 | | | | | | |
| PSI | | | | LR | LR | 19 45 54.5 | |
| | comp=Z,477nm,19.8s,baz=278,slow=36 | | | | | | |
| **TSI** | **Tuntungan** | **2.43** | **44** | P | **Pn** | **19 45 18.5** | **+0.2** |
| TSI | | | | S | **Sb** | **19 45 54.0** | **+1.3** |
| **MLSI** | **Meulaboh, Aceh** | **2.54** | **350** | P | **Pn** | **19 45 15.3** | **-4.5** |
| MLSI | | | | S | **Sn** | **19 45 50.2** | **+0.2** |
| **LHMI** | **Lhok Sumawe** | **3.46** | **1** | P | **Pn** | **19 45 28.0** | **-4.4** |
| LHMI | | | | S | **Sn** | **19 46 11.5** | **-1.1** |
| **LHMI** | **Lhok Sumawe** | **3.46** | **1** | ePn | **Pn** | **19 45 31.3** | **-1.1** |
| **SISI** | **Saibi** | **3.78** | **144** | P | Pn | 19 45 32.6 | -4.3 |
| SISI | | | | S | **Sn** | **19 46 19.5** | **-1.1** |
| **BKNI** | **Bangkinang** | **4.41** | **109** | P | **Pn** | **19 45 42.8** | **-2.7** |
| BKNI | | | | S | **Sn** | **19 46 38.9** | **+2.8** |
| **PDSI** | **Padang** | **4.46** | **126** | P | **Pn** | **19 45 43.1** | **-3.2** |
| **IPM** | **Ipoh** | **4.96** | **57** | ePn | **Pn** | **19 45 52.6** | **-0.5** |
| **KULM** | **Kulim** | **5.16** | **47** | ePn | **Pn** | **19 45 55.3** | **-0.6** |
| **SDSI** | **Sungai Dareh** | **5.28** | **120** | P | **Pn** | **19 45 53.5** | **-4.1** |
| **CM01** | **Chiang Mai Arr** | **16.69** | **7** | ePn | **Pn** | **19 48 31.9** | **-0.6** |
| **CM31** | **Chiang Mai Arr** | **16.73** | **7** | ePn | **Pn** | **19 48 32.8** | **-0.1** |
| **CMAR** | **Chiang Mai Arr** | **16.73** | **7** | Pn | **Pn** | **19 48 31.2** | **-1.8** |
| | baz=198,slow=12,SNR=13 | | | | | | |
| CMAR | | | | LR | LR | 19 55 43.1 | |
| | comp=Z,156nm,18.5s,baz=191,slow=40 | | | | | | |
| **H08S2** | **Diego Garcia H** | **26.04** | **249** | T | T | 20 17 23.8 | |
| | baz=70,slow=76,SNR=203 | | | | | | |
| **H08S3** | **Diego Garcia H** | **26.05** | **249** | T | T | 20 17 33.2 | |
| | baz=70,slow=76,SNR=311 | | | | | | |
| **H08S1** | **Diego Garcia H** | **26.06** | **249** | T | T | 20 17 34.4 | |
| | baz=70,slow=76,SNR=218 | | | | | | |
| **ODAN** | **Odare** | **26.57** | **341** | eP | **P** | **19 50 16.0** | **-0.7** |
| | 43nm,1.0s | | | | | | |
| **TAPN** | **Taplejung** | **26.92** | **342** | eP | **P** | **19 50 20.3** | **+0.4** |
| | 46nm,0.9s | | | | | | |
| **JIRN** | **Jiri** | **27.72** | **339** | eP | **P** | **19 50 27.5** | **+0.4** |
| | 274nm,1.0s | | | | | | |
| **GUN** | **Gumba** | **28.06** | **339** | eP | **P** | **19 50 30.5** | **+0.4** |
| | 46nm,1.1s | | | | | | |
| **DMN** | **Daman** | **28.07** | **337** | eP | **P** | **19 50 29.6** | **-0.5** |
| | 23nm,1.1s | | | | | | |
| **KKN** | **Kakani** | **28.17** | **338** | eP | **P** | **19 50 31.0** | **0.0** |
| | 39nm,1.2s | | | | | | |
| **LSA** | **Lhasa** | **28.32** | **349** | eP | **P** | **19 50 32.4** | **-0.2** |
| | 4.3nm,0.8s | | | | | | |
| **BJT** | **Baijiatuau** | **41.94** | **22** | eP | **P** | **19 52 28.8** | **-0.1** |
| **WRA** | **Warramunga Arr** | **42.61** | **122** | P | **P** | **19 52 34.5** | **-0.3** |
| | 1.2nm,0.7s,baz=302,slow=9.1,SNR=18 | | | | | | |
| **WR1** | **Warramunga Arr** | **42.61** | **122** | eP | **P** | **19 52 34.5** | **-0.3** |
| | 37nm,2.0s | | | | | | |
| **ASAR** | **Alice Springs** | **43.99** | **127** | P | **P** | **19 52 45.8** | **-0.1** |
| | 0.9nm,0.7s,baz=301,slow=8.0,SNR=15 | | | | | | |
| ASAR | | | | pP | **pP** | **19 52 53.8** | **+0.3** |
| | 2.3nm,1.1s,baz=301,slow=8.0,SNR=5.0 | | | | | | |
| ASAR | | | | LR | LR | 20 14 24.7 | |
| | comp=Z,42nm,18.1s,baz=304,slow=41 | | | | | | |
| **AS31** | **Alice Springs** | **43.99** | **127** | eP | **P** | **19 52 45.8** | **-0.1** |
| | 2.6nm,1.5s | | | | | | |
| **AAK** | **Ala-Archa** | **45.37** | **337** | eP | **P** | **19 52 57.3** | **+0.6** |
| | 4.5nm,1.0s | | | | | | |
| **KSAR** | **Wonju Array Be** | **45.56** | **35** | P | **P** | **19 52 57.1** | **-1.0** |
| KSAR | | | | pP | **pP** | **19 53 05.1** | **-0.6** |
| **KS01** | **Wonju Array Si** | **45.59** | **35** | eP | **P** | **19 52 56.2** | **-2.1** |
| **KSRS** | **Korea Array** | **45.59** | **35** | P | **P** | **19 52 57.1** | **-1.2** |
| | 5.3nm,0.9s,baz=223,slow=8.7,SNR=11 | | | | | | |
| KSRS | | | | pP | **pP** | **19 53 05.1** | **-0.8** |
| | 4.3nm,0.8s,baz=217,slow=9.4,SNR=6.6 | | | | | | |
| **MK01** | **Makanchi Array** | **46.60** | **346** | eP | **P** | **19 53 05.6** | **-0.7** |
| **MK31** | **Makanchi Array** | **46.63** | **346** | eP | **P** | **19 53 06.2** | **-0.3** |
| **MK32** | **Makanchi Array** | **46.63** | **346** | eP | **P** | **19 53 06.5** | **0.0** |
| MK32 | | | | epP | **pP** | **19 53 14.6** | **+0.5** |
| **MKAR** | **Makanchi Array** | **46.63** | **346** | P | **P** | **19 53 06.5** | **0.0** |
| | 2.6nm,0.7s,baz=158,slow=8.0,SNR=28 | | | | | | |
| MKAR | | | | pP | **pP** | **19 53 14.6** | **+0.5** |
| | 2.7nm,0.7s,baz=163,slow=7.7,SNR=11 | | | | | | |
| **MKAR** | **Makanchi Array** | **46.63** | **346** | eP | **P** | **19 53 06.2** | **-0.3** |
| | 25nm,0.9s | | | | | | |
| MKAR | | | | pP | **pP** | **19 53 14.6** | **+0.5** |
| **SONA0** | **Songino Array** | **46.64** | **9** | eP | **P** | **19 53 06.2** | **-0.4** |
| SONA0 | | | | ePcP | **PcP** | **19 54 40.0** | **-0.2** |
| **SONM** | **Songino Array** | **46.64** | **9** | P | **P** | **19 53 06.2** | **-0.4** |
| | 3.0nm,0.8s,baz=188,slow=8.7,SNR=22 | | | | | | |
| SONM | | | | PcP | **PcP** | **19 54 40.0** | **-0.2** |
| | 0.8nm,0.8s,baz=179,slow=4.2,SNR=2.4 | | | | | | |
| SONM | | | | pPcP | | 19 54 48.0 | |
| | 1.0nm,0.7s,baz=188,slow=3.5,SNR=4.7 | | | | | | |
| **SONA1** | **Songino Array** | **46.65** | **9** | eP | **P** | **19 53 06.0** | **-0.8** |
| **MAKZ** | **Makanchi** | **46.72** | **346** | eP | **P** | **19 53 06.8** | **-0.3** |
| | 3.0nm,0.8s | | | | | | |
| **ULN** | **Ulaanbaatar** | **46.77** | **9** | eP | **P** | **19 53 06.9** | **-0.8** |
| | 3.1nm,1.0s | | | | | | |
| **GEYT** | **Alibeck** | **50.58** | **320** | P | **P** | **19 53 39.1** | **+2.1** |
| | 1.9nm,0.9s,baz=169,slow=8.9,SNR=7.2 | | | | | | |
| **KURK** | **Kurchatov** | **51.18** | **345** | eP | **P** | **19 53 40.8** | **-0.4** |
| | 6.3nm,1.0s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **52.48** | **31** | P | **P** | **19 53 51.1** | **+0.1** |
| | 4.7nm,0.9s,baz=198,slow=8.7,SNR=4.4 | | | | | | |
| USRK | | | | pP | **pP** | **19 53 58.3** | **-0.4** |
| | 10nm,1.1s,baz=197,slow=3.2,SNR=4.9 | | | | | | |
| USRK | | | | LR | LR | 20 19 08.2 | |
| | comp=Z,177nm,18.6s,baz=201,slow=40 | | | | | | |
| **ZAA0** | **Zalesovo Array** | **52.97** | **351** | eP | **P** | **19 53 54.1** | **-0.4** |
| | 16nm,0.9s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **52.97** | **351** | P | **P** | **19 53 54.3** | **-0.1** |
| | 13nm,0.7s,baz=180,slow=6.1,SNR=63 | | | | | | |
| ZALV | | | | LR | LR | 20 22 20.8 | |
| | comp=Z,70nm,18.8s,baz=264,slow=43 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **52.97** | **351** | eP | **P** | **19 53 53.9** | **-0.6** |
| **ZAA1** | **Zalesovo Array** | **52.97** | **351** | eP | **P** | **19 53 54.3** | **-0.2** |
| **STKA** | **Stephens Creek** | **53.97** | **132** | P | **P** | **19 54 03.0** | **+0.8** |
| | 1.1nm,0.7s,baz=344,slow=19,SNR=3.6 | | | | | | |
| **BRVK** | **Borovoye** | **55.69** | **341** | eP | **P** | **19 54 13.3** | **-0.9** |
| | 5.1nm,1.0s | | | | | | |
| **ABKAR** | **Akbulak array** | **56.87** | **332** | eP | **P** | **19 54 22.5** | **-0.3** |
| | 30nm,0.8s | | | | | | |
| **YAK** | **Yakutsk** | **64.99** | **16** | eP | **P** | **19 55 16.8** | **-0.9** |
| | 27nm,1.0s | | | | | | |
| **BR101** | **Keskin Array S** | **68.50** | **312** | eP | **P** | **19 55 43.0** | **+2.2** |
| **BRTR** | **Keskin Array B** | **68.50** | **312** | P | **P** | **19 55 43.0** | **+2.2** |
| | 0.5nm,0.9s,baz=141,slow=5.5,SNR=3.5 | | | | | | |
| **ILGA** | **Ilgaz** | **68.82** | **314** | eP | **P** | **19 55 42.2** | **-0.7** |
| | 7.4nm,0.9s | | | | | | |
| **FIA0** | **FINESS Array S** | **79.36** | **333** | eP | **P** | **19 56 43.4** | **-0.3** |
| **FINES** | **FINESS Array B** | **79.36** | **333** | P | **P** | **19 56 43.4** | **-0.3** |
| | 2.4nm,0.8s,baz=72,slow=8.9,SNR=3.0 | | | | | | |
| **GERES** | **GERESS Array B** | **84.18** | **319** | P | **P** | **19 57 09.9** | **+0.3** |
| | 1.0nm,0.9s,baz=104,slow=5.6,SNR=7.1 | | | | | | |
| GERES | | | | pP | **pP** | **19 57 18.3** | **+0.6** |
| | 0.7nm,0.8s,baz=68,slow=3.6,SNR=3.5 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **94.64** | **283** | pP | pP | 19 58 08.4 | +0.4 |
| | 0.7nm,0.9s,baz=109,slow=3.6,SNR=4.4 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **94.64** | **283** | epP | pP | 19 58 08.4 | +0.4 |
| **CPUP** | **Villa Florida** | **145.18** | **223** | PKPbc | **PKPbc** | **20 04 17.1** | **+1.2** |
| | 1.6nm,0.6s,baz=109,slow=3.0,SNR=5.8 | | | | | | |
| **CPUP** | **Villa Florida** | **145.18** | **223** | ePKPbc | **PKPdf** | **20 04 17.6** | **+1.2** |

*IDC **26** 19:46:44.8±2.1,31°.70S×179°.21W, h0km, mb3.9/3, mb1 4.2/4, mb1mx3.9/27, mbtmp4.0/4, ML3.7/1, Error ellipse: s-maj=54.1km s-min=40.3km az=133.0*
*NEIC **26** 19:46:53.6±0.8,31°.96S×179°.39W, h62km±8km, mb4.2/2, Error ellipse: s-maj=24.2km s-min=12.4km az=112.0*

**ISC 26 19:46:55.0±1.6, 31°.91S±0'.09×179°.9E±0'.2, h35km, n57, σ2s03/59, mb4.0/5, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MXZ** | **Matakaoa Point** | **5.79** | **193** | ePn | **Pn** | **19 48 19.0** | **+0.7** |
| **WMGZ** | **Waiomatatini S** | **6.02** | **191** | PN | **Pn** | **19 48 25.0** | **+3.5** |
| WMGZ | | | | SN | **Sn** | **19 49 30.4** | **+1.2** |
| **HAZ** | **Te Kaha** | **6.08** | **196** | PN | **Pn** | **19 48 26.3** | **+3.9** |
| HAZ | | | | SN | **Sn** | **19 49 32.6** | **+1.9** |
| **PKGZ** | **Pakihiroa** | **6.15** | **194** | PN | **Pn** | **19 48 26.5** | **+3.2** |
| **PUZ** | **Puketiti** | **6.29** | **192** | PN | **Pn** | **19 48 24.1** | **-1.2** |
| **RUGZ** | **Raukumara Rang** | **6.31** | **196** | PN | **Pn** | **19 48 26.8** | **+1.2** |
| **MWZ** | **Matawai** | **6.69** | **196** | PN | **Pn** | **19 48 29.9** | **-0.9** |
| **URZ** | **Urewera** | **6.73** | **199** | Pn | **Pn** | **19 48 31.6** | **+0.3** |
| | 1.3nm,0.3s,baz=272,slow=5.6,SNR=31 | | | | | | |
| URZ | | | | Sn | **Sn** | **19 49 44.8** | **-1.9** |
| | 9.2nm,0.3s,baz=304,slow=20,SNR=22 | | | | | | |
| **URZ** | **Urewera** | **6.73** | **199** | PN | **Pn** | **19 48 31.6** | **+0.3** |
| URZ | | | | SN | **Sn** | **19 49 44.6** | **-2.1** |
| **RAGZ** | **Rawiri** | **6.88** | **196** | PN | **Pn** | **19 48 36.3** | **+2.9** |
| **TARZ** | **Mount Tarawera** | **6.89** | **203** | PN | Pn | 19 48 39.3 | +5.7 |
| **RIGZ** | **Rimuhau** | **7.00** | **194** | PN | **Pn** | **19 48 35.2** | **+0.2** |
| **MUGZ** | **Murupara** | **7.03** | **200** | PN | **Pn** | **19 48 38.6** | **+3.2** |
| **RTZ** | **Ruatahuna** | **7.10** | **199** | PN | **Pn** | **19 48 36.1** | **-0.3** |
| **SNGZ** | **Shannon Statio** | **7.16** | **196** | PN | **Pn** | **19 48 38.6** | **+1.3** |
| **KNZ** | **Kokohu** | **7.32** | **194** | PN | **Pn** | **19 48 39.9** | **+0.5** |
| **MTHZ** | **Maungataniwha** | **7.36** | **199** | PN | **Pn** | **19 48 40.9** | **+1.0** |
| **MHGZ** | **Mahia Peninsul** | **7.40** | **192** | PN | **Pn** | **19 48 41.7** | **+1.1** |
| **MRHZ** | **Matea Rd** | **7.47** | **201** | PN | **Pn** | **19 48 44.4** | **+2.9** |
| **WHHZ** | **Waihua** | **7.47** | **196** | PN | **Pn** | **19 48 42.2** | **+0.7** |
| **NMHZ** | **Naumai** | **7.60** | **198** | PN | **Pn** | **19 48 45.0** | **+1.7** |
| **ARHZ** | **Aropaoanui** | **7.71** | **197** | PN | **Pn** | **19 48 44.8** | **+0.2** |
| **MCHZ** | **McNeill Hill** | **7.95** | **198** | PN | **Pn** | **19 48 50.5** | **+2.5** |
| **KWHZ** | **Kaweka Forest** | **8.01** | **200** | PN | **Pn** | **19 48 48.3** | **-0.7** |
| **OTVZ** | **Oturere** | **8.01** | **204** | PN | **Pn** | **19 48 52.0** | **+3.0** |
| **BHHZ** | **Black Hill Sta** | **8.18** | **201** | PN | **Pn** | **19 48 52.7** | **+1.5** |
| **WNVZ** | **Wahianoa** | **8.18** | **204** | PN | **Pn** | **19 48 53.7** | **+2.3** |
| **KRHZ** | **Kereru** | **8.23** | **199** | PN | **Pn** | **19 48 51.5** | **-0.4** |
| **KAHZ** | **Kahuranaki** | **8.24** | **196** | PN | **Pn** | **19 48 51.9** | **-0.2** |
| **PNHZ** | **Pukenui** | **8.53** | **200** | PN | **Pn** | **19 48 55.5** | **-0.5** |
| **TSZ** | **Takapari Road** | **8.73** | **200** | PN | **Pn** | **19 48 57.9** | **-0.9** |
| **PRHZ** | **Porangahau** | **8.74** | **197** | PN | **Pn** | **19 48 57.5** | **-1.4** |
| **PRWZ** | **Pori Road** | **9.19** | **199** | PN | **Pn** | **19 49 04.0** | **-1.0** |
| **BFZ** | **Birch Farm** | **9.23** | **198** | PN | **Pn** | **19 49 04.2** | **-1.4** |
| **MRZ** | **Mangatainoka R** | **9.40** | **201** | PN | **Pn** | **19 49 05.8** | **-2.1** |
| **HOWZ** | **Holdsworth Sta** | **9.63** | **200** | PN | **Pn** | **19 49 09.2** | **-1.9** |
| **OGWZ** | **Otaki Gorge** | **9.67** | **202** | PN | **Pn** | **19 49 10.0** | **-1.6** |
| **TMWZ** | **Te Maipa** | **9.72** | **198** | PN | **Pn** | **19 49 09.8** | **-2.5** |
| **KIW** | **Kapiti Island** | **9.79** | **203** | PN | **Pn** | **19 49 11.6** | **-1.7** |
| **MTW** | **Mount Morrison** | **9.88** | **200** | PN | **Pn** | **19 49 12.1** | **-2.4** |
| **CAW** | **Cannon Point** | **9.96** | **202** | PN | **Pn** | **19 49 13.2** | **-2.4** |
| **DUWZ** | **D'Urville Isla** | **10.09** | **207** | PN | **Pn** | **19 49 15.7** | **-1.7** |
| **TCW** | **Tory Channel** | **10.32** | **204** | PN | **Pn** | **19 49 17.7** | **-2.8** |
| **PLWZ** | **Palliser** | **10.33** | **200** | PN | **Pn** | **19 49 17.4** | **-3.2** |
| **TUWZ** | **Tuamarina** | **10.63** | **205** | PN | **Pn** | **19 49 21.7** | **-3.0** |
| **NNZ** | **Nelson** | **10.66** | **208** | PN | **Pn** | **19 49 21.4** | **-3.7** |
| **QRZ** | **Quartz Range** | **10.69** | **212** | PN | **Pn** | **19 49 25.0** | **-0.5** |
| **THZ** | **Tophouse** | **11.31** | **208** | PN | **Pn** | **19 49 32.2** | **-1.9** |
| **AS31** | **Alice Springs** | **41.26** | **270** | eP | **P** | **19 54 38.1** | **+1.2** |
| | 2.4nm,1.6s | | | | | | |
| **ASAR** | **Alice Springs** | **41.26** | **270** | P | **P** | **19 54 38.1** | **+1.2** |
| | 0.8nm,0.6s,baz=108,slow=7.7,SNR=15 | | | | | | |
| **WR1** | **Warramunga Arr** | **42.38** | **275** | eP | **P** | **19 54 46.7** | **+0.5** |
| | 29nm,1.8s | | | | | | |
| **WRA** | **Warramunga Arr** | **42.38** | **275** | P | **P** | **19 54 46.7** | **+0.5** |
| | 1.2nm,0.3s,baz=112,slow=8.0,SNR=18 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **50.58** | **272** | P | **P** | **19 55 51.5** | **+1.1** |
| | 1.0nm,0.5s,baz=124,slow=4.6,SNR=4.2 | | | | | | |
| **DAC** | **Darwin (Calif)** | **89.58** | **46** | epP | pP | 20 00 00.1 | -0.2 |
| **FIA0** | **FINESS Array S** | **145.90** | **338** | eP | **PKPdf** | **20 06 25.8** | **-3.5** |
| **FINES** | **FINESS Array B** | **145.90** | **338** | PKPbc | **PKPdf** | **20 06 25.8** | **-3.4** |
| | 1.6nm,0.3s,baz=42,slow=4.6,SNR=31 | | | | | | |
| **BRTR** | **Keskin Array B** | **151.67** | **295** | PKPbc | **PKPdf** | **20 06 41.5** | **+2.0** |
| | 0.3nm,0.6s,baz=103,slow=5.2,SNR=2.7 | | | | | | |

**IDC 26 19:53:59.6±54.0, 23°.48S×177°.90W, h0km, mb3.6/3, mb1 3.7/3, mb1mx3.6/26, mbtmp3.6/3, Error ellipse: s-maj=984.7km s-min=167.4km az=87.0, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **STKA** | **Stephens Creek** | **36.66** | **248** | P | P | 20 01 07.0 | -1.2 |
| | 0.6nm,0.4s,baz=103,slow=9.4,SNR=4.1 | | | | | | |
| **ASAR** | **Alice Springs** | **44.01** | **260** | P | P | 20 02 09.0 | -0.2 |
| | 0.2nm,0.4s,baz=96,slow=7.6,SNR=13 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.36** | **265** | P | P | 20 02 12.9 | +0.8 |
| | 0.4nm,0.7s,baz=99,slow=7.5,SNR=9.1 | | | | | | |

**SJA 26 20:17:54.3±0.4, 31°.44S×68°.27W, h99km±2km, ML4.3, MW3.7, San Juan Province**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RTLL** | **Cerro Villicun** | **0.21** | **302** | eP | Pn | 20 18 09.1 | +0.6 |
| RTLL | | | | eS | Sn | 20 18 20.1 | +1.1 |
| **RTCV** | **Cerro Valdivia** | **0.48** | **209** | eP | Pn | 20 18 10.9 | +1.0 |
| RTCV | | | | eS | Sn | 20 18 22.4 | +0.8 |
| **AMOG** | **MOGNA** | **0.54** | **339** | eP | Pn | 20 18 11.1 | +0.8 |
| AMOG | | | | eS | Sn | 20 18 23.4 | +1.1 |
| AMOG | | | | IAML | | 20 18 24.4 | |
| | comp=Z,7μm,0.3s | | | | | | |
| **RTLS** | **Leoncito** | **0.95** | **248** | eP | Pn | 20 18 15.8 | +1.4 |
| **AUSP** | **Uspallata** | **1.23** | **230** | eP | Pn | 20 18 18.8 | +1.2 |
| AUSP | | | | eS | Sn | 20 18 37.3 | +2.2 |
| **ACAN** | **Cantantal** | **1.24** | **132** | eP | Pn | 20 18 18.3 | +1.0 |
| ACAN | | | | eS | Sn | 20 18 36.2 | +1.4 |
| **AGUA** | **GUANDACOL** | **1.96** | **354** | eP | Pn | 20 18 27.6 | +1.2 |
| AGUA | | | | eS | Sn | 20 18 52.2 | +1.4 |

*ISN **26** 20:17:57.9±1.0, 27°.43N×52°.34E, h1km±254km, ML4.4*
*IDC **26** 20:18:05.5±0.8, 27°.79N×52°.09E, h0km, mb4.0/20, mb1 4.2/28, mb1mx4.1/43, mbtmp4.0/28, ML3.8/7, MS3.0/4, Ms1 3.0/4, ms1mx2.8/46, Error ellipse: s-maj=18.5km s-min=13.3km az=10.0*
*VIE **26** 20:18:06.8, 27°.89N×52°.05E, h0km, mb4.1/14, ML3.7/3*
*NEIC **26** 20:18:06.0±0.0, 27°.88N×52°.02E, h10km, mb4.5/13, MN4.1(TEH), After TEH.*
*NEIC Felt at Manama, Bahrain.*
*TEH **26** 20:18:06.0, 27°.88N×52°.02E, h10km, ML4.1*
*MOS **26** 20:18:07.6±1.2, 27°.81N×52°.09E, h26km, mb4.9/14, Error ellipse: s-maj=8.9km s-min=5.5km az=102.3*
*ISCJB **26** 20:18:07.5±0.2, 27°.80N±0°.03×52°.03E±0°.02, h26km, mb4.4/44, MS3.7/4, Error ellipse: s-maj=4.0km s-min=2.5km az=31.0*
*THR **26** 20:18:07.6±1.3, 27°.75N×52°.10E, h42km±9km, ML3.9*
*CSEM **26** 20:18:07.3±0.1, 27°.81N×52°.05E, h10km, mb

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ICHK | | | | | *e*AMB | AMB | 20 19 25.1 | | | |
| | comp=Z,2μm,0.2s | | | | | | | | | |
| **ICHK** | **Chekchek** | **4.87** | **24** | *e*Pn | **Pn** | **20 19 22.3 +1.1** | | | | |
| **IPIR** | **Pirpir** | **4.99** | **348** | *e*Pn | **Pn** | **20 19 22.2 -0.8** | | | | |
| IPIR | | | | | *e*AMB | AMB | 20 21 17.2 | | | |
| | comp=Z,1μm,0.4s | | | | | | | | | |
| **IPIR** | **Pirpir** | **4.99** | **348** | *e*Pn | **Pn** | **20 19 22.2 -0.8** | | | | |
| **NASN** | **Na'in** | **5.03** | **7** | *e*Pn | **Pn** | **20 19 22.5 -1.1** | | | | |
| **NASN** | **Na'in** | **5.03** | **7** | *e*Pn | **Pn** | **20 19 22.5 -1.0** | | | | |
| **IZEF** | **Zefreh** | **5.09** | **2** | *e*Pn | **Pn** | **20 19 24.9 +0.5** | | | | |
| IZEF | | | | | *e*AMB | AMB | 20 19 55.5 | | | |
| | comp=Z,715nm,0.3s | | | | | | | | | |
| **IZEF** | **Zefreh** | **5.09** | **2** | *e*Pn | **Pn** | **20 19 24.9 +0.5** | | | | |
| **CHMN** | **Cheshme madani** | **5.20** | **65** | *e*Pn | **Pn** | **20 19 27.2 +1.3** | | | | |
| **CHMN** | **Cheshme madani** | **5.20** | **65** | *e*Pn | **Pn** | **20 19 27.2 +1.3** | | | | |
| **IKLH** | **Kolahrood** | **5.53** | **355** | *e*Pn | **Pn** | **20 19 29.6 -0.7** | | | | |
| IKLH | | | | | *e*AMB | AMB | 20 20 01.8 | | | |
| | comp=Z,1μm,0.4s | | | | | | | | | |
| **IKLH** | **Kolahrood** | **5.53** | **355** | *e*Pn | **Pn** | **20 19 29.6 -0.7** | | | | |
| **QAM** | **Ghamsar** | **5.97** | **355** | *e*Pn | **Pn** | **20 19 35.9 -0.6** | | | | |
| QAM | | | | | *e*AMB | AMB | 20 20 57.4 | | | |
| | comp=Z,918nm,0.3s | | | | | | | | | |
| **NSR** | **Nassriya** | **6.11** | **303** | *e*Pn | **Pn** | **20 19 36.0 -2.1** | | | | |
| | SNR=4.0 | | | | | | | | | |
| NSR | | | | *i* Sn | **Sn** | **20 20 47.0 -0.1** | | | | |
| | SNR=4.0 | | | | | | | | | |
| **KHMZ** | **Khomeyn** | **6.21** | **343** | *e*Pn | **Pn** | **20 19 39.1 -0.6** | | | | |
| **KHMZ** | **Khomeyn** | **6.21** | **343** | *e*Pn | **Pn** | **20 19 39.1 -0.6** | | | | |
| **BSY** | **Bisya** | **6.82** | **136** | Sn | **Sn** | **20 21 07.1 +2.2** | | | | |
| | SNR=8.4 | | | | | | | | | |
| **BSY** | **Bisya** | **6.82** | **136** | S | **Sn** | **20 21 07.1 +2.2** | | | | |
| | SNR=8.4 | | | | | | | | | |
| **BSYO** | **Bisya** | **6.86** | **136** | S | **Sn** | **20 21 07.1 +1.4** | | | | |
| | SNR=8.4 | | | | | | | | | |
| **TABS** | **Tabas** | **7.26** | **35** | *e*Pn | **Pn** | **20 19 53.4 -0.6** | | | | |
| **TABS** | **Tabas** | **7.26** | **35** | *e*Pn | **Pn** | **20 19 53.4 -0.6** | | | | |
| **RAYN** | **Ar Rayn** | **7.32** | **236** | *e*Pn | **Pn** | **20 19 54.0 -0.7** | | | | |
| **RAYN** | **Ar Rayn** | **7.32** | **236** | *e*Pn | **Pn** | **20 19 54.0 -0.7** | | | | |
| **WSAR** | **Wadi Šarin** | **7.44** | **126** | Pn | **Pn** | **20 19 56.8 +0.3** | | | | |
| | comp=Z,2.8nm,0.3s,baz=313,slow=12,SNR=28 | | | | | | | | | |
| WSAR | | | | | Sn | **Sn** | **20 21 18.5 -1.6** | | | |
| | comp=Z,2.5nm,0.3s,baz=86,slow=10,SNR=5.8 | | | | | | | | | |
| WSAR | | | | | LR | LR | 20 24 03.5 | | | |
| | comp=Z,125nm,18.3s,baz=318,slow=48 | | | | | | | | | |
| **WSAR** | **Wadi Sarin** | **7.44** | **126** | Pn | **Pn** | **20 19 56.7 +0.3** | | | | |
| | SNR=30 | | | | | | | | | |
| **WSAR** | **Wadi Sarin** | **7.44** | **126** | P | **Pn** | **20 19 56.7 +0.3** | | | | |
| | SNR=30 | | | | | | | | | |
| **IGHG** | **Ghaleghazi** | **8.06** | **325** | *e*AMB | AMB | 20 20 10.8 | | | | |
| | comp=Z,1μm,0.2s | | | | | | | | | |
| IGHG | | | | | *e*Pn | **Pn** | **20 20 04.5 -0.6** | | | |
| **IVIS** | **Veis** | **8.08** | **327** | *e*AMB | AMB | 20 20 08.9 | | | | |
| | comp=Z,687nm,0.1s | | | | | | | | | |
| IVIS | | | | | *e*Pn | **Pn** | **20 20 05.0 -0.3** | | | |
| **SNGE** | **Sanandaj** | **8.33** | **332** | | *e*Pn | **Pn** | **20 20 08.2 -0.6** | | | |
| **SNGE** | **Sanandaj** | **8.33** | **332** | | *e*Pn | **Pn** | **20 20 08.2 -0.6** | | | |
| **ILIN** | **Lien** | **8.35** | **330** | *e*AMB | AMB | 20 20 09.8 | | | | |
| | comp=Z,833nm,0.1s | | | | | | | | | |
| ILIN | | | | | *e*Pn | **Pn** | **20 20 09.0 -0.1** | | | |
| **ILIN** | **Lien** | **8.35** | **330** | *e*Pn | **Pn** | **20 20 09.0 -0.1** | | | | |
| **BHD** | **Baghdad** | **8.61** | **311** | *e*Pn | **Pn** | **20 20 12.0 -0.4** | | | | |
| | SNR=4.0 | | | | | | | | | |
| BHD | | | | *i* Sn | **Sn** | **20 21 49.0 +0.4** | | | | |
| | SNR=4.0 | | | | | | | | | |
| **IAKL** | **Akhelmad** | **10.43** | **31** | *e*AMB | AMB | 20 20 58.4 | | | | |
| | comp=N,45nm,0.2s | | | | | | | | | |
| **GEYT** | **Alibeck** | **11.30** | **25** | Pn | **Pn** | **20 20 50.3 +1.0** | | | | |
| | comp=N,0.7nm,0.3s,baz=208,slow=15,SNR=17 | | | | | | | | | |
| **RTB** | **Rutbah** | **11.44** | **300** | *e*Pn | **Pn** | **20 20 50.0 -1.2** | | | | |
| | SNR=4.0 | | | | | | | | | |
| **CUKT** | **Cukurca** | **11.84** | **325** | *i* P | **Pn** | **20 20 53.2 -3.6** | | | | |
| **HAKT** | **HAKKARI** | **12.03** | **326** | *i* P | **Pn** | **20 20 56.0 -3.4** | | | | |
| **SIRN** | **S¨¨rnak** | **12.65** | **322** | *i* P | **Pn** | **20 21 05.0 -2.8** | | | | |
| **SIRN** | **S¨¨rnak** | **12.65** | **322** | P | **Pn** | **20 21 05.0 -2.8** | | | | |
| **GEVA** | **Gevas** | **12.93** | **326** | *i* P | **Pn** | **20 21 09.3 -2.5** | | | | |
| **GEVA** | **Gevas** | **12.93** | **326** | P | **Pn** | **20 21 09.3 -2.5** | | | | |
| **SRTM** | **Siirt_Merkez** | **13.28** | **323** | *i* P | **Pn** | **20 21 12.5 -3.9** | | | | |
| **MARD** | **Mardin** | **13.45** | **318** | *i* P | **Pn** | **20 21 15.0 -3.9** | | | | |
| **MARD** | **Mardin** | **13.45** | **318** | *e*Pn | **Pn** | **20 21 14.3 -4.5** | | | | |
| **MARD** | **Mardin** | **13.45** | **318** | *e*Pn | **Pn** | **20 21 14.3 -4.5** | | | | |
| **BTMN** | **Batman** | **13.56** | **321** | *i* P | **Pn** | **20 21 17.2 -3.0** | | | | |
| **GNI** | **Garni** | **13.75** | **336** | Pn | **Pn** | **20 21 24.5 +1.7** | | | | |
| | comp=N,0.3nm,0.3s,baz=200,slow=15,SNR=3.6 | | | | | | | | | |
| GNI | | | | | LR | LR | 20 27 23.2 | | | |
| | comp=N,126nm,19.2s,baz=128,slow=41 | | | | | | | | | |
| **GNI** | **Garni** | **13.75** | **336** | ⇓ *e*P | **Pn** | **20 21 20.8 -2.0** | | | | |
| GNI | | | | | pmax | pmax | | | | |
| | comp=Z,38nm,1.2s | | | | | | | | | |
| **GNI** | **Garni** | **13.75** | **336** | *e*P | **Pn** | **20 21 20.8 -2.0** | | | | |
| | comp=Z,38nm,1.2s | | | | | | | | | |
| **ASF** | **Jabal al Asfar** | **13.88** | **292** | Pn | **Pn** | **20 21 27.3 +2.7** | | | | |
| | comp=Z,0.4nm,0.3s,baz=51,slow=14,SNR=3.2 | | | | | | | | | |
| ASF | | | | | Sn | Sn | 20 23 46.1 -12 | | | |
| | comp=Z,0.3nm,0.3s,baz=78,slow=19,SNR=3.0 | | | | | | | | | |
| **BNGL** | **BINGOL** | **14.39** | **323** | *i* P | **Pn** | **20 21 28.9 -2.9** | | | | |
| **HANI** | **Diyarbakir_Han** | **14.42** | **320** | *i* P | **Pn** | **20 21 28.5 -3.5** | | | | |
| **ERZM** | **Erzurum** | **15.00** | **326** | *i* P | **Pn** | **20 21 40.1 +0.1** | | | | |
| **EIL** | **Elat** | **15.16** | **281** | Pn | **Pn** | **20 21 42.0 +0.1** | | | | |
| | comp=Z,0.1nm,0.3s,baz=23,slow=13,SNR=2.1 | | | | | | | | | |
| **MMAI** | **Mount Meron Ar** | **15.31** | **294** | Pn | **Pn** | **20 21 42.4 -1.6** | | | | |
| | comp=Z,0.5nm,0.3s,baz=98,slow=18,SNR=5.0 | | | | | | | | | |
| **KOPT** | **Kop Dagi** | **15.52** | **325** | *e*Pn | **Pn** | **20 21 44.6 -2.3** | | | | |
| | comp=Z,26nm,1.0s | | | | | | | | | |
| **KOPT** | **Kop Dagi** | **15.52** | **325** | *e*Pn | **Pn** | **20 21 44.6 -2.3** | | | | |
| | comp=Z,26nm,1.0s | | | | | | | | | |
| **ARTV** | **Artvin** | **15.76** | **331** | *e*Pn | **Pn** | **20 21 48.3 -1.6** | | | | |
| | comp=Z,34nm,1.4s | | | | | | | | | |
| **ARTV** | **Artvin** | **15.76** | **331** | *e*Pn | **Pn** | **20 21 48.3 -1.6** | | | | |
| | comp=Z,34nm,1.4s | | | | | | | | | |
| **KBL** | **Kabul** | **15.98** | **61** | *e*P | **Pn** | **20 21 52.0 -0.7** | | | | |
| KBL | | | | | pmax | pmax | | | | |
| | comp=Z,11nm,1.0s | | | | | | | | | |
| **KBL** | **Kabul** | **15.98** | **61** | *e*Pn | **Pn** | **20 21 52.0 -0.7** | | | | |
| | comp=Z,11nm,1.0s | | | | | | | | | |
| **KBL** | **Kabul** | **15.98** | **61** | *e*Pn | **Pn** | **20 21 52.0 -0.7** | | | | |
| | comp=Z,11nm,1.0s | | | | | | | | | |
| **ZEI** | **Tsey** | **16.38** | **338** | *e*P | **Pn** | **20 21 56.2 -1.5** | | | | |
| ZEI | | | | | pmax | pmax | | | | |
| | comp=Z,66nm,0.9s | | | | | | | | | |
| **NCK** | **Nalchik** | **17.11** | **339** | ⇓ *i*P | **P** | **20 22 07.6 -0.7** | | | | |
| NCK | | | | | pmax | pmax | | | | |
| | comp=Z,35nm,1.0s | | | | | | | | | |
| **NCK** | **Nalchik** | **17.11** | **339** | *i* P | **P** | **20 22 07.6 -0.7** | | | | |
| | comp=Z,35nm,1.0s | | | | | | | | | |
| **NEY** | **Neytrino** | **17.19** | **336** | ⇓ *e*P | **P** | **20 22 09.1 -0.3** | | | | |
| NEY | | | | | pmax | pmax | | | | |
| | comp=Z,13nm,1.6s | | | | | | | | | |
| **NEY** | **Neytrino** | **17.19** | **336** | *e*P | **P** | **20 22 09.1 -0.3** | | | | |
| | comp=Z,13nm,1.6s | | | | | | | | | |
| **KBZ** | **Khabaz** | **17.55** | **337** | P | **P** | **20 22 13.1 0.0** | | | | |
| | comp=Z,0.2nm,0.3s,baz=150,slow=9.9,SNR=16 | | | | | | | | | |
| **KVAR** | **Kislovodsk Arr** | **17.82** | **337** | P | **P** | **20 22 16.0 -0.3** | | | | |
| | baz=300,slow=2.1,SNR=9.2 | | | | | | | | | |
| **KVAR** | **Kislovodsk Arr** | **17.82** | **337** | P | **P** | **20 22 16.0 -0.3** | | | | |
| **KVAR** | **Kislovodsk Arr** | **17.82** | **337** | P | **P** | **20 22 16.0 -0.3** | | | | |
| **KIV** | **Kislovodsk** | **17.82** | **337** | *e*P | **P** | **20 22 16.8 +0.5** | | | | |
| KIV | | | | | pmax | pmax | | | | |
| | comp=Z,23nm,1.1s | | | | | | | | | |
| **KIV** | **Kislovodsk** | **17.82** | **337** | *e*Pn | **Pn** | **20 22 15.2 -0.5** | | | | |
| | comp=Z,19nm,0.9s | | | | | | | | | |
| **KIV** | **Kislovodsk** | **17.82** | **337** | *e*P | **P** | **20 22 16.8 +0.5** | | | | |
| | comp=Z,23nm,1.1s | | | | | | | | | |
| **KIV** | **Kislovodsk** | **17.82** | **337** | *e*Pn | **Pn** | **20 22 15.2 -0.5** | | | | |
| | comp=Z,19nm,0.9s | | | | | | | | | |
| **KIV** | **Kislovodsk** | **17.82** | **337** | pP | **P** | **20 22 17.0 +0.8** | | | | |
| | SNR=5.4 | | | | | | | | | |
| **KIV** | **Kislovodsk** | **17.82** | **337** | P | **P** | **20 22 17.0 +0.8** | | | | |
| | SNR=5.4 | | | | | | | | | |
| **ATD** | **Arta Tunnel** | **18.36** | **210** | LR | LR | 20 29 24.0 | | | | |
| | comp=Z,49nm,19.5s,baz=346,slow=37 | | | | | | | | | |
| **BR101** | **Keskin Array S** | **19.38** | **313** | *e*P | **P** | **20 22 33.8 +0.3** | | | | |
| **BR101** | **Keskin Array S** | **19.38** | **313** | *e*P | **P** | **20 22 33.9 +0.3** | | | | |
| **BR131** | **Keskin Array S** | **19.38** | **313** | *e*P | **P** | **20 22 32.4 -1.1** | | | | |
| **BR131** | **Keskin Array S** | **19.38** | **313** | *e*P | **P** | **20 22 32.4 -1.1** | | | | |
| **BRTR** | **Keskin Array B** | **19.38** | **313** | P | **P** | **20 22 33.9 +0.3** | | | | |
| | comp=Z,0.2nm,0.3s,baz=129,slow=12,SNR=29 | | | | | | | | | |
| **ANN** | **Anapa** | **20.63** | **329** | *e*P | **P** | **20 22 45.8 -1.0** | | | | |
| ANN | | | | *e**PP | **pP** | **20 22 54.8 +0.9** | | | | |
| ANN | | | | *e*S | **S** | **20 26 35.0 -1.1** | | | | |
| ANN | | | | | pmax | pmax | | | | |
| | comp=Z,18nm,1.0s | | | | | | | | | |
| **ANN** | **Anapa** | **20.63** | **329** | *e*P | **P** | **20 22 45.8 -1.0** | | | | |
| | comp=Z,18nm,1.0s | | | | | | | | | |
| **THN** | **Thein Dam** | **20.93** | **71** | *e*P | Pn | 20 22 51.8 -1.1 | | | | |
| **KKAR** | **Karatay Array** | **21.34** | **39** | *e*P | **P** | **20 22 53.7 -0.9** | | | | |
| **KKAR** | **Karatay Array** | **21.34** | **39** | *e*P | **P** | **20 22 53.7 -0.9** | | | | |
| **SFK** | **Sufi-Kurgan** | **21.48** | **50** | P | **P** | **20 22 57.1 +0.7** | | | | |
| **MNAS** | **Manas** | **22.13** | **43** | P | **P** | **20 23 03.6 +0.4** | | | | |
| **ABKAR** | **Akbulak array** | **22.27** | **14** | *e*P | **P** | **20 23 04.1 -0.4** | | | | |
| | comp=Z,67nm,1.0s | | | | | | | | | |
| **ABKAR** | **Akbulak array** | **22.27** | **14** | *e*P | **P** | **20 23 04.1 -0.4** | | | | |
| | comp=Z,67nm,1.0s | | | | | | | | | |
| **KSH** | **Kashi** | **22.98** | **53** | P | **P** | **20 23 08.5 -3.8** | | | | |
| KSH | | | | pP | pP | 20 23 18.3 -1.2 | | | | |
| KSH | | | | PP | **PnPn** | **20 23 36.8 -0.6** | | | | |
| KSH | | | | PcP | **PcP** | **20 27 02.5 +0.8** | | | | |
| KSH | | | | S | S | 20 27 09.3 -12 | | | | |
| KSH | | | | SS | **SnSn** | **20 27 51.5 -2.5** | | | | |
| **KSH** | **Kashi** | **22.98** | **53** | ScS | ScS | 20 34 19.5 -4.3 | | | | |
| KSH | | | | pmax | pmax | | | | | |
| | comp=Z,8.0nm,0.6s | | | | | | | | | |
| KSH | | | | pmax | pmax | | | | | |
| | comp=Z,130nm,4.1s | | | | | | | | | |
| KSH | | | | LR | LR | | | | | |
| | comp=N,120nm,4.9s | | | | | | | | | |
| KSH | | | | LR | LR | | | | | |
| | comp=E,78nm,4.1s | | | | | | | | | |
| KSH | | | | LR | LR | | | | | |
| | comp=Z,170nm,5.2s | | | | | | | | | |
| **AKTO** | **Aktyubinsk** | **23.06** | **10** | P | **P** | **20 23 13.0 +0.2** | | | | |
| | comp=Z,3.0nm,0.7s,baz=201,slow=10,SNR=6.5 | | | | | | | | | |
| **AKTO** | **Aktyubinsk** | **23.06** | **10** | *e*P | **P** | **20 23 13.0 +0.2** | | | | |
| **AKTO** | **Aktyubinsk** | **23.06** | **10** | *e*P | **P** | **20 23 13.0 +0.2** | | | | |
| **AAK** | **Ala-Archa** | **23.44** | **45** | P | **P** | **20 23 18.1 +1.2** | | | | |
| | comp=Z,3.0nm,0.9s,baz=190,slow=7.3,SNR=10 | | | | | | | | | |
| **AAK** | **Ala-Archa** | **23.44** | **45** | ⇓ *i*P | **P** | **20 23 20.3 +3.4** | | | | |
| AAK | | | | pmax | pmax | | | | | |
| | comp=Z,7.0nm,1.2s | | | | | | | | | |
| **FRU** | **Bishkek** | **23.62** | **45** | *e*P | **P** | **20 23 22.0 +3.5** | | | | |
| FRU | | | | *e* | | 20 23 45.0 | | | | |
| **VRH** | **Novokhopyorsk** | **24.66** | **344** | *e*P | **P** | **20 23 27.4 -0.6** | | | | |
| VRH | | | | pmax | pmax | | | | | |
| | comp=Z,30nm,0.5s | | | | | | | | | |
| **VSR** | **Storozhevoye** | **25.36** | **341** | *e*P | **P** | **20 23 33.5 -0.8** | | | | |
| VSR | | | | pmax | pmax | | | | | |
| | comp=Z,40nm,1.0s | | | | | | | | | |
| **CFR** | **Carcaliu** | **25.78** | **319** | ⇑ *i*P | **P** | **20 23 38.6 +0.4** | | | | |
| **CFR** | **Carcaliu** | **25.78** | **319** | ⇑ *i*P | **P** | **20 23 38.6 +0.4** | | | | |
| **LEOM** | **Leova** | **26.46** | **321** | ⇓ *i*P | **P** | **20 23 44.9 +0.6** | | | | |
| **LEOM** | **Leova** | **26.46** | **321** | P | **P** | **20 23 44.9 +0.6** | | | | |
| **LEOM** | **Leova** | **26.46** | **321** | ⇓ *i*P | **P** | **20 23 44.9 +0.6** | | | | |
| **LPSR** | **Galich'ya Gora** | **26.66** | **342** | *e*P | **P** | **20 23 47.1 +1.1** | | | | |
| LPSR | | | | pmax | pmax | | | | | |
| | comp=Z,20nm,0.7s | | | | | | | | | |
| **LPSR** | **Galich'ya Gora** | **26.66** | **342** | *e*P | **P** | **20 23 47.1 +1.1** | | | | |
| | comp=Z,20nm,0.7s | | | | | | | | | |
| **PDGK** | **Podgornoye** | **26.98** | **48** | P | **P** | **20 23 48.8 -0.5** | | | | |
| **PDGK** | **Podgornoye** | **26.98** | **48** | P | **P** | **20 23 48.8 -0.5** | | | | |
| **VRI** | **Vrincioaia** | **26.98** | **319** | ⇑ *i*P | **P** | **20 23 49.0 -0.1** | | | | |
| **VRI** | **Vrincioaia** | **26.98** | **319** | ⇑ *i*P | **P** | **20 23 49.0 -0.1** | | | | |
| **PLOR** | **Plostina** | **27.02** | **319** | ⇑ *i*P | **P** | **20 23 49.1 -0.4** | | | | |
| **PLOR** | **Plostina** | **27.02** | **319** | ⇑ *i*P | **P** | **20 23 49.1 -0.4** | | | | |
| **MLR** | **Muntele Rosu** | **27.25** | **317** | P | **P** | **20 23 52.3 +0.7** | | | | |
| | comp=Z,0.8nm,0.6s,baz=152,slow=15,SNR=7.5 | | | | | | | | | |
| **MLR** | **Muntele Rosu** | **27.25** | **317** | ⇑ *i*P | **P** | **20 23 51.4 -0.3** | | | | |
| **MLR** | **Muntele Rosu** | **27.25** | **317** | *e*P | **P** | **20 23 51.3 -0.3** | | | | |
| | comp=Z,4.4nm,0.7s | | | | | | | | | |
| **MLR** | **Muntele Rosu** | **27.25** | **317** | *e*P | **P** | **20 23 51.3 -0.3** | | | | |
| | comp=Z,4.4nm,0.7s | | | | | | | | | |
| **TESR** | **Tescani** | **27.39** | **320** | ⇑ *i*P | **P** | **20 23 53.0 +0.3** | | | | |
| **TESR** | **Tescani** | **27.39** | **320** | ⇑ *i*P | **P** | **20 23 53.0 +0.3** | | | | |
| **SORM** | **Soroca** | **27.43** | **324** | ⇑ *i*P | **P** | **20 23 55.2 +2.2** | | | | |
| **SORM** | **Soroca** | **27.43** | **324** | ⇑ *i*P | **P** | **20 23 55.2 +2.2** | | | | |
| **VTS** | **Vitosha** | **27.68** | **310** | ⇑ *i*P | **P** | **20 23 53.7 -1.9** | | | | |
| **VTS** | **Vitosha** | **27.68** | **310** | ⇑ *i*P | **P** | **20 23 53.7 -1.9** | | | | |
| **VOIR** | | **27.76** | **317** | ⇑ *i*P | **P** | **20 23 56.7 +0.6** | | | | |
| **VOIR** | | **27.76** | **317** | ⇑ *i*P | **P** | **20 23 56.7 +0.6** | | | | |
| **DOPR** | **Dopca** | **27.83** | **318** | ⇑ *i*P | **P** | **20 23 57.0 +0.3** | | | | |
| **DOPR** | **Dopca** | **27.83** | **318** | ⇑ *i*P | **P** | **20 23 57.0 +0.3** | | | | |
| **BRVK** | **Borovoye** | **28.62** | **23** | ⇓ *i*P | **P** | **20 24 03.2 -0.4** | | | | |
| BRVK | | | | pmax | pmax | | | | | |
| | comp=Z,4.0nm,0.8s | | | | | | | | | |
| **BRVK** | **Borovoye** | **28.62** | **23** | *i* P | **P** | **20 24 03.2 -0.4** | | | | |
| | comp=Z,4.0nm,0.8s | | | | | | | | | |
| **BVAR** | **Borovoye Array** | **28.63** | **23** | P | **P** | **20 24 03.8 +0.1** | | | | |
| | comp=Z,3.0nm,0.7s,baz=215,slow=7.0,SNR=12 | | | | | | | | | |
| **AKASG** | **Malin Array Be** | **28.71** | **329** | P | **P** | **20 24 03.0 -1.4** | | | | |
| | comp=Z,1.0nm,0.8s,baz=117,slow=7.3,SNR=2.7 | | | | | | | | | |
| **AKBB** | **Malin Array Si** | **28.71** | **329** | *e*P | **P** | **20 24 03.0 -1.4** | | | | |
| AKBB | | | | pmax | pmax | | | | | |
| | comp=Z,6.0nm,0.6s | | | | | | | | | |
| **AKBB** | **Malin Array Si** | **28.71** | **329** | *e*P | **P** | **20 24 03.0 -1.4** | | | | |
| | comp=Z,5.9nm,0.6s | | | | | | | | | |
| **AKBB** | **Malin Array Si** | **28.71** | **329** | *e*P | **P** | **20 24 03.0 -1.4** | | | | |
| | comp=Z,5.9nm,0.6s | | | | | | | | | |
| **KIEV** | **Kiev** | **28.72** | **329** | ⇓ *e*P | **P** | **20 24 03.2 -1.3** | | | | |
| KIEV | | | | pmax | pmax | | | | | |
| | comp=Z,6.0nm,0.7s | | | | | | | | | |
| **KIEV** | **Kiev** | **28.72** | **329** | *e*P | **P** | **20 24 03.2 -1.3** | | | | |
| | comp=Z,6.0nm,0.7s | | | | | | | | | |
| **BURAR** | **Bucovina Array** | **28.82** | **321** | ⇑ *i*P | **P** | **20 24 06.7 +1.1** | | | | |
| **BURAR** | **Bucovina Array** | **28.82** | **321** | ⇑ *i*P | **P** | **20 24 06.7 +1.1** | | | | |
| **BUR04** | **Bucovina Ar. S** | **28.82** | **321** | *e*P | **P** | **20 24 05.6 0.0** | | | | |
| **BUR04** | **Bucovina Ar. S** | **28.82** | **321** | *e*P | **P** | **20 24 05.6 0.0** | | | | |
| **BUR08** | **Bucovina Ar. S** | **28.84** | **321** | *e*P | **P** | **20 24 06.7 +0.9** | | | | |
| **BUR08** | **Bucovina Ar. S** | **28.84** | **321** | *e*P | **P** | **20 24 06.7 +0.9** | | | | |
| **OBN** | **Obninsk** | **29.54** | **342** | ⇑ *e*P | **P** | **20 24 10.1 -1.6** | | | | |
| OBN | | | | *e* | | 20 25 07.8 | | | | |
| OBN | | | | pmax | pmax | | | | | |
| | comp=Z,43nm,2.6s | | | | | | | | | |
| OBN | | | | MLR | MLR | | | | | |
| | comp=Z,87nm,9.0s | | | | | | | | | |
| **OBN** | **Obninsk** | **29.54** | **342** | *e*P | **P** | **20 24 10.1 -1.6** | | | | |
| | comp=Z,43nm,2.6s | | | | | | | | | |
| **MDVR** | **Moldovita** | **29.56** | **313** | ⇑ *i*P | **P** | **20 24 10.2 -1.9** | | | | |
| **MDVR** | **Moldovita** | **29.56** | **313** | ⇑ *i*P | **P** | **20 24 10.2 -1.9** | | | | |
| **DRGR** | | **29.84** | **317** | ⇑ *i*P | **P** | **20 24 15.0 +0.4** | | | | |
| **DRGR** | | **29.84** | **317** | ⇑ *i*P | **P** | **20 24 15.0 +0.4** | | | | |
| **MAKZ** | **Makanchi** | **30.14** | **43** | *e*P | **P** | **20 24 16.9 -0.3** | | | | |
| MAKZ | | | | pmax | pmax | | | | | |
| | comp=Z,4.0nm,0.8s | | | | | | | | | |
| **MAKZ** | **Makanchi** | **30.14** | **43** | *e*P | **P** | **20 24 16.9 -0.3** | | | | |
| | comp=Z,4.1nm,0.8s | | | | | | | | | |
| **MAKZ** | **Makanchi** | **30.14** | **43** | *e*P | **P** | **20 24 16.9 -0.3** | | | | |
| | comp=Z,4.1nm,0.8s | | | | | | | | | |
| **SIRR** | **Siria** | **30.24** | **316** | ⇓ *i*P | **P** | **20 24 17.4 -0.7** | | | | |
| **SIRR** | **Siria** | **30.24** | **316** | ⇓ *i*P | **P** | **20 24 17.4 -0.7** | | | | |
| **MK01** | **Makanchi Array** | **30.32** | **43** | *e*P | **P** | **20 24 17.5 -1.3** | | | | |
| **MK01** | **Makanchi Array** | **30.32** | **43** | *e*P | **P** | **20 24 17.5 -1.3** | | | | |
| **MK31** | **Makanchi Array** | **30.33** | **43** | *e*P | **P** | **20 24 19.0 +0.1** | | | | |
| **MK31** | **Makanchi Array** | **30.33** | **43** | *e*P | **P** | **20 24 19.0 +0.1** | | | | |
| **MK31** | **Makanchi Array** | **30.33** | **43** | *e*P | **P** | **20 24 18.9 +0.1** | | | | |
| **MK32** | **Makanchi Array** | **30.33** | **43** | *e*P | **P** | **20 24 19.0 +0.1** | | | | |
| **MK32** | **Makanchi Array** | **30.33** | **43** | *e*P | **P** | **20 24 19.0 +0.1** | | | | |
| **MKAR** | **Makanchi Array** | **30.33** | **43** | P | **P** | **20 24 19.0 +0.2** | | | | |
| | comp=Z,1.1nm,0.8s,baz=229,slow=9.1,SNR=14 | | | | | | | | | |
| **MKAR** | **Makanchi Array** | **30.33** | **43** | *ce*P | **P** | **20 24 19.2 +0.3** | | | | |
| MKAR | | | | pmax | pmax | | | | | |
| | comp=Z,2.0nm,0.8s | | | | | | | | | |
| **MKAR** | **Makanchi Array** | **30.33** | **43** | *e*P | **P** | **20 24 19.1 +0.2** | | | | |
| | comp=Z,38nm,1.3s | | | | | | | | | |
| **MKAR** | **Makanchi Array** | **30.33** | **43** | *e*P | **P** | **20 24 19.1 +0.3** | | | | |
| | comp=Z,38nm,1.3s | | | | | | | | | |
| **KURK** | **Kurchatov** | **30.46** | **34** | ⇓ *e*P | **P** | **20 24 20.8 +0.9** | | | | |
| KURK | | | | pmax | pmax | | | | | |
| | comp=Z,31nm,1.7s | | | | | | | | | |
| **KURK** | **Kurchatov** | **30.46** | **34** | *e*P | **P** | **20 24 19.6 -0.3** | | | | |
| | comp=Z,6.1nm,1.1s | | | | | | | | | |
| **KURK** | **Kurchatov** | **30.46** | **34** | *e*P | **P** | **20 24 19.6 -0.3** | | | | |
| | comp=Z,6.1nm,1.1s | | | | | | | | | |
| **CRVS** | **Cervenica-Dubn** | **31.63** | **320** | *e*P | **P** | **20 24 30.4 +0.1** | | | | |
| **CRVS** | **Cervenica-Dubn** | **31.63** | **320** | *e*P | **P** | **20 24 30.4 +0.1** | | | | |
| **CRVS** | **Cervenica-Dubn** | **31.63** | **320** | *e*P | **P** | **20 24 30.4 +0.1** | | | | |
| **KECS** | **Kecovo** | **31.98** | **319** | *e*P | **P** | **20 24 33.7 +0.3** | | | | |
| **KECS** | **Kecovo** | **31.98** | **319** | *e*P | **P** | **20 24 33.7 +0.3** | | | | |
| **KECS** | **Kecovo** | **31.98** | **319** | *e*P | **P** | **20 24 33.7 +0.3** | | | | |
| **KMBO** | **Kilima Mbogo** | **32.10** | **209** | LR | LR | 20 36 43.1 | | | | |
| | comp=Z,24nm,20.2s,baz=88,slow=35 | | | | | | | | | |
| **WMQ** | **Urumqi** | **32.70** | **51** | P | **P** | **20 24 41.5 +1.6** | | | | |
| WMQ | | | | sP | sP | 20 24 53.3 +2.5 | | | | |
| WMQ | | | | PP | **PnPn** | **20 25 42.5 -5.7** | | | | |
| WMQ | | | | S | S | 20 29 45.8 -9.0 | | | | |
| WMQ | | | | pmax | pmax | | | | | |
| | comp=Z,20nm,0.9s | | | | | | | | | |
| WMQ | | | | pmax | pmax | | | | | |
| | comp=Z,400nm,5.7s | | | | | | | | | |
| WMQ | | | | LR | LR | | | | | |
| | comp=N,160nm,23.9s | | | | | | | | | |
| WMQ | | | | LR | LR | | | | | |
| | comp=E,180nm,17.7s | | | | | | | | | |
| WMQ | | | | LR | LR | | | | | |
| | comp=Z,180nm,21.3s | | | | | | | | | |
| **OKC** | **Ostrava-Krasne** | **33.97** | **320** | *e*pP | pP | 20 24 57.8 -0.7 | | | | |
| **OKC** | **Ostrava-Krasne** | **33.97** | **320** | *e*P | P | 20 24 57.8 +7.0 | | | | |
| **DGZ** | **Jazzator, Alta** | **34.71** | **41** | *de*P | **P** | **20 24 58.0 +0.7** | | | | |
| DGZ | | | | pmax | pmax | | | | | |
| | comp=Z,2.0nm,0.8s | | | | | | | | | |
| **DGZ** | **Jazzator, Alta** | **34.71** | **41** | *e*P | **P** | **20 24 58.0 +0.7** | | | | |
| | comp=Z,2.0nm,0.8s | | | | | | | | | |
| **DPC** | **Dobruska-Polom** | **35.25** | **320** | *e*P | **P** | **20 25 01.7 -0.2** | | | | |
| **DPC** | **Dobruska-Polom** | **35.25** | **320** | *e*P | **P** | **20 25 01.7 -0.2** | | | | |
| **DPC** | **Dobruska-Polom** | **35.25** | **320** | *e*P | **P** | **20 25 01.7 -0.2** | | | | |
| **ZAA0** | **Zalesovo Array** | **35.44** | **33** | *e*P | **P** | **20 25 03.0 -0.4** | | | | |
| | comp=Z,10nm,0.8s | | | | | | | | | |
| **ZAA0** | **Zalesovo Array** | **35.44** | **33** | *e*P | **P** | **20 25 03.0 -0.4** | | | | |
| | comp=Z,10nm,0.8s | | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **35.44** | **33** | P | **P** | **20 25 03.0 -0.3** | | | | |
| | comp=Z,6.9nm,0.6s,baz=239,slow=9.7,SNR=32 | | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **35.44** | **33** | *e*P | **P** | **20 25 02.9 -0.5** | | | | |
| **ZALV** | **Zalesovo Beam** | **35.44** | **33** | *e*P | **P** | **20 25 02.9 -0.5** | | | | |
| **ZALV** | **Zalesovo Beam** | **35.44** | **33** | *e*P | **P** | **20 25 02.9 -0.5** | | | | |
| **ZAA1** | **Zalesovo Array** | **35.44** | **33** | *e*P | **P** | **20 25 03.0 -0.4** | | | | |
| **ZAA1** | **Zalesovo Array** | **35.44** | **33** | *e*P | **P** | **20 25 03.0 -0.4** | | | | |
| **GERES** | **GERESS Array B** | **36.21** | **316** | P | **P** | **20 25 09.8 -0.4** | | | | |
| | comp=Z,0.4nm,0.6s,baz=99,slow=8.4,SNR=6.3 | | | | | | | | | |
| **KHC** | **Kasperske Hory** | **36.39** | **316** | *e*P | **P** | **20 25 11.5 -0.1** | | | | |
| KHC | | | | *e*pP | **pP** | **20 25 19.1 -0.

**n76,** σ0⁸75/126**, Central Italy**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GUMA** | **Gualdo di Mace** | **0.22** | **106** | Pg | **Pb** | **20 24 36.3** | **+0.5** |
| GUMA | | | | Sg | **Sg** | **20 24 39.8** | **+0.8** |
| | 5μm,0.3s | | | | | | |
| **GUMA** | **Gualdo di Mace** | **0.22** | **106** | Pg | **Pb** | **20 24 36.3** | **+0.5** |
| GUMA | | | | Sg | **Sg** | **20 24 39.8** | **+0.8** |
| | 5μm,0.3s | | | | | | |
| **CING** | **Cingoli** | **0.42** | **308** | Pg | **Pb** | **20 24 39.5** | **+0.3** |
| CING | | | | Sg | **Sb** | **20 24 45.3** | **+0.1** |
| | 474nm,0.2s | | | | | | |
| **CING** | **Cingoli** | **0.42** | **308** | Pg | **Pb** | **20 24 39.5** | **+0.3** |
| CING | | | | Sg | **Sb** | **20 24 45.3** | **+0.1** |
| | 474nm,0.2s | | | | | | |
| **FDMO** | **Fiordimonte** | **0.42** | **258** | Pg | **Pb** | **20 24 38.8** | **-0.4** |
| FDMO | | | | Sg | **Sg** | **20 24 44.1** | **-0.5** |
| | 1μm,0.2s | | | | | | |
| **FDMO** | **Fiordimonte** | **0.42** | **258** | Pg | **Pb** | **20 24 38.8** | **-0.4** |
| FDMO | | | | Sg | **Sg** | **20 24 44.1** | **-0.5** |
| | 1μm,0.2s | | | | | | |
| **AOI** | **Ancona** | **0.43** | **356** | Pg | **Pn** | **20 24 41.2** | **-0.4** |
| | 248nm,0.3s | | | | | | |
| **AOI** | **Ancona** | **0.43** | **356** | Pg | **Pn** | **20 24 41.2** | **-0.4** |
| | 248nm,0.3s | | | | | | |
| **NRCA** | **Norcia** | **0.49** | **234** | Pg | **Pb** | **20 24 40.2** | **-0.2** |
| NRCA | | | | Sg | **Sb** | **20 24 46.7** | **-0.5** |
| | 4μm,0.1s | | | | | | |
| **NRCA** | **Norcia** | **0.49** | **234** | Pg | **Pb** | **20 24 40.2** | **-0.2** |
| NRCA | | | | Sg | **Sb** | **20 24 46.7** | **-0.5** |
| | 4μm,0.1s | | | | | | |
| **TERO** | **Teramo** | **0.50** | **184** | Pg | **Pb** | **20 24 41.6** | **+1.0** |
| | 430nm,0.4s | | | | | | |
| **TERO** | **Teramo** | **0.50** | **184** | Pg | **Pb** | **20 24 41.6** | **+1.0** |
| | 430nm,0.4s | | | | | | |
| **SMA1** | **SAN MARTINO** | **0.54** | **205** | Pg | **Pb** | **20 24 41.7** | **+0.4** |
| SMA1 | | | | Sg | **Sb** | **20 24 49.9** | **+1.1** |
| | 882nm,0.3s | | | | | | |
| **SMA1** | **SAN MARTINO** | **0.54** | **205** | Pg | **Pb** | **20 24 41.7** | **+0.4** |
| SMA1 | | | | Sg | **Sb** | **20 24 49.9** | **+1.1** |
| | 882nm,0.3s | | | | | | |
| **CESI** | **CESI - Serrava** | **0.56** | **258** | Pg | **Pb** | **20 24 41.2** | **-0.4** |
| CESI | | | | Sg | **Sb** | **20 24 48.6** | **-0.6** |
| | 505nm,0.3s | | | | | | |
| **CESI** | **CESI - Serrava** | **0.56** | **258** | Pg | **Pb** | **20 24 41.2** | **-0.4** |
| CESI | | | | Sg | **Sb** | **20 24 48.6** | **-0.6** |
| | 505nm,0.3s | | | | | | |
| **CAMP** | **Campotosto** | **0.61** | **197** | Pg | **Pb** | **20 24 42.9** | **+0.4** |
| CAMP | | | | Sg | **Sn** | **20 24 52.9** | **-0.8** |
| | 211nm,0.4s | | | | | | |
| **CAMP** | **Campotosto** | **0.61** | **197** | Pg | **Pb** | **20 24 42.9** | **+0.4** |
| CAMP | | | | Sg | **Sn** | **20 24 52.9** | **-0.8** |
| | 211nm,0.4s | | | | | | |
| **ARVD** | **Arcevia** | **0.64** | **306** | Pg | **Pb** | **20 24 43.2** | **+0.3** |
| ARVD | | | | Sg | **Sb** | **20 24 52.8** | **+1.3** |
| | 112nm,0.4s | | | | | | |
| **ARVD** | **Arcevia** | **0.64** | **306** | Pg | **Pb** | **20 24 43.2** | **+0.3** |
| ARVD | | | | Sg | **Sb** | **20 24 52.8** | **+1.3** |
| | 112nm,0.4s | | | | | | |
| **LNSS** | **Leonessa** | **0.69** | **221** | Pg | **Pb** | **20 24 43.8** | **0.0** |
| LNSS | | | | Sg | **Sb** | **20 24 53.5** | **+0.6** |
| | 581nm,0.2s | | | | | | |
| **LNSS** | **Leonessa** | **0.69** | **221** | Pg | **Pb** | **20 24 43.8** | **0.0** |
| LNSS | | | | Sg | **Sb** | **20 24 53.5** | **+0.6** |
| | 581nm,0.2s | | | | | | |
| **SSFR** | **Montelago di S** | **0.71** | **297** | Pg | **Pb** | **20 24 44.1** | **0.0** |
| SSFR | | | | Sg | **Sb** | **20 24 54.3** | **+0.8** |
| | 656nm,0.2s | | | | | | |
| **SSFR** | **Montelago di S** | **0.71** | **297** | Pg | **Pb** | **20 24 44.1** | **0.0** |
| SSFR | | | | Sg | **Sb** | **20 24 54.3** | **+0.8** |
| | 656nm,0.2s | | | | | | |
| **ATCC** | **AVT- Casa Cast** | **0.74** | **275** | Pg | **Pb** | **20 24 44.5** | **-0.2** |
| ATCC | | | | Sg | **Sb** | **20 24 54.4** | **-0.1** |
| **ATCC** | **AVT- Casa Cast** | **0.74** | **275** | Pg | **Pb** | **20 24 44.5** | **-0.2** |
| ATCC | | | | Sg | **Sb** | **20 24 54.4** | **-0.1** |
| **FRON** | **Frontone** | **0.78** | **301** | Pg | **Pb** | **20 24 45.6** | **+0.3** |
| FRON | | | | Sg | **Sb** | **20 24 56.7** | **+1.1** |
| | 517nm,0.8s | | | | | | |
| **FRON** | **Frontone** | **0.78** | **301** | Pg | **Pb** | **20 24 45.6** | **+0.3** |
| FRON | | | | Sg | **Sb** | **20 24 56.7** | **+1.1** |
| | 517nm,0.8s | | | | | | |
| **AQU** | **L'Aquila** | **0.79** | **193** | Pg | **Pn** | **20 24 46.4** | **-0.2** |
| AQU | | | | Sg | **Sn** | **20 24 58.1** | **+0.1** |
| | 187nm,0.4s | | | | | | |
| **AQU** | **L'Aquila** | **0.79** | **193** | Pg | **Pn** | **20 24 46.4** | **-0.2** |
| AQU | | | | Sg | **Sn** | **20 24 58.1** | **+0.1** |
| | 187nm,0.4s | | | | | | |
| **T0104** | **Madonna delle** | **0.80** | **197** | Pg | **Pn** | **20 24 46.3** | **-0.4** |
| T0104 | | | | Sg | **Sn** | **20 24 57.9** | **-0.2** |
| **MPAG** | **Monte Paganucc** | **0.82** | **308** | Pg | **Pn** | **20 24 46.6** | **-0.5** |
| MPAG | | | | Sg | **Sn** | **20 24 58.8** | **-0.1** |
| | 153nm,0.4s | | | | | | |
| **MPAG** | **Monte Paganucc** | **0.82** | **308** | Pg | **Pn** | **20 24 46.6** | **-0.5** |
| MPAG | | | | Sg | **Sn** | **20 24 58.8** | **-0.1** |
| | 153nm,0.4s | | | | | | |
| **MURB** | **Monte Urbino** | **0.83** | **280** | Pg | **Pb** | **20 24 46.2** | **-0.1** |
| MURB | | | | Sg | **Sb** | **20 24 57.7** | **+0.5** |
| | 724nm,0.4s | | | | | | |
| **MURB** | **Monte Urbino** | **0.83** | **280** | Pg | **Pb** | **20 24 46.2** | **-0.1** |
| MURB | | | | Sg | **Sb** | **20 24 57.7** | **+0.5** |
| | 724nm,0.4s | | | | | | |
| **FSSB** | **Fossombrone** | **0.85** | **312** | Pg | **Pn** | **20 24 47.2** | **-0.2** |
| FSSB | | | | Sg | **Sn** | **20 25 00.1** | **+0.6** |
| | 605nm,0.3s | | | | | | |
| **FSSB** | **Fossombrone** | **0.85** | **312** | Pg | **Pn** | **20 24 47.2** | **-0.2** |
| FSSB | | | | Sg | **Sn** | **20 25 00.1** | **+0.6** |
| | 605nm,0.3s | | | | | | |
| **FAGN** | **Fagnano** | **0.86** | **183** | Pg | **Pn** | **20 24 47.8** | **+0.3** |
| | 363nm,0.5s | | | | | | |
| **FAGN** | **Fagnano** | **0.86** | **183** | Pg | **Pn** | **20 24 47.8** | **+0.3** |
| | 363nm,0.5s | | | | | | |
| **PIEI** | **Pieia** | **0.91** | **297** | Pg | **Pb** | **20 24 47.6** | **0.0** |
| PIEI | | | | Sg | **Sn** | **20 25 00.6** | **-0.4** |
| | 170nm,0.3s | | | | | | |
| **PIEI** | **Pieia** | **0.91** | **297** | Pg | **Pb** | **20 24 47.6** | **0.0** |
| PIEI | | | | Sg | **Sn** | **20 25 00.6** | **-0.4** |
| | 170nm,0.3s | | | | | | |
| **CESX** | **Cesi** | **0.94** | **237** | Pg | **Pb** | **20 24 47.8** | **-0.2** |
| CESX | | | | Sg | **Sb** | **20 25 00.1** | **0.0** |
| | 246nm,0.3s | | | | | | |
| **CESX** | **Cesi** | **0.94** | **237** | Pg | **Pb** | **20 24 47.8** | **-0.2** |
| CESX | | | | Sg | **Sb** | **20 25 00.1** | **0.0** |
| | 246nm,0.3s | | | | | | |
| **FIAM** | **Fiamignano** | **0.94** | **205** | Pg | **Pb** | **20 24 48.4** | **+0.3** |
| FIAM | | | | Sg | **Sn** | **20 25 01.9** | **+0.2** |
| | 203nm,0.9s | | | | | | |
| **FIAM** | **Fiamignano** | **0.94** | **205** | Pg | **Pb** | **20 24 48.4** | **+0.3** |
| FIAM | | | | Sg | **Sn** | **20 25 01.9** | **+0.2** |
| | 203nm,0.9s | | | | | | |
| **ATPC** | **Poggio Castell** | **0.94** | **293** | Pg | **Pb** | **20 24 48.1** | **0.0** |
| ATPC | | | | Sg | **Sn** | **20 25 01.7** | **0.0** |
| | 287nm,0.7s | | | | | | |
| **ATPC** | **Poggio Castell** | **0.94** | **293** | Pg | **Pb** | **20 24 48.1** | **0.0** |
| ATPC | | | | Sg | **Sn** | **20 25 01.7** | **0.0** |
| | 287nm,0.7s | | | | | | |
| **ATVO** | **AVT- Monte Val** | **0.94** | **286** | Pg | **Pb** | **20 24 48.0** | **-0.1** |
| ATVO | | | | Sg | **Sb** | **20 25 00.9** | **+0.6** |
| | 159nm,0.4s | | | | | | |
| **ATVO** | **AVT- Monte Val** | **0.94** | **286** | Pg | **Pb** | **20 24 48.0** | **-0.1** |
| ATVO | | | | Sg | **Sb** | **20 25 00.9** | **+0.6** |
| | 159nm,0.4s | | | | | | |
| **ATTE** | **AVT- Monte Tez** | **0.95** | **275** | Pg | **Pb** | **20 24 48.2** | **-0.1** |
| | 74nm,0.3s | | | | | | |
| **ATTE** | **AVT- Monte Tez** | **0.95** | **275** | Pg | **Pb** | **20 24 48.2** | **-0.1** |
| | 74nm,0.3s | | | | | | |
| **BADI** | **Badiali** | **1.09** | **291** | Pg | **Pn** | **20 24 50.8** | **0.0** |
| | 115nm,0.5s | | | | | | |
| **BADI** | **Badiali** | **1.09** | **291** | Pg | **Pn** | **20 24 50.8** | **0.0** |
| | 115nm,0.5s | | | | | | |
| **ATMC** | **Monte Cedrone** | **1.11** | **287** | Pg | **Pn** | **20 24 51.3** | **+0.3** |
| | 117nm,0.3s | | | | | | |
| **ATMC** | **Monte Cedrone** | **1.11** | **287** | Pg | **Pn** | **20 24 51.3** | **+0.3** |
| | 117nm,0.3s | | | | | | |
| **INTR** | **Introdacqua** | **1.13** | **170** | Pg | **Pg** | **20 24 53.1** | **+1.1** |
| | 135nm,0.4s | | | | | | |
| **INTR** | **Introdacqua** | **1.13** | **170** | Pg | **Pg** | **20 24 53.1** | **+1.1** |
| | 135nm,0.4s | | | | | | |
| **MGAB** | **Montegabbione** | **1.15** | **260** | Pg | **Pn** | **20 24 51.5** | **0.0** |
| **MGAB** | **Montegabbione** | **1.15** | **260** | Pg | **Pn** | **20 24 51.5** | **0.0** |
| **PARC** | **Parchiule** | **1.15** | **298** | Pg | **Pg** | **20 24 51.9** | **-0.7** |
| | 100nm,0.6s | | | | | | |
| **PARC** | **Parchiule** | **1.15** | **298** | Pg | **Pg** | **20 24 51.9** | **-0.7** |
| | 100nm,0.6s | | | | | | |
| **CAFI** | **Castiglion Fio** | **1.25** | **280** | Pg | **Pg** | **20 24 53.8** | **-0.5** |
| **CAFI** | **Castiglion Fio** | **1.25** | **280** | Pg | **Pg** | **20 24 53.8** | **-0.5** |
| **VVLD** | **Villa Vallelon** | **1.25** | **181** | Pg | **Pg** | **20 24 54.4** | **0.0** |
| | 55nm,0.6s | | | | | | |
| **VVLD** | **Villa Vallelon** | **1.25** | **181** | Pg | **Pg** | **20 24 54.4** | **0.0** |
| | 55nm,0.6s | | | | | | |
| **CERT** | **Cerreto** | **1.27** | **203** | Pg | **Pg** | **20 24 54.1** | **-0.7** |
| | 86nm,0.5s | | | | | | |
| **CERT** | **Cerreto** | **1.27** | **203** | Pg | **Pg** | **20 24 54.1** | **-0.7** |
| | 86nm,0.5s | | | | | | |
| **MTCE** | **Montecelio** | **1.29** | **212** | Pg | **Pb** | **20 24 54.1** | **+0.1** |
| | 46nm,0.5s | | | | | | |
| **MTCE** | **Montecelio** | **1.29** | **212** | Pg | **Pb** | **20 24 54.1** | **+0.1** |
| | 46nm,0.5s | | | | | | |
| **NVLJ** | **Novalja** | **1.69** | **31** | *i* Pn | **Pg** | **20 25 02.2** | **-0.6** |
| NVLJ | | | | Sn | **Sb** | **20 25 22.6** | **+0.7** |
| **NVLJ** | **Novalja** | **1.69** | **31** | *i* Pn | **Pg** | **20 25 02.1** | **-0.6** |
| NVLJ | | | | Sn | **Sb** | **20 25 22.5** | **+0.7** |
| **OZLJ** | **Ozalj** | **2.81** | **27** | *e*Pn | **Pb** | **20 25 19.4** | **-0.5** |
| OZLJ | | | | Sn | **Sn** | **20 25 50.2** | **+2.4** |
| **OZLJ** | **Ozalj** | **2.81** | **27** | *e*Pn | **Pb** | **20 25 19.4** | **-0.5** |
| OZLJ | | | | Sn | **Sn** | **20 25 50.2** | **+2.4** |
| **STON** | **Ston** | **2.98** | **93** | *e*Pn | **Pb** | **20 25 20.2** | **-2.7** |
| STON | | | | Sn | **Sb** | **20 25 57.1** | **-1.9** |
| **STON** | **Ston** | **2.98** | **93** | *e*Pn | **Pb** | **20 25 20.1** | **-2.7** |
| STON | | | | Sn | **Sb** | **20 25 57.1** | **-1.9** |
| **KHC** | **Kasperske Hory** | **6.01** | **360** | *e*PN | **Pn** | **20 26 00.4** | **+2.1** |
| KHC | | | | *e*SN | **Sn** | **20 27 05.9** | **-0.8** |

*ISCJB* ***26*** *20:29:39.0±0.6, 12.˚87S±0.˚06×76.˚5W±0.˚1, h59km, mb3.9/10, MS3.0/2, Error ellipse: s-maj=15.8km s-min=5.7km az=151.1*

*NEIC* ***26*** *20:29:40.0±0.0, 12.˚89S×76.˚98W, h41km, mb4.3/3, After ARE.*

*NEIC Felt [III] at Calango, Chilca and Mala; [II] at Barranca, Chincha Alta, Chosica, Imperial, Lima, San Vicente de Canete and Tambo de Mora.*

*IDC* ***26*** *20:29:40.4±1.8, 12.˚82S×76.˚51W, h54km±12km, mb3.6/10, mb1 3.9/11, mb1mx3.8/29, mbtmp3.9/11, MS3.0/4, Ms1 3.0/4, ms1mx2.9/18, Error ellipse: s-maj=28.6km s-min=18.0km az=63.0*

**ISC 26 20:29:40.5±0.7, 12.˚86S±0.˚08×76.˚5W±0.˚1, h59km, n39,** σ1⁹66/33**, mb3.8/10, Near coast of Peru**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **NNA** | **Nana** | **0.94** | **338** | P | **Pn** | **20 29 57.1** | **-0.7** |
| | 230nm,0.3s,baz=151,slow=11,SNR=363 | | | | | | |
| NNA | | | | S | **Sn** | **20 30 09.3** | **-1.1** |
| | 2μm,0.3s,baz=214,slow=18,SNR=51 | | | | | | |
| NNA | | | | LR | LR | 20 30 25.4 | |
| | comp=Z,437nm,18.9s,baz=206,slow=51 | | | | | | |
| **ATAH** | **Atahualpa** | **5.99** | **342** | P | **Pn** | **20 31 08.0** | **+1.0** |
| | 2.8nm,0.3s,baz=183,slow=4.7,SNR=16 | | | | | | |
| ATAH | | | | S | **Sn** | **20 32 16.2** | **+1.7** |
| | 7.5nm,0.3s,baz=344,slow=7.4,SNR=2.8 | | | | | | |
| ATAH | | | | LR | LR | 20 33 58.5 | |
| | comp=Z,69nm,18.2s,baz=213,slow=44 | | | | | | |
| **LPAZ** | **La Paz** | **8.78** | **114** | P | Pn | 20 31 51.0 | +5.6 |
| | 0.6nm,0.3s,baz=298,slow=14,SNR=7.9 | | | | | | |
| **LPAZ** | **La Paz** | **8.78** | **114** | *e*Pn | **Pn** | **20 31 48.5** | **+3.1** |
| **MNMC** | **Minye Minye** | **9.10** | **134** | *e*Pn | **Pn** | **20 31 50.6** | **+1.2** |
| **PB11** | **IPOC Station P** | **9.49** | **137** | *e*Pn | **Pn** | **20 31 55.1** | **+0.4** |
| **PB01** | **IPOC Station P** | **10.54** | **141** | *e*Pn | **Pn** | **20 32 10.2** | **+1.3** |
| PB01 | | | | *e*Sn | **Sn** | **20 34 02.4** | **-3.1** |
| **OTAV** | **Otavalo** | **13.16** | **351** | *e*P | **Pn** | **20 32 44.4** | **-0.8** |
| **OTAV** | **Otavalo** | **13.16** | **351** | *e*Pn | **Pn** | **20 32 41.1** | **-4.0** |
| **SAML** | **Samuel** | **13.63** | **75** | *e*Pn | **Pn** | **20 32 51.1** | **-0.1** |
| **SIV** | **San Ignacio** | **15.25** | **104** | LR | LR | 20 39 56.5 | |
| | comp=Z,46nm,19.8s,baz=21,slow=40 | | | | | | |
| **VILC** | **Villavicencio,** | **17.09** | **10** | *e*P | **P** | **20 33 38.0** | **+1.3** |
| **CHIC** | **Chingaza** | **17.59** | **9** | *e*P | **P** | **20 33 46.0** | **+3.5** |
| **RUSC** | **La Rusia** | **18.94** | **10** | *e*P | **Pn** | **20 34 00.7** | **+2.1** |
| **RUSC** | **La Rusia** | **18.94** | **10** | *e*P | **P** | **20 33 53.6** | **-3.8** |
| | 4.1nm,0.7s | | | | | | |
| **PTBC** | **PUERTO BERRIO,** | **19.38** | **6** | *e*P | **P** | **20 34 01.3** | **-0.5** |
| **ZARC** | **Zaragoza, Cauc** | **20.29** | **5** | *e*P | **P** | **20 34 10.5** | **-1.0** |
| **PTGA** | **Pitinga** | **20.33** | **55** | P | **P** | **20 34 12.5** | **+0.4** |
| | 3.4nm,0.5s,baz=220,slow=23,SNR=10 | | | | | | |
| PTGA | | | | LR | LR | 20 42 32.1 | |
| | comp=Z,83nm,20.1s,baz=221,slow=38 | | | | | | |
| **PTGA** | **Pitinga** | **20.33** | **55** | *e*P | **P** | **20 34 12.5** | **+0.4** |
| | 22nm,1.5s | | | | | | |
| **SDV** | **Sao Domingo** | **22.38** | **15** | P | **P** | **20 34 33.8** | **-0.4** |
| | 2.2nm,0.4s,baz=203,slow=15,SNR=3.5 | | | | | | |
| SDV | | | | LR | LR | 20 44 58.1 | |
| | comp=Z,45nm,20.1s,baz=82,slow=41 | | | | | | |
| **PLCA** | **Paso Flores** | **28.25** | **170** | P | **P** | **20 35 29.6** | **+1.5** |
| | 1.6nm,0.7s,baz=0.7,slow=7.7,SNR=4.4 | | | | | | |
| **TXAR** | **Lajitas Array** | **49.48** | **328** | P | **P** | **20 38 24.9** | **-0.3** |
| | 0.7nm,0.7s,baz=148,slow=9.5,SNR=7.8 | | | | | | |
| **ABTX** | **Abilene, Hawle** | **50.36** | **334** | *e*P | P | 20 38 26.4 | -5.4 |
| | 6.7nm,0.6s | | | | | | |
| **PDAR** | **Pinedale Array** | **63.12** | **333** | P | **P** | **20 40 02.2** | **-0.1** |
| | 0.2nm,0.4s,baz=98,slow=6.5,SNR=3.5 | | | | | | |
| **NVAR** | **Mina Array Bea** | **64.28** | **324** | P | **P** | **20 40 10.6** | **+0.6** |
| | 0.4nm,0.6s,baz=142,slow=6.4,SNR=4.7 | | | | | | |
| **YKA** | **Yellowknife Ar** | **80.78** | **343** | P | **P** | **20 41 46.5** | **-0.7** |
| | 0.3nm,0.4s,baz=140,slow=6.2,SNR=12 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **81.69** | **74** | P | **P** | **20 41 53.5** | **+0.2** |
| | 1.7nm,0.7s,baz=264,slow=4.5,SNR=8.8 | | | | | | |
| **INK** | **Inuvik** | **90.46** | **342** | P | **P** | **20 42 35.3** | **+0.1** |
| | 1.0nm,0.9s,baz=159,slow=8.5,SNR=3.3 | | | | | | |
| **ILAR** | **Eielson Array** | **93.42** | **336** | P | **P** | **20 42 48.3** | **-0.8** |
| | 0.4nm,1.0s,baz=152,slow=3.3,SNR=5.6 | | | | | | |
| **H11N3** | **WAKE ISLAND Hyl** | **19.05** | **286** | T | T | 22 58 42.0 | |
| | baz=95,slow=75,SNR=8.5 | | | | | | |
| **H11N2** | **WAKE ISLAND Hyl** | **19.06** | **286** | T | T | 22 58 45.9 | |
| | baz=95,slow=75,SNR=5.9 | | | | | | |
| **H11N1** | **WAKE ISLAND Hyl** | **19.07** | **286** | T | T | 22 58 46.1 | |
| | baz=95,slow=75,SNR=9.2 | | | | | | |
| **H11S2** | **WAKE ISLAND Hyl** | **19.15** | **284** | T | T | 22 58 51.3 | |
| | baz=93,slow=74,SNR=26 | | | | | | |
| **H11S1** | **WAKE ISLAND Hyl** | **19.16** | **284** | T | T | 22 58 38.2 | |
| | baz=93,slow=74,SNR=29 | | | | | | |
| **H11S3** | **WAKE ISLAND Hyl** | **19.17** | **284** | T | T | 22 58 54.8 | |
| | baz=93,slow=74,SNR=16 | | | | | | |
| **ASAR** | **Alice Springs** | **133.08** | **219** | PKP | **PKPdf** | **20 48 50.5** | **+0.1** |
| | 0.3nm,0.6s,baz=113,slow=2.3,SNR=2.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **135.47** | **223** | PKP | **PKPdf** | **20 48 55.0** | **+0.1** |
| | 0.4nm,0.8s,baz=120,slow=2.1,SNR=5.8 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **136.43** | **16** | PKP | **PKPdf** | **20 48 55.6** | **0.0** |
| | 0.5nm,0.4s,baz=318,slow=3.9,SNR=3.0 | | | | | | |
| **SONM** | **Songino Array** | **145.05** | **357** | PKPbc | **PKPbc** | **20 49 11.4** | **+0.5** |
| | 3.2nm,0.8s,baz=323,slow=2.3,SNR=18 | | | | | | |

*BJI* ***26*** *20:34:37.7, 9.˚18N×126.˚47E, h45km, mb4.8/62, mB5.1/40, Ms4.6/43, Ms7 4.3/44*

*IDC* ***26*** *20:34:37.9±3.0, 9.˚35N×126.˚38E, h23km±19km, mb4.7/31, mb1 4.8/31, mb1mx4.7/40, mbtmp4.8/31, MS4.0/26, Ms1 4.0/26, ms1mx3.9/35, Error ellipse: s-maj=15.5km s-min=8.9km az=79.0*

*MAN* ***26*** *20:34:38, 9.˚36N×126.˚49E, h6km, mb5.7, ML4.7, MS5.1*

*MAN INTENSITY III - TANDAG SURIGAO DEL SUR; INTENSITY II - SOCORRO SURIGAO DEL NORTE.*

*MOS* ***26*** *20:34:39.2±0.9, 9.˚50N×126.˚22E, h39km, mb5.3/61, MS4.0/9, Error ellipse: s-maj=9.6km s-min=4.9km az=112.9*

*DJA* ***26*** *20:34:39.1±0.2, 10˚N±2˚×12˚7E±˚, h10km, M5.1/43, mb5.0/43, mB5.4/12, MLv5.8/3, Mw(mB)4.8/12*

*ISCJB* ***26*** *20:34:41.4±0.4, 9.˚36N±0.˚02×126.˚45E±0.˚03, h68km±3km, mb4.8/150, Error ellipse: s-maj=4.8km s-min=2.8km az=159.6*

*GCMT* ***26*** *20:34:41.2±0.3, 9.˚41N×126.˚49E, h27km±1km, MW5.0/65, Moment Tensor Solution. s25,c29; s65,c82; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr3.49±.22; Mθθ-0.34±.13; Mφφ-3.15±.14; Mrθ-0.09±.24; Mθφ0.91±.07; Mφr2.08±.21; Best double couple: M₀4.03300×10¹⁶ NP1:φs157.00000°, δ61.00000°, λ97.00000°. NP2: φs157.00000°, δ30.00000°, λ78.00000°. Principal axes: T 4.0940, Plg74.0000°, Azm278.0000°; N -0.1280, Plg6.0000°, Azm167.0000°; P -3.9710, Plg15.0000°, Azm76.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC* ***26*** *20:34:41.2±0.7, 9.˚28N×126.˚28E, h51km±6km, mb5.0/76 Error ellipse: s-maj=5.5km s-min=3.6km az=76.0*

*NEIC Felt [III PIVS] at Tandag and [II PIVS] at Socorro. Also felt at Madrid.*

**ISC 26 20:34:42.0±0.4, 9.˚37N±0.˚03×126.˚44E±0.˚04, h55km±3km,**

**h55km:pP-P, n431,** σ1⁹98/482**, mb5.0**/149**, MS4.2**/41**, 30C-25D, Mindanao**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BUTP** | **Butuan** | **0.90** | **244** | *e*P | **Pn** | **20 34 55.3** | **-3.2** |
| BUTP | | | | *e*S | **Sn** | **20 35 11.7** | **+1.1** |
| **SCPH** | **Surigao** | **1.02** | **294** | *e*P | **Pn** | **20 34 58.3** | **-1.9** |
| SCPH | | | | *e*S | **Sn** | **20 35 13.7** | **+0.1** |
| **BUKP** | **Musuan** | **2.01** | **223** | *e*P | **Pn** | **20 35 13.3** | **-0.3** |
| BUKP | | | | *e*S | **Sn** | **20 35 40.0** | **+2.4** |
| **PLP** | **Palo** | **2.29** | **321** | *e*P | **Pn** | **20 35 17.2** | **-0.2** |
| PLP | | | | *i* S | **Sn** | **20 35 48.0** | **+3.6** |
| **MATI** | **Mati** | **2.41** | **184** | *e*P | **Pn** | **20 35 18.4** | **-0.7** |
| MATI | | | | *e*S | **Sn** | **20 35 49.2** | **+1.7** |
| **BESP** | **Borongan** | **2.42** | **336** | *e*P | **Pn** | **20 35 18.7** | **-0.5** |
| BESP | | | | *e*S | **Sn** | **20 35 56.4** | **+8.7** |
| **DAV** | **Davao City (W)** | **2.44** | **200** | Pn | **Pn** | **20 35 19.9** | **+0.5** |
| | 100nm,0.3s,baz=64,slow=3.2,SNR=26 | | | | | | |
| DAV | | | | Sn | **Sn** | **20 35 52.9** | **+4.9** |
| | 250nm,0.3s,baz=52,slow=18,SNR=5.0 | | | | | | |
| DAV | | | | LR | LR | 20 36 33.2 | |
| | comp=Z,8μm,21.8s,baz=14,slow=48 | | | | | | |
| **DAV** | **Davao City (W)** | **2.44** | **200** | *e*Pn | **Pn** | **20 35 16.8** | **-2.6** |
| DAV | | | | *e* | | 20 35 17.0 | |
| DAV | | | | Sn | **Sn** | **20 35 52.9** | **+4.9** |
| **DMPH** | **Davao City--Mi** | **2.45** | **202** | *e*P | **Pn** | **20 35 21.9** | **+2.3** |
| DMPH | | | | *e*S | **Sn** | **20 35 51.6** | **+3.2** |
| **OCLP** | **Ormoc** | **2.46** | **313** | *e*P | **Pn** | **20 35 21.3** | **+1.7** |
| OCLP | | | | *e*S | **Sn** | **20 35 56.0** | **+7.5** |
| **TBP** | **Tagbilaran** | **2.56** | **277** | *e*P | Pn | 20 35 27.4 | +6.3 |
| TBP | | | | *e*S | Sn | 20 36 01.4 | +10 |
| **LLP** | **Lapu-Lapu** | **2.61** | **291** | *e*P | **Pn** | **20 35 23.0** | **+1.3** |
| LLP | | | | *i* S | **Sn** | **20 35 58.0** | **+5.7** |
| **KCP** | **Kidapawan** | **2.70** | **210** | *e*P | **Pn** | **20 35 22.4** | **-0.6** |
| KCP | | | | *e*S | **Sn** | **20 35 54.6** | **+0.1** |
| **CTBH** | **Cotabato--PC H** | **3.04** | **226** | *e*P | **Pn** | **20 35 27.3** | **-0.4** |
| CTBH | | | | *e*S | **Sn** | **20 35 57.4** | **-5.6** |
| **DCPH** | **Dipolog City** | **3.15** | **256** | *e*P | **Pn** | **20 35 29.6** | **+0.5** |
| DCPH | | | | *e*S | **Sn** | **20 36 07.9** | **+2.4** |
| **PAGZ** | **Pagadian** | **3.38** | **244** | *e*P | **Pn** | **20 35 33.1** | **+0.8** |
| PAGZ | | | | *e*S | **Sn** | **20 36 13.7** | **+2.5** |
| **GUIM** | **Jordan** | **3.99** | **289** | *e*P | **Pn** | **20 35 42.4** | **+1.7** |
| GUIM | | | | *e*S | **Sn** | **20 36 30.0** | **+3.8** |
| **MMPH** | **Masbate** | **4.06** | **317** | *e*P | **Pn** | **20 35 44.3** | **+2.8** |
| **RCP** | **Roxas** | **4.23** | **301** | *e*P | **Pn** | **20 35 45.9** | **+1.8** |
| **JAP** | **San Jose, Anti** | **4.63** | **288** | *e*P | **Pn** | **20 35 52.6** | **+3.1** |
| **SGSI** | **Sangihe** | **5.72** | **189** | P | Pn | **20 36 06.4** | **+2.0** |
| SGSI | | | | S | **Sn** | **20 37 16.8** | **+8.1** |
| **BOAC** | **Boac** | **6.07** | **313** | *e*P | **Pn** | **20 36 09.9** | **+0.8** |
| **LQP** | **Lukban** | **6.72** | **315** | *e*P | Pn | 20 36 23.2 | +4.8 |
| **TGY** | **Tagaytay City** | **7.15** | **312** | Pn | **Pn** | **20 36 27.6** | **+3.5** |
| | 37nm,0.3s,baz=186,slow=1.8,SNR=7.8 | | | | | | |
| TGY | | | | LR | LR | 20 39 27.3 | |
| | comp=Z,2μm,20.2s,baz=110,slow=41 | | | | | | |
| **PALU** | **Palu** | **8.20** | **104** | P | Pn | 20 36 29.7 | -8.8 |
| | baz=7.9,SNR=3.0 | | | | | | |
| **TNTI** | **Ternate** | **8.59** | **174** | *e*Pn | **Pn** | **20 36 42.1** | **-1.7** |
| **CAUP** | **Cauayan** | **8.77** | **330** | *e*P | **Pn** | **20 36 45.3** | **-0.9** |
| **MYLDM** | **Lahad Datu** | **8.90** | **243** | *e*Pn | **Pn** | **20 36 44.7** | **-3.4** |
| **KMSI** | **Cibinong** | **9.07** | **196** | P | **Pn** | **20 36 53.1** | **+2.7** |
| | 112nm,0.9s | | | | | | |
| **MRSI** | **Marisa** | **9.90** | **207** | P | **Pn** | **20 37 06.1** | **+4.4** |
| **LBMI** | **Labuha** | **10.00** | **174** | P | **Pn** | **20 37 04.4** | **+1.3** |
| **KKM** | **Kota Kinabalu** | **10.65** | **253** | *e*Pn | **Pn** | **20 37 07.7** | **-4.4** |
| **LUWI** | **Luwuk** | **10.97** | **200** | P | **Pn** | **20 37 19.6** | **+3.3** |
| | 228nm,1.1s,2μm | | | | | | |
| **LUWI** | **Luwuk** | **10.97** | **200** | *e*Pn | **Pn** | **20 37 14.2** | **-2.1** |
| **MPSI** | **Mapaga** | **11.08** | **216** | P | Pn | 20 37 23.0 | +5.1 |
| **SWI** | **Sorong** | **11.24** | **154** | P | **Pn** | **20 37 20.4** | **+0.3** |
| | 52nm,0.9s | | | | | | |
| **APSI** | **Ampana** | **11.27** | **205** | P | **Pn** | **20 37 24.6** | **+4.2** |
| **SANI** | **Sanana** | **11.35** | **182** | P | **Pn** | **20 37 23.9** | **+2.3** |
| **MSAI** | **Masohi** | **12.87** | **169** | P | **Pn** | **20 37 43.5** | **+1.2** |
| **RKPI** | **Ransiki, Papua** | **13.28** | **144** | P | **Pn** | **20 37 46.0** | **-1.9** |
| **SMKI** | **Samarinda** | **13.40** | **224** | P | **P** | **20 37 54.7** | **-2.6** |
| **TTSI** | **Tana Toraja** | **13.98** | **208** | P | **P** | **20 38 02.2** | **-1.6** |
| **SPSI** | **Sidrap Palu** | **14.82** | **207** | P | **P** | **20 38 13.0** | **-0.1** |
| **TPUB** | **Ta-pu** | **14.93** | **339** | *e*Pn | **Pn** | **20 38 10.1** | **+0.3** |
| **BBSI** | **

**CHAI Chaiyaphum** 24.71 288 P **P** 20 39 58.0 -0.3
24nm,0.8s,178nm
**KNRA Kununurra** 24.99 175 P **P** 20 39 59.8 -1.0
baz=25,SNR=5.9
**CISI Cisompet, Garu** 25.04 228 P **P** 20 40 07.2 +5.8
**GYA Guiyang** 25.29 315 *e*P **P** 20 40 05.5 +1.9
GYA pP pP 20 40 15.8 -1.5
GYA sP sP 20 40 21.0 -2.8
GYA PP **PnPn** 20 40 44.5 +3.9
GYA S **S** 20 44 25.3 -0.7
GYA sS sS 20 44 44.8 -4.4
GYA SS **SnSn** 20 45 27.0 +5.4
GYA pmax pmax
comp=Z,10.0nm,0.8s
GYA pmax pmax
comp=Z,120nm,4.9s
GYA LR LR
comp=N,550nm,16.7s
GYA LR LR
comp=E,530nm,17.2s
GYA LR LR
comp=Z,510nm,17.3s
**IPM Ipoh** 25.68 261 *e*P **P** 20 40 07.5 +0.3
30nm,0.8s
**PBKT Sadao Pong** 25.81 289 P **P** 20 40 08.8 +0.5
34nm,1.0s,1μm
**ENH Enshi** 26.14 325 *e*P **P** 20 40 10.2 -1.0
10nm,1.0s
**NANT Nan** 26.63 293 P **P** 20 40 16.1 +0.4
6.5nm,0.7s
**TJN Taejon** 26.90 2⇑ *e*P **P** 20 40 18.2 +0.3
**PHRA Phrae** 26.97 292 P **P** 20 40 19.6 +0.8
20nm,3.2s
**UTHA Uthaitani** 27.05 286 P **P** 20 40 22.1 +2.6
10nm,1.2s
**FITZ Fitzroy Crossi** 27.31 182 P **P** 20 40 20.8 -0.9
48nm,0.9s,baz=5.6,slow=6.6,SNR=22
FITZ LR LR 20 52 38.9
comp=Z,124nm,19.7s,baz=5.5,slow=40
**FITZ Fitzroy Crossi** 27.31 182 P **P** 20 40 21.0 -0.7
baz=28,SNR=19
**KMI Kunming** 27.45 308 P **P** 20 40 21.3 -2.0
KMI pP pP 20 40 34.8 -2.2
KMI sP sP 20 40 42.0 -1.5
KMI S **S** 20 45 03.8 +3.5
KMI SS **SnSn** 20 46 23.0 +8.5
KMI pmax pmax
comp=Z,10.0nm,1.2s
KMI pmax pmax
comp=Z,230nm,5.6s
KMI LR LR
comp=N,240nm,18.0s
KMI LR LR
comp=E,570nm,17.3s
KMI LR LR
comp=Z,590nm,21.5s
**PMG Port Moresby** 27.81 132 P **P** 20 40 25.8 -0.5
4.5nm,0.6s,baz=317,slow=18,SNR=2.7
**PMG Port Moresby** 27.81 132⇑ *i*P **P** 20 40 29.1 +2.8
PMG pmax pmax
comp=Z,91nm,1.7s
**PMG Port Moresby** 27.81 132 *e*P **P** 20 40 25.5 -0.8
comp=Z,15nm,1.0s
**KS15 Wonju Array Si** 27.98 2 *e*P **P** 20 40 27.5 0.0
**KSAR Wonju Array Be** 27.98 2 P **P** 20 40 28.3 +0.7
**KSAR Wonju Array Be** 27.98 2 P **P** 20 40 28.2 +0.7
**KSRS Korea Array** 27.99 3 P **P** 20 40 28.2 +0.6
comp=Z,12nm,0.8s,baz=181,slow=10,SNR=38
KSRS LR LR 20 53 52.3
comp=Z,269nm,18.7s,baz=177,slow=41
**KS01 Wonju Array Si** 28.01 2 *e*P **P** 20 40 28.0 +0.2
**TIA Tai'an** 28.03 344 P **P** 20 40 27.8 -0.3
TIA pmax pmax
comp=Z,15nm,1.0s
**PSI Prapat** 28.11 258 P **P** 20 40 30.0 +0.8
comp=Z,59nm,1.1s,baz=65,slow=4.3,SNR=18
PSI PcP **PcP** 20 43 41.7 -0.9
comp=Z,3.9nm,0.5s,baz=170,slow=1.3,SNR=4.5
PSI LR LR 20 53 49.4
comp=Z,125nm,20.1s,baz=98,slow=41
**PSI Prapat** 28.11 258 *e*P **P** 20 40 30.0 +0.8
PSI pmax pmax
comp=Z,120nm,1.4s
**PSI Prapat** 28.11 258 *e*P **P** 20 40 30.0 +0.8
comp=Z,120nm,1.4s
**CM01 Chiang Mai Arr** 28.11 292 *e*P **P** 20 40 29.5 +0.4
CM01 *e*PcP **PcP** 20 43 42.8 +0.4
**CM31 Chiang Mai Arr** 28.14 292 *e*P **P** 20 40 30.1 +0.8
CM31 *e*PcP **PcP** 20 43 43.3 +0.9
**CMAR Chiang Mai Arr** 28.14 292 P **P** 20 40 29.2 0.0
comp=Z,6.4nm,0.9s,baz=110,slow=6.6,SNR=21
CMAR PcP **PcP** 20 43 43.3 +0.9
comp=Z,3.5nm,1.0s,baz=87,slow=0.5,SNR=7.6
CMAR ScP **ScP** 20 47 21.9 +2.9
comp=Z,1.3nm,1.1s,baz=127,slow=6.0,SNR=3.5
CMAR LR LR 20 52 13.4
comp=Z,316nm,18.0s,baz=122,slow=38
**CMMT Chiang Mai** 28.23 292 P **P** 20 40 30.6 +0.5
comp=Z,13nm,2.0s
**CHTO Chiang Mai** 28.23 292 P **P** 20 40 30.7 +0.6
comp=Z,56nm,1.1s
**CHTO Chiang Mai** 28.23 292 *e*P **P** 20 40 29.2 -0.9
CHTO pmax pmax
comp=Z,27nm,1.5s
**CHTO Chiang Mai** 28.23 292 *e*P **P** 20 40 29.2 -0.9
comp=Z,27nm,1.5s
**COEN Coen** 28.51 144 P **P** 20 40 32.0 -0.5
baz=28,SNR=3.7
**COEN Coen** 28.51 144 *e*P **P** 20 40 32.2 -0.3
comp=Z,30nm,1.4s
**MAJO Matsushiro** 29.09 20⇓ *e*P **P** 20 40 35.7 -1.8
MAJO pmax pmax
comp=Z,44nm,2.7s
**MJAR Matsushiro Arr** 29.09 20 P **P** 20 40 36.6 -0.8
comp=Z,4.1nm,0.8s,baz=198,slow=9.1,SNR=6.3
MJAR LR LR 20 52 08.9
comp=Z,253nm,19.1s,baz=200,slow=36
**XAN Xi'an** 29.36 329 P **P** 20 40 37.5 -2.4
XAN pP pP 20 40 49.3 -4.5
XAN sP sP 20 40 54.8 -5.4
XAN PP **PnPn** 20 41 31.8 -4.0
XAN S **S** 20 45 23.3 -6.5
XAN pmax pmax
comp=Z,10.0nm,0.7s
XAN LR LR
comp=Z,280nm,15.3s
XAN LR LR
comp=Z,380nm,13.5s
XAN LR LR
comp=Z,490nm,14.4s
**DL2 Dalian** 29.73 352 P **P** 20 40 44.0 +1.0
DL2 pmax pmax
comp=Z,59nm,0.9s
**GSI Gunungsitoli** 29.81 256 *e*P **P** 20 40 42.2 -1.9
comp=Z,110nm,0.9s
**CD2 Chengdu** 30.09 319 P **P** 20 40 47.0 +0.6
CD2 S **S** 20 45 37.5 -3.8
CD2 SS **ScP** 20 47 25.8 +0.8
CD2 pmax pmax
comp=Z,10.0nm,0.8s
CD2 pmax pmax
comp=Z,180nm,6.0s
CD2 LR LR
comp=Z,680nm,19.0s
CD2 LR LR
comp=Z,990nm,14.3s
CD2 LR LR
comp=Z,1μm,16.6s
**WRAB Tennant Creek** 30.14 165 *e*P **P** 20 40 45.3 -1.6
WRAB pmax pmax
comp=Z,45nm,1.9s
**WRAB Tennant Creek** 30.14 165 *e*P **P** 20 40 45.3 -1.6
comp=Z,45nm,1.9s
**WR1 Warramunga Arr** 30.15 165 *e*P **P** 20 40 44.7 -2.3
comp=Z,11nm,1.0s
**WRA Warramunga Arr** 30.15 165 P **P** 20 40 44.7 -2.3
comp=Z,4.4nm,1.1s,baz=346,slow=8.4,SNR=22
WRA LR LR 20 55 04.9
comp=Z,92nm,19.7s,baz=15,slow=41
**WB2 Warramunga Arr** 30.15 165 *e*P **P** 20 40 44.2 -2.8
**BJT Baijiatuau** 31.86 345 *e*P **P** 20 41 00.4 -1.5
BJT pmax pmax
comp=Z,49nm,1.1s
**BJT Baijiatuau** 31.86 345 *e*P **P** 20 41 00.4 -1.5
comp=Z,49nm,1.1s
**BJI Beijing** 31.88 345 P **P** 20 41 01.0 -1.0
BJI pmax pmax
comp=Z,42nm,1.1s
BJI pmax pmax
comp=Z,300nm,4.6s
BJI LR LR
comp=Z,210nm,13.9s
BJI LR LR
comp=Z,350nm,18.2s
**SNY Shenyang** 32.43 356 ⇑P **P** 20 41 07.5 +0.7
SNY pmax pmax
comp=Z,74nm,0.9s
**QIS Mount Isa** 32.44 157 P **P** 20 41 05.7 -1.4
baz=32,SNR=15
**MTSU Mount Surprise** 32.53 147 P **P** 20 41 07.6 -0.5
baz=32,SNR=4.6
**LZH Lanzhou** 33.61 326 *e*P **P** 20 41 19.0 +1.6
LZH pP pP 20 41 30.5 -0.9
LZH sP sP 20 41 36.8 -1.0
LZH PP **PP** 20 42 32.5 -1.8
LZH *e*S **S** 20 46 37.0 +0.6
LZH sS sS 20 46 57.5 -2.4
LZH SS **SnSn** 20 48 43.0 -1.0
LZH pmax pmax
comp=Z,22nm,1.2s
LZH pmax pmax
comp=Z,130nm,5.1s
LZH LR LR
comp=Z,800nm,14.0s
LZH LR LR
comp=Z,650nm,13.2s
LZH LR LR
comp=Z,950nm,16.5s
**AS31 Alice Springs** 33.63 168 *e*P **P** 20 41 16.4 -1.2
comp=Z,2.1nm,0.7s
AS31 *e*PcP **PcP** 20 43 56.6 -0.3
**ASAR Alice Springs** 33.63 168 P **P** 20 41 15.7 -1.9
comp=Z,1.4nm,0.3s,baz=14,slow=9.1,SNR=22
ASAR PcP **PcP** 20 43 56.6 -0.3
comp=Z,1.8nm,0.8s,baz=1.1,slow=4.4,SNR=5.1
ASAR LR LR 20 57 22.4
comp=Z,135nm,18.2s,baz=342,slow=41
**AS01 Alice Springs** 33.64 168 *e*P **P** 20 41 15.8 -1.9
**HHC Hu-ho-hao-te** 34.01 340 *e*P **P** 20 41 20.3 -0.5
HHC pP pP 20 41 32.5 -2.2
HHC sP sP 20 41 38.5 -2.7
HHC S **S** 20 46 42.0 -0.4
HHC SS **SnSn** 20 48 50.3 -3.3
HHC pmax pmax
comp=Z,14nm,1.1s
HHC pmax pmax
comp=Z,160nm,4.7s
HHC LR LR
comp=Z,210nm,13.7s
HHC LR LR
comp=Z,300nm,11.6s
HHC LR LR
comp=Z,200nm,13.5s
**WRKA Warakurna** 34.25 177 P **P** 20 41 22.0 -0.9
baz=34,SNR=27
**CN2 Changchun** 34.31 359 *e*P **P** 20 41 23.5 +0.3
CN2 *e*sP sP 20 41 41.0 -2.6
CN2 *e*S **S** 20 46 47.3 +0.6
CN2 pmax pmax
comp=Z,10.0nm,0.6s
CN2 pmax pmax
comp=Z,200nm,3.0s
CN2 LR LR
comp=Z,300nm,16.0s
CN2 LR LR
comp=Z,200nm,16.0s
CN2 LR LR
comp=Z,200nm,17.0s
**USRK Ussuriysk Ar.** 35.03 7 P **P** 20 41 30.4 +1.0
comp=Z,20nm,0.8s,baz=186,slow=6.9,SNR=20
USRK LR LR 20 55 19.0
comp=Z,111nm,21.0s,baz=174,slow=35
**CTA Charters Tower** 35.18 146 P **P** 20 41 30.6 -0.3
comp=Z,3.6nm,0.7s,baz=342,slow=7.7,SNR=4.2
**MDJ Mudanjiang** 35.22 4 P **P** 20 41 32.0 +0.9
MDJ pmax pmax
comp=Z,31nm,1.1s
MDJ pmax pmax
comp=Z,200nm,5.6s
**MDJ Mudanjiang** 35.22 4 *e*P **P** 20 41 33.0 +1.9
comp=Z,32nm,1.0s
**BRDH Bariadhala** 35.86 296 P **P** 20 41 36.9 +0.1
comp=Z,86nm,0.4s,baz=99,slow=19,SNR=5.2
**MEEK Meekatharra** 36.59 192 P **P** 20 41 42.6 -0.4
baz=37,SNR=5.3
**ASAJ Asahikawa** 37.35 19 P **P** 20 41 51.3 +2.0
comp=Z,9.8nm,0.6s,baz=256,slow=6.0,SNR=8.1
**ASAJ Asahikawa** 37.35 19 *e*P **P** 20 41 51.3 +2.0
comp=Z,14nm,0.8s
**GTA Gaotai** 38.21 326 ⇑P **P** 20 41 55.3 -1.5
GTA pP pP 20 42 09.3 -1.6
GTA sP sP 20 42 14.5 -2.8
GTA PcP **PcP** 20 44 10.8 +0.4
GTA S **S** 20 47 45.5 -1.2
GTA sS sS 20 48 05.3 -5.2
GTA pmax pmax
comp=Z,5.0nm,1.0s
GTA pmax pmax
comp=Z,220nm,5.2s
GTA LR LR
comp=Z,350nm,17.6s
GTA LR LR
comp=Z,480nm,18.1s
GTA LR LR
comp=Z,590nm,18.5s
**HNR Honiara** 38.23 118 LR LR 20 55 57.9
comp=Z,144nm,20.1s,baz=304,slow=33
**LSA Lhasa** 38.69 306 *e*P **P** 20 42 01.2 -0.1
LSA pmax pmax
comp=Z,14nm,0.8s
**LSA Lhasa** 38.69 306 *e*P **P** 20 42 01.2 -0.1
comp=Z,14nm,0.8s
**MORW Morawa** 39.51 194 P **P** 20 42 07.2 -0.3
baz=40,SNR=6.3
**HABR Khabarovsk** 39.64 9 *c*e P **P** 20 42 06.2 -2.2
HABR *e**PP **pP** 20 42 19.5 -3.0
HABR *e**SP **sP** 20 42 25.6 -3.3
HABR *e* 20 43 38.2
HABR *e* 20 44 12.0
HABR *e*S **S** 20 48 06.7 -1.0
HABR *e**SS **sS** 20 48 29.8 -1.7
HABR SSS SSS 20 51 26.8
HABR *e* 20 52 09.2
HABR pmax pmax
comp=E,6.0nm,0.5s
HABR pmax pmax
comp=N,10.0nm,1.0s
HABR pmax pmax
comp=Z,32nm,1.0s
HABR MLR MLR
comp=Z,141nm,20.0s
**QLP Quilpie** 39.70 155 P **P** 20 42 07.4 -1.7
baz=40,SNR=3.9
**FORT Forrest** 39.95 178 P **P** 20 42 10.6 -0.5
baz=40,SNR=9.1
**FORT Forrest** 39.95 178 *e*P **P** 20 42 10.4 -0.7
comp=Z,514nm,1.0s
**KLR Kul'dur** 39.98 5 P **P** 20 42 11.7 +0.5
comp=Z,0.8nm,0.7s,baz=186,slow=5.0,SNR=30
**H11S3 WAKE ISLAND Hy** 40.03 72 T T 21 25 07.9
baz=262,slow=75,SNR=365
**H11S1 WAKE ISLAND Hy** 40.04 72 T T 21 25 09.1
baz=262,slow=75,SNR=165
**H11S2 WAKE ISLAND Hy** 40.04 72 T T 21 25 04.8
baz=262,slow=75,SNR=112
**HIA Hailar** 40.16 353 *e*P **P** 20 42 13.0 +0.2
HIA pmax pmax
comp=Z,25nm,1.0s
**HIA Hailar** 40.16 353 *e*P **P** 20 42 13.0 +0.2
comp=Z,25nm,1.0s
**H11N1 WAKE ISLAND Hy** 40.39 71 T T 21 25 44.2
baz=265,slow=75,SNR=179
**H11N2 WAKE ISLAND Hy** 40.40 71 T T 21 25 43.8
baz=265,slow=75,SNR=78
**H11N3 WAKE ISLAND Hy** 40.41 71 T T 21 25 45.6
baz=265,slow=75,SNR=179
**KMBL Kambalda** 40.74 186 P **P** 20 42 17.2 -0.5
baz=41,SNR=22
**ODAN Odare** 40.77 300 *e*P **P** 20 42 17.4 -1.0
comp=Z,86nm,0.7s
**BLDU Ballidu** 40.84 193 P **P** 20 42 18.2 -0.3
baz=41,SNR=6.4
**RAMN Ramite** 41.47 300 *e*P **P** 20 42 23.4 -0.7
comp=Z,50nm,0.7s
**KLBR Kellerberrin** 41.57 191 P **P** 20 42 24.1 -0.4
baz=42,SNR=7.3
**ULN Ulaanbaatar** 41.72 340 *c i*P **P** 20 42 25.2 -0.6
ULN pmax pmax
comp=Z,15nm,1.0s
**ULN Ulaanbaatar** 41.72 340 *e*P **P** 20 42 25.7 0.0
comp=Z,10nm,0.7s
**SONA0 Songino Array** 41.92 340 *e*P **P** 20 42 26.6 -0.7
SONA0 *e*PcP **PcP** 20 44 21.7 -0.4
SONA0 *e*ScP **ScP** 20 48 11.1 +3.1
**SONM Songino Array** 41.92 340 P **P** 20 42 26.6 -0.7
comp=Z,3.1nm,0.6s,baz=159,slow=9.2,SNR=26
SONM PcP **PcP** 20 44 21.7 -0.4
comp=Z,1.8nm,0.8s,baz=152,slow=2.5,SNR=4.2
SONM ScP **ScP** 20 48 11.1 +3.1
comp=Z,0.5nm,0.8s,baz=160,slow=4.6,SNR=3.0
SONM LR LR 21 01 18.3
comp=Z,165nm,20.6s,baz=153,slow=38
**SONA1 Songino Array** 41.92 340 *e*P **P** 20 42 26.6 -0.8
**JIRN Jiri** 42.03 301 *e*P **P** 20 42 27.8 -1.1
comp=Z,352nm,0.7s
**MUN Mundaring** 42.26 193 P **P** 20 42 30.2 0.0
baz=43,SNR=7.8
**GUN Gumba** 42.37 301 *e*P **P** 20 42 30.7 -0.9
comp=Z,91nm,0.7s
**PKI Pulchoki** 42.66 301 *e*P **P** 20 42 32.5 -1.5
comp=Z,30nm,0.8s
**PKIN Phulchoki** 42.68 301 *e*P **P** 20 42 33.1 -0.9
comp=Z,59nm,0.7s
**KKN Kakani** 42.84 301 *e*P **P** 20 42 34.0 -1.2
comp=Z,47nm,0.9s
**DMN Daman** 42.93 301 *e*P **P** 20 42 34.7 -1.4
comp=Z,36nm,1.0s
**BBOO Buckleboo** 42.94 168 P **P** 20 42 34.7 -0.8
baz=43,SNR=34
**BBOO Buckleboo** 42.94 168 *e*P **P** 20 42 35.0 -0.6
comp=Z,27nm,0.8s
**NWAO Narrogin (SRO)** 42.97 191 P **P** 20 42 35.6 -0.2
comp=Z,49nm,0.9s,baz=251,slow=8.9,SNR=17
**NWAO Narrogin (SRO)** 42.97 191 P **P** 20 42 35.9 +0.1
baz=43,SNR=9.9
NWAO P **P** 20 42 35.9 +0.1
baz=43,SNR=9.9
**NWAO Narrogin (SRO)** 42.97 191 *e*P **P** 20 42 35.0 -0.8
NWAO pmax pmax
comp=Z,54nm,0.9s
**NWAO Narrogin (SRO)** 42.97 191 *e*P **P** 20 42 35.0 -0.8
comp=Z,54nm,0.9s
**STKA Stephens Creek** 43.50 161 P **P** 20 42 38.8 -1.4
comp=Z,4.6nm,0.7s,baz=330,slow=9.2,SNR=9.4
STKA LR LR 21 07 11.4
comp=Z,96nm,18.6s,baz=352,slow=45
**STKA Stephens Creek** 43.50 161 P **P** 20 42 39.0 -1.1
baz=44,SNR=8.5
**STKA Stephens Creek** 43.50 161 *e*P **P** 20 42 38.5 -1.7
comp=Z,1.6nm,0.8s
**CIT Chita** 43.81 349 *e*P **P** 20 42 40.1 -2.4
CIT *e* 20 42 49.0
**KOLN Koldanda** 44.26 300 *e*P **P** 20 42 45.7 -1.0
comp=Z,90nm,0.7s
**DANN Dangsing** 44.29 301 *e*P **P** 20 42 46.2 -0.8
comp=Z,3.0nm,0.8s
**RKGY Rocky Gully** 44.65 191 P **P** 20 42 50.1 +0.9
baz=45,SNR=8.6
**PYUN Piuthan** 44.87 301 *e*P **P** 20 42 50.7 -0.8
comp=Z,118nm,0.8s
**TLY Talaya** 46.13 340 P **P** 20 42 58.5 -2.4
baz=28,slow=3.0
**TLY Talaya** 46.13 340 *e*P **P** 20 43 00.7 -0.2
TLY pmax pmax
comp=Z,11nm,0.9s
TLY MLR MLR
comp=Z,91nm,17.0s
**TLY Talaya** 46.13 340 *e*P **P** 20 43 00.5 -0.4
comp=Z,9.3nm,0.8s
**MOY Mondy** 47.04 339 *e*P **P** 20 43 07.8 -0.3
**HYB Hyderabad** 47.16 285 *i* P **P** 20 43 10.0 +0.5
**CLNS Chul'man** 47.37 359 *e*P **P** 20 43 11.0 +0.5
CLNS *e**PP **pP** 20 43 23.6 -1.4
CLNS *e* 20 44 40.8
CLNS *e* 20 45 01.3
CLNS *e*S **S** 20 50 01.5 +1.1
CLNS *e* 20 52 57.7
CLNS pmax pmax
comp=Z,53nm,0.9s
CLNS pmax pmax
comp=N,31nm,1.0s
CLNS pmax pmax
comp=E,17nm,1.0s
CLNS pmax pmax
comp=E,8.0nm,1.2s
CLNS pmax pmax
comp=N,5.0nm,1.2s
CLNS pmax pmax
comp=Z,5.0nm,1.0s
CLNS smax smax
comp=N,176nm,14.8s
CLNS smax smax
comp=E,453nm,17.8s
CLNS MLR MLR
comp=Z,124nm,15.0s
CLNS MLR MLR
comp=E,200nm,13.0s
CLNS MLR MLR
comp=N,145nm,14.0s
**WMQ Urumqi** 48.03 322 P **P** 20 43 16.5 +0.6
WMQ pP pP 20 43 28.5 -1.9
WMQ sP sP 20 43 34.8 -1.9
WMQ S **S** 20 50 03.0 -7.3
WMQ pmax pmax
comp=N,27nm,0.9s
WMQ LR LR
comp=N,2μm,12.1s
WMQ LR LR
comp=N,1μm,19.7s
WMQ LR LR
comp=N,1μm,16.9s
**ARPS Mount Arapiles** 48.12 163 P **P** 20 43 17.6 +1.1
baz=48,SNR=6.8
**BOD Bodaibo** 49.28 351 *e*P **P** 20 43 25.3 +0.2
**HVS Khovu-Aksy** 49.56 333⇓ *e*P **P** 20 43 26.7 -0.9
HVS pmax pmax
comp=Z,18nm,0.9s
**DZM Mont Dzumac** 50.15 129 *e*LR LR 20 58 00.8
comp=Z,320nm,25.4s
**PETK Petropavlovsk-** 50.39 24 P **P** 20 43 35.3 +1.7
comp=Z,9.2nm,0.6s,baz=204,slow=2.7,SNR=20
**PETK Petropavlovsk-** 50.39 24 *e*P **P** 20 43 34.8 +1.1
**PETK Petropavlovsk-** 50.39 24 *e*P **P** 20 43 34.8 +1.1
**PEA1 Petropavlovsk-** 50.39 24 *e*P **P** 20 43 35.3 +1.6
**DGZ Jazzator, Alta** 51.62 329⇓ *i*P **P** 20 43 42.7 -0.4
DGZ pmax pmax
comp=Z,2.0nm,0.7s
**YAK Yakutsk** 52.62 2 *e*P **P** 20 43 48.8 -1.3
YAK *e**PP **pP** 20 44 05.6 +0.8
YAK *e* 20 44 59.2
YAK *e* 20 45 43.6
YAK *e*S **S** 20 51 07.8 -5.4
YAK *e*SS **SS** 20 54 51.3 -0.8
YAK pmax pmax
comp=Z,70nm,1.1s
YAK pmax pmax
comp=N,28nm,1.3s
YAK pmax pmax
comp=E,13nm,1.5s
YAK pmax pmax
comp=Z,362nm,5.1s
YAK pmax pmax
comp=N,182nm,6.6s
YAK pmax pmax
comp=E,141nm,4.7s
YAK smax smax
comp=E,163nm,4.1s
YAK smax smax
comp=N,220nm,5.3s
**YAK Yakutsk** 52.62 2 *e*P **P** 20 43 49.9 -0.2
comp=N,81nm,1.1s
**MK01 Makanchi Array** 52.82 323 *e*P **P** 20 43 51.3 -0.7
**MK31 Makanchi Array** 52.84 323 *e*P **P** 20 43 51.3 -0.8
**MK31 Makanchi Array** 52.84 323 *e*P **P** 20 43 51.3 -0.8
**MK32 Makanchi Array** 52.84 323 *e*P **P** 20 43 51.5 -0.6
MK32 *e*PcP **PcP** 20 44 59.7 -1.1
**MKAR Makanchi Array** 52.84 323 P **P** 20 43 51.5 -0.6
comp=N,17nm,0.7s,baz=121,slow=8.2,SNR=158

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MKAR | | | | PcP | **PcP** | **20 44 59.7** | **-1.1** |
| | comp=N,7.7nm,0.9s,baz=116,slow=6.7,SNR=3.8 | | | | | | | | |
| MKAR | | | | LR | LR | 21 08 03.7 | | | |
| | comp=N,236nm,20.1s,baz=118,slow=38 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **52.84** | **323** | *eP* | **P** | **20 43 51.2** | **-0.9** |
| | comp=N,110nm,0.7s | | | | | | | | |
| MKAR | | | | PcP | **PcP** | **20 44 59.7** | **-1.1** |
| **PDGK** | **Podgornoye** | **52.97** | **318** | *i* P | **P** | **20 43 52.2** | **-1.1** |
| PDGK | | | | pmax | pmax | | | | |
| | comp=Z,18nm,1.2s | | | | | | | | |
| **MAKZ** | **Makanchi** | **53.03** | **323** | *eP* | **P** | **20 43 52.6** | **-1.0** |
| MAKZ | | | | pmax | pmax | | | | |
| | comp=Z,14nm,0.8s | | | | | | | | |
| **MAKZ** | **Makanchi** | **53.03** | **323** | *eP* | **P** | **20 43 52.6** | **-1.0** |
| | comp=Z,14nm,0.8s | | | | | | | | |
| **MA2** | **Magadan** | **53.36** | **15**⇓ | *eP* | **P** | **20 43 56.0** | **+0.4** |
| **KSH** | **Kashi** | **53.95** | **312** | P | **P** | **20 44 02.5** | **+1.9** |
| KSH | | | | pP | pP | 20 44 15.0 | -0.3 |
| KSH | | | | PcP | **PcP** | **20 45 06.3** | **+1.0** |
| KSH | | | | PP | **PP** | **20 46 05.8** | **+3.5** |
| KSH | | | | S | **S** | **20 51 32.0** | **-0.5** |
| KSH | | | | ScS | **ScS** | **20 53 44.3** | **-1.2** |
| KSH | | | | SS | **SS** | **20 55 14.5** | **+0.1** |
| KSH | | | | pmax | pmax | | | | |
| | comp=Z,12nm,1.0s | | | | | | | | |
| KSH | | | | LR | LR | | | | |
| | comp=Z,220nm,5.0s | | | | | | | | |
| KSH | | | | LR | LR | | | | |
| | comp=Z,160nm,4.0s | | | | | | | | |
| KSH | | | | LR | LR | | | | |
| | comp=Z,190nm,4.8s | | | | | | | | |
| **ULHL** | **Ulahol** | **54.73** | **316** | P | **P** | **20 44 06.2** | **0.0** |
| | SNR=7.3 | | | | | | | | |
| **KZA** | **Kyzart** | **55.36** | **315** | P | **P** | **20 44 11.0** | **0.0** |
| | SNR=20 | | | | | | | | |
| **TKM2** | **Tokmak 2** | **55.42** | **316** | *i* P | **P** | **20 44 10.5** | **-0.7** |
| TKM2 | | | | pmax | pmax | | | | |
| | comp=Z,8.0nm,0.8s | | | | | | | | |
| **TKM2** | **Tokmak 2** | **55.42** | **316** | P | **P** | **20 44 10.6** | **-0.7** |
| | SNR=14 | | | | | | | | |
| **ZAA0** | **Zalesovo Array** | **55.49** | **332** | *eP* | **P** | **20 44 09.9** | **-1.3** |
| | comp=Z,6.9nm,0.8s | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **55.49** | **332** | P | **P** | **20 44 09.4** | **-1.8** |
| | comp=Z,5.6nm,0.6s,baz=121,slow=6.4,SNR=32 | | | | | | | | |
| ZALV | | | | LR | LR | 21 10 19.3 | | | |
| | comp=Z,146nm,18.1s,baz=60,slow=39 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **55.49** | **332** | *eP* | **P** | **20 44 09.8** | **-1.4** |
| **ZALV** | **Zalesovo Beam** | **55.49** | **332** | *eP* | **P** | **20 44 09.8** | **-1.4** |
| **ZAA1** | **Zalesovo Array** | **55.49** | **332** | *eP* | **P** | **20 44 09.4** | **-1.8** |
| **KBK** | **Karagaybulak** | **55.77** | **316** | P | **P** | **20 44 13.8** | **+0.1** |
| | SNR=22 | | | | | | | | |
| **SFK** | **Sufi-Kurgan** | **55.92** | **312** | *i* P | **P** | **20 44 14.1** | **-0.8** |
| SFK | | | | pmax | pmax | | | | |
| | comp=Z,15nm,1.0s | | | | | | | | |
| **UCH** | **Uchtor** | **55.92** | **315** | P | **P** | **20 44 14.8** | **-0.3** |
| | SNR=52 | | | | | | | | |
| **CHMS** | **Chumysh** | **56.03** | **316** | P | **P** | **20 44 14.0** | **-1.4** |
| | SNR=18 | | | | | | | | |
| **AAK** | **Ala-Archa** | **56.08** | **316** | *eP* | **P** | **20 44 15.2** | **-0.7** |
| AAK | | | | pmax | pmax | | | | |
| | comp=Z,9.0nm,1.0s | | | | | | | | |
| **AAK** | **Ala-Archa** | **56.08** | **316** | P | **P** | **20 44 15.8** | **-0.1** |
| | SNR=6.2 | | | | | | | | |
| **AAK** | **Ala-Archa** | **56.08** | **316** | *eP* | **P** | **20 44 15.2** | **-0.7** |
| | comp=Z,8.9nm,1.0s | | | | | | | | |
| **USP** | **Ospenovka** | **56.30** | **316** | P | **P** | **20 44 16.6** | **-0.7** |
| | SNR=21 | | | | | | | | |
| **AML** | **Almayashu** | **56.46** | **315** | P | **P** | **20 44 18.6** | **-0.3** |
| | SNR=34 | | | | | | | | |
| **EKS2** | **Erkin-Say** | **56.58** | **315** | P | **P** | **20 44 19.0** | **-0.4** |
| | SNR=27 | | | | | | | | |
| **SEY** | **Seymchan** | **56.65** | **14**⇑ | *i*P | **P** | **20 44 21.2** | **+1.9** |
| **NVS** | **Novosibirsk** | **56.77** | **332** | *eP* | **P** | **20 44 19.0** | **-1.3** |
| NVS | | | | *e* | | 20 45 12.7 | | | |
| NVS | | | | pmax | pmax | | | | |
| | comp=Z,12nm,1.1s | | | | | | | | |
| NVS | | | | pmax | pmax | | | | |
| | comp=E,8.0nm,1.0s | | | | | | | | |
| **KURK** | **Kurchatov** | **56.90** | **326***c* | *i*P | **P** | **20 44 20.4** | **-0.9** |
| KURK | | | | pmax | pmax | | | | |
| | comp=Z,217nm,1.2s | | | | | | | | |
| **KURK** | **Kurchatov** | **56.90** | **326** | *eP* | **P** | **20 44 20.9** | **-0.4** |
| | comp=Z,38nm,0.8s | | | | | | | | |
| **MNAS** | **Manas** | **57.41** | **315** | *i* P | **P** | **20 44 24.7** | **-0.6** |
| MNAS | | | | pmax | pmax | | | | |
| | comp=Z,19nm,0.9s | | | | | | | | |
| **MSVF** | **Nonsavu** | **57.65** | **118** | *eP* | **P** | **20 44 29.7** | **+2.4** |
| MSVF | | | | pmax | pmax | | | | |
| | comp=Z,45nm,1.1s | | | | | | | | |
| **MSVF** | **Nonsavu** | **57.65** | **118** | *eP* | **P** | **20 44 29.6** | **+2.4** |
| | comp=Z,44nm,1.1s | | | | | | | | |
| **KBL** | **Kabul** | **57.98** | **305** | *eP* | **P** | **20 44 28.3** | **-1.2** |
| KBL | | | | pmax | pmax | | | | |
| | comp=Z,9.0nm,0.6s | | | | | | | | |
| **KBL** | **Kabul** | **57.98** | **305** | *eP* | **P** | **20 44 28.3** | **-1.2** |
| | comp=Z,9.1nm,0.6s | | | | | | | | |
| **KK31** | **Karatay Array** | **59.00** | **315** | *i* P | **P** | **20 44 35.0** | **-1.2** |
| KK31 | | | | pmax | pmax | | | | |
| | comp=Z,29nm,1.3s | | | | | | | | |
| **KKAR** | **Karatay Array** | **59.00** | **315** | *eP* | **P** | **20 44 35.5** | **-0.7** |
| **KKAR** | **Karatay Array** | **59.00** | **315** | *eP* | **P** | **20 44 35.5** | **-0.7** |
| **TIXI** | **Tiksi** | **62.24** | **1** | *eP* | **P** | **20 44 57.8** | **+0.1** |
| TIXI | | | | pmax | pmax | | | | |
| | comp=Z,29nm,0.8s | | | | | | | | |
| **TIXI** | **Tiksi** | **62.24** | **1** | *eP* | **P** | **20 44 57.8** | **+0.1** |
| | comp=Z,29nm,0.8s | | | | | | | | |
| **BRVK** | **Borovoye** | **62.57** | **326**⇑ | *eP* | **P** | **20 44 59.1** | **-1.2** |
| BRVK | | | | pmax | pmax | | | | |
| | comp=Z,117nm,1.2s | | | | | | | | |
| **BRVK** | **Borovoye** | **62.57** | **326** | *eP* | **P** | **20 44 59.8** | **-0.5** |
| | comp=Z,28nm,0.8s | | | | | | | | |
| **BILL** | **Bilibino** | **64.22** | **16**⇑ | *eP* | **P** | **20 45 11.6** | **+0.7** |
| BILL | | | | *e* | | 20 47 31.1 | | | |
| BILL | | | | *eS* | S | 20 54 07.6 | +23 | | |
| BILL | | | | pmax | pmax | | | | |
| | comp=Z,19nm,1.2s | | | | | | | | |
| BILL | | | | MLR | MLR | | | | |
| | comp=Z,106nm,17.0s | | | | | | | | |
| **GEYT** | **Alibeck** | **67.21** | **307** | P | **P** | **20 45 30.8** | **0.0** |
| | comp=Z,3.9nm,0.8s,baz=114,slow=3.7,SNR=14 | | | | | | | | |
| GEYT | | | | LR | LR | 21 19 40.6 | | | |
| | comp=Z,180nm,18.6s,baz=180,slow=40 | | | | | | | | |
| **AB31** | **Akbulak array** | **67.66** | **319** | *i* P | **P** | **20 45 31.7** | **-1.7** |
| AB31 | | | | pmax | pmax | | | | |
| | comp=Z,11nm,0.8s | | | | | | | | |
| **ABKAR** | **Akbulak array** | **67.66** | **319** | *eP* | **P** | **20 45 32.3** | **-1.1** |
| | comp=Z,69nm,0.8s | | | | | | | | |
| **HATD** | **Hatta, Dubai** | **68.30** | **293** | P | **P** | **20 45 37.4** | **-0.5** |
| **SVE** | **Sverdlovsk** | **69.05** | **328***d* | *i*P | **P** | **20 45 41.1** | **-0.8** |
| SVE | | | | pmax | pmax | | | | |
| | comp=Z,49nm,1.0s | | | | | | | | |
| **AKTO** | **Aktyubinsk** | **69.12** | **320** | *i* P | **P** | **20 45 40.8** | **-1.7** |
| AKTO | | | | pmax | pmax | | | | |
| | comp=Z,12nm,0.8s | | | | | | | | |
| **GAMB** | **Gambell** | **69.41** | **25** | *eP* | **P** | **20 45 45.2** | **+1.2** |
| | comp=Z,9.3nm,1.0s | | | | | | | | |
| **ARU** | **Arti** | **70.06** | **327***c* | *i*P | **P** | **20 45 46.7** | **-1.5** |
| ARU | | | | S | **S** | **20 54 55.2** | **+0.4** |
| ARU | | | | SS | **SS** | **20 59 23.2** | **-1.8** |
| ARU | | | | pmax | pmax | | | | |
| | comp=Z,36nm,1.0s | | | | | | | | |
| **ARU** | **Arti** | **70.06** | **327** | *eP* | **P** | **20 45 47.1** | **-1.1** |
| | comp=Z,26nm,0.7s | | | | | | | | |
| **KDAK** | **Kodiak Island** | **77.32** | **33** | *i* P | **P** | **20 46 32.6** | **+1.9** |
| **IM3** | **Indian Mountai** | **77.35** | **24** | *eP* | **P** | **20 46 31.3** | **+0.6** |
| **IMAR** | **Indian Mountai** | **77.35** | **24** | *eP* | **P** | **20 46 31.7** | **+1.0** |
| **RAYN** | **Ar Rayn** | **78.06** | **292** | *eP* | **P** | **20 46 34.6** | **-0.9** |
| | comp=Z,28nm,0.8s | | | | | | | | |
| **ZEI** | **Tsey** | **78.24** | **312** | *eP* | **P** | **20 46 34.9** | **-1.5** |
| ZEI | | | | pmax | pmax | | | | |
| | comp=Z,34nm,0.7s | | | | | | | | |
| **BPAW** | **Bear Paw Mtn.** | **78.39** | **26** | *eP* | **P** | **20 46 37.3** | **+0.7** |
| | comp=Z,32nm,1.2s | | | | | | | | |
| **NCK** | **Nalchik** | **78.44** | **313**⇓ | *i*P | **P** | **20 46 36.5** | **-0.7** |
| NCK | | | | pmax | pmax | | | | |
| | comp=Z,10.0nm,0.6s | | | | | | | | |
| **MLY** | **Manley** | **78.53** | **25** | *eP* | **P** | **20 46 38.6** | **+1.2** |
| | comp=Z,16nm,1.1s | | | | | | | | |
| **AKH** | **Akhalkalaki** | **78.59** | **310**⇓ | *i*P | **P** | **20 46 38.9** | **+0.6** |
| **COLD** | **Coldfoot** | **78.85** | **23** | *eP* | **P** | **20 46 40.6** | **+1.7** |
| | comp=Z,11nm,0.8s | | | | | | | | |
| **KBZ** | **Khabaz** | **78.94** | **313** | P | **P** | **20 46 38.8** | **-1.1** |
| | comp=Z,9.0nm,1.0s,baz=124,slow=3.7,SNR=13 | | | | | | | | |
| KBZ | | | | LR | LR | 21 25 48.5 | | | |
| | comp=Z,161nm,18.9s,baz=65,slow=39 | | | | | | | | |
| **KIV** | **Kislovodsk** | **79.08** | **313** | *i* P | **P** | **20 46 40.8** | **0.0** |
| | SNR=7.9 | | | | | | | | |
| **KIV** | **Kislovodsk** | **79.08** | **313** | *eP* | **P** | **20 46 40.6** | **-0.2** |
| KIV | | | | pmax | pmax | | | | |
| | comp=Z,22nm,1.0s | | | | | | | | |
| KIV | | | | MLR | MLR | | | | |
| | comp=Z,212nm,18.0s | | | | | | | | |
| **KIV** | **Kislovodsk** | **79.08** | **313** | *eP* | **P** | **20 46 40.6** | **-0.2** |
| | comp=Z,17nm,0.8s | | | | | | | | |
| **NEY** | **Neytrino** | **79.08** | **312**⇑ | *eP* | **P** | **20 46 41.5** | **+0.5** |
| NEY | | | | pmax | pmax | | | | |
| | comp=Z,3.0nm,1.3s | | | | | | | | |
| **PMR** | **Palmer** | **79.17** | **29** | *eP* | **P** | **20 46 41.7** | **+0.9** |
| PMR | | | | pmax | pmax | | | | |
| | comp=Z,32nm,1.1s | | | | | | | | |
| **PMR** | **Palmer** | **79.17** | **29** | *eP* | **P** | **20 46 41.7** | **+0.9** |
| | comp=Z,32nm,1.1s | | | | | | | | |
| **MCK** | **McKinley** | **79.28** | **27** | *eP* | **P** | **20 46 42.3** | **+0.9** |
| MCK | | | | pmax | pmax | | | | |
| | comp=Z,30nm,1.0s | | | | | | | | |
| **MCK** | **McKinley** | **79.28** | **27** | *eP* | **P** | **20 46 42.3** | **+0.9** |
| | comp=Z,30nm,1.0s | | | | | | | | |
| **RND** | **Reindeer** | **79.32** | **27** | *eP* | **P** | **20 46 42.1** | **+0.4** |
| RND | | | | pmax | pmax | | | | |
| | comp=Z,25nm,1.2s | | | | | | | | |
| **RND** | **Reindeer** | **79.32** | **27** | *eP* | **P** | **20 46 42.1** | **+0.4** |
| | comp=Z,25nm,1.2s | | | | | | | | |
| **VRH** | **Novokhopyorsk** | **79.46** | **320** | *eP* | **P** | **20 46 41.2** | **-1.4** |
| VRH | | | | pmax | pmax | | | | |
| | comp=Z,20nm,0.8s | | | | | | | | |
| **SML** | **Sawmill** | **79.56** | **29** | *eP* | **P** | **20 46 44.6** | **+1.6** |
| SML | | | | pmax | pmax | | | | |
| | comp=Z,50nm,1.2s | | | | | | | | |
| **SML** | **Sawmill** | **79.56** | **29** | *eP* | **P** | **20 46 44.6** | **+1.6** |
| | comp=Z,50nm,1.2s | | | | | | | | |
| **MDM** | **Murphy Dome** | **79.60** | **26** | *eP* | **P** | **20 46 44.4** | **+1.2** |
| | comp=Z,13nm,1.0s | | | | | | | | |
| **COLA** | **College** | **79.76** | **26** | *eP* | **P** | **20 46 43.7** | **-0.2** |
| COLA | | | | pmax | pmax | | | | |
| | comp=Z,9.0nm,0.9s | | | | | | | | |
| **COLA** | **College** | **79.76** | **26** | *eP* | **P** | **20 46 43.7** | **-0.2** |
| | comp=Z,8.9nm,0.9s | | | | | | | | |
| **CCB** | **Clear Creek Bu** | **79.78** | **26** | *eP* | **P** | **20 46 44.4** | **+0.3** |
| | comp=Z,13nm,1.2s | | | | | | | | |
| **ARTV** | **Artvin** | **79.78** | **310** | *eP* | **P** | **20 46 43.5** | **-1.4** |
| | comp=Z,6.6nm,1.0s | | | | | | | | |
| **HDA** | **Harding Lake** | **80.16** | **26** | *eP* | **P** | **20 46 46.2** | **0.0** |
| | comp=Z,7.4nm,0.7s | | | | | | | | |
| **IL1** | **Eielson Array** | **80.17** | **26** | *eP* | **P** | **20 46 45.3** | **-0.9** |
| **ILAR** | **Eielson Array** | **80.17** | **26** | P | **P** | **20 46 45.8** | **-0.4** |
| | comp=Z,3.7nm,0.8s,baz=245,slow=3.8,SNR=40 | | | | | | | | |
| ILAR | | | | LR | LR | 21 21 36.6 | | | |
| | comp=Z,16nm,21.3s,baz=270,slow=35 | | | | | | | | |
| **ILB** | **Eielson Array** | **80.17** | **26** | *eP* | **P** | **20 46 45.3** | **-1.0** |
| **KLMR** | **Klimovskoe** | **80.39** | **330** | *eP* | **P** | **20 46 45.2** | **-2.2** |
| KLMR | | | | pmax | pmax | | | | |
| | comp=Z,55nm,1.1s | | | | | | | | |
| **FYU** | **Fort Yukon** | **80.81** | **24** | *eP* | **P** | **20 46 51.0** | **+1.4** |
| | comp=Z,36nm,1.4s | | | | | | | | |
| **TMCR** | **Tamitsa** | **80.94** | **334** | *eP* | **P** | **20 46 50.4** | **+0.1** |
| TMCR | | | | pmax | pmax | | | | |
| | comp=Z,36nm,0.9s | | | | | | | | |
| **KOPT** | **Kop Dagi** | **80.95** | **309** | *eP* | **P** | **20 46 51.1** | **-0.2** |
| | comp=Z,19nm,1.0s | | | | | | | | |
| **MARD** | **Mardin** | **80.96** | **306** | *eP* | **P** | **20 46 49.6** | **-1.5** |
| | comp=Z,21nm,0.7s | | | | | | | | |
| **VSR** | **Storozhevoye** | **81.07** | **321** | *eP* | **P** | **20 46 48.9** | **-2.3** |
| VSR | | | | pmax | pmax | | | | |
| | comp=Z,10.0nm,0.7s | | | | | | | | |
| **LPSR** | **Galich'ya Gora** | **81.12** | **322** | *eP* | **P** | **20 46 49.9** | **-1.6** |
| LPSR | | | | pmax | pmax | | | | |
| | comp=Z,20nm,0.7s | | | | | | | | |
| **DOT** | **Dot Lake** | **81.46** | **27** | *eP* | **P** | **20 46 53.7** | **+0.5** |
| | comp=Z,71nm,1.5s | | | | | | | | |
| **MENT** | **Mentasta** | **81.66** | **28** | *eP* | **P** | **20 46 54.5** | **+0.2** |
| | comp=Z,14nm,1.0s | | | | | | | | |
| **ATD** | **Arta Tunnel** | **81.95** | **280** | *eP* | **P** | **20 46 55.1** | **-1.6** |
| | comp=Z,17nm,0.9s | | | | | | | | |
| **LVZ** | **Lovozero** | **82.06** | **338**⇓ | *eP* | **P** | **20 46 56.2** | **-0.1** |
| LVZ | | | | pmax | pmax | | | | |
| | comp=Z,195nm,2.5s | | | | | | | | |
| **OBN** | **Obninsk** | **82.32** | **325**⇑ | *eP* | **P** | **20 46 56.3** | **-1.4** |
| OBN | | | | *e* | | 20 50 03.6 | | | |
| OBN | | | | *eS* | **S** | **20 57 08.7** | **-0.5** |
| OBN | | | | pmax | pmax | | | | |
| | comp=Z,24nm,1.2s | | | | | | | | |
| OBN | | | | MLR | MLR | | | | |
| | comp=Z,203nm,17.0s | | | | | | | | |
| **EGAK** | **Eagle** | **82.62** | **26** | *eP* | **P** | **20 47 00.1** | **+1.0** |
| | comp=Z,12nm,0.8s | | | | | | | | |
| **ANN** | **Anapa** | **82.77** | **314** | *eP* | **P** | **20 46 56.4** | **-3.9** |
| ANN | | | | *e**PP | **PcP** | **20 47 09.9** | **+4.8** |
| ANN | | | | *eS* | **S** | **20 57 08.7** | **-5.6** |
| ANN | | | | pmax | pmax | | | | |
| | comp=Z,55nm,1.1s | | | | | | | | |
| **ABPO** | **Ambohimpanom** | **82.97** | **249** | *eP* | **P** | **20 47 01.0** | **-1.0** |
| ABPO | | | | pmax | pmax | | | | |
| | comp=Z,20nm,1.0s | | | | | | | | |
| **ABPO** | **Ambohimpanom** | **82.97** | **249** | *eP* | **P** | **20 47 01.0** | **-1.0** |
| | comp=Z,20nm,1.0s | | | | | | | | |
| **DAWY** | **Dawson** | **83.47** | **26** | *eP* | **P** | **20 47 04.5** | **+0.8** |
| | comp=Z,22nm,1.0s | | | | | | | | |
| **HYT** | **Haines Junctio** | **84.84** | **29** | *eP* | **P** | **20 47 13.2** | **+2.4** |
| | comp=Z,30nm,1.1s | | | | | | | | |
| **INK** | **Inuvik** | **85.06** | **22** | P | **P** | **20 47 12.2** | **+0.7** |
| | comp=Z,19nm,1.0s,baz=285,slow=4.8,SNR=44 | | | | | | | | |
| **INK** | **Inuvik** | **85.06** | **22** | *eP* | **P** | **20 47 12.2** | **+0.7** |
| INK | | | | pmax | pmax | | | | |
| | comp=Z,23nm,1.0s | | | | | | | | |
| **INK** | **Inuvik** | **85.06** | **22** | *eP* | **P** | **20 47 12.2** | **+0.7** |
| | comp=Z,23nm,1.0s | | | | | | | | |
| **ARA0** | **ARCESS Array S** | **85.09** | **340** | *eP* | **P** | **20 47 11.2** | **-0.5** |
| **ARCES** | **ARCESS Array B** | **85.09** | **340** | P | **P** | **20 47 11.2** | **-0.5** |
| | comp=Z,23nm,0.6s,baz=80,slow=6.9,SNR=61 | | | | | | | | |
| **SIM** | **Simferopol'** | **85.09** | **315** | *eP* | **P** | **20 47 12.1** | **-0.1** |
| SIM | | | | pmax | pmax | | | | |
| | comp=Z,24nm,0.8s | | | | | | | | |
| **WHY** | **Whitehorse** | **86.14** | **29** | *eP* | **P** | **20 47 18.9** | **+1.7** |
| | comp=Z,25nm,1.1s | | | | | | | | |
| **BR101** | **Keskin Array S** | **86.23** | **309** | *eP* | **P** | **20 47 16.2** | **-1.9** |
| **BR131** | **Keskin Array S** | **86.23** | **309** | *eP* | **P** | **20 47 16.8** | **-1.4** |
| **BRTR** | **Keskin Array B** | **86.23** | **309** | P | **P** | **20 47 16.2** | **-1.9** |
| | comp=Z,2.9nm,0.9s,baz=105,slow=4.4,SNR=13 | | | | | | | | |
| BRTR | | | | LR | LR | 21 31 40.3 | | | |
| | comp=Z,80nm,18.3s,baz=58,slow=40 | | | | | | | | |
| **BRTR** | **Keskin Array B** | **86.23** | **309** | *i* P | **P** | **20 47 16.7** | **-1.4** |
| BRTR | | | | pmax | pmax | | | | |
| | comp=Z,3.0nm,0.9s | | | | | | | | |
| **FIA1** | **FINESS Array S** | **86.76** | **332** | *eP* | **P** | **20 47 19.4** | **-0.7** |
| | comp=Z,26nm,0.9s | | | | | | | | |
| **FIA0** | **FINESS Array S** | **86.76** | **332** | *eP* | **P** | **20 47 19.3** | **-0.8** |
| **FIA0** | **FINESS Array S** | **86.76** | **332** | *eP* | **P** | **20 47 19.2** | **-0.8** |
| **FINES** | **FINESS Array B** | **86.76** | **332** | P | **P** | **20 47 19.2** | **-0.8** |
| | comp=Z,15nm,0.9s,baz=79,slow=4.9,SNR=22 | | | | | | | | |
| FINES | | | | LR | LR | 21 30 09.1 | | | |
| | comp=Z,170nm,18.7s,baz=40,slow=38 | | | | | | | | |
| **BR231** | **Keskin MP Arra** | **86.86** | **310** | *eP* | **P** | **20 47 17.8** | **-3.4** |
| **PPT** | **Papeete** | **87.13** | **108** | LR | LR | 21 18 17.3 | | | |
| | comp=Z,57nm,21.2s,baz=337,slow=30 | | | | | | | | |
| **PPT2** | **Papeete2** | **87.13** | **108** | *e*LR | LR | 21 14 59.8 | | | |
| | comp=Z,155nm,23.2s,baz=280 | | | | | | | | |
| **CSS** | **Mathiatis** | **87.23** | **305** | *eP* | **P** | **20 47 22.1** | **-0.8** |
| | comp=Z,4.4nm,0.7s | | | | | | | | |
| **AKASG** | **Malin Array Be** | **87.36** | **321** | P | **P** | **20 47 21.4** | **-1.8** |
| | comp=Z,5.9nm,0.8s,baz=64,slow=4.5,SNR=13 | | | | | | | | |
| AKASG | | | | LR | LR | 21 30 56.8 | | | |
| | comp=Z,105nm,18.3s,baz=340,slow=39 | | | | | | | | |
| **AKASG** | **Malin Array Be** | **87.36** | **321** | *i* P | **P** | **20 47 22.7** | **-0.5** |
| AKASG | | | | pmax | pmax | | | | |
| | comp=Z,6.0nm,0.8s | | | | | | | | |
| **AKBB** | **Malin Array Si** | **87.36** | **321** | *eP* | **P** | **20 47 22.7** | **-0.5** |
| AKBB | | | | pmax | pmax | | | | |
| | comp=Z,11nm,1.1s | | | | | | | | |
| **AKBB** | **Malin Array Si** | **87.36** | **321** | *eP* | **P** | **20 47 22.7** | **-0.5** |
| | comp=Z,11nm,1.1s | | | | | | | | |
| **KIEV** | **Kiev** | **87.37** | **321**⇓ | *eP* | **P** | **20 47 22.4** | **-0.9** |
| KIEV | | | | pmax | pmax | | | | |
| | comp=Z,11nm,1.1s | | | | | | | | |
| **KIEV** | **Kiev** | **87.37** | **321** | *eP* | **P** | **20 47 22.5** | **-0.7** |
| | comp=Z,11nm,1.1s | | | | | | | | |
| **AK11** | **Malin Array Si** | **87.40** | **321** | *eP* | **P** | **20 47 22.6** | **-0.8** |
| **SORM** | **Soroca** | **88.45** | **318**⇓ | *i*P | **P** | **20 47 27.0** | **-1.4** |
| **SORM** | **Soroca** | **88.45** | **318**⇓ | *i*P | **P** | **20 47 27.0** | **-1.4** |
| **MAW** | **Mawson** | **88.91** | **200** | P | **P** | **20 47 30.9** | **+0.9** |
| | comp=Z,3.2nm,0.2s,baz=63,slow=6.4,SNR=12 | | | | | | | | |
| **MAW** | **Mawson** | **88.91** | **200** | *eP* | **P** | **20 47 31.0** | **+0.9** |
| | comp=Z,5.5nm,1.5s | | | | | | | | |
| **VNDA** | **Vanda** | **89.02** | **173** | P | **P** | **20 47 30.9** | **+0.4** |
| | comp=Z,3.3nm,0.8s,baz=314,slow=5.0,SNR=12 | | | | | | | | |
| VNDA | | | | LR | LR | 21 28 53.0 | | | |
| | comp=Z,92nm,18.1s,baz=296,slow=37 | | | | | | | | |
| **VNDA** | **Vanda** | **89.02** | **173** | *eP* | **P** | **20 47 30.4** | **-0.1** |
| **VNDA** | **Vanda** | **89.02** | **173** | *eP* | **P** | **20 47 30.4** | **-0.1** |
| VNDA | | | | *e*PcP | **PcP** | **20 47 30.5** | **-1.4** |
| **TIRR** | **Tirgusor** | **89.18** | **315**⇑ | *i*P | **P** | **20 47 31.2** | **-0.8** |
| **TIRR** | **Tirgusor** | **89.18** | **315**⇑ | P | **P** | **20 47 31.2** | **-0.8** |
| **CFR** | **Carcaliu** | **89.22** | **316**⇓ | *i*P | **P** | **20 47 31.3** | **-0.8** |
| **CFR** | **Carcaliu** | **89.22** | **316**⇓ | P | **P** | **20 47 31.3** | **-0.8** |
| **KMBO** | **Kilima Mbogo** | **89.38** | **269** | P | **P** | **20 47 34.1** | **+0.3** |
| | comp=Z,10nm,1.1s,baz=44,slow=7.2,SNR=20 | | | | | | | | |
| **KMBO** | **Kilima Mbogo** | **89.38** | **269** | *eP* | **P** | **20 47 33.5** | **-0.3** |
| KMBO | | | | pmax | pmax | | | | |
| | comp=Z,15nm,1.1s | | | | | | | | |
| **KMBO** | **Kilima Mbogo** | **89.38** | **269** | *eP* | **P** | **20 47 33.5** | **-0.3** |
| | comp=Z,15nm,1.1s | | | | | | | | |
| **VRI** | **Vrincioaia** | **90.03** | **316**⇑ | *i*P | **P** | **20 47 35.7** | **-0.3** |
| **VRI** | **Vrincioaia** | **90.03** | **316**⇑ | P | **P** | **20 47 35.7** | **-0.3** |
| **BURAR** | **Bucovina Array** | **90.62** | **318**⇑ | *i*P | **P** | **20 47 38.5** | **-0.3** |
| **BURAR** | **Bucovina Array** | **90.62** | **318**⇑ | P | **P** | **20 47 38.5** | **-0.3** |
| **BUR04** | **Bucovina Ar. S** | **90.62** | **318** | *eP* | **P** | **20 47 38.2** | **-0.6** |
| **BUR08** | **Bucovina Ar. S** | **90.62** | **318** | *eP* | **P** | **20 47 38.6** | **-0.2** |
| **MLR** | **Muntele Rosu** | **90.66** | **316**⇓ | *i*P | **P** | **20 47 38.5** | **-0.5** |
| **MLR** | **Muntele Rosu** | **90.66** | **316**⇓ | P | **P** | **20 47 38.5** | **-0.5** |
| **VOIR** | | **91.28** | **316**⇑ | *i*P | **P** | **20 47 42.3** | **+0.4** |
| **VOIR** | | **91.28** | **316**⇑ | P | **P** | **20 47 42.3** | **+0.4** |
| **KWP** | **Kalwaria Pacla** | **91.69** | **321** | *eP* | **P** | **20 47 43.3** | **-0.3** |
| KWP | | | | pmax | pmax | | | | |
| | comp=Z,228nm,1.3s | | | | | | | | |
| **KWP** | **Kalwaria Pacla** | **91.69** | **321** | *eP* | **P** | **20 47 43.3** | **-0.3** |
| | comp=Z,228nm,1.3s | | | | | | | | |
| **LOT** | **Lotru** | **92.15** | **317**⇓ | *i*P | **P** | **20 47 44.9** | **-1.0** |
| **UZH** | **Uzhgorod** | **92.23** | **320**⇑ | *i*P | **P** | **20 47 45.5** | **-0.6** |
| UZH | | | | *e* | | 20 47 52.7 | | | |
| **DRGR** | | **92.48** | **318**⇓ | *i*P | **P** | **20 47 46.8** | **-0.6** |
| **DRGR** | | **92.48** | **318**⇓ | P | **P** | **20 47 46.8** | **-0.6** |
| **STHS** | **Stebnicka Huta** | **92.66** | **321** | *eP* | **P** | **20 47 48.4** | **+0.3** |
| STHS | | | | pmax | pmax | | | | |
| | comp=Z,4.0nm,0.9s | | | | | | | | |
| **STHS** | **Stebnicka Huta** | **92.66** | **321** | *eP* | **P** | **20 47 48.4** | **+0.3** |
| **CRVS** | **Cervenica-Dubn** | **92.68** | **320** | *eP* | **P** | **20 47 47.9** | **-0.3** |
| **CRVS** | **Cervenica-Dubn** | **92.68** | **320** | *eP* | **P** | **20 47 47.9** | **-0.3** |
| **OJC** | **Ojcow** | **93.30** | **322** | *eP* | **P** | **20 47 49.9** | **-1.1** |
| OJC | | | | pmax | pmax | | | | |
| | comp=Z,10.0nm,1.2s | | | | | | | | |
| **OJC** | **Ojcow** | **93.30** | **322** | *eP* | **P** | **20 47 49.9** | **-1.1** |
| | comp=Z,9.9nm,1.2s | | | | | | | | |
| **SIRR** | **Siria** | **93.33** | **318**⇓ | *i*P | **P** | **20 47 50.7** | **-0.6** |
| **NB2** | **NORSAR Subarra** | **93.63** | **334** | P | **P** | **20 47 50.7** | **-1.6** |
| | comp=Z,8.4nm,1.0s,baz=64,slow=4.6 | | | | | | | | |
| **NB2** | **NORSAR Subarra** | **93.63** | **334** | P | **P** | **20 47 50.7** | **-1.6** |
| | baz=64,slow=4.6 | | | | | | | | |
| **NB200** | **NORSAR Array S** | **93.63** | **334** | *eP* | **P** | **20 47 51.0** | **-1.3** |
| **NOA** | **NORSAR Array B** | **93.63** | **334** | P | **P** | **20 47 51.0** | **-1.3** |
| | comp=Z,3.4nm,0.8s,baz=64,slow=4.6,SNR=5.2 | | | | | | | | |
| NOA | | | | LR | LR | 21 32 17.8 | | | |
| | comp=Z,78nm,19.7s,baz=345,slow=37 | | | | | | | | |
| **MDVR** | **Moldovita** | **93.73** | **316**⇑ | *i*P | **P** | **20 47 52.4** | **-0.8** |
| **VYHS** | **Vyhne** | **94.46** | **321** | *eP* | P | 20 48 02.5 | +6.1 |
| **VYHS** | **Vyhne** | **94.46** | **321** | *e* | P | 20 48 02.5 | +6.1 |
| **YKW3** | **Yellowknife Ar** | **94.47** | **24** | *eP* | **P** | **20 47 57.0** | **+1.0** |
| | comp=Z,9.6nm,0.8s | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **94.51** | **24** | P | **P** | **20 47 57.1** | **+0.9** |
| | comp=Z,7.3nm,0.7s,baz=301,slow=4.6,SNR=117 | | | | | | | | |
| **MORC** | **Moravsky Berou** | **94.82** | **322**⇓ | *i*P | **P** | **20 47 56.1** | **-1.9** |
| **MORC** | **Moravsky Berou** | **94.82** | **322**⇓ | P | **P** | **20 47 56.1** | **-1.9** |
| **VRAC** | **Vranov** | **95.56** | **322**⇓ | *i*P | **P** | **20 47 59.9** | **-1.5** |
| **VRAC** | **Vranov** | **95.56** | **322**⇓ | P | **P** | **20 47 59.9** | **-1.5** |
| **KHC** | **Kasperske Hory** | **97.46** | **322** | *eP* | **P** | **20 48 09.5** | **-0.6** |
| **KHC** | **Kasperske Hory** | **97.46** | **322** | *eP* | **P** | **20 48 09.5** | **-0.6** |
| **GEC2** | **GERESS Array S** | **97.50** | **322** | *eP* | **P** | **20 48 09.1** | **-1.2** |
| GEC2 | | | | pmax | pmax | | | | |
| | comp=Z,6.0nm,1.3s | | | | | | | | |
| **GEC2** | **GERESS Array S** | **97.50

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **8.78** | **184** | **P** | **Pn** | **20 50 38.7** | **0.0** |
| | 0.5nm,0.3s,baz=143,slow=20,SNR=4.5 | | | | | | |
| DZM | | | | S | **S** | **20 52 18.9** | **+0.1** |
| | 0.2nm,0.3s,baz=142,slow=19,SNR=2.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **32.01** | **254** | **P** | **P** | **20 54 33.8** | **-0.9** |
| | 0.9nm,0.4s,baz=84,slow=9.0,SNR=16 | | | | | | |
| **ASAR** | **Alice Springs** | **33.03** | **247** | **P** | **P** | **20 54 43.3** | **-0.2** |
| | 1.1nm,0.7s,baz=74,slow=9.7,SNR=13 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **74.17** | **294** | **P** | **P** | **20 59 41.0** | **+1.0** |
| | 0.5nm,0.6s,baz=118,slow=5.3,SNR=4.0 | | | | | | |
| **ILAR** | **Eielson Array** | **85.20** | **18** | **P** | **P** | **21 00 37.3** | **-0.6** |
| | 1.3nm,0.4s,baz=231,slow=5.5,SNR=30 | | | | | | |
| **NVAR** | **Mina Array Bea** | **86.47** | **49** | **P** | **P** | **21 00 45.6** | **+0.6** |
| | 0.4nm,0.7s,baz=232,slow=8.8,SNR=3.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **96.01** | **317** | **P** | **P** | **21 01 29.0** | **+0.2** |
| | 0.3nm,0.6s,baz=95,slow=5.3,SNR=3.3 | | | | | | |
| **YKA** | **Yellowknife Ar** | **96.34** | **27** | **P** | **P** | **21 01 29.3** | **-0.5** |
| | 0.3nm,0.6s,baz=252,slow=4.6,SNR=5.0 | | | | | | |
| **ARCES** | **ARCESS Array B** | **118.79** | **346** | PKP | **PKPdf** | **21 06 47.5** | **0.0** |
| | 4.2nm,0.9s,baz=82,slow=1.9,SNR=5.0 | | | | | | |

**SJA 26 21:06:51.4±0.3, 24°.19S×64°.37W, h23km±999km, ML4.5, Salta Province**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ASTB** | **Santa Barbara** | **0.25** | **342** | ***e*P** | Pb | 21 06 58.2 | +0.5 |
| ASTB | | | | ***e*S** | Sb | 21 07 03.2 | +1.2 |
| ASTB | | | | IAML | | 21 07 03.5 | |
| | comp=Z,54μm,0.1s | | | | | | |
| **ALOL** | **LOMAS DE OLMED** | **0.52** | **43** | ***e*P** | Pb | 21 07 02.1 | +0.3 |
| ALOL | | | | IAML | | 21 07 04.0 | |
| | comp=Z,43μm,0.1s | | | | | | |
| **AZAP** | **Zapla** | **0.64** | **267** | ***e*P** | Pn | 21 07 04.8 | -0.5 |

*ISK **26** 21:08:08.3, 38°.53N×36°.64E, h8km, MD2.7*
*ISCJB **26** 21:08:09.2±0.6, 38°.50N±0°.03×36°.63E±0°.05, h6km±6km, Error ellipse: s-maj=7.4km s-min=4.7km az=37.3*
*CSEM **26** 21:08:09.0±0.2, 38°.48N×36°.63E, h10km, MD2.7, Error ellipse: s-maj=4.9km s-min=3.7km az=122.0*
*DDA **26** 21:08:10.2, 38°.52N×36°.55E, h7km, Md2.6*
**ISC 26 21:08:08.7±1.2, 38°.55N±0°.03×36°.63E±0°.03, h5km±11km, n28, σ0s79/36, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SARI** | **SarD1z-Kayseri** | **0.22** | **229** | ***e*PG** | **Pg** | **21 08 13.4** | **+0.3** |
| SARI | | | | ***e*SG** | **Sg** | **21 08 16.5** | **+0.5** |
| **DARE** | **Darende-Malaty** | **0.67** | **88** | ***e*Pg** | **Pg** | **21 08 21.6** | **0.0** |
| **DARE** | **Darende-Malaty** | **0.67** | **88** | ***e*Pg** | **Pg** | **21 08 21.6** | **0.0** |
| **BNN** | **Bunyan** | **0.68** | **296** | ***e*PG** | **Pg** | **21 08 21.9** | **0.0** |
| **BNN** | **Bunyan** | **0.68** | **296** | ***e*Pg** | **Pg** | **21 08 21.9** | **0.0** |
| **SAIM** | **ADANA** | **0.72** | **217** | *i* P | **Pg** | **21 08 22.0** | **-0.5** |
| SAIM | | | | *i* S | **Sb** | **21 08 33.1** | **-1.0** |
| **SAIM** | **ADANA** | **0.72** | **217** | P | **Pg** | **21 08 22.0** | **-0.5** |
| SAIM | | | | S | **Sb** | **21 08 33.1** | **-1.0** |
| **CUALT** | **Altinyayla-SIV** | **0.73** | **8** | *i* P | **Pb** | **21 08 24.6** | **+0.6** |
| CUALT | | | | *i* S | **Sn** | **21 08 36.8** | **-0.7** |
| **CUALT** | **Altinyayla-SIV** | **0.73** | **8** | P | **Pb** | **21 08 24.6** | **+0.6** |
| CUALT | | | | S | **Sn** | **21 08 36.8** | **-0.7** |
| **CUSAR** | **Sarkisla-SIVAS** | **0.92** | **341** | ***e*P** | **Pn** | **21 08 29.0** | **+0.5** |
| **CUSAR** | **Sarkisla-SIVAS** | **0.92** | **341** | P | **Pn** | **21 08 29.0** | **+0.5** |
| **ANDN** | **Andirin** | **1.00** | **193** | *i* P | **Pn** | **21 08 30.7** | **+1.1** |
| ANDN | | | | *i* S | **Sn** | **21 08 45.9** | **+1.9** |
| **ANDN** | **Andirin** | **1.00** | **193** | P | **Pn** | **21 08 30.7** | **+1.1** |
| **KMRS** | **Kahramanmaras** | **1.07** | **168** | ***e*PG** | **Pg** | **21 08 28.3** | **-0.9** |
| **KMRS** | **Kahramanmaras** | **1.07** | **168** | ***e*Pg** | **Pg** | **21 08 28.3** | **-0.9** |
| **HEKM** | **Malatya_Hekimh** | **1.09** | **72** | *i* P | **Pn** | **21 08 31.4** | **+0.5** |
| **HEKM** | **Malatya_Hekimh** | **1.09** | **72** | P | **Pn** | **21 08 31.4** | **+0.5** |
| **YAHY** | **KAYSERI_Yahyal** | **1.10** | **246** | *i* P | **Pg** | **21 08 29.3** | **-0.5** |
| YAHY | | | | *i* S | **Sg** | **21 08 43.3** | **-0.7** |
| **YAHY** | **KAYSERI_Yahyal** | **1.10** | **246** | P | **Pg** | **21 08 29.3** | **-0.5** |
| YAHY | | | | S | **Sg** | **21 08 43.3** | **-0.7** |
| **KOZT** | **Kozan** | **1.24** | **211** | ***e*PN** | **Pn** | **21 08 32.3** | **-0.6** |
| **KOZT** | **Kozan** | **1.24** | **211** | ***e*Pn** | **Pn** | **21 08 32.3** | **-0.6** |
| **KAMA** | **Osmaniye** | **1.36** | **179** | *i* P | **Pg** | **21 08 36.5** | **+1.6** |
| **SVSK** | **Karacayir** | **1.39** | **12** | ***e*PN** | **Pn** | **21 08 35.2** | **+0.4** |
| **SVSK** | **Karacayir** | **1.39** | **12** | ***e*Pn** | **Pn** | **21 08 35.2** | **+0.4** |
| **MALT** | **Malatya** | **1.43** | **99** | ***e*PN** | **Pn** | **21 08 34.7** | **-0.8** |
| **MALT** | **Malatya** | **1.43** | **99** | ***e*Pn** | **Pn** | **21 08 34.7** | **-0.8** |
| **YOZ** | **Yozgat** | **1.49** | **317** | ***e*PN** | **Pn** | **21 08 36.5** | **+0.2** |
| **YOZ** | **Yozgat** | **1.49** | **317** | ***e*Pn** | **Pn** | **21 08 36.6** | **+0.2** |

*ISK **26** 21:21:18.4, 38°.03N×42°.74E, h10km, MD2.6*
*ISCJB **26** 21:21:19.3±0.7, 38°.05N±0°.04×42°.61E±0°.04, h1km±8km, Error ellipse: s-maj=6.4km s-min=4.9km az=162.9*
*CSEM **26** 21:21:19.3±0.3, 38°.04N×42°.65E, h8km, MD2.6, Error ellipse: s-maj=7.1km s-min=5.5km az=170.0*
*DDA **26** 21:21:19.5, 38°.05N×42°.61E, h7km, Md2.6*
**ISC 26 21:21:19.3±1.1, 38°.04N±0°.03×42°.64E±0°.03, h10km±10km, n17, σ0s86/28, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GEVA** | **Gevas** | **0.42** | **51** | *i* P | **Pg** | **21 21 27.5** | **-0.2** |
| GEVA | | | | *i* S | **Sb** | **21 21 35.5** | **-0.1** |
| **GEVA** | **Gevas** | **0.42** | **51** | P | **Pg** | **21 21 27.5** | **-0.2** |
| GEVA | | | | S | **Sb** | **21 21 35.5** | **-0.1** |
| **SIRT** | **Sirnak** | **0.56** | **197** | ***e*PG** | **Pg** | **21 21 30.1** | **-0.2** |
| SIRT | | | | ***e*SG** | **Sb** | **21 21 38.8** | **-0.7** |
| **SIRT** | **Sirnak** | **0.56** | **197** | ***e*Pg** | **Pg** | **21 21 30.1** | **-0.2** |
| SIRT | | | | ***e*Sg** | **Sb** | **21 21 38.8** | **-0.7** |
| **SRTM** | **Siirt_Merkez** | **0.57** | **265** | *i* P | **Pg** | **21 21 30.3** | **-0.1** |
| SRTM | | | | *i* S | **Sg** | **21 21 37.9** | **-0.1** |
| **SRTM** | **Siirt_Merkez** | **0.57** | **265** | P | **Pg** | **21 21 30.3** | **-0.1** |
| SRTM | | | | S | **Sg** | **21 21 37.9** | **-0.1** |
| **SIRN** | **S¨–rnak** | **0.58** | **199** | *i* P | **Pg** | **21 21 30.9** | **+0.4** |
| SIRN | | | | *i* S | **Sg** | **21 21 38.8** | **+0.8** |
| **SIRN** | **S¨–rnak** | **0.58** | **199** | P | **Pg** | **21 21 30.9** | **+0.4** |
| SIRN | | | | S | **Sg** | **21 21 38.8** | **+0.8** |
| **HAKT** | **HAKKARI** | **0.97** | **120** | *i* P | **Pb** | **21 21 38.5** | **+0.1** |
| HAKT | | | | *i* S | **Sn** | **21 21 53.5** | **+0.2** |
| **HAKT** | **HAKKARI** | **0.97** | **120** | P | **Pb** | **21 21 38.5** | **+0.1** |
| HAKT | | | | S | **Sn** | **21 21 53.5** | **+0.2** |
| **BTMN** | **Batman** | **1.10** | **262** | *i* P | **Pg** | **21 21 37.8** | **-2.6** |
| BTMN | | | | *i* S | **Sn** | **21 21 56.1** | **+0.1** |
| **CUKT** | **Cukurca** | **1.10** | **136** | ***e*PG** | **Pg** | **21 21 38.8** | **-1.7** |
| **CUKT** | **Cukurca** | **1.10** | **136** | ***e*Pg** | **Pg** | **21 21 38.8** | **-1.7** |
| **BNGB** | **Bing¶ll** | **1.81** | **302** | ***e*PN** | **Pn** | **21 21 51.6** | **+1.0** |
| **MAZI** | **Mazidag** | **1.84** | **252** | ***e*PN** | **Pn** | **21 21 51.9** | **+0.9** |
| **MAZI** | **Mazidag** | **1.84** | **252** | ***e*Pn** | **Pn** | **21 21 51.9** | **+0.9** |
| **BINT** | **Bingol** | **1.88** | **297** | ***e*Pn** | **Pn** | **21 21 51.6** | **-0.1** |

**IDC 26 21:28:50.4±4.7, 19°.77S×171°.39W, h0km, mb3.8/4, mb1 3.9/4, mb1mx3.6/39, mbtmp3.8/4, Error ellipse: s-maj=183.0km s-min=49.6km az=141.0, Tonga Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CTA** | **Charters Tower** | **39.74** | **262** | P | P | 21 36 25.4 | +0.3 |
| | 1.3nm,0.3s,baz=97,slow=13,SNR=5.3 | | | | | | |
| **STKA** | **Stephens Creek** | **43.69** | **244** | P | P | 21 36 56.6 | -0.8 |
| | 0.7nm,0.4s,baz=63,slow=4.5,SNR=3.5 | | | | | | |
| **ASAR** | **Alice Springs** | **50.72** | **255** | P | P | 21 37 51.4 | -1.0 |
| | 0.5nm,0.8s,baz=100,slow=8.1,SNR=6.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **50.84** | **260** | P | P | 21 37 54.0 | +0.7 |
| | 0.5nm,0.7s,baz=95,slow=8.7,SNR=25 | | | | | | |
| **AKASG** | **Malin Array Be** | **145.09** | **337** | PKPbc | PKPbc | 21 48 28.1 | -1.0 |
| | 0.4nm,0.3s,baz=44,slow=2.8,SNR=4.5 | | | | | | |

*ISK **26** 21:37:26.3, 38°.77N×43°.36E, h5km, MD2.6*
*ISCJB **26** 21:37:27.2±0.6, 38°.80N±0°.03×43°.31E±0°.08, h11km±6km, Error ellipse: s-maj=11.0km s-min=4.8km az=13.3*
*CSEM **26** 21:37:27.0±0.2, 38°.78N×43°.36E, h10km, MD2.6, Error ellipse: s-maj=11.3km s-min=5.0km az=97.0*
*DDA **26** 21:37:27.2, 38°.75N×43°.37E, h7km, Ml2.7*
**ISC 26 21:37:27.0±1.0, 38°.78N±0°.02×43°.37E±0°.05, h18km±5km, n22, σ0s81/30, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.18** | **175** | ***e*PG** | **Pg** | **21 37 31.9** | **+0.2** |
| VANB | | | | ***e*SG** | **Sg** | **21 37 36.3** | **+1.3** |
| **VANB** | **Van** | **0.18** | **175** | ***e*Pg** | **Pb** | **21 37 31.9** | **+0.2** |
| VANB | | | | ***e*Sg** | **Sg** | **21 37 36.3** | **+1.3** |
| **ERCV** | **ERCIS-VAN** | **0.24** | **354** | ***e*PG** | **Pg** | **21 37 31.8** | **-0.9** |
| **ERCV** | **ERCIS-VAN** | **0.24** | **354** | ***e*Pg** | **Pg** | **21 37 31.8** | **-0.9** |
| **TVAN** | **Van** | **0.25** | **173** | *i* P | **Pg** | **21 37 31.8** | **-1.0** |
| TVAN | | | | *i* S | **Sb** | **21 37 36.5** | **-0.6** |
| **TVAN** | **Van** | **0.25** | **173** | P | **Pg** | **21 37 31.8** | **-1.0** |
| TVAN | | | | S | **Sb** | **21 37 36.5** | **-0.6** |
| **VMUR** | **Van-Muradiye** | **0.26** | **37** | *i* P | **Pb** | **21 37 32.8** | **-0.5** |
| VMUR | | | | *i* S | **Sb** | **21 37 38.3** | **+0.7** |
| **VMUR** | **Van-Muradiye** | **0.26** | **37** | P | **Pb** | **21 37 32.8** | **-0.5** |
| VMUR | | | | S | **Sb** | **21 37 38.3** | **+0.7** |
| **GEVA** | **Gevas** | **0.53** | **208** | *i* P | **Pg** | **21 37 36.4** | **-1.1** |
| GEVA | | | | *i* S | **Sb** | **21 37 45.9** | **+0.8** |
| **GEVA** | **Gevas** | **0.53** | **208** | P | **Pg** | **21 37 36.4** | **-1.1** |
| GEVA | | | | S | **Sb** | **21 37 45.9** | **+0.8** |
| **AGRB** | **Hanur-Agry** | **0.85** | **340** | ***e*PG** | **Pb** | **21 37 43.2** | **-0.2** |
| **AGRB** | **Hanur-Agry** | **0.85** | **340** | ***e*Pg** | **Pb** | **21 37 43.2** | **-0.2** |
| **HAKT** | **HAKKARI** | **1.25** | **168** | *i* P | **Pn** | **21 37 49.8** | **0.0** |
| **HAKT** | **HAKKARI** | **1.25** | **168** | P | **Pn** | **21 37 49.8** | **0.0** |
| **TASB** | **TASBURUN-IGDIR** | **1.38** | **29** | ***e*PN** | **Pg** | **21 37 53.2** | **-0.4** |
| **TASB** | **TASBURUN-IGDIR** | **1.38** | **29** | ***e*Pn** | **Pg** | **21 37 53.2** | **-0.4** |
| **SRTM** | **Siirt_Merkez** | **1.38** | **236** | *i* P | **Pg** | **21 37 53.2** | **-0.4** |
| **SRTM** | **Siirt_Merkez** | **1.38** | **236** | P | **Pg** | **21 37 53.2** | **-0.4** |
| **SIRT** | **Sirnak** | **1.47** | **210** | ***e*PN** | **Pg** | **21 37 54.1** | **-1.1** |
| **SIRT** | **Sirnak** | **1.47** | **210** | ***e*Pn** | **Pg** | **21 37 54.2** | **-1.1** |
| **CUKT** | **Cukurca** | **1.54** | **173** | ***e*PN** | **Pb** | **21 37 55.1** | **+0.1** |
| **CUKT** | **Cukurca** | **1.54** | **173** | ***e*Pn** | **Pb** | **21 37 55.1** | **+0.1** |

*CSEM **26** 21:40:04.8±0.1, 39°.34N×33°.12E, h5km, MD2.6, Error ellipse: s-maj=2.8km s-min=2.4km az=142.0*
*ISK **26** 21:40:04.4, 39°.35N×33°.13E, h6km, MD2.6*
*DDA **26** 21:40:05.3, 39°.36N×33°.02E, h7km, Ml2.6*
**ISC 26 21:40:05.3±1.0, 39°.34N±0°.02×33°.11E±0°.02, h4km±9km, n30, σ1s00/44, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AFSR** | **Af¨ar-Bala (A** | **0.11** | **344** | ***e*PG** | **Pg** | **21 40 06.9** | **-0.6** |
| **AFSR** | **Af¨ar-Bala (A** | **0.11** | **344** | ***e*Pg** | **Pg** | **21 40 06.9** | **-0.6** |
| **BBAL** | **Bala** | **0.20** | **3** | *i* P | **Pg** | **21 40 09.3** | **+0.1** |
| BBAL | | | | *i* S | **Sg** | **21 40 12.8** | **+0.9** |
| **BBAL** | **Bala** | **0.20** | **3** | P | **Pg** | **21 40 09.3** | **+0.1** |
| BBAL | | | | S | **Sg** | **21 40 12.8** | **+0.9** |
| **KKUL** | **Konya-Kulu** | **0.23** | **221** | *i* P | **Pg** | **21 40 09.4** | **-0.3** |
| KKUL | | | | *i* S | **Sg** | **21 40 13.3** | **+0.6** |
| **KKUL** | **Konya-Kulu** | **0.23** | **221** | P | **Pg** | **21 40 09.4** | **-0.3** |
| KKUL | | | | S | **Sg** | **21 40 13.3** | **+0.6** |
| **KAMT** | **Kaman** | **0.47** | **87** | ***e*PG** | **Pg** | **21 40 13.7** | **-0.6** |
| KAMT | | | | ***e*SG** | **Sg** | **21 40 20.5** | **+0.1** |
| **KAMT** | **Kaman** | **0.47** | **87** | ***e*Pg** | **Pg** | **21 40 13.7** | **-0.6** |
| KAMT | | | | ***e*Sg** | **Sg** | **21 40 20.5** | **+0.1** |
| **SERE** | **Sereflikochisa** | **0.53** | **138** | ***e*PG** | **Pg** | **21 40 15.1** | **-0.4** |
| **SERE** | **Sereflikochisa** | **0.53** | **138** | ***e*Pg** | **Pg** | **21 40 15.1** | **-0.4** |
| **LOD** | **Lodumlu** | **0.61** | **334** | ***e*PG** | **Pg** | **21 40 16.9** | **0.0** |
| **LOD** | **Lodumlu** | **0.61** | **334** | ***e*Pg** | **Pg** | **21 40 16.9** | **0.0** |
| **CHBY** | **Cihanbeyli** | **0.78** | **193** | ***e*PG** | **Pg** | **21 40 20.2** | **0.0** |
| **CHBY** | **Cihanbeyli** | **0.78** | **193** | ***e*Pg** | **Pg** | **21 40 20.2** | **0.0** |
| **CDAG** | **Cicekdag** | **1.02** | **74** | *i* P | **Pg** | **21 40 23.9** | **-0.9** |
| CDAG | | | | *i* S | **Sn** | **21 40 39.4** | **-1.7** |
| **CDAG** | **Cicekdag** | **1.02** | **74** | P | **Pg** | **21 40 23.9** | **-0.9** |
| CDAG | | | | S | **Sn** | **21 40 39.4** | **-1.7** |
| **KIZT** | **Kizilcal** | **1.06** | **245** | ***e*PG** | **Pb** | **21 40 25.8** | **-0.5** |
| **KIZT** | **Kizilcal** | **1.06** | **245** | ***e*Pg** | **Pb** | **21 40 25.8** | **-0.5** |
| **KDHN** | **Kadinhani** | **1.13** | **224** | *i* P | **Pg** | **21 40 26.7** | **-0.2** |
| KDHN | | | | *i* S | **Sn** | **21 40 44.6** | **+0.7** |
| **KDHN** | **Kadinhani** | **1.13** | **224** | P | **Pg** | **21 40 26.7** | **-0.2** |
| KDHN | | | | S | **Sn** | **21 40 44.6** | **+0.7** |
| **ELDT** | **Eldivan** | **1.17** | **12** | *i* P | **Pn** | **21 40 28.2** | **-0.3** |
| ELDT | | | | *i* S | **Sn** | **21 40 46.7** | **+1.7** |
| **ELDT** | **Eldivan** | **1.17** | **12** | P | **Pn** | **21 40 28.2** | **-0.3** |
| ELDT | | | | S | **Sn** | **21 40 46.7** | **+1.7** |
| **SULT** | **Sultanhani-AKS** | **1.19** | **164** | ***e*PN** | **Pg** | **21 40 27.4** | **-0.6** |
| **SULT** | **Sultanhani-AKS** | **1.19** | **164** | ***e*Pn** | **Pg** | **21 40 27.5** | **-0.6** |
| **SVRH** | **Sivrihisar-ESK** | **1.23** | **275** | ***e*PN** | **Pn** | **21 40 28.8** | **-0.6** |
| **SVRH** | **Sivrihisar-ESK** | **1.23** | **275** | ***e*Pn** | **Pn** | **21 40 28.8** | **-0.6** |
| **AVNS** | **Nevsehir-Avano** | **1.46** | **111** | *i* P | **Pg** | **21 40 34.7** | **+1.5** |
| AVNS | | | | *i* S | **Sg** | **21 40 54.6** | **+2.6** |
| **AVNS** | **Nevsehir-Avano** | **1.46** | **111** | P | **Pg** | **21 40 34.7** | **+1.5** |
| AVNS | | | | S | **Sg** | **21 40 54.6** | **+2.6** |
| **YOZ** | **Yozgat** | **1.74** | **80** | ***e*PN** | **Pn** | **21 40 35.5** | **-0.8** |
| **YOZ** | **Yozgat** | **1.74** | **80** | ***e*Pn** | **Pn** | **21 40 35.5** | **-0.8** |

**MAN 26 21:41:28, 14°.13N×121°.44E, h14km, mb4.0, ML2.8, MS2.4, 2C-1D, Luzon**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LQP** | **Lukban** | **0.10** | **103** | ***e*P** | Pg | 21 41 31.3 | 0.0 |
| **TGY** | **Tagaytay City** | **0.49** | **267** | ***e*P** | Pb | 21 41 39.1 | +0.6 |
| TGY | | | | *i* S | Sn | 21 41 47.9 | -1.2 |
| **GQP** | **Guinayangan** | **1.00** | **103** | ***e*P** | Pn | 21 41 47.5 | -0.1 |
| GQP | | | | *i* S | Sn | 21 42 02.0 | +0.5 |
| **PCPH** | **Palayan** | **1.46** | **347** | ***e*P** | Pn | 21 41 53.3 | -0.6 |
| PCPH | | | | ***e*S** | Sn | 21 42 11.9 | -0.9 |
| **BALP** | **Baler** | **1.60** | **5** | ***e*P** | Pn | 21 41 55.6 | -0.3 |
| BALP | | | | ***e*S** | Sg | 21 42 19.2 | -0.5 |
| **CAUP** | **Cauayan** | **2.82** | **7** | ***e*P** | Pn | 21 42 14.1 | +1.5 |

*ISCJB **26** 21:41:54.5±1.0, 32°.33S±0°.04×69°.72W±0°.06, h123km±8km, Error ellipse: s-maj=9.8km s-min=5.4km az=36.4*
*GUC **26** 21:41:54.5±0.6, 32°.28S×69°.81W, h127km±13km, ML2.8*
*SJA **26** 21:41:54.8±0.2, 32°.39S×69°.66W, h113km±1km, ML4.5, MW3.5*
**ISC 26 21:41:55.4±1.7, 32°.34S±0°.05×69°.68W±0°.06, h119km±13km, n14, σ1s43/24, Mendoza Province**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AUSP** | **Uspallata** | **0.27** | **65** | ***e*P** | **Pn** | **21 42 12.1** | **-0.4** |
| AUSP | | | | ***e*S** | **Sn** | **21 42 24.9** | **-0.5** |
| **RTLS** | **Leoncito** | **0.63** | **31** | ***e*P** | **Pn** | **21 42 14.6** | **+0.1** |
| RTLS | | | | ***e*S** | **Sn** | **21 42 29.2** | **+0.4** |
| **RTCV** | **Cerro Valdivia** | **1.08** | **64** | ***e*P** | **Pn** | **21 42 17.9** | **-0.3** |
| **FCH** | **Farellones** | **1.11** | **207** | ***e*P** | **Pn** | **21 42 18.8** | **-0.1** |
| FCH | | | | *i* S | **Sn** | **21 42 37.0** | **+0.4** |
| FCH | | | | IAML | | 21 42 37.4 | |
| | comp=E,292nm,0.2s | | | | | | |
| **PEL** | **Peldehue** | **1.17** | **226** | ***e*P** | **Pn** | **21 42 18.1** | **-1.1** |
| PEL | | | | *i* S | **Sn** | **21 42 35.8** | **-1.4** |
| PEL | | | | IAML | | 21 42 38.1 | |
| | comp=E,98nm,0.4s | | | | | | |
| **CLCH** | **Cerro Calan** | **1.28** | **214** | *i* S | **Sn** | **21 42 39.0** | **-0.4** |
| CLCH | | | | IAML | | 21 42 40.4 | |
| | comp=E,211nm,0.5s | | | | | | |
| **ROCH** | **El Roble** | **1.29** | **240** | *i* P | Pn | 21 42 26.6 | +5.9 |
| ROCH | | | | *i* S | **Sn** | **21 42 45.2** | **+5.5** |
| ROCH | | | | IAML | | 21 42 46.6 | |
| | comp=N,170nm,0.3s | | | | | | |
| **RTLL** | **Cerro Villicun** | **1.44** | **46** | ***e*P** | **Pn** | **21 42 22.3** | **+0.2** |
| RTLL | | | | ***e*S** | **Sn** | **21 42 42.6** | **+0.2** |
| **RCDM** | **Rinconada Maip** | **1.49** | **219** | *i* P | **Pn** | **21 42 22.0** | **-0.6** |
| RCDM | | | | *i* S | **Sn** | **21 42 42.7** | **-0.7** |
| **LMEL** | **Las Melosas** | **1.57** | **196** | ***e*P** | **Pn** | **21 42 23.1** | **-0.7** |
| LMEL | | | | ***e*P** | **Pn** | **21 42 23.4** | **-0.3** |
| LMEL | | | | *i* S | **Sn** | **21 42 46.8** | **+1.3** |
| LMEL | | | | IAML | | 21 42 55.9 | |
| | comp=N,90nm,0.2s | | | | | | |
| **AMOG** | **MOGNA** | **1.72** | **36** | ***e*P** | **Pn** | **21 42 25.9** | **+0.4** |
| AMOG | | | | IAML | | 21 42 26.6 | |
| | comp=Z,4μm,0.3s | | | | | | |
| **ACAN** | **Cantantal** | **2.11** | **89** | ***e*P** | **Pn** | **21 42 30.1** | **-0.1** |
| ACAN | | | | ***e*S** | **Sn** | **21 42 56.4** | **-0.5** |
| **TLL** | **Tololo Astrono** | **2.37** | **336** | ***e*P** | **Pn** | **21 42 33.0** | **-0.7** |
| TLL | | | | *i* S | **Sn** | **21 43 01.5** | **-1.6** |
| TLL | | | | IAML | | 21 43 03.6 | |
| | comp=N,72nm,0.4s | | | | | | |
| **AGUA** | **GUANDACOL** | **3.02** | **20** | ***e*P** | **Pn** | **21 42 43.0** | **+1.0** |

*ISCJB **26** 21:49:59.8±0.4, 40°.31N±0°.03×27°.49E±0°.04, h11km±3km, Error ellipse: s-maj=5.4km s-min=4.2km az=136.2*
*CSEM **26** 21:49:59.9±0.1, 40°.30N×27°.49E, h10km, MD2.6, Error ellipse: s-maj=2.9km s-min=2.3km az=30.0*
*ISK **26** 21:49:59.5, 40°.32N×27°.49E, h9km, MD2.6*
*DDA **26** 21:50:00.8, 40°.25N×27°.45E, h10km, Ml2.7*
**ISC 26 21:50:00.0±0.9, 40°.31N±0°.02×27°.48E±0°.02, h15km±5km, n41, σ0s49/52, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KNL** | **Bal¨–kesir** | **0.05** | **134** | *i* P | **Pg** | **21 50 02.7** | **0.0** |
| KNL | | | | *i* S | **Sg** | **21 50 04.8** | **+0.3** |
| **KRBG** | **Karabiga-Canak** | **0.17** | **302** | ***e*PG** | **Pg** | **21 50 03.6** | **-0.4** |
| KRBG | | | | ***e*SG** | **Sg** | **21 50 06.3** | **-0.5** |
| **KRBG** | **Karabiga-Canak** | **0.17** | **302** | ***e*Pg** | **Pg** | **21 50 03.7** | **-0.4** |
| KRBG | | | | ***e*Sg** | **Sg** | **21 50 06.3** | **-0.5** |
| **EDC** | **Edincik** | **0.30** | **82** | ***e*PG** | **Pg** | **21 50 05.8** | **-0.4** |
| **EDC** | **Edincik** | **0.30** | **82** | ***e*Pg** | **Pg** | **21 50 05.8** | **-0.4** |
| **GONE** | **Gonen-Balikesi** | **0.30** | **149** | ***e*PG** | **Pg** | **21 50 06.2** | **-0.1** |
| **GONE** | **Gonen-Balikesi** | **0.30** | **149** | ***e*Pg** | **Pg** | **21 50 06.2** | **-0.1** |
| **RKY** | **Sarkoy-Tekirda** | **0.45** | **329** | ***e*PG** | **Pg** | **21 50 08.4** | **-0.6** |
| RKY | | | | ***e*SG** | **Sg** | **21 50 15.0** | **0.0** |
| **RKY** | **Sarkoy-Tekirda** | **0.45** | **329** | ***e*Pg** | **Pg** | **21 50 08.4** | **-0.6** |
| RKY | | | | ***e*Sg** | **Sg** | **21 50 15.0** | **0.0** |
| **LPK** | **Lapseki** | **0.56** | **277** | ***e*PG** | **Pg** | **21 50 10.8** | **-0.1** |
| **LPK** | **Lapseki** | **0.56** | **277** | ***e*Pg** | **Pg** | **21 50 10.8** | **-0.1** |
| **BALY** | **Balya** | **0.57** | **169** | *i* P | **Pg** | **21 50 11.3** | **0.0** |
| BALY | | | | *i* S | **Sg** | **21 50 19.2** | **+0.3** |
| **BALY** | **Balya** | **0.57** | **169** | P | **Pg** | **21 50 11.3** | **0.0** |
| BALY | | | | S | **Sg** | **21 50 19.2** | **+0.3** |
| **KCTX** | **Karacabey (Bur** | **0.67** | **93** | ***e*PG** | **Pg** | **21 50 12.7** | **-0.5** |
| **KCTX** | **Karacabey (Bur** | **0.67** | **93** | ***e*Pg** | **Pg** | **21 50 12.7** | **-0.5** |
| **SBT3** | **Marmara-Eregli** | **0.69** | **33** | ***e*PG** | **Pg** | **21 50 12.9** | **-0.5** |
| **SBT3** | **Marmara-Eregli** | **0.69** | **33** | ***e*Pg** | **Pg** | **21 50 12.9** | **-0.5** |
| **BALB** | **Balikesir** | **0.73** | **155** | ***e*PG** | **Pg** | **21 50 14.2** | **0.0** |
| **BALB** | **Balikesir** | **0.73** | **155** | ***e*Pg** | **Pg** | **21 50 14.2** | **0.0** |
| **KESN** | **Edirne-Kesan** | **0.80** | **311** | *i* P | **Pb** | **21 50 16.8** | **+0.9** |
| KESN | | | | *i* S | **Sn** | **21 50 28.8** | **-0.3** |
| **KESN** | **Edirne-Kesan** | **0.80** | **311** | P | **Pb** | **21 50 16.8** | **+0.9** |
| KESN | | | | S | **Sn** | **21 50 28.8** | **-0.3** |
| **ERIK** | **Erikli-Kesan** | **0.82** | **297** | ***e*PG** | **Pg** | **21 50 15.9** | **-0.1** |
| **ERIK** | **Erikli-Kesan** | **0.82** | **297** | ***e*Pg** | **Pg** | **21 50 15.9** | **-0.1** |
| **BAYC** | **CANAKKALE_Bayr** | **0.91** | **232** | *i* P | **Pg** | **21 50 16.3** | **-1.4** |
| BAYC | | | | *i* S | **Sg** | **21 50 29.3** | **-0.3** |
| **BAYC** | **CANAKKALE_Bayr** | **0.91** | **232** | P | **Pg** | **21 50 16.3** | **-1.4** |
| BAYC | | | | S | **Sg** | **21 50 29.3** | **-0.3** |
| **SLVT** | **Silivri** | **1.08** | **31** | ***e*PG** | **Pg** | **21 50 20.4** | **-0.4** |
| **SLVT** | **Silivri** | **1.08** | **31** | ***e*Pg** | **Pg** | **21 50 20.4** | **-0.4** |
| **ARMT** | **Armutlu** | **1.09** | **76** | ***e*PN** | **Pg** | **21 50 20.6** | **-0.4** |
| **ARMT** | **Armutlu** | **1.09** | **76** | ***e*Pn** | **Pg** | **21 50 20.6** | **-0.4** |
| **ENEZ** | **Enez** | **1.10** | **293** | ***e*PN** | **Pb** | **21 50 20.9** | **+0.1** |
| **ENEZ** | **Enez** | **1.10** | **293** | ***e*Pn** | **Pb** | **21 50 20.9** | **+0.1** |
| **BOZC** | **Bozcaada** | **1.19** | **248** | ***e*PN** | **Pb** | **21 50 22.5** | **+0.2** |
| **BOZC** | **Bozcaada** | **1.19** | **248** | ***e*Pn** | **Pb** | **21 50 22.5** | **+0.2** |
| **CTKS** | **Kestanelik-??a** | **1.21** | **40** | ***e*PN** | **Pn** | **21 50 22.7** | **+0.2** |
| **CTKS** | **Kestanelik-??a** | **1.21** | **40** | ***e*Pn** | **Pn** | **21 50 22.7** | **+0.2** |
| **YLV** | **Yalova** | **1.47** | **79** | ***e*PN** | **Pn** | **21 50 26.4** | **+0.4** |
| **YLV**

**MKAR Makanchi Array 145.01 35** PKPbc **PKPbc 22 43 12.9 -0.9**
comp=E,0.2nm,0.6s,baz=327,slow=4.0,SNR=3.8

---

**IDC 26 22:28:02.5±9.3, 0.°14S×123.°09E, h122km±91km, mb3.1/4, mb1 3.3/5, mb1mx3.0/45, mbtmp3.6/5, ML3.7/1, MS3.5/1, Ms1 3.5/1, ms1mx2.5/17, Error ellipse: s-maj=98.5km s-min=23.0km az=69.0, Minahassa Peninsula, Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **FITZ** | **Fitzroy Crossi** | **18.02** | **172** | P | P | 22 32 04.0 | -0.1 |
| | 0.2nm,0.3s,baz=25,slow=6.4,SNR=4.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **22.55** | **151** | P | P | 22 32 53.0 | +0.3 |
| | 0.4nm,0.5s,baz=330,slow=10,SNR=15 | | | | | | |
| **ASAR** | **Alice Springs** | **25.64** | **157** | P | P | 22 33 20.4 | -0.6 |
| | 0.3nm,0.8s,baz=344,slow=14,SNR=4.6 | | | | | | |
| **PALK** | **Pallekele** | **42.91** | **281** | LR | LR | 22 55 47.1 | |
| | comp=Z,49nm,18.6s,baz=116,slow=39 | | | | | | |
| **SONM** | **Songino Array** | **49.94** | **345** | P | P | 22 36 44.9 | +0.9 |
| | 0.8nm,0.8s,baz=162,slow=8.4,SNR=5.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **58.78** | **328** | P | P | 22 37 47.0 | -1.0 |
| | 0.4nm,0.3s,baz=127,slow=8.7,SNR=9.5 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **120.53** | **285** | PKP | PKPdf | 22 46 41.3 | +0.4 |
| | 0.1nm,0.5s,baz=79,slow=1.5,SNR=2.5 | | | | | | |

---

*NIED* ***26*** *22:28:00, 38.°50N×141.°70E, h62km, Mw3.7 Best double couple: M₀3.49000×10¹⁴ NP1:φs203.00000°, δ21.00000°, λ98.00000°. NP2:φs15.00000°, δ70.00000°, λ87.00000°.*
*ISCJB* ***26*** *22:28:50.0±0.9, 38.°51N±0.°05×141.°8E±0.°1, h60km±6km, mb3.6/3, Error ellipse: s-maj=14.8km s-min=6.2km az=19.2*
*JMA* ***26*** *22:28:51.5, 38.°53N×141.°72E, h54km±1km, M3.7*
*JMA Felt II J1.*
*IDC* ***26*** *22:28:52.2±3.2, 38.°59N×141.°81E, h68km±28km, mb3.4/3, mb1 3.4/5, mb1mx3.1/46, mbtmp3.5/5, Error ellipse: s-maj=44.7km s-min=23.4km az=88.0*

**ISC 26 22:28:50.8±1.3, 38.°52N±0.°05×141.°79E±0.°10, h53km±9km, n15, σ0s59/23, mb3.6/3, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JIO** | **Ouri** | **0.35** | **260** | P | Pn | **22 29 01.0** | **+0.3** |
| JIO | | | | S | Sn | **22 29 07.5** | **-0.2** |
| **OFUJ** | **Ofunato** | **0.57** | **350** | P | Pn | **22 29 03.6** | **+0.5** |
| OFUJ | | | | S | Sn | **22 29 11.9** | **-0.1** |
| **JMK** | **Ichinoseki** | **0.62** | **314** | P | Pn | **22 29 04.1** | **+0.4** |
| JMK | | | | S | Sn | **22 29 12.8** | **-0.3** |
| **JOU** | **Okura** | **0.90** | **261** | P | Pn | **22 29 07.2** | **-0.1** |
| JOU | | | | S | Sn | **22 29 19.0** | **-0.4** |
| **JMM** | **Marumori** | **1.02** | **231** | P | Pn | **22 29 08.7** | **-0.2** |
| JMM | | | | S | Sn | **22 29 21.7** | **-0.5** |
| **JOM** | **Ohasama** | **1.03** | **338** | P | Pn | **22 29 09.4** | **+0.3** |
| JOM | | | | *e*S | Sn | **22 29 22.9** | **+0.4** |
| **JYK** | **Kaneyama** | **1.19** | **290** | P | Pn | **22 29 11.3** | **+0.1** |
| **JRG** | **Rokugo** | **1.26** | **315** | P | Pn | **22 29 12.3** | **+0.2** |
| **JFK** | **Kawauchi** | **1.36** | **213** | P | Pn | **22 29 13.7** | **+0.2** |
| JFK | | | | *e*S | Sn | **22 29 30.1** | **-0.3** |
| **JYS** | **Shirataka** | **1.39** | **258** | P | Pn | **22 29 14.1** | **+0.2** |
| JYS | | | | *e*S | Sn | **22 29 31.5** | **+0.4** |
| **MJAR** | **Matsushiro Arr** | **3.46** | **236** | P | Pn | **22 29 44.4** | **+2.1** |
| | 1.6nm,0.3s,baz=36,slow=13,SNR=19 | | | | | | |
| **ASAJ** | **Asahikawa** | **5.63** | **6** | P | Pn | **22 30 12.1** | **+0.2** |
| | 1.1nm,0.3s,baz=258,slow=9.3,SNR=3.8 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.15** | **311** | P | P | **22 36 29.5** | **-0.2** |
| | 0.5nm,0.4s,baz=86,slow=8.3,SNR=3.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.60** | **301** | P | P | **22 36 49.3** | **-0.5** |
| | 0.6nm,0.6s,baz=67,slow=9.8,SNR=6.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **58.57** | **188** | P | P | **22 38 42.0** | **-0.1** |
| | 0.7nm,0.8s,baz=4.8,slow=7.2,SNR=7.1 | | | | | | |

---

*IDC* ***26*** *22:31:45.0±5.5, 31.°72S×68.°88W, h0km, mb3.9/1, mb1 3.9/1, mb1mx3.5/20, mbtmp3.9/1, Error ellipse: s-maj=365.4km s-min=109.7km az=177.0*
*ISCJB* ***26*** *22:32:00.8±0.6, 31.°28S±0.°03×68.°48W±0.°05, h112km±5km, mb3.6/1, Error ellipse: s-maj=7.4km s-min=5.5km az=16.1*
*GUC* ***26*** *22:32:00.6±0.6, 31.°27S×68.°59W, h40km±4km, ML3.5*
*SJA* ***26*** *22:32:00.8±0.9, 31.°29S×68.°52W, h105km±3km, ML3.5, MW3.6*

**ISC 26 22:32:01.3±0.9, 31.°28S±0.°04×68.°49W±0.°05, h107km±6km, n24, σ0s54/34, 1C-3D, San Juan Province**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RTLL** | **Cerro Villicun** | **0.05** | **167** | *i* P | **Pn** | **22 32 15.9** | **-0.2** |
| RTLL | | | | IAML | | 22 32 16.1 | |
| | comp=Z,2μm,0.1s | | | | | | |
| RTLL | | | | *e*S | **Sn** | **22 32 26.9** | **-0.3** |
| **RTLL** | **Cerro Villicun** | **0.05** | **167** | ↓*i* P | **Pn** | **22 32 15.9** | **-0.2** |
| RTLL | | | | *i* S | **Sn** | **22 32 26.9** | **-0.3** |
| RTLL | | | | IAML | | 22 32 27.5 | |
| | comp=E,7μm,0.5s | | | | | | |
| **SJA** | **San Juan** | **0.26** | **194** | *i* P | **Pn** | **22 32 16.6** | **0.0** |
| SJA | | | | IAML | | 22 32 17.0 | |
| | comp=Z,4μm,0.2s | | | | | | |
| SJA | | | | *e*S | **Sn** | **22 32 28.9** | **+0.9** |
| **AMOG** | **MOGNA** | **0.34** | **359** | *i* P | **Pn** | **22 32 17.2** | **+0.2** |
| AMOG | | | | *e*S | **Sn** | **22 32 28.7** | **0.0** |
| **RTCV** | **Cerro Valdivia** | **0.58** | **184** | *i* P | **Pn** | **22 32 18.5** | **0.0** |
| RTCV | | | | *i* S | **Sn** | **22 32 31.1** | **-0.3** |
| **RTLS** | **Leoncito** | **0.86** | **233** | *i* P | **Pn** | **22 32 21.5** | **+0.3** |
| RTLS | | | | IAML | | 22 32 21.7 | |
| | comp=Z,883nm,0.3s | | | | | | |
| RTLS | | | | *e*S | **Sn** | **22 32 36.9** | **+0.7** |
| **AUSP** | **Uspallata** | **1.21** | **219** | *i* P | **Pn** | **22 32 25.2** | **+0.3** |
| AUSP | | | | *e*S | **Sn** | **22 32 43.3** | **+0.6** |
| **ACAN** | **Cantantal** | **1.49** | **132** | *i* P | **Pn** | **22 32 28.8** | **+1.0** |
| ACAN | | | | *e*S | **Sn** | **22 32 48.4** | **+0.4** |
| **AGUA** | **GUANDACOL** | **1.79** | **360** | *e*P | **Pn** | **22 32 32.5** | **+0.9** |
| AGUA | | | | *e*S | **Sn** | **22 32 55.2** | **+0.5** |
| **TLL** | **Tololo Astrono** | **2.28** | **298** | ↓*i* P | **Pn** | **22 32 38.0** | **0.0** |
| TLL | | | | *i* S | **Sn** | **22 33 06.3** | **+0.2** |
| TLL | | | | IAML | | 22 33 09.4 | |
| | comp=N,566nm,0.7s | | | | | | |
| **VCA** | **Vinchina** | **2.55** | **6** | *e*P | **Pn** | **22 32 42.4** | **+0.9** |
| VCA | | | | *e*S | **Sn** | **22 33 12.9** | **+0.7** |
| VCA | | | | IAML | | 22 33 20.2 | |
| | comp=Z,184nm,0.3s | | | | | | |
| **VCA** | **Vinchina** | **2.55** | **6** | ↑*i* P | **Pn** | **22 32 42.3** | **+0.9** |
| VCA | | | | IAML | | 22 33 20.3 | |
| | comp=N,282nm,0.4s | | | | | | |
| **PEL** | **Peldehue** | **2.63** | **224** | ↓*i* P | **Pn** | **22 32 42.8** | **+0.4** |
| PEL | | | | *i* S | **Sn** | **22 33 13.9** | **0.0** |
| PEL | | | | IAML | | 22 33 17.4 | |
| | comp=E,89nm,0.4s | | | | | | |
| **ROCH** | **El Roble** | **2.73** | **231** | IAML | | 22 33 26.3 | |
| | comp=E,240nm,0.4s | | | | | | |
| **CLCH** | **Cerro Calan** | **2.73** | **219** | IAML | | 22 33 23.8 | |
| | comp=E,141nm,0.5s | | | | | | |
| **LMEL** | **Las Melosas** | **2.94** | **209** | *e*P | **Pn** | **22 32 47.2** | **+0.6** |
| LMEL | | | | IAML | | 22 33 34.8 | |
| | comp=N,76nm,0.2s | | | | | | |
| **RCDM** | **Rinconada Maip** | **2.95** | **221** | *e*P | **Pn** | **22 32 46.8** | **+0.2** |
| **LCO** | **Las Campanas** | **2.96** | **319** | *e*P | **Pn** | **22 32 46.8** | **-0.2** |
| **TCA** | **Tanti** | **3.33** | **92** | *i* P | **Pn** | **22 32 51.8** | **+0.1** |
| TCA | | | | IAML | | 22 33 55.1 | |
| | comp=Z,87nm,0.5s | | | | | | |
| TCA | | | | IAML | | 22 33 55.2 | |
| | comp=Z,84nm,0.5s | | | | | | |
| **TCA** | **Tanti** | **3.33** | **92** | IAML | | 22 33 31.1 | |
| | comp=N,129nm,0.4s | | | | | | |
| **CYA** | **Choya** | **3.67** | **40** | *e*P | **Pn** | **22 32 55.6** | **-0.6** |
| CYA | | | | IAML | | 22 33 38.1 | |
| | comp=Z,28nm,0.2s | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **80.45** | **68** | P | **P** | **22 44 01.7** | **+0.1** |
| | comp=Z,0.7nm,0.6s,baz=244,slow=4.3,SNR=9.8 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **150.33** | **32** | PKPbc | **PKPbc** | **22 51 39.0** | **-0.5** |
| | comp=Z,0.7nm,0.5s,baz=307,slow=1.8,SNR=4.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **152.72** | **47** | PKPbc | **PKPbc** | **22 51 44.6** | **-0.8** |
| | comp=Z,0.5nm,0.9s,baz=294,slow=1.4,SNR=2.5 | | | | | | |
| MKAR | | | | PKPab | **PKPab** | **22 51 56.1** | **-0.5** |
| | comp=Z,0.2nm,0.6s,baz=284,slow=4.1,SNR=2.9 | | | | | | |

---

**IDC 26 22:33:47.0±1.5, 18.°30S×172.°27W, h0km, mb3.8/4, mb1 4.1/6, mb1mx3.7/44, mbtmp4.0/6, ML3.6/2, MS2.8/1, Ms1 2.8/1, ms1mx2.3/40, Error ellipse: s-maj=44.4km s-min=25.3km az=148.0, Tonga Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **AFI** | **Afiamalu** | **4.39** | **6** | P | Pn | 22 34 54.7 | -0.3 |
| | 5.5nm,0.3s,baz=345,slow=19,SNR=2.7 | | | | | | |
| AFI | | | | Sn | Sn | 22 35 38.0 | -8.9 |
| | 59nm,0.3s,baz=345,slow=21,SNR=14 | | | | | | |
| **RAR** | **Rarotonga** | **12.11** | **106** | Pn | Pn | 22 36 40.7 | -0.2 |
| | 2.5nm,0.3s,baz=248,slow=11,SNR=7.0 | | | | | | |
| RAR | | | | LR | LR | 22 40 05.2 | |
| | comp=Z,45nm,18.6s,baz=240,slow=31 | | | | | | |
| **CTA** | **Charters Tower** | **39.15** | **260** | P | P | 22 41 17.3 | +0.6 |
| | 1.5nm,0.6s,baz=68,slow=11,SNR=2.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **50.30** | **259** | P | P | 22 42 45.0 | -0.7 |
| | 1.4nm,0.9s,baz=96,slow=6.8,SNR=11 | | | | | | |
| **ASAR** | **Alice Springs** | **50.31** | **254** | P | P | 22 42 45.5 | -0.3 |
| | 0.7nm,0.6s,baz=87,slow=8.1,SNR=12 | | | | | | |
| **ILAR** | **Eielson Array** | **85.07** | **11** | P | P | 22 46 24.4 | +0.3 |
| | 0.2nm,0.7s,baz=187,slow=6.4,SNR=2.7 | | | | | | |

---

**IDC 26 22:39:25.5±1.9, 4.°88S×151.°77E, h0km, mb3.8/4, mb1 4.1/5, mb1mx3.6/44, mbtmp3.9/5, ML2.0/1, Error ellipse: s-maj=109.2km s-min=24.0km az=128.0, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PMG** | **Port Moresby** | **6.42** | **225** | Pn | Pn | 22 41 02.7 | +1.4 |
| | 2.1nm,0.3s,baz=45,slow=7.8,SNR=12 | | | | | | |
| PMG | | | | Sn | Sn | 22 42 11.8 | -3.6 |
| | 0.5nm,0.3s,baz=106,slow=19,SNR=1.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **22.63** | **227** | P | P | 22 44 27.6 | -0.7 |
| | 0.8nm,0.7s,baz=52,slow=9.9,SNR=6.5 | | | | | | |
| **ASAR** | **Alice Springs** | **25.41** | **221** | P | P | 22 44 55.4 | +0.4 |
| | 3.0nm,0.8s,baz=55,slow=9.5,SNR=21 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **28.73** | **241** | P | P | 22 45 24.2 | -0.7 |
| | 2.0nm,0.6s,baz=35,slow=12,SNR=4.3 | | | | | | |
| **ILAR** | **Eielson Array** | **82.62** | **22** | P | P | 22 51 50.3 | -0.1 |
| | 0.3nm,0.8s,baz=243,slow=4.0,SNR=3.3 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **149.36** | **288** | PKPbc | PKPbc | 22 59 17.5 | -0.1 |
| | 0.4nm,0.7s,baz=50,slow=3.2,SNR=3.0 | | | | | | |

---

**IDC 26 22:41:23.6±2.9, 6.°41S×154.°44E, h0km, mb3.6/4, mb1 3.8/5, mb1mx3.5/47, mbtmp3.7/5, ML1.9/1, Error ellipse: s-maj=95.7km s-min=29.0km az=119.0, Bougainville-Solomon Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PMG** | **Port Moresby** | **7.80** | **247** | Pn | Pn | 22 43 19.2 | +0.7 |
| | 1.0nm,0.3s,baz=13,slow=6.7,SNR=3.7 | | | | | | |
| PMG | | | | Sn | Sn | 22 44 41.0 | -6.6 |
| | 0.8nm,0.3s,baz=142,slow=18,SNR=2.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **23.71** | **234** | P | P | 22 46 36.4 | -1.0 |
| | 1.0nm,0.9s,baz=59,slow=9.5,SNR=3.7 | | | | | | |
| **ASAR** | **Alice Springs** | **26.16** | **227** | P | P | 22 47 00.3 | +0.4 |
| | 0.7nm,0.8s,baz=52,slow=11,SNR=5.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **82.61** | **319** | P | P | 22 53 48.8 | 0.0 |
| | 0.7nm,0.7s,baz=93,slow=5.7,SNR=7.3 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **83.39** | **326** | P | P | 22 53 52.6 | 0.0 |
| | 0.6nm,0.6s,baz=116,slow=6.9,SNR=3.2 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **152.34** | **286** | PKPbc | PKPbc | 23 01 22.8 | +0.2 |
| | 0.5nm,0.7s,baz=69,slow=2.5,SNR=5.9 | | | | | | |

---

**IDC 26 22:41:37.4±3.0, 6.°55S×154.°49E, h0km, mb3.5/2, mb1 3.9/3, mb1mx3.4/47, mbtmp3.8/3, ML2.0/1, Error ellipse: s-maj=125.2km s-min=47.0km az=137.0, Bougainville-Solomon Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PMG** | **Port Moresby** | **7.79** | **248** | Pn | Pn | 22 43 33.2 | +1.1 |
| | 1.2nm,0.3s,baz=54,slow=8.0,SNR=7.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **23.66** | **234** | P | P | 22 46 49.9 | -0.8 |
| | 0.8nm,0.9s,baz=56,slow=9.4,SNR=3.9 | | | | | | |
| **ASAR** | **Alice Springs** | **26.10** | **227** | P | P | 22 47 12.9 | -0.2 |
| | 1.4nm,1.0s,baz=62,slow=9.0,SNR=4.3 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **152.42** | **286** | PKPbc | PKPbc | 23 01 37.0 | +0.4 |
| | 0.8nm,0.9s,baz=53,slow=2.6,SNR=4.3 | | | | | | |

---

**IDC 26 22:44:09.6±4.7, 1.°36S×132.°15E, h0km, mb3.6/2, mb1 3.7/3, mb1mx3.3/44, mbtmp3.5/3, ML3.6/1, Error ellipse: s-maj=304.3km s-min=25.2km az=74.0, Irian Jaya region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **18.59** | **174** | P | P | 22 48 28.1 | -0.4 |
| | 0.2nm,0.3s,baz=350,slow=12,SNR=9.5 | | | | | | |
| **ASAR** | **Alice Springs** | **22.24** | **176** | P | P | 22 49 08.2 | +0.1 |
| | 1.2nm,0.6s,baz=11,slow=12,SNR=17 | | | | | | |
| **MKAR** | **Makanchi Array** | **64.81** | **325** | P | P | 22 54 50.4 | 0.0 |
| | 0.5nm,0.4s,baz=104,slow=8.5,SNR=12 | | | | | | |

---

*JMA* ***26*** *22:45:08.3±0.2, 38.°46N×144.°62E, h43km, M3.7*
*IDC* ***26*** *22:45:09.2±1.5, 37.°64N×144.°82E, h0km, mb3.4/3, mb1 3.7/4, mb1mx3.3/58, mbtmp3.4/4, ML3.2/1, Error ellipse: s-maj=40.9km s-min=30.0km az=129.0*

**ISC 26 22:45:09.0±2.2, 38.°48N±0.°09×144.°7E±0.°1, h35km, n15, σ0s95/14, mb3.5/3, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **OFUJ** | **Ofunato** | **2.44** | **285** | P | **Pn** | **22 45 46.4** | **0.0** |
| OFUJ | | | | *e*S | **Sn** | **22 46 15.1** | **+0.1** |
| **MIYJ** | **Miyakonagasawa** | **2.50** | **297** | P | **Pn** | **22 45 46.9** | **-0.2** |
| MIYJ | | | | *e*S | **Sn** | **22 46 16.0** | **-0.3** |
| **JMK** | **Ichinoseki** | **2.76** | **281** | P | **Pn** | **22 45 51.1** | **+0.3** |
| JMK | | | | *e*S | **Sn** | **22 46 23.0** | **+0.1** |
| **JOM** | **Ohasama** | **2.83** | **292** | P | **Pn** | **22 45 52.1** | **+0.3** |
| JOM | | | | *e*S | **Sn** | **22 46 24.7** | **0.0** |
| **JANG** | **Nango** | **3.11** | **309** | *e*S | **Sn** | **22 46 30.9** | **-0.6** |
| **JFT** | **Otama** | **3.57** | **256** | *e*S | **Sn** | **22 46 43.2** | **+0.2** |
| **JOT** | **Ohata** | **4.04** | **317** | *e*S | Sn | 22 46 52.4 | -1.9 |
| **JCH** | **Churui** | **4.26** | **347** | P | Pn | 22 46 10.7 | -0.6 |
| JCH | | | | *e*S | Sn | 22 46 57.5 | -2.2 |
| **NEM2** | **Nemuro 2** | **4.95** | **9** | P | Pn | 22 46 18.5 | -2.3 |
| NEM2 | | | | *e*S | Sn | 22 47 10.5 | -6.3 |
| **JRY** | **Ryogami san** | **5.23** | **244** | P | **Pn** | **22 46 24.7** | **-0.1** |
| JRY | | | | *e*S | **Sn** | **22 47 21.7** | **-2.2** |
| **MJAR** | **Matsushiro Arr** | **5.51** | **251** | Pn | **Pn** | **22 46 30.6** | **+2.0** |
| | 0.8nm,0.3s,baz=57,slow=9.2,SNR=5.9 | | | | | | |
| **JTKR** | **Abashiri--Toko** | **5.52** | **354** | P | Pn | 22 46 27.6 | -1.1 |
| JTKR | | | | *e*S | Sn | 22 47 26.4 | -4.5 |
| **MKAR** | **Makanchi Array** | **45.57** | **301** | P | P | 22 53 34.9 | +9.5 |
| | 0.5nm,0.8s,baz=86,slow=9.1,SNR=3.7 | | | | | | |
| **ILAR** | **Eielson Array** | **46.88** | **33** | P | P | 22 53 45.8 | +10 |
| | 0.2nm,0.6s,baz=246,slow=6.8,SNR=3.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **58.92** | **191** | P | **P** | **22 55 04.5** | **-0.1** |
| | 0.5nm,0.8s,baz=13,slow=7.3,SNR=5.1 | | | | | | |

---

*ISCJB* ***26*** *22:50:31.7±0.8, 13.°7N±0.°1×145.°1E±0.°2, h109km, mb3.8/8, Error ellipse: s-maj=31.0km s-min=16.6km az=9.2*
*IDC* ***26*** *22:50:31.2±1.0, 13.°73N×145.°12E, h85km±6km, mb3.6/8, mb1 3.8/8, mb1mx3.4/53, mbtmp3.9/8, Error ellipse: s-maj=30.9km s-min=15.6km az=100.0*

**ISC 26 22:50:33.1±0.9, 13.°7N±0.°1×145.°1E±0.°2, h109km, n10, σ2s15/11, mb3.9/8, Mariana Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GUMO** | **Guam** | **0.21** | **239** | P | **Pn** | **22 50 45.7** | **-2.7** |
| | 1μm,0.3s,baz=275,slow=2.7,SNR=664 | | | | | | |
| GUMO | | | | S | **Sn** | **22 50 55.0** | **-4.9** |
| | 6μm,0.3s,baz=311,slow=19,SNR=324 | | | | | | |
| **WRA** | **Warramunga Arr** | **35.05** | **198** | P | **P** | **22 57 16.2** | **+0.5** |
| | 3.0nm,0.8s,baz=20,slow=9.3,SNR=19 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **36.95** | **212** | P | **P** | **22 57 32.7** | **+0.8** |
| | 3.6nm,0.6s,baz=35,slow=8.4,SNR=10 | | | | | | |
| **ASAR** | **Alice Springs** | **38.70** | **196** | P | **P** | **22 57 47.5** | **+0.9** |
| | 1.3nm,0.6s,baz=24,slow=11,SNR=22 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **44.47** | **282** | P | **P** | **22 58 34.5** | **+0.7** |
| | 0.5nm,0.3s,baz=86,slow=5.3,SNR=4.2 | | | | | | |
| **STKA** | **Stephens Creek** | **45.43** | **184** | P | **P** | **22 58 41.9** | **+0.8** |
| | 2.8nm,0.6s,baz=353,slow=8.2,SNR=10 | | | | | | |
| **MKAR** | **Makanchi Array** | **61.54** | **316** | P | **P** | **23 00 40.0** | **+1.2** |
| | 0.4nm,0.4s,baz=91,slow=8.2,SNR=12 | | | | | | |
| **ILAR** | **Eielson Array** | **68.40** | **25** | P | **P** | **23 01 22.6** | **-0.2** |
| | 0.2nm,0.6s,baz=248,slow=6.5,SNR=4.0 | | | | | | |
| **YKA** | **Yellowknife Ar** | **82.68** | **27** | P | **P** | **23 02 44.7** | **+0.4** |
| | 0.2nm,0.7s,baz=293,slow=6.0,SNR=3.1 | | | | | | |
| **DBIC** | **Dimbokro** | **143.92** | **302** | PKP | **PKPab** | **23 09 55.2** | **+1.1** |
| | 0.9nm,0.6s,baz=68,slow=5.4,SNR=3.4 | | | | | | |

---

*ISCJB* ***26*** *23:04:55.3±0.4, 22.°00S±0.°05×170.°13E±0.°05, h35km, mb4.7/28, MS4.2/20, Error ellipse: s-maj=8.6km s-min=6.0km az=38.1*
*IDC* ***26*** *23:04:55.8±4.9, 21.°84S×170.°28E, h40km±39km, mb4.2/10, mb1 4.4/12, mb1mx4.0/34, mbtmp4.5/12, ML4.1/2, MS4.1/22, Ms1 4.1/22, ms1mx4.0/28, Error ellipse: s-maj=32.0km s-min=18.1km az=60.0*
*BJI* ***26*** *23:04:59.1, 22.°16S×169.°89E, h63km, mb4.7/21, mB5.2/12, Ms5.0/5, Ms7 4.7/7*
*NEIC* ***26*** *23:04:59.4±1.1, 21.°89S×170.°15E, h69km±11km, mb4.8/15, Error ellipse: s-maj=10.4km s-min=7.5km az=53.0*

**ISC 26 23:04:56.6±0.4, 22.°00S±0.°07×170.°17E±0.°06, h35km, n92, σ2s12/88, mb4.6/28, MS4.1/21, 2D, Southeast of Loyalty Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DZM** | **Mont Dzumac** | **3.46** | **268** | Pn | **Pn** | **23 05 47.5** | **-0.5** |
| | 23nm,0.3s,baz=121,slow=9.8,SNR=438 | | | | | | |
| DZM | | | | Sn | **Sn** | **23 06 29.1** | **+1.3** |
| | 101nm,0.3s,baz=316,slow=23,SNR=7.0 | | | | | | |
| DZM | | | | LR | LR | 23 06 59.7 | |
| | comp=Z,2μm,21.1s,baz=86,slow=35 | | | | | | |
| **DZM** | **Mont Dzumac** | **3.46** | **268** | *e*Pn | **Pn** | **23 05 47.6** | **-0.5** |
| | 110nm,0.2s | | | | | | |
| DZM | | | | *e*Sn | **Sn** | **23 06 28.8** | **+0.9** |
| | 378nm,0.3s | | | | | | |
| **DZM** | **Mont Dzumac** | **3.46** | **268** | *e*Pn | **Pn** | **23 05 47.6** | **-0.4** |
| DZM | | | | *e*S | **Sn** | **23 06 28.3** | **+0.4** |
| **MSVF** | **Nonsavu** | **8.54** | **62** | *e*Pn | **Pn** | **23 07 01.4** | **+3.5** |
| **RAO** | **Raoul Island** | **12.94** | **126** | LR | LR | 23 11 45.3 | |
| | comp=Z,2μm,21.5s,baz=258,slow=32 | | | | | | |
| **HNR** | **Honiara** | **15.90** | **320** | LR | LR | 23 13 42.1 | |
| | comp=Z,974nm,20.2s,baz=126,slow=33 | | | | | | |
| **HNR** | **Honiara** | **15.90** | **320** | *e*Pn | **Pn** | **23 08 38.3** | **+0.5** |
| | 247nm,1.3s | | | | | | |
| **HIZ** | **Hauiti** | **16.94** | **167** | *e*Pn | **Pn** | **23 08 51.1** | **+0.2** |
| | 92nm,1.2s | | | | | | |
| **URZ** | **Urewera** | **17.27** | **161** | P | **Pn** | **23 08 55.9** | **+0.9** |
| | 0.5nm,0.3s,baz=23,slow=6.3,SNR=8.1 | | | | | | |
| URZ | | | | LR | LR | 23 14 19.1 | |
| | comp=Z,2μm,18.5s,baz=340,slow=32 | | | | | | |
| **URZ** | **Urewera** | **17.27** | **161** | *e*Pn | **Pn** | **23 08 56.6** | **+1.6** |
| **EIDS** | **Eidsvold** | **17.80** | **255** | *e*Pn | **Pn** | **23 09 03.4** | **+1.7** |
| **BKZ** | **Black Stump Fm** | **17.94** | **164** | *e*P | **P** | **23 09 05.6** | **+1.9** |
| | 69nm,1.3s | | | | | | |
| **THZ** | **Tophouse** | **19.84** | **174** | *e*P | **Pn** | **23 09 27.4** | **+1.3** |
| | 52nm,1.2s | | | | | | |
| **KHZ** | **Kahutara** | **20.55** | **173** | *e*P | **P** | **23 09 33.2** | **+1.1** |
| | 105nm,1.3s | | | | | | |
| **LTZ** | **Lake Taylor** | **20.80** | **176** | *e*P | Pn | 23 09 37.5 | +0.1 |
| | 80nm,1.4s | | | | | | |
| **OXZ** | **Oxford** | **21.32** | **176** | *e*P | **P** | **23 09 42.7** | **+2.3** |
| | 47nm,1.1s | | | | | | |
| **FOZ** | **Fox Glacier** | **21.47** | **181** | *e*P | **P** | **23 09 42.5** | **+0.5** |
| | 63nm,1.3s | | | | | | |
| **RPZ** | **Rata Peaks** | **21.66** | **178** | P | **P** | **23 09 45.9** | **+1.8** |
| | 17nm,0.9s,baz=41,slow=8.7,SNR=4.9 | | | | | | |
| **RPZ** | **Rata Peaks** | **21.66** | **178** | *e*P | **P** | **23 09 47.2** | **+3.1** |
| **CAN** | **Canberra** | **22.77** | **230** | *e*P | **P** | **23 09 58.4** | **+2.3** |
| | 62nm,1.5s | | | | | | |
| **PMG** | **Port Moresby** | **25.40** | **296** | P | **P** | **23 10 20.7** | **-0.3** |
| | 8.2nm,0.5s,baz=136,slow=7.3,SNR=4.9 | | | | | | |
| **PMG** | **Port Moresby** | **25.40** | **296** | *e*P | **P** | **23 10 20.4** | **-0.5** |
| | 20nm,1.0s | | | | | | |
| **COEN** | **Coen** | **26.86** | **283** | *e*P | **P** | **23 10 34.8** | **+0.6** |
| | 11nm,1.1s | | | | | | |
| **STKA** | **Stephens Creek** | **27.23** | **243** | P | **P** | **23 10 37.9** | **+0.4** |
| | 13nm,1.2s,baz=62,slow=5.6,SNR=8.0 | | | | | | |
| **BBOO** | **Buckleboo** | **32.01** | **243** | *e*P | **P** | **23 11 20.3** | **+0.5** |
| | 39nm,1.3s | | | | | | |
| **AS01** | **Alice Springs** | **33.37** | **260** | *e*P | **P** | **23 11 30.9** | **-0.9** |
| AS01 | | | | *e*PcP | **PcP** | **23 14 13.4** | **+0.3** |
| **AS31** | **Alice Springs** | **33.41** | **260** | *e*P | **P** | **23 11 31.7** | **-0.5** |
| | 1.4nm,1.0s | | | | | | |
| **ASAR** | **Alice Springs** | **33.41** | **260** | P | **P** | **23 11 31.6** | **-0.6** |
| | 2.7nm,0.9s,baz=86,slow=8.8,SNR=19 | | | | | | |
| ASAR | | | | LR | LR | 23 24 04.5 | |
| | comp=Z,313nm,20.5s,baz=88,slow=34 | | | | | | |
| **WB2** | **Warramunga Arr** | **33.46** | **267** | *e*P | **P** | **23 11 31.6** | **-1.1** |
| **WRAB** | **Tennant Creek** | **33.47** | **267** | *e*P | **P** | **23 11 31.5** | **-1.2** |
| | 12nm,1.2s | | | | | | |
| **WRA** | **Warramunga Arr** | **33.47** | **267** | P | **P** | **23 11 31.6** | **-1.2** |
| | 2.8nm,0.4s,baz=99,slow=8.5,SNR=58 | | | | | | |
| WRA | | | | LR | LR | 23 25 18.4 | |
| | comp=Z,472nm,18.2s,baz=100,slow=36 | | | | | | |
| **PPT2** | **Papeete2** | **38.05** | **91** | *e*S | **S** | **23 18 00.3** | **-2.3** |
| | 131nm,31.0s | | | | | | |
| PPT2 | | | | *e*LQ | LQ | 23 20 44.6 | |
| | 878nm,28.0s | | | | | | |
| PPT2 | | | | *e*LR | LR | 23 22 22.0 | |
| | 674nm,28.8s | | | | | | |
| **PPT** | **Papeete** | **38.06** | **91** | LR | LR | 23 24 29.4 | |
| | comp=Z,103nm,21.6s,baz=290,slow=31 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **41.90** | **267** | LR | LR | 23 30 19.8 | |
| | comp=Z,548nm,18.5

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| HHC | | | | pmax | pmax | | | |
| | comp=Z,170nm,5.3s | | | | | | | |
| HHC | | | | LR | LR | | | |
| | comp=N,170nm,13.6s | | | | | | | |
| HHC | | | | LR | LR | | | |
| | comp=E,190nm,13.6s | | | | | | | |
| HHC | | | | LR | LR | | | |
| | comp=Z,170nm,12.0s | | | | | | | |
| **LZH** | **Lanzhou** | **85.22** | **312** | *e*P | **P** | **23 17 32.3** | **+2.5** | |
| LZH | | | | pP | sP | 23 17 47.5 | +2.6 | |
| LZH | | | | sP | pP | 23 17 55.3 | +14 | |
| LZH | | | | PP | **PP** | **23 20 53.5** | **+5.5** | |
| LZH | | | | pmax | pmax | | | |
| | comp=Z,38nm,1.3s | | | | | | | |
| LZH | | | | pmax | pmax | | | |
| | comp=Z,560nm,6.8s | | | | | | | |
| LZH | | | | LR | LR | | | |
| | comp=N,270nm,13.8s | | | | | | | |
| LZH | | | | LR | LR | | | |
| | comp=E,290nm,14.2s | | | | | | | |
| LZH | | | | LR | LR | | | |
| | comp=Z,250nm,17.2s | | | | | | | |
| **SNAA** | **Sanae** | **86.45** | **182** | P | **P** | **23 17 33.2** | **-2.1** | |
| **SNAA** | **Sanae** | **86.45** | **182** | *e*P | **P** | **23 17 33.2** | **-2.1** | |
| **VNA3** | **Neumayer Olymp** | **87.00** | **180** | P | **P** | **23 17 35.8** | **-2.2** | |
| **VNA2** | **Neumayer--Watz** | **87.31** | **181** | P | **P** | **23 17 36.6** | **-2.8** | |
| | baz=184,slow=3.8 | | | | | | | |
| **VNA1** | **Neumayer--Stat** | **87.59** | **181** | P | **P** | **23 17 39.0** | **-1.8** | |
| **GTA** | **Gaotai** | **89.65** | **313** | *e*P | **P** | **23 17 53.3** | **+2.2** | |
| GTA | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,1.1s | | | | | | | |
| **SONM** | **Songino Array** | **89.94** | **323** | P | **P** | **23 17 50.1** | **-2.1** | |
| | 2.4nm,1.2s,baz=155,slow=4.7,SNR=6.2 | | | | | | | |
| SONM | | | | LR | LR | 23 59 53.3 | | |
| | comp=Z,58nm,18.5s,baz=168,slow=37 | | | | | | | |
| **NVAR** | **Mina Array Bea** | **89.98** | **48** | LR | LR | 23 53 16.8 | | |
| | comp=Z,63nm,18.3s,baz=264,slow=32 | | | | | | | |
| **ILAR** | **Eielson Array** | **92.60** | **17** | LR | LR | 23 56 40.4 | | |
| | comp=Z,73nm,18.5s,baz=246,slow=34 | | | | | | | |
| **PLCA** | **Paso Flores** | **95.90** | **138** | LR | LR | 23 51 26.1 | | |
| | comp=Z,97nm,20.6s,baz=282,slow=29 | | | | | | | |
| **TXAR** | **Lajitas Array** | **97.32** | **61** | LR | LR | 23 56 19.4 | | |
| | comp=Z,63nm,18.1s,baz=0.0,slow=32 | | | | | | | |
| **PDAR** | **Pinedale Array** | **97.85** | **47** | LR | LR | 00 03 15.5 | | |
| | comp=Z,36nm,18.0s,baz=333,slow=36 | | | | | | | |
| **WMQ** | **Urumqi** | **99.73** | **313** | *e*P | **Pdif** | **23 18 37.5** | **+0.5** | |
| WMQ | | | | pP | sP | 23 18 54.5 | +2.3 | |
| WMQ | | | | LR | LR | | | |
| | comp=N,150nm,14.9s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=E,220nm,20.3s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=Z,210nm,24.1s | | | | | | | |
| **KSH** | **Kashi** | **106.77** | **306** | Pdif | **Pdif** | **23 19 13.5** | **+5.0** | |
| KSH | | | | PP | PP | 23 23 43.0 | +8.2 | |
| KSH | | | | S | **Sdif** | **23 31 09.3** | **+2.1** | |
| KSH | | | | LR | LR | | | |
| | comp=Z,140nm,4.9s | | | | | | | |
| **ARCES** | **ARCESS Array B** | **127.95** | **345** | PKP | **PKPdf** | **23 23 54.8** | **-3.2** | |
| | 4.7nm,0.9s,baz=11,slow=2.5,SNR=4.5 | | | | | | | |
| **DPC** | **Dobruska-Polom** | **145.05** | **330** | *e*PKP | **PKPbc** | **23 24 27.2** | **-2.4** | |
| DPC | | | | *ex* | x | 23 24 30.9 | | |
| **VYHS** | **Vyhne** | **145.06** | **326** | *e*PKP | **PKPbc** | **23 24 27.8** | **-1.8** | |
| **UPC** | **Upice** | **145.08** | **331** | *e*PKP | **PKPbc** | **23 24 26.8** | **-2.8** | |
| UPC | | | | *ex* | x | 23 24 31.3 | | |
| **VRAC** | **Vranov** | **145.65** | **329** | PKPbc | **PKPdf** | **23 24 29.4** | **-1.8** | |
| | 6.8nm,1.0s,baz=69,slow=3.2,SNR=6.5 | | | | | | | |
| **PVCC** | **Panska Ves** | **145.71** | **332** | *e*PKP | **PKPdf** | **23 24 29.5** | **-1.7** | |
| PVCC | | | | *ex* | x | 23 24 33.6 | | |
| **BRG** | **Berggiesshubel** | **145.72** | **333** | *i* PKP | **PKPdf** | **23 24 29.2** | **-2.0** | |
| | 21nm,1.4s | | | | | | | |
| BRG | | | | *e* | | 23 24 32.9 | | |
| | 36nm,1.4s | | | | | | | |
| **SMOL** | **Smolenice** | **145.77** | **327** | *e*PKP | **PKPdf** | **23 24 30.8** | **-0.6** | |
| **CLL** | **Collm** | **145.78** | **334** | ⇓*i* PKPbc | **PKPdf** | **23 24 29.2** | **-2.1** | |
| | comp=Z,9.0nm,1.0s | | | | | | | |
| CLL | | | | LmV | | 00 22 00.0 | | |
| | comp=Z,200nm,20.5s | | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **146.06** | **331** | *e*PKP | **PKPdf** | **23 24 30.2** | **-1.7** | |
| **PRU** | **Pruhonice** | **146.11** | **331** | *e*PKP | **PKPdf** | **23 24 30.2** | **-1.7** | |
| PRU | | | | *ex* | x | 23 24 33.8 | | |
| **EKA** | **Eskdalemuir Ar** | **146.34** | **353** | PKPbc | **PKPdf** | **23 24 29.8** | **-2.3** | |
| | comp=Z,1.4nm,0.6s,baz=0.0,slow=2.4,SNR=3.2 | | | | | | | |
| **KHC** | **Kasperske Hory** | **147.17** | **331** | *e*PKP | **PKPdf** | **23 24 32.4** | **-1.4** | |
| KHC | | | | *ex* | x | 23 24 37.0 | | |
| KHC | | | | *ex* | x | 23 24 41.2 | | |
| KHC | | | | *ex* | x | 23 25 02.4 | | |
| **KHC** | **Kasperske Hory** | **147.17** | **331** | *e*PKPdf | **PKPdf** | **23 24 33.1** | **-0.7** | |
| **GERES** | **GERESS Array B** | **147.32** | **331** | PKPbc | **PKPdf** | **23 24 34.1** | **0.0** | |
| | comp=Z,4.0nm,1.0s,baz=50,slow=2.1,SNR=12 | | | | | | | |
| **MEM** | **Membach** | **148.87** | **340** | PKPbc | **PKPbc** | **23 24 41.5** | **+1.1** | |
| **WLF** | **Walferdange** | **149.64** | **339** | PKPbc | **PKPdf** | **23 24 40.7** | **+2.9** | |
| **DOU** | **Dourbes** | **149.75** | **341** | PKPbc | **PKPdf** | **23 24 40.1** | **+2.2** | |
| **DAVOX** | **Davos/Dischmat** | **150.57** | **332** | PKPbc | **PKPdf** | **23 24 42.4** | **+2.8** | |
| | comp=Z,2.2nm,0.5s,baz=236,slow=3.6,SNR=4.1 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **165.93** | **233** | PKP | **PKPdf** | **23 24 56.6** | **-2.1** | |
| | comp=Z,1.6nm,1.2s,baz=147,slow=0.7,SNR=4.0 | | | | | | | |
| TORD | | | | PKPab | **PKPab** | **23 25 57.1** | **-1.5** | |
| | comp=Z,1.3nm,0.9s,baz=99,slow=5.8,SNR=7.0 | | | | | | | |

**IDC 26 23:05:20.2±25.0, 17°02'S×172°09'W, h0km, mb4.2/4, mb1 4.3/4, mb1mx3.8/35, mbtmp4.2/4, Error ellipse: s-maj=477.2km s-min=179.5km az=70.0, Tonga Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CTA** | **Charters Tower** | **39.54** | **259** | P | P | 23 12 53.5 | +0.2 |
| | 1.9nm,0.4s,baz=69,slow=8.6,SNR=2.9 | | | | | | |
| **STKA** | **Stephens Creek** | **44.35** | **242** | P | P | 23 13 32.5 | 0.0 |
| | 1.4nm,0.7s,baz=96,slow=10,SNR=3.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **50.72** | **258** | P | P | 23 14 21.8 | -0.4 |
| | 1.4nm,0.3s,baz=96,slow=8.0,SNR=42 | | | | | | |
| **ASAR** | **Alice Springs** | **50.83** | **253** | P | P | 23 14 22.9 | -0.1 |
| | 2.7nm,0.8s,baz=87,slow=8.2,SNR=23 | | | | | | |

*MOS **26** 23:09:02.1±0.7, 43°08'N×44°22'E, h5km, mb4.0/1, Error ellipse: s-maj=6.8km s-min=6.3km az=109.0*
*ISCJB **26** 23:09:03.4±0.3, 43°09'N±0°02'×44°23'E±0°02, h8km±3km, Error ellipse: s-maj=4.1km s-min=3.0km az=1.1*
*CSEM **26** 23:09:03.2±0.2, 43°08'N×44°23'E, h2km, mb4.0, Error ellipse: s-maj=4.9km s-min=3.7km az=8.0*
*DDA **26** 23:09:20.5, 41°91'N×43°57'E, h7km, Ml2.5*

**ISC 26 23:09:03.6±0.8, 43°08'N±0°02'×44°23'E±0°02, h9km±5km, n60, σ1s04/85, 6C-10D, Western Caucasus**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ARNR** | **Ardon** | **0.11** | **22** | ⇓*i* PG | **Pg** | **23 09 05.6** | **-0.7** |
| **ARNR** | **Ardon** | **0.11** | **22** | *i* Pg | **Pg** | **23 09 05.6** | **-0.7** |
| **KORR** | **Kora** | **0.12** | **275** | ⇑*i* PG | **Pg** | **23 09 05.8** | **-0.5** |
| KORR | | | | *e*S | **Sg** | **23 09 09.4** | **+1.1** |
| **KORR** | **Kora** | **0.12** | **275** | *i* Pg | **Pg** | **23 09 05.8** | **-0.5** |
| KORR | | | | *e*Sg | **Sg** | **23 09 09.4** | **+1.1** |
| **LACR** | **Lac** | **0.26** | **168** | ⇓*i* PG | **Pg** | **23 09 07.7** | **-1.0** |
| LACR | | | | *e*S | **Sg** | **23 09 12.9** | **+0.7** |
| **LACR** | **Lac** | **0.26** | **168** | *i* Pg | **Pg** | **23 09 07.7** | **-1.0** |
| LACR | | | | *e*Sg | **Sg** | **23 09 12.9** | **+0.7** |
| **STDR** | **Stavd-Durt** | **0.32** | **338** | ⇓*i* PG | **Pg** | **23 09 09.9** | **0.0** |
| STDR | | | | *e*S | **Sg** | **23 09 14.5** | **+0.4** |
| **STDR** | **Stavd-Durt** | **0.32** | **338** | *i* Pg | **Pg** | **23 09 09.9** | **0.0** |
| STDR | | | | *e*Sg | **Sg** | **23 09 14.5** | **+0.4** |
| **VLKR** | **Vladikavkaz** | **0.33** | **95** | *e*PG | **Pg** | **23 09 10.2** | **+0.1** |
| VLKR | | | | *e*S | **Sg** | **23 09 15.4** | **+0.8** |
| **VLKR** | **Vladikavkaz** | **0.33** | **95** | *e*Pg | **Pg** | **23 09 10.2** | **+0.1** |
| VLKR | | | | *e*Sg | **Sg** | **23 09 15.4** | **+0.8** |
| **LSNR** | **Lesken** | **0.36** | **305** | *e*PG | **Pg** | **23 09 10.6** | **0.0** |
| LSNR | | | | *e*S | **Sb** | **23 09 17.2** | **-0.6** |
| **LSNR** | **Lesken** | **0.36** | **305** | *e*Pg | **Pg** | **23 09 10.6** | **0.0** |
| LSNR | | | | *e*Sg | **Sb** | **23 09 17.2** | **-0.6** |
| **BTKR** | **Batakoyurt** | **0.38** | **38** | *e*PG | **Pg** | **23 09 11.0** | **0.0** |
| BTKR | | | | *e*S | **Sg** | **23 09 17.0** | **+1.1** |
| **BTKR** | **Batakoyurt** | **0.38** | **38** | *e*Pg | **Pg** | **23 09 11.0** | **0.0** |
| BTKR | | | | *e*Sg | **Sg** | **23 09 17.0** | **+1.1** |
| **ZEI** | **Tsey** | **0.38** | **220** | *e*PG | **Pg** | **23 09 10.0** | **-1.0** |
| ZEI | | | | pmax | pmax | | |
| | comp=Z,832nm,0.8s | | | | | | |
| **KMGR** | **Komgaron** | **0.47** | **92** | *e*PG | **Pg** | **23 09 11.5** | **-1.2** |
| KMGR | | | | *e*S | **Sg** | **23 09 18.0** | **-0.9** |
| **KMGR** | **Komgaron** | **0.47** | **92** | *e*Pg | **Pg** | **23 09 11.5** | **-1.2** |
| KMGR | | | | *e*Sg | **Sg** | **23 09 18.0** | **-0.9** |
| **DIGR** | **Digorskoe uzhe** | **0.51** | **250** | *e*PG | **Pg** | **23 09 12.5** | **-0.9** |
| DIGR | | | | *e*S | **Sg** | **23 09 20.4** | **+0.3** |
| **DIGR** | **Digorskoe uzhe** | **0.51** | **250** | *e*Pg | **Pg** | **23 09 12.5** | **-0.9** |
| DIGR | | | | *e*Sg | **Sg** | **23 09 20.4** | **+0.3** |
| **NCK** | **Nalchik** | **0.62** | **312** | ⇓*e*PG | **Pb** | **23 09 16.2** | **-0.4** |
| **NCK** | **Nalchik** | **0.62** | **312** | *e*Pg | **Pb** | **23 09 16.2** | **-0.4** |
| **TRKR** | **Terskaya** | **0.74** | **29** | ⇓*i* PG | **Pb** | **23 09 18.3** | **-0.4** |
| TRKR | | | | *e*S | **Sn** | **23 09 31.2** | **-0.4** |
| **TRKR** | **Terskaya** | **0.74** | **29** | *i* Pg | **Pb** | **23 09 18.3** | **-0.4** |
| TRKR | | | | *e*Sg | **Sn** | **23 09 31.2** | **-0.4** |
| **NEY** | **Neytrino** | **1.11** | **279** | *ce*PG | **Pg** | **23 09 23.4** | **-1.6** |
| **NEY** | **Neytrino** | **1.11** | **279** | *e*Pg | **Pg** | **23 09 23.4** | **-1.6** |
| **GROC** | **Groznyy** | **1.16** | **83** | *e*PG | **Pg** | **23 09 25.1** | **-0.6** |
| GROC | | | | *e*S | **Sn** | **23 09 42.7** | **+0.9** |
| **GROC** | **Groznyy** | **1.16** | **83** | *e*Pg | **Pg** | **23 09 25.1** | **-0.6** |
| GROC | | | | *e*Sg | **Sn** | **23 09 42.7** | **+0.9** |
| **TBLG** | **Delisi** | **1.40** | **164** | P | **Pn** | **23 09 28.8** | **-0.4** |
| TBLG | | | | S | **Sn** | **23 09 50.0** | **+2.2** |
| **KIV** | **Kislovodsk** | **1.42** | **309** | ⇓*e*PG | **Pn** | **23 09 28.4** | **-1.3** |
| **KIV** | **Kislovodsk** | **1.42** | **309** | *e*Pg | **Pn** | **23 09 28.4** | **-1.3** |
| **BTLR** | **Botlikh** | **1.52** | **105** | *e*PG | **Pn** | **23 09 30.3** | **-0.7** |
| BTLR | | | | *e*S | **Sn** | **23 09 50.9** | **-0.1** |
| **BTLR** | **Botlikh** | **1.52** | **105** | *e*Pg | **Pn** | **23 09 30.3** | **-0.7** |
| BTLR | | | | *e*Sg | **Sn** | **23 09 50.9** | **-0.1** |
| **EPOS** | **Posof** | **1.93** | **216** | *i* P | **Pb** | **23 09 38.5** | **-0.4** |
| **EPOS** | **Posof** | **1.93** | **216** | P | **Pb** | **23 09 38.5** | **-0.4** |
| **GNBR** | **Gunib** | **2.13** | **108** | *e*PN | **Pn** | **23 09 40.5** | **+1.1** |
| GNBR | | | | *e*S | **Sb** | **23 10 08.5** | **-0.4** |
| **GNBR** | **Gunib** | **2.13** | **108** | *e*Pn | **Pn** | **23 09 40.5** | **+1.1** |
| GNBR | | | | *e*Sb | **Sb** | **23 10 08.5** | **-0.4** |
| **EAK** | **Akyaka** | **2.43** | **191** | *i* P | **Pn** | **23 09 45.4** | **+1.8** |
| **EAK** | **Akyaka** | **2.43** | **191** | P | **Pn** | **23 09 45.4** | **+1.8** |
| **ARTV** | **Artvin** | **2.55** | **223** | *i* P | **Pn** | **23 09 47.1** | **+1.8** |
| **ARTV** | **Artvin** | **2.55** | **223** | P | **Pn** | **23 09 47.1** | **+1.8** |
| **DAGI** | **Agillar** | **2.64** | **222** | *i* P | **Pn** | **23 09 48.0** | **+1.6** |
| **GNI** | **Garni** | **2.95** | **172** | ⇓*e*PN | **Pb** | **23 09 54.3** | **-2.1** |
| GNI | | | | pmax | pmax | | |
| | comp=Z,59nm,0.6s | | | | | | |
| **GNI** | **Garni** | **2.95** | **172** | *e*Pn | **Pb** | **23 09 54.3** | **-2.1** |
| | comp=Z,59nm,0.6s | | | | | | |
| **RPOR** | **Krasnaya Polya** | **2.95** | **284** | ⇑*e*PN | **Pn** | **23 09 51.5** | **+0.9** |
| **RPOR** | **Krasnaya Polya** | **2.95** | **284** | *e*Pn | **Pn** | **23 09 51.5** | **+0.9** |
| **LABN** | **Labinsk** | **2.98** | **303** | ⇓*e*PN | **Pn** | **23 09 51.0** | **+0.1** |
| **LABN** | **Labinsk** | **2.98** | **303** | *e*Pn | **Pn** | **23 09 51.0** | **+0.1** |
| **SOC** | **Sochi** | **3.33** | **280** | ⇑*e*PN | **Pn** | **23 09 55.9** | **+0.1** |
| **SOC** | **Sochi** | **3.33** | **280** | *e*Pn | **Pn** | **23 09 55.9** | **+0.1** |
| **ARU** | **Arti** | **16.21** | **30** | ⇑*e*P | **Pn** | **23 12 51.5** | **+0.2** |
| **BRVK** | **Borovoye** | **19.97** | **51** | ⇓*e*P | **P** | **23 13 36.1** | **+0.3** |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.0s | | | | | | |
| **BRVK** | **Borovoye** | **19.97** | **51** | *e*P | **P** | **23 13 36.1** | **+0.3** |
| | comp=Z,2.0nm,1.0s | | | | | | |
| **AAK** | **Ala-Archa** | **22.14** | **81** | ⇓*e*P | **P** | **23 13 59.5** | **-0.1** |
| **AAK** | **Ala-Archa** | **22.14** | **81** | *e*P | **P** | **23 13 59.5** | **-0.1** |
| **KURK** | **Kurchatov** | **24.54** | **60** | ⇑*e*P | **P** | **23 14 24.9** | **+1.6** |
| KURK | | | | pmax | pmax | | |
| | comp=Z,10.0nm,3.3s | | | | | | |
| **KURK** | **Kurchatov** | **24.54** | **60** | *e*P | **P** | **23 14 24.9** | **+1.6** |
| | comp=Z,10.0nm,3.3s | | | | | | |
| **ESK** | **Eskdalemuir** | **32.68** | **309** | *i* P | **P** | **23 15 33.9** | **-1.9** |
| **ESK** | **Eskdalemuir** | **32.68** | **309** | *i* P | **P** | **23 15 33.9** | **-1.9** |
| **MSEY** | **Mahe Island** | **48.61** | **165** | *i* P | **P** | **23 17 49.8** | **+2.2** |
| **MSEY** | **Mahe Island** | **48.61** | **165** | *i* P | **P** | **23 17 49.8** | **+2.2** |

**IDC 26 23:19:25.1±2.1, 0°74'N×117°07'E, h0km, mb3.6/4, mb1 3.7/4, mb1mx3.3/60, mbtmp3.6/4, Error ellipse: s-maj=183.3km s-min=25.5km az=60.0, Borneo**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **26.63** | **141** | P | P | 23 25 05.7 | 0.0 |
| | 0.4nm,0.7s,baz=318,slow=10.0,SNR=3.5 | | | | | | |
| **SONM** | **Songino Array** | **47.82** | **350** | P | P | 23 28 04.5 | 0.0 |
| | 0.4nm,0.9s,baz=172,slow=8.5,SNR=2.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **55.00** | **331** | P | P | 23 28 58.5 | +0.2 |
| | 0.4nm,0.5s,baz=140,slow=7.7,SNR=5.3 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **59.32** | **338** | P | P | 23 29 28.4 | -0.4 |
| | 1.2nm,0.6s,baz=135,slow=7.7,SNR=5.5 | | | | | | |

*ROM **26** 23:20:26.4±0.1, 41°76'N×15°41'E, h8km±1km, Ml3.3/40, Error ellipse: s-maj=1.8km s-min=1.0km az=19.0*
*ISCJB **26** 23:20:26.8±0.2, 41°82'N±0°02'×15°39'E±0°02, h22km±3km, Error ellipse: s-maj=2.9km s-min=2.0km az=22.9*
*CSEM **26** 23:20:26.6±0.1, 41°74'N×15°38'E, h15km, ML3.9/30, Error ellipse: s-maj=2.3km s-min=2.0km az=26.0*
*LDG **26** 23:20:27.0±0.1, 41°74'N×15°43'E, h20km, Ml3.3/4, Error ellipse: s-maj=2.6km s-min=2.0km az=39.0*
*BEO **26** 23:20:27.2±0.8, 41°60'N×15°62'E, h0km, M3.1/6*
*PRU **26** 23:20:28.3, 41°97'N×15°35'E, h0km*

**ISC 26 23:20:26.8±0.9, 41°79'N±0°02'×15°39'E±0°01, h19km±2km, n211, σ1s60/294, 7C-6D, Southern Italy**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MELA** | **Melanico ??? S** | **0.21** | **248** | Pg | **Pg** | **23 20 32.2** | **+0.1** |
| MELA | | | | Sg | **Sg** | **23 20 35.6** | **-0.1** |
| | 9µm,0.3s | | | | | | |
| **MELA** | **Melanico ??? S** | **0.21** | **248** | Pg | **Pg** | **23 20 32.2** | **+0.1** |
| MELA | | | | Sg | **Sg** | **23 20 35.6** | **-0.1** |
| | 9µm,0.3s | | | | | | |
| **SGRT** | **San Giovanni R** | **0.26** | **96** | Pg | **Pg** | **23 20 32.6** | **-0.4** |
| SGRT | | | | Sg | **Sb** | **23 20 37.0** | **+0.1** |
| | 8µm,0.3s | | | | | | |
| **SGRT** | **San Giovanni R** | **0.26** | **96** | Pg | **Pg** | **23 20 32.6** | **-0.4** |
| SGRT | | | | Sg | **Sb** | **23 20 37.0** | **+0.1** |
| | 8µm,0.3s | | | | | | |
| **CIGN** | **Sant'Elia a Pi** | **0.39** | **250** | Pg | **Pb** | **23 20 35.3** | **+0.2** |
| CIGN | | | | Sg | **Sg** | **23 20 40.5** | **0.0** |
| | 503nm,0.4s | | | | | | |
| **CIGN** | **Sant'Elia a Pi** | **0.39** | **250** | Pg | **Pb** | **23 20 35.3** | **+0.2** |
| CIGN | | | | Sg | **Sg** | **23 20 40.5** | **0.0** |
| | 503nm,0.4s | | | | | | |
| **MSAG** | **Monte S. Angel** | **0.39** | **100** | Pg | **Pg** | **23 20 34.6** | **-0.5** |
| MSAG | | | | Sg | **Sg** | **23 20 40.8** | **+0.1** |
| | 4µm,0.4s | | | | | | |
| **MSAG** | **Monte S. Angel** | **0.39** | **100** | Pg | **Pg** | **23 20 34.6** | **-0.5** |
| MSAG | | | | Sg | **Sg** | **23 20 40.8** | **+0.1** |
| | 4µm,0.4s | | | | | | |
| **MS1** | **Monte Sant'Ang** | **0.42** | **101** | *i* Pg | **Pg** | **23 20 35.1** | **-0.5** |
| MS1 | | | | Sg | **Sg** | **23 20 42.0** | **+0.5** |
| **MOCO** | **Biccari - m.te** | **0.45** | **203** | Pg | **Pg** | **23 20 36.0** | **-0.1** |
| MOCO | | | | Sg | **Sg** | **23 20 42.5** | **+0.1** |
| | 1µm,0.5s | | | | | | |
| **FRES** | **Fresagrandinar** | **0.57** | **289** | Pg | **Pg** | **23 20 38.6** | **+0.3** |
| FRES | | | | Sg | **Sn** | **23 20 48.0** | **-0.8** |
| | 1µm,0.4s | | | | | | |
| **FRES** | **Fresagrandinar** | **0.57** | **289** | Pg | **Pg** | **23 20 38.6** | **+0.3** |
| FRES | | | | Sg | **Sn** | **23 20 48.0** | **-0.8** |
| | 1µm,0.4s | | | | | | |
| **TRIV** | **Trivento** | **0.63** | **269** | Pg | **Pg** | **23 20 39.4** | **0.0** |
| TRIV | | | | Sg | **Sn** | **23 20 49.5** | **-0.8** |
| | 893nm,0.5s | | | | | | |
| **TRIV** | **Trivento** | **0.63** | **269** | Pg | **Pg** | **23 20 39.4** | **0.0** |
| TRIV | | | | Sg | **Sn** | **23 20 49.5** | **-0.8** |
| | 893nm,0.5s | | | | | | |
| **BSSO** | **Busso** | **0.64** | **249** | Pg | **Pb** | **23 20 39.3** | **-0.1** |
| BSSO | | | | Sg | **Sg** | **23 20 49.4** | **+1.1** |
| | 537nm,0.3s | | | | | | |
| **BSSO** | **Busso** | **0.64** | **249** | Pg | **Pb** | **23 20 39.3** | **-0.1** |
| BSSO | | | | Sg | **Sg** | **23 20 49.4** | **+1.1** |
| | 537nm,0.3s | | | | | | |
| **SACR** | **S. Croce Del S** | **0.65** | **233** | Pg | **Pb** | **23 20 39.1** | **-0.3** |
| SACR | | | | Sg | **Sg** | **23 20 49.0** | **+0.7** |
| | 549nm,0.3s | | | | | | |
| **SACR** | **S. Croce Del S** | **0.65** | **233** | Pg | **Pb** | **23 20 39.1** | **-0.3** |
| SACR | | | | Sg | **Sg** | **23 20 49.0** | **+0.7** |
| | 549nm,0.3s | | | | | | |
| **SGTA** | **Sant Agata di** | **0.65** | **182** | Pg | **Pb** | **23 20 38.8** | **-0.7** |
| | 2µm,0.3s | | | | | | |
| **SGTA** | **Sant Agata di** | **0.65** | **182** | Pg | **Pb** | **23 20 38.8** | **-0.7** |
| | 2µm,0.3s | | | | | | |
| **PSB1** | **Pescosannita** | **0.71** | **218** | Pg | **Pb** | **23 20 39.9** | **-0.7** |
| PSB1 | | | | Sg | **Sg** | **23 20 51.1** | **+0.7** |
| | 438nm,0.4s | | | | | | |
| **PSB1** | **Pescosannita** | **0.71** | **218** | Pg | **Pb** | **23 20 39.9** | **-0.7** |
| PSB1 | | | | Sg | **Sg** | **23 20 51.1** | **+0.7** |
| | 438nm,0.4s | | | | | | |
| **MRB1** | **Monte Rocchett** | **0.73** | **206** | Pg | **Pb** | **23 20 40.6** | **-0.3** |
| MRB1 | | | | Sg | **Sg** | **23 20 51.2** | **+0.3** |
| | 2µm,0.6s | | | | | | |
| **MRB1** | **Monte Rocchett** | **0.73** | **206** | Pg | **Pb** | **23 20 40.6** | **-0.3** |
| MRB1 | | | | Sg | **Sg** | **23 20 51.2** | **+0.3** |
| | 2µm,0.6s | | | | | | |
| **CAFE** | **Carife** | **0.77** | **189** | Pg | **Pb** | **23 20 40.9** | **-0.7** |
| | 1µm,0.3s | | | | | | |
| **CAFE** | **Carife** | **0.77** | **189** | Pg | **Pb** | **23 20 40.9** | **-0.7** |
| | 1µm,0.3s | | | | | | |
| **MIDA** | **Miranda** | **0.86** | **261** | Pg | **Pb** | **23 20 42.5** | **-0.7** |
| MIDA | | | | Sg | **Sg** | **23 20 55.5** | **+0.3** |
| | 552nm,0.6s | | | | | | |
| **MIDA** | **Miranda** | **0.86** | **261** | Pg | **Pb** | **23 20 42.5** | **-0.7** |
| MIDA | | | | Sg | **Sg** | **23 20 55.5** | **+0.3** |
| | 552nm,0.6s | | | | | | |
| **SNAL** | **S. Angelo Dei** | **0.87** | **189** | Pg | **Pb** | **23 20 42.5** | **-0.8** |
| SNAL | | | | Sg | **Sb** | **23 20 54.7** | **+0.1** |
| | 1µm,0.7s | | | | | | |
| **SNAL** | **S. Angelo Dei** | **0.87** | **189** | Pg | **Pb** | **23 20 42.5** | **-0.8** |
| SNAL | | | | Sg | **Sb** | **23 20 54.7** | **+0.1** |
| | 1µm,0.7s | | | | | | |
| **CAFR** | **Castel Frentan** | **0.90** | **300** | Pg | **Pb** | **23 20 44.0** | **+0.3** |
| | 3µm,0.3s | | | | | | |
| **CAFR** | **Castel Frentan** | **0.90** | **300** | Pg | **Pb** | **23 20 44.0** | **+0.3** |
| | 3µm,0.3s | | | | | | |
| **RNI2** | **Rionero Sannit** | **0.93** | **265** | Pg | **Pb** | **23 20 43.9** | **-0.5** |
| RNI2 | | | | Sg | **Sn** | **23 20 58.4** | **+0.6** |
| | 650nm,0.5s | | | | | | |
| **RNI2** | **Rionero Sannit** | **0.93** | **265** | Pg | **Pb** | **23 20 43.9** | **-0.5** |
| RNI2 | | | | Sg | **Sn** | **23 20 58.4** | **+0.6** |
| | 650nm,0.5s | | | | | | |
| **MRVN** | **Minervino Murg** | **0.94** | **140** | Pg | **Pb** | **23 20 43.5** | **-1.0** |
| MRVN | | | | Sg | **Sb** | **23 20 57.1** | **+0.5** |
| | 632nm,0.3s | | | | | | |
| **MRVN** | **Minervino Murg** | **0.94** | **140** | Pg | **Pb** | **23 20 43.5** | **-1.0** |
| MRVN | | | | Sg | **Sb** | **23 20 57.1** | **+0.5** |
| | 632nm,0.3s | | | | | | |
| **PALZ** | **Palazzo San Ge** | **0.94** | **153** | Pg | **Pb** | **23 20 43.9** | **-0.6** |
| PALZ | | | | Sg | **Sg** | **23 20 57.8** | **+0.2** |
| | 2µm,0.6s | | | | | | |
| **PALZ** | **Palazzo San Ge** | **0.94** | **153** | Pg | **Pb** | **23 20 43.9** | **-0.6** |
| PALZ | | | | Sg | **Sg** | **23 20 57.8** | **+0.2** |
| | 2µm,0.6s | | | | | | |
| **VAGA** | **Valle Agricola** | **0.94** | **247** | Pg | **Pb** | **23 20 43.9** | **-0.7** |
| | 518nm,0.4s | | | | | | |
| **VAGA** | **Valle Agricola** | **0.94** | **247** | Pg | **Pb** | **23 20 43.9** | **-0.7** |
| | 518nm,0.4s | | | | | | |
| **CDT** | **Castel del Mon** | **0.97** | **136** | *e*Pg | **Pb** | **23 20 44.6** | **-0.3** |
| CDT | | | | Sg | **Sb** | **23 20 57.8** | **+0.5** |
| **PAOL** | **Paolisi** | **0.98** | **220** | Pg | **Pb** | **23 20 44.9** | **-0.2** |
| | 362nm,0.3s | | | | | | |
| **PAOL** | **Paolisi** | **0.98** | **220** | Pg | **Pb** | **23 20 44.9** | **-0.2** |
| | 362nm,0.3s | | | | | | |
| **MCRV** | **Calabrutti - M** | **1.02** | **190** | Pg | **Pb** | **23 20 44.6** | **-1.2** |
| MCRV | | | | Sg | **Sg** | **23 20 59.5** | **-0.5** |
| | 949nm,0.4s | | | | | | |
| **MCRV** | **Calabrutti - M** | **1.02** | **190** | Pg | **Pb** | **23 20 44.6** | **-1.2** |
| MCRV | | | | Sg | **Sg** | **23 20 59.5** | **-0.5** |
| | 949nm,0.4s | | | | | | |
| **MRLC** | **Muro Lucano** | **1.03** | **176** | Pg | **Pb** | **23 20 45.0** | **-1.0** |
| MRLC | | | | Sg | **Sn** | **23 21 00.3** | **+0.2** |
| | 2µm,0.5s | | | | | | |
| **MRLC** | **Muro Lucano** | **1.03** | **176** | Pg | **Pb** | **23 20 45.0** | **-1.0** |
| MRLC | | | | Sg | **Sn** | **23 21 00.3** | **+0.2** |
| | 2µm,0.5s | | | | | | |
| **CERA** | **Filignano** | **1.05** | **260** | Pg | **Pb** | **23 20 45.7** | **-0.6** |
| | 552nm,0.5s | | | | | | |
| **CERA** | **Filignano** | **1.05** | **260** | Pg | **Pb** | **23 20 45.7** | **-0.6** |
| | 552nm,0.5s | | | | | | |
| **NL9** | **Nola** | **1.07** | **217** | Pg | **Pb** | **23 20 46.1** | **-0.6** |
| **NL9** | **Nola** | **1.07** | **217** | Pg | **Pb** | **23 20 46.1** | **-0.6** |
| **ACER** | **Acerenza** | **1.08** | **157** | Pg | **Pb** | **23 20 46.6** | **-0.3** |
| ACER | | | | Sg | **Sg** | **23 21 02.3** | **+0.3** |
| | 1µm,0.7s | | | | | | |
| **ACER** | **Acerenza** | **1.08** | **157** | Pg | **Pb** | **23 20 46.6** | **-0.3** |
| ACER | | | | Sg | **Sg** | **23 21 02.3** | **+0.3** |
| | 1µm,0.7s | | | | | | |
| **INTR** | **Introdacqua** | **1.13** | **282** | Pg | **Pn** | **23 20 47.2** | **-0.5** |
| INTR | | | | Sg | **Sg** | **23 21 04.2** | **+0.5** |
| | 1µm,0.8s | | | | | | |
| **INTR** | **Introdacqua** | **1.13** | **282** | Pg | **Pn** | **23 20 47.2

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NVLJ | Novalja | 2.80 | 352 | *e*Pn | Pn | 23 21 10.9 | +0.4 |
| DRME | Dracevica, Mon | 2.85 | 81 | *e*Pn | Pn | 23 21 11.4 | +0.1 |
| ATMC | Monte Cedrone | 2.89 | 306 | Pn | Pn | 23 21 14.1 | +2.3 |
| | 51µm,31.0s | | | | | | |
| ATMC | Monte Cedrone | 2.89 | 306 | Pn | Pn | 23 21 14.1 | +2.3 |
| | 51µm,31.0s | | | | | | |
| PDG | Podgorica | 2.94 | 76 | ⇑*i*P | Pn | 23 21 14.8 | +2.3 |
| PDG | Podgorica | 2.94 | 76 | *e*Pn | Pn | 23 21 12.2 | -0.3 |
| PDG | Podgorica | 2.94 | 76 | ⇑*i*P | Pn | 23 21 14.8 | +2.3 |
| PDG | | | | *e*Sn | Sn | 23 21 49.4 | +2.1 |
| UPM | Unac-Piva | 2.96 | 60 | *e*Pn | Pn | 23 21 14.9 | +2.0 |
| BLY | Banja Luka | 3.24 | 23 | *e*Pn | Pn | 23 21 18.5 | +1.9 |
| TIR | Tirane | 3.38 | 96 | ⇑*i*P | Pn | 23 21 22.4 | +3.8 |
| TIR | Tirane | 3.38 | 96 | ⇑*i*P | Pn | 23 21 22.4 | +3.8 |
| HAPS | Han Pijesak,Bl | 3.48 | 47 | *e*Pn | Pn | 23 21 23.4 | +3.4 |
| HAPS | Han Pijesak,Bl | 3.48 | 47 | *e*Pn | Pn | 23 21 20.9 | +0.9 |
| BBLS | Lazići | 3.61 | 53 | *e*Pn | Pn | 23 21 24.1 | +2.4 |
| BBLS | Lazići | 3.61 | 53 | *e*Pn | Pn | 23 21 24.1 | +2.4 |
| SJES | Sjenica | 3.69 | 65 | *e*Pn | Pn | 23 21 25.2 | +2.3 |
| BOJS | Bojanci | 3.72 | 358 | *i* Pn | Pn | 23 21 24.4 | +1.2 |
| BOJS | Bojanci | 3.72 | 358 | *i* Pn | Pn | 23 21 24.4 | +1.2 |
| SEI | Scarperia | 3.73 | 309 | Pn | Pn | 23 21 24.5 | +1.1 |
| SEI | Scarperia | 3.73 | 309 | Pn | Pn | 23 21 24.5 | +1.1 |
| OZLJ | Ozalj | 3.83 | 1 | *e*Pn | Pn | 23 21 25.9 | +1.2 |
| OZLJ | | | | Sn | Sn | 23 22 09.4 | +0.3 |
| OZLJ | Ozalj | 3.83 | 1 | *e*Pn | Pn | 23 21 25.8 | +1.2 |
| OZLJ | | | | Sn | Sn | 23 22 09.4 | +0.3 |
| IVAS | Ivanjica | 3.94 | 61 | *e*Pn | Pn | 23 21 27.9 | +1.6 |
| IVAS | Ivanjica | 3.94 | 61 | *e*Pn | Pn | 23 21 27.9 | +1.6 |
| CEY | Cerknica | 4.01 | 350 | *e*Pn | Pn | 23 21 27.3 | 0.0 |
| CRES | Cresnjev | 4.04 | 1 | *e*Pn | Pn | 23 21 27.8 | +0.2 |
| ZAG | Zagreb | 4.06 | 6 | *e*Pn | Pn | 23 21 28.8 | +0.9 |
| DIVS | Divibare | 4.09 | 54 | *e*Pn | Pn | 23 21 29.5 | +1.1 |
| DIVS | | | | *e*Sg | Sg | 23 22 36.1 | -2.1 |
| LJU | Ljubljana | 4.30 | 352 | *e*Pn | Pn | 23 21 31.9 | +0.7 |
| TRUS | Trudelj | 4.41 | 55 | *e*Pn | Pn | 23 21 35.0 | +2.3 |
| TRUS | Trudelj | 4.41 | 55 | *e*Pn | Pn | 23 21 35.0 | +2.3 |
| SELS | Selova | 4.47 | 69 | *e*Pn | Pn | 23 21 34.3 | +0.8 |
| SELS | Selova | 4.47 | 69 | *e*Pn | Pn | 23 21 34.3 | +0.8 |
| FGSL | Fruska Gora | 4.66 | 42 | *e*Pn | Pn | 23 21 39.1 | +3.0 |
| FRGS | Fruska Gora | 4.66 | 42 | *e*Pn | Pn | 23 21 39.1 | +3.0 |
| OBKA | Obir | 4.76 | 353 | *i* Pn | Pn | 23 21 38.1 | +0.5 |
| | 3.7nm,0.2s | | | | | | |
| OBKA | | | | *i* Sn | Sn | 23 22 32.4 | +0.2 |
| | 3.0nm,0.2s | | | | | | |
| OBKA | Obir | 4.76 | 353 | Pn | Pn | 23 21 38.1 | +0.5 |
| | 3.7nm,0.2s | | | | | | |
| OBKA | | | | Sn | Sn | 23 22 32.4 | +0.2 |
| | 3.0nm,0.2s | | | | | | |
| BEHE | Becsehely | 4.79 | 12 | *e*Pn | Pn | 23 21 42.6 | +4.7 |
| BARS | Barje | 4.87 | 76 | *e*Pn | Pn | 23 21 39.0 | 0.0 |
| BARS | Barje | 4.87 | 76 | *e*Pn | Pn | 23 21 39.7 | +0.7 |
| BARS | Barje | 4.87 | 76 | *e*Pn | Pn | 23 21 39.0 | 0.0 |
| SOKA | Soboth | 4.90 | 357 | *i* Pn | Pn | 23 21 39.7 | +0.2 |
| | 0.8nm,0.2s | | | | | | |
| SOKA | Soboth | 4.90 | 357 | Pn | Pn | 23 21 39.7 | +0.2 |
| | 0.8nm,0.2s | | | | | | |
| ROVR | Rover˜¤ Verone | 4.97 | 322 | Pn | Pn | 23 21 40.1 | -0.4 |
| ROVR | Rover˜¤ Verone | 4.97 | 322 | Pn | Pn | 23 21 40.1 | -0.4 |
| BOVS | Bovan | 5.00 | 66 | *e*Pn | Pn | 23 21 42.3 | +1.5 |
| BOVS | Bovan | 5.00 | 66 | *e*Pn | Pn | 23 21 42.3 | +1.5 |
| MYKA | Terra Mystica | 5.00 | 346 | *e*Pn | Pn | 23 21 41.8 | +0.9 |
| | 0.3nm,0.1s | | | | | | |
| MYKA | | | | *i* Sn | Sn | 23 22 39.0 | +0.8 |
| | 3.3nm,0.3s | | | | | | |
| MYKA | Terra Mystica | 5.00 | 346 | Pn | Pn | 23 21 41.8 | +0.9 |
| | 0.3nm,0.1s | | | | | | |
| MYKA | | | | Sn | Sn | 23 22 39.0 | +0.8 |
| | 3.3nm,0.3s | | | | | | |
| MAGA | Magasa | 5.27 | 321 | Pn | Pn | 23 21 43.8 | -0.8 |
| MAGA | Magasa | 5.27 | 321 | Pn | Pn | 23 21 43.8 | -0.8 |
| ABTA | Abfaltersbach | 5.38 | 338 | *i* Pn | Pn | 23 21 46.2 | +0.2 |
| | 1.2nm,0.3s | | | | | | |
| ABTA | | | | *i* Sn | Sn | 23 22 46.2 | -1.1 |
| | 1.6nm,0.2s | | | | | | |
| ABTA | Abfaltersbach | 5.38 | 338 | Pn | Pn | 23 21 46.2 | +0.2 |
| | 1.2nm,0.3s | | | | | | |
| ABTA | | | | Sn | Sn | 23 22 46.2 | -1.1 |
| | 1.6nm,0.2s | | | | | | |
| ZAGS | Zajecar | 5.42 | 66 | *e*Pn | Pn | 23 21 47.4 | +0.8 |
| ZAGS | Zajecar | 5.42 | 66 | *e*Pn | Pn | 23 21 47.4 | +0.8 |
| ARSA | Arzberg | 5.47 | 1 | *e*Pn | Pn | 23 21 47.2 | 0.0 |
| | 1.4nm,0.2s | | | | | | |
| ARSA | Arzberg | 5.47 | 1 | Pn | Pn | 23 21 47.2 | 0.0 |
| | 1.4nm,0.2s | | | | | | |
| MDVR | Moldovita | 5.50 | 55 | ⇑*i*P | Pn | 23 21 49.7 | +2.0 |
| MDVR | Moldovita | 5.50 | 55 | ⇑*i*P | Pn | 23 21 49.7 | +2.0 |
| ZAPS | Zavoj | 5.55 | 72 | *e*Pn | Pn | 23 21 49.6 | +1.2 |
| ZAPS | Zavoj | 5.55 | 72 | *e*Pn | Pn | 23 21 49.6 | +1.2 |
| VTS | Vitosha | 5.86 | 79 | ⇓*i*P | Pn | 23 21 54.5 | +1.7 |
| VTS | Vitosha | 5.86 | 79 | S | Sn | 23 22 57.8 | -1.7 |
| VTS | Vitosha | 5.86 | 79 | ⇓*i*P | Pn | 23 21 54.5 | +1.7 |
| BZS | Buzias | 5.92 | 48 | ⇑*i*P | Pn | 23 21 56.7 | +3.3 |
| MOA | Molln | 6.12 | 353 | *i* Pn | Pn | 23 21 56.9 | +0.8 |
| | 3.2nm,0.3s | | | | | | |
| MOA | | | | *i* Sn | Sn | 23 23 04.4 | -1.1 |
| | 1.8nm,0.3s | | | | | | |
| MOA | Molln | 6.12 | 353 | Pn | Pn | 23 21 56.9 | +0.8 |
| | 3.2nm,0.3s | | | | | | |
| MOA | | | | Sn | Sn | 23 23 04.4 | -1.1 |
| | 1.8nm,0.3s | | | | | | |
| CONA | Conrad Observa | 6.15 | 3 | *e*Pn | Pn | 23 21 57.1 | +0.4 |
| | 0.4nm,0.2s | | | | | | |
| CONA | | | | *i* Sn | Sn | 23 23 05.0 | -1.5 |
| | 1.4nm,0.4s | | | | | | |
| CONA | Conrad Observa | 6.15 | 3 | Pn | Pn | 23 21 57.1 | +0.4 |
| | 0.4nm,0.2s | | | | | | |
| CONA | | | | Sn | Sn | 23 23 05.0 | -1.5 |
| | 1.4nm,0.4s | | | | | | |
| WATA | Walderalm | 6.18 | 335 | *e*Pn | Pn | 23 21 58.4 | +1.3 |
| | 2.1nm,0.2s | | | | | | |
| WATA | | | | *i* Sn | Sn | 23 23 09.1 | +1.8 |
| | 1.5nm,0.2s | | | | | | |
| WATA | Walderalm | 6.18 | 335 | Pn | Pn | 23 21 58.4 | +1.3 |
| | 2.1nm,0.2s | | | | | | |
| WATA | | | | Sn | Sn | 23 23 09.1 | +1.8 |
| | 1.5nm,0.2s | | | | | | |
| FETA | Feichten | 6.21 | 329 | *e*Pn | Pn | 23 21 59.7 | +2.2 |
| | 0.1nm,0.1s | | | | | | |
| FETA | | | | *i* Sn | Sn | 23 23 11.1 | +3.1 |
| | 2.7nm,0.4s | | | | | | |
| FETA | Feichten | 6.21 | 329 | Pn | Pn | 23 21 59.7 | +2.2 |
| | 0.1nm,0.1s | | | | | | |
| FETA | | | | Sn | Sn | 23 23 11.1 | +3.1 |
| | 2.7nm,0.4s | | | | | | |
| MOTA | Moosalm | 6.35 | 333 | *i* Pn | Pn | 23 22 01.0 | +1.6 |
| | 0.6nm,0.2s | | | | | | |
| MOTA | | | | *i* Sn | Sn | 23 23 12.8 | +1.4 |
| | 2.8nm,0.3s | | | | | | |
| MOTA | Moosalm | 6.35 | 333 | Pn | Pn | 23 22 01.0 | +1.6 |
| | 0.6nm,0.2s | | | | | | |
| MOTA | | | | Sn | Sn | 23 23 12.8 | +1.4 |
| | 2.8nm,0.3s | | | | | | |
| SIRR | Siria | 6.36 | 43 | ⇓*i*P | Pn | 23 22 03.3 | +3.8 |
| RETA | Reutte | 6.59 | 331 | *e*Pn | Pn | 23 22 04.6 | +2.0 |
| | 0.2nm,0.2s | | | | | | |
| RETA | Reutte | 6.59 | 331 | Pn | Pn | 23 22 04.6 | +2.0 |
| | 0.2nm,0.2s | | | | | | |
| DAVA | Damuels | 6.76 | 326 | *e*Pn | Pn | 23 22 07.1 | +2.0 |
| | 0.9nm,0.2s | | | | | | |
| DAVA | | | | *i* Sn | Sn | 23 23 22.4 | +0.7 |
| | 5.2nm,0.4s | | | | | | |
| DAVA | Damuels | 6.76 | 326 | Pn | Pn | 23 22 07.1 | +2.0 |
| | 0.9nm,0.2s | | | | | | |
| DAVA | | | | Sn | Sn | 23 23 22.4 | +0.7 |
| | 5.2nm,0.4s | | | | | | |
| DEV | Deva | 6.80 | 50 | ⇓*i*P | Pn | 23 22 08.3 | +2.8 |
| DEV | Deva | 6.80 | 50 | ⇓*i*P | Pn | 23 22 08.3 | +2.8 |
| VYHS | Vyhne | 7.14 | 19 | *e*Pn | Pn | 23 22 11.0 | +0.9 |
| VYHS | Vyhne | 7.14 | 19 | *e*PN | Pn | 23 22 11.0 | +0.9 |
| VYHS | | | | *e*SN | Sn | 23 23 26.7 | -3.9 |
| LPG | La Plagne | 7.28 | 304 | *e*Pn | Pn | 23 22 11.7 | -0.7 |
| LPG | La Plagne | 7.28 | 304 | *e*P | Pn | 23 22 15.6 | +3.2 |
| LPG | | | | *e*Sn | Sn | 23 23 26.0 | -8.6 |
| | 1.4nm,0.4s | | | | | | |
| LPG | La Plagne | 7.28 | 304 | *e*Pn | Pn | 23 22 11.7 | -0.7 |
| LPG | La Plagne | 7.28 | 304 | *e*P | Pn | 23 22 15.6 | +3.2 |
| LPL | La Plagne | 7.30 | 304 | *e*Pn | Pn | 23 22 10.9 | -1.7 |
| LPL | La Plagne | 7.30 | 304 | *e*Pn | Pn | 23 22 10.9 | -1.7 |
| KHC | Kasperske Hory | 7.46 | 351 | *e*PN | Pn | 23 22 14.2 | -0.3 |
| KHC | | | | *ex* | x | 23 22 22.0 | |
| KHC | | | | *e*SN | Sn | 23 23 34.5 | -4.0 |
| KHC | Kasperske Hory | 7.46 | 351 | Pn | Pn | 23 22 14.2 | -0.3 |
| VOIR | | 7.90 | 59 | ⇓*i*P | Pn | 23 22 26.5 | +5.8 |
| CABF | La Chapelle | 8.24 | 309 | *e*Pn | Pn | 23 22 24.3 | -1.0 |
| CABF | La Chapelle | 8.24 | 309 | *e*Pn | Pn | 23 22 24.3 | -1.0 |
| HINF | Hinteralfeld | 8.55 | 318 | *e*Pn | Pn | 23 22 28.3 | -1.3 |
| HINF | | | | *e*Sn | Sn | 23 23 59.0 | -6.5 |
| | 3.3nm,0.4s | | | | | | |
| HINF | Hinteralfeld | 8.55 | 318 | *e*Pn | Pn | 23 22 28.3 | -1.3 |
| CDF | Champ du Feu | 8.76 | 322 | *e*Pn | Pn | 23 22 31.4 | -1.1 |
| CDF | Champ du Feu | 8.76 | 322 | *e*Pn | Pn | 23 22 31.4 | -1.1 |
| HAU | Haudompre | 8.93 | 317 | *e*Pn | Pn | 23 22 33.5 | -1.3 |
| HAU | | | | *e*Sn | Sn | 23 24 07.3 | -7.5 |
| | 7.5nm,0.4s | | | | | | |
| HAU | Haudompre | 8.93 | 317 | *e*Pn | Pn | 23 22 33.5 | -1.3 |
| PAGF | Fort de Pagny | 9.61 | 318 | *e*Pn | Pn | 23 22 42.7 | -1.3 |
| PAGF | | | | *e*Sn | Sn | 23 24 24.2 | -7.1 |
| PAGF | Fort de Pagny | 9.61 | 318 | *e*Pn | Pn | 23 22 42.7 | -1.3 |
| SMF | Signal de Mont | 9.61 | 304 | *e*Pn | Pn | 23 22 41.6 | -2.4 |
| SFTF | Sexfontaines | 9.74 | 315 | *e*Pn | Pn | 23 22 45.7 | -0.1 |
| | baz=135 | | | | | | |
| SFTF | | | | *e*Sn | Sn | 23 24 26.6 | -8.0 |
| SFTF | Sexfontaines | 9.74 | 315 | *e*Pn | Pn | 23 22 45.7 | -0.1 |
| LOR | Lormes | 9.89 | 308 | *e*Pn | Pn | 23 22 46.0 | -1.9 |
| | baz=121 | | | | | | |
| LOR | | | | *e*Sn | Sn | 23 24 31.2 | -7.1 |
| | 1.5nm,0.3s | | | | | | |

*ISCJB **26** 23:21:10.7±0.5, 12°.3S±0°.1×65°.38E±0°.09, h10km, mb4.4/18, MS3.6/5, Error ellipse: s-maj=16.3km s-min=12.2km az=159.9*
*IDC **26** 23:21:10.9±0.6, 12°.33S×65°.40E, h0km, mb4.3/13, mb1 4.4/14, mb1mx4.0/61, mbtmp4.2/14, ML3.4/1, MS3.7/6, Ms1 3.7/6, ms1mx3.4/33, Error ellipse: s-maj=21.5km s-min=17.4km az=4.0*
*NEIC **26** 23:21:12.5±0.3, 12°.34S×65°.37E, h10km, mb4.9/4, Error ellipse: s-maj=12.6km s-min=9.9km az=162.0*

**ISC 26 23:21:12.4±0.6, 12°.4S±0°.1×65°.4E±0°.1, h10km, n39, σ0s79/28, mb4.5/18, MS3.9/5, Mid-Indian Ridge**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| H08N3 | Diego Garcia H | 8.15 | 43 | T | | T | T | 23 32 16.5 | |
| | baz=222,slow=75,SNR=1680 | | | | | | | | |
| H08N1 | Diego Garcia H | 8.17 | 44 | T | | T | T | 23 32 20.3 | |
| | baz=222,slow=75,SNR=1975 | | | | | | | | |
| H08N2 | Diego Garcia H | 8.17 | 43 | T | | T | T | 23 32 16.0 | |
| | baz=222,slow=75,SNR=2278 | | | | | | | | |
| H08S1 | Diego Garcia H | 8.42 | 57 | T | | T | T | 23 31 53.5 | |
| | baz=236,slow=76,SNR=61 | | | | | | | | |
| H08S2 | Diego Garcia H | 8.44 | 57 | T | | T | T | 23 31 56.1 | |
| | baz=236,slow=76,SNR=62 | | | | | | | | |
| H08S3 | Diego Garcia H | 8.44 | 57 | T | | T | T | 23 31 56.4 | |
| | baz=236,slow=76,SNR=82 | | | | | | | | |
| OPO | Ambohidratompo | 18.57 | 248 | P | | P | Pn | 23 25 30.5 | +0.4 |
| | 0.1nm,0.3s,baz=107,slow=19,SNR=3.0 | | | | | | | | |
| OPO | | | | LR | | LR | LR | 23 30 50.2 | |
| | comp=Z,355nm,19.4s,baz=14,slow=31 | | | | | | | | |
| PALK | Pallekele | 24.75 | 39 | LR | | LR | LR | 23 32 46.1 | |
| | comp=Z,45nm,18.5s,baz=295,slow=28 | | | | | | | | |
| KMBO | Kilima Mbogo | 30.02 | 290 | LR | | LR | LR | 23 37 21.0 | |
| | comp=Z,111nm,20.0s,baz=100,slow=32 | | | | | | | | |
| LSZ | Lusaka | 36.19 | 261 | P | | P | P | 23 28 16.2 | +0.4 |
| | 3.0nm,1.1s,baz=65,slow=14,SNR=3.1 | | | | | | | | |
| PSI | Prapat | 36.59 | 68 | LR | | LR | | 23 40 46.8 | |
| | comp=Z,214nm,18.7s,baz=201,slow=32 | | | | | | | | |
| LBTB | Lobatse | 39.57 | 246 | P | | P | P | 23 28 44.5 | +0.2 |
| | 3.1nm,0.9s,baz=50,slow=7.9,SNR=3.9 | | | | | | | | |
| BOSA | Boshof | 40.68 | 240 | LR | | LR | | 23 43 43.2 | |
| | comp=Z,174nm,18.4s,baz=48,slow=33 | | | | | | | | |
| LSA | Lhasa | 48.64 | 30 | P | | P | P | 23 29 59.2 | +1.9 |
| | 17nm,1.3s | | | | | | | | |
| H01W3 | Cape Leeuwin H | 49.43 | 126 | T | | T | | 00 22 54.3 | |
| | baz=285,slow=75,SNR=5.5 | | | | | | | | |
| H01W2 | Cape Leeuwin H | 49.43 | 126 | T | | T | | 00 22 51.1 | |
| | baz=285,slow=75,SNR=6.0 | | | | | | | | |
| H01W1 | Cape Leeuwin H | 49.45 | 126 | T | | T | | 00 22 59.0 | |
| | baz=285,slow=75,SNR=5.8 | | | | | | | | |
| MKAR | Makanchi Array | 60.80 | 13 | P | | P | P | 23 31 24.0 | -0.7 |
| | 0.4nm,0.5s,baz=215,slow=10,SNR=8.8 | | | | | | | | |
| MKAR | | | | PcP | | PcP | PcP | 23 32 07.8 | -0.6 |
| | 1.9nm,1.0s,baz=198,slow=6.2,SNR=5.5 | | | | | | | | |
| ABKAR | Akbulak array | 61.52 | 356 | *e*P | | P | P | 23 31 29.2 | -0.2 |
| | 2.1nm,0.8s | | | | | | | | |
| KURK | Kurchatov | 63.86 | 9 | *e*P | | P | P | 23 31 44.6 | -0.4 |
| | 31nm,1.0s | | | | | | | | |
| ASAR | Alice Springs | 65.63 | 110 | P | | P | P | 23 31 56.4 | -1.0 |
| | 4.4nm,0.9s,baz=277,slow=6.0,SNR=25 | | | | | | | | |
| WRA | Warramunga Arr | 66.31 | 106 | P | | P | P | 23 32 01.9 | +0.2 |
| | 4.6nm,0.8s,baz=273,slow=5.7,SNR=20 | | | | | | | | |
| WRA | | | | LR | | LR | LR | 23 59 58.1 | |
| | comp=Z,65nm,18.7s,baz=145,slow=35 | | | | | | | | |
| WRAB | Tennant Creek | 66.32 | 106 | *e*P | | P | P | 23 32 01.8 | 0.0 |
| | 7.0nm,0.8s | | | | | | | | |
| ZALV | Zalesovo Beam | 68.09 | 12 | P | | P | P | 23 32 11.5 | -0.7 |
| | 3.3nm,0.9s,baz=212,slow=5.3,SNR=10 | | | | | | | | |
| SONM | Songino Array | 70.15 | 28 | P | | P | P | 23 32 25.9 | +0.6 |
| | 3.3nm,0.9s,baz=218,slow=5.6,SNR=18 | | | | | | | | |
| AKASG | Malin Array Be | 70.25 | 337 | P | | P | P | 23 32 24.9 | -0.9 |
| | 0.7nm,0.5s,baz=142,slow=5.0,SNR=4.4 | | | | | | | | |
| STKA | Stephens Creek | 71.97 | 120 | P | | P | P | 23 32 36.8 | +0.1 |
| | 2.4nm,0.9s,baz=315,slow=7.1,SNR=4.4 | | | | | | | | |
| KSAR | Wonju Array Be | 76.69 | 47 | P | | P | P | 23 33 04.7 | +0.8 |
| KSRS | Korea Array | 76.72 | 47 | P | | P | P | 23 33 04.7 | +0.6 |
| | 4.4nm,1.0s,baz=254,slow=6.8,SNR=6.9 | | | | | | | | |
| CTA | Charters Tower | 77.41 | 108 | P | | P | P | 23 33 08.1 | -0.4 |
| | 7.1nm,1.0s,baz=253,slow=8.2,SNR=5.6 | | | | | | | | |
| MJAR | Matsushiro Arr | 83.91 | 51 | P | | P | P | 23 33 43.7 | +0.8 |
| | 3.4nm,0.9s,baz=225,slow=6.8,SNR=4.7 | | | | | | | | |
| ARCES | ARCESS Array B | 86.28 | 347 | P | | P | P | 23 33 53.9 | -0.1 |
| | 4.2nm,0.9s,baz=142,slow=3.4,SNR=4.9 | | | | | | | | |
| TIXI | Tiksi | 93.64 | 17 | *e*P | | P | P | 23 34 27.5 | -1.1 |
| | 5.0nm,0.9s | | | | | | | | |
| ILAR | Eielson Array | 123.11 | 16 | PKP | | PKPdf | PKPdf | 23 40 07.2 | -1.7 |
| | 0.9nm,1.0s,baz=292,slow=1.3,SNR=6.4 | | | | | | | | |
| YKA | Yellowknife Ar | 129.93 | 360 | PKP | | PKPdf | PKPdf | 23 40 22.0 | 0.0 |
| | 0.8nm,1.1s,baz=352,slow=2.6,SNR=5.8 | | | | | | | | |
| PDAR | Pinedale Array | 149.38 | 353 | PKP | | PKPdf | PKPdf | 23 40 58.8 | +0.8 |
| | 1.4nm,0.8s,baz=27,slow=1.0,SNR=8.9 | | | | | | | | |
| PDAR | | | | PKPbc | | sPKPdf | sPKPdf | 23 41 02.2 | -0.4 |
| | 1.8nm,0.9s,baz=176,slow=2.4,SNR=5.9 | | | | | | | | |
| YBH | Yreka Blue Hor | 149.89 | 12 | PKPbc | | PKPbc | PKPbc | 23 41 04.2 | +0.8 |
| | 2.3nm,1.0s,baz=60,slow=3.7,SNR=4.0 | | | | | | | | |
| NVAR | Mina Array Bea | 153.82 | 7 | PKPbc | | PKPbc | PKPbc | 23 41 13.6 | +0.9 |
| | 1.8nm,0.9s,baz=97,slow=1.3,SNR=8.0 | | | | | | | | |
| TXAR | Lajitas Array | 160.26 | 331 | PKPab | | PKPab | PKPab | 23 41 53.0 | -0.2 |
| | 0.4nm,0.9s,baz=64,slow=4.1,SNR=3.2 | | | | | | | | |

*IDC **26** 23:22:00.0±5.0, 21°.94S×68°.77W, h0km, mb3.6/1, mb1 3.5/2, mb1mx3.3/37, mbtmp3.4/2, ML3.3/1, Error ellipse: s-maj=145.0km s-min=57.2km az=73.0*
*ISCJB **26** 23:22:14.7±0.8, 20°.87S±0°.04×69°.2W±0°.1, h116km±8km, mb3.3/1, Error ellipse: s-maj=18.7km s-min=6.3km az=1.8*
*GUC **26** 23:22:14.7±0.5, 20°.85S×69°.11W, h106km±3km, ML3.6*

**ISC 26 23:22:15.3±1.1, 20°.87S±0°.04×69°.2W±0°.1, h109km±9km, n13, σ0s73/20, 7C-2D, Northern Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| PB01 | IPOC Station P | 0.34 | 240 | ⇑*i*P | | Pn | Pn | 23 22 30.9 | -0.3 |
| PB01 | | | | *i* S | | Sn | Sn | 23 22 43.0 | -0.1 |
| PB01 | | | | IAML | | | | 23 22 43.8 | |
| | comp=E,6µm,0.2s | | | | | | | | |
| PB08 | IPOC Station P | 0.73 | 1 | ⇓*i*P | | Pn | Pn | 23 22 33.9 | -0.3 |
| PB08 | | | | *i* S | | Sn | Sn | 23 22 48.2 | -0.2 |
| PB08 | | | | IAML | | | | 23 22 49.5 | |
| | comp=N,2µm,0.2s | | | | | | | | |
| PB02 | IPOC Station P | 0.81 | 237 | ⇑*i*P | | Pn | Pn | 23 22 35.1 | +0.5 |
| PB02 | | | | *i* S | | Sn | Sn | 23 22 50.1 | +0.9 |
| PB02 | | | | IAML | | | | 23 22 51.1 | |
| | comp=E,3µm,0.3s | | | | | | | | |
| PB09 | IPOC Station P | 0.92 | 184 | ⇑*i*P | | Pn | Pn | 23 22 36.0 | +0.1 |
| PB09 | | | | *i* S | | Sn | Sn | 23 22 52.2 | +0.9 |
| PB09 | | | | IAML | | | | 23 22 53.8 | |
| | comp=E,4µm,0.3s | | | | | | | | |
| PB07 | IPOC Station P | 1.08 | 218 | ⇑*i*P | | Pn | Pn | 23 22 37.8 | +0.4 |
| PB07 | | | | *i* S | | Sn | Sn | 23 22 54.6 | +0.4 |
| PB07 | | | | IAML | | | | 23 22 54.9 | |
| | comp=N,2µm,0.5s | | | | | | | | |
| PB11 | IPOC Station P | 1.20 | 338 | ⇑*i*P | | Pn | Pn | 23 22 38.7 | 0.0 |
| PB11 | | | | *i* S | | Sn | Sn | 23 22 56.6 | +0.2 |
| PSGC | Pisagua | 1.55 | 325 | ⇑*i*P | | Pn | Pn | 23 22 42.6 | -0.1 |
| PSGC | | | | *i* S | | Sn | Sn | 23 23 03.4 | -0.2 |
| PSGC | | | | IAML | | | | 23 23 05.6 | |
| | comp=E,529nm,0.5s | | | | | | | | |
| PB04 | IPOC Station P | 1.72 | 212 | IAML | | | | 23 23 10.4 | |
| | comp=E,382nm,0.3s | | | | | | | | |
| MNMC | Minye Minye | 1.78 | 347 | ⇑*i*P | | Pn | Pn | 23 22 46.2 | +0.5 |
| MNMC | | | | *i* S | | Sn | Sn | 23 23 09.6 | +0.7 |
| MNMC | | | | IAML | | | | 23 23 11.7 | |
| | comp=N,1µm,0.2s | | | | | | | | |
| PB06 | IPOC Station P | 1.86 | 191 | ⇓*i*P | | Pn | Pn | 23 22 46.9 | +0.2 |
| PB06 | | | | IAML | | | | 23 23 11.8 | |
| | comp=E,340nm,0.3s | | | | | | | | |
| LPAZ | La Paz | 4.67 | 12 | Pn | | Pn | Pn | 23 23 25.9 | +1.8 |
| | comp=E,0.5nm,0.3s,baz=193,slow=6.9,SNR=5.7 | | | | | | | | |
| TORD | Torodi Ar. Bea | 77.38 | 71 | P | | P | P | 23 33 57.4 | -1.4 |
| | comp=E,0.2nm,0.3s,baz=255,slow=5.5,SNR=13 | | | | | | | | |
| MKAR | Makanchi Array | 145.27 | 35 | PKPbc | | PKPab | PKPab | 23 41 40.7 | +0.4 |
| | comp=E,0.2nm,0.6s,baz=330,slow=3.7,SNR=4.6 | | | | | | | | |

*SKHL **26** 23:23:55.7±0.7, 46°.17N×152°.71E, h100km±9km, mb4.6/3, msh5.4/3*
*ISCJB **26** 23:23:56.9±0.7, 46°.4N±0°.1×152°.4E±0°.1, h100km, mb3.6/13, Error ellipse: s-maj=17.9km s-min=5.5km az=145.1*
*MOS **26** 23:23:56.9±1.5, 46°.45N×152°.42E, h98km, mb4.0/6, Error ellipse: s-maj=16.9km s-min=11.6km az=52.0*
*IDC **26** 23:24:07.6±3.2, 46°.73N×152°.14E, h170km±29km, mb3.3/13, mb1 3.4/14, mb1mx3.2/61, mbtmp3.8/14, MS3.1/2, Ms1 3.1/2, ms1mx2.7/23, Error ellipse: s-maj=22.2km s-min=15.3km az=148.0*

**ISC 26 23:23:57.8±0.9, 46°.3N±0°.1×152°.47E±0°.09, h100km, n37, σ1s15/32, mb3.7/13, 1C-1D, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| KUR | Kuril'sk | 3.38 | 254 | *e*PN | | Pn | Pn | 23 24 49.7 | +1.1 |
| KUR | | | | *i* S | | Sn | Sn | 23 25 29.9 | +2.1 |
| KUR | | | | pmax | | pmax | | | |
| | comp=N,25nm,0.2s | | | | | | | | |
| KUR | | | | pmax | | pmax | | | |
| | comp=Z,34nm,0.2s | | | | | | | | |
| KUR | | | | pmax | | pmax | | | |
| | comp=E,55nm,0.3s | | | | | | | | |
| KUR | | | | smax | | smax | | | |
| | comp=N,207nm,0.3s | | | | | | | | |
| KUR | | | | smax | | smax | | | |
| | comp=E,98nm,0.3s | | | | | | | | |
| KUR | Kuril'sk | 3.38 | 254 | *i* P | | Pn | Pn | 23 24 48.9 | +0.3 |
| KUR | | | | AMB | | AMB | | 23 24 55.4 | |
| | comp=E,34nm,0.4s | | | | | | | | |
| KUR | | | | *i* S | | Sn | Sn | 23 25 28.7 | +0.9 |
| KUR | | | | A | | A | | 23 25 34.5 | |
| | comp=E,21nm,0.3s | | | | | | | | |
| KUR | | | | A | | A | | 23 25 34.5 | |
| | comp=E,87nm,0.3s | | | | | | | | |
| SHO | Shikotan | 4.65 | 241 | *e*PN | | Pn | Pn | 23 25 06.0 | +0.3 |
| SHO | | | | *e*S | | Sn | Sn | 23 25 58.3 | -0.2 |
| SHO | | | | pmax | | pmax | | | |
| | comp=E,41nm,0.4s | | | | | | | | |
| SHO | | | | pmax | | pmax | | | |
| | comp=Z,59nm,0.4s | | | | | | | | |
| SHO | | | | smax | | smax | | | |
| | comp=N,42nm,0.5s | | | | | | | | |
| SHO | | | | smax | | smax | | | |
| | comp=E,97nm,0.5s | | | | | | | | |
| SHO | Shikotan | 4.65 | 241 | *e*P | | Pn | Pn | 23 25 06.0 | +0.3 |
| SHO | | | | AMB | | AMB | | 23 25 22.8 | |
| | comp=E,59nm,0.4s | | | | | | | | |
| SHO | | | | *e*S | | Sn | Sn | 23 25 58.3 | -0.2 |
| SHO | | | | A | | A | | 23 26 04.9 | |
| | comp=E,42nm,0.5s | | | | | | | | |
| SHO | | | | A | | A | | 23 26 04.9 | |
| | comp=E,97nm,0.5s | | | | | | | | |
| SKR | Severo-Kuril's | 5.05 | 27 | *e*PN | | Pn | Pn | 23 25 09.2 | -1.9 |
| SKR | Severo-Kuril's | 5.05 | 27 | *e*P | | Pn | Pn | 23 25 09.2 | -1.9 |
| YUK | Yuzh-Kuril'sk | 5.17 | 247 | PN | | Pn | Pn | 23 25 12.5 | -0.3 |
| YUK | | | | S | | Sn | Sn | 23 26 10.7 | -0.5 |
| YUK | | | | pmax | | pmax | | | |
| | comp=Z,102nm,0.2s | | | | | | | | |
| YUK | | | | pmax | | pmax | | | |
| | comp=N,58nm,0.3s | | | | | | | | |
| YUK | | | | smax | | smax | | | |
| | comp=N,133nm,0.3s | | | | | | | | |
| YUK | | | | smax | | smax | | | |
| | comp=E,94nm,0.3s | | | | | | | | |
| YUK | Yuzh-Kuril'sk | 5.17 | 247 | *e*P | | Pn | Pn | 23 25 12.5 | -0.3 |
| YUK | | | | AMB | | AMB | | 23 25 14.2 | |
| | comp=E,58nm,0.3s | | | | | | | | |
| YUK | | | | AMB | | AMB | | 23 25 14.2 | |
| | comp=E,10.0nm,0.3s | | | | | | | | |
| YUK | | | | *e*S | | Sn | Sn | 23 26 10.7 | -0.5 |
| YUK | | | | A | | A | | 23 26 13.1 | |
| | comp=E,13nm,0.3s | | | | | | | | |
| YUK | | | | A | | A | | 23 26 13.1 | |
| | comp=E,94nm,0.3s | | | | | | | | |
| YSS | Yuzh-Sakhalins | 6.73 | 279 | *e*PN | | Pn | Pn | 23 25 35.0 | +1.1 |
| YSS | Yuzh-Sakhalins | 6.73

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **LPIG** | **La Paz** | **12.04** | **9** | LR | LR | 23 30 45.7 | | | |
| | comp=Z,141nm,21.3s,baz=214,slow=31 | | | | | | | | |
| **CMIG** | **Matias Romero** | **17.63** | **72** | LR | LR | 23 33 49.3 | | | |
| | comp=Z,374nm,21.1s,baz=224,slow=31 | | | | | | | | |
| **TXAR** | **Lajitas Array** | **18.91** | **24** | P | **P** | **23 28 59.3** | **+0.2** | | |
| | 0.1nm,0.3s,baz=198,slow=10,SNR=16 | | | | | | | | |
| TXAR | | | | LR | LR | 23 35 07.6 | | | |
| | comp=Z,66nm,21.2s,baz=0.0,slow=33 | | | | | | | | |
| **TUC** | **Tucson** | **20.10** | **4** | *e*P | **P** | **23 29 12.9** | **+0.9** | | |
| | 10.0nm,1.0s | | | | | | | | |
| **MNTX** | **Cornudas Mount** | **20.49** | **17** | *e*P | **P** | **23 29 17.0** | **+0.8** | | |
| | 17nm,0.9s | | | | | | | | |
| **JCT** | **Junction City** | **21.64** | **31** | *e*P | **P** | **23 29 29.9** | **+1.3** | | |
| | 9.3nm,0.9s | | | | | | | | |
| **PFO** | **Pinyon Flats O** | **21.67** | **351** | *e*P | **P** | **23 29 30.6** | **+1.6** | | |
| | 25nm,1.6s | | | | | | | | |
| **W18A** | **Petrified Fore** | **22.98** | **6** | *e*P | **P** | **23 29 43.7** | **+0.7** | | |
| | 7.3nm,0.9s | | | | | | | | |
| **WUAZ** | **Wupatki** | **23.27** | **2** | *e*P | **P** | **23 29 46.5** | **+0.6** | | |
| | 4.9nm,0.9s | | | | | | | | |
| **ANMO** | **Albuquerque** | **23.31** | **12** | P | **P** | **23 29 46.9** | **+0.5** | | |
| | 3.0nm,0.9s,baz=27,slow=7.5,SNR=9.0 | | | | | | | | |
| ANMO | | | | LR | LR | 23 37 01.1 | | | |
| | comp=Z,100nm,21.4s,baz=344,slow=32 | | | | | | | | |
| **ANMO** | **Albuquerque** | **23.31** | **12** | *e*P | **P** | **23 29 46.6** | **+0.3** | | |
| | 3.4nm,0.9s | | | | | | | | |
| **MSTX** | **Muleshoe** | **23.41** | **20** | *e*P | **P** | **23 29 47.2** | **-0.1** | | |
| | 13nm,0.8s | | | | | | | | |
| **HKT** | **Hockley** | **23.44** | **38** | *e*P | **P** | **23 29 47.4** | **0.0** | | |
| | 67nm,1.1s | | | | | | | | |
| **AMTX** | **Amarillo** | **24.62** | **22** | *e*P | **P** | **23 29 57.7** | **-0.7** | | |
| | 19nm,0.9s | | | | | | | | |
| **WMOK** | **Wichita Mounta** | **25.65** | **27** | *e*P | **P** | **23 30 07.2** | **-0.6** | | |
| | 5.6nm,0.8s | | | | | | | | |
| **NVAR** | **Mina Array Bea** | **26.68** | **350** | P | **P** | **23 30 18.1** | **+0.8** | | |
| | 1.3nm,0.7s,baz=174,slow=12,SNR=7.3 | | | | | | | | |
| **PDAR** | **Pinedale Array** | **30.59** | **4** | P | **P** | **23 30 52.9** | **+0.9** | | |
| | 1.3nm,0.9s,baz=190,slow=7.4,SNR=9.1 | | | | | | | | |
| PDAR | | | | PcP | **PcP** | **23 33 50.1** | **0.0** | | |
| | 0.8nm,1.0s,baz=191,slow=4.4,SNR=4.1 | | | | | | | | |
| **YBH** | **Yreka Blue Hor** | **30.80** | **345** | P | **P** | **23 30 54.9** | **+1.2** | | |
| | 0.9nm,0.7s,baz=131,slow=11,SNR=2.6 | | | | | | | | |
| **LRAL** | **Lakeview Retre** | **31.17** | **44** | *e*P | **P** | **23 30 56.0** | **-0.9** | | |
| | 15nm,0.9s | | | | | | | | |
| **TKL** | **Tuckaleechee C** | **34.86** | **43** | P | **P** | **23 31 29.7** | **+0.5** | | |
| | 5.7nm,1.1s,baz=190,slow=11,SNR=2.6 | | | | | | | | |
| **OTAV** | **Otavalo** | **35.70** | **107** | *e*P | **P** | **23 31 38.3** | **+1.1** | | |
| | 5.4nm,0.9s | | | | | | | | |
| **NEW** | **Newport** | **36.20** | **355** | P | **P** | **23 31 39.7** | **-0.9** | | |
| | 3.3nm,0.8s,baz=146,slow=5.5,SNR=5.1 | | | | | | | | |
| **ULM** | **Lac du Bonnet** | **40.33** | **16** | P | **P** | **23 32 13.4** | **-1.8** | | |
| | 3.5nm,0.9s,baz=205,slow=7.3,SNR=4.8 | | | | | | | | |
| ULM | | | | LR | LR | 23 48 20.7 | | | |
| | comp=Z,94nm,18.1s,baz=16,slow=35 | | | | | | | | |
| **SDV** | **Santo Domingo** | **41.16** | **90** | P | **P** | **23 32 22.9** | **+0.1** | | |
| | 2.6nm,0.6s,baz=288,slow=9.6,SNR=4.1 | | | | | | | | |
| **SDV** | **Santo Domingo** | **41.16** | **90** | *e*P | **P** | **23 32 23.2** | **+0.4** | | |
| | 5.3nm,0.9s | | | | | | | | |
| **PPT** | **Papeete** | **47.13** | **232** | LR | LR | 23 47 12.6 | | | |
| | comp=Z,71nm,21.3s,baz=324,slow=29 | | | | | | | | |
| **PPT2** | **Papeete2** | **47.14** | **232** | *e*LR | LR | 23 46 18.3 | | | |
| | 196nm,25.8s | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **50.27** | **359** | P | **P** | **23 33 33.7** | **-0.2** | | |
| | 2.9nm,0.9s,baz=174,slow=7.5,SNR=19 | | | | | | | | |
| YKA | | | | PcP | **PcP** | **23 34 52.0** | **-0.3** | | |
| | 0.7nm,0.8s,baz=170,slow=3.3,SNR=5.5 | | | | | | | | |
| **LPAZ** | **La Paz** | **52.11** | **122** | P | **P** | **23 33 48.5** | **-0.5** | | |
| | 6.1nm,1.0s,baz=302,slow=7.3,SNR=13 | | | | | | | | |
| **PTGA** | **Pitinga** | **53.59** | **100** | P | **P** | **23 33 58.5** | **-0.9** | | |
| | 3.2nm,0.8s,baz=306,slow=18,SNR=4.5 | | | | | | | | |
| **ILAR** | **Eielson Array** | **57.69** | **343** | P | **P** | **23 34 28.4** | **+0.4** | | |
| | 7.3nm,0.8s,baz=152,slow=6.0,SNR=68 | | | | | | | | |
| **INK** | **Inuvik** | **57.76** | **351** | P | **P** | **23 34 28.8** | **+0.4** | | |
| | 4.8nm,0.8s,baz=141,slow=7.0,SNR=17 | | | | | | | | |
| **PLCA** | **Paso Flores** | **65.32** | **146** | P | **P** | **23 35 20.2** | **+0.2** | | |
| | 3.1nm,1.0s,baz=326,slow=5.7,SNR=4.7 | | | | | | | | |
| **CPUP** | **Villa Florida** | **65.78** | **126** | P | **P** | **23 35 23.9** | **+0.8** | | |
| | 3.7nm,0.9s,baz=265,slow=7.6,SNR=9.0 | | | | | | | | |
| CPUP | | | | LR | LR | 00 01 47.6 | | | |
| | comp=Z,58nm,20.4s,baz=218,slow=34 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **115.75** | **254** | PKP | **PKPdf** | **23 43 20.9** | **0.0** | | |
| | 0.3nm,0.5s,baz=83,slow=2.6,SNR=4.7 | | | | | | | | |
| **ASAR** | **Alice Springs** | **116.36** | **250** | PKP | **PKPdf** | **23 43 21.2** | **-0.7** | | |
| | 1.2nm,1.1s,baz=90,slow=1.9,SNR=4.6 | | | | | | | | |
| **BRTR** | **Keskin Array B** | **119.48** | **30** | PKP | **PKPdf** | **23 43 27.1** | **-0.6** | | |
| | 0.6nm,0.7s,baz=181,slow=1.5,SNR=3.8 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **119.85** | **348** | PKP | **PKPdf** | **23 43 28.0** | **-0.1** | | |
| | 0.2nm,0.7s,baz=313,slow=2.4,SNR=4.4 | | | | | | | | |

*ISK* ***26*** *23:29:26.5,38.87N×43.43E,h2km, MD2.7*
*ISCJB* ***26*** *23:29:27.7±0.6,38.89N±0.03×43.53E±0.06,h11km±5km, Error ellipse: s-maj=8.4km s-min=5.3km az=0.6*
*CSEM* ***26*** *23:29:27.2±0.4,38.88N×43.57E,h5km, ML2.7, Error ellipse: s-maj=11.0km s-min=6.6km az=79.0*
*DDA* ***26*** *23:29:27.3,38.83N×43.56E,h7km, Ml2.7*

**ISC 26 23:29:27.7±0.9,38.87N±0.03×43.55E±0.05,h9km±8km, n24,σ1ᵗ11/31,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VMUR** | **Van-Muradiye** | **0.12** | **8** | *i* P | **Pg** | **23 29 29.6** | **-1.0** |
| VMUR | | | | *i* S | **Sg** | **23 29 34.1** | **+1.5** |
| **VMUR** | **Van-Muradiye** | **0.12** | **8** | P | **Pg** | **23 29 29.5** | **-1.0** |
| VMUR | | | | S | **Sg** | **23 29 34.1** | **+1.5** |
| **ERCV** | **ERCIS-VAN** | **0.22** | **311** | *e*PG | **Pg** | **23 29 30.6** | **-1.7** |
| **ERCV** | **ERCIS-VAN** | **0.22** | **311** | *e*Pg | **Pg** | **23 29 30.6** | **-1.7** |
| **VANB** | **Van** | **0.31** | **205** | *e*PG | **Pb** | **23 29 34.5** | **-0.9** |
| **VANB** | **Van** | **0.31** | **205** | *e*Pg | **Pb** | **23 29 34.5** | **-0.9** |
| **TVAN** | **Van** | **0.36** | **198** | *i* P | **Pg** | **23 29 34.4** | **-0.5** |
| TVAN | | | | *i* S | **Sb** | **23 29 42.7** | **+0.5** |
| **TVAN** | **Van** | **0.36** | **198** | P | **Pg** | **23 29 34.4** | **-0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.65** | **265** | *i* P | **Pg** | **23 29 39.6** | **-0.7** |
| ADCV | | | | *i* S | **Sb** | **23 29 50.2** | **-0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.65** | **265** | P | **Pg** | **23 29 39.6** | **-0.7** |
| ADCV | | | | S | **Sb** | **23 29 50.2** | **-0.3** |
| **GEVA** | **Gevas** | **0.68** | **215** | *i* P | **Pg** | **23 29 39.7** | **-1.1** |
| **GEVA** | **Gevas** | **0.68** | **215** | P | **Pg** | **23 29 39.7** | **-1.1** |
| **AGRB** | **Hanur-Agry** | **0.82** | **328** | *e*PG | **Pg** | **23 29 42.3** | **-1.3** |
| AGRB | | | | *e*SG | **Sg** | **23 29 54.2** | **-0.2** |
| **AGRB** | **Hanur-Agry** | **0.82** | **328** | *e*Pg | **Pg** | **23 29 42.3** | **-1.3** |
| AGRB | | | | *e*Sg | **Sg** | **23 29 54.2** | **-0.2** |
| **EKAR** | **Karacoban** | **1.22** | **289** | *i* P | **Pn** | **23 29 52.9** | **+1.8** |
| **EKAR** | **Karacoban** | **1.22** | **289** | P | **Pn** | **23 29 52.9** | **+1.8** |
| **TASB** | **TASBURUN-IGDIR** | **1.23** | **25** | *e*PN | **Pn** | **23 29 51.8** | **+0.7** |
| **TASB** | **TASBURUN-IGDIR** | **1.23** | **25** | *e*Pn | **Pn** | **23 29 51.8** | **+0.7** |
| **EATA** | **Eleskirt** | **1.28** | **321** | *i* P | **Pg** | **23 29 51.9** | **-0.5** |
| **EATA** | **Eleskirt** | **1.28** | **321** | P | **Pg** | **23 29 51.9** | **-0.5** |
| **HAKT** | **HAKKARI** | **1.32** | **175** | *i* P | **Pg** | **23 29 51.5** | **-1.5** |
| **HAKT** | **HAKKARI** | **1.32** | **175** | P | **Pg** | **23 29 51.5** | **-1.5** |
| **CUKT** | **Cukurca** | **1.62** | **178** | *e*PN | **Pb** | **23 29 57.7** | **-0.2** |
| **CUKT** | **Cukurca** | **1.62** | **178** | *e*Pn | **Pb** | **23 29 57.7** | **-0.2** |

*IDC* ***26*** *23:36:25.1±9.5,6.47N×74.01W,h0km,mb3.8/2,mb1 4.0/2, mb1mx3.4/34,mbtmp3.8/2, Error ellipse: s-maj=595.9km s-min=39.2km az=89.0*
*ISCJB* ***26*** *23:36:43.0±0.7,6.84N±0.03×73.17W±0.05,h152km±5km, mb3.6/2, Error ellipse: s-maj=8.5km s-min=5.6km az=4.1*
*RSNC* ***26*** *23:36:45.0±1.1,6.81N×73.16W,h142km±5km, ML3.1*

**ISC 26 23:36:43.1±0.9,6.83N±0.04×73.14W±0.06,h151km±6km, n21,σ0ᵗ77/34,1C-1D,Northern Colombia**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **BARC** | **Barichara** | **0.24** | **190** | ⇓*i* P | **Pn** | **23 37 04.2** | **+0.4** |
| BARC | | | | *e*S | **Sn** | **23 37 19.1** | **-0.6** |
| BARC | | | | *i* | | 23 37 20.5 | |
| | comp=Z,285nm,0.2s | | | | | | |
| **GIRC** | **Giron, Santand** | **0.26** | **348** | *e*P | **Pn** | **23 37 04.3** | **+0.5** |
| GIRC | | | | *e*S | **Sn** | **23 37 18.7** | **-0.9** |
| **BRRC** | **Barranca, Sant** | **0.63** | **296** | ⇑*i*P | **Pn** | **23 37 06.1** | **+0.8** |
| BRRC | | | | *e*S | **Sn** | **23 37 22.5** | **+0.4** |
| BRRC | | | | *i* | | 23 37 26.8 | |
| | comp=Z,358nm,0.1s | | | | | | |
| **PAMC** | **Pamplona, Colo** | **0.67** | **41** | *e*P | **Pn** | **23 37 07.0** | **+0.9** |
| PAMC | | | | *e*S | **Sn** | **23 37 23.5** | **-0.1** |
| **RUSC** | **La Rusia** | **0.93** | **176** | *e*P | **Pn** | **23 37 08.2** | **+0.3** |
| RUSC | | | | *e*S | **Sn** | **23 37 26.4** | **-0.5** |
| RUSC | | | | *i* | | 23 37 28.8 | |
| | comp=Z,148nm,0.2s | | | | | | |
| **PTBC** | **PUERTO BERRIO,** | **1.34** | **258** | *e*P | **Pn** | **23 37 10.6** | **-0.5** |
| PTBC | | | | *e*S | **Sn** | **23 37 31.4** | **-1.1** |
| **OCAC** | **Ocana** | **1.41** | **353** | *e*P | **Pn** | **23 37 13.4** | **+1.4** |
| OCAC | | | | *e*S | **Sn** | **23 37 33.8** | **-0.4** |
| OCAC | | | | *i* | | 23 37 39.7 | |
| | comp=Z,188nm,0.3s | | | | | | |
| **YOPC** | **Yopal, Colombi** | **1.63** | **154** | *e*P | **Pn** | **23 37 15.1** | **+0.9** |
| YOPC | | | | *e*S | **Sn** | **23 37 39.2** | **+1.0** |
| YOPC | | | | *i* | | 23 37 41.3 | |
| | comp=Z,83nm,0.3s | | | | | | |
| **ZARC** | **Zaragoza, Cauc** | **1.83** | **291** | *e*P | **Pn** | **23 37 16.8** | **+0.5** |
| ZARC | | | | *e*S | **Sn** | **23 37 42.5** | **+0.7** |
| ZARC | | | | *i* | | 23 37 47.9 | |
| | comp=Z,211nm,0.3s | | | | | | |
| **NORC** | **Norcasia** | **2.13** | **234** | *e*P | **Pn** | **23 37 20.2** | **+0.4** |
| NORC | | | | *e*S | **Sn** | **23 37 48.2** | **+0.1** |
| **CHIC** | **Chingaza** | **2.26** | **195** | *e*P | **Pn** | **23 37 22.5** | **+0.7** |
| CHIC | | | | *e*S | **Sn** | **23 37 51.3** | **-0.3** |
| CHIC | | | | *i* | | 23 37 57.3 | |
| | comp=Z,69nm,0.3s | | | | | | |
| **HELC** | **Santa Helena** | **2.46** | **255** | *e*P | **Pn** | **23 37 24.5** | **+0.4** |
| HELC | | | | *i* | | 23 38 03.6 | |
| | comp=Z,76nm,0.3s | | | | | | |
| **VILC** | **Villavicencio,** | **2.75** | **192** | *e*P | **Pn** | **23 37 28.0** | **+0.5** |
| VILC | | | | *e*S | **Sn** | **23 38 01.9** | **0.0** |
| VILC | | | | *i* | | 23 38 10.9 | |
| | comp=Z,41nm,0.3s | | | | | | |
| **DBBC** | **Dabeiba** | **3.05** | **274** | *e*P | **Pn** | **23 37 32.9** | **+1.7** |
| **CODC** | **Agust`›n Codaz** | **3.10** | **354** | *e*P | **Pn** | **23 37 32.1** | **+0.3** |
| CODC | | | | *i* | | 23 38 18.0 | |
| | comp=Z,30nm,0.1s | | | | | | |
| **TOLC** | **Tolima** | **3.11** | **224** | *e*P | **Pn** | **23 37 33.4** | **+1.2** |
| **PRAC** | **Prado** | **3.55** | **209** | *e*P | **Pn** | **23 37 37.9** | **+0.4** |
| PRAC | | | | *e*S | **Sn** | **23 38 20.4** | **+0.5** |
| **ULM** | **Lac du Bonnet** | **47.27** | **340** | P | **P** | **23 45 00.7** | **-0.4** |
| | comp=Z,1.7nm,0.7s,baz=121,slow=5.9,SNR=3.1 | | | | | | |
| **YKA** | **Yellowknife Ar** | **63.25** | **340** | P | **P** | **23 46 55.3** | **+0.1** |
| | comp=Z,0.4nm,0.6s,baz=133,slow=6.6,SNR=12 | | | | | | |
| **ASAR** | **Alice Springs** | **149.10** | **234** | PKPbc | **PKPbc** | **23 56 13.4** | **-1.0** |
| | comp=Z,0.3nm,0.6s,baz=122,slow=3.9,SNR=5.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **150.32** | **241** | PKPbc | **PKPbc** | **23 56 16.6** | **-0.9** |
| | comp=Z,0.2nm,0.4s,baz=109,slow=2.6,SNR=11 | | | | | | |

**IDC 27 00:08:23.8±4.5,0.30N×97.70E,h0km,mb3.3/3,mb1 3.5/3, mb1mx3.1/43,mbtmp3.3/3, Error ellipse: s-maj=167.1km s-min=31.2km az=57.0, Northern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **H08S2** | **Diego Garcia H** | **26.35** | **252** | T | T | 00 40 38.5 | |
| | baz=74,slow=74,SNR=23 | | | | | | |
| **H08S3** | **Diego Garcia H** | **26.35** | **252** | T | T | 00 40 38.0 | |
| | baz=74,slow=74,SNR=20 | | | | | | |
| **H08S1** | **Diego Carcia H** | **26.36** | **252** | T | T | 00 40 37.8 | |
| | baz=74,slow=74,SNR=36 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **38.23** | **158** | T | T | 00 56 03.5 | |
| | baz=333,slow=76,SNR=5.5 | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **38.24** | **158** | T | T | 00 56 06.7 | |
| | baz=333,slow=76,SNR=4.2 | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **38.24** | **158** | T | T | 00 56 11.0 | |
| | baz=333,slow=76,SNR=5.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **41.14** | **121** | P | P | 00 16 09.8 | -0.4 |
| | 0.5nm,0.6s,baz=304,slow=8.9,SNR=4.6 | | | | | | |
| **SONM** | **Songino Array** | **47.95** | **8** | P | P | 00 17 05.1 | +0.8 |
| | 0.2nm,0.6s,baz=196,slow=8.5,SNR=3.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **48.23** | **346** | P | P | 00 17 05.5 | -0.9 |
| | 0.3nm,0.7s,baz=153,slow=8.1,SNR=3.2 | | | | | | |

*AZER* ***27*** *00:13:13.1±1.2,38.69N×42.68E,h12km±25km, Error ellipse: s-maj=26.9km s-min=4.7km az=73.0*
*ISK* ***27*** *00:13:17.7,38.76N×43.61E,h5km, MD3.0*
*CSEM* ***27*** *00:13:20.7±0.1,38.79N×43.48E,h10km, MD3.0, Error ellipse: s-maj=4.4km s-min=3.4km az=169.0*

**ISC 27 00:13:20.9±0.9,38.78N±0.03×43.48E±0.03,h14km±8km, n74,σ1ᵗ71/100,26C-17D,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.20** | **201** | *e*PG | **Pg** | **00 13 24.3** | **-1.1** |
| **VANB** | **Van** | **0.20** | **201** | *e*Pg | **Pg** | **00 13 24.3** | **-1.1** |
| **ERCV** | **ERCIS-VAN** | **0.26** | **336** | *e*PG | **Pg** | **00 13 25.4** | **-1.2** |
| ERCV | | | | *e*SG | **Sg** | **00 13 31.1** | **+0.6** |
| **ERCV** | **ERCIS-VAN** | **0.26** | **336** | *e*Pg | **Pg** | **00 13 25.4** | **-1.2** |
| ERCV | | | | *e*Sg | **Sg** | **00 13 31.1** | **+0.6** |
| **AGRB** | **Hanur-Agry** | **0.88** | **335** | *e*PG | **Pb** | **00 13 37.1** | **-1.0** |
| AGRB | | | | *e*SG | **Sb** | **00 13 50.7** | **+1.0** |
| **AGRB** | **Hanur-Agry** | **0.88** | **335** | *e*Pg | **Pb** | **00 13 37.1** | **-1.0** |
| AGRB | | | | *e*Sg | **Sb** | **00 13 50.7** | **+1.0** |
| **TASB** | **TASBURUN-IGDIR** | **1.34** | **26** | *e*PN | **Pn** | **00 13 43.7** | **-1.5** |
| **TASB** | **TASBURUN-IGDIR** | **1.34** | **26** | *e*Pn | **Pn** | **00 13 43.7** | **-1.5** |
| **HYR** | **Heyderabad** | **1.42** | **48** | P | **Pn** | **00 13 46.9** | **+0.6** |
| | SNR=61 | | | | | | |
| HYR | | | | ⇓S | **Sg** | **00 14 11.7** | **+5.0** |
| **HYR** | **Heyderabad** | **1.42** | **48** | P | **Pn** | **00 13 46.9** | **+0.6** |
| | SNR=61 | | | | | | |
| **SIRT** | **Sirnak** | **1.52** | **213** | *e*PN | **Pn** | **00 13 47.6** | **-0.1** |
| **SIRT** | **Sirnak** | **1.52** | **213** | *e*Pn | **Pn** | **00 13 47.6** | **-0.1** |
| **CUKT** | **Cukurca** | **1.53** | **176** | *e*PN | **Pn** | **00 13 47.3** | **-0.6** |
| **CUKT** | **Cukurca** | **1.53** | **176** | *e*Pn | **Pn** | **00 13 47.3** | **-0.6** |
| **NAX** | **Nakhchivan** | **1.62** | **75** | P | **Pn** | **00 13 49.7** | **+0.6** |
| | SNR=52 | | | | | | |
| NAX | | | | ⇑S | **Sg** | **00 14 20.3** | **+7.2** |
| **NAX** | **Nakhchivan** | **1.62** | **75** | P | **Pn** | **00 13 49.7** | **+0.6** |
| | SNR=52 | | | | | | |
| **SBZ** | **Shahbuz** | **1.73** | **68** | ⇑P | **Pn** | **00 13 51.3** | **+0.7** |
| | SNR=101 | | | | | | |
| SBZ | | | | ⇓S | **Sg** | **00 14 21.6** | **+5.0** |
| **SBZ** | **Shahbuz** | **1.73** | **68** | P | **Pn** | **00 13 51.3** | **+0.7** |
| | SNR=101 | | | | | | |
| **KARS** | **Kars** | **1.87** | **351** | *e*PN | **Pn** | **00 13 52.3** | **-0.3** |
| **KARS** | **Kars** | **1.87** | **351** | *e*Pn | **Pn** | **00 13 52.3** | **-0.3** |
| **ORD** | **Ordubad** | **1.97** | **85** | P | **Pn** | **00 13 54.5** | **+0.6** |
| | SNR=46 | | | | | | |
| **SENK** | **Senkaya-Erzuru** | **1.98** | **334** | *e*PN | **Pn** | **00 13 54.9** | **+0.8** |
| **SENK** | **Senkaya-Erzuru** | **1.98** | **334** | *e*Pn | **Pn** | **00 13 54.9** | **+0.8** |
| **BNGB** | **Bing¶l** | **2.19** | **276** | *e*PN | **Pn** | **00 13 58.6** | **+1.6** |
| **BINT** | **Bingol** | **2.34** | **273** | *e*Pn | **Pn** | **00 13 58.6** | **-0.4** |
| **YEDI** | **Yedisu-Bingol** | **2.38** | **287** | *e*PN | **Pn** | **00 14 01.0** | **+1.5** |
| **YEDI** | **Yedisu-Bingol** | **2.38** | **287** | *e*Pn | **Pn** | **00 14 01.0** | **+1.5** |
| **GDB** | **GEDABAY** | **2.62** | **41** | ⇓P | **Pn** | **00 14 02.5** | **-0.3** |
| | SNR=3.2 | | | | | | |
| GDB | | | | ⇑S | **Sb** | **00 14 41.2** | **+1.6** |
| **GDB** | **GEDABAY** | **2.62** | **41** | P | **Pn** | **00 14 02.5** | **-0.3** |
| | SNR=3.2 | | | | | | |
| **QZX** | **Qazax, Azerbai** | **2.70** | **32** | ⇑P | **Pn** | **00 14 02.7** | **-1.2** |
| | SNR=10 | | | | | | |
| QZX | | | | ⇓S | **Sb** | **00 14 41.0** | **-1.0** |
| **QZX** | **Qazax, Azerbai** | **2.70** | **32** | P | **Pn** | **00 14 02.7** | **-1.2** |
| | SNR=10 | | | | | | |
| QZX | | | | S | **Sb** | **00 14 41.0** | **-1.0** |
| **MAZI** | **Mazidag** | **2.73** | **242** | *e*PN | **Pn** | **00 14 05.4** | **+1.1** |
| **MAZI** | **Mazidag** | **2.73** | **242** | *e*Pn | **Pn** | **00 14 05.4** | **+1.1** |
| **GANJ** | **Ganja** | **2.88** | **49** | ⇓P | **Pn** | **00 14 06.5** | **+0.2** |
| | SNR=8.4 | | | | | | |
| GANJ | | | | ⇓S | **Sb** | **00 14 48.0** | **+0.8** |
| **GANJ** | **Ganja** | **2.88** | **49** | P | **Pn** | **00 14 06.5** | **+0.2** |
| | SNR=8.4 | | | | | | |
| **BAYT** | **Ayd¯–ntepe-Bay** | **3.04** | **303** | *e*PN | **Pn** | **00 14 09.9** | **+1.2** |
| **BAYT** | **Ayd¯–ntepe-Bay** | **3.04** | **303** | *e*Pn | **Pn** | **00 14 09.9** | **+1.2** |
| **PTK** | **Pertek** | **3.19** | **273** | *e*PN | **Pn** | **00 14 12.5** | **+1.7** |
| **PTK** | **Pertek** | **3.19** | **273** | *e*Pn | **Pn** | **00 14 12.5** | **+1.7** |
| **BRDA** | **Brd** | **3.22** | **61** | ⇑P | **Pn** | **00 14 11.7** | **+0.7** |
| BRDA | | | | ⇑S | **Sb** | **00 14 57.4** | **+0.5** |
| **BRDA** | **Brd** | **3.22** | **61** | P | **Pn** | **00 14 11.7** | **+0.7** |
| **MNGR** | **Mingechevir, A** | **3.42** | **53** | ⇓P | **Pn** | **00 14 13.8** | **+0.1** |
| MNGR | | | | ⇓S | **Sb** | **00 15 01.6** | **-1.0** |
| **MNGR** | **Mingechevir, A** | **3.42** | **53** | P | **Pn** | **00 14 13.8** | **+0.1** |
| **ZRD** | **Zardab** | **3.58** | **64** | ⇓P | **Pn** | **00 14 16.7** | **+0.8** |
| ZRD | | | | ⇑S | **Sb** | **00 15 06.4** | **-0.9** |
| **ZRD** | **Zardab** | **3.58** | **64** | P | **Pn** | **00 14 16.7** | **+0.8** |
| **ZKTA** | **Zakatala** | **3.73** | **39** | ⇓P | **Pn** | **00 14 17.5** | **-0.6** |
| ZKTA | | | | ⇓S | **Sb** | **00 15 08.1** | **-3.6** |
| **SEKA** | **Sheki** | **3.75** | **48** | ⇑P | **Pn** | **00 14 19.2** | **+0.8** |
| SEKA | | | | ⇓S | **Sb** | **00 15 10.6** | **-1.5** |
| **SEKA** | **Sheki** | **3.75** | **48** | P | **Pn** | **00 14 19.2** | **+0.8** |
| **LRK** | **Lerik** | **3.81** | **91** | ⇑P | **Pn** | **00 14 19.9** | **+0.7** |
| LRK | | | | ⇑S | **Sb** | **00 15 11.9** | **-2.0** |
| **LRK** | **Lerik** | **3.81** | **91** | P | **Pn** | **00 14 19.9** | **+0.7** |
| **GLBA** | **Clilabad** | **3.86** | **82** | ⇑P | **Pn** | **00 14 21.1** | **+1.3** |
| GLBA | | | | ⇓S | **Sb** | **00 15 13.7** | **-1.5** |
| **GLBA** | **Clilabad** | **3.86** | **82** | P | **Pn** | **00 14 21.1** | **+1.3** |
| **KDMR** | **Kurdemir** | **3.97** | **65** | ⇑P | **Pn** | **00 14 22.1** | **+0.8** |
| KDMR | | | | ⇑S | **Sb** | **00 15 16.3** | **-2.2** |
| **KDMR** | **Kurdemir** | **3.97** | **65** | P | **Pn** | **00 14 22.1** | **+0.8** |
| **SAAT** | **Saatly** | **3.98** | **73** | ⇓P | **Pn** | **00 14 21.7** | **+0.2** |
| SAAT | | | | ⇑S | **Sb** | **00 15 15.9** | **-2.9** |
| **SAAT** | **Saatly** | **3.98** | **73** | P | **Pn** | **00 14 21.7** | **+0.2** |
| **QBL** | **Gabala** | **3.99** | **56** | ⇑P | **Pn** | **00 14 22.0** | **+0.3** |
| QBL | | | | ⇑S | **Sb** | **00 15 15.9** | **-3.2** |
| **QBL** | **Gabala** | **3.99** | **56** | P | **Pn** | **00 14 22.0** | **+0.3** |
| **IML** | **Ismayilli** | **4.14** | **59** | ⇑P | **Pn** | **00 14 24.3** | **+0.5** |
| IML | | | | ⇑S | **Sb** | **00 15 20.0** | **-3.5** |
| **IML** | **Ismayilli** | **4.14** | **59** | P | **Pn** | **00 14 24.3** | **+0.5** |
| **LKRN** | **Lenkeran, Azer** | **4.15** | **89** | ⇑P | **Pn** | **00 14 24.6** | **+0.9** |
| LKRN | | | | ⇑S | **Sb** | **00 15 20.6** | **-2.9** |
| **LKRN** | **Lenkeran, Azer** | **4.15** | **89** | P | **Pn** | **00 14 24.6** | **+0.9** |
| **ASTR** | **Astara** | **4.17** | **91** | ⇑P | **Pn** | **00 14 24.8** | **+0.8** |
| ASTR | | | | ⇑S | **Sb** | **00 15 21.1** | **-3.0** |
| **ASTR** | **Astara** | **4.17** | **91** | P | **Pn** | **00 14 24.8** | **+0.8** |
| **XNQ** | **Khinaliq** | **4.31** | **55** | ⇑P | **Pn** | **00 14 26.3** | **+0.2** |
| XNQ | | | | ⇑S | **Sb** | **00 15 23.8** | **-4.6** |
| **XNQ** | **Khinaliq** | **4.31** | **55** | P | **Pn** | **00 14 26.3** | **+0.2** |
| **PQL** | **Pirkuli** | **4.42** | **61** | ⇑P | **Pn** | **00 14 28.1** | **+0.4** |
| PQL | | | | ⇓S | **Sb** | **00 15 27.2** | **-4.5** |
| **PQL** | **Pirkuli** | **4.42** | **61** | P | **Pn** | **00 14 28.1** | **+0.4** |
| **GBS** | **Qobustan** | **4.57** | **66** | ⇓P | **Pn** | **00 14 30.1** | **+0.5** |
| **GBS** | **Qobustan** | **4.57** | **66** | P | **Pn** | **00 14 30.1** | **+0.5** |
| **QSAR** | **Qusar** | **4.57** | **52** | ⇑P | **Pn** | **00 14 29.7** | **0.0** |
| **QSAR** | **Qusar** | **4.57** | **52** | P | **Pn** | **00 14 29.7** | **0.0** |
| **QUBA** | **Quba, Azerbaij** | **4.63** | **55** | ⇓P | **Pn** | **00 14 30.6** | **+0.2** |
| **QUBA** | **Quba, Azerbaij** | **4.63** | **55** | P | **Pn** | **00 14 30.6** | **+0.2** |

*NIED* ***27*** *00:15:00,40.20N×144.30E,h5km,Mw4.4 Best double couple: M₀3.83000×10¹⁵ NP1:φ₀358.00000°,δ21.00000°, λ-93.00000°. NP2:φ₀181.00000°,δ69.00000°, λ-89.00000°.*
*ISCJB* ***27*** *00:15:43.8±1.1,40.18N±0.02×144.37E±0.04,h15km±8km, mb4.3/33,MS3.5/8, Error ellipse: s-maj=5.7km s-min=3.6km az=28.3*
*IDC* ***27*** *00:15:43.4±0.6,40.04N×144.53E,h0km,mb4.2/21, mb1 4.3/27,mb1mx4.2/43,mbtmp4.2/27,ML3.6/5,MS3.4/10, Ms1 3.4/10,ms1mx3.1/43, Error ellipse: s-maj=15.3km s-min=12.7km az=119.0*
*NEIC* ***27*** *00:15:44.9±0.3,40.08N×144.52E,h10km,mb4.3/3, Error ellipse: s-maj=7.7km s-min=6.1km az=113.0*
*MOS* ***27*** *00:15:45.7±1.4,40.10N×144.52E,h27km,mb4.7/13, Error ellipse: s-maj=9.3km s-min=6.1km az=100.5*
*JMA* ***27*** *00:15:46.6±0.2,40.17N×144.30E,h43km,M4.2*

**ISC 27 00:15:46.1±1.0,40.09N±0.04×144.52E±0.05,h16km±5km, n108,σ2ᵗ30/126,mb4.3/33,MS3.4/8,3C-10D,Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JTH** | **Tanohata** | **2.04** | **267** | P | **Pn** | **00 16 17.2** | **-2.5** |
| **MIYJ** | **Miyakonagasawa** | **2.14** | **257** | P | **Pn** | **00 16 19.0** | **-2.0** |
| **ERM** | **

KLR LR LR 00 24 05.6
comp=Z,5.3nm,19.2s,baz=140,slow=39
**KLR Kul'dur 12.87 319** ǁ *i* P **Pn** **00 18 47.1 -1.1**
**KSRS Korea Array 13.21 264** Pn **Pn** **00 18 53.8 +0.9**
comp=Z,0.2nm,0.3s,baz=87,slow=12,SNR=6.5
KSRS LR LR 00 23 28.9
comp=Z,138nm,20.3s,baz=72,slow=35
**KSAR Wonju Array Be 13.25 264** P **Pn** **00 18 53.8 +0.4**
**KSAR Wonju Array Be 13.25 264** Pn **Pn** **00 18 53.8 +0.4**
**MA2 Magadan 19.90 9** LR LR 00 28 48.8
comp=Z,61nm,20.1s,baz=304,slow=39
**SEY Seymchan 23.36 9** P **P** **00 20 52.9 -0.4**
comp=Z,12nm,0.8s,baz=195,slow=4.9,SNR=18
**SEY Seymchan 23.36 9** ǁ *i* P **P** **00 20 53.6 +0.2**
**YAK Yakutsk 23.75 343** P **P** **00 20 56.6 -0.6**
comp=Z,13nm,0.4s,baz=142,slow=1.6,SNR=4.4
**YAK Yakutsk 23.75 343** *e* P **P** **00 20 57.3 +0.1**
YAK *e* *PP **sP** **00 21 05.2 +1.0**
YAK *e* 00 24 41.7
YAK *e* S **S** **00 25 11.6 0.0**
YAK *e* 00 31 54.6
YAK pmax pmax
comp=Z,14nm,0.9s
YAK pmax pmax
comp=N,4.0nm,0.9s
YAK pmax pmax
comp=Z,224nm,3.7s
YAK pmax pmax
comp=N,68nm,3.7s
YAK pmax pmax
comp=E,62nm,3.7s
YAK smax smax
comp=N,207nm,4.4s
YAK smax smax
comp=E,137nm,3.9s
YAK MLR MLR
comp=Z,81nm,15.0s
YAK MLR MLR
comp=N,104nm,18.0s
**BOD Bodaibo 26.42 322** *e* P **P** **00 21 21.7 +0.1**
BOD pmax pmax
comp=Z,9.0nm,1.7s
**ULN Ulaanbaatar 27.84 299** ǁ *i* P **P** **00 21 35.7 +1.0**
ULN pmax pmax
comp=Z,8.0nm,1.6s
**ULN Ulaanbaatar 27.84 299** *e* P **P** **00 21 35.0 +0.3**
comp=Z,2.3nm,0.7s
**H11N2 WAKE ISLAND Hy 27.93 130** T T 00 50 48.7
baz=322,slow=74,SNR=9.0
**H11N1 WAKE ISLAND Hy 27.94 130** T T 00 50 50.3
baz=322,slow=74,SNR=6.2
**H11N3 WAKE ISLAND Hy 27.95 130** T T 00 50 46.3
baz=322,slow=74,SNR=6.3
**SONM Songino Array 28.28 299** P **P** **00 21 38.6 -0.1**
comp=Z,1.1nm,0.6s,baz=84,slow=9.7,SNR=10
SONM LR LR 00 32 42.2
comp=Z,115nm,21.9s,baz=0.0,slow=36
**H11S1 WAKE ISLAND Hy 28.78 132** T T 00 52 07.5
baz=328
**H11S3 WAKE ISLAND Hy 28.78 132** T T 00 52 05.8
baz=328
**H11S2 WAKE ISLAND Hy 28.80 132** T T 00 52 02.8
baz=328
**BILL Bilibino 30.42 16** *i* P **P** **00 21 56.4 -0.8**
BILL *i* 00 22 07.3
BILL pmax pmax
comp=Z,5.0nm,1.2s
BILL MLR MLR
comp=Z,80nm,18.0s
**DGZ Jazzator, Alta 40.66 303** *de* P **P** **00 23 26.3 +0.8**
DGZ pmax pmax
comp=Z,6.0nm,1.7s
**ZALV Zalesovo Beam 41.74 310** P **P** **00 23 35.4 +1.3**
comp=Z,1.9nm,0.7s,baz=87,slow=7.4,SNR=9.1
ZALV PcP **PcP** **00 25 30.5 +0.3**
comp=Z,2.2nm,0.7s,baz=100,slow=3.3,SNR=4.9
**NVS Novosibirsk 42.57 311** *e* P P 00 23 46.1 +5.3
**MKAR Makanchi Array 44.63 300** P **P** **00 23 57.2 -0.3**
comp=Z,1.5nm,0.7s,baz=81,slow=9.2,SNR=16
MKAR LR LR 00 43 00.6
comp=Z,82nm,18.8s,baz=18,slow=37
**MKAR Makanchi Array 44.63 300** *i* P **P** **00 23 58.7 +1.1**
MKAR pmax pmax
comp=Z,2.0nm,0.7s
**CMAR Chiang Mai Arr 44.64 255** P **P** **00 23 59.1 +1.2**
comp=Z,1.3nm,0.3s,baz=36,slow=8.9,SNR=4.8
CMAR LR LR 00 42 24.6
comp=Z,23nm,19.1s,baz=70,slow=36
**CMAR Chiang Mai Arr 44.64 255** *ce* P **P** **00 23 59.5 +1.6**
CMAR pmax pmax
comp=Z,1.0nm,0.3s
**ILAR Eielson Array 45.61 34** P **P** **00 24 05.2 +0.1**
comp=Z,1.7nm,0.8s,baz=260,slow=6.2,SNR=18
**KURK Kurchatov 46.03 306** ǁ *e* P **P** **00 24 09.8 +1.3**
KURK pmax pmax
comp=Z,39nm,2.5s
**KURK Kurchatov 46.03 306** *e* P **P** **00 24 08.2 -0.3**
comp=Z,71nm,0.7s
**JIRN Jiri 49.19 274** *e* P **P** **00 24 34.2 +0.3**
comp=Z,96nm,0.9s
**RAMN Ramite 49.24 273** *e* P **P** **00 24 34.6 +0.5**
comp=Z,22nm,0.8s
**GUN Gumba 49.30 275** *e* P **P** **00 24 35.1 +0.4**
comp=Z,22nm,0.8s
**KKN Kakani 49.82 275** *e* P **P** **00 24 40.4 +1.9**
comp=Z,17nm,0.7s
**DMN Daman 50.05 275** *e* P **P** **00 24 42.3 +2.0**
comp=Z,40nm,1.5s
**BRVK Borovoye 50.41 311** ǁ *e* P **P** **00 24 44.0 +1.6**
BRVK pmax pmax
comp=Z,11nm,2.2s
**PYUN Piuthan 51.41 277** *e* P P 00 24 55.9 +5.4
comp=Z,28nm,1.0s
**ARU Arti 55.71 318** *c i* P **P** **00 25 22.3 +1.0**
ARU 00 26 19.5
ARU 00 27 25.8
ARU S **S** **00 33 09.3 +2.5**
ARU SS **SS** **00 36 56.7 +5.1**
ARU pmax pmax
comp=Z,33nm,2.3s
**ARU Arti 55.71 318** *e* P **P** **00 25 20.7 -0.6**
**ABKAR Akbulak array 57.85 310** *e* P **P** **00 25 36.3 -0.3**
comp=Z,1.5nm,0.5s
**YKA Yellowknife Ar 59.94 32** P **P** **00 25 51.0 +0.1**
comp=Z,0.7nm,0.6s,baz=301,slow=6.5,SNR=15
**YKA Yellowknife Ar 59.94 32** P **P** **00 25 51.0 +0.1**
**YKA Yellowknife Ar 59.94 32** P **P** **00 25 51.0 +0.1**
**WRAB Tennant Creek 60.46 191** *e* P **P** **00 25 53.4 -1.6**
WRAB pmax pmax
comp=Z,3.0nm,0.7s
**WRAB Tennant Creek 60.46 191** *e* P **P** **00 25 53.4 -1.6**
comp=Z,2.7nm,0.7s
**WRA Warramunga Arr 60.47 191** P **P** **00 25 53.6 -1.5**
comp=Z,3.4nm,0.8s,baz=9.5,slow=7.3,SNR=16
**ASAR Alice Springs 64.20 191** P **P** **00 26 19.4 -0.6**
comp=Z,1.8nm,0.7s,baz=12,slow=5.5,SNR=19
**GEYT Alibeck 64.48 299** LR LR 00 57 56.0
comp=Z,62nm,18.0s,baz=10.0,slow=39
**FINES FINESS Array B 67.23 333** P **P** **00 26 38.7 -0.4**
comp=Z,1.9nm,0.6s,baz=46,slow=8.2,SNR=7.0
**KIV Kislovodsk 70.72 312** *e* P **P** **00 27 03.5 +2.2**
KIV pmax pmax
comp=Z,11nm,1.0s
**KBZ Khabaz 70.74 311** P **P** **00 27 02.4 +1.2**
comp=Z,2.7nm,0.9s,baz=57,slow=1.8,SNR=6.2
**NVAR Mina Array Bea 71.23 55** P **P** **00 27 05.8 +1.2**
comp=Z,2.9nm,0.8s,baz=289,slow=6.3,SNR=21
**STKA Stephens Creek 71.66 183** P **P** **00 27 05.9 -0.8**
comp=Z,1.5nm,0.7s,baz=356,slow=5.3,SNR=3.6
**NOA NORSAR Array B 72.28 339** P **P** **00 27 10.3 0.0**
comp=Z,2.7nm,0.9s,baz=36,slow=6.1,SNR=3.0
**ANN Anapa 73.14 315** *e* P **P** **00 27 15.3 -0.3**
ANN pmax pmax
comp=Z,42nm,0.8s
**AKASG Malin Array Be 73.34 323** P **P** **00 27 16.3 -0.4**
comp=Z,1.8nm,0.6s,baz=44,slow=6.3,SNR=10
**KIEV Kiev 73.35 323** ǁ *e* P **P** **00 27 18.1 +1.4**
KIEV pmax pmax
comp=Z,18nm,1.9s
**PDAR Pinedale Array 73.80 48** P **P** **00 27 20.1 +0.3**
comp=Z,1.0nm,0.8s,baz=288,slow=2.0,SNR=9.1
**BRTR Keskin Array B 78.61 313** P **P** **00 27 47.8 +0.6**
comp=Z,0.9nm,1.0s,baz=32,slow=5.6,SNR=4.6
**CLL Collm 79.62 331** *e* P **P** **00 27 52.0 -0.2**
**CLL Collm 79.62 331** *e* P **P** **00 27 52.0 -0.2**
**PRU Pruhonice 80.11 330** *e* P **P** **00 27 56.8 +1.9**
**PRU Pruhonice 80.11 330** *e* P **P** **00 27 56.8 +1.9**
**ANMO Albuquerque 80.77 52** LR LR 01 00 13.4
comp=Z,15nm,21.8s,baz=94,slow=33
**ANMO Albuquerque 80.77 52** ǁ *e* P **P** **00 27 59.5 +0.5**
ANMO pmax pmax
comp=Z,7.0nm,1.9s
**KHC Kasperske Hory 81.17 330** *e* P **P** **00 28 02.7 +2.0**
KHC *ex* x 00 28 12.6
**KHC Kasperske Hory 81.17 330** *e* P **P** **00 28 02.7 +2.0**
KHC *e* 00 28 12.6
**GERES GERESS Array B 81.35 330** P **P** **00 28 01.7 0.0**
comp=Z,0.4nm,0.6s,baz=32,slow=5.8,SNR=4.5
**SCHQ Schefferville 81.71 18** P **P** **00 28 03.7 +0.3**
comp=Z,4.2nm,0.8s,baz=263,slow=15,SNR=3.4
**PPT Papeete 83.90 119** LR LR 01 00 51.7
comp=Z,39nm,21.1s,baz=350,slow=32
**TXAR Lajitas Array 86.35 54** P **P** **00 28 28.2 +0.6**
comp=Z,1.8nm,0.7s,baz=296,slow=3.3,SNR=24
**TORD Torodi Ar. Bea 116.77 319** PKP **PKPdf** **00 34 29.3 -0.8**
comp=Z,0.3nm,0.8s,baz=7.4,slow=4.5,SNR=3.0

**IDC 27 00:20:56.3±5.6, 30.71S×178.68W, h114km±34km, mb3.5/3, mb1 3.6/3, mb1mx3.4/21, mbtmp3.8/3, Error ellipse: s-maj=108.2km s-min=33.8km az=143.0, Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **1.59** | **25** | P | Pn | 00 21 23.5 | -0.9 |
| | 46nm,0.3s,baz=61,slow=19,SNR=3.7 | | | | | | |
| RAO | | | | S | Sn | 00 21 46.1 | +0.3 |
| | 159nm,0.3s,baz=335,slow=22,SNR=5.6 | | | | | | |
| **STKA** | **Stephens Creek** | **33.84** | **258** | P | P | 00 27 28.9 | +1.0 |
| | 2.1nm,0.8s,baz=113,slow=7.7,SNR=3.4 | | | | | | |
| **ASAR** | **Alice Springs** | **42.51** | **268** | P | P | 00 28 40.3 | -0.4 |
| | 0.2nm,0.4s,baz=103,slow=7.4,SNR=7.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.53** | **273** | P | P | 00 28 48.5 | -0.4 |
| | 0.7nm,0.3s,baz=112,slow=7.8,SNR=27 | | | | | | |
| **FINES** | **FINESS Array B** | **145.23** | **339** | PKPbc | PKPbc | 00 40 18.9 | -0.8 |
| | 2.0nm,0.8s,baz=28,slow=3.3,SNR=2.7 | | | | | | |

*ISCJB **27** 00:22:38.0±1.4, 34.05S±0.08×177.4W±0.1, h35km, mb4.1/2, Error ellipse: s-maj=15.3km s-min=10.1km az=21.1*
*IDC **27** 00:22:42.4±3.1, 33.69S×178.67W, h0km, mb4.2/2, mb1 4.4/3, mb1mx3.9/24, mbtmp4.1/3, ML3.8/1, Error ellipse: s-maj=70.9km s-min=36.1km az=118.0*
**ISC 27 00:22:40.5±1.7, 34.0S±0.1×177.5W±0.1, h35km, n15, σ0=98/19, South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **PKGZ** | **Pakihiroa** | **5.30** | **221** | *e* PN | **Pn** | **00 23 57.9** | **+0.7** |
| PKGZ | | | | | SN | **Sn** | **00 24 58.0** | **+1.0** |
| **PUZ** | **Puketiti** | **5.34** | **219** | *e* PN | **Pn** | **00 23 57.8** | **+0.1** |
| PUZ | | | | | eSN | **Sn** | **00 24 59.3** | **+1.5** |
| **HAZ** | **Te Kaha** | **5.37** | **224** | SN | **Sn** | **00 24 60.0** | **+1.3** |
| **RUGZ** | **Raukumara Rang** | **5.58** | **223** | *e* PN | **Pn** | **00 24 02.0** | **+1.0** |
| **MWZ** | **Matawai** | **5.92** | **221** | *e* PN | **Pn** | **00 24 05.0** | **-0.7** |
| MWZ | | | | | eSN | **Sn** | **00 25 11.1** | **-1.2** |
| **RIGZ** | **Rimuhau** | **6.07** | **218** | *e* PN | **Pn** | **00 24 08.2** | **+0.5** |
| **URZ** | **Urewera** | **6.10** | **224** | Pn | **Pn** | **00 24 08.0** | **-0.1** |
| | 2.6nm,0.3s,baz=278,slow=5.4,SNR=12 | | | | | | |
| URZ | | | | | Sn | **Sn** | **00 25 16.0** | **-0.7** |
| | 10nm,0.3s,baz=211,slow=23,SNR=17 | | | | | | |
| **URZ** | **Urewera** | **6.10** | **224** | *e* PN | **Pn** | **00 24 08.1** | **-0.1** |
| URZ | | | | | SN | **Sn** | **00 25 15.7** | **-1.0** |
| **KNZ** | **Kokohu** | **6.36** | **216** | *e* PN | **Pn** | **00 24 11.4** | **-0.2** |
| **WHAIZ** | **Waihua** | **6.62** | **218** | eSN | **Sn** | **00 25 24.7** | **+0.3** |
| **CTZ** | **Chatham Island** | **9.76** | **176** | *e* PN | Pn | 00 25 04.2 | +5.9 |
| CTZ | | | | | eSN | **Sn** | **00 26 46.1** | **-0.5** |
| **MQZ** | **McQueen's Vall** | **12.37** | **215** | *e* SN | Sn | 00 27 38.2 | -12 |
| **ASAR** | **Alice Springs** | **43.45** | **270** | P | **P** | **00 30 39.5** | **-0.9** |
| | 2.4nm,0.7s,baz=110,slow=7.3,SNR=25 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.76** | **275** | P | **P** | **00 30 49.6** | **-1.3** |
| | 2.6nm,0.7s,baz=118,slow=7.7,SNR=22 | | | | | | |
| **FINES** | **FINESS Array B** | **148.64** | **338** | PKPbc | **PKPab** | **00 42 28.3** | **+1.7** |
| | 18nm,1.3s,baz=46,slow=4.2,SNR=5.7 | | | | | | |

*IDC **27** 00:45:33.5±2.0, 11.50N×84.70W, h0km, mb3.7/6, mb1 4.1/7, mb1mx3.7/33, mbtmp3.7/7, ML3.7/1, Error ellipse: s-maj=63.5km s-min=41.6km az=51.0*
*ISCJB **27** 00:45:56.5±0.4, 11.58N±0.06×86.03W±0.08, h176km±3km, mb3.5/7, Error ellipse: s-maj=15.4km s-min=4.8km az=140.3*
*CASC **27** 00:45:57.8±1.5, 11.57N×85.97W, h166km±7km, MD3.7, ML2.9*
**ISC 27 00:45:57.1±0.7, 11.52N±0.07×86.07W±0.09, h168km±6km, n34, σ1=52/47, mb3.8/7, 2C, Near coast of Nicaragua**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **CONN** | **Concepcion** | **0.43** | **84** | *e* P | **Pn** | **00 46 20.8** | **+0.5** |
| **MASN** | **Masaya** | **0.47** | **350** | *e* P | **Pn** | **00 46 20.8** | **+0.2** |
| **CRZ1** | **La Cruz** | **0.61** | **136** | *e* P | **Pn** | **00 46 21.3** | **+0.1** |
| **MGAN** | **Managua** | **0.65** | **344** | *e* P | **Pn** | **00 46 21.9** | **+0.6** |
| MGAN | | | | *e* S | **Sn** | **00 46 41.2** | **+1.2** |
| MGAN | | | | AML | AML | 00 46 41.9 | |
| | comp=E,115nm,0.6s | | | | | | |
| **XAVN** | **Gruta Xavier** | **0.67** | **338** | *e* P | **Pn** | **00 46 21.9** | **+0.5** |
| **COPN** | **Copaltepe** | **0.83** | **322** | *e* P | **Pn** | **00 46 22.6** | **+0.2** |
| **ACON** | **Acoyapa** | **0.98** | **63** | *e* P | **Pn** | **00 46 23.6** | **+0.1** |
| ACON | | | | *e* S | **Sn** | **00 46 43.0** | **-0.8** |
| ACON | | | | AML | AML | 00 46 44.0 | |
| | comp=N,172nm,0.5s | | | | | | |
| **MOMN** | **Momotombo** | **1.00** | **332** | *e* P | **Pn** | **00 46 24.0** | **+0.3** |
| **GPS3** | **Bodega del ICE** | **1.03** | **138** | ǁ *e* P | **Pn** | **00 46 24.4** | **+0.4** |
| GPS3 | | | | *e* S | **Sn** | **00 46 44.5** | **-0.1** |
| **MESS** | **Mesas** | **1.16** | **132** | *e* P | **Pn** | **00 46 25.6** | **+0.5** |
| MESS | | | | *e* S | **Sn** | **00 46 47.3** | **+0.9** |
| **COLC** | **Colonia** | **1.20** | **135** | *e* P | **Pn** | **00 46 25.8** | **+0.5** |
| COLC | | | | *e* S | **Sn** | **00 46 47.9** | **+0.8** |
| **BRAN** | **Las Pilas** | **1.22** | **347** | *e* P | Pn | 00 46 22.1 | -3.5 |
| **CUI** | **Cuipilapa** | **1.23** | **134** | *e* P | **Pn** | **00 46 26.3** | **+0.6** |
| CUI | | | | *e* S | **Sn** | **00 46 48.1** | **+0.5** |
| **MATN** | **Matagalpa** | **1.41** | **6** | *e* P | **Pn** | **00 46 28.0** | **+0.6** |
| MATN | | | | *e* S | **Sn** | **00 46 50.6** | **-0.1** |
| **VCR** | **Vista de Mar** | **1.45** | **163** | ǁ *i* P | **Pn** | **00 46 28.4** | **+0.6** |
| **CRIN** | **San Cristobal** | **1.52** | **321** | *e* P | **Pn** | **00 46 29.2** | **+0.9** |
| CRIN | | | | *e* S | **Sn** | **00 46 54.6** | **+2.2** |
| **CHPA** | **Chiripa** | **1.56** | **133** | *e* P | **Pn** | **00 46 25.5** | **-3.4** |
| CHPA | | | | *e* S | **Sn** | **00 46 46.9** | **-6.5** |
| **ARE1** | **Arenal 1** | **1.69** | **128** | *e* P | **Pn** | **00 46 30.9** | **+0.8** |
| ARE1 | | | | *e* S | **Sn** | **00 46 56.1** | **+0.5** |
| **SRA1** | **San Ram‡n** | **2.11** | **132** | *e* S | **Sn** | **00 47 06.0** | **+2.0** |
| **CGA2** | **Cerro Gallo 2** | **2.17** | **133** | *e* P | **Pn** | **00 46 36.2** | **+0.7** |
| **LCR2** | **La Lucha 2** | **2.69** | **131** | *e* P | **Pn** | **00 46 42.6** | **+0.9** |
| LCR2 | | | | *e* S | **Sn** | **00 47 15.7** | **-0.5** |
| **QCR1** | **Quepos** | **2.80** | **138** | *e* P | **Pn** | **00 46 43.9** | **+1.1** |
| **URSC** | **Urasca** | **2.81** | **126** | *e* P | **Pn** | **00 46 44.2** | **+1.2** |
| **DRK0** | **Durika** | **3.57** | **129** | *e* S | **Sn** | **00 47 37.8** | **+2.0** |
| **CMIG** | **Matias Romero** | **10.18** | **304** | Pn | **Pn** | **00 48 17.9** | **-1.4** |
| | comp=N,0.5nm,0.3s,baz=143,slow=11,SNR=5.4 | | | | | | |
| CMIG | | | | Sn | **Sn** | **00 50 10.3** | **-2.1** |
| | comp=N,0.2nm,0.3s,baz=162,slow=16,SNR=4.5 | | | | | | |
| **TKL** | **Tuckaleechee C** | **24.12** | **5** | P | **P** | **00 50 57.3** | **-0.2** |
| | comp=N,1.5nm,0.5s,baz=185,slow=14,SNR=4.0 | | | | | | |
| **TXAR** | **Lajitas Array** | **24.15** | **320** | P | **P** | **00 50 59.1** | **+1.2** |
| | comp=N,2.8nm,0.6s,baz=144,slow=8.9,SNR=39 | | | | | | |
| TXAR | | | | PcP | **PcP** | **00 54 33.8** | **-0.6** |
| | comp=N,0.2nm,0.7s,baz=161,slow=5.7,SNR=3.7 | | | | | | |
| **PDAR** | **Pinedale Array** | **37.23** | **331** | P | **P** | **00 52 52.6** | **-0.2** |
| | comp=N,0.2nm,0.5s,baz=123,slow=11,SNR=2.8 | | | | | | |
| PDAR | | | | PcP | **PcP** | **00 55 09.0** | **+0.1** |
| | comp=N,0.2nm,0.5s,baz=165,slow=3.7,SNR=2.6 | | | | | | |
| **NVAR** | **Mina Array Bea** | **39.29** | **319** | P | **P** | **00 53 12.1** | **+2.2** |
| | comp=N,1.5nm,0.6s,baz=129,slow=7.6,SNR=16 | | | | | | |
| NVAR | | | | PcP | **PcP** | **00 55 16.8** | **+1.4** |
| | comp=N,0.5nm,0.6s,baz=116,slow=4.1,SNR=6.1 | | | | | | |
| **ULM** | **Lac du Bonnet** | **39.45** | **350** | P | P | 00 53 08.5 | -2.3 |
| | comp=N,2.3nm,0.8s,baz=180,slow=13,SNR=2.8 | | | | | | |
| **YKA** | **Yellowknife Ar** | **54.86** | **344** | P | **P** | **00 55 08.0** | **-1.8** |
| | comp=N,0.2nm,0.5s,baz=141,slow=7.2,SNR=4.5 | | | | | | |
| **ILAR** | **Eielson Array** | **67.41** | **336** | P | **P** | **00 56 33.0** | **-1.2** |
| | comp=N,0.3nm,0.7s,baz=126,slow=4.2,SNR=9.0 | | | | | | |
| **ASAR** | **Alice Springs** | **140.17** | **247** | PKhKP | PKPpre | 01 04 58.8 | |
| | comp=N,0.2nm,0.7s,baz=111,slow=3.7,SNR=4.1 | | | | | | |
| ASAR | | | | PKP | **PKPdf** | **01 05 07.5** | **+0.8** |
| | comp=N,0.4nm,0.6s,baz=93,slow=2.0,SNR=6.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **140.30** | **253** | PKhKP | PKPpre | 01 05 00.6 | |
| | comp=N,0.4nm,0.5s,baz=94,slow=3.3,SNR=9.1 | | | | | | |
| WRA | | | | PKP | **PKPdf** | **01 05 07.2** | **+0.3** |
| | comp=N,0.7nm,0.6s,baz=92,slow=2.7,SNR=8.1 | | | | | | |

*ISCJB **27** 00:49:33.7±0.8, 17.3S±0.2×175.3W±0.2, h256km, mb4.0/5, Error ellipse: s-maj=28.3km s-min=9.2km az=136.0*
*IDC **27** 00:49:33.5±2.6, 17.50S×175.12W, h243km±43km, mb3.8/5, mb1 3.9/6, mb1mx3.3/36, mbtmp4.4/6, Error ellipse: s-maj=38.5km s-min=24.8km az=47.0*
**ISC 27 00:49:34.4±0.9, 17.4S±0.2×175.2W±0.2, h256km, n6, σ0=87/9, mb3.9/5, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **AFI** | **Afiamalu** | **4.75** | **44** | P | **Pn** | **00 50 48.6** | **+1.1** |
| | 18nm,0.3s,baz=89,slow=1.0,SNR=13 | | | | | | |
| AFI | | | | S | **S** | **00 51 44.4** | **-1.4** |
| | 25nm,0.3s,baz=52,slow=18,SNR=7.8 | | | | | | |
| **URZ** | **Urewera** | **21.86** | **197** | P | **P** | **00 54 05.9** | **-0.7** |
| | 6.1nm,0.5s,baz=11,slow=5.2,SNR=6.1 | | | | | | |
| URZ | | | | S | **S** | **00 57 49.8** | **+0.3** |
| | 2.8nm,0.5s,baz=210,slow=17,SNR=2.4 | | | | | | |
| **CTA** | **Charters Tower** | **36.60** | **260** | P | **P** | **00 56 16.1** | **-0.5** |
| | 2.5nm,0.6s,baz=78,slow=9.3,SNR=3.6 | | | | | | |
| **STKA** | **Stephens Creek** | **41.60** | **241** | P | **P** | **00 56 57.6** | **-0.1** |
| | 1.7nm,0.5s,baz=72,slow=11,SNR=6.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **47.78** | **259** | P | **P** | **00 57 46.6** | **0.0** |
| | 2.2nm,0.5s,baz=97,slow=7.0,SNR=39 | | | | | | |
| **ASAR** | **Alice Springs** | **47.92** | **254** | P | **P** | **00 57 48.1** | **+0.4** |
| | 12nm,0.6s,baz=88,slow=8.7,SNR=207 | | | | | | |
| ASAR | | | | PcP | **PcP** | **00 59 12.5** | **+0.7** |
| | 0.4nm,0.7s,baz=117,slow=3.6,SNR=2.5 | | | | | | |

**RSPR 27 01:04:39.6, 18.31N×68.46W, h150km±1km, MD3.7/12, 10C-2D, Mona Passage**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **IDE** | **Isla Desecheo** | **0.94** | **85** | *e* S | | Sn | 01 05 22.2 | -0.1 |
| **IDE** | **Isla Desecheo** | **0.94** | **85** | ǁ *e* P | | Pn | 01 05 03.9 | +0.1 |
| **DR12** | **Loma Pena Alta** | **1.00** | **299** | ǁ *e* P | | Pn | 01 05 03.2 | -1.2 |
| DR12 | | | | *e* S | | Sn | 01 05 23.0 | -0.3 |
| **LSP** | **Las Mesas** | **1.31** | **96** | ǁ *e* P | | Pn | 01 05 06.9 | -0.3 |
| **CRPR** | **Cabo Rojo, PR** | **1.32** | **103** | *e* S | | Sn | 01 05 28.7 | +0.4 |
| **CRPR** | **Cabo Rojo, PR** | **1.32** | **103** | ǁ *e* P | | Pn | 01 05 06.8 | -0.4 |
| **AOPR** | **Arecibo Observ** | **1.62** | **88** | ǁ *e* P | | Pn | 01 05 10.7 | +0.3 |
| **AOPR** | **Arecibo Observ** | **1.62** | **88** | *e* S | | Sn | 01 05 34.4 | +0.4 |
| **OBIP** | **Obispado Ponce** | **1.78** | **98** | ǁ *e* P | | Pn | 01 05 12.1 | -0.1 |
| **OBIP** | **Obispado Ponce** | **1.78** | **98** | *e* S | | Sn | 01 05 37.3 | +0.2 |
| **CELP** | **Cerrillos** | **1.80** | **97** | ǁ *e* P | | Pn | 01 05 12.4 | 0.0 |
| CELP | | | | *e* S | | Sn | 01 05 37.8 | +0.3 |
| **EMPR** | **Esperanza - Ma** | **1.84** | **85** | ǁ *e* P | | Pn | 01 05 12.8 | 0.0 |
| **EMPR** | **Esperanza - Ma** | **1.84** | **85** | *e* S | | Sn | 01 05 38.9 | +0.6 |
| **SJG** | **San Juan** | **2.20** | **95** | ǁ *e* P | | Pn | 01 05 17.2 | +0.2 |
| **SJG** | **San Juan** | **2.20** | **95** | *e* S | | Sn | 01 05 46.4 | +0.6 |
| **CBYP** | **Canovanas** | **2.47** | **90** | ǁ *e* P | | Pn | 01 05 20.4 | 0.0 |
| **CBYP** | **Canovanas** | **2.47** | **90** | *e* S | | Sn | 01 05 52.0 | +0.2 |
| **HUMP** | **Col San Antoni** | **2.48** | **93** | ǁ *e* P | | Pn | 01 05 20.5 | +0.1 |
| **HUMP** | **Col San Antoni** | **2.48** | **93** | *e* S | | Sn | 01 05 52.3 | +0.3 |
| **MTP** | **Monte Pirata** | **2.77** | **94** | ǁ *e* P | | Pn | 01 05 24.4 | +0.4 |

*IDC **27** 01:07:42.7±1.0, 39.56N×16.74E, h0km, mb3.7/10, mb1 3.8/17, mb1mx3.7/40, mbtmp3.7/17, ML3.3/7, MS3.2/2, Ms1 3.2/2, ms1mx2.6/47, Error ellipse: s-maj=16.5km s-min=15.7km az=36.0*
*BEO **27** 01:07:44.4±0.9, 39.72N×16.65E, h0km, M3.7/9*
*ROM **27** 01:07:45.3±0.1, 39.58N×16.92E, h15km±2km, Md3.2/26, Ml3.6/34, Error ellipse: s-maj=2.6km s-min=1.4km az=97.0*
*ISCJB **27** 01:07:45.4±0.3, 39.63N±0.02×16.93E±0.02, h23km±3km, mb3.6/8, MS3.3/1, Error ellipse: s-maj=2.8km s-min=2.5km az=145.3*
*PDG **27** 01:07:46.4±0.9, 39.71N×16.93E, h17km±1km, ML3.6/11, Error ellipse: s-maj=1.0km s-min=1.3km az=0.0*
*CSEM **27** 01:07:46.1±0.1, 39.59N×16.87E, h20km, ML3.7/14, Error ellipse: s-maj=2.8km s-min=2.3km az=71.0*
**ISC 27 01:07:45.4±1.0, 39.58N±0.02×16.94E±0.02, h17km±7km, n260, σ1=36/339, mb3.7/8, 41C-6D, Southern Italy**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **PIPA** | **Pietrapaola** | **0.13** | **225** | Pg | **Pb** | **01 07 49.4** | **0.0** |
| PIPA | | | | Sg | **Sb** | **01 07 52.4** | **+0.4** |
| | 96µm,0.4s | | | | | | |
| **PIPA** | **Pietrapaola** | **0.13** | **225** | Pg | **Pb** | **01 07 49.4** | **0.0** |
| PIPA | | | | Sg | **Sb** | **01 07 52.4** | **+0.4** |
| | 96µm,0.4s | | | | | | |
| **TIP** | **Timpagrande** | **0.42** | **199** | Pg | **Pg** | **01 07 53.6** | **-0.4** |
| TIP | | | | Sg | **Sb** | **01 08 00.5** | **+0.1** |
| | 2µm,0.7s | | | | | | |
| **TIP** | **Timpagrande** | **0.42** | **199** | Pg | **Pg** | **01 07 53.6** | **-0.4** |
| TIP | | | | Sg | **Sb** | **01 08 00.5** | **+0.1** |
| | 2µm,0.7s | | | | | | |
| **SALB** | **San Lorenzo Be** | **0.54** | **304** | Pg | **Pg** | **01 07 55.8** | **-0.5** |
| SALB | | | | Sg | **Sg** | **01 08 03.8** | **+0.2** |
| | 3µm,0.6s | | | | | | |
| **SALB** | **San Lorenzo Be** | **0.54** | **304** | Pg | **Pg** | **01 07 55.8** | **-0.5** |
| SALB | | | | Sg | **Sg** | **01 08 03.8** | **+0.2** |
| | 3µm,0.6s | | | | | | |
| **SERS** | **Sersale** | **0.57** | **200** | Pg | **Pg** | **01 07 56.2** | **-0.6** |
| SERS | | | | Sg | **Sb** | **01 08 04.8** | **-0.1** |
| | 2µm,0.7s | | | | | | |
| **SERS** | **Sersale** | **0.57** | **200** | Pg | **Pg** | **01 07 56.2** | **-0.6** |
| SERS | | | | Sg | **Sb** | **01 08 04.8** | **-0.1** |
| | 2µm,0.7s | | | | | | |
| **ORI** | **Oriolo Calabro** | **0.61** | **323** | Pg | **Pg** | **01 07 57.1** | **-0.4** |
| ORI | | | | Sg | **Sg** | **01 08 05.6** | **-0.1** |
| | 6µm,0.4s | | | | | | |
| **ORI** | **Oriolo Calabro** | **0.61** | **323** | Pg | **Pg** | **01 07 57.1** | **-0.4** |
| ORI | | | | Sg | **Sg** | **01 08 05.6** | **-0.1** |
| | 6µm,0.4s | | | | | | |
| **CET2** | **Cetraro** | **0.76** | **267** | Pg | **Pb** | **01 07 58.8** | **-1.3** |
| | 7µm,0.9s | | | | | | |
| **CET2** | **Cetraro** | **0.76** | **267** | Pg | **Pb** | **01 07 58.8** | **-1.3** |
| | 7µm,0.9s | | | | | | |
| **T0711** | **Rotonda (PZ)** | **0.76** | **298** | Pg | **Pb** | **01 07 59.1** | **-1.1** |
| | 2µm,0.6s | | | | | | |
| **MMN** | **Mormanno** | **0.79** | **294** | Pg | **Pb** | **01 08 00.3** | **-0.3** |
| | 651nm,0.6s | | | | | | |
| **MMN** | **Mormanno** | **0.79** | **294** | Pg | **Pb** | **01 08 00.3** | **-0.3** |
| | 651nm,0.6s | | | | | | |
| **GRI** | **Girifalco** | **0.85** | **208** | Pg | **Pb** | **01 08 01.1** | **-0.6** |
| | 2µm,0.6s | | | | | | |
| **GRI** | **Girifalco** | **0.85** | **208** | Pg | **Pb** | **01 08 01.1** | **-0.6** |
| | 2µm,0.6s | | | | | | |
| **SCHR** | **S. Chirico Rap** | **0.91** | **314** | Pg | **Pb** | **01 08 01.9** | **-0.8** |
| | 1µm,0.7s | | | | | | |
| **CUC** | **Castrocucco** | **0.96** | **296** | Pg | **Pb** | **01 08 04.1** | **+0.1** |
| | 762nm,0.5s | | | | | | |
| **CUC** | **Castrocucco** | **0.96** | **296** | Pg | **Pn** | **01

596nm,0.7s
SG1 Sgolgore (BA) 1.28 351 ePn Pb 01 08 08.9 0.0
FASA Fasano 1.28 14 ePn Pb 01 08 08.7 -0.3
SCTE Santa Cesarea 1.28 67 Pg Pn 01 08 08.5 +0.1
405nm,0.7s
SCTE Santa Cesarea 1.28 67 Pg Pn 01 08 08.5 +0.1
405nm,0.7s
SLCN Sala Consilina 1.29 309 Pg Pb 01 08 07.9 -0.7
2µm,0.5s
SLCN Sala Consilina 1.29 309 Pg Pn 01 08 07.9 -0.7
2µm,0.5s
BULG Bulgheria - Ca 1.30 293 Pg Pb 01 08 09.7 +0.3
1µm,0.9s
BULG Bulgheria - Ca 1.30 293 Pg Pn 01 08 09.7 +0.3
1µm,0.9s
AMUR Altamura 1.35 349 Pg Pn 01 08 09.8 +0.3
1µm,0.6s
AMUR Altamura 1.35 349 Pg Pn 01 08 09.8 +0.3
1µm,0.6s
ACER Acerenza 1.43 328 Pg Pn 01 08 10.6 +0.1
2µm,0.7s
ACER Acerenza 1.43 328 Pg Pn 01 08 10.6 +0.1
2µm,0.7s
CMPR Campora 1.46 301 Pg Pb 01 08 11.8 -0.2
531nm,0.7s
CMPR Campora 1.46 301 Pg Pb 01 08 11.8 -0.2
531nm,0.7s
BAI Bari 1.53 358 ePn Pn 01 08 12.2 +0.4
PALZ Palazzo San Ge 1.56 332 Pg Pb 01 08 13.0 -0.7
2µm,1.1s
PALZ Palazzo San Ge 1.56 332 Pg Pb 01 08 13.0 -0.7
2µm,1.1s
CDT Castel del Mon 1.59 342 *i* Pn Pn 01 08 13.3 +0.6
MRVN Minervino Murg 1.59 339 Pg Pn 01 08 13.3 +0.6
657nm,0.8s
MRVN Minervino Murg 1.59 339 Pg Pn 01 08 13.3 +0.6
657nm,0.8s
MSCL Scilla 1.61 214 Pg Pb 01 08 14.0 -0.7
1µm,0.8s
MSCL Scilla 1.61 214 Pg Pb 01 08 14.0 -0.7
1µm,0.8s
MRLC Muro Lucano 1.62 317 Pg Pb 01 08 14.9 +0.1
483nm,0.6s
MRLC Muro Lucano 1.62 317 Pg Pb 01 08 14.9 +0.1
483nm,0.6s
SOI Samo 1.65 205 Pg Pb 01 08 15.5 +0.2
385nm,0.8s
SOI Samo 1.65 205 Pg Pb 01 08 15.5 +0.2
385nm,0.8s
MSRU Castanea 1.72 221 Pg Pn 01 08 14.7 +0.2
1µm,1.1s
MSRU Castanea 1.72 221 Pg Pn 01 08 14.7 +0.2
1µm,1.1s
MPAZ Palizzi 1.78 204 Pg Pb 01 08 16.8 -0.7
376nm,0.9s
MPAZ Palizzi 1.78 204 Pg Pb 01 08 16.8 -0.7
376nm,0.9s
MCRV Calabrutti - M 1.81 312 Pg Pb 01 08 17.7 -0.4
416nm,0.7s
MCRV Calabrutti - M 1.81 312 Pg Pb 01 08 17.7 -0.4
416nm,0.7s
MPNC Port Mandanici 1.89 221 Pg Pn 01 08 17.0 +0.2
1µm,1.1s
MPNC Port Mandanici 1.89 221 Pg Pn 01 08 17.0 +0.2
1µm,1.1s
MCSR Castroreale 2.00 222 Pg Pn 01 08 19.1 +0.6
437nm,0.3s
MCSR Castroreale 2.00 222 Pg Pn 01 08 19.1 +0.6
437nm,0.3s
KEK Kerkira 2.21 86 P Pn 01 08 21.9 +0.6
KEK Kerkira 2.21 86 P Pn 01 08 21.9 +0.6
MS1 Monte Sant'Ang 2.26 341 ePn Pn 01 08 23.5 +1.6
SGD Sagiada 2.55 88 P Pn 01 08 26.8 +0.9
SGD Sagiada 2.55 88 P Pn 01 08 26.8 +0.9
TIR Tirane 2.85 51 ⇓*i*P Pn 01 08 30.9 +0.9
TIR Tirane 2.85 51 S Sn 01 09 05.6 +1.7
TIR Tirane 2.85 51 P Pn 01 08 31.4 +1.4
VAE Valguarnera 2.88 224 Pn Pn 01 08 33.2 +2.7
1.2nm,0.3s,baz=37,slow=5.1,SNR=6.3
ULC Ulcinj 2.96 36⇑*i*Pn Pn 01 08 31.9 +0.3
ULC eSn Sn 01 09 07.4 +0.7
ULC Ulcinj 2.96 36⇑*i*Pn Pn 01 08 31.9 +0.3
ULC eSn Sn 01 09 07.4 +0.7
LKD2 Lefkada island 3.00 104 P Pn 01 08 32.9 +0.8
LKD2 Lefkada island 3.00 104 P Pn 01 08 32.9 +0.8
JAN Janina 3.03 87 P Pn 01 08 34.1 +1.6
JAN Janina 3.03 87 P Pn 01 08 34.1 +1.6
BUM Brajici-Budva 3.10 28⇑*i*Pn Pn 01 08 33.8 +0.3
BUM eSn Sn 01 09 10.0 -0.2
BUM Brajici-Budva 3.10 28⇑*i*Pn Pn 01 08 33.8 +0.3
BUM eSn Sn 01 09 10.0 -0.2
HCY Herceg Novi 3.10 22⇑*i*Pn Pn 01 08 33.3 -0.2
HCY eSn Sn 01 09 10.2 +0.1
HCY Herceg Novi 3.10 22⇑*i*Pn Pn 01 08 33.3 -0.2
HCY eSn Sn 01 09 10.2 +0.1
DRME Dracevica, Mon 3.12 32⇑*i*Pn Pn 01 08 33.8 +0.1
DRME eSn Sn 01 09 10.4 -0.1
DRME Dracevica, Mon 3.12 32⇑*i*Pn Pn 01 08 33.8 +0.1
DRME eSn Sn 01 09 10.4 -0.1
VLS Valsamata 3.18 115 P Pn 01 08 34.8 +0.3
VLS Valsamata 3.18 115 P Pn 01 08 34.8 +0.3
DSL Palaion Diasel 3.26 96 P Pn 01 08 37.6 +2.0
DSL Palaion Diasel 3.26 96 P Pn 01 08 37.6 +2.0
PENT Pentalofos 3.29 78 P Pn 01 08 37.9 +1.7
PENT Pentalofos 3.29 78 P Pn 01 08 37.9 +1.7
TREB Trebinje 3.31 18 ePn Pn 01 08 35.9 -0.5
TREB Trebinje 3.31 18 ePn Pn 01 08 35.9 -0.5
CEME Cevo 3.32 26⇑*i*Pn Pn 01 08 37.0 +0.4
CEME eSn Sn 01 09 16.0 +0.3
CEME Cevo 3.32 26⇑*i*Pn Pn 01 08 37.0 +0.4
CEME eSn Sn 01 09 16.0 +0.3
OHR Ohrid 3.33 61 ePn Pn 01 08 36.2 -0.5
OHR eSn Sb 01 09 22.3 -1.8
STON Ston 3.34 10 ePn Pn 01 08 36.2 -0.6
STON Sn Sn 01 09 15.2 -0.8
PDG Podgorica 3.35 31 ⇓*i*P Pn 01 08 37.1 +0.2
PDG Podgorica 3.35 31 S Sn 01 09 15.0 -1.2
PDG Podgorica 3.35 31 ⇓*i*P Pn 01 08 37.1 +0.2
PDG eSn Sn 01 09 16.5 +0.3
PDG Podgorica 3.35 31 P Pn 01 08 37.1 +0.2
TTG Podgorica 3.35 31⇑*i*Pn Pn 01 08 37.0 +0.2
TTG eSn Sn 01 09 16.5 +0.3
KPRO Kipourio 3.43 82 P Pn 01 08 40.1 +2.0
KPRO Kipourio 3.43 82 P Pn 01 08 40.1 +2.0
PDO Prodromos 3.45 105 P Pn 01 08 39.7 +1.5
PDO Prodromos 3.45 105 P Pn 01 08 39.7 +1.5
NKME Niksic 3.53 25⇑*i*Pn Pn 01 08 39.2 -0.2
NKME eSn Sn 01 09 21.1 +0.3
NKME Niksic 3.53 25⇑*i*Pn Pn 01 08 39.2 -0.2
NKME eSn Sn 01 09 21.1 +0.3
BRY Bratogost 3.54 19⇑*i*Pn Pn 01 08 39.4 -0.2
BRY eSn Sn 01 09 20.8 -0.2
BRY Bratogost 3.54 19⇑*i*Pn Pn 01 08 39.4 -0.2
BRY eSn Sn 01 09 20.8 -0.2
NKY Niksic 3.59 25⇑*i*Pn Pn 01 08 41.0 +0.8
NKY eSn Sn 01 09 22.6 +0.4
NKY Niksic 3.59 25⇑*i*Pn Pn 01 08 41.0 +0.8
NKY eSn Sn 01 09 22.6 +0.4
FNA Florina 3.61 69 P Pn 01 08 41.8 +1.3
FNA Florina 3.61 69 P Pn 01 08 41.8 +1.3
BIA Bitola 3.65 65 *i* Pn Pn 01 08 41.3 +0.2
BIA eSn Sn 01 09 24.2 +0.4
KRUS Krusevo 3.75 60 *i* Pn Pn 01 08 42.7 +0.2
KRUS eSn Sn 01 09 25.9 -0.3
PVY Plav 3.78 36⇑*i*Pn Pn 01 08 43.6 +0.6
PVY eSn Sn 01 09 27.5 +0.4
PVY Plav 3.78 36⇑*i*Pn Pn 01 08 43.6 +0.6
PVY eSn Sn 01 09 27.5 +0.4
KOME Kolasin 3.81 30⇑*i*Pn Pn 01 08 44.4 +1.2
KOME eSn Sn 01 09 27.6 0.0
KOME Kolasin 3.81 30⇑*i*Pn Pn 01 08 44.4 +1.2
KOME eSn Sn 01 09 27.6 0.0
UPM Unac-Piva 3.91 22 ⇓*i*Pn Pn 01 08 45.4 +0.6
UPM eSn Sn 01 09 29.8 -0.6
UPM Unac-Piva 3.91 22 ePn Pn 01 08 45.2 +0.4
UPM eSn Sn 01 09 29.8 -0.6
THL Klokotos Trika 3.93 89 P Pn 01 08 46.9 +2.1
THL Klokotos Trika 3.93 89 P Pn 01 08 46.9 +2.1
PEJK Peje 3.97 38 P Pn 01 08 49.7 +4.2
PEJK S Sn 01 09 34.5 +2.9
BEY Berane 3.98 33⇑*i*Pn Pn 01 08 46.9 +1.3
BEY Berane 3.98 33 P Pn 01 08 47.9 +2.3
BEY eSn Sn 01 09 31.6 -0.2
IVA Berane 3.98 33⇑*i*Pn Pn 01 08 46.9 +1.3
IVA eSn Sn 01 09 31.6 -0.2
DRO Drossia 4.07 112 P Pn 01 08 47.7 +0.9
DRO Drossia 4.07 112 P Pn 01 08 47.7 +0.9
LAKA Lakka 4.16 107 P Pn 01 08 49.9 +1.9
LAKA Lakka 4.16 107 P Pn 01 08 49.9 +1.9
SERG Sergoula 4.16 105 P Pn 01 08 50.1 +2.1
SERG Sergoula 4.16 105 P Pn 01 08 50.1 +2.1
PLE Pljevlja 4.18 25⇑*i*Pn Pn 01 08 49.5 +1.1
PLE eSn Sn 01 09 36.4 -0.4
PLE Pljevlja 4.18 25⇑*i*Pn Pn 01 08 49.5 +1.1
PLE eSn Sn 01 09 36.4 -0.4
KALE Kalithea 4.22 105 P Pn 01 08 51.7 +2.7
KALE Kalithea 4.22 105 P Pn 01 08 51.7 +2.7
SJES Sjenica 4.33 31 ePn Pn 01 08 52.1 +1.6
SJES eSn Sn 01 09 40.9 +0.3
SJES Sjenica 4.33 31 ePn Pn 01 08 52.1 +1.6
SJES eSn Sn 01 09 40.9 +0.3
DSF Desfina 4.51 103 P Pn 01 08 55.5 +2.6
DSF Desfina 4.51 103 P Pn 01 08 55.5 +2.6
GUR Goura 4.53 109 P Pn 01 08 55.6 +2.3
GUR Goura 4.53 109 P Pn 01 08 55.6 +2.3
VAY Valandovo 4.64 66 ePn Pn 01 08 49.5 -5.1
VAY *i* Sn Sn 01 09 45.3 -2.7
BBLS Lazi?i 4.67 23 *i* Pn Pn 01 08 56.0 +0.9
BBLS eSn Sn 01 09 49.0 +0.2
BBLS Lazi?i 4.67 23 *i* Pn Pn 01 08 56.0 +0.9
IVAS Ivanjica 4.67 30 *e*Pn Pn 01 08 55.9 +0.8
IVAS eSn Sn 01 09 48.4 -0.4
IVAS Ivanjica 4.67 30 ePn Pn 01 08 55.9 +0.8
IVAS eSn Sn 01 09 48.4 -0.4
HAPS Han Pijesak,Bl 4.75 18 ePn Pn 01 08 55.9 -0.3
HAPS eSn Sn 01 09 50.7 -0.2
HAPS Han Pijesak,Bl 4.75 18 ePn Pn 01 08 55.9 -0.3
HAPS eSn Sn 01 09 50.7 -0.2
SELS Selova 4.81 39 ePn Pn 01 08 58.0 +1.0
BARS Barje 4.90 47 ePn Pn 01 09 00.2 +2.0
BARS Barje 4.90 47 ePn Pn 01 09 00.2 +2.0
UDBI Udbina 5.02 350 *i* Pn Pn 01 09 01.4 +1.5
UDBI Sn Sn 01 09 57.4 -0.2
UDBI Udbina 5.02 350 *i* Pn Pn 01 09 01.4 +1.5
UDBI Sn Sn 01 09 57.4 -0.2
DIVS Divibare 5.06 26 ePn Pn 01 09 00.7 +0.2
DIVS eSn Sn 01 09 57.7 -0.9
DIVS Divibare 5.06 26 ePn Pn 01 09 00.7 +0.2
DIVS eSn Sn 01 09 57.7 -0.9
GRUS Gruza 5.15 32 ePn Pn 01 09 01.9 +0.2
GRUS Gruza 5.15 32 ePn Pn 01 09 01.9 +0.2
BLY Banja Luka 5.17 2⇑*i*Pn Pn 01 09 02.7 +0.8
NVLJ Novalja 5.21 344 ePn Pn 01 09 03.3 +0.8
NVLJ Sn Sn 01 09 59.6 -2.6
NVLJ Novalja 5.21 344 ePn Pn 01 09 03.3 +0.8
NVLJ Sn Sn 01 09 59.5 -2.6
TRUS Trudelj 5.32 28 ePn Pn 01 09 03.6 -0.3
TRUS Trudelj 5.32 28 ePn Pn 01 09 03.6 -0.3
TEKS Tekeris 5.33 20 *i* Pn Pn 01 09 03.7 -0.4
TEKS Tekeris 5.33 20 *i* Pn Pn 01 09 03.7 -0.4
BOVS Bovan 5.41 40 ePn Pn 01 09 06.1 +1.0
BOVS Bovan 5.41 40 ePn Pn 01 09 06.1 +1.0
VTS Vitosha 5.62 56⇑*i*P Pn 01 09 09.1 +0.9
VTS Vitosha 5.62 56 S Sn 01 10 11.9 -0.4
VTS Vitosha 5.62 56⇑*i*P Pn 01 09 09.1 +0.9
ZAPS Zavoj 5.66 47 ePn Pn 01 09 10.6 +2.0
ZAPS Zavoj 5.66 47 ePn Pn 01 09 10.6 +2.0
ZAGS Zajecar 5.80 41 ePn Pn 01 09 11.2 +0.7
ZAGS Zajecar 5.80 41 ePn Pn 01 09 11.2 +0.7
FGSL Fruska Gora 5.97 20 ePn Pn 01 09 12.1 -0.8
FRGS Fruska Gora 5.97 20 ePn Pn 01 09 12.1 -0.8
OZLJ Ozalj 6.13 350 ePn Pn 01 09 16.1 +1.0
OZLJ Ozalj 6.13 350 ePn Pn 01 09 16.0 +1.0
MDVR Moldovita 6.29 33 ⇓*i*P Pn 01 09 17.5 +0.1
MDVR Moldovita 6.29 33 S Sn 01 10 24.3 -4.6
MDVR Moldovita 6.29 33 ⇓*i*P Pn 01 09 17.5 +0.1
CRES Cresnjev 6.34 351 ePn Pn 01 09 18.0 0.0
CEY Cerknica 6.43 344⇑*i*Pn Pn 01 09 19.5 +0.3
HERR Herculane 6.68 36⇑*i*P Pn 01 09 23.5 +0.9
LJU Ljubljana 6.70 345 ePn Pn 01 09 23.9 +1.0
BEHE Becsehely 6.89 359⇑*e*x Pn 01 09 26.5 +1.0
BEHE *e*x Sn 01 10 41.1 -2.4
BEHE Becsehely 6.89 359⇑*i*Pn Pn 01 09 25.8 +0.3
BEHE eSn Sn 01 10 41.1 -2.4
BZS Buzias 6.95 28⇑*i*P Pn 01 09 24.9 -1.5
BZS Buzias 6.95 28⇑*i*P Pn 01 09 24.9 -1.5
KEST Kesra 7.14 240 Pn Pn 01 09 32.5 +3.5
0.3nm,0.3s,baz=307,slow=5.7,SNR=7.6
OBKA Obir 7.14 347 ePn Pn 01 09 30.3 +1.2
26nm,0.6s
OBKA eSn Sn 01 10 49.7 -0.2
20nm,0.7s
OBKA Obir 7.14 347 Pn Pn 01 09 30.3 +1.2
26nm,0.6s
OBKA Sn Sn 01 10 49.7 -0.2
20nm,0.7s
SOKA Soboth 7.23 350 *i* Pn Pn 01 09 30.8 +0.5
4.0nm,0.3s
SOKA Soboth 7.23 350 Pn Pn 01 09 30.8 +0.5
4.0nm,0.3s
MYKA Terra Mystica 7.45 342 *i* Pn Pn 01 09 34.4 +1.2
2.4nm,0.3s
MYKA *i* Sn Sn 01 10 58.6 +1.3
3.4nm,0.5s
MYKA Terra Mystica 7.45 342 Pn Pn 01 09 34.4 +1.2
2.4nm,0.3s
MYKA Sn Sn 01 10 58.6 +1.3
3.4nm,0.5s
SIRR Siria 7.53 26⇑*i*P Pn 01 09 33.5 -0.8
SIRR Siria 7.53 26⇑*i*P Pn 01 09 33.5 -0.8
IDI Anoyia 7.64 122 Pn Pn 01 09 35.2 -0.7
1.4nm,0.3s,baz=298,slow=11,SNR=11
IDI Sn Sn 01 10 59.4 -2.6
0.9nm,0.3s,baz=162,slow=19,SNR=4.3
ARSA Arzberg 7.74 353 *i* Pn Pn 01 09 37.7 +0.6
5.6nm,0.5s
ARSA *i* Sn Sn 01 11 04.0 -0.3
2.1nm,0.4s
ARSA Arzberg 7.74 353 Pn Pn 01 09 37.7 +0.6
5.6nm,0.5s
ARSA Sn Sn 01 11 04.0 -0.3
2.1nm,0.4s
CSKK Cs˙tkako 7.84 7⇑*e*x Pn 01 09 46.4 +7.8
ABTA Abfaltersbach 7.86 337 *i* Pn Pn 01 09 40.0 +1.1
3.8nm,0.7s
ABTA *i* Sn Sn 01 11 08.4 +0.9
5.2nm,0.5s
ABTA Abfaltersbach 7.86 337 Pn Pn 01 09 40.0 +1.1
3.8nm,0.7s
ABTA Sn Sn 01 11 08.4 +0.9
5.2nm,0.5s
KBA Koelnbreinsper 7.94 342 *e*Sn Sn 01 11 07.3 -2.2
1.4nm,0.3s
KBA Koelnbreinsper 7.94 342 Sn Sn 01 11 07.3 -2.2
1.4nm,0.3s
DRGR 8.35 28⇑*i*P Pn 01 09 43.2 -2.4
VOIR 8.38 43⇑*i*P Pn 01 09 49.1 +3.1
CONA Conrad Observa 8.38 355 *i* Pn Pn 01 09 46.8 +0.7
1.5nm,0.3s
CONA Conrad Observa 8.38 355 Pn Pn 01 09 46.8 +0.7
1.5nm,0.3s
MOA Molln 8.49 348 *i* Pn Pn 01 09 48.6 +1.1
16nm,0.5s
MOA *e*Sn Sn 01 11 23.0 +0.1
2.3nm,0.4s
MOA Molln 8.49 348 Pn Pn 01 09 48.6 +1.1
16nm,0.5s
MOA Sn Sn 01 11 23.0 +0.1
2.3nm,0.4s
PSZ Piszkesteto 8.61 13⇑*e*x Pn 01 09 52.1 +3.0
PSZ Piszkesteto 8.61 13⇑*e*Pn Pn 01 09 52.1 +3.0
WATA Walderalm 8.68 335 *e*Pn Pn 01 09 52.6 +2.5
6.4nm,0.5s
WATA *i* Sn Sn 01 11 29.7 +2.1
0.9nm,0.3s
WATA Walderalm 8.68 335 Pn Pn 01 09 52.6 +2.5
6.4nm,0.5s
WATA Sn Sn 01 11 29.7 +2.1
0.9nm,0.3s
FETA Feichten 8.71 331 Pn Pn 01 09 53.7 +3.2
1.2nm,0.5s
FETA Sn Sn 01 11 31.7 +3.4
2.4nm,0.6s
DAVOX Davos/Dischmat 8.85 327 Pn Pn 01 09 55.0 +2.4
baz=162,slow=20
DAVOX Sn Sn 01 11 35.3 +3.4
baz=180,slow=20
DAVOX LR LR 01 14 28.5
comp=Z,113nm,20.4s,baz=98,slow=46
MLR Muntele Rosu 8.89 45 Pn Pn 01 09 55.6 +2.5
0.0nm,0.3s,baz=193,slow=18,SNR=2.0
SMOL Smolenice 8.94 2 *e*Pn Pn 01 09 54.0 +0.4
SMOL Smolenice 8.94 2 *e*PN Pn 01 09 54.0 +0.4
VYHS Vyhne 9.02 8 *e*Pn Pn 01 09 55.7 +1.0
VYHS Vyhne 9.02 8 *e*PN Pn 01 09 55.7 +1.0
VYHS eSN Sn 01 11 29.5 -6.3
RETA Reutte 9.09 332 *i* Pn Pn 01 09 58.5 +2.8
0.7nm,0.3s
RETA *e*Sn Sn 01 11 39.3 +1.8
3.3nm,0.7s
DAVA Damuels 9.25 329 *e*Pn Pn 01 10 00.0 +2.0
1.6nm,0.5s
DAVA *e*Sn Sn 01 11 40.6 -1.2
1.9nm,0.3s
DAVA Damuels 9.25 329 Pn Pn 01 10 00.0 +2.0
1.6nm,0.5s
DAVA Sn Sn 01 11 40.6 -1.2
1.9nm,0.3s
GERES GERESS Array B 9.55 347 Pn Pn 01 10 02.1 0.0
0.4nm,0.3s,baz=161,slow=14,SNR=34
GERES Sn Sn 01 11 43.2 -5.8
0.5nm,0.3s,baz=162,slow=24,SNR=6.3
VRAC Vranov 9.73 359 Pn Pn 01 10 04.0 -0.4
0.2nm,0.3s,baz=184,slow=16,SNR=3.6
KHC Kasperske Hory 9.85 347 *e*PN Pn 01 10 06.1 0.0
KHC *ex* x 01 10 14.3
KHC *e*SN Sn 01 11 51.7 -4.5
KHC Kasperske Hory 9.85 347 Pn Pn 01 10 06.1 0.0
PRU Pruhonice 10.55 352 *e*PN Pn 01 10 15.2 -0.4
PRU Pruhonice 10.55 352 Pn Pn 01 10 15.2 -0.4
BRTR Keskin Array B 12.88 84 Pn Pn 01 10 49.6 +1.9
0.0nm,0.3s,baz=262,slow=9.6,SNR=3.9
ESDC Sonseca Array 16.10 277 Pn P 01 11 36.4 +2.3
0.2nm,0.3s,baz=78,slow=11,SNR=8.5
MMAI Mount Meron Ar 16.25 108 Pn Pn 01 11 28.1 -4.8
0.2nm,0.3s,baz=302,slow=12,SNR=4.1
MDT Midelt 18.63 255 P P 01 12 00.4 -1.8
0.1nm,0.3s,baz=108,slow=2.7,SNR=2.9
KBZ Khabaz 19.81 69 P Pn 01 12 16.8 +0.4
0.1nm,0.3s,baz=270,slow=12,SNR=4.1
HFS Hagfors 20.68 355 P P 01 12 24.9 +0.7
3.9nm,0.6s,baz=153,slow=9.7,SNR=8.3
EKA Eskdalemuir Ar 20.69 326 P P 01 12 24.2 -0.2
2.0nm,0.6s,baz=128,slow=13,SNR=11
GNI Garni 21.32 80 P P 01 12 33.7 +2.2
3.2nm,0.9s,baz=32,slow=15,SNR=4.0
NB2 NORSAR Subarra 21.78 352 P P 01 12 36.1 0.0
comp=Z,3.5nm,0.6s,baz=163,slow=11
NB2 NORSAR Subarra 21.78 352 P P 01 12 36.1 0.0
comp=Z,3.5nm,0.6s,SNR=4.0
NOA NORSAR Array B 21.78 352 P P 01 12 35.7 -0.3
comp=Z,3.6nm,0.9s,baz=167,slow=12,SNR=4.6
FINES FINESS Array B 22.61 11 P P 01 12 44.8 0.0
comp=Z,3.2nm,0.9s,baz=187,slow=9.6,SNR=4.9
TORD Torodi Ar. Bea 29.56 211 P P 01 13 48.3 -0.9
comp=Z,0.1nm,0.5s,baz=18,slow=10.0,SNR=4.9
ARCES ARCESS Array B 30.37 6 P P 01 13 55.9 0.0
comp=Z,2.3nm,0.6s,baz=187,slow=9.4,SNR=8.0
KMBO Kilima Mbogo 44.58 150 LR LR 01 34 39.5
comp=Z,34nm,18.9s,baz=84,slow=36
MKAR Makanchi Array 46.96 59 P P 01 16 16.3 +1.2
comp=Z,0.3nm,0.4s,baz=278,slow=7.9,SNR=11
YKA Yellowknife Ar 71.09 338 P P 01 19 02.3 +0.1
comp=Z,0.3nm,0.6s,baz=41,slow=5.7,SNR=8.7
PDAR Pinedale Array 84.79 324 P P 01 20 18.8 -0.1
comp=Z,0.2nm,0.5s,baz=71,slow=5.8,SNR=3.3

**IDC 27 01:29:33.3±8.8, 16°83S×174°10W, h0km, mb3.5/3, mb1 3.8/3, mb1mx3.5/27, mbtmp3.5/3, Error ellipse: s-maj=386.6km s-min=37.5km az=140.0, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| WRA | Warramunga Arr | 48.87 | 258 | P | P | 01 38 20.6 | -0.6 |
| | 0.2nm,0.4s,baz=96,slow=6.5,SNR=6.8 | | | | | | |
| ASAR | Alice Springs | 49.04 | 253 | P | P | 01 38 22.7 | +0.2 |
| | 0.4nm,0.5s,baz=88,slow=8.2,SNR=12 | | | | | | |
| ILAR | Eielson Array | 83.97 | 11 | P | P | 01 42 05.0 | 0.0 |
| | 0.2nm,0.5s,baz=223,slow=5.8,SNR=5.8 | | | | | | |

*ISCJB **27** 01:36:05.5±1.3, 36°.73N×0°.10×70°.5E×0°.2, h200km, mb3.0/1, Error ellipse: s-maj=19.7km s-min=11.3km az=30.2*
*NNC **27** 01:36:08.0±1.7, 36°.89N×70°.74E, h206km±27km, mb2.5, mpv3.6, Error ellipse: s-maj=19.2km s-min=14.1km az=69.0*
*IDC **27** 01:36:18.9±16.0, 36°.41N×71°.72E, h399km±340km, mb2.6/1, mb1 2.6/3, mb1mx2.3/35, mbtmp3.5/3, Error ellipse: s-maj=755.0km s-min=85.1km az=133.0*

**ISC 27 01:36:05.4±1.8, 36°.7N±0°.1×70°.6E±0°.1, h200km, n13, σ1§07/18, 4C-6D, Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| SFK | Sufi-Kurgan | 4.02 | 33 | ⇑P | P | 01 37 08.4 | +0.8 |
| | 5.6nm,0.3s | | | | | | |
| SFK | | | | ⇑S | S | 01 37 56.3 | -0.2 |
| | 16nm,0.4s | | | | | | |
| AML | Almayashu | 5.94 | 23 | P | P | 01 37 33.2 | +1.0 |
| | SNR=44 | | | | | | |
| MNAS | Manas | 5.98 | 13 | ⇓P | P | 01 37 33.8 | +1.4 |
| | 2.1nm,0.3s | | | | | | |
| MNAS | | | | ⇓S | S | 01 38 40.8 | -0.6 |
| | 11nm,0.6s | | | | | | |
| UCH | Uchtor | 6.30 | 27 | P | P | 01 37 37.7 | +0.8 |
| | SNR=12 | | | | | | |
| KK31 | Karatay Array | 6.42 | 359 | ⇓P | P | 01 37 39.3 | +1.3 |
| | 1.4nm,0.3s,baz=177,slow=11,SNR=72 | | | | | | |
| KK31 | | | | ⇓S | S | 01 38 50.3 | -1.1 |
| | 2.5nm,0.3s,baz=188,slow=21,SNR=12 | | | | | | |
| EKS2 | Erkin-Say | 6.45 | 21 | P | P | 01 37 39.9 | +1.4 |
| | SNR=11 | | | | | | |
| AAK | Ala-Archa | 6.65 | 25 | ⇑P | P | 01 37 41.8 | +0.6 |
| | 2.0nm,0.6s | | | | | | |
| AAK | | | | ⇑S | S | 01 38 56.9 | -0.2 |
| | 3.2nm,0.5s | | | | | | |
| AAK | Ala-Archa | 6.65 | 25 | P | P | 01 37 42.1 | +0.9 |
| | SNR=6.0 | | | | | | |
| TKM2 | Tokmak 2 | 7.31 | 30 | ⇓P | P | 01 37 50.4 | +0.6 |
| | 2.2nm,0.5s | | | | | | |
| TKM2 | | | | ⇓S | S | 01 39 10.6 | -2.1 |
| | 1.5nm,0.6s | | | | | | |
| TKM2 | Tokmak 2 | 7.31 | 30 | P | Pn | 01 37 50.9 | +1.1 |
| | SNR=7.0 | | | | | | |
| MKAR | Makanchi Array | 13.32 | 37 | P | P | 01 39 09.8 | +0.3 |
| | 0.1nm,0.3s,baz=223,slow=11,SNR=5.5 | | | | | | |
| ZALV | Zalesovo Beam | 19.88 | 25 | P | P | 01 40 20.9 | -0.3 |
| | 0.4nm,0.3s,baz=201,slow=7.7,SNR=4.5 | | | | | | |
| TORD | Torodi Ar. Bea | 65.43 | 268 | P | P | 01 46 26.4 | -0.8 |
| | 0.2nm,0.5s,baz=54,slow=5.8,SNR=5.9 | | | | | | |

**IDC 27 02:04:43.9±1.6, 4°.67N×126°.59E, h0km, mb3.3/3, mb1 3.5/3, mb1mx3.3/37, mbtmp3.3/3, Error ellipse: s-maj=156.7km s-min=26.6km az=69.0, Talaud Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| WRA | Warramunga Arr | 25.62 | 163 | P | P | 02 10 15.2 | 0.0 |
| | 0.4nm,0.4s,baz=343,slow=10.0,SNR=6.5 | | | | | | |
| SONM | Songino Array | 46.37 | 341 | P | P | 02 13 11.9 | -0.1 |
| | 0.1nm,0.4s,baz=150,slow=6.3,SNR=2.8 | | | | | | |
| MKAR | Makanchi Array | 56.71 | 325 | P | P | 02 14 29.3 | -0.1 |
| | 0.2nm,0.4s,baz=117,slow=8.6,SNR=5.6 | | | | | | |

**IDC 27 02:15:40.0±4.7, 6°.51S×128°.59E, h308km±48km, mb2.9/1, mb1 3.7/4, mb1mx3.1/33, mbtmp4.3/4, Error ellipse: s-maj=64.4km s-min=16.9km az=69.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| FITZ | Fitzroy Crossi | 11.88 | 194 | P | Pn | 02 18 21.2 | +0.2 |
| | baz=29,slow=13 | | | | | | |
| FITZ | | | | S | S | 02 20 32.4 | -0.9 |
| | 0.6nm,0.3s,baz=79,slow=22,SNR=4.6 | | | | | | |
| WRA | Warramunga Arr | 14.48 | 158 | P | P | 02 18 50.1 | -0.9 |
| | 0.5nm,0.3s,baz=333,slow=13,SNR=23 | | | | | | |
| WRA | | | | S | S | 02 21 28.4 | -1.3 |
| | 0.4nm,0.3s,baz=336,slow=22,SNR=9.1 | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **ASAR** | **Alice Springs** | **17.81** | **164** | P | | P | 02 19 28.1 | +0.8 | |
| | 7.4nm,0.3s,baz=344,slow=11,SNR=617 | | | | | | | | |
| ASAR | | | | S | | S | 02 22 36.6 | +0.7 | |
| | 0.2nm,0.3s,baz=345,slow=23,SNR=9.1 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **67.05** | **327** | P | | P | 02 26 00.5 | -0.2 | |
| | 0.3nm,0.4s,baz=122,slow=8.0,SNR=5.5 | | | | | | | | |

*ISCJB* ***27*** *02:18:07.2±0.9, 13°.4N±0°.1×145°.9E±0°.1, h100km, mb3.6/7, Error ellipse: s-maj=18.0km s-min=14.3km az=26.7*
*IDC* ***27*** *02:18:11.8±0.8, 13°.65N×144°.99E, h125km±4km, mb3.3/7, mb1 3.5/7, mb1mx3.3/40, mbtmp3.7/7, Error ellipse: s-maj=37.0km s-min=16.0km az=104.0*
**ISC 27 02:18:08.9±0.9, 13°.5N±0°.1×145°.8E±0°.1, h100km, n12, σ2s34/10, mb3.5/7, Mariana Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **GUMO** | **Guam** | **0.86** | **275** | P | | **Pn** | **02 18 30.2** | **+2.4** |
| | 660nm,0.3s,baz=140,slow=0.9,SNR=336 | | | | | | | |
| GUMO | | | | S | | **Sn** | **02 18 42.8** | **+0.7** |
| | 1µm,0.3s,baz=149,slow=23,SNR=43 | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **21.17** | **70** | T | | T | 02 46 05.9 | |
| | baz=257,slow=75,SNR=4.9 | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **21.18** | **70** | T | | T | 02 46 09.8 | |
| | baz=257,slow=75,SNR=3.7 | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **21.19** | **70** | T | | T | 02 45 58.3 | |
| | baz=257,slow=75,SNR=7.4 | | | | | | | |
| **WRA** | **Warramunga Arr** | **35.09** | **199** | P | | **P** | **02 24 51.4** | **-1.2** |
| | 1.1nm,0.7s,baz=20,slow=9.4,SNR=4.8 | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **37.15** | **213** | P | | **P** | **02 25 08.1** | **-2.1** |
| | 2.2nm,0.8s,baz=18,slow=13,SNR=3.8 | | | | | | | |
| **ASAR** | **Alice Springs** | **38.72** | **198** | P | | **P** | **02 25 22.3** | **-1.1** |
| | 0.4nm,0.6s,baz=19,slow=11,SNR=4.6 | | | | | | | |
| **STKA** | **Stephens Creek** | **45.30** | **185** | P | | **P** | **02 26 17.6** | **+0.7** |
| | 1.1nm,0.4s,baz=32,slow=8.4,SNR=6.9 | | | | | | | |
| **MKAR** | **Makanchi Array** | **62.14** | **316** | P | | **P** | **02 28 16.3** | **-3.3** |
| | 0.1nm,0.4s,baz=89,slow=7.8,SNR=3.8 | | | | | | | |
| **ILAR** | **Eielson Array** | **68.27** | **25** | P | | **P** | **02 28 58.3** | **-0.5** |
| | 0.3nm,0.4s,baz=248,slow=5.8,SNR=7.5 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **82.53** | **27** | P | | **P** | **02 30 21.0** | **+0.6** |
| | 0.2nm,0.5s,baz=285,slow=4.9,SNR=5.0 | | | | | | | |
| **LPAZ** | **La Paz** | **147.17** | **99** | PKPbc | | **PKPbc** | **02 37 45.8** | **+3.6** |
| | 1.2nm,0.5s,baz=241,slow=2.5,SNR=5.8 | | | | | | | |

*ISCJB* ***27*** *02:24:18.8±0.8, 12°.33N±0°.09×89°.96W±0°.05, h33km, mb4.4/43, MS3.0/4, Error ellipse: s-maj=12.4km s-min=6.4km az=174.8*
*IDC* ***27*** *02:24:20.7±1.7, 13°.14N×89°.25W, h0km, mb3.9/8, mb1 4.2/9, mb1mx3.9/32, mbtmp3.9/9, ML3.2/1, MS3.1/4, Ms1 3.1/4, ms1mx2.8/29, Error ellipse: s-maj=50.1km s-min=28.2km az=32.0*
*CASC* ***27*** *02:24:24.4±1.0, 12°.74N×89°.88W, h59km±109km, ML3.4, mb4.5(NEIC)*
*NEIC* ***27*** *02:24:27.2±1.8, 12°.82N×89°.59W, h61km±11km, mb4.5/38, Error ellipse: s-maj=19.0km s-min=9.9km az=185.0*
**ISC 27 02:24:23.8±0.9, 12°.72N±0°.09×89°.78W±0°.06, h29km, n238, σ1s21/237, mb4.5/42, MS3.1/4, Off coast of central America**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **SNET** | **Serv Nac Est T** | **1.10** | **29** | *e*P | | **Pb** | **02 24 44.6** | **+0.3** |
| SNET | | | | *e*S | | **Sb** | **02 24 59.5** | **+1.3** |
| SNET | | | | IAML | | | 02 25 05.8 | |
| | comp=Z,689nm,0.3s | | | | | | | |
| **BOQS** | **Boqueron** | **1.12** | **26** | *e*P | | **Pb** | **02 24 44.9** | **+0.3** |
| **UEES** | **San Salvador** | **1.13** | **27** | *e*P | | **Pb** | **02 24 45.0** | **+0.3** |
| UEES | | | | IAML | | | 02 25 11.0 | |
| | comp=Z,774nm,0.4s | | | | | | | |
| **LFRS** | **El Faro** | **1.14** | **38** | *e*P | | **Pb** | **02 24 44.8** | **-0.1** |
| **MONT** | **Ecomontaæa** | **1.14** | **6** | *e*P | | **Pb** | **02 24 45.0** | **-0.1** |
| **RTR** | **El Retiro** | **1.17** | **6** | *e*P | | **Pb** | **02 24 45.5** | **-0.1** |
| **CUS1** | **Cusmapa** | **1.19** | **352** | *e*P | | **Pn** | **02 24 44.7** | **+0.1** |
| **LBRS** | **Las Brisas** | **1.24** | **35** | *e*P | | **Pb** | **02 24 46.7** | **+0.1** |
| **IXG** | **Ixpaco** | **1.59** | **336** | *e*P | | **Pn** | **02 24 49.3** | **-0.8** |
| **PACA** | **Pacayal** | **1.60** | **62** | *e*P | | **Pb** | **02 24 52.5** | **-0.3** |
| **LCY** | **Lacayo** | **1.60** | **64** | *e*P | | **Pn** | **02 24 51.2** | **+0.9** |
| **VSM** | **San Miguel** | **1.62** | **64** | *e*P | | **Pn** | **02 24 51.9** | **+1.2** |
| **CAHU** | **Cacacuatique** | **1.85** | **56** | *e*P | | **Pn** | **02 24 55.4** | **+1.7** |
| **TGUH** | **Tegucigalpa,Un** | **2.77** | **61** | *e*Pn | | **Pn** | **02 25 07.5** | **+1.2** |
| **CMIG** | **Matias Romero** | **6.57** | **312** | Pn | | **Pn** | **02 26 00.1** | **+1.5** |
| | comp=Z,0.5nm,0.3s,baz=111,slow=9.5,SNR=8.0 | | | | | | | |
| **UNM** | **Universidad Na** | **11.17** | **307** | *e*Pn | | **Pn** | **02 27 05.2** | **+3.3** |
| **833A** | **Chaparral WMA,** | **17.93** | **331** | P | | **P** | **02 28 32.7** | **+1.2** |
| | baz=148 | | | | | | | |
| **347A** | **Saraland** | **18.62** | **3** | P | | **Pn** | **02 28 41.6** | **+2.1** |
| | baz=183 | | | | | | | |
| **344A** | **Westbrook Farm** | **18.66** | **357** | P | | **Pn** | **02 28 41.3** | **+1.3** |
| | baz=176 | | | | | | | |
| **342A** | **Flagon Creek P** | **18.71** | **353** | P | | **Pn** | **02 28 41.4** | **+0.8** |
| | baz=172 | | | | | | | |
| **245A** | **Little AP, Sta** | **19.22** | **360** | P | | **Pn** | **02 28 47.2** | **+0.5** |
| | baz=179 | | | | | | | |
| **244A** | **Avery, Jackson** | **19.25** | **358** | P | | **Pn** | **02 28 47.7** | **+0.7** |
| | baz=177 | | | | | | | |
| **435B** | **Jarrell** | **19.37** | **339** | P | | **Pn** | **02 28 48.0** | **-0.5** |
| | baz=156 | | | | | | | |
| **VBMS** | **Vicksburg** | **19.42** | **358** | P | | **Pn** | **02 28 49.2** | **+0.1** |
| | baz=177 | | | | | | | |
| **241A** | **Mo Tay, Goldon** | **19.43** | **352** | P | | **Pn** | **02 28 49.3** | **+0.1** |
| | baz=170 | | | | | | | |
| **145A** | **Houston Renfro** | **19.79** | **360** | P | | **Pn** | **02 28 53.8** | **+0.3** |
| | baz=179 | | | | | | | |
| **146A** | **Union** | **19.83** | **2** | P | | **Pn** | **02 28 54.3** | **+0.2** |
| | baz=182 | | | | | | | |
| **JCT** | **Junction City** | **19.96** | **334** | P | | **P** | **02 28 54.3** | **+0.6** |
| | baz=150 | | | | | | | |
| **237A** | **Washetta, Mont** | **19.97** | **345** | P | | **P** | **02 28 54.1** | **+0.3** |
| | baz=162 | | | | | | | |
| **140A** | **Cam and Jess,** | **20.13** | **351** | P | | **P** | **02 28 56.1** | **+0.6** |
| | baz=169 | | | | | | | |
| **236A** | **Katherine and** | **20.16** | **343** | P | | **P** | **02 28 56.4** | **+0.4** |
| | baz=160 | | | | | | | |
| **LRAL** | **Lakeview Retre** | **20.38** | **7** | P | | Pn | 02 29 00.2 | -0.2 |
| | baz=187 | | | | | | | |
| **LRAL** | **Lakeview Retre** | **20.38** | **7** | *e*P | | **P** | **02 28 58.5** | **+0.3** |
| | comp=Z,18nm,1.3s | | | | | | | |
| **Z46A** | **Louisville** | **20.39** | **2** | P | | Pn | 02 29 00.1 | -0.5 |
| | baz=182 | | | | | | | |
| **WHTX** | **Lake Whitney,** | **20.43** | **341** | P | | **P** | **02 28 58.6** | **-0.3** |
| | baz=158,SNR=7.2 | | | | | | | |
| **WHTX** | **Lake Whitney,** | **20.43** | **341** | *e*P | | **P** | **02 28 58.2** | **-0.7** |
| | comp=Z,23nm,1.2s | | | | | | | |
| **Z44A** | **Pea Ridge, Bel** | **20.47** | **358** | P | | Pn | 02 29 00.6 | -0.9 |
| | baz=178 | | | | | | | |
| **137A** | **Heron Place, G** | **20.53** | **345** | P | | **P** | **02 29 00.3** | **+0.5** |
| | baz=163 | | | | | | | |
| **136A** | **Ennis** | **20.61** | **344** | P | | **P** | **02 29 01.1** | **+0.3** |
| | baz=160,SNR=9.7 | | | | | | | |
| **Z41A** | **Richland Creek** | **20.63** | **353** | P | | Pn | 02 29 02.2 | -1.1 |
| | baz=171 | | | | | | | |
| **Z48A** | **Northport** | **20.66** | **5** | P | | Pn | 02 29 03.2 | -0.5 |
| | baz=186 | | | | | | | |
| **LTX** | **Lajitas** | **20.97** | **324** | *e*P | | **P** | **02 29 06.1** | **+1.3** |
| LTX | | | | *e*PcP | | **PcP** | **02 33 14.8** | **+3.0** |
| **TXAR** | **Lajitas Array** | **20.97** | **324** | P | | **P** | **02 29 06.1** | **+1.3** |
| | comp=Z,7.3nm,0.7s,baz=150,slow=11,SNR=98 | | | | | | | |
| TXAR | | | | PcP | | **PcP** | **02 33 14.8** | **+3.0** |
| | comp=Z,0.4nm,0.8s,baz=159,slow=5.3,SNR=3.7 | | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **20.97** | **324** | *e*P | | **P** | **02 29 06.1** | **+1.2** |
| **Z38A** | **Mt. Pleasant** | **20.99** | **348** | P | | **P** | **02 29 05.1** | **+0.3** |
| | baz=165 | | | | | | | |
| **Y45A** | **Yeager Farm, C** | **21.05** | **1** | P | | **P** | **02 29 07.0** | **+1.5** |
| | baz=180,SNR=6.1 | | | | | | | |
| **Z37A** | **Pogue Cattle C** | **21.07** | **346** | P | | **P** | **02 29 06.1** | **+0.3** |
| | baz=164 | | | | | | | |
| **Y46A** | **Houston** | **21.08** | **2** | P | | **P** | **02 29 07.5** | **+1.6** |
| | baz=182,SNR=12 | | | | | | | |
| **Y44A** | **Strider, Charl** | **21.15** | **359** | P | | **P** | **02 29 07.2** | **+0.7** |
| | baz=178 | | | | | | | |
| **Y47A** | **UCPARC, Winfie** | **21.16** | **4** | P | | **P** | **02 29 08.3** | **+1.7** |
| | baz=185,SNR=7.4 | | | | | | | |
| **CCAR** | **Cane Creek** | **21.18** | **355** | *e*P | | **P** | **02 29 11.2** | **+4.3** |
| | comp=Z,25nm,0.8s | | | | | | | |
| **Y48A** | **Jasper** | **21.23** | **6** | P | | **P** | **02 29 09.0** | **+1.6** |
| | baz=186 | | | | | | | |
| **Y49A** | **Blount Mountai** | **21.26** | **8** | P | | **P** | **02 29 09.2** | **+1.4** |
| | baz=189 | | | | | | | |
| **Z36A** | **Blue Ridge** | **21.34** | **345** | P | | **P** | **02 29 08.5** | **-0.1** |
| | baz=161,SNR=5.1 | | | | | | | |
| **GOGA** | **Godfrey** | **21.39** | **15** | *e*P | | **P** | **02 29 08.9** | **-0.2** |
| | comp=Z,44nm,1.8s | | | | | | | |
| **Y40A** | **Okolona** | **21.43** | **352** | P | | **P** | **02 29 10.0** | **+0.4** |
| | baz=170 | | | | | | | |
| **Y38A** | **Idabel** | **21.59** | **349** | P | | **P** | **02 29 11.1** | **-0.2** |
| | baz=166 | | | | | | | |
| **X45A** | **UM Field Stati** | **21.61** | **1** | P | | **P** | **02 29 12.7** | **+1.2** |
| | baz=180,SNR=6.1 | | | | | | | |
| **OXF** | **Oxford** | **21.70** | **1** | P | | **P** | **02 29 13.3** | **+0.9** |
| | baz=180,SNR=6.1 | | | | | | | |
| **OXF** | **Oxford** | **21.70** | **1** | *e*P | | **P** | **02 29 13.1** | **+0.7** |
| | comp=Z,45nm,0.9s | | | | | | | |
| **X46A** | **Booneville** | **21.76** | **3** | P | | **P** | **02 29 14.3** | **+1.1** |
| | baz=183,SNR=5.2 | | | | | | | |
| **X47A** | **Russelville** | **21.77** | **4** | P | | **P** | **02 29 14.3** | **+1.1** |
| | baz=185 | | | | | | | |
| **ABTX** | **Abilene, Hawle** | **21.77** | **337** | *e*P | | **P** | **02 29 13.8** | **+0.5** |
| | comp=Z,22nm,1.5s | | | | | | | |
| **X42A** | **Stuttgart** | **21.80** | **356** | P | | **P** | **02 29 14.8** | **+1.3** |
| | baz=175 | | | | | | | |
| **X41A** | **Kaden, Bauxite** | **21.82** | **354** | P | | **P** | **02 29 14.4** | **+0.6** |
| | baz=172,SNR=7.7 | | | | | | | |
| **Y37A** | **Hugo** | **21.82** | **347** | P | | **P** | **02 29 13.9** | **+0.2** |
| | baz=164 | | | | | | | |
| **X40A** | **Basin Creek Fa** | **21.84** | **353** | P | | **P** | **02 29 14.4** | **+0.4** |
| | baz=172 | | | | | | | |
| **Y36A** | **Durant** | **21.90** | **345** | P | | **P** | **02 29 14.2** | **-0.5** |
| | baz=162 | | | | | | | |
| **X49A** | **Woodville** | **21.92** | **8** | P | | **P** | **02 29 15.6** | **+0.8** |
| | baz=189 | | | | | | | |
| **X50A** | **Fort Payne** | **21.96** | **9** | P | | **P** | **02 29 15.7** | **+0.3** |
| | baz=190 | | | | | | | |
| **MIAR** | **Mount Ida** | **22.00** | **352** | P | | **P** | **02 29 16.8** | **+1.1** |
| | baz=170,SNR=7.9 | | | | | | | |
| **MIAR** | **Mount Ida** | **22.00** | **352** | *e*P | | **P** | **02 29 17.8** | **+2.1** |
| | comp=Z,12nm,0.8s | | | | | | | |
| **X39A** | **Fountain Ranch** | **22.05** | **350** | P | | **P** | **02 29 17.6** | **+1.3** |
| | baz=188 | | | | | | | |
| **UALR** | **University of** | **22.08** | **354** | *e*P | | **P** | **02 29 19.0** | **+2.4** |
| | comp=Z,27nm,0.8s | | | | | | | |
| **Y35A** | **Marietta** | **22.10** | **344** | P | | **P** | **02 29 16.4** | **-0.4** |
| | baz=160,SNR=14 | | | | | | | |
| **X38A** | **Whitesboro** | **22.32** | **349** | P | | **P** | **02 29 18.9** | **-0.3** |
| | baz=166 | | | | | | | |
| **W45A** | **Hickory Valley** | **22.34** | **1** | P | | **P** | **02 29 20.3** | **+1.0** |
| | baz=181,SNR=5.6 | | | | | | | |
| **X37A** | **Clayton** | **22.35** | **348** | P | | **P** | **02 29 20.4** | **+0.9** |
| | baz=165 | | | | | | | |
| **X37A** | **Clayton** | **22.35** | **348** | *e*P | | **P** | **02 29 20.2** | **+0.7** |
| | comp=Z,8.4nm,0.9s | | | | | | | |
| **X301** | **Greenbrier Sit** | **22.54** | **354** | *e*P | | **P** | **02 29 20.3** | **-1.2** |
| | comp=Z,50nm,1.9s | | | | | | | |
| **X35A** | **Drake** | **22.55** | **344** | P | | **P** | **02 29 21.4** | **-0.3** |
| | baz=161 | | | | | | | |
| **X36A** | **Centrahoma** | **22.55** | **346** | P | | **P** | **02 29 21.4** | **-0.3** |
| | baz=163,SNR=5.6 | | | | | | | |
| **WHAR** | **Wolly Hollow** | **22.58** | **355** | *e*P | | **P** | **02 29 23.5** | **+1.6** |
| | comp=Z,72nm,1.9s | | | | | | | |
| **W37B** | **Quinton** | **22.90** | **348** | P | | **P** | **02 29 25.1** | **-0.1** |
| | baz=165 | | | | | | | |
| **W37B** | **Quinton** | **22.90** | **348** | *e*P | | **P** | **02 29 25.1** | **-0.1** |
| | comp=Z,7.8nm,0.7s | | | | | | | |
| **V45A** | **Humboldt** | **22.93** | **2** | P | | **P** | **02 29 26.2** | **+0.7** |
| | baz=182 | | | | | | | |
| **V42A** | **Cord** | **23.03** | **357** | P | | **P** | **02 29 26.6** | **0.0** |
| | baz=176,SNR=5.2 | | | | | | | |
| **V41A** | **Mountainview** | **23.06** | **355** | P | | **P** | **02 29 26.6** | **-0.4** |
| | baz=174 | | | | | | | |
| **V48A** | **Smith Brothers** | **23.07** | **6** | P | | **P** | **02 29 27.4** | **+0.4** |
| | baz=187 | | | | | | | |
| **CPCT** | **Cooper Cave** | **23.12** | **11** | *e*P | | **P** | **02 29 27.3** | **-0.3** |
| | comp=Z,12nm,1.4s | | | | | | | |
| **V40A** | **Witts Springs** | **23.14** | **354** | P | | **P** | **02 29 27.2** | **-0.7** |
| | baz=172 | | | | | | | |
| **W35A** | **Tecumseh** | **23.24** | **345** | P | | **P** | **02 29 27.6** | **-1.1** |
| | baz=162,SNR=9.1 | | | | | | | |
| **W35A** | **Tecumseh** | **23.24** | **345** | *e*P | | **P** | **02 29 27.4** | **-1.3** |
| | comp=Z,19nm,0.7s | | | | | | | |
| **V39A** | **Pettigrew** | **23.28** | **352** | P | | **P** | **02 29 28.0** | **-1.2** |
| | baz=170 | | | | | | | |
| **WVT** | **Waverly** | **23.37** | **4** | P | | **P** | **02 29 30.1** | **0.0** |
| | baz=184 | | | | | | | |
| **WVT** | **Waverly** | **23.37** | **4** | *e*P | | **P** | **02 29 28.4** | **-1.6** |
| | comp=Z,5.0nm,0.7s | | | | | | | |
| **WMOK** | **Wichita Mounta** | **23.39** | **341** | P | | **P** | **02 29 28.1** | **-2.2** |
| | baz=157 | | | | | | | |
| **WMOK** | **Wichita Mounta** | **23.39** | **341** | *e*P | | **P** | **02 29 28.4** | **-1.9** |
| | comp=Z,4.9nm,0.9s | | | | | | | |
| **V38A** | **Canehill** | **23.41** | **351** | P | | **P** | **02 29 29.2** | **-1.3** |
| | baz=168 | | | | | | | |
| **TKL** | **Tuckaleechee C** | **23.47** | **12** | P | | **P** | **02 29 30.8** | **-0.2** |
| | comp=Z,4.8nm,0.8s,baz=174,slow=13,SNR=5.6 | | | | | | | |
| TKL | | | | LR | | LR | 02 38 11.0 | |
| | comp=Z,74nm,19.2s,baz=12,slow=36 | | | | | | | |
| **TKL** | **Tuckaleechee C** | **23.47** | **12** | *e*P | | **P** | **02 29 30.8** | **-0.2** |
| | comp=Z,9.1nm,0.9s | | | | | | | |
| **U45A** | **Rockin P Farm,** | **23.54** | **2** | P | | **P** | **02 29 31.8** | **+0.1** |
| | baz=182 | | | | | | | |
| **OK022** | **N3560 Road, Pr** | **23.55** | **346** | *e*P | | **P** | **02 29 30.2** | **-1.6** |
| | comp=Z,6.4nm,0.7s | | | | | | | |
| **U43A** | **Rector** | **23.55** | **359** | P | | **P** | **02 29 31.5** | **-0.3** |
| | baz=178 | | | | | | | |
| **V37A** | **Hulbert** | **23.56** | **349** | P | | **P** | **02 29 30.9** | **-1.0** |
| | baz=166,SNR=8.0 | | | | | | | |
| **U42A** | **Revenden** | **23.56** | **357** | P | | **P** | **02 29 31.5** | **-0.4** |
| | baz=176 | | | | | | | |
| **U46A** | **Springville** | **23.58** | **3** | P | | **P** | **02 29 32.3** | **+0.3** |
| | baz=183,SNR=10 | | | | | | | |
| **U41A** | **Viola** | **23.60** | **356** | P | | **P** | **02 29 31.3** | **-0.9** |
| | baz=174 | | | | | | | |
| **OK020** | **N30 Road, Me** | **23.60** | **345** | *e*P | | **P** | **02 29 31.4** | **-0.9** |
| | comp=Z,15nm,0.8s | | | | | | | |
| **U40A** | **Yellville** | **23.70** | **354** | P | | **P** | **02 29 32.4** | **-0.7** |
| | baz=172 | | | | | | | |
| **TUL1** | **Leonard** | **23.72** | **348** | P | | **P** | **02 29 32.2** | **-1.2** |
| | baz=165 | | | | | | | |
| **MNTX** | **Cornudas Mount** | **23.72** | **325** | P | | **P** | **02 29 33.2** | **-0.3** |
| | baz=139,SNR=6.6 | | | | | | | |
| **MNTX** | **Cornudas Mount** | **23.72** | **325** | *e*P | | **P** | **02 29 33.5** | **0.0** |
| | comp=Z,17nm,1.6s | | | | | | | |
| **U47A** | **Clinkle** | **23.72** | **5** | P | | **P** | **02 29 33.4** | **0.0** |
| | baz=186 | | | | | | | |
| **U39A** | **Green Forest** | **23.79** | **353** | P | | **P** | **02 29 33.4** | **-0.8** |
| | baz=171 | | | | | | | |
| **V35A** | **Meyer Ranch, C** | **23.81** | **346** | P | | **P** | **02 29 33.3** | **-1.0** |
| | baz=162 | | | | | | | |
| **U48A** | **Cassie Pea, Po** | **23.86** | **6** | P | | **P** | **02 29 35.1** | **+0.3** |
| | baz=187 | | | | | | | |
| **PBMO** | **Poplar Bluff** | **23.96** | **359** | *e*P | | **P** | **02 29 34.3** | **-1.4** |
| | comp=Z,9.6nm,0.6s | | | | | | | |
| **U38A** | **Grivette** | **23.98** | **351** | P | | **P** | **02 29 34.7** | **-1.2** |
| | baz=168 | | | | | | | |
| **U37A** | **Salina** | **24.07** | **349** | P | | **P** | **02 29 35.4** | **-1.3** |
| | baz=167 | | | | | | | |
| **T45A** | **Paducah** | **24.22** | **2** | P | | **P** | **02 29 38.0** | **0.0** |
| | baz=182 | | | | | | | |
| **T42A** | **Van Buren** | **24.23** | **357** | P | | **P** | **02 29 37.6** | **-0.6** |
| | baz=176 | | | | | | | |
| **MSTX** | **Muleshoe** | **24.24** | **333** | P | | **P** | **02 29 37.3** | **-1.1** |
| | baz=147 | | | | | | | |
| **T44A** | **Benton** | **24.26** | **0** | P | | **P** | **02 29 38.0** | **-0.4** |
| | baz=180 | | | | | | | |
| **T43A** | **Greenville** | **24.26** | **359** | P | | **P** | **02 29 38.0** | **-0.5** |
| | baz=178,SNR=7.2 | | | | | | | |
| **T46A** | **Princeton** | **24.27** | **4** | P | | **P** | **02 29 38.3** | **-0.2** |
| | baz=184 | | | | | | | |
| **T47A** | **Sharon Grove** | **24.28** | **5** | P | | **P** | **02 29 38.4** | **-0.2** |
| | baz=186 | | | | | | | |
| **T41A** | **Mountain View** | **24.28** | **356** | P | | **P** | **02 29 38.2** | **-0.4** |
| | baz=175,SNR=7.0 | | | | | | | |
| **U35A** | **Pawnee** | **24.36** | **346** | P | | **P** | **02 29 38.0** | **-1.4** |
| | baz=163 | | | | | | | |
| **T39A** | **Clever** | **24.41** | **353** | P | | **P** | **02 29 38.8** | **-1.0** |
| | baz=171 | | | | | | | |
| **T40A** | **Mansfield** | **24.45** | **355** | P | | **P** | **02 29 39.1** | **-1.1** |
| | baz=173 | | | | | | | |
| **T38A** | **Diamond** | **24.55** | **351** | P | | **P** | **02 29 39.8** | **-1.3** |
| | baz=169 | | | | | | | |
| **AMTX** | **Amarillo** | **24.56** | **336** | P | | **P** | **02 29 39.9** | **-1.4** |
| | baz=151 | | | | | | | |
| **AMTX** | **Amarillo** | **24.56** | **336** | *e*P | | **P** | **02 29 41.8** | **+0.5** |
| | comp=Z,12nm,1.0s | | | | | | | |
| **T37A** | **Cheneyville 18** | **24.73** | **350** | P | | **P** | **02 29 41.5** | **-1.3** |
| | baz=168,SNR=5.8 | | | | | | | |
| **S43A** | **Fulton Ridge,** | **24.75** | **359** | P | | **P** | **02 29 42.0** | **-0.8** |
| | baz=179 | | | | | | | |
| **S41A** | **Jilco Farms,** | **24.82** | **356** | P | | **P** | **02 29 43.2** | **-0.4** |
| | baz=175 | | | | | | | |
| **T36A** | **Boggs Farm, Ca** | **24.84** | **348** | P | | **P** | **02 29 42.6** | **-1.2** |
| | baz=165 | | | | | | | |
| **S44A** | **Carbondale** | **24.87** | **1** | P | | **P** | **02 29 43.8** | **-0.2** |
| | baz=181,SNR=6.1 | | | | | | | |
| **S40A** | **Lebanon** | **24.89** | **355** | P | | **P** | **02 29 43.4** | **-0.8** |
| | baz=173 | | | | | | | |
| **SIUC** | **Southern Illin** | **24.89** | **1** | *e*P | | **P** | **02 29 42.2** | **-2.0** |
| | comp=Z,29nm,1.0s | | | | | | | |
| **S46A** | **Don Dixon Farm** | **24.93** | **4** | P | | **P** | **02 29 44.2** | **-0.3** |
| | baz=184 | | | | | | | |
| **S42A** | **Caledonia** | **24.96** | **358** | P | | **P** | **02 29 44.5** | **-0.3** |
| | baz=177 | | | | | | | |
| **S39A** | **Bolivar** | **25.07** | **353** | P | | **P** | **02 29 44.7** | **-1.0** |
| | baz=171,SNR=7.7 | | | | | | | |
| **S38A** | **Stockton** | **25.08** | **352** | P | | **P** | **02 29 44.9** | **-1.0** |
| | baz=170 | | | | | | | |
| **T34A** | **McClaskey Farm** | **25.09** | **346** | P | | **P** | **02 29 45.1** | **-0.9** |
| | baz=162 | | | | | | | |
| **CCM** | **Cathedral Cave** | **25.26** | **357** | P | | **P** | **02 29 46.9** | **-0.6** |
| | baz=176 | | | | | | | |
| **CCM** | **Cathedral Cave** | **25.26** | **357** | *e*P | | **P** | **02 29 46.9** | **-0.6** |
| | comp=Z,12nm,0.9s | | | | | | | |
| **S37A** | **Fort Scott** | **25.34** | **351** | P | | **P** | **02 29 47.3** | **-0.9** |
| | baz=168,SNR=6.0 | | | | | | | |
| **R44A** | **Waltonville** | **25.43** | **1** | P | | **P** | **02 29 48.9** | **-0.1** |
| | baz=181 | | | | | | | |
| **S36A** | **Lake Cedric, C** | **25.43** | **349** | P | | **P** | **02 29 48.0** | **-1.0** |
| | baz=166,SNR=6.2 | | | | | | | |
| **R43A** | **Red Bud** | **25.45** | **360** | P | | **P** | **02 29 48.8** | **-0.4** |
| | baz=179,SNR=5.8 | | | | | | | |
| **R42A** | **Luebbering** | **25.47** | **358** | P | | **P** | **02 29 48.8** | **-0.6** |
| | baz=177 | | | | | | | |
| **R45A** | **Skylar, Fairfi** | **25.50** | **3** | P | | **P** | **02 29 49.4** | **-0.2** |
| | baz=183 | | | | | | | |
| **R41A** | **Rosebud** | **25.51** | **357** | P | | **P** | **02 29 49.0** | **-0.7** |
| | baz=176,SNR=10 | | | | | | | |
| **R40A** | **Maddies Statio** | **25.56** | **355** | P | | **P** | **02 29 49.2** | **-1.0** |
| | baz=174 | | | | | | | |
| **WCI** | **Wyandotte Cave** | **25.59** | **6** | P | | **P** | **02 29 50.7** | **+0.2** |
| | baz=188 | | | | | | | |
| **WCI** | **Wyandotte Cave** | **25.59** | **6** | *e*P | | **P** | **02 29 50.1** | **-0.4** |
| | comp=Z,40nm,1.8s | | | | | | | |
| **R38A** | **Fenwick Farm,** | **25.62** | **352** | P | | **P** | **02 29 49.8** | **-1.0** |
| | baz=170,SNR=6.3 | | | | | | | |
| **R47A** | **Wooly Knot Far** | **25.63** | **6** | P | | **P** | **02 29 51.3** | **+0.5** |
| | baz=187 | | | | | | | |
| **R39A** | **Chumby, Stover** | **25.65** | **354** | P | | **P** | **02 29 50.3** | **-0.7** |
| | baz=172 | | | | | | | |
| **121A** | **Cookes Peak, D** | **25.71** | **323** | P | | **P** | **02 29 51.0** | **-0.9** |
| | baz=136,SNR=5.6 | | | | | | | |
| **OLIL** | **Olney** | **25.95** | **3** | *e*P | | **P** | **02 29 56.2** | **+2.5** |
| | comp=Z,19nm,0.8s | | | | | | | |
| **R36A** | **Gordon, Harris** | **26.00** | **350** | P | | **P** | **02 29 53.1** | **-1.1** |
| | baz=167 | | | | | | | |
| **Q45A** | **Warren Harvey,** | **26.11** | **3** | P | | **P** | **02 29 55.1** | **0.0** |
| | baz=183 | | | | | | | |
| **Q43A** | **New Douglas** | **26.11** | **0** | P | | **P** | **02 29 55.0** | **-0.2** |
| | baz=180 | | | | | | | |
| **Q41A** | **Truxton** | **26.16** | **357** | P | | **P** | **02 29 54.6** | **-1.0** |
| | baz=176,SNR=8.8 | | | | | | | |
| **Q38A** | **Cooks Store, C** | **26.35** | **353** | P | | **P** | **02 29 56.5** | **-0.9** |
| | baz=171,SNR=5.6 | | | | | | | |
| **Q39A** | **Willow Grove F** | **26.37** | **354** | P | | **P** | **02 29 56.4** | **-1.2** |
| | baz=173 | | | | | | | |
| **Q37A** | **Longview Farm,** | **26.38** | **352** | P | | **P** | **02 29 55.7** | **-2.0** |
| | baz=169 | | | | | | | |
| **P40A** | **Paris** | **26.78** | **356** | P | | **P** | **02 30 00.3** | **-0.9** |
| | baz=175 | | | | | | | |
| **P39B** | **Salisbury** | **26.79** | **355** | P | | **P** | **02 30 00.2** | **-1.1** |
| | baz=173 | | | | | | | |
| **ANMO** | **Albuquerque** | **26.79** | **328** | LR | | LR | 02 42 15.2 | |
| | comp=Z,50nm,18.8s,baz=24,slow=40 | | | | | | | |
| **P43A** | **Skaggs, Pawnee** | **26.81** | **0** | P | | **P** | **02 30 01.2** | **-0.4** |
| | baz=180 | | | | | | | |
| **P38A** | **Dawn** | **27.00** | **354** | P | | **P** | **02 30 02.2** | **-1.0** |
| | baz=172 | | | | | | | |
| **P37A** | **Lathrop** | **27.06** | **352** | P | | **P** | **02 30 02.7** | **-1.1** |
| | baz=170 | | | | | | | |
| **P36A** | **Good Intent, A** | **27.22** | **351** | P | | **P** | **02 30 03.9** | **-1.3** |
| | baz=168 | | | | | | | |
| **IP06** | **Yanceyville** | **27.22** | **21** | *e*P | | **P** | **02 30 02.9** | **-2.3** |
| | comp=Z,28nm,1.5s | | | | | | | |
| **P35A** | **Duane Minner,** | **27.26** | **349** | P | | **P** | **02 30 04.4** | **-1.2** |
| | baz=166 | | | | | | | |
| **SPRD** | **Spring Road, M** | **27.34** | **21** | *e*P | | **P** | **02 30 05.5** | **-0.8** |
| | comp=Z,20nm,1.4s | | | | | | | |
| **O40A** | **La Belle** | **27.35** | **356** | P | | **P** | **02 30 04.8** | **-1.6** |
| | baz=175 | | | | | | | |
| **TUC** | **Tucson** | **27.41** | **319** | P | | **P** | **02 30 06.7** | **-0.4** |
| | baz=130 | | | | | | | |
| **P34A** | **Walnut Farm, R** | **27.44** | **348** | P | | **P** | **02 30 05.5** | **-1.6** |
| | baz=165 | | | | | | | |
| **O45A** | **Potomac** | **27.48** | **3** | P | | **P** | **02 30 05.9** | **-1.6** |
| | baz=184 | | | | | | | |
| **O37A** | **Wolven Farm, M** | **27.61** | **353** | P | | **P** | **02 30 07.4** | **-1.3** |
| | baz=170 | | | | | | | |
| **O35A** | **Humboldt** | **27.96** | **350** | P | | **P** | **02 30 10.5** | **-1.3** |
| | baz=167 | | | | | | | |
| **N44A** | **Piper City** | **28.00** | **3** | P | | **P** | **02 30 10.4** | **-1.8** |
| | baz=183 | | | | | | | |
| **O34A** | **Beatrice** | **28.02** | **349** | P | | **P** | **02 30 11.2** | **-1.2** |
| | baz=165 | | | | | | | |
| **N35A** | **Tabor** | **28.50** | **351** | P | | **P** | **02 30 15.6** | **-1.0** |
| | baz=168 | | | | | | | |
| **N34A** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | baz=168 | | | | | | | |
| **NV01** | **Mina Array Sit** | **36.02** | **320** | *e*P | | **P** | **02 31 25.0** | **+2.2** |
| NV01 | | | | *e*PcP | | **PcP** | **02 33 49.9** | **+0.9** |
| **NVAR** | **Mina Array Bea** | **36.02** | **320** | P | | **P** | **02 31 24.8** | **+1.9** |
| | comp=Z,1.0nm,0.7s,baz=127,slow=8.6,SNR=7.7 | | | | | | | |
| NVAR | | | | PcP | | **PcP** | **02 33 49.9** | **+0.9** |
| | comp=Z,0.7nm,0.8s,baz=132,slow=4.0,SNR=5.3 | | | | | | | |
| **A33A** | **Warroad** | **36.41** | **354** | P | | **P** | **02 31 24.2** | **-1.5** |
| | baz=170 | | | | | | | |
| **ULM** | **Lac du Bonnet** | **37.75** | **354** | P | | **P** | **02 31 34.8** | **-2.3** |
| | comp=Z,4.0nm,0.9s,baz=174,slow=8.9,SNR=4.6 | | | | | | | |
| ULM | | | | LR | | LR | 02 47 34.6 | |
| | comp=Z,36nm,18.1s,baz=6.0,slow=37 | | | | | | | |
| **SCHQ** | **Schefferville** | **45.70** | **18** | P | | **P** | **02 32 40.1** | **-2.0** |
| | comp=Z,7.7nm,0.8s,baz=219,slow=7.1,SNR=9.9 | | | | | | | |
| **SCHQ** | **Schefferville** | **45.70** | **18** | *e*P | | **P** | **02 32 40.1** | **-2.0** |
| | comp=Z,58nm,1.9s | | | | | | | |
| **YKA** | **Yellowknife Ar** | **52.77** | **346** | P | | **P** | **02 33 34.6** | **-1.3** |
| | comp=Z,0.9nm,0.7s,baz=144,slow=7.8,SNR=17 | | | | | | | |
| YKA | | | | LR | | LR | 03 00 55.1 | |
| | comp=Z,6.4nm,19.1s,baz=0.0,slow=42 | | | | | | | |
| **YKB5** | **Yellowknife Ar** | **52.77** | **346** | *e*P | | **P** | **02 33 34.6** | **-1.3** |
| **ILAR** | **Eielson Array** | **64.86** | **337** | P | | **P** | **02 34 59.2** | **-0.8** |
| | comp=Z,0.6nm,0.8s,baz=136,slow=3.7,SNR=4.6 | | | | | | | |
| **ILB** | **Eielson Array** | **64.86** | **337** | *e*P | | **P** | **02 34 59.1** | **-0.8** |
| **TOA1** | **Torodi Ar. Sit** | **88.56** | **77** | *e*P | | **P** | **02 37 12.7** | **-1.9** |
| **TORD** | **Torodi Ar. Bea** | **88.56** | **77** | P | | **P** | **02 37 12.7** | **-1.9** |
| | comp=Z,0.4nm,0.8s,baz=294,slow=6.7,SNR=6.8 | | | | | | | |
| **CM31** | **Chiang Mai Arr** | **147.84** | **344** | *e*PKPbc | | **PKPbc** | **02 44 07.5** | **+0.5** |
| **CMAR** | **Chiang Mai Arr** | **147.84** | **344** | PKPbc | | **PKPbc** | **02 44 07.5** | **+0.5** |
| | comp=Z,1.3nm,0.3s,baz=322,slow=3.9,SNR=5.4 | | | | | | | |

*NEIC* ***27*** *02:33:43.4±0.0, 43°.51S×172°.79E, h8km, ML4.1(WEL), After WEL.*

*NEIC Felt widely in the Christchurch area.*

**WEL 27 02:33:43.7±0.2, 43°.51S×172°.78E, h6km±1km, ML4.1/39, Mw3.9, 3C-6D, Error ellipse: s-maj=1.8km s-min=0.7km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.13** | **242** | Pg | Pg | 02 33 46.6 | +0.2 |
| CRLZ | | | | Sg | Sg | 02 33 48.7 | +0.5 |
| **CRLZ** | **Canterbury Las** | **0.13** | **242** | PG | Pg | 02 33 46.6 | +0.2 |
| CRLZ | | | | SG | Sg | 02 33 48.7 | +0.5 |
| CRLZ | | | | AML | AML | 02 33 49.2 | |
| CRLZ | | | | AML | AML | 02 33 49.3 | |
| CRLZ | | | | AML | AML | 02 33 49.3 | |
| **MQZ** | **McQueen's Vall** | **0.21** | **206** | Pg | Pg | 02 33 48.0 | 0.0 |
| MQZ | | | | Sg | Sg | 02 33 51.0 | +0.2 |
| **MQZ** | **McQueen's Vall** | **0.21** | **206** | PG | Pg | 02 33 48.0 | 0.0 |
| MQZ | | | | SG | Sg | 02 33 51.0 | +0.2 |
| MQZ | | | | AML | AML | 02 33 51.7 | |
| **OXZ** | **Oxford** | **0.57** | **289** | P* | Pg | 02 33 54.7 | 0.0 |
| **OXZ** | **Oxford** | **0.57** | **289** | P* | Pg | 02 33 54.7 | 0.0 |
| OXZ | | | | SG | Sb | 02 34 03.5 | -1.0 |
| OXZ | | | | AML | AML | 02 34 05.2 | |
| OXZ | | | | AML | AML | 02 34 06.2 | |
| OXZ | | | | AML | AML | 02 34 06.2 | |
| **LTZ** | **Lake Taylor** | **0.82** | **333** | P* | Pg | 02 33 59.9 | +0.4 |
| **LTZ** | **Lake Taylor** | **0.82** | **333** | P* | Pg | 02 33 59.9 | +0.4 |
| LTZ | | | | S* | Sb | 02 34 11.4 | -0.3 |
| **KHZ** | **Kahutara** | **1.23** | **27** | P* | Pg | 02 34 05.8 | -1.4 |
| **KHZ** | **Kahutara** | **1.23** | **27** | ⇓P* | Pg | 02 34 05.8 | -1.4 |
| KHZ | | | | AML | AML | 02 34 22.9 | |
| KHZ | | | | AML | AML | 02 34 30.2 | |
| **INZ** | **Inchbonnie** | **1.26** | **308** | ⇓P* | Pn | 02 34 06.3 | -1.5 |
| **RPZ** | **Rata Peaks** | **1.27** | **260** | P* | Pn | 02 34 06.5 | -1.5 |
| **RPZ** | **Rata Peaks** | **1.27** | **260** | ⇓P* | Pn | 02 34 06.5 | -1.5 |
| RPZ | | | | AML | AML | 02 34 35.2 | |
| RPZ | | | | AML | AML | 02 34 38.4 | |
| **WVZ** | **Waitaha Valley** | **1.56** | **286** | AML | AML | 02 34 37.8 | |
| WVZ | | | | AML | AML | 02 34 38.0 | |
| **THZ** | **Tophouse** | **1.75** | **3** | Pn | Pn | 02 34 13.1 | -1.6 |
| **THZ** | **Tophouse** | **1.75** | **3** | PN | Pn | 02 34 13.1 | -1.6 |
| THZ | | | | AML | AML | 02 34 39.6 | |
| THZ | | | | AML | AML | 02 34 40.1 | |
| **DSZ** | **Denniston Nort** | **1.91** | **338** | Pn | Pn | 02 34 16.0 | -0.8 |
| **DSZ** | **Denniston Nort** | **1.91** | **338** | ⇑PN | Pn | 02 34 16.0 | -0.8 |
| DSZ | | | | AML | AML | 02 34 49.1 | |
| DSZ | | | | AML | AML | 02 34 49.1 | |
| DSZ | | | | AML | AML | 02 34 53.0 | |
| DSZ | | | | AML | AML | 02 34 53.0 | |
| **BSWZ** | **Blackbirch Sta** | **1.97** | **25** | Pn | Pn | 02 34 16.4 | -1.2 |
| **BSWZ** | **Blackbirch Sta** | **1.97** | **25** | ⇑PN | Pn | 02 34 16.4 | -1.2 |
| BSWZ | | | | AML | AML | 02 34 43.2 | |
| BSWZ | | | | AML | AML | 02 35 04.8 | |
| **LBZ** | **Lake Benmore** | **2.07** | **244** | Pn | Pn | 02 34 18.0 | -0.9 |
| **LBZ** | **Lake Benmore** | **2.07** | **244** | PN | Pn | 02 34 18.0 | -0.9 |
| LBZ | | | | AML | AML | 02 34 57.2 | |
| LBZ | | | | AML | AML | 02 34 57.2 | |
| LBZ | | | | AML | AML | 02 34 57.4 | |
| LBZ | | | | AML | AML | 02 34 57.4 | |
| **FOZ** | **Fox Glacier** | **2.16** | **269** | Pn | Pn | 02 34 20.5 | +0.4 |
| **FOZ** | **Fox Glacier** | **2.16** | **269** | ⇑PN | Pn | 02 34 20.5 | +0.4 |
| FOZ | | | | AML | AML | 02 34 48.2 | |
| FOZ | | | | AML | AML | 02 34 48.3 | |
| FOZ | | | | AML | AML | 02 35 02.0 | |
| FOZ | | | | AML | AML | 02 35 02.0 | |
| **ODZ** | **Otahua Downs** | **2.17** | **224** | *e*PN | Pn | 02 34 18.6 | -1.7 |
| **NNZ** | **Nelson** | **2.34** | **11** | Pn | Pn | 02 34 21.8 | -0.9 |
| **NNZ** | **Nelson** | **2.34** | **11** | PN | Pn | 02 34 21.7 | -0.9 |
| NNZ | | | | AML | AML | 02 34 53.3 | |
| **TCW** | **Tory Channel** | **2.56** | **26** | Pn | Pn | 02 34 24.2 | -1.4 |
| **TCW** | **Tory Channel** | **2.56** | **26** | PN | Pn | 02 34 24.2 | -1.4 |
| TCW | | | | AML | AML | 02 35 01.5 | |
| TCW | | | | AML | AML | 02 35 28.0 | |
| **BHW** | **Baring Head** | **2.61** | **37** | Pn | Pn | 02 34 24.7 | -1.7 |
| **BHW** | **Baring Head** | **2.61** | **37** | PN | Pn | 02 34 24.7 | -1.7 |
| **PLWZ** | **Palliser** | **2.67** | **44** | Pn | Pn | 02 34 25.0 | -2.2 |
| **PLWZ** | **Palliser** | **2.67** | **44** | PN | Pn | 02 34 25.0 | -2.2 |
| **QRZ** | **Quartz Range** | **2.69** | **356** | Pn | Pn | 02 34 26.6 | -1.0 |
| **QRZ** | **Quartz Range** | **2.69** | **356** | AML | AML | 02 35 16.9 | |
| QRZ | | | | AML | AML | 02 35 16.9 | |
| QRZ | | | | AML | AML | 02 35 18.4 | |
| QRZ | | | | AML | AML | 02 35 18.4 | |
| **MSWZ** | **Moikau Station** | **2.78** | **42** | Pn | Pn | 02 34 26.5 | -2.3 |
| **MSWZ** | **Moikau Station** | **2.78** | **42** | PN | Pn | 02 34 26.5 | -2.3 |
| **HHSZ** | **Highcliff Hill** | **2.83** | **213** | Pn | Pn | 02 34 28.0 | -1.5 |
| **HHSZ** | **Highcliff Hill** | **2.83** | **213** | PN | Pn | 02 34 28.0 | -1.5 |
| HHSZ | | | | AML | AML | 02 35 23.6 | |
| HHSZ | | | | AML | AML | 02 35 28.0 | |
| **DUWZ** | **D'Urville Isla** | **2.84** | **18** | Pn | Pn | 02 34 28.3 | -1.3 |
| **DUWZ** | **D'Urville Isla** | **2.84** | **18** | PN | Pn | 02 34 28.3 | -1.3 |
| DUWZ | | | | AML | AML | 02 35 20.6 | |
| DUWZ | | | | AML | AML | 02 35 39.0 | |
| **CAW** | **Cannon Point** | **2.94** | **36** | Pn | Pn | 02 34 28.9 | -2.1 |
| **CAW** | **Cannon Point** | **2.94** | **36** | PN | Pn | 02 34 28.8 | -2.1 |
| CAW | | | | AML | AML | 02 35 06.9 | |
| CAW | | | | AML | AML | 02 35 08.6 | |
| **JCZ** | **Jackson Bay** | **2.95** | **258** | PN | Pn | 02 34 30.0 | -1.1 |
| JCZ | | | | AML | AML | 02 35 23.9 | |
| JCZ | | | | AML | AML | 02 35 29.9 | |
| **WKZ** | **Wanaka** | **3.01** | **243** | Pn | Pn | 02 34 30.8 | -1.1 |
| **WKZ** | **Wanaka** | **3.01** | **243** | PN | Pn | 02 34 30.8 | -1.1 |
| WKZ | | | | AML | AML | 02 35 27.3 | |
| WKZ | | | | AML | AML | 02 35 27.7 | |
| WKZ | | | | AML | AML | 02 35 30.7 | |
| WKZ | | | | AML | AML | 02 35 30.7 | |
| **TRWZ** | **Traveller** | **3.02** | **46** | Pn | Pn | 02 34 29.5 | -2.5 |
| **TRWZ** | **Traveller** | **3.02** | **46** | PN | Pn | 02 34 29.5 | -2.5 |
| TRWZ | | | | AML | AML | 02 35 11.2 | |
| **EAZ** | **Earnscleugh** | **3.02** | **234** | Pn | Pn | 02 34 30.9 | -1.2 |
| **EAZ** | **Earnscleugh** | **3.02** | **234** | ⇓PN | Pn | 02 34 30.9 | -1.2 |
| EAZ | | | | AML | AML | 02 35 23.5 | |
| EAZ | | | | AML | AML | 02 35 28.9 | |
| **KIW** | **Kapiti Island** | **3.09** | **32** | Pn | Pn | 02 34 31.4 | -1.6 |
| **KIW** | **Kapiti Island** | **3.09** | **32** | PN | Pn | 02 34 31.4 | -1.6 |
| KIW | | | | AML | AML | 02 35 11.2 | |
| **MTW** | **Mount Morrison** | **3.10** | **42** | Pn | Pn | 02 34 30.6 | -2.6 |
| **MTW** | **Mount Morrison** | **3.10** | **42** | ⇓PN | Pn | 02 34 30.6 | -2.6 |
| MTW | | | | AML | AML | 02 35 12.9 | |
| MTW | | | | AML | AML | 02 35 28.1 | |
| **OGWZ** | **Otaki Gorge** | **3.23** | **34** | Pn | Pn | 02 34 32.4 | -2.5 |
| **OGWZ** | **Otaki Gorge** | **3.23** | **34** | PN | Pn | 02 34 32.4 | -2.5 |
| OGWZ | | | | AML | AML | 02 35 16.8 | |
| OGWZ | | | | AML | AML | 02 35 17.9 | |
| **HOWZ** | **Holdsworth Sta** | **3.31** | **39** | Pn | Pn | 02 34 33.8 | -2.2 |
| **HOWZ** | **Holdsworth Sta** | **3.31** | **39** | PN | Pn | 02 34 33.8 | -2.2 |
| HOWZ | | | | AML | AML | 02 35 15.3 | |
| **TUZ** | **Tuapeka** | **3.31** | **222** | PN | Pn | 02 34 34.5 | -1.6 |
| TUZ | | | | AML | AML | 02 35 32.6 | |
| TUZ | | | | AML | AML | 02 35 35.5 | |
| TUZ | | | | AML | AML | 02 35 39.2 | |
| TUZ | | | | AML | AML | 02 35 39.2 | |
| **TMWZ** | **Te Maipa** | **3.33** | **45** | Pn | Pn | 02 34 33.7 | -2.7 |
| **TMWZ** | **Te Maipa** | **3.33** | **45** | PN | Pn | 02 34 33.7 | -2.7 |
| TMWZ | | | | AML | AML | 02 35 20.8 | |
| TMWZ | | | | AML | AML | 02 35 21.1 | |
| **MRZ** | **Mangatainoka R** | **3.53** | **37** | Pn | Pn | 02 34 36.9 | -2.1 |
| **MRZ** | **Mangatainoka R** | **3.53** | **37** | PN | Pn | 02 34 36.9 | -2.1 |
| MRZ | | | | AML | AML | 02 35 20.5 | |
| MRZ | | | | AML | AML | 02 36 04.8 | |
| **TIWZ** | **Tintock** | **3.58** | **41** | Pn | Pn | 02 34 37.4 | -2.4 |
| **TIWZ** | **Tintock** | **3.58** | **41** | PN | Pn | 02 34 37.4 | -2.4 |
| TIWZ | | | | AML | AML | 02 35 21.1 | |
| TIWZ | | | | AML | AML | 02 35 24.8 | |
| **PRWZ** | **Pori Road** | **3.79** | **40** | Pn | Pn | 02 34 40.1 | -2.6 |
| **PRWZ** | **Pori Road** | **3.79** | **40** | PN | Pn | 02 34 40.1 | -2.6 |
| PRWZ | | | | AML | AML | 02 35 28.1 | |
| PRWZ | | | | AML | AML | 02 35 28.2 | |
| **MLZ** | **Mavora Lakes** | **3.82** | **239** | *e*PN | Pn | 02 34 41.3 | -1.7 |
| MLZ | | | | AML | AML | 02 35 53.5 | |
| MLZ | | | | AML | AML | 02 35 58.6 | |
| **BFZ** | **Birch Farm** | **3.83** | **44** | Pn | Pn | 02 34 40.2 | -2.9 |
| **BFZ** | **Birch Farm** | **3.83** | **44** | PN | Pn | 02 34 40.2 | -2.9 |
| **SYZ** | **Scrubby Hill** | **3.98** | **219** | Pn | Pn | 02 34 44.0 | -1.1 |
| **SYZ** | **Scrubby Hill** | **3.98** | **219** | PN | Pn | 02 34 44.0 | -1.1 |
| SYZ | | | | AML | AML | 02 35 59.2 | |
| SYZ | | | | AML | AML | 02 36 20.6 | |
| **TSZ** | **Takapari Road** | **4.19** | **36** | Pn | Pn | 02 34 45.5 | -2.7 |
| **TSZ** | **Takapari Road** | **4.19** | **36** | PN | Pn | 02 34 45.5 | -2.7 |
| **KHEZ** | **Kahui Hut** | **4.32** | **13** | Pn | Pn | 02 34 50.2 | +0.3 |
| **KHEZ** | **Kahui Hut** | **4.32** | **13** | PN | Pn | 02 34 50.2 | +0.3 |
| **WPHZ** | **Waipukurau** | **4.40** | **40** | AML | AML | 02 35 46.6 | |
| **PKE** | **Pukeiti** | **4.41** | **12** | Pn | Pn | 02 34 51.4 | +0.2 |
| **DREZ** | **Durham Road** | **4.45** | **14** | Pn | Pn | 02 34 52.1 | +0.4 |
| **DREZ** | **Durham Road** | **4.45** | **14** | PN | Pn | 02 34 52.1 | +0.4 |
| **DCZ** | **Deep Cove** | **4.47** | **242** | *e*PN | Pn | 02 34 50.2 | -1.7 |
| **PKVZ** | **Pokaka** | **4.64** | **25** | Pn | Pn | 02 34 54.1 | -0.3 |
| **PKVZ** | **Pokaka** | **4.64** | **25** | PN | Pn | 02 34 54.1 | -0.3 |
| **WNVZ** | **Wahianoa** | **4.69** | **28** | Pn | Pn | 02 34 54.5 | -0.6 |
| **WNVZ** | **Wahianoa** | **4.69** | **28** | PN | Pn | 02 34 54.5 | -0.6 |
| **TRVZ** | **Turoa** | **4.70** | **27** | Pn | Pn | 02 34 54.5 | -0.8 |
| **TRVZ** | **Turoa** | **4.70** | **27** | PN | Pn | 02 34 54.5 | -0.8 |
| TRVZ | | | | AML | AML | 02 35 51.9 | |
| TRVZ | | | | AML | AML | 02 36 23.3 | |
| **KRHZ** | **Kereru** | **4.71** | **36** | PN | Pn | 02 34 52.4 | -2.9 |
| KRHZ | | | | AML | AML | 02 35 54.8 | |
| KRHZ | | | | AML | AML | 02 35 56.6 | |
| **BHHZ** | **Black Hill Sta** | **4.72** | **33** | Pn | Pn | 02 34 53.6 | -1.8 |
| **BHHZ** | **Black Hill Sta** | **4.72** | **33** | PN | Pn | 02 34 53.6 | -1.8 |
| **APZ** | **The Paps** | **4.74** | **224** | Pn | Pn | 02 34 54.0 | -1.7 |
| **APZ** | **The Paps** | **4.74** | **224** | PN | Pn | 02 34 54.0 | -1.7 |
| **TUVZ** | **Tukino** | **4.76** | **28** | Pn | Pn | 02 34 55.1 | -1.0 |
| **TUVZ** | **Tukino** | **4.76** | **28** | PN | Pn | 02 34 55.1 | -1.0 |
| **NGZ** | **Ngauruhoe** | **4.83** | **27** | Pn | Pn | 02 34 56.0 | -0.9 |
| **NGZ** | **Ngauruhoe** | **4.83** | **27** | PN | Pn | 02 34 56.0 | -0.9 |
| NGZ | | | | AML | AML | 02 36 32.5 | |
| **OTVZ** | **Oturere** | **4.86** | **28** | Pn | Pn | 02 34 56.3 | -1.2 |
| **OTVZ** | **Oturere** | **4.86** | **28** | ⇓PN | Pn | 02 34 56.3 | -1.2 |
| OTVZ | | | | AML | AML | 02 36 41.6 | |
| OTVZ | | | | AML | AML | 02 36 43.0 | |
| **TWVZ** | **Taurewa** | **4.87** | **25** | Pn | Pn | 02 34 56.7 | -0.8 |
| **WTVZ** | **West Tongariro** | **4.88** | **27** | Pn | Pn | 02 34 57.1 | -0.5 |
| **WTVZ** | **West Tongariro** | **4.88** | **27** | PN | Pn | 02 34 57.1 | -0.6 |
| WTVZ | | | | AML | AML | 02 36 43.6 | |
| **KRVZ** | **Karewarewa** | **4.91** | **27** | Pn | Pn | 02 34 57.0 | -1.1 |
| **HIZ** | **Hauiti** | **5.24** | **18** | Pn | Pn | 02 35 01.7 | -0.8 |
| **HIZ** | **Hauiti** | **5.24** | **18** | PN | Pn | 02 35 01.7 | -0.8 |
| **TLZ** | **Tolley Road** | **5.58** | **23** | Pn | Pn | 02 35 05.8 | -1.5 |
| **TLZ** | **Tolley Road** | **5.58** | **23** | PN | Pn | 02 35 05.8 | -1.5 |
| **KNZ** | **Kokohu** | **5.81** | **41** | Pn | Pn | 02 35 06.9 | -3.4 |
| **KNZ** | **Kokohu** | **5.81** | **41** | PN | Pn | 02 35 06.9 | -3.4 |

**IDC 27 02:33:49.6±2.2, 10°.69S×124°.47E, h0km, mb3.6/1, mb1 3.6/3, mb1mx3.4/21, mbtmp3.5/3, ML3.3/2, Error ellipse: s-maj=194.0km s-min=33.2km az=54.0, Timor region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **13.23** | **135** | Pn | Pn | 02 36 58.4 | -0.5 |
| | 0.1nm,0.3s,baz=310,slow=14,SNR=7.0 | | | | | | |
| WRA | | | | Sn | Sn | 02 39 15.7 | -11 |
| | 1.0nm,0.3s,baz=308,slow=24,SNR=11 | | | | | | |
| **ASAR** | **Alice Springs** | **15.72** | **146** | Pn | Pn | 02 37 33.2 | +0.6 |
| | 0.2nm,0.3s,baz=321,slow=12,SNR=20 | | | | | | |
| ASAR | | | | Sn | Sn | 02 40 18.8 | -8.9 |
| | 0.3nm,0.3s,baz=321,slow=24,SNR=6 | | | | | | |
| **MKAR** | **Makanchi Array** | **68.50** | **330** | P | P | 02 44 53.9 | 0.0 |
| | 0.5nm,0.8s,baz=123,slow=7.2,SNR=4.8 | | | | | | |

**IDC 27 03:12:57.9±2.1, 17°.08S×173°.55W, h0km, mb3.7/3, mb1 4.0/4, mb1mx3.6/34, mbtmp3.7/4, ML3.3/1, MS2.6/1, Ms1 2.6/1, ms1mx2.3/33, Error ellipse: s-maj=124.8km s-min=26.4km az=144.0, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AFI** | **Afiamalu** | **3.58** | **29** | Pn | Pn | 03 13 54.9 | +0.1 |
| | 2.7nm,0.3s,baz=166,slow=11,SNR=3.8 | | | | | | |
| AFI | | | | Sn | Sn | 03 14 28.7 | -9.2 |
| | 50nm,0.3s,baz=67,slow=23,SNR=16 | | | | | | |
| **RAR** | **Rarotonga** | **13.66** | **110** | LR | LR | 03 19 43.5 | |
| | comp=Z,24nm,21.1s,baz=129,slow=30 | | | | | | |
| **ASAR** | **Alice Springs** | **49.47** | **253** | P | P | 03 21 50.4 | +0.1 |
| | 1.1nm,0.6s,baz=88,slow=8.2,SNR=26 | | | | | | |
| **NVAR** | **Mina Array Bea** | **75.67** | **42** | P | P | 03 24 45.7 | +0.3 |
| | 0.4nm,0.7s,baz=229,slow=10,SNR=3.3 | | | | | | |
| **PDAR** | **Pinedale Array** | **83.61** | **42** | P | P | 03 25 28.4 | -0.1 |
| | 0.6nm,0.8s,baz=209,slow=2.7,SNR=5.6 | | | | | | |
| **BRTR** | **Keskin Array B** | **147.34** | **319** | PKPbc | PKPbc | 03 32 43.1 | -0.9 |
| | 0.4nm,0.7s,baz=86,slow=2.8,SNR=3.6 | | | | | | |
| **GERES** | **GERESS Array B** | **147.77** | **351** | PKPbc | PKPbc | 03 32 43.6 | -1.2 |
| | 0.5nm,0.7s,baz=29,slow=3.3,SNR=4.8 | | | | | | |

*ISK* ***27*** *03:16:27.5, 38°.64N×43°.06E, h13km, MD2.7*

*CSEM* ***27*** *03:16:29.6±0.5, 38°.76N×43°.47E, h10km, MD2.7, Error ellipse: s-maj=19.7km s-min=8.5km az=85.0*

*DDA* ***27*** *03:16:29.3, 38°.76N×43°.53E, h7km, Ml2.2*

**ISC 27 03:16:29.6±1.2, 38°.76N±0°.03×43°.43E±0°.07, h14km±10km, n14, σ0s67/22, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.17** | **191** | *e*PG | **Pg** | **03 16 34.1** | **+0.3** |
| VANB | | | | *e*SG | **Sb** | **03 16 39.0** | **+1.1** |
| **VANB** | **Van** | **0.17** | **191** | *e*Pg | **Pg** | **03 16 34.1** | **+0.3** |
| VANB | | | | *e*Sg | **Sb** | **03 16 39.0** | **+1.1** |
| **TVAN** | **Van** | **0.23** | **185** | *i* P | **Pg** | **03 16 33.9** | **-0.9** |
| TVAN | | | | *i* S | **Sb** | **03 16 39.2** | **-0.6** |
| **TVAN** | **Van** | **0.23** | **185** | P | **Pg** | **03 16 33.9** | **-0.9** |
| TVAN | | | | S | **Sb** | **03 16 39.2** | **-0.6** |
| **VMUR** | **Van-Muradiye** | **0.26** | **25** | *i* P | **Pg** | **03 16 34.8** | **-0.4** |
| **VMUR** | **Van-Muradiye** | **0.26** | **25** | P | **Pg** | **03 16 34.8** | **-0.4** |
| **ERCV** | **ERCIS-VAN** | **0.27** | **344** | *e*PG | **Pb** | **03 16 36.7** | **+0.3** |
| **ERCV** | **ERCIS-VAN** | **0.27** | **344** | *e*Pg | **Pb** | **03 16 36.7** | **+0.3** |
| **TUTA** | **Tutak** | **0.80** | **323** | *i* P | **Pg** | **03 16 45.0** | **-0.3** |
| TUTA | | | | *i* S | **Sn** | **03 16 58.4** | **-0.2** |
| **TUTA** | **Tutak** | **0.80** | **323** | P | **Pg** | **03 16 45.0** | **-0.3** |
| TUTA | | | | S | **Sn** | **03 16 58.4** | **-0.2** |
| **AGRB** | **Hanur-Agry** | **0.88** | **337** | *e*PG | **Pg** | **03 16 45.9** | **-0.9** |
| AGRB | | | | *e*SG | **Sb** | **03 16 59.2** | **+0.6** |
| **AGRB** | **Hanur-Agry** | **0.88** | **337** | *e*Pg | **Pg** | **03 16 45.9** | **-0.9** |
| AGRB | | | | *e*Sg | **Sb** | **03 16 59.2** | **+0.6** |
| **TASB** | **TASBURUN-IGDIR** | **1.37** | **27** | *e*PN | **Pg** | **03 16 56.0** | **-0.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.37** | **27** | *e*Pn | **Pg** | **03 16 56.0** | **-0.1** |

*ISCJB* ***27*** *03:22:30.6±0.6, 37°.51N±0°.04×38°.64E±0°.04, h3km±7km, Error ellipse: s-maj=6.7km s-min=5.8km az=5.5*

*ISK* ***27*** *03:22:30.1, 37°.49N×38°.63E, h5km, MD2.7*

*DDA* ***27*** *03:22:30.6, 37°.51N×38°.62E, h7km, Ml2.4*

*CSEM* ***27*** *03:22:30.7±0.2, 37°.49N×38°.64E, h8km, MD2.7, Error ellipse: s-maj=4.1km s-min=3.5km az=64.0*

**ISC 27 03:22:30.8±1.0, 37°.49N±0°.03×38°.64E±0°.03, h8km±9km, n23, σ0s33/31, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **URFA** | **Urfa** | **0.15** | **108** | *e*PG | **Pg** | **03 22 34.0** | **-0.1** |
| URFA | | | | *e*SG | **Sg** | **03 22 36.4** | **+0.1** |
| **URFA** | **Urfa** | **0.15** | **108** | *e*Pg | **Pg** | **03 22 34.0** | **-0.1** |
| URFA | | | | *e*Sg | **Sg** | **03 22 36.4** | **+0.1** |
| **ATAB** | **Bozova** | **0.27** | **266** | *i* P | **Pg** | **03 22 36.2** | **0.0** |
| ATAB | | | | *i* S | **Sg** | **03 22 40.0** | **+0.2** |
| **ATAB** | **Bozova** | **0.27** | **266** | P | **Pg** | **03 22 36.2** | **0.0** |
| ATAB | | | | S | **Sg** | **03 22 40.0** | **+0.2** |
| **SURC** | **SANLIURFA_SURC** | **0.61** | **182** | *i* P | **Pg** | **03 22 42.5** | **0.0** |
| SURC | | | | *i* S | **Sb** | **03 22 52.5** | **0.0** |
| **SURC** | **SANLIURFA_SURC** | **0.61** | **182** | P | **Pg** | **03 22 42.5** | **0.0** |
| SURC | | | | S | **Sb** | **03 22 52.5** | **0.0** |
| **MALT** | **Malatya** | **0.84** | **349** | *e*PG | **Pg** | **03 22 46.3** | **-0.7** |
| **MALT** | **Malatya** | **0.84** | **349** | *e*Pg | **Pg** | **03 22 46.3** | **-0.7** |
| **AKCD** | **Akcadag** | **0.98** | **325** | *i* P | **Pg** | **03 22 49.6** | **-0.1** |
| AKCD | | | | *i* S | **Sb** | **03 23 04.0** | **+0.6** |
| **AKCD** | **Akcadag** | **0.98** | **325** | P | **Pg** | **03 22 49.6** | **-0.1** |
| AKCD | | | | S | **Sb** | **03 23 04.0** | **+0.6** |
| **SVRC** | **Sivrice-ELAZID** | **1.03** | **31** | *e*PG | **Pg** | **03 22 50.5** | **-0.2** |
| **SVRC** | **Sivrice-ELAZID** | **1.03** | **31** | *e*Pg | **Pg** | **03 22 50.5** | **-0.2** |
| **GAZ** | **Gaziantep** | **1.18** | **255** | *e*PN | **Pg** | **03 22 52.9** | **-0.5** |
| **GAZ** | **Gaziantep** | **1.18** | **255** | *e*Pn | **Pg** | **03 22 52.9** | **-0.5** |
| **KMRS** | **Kahramanmaras** | **1.38** | **271** | *e*PN | **Pn** | **03 22 56.6** | **+0.2** |
| **KMRS** | **Kahramanmaras** | **1.38** | **271** | *e*Pn | **Pn** | **03 22 56.7** | **+0.2** |
| **MAZI** | **Mazidag** | **1.44** | **91** | *e*PN | **Pn** | **03 22 57.4** | **+0.1** |
| **MAZI** | **Mazidag** | **1.44** | **91** | *e*Pn | **Pn** | **03 22 57.4** | **+0.1** |
| **HEKM** | **Malatya_Hekimh** | **1.49** | **339** | *i* P | **Pn** | **03 22 58.5** | **+0.4** |
| **HEKM** | **Malatya_Hekimh** | **1.49** | **339** | P | **Pn** | **03 22 58.5** | **+0.4** |
| **PTK** | **Pertek** | **1.52** | **23** | *e*PN | **Pn** | **03 22 58.8** | **+0.2** |
| **PTK** | **Pertek** | **1.52** | **23** | *e*Pn | **Pn** | **03 22 58.8** | **+0.2** |
| **KAMA** | **Osmaniye** | **1.60** | **260** | *i* P | **Pb** | **03 23 00.2** | **-0.5** |

*IDC* ***27*** *03:25:48.5±0.6, 7°.22N×92°.98E, h0km, mb4.5/22, mb1 4.6/24, mb1mx4.4/53, mbtmp4.5/24, ML4.5/2, MS3.9/6, Ms1 3.9/6, ms1mx3.3/47, Error ellipse: s-maj=19.4km s-min=12.6km az=40.0*

*BJI* ***27*** *03:25:49.6, 6°.94N×93°.11E, h33km, mb4.9/50, mB5.0/32, Ms4.4/28, Ms7 4.2/28*

*MOS* ***27*** *03:25:50.1±1.0, 7°.16N×92°.94E, h28km, mb4.9/27, Error ellipse: s-maj=8.9km s-min=5.8km az=105.8*

*ISCJB* ***27*** *03:25:51.0±0.5, 7°.11N±0°.03×92°.97E±0°.03, h34km±5km, mb4.8/89, MS4.1/14, Error ellipse: s-maj=5.8km s-min=3.4km az=38.0*

*NEIC* ***27*** *03:25:53.9±0.7, 7°.19N×92°.99E, h40km±6km, mb5.0/39, Error ellipse: s-maj=6.3km s-min=4.0km az=45.0*

*DJA* ***27*** *03:25:55.7±1.1, 7°.1N±4°×9°.3E±1°.1, h41km±9km, M4.7/12, mb5.0/12, mB5.2/3, MLv4.6/6, Mw(mB)4.6/3*

**ISC 27 03:25:52.6±0.6, 7°.14N±0°.04×92°.88E±0°.04, h31km±3km, h32km:pP-P, n264, σ1s89/284, mb4.8/89, MS4.0/14, 17C-9D, Nicobar Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PBA** | **Port Blair** | **4.49** | **358** | *e*P | Pn | 03 27 00.2 | +1.6 |
| PBA | | | | *e*S | Sn | 03 27 47.8 | -2.0 |
| **MLSI** | **Meulaboh, Aceh** | **4.52** | **129** | P | **Pn** | **03 26 57.8** | **-1.1** |
| MLSI | | | | S | **Sn** | **03 27 48.8** | **-1.6** |
| **PKDT** | **Phuket** | **5.46** | **82** | P | **Pb** | **03 27 29.5** | **+2.2** |
| | 62nm,0.6s | | | | | | |
| **PKDT** | **Phuket** | **5.46** | **82** | P | **Pn** | **03 27 11.9** | **0.0** |
| **TPTI** | | **5.76** | **132** | P | **Pn** | **03 27 14.3** | **-1.7** |
| | 176nm,0.7s,0.7nm | | | | | | |
| TPTI | | | | S | **Sn** | **03 28 14.7** | **-6.3** |
| | 176nm,0.7s,0.7nm | | | | | | |
| **DGPR** | **DIGLIPUR** | **6.00** | **0** | *e*P | **Pn** | **03 27 18.7** | **-0.6** |
| DGPR | | | | *e*S | **Sn** | **03 28 23.6** | **-3.5** |
| **KCSI** | **Kotacane, Aceh** | **6.05** | **126** | P | **Pn** | **03 27 18.3** | **-1.7** |
| | 72nm,0.9s,0.3nm | | | | | | |
| KCSI | | | | S | **Sn** | **03 28 26.0** | **-2.2** |
| | 72nm,0.9s,0

RPR eS Sn 03 32 58.7 -13
**BOK Bokaro 17.87 339** eP **P** **03 30 01.1 +1.7**
**SHL Shillong 18.35 357** eP **P** **03 30 03.3 -1.6**
**SRSP Sriramsagar 18.36 311** eP **Pn** **03 30 09.7 +4.7**
SRSP eS Sn 03 33 13.3 -16
**KLRI Killari 19.23 306** eP **P** **03 30 13.0 -1.4**
KLRI eS Sn 03 33 36.8 -14
**NGP Nagpur 19.31 318** eP **Pn** **03 30 16.3 -0.1**
**KMI Kunming 20.22 27** P **P** **03 30 26.5 +1.1**
KMI pP sP 03 30 36.0 -1.8
KMI pmax pmax
comp=Z,53nm,0.9s
KMI LR LR
comp=Z,300nm,18.2s
KMI LR LR
comp=Z,190nm,16.3s
KMI LR LR
comp=Z,270nm,17.3s
**QIZ Qiongzhong 20.29 53** P **P** **03 30 25.5 -0.5**
QIZ S **S** **03 34 11.5 -0.6**
QIZ LR LR
comp=Z,630nm,4.0s
QIZ LR LR
comp=Z,530nm,11.9s
**QIZ Qiongzhong 20.29 53** eP **P** **03 30 25.4 -0.5**
comp=Z,61nm,1.0s
**ODAN Odare 20.30 346** eP **P** **03 30 26.9 +0.7**
comp=Z,46nm,0.5s
**ODAN Odare 20.30 346** eP **S** **03 34 06.6 -5.9**
comp=Z,9.4nm,0.3s
**GOA Goa 20.43 296** eP **P** **03 30 28.4 +0.9**
**RAMN Ramite 20.59 344** eP **P** **03 30 30.8 +1.4**
comp=Z,62nm,0.4s
**RAMN Ramite 20.59 344** eP **S** **03 34 13.9 -4.4**
comp=Z,17nm,0.4s
**TAPN Taplejung 20.70 347** eP **P** **03 30 31.0 +0.4**
comp=Z,62nm,0.5s
**TAPN Taplejung 20.70 347** eP **S** **03 34 18.4 -2.0**
comp=Z,16nm,0.4s
**JIRN Jiri 21.38 344** eP **P** **03 30 38.6 +0.6**
**JIRN Jiri 21.38 344** eP **S** **03 34 26.3 -7.7**
comp=Z,40nm,0.4s
**PKI Pulchoki 21.52 342** eP **P** **03 30 40.3 +0.8**
comp=Z,46nm,0.5s
**PKI Pulchoki 21.52 342** eP **S** **03 34 33.5 -3.4**
comp=Z,27nm,0.7s
**PKIN Phulchoki 21.53 342** eP **P** **03 30 40.3 +0.7**
comp=Z,44nm,0.5s
**PKIN Phulchoki 21.53 342** eP **S** **03 34 33.5 -3.4**
comp=Z,53nm,0.6s
**DMN Daman 21.66 341** eP **P** **03 30 42.4 +1.5**
comp=Z,35nm,0.7s
**DMN Daman 21.66 341** eP **S** **03 34 36.9 -2.4**
comp=Z,54nm,1.1s
**GUN Gumba 21.70 343** eP **P** **03 30 41.9 +0.4**
comp=Z,68nm,0.6s
**GUN Gumba 21.70 343** eP **S** **03 34 31.9 -8.5**
comp=Z,7.6nm,0.7s
**POO Poona 21.71 303** eP **P** **03 30 40.0 -1.3**
**KKN Kakani 21.77 342** eP **P** **03 30 42.7 +0.7**
comp=Z,53nm,0.7s
**BHPL Bhopal 21.84 319** eP **P** **03 30 43.4 +0.7**
**KOLN Koldanda 22.33 338** eP **P** **03 30 49.7 +1.7**
comp=Z,55nm,0.7s
**KOLN Koldanda 22.33 338** eP **S** **03 34 54.7 +2.7**
comp=Z,22nm,0.6s
**LSA Lhasa 22.50 356** eP **P** **03 30 50.1 -0.1**
LSA pmax pmax
comp=Z,13nm,0.7s
**LSA Lhasa 22.50 356** eP **P** **03 30 50.1 -0.1**
comp=Z,14nm,0.7s
**PYUN Piuthan 22.86 337** eP **P** **03 30 55.3 +1.6**
**PYUN Piuthan 22.86 337** eP **S** **03 35 03.9 +2.5**
comp=Z,35nm,0.6s
**KKM Kota Kinabalu 23.21 91** eP **P** **03 30 57.1 -0.1**
comp=Z,33nm,1.2s
**GYA Guiyang 23.27 33**⇑ *i*P **P** **03 30 56.8 -1.0**
GYA pP pP 03 31 06.8 +0.4
GYA PP **PnPn** **03 31 29.0 +4.8**
GYA S **S** **03 35 04.3 -3.9**
GYA sS pS 03 35 19.5 +1.6
GYA SS **SnSn** **03 35 51.5 +7.5**
GYA pmax pmax
comp=Z,20nm,0.8s
GYA pmax pmax
comp=Z,110nm,4.9s
GYA LR LR
comp=Z,500nm,15.7s
GYA LR LR
comp=Z,480nm,16.2s
GYA LR LR
comp=Z,460nm,16.3s
**H08S3 Diego Garcia H 25.07 235** T T 03 57 32.6
baz=55,slow=75,SNR=2458
**H08S2 Diego Garcia H 25.08 235** T T 03 57 20.0
baz=55,slow=75,SNR=2156
**H08S1 Diego Carcia H 25.09 235** T T 03 57 24.0
baz=55,slow=75,SNR=751
**BLJI Banyuglugur 25.40 125** P **P** **03 31 18.0 +0.5**
comp=Z,102nm,0.6s
**MYLDM Lahad Datu 25.55 93** eP **P** **03 31 18.3 -0.6**
comp=Z,59nm,1.1s
**CD2 Chengdu 25.75 22** P **P** **03 31 19.8 -0.8**
CD2 pP pP 03 31 24.5 -5.2
CD2 S **S** **03 35 42.8 -5.0**
CD2 SS **SnSn** **03 36 50.3 +5.7**
CD2 pmax pmax
comp=Z,60nm,1.0s
CD2 LR LR
comp=Z,420nm,11.4s
CD2 LR LR
comp=Z,310nm,11.4s
**SMLA Simla 28.03 330** eP **P** **03 31 41.1 0.0**
**DHRM DHARAMSHALA 29.37 330** eP **P** **03 31 53.1 -0.2**
DHRM AMB AMB 03 32 22.9
comp=Z,23nm,0.9s
**LZH Lanzhou 30.51 18** ⇓P **P** **03 32 02.8 -0.4**
LZH pP pP 03 32 12.8 +0.4
LZH sP sP 03 32 16.8 +0.6
LZH pmax pmax
comp=Z,22nm,1.0s
LZH pmax pmax
comp=Z,180nm,6.8s
LZH LR LR
comp=Z,200nm,13.6s
LZH LR LR
comp=Z,200nm,13.2s
LZH LR LR
comp=Z,270nm,15.0s
**XAN Xi'an 30.60 27** P **P** **03 32 02.0 -1.9**
XAN pmax pmax
comp=Z,35nm,0.6s
XAN pmax pmax
comp=Z,170nm,4.9s
**YULB Yu-li 31.72 56** eP **P** **03 32 13.8 0.0**
comp=Z,17nm,1.0s
**GTA Gaotai 32.73 10** eP **P** **03 32 22.0 -0.7**
GTA S **S** **03 37 36.0 -1.5**
GTA pmax pmax
comp=Z,7.0nm,0.8s
GTA pmax pmax
comp=Z,50nm,5.0s
GTA LR LR
comp=Z,140nm,16.6s
GTA LR LR
comp=Z,240nm,15.9s
GTA LR LR
comp=Z,240nm,15.4s
**YOJ Yonaguni jima 33.60 56** eP **P** **03 32 27.5 -2.8**
YOJ pmax pmax
comp=Z,649nm,1.9s
**YOJ Yonaguni jima 33.60 56** eP **P** **03 32 27.5 -2.8**
comp=Z,649nm,1.9s
**NJ2 Nanjing 34.64 41** eP **P** **03 32 37.5 -1.7**
NJ2 pmax pmax
comp=Z,11nm,0.5s
**WMQ Urumqi 36.82 354** P **P** **03 32 59.5 +1.6**
WMQ pP sP 03 33 09.0 -1.9
WMQ sP pP 03 33 13.0 +5.9
WMQ pmax pmax
comp=Z,22nm,0.8s
WMQ pmax pmax
comp=Z,150nm,3.8s
WMQ LR LR
comp=Z,170nm,17.3s
WMQ LR LR

comp=Z,140nm,15.7s
**HHC Hu-ho-hao-te 37.48 24** eP **P** **03 33 03.8 +0.2**
HHC S **S** **03 38 51.5 +1.1**
HHC pmax pmax
comp=Z,22nm,0.5s
HHC pmax pmax
comp=Z,220nm,7.5s
HHC LR LR
comp=Z,200nm,14.8s
HHC LR LR
comp=Z,220nm,16.0s
HHC LR LR
comp=Z,210nm,16.0s
**DZET Dzherino 38.27 329** P **P** **03 33 09.5 -0.8**
DZET pmax pmax
comp=Z,3.0nm,0.5s
**UCH Uchtor 38.54 338** P **P** **03 33 14.0 +1.1**
SNR=10
**MBWA Marble Bar 38.55 137** eP **P** **03 33 12.1 -0.6**
comp=Z,32nm,1.4s
**KBK Karagaybulak 38.76 339** P **P** **03 33 15.9 +1.5**
SNR=15
**AML Almayashu 38.77 337** P **P** **03 33 16.1 +1.3**
SNR=48
**BJT Baijiatuau 38.83 29** eP **P** **03 33 14.9 +0.1**
BJT pmax pmax
comp=Z,25nm,0.6s
**BJT Baijiatuau 38.83 29** eP **P** **03 33 14.9 +0.1**
comp=Z,25nm,0.6s
**BJI Beijing 38.85 29** P **P** **03 33 15.3 +0.4**
BJI S **S** **03 39 14.3 +3.5**
BJI sS **sS** **03 39 23.8 -2.3**
BJI pmax pmax
comp=Z,32nm,0.7s
BJI pmax pmax
comp=Z,120nm,4.3s
BJI LR LR
comp=Z,140nm,20.5s
**JOW Kunigami 38.90 56** eP **P** **03 33 14.5 -1.1**
comp=Z,75nm,1.1s
**AAK Ala-Archa 38.91 338** *d* iP **P** **03 33 17.2 +1.6**
AAK pmax pmax
comp=Z,8.0nm,0.8s
**AAK Ala-Archa 38.91 338** P **P** **03 33 17.2 +1.6**
SNR=8.0
**AAK Ala-Archa 38.91 338** eP **P** **03 33 15.1 -0.5**
comp=Z,7.9nm,0.9s
**EKS2 Erkin-Say 39.19 338** P **P** **03 33 19.4 +1.4**
SNR=9.6
**USP Ospenovka 39.45 339** P **P** **03 33 20.8 +0.8**
SNR=13
**MK01 Makanchi Array 40.52 349** eP **P** **03 33 28.2 -0.6**
**MK31 Makanchi Array 40.55 349** eP **P** **03 33 28.6 -0.4**
**MK31 Makanchi Array 40.55 349** eP **P** **03 33 28.6 -0.4**
**MKAR Makanchi Array 40.55 349** P **P** **03 33 28.5 -0.5**
comp=Z,2.9nm,0.6s,baz=165,slow=8.3,SNR=35
**MKAR Makanchi Array 40.55 349** eP **P** **03 33 28.6 -0.5**
MKAR pmax pmax
comp=Z,21nm,0.6s
**MKAR Makanchi Array 40.55 349** eP **P** **03 33 28.6 -0.5**
comp=Z,21nm,0.6s
**MAKZ Makanchi 40.62 348** eP **P** **03 33 29.3 -0.3**
MAKZ pmax pmax
comp=Z,3.0nm,0.6s
**MAKZ Makanchi 40.62 348** eP **P** **03 33 29.3 -0.3**
comp=Z,3.3nm,0.6s
**KK31 Karatay Array 40.87 335** *i* P **P** **03 33 32.3 +0.5**
KK31 pmax pmax
comp=Z,7.0nm,0.5s
**KKAR Karatay Array 40.87 335** eP **P** **03 33 32.3 +0.5**
KKAR pmax pmax
comp=Z,176nm,0.5s
**KKAR Karatay Array 40.87 335** eP **P** **03 33 32.3 +0.5**
comp=Z,176nm,0.5s
**SONM Songino Array 42.16 14** P **P** **03 33 41.5 -0.9**
comp=Z,1.9nm,0.4s,baz=197,slow=9.6,SNR=11
SONM PcP **PcP** **03 35 37.4 +1.0**
comp=Z,2.7nm,0.6s,baz=200,slow=3.7,SNR=8.2
SONM ScP **ScP** **03 39 26.6 +1.7**
comp=Z,0.2nm,0.3s,baz=225,slow=4.0,SNR=4.8
**SONA1 Songino Array 42.17 14** eP **P** **03 33 41.4 -1.1**
**ULN Ulaanbaatar 42.35 14**⇓ eP **P** **03 33 41.8 -2.1**
ULN pmax pmax
comp=Z,2.0nm,0.7s
**ULN Ulaanbaatar 42.35 14** eP **P** **03 33 42.2 -1.7**
comp=Z,2.2nm,0.7s
**DGZ Jazzator, Alta 42.67 355**⇓ eP **P** **03 33 48.4 +1.9**
DGZ pmax pmax
comp=Z,2.0nm,0.7s
**JNU Nakatsue 43.67 48** P **P** **03 33 55.0 +0.3**
comp=Z,6.1nm,0.6s,baz=45,slow=2.7,SNR=7.1
**JNU Nakatsue 43.67 48** eP **P** **03 33 54.9 +0.2**
comp=Z,14nm,1.0s
**KSAR Wonju Array Be 43.81 41** P **P** **03 33 55.1 -0.6**
**KSAR Wonju Array Be 43.81 41** P **P** **03 33 55.1 -0.6**
**KS01 Wonju Array Si 43.83 41** eP **P** **03 33 54.8 -1.1**
**KSRS Korea Array 43.84 41** P **P** **03 33 55.1 -0.8**
comp=Z,2.0nm,0.5s,baz=232,slow=8.1,SNR=8.0
**GEYT Alibeck 43.93 319** P **P** **03 33 58.4 +1.7**
comp=Z,6.8nm,0.6s,baz=148,slow=8.6,SNR=16
GEYT LR LR 03 53 36.9
comp=Z,130nm,20.5s,baz=120,slow=38
**KURK Kurchatov 45.03 347** *ce*P **P** **03 34 05.2 -0.1**
KURK pmax pmax
comp=Z,9.0nm,1.6s
**KURK Kurchatov 45.03 347** eP **P** **03 34 05.5 +0.3**
comp=Z,20nm,1.8s
**NWAO Narrogin (SRO) 46.09 151** eP **P** **03 34 15.3 +1.4**
NWAO pmax pmax
comp=Z,57nm,1.8s
**NWAO Narrogin (SRO) 46.09 151** eP **P** **03 34 15.3 +1.4**
comp=Z,57nm,1.8s
**CN2 Changchun 46.32 33** eP **P** **03 34 15.0 -0.6**
CN2 pmax pmax
comp=Z,10.0nm,0.6s
**ZAA0 Zalesovo Array 47.13 354** eP **P** **03 34 22.2 +0.5**
comp=Z,11nm,0.8s
**ZALV Zalesovo Beam 47.13 354** P **P** **03 34 21.9 +0.2**
comp=Z,5.9nm,0.4s,baz=172,slow=9.4,SNR=29
**ZALV Zalesovo Beam 47.13 354** eP **P** **03 34 21.6 -0.2**
**ZALV Zalesovo Beam 47.13 354** eP **P** **03 34 21.6 -0.2**
**NVS Novosibirsk 48.20 353** eP **P** **03 34 27.8 -2.2**
**RAYN Ar Rayn 48.26 295** eP **P** **03 34 33.5 +2.5**
comp=Z,4.6nm,0.8s
RAYN *ep*P **sP** **03 34 43.2 -1.0**
**WRA Warramunga Arr 48.87 124** P **P** **03 34 35.3 -0.5**
comp=Z,14nm,0.8s,baz=306,slow=8.5,SNR=18
**WRA Warramunga Arr 48.87 124** *i* P **P** **03 34 35.2 -0.5**
WRA pmax pmax
comp=Z,16nm,0.6s
**WRAB Tennant Creek 48.87 124** *ce*P **P** **03 34 35.4 -0.4**
WRAB pmax pmax
comp=Z,22nm,0.7s
**WRAB Tennant Creek 48.87 124** eP **P** **03 34 35.3 -0.5**
comp=Z,24nm,0.8s
**WB2 Warramunga Arr 48.88 124** eP **P** **03 34 35.3 -0.5**
comp=Z,20nm,0.7s
**MDJ Mudanjiang 49.12 34** P **P** **03 34 37.5 +0.2**
MDJ pmax pmax
comp=Z,17nm,1.0s
MDJ pmax pmax
comp=Z,160nm,5.3s
**INU Inuyama 49.21 49** eP **P** **03 34 37.3 -0.9**
comp=Z,121nm,1.9s
**BVAR Borovoye Array 49.29 342** P **P** **03 34 38.3 -0.2**
comp=Z,1.3nm,0.7s,baz=116,slow=6.8,SNR=6.5
BVAR PcP **PcP** **03 36 01.8 +0.8**
comp=Z,1.3nm,0.6s,baz=156,slow=4.4,SNR=4.4
**BRVK Borovoye 49.35 342**⇑ eP **P** **03 34 38.1 -0.8**
BRVK pmax pmax
comp=Z,2.0nm,0.8s
**USRK Ussuriysk Ar. 50.24 36** P **P** **03 34 45.0 -0.8**
comp=Z,3.3nm,0.5s,baz=245,slow=13,SNR=6.3
**AB31 Akbulak array 50.29 332** P **P** **03 34 45.9 -0.2**
AB31 pmax pmax
comp=Z,5.0nm,0.6s
**ABKAR Akbulak array 50.29 332** eP **P** **03 34 46.9 +0.8**
comp=Z,59nm,0.6s
**AS31 Alice Springs 50.42 129** eP **P** **03 34 46.9 -0.7**
comp=Z,4.9nm,0.4s
**ASAR Alice Springs 50.42 129** P **P** **03 34 47.6 0.0**
comp=Z,6.7nm,0.5s,baz=301,slow=8.0,SNR=28
**AS01 Alice Springs 50.45 129** eP **P** **03 34 47.0 -0.8**
**FORT Forrest 50.56 140** eP **P** **03 34 49.7 +1.3**
comp=Z,261nm,0.7s
**MAJO Matsushiro 50.58 48**⇓ eP **P** **03 34 48.5 -0.1**

**MJAR Matsushiro Arr 50.58 48** P **P** **03 34 48.7 +0.1**
comp=Z,6.1nm,0.6s,baz=222,slow=6.0,SNR=18
**CBIJ Chichi jima 50.75 61** eP **P** **03 34 48.2 -1.8**
comp=Z,144nm,0.9s
**ABPO Ambohimpanom 51.95 239** *i* P **P** **03 34 58.5 -0.8**
**AKTO Aktyubinsk 52.01 332** P **P** **03 34 58.5 -0.5**
AKTO pmax pmax
comp=Z,5.0nm,0.7s
**KLR Kul'dur 53.16 31** P **P** **03 35 07.0 -0.5**
comp=Z,0.2nm,0.7s,baz=251,slow=8.5,SNR=6.5
**KLR Kul'dur 53.16 31**⇓ eP **P** **03 35 06.8 -0.7**
**BOD Bodaibo 53.16 14** eP **P** **03 35 06.8 -0.6**
BOD pmax pmax
comp=Z,6.0nm,1.0s
**GNI Garni 54.06 315**⇑ eP **P** **03 35 15.6 +1.0**
GNI pmax pmax
comp=Z,24nm,1.3s
**COEN Coen 54.13 113** eP **P** **03 35 12.8 -2.4**
comp=Z,20nm,1.6s
**ARU Arti 56.09 338** *c* iP **P** **03 35 28.6 0.0**
ARU 03 37 28.9
ARU S **S** **03 43 17.6 +2.3**
ARU SS **SS** **03 47 00.4 -1.4**
ARU pmax pmax
comp=Z,10.0nm,1.0s
**ARU Arti 56.09 338** eP **P** **03 35 28.9 +0.3**
comp=Z,9.8nm,1.0s
**KMBO Kilima Mbogo 56.10 264** LR LR 03 58 09.5
comp=Z,85nm,18.0s,baz=90,slow=34
**NCK Nalchik 56.24 318**⇓ eP **P** **03 35 29.6 -0.4**
NCK pmax pmax
comp=Z,3.0nm,0.6s
**PMG Port Moresby 56.52 106** P **P** **03 35 32.0 -0.4**
comp=Z,9.6nm,0.5s,baz=315,slow=2.9,SNR=6.1
**PMG Port Moresby 56.52 106**⇓ eP **P** **03 35 32.2 -0.2**
**PMG Port Moresby 56.52 106** eP **P** **03 35 32.1 -0.4**
comp=Z,12nm,0.6s
**ASAJ Asahikawa 56.79 41** eP **P** **03 35 33.5 -0.4**
comp=Z,45nm,1.6s
**KBZ Khabaz 56.80 318** P **P** **03 35 34.9 +1.0**
comp=Z,2.7nm,1.0s,baz=114,slow=12,SNR=3.6
**KIV Kislovodsk 57.03 319** eP **P** **03 35 33.9 -1.8**
KIV pmax pmax
comp=Z,7.0nm,1.0s
KIV MLR MLR
comp=Z,76nm,16.0s
**BBOO Buckleboo 57.12 137** eP **P** **03 35 36.7 +0.3**
comp=Z,52nm,1.8s
**STKA Stephens Creek 60.52 133** P **P** **03 36 00.7 +0.7**
comp=Z,4.6nm,0.8s,baz=323,slow=8.7,SNR=9.9
**STKA Stephens Creek 60.52 133** eP **P** **03 36 00.4 +0.4**
STKA pmax pmax
comp=Z,2.0nm,1.0s
**STKA Stephens Creek 60.52 133** eP **P** **03 36 00.3 +0.4**
comp=Z,1.6nm,1.0s
**YAK Yakutsk 61.09 19**⇓ *i* P **P** **03 36 02.7 -0.7**
YAK pmax pmax
comp=Z,13nm,0.6s
**BR131 Keskin Array S 61.97 311** eP **P** **03 36 07.8 -2.1**
**BRTR Keskin Array B 61.97 311** P **P** **03 36 09.7 -0.3**
comp=Z,0.9nm,0.6s,baz=138,slow=7.0,SNR=6.4
**BRTR Keskin Array B 61.97 311** *i* P **P** **03 36 09.6 -0.4**
BRTR pmax pmax
comp=Z,1.0nm,0.6s
**EIDS Eidsvold 65.14 122** eP **P** **03 36 31.1 +0.2**
comp=Z,26nm,1.5s
**OBN Obninsk 65.34 328** *i* P **P** **03 36 30.7 -0.9**
OBN pmax pmax
comp=Z,5.0nm,0.8s
**KARP Karpathos 66.16 306** eP **P** **03 36 38.7 +1.3**
comp=Z,12nm,1.0s
**CAN Canberra 67.58 133** eP **P** **03 36 46.3 -0.2**
CAN pmax pmax
comp=Z,52nm,1.9s
**CAN Canberra 67.58 133** eP **P** **03 36 46.3 -0.2**
comp=Z,52nm,1.9s
**SKR Severo-Kuril's 67.70 38** eP P 03 37 02.0 +15
SKR *e*S S 03 46 05.8 +24
SKR *e*SS **SS** **03 50 07.2 +3.6**
SKR pmax pmax
comp=Z,2μm,4.8s
SKR MLR MLR
comp=Z,2μm,21.0s
**MA2 Magadan 68.00 28** LR LR 04 10 51.6
comp=Z,314nm,18.3s,baz=347,slow=40
**MA2 Magadan 68.00 28**⇑ eP **P** **03 36 48.7 +0.1**
**TIXI Tiksi 68.20 12**⇑ *i*P **P** **03 36 48.9 -0.7**
TIXI pmax pmax
comp=Z,25nm,1.0s
**TIXI Tiksi 68.20 12** eP **P** **03 36 48.8 -0.7**
comp=Z,27nm,1.1s
**VRI Vrincioaia 68.37 317**⇑ *i*P **P** **03 36 52.3 +1.1**
**PLOR Plostina 68.42 317**⇑ *i*P **P** **03 36 52.6 +1.0**
**TESR Tescani 68.56 317**⇑ *i*P **P** **03 36 51.1 -1.3**
**MLR Muntele Rosu 68.83 316**⇑ *i*P **P** **03 36 55.7 +1.5**
**VOIR 69.43 316**⇑ *i*P **P** **03 36 58.0 +0.1**
**ARR Arges 69.71 316**⇑ *i*P **P** **03 36 59.4 -0.2**
**BURAR Bucovina Array 69.75 318**⇑ *i*P **P** **03 37 00.9 +1.0**
**BUR04 Bucovina Ar. S 69.76 318** eP **P** **03 37 00.3 +0.4**
**BUR08 Bucovina Ar. S 69.77 318** eP **P** **03 36 59.1 -0.9**
**DRGR 71.28 317**⇑ *i*P **P** **03 37 09.6 +0.4**
**SIRR Siria 71.91 316**⇑ *i*P **P** **03 37 13.3 +0.4**
**STHS Stebnicka Huta 72.68 320** eP **P** **03 37 17.1 -0.4**
**STHS Stebnicka Huta 72.68 320** eP **P** **03 37 17.1 -0.4**
**FIA1 FINESS Array S 72.78 332** eP **P** **03 37 17.3 -0.4**
comp=Z,91nm,1.8s
**FINES FINESS Array B 72.78 332** P **P** **03 37 17.1 -0.7**
comp=Z,5.5nm,0.6s,baz=111,slow=5.9,SNR=16
**FINES FINESS Array B 72.78 332** *i* P **P** **03 37 17.5 -0.2**
FINES pmax pmax
comp=Z,6.0nm,0.6s
**TTG Podgorica 73.14 312** eP **P** **03 37 20.4 +0.1**
TTG pmax pmax
comp=Z,19nm,1.3s
**TTG Podgorica 73.14 312** eP **P** **03 37 20.4 +0.1**
comp=Z,19nm,1.3s
**OJC Ojcow 73.73 320** eP **P** **03 37 23.2 -0.5**
OJC pmax pmax
comp=Z,4.0nm,0.6s
**OJC Ojcow 73.73 320** eP **P** **03 37 23.1 -0.5**
comp=Z,4.4nm,0.6s
**VYHS Vyhne 74.12 318** eP **P** **03 37 26.0 0.0**
**VYHS Vyhne 74.12 318** eP **P** **03 37 26.0 0.0**
**KEV Kevo 75.11 341** eP **P** **03 37 31.8 +0.5**
KEV pmax pmax
comp=Z,178nm,1.9s
**KEV Kevo 75.11 341** eP **P** **03 37 31.8 +0.5**
comp=Z,178nm,1.9s
**ARCES ARCESS Array B 75.53 340** P **P** **03 37 33.9 +0.2**
comp=Z,2.7nm,0.6s,baz=98,slow=5.6,SNR=18
**ARCES ARCESS Array B 75.53 340** eP **P** **03 37 34.2 +0.5**
**ARE0 ARCESS Array S 75.53 340** eP **P** **03 37 34.2 +0.5**
comp=Z,138nm,1.9s
**KRLC Kraliky 75.64 320** eP **P** **03 37 35.2 +0.4**
KRLC *ep*P **pP** **03 37 44.8 +0.1**
**KRLC Kraliky 75.64 320** eP **P** **03 37 35.2 +0.4**
KRLC *e* 03 37 44.8
**DPC Dobruska-Polom 75.96 320** eP **P** **03 37 37.6 +1.0**
DPC *ep*P **pP** **03 37 47.9 +1.4**
**DPC Dobruska-Polom 75.96 320** eP **P** **03 37 37.6 +1.0**
DPC *e* 03 37 47.9
**CONA Conrad Observa 76.04 318** *i* PcP **PcP** **03 37 48.1 -1.2**
comp=Z,1.4nm,0.6s
**BILL Bilibino 77.23 22** *i* P **P** **03 37 41.7 -1.6**
BILL *i* 03 37 51.9
BILL pmax pmax
comp=Z,2.0nm,0.8s
**GEA0 GERESS Array S 77.54 318** eP **P** **03 37 46.0 +0.5**
**GEC2 GERESS Array S 77.54 318** eP **P** **03 37 45.7 +0.1**
GEC2 pmax pmax
comp=Z,4.0nm,0.9s
**GEC2 GERESS Array S 77.54 318** eP **P** **03 37 45.7 +0.1**
comp=Z,4.1nm,0.9s
**GERES GERESS Array B 77.54 318** P **P** **03 37 46.3 +0.7**
comp=Z,1.7nm,0.6s,baz=90,slow=5.6,SNR=20
**KHC Kasperske Hory 77.64 319** eP **P** **03 37 46.7 +0.6**
KHC *ep*P **PcP** **03 37 57.2 +1.0**
**KHC Kasperske Hory 77.64 319** eP **P** **03 37 46.7 +0.6**
KHC *e* 03 37 57.2
**KHC Kasperske Hory 77.64 319** eP **P** **03 37 46.2 +0.1**
comp=Z,6.3nm,1.9s
**ABTA Abfaltersbach 78.24 316** *i* PcP **PcP** **03 37 59.6 +0.7**
comp=Z,1.0nm,0.5s
**MOTA Moosalm 79.22 317** *i* P **P** **03 37 55.0 0.0**
comp=Z,5.5nm,0.9s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **RETA** | **Reutte** | **79.46** | **317** | *i* P | | **P** | | **03 37 56.1** | **0.0** |
| | comp=Z,1.3nm,0.4s | | | | | | | | |
| **NC602** | **NORSAR Array S** | **79.58** | **330** | *e*P | | **P** | | **03 37 55.8** | **-0.7** |
| **NB2** | **NORSAR Subarra** | **79.76** | **331** | P | | **P** | | **03 37 56.8** | **-0.7** |
| | comp=Z,5.1nm,0.9s,baz=94,slow=5.9 | | | | | | | | |
| **DAVA** | **Damuels** | **80.05** | **317** | *i* P | | **P** | | **03 38 00.2** | **+0.7** |
| | comp=Z,1.3nm,0.6s | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **89.55** | **283** | P | | **P** | | **03 38 49.7** | **+2.0** |
| | comp=Z,0.5nm,0.6s,baz=98,slow=5.1,SNR=6.7 | | | | | | | | |
| **ES19** | **SONSECA Array** | **90.68** | **310** | *e*P | | **P** | | **03 38 54.0** | **+1.3** |
| ES19 | | | | *e*pP | | **pP** | | **03 39 02.5** | **-0.2** |
| **ESDC** | **Sonseca Array** | **90.73** | **310** | P | | **P** | | **03 38 54.0** | **+1.2** |
| | comp=Z,0.6nm,0.5s,baz=64,slow=4.5,SNR=7.4 | | | | | | | | |
| **IMAR** | **Indian Mountai** | **92.78** | **22** | *e*P | | **P** | | **03 39 02.4** | **+0.7** |
| **ILAR** | **Eielson Array** | **95.89** | **22** | P | | **P** | | **03 39 17.6** | **+1.5** |
| | comp=Z,0.6nm,0.6s,baz=292,slow=4.1,SNR=8.1 | | | | | | | | |
| **INK** | **Inuvik** | **98.04** | **16** | P | | **P** | | **03 39 25.8** | **+0.2** |
| | comp=Z,1.7nm,0.9s,baz=325,slow=6.2,SNR=10 | | | | | | | | |
| **ULM** | **Lac du Bonnet** | **122.35** | **7** | PKP | | **PKPdf** | | **03 44 44.6** | **-0.1** |
| | comp=Z,2.9nm,1.0s,baz=45,slow=1.4,SNR=3.1 | | | | | | | | |
| **NVAR** | **Mina Array Bea** | **126.19** | **30** | PKP | | **PKPdf** | | **03 44 54.3** | **+1.5** |
| | comp=Z,1.6nm,0.7s,baz=304,slow=1.7,SNR=10 | | | | | | | | |
| **PDAR** | **Pinedale Array** | **126.30** | **20** | PKP | | **PKPdf** | | **03 44 53.5** | **+0.6** |
| | comp=Z,1.5nm,0.7s,baz=32,slow=0.7,SNR=14 | | | | | | | | |
| **TXAR** | **Lajitas Array** | **140.40** | **23** | PKP | | **PKPdf** | | **03 45 20.4** | **+0.9** |
| | comp=Z,0.6nm,0.5s,baz=199,slow=0.4,SNR=17 | | | | | | | | |
| **JCT** | **Junction City** | **140.67** | **17** | *e*PKIKP | | **PKPdf** | | **03 45 20.1** | **+0.2** |
| **JCT** | **Junction City** | **140.67** | **17** | *e*PKPdf | | **PKPdf** | | **03 45 20.1** | **+0.2** |
| **CPUP** | **Villa Florida** | **145.82** | **233** | PKPbc | | **PKPab** | | **03 45 30.4** | **+0.5** |
| | comp=Z,0.8nm,0.5s,baz=82,slow=4.4,SNR=4.8 | | | | | | | | |

**JMA 27 03:26:09.9±0.2, 37°30'N×143°90'E, h67km, M3.5, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JIO** | **Ouri** | **2.32** | **300** | P | Pn | 03 26 46.8 | +1.0 |
| JIO | | | | S | Sn | 03 27 14.7 | +1.4 |
| **JFK** | **Kawauchi** | **2.41** | **272** | P | Pn | 03 26 48.0 | +0.9 |
| JFK | | | | S | Sn | 03 27 16.7 | +1.1 |
| **ONAJ** | **Iwakimizuishiy** | **2.48** | **266** | *e*S | Sn | 03 27 18.2 | +0.8 |
| **JMM** | **Marumori** | **2.53** | **284** | P | Pn | 03 26 49.8 | +1.1 |
| JMM | | | | S | Sn | 03 27 19.7 | +1.3 |
| **JMK** | **Ichinoseki** | **2.68** | **309** | P | Pn | 03 26 51.7 | +1.0 |
| JMK | | | | S | Sn | 03 27 22.9 | +0.9 |
| **JFT** | **Otama** | **2.85** | **275** | P | Pn | 03 26 53.8 | +0.8 |
| JFT | | | | S | Sn | 03 27 26.9 | +0.8 |
| **JOM** | **Ohasama** | **2.98** | **317** | P | Pn | 03 26 55.5 | +0.7 |
| JOM | | | | S | Sn | 03 27 30.3 | +0.9 |
| **JAG** | **Ashikaga** | **3.67** | **258** | P | Pn | 03 27 05.7 | +1.5 |
| JAG | | | | S | Sn | 03 27 47.4 | +1.1 |
| **JRY** | **Ryogami san** | **4.22** | **254** | P | Pn | 03 27 12.6 | +0.9 |
| **MAT** | **Matsushiro** | **4.62** | **262** | P | Pn | 03 27 19.3 | +2.0 |
| MAT | | | | *e*S | Sn | 03 28 10.0 | +0.3 |

*ISCJB **27** 03:27:27.8±0.5, 31°.72N±0°.03×16°.65W±0°.09, h10km, Error ellipse: s-maj=11.1km s-min=3.4km az=171.0*
*CSEM **27** 03:27:33.5, 31°.51N×16°.81W, h0km, mb3.3/2*
*MDD **27** 03:27:33.5±3.1, 31°.51N×16°.81W, h0km, mb3.3/2, Error ellipse: s-maj=28.1km s-min=18.5km az=165.0, PRXIMO SIN SOLUCIÓN*
*INMG **27** 03:27:35.5±1.0, 31°.87N×16°.90W, h0km±68km, ML2.1, Error ellipse: s-maj=85.4km s-min=10.8km az=5.0*

**ISC 27 03:27:23.6±0.9, 31°.54N±0°.02×16°.63W±0°.05, h10km, n16, σ2s 00/32, 1C-2D, Madeira Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **FUL** | **Funchal** | **1.13** | **349** | *e*P | **Pn** | **03 27 47.5** | **+2.0** |
| FUL | | | | *e*S | **Sb** | **03 27 56.4** | **-3.6** |
| FUL | | | | A | A | 03 27 57.5 | |
| | 42nm,0.3s | | | | | | |
| **PMAR** | **Madeira** | **1.21** | **349** | *e*P | **Pg** | **03 27 48.6** | **+1.8** |
| PMAR | | | | *e*S | **Sb** | **03 27 58.7** | **-3.7** |
| PMAR | | | | A | A | 03 28 01.3 | |
| | 60nm,0.3s | | | | | | |
| **PMOZ** | **Porto Moniz, M** | **1.37** | **340** | *e*P | **Pg** | **03 27 50.5** | **+0.6** |
| PMOZ | | | | *e*S | **Sb** | **03 28 02.2** | **-4.8** |
| PMOZ | | | | A | A | 03 28 06.5 | |
| | 60nm,0.4s | | | | | | |
| **PMPS** | **Porto Santo** | **1.54** | **9** | *e*P | **Pg** | **03 27 54.6** | **+1.5** |
| PMPS | | | | *e*S | **Sn** | **03 28 08.7** | **-2.4** |
| PMPS | | | | A | A | 03 28 10.0 | |
| | 13nm,0.5s | | | | | | |
| **TBT** | **Taburiente** | **3.06** | **202** | P | **Pg** | **03 28 20.8** | **-1.4** |
| | 0.4nm,0.2s,SNR=7.9 | | | | | | |
| TBT | | | | S | **Sb** | **03 28 54.8** | **-0.7** |
| | 0.7nm,0.2s,SNR=7.9 | | | | | | |
| **TBT** | **Taburiente** | **3.06** | **202** | P | **Pg** | **03 28 20.8** | **-1.4** |
| | 0.4nm,0.2s,SNR=7.9 | | | | | | |
| TBT | | | | S | **Sb** | **03 28 54.8** | **-0.7** |
| | 0.7nm,0.2s,SNR=7.9 | | | | | | |
| **CCAN** | **Las Canadas** | **3.30** | **180** | P | **Pg** | **03 28 24.8** | **-2.1** |
| | 0.4nm,0.1s,SNR=7.9 | | | | | | |
| CCAN | | | | S | **Sb** | **03 29 04.6** | **+1.8** |
| | 0.1nm,0.2s,SNR=7.9 | | | | | | |
| **CCAN** | **Las Canadas** | **3.30** | **180** | P | **Pg** | **03 28 24.8** | **-2.1** |
| | 0.4nm,0.1s,SNR=7.9 | | | | | | |
| CCAN | | | | S | **Sb** | **03 29 04.6** | **+1.8** |
| | 0.1nm,0.2s,SNR=7.9 | | | | | | |
| **EGOM** | **La Gomera** | **3.40** | **189** | P | **Pb** | **03 28 25.3** | **+1.3** |
| | 1.0nm,0.3s,SNR=7.9 | | | | | | |
| EGOM | | | | S | **Sb** | **03 29 05.6** | **+0.2** |
| | 1.1nm,0.1s,SNR=7.9 | | | | | | |
| **EGOM** | **La Gomera** | **3.40** | **189** | P | **Pb** | **03 28 25.3** | **+1.3** |
| | 1.0nm,0.3s,SNR=7.9 | | | | | | |
| EGOM | | | | S | **Sb** | **03 29 05.6** | **+0.2** |
| | 1.1nm,0.1s,SNR=7.9 | | | | | | |
| **EOSO** | **Osorio** | **3.58** | **165** | P | **Pg** | **03 28 30.0** | **-2.2** |
| | 0.4nm,0.1s,SNR=7.9 | | | | | | |
| EOSO | | | | S | **Sb** | **03 29 10.5** | **0.0** |
| | 0.2nm,0.1s,SNR=7.9 | | | | | | |
| **EOSO** | **Osorio** | **3.58** | **165** | P | **Pg** | **03 28 30.0** | **-2.2** |
| | 0.4nm,0.1s,SNR=7.9 | | | | | | |
| EOSO | | | | S | **Sb** | **03 29 10.5** | **0.0** |
| | 0.2nm,0.1s,SNR=7.9 | | | | | | |
| **CFUE** | **Fuerteventura** | **3.71** | **140** | P | **Pg** | **03 28 32.7** | **-2.0** |
| | 1.1nm,0.2s,SNR=7.9 | | | | | | |
| CFUE | | | | S | **Sb** | **03 29 13.8** | **-0.4** |
| | 0.4nm,0.2s,SNR=7.9 | | | | | | |
| **CFUE** | **Fuerteventura** | **3.71** | **140** | P | **Pg** | **03 28 32.7** | **-2.0** |
| | 1.1nm,0.2s,SNR=7.9 | | | | | | |
| CFUE | | | | S | **Sb** | **03 29 13.8** | **-0.4** |
| | 0.4nm,0.2s,SNR=7.9 | | | | | | |
| **CFTV** | **Fuerteventura** | **3.82** | **144** | P | **Pb** | **03 28 32.9** | **+1.8** |
| | 0.1nm,0.1s,SNR=7.9 | | | | | | |
| CFTV | | | | S | **Sb** | **03 29 16.4** | **-1.0** |
| | SNR=7.9 | | | | | | |
| **CFTV** | **Fuerteventura** | **3.82** | **144** | P | **Pb** | **03 28 32.9** | **+1.8** |
| | 0.1nm,0.1s,SNR=7.9 | | | | | | |
| CFTV | | | | S | **Sb** | **03 29 16.4** | **-1.0** |
| | SNR=7.9 | | | | | | |

*ISCJB **27** 03:27:50.9±0.6, 12°.19N±0°.08×144°.04E±0°.08, h33km, mb4.6/17, MS3.5/6, Error ellipse: s-maj=14.7km s-min=7.2km az=43.6*
*NEIC **27** 03:27:53.8±1.9, 12°.27N×144°.15E, h43km±15km, mb4.9/6, Error ellipse: s-maj=15.0km s-min=11.8km az=192.0*
*IDC **27** 03:27:57.6±4.4, 12°.47N×144°.16E, h70km±29km, mb4.0/10, mb1 4.1/10, mb1mx3.7/50, mbtmp4.3/10, MS3.5/6, Ms1 3.6/6, ms1mx3.2/38, Error ellipse: s-maj=43.8km s-min=24.3km az=6.0*

**ISC 27 03:27:51.1±0.6, 12°.20N±0°.08×144°.28E±0°.10, h27km, n47, σ1s 04/37, mb4.8/17, MS3.6/6, South of Mariana Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GUMO** | **Guam** | **1.50** | **23** | P | **Pb** | **03 28 18.4** | **+0.1** |
| | 109nm,0.3s,baz=143,slow=4.0,SNR=27 | | | | | | |
| GUMO | | | | S | **Sb** | **03 28 37.1** | **+0.2** |
| | 359nm,0.3s,baz=358,slow=22,SNR=32 | | | | | | |
| **GUMO** | **Guam** | **1.50** | **23** | *e*Pn | **Pb** | **03 28 18.4** | **+0.1** |
| GUMO | | | | *e*Sn | **Sb** | **03 28 36.1** | **-0.9** |
| **PATS** | **Pohnpei** | **14.83** | **110** | *e*Pn | **Pn** | **03 31 17.6** | **-1.5** |
| **H11S3** | **WAKE ISLAND Hy** | **22.49** | **71** | T | T | 03 56 43.6 | |
| | baz=253,slow=75,SNR=7.2 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **22.50** | **71** | T | T | 03 56 44.0 | |
| | baz=253,slow=75,SNR=4.1 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **22.50** | **71** | T | T | 03 56 19.6 | |
| | baz=253,slow=75,SNR=12 | | | | | | |
| **WAKE** | **Wake Island** | **22.64** | **69** | *e*P | **P** | **03 32 52.1** | **+1.8** |
| | 108nm,1.2s | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **22.97** | **68** | T | T | 03 56 56.6 | |
| | baz=255,slow=75,SNR=12 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **22.98** | **68** | T | T | 03 56 57.2 | |
| | baz=255,slow=75,SNR=8.5 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **22.99** | **68** | T | T | 03 56 57.9 | |
| | baz=255,slow=75,SNR=6.1 | | | | | | |
| **JNU** | **Nakatsue** | **24.17** | **332** | P | **P** | **03 33 05.9** | **+0.5** |
| | 14nm,1.2s,baz=97,slow=4.4,SNR=3.9 | | | | | | |
| **JNU** | **Nakatsue** | **24.17** | **332** | *e*P | **P** | **03 33 05.8** | **+0.5** |
| | 9.0nm,1.0s | | | | | | |
| **MJAR** | **Matsushiro Arr** | **24.85** | **348** | LR | LR | 03 42 27.7 | |
| | comp=Z,147nm,18.2s,baz=210,slow=36 | | | | | | |
| **MYLDM** | **Lahad Datu** | **26.40** | **257** | *e*P | **P** | **03 33 24.8** | **-0.9** |
| | 114nm,1.9s | | | | | | |
| **KSRS** | **Korea Array** | **29.11** | **333** | LR | LR | 03 44 16.8 | |
| | comp=Z,40nm,19.8s,baz=140,slow=34 | | | | | | |
| **WB2** | **Warramunga Arr** | **33.40** | **197** | *e*P | P | 03 34 34.2 | +6.5 |
| **EIDS** | **Eidsvold** | **37.92** | **170** | *e*P | **P** | **03 35 07.2** | **+0.8** |
| | 21nm,1.5s | | | | | | |
| **PETK** | **Petropavlovsk-** | **42.20** | **12** | LR | LR | 03 51 13.8 | |
| | comp=Z,101nm,19.9s,baz=198,slow=33 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **44.07** | **284** | LR | LR | 03 54 24.8 | |
| | comp=Z,48nm,19.4s,baz=65,slow=36 | | | | | | |
| **SONM** | **Songino Array** | **47.54** | **326** | LR | LR | 03 55 51.7 | |
| | comp=Z,79nm,20.6s,baz=148,slow=35 | | | | | | |
| **MK01** | **Makanchi Array** | **62.08** | **317** | *e*P | **P** | **03 38 09.4** | **-0.2** |
| **MK31** | **Makanchi Array** | **62.09** | **317** | *e*P | **P** | **03 38 09.6** | **-0.1** |
| **MK32** | **Makanchi Array** | **62.09** | **317** | *e*P | **P** | **03 38 09.6** | **-0.1** |
| **MKAR** | **Makanchi Array** | **62.09** | **317** | P | **P** | **03 38 09.6** | **-0.1** |
| | 2.5nm,0.5s,baz=90,slow=8.5,SNR=38 | | | | | | |
| **MKAR** | **Makanchi Array** | **62.09** | **317** | *e*P | **P** | **03 38 09.6** | **-0.1** |
| | 25nm,0.5s | | | | | | |
| **MAKZ** | **Makanchi** | **62.31** | **317** | *e*P | **P** | **03 38 11.0** | **-0.1** |
| | 4.1nm,0.6s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **62.42** | **325** | P | **P** | **03 38 11.1** | **-0.5** |
| | 0.4nm,0.3s,baz=124,slow=7.2,SNR=3.2 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **62.42** | **325** | *e*P | **P** | **03 38 11.1** | **-0.5** |
| **KURK** | **Kurchatov** | **65.28** | **320** | *e*P | **P** | **03 38 30.2** | **-0.3** |
| | 5.7nm,0.6s | | | | | | |
| **KKAR** | **Karatay Array** | **69.93** | **312** | *e*P | **P** | **03 39 00.6** | **+0.4** |
| | 48nm,1.3s | | | | | | |
| **ILAR** | **Eielson Array** | **70.06** | **25** | P | **P** | **03 38 59.4** | **-1.1** |
| | 0.3nm,0.4s,baz=250,slow=5.7,SNR=12 | | | | | | |
| **ILB** | **Eielson Array** | **70.06** | **25** | *e*P | **P** | **03 38 59.4** | **-1.1** |
| **BVAR** | **Borovoye Array** | **70.66** | **322** | P | **P** | **03 39 04.1** | **-0.3** |
| | 3.1nm,0.3s,baz=101,slow=6.3,SNR=28 | | | | | | |
| **ABKAR** | **Akbulak array** | **77.18** | **318** | *e*P | **P** | **03 39 42.0** | **-0.7** |
| | 60nm,0.3s | | | | | | |
| **GEYT** | **Alibeck** | **79.61** | **307** | P | **P** | **03 39 56.9** | **+0.5** |
| | 1.1nm,0.4s,baz=38,slow=2.6,SNR=4.0 | | | | | | |
| GEYT | | | | LR | LR | 04 19 18.4 | |
| | comp=Z,37nm,19.1s,baz=25,slow=39 | | | | | | |
| **YKA** | **Yellowknife Ar** | **84.35** | **27** | P | **P** | **03 40 20.6** | **-0.1** |
| | 0.3nm,0.4s,baz=285,slow=5.1,SNR=8.1 | | | | | | |
| **YKB5** | **Yellowknife Ar** | **84.35** | **27** | *e*P | **P** | **03 40 20.6** | **-0.1** |
| **ARA0** | **ARCESS Array S** | **88.22** | **342** | *e*P | **P** | **03 40 39.4** | **-0.2** |
| **ARCES** | **ARCESS Array B** | **88.22** | **342** | P | **P** | **03 40 39.4** | **-0.2** |
| | 9.6nm,1.1s,baz=76,slow=7.5,SNR=4.5 | | | | | | |
| **NV01** | **Mina Array Sit** | **88.24** | **51** | *e*P | **P** | **03 40 42.8** | **+2.2** |
| **NVAR** | **Mina Array Bea** | **88.24** | **51** | P | **P** | **03 40 42.8** | **+2.2** |
| | 1.1nm,0.7s,baz=272,slow=5.7,SNR=9.3 | | | | | | |
| **FIA0** | **FINESS Array S** | **92.17** | **335** | *e*P | **P** | **03 40 56.8** | **-1.3** |
| **FINES** | **FINESS Array B** | **92.17** | **335** | P | **P** | **03 40 56.8** | **-1.3** |
| | 3.0nm,0.9s,baz=57,slow=4.1,SNR=8.2 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **135.15** | **303** | *e*PKPdf | **PKPdf** | **03 47 11.1** | **+1.9** |
| **TORD** | **Torodi Ar. Bea** | **135.15** | **303** | PKP | **PKPdf** | **03 47 11.1** | **+1.9** |
| | 0.2nm,0.6s,baz=60,slow=2.4,SNR=6.0 | | | | | | |
| **DBIC** | **Dimbokro** | **144.04** | **300** | PKP | **PKPdf** | **03 47 24.0** | **-1.4** |
| | 2.8nm,0.9s,baz=45,slow=7.9,SNR=3.6 | | | | | | |
| **LPAZ** | **La Paz** | **148.35** | **101** | PKPbc | **PKPab** | **03 47 38.5** | **-1.4** |
| | 1.5nm,0.6s,baz=302,slow=2.9,SNR=5.5 | | | | | | |

*ISCJB **27** 03:29:24.2±0.3, 51°.55N±0°.02×6°.76E±0°.03, h0km, Error ellipse: s-maj=2.9km s-min=2.4km az=27.7*
*CSEM **27** 03:29:24.8±0.2, 51°.56N×6°.78E, h1km, ML2.7/11, Error ellipse: s-maj=3.5km s-min=3.2km az=125.0*
*BUG **27** 03:29:24.5, 51°.62N×6°.90E, h1km, ML2.2*
*LDG **27** 03:29:25.4±0.2, 51°.58N×6°.90E, h1km, Ml2.7/14, Error ellipse: s-maj=4.1km s-min=2.6km az=33.0, Suspected Mining induced.*
*BGR **27** 03:29:25.5±0.3, 51°.56N×6°.80E, h1km, ML2.3/7, Error ellipse: s-maj=5.6km s-min=2.2km az=103.0*
*UCC **27** 03:29:25.5, 51°.59N×6°.87E, h9km, ML2.5*
*BNS **27** 03:29:26.0±0.7, 51°.55N×6°.88E, h1km, ML2.0*

**ISC 27 03:29:24.5±0.7, 51°.54N±0°.02×6°.76E±0°.02, h0km, n104, σ0s 91/159, Germany**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **LAUG** | **Laupendahl** | **0.22** | **148** | *e*Pg | **Pg** | **03 29 29.9** | **+1.3** |
| **LAUG** | **Laupendahl** | **0.22** | **148** | Pg | **Pg** | **03 29 29.9** | **+1.3** |
| **HES** | **Velbert-Hesper** | **0.24** | **134** | *e*Pg | **Pg** | **03 29 29.3** | **+0.2** |
| HES | | | | *e*Sg | **Sg** | **03 29 33.0** | **+0.8** |
| **HES** | **Velbert-Hesper** | **0.24** | **134** | Pg | **Pg** | **03 29 29.3** | **+0.2** |
| HES | | | | Sg | **Sg** | **03 29 33.0** | **+0.8** |
| **BUG** | **Bochum--Univer** | **0.33** | **106** | *e*Pg | **Pg** | **03 29 31.1** | **+0.3** |
| BUG | | | | Sg | **Sg** | **03 29 33.9** | **-1.2** |
| **WTSB** | **Winterswijk** | **0.43** | **3** | *e*Pg | **Pg** | **03 29 32.9** | **+0.1** |
| WTSB | | | | *e*Sg | **Sg** | **03 29 38.6** | **+0.3** |
| **WTSB** | **Winterswijk** | **0.43** | **3** | *e*Pg | **Pg** | **03 29 33.0** | **+0.2** |
| WTSB | | | | *e*Sg | **Sg** | **03 29 38.7** | **+0.3** |
| **WTSB** | **Winterswijk** | **0.43** | **3** | Pg | **Pg** | **03 29 33.0** | **+0.2** |
| WTSB | | | | Sg | **Sg** | **03 29 38.7** | **+0.3** |
| **ENTS** | **Ennepetalsperr** | **0.50** | **126** | *e*Pg | **Pg** | **03 29 34.1** | **0.0** |
| ENTS | | | | *e*Sg | **Sg** | **03 29 40.7** | **+0.2** |
| **ENTS** | **Ennepetalsperr** | **0.50** | **126** | Pg | **Pg** | **03 29 34.1** | **0.0** |
| ENTS | | | | Sg | **Sg** | **03 29 40.7** | **+0.2** |
| **RWB** | **Wassenberg** | **0.58** | **222** | *e*Sg | **Sb** | **03 29 46.9** | **+0.7** |
| | 68nm,0.2s | | | | | | |
| **RWB** | **Wassenberg** | **0.58** | **222** | Sg | **Sb** | **03 29 46.9** | **+0.7** |
| | 68nm,0.2s | | | | | | |
| **BNS** | **Bensberg** | **0.63** | **155** | *e*Pg | **Pb** | **03 29 38.2** | **-0.1** |
| BNS | | | | *e*Sg | **Sb** | **03 29 46.7** | **-0.9** |
| | 67nm,0.8s | | | | | | |
| **BNS** | **Bensberg** | **0.63** | **155** | Pg | **Pb** | **03 29 38.2** | **-0.1** |
| BNS | | | | Sg | **Sb** | **03 29 46.7** | **-0.9** |
| | 67nm,0.8s | | | | | | |
| **HOBG** | **Hohbusch** | **0.66** | **147** | *e*Pg | **Pg** | **03 29 38.2** | **+1.1** |
| **HOBG** | **Hohbusch** | **0.66** | **147** | Pg | **Pg** | **03 29 38.2** | **+1.1** |
| **GSH** | **Grosshau** | **0.84** | **197** | *e*Pg | **Pb** | **03 29 42.1** | **+0.2** |
| GSH | | | | *e*Sg | **Sb** | **03 29 54.8** | **+1.1** |
| **GSH** | **Grosshau** | **0.84** | **197** | Pg | **Pb** | **03 29 42.1** | **+0.2** |
| GSH | | | | Sg | **Sb** | **03 29 54.8** | **+1.1** |
| **HGN** | **Heimansgroeve** | **0.93** | **214** | *e*Pg | **Pn** | **03 29 44.7** | **-0.1** |
| HGN | | | | *e*Sg | **Sn** | **03 29 59.8** | **+1.0** |
| **HGN** | **Heimansgroeve** | **0.93** | **214** | *e*Pg | **Pn** | **03 29 44.8** | **0.0** |
| HGN | | | | *e*Sg | **Sn** | **03 29 58.0** | **-0.9** |
| **HGN** | **Heimansgroeve** | **0.93** | **214** | Pg | **Pn** | **03 29 44.8** | **0.0** |
| HGN | | | | Sg | **Sn** | **03 29 58.0** | **-0.9** |
| **KLL** | **Kalltalsperre** | **0.93** | **198** | *e*Pg | **Pb** | **03 29 44.0** | **+0.5** |
| **KLL** | **Kalltalsperre** | **0.93** | **198** | Pg | **Pb** | **03 29 44.0** | **+0.5** |
| **STB** | **Steinbach** | **0.94** | **177** | *e*Pg | **Pb** | **03 29 44.3** | **+0.6** |
| STB | | | | *e*Sg | **Sb** | **03 29 57.6** | **+0.9** |
| | 26nm,0.2s | | | | | | |
| **STB** | **Steinbach** | **0.94** | **177** | Pg | **Pb** | **03 29 44.3** | **+0.6** |
| STB | | | | Sg | **Sb** | **03 29 57.6** | **+0.9** |
| | 26nm,0.2s | | | | | | |
| **IBBN** | **Ibbenburen** | **0.99** | **38** | *e*Pg | **Pg** | **03 29 43.8** | **+0.4** |
| IBBN | | | | *e*Sg | **Sg** | **03 29 57.5** | **+1.3** |
| **IBBN** | **Ibbenburen** | **0.99** | **38** | Pg | **Pg** | **03 29 43.8** | **+0.4** |
| IBBN | | | | Sg | **Sg** | **03 29 57.5** | **+1.3** |
| **BEBN** | **Eben Emael** | **1.01** | **223** | P | **Pn** | **03 29 45.9** | **+0.1** |
| **BEBN** | **Eben Emael** | **1.01** | **223** | P | **Pn** | **03 29 45.9** | **+0.1** |
| **AHRW** | **Bad Neuenahr-A** | **1.01** | **169** | *e*Pg | **Pn** | **03 29 46.1** | **+0.1** |
| AHRW | | | | *e*Sg | **Sn** | **03 30 00.6** | **-0.3** |
| **AHRW** | **Bad Neuenahr-A** | **1.01** | **169** | Pg | **Pn** | **03 29 46.1** | **+0.1** |
| AHRW | | | | Sg | **Sn** | **03 30 00.6** | **-0.3** |
| **MEM** | **Membach** | **1.04** | **208** | P | **Pn** | **03 29 46.3** | **-0.1** |
| **MEM** | **Membach** | **1.04** | **208** | *e*Pg | **Pn** | **03 29 46.3** | **-0.1** |
| MEM | | | | *e*Sg | **Sn** | **03 30 01.2** | **-0.4** |
| **MEM** | **Membach** | **1.04** | **208** | P | **Pn** | **03 29 46.2** | **-0.1** |
| MEM | | | | Sg | **Sn** | **03 30 01.2** | **-0.4** |
| **OLFT** | **Oleftalsperre** | **1.06** | **192** | *e*Pg | **Pb** | **03 29 46.2** | **+0.4** |
| OLFT | | | | *e*Sg | **Sn** | **03 30 01.7** | **-0.5** |
| **OLFT** | **Oleftalsperre** | **1.06** | **192** | Pg | **Pb** | **03 29 46.2** | **+0.4** |
| OLFT | | | | Sg | **Sn** | **03 30 01.7** | **-0.5** |
| **BMOL** | **Mol** | **1.10** | **254** | P | **Pb** | **03 29 46.1** | **-0.2** |
| **BMOL** | **Mol** | **1.10** | **254** | P | **Pb** | **03 29 46.1** | **-0.2** |
| **BDSL** | **Dessel** | **1.11** | **254** | P | **Pn** | **03 29 47.5** | **+0.2** |
| **BDSL** | **Dessel** | **1.11** | **254** | P | **Pn** | **03 29 47.4** | **+0.2** |
| **BSTI** | **Sart Tilman** | **1.22** | **219** | P | **Pn** | **03 29 49.1** | **+0.4** |
| **BSTI** | **Sart Tilman** | **1.22** | **219** | P | **Pn** | **03 29 49.1** | **+0.4** |
| **HILG** | **Hillesheim** | **1.25** | **182** | *e*Pg | **Pb** | **03 29 49.1** | **+0.2** |
| **HILG** | **Hillesheim** | **1.25** | **182** | Pg | **Pb** | **03 29 49.1** | **+0.2** |
| **KOE** | **Koeppel** | **1.27** | **151** | *e*Pg | **Pg** | **03 29 49.0** | **+0.2** |
| **KOE** | **Koeppel** | **1.27** | **151** | Pg | **Pg** | **03 29 49.0** | **+0.2** |
| **WIT** | **Witteveen** | **1.28** | **357** | *e*Sg | **Sn** | **03 30 07.9** | **+0.4** |
| **WIT** | **Witteveen** | **1.28** | **357** | Sg | **Sn** | **03 30 07.9** | **+0.4** |
| **BGG** | **Burgeitz** | **1.38** | **164** | *e*Pg | **Pg** | **03 29 51.0** | **+0.1** |
| **BGG** | **Burgeitz** | **1.38** | **164** | Pg | **Pg** | **03 29 51.0** | **+0.1** |
| **BCLA** | **Clavier** | **1.45** | **220** | P | **Pg** | **03 29 52.3** | **+0.1** |
| **BCLA** | **Clavier** | **1.45** | **220** | P | **Pg** | **03 29 52.3** | **+0.1** |
| **BGES** | **Gesves** | **1.56** | **223** | P | **Pn** | **03 29 54.0** | **+0.5** |
| **BGES** | **Gesves** | **1.56** | **223** | P | **Pn** | **03 29 54.0** | **+0.5** |
| **TNS** | **Taunus Mts** | **1.69** | **140** | *e*Pn | **Pn** | **03 29 55.4** | **+0.1** |
| TNS | | | | *e*Sn | **Sn** | **03 30 17.4** | **-0.3** |
| **TNS** | **Taunus Mts** | **1.69** | **140** | Pn | **Pn** | **03 29 55.4** | **+0.1** |
| TNS | | | | Sn | **Sn** | **03 30 17.4** | **-0.3** |
| **GIVF** | **Givet** | **1.89** | **221** | *e*Pn | **Pn** | **03 29 58.3** | **+0.3** |
| GIVF | | | | *e*Sn | **Sb** | **03 30 23.6** | **-0.4** |
| **GIVF** | **Givet** | **1.89** | **221** | *e*Pn | **Pn** | **03 29 58.3** | **+0.3** |
| GIVF | | | | *e*Sn | **Sb** | **03 30 23.6** | **-0.4** |
| **BSKQ** | **Steenkerk** | **1.91** | **243** | P | **Pn** | **03 29 58.8** | **+0.5** |
| **BSKQ** | **Steenkerk** | **1.91** | **243** | P | **Pn** | **03 29 58.7** | **+0.5** |
| **WLF** | **Walferdange** | **1.91** | **192** | P | **Pb** | **03 30 00.0** | **-0.2** |
| **WLF** | **Walferdange** | **1.91** | **192** | *e*Pg | **Pg** | **03 30 02.6** | **+1.5** |
| WLF | | | | *e*Sg | **Sg** | **03 30 25.7** | **-0.2** |
| **WLF** | **Walferdange** | **1.91** | **192** | P | **Pb** | **03 30 00.0** | **-0.2** |
| **WLF** | **Walferdange** | **1.91** | **192** | Pg | **Pg** | **03 30 02.6** | **+1.5** |
| WLF | | | | Sg | **Sg** | **03 30 25.7** | **-0.2** |
| **DOU** | **Dourbes** | **1.99** | **225** | P | **Pn** | **03 30 00.1** | **+0.7** |
| **DOU** | **Dourbes** | **1.99** | **225** | P | **Pn** | **03 30 00.0** | **+0.7** |
| **BAIF** | **Baives** | **2.19** | **229** | *e*Pn | **Pn** | **03 30 02.1** | **-0.1** |
| **BAIF** | **Baives** | **2.19** | **229** | *e*Pg | **Pg** | **03 30 07.5** | **+1.0** |
| BAIF | | | | *e*Sn | **Sn** | **03 30 29.7** | **-0.3** |
| BAIF | | | | *e*Sg | **Sg** | **03 30 37.5** | **+2.6** |
| | 3.7nm,0.2s | | | | | | |
| **BAIF** | **Baives** | **2.19** | **229** | *e*Pn | **Pn** | **03 30 02.1** | **-0.1** |
| **BAIF** | **Baives** | **2.19** | **229** | *e*Pg | **Pg** | **03 30 07.5** | **+1.0** |
| BAIF | | | | *e*Sn | **Sn** | **03 30 29.7** | **-0.3** |
| BAIF | | | | *e*Sg | **Sg** | **03 30 37.5** | **+2.6** |
| | 1.9nm,0.2s | | | | | | |
| **CDF** | **Champ du Feu** | **3.14** | **174** | *e*Pn | **Pn** | **03 30 15.4** | **+0.1** |
| CDF | | | | *e*Sg | **Sg** | **03 31 04.3** | **-1.1** |
| | 4.8nm,0.4s | | | | | | |
| **CDF** | **Champ du Feu** | **3.14** | **174** | *e*Pn | **Pn** | **03 30 15.4** | **+0.1** |
| CDF | | | | *e*Sg | **Sg** | **03 31 04.3** | **-1.1** |
| | 2.4nm,0.4s | | | | | | |
| **MOX** | **Moxa** | **3.19** | **104** | *e*Pn | **Pn** | **03 30 15.3** | **-0.5** |
| **MOX** | **Moxa** | **3.19** | **104** | Pn | **Pn** | **03 30 15.3** | **-0.5** |
| **MEZF** | **Maizieres J'vi** | **3.23** | **201** | *e*Sg | **Sg** | **03 31 08.9** | **+0.7** |
| | 9.2nm,0.5s | | | | | | |
| **MEZF** | **Maizieres J'vi** | **3.23** | **201** | *e*Sg | **Sg** | **03 31 08.9** | **+0.7** |
| | 4.6nm,0.5s | | | | | | |
| **SFTF** | **Sexfontaines** | **3.52** | **199** | *e*Pn | **Pn** | **03 30 21.3** | **+1.0** |
| **SFTF** | **Sexfontaines** | **3.52** | **199** | *e*Pg | **Pg** | **03 30 31.8** | **0.0** |
| SFTF | | | | *e*Sg |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **WB2** | **Warramunga Arr** | **12.51** | **159** | *e*Pn | Pn | 03 33 45.2 | +6.2 |
| WB2 | | | | *e*Sn | **Sn** | **03 35 58.0** | **-0.5** |
| **COEN** | **Coen** | **14.48** | **114** | *e*Pn | **Pn** | **03 34 06.8** | **+0.8** |
| COEN | | | | *e*Sn | **Sn** | **03 36 42.3** | **-4.5** |
| **AS31** | **Alice Springs** | **15.88** | **165** | *e*Pn | **Pn** | **03 34 27.0** | **+2.4** |
| | 4.1nm,0.8s | | | | | | |
| AS31 | | | | *e*Sn | **Sn** | **03 37 16.4** | **-4.4** |
| **ASAR** | **Alice Springs** | **15.88** | **165** | Pn | **Pn** | **03 34 26.1** | **+1.5** |
| | 0.7nm,0.3s,baz=337,slow=8.7,SNR=46 | | | | | | |
| ASAR | | | | Sn | **Sn** | **03 37 16.4** | **-4.4** |
| | 0.4nm,0.3s,baz=352,slow=25,SNR=4.7 | | | | | | |
| **AS01** | **Alice Springs** | **15.89** | **165** | *e*Pn | **Pn** | **03 34 27.6** | **+2.9** |
| AS01 | | | | *e*Sn | **Sn** | **03 37 17.7** | **-3.4** |
| **PMG** | **Port Moresby** | **17.40** | **95** | LR | LR | 03 42 05.8 | |
| | comp=Z,133nm,19.0s,baz=258,slow=40 | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **27.10** | **203** | LR | LR | 03 48 44.9 | |
| | comp=Z,99nm,20.5s,baz=165,slow=40 | | | | | | |
| **ARMA** | **Armidale** | **30.19** | **140** | *e*P | P | 03 36 47.6 | -4.0 |
| | 148nm,1.9s | | | | | | |
| **YOJ** | **Yonaguni jima** | **33.14** | **349** | *e*P | **P** | **03 37 16.6** | **-0.8** |
| | 311nm,1.5s | | | | | | |
| **JOW** | **Kunigami** | **34.89** | **358** | *e*P | **P** | **03 37 31.2** | **-1.4** |
| | 140nm,1.8s | | | | | | |
| **WAKE** | **Wake Island** | **45.63** | **53** | *e*P | P | 03 38 57.4 | -4.4 |
| | 267nm,1.4s | | | | | | |
| **BJT** | **Baijiatuau** | **49.60** | **346** | *e*P | **P** | **03 39 31.3** | **-0.9** |
| | 4.6nm,0.6s | | | | | | |
| **ASAJ** | **Asahikawa** | **53.43** | **12** | *e*P | **P** | **03 39 59.9** | **-1.0** |
| | 9.4nm,0.8s | | | | | | |
| **AFI** | **Afiamalu** | **57.70** | **101** | LR | LR | 04 01 34.7 | |
| | comp=Z,35nm,21.9s,baz=280,slow=32 | | | | | | |
| **MK01** | **Makanchi Array** | **69.02** | **327** | *e*P | **P** | **03 41 46.1** | **-0.6** |
| **MK31** | **Makanchi Array** | **69.04** | **327** | *e*P | **P** | **03 41 46.5** | **-0.3** |
| **MK32** | **Makanchi Array** | **69.04** | **327** | *e*P | **P** | **03 41 45.6** | **-1.1** |
| **MKAR** | **Makanchi Array** | **69.04** | **327** | P | **P** | **03 41 45.7** | **-1.1** |
| | 1.2nm,0.6s,baz=121,slow=5.1,SNR=16 | | | | | | |
| **MKAR** | **Makanchi Array** | **69.04** | **327** | *e*P | **P** | **03 41 46.5** | **-0.3** |
| | 8.0nm,0.8s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **72.52** | **334** | P | **P** | **03 42 06.3** | **-1.4** |
| | 0.4nm,0.4s,baz=143,slow=3.1,SNR=2.4 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **72.52** | **334** | *e*P | **P** | **03 42 06.3** | **-1.4** |
| **ILAR** | **Eielson Array** | **94.64** | **25** | P | **P** | **03 44 00.1** | **-1.6** |
| | 1.0nm,0.8s,baz=265,slow=4.5,SNR=7.1 | | | | | | |
| **ILB** | **Eielson Array** | **94.64** | **25** | *e*P | **P** | **03 44 00.1** | **-1.6** |
| **TORD** | **Torodi Ar. Bea** | **128.64** | **280** | PKP | **PKPdf** | **03 49 51.0** | **+1.7** |
| | 0.7nm,0.7s,baz=73,slow=1.7,SNR=7.0 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **128.65** | **280** | *e*PKPdf | **PKPdf** | **03 49 51.0** | **+1.6** |
| **CPUP** | **Villa Florida** | **144.98** | **169** | PKPbc | PKPbc | 03 50 21.3 | +3.0 |
| | 1.1nm,0.7s,baz=195,slow=3.7,SNR=3.3 | | | | | | |

*IDC* ***27*** *03:38:35.6±2.3,2.˚71N×123.˚70E, h0km, mb3.5/3, mb1 3.7/3, mb1mx3.3/38, mbtmp3.5/3, Error ellipse: s-maj=320.2km s-min=27.8km az=63.0*
*DJA* ***27*** *03:38:39.2±1.1, 0.˚N±6.˚×11.˚9E±.˚, h10km±3km, M4.0/4, MLv4.0/4*
*ISCJB* ***27*** *03:38:40.3±1.2, 0.˚46N±0.˚08×119.˚39E±0.˚07, h34km, mb3.3/3, Error ellipse: s-maj=12.0km s-min=9.3km az=149.0*

**ISC 27 03:38:42.3±1.4, 0.˚42N±0.˚09×119.˚48E±0.˚08, h34km, n8, σ2§10/12, mb3.5/3, Minahassa Peninsula, Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **MPSI** | **Mapaga** | **0.43** | **101** | P | | P | **Pb** | **03 38 49.9** | **-2.0** |
| MPSI | | | | S | | S | **Sb** | **03 38 57.7** | **-0.8** |
| **MRSI** | **Marisa** | **2.46** | **89** | P | | P | **Pn** | **03 39 20.4** | **+0.3** |
| MRSI | | | | S | | S | **Sn** | **03 39 51.3** | **+2.2** |
| **APSI** | **Ampana** | **2.54** | **121** | P | | P | **Pn** | **03 39 22.6** | **+1.4** |
| APSI | | | | S | | S | **Sb** | **03 39 56.4** | **-1.9** |
| **TTSI** | **Tana Toraja** | **3.46** | **174** | P | | P | **Pn** | **03 39 35.0** | **+1.2** |
| TTSI | | | | S | | S | **Sn** | **03 40 14.6** | **+0.9** |
| **LUWI** | **Luwuk** | **3.60** | **114** | P | | P | **Pn** | **03 39 40.0** | **+4.2** |
| **WRA** | **Warramunga Arr** | **24.93** | **145** | P | | **P** | **03 44 00.6** | **-2.0** |
| | 0.8nm,0.6s,baz=336,slow=9.4,SNR=7.8 | | | | | | | | |
| **ASAR** | **Alice Springs** | **27.75** | **151** | P | | **P** | **03 44 27.8** | **-0.2** |
| | 0.3nm,0.7s,baz=343,slow=12,SNR=4.9 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **56.45** | **330** | P | | **P** | **03 48 21.1** | **+0.3** |
| | 0.4nm,0.8s,baz=133,slow=8.8,SNR=4.1 | | | | | | | | |

*CSEM* ***27*** *04:11:38.9±0.5, 38.˚77N×43.˚61E, h5km, MD2.5, Error ellipse: s-maj=13.6km s-min=5.7km az=85.0*
*ISK* ***27*** *04:11:38.8, 38.˚72N×43.˚21E, h2km, MD2.5*
*ISCJB* ***27*** *04:11:39.7±0.8, 38.˚76N±0.˚03×43.˚55E±0.˚10, h21km±7km, Error ellipse: s-maj=12.9km s-min=4.8km az=1.8*
*DDA* ***27*** *04:11:40.1, 38.˚78N×43.˚42E, h7km, Ml2.4*

**ISC 27 04:11:39.6±1.2, 38.˚76N±0.˚02×43.˚56E±0.˚07, h19km±2km, n18, σ1§38/32, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.21** | **221** | *e*PG | | **Pg** | | **04 11 44.8** | **-0.1** |
| VANB | | | | *e*SG | | **Sg** | | **04 11 49.3** | **+0.8** |
| **VANB** | **Van** | **0.21** | **221** | *e*Pg | | **Pg** | | **04 11 44.8** | **-0.1** |
| VANB | | | | *e*Sg | | **Sg** | | **04 11 49.3** | **+0.8** |
| **VMUR** | **Van-Muradiye** | **0.23** | **2** | *i* P | | **Pg** | | **04 11 44.6** | **-0.8** |
| VMUR | | | | *i* S | | **Sg** | | **04 11 50.0** | **+0.7** |
| **VMUR** | **Van-Muradiye** | **0.23** | **2** | P | | **Pg** | | **04 11 44.6** | **-0.8** |
| VMUR | | | | S | | **Sg** | | **04 11 50.0** | **+0.7** |
| **TVAN** | **Van** | **0.26** | **209** | *i* P | | **Pg** | | **04 11 44.6** | **-1.1** |
| TVAN | | | | *i* S | | **Sg** | | **04 11 50.0** | **+0.2** |
| **TVAN** | **Van** | **0.26** | **209** | P | | **Pg** | | **04 11 44.6** | **-1.1** |
| TVAN | | | | S | | **Sg** | | **04 11 50.0** | **+0.2** |
| **ERCV** | **ERCIS-VAN** | **0.32** | **327** | *e*PG | | **Pg** | | **04 11 46.1** | **-0.6** |
| **ERCV** | **ERCIS-VAN** | **0.32** | **327** | *e*Pg | | **Pg** | | **04 11 46.1** | **-0.6** |
| **GEVA** | **Gevas** | **0.59** | **222** | *i* P | | **Pb** | | **04 11 50.1** | **-1.3** |
| GEVA | | | | *i* S | | **Sb** | | **04 11 59.5** | **+0.1** |
| **GEVA** | **Gevas** | **0.59** | **222** | P | | **Pb** | | **04 11 50.1** | **-1.3** |
| GEVA | | | | S | | **Sb** | | **04 11 59.5** | **+0.1** |
| **TUTA** | **Tutak** | **0.87** | **318** | *i* P | | **Pb** | | **04 11 55.4** | **-0.9** |
| TUTA | | | | *i* S | | **Sb** | | **04 12 06.8** | **-0.9** |
| **TUTA** | **Tutak** | **0.87** | **318** | P | | **Pb** | | **04 11 55.4** | **-0.9** |
| TUTA | | | | S | | **Sb** | | **04 12 06.8** | **-0.9** |
| **AGRB** | **Hanur-Agry** | **0.93** | **332** | *e*PG | | **Pb** | | **04 11 56.3** | **-1.0** |
| AGRB | | | | *e*SG | | **Sb** | | **04 12 09.4** | **0.0** |
| **AGRB** | **Hanur-Agry** | **0.93** | **332** | *e*Pg | | **Pb** | | **04 11 56.3** | **-1.0** |
| AGRB | | | | *e*Sg | | **Sb** | | **04 12 09.4** | **0.0** |
| **HAKT** | **HAKKARI** | **1.20** | **175** | *i* P | | **Pg** | | **04 12 01.0** | **-1.9** |
| HAKT | | | | *i* S | | **Sn** | | **04 12 21.3** | **+3.8** |
| **HAKT** | **HAKKARI** | **1.20** | **175** | P | | **Pg** | | **04 12 01.0** | **-1.9** |
| HAKT | | | | S | | **Sn** | | **04 12 21.3** | **+3.8** |
| **CUKT** | **Cukurca** | **1.50** | **179** | *e*PN | | **Pg** | | **04 12 07.6** | **-1.1** |
| **CUKT** | **Cukurca** | **1.50** | **179** | *e*Pn | | **Pg** | | **04 12 07.6** | **-1.1** |

*CSEM* ***27*** *04:14:31.7±0.2, 38.˚65N×43.˚15E, h2km, MD2.9, Error ellipse: s-maj=4.9km s-min=4.4km az=73.0*
*DDA* ***27*** *04:14:31.9, 38.˚62N×43.˚17E, h7km, Ml3.0*
*ISK* ***27*** *04:14:31.6, 38.˚69N×43.˚27E, h8km, MD2.9*
*ISCJB* ***27*** *04:14:32.1±0.5, 38.˚65N±0.˚03×43.˚16E±0.˚04, h5km±7km, Error ellipse: s-maj=5.8km s-min=4.5km az=154.9*

**ISC 27 04:14:31.9±1.0, 38.˚66N±0.˚03×43.˚16E±0.˚03, h7km±11km, n24, σ0§73/36, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.19** | **109** | *e*PG | | **Pg** | | **04 14 35.8** | **-0.1** |
| VANB | | | | *e*SG | | **Sg** | | **04 14 39.9** | **+1.3** |
| **VANB** | **Van** | **0.19** | **109** | *e*Pg | | **Pg** | | **04 14 35.8** | **-0.1** |
| VANB | | | | *e*Sg | | **Sg** | | **04 14 39.9** | **+1.3** |
| **TVAN** | **Van** | **0.23** | **123** | *i* P | | **Pg** | | **04 14 35.8** | **-0.9** |
| TVAN | | | | *i* S | | **Sg** | | **04 14 39.8** | **-0.1** |
| **TVAN** | **Van** | **0.23** | **123** | P | | **Pg** | | **04 14 35.8** | **-0.9** |
| TVAN | | | | S | | **Sg** | | **04 14 39.8** | **-0.1** |
| **GEVA** | **Gevas** | **0.35** | **193** | *i* P | | **Pg** | | **04 14 38.0** | **-0.9** |
| GEVA | | | | *i* S | | **Sg** | | **04 14 44.2** | **+0.6** |
| **GEVA** | **Gevas** | **0.35** | **193** | P | | **Pg** | | **04 14 38.0** | **-0.9** |
| GEVA | | | | S | | **Sg** | | **04 14 44.2** | **+0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.37** | **294** | *i* P | | **Pg** | | **04 14 39.5** | **+0.2** |
| ADCV | | | | *i* S | | **Sb** | | **04 14 46.1** | **-0.9** |
| **ADCV** | **BITLIS_Adilcev** | **0.37** | **294** | P | | **Pg** | | **04 14 39.5** | **+0.2** |
| ADCV | | | | S | | **Sb** | | **04 14 46.1** | **-0.9** |
| **ERCV** | **ERCIS-VAN** | **0.39** | **21** | *e*PG | | **Pg** | | **04 14 38.7** | **-0.9** |
| **ERCV** | **ERCIS-VAN** | **0.39** | **21** | *e*Pg | | **Pg** | | **04 14 38.7** | **-0.9** |
| **VMUR** | **Van-Muradiye** | **0.46** | **44** | *i* P | | **Pg** | | **04 14 41.2** | **+0.2** |
| VMUR | | | | *i* S | | **Sb** | | **04 14 49.6** | **-0.1** |
| **VMUR** | **Van-Muradiye** | **0.46** | **44** | P | | **Pg** | | **04 14 41.2** | **+0.2** |
| VMUR | | | | S | | **Sb** | | **04 14 49.6** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **0.93** | **352** | *e*PG | | **Pg** | | **04 14 49.6** | **-0.2** |
| AGRB | | | | *e*SG | | **Sb** | | **04 15 02.6** | **-0.4** |
| **AGRB** | **Hanur-Agry** | **0.93** | **352** | *e*Pg | | **Pg** | | **04 14 49.6** | **-0.2** |
| AGRB | | | | *e*Sg | | **Sb** | | **04 15 02.6** | **-0.4** |
| **SIRT** | **Sirnak** | **1.29** | **206** | *e*PN | | **Pg** | | **04 14 57.2** | **+0.7** |
| **SIRT** | **Sirnak** | **1.29** | **206** | *e*Pn | | **Pg** | | **04 14 57.3** | **+0.7** |
| **CUKT** | **Cukurca** | **1.45** | **166** | *e*PN | | **Pb** | | **04 14 59.1** | **-0.2** |
| **CUKT** | **Cukurca** | **1.45** | **166** | *e*Pn | | **Pb** | | **04 14 59.1** | **-0.2** |
| **BNGB** | **Bing˜¶l** | **1.96** | **281** | *e*PN | | **Pb** | | **04 15 07.1** | **-1.0** |
| **SENK** | **Senkaya-Erzuru** | **2.00** | **342** | *e*PN | | **Pn** | | **04 15 06.8** | **+0.5** |
| **SENK** | **Senkaya-Erzuru** | **2.00** | **342** | *e*Pn | | **Pn** | | **04 15 06.8** | **+0.5** |
| **BINT** | **Bingol** | **2.10** | **277** | *e*Pn | | **Pn** | | **04 15 07.1** | **-0.5** |
| **YEDI** | **Yedisu-Bingol** | **2.18** | **292** | *e*PN | | **Pn** | | **04 15 10.0** | **+1.3** |
| **YEDI** | **Yedisu-Bingol** | **2.18** | **292** | *e*Pn | | **Pn** | | **04 15 10.0** | **+1.3** |

*IDC* ***27*** *04:14:45.9±6.1, 35.˚76N×140.˚71E, h55km±41km, mb3.1/2, mb1 3.4/4, mb1mx3.0/37, mbtmp3.4/4, ML3.3/2, Error ellipse: s-maj=78.7km s-min=15.9km az=76.0*
*ISCJB* ***27*** *04:14:47.7±0.9, 35.˚72N±0.˚05×140.˚2E±0.˚1, h72km±6km, mb3.3/2, Error ellipse: s-maj=14.9km s-min=7.2km az=166.7*
*JMA* ***27*** *04:14:48.2±0.2, 35.˚74N×140.˚21E, h63km±2km, M2.5*

**ISC 27 04:14:48.5±1.1, 35.˚72N±0.˚05×140.˚27E±0.˚08, h66km±8km, n12, σ1§43/18, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **JCN** | **Nagara** | **0.30** | **191** | P | | P | **Pn** | **04 14 59.4** | **+0.2** |
| JCN | | | | *e*S | | S | **Sn** | **04 15 08.6** | **+1.6** |
| **TOK** | **Tokyo** | **0.42** | **266** | P | | P | **Pn** | **04 15 00.4** | **+0.3** |
| **JYT** | **Yasato** | **0.52** | **353** | P | | P | **Pn** | **04 15 00.5** | **-0.6** |
| JYT | | | | S | | S | **Sn** | **04 15 09.5** | **-0.8** |
| **BSO3** | **Boso 3** | **0.93** | **168** | P | | P | **Pn** | **04 15 05.4** | **-0.2** |
| **JAG** | **Ashikaga** | **0.97** | **317** | P | | P | **Pn** | **04 15 05.8** | **-0.6** |
| JAG | | | | S | | S | **Sn** | **04 15 19.3** | **-0.4** |
| **JOD2** | **Odawara 2** | **1.07** | **245** | P | | P | **Pn** | **04 15 06.4** | **-1.2** |
| JOD2 | | | | S | | S | **Sn** | **04 15 19.3** | **-2.6** |
| **JRY** | **Ryogami san** | **1.15** | **286** | P | | P | **Pn** | **04 15 08.5** | **-0.3** |
| **MJAR** | **Matsushiro Arr** | **1.86** | **297** | P | | P | **Pn** | **04 15 18.4** | **+0.2** |
| | 7.9nm,0.3s,baz=100,slow=15,SNR=33 | | | | | | | | |
| **MAT** | **Matsushiro** | **1.86** | **297** | P | | P | **Pn** | **04 15 18.5** | **+0.3** |
| MAT | | | | S | | S | **Sn** | **04 15 44.3** | **+3.5** |
| **JHJ** | **Hachijo jima 2** | **2.62** | **189** | P | | P | **Pn** | **04 15 29.1** | **+0.7** |
| | 12nm,0.3s,baz=82,slow=21,SNR=4.7 | | | | | | | | |
| JHJ | | | | S | | | **Sn** | **04 15 59.7** | **+0.5** |
| | 17nm,0.3s,baz=253,slow=22,SNR=4.0 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **44.05** | **303** | P | | **P** | | **04 22 50.8** | **+1.1** |
| | 0.1nm,0.6s,baz=85,slow=11,SNR=2.8 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **55.64** | **187** | P | | **P** | | **04 24 16.4** | **-1.4** |
| | 0.7nm,0.7s,baz=3.4,slow=7.8,SNR=10.0 | | | | | | | | |

**CASC 27 04:15:55.2±1.6, 9.˚69N×84.˚11W, h2km±3km, MD3.6, 8C-1D, Costa Rica**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **LCR2** | **La Lucha 2** | **0.12** | **66** | *i*P | | Pg | | 04 15 58.5 | +0.9 |
| LCR2 | | | | *e*S | | Sg | | 04 16 00.8 | +1.7 |
| **SJS** | **Escuela Geolog** | **0.25** | **13** | *i*P | | Pg | | 04 16 01.3 | +1.2 |
| SJS | | | | *e*S | | Sg | | 04 16 05.9 | +2.6 |
| **QCR1** | **Quepos** | **0.27** | **192** | *i*P | | Pg | | 04 16 01.3 | +0.8 |
| **URSC** | **Urasca** | **0.36** | **67** | *i*eP | | Pb | | 04 16 03.3 | -1.0 |
| **CGA2** | **Cerro Gallo 2** | **0.47** | **313** | *i*eP | | Pg | | 04 16 04.9 | +0.6 |
| **CVTR** | **Volcan Turrial** | **0.47** | **47** | *e*P | | Pb | | 04 16 05.6 | -1.0 |
| **SRA1** | **San Ram˜‡n** | **0.53** | **317** | *i*eP | | Pg | | 04 16 05.8 | +0.4 |
| SRA1 | | | | *e*S | | Sg | | 04 16 13.6 | +1.2 |
| **DRK0** | **Durika** | **0.96** | **117** | *e*P | | Pg | | 04 16 12.8 | -0.8 |
| DRK0 | | | | *e*S | | Sb | | 04 16 28.2 | +0.4 |
| **ARE1** | **Arenal 1** | **0.97** | **322** | *i*eP | | Pg | | 04 16 13.9 | +0.1 |
| ARE1 | | | | *e*S | | Sb | | 04 16 28.7 | +0.7 |
| **CHPA** | **Chiripa** | **1.08** | **314** | *e*P | | Pn | | 04 16 22.8 | +5.4 |
| CHPA | | | | *e*S | | Sn | | 04 16 43.5 | +10 |
| **CUI** | **Cuipilapa** | **1.41** | **313** | *i*eP | | Pn | | 04 16 21.4 | -0.5 |
| CUI | | | | *e*S | | Sb | | 04 16 40.8 | 0.0 |
| **COLC** | **Colonia** | **1.45** | **312** | *e*P | | Pn | | 04 16 22.1 | -0.3 |
| COLC | | | | *e*S | | Sn | | 04 16 42.3 | +0.3 |
| **MESS** | **Mesas** | **1.49** | **314** | *i*eP | | Pn | | 04 16 22.8 | -0.2 |
| MESS | | | | *e*S | | Sg | | 04 16 44.2 | +1.1 |
| **VCR** | **Vista de Mar** | **1.56** | **286** | *e*P | | Pn | | 04 16 23.3 | -0.7 |
| **GPS3** | **Bodega del ICE** | **1.62** | **311** | *e*P | | Pn | | 04 16 25.0 | +0.1 |
| GPS3 | | | | *e*S | | Sb | | 04 16 46.7 | -0.1 |
| **BRU2** | **Volcan** | **1.66** | **122** | *e*P | | Pn | | 04 16 25.0 | -0.5 |
| BRU2 | | | | *e*S | | Sg | | 04 16 48.9 | +0.2 |
| **TBS2** | | **1.69** | **122** | *e*P | | Pn | | 04 16 26.2 | +0.3 |
| TBS2 | | | | *e*S | | Sg | | 04 16 49.7 | +0.1 |
| **CRZ1** | **La Cruz** | **2.03** | **313** | *e*P | | Pb | | 04 16 32.0 | -0.9 |
| **BCIP** | **Isla Barro Col** | **4.25** | **97** | *e*P | | Pn | | 04 17 01.2 | +0.2 |

**MAN 27 04:22:27, 14.˚43N×121.˚55E, h1km, mb3.9, ML2.7, MS2.5, 2C-1D, Luzon**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **LQP** | **Lukban** | **0.31** | **181** | *i*P | | Pb | | 04 22 34.4 | -1.2 |
| **TGY** | **Tagaytay City** | **0.68** | **241** | *i*P | | Pg | | 04 22 39.4 | -0.6 |
| TGY | | | | *e*S | | Sg | | 04 22 49.8 | +1.1 |
| **BOAC** | **Boac** | **1.00** | **163** | *e*P | | Pg | | 04 23 01.3 | +1.9 |
| **GQP** | **Guinayangan** | **1.01** | **121** | *i*eP | | Pn | | 04 22 49.1 | +0.7 |
| GQP | | | | *e*S | | Sb | | 04 23 02.2 | +0.9 |
| **SJMP** | **San Jose** | **2.00** | **192** | *e*P | | Pg | | 04 23 04.8 | -0.6 |

*IDC* ***27*** *04:36:45.0±1.1, 52.˚78N×162.˚45E, h0km, mb3.4/4, mb1 3.7/5, mb1mx3.4/34, mbtmp3.4/5, ML2.9/1, Error ellipse: s-maj=42.5km s-min=21.4km az=163.0*
*KRSC* ***27*** *04:36:45.5±1.9, 52.˚82N×162.˚49E, h65km±22km, ML3.9*

**ISC 27 04:36:44.9±3.6, 52.˚79N±0.˚05×162.˚53E±0.˚05, h7km±23km, n44, σ1§72/72, mb3.5/4, Off east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **SPN** | **Mys Shipunski** | **1.55** | **282** | *e*P | | P | **Pn** | **04 37 12.5** | **-1.5** |
| SPN | | | | *e*S | | S | **Sn** | **04 37 30.4** | **-2.9** |
| **NLC** | **Nalytchevo** | **1.96** | **282** | *e*P | | P | **Pn** | **04 37 18.5** | **-0.2** |
| NLC | | | | *e*S | | S | **Sn** | **04 37 40.7** | **-2.8** |
| **KII** | **Karymskiy** | **2.23** | **305** | *e*P | | P | **Pn** | **04 37 21.9** | **-0.5** |
| KII | | | | *e*S | | S | **Sn** | **04 37 46.8** | **-3.4** |
| **UGLR** | **Uglovaya** | **2.28** | **282** | *e*P | | P | **Pn** | **04 37 23.7** | **+0.6** |
| UGLR | | | | *e*S | | S | **Sn** | **04 37 50.0** | **-1.5** |
| **DALK** | **Dalny** | **2.30** | **277** | *e*P | | P | **Pn** | **04 37 23.4** | **+0.1** |
| DALK | | | | *e*S | | S | **Sn** | **04 37 50.2** | **-1.6** |
| **SMAR** | **Somma** | **2.30** | **283** | *e*P | | P | **Pn** | **04 37 23.7** | **+0.2** |
| **AVH** | **Avacha** | **2.34** | **283** | *e*P | | P | **Pn** | **04 37 24.5** | **+0.6** |
| AVH | | | | *e*S | | S | **Sn** | **04 37 51.6** | **-1.4** |
| **KRER** | **Koryakskii** | **2.34** | **284** | *e*P | | P | **Pn** | **04 37 24.5** | **+0.5** |
| **PET** | **Petropavlovsk** | **2.36** | **277** | *e*P | | P | **Pn** | **04 37 23.5** | **-0.6** |
| PET | | | | *e*S | | S | **Sn** | **04 37 50.8** | **-2.5** |
| **KOK** | **Koryaka** | **2.41** | **284** | *e*P | | P | **Pn** | **04 37 24.5** | **-0.3** |
| **KRX** | **Arik** | **2.41** | **285** | *e*P | | P | **Pn** | **04 37 25.2** | **+0.2** |
| KRX | | | | *e*S | | S | **Sn** | **04 37 52.5** | **-2.3** |
| **RUS** | **Russkaya** | **2.48** | **263** | *e*P | | P | **Pn** | **04 37 25.7** | **0.0** |
| RUS | | | | *e*S | | S | **Sn** | **04 37 53.8** | **-2.4** |
| **MTVR** | **Mutnovka** | **2.67** | **265** | *e*P | | P | **Pn** | **04 37 29.1** | **+0.6** |
| MTVR | | | | *e*S | | S | **Sn** | **04 37 59.3** | **-1.9** |
| **KRMR** | **Karymshinskiy** | **2.67** | **273** | *e*P | | P | **Pn** | **04 37 28.6** | **+0.2** |
| KRMR | | | | *e*S | | S | **Sn** | **04 37 59.0** | **-2.0** |
| **KZV** | **Kizimen** | **2.67** | **331** | *e*P | | P | **Pn** | **04 37 28.8** | **+0.2** |
| KZV | | | | *e*S | | S | **Sn** | **04 37 59.0** | **-2.3** |
| **TUMD** | **Tumrok D** | **2.72** | **333** | *e*P | | P | **Pn** | **04 37 28.8** | **-0.3** |
| TUMD | | | | *e*S | | S | **Sn** | **04 37 58.9** | **-3.4** |
| **ASAK** | **Asacha** | **2.86** | **264** | *e*P | | P | **Pn** | **04 37 31.7** | **+0.7** |
| ASAK | | | | *e*S | | S | **Sn** | **04 38 04.1** | **-1.6** |
| **TUMR** | **Tumrok** | **2.86** | **332** | *e*P | | P | **Pn** | **04 37 31.8** | **+0.6** |
| **GNL** | **Ganaly** | **2.90** | **290** | *e*P | | P | **Pn** | **04 37 32.6** | **+0.9** |
| GNL | | | | *e*S | | S | **Sn** | **04 38 06.1** | **-0.8** |
| **KDTR** | **Khodutka, Kamc** | **2.91** | **252** | *e*P | | P | **Pn** | **04 37 31.1** | **-0.5** |
| KDTR | | | | *e*S | | S | **Sn** | **04 38 03.6** | **-3.2** |
| **PETK** | **Petropavlovsk-** | **2.94** | **278** | Pn | | P | **Pn** | **04 37 33.2** | **+1.1** |
| | 7.7nm,0.3s,baz=96,slow=18,SNR=110 | | | | | | | | |
| PETK | | | | Sn | | S | **Sn** | **04 38 06.9** | **-0.8** |
| | 8.4nm,0.3s,baz=78,slow=34,SNR=12 | | | | | | | | |
| **BKI** | **Bering** | **3.15** | **39** | *e*P | | P | **Pn** | **04 37 33.8** | **-1.2** |
| BKI | | | | *e*S | | S | **Sn** | **04 38 07.8** | **-5.1** |
| **KMNR** | **Kamenistaya** | **3.26** | **337** | *e*P | | P | **Pn** | **04 37 37.8** | **+1.2** |
| KMNR | | | | *e*S | | S | **Sn** | **04 38 15.0** | **-0.7** |
| **APC** | **Apacha** | **3.26** | **274** | *e*P | | P | **Pn** | **04 37 37.7** | **+1.2** |
| APC | | | | *e*S | | S | **Sn** | **04 38 15.0** | **-0.5** |
| **BZMR** | **Bezymyannaya** | **3.37** | **340** | *e*P | | P | **Pn** | **04 37 38.5** | **+0.4** |
| **ZLN** | **Zelenaya** | **3.38** | **343** | *e*P | | P | **Pn** | **04 37 39.7** | **+1.4** |
| ZLN | | | | *e*S | | S | **Sn** | **04 38 17.7** | **-1.1** |
| **BZWR** | **Bezymyannyi-We** | **3.39** | **340** | *e*P | | P | **Pn** | **04 37 39.0** | **+0.5** |
| **KIRR** | **Kirishev** | **3.42** | **339** | *e*P | | P | **Pn** | **04 37 39.7** | **+0.9** |
| KIRR | | | | *e*S | | S | **Sn** | **04 38 18.3** | **-1.3** |
| **KBTR** | **Krutoberegovo** | **3.43** | **3** | *e*P | | P | **Pn** | **04 37 37.8** | **-1.0** |
| KBTR | | | | *e*S | | S | **Sn** | **04 38 17.1** | **-2.5** |
| **KPT** | **Kopyto** | **3.45** | **338** | *e*P | | P | **Pn** | **04 37 40.0** | **+0.8** |
| **KBG** | **Krutoberegovo** | **3.47** | **2** | *e*S | | S | **Sn** | **04 38 18.0** | **-2.7** |
| **CIRR** | **Tsirk** | **3.49** | **343** | *e*P | | P | **Pn** | **04 37 41.5** | **+1.7** |
| **KRSR** | **Krestovskiy** | **3.62** | **342** | *e*P | | P | **Pn** | **04 37 42.4** | **+0.9** |
| KRSR | | | | *e*S | | S | **Sn** | **04 38 23.2** | **-1.3** |
| **KOZ** | **Kozyrevsk** | **3.62** | **336** | *e*P | | P | **Pn** | **04 37 42.6** | **+1.1** |
| **KLY** | **Klyuchi** | **3.69** | **344** | *e*P | | P | **Pn** | **04 37 43.0** | **+0.6** |
| KLY | | | | *e*S | | S | **Sn** | **04 38 23.8** | **-2.4** |
| **SMKR** | **Semkarok** | **3.85** | **351** | *e*P | | P | **Pn** | **04 37 45.4** | **+0.8** |
| SMKR | | | | *e*S | | S | **Sn** | **04 38 28.2** | **-1.9** |
| **ESO** | **Esso** | **3.86** | **326** | *e*P | | P | **Pn** | **04 37 45.5** | **+0.8** |
| ESO | | | | *e*S | | S | **Sn** | **04 38 28.5** | **-1.8** |
| **BDR** | **Baidarnaya** | **3.86** | **349** | *e*P | | P | **Pn** | **04 37 45.9** | **+1.1** |
| BDR | | | | *e*S | | S | **Sn** | **04 38 28.5** | **-1.9** |
| **SRKR** | **Sorokina** | **3.95** | **349** | *e*P | | P | **Pn** | **04 37 47.2** | **+1.2** |
| **SKR** | **Severo-Kuril's** | **4.51** | **245** | *e*S | | S | **Sn** | **04 38 42.3** | **-4.1** |
| **YKA** | **Yellowknife Ar** | **42.38** | **43** | P | | P | | **04 44 40.4** | **+1.0** |
| | 0.2nm,0.6s,baz=294,slow=7.8,SNR=3.2 | | | | | | | | |
| **NVAR** | **Mina Array Bea** | **54.45** | **71** | P | | **P** | | **04 46 15.2** | **+2.1** |
| | 0.2nm,0.6s,baz=295,slow=9.6,SNR=2.3 | | | | | | | | |
| **TXAR** | **Lajitas Array** | **69.39** | **69** | P | | **P** | | **04 47 54.5** | **+1.0** |
| | 0.2nm,0.4s,baz=307,slow=5.1,SNR=8.2 | | | | | | | | |
| **ASAR** | **Alice Springs** | **80.12** | **206** | P | | **P** | | **04 48 56.3** | **+0.8** |
| | 0.4nm,0.5s,baz=17,slow=5.3,SNR=8.2 | | | | | | | | |

*ISN* ***27*** *04:48:59.0±0.3, 38.˚59N×43.˚31E, h0km, ML3.7*
*ISK* ***27*** *04:49:08.0, 38.˚73N×43.˚41E, h5km, ML3.0*
*DDA* ***27*** *04:49:08.7, 38.˚72N×43.˚30E, h18km, Ml3.7*
*CSEM* ***27*** *04:49:09.1±0.2, 38.˚72N×43.˚35E, h2km, ML3.0, Error ellipse: s-maj=5.6km s-min=3.5km az=82.0*

**ISC 27 04:49:09.0±0.9, 38.˚73N±0.˚01×43.˚29E±0.˚02, h11km±7km, n66, σ1§33/101, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.16** | **151** | *e*PG | | **Pg** | | **04 49 13.5** | **-0.5** |
| **VANB** | **Van** | **0.16** | **151** | *e*Pg | | **Pg** | | **04 49 13.5** | **-0.5** |
| **TVAN** | **Van** | **0.22** | **157** | *

**IDC 27 05:15:03.2±3.3, 29°90'×139°04'E, h0km, mb1 2.9/3, mb1mx2.9/23, mbtmp2.7/3, ML2.4/3, Error ellipse: s-maj=152.8km s-min=24.0km az=49.0, South Australia**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **STKA** | **Stephens Creek** | **2.96** | **133** | Pn | | Pn | 05 15 51.2 | -0.2 |
| | 0.2nm,0.3s,baz=307,slow=15,SNR=3.2 | | | | | | | |
| STKA | | | | Sn | | Sn | 05 16 29.2 | +1.6 |
| | 1.1nm,0.3s,baz=7.1,slow=16,SNR=5.6 | | | | | | | |
| **ASAR** | **Alice Springs** | **7.71** | **322** | Pn | | Pn | 05 16 56.5 | -0.4 |
| | 0.1nm,0.3s,baz=147,slow=13,SNR=6.9 | | | | | | | |
| ASAR | | | | Sn | | Sn | 05 18 21.1 | -3.9 |
| | 0.1nm,0.3s,baz=149,slow=23,SNR=3.0 | | | | | | | |
| **WRA** | **Warramunga Arr** | **10.79** | **336** | Pn | | Pn | 05 17 39.5 | +0.5 |
| | 0.1nm,0.3s,baz=154,slow=13,SNR=3.3 | | | | | | | |

**IDC 27 05:31:29.1±2.1, 8°18S×129°71E, h0km, mb3.3/1, mb1 3.6/4, mb1mx3.3/38, mbtmp3.4/4, ML3.3/3, Error ellipse: s-maj=84.9km s-min=28.3km az=77.0, Timor Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **10.63** | **201** | Pn | | Pn | 05 34 02.4 | -0.4 |
| | 0.2nm,0.3s,baz=36,slow=11,SNR=6.2 | | | | | | | |
| FITZ | | | | Sn | | Sn | 05 35 55.2 | -7.5 |
| | 0.3nm,0.3s,baz=333,slow=17,SNR=4.5 | | | | | | | |
| **WRA** | **Warramunga Arr** | **12.53** | **159** | Pn | | Pn | 05 34 28.2 | -0.5 |
| | 0.2nm,0.3s,baz=343,slow=13,SNR=6.3 | | | | | | | |
| WRA | | | | Sn | | Sn | 05 36 45.2 | -4.0 |
| | 0.2nm,0.3s,baz=332,slow=22,SNR=6.2 | | | | | | | |
| **ASAR** | **Alice Springs** | **15.92** | **166** | Pn | | Pn | 05 35 15.7 | +1.0 |
| | 0.1nm,0.3s,baz=339,slow=9.4,SNR=5.6 | | | | | | | |
| **MKAR** | **Makanchi Array** | **69.05** | **327** | P | | P | 05 42 36.8 | 0.0 |
| | 0.2nm,0.7s,baz=124,slow=7.0,SNR=2.8 | | | | | | | |

*IDC 27 05:35:16.0±9.3, 17°27S×177°34W, h343km±94km, mb3.4/8, mb1 3.7/8, mb1mx3.3/34, mbtmp4.0/8, Error ellipse: s-maj=46.7km s-min=22.8km az=166.0*
*ISCJB 27 05:35:19.3±0.8, 17°45S±0°2×177°4W±0°2, h392km, mb3.6/8, Error ellipse: s-maj=33.4km s-min=16.2km az=136.1*
**ISC 27 05:35:20.5±0.8, 17°45S±0°2×177°4W±0°2, h392km, n12, σ0s82/12, mb3.6/8, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **URZ** | **Urewera** | **21.37** | **192** | P | | **P** | **05 39 36.7** | **-1.1** |
| | 1.8nm,0.3s,baz=354,slow=6.2,SNR=3.3 | | | | | | | |
| **STKA** | **Stephens Creek** | **39.76** | **241** | P | | **P** | **05 42 18.3** | **+1.1** |
| | 1.5nm,0.5s,baz=99,slow=9.9,SNR=10 | | | | | | | |
| **WRA** | **Warramunga Arr** | **45.71** | **259** | P | | **P** | **05 43 04.0** | **-0.6** |
| | 0.4nm,0.3s,baz=98,slow=7.6,SNR=10 | | | | | | | |
| **ASAR** | **Alice Springs** | **45.89** | **254** | P | | **P** | **05 43 06.1** | **+0.1** |
| | 3.7nm,0.4s,baz=91,slow=7.9,SNR=78 | | | | | | | |
| **NVAR** | **Mina Array Bea** | **78.35** | **43** | P | | **P** | **05 46 39.2** | **+0.2** |
| | 0.7nm,0.7s,baz=229,slow=8.0,SNR=7.0 | | | | | | | |
| **TXAR** | **Lajitas Array** | **84.87** | **57** | P | | **P** | **05 47 14.0** | **+1.2** |
| | 1.0nm,0.8s,baz=220,slow=6.6,SNR=11 | | | | | | | |
| **ILAR** | **Eielson Array** | **85.15** | **13** | P | | **P** | **05 47 12.1** | **-1.1** |
| | 0.9nm,0.4s,baz=225,slow=5.6,SNR=6.5 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **93.43** | **24** | P | | **P** | **05 47 51.3** | **-0.7** |
| | 0.3nm,0.7s,baz=246,slow=5.0,SNR=4.9 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **125.96** | **350** | PKP | | **PKPdf** | **05 53 36.1** | **+0.2** |
| | 2.8nm,0.9s,baz=76,slow=3.8,SNR=2.8 | | | | | | | |
| **BRTR** | **Keskin Array B** | **145.10** | **316** | PKPbc | | **PKPdf** | **05 54 12.4** | **+0.1** |
| | 0.6nm,0.7s,baz=106,slow=2.7,SNR=4.1 | | | | | | | |
| **GERES** | **GERESS Array B** | **147.34** | **346** | PKPbc | | **PKPbc** | **05 54 18.9** | **+0.1** |
| | 0.4nm,0.5s,baz=20,slow=4.3,SNR=7.6 | | | | | | | |
| **DAVOX** | **Davos/Dischmat** | **150.06** | **350** | PKPbc | | **PKPbc** | **05 54 26.2** | **+0.4** |
| | 2.7nm,0.5s,baz=350,slow=6.1,SNR=8.9 | | | | | | | |

*KRNET 27 05:35:35.6±0.1, 39°06N×71°97E, mb3.0*
*NNC 27 05:35:36.0±1.4, 39°06N×71°79E, h0km, mb3.6, mpv3.2, Error ellipse: s-maj=15.5km s-min=8.5km az=158.0*
*ISCJB 27 05:35:38.9±1.1, 38°95N±0°07×71°86E±0°08, h42km, Error ellipse: s-maj=10.9km s-min=7.7km az=139.8*
**ISC 27 05:35:38.1±1.9, 38°9N±0°1×71°84E±0°06, h42km, n21, σ1s66/30, 16C-14D, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **SFK** | **Sufi-Kurgan** | **1.71** | **48** | ⇑*i*P | | **Pn** | **05 36 04.7** | **-0.9** |
| | baz=51 | | | | | | | |
| SFK | | | | ⇑*i*S | | **Sn** | **05 36 26.3** | **0.0** |
| | baz=51 | | | | | | | |
| **SFK** | **Sufi-Kurgan** | **1.71** | **48** | ⇑Pn | | **Pn** | **05 36 05.3** | **-0.2** |
| | 10nm,0.3s | | | | | | | |
| SFK | | | | ⇓Lg | | Lg | 05 36 28.6 | |
| | 36nm,0.3s | | | | | | | |
| **DZET** | **Dzherino** | **2.36** | **269** | ⇑Pn | | **Pn** | **05 36 16.4** | **+2.0** |
| | 26nm,0.6s | | | | | | | |
| DZET | | | | ⇓Lg | | Lg | 05 36 47.9 | |
| | 124nm,0.5s | | | | | | | |
| **ARSB** | **Arslanbob** | **2.58** | **19** | ⇓*i*P | | **Pn** | **05 36 18.8** | **+1.2** |
| | baz=18 | | | | | | | |
| ARSB | | | | ⇓*i*S | | **Sn** | **05 36 50.1** | **+2.3** |
| | baz=18 | | | | | | | |
| **ARK** | **Arkit** | **2.91** | **2** | ⇓*i*P | | **Pn** | **05 36 22.6** | **+0.6** |
| | baz=0.0 | | | | | | | |
| ARK | | | | ⇓*i*S | | **Sn** | **05 36 57.5** | **+1.8** |
| | baz=0.0 | | | | | | | |
| **AML** | **Almayashu** | **3.53** | **23** | ⇑*i*P | | **Pn** | **05 36 32.1** | **+1.3** |
| | baz=22 | | | | | | | |
| AML | | | | ⇑*i*S | | **Sn** | **05 37 12.3** | **+0.8** |
| | baz=22 | | | | | | | |
| **AML** | **Almayashu** | **3.53** | **23** | P | | **Pn** | **05 36 32.6** | **+1.8** |
| | SNR=10 | | | | | | | |
| **MNAS** | **Manas** | **3.63** | **8** | ⇑*i*P | | **Pn** | **05 36 33.2** | **+1.3** |
| | baz=7.0 | | | | | | | |
| MNAS | | | | ⇑*i*S | | **Sn** | **05 37 14.4** | **+0.9** |
| | baz=7.0 | | | | | | | |
| **MNAS** | **Manas** | **3.63** | **8** | ⇓Pn | | **Pn** | **05 36 33.3** | **+1.4** |
| | 2.4nm,0.4s | | | | | | | |
| MNAS | | | | ⇓Lg | | Lg | 05 37 22.9 | |
| | 5.2nm,0.6s | | | | | | | |
| **UCH** | **Uchtor** | **3.91** | **31** | ⇑*i*P | | **Pn** | **05 36 37.2** | **+1.2** |
| | baz=31 | | | | | | | |
| UCH | | | | ⇑*i*S | | **Sn** | **05 37 20.7** | **-0.1** |
| | baz=31 | | | | | | | |
| **UCH** | **Uchtor** | **3.91** | **31** | P | | **Pn** | **05 36 39.4** | **+3.4** |
| | SNR=11 | | | | | | | |
| **EKS2** | **Erkin-Say** | **4.04** | **21** | ⇑*i*P | | **Pn** | **05 36 39.2** | **+1.6** |
| | baz=20 | | | | | | | |
| EKS2 | | | | ⇑*i*S | | **Sn** | **05 37 24.3** | **+0.6** |
| | baz=20 | | | | | | | |
| **EKS2** | **Erkin-Say** | **4.04** | **21** | P | | **Pn** | **05 36 40.1** | **+2.6** |
| | SNR=5.1 | | | | | | | |
| **AAK** | **Ala-Archa** | **4.25** | **27** | ⇓*i*P | | **Pn** | **05 36 41.7** | **+1.2** |
| | baz=27 | | | | | | | |
| AAK | | | | ⇓*i*S | | **Sn** | **05 37 29.0** | **+0.1** |
| | baz=27 | | | | | | | |
| **AAK** | **Ala-Archa** | **4.25** | **27** | ⇓Pn | | **Pn** | **05 36 39.5** | **-0.9** |
| | 2.4nm,0.4s | | | | | | | |
| AAK | | | | ⇓Lg | | Lg | 05 37 44.0 | |
| | 9.2nm,0.7s | | | | | | | |
| **AAK** | **Ala-Archa** | **4.25** | **27** | P | | Pn | 05 36 44.7 | +4.2 |
| | SNR=7.4 | | | | | | | |
| **KK31** | **Karatay Array** | **4.33** | **347** | ⇑Pn | | **Pn** | **05 36 40.8** | **-0.6** |
| | 1.7nm,0.3s,baz=172,slow=13 | | | | | | | |
| KK31 | | | | ⇑Sn | | **Sn** | **05 37 32.0** | **+1.5** |
| | 5.4nm,0.3s,baz=165,slow=23 | | | | | | | |
| KK31 | | | | ⇑Lg | | Lg | 05 37 45.0 | |
| | 3.2nm,0.3s,baz=166,slow=30 | | | | | | | |
| **CHMS** | **Chumysh** | **4.66** | **27** | P | | **Pn** | **05 36 48.1** | **+2.2** |
| | SNR=6.2 | | | | | | | |
| **USP** | **Ospenovka** | **4.81** | **24** | P | | **Pn** | **05 36 49.6** | **+1.6** |
| | SNR=9.5 | | | | | | | |
| **TKM2** | **Tokmak 2** | **4.93** | **34** | ⇓Pn | | **Pn** | **05 36 52.1** | **+2.3** |
| | 0.8nm,0.3s | | | | | | | |
| TKM2 | | | | ⇑Lg | | Lg | 05 38 09.9 | |
| | 4.0nm,0.6s | | | | | | | |
| **AB31** | **Akbulak array** | **13.42** | **324** | P | | **Pn** | **05 38 43.5** | **-2.3** |
| | 0.6nm,0.6s,baz=1.0,slow=28,SNR=13 | | | | | | | |
| AB31 | | | | ⇓S | | **Sn** | **05 41 11.5** | **-1.9** |
| | 1.5nm,0.7s,baz=134,slow=25,SNR=5.1 | | | | | | | |

*DDA 27 05:59:17.4, 37°99N×27°18E, h26km, Ml4.1*
*IDC 27 05:59:17.2±0.7, 37°96N×27°22E, h0km, mb4.0/12, mb1 4.0/19, mb1mx3.8/46, mbtmp3.9/19, ML3.7/7, MS3.3/12, Ms1 3.3/12, ms1mx3.1/43, Error ellipse: s-maj=15.5km s-min=12.9km az=153.0*
*NEIC 27 05:59:17.9±0.0, 37°95N×27°15E, h7km, mb4.4/6, ML4.1(THE), ML4.2(ATH), ML4.3(ISK), After ISK.*
*ISK 27 05:59:18.4, 37°83N×27°04E, h5km, ML4.3*
*CSEM 27 05:59:18.8±0.1, 37°95N×27°17E, h10km, mb4.1/4, Error ellipse: s-maj=2.9km s-min=2.4km az=53.0*
*THE 27 05:59:18.1, 37°96N×27°19E, h1km, ML4.1/10, Error ellipse: s-maj=1.0km s-min=0.5km az=98.0*
*MOS 27 05:59:18.5±1.6, 38°01N×27°23E, h16km, mb4.0/4, Error ellipse: s-maj=9.7km s-min=6.4km az=90.8*
*ISCJB 27 05:59:18.7±0.4, 37°96N±0°01×27°11E±0°02, h13km±2km, mb4.1/19, MS3.3/8, Error ellipse: s-maj=2.5km s-min=2.1km az=34.5*
*ATH 27 05:59:19.1, 37°91N×27°06E, h30km±1km, ML4.1/9, Error ellipse: s-maj=2.5km s-min=1.0km az=252.0*
**ISC 27 05:59:19.2±0.9, 37°97N±0°02×27°18E±0°01, h8km±6km, n369, σ1s55/435, mb4.1/19, MS3.3/8, 42C-5D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **KUSD** | **Kusadasi-Aydin** | **0.14** | **143** | PG | | **Pg** | **05 59 23.2** | **+1.0** |
| **KUSD** | **Kusadasi-Aydin** | **0.14** | **143** | *i* Pg | | **Pg** | **05 59 23.2** | **+1.0** |
| **DGB** | **˜zmir** | **0.25** | **289** | *i* P | | **Pg** | **05 59 23.7** | **-0.5** |
| DGB | | | | *i* S | | **Sg** | **05 59 27.2** | **-0.4** |
| **SMG** | **Samos** | **0.38** | **226** | P | | **Pg** | **05 59 25.6** | **-1.0** |
| SMG | | | | S | | **Sg** | **05 59 30.8** | **-0.8** |
| SMG | | | | AML | | AML | 05 59 36.7 | |
| | comp=E,47707μm,0.2s | | | | | | | |
| SMG | | | | AML | | AML | 05 59 37.0 | |
| | comp=N,54131μm,0.3s | | | | | | | |
| **SMG** | **Samos** | **0.38** | **226** | P | | **Pg** | **05 59 25.6** | **-1.0** |
| SMG | | | | S | | **Sg** | **05 59 30.8** | **-0.8** |
| **SMG** | **Samos** | **0.38** | **226** | P | | **Pg** | **05 59 25.9** | **-0.7** |
| SMG | | | | S | | **Sg** | **05 59 31.6** | **0.0** |
| **SMG** | **Samos** | **0.38** | **226** | P | | **Pg** | **05 59 25.9** | **-0.7** |
| SMG | | | | S | | **Sg** | **05 59 31.6** | **0.0** |
| **ZEY** | **˜zmir** | **0.60** | **297** | ⇑*i*P | | **Pg** | **05 59 29.9** | **-0.9** |
| ZEY | | | | *i* S | | **Sg** | **05 59 38.6** | **0.0** |
| **URLA** | **Izmir** | **0.60** | **310** | *e*PG | | **Pb** | **05 59 31.7** | **-0.3** |
| **URLA** | **Izmir** | **0.60** | **310** | ⇑*i*P | | **Pg** | **05 59 30.1** | **-0.9** |
| URLA | | | | *i* S | | **Sg** | **05 59 38.6** | **-0.1** |
| **URLA** | **Izmir** | **0.60** | **310** | P | | **Pg** | **05 59 30.0** | **-0.9** |
| **URLA** | **Izmir** | **0.60** | **310** | *e*Pg | | **Pb** | **05 59 31.7** | **-0.3** |
| URLA | | | | S | | **Sg** | **05 59 38.7** | **-0.1** |
| **AYDN** | **Tasoluk** | **0.63** | **119** | ⇑*i*P | | **Pg** | **05 59 30.8** | **-0.6** |
| AYDN | | | | *i* S | | **Sg** | **05 59 39.0** | **-0.6** |
| **AYDN** | **Tasoluk** | **0.63** | **119** | P | | **Pg** | **05 59 30.8** | **-0.6** |
| AYDN | | | | S | | **Sg** | **05 59 39.0** | **-0.6** |
| **BODT** | **Bodrum** | **0.91** | **174** | *e*PG | | **Pg** | **05 59 35.0** | **-1.7** |
| **BODT** | **Bodrum** | **0.91** | **174** | Pg | | **Pg** | **05 59 35.4** | **-1.3** |
| **BODT** | **Bodrum** | **0.91** | **174** | Pg | | **Pg** | **05 59 35.4** | **-1.3** |
| **BDRM** | **Kayabasi** | **0.93** | **167** | ⇑*i*P | | **Pg** | **05 59 35.4** | **-1.6** |
| BDRM | | | | *i* S | | **Sn** | **05 59 50.8** | **-1.1** |
| **BDRM** | **Kayabasi** | **0.93** | **167** | P | | **Pg** | **05 59 35.4** | **-1.6** |
| BDRM | | | | S | | **Sn** | **05 59 50.8** | **-1.1** |
| **CHOS** | **Chios island** | **0.98** | **295** | *e*PG | | **Pg** | **05 59 37.9** | **-0.1** |
| CHOS | | | | *e*SG | | **Sb** | **05 59 52.2** | **+0.6** |
| **CHOS** | **Chios island** | **0.98** | **295** | P | | **Pb** | **05 59 38.7** | **+0.3** |
| CHOS | | | | S | | **Sb** | **05 59 51.7** | **+0.1** |
| CHOS | | | | AML | | AML | 05 59 55.1 | |
| | comp=N,33831μm,0.5s | | | | | | | |
| CHOS | | | | AML | | AML | 05 59 55.1 | |
| | comp=E,32028μm,0.2s | | | | | | | |
| **CHOS** | **Chios island** | **0.98** | **295** | P | | **Pg** | **05 59 37.0** | **-1.0** |
| **CHOS** | **Chios island** | **0.98** | **295** | *e*Pg | | **Pg** | **05 59 37.9** | **-0.1** |
| CHOS | | | | S | | **Sb** | **05 59 51.3** | **-0.3** |
| CHOS | | | | *e*Sg | | **Sb** | **05 59 52.2** | **+0.6** |
| **CHOS** | **Chios island** | **0.98** | **295** | P | | **Pg** | **05 59 37.0** | **-1.0** |
| CHOS | | | | S | | **Sb** | **05 59 51.3** | **-0.3** |
| **CHOS** | **Chios island** | **0.98** | **295** | P | | **Pg** | **05 59 37.0** | **-1.0** |
| CHOS | | | | S | | **Sb** | **05 59 51.3** | **-0.3** |
| **AKHS** | **Akhisar** | **1.03** | **28** | ⇑*i*P | | **Pg** | **05 59 37.5** | **-1.5** |
| AKHS | | | | *i* S | | **Sb** | **05 59 53.1** | **+0.1** |
| **AKHS** | **Akhisar** | **1.03** | **28** | P | | **Pg** | **05 59 37.5** | **-1.5** |
| AKHS | | | | S | | **Sb** | **05 59 53.1** | **+0.1** |
| **AKS** | **Akhisar** | **1.03** | **28** | *e*PN | | **Pn** | **05 59 43.0** | **+3.0** |
| **AKS** | **Akhisar** | **1.03** | **28** | Pg | | **Pg** | **05 59 37.8** | **-1.2** |
| **AKS** | **Akhisar** | **1.03** | **28** | Pg | | **Pg** | **05 59 37.8** | **-1.2** |
| **MANT** | **Manisa** | **1.20** | **64** | ⇑*i*P | | **Pg** | **05 59 40.7** | **-1.6** |
| MANT | | | | *i* S | | **Sg** | **05 59 55.7** | **-2.1** |
| **MANT** | **Manisa** | **1.20** | **64** | P | | **Pg** | **05 59 40.7** | **-1.6** |
| **MANT** | **Manisa** | **1.20** | **64** | *e*Pn | | **Pg** | **05 59 41.8** | **-0.5** |
| MANT | | | | S | | **Sg** | **05 59 55.7** | **-2.1** |
| **MANT** | **Manisa** | **1.20** | **64** | *e*Pn | | **Pg** | **05 59 41.8** | **-0.5** |
| **KULA** | **Kula-Manisa** | **1.28** | **65** | *e*PN | | **Pg** | **05 59 46.3** | **+2.5** |
| **KULA** | **Kula-Manisa** | **1.28** | **65** | Pn | | **Pn** | **05 59 42.9** | **-0.5** |
| **KULA** | **Kula-Manisa** | **1.28** | **65** | Pn | | **Pn** | **05 59 42.9** | **-0.5** |
| **NISR** | **Nisiros** | **1.36** | **182** | P | | **Pb** | **05 59 44.7** | **-0.1** |
| NISR | | | | AML | | AML | 05 59 50.6 | |
| | comp=N,14946μm,0.7s | | | | | | | |
| NISR | | | | AML | | AML | 05 59 54.8 | |
| | comp=E,11427μm,0.5s | | | | | | | |
| **NISR** | **Nisiros** | **1.36** | **182** | P | | **Pn** | **05 59 43.8** | **-0.5** |
| **NISR** | **Nisiros** | **1.36** | **182** | P | | **Pn** | **05 59 43.8** | **-0.5** |
| **NISR** | **Nisiros** | **1.36** | **182** | P | | **Pn** | **05 59 43.8** | **-0.5** |
| **PRK** | **Paraskevi** | **1.46** | **331** | P | | **Pn** | **05 59 44.1** | **-1.7** |
| **PRK** | **Paraskevi** | **1.46** | **331** | P | | **Pg** | **05 59 47.4** | **+0.2** |
| PRK | | | | S | | **Sb** | **06 00 05.4** | **+0.1** |
| PRK | | | | AML | | AML | 06 00 10.0 | |
| | comp=E,68515μm,0.7s | | | | | | | |
| PRK | | | | AML | | AML | 06 00 11.8 | |
| | comp=N,45374μm,1.0s | | | | | | | |
| **PRK** | **Paraskevi** | **1.46** | **331** | P | | **Pn** | **05 59 44.1** | **-1.7** |
| PRK | | | | S | | **Sn** | **06 00 04.7** | **-0.4** |
| **PRK** | **Paraskevi** | **1.46** | **331** | P | | **Pn** | **05 59 44.1** | **-1.7** |
| **PRK** | **Paraskevi** | **1.46** | **331** | P | | **Pn** | **05 59 44.1** | **-1.7** |
| PRK | | | | S | | **Sn** | **06 00 04.7** | **-0.4** |
| **TAVA** | **DENIZLI_Tavas** | **1.46** | **110** | ⇑*i*P | | **Pn** | **05 59 44.9** | **-1.0** |
| TAVA | | | | *i* S | | **Sg** | **06 00 06.6** | **+0.4** |
| **TAVA** | **DENIZLI_Tavas** | **1.46** | **110** | P | | **Pn** | **05 59 44.9** | **-1.0** |
| TAVA | | | | S | | **Sg** | **06 00 06.6** | **+0.4** |
| **DENT** | **Denizli** | **1.48** | **98** | *e*PN | | **Pg** | **05 59 48.6** | **+1.1** |
| **MRSB** | **Marmaris-Mugla** | **1.49** | **147** | *e*PN | | **Pb** | **05 59 46.8** | **-0.3** |
| **MRSB** | **Marmaris-Mugla** | **1.49** | **147** | *e*Pn | | **Pb** | **05 59 46.8** | **-0.3** |
| **DNZL** | **Cakiroluk** | **1.50** | **100** | *i* P | | **Pn** | **05 59 45.5** | **-1.0** |
| DNZL | | | | *i* S | | **Sg** | **06 00 09.3** | **+1.9** |
| **DNZL** | **Cakiroluk** | **1.50** | **100** | P | | **Pn** | **05 59 45.5** | **-1.0** |
| DNZL | | | | S | | **Sg** | **06 00 09.4** | **+1.9** |
| **TURN** | **Turunc** | **1.57** | **134** | *e*PN | | **Pn** | **05 59 46.4** | **-0.9** |
| TURN | | | | *e*SN | | **Sn** | **06 00 07.1** | **-0.8** |
| **TURN** | **Turunc** | **1.57** | **134** | *i* P | | **Pn** | **05 59 43.9** | **-3.4** |
| TURN | | | | *i* S | | **Sn** | **06 00 06.0** | **-1.8** |
| **TURN** | **Turunc** | **1.57** | **134** | P | | **Pn** | **05 59 43.9** | **-3.4** |
| **TURN** | **Turunc** | **1.57** | **134** | *e*Pn | | **Pn** | **05 59 46.4** | **-0.9** |
| TURN | | | | S | | **Sn** | **06 00 06.0** | **-1.8** |
| TURN | | | | *e*Sn | | **Sn** | **06 00 07.1** | **-0.8** |
| **APE** | **Apeiranthos** | **1.59** | **236** | *e*PN | | **Pn** | **05 59 46.7** | **-1.0** |
| APE | | | | *e*SN | | **Sn** | **06 00 06.9** | **-1.5** |
| **APE** | **Apeiranthos** | **1.59** | **236** | ⇓*i*P | | **Pn** | **05 59 45.7** | **-1.9** |
| APE | | | | S | | **Sb** | **06 00 08.7** | **-0.4** |
| **APE** | **Apeiranthos** | **1.59** | **236** | *e* *i*P | | **Pn** | **05 59 45.8** | **-1.9** |
| **APE** | **Apeiranthos** | **1.59** | **236** | P | | **Pn** | **05 59 45.8** | **-1.9** |
| APE | | | | S | | **Sn** | **06 00 06.0** | **-2.4** |
| APE | | | | AML | | AML | 06 00 12.5 | |
| | comp=E,3666μm,0.7s | | | | | | | |
| APE | | | | AML | | AML | 06 00 12.8 | |
| | comp=N,4515μm,0.5s | | | | | | | |
| **APE** | **Apeiranthos** | **1.59** | **236** | P | | **Pn** | **05 59 45.8** | **-1.9** |
| **APE** | **Apeiranthos** | **1.59** | **236** | *e*Pn | | **Pn** | **05 59 46.7** | **-1.0** |
| APE | | | | *e*Sn | | **Sn** | **06 00 06.9** | **-1.5** |
| APE | | | | S | | **Sn** | **06 00 08.0** | **-0.4** |
| **APE** | **Apeiranthos** | **1.59** | **236** | P | | **Pn** | **05 59 45.6** | **-2.1** |
| **APE** | **Apeiranthos** | **1.59** | **236** | P | | **Pn** | **05 59 45.6** | **-2.1** |
| APE | | | | S | | **Sn** | **06 00 08.0** | **-0.4** |
| **DEMI** | **Demirci** | **1.61** | **48** | ⇑*i*P | | **Pn** | **05 59 46.0** | **-1.9** |
| DEMI | | | | *i* S | | **Sn** | **06 00 08.2** | **-0.7** |
| **DEMI** | **Demirci** | **1.61** | **48** | P | | **Pn** | **05 59 46.0** | **-1.9** |
| DEMI | | | | S | | **Sn** | **06 00 08.2** | **-0.7** |
| **SIGR** | **SIGRI** | **1.62** | **320** | *e*PN | | **Pg** | **05 59 50.0** | **-0.2** |
| **SIGR** | **SIGRI** | **1.62** | **320** | P | | **Pn** | **05 59 47.0** | **-0.9** |
| SIGR | | | | S | | **Sn** | **06 00 08.0** | **-1.0** |
| SIGR | | | | AML | | AML | 06 00 12.2 | |
| | comp=N,23969μm,0.5s | | | | | | | |
| SIGR | | | | AML | | AML | 06 00 14.1 | |
| | comp=E,20260μm,0.5s | | | | | | | |
| **SIGR** | **SIGRI** | **1.62** | **320** | P | | **Pn** | **05 59 47.0** | **-0.9** |
| **SIGR** | **SIGRI** | **1.62** | **320** | *e*Pn | | **Pg** | **05 59 50.0** | **-0.2** |
| SIGR | | | | S | | **Sn** | **06 00 09.2** | **+0.2** |
| **SIGR** | **SIGRI** | **1.62** | **320** | P | | **Pn** | **05 59 46.3** | **-1.6** |
| **SIGR** | **SIGRI** | **1.62** | **320** | P | | **Pn** | **05 59 46.3** | **-1.6** |
| SIGR | | | | S | | **Sn** | **06 00 09.2** | **+0.2** |
| **BALB** | **Balikesir** | **1.75** | **18** | *e*PN | | **Pg** | **05 59 53.1** | **+0.3** |
| **SIMA** | **Simav-Kutahya** | **1.80** | **51** | *e*PN | | **Pg** | **05 59 53.5** | **-0.1** |
| **BALY** | **Balya** | **1.80** | **11** | ⇑*i*P | | **Pn** | **05 59 48.5** | **-2.0** |
| BALY | | | | *i* S | | **Sn** | **06 00 14.1** | **+0.5** |
| **BALY** | **Balya** | **1.80** | **11** | P | | **Pn** | **05 59 48.5** | **-2.0** |
| BALY | | | | S | | **Sn** | **06 00 14.1** | **+0.5** |
| **BAYC** | **CANAKKALE_Bayr** | **1.84** | **344** | ⇑*i*P | | **Pn** | **05 59 49.3** | **-1.7** |
| BAYC | | | | *i* S | | **Sb** | **06 00 16.9** | **+0.8** |
| **BAYC** | **CANAKKALE_Bayr** | **1.84** | **344** | P | | **Pn** | **05 59 49.3** | **-1.7** |
| BAYC | | | | S | | **Sb** | **06 00 16.9** | **+0.8** |
| **KHAL** | **Karahalli** | **1.86** | **77** | *i* P | | **Pn** | **05 59 50.4** | **-1.0** |
| KHAL | | | | *i* S | | **Sb** | **06 00 17.2** | **+0.3** |
| **KHAL** | **Karahalli** | **1.86** | **77** | P | | **Pn** | **05 59 50.4** | **-1.0** |
| KHAL | | | | S | | **Sb** | **06 00 17.2** | **+0.3** |
| **ARG** | **Arkhangelos** | **1.91** | **156** | P | | **Pn** | **05 59 51.3** | **-0.6** |
| ARG | | | | S | | **Sn** | **06 00 14.7** | **-1.4** |
| **ARG** | **Arkhangelos** | **1.91** | **156** | P | | **Pn** | **05 59 51.4** | **-0.6** |
| ARG | | | | S | | **Sn** | **06 00 16.4** | **+0.3** |
| ARG | | | | AML | | AML | 06 00 27.6 | |
| | comp=N,4867μm,0.9s | | | | | | | |
| ARG | | | | AML | | AML | 06 00 27.8 | |
| | comp=E,4654μm,0.9s | | | | | | | |
| **ARG** | **Arkhangelos** | **1.91** | **156** | P | | **Pn** | **05 59 51.3** | **-0.6** |
| ARG | | | | S | | **Sn** | **06 00 14.7** | **-1.4** |
| **ARG** | **Arkhangelos** | **1.91** | **156** | P | | **Pn** | **05 59 51.3** | **-0.6** |
| ARG | | | | S | | **Sn** | **06 00 14.7** | **-1.4** |
| **ARG** | **Arkhangelos** | **1.91** | **156** | P | | **Pn** | **05 59 51.3** | **-0.6** |
| ARG | | | | S | | **Sn** | **06 00 14.7** | **-1.4** |
| **EZN** | **Ezine** | **1.97** | **340** | *e*PN | | **Pb** | **05 59 55.8** | **+0.5** |
| **DST** | **Dursunbey** | **1.98** | **34** | *e*PN | | **Pg** | **05 59 56.7** | **-0.4** |
| **GLHS** | **Glhisar (BURDU** | **2.01** | **113** | *e*PN | | **Pb** | **05 59 56.4** | **+0.4** |
| **FETY** | **Fethiye** | **2.02** | **131** | *e*PN | | **Pb** | **05 59 54.7** | **-1.4** |
| **FETY** | **Fethiye** | **2.02** | **131** | P | | **Pn** | **05 59 53.4** | **-0.1** |
| **FETY** | **Fethiye** | **2.02** | **131** | *e*Pn | | **Pb** | **05 59 54.7** | **-1.4** |
| **BOZC** | **Bozcaada** | **2.07** | **335** | *e*PN | | **Pb** | **05 59 56.6** | **-0.2** |
| **BOZC** | **Bozcaada** | **2.07** | **335** | *i* P | | **Pn** | **05 59 52.7** | **-1.4** |
| BOZC | | | | *i* S | | **Sg** | **06 00 24.2** | **-1.4** |
| **GONE** | **Gonen-Balikesi** | **2.11** | **11** | *e*PN | | **Pb** | **05 59 58.3** | **+0.7** |
| **SANT** | **Santorini** | **2.11** | **221** | P | | **Pn** | **05 59 52.0** | **-2.7** |
| SANT | | | | S | | **Sn** | **06 00 17.8** | **-3.3** |
| SANT | | | | AML | | AML | 06 00 32.5 | |
| | comp=E,6265μm,1.0s | | | | | | | |
| SANT | | | | AML | | AML | 06 00 33.2 | |
| | comp=N,5480μm,0.7s | | | | | | | |
| **SANT** | **Santorini** | **2.11** | **221** | P | | **Pn** | **05 59 52.8** | **-2.0** |
| SANT | | | | S | | **Sn** | **06 00 17.8** | **-3.3** |
| **SANT** | **Santorini** | **2.11** | **221** | *e*Pn | | **Pn** | **05 59 52.7** | **-2.0** |
| **SANT** | **Santorini** | **2.11** | **221** | P | | **Pn** | **05 59 52.8** | **-2.0** |
| **THT1** | **Athinios (Pele** | **2.11** | **222** | P | | **Pn** | **05 59 53.0** | **-1.7** |
| **THT1** | **Athinios (Pele** | **2.11** | **222** | P | | **Pn** | **05 59 53.0** | **-1.7** |
| **THR6** | **Thira Island,** | **2.15** | **222** | P | | **Pn** | **05 59 53.8** | **-1.5** |
| **THR6** | **Thira Island,** | **2.15** | **222** | P | | **Pn** | **05 59 53.8** | **-1.5** |
| **THR6** | **Thira Island,** | **2.15** | **222** | P | | **Pn** | **05 59 53.8** | **-1.5** |
| **KARY** | **Karystos** | **2.17** | **272** | P | | **Pn** | **05 59 54.1** | **-1.5** |
| **KARY** | **Karystos** | **2.17** | **272** | P | | **Pn** | **05 59 54.1** | **-1.5** |
| **KARY** | **Karystos** | **2.17** | **272** | P | | **Pn** | **05 59 54.1** | **-1.5** |
| **TVSB** | **Tavsanli** | **2.31** | **50** | *e*PN | | **Pg** | **06 00 02.3** | **-1.0** |
| **KARP** | **Karpathos** | **2.42** | **180** | *e*PN | | **Pb** | **05 59 58.8** | **-0.2** |
| **KARP** | **Karpathos** | **2.42** | **180** | P | | **Pn** | **05 59 56.9** | **-2.1** |
| **KARP** | **Karpathos** | **2.42** | **180** | P | | **Pn** | **05 59 57.6** | **-1.4** |
| **KARP** | **Karpathos** | **2.42** | **180** | *e*Pn | | **Pn** | **05 59 58.0** | **-1.0** |
| **KARP** | **Karpathos** | **2.42** | **180** | *e*Pn | | **Pn** | **05 59 58.0** | **-1.0** |
| **KARP** | **Karpathos** | **2.42** | **180** | P | | **Pn** | **05 59 57.6** | **-1.4** |
| **KRBG** | **Karabiga-Canak** | **2.42** | **2** | *e*PN | | **Pb** | **06 00 02.2** | **-0.7** |
| **LPK** | **Lapseki** | **2.42** | **352** | *e*PN | | **Pb** | **06 00 02.5** | **-0.5** |
| **EDC** | **

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| HRT | Hereke | 3.44 | 33 | ePN | | Pb | 06 00 17.1 | -3.1 |
| SIVA | Sivas | 3.51 | 214 | P | | Pn | 06 00 13.6 | -0.4 |
| SIVA | Sivas | 3.51 | 214 | P | | Pn | 06 00 13.6 | -0.4 |
| SIVA | Sivas | 3.51 | 214 | P | | Pn | 06 00 15.2 | +1.2 |
| SIVA | Sivas | 3.51 | 214 | P | | Pn | 06 00 15.2 | +1.2 |
| GULT | Gulveren | 3.57 | 45 | ePN | | Pb | 06 00 19.9 | -2.6 |
| KLYT | Kilyos | 3.58 | 23 | ePN | | Pb | 06 00 20.2 | -2.4 |
| CTYL | Yalikoy Yolu | 3.60 | 13 | ePN | | Pb | 06 00 20.2 | -2.9 |
| SPNC | Sapanca-Adapaz | 3.64 | 41 | ePN | | Pb | 06 00 20.2 | -3.4 |
| KAVA | Kavala | 3.66 | 326 | P | | Pn | 06 00 15.5 | -0.5 |
| KAVA | Kavala | 3.66 | 326 | P | | Pn | 06 00 15.5 | -0.5 |
| PHSR | Pinarhisar | 3.67 | 4 | ePN | | Pb | 06 00 20.5 | -3.7 |
| SVRH | Sivrihisar-ESK | 3.70 | 65 | ePN | | Pb | 06 00 21.9 | -3.0 |
| KIZT | Kizilcal | 3.80 | 75 | ePN | | Pn | 06 00 22.1 | +4.1 |
| EDRB | Edirne | 3.89 | 355 | ePN | | Pb | 06 00 23.0 | +3.8 |
| MDUB | Mudurnu | 3.99 | 50 | ePN | | Pb | 06 00 25.7 | -4.1 |
| KONT | Konya--Tatoy | 4.09 | 89 | ePN | | Pn | 06 00 25.7 | +3.7 |
| CHBY | Cihanbeyli | 4.53 | 81 | ePN | | Pn | 06 00 33.0 | +4.8 |
| BR231 | Keskin MP Arra | 4.75 | 65 | ePn | | Pn | 06 00 32.4 | +1.3 |
| BR231 | Keskin MP Arra | 4.75 | 65 | ePn | | Pn | 06 00 32.4 | +1.3 |
| GRG | Griva | 4.75 | 310 | P | | Pn | 06 00 30.8 | -0.3 |
| GRG | Griva | 4.75 | 310 | P | | Pn | 06 00 30.8 | -0.3 |
| ANTO | Ankara | 4.77 | 65 | eP | | Pn | 06 00 33.8 | +2.5 |
| ANTO | Ankara | 4.77 | 65 | eP | | Pn | 06 00 33.8 | +2.5 |
| ANTO | Ankara | 4.77 | 65 | ePn | | Pn | 06 00 33.8 | +2.5 |
| VAY | Valandovo | 4.89 | 315 | ePn | | Pn | 06 00 33.3 | +0.4 |
| BR131 | Keskin Array S | 5.33 | 69 | ePn | | Pn | 06 00 39.6 | +0.4 |
| BR131 | Keskin Array S | 5.33 | 69 | ePn | | Pn | 06 00 39.6 | +0.4 |
| BRTR | Keskin Array B | 5.33 | 69 | Pn | | Pn | 06 00 39.4 | +0.2 |
| | comp=N,1.6nm,0.3s,baz=246,slow=14,SNR=44 | | | | | | | |
| BIA | Bitola | 5.46 | 306 | ePn | | Pn | 06 00 41.7 | +0.9 |
| VTS | Vitosha | 5.53 | 328 | ⇑iP | | Pn | 06 00 41.6 | -0.3 |
| VTS | Vitosha | 5.53 | 328 | eP | | Pn | 06 00 41.5 | -0.3 |
| VTS | Vitosha | 5.53 | 328 | eP | | Pn | 06 00 41.5 | -0.3 |
| VTS | Vitosha | 5.53 | 328 | ePn | | Pn | 06 00 41.5 | -0.3 |
| KRUS | Krusevo | 5.70 | 308 | ePn | | Pn | 06 00 43.3 | -0.9 |
| CSS | Mathiatis | 5.79 | 119 | ePn | | Pn | 06 00 46.6 | +1.2 |
| CSS | Mathiatis | 5.79 | 119 | ePn | | Pn | 06 00 46.6 | +1.2 |
| OHR | Ohrid | 5.85 | 304 | ePn | | Pn | 06 00 48.6 | +2.5 |
| ILGA | Ilgaz | 5.91 | 57 | ePn | | Pn | 06 00 49.9 | +2.7 |
| SKO | Skopje | 5.95 | 314 | ePn | | Pn | 06 00 46.2 | -1.3 |
| BARS | Barje | 6.34 | 321 | *i* Pn | | Pn | 06 00 52.8 | -0.1 |
| TIRR | Tirgusor | 6.55 | 8 | ⇑iP | | Pn | 06 00 54.7 | -1.0 |
| TIRR | Tirgusor | 6.55 | 8 | eP | | Pn | 06 00 55.9 | +0.3 |
| TIRR | Tirgusor | 6.55 | 8 | eP | | Pn | 06 00 55.9 | +0.3 |
| TIRR | Tirgusor | 6.55 | 8 | ePn | | Pn | 06 00 55.9 | +0.3 |
| TIR | Tirane | 6.58 | 303 | eP | | Pn | 06 00 56.6 | +0.5 |
| TIR | Tirane | 6.58 | 303 | eP | | Pn | 06 00 56.6 | +0.5 |
| TIR | Tirane | 6.58 | 303 | ePn | | Pn | 06 00 56.6 | +0.5 |
| ZAGS | Zajecar | 6.94 | 329 | ePn | | Pn | 06 00 59.8 | -1.2 |
| BOVS | Bovan | 7.02 | 325 | *i* Pn | | Pn | 06 01 02.2 | 0.0 |
| CFR | Carcaliu | 7.24 | 5 | ⇑iP | | Pn | 06 01 04.4 | -0.7 |
| CFR | Carcaliu | 7.24 | 5 | ⇑iP | | Pn | 06 01 04.4 | -0.7 |
| SRE | Strehaia | 7.32 | 337 | ⇑iP | | Pn | 06 01 05.0 | -1.4 |
| SRE | Strehaia | 7.32 | 337 | ⇑iP | | Pn | 06 01 05.0 | -1.4 |
| PDG | Podgorica | 7.53 | 309 | ⇑iP | | Pn | 06 01 08.9 | -0.2 |
| PDG | Podgorica | 7.53 | 309 | ⇑iP | | Pn | 06 01 08.9 | -0.2 |
| MLR | Muntele Rosu | 7.57 | 353 | Pn | | Pn | 06 01 09.3 | -0.6 |
| | comp=N,0.2nm,0.3s,baz=237,slow=6.9,SNR=11 | | | | | | | |
| MLR | Muntele Rosu | 7.57 | 353 | ⇑iP | | Pn | 06 01 09.4 | -0.5 |
| MLR | Muntele Rosu | 7.57 | 353 | eP | | Pn | 06 01 09.4 | -0.5 |
| MLR | Muntele Rosu | 7.57 | 353 | eP | | Pn | 06 01 09.4 | -0.5 |
| MLR | Muntele Rosu | 7.57 | 353 | ePn | | Pn | 06 01 09.4 | -0.5 |
| ARR | Arges | 7.63 | 346 | ⇑iP | | Pn | 06 01 09.6 | -1.0 |
| ARR | Arges | 7.63 | 346 | ⇑iP | | Pn | 06 01 09.6 | -1.0 |
| KUBS | Kucevo | 7.66 | 329 | ePn | | Pn | 06 01 09.1 | -1.8 |
| GRUS | Gruza | 7.67 | 322 | ePn | | Pn | 06 01 10.7 | -0.5 |
| IVAS | Ivanjica | 7.73 | 319 | ePn | | Pn | 06 01 11.7 | -0.3 |
| PLOR | Plostina | 7.88 | 357 | ⇑iP | | Pn | 06 01 14.2 | +0.1 |
| PLOR | Plostina | 7.88 | 357 | ⇑iP | | Pn | 06 01 14.2 | +0.1 |
| LOT | Lotru | 7.89 | 342 | ⇑iP | | Pn | 06 01 13.0 | -1.3 |
| LOT | Lotru | 7.89 | 342 | ⇑iP | | Pn | 06 01 13.0 | -1.3 |
| VRI | Vrincioaia | 7.90 | 358 | ⇓iP | | Pn | 06 01 14.8 | +0.6 |
| VRI | Vrincioaia | 7.90 | 358 | ⇓iP | | Pn | 06 01 14.8 | +0.6 |
| MDVR | Moldovita | 7.95 | 331 | ⇑iP | | Pn | 06 01 13.7 | -1.3 |
| MDVR | Moldovita | 7.95 | 331 | ⇑iP | | Pn | 06 01 13.7 | -1.3 |
| DOPR | Dopca | 8.10 | 351 | ⇑iP | | Pn | 06 01 16.6 | -0.4 |
| DOPR | Dopca | 8.10 | 351 | ⇑iP | | Pn | 06 01 16.6 | -0.4 |
| SEV | Sevastopol' | 8.18 | 35 | eP | | Pn | 06 01 15.5 | -2.6 |
| SEV | | | | eS | | Sn | 06 02 42.8 | -7.9 |
| SEV | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,0.4s | | | | | | | |
| SEV | | | | smax | smax | | | |
| | comp=N,20nm,0.3s | | | | | | | |
| SEV | | | | smax | smax | | | |
| | comp=E,14nm,0.6s | | | | | | | |
| SEV | Sevastopol' | 8.18 | 35 | eP | | Pn | 06 01 15.5 | -2.6 |
| | comp=E,4.0nm,0.4s | | | | | | | |
| DIVS | Divibare | 8.18 | 321 | ePn | | Pn | 06 01 17.9 | -0.3 |
| TIP | Timpagrande | 8.26 | 282 | ePn | | Pn | 06 01 19.1 | -0.1 |
| TIP | Timpagrande | 8.26 | 282 | ePn | | Pn | 06 01 19.1 | -0.1 |
| BBLS | Lazići | 8.32 | 317 | ePn | | Pn | 06 01 19.8 | -0.4 |
| MMAI | Mount Meron Ar | 8.33 | 124 | Pn | | Pn | 06 01 18.6 | -1.7 |
| | comp=E,8.1nm,0.3s,baz=303,slow=13,SNR=19 | | | | | | | |
| MMAI | | | | Sn | | Sn | 06 02 47.4 | -7.1 |
| | comp=E,3.0nm,0.3s,baz=292,slow=16,SNR=3.8 | | | | | | | |
| MMAI | | | | LR | | LR | 06 05 27.0 | |
| | comp=E,108nm,19.4s,baz=320,slow=44 | | | | | | | |
| TESR | Tescani | 8.54 | 358 | ⇑iP | | Pn | 06 01 23.3 | +0.2 |
| TESR | Tescani | 8.54 | 358 | ⇑iP | | Pn | 06 01 23.3 | +0.2 |
| BZS | Buzias | 8.70 | 333 | ⇑iP | | Pn | 06 01 24.5 | -0.6 |
| BZS | Buzias | 8.70 | 333 | ⇑iP | | Pn | 06 01 24.5 | -0.6 |
| MILM | Milestii Mici | 9.02 | 7 | ⇑iP | | Pn | 06 01 30.2 | +0.6 |
| MILM | Milestii Mici | 9.02 | 7 | ⇑iP | | Pn | 06 01 30.2 | +0.6 |
| SUDU | Sudak | 9.06 | 38 | eP | | Pn | 06 01 29.4 | -0.8 |
| SUDU | | | | eS | | Sn | 06 03 07.4 | -5.0 |
| SUDU | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,0.3s | | | | | | | |
| SUDU | | | | smax | smax | | | |
| | comp=N,16nm,0.5s | | | | | | | |
| SUDU | | | | smax | smax | | | |
| | comp=E,29nm,0.4s | | | | | | | |
| SUDU | Sudak | 9.06 | 38 | eP | | Pn | 06 01 29.4 | -0.8 |
| | comp=E,4.0nm,0.3s | | | | | | | |
| CUC | Castrocucco | 9.08 | 286 | ePn | | Pn | 06 01 31.3 | +0.8 |
| CUC | Castrocucco | 9.08 | 286 | ePn | | Pn | 06 01 31.3 | +0.8 |
| SIRR | Siria | 9.25 | 335 | ⇑iP | | Pn | 06 01 31.7 | -1.0 |
| SIRR | Siria | 9.25 | 335 | ⇑iP | | Pn | 06 01 31.7 | -1.0 |
| DRGR | | 9.41 | 341 | ⇑iP | | Pn | 06 01 34.6 | -0.5 |
| DRGR | | 9.41 | 341 | ⇑iP | | Pn | 06 01 34.6 | -0.5 |
| BURAR | Bucovina Array | 9.75 | 352 | ⇓iP | | Pn | 06 01 40.8 | +1.2 |
| BURAR | Bucovina Array | 9.75 | 352 | ⇓iP | | Pn | 06 01 40.8 | +1.2 |
| BUR04 | Bucovina Ar. S | 9.75 | 352 | ePn | | Pn | 06 01 40.7 | +1.0 |
| BUR04 | Bucovina Ar. S | 9.75 | 352 | ePn | | Pn | 06 01 40.7 | +1.0 |
| BUR08 | Bucovina Ar. S | 9.78 | 352 | ePn | | Pn | 06 01 40.5 | +0.5 |
| BUR08 | Bucovina Ar. S | 9.78 | 352 | ePn | | Pn | 06 01 40.5 | +0.5 |
| ASF | Jabal al Asfar | 9.84 | 123 | Pn | | Pn | 06 01 40.2 | -0.7 |
| | comp=E,0.8nm,0.3s,baz=277,slow=11,SNR=5.4 | | | | | | | |
| BLY | Banja Luka | 10.11 | 315 | ePn | | Pn | 06 01 45.8 | +1.3 |
| BLY | Banja Luka | 10.11 | 315 | ePn | | Pn | 06 01 45.8 | +1.3 |
| SORM | Soroca | 10.20 | 4 | ⇑iP | | Pn | 06 01 45.0 | -0.7 |
| SORM | Soroca | 10.20 | 4 | ⇑iP | | Pn | 06 01 45.0 | -0.7 |
| VYHS | Vyhne | 12.14 | 333 | eP | | Pn | 06 02 09.9 | -2.5 |
| VYHS | Vyhne | 12.14 | 333 | eP | | Pn | 06 02 09.9 | -2.5 |
| VYHS | Vyhne | 12.14 | 333 | ePN | | Pn | 06 02 09.9 | -2.5 |
| STHS | Stebnicka Huta | 12.22 | 341 | eP | | Pn | 06 02 18.6 | +5.2 |
| STHS | Stebnicka Huta | 12.22 | 341 | *e* | | Pn | 06 02 18.6 | +5.2 |
| AKASG | Malin Array Be | 12.81 | 6 | Pn | | Pn | 06 02 19.2 | -2.3 |
| | comp=E,0.6nm,0.3s,baz=200,slow=12,SNR=3.7 | | | | | | | |
| CONA | Conrad Observa | 12.94 | 324 | P | | Pn | 06 02 23.5 | +0.2 |
| | comp=E,0.4nm,0.3s | | | | | | | |
| CONA | Conrad Observa | 12.94 | 324 | P | | Pn | 06 02 23.5 | +0.2 |
| | comp=E,0.4nm,0.3s | | | | | | | |
| KBA | Koelnbreinsper | 13.66 | 316 | *i* P | | P | 06 02 42.4 | +0.2 |
| | comp=E,12nm,1.6s | | | | | | | |
| VRAC | Vranov | 13.67 | 329 | LR | | LR | 06 09 26.4 | |
| | comp=E,170nm,18.4s,baz=5.5,slow=44 | | | | | | | |
| GNI | Garni | 13.82 | 75 | LR | | LR | 06 09 01.6 | |
| | comp=E,84nm,19.7s,baz=284,slow=42 | | | | | | | |
| GEA0 | GERESS Array S | 14.60 | 322 | ePn | | P | 06 02 52.9 | +0.4 |
| GEC2 | GERESS Array S | 14.61 | 322 | eP | | P | 06 02 53.4 | +0.8 |
| GEC2 | GERESS Array S | 14.61 | 322 | eP | | P | 06 02 53.4 | +0.8 |
| GEC2 | GERESS Array S | 14.61 | 322 | ePn | | P | 06 02 53.4 | +0.8 |
| GERES | GERESS Array B | 14.61 | 322 | Pn | | Pn | 06 02 47.7 | +1.6 |
| | comp=E,0.1nm,0.3s,baz=142,slow=20,SNR=3.7 | | | | | | | |
| WATA | Walderalm | 14.79 | 314 | *i* P | | P | 06 02 52.3 | -2.4 |
| | comp=E,3.2nm,0.5s | | | | | | | |
| WATA | Walderalm | 14.79 | 314 | P | | P | 06 02 52.3 | -2.4 |
| | comp=E,3.2nm,0.5s | | | | | | | |
| KHC | Kasperske Hory | 14.86 | 323 | eP | | P | 06 02 55.5 | +0.1 |
| KHC | Kasperske Hory | 14.86 | 323 | eP | | P | 06 02 52.6 | -2.8 |
| KHC | Kasperske Hory | 14.86 | 323 | eP | | P | 06 02 52.6 | -2.8 |
| KHC | Kasperske Hory | 14.86 | 323 | ePn | | P | 06 02 52.6 | -2.8 |
| FUORN | Ofenpass-Fuorn | 15.19 | 310 | ePn | | P | 06 02 59.3 | +0.1 |
| | comp=E,27nm,1.8s | | | | | | | |
| RETA | Reutte | 15.34 | 314 | Pn | | Pn | 06 02 52.9 | -2.9 |
| | comp=E,10nm,1.8s | | | | | | | |
| DAVOX | Davos/Dischmat | 15.50 | 310 | LR | | LR | 06 09 21.1 | |
| | comp=E,91nm,18.6s,baz=140,slow=39 | | | | | | | |
| BRG | Berggiesshubel | 15.96 | 328 | eP | | P | 06 03 09.0 | +1.5 |
| | comp=E,16nm,1.5s | | | | | | | |
| BRG | Berggiesshubel | 15.96 | 328 | eP | | P | 06 03 09.0 | +1.5 |
| BRG | | | | pmax | pmax | | | |
| | comp=Z,16nm,1.5s | | | | | | | |
| BRG | Berggiesshubel | 15.96 | 328 | eP | | P | 06 03 09.0 | +1.5 |
| | comp=Z,16nm,1.5s | | | | | | | |
| SENIN | Lac Senin/Sane | 16.93 | 306 | ePn | | P | 06 03 18.7 | +0.2 |
| | comp=Z,44nm,1.9s | | | | | | | |
| RAYN | Ar Rayn | 21.28 | 127 | eP | | P | 06 04 08.5 | +2.4 |
| | comp=Z,7.2nm,1.1s | | | | | | | |
| HFS | Hagfors | 23.78 | 343 | LR | | LR | 06 14 05.6 | |
| | comp=Z,136nm,19.2s,baz=344,slow=37 | | | | | | | |
| TAM | Tamanrasset | 23.96 | 237 | eP | | P | 06 04 34.7 | +0.6 |
| TAM | | | | pmax | pmax | | | |
| | comp=Z,23nm,1.8s | | | | | | | |
| TAM | Tamanrasset | 23.96 | 237 | eP | | P | 06 04 34.7 | +0.6 |
| | comp=Z,23nm,1.8s | | | | | | | |
| TAM | Tamanrasset | 23.96 | 237 | eP | | P | 06 04 34.7 | +0.6 |
| | comp=Z,23nm,1.8s | | | | | | | |
| ES19 | SONSECA Array | 24.22 | 284 | eP | | P | 06 04 37.2 | +0.9 |
| ES19 | SONSECA Array | 24.22 | 284 | eP | | P | 06 04 37.2 | +0.9 |
| ESDC | Sonseca Array | 24.27 | 284 | P | | P | 06 04 36.9 | +0.1 |
| | comp=Z,1.3nm,0.7s,baz=80,slow=9.9,SNR=9.6 | | | | | | | |
| NB2 | NORSAR Subarra | 25.17 | 342 | P | | P | 06 04 46.8 | +2.1 |
| | comp=Z,5.4nm,1.1s,baz=144,slow=9.3 | | | | | | | |
| NB2 | NORSAR Subarra | 25.17 | 342 | ⇑iP | | P | 06 04 46.8 | +2.1 |
| | comp=Z,5.4nm,1.1s,SNR=5.5 | | | | | | | |
| NOA | NORSAR Array B | 25.17 | 342 | P | | P | 06 04 45.1 | +0.4 |
| | comp=Z,2.3nm,0.7s,baz=160,slow=11,SNR=5.0 | | | | | | | |
| NOA | | | | LR | | LR | 06 15 47.3 | |
| | comp=Z,91nm,18.3s,baz=95,slow=39 | | | | | | | |
| AKTK | Aktyubinsk | 25.18 | 50 | P | | P | 06 04 45.2 | +0.4 |
| AKTO | Aktyubinsk | 25.18 | 50 | P | | P | 06 04 45.2 | +0.4 |
| | comp=Z,2.4nm,0.7s,baz=265,slow=11,SNR=7.0 | | | | | | | |
| AKTO | | | | LR | | LR | 06 16 25.4 | |
| | comp=Z,53nm,20.9s,baz=323,slow=41 | | | | | | | |
| ABKAR | Akbulak array | 26.06 | 54 | eP | | P | 06 04 55.0 | +2.2 |
| | comp=Z,9.9nm,0.8s | | | | | | | |
| MDT | Midelt | 26.35 | 268 | P | | P | 06 04 56.1 | +0.3 |
| | comp=Z,2.8nm,0.9s,baz=89,slow=10,SNR=5.1 | | | | | | | |
| EKA | Eskdalemuir Ar | 26.80 | 320 | P | | P | 06 04 59.6 | +0.1 |
| | comp=Z,2.7nm,0.5s,baz=110,slow=11,SNR=18 | | | | | | | |
| ARU | Arti | 27.84 | 38 | LR | | LR | 06 17 48.2 | |
| | comp=Z,24nm,21.0s,baz=246,slow=40 | | | | | | | |
| TOA0 | Torodi Ar. Sit | 33.55 | 229 | eP | | P | 06 05 58.5 | -1.1 |
| TOA0 | Torodi Ar. Sit | 33.55 | 229 | eP | | P | 06 05 58.5 | -1.1 |
| TORD | Torodi Ar. Bea | 33.55 | 229 | P | | P | 06 05 58.5 | -1.1 |
| | comp=Z,5.3nm,0.7s,baz=36,slow=9.0,SNR=38 | | | | | | | |
| TORD | | | | LR | | LR | 06 21 00.5 | |
| | comp=Z,39nm,18.2s,baz=115,slow=39 | | | | | | | |
| KSH | Kashi | 37.72 | 72 | eP | | P | 06 06 36.5 | +1.2 |
| KSH | | | | pP | | sP | 06 06 40.5 | +1.6 |
| KSH | | | | PP | | PnPn | 06 08 04.3 | +2.1 |
| KSH | | | | PcP | | PcP | 06 08 54.3 | +2.0 |
| KSH | | | | S | | S | 06 12 25.5 | -0.3 |
| KSH | | | | SS | | SnSn | 06 14 58.5 | -6.4 |
| KSH | Kashi | 37.72 | 72 | ScS | | ScS | 06 16 47.5 | -1.2 |
| KSH | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.4s | | | | | | | |
| KSH | | | | pmax | pmax | | | |
| | comp=Z,310nm,5.3s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=N,230nm,6.5s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=E,280nm,6.6s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=Z,240nm,5.8s | | | | | | | |
| KURBB | Kurchatov Arra | 38.12 | 54 | P | | P | 06 06 38.1 | -0.2 |
| | comp=Z,1.0nm,0.8s,baz=279,slow=8.8,SNR=7.3 | | | | | | | |
| KURK | Kurchatov | 38.17 | 54 | P | | P | 06 06 38.2 | -0.7 |
| KURK | Kurchatov | 38.17 | 54 | P | | P | 06 06 38.2 | -0.7 |
| KURK | Kurchatov | 38.17 | 54 | P | | P | 06 06 38.1 | -0.7 |
| KMBO | Kilima Mbogo | 40.00 | 164 | LR | | LR | 06 23 53.7 | |
| | comp=Z,37nm,18.1s,baz=100,slow=37 | | | | | | | |
| MK31 | Makanchi Array | 40.90 | 59 | eP | | P | 06 07 04.2 | +2.5 |
| MK31 | Makanchi Array | 40.90 | 59 | eP | | P | 06 07 04.3 | +2.5 |
| MKAR | Makanchi Array | 40.90 | 59 | P | | P | 06 07 01.3 | -0.4 |
| | comp=Z,0.8nm,0.8s,baz=283,slow=6.1,SNR=7.0 | | | | | | | |
| MKAR | Makanchi Array | 40.90 | 59 | eP | | P | 06 07 02.5 | +0.8 |
| | comp=Z,21nm,1.5s | | | | | | | |
| ZALV | Zalesovo Beam | 41.90 | 48 | P | | P | 06 07 08.8 | -1.0 |
| | comp=Z,0.7nm,0.3s,baz=272,slow=11,SNR=4.1 | | | | | | | |
| DBIC | Dimbokro | 42.59 | 231 | P | | P | 06 07 14.7 | -1.1 |
| | comp=Z,2.8nm,0.7s,baz=16,slow=11,SNR=3.8 | | | | | | | |
| WMQ | Urumqi | 45.22 | 63 | P | | P | 06 07 39.8 | +3.0 |
| WMQ | | | | pP | | sP | 06 07 44.3 | +3.8 |
| WMQ | | | | sP | | pP | 06 07 46.8 | +7.4 |
| WMQ | | | | pmax | pmax | | | |
| | comp=Z,24nm,0.8s | | | | | | | |
| WMQ | | | | pmax | pmax | | | |
| | comp=Z,210nm,3.7s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=N,130nm,21.9s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=E,150nm,18.7s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=Z,65nm,18.7s | | | | | | | |
| LZH | Lanzhou | 59.54 | 66 | eP | | P | 06 09 26.5 | +3.2 |
| LZH | | | | pP | | sP | 06 09 30.0 | +3.0 |
| LZH | | | | sP | | pP | 06 09 33.0 | +7.0 |
| LZH | | | | pmax | pmax | | | |
| | comp=Z,13nm,1.0s | | | | | | | |
| HHC | Hu-ho-hao-te | 62.75 | 58 | eP | | P | 06 09 47.8 | +2.9 |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,14nm,0.8s | | | | | | | |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,130nm,7.5s | | | | | | | |
| BOSA | Boshof | 66.26 | 182 | LR | | LR | 06 41 23.9 | |
| | comp=Z,52nm,18.2s,baz=184,slow=38 | | | | | | | |
| YKA | Yellowknife Ar | 75.27 | 343 | P | | P | 06 11 00.3 | -1.9 |
| | comp=Z,0.3nm,0.8s,baz=32,slow=6.0,SNR=5.5 | | | | | | | |
| YKA | Yellowknife Ar | 75.27 | 343 | eP | | P | 06 11 03.4 | +1.3 |
| YKA | Yellowknife Ar | 75.27 | 343 | eP | | P | 06 11 03.4 | +1.3 |
| KSAR | Wonju Array Be | 75.28 | 54 | P | | P | 06 11 01.7 | -1.0 |
| KSAR | Wonju Array Be | 75.28 | 54 | P | | P | 06 11 01.7 | -1.0 |
| KSAR | Wonju Array Be | 75.28 | 54 | P | | P | 06 11 01.7 | -1.0 |
| KSRS | Korea Array | 75.30 | 54 | P | | P | 06 11 01.7 | -1.1 |
| | comp=Z,1.2nm,0.7s,baz=315,slow=6.5,SNR=6.3 | | | | | | | |

**IDC 27 06:08:54.8±3.4, 21°.11S×174°.84W, h0km, mb3.8/5, mb1 4.0/5, mb1mx3.6/32, mbtmp3.8/5, MS4.3/1, Ms1 4.3/1, ms1mx2.9/23, Error ellipse: s-maj=149.8km s-min=32.1km az=146.0, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RAO | Raoul Island | 8.58 | 198 | LR | LR | 06 13 30.0 | |
| | comp=Z,2µm,20.6s,baz=204,slow=32 | | | | | | |
| CTA | Charters Tower | 36.38 | 264 | P | P | 06 16 02.7 | +1.7 |
| | 1.3nm,0.4s,baz=104,slow=8.3,SNR=2.4 | | | | | | |
| STKA | Stephens Creek | 40.21 | 245 | P | P | 06 16 33.4 | +0.2 |
| | 0.5nm,0.6s,baz=103,slow=18,SNR=2.9 | | | | | | |
| ASAR | Alice Springs | 47.26 | 257 | P | P | 06 17 28.9 | -1.2 |
| | 0.4nm,0.4s,baz=95,slow=7.1,SNR=6.5 | | | | | | |
| WRA | Warramunga Arr | 47.45 | 262 | P | P | 06 17 30.7 | -0.9 |
| | 0.4nm,0.2s,baz=95,slow=8.2,SNR=22 | | | | | | |
| ILAR | Eielson Array | 88.28 | 12 | P | P | 06 21 47.9 | +0.3 |
| | 0.4nm,0.8s,baz=207,slow=3.0,SNR=3.2 | | | | | | |
| AKASG | Malin Array Be | 144.93 | 333 | PKP | PKPab | 06 28 32.5 | -0.4 |
| | 0.8nm,0.5s,baz=40,slow=3.8,SNR=8.2 | | | | | | |

*ISCJB 27 06:28:59.8±0.1, 47°.302N×0°.009×7°.28E±0°.01, h12km±1km, Error ellipse: s-maj=1.5km s-min=1.3km az=140.5*
*CSEM 27 06:29:00.9±0.1, 47°.31N×7°.30E, h15km, ML3.5/44, Error ellipse: s-maj=1.6km s-min=1.4km az=149.0*
*STR 27 06:29:01.5±0.4, 47°.34N×7°.32E, h10km, Ml3.1, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*
*ROM 27 06:29:01.7±0.3, 47°.36N×7°.31E, h10km, Md2.7/11, Ml2.7/7, Error ellipse: s-maj=4.3km s-min=2.0km az=169.0*
*ZUR 27 06:29:01.9, 47°.34N×7°.32E, h11km, ML3.1/41*
*LDG 27 06:29:02.1±0.0, 47°.34N×7°.32E, h10km, Md3.4/4, Ml3.4/34, Error ellipse: s-maj=0.8km s-min=0.6km az=139.0*
*PRU 27 06:29:02.2, 47°.46N×7°.32E, h0km*
*BGR 27 06:29:02.6±0.5, 47°.38N×7°.34E, h10km, ML3.1/13, Error ellipse: s-maj=5.6km s-min=3.3km az=48.0*
*BNS 27 06:29:08.6±1.0, 47°.32N×7°.92E, h10km, ML2.7*

**ISC 27 06:29:00.5±0.8, 47°.33N±0°.01×7°.31E±0°.01, h18km±4km, n334, σ1§11/508, 85C-41D, Switzerland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BOURR | Bourrignon | 0.08 | 317 | ⇓iPg | Pg | 06 29 04.8 | +0.7 |
| | 10µm,0.5s | | | | | | |
| BOURR | | | | *i* Sg | Sg | 06 29 06.8 | +0.3 |
| | 10µm,0.5s | | | | | | |
| BOURR | Bourrignon | 0.08 | 317 | ⇓iP* | Pg | 06 29 04.8 | +0.7 |
| BOURR | | | | S* | Sg | 06 29 06.9 | +0.3 |
| BOURR | Bourrignon | 0.08 | 317 | Pg | Pb | 06 29 04.8 | +0.7 |
| BOURR | | | | *i* Sg | Sg | 06 29 06.8 | +0.3 |
| | 10µm,0.5s | | | | | | |
| SOLB | Solothurn Schu | 0.19 | 132 | ⇓iPg | Pb | 06 29 06.3 | +1.0 |
| SOLB | Solothurn Schu | 0.19 | 132 | ⇓iPg | Pb | 06 29 06.3 | +1.0 |
| SBIS2 | Binningen | 0.22 | 57 | ⇑iPg | Pb | 06 29 07.8 | +1.9 |
| SBIS2 | Binningen | 0.22 | 57 | ⇑iPg | Pb | 06 29 07.8 | +1.9 |
| BALST | Balsthal | 0.26 | 89 | ⇑iPg | Pb | 06 29 07.4 | +0.7 |
| | 8µm,0.3s | | | | | | |
| BALST | | | | *e*Sg | Sb | 06 29 11.2 | +0.5 |
| | 8µm,0.3s | | | | | | |
| BALST | Balsthal | 0.26 | 89 | ⇑iP* | Pb | 06 29 07.4 | +0.7 |
| BALST | | | | S* | Sb | 06 29 11.3 | +0.5 |
| BALST | Balsthal | 0.26 | 89 | Pb | Pb | 06 29 07.4 | +0.7 |
| BALST | | | | Sb | Sb | 06 29 11.3 | +0.5 |
| SRER | Reinach, Raine | 0.26 | 47 | ⇑iPg | Pb | 06 29 07.7 | +1.0 |
| SRER | Reinach, Raine | 0.26 | 47 | ⇑iPg | Pb | 06 29 07.7 | +1.0 |
| MATTE | Schuetzenmatte | 0.28 | 38 | *e*Sg | Sg | 06 29 08.0 | -2.9 |
| MATTE | Schuetzenmatte | 0.28 | 38 | ⇑iPg | Pb | 06 29 11.8 | +2.0 |
| MATTE | Schuetzenmatte | 0.28 | 38 | *e*Sg | Sg | 06 29 08.0 | -2.9 |
| SBAT | Basel-Tropenha | 0.29 | 39 | ⇑iPg | Pb | 06 29 08.1 | +0.9 |
| SBAT | | | | *i* Sg | Sb | 06 29 12.1 | +0.4 |
| SBAT | Basel-Tropenha | 0.29 | 39 | ⇑iPg | Pb | 06 29 08.1 | +0.9 |
| SBAT | | | | *i* Sg | Sb | 06 29 12.1 | +0.4 |
| SBAP | Basel-PUK | 0.29 | 35 | ⇑iPg | Pb | 06 29 08.2 | +0.9 |
| SBAP | | | | *i* Sg | Sb | 06 29 12.4 | +0.6 |
| SBAP | Basel-PUK | 0.29 | 35 | ⇑iPg | Pb | 06 29 08.2 | +0.9 |
| SBAP | | | | *i* Sg | Sb | 06 29 12.4 | +0.6 |
| JOHAN | St. Johann (BS | 0.30 | 36 | ⇑iPg | Pb | 06 29 08.2 | +0.8 |
| JOHAN | | | | *e*Sg | Sb | 06 29 12.7 | +0.7 |
| JOHAN | St. Johann (BS | 0.30 | 36 | ⇑iPg | Pb | 06 29 08.2 | +0.8 |
| JOHAN | | | | *e*Sg | Sb | 06 29 12.7 | +0.7 |
| OTER1 | Otterbach 1 (B | 0.32 | 39 | ⇑iPg | Pb | 06 29 08.4 | +0.8 |
| OTER1 | | | | *i* Sg | Sb | 06 29 08.5 | +0.8 |
| OTER1 | Otterbach 1 (B | 0.32 | 39 | ⇑iPg | Pb | 06 29 08.4 | +0.8 |
| OTTER | Otterbach | 0.32 | 39 | ⇑iPg | Pb | 06 29 12.9 | +2.6 |
| SBAF | Basel-Friedhof | 0.32 | 37 | ⇑iPg | Pb | 06 29 08.3 | +0.6 |
| SBAF | | | | *e*Sg | Sb | 06 29 12.7 | +0.2 |
| SBAF | Basel-Friedhof | 0.32 | 37 | ⇑iPg | Pb | 06 29 08.3 | +0.6 |
| SBAF | | | | *e*Sg | Sb | 06 29 12.7 | +0.2 |
| OTER2 | Otterbach 2 (B | 0.32 | 39 | ⇑iPg | Pb | 06 29 08.6 | +0.9 |
| OTER2 | | | | *i* Sg | Sb | 06 29 13.4 | +0.9 |
| OTER2 | Otterbach 2 (B | 0.32 | 39 | ⇑iPg | Pb | 06 29 08.6 | +0.9 |
| OTER2 | | | | *i* Sg | Sb | 06 29 13.4 | +0.9 |
| SFRA | Frenkendorf | 0.32 | 57 | ⇑iPg | Pb | 06 29 08.7 | +1.0 |
| SFRA | Frenkendorf | 0.32 | 57 | ⇑iPg | Pb | 06 29 08.7 | +1.0 |
| SRHB | Riehen-Baumlih | 0.32 | 41 | ⇑iPg | Pb | 06 29 08.7 | +1.0 |
| SRHB | Riehen-Baumlih | 0.32 | 41 | ⇑iPg | Pb | 06 29 08.7 | +1.0 |
| LOMF | Lomont | 0.33 | 273 | Pg | Pb | 06 29 08.8 | +0.8 |
| LOMF | | | | Sg | Sg | 

ECH Sg Sn 06 29 30.1 -0.6
**SLE Schleitheim 0.91 61⇑*i*Pn Pn 06 29 18.9 +0.4**
932nm,0.2s
**SLE Schleitheim 0.91 61 ⇑P Pn 06 29 18.8 +0.3**
SLE S Sg 06 29 30.6 +0.4
**SLE Schleitheim 0.91 61⇑*i*Pn Pn 06 29 18.9 +0.4**
932nm,0.2s
**HAU Haudompre 0.94 316 *e*Pn Pn 06 29 19.6 +0.7**
**HAU Haudompre 0.94 316 *e*Pg Pn 06 29 19.9 +1.0**
HAU *e*Sg Sn 06 29 32.0 +0.1
356nm,0.2s
**HAU Haudompre 0.94 316 *e*Pn Pn 06 29 19.6 +0.7**
**HAU Haudompre 0.94 316 *e*Pg Pn 06 29 19.9 +1.0**
HAU *e*Sg Sn 06 29 32.0 +0.1
178nm,0.2s
**LAUCH Lauchernalp 0.97 161⇓*i*Pg Pn 06 29 20.1 +0.6**
602nm,0.2s
**LAUCH Lauchernalp 0.97 161⇓*i*Pg Pn 06 29 20.1 +0.6**
602nm,0.2s
**SENIN Lac Senin/Sane 0.97 181⇓*i*Pg Pn 06 29 20.8 +1.3**
584nm,0.4s
**SENIN Lac Senin/Sane 0.97 181⇓*i*Pg Pn 06 29 20.8 +1.3**
584nm,0.4s
**MUO Muotathal 0.97 112⇓*i*Pg Pb 06 29 19.1 +0.1**
830nm,0.2s
**MUO Muotathal 0.97 112⇓*i*Pg Pb 06 29 19.1 +0.1**
830nm,0.2s
**TRULL Truellikon 0.98 71⇑*i*Pn Pg 06 29 20.3 +0.7**
485nm,0.3s
**TRULL Truellikon 0.98 71⇑*i*Pn Pg 06 29 20.3 +0.7**
485nm,0.3s
**FIESA Fiescheralp 1.05 148⇓*i*Pg Pb 06 29 20.5 +0.2**
383nm,0.3s
**FIESA Fiescheralp 1.05 148⇓*i*Pg Pb 06 29 20.5 +0.2**
383nm,0.3s
**GIMEL St. Georges / 1.07 222 Pg Pg 06 29 22.6 +1.3**
GIMEL Sg Sg 06 29 37.0 +1.6
**GIMEL St. Georges / 1.07 222 Pg Pg 06 29 22.6 +1.3**
GIMEL Sg Sg 06 29 37.0 +1.6
**CDF Champ du Feu 1.08 359 *e*Pn Pg 06 29 21.3 -0.2**
**CDF Champ du Feu 1.08 359 *e*Pg Pg 06 29 22.4 +0.9**
CDF *e*Sg Sg 06 29 36.3 +0.6
602nm,0.2s
**CDF Champ du Feu 1.08 359 *e*Pn Pg 06 29 21.3 -0.2**
**CDF Champ du Feu 1.08 359 *e*Pg Pg 06 29 22.4 +0.9**
CDF *e*Sg Sg 06 29 36.3 +0.6
301nm,0.2s
**WILA Wila 1.09 85⇑*i*Pn Pb 06 29 20.7 -0.1**
2µm,0.3s
**WILA Wila 1.09 85 ⇑P Pg 06 29 22.1 +0.5**
WILA Pg Pn 06 29 23.0 +2.0
WILA *e*Sg Sg 06 29 37.6 +1.7
**WILA Wila 1.09 85⇑*i*Pn Pb 06 29 20.7 -0.1**
2µm,0.3s
**GRYON Gryon 1.09 187⇓*i*Pn Pg 06 29 21.9 +0.2**
120nm,0.2s
**GRYON Gryon 1.09 187⇓*i*Pn Pg 06 29 21.9 +0.2**
120nm,0.2s
**CABF La Chapelle 1.11 230 *e*Pg Pg 06 29 23.2 +1.2**
CABF *e*Sn Sg 06 29 36.6 +0.1
CABF *e*Sg Sn 06 29 37.7 +1.6
97nm,0.2s
**CABF La Chapelle 1.11 230 *e*Pg Pg 06 29 23.2 +1.2**
CABF *e*Sn Sg 06 29 36.6 +0.1
CABF *e*Sg Sn 06 29 37.7 +1.6
48nm,0.2s
**STEIN Stein am Rhein 1.11 72⇑*i*Pn Pg 06 29 22.0 0.0**
187nm,0.4s
**STEIN Stein am Rhein 1.11 72⇑*i*Pn Pg 06 29 22.0 0.0**
187nm,0.4s
**WEIN Weingarten 1.15 80⇑*i*Pn Pb 06 29 22.1 +0.2**
756nm,0.4s
**WEIN Weingarten 1.15 80⇑*i*Pn Pb 06 29 22.1 +0.2**
756nm,0.4s
**SISB Singen-Schiene 1.17 72 ⇑P Pg 06 29 22.8 -0.4**
SISB Pg Pb 06 29 24.3 +2.0
**CURA Stauanlage Cun 1.18 126⇓*i*Pn Pg 06 29 24.3 +0.8**
718nm,0.2s
**CURA Stauanlage Cun 1.18 126⇓*i*Pn Pg 06 29 24.3 +0.8**
718nm,0.2s
**SIMPL Simplonpass 1.20 156⇓*i*Pn Pn 06 29 22.2 -0.4**
378nm,0.3s
**SIMPL Simplonpass 1.20 156⇓*i*Pn Pn 06 29 22.2 -0.4**
378nm,0.3s
**BFO Black Forest 1.21 34 *e*Pn Pn 06 29 22.5 -0.1**
BFO *e*Sg Sg 06 29 40.1 +0.3
**NALPS Val Nalps 1.23 126⇓*i*Pn Pn 06 29 22.9 -0.2**
589nm,0.3s
**NALPS Val Nalps 1.23 126⇓*i*Pn Pn 06 29 22.9 -0.2**
589nm,0.3s
**CUNA Curaglia 1.24 122⇓*i*Pn Pn 06 29 23.0 -0.1**
928nm,0.2s
**CUNA Curaglia 1.24 122⇓*i*Pn Pn 06 29 23.0 -0.1**
928nm,0.2s
**DIX Grande Dixence 1.25 177 Pg Pg 06 29 25.5 +0.7**
DIX Sg Sg 06 29 41.9 +0.7
74nm,0.3s
**DIX Grande Dixence 1.25 177 Pg Pg 06 29 25.5 +0.7**
DIX Sg Sg 06 29 41.9 +0.7
74nm,0.3s
**LLS Linth-Limmern 1.26 112⇑*i*Pn Pb 06 29 24.3 +0.5**
339nm,0.2s
**SPAK Spaichingen-Ko 1.26 52 ⇑P Pn 06 29 23.4 +0.1**
**SPAK Spaichingen-Ko 1.26 52 Pn Pn 06 29 25.0 -0.3**
**SPAK Spaichingen-Ko 1.26 52 Pg Pg 06 29 25.4 +0.6**
SPAK Sg Sg 06 29 41.6 +0.3
**THEF They Montfort 1.27 315 Pg Pg 06 29 26.0 +1.0**
THEF Sg Sg 06 29 42.1 +0.6
**THEF They Montfort 1.27 315 Pg Pg 06 29 26.2 +1.2**
**THEF They Montfort 1.27 315 Pg Pg 06 29 26.0 +1.0**
THEF Sg Sg 06 29 42.1 +0.6
**FUSIO Fusio 1.28 133 Pg Pg 06 29 25.8 +0.6**
FUSIO Sg Sg 06 29 42.8 +0.9
**FUSIO Fusio 1.28 133⇓*i*Pn Pg 06 29 25.1 -0.1**
286nm,0.4s
**FUSIO Fusio 1.28 133⇓*i*Pn Pg 06 29 25.1 -0.1**
286nm,0.4s
**FUSIO Fusio 1.28 133 Pg Pg 06 29 25.8 +0.6**
FUSIO Sg Sg 06 29 42.8 +0.9
**EMV Vieux Emosson 1.30 193 Pg Pb 06 29 25.2 +0.6**
**EMV Vieux Emosson 1.30 193⇓*i*Pn Pb 06 29 25.1 +0.5**
571nm,0.1s
**EMV Vieux Emosson 1.30 193 Pg Pb 06 29 25.2 +0.6**
**OPP Oppenau 1.30 26 ⇑P Pn 06 29 23.8 -0.1**
OPP S Sn 06 29 39.8 -1.1
**PANIX Pigniu (Panix) 1.33 112⇑*i*Pn Pb 06 29 25.1 +0.1**
313nm,0.2s
**PANIX Pigniu (Panix) 1.33 112⇑*i*Pn Pb 06 29 25.1 +0.1**
313nm,0.2s
**DOETR Doetra (Olivon 1.34 126⇓*i*Pn Pb 06 29 25.2 0.0**
682nm,0.2s
**DOETR Doetra (Olivon 1.34 126⇓*i*Pn Pb 06 29 25.2 0.0**
682nm,0.2s
**MMK Mattmark 1.36 161 Pg Pg 06 29 27.0 +0.2**
48nm,0.3s
**MMK Mattmark 1.36 161⇓*i*Pn Pb 06 29 25.6 0.0**
120nm,0.3s
**MMK Mattmark 1.36 161⇓*i*Pn Pb 06 29 25.6 0.0**
120nm,0.3s
**MMK Mattmark 1.36 161 Pg Pg 06 29 27.0 +0.2**
48nm,0.3s
**GUT Gutenstein 1.42 58⇑*i*Pn Pn 06 29 25.8 +0.2**
285µm,0.2s
**GUT Gutenstein 1.42 58⇑*i*P Pn 06 29 25.6 +0.1**
GUT Pg Pg 06 29 28.7 +0.7
**GUT Gutenstein 1.42 58⇑*i*Pn Pn 06 29 25.8 +0.2**
285µm,0.2s
**PLONS Plons/SG 1.44 101 Pg Pb 06 29 27.5 +0.7**
183nm,0.2s
**PLONS Plons/SG 1.44 101⇑*i*Pn Pn 06 29 26.3 +0.5**
660nm,0.3s
**PLONS Plons/SG 1.44 101 *e*Pn Pb 06 29 27.6 +0.7**
PLONS *e*Pg Pg 06 29 29.2 +1.0
PLONS *e*Sn Sb 06 29 44.9 0.0
PLONS *e*Sg Sg 06 29 47.9 +0.9
**PLONS Plons/SG 1.44 101⇑*i*Pn Pn 06 29 26.3 +0.5**
660nm,0.3s
**LIENZ Kamor/St.Gall 1.48 91⇑*i*Pn Pn 06 29 26.7 +0.2**
541nm,0.3s
**LIENZ Kamor/St.Gall 1.48 91⇑*i*Pn Pn 06 29 26.7 +0.2**
541nm,0.3s
**PAGF Fort de Pagny 1.62 319 *e*Pn Pb 06 29 29.7 -0.3**
**PAGF Fort de Pagny 1.62 319 *e*Pg Pg 06 29 32.8 +1.0**
baz=135
PAGF *e*Sg Sg 06 29 53.2 +0.3
7.4nm,0.2s
**PAGF Fort de Pagny 1.62 319 *e*Pn Pb 06 29 29.7 -0.3**
**PAGF Fort de Pagny 1.62 319 *e*Pg Pg 06 29 32.8 +1.0**
PAGF *e*Sg Sg 06 29 53.2 +0.3
3.7nm,0.2s
**TUE Stuetta 1.64 121 Pg Pb 06 29 31.2 +0.9**
TUE Sg Sg 06 29 53.6 +0.2
**TUE Stuetta 1.64 121 Pg Pb 06 29 31.2 +0.9**
TUE Sg Sg 06 29 53.6 +0.2
**LBG Lerchenberg 1.66 36 ⇑P Pn 06 29 28.4 -0.4**
LBG Pg Pg 06 29 32.9 +0.4
**LANF Langenberg 1.68 11 Pg Pg 06 29 34.0 +1.1**
LANF Sg Sg 06 29 55.8 +1.0
**LANF Langenberg 1.68 11 Pg Pg 06 29 34.0 +1.1**
LANF Sg Sg 06 29 55.8 +1.0
**TUBL Tuebingen-Lenn 1.68 44 P Pn 06 29 28.6 -0.5**
TUBL Pg Pg 06 29 33.4 +0.5
**VDL Val di Lei 1.69 119⇓*i*Pn Pn 06 29 26.9 -2.5**
277nm,0.2s
**VDL Val di Lei 1.69 119⇓*i*Pn Pn 06 29 26.9 -2.5**
277nm,0.2s
**CIRO Champorcher 1.74 174 Pg Pb 06 29 32.6 +0.5**
**CIRO Champorcher 1.74 174 Pg Pb 06 29 32.6 +0.5**
CIRO S Sg 06 29 56.5 -0.2
**DAVA Damuels 1.75 91⇑*i*Pn Pn 06 29 27.5 -2.6**
776nm,0.4s
**DAVA Damuels 1.75 91⇑*i*P Pb 06 29 31.8 -0.3**
DAVA *e*Pn Pb 06 29 31.9 -0.3
DAVA Pg Pg 06 29 34.8 +0.7
DAVA *e*Sg Sg 06 29 57.7 +0.8
**DAVA Damuels 1.75 91 *i*Pn Pb 06 29 31.8 -0.3**
2.2nm,0.1s,SNR=8.4
DAVA *i*Pg Pg 06 29 34.8 +0.7
21nm,0.3s
DAVA *i*Sn Sn 06 29 52.5 +0.5
2.4nm,0.1s
DAVA *e*Sg Sg 06 29 57.6 +0.7
76nm,0.2s
**DAVA Damuels 1.75 91 Pn Pb 06 29 31.8 -0.3**
2.2nm,0.1s,SNR=8.4
**PEB Petersbachel 1.76 9 P Pn 06 29 30.3 +0.2**
PEB Pg Pg 06 29 35.1 +0.8
**SFTF Sexfontaines 1.77 300 *e*Pn Pn 06 29 31.2 +1.0**
baz=119
**SFTF Sexfontaines 1.77 300 *e*Pg Pg 06 29 35.2 +0.7**
baz=127
SFTF *e*Sg Sg 06 29 57.7 +0.3
119nm,0.2s
**SFTF Sexfontaines 1.77 300 *e*Pn Pn 06 29 31.2 +1.0**
**SFTF Sexfontaines 1.77 300 *e*Pg Pg 06 29 35.2 +0.7**
SFTF *e*Sg Sg 06 29 57.7 +0.3
60nm,0.2s
**BUCH Bad Urach 1.77 50 ⇑P Pn 06 29 30.1 -0.3**
BUCH Pg Pg 06 29 35.3 +0.7
**VARE Varese 1.78 145 Pg Pb 06 29 32.8 +0.2**
52nm,0.5s
**VARE Varese 1.78 145 Pg Pb 06 29 32.8 +0.2**
52nm,0.5s
**DAVOX Davos/Dischmat 1.84 107 Pg Pb 06 29 33.8 +0.1**
**DAVOX Davos/Dischmat 1.84 107⇑*i*Pn Pn 06 29 29.1 -2.3**
350nm,0.3s
**DAVOX Davos/Dischmat 1.84 107⇑*i*Pn Pn 06 29 29.1 -2.3**
350nm,0.3s
**DAVOX Davos/Dischmat 1.84 107 Pg Pb 06 29 33.8 +0.1**
**TRAV Traversella 1.84 170 Pg Pb 06 29 34.2 +0.4**
58nm,0.3s
**TRAV Traversella 1.84 170 Pg Pb 06 29 34.2 +0.4**
58nm,0.3s
TRAV S Sg 06 29 59.7 -0.3
**MUGIO Muggio 1.85 139 Pg Pb 06 29 33.6 -0.2**
93nm,0.4s
**MUGIO Muggio 1.85 139 Pg Pb 06 29 33.6 -0.2**
93nm,0.4s
**LPL La Plagne 1.86 193 *e*Pn Pb 06 29 33.2 -0.9**
**LPL La Plagne 1.86 193 *e*Pg Pg 06 29 36.6 +0.3**
LPL *e*Sg Sg 06 30 01.1 +0.6
46nm,0.3s
**LPL La Plagne 1.86 193 *e*Pn Pb 06 29 33.2 -0.9**
**LPL La Plagne 1.86 193 *e*Pg Pg 06 29 36.6 +0.3**
LPL *e*Sg Sg 06 30 01.1 +0.6
23nm,0.3s
**LPG La Plagne 1.88 192 *e*Pn Pb 06 29 33.6 -0.8**
**LPG La Plagne 1.88 192 *e*Pg Pg 06 29 37.5 +0.9**
LPG *e*Sn Sn 06 29 55.1 -0.3
LPG *e*Sg Sg 06 30 01.9 +0.9
61nm,0.4s
**LPG La Plagne 1.88 192 *e*Pn Pb 06 29 33.6 -0.8**
**LPG La Plagne 1.88 192 *e*Pg Pg 06 29 37.5 +0.9**
LPG *e*Sn Sn 06 29 55.1 -0.3
LPG *e*Sg Sg 06 30 01.9 +0.9
30nm,0.4s
**LSD Lago del Serru 1.88 184 Pg Pb 06 29 34.2 -0.2**
46nm,0.4s
**LSD Lago del Serru 1.88 184⇓*i*Pn Pn 06 29 28.1 -3.9**
196nm,0.3s
**LSD Lago del Serru 1.88 184⇓*i*Pn Pn 06 29 28.1 -3.9**
196nm,0.3s
**LSD Lago del Serru 1.88 184 Pg Pb 06 29 34.2 -0.2**
46nm,0.4s
**STU Stuttgart 1.92 41 *e*Pn Pn 06 29 31.7 -0.5**
STU *e*Pg Pg 06 29 38.1 +0.8
STU *e*Sg Sg 06 30 01.8 -0.4
**MEZF Maizieres J'vi 1.92 308 *e*Pn Pn 06 29 33.2 +0.9**
baz=124
**MEZF Maizieres J'vi 1.92 308 *e*Pg Pg 06 29 38.0 +0.6**
baz=123
MEZF *e*Sg Sg 06 30 02.6 +0.3
117nm,0.4s
**MEZF Maizieres J'vi 1.92 308 *e*Pn Pn 06 29 33.2 +0.9**
**MEZF Maizieres J'vi 1.92 308 *e*Pg Pg 06 29 38.0 +0.6**
MEZF *e*Sg Sg 06 30 02.6 +0.3
58nm,0.4s
**UBR Ueberruh 1.93 79⇑*i*Pn Pn 06 29 30.3 -2.2**
**UBR Ueberruh 1.93 79 P Pn 06 29 33.8 +1.3**
**UBR Ueberruh 1.93 79⇑*i*Pn Pn 06 29 30.3 -2.2**
**OBER Oberstdorf 2.03 87 *e*Pg Pg 06 29 40.9 +1.5**
OBER *e*Sg Sg 06 30 06.2 +0.4
**FUORN Ofenpass-Fuorn 2.14 108⇑*i*Pn Pn 06 29 31.8 -3.8**
152nm,0.4s
**FUORN Ofenpass-Fuorn 2.14 108⇑*i*Pn Pn 06 29 31.8 -3.8**
152nm,0.4s
**RSP Reno Superiore 2.19 181 P Pb 06 29 38.3 -1.3**
**IMS Imsbach 2.30 10 P Pn 06 29 38.6 +1.1**
**RETA Reutte 2.35 85 *i*Pn Pn 06 29 39.8 +1.5**
0.3nm,0.1s
RETA *e*Pg Pg 06 29 46.0 +0.5
4.8nm,0.1s
RETA Sg Sg 06 30 15.5 -0.5
18nm,0.2s
**RETA Reutte 2.35 85 Pn Pn 06 29 39.8 +1.5**
0.3nm,0.1s
**FETA Feichten 2.35 96 *e*Pg Pb 06 29 41.2 -1.2**
0.1nm,0.1s
FETA *i*Sg Sg 06 30 16.6 +0.5
7.2nm,0.2s
**FETA Feichten 2.35 96 Pg Pb 06 29 41.2 -1.2**
0.1nm,0.1s
FETA Sg Sg 06 30 16.6 +0.5
7.2nm,0.2s
**LOR Lormes 2.35 270 *e*Pg Pg 06 29 45.7 +0.1**
baz=89
LOR *e*Sg Sg 06 30 15.8 -0.3
171nm,0.2s
**LOR Lormes 2.35 270 *e*Pg Pg 06 29 45.7 +0.1**
LOR *e*Sg Sg 06 30 15.8 -0.3
86nm,0.2s
**RIVT Riveris 2.41 351 ⇓P Pn 06 29 40.6 +1.6**
RIVT Pg Pg 06 29 46.7 +0.1
**RRL Rocca Remolon 2.44 189 P Pn 06 29 41.8 +2.1**
**SMF Signal de Mont 2.47 255 *e*Pn Pn 06 29 40.4 +0.4**
**SMF Signal de Mont 2.47 255 *e*Pg Pg 06 29 47.8 -0.2**
SMF *e*Sg Sg 06 30 20.0 -0.1
87nm,0.3s
**SMF Signal de Mont 2.47 255 *e*Pn Pn 06 29 40.4 +0.4**
**SMF Signal de Mont 2.47 255 *e*Pg Pg 06 29 47.8 -0.2**
SMF *e*Sg Sg 06 30 20.0 -0.1
44nm,0.3s
**TOD Tromm 2.48 23 P Pn 06 29 39.5 -0.6**
**BHB Bricherasio 2.49 181 P Pn 06 29 42.0 +1.8**
**SIND Sindeldorf 2.53 36 P Pn 06 29 39.7 -1.0**
**ABH Alteburg 2.56 3 P Pn 06 29 42.6 +1.4**
**MOTA Moosalm 2.58 88 *i*Pn Pn 06 29 43.3 +1.8**
0.6nm,0.1s
MOTA *i*Sg Sg 06 30 24.3 +0.9
12nm,0.1s
**MOTA Moosalm 2.58 88 Pn Pn 06 29 43.3 +1.8**
0.6nm,0.1s
MOTA Sg Sg 06 30 24.3 +0.9
12nm,0.1s
**SSF Saint Saulge 2.61 265 *e*Pn Pn 06 29 42.5 +0.7**
**SSF Saint Saulge 2.61 265 *e*Pg Pg 06 29 50.6 0.0**
SSF *e*Sg Sg 06 30 24.0 -0.4
32nm,0.3s
**SSF Saint Saulge 2.61 265 *e*Pn Pn 06 29 42.5 +0.7**
**SSF Saint Saulge 2.61 265 *e*Pg Pg 06 29 50.6 0.0**
SSF *e*Sg Sg 06 30 24.0 -0.4
16nm,0.3s
**ORIF Oris-en-Rattie 2.61 203 *e*Pg Pg 06 29 50.8 +0.2**
ORIF *e*Sg Sg 06 30 23.9 -0.6
35nm,0.2s
**ORIF Oris-en-Rattie 2.61 203 *e*Pg Pg 06 29 50.8 +0.2**
ORIF *e*Sg Sg 06 30 23.9 -0.6
18nm,0.2s
**MBDF Montbardon 2.63 188 *e*P Pn 06 29 44.8 +2.5**
**MBDF Montbardon 2.63 188 *e*Pg Pg 06 29 51.1 +0.1**
MBDF *e*Sg Sg 06 30 25.2 0.0
57nm,0.5s
**MBDF Montbardon 2.63 188 *e*P Pn 06 29 44.8 +2.5**
**MBDF Montbardon 2.63 188 *e*Pg Pg 06 29 51.1 +0.1**
MBDF *e*Sg Sg 06 30 25.2 0.0
29nm,0.5s
**SQTA Sankt Quirin 2.65 91 *i*Pg Pb 06 29 46.8 -0.8**
**SQTA Sankt Quirin 2.65 91 Pg Pb 06 29 46.8 -0.8**
**AVF Avril sur Loir 2.76 260 *e*Pn Pn 06 29 44.8 +0.9**
**AVF Avril sur Loir 2.76 260 *e*Pg Pg 06 29 53.6 +0.2**
AVF *e*Sg Sg 06 30 28.7 -0.5
22nm,0.3s
**AVF Avril sur Loir 2.76 260 *e*Pn Pn 06 29 44.8 +0.9**
**AVF Avril sur Loir 2.76 260 *e*Pg Pg 06 29 53.6 +0.2**
AVF *e*Sg Sg 06 30 28.7 -0.5
11nm,0.3s
**FUR Furstenfeldbru 2.80 71 *e*Pg Pg 06 29 54.9 +0.7**
FUR *e*Sg Sg 06 30 30.3 -0.2
**BGG Burgeitz 2.88 0 *e*Pg Pg 06 29 53.9 -1.8**
BGG *e*Sg Sb 06 30 27.8 +1.7
30nm,0.7s
**WATA Walderalm 2.90 88 *e*Pg Pb 06 29 49.0 -2.8**
3.5nm,0.1s,SNR=13
WATA *i*Sg Sg 06 30 33.8 +0.1
8.2nm,0.1s
**WTTA Wattenberg 2.94 90 *e*Pn Pb 06 29 50.1 -2.5**
WTTA *e*Sg Sg 06 30 35.0 0.0
**WTTA Wattenberg 2.94 90 *e*Pn Pb 06 29 50.0 -2.5**
3.3nm,0.1s,SNR=8.2
WTTA *i*Sn Sn 06 30 23.3 +1.8
2.2nm,0.2s
WTTA *e*Sg Sg 06 30 35.6 +0.5
23nm,0.4s
**WTTA Wattenberg 2.94 90 Pn Pb 06 29 50.0 -2.5**
3.3nm,0.1s,SNR=8.2
WTTA Sn Sn 06 30 23.3 +1.8
2.2nm,0.2s
WTTA Sg Sg 06 30 35.6 +0.5
23nm,0.4s
**TNS Taunus Mts 2.99 14 *e*Pn Pn 06 29 48.3 +1.2**
TNS *e*Sg Sg 06 30 36.5 0.0
**HILG Hillesheim 2.99 352 *e*Pg Pg 06 29 56.5 -1.4**
**VIVF Saint-Julien-l 3.08 218 *e*Pn Pn 06 29 48.3 -0.1**
**VIVF Saint-Julien-l 3.08 218 *e*Pg Pg 06 29 59.5 -0.1**
VIVF *e*Sg Sg 06 30 37.7 -1.9
37nm,0.2s
**VIVF Saint-Julien-l 3.08 218 *e*Pn Pn 06 29 48.3 -0.1**
**VIVF Saint-Julien-l 3.08 218 *e*Pg Pg 06 29 59.5 -0.1**
VIVF *e*Sg Sg 06 30 37.7 -1.9
18nm,0.2s
**BGF Bois d'Agland 3.16 257 *e*Pn Pn 06 29 50.1 +0.8**
**BGF Bois d'Agland 3.16 257 *e*Pg Pg 06 30 00.7 -0.3**
BGF *e*Sg Sg 06 30 41.2 -0.7
53nm,0.3s
**BGF Bois d'Agland 3.16 257 *e*Pn Pn 06 29 50.1 +0.8**
**BGF Bois d'Agland 3.16 257 *e*Pg Pg 06 30 00.7 -0.3**
BGF *e*Sg Sg 06 30 41.2 -0.7
27nm,0.3s
**HYF Humbligny 3.18 271 *e*Pg Pg 06 30 01.8 +0.3**
HYF *e*Sg Sg 06 30 42.1 -0.6
**HYF Humbligny 3.18 271 *e*Pg Pg 06 30 01.8 +0.3**
HYF *e*Sg Sg 06 30 42.1 -0.6
**GIVF Givet 3.23 330 *e*Pg Pg 06 30 01.2 -1.1**
GIVF *e*Sg Sg 06 30 43.1 -1.0
20nm,0.3s
**GIVF Givet 3.23 330 *e*Pg Pg 06 30 01.2 -1.1**
GIVF *e*Sg Sg 06 30 43.1 -1.0
10nm,0.3s
**GRC1 Grafenberg Arr 3.27 58 P Pn 06 29 50.5 -0.4**
GRC1 Pg Pg 06 30 02.8 -0.4
**STB Steinbach 3.28 355 *e*Pg Pb 06 29 58.9 +0.7**
**BAIF Baives 3.42 324 *e*Pn Pn 06 29 54.0 +1.1**
**BAIF Baives 3.42 324 *e*Pg Pg 06 30 05.1 -0.9**
BAIF *e*Sg Sg 06 30 49.0 -1.2
8.4nm,0.3s
**BAIF Baives 3.42 324 *e*Pn Pn 06 29 54.0 +1.1**
**BAIF Baives 3.42 324 *e*Pg Pg 06 30 05.1 -0.9**
BAIF *e*Sg Sg 06 30 49.0 -1.2
4.2nm,0.3s
**GRF Grafenberg Arr 3.51 46 P Pn 06 29 53.3 -0.9**
GRF Pg Pg 06 30 07.6 -0.1
GRF *e*Sg Sg 06 30 51.9 -1.4
**SMRF Simiane la Rot 3.57 201 *e*Pn Pn 06 29 55.9 +0.8**
SMRF *e*Sg Sg 06 30 54.6 -0.6
2.2nm,0.3s
**SMRF Simiane la Rot 3.57 201 *e*Pn Pn 06 29 55.9 +0.8**
SMRF *e*Sg Sg 06 30 54.6 -0.6
1.1nm,0.3s
**ABTA Abfaltersbach 3.60 97 *i*Pg Pg 06 30 09.7 +0.2**
**TCF Toulx Ste Croi 3.66 255 *e*Pn Pn 06 29 56.7 +0.5**
**TCF Toulx Ste Croi 3.66 255 *e*Pg Pg 06 30 10.0 -0.6**
TCF *e*Sg Sg 06 30 56.7 -1.2
13nm,0.3s
**TCF Toulx Ste Croi 3.66 255 *e*Pn Pn 06 29 56.7 +0.5**
**TCF Toulx Ste Croi 3.66 255 *e*Pg Pg 06 30 10.0 -0.6**
TCF *e*Sg Sg 06 30 56.7 -1.2
6.5nm,0.3s
**RJOB Jochberg 3.74 82 *e*Pn Pn 06 29 59.8 +2.4**
**FRF La Foret Royal 3.80 187 *e*Pn Pn 06 29 59.2 +1.0**
**FRF La Foret Royal 3.80 187 *e*Pg Pg 06 30 12.3 -1.0**
FRF *e*Sg Sg 06 31 01.9 -0.6
6.4nm,0.3s
**FRF La Foret Royal 3.80 187 *e*Pn Pn 06 29 59.2 +1.0**
**FRF La Foret Royal 3.80 187 *e*Pg Pg 06 30 12.3 -1.0**
FRF *e*Sg Sg 06 31 01.9 -0.6
3.2nm,0.3s
**LMR La Mourre 4.04 188 *e*Pn Pn 06 30 01.7 +0.3**
**LMR La Mourre 4.04 188 *e*Pg Pg 06 30 17.4 -0.5**
LMR *e*Sg Sg 06 31 08.7 -1.5
3.2nm,0.2s
**LMR La Mourre 4.04 188 *e*Pn Pn 06 30 01.7 +0.3**
**LMR La Mourre 4.04 188 *e*Pg Pg 06 30 17.4 -0.5**
**LASF Ste Croix 4.06 218 *e*Pn Pn 06 30 02.0 +0.3**
**LASF Ste Croix 4.06 218 *e*Pg Pg 06 30 17.5 -0.7**
LASF *e*Sg Sg 06 31 10.4 -0.4
11nm,0.2s
**LASF Ste Croix 4.06 218 *e*Pn Pn 06 30 02.0 +0.3**
**LASF Ste Croix 4.06 218 *e*Pg Pg 06 30 17.5 -0.7**
LASF *e*Sg Sg 06 31 10.4 -0.4
5.6nm,0.2s
**ROTZ Rotzenmuhle 4.06 51 *e*Pn Pn 06 30 01.1 -0.7**
**KBA Koelnbreinsper 4.12 91 *e*Pn Pn 06 30 05.7 +2.9**
2.4nm,0.3s,SNR=5.6
KBA Sn Sn 06 30 50.4 -0.1
2.3nm,0.1s
**WET Wettzell 4.14 62 *e*Pn Pn 06 30 02.9 0.0**
**MOX Moxa 4.36 39 *e*Pn Pn 06 30 04.8 -1.0**
**CAF Calviac 4.37 239 *e*Pn Pn 06 30 06.8 +0.7**
**CAF Calviac 4.37 239 *e*Pg Pg 06 30 23.2 -1.0**
CAF *e*Sg Sg 06 31 19.5 -1.3
9.5nm,0.3s
**CAF Calviac 4.37 239 *e*Pn Pn 06 30 06.8 +0.7**
**CAF Calviac 4.37 239 *e*Pg Pg 06 30 23.2 -1.0**
CAF *e*Sg Sg 06 31 19.5 -1.3
4.8nm,0.3s
**NKC Novy Kostel 4.47 48 *e*PG Pg 06 30 24.9 -1.1**
NKC *e*SG Sg 06 31 21.4 -2.4
comp=Z,21nm,0.6s
**NKC Novy Kostel 4.47 48 Pg Pg 06 30 24.9 -1.1**
NKC Sg Sg 06 31 21.4 -2.4
21nm,0.6s
**RJF Les Rejaudoux 4.50 245 *e*Pg Pg 06 30 25.6 -1.1**
RJF *e*Sg Sg 06 31 22.6 -2.3
8.6nm,0.4s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **RJF** | **Les Rejaudoux** | **4.50** | **245** | *e*Pg | | **Pg** | **06 30 25.6** | **-1.1** |
| RJF | | | | *e*Sg | | **Sg** | **06 31 22.6** | **-2.3** |
| | 4.3nm,0.4s | | | | | | | |
| **GEC2** | **GERESS Array S** | **4.54** | **68** | *e*Pn | | **Pn** | **06 30 09.1** | **+0.6** |
| **KHC** | **Kasperske Hory** | **4.56** | **64** | *e*PN | | **Pn** | **06 30 09.5** | **+0.9** |
| KHC | | | | *e*PG | | **Pg** | **06 30 26.3** | **-1.5** |
| KHC | | | | *e*SG | | **Sg** | **06 31 26.0** | **-0.7** |
| | comp=Z,6.3nm,0.3s | | | | | | | |
| **KHC** | **Kasperske Hory** | **4.56** | **64** | Pg | | **Pg** | **06 30 26.3** | **-1.5** |
| KHC | | | | Sg | | **Sg** | **06 31 26.0** | **-0.7** |
| | 6.3nm,0.3s | | | | | | | |
| **MOA** | **Molln** | **4.73** | **81** | *i* Pn | | **Pn** | **06 30 12.8** | **+1.8** |
| | 0.3nm,0.1s | | | | | | | |
| MOA | | | | *e*Pg | | **Pg** | **06 30 30.0** | **-1.1** |
| | 2.2nm,0.2s | | | | | | | |
| MOA | | | | *i* Sn | | **Sn** | **06 31 06.0** | **+0.6** |
| | 3.0nm,0.2s | | | | | | | |
| MOA | | | | Sg | | **Sg** | **06 31 31.2** | **-1.2** |
| | 4.6nm,0.2s | | | | | | | |
| **MOA** | **Molln** | **4.73** | **81** | Pn | | **Pn** | **06 30 12.8** | **+1.8** |
| | 0.3nm,0.1s | | | | | | | |
| **MOA** | **Molln** | **4.73** | **81** | Pg | | **Pg** | **06 30 30.0** | **-1.1** |
| | 2.2nm,0.2s | | | | | | | |
| MOA | | | | Sn | | **Sn** | **06 31 06.0** | **+0.6** |
| | 3.0nm,0.2s | | | | | | | |
| MOA | | | | Sg | | **Sg** | **06 31 31.2** | **-1.2** |
| | 4.6nm,0.2s | | | | | | | |
| **LDF** | **La Druitiere** | **5.15** | **287** | *e*Sg | | **Sg** | **06 31 43.3** | **-2.5** |
| | 18nm,0.5s | | | | | | | |
| **LDF** | **La Druitiere** | **5.15** | **287** | *e*Sg | | **Sg** | **06 31 43.3** | **-2.5** |
| | 9.1nm,0.5s | | | | | | | |
| **LFF** | **La Frestale** | **5.16** | **245** | *e*Sg | | **Sg** | **06 31 43.8** | **-2.2** |
| | 18nm,0.5s | | | | | | | |
| **LFF** | **La Frestale** | **5.16** | **245** | *e*Sg | | **Sg** | **06 31 43.8** | **-2.2** |
| | 8.8nm,0.5s | | | | | | | |
| **MFF** | **Saint Martin d** | **5.16** | **265** | *e*Pn | | **Pn** | **06 30 18.0** | **+1.2** |
| MFF | | | | *e*Sg | | **Sg** | **06 31 43.8** | **-2.2** |
| | 6.3nm,0.3s | | | | | | | |
| **MFF** | **Saint Martin d** | **5.16** | **265** | *e*Pn | | **Pn** | **06 30 18.0** | **+1.2** |
| MFF | | | | *e*Sg | | **Sg** | **06 31 43.8** | **-2.2** |
| | 3.2nm,0.3s | | | | | | | |
| **MTLF** | **Montolieu** | **5.37** | **224** | *e*Pn | | **Pn** | **06 30 19.8** | **+0.1** |
| **MTLF** | **Montolieu** | **5.37** | **224** | *e*Pg | | **Pg** | **06 30 41.5** | **-1.8** |
| MTLF | | | | *e*Sg | | **Sg** | **06 31 50.4** | **-2.4** |
| | 3.2nm,0.3s | | | | | | | |
| **MTLF** | **Montolieu** | **5.37** | **224** | *e*Pn | | **Pn** | **06 30 19.8** | **+0.1** |
| **MTLF** | **Montolieu** | **5.37** | **224** | *e*Pg | | **Pg** | **06 30 41.5** | **-1.8** |
| MTLF | | | | *e*Sg | | **Sg** | **06 31 50.4** | **-2.4** |
| | 1.6nm,0.3s | | | | | | | |
| **FLN** | **La Foliniere** | **5.42** | **288** | *e*Pn | | **Pn** | **06 30 21.5** | **+1.1** |
| | baz=114 | | | | | | | |
| FLN | | | | *e*Sg | | **Sg** | **06 31 52.0** | **-2.4** |
| | 15nm,0.3s | | | | | | | |
| **FLN** | **La Foliniere** | **5.42** | **288** | *e*Pn | | **Pn** | **06 30 21.5** | **+1.1** |
| FLN | | | | *e*Sg | | **Sg** | **06 31 52.0** | **-2.4** |
| | 7.4nm,0.3s | | | | | | | |
| **CLL** | **Collm** | **5.45** | **41** | *i* Pg | | **Pg** | **06 30 42.2** | **-2.5** |
| CLL | | | | *i* | | | 06 30 44.5 | |
| CLL | | | | *i* Sg | | **Sg** | **06 31 52.1** | **-3.1** |
| | comp=Z,17nm,1.2s | | | | | | | |
| **PRU** | **Pruhonice** | **5.48** | **58** | *e*PG | | **Pg** | **06 30 42.7** | **-2.6** |
| PRU | | | | *e*SG | | **Sg** | **06 31 54.8** | **-1.4** |
| **GOPC** | **GO Pecny, Ondr** | **5.59** | **60** | *e*SG | | **Sg** | **06 31 58.5** | **-1.3** |
| **GOPC** | **GO Pecny, Ondr** | **5.59** | **60** | Sg | | **Sg** | **06 31 58.5** | **-1.3** |
| **GRR** | **Gorron** | **5.60** | **284** | *e*Sg | | **Sg** | **06 31 57.0** | **-3.2** |
| | comp=Z,5.3nm,0.3s | | | | | | | |
| **BRG** | **Berggiesshubel** | **5.61** | **48** | PG | | **Pg** | **06 30 46.5** | **-1.4** |
| BRG | | | | SG | | **Sg** | **06 31 56.9** | **-3.6** |
| | comp=Z,4.3nm,0.4s | | | | | | | |
| **CONA** | **Conrad Observa** | **5.81** | **81** | *i* Pn | | **Pn** | **06 30 27.1** | **+1.2** |
| | comp=Z,1.0nm,0.2s,SNR=4.8 | | | | | | | |
| CONA | | | | *i* Sn | | **Sn** | **06 31 30.9** | **-1.1** |
| | comp=Z,1.0nm,0.1s | | | | | | | |
| **CONA** | **Conrad Observa** | **5.81** | **81** | Pn | | **Pn** | **06 30 27.1** | **+1.2** |
| | comp=Z,1.0nm,0.2s,SNR=4.8 | | | | | | | |
| **EPF** | **Esparros** | **6.54** | **231** | *e*Sg | | **Sg** | **06 32 27.2** | **-3.1** |
| | comp=Z,2.5nm,0.3s | | | | | | | |

*ISCJB **27** 06:56:02.5±1.2,36°.25N±0°.08×70°.47E±0°.09,h100km, Error ellipse: s-maj=13.0km s-min=8.5km az=32.6*
*NNC **27** 06:56:08.8±2.4,36°.67N×70°.44E,h135km±23km,mb3.2, mpv3.9,Error ellipse: s-maj=20.3km s-min=10.8km az=170.0*

**ISC 27 06:56:02.3±1.3,36°.25N±0°.08×70°.53E±0°.08,h100km,n18, σ2s52/27,9C-7D,Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZET** | **Dzherino** | **2.88** | **332** | ⇓P | **Pn** | **06 56 48.7** | **+2.1** |
| | 4.7nm,0.3s | | | | | | |
| DZET | | | | ⇑S | **Sn** | **06 57 20.8** | **+0.1** |
| | 50nm,0.5s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **4.42** | **31** | ⇑P | **Pn** | **06 57 10.7** | **+3.3** |
| | 39nm,0.4s | | | | | | |
| SFK | | | | ⇑S | **Sn** | **06 57 59.5** | **+1.6** |
| | 13nm,0.3s | | | | | | |
| **THN** | **Thein Dam** | **5.74** | **130** | *e*P | **Pn** | **06 57 25.0** | **0.0** |
| THN | | | | *e*S | **Sn** | **06 58 27.0** | **-2.4** |
| **AML** | **Almayashu** | **6.36** | **22** | P | **Pn** | **06 57 35.8** | **+2.0** |
| | SNR=85 | | | | | | |
| **MNAS** | **Manas** | **6.41** | **13** | ⇑P | **Pn** | **06 57 36.0** | **+1.7** |
| | 8.0nm,0.6s | | | | | | |
| MNAS | | | | ⇓S | **Sn** | **06 58 43.8** | **-2.2** |
| | 13nm,0.9s | | | | | | |
| **UCH** | **Uchtor** | **6.72** | **26** | P | **Pn** | **06 57 40.3** | **+1.7** |
| | SNR=8.1 | | | | | | |
| **KK31** | **Karatay Array** | **6.84** | **360** | ⇓P | **Pn** | **06 57 41.7** | **+1.7** |
| | 4.6nm,0.4s,baz=177,slow=13,SNR=80 | | | | | | |
| KK31 | | | | ⇑S | **Sn** | **06 58 55.1** | **-1.1** |
| | 3.9nm,0.5s,baz=184,slow=26 | | | | | | |
| **EKS2** | **Erkin-Say** | **6.87** | **20** | P | **Pn** | **06 57 43.5** | **+3.0** |
| | SNR=7.6 | | | | | | |
| **KZA** | **Kyzart** | **6.87** | **31** | P | **Pn** | **06 57 42.5** | **+1.8** |
| | SNR=7.8 | | | | | | |
| **AAK** | **Ala-Archa** | **7.07** | **24** | ⇑P | **Pn** | **06 57 44.6** | **+1.4** |
| | 3.1nm,0.4s | | | | | | |
| AAK | | | | ⇑S | **Sn** | **06 58 60.0** | **-2.2** |
| | 6.4nm,0.6s | | | | | | |
| **AAK** | **Ala-Archa** | **7.07** | **24** | P | **Pn** | **06 57 45.3** | **+2.1** |
| | SNR=8.1 | | | | | | |
| **KBK** | **Karagaybulak** | **7.25** | **27** | P | **Pn** | **06 57 48.5** | **+2.9** |
| | SNR=7.6 | | | | | | |
| **CHMS** | **Chumysh** | **7.48** | **24** | P | **Pn** | **06 57 50.7** | **+2.0** |
| | SNR=7.0 | | | | | | |
| **USP** | **Ospenovka** | **7.64** | **22** | P | **Pn** | **06 57 53.4** | **+2.5** |
| | SNR=18 | | | | | | |
| **TKM2** | **Tokmak 2** | **7.72** | **29** | ⇓P | **Pn** | **06 57 53.3** | **+1.2** |
| | 3.4nm,0.4s | | | | | | |
| TKM2 | | | | ⇑S | **Sn** | **06 59 15.5** | **-2.5** |
| | 2.3nm,0.7s | | | | | | |
| **TKM2** | **Tokmak 2** | **7.72** | **29** | P | **Pn** | **06 57 54.3** | **+2.2** |
| | SNR=10 | | | | | | |
| **AB31** | **Akbulak array** | **15.12** | **333** | ⇓P | **Pn** | **06 59 31.0** | **+0.7** |
| | 5.2nm,0.5s,baz=158,slow=12,SNR=119 | | | | | | |
| AB31 | | | | ⇓S | **Sn** | **07 02 12.4** | **-4.8** |
| | 0.2nm,0.3s,baz=165,slow=23,SNR=4.0 | | | | | | |
| **AKTO** | **Aktyubinsk** | **16.81** | **331** | ⇑P | **P** | **06 59 54.4** | **+2.6** |
| | 5.7nm,0.9s | | | | | | |
| AKTO | | | | ⇓S | **Sn** | **07 02 52.9** | **-5.0** |
| | 1.0nm,0.8s | | | | | | |

**IDC 27 07:06:08.9±1.6,28°.43S×178°.15W,h0km,mb3.7/3, mb1 3.9/3,mb1mx3.6/18,mbtmp3.7/3,Error ellipse: s-maj=41.9km s-min=17.7km az=61.0,Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **0.85** | **166** | Pn | Pn | 07 06 27.9 | -0.1 |
| | 186nm,0.3s,baz=61,slow=23,SNR=10 | | | | | | |
| RAO | | | | Sn | Sn | 07 06 42.4 | +1.2 |
| | 282nm,0.3s,baz=355,slow=21,SNR=11 | | | | | | |
| **STKA** | **Stephens Creek** | **34.84** | **254** | P | P | 07 13 03.4 | +1.6 |
| | 1.0nm,0.4s,baz=297,slow=23,SNR=2.9 | | | | | | |
| **ASAR** | **Alice Springs** | **43.12** | **265** | P | P | 07 14 09.7 | -1.6 |
| | 0.1nm,0.4s,baz=103,slow=7.0,SNR=5.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.92** | **270** | P | P | 07 14 18.0 | +0.2 |
| | 0.5nm,0.3s,baz=110,slow=8.1,SNR=9.3 | | | | | | |
| **FINES** | **FINESS Array B** | **143.25** | **341** | PKP | PKPdf | 07 25 44.6 | +0.2 |
| | 1.5nm,0.8s,baz=50,slow=2.2,SNR=6.1 | | | | | | |
| **NOA** | **NORSAR Array B** | **146.79** | **352** | PKPbc | PKPab | 07 25 53.0 | -0.6 |
| | 3.2nm,1.0s,baz=57,slow=4.7,SNR=3.4 | | | | | | |
| **BRTR** | **Keskin Array B** | **151.50** | **302** | PKPbc | PKPbc | 07 26 03.8 | -1.4 |
| | 0.5nm,0.8s,baz=327,slow=7.6,SNR=2.5 | | | | | | |

*JMA **27** 07:08:54.9±0.2,23°.93N×122°.48E,h19km±4km,M2.3*
*ISCJB **27** 07:08:55.5±1.0,23°.98N±0°.07×122°.50E±0°.03,h24km±7km, Error ellipse: s-maj=12.6km s-min=4.2km az=6.4*
*TAP **27** 07:08:57.0,24°.04N×122°.40E,h17km±1km,ML2.9,D*

**ISC 27 07:08:55.0±1.7,23°.98N±0°.09×122°.48E±0°.03,h17km±11km, n15,σ0s36/25,Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JYNG** | **Yonagunijimaku** | **0.63** | **42** | P | **Pb** | **07 09 07.6** | **0.0** |
| JYNG | | | | S | **Sb** | **07 09 16.8** | **+0.6** |
| **YOJ** | **Yonaguni jima** | **0.68** | **45** | P | **Pb** | **07 09 08.5** | **+0.1** |
| **ENA** | **Nanau** | **0.81** | **303** | *e*P | **Pb** | **07 09 10.6** | **-0.1** |
| | baz=302 | | | | | | |
| ENA | | | | *e*S | **Sg** | **07 09 21.7** | **+0.1** |
| | baz=302 | | | | | | |
| **TWC** | **Suao** | **0.85** | **317** | *e*P | **Pb** | **07 09 11.1** | **-0.4** |
| | baz=318 | | | | | | |
| TWC | | | | *e*S | **Sg** | **07 09 22.9** | **0.0** |
| | baz=318 | | | | | | |
| **TWE** | **Neicheng** | **1.05** | **315** | *e*P | **Pb** | **07 09 14.4** | **-0.4** |
| | baz=315 | | | | | | |
| TWE | | | | *e*S | **Sb** | **07 09 28.5** | **+0.3** |
| | baz=315 | | | | | | |
| **ENTT** | **Nioudou** | **1.06** | **308** | *e*P | **Pg** | **07 09 15.8** | **+0.1** |
| | baz=308 | | | | | | |
| ENTT | | | | *e*S | **Sn** | **07 09 29.5** | **-0.2** |
| | baz=308 | | | | | | |
| **TWB1** | **Santiao Chiao** | **1.12** | **336** | *e*P | **Pb** | **07 09 16.1** | **+0.1** |
| | baz=339 | | | | | | |
| **WHF** | **Hehuan Shan** | **1.13** | **279** | *i* P | **Pn** | **07 09 16.7** | **+0.3** |
| | baz=275 | | | | | | |
| WHF | | | | *e*S | **Sg** | **07 09 31.1** | **-0.6** |
| | baz=275 | | | | | | |
| **IRIF** | **Iriomote-Funau** | **1.19** | **72** | P | **Pn** | **07 09 17.0** | **+0.1** |
| **HATJ** | **Hateruma jima** | **1.21** | **86** | P | **Pn** | **07 09 17.4** | **+0.2** |
| **NSK** | **Sanguang** | **1.24** | **304** | P | **Pb** | **07 09 18.6** | **+0.6** |
| | baz=303 | | | | | | |
| NSK | | | | *e*S | **Sb** | **07 09 33.6** | **-0.1** |
| | baz=303 | | | | | | |
| **NWF** | **Wu-fen Shan** | **1.26** | **330** | *e*P | **Pn** | **07 09 17.7** | **-0.2** |
| | baz=331 | | | | | | |
| NWF | | | | *e*S | **Sn** | **07 09 34.7** | **+0.1** |
| | baz=331 | | | | | | |
| **JKRS** | **Kuro-shima** | **1.42** | **79** | P | **Pn** | **07 09 20.3** | **+0.3** |
| **JIJ** | **Ishigaki jima** | **1.56** | **76** | P | **Pn** | **07 09 21.8** | **-0.2** |
| JIJ | | | | S | **Sn** | **07 09 41.5** | **-0.4** |
| **JISG** | **Ishigakijimahi** | **1.77** | **70** | P | **Pn** | **07 09 24.1** | **-0.8** |
| JISG | | | | S | **Sn** | **07 09 47.0** | **-0.1** |

*ISCJB **27** 07:25:37.2±0.3,39°.77N±0°.04×97°.52E±0°.04,h10km, mb4.1/26,MS3.9/2,Error ellipse: s-maj=5.1km s-min=4.1km az=2.1*
*IDC **27** 07:25:37.2±0.7,39°.72N×97°.53E,h0km,mb3.9/17, mb1 4.1/21,mb1mx4.0/59,mbtmp4.0/21,ML3.5/4,MS3.5/3, Ms1 3.5/3,ms1mx2.8/51,Error ellipse: s-maj=18.5km s-min=13.1km az=36.0*
*NEIC **27** 07:25:38.8±0.3,39°.75N×97°.42E,h10km,mb4.5/12, ML4.1(BJI),Error ellipse: s-maj=6.7km s-min=4.7km az=211.0*
*BJI **27** 07:25:39.0,39°.77N×97°.49E,h6km,mb4.1/4,ML4.1/15, Ms3.7/6,Ms7 3.5/4*

**ISC 27 07:25:40.4±0.4,39°.86N±0°.06×97°.44E±0°.04,h10km,n78, σ1s95/78,mb4.1/26,Gansu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GTA** | **Gaotai** | **1.89** | **103** | Pg | **Pn** | **07 26 12.3** | **-0.5** |
| GTA | | | | Sg | **Sn** | **07 26 36.0** | **-0.8** |
| GTA | | | | smax | smax | | |
| | comp=N,2μm,0.8s | | | | | | |
| GTA | | | | smax | smax | | |
| | comp=E,970nm,0.8s | | | | | | |
| **GTA** | **Gaotai** | **1.89** | **103** | Pg | **Pn** | **07 26 12.3** | **-0.5** |
| GTA | | | | Sg | **Sn** | **07 26 36.0** | **-0.8** |
| **LZH** | **Lanzhou** | **6.31** | **125** | Pg | **Pb** | **07 27 32.5** | **+2.1** |
| LZH | | | | Sg | **Sb** | **07 28 49.5** | **+3.5** |
| LZH | | | | smax | smax | | |
| | comp=N,110nm,0.8s | | | | | | |
| LZH | | | | smax | smax | | |
| | comp=E,110nm,0.6s | | | | | | |
| **LZH** | **Lanzhou** | **6.31** | **125** | Pg | **Pb** | **07 27 32.5** | **+2.1** |
| LZH | | | | Sg | **Sb** | **07 28 49.5** | **+3.5** |
| **WMQ** | **Urumqi** | **8.28** | **302** | P | **Pn** | **07 27 42.8** | **+2.3** |
| WMQ | | | | pP | pP | 07 27 45.5 | |
| WMQ | | | | sP | sP | 07 27 49.0 | |
| WMQ | | | | S | **Sn** | **07 29 20.0** | **+6.0** |
| WMQ | | | | LR | LR | | |
| | comp=N,64nm,14.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,180nm,17.5s | | | | | | |
| **WMQ** | **Urumqi** | **8.28** | **302** | P | **Pn** | **07 27 42.8** | **+2.3** |
| **SONA0** | **Songino Array** | **10.26** | **36** | *e*Pn | **Pn** | **07 28 08.2** | **+0.5** |
| SONA0 | | | | *e*Sn | **Sn** | **07 30 05.1** | **+2.4** |
| SONA0 | | | | *e*Lg | Lg | 07 31 05.1 | |
| SONA0 | | | | *e* | | 07 32 47.7 | |
| **SONM** | **Songino Array** | **10.26** | **36** | Pn | **Pn** | **07 28 08.2** | **+0.5** |
| | 1.7nm,0.3s,baz=220,slow=15,SNR=58 | | | | | | |
| SONM | | | | Sn | **Sn** | **07 30 05.1** | **+2.4** |
| | 1.4nm,0.3s,baz=216,slow=26,SNR=6.0 | | | | | | |
| SONM | | | | Lg | Lg | 07 31 05.1 | |
| | 1.2nm,0.3s,baz=206,slow=35,SNR=5.8 | | | | | | |
| SONM | | | | LR | LR | 07 32 47.7 | |
| | comp=Z,58nm,19.1s,baz=160,slow=42 | | | | | | |
| **SONA1** | **Songino Array** | **10.27** | **36** | *e*Pn | **Pn** | **07 28 08.4** | **+0.5** |
| SONA1 | | | | *e*Sn | **Sn** | **07 30 05.2** | **+2.1** |
| **ULN** | **Ulaanbaatar** | **10.58** | **38** | *e*Pn | **Pn** | **07 28 12.3** | **+0.2** |
| **MK01** | **Makanchi Array** | **12.99** | **307** | *e*Pn | Pn | 07 28 43.0 | -2.0 |
| MK01 | | | | *e*Sn | **Sn** | **07 31 09.3** | **-0.3** |
| **MK31** | **Makanchi Array** | **13.01** | **307** | *e*Pn | Pn | 07 28 43.4 | -1.8 |
| **MK32** | **Makanchi Array** | **13.01** | **307** | *e*Pn | Pn | 07 28 42.5 | -2.8 |
| **MKAR** | **Makanchi Array** | **13.01** | **307** | Pn | Pn | 07 28 42.5 | -2.8 |
| | 0.3nm,0.3s,baz=114,slow=14,SNR=20 | | | | | | |
| MKAR | | | | Lg | Lg | 07 32 34.5 | |
| | 0.1nm,0.3s,baz=109,slow=25,SNR=3.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **13.01** | **307** | *e*Pn | Pn | 07 28 43.4 | -1.8 |
| MKAR | | | | Lg | Lg | 07 32 34.5 | |
| **MAKZ** | **Makanchi** | **13.21** | **307** | *e*Pn | Pn | 07 28 46.2 | -1.8 |
| **GUN** | **Gumba** | **15.29** | **222** | *e*P | **Pn** | **07 29 20.0** | **+3.4** |
| | 38nm,0.5s | | | | | | |
| **JIRN** | **Jiri** | **15.33** | **221** | *e*P | **Pn** | **07 29 20.9** | **+3.7** |
| **ODAN** | **Odare** | **15.43** | **216** | *e*P | **Pn** | **07 29 21.8** | **+3.4** |
| | 51nm,0.5s | | | | | | |
| **KKN** | **Kakani** | **15.70** | **224** | *e*P | **Pn** | **07 29 24.7** | **+2.9** |
| | 48nm,0.8s | | | | | | |
| **RAMN** | **Ramite** | **15.72** | **218** | *e*P | **Pn** | **07 29 24.4** | **+2.2** |
| | 43nm,0.8s | | | | | | |
| **DMN** | **Daman** | **15.94** | **224** | *e*P | **Pn** | **07 29 26.6** | **+1.7** |
| | 24nm,0.8s | | | | | | |
| **ZAA0** | **Zalesovo Array** | **16.48** | **333** | *e*Pn | **Pn** | **07 29 31.8** | **+0.3** |
| | 10nm,0.8s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **16.48** | **333** | Pn | **Pn** | **07 29 32.4** | **+0.9** |
| | 0.4nm,0.3s,baz=146,slow=11,SNR=20 | | | | | | |
| ZALV | | | | Lg | Lg | 07 34 28.6 | |
| | 0.0nm,0.3s,baz=151,slow=21,SNR=3.9 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **16.48** | **333** | *e*Pn | **Pn** | **07 29 34.7** | **+3.2** |
| ZALV | | | | Lg | Lg | 07 34 28.6 | |
| **ZAA1** | **Zalesovo Array** | **16.48** | **333** | *e*Pn | **Pn** | **07 29 32.4** | **+0.9** |
| ZAA1 | | | | *e*PcP | **PcP** | **07 34 28.6** | **+5.8** |
| **KOLN** | **Koldanda** | **16.64** | **228** | *e*P | **Pn** | **07 29 33.8** | **-0.1** |
| | 18nm,0.8s | | | | | | |
| **PYUN** | **Piuthan** | **16.74** | **230** | *e*P | **Pn** | **07 29 35.1** | **-0.1** |
| | 77nm,0.8s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **17.07** | **315** | Pn | **Pn** | **07 29 37.8** | **-1.2** |
| | 0.1nm,0.3s,baz=122,slow=11,SNR=17 | | | | | | |
| KURBB | | | | Lg | Lg | 07 34 48.2 | |
| | 0.0nm,0.3s,baz=119,slow=25,SNR=4.2 | | | | | | |
| **KURK** | **Kurchatov** | **17.07** | **316** | *e*Pn | **Pn** | **07 29 37.0** | **-1.9** |
| | 17nm,1.0s | | | | | | |
| **AAK** | **Ala-Archa** | **17.46** | **287** | *e*Pn | Pn | 07 29 34.7 | -9.4 |
| | 5.3nm,1.0s | | | | | | |
| **CM31** | **Chiang Mai Arr** | **21.37** | **176** | *e*P | **P** | **07 30 25.8** | **-2.2** |
| **CMAR** | **Chiang Mai Arr** | **21.37** | **176** | P | **P** | **07 30 25.8** | **-2.2** |
| | 3.0nm,0.7s,baz=354,slow=9.4,SNR=7.7 | | | | | | |
| **CM01** | **Chiang Mai Arr** | **21.41** | **176** | *e*P | **P** | **07 30 27.0** | **-1.4** |
| **BVAR** | **Borovoye Array** | **22.65** | **314** | P | **P** | **07 30 41.6** | **+0.1** |
| | 4.3nm,0.7s,baz=108,slow=9.5,SNR=19 | | | | | | |
| **BRVK** | **Borovoye** | **22.72** | **315** | *e*P | **P** | **07 30 41.5** | **-0.8** |
| | 8.2nm,0.9s | | | | | | |
| **KS01** | **Wonju Array Si** | **23.85** | **86** | *e*P | **P** | **07 30 54.3** | **+0.6** |
| **KS15** | **Wonju Array Si** | **23.85** | **86** | *e*P | **P** | **07 30 52.3** | **-1.4** |
| **KSAR** | **Wonju Array Be** | **23.85** | **86** | P | **P** | **07 30 52.3** | **-1.4** |
| **KSRS** | **Korea Array** | **23.87** | **86** | P | **P** | **07 30 52.3** | **-1.6** |
| | 2.6nm,0.6s,baz=282,slow=8.8,SNR=12 | | | | | | |
| **KLR** | **Kul'dur** | **25.99** | **57** | P | **P** | **07 31 12.9** | **-0.2** |
| | 0.1nm,0.9s,baz=300,slow=20,SNR=2.9 | | | | | | |
| **TIXI** | **Tiksi** | **35.55** | **17** | *e*P | **P** | **07 32 35.9** | **-1.3** |
| | 5.2nm,0.9s | | | | | | |
| **FIA1** | **FINESS Array S** | **47.30** | **322** | *e*P | **P** | **07 34 14.0** | **+0.3** |
| **FIA0** | **FINESS Array S** | **47.30** | **322** | *e*P | **P** | **07 34 12.7** | **-1.0** |
| **FINES** | **FINESS Array B** | **47.30** | **322** | P | **P** | **07 34 12.7** | **-1.0** |
| | 3.2nm,0.7s,baz=94,slow=7.6,SNR=6.8 | | | | | | |
| **AKASG** | **Malin Array Be** | **47.59** | **307** | P | **P** | **07 34 15.8** | **-0.3** |
| | 2.1nm,0.8s,baz=64,slow=7.8,SNR=4.4 | | | | | | |
| **AKBB** | **Malin Array Si** | **47.59** | **307** | *e*P | **P** | **07 34 15.8** | **-0.3** |
| | 26nm,1.7s | | | | | | |
| **BR101** | **Keskin Array S** | **48.05** | **291** | *e*P | **P** | **07 34 19.9** | **0.0** |
| **BRTR** | **Keskin Array B** | **48.05** | **291** | P | **P** | **07 34 19.9** | **-0.1** |
| | 1.4nm,0.8s,baz=92,slow=8.7,SNR=5.3 | | | | | | |
| BRTR | | | | LR | LR | 07 56 00.5 | |
| | comp=Z,82nm,18.5s,baz=252,slow=38 | | | | | | |
| **NC405** | **NORSAR Array S** | **54.13** | **323** | *e*P | **P** | **07 35 04.7** | **-0.5** |
| **NB2** | **NORSAR Subarra** | **54.38** | **323** | P | **P** | **07 35 06.2** | **-0.9** |
| | comp=Z,55nm,2.5s,baz=81,slow=7.4 | | | | | | |
| **NB2** | **NORSAR Subarra** | **54.38** | **323** | P | **P** | **07 35 06.2** | **-0.9** |
| | baz=81,slow=7.4 | | | | | | |
| **NB200** | **NORSAR Array S** | **54.38** | **323** | *e*P | **P** | **07 35 06.5** | **-0.6** |
| **NOA** | **NORSAR Array B** | **54.38** | **323** | P | **P** | **07 35 06.5** | **-0.6** |
| | comp=Z,0.9nm,0.5s,baz=68,slow=7.2,SNR=3.3 | | | | | | |
| **DIVS** | **Divbare** | **55.72** | **302** | *e*P | **P** | **07 35 16.1** | **-1.0** |
| | comp=Z,14nm,1.5s | | | | | | |
| **CLL** | **Collm** | **57.05** | **312** | *e*P | **P** | **07 35 26.0** | **-0.3** |
| **GERES** | **GERESS Array B** | **57.67** | **309** | P | **P** | **07 35 30.4** | **-0.4** |
| | comp=Z,0.3nm,0.6s,baz=100,slow=4.7,SNR=3.5 | | | | | | |
| **GEA0** | **GERESS Array S** | **57.67** | **309** | *e*P | **P** | **07 35 31.3** | **+0.4** |
| **DAVOX** | **Davos/Dischmat** | **60.90** | **308** | LR | LR | 08 03 52.8 | |
| | comp=Z,96nm,18.5s,baz=230,slow=38 | | | | | | |
| **KTH** | **Kantishna Hill** | **63.66** | **28** | *e*P | **P** | **07 36 11.6** | **+0.2** |
| | comp=Z,23nm,1.3s | | | | | | |
| **BNI** | **Bardonecchia** | **63.70** | **308** | *e*P | P | 07 36 09.4 | -2.7 |
| | comp=Z,25nm,1.6s | | | | | | |
| **ILAR** | **Eielson Array** | **64.28** | **25** | P | **P** | **07 36 14.0** | **-1.5** |
| | comp=Z,0.8nm,0.9s,baz=277,slow=4.7,SNR=8.3 | | | | | | |
| **ILB** | **Eielson Array** | **64.28** | **25** | *e*P | **P** | **07 36 14.0** | **-1.5** |
| **INK** | **Inuvik** | **65.64** | **18** | P | **P** | **07 36 23.4** | **-0.7** |
| | comp=Z,3.1nm,0.8s,baz=340,slow=9.1,SNR=12 | | | | | | |
| **INK** | **Inuvik** | **65.64** | **18** | *e*P | **P** | **07 36 23.8** | **-0.3** |
| | comp=Z,5.7nm,1.0s | | | | | | |
| **WR1** | **Warramunga Arr** | **68.74** | **143** | *e*P | **P** | **07 36 41.6** | **-2.9** |
| | comp=Z,25nm,1.7s | | | | | | |
| **WRA** | **Warramunga Arr** | **68.74** | **143** | P | **P** | **07 36 41.6** | **-2.9** |
| | comp=Z,1.0nm,0.8s,baz=346,slow=5.8,SNR=4.7 | | | | | | |
| **AS31** | **Alice Springs** | **71.78** | **145** | *e*P | **P** | **07 37 00.7** | **-2.3** |
| | comp=Z,1.9nm,1.4s | | | | | | |
| **ASAR** | **Alice Springs** | **71.78** | **145** | P | **P** | **07 37 00.7** | **-2.3** |
| | comp=Z,0.6nm,0.6s,baz=338,slow=6.0,SNR=12 | | | | | | |
| **AS01** | **Alice Springs** | **71.80** | **145** | *e*P | **P** | **07 37 01.0** | **-2.2** |
| **ESDC** | **Sonseca Array** | **73.23** | **308** | P | **P** | **07 37 10.9** | **-0.8** |
| | comp=Z,0.5nm,0.5s,baz=55,slow=5.8,SNR=5.0 | | | | | | |
| **YKA** | **Yellowknife Ar** | **74.78** | **15** | P | **P** | **07 37 18.9** | **-1.3** |
| | comp=Z,1.0nm,0.8s,baz=334,slow=5.9,SNR=14 | | | | | | |
| **YKB5** | **Yellowknife Ar** | **74.78** | **15** | *e*P | **P** | **07 37 19.8** | **-0.4** |
| **SCHQ** | **Schefferville** | **84.72** | **351** | P | **P** | **07 38 13.1** | **-1.2** |
| | comp=Z,3.3nm,0.7s,baz=45,slow=7.6,SNR=3.5 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **86.03** | **284** | *e*P | **P** | **07 38 20.2** | **-1.3** |
| **TORD** | **Torodi Ar. Bea** | **86.03** | **284** | P | **P** | **07 38 20.2** | **-1.3** |
| | comp=Z,0.4nm,0.7s,baz=46,slow=4.0,SNR=2.8 | | | | | | |
| **PDAR** | **Pinedale Array** | **94.19** | **20** | P | P | 07 38 57.2 | -2.6 |
| | comp=Z,0.3nm,0.7s,baz=2.8,slow=5.5,SNR=3.3 | | | | | | |
| **TUMC** | **Tumaco** | **138.37** | **354** | *e*PKPdf | **PKPdf** | **07 45 03.1** | **-3.4** |

*TEH **27** 07:26:22.7,36°.28N×59°.07E,h8km,ML3.7*
*IDC **27** 07:26:22.6±1.0,36°.14N×58°.99E,h0km,mb3.7/14, mb1 3.9/16,mb1mx3.8/47,mbtmp3.8/16,ML3.1/2,Error ellipse: s-maj=22.7km s-min=15.7km az=1.0*
*ISCJB **27** 07:26:23.6±0.3,36°.38N±0°.04×59°.14E±0°.04,h10km, mb3.8/11,Error ellipse: s-maj=5.6km s-min=4.1km az=32.2*
*CSEM **27** 07:26:24.3±0.2,36°.32N×59°.11E,h2km,ML3.7,Error ellipse: s-maj=8.5km s-min=4.3km az=49.0*
*THR **27** 07:26:24.8±0.8,36°.20N×58°.98E,h14km±10km,ML3.5*

**ISC 27 07:26:23.8±0.6,36°.30N±0°.03×59°.11E±0°.03,h10km,n55, σ2s00/58,mb3.8/11,Iran-Turkmenistan border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **IPAY** | **Payeh** | **0.17** | **329** | *e*Pg | **Pg** | **07 26 27.9** | **+0.2** |
| IPAY | | | | *e*AMB | AMB | 07 26 31.1 | |
| | comp=Z,2193μm,0.1s | | | | | | |
| **IPAY** | **Payeh** | **0.17** | **329** | *e*Pg | **Pg** | **07 26 27.9** | **+0.2

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| KHMZ | **Khomeyn** | | **7.93** | **254** | *e*Pn | **Pn** | **07 28 20.5** | **+1.2** |
| **GNI** | **Garni** | | **11.93** | **293** | Pn | **Pn** | **07 29 15.6** | **+1.5** |
| | comp=Z,0.9nm,0.3s,baz=90,slow=14,SNR=2.2 | | | | | | | |
| **WSAR** | **Wadi Sarin** | | **13.02** | **182** | Sn | **Sn** | **07 31 50.0** | **-3.9** |
| | comp=Z,0.2nm,0.3s,baz=0.0,slow=1.0,SNR=2.1 | | | | | | | |
| **AAK** | **Ala-Archa** | | **13.46** | **57** | Pn | **Pn** | **07 29 35.4** | **+0.4** |
| | comp=Z,0.7nm,0.3s,baz=215,slow=6.8,SNR=9.1 | | | | | | | |
| AAK | | | | | Sn | **Sn** | **07 32 05.5** | **+0.8** |
| | comp=Z,0.4nm,0.3s,baz=150,slow=20,SNR=2.8 | | | | | | | |
| **AKTO** | **Aktyubinsk** | | **14.15** | **357** | Pn | **Pn** | **07 29 43.4** | **-0.9** |
| | comp=Z,0.3nm,0.3s,baz=175,slow=11,SNR=4.6 | | | | | | | |
| AKTO | | | | | Sn | **Sn** | **07 32 15.8** | **-5.5** |
| | comp=Z,0.2nm,0.3s,baz=262,slow=9.3,SNR=5.4 | | | | | | | |
| KURBB | **Kurchatov Arra** | | **20.01** | **38** | P | Pn | 07 30 58.8 | +0.6 |
| | comp=Z,0.7nm,0.7s,baz=237,slow=11,SNR=2.3 | | | | | | | |
| **ARU** | **Arti** | | **20.14** | **359** | P | Pn | 07 31 00.0 | +0.3 |
| | comp=Z,1.6nm,0.3s,baz=94,slow=19,SNR=2.4 | | | | | | | |
| **MKAR** | **Makanchi Array** | | **20.20** | **52** | P | Pn | 07 30 59.8 | -0.8 |
| | comp=Z,2.0nm,0.8s,baz=224,slow=6.0,SNR=3.9 | | | | | | | |
| **BRTR** | **Keskin Array B** | | **20.33** | **287** | P | Pn | 07 31 01.1 | -1.3 |
| | comp=Z,1.1nm,0.8s,baz=94,slow=7.4,SNR=3.4 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | | **25.09** | **37** | P | **P** | **07 31 50.0** | **+1.6** |
| | comp=Z,0.6nm,0.4s,baz=236,slow=9.8,SNR=3.0 | | | | | | | |
| AKASG | **Malin Array Be** | | **25.80** | **313** | P | **P** | **07 31 57.0** | **+2.1** |
| | comp=Z,2.4nm,0.7s,baz=109,slow=8.7,SNR=7.4 | | | | | | | |
| **MLR** | **Muntele Rosu** | | **26.54** | **301** | P | **P** | **07 32 04.9** | **+3.1** |
| | comp=Z,1.0nm,0.8s,baz=268,slow=3.0,SNR=8.0 | | | | | | | |
| **FINES** | **FINESS Array B** | | **32.61** | **331** | P | **P** | **07 32 56.7** | **+1.4** |
| | comp=Z,1.7nm,0.8s,baz=123,slow=15,SNR=2.8 | | | | | | | |
| ARCES | **ARCESS Array B** | | **37.96** | **342** | P | **P** | **07 33 41.8** | **+0.5** |
| | comp=Z,4.7nm,1.0s,baz=107,slow=27,SNR=3.4 | | | | | | | |
| **NOA** | **NORSAR Array B** | | **38.87** | **325** | P | **P** | **07 33 49.1** | **0.0** |
| | comp=Z,2.8nm,1.0s,baz=134,slow=7.6,SNR=3.0 | | | | | | | |
| **ESDC** | **Sonseca Array** | | **48.91** | **294** | P | **P** | **07 35 11.3** | **+1.2** |
| | comp=Z,0.4nm,0.3s,baz=79,slow=7.7,SNR=5.4 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | | **56.15** | **261** | P | **P** | **07 36 02.3** | **-1.6** |
| | comp=Z,0.4nm,0.4s,baz=57,slow=6.1,SNR=7.3 | | | | | | | |
| **YKA** | **Yellowknife Ar** | | **81.42** | **357** | P | **P** | **07 38 41.3** | **+0.8** |
| | comp=Z,0.6nm,0.9s,baz=1.2,slow=5.6,SNR=6.5 | | | | | | | |
| **WRA** | **Warramunga Arr** | | **90.35** | **115** | P | **P** | **07 39 26.9** | **+1.5** |
| | comp=Z,0.4nm,0.8s,baz=321,slow=4.3,SNR=3.3 | | | | | | | |
| **ASAR** | **Alice Springs** | | **92.35** | **118** | P | **P** | **07 39 35.1** | **+0.4** |
| | comp=Z,0.2nm,0.6s,baz=316,slow=5.5,SNR=3.9 | | | | | | | |

*ATH* ***27*** *07:33:21.0, 39.°27N×26.°18E, h16km±1km, ML2.6/7, Error ellipse: s-maj=2.0km s-min=1.1km az=250.0*
*DDA* ***27*** *07:33:20.1, 39.°23N×26.°12E, h7km, Ml3.2*
*ISK* ***27*** *07:33:20.7, 39.°26N×26.°13E, h5km, ML2.8*
*ISCJB* ***27*** *07:33:21.5±0.4, 39.°23N±0.°02×26.°13E±0.°03, h7km±3km, Error ellipse: s-maj=4.2km s-min=2.7km az=172.3*
*CSEM* ***27*** *07:33:21.7±0.2, 39.°25N×26.°11E, h5km, ML2.6, Error ellipse: s-maj=4.5km s-min=3.0km az=80.0*

**ISC 27 07:33:21.3±0.8, 39°24N±0.°02×26°13E±0.°02, h11km±5km, n73, σ0s98/109, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PRK** | **Paraskevi** | **0.11** | **88** | P | **Pg** | **07 33 23.8** | **-0.3** |
| PRK | | | | S | **Sg** | **07 33 26.0** | **-0.1** |
| PRK | | | | AML | AML | 07 33 26.4 | |
| | comp=E,17287μm,0.4s | | | | | | |
| PRK | | | | AML | AML | 07 33 27.9 | |
| | comp=N,9346μm,0.3s | | | | | | |
| **PRK** | **Paraskevi** | **0.11** | **88** | P | **Pg** | **07 33 23.8** | **-0.3** |
| PRK | | | | S | **Sg** | **07 33 26.0** | **-0.1** |
| **SIGR** | **SIGRI** | **0.22** | **262** | *e*PG | **Pg** | **07 33 26.1** | **+0.3** |
| SIGR | | | | *e*SG | **Sg** | **07 33 30.0** | **+1.1** |
| **SIGR** | **SIGRI** | **0.22** | **262** | P | **Pg** | **07 33 26.2** | **+0.3** |
| SIGR | | | | S | **Sg** | **07 33 29.4** | **+0.5** |
| SIGR | | | | AML | AML | 07 33 30.1 | |
| | comp=E,6112μm,0.2s | | | | | | |
| SIGR | | | | AML | AML | 07 33 30.2 | |
| | comp=N,6007μm,0.2s | | | | | | |
| **SIGR** | **SIGRI** | **0.22** | **262** | P | **Pg** | **07 33 26.2** | **+0.3** |
| SIGR | | | | S | **Sg** | **07 33 29.4** | **+0.5** |
| SIGR | | | | *e*Sg | Sg | 07 33 30.0 | +1.1 |
| **BAYC** | **CANAKKALE_Bayr** | **0.59** | **33** | *i* P | **Pg** | **07 33 32.7** | **-0.1** |
| BAYC | | | | *i* S | **Sb** | **07 33 42.7** | **+0.6** |
| **BAYC** | **CANAKKALE_Bayr** | **0.59** | **33** | P | **Pg** | **07 33 32.7** | **-0.1** |
| BAYC | | | | S | **Sb** | **07 33 42.7** | **+0.6** |
| **BOZC** | **Bozcaada** | **0.60** | **354** | *e*PG | **Pb** | **07 33 33.1** | **-0.7** |
| BOZC | | | | *e*SG | **Sb** | **07 33 42.3** | **-0.1** |
| **BOZC** | **Bozcaada** | **0.60** | **354** | *i* P | **Pb** | **07 33 33.0** | **-0.8** |
| BOZC | | | | *i* S | **Sb** | **07 33 41.9** | **-0.5** |
| **BOZC** | **Bozcaada** | **0.60** | **354** | *e*Pg | **Pb** | **07 33 33.2** | **-0.7** |
| BOZC | | | | *e*Sg | **Sb** | **07 33 42.3** | **-0.1** |
| **EZN** | **Ezine** | **0.60** | **14** | *e*PG | **Pb** | **07 33 33.2** | **-0.6** |
| EZN | | | | *e*SG | **Sb** | **07 33 42.4** | **0.0** |
| **EZN** | **Ezine** | **0.60** | **14** | *e*Pg | **Pb** | **07 33 33.2** | **-0.6** |
| EZN | | | | *e*Sg | **Sb** | **07 33 42.4** | **0.0** |
| **CHOS** | **Chios island** | **0.86** | **184** | *e*PG | **Pb** | **07 33 38.6** | **+0.5** |
| **CHOS** | **Chios island** | **0.86** | **184** | P | **Pb** | **07 33 38.5** | **+0.3** |
| CHOS | | | | S | **Sb** | **07 33 49.8** | **+0.1** |
| **CHOS** | **Chios island** | **0.86** | **184** | P | **Pb** | **07 33 38.5** | **+0.3** |
| CHOS | | | | S | **Sb** | **07 33 49.8** | **+0.1** |
| **URLA** | **Izmir** | **0.95** | **157** | *e*PG | **Pb** | **07 33 40.0** | **+0.2** |
| **URLA** | **Izmir** | **0.95** | **157** | *i* P | **Pg** | **07 33 38.8** | **-0.8** |
| URLA | | | | *i* S | **Sg** | **07 33 51.7** | **-0.3** |
| **URLA** | **Izmir** | **0.95** | **157** | P | **Pg** | **07 33 38.8** | **-0.8** |
| **URLA** | **Izmir** | **0.95** | **157** | *e*Pg | **Pb** | **07 33 40.0** | **+0.2** |
| URLA | | | | S | **Sg** | **07 33 51.7** | **-0.3** |
| **GADA** | **Gvkgeada** | **0.96** | **349** | *e*PG | **Pb** | **07 33 40.2** | **+0.2** |
| **GADA** | **Gvkgeada** | **0.96** | **349** | *e*Pg | **Pb** | **07 33 40.2** | **+0.2** |
| **LIA** | **Limnos Island** | **0.98** | **312** | P | **Pn** | **07 33 41.0** | **0.0** |
| LIA | | | | S | **Sn** | **07 33 54.1** | **-0.8** |
| LIA | | | | AML | AML | 07 33 55.3 | |
| | comp=E,1042μm,0.3s | | | | | | |
| LIA | | | | AML | AML | 07 33 55.3 | |
| | comp=N,959μm,0.5s | | | | | | |
| **LIA** | **Limnos Island** | **0.98** | **312** | P | **Pn** | **07 33 41.0** | **0.0** |
| LIA | | | | S | **Sn** | **07 33 54.1** | **-0.8** |
| **ZEY** | **¯zmir** | **1.04** | **164** | *i* P | **Pg** | **07 33 40.3** | **-1.0** |
| ZEY | | | | *i* S | **Sg** | **07 33 54.5** | **-0.4** |
| **GELI** | **Tayfur-Gelibol** | **1.19** | **13** | *e*PN | **Pn** | **07 33 43.8** | **0.0** |
| **GELI** | **Tayfur-Gelibol** | **1.19** | **13** | *e*Pn | **Pn** | **07 33 43.8** | **0.0** |
| **LPK** | **Lapseki** | **1.23** | **23** | *e*PN | **Pn** | **07 33 44.6** | **+0.2** |
| **LPK** | **Lapseki** | **1.23** | **23** | *e*Pn | **Pn** | **07 33 44.6** | **+0.2** |
| **BALY** | **Balya** | **1.25** | **66** | *i* P | **Pg** | **07 33 46.4** | **+0.9** |
| BALY | | | | *i* S | **Sn** | **07 34 01.9** | **+0.2** |
| **BALY** | **Balya** | **1.25** | **66** | P | **Pg** | **07 33 46.3** | **+0.9** |
| BALY | | | | S | **Sn** | **07 34 01.9** | **+0.2** |
| **SMTH** | **Samothraki Isl** | **1.31** | **340** | P | **Pb** | **07 33 45.7** | **-0.2** |
| SMTH | | | | AML | AML | 07 34 04.6 | |
| SMTH | | | | AML | AML | 07 34 05.0 | |
| | comp=N,589μm,0.2s | | | | | | |
| SMTH | | | | S | **Sn** | **07 34 05.4** | **+2.3** |
| **SMTH** | **Samothraki Isl** | **1.31** | **340** | P | **Pb** | **07 33 45.7** | **-0.2** |
| SMTH | | | | S | **Sn** | **07 34 05.4** | **+2.3** |
| **DGB** | **¯zmir** | **1.32** | **153** | *i* P | **Pn** | **07 33 44.2** | **-1.5** |
| DGB | | | | *i* S | **Sb** | **07 34 01.4** | **-1.7** |
| **BALB** | **Balikesir** | **1.41** | **73** | *e*PN | **Pg** | **07 33 48.4** | **0.0** |
| **BALB** | **Balikesir** | **1.41** | **73** | *e*Pn | **Pg** | **07 33 48.4** | **0.0** |
| **GONE** | **Gonen-Balikesi** | **1.45** | **56** | *e*PN | **Pg** | **07 33 49.1** | **+0.1** |
| **GONE** | **Gonen-Balikesi** | **1.45** | **56** | *e*Pn | **Pg** | **07 33 49.1** | **+0.1** |
| **ERIK** | **Erikli-Kesan** | **1.46** | **11** | *e*PN | **Pg** | **07 33 48.5** | **-0.7** |
| **ERIK** | **Erikli-Kesan** | **1.46** | **11** | *e*Pn | **Pg** | **07 33 48.5** | **-0.7** |
| **KRBG** | **Karabiga-Canak** | **1.46** | **38** | *e*PN | **Pg** | **07 33 48.6** | **-0.7** |
| **KRBG** | **Karabiga-Canak** | **1.46** | **38** | *e*Pn | **Pg** | **07 33 48.6** | **-0.7** |
| **ENEZ** | **Enez** | **1.49** | **1** | *e*PN | **Pg** | **07 33 49.4** | **-0.6** |
| **ENEZ** | **Enez** | **1.49** | **1** | *e*Pn | **Pg** | **07 33 49.4** | **-0.6** |
| **SMG** | **Samos** | **1.63** | **160** | P | **Pg** | **07 33 52.3** | **-0.2** |
| SMG | | | | S | **Sg** | **07 34 14.3** | **+0.7** |
| SMG | | | | AML | AML | 07 34 15.4 | |
| | comp=N,374μm,0.4s | | | | | | |
| SMG | | | | AML | AML | 07 34 15.6 | |
| | comp=E,342μm,0.5s | | | | | | |
| **SMG** | **Samos** | **1.63** | **160** | P | **Pg** | **07 33 52.3** | **-0.2** |
| SMG | | | | S | **Sg** | **07 34 14.3** | **+0.7** |
| **KESN** | **Edirne-Kesan** | **1.64** | **15** | *i* P | **Pn** | **07 33 50.8** | **+0.4** |
| KESN | | | | *i* S | **Sn** | **07 34 11.4** | **-0.2** |
| **KESN** | **Edirne-Kesan** | **1.64** | **15** | P | **Pn** | **07 33 50.8** | **+0.4** |
| KESN | | | | S | **Sn** | **07 34 11.4** | **-0.2** |
| **RKY** | **Sarkoy-Tekirda** | **1.65** | **29** | *e*PN | **Pb** | **07 33 51.8** | **0.0** |
| **RKY** | **Sarkoy-Tekirda** | **1.65** | **29** | *e*Pn | **Pb** | **07 33 51.8** | **0.0** |
| **ALN** | **Alexandroupoli** | **1.66** | **358** | P | **Pn** | **07 33 49.5** | **-0.7** |
| ALN | | | | S | **Sg** | **07 34 13.8** | **-0.6** |
| ALN | | | | AML | AML | 07 34 15.0 | |
| | comp=E,61μm,0.2s | | | | | | |
| ALN | | | | AML | AML | 07 34 15.9 | |
| | comp=N,109μm,0.5s | | | | | | |
| **ALN** | **Alexandroupoli** | **1.66** | **358** | P | **Pn** | **07 33 49.5** | **-0.7** |
| ALN | | | | S | **Sg** | **07 34 13.9** | **-0.6** |
| **SART** | **Tekirdag** | **1.66** | **29** | *i* P | **Pn** | **07 33 50.5** | **+0.2** |
| SART | | | | *i* S | **Sb** | **07 34 13.1** | **+0.4** |
| **SART** | **Tekirdag** | **1.66** | **29** | P | **Pn** | **07 33 50.5** | **+0.2** |
| SART | | | | S | **Sb** | **07 34 13.1** | **+0.4** |
| **EDC** | **Edincik** | **1.73** | **50** | *e*PN | **Pb** | **07 33 53.4** | **+0.3** |
| **EDC** | **Edincik** | **1.73** | **50** | *e*Pn | **Pb** | **07 33 53.4** | **+0.3** |
| **RDO** | **Rodhopi** | **1.96** | **347** | P | **Pn** | **07 33 54.0** | **-0.4** |
| RDO | | | | S | **Sn** | **07 34 19.9** | **+1.0** |
| RDO | | | | AML | AML | 07 34 28.6 | |
| | comp=E,42μm,0.2s | | | | | | |
| RDO | | | | AML | AML | 07 34 31.2 | |
| | comp=N,45μm,0.2s | | | | | | |
| **RDO** | **Rodhopi** | **1.96** | **347** | P | **Pn** | **07 33 54.0** | **-0.4** |
| RDO | | | | S | **Sn** | **07 34 19.9** | **+1.0** |
| **AYDN** | **Tasoluk** | **2.09** | **138** | *i* P | **Pn** | **07 33 54.6** | **-1.7** |
| AYDN | | | | *i* S | **Sn** | **07 34 24.1** | **+1.8** |
| **AYDN** | **Tasoluk** | **2.09** | **138** | P | **Pn** | **07 33 54.6** | **-1.7** |
| AYDN | | | | S | **Sn** | **07 34 24.1** | **+1.8** |
| **KULA** | **Kula-Manisa** | **2.10** | **109** | *e*PN | **Pb** | **07 33 58.7** | **-0.8** |
| **KULA** | **Kula-Manisa** | **2.10** | **109** | *e*Pn | **Pb** | **07 33 58.7** | **-0.8** |
| **SBT3** | **Marmara-Eregli** | **2.17** | **40** | *e*PN | **Pb** | **07 33 59.0** | **-1.4** |
| **SBT3** | **Marmara-Eregli** | **2.17** | **40** | *e*Pn | **Pb** | **07 33 59.0** | **-1.4** |
| **SBT2** | **Guzelce-Avcila** | **2.45** | **47** | *e*PN | **Pn** | **07 34 03.1** | **+2.0** |
| **SBT2** | **Guzelce-Avcila** | **2.45** | **47** | *e*Pn | **Pn** | **07 34 03.1** | **+2.0** |
| **ARMT** | **Armutlu** | **2.48** | **57** | *e*PN | **Pb** | **07 34 04.3** | **-1.6** |
| **ARMT** | **Armutlu** | **2.48** | **57** | *e*Pn | **Pb** | **07 34 04.3** | **-1.6** |
| **EDRB** | **Edirne** | **2.64** | **10** | *e*PN | **Pb** | **07 34 06.1** | **-2.5** |
| **EDRB** | **Edirne** | **2.64** | **10** | *e*Pn | **Pb** | **07 34 06.1** | **-2.5** |
| **CTYL** | **Yalikoy Yolu** | **2.77** | **36** | *e*PN | **Pn** | **07 34 08.0** | **+2.4** |
| **CTYL** | **Yalikoy Yolu** | **2.77** | **36** | *e*Pn | **Pn** | **07 34 08.0** | **+2.4** |
| **CAVI** | **Cavuskoy** | **3.02** | **70** | *e*PN | **Pn** | **07 34 11.2** | **+2.2** |
| **CAVI** | **Cavuskoy** | **3.02** | **70** | *e*Pn | **Pn** | **07 34 11.2** | **+2.2** |

*NIED* ***27*** *07:33:00, 38.°20N×142.°20E, h32km, Mw4.2 Best double couple: M0 2.01000×10^15 NP1:φs 311.00000°, δ 15.00000°, λ -133.00000°. NP2:φs 176.00000°, δ 79.00000°, λ -80.00000°.*
*ISCJB* ***27*** *07:33:31.9±0.8, 38.°27N±0.°03×142.°12E±0.°03, h31km±5km, mb4.4/80, MS3.3/4, Error ellipse: s-maj=5.3km s-min=3.5km az=142.5*
*MOS* ***27*** *07:33:32.7±0.9, 38.°37N×142.°08E, h37km, mb4.8/27, Error ellipse: s-maj=7.8km s-min=5.7km az=89.5*
*JMA* ***27*** *07:33:32.4±0.1, 38.°28N×142.°13E, h36km±1km, M4.3*
*JMA Felt II J1.*
*IDC* ***27*** *07:33:34.5±1.8, 38.°25N×142.°13E, h43km±16km, mb4.0/31, mb1 4.2/38, mb1mx4.1/56, mbtmp4.3/38, ML3.7/7, MS3.3/5, Ms1 3.4/5, ms1mx3.0/37, Error ellipse: s-maj=13.5km s-min=11.5km az=121.0*
*NEIC* ***27*** *07:33:35.4±0.5, 38.°25N×142.°09E, h46km±4km, mb4.6/38, Error ellipse: s-maj=5.1km s-min=3.8km az=138.0*
*NEIC Recorded [2 JMA] in Iwate and Miyagi.*

**ISC 27 07:33:33.8±0.7, 38°28N±0.°04×142°18E±0.°04, h35km±2km, n214, σ1s51/215, mb4.5/85, MS3.4/4, 10C-5D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JIO** | **Ouri** | **0.68** | **285** | P | **Pn** | **07 33 45.0** | **-1.9** |
| JIO | | | | S | **Sn** | **07 33 53.6** | **-2.6** |
| **OFUJ** | **Ofunato** | **0.89** | **333** | P | **Pn** | **07 33 48.2** | **-1.6** |
| OFUJ | | | | S | **Sn** | **07 33 59.5** | **-2.1** |
| **JMK** | **Ichinoseki** | **1.01** | **312** | P | **Pn** | **07 33 50.1** | **-1.3** |
| JMK | | | | *e*S | **Sn** | **07 34 02.7** | **-1.7** |
| **JMM** | **Marumori** | **1.17** | **250** | P | **Pn** | **07 33 51.6** | **-2.1** |
| JMM | | | | S | **Sn** | **07 34 05.5** | **-3.0** |
| **JOU** | **Okura** | **1.20** | **274** | P | **Pn** | **07 33 53.0** | **-1.1** |
| JOU | | | | *e*S | **Sn** | **07 34 07.9** | **-1.2** |
| **JOM** | **Ohasama** | **1.38** | **330** | P | **Pn** | **07 33 55.7** | **-0.8** |
| JOM | | | | *e*S | **Sn** | **07 34 12.5** | **-1.0** |
| **JFK** | **Kawauchi** | **1.38** | **229** | P | **Pn** | **07 33 54.1** | **-2.5** |
| JFK | | | | S | **Sn** | **07 34 09.9** | **-3.8** |
| **JYK** | **Kaneyama** | **1.56** | **294** | P | **Pn** | **07 33 58.2** | **-0.9** |
| **JRG** | **Rokugo** | **1.64** | **313** | P | **Pn** | **07 33 59.5** | **-0.7** |
| **JFT** | **Otama** | **1.65** | **243** | P | **Pn** | **07 33 59.0** | **-1.3** |
| JFT | | | | S | **Sn** | **07 34 19.0** | **-1.2** |
| **JYS** | **Shirataka** | **1.67** | **269** | P | **Pn** | **07 33 59.4** | **-1.1** |
| **MJAR** | **Matsushiro Arr** | **3.61** | **242** | P | **Pn** | **07 34 27.6** | **+0.3** |
| | 11nm,0.3s,baz=62,slow=11,SNR=37 | | | | | | |
| MJAR | | | | S | **Sn** | **07 35 12.3** | **+3.6** |
| | 3.4nm,0.3s,baz=224,slow=30,SNR=2.8 | | | | | | |
| **MAJO** | **Matsushiro** | **3.61** | **242** | *i* P | **Pn** | **07 34 27.1** | **-0.2** |
| **MAJO** | **Matsushiro** | **3.61** | **242** | *e*Pn | **Pn** | **07 34 27.5** | **+0.2** |
| **MAT** | **Matsushiro** | **3.61** | **242** | P | **Pn** | **07 34 26.9** | **-0.4** |
| MAT | | | | S | **Sn** | **07 35 09.5** | **+0.8** |
| **MJB9** | **Matsu-Tunnel** | **3.61** | **243** | *e*Pn | **Pn** | **07 34 27.7** | **+0.4** |
| **ERM** | **Erimo** | **3.80** | **11** | *e*P | **Pn** | **07 34 29.8** | **0.0** |
| **ERM** | **Erimo** | **3.80** | **11** | *e*Pn | **Pn** | **07 34 30.4** | **+0.6** |
| **INU** | **Inuyama** | **5.08** | **236** | *e*Pn | **Pn** | **07 34 48.7** | **+1.3** |
| **JHJ2** | **Mitsune** | **5.51** | **201** | *e*Pn | **Pn** | **07 34 52.1** | **-1.2** |
| **JHJ** | **Hachijo jima 2** | **5.51** | **201** | P | **Pn** | **07 34 51.7** | **-1.7** |
| | 31nm,0.3s,baz=74,slow=20,SNR=5.2 | | | | | | |
| JHJ | | | | S | **Sn** | **07 35 51.9** | **-3.6** |
| | 40nm,0.3s,baz=69,slow=22,SNR=5.9 | | | | | | |
| **ASAJ** | **Asahikawa** | **5.84** | **3** | P | **Pn** | **07 34 57.9** | **+0.2** |
| | 4.8nm,0.3s,baz=208,slow=14,SNR=12 | | | | | | |
| **ASAJ** | **Asahikawa** | **5.84** | **3** | *e*Pn | **Pn** | **07 34 58.8** | **+1.0** |
| **YUK** | **Yuzh-Kuril'sk** | **6.38** | **25** | *e*P | **Pn** | **07 35 04.4** | **-0.8** |
| YUK | | | | *i* S | **Sn** | **07 36 11.2** | **-5.6** |
| YUK | | | | pmax | pmax | | |
| | comp=N,18nm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=E,30nm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=Z,91nm,0.2s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=E,281nm,0.4s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,576nm,0.3s | | | | | | |
| **SHO** | **Shikotan** | **6.59** | **31** | *e*P | **Pn** | **07 35 05.9** | **-2.2** |
| SHO | | | | *i* S | **Sn** | **07 36 14.2** | **-7.8** |
| SHO | | | | pmax | pmax | | |
| | comp=Z,45nm,0.5s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=E,18nm,0.3s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=E,259nm,0.5s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=N,505nm,0.4s | | | | | | |
| **KUR** | **Kuril'sk** | **8.14** | **30** | *e*P | **Pn** | **07 35 29.0** | **-0.3** |
| KUR | | | | *i* S | **Sn** | **07 36 54.9** | **-5.1** |
| KUR | | | | pmax | pmax | | |
| | comp=Z,27nm,0.5s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=E,16nm,0.3s | | | | | | |
| **MSHR** | **Mys Shultsa** | **9.44** | **301** | *i* P | **Pn** | **07 35 47.2** | **0.0** |
| **USRK** | **Ussuriysk Ar.** | **9.69** | **311** | P | **Pn** | **07 35 50.3** | **-0.3** |
| | comp=E,1.2nm,0.3s,baz=125,slow=14,SNR=13 | | | | | | |
| USRK | | | | LR | LR | 07 39 25.9 | |
| | comp=E,258nm,18.8s,baz=132,slow=36 | | | | | | |
| **JNU** | **Nakatsue** | **10.53** | **244** | P | **Pn** | **07 36 03.9** | **+1.6** |
| | comp=E,0.7nm,0.3s,baz=61,slow=4.6,SNR=14 | | | | | | |
| **JNU** | **Nakatsue** | **10.53** | **244** | *e*Pn | **Pn** | **07 36 04.6** | **+2.3** |
| **KSRS** | **Korea Array** | **11.31** | **270** | P | **Pn** | **07 36 14.8** | **+2.0** |
| | comp=E,0.4nm,0.3s,baz=88,slow=14,SNR=10 | | | | | | |
| **KSAR** | **Wonju Array Be** | **11.34** | **270** | P | **Pn** | **07 36 14.8** | **+1.6** |
| **KSAR** | **Wonju Array Be** | **11.34** | **270** | P | **Pn** | **07 36 14.8** | **+1.6** |
| **MDJ** | **Mudanjiang** | **11.37** | **308** | P | **Pn** | **07 36 14.8** | **+1.2** |
| **KLR** | **Kul'dur** | **13.27** | **329** | P | **Pn** | **07 36 43.2** | **+3.6** |
| | comp=E,0.0nm,0.3s,baz=125,slow=10,SNR=3.6 | | | | | | |
| **KLR** | **Kul'dur** | **13.27** | **329** | *e*P | **Pn** | **07 36 39.9** | **+0.3** |
| **PETK** | **Petropavlovsk-** | **18.30** | **31** | P | **Pn** | **07 37 46.1** | **+1.4** |
| | comp=E,0.2nm,0.3s,baz=220,slow=13,SNR=3.9 | | | | | | |
| PETK | | | | LR | LR | 07 46 04.5 | |
| | comp=E,48nm,18.5s,baz=222,slow=41 | | | | | | |
| **NJ2** | **Nanjing** | **20.04** | **259** | *e*P | Pn | 07 38 05.3 | -0.3 |
| **BJI** | **Beijing** | **20.23** | **283** | P | Pn | 07 38 07.3 | -0.5 |
| BJI | | | | S | Sn | 07 41 53.5 | -0.9 |
| **MA2** | **Magadan** | **22.01** | **12** | P | **P** | **07 38 25.2** | **+0.5** |
| | comp=E,4.4nm,0.6s,baz=172,slow=8.9,SNR=5.8 | | | | | | |
| MA2 | | | | LR | LR | 07 46 34.9 | |
| | comp=E,52nm,21.7s,baz=239,slow=35 | | | | | | |
| **MA2** | **Magadan** | **22.01** | **12** | *i* P | **P** | **07 38 25.5** | **+0.8** |
| **HHC** | **Hu-ho-hao-te** | **23.69** | **286** | *e*P | **P** | **07 38 42.3** | **0.0** |
| HHC | | | | S | **S** | **07 42 51.0** | **-3.9** |
| **YAK** | **Yakutsk** | **25.00** | **346** | *e*P | P | 07 39 03.6 | +10 |
| YAK | | | | pmax | pmax | | |
| | comp=Z,15nm,0.9s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,3.0nm,0.9s | | | | | | |
| **SEY** | **Seymchan** | **25.45** | **11** | P | **P** | **07 38 58.5** | **+0.5** |
| | comp=N,3.9nm,0.6s,baz=185,slow=8.5,SNR=16 | | | | | | |
| **SEY** | **Seymchan** | **25.45** | **11** | *i* P | **P** | **07 38 59.0** | **+1.0** |
| **BOD** | **Bodaibo** | **26.82** | **326** | *e*P | **P** | **07 39 10.1** | **-0.4** |
| BOD | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| **XAN** | **Xi'an** | **27.10** | **271** | P | **P** | **07 39 12.0** | **-1.4** |
| **ULN** | **Ulaanbaatar** | **27.19** | **302** | *i* P | **P** | **07 39 14.6** | **+0.5** |
| ULN | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.2s | | | | | | |
| SONA1 | **Songino Array** | **27.62** | **302** | *e*P | **P** | **07 39 17.5** | **-0.5** |
| SONM | **Songino Array** | **27.62** | **302** | P | **P** | **07 39 17.5** | **-0.5** |
| | comp=Z,1.9nm,0.5s,baz=106,slow=9.2,SNR=19 | | | | | | |
| SONM | | | | LR | LR | 07 49 33.3 | |
| | comp=Z,66nm,19.9s,baz=186,slow=35 | | | | | | |
| H11N2 | **WAKE ISLAND Hy** | **28.30** | **124** | T | T | 08 09 41.1 | |
| | baz=316,slow=75,SNR=968 | | | | | | |
| H11N1 | **WAKE ISLAND Hy** | **28.31** | **124** | T | T | 08 09 41.6 | |
| | baz=316,slow=75,SNR=1611 | | | | | | |
| H11N3 | **WAKE ISLAND Hy** | **28.32** | **124** | T | T | 08 09 42.5 | |
| | baz=316,slow=75,SNR=971 | | | | | | |
| H11S1 | **WAKE ISLAND Hy** | **29.06** | **126** | T | T | 08 10 40.8 | |
| | baz=318,slow=76,SNR=325 | | | | | | |
| H11S3 | **WAKE ISLAND Hy** | **29.06** | **126** | T | T | 08 10 45.5 | |
| | baz=318,slow=76,SNR=553 | | | | | | |
| H11S2 | **WAKE ISLAND Hy** | **29.07** | **126** | T | T | 08 10 39.3 | |
| | baz=318,slow=76,SNR=321 | | | | | | |
| **TLY** | **Talaya** | **30.00** | **309** | *e*P | **P** | **07 39 39.5** | **+0.6** |
| TLY | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.8s | | | | | | |
| TLY | | | | MLR | MLR | | |
| | comp=Z,69nm,12.0s | | | | | | |
| **TLY** | **Talaya** | **30.00** | **309** | *e*P | **P** | **07 39 39.5** | **+0.6** |
| | comp=Z,8.2nm,0.9s | | | | | | |
| **ZAK** | **Zakamensk** | **30.00** | **306** | *e*P | **P** | **07 39 37.7** | **-1.3** |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.0s | | | | | | |
| **LZH** | **Lanzhou** | **30.48** | **278** | *e*P | **P** | **07 39 45.0** | **+1.5** |
| LZH | | | | pP | pP | 07 39 55.0 | +1.4 |
| LZH | | | | sP | sP | 07 39 58.8 | +1.0 |
| LZH | | | | PP | **PnPn** | **07 40 45.5** | **+2.6** |
| LZH | | | | *e*S | **S** | **07 44 42.3** | **-0.3** |
| LZH | | | | sS | sS | 07 44 59.0 | -0.2 |
| LZH | | | | *e*SS | **ScP** | **07 46 23.0** | **+1.1** |
| **GTA** | **Gaotai** | **32.80** | **285** | *e*P | **P** | **07 40 03.5** | **-0.3** |
| GTA | | | | pP | pP | 07 40 09.0 | -4.9 |
| GTA | | | | sP | sP | 07 40 12.0 | -6.2 |
| **DGZ** | **Jazzator, Alta** | **40.17** | **305** | *c* P | **P** | **07 41 07.1** | **+0.5** |
| DGZ | | | | *i* *PP | **pP** | **07 41 16.8** | **0.0** |
| DGZ | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| **WMQ** | **Urumqi** | **40.84** | **296** | P | **P** | **07 41 13.0** | **+1.0** |
| WMQ | | | | pP | pP | 07 41 24.3 | +2.0 |
| WMQ | | | | sP | sP | 07 41 29.0 | +2.5 |
| **ZAA0** | **Zalesovo Array** | **41.54** | **311** | *e*P | **P** | **07 41 17.8** | **+0.2** |
| | comp=Z,10.0nm,0.6s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.54** | **311** | P | **P** | **07 41 17.4** | **-0.1** |
| | comp=Z,6.5nm,0.5s,baz=85,slow=8.0,SNR=23 | | | | | | |
| ZALV | | | | PcP | **PcP** | **07 43 14.0** | **-0.4** |
| | comp=Z,0.8nm,0.5s,baz=85,slow=4.3,SNR=3.1 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **42.41** | **255** | P | **P** | **07 41 25.2** | **0.0** |
| | comp=Z,0.6nm,0.3s,baz=269,slow=12,SNR=2.9 | | | | | | |
| CMAR | | | | LR | LR | 08 01 48.2 | |
| | comp=Z,56nm,18.0s,baz=89,slow=40 | | | | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **AB31** | **Akbulak array** | **57.61** | **310** | P | **P** | **07 43 18.3** | **-1.7** |
| AB31 | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.7s | | | | | | |
| **ABKAR** | **Akbulak array** | **57.61** | **310** | *e*P | **P** | **07 43 19.5** | **-0.5** |
| | comp=Z,5.1nm,0.7s | | | | | | |
| **AKTO** | **Aktyubinsk** | **58.30** | **312** | P | **P** | **07 43 25.0** | **+0.1** |
| | comp=Z,1.3nm,0.3s,baz=75,slow=9.2,SNR=4.2 | | | | | | |
| **AKTO** | **Aktyubinsk** | **58.30** | **312** | P | **P** | **07 43 25.0** | **+0.1** |
| **WB2** | **Warramunga Arr** | **58.38** | **189** | *e*P | **P** | **07 43 25.4** | **-0.3** |
| | comp=Z,4.1nm,0.8s | | | | | | |
| **WRA** | **Warramunga Arr** | **58.38** | **189** | P | **P** | **07 43 24.2** | **-1.5** |
| | comp=Z,1.8nm,0.5s,baz=6.1,slow=7.1,SNR=15 | | | | | | |
| **WRA** | **Warramunga Arr** | **58.38** | **189** | *ce*P | **P** | **07 43 27.5** | **+1.8** |
| WRA | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.6s | | | | | | |
| **SPITS** | **Spitsbergen Ar** | **59.42** | **349** | P | **P** | **07 43 31.7** | **-0.5** |
| | comp=Z,4.7nm,0.9s,baz=320,slow=6.0,SNR=3.8 | | | | | | |
| **AS01** | **Alice Springs** | **62.10** | **189** | *e*P | **P** | **07 43 51.3** | **+0.1** |
| **ASAR** | **Alice Springs** | **62.11** | **189** | P | **P** | **07 43 50.6** | **-0.5** |
| | comp=Z,1.1nm,0.7s,baz=6.1,slow=7.6,SNR=10 | | | | | | |
| **YKA** | **Yellowknife Ar** | **62.42** | **31** | P | **P** | **07 43 52.9** | **+0.1** |
| | comp=Z,1.4nm,0.7s,baz=301,slow=6.5,SNR=21 | | | | | | |
| **ARCES** | **ARCESS Array B** | **63.04** | **339** | P | **P** | **07 43 56.4** | **-0.5** |
| | comp=Z,1.4nm,0.6s,baz=38,slow=6.6,SNR=6.1 | | | | | | |
| **TULEG** | **Thule** | **63.78** | **8** | *e*P | **P** | **07 44 01.1** | **-0.5** |
| | comp=Z,3.4nm,0.5s | | | | | | |
| **FIA1** | **FINESS Array S** | **67.99** | **332** | *e*P | **P** | **07 44 28.9** | **0.0** |
| **FINES** | **FINESS Array B** | **68.00** | **332** | P | **P** | **07 44 28.3** | **-0.6** |
| | comp=Z,6.6nm,0.9s,baz=55,slow=7.2,SNR=13 | | | | | | |
| **FINES** | **FINESS Array B** | **68.00** | **332** | *i* P | **P** | **07 44 28.7** | **-0.2** |
| FINES | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.9s | | | | | | |
| **SUMG** | **Summit** | **69.44** | **0** | *e*P | **P** | **07 44 38.9** | **+0.6** |
| SUMG | | | | pmax | pmax | | |
| | comp=Z,11nm,1.4s | | | | | | |
| **SUMG** | **Summit** | **69.44** | **0** | *e*P | **P** | **07 44 38.9** | **+0.6** |
| | comp=Z,11nm,1.4s | | | | | | |
| **STKA** | **Stephens Creek** | **69.80** | **181** | P | **P** | **07 44 40.1** | **-0.3** |
| | comp=Z,0.7nm,0.5s,baz=321,slow=13,SNR=2.5 | | | | | | |
| **KVAR** | **Kislovodsk Arr** | **70.55** | **311** | P | **P** | **07 44 44.2** | **-1.1** |
| | comp=Z,4.0nm,0.4s,baz=211,slow=5.9,SNR=2.1 | | | | | | |
| **KIV** | **Kislovodsk** | **70.55** | **311** | *e*P | **P** | **07 44 43.4** | **-1.8** |
| KIV | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.0s | | | | | | |
| **KBZ** | **Khabaz** | **70.55** | **311** | P | **P** | **07 44 45.1** | **0.0** |
| | comp=Z,1.3nm,0.7s,baz=37,slow=5.1,SNR=2.3 | | | | | | |
| **FFC** | **Flin Flon** | **72.33** | **33** | *e*P | **P** | **07 44 56.2** | **+0.6** |
| FFC | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.8s | | | | | | |
| **FFC** | **Flin Flon** | **72.33** | **33** | *e*P | **P** | **07 44 56.2** | **+0.6** |
| | comp=Z,3.7nm,0.8s | | | | | | |
| **LRM** | **Limekiln Ridge** | **72.83** | **45** | *e*P | **P** | **07 45 00.5** | **+1.4** |
| **EGMT** | **Eagleton** | **72.93** | **42** | *e*P | **P** | **07 45 00.6** | **+1.2** |
| | comp=Z,6.9nm,1.0s | | | | | | |
| **NC405** | **NORSAR Array S** | **73.06** | **337** | *e*P | **P** | **07 45 00.2** | **+0.3** |
| **HLID** | **Hailey** | **73.08** | **48** | *e*P | **P** | **07 45 01.9** | **+1.4** |
| | comp=Z,2.1nm,1.4s | | | | | | |
| **NC204** | **NORSAR Array S** | **73.22** | **338** | *e*P | **P** | **07 45 01.1** | **+0.3** |
| **NB2** | **NORSAR Subarra** | **73.27** | **337** | P | **P** | **07 45 01.2** | **0.0** |
| | comp=Z,1.0nm,0.8s,baz=37,slow=6.2 | | | | | | |
| **NOA** | **NORSAR Array B** | **73.27** | **337** | P | **P** | **07 45 01.1** | **0.0** |
| | comp=Z,1.8nm,0.6s,baz=38,slow=6.0,SNR=4.2 | | | | | | |
| **BOZ** | **Bozeman (W)** | **73.42** | **45** | *e*P | **P** | **07 45 04.3** | **+1.8** |
| BOZ | | | | pmax | pmax | | |
| | comp=Z,12nm,0.7s | | | | | | |
| **BOZ** | **Bozeman (W)** | **73.42** | **45** | *e*P | **P** | **07 45 04.2** | **+1.8** |
| | comp=Z,12nm,0.7s | | | | | | |
| **KVN** | **Kaiserville** | **73.52** | **53** | *e*P | **P** | **07 45 04.2** | **+1.0** |
| KVN | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.0s | | | | | | |
| **KVN** | **Kaiserville** | **73.52** | **53** | *e*P | **P** | **07 45 04.2** | **+1.0** |
| | comp=Z,3.4nm,1.0s | | | | | | |
| **AKASG** | **Malin Array Be** | **73.68** | **322** | P | **P** | **07 45 03.4** | **-0.3** |
| | comp=Z,0.4nm,0.3s,baz=45,slow=6.2,SNR=4.9 | | | | | | |
| **NV01** | **Mina Array Sit** | **73.75** | **54** | *e*P | **P** | **07 45 05.6** | **+0.9** |
| **NVAR** | **Mina Array Bea** | **73.75** | **54** | P | **P** | **07 45 04.7** | **+0.1** |
| | comp=Z,1.3nm,0.8s,baz=287,slow=6.6,SNR=9.9 | | | | | | |
| **H17A** | **Grant Village** | **74.75** | **45** | *e*P | **P** | **07 45 12.7** | **+2.3** |
| | comp=Z,5.5nm,1.0s | | | | | | |
| **RLMT** | **Red Lodge** | **75.02** | **44** | *e*P | **P** | **07 45 13.3** | **+1.4** |
| | comp=Z,2.2nm,1.0s | | | | | | |
| **HVU** | **Hansel Valley** | **75.12** | **48** | *e*P | **P** | **07 45 13.5** | **+1.1** |
| HVU | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.5s | | | | | | |
| **HVU** | **Hansel Valley** | **75.12** | **48** | *e*P | **P** | **07 45 13.5** | **+1.1** |
| | comp=Z,9.1nm,1.5s | | | | | | |
| **WCHM** | **Chimney Peak** | **75.41** | **56** | *e*P | **P** | **07 45 12.9** | **-1.5** |
| **R11A** | **Troy Canyon, C** | **75.51** | **53** | *e*P | **P** | **07 45 15.9** | **+1.1** |
| | comp=Z,0.8nm,1.0s | | | | | | |
| **TPNV** | **Topopah Spring** | **75.94** | **54** | *e*P | **P** | **07 45 17.8** | **+0.5** |
| TPNV | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.0s | | | | | | |
| **TPNV** | **Topopah Spring** | **75.94** | **54** | *e*P | **P** | **07 45 17.8** | **+0.5** |
| | comp=Z,4.0nm,1.0s | | | | | | |
| **DUG** | **Dugway, Tooele** | **76.08** | **50** | *e*P | **P** | **07 45 19.4** | **+1.5** |
| DUG | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.6s | | | | | | |
| **DUG** | **Dugway, Tooele** | **76.08** | **50** | *e*P | **P** | **07 45 19.4** | **+1.5** |
| | comp=Z,10nm,1.6s | | | | | | |
| **BW06** | **Boulder Array** | **76.36** | **46** | *e*P | **P** | **07 45 19.8** | **+0.2** |
| | comp=Z,17nm,1.8s | | | | | | |
| **PD31** | **Pinedale Array** | **76.36** | **46** | *e*P | **P** | **07 45 20.2** | **+0.6** |
| **PDAR** | **Pinedale Array** | **76.36** | **46** | P | **P** | **07 45 20.0** | **+0.4** |
| | comp=Z,1.8nm,0.5s,baz=269,slow=0.9,SNR=24 | | | | | | |
| **MPU** | **Maple Canyon** | **76.90** | **49** | *e*P | **P** | **07 45 24.0** | **+1.3** |
| | comp=Z,6.4nm,1.2s | | | | | | |
| **SHPR** | **Sheep Range** | **76.91** | **54** | *e*P | **P** | **07 45 23.3** | **+0.6** |
| **CCUT** | **Cedar City** | **77.39** | **52** | *e*P | **P** | **07 45 26.7** | **+1.2** |
| | comp=Z,4.3nm,1.5s | | | | | | |
| **BUR08** | **Bucovina Ar. S** | **77.70** | **322** | *e*P | **P** | **07 45 27.6** | **+0.7** |
| **BUR04** | **Bucovina Ar. S** | **77.71** | **322** | *e*P | **P** | **07 45 27.6** | **+0.7** |
| **MTPU** | **Mount Pierson** | **77.81** | **51** | *e*P | **P** | **07 45 30.0** | **+2.0** |
| | comp=Z,2.6nm,0.9s | | | | | | |
| **ULM** | **Lac du Bonnet** | **78.12** | **34** | P | **P** | **07 45 29.0** | **0.0** |
| | comp=Z,0.9nm,0.6s,baz=319,slow=14,SNR=3.1 | | | | | | |
| **BRTR** | **Keskin Array B** | **78.48** | **312** | P | **P** | **07 45 31.4** | **-0.1** |
| | comp=Z,0.4nm,0.4s,baz=90,slow=3.1,SNR=4.1 | | | | | | |
| **U15A** | **North Rim** | **78.76** | **52** | *e*P | **P** | **07 45 34.6** | **+1.4** |
| | comp=Z,13nm,1.7s | | | | | | |
| **PV10** | **Paradox Valley** | **79.49** | **49** | *e*P | **P** | **07 45 38.6** | **+1.5** |
| **PV05** | **Paradox Valley** | **79.65** | **49** | *e*P | **P** | **07 45 39.3** | **+1.3** |
| **DPC** | **Dobruska-Polom** | **79.72** | **328** | *ep*P | pP | 07 45 49.4 | +0.5 |
| **DPC** | **Dobruska-Polom** | **79.72** | **328** | *e*P | pP | 07 45 49.4 | +0.5 |
| **KRLC** | **Kraliky** | **79.74** | **328** | *ep*P | pP | 07 45 48.8 | -0.2 |
| **KRLC** | **Kraliky** | **79.74** | **328** | *e*P | pP | 07 45 48.8 | -0.2 |
| **CLL** | **Collm** | **80.32** | **330** | *i* P | pP | 07 45 51.4 | -0.6 |
| **CLL** | **Collm** | **80.32** | **330** | *i* (pP) | pP | 07 45 51.4 | -0.6 |
| | comp=Z,10.0nm,1.0s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **80.69** | **329** | *ep*P | pP | 07 45 54.6 | +0.5 |
| **GOPC** | **GO Pecny, Ondr** | **80.69** | **329** | *e*P | pP | 07 45 54.6 | +0.5 |
| **PRU** | **Pruhonice** | **80.73** | **329** | *ep*P | pP | 07 45 55.2 | +0.9 |
| **PRU** | **Pruhonice** | **80.73** | **329** | *e*P | pP | 07 45 55.2 | +0.9 |
| **X18A** | **Snowflake** | **81.44** | **53** | *e*P | **P** | **07 45 48.7** | **+1.1** |
| | comp=Z,8.6nm,1.7s | | | | | | |
| **KHC** | **Kasperske Hory** | **81.80** | **329** | *ep*P | **pP** | **07 45 59.6** | **-0.4** |
| KHC | | | | *es*P | sP | 07 46 07.7 | +3.7 |
| **KHC** | **Kasperske Hory** | **81.80** | **329** | *e*P | **pP** | **07 45 59.6** | **-0.4** |
| KHC | | | | *e* | | 07 46 07.7 | |
| **GERES** | **GERESS Array B** | **81.97** | **329** | P | **P** | **07 45 49.5** | **-0.5** |
| | comp=Z,0.4nm,0.5s,baz=32,slow=6.3,SNR=6.0 | | | | | | |
| **GEA0** | **GERESS Array S** | **81.98** | **329** | *e*P | **P** | **07 45 49.9** | **-0.1** |
| **ECSD** | **EROS Data Cent** | **82.56** | **39** | *e*P | **P** | **07 45 53.7** | **+0.7** |
| | comp=Z,7.4nm,1.5s | | | | | | |
| **T25A** | **Trinidad** | **83.04** | **48** | *e*P | **P** | **07 45 57.0** | **+1.1** |
| | comp=Z,23nm,1.8s | | | | | | |
| **SOKA** | **Soboth** | **83.10** | **326** | pP | pP | 07 46 05.2 | -1.7 |
| | comp=Z,3.2nm,0.7s | | | | | | |
| **ANMO** | **Albuquerque** | **83.32** | **50** | ⇑*i*P | **P** | **07 45 58.9** | **+1.5** |
| ANMO | | | | pmax | pmax | | |
| | comp=Z,8.0nm,2.5s | | | | | | |
| **KBA** | **Koelnbreinsper** | **83.51** | **328** | *ep*P | pP | 07 46 09.4 | +0.2 |
| | comp=Z,2.2nm,0.6s | | | | | | |
| **SCHQ** | **Schefferville** | **83.97** | **16** | P | **P** | **07 45 60.0** | **-0.1** |
| | comp=Z,1.8nm,0.7s,baz=346,slow=18,SNR=4.1 | | | | | | |
| **RETA** | **Reutte** | **84.25** | **329** | *i* pP | pP | 07 46 12.3 | -0.4 |
| | comp=Z,2.9nm,0.7s | | | | | | |
| **FETA** | **Feichten** | **84.63** | **329** | *i* pP | pP | 07 46 14.5 | -0.4 |
| | comp=Z,4.0nm,0.9s | | | | | | |
| **FUORN** | **Ofenpass-Fuorn** | **85.15** | **329** | *e*P | **P** | **07 46 06.8** | **+0.3** |
| | comp=Z,7.5nm,0.8s | | | | | | |
| **MNTX** | **Cornudas Mount** | **86.18** | **52** | *e*P | **P** | **07 46 12.6** | **+0.9** |
| | comp=Z,0.2nm,0.3s | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **88.88** | **53** | *e*P | **P** | **07 46 25.3** | **+0.6** |
| **TXAR** | **Lajitas Array** | **88.88** | **53** | P | **P** | **07 46 25.2** | **+0.5** |
| | comp=Z,1.4nm,0.6s,baz=291,slow=3.0,SNR=30 | | | | | | |
| **JCT** | **Junction City** | **90.44** | **50** | *e*P | **P** | **07 46 31.9** | **-0.1** |
| JCT | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.6s | | | | | | |
| **JCT** | **Junction City** | **90.44** | **50** | *e*P | **P** | **07 46 31.9** | **-0.1** |
| | comp=Z,2.3nm,0.6s | | | | | | |
| **MIAR** | **Mount Ida** | **90.99** | **43** | *e*P | **P** | **07 46 34.8** | **+0.4** |
| MIAR | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.0s | | | | | | |
| **MIAR** | **Mount Ida** | **90.99** | **43** | *e*P | **P** | **07 46 34.8** | **+0.4** |
| | comp=Z,6.5nm,1.0s | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **116.87** | **316** | PKP | **PKPdf** | **07 52 16.2** | **+1.1** |
| | comp=Z,0.1nm,0.5s,baz=204,slow=3.2,SNR=2.6 | | | | | | |
| **LPAZ** | **La Paz** | **145.53** | **59** | PKPbc | **PKPbc** | **07 53 09.5** | **0.0** |
| | comp=Z,4.9nm,0.7s,baz=14,slow=3.0,SNR=17 | | | | | | |
| **LPAZ** | **La Paz** | **145.53** | **59** | *e*PKPdf | **PKPab** | **07 53 09.8** | **0.0** |
| **MNMC** | **Minye Minye** | **146.46** | **64** | *e*PKPdf | **PKPab** | **07 53 12.8** | **0.0** |
| **PB11** | **IPOC Station P** | **146.83** | **65** | *e*PKPbc | **PKPbc** | **07 53 13.1** | **+0.3** |
| **PB01** | **IPOC Station P** | **147.77** | **67** | *e*PKPbc | **PKPbc** | **07 53 15.8** | **+0.5** |
| **LCO** | **Las Campanas** | **151.23** | **81** | *e*PKPbc | **PKPbc** | **07 53 24.5** | **+0.6** |

**IDC 27 07:43:08.3±5.2, 15°.20S×173°.05W, h0km, mb3.7/2, mb1 4.0/2, mb1mx3.4/27, mbtmp3.7/2, MS2.8/1, Ms1 2.8/1, ms1mx2.5/29, Error ellipse: s-maj=272.5km s-min=24.9km az=144.0, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AFI** | **Afiamalu** | **1.78** | **44** | Pn | Pn | 07 43 39.2 | -1.1 |
| | 40nm,0.3s,baz=217,slow=10,SNR=20 | | | | | | |
| AFI | | | | LR | LR | 07 43 56.1 | |
| | comp=Z,57nm,18.4s,baz=206,slow=27 | | | | | | |
| AFI | | | | Sn | Sn | 07 43 58.0 | -5.7 |
| | 33nm,0.3s,baz=121,slow=22,SNR=7.0 | | | | | | |
| **RAR** | **Rarotonga** | **13.95** | **117** | LR | LR | 07 50 15.6 | |
| | comp=Z,39nm,19.8s,baz=275,slow=31 | | | | | | |
| **WRA** | **Warramunga Arr** | **50.22** | **257** | P | P | 07 52 05.5 | -1.1 |
| | 0.4nm,0.7s,baz=91,slow=7.3,SNR=6.1 | | | | | | |
| **ASAR** | **Alice Springs** | **50.50** | **252** | P | P | 07 52 08.2 | -0.4 |
| | 1.6nm,0.7s,baz=86,slow=8.0,SNR=32 | | | | | | |
| **BRTR** | **Keskin Array B** | **146.22** | **321** | PKPbc | PKPab | 08 02 52.6 | +0.7 |
| | 0.8nm,0.7s,baz=229,slow=1.5,SNR=4.6 | | | | | | |

*DDA **27** 07:51:46.5, 37°.98N×27°.16E, h21km, Ml4.4*
*NEIC **27** 07:51:46.9±0.0, 37°.92N×27°.15E, h4km, mb4.3/8, ML4.0(THE), ML3.9(ISK), ML4.0(ATH), After ISK.*
*ISK **27** 07:51:47.5, 37°.91N×27°.10E, h5km, ML4.2*
*ISCJB **27** 07:51:48.1±0.3, 37°.91N±0°.01×27°.10E±0°.02, h14km±2km, mb4.2/22, MS3.4/6, Error ellipse: s-maj=2.6km s-min=2.0km az=137.6*
*CSEM **27** 07:51:48.3±0.1, 37°.89N×27°.14E, h10km, mb4.6/6, Error ellipse: s-maj=3.2km s-min=2.5km az=48.0*
*THE **27** 07:51:48.0, 37°.96N×27°.16E, h7km±1km, ML4.0/8, Error ellipse: s-maj=1.8km s-min=0.7km az=244.0*
*ATH **27** 07:51:48.2, 37°.92N×27°.15E, h23km±1km, ML4.0/8, Error ellipse: s-maj=3.0km s-min=1.2km az=243.0*
*IDC **27** 07:51:50.7±2.4, 37°.80N×27°.28E, h35km±22km, mb3.8/16, mb1 3.9/21, mb1mx3.8/37, mbtmp4.0/21, ML3.9/5, MS3.3/9, Ms1 3.3/9, ms1mx2.9/48, Error ellipse: s-maj=15.5km s-min=11.1km az=146.0*
*HLW **27** 07:51:52.2, 37°.57N×27°.35E, h35km±47km, Md4.5*
*NIC **27** 07:51:55.8±0.2, 36°.92N×27°.03E, h25km, mb4.4, ML3.9*
**ISC 27 07:51:47.8±0.9, 37°.97N±0°.01×27°.21E±0°.01, h9km±6km, n380, σ1°62/453, mb4.3/22, MS3.4/6, 33C-4D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KUSD** | **Kusadasi-Aydin** | **0.13** | **149** | PG | **Pg** | **07 51 50.5** | **-0.2** |
| **KUSD** | **Kusadasi-Aydin** | **0.13** | **149** | *i* Pg | **Pg** | **07 51 50.5** | **-0.2** |
| **DGB** | **˜zmir** | **0.27** | **288** | ⇑*i*P | **Pg** | **07 51 52.6** | **-0.5** |
| DGB | | | | *i* S | **Sg** | **07 51 56.2** | **-0.5** |
| **SMG** | **Samos** | **0.39** | **228** | P | **Pg** | **07 51 54.6** | **-0.9** |
| SMG | | | | S | **Sg** | **07 52 01.1** | **+0.4** |
| SMG | | | | AML | AML | 07 52 02.5 | |
| | comp=N,76928µm,0.3s | | | | | | |
| SMG | | | | AML | AML | 07 52 06.4 | |
| | comp=E,62892µm,0.3s | | | | | | |
| **SMG** | **Samos** | **0.39** | **228** | P | **Pg** | **07 51 54.8** | **-0.7** |
| SMG | | | | S | **Sg** | **07 52 01.1** | **+0.4** |
| **SMG** | **Samos** | **0.39** | **228** | P | **Pg** | **07 51 54.8** | **-0.7** |
| **SMG** | **Samos** | **0.39** | **228** | P | **Pg** | **07 51 54.8** | **-0.7** |
| SMG | | | | S | **Sg** | **07 52 01.4** | **+0.8** |
| **ZEY** | **˜zmir** | **0.61** | **296** | ⇑*i*P | **Pg** | **07 51 58.8** | **-0.9** |
| ZEY | | | | *i* S | **Sg** | **07 52 07.5** | **-0.3** |
| **AYDN** | **Tasoluk** | **0.62** | **120** | ⇑*i*P | **Pg** | **07 51 59.7** | **-0.1** |
| AYDN | | | | *i* S | **Sg** | **07 52 07.8** | **-0.1** |
| **AYDN** | **Tasoluk** | **0.62** | **120** | P | **Pg** | **07 51 59.7** | **-0.1** |
| AYDN | | | | S | **Sg** | **07 52 07.8** | **-0.1** |
| **URLA** | **Izmir** | **0.62** | **309** | *e*PG | **Pg** | **07 51 59.3** | **-0.5** |
| URLA | | | | *e*SG | **Sb** | **07 52 09.4** | **-0.3** |
| **URLA** | **Izmir** | **0.62** | **309** | ⇑*i*P | **Pg** | **07 51 59.0** | **-0.8** |
| URLA | | | | *i* S | **Sg** | **07 52 08.1** | **+0.2** |
| **URLA** | **Izmir** | **0.62** | **309** | P | **Pg** | **07 51 59.0** | **-0.8** |
| **URLA** | **Izmir** | **0.62** | **309** | *e*Pg | **Pg** | **07 51 59.3** | **-0.5** |
| URLA | | | | S | **Sg** | **07 52 08.1** | **+0.2** |
| URLA | | | | *e*Sg | **Sb** | **07 52 09.4** | **-0.3** |
| **BODT** | **Bodrum** | **0.91** | **175** | *e*PG | **Pg** | **07 52 05.0** | **-0.3** |
| BODT | | | | *e*SG | **Sb** | **07 52 18.2** | **+0.2** |
| **BODT** | **Bodrum** | **0.91** | **175** | *e*Pg | **Pg** | **07 52 05.0** | **-0.3** |
| BODT | | | | *e*Sg | **Sb** | **07 52 18.2** | **+0.2** |
| **BODT** | **Bodrum** | **0.91** | **175** | Pg | **Pg** | **07 52 04.1** | **-1.2** |
| **BDRM** | **Kayabasi** | **0.92** | **168** | ⇑*i*P | **Pg** | **07 52 04.3** | **-1.3** |
| BDRM | | | | *i* S | **Sg** | **07 52 17.3** | **-0.3** |
| **BDRM** | **Kayabasi** | **0.92** | **168** | P | **Pg** | **07 52 04.3** | **-1.3** |
| BDRM | | | | S | **Sg** | **07 52 17.3** | **-0.3** |
| **CHOS** | **Chios island** | **1.00** | **295** | *e*PG | **Pb** | **07 52 07.2** | **-0.1** |
| **CHOS** | **Chios island** | **1.00** | **295** | P | **Pg** | **07 52 06.7** | **-0.3** |
| CHOS | | | | AML | AML | 07 52 22.6 | |
| | comp=N,21922µm,0.5s | | | | | | |
| CHOS | | | | S | **Sn** | **07 52 22.9** | **+0.5** |
| CHOS | | | | AML | AML | 07 52 24.9 | |
| | comp=E,20015µm,0.3s | | | | | | |
| **CHOS** | **Chios island** | **1.00** | **295** | P | **Pg** | **07 52 06.7** | **-0.3** |
| **CHOS** | **Chios island** | **1.00** | **295** | *e*Pg | **Pb** | **07 52 07.2** | **-0.1** |
| CHOS | | | | S | **Sb** | **07 52 20.9** | **+0.3** |
| **CHOS** | **Chios island** | **1.00** | **295** | P | **Pg** | **07 52 06.3** | **-0.7** |
| CHOS | | | | S | **Sb** | **07 52 20.9** | **+0.3** |
| **AKHS** | **Akhisar** | **1.02** | **28** | ⇑*i*P | **Pg** | **07 52 06.4** | **-1.1** |
| AKHS | | | | *i* S | **Sg** | **07 52 20.5** | **-0.3** |
| **AKHS** | **Akhisar** | **1.02** | **28** | P | **Pg** | **07 52 06.4** | **-1.1** |
| AKHS | | | | S | **Sg** | **07 52 20.5** | **-0.3** |
| **AKS** | **Akhisar** | **1.02** | **28** | Pn | **Pg** | **07 52 07.1** | **-0.4** |
| **AKS** | **Akhisar** | **1.02** | **28** | Pn | **Pg** | **07 52 07.1** | **-0.4** |
| **CAND** | **Candarli** | **1.03** | **342** | *e*PG | **Pn** | **07 52 09.0** | **+0.5** |
| **MANT** | **Manisa** | **1.19** | **64** | ⇑*i*P | **Pg** | **07 52 10.1** | **-0.5** |
| MANT | | | | *i* S | **Sg** | **07 52 24.3** | **-1.7** |
| **MANT** | **Manisa** | **1.19** | **64** | P | **Pg** | **07 52 10.1** | **-0.5** |
| **MANT** | **Manisa** | **1.19** | **64** | *e*Pn | **Pn** | **07 52 11.0** | **+0.2** |
| MANT | | | | S | **Sg** | **07 52 24.3** | **-1.7** |
| MANT | | | | *e*Sn | **Sg** | **07 52 25.4** | **-0.6** |
| **MANT** | **Manisa** | **1.19** | **64** | *e*Pn | **Pn** | **07 52 11.0** | **+0.2** |
| MANT | | | | *e*Sn | **Sg** | **07 52 25.4** | **-0.6** |
| **KULA** | **Kula-Manisa** | **1.27** | **64** | *e*PN | **Pg** | **07 52 13.8** | **+1.7** |
| **KULA** | **Kula-Manisa** | **1.27** | **64** | *e*Pn | **Pg** | **07 52 13.9** | **+1.7** |
| **KULA** | **Kula-Manisa** | **1.27** | **64** | Pn | **Pn** | **07 52 10.9** | **-1.0** |
| **NISR** | **Nisiros** | **1.36** | **183** | P | **Pg** | **07 52 14.3** | **+0.5** |
| NISR | | | | AML | AML | 07 52 17.0 | |
| | comp=N,18232µm,0.5s | | | | | | |
| NISR | | | | AML | AML | 07 52 18.9 | |
| | comp=E,18272µm,0.4s | | | | | | |
| **NISR** | **Nisiros** | **1.36** | **183** | P | **Pn** | **07 52 12.8** | **-0.2** |
| **NISR** | **Nisiros** | **1.36** | **183** | P | **Pn** | **07 52 12.8** | **-0.2** |
| **NISR** | **Nisiros** | **1.36** | **183** | P | **Pn** | **07 52 12.8** | **-0.2** |
| **TAVA** | **DENIZLI_Tavas** | **1.45** | **110** | *i* P | **Pn** | **07 52 13.8** | **-0.5** |
| TAVA | | | | *i* S | **Sg** | **07 52 34.7** | **+0.4** |
| **TAVA** | **DENIZLI_Tavas** | **1.45** | **110** | P | **Pn** | **07 52 13.8** | **-0.5** |
| TAVA | | | | S | **Sg** | **07 52 34.7** | **+0.4** |
| **DENT** | **Denizli** | **1.46** | **98** | *e*PN | **Pg** | **07 52 16.3** | **+0.4** |
| **DENT** | **Denizli** | **1.46** | **98** | *e*Pn | **Pg** | **07 52 16.3** | **+0.4** |
| **DENT** | **Denizli** | **1.46** | **98** | Pn | **Pg** | **07 52 16.8** | **+0.9** |
| **PRK** | **Paraskevi** | **1.47** | **330** | P | **Pb** | **07 52 15.2** | **-0.1** |
| PRK | | | | S | **Sg** | **07 52 34.9** | **-0.2** |
| PRK | | | | AML | AML | 07 52 39.8 | |
| | comp=N,14830µm,0.6s | | | | | | |
| PRK | | | | AML | AML | 07 52 41.8 | |
| | comp=E,16210µm,0.9s | | | | | | |
| **PRK** | **Paraskevi** | **1.47** | **330** | P | **Pb** | **07 52 15.2** | **-0.1** |
| PRK | | | | S | **Sg** | **07 52 34.9** | **-0.2** |
| **PRK** | **Paraskevi** | **1.47** | **330** | P | **Pn** | **07 52 13.2** | **-1.3** |
| PRK | | | | S | **Sb** | **07 52 34.1** | **0.0** |
| **PRK** | **Paraskevi** | **1.47** | **330** | P | **Pn** | **07 52 13.2** | **-1.3** |
| PRK | | | | S | **Sb** | **07 52 34.1** | **0.0** |
| **MRSB** | **Marmaris-Mugla** | **1.48** | **147** | *e*PN | **Pg** | **07 52 16.6** | **+0.4** |
| **MRSB** | **Marmaris-Mugla** | **1.48** | **147** | *e*Pn | **Pg** | **07 52 16.6** | **+0.4** |
| **DNZL** | **Cakiroluk** | **1.48** | **100** | *i* P | **Pn** | **07 52 14.7** | **-0.2** |
| DNZL | | | | *i* S | **Sg** | **07 52 37.0** | **+1.4** |
| **DNZL** | **Cakiroluk** | **1.48** | **100** | P | **Pn** | **07 52 14.7** | **-0.2** |
| DNZL | | | | S | **Sg** | **07 52 37.0** | **+1.4** |
| **TURN** | **Turunc** | **1.56** | **134** | *e*PN | **Pn** | **07 52 15.3** | **-0.5** |
| **TURN** | **Turunc** | **1.56** | **134** | ⇑*i*P | **Pn** | **07 52 12.8** | **-2.9** |
| TURN | | | | *i* S | **Sn** | **07 52 35.3** | **-0.8** |
| **TURN** | **Turunc** | **1.56** | **134** | P | **Pn** | **07 52 12.8** | **-2.9** |
| **TURN** | **Turunc** | **1.56** | **134** | *e*Pn | **Pn** | **07 52 15.3** | **-0.5** |
| TURN | | | | S | **Sn** | **07 52 35.3** | **-0.8** |
| **DEMI** | **Demirci** | **1.60** | **47** | *i* P | **Pn** | **07 52 17.1** | **+0.8** |
| DEMI | | | | *i* S | **Sn** | **07 52 35.4** | **-1.8** |
| **DEMI** | **Demirci** | **1.60** | **47** | P | **Pn** | **07 52 17.1** | **+0.8** |
| DEMI | | | | S | **Sn** | **07 52 35.4** | **-1.8** |
| **APE** | **Apeiranthos** | **1.61** | **236** | *e*PN | **Pb** | **07 52 17.0** | **-0.7** |
| **APE** | **Apeiranthos** | **1.61** | **236** | ⇓*i*P | **Pn** | **07 52 14.6** | **-1.9** |
| APE | | | | S | **Sn** | **07 52 36.4** | **-0.9** |
| **APE** | **Apeiranthos** | **1.61** | **236** | P | **Pb** | **07 52 17.7** | **0.0** |
| APE | | | | S | **Sn** | **07 52 36.5** | **-0.9** |
| APE | | | | AML | AML | 07 52 44.1 | |
| | comp=N,4036µm,0.4s | | | | | | |
| APE | | | | AML | AML | 07 52 44.6 | |
| | comp=E,3723µm,0.5s | | | | | | |
| **APE** | **Apeiranthos** | **1.61** | **236** | P | **Pn** | **07 52 14.3** | **-2.2** |
| **APE** | **Apeiranthos** | **1.61** | **236** | *e*Pn | **Pb** | **07 52 17.0** | **-0.7** |
| APE | | | | S | **Sn** | **07 52 35.9** | **-1.4** |
| **APE** | **Apeiranthos** | **1.61** | **236** | P | **Pn** | **07 52 14.3** | **-2.2** |
| APE | | | | S | **Sn** | **07 52 35.9** | **-1.4** |
| **APE** | **Apeiranthos** | **1.61** | **236** | P | **Pn** | **07 52 14.3** | **-2.2** |
| APE | | | | S | **Sn** | **07 52 35.9** | **-1.4** |
| **SIGR** | **SIGRI** | **1.63** | **320** | *e*PN | **Pb** | **07 52 18.4** | **+0.4** |
| **SIGR** | **SIGRI** | **1.63** | **320** | P | **Pb** | **07 52 18.4** | **+0.4** |
| SIGR | | | | S | **Sg** | **07 52 41.5** | **+1.4** |
| SIGR | | | | AML | AML | 07 52 43.0 | |
| | comp=N,8706µm,0.6s | | | | | | |
| SIGR | | | | AML | AML | 07 52 43.4 | |
| | comp=E,9283µm,0.7s | | | | | | |
| **SIGR** | **SIGRI** | **1.63** | **320** | P | **Pb** | **07 52 18.4** | **+0.4** |
| SIGR | | | | S | **Sn** | **07 52 37.2** | **-0.6** |
| **SIGR** | **SIGRI** | **1.63** | **320** | P | **Pn** | **07 52 15.4** | **-1.3** |
| SIGR | | | | S | **Sn** | **07 52 37.2** | **-0.6** |
| **SIGR** | **SIGRI** | **1.63** | **320** | P | **Pn** | **07 52 15.4** | **-1.3** |
| SIGR | | | | S | **Sn** | **07 52 37.2** | **-0.6** |
| **BALB** | **Balikesir** | **1.75** | **17** | *e*PN | **Pg** | **07 52 21.2** | **-0.1** |
| **BALB** | **Balikesir** | **1.75** | **17** | Pn | **Pb** | **07 52 19.4** | **-0.7** |
| **BALB** | **Balikesir** | **1.75** | **17** | Pn | **Pb** | **07 52 19.4** | **-0.7** |
| **SIMA** | **Simav-Kutahya** | **1.78** | **51** | *e*PN | **Pb** | **07 52 21.4** | **+0.7** |
| **SIMA** | **Simav-Kutahya** | **1.78** | **51** | *e*Pn | **Pb** | **07 52 21.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| SHUT | Suhut-Afyon | 2.70 | 77 | Pn | Pn | 07 52 33.2 | +1.7 |
| VLY | Voula,Athens | 2.70 | 269 | P | Pn | 07 52 30.4 | -1.0 |
| VLY | Voula,Athens | 2.70 | 269 | P | Pn | 07 52 30.4 | -1.0 |
| VLY | Voula,Athens | 2.70 | 269 | P | Pn | 07 52 30.4 | -1.0 |
| RKY | Sarkoy-Tekirda | 2.71 | 360 | ePn | Pb | 07 52 34.4 | -2.2 |
| RKY | Sarkoy-Tekirda | 2.71 | 360 | ePn | Pb | 07 52 34.4 | -2.2 |
| MDNY | Mudanya-Bursa | 2.73 | 28 | ePN | Pb | 07 52 35.6 | -1.2 |
| MDNY | Mudanya-Bursa | 2.73 | 28 | ePn | Pb | 07 52 35.6 | -1.2 |
| BCK | Bucak | 2.73 | 100 | Pn | Pn | 07 52 32.8 | +0.8 |
| BCK | Bucak | 2.73 | 100 | Pn | Pn | 07 52 32.8 | +0.8 |
| ERIK | Erikli-Kesan | 2.75 | 349 | ePN | Pb | 07 52 35.0 | -2.1 |
| ERIK | Erikli-Kesan | 2.75 | 349 | ePn | Pb | 07 52 35.0 | -2.1 |
| SMTH | Samothraki Isl | 2.81 | 333 | P | Pn | 07 52 32.1 | -0.9 |
| SMTH | Samothraki Isl | 2.81 | 333 | P | Pn | 07 52 32.1 | -0.9 |
| SMTH | Samothraki Isl | 2.81 | 333 | P | Pn | 07 52 32.1 | -0.9 |
| ENEZ | Enez | 2.88 | 344 | ePN | Pn | 07 52 36.5 | +2.6 |
| ENEZ | Enez | 2.88 | 344 | ePn | Pn | 07 52 36.5 | +2.6 |
| KESN | Edirne-Kesan | 2.88 | 352 | *i* P | Pn | 07 52 33.8 | -0.5 |
| KESN | | | | *i* S | Sg | 07 53 19.0 | -1.4 |
| KESN | Edirne-Kesan | 2.88 | 352 | P | Pn | 07 52 33.8 | -0.5 |
| ARMT | Armutlu | 2.89 | 26 | ePN | Pb | 07 52 37.6 | -1.9 |
| ARMT | Armutlu | 2.89 | 26 | ePn | Pb | 07 52 37.7 | -1.9 |
| ANTB | Antalya | 2.95 | 110 | ePN | Pb | 07 52 38.2 | -2.3 |
| ZKR | Zakros | 2.96 | 196 | P | Pn | 07 52 36.7 | +1.7 |
| ZKR | Zakros | 2.96 | 196 | P | Pn | 07 52 36.7 | +1.7 |
| NPS | Neapolis | 2.99 | 206 | P | Pn | 07 52 34.4 | -1.1 |
| NPS | Neapolis | 2.99 | 206 | P | Pn | 07 52 34.4 | -1.1 |
| NPS | Neapolis | 2.99 | 206 | P | Pn | 07 52 34.4 | -1.1 |
| CAVI | Cavuskoy | 3.03 | 42 | ePN | Pb | 07 52 39.7 | -2.2 |
| CAVI | Cavuskoy | 3.03 | 42 | ePn | Pb | 07 52 39.7 | -2.2 |
| BOLV | Bolvadin | 3.04 | 75 | ePn | Pn | 07 52 37.5 | +1.3 |
| BOLV | Bolvadin | 3.04 | 75 | ePg | Pg | 07 52 46.5 | +0.4 |
| BOLV | Bolvadin | 3.04 | 75 | ePn | Pn | 07 52 37.5 | +1.3 |
| BOLV | | | | ePg | Pg | 07 52 46.5 | +0.4 |
| SUTC | Sutluce-Ispart | 3.05 | 98 | ePN | Pb | 07 52 40.3 | -2.1 |
| ALN | Alexandroupoli | 3.06 | 343 | ePN | Pn | 07 52 38.6 | +2.2 |
| ALN | Alexandroupoli | 3.06 | 343 | P | Pn | 07 52 35.7 | -0.6 |
| ALN | Alexandroupoli | 3.06 | 343 | ePn | Pn | 07 52 38.6 | +2.2 |
| ALN | Alexandroupoli | 3.06 | 343 | P | Pn | 07 52 35.7 | -0.6 |
| ALN | Alexandroupoli | 3.06 | 343 | P | Pn | 07 52 35.7 | -0.6 |
| YLV | Yalova | 3.09 | 32 | ePN | Pb | 07 52 40.9 | -2.1 |
| YLV | Yalova | 3.09 | 32 | ePn | Pb | 07 52 40.9 | -2.1 |
| LAST | Lasithi | 3.13 | 207 | P | Pn | 07 52 38.2 | +0.8 |
| LAST | comp=N,1457μm,0.8s | | | AML | AML | 07 53 37.4 | |
| LAST | comp=E,1113μm,0.9s | | | AML | AML | 07 53 42.6 | |
| LAST | Lasithi | 3.13 | 207 | P | Pn | 07 52 38.2 | +0.8 |
| ADVT | Abdulvahap | 3.15 | 38 | ePN | Pb | 07 52 41.5 | -2.5 |
| ADVT | Abdulvahap | 3.15 | 38 | ePn | Pb | 07 52 41.5 | -2.5 |
| SKIA | Skiathos | 3.16 | 293 | P | Pn | 07 52 37.2 | -0.6 |
| SKIA | Skiathos | 3.16 | 293 | P | Pn | 07 52 37.2 | -0.6 |
| BUY | Buyukada | 3.24 | 27 | ePN | Pb | 07 52 42.6 | -2.8 |
| BUY | Buyukada | 3.24 | 27 | ePn | Pb | 07 52 42.7 | -2.8 |
| ESKT | Eskisehir | 3.24 | 60 | Pn | Pn | 07 52 41.5 | +2.5 |
| ESKT | Eskisehir | 3.24 | 60 | Pn | Pn | 07 52 41.5 | +2.5 |
| IDI | Anoyia | 3.26 | 216 | Pn | Pn | 07 52 38.4 | -0.8 |
| IDI | comp=E,4.7nm,0.3s,baz=42,slow=9.3,SNR=25 | | | Lg | Lg | 07 53 30.5 | |
| IDI | comp=E,14nm,0.3s,baz=344,slow=10,SNR=3.6 | | | | | | |
| IDI | Anoyia | 3.26 | 216 | P | Pn | 07 52 38.7 | -0.5 |
| IDI | Anoyia | 3.26 | 216 | P | Pn | 07 52 38.0 | -1.2 |
| IDI | | | | Lg | Lg | 07 53 30.4 | |
| IDI | Anoyia | 3.26 | 216 | P | Pn | 07 52 38.0 | -1.2 |
| SLVT | Silivri | 3.35 | 13 | ePN | Pb | 07 52 44.1 | -3.2 |
| SLVT | Silivri | 3.35 | 13 | ePn | Pb | 07 52 44.1 | -3.2 |
| KAVV | Kandilli-Istan | 3.41 | 24 | ePN | Pb | 07 52 45.6 | -2.8 |
| CTKS | Kestanelik-??a | 3.41 | 17 | ePN | Pn | 07 52 44.7 | +3.5 |
| CTKS | Kestanelik-??a | 3.41 | 17 | ePn | Pn | 07 52 44.7 | +3.5 |
| HRT | Hereke | 3.43 | 33 | ePN | Pb | 07 52 45.9 | -2.9 |
| OUR | Ouranopolis | 3.44 | 314 | ePN | Pn | 07 52 44.5 | +2.9 |
| OUR | Ouranopolis | 3.44 | 314 | ePn | Pn | 07 52 44.5 | +2.9 |
| GULT | Gulveren | 3.56 | 45 | ePN | Pb | 07 52 47.6 | -3.3 |
| KLYT | Kilyos | 3.57 | 23 | ePN | Pb | 07 52 48.2 | -2.9 |
| CTYL | Yalikoy Yolu | 3.60 | 13 | ePN | Pn | 07 52 47.4 | +3.6 |
| CTYL | Yalikoy Yolu | 3.60 | 13 | ePn | Pn | 07 52 47.4 | +3.6 |
| SPNC | Sapanca-Adapaz | 3.63 | 41 | ePN | Pb | 07 52 48.8 | -3.3 |
| PHSR | Pinarhisar | 3.66 | 4 | ePN | Pn | 07 52 48.0 | +4.1 |
| SVRH | Sivrihisar-ESK | 3.69 | 65 | ePN | Pb | 07 52 49.4 | -3.8 |
| SVRH | Sivrihisar-ESK | 3.69 | 65 | Pn | Pn | 07 52 48.5 | +3.4 |
| SVRH | Sivrihisar-ESK | 3.69 | 65 | Pn | Pn | 07 52 48.5 | +3.4 |
| SILT | Sile | 3.69 | 30 | ePN | Pb | 07 52 49.4 | -3.8 |
| KIZT | Kizilcal | 3.78 | 75 | ePN | Pn | 07 52 50.3 | +3.9 |
| KIZT | Kizilcal | 3.78 | 75 | Pn | Pn | 07 52 48.2 | +1.8 |
| KIZT | Kizilcal | 3.78 | 75 | Pn | Pn | 07 52 48.2 | +1.8 |
| EDRB | Edirne | 3.89 | 355 | ePN | Pn | 07 52 51.7 | +4.0 |
| AGG | Agios Georgios | 3.97 | 287 | ePN | Pn | 07 52 51.3 | +2.5 |
| AGG | Agios Georgios | 3.97 | 287 | ePn | Pn | 07 52 49.6 | +0.7 |
| AGG | Agios Georgios | 3.97 | 287 | ePn | Pn | 07 52 49.6 | +0.7 |
| MDUB | Mudurnu | 3.98 | 50 | ePN | Pn | 07 52 53.8 | +4.7 |
| KONT | Konya--Tatoy | 4.08 | 89 | ePN | Pn | 07 52 54.7 | +4.3 |
| KONT | Konya--Tatoy | 4.08 | 89 | Pn | Pn | 07 52 52.2 | +1.8 |
| KONT | Konya--Tatoy | 4.08 | 89 | Pn | Pn | 07 52 52.2 | +1.8 |
| HORT | Hortiatis | 4.13 | 311 | ePN | Pn | 07 52 53.8 | +2.6 |
| HORT | Hortiatis | 4.13 | 311 | ePn | Pn | 07 52 53.8 | +2.6 |
| CHBY | Cihanbeyli | 4.52 | 80 | ePN | Pn | 07 53 00.9 | +4.4 |
| KNT | Kendrikon | 4.61 | 315 | ePN | Pn | 07 53 00.2 | +2.5 |
| KNT | Kendrikon | 4.61 | 315 | ePn | Pn | 07 53 00.2 | +2.5 |
| BR231 | Keskin MP Arra | 4.73 | 65 | ePn | Pb | 07 53 07.9 | -3.1 |
| ANTO | Ankara | 4.75 | 65 | ePg | Pg | 07 53 17.4 | -1.5 |
| ANTO | Ankara | 4.75 | 65 | ePg | Pg | 07 53 17.4 | -1.5 |
| GRG | Griva | 4.76 | 310 | ePN | Pn | 07 53 02.7 | +2.8 |
| GRG | Griva | 4.76 | 310 | ePn | Pn | 07 53 02.7 | +2.8 |
| AFSR | Af˘ar-Bala (A | 4.82 | 70 | ePN | Pn | 07 53 05.3 | +4.6 |
| VAY | Valandovo | 4.90 | 315 | *i* Pn | Pn | 07 52 58.9 | -2.8 |
| SULT | Sultanhani-AKS | 4.98 | 85 | ePN | Pn | 07 53 07.7 | +4.7 |
| PPCY | Paphos | 5.16 | 125 | P | Pn | 07 53 05.4 | +0.1 |
| PPCY | Paphos | 5.16 | 125 | P | Pn | 07 53 05.4 | +0.1 |
| ALFC | baz=296<br>Alefka | 5.17 | 121 | P | Pn | 07 53 06.3 | +0.9 |
| ALFC | | | | S | Sn | 07 54 01.5 | -3.8 |
| ALFC | Alefka | 5.17 | 121 | P | Pn | 07 53 06.3 | +0.9 |
| ALFC | baz=292 | | | S | Sn | 07 54 01.5 | -3.8 |
| KAMT | Kaman | 5.28 | 73 | ePN | Pn | 07 53 12.1 | +5.0 |
| BR131 | Keskin Array S | 5.32 | 69 | ePn | Pn | 07 53 08.5 | +0.9 |
| BR131 | Keskin Array S | 5.32 | 69 | ePg | Pg | 07 53 31.0 | +1.3 |
| BR131 | Keskin Array S | 5.32 | 69 | ePn | Pn | 07 53 08.5 | +0.9 |
| BR131 | | | | ePg | Pg | 07 53 31.0 | +1.3 |
| BRTR | Keskin Array B | 5.32 | 69 | Pn | Pn | 07 53 08.4 | +0.9 |
| AKKU | comp=E,2.7nm,0.3s,baz=244,slow=14,SNR=34<br>Akkuyu-Mersin | 5.39 | 108 | ePN | Pn | 07 53 12.9 | +4.6 |
| LEF | Lefka | 5.39 | 120 | ePN | Pn | 07 53 11.9 | +3.5 |
| LEF | Lefka | 5.39 | 120 | Pn | Pn | 07 53 10.0 | +1.6 |
| LEF | Lefka | 5.39 | 120 | Pn | Pn | 07 53 10.0 | +1.6 |
| VTS | Vitosha | 5.54 | 328 | *ij* P | Pn | 07 53 11.0 | +0.5 |
| VTS | Vitosha | 5.54 | 328 | *ij* P | Pn | 07 53 11.0 | +0.5 |
| VTS | Vitosha | 5.54 | 328 | ePn | Pn | 07 53 11.0 | +0.5 |
| SZAC | Souni | 5.59 | 123 | P | Pn | 07 53 11.2 | 0.0 |
| SZAC | Souni<br>baz=296 | 5.59 | 123 | P | Pn | 07 53 11.2 | 0.0 |
| KRUS | Krusevo | 5.71 | 308 | ePn | Pn | 07 53 12.1 | -0.8 |
| CSS | Mathiatis | 5.78 | 119 | ePn | Pn | 07 53 13.8 | 0.0 |
| CSS | Mathiatis | 5.78 | 119 | ePn | Pn | 07 53 13.8 | 0.0 |
| TIRR | Tirgusor | 6.54 | 8 | *ij* P | Pn | 07 53 25.3 | +1.1 |
| TIRR | Tirgusor | 6.54 | 8 | ePn | Pn | 07 53 25.5 | +1.3 |
| TIRR | Tirgusor | 6.54 | 8 | ePn | Pn | 07 53 25.5 | +1.3 |
| TIR | Tirane | 6.59 | 303 | ePn | Pn | 07 53 27.3 | +2.4 |
| TIR | Tirane | 6.59 | 303 | ePn | Pn | 07 53 27.3 | +2.4 |
| BOVS | Bovan | 7.03 | 325 | *i* Pn | Pn | 07 53 31.5 | +0.6 |
| CFR | Carcaliu | 7.24 | 5 | *ij* P | Pn | 07 53 34.6 | +0.9 |
| CFR | Carcaliu | 7.24 | 5 | *ij* P | Pn | 07 53 34.6 | +0.9 |
| MLR | Muntele Rosu | 7.57 | 353 | Pn | Pn | 07 53 39.2 | +0.7 |
| MLR | comp=E,0.1nm,0.3s,baz=186,slow=8.7,SNR=12<br>Muntele Rosu | 7.57 | 353 | *ij* P | Pn | 07 53 39.5 | +1.0 |
| MLR | Muntele Rosu | 7.57 | 353 | *ij* P | Pn | 07 53 39.5 | +1.0 |
| MLR | Muntele Rosu | 7.57 | 353 | ePn | Pn | 07 53 39.5 | +1.0 |
| VOIR | | 7.63 | 349 | *ij* P | Pn | 07 53 39.0 | -0.3 |
| VOIR | | 7.63 | 349 | *ij* P | Pn | 07 53 39.0 | -0.3 |
| ARR | Arges | 7.64 | 346 | *ij* P | Pn | 07 53 40.0 | +0.7 |
| ARR | Arges | 7.64 | 346 | *ij* P | Pn | 07 53 40.0 | +0.7 |
| KUBS | Kucevo | 7.67 | 329 | ePn | Pn | 07 53 38.6 | -1.1 |
| GRUS | Gruza | 7.68 | 322 | *i* Pn | Pn | 07 53 39.4 | -0.5 |
| IVAS | Ivanjica | 7.74 | 319 | *i* Pn | Pn | 07 53 40.6 | -0.2 |
| PLOR | Plostina | 7.89 | 357 | *ij* P | Pn | 07 53 44.3 | +1.6 |
| PLOR | Plostina | 7.89 | 357 | *ij* P | Pn | 07 53 44.3 | +1.6 |
| VRI | Vrincioaia | 7.90 | 358 | *ij* P | Pn | 07 53 44.1 | +1.3 |
| VRI | Vrincioaia | 7.90 | 358 | *ij* P | Pn | 07 53 44.1 | +1.3 |
| MDVR | Moldovita | 7.96 | 331 | *ij* P | Pn | 07 53 43.3 | -0.4 |
| MDVR | Moldovita | 7.96 | 331 | *ij* P | Pn | 07 53 43.3 | -0.4 |
| TRUS | Trudelj | 8.08 | 323 | ePn | Pn | 07 53 45.1 | -0.3 |
| DOPR | Dopca | 8.10 | 351 | *ij* P | Pn | 07 53 46.3 | +0.6 |
| DOPR | Dopca | 8.10 | 351 | *ij* P | Pn | 07 53 46.3 | +0.6 |
| TIP | Timpagrande | 8.27 | 282 | ePn | Pn | 07 53 48.7 | +0.7 |
| TIP | Timpagrande | 8.27 | 282 | ePn | Pn | 07 53 48.7 | +0.7 |
| MMAI | Mount Meron Ar | 8.31 | 124 | Pn | Pn | 07 53 47.1 | -1.5 |
| MMAI | comp=E,11nm,0.3s,baz=304,slow=14,SNR=19 | | | Sn | Sn | 07 55 16.7 | -6.0 |
| BBLS | Lazići | 8.34 | 317 | *i* Pn | Pn | 07 53 50.7 | +1.8 |
| BZS | Buzias | 8.70 | 333 | *ij* P | Pn | 07 53 53.4 | -0.5 |
| BZS | Buzias | 8.70 | 333 | *ij* P | Pn | 07 53 53.4 | -0.5 |
| RSH | | 8.82 | 141 | P | Pn | 07 53 53.7 | -1.8 |
| RSH | baz=139 | | | S | Sn | 07 55 24.9 | -10 |
| RSH | baz=139 | 8.82 | 141 | P | Pn | 07 53 53.7 | -1.8 |
| GLL | Jalalah | 9.17 | 155 | P | Pn | 07 53 58.2 | -2.1 |
| GLL | Jalalah<br>baz=154 | 9.17 | 155 | P | Pn | 07 53 58.2 | -2.1 |
| SIRR | Siria | 9.26 | 335 | *ij* P | Pn | 07 53 59.4 | -2.1 |
| DRGR | | 9.42 | 341 | *ij* P | Pn | 07 54 03.5 | -0.2 |
| DRGR | | 9.42 | 341 | *ij* P | Pn | 07 54 03.5 | -0.2 |
| BURAR | Bucovina Array | 9.75 | 352 | *ij* P | Pn | 07 54 09.1 | +0.8 |
| BURAR | Bucovina Array | 9.75 | 352 | *ij* P | Pn | 07 54 09.1 | +0.8 |
| BUR04 | Bucovina Ar. S | 9.75 | 352 | ePn | Pn | 07 54 11.3 | +2.9 |
| BUR04 | Bucovina Ar. S | 9.75 | 352 | ePn | Pn | 07 54 11.3 | +2.9 |
| BUR08 | Bucovina Ar. S | 9.78 | 352 | ePn | Pn | 07 54 10.4 | +1.7 |
| BUR08 | Bucovina Ar. S | 9.78 | 352 | ePn | Pn | 07 54 10.4 | +1.7 |
| HNKL | Nakhl<br>baz=142 | 9.79 | 143 | P | Pn | 07 54 05.9 | -3.0 |
| ASF | Jabal al Asfar | 9.82 | 123 | Pn | Pn | 07 54 07.9 | -1.5 |
| ASF | comp=E,1.7nm,0.3s,baz=274,slow=5.1,SNR=9.7 | | | Sn | Sn | 07 55 55.9 | -3.9 |
| EIL | comp=E,0.3nm,0.3s,baz=180,slow=20,SNR=2.5<br>Elat | 10.49 | 140 | Pn | Pn | 07 54 19.2 | +0.8 |
| EIL | comp=E,1.3nm,0.3s,baz=303,slow=3.6,SNR=8.7 | | | Sn | Sn | 07 56 07.4 | -8.5 |
| EIL | comp=E,2.6nm,0.3s,baz=302,slow=24,SNR=4.6 | | | LR | LR | 08 00 35.8 | |
| HFRF | comp=E,59nm,19.6s,baz=233,slow=51<br>Wahat Farafira | 10.83 | 175 | P | Pn | 07 54 20.3 | -2.8 |
| HFRF | baz=175<br>Wahat Farafira | 10.83 | 175 | P | Pn | 07 54 20.3 | -2.8 |
| TR1 | Tor 1<br>baz=148 | 11.43 | 148 | P | Pn | 07 54 28.6 | -2.7 |
| AKASG | Malin Array Be | 12.81 | 6 | Pn | Pn | 07 54 52.3 | +2.3 |
| GNI | comp=E,0.3nm,0.3s,baz=192,slow=11,SNR=2.0<br>Garni | 13.80 | 75 | LR | LR | 08 00 13.5 | |
| KEST | comp=E,51nm,19.2s,baz=294,slow=36<br>Kesra | 14.47 | 267 | Pn | P | 07 55 21.1 | +1.3 |
| GEA0 | comp=E,0.5nm,0.3s,baz=1.0,slow=1.2,SNR=6.7<br>GERESS Array S | 14.61 | 322 | ePn | P | 07 55 22.6 | +1.4 |
| GEC2 | GERESS Array S | 14.62 | 322 | ePn | P | 07 55 22.9 | +1.5 |
| GERES | GERESS Array B | 14.62 | 322 | Pn | P | 07 55 22.1 | +0.8 |
| GERES | comp=E,0.3nm,0.3s,baz=135,slow=12,SNR=24 | | | LR | LR | 08 01 03.3 | |
| WTTA | comp=E,155nm,18.2s,baz=122,slow=37<br>Wattenberg | 14.73 | 314 | P | Pn | 07 55 16.5 | +0.1 |
| KHC | comp=E,1.9nm,0.4s<br>Kasperske Hory | 14.87 | 323 | ePn | P | 07 55 25.4 | +1.3 |
| KHC | | | | ex | x | 07 55 28.8 | |
| KHC | Kasperske Hory | 14.87 | 323 | ePn | P | 07 55 25.6 | +1.5 |
| FUORN | Ofenpass-Fuorn | 15.20 | 310 | ePn | P | 07 55 30.4 | +2.4 |
| GRFO | comp=E,9.5nm,1.3s<br>Grafenberg | 16.40 | 321 | ePn | P | 07 55 40.5 | -0.5 |
| GRFO | comp=E,21nm,1.4s<br>Grafenberg | 16.40 | 321 | ePn | P | 07 55 40.5 | -0.5 |
| SENIN | comp=E,21nm,1.4s<br>Lac Senin/Sane | 16.94 | 306 | ePn | Pn | 07 55 45.8 | +0.6 |
| SENIN | comp=E,15nm,1.4s<br>Lac Senin/Sane | 16.94 | 306 | ePn | Pn | 07 55 45.8 | +0.6 |
| OBN | comp=E,15nm,1.4s<br>Obninsk | 18.29 | 17 | LR | LR | 08 03 50.9 | |
| FINES | comp=E,63nm,18.0s,baz=262,slow=39<br>FINESS Array B | 23.51 | 359 | P | P | 07 56 59.7 | +1.9 |
| FINES | comp=E,5.5nm,0.9s,baz=180,slow=11,SNR=4.8 | | | LR | LR | 08 05 35.4 | |
| HFS | comp=E,130nm,19.1s,baz=208,slow=35<br>Hagfors | 23.79 | 343 | P | P | 07 57 02.3 | +1.8 |
| HFS | comp=E,11nm,1.0s,baz=184,slow=18,SNR=3.8 | | | LR | LR | 08 07 01.3 | |
| TAM | comp=E,145nm,20.3s,baz=250,slow=38<br>Tamanrasset | 23.97 | 237 | ePn | P | 07 57 03.3 | +0.5 |
| TAM | comp=E,8.8nm,1.2s<br>Tamanrasset | 23.97 | 237 | ePn | P | 07 57 03.3 | +0.5 |
| ESDC | comp=E,8.8nm,1.2s<br>Sonseca Array | 24.29 | 284 | P | P | 07 57 05.6 | +0.1 |
| AKTO | comp=E,1.2nm,0.7s,baz=80,slow=10,SNR=8.2<br>Aktyubinsk | 25.16 | 50 | P | P | 07 57 12.8 | -0.5 |
| NB2 | comp=E,4.1nm,0.8s,baz=248,slow=11,SNR=12<br>NORSAR Subarra | 25.18 | 342 | P | P | 07 57 15.0 | +1.6 |
| NB2 | comp=E,13nm,1.2s,baz=144,slow=9.3<br>NORSAR Subarra | 25.18 | 342 | P | P | 07 57 15.0 | +1.6 |
| NOA | comp=E,13nm,1.2s,SNR=6.0<br>NORSAR Array B | 25.18 | 342 | P | P | 07 57 14.7 | +1.4 |
| NOA | comp=E,2.7nm,0.8s,baz=156,slow=8.7,SNR=5.4 | | | LR | LR | 08 08 48.1 | |
| MDT | comp=E,89nm,18.0s,baz=160,slow=40<br>Midelt | 26.37 | 268 | P | P | 07 57 24.4 | -0.1 |
| EKA | comp=E,2.7nm,1.0s,baz=71,slow=10,SNR=5.0<br>Eskdalemuir Ar | 26.82 | 320 | P | P | 07 57 29.1 | +0.9 |
| ESK | comp=E,17nm,0.5s,baz=110,slow=11,SNR=13<br>Eskdalemuir | 26.83 | 320 | ePn | P | 07 57 29.3 | +1.0 |
| ESK | comp=E,34nm,1.4s<br>Eskdalemuir | 26.83 | 320 | ePn | P | 07 57 29.3 | +1.0 |
| ARCES | comp=E,34nm,1.4s<br>ARCESS Array B | 31.64 | 359 | P | P | 07 58 12.3 | +1.4 |
| TOA0 | comp=E,3.3nm,0.9s,baz=9.0,slow=12,SNR=2.4<br>Torodi Ar. Sit | 33.56 | 229 | ePn | P | 07 58 27.9 | -0.4 |
| TOA0 | comp=E,9.2nm,0.9s<br>Torodi Ar. Sit | 33.56 | 229 | ePn | P | 07 58 27.9 | -0.4 |
| TORD | comp=E,9.2nm,0.9s<br>Torodi Ar. Bea | 33.56 | 229 | P | P | 07 58 27.8 | -0.5 |
| KMBO | comp=E,6.1nm,0.7s,baz=36,slow=9.2,SNR=34<br>Kilima Mbogo | 40.00 | 164 | LR | LR | 08 18 30.3 | |
| MK31 | comp=E,22nm,18.3s,baz=340,slow=40<br>Makanchi Array | 40.89 | 59 | ePn | P | 07 59 30.1 | -0.1 |
| MK31 | Makanchi Array | 40.89 | 59 | ePn | P | 07 59 30.1 | -0.1 |
| MKAR | Makanchi Array | 40.89 | 59 | P | P | 07 59 29.8 | -0.5 |
| MKAR | comp=E,2.6nm,0.7s,baz=267,slow=8.6,SNR=9.1<br>Makanchi Array | 40.89 | 59 | ePn | P | 07 59 30.4 | +0.2 |
| MKAR | comp=E,6.3nm,0.8s<br>Makanchi Array | 40.89 | 59 | ePn | P | 07 59 30.4 | +0.2 |
| MK01 | comp=E,6.3nm,0.8s<br>Makanchi Array | 40.90 | 59 | ePn | P | 07 59 30.3 | 0.0 |
| MK01 | Makanchi Array | 40.90 | 59 | ePn | P | 07 59 30.3 | 0.0 |
| ZALV | Zalesovo Beam | 41.89 | 48 | P | P | 07 59 37.9 | -0.4 |
| DBIC | comp=E,0.9nm,0.5s,baz=281,slow=6.0,SNR=3.6<br>Dimbokro | 42.61 | 231 | P | P | 07 59 43.2 | -1.3 |
| DBIC | comp=E,2.5nm,0.7s,baz=30,slow=10.0,SNR=4.6<br>Dimbokro | 42.61 | 231 | ePn | P | 07 59 43.8 | -0.7 |
| DBIC | comp=E,18nm,1.5s<br>Dimbokro | 42.61 | 231 | ePn | P | 07 59 43.8 | -0.7 |
| WMQ | comp=E,2.18nm,1.5s<br>Urumqi | 45.21 | 63 | P | P | 08 00 06.5 | +1.2 |
| WMQ | | | | pP | sP | 08 00 11.0 | +1.9 |
| WMQ | | | | sP | pP | 08 00 13.5 | +5.5 |
| WMQ | comp=E,24nm,0.6s | | | pmax | pmax | | |
| WMQ | comp=E,170nm,3.7s | | | pmax | pmax | | |
| WMQ | comp=N,110nm,17.5s | | | LR | LR | | |
| WMQ | comp=E,100nm,17.5s | | | LR | LR | | |
| WMQ | comp=E,110nm,17.5s | | | LR | LR | | |
| SONM | Songino Array | 56.45 | 53 | P | P | 08 01 30.3 | +0.3 |
| LZH | comp=E,0.4nm,0.8s,baz=272,slow=8.2,SNR=3.3<br>Lanzhou | 59.52 | 66 | ePn | P | 08 01 54.3 | +2.6 |
| LZH | | | | pP | sP | 08 02 00.3 | +4.7 |
| LZH | | | | sP | pP | 08 02 03.3 | +8.8 |
| LZH | comp=E,13nm,1.0s | | | pmax | pmax | | |
| SCHQ | Schefferville | 62.13 | 319 | P | P | 08 02 07.5 | -1.5 |
| HHC | comp=E,3.5nm,0.7s,baz=44,slow=3.9,SNR=4.2<br>Hu-ho-hao-te | 62.73 | 58 | ePn | P | 08 02 14.5 | +1.1 |
| HHC | comp=E,17nm,0.7s | | | pmax | pmax | | |
| HHC | comp=E,180nm,8.3s | | | pmax | pmax | | |
| KSAR | Wonju Array Be | 75.27 | 54 | P | P | 08 03 31.1 | -0.1 |
| KSAR | Wonju Array Be | 75.27 | 54 | P | P | 08 03 31.1 | -0.1 |
| YKA | Yellowknife Ar | 75.27 | 343 | P | P | 08 03 28.8 | -2.0 |
| KSRS | comp=E,0.3nm,0.8s,baz=24,slow=6.1,SNR=4.2<br>Korea Array | 75.28 | 54 | P | P | 08 03 31.1 | -0.1 |
| KSRS | comp=Z,0.4nm,0.3s,baz=292,slow=8.0,SNR=4.1 | | | LR | LR | 08 42 17.6 | |
| ASAR | comp=Z,19nm,18.1s,baz=340,slow=40<br>Alice Springs | 19.86 | 100 | PKP | PKPdf | 08 10 30.3 | -2.9 |
| | comp=Z,0.3nm,0.9s,baz=337,slow=1.4,SNR=3.8 | | | | | | |

**MEX 27 08:04:48.8±0.4, 21.66N×99.32W, h5km, MD3.8, Central Mexico**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DEIG | Demacu | 1.38 | 169 | *i* P | Pn | 08 05 11.2 | -3.8 |
| DEIG | | | | *eS* | Sg | 08 05 28.9 | -4.3 |
| JRQG | Juriquilla Cam | 1.42 | 228 | *eP* | Pn | 08 05 11.6 | -3.9 |
| JRQG | | | | *eS* | Sb | 08 05 29.5 | -4.8 |
| ZUVM | ZUMPANGO | 1.84 | 173 | *eP* | Pn | 08 05 18.0 | -3.3 |
| ZUVM | | | | *eS* | Sn | 08 05 40.7 | -4.4 |
| VTVM | Tizayuca | 1.95 | 165 | *i* P | Pn | 08 05 22.4 | -0.4 |
| VTVM | | | | *eS* | Sb | 08 05 49.5 | -0.2 |
| IGIG | Irapuato, Guan | 2.08 | 245 | *eP* | Pn | 08 05 22.4 | -2.2 |
| IGIG | | | | *i* S | Sn | 08 05 49.8 | -1.2 |
| PPM | Popocatepetl | 2.66 | 166 | *eP* | Pb | 08 05 36.1 | -1.2 |

**IDC 27 08:15:26.2±7.0, 18.52S×172.95W, h0km, mb3.9/4, mb1 4.1/5, mb1mx3.6/41, mbtmp4.0/5, ML4.1/1, Error ellipse: s-maj=296.5km s-min=32.5km az=144.0, Tonga Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DZM | Mont Dzumac | 19.65 | 256 | P | P | 08 19 55.7 | -1.1 |
| CTA | 0.6nm,0.3s,baz=81,slow=19,SNR=5.1<br>Charters Tower | 38.47 | 261 | P | P | 08 22 51.0 | +0.7 |
| WRA | 4.0nm,0.9s,baz=83,slow=8.7,SNR=6.3<br>Warramunga Arr | 49.62 | 259 | P | P | 08 24 19.7 | -0.1 |
| ASAR | 0.2nm,0.3s,baz=97,slow=8.1,SNR=6.5<br>Alice Springs | 49.62 | 254 | P | P | 08 24 19.6 | -0.3 |
| ILAR | 0.9nm,0.8s,baz=90,slow=8.2,SNR=9.2<br>Eielson Array | 85.41 | 11 | P | P | 08 28 05.0 | -0.1 |
| | 0.6nm,0.9s,baz=202,slow=6.8,SNR=3.4 | | | | | | |

**MAN 27 08:19:53, 6.93N×125.11E, h32km, mb4.1, ML2.9, MS2.7, 2C, Mindanao**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| KCP | Kidapawan | 0.08 | 348 | *ij* P | Pb | 08 19 59.0 | +0.4 |
| DMPH | Davao City--Mi | 0.43 | 69 | *eP* | Pn | 08 20 03.6 | +0.7 |
| DMPH | | | | *i* S | Sn | 08 20 10.0 | +0.4 |
| BUKP | Musuan | 0.94 | 357 | *eP* | Pb | 08 20 10.7 | -0.2 |
| BUKP | | | | *eS* | Sn | 08 20 22.4 | -0.1 |

**IDC 27 08:20:24.4±2.0, 7.04S×127.88E, h0km, mb3.3/1, mb1 3.8/4, mb1mx3.4/50, mbtmp3.6/4, ML3.6/3, Error ellipse: s-maj=101.6km s-min=27.6km az=73.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| FITZ | Fitzroy Crossi | 11.21 | 191 | Pn | Pn | 08 23 07.0 | +1.0 |
| FITZ | 0.1nm,0.3s,baz=9.5,slow=6.1,SNR=8.3 | | | Sn | Sn | 08 24 56.9 | -15 |
| WRA | 0.2nm,0.3s,baz=170,slow=16,SNR=3.1<br>Warramunga Arr | 14.27 | 155 | Pn | Pn | 08 23 45.8 | -2.2 |
| WRA | 0.6nm,0.3s,baz=328,slow=13,SNR=38 | | | Sn | Sn | 08 26 09.7 | -17 |
| ASAR | 0.6nm,0.3s,baz=321,slow=26,SNR=7.2<br>Alice Springs | 17.51 | 161 | Pn | P | 08 24 30.9 | -0.6 |
| ASAR | 0.2nm,0.3s,baz=335,slow=10,SNR=19 | | | Sn | Sn | 08 27 30.0 | -16 |
| MKAR | 0.1nm,0.3s,baz=321,slow=16,SNR=4.5<br>Makanchi Array | 67.13 | 328 | P | P | 08 31 20.0 | 0.0 |
| | 0.2nm,0.8s,baz=111,slow=7.9,SNR=2.6 | | | | | | |

*IDC* ***27*** *08:23:06.8±1.2, 3.25S×101.33E, h46km±6km, mb3.9/11, mb1 4.0/11, mb1mx3.7/53, mbtmp4.1/11, MS2.8/2, Ms1 2.8/2, ms1mx2.5/46, Error ellipse: s-maj=43.3km s-min=12.6km az=53.0*

*ISCJB* ***27*** *08:23:07.8±0.5, 3.23S±0.06×101.48E±0.05, h71km±4km, mb4.2/17, Error ellipse: s-maj=11.8km s-min=4.6km az=39.0*

*NEIC* ***27*** *08:23:07.5±0.8, 3.37S×101.27E, h54km±7km, mb4.6/7, Error ellipse: s-maj=10.3km s-min=5.6km az=61.0*

*DJA* ***27*** *08:23:08.2±0.9, 3˚S±4˚×10˚1E±˚, h32km±11km, M3.6/4, MLv3.6/4*

**ISC 27 08:23:07.0±0.6, 3.33S±0.06×101.41E±0.05, h47km±6km, h47km:pP-P, n50, σ1s22/59, mb4.3

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **KURK** | **Kurchatov** | **57.28** | **343** | *e*P | | **P** | **08 32 49.3** | **-0.5** |
| | 3.1nm,0.8s | | | | | | | |
| **KLR** | **Kul'dur** | **58.58** | **23** | P | | **P** | **08 32 58.0** | **-1.0** |
| | 0.2nm,0.7s,baz=265,slow=6.1,SNR=9.0 | | | | | | | |
| **ZAA0** | **Zalesovo Array** | **58.73** | **349** | *e*P | | **P** | **08 32 59.6** | **-0.3** |
| | 5.7nm,0.6s | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **58.73** | **349** | P | | **P** | **08 32 59.1** | **-0.8** |
| | 3.0nm,0.4s,baz=169,slow=5.2,SNR=19 | | | | | | | |
| ZALV | | | | pP | | **pP** | **08 33 11.3** | **-1.9** |
| | 2.3nm,0.5s,baz=173,slow=5.8,SNR=4.5 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **58.73** | **349** | *e*P | | **P** | **08 32 59.8** | **-0.2** |
| ZALV | | | | pP | | **pP** | **08 33 11.3** | **-1.9** |
| **ZAA1** | **Zalesovo Array** | **58.74** | **349** | *e*P | | **P** | **08 32 59.1** | **-0.8** |
| ZAA1 | | | | *e*pP | | **pP** | **08 33 11.3** | **-1.9** |
| **BVAR** | **Borovoye Array** | **61.91** | **339** | P | | **P** | **08 33 20.7** | **-1.0** |
| | 1.0nm,0.6s,baz=142,slow=7.5,SNR=5.0 | | | | | | | |
| **BR101** | **Keskin Array S** | **75.25** | **312** | *e*P | | **P** | **08 34 44.4** | **-1.1** |
| **BRTR** | **Keskin Array B** | **75.25** | **312** | P | | **P** | **08 34 44.4** | **-1.1** |
| | 0.6nm,0.6s,baz=97,slow=4.6,SNR=4.1 | | | | | | | |
| **BUR04** | **Bucovina Ar. S** | **83.19** | **319** | *e*P | | **P** | **08 35 29.2** | **+0.7** |
| **BUR08** | **Bucovina Ar. S** | **83.20** | **319** | *e*P | | **P** | **08 35 29.5** | **+0.9** |
| **BINY** | **Binghamton** | **141.23** | **357** | *e*PKPdf | | **PKPdf** | **08 42 33.3** | **+0.4** |
| **TX31** | **Lajitas Ar. Si** | **144.85** | **40** | *e*PKPbc | | **PKPdf** | **08 42 39.4** | **-0.4** |
| **LTX** | **Lajitas** | **144.85** | **40** | *e*PKPbc | | PKPbc | 08 42 39.1 | +0.2 |
| LTX | | | | *ep*PKPdf | | pPKPdf | 08 42 53.7 | -0.5 |
| **TXAR** | **Lajitas Array** | **144.85** | **40** | PKP | | PKPbc | 08 42 39.1 | +0.2 |
| | 0.9nm,0.7s,baz=310,slow=0.6,SNR=14 | | | | | | | |
| TXAR | | | | pPKP | | pPKPdf | 08 42 53.7 | -0.5 |
| | 0.3nm,0.5s,baz=205,slow=1.2,SNR=4.3 | | | | | | | |
| **SPRD** | **Spring Road, M** | **145.46** | **359** | *e*PKPdf | | **PKPbc** | **08 42 39.1** | **-1.3** |
| **MIAR** | **Mount Ida** | **145.95** | **22** | *e*PKPdf | | **PKPab** | **08 42 42.6** | **0.0** |

**IDC 27 08:55:23.5±27.0, 20.43S×173.47W, h0km, mb4.1/4, mb1 4.3/4, mb1mx3.7/35, mbtmp4.1/4, MS3.5/3, Ms1 3.4/3, ms1mx2.9/34, Error ellipse: s-maj=495.9km s-min=150.4km az=75.0, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **9.67** | **204** | LR | | LR | 09 00 51.4 | |
| | comp=Z,490nm,20.5s,baz=150,slow=34 | | | | | | | |
| **CTA** | **Charters Tower** | **37.72** | **263** | P | | P | 09 02 41.8 | +0.6 |
| | 6.8nm,1.0s,baz=90,slow=10,SNR=4.5 | | | | | | | |
| **STKA** | **Stephens Creek** | **41.65** | **245** | P | | P | 09 03 13.4 | -0.4 |
| | 1.1nm,0.4s,baz=89,slow=11,SNR=6.8 | | | | | | | |
| **ASAR** | **Alice Springs** | **48.67** | **256** | P | | P | 09 04 09.4 | -0.4 |
| | 1.7nm,0.7s,baz=96,slow=7.0,SNR=21 | | | | | | | |
| **WRA** | **Warramunga Arr** | **48.82** | **261** | P | | P | 09 04 10.7 | -0.2 |
| | 0.8nm,0.2s,baz=96,slow=8.5,SNR=56 | | | | | | | |
| **CMIG** | **Matias Romero** | **85.63** | **70** | LR | | LR | 09 38 59.8 | |
| | comp=Z,29nm,19.4s,baz=53,slow=31 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **94.71** | **24** | LR | | LR | 09 48 06.7 | |
| | comp=Z,7.7nm,18.8s,baz=0.0,slow=33 | | | | | | | |

*ISCJB 27 08:55:43.6±0.4, 36.77N±0.04×71.21E±0.05, h106km, mb3.1/4, Error ellipse: s-maj=6.6km s-min=4.3km az=142.6*
*IDC 27 08:55:43.2±3.5, 36.73N×71.28E, h74km±32km, mb3.2/4, mb1 3.4/11, mb1mx3.2/53, mbtmp3.6/11, MS3.3/1, Ms1 3.3/1, ms1mx2.4/29, Error ellipse: s-maj=31.6km s-min=20.2km az=165.0*
*NNC 27 08:55:50.6±2.2, 37.31N×71.08E, h146km±20km, mb2.9, mpv3.8, Error ellipse: s-maj=19.6km s-min=8.5km az=164.0*
**ISC 27 08:55:44.9±0.7, 36.90N±0.06×71.26E±0.06, h106km, n33, σ2.906/42, mb3.2/4, 9C-5D, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **DZET** | **Dzherino** | **2.71** | **315** | ⇓P | | **Pn** | **08 56 29.2** | **+2.1** |
| | 52nm,0.4s | | | | | | | |
| DZET | | | | ⇑S | | **Sn** | **08 56 59.9** | **+0.4** |
| | 109nm,0.5s | | | | | | | |
| **SFK** | **Sufi-Kurgan** | **3.57** | **29** | ⇑P | | **Pn** | **08 56 41.9** | **+3.2** |
| | 5.7nm,0.4s | | | | | | | |
| SFK | | | | ⇑S | | **Sn** | **08 57 22.5** | **+2.3** |
| | 33nm,0.4s | | | | | | | |
| **AML** | **Almayashu** | **5.55** | **19** | P | | **Pn** | **08 57 07.5** | **+2.0** |
| | SNR=17 | | | | | | | |
| **MNAS** | **Manas** | **5.67** | **9** | ⇓P | | **Pn** | **08 57 08.5** | **+1.7** |
| | 5.2nm,0.5s | | | | | | | |
| MNAS | | | | ⇓S | | **Sn** | **08 58 07.9** | **-2.7** |
| | 5.4nm,0.5s | | | | | | | |
| **THN** | **Thein Dam** | **5.77** | **139** | *e*P | | **Pn** | **08 57 09.0** | **+0.9** |
| THN | | | | *e*S | | **Sn** | **08 58 11.8** | **-1.1** |
| **UCH** | **Uchtor** | **5.89** | **24** | P | | **Pn** | **08 57 12.2** | **+2.2** |
| | SNR=6.3 | | | | | | | |
| **EKS2** | **Erkin-Say** | **6.07** | **18** | P | | **Pn** | **08 57 14.6** | **+2.3** |
| | SNR=9.1 | | | | | | | |
| **KK31** | **Karatay Array** | **6.23** | **355** | ⇓P | | **Pn** | **08 57 16.0** | **+1.7** |
| | 7.5nm,0.6s,baz=184,slow=15,SNR=72 | | | | | | | |
| KK31 | | | | ⇑S | | **Sn** | **08 58 22.7** | **-1.4** |
| | 2.1nm,0.3s,baz=189,slow=24,SNR=6.6 | | | | | | | |
| **AAK** | **Ala-Archa** | **6.25** | **22** | P | | **Pn** | **08 57 16.2** | **+1.5** |
| | 2.2nm,0.3s,baz=159,slow=6.6,SNR=22 | | | | | | | |
| AAK | | | | S | | **Sn** | **08 58 24.1** | **-0.7** |
| | 1.3nm,0.3s,baz=321,slow=19,SNR=12 | | | | | | | |
| **AAK** | **Ala-Archa** | **6.25** | **22** | P | | **Pn** | **08 57 16.4** | **+1.7** |
| | 3.9nm,0.5s | | | | | | | |
| AAK | | | | S | | **Sn** | **08 58 24.1** | **-0.7** |
| | 26nm,0.9s | | | | | | | |
| **AAK** | **Ala-Archa** | **6.25** | **22** | P | | **Pn** | **08 57 16.9** | **+2.2** |
| | SNR=9.7 | | | | | | | |
| **CHMS** | **Chumysh** | **6.66** | **23** | P | | **Pn** | **08 57 22.1** | **+2.0** |
| | SNR=6.9 | | | | | | | |
| **TKM2** | **Tokmak 2** | **6.88** | **28** | ⇑P | | **Pn** | **08 57 24.3** | **+1.1** |
| | 3.7nm,0.6s | | | | | | | |
| TKM2 | | | | ⇑S | | **Sn** | **08 58 37.7** | **-2.4** |
| | 9.2nm,1.0s | | | | | | | |
| **TKM2** | **Tokmak 2** | **6.88** | **28** | P | | **Pn** | **08 57 25.8** | **+2.5** |
| | SNR=9.4 | | | | | | | |
| **GEYT** | **Alibeck** | **10.51** | **280** | P | | **Pn** | **08 58 11.6** | **-0.9** |
| | 2.1nm,0.3s,baz=98,slow=10.0,SNR=9.5 | | | | | | | |
| GEYT | | | | S | | **Sn** | **09 00 06.8** | **-1.4** |
| | 0.8nm,0.3s,baz=110,slow=17,SNR=3.8 | | | | | | | |
| **MKAR** | **Makanchi Array** | **12.85** | **36** | P | | **Pn** | **08 58 43.7** | **+0.2** |
| | 0.0nm,0.3s,baz=217,slow=13,SNR=8.6 | | | | | | | |
| **PYUN** | **Piuthan** | **13.21** | **128** | *e*P | | **Pn** | **08 58 47.1** | **-1.5** |
| | 11nm,0.4s | | | | | | | |
| **KOLN** | **Koldanda** | **13.83** | **128** | *e*P | | **Pn** | **08 58 54.6** | **-2.0** |
| | 8.8nm,0.5s | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **14.68** | **19** | P | | **P** | **08 59 10.0** | **-0.5** |
| | 0.1nm,0.3s,baz=207,slow=11,SNR=4.2 | | | | | | | |
| **AB31** | **Akbulak array** | **14.84** | **330** | ⇑P | | **Pn** | **08 59 07.4** | **-1.8** |
| | 2.1nm,0.8s,baz=144,slow=13,SNR=21 | | | | | | | |
| AB31 | | | | ⇑S | | Sn | 09 01 42.6 | -10 |
| | 1.6nm,0.8s,baz=151,slow=23,SNR=4.0 | | | | | | | |
| **PKI** | **Pulchoki** | **15.14** | **124** | *e*P | | **Pn** | **08 59 11.4** | **-2.1** |
| | 9.6nm,0.6s | | | | | | | |
| **GUN** | **Gumba** | **15.24** | **122** | *e*P | | **Pn** | **08 59 11.6** | **-3.1** |
| | 13nm,0.5s | | | | | | | |
| **JIRN** | **Jiri** | **15.61** | **122** | *e*P | | **Pn** | **08 59 16.5** | **-2.9** |
| **BVAR** | **Borovoye Array** | **16.14** | **358** | P | | **P** | **08 59 26.3** | **-0.3** |
| | 0.2nm,0.3s,baz=167,slow=7.3,SNR=4.5 | | | | | | | |
| **RAMN** | **Ramite** | **16.35** | **123** | *e*P | | **Pn** | **08 59 27.0** | **-1.4** |
| | 19nm,0.5s | | | | | | | |
| **AKTO** | **Aktyubinsk** | **16.55** | **329** | P | | **P** | **08 59 32.5** | **+1.3** |
| | 0.4nm,0.3s,baz=132,slow=22,SNR=6.7 | | | | | | | |
| **AKTO** | **Aktyubinsk** | **16.55** | **329** | ⇑P | | **P** | **08 59 32.7** | **+1.5** |
| | 1.5nm,0.7s | | | | | | | |
| AKTO | | | | ⇓S | | **Sn** | **09 02 28.7** | **-5.3** |
| | 2.5nm,1.1s | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **19.47** | **25** | P | | **Pn** | **09 00 04.5** | **-0.9** |
| | 0.2nm,0.3s,baz=214,slow=11,SNR=4.4 | | | | | | | |
| **TLY** | **Talaya** | **27.21** | **47** | LR | | LR | 09 11 28.9 | |
| | comp=Z,59nm,19.6s,baz=6.0,slow=35 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **65.94** | **269** | P | | **P** | **09 06 22.3** | **+2.4** |
| | 0.1nm,0.5s,baz=43,slow=5.4,SNR=3.5 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **80.84** | **3** | P | | **P** | **09 07 49.5** | **+2.9** |
| | 0.1nm,0.4s,baz=346,slow=5.6,SNR=3.5 | | | | | | | |
| **WRA** | **Warramunga Arr** | **82.02** | **122** | P | | **P** | **09 07 54.6** | **+1.1** |
| | 0.5nm,1.0s,baz=327,slow=4.7,SNR=4.1 | | | | | | | |
| **ASAR** | **Alice Springs** | **84.31** | **125** | P | | **P** | **09 08 06.6** | **+1.4** |
| | 0.4nm,0.9s,baz=298,slow=5.9,SNR=3.5 | | | | | | | |

*NIED 27 09:04:00, 31.30N×140.90E, h86km, Mw5.2 Best double couple: M0 8.09000×10^16 NP1:φs188.00000°, δ87.00000°, λ2.00000°. NP2:φs98.00000°, δ88.00000°, λ177.00000°.*
*BJI 27 09:04:22.9, 31.09N×141.12E, h94km, mb4.9/73, mB5.1/58*
*MOS 27 09:04:26.0±0.9, 31.17N×140.36E, h68km, mb5.6/104,*
*MS4.3/16, Error ellipse: s-maj=6.9km s-min=4.1km az=102.4*
*IDC 27 09:04:29.4±0.6, 31.15N×140.37E, h90km±4km, mb4.7/30, mb1 4.8/33, mb1mx4.8/42, mbtmp5.0/33, MS4.2/35, Ms1 4.2/35, ms1mx4.1/53, Error ellipse: s-maj=12.1km s-min=6.2km az=82.0*
*JMA 27 09:04:29.3±0.2, 31.27N×140.88E, h78km, M5.3*
*JMA Felt I J1.*
*NEIC 27 09:04:30.3±0.1, 31.13N×140.34E, mb5.4/273, Error ellipse: s-maj=2.8km s-min=2.4km az=149.0*
*NEIC Recorded [1 JMA] on Aogo-shima.*
*GCMT 27 09:04:30.3±0.1, 31.17N×140.53E, h89km±1km, MW5.3/123, Moment Tensor Solution. s95,c156; s123,c211; Duration: 1↑1 Moment tensor: Scale 10^17 Nm; Mrr0.41±.02; Mθθ-0.61±.02; Mφφ0.20±.02; Mrθ0.19±.01; Mθφ-0.94±.02; Mφr-0.60±.01; Best double couple: M0 1.25400×10^17 NP1:φs197.00000°, δ71.00000°, λ32.00000°. NP2:φs96.00000°, δ60.00000°, λ158.00000°. Principal axes: T 1.2570, Plg36.0000°, Azm59.0000°; N -0.0080, Plg54.0000°, Azm226.0000°; P -1.2500, Plg7.0000°, Azm325.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*ISCJB 27 09:04:30.4±0.4, 31.23N±0.02×140.42E±0.02, h103km±2km, mb5.3/341 Error ellipse: s-maj=3.9km s-min=2.7km az=163.5*
**ISC 27 09:04:29.8±0.3, 31.26N±0.03×140.57E±0.03, h92km±2km, h92km:pP-P, n1192, σ1.953/1254, mb5.3/354, 54C-32D, Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **JHCJ** | **Hachijojimakas** | **1.92** | **340** | ⇓P | | **Pn** | **09 05 01.7** | **+0.6** |
| JHCJ | | | | S | | **Sn** | **09 05 25.7** | **+0.8** |
| **JHJ2** | **Mitsune** | **1.95** | **341** | ⇓P | | **Pn** | **09 05 02.2** | **+0.7** |
| JHJ2 | | | | S | | **Sn** | **09 05 27.3** | **+1.7** |
| **JHJ2** | **Mitsune** | **1.95** | **341** | *e*Pn | | **Pn** | **09 05 02.2** | **+0.7** |
| JHJ2 | | | | *e*Sn | | **Sn** | **09 05 27.6** | **+2.0** |
| **JHJ** | **Hachijo jima 2** | **1.97** | **340** | P | | **Pn** | **09 05 02.4** | **+0.7** |
| | 1μm,0.3s,baz=30,slow=23,SNR=160 | | | | | | | |
| JHJ | | | | LR | | LR | 09 05 17.5 | |
| | comp=Z,70nm,21.4s,baz=36,slow=24 | | | | | | | |
| JHJ | | | | S | | **Sn** | **09 05 26.2** | **+0.2** |
| | 4μm,0.3s,baz=78,slow=20,SNR=16 | | | | | | | |
| **JKO** | **Kozu shima** | **3.16** | **338** | P | | **Pn** | **09 05 19.4** | **+1.9** |
| **BSO1** | **Boso 1** | **3.40** | **6** | P | | **Pn** | **09 05 20.1** | **-0.2** |
| BSO1 | | | | S | | **Sn** | **09 06 00.6** | **+1.3** |
| **BSO3** | **Boso 3** | **3.53** | **359** | P | | **Pn** | **09 05 22.2** | **-0.1** |
| **JSG** | **Sagara** | **3.95** | **330** | P | | **Pn** | **09 05 30.8** | **+2.6** |
| **TTO1** | **TONANKAI O.B.S** | **3.97** | **307** | ⇓P | | **Pn** | **09 05 30.4** | **+2.2** |
| **JOD2** | **Odawara 2** | **4.18** | **343** | P | | **Pn** | **09 05 32.8** | **+1.5** |
| JOD2 | | | | *e*S | | **Sn** | **09 06 21.2** | **+2.2** |
| **SHZ3** | **Shizuoka 3** | **4.28** | **333** | ⇓P | | **Pn** | **09 05 34.7** | **+2.0** |
| **HMMJ** | **Hamamatsu 2** | **4.31** | **327** | ⇓P | | **Pn** | **09 05 34.8** | **+1.8** |
| **CBIJ** | **Chichi jima** | **4.38** | **161** | P | | **Pn** | **09 05 30.7** | **-3.4** |
| **CBIJ** | **Chichi jima** | **4.38** | **161** | *e*Pn | | **Pn** | **09 05 30.1** | **-4.0** |
| CBIJ | | | | *e*Sn | | **Sn** | **09 06 22.4** | **-1.6** |
| **JAA** | **Atsumi** | **4.43** | **320** | P | | **Pn** | **09 05 36.6** | **+2.0** |
| JAA | | | | S | | **Sn** | **09 06 28.4** | **+3.4** |
| **JIE** | **Ise** | **4.51** | **315** | ⇓P | | **Pn** | **09 05 37.7** | **+2.0** |
| JIE | | | | S | | **Sn** | **09 06 29.7** | **+2.7** |
| **JKN2** | **Miekihoku** | **4.68** | **311** | ⇓P | | **Pn** | **09 05 40.0** | **+1.9** |
| **JWZ** | **Kozaga** | **4.69** | **300** | ⇓P | | **Pn** | **09 05 39.5** | **+1.3** |
| JWZ | | | | S | | **Sn** | **09 06 32.3** | **+0.9** |
| **JAO** | **Obara** | **4.86** | **326** | ⇓P | | **Pn** | **09 05 42.6** | **+2.0** |
| **JRY** | **Ryogami san** | **4.94** | **344** | P | | **Pn** | **09 05 43.0** | **+1.3** |
| **INU** | **Inuyama** | **5.05** | **325** | *e*Pn | | **Pn** | **09 05 43.8** | **+0.8** |
| **JGF** | **Kuroka** | **5.09** | **329** | S | | **Sn** | **09 06 47.5** | **+6.2** |
| **JWM** | **Minabe** | **5.10** | **302** | ⇓P | | **Pn** | **09 05 45.5** | **+1.7** |
| **JHE** | **Heguri** | **5.32** | **311** | ⇓P | | **Pn** | **09 05 49.2** | **+2.4** |
| **MJAR** | **Matsushiro Arr** | **5.62** | **340** | P | | **Pn** | **09 05 51.9** | **+1.0** |
| | 16nm,0.3s,baz=157,slow=6.8,SNR=112 | | | | | | | |
| MJAR | | | | S | | **Sn** | **09 06 55.6** | **+1.5** |
| | 9.4nm,0.3s,baz=159,slow=14,SNR=4.1 | | | | | | | |
| **MAJO** | **Matsushiro** | **5.62** | **340** | ⇑*i*P | | **Pn** | **09 05 51.7** | **+0.8** |
| **MAJO** | **Matsushiro** | **5.62** | **340** | *e*Pn | | **Pn** | **09 05 52.2** | **+1.2** |
| MAJO | | | | *e*Sn | | **Sn** | **09 06 56.2** | **+2.1** |
| **MAT** | **Matsushiro** | **5.62** | **340** | P | | **Pn** | **09 05 52.0** | **+1.1** |
| MAT | | | | S | | **Sn** | **09 06 56.0** | **+1.9** |
| **MJB9** | **Matsu-Tunnel** | **5.63** | **340** | *e*Pn | | **Pn** | **09 05 52.2** | **+1.2** |
| **JAJ2** | **Tsuna** | **5.73** | **305** | ⇓P | | **Pn** | **09 05 55.1** | **+2.8** |
| **JAI** | **Aioi** | **5.75** | **298** | ⇓P | | **Pn** | **09 05 54.6** | **+2.0** |
| **JMIK** | **Miki** | **5.83** | **309** | ⇓P | | **Pn** | **09 05 56.6** | **+2.9** |
| **MRT2** | **Murotomisaki 2** | **5.84** | **293** | ⇓P | | **Pn** | **09 05 55.3** | **+1.5** |
| **JKS** | **Kasai** | **6.07** | **309** | P | | **Pn** | **09 05 59.8** | **+2.8** |
| **JKU** | **Kubokawa** | **6.68** | **290** | ⇓P | | **Pn** | **09 06 07.2** | **+1.9** |
| **JTO** | **Tosashimizu** | **6.78** | **286** | P | | **Pn** | **09 06 08.1** | **+1.4** |
| **UWA2** | **Uwa jima 2** | **7.01** | **288** | ⇓P | | **Pn** | **09 06 12.0** | **+2.2** |
| **JNA** | **Nagahama** | **7.21** | **291** | P | | **Pn** | **09 06 14.9** | **+2.3** |
| **JHS** | **Saijyo** | **7.28** | **303** | P | | **Pn** | **09 06 16.4** | **+2.9** |
| **JNM** | **Ikuma** | **7.59** | **306** | ⇓P | | **Pn** | **09 06 21.4** | **+3.8** |
| **JMK** | **Ichinoseki** | **7.69** | **4** | P | | **Pn** | **09 06 17.8** | **-1.2** |
| JMK | | | | S | | **Sn** | **09 07 38.9** | **-5.6** |
| **JOI** | **OKI** | **7.89** | **311** | P | | **Pn** | **09 06 25.6** | **+3.8** |
| **JNU** | **Nakatsue** | **8.42** | **285** | P | | **Pn** | **09 06 30.7** | **+1.6** |
| | 4.9nm,0.3s,baz=88,slow=7.9,SNR=133 | | | | | | | |
| JNU | | | | LR | | LR | 09 09 38.8 | |
| | comp=Z,5.8nm,21.9s,baz=99,slow=37 | | | | | | | |
| **JNU** | **Nakatsue** | **8.42** | **285** | *e*Pn | | **Pn** | **09 06 31.8** | **+2.7** |
| **JZO** | **Okuchi** | **8.54** | **278** | P | | **Pn** | **09 06 33.0** | **+2.3** |
| **JSJ** | **Shimokoshiki** | **9.28** | **275** | P | | **Pn** | **09 06 41.6** | **+0.9** |
| **ERM** | **Erimo** | **10.93** | **10** | ⇑*i*P | | **Pn** | **09 07 00.5** | **-2.6** |
| **ERM** | **Erimo** | **10.93** | **10** | *e*Pn | | **Pn** | **09 07 01.1** | **-2.0** |
| ERM | | | | *e*Sn | | **Sn** | **09 08 56.7** | **-6.7** |
| **JOW** | **Kunigami** | **11.62** | **251** | *e*Pn | | **Pn** | **09 07 11.3** | **-1.4** |
| **TJN** | **Taejon** | **12.11** | **298** | *d*iP | | **Pn** | **09 07 21.9** | **+2.9** |
| **KSRS** | **Korea Array** | **12.13** | **304** | P | | **Pn** | **09 07 20.9** | **+1.5** |
| | 2.9nm,0.3s,baz=118,slow=14,SNR=198 | | | | | | | |
| KSRS | | | | LR | | LR | 09 11 47.1 | |
| | comp=Z,1μm,20.7s,baz=120,slow=36 | | | | | | | |
| KSRS | | | | PcP | | **PcP** | **09 12 56.8** | **+1.1** |
| | 0.2nm,0.3s,baz=109,slow=0.1,SNR=6.1 | | | | | | | |
| KSRS | | | | ScP | | **ScP** | **09 16 19.3** | **-1.0** |
| | 0.2nm,0.3s,baz=170,slow=1.9,SNR=10.0 | | | | | | | |
| **KS15** | **Wonju Array Si** | **12.16** | **304** | *e*Pn | | Pn | 09 07 23.9 | +4.3 |
| **KS01** | **Wonju Array Si** | **12.16** | **304** | *e*Pn | | Pn | 09 07 24.4 | +4.7 |
| **ASAJ** | **Asahikawa** | **12.93** | **7** | P | | **Pn** | **09 07 27.2** | **-2.8** |
| | 5.9nm,0.3s,baz=221,slow=8.6,SNR=23 | | | | | | | |
| ASAJ | | | | S | | **Sn** | **09 09 44.6** | **-7.4** |
| | 3.7nm,0.3s,baz=61,slow=19,SNR=4.4 | | | | | | | |
| **INCN** | **Inchon** | **13.07** | **302** | *e*Pn | | **Pn** | **09 07 33.2** | **+1.3** |
| **INCN** | **Inchon** | **13.07** | **302** | P | | **Pn** | **09 07 35.2** | **+3.3** |
| | SNR=16 | | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **13.42** | **17** | *e*P | | **Pn** | **09 07 33.0** | **-3.3** |
| YUK | | | | pmax | | pmax | | |
| | comp=Z,170nm,0.4s | | | | | | | |
| YUK | | | | pmax | | pmax | | |
| | comp=E,97nm,0.5s | | | | | | | |
| YUK | | | | pmax | | pmax | | |
| | comp=N,53nm,0.4s | | | | | | | |
| **SHO** | **Shikotan** | **13.53** | **20** | *e*P | | **Pn** | **09 07 34.8** | **-2.9** |
| SHO | | | | pmax | | pmax | | |
| | comp=Z,105nm,0.7s | | | | | | | |
| SHO | | | | pmax | | pmax | | |
| | comp=E,55nm,0.5s | | | | | | | |
| **MSHR** | **Mys Shultsa** | **13.56** | **329** | ⇑*i*P | | **Pn** | **09 07 39.6** | **+1.3** |
| **USRK** | **Ussuriysk Ar.** | **14.58** | **335** | P | | **Pn** | **09 07 50.5** | **-0.9** |
| | comp=E,1.6nm,0.3s,baz=153,slow=12,SNR=23 | | | | | | | |
| USRK | | | | LR | | LR | 09 13 10.8 | |
| | comp=E,610nm,18.8s,baz=138,slow=36 | | | | | | | |
| **KUR** | **Kuril'sk** | **15.07** | **20** | *e*P | | **P** | **09 07 58.6** | **-2.1** |
| KUR | | | | *i* S | | **Sn** | **09 10 37.1** | **-6.7** |
| KUR | | | | pmax | | pmax | | |
| | comp=Z,52nm,0.7s | | | | | | | |
| KUR | | | | pmax | | pmax | | |
| | comp=E,39nm,0.8s | | | | | | | |
| KUR | | | | pmax | | pmax | | |
| | comp=N,24nm,0.5s | | | | | | | |
| **SARN** | **Sarigan** | **15.25** | **161** | *e*Pn | | **Pn** | **09 07 58.1** | **-2.1** |
| **YSS** | **Yuzh-Sakhalins** | **15.76** | **6** | ⇓*e*P | | **Pn** | **09 08 04.9** | **-1.4** |
| YSS | | | | pmax | | pmax | | |
| | comp=Z,90nm,0.7s | | | | | | | |
| YSS | | | | MLR | | MLR | | |
| | comp=Z,14μm,15.0s | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **15.76** | **6** | *e*Pn | | **Pn** | **09 08 05.5** | **-0.8** |
| | comp=Z,133nm,1.0s | | | | | | | |
| **MDJ** | **Mudanjiang** | **15.88** | **330** | P | | **Pn** | **09 08 08.5** | **+0.7** |
| MDJ | | | | S | | **Sn** | **09 11 02.3** | **-1.0** |
| MDJ | | | | PcP | | **PcP** | **09 13 00.0** | **-0.6** |
| MDJ | | | | pmax | | pmax | | |
| | comp=Z,30nm,1.0s | | | | | | | |
| MDJ | | | | pmax | | pmax | | |
| | comp=Z,400nm,4.9s | | | | | | | |
| MDJ | | | | LR | | LR | | |
| | comp=Z,1μm,21.3s | | | | | | | |
| MDJ | | | | LR | | LR | | |
| | comp=Z,550nm,20.0s | | | | | | | |
| MDJ | | | | LR | | LR | | |
| | comp=Z,1μm,25.2s | | | | | | | |
| **MDJ** | **Mudanjiang** | **15.88** | **330** | *e*Pn | | **Pn** | **09 08 07.3** | **-0.6** |
| | comp=Z,67nm,0.9s | | | | | | | |
| **SSE** | **Sheshan** | **16.59** | **274** | *e*P | | **Pn** | **09 08 16.8** | **0.0** |
| SSE | | | | S | | **Sn** | **09 11 20.3** | **-0.4** |
| SSE | | | | pmax | | pmax | | |
| | comp=Z,31nm,0.7s | | | | | | | |
| SSE | | | | pmax | | pmax | | |
| | comp=Z,520nm,7.3s | | | | | | | |
| SSE | | | | LR | | LR | | |
| | comp=Z,830nm,16.0s | | | | | | | |
| SSE | | | | LR | | LR | | |
| | comp=Z,310nm,16.0s | | | | | | | |
| SSE | | | | LR | | LR | | |
| | comp=Z,380nm,21.0s | | | | | | | |
| **YOJ** | **Yonaguni jima** | **16.93** | **251** | *e*P | | **Pn** | **09 08 18.5** | **-2.5** |
| **YOJ** | **Yonaguni jima** | **16.93** | **251** | *e*Pn | | **Pn** | **09 08 18.5** | **-2.5** |
| **SNY** | **Shenyang** | **17.22** | **312** | ⇑P | | **Pn** | **09 08 26.5** | **+2.1** |
| SNY | | | | pP | | **pP** | **09 08 45.3** | **+3.2** |
| SNY | | | | sP | | **sP** | **09 08 52.5** | **-1.3** |
| SNY | | | | pmax | | pmax | | |
| | comp=Z,36nm,1.1s | | | | | | | |
| SNY | | | | pmax | | pmax | | |
| | comp=Z,750nm,6.7s | | | | | | | |
| SNY | | | | LR | | LR | | |
| | comp=Z,900nm,14.1s | | | | | | | |
| SNY | | | | LR | | LR | | |
| | comp=Z,1μm,18.8s | | | | | | | |
| **DL2** | **Dalian** | **17.26** | **301** | ⇑*i*P | | **Pn** | **09 08 26.0** | **+1.1** |
| DL2 | | | | sP | | **sP** | **09 08 55.3** | **+1.1** |
| DL2 | | | | S | | **Sn** | **09 11 35.3** | **-1.4** |
| DL2 | | | | pmax | | pmax | | |
| | comp=Z,170nm,0.8s | | | | | | | |
| DL2 | | | | pmax | | pmax | | |
| | comp=Z,610nm,5.0s | | | | | | | |
| DL2 | | | | LR | | LR | | |
| | comp=Z,900nm,14.1s | | | | | | | |
| DL2 | | | | LR | | LR | | |
| | comp=Z,1μm,18.8s | | | | | | | |
| DL2 | | | | LR | | LR | | |
| | comp=Z,1μm,17.9s | | | | | | | |
| **CN2** | **Changchun** | **17.30** | **321** | *e*P | | **Pn** | **09 08 24.8** | **-0.6** |
| CN2 | | | | pmax | | pmax | | |
| | comp=Z,10.0nm,1.0s | | | | | | | |
| CN2 | | | | pmax | | pmax | | |
| | comp=Z,200nm,6.0s | | | | | | | |
| CN2 | | | | LR | | LR | | |
| | comp=Z,900nm,18.0s | | | | | | | |
| CN2 | | | | LR | | LR | | |
| | comp=Z,1μm,18.0s | | | | | | | |
| CN2 | | | | LR | | LR | | |
| | comp=Z,1μm,20.0s | | | | | | | |
| **HABR** | **Khabarovsk** | **17.70** | **348** | *e*P | | **P** | **09 08 28.9** | **-0.8** |
| HABR | | | | *e*S | | **Sn** | **09 11 47.2** | **+0.2** |
| HABR | | | | pmax | | pmax | | |
| | comp=Z,253nm,1.9s | | | | | | | |
| HABR | | | | pmax | | pmax | | |
| | comp=N,113nm,1.9s | | | | | | | |
| HABR | | | | pmax | | pmax | | |
| | comp=E,23nm,1.4s | | | | | | | |
| HABR | | | | MLR | | MLR | | |
| | comp=Z,201nm,12.0s | | | | | | | |
| **GUMO** | **Guam** | **18.03** | **166** | P | | **P** | **09 08 33.1** | **-0.5** |
| | comp=Z,28nm,0.3s,baz=241,slow=1.6,SNR=41 | | | | | | | |
| **GUMO** | **Guam** | **18.03** | **166** | *e*P | | **Pn** | **09 08 34.2** | **-0.2** |
| GUMO | | | | pmax | | pmax | | |
| | comp=Z,4μm,1.1s | | | | | | | |
| **GUMO** | **Guam** | **18.03** | **166** | *e*P | | **Pn** | **09 08 34.2** | **-0.2** |
| | comp=Z,4μm,1.1s | | | | | | | |
| **YHNB** | **Yeheng** | **18.17** | **254** | *e*P | | **P** | **09 08 33.3** | **-1.9** |
| | comp=Z,97nm,1.1s | | | | | | | |
| **NACB** | **Ninganchiao** | **18.21** | **252** | *e*P | | **P** | **09 08 34.1** | **-1.5** |
| | comp=Z,52nm,0.5s | | | | | | | |
| **NJ2** | **Nanjing** | **18.50** | **278** | *e*P | | **P** | **09 08 39.5** | **+0.7** |
| NJ2 | | | | pP | | **pP** | **09 08 55.3** | **-1.1** |
| NJ2 | | | | S | | **S** | **09 12 10.5** | **+5.6** |
| NJ2 | | | | sS | | **sS** | **09 12 31.5** | **-2.5** |
| NJ2 | | | | pmax | | pmax | | |
| | comp=Z,120nm,0.8s | | | | | | | |
| NJ2 | | | | pmax | | pmax | | |
| | comp=Z,470nm,7.9s | | | | | | | |
| NJ2 | | | | LR | | LR | | |
| | comp=Z,1μm,18.4s | | | | | | | |
| NJ2 | | | | LR | | LR | | |
| | comp=Z,730nm,15.7s | | | | | | | |
| NJ2 | | | | LR | | LR | | |
| | comp=Z,720nm,15.2s | | | | | | | |
| **YULB** | **Yu-li** | **18.81** | **250** | *e*P | | **P** | **09 08 40.4** | **-1.8** |
| | comp=Z,58nm,0.7s | | | | | | | |
| **SSLB** | **Suanglung** | **18.91** | **252** | *e*P | | **P**

WHN sS **sS** **09 13 59.3 +5.1**
**SKR Severo-Kuril's 22.59 26** *e*P P 09 09 13.2 -9.3
**HIA Hailar 23.87 325** *e*P **P** **09 09 34.7 +0.1**
HIA pmax pmax
comp=Z,95nm,1.0s
**HIA Hailar 23.87 325** *e*P **P** **09 09 34.7 +0.1**
comp=Z,95nm,1.0s
**TGY Tagaytay City 24.82 231** LR LR 09 17 51.6
comp=Z,248nm,21.3s,baz=117,slow=33
**PETK Petropavlovsk- 25.13 25** P **P** **09 09 46.7 +0.7**
comp=Z,17nm,0.8s,baz=212,slow=5.3,SNR=9.0
PETK pP **pP** **09 10 07.1 +0.5**
comp=Z,16nm,0.9s,baz=180,slow=10,SNR=3.0
PETK ScP **ScP** **09 16 48.0 -0.5**
comp=Z,3.5nm,0.8s,baz=132,slow=2.2,SNR=4.0
PETK LR LR 09 19 12.2
comp=Z,226nm,21.6s,baz=215,slow=35
**PETK Petropavlovsk- 25.13 25** *e*P **P** **09 09 47.7 +1.7**
**PEA1 Petropavlovsk- 25.13 25** *e*P **P** **09 09 46.7 +0.7**
PEA1 *e* 09 19 12.2
**HHC Hu-ho-hao-te 25.23 300** *e*P **P** **09 09 47.8 +0.6**
HHC pP pP 09 10 08.0 +0.2
HHC sP sP 09 10 20.0 +1.4
HHC S **S** **09 14 02.3 -3.7**
HHC sS sS 09 14 42.3 +0.4
HHC pmax pmax
comp=Z,15nm,0.9s
HHC pmax pmax
comp=Z,320nm,6.9s
HHC LR LR
comp=Z,970nm,17.9s
HHC LR LR
comp=Z,920nm,17.9s
HHC LR LR
comp=Z,1μm,17.3s
**PET Petropavlovsk 25.41 26** *e*P **P** **09 09 49.5 +1.0**
PET *e**SP sP 09 10 26.5 +6.6
PET *e*S **S** **09 14 06.1 -2.2**
PET pmax pmax
comp=Z,62nm,1.2s
PET MLR MLR
comp=Z,1μm,15.0s
PET MLR MLR
comp=Z,700nm,18.0s
**PET Petropavlovsk 25.41 26** *e*P **P** **09 09 50.3 +1.8**
comp=Z,407nm,1.9s
**H11N2 WAKE ISLAND Hy 26.32 110** T T 09 37 48.9
baz=300,slow=75,SNR=26
**BTO Baotou 26.33 299** *e*P **P** **09 09 55.0 -2.1**
**H11N1 WAKE ISLAND Hy 26.33 110** T T 09 37 49.8
baz=300,slow=75,SNR=30
**H11N3 WAKE ISLAND Hy 26.34 110** T T 09 37 51.0
baz=300,slow=75,SNR=27
**ENH Enshi 26.68 276** *e*P **P** **09 09 59.0 -1.4**
comp=Z,52nm,1.1s
**XAN Xi'an 26.74 284** P **P** **09 09 58.5 -2.3**
XAN pP pP 09 10 19.8 -1.7
XAN sP sP 09 10 31.8 -0.5
XAN pmax pmax
comp=Z,40nm,1.0s
XAN pmax pmax
comp=Z,120nm,3.1s
XAN LR LR
comp=Z,630nm,20.0s
XAN LR LR
comp=Z,500nm,16.0s
XAN LR LR
comp=Z,810nm,13.5s
**H11S3 WAKE ISLAND Hy 26.81 112** T T 09 38 53.6
baz=304,slow=75,SNR=386
**H11S1 WAKE ISLAND Hy 26.81 112** T T 09 38 54.1
baz=304,slow=75,SNR=392
**H11S2 WAKE ISLAND Hy 26.83 112** T T 09 38 47.9
baz=304,slow=75,SNR=308
**CLNS Chul'man 27.80 341** *e*P **P** **09 10 11.4 +1.3**
CLNS *e* 09 11 09.6
CLNS *e* 09 13 22.9
CLNS *e*S **S** **09 14 39.9 -6.2**
CLNS pmax pmax
comp=Z,141nm,1.1s
CLNS pmax pmax
comp=N,102nm,1.1s
CLNS pmax pmax
comp=E,68nm,1.2s
CLNS pmax pmax
comp=Z,30nm,1.1s
CLNS pmax pmax
comp=N,21nm,1.0s
CLNS pmax pmax
comp=E,27nm,1.1s
CLNS smax smax
comp=E,645nm,15.3s
CLNS smax smax
comp=N,466nm,13.2s
**MA2 Magadan 29.14 11** P **P** **09 10 22.7 +0.9**
comp=N,30nm,0.7s,baz=198,slow=8.7,SNR=21
MA2 LR LR 09 23 14.9
comp=N,239nm,18.8s,baz=200,slow=38
**MA2 Magadan 29.14 11***d i*P **P** **09 10 23.4 +1.6**
**GYA Guiyang 30.00 269** P **P** **09 10 30.5 +0.5**
GYA pP pP 09 10 52.0 +1.1
GYA sP sP 09 11 03.3 +1.7
GYA S **S** **09 15 20.0 -1.5**
GYA sS sS 09 15 57.5 -0.2
GYA pmax pmax
comp=N,30nm,0.8s
GYA pmax pmax
comp=N,140nm,5.4s
GYA LR LR
comp=N,640nm,17.7s
GYA LR LR
comp=N,600nm,17.2s
GYA LR LR
comp=N,620nm,17.3s
**QIZ Qiongzhong 30.26 254** P **P** **09 10 32.3 +0.1**
QIZ S **S** **09 15 25.3 0.0**
QIZ LR LR
comp=N,690nm,11.3s
QIZ LR LR
comp=N,840nm,12.9s
**ULN Ulaanbaatar 30.40 313***d i*P **P** **09 10 32.5 -0.8**
ULN pmax pmax
comp=Z,23nm,1.2s
**ULN Ulaanbaatar 30.40 313** *e*P **P** **09 10 32.9 -0.4**
comp=Z,12nm,0.7s
**ULN Ulaanbaatar 30.40 313** P **P** **09 10 31.9 -1.4**
SNR=8.1
**SONA1 Songino Array 30.80 312** *e*P **P** **09 10 34.7 -2.1**
**SONA0 Songino Array 30.80 312** *e*P **P** **09 10 36.6 -0.3**
SONA0 *e*PcP **PcP** **09 13 32.6 +0.7**
**SONM Songino Array 30.80 312** P **P** **09 10 36.6 -0.3**
comp=Z,10nm,0.9s,baz=114,slow=8.5,SNR=41
SONM PcP **PcP** **09 13 32.6 +0.7**
comp=Z,1.8nm,0.5s,baz=125,slow=2.8,SNR=6.3
SONM ScP **ScP** **09 17 05.1 -1.2**
comp=Z,8.9nm,1.1s,baz=141,slow=3.7,SNR=17
SONM LR LR 09 22 44.3
comp=Z,540nm,21.7s,baz=140,slow=36
**LZH Lanzhou 30.82 289** *e*P **P** **09 10 38.3 +1.1**
LZH pP pP 09 10 58.5 +0.4
LZH sP sP 09 11 09.8 +1.0
LZH PP **PnPn** **09 11 44.0 +2.9**
LZH S **S** **09 15 33.0 -1.2**
LZH sS sS 09 16 13.0 +2.6
LZH pmax pmax
comp=Z,21nm,1.0s
LZH pmax pmax
comp=Z,92nm,4.6s
LZH LR LR
comp=Z,710nm,13.1s
LZH LR LR
comp=Z,430nm,13.8s
LZH LR LR
comp=Z,600nm,15.1s
**CD2 Chengdu 31.44 279**⇑ *i*P P 09 10 40.5 -2.0
CD2 pP pP 09 11 01.5 -2.0
CD2 sP sP 09 11 13.8 -0.3
CD2 PP **PnPn** **09 11 53.3 +4.3**
CD2 pmax pmax
comp=Z,20nm,1.0s
CD2 pmax pmax
comp=Z,320nm,5.7s
CD2 LR LR
comp=Z,1μm,17.1s
CD2 LR LR
comp=Z,650nm,13.3s
CD2 LR LR
comp=Z,600nm,19.9s
**YAK Yakutsk 31.59 350** *e*P **P** **09 10 43.0 -0.3**
YAK *e**PP **pP** **09 11 06.0 +1.7**
YAK *e* 09 13 32.9
YAK *e*S **S** **09 15 41.8 -3.4**
YAK *e*SS **SnSn** **09 17 36.5 -3.8**
YAK *e* 09 21 02.0
YAK pmax pmax
comp=Z,42nm,1.0s
YAK pmax pmax
comp=N,20nm,1.2s
YAK pmax pmax
comp=E,6.0nm,1.3s
YAK pmax pmax
comp=Z,138nm,2.6s
YAK pmax pmax
comp=E,58nm,2.5s
YAK pmax pmax
comp=N,75nm,2.5s
YAK smax smax
comp=N,343nm,3.0s
YAK smax smax
comp=E,165nm,2.5s
**YAK Yakutsk 31.59 350** *e*P **P** **09 10 42.3 -1.1**
comp=E,47nm,0.8s
**BOD Bodaibo 32.21 333**⇓ *i*P **P** **09 10 49.1 +0.2**
BOD *e*S **S** **09 15 51.5 -3.5**
BOD pmax pmax
comp=Z,101nm,1.2s
**SEY Seymchan 32.58 10** P **P** **09 10 53.6 +1.6**
comp=Z,10nm,0.7s,baz=194,slow=6.0,SNR=36
**SEY Seymchan 32.58 10**⇓ *i*P **P** **09 10 54.1 +2.0**
**SWI Sorong 33.15 197** P **P** **09 10 59.4 +1.9**
comp=Z,32nm,0.8s
**MYLDM Lahad Datu 33.20 223** *e*P **P** **09 11 01.2 +3.2**
comp=Z,352nm,1.2s
**ZAK Zakamensk 33.61 316** *e*P **P** **09 11 00.2 -1.1**
ZAK pmax pmax
comp=Z,13nm,1.4s
**KMI Kunming 33.78 269** P **P** **09 11 04.5 +1.3**
KMI S **S** **09 16 18.8 -1.8**
KMI SS **SnSn** **09 18 30.3 -4.3**
KMI pmax pmax
comp=Z,14nm,0.8s
KMI LR LR
comp=Z,740nm,22.6s
KMI LR LR
comp=Z,240nm,24.4s
KMI LR LR
comp=Z,510nm,34.4s
**TLY Talaya 33.87 318** P **P** **09 11 03.4 0.0**
comp=Z,4.8nm,0.7s,baz=139,slow=8.2,SNR=6.4
**TLY Talaya 33.87 318** *e*P **P** **09 11 04.0 +0.6**
TLY *e* 09 12 24.9
TLY *e*S **S** **09 16 23.0 +2.0**
TLY pmax pmax
comp=Z,13nm,1.1s
**TLY Talaya 33.87 318** *e*P **P** **09 11 04.0 +0.6**
comp=Z,12nm,1.0s
**GTA Gaotai 34.00 295**⇑ P **P** **09 11 03.0 -1.9**
GTA pP pP 09 11 21.5 -4.5
GTA PP **PnPn** **09 12 18.0 -3.1**
GTA PcP **PcP** **09 13 41.5 +0.6**
GTA S S 09 16 19.0 -4.4
GTA ScP **ScP** **09 17 17.0 -0.4**
GTA ScS **ScS** **09 21 17.3 -2.4**
GTA pmax pmax
comp=Z,6.0nm,0.9s
GTA pmax pmax
comp=Z,160nm,5.0s
GTA LR LR
comp=Z,720nm,18.1s
GTA LR LR
comp=Z,750nm,18.1s
GTA LR LR
comp=Z,720nm,18.1s
**MRSI Marisa 35.34 214** P **P** **09 11 17.3 +0.9**
comp=Z,214nm,1.3s,comp=Z,2μm
**MOY Mondy 35.40 317** *e*P **P** **09 11 16.6 -0.2**
**SANI Sanana 35.91 205** P P 09 11 17.9 -3.4
comp=Z,56nm,0.9s
**LUWI Luwuk 36.30 211** P **P** **09 11 23.6 -1.0**
**MPSI Mapaga 36.46 216** P **P** **09 11 26.5 +0.5**
**APSI Ampana 36.69 213** P **P** **09 11 28.7 +0.7**
**RABL Rabaul 36.95 161** *e*P **P** **09 11 28.4 -1.7**
comp=Z,105nm,0.9s
**ATKA Atka Island 38.91 44** *e*P **P** **09 11 47.6 +1.4**
comp=Z,103nm,0.9s
**SBUM Sibu 39.20 229** *e*P **P** **09 11 49.8 +0.6**
SBUM *e*pP **pP** **09 12 12.0 +1.4**
**SRAK Srakaew 39.24 253** P pP 09 12 08.6 -2.3
comp=Z,3μmcomp=Z,358nm,1.1s
**BKB Balikpapan 39.39 219** P pP 09 12 15.3 +3.1
**TTSI Tana Toraja 39.43 214** P pP 09 12 15.7 +3.2
**CMMT Chiang Mai 39.47 262** P pP 09 12 13.8 +0.9
comp=Z,45nm,1.1s
**CHTO Chiang Mai 39.48 262** P pP 09 12 13.9 +1.0
comp=Z,205nm,1.1s
**CHTO Chiang Mai 39.48 262** *e*P **P** **09 11 50.9 -0.5**
CHTO pmax pmax
comp=Z,38nm,0.9s
**CHTO Chiang Mai 39.48 262** *e*P **P** **09 11 50.9 -0.5**
comp=Z,38nm,0.9s
**CM31 Chiang Mai Arr 39.64 261** *e*P P 09 11 50.6 -2.1
CM31 *e*PcP **PcP** **09 13 58.3 +0.2**
**CMAR Chiang Mai Arr 39.64 261** P P 09 11 50.6 -2.1
comp=Z,1.0nm,0.3s,baz=71,slow=30,SNR=4.6
CMAR PcP **PcP** **09 13 58.3 +0.2**
comp=Z,1.8nm,0.4s,baz=225,slow=0.4,SNR=6.8
CMAR ScP **ScP** **09 17 39.6 +1.1**
comp=Z,7.6nm,1.0s,baz=34,slow=2.9,SNR=15
CMAR LR LR 09 30 00.2
comp=Z,242nm,18.3s,baz=64,slow=39
**CM01 Chiang Mai Arr 39.64 261** *e*P **P** **09 11 52.3 -0.5**
CM01 *e*PcP **PcP** **09 13 59.2 +1.1**
**HVS Khovu-Aksy 39.66 314**⇑ *e*P **P** **09 11 52.5 -0.1**
HVS pmax pmax
comp=Z,33nm,0.8s
**NAYO Nakonayok 39.67 254** P pP 09 12 16.6 +2.0
comp=Z,47nm,1.2s
**BILL Bilibino 39.76 15***c i*P **P** **09 11 54.4 +1.2**
BILL *i* 09 12 07.9
BILL *i* 09 13 37.9
BILL pmax pmax
comp=Z,60nm,1.7s
BILL MLR MLR
comp=Z,178nm,16.0s
**MTKI Muara Teweh, K 40.24 222** P pP 09 12 20.8 +1.5
**PMG Port Moresby 40.92 170** P **P** **09 12 00.8 -2.4**
comp=Z,19nm,0.9s,baz=9.3,slow=6.3,SNR=9.6
PMG LR LR 09 28 05.4
comp=Z,198nm,20.7s,baz=16,slow=35
**PMG Port Moresby 40.92 170** *e*P **P** **09 12 01.2 -2.1**
PMG pmax pmax
comp=Z,23nm,1.0s
**PMG Port Moresby 40.92 170** *e*P **P** **09 12 01.2 -2.1**
comp=Z,23nm,1.0s
**TIXI Tiksi 40.94 354** P **P** **09 12 02.6 -0.2**
comp=Z,6.3nm,0.4s,baz=137,slow=11,SNR=6.0
**TIXI Tiksi 40.94 354** *e*P **P** **09 12 03.6 +0.8**
**TIXI Tiksi 40.94 354** *e*P **P** **09 12 03.6 +0.8**
**KSM Kuching 41.18 230** *e*P **P** **09 12 06.1 +0.6**
KSM *e*pP **pP** **09 12 28.4 +1.3**
**KAPI Kappang 41.18 213** P pP 09 12 28.0 +0.9
SNR=11
**KBKI Kotabaru 41.49 219** P **P** **09 12 08.3 +0.3**
**STKI Sintang 41.50 227** P pP 09 12 31.7 +1.9
**NIKH Nikolski High 42.26 44** *e*P **P** **09 12 14.9 +1.1**
comp=Z,275nm,0.9s
**WMQ Urumqi 43.08 302** P **P** **09 12 19.8 -0.9**
WMQ pP pP 09 12 43.5 +1.0
WMQ sP sP 09 12 54.0 +1.0
WMQ S **S** **09 18 39.3 -0.6**
WMQ sS sS 09 19 18.5 +1.2
WMQ ScS **ScS** **09 22 10.0 -1.9**
WMQ pmax pmax
comp=Z,47nm,0.9s
WMQ pmax pmax
comp=Z,510nm,3.7s
WMQ LR LR
comp=Z,2μm,29.9s
WMQ LR LR
comp=Z,820nm,31.9s
WMQ LR LR
comp=Z,730nm,27.9s
**DGZ Jazzator, Alta 43.42 311***c i*P **P** **09 12 23.2 -0.3**
DGZ pmax pmax
comp=Z,20nm,0.9s
**PBKI Pangkalan Bun 43.56 224** P pP 09 12 48.2 +1.6
**SOEI Soe 43.67 204** P pP 09 12 48.4 +0.8
**EDFI Ende, Flores 43.70 208** P **P** **09 12 24.8 -1.2**
**GAMB Gambell 44.07 28** *e*P **P** **09 12 30.3 +2.1**
comp=Z,37nm,1.0s
**HNR Honiara 44.52 152** LR LR 09 29 47.3
comp=Z,170nm,20.4s,baz=334,slow=34
**TRTT Trang 44.65 247** P pP 09 12 56.9 +1.5
comp=Z,27nm,1.2s
**COEN Coen 45.03 176** *e*P **P** **09 12 35.1 -1.3**
comp=Z,16nm,0.8s
**PLAI Plampang 45.45 212** P P 09 12 36.1 -3.7
**ZALV Zalesovo Beam 45.46 317** PcP **PcP** **09 14 17.3 +0.4**
comp=Z,35nm,0.7s,baz=112,slow=3.3,SNR=12
ZALV LR LR 09 31 53.4
comp=Z,619nm,20.1s,baz=75,slow=36
**KULM Kulim 45.47 244** *e*P **P** **09 12 41.2 +1.2**
KULM *e*pP **pP** **09 13 02.1 +0.2**
**PKDT Phuket 45.69 249** P pP 09 13 05.7 +2.0
comp=Z,5μmcomp=Z,28nm,1.2s
**IPM Ipoh 45.70 242** *e*P **P** **09 12 42.4 +0.6**
IPM *e*pP **pP** **09 13 03.4 -0.4**
**KMMI Kalianget 45.81 218** P pP 09 13 05.7 +1.1
**SRBI Singaraja 46.04 216** P pP 09 13 08.1 +1.7
**ABJI Asem Bagus 46.30 217** P pP 09 13 10.2 +1.7
**ODAN Odare 46.33 279** *e*P **P** **09 12 45.5 -1.4**
comp=Z,64nm,0.8s
**NVS Novosibirsk 46.48 318** *e*P P 09 12 58.4 +11
**MK01 Makanchi Array 46.79 307** *e*P **P** **09 12 48.5 -1.6**
**MK31 Makanchi Array 46.80 307** *i*P **P** **09 12 48.6 -1.5**
MK31 pmax pmax
comp=Z,9.0nm,0.8s
**MK31 Makanchi Array 46.80 307** *e*P **P** **09 12 48.5 -1.5**
**MK32 Makanchi Array 46.80 307** *e*P **P** **09 12 48.6 -1.5**
MK32 *e*PcP **PcP** **09 14 21.9 +0.1**
**MKAR Makanchi Array 46.80 307** P **P** **09 12 48.6 -1.6**
comp=Z,6.6nm,0.6s,baz=91,slow=9.5,SNR=48
MKAR PcP **PcP** **09 14 21.9 +0.1**
comp=Z,11nm,0.9s,baz=77,slow=6.0,SNR=4.4
MKAR ScP **ScP** **09 18 05.9 -1.3**
comp=Z,7.7nm,0.8s,baz=82,slow=5.2,SNR=12
MKAR LR LR 09 33 34.9
comp=Z,392nm,18.1s,baz=90,slow=37
**MKAR Makanchi Array 46.80 307** *e*P **P** **09 12 48.5 -1.6**
comp=Z,63nm,0.8s
**JAGI Jajag, Banyuwa 46.91 217** P pP 09 13 13.1 -0.2
**RAMN Ramite 46.97 279** *e*P **P** **09 12 50.4 -1.6**
comp=Z,96nm,0.9s
**MAKZ Makanchi 47.01 307** *e*P **P** **09 12 50.4 -1.4**
MAKZ pmax pmax
comp=Z,58nm,1.8s
**MAKZ Makanchi 47.01 307** *e*P **P** **09 12 50.4 -1.4**
comp=Z,58nm,1.8s
**JIRN Jiri 47.09 280** *e*P **P** **09 12 52.2 -0.9**
**GUN Gumba 47.27 281** *e*P **P** **09 12 53.5 -1.0**
comp=Z,96nm,0.8s
**SDPT Sand Point 47.46 42** *e*P **P** **09 12 55.4 +0.4**
comp=Z,125nm,0.7s
**PKI Pulchoki 47.78 280** *e*P **P** **09 12 56.6 -1.7**
comp=Z,32nm,1.0s
**PKIN Phulchoki 47.78 280** *e*P **P** **09 12 57.2 -1.1**
**PWJI Pagerwojo 47.79 220** P pP 09 13 18.7 -1.5
**KKN Kakani 47.82 281** *e*P **P** **09 12 57.6 -0.9**
**DMN Daman 48.02 280** *e*P **P** **09 12 58.7 -1.4**
**UGM Wanagama 48.42 222** P pP 09 13 24.7 -0.4
**JCJI Jatiwangi 48.60 225** P pP 09 13 29.6 +3.1
**CHGN Chignik 48.70 40** *e*P **P** **09 13 05.2 +0.7**
comp=Z,36nm,0.8s
**KCSI Kotacane, Aceh 48.80 244** P pP 09 13 28.7 +0.6
**KPJI Karang Pucung 48.87 224** P **P** **09 13 08.0 +1.6**
**KURK Kurchatov 49.11 312**⇓ *i*P **P** **09 13 06.4 -1.4**
KURK pmax pmax
comp=Z,48nm,0.9s
**KURK Kurchatov 49.11 312** P **P** **09 13 06.6 -1.2**
SNR=12
**KOLN Koldanda 49.23 281** *e*P **P** **09 13 08.0 -1.4**
comp=Z,51nm,0.8s
**KLI Kotabumi 49.51 230** P pP 09 13 36.0 +2.5
**PYUN Piuthan 49.64 282** *e*P **P** **09 13 11.2 -1.3**
comp=Z,89nm,1.0s
**PDSI Padang 49.70 238** P pP 09 13 36.3 +1.2
**CISI Cisompet, Garu 49.72 225** P pP 09 13 34.0 -1.2
CISI pP **pP** **09 13 28.7 -6.5**
**CNJI Cibinong 49.94 226** P pP 09 13 35.2 -1.6
**MASI Maura Aman, Be 50.01 234** P pP 09 13 39.3 +1.9
**KASI Kota Agung 50.24 230** P pP 09 13 39.3 +0.2
**GSI Gunungsitoli 50.37 242** P **P** **09 13 17.6 -0.2**
**SVW2 Sparrevohn 50.60 34** *e*P **P** **09 13 21.0 +2.0**
comp=Z,72nm,1.4s
**FITZ Fitzroy Crossi 51.13 198** ScP **ScP** **09 18 24.5 -1.2**
comp=Z,6.0nm,0.9s,baz=2.9,slow=6.1,SNR=5.0
**WRAB Tennant Creek 51.25 188**⇑ *i*P **P** **09 13 22.9 -1.3**
WRAB pmax pmax
comp=Z,13nm,0.8s
**WRAB Tennant Creek 51.25 188** *e*P **P** **09 13 21.6 -2.6**
comp=Z,31nm,1.0s
**WB2 Warramunga Arr 51.26 188** *e*P **P** **09 13 21.6 -2.7**
**WR1 Warramunga Arr 51.26 188** *e*P **P** **09 13 21.6 -2.7**
comp=Z,21nm,0.6s
WR1 *e*pP **pP** **09 13 46.0 -0.7**
**WRA Warramunga Arr 51.26 188** P **P** **09 13 21.6 -2.7**
comp=Z,5.7nm,0.3s,baz=6.2,slow=7.7,SNR=139
WRA pP **pP** **09 13 46.0 -0.7**
comp=Z,17nm,0.4s,baz=4.8,slow=7.6,SNR=6.9
WRA ScP **ScP** **09 18 25.8 -0.5**
comp=Z,12nm,1.0s,baz=2.1,slow=4.5,SNR=13
WRA LR LR 09 34 40.3
comp=Z,118nm,20.6s,baz=15,slow=35
**CTA Charters Tower 51.34 173** P **P** **09 13 23.5 -1.4**
comp=Z,3.6nm,0.4s,baz=0.3,slow=7.4,SNR=9.4
**OHAK Old Harbor 51.56 39** *e*P **P** **09 13 27.1 +0.9**
comp=Z,60nm,0.9s
**RSO Redoubt South 51.94 35** *e*P **P** **09 13 30.8 +1.6**
**KDAK Kodiak Island 51.95 39** P **P** **09 13 30.2 +1.2**
comp=Z,120nm,0.9s,baz=154,slow=1.1,SNR=32
**KDAK Kodiak Island 51.95 39** *e*P **P** **09 13 30.2 +1.2**
comp=Z,141nm,0.9s
**IM3 Indian Mountai 52.01 28** *e*P **P** **09 13 30.2 +0.8**
**KSH Kashi 52.31 298** P **P** **09 13 34.0 +1.8**
KSH pP pP 09 13 57.3 +2.7
KSH PcP **PcP** **09 14 43.0 +0.8**
KSH PP **PP** **09 15 35.3 +3.9**
KSH S **S** **09 20 48.5 -2.2**
KSH ScS **ScS** **09 23 08.3 -5.1**
KSH pmax pmax
comp=Z,11nm,0.8s
KSH pmax pmax
comp=Z,210nm,3.8s
KSH LR LR
comp=Z,160nm,6.3s
KSH LR LR
comp=Z,81nm,6.5s
KSH LR LR
comp=Z,380nm,5.2s
**SPU Mount Spurr 52.31 34** *e*P **P** **09 13 33.9 +2.1**
**PPLA Purkeypile 52.36 32** *e*P **P** **09 13 34.6 +2.5**
comp=Z,71nm,0.9s
**FRU Bishkek 52.66 302** *e*P **P** **09 13 35.0 +0.3**
FRU *i* 09 14 47.0
FRU *e* 09 23 13.0
**CNPM China Poot 52.67 37** *e*P **P** **09 13 36.0 +1.6**
comp=Z,165nm,1.5s
**AAK Ala-Archa 52.79 302** LR LR 09 37 05.7
comp=Z,444nm,21.6s,baz=65,slow=37
**AAK Ala-Archa 52.79 302**⇓ *i*P **P** **09 13 35.0 -0.7**
AAK pmax pmax
comp=Z,6.0nm,0.9s
**AAK Ala-Archa 52.79 302** *e*P **P** **09 13 34.6 -1.2**
comp=Z,12nm,1.0s
**BRLK Bradley Lake 52.85 36** *e*P **P** **09 13 37.1 +1.3**
comp=Z,62nm,1.1s
**KTH Kantishna Hill 52.97 31** *e*P **P** **09 13 38.5 +1.9**
comp=Z,134nm,1.6s
**BPAW Bear Paw Mtn. 52.98 31** *e*P **P** **09 13 38.5 +1.9**
comp=Z,49nm,1.0s
**MLY Manley 53.16 30** *e*P **P** **09 13 40.3 +2.3**
comp=Z,83nm,1.0s
**TRF Thorofare Moun 53.25 32** *e*P **P** **09 13 40.7 +1.9**
comp=Z,46nm,0.9s
**RC01 Rabbit Creek A 53.44 35** *e*P **P** **09 13 41.1 +1.1**
comp=Z,105nm,1.4s

**COLD Coldfoot** 53.57 27 *e*P P 09 13 42.8 +1.9
comp=Z,24nm,0.9s
**PMR Palmer** 53.73 34 *e*P P 09 13 43.0 +0.9
PMR pmax pmax
comp=Z,131nm,1.4s
**PMR Palmer** 53.73 34 *e*P P 09 13 43.0 +0.9
comp=Z,131nm,1.4s
**MCK McKinley** 53.87 31 *e*P P 09 13 44.5 +1.4
MCK pmax pmax
comp=Z,265nm,1.6s
**MCK McKinley** 53.87 31 *e*P P 09 13 44.5 +1.4
comp=Z,265nm,1.6s
**RND Reindeer** 53.89 32 *e*P P 09 13 44.4 +1.0
RND pmax pmax
comp=Z,76nm,0.9s
**RND Reindeer** 53.89 32 *e*P P 09 13 44.4 +1.0
comp=Z,76nm,0.9s
**BVA0 Borovoye Array** 54.06 315 *i* P P 09 13 43.7 -1.0
BVA0 pmax pmax
comp=Z,11nm,0.9s
**BVAR Borovoye Array** 54.06 315 P P 09 13 43.8 -0.9
comp=Z,17nm,1.1s,baz=94,slow=8.9,SNR=39
BVAR PcP **PcP** 09 14 49.0 +0.6
comp=Z,8.7nm,0.7s,baz=90,slow=3.0,SNR=6.9
BVAR ScP **ScP** 09 18 37.0 -1.2
comp=Z,8.2nm,0.9s,baz=90,slow=4.4,SNR=8.6
BVAR LR LR 09 37 31.7
comp=Z,532nm,19.4s,baz=76,slow=37
**BVAR Borovoye Array** 54.06 315 P P 09 13 43.8 -0.9
BVAR 09 14 49.0
BVAR pmax pmax
comp=Z,18nm,1.1s
BVAR pmax pmax
comp=Z,9.0nm,0.7s
BVAR pmax pmax
comp=N,8.0nm,1.0s
BVAR MLR MLR
comp=Z,532nm,19.4s
**SML Sawmill** 54.11 34 *e*P P 09 13 46.5 +1.5
SML pmax pmax
comp=Z,118nm,1.0s
**SML Sawmill** 54.11 34 *e*P P 09 13 46.5 +1.5
comp=Z,118nm,1.0s
**BRVK Borovoye** 54.12 315 *d i*P P 09 13 44.4 -0.7
BRVK pmax pmax
comp=Z,31nm,1.0s
**BRVK Borovoye** 54.12 315 *e*P P 09 13 43.8 -1.3
comp=Z,13nm,0.8s
**MDM Murphy Dome** 54.22 30 *e*P P 09 13 47.5 +1.9
comp=Z,156nm,1.0s
**THN Thein Dam** 54.31 290 *e*P P 09 13 43.4 -3.4
**COLA College** 54.38 30 *e*P P 09 13 48.5 +1.8
COLA pmax pmax
comp=Z,54nm,0.8s
**COLA College** 54.38 30 *e*P P 09 13 48.5 +1.8
comp=Z,54nm,0.8s
**CCB Clear Creek Bu** 54.39 30 *e*P P 09 13 48.1 +1.2
comp=Z,43nm,1.2s
**DHY Denali Highway** 54.56 32 *e*P P 09 13 49.7 +1.4
comp=Z,22nm,0.8s
**SCM Sheep Creek Mo** 54.59 34 *e*P P 09 13 50.2 +1.8
SCM pmax pmax
comp=Z,155nm,0.9s
**SCM Sheep Creek Mo** 54.59 34 *e*P P 09 13 50.2 +1.8
comp=Z,155nm,0.9s
**GLI Glacier Island** 54.73 35 *e*P P 09 13 51.0 +1.7
comp=Z,123nm,1.0s
**ILAR Eielson Array** 54.78 30 P P 09 13 50.5 +0.8
comp=Z,59nm,1.0s,baz=270,slow=5.9,SNR=292
**ILB Eielson Array** 54.78 30 *e*P P 09 13 50.3 +0.6
**AS01 Alice Springs** 54.98 187 *e*P P 09 13 48.6 -3.0
**AS31 Alice Springs** 54.99 187 *e*P P 09 13 49.1 -2.5
AS31 *e*pP **pP** 09 14 13.3 -1.0
**ASAR Alice Springs** 54.99 187 P P 09 13 48.7 -3.0
comp=Z,3.1nm,0.5s,baz=360,slow=6.3,SNR=90
ASAR pP **pP** 09 14 13.3 -1.0
comp=Z,8.1nm,0.5s,baz=2.2,slow=5.3,SNR=8.5
ASAR ScP **ScP** 09 18 41.8 -0.7
comp=Z,1.4nm,1.0s,baz=2.1,slow=5.4,SNR=3.6
ASAR LR LR 09 36 43.8
comp=Z,167nm,21.3s,baz=356,slow=35
ASAR PKPPKP **P'P'df** 09 43 57.9 +1.6
comp=Z,0.8nm,1.0s,baz=116,slow=3.1,SNR=4.4
ASAR PKP2bc 09 44 14.0
comp=Z,1.4nm,0.9s,baz=166,slow=1.1,SNR=7.7
**ASAR Alice Springs** 54.99 187 P P 09 13 48.7 -3.0
ASAR *PP **pP** 09 14 13.3 -1.0
ASAR pmax pmax
comp=Z,3.0nm,0.5s
ASAR pmax pmax
comp=Z,8.0nm,0.5s
ASAR pmax pmax
comp=N,1.0nm,1.0s
ASAR pmax pmax
comp=Z,1.0nm,1.0s
ASAR pmax pmax
comp=Z,1.0nm,0.9s
**KLU Klutina** 55.27 34 *e*P P 09 13 55.1 +1.7
comp=Z,105nm,1.1s
**KIP Kipapa** 55.30 84⇑ *e*P P 09 13 57.4 +3.3
KIP pmax pmax
comp=Z,1μm,1.7s
**DIV Divide** 55.36 34 *e*P P 09 13 55.9 +1.9
comp=Z,117nm,1.0s
**EYAK Cordova Ski Ar** 55.40 35 *e*P P 09 13 56.5 +2.3
comp=Z,84nm,0.9s
**PAX Paxson** 55.43 32 *e*P P 09 13 56.1 +1.6
PAX pmax pmax
comp=Z,46nm,1.0s
**PAX Paxson** 55.43 32 *e*P P 09 13 56.0 +1.6
comp=Z,46nm,1.0s
**FYU Fort Yukon** 55.49 28 *e*P P 09 13 57.3 +2.6
comp=Z,126nm,1.2s
**KK31 Karatay Array** 55.56 303 *i* P P 09 13 54.4 -1.3
KK31 pmax pmax
comp=Z,6.0nm,0.6s
**KKAR Karatay Array** 55.56 303 *e*P P 09 13 55.0 -0.7
KKAR pmax pmax
comp=Z,111nm,0.7s
**KKAR Karatay Array** 55.56 303 *e*P P 09 13 55.0 -0.7
comp=Z,111nm,0.7s
**HARP HAARP** 55.59 33 *e*P P 09 13 57.8 +2.2
comp=Z,141nm,0.9s
**MBWA Marble Bar** 55.82 204 *e*P P 09 13 55.3 -2.4
MBWA *e*pP **pP** 09 14 19.8 -0.6
**BMRM Bremner River** 55.94 35 *e*P P 09 14 00.1 +2.0
comp=Z,150nm,0.9s
**RAGM Ragged Mountai** 55.94 35 *e*P P 09 14 00.6 +2.4
comp=Z,592nm,2.0s
**DOT Dot Lake** 56.04 31 *e*P P 09 13 60.0 +1.2
comp=Z,192nm,0.9s
**MENT Mentasta** 56.23 32 *e*P P 09 14 02.3 +2.2
comp=Z,88nm,0.9s
**EIDS Eidsvold** 57.20 169 *e*P P 09 14 06.8 -0.5
comp=Z,38nm,1.1s
**EGAK Eagle** 57.24 30 *e*P P 09 14 08.3 +1.1
comp=Z,42nm,0.8s
**HYB Hyderabad** 57.50 272 *i* P P 09 14 10.0 +0.2
**DAWY Dawson** 58.07 31 *e*P P 09 14 15.0 +1.9
comp=Z,114nm,1.7s
**POHA Pohakuloa** 58.10 85 *e*P P 09 14 16.5 +2.3
comp=Z,221nm,1.0s
**PCA Pinnacle** 58.16 35 *e*P P 09 14 16.1 +2.2
comp=Z,99nm,1.0s
**DZM Mont Dzumac** 58.55 152 *e*S S 09 22 20.5 +6.7
comp=Z,124nm,27.6s
DZM *e*LR LR 09 31 35.7
comp=Z,616nm,33.5s
**DZM Mont Dzumac** 58.55 152 *e*P P 09 14 18.5 +1.6
comp=Z,38nm,1.0s
**KBL Kabul** 58.97 294 *e*P P 09 14 18.7 -1.4
KBL pmax pmax
comp=Z,30nm,1.1s
**KBL Kabul** 58.97 294 *e*P P 09 14 18.7 -1.4
comp=Z,30nm,1.1s
**SVE Sverdlovsk** 59.09 321 ⇓ *i*P P 09 14 20.4 +0.2
SVE pmax pmax
comp=Z,27nm,1.0s
**HYT Haines Junctio** 59.40 34 *e*P P 09 14 25.2 +2.8
comp=Z,105nm,1.2s
**INK Inuvik** 59.86 25 P P 09 14 26.6 +1.3
comp=Z,54nm,0.8s,baz=293,slow=6.5,SNR=197
**INK Inuvik** 59.86 25 *e*P P 09 14 26.5 +1.3
comp=Z,61nm,0.8s
**ARU Arti** 60.30 321 *d i*P P 09 14 27.2 -1.3
ARU *PP **pP** 09 14 51.8 +0.3
ARU 09 15 10.5
ARU S **S** 09 22 34.2 -1.3
ARU pmax pmax
comp=Z,51nm,1.7s
**ARU Arti** 60.30 321 *e*P P 09 14 27.4 -1.1
comp=Z,34nm,1.1s
**WHY Whitehorse** 60.69 34 *e*P P 09 14 33.8 +2.5
comp=Z,53nm,0.9s
**SKAG Skagway** 60.73 36 *e*P P 09 14 33.5 +2.1
comp=Z,72nm,1.4s
**AB31 Akbulak array** 61.22 312 *i* P P 09 14 34.1 -0.8
AB31 pmax pmax
comp=Z,27nm,1.0s
**ABKAR Akbulak array** 61.22 312 *e*P P 09 14 33.5 -1.4
comp=Z,163nm,0.9s
**AKTO Aktyubinsk** 62.10 314 LR LR 09 42 29.6
comp=Z,499nm,21.4s,slow=37
**AKTO Aktyubinsk** 62.10 314 P P 09 14 39.0 -1.8
AKTO pmax pmax
comp=Z,32nm,0.9s
**STKA Stephens Creek** 62.80 179 P P 09 14 44.5 -1.0
comp=Z,6.4nm,0.8s,baz=348,slow=7.8,SNR=18
STKA LR LR 09 41 58.5
comp=Z,140nm,20.6s,baz=5.7,slow=36
**STKA Stephens Creek** 62.80 179 *e*P P 09 14 45.5 0.0
STKA pmax pmax
comp=Z,2.0nm,0.8s
**STKA Stephens Creek** 62.80 179 *e*P P 09 14 45.5 0.0
comp=Z,2.2nm,0.8s
**FORT Forrest** 62.83 192 *e*P P 09 14 44.4 -1.3
comp=Z,196nm,0.7s
**DLBC Dease Lake** 63.65 36 *e*P P 09 14 53.6 +2.6
comp=Z,124nm,1.1s
**GEYT Alibeck** 66.11 301 P P 09 15 06.7 -0.6
comp=Z,5.8nm,0.9s,baz=259,slow=2.3,SNR=7.6
GEYT LR LR 09 45 41.2
comp=Z,307nm,20.6s,baz=85,slow=37
**LVZ Lovozero** 67.10 337⇑ *i*P P 09 15 14.6 +1.5
LVZ pmax pmax
comp=Z,98nm,2.5s
**TMCR Tamitsa** 67.50 332 *e*P P 09 15 16.3 +0.8
TMCR pmax pmax
comp=Z,59nm,1.0s
**NWAO Narrogin (SRO)** 67.55 201 *e*P P 09 15 14.7 -1.5
NWAO *e*PP **pP** 09 15 39.4 -0.2
**NWAO Narrogin (SRO)** 67.55 201 *e*P P 09 15 14.7 -1.5
NWAO *e*pP **pP** 09 15 39.4 -0.2
**APA Apatity** 67.67 337⇑ *i*P P 09 15 16.6 0.0
APA pmax pmax
comp=Z,48nm,0.9s
APA MLR MLR
comp=Z,2μm,15.0s
**KLMR Klimovskoe** 68.29 329 *e*P P 09 15 18.3 -2.3
KLMR *e* 09 17 51.1
KLMR pmax pmax
comp=Z,46nm,1.1s
**YKW3 Yellowknife Ar** 69.13 29 *e*P P 09 15 26.5 +0.7
comp=Z,63nm,1.0s
**ARA0 ARCESS Array S** 69.16 340 *e*P P 09 15 27.1 +1.2
**ARCES ARCESS Array B** 69.16 340 P P 09 15 27.1 +1.2
comp=Z,38nm,0.9s,baz=70,slow=6.6,SNR=30
ARCES LR LR 09 48 58.8
comp=Z,422nm,21.9s,baz=72,slow=39
**ARCES ARCESS Array B** 69.16 340 *e*P P 09 15 27.3 +1.4
**ARCES ARCESS Array B** 69.16 340 *e*P P 09 15 27.3 +1.4
**YKA Yellowknife Ar** 69.17 29 P P 09 15 26.8 +0.8
comp=Z,38nm,0.9s,baz=294,slow=6.0,SNR=383
YKA PKPPKP **P'P'df** 09 43 34.9 -3.3
comp=Z,0.2nm,0.8s,baz=125,slow=2.5,SNR=4.3
**YKB5 Yellowknife Ar** 69.17 29 *e*P P 09 15 25.8 -0.2
**TULEG Thule** 70.90 7 *e*P P 09 15 37.4 +1.0
comp=Z,62nm,0.8s
**LLLB Lilloget** 70.95 42 *e*P P 09 15 39.1 +1.8
comp=Z,86nm,1.0s
**VRH Novokhopyorsk** 71.43 319 *e*P P 09 15 39.0 -1.0
VRH pmax pmax
comp=Z,50nm,0.8s
**DAG Danmarks Havn** 71.45 355 *i* P P 09 15 41.0 +1.3
DAG *i* 09 16 05.9
DAG pmax pmax
comp=Z,36nm,1.1s
**DAG Danmarks Havn** 71.45 355 *i* P P 09 15 41.0 +1.3
comp=Z,36nm,1.1s
DAG *i* 09 16 05.9
**MOS Moscow** 71.50 324 *e*P P 09 15 40.2 -0.1
MOS *e* 09 16 07.2
MOS *e*S S 09 24 50.6 -0.9
MOS *e* 09 25 33.3
MOS pmax pmax
comp=Z,48nm,0.7s
**E03A Lebam** 71.75 46 *e*P P 09 15 44.4 +2.4
comp=Z,102nm,0.9s
**B05A Bryant** 71.87 44 P P 09 15 44.3 +1.6
baz=297
**B06A Marblemount** 72.12 44 *e*P P 09 15 46.4 +2.1
comp=Z,97nm,1.0s
**F04D Rainier, OR** 72.30 47 P P 09 15 47.1 +1.8
baz=297
**LPSR Galich'ya Gora** 72.31 321 *e*P P 09 15 44.9 -0.4
LPSR pmax pmax
comp=Z,70nm,1.0s
**OBN Obninsk** 72.33 324 LR LR 09 49 32.7
comp=Z,566nm,20.4s,baz=81,slow=37
**OBN Obninsk** 72.33 324 *i* P P 09 15 45.1 -0.2
OBN *i* 09 16 11.7
OBN *i* S SKSac 09 26 00.0 +19
OBN pmax pmax
comp=Z,46nm,0.9s
OBN MLR MLR
comp=Z,542nm,19.0s
**OBN Obninsk** 72.33 324 *e*P P 09 15 44.7 -0.6
comp=Z,82nm,1.2s
**G03D McMinnville, O** 72.53 47 P P 09 15 48.9 +2.2
baz=297
**GROC Groznyy** 72.53 310 *e*P P 09 15 41.9 -4.9
GROC *e* 09 16 01.5
GROC *e**PP pP 09 16 09.9 -0.5
GROC *e*S S 09 24 55.7 -8.2
GROC pmax pmax
comp=Z,33nm,0.9s
**F04A Amboy** 72.73 47 *e*P P 09 15 50.0 +2.1
comp=Z,107nm,0.9s
**LON Longmire** 72.73 46 *e*P P 09 15 50.0 +2.0
LON pmax pmax
comp=Z,33nm,1.1s
**LON Longmire** 72.73 46 *e*P P 09 15 50.0 +2.0
comp=Z,33nm,1.1s
**C06D Leavenworth** 72.75 44 P P 09 15 48.9 +0.9
baz=298
**VSR Storozhevoye** 72.84 320 *e*P P 09 15 47.7 -0.8
VSR pmax pmax
comp=Z,70nm,0.9s
**KEBM Edson Butte** 72.89 50 *e*P P 09 15 52.0 +3.0
comp=Z,171nm,1.0s
**HATD Hatta, Dubai** 73.08 289 P P 09 15 49.6 -0.8
**I03D Drain, OR** 73.16 49 P P 09 15 52.2 +1.7
baz=297,SNR=14
**LTY Liberty** 73.19 45 *e*P P 09 15 52.3 +1.6
comp=Z,66nm,1.3s
**H04A Detroit Lake** 73.45 48 *e*P P 09 15 54.1 +1.9
comp=Z,85nm,0.9s
**B08A Colville Reser** 73.46 43 *e*P P 09 15 53.9 +1.6
comp=Z,78nm,0.9s
**FIA1 FINESS Array S** 73.60 333 *e*P P 09 15 53.5 +0.7
**FIA0 FINESS Array S** 73.60 333 *e*P P 09 15 52.8 +0.1
FIA0 *e**PP **pP** 09 16 17.2 +0.7
**FIA0 FINESS Array S** 73.60 333 *e*P P 09 15 52.8 +0.1
FIA0 *e*pP **pP** 09 16 17.2 +0.7
**FINES FINESS Array B** 73.60 333 P P 09 15 52.8 +0.1
comp=Z,20nm,0.6s,baz=58,slow=5.4,SNR=108
FINES pP **pP** 09 16 17.2 +0.7
comp=Z,5.9nm,0.5s,baz=83,slow=5.9,SNR=2.2
FINES LR LR 09 49 12.2
comp=Z,75nm,18.2s,baz=48,slow=36
**L02D Cave Junction,** 73.70 50 P P 09 15 55.2 +1.5
baz=298,SNR=8.0
**I04A Tendick Farm,** 73.72 48 P P 09 15 55.2 +1.4
baz=298,SNR=20
**G05D Wamic, OR** 73.74 47 P P 09 15 55.5 +1.6
baz=298
**KRMB Red Mountain** 73.79 51 *e*P P 09 15 57.1 +2.7
comp=Z,52nm,1.2s
**HUMO Hull Mountain** 73.92 50 *e*P P 09 15 57.2 +2.2
comp=Z,16nm,1.0s
**ZEI Tsey** 73.96 310 *e*P P 09 15 52.9 -2.6
ZEI pmax pmax
comp=Z,56nm,1.0s
**JCC Jacoby Creek,** 74.03 52 *e*P P 09 15 58.5 +2.9
comp=Z,76nm,1.1s
**I05D Terrebonne, OR** 74.15 48 P P 09 15 57.8 +1.5
baz=298,SNR=9.1
**G06A Carlson Farm,** 74.16 47 *e*P P 09 15 58.3 +1.9
comp=Z,71nm,1.1s
**KBZ Khabaz** 74.17 312 P P 09 15 56.5 +0.1
comp=Z,58nm,0.9s,baz=85,slow=2.0,SNR=62
KBZ LR LR 09 51 15.3
comp=Z,213nm,20.5s,baz=58,slow=38
**J04D Umpqua Nationa** 74.17 49 P P 09 15 58.2 +1.5
baz=298,SNR=13
**KIV Kislovodsk** 74.20 312 *i* P P 09 15 56.9 +0.3
SNR=7.4
**KIV Kislovodsk** 74.20 312 *e*P P 09 15 57.5 +0.8
KIV pmax pmax
comp=Z,90nm,1.1s
KIV MLR MLR
comp=Z,207nm,18.0s
**KIV Kislovodsk** 74.20 312 *e*P P 09 15 57.1 +0.4
comp=Z,96nm,1.1s
**KIV Kislovodsk** 74.20 312 P P 09 15 57.3 +0.6
SNR=14
**F07A Phinny Hill Vi** 74.28 46 *e*P P 09 15 59.0 +2.0
comp=Z,56nm,0.8s
**HAWA Hanford** 74.29 45 *e*P P 09 15 58.9 +1.8
comp=Z,73nm,1.4s
**D08A Wollman Farm,** 74.33 44 *e*P P 09 15 59.0 +1.7
comp=Z,69nm,0.9s
**C09A Chrisman Ranch** 74.36 43 *e*P P 09 15 59.1 +1.7
comp=Z,68nm,0.9s
**YBH Yreka Blue Hor** 74.49 50 *e*P P 09 16 00.5 +2.1
YBH pmax pmax
comp=Z,42nm,0.9s
**YBH Yreka Blue Hor** 74.49 50 *e*P P 09 16 00.5 +2.1
comp=Z,42nm,0.9s
**NEY Neytrino** 74.51 311⇑ *i*P P 09 15 59.5 +0.9
NEY pmax pmax
comp=Z,5.0nm,1.0s
**E08A Dider Farm, El** 74.53 45 *e*P P 09 16 00.4 +2.0
comp=Z,60nm,1.1s
**KMRM Mail Ridge** 74.53 52 *e*P P 09 16 01.5 +2.9
comp=Z,42nm,0.9s
**M02C Callahan** 74.55 51 P P 09 16 00.8 +2.0
baz=298,SNR=22
**GNI Garni** 74.63 308 *e*P P 09 16 00.5 +1.1
GNI pmax pmax
comp=Z,40nm,1.0s
**GNI Garni** 74.63 308 *e*P P 09 16 00.5 +1.1
comp=Z,40nm,1.0s
**K04D Chiloquin, OR** 74.69 49 P P 09 16 00.5 +0.9
baz=298,SNR=13
**J05D Fort Rock, OR** 74.71 49 P P 09 16 01.7 +1.9
baz=299,SNR=26
**NEW Newport** 74.80 43 P P 09 16 01.5 +1.5
baz=300
**NEW Newport** 74.80 43 *e*P P 09 16 01.7 +1.7
NEW pmax pmax
comp=Z,64nm,0.9s
**NEW Newport** 74.80 43 *e*P P 09 16 01.6 +1.7
comp=Z,64nm,0.9s
**N02D Trinity Center** 74.85 51 P P 09 16 02.5 +2.0
baz=298,SNR=27
**AKH Akhalkalaki** 74.88 309⇑ *i*P P 09 16 01.1 +0.3
**M04C Macdoel** 75.04 50 P P 09 16 03.5 +1.8
baz=299,SNR=27
**E09A Wood Farm, Sta** 75.06 45 *e*P P 09 16 03.4 +1.9
comp=Z,90nm,0.9s
**VSU Vasula** 75.08 330⇑ *i*P P 09 16 02.2 +0.9
VSU pmax pmax
comp=Z,248nm,1.2s
**WDC Whiskeytown Da** 75.15 51 *e*P P 09 16 04.0 +1.9
WDC pmax pmax
comp=Z,44nm,1.0s
**WDC Whiskeytown Da** 75.15 51 *e*P P 09 16 04.0 +1.9
comp=Z,44nm,1.0s
**I07A Izee** 75.43 47 *e*P P 09 16 05.7 +1.9
comp=Z,21nm,1.0s
**DGAR Diego Garcia** 75.50 252 *i* P P 09 16 04.7 +0.3
**O03D Paynes Creek** 75.78 51 P P 09 16 07.0 +1.2
baz=299,SNR=21
**F10A Beach Ranch, E** 75.89 45 *e*P P 09 16 08.0 +1.7
comp=Z,19nm,0.8s
**MOD Modoc Plateau** 75.98 49 *e*P P 09 16 08.8 +1.7
comp=Z,32nm,0.9s
**ARTV Artvin** 76.02 310 *e*P P 09 16 08.0 +0.7
comp=Z,8.6nm,0.9s
**MCCM Marconi Confer** 76.08 54 *e*P P 09 16 09.3 +1.9
comp=Z,80nm,0.8s
**WALA Waterton Lakes** 76.22 41 *e*P P 09 16 10.0 +1.7
comp=Z,70nm,0.8s
**SOC Sochi** 76.26 313 *e*P P 09 16 07.1 -1.3
SOC *e* 09 18 56.2
SOC *e*S S 09 25 43.3 -2.1
SOC *e*SS SS 09 30 35.9 -4.4
SOC pmax pmax
comp=Z,38nm,1.0s
SOC MLR MLR
comp=Z,313nm,16.0s
**ORV Oroville** 76.34 52 *e*P P 09 16 10.2 +1.3
ORV pmax pmax
comp=Z,58nm,1.0s
**ORV Oroville** 76.34 52 *e*P P 09 16 10.2 +1.3
comp=Z,58nm,1.0s
**BMO Blue Mountains** 76.41 46 *e*P P 09 16 11.2 +1.8
BMO pmax pmax
comp=Z,37nm,0.8s
**BMO Blue Mountains** 76.41 46 *e*P P 09 16 11.2 +1.8
comp=Z,37nm,0.8s
**J08A Circle Bar Ran** 76.44 47 *e*P P 09 16 11.6 +2.0
comp=Z,82nm,1.1s
**SUMG Summit** 76.44 360 *i* P P 09 16 11.0 +1.6
SUMG pmax pmax
comp=Z,36nm,0.9s
**SUMG Summit** 76.44 360 *i* P P 09 16 11.0 +1.6
comp=Z,36nm,0.9s
**SUMG Summit** 76.44 360 *e*P P 09 16 10.5 +1.1
comp=Z,44nm,1.0s
**JTMT Jette** 76.70 42 *e*P P 09 16 13.0 +2.0
comp=Z,96nm,0.8s
**WVOR Wild Horse Val** 76.80 48 *e*P P 09 16 13.3 +1.7
WVOR pmax pmax
comp=Z,29nm,0.9s
**WVOR Wild Horse Val** 76.80 48 *e*P P 09 16 13.3 +1.7
comp=Z,29nm,0.9s
**IDID Didziasalis** 76.94 328 *e*P P 09 16 13.4 +1.4
IDID IAmb IAmb 09 16 14.6
comp=Z,16nm,0.9s
**BEKR Beckworth** 76.95 51 *e*P P 09 16 14.1 +1.5
comp=Z,70nm,0.9s
**AFDM Forest Hills D** 76.99 52 *e*P P 09 16 14.1 +1.4
comp=Z,37nm,1.1s
**ANN Anapa** 77.05 315 *e*P P 09 16 12.2 -0.6
ANN pmax pmax
comp=Z,136nm,1.2s
**URZ Urewera** 77.10 151 *e*P P 09 16 12.0 -0.9
comp=Z,24nm,1.0s
**IIGN Ignalina** 77.16 328 *e*P P 09 16 14.6 +1.4
IIGN IAmb IAmb 09 16 15.9
comp=Z,24nm,1.1s
**NACGM Naroch** 77.17 327 *e* P 09 16 14.0 +0.7
**MSO Missoula** 77.39 43 P P 09 16 15.8 +1.0
baz=302
**MSO Missoula** 77.39 43 *e*P P 09 16 15.9 +1.1
comp=Z,78nm,1.5s
**KOPT Kop Dagi** 77.54 309 *e*P P 09 16 14.9 -1.1
comp=Z,19nm,0.9s
**BKZ Black Stump Fm** 77.63 152 *e*P P 09 16 16.1 +0.2
comp=Z,24nm,0.8s
**PAHR Pah Rah Range** 77.68 51 *e*P P 09 16 18.2 +1.5
comp=Z,47nm,1.0s
**SAO San Andreas Ge** 77.75 54 *e*P P 09 16 18.8 +1.9
SAO pmax pmax
comp=Z,28nm,1.0s
**SAO San Andreas Ge** 77.75 54 *e*P P 09 16 18.8 +1.9
comp=Z,28nm,1.0s
**SCO Scoresbysund** 77.77 354 *i* P P 09 16 18.1 +1.8
SCO pmax pmax
comp=Z,15nm,0.9s
**SCO Scoresbysund** 77.77 354 *i* P P 09 16 18.1 +1.8
comp=Z,15nm,0.9s
**SFJWR San Luis Fatjo** 77.80 54 *e*P P 09 16 19.7 +2.5
**CMB Columbia Colle** 77.85 53 *e*P P 09 16 18.9 +1.5
CMB pmax pmax
comp=Z,79nm,0.9s
**CMB Columbia Colle** 77.85 53 *e*P P 09 16 18.9 +1.5
comp=Z,79nm,0.9s

PNTR **Pine Nut** 77.85 52 *e*P P 09 16 19.7 +2.0
comp=Z,63nm,0.8s
WAKR **Walker** 78.25 52 *e*P P 09 16 21.8 +1.9
comp=Z,42nm,0.9s
AKASG **Malin Array Be** 78.44 323 P P 09 16 20.1 -0.4
comp=Z,6.9nm,0.4s,baz=50,slow=6.0,SNR=70
AKASG LR LR 09 52 54.3
comp=Z,456nm,20.6s,baz=15,slow=37
AKBB **Malin Array Si** 78.44 323 *e*P P 09 16 20.2 -0.2
AKBB pmax pmax
comp=Z,37nm,0.9s
AKBB **Malin Array Si** 78.44 323 *e*P P 09 16 20.2 -0.2
comp=Z,37nm,0.9s
KIEV **Kiev** 78.46 323⇑*i*P P 09 16 20.5 0.0
KIEV pmax pmax
comp=Z,40nm,1.0s
KIEV **Kiev** 78.46 323 *e*P P 09 16 20.1 -0.3
comp=Z,42nm,1.0s
PMPB **Monarch Peak** 78.47 55 *e*P P 09 16 23.1 +2.2
comp=Z,37nm,0.9s
AK11 **Malin Array Si** 78.49 323 *e*P P 09 16 20.5 -0.2
THZ **Tophouse** 78.54 156 *e*P P 09 16 20.8 -0.1
comp=Z,107nm,1.7s
HRY **Holter Researc** 78.67 42 *e*P P 09 16 23.5 +1.6
BMN **Battle Mountai** 78.73 50 *e*P P 09 16 24.4 +1.9
BMN pmax pmax
comp=Z,38nm,1.0s
BMN **Battle Mountai** 78.73 50 *e*P P 09 16 24.4 +1.9
comp=Z,38nm,1.0s
LRM **Limekiln Ridge** 78.80 43 *e*P P 09 16 24.5 +1.7
BFZ **Birch Farm** 78.83 153 *e*P P 09 16 22.9 +0.5
comp=Z,50nm,0.8s
HLID **Hailey** 78.85 46 P P 09 16 24.6 +1.6
baz=303
HLID **Hailey** 78.85 46 *e*P P 09 16 25.0 +1.9
comp=Z,28nm,0.9s
KVN **Kaiserville** 78.87 51 *e*P P 09 16 25.0 +1.7
KVN pmax pmax
comp=Z,56nm,1.0s
KVN **Kaiserville** 78.87 51 *e*P P 09 16 25.0 +1.7
comp=Z,56nm,1.0s
MDPB **Devils Postpil** 78.94 53 *e*P P 09 16 25.5 +1.7
comp=Z,34nm,1.0s
FFC **Flin Flon** 78.95 32 *e*P P 09 16 23.9 +0.8
FFC pmax pmax
comp=Z,58nm,0.8s
FFC **Flin Flon** 78.95 32 *e*P P 09 16 23.9 +0.8
comp=Z,58nm,0.8s
SIM **Simferopol'** 78.97 316 *e*P P 09 16 24.1 +0.7
SIM pmax pmax
comp=Z,27nm,0.7s
NC405 **NORSAR Array S** 79.02 337 *e*P P 09 16 24.3 +0.9
NC303 **NORSAR Array S** 79.05 338 *e*P P 09 16 24.4 +0.8
NV01 **Mina Array Sit** 79.06 52 *e*P P 09 16 25.2 +0.9
NVAR **Mina Array Bea** 79.06 52 P P 09 16 25.8 +1.4
comp=Z,29nm,0.8s,baz=285,slow=5.6,SNR=228
NVAR LR LR 09 46 35.6
comp=Z,170nm,19.7s,baz=284,slow=32
EGMT **Eagleton** 79.09 40 P P 09 16 25.3 +1.1
baz=305
EGMT **Eagleton** 79.09 40 *e*P P 09 16 25.5 +1.3
comp=Z,112nm,1.1s
PAGB **Antelope Grade** 79.10 55 *e*P P 09 16 26.5 +2.1
comp=Z,90nm,0.9s
MLAC **Mammoth, Mammo** 79.11 53 P P 09 16 26.3 +1.6
baz=301
MCMT **McKenzie Canyo** 79.11 44 *e*P P 09 16 25.7 +1.1
MCMT *e*S S 09 26 21.6 +4.8
LCCM **Lewis and Clar** 79.12 43 *e*P P 09 16 26.1 +1.7
NV11 **Mina Array Sit** 79.16 52 *e*P P 09 16 26.4 +1.6
comp=Z,4.7nm,1.4s
NB201 **NORSAR Array S** 79.20 337 *e*P P 09 16 24.9 +0.5
NC204 **NORSAR Array S** 79.20 338 *e*P P 09 16 25.5 +1.0
NB2 **NORSAR Subarra** 79.23 337 P P 09 16 25.0 +0.4
comp=Z,27nm,0.8s,baz=45,slow=5.9
NB2 **NORSAR Subarra** 79.23 337 P P 09 16 25.0 +0.4
baz=45,slow=5.9
NB200 **NORSAR Array S** 79.23 337 *e*P P 09 16 25.0 +0.4
NOA **NORSAR Array B** 79.23 337 P P 09 16 25.0 +0.4
comp=Z,24nm,0.8s,baz=44,slow=5.5,SNR=44
NOA LR LR 09 54 20.5
comp=Z,253nm,18.9s,baz=35,slow=38
NBO02 **NORSAR Array S** 79.34 338 *e*P P 09 16 26.0 +0.8
SUW **Suwalki** 79.38 328 *e*P P 09 16 26.5 +1.1
SUW **Suwalki** 79.38 328 *e*P P 09 16 26.5 +1.1
NBO00 **NORSAR Array S** 79.38 338 *e*P P 09 16 26.6 +1.1
BOZ **Bozeman (W)** 79.40 43 P P 09 16 27.0 +1.0
baz=304
BOZ **Bozeman (W)** 79.40 43 *e*P P 09 16 27.6 +1.6
BOZ pmax pmax
comp=Z,37nm,0.9s
BOZ **Bozeman (W)** 79.40 43 *e*P P 09 16 27.6 +1.6
comp=Z,37nm,0.9s
SMMC **Simmler** 79.49 55 P P 09 16 27.7 +1.2
baz=301,SNR=6.8
RCTC **Rector, Farmer** 79.51 54 P P 09 16 27.5 +0.9
baz=301,SNR=10
RPZ **Rata Peaks** 79.66 158 *e*P P 09 16 28.4 +1.5
comp=Z,49nm,1.3s
PKM **Mcpherson Peak** 79.84 55 P P 09 16 30.4 +1.8
baz=301,SNR=10.0
VES **Vestal, Richgr** 79.86 54 P P 09 16 29.2 +0.8
baz=301,SNR=31
QLMT **Earthquake Lak** 79.95 43 *e*P P 09 16 31.0 +2.0
YHB **Horse Butte** 80.13 43 *e*P P 09 16 32.1 +2.0
comp=Z,69nm,0.8s
SBC **Santa Barbara** 80.14 56 P P 09 16 31.7 +1.7
baz=301
CWC **Cottonwood Cre** 80.24 53 P P 09 16 32.0 +1.2
baz=302
YHH **Holmes Hill** 80.31 43 *e*P P 09 16 33.0 +1.9
comp=Z,28nm,1.0s
YMR **Madison River** 80.31 43 *e*P P 09 16 33.3 +2.2
comp=Z,60nm,0.8s
ISA **Isabella, Lake** 80.38 54 P P 09 16 31.6 +0.2
baz=302,SNR=9.2
ISA **Isabella, Lake** 80.38 54 *e*P P 09 16 32.0 +0.7
ISA pmax pmax
comp=Z,29nm,1.0s
ISA **Isabella, Lake** 80.38 54 *e*P P 09 16 32.0 +0.7
comp=Z,29nm,1.0s
ARVC **Arvin** 80.41 55 P P 09 16 32.8 +1.4
baz=302,SNR=14
SORM **Soroca** 80.42 321⇑*i*P P 09 16 31.3 +0.1
GCMT **Greycliff** 80.43 42 *e*P P 09 16 33.2 +1.7
GRAC **Grapevine Rang** 80.44 53 P P 09 16 32.7 +1.1
baz=302,SNR=39
YNR **Norris Junctio** 80.46 43 *e*P P 09 16 34.9 +3.1
comp=Z,49nm,1.1s
YFT **Old Faithful** 80.51 43 *e*P P 09 16 35.7 +3.6
comp=Z,48nm,1.1s
YPP **Pitchstone Pla** 80.64 44 *e*P P 09 16 35.9 +3.1
comp=Z,19nm,0.9s
DAC **Darwin (Calif)** 80.66 53 *e*P P 09 16 34.2 +1.2
DAC pmax pmax
comp=Z,35nm,0.9s
DAC **Darwin (Calif)** 80.66 53 *e*P P 09 16 34.1 +1.2
comp=Z,35nm,0.9s
H17A **Grant Village** 80.70 43 P P 09 16 34.7 +1.6
baz=305
H17A **Grant Village** 80.70 43 *e*P P 09 16 36.6 +3.5
comp=Z,90nm,0.9s
OSI **Osito Audit: C** 80.75 55 P P 09 16 34.8 +1.4
baz=302,SNR=5.4
OSI **Osito Audit: C** 80.75 55 *e*P P 09 16 34.2 +0.9
comp=Z,54nm,0.8s
BLG **Laguna Peak, P** 80.77 56 P P 09 16 34.3 +0.9
baz=302
HVU **Hansel Valley** 80.84 47 *e*P P 09 16 36.0 +2.2
HVU pmax pmax
comp=Z,44nm,0.8s
HVU **Hansel Valley** 80.84 47 *e*P P 09 16 36.0 +2.2
comp=Z,44nm,0.8s
MPMC **Manual Prospec** 80.85 53 P P 09 16 35.4 +1.4
baz=302,SNR=47
R11A **Troy Canyon, C** 80.91 51 P P 09 16 35.4 +1.1
baz=303
R11A **Troy Canyon, C** 80.91 51 *e*P P 09 16 35.8 +1.5
comp=Z,48nm,1.3s
LRMC **Laurel Mtn Rad** 81.02 54 P P 09 16 36.1 +1.2
baz=302,SNR=51
RLMT **Red Lodge** 81.04 42 P P 09 16 35.9 +1.0
baz=306
RLMT **Red Lodge** 81.04 42 *e*P P 09 16 36.8 +1.9
comp=Z,49nm,0.9s
FURC **Furnace Creek,** 81.06 53 P P 09 16 36.2 +1.4
baz=302,SNR=56

EDW2 **Edwards Air Fo** 81.12 55 P P 09 16 36.8 +1.5
baz=302,SNR=51
BGU **Big Grassy Mou** 81.16 47 *e*P P 09 16 37.3 +1.8
comp=Z,25nm,0.8s
DECC **Green Verdugo** 81.21 55 P P 09 16 37.1 +1.3
baz=302,SNR=12
TPNV **Topopah Spring** 81.22 52 P P 09 16 37.2 +1.3
baz=303,SNR=93
TPNV **Topopah Spring** 81.22 52 *e*P P 09 16 37.3 +1.4
TPNV pmax pmax
comp=Z,77nm,0.8s
TPNV **Topopah Spring** 81.22 52 *e*P P 09 16 37.3 +1.4
comp=Z,77nm,0.8s
BEI **Bear River Ran** 81.27 46 *e*P P 09 16 38.2 +2.1
SPUT **South Promonto** 81.31 47 *e*P P 09 16 38.3 +2.0
comp=Z,29nm,1.0s
AHID **Auburn Hatcher** 81.31 45 *e*P P 09 16 38.0 +1.6
comp=Z,30nm,0.9s
PASC **Pasadena Art C** 81.36 55 *e*P P 09 16 38.1 +1.6
comp=Z,55nm,1.1s
MWC **Mount Wilson** 81.42 55 *e*P P 09 16 38.2 +1.1
MWC pmax pmax
comp=Z,69nm,1.1s
MWC **Mount Wilson** 81.42 55 *e*P P 09 16 38.2 +1.1
comp=Z,69nm,1.1s
FMP **Fort Macarthur** 81.52 56 P P 09 16 38.6 +1.3
baz=302
CIS **Catalina Islan** 81.60 56 P P 09 16 38.9 +1.1
baz=302,SNR=6.9
NAIU **Northern Antel** 81.61 47 *e*P P 09 16 39.7 +1.8
LVV **L'vov** 81.63 324 *e*P P 09 16 38.1 +0.5
SFJD **Kangerlussuaq** 81.68 4 *i*P P 09 16 38.6 +1.1
SFJD pmax pmax
comp=Z,16nm,1.0s
SFJD **Kangerlussuaq** 81.68 4 *i*P P 09 16 38.6 +1.1
comp=Z,16nm,1.0s
BFSC **Mount Baldy Ra** 81.69 55 P P 09 16 39.3 +0.9
baz=302,SNR=19
DUG **Dugway, Tooele** 81.70 48 P P 09 16 40.0 +1.6
baz=304
DUG **Dugway, Tooele** 81.70 48 *e*P P 09 16 40.1 +1.8
DUG pmax pmax
comp=Z,64nm,0.9s
DUG **Dugway, Tooele** 81.70 48 *e*P P 09 16 40.1 +1.8
comp=Z,64nm,0.9s
SHOC **Shoshone, Teco** 81.77 53 P P 09 16 40.2 +1.5
baz=303,SNR=12
LAO **LASA Array** 81.82 40 P P 09 16 40.2 +1.5
baz=308
LAO **LASA Array** 81.82 40 *e*P P 09 16 40.3 +1.5
comp=Z,109nm,1.1s
BEL **Belsk** 81.89 327 *e*P P 09 16 40.4 +1.5
BEL **Belsk** 81.89 327 *e*P P 09 16 40.4 +1.5
PSUT **Pine Spring** 81.95 50 *e*P P 09 16 41.7 +1.9
comp=Z,35nm,1.0s
TCUT **Toone Canyon** 82.06 47 *e*P P 09 16 42.2 +1.9
comp=Z,66nm,0.8s
CTU **Camp Tracy** 82.09 47 *e*P P 09 16 42.2 +1.8
comp=Z,44nm,0.9s
BR101 **Keskin Array S** 82.16 312 *e*P P 09 16 40.8 0.0
BR131 **Keskin Array S** 82.16 312 *e*P P 09 16 41.1 +0.3
BRTR **Keskin Array B** 82.16 312 P P 09 16 40.8 0.0
comp=Z,21nm,0.9s,baz=101,slow=4.4,SNR=78
BRTR LR LR 09 54 51.4
comp=Z,132nm,21.6s,baz=49,slow=37
SHPR **Sheep Range** 82.20 52 *e*P P 09 16 42.7 +1.7
comp=Z,33nm,0.9s
BBRC **Big Bear Solar** 82.20 55 P P 09 16 42.2 +1.0
baz=303,SNR=13
RAYN **Ar Rayn** 82.21 293 *e*P P 09 16 40.9 -0.3
comp=Z,22nm,0.8s
BW06 **Boulder Array** 82.24 44 P P 09 16 42.0 +0.7
baz=306
BW06 **Boulder Array** 82.24 44 *e*P P 09 16 42.0 +0.7
comp=Z,17nm,0.8s
PD31 **Pinedale Array** 82.24 44 *e*P P 09 16 42.3 +1.0
PDAR **Pinedale Array** 82.24 44 P P 09 16 42.2 +1.0
comp=Z,11nm,0.7s,baz=269,slow=2.7,SNR=119
PDAR LR LR 09 47 01.0
comp=Z,104nm,21.9s,baz=338,slow=31
PDAR **Pinedale Array** 82.24 44 *e*P P 09 16 41.6 +0.3
TUQ **Turquoise Moun** 82.26 53 P P 09 16 42.6 +1.3
baz=303,SNR=51
HEC **Hector,Ludlow** 82.30 54 P P 09 16 43.0 +1.5
baz=303,SNR=58
NLU **North Lily Min** 82.30 48 *e*P P 09 16 43.4 +1.8
comp=Z,38nm,0.9s
CFR **Carcaliu** 82.30 319⇑*i*P P 09 16 41.5 +0.3
TESR **Tescani** 82.32 320⇑*i*P P 09 16 41.6 +0.3
JLU **Jordanelle** 82.33 47 *e*P P 09 16 43.5 +1.7
comp=Z,42nm,0.9s
MURC **Murrieta** 82.36 55 P P 09 16 43.0 +1.2
baz=302,SNR=20
BUR08 **Bucovina Ar. S** 82.40 322 *e*P P 09 16 42.4 +0.6
BUR04 **Bucovina Ar. S** 82.41 322 *e*P P 09 16 41.9 +0.1
BURAR **Bucovina Array** 82.41 322⇑*i*P P 09 16 42.4 +0.5
KWP **Kalwaria Pacla** 82.41 325 *e*P P 09 16 42.8 +1.0
KWP **Kalwaria Pacla** 82.41 325 *e*P P 09 16 43.0 +1.3
KWP pmax pmax
comp=Z,626nm,1.0s
KWP **Kalwaria Pacla** 82.41 325 *e*P P 09 16 43.0 +1.3
comp=Z,626nm,1.0s
MPU **Maple Canyon** 82.55 48 *e*P P 09 16 44.6 +1.7
comp=Z,42nm,0.9s
ODBI **Odobesti** 82.55 320⇑*i*P P 09 16 44.3 +1.8
PMOR **Pomariorio Ree** 82.57 112 *e*T T 10 47 21.4
comp=Z,15nm,0.2s
TIRR **Tirgusor** 82.58 318⇓*i*P P 09 16 42.9 +0.3
TIRR **Tirgusor** 82.58 318 *e*P P 09 16 43.0 +0.3
TIRR pmax pmax
comp=Z,63nm,1.8s
TIRR **Tirgusor** 82.58 318 *e*P P 09 16 43.0 +0.3
comp=Z,63nm,1.8s
ANTO **Ankara** 82.62 312 *e*P P 09 16 43.8 +0.7
ANTO pmax pmax
comp=Z,101nm,1.7s
ANTO **Ankara** 82.62 312 *e*P P 09 16 43.8 +0.7
comp=Z,101nm,1.7s
ANTO **Ankara** 82.62 312 P P 09 16 43.4 +0.3
SNR=6.9
BR231 **Kekin MP Arra** 82.64 312 *e*P P 09 16 41.4 -1.9
VRI **Vrincioaia** 82.67 320⇑*i*P P 09 16 44.1 +0.9
PLOR **Plostina** 82.72 320⇑*i*P P 09 16 45.1 +1.6
PPT2 **Papeete2** 82.75 115 *e*S S 09 27 03.9 +9.2
comp=Z,96nm,23.2s
PPT2 **Papeete2** 82.75 115 *e*LR LR 09 42 06.8
comp=Z,660nm,34.5s
PPT2 **Papeete2** 82.75 115 *e*T T 10 47 32.0
comp=Z,2.2nm,0.4s
GMRC **Granite Mounta** 82.79 54 P P 09 16 45.5 +1.4
baz=303,SNR=51
109C **Camp Elliot, M** 82.80 56 P P 09 16 45.6 +1.5
baz=303,SNR=5.1
CCUT **Cedar City** 82.82 50 *e*P P 09 16 46.0 +1.7
comp=Z,38nm,1.3s
PFO **Pinyon Flats O** 82.87 55 P P 09 16 45.8 +1.3
baz=303,SNR=54
PFO **Pinyon Flats O** 82.87 55 *e*P P 09 16 45.7 +1.1
PFO pmax pmax
comp=Z,83nm,1.0s
PFO **Pinyon Flats O** 82.87 55 *e*P P 09 16 45.7 +1.1
comp=Z,83nm,1.0s
XPFO **Pæon Flat** 82.87 55 *e*P P 09 16 45.7 +1.1
comp=Z,81nm,1.0s
TPFO **Pinon Flats** 82.88 55 P P 09 16 45.8 +1.2
baz=303,SNR=61
SZCU **Shurtz Canyon** 82.97 50 *e*P P 09 16 46.6 +1.5
comp=Z,22nm,1.2s
BELC **Belle Mtn. Jos** 82.98 55 P P 09 16 46.0 +0.9
baz=303,SNR=40
LDFC **Landfair** 83.01 53 *e*P P 09 16 47.0 +1.8
comp=Z,72nm,1.0s
MSU **Marysvale** 83.05 49 *e*P P 09 16 46.1 +0.5
MSU **Marysvale** 83.05 49 *e*P P 09 16 46.0 +0.5
LCMT **Little Creek M** 83.20 51 *e*P P 09 16 47.9 +1.7
comp=Z,71nm,1.3s
BAR **Barrett** 83.22 56 *e*P P 09 16 47.5 +1.2
comp=Z,38nm,0.9s
TMUT **Trail Mountain** 83.23 48 *e*P P 09 16 48.1 +1.6
comp=Z,25nm,1.0s
ISR **Istrita** 83.23 319⇑*i*P P 09 16 47.5 +1.4
STHS **Stebnicka Huta** 83.27 325 *e*P P 09 16 47.4 +1.2
STHS pmax pmax
comp=Z,16nm,1.1s
STHS **Stebnicka Huta** 83.27 325 *e*P P 09 16 47.4 +1.2
MONP2 **Monument Peak** 83.29 56 P P 09 16 48.2 +1.3
baz=303,SNR=24

MTPU **Mount Pierson** 83.31 49 *e*P P 09 16 49.0 +1.9
comp=Z,46nm,1.2s
MLR **Muntele Rosu** 83.34 320 LR LR 09 55 27.9
comp=Z,68nm,20.0s,baz=63,slow=37
MLR **Muntele Rosu** 83.34 320⇑*i*P P 09 16 47.5 +0.8
MLR **Muntele Rosu** 83.34 320 *e*P P 09 16 47.2 +0.5
MLR pmax pmax
comp=Z,49nm,1.6s
MLR **Muntele Rosu** 83.34 320 *e*P P 09 16 47.2 +0.5
comp=Z,49nm,1.6s
DOPR **Dopca** 83.34 321⇑*i*P P 09 16 48.3 +1.7
P17A **Butcher Ranch,** 83.42 48 *e*P P 09 16 49.2 +1.8
comp=Z,105nm,1.0s
OJC **Ojcow** 83.44 326 *e*P P 09 16 47.8 +0.8
OJC **Ojcow** 83.44 326 *e*P P 09 16 47.8 +0.8
OJC pmax pmax
comp=Z,48nm,1.1s
OJC **Ojcow** 83.44 326 *e*P P 09 16 47.8 +0.8
comp=Z,48nm,1.1s
TRPA **Tarpa** 83.47 323⇑*e*P P 09 16 48.4 +1.2
IRM **Iron Mountain** 83.49 54 P P 09 16 49.1 +1.4
baz=304,SNR=40
CRVS **Cervenica-Dubn** 83.50 325 *e*P P 09 16 48.5 +1.1
CRVS **Cervenica-Dubn** 83.50 325 *e*P P 09 16 48.5 +1.1
NEE2 **Needles Airpor** 83.52 53 P P 09 16 48.9 +1.2
baz=304,SNR=8.9
BC3 **Big Chuckawall** 83.55 55 P P 09 16 49.3 +1.2
baz=303,SNR=48
PKCU **Pink Cliffs** 83.57 50 *e*P P 09 16 50.9 +2.5
comp=Z,29nm,1.2s
IKP **In-Ko-Pah, Jac** 83.64 56 P P 09 16 49.9 +1.4
baz=303,SNR=20
P18A **Preston Nutter** 83.64 47 *e*P P 09 16 50.3 +1.6
comp=Z,44nm,0.9s
EKU **East Kanab** 83.66 50 *e*P P 09 16 50.5 +1.8
SWSC **Sam W. Stewart** 83.70 55 P P 09 16 49.8 +1.2
baz=303,SNR=14
NIE **Niedzica** 83.73 325 *e*P P 09 16 49.6 +1.0
NIE **Niedzica** 83.73 325 *e*P P 09 16 49.6 +1.0
SRU **San Rafael Swe** 83.77 48 *e*P P 09 16 50.6 +1.4
SRU pmax pmax
comp=Z,79nm,0.8s
SRU **San Rafael Swe** 83.77 48 *e*P P 09 16 50.6 +1.4
comp=Z,79nm,0.8s
MMU **Miners Mountai** 83.80 49 *e*P P 09 16 51.2 +1.8
CJR **Cluj-Napoca** 83.83 322⇑*i*P P 09 16 50.7 +1.5
W13A **Hualapai Mount** 83.83 53 *e*P P 09 16 51.0 +1.4
comp=Z,35nm,1.1s
VOIR 83.86 320⇑*i*P P 09 16 49.9 +0.5
PDMCI **Parker Dam,Lak** 84.10 53 P P 09 16 51.9 +1.2
baz=304,SNR=16
K22A **Casper** 84.11 43 P P 09 16 51.7 +0.9
baz=308
K22A **Casper** 84.11 43 *e*P P 09 16 51.8 +1.0
comp=Z,48nm,0.9s
ARR **Arges** 84.13 320⇑*i*P P 09 16 52.0 +1.3
Y12C **Blythe** 84.14 54 P P 09 16 52.5 +1.6
baz=304,SNR=26
Y12C **Blythe** 84.14 54 *e*P P 09 16 52.5 +1.6
comp=Z,60nm,1.1s
U15A **North Rim** 84.16 51 *e*P P 09 16 52.9 +1.6
comp=Z,34nm,0.9s
DRGR 84.25 322⇑*i*P P 09 16 52.0 +0.7
KECS **Kecovo** 84.27 325 *e*P P 09 16 52.3 +1.0
KECS pmax pmax
comp=Z,7.0nm,1.1s
KECS **Kecovo** 84.27 325 *e*P P 09 16 52.3 +1.0
LANS **Liptovska Anna** 84.32 326 *e*P P 09 16 52.0 +0.4
LANS **Liptovska Anna** 84.32 326 *e*P P 09 16 52.0 +0.4
GLA **Glamis** 84.32 55 P P 09 16 53.4 +1.5
baz=304,SNR=34
GLA **Glamis** 84.32 55 *e*P P 09 16 53.5 +1.6
GLA pmax pmax
comp=Z,91nm,1.0s
GLA **Glamis** 84.32 55 *e*P P 09 16 53.5 +1.6
comp=Z,91nm,1.0s
BOLV **Bolvadin** 84.45 312 *e*P P 09 16 53.5 +1.0
comp=Z,73nm,1.0s
OKC **Ostrava-Krasne** 84.48 327⇑*e*P P 09 16 52.4 +0.1
OKC **Ostrava-Krasne** 84.48 327 *e*P P 09 16 52.4 +0.1
LOT **Lotru** 84.55 321⇑*i*P P 09 16 54.4 +1.5
MDND **Maddock** 84.56 36 P P 09 16 53.8 +1.0
baz=312
MDND **Maddock** 84.56 36 *e*P P 09 16 54.0 +1.2
comp=Z,82nm,0.8s
O20A **White River Ci** 84.59 46 P P 09 16 54.5 +1.2
baz=307
O20A **White River Ci** 84.59 46 *e*P P 09 16 54.7 +1.3
comp=Z,76nm,0.9s
RSSD **Black Hills** 84.62 41 P P 09 16 54.0 +0.5
baz=309
RSSD **Black Hills** 84.62 41 *e*P P 09 16 54.2 +0.8
RSSD pmax pmax
comp=Z,107nm,1.8s
RSSD **Black Hills** 84.62 41 *e*P P 09 16 54.2 +0.8
comp=Z,107nm,1.8s
KSP **Ksiaz** 84.63 328 *e*P P 09 16 54.0 +1.0
KSP **Ksiaz** 84.63 328 *e*P P 09 16 54.0 +1.0
ULM **Lac du Bonnet** 84.72 32 P P 09 16 53.1 -0.3
comp=Z,7.4nm,0.8s,baz=306,slow=4.8,SNR=10
ULM **Lac du Bonnet** 84.72 32 *e*P P 09 16 54.0 +0.5
ULM pmax pmax
comp=Z,19nm,1.1s
ULM **Lac du Bonnet** 84.72 32 *e*P P 09 16 54.0 +0.5
comp=Z,19nm,1.1s
MORC **Moravsky Berou** 84.80 327⇑*i*P P 09 16 54.8 +0.8
MORC **Moravsky Berou** 84.80 327 *e*P P 09 16 54.8 +0.8
MORC pmax pmax
comp=Z,73nm,1.4s
MORC **Moravsky Berou** 84.80 327 *e*P P 09 16 54.8 +0.8
comp=Z,72nm,1.4s
PSZ **Piszkesteto** 84.94 324⇑*i*P P 09 16 55.8 +1.0
PSZ **Piszkesteto** 84.94 324 *e*P P 09 16 56.0 +1.3
PSZ pmax pmax
comp=Z,13nm,1.0s
PSZ **Piszkesteto** 84.94 324⇑*e*P P 09 16 55.7 +1.0
PSZ **Piszkesteto** 84.94 324 *e*P P 09 16 56.0 +1.3
comp=Z,13nm,1.0s
KRLC **Kraliky** 84.95 327⇑*e*P P 09 16 55.5 +0.8
KRLC *e*pP pP 09 17 20.8 +1.8
KRLC **Kraliky** 84.95 327 *e*P P 09 16 55.5 +0.8
KRLC *e* 09 17 20.8
DPC **Dobruska-Polom** 84.97 328⇑*i*P P 09 16 56.0 +1.2
DPC *ex* x 09 17 09.8
DPC *e*pP pP 09 17 19.5 +0.4
DPC **Dobruska-Polom** 84.97 328⇑*i*P P 09 16 56.0 +1.2
DPC *e* 09 17 09.8
DPC *e* 09 17 19.5
UPC **Upice** 85.00 328⇑*e*P P 09 16 55.9 +1.0
UPC **Upice** 85.00 328 *e*P P 09 16 55.9 +1.0
PV09 **Paradox Valley** 85.01 48 *e*P P 09 16 57.2 +1.6
CSS **Mathiatis** 85.06 308 *e*P P 09 16 55.1 -0.4
comp=Z,26nm,1.3s
VYHS **Vyhne** 85.07 325 *e*P P 09 16 56.2 +0.9
VYHS pmax pmax
comp=Z,10.0nm,1.2s
VYHS **Vyhne** 85.07 325 *e*P P 09 16 56.2 +0.9
Y14A **Wickenburg** 85.09 53 *e*P P 09 16 57.1 +1.3
comp=Z,202nm,0.9s
PV10 **Paradox Valley** 85.14 48 *e*P P 09 16 57.9 +1.8
SIRR **Siria** 85.14 322⇑*i*P P 09 16 56.1 +0.4
B31A **Greenbush Farm** 85.14 35 P P 09 16 56.3 +0.7
baz=313
113A **Mohawk Valley,** 85.22 54 *e*P P 09 16 57.7 +1.4
comp=Z,46nm,0.9s
PV05 **Paradox Valley** 85.28 48 *e*P P 09 16 58.4 +1.5
WUAZ **Wupatki** 85.29 51 P P 09 16 57.7 +0.8
baz=305,SNR=48
WUAZ **Wupatki** 85.29 51 *e*P P 09 16 58.4 +1.6
comp=Z,64nm,1.0s
A32A **Rocking H Ranc** 85.36 34 P P 09 16 57.1 +0.4
baz=314
TAOE **Nuku Hiva Isla** 85.50 103 *e*S S 09 27 35.7 +13
comp=Z,220nm,26.5s
TAOE **Nuku Hiva Isla** 85.50 103 *e*LR LR 09 43 57.5
comp=Z,488nm,27.7s
N23A **Red Feather La** 85.53 44 P P 09 16 59.8 +1.7
baz=308
N23A **Red Feather La** 85.53 44 *e*P P 09 16 59.9 +1.9
comp=Z,94nm,1.0s
C31A **Landman Farms,** 85.53 35 P P 09 16 58.2 +0.6
baz=313
VRAC **Vranov** 85.57 327 LR LR 09 57 53.0
comp=Z,260nm,18.0s,baz=42,slow=37
VRAC **Vranov** 85.57 327⇑*i*P P 09 16 58.8 +1.0

PV01 **Paradox Valley** 85.58 48 *e*P P 09 16 59.6 +1.2
PVCC **Panska Ves** 85.63 329⇑ *e*P P 09 16 59.3 +1.3
PVCC **Panska Ves** 85.63 329 *e*P P 09 16 59.3 +1.3
BRG **Berggiesshubel** 85.65 329 *i* P P 09 16 58.7 +0.6
comp=Z,6.5nm,0.9s
BRG *e*pP sP 09 17 28.4 -3.9
comp=Z,6.6nm,0.8s
BRG *e*PP PP 09 20 19.1 +1.6
comp=Z,15nm,1.3s
BRG SKKS S 09 27 23.3 +0.6
comp=Z,94nm,2.5s
BRG **Berggiesshubel** 85.65 329 *i* P P 09 16 58.7 +0.6
BRG *e**PP sP 09 17 28.4 -3.9
BRG *e* 09 20 19.1
BRG 09 27 23.3
BRG pmax pmax
comp=Z,7.0nm,0.9s
BRG pmax pmax
comp=Z,7.0nm,0.8s
BRG pmax pmax
comp=Z,15nm,1.3s
BRG pmax pmax
comp=N,94nm,2.5s
B32A **Ashes, Strandq** 85.70 34 P P 09 16 58.8 +0.4
baz=314
CLL **Collm** 85.74 330 *i* P P 09 16 57.3 -1.2
CLL *e*S S 09 27 21.0 -2.6
CLL pmax pmax
comp=Z,17nm,0.9s
CLL **Collm** 85.74 330 *i* P P 09 16 57.3 -1.2
comp=Z,17nm,0.9s
CLL *i* 09 17 09.2
CLL *i* PP PP 09 20 19.2 +1.1
comp=Z,16nm,1.1s
CLL *e*S S 09 27 21.0 -2.6
CLL *e*PS PnS 09 28 32.0 +0.7
CLL L L 09 59 00.0
comp=Z,200nm,18.1s
CLL **Collm** 85.74 330 *e*P P 09 16 59.0 +0.5
comp=Z,14nm,0.8s
A33A **Warroad** 85.86 33 P P 09 16 59.6 +0.3
baz=315
X16A **Lo Mia Camp, P** 85.88 52 *e*P P 09 17 01.5 +1.6
comp=Z,36nm,1.1s
GOPC **GO Pecny, Ondr** 85.97 328⇑ *e*P P 09 17 03.1 +3.3
GOPC **GO Pecny, Ondr** 85.97 328 *e*P P 09 17 03.1 +3.3
PRU **Pruhonice** 86.03 328⇑ *e*P P 09 17 03.5 +3.5
PRU **Pruhonice** 86.03 328 *e*P P 09 17 03.5 +3.5
D31A **Mcclaflin, Tow** 86.05 36 P P 09 17 01.0 +0.8
baz=313
AGMN **Agassiz Nation** 86.09 34 P P 09 17 00.2 -0.1
baz=314
AGMN **Agassiz Nation** 86.09 34 *e*P P 09 17 00.9 +0.5
comp=Z,44nm,1.4s
MANT **Manisa** 86.09 313 *e*P P 09 17 01.3 +0.5
comp=Z,117nm,1.4s
MDVR **Moldovita** 86.09 321⇑ *i*P P 09 17 00.5 0.0
MVCO **Mesa Verde** 86.18 48 P P 09 17 02.1 +0.8
baz=307,SNR=18
MVCO **Mesa Verde** 86.18 48 *e*P P 09 17 02.6 +1.3
comp=Z,39nm,1.2s
B33A **Robert and Kas** 86.24 34 P P 09 17 01.6 +0.5
baz=315
E31A **Nome** 86.30 36 P P 09 17 02.4 +0.9
baz=313
D32A **Dogwood Acres,** 86.34 35 P P 09 17 02.2 +0.7
baz=314
214A **Organ Pipe Nat** 86.34 55 P P 09 17 03.1 +1.1
baz=305,SNR=28
ISCO **Idaho Springs** 86.40 45 P P 09 17 03.8 +1.3
baz=308
ISCO **Idaho Springs** 86.40 45 *e*P P 09 17 04.0 +1.5
ISCO pmax pmax
comp=Z,42nm,1.4s
ISCO **Idaho Springs** 86.40 45 *e*P P 09 17 04.0 +1.5
comp=Z,42nm,1.4s
C33A **Trail** 86.51 34 P P 09 17 02.8 +0.3
baz=315
B34A **Aery, Baudette** 86.53 33 P P 09 17 02.4 -0.1
baz=315
F31A **Hecla** 86.59 37 P P 09 17 03.7 +0.9
baz=313
W18A **Petrified Fore** 86.61 51 P P 09 17 04.6 +1.2
baz=306,SNR=12
W18A **Petrified Fore** 86.61 51 *e*P P 09 17 05.2 +1.8
comp=Z,17nm,1.0s
VTS **Vitosha** 86.70 319⇑ *i*P P 09 17 04.7 +1.0
VTS **Vitosha** 86.70 319 *e*P P 09 17 04.0 +0.3
VTS pmax pmax
comp=Z,8.0nm,0.9s
VTS **Vitosha** 86.70 319 *e*P P 09 17 04.0 +0.3
comp=Z,7.7nm,0.9s
X18A **Snowflake** 86.81 51 *e*P P 09 17 05.8 +1.3
comp=Z,15nm,0.9s
CONA **Conrad Observa** 86.89 326 *i* PcP P 09 17 05.4 +0.9
comp=Z,7.8nm,1.1s
D33A **AnnSam, Waubun** 86.91 35 P P 09 17 05.2 +0.8
baz=315,SNR=6.2
S22A **4UR Ranch, Cre** 86.91 47 P P 09 17 06.5 +1.5
baz=308,SNR=23
S22A **4UR Ranch, Cre** 86.91 47 *e*P P 09 17 06.6 +1.6
comp=Z,32nm,1.3s
G31A **Conde** 87.04 37 P P 09 17 05.9 +0.8
baz=313
B35A **Bob, Littlefor** 87.05 33 P P 09 17 05.5 +0.4
baz=316
KHC **Kasperske Hory** 87.08 328⇑ *i*P P 09 17 05.7 +0.5
KHC *ex* x 09 17 25.2
KHC *e*PP PP 09 20 29.0 -0.1
KHC **Kasperske Hory** 87.08 328⇑ *i*P P 09 17 05.7 +0.5
KHC *e* 09 17 25.2
KHC *e* 09 20 29.0
KHC **Kasperske Hory** 87.08 328 *e*P P 09 17 05.8 +0.5
comp=Z,8.4nm,1.4s
F32A **Veblen** 87.15 36 P P 09 17 06.4 +0.8
baz=314
SUSD **Miller** 87.18 38 P P 09 17 06.0 +0.2
baz=312
Q24A **Divide** 87.20 45 P P 09 17 07.7 +1.3
baz=309,SNR=8.6
Q24A **Divide** 87.20 45 *e*P P 09 17 08.1 +1.7
comp=Z,19nm,1.0s
GEC2 **GERESS Array S** 87.23 328 *e*P P 09 17 06.5 +0.5
GEC2 pmax pmax
comp=Z,12nm,1.4s
GEC2 **GERESS Array S** 87.23 328 *e*P P 09 17 06.5 +0.5
comp=Z,12nm,1.4s
GERES **GERESS Array B** 87.23 328 P P 09 17 05.9 -0.2
comp=Z,1.9nm,0.7s,baz=45,slow=5.5,SNR=13
GERES PP PP 09 20 30.4 0.0
comp=Z,1.9nm,0.9s,baz=30,slow=8.2,SNR=5.7
GERES LR LR 09 58 26.7
comp=Z,212nm,18.2s,baz=45,slow=37
GERES **GERESS Array B** 87.23 328 P P 09 17 05.9 -0.2
GERES 09 20 30.4
GERES pmax pmax
comp=Z,2.0nm,0.7s
GERES pmax pmax
comp=Z,2.0nm,0.9s
GERES MLR MLR
comp=Z,212nm,18.2s
GEA0 **GERESS Array S** 87.24 328 *e*P P 09 17 05.9 -0.2
D34A **Park Rapids** 87.26 34 P P 09 17 06.9 +0.8
baz=315,SNR=6.6
E33A **Westby DABS, E** 87.27 35 P P 09 17 07.0 +0.8
baz=314,SNR=19
G32A **Webster** 87.39 37 P P 09 17 07.7 +0.9
baz=314
H31A **Wolsey** 87.41 38 P P 09 17 07.3 +0.4
baz=313
C35A **Jirik Farms, M** 87.41 33 P P 09 17 07.0 +0.2
baz=316,SNR=5.2
ARSA **Arzberg** 87.53 326 *i* PcP P 09 17 08.7 +1.3
comp=Z,2.3nm,0.6s
TUC **Tucson** 87.55 53 P P 09 17 08.9 +1.0
baz=306
TUC **Tucson** 87.55 53 *e*P P 09 17 09.3 +1.4
TUC pmax pmax
comp=Z,15nm,1.1s
TUC **Tucson** 87.55 53 *e*P P 09 17 09.3 +1.4
comp=Z,15nm,1.1s
F33A **5 Mile Ranch,** 87.59 36 P P 09 17 08.6 +0.9
baz=314,SNR=42
E34A **Wadena** 87.68 35 P P 09 17 08.7 +0.6
baz=315,SNR=7.7
GRFO **Grafenberg** 87.70 330 *e*P P 09 17 11.6 +3.4
GRFO pmax pmax
comp=Z,17nm,1.1s
GRFO **Grafenberg** 87.70 330 *e*P P 09 17 11.6 +3.4
comp=Z,17nm,1.1s
SDCO **Great Sand Dun** 87.74 46 P P 09 17 09.8 +0.8
baz=309,SNR=16
SDCO **Great Sand Dun** 87.74 46 *e*P P 09 17 09.9 +1.0
comp=Z,13nm,0.9s
OGNE **Ogallala** 87.79 42 P P 09 17 09.6 +0.8
baz=311,SNR=5.9
OGNE **Ogallala** 87.79 42 *e*P P 09 17 10.1 +1.3
comp=Z,69nm,1.0s
D35A **Remer** 87.81 34 P P 09 17 09.3 +0.6
baz=316
C36A **Pine Crest Far** 87.90 33 P P 09 17 09.7 +0.5
baz=317,SNR=6.3
H32A **Carlson Farm,** 87.93 37 P P 09 17 09.8 +0.5
baz=314,SNR=16
G33A **Ortonville** 87.97 36 P P 09 17 10.2 +0.7
baz=314,SNR=22
E35A **Pequot Lakes** 88.02 34 P P 09 17 10.4 +0.7
baz=316,SNR=13
J31A **Geddes** 88.07 39 P P 09 17 10.6 +0.6
baz=313
F34A **Alexandria** 88.14 35 P P 09 17 11.2 +0.8
baz=315,SNR=13
D36A **Goodland** 88.17 33 P P 09 17 10.7 +0.3
baz=316
H33A **Prehn Over Nor** 88.17 37 P P 09 17 11.6 +1.1
baz=314,SNR=86
SOKA **Soboth** 88.18 326 *i* PcP P 09 17 10.7 +0.1
comp=Z,9.3nm,0.9s
C37A **Embarrass** 88.22 33 P P 09 17 11.2 +0.6
baz=317,SNR=6.9
I32A **Karley and Nic** 88.25 38 P P 09 17 11.3 +0.5
baz=314,SNR=5.2
G34A **Benson** 88.34 36 P P 09 17 12.3 +1.1
baz=315,SNR=11
EYMN **Ely** 88.38 32 P P 09 17 11.5 +0.1
baz=318
F35A **Swanville** 88.44 35 P P 09 17 12.4 +0.7
baz=316,SNR=17
J32A **Parkston** 88.49 38 P P 09 17 12.6 +0.5
baz=313,SNR=8.7
K31A **O'Neill** 88.51 39 P P 09 17 13.2 +1.0
baz=313,SNR=8.6
D37A **Cotton** 88.53 33 P P 09 17 12.2 +0.1
baz=317
E36A **McGregor** 88.60 34 P P 09 17 13.2 +0.7
baz=316,SNR=8.3
C38A **Sawbill Land.** 88.65 32 P P 09 17 13.0 +0.3
baz=318,SNR=5.2
H34A **Spellman Lake,** 88.67 36 P P 09 17 14.0 +1.1
baz=315,SNR=6.6
KSCO **Kaye Shedlock'** 88.69 44 P P 09 17 14.2 +1.0
baz=310
KSCO **Kaye Shedlock'** 88.69 44 *e*P P 09 17 14.6 +1.4
comp=Z,77nm,1.6s
LAZ **Ladron** 88.75 50 *e*P P 09 17 15.4 +1.8
T25A **Trinidad** 88.80 46 P P 09 17 15.1 +1.2
baz=309,SNR=21
T25A **Trinidad** 88.80 46 *e*P P 09 17 15.2 +1.3
comp=Z,20nm,0.8s
ANMO **Albuquerque** 88.86 49 P P 09 17 15.6 +1.4
baz=308
ANMO **Albuquerque** 88.86 49⇓ *i*P P 09 17 16.1 +1.9
ANMO pmax pmax
comp=Z,11nm,0.8s
ANMO **Albuquerque** 88.86 49 *e*P P 09 17 15.9 +1.7
comp=Z,12nm,1.0s
MYKA **Terra Mystica** 88.88 327 *i* PcP P 09 17 13.4 -0.4
comp=Z,4.0nm,0.6s
ECSD **EROS Data Cent** 88.89 38 P P 09 17 14.7 +0.8
baz=314,SNR=32
ECSD **EROS Data Cent** 88.89 38 *e*P P 09 17 14.7 +0.8
comp=Z,54nm,1.0s
K32A **Verdigre** 88.91 39 P P 09 17 14.7 +0.7
baz=313
G35A **Watkins** 88.93 35 P P 09 17 15.2 +1.1
baz=316,SNR=27
F36A **Milaca** 88.94 34 P P 09 17 14.5 +0.5
baz=316,SNR=7.7
J33A **Davis** 89.00 38 P P 09 17 14.9 +0.5
baz=314,SNR=7.2
I34A **Hadley** 89.07 37 P P 09 17 15.7 +0.9
baz=315
319A **Douglas** 89.13 53 *e*P P 09 17 17.4 +2.0
comp=Z,12nm,1.0s
H35A **Sunnyside Ranc** 89.13 36 P P 09 17 16.2 +1.2
baz=315,SNR=32
LPM **Los Pinos Moun** 89.14 50 *e*P P 09 17 17.1 +1.7
BNM **Barren Site** 89.24 50 *e*P P 09 17 17.6 +1.6
G36A **St. Michael** 89.28 35 P P 09 17 16.7 +1.0
baz=316,SNR=11
E38A **The Farm, Brul** 89.34 33 P P 09 17 16.5 +0.6
baz=318,SNR=9.7
L32A **Elgin** 89.34 39 P P 09 17 16.9 +0.9
baz=313,SNR=5.6
HSIG 89.34 56 *e*P P 09 17 18.2 +1.9
comp=Z,29nm,1.2s
121A **Cookes Peak, D** 89.45 52 P P 09 17 18.3 +1.3
baz=307,SNR=9.7
K33A **Hardington** 89.47 39 P P 09 17 17.3 +0.7
baz=314
F37A **Hinrichs Farm,** 89.48 34 P P 09 17 17.5 +0.9
baz=317,SNR=6.7
MOTA **Moosalm** 89.52 328 *i* PcP P 09 17 17.4 +0.4
comp=Z,1.1nm,0.4s
J34A **George** 89.55 38 P P 09 17 17.8 +0.8
baz=315
RETA **Reutte** 89.56 329 *i* PcP P 09 17 17.5 +0.4
comp=Z,11nm,1.2s
L33A **Hoskins** 89.63 39 P P 09 17 18.0 +0.5
baz=314
I35A **Creekview Farm** 89.65 37 P P 09 17 18.2 +0.7
baz=315
F38A **Pierce - Schro** 89.66 34 P P 09 17 18.4 +0.9
baz=317,SNR=18
BGNE **Belgrade** 89.67 40 P P 09 17 18.1 +0.5
baz=313,SNR=7.3
BGNE **Belgrade** 89.67 40 *e*P P 09 17 18.2 +0.6
comp=Z,77nm,0.9s
H36A **Jessenland, He** 89.67 36 P P 09 17 19.0 +1.5
baz=316,SNR=26
SPMN **Marine on St.** 89.75 35 P P 09 17 18.6 +0.7
baz=317,SNR=12
SPMN **Marine on St.** 89.75 35 *e*P P 09 17 18.6 +0.7
comp=Z,47nm,0.9s
J35A **Milford** 89.88 37 P P 09 17 19.2 +0.7
baz=315
K34A **Le Mars** 89.89 38 P P 09 17 19.4 +0.7
baz=314,SNR=6.9
FETA **Feichten** 89.93 328 *i* PcP P 09 17 19.1 +0.2
comp=Z,3.8nm,0.7s
E39A **Mellen** 89.97 33 P P 09 17 19.6 +0.7
baz=318,SNR=11
BFO **Black Forest** 89.98 330 *e*P P 09 17 19.2 +0.3
BFO pmax pmax
comp=Z,8.0nm,0.9s
BFO **Black Forest** 89.98 330 *e*P P 09 17 19.2 +0.3
comp=Z,8.0nm,0.9s
I36A **Fitzsimmons Fa** 90.03 36 P P 09 17 20.1 +0.9
baz=316
M33A **Taylor Creek F** 90.08 39 P P 09 17 20.1 +0.5
baz=314,SNR=7.7
DAVA **Damuels** 90.11 329 *i* PcP P 09 17 20.1 +0.4
comp=Z,15nm,1.1s
F39A **Loretta** 90.15 33 P P 09 17 20.5 +0.8
baz=318
H37A **Dierke Farm, C** 90.17 35 P P 09 17 21.0 +1.2
baz=317,SNR=8.6
E40A **Wakefield** 90.22 32 P P 09 17 21.2 +1.2
baz=319,SNR=14
L34A **Svendsen Farm,** 90.25 39 P P 09 17 20.8 +0.6
baz=314,SNR=6.0
G38A **Ridgeland** 90.25 34 P P 09 17 20.7 +0.5
baz=317,SNR=5.4
I37A **Lemond, Waseca** 90.34 36 P P 09 17 21.9 +1.2
baz=316,SNR=17
J36A **Seneca 1, Swea** 90.35 37 P P 09 17 21.5 +0.8
baz=316,SNR=20
D41A **Chassel** 90.36 31 P P 09 17 21.7 +1.0
baz=320
H38A **Maiden Rock** 90.41 35 P P 09 17 22.0 +1.0
baz=317,SNR=11
FUORN **Ofenpass-Fuorn** 90.44 328 *e*P P 09 17 21.9 +0.5
comp=Z,30nm,1.1s
M34A **Aspy Farms, Fr** 90.46 39 P P 09 17 22.0 +0.7
baz=314
DAVOX **Davos/Dischmat** 90.49 329 LR LR 10 03 23.0
comp=Z,183nm,18.4s,baz=352,slow=39
G39A **Holcombe** 90.49 34 P P 09 17 21.8 +0.5
baz=318
F40A **Park Falls** 90.51 33 P P 09 17 22.1 +0.6
baz=319,SNR=7.6
ECH **Echery** 90.56 331 *e*P P 09 17 21.8 +0.2
ECH pmax pmax
comp=Z,41nm,2.0s
ECH **Echery** 90.56 331 *e*P P 09 17 21.8 +0.2
comp=Z,41nm,2.0s
L35A **Bielow Farm, R** 90.59 38 P P 09 17 22.6 +0.7
baz=315,SNR=5.3
E41A **Kenton** 90.63 32 P P 09 17 22.8 +0.8
baz=320,SNR=8.4
J37A **Redenius Farm,** 90.77 36 P P 09 17 23.6 +0.9
baz=316,SNR=7.2
EPT **El Paso** 90.78 52 *e*P P 09 17 24.8 +1.7
comp=Z,24nm,1.0s
K36A **Gilmore City** 90.79 37 P P 09 17 23.8 +1.0
baz=316,SNR=7.7
I38A **Scanlan Farm,** 90.85 35 P P 09 17 23.9 +0.9
baz=317,SNR=9.7
H39A **Augusta** 90.89 34 P P 09 17 23.9 +0.7
baz=318,SNR=8.5
O33A **Hebron** 90.89 41 P P 09 17 23.6 +0.2
baz=314
M35A **Neola** 90.96 39 P P 09 17 24.4 +0.8
baz=315,SNR=11
G40A **Rib Lake** 90.97 33 P P 09 17 24.2 +0.7
baz=319,SNR=6.9
N34A **Lincoln** 90.97 40 P P 09 17 23.8 +0.2
baz=314,SNR=7.6
L36A **Harm Buss Farm** 91.06 38 P P 09 17 25.2 +1.1
baz=316,SNR=8.6
SCHQ **Schefferville** 91.07 15 P P 09 17 25.1 +1.3
comp=Z,14nm,0.9s,baz=356,slow=6.4,SNR=8.5
SCHQ LR LR 10 03 28.0
comp=Z,52nm,18.6s,baz=342,slow=39
SCHQ **Schefferville** 91.07 15 *e*P P 09 17 25.2 +1.4
comp=Z,20nm,0.9s
K37A **Belmond** 91.11 37 P P 09 17 25.0 +0.7
baz=316,SNR=18
F41A **Three Lakes** 91.12 32 P P 09 17 25.4 +1.1
baz=319,SNR=6.5
E42A **Champion** 91.13 31 P P 09 17 25.2 +1.0
baz=320
J38A **Wedel Dairy, R** 91.30 36 P P 09 17 26.0 +0.8
baz=317
O34A **Beatrice** 91.31 40 P P 09 17 25.5 +0.2
baz=314,SNR=10
H40A **Chili** 91.36 34 P P 09 17 26.2 +0.9
baz=318
I39A **Houston** 91.38 35 P P 09 17 25.8 +0.3
baz=318,SNR=7.0
N35A **Tabor** 91.41 39 P P 09 17 26.8 +1.1
baz=315,SNR=7.7
M36A **Felix, Anita** 91.45 38 P P 09 17 27.0 +1.1
baz=315,SNR=9.4
G41A **Antigo** 91.48 33 P P 09 17 26.8 +0.9
baz=319
L37A **Phoenix Point,** 91.52 37 P P 09 17 27.0 +0.8
baz=316,SNR=8.3
MNTX **Cornudas Mount** 91.57 51 P P 09 17 27.8 +1.2
baz=309,SNR=28
MNTX **Cornudas Mount** 91.57 51 *e*P P 09 17 28.0 +1.4
comp=Z,24nm,1.0s
E43A **Lone Tree Farm** 91.57 31 P P 09 17 27.2 +0.9
baz=321
K38A **Parkersburg** 91.64 36 P P 09 17 27.5 +0.8
baz=317
J39A **Decorah** 91.67 35 P P 09 17 27.4 +0.6
baz=318,SNR=12
P34A **Walnut Farm, R** 91.68 41 P P 09 17 27.4 +0.4
baz=314,SNR=25
O35A **Humboldt** 91.69 40 P P 09 17 27.6 +0.6
baz=315,SNR=6.2
H41A **Junction City** 91.71 33 P P 09 17 27.1 +0.1
baz=319
I40A **Norwalk** 91.79 34 P P 09 17 28.0 +0.6
baz=318
N36A **Muff Farm, Cla** 91.81 39 P P 09 17 28.7 +1.1
baz=315,SNR=5.3
MSTX **Muleshoe** 91.84 48 P P 09 17 28.6 +0.6
baz=310
MSTX **Muleshoe** 91.84 48 *e*P P 09 17 29.0 +1.0
comp=Z,17nm,1.2s
E44A **Grand Marais A** 91.85 30 P P 09 17 28.0 +0.4
baz=322
M37A **Trindle Farm,** 91.88 38 P P 09 17 29.0 +1.2
baz=316,SNR=11
L38A **Oak Wood Farm,** 91.91 37 P P 09 17 28.6 +0.6
baz=317
F43A **Flat Rock, Esc** 91.92 31 P P 09 17 28.2 +0.3
baz=321
AMTX **Amarillo** 91.94 47 P P 09 17 29.4 +1.0
baz=311
AMTX **Amarillo** 91.94 47 *e*P P 09 17 29.8 +1.4
comp=Z,57nm,0.9s
SCIA **State Center** 91.95 37 P P 09 17 28.9 +0.7
baz=316
SCIA **State Center** 91.95 37 *e*P P 09 17 30.0 +1.8
comp=Z,75nm,1.0s
I41A **Arkdale** 92.03 34 P P 09 17 29.0 +0.5
baz=319,SNR=5.7
K39A **Oelwein** 92.05 36 P P 09 17 29.0 +0.4
baz=317,SNR=8.8
Q34A **Chapman** 92.05 41 P P 09 17 29.3 +0.6
baz=314,SNR=20
J40A **Soldiers Grove** 92.10 35 P P 09 17 29.1 +0.3
baz=318
KSU1 **Kansas State U** 92.11 41 P P 09 17 29.7 +0.7
baz=314,SNR=30
KSU1 **Kansas State U** 92.11 41 *e*P P 09 17 29.7 +0.7
comp=Z,88nm,0.8s
F44A **Big Bay de Noc** 92.14 31 P P 09 17 29.5 +0.6
baz=321
P35A **Duane Minner,** 92.14 40 P P 09 17 29.5 +0.4
baz=314,SNR=8.6
N37A **Lee Faris, Mou** 92.25 38 P P 09 17 30.7 +1.1
baz=316,SNR=16
O36A **Bolckow** 92.30 39 P P 09 17 30.7 +0.9
baz=315,SNR=7.9
R34A **Isabella, Hill** 92.30 42 P P 09 17 30.9 +1.0
baz=314,SNR=13
M38A **Pleasantville** 92.31 37 P P 09 17 30.7 +0.9
baz=316,SNR=24
E45A **Wooded Hills,** 92.37 30 P P 09 17 31.0 +1.0
baz=322
L39A **Vinton** 92.42 36 P P 09 17 30.9 +0.6
baz=317,SNR=17
K40A **Colesburg** 92.42 35 P P 09 17 31.1 +0.8
baz=318,SNR=9.6
J41A **Loganville** 92.48 34 P P 09 17 31.2 +0.6
baz=319,SNR=7.9
P36A **Good Intent, A** 92.52 40 P P 09 17 31.4 +0.5
baz=315,SNR=15
U32A **Winter Ranch,** 92.58 44 P P 09 17 31.9 +0.6
baz=312,SNR=6.5
Q35A **Mercer Eighty,** 92.60 41 P P 09 17 31.9 +0.7
baz=314,SNR=32
I42A **Draeger Farm,** 92.61 33 P P 09 17 31.7 +0.5
baz=320
JFWS **Jewell Farm** 92.70 35 P P 09 17 31.9 +0.3
baz=318
JFWS **Jewell Farm** 92.70 35 *e*P P 09 17 32.4 +0.8
JFWS pmax pmax
comp=Z,21nm,0.8s
JFWS **Jewell Farm** 92.70 35 *e*P P 09 17 32.4 +0.8
comp=Z,21nm,0.8s
O37A **Wolven Farm, M** 92.71 39 P P 09 17 32.6 +0.9
baz=316,SNR=8.1
N38A **Joes South For** 92.75 38 P P 09 17 32.5 +0.7
baz=316,SNR=7.4
F45A **CMU Biological** 92.76 30 P P 09 17 32.2 +0.4
baz=322
S34A **Willow Spring** 92.79 42 P P 09 17 33.0 +0.9
baz=314,SNR=18
M39A **Webster** 92.80 37 P P 09 17 33.1 +1.0
baz=317,SNR=18
Q36A **Arnold C. Orve** 92.85 40 P P 09 17 32.7 +0.4
baz=315
L40A **Anamosa** 92.85 36 P P 09 17 32.7 +0.4
baz=318,SNR=6.9
R35A **Emporia Munici** 92.88 41 P P 09 17 33.5 +1.0
baz=314,SNR=5.9
K41A **Shullsburg** 92.90 35 P P 09 17 33.1 +0.6
baz=318,SNR=17

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| J42A | Columbus | 92.94 | 34 | P | P | 09 17 33.5 | +0.8 |
| | baz=319 | | | | | | |
| F46A | Macinaw City C | 93.01 | 30 | P | P | 09 17 33.3 | +0.3 |
| | baz=323 | | | | | | |
| P37A | Lathrop | 93.01 | 39 | P | P | 09 17 33.8 | +0.7 |
| | baz=316,SNR=16 | | | | | | |
| N39A | Derby Farms, D | 93.07 | 37 | P | P | 09 17 34.1 | +0.7 |
| | baz=317,SNR=18 | | | | | | |
| O38A | Galt | 93.10 | 38 | P | P | 09 17 34.0 | +0.5 |
| | baz=316,SNR=11 | | | | | | |
| SLBS | Sierra La Lagu | 93.19 | 60 | eP | P | 09 17 37.1 | +2.8 |
| | comp=Z,27nm,0.9s | | | | | | |
| M40A | Post Highland | 93.19 | 36 | P | P | 09 17 34.4 | +0.5 |
| | baz=318,SNR=14 | | | | | | |
| L41A | Preston | 93.20 | 35 | P | P | 09 17 34.3 | +0.4 |
| | baz=316,SNR=9.7 | | | | | | |
| T34A | McClaskey Farm | 93.21 | 43 | P | P | 09 17 34.8 | +0.7 |
| | baz=314,SNR=9.7 | | | | | | |
| J43A | Natural Harves | 93.23 | 33 | P | P | 09 17 34.4 | +0.4 |
| | baz=320,SNR=6.3 | | | | | | |
| K42A | Prairie Point, | 93.24 | 34 | P | P | 09 17 34.4 | +0.3 |
| | baz=319,SNR=6.8 | | | | | | |
| S35A | Otter Creek Ra | 93.26 | 42 | P | P | 09 17 35.0 | +0.7 |
| | baz=314,SNR=21 | | | | | | |
| R36A | Gordon, Harris | 93.27 | 41 | P | P | 09 17 35.2 | +0.9 |
| | baz=315,SNR=13 | | | | | | |
| P38A | Dawn | 93.43 | 39 | P | P | 09 17 35.7 | +0.7 |
| | baz=316,SNR=22 | | | | | | |
| Q37A | Longview Farm, | 93.46 | 40 | P | P | 09 17 35.5 | +0.3 |
| | baz=316 | | | | | | |
| O39A | Kirksville | 93.50 | 38 | P | P | 09 17 35.6 | +0.3 |
| | baz=317,SNR=6.3 | | | | | | |
| N40A | Mertquake, Sal | 93.54 | 37 | P | P | 09 17 36.0 | +0.5 |
| | baz=318,SNR=17 | | | | | | |
| S36A | Lake Cedric, C | 93.64 | 41 | P | P | 09 17 36.5 | +0.4 |
| | baz=315,SNR=23 | | | | | | |
| L42A | Oliver, Polo | 93.67 | 35 | P | P | 09 17 36.3 | +0.2 |
| | baz=319,SNR=6.9 | | | | | | |
| T35A | Sooner Cattle | 93.68 | 42 | P | P | 09 17 36.8 | +0.5 |
| | baz=314,SNR=9.7 | | | | | | |
| M41A | Milan | 93.70 | 36 | P | P | 09 17 36.5 | +0.3 |
| | baz=318,SNR=11 | | | | | | |
| WMOK | Wichita Mounta | 93.82 | 45 | P | P | 09 17 37.7 | +0.7 |
| | baz=313,SNR=23 | | | | | | |
| WMOK | Wichita Mounta | 93.82 | 45 | eP | P | 09 17 37.8 | +0.9 |
| WMOK | | | | pmax | pmax | | |
| | comp=Z,27nm,0.9s | | | | | | |
| WMOK | Wichita Mounta | 93.82 | 45 | eP | P | 09 17 37.8 | +0.9 |
| | comp=Z,27nm,0.9s | | | | | | |
| GLMI | Grayling | 93.83 | 30 | P | P | 09 17 37.2 | +0.5 |
| | baz=323 | | | | | | |
| GLMI | Grayling | 93.83 | 30 | eP | P | 09 17 38.4 | +1.6 |
| | comp=Z,94nm,0.9s | | | | | | |
| Q38A | Cooks Store, C | 93.86 | 39 | P | P | 09 17 37.4 | +0.4 |
| | baz=316,SNR=14 | | | | | | |
| U35A | Pawnee | 93.93 | 43 | P | P | 09 17 38.4 | +1.0 |
| | baz=314 | | | | | | |
| U35A | Pawnee | 93.93 | 43 | eP | P | 09 17 38.8 | +1.4 |
| | comp=Z,59nm,1.1s | | | | | | |
| T36A | Boggs Farm, Ca | 93.94 | 42 | P | P | 09 17 38.2 | +0.8 |
| | baz=314,SNR=18 | | | | | | |
| P39B | Salisbury | 93.94 | 38 | P | P | 09 17 38.1 | +0.7 |
| | baz=317,SNR=11 | | | | | | |
| O40A | La Belle | 93.95 | 38 | P | P | 09 17 38.1 | +0.7 |
| | baz=317,SNR=11 | | | | | | |
| VLDQ | Val d'Or | 93.95 | 24 | eP | P | 09 17 37.1 | 0.0 |
| | comp=Z,31nm,0.8s | | | | | | |
| SSB | Saint Sauveur | 93.98 | 331 | eP | P | 09 17 37.8 | +0.3 |
| SSB | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.8s | | | | | | |
| SSB | Saint Sauveur | 93.98 | 331 | eP | P | 09 17 37.8 | +0.3 |
| | comp=Z,6.6nm,0.8s | | | | | | |
| L43A | Garden Prairie | 93.98 | 34 | P | P | 09 17 38.2 | +0.7 |
| | baz=320 | | | | | | |
| M42A | Sheffield | 94.04 | 35 | P | P | 09 17 38.3 | +0.5 |
| | baz=319 | | | | | | |
| N41A | Harden Midland | 94.04 | 37 | P | P | 09 17 38.6 | +0.8 |
| | baz=318,SNR=5.5 | | | | | | |
| S37A | Fort Scott | 94.05 | 41 | P | P | 09 17 38.5 | +0.6 |
| | baz=315,SNR=19 | | | | | | |
| Q39A | Willow Grove F | 94.14 | 39 | P | P | 09 17 39.1 | +0.8 |
| | baz=316,SNR=27 | | | | | | |
| TX31 | Lajitas Ar. Si | 94.20 | 52 | eP | P | 09 17 40.6 | +1.7 |
| LTX | Lajitas | 94.21 | 52 | eP | P | 09 17 40.5 | +1.6 |
| LTX | Lajitas | 94.21 | 52 | eP | P | 09 17 40.5 | +1.6 |
| TXAR | Lajitas Array | 94.21 | 52 | P | P | 09 17 40.5 | +1.6 |
| | comp=Z,52nm,0.8s,baz=295,slow=3.3,SNR=495 | | | | | | |
| TXAR | | | | PP | PP | 09 21 23.6 | -2.5 |
| | comp=Z,2.3nm,1.1s,baz=286,slow=5.1,SNR=4.0 | | | | | | |
| TXAR | | | | LR | LR | 09 57 00.2 | |
| | comp=Z,68nm,19.5s,baz=0.0,slow=33 | | | | | | |
| R38A | Fenwick Farm, | 94.25 | 40 | P | P | 09 17 38.6 | -0.2 |
| | baz=316,SNR=8.3 | | | | | | |
| V35A | Meyer Ranch, C | 94.28 | 43 | P | P | 09 17 39.8 | +0.8 |
| | baz=314,SNR=6.2 | | | | | | |
| V35A | Meyer Ranch, C | 94.28 | 43 | eP | P | 09 17 40.2 | +1.2 |
| | comp=Z,37nm,1.0s | | | | | | |
| P40A | Paris | 94.29 | 38 | P | P | 09 17 39.4 | +0.4 |
| | baz=317,SNR=24 | | | | | | |
| N42A | Yates City | 94.37 | 36 | P | P | 09 17 40.0 | +0.8 |
| | baz=319,SNR=7.3 | | | | | | |
| M43A | Waltham Townsh | 94.44 | 35 | P | P | 09 17 39.9 | +0.3 |
| | baz=319,SNR=11 | | | | | | |
| T37A | Cheneyville 18 | 94.44 | 41 | P | P | 09 17 40.4 | +0.7 |
| | baz=315,SNR=10 | | | | | | |
| O41A | Passleys Farm, | 94.47 | 37 | P | P | 09 17 40.1 | +0.4 |
| | baz=318,SNR=14 | | | | | | |
| U36A | Oologah | 94.49 | 42 | P | P | 09 17 40.9 | +0.9 |
| | baz=315,SNR=8.1 | | | | | | |
| R39A | Chumby, Stover | 94.64 | 39 | P | P | 09 17 40.7 | +0.1 |
| | baz=316,SNR=15 | | | | | | |
| S38A | Stockton | 94.65 | 40 | P | P | 09 17 40.7 | 0.0 |
| | baz=316,SNR=7.9 | | | | | | |
| Q40A | Laux Farm, Aux | 94.66 | 38 | P | P | 09 17 41.1 | +0.4 |
| | baz=317,SNR=13 | | | | | | |
| W35A | Tecumseh | 94.68 | 44 | P | P | 09 17 41.4 | +0.5 |
| | baz=314,SNR=7.3 | | | | | | |
| W35A | Tecumseh | 94.68 | 44 | eP | P | 09 17 42.1 | +1.2 |
| | comp=Z,32nm,0.9s | | | | | | |
| P41A | Barry, Barry | 94.70 | 37 | P | P | 09 17 41.3 | +0.4 |
| | baz=318,SNR=18 | | | | | | |
| ABTX | Abilene, Hawle | 94.70 | 47 | P | P | 09 17 41.9 | +0.8 |
| | baz=312 | | | | | | |
| ABTX | Abilene, Hawle | 94.70 | 47 | eP | P | 09 17 42.2 | +1.2 |
| | comp=Z,30nm,1.0s | | | | | | |
| N43A | Stutzman Famil | 94.71 | 35 | P | P | 09 17 41.6 | +0.7 |
| | baz=319,SNR=5.1 | | | | | | |
| V36A | Jenks | 94.79 | 43 | P | P | 09 17 41.8 | +0.4 |
| | baz=314,SNR=7.6 | | | | | | |
| V36A | Jenks | 94.79 | 43 | eP | P | 09 17 42.6 | +1.2 |
| | comp=Z,33nm,0.9s | | | | | | |
| TUL1 | Leonard | 94.79 | 43 | P | P | 09 17 41.8 | +0.5 |
| | baz=314,SNR=8.6 | | | | | | |
| TUL1 | Leonard | 94.79 | 43 | eP | P | 09 17 42.6 | +1.2 |
| | comp=Z,24nm,0.9s | | | | | | |
| O42A | Bath | 94.81 | 36 | P | P | 09 17 41.9 | +0.6 |
| | baz=318 | | | | | | |
| U37A | Salina | 94.84 | 42 | P | P | 09 17 42.1 | +0.5 |
| | baz=315,SNR=12 | | | | | | |
| T38A | Diamond | 94.86 | 41 | P | P | 09 17 42.0 | +0.3 |
| | baz=316,SNR=14 | | | | | | |
| M44A | Midewin, Midew | 94.93 | 35 | P | P | 09 17 42.6 | +0.7 |
| | baz=320,SNR=6.0 | | | | | | |
| S39A | Bolivar | 94.93 | 40 | P | P | 09 17 42.0 | 0.0 |
| | baz=316,SNR=12 | | | | | | |
| HDIL | Hopedale | 94.94 | 36 | P | P | 09 17 42.2 | +0.3 |
| | baz=319,SNR=7.0 | | | | | | |
| HDIL | Hopedale | 94.94 | 36 | eP | P | 09 17 43.0 | +1.0 |
| | comp=Z,62nm,0.9s | | | | | | |
| R40A | Maddies Statio | 95.07 | 39 | P | P | 09 17 42.7 | +0.1 |
| | baz=317,SNR=18 | | | | | | |
| W36A | Wetumka | 95.08 | 44 | P | P | 09 17 43.0 | +0.3 |
| | baz=314,SNR=7.5 | | | | | | |
| W36A | Wetumka | 95.08 | 44 | eP | P | 09 17 43.7 | +1.0 |
| | comp=Z,30nm,1.1s | | | | | | |
| P42A | Winchester | 95.14 | 37 | P | P | 09 17 43.3 | +0.5 |
| | baz=318,SNR=20 | | | | | | |
| O43A | Sugar Creek Fa | 95.14 | 36 | P | P | 09 17 43.2 | +0.4 |
| | baz=319,SNR=5.6 | | | | | | |
| Q41A | Truxton | 95.14 | 38 | P | P | 09 17 43.3 | +0.4 |
| | baz=318,SNR=12 | | | | | | |
| X35A | Drake | 95.14 | 44 | P | P | 09 17 43.1 | +0.2 |
| | baz=314,SNR=12 | | | | | | |
| X35A | Drake | 95.14 | 44 | eP | P | 09 17 43.8 | +0.8 |
| | comp=Z,26nm,0.9s | | | | | | |
| V37A | Hulbert | 95.19 | 42 | P | P | 09 17 43.6 | +0.5 |
| | baz=315,SNR=16 | | | | | | |
| U38A | Gravette | 95.23 | 42 | P | P | 09 17 43.7 | +0.3 |
| | baz=315,SNR=7.3 | | | | | | |
| N44A | Piper City | 95.34 | 35 | P | P | 09 17 44.4 | +0.6 |
| | baz=320 | | | | | | |
| T39A | Clever | 95.38 | 41 | P | P | 09 17 44.4 | +0.4 |
| | baz=316,SNR=10 | | | | | | |
| X36A | Centrahoma | 95.39 | 44 | P | P | 09 17 44.6 | +0.5 |
| | baz=314,SNR=10 | | | | | | |
| Y35A | Marietta | 95.44 | 45 | P | P | 09 17 44.9 | +0.6 |
| | baz=314 | | | | | | |
| S40A | Lebanon | 95.45 | 40 | P | P | 09 17 44.3 | 0.0 |
| | baz=317,SNR=11 | | | | | | |
| P43A | Skaggs, Pawnee | 95.52 | 37 | P | P | 09 17 45.0 | +0.5 |
| | baz=319,SNR=7.6 | | | | | | |
| Q42A | Golden Eagle | 95.54 | 38 | P | P | 09 17 45.6 | +0.9 |
| | baz=318,SNR=5.9 | | | | | | |
| W37B | Quinton | 95.54 | 43 | P | P | 09 17 45.4 | +0.6 |
| | baz=315,SNR=5.4 | | | | | | |
| W37B | Quinton | 95.54 | 43 | eP | P | 09 17 46.0 | +1.2 |
| | comp=Z,15nm,0.9s | | | | | | |
| R41A | Rosebud | 95.54 | 38 | P | P | 09 17 45.4 | +0.7 |
| | baz=318,SNR=14 | | | | | | |
| HHAR | Hobbs | 95.59 | 41 | eP | P | 09 17 45.5 | +0.5 |
| | comp=Z,7.1nm,0.9s | | | | | | |
| N45A | Kentland | 95.60 | 35 | P | P | 09 17 45.5 | +0.6 |
| | baz=320 | | | | | | |
| V38A | Canehill | 95.63 | 42 | P | P | 09 17 45.6 | +0.4 |
| | baz=315,SNR=11 | | | | | | |
| O44A | Mansfield | 95.66 | 36 | P | P | 09 17 45.8 | +0.6 |
| | baz=320 | | | | | | |
| M46A | Old House Fiel | 95.72 | 34 | P | P | 09 17 46.0 | +0.6 |
| | baz=321 | | | | | | |
| T40A | Mansfield | 95.76 | 40 | P | P | 09 17 46.0 | +0.3 |
| | baz=317,SNR=9.4 | | | | | | |
| U39A | Green Forest | 95.78 | 41 | P | P | 09 17 46.1 | +0.2 |
| | baz=316,SNR=7.4 | | | | | | |
| CCM | Cathedral Cave | 95.79 | 39 | P | P | 09 17 46.3 | +0.4 |
| | baz=318 | | | | | | |
| CCM | Cathedral Cave | 95.79 | 39 | eP | P | 09 17 46.3 | +0.4 |
| CCM | | | | pmax | pmax | | |
| | comp=Z,36nm,0.9s | | | | | | |
| CCM | Cathedral Cave | 95.79 | 39 | eP | P | 09 17 46.3 | +0.4 |
| | comp=Z,36nm,0.9s | | | | | | |
| R42A | Luebbering | 95.87 | 38 | P | P | 09 17 46.4 | +0.2 |
| | baz=318 | | | | | | |
| S41A | Jillco Farms, | 95.87 | 39 | P | P | 09 17 45.9 | -0.4 |
| | baz=317 | | | | | | |
| Y36A | Durant | 95.90 | 44 | P | P | 09 17 47.1 | +0.6 |
| | baz=314 | | | | | | |
| N46A | Monticello | 95.94 | 34 | P | P | 09 17 46.8 | +0.3 |
| | baz=321 | | | | | | |
| Q43A | New Douglas | 95.95 | 37 | P | P | 09 17 47.0 | +0.5 |
| | baz=319 | | | | | | |
| O45A | Potomac | 95.95 | 35 | P | P | 09 17 47.0 | +0.5 |
| | baz=320 | | | | | | |
| X37A | Clayton | 95.96 | 43 | P | P | 09 17 46.7 | 0.0 |
| | baz=315 | | | | | | |
| X37A | Clayton | 95.96 | 43 | eP | P | 09 17 47.7 | +1.0 |
| | comp=Z,9.8nm,0.9s | | | | | | |
| JCT | Junction City | 96.02 | 49 | P | P | 09 17 47.3 | +0.2 |
| | baz=312 | | | | | | |
| JCT | Junction City | 96.02 | 49 | eP | P | 09 17 47.8 | +0.7 |
| JCT | | | | pmax | pmax | | |
| | comp=Z,18nm,0.9s | | | | | | |
| JCT | Junction City | 96.02 | 49 | eP | P | 09 17 47.8 | +0.7 |
| | comp=Z,18nm,0.9s | | | | | | |
| V39A | Pettigrew | 96.08 | 42 | P | P | 09 17 47.3 | 0.0 |
| | baz=316 | | | | | | |
| P44A | Sand Creek, Wi | 96.10 | 36 | P | P | 09 17 47.5 | +0.3 |
| | baz=320 | | | | | | |
| W38A | Poteau | 96.12 | 43 | P | P | 09 17 47.7 | +0.3 |
| | baz=315 | | | | | | |
| U40A | Yellville | 96.15 | 41 | P | P | 09 17 47.6 | 0.0 |
| | baz=316 | | | | | | |
| SFIN | Lafayette | 96.16 | 35 | P | P | 09 17 47.8 | +0.3 |
| | baz=321 | | | | | | |
| SFIN | Lafayette | 96.16 | 35 | eP | P | 09 17 48.5 | +1.0 |
| | comp=Z,27nm,0.9s | | | | | | |
| X38A | Whitesboro | 96.22 | 43 | P | P | 09 17 48.1 | +0.2 |
| | baz=315 | | | | | | |
| Y37A | Hugo | 96.24 | 44 | P | P | 09 17 48.3 | +0.3 |
| | baz=314 | | | | | | |
| Z36A | Blue Ridge | 96.24 | 45 | P | P | 09 17 48.1 | +0.1 |
| | baz=314 | | | | | | |
| S42A | Caledonia | 96.25 | 39 | P | P | 09 17 47.9 | 0.0 |
| | baz=318 | | | | | | |
| T41A | Mountain View | 96.25 | 40 | P | P | 09 17 48.0 | 0.0 |
| | baz=317 | | | | | | |
| FVM | French Village | 96.28 | 38 | eP | P | 09 17 48.9 | +0.8 |
| FVM | | | | pmax | pmax | | |
| | comp=Z,18nm,1.0s | | | | | | |
| FVM | French Village | 96.28 | 38 | eP | P | 09 17 48.9 | +0.8 |
| | comp=Z,18nm,1.0s | | | | | | |
| R43A | Red Bud | 96.33 | 38 | P | P | 09 17 47.8 | -0.5 |
| | baz=318 | | | | | | |
| Q44A | Meyer Farm, Va | 96.33 | 37 | P | P | 09 17 48.3 | 0.0 |
| | baz=319 | | | | | | |
| W39A | Magazine | 96.46 | 42 | P | P | 09 17 48.4 | -0.5 |
| | baz=316 | | | | | | |
| WHTX | Lake Whitney, | 96.49 | 47 | P | P | 09 17 49.5 | +0.4 |
| | baz=319 | | | | | | |
| WHTX | Lake Whitney, | 96.49 | 47 | eP | P | 09 17 50.6 | +1.4 |
| | comp=Z,33nm,1.1s | | | | | | |
| P45A | Graceland, Par | 96.50 | 36 | P | P | 09 17 49.3 | +0.2 |
| | baz=320 | | | | | | |
| V40A | Witts Springs | 96.57 | 41 | P | P | 09 17 49.4 | -0.1 |
| | baz=316 | | | | | | |
| TRQ | Mont Tremblant | 96.58 | 24 | eP | P | 09 17 49.8 | +0.5 |
| T42A | Van Buren | 96.63 | 39 | P | P | 09 17 49.6 | 0.0 |
| | baz=318 | | | | | | |
| U41A | Viola | 96.68 | 40 | P | P | 09 17 50.2 | +0.2 |
| | baz=317 | | | | | | |
| P46A | Rosedale | 96.69 | 35 | P | P | 09 17 50.1 | +0.2 |
| | baz=320 | | | | | | |
| O47A | Sheridan | 96.72 | 34 | P | P | 09 17 50.2 | +0.2 |
| | baz=321 | | | | | | |
| X39A | Fountain Ranch | 96.75 | 43 | P | P | 09 17 50.9 | +0.6 |
| | baz=316 | | | | | | |
| Q45A | Warren Harvey, | 96.77 | 36 | P | P | 09 17 50.9 | +0.6 |
| | baz=320 | | | | | | |
| S43A | Fulton Ridge, | 96.77 | 38 | P | P | 09 17 50.4 | +0.1 |
| | baz=318 | | | | | | |
| Z37A | Pogue Cattle C | 96.78 | 45 | P | P | 09 17 50.7 | +0.2 |
| | baz=314 | | | | | | |
| R44A | Waltonville | 96.79 | 37 | P | P | 09 17 50.7 | +0.3 |
| | baz=319 | | | | | | |
| Y38A | Idabel | 96.80 | 44 | P | P | 09 17 51.0 | +0.5 |
| | baz=315 | | | | | | |
| W40A | Ferguson Farm, | 96.87 | 42 | P | P | 09 17 51.1 | +0.3 |
| | baz=316 | | | | | | |
| W40A | Ferguson Farm, | 96.87 | 42 | eP | P | 09 17 52.1 | +1.3 |
| | comp=Z,38nm,1.4s | | | | | | |
| OLIL | Olney | 96.92 | 36 | eP | P | 09 17 52.1 | +1.1 |
| | comp=Z,28nm,1.0s | | | | | | |
| V41A | Mountainview | 96.95 | 41 | P | P | 09 17 51.1 | -0.1 |
| | baz=317 | | | | | | |
| T43A | Greenville | 97.02 | 39 | P | P | 09 17 51.5 | +0.1 |
| | baz=318 | | | | | | |
| MIAR | Mount Ida | 97.04 | 42 | P | P | 09 17 51.9 | +0.3 |
| | baz=316 | | | | | | |
| MIAR | Mount Ida | 97.04 | 42 | eP | P | 09 17 52.6 | +1.0 |
| MIAR | | | | pmax | pmax | | |
| | comp=Z,24nm,0.9s | | | | | | |
| MIAR | Mount Ida | 97.04 | 42 | eP | P | 09 17 52.6 | +1.0 |
| | comp=Z,24nm,0.9s | | | | | | |
| U42A | Revenden | 97.05 | 40 | P | P | 09 17 51.3 | -0.3 |
| | baz=318 | | | | | | |
| Q46A | CHS Indians, | 97.08 | 36 | P | P | 09 17 51.5 | -0.2 |
| | baz=320 | | | | | | |
| S44A | Carbondale | 97.11 | 38 | P | P | 09 17 52.6 | +0.7 |
| | baz=319 | | | | | | |
| SIUC | Southern Illin | 97.12 | 38 | eP | P | 09 17 53.0 | +1.2 |
| | comp=Z,17nm,0.9s | | | | | | |
| R45A | Skylar, Fairfi | 97.17 | 37 | P | P | 09 17 52.6 | +0.5 |
| | baz=320 | | | | | | |
| Y39A | Lockesburg | 97.17 | 43 | P | P | 09 17 52.4 | +0.2 |
| | baz=315 | | | | | | |
| PBMO | Poplar Bluff | 97.17 | 39 | eP | P | 09 17 53.0 | +0.8 |
| | comp=Z,20nm,1.0s | | | | | | |
| RKT | Rikitea | 97.21 | 113 | eLR | LR | 09 49 01.9 | |
| | comp=Z,372nm,32.8s | | | | | | |
| WHAR | Wooly Hollow | 97.24 | 41 | eP | Pdif | 09 17 53.5 | +1.0 |
| | comp=Z,22nm,1.2s | | | | | | |
| P47A | Martinsville | 97.25 | 35 | P | P | 09 17 52.8 | +0.3 |
| | baz=321 | | | | | | |
| W41B | Gary Mavity, V | 97.35 | 41 | P | P | 09 17 53.2 | +0.3 |
| | baz=317 | | | | | | |
| V42A | Cord | 97.36 | 40 | P | P | 09 17 53.1 | +0.1 |
| | baz=317 | | | | | | |
| Y40A | Okolona | 97.59 | 43 | P | P | 09 17 54.3 | +0.2 |
| | baz=316 | | | | | | |
| Q47A | Bedord North L | 97.60 | 35 | P | P | 09 17 54.2 | +0.2 |
| | baz=321 | | | | | | |
| 833A | Chaparral WMA, | 97.71 | 50 | P | P | 09 17 54.9 | +0.1 |
| | baz=312 | | | | | | |
| V43A | Jonesboro | 97.84 | 40 | P | P | 09 17 55.4 | +0.2 |
| | baz=318 | | | | | | |
| S46A | Don Dixon Farm | 97.92 | 37 | P | P | 09 17 55.8 | +0.4 |
| | baz=320 | | | | | | |
| R47A | Wooly Knot Far | 98.05 | 36 | P | P | 09 17 56.3 | +0.2 |
| | baz=321 | | | | | | |
| Y41A | Eaglette Beard | 98.07 | 42 | P | P | 09 17 56.4 | +0.2 |
| | baz=316 | | | | | | |
| WCI | Wyandotte Cave | 98.22 | 35 | P | P | 09 17 57.2 | +0.4 |
| | baz=321 | | | | | | |
| WCI | Wyandotte Cave | 98.22 | 35 | eP | Pdif | 09 17 57.9 | +1.1 |
| WCI | | | | pmax | pmax | | |
| | comp=Z,19nm,1.0s | | | | | | |
| WCI | Wyandotte Cave | 98.22 | 35 | eP | Pdif | 09 17 57.9 | +1.0 |
| | comp=Z,19nm,1.0s | | | | | | |
| R48A | Northridge Ran | 98.29 | 35 | P | P | 09 17 57.2 | +0.1 |
| | baz=321 | | | | | | |
| T46A | Princeton | 98.32 | 37 | P | Pdif | 09 17 57.7 | +0.4 |
| | baz=320 | | | | | | |
| T47A | Sharon Grove | 98.76 | 37 | P | Pdif | 09 17 59.8 | +0.5 |
| | baz=320 | | | | | | |
| S48A | Wiedeman Farm, | 98.78 | 36 | P | P | 09 17 59.3 | -0.1 |
| | baz=321 | | | | | | |
| KEST | Kesra | 99.14 | 322 | LR | LR | 10 06 29.4 | |
| | comp=Z,155nm,19.9s,baz=284,slow=38 | | | | | | |
| OXF | Oxford | 99.41 | 40 | P | Pdif | 09 18 02.6 | +0.4 |
| | baz=318 | | | | | | |
| U48A | Cassie Pea, Po | 99.42 | 37 | P | Pdif | 09 18 02.6 | +0.3 |
| | baz=321 | | | | | | |
| X45A | UM Field Stati | 99.49 | 40 | P | Pdif | 09 18 02.6 | 0.0 |
| | baz=318 | | | | | | |
| Y45A | Yeager Farm, C | 99.82 | 40 | P | Pdif | 09 18 03.6 | -0.5 |
| | baz=318 | | | | | | |
| V48A | Smith Brothers | 99.87 | 37 | P | Pdif | 09 18 04.5 | +0.3 |
| | baz=320 | | | | | | |
| Y46A | Houston | 100.18 | 40 | P | Pdif | 09 18 05.8 | +0.1 |
| | baz=319 | | | | | | |
| X49A | Woodville | 101.07 | 38 | P | Pdif | 09 18 08.8 | -0.8 |
| | baz=321 | | | | | | |
| TOA1 | Torodi Ar. Sit | 120.77 | 312 | ePKPdf | PKPdf | 09 23 11.2 | -0.6 |
| TOA1 | | | | ePKKPbc | PKKPab | 09 33 17.8 | -1.6 |
| TOA0 | Torodi Ar. Sit | 120.78 | 312 | ePKPdf | PKPdf | 09 23 11.3 | -0.5 |
| TOA0 | | | | ePKPdf | PKPdf | 09 23 11.3 | -0.5 |
| TORD | Torodi Ar. Bea | 120.78 | 312 | PKP | PKPdf | 09 23 11.2 | -0.6 |
| | comp=Z,3.3nm,0.6s,baz=29,slow=1.6,SNR=37 | | | | | | |
| TORD | | | | PKKPab | PKKPab | 09 33 17.8 | -1.6 |
| | comp=Z,0.8nm,0.8s,baz=215,slow=3.7,SNR=4.0 | | | | | | |
| QSPA | South Pole Qui | 121.02 | 180 | ePKPdf | PKPdf | 09 23 10.3 | -0.5 |
| SYO | Syowa Base | 122.71 | 205‖ | eP | PKPdf | 09 23 12.5 | -1.3 |
| SYO | Syowa Base | 122.71 | 205‖ | eP | pPKPdf | 09 23 38.0 | -1.4 |
| KOWA | Kowa | 123.20 | 318 | ePKPdf | PKPdf | 09 23 16.6 | +0.1 |
| BOSA | Boshof | 124.61 | 255 | PKP | PKPdf | 09 23 19.1 | +0.2 |
| | comp=Z,2.3nm,0.6s,baz=79,slow=2.5,SNR=6.5 | | | | | | |
| MOTC | Monteria, Cord | 127.19 | 47 | eP | PKPdf | 09 23 24.0 | -0.2 |
| ZARC | Zaragoza, Cauc | 128.69 | 47 | eP | PKPdf | 09 23 26.2 | -0.8 |
| OCAC | Ocana | 129.06 | 45 | eP | PKPdf | 09 23 28.8 | +0.9 |
| PTBC | PUERTO BERRIO | 129.67 | 48 | eP | PKPdf | 09 23 26.9 | -2.1 |
| BRRC | Barranca, Sant | 129.70 | 47 | eP | PKPdf | 09 23 27.2 | -1.8 |
| PLMC | San Jos˜ del | 129.71 | 51 | eP | PKPdf | 09 23 29.1 | 0.0 |
| DBIC | Dimbokro | 129.85 | 313 | PKP | PKPdf | 09 23 29.1 | -0.1 |
| | comp=Z,5.2nm,0.6s,baz=23,slow=2.1,SNR=9.6 | | | | | | |
| TIC | Toumodi | 129.98 | 313 | ePKIKP | PKPdf | 09 23 30.0 | +0.5 |
| TIC | Toumodi | 129.98 | 313 | ePKP2 | SKPab | 09 26 41.5 | -2.1 |
| KIC | Kosan Boka | 130.02 | 312 | ePKIKP | PKPdf | 09 23 30.1 | +0.5 |
| | comp=Z,13nm,0.7s | | | | | | |
| KIC | Kosan Boka | 130.02 | 312 | ePKP2 | SKPab | 09 26 42.1 | -1.7 |
| | comp=Z,71nm,0.9s | | | | | | |
| GUYC | Guyana, Colomb | 130.06 | 50 | eP | PKPdf | 09 23 30.1 | -0.2 |
| SDV | Santo Domingo | 130.13 | 42 | ePKPdf | PKPdf | 09 23 30.5 | +0.4 |
| LIC | Lamto | 130.30 | 313 | ePKIKP | PKPdf | 09 23 30.4 | +0.3 |
| | comp=Z,50nm,1.7s | | | | | | |
| LIC | Lamto | 130.30 | 313 | ePKP2 | SKPab | 09 26 43.0 | -2.0 |
| | comp=Z,91nm,0.9s | | | | | | |
| YOTC | Yotoco, Valle | 130.35 | 52 | eP | PKPdf | 09 23 30.1 | -0.3 |
| BARC | Barichara | 130.43 | 46 | eP | PKPdf | 09 23 26.9 | -3.8 |
| RUSC | La Rusia | 131.03 | 47 | eP | PKPdf | 09 23 28.8 | -3.3 |
| RUSC | La Rusia | 131.03 | 47 | ePKPdf | PKPdf | 09 23 32.1 | 0.0 |
| CMBC | Cumbal | 131.50 | 56 | eP | PKPdf | 09 23 33.9 | +1.0 |
| PRAC | Prado | 131.52 | 51 | ePKPdf | PKPdf | 09 23 31.9 | -0.6 |
| OTAV | Otavalo | 131.54 | 57 | eP | PKPdf | 09 23 32.3 | -0.7 |
| OTAV | Otavalo | 131.54 | 57 | ePKPdf | PKPdf | 09 23 34.2 | +1.2 |
| CHIC | Chingaza | 131.59 | 49 | eP | PKPdf | 09 23 33.3 | +0.2 |
| VILC | Villavicencio, | 132.00 | 49 | eP | PKPdf | 09 23 31.4 | -2.2 |
| SJAC | San Juan de Ar | 132.47 | 50 | eP | PKPdf | 09 23 32.3 | -2.0 |
| SNAA | Sanae | 135.02 | 195 | PKP | PKPdf | 09 23 38.9 | +1.6 |
| VNA2 | Neumayer--Watz | 136.58 | 195 | PKP | PKPdf | 09 23 42.1 | +2.0 |
| | baz=85,slow=1.9 | | | | | | |
| VNA3 | Neumayer Olymp | 136.81 | 194 | PKP | PKPdf | 09 23 41.9 | +1.3 |
| NNA | Nana | 140.54 | 69 | ePKHKP | PKPpre | 09 23 42.5 | |
| NNA | Nana | 140.54 | 69 | ePKPpre | PKPpre | 09 23 42.5 | |
| GO09 | Cerro Castillo | 148.59 | 139 | ePKPbc | PKPbc | 09 24 07.0 | +1.3 |
| SAML | Samuel | 148.67 | 50 | ePKPdf | PKPdf | 09 24 03.9 | +0.8 |
| LPAZ | La Paz | 149.92 | 67 | PKPbc | PKPbc | 09 24 11.5 | +0.7 |
| | comp=Z,88nm,0.8s,baz=352,slow=3.8,SNR=54 | | | | | | |
| LPAZ | La Paz | 149.92 | 67 | ePKIKP | PKPdf | 09 24 07.3 | +1.5 |
| LPAZ | La Paz | 149.92 | 67 | ePKPdf | PKPdf | 09 24 07.3 | +1.5 |
| LPAZ | | | | ePKPbc | PKiKP | 09 24 12.2 | +0.5 |
| MNMC | Minye Minye | 150.25 | 73 | ePKPdf | PKPdf | 09 24 07.0 | +1.2 |
| MNMC | | | | ePKPbc | PKiKP | 09 24 12.7 | +0.9 |
| PB11 | IPOC Station P | 150.51 | 74 | ePKPdf | PKPdf | 09 24 08.1 | +2.0 |
| PB11 | | | | ePKPbc | PKiKP | 09 24 12.7 | +0.4 |
| PB01 | IPOC Station P | 151.25 | 77 | ePKPdf | PKPdf | 09 24 08.3 | +1.1 |
| PB04 | IPOC Station P | 151.25 | 80 | ePKPbc | PKPbc | 09 24 14.3 | +1.1 |
| PB10 | IPOC Station P | 151.38 | 82 | ePKPbc | PKPbc | 09 24 14.3 | +1.1 |
| GO05 | HualaæØ | 152.60 | 107 | ePKPab | PKPab | 09 24 28.2 | +1.6 |
| LCO | Las Campanas | 152.91 | 93 | ePKPdf | PKPdf | 09 24 10.5 | +0.8 |
| LCO | | | | ePKPbc | PKiKP | 09 24 17.9 | +0.7 |
| PLCA | Paso Flores | 153.22 | 119 | PKPbc | PKPbc | 09 24 17.7 | +0.7 |
| | comp=Z,8.2nm,0.9s,baz=264,slow=2.3,SNR=21 | | | | | | |
| PLCA | Paso Flores | 153.22 | 119 | ePKPbc | PKPbc | 09 24 18.2 | +1.2 |
| PEL | Peldehue | 153.53 | 102 | ePKIKP | PKPbc | 09 24 18.2 | +0.3 |
| PEL | | | | e | | 09 24 32.5 | |
| PEL | Peldehue | 153.53 | 102 | ePKPbc | PKPbc | 09 24 18.2 | +0.3 |
| PEL | | | | ePKPab | pPKPdf | 09 24 32.5 | -3.2 |
| TRQA | Tornquist | 160.28 | 116 | ePKPab | PKPab | 09 25 01.7 | +2.1 |
| CPUP | Villa Florida | 163.56 | 77 | ePKIKP | PKPdf | 09 24 23.2 | +1.0 |
| CPUP | | | | e | | 09 25 15.4 | |
| CPUP | Villa Florida | 163.56 | 77 | ePKPdf | PKPdf | 09 24 23.2 | +1.0 |
| CPUP | | | | ePKPab | PKPab | 09 25 15.4 | +1.1 |

*ISCJB **27** 09:09:47.9±0.5,39°65N±0°03×29°03E±0°04,h10km±5km, Error ellipse: s-maj=5.3km s-min=4.3km az=34.8*
*DDA **27** 09:09:47.2,39°65N×29°01E,h7km,Ml2.8*
*ISK **27** 

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **ARMT** | **Armutlu** | **0.94** | **353** | *e*PG | **Pn** | **09 10 06.9** | **-0.1** |
| **ARMT** | **Armutlu** | **0.94** | **353** | *e*Pg | **Pn** | **09 10 06.9** | **-0.1** |
| **YLV** | **Yalova** | **0.97** | **16** | *e*PG | **Pb** | **09 10 07.1** | **+0.3** |
| **YLV** | **Yalova** | **0.97** | **16** | *e*Pg | **Pb** | **09 10 07.1** | **+0.3** |
| **ADVT** | **Abdulvahap** | **0.97** | **35** | *e*PG | **Pb** | **09 10 07.1** | **+0.3** |
| **ADVT** | **Abdulvahap** | **0.97** | **35** | *e*Pg | **Pb** | **09 10 07.1** | **+0.3** |
| **BALY** | **Balya** | **1.08** | **276** | *i* P | **Pg** | **09 10 07.8** | **-1.1** |
| BALY | | | | *i* S | **Sb** | **09 10 22.9** | **+0.2** |
| **BALY** | **Balya** | **1.08** | **276** | P | **Pg** | **09 10 07.8** | **-1.1** |
| BALY | | | | S | **Sb** | **09 10 23.0** | **+0.2** |
| **GONE** | **Gonen-Balikesi** | **1.10** | **292** | *e*PN | **Pg** | **09 10 08.9** | **-0.4** |
| **GONE** | **Gonen-Balikesi** | **1.10** | **292** | *e*Pn | **Pg** | **09 10 08.9** | **-0.4** |
| **KULA** | **Kula-Manisa** | **1.15** | **194** | *e*PN | **Pg** | **09 10 09.5** | **-0.7** |
| **KULA** | **Kula-Manisa** | **1.15** | **194** | *e*Pn | **Pg** | **09 10 09.5** | **-0.7** |
| **MANT** | **Manisa** | **1.20** | **198** | *i* P | **Pn** | **09 10 11.1** | **+0.4** |
| MANT | | | | *i* S | **Sn** | **09 10 26.7** | **-0.2** |
| **MANT** | **Manisa** | **1.20** | **198** | P | **Pn** | **09 10 11.1** | **+0.4** |
| MANT | | | | S | **Sn** | **09 10 26.7** | **-0.2** |
| **KHAL** | **Karahalli** | **1.31** | **164** | *i* P | **Pg** | **09 10 12.9** | **-0.4** |
| KHAL | | | | *i* S | **Sn** | **09 10 30.5** | **+0.8** |
| **KHAL** | **Karahalli** | **1.31** | **164** | P | **Pg** | **09 10 12.9** | **-0.4** |
| KHAL | | | | S | **Sn** | **09 10 30.5** | **+0.8** |
| **ESKT** | **Eskisehir** | **1.42** | **94** | *i* P | **Pn** | **09 10 13.2** | **-0.5** |
| **SEYT** | **Eskypehyr** | **1.42** | **94** | P | **Pn** | **09 10 13.2** | **-0.5** |

*ISK **27** 09:20:47.6, 41°.55N×33°.88E, h8km, MD2.7*
*CSEM **27** 09:20:47.6±0.2, 41°.53N×33°.90E, h2km, ML2.5, Error ellipse: s-maj=4.0km s-min=3.8km az=103.0*
*DDA **27** 09:20:47.1, 41°.51N×33°.92E, h2km, Ml2.5*
**ISC 27 09:20:47.3±1.1, 41°.52N±0°.03×33°.92E±0°.04, h1km±10km, n22, σ0°70/30, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KAST** | **KASTAMONU** | **0.03** | **171** | *i* P | **Pg** | **09 20 47.8** | **-0.2** |
| **KAST** | **KASTAMONU** | **0.03** | **171** | P | **Pg** | **09 20 47.8** | **-0.2** |
| **BZK** | **Bozkurt** | **0.44** | **8** | *e*PG | **Pg** | **09 20 56.1** | **+0.3** |
| BZK | | | | *e*SG | **Sg** | **09 21 02.8** | **+1.2** |
| **BZK** | **Bozkurt** | **0.44** | **8** | *e*Pg | **Pg** | **09 20 56.1** | **+0.3** |
| BZK | | | | *e*Sg | **Sg** | **09 21 02.8** | **+1.2** |
| **KURC** | **Kurucasile-Bar** | **0.94** | **291** | *e*PG | **Pg** | **09 21 05.4** | **0.0** |
| KURC | | | | *e*SG | **Sb** | **09 21 18.4** | **-1.0** |
| **KURC** | **Kurucasile-Bar** | **0.94** | **291** | *e*Pg | **Pg** | **09 21 05.4** | **0.0** |
| KURC | | | | *e*Sg | **Sb** | **09 21 18.4** | **-1.0** |
| **DIKM** | **Dikmen** | **1.01** | **82** | *e*PG | **Pn** | **09 21 07.9** | **-0.7** |
| **DIKM** | **Dikmen** | **1.01** | **82** | *e*Pg | **Pn** | **09 21 07.9** | **-0.7** |
| **SNOP** | **Sinop** | **1.08** | **62** | *e*PN | **Pn** | **09 21 09.2** | **-0.4** |
| **SNOP** | **Sinop** | **1.08** | **62** | *e*Pn | **Pn** | **09 21 09.2** | **-0.4** |
| **ELDT** | **Eldivan** | **1.10** | **200** | *i* P | **Pb** | **09 21 08.3** | **-0.9** |
| ELDT | | | | *i* S | **Sb** | **09 21 23.9** | **-0.1** |
| **ELDT** | **Eldivan** | **1.10** | **200** | P | **Pb** | **09 21 08.3** | **-0.9** |
| ELDT | | | | S | **Sb** | **09 21 23.9** | **-0.1** |
| **HAVZ** | **Havza** | **1.43** | **108** | *i* P | **Pg** | **09 21 14.4** | **-0.2** |
| **HAVZ** | **Havza** | **1.43** | **108** | P | **Pg** | **09 21 14.4** | **-0.2** |
| **COAL** | **Corum-Alaca** | **1.50** | **147** | *i* P | **Pg** | **09 21 15.9** | **-0.2** |
| COAL | | | | *i* S | **Sn** | **09 21 36.6** | **+0.9** |
| **COAL** | **Corum-Alaca** | **1.50** | **147** | P | **Pg** | **09 21 15.9** | **-0.2** |
| COAL | | | | S | **Sn** | **09 21 36.6** | **+0.9** |
| **BCAM** | **Yenicaga** | **1.57** | **244** | *i* P | **Pb** | **09 21 16.4** | **-0.8** |
| **BCAM** | **Yenicaga** | **1.57** | **244** | P | **Pb** | **09 21 16.4** | **-0.8** |
| **KAMT** | **Kaman** | **2.16** | **184** | *e*PN | **Pn** | **09 21 25.1** | **+0.6** |
| **KAMT** | **Kaman** | **2.16** | **184** | *e*Pn | **Pn** | **09 21 25.1** | **+0.6** |
| **YOZ** | **Yozgat** | **2.16** | **150** | *e*PN | **Pn** | **09 21 25.3** | **+0.7** |
| **YOZ** | **Yozgat** | **2.16** | **150** | *e*Pn | **Pn** | **09 21 25.3** | **+0.7** |

*ISCJB **27** 09:28:07.0±0.5, 35°.51N±0°.04×81°.5E±0°.1, h10km, mb3.5/6, MS3.4/1, Error ellipse: s-maj=12.9km s-min=5.1km az=169.8*
*IDC **27** 09:28:07.4±1.2, 35°.50N×81°.43E, h0km, mb3.6/5, mb1 3.7/10, mb1mx3.5/48, mbtmp3.6/10, ML3.3/4, MS3.5/1, Ms1 3.5/1, ms1mx2.8/42, Error ellipse: s-maj=37.2km s-min=18.1km az=63.0*
*BJI **27** 09:28:09.1, 35°.57N×81°.57E, h6km, mb4.1/2, ML3.8/5, Ms3.8/1, Ms7 3.7/2*
**ISC 27 09:28:09.6±0.7, 35°.53N±0°.07×81°.6E±0°.1, h10km, n23, σ1§54/24, mb3.5/6, Southern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **THN** | **Thein Dam** | **5.75** | **239** | *e*P | **Pn** | **09 29 38.2** | **+3.3** |
| **PYUN** | **Piuthan** 16nm,0.7s | **7.51** | **170** | *e*P | **Pn** | **09 29 57.5** | **-1.9** |
| **KOLN** | **Koldanda** 22nm,0.6s | **7.93** | **167** | *e*P | **Pn** | **09 30 03.6** | **-1.6** |
| **KKN** | **Kakani** 24nm,0.5s | **8.35** | **157** | *e*P | **Pn** | **09 30 11.7** | **+0.8** |
| **GUN** | **Gumba** 32nm,0.6s | **8.44** | **153** | *e*P | **Pn** | **09 30 13.0** | **+0.7** |
| **PKIN** | **Phulchoki** 25nm,0.6s | **8.58** | **156** | *e*P | **Pn** | **09 30 14.6** | **+0.5** |
| **PKI** | **Pulchoki** 28nm,0.5s | **8.59** | **156** | *e*P | **Pn** | **09 30 14.8** | **+0.5** |
| **JIRN** | **Jiri** | **8.79** | **152** | *e*P | **Pn** | **09 30 18.1** | **+1.0** |
| **AAK** | **Ala-Archa** 0.1nm,0.3s,baz=160,slow=11,SNR=2.4 | **8.96** | **324** | Pn | **Pn** | **09 30 19.7** | **+0.5** |
| AAK | 0.3nm,0.3s,baz=167,slow=10,SNR=8.2 | | | Pg | Pg | 09 30 49.7 | -12 |
| AAK | 1.6nm,0.3s,baz=211,slow=16,SNR=6.1 | | | Lg | Lg | 09 32 48.8 | |
| **WMQ** | **Urumqi** | **9.54** | **28** | P | **Pn** | **09 30 28.5** | **+1.5** |
| WMQ | | | | S | **Sn** | **09 32 16.8** | **+2.6** |
| WMQ | comp=Z,280nm,5.7s | | | LR | LR | | |
| **RAMN** | **Ramite** 17nm,0.5s | **9.58** | **152** | *e*P | **Pn** | **09 30 26.7** | **-1.2** |
| **ODAN** | **Odare** 13nm,0.5s | **9.98** | **148** | *e*P | **Pn** | **09 30 32.5** | **-0.8** |
| **MKAR** | **Makanchi Array** 0.6nm,0.3s,baz=178,slow=13,SNR=22 | **11.27** | **3** | Pn | **Pn** | **09 30 49.6** | **-1.0** |
| MKAR | 0.3nm,0.3s,baz=194,slow=23,SNR=4.2 | | | Sn | **Sn** | **09 32 54.8** | **-1.8** |
| **KURBB** | **Kurchatov Arra** 0.1nm,0.3s,baz=174,slow=12,SNR=6.2 | **15.24** | **353** | Pn | **Pn** | **09 31 42.7** | **-2.0** |
| **ZALV** | **Zalesovo Beam** baz=187,slow=10,SNR=2.5 | **18.56** | **6** | P | **P** | **09 32 26.0** | **-0.4** |
| **BVAR** | **Borovoye Array** 0.1nm,0.3s,baz=141,slow=9.6,SNR=9.8 | **19.19** | **339** | P | **P** | **09 32 32.3** | **-1.0** |
| **KSRS** | **Korea Array** comp=Z,64nm,18.9s,baz=3.5,slow=39 | **37.04** | **73** | LR | LR | 09 52 07.5 | |
| **FINES** | **FINESS Array B** 3.7nm,0.9s,baz=125,slow=12,SNR=2.5 | **43.15** | **325** | P | **P** | **09 36 10.1** | **0.0** |
| **GERES** | **GERESS Array B** 0.5nm,0.7s,baz=70,slow=6.5,SNR=2.2 | **50.39** | **307** | P | **P** | **09 37 09.0** | **+2.0** |
| **ILAR** | **Eielson Array** 0.3nm,0.9s,baz=308,slow=4.5,SNR=3.1 | **73.09** | **20** | P | **P** | **09 39 39.8** | **+0.2** |
| **TORD** | **Torodi Ar. Bea** 0.3nm,0.5s,baz=42,slow=5.6,SNR=2.5 | **74.29** | **275** | P | **P** | **09 39 46.2** | **-1.3** |
| **WRA** | **Warramunga Arr** 0.3nm,0.8s,baz=325,slow=5.7,SNR=2.9 | **74.46** | **129** | P | **P** | **09 39 46.6** | **-1.7** |
| **ASAR** | **Alice Springs** 0.3nm,0.8s,baz=334,slow=6.2,SNR=3.0 | **76.95** | **132** | P | **P** | **09 40 03.5** | **+1.0** |

**MEX 27 09:42:07.2±0.4, 17°.69N×101°.78W, h15km, MD3.6, Near coast of Guerrero**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ZIIG** | **Zihuatanejo** | **0.31** | **106** | *i* P | Pg | 09 42 13.1 | -0.6 |
| ZIIG | | | | *i* S | Sg | 09 42 17.5 | -0.7 |
| **ARIG** | **Puente Sto Nin** | **1.48** | **67** | *e*P | Pn | 09 42 29.3 | -4.1 |
| ARIG | | | | *e*S | Sn | 09 42 47.0 | -5.5 |
| **CAIG** | **El Cayaco** | **1.58** | **114** | *e*P | Pn | 09 42 30.2 | -4.5 |
| **MEIG** | **Mezcala** | **2.07** | **83** | *e*P | Pn | 09 42 38.5 | -3.0 |

**IDC 27 10:00:08.5±4.1, 29°.80S×178°.47W, h0km, mb3.5/2, mb1 3.7/2, mb1mx3.4/32, mbtmp3.5/2, Error ellipse: s-maj=142.1km s-min=15.7km az=146.0, Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** 128nm,0.3s,baz=54,slow=19,SNR=8.1 | **0.73** | **41** | Pn | Pn | 10 00 25.5 | -0.6 |
| RAO | 281nm,0.3s,baz=33,slow=20,SNR=9.3 | | | Sn | Sn | 10 00 39.7 | +1.8 |
| **ASAR** | **Alice Springs** 0.4nm,1.0s,baz=105,slow=6.9,SNR=6.7 | **42.74** | **267** | P | P | 10 08 07.2 | -0.6 |
| **WRA** | **Warramunga Arr** 0.4nm,0.3s,baz=110,slow=8.1,SNR=14 | **43.67** | **272** | P | P | 10 08 15.4 | 0.0 |
| **FINES** | **FINESS Array B** 5.5nm,1.0s,baz=77,slow=6.0,SNR=3.7 | **144.44** | **340** | PKP | PKPdf | 10 19 46.8 | +0.7 |

**MEX 27 10:06:37.3±0.3, 16°.66N×99°.44W, h16km±86km, MD3.7, Near coast of Guerrero**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ACX** | **Acapulco** | **0.46** | **298** | *i* P | Pg | 10 06 40.6 | -5.8 |
| ACX | | | | *e*S | Sg | 10 06 47.1 | -5.5 |
| **ACP2** | **Acapulco** | **0.48** | **297** | *e*P | Pg | 10 06 45.4 | -1.6 |
| ACP2 | | | | *e*S | Sg | 10 06 51.6 | -1.8 |
| **CAIG** | **El Cayaco** | **0.88** | **296** | *e*P | Pb | 10 06 51.2 | -3.1 |
| CAIG | | | | *e*S | Sb | 10 07 01.9 | -3.9 |
| **MEIG** | **Mezcala** | **1.28** | **352** | *i* P | Pn | 10 06 56.8 | -3.7 |
| MEIG | | | | *e*S | Sb | 10 07 12.2 | -5.1 |
| **PLIG** | **Platanillo** | **1.73** | **358** | *e*P | Pn | 10 07 01.9 | -4.9 |
| **ARIG** | **Puente Sto Nin** | **1.83** | **332** | *e*P | Pn | 10 07 04.9 | -3.3 |
| ARIG | | | | *e*S | Sn | 10 07 26.2 | -4.9 |

*ISCJB **27** 10:25:16.4±0.7, 26°.92S±0°.03×26°.75E±0°.03, h0km±6km, mb4.2/4, Error ellipse: s-maj=5.5km s-min=4.1km az=151.6*
*PRE **27** 10:25:16.9±1.8, 26°.96S×26°.80E, h2km, ML4.0*
*NEIC **27** 10:25:19.9±0.7, 26°.86S×26°.72E, h5km, mb4.6/2, Error ellipse: s-maj=21.2km s-min=8.9km az=104.0*
*IDC **27** 10:25:19.8±1.2, 26°.91S×26°.67E, h0km, mb3.9/3, mb1 3.8/7, mb1mx3.6/40, mbtmp3.9/7, ML3.7/4, Error ellipse: s-maj=21.5km s-min=10.8km az=95.0*
**ISC 27 10:25:17.8±1.1, 26°.92S±0°.03×26°.78E±0°.03, h8km±8km, n31, σ1§84/51, mb4.3/4, South Africa**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PRYS** | **Parys** | **0.52** | **91** | *e*P | **Pg** | **10 25 27.4** | **-0.6** |
| PRYS | | | | *e*S | **Sg** | **10 25 34.5** | **-0.3** |
| PRYS | comp=Z,4μm,0.6s | | | AML | AML | 10 25 40.0 | |
| **WDLM** | **Western Deep L** | **0.76** | **50** | *e*P | **Pg** | **10 25 32.4** | **-0.1** |
| WDLM | | | | *e*S | **Sg** | **10 25 42.0** | **-0.3** |
| WDLM | comp=Z,4μm,0.3s | | | AML | AML | 10 25 49.6 | |
| **KLOF** | **Kloof** | **0.94** | **53** | *e*P | **Pb** | **10 25 36.3** | **-0.1** |
| KLOF | | | | *e*S | **Sg** | **10 25 48.0** | **-0.1** |
| KLOF | comp=Z,6μm,0.2s | | | AML | AML | 10 25 53.6 | |
| **SWZ** | **Schweizer** | **1.32** | **258** | *e*P | **Pn** | **10 25 42.7** | **0.0** |
| SWZ | | | | *e*S | **Sb** | **10 26 00.1** | **+0.1** |
| SWZ | comp=Z,4μm,0.2s | | | AML | AML | 10 26 03.5 | |
| **ERPM** | **east rand prop** | **1.43** | **67** | *e*P | **Pg** | **10 25 45.8** | **+0.5** |
| ERPM | | | | *e*S | **Sg** | **10 26 04.4** | **+0.5** |
| ERPM | comp=Z,283nm,0.8s | | | AML | AML | 10 26 11.8 | |
| **SEK** | **Senekal** | **1.59** | **152** | *e*P | **Pn** | **10 25 46.0** | **-0.4** |
| SEK | | | | *e*S | **Sn** | **10 26 07.2** | **-0.1** |
| SEK | comp=Z,2μm,0.2s | | | AML | AML | 10 26 10.3 | |
| **BOSA** | **Boshof** | **2.16** | **218** | Pn | **Pb** | **10 25 56.4** | **-0.9** |
| BOSA | comp=Z,23nm,0.3s,baz=36,slow=13,SNR=246 | | | Pg | **Pg** | **10 25 58.6** | **-0.7** |
| BOSA | comp=Z,32nm,0.3s,baz=39,slow=18,SNR=91 | | | Lg | Lg | 10 26 26.4 | |
| **BOSA** | **Boshof** | **2.16** | **218** | *e*P | **Pn** | **10 25 55.3** | **+1.0** |
| BOSA | | | | *e*S | **Sn** | **10 26 22.2** | **+0.8** |
| BOSA | comp=Z,220nm,0.3s | | | AML | AML | 10 26 37.2 | |
| **BOSA** | **Boshof** | **2.16** | **218** | *e*Pn | **Pb** | **10 25 56.4** | **-0.9** |
| BOSA | | | | *e*Pg | **Pg** | **10 25 58.6** | **-0.7** |
| BOSA | | | | *e*Lg | Lg | 10 26 26.4 | |
| BOSA | | | | *e*Sn | **Sg** | **10 26 26.7** | **-0.6** |
| **LBTB** | **Lobatse** | **2.17** | **330** | Pn | **Pb** | **10 25 57.2** | **-0.3** |
| LBTB | comp=Z,45nm,0.3s,baz=150,slow=18,SNR=546 | | | Pg | **Pg** | **10 25 58.9** | **-0.6** |
| LBTB | comp=Z,45nm,0.3s,baz=152,slow=18,SNR=548 | | | Lg | Lg | 10 26 26.7 | |
| **LBTB** | **Lobatse** | **2.17** | **330** | *e*P | **Pb** | **10 25 56.2** | **-1.3** |
| LBTB | | | | *e*S | **Sn** | **10 26 22.1** | **+0.6** |
| LBTB | comp=Z,176nm,0.3s,baz=52,slow=21,SNR=61 | | | AML | AML | 10 26 35.1 | |
| **KSD** | **Kokstad** | **4.29** | **148** | *e*P | **Pn** | **10 26 22.8** | **-0.8** |
| KSD | | | | *e*S | **Sn** | **10 27 11.0** | **-2.9** |
| KSD | comp=Z,239nm,0.8s | | | AML | AML | 10 27 33.3 | |
| **POGA** | **Pongola** | **4.41** | **97** | *e*P | **Pn** | **10 26 23.7** | **-1.4** |
| POGA | | | | *e*S | **Sn** | **10 27 13.9** | **-2.8** |
| POGA | comp=Z,426nm,0.5s | | | AML | AML | 10 27 40.3 | |
| **UPI** | **Upington** | **5.11** | **252** | *e*P | **Pn** | **10 26 35.8** | **+1.1** |
| UPI | | | | *e*S | **Sn** | **10 27 32.5** | **-1.5** |
| UPI | comp=Z,345nm,0.4s | | | AML | AML | 10 28 03.9 | |
| **UPI** | **Upington** | **5.11** | **252** | *i* P | **Pn** | **10 26 35.2** | **+0.4** |
| **MSNA** | **Messina** | **5.43** | **34** | *e*P | **Pn** | **10 26 38.6** | **-0.5** |
| MSNA | | | | *e*S | **Sn** | **10 27 38.7** | **-3.1** |
| MSNA | comp=Z,169nm,0.4s | | | AML | AML | 10 28 15.9 | |
| **ARMS** | **Ukamas** | **6.35** | **258** | *i* S | **Sn** | **10 28 03.9** | **-0.7** |
| **ARMS** | **Ukamas** | **6.35** | **258** | *i* P | **Pn** | **10 26 53.5** | **+1.7** |
| ARMS | | | | *i* S | Pg | 10 27 24.8 | +5.3 |
| **MATP** | **Matopo** | **6.65** | **14** | Pn | **Pn** | **10 26 57.6** | **+1.6** |
| MATP | comp=Z,4.5nm,0.3s,baz=195,slow=13,SNR=71 | | | Sn | **Sn** | **10 28 09.0** | **-3.2** |
| MATP | comp=Z,3.5nm,0.3s,baz=158,slow=5.2,SNR=4.4 | | | Lg | Lg | 10 28 44.5 | |
| **SUR** | **Sutherland** | **7.52** | **222** | Pn | **Pn** | **10 27 09.8** | **+1.8** |
| SUR | comp=Z,0.3nm,0.3s,baz=58,slow=13,SNR=35 | | | Sn | **Sn** | **10 28 30.4** | **-3.2** |
| SUR | comp=Z,0.2nm,0.3s,baz=321,slow=24,SNR=6.6 | | | Lg | Lg | 10 29 14.1 | |
| **KOMG** | **Komaggas** | **8.68** | **249** | *e*P | **Pn** | **10 27 23.7** | **0.0** |
| KOMG | | | | *e*S | **Sn** | **10 28 58.1** | **-3.7** |
| KOMG | comp=Z,96nm,0.5s | | | AML | AML | 10 29 58.3 | |
| **KOMG** | **Komaggas** | **8.68** | **249** | *i* P | **Pn** | **10 27 23.7** | **0.0** |
| KOMG | | | | *i* S | Pg | 10 27 56.0 | -7.9 |
| **LSZ** | **Lusaka** | **11.66** | **7** | Pn | **Pn** | **10 28 04.9** | **+0.2** |
| LSZ | comp=Z,1.2nm,0.3s,baz=189,slow=13,SNR=18 | | | Sn | **Sn** | **10 30 08.7** | **-6.5** |
| LSZ | comp=Z,0.8nm,0.3s,baz=71,slow=23,SNR=4.6 | | | Lg | Lg | 10 31 21.8 | |
| **TOA0** | **Torodi Ar. Sit** comp=Z,9.5nm,1.6s | **46.69** | **325** | *e*P | **P** | **10 33 49.2** | **+1.9** |
| **TORD** | **Torodi Ar. Bea** comp=Z,0.5nm,0.3s,baz=153,slow=7.0,SNR=6.6 | **46.69** | **325** | P | **P** | **10 33 48.8** | **+1.5** |
| **TOA1** | **Torodi Ar. Sit** | **46.69** | **325** | *e*P | **P** | **10 33 48.8** | **+1.4** |
| **SNAA** | **Sanae** comp=Z,3.2nm,1.0s,baz=26,slow=8.1,SNR=3.5 | **47.72** | **192** | P | **P** | **10 33 57.7** | **+2.9** |
| **SNAA** | **Sanae** comp=Z,6.6nm,1.2s | **47.72** | **192** | *e*P | **P** | **10 33 57.3** | **+2.5** |
| **ASAR** | **Alice Springs** comp=Z,0.3nm,0.9s,baz=233,slow=4.5,SNR=4.8 | **93.52** | **119** | P | **P** | **10 38 38.2** | **+3.4** |
| **NV01** | **Mina Array Sit** | **148.62** | **300** | *e*PKPbc | **PKPab** | **10 45 09.6** | **+0.1** |
| **NVAR** | **Mina Array Bea** comp=Z,0.6nm,0.5s,baz=71,slow=3.9,SNR=9.3 | **148.62** | **300** | PKPbc | **PKPab** | **10 45 09.9** | **+0.4** |

*IDC **27** 10:33:37.6±1.3, 2°.12S×119°.78E, h0km, mb3.8/6, mb1 3.9/6, mb1mx3.6/49, mbtmp3.8/6, MS2.7/1, Ms1 2.9/1, ms1mx2.5/38, Error ellipse: s-maj=85.2km s-min=17.6km az=66.0*
*ISCJB **27** 10:33:39.4±0.5, 1°.62S±0°.04×120°.48E±0°.05, h23km, mb3.8/6, MS2.6/1, Error ellipse: s-maj=7.2km s-min=5.8km az=40.4*
*DJA **27** 10:33:40.5±1.5, 2°.S±4°×12°.0E±°, h19km±14km, M4.8/7, mb4.9/1, MLv4.7/7*
**ISC 27 10:33:40.6±0.8, 1°.56S±0°.04×120°.45E±0°.04, h23km, n20, σ1§40/22, mb3.8/6, Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **APSI** | **Ampana** | **1.36** | **62** | P | **Pn** | **10 34 04.0** | **-0.2** |
| APSI | | | | S | **Sb** | **10 34 23.9** | **+1.5** |
| **TTSI** | **Tana Toraja** | **1.60** | **203** | P | **Pb** | **10 34 07.8** | **-1.7** |
| **MPSI** | **Mapaga** | **1.97** | **344** | P | **Pn** | **10 34 11.0** | **-1.5** |
| MPSI | | | | S | **Sb** | **10 34 38.4** | **-1.4** |
| **LUWI** | **Luwuk** | **2.38** | **77** | P | **Pn** | **10 34 17.7** | **-0.5** |
| **SPSI** | **Sidrap Palu** | **2.48** | **196** | P | **Pn** | **10 34 20.4** | **+0.8** |
| SPSI | | | | S | **Sb** | **10 34 57.1** | **+2.5** |
| **MRSI** | **Marisa** | **2.51** | **36** | P | **Pn** | **10 34 19.7** | **-0.4** |
| MRSI | | | | S | **Sn** | **10 34 51.2** | **+1.2** |
| **SGKI** | **Sangatta, Kali** | **3.03** | **290** | P | **Pb** | **10 34 35.1** | **+1.3** |
| **BKB** | **Balikpapan** | **3.57** | **275** | P | **Pn** | **10 34 36.0** | **+1.5** |
| **KMSI** | **Cibinong** | **4.12** | **59** | P | **Pn** | **10 34 43.3** | **+1.2** |
| **KBKI** | **Kotabaru** | **4.62** | **248** | P | **Pn** | **10 34 48.3** | **-0.7** |
| KBKI | | | | S | **Sb** | **10 35 54.2** | **-1.9** |
| **SANI** | **Sanana** | **5.55** | **95** | P | **Pn** | **10 34 59.9** | **-2.0** |
| **MTKI** | **Muara Teweh, K** | **5.59** | **276** | P | **Pn** | **10 35 03.5** | **+1.1** |
| **LBMI** | **Labuha** | **7.11** | **83** | P | **Pn** | **10 35 21.5** | **-1.8** |
| **WRA** | **Warramunga Arr** 3.4nm,0.9s,baz=313,slow=13,SNR=13 | **22.76** | **144** | P | **P** | **10 38 40.9** | **-0.6** |
| **ASAR** | **Alice Springs** 0.5nm,0.6s,baz=334,slow=9.5,SNR=12 | **25.55** | **150** | P | **P** | **10 39 07.3** | **-0.5** |
| **CMAR** | **Chiang Mai Arr** comp=Z,17nm,21.3s,baz=145,slow=38 | **29.05** | **314** | LR | LR | 10 51 58.6 | |
| **STKA** | **Stephens Creek** 1.4nm,0.7s,baz=331,slow=12,SNR=4.3 | **36.15** | **149** | P | **P** | **10 40 41.0** | **-0.4** |
| **KSRS** | **Korea Array** 1.0nm,0.6s,baz=190,slow=8.6,SNR=5.5 | **39.43** | **9** | P | P | 10 41 14.1 | +5.2 |
| **SONM** | **Songino Array** 1.1nm,0.8s,baz=166,slow=7.9,SNR=6.1 | **50.70** | **348** | P | P | 10 42 43.4 | +4.9 |
| **MKAR** | **Makanchi Array** 1.6nm,0.6s,baz=132,slow=8.2,SNR=11 | **58.65** | **330** | P | **P** | **10 43 37.1** | **+1.0** |

*NIED **27** 10:43:00, 38°.90N×142°.00E, h62km, Mw3.8 Best double couple: M0≤3.36000×10^14 NP1:φ≈250.00000°, δ≥29.00000°, λ145.00000°. NP2:φ≈12.00000°, δ74.00000°, λ66.00000°.*
*JMA **27** 10:43:50.5±0.1, 38°.88N×142°.02E, h47km±1km, M3.7*
*JMA Felt I J1.*
*IDC **27** 10:43:53.2±4.6, 38°.90N×142°.06E, h75km±41km, mb3.3/5, mb1 3.4/6, mb1mx3.1/58, mbtmp3.5/6, ML3.3/1, Error ellipse: s-maj=37.6km s-min=22.3km az=82.0*
**ISC 27 10:43:48.6±2.0, 38°.87N±0°.05×142°.08E±0°.08, h29km±14km, n22, σ1§59/25, mb3.7/5, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OFUJ** | **Ofunato** | **0.38** | **303** | P | **Pn** | **10 43 59.8** | **+1.6** |
| OFUJ | | | | *e*S | **Sn** | **10 44 06.2** | **+1.6** |
| **JMK** | **Ichinoseki** | **0.68** | **277** | P | **Pn** | **10 44 03.2** | **+1.0** |
| JMK | | | | S | **Sn** | **10 44 12.1** | **+0.3** |
| **JIO** | **Ouri** | **0.71** | **234** | P | **Pb** | **10 44 03.6** | **+1.2** |
| JIO | | | | S | **Sn** | **10 44 12.5** | **-0.1** |
| **JOM** | **Ohasama** | **0.86** | **315** | P | **Pn** | **10 44 05.7** | **+1.0** |
| JOM | | | | *e*S | **Sn** | **10 44 16.8** | **+0.5** |
| **JOU** | **Okura** | **1.22** | **246** | P | **Pn** | **10 44 10.6** | **+0.9** |
| JOU | | | | *e*S | **Sn** | **10 44 26.5** | **+1.2** |
| **JRG** | **Rokugo** | **1.24** | **295** | P | **Pn** | **10 44 10.9** | **+0.9** |
| JRG | | | | *e*S | **Sn** | **10 44 25.5** | **-0.3** |
| **JYK** | **Kaneyama** | **1.34** | **272** | P | **Pn** | **10 44 12.4** | **+1.0** |
| JYK | | | | *e*S | **Sn** | **10 44 28.1** | **-0.2** |
| **JMM** | **Marumori** | **1.43** | **226** | P | **Pn** | **10 44 13.1** | **+0.6** |
| JMM | | | | *e*S | **Sn** | **10 44 30.2** | **-0.1** |
| **JANG** | **Nango** | **1.56** | **344** | P | **Pn** | **10 44 15.4** | **+1.0** |
| JANG | | | | *e*S | **Sn** | **10 44 33.6** | **-0.1** |
| **MJAR** | **Matsushiro Arr** 2.0nm,0.3s,baz=40,slow=12,SNR=22 | **3.85** | **234** | P | **Pn** | **10 44 50.0** | **+4.0** |
| **MAT** | **Matsushiro** | **3.85** | **234** | P | Pn | 10 44 50.2 | +4.3 |
| MAT | | | | S | **Sb** | **10 45 37.5** | **-4.5** |
| **H11N2** | **WAKE ISLAND Hy** baz=317,slow=75,SNR=306 | **28.69** | **125** | T | T | 11 20 07.6 | |
| **H11N1** | **WAKE ISLAND Hy** baz=317,slow=75,SNR=394 | **28.70** | **125** | T | T | 11 20 09.3 | |
| **H11N3** | **WAKE ISLAND Hy** baz=317,slow=75,SNR=360 | **28.71** | **125** | T | T | 11 20 09.9 | |
| **H11S1** | **WAKE ISLAND Hy** baz=319,slow=76,SNR=113 | **29.47** | **127** | T | T | 11 21 07.2 | |
| **H11S3** | **WAKE ISLAND Hy** baz=319,slow=76,SNR=116 | **29.47** | **127** | T | T | 11 21 07.3 | |
| **H11S2** | **WAKE ISLAND Hy** baz=319,slow=76,SNR=90 | **29.49** | **127** | T | T | 11 21 08.4 | |
| **ZALV** | **Zalesovo Beam** 0.8nm,0.5s,baz=96,slow=7.4,SNR=3.7 | **41.09** | **311** | P | **P** | **10 51 28.9** | **-0.6** |
| **MKAR** | **Makanchi Array** 0.7nm,0.4s,baz=83,slow=10,SNR=11 | **43.61** | **301** | P | **P** | **10 51 49.6** | **-0.6** |
| **ILAR** | **Eielson Array** 0.8nm,1.1s,baz=266,slow=9.3,SNR=4.1 | **47.67** | **33** | P | **P** | **10 52 21.4** | **-0.5** |
| **WRA** | **Warramunga Arr** 0.5nm,0.8s,baz=7.1,slow=7.0,SNR=8.2 | **58.95** | **189** | P | **P** | **10 53 44.5** | **-0.8** |
| **ASAR** | **Alice Springs** 0.2nm,0.6s,baz=354,slow=6.7,SNR=4.3 | **62.68** | **188** | P | **P** | **10 54 10.6** | **0.0** |

*IDC **27** 10:54:41.1±1.0, 1°.14S×121°.05E, h0km, mb3.7/6, mb1 3.8/6, mb1mx3.6/40, mbtmp3.7/6, MS3.1/2, Ms1 3.1/2, ms1mx2.6/44, Error ellipse: s-maj=299.4km s-min=16.9km az=61.0*
*ISCJB **27** 10:54:43.3±0.6, 1°.51S±0°.06×120°.30E±0°.06, h23km, mb3.7/6, MS3.1/1, Error ellipse: s-maj=10.3km s-min=6.6km az=37.6*
*DJA **27** 10:54:43.9±0.4, 1°.S±3°×12°.0E±°, h10km, M4.3/6, MLv4.3/6*
**ISC 27 10:54:45.0±0.8, 1°.64S±0°.05×120°.46E±0°.05, h23km, n17, σ1§67/20, mb3.7/6, Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **APSI** | **Ampana** | **1.39** | **59** | P | **Pn** | **10 55 09.0** | **0.0** |
| APSI | | | | S | **Sb** | **10 55 28.4** | **+0.7** |
| **TTSI** | **Tana Toraja** | **1.54** | **205** | P | **Pb** | **10 55 12.6** | **-0.2** |
| TTSI | | | | S | **Sb** | **10 55 35.2** | **+3.4** |
| **MPSI** | **Mapaga** | **2.04** | **344** | P | **Pn** | **10 55 15.7** | **-2.3** |
| **LUWI** | **Luwuk** | **2.38** | **76** | P | **Pn** | **10 55 22.3** | **-0.4** |
| LUWI | | | | S | **

KURBB ⇓Lg Lg 11 10 52.9
53nm,0.7s,baz=276,slow=28
**KURK Kurchatov 3.18 92** ⇑Pg Pb 11 10 10.9 -2.6
5.1nm,0.8s
KURK ⇓Lg Lg 11 10 53.4
18nm,0.7s
**MK31 Makanchi Array 7.06 123** ⇑Lg Lg 11 12 57.7
3.0nm,0.6s,baz=300,slow=25,SNR=6.0
**MKAR Makanchi Array 7.06 123** Pn Pn 11 11 00.4 -0.5
0.1nm,0.3s,baz=304,slow=13,SNR=3.6
MKAR Lg Lg 11 12 51.9
0.4nm,0.3s,baz=314,slow=26,SNR=7.2
**I46RU ZALESOVO INFRA 7.48 62** *i* 11 55 20.0
baz=246,slow=313,SNR=1.6
**ZALV Zalesovo Beam 7.48 62** Pn Pn 11 11 06.6 +0.2
0.2nm,0.3s,baz=251,slow=13,SNR=5.8
**AKTO Aktyubinsk 9.92 273** Pn Pn 11 11 38.0 -2.0
0.3nm,0.3s,baz=84,slow=9.4,SNR=4.7
**ILAR Eielson Array 60.43 19** P P 11 19 25.6 -1.4
0.2nm,0.5s,baz=326,slow=5.2,SNR=6.6

---

*NIED* ***27*** *11:14:00,28.˚20N×142.˚90E,h5km,Mw4.7 Best double couple: M₀1.47000×10¹⁶ NP1:φ190.00000°, δ43.00000°, λ111.00000°. NP2:φ342.00000°, δ51.00000°, λ72.00000°.*
*IDC* ***27*** *11:14:22.8±0.5,28.˚12N×142.˚85E,h0km,mb4.5/23, mb1 4.7/27,mb1mx4.6/45,mbtmp4.5/27,ML4.3/3,MS4.1/24, Ms1 4.1/24,ms1mx3.9/44,Error ellipse: s-maj=15.4km s-min=13.2km az=72.0*
*JMA* ***27*** *11:14:25.1±0.2,28.˚23N×142.˚91E,h41km,M4.8*
*BJI* ***27*** *11:14:25.4,28.˚02N×142.˚81E,h36km,mb4.9/49,mB5.2/49, Ms4.6/50,Ms7 4.3/50*
*ISCJB* ***27*** *11:14:26.8±0.1,28.˚23N±0.˚02×142.˚75E±0.˚02,h33km, mb4.8/159,MS4.2/41,Error ellipse: s-maj=3.4km s-min=2.9km az=25.6*
*GCMT* ***27*** *11:14:26.6±0.4,28.˚00N×143.˚11E,h17km±1km,MW4.9/77, Moment Tensor Solution. s9,c9; s77,c102; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr1.97±.18; Mθθ-0.03±.09; Mφφ-1.93±.12; Mrθ0.74±.28; Mrφ0.03±.06; Mθφ1.27±.29; Best double couple: M₀2.43400×10¹⁶ NP1:φ16.00000°, δ64.00000°, λ105.00000°. NP2: φ165.00000°, δ30.00000°, λ63.00000°. Principal axes: T 2.5450, Plg68.0000°, Azm315.0000°; N -0.2150, Plg13.0000°, Azm189.0000°; P -2.3230, Plg17.0000°, Azm95.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*MOS* ***27*** *11:14:26.0±1.1,28.˚05N×142.˚80E,h33km,mb5.1/63, MS4.1/13 Error ellipse: s-maj=8.7km s-min=5.4km az=109.5*
*NEIC* ***27*** *11:14:26.6±2.0,28.˚09N×142.˚83E,h23km±14km, mb5.0/108,Error ellipse: s-maj=6.2km s-min=5.2km az=135.0*

**ISC 27 11:14:27.5±0.5, 28.˚18N±0.˚04×142.˚91E±0.˚04, h30km±3km, h30km:pP-P,n404,σ1⁄50/454,mb4.9/159,MS4.3/43, 13C-12D,Bonin Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **CBIJ** | **Chichi jima** | **1.26** | **211** | P | | **Pn** | **11 14 47.7** | **-1.3** |
| CBIJ | | | | *e*S | | **Sn** | **11 15 03.5** | **-1.5** |
| **CBIJ** | **Chichi jima** | **1.26** | **211** | *e*Pn | | **Pn** | **11 14 47.1** | **-1.9** |
| CBIJ | | | | *e*Sn | | **Sn** | **11 15 04.5** | **-0.5** |
| **JHHJ** | **Haha-jima-NKT** | **1.68** | **203** | P | | **Pn** | **11 14 53.4** | **-1.4** |
| JHHJ | | | | S | | **Sn** | **11 15 14.8** | **-0.5** |
| **JHJ2** | **Mitsune** | **5.59** | **332** | P | | **Pn** | **11 15 47.6** | **-1.0** |
| **JHJ2** | **Mitsune** | **5.59** | **332** | *e*Pn | | **Pn** | **11 15 47.8** | **-0.8** |
| JHJ2 | | | | *e*Sn | | **Sn** | **11 16 51.0** | **-0.8** |
| **JHJ** | **Hachijo jima 2** | **5.61** | **332** | Pn | | **Pn** | **11 15 47.7** | **-1.1** |
| | 12nm,0.3s,baz=86,slow=23,SNR=4.9 | | | | | | | |
| JHJ | | | | Sn | | **Sn** | **11 16 50.8** | **-1.5** |
| | 23nm,0.3s,baz=59,slow=15,SNR=3.1 | | | | | | | |
| **BSO1** | **Boso 1** | **6.66** | **346** | P | | **Pn** | **11 16 00.6** | **-2.2** |
| BSO1 | | | | *e*S | | **Sn** | **11 17 12.2** | **-5.2** |
| **BSO3** | **Boso 3** | **6.91** | **343** | P | | **Pn** | **11 16 04.3** | **-2.2** |
| **BSO4** | **Boso 4** | **7.13** | **343** | P | | **Pn** | **11 16 09.0** | **-0.7** |
| BSO4 | | | | *e*S | | **Sn** | **11 17 28.3** | **-1.3** |
| **JOD2** | **Odawara 2** | **7.77** | **336** | P | | **Pn** | **11 16 17.3** | **-1.3** |
| **JHU** | **Hanno** | **8.24** | **339** | P | | **Pn** | **11 16 23.7** | **-1.3** |
| JHU | | | | *e*S | | **Sn** | **11 17 51.8** | **-5.3** |
| **JRY** | **Ryogami san** | **8.52** | **337** | P | | **Pn** | **11 16 27.3** | **-1.5** |
| JRY | | | | S | | **Sn** | **11 18 01.0** | **-2.9** |
| **JAG** | **Ashikaga** | **8.72** | **341** | P | | **Pn** | **11 16 29.3** | **-2.3** |
| JAG | | | | S | | **Sn** | **11 18 03.2** | **-5.7** |
| **INU** | **Inuyama** | **8.73** | **326** | *e*Pn | | **Pn** | **11 16 32.3** | **+0.6** |
| **MJAR** | **Matsushiro Arr** | **9.23** | **336** | Pn | | **Pn** | **11 16 37.0** | **-1.6** |
| | 6.0nm,0.3s,baz=162,slow=11,SNR=91 | | | | | | | |
| MJAR | | | | LR | | LR | 11 19 48.6 | |
| | comp=Z,654nm,18.9s,baz=155,slow=35 | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **9.23** | **336** | P | | **Pn** | **11 16 37.0** | **-1.6** |
| MJAR | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,0.3s | | | | | | | |
| MJAR | | | | MLR | MLR | | | |
| | comp=Z,654nm,18.9s | | | | | | | |
| **MAJO** | **Matsushiro** | **9.24** | **336** | *e*P | | **Pn** | **11 16 37.8** | **-0.9** |
| **MAJO** | **Matsushiro** | **9.24** | **336** | *e*Pn | | **Pn** | **11 16 37.8** | **-0.9** |
| **MAT** | **Matsushiro** | **9.24** | **336** | P | | **Pn** | **11 16 37.1** | **-1.5** |
| MAT | | | | S | | **Sn** | **11 18 18.0** | **-3.5** |
| **MJB9** | **Matsu-Tunnel** | **9.24** | **336** | *e*Pn | | **Pn** | **11 16 37.8** | **-0.9** |
| **JFK** | **Kawauchi** | **9.32** | **350** | *e*S | | Sn | 11 18 13.8 | -10 |
| **JNU** | **Nakatsue** | **11.47** | **298** | *e*Pn | | **Pn** | **11 17 10.1** | **+0.9** |
| JNU | | | | *e*Sn | | **Sn** | **11 19 16.4** | **0.0** |
| **TJN** | **Taejon** | **15.47** | **306** | ⇑*i*P | | **P** | **11 18 06.4** | **-1.3** |
| **KSRS** | **Korea Array** | **15.61** | **310** | Pn | | **Pn** | **11 18 04.3** | **-1.0** |
| | comp=Z,1.7nm,0.3s,baz=121,slow=10,SNR=64 | | | | | | | |
| KSRS | | | | LR | | LR | 11 24 02.3 | |
| | comp=Z,393nm,18.8s,baz=119,slow=37 | | | | | | | |
| **KS15** | **Wonju Array Si** | **15.63** | **310** | *e*Pn | | **Pn** | **11 18 04.9** | **-0.7** |
| **KS01** | **Wonju Array Si** | **15.64** | **310** | *e*Pn | | **Pn** | **11 18 07.1** | **+1.4** |
| **ASAJ** | **Asahikawa** | **15.90** | **359** | Pn | | **Pn** | **11 18 06.3** | **-2.7** |
| | comp=Z,1.3nm,0.3s,baz=222,slow=18,SNR=6.0 | | | | | | | |
| **ASAJ** | **Asahikawa** | **15.90** | **359** | *e*Pn | | **Pn** | **11 18 06.3** | **-2.7** |
| | comp=Z,18nm,0.9s | | | | | | | |
| ASAJ | | | | *e*Sn | | **Sn** | **11 21 05.0** | **+0.6** |
| **SHO** | **Shikotan** | **15.97** | **10** | P | | **Pn** | **11 18 03.1** | **-6.8** |
| SHO | | | | pmax | pmax | | | |
| | comp=Z,28nm,0.9s | | | | | | | |
| SHO | | | | pmax | pmax | | | |
| | comp=N,45nm,0.6s | | | | | | | |
| **INCN** | **Inchon** | **16.51** | **308** | *e*Pn | | **P** | **11 18 18.8** | **-0.4** |
| | comp=N,165nm,1.6s | | | | | | | |
| **MSHR** | **Mys Shultsa** | **17.24** | **329** | ⇑*e*P | | **P** | **11 18 28.5** | **+1.2** |
| **VLA** | **Vladivostok** | **17.37** | **332** | *d i*P | | **P** | **11 18 30.0** | **+1.4** |
| VLA | | | | pmax | pmax | | | |
| | comp=Z,269nm,1.5s | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **18.23** | **334** | P | | **Pn** | **11 18 35.5** | **-2.6** |
| | comp=Z,0.5nm,0.3s,baz=145,slow=12,SNR=12 | | | | | | | |
| USRK | | | | LR | | LR | 11 25 25.9 | |
| | comp=Z,297nm,18.9s,baz=136,slow=36 | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **18.74** | **360** | ⇑*i*P | | **Pn** | **11 18 46.3** | **+2.0** |
| YSS | | | | pmax | pmax | | | |
| | comp=Z,40nm,1.0s | | | | | | | |
| YSS | | | | MLR | MLR | | | |
| | comp=Z,300nm,12.0s | | | | | | | |
| **MDJ** | **Mudanjiang** | **19.55** | **331** | *e*P | | **P** | **11 18 52.3** | **-0.4** |
| | comp=Z,129nm,1.5s | | | | | | | |
| **YULB** | **Yu-li** | **20.03** | **261** | *e*P | | **P** | **11 18 58.9** | **+0.8** |
| | comp=Z,189nm,1.9s | | | | | | | |
| **SSLB** | **Suanglung** | **20.21** | **263** | *e*P | | **P** | **11 19 00.8** | **+0.8** |
| | comp=Z,122nm,1.4s | | | | | | | |
| **SNY** | **Shenyang** | **20.82** | **316** | ⇑P | | Pn | 11 19 08.5 | -0.5 |
| SNY | | | | pmax | pmax | | | |
| | comp=Z,190nm,7.6s | | | | | | | |
| SNY | | | | LR | LR | | | |
| | comp=Z,620nm,10.6s | | | | | | | |
| SNY | | | | LR | LR | | | |
| | comp=Z,690nm,11.0s | | | | | | | |
| **CN2** | **Changchun** | **20.97** | **323** | *e*P | | Pn | 11 19 09.5 | -1.3 |
| CN2 | | | | pmax | pmax | | | |
| | comp=Z,200nm,4.0s | | | | | | | |
| CN2 | | | | LR | LR | | | |
| | comp=Z,500nm,19.0s | | | | | | | |
| CN2 | | | | LR | LR | | | |
| | comp=Z,700nm,19.0s | | | | | | | |
| CN2 | | | | LR | LR | | | |
| | comp=Z,500nm,14.0s | | | | | | | |
| **NJ2** | **Nanjing** | **21.15** | **286** | *e*P | | **P** | **11 19 09.3** | **-0.8** |
| NJ2 | | | | pmax | pmax | | | |
| | comp=Z,32nm,0.7s | | | | | | | |
| **HABR** | **Khabarovsk** | **21.16** | **345** | *de*P | | **P** | **11 19 09.4** | **-0.6** |
| HABR | | | | *e*PPP | | PPP | 11 19 36.8 | |
| HABR | | | | *e*S | | **S** | **11 23 06.5** | **+2.9** |
| HABR | | | | *e* | | | 11 23 14.1 | |
| HABR | | | | *e*SS | | **SnSn** | **11 23 30.0** | **+3.7** |
| HABR | | | | *e*SSS | | SSS | 11 23 43.1 | |
| HABR | | | | *e* | | | 11 30 34.7 | |
| HABR | | | | pmax | pmax | | | |
| | comp=Z,13nm,1.3s | | | | | | | |
| HABR | | | | MLR | MLR | | | |
| | comp=Z,283nm,15.0s | | | | | | | |
| **KLR** | **Kul'dur** | **22.70** | **341** | P | | **P** | **11 19 26.3** | **-0.3** |
| | comp=Z,1.1nm,0.8s,baz=147,slow=10,SNR=19 | | | | | | | |
| KLR | | | | LR | | LR | 11 28 34.7 | |
| | comp=Z,26nm,18.4s,baz=158,slow=37 | | | | | | | |
| **KLR** | **Kul'dur** | **22.70** | **341** | *d i*P | | **P** | **11 19 27.3** | **+0.7** |
| **TIA** | **Tai'an** | **23.20** | **297** | P | | **P** | **11 19 30.0** | **-1.8** |
| TIA | | | | S | | **S** | **11 23 44.3** | **+2.6** |
| TIA | | | | pmax | pmax | | | |
| | comp=Z,130nm,6.5s | | | | | | | |
| TIA | | | | LR | LR | | | |
| | comp=Z,400nm,15.7s | | | | | | | |
| TIA | | | | LR | LR | | | |
| | comp=Z,260nm,15.0s | | | | | | | |
| TIA | | | | LR | LR | | | |
| | comp=Z,370nm,13.5s | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **23.45** | **106** | T | | T | 11 43 49.1 | |
| | baz=297,slow=75,SNR=17 | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **23.45** | **106** | T | | T | 11 43 47.4 | |
| | baz=297,slow=75,SNR=14 | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **23.46** | **106** | T | | T | 11 43 38.3 | |
| | baz=297,slow=75,SNR=16 | | | | | | | |
| **WHN** | **Wuhan** | **24.98** | **282** | ⇑P | | **P** | **11 19 49.3** | **+0.8** |
| WHN | | | | pmax | pmax | | | |
| | comp=Z,230nm,1.5s | | | | | | | |
| WHN | | | | LR | LR | | | |
| | comp=Z,1μm,13.4s | | | | | | | |
| WHN | | | | LR | LR | | | |
| | comp=Z,1μm,13.8s | | | | | | | |
| WHN | | | | LR | LR | | | |
| | comp=Z,790nm,17.6s | | | | | | | |
| **NKL** | **Nikolayevsk** | **25.00** | **357** | *e*P | | **P** | **11 19 44.0** | **-4.4** |
| NKL | | | | *e* | | | 11 24 11.0 | |
| NKL | | | | pmax | pmax | | | |
| | comp=Z,55nm,1.1s | | | | | | | |
| **BJI** | **Beijing** | **25.00** | **305** | P | | **P** | **11 19 45.8** | **-2.8** |
| BJI | | | | pP | | **pP** | **11 19 57.8** | **+0.5** |
| BJI | | | | sP | | **sP** | **11 20 01.8** | **+0.8** |
| BJI | | | | S | | **S** | **11 24 13.3** | **+2.6** |
| BJI | | | | pmax | pmax | | | |
| | comp=Z,270nm,4.2s | | | | | | | |
| BJI | | | | LR | LR | | | |
| | comp=Z,490nm,11.7s | | | | | | | |
| BJI | | | | LR | LR | | | |
| | comp=Z,720nm,15.0s | | | | | | | |
| BJI | | | | LR | LR | | | |
| | comp=Z,610nm,18.4s | | | | | | | |
| **HIA** | **Hailar** | **27.55** | **326** | *e*P | | **P** | **11 20 14.2** | **+2.6** |
| HIA | | | | pmax | pmax | | | |
| | comp=Z,46nm,1.1s | | | | | | | |
| **HIA** | **Hailar** | **27.55** | **326** | *e*P | | **P** | **11 20 14.2** | **+2.6** |
| | comp=Z,46nm,1.1s | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **28.60** | **304** | *e*P | | **P** | **11 20 23.3** | **+2.2** |
| HHC | | | | sP | | sP | 11 20 35.3 | +1.8 |
| HHC | | | | S | | **S** | **11 25 07.3** | **-0.4** |
| HHC | | | | sS | | sS | 11 25 24.5 | +2.4 |
| HHC | | | | SS | | **SnSn** | **11 26 34.8** | **+6.3** |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,12nm,1.1s | | | | | | | |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,81nm,6.4s | | | | | | | |
| HHC | | | | LR | LR | | | |
| | comp=Z,360nm,14.0s | | | | | | | |
| HHC | | | | LR | LR | | | |
| | comp=Z,600nm,13.8s | | | | | | | |
| HHC | | | | LR | LR | | | |
| | comp=Z,680nm,14.8s | | | | | | | |
| **ENH** | **Enshi** | **29.19** | **282** | *e*P | | **P** | **11 20 25.3** | **-1.2** |
| | comp=Z,30nm,0.7s | | | | | | | |
| **XAN** | **Xi'an** | **29.59** | **290** | P | | **P** | **11 20 27.8** | **-2.2** |
| XAN | | | | pP | | pP | 11 20 37.3 | -1.4 |
| XAN | | | | sP | | sP | 11 20 41.3 | -1.1 |
| XAN | | | | PP | | **PnPn** | **11 21 23.8** | **-1.4** |
| XAN | | | | S | | **S** | **11 25 21.8** | **-1.6** |
| XAN | | | | sS | | pS | 11 25 34.0 | +1.0 |
| XAN | | | | SS | | **SnSn** | **11 26 51.0** | **-1.9** |
| XAN | | | | pmax | pmax | | | |
| | comp=Z,25nm,1.2s | | | | | | | |
| XAN | | | | pmax | pmax | | | |
| | comp=Z,110nm,3.7s | | | | | | | |
| XAN | | | | LR | LR | | | |
| | comp=Z,280nm,12.3s | | | | | | | |
| XAN | | | | LR | LR | | | |
| | comp=Z,390nm,13.2s | | | | | | | |
| XAN | | | | LR | LR | | | |
| | comp=Z,490nm,15.4s | | | | | | | |
| **QIZ** | **Qiongzhong** | **31.56** | **261** | P | | **P** | **11 20 46.5** | **-0.9** |
| QIZ | | | | S | | **S** | **11 25 53.5** | **-0.8** |
| **MA2** | **Magadan** | **31.85** | **8** | LR | | LR | 11 31 27.3 | |
| | comp=Z,81nm,20.4s,baz=188,slow=32 | | | | | | | |
| **GYA** | **Guiyang** | **32.18** | **276** | ⇑*i*P | | **P** | **11 20 51.3** | **-1.7** |
| GYA | | | | pP | | pP | 11 21 03.5 | +1.8 |
| GYA | | | | PP | | **PnPn** | **11 22 01.0** | **+1.7** |
| GYA | | | | PcP | | **PcP** | **11 23 43.8** | **+2.4** |
| GYA | | | | S | | **S** | **11 26 03.3** | **-0.8** |
| GYA | | | | sS | | sS | 11 26 18.5 | -0.1 |
| GYA | | | | ScP | | **ScP** | **11 27 22.5** | **-0.5** |
| GYA | | | | SS | | **SnSn** | **11 27 56.0** | **0.0** |
| GYA | | | | pmax | pmax | | | |
| | comp=Z,20nm,0.8s | | | | | | | |
| GYA | | | | pmax | pmax | | | |
| | comp=Z,130nm,5.0s | | | | | | | |
| GYA | | | | LR | LR | | | |
| | comp=Z,540nm,17.4s | | | | | | | |
| GYA | | | | LR | LR | | | |
| | comp=Z,500nm,17.8s | | | | | | | |
| GYA | | | | LR | LR | | | |
| | comp=Z,520nm,17.6s | | | | | | | |
| **LZH** | **Lanzhou** | **33.83** | **294** | *e*P | | **P** | **11 21 06.0** | **-1.4** |
| LZH | | | | pP | | pP | 11 21 17.5 | +1.3 |
| LZH | | | | sP | | sP | 11 21 22.0 | +2.2 |
| LZH | | | | PP | | **PP** | **11 22 22.5** | **-1.6** |
| LZH | | | | S | | **S** | **11 26 25.0** | **-4.8** |
| LZH | | | | sS | | sS | 11 26 46.0 | +1.7 |
| LZH | | | | SS | | **SnSn** | **11 28 37.0** | **+0.9** |
| LZH | | | | pmax | pmax | | | |
| | comp=Z,18nm,1.0s | | | | | | | |
| LZH | | | | pmax | pmax | | | |
| | comp=Z,160nm,4.6s | | | | | | | |
| LZH | | | | LR | LR | | | |
| | comp=Z,430nm,12.6s | | | | | | | |
| LZH | | | | LR | LR | | | |
| | comp=Z,600nm,11.5s | | | | | | | |
| LZH | | | | LR | LR | | | |
| | comp=Z,490nm,13.4s | | | | | | | |
| **ULN** | **Ulaanbaatar** | **33.99** | **315** | ⇓*i*P | | **P** | **11 21 09.3** | **+0.7** |
| ULN | | | | pmax | pmax | | | |
| | comp=Z,17nm,1.0s | | | | | | | |
| **ULN** | **Ulaanbaatar** | **33.99** | **315** | *e*P | | **P** | **11 21 08.7** | **0.0** |
| | comp=Z,32nm,1.4s | | | | | | | |
| **CD2** | **Chengdu** | **34.05** | **284** | ⇓*i*P | | **P** | **11 21 08.3** | **-0.9** |
| CD2 | | | | pP | | pP | 11 21 18.5 | +0.5 |
| CD2 | | | | S | | **S** | **11 26 27.8** | **-5.3** |
| CD2 | | | | SS | | **SnSn** | **11 28 39.8** | **-1.6** |
| CD2 | | | | pmax | pmax | | | |
| | comp=Z,90nm,1.3s | | | | | | | |
| CD2 | | | | pmax | pmax | | | |
| | comp=Z,140nm,6.0s | | | | | | | |
| CD2 | | | | LR | LR | | | |
| | comp=Z,730nm,15.5s | | | | | | | |
| CD2 | | | | LR | LR | | | |
| | comp=Z,770nm,14.3s | | | | | | | |
| CD2 | | | | LR | LR | | | |
| | comp=Z,540nm,13.1s | | | | | | | |
| **SONA1** | **Songino Array** | **34.39** | **315** | *e*P | | **P** | **11 21 11.2** | **-0.9** |
| **SONA0** | **Songino Array** | **34.40** | **315** | *e*P | | **P** | **11 21 11.4** | **-0.7** |
| **SONM** | **Songino Array** | **34.40** | **315** | P | | **P** | **11 21 11.4** | **-0.7** |
| | comp=Z,7.6nm,0.7s,baz=105,slow=7.3,SNR=36 | | | | | | | |
| SONM | | | | LR | | LR | 11 36 04.9 | |
| | comp=Z,414nm,18.1s,baz=124,slow=38 | | | | | | | |
| **YAK** | **Yakutsk** | **34.97** | **349** | *e*P | | **P** | **11 21 16.0** | **-0.6** |
| YAK | | | | *e* | | | 11 22 36.3 | |
| YAK | | | | *e*S | | **S** | **11 26 47.3** | **+1.0** |
| YAK | | | | *e*SS | | **SnSn** | **11 29 03.0** | **+0.4** |
| YAK | | | | *e* | | | 11 31 38.4 | |
| YAK | | | | pmax | pmax | | | |
| | comp=Z,18nm,1.1s | | | | | | | |
| YAK | | | | pmax | pmax | | | |
| | comp=E,3.0nm,1.1s | | | | | | | |
| YAK | | | | pmax | pmax | | | |
| | comp=N,7.0nm,1.2s | | | | | | | |
| YAK | | | | pmax | pmax | | | |
| | comp=Z,143nm,3.5s | | | | | | | |
| YAK | | | | pmax | pmax | | | |
| | comp=N,61nm,3.6s | | | | | | | |
| YAK | | | | pmax | pmax | | | |
| | comp=E,91nm,4.1s | | | | | | | |
| YAK | | | | smax | smax | | | |
| | comp=N,84nm,3.8s | | | | | | | |
| YAK | | | | smax | smax | | | |
| | comp=E,91nm,3.5s | | | | | | | |
| YAK | | | | MLR | MLR | | | |
| | comp=Z,281nm,21.0s | | | | | | | |
| YAK | | | | MLR | MLR | | | |
| | comp=N,336nm,17.0s | | | | | | | |
| YAK | | | | MLR | MLR | | | |
| | comp=E,73nm,14.0s | | | | | | | |
| **SEY** | **Seymchan** | **35.30** | **7** | P | | **P** | **11 21 19.5** | **0.0** |
| | comp=E,5.5nm,1.0s,baz=197,slow=10,SNR=6.2 | | | | | | | |
| **SEY** | **Seymchan** | **35.30** | **7** | ⇓*i*P | | **P** | **11 21 22.6** | **+3.1** |
| **BOD** | **Bodaibo** | **35.86** | **334** | *e*P | | **P** | **11 21 22.3** | **-2.1** |
| BOD | | | | pmax | pmax | | | |
| | comp=Z,12nm,1.9s | | | | | | | |
| **KMI** | **Kunming** | **35.92** | **275** | P | | **P** | **11 21 24.5** | **-1.1** |
| KMI | | | | pP | | pP | 11 21 33.5 | -0.9 |
| KMI | | | | pmax | pmax | | | |
| | comp=Z,34nm,1.4s | | | | | | | |
| KMI | | | | pmax | pmax | | | |
| | comp=Z,160nm,3.1s | | | | | | | |
| KMI | | | | LR | LR | | | |
| | comp=Z,270nm,13.1s | | | | | | | |
| KMI | | | | LR | LR | | | |
| | comp=Z,240nm,14.5s | | | | | | | |
| KMI | | | | LR | LR | | | |
| | comp=Z,250nm,13.8s | | | | | | | |
| **GTA** | **Gaotai** | **37.21** | **299** | ⇑P | | **P** | **11 21 34.0** | **-2.3** |
| GTA | | | | pP | | pP | 11 21 43.5 | -1.6 |
| GTA | | | | sP | | sP | 11 21 47.5 | -1.3 |
| GTA | | | | S | | **S** | **11 27 18.8** | **-2.6** |
| GTA | | | | sS | | sS | 11 27 34.5 | -1.5 |
| GTA | | | | SS | | **SnSn** | **11 29 49.8** | **-7.9** |
| GTA | | | | pmax | pmax | | | |
| | comp=Z,11nm,1.5s | | | | | | | |
| GTA | | | | pmax | pmax | | | |
| | comp=Z,230nm,5.0s | | | | | | | |
| GTA | | | | LR | LR | | | |
| | comp=Z,400nm,15.7s | | | | | | | |
| GTA | | | | LR | LR | | | |
| | comp=Z,320nm,16.6s | | | | | | | |
| GTA | | | | LR | LR | | | |
| | comp=Z,310nm,14.7s | | | | | | | |
| **ZAK** | **Zakamensk** | **37.23** | **318** | *e*P | | **P** | **11 21 35.9** | **-0.4** |
| ZAK | | | | pmax | pmax | | | |
| | comp=Z,27nm,1.2s | | | | | | | |
| **TLY** | **Talaya** | **37.52** | **320** | P | | **P** | **11 21 39.7** | **+1.1** |
| | comp=Z,13nm,0.7s,baz=138,slow=6.4,SNR=12 | | | | | | | |
| **TLY** | **Talaya** | **37.52** | **320** | *e*P | | **P** | **11 21 39.9** | **+1.2** |
| TLY | | | | *e* | | | 11 23 14.6 | |
| TLY | | | | *e*S | | **S** | **11 27 30.7** | **+5.1** |
| TLY | | | | pmax | pmax | | | |
| | comp=Z,43nm,1.1s | | | | | | | |
| TLY | | | | MLR | MLR | | | |
| | comp=Z,481nm,17.0s | | | | | | | |
| **TLY** | **Talaya** | **37.52** | **320** | *e*P | | **P** | **11 21 39.9** | **+1.2** |
| **MOY** | **Mondy** | **39.04** | **319** | *e*P | | **P** | **11 21 51.6** | **0.0** |
| MOY | | | | pmax | pmax | | | |
| | comp=Z,69nm,3.8s | | | | | | | |
| **CHTO** | **Chiang Mai** | **41.20** | **267** | *e*P | | **P** | **11 22 09.4** | **-0.3** |
| CHTO | | | | pmax | pmax | | | |
| | comp=Z,28nm,1.4s | | | | | | | |
| **CHTO** | **Chiang Mai** | **41.20** | **267** | *e*P | | **P** | **11 22 09.4** | **-0.3** |
| | comp=Z,28nm,1.4s | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **41.33** | **266** | P | | **P** | **11 22 10.2** | **-0.6** |
| | comp=Z,1.5nm,0.3s,baz=59,slow=7.8,SNR=15 | | | | | | | |
| CMAR | | | | LR | | LR | 11 39 23.8 | |
| | comp=Z,114nm,19.7s,baz=86,slow=36 | | | | | | | |
| **BILL** | **Bilibino** | **42.26** | **13** | *i* P | | **P** | **11 22 17.5** | **-0.2** |
| BILL | | | | *i* | | | 11 22 35.5 | |
| BILL | | | | *i* | | | 11 23 59.8 | |
| BILL | | | | *i* | | | 11 24 10.6 | |
| BILL | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,1.2s | | | | | | | |
| BILL | | | | MLR | MLR | | | |
| | comp=Z,205nm,19.0s | | | | | | | |
| **HVS** | **Khovu-Aksy** | **43.27** | **316** | ⇓P | | **P** | **11 22 26.7** | **+0.4** |
| HVS | | | | *i* *PP | | **pP** | **11 22 35.9** | **+0.7** |
| HVS | | | | *e**SP | | **sP** | **11 22 40.6** | **+1.8** |
| HVS | | | | pmax | pmax | | | |
| | comp=Z,43nm,1.2s | | | | | | | |
| **TIXI** | **Tiksi** | **44.20** | **354** | *e*P | | **P** | **11 22 35.3** | **+2.0** |
| TIXI | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,1.0s | | | | | | | |
| **WMQ** | **Urumqi** | **46.48** | **305** | P | | **P** | **11 22 51.0** | **-0.9** |
| WMQ | | | | pP | | sP | 11 23 05.0 | +0.5 |
| WMQ | | | | sP | | pP | 11 23 09.8 | +8.9 |
| WMQ | | | | S | | **S** | **11 29 40.0** | **+1.8** |
| WMQ | | | | pmax | pmax | | | |
| | comp=Z,42nm,1.5s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=Z,340nm,29.1s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=Z,370nm,20.1s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=Z,360nm,18.3s | | | | | | | |
| **DGZ** | **Jazzator, Alta** | **46.99** | **313** | *d i*P | | **P** | **11 22 57.2** | **+1.3** |
| DGZ | | | | pmax | pmax | | | |
| | comp=Z,18nm,1.2s | | | | | | | |
| **WRAB** | **Tennant Creek** | **48.54** | **191** | *d i*P | | **P** | **11 23 07.1** | **-0.9** |
| WRAB | | | | pmax | pmax | | | |
| | comp=Z,35nm,1.0s | | | | | | | |
| **WRAB** | **Tennant Creek** | **48.54** | **191** | *e*P | | **P** | **11 23 07.0** | **-1.0** |
| | comp=Z,41nm,1.0s | | | | | | | |
| **WB2** | **Warramunga Arr** | **48.55** | **191** | *e*P | | **P** | **11 23 06.7** | **-1.4** |
| | comp=Z,40nm,1.0s | | | | | | | |
| **WR1** | **Warramunga Arr** | **48.55** | **191** | *e*P | | **P** | **11 23 06.7** | **-1.5** |
| | comp=Z,39nm,0.9s | | | | | | | |
| WR1 | | | | *e*S | | **S** | **11 30 06.1** | **-1.7** |
| **WRA** | **Warramunga Arr** | **48.55** | **191** | P | | **P** | **11 23 06.7** | **-1.5** |
| | comp=Z,13nm,0.5s,baz=12,slow=8.3,SNR=141 | | | | | | | |
| WRA | | | | S | | **S** | **11 30 06.1** | **-1.7** |
| | comp=Z,4.0nm,1.2s,baz=10.0,slow=14,SNR=6.0 | | | | | | | |
| WRA | | | | LR | | LR | 11 42 15.9 | |
| | comp=Z,182nm,21.5s,baz=45,slow=34 | | | | | | | |
| **ZAA0** | **Zalesovo Array** | **49.10** | **318** | *e*P | | **P** | **11 23 11.9** | **0.0** |
| | comp=Z,10.0nm,0.9s | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **49.10** | **318** | P | | **P** | **11 23 11.9** | **-0.1** |
| | comp=Z,3.7nm,0.6s,baz=101,slow=7.5,SNR=17 | | | | | | | |
| ZALV | | | | PcP | | **PcP** | **11 24 35.0** | **-0.1** |
| | comp=Z,3.8nm,0.6s,baz=104,slow=3.0,SNR=6.6 | | | | | | | |
| ZALV | | | | LR | | LR | 11 44 53.0 | |
| | comp=Z,303nm,18.6s,baz=70,slow=37 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **49.10** | **318** | *e*P | | **P** | **11 23 11.3** | **-0.7** |
| **ZALV** | **Zalesovo Beam** | **49.10** | **318** | *e*P | | **P** | **11 23 11.3** | **-0.7** |
| **ZAA1** | **Zalesovo Array** | **49.10** | **318** | *e*P | | **P** | **11 23 11.9** | **-0.1** |
| ZAA1 | | | | *e*PcP | | **PcP** | **11 24 35.0** | **-0.2** |
| **RAMN** | **Ramite** | **49.55** | **283** | *e*P | | **P** | **11 23 15.4** | **-0.7** |
| | comp=Z,18nm,0.8s | | | | | | | |
| **JIRN** | **Jiri** | **49.72** | **284** | *e*P | | **P** | **11 23 16.9** | **-0.6** |
| | comp=Z,53nm,0.7s | | | | | | | |
| **GUN** | **Gumba** | **49.92** | **284** | *e*P | | **P** | **11 23 18.7** | **-0.3** |
| | comp=Z,40nm,0.9s | | | | | | | |
| **NVS** | **Novosibirsk** | **50.13** | **319** | *e*P | | **P** | **11 23 21.2** | **+1.4** |
| NVS | | | | pmax | pmax | | | |
| | comp=Z,34nm,1.8s | | | | | | | |
| NVS | | | | pmax | pmax | | | |
| | comp=E,22nm,1.5s | | | | | | | |
| **MK01** | **Makanchi Array** | **50.28** | **309** | *e*P | | **P** | **11 23 20.6** | **-0.5** |
| **MK31** | **Makanchi Array** | **50.29** | **309** | *i* P | | **P** | **11 23 20.6** | **-0.6** |
| MK31 | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,0.8s | | | | | | | |
| **MK31** | **Makanchi Array** | **50.29** | **309** | *e*P | | **P** | **11 23 20.9** | **-0.4** |
| **MK32** | **Makanchi Array** | **50.29** | **309** | *e*P | | **P** | **11 23 20.7** | **-0.5** |
| **MKAR** | **

comp=Z,8.3nm,0.5s
**MAKZ Makanchi 50.51 309 eP P 11 23 22.3 -0.5**
MAKZ pmax pmax
comp=Z,26nm,1.5s
**MAKZ Makanchi 50.51 309 eP P 11 23 22.3 -0.5**
comp=Z,26nm,1.5s
**DMN Daman 50.66 284 eP P 11 23 23.8 -0.7**
comp=Z,9.8nm,0.5s
**KOLN Koldanda 51.91 284 eP P 11 23 33.2 -0.6**
comp=Z,46nm,1.2s
**AS01 Alice Springs 52.27 190 eP P 11 23 33.7 -2.5**
**AS31 Alice Springs 52.27 190 eP P 11 23 35.7 -0.5**
comp=Z,3.0nm,1.1s
**ASAR Alice Springs 52.27 190 P P 11 23 34.1 -2.2**
comp=Z,1.2nm,0.6s,baz=6.0,slow=5.6,SNR=37
ASAR LR LR 11 44 10.3
comp=Z,264nm,21.8s,baz=10.0,slow=34
**PYUN Piuthan 52.34 285 eP P 11 23 36.6 -0.5**
comp=Z,35nm,0.7s
**KURK Kurchatov 52.69 314** *c iP P 11 23 38.9 -0.2*
KURK pmax pmax
comp=Z,49nm,1.2s
**KURK Kurchatov 52.69 314 eP P 11 23 38.8 -0.2**
comp=Z,54nm,1.1s
**KDAK Kodiak Island 53.11 37** *i* P P 11 23 42.8 +0.8
**KIP Kipapa 53.61 83**⇑ *eP P 11 23 47.8 +1.6*
KIP *i* *PP pP 11 23 56.5 +1.2
**IM3 Indian Mountai 53.79 27 eP P 11 23 47.6 +0.8**
**PPLA Purkeypile 53.90 31 eP P 11 23 50.1 +2.1**
comp=Z,48nm,1.4s
**BPAW Bear Paw Mtn. 54.61 30 eP P 11 23 54.9 +1.9**
comp=Z,17nm,1.2s
**TRF Thorofare Moun 54.83 30 eP P 11 23 55.3 +0.6**
comp=Z,19nm,1.1s
**MLY Manley 54.85 28 eP P 11 23 56.0 +1.3**
comp=Z,27nm,1.4s
**DZM Mont Dzumac 54.88 153 eLR LR** 11 39 53.7
comp=Z,290nm,23.9s
**PMR Palmer 55.18 33 eP P 11 23 57.9 +0.9**
PMR pmax pmax
comp=Z,69nm,1.7s
**PMR Palmer 55.18 33 eP P 11 23 57.9 +0.9**
comp=Z,69nm,1.7s
**COLD Coldfoot 55.41 26 eP P 11 24 00.8 +2.2**
comp=Z,14nm,1.4s
**MCK McKinley 55.47 30 eP P 11 23 59.0 -0.1**
MCK pmax pmax
comp=Z,42nm,1.3s
**MCK McKinley 55.47 30 eP P 11 23 59.0 -0.1**
comp=Z,42nm,1.3s
**RND Reindeer 55.47 30 eP P 11 23 58.8 -0.4**
RND pmax pmax
comp=Z,27nm,1.2s
**RND Reindeer 55.47 30 eP P 11 23 58.8 -0.4**
comp=Z,27nm,1.2s
**SML Sawmill 55.57 32 eP P 11 24 00.5 +0.5**
SML pmax pmax
comp=Z,44nm,1.2s
**SML Sawmill 55.57 32 eP P 11 24 00.5 +0.5**
comp=Z,44nm,1.2s
**KSH Kashi 55.58 300 P P 11 24 04.3 +3.8**
KSH pP sP 11 24 14.3 +1.1
KSH PcP **PcP 11 25 03.3 +3.3**
KSH PP **PP 11 26 10.5 +5.9**
KSH S **S 11 31 47.0 +2.6**
KSH ScS **ScS 11 33 47.0 -0.8**
KSH SS **SS 11 35 33.0 +3.6**
KSH pmax pmax
comp=Z,8.0nm,1.1s
KSH pmax pmax
comp=Z,220nm,5.5s
KSH LR LR
comp=Z,160nm,5.1s
KSH LR LR
comp=Z,99nm,10.4s
KSH LR LR
comp=Z,190nm,6.0s
**MDM Murphy Dome 55.90 29 eP P 11 24 03.1 +0.9**
comp=Z,32nm,1.4s
**SCM Sheep Creek Mo 56.05 32 eP P 11 24 03.6 +0.2**
SCM pmax pmax
comp=Z,40nm,1.0s
**SCM Sheep Creek Mo 56.05 32 eP P 11 24 03.6 +0.2**
comp=Z,40nm,1.0s
**FRU Bishkek 56.05 305** *i* P P 11 24 05.0 +1.3
FRU pmax pmax
comp=Z,160nm,2.8s
**AAK Ala-Archa 56.17 304**⇑ *iP P 11 24 05.8 +1.1*
AAK pmax pmax
comp=Z,5.0nm,1.3s
**AAK Ala-Archa 56.17 304 eP P 11 24 05.2 +0.5**
comp=Z,25nm,1.8s
**IL1 Eielson Array 56.45 29 eP P 11 24 05.5 -0.6**
**ILAR Eielson Array 56.45 29 P P 11 24 05.2 -0.9**
comp=Z,10nm,1.0s,baz=259,slow=5.2,SNR=35
**ILB Eielson Array 56.45 29 eP P 11 24 05.8 -0.4**
**PAX Paxson 56.97 31 eP P 11 24 10.2 +0.3**
PAX pmax pmax
comp=Z,30nm,1.2s
**PAX Paxson 56.97 31 eP P 11 24 10.2 +0.3**
comp=Z,30nm,1.2s
**FYU Fort Yukon 57.28 27 eP P 11 24 15.1 +3.2**
comp=Z,30nm,1.1s
**BVA0 Borovoye Array 57.69 317 P P 11 24 15.6 +0.5**
BVA0 pmax pmax
comp=Z,11nm,0.7s
**BRVK Borovoye 57.75 317 eP P 11 24 16.3 +0.8**
BRVK pmax pmax
comp=Z,36nm,1.5s
**BRVK Borovoye 57.75 317 eP P 11 24 16.3 +0.8**
comp=Z,36nm,1.5s
**KK31 Karatay Array 58.98 305** *i* P P 11 24 23.8 -0.5
KK31 pmax pmax
comp=Z,19nm,1.0s
**KKAR Karatay Array 58.98 305 eP P 11 24 24.3 0.0**
**KKAR Karatay Array 58.98 305 eP P 11 24 24.2 0.0**
**DAWY Dawson 59.69 30 eP P 11 24 29.8 +0.9**
comp=Z,21nm,1.4s
**STKA Stephens Creek 59.74 181 P P 11 24 28.6 -0.8**
comp=Z,1.4nm,0.5s,baz=353,slow=5.8,SNR=6.5
**STKA Stephens Creek 59.74 181 eP P 11 24 28.1 -1.3**
STKA pmax pmax
comp=Z,7.0nm,1.9s
**STKA Stephens Creek 59.74 181 eP P 11 24 28.1 -1.3**
comp=Z,6.8nm,1.9s
**DZET Dzherino 61.16 301 P P 11 24 39.4 0.0**
DZET pmax pmax
comp=Z,28nm,1.2s
**INK Inuvik 61.78 25 P P 11 24 43.5 +0.7**
comp=Z,8.4nm,1.1s,baz=311,slow=5.0,SNR=14
**INK Inuvik 61.78 25 eP P 11 24 43.6 +0.7**
comp=Z,13nm,1.1s
**SVE Sverdlovsk 62.76 322**⇑ *eP P 11 24 50.2 +0.5*
SVE pmax pmax
comp=Z,31nm,1.5s
**ARU Arti 63.97 322** *d iP P 11 24 57.6 -0.1*
ARU 11 25 32.9
ARU 11 27 15.6
ARU S **S 11 33 34.0 +2.5**
ARU SS **SS 11 37 40.7 +0.9**
ARU pmax pmax
comp=Z,16nm,1.0s
**ARU Arti 63.97 322 eP P 11 24 57.1 -0.6**
comp=Z,73nm,1.8s
**AB31 Akbulak array 64.80 314 P P 11 25 01.6 -1.7**
AB31 pmax pmax
comp=Z,5.0nm,0.7s
**ABKAR Akbulak array 64.80 314 eP P 11 25 03.1 -0.2**
comp=Z,55nm,0.6s
**AKTO Aktyubinsk 65.71 316 P P 11 25 08.3 -0.8**
AKTO pmax pmax
comp=Z,9.0nm,0.9s
**SPITS Spitsbergen Ar 69.43 350 LR LR** 12 00 59.9
comp=Z,65nm,18.1s,baz=110,slow=40
**GEYT Alibeck 69.46 303 P P 11 25 33.0 -0.1**
comp=Z,6.4nm,1.0s,baz=72,slow=4.8,SNR=11
GEYT LR LR 11 58 47.3
comp=Z,167nm,18.8s,baz=75,slow=38
**YKW3 Yellowknife Ar 70.85 29 eP P 11 25 41.4 +0.3**
comp=Z,13nm,1.2s
**YKA Yellowknife Ar 70.88 29 P P 11 25 40.8 -0.5**
comp=Z,4.3nm,0.8s,baz=293,slow=5.7,SNR=40
**APA Apatity 71.29 338**⇓ *iP P 11 25 44.3 +0.6*
APA pmax pmax
comp=Z,11nm,1.0s
APA MLR MLR
comp=Z,1μm,19.0s
**ARA0 ARCESS Array S 72.73 341 eP P 11 25 53.1 +0.8**
**ARCES ARCESS Array B 72.73 341 P P 11 25 53.1 +0.8**
comp=Z,4.4nm,0.9s,baz=39,slow=7.8,SNR=4.0
ARCES LR LR 11 59 29.0
comp=Z,77nm,22.0s,baz=80,slow=37
**TULEG Thule 73.69 7 eP P 11 25 57.7 -0.2**
comp=Z,31nm,1.5s
**I04A Tendick Farm, 74.22 49 P P 11 26 01.5 -0.1**
baz=294
**YBH Yreka Blue Hor 74.86 51 P P 11 26 06.6 +1.1**
comp=Z,5.4nm,1.0s,baz=273,slow=5.4,SNR=6.7
**YBH Yreka Blue Hor 74.86 51 eP P 11 26 06.5 +1.1**
YBH pmax pmax
comp=Z,35nm,1.9s
**YBH Yreka Blue Hor 74.86 51 eP P 11 26 06.5 +1.0**
comp=Z,35nm,1.9s
**VRH Novokhopyorsk 75.08 320 eP P 11 26 05.9 -0.5**
VRH pmax pmax
comp=Z,10.0nm,1.4s
**MOS Moscow 75.18 326 eP P 11 26 10.6 +3.8**
**J05D Fort Rock, OR 75.21 49 P P 11 26 08.1 +0.6**
baz=295
**M04C Macdoel 75.44 50 P P 11 26 09.3 +0.5**
baz=295
**NEW Newport 75.67 43 P P 11 26 10.5 +0.5**
baz=296
**NEW Newport 75.67 43 eP P 11 26 11.3 +1.4**
NEW pmax pmax
comp=Z,17nm,1.4s
**NEW Newport 75.67 43 eP P 11 26 11.3 +1.4**
comp=Z,17nm,1.4s
**E09A Wood Farm, Sta 75.82 45 eP P 11 26 12.3 +1.6**
comp=Z,14nm,1.2s
**G08A Pilot Rock 75.84 46 eP P 11 26 11.8 +0.7**
comp=Z,9.3nm,1.4s
**LPSR Galich'ya Gora 75.98 322 eP P 11 26 10.3 -1.2**
LPSR pmax pmax
comp=Z,10.0nm,1.3s
**OBN Obninsk 76.01 325** *i* P P **11 26 09.8 -1.8**
OBN *i* 11 26 21.7
OBN *i* 11 29 12.0
OBN pmax pmax
comp=Z,11nm,1.1s
OBN MLR MLR
comp=Z,214nm,18.0s
**O03D Paynes Creek 76.09 52 P P 11 26 13.0 +0.5**
baz=295
**VSR Storozhevoye 76.51 321 eP P 11 26 14.1 -0.4**
VSR pmax pmax
comp=Z,10.0nm,1.0s
**ORV Oroville 76.61 52 eP P 11 26 15.8 +0.4**
ORV pmax pmax
comp=Z,19nm,1.3s
**ORV Oroville 76.61 52 eP P 11 26 15.8 +0.4**
comp=Z,18nm,1.3s
**J08A Circle Bar Ran 77.00 48 eP P 11 26 18.5 +0.9**
comp=Z,14nm,1.2s
**BMO Blue Mountains 77.08 46 eP P 11 26 19.5 +1.4**
BMO pmax pmax
comp=Z,16nm,1.4s
**BMO Blue Mountains 77.08 46 eP P 11 26 19.5 +1.4**
comp=Z,16nm,1.4s
**AFDM Forest Hills D 77.24 53 eP P 11 26 20.1 +1.2**
comp=Z,12nm,1.3s
**FIA0 FINESS Array S 77.26 334 eP P 11 26 19.1 +0.5**
**FIA0 FINESS Array S 77.26 334 eP P 11 26 19.1 +0.5**
**FINES FINESS Array B 77.26 334 P P 11 26 19.1 +0.5**
comp=Z,2.6nm,0.7s,baz=90,slow=3.8,SNR=5.2
**BEKR Beckworth 77.27 52 eP P 11 26 19.6 +0.3**
comp=Z,16nm,1.1s
**WVOR Wild Horse Val 77.30 49 eP P 11 26 21.6 +2.2**
WVOR pmax pmax
comp=Z,17nm,1.4s
**WVOR Wild Horse Val 77.30 49 eP P 11 26 21.6 +2.2**
comp=Z,17nm,1.4s
**ZEI Tsey 77.51 312 eP P 11 26 19.8 -0.8**
ZEI pmax pmax
comp=Z,24nm,0.9s
**JTMT Jette 77.61 42 eP P 11 26 21.9 +1.0**
comp=Z,17nm,1.2s
**KBZ Khabaz 77.74 313 P P 11 26 22.2 +0.6**
comp=Z,12nm,1.1s,baz=66,slow=5.5,SNR=9.0
KBZ LR LR 12 03 44.1
comp=Z,162nm,18.5s,baz=58,slow=38
**KVAR Kislovodsk Arr 77.77 313 LR LR** 12 02 39.6
comp=Z,107nm,19.1s,baz=185,slow=37
**KIV Kislovodsk 77.77 313 eP P 11 26 24.0 +2.1**
KIV pmax pmax
comp=Z,25nm,1.1s
KIV MLR MLR
comp=Z,176nm,18.0s
**KIV Kislovodsk 77.77 313 eP P 11 26 23.3 +1.4**
comp=Z,31nm,1.1s
**PAHR Pah Rah Range 78.02 51 eP P 11 26 23.7 +0.3**
comp=Z,13nm,1.2s
PAHR epP **pP 11 26 32.4 -0.5**
**CMB Columbia Colle 78.06 53 eP P 11 26 23.7 +0.2**
CMB pmax pmax
comp=Z,18nm,1.2s
**CMB Columbia Colle 78.06 53 eP P 11 26 23.7 +0.2**
comp=Z,18nm,1.2s
**NEY Neytrino 78.08 313**⇓ *iP P 11 26 26.2 +2.5*
NEY pmax pmax
comp=Z,3.0nm,1.2s
**GNI Garni 78.14 309 LR LR** 12 03 22.0
comp=Z,89nm,18.0s,baz=48,slow=38
**PNTR Pine Nut 78.14 52 eP P 11 26 25.9 +1.7**
comp=Z,13nm,1.2s
**MSO Missoula 78.25 43 P P 11 26 24.6 0.0**
baz=299
**YERR Yerington 78.44 52 eP P 11 26 27.3 +1.5**
comp=Z,17nm,1.3s
**BMN Battle Mountai 79.16 50 eP P 11 26 31.8 +2.1**
BMN pmax pmax
comp=Z,18nm,1.4s
**BMN Battle Mountai 79.16 50 eP P 11 26 31.8 +2.1**
comp=Z,18nm,1.4s
**MDPB Devils Postpil 79.16 53 eP P 11 26 30.5 +0.5**
comp=Z,7.6nm,1.2s
**KVN Kaiserville 79.20 52 eP P 11 26 30.7 +0.7**
KVN pmax pmax
comp=Z,13nm,1.2s
**KVN Kaiserville 79.20 52 eP P 11 26 30.7 +0.7**
comp=Z,12nm,1.2s
**MLAC Mammoth, Mammo 79.34 53 P P 11 26 31.2 +0.3**
baz=297
**NV01 Mina Array Sit 79.34 52 eP P 11 26 31.2 +0.4**
**NVAR Mina Array Bea 79.34 52 P P 11 26 31.2 +0.3**
comp=Z,7.4nm,1.1s,baz=280,slow=5.3,SNR=26
NVAR LR LR 11 57 50.3
comp=Z,120nm,20.7s,baz=283,slow=33
**NV11 Mina Array Sit 79.44 52 eP P 11 26 31.2 -0.2**
comp=Z,1.6nm,1.6s
**PMOR Pomariorio Ree 79.50 113 eT T** 12 53 38.0
comp=Z,3.3nm,0.2s
**HLID Hailey 79.52 46 P P 11 26 31.7 0.0**
baz=299,SNR=6.3
**HLID Hailey 79.52 46 eP P 11 26 32.9 +1.2**
comp=Z,7.2nm,1.3s
**SMMC Simmler 79.56 56 P P 11 26 31.6 -0.3**
baz=297
**HRY Holter Researc 79.57 42 eP P 11 26 32.5 +0.7**
**PPT2 Papeete2 79.57 116 eLR LR** 11 51 18.3
comp=Z,183nm,26.5s
**LRM Limekiln Ridge 79.64 43 eP P 11 26 33.8 +1.4**
**PKM Mcpherson Peak 79.89 56 P P 11 26 34.0 +0.2**
baz=297
**VES Vestal, Richgr 79.98 55 P P 11 26 34.7 +0.7**
baz=298,SNR=5.4
**EGMT Eagleton 80.11 41 P P 11 26 34.9 +0.3**
baz=301
**CWC Cottonwood Cre 80.42 54 P P 11 26 36.7 +0.1**
baz=298
**FFC Flin Flon 80.48 32 eP P 11 26 36.5 +0.1**
FFC pmax pmax
comp=Z,15nm,1.3s
**FFC Flin Flon 80.48 32 eP P 11 26 36.5 +0.1**
comp=Z,16nm,1.3s
**ARVC Arvin 80.49 55 P P 11 26 36.5 -0.3**
baz=298
**ISA Isabella, Lake 80.50 55 P P 11 26 37.1 +0.1**
baz=298
**ISA Isabella, Lake 80.50 55 eP P 11 26 37.8 +0.8**
ISA pmax pmax
comp=Z,11nm,1.3s
**ISA Isabella, Lake 80.50 55 eP P 11 26 37.8 +0.8**
comp=Z,11nm,1.3s
**GRAC Grapevine Rang 80.67 53 P P 11 26 37.9 +0.1**
baz=298
**QLMT Earthquake Lak 80.76 44 eP P 11 26 40.4 +2.0**
**DAC Darwin (Calif) 80.84 54 eP P 11 26 38.6 -0.4**
DAC pmax pmax
comp=Z,6.0nm,1.1s
**DAC Darwin (Calif) 80.84 54 eP P 11 26 38.6 -0.4**
comp=Z,6.1nm,1.1s
**YHB Horse Butte 80.94 44 eP P 11 26 41.0 +1.7**
comp=Z,20nm,1.2s
**MPMC Manual Prospec 81.02 54 P P 11 26 40.2 +0.3**
baz=298,SNR=8.2
**YMR Madison River 81.13 44 eP P 11 26 41.0 +0.7**
comp=Z,17nm,1.2s
**YHH Holmes Hill 81.14 44 eP P 11 26 42.6 +2.1**
comp=Z,9.8nm,1.3s
**LRMC Laurel Mtn Rad 81.16 55 P P 11 26 40.9 +0.3**
baz=298,SNR=10.0
**EDW2 Edwards Air Fo 81.21 55 P P 11 26 41.4 +0.6**
baz=298,SNR=8.6
**DECC Green Verdugo 81.26 56 P P 11 26 41.2 +0.1**
baz=298
**R11A Troy Canyon, C 81.26 51 P P 11 26 41.4 +0.3**
baz=299,SNR=16
**R11A Troy Canyon, C 81.26 51 eP P 11 26 41.6 +0.4**
comp=Z,12nm,1.2s
**FURC Furnace Creek, 81.27 53 P P 11 26 41.4 +0.5**
baz=299,SNR=7.4
**YNR Norris Junctio 81.28 44 eP P 11 26 44.8 +3.6**
comp=Z,22nm,1.5s
**YFT Old Faithful 81.32 44 eP P 11 26 44.3 +2.9**
comp=Z,14nm,1.3s
**HVU Hansel Valley 81.45 47 eP P 11 26 43.2 +1.1**
HVU pmax pmax
comp=Z,9.0nm,1.2s
**HVU Hansel Valley 81.45 47 eP P 11 26 43.2 +1.1**
comp=Z,8.9nm,1.2s
**TPNV Topopah Spring 81.48 53 P P 11 26 42.6 +0.2**
baz=299,SNR=10
**TPNV Topopah Spring 81.48 53 eP P 11 26 42.5 +0.2**
TPNV pmax pmax
comp=Z,11nm,1.1s
**TPNV Topopah Spring 81.48 53 eP P 11 26 42.5 +0.2**
comp=Z,11nm,1.1s
**H17A Grant Village 81.51 44 P P 11 26 42.7 +0.3**
baz=301,SNR=8.4
**H17A Grant Village 81.51 44 eP P 11 26 45.6 +3.2**
comp=Z,19nm,1.2s
**BGU Big Grassy Mou 81.72 48 eP P 11 26 45.1 +1.7**
comp=Z,5.2nm,1.2s
**SPUT South Promonto 81.90 47 eP P 11 26 45.7 +1.3**
comp=Z,12nm,1.5s
**RLMT Red Lodge 81.92 43 P P 11 26 45.1 +0.5**
baz=302,SNR=7.8
**RLMT Red Lodge 81.92 43 eP P 11 26 44.2 -0.3**
comp=Z,11nm,1.1s
**SHOC Shoshone, Teco 81.96 54 P P 11 26 45.1 +0.5**
baz=299
**AHID Auburn Hatcher 82.02 46 eP P 11 26 44.9 -0.2**
comp=Z,9.7nm,1.0s
**AKASG Malin Array Be 82.12 324 P P 11 26 44.2 -1.0**
comp=Z,0.6nm,0.4s,baz=51,slow=5.9,SNR=7.8
AKASG LR LR 12 05 44.3
comp=Z,250nm,18.2s,baz=65,slow=38
**AKBB Malin Array Si 82.12 324 eP P 11 26 44.0 -1.2**
AKBB pmax pmax
comp=Z,42nm,2.0s
**AKBB Malin Array Si 82.12 324 eP P 11 26 44.0 -1.2**
comp=Z,42nm,2.0s
**DUG Dugway, Tooele 82.22 49 P P 11 26 46.2 0.0**
baz=300,SNR=15
**DUG Dugway, Tooele 82.22 49 eP P 11 26 46.1 0.0**
DUG pmax pmax
comp=Z,13nm,1.0s
**DUG Dugway, Tooele 82.22 49 eP P 11 26 46.1 0.0**
comp=Z,13nm,1.0s
**BBRC Big Bear Solar 82.29 55 P P 11 26 46.6 0.0**
baz=299
**MURC Murrieta 82.40 56 P P 11 26 47.5 +0.4**
baz=299
**HEC Hector,Ludlow 82.44 55 P P 11 26 47.3 0.0**
baz=299
**TUQ Turquoise Moun 82.44 54 P P 11 26 47.5 +0.2**
baz=299,SNR=9.1
**SHPR Sheep Range 82.46 53 eP P 11 26 47.5 +0.1**
comp=Z,6.2nm,1.2s
**TAOE Nuku Hiva Isla 82.80 104 eLR LR** 11 52 46.2
comp=Z,306nm,24.9s
**NLU North Lily Min 82.83 48 eP P 11 26 48.5 -0.9**
comp=Z,10.0nm,1.2s
**NOA NORSAR Array B 82.84 339 LR LR** 12 09 14.7
comp=Z,146nm,18.3s,baz=50,slow=40
**LAO LASA Array 82.86 40 P P 11 26 49.1 -0.1**
baz=304
**LAO LASA Array 82.86 40 eP P 11 26 50.3 +1.1**
comp=Z,13nm,1.0s
**JLU Jordanelle 82.91 48 eP P 11 26 50.6 +0.8**
comp=Z,21nm,1.4s
**PFO Pinyon Flats O 82.94 56 P P 11 26 49.7 -0.2**
baz=299,SNR=7.2
**PFO Pinyon Flats O 82.94 56 eP P 11 26 50.1 +0.2**
PFO pmax pmax
comp=Z,11nm,1.1s
**PFO Pinyon Flats O 82.94 56 eP P 11 26 50.1 +0.2**
comp=Z,12nm,1.1s
**XPFO Piæon Flat 82.94 56 eP P 11 26 50.2 +0.2**
comp=Z,12nm,1.1s
**TPFO Pinon Flats 82.94 56 P P 11 26 49.6 -0.3**
baz=299,SNR=8.4
**GMRC Granite Mounta 82.94 54 P P 11 26 50.0 0.0**
baz=299,SNR=11
**BW06 Boulder Array 82.99 45 P P 11 26 50.3 +0.1**
baz=302
**BW06 Boulder Array 82.99 45 eP P 11 26 51.3 +1.1**
comp=Z,9.5nm,1.4s
**PD31 Pinedale Array 82.99 45 eP P 11 26 51.5 +1.4**
**PDAR Pinedale Array 82.99 45 P P 11 26 50.7 +0.5**
comp=Z,2.7nm,1.0s,baz=270,slow=4.4,SNR=11
PDAR LR LR 11 59 31.7
comp=Z,131nm,21.2s,baz=316,slow=33
**PDAR Pinedale Array 82.99 45 eP P 11 26 49.9 -0.2**
**BELC Belle Mtn. Jos 83.08 55 P P 11 26 50.6 -0.1**
baz=299,SNR=5.3
**MPU Maple Canyon 83.09 48 eP P 11 26 50.5 -0.3**
comp=Z,7.7nm,1.1s
**CCUT Cedar City 83.19 51 eP P 11 26 52.0 +0.7**
comp=Z,7.6nm,1.2s
**LDFC Landfair 83.19 54 eP P 11 26 51.8 +0.6**
comp=Z,12nm,1.0s
**MONP2 Monument Peak 83.31 56 P P 11 26 51.4 -0.6**
baz=299
**SZCU Shurtz Canyon 83.35 51 eP P 11 26 53.5 +1.4**
comp=Z,13nm,1.4s
**LCMT Little Creek M 83.54 51 eP P 11 26 53.8 +0.8**
comp=Z,12nm,1.3s
**IRM Iron Mountain 83.62 55 P P 11 26 53.0 -0.4**
baz=300,SNR=5.3
**BC3 Big Chuckawall 83.65 55 P P 11 26 53.7 +0.1**
baz=300,SNR=5.8
**IKP In-Ko-Pah, Jac 83.66 56 P P 11 26 53.5 -0.1**
baz=299
**SWSC Sam W. Stewart 83.74 56 P P 11 26 54.0 +0.1**
baz=300
**P17A Butcher Ranch, 83.96 48 eP P 11 26 56.3 +1.1**
comp=Z,11nm,1.0s
**W13A Hualapai Mount 84.05 53 eP P 11 26 56.0 +0.2**
comp=Z,8.1nm,1.4s
**PDMCI Parker Dam,Lak 84.27 54 P P 11 26 57.0 +0.4**
baz=300
**Y12C Blythe 84.27 55 P P 11 26 56.8 +0.2**
baz=300
**SRU San Rafael Swe 84.30 49 eP P 11 26 56.9 0.0**
SRU pmax pmax
comp=Z,10.0nm,1.1s
**SRU San Rafael Swe 84.30 49 eP P 11 26 56.9 0.0**
comp=Z,9.5nm,1.1s
**GLA Glamis 84.40 56 P P 11 26 57.7 +0.3**
baz=300
**GLA Glamis 84.40 56 eP P 11 26 59.0 +1.6**
GLA pmax pmax
comp=Z,11nm,1.1s
**GLA Glamis 84.40 56 eP P 11 26 59.0 +1.6**
comp=Z,11nm,1.1s
**U15A North Rim 84.49 52 eP P 11 26 58.6 +0.6**
comp=Z,7.5nm,1.3s
**K22A Casper 84.93 44 P P 11 26 59.9 -0.1**
baz=304

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **O20A** | **White River Ci** | **85.24** | **47** | P | | **P** | **11 27 01.9 +0.2** |
| | baz=303 | | | | | | |
| **O20A** | **White River Ci** | **85.24** | **47** | *e*P | | **P** | **11 27 02.8 +1.2** |
| | comp=Z,25nm,1.4s | | | | | | |
| **Y14A** | **Wickenburg** | **85.27** | **54** | *e*P | | **P** | **11 27 02.6 +0.9** |
| | comp=Z,54nm,1.1s | | | | | | |
| **RAYN** | **Ar Rayn** | **85.30** | **294** | *e*P | | **P** | **11 27 02.5 +0.5** |
| | comp=Z,53nm,1.4s | | | | | | |
| **PV09** | **Paradox Valley** | **85.54** | **48** | *e*P | | **P** | **11 27 04.2 +0.9** |
| **RSSD** | **Black Hills** | **85.58** | **42** | P | | **P** | **11 27 03.3 0.0** |
| | baz=306 | | | | | | |
| **RSSD** | **Black Hills** | **85.58** | **42** | *e*P | | **P** | **11 27 04.7 +1.4** |
| RSSD | | | | | pmax | pmax | |
| | comp=Z,20nm,1.6s | | | | | | |
| **RSSD** | **Black Hills** | **85.58** | **42** | *e*P | | **P** | **11 27 04.7 +1.4** |
| | comp=Z,20nm,1.6s | | | | | | |
| **WUAZ** | **Wupatki** | **85.60** | **52** | P | | **P** | **11 27 03.8 +0.3** |
| | baz=302 | | | | | | |
| **WUAZ** | **Wupatki** | **85.60** | **52** | *e*P | | **P** | **11 27 04.4 +0.9** |
| | comp=Z,16nm,1.2s | | | | | | |
| **PV10** | **Paradox Valley** | **85.67** | **49** | *e*P | | **P** | **11 27 04.5 +0.6** |
| **BR101** | **Keskin Array S** | **85.74** | **313** | *e*P | | **P** | **11 27 04.4 +0.3** |
| **BRTR** | **Keskin Array B** | **85.74** | **313** | P | | **P** | **11 27 04.4 +0.3** |
| | comp=Z,2.2nm,0.7s,baz=84,slow=2.4,SNR=13 | | | | | | |
| BRTR | | | | | LR | LR | 12 09 29.8 |
| | comp=Z,49nm,18.8s,baz=36,slow=39 | | | | | | |
| **BRTR** | **Keskin Array B** | **85.74** | **313** | *ce*P | | **P** | **11 27 05.0 +1.0** |
| BRTR | | | | | pmax | pmax | |
| | comp=Z,2.0nm,0.7s | | | | | | |
| **PV05** | **Paradox Valley** | **85.79** | **49** | *e*P | | **P** | **11 27 04.9 +0.5** |
| **PV01** | **Paradox Valley** | **86.11** | **49** | *e*P | | **P** | **11 27 06.2 +0.2** |
| **X16A** | **Lo Mia Camp, P** | **86.13** | **53** | *e*P | | **P** | **11 27 06.8 +0.7** |
| | comp=Z,5.4nm,1.1s | | | | | | |
| **ULM** | **Lac du Bonnet** | **86.19** | **33** | LR | | LR | 12 06 42.5 |
| | comp=Z,94nm,19.4s,baz=319,slow=36 | | | | | | |
| **BR231** | **Keskin MP Arra** | **86.23** | **314** | *e*P | | **P** | **11 27 05.9 -0.6** |
| **N23A** | **Red Feather La** | **86.27** | **45** | P | | **P** | **11 27 07.1 +0.3** |
| | baz=304 | | | | | | |
| **N23A** | **Red Feather La** | **86.27** | **45** | *e*P | | **P** | **11 27 08.8 +1.9** |
| | comp=Z,25nm,1.2s | | | | | | |
| **214A** | **Organ Pipe Nat** | **86.42** | **56** | P | | **P** | **11 27 07.6 +0.1** |
| | baz=301 | | | | | | |
| **MVCO** | **Mesa Verde** | **86.66** | **49** | P | | **P** | **11 27 08.6 -0.2** |
| | baz=303 | | | | | | |
| **C31A** | **Landman Farms,** | **86.84** | **36** | P | | **P** | **11 27 09.5 +0.4** |
| | baz=310 | | | | | | |
| **B32A** | **Ashes, Strandq** | **87.07** | **35** | P | | **P** | **11 27 10.7 +0.5** |
| | baz=310 | | | | | | |
| **ISCO** | **Idaho Springs** | **87.10** | **46** | P | | **P** | **11 27 11.0 +0.1** |
| | baz=305 | | | | | | |
| **AGMN** | **Agassiz Nation** | **87.47** | **35** | P | | **P** | **11 27 12.6 +0.4** |
| | baz=311 | | | | | | |
| **S22A** | **4UR Ranch, Cre** | **87.47** | **48** | P | | **P** | **11 27 12.9 +0.1** |
| | baz=304 | | | | | | |
| **S22A** | **4UR Ranch, Cre** | **87.47** | **48** | *e*P | | **P** | **11 27 14.6 +1.8** |
| | comp=Z,12nm,1.4s | | | | | | |
| **TUC** | **Tucson** | **87.70** | **54** | P | | **P** | **11 27 13.3 -0.5** |
| | baz=302 | | | | | | |
| **TUC** | **Tucson** | **87.70** | **54** | *e*P | | **P** | **11 27 15.6 +1.9** |
| TUC | | | | | pmax | pmax | |
| | comp=Z,6.0nm,1.3s | | | | | | |
| **TUC** | **Tucson** | **87.70** | **54** | *e*P | | **P** | **11 27 15.6 +1.9** |
| | comp=Z,5.8nm,1.3s | | | | | | |
| **F31A** | **Hecla** | **87.79** | **38** | P | | **P** | **11 27 13.8 0.0** |
| | baz=309 | | | | | | |
| **SDCO** | **Great Sand Dun** | **88.34** | **48** | P | | **P** | **11 27 16.1 -0.9** |
| | baz=305 | | | | | | |
| **VYHS** | **Vyhne** | **88.75** | **327** | *e*P | | **P** | **11 27 18.4 +0.1** |
| **VYHS** | **Vyhne** | **88.75** | **327** | *e*P | | **P** | **11 27 18.4 +0.1** |
| **ANMO** | **Albuquerque** | **89.29** | **50** | P | | **P** | **11 27 21.2 -0.1** |
| | baz=304 | | | | | | |
| **ANMO** | **Albuquerque** | **89.29** | **50** | ⇑*e*P | | **P** | **11 27 23.5 +2.2** |
| ANMO | | | | | pmax | pmax | |
| | comp=Z,5.0nm,2.5s | | | | | | |
| **ANMO** | **Albuquerque** | **89.29** | **50** | *e*P | | **P** | **11 27 23.6 +2.3** |
| | comp=Z,3.6nm,1.3s | | | | | | |
| **H33A** | **Prehn Over Nor** | **89.36** | **38** | P | | **P** | **11 27 21.3 0.0** |
| | baz=310 | | | | | | |
| **CLL** | **Collm** | **89.41** | **331** | *e*P | | **P** | **11 27 23.0 +1.7** |
| CLL | | | | *es*P | | **pP** | **11 27 32.0 +1.1** |
| **121A** | **Cookes Peak, D** | **89.72** | **53** | P | | **P** | **11 27 23.0 -0.3** |
| | baz=304 | | | | | | |
| **ECSD** | **EROS Data Cent** | **90.05** | **39** | P | | **P** | **11 27 23.8 -0.6** |
| | baz=311 | | | | | | |
| **KHC** | **Kasperske Hory** | **90.76** | **329** | *e*P | | **P** | **11 27 27.9 +0.2** |
| KHC | | | | *ep*P | | **pP** | **11 27 34.5 -2.8** |
| **KHC** | **Kasperske Hory** | **90.76** | **329** | *e*P | | **P** | **11 27 27.9 +0.2** |
| KHC | | | | *e* | | | 11 27 34.5 |
| **GEC2** | **GERESS Array S** | **90.91** | **329** | *e*P | | **P** | **11 27 29.1 +0.6** |
| GEC2 | | | | | pmax | pmax | |
| | comp=Z,17nm,1.8s | | | | | | |
| **GEC2** | **GERESS Array S** | **90.91** | **329** | *e*P | | **P** | **11 27 29.1 +0.6** |
| | comp=Z,17nm,1.8s | | | | | | |
| **GERES** | **GERESS Array B** | **90.91** | **329** | P | | **P** | **11 27 29.1 +0.6** |
| | comp=Z,0.5nm,0.7s,baz=20,slow=6.7,SNR=3.4 | | | | | | |
| GERES | | | | | LR | LR | 12 11 20.6 |
| | comp=Z,112nm,18.4s,baz=20,slow=38 | | | | | | |
| **MNTX** | **Cornudas Mount** | **91.87** | **52** | P | | **P** | **11 27 32.4 -0.7** |
| | baz=305 | | | | | | |
| **MNTX** | **Cornudas Mount** | **91.87** | **52** | *e*P | | **P** | **11 27 33.7 +0.5** |
| | comp=Z,12nm,1.6s | | | | | | |
| **AMTX** | **Amarillo** | **92.52** | **48** | P | | **P** | **11 27 36.3 +0.1** |
| | baz=307 | | | | | | |
| **AMTX** | **Amarillo** | **92.52** | **48** | *e*P | | **P** | **11 27 37.1 +0.9** |
| | comp=Z,9.2nm,1.0s | | | | | | |
| **Q35A** | **Mercer Eighty,** | **93.55** | **42** | P | | **P** | **11 27 40.0 -0.7** |
| | baz=311 | | | | | | |
| **T34A** | **McClaskey Farm** | **94.04** | **44** | P | | **P** | **11 27 42.5 -0.6** |
| | baz=310 | | | | | | |
| **L40A** | **Anamosa** | **94.10** | **37** | P | | **P** | **11 27 42.5 -0.7** |
| | baz=314 | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **94.44** | **53** | *e*P | | **P** | **11 27 45.8 +0.7** |
| **TXAR** | **Lajitas Array** | **94.44** | **53** | P | | **P** | **11 27 45.7 +0.5** |
| | comp=Z,1.8nm,0.8s,baz=315,slow=2.4,SNR=20 | | | | | | |
| TXAR | | | | | LR | LR | 12 07 08.3 |
| | comp=Z,60nm,19.6s,baz=0.0,slow=34 | | | | | | |
| **WMOK** | **Wichita Mounta** | **94.49** | **47** | P | | **P** | **11 27 45.2 0.0** |
| | baz=309 | | | | | | |
| **T36A** | **Boggs Farm, Ca** | **94.82** | **43** | P | | **P** | **11 27 47.0 +0.4** |
| | baz=311 | | | | | | |
| **S37A** | **Fort Scott** | **94.99** | **42** | P | | **P** | **11 27 46.5 -0.8** |
| | baz=312 | | | | | | |
| **P39B** | **Salisbury** | **95.03** | **40** | P | | **P** | **11 27 47.3 -0.2** |
| | baz=313 | | | | | | |
| **Q39A** | **Willow Grove F** | **95.21** | **40** | P | | **P** | **11 27 48.4 +0.1** |
| | baz=313 | | | | | | |
| **ABTX** | **Abilene, Hawle** | **95.24** | **49** | *e*P | | **P** | **11 27 50.7 +2.0** |
| | comp=Z,17nm,1.4s | | | | | | |
| **R39A** | **Chumby, Stover** | **95.67** | **41** | P | | **P** | **11 27 49.8 -0.7** |
| | baz=313 | | | | | | |
| **U37A** | **Salina** | **95.71** | **43** | P | | **P** | **11 27 50.8 +0.1** |
| | baz=311 | | | | | | |
| **X35A** | **Drake** | **95.86** | **46** | P | | **P** | **11 27 51.8 +0.4** |
| | baz=310 | | | | | | |
| **X36A** | **Centrahoma** | **96.14** | **46** | P | | **P** | **11 27 52.8 +0.1** |
| | baz=310 | | | | | | |
| **JCT** | **Junction City** | **96.44** | **51** | P | | **P** | **11 27 53.5 -0.7** |
| | baz=308 | | | | | | |
| **V38A** | **Canehill** | **96.50** | **43** | P | | **P** | **11 27 53.5 -0.8** |
| | baz=312 | | | | | | |
| **U39A** | **Green Forest** | **96.71** | **43** | P | | **P** | **11 27 54.3 -0.9** |
| | baz=312 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **124.34** | **312** | *e*PKPdf | | **PKPdf** | **11 33 25.1 +0.8** |
| **TORD** | **Torodi Ar. Bea** | **124.34** | **312** | PKP | | **PKPdf** | **11 33 25.1 +0.8** |
| | comp=Z,0.5nm,0.5s,baz=48,slow=2.1,SNR=2.8 | | | | | | |
| **PTGA** | **Pitinga** | **145.00** | **43** | PKPbc | | **PKPdf** | **11 34 02.5 -0.1** |
| | comp=Z,8.4nm,0.9s,baz=336,slow=4.5,SNR=7.3 | | | | | | |
| **PTGA** | **Pitinga** | **145.00** | **43** | *e*PKPbc | | **PKPdf** | **11 34 03.1 +0.5** |
| **SAML** | **Samuel** | **148.85** | **57** | *e*PKPdf | | **PKPdf** | **11 34 08.0 -1.0** |
| SAML | | | | *e*PKPbc | | **PKPbc** | **11 34 11.7 -1.2** |
| SAML | | | | *e*PKPab | | **PKPab** | **11 34 15.9 -1.0** |
| **MNMC** | **Minye Minye** | **148.97** | **80** | *e*PKPdf | | **PKPdf** | **11 34 07.9 -1.5** |
| MNMC | | | | *e*PKPbc | | **PKPbc** | **11 34 13.9 +0.4** |
| MNMC | | | | *e*PKPab | | **PKPab** | **11 34 17.5 0.0** |
| **LPAZ** | **La Paz** | **149.02** | **74** | PKPbc | | **PKPbc** | **11 34 15.1 +1.0** |
| | comp=Z,6.9nm,0.9s,baz=330,slow=3.8,SNR=11 | | | | | | |
| **LPAZ** | **La Paz** | **149.02** | **74** | *e*PKIKP | | **PKPdf** | **11 34 08.2 -1.8** |
| LPAZ | | | | *e* | | | 11 34 15.2 |
| **LPAZ** | **La Paz** | **149.02** | **74** | *e*PKPdf | | **PKPdf** | **11 34 08.2 -1.8** |
| LPAZ | | | | *e*PKPbc | | **PKPbc** | **11 34 11.2 -2.9** |
| LPAZ | | | | *e*PKPab | | **PKiKP** | **11 34 15.2 -0.2** |
| **PB11** | **IPOC Station P** | **149.16** | **81** | *e*PKPdf | | **PKPdf** | **11 34 11.3 +1.8** |
| PB11 | | | | *e*PKPbc | | **PKiKP** | **11 34 15.4 +0.4** |
| **PB01** | **IPOC Station P** | **149.76** | **84** | *e*PKPdf | | **PKPdf** | **11 34 08.8 -1.6** |
| PB01 | | | | *e*PKPbc | | **PKPbc** | **11 34 14.7 -0.4** |
| **PLCA** | **Paso Flores** | **149.88** | **123** | PKPbc | | **PKPbc** | **11 34 16.6 +1.8** |

comp=Z,4.0nm,0.9s,baz=282,slow=4.1,SNR=5.9

**OTT 27 11:28:33.3±0.3, 74.58N×74.66W, h18km, ML3.5/2, Baffin Bay Seismic Zone. 230km east from Dundas Harbour, Nu, Baffin Bay**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TULEG** | **Thule** | **2.45** | **34** | PN | Pn | 11 29 13.4 | +1.2 |
| TULEG | | | | SN | Sn | 11 29 41.0 | -0.6 |
| TULEG | | | | Trac | | 11 29 44.3 | |
| | comp=Z,4.8nm,0.1s | | | | | | |
| **KULLO** | **Kullorsuaq** | **4.65** | **82** | PN | Pn | 11 29 43.9 | +1.4 |
| KULLO | | | | SN | Sn | 11 30 32.9 | -2.8 |
| **RES** | **Resolute Bay** | **5.37** | **281** | PN | Pn | 11 29 52.0 | -0.4 |
| RES | | | | SN | Sn | 11 30 48.0 | -5.6 |
| RES | | | | Trac | | 11 31 05.2 | |
| | comp=Z,24nm,0.7s | | | | | | |
| **ILON** | **Igloolik, Nuna** | **5.69** | **206** | PN | Pn | 11 29 51.6 | -5.0 |
| ILON | | | | SN | Sn | 11 30 55.0 | -6.4 |
| ILON | | | | Trac | | 11 31 01.3 | |
| | comp=Z,601nm,3.5s | | | | | | |
| **EUNU** | **Eureka** | **6.06** | **340** | PN | Pn | 11 30 02.3 | +0.5 |
| EUNU | | | | SN | Sn | 11 31 06.2 | -4.3 |
| EUNU | | | | Trac | | 11 31 11.0 | |
| | comp=Z,51nm,2.0s | | | | | | |

*ISCJB **27** 11:35:24.1±0.8, 26.17S±0.04×69.3W±0.1, h140km±17km, Error ellipse: s-maj=19.5km s-min=5.2km az=168.9*
*SJA **27** 11:35:24.2±0.5, 26.21S×69.11W, h176km±26km, ML3.4, MW3.2*
*GUC **27** 11:35:25.2±0.4, 26.11S×69.18W, h96km±13km, ML3.1*
**ISC 27 11:35:23.2±1.9, 26.19S±0.04×69.4W±0.1, h163km±24km, n15, σ1§87/22, Northern Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CPCH** | **Copiapo** | **1.44** | **215** | *i* S | | **Sn** | **11 36 15.4 -1.0** |
| **CDCH** | **Caldera** | **1.54** | **235** | *e*S | | **Sn** | **11 36 18.4 +0.5** |
| **GO03** | **Copiap** | **1.58** | **207** | *e*P | | **Pn** | **11 35 55.6 +0.9** |
| GO03 | | | | *e*S | | **Sn** | **11 36 18.6 -0.4** |
| GO03 | | | | IAML | | 11 36 20.7 | |
| | comp=E,236nm,0.1s | | | | | | |
| **PB14** | **IPOC Station P** | **1.79** | **330** | *e*P | | **Pn** | **11 35 58.8 +1.5** |
| PB14 | | | | *e*S | | **Sn** | **11 36 23.3 -0.1** |
| **ANCH** | **Antofagasta** | **2.65** | **340** | *e*P | | **Pn** | **11 36 07.6 +0.8** |
| ANCH | | | | *e*S | | **Sn** | **11 36 30.2 -1.4** |
| **VCA** | **Vinchina** | **2.76** | **157** | *e*P | | **Pn** | **11 36 09.4 +1.1** |
| VCA | | | | *e*S | | **Sn** | **11 36 42.4 -0.9** |
| VCA | | | | IAML | | 11 36 45.0 | |
| | comp=E,64nm,0.4s | | | | | | |
| **PB10** | **IPOC Station P** | **2.85** | **339** | *e*P | | **Pn** | **11 36 10.3 +1.0** |
| PB10 | | | | *e*S | | **Sn** | **11 36 41.8 -3.3** |
| **LCO** | **Las Campanas** | **3.04** | **202** | *e*P | | **Pn** | **11 36 13.6 +1.8** |
| LCO | | | | *e*S | | **Sn** | **11 36 44.3 -5.3** |
| LCO | | | | IAML | | 11 36 45.0 | |
| | comp=N,45nm,1.0s | | | | | | |
| **AGUA** | **GUANDACOL** | **3.39** | **166** | *e*P | | **Pn** | **11 36 17.4 +1.4** |
| AGUA | | | | *e*S | | **Sn** | **11 36 56.7 -0.6** |
| **PB06** | **IPOC Station P** | **3.47** | **358** | *e*P | | **Pn** | **11 36 17.7 +0.5** |
| **PB09** | **IPOC Station P** | **4.37** | **2** | *e*P | | **Pn** | **11 36 29.7 +0.8** |
| **AMOG** | **MOGNA** | **4.80** | **170** | *e*P | | **Pn** | **11 36 35.2 +0.9** |
| **AUSP** | **Uspallata** | **6.02** | **180** | *e*P | | **Pn** | **11 36 52.8 +2.4** |
| **ACAN** | **Cantantal** | **6.37** | **163** | *e*P | | **Pn** | **11 36 55.6 +0.7** |
| **TCA** | **Tanti** | **6.65** | **142** | *e*P | | **Pn** | **11 36 58.1 -0.6** |
| TCA | | | | IAML | | 11 36 58.6 | |
| | comp=Z,7.7nm,0.2s | | | | | | |

*KRNET **27** 11:39:45.2±0.1, 39.00N×75.96E, mb3.0*
*NNC **27** 11:39:48.6±5.4, 39.16N×75.96E, h0km, mb3.5, mpv3.1, Error ellipse: s-maj=41.0km s-min=25.8km az=157.0*
**ISC 27 11:39:48.3±4.2, 39.0N±0.2×76.0E±0.1, h10km, n9, σ1§12/14, 13C-6D, Southern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SFK** | **Sufi-Kurgan** | **2.17** | **300** | ⇓*i*P | | **Pn** | **11 40 24.5 -0.2** |
| | baz=299 | | | | | | |
| SFK | | | | ⇓*i*S | | **Sn** | **11 40 53.3 +1.6** |
| | baz=299 | | | | | | |
| **SFK** | **Sufi-Kurgan** | **2.17** | **300** | ⇑Pn | | **Pn** | **11 40 24.0 -0.6** |
| | 11nm,0.3s | | | | | | |
| SFK | | | | ⇓Sn | | **Sn** | **11 40 53.7 +2.0** |
| | 112nm,0.5s | | | | | | |
| **NRN** | **Naryn** | **2.47** | **1** | ⇓*i*P | | **Pn** | **11 40 28.5 -0.4** |
| | baz=0.0 | | | | | | |
| NRN | | | | ⇓*i*S | | **Sn** | **11 40 59.8 +0.6** |
| | baz=0.0 | | | | | | |
| **ARSB** | **Arslanbob** | **3.28** | **317** | ⇑*e*P | | **Pn** | **11 40 39.6 -0.3** |
| | baz=316 | | | | | | |
| ARSB | | | | ⇑*i*S | | **Sn** | **11 41 20.1 +1.1** |
| | baz=316 | | | | | | |
| **AAK** | **Ala-Archa** | **3.83** | **344** | ⇓Pg | | Pn | 11 40 54.1 +6.6 |
| | 6.7nm,0.7s | | | | | | |
| AAK | | | | ⇑Lg | | Lg | 11 41 43.2 |
| | 12nm,0.7s | | | | | | |
| **TKM2** | **Tokmak 2** | **3.96** | **356** | ⇑Pn | | **Pn** | **11 40 49.8 +0.5** |
| | 3.7nm,0.6s | | | | | | |
| TKM2 | | | | ⇑Lg | | Lg | 11 41 46.3 |
| | 14nm,0.7s | | | | | | |
| **ARK** | **Arkit** | **4.16** | **314** | ⇑*i*P | | **Pn** | **11 40 51.6 -0.3** |
| | baz=314 | | | | | | |
| ARK | | | | ⇑*i*S | | **Sn** | **11 41 40.4 -0.3** |
| | baz=314 | | | | | | |
| **MNAS** | **Manas** | **4.39** | **324** | ⇑Pg | | **Pb** | **11 41 05.5 0.0** |
| | 2.7nm,0.6s | | | | | | |
| MNAS | | | | ⇑Lg | | Lg | 11 41 59.7 |
| | 4.9nm,0.7s | | | | | | |
| **KK31** | **Karatay Array** | **5.83** | **317** | ⇑Pg | | **Pb** | **11 41 29.7 -0.4** |
| | 0.2nm,0.3s,baz=133,slow=16,SNR=5.0 | | | | | | |
| KK31 | | | | ⇑Sn | | **Sn** | **11 42 19.7 -2.1** |
| | 0.7nm,0.4s,baz=133,slow=23 | | | | | | |
| KK31 | | | | ⇑Lg | | Lg | 11 42 48.2 |
| | 2.5nm,0.8s,baz=142,slow=30 | | | | | | |

*IDC **27** 11:51:32.5±1.4, 32.06S×178.21W, h0km, mb4.6/6, mb1 4.7/7, mb1mx4.3/29, mbtmp4.6/7, ML4.7/1, MS3.4/9, Ms1 3.4/9, ms1mx3.2/27, Error ellipse: s-maj=40.1km s-min=26.8km az=143.0*
*ISCJB **27** 11:51:34.5±0.7, 32.09S±0.04×178.6W±0.1, h10km, mb4.6/10, MS3.4/8, Error ellipse: s-maj=14.8km s-min=5.1km az=12.0*
*NEIC **27** 11:51:35.3±0.7, 31.87S×178.47W, h10km, mb4.8/3, Error ellipse: s-maj=20.5km s-min=13.0km az=121.0*
**ISC 27 11:51:36.7±0.8, 32.06S±0.07×178.5W±0.1, h10km, n67, σ2§22/49, mb4.6/10, MS3.5/7, 1C, South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **2.84** | **11** | *e*Pn | | **Pn** | 11 52 17.4 -4.8 |
| RAO | | | | *e*Sn | | **Sn** | **11 52 53.9 -2.6** |
| **MXZ** | **Matakaoa Point** | **6.08** | **204** | *e*PN | | **Pn** | **11 53 07.4 +0.8** |
| MXZ | | | | SN | | **Sn** | **11 53 18.8 +2.6** |
| **WMGZ** | **Waiomatatini S** | **6.27** | **203** | *e*PN | | **Pn** | **11 53 10.3 +1.0** |
| **HAZ** | **Te Kaha** | **6.44** | **207** | *e*PN | | **Pn** | **11 53 12.7 +1.1** |
| **PKGZ** | **Pakihiroa** | **6.45** | **205** | *e*PN | | **Pn** | **11 53 12.7 +0.9** |
| **PUZ** | **Puketiti** | **6.55** | **203** | PN | | **Pn** | **11 53 12.8 -0.4** |
| PUZ | | | | *e*SN | | **Sn** | **11 54 28.0 0.0** |
| **RUGZ** | **Raukumara Rang** | **6.67** | **207** | *e*PN | | **Pn** | **11 53 15.7 +0.9** |
| **TWGZ** | **Tauwhareparae** | **6.74** | **204** | *e*PN | | **Pn** | **11 53 17.2 +1.4** |
| **CNGZ** | **Carnagh Statio** | **6.95** | **202** | *e*PN | | **Pn** | **11 53 18.3 -0.2** |
| **OPRZ** | **Ohinepanea** | **7.04** | **214** | *e*PN | | **Pn** | **11 53 22.6 +2.7** |
| **MWZ** | **Matawai** | **7.05** | **206** | *e*PN | | **Pn** | **11 53 19.6 -0.3** |
| MWZ | | | | *e*SN | | **Sn** | **11 54 40.9 +0.7** |
| **WCZ** | **Waipu Caves** | **7.07** | **235** | *e*PN | | Pn | 11 53 26.6 +6.3 |
| **URZ** | **Urewera** | **7.14** | **209** | Pn | | **Pn** | **11 53 21.2 -0.1** |
| | 11nm,0.3s,baz=286,slow=2.0,SNR=73 | | | | | | |
| URZ | | | | Sn | | **Sn** | **11 54 43.1 +0.6** |
| | 13nm,0.3s,baz=14,slow=22,SNR=9.6 | | | | | | |
| **URZ** | **Urewera** | **7.14** | **209** | *e*PN | | **Pn** | **11 53 21.2 -0.1** |
| URZ | | | | *e*SN | | **Sn** | **11 54 43.1 +0.6** |
| **OUZ** | **Omahuta** | **7.29** | **242** | *e*PN | | Pn | 11 53 29.4 +6.2 |
| **RIGZ** | **Rimuhau** | **7.29** | **204** | *e*PN | | **Pn** | **11 53 22.5 -0.8** |
| **MUGZ** | **Murupara** | **7.47** | **210** | *e*PN | | **Pn** | **11 53 24.8 -0.9** |
| MUGZ | | | | *e*SN | | **Sn** | **11 54 49.0 -1.5** |
| **SNGZ** | **Shannon Statio** | **7.51** | **206** | *e*PN | | **Pn** | **11 53 25.8 -0.5** |
| **KNZ** | **Kokohu** | **7.61** | **203** | *e*PN | | **Pn** | **11 53 25.8 -1.8** |
| **WHHZ** | **Waihua** | **7.81** | **205** | *e*PN | | **Pn** | **11 53 31.6 +1.2** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **MRHZ** | **Matea Rd** | **7.92** | **210** | *e*PN | | **Pn** | **11 53 32.0 +0.1** |
| **TLZ** | **Tolley Road** | **7.92** | **216** | *e*PN | | **Pn** | **11 53 36.1 +4.1** |
| **BKZ** | **Black Stump Fm** | **8.17** | **208** | *e*PN | | **Pn** | **11 53 34.1 -1.2** |
| BKZ | | | | *e*SN | | **Sn** | **11 55 05.6 -2.2** |
| **PXZ** | **Pawanui** | **8.79** | **204** | *e*PN | | **Pn** | **11 53 41.3 -2.4** |
| PXZ | | | | *e*SN | | **Sn** | **11 55 19.8 -3.1** |
| **TSZ** | **Takapari Road** | **9.14** | **208** | *e*PN | | **Pn** | **11 53 46.5 -2.3** |
| TSZ | | | | SN | | **Sn** | **11 55 27.0 -4.7** |
| **WAZ** | **Wanganui** | **9.31** | **213** | *e*PN | | **Pn** | **11 53 52.1 +1.2** |
| **BFZ** | **Birch Farm** | **9.58** | **205** | *e*PN | | Pn | 11 53 51.6 -3.1 |
| BFZ | | | | *e*SN | | **Sn** | **11 55 36.1 -6.3** |
| **MRZ** | **Mangatainoka R** | **9.81** | **207** | *e*PN | | Pn | 11 53 54.3 -3.6 |
| MRZ | | | | SN | | Sn | 11 55 39.8 -8.2 |
| **KIW** | **Kapiti Island** | **10.25** | **209** | *e*PN | | Pn | 11 54 00.7 -3.2 |
| **TCW** | **Tory Channel** | **10.81** | **210** | *e*PN | | Pn | 11 54 07.5 -3.9 |
| **NNZ** | **Nelson** | **11.21** | **213** | *e*PN | | Pn | 11 54 13.2 -3.8 |
| NNZ | | | | *e*SN | | Sn | 11 56 13.4 -9.0 |
| **QRZ** | **Quartz Range** | **11.33** | **217** | *e*PN | | Pn | 11 54 15.0 -3.6 |
| **CTZ** | **Chatham Island** | **11.76** | **173** | *e*PN | | **Pn** | **11 54 25.0 +0.6** |
| CTZ | | | | *e*SN | | Sn | 11 56 24.9 -11 |
| **THZ** | **Tophouse** | **11.86** | **213** | *e*PN | | Pn | 11 54 22.2 -3.8 |
| THZ | | | | *e*SN | | Sn | 11 56 29.5 -8.9 |
| **OXZ** | **Oxford** | **13.49** | **211** | *e*SN | | Sn | 11 57 03.8 -14 |
| **MQZ** | **McQueen's Vall** | **13.54** | **208** | *e*SN | | Sn | 11 57 04.8 -15 |
| **RPZ** | **Rata Peaks** | **14.24** | **212** | Pn | | Pn | 11 54 54.3 -4.0 |
| | 0.6nm,0.3s,baz=278,slow=2.2,SNR=4.1 | | | | | | |
| RPZ | | | | LR | | LR | 11 59 47.1 |
| | comp=Z,116nm,19.5s,baz=55,slow=34 | | | | | | |
| **DZM** | **Mont Dzumac** | **16.66** | **303** | *e*LR | | LR | 11 58 50.9 |
| | 618nm,26.4s | | | | | | |
| **RAR** | **Rarotonga** | **19.91** | **62** | LR | | LR | 12 01 38.5 |
| | comp=Z,128nm,21.0s,baz=269,slow=31 | | | | | | |
| **PAE** | **Paea** | **29.80** | **68** | *e*T | | T | 12 28 33.5 |
| | 6.7nm,0.3s | | | | | | |
| **PPT2** | **Papeete2** | **29.85** | **68** | *e*LR | | LR | 12 05 19.1 |
| | 176nm,29.0s | | | | | | |
| **PPT2** | **Papeete2** | **29.85** | **68** | *e*T | | T | 12 28 37.1 |
| | 6.1nm,0.3s | | | | | | |
| **PPT** | **Papeete** | **29.86** | **68** | LR | | LR | 12 08 52.0 |
| | comp=Z,52nm,18.6s,baz=333,slow=35 | | | | | | |
| **TVO** | **Taravao** | **30.00** | **69** | *e*T | | T | 12 28 48.9 |
| | 1.2nm,0.4s | | | | | | |
| **VAH** | **Vaihoa** | **32.73** | **66** | *e*T | | T | 12 32 08.0 |
| | 11nm,0.2s | | | | | | |
| **CTA** | **Charters Tower** | **33.66** | **282** | P | | **P** | **11 58 18.7 +0.8** |
| | 11nm,0.8s,baz=101,slow=10,SNR=11 | | | | | | |
| **STKA** | **Stephens Creek** | **33.70** | **259** | P | | **P** | **11 58 18.5 +0.4** |
| | 2.1nm,0.7s,baz=108,slow=9.8,SNR=6.5 | | | | | | |
| STKA | | | | LR | | LR | 12 09 39.6 |
| | comp=Z,93nm,19.8s,baz=43,slow=32 | | | | | | |
| **BBOO** | **Buckleboo** | **38.11** | **256** | *e*P | | **P** | **11 58 55.0 -0.9** |
| | 5.7nm,0.6s | | | | | | |
| **PMG** | **Port Moresby** | **38.94** | **298** | P | | P | 11 59 02.1 -0.9 |
| | 5.8nm,0.8s,baz=120,slow=4.6,SNR=6.0 | | | | | | |
| **RKT** | **Rikitea** | **39.40** | **88** | *e*LR | | LR | 12 10 01.2 |
| | 210nm,27.5s | | | | | | |
| **ASAR** | **Alice Springs** | **42.60** | **269** | P | | P | 11 59 31.9 -1.3 |
| | 6.3nm,0.7s,baz=103,slow=7.5,SNR=77 | | | | | | |
| ASAR | | | | LR | | LR | 12 16 35.9 |
| | comp=Z,80nm,18.3s,baz=130,slow=35 | | | | | | |
| **WRAB** | **Tennant Creek** | **43.73** | **274** | *e*P | | P | 11 59 40.8 -1.7 |
| | 7.9nm,0.6s | | | | | | |
| **WRA** | **Warramunga Arr** | **43.74** | **274** | P | | P | 11 59 40.9 -1.5 |
| | 6.6nm,0.3s,baz=112,slow=8.0,SNR=101 | | | | | | |
| WRA | | | | LR | | LR | 12 16 16.6 |
| | comp=Z,100nm,21.2s,baz=200,slow=34 | | | | | | |
| **VNDA** | **Vanda** | **46.41** | **186** | LR | | LR | 12 18 56.7 |
| | comp=Z,60nm,18.6s,baz=298,slow=35 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **51.93** | **271** | P | | **P** | **12 00 45.1 -0.8** |
| | 8.6nm,1.1s,baz=126,slow=8.9,SNR=4.4 | | | | | | |
| **QSPA** | **South Pole Qui** | **58.06** | **180** | *e*P | | **P** | **12 01 31.5 +1.7** |
| | 41nm,0.8s | | | | | | |
| **SYO** | **Syowa Base** | **75.40** | **193** | ⇑*i*P | | **P** | **12 03 18.4 -1.8** |
| **MJAR** | **Matsushiro Arr** | **79.35** | **326** | LR | | LR | 12 34 43.2 |
| | comp=Z,16nm,20.2s,baz=120,slow=33 | | | | | | |
| **KSRS** | **Korea Array** | **85.32** | **320** | LR | | LR | 12 39 29.7 |
| | comp=Z,6.0nm,20.5s,baz=90,slow=34 | | | | | | |
| **NVAR** | **Mina Array Bea** | **89.76** | **43** | P | | **P** | **12 04 35.7 +0.2** |
| | 1.3nm,0.9s,baz=219,slow=7.2,SNR=8.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **118.48** | **309** | PKP | | **PKPdf** | **12 10 21.3 -3.1** |
| | 0.7nm,0.9s,baz=34,slow=1.5,SNR=4.6 | | | | | | |
| **KBZ** | **Khabaz** | **145.63** | **302** | PKPbc | | **PKPdf** | **12 11 13.2 -1.9** |
| | 4.1nm,0.9s,baz=193,slow=6.5,SNR=4.3 | | | | | | |
| **FINES** | **FINESS Array B** | **146.53** | **339** | PKPbc | | **PKPdf** | **12 11 14.8 -1.3** |
| | 3.9nm,0.6s,baz=108,slow=2.4,SNR=12 | | | | | | |
| **NB2** | **NORSAR Subarra** | **150.31** | **350** | PKP | | **PKPdf** | **12 11 25.1 +2.8** |
| | comp=Z,1.8nm,0.8s,baz=20,slow=2.8 | | | | | | |
| **NOA** | **NORSAR Array B**

**WEL 27 12:25:06.8±0.2, 43.48S×172.78E, h7km±1km, ML3.6/23, 7C-6D, Error ellipse: s-maj=1.9km s-min=0.8km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRLZ** | **Canterbury Las** | **0.15** | **230** | ⇑PG | Pg | 12 25 10.3 | +0.4 |
| CRLZ | | | | SG | Sg | 12 25 12.6 | +0.6 |
| CRLZ | | | | AML | AML | 12 25 15.1 | |
| **MQZ** | **McQueen's Vall** | **0.24** | **202** | ⇓PG | Pg | 12 25 11.6 | 0.0 |
| MQZ | | | | SG | Sg | 12 25 15.1 | +0.2 |
| MQZ | | | | AML | AML | 12 25 15.4 | |
| **OXZ** | **Oxford** | **0.56** | **286** | ⇓P* | Pg | 12 25 17.9 | +0.3 |
| OXZ | | | | SG | Sg | 12 25 26.1 | -1.1 |
| OXZ | | | | AML | AML | 12 25 27.9 | |
| OXZ | | | | AML | AML | 12 25 28.4 | |
| OXZ | | | | AML | AML | 12 25 28.4 | |
| **LTZ** | **Lake Taylor** | **0.79** | **332** | P* | Pg | 12 25 22.5 | +0.4 |
| LTZ | | | | S* | Sg | 12 25 33.3 | -0.7 |
| **KHZ** | **Kahutara** | **1.20** | **28** | ⇑P* | Pg | 12 25 27.8 | -2.1 |
| KHZ | | | | AML | AML | 12 25 45.1 | |
| KHZ | | | | AML | AML | 12 25 45.1 | |
| KHZ | | | | AML | AML | 12 25 53.7 | |
| KHZ | | | | AML | AML | 12 25 53.8 | |
| **INZ** | **Inchbonnie** | **1.24** | **307** | ⇓P* | Pb | 12 25 29.1 | -1.4 |
| **RPZ** | **Rata Peaks** | **1.27** | **259** | ⇑P* | Pn | 12 25 29.4 | -1.7 |
| RPZ | | | | AML | AML | 12 25 48.7 | |
| RPZ | | | | AML | AML | 12 25 53.8 | |
| **WVZ** | **Waitaha Valley** | **1.54** | **285** | ⇓PN | Pn | 12 25 33.9 | -0.9 |
| WVZ | | | | AML | AML | 12 25 59.0 | |
| WVZ | | | | AML | AML | 12 26 06.1 | |
| **THZ** | **Tophouse** | **1.72** | **3** | PN | Pn | 12 25 35.7 | -1.6 |
| THZ | | | | AML | AML | 12 26 00.4 | |
| THZ | | | | AML | AML | 12 26 01.9 | |
| **DSZ** | **Denniston Nort** | **1.88** | **337** | ⇑PN | Pn | 12 25 38.6 | -0.9 |
| DSZ | | | | AML | AML | 12 26 03.5 | |
| DSZ | | | | AML | AML | 12 26 12.1 | |
| DSZ | | | | AML | AML | 12 26 15.8 | |
| **BSWZ** | **Blackbirch Sta** | **1.94** | **25** | PN | Pn | 12 25 38.8 | -1.5 |
| BSWZ | | | | AML | AML | 12 26 05.0 | |
| BSWZ | | | | AML | AML | 12 26 06.6 | |
| **LBZ** | **Lake Benmore** | **2.08** | **243** | PN | Pn | 12 25 41.1 | -1.1 |
| LBZ | | | | AML | AML | 12 26 19.6 | |
| LBZ | | | | AML | AML | 12 26 20.6 | |
| **FOZ** | **Fox Glacier** | **2.16** | **268** | PN | Pn | 12 25 43.2 | 0.0 |
| FOZ | | | | AML | AML | 12 26 11.3 | |
| FOZ | | | | AML | AML | 12 26 11.3 | |
| FOZ | | | | AML | AML | 12 26 25.6 | |
| FOZ | | | | AML | AML | 12 26 27.2 | |
| **ODZ** | **Otahua Downs** | **2.19** | **224** | PN | Pn | 12 25 42.1 | -1.6 |
| ODZ | | | | AML | AML | 12 26 19.0 | |
| ODZ | | | | AML | AML | 12 26 19.0 | |
| ODZ | | | | AML | AML | 12 26 27.2 | |
| ODZ | | | | AML | AML | 12 26 27.2 | |
| **TUWZ** | **Tuamarina** | **2.23** | **23** | PN | Pn | 12 25 42.4 | -1.8 |
| TUWZ | | | | AML | AML | 12 26 17.5 | |
| **NNZ** | **Nelson** | **2.31** | **11** | ⇑PN | Pn | 12 25 44.2 | -1.1 |
| **TCW** | **Tory Channel** | **2.53** | **27** | PN | Pn | 12 25 46.3 | -2.0 |
| **BHW** | **Baring Head** | **2.59** | **37** | PN | Pn | 12 25 46.9 | -2.2 |
| **PLWZ** | **Palliser** | **2.65** | **45** | PN | Pn | 12 25 47.2 | -2.8 |
| **QRZ** | **Quartz Range** | **2.66** | **356** | PN | Pn | 12 25 49.1 | -1.1 |
| QRZ | | | | AML | AML | 12 26 02.2 | |
| QRZ | | | | AML | AML | 12 26 02.2 | |
| QRZ | | | | AML | AML | 12 26 42.9 | |
| QRZ | | | | AML | AML | 12 26 43.0 | |
| **MSWZ** | **Moikau Station** | **2.76** | **42** | PN | Pn | 12 25 48.7 | -2.8 |
| MSWZ | | | | AML | AML | 12 26 21.6 | |
| **DUWZ** | **D'Urville Isla** | **2.81** | **18** | PN | Pn | 12 25 51.1 | -1.2 |
| DUWZ | | | | AML | AML | 12 26 45.7 | |
| **HHSZ** | **Highcliff Hill** | **2.86** | **212** | PN | Pn | 12 25 51.1 | -1.9 |
| **CAW** | **Cannon Point** | **2.92** | **36** | PN | Pn | 12 25 51.1 | -2.6 |
| CAW | | | | AML | AML | 12 26 25.5 | |
| CAW | | | | AML | AML | 12 26 31.3 | |
| **JCZ** | **Jackson Bay** | **2.95** | **257** | PN | Pn | 12 25 53.2 | -1.1 |
| JCZ | | | | AML | AML | 12 26 47.2 | |
| JCZ | | | | AML | AML | 12 26 54.6 | |
| **WKZ** | **Wanaka** | **3.02** | **242** | PN | Pn | 12 25 53.7 | -1.5 |
| **EAZ** | **Earnscleugh** | **3.04** | **234** | ⇑PN | Pn | 12 25 53.9 | -1.5 |
| EAZ | | | | AML | AML | 12 26 47.2 | |
| EAZ | | | | AML | AML | 12 26 48.6 | |
| **KIW** | **Kapiti Island** | **3.06** | **32** | PN | Pn | 12 25 53.4 | -2.3 |
| **MTW** | **Mount Morrison** | **3.08** | **42** | ⇓PN | Pn | 12 25 52.9 | -3.0 |
| **OGWZ** | **Otaki Gorge** | **3.20** | **35** | PN | Pn | 12 25 55.1 | -2.5 |
| OGWZ | | | | AML | AML | 12 26 36.6 | |
| OGWZ | | | | AML | AML | 12 26 37.5 | |
| **HOWZ** | **Holdsworth Sta** | **3.29** | **39** | PN | Pn | 12 25 56.2 | -2.6 |
| **TUZ** | **Tuapeka** | **3.34** | **221** | ⇑PN | Pn | 12 25 57.8 | -1.6 |
| TUZ | | | | AML | AML | 12 27 03.3 | |
| TUZ | | | | AML | AML | 12 27 03.3 | |
| TUZ | | | | AML | AML | 12 27 03.8 | |
| TUZ | | | | AML | AML | 12 27 10.0 | |
| **MRZ** | **Mangatainoka R** | **3.51** | **37** | PN | Pn | 12 25 59.0 | -2.8 |
| MRZ | | | | AML | AML | 12 26 42.4 | |
| **OHWZ** | **Ohakea** | **3.78** | **31** | PN | Pn | 12 26 04.3 | -1.2 |
| **BFZ** | **Birch Farm** | **3.81** | **44** | PN | Pn | 12 26 02.5 | -3.5 |
| **MLZ** | **Mavora Lakes** | **3.83** | **239** | PN | Pn | 12 26 04.4 | -1.9 |
| **SYZ** | **Scrubby Hill** | **4.00** | **219** | PN | Pn | 12 26 07.1 | -1.5 |
| **WAZ** | **Wanganui** | **4.08** | **25** | PN | Pn | 12 26 09.0 | -0.7 |
| **NMEZ** | **Namu Road** | **4.15** | **12** | PN | Pn | 12 26 11.1 | +0.5 |
| **WHZ** | **Wether Hill Ro** | **4.20** | **233** | PN | Pn | 12 26 08.7 | -2.7 |
| **NEZ** | **North Egmont** | **4.32** | **14** | PN | Pn | 12 26 12.7 | -0.3 |
| **DREZ** | **Durham Road** | **4.42** | **15** | PN | Pn | 12 26 13.9 | -0.4 |
| **DCZ** | **Deep Cove** | **4.49** | **242** | PN | Pn | 12 26 13.1 | -2.2 |
| **MTVZ** | **Mangateitei** | **4.57** | **27** | PN | Pn | 12 26 15.3 | -1.2 |
| **VRZ** | **Vera Road** | **4.60** | **20** | ⇓PN | Pn | 12 26 16.7 | -0.1 |
| **WNVZ** | **Wahianoa** | **4.66** | **28** | PN | Pn | 12 26 16.3 | -1.5 |
| **APZ** | **The Paps** | **4.76** | **224** | PN | Pn | 12 26 17.2 | -1.9 |
| **OTVZ** | **Oturere** | **4.83** | **28** | PN | Pn | 12 26 18.3 | -1.8 |
| **BKZ** | **Black Stump Fm** | **5.14** | **34** | PN | Pn | 12 26 21.5 | -2.8 |
| **HIZ** | **Hauiti** | **5.21** | **18** | PN | Pn | 12 26 23.8 | -1.4 |

*IDC **27** 12:29:01.9±2.4, 7.65S×146.89E, h136km±34km, mb3.2/3, mb1 3.2/4, mb1mx3.0/28, mbtmp3.5/4, Error ellipse: s-maj=61.3km s-min=33.9km az=107.0*

**ISC 27 12:28:52.3±1.8, 7.2S±0.1×146.7E±0.3, h32km, n6, σ1s82/7, Eastern New Guinea region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **2.23** | **168** | P | **Pb** | **12 29 33.6** | **+1.6** |
| | 24nm,0.3s,baz=47,slow=5.7,SNR=11.7 | | | | | | |
| PMG | | | | S | **Sb** | **12 29 57.8** | **-1.5** |
| | 23nm,0.3s,baz=193,slow=20,SNR=9.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **17.43** | **222** | P | **Pn** | **12 32 53.8** | **+0.5** |
| | 0.1nm,0.3s,baz=52,slow=11,SNR=4.6 | | | | | | |
| **ASAR** | **Alice Springs** | **20.46** | **215** | P | **P** | **12 33 26.5** | **-1.0** |
| | 0.4nm,0.5s,baz=33,slow=12,SNR=6.7 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **53.56** | **299** | P | **P** | **12 38 11.9** | **+1.3** |
| | 1.2nm,0.5s,baz=122,slow=5.6,SNR=8.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **78.23** | **321** | P | **P** | **12 40 48.7** | **-0.3** |
| | 0.7nm,0.8s,baz=107,slow=7.3,SNR=6.3 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **145.07** | **283** | PKPbc | **PKPbc** | **12 48 24.7** | **-2.4** |
| | 1.6nm,0.7s,baz=78,slow=3.6,SNR=7.3 | | | | | | |

*ISCJB **27** 12:43:43.6±0.5, 24.54N±0.05×122.82E±0.02, h73km±6km, Error ellipse: s-maj=8.4km s-min=3.0km az=175.0*
*JMA **27** 12:43:43.2±0.1, 24.44N×122.80E, h79km±1km, M2.0*
*TAP **27** 12:43:43.6, 24.61N×122.87E, h44km±1km, ML3.0, D*

**ISC 27 12:43:44.1±1.4, 24.54N±0.06×122.82E±0.03, h72km±9km, n32, σ0s75/56, Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JYNG** | **Yonagunijimaku** | **0.14** | **128** | P | **Pn** | **12 43 54.8** | **+0.1** |
| JYNG | | | | S | **Sn** | **12 44 03.2** | **+0.8** |
| **YOJ** | **Yonaguni jima** | **0.19** | **114** | P | **Pn** | **12 43 54.9** | **+0.1** |
| YOJ | | | | S | **Sn** | **12 44 03.1** | **+0.4** |
| **IRIF** | **Iriomote-Funau** | **0.85** | **104** | P | **Pn** | **12 44 00.6** | **-0.3** |
| IRIF | | | | *e*S | **Sn** | **12 44 13.7** | **+0.4** |
| **TWC** | **Suao** | **0.89** | **275** | P | **Pn** | **12 44 00.8** | **-0.5** |
| | baz=269 | | | | | | |
| TWC | | | | *e*S | **Sn** | **12 44 12.5** | **-1.5** |
| | baz=269 | | | | | | |
| **ENA** | **Nanau** | **0.99** | **264** | P | **Pn** | **12 44 02.7** | **+0.2** |
| | baz=259 | | | | | | |
| ENA | | | | S | **Sn** | **12 44 16.7** | **+0.5** |
| | baz=259 | | | | | | |
| **TWE** | **Neicheng** | **1.06** | **280** | P | **Pn** | **12 44 03.2** | **-0.2** |
| | baz=275 | | | | | | |
| TWE | | | | *e*S | **Sn** | **12 44 17.2** | **-0.7** |
| | baz=275 | | | | | | |
| **NWF** | **Wu-fen Shan** | **1.08** | **299** | *e*P | **Pn** | **12 44 03.4** | **-0.4** |
| | baz=294 | | | | | | |
| NWF | | | | *e*S | **Sn** | **12 44 18.0** | **-0.5** |
| | baz=294 | | | | | | |
| **JKRS** | **Kuro-shima** | **1.12** | **105** | P | **Pn** | **12 44 04.4** | **+0.2** |
| JKRS | | | | *e*S | **Sn** | **12 44 19.9** | **+0.6** |
| **ENTT** | **Nioudou** | **1.15** | **275** | *e*P | **Pn** | **12 44 05.3** | **+0.8** |
| | baz=271 | | | | | | |
| ENTT | | | | *e*S | **Sn** | **12 44 20.5** | **+0.7** |
| | baz=271 | | | | | | |
| **TWD** | **Chiawan** | **1.21** | **248** | *e*P | **Pn** | **12 44 04.8** | **-0.5** |
| | baz=245 | | | | | | |
| TWD | | | | *e*S | **Sn** | **12 44 20.2** | **-0.9** |
| | baz=245 | | | | | | |
| **JIJ** | **Ishigaki jima** | **1.22** | **98** | P | **Pn** | **12 44 05.0** | **-0.4** |
| JIJ | | | | S | **Sn** | **12 44 20.8** | **-0.6** |
| **NNS** | **Nan Shan** | **1.32** | **266** | *e*P | **Pn** | **12 44 07.1** | **+0.2** |
| | baz=262 | | | | | | |
| NNS | | | | *e*S | **Sn** | **12 44 23.5** | **-0.5** |
| | baz=262 | | | | | | |
| **NSK** | **Sanguang** | **1.34** | **276** | *e*P | **Pn** | **12 44 07.7** | **+0.7** |
| | baz=272 | | | | | | |
| NSK | | | | *e*S | **Sn** | **12 44 24.9** | **+0.6** |
| | baz=272 | | | | | | |
| **JISG** | **Ishigakijimahi** | **1.36** | **88** | P | **Pn** | **12 44 06.8** | **-0.4** |
| JISG | | | | *e*S | **Sn** | **12 44 24.2** | **-0.4** |
| **ESL** | **Shilin** | **1.46** | **241** | *e*P | **Pn** | **12 44 07.7** | **-0.8** |
| | baz=238 | | | | | | |
| ESL | | | | *e*S | **Sn** | **12 44 26.6** | **-0.4** |
| | baz=238 | | | | | | |
| **WHF** | **Hehuan Shan** | **1.47** | **255** | *e*P | **Pn** | **12 44 09.0** | **-0.2** |
| | baz=252 | | | | | | |
| WHF | | | | *e*S | **Sn** | **12 44 26.8** | **-1.2** |
| | baz=252 | | | | | | |
| **TWT** | **Tachien** | **1.53** | **260** | *e*P | **Pn** | **12 44 10.2** | **+0.6** |
| | baz=256 | | | | | | |
| **EHY** | **Hungye** | **1.71** | **233** | *e*P | **Pn** | **12 44 11.6** | **-0.4** |
| | baz=231 | | | | | | |
| EHY | | | | *e*S | **Sn** | **12 44 33.1** | **0.0** |
| | baz=231 | | | | | | |
| **JTJ** | **Tarama** | **1.72** | **86** | P | **Pn** | **12 44 12.0** | **0.0** |
| JTJ | | | | *e*S | **Sn** | **12 44 32.9** | **-0.2** |
| **WDT** | **Danda** | **1.73** | **243** | *e*P | **Pn** | **12 44 12.0** | **-0.4** |
| | baz=241 | | | | | | |
| WDT | | | | *e*S | **Sn** | **12 44 32.6** | **-1.2** |
| | baz=241 | | | | | | |
| **TWF1** | **Yuli** | **1.83** | **230** | *e*P | **Pn** | **12 44 12.9** | **-0.6** |
| | baz=228 | | | | | | |
| TWF1 | | | | *e*S | **Sn** | **12 44 34.6** | **-1.2** |
| | baz=228 | | | | | | |
| **TYC** | **Yuchr** | **1.90** | **251** | *e*P | **Pn** | **12 44 15.6** | **+1.1** |
| | baz=248 | | | | | | |
| **YUS** | **Yu-Shan** | **2.00** | **239** | *e*P | **Pn** | **12 44 16.8** | **+0.5** |
| | baz=237 | | | | | | |
| YUS | | | | *e*S | **Sn** | **12 44 39.8** | **-0.9** |
| | baz=237 | | | | | | |
| **ALS** | **Alishan** | **2.11** | **241** | *e*P | **Pn** | **12 44 18.5** | **+1.0** |
| | baz=239 | | | | | | |
| **ELDTW** | **Lidau** | **2.13** | **231** | *e*P | **Pn** | **12 44 17.2** | **-0.5** |
| | baz=229 | | | | | | |
| **JIRB** | **Irabujima** | **2.16** | **82** | S | **Sn** | **12 44 43.9** | **+0.1** |
| **CHN5** | **Tsauling** | **2.17** | **245** | *e*P | **Pn** | **12 44 19.3** | **+1.2** |
| | baz=243 | | | | | | |
| CHN5 | | | | *e*S | **Sn** | **12 44 45.4** | **+1.2** |
| | baz=243 | | | | | | |
| **STYT** | **Tauyuan** | **2.33** | **234** | *e*P | **Pn** | **12 44 19.4** | **-1.0** |
| | baz=233 | | | | | | |
| STYT | | | | *e*S | **Sn** | **12 44 48.8** | **+0.7** |
| | baz=233 | | | | | | |
| **TWG** | **Pinlang** | **2.34** | **223** | *e*P | **Pn** | **12 44 19.7** | **-0.7** |
| | baz=222 | | | | | | |
| **CHN4** | **Tsaushan** | **2.36** | **240** | *e*P | **Pn** | **12 44 21.9** | **+1.3** |
| | baz=238 | | | | | | |
| **CHN1** | **Nanshi** | **2.49** | **238** | *e*P | **Pn** | **12 44 23.9** | **+1.4** |
| | baz=236 | | | | | | |
| CHN1 | | | | *e*S | **Sn** | **12 44 52.6** | **+0.7** |
| | baz=236 | | | | | | |
| **EAST** | **Anshuo** | **2.81** | **221** | *e*P | **Pn** | **12 44 27.8** | **+1.0** |
| | baz=219 | | | | | | |

*IDC **27** 12:45:44.0±3.3, 7.82S×117.49E, h0km, mb3.2/3, mb1 3.4/3, mb1mx3.3/29, mbtmp3.3/3, MS2.7/1, Ms1 2.7/1, ms1mx2.4/14, Error ellipse: s-maj=278.0km s-min=27.1km az=51.0*
*DJA **27** 12:45:46.6±1.1, 8°S±3°×11°E±°, h16km±9km, M3.7/8, MLv3.7/8*
*ISCJB **27** 12:45:47.2±0.6, 7.81S±0.06×117.56E±0.05, h33km, mb3.4/2, MS2.6/1, Error ellipse: s-maj=8.5km s-min=6.4km az=20.9*

**ISC 27 12:45:48.9±1.0, 7.87S±0.06×117.52E±0.05, h35km, n11, σ0s91/13, Bali Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PLAI** | **Plampang** | **0.99** | **165** | P | **Pn** | **12 46 05.5** | **-0.8** |
| PLAI | | | | S | **Sn** | **12 46 19.3** | **+0.2** |
| **SRBI** | **Singaraja** | **2.30** | **264** | P | **Pn** | **12 46 22.9** | **-1.4** |
| SRBI | | | | S | **Sn** | **12 46 53.2** | **+1.8** |
| **WBSI** | **Waikabubak, Su** | **2.55** | **134** | P | **Pn** | **12 46 28.5** | **+0.6** |
| WBSI | | | | S | **Sn** | **12 46 57.0** | **-0.8** |
| **JAGI** | **Jajag, Banyuwa** | **3.39** | **260** | P | **Pn** | **12 46 38.8** | **-0.5** |
| **BSSI** | **Bau Bau, Buton** | **3.41** | **60** | P | **Pn** | **12 46 39.4** | **-0.2** |
| **EDFI** | **Ende, Flores** | **4.22** | **102** | P | **Pn** | **12 46 50.2** | **-0.6** |
| **SPSI** | **Sidrap Palu** | **4.47** | **30** | P | **Pn** | **12 46 53.6** | **-0.6** |
| **WRA** | **Warramunga Arr** | **20.24** | **128** | P | **P** | **12 50 21.5** | **+0.3** |
| | 0.6nm,0.7s,baz=302,slow=12,SNR=5.9 | | | | | | |
| **ASAR** | **Alice Springs** | **22.22** | **137** | P | **P** | **12 50 42.9** | **+0.3** |
| | 0.4nm,0.7s,baz=314,slow=10.0,SNR=5.9 | | | | | | |
| **PMG** | **Port Moresby** | **29.34** | **95** | LR | LR | 13 05 31.6 | |
| | comp=Z,16nm,21.7s,baz=126,slow=40 | | | | | | |
| **MKAR** | **Makanchi Array** | **62.79** | **334** | P | **P** | **12 56 11.0** | **+0.1** |
| | 0.7nm,0.7s,baz=141,slow=7.8,SNR=5.1 | | | | | | |

**IDC 27 12:58:48.0±2.0, 56.40S×26.91W, h0km, mb4.3/1, mb1 4.3/1, mb1mx3.7/19, mbtmp4.3/1, Error ellipse: s-maj=112.8km s-min=66.2km az=139.0, South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **H10S2** | **ASCENSION HYDR** | **48.29** | **16** | T | T | 13 59 28.5 | |
| | baz=186,slow=75 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **48.30** | **16** | T | T | 13 59 50.8 | |
| | baz=186,slow=75,SNR=3.5 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **48.31** | **16** | T | T | 13 59 51.9 | |
| | baz=186,slow=75,SNR=4.2 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **73.28** | **29** | P | P | 13 10 20.9 | 0.0 |
| | 1.2nm,0.4s,baz=200,slow=6.3,SNR=12 | | | | | | |
| **YKA** | **Yellowknife Ar** | **136.54** | **318** | PKP | PKPdf | 13 18 09.6 | -0.6 |
| | 0.3nm,0.7s,baz=128,slow=2.4,SNR=6.5 | | | | | | |
| **ILAR** | **Eielson Array** | **150.47** | **311** | PKPbc | PKPbc | 13 18 39.6 | -0.2 |
| | 0.8nm,0.8s,baz=133,slow=4.6,SNR=9.5 | | | | | | |
| **SONM** | **Songino Array** | **150.59** | **87** | PKPbc | PKPbc | 13 18 40.6 | -0.3 |
| | 0.5nm,0.5s,baz=232,slow=1.9,SNR=3.6 | | | | | | |

*ISCJB **27** 13:03:29.5±0.8, 17.52N±0.07×147.76E±0.2, h26km, mb3.7/11, Error ellipse: s-maj=22.3km s-min=8.2km az=15.1*
*NEIC **27** 13:03:33.0±1.9, 17.54N×147.69E, h39km±17km, mb4.4/2, Error ellipse: s-maj=20.5km s-min=9.2km az=88.0*
*IDC **27** 13:03:32.2±8.2, 17.54N×147.72E, h33km±63km, mb3.4/10, mb1 3.6/10, mb1mx3.5/42, mbtmp3.6/10, ML4.4/1, Error ellipse: s-maj=32.2km s-min=17.8km az=91.0*

**ISC 27 13:03:31.3±1.1, 17.52N±0.10×147.7E±0.2, h26km, n16, σ0s77/19, mb3.6/11, Mariana Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GUMO** | **Guam** | **4.74** | **215** | P*n* | **Pn** | **13 04 41.8** | **+0.6** |
| | 16nm,0.3s,baz=3.0,slow=9.0,SNR=8.1 | | | | | | |
| GUMO | | | | Sn | **Sn** | **13 05 34.2** | **-1.2** |
| | 18nm,0.3s,baz=10,slow=21,SNR=2.9 | | | | | | |
| **GUMO** | **Guam** | **4.74** | **215** | *e*P*n* | **Pn** | **13 04 42.4** | **+1.2** |
| GUMO | | | | Sn | **Sn** | **13 05 34.2** | **-1.2** |
| **MJAR** | **Matsushiro Arr** | **20.70** | **338** | P | **P** | **13 08 10.2** | **+0.5** |
| | 1.8nm,0.8s,baz=170,slow=11,SNR=4.1 | | | | | | |
| **KSRS** | **Korea Array** | **26.37** | **323** | P | **P** | **13 09 05.9** | **+0.4** |
| | 0.9nm,0.6s,baz=152,slow=9.6,SNR=4.2 | | | | | | |
| **KSAR** | **Wonju Array Be** | **26.38** | **323** | P | **P** | **13 09 05.9** | **+0.3** |
| **WRAB** | **Tennant Creek** | **39.45** | **200** | *e*P | **P** | **13 10 60.0** | **+0.4** |
| **WRA** | **Warramunga Arr** | **39.46** | **200** | P | **P** | **13 10 58.8** | **-0.8** |
| | 0.4nm,0.5s,baz=22,slow=10.0,SNR=10 | | | | | | |
| **ASAR** | **Alice Springs** | **43.08** | **199** | P | **P** | **13 11 30.8** | **+1.4** |
| | 0.1nm,0.5s,baz=24,slow=9.4,SNR=4.1 | | | | | | |
| **SONM** | **Songino Array** | **45.22** | **321** | P | **P** | **13 11 46.5** | **0.0** |
| | 0.3nm,0.4s,baz=150,slow=8.5,SNR=4.5 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **46.23** | **279** | P | **P** | **13 11 54.8** | **+0.2** |
| | 0.6nm,0.7s,baz=72,slow=8.0,SNR=5.5 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **60.07** | **323** | P | **P** | **13 13 36.2** | **+0.1** |
| | 1.1nm,0.6s,baz=108,slow=8.0,SNR=5.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **60.61** | **314** | P | **P** | **13 13 39.8** | **-0.1** |
| | 0.2nm,0.4s,baz=92,slow=8.0,SNR=4.8 | | | | | | |
| MKAR | | | | PcP | **PcP** | **13 14 23.4** | **-0.7** |
| | 0.6nm,0.9s,baz=64,slow=2.8,SNR=3.5 | | | | | | |
| **KURK** | **Kurchatov** | **63.38** | **318** | *e*P | **P** | **13 13 58.8** | **+0.3** |
| | 16nm,0.9s | | | | | | |
| **ILAR** | **Eielson Array** | **63.88** | **26** | P | **P** | **13 14 00.8** | **-0.7** |
| | 0.6nm,0.6s,baz=251,slow=6.2,SNR=11 | | | | | | |
| **ABKAR** | **Akbulak array** | **75.46** | **317** | *e*P | **P** | **13 15 12.7** | **-0.4** |
| | 0.5nm,0.5s | | | | | | |
| **YKA** | **Yellowknife Ar** | **78.15** | **28** | P | **P** | **13 15 28.0** | **0.0** |
| | 0.4nm,0.7s,baz=287,slow=5.3,SNR=6.5 | | | | | | |

**IDC 27 13:07:28.1±52.0, 22.70S×174.08W, h0km, mb4.0/3, mb1 4.2/3, mb1mx3.7/23, mbtmp4.0/3, Error ellipse: s-maj=981.2km s-min=172.4km az=87.0, Tonga Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **STKA** | **Stephens Creek** | **40.21** | **247** | P | P | 13 15 06.1 | -0.5 |
| | 0.9nm,0.5s,baz=96,slow=13,SNR=5.0 | | | | | | |
| **ASAR** | **Alice Springs** | **47.60** | **258** | P | P | 13 16 06.0 | -0.2 |
| | 0.7nm,0.5s,baz=95,slow=7.0,SNR=16 | | | | | | |
| **WRA** | **Warramunga Arr** | **47.94** | **263** | P | P | 13 16 08.9 | +0.2 |
| | 2.2nm,0.5s,baz=102,slow=8.2,SNR=16 | | | | | | |

**DJA 27 13:15:49.4±0.9, 8°S±7°×107°E±°, h30km±5km, M3.8/6, MLv3.8/6, Jawa**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CISI** | **Cisompet, Garu** | **0.66** | **50** | P | Pn | 13 16 03.0 | +0.2 |
| CISI | | | | S | Sn | 13 16 13.2 | +1.0 |
| **CNJI** | **Cibinong** | **0.69** | **346** | P | Pn | 13 16 03.2 | +0.1 |
| **SKJI** | **Sukabumi** | **1.22** | **323** | P | Pn | 13 16 10.2 | -0.2 |
| SKJI | | | | S | Sn | 13 16 26.4 | +0.5 |
| **KPJI** | **Karang Pucung** | **1.74** | **68** | P | Pn | 13 16 18.2 | +0.6 |
| KPJI | | | | S | Sb | 13 16 40.5 | -1.7 |
| **UGM** | **Wanagama** | **3.19** | **89** | P | Pn | 13 16 37.7 | +0.1 |
| UGM | | | | S | Sn | 13 17 13.9 | -0.8 |
| **KASI** | **Kota Agung** | **3.70** | **311** | P | Pn | 13 16 45.0 | +0.4 |
| **PCJI** | **Pacitan** | **3.84** | **93** | P | Pn | 13 16 47.2 | +0.6 |

**IDC 27 13:21:00.7±1.9, 7.52S×126.61E, h0km, mb3.8/1, mb1 4.3/3, mb1mx3.7/21, mbtmp4.1/3, ML4.3/2, Error ellipse: s-maj=202.8km s-min=30.6km az=62.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **14.45** | **150** | Pn | Pn | 13 24 26.2 | -0.5 |
| | 1.9nm,0.3s,baz=326,slow=12,SNR=61 | | | | | | |
| WRA | | | | Sn | Sn | 13 26 51.7 | -16 |
| | 0.8nm,0.3s,baz=334,slow=22,SNR=6.2 | | | | | | |
| **ASAR** | **Alice Springs** | **17.52** | **157** | P | Pn | 13 25 06.5 | 0.0 |
| | 0.7nm,0.3s,baz=333,slow=11,SNR=103 | | | | | | |
| ASAR | | | | S | Sn | 13 28 08.2 | -14 |
| | 0.2nm,0.3s,baz=343,slow=24,SNR=4.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **66.86** | **329** | P | P | 13 31 54.7 | +0.1 |
| | 0.6nm,0.6s,baz=115,slow=7.8,SNR=8.6 | | | | | | |

*ISCJB **27** 13:37:01.8±0.4, 39.89N±0.03×33.66E±0.04, h0km, Error ellipse: s-maj=4.7km s-min=3.4km az=135.6*
*CSEM **27** 13:37:01.9±0.1, 39.89N×33.67E, h1km, MD3.0, Error ellipse: s-maj=3.5km s-min=2.6km az=133.0, Suspected Mining explosion.*
*ISK **27** 13:37:01.0, 39.91N×33.66E, h4km, MD3.0*
*DDA **27** 13:37:02.0, 39.89N×33.67E, h7km, Ml2.3, Suspected Mining explosion.*

**ISC 27 13:37:01.5±0.8, 39.86N±0.02×33.69E±0.02, h0km, n30, σ0s59/44, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KAMT** | **Kaman** | **0.49** | **178** | *e*PG | **Pb** | **13 37 12.1** | **-0.9** |
| **KAMT** | **Kaman** | **0.49** | **178** | *e*Pg | **Pb** | **13 37 12.1** | **-0.9** |
| **CDAG** | **Cicekdag** | **0.58** | **114** | *i* P | **Pg** | **13 37 13.2** | **+0.7** |
| CDAG | | | | *i* S | **Sb** | **13 37 22.6** | **-0.7** |
| **CDAG** | **Cicekdag** | **0.58** | **114** | P | **Pg** | **13 37 13.2** | **+0.7** |
| CDAG | | | | S | **Sb** | **13 37 22.6** | **-0.7** |
| **AFSR** | **Af˘ar-Bala (A** | **0.63** | **230** | *e*PG | **Pg** | **13 37 14.2** | **+0.7** |
| AFSR | | | | *e*SG | **Sb** | **13 37 23.6** | **-1.2** |
| **AFSR** | **Af˘ar-Bala (A** | **0.63** | **230** | *e*Pg | **Pg** | **13 37 14.2** | **+0.7** |
| AFSR | | | | *e*Sg | **Sb** | **13 37 23.6** | **-1.2** |
| **ELDT** | **Eldivan** | **0.66** | **342** | *i* P | **Pg** | **13 37 14.2** | **0.0** |
| ELDT | | | | *i* S | **Sg** | **13 37 23.1** | **+0.3** |
| **ELDT** | **Eldivan** | **0.66** | **342** | P | **Pg** | **13 37 14.2** | **0.0** |
| ELDT | | | | S | **Sg** | **13 37 23.1** | **+0.3** |
| **LOD** | **Lodumlu** | **0.71** | **273** | *e*PG | **Pg** | **13 37 14.8** | **-0.3** |
| **LOD** | **Lodumlu** | **0.71** | **273** | *e*Pg | **Pg** | **13 37 14.8** | **-0.3** |
| **KKUL** | **Konya-Kulu** | **0.91** | **221** | *i* P | **Pb** | **13 37 19.9** | **-0.2** |
| KKUL | | | | *i* S | **Sb** | **13 37 33.2** | **+0.3** |
| **KKUL** | **Konya-Kulu** | **0.91** | **221** | P | **Pb** | **13 37 20.0** | **-0.2** |
| KKUL | | | | S | **Sb** | **13 37 33.2** | **+0.3** |
| **SERE** | **Sereflikochisa** | **0.92** | **186** | *e*PG | **Pb** | **13 37 20.3** | **0.0** |
| **SERE** | **Sereflikochisa** | **0.92** | **186** | *e*Pg | **Pb** | **13 37 20.3** | **0.0** |
| **COAL** | **Corum-Alaca** | **1.07** | **68** | *i* P | **Pg** | **13 37 22.1** | **+0.1** |
| COAL | | | | *i* S | **Sn** | **13 37 38.7** | **-0.8** |
| **COAL** | **Corum-Alaca** | **1.07** | **68** | P | **Pg** | **13 37 22.1** | **+0.1** |
| COAL | | | | S | **Sn** | **13 37 38.7** | **-0.8** |
| **CTAK** | **Corum_Osmancik** | **1.16** | **47** |

*IDC* ***27*** *14:01:26.9±5.3, 20.27°S×177.92°W, h516km±56km, mb3.2/9, mb1 3.5/9, mb1mx3.2/23, mbtmp4.1/9, Error ellipse: s-maj=55.4km s-min=22.7km az=154.0*

*ISCJB* ***27*** *14:01:27.4±0.7, 20.4°S±0.2°×178.0°W±0.1°, h534km, mb3.7/9, Error ellipse: s-maj=27.3km s-min=15.7km az=156.9*

**ISC 27 14:01:28.2±0.8, 20.4°S±0.2°×177.9°W±0.2°, h534km, n16, σ1§02/16, mb3.8/9, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PMG** | **Port Moresby** | **35.39** | **283** | P | **P** | **14 07 39.2** | **-0.3** |
| | 7.1nm,0.8s,baz=93,slow=5.5,SNR=5.0 | | | | | | |
| **STKA** | **Stephens Creek** | **37.92** | **244** | P | **P** | **14 08 00.1** | **0.0** |
| | 2.5nm,0.9s,baz=75,slow=11,SNR=5.7 | | | | | | |
| **ASAR** | **Alice Springs** | **44.63** | **257** | P | **P** | **14 08 53.2** | **-0.2** |
| | 6.7nm,0.7s,baz=91,slow=8.0,SNR=141 | | | | | | |
| ASAR | | | | PcP | **PcP** | **14 10 25.2** | **+0.4** |
| | 0.9nm,0.5s,baz=102,slow=4.0,SNR=8.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.70** | **262** | P | **P** | **14 08 53.4** | **-0.7** |
| | 2.4nm,0.6s,baz=96,slow=5.3,SNR=40 | | | | | | |
| **NVAR** | **Mina Array Bea** | **80.88** | **43** | P | **P** | **14 12 47.7** | **+0.7** |
| | 0.8nm,1.0s,baz=282,slow=7.0,SNR=3.7 | | | | | | |
| **TXAR** | **Lajitas Array** | **86.92** | **57** | P | **P** | **14 13 17.5** | **+0.6** |
| | 0.5nm,0.7s,baz=218,slow=6.9,SNR=7.2 | | | | | | |
| **ILAR** | **Eielson Array** | **88.17** | **13** | P | **P** | **14 13 20.4** | **-1.3** |
| | 0.5nm,0.8s,baz=221,slow=6.1,SNR=4.5 | | | | | | |
| **VNA3** | **Neumayer Olymp** | **88.27** | **176** | P | **P** | **14 13 21.9** | **-0.5** |
| **VNA2** | **Neumayer--Watz** | **88.71** | **177** | P | **P** | **14 13 24.1** | **-0.3** |
| | baz=171,slow=3.4 | | | | | | |
| **PDAR** | **Pinedale Array** | **88.81** | **43** | P | **P** | **14 13 24.9** | **-0.7** |
| | 0.3nm,0.6s,baz=179,slow=3.6,SNR=3.4 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **90.15** | **290** | P | **P** | **14 13 33.6** | **+1.6** |
| | 1.4nm,0.8s,baz=135,slow=2.7,SNR=8.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **111.17** | **313** | PKiKP | **PKiKP** | **14 19 00.2** | **-1.0** |
| | 0.5nm,0.6s,baz=47,slow=0.8,SNR=6.3 | | | | | | |
| **BVAR** | **Borovoye Array** | **119.03** | **320** | PKP | **PKPdf** | **14 19 15.5** | **-0.6** |
| | 1.1nm,0.6s,baz=61,slow=1.1,SNR=6.7 | | | | | | |
| **AKASG** | **Malin Array Be** | **142.94** | **331** | PKhKP | PKPpre | 14 19 57.7 | |
| | 2.2nm,0.5s,baz=41,slow=4.4,SNR=16 | | | | | | |
| **BRTR** | **Keskin Array B** | **146.81** | **313** | PKPbc | **PKPdf** | **14 20 10.5** | **+2.3** |
| | 1.5nm,0.6s,baz=143,slow=4.9,SNR=9.6 | | | | | | |
| **GERES** | **GERESS Array B** | **150.10** | **345** | PKPbc | **PKPbc** | **14 20 18.5** | **-0.3** |
| | 1.3nm,0.8s,baz=11,slow=2.7,SNR=9.8 | | | | | | |

*IDC* ***27*** *14:01:29.6±3.2, 24.23°S×68.01°W, h0km, mb4.1/2, mb1 3.8/3, mb1mx3.6/22, mbtmp3.8/3, ML3.4/1, Error ellipse: s-maj=93.7km s-min=49.2km az=47.0*

*ISCJB* ***27*** *14:01:58.2±0.6, 22.20S±0.05°×67.45W±0.04°, h180km±6km, mb3.7/2, Error ellipse: s-maj=8.7km s-min=4.6km az=29.3*

*SJA* ***27*** *14:01:58.9±0.7, 22.08S×66.95W, h211km±13km, ML3.0, MW3.2*

*GUC* ***27*** *14:02:00.1±0.3, 22.08S×67.84W, h207km±10km, ML3.5*

**ISC 27 14:01:58.1±1.1, 22.21S±0.05°×67.42W±0.04°, h182km±11km, n20, σ1§36/32, 9C, Chile-Bolivia border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PB09** | **IPOC Station P** | **1.74** | **283** | ⇑*i* P | **Pn** | **14 02 34.3** | **+1.6** |
| PB09 | | | | IAML | | 14 03 07.6 | |
| | comp=E,293nm,0.1s | | | | | | |
| **YJA** | **Yavi** | **1.77** | **89** | *e*P | **Pn** | **14 02 33.7** | **+0.4** |
| YJA | | | | IAML | | 14 02 34.4 | |
| | comp=Z,106nm,0.4s | | | | | | |
| YJA | | | | *i* S | **Sn** | **14 02 59.4** | **-1.2** |
| **PB06** | **IPOC Station P** | **2.05** | **256** | IAML | | 14 03 07.8 | |
| | comp=N,118nm,0.1s | | | | | | |
| **HJA** | **Humahuaca** | **2.11** | **119** | *i* P | **Pn** | **14 02 37.8** | **+0.9** |
| HJA | | | | IAML | | 14 02 38.4 | |
| | comp=Z,69nm,0.4s | | | | | | |
| HJA | | | | *e*S | **Sn** | **14 03 06.9** | **-0.1** |
| **PB01** | **IPOC Station P** | **2.24** | **301** | ⇑*i*P | **Pn** | **14 02 38.9** | **+0.8** |
| PB01 | | | | *e*S | **Sn** | **14 03 09.1** | **0.0** |
| PB01 | | | | IAML | | 14 03 11.7 | |
| | comp=E,188nm,0.2s | | | | | | |
| **PB07** | **IPOC Station P** | **2.34** | **281** | ⇑*i* P | **Pn** | **14 02 40.1** | **+0.9** |
| PB07 | | | | *i* S | **Sn** | **14 03 10.5** | **-0.6** |
| PB07 | | | | IAML | | 14 03 12.9 | |
| | comp=N,217nm,0.3s | | | | | | |
| **PB02** | **IPOC Station P** | **2.46** | **291** | ⇑*i* P | **Pn** | **14 02 41.1** | **+0.6** |
| PB02 | | | | *i* S | **Sn** | **14 03 12.3** | **-1.3** |
| PB02 | | | | IAML | | 14 03 13.9 | |
| | comp=N,385nm,0.4s | | | | | | |
| **PB04** | **IPOC Station P** | **2.53** | **267** | ⇑*i*P | **Pn** | **14 02 42.2** | **+0.9** |
| PB04 | | | | *i* S | **Sn** | **14 03 14.6** | **-0.4** |
| PB04 | | | | IAML | | 14 03 17.1 | |
| | comp=E,167nm,0.2s | | | | | | |
| **PB08** | **IPOC Station P** | **2.62** | **322** | ⇑*i*P | **Pn** | **14 02 44.3** | **+1.7** |
| PB08 | | | | *i* S | **Sn** | **14 03 17.8** | **+0.6** |
| PB08 | | | | IAML | | 14 03 20.5 | |
| | comp=E,146nm,0.2s | | | | | | |
| **AZAP** | **Zapla** | **2.96** | **133** | *i* P | **Pn** | **14 02 47.0** | **+0.5** |
| AZAP | | | | IAML | | 14 02 48.3 | |
| | comp=Z,21nm,0.4s | | | | | | |
| AZAP | | | | *e*S | **Sn** | **14 03 25.2** | **+0.9** |
| **PB10** | **IPOC Station P** | **3.17** | **245** | *i* P | **Pn** | **14 02 49.7** | **+0.8** |
| PB10 | | | | *e*S | **Sn** | **14 03 26.5** | **-1.9** |
| **PB10** | **IPOC Station P** | **3.17** | **245** | *i* P | **Pn** | **14 02 49.4** | **+0.6** |
| PB10 | | | | *i* S | **Sn** | **14 03 27.3** | **-1.1** |
| **PB11** | **IPOC Station P** | **3.21** | **319** | ⇑*i*P | **Pn** | **14 02 49.5** | **0.0** |
| PB11 | | | | *e*S | **Sn** | **14 03 28.0** | **-1.6** |
| **ASTB** | **Santa Barbara** | **3.24** | **123** | *i* P | **Pn** | **14 02 50.0** | **+0.2** |
| ASTB | | | | *e*S | **Sn** | **14 03 26.9** | **-3.5** |
| **PSGC** | **Pisagua** | **3.62** | **315** | ⇑*i*P | **Pn** | **14 02 53.6** | **-1.0** |
| PSGC | | | | *i* S | **Sn** | **14 03 35.5** | **-3.3** |
| **PB14** | **IPOC Station P** | **3.65** | **228** | *i* P | **Pn** | **14 02 56.0** | **+0.9** |
| **MNMC** | **Minye Minye** | **3.67** | **326** | ⇑*i*P | **Pn** | **14 02 56.1** | **+0.6** |
| MNMC | | | | *i* S | **Sn** | **14 03 39.1** | **-1.2** |
| **LPAZ** | **La Paz** | **5.93** | **353** | Pn | **Pn** | **14 03 26.4** | **+1.6** |
| | comp=Z,0.2nm,0.3s,baz=172,slow=11,SNR=6.7 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **76.30** | **70** | P | **P** | **14 13 27.8** | **+0.4** |
| | comp=Z,3.2nm,0.3s,baz=256,slow=5.7,SNR=66 | | | | | | |
| **YKA** | **Yellowknife Ar** | **92.31** | **340** | P | P | 14 14 49.0 | +1.9 |
| | comp=Z,0.1nm,0.5s,baz=136,slow=4.6,SNR=3.5 | | | | | | |

**JMA 27 14:04:15.5±0.1, 38.41N×144.46E, h31km, M3.6, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **OFUJ** | **Ofunato** | **2.28** | **288** | P | Pn | 14 04 52.5 | +1.5 |
| OFUJ | | | | *e*S | Sn | 14 05 20.2 | +2.1 |
| **MIYJ** | **Miyakonagasawa** | **2.36** | **300** | P | Pn | 14 04 53.5 | +1.3 |
| MIYJ | | | | S | Sn | 14 05 21.5 | +1.4 |
| **JIO** | **Ouri** | **2.44** | **272** | P | Pn | 14 04 54.6 | +1.4 |
| JIO | | | | S | Sn | 14 05 23.5 | +1.5 |
| **JMK** | **Ichinoseki** | **2.59** | **283** | P | Pn | 14 04 57.0 | +1.7 |
| JMK | | | | *e*S | Sn | 14 05 27.9 | +2.2 |
| **JOM** | **Ohasama** | **2.69** | **294** | P | Pn | 14 04 58.4 | +1.8 |
| JOM | | | | *e*S | Sn | 14 05 30.6 | +2.5 |
| **JOU** | **Okura** | **2.98** | **270** | P | Pn | 14 05 02.8 | +2.1 |
| JOU | | | | *e*S | Sn | 14 05 37.9 | +2.5 |
| **JANG** | **Nango** | **3.01** | **312** | P | Pn | 14 05 02.3 | +1.3 |
| JANG | | | | *e*S | Sn | 14 05 36.7 | +0.7 |
| **JRG** | **Rokugo** | **3.14** | **289** | P | Pn | 14 05 05.4 | +2.5 |
| JRG | | | | *e*S | Sn | 14 05 42.4 | +3.1 |
| **JYK** | **Kaneyama** | **3.25** | **280** | P | Pn | 14 05 06.7 | +2.4 |
| JYK | | | | *e*S | Sn | 14 05 44.8 | +2.8 |
| **JFT** | **Otama** | **3.38** | **256** | *e*S | Sn | 14 05 46.9 | +1.8 |
| **JAH** | **Hinai** | **3.46** | **302** | *e*S | Sn | 14 05 50.1 | +3.0 |
| **JTM** | **Tenmabayashi** | **3.54** | **313** | P | Pn | 14 05 09.5 | +1.3 |
| JTM | | | | *e*S | Sn | 14 05 49.9 | +0.9 |
| **JOT** | **Ohata** | **3.96** | **320** | P | Pn | 14 05 16.6 | +2.5 |
| JOT | | | | *e*S | Sn | 14 05 59.3 | -0.2 |
| **JCH** | **Churui** | **4.28** | **349** | P | Pn | 14 05 18.2 | -0.3 |
| JCH | | | | *e*S | Sn | 14 06 05.2 | -2.2 |
| **JKB** | **Kayabe** | **4.35** | **324** | *e*S | Sn | 14 06 08.8 | -0.3 |
| **BSO1** | **Boso 1** | **4.68** | **218** | *e*S | Sn | 14 06 16.0 | -0.5 |
| **JRY** | **Ryogami san** | **5.04** | **243** | P | Pn | 14 05 30.0 | +1.0 |
| JRY | | | | *e*S | Sn | 14 06 24.7 | -1.4 |
| **NEM2** | **Nemuro 2** | **5.04** | **11** | P | Pn | 14 05 25.6 | -3.4 |
| NEM2 | | | | *e*S | Sn | 14 06 19.2 | -6.9 |
| **JOD2** | **Odawara 2** | **5.33** | **236** | *e*S | Sn | 14 06 31.8 | -1.5 |
| **JTKR** | **Abashiri--Toko** | **5.57** | **356** | P | Pn | 14 05 35.5 | -0.7 |
| JTKR | | | | *e*S | Sn | 14 06 34.8 | -4.3 |
| **JHR** | **Hokuryu** | **5.71** | **340** | P | Pn | 14 05 40.4 | +2.2 |
| JHR | | | | *e*S | Sn | 14 06 45.1 | +2.4 |

**IDC 27 14:16:22.8±2.0, 17.43S×177.93W, h0km, mb3.7/4, mb1 4.1/4, mb1mx3.7/31, mbtmp3.7/4, MS3.3/1, Ms1 3.3/1, ms1mx2.5/26, Error ellipse: s-maj=125.3km s-min=27.1km az=153.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **45.17** | **259** | P | P | 14 24 41.8 | 0.0 |
| | 0.2nm,0.5s,baz=97,slow=7.7,SNR=20 | | | | | | |
| WRA | | | | LR | LR | 14 43 24.6 | |
| | comp=Z,36nm,18.4s,baz=210,slow=36 | | | | | | |
| **ASAR** | **Alice Springs** | **45.36** | **254** | P | P | 14 24 43.2 | -0.1 |
| | 2.5nm,0.7s,baz=90,slow=8.5,SNR=82 | | | | | | |
| **ILAR** | **Eielson Array** | **85.32** | **13** | P | P | 14 29 00.4 | -0.9 |
| | 0.9nm,1.1s,baz=220,slow=5.0,SNR=4.6 | | | | | | |
| **TXAR** | **Lajitas Array** | **85.35** | **57** | P | P | 14 29 03.0 | +0.6 |
| | 0.3nm,0.8s,baz=219,slow=6.9,SNR=2.7 | | | | | | |

**IDC 27 14:27:29.5±2.3, 5.45N×127.73E, h0km, mb3.6/4, mb1 3.8/4, mb1mx3.5/34, mbtmp3.6/4, Error ellipse: s-maj=180.1km s-min=24.9km az=66.0, Philippine Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **26.05** | **166** | P | P | 14 33 04.8 | +0.1 |
| | 0.9nm,0.5s,baz=347,slow=9.7,SNR=12 | | | | | | |
| **ASAR** | **Alice Springs** | **29.56** | **168** | P | P | 14 33 35.4 | -0.7 |
| | 0.3nm,0.8s,baz=349,slow=7.1,SNR=5.2 | | | | | | |
| **STKA** | **Stephens Creek** | **39.40** | **161** | P | P | 14 35 01.6 | +0.5 |
| | 1.2nm,0.5s,baz=331,slow=11,SNR=5.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **56.74** | **324** | P | P | 14 37 15.1 | -0.1 |
| | 0.1nm,0.3s,baz=118,slow=6.7,SNR=6.3 | | | | | | |

**MAN 27 14:36:30, 15.45N×121.55E, h7km, mb3.5, ML2.2, MS1.7, 1C, Luzon**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **BALP** | **Baler** | **0.29** | **5** | *e*P | Pg | 14 36 36.5 | +0.8 |
| BALP | | | | *e*S | Sb | 14 36 43.1 | +0.5 |
| **PCPH** | **Palayan** | **0.45** | **284** | ⇑*e*P | Pb | 14 36 41.3 | +1.0 |
| PCPH | | | | *e*S | Sb | 14 36 50.5 | +3.2 |
| **CAUP** | **Cauayan** | **1.51** | **10** | *e*P | Pn | 14 36 56.3 | -1.1 |
| CAUP | | | | *e*S | Sg | 14 37 18.4 | -0.2 |

**MAN 27 14:40:58, 6.89N×125.70E, h42km, mb3.9, ML2.6, MS2.2, 1C, Mindanao**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DMPH** | **Davao City--Mi** | **0.27** | **316** | ⇑*e*P | Pn | 14 41 08.5 | +2.4 |
| DMPH | | | | *i* S | Sn | 14 41 15.5 | +3.7 |
| **MATI** | **Mati** | **0.56** | **84** | *e*P | Pn | 14 41 11.9 | +2.3 |
| MATI | | | | *e*S | Sn | 14 41 21.4 | +3.5 |
| **BUKP** | **Musuan** | **1.17** | **327** | *e*P | Pn | 14 41 19.1 | +1.1 |
| BUKP | | | | *e*S | Sn | 14 41 34.4 | +1.8 |

*CSEM* ***27*** *15:15:00.2±1.0, 49.92N×18.55E, h1km, Error ellipse: s-maj=15.2km s-min=11.9km az=99.0*

**PRU 27 15:15:02.2, 49.89N×18.46E, h0km, 1D, Czech and Slovak Republics**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **OKC** | **Ostrava-Krasne** | **0.21** | **256** | ⇓*i*PG | Pg | 15 15 06.3 | +0.1 |
| OKC | | | | *e*SG | Sg | 15 15 09.6 | +0.7 |
| | comp=Z,24nm,0.3s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **0.21** | **256** | Pg | Pg | 15 15 06.3 | +0.1 |
| OKC | | | | Sg | Sg | 15 15 09.6 | +0.7 |
| | 24nm,0.3s | | | | | | |
| **MORC** | **Moravsky Berou** | **0.60** | **260** | *e*Pg | Pg | 15 15 13.2 | -0.6 |
| MORC | | | | *e*Sg | Sg | 15 15 21.6 | 0.0 |
| **VRAC** | **Vranov** | **1.35** | **245** | *e*Pg | Pg | 15 15 26.9 | -1.1 |
| VRAC | | | | *e*Sg | Sg | 15 15 44.8 | -0.6 |
| **DPC** | **Dobruska-Polom** | **1.45** | **289** | *e*PG | Pn | 15 15 28.7 | -1.0 |
| DPC | | | | *e*SG | Sg | 15 15 48.7 | -0.1 |
| **DPC** | **Dobruska-Polom** | **1.45** | **289** | Pg | Pn | 15 15 28.7 | -1.0 |
| DPC | | | | Sg | Sg | 15 15 48.7 | -0.1 |

*SOME* ***27*** *15:20:44.5, 51.83N×95.65E, h10km, MS7.1*

*BJI* ***27*** *15:21:54.8, 51.80N×95.80E, h10km, mb6.1/45, mB6.7/71, Ms7.1/85, Ms7 7.0/83*

*MOS* ***27*** *15:21:54.9±0.9, 51.79N×95.87E, h9km, mb6.3/113, MS6.6/96, Error ellipse: s-maj=6.0km s-min=3.9km az=25.2 Broadband fault plane solution: P waves. M₀8.90000×10¹⁸ NP1:φs341.00000°, δ86.00000°, λ-169.00000°. NP2:φs250.00000°, δ79.00000°, λ-4.00000°. Principal axes: T Plg5.0000°, Azm115.0000°; N Plg78.0000°, Azm360.0000°; P Plg10.0000°, Azm206.0000°;*

*MOS Fault plane solution: P-wave C95, D83 . Felt (VI-VII) at Saryg-Sep; (VI) at Kyzyl; (IV) at Podgornyy, Sayanogorsk, Minusinsk, Abakan; (III-IV) at Orlik, Zelenogorsk, Kemerovo; (III) at Krasnoturansk, Kyren, Yurty, Berezovka, Krasnoyarsk, Novokuznetsk, Ust'-Kamenogorsk; (II-III) at Angarsk, Irkutsk; (II) at Barnaul, Tomsk, Ulan-Bator, Novosibirsk.*

*IDC* ***27*** *15:21:54.5±0.3, 51.85N×95.91E, h0km, mb5.3/33, mb1 5.4/39, mb1mx5.4/40, mbtmp5.3/39, ML4.4/7, MS6.5/35, Ms1 6.6/35, ms1mx6.3/44 Error ellipse: s-maj=11.3km s-min=6.3km az=1.0*

*NEIC* ***27*** *15:21:56.8±0.1, 51.84N×95.91E, h15km, mb6.1/298, ME6.6, MS6.7/152, MW6.6, MW6.6, Error ellipse: s-maj=2.3km s-min=1.7km az=177.0 Best double couple: NP1:φs346.00000°, δ88.00000°, λ-179.00000°. NP2: φs256.00000°, δ89.00000°, λ-2.00000°. Principal axes: T 1.1100, Plg1.0000°, Azm301.0000°; N 0.0100, Plg87.0000°, Azm44.0000°; P -1.1200, Plg3.0000°, Azm211.0000°; Depth from synthetics of broadband displacement seismograms. Energy computed from CMT mechanism.*

*NEIC Many buildings damaged and more than 1,600 people evacuated in the Kyzyl-Saryg-Sep area. Felt [VI] at Kyzyl; [IV] at Abakan, Krasnoyarsk, Minusinsk and Novokuznetsk; [III] at Devyatka, Irkutsk, Sayanogorsk and Tomsk; [II] at Barnaul, Kemerovo and Novosibirsk. Felt [III] at Ulaanbaatar, Mongolia.*

*ISCJB* ***27*** *15:21:56.7±0.1, 51.84N±0.01°×95.89E±0.02°, h23km, mb6.0/520, MS6.7/249 Error ellipse: s-maj=1.6km s-min=1.4km az=164.1*

*OBM* ***27*** *15:21:56.0±0.1, 51.78N×95.82E, h2km, Ml6.7/1, Error ellipse: s-maj=1.8km s-min=0.8km az=176.0*

*GCMT* ***27*** *15:21:56.8±0.1, 51.78N×95.91E, h20km, MW6.7/151, Moment Tensor Solution. s145, c359; s151, c657; Duration: 5s4 Moment tensor: Scale 10¹⁹Nm; Mrr0.40±.01; Mθθ-0.83±.01; Mφφ0.43±.01; Mrθ0.45±.02; Mθφ1.12±.01; Mφr0.12±.01; Best double couple: M₀1.38300×10¹⁹ NP1:φs78.00000°, δ81.00000°, λ23.00000°. NP2:φs344.00000°, δ67.00000°, λ171.00000°. Principal axes: T 1.2240, Plg23.0000°, Azm303.0000°; N 0.3190, Plg65.0000°, Azm97.0000°; P -1.5420, Plg10.0000°, Azm209.0000°; nsta1 refers to body waves, cutoff=50s. nsta2 refers to surface/mantle waves, cutoff=50s.*

*NEIC* ***27*** *15:21:56.0±0.0, 51.86N×95.50E, h11km, Moment Tensor Solution. s68 Moment tensor: Scale 10¹⁸Nm; Mrr0.68; Mθθ-4.77; Mφφ4.10; Mrθ-0.35; Mθφ7.61; Mφr-0.52; Best double couple: M₀8.90000×10¹⁸ NP1:φs255.00000°, δ87.00000°, λ3.00000°. NP2:φs165.00000°, δ87.00000°, λ177.00000°. Principal axes: T 8.5200, Plg4.0000°, Azm119.0000°; N 0.6300, Plg85.0000°, Azm296.0000°; P -9.1500, Plg0.0000°, Azm29.0000°;*

*ASRS* ***27*** *15:21:57.8±0.5, 51.90N×95.74E, h15km, Ms6.5/4*

**ISC 27 15:21:57.6±0.3, 51.84N±0.02°×95.96E±0.02°, h13km±1km, h12km:pP-P, n219, σ2§03/2301, mb6.1/546, MS6.7/276, 89C-57D, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KZLR** | **Kyzyl** | **0.95** | **263** | *i* Pg | **Pg** | **15 22 11.8** | **-4.0** |
| **KZLR** | **Kyzyl** | **0.95** | **263** | *i* PG | **Pg** | **15 22 11.8** | **-4.0** |
| **HVS** | **Khovu-Aksy** | **1.58** | **245** | PG | **Pn** | **15 22 23.1** | **-2.3** |
| **HVS** | **Khovu-Aksy** | **1.58** | **245** | P | **Pn** | **15 22 23.1** | **-2.3** |
| **ORL** | **Orlik** | **2.47** | **72** | *e*PN | **Pb** | **15 22 40.4** | **-1.5** |
| ORL | | | | *e* | | 15 23 14.3 | |
| ORL | | | | pmax | pmax | | |
| | comp=Z,70μm,0.8s | | | | | | |
| **CERR** | **Cheremushki** | **2.97** | **292** | *e*Pn | **Pn** | **15 22 43.8** | **-0.6** |
| CERR | | | | *i* Pg | **Pb** | **15 22 49.6** | **-0.7** |
| **CERR** | **Cheremushki** | **2.97** | **292** | *e*PN | **Pn** | **15 22 43.8** | **-0.6** |
| CERR | | | | *i* | | 15 22 49.6 | |
| **HTG** | **Hatgal** | **2.98** | **116** | *e*Pg | **Pb** | **15 22 50.2** | **-0.5** |
| HTG | | | | *e*Sg | **Sb** | **15 23 30.3** | **+3.2** |
| **ULG** | **Ulaangom** | **3.10** | **234** | *e*Pn | **Pn** | **15 22 45.7** | **-0.6** |
| **ULG** | **Ulaangom** | **3.10** | **234** | *e*Pg | **Pb** | **15 22 50.4** | **-2.3** |
| ULG | | | | *e*Sg | **Sb** | **15 23 29.9** | **-0.5** |
| **MOY** | **Mondy** | **3.13** | **91** | ⇑*i*PN | **Pb** | **15 22 52.2** | **-0.9** |
| MOY | | | | *e* | | 15 23 34.5 | |
| MOY | | | | pmax | pmax | | |
| | comp=Z,87μm,0.9s | | | | | | |
| **MINR** | **Mina** | **3.25** | **342** | *i* Pn | **Pn** | **15 22 50.3** | **+2.1** |
| MINR | | | | *e*Pg | **Pb** | **15 22 57.1** | **+2.1** |
| MINR | | | | *e*Sg | **Sb** | **15 23 35.7** | **+1.2** |
| **TSC** | **Tosontsengel** | **3.40** | **154** | *e*Pn | **Pn** | **15 22 51.7** | **+1.3** |
| **TSC** | **Tosontsengel** | **3.40** | **154** | *e*Pg | **Pb** | **15 22 57.4** | **-0.3** |
| TSC | | | | *e*Sg | **Sb** | **15 23 43.0** | **+4.0** |
| **ARS** | **Arshan** | **4.00** | **86** | *e*PN | **Pn** | **15 23 00.4** | **+1.7** |
| ARS | | | | *e* | | 15 23 09.2 | |
| ARS | | | | *e* | | 15 24 01.4 | |
| ARS | | | | pmax | pmax | | |
| | comp=Z,56μm,0.6s | | | | | | |
| **HBD** | **Hovd** | **4.74** | **218** | *e*Pn | **Pn** | **15 23 09.7** | **+0.9** |
| **HBD** | **Hovd** | **4.74** | **218** | *e*Pg | **Pb** | **15 23 18.5** | **-2.0** |
| HBD | | | | *e*Sg | **Sb** | **15 24 19.9** | **+2.5** |
| **TLY** | **Talaya** | **4.77** | **89** | Pn | **Pn** | **15 23 10.6** | **+1.4** |
| | comp=Z,0.1nm,0.3s,baz=271,slow=2.4,SNR=24 | | | | | | |
| TLY | | | | Lg | Lg | 15 24 25.2 | |
| **TLY** | **Talaya** | **4.77** | **89** | *e*PN | **Pn** | **15 23 10.0** | **+0.8** |
| TLY | | | | | | 15 24 25.2 | |
| **TLY** | **Talaya** | **4.77** | **89** | *e*Pn | **Pn** | **15 23 10.0** | **+0.8** |
| TLY | | | | Lg | Lg | 15 24 25.2 | |
| **TLY** | **Talaya** | **4.77** | **89** | P | **Pb** | **15 23 21.7** | **+0.7** |
| | SNR=525 | | | | | | |
| **BYO** | **Bayan-Olgiy** | **4.80** | **236** | *e*Pn | **Pn** | **15 23 09.8** | **+0.1** |
| **BYO** | **Bayan-Olgiy** | **4.80** | **236** | *e*Pg | **Pb** | **15 23 21.4** | **-0.2** |
| BYO | | | | *e*Sg | **Sb** | **15 24 22.3** | **+3.0** |
| **ZAK** | **Zakamensk** | **4.83** | **105** | *e*PN | **Pn** | **15 23 11.8** | **+1.7** |
| ZAK | | | | *e* | | 15 23 22.9 | |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,70μm,3.2s | | | | | | |
| **TASR** | **Tashtagol** | **5.05** | **284** | *i* Pn | **Pn** | **15 23 13.5** | **+0.5** |
| TASR | | | | *e*Pg | **Pb** | **15 23 27.6** | **+1.9** |
| TASR | | | | *e*Sg | **Sb** | **15 24 28.8** | **+2.5** |
| **TASR** | **Tashtagol** | **5.05** | **284** | *i* PN | **Pn** | **15 23 13.5** | **+0.5** |
| TASR | | | | *e* | | 15 23 27.6 | |
| TASR | | | | *e* | | 15 24 28.8 | |
| **IRK** | **Irkutsk** | **5.14** | **82** | *e*PN | **Pn** | **15 23 16.9** | **+2.6** |
| IRK | | | | *e* | | 15 23 29.9 | |
| IRK | | | | *e* | | 15 24 33.8 | |
| IRK | | | | pmax | pmax | | |
| | comp=Z,31μm,1.1s | | | | | | |
| IRK | | | | smax | smax | | |
| | comp=N,1255μm,3.9s | | | | | | |
| **IVK** | **Ivanovka** | **5.24** | **87** | *e*PN | **Pb** | **15 23 30.0** | **+1.0** |
| IVK | | | | *e* | | 15 24 38.2 | |
| IVK | | | | pmax | pmax | | |
| | comp=Z,20μm,1.7s | | | | | | |
| IVK | | | | smax | smax | | |
| | comp=N,215μm,1.8s | | | | | | |
| **ARTR** | **Artybash** | **5.39** | **273** | *e*Pn | **Pn** | **15 23 18.4** | **+0.8** |
| ARTR | | | | *e*Pg | **Pb** | **15 23 31.5** | **0.0** |
| ARTR | | | | *e*Sg | **Sb** | **15 24 40.1** | **+4.1** |
| **ARTR** | **Artybash** | **5.39** | **273** | *e*PN | **Pn** | **15 23 18.4** | **+0.8** |
| ARTR | | | | *e* | | 15 23 31.5 | |
| ARTR | | | | *e* | | 15 24 40.1 | |
| **AKAR** | **Aktash** | **5.47** | **257** | *e*Pn | **Pn** | **15 23 20.5** | **+1.6** |
| AKAR | | | | *e*Pg | **Pb** | **15 23 33.4** | **+0.4** |
| AKAR | | | | *e*Sg | **Sb** | **15 24 44.5** | **+5.8** |
| **AKAR** | **Aktash** | **5.47** | **257** | *e*PN | **Pn** | **15 23 20.5** | **+1.6** |
| AKAR | | | | *e* | | 15 23 33.4 | |
| **LSTR** | **Listvyanka** | **5.50** | **86** | *e*PN | **Pb** | **15 23 35.1** | **+1.7** |
| LSTR | | | | *e* | | 15 24 44.4 | |
| LSTR | | | | pmax | pmax | | |
| | comp=Z,16μm,1.6s | | | | | | |
| **TTS** | **Tsetserleg** | **5.62** | **139** | *e*Pn | **Pn** | **15 23 22.4** | **+1.4** |
| **TTS** | **Tsetserleg** | **5.62** | **139** | *e*Pg | **Pb** | **15 23 38.0** | **+2.3** |
| TTS | | | | *e*Sg | **Sg** | **15 24 51.0** | **-7.0** |
| **BLGM** | **Bulgan** | **5.72** | **119** | *e*Pg | **Pb** | **15 23 40.7** | **+3.4** |
| BLGM | | | | *e*Sg | **Sg** | **15 24 55.6** | **-5.6** |
| **DGZ** | **Jazzator, Alta** | **5.82** | **252** | ⇑*i*PN | **Pn** | **15 23 24.5** | **+0.8** |
| **BGT** | **Bolshoye Golou** | **5.84** | **84** | *e*PN | **Pb** | **15 23 39.9** | **+0.6** |
| BGT | | | | *e*S | **Sb** | **15 24 54.5** | **+5.3** |
| **BRCR** | **Berchikul'** | **5.92** | **313** | *e*Pn | **Pn** | **15 23 24.9** | **-0.1** |
| BRCR | | | | *e*Pg | **Pb** | **15 23 40.8** | **+0.2** |
| BRCR | | | | *e*Sn | **Sb** | **15 24 59.2** | **+7.8** |
| **BRCR** | **Berchikul'** | **5.92** | **313** | *e*PN | **Pn** | **15 23 24.9** | **-0.1** |
| BRCR | | | | *e* | | 15 23 40.8 | |
| **ELT** | **Eltsovka** | **6.10** | **287** | *i* Pn | **Pn** | **15 23 26.6** | **-0.8** |
| ELT | | | | *e*Pg | **Pb** | **15 23 43.8** | **+0.1** |
| ELT | | | | *e*Sg | **Sb** | **15 25 00.1** | **+3.5** |
| **ELT** | **Eltsovka** | **6.10** | **287** | *i* PN | **Pn** | **15 23 26.6** | **-0.8** |
| ELT | | | | *e* | | 15 23 43.8 | |
| ELT | | | | *e* | | 15 25 00.1 | |
| **TRG** | **Tyrgan** | **6.44** | **78** | *e*PN | **Pb** | **15 23 53.3** | **+3.9** |
| TRG | | | | pmax | pmax | | |
| | comp=Z,9μm,0.8s | | | | | | |
| **UKR** | **Ust'-Kan** | **7.06** | **267** | *e*Pn | **Pn** | **15 23 41.6** | **+0.9** |
| UKR | | | | *e*Pg | Pb | 15 24 05.6 | +5.6 |
| UKR | | | | *e*Sg | **Sg** | **15 25 36.4** | **-7.6** |
| **UKR** | **Ust'-Kan** | **7.06** | **267** | *e*PN | **Pn** | **15 23 41.6** | **+0.9** |
| UKR | | | | *e* | | 15 24 05.6 | |
| **ZAA0** | **Zalesovo Array** | **7.07** | **292** | *e*Pn | **Pn** | **15 23 41.3** | **+0.6** |
| **ZALV** | **Zalesovo Beam** | **7.07** | **292** | Pn | **Pn** | **15 23 38.7** | **-2.0** |
| | comp=Z,47nm,0.3s,baz=95,slow=13,SN

comp=Z,234μm,1.4s
**NVS Novosibirsk 8.19 297** *e*Pn **Pn**
NVS *e*Pg **Pb** **15 24 23.4 +4.2**
NVS *e*Sg Sb 15 26 04.7 +8.2
**NVS Novosibirsk 8.19 297** *e*P **Pn** **15 23 56.5 +0.5**
**ULN Ulaanbaatar 8.19 115**⇑ *i*P **Pn** **15 23 57.8 +1.6**
ULN pmax pmax
comp=Z,519nm,1.7s
**ULN Ulaanbaatar 8.19 115** *e*Pn **Pn** **15 23 58.0 +1.7**
**ULN Ulaanbaatar 8.19 115** Pn **Pb** **15 24 21.5 +2.2**
SNR=460
**ARTM 8.28 114** *e*Pn **Pn** **15 23 58.3 +0.8**
**ARTM 8.28 114** *e*Pg **Pb** **15 24 25.0 +4.1**
**SEMM 8.32 117** *e*Pg **Pb** **15 24 26.2 +4.6**
SEMM *e*Sg **Sg** **15 26 18.3 -6.2**
comp=Z,173μm,1.3s
**ZSN Zaisan 8.43 243** *e*P **Pn** **15 23 59.1 -0.3**
ZSN *e*S Sb 15 26 14.8 +11
**UGDM 8.51 115** *e*Pn **Pn** **15 24 02.4 +1.7**
**UGDM 8.51 115** *e*Pg Pg 15 24 29.8 -11
UGDM *e*Sg **Sg** **15 26 24.2 -6.3**
comp=Z,298μm,1.9s
**WMQ Urumqi 9.75 218** P **Pn** **15 24 18.3 +0.8**
WMQ pP 15 24 23.0
WMQ sP 15 24 25.5
WMQ S **Sn** **15 26 09.8 +2.9**
WMQ SS **SnSn** **15 26 22.3 +4.1**
WMQ pmax pmax
comp=Z,2μm,1.5s
WMQ pmax pmax
comp=Z,74μm,3.9s
WMQ LR LR
comp=Z,208μm,23.3s
WMQ LR LR
comp=Z,289μm,27.5s
WMQ LR LR
comp=Z,351μm,21.3s
**SEM Semipalatinsk 9.99 268** *e*P **Pn** **15 24 19.3 -1.5**
**MK31 Makanchi Array 10.25 246** *e*P **Pn** **15 24 23.5 -0.8**
**MK31 Makanchi Array 10.25 246** *e*Pn **Pn** **15 24 23.3 -1.0**
**MKAR Makanchi Array 10.25 246** Pn **Pn** **15 24 23.4 -0.9**
comp=Z,9.4nm,0.3s,baz=73,slow=11,SNR=251
MKAR Lg Lg 15 27 21.2
comp=Z,161nm,0.3s,baz=47,slow=25,SNR=7.3
**MK01 Makanchi Array 10.26 246** *e*Pn **Pn** **15 24 23.4 -1.0**
**MAKZ Makanchi 10.42 247** *e*P **Pn** **15 24 25.9 -0.7**
**MAKZ Makanchi 10.42 247** *e*Pn **Pn** **15 24 25.8 -0.9**
**KURK Kurchatov 10.93 271**⇓ *i*P **Pn** **15 24 32.5 -1.0**
KURK pmax pmax
comp=Z,2μm,1.7s
**KURK Kurchatov 10.93 271** *e*Pn **Pn** **15 24 32.1 -1.4**
KURK Lg Lg 15 27 43.6
**KURK Kurchatov 10.93 271** Pn **Pn** **15 24 32.1 -1.4**
SNR=322
**KURK Kurchatov 10.93 271** P **Pn** **15 24 32.1 -1.4**
SNR=322
KURK P **Pn** **15 24 32.1 -1.4**
SNR=322
**KURBB Kurchatov Arra 11.00 271** Pn **Pn** **15 24 32.3 -2.2**
comp=Z,3.8nm,0.3s,baz=76,slow=14,SNR=132
KURBB Lg Lg 15 27 43.6
comp=Z,15nm,0.3s,baz=78,slow=34,SNR=5.3
**BOD Bodaibo 11.98 53** *e*P **Pn** **15 24 45.5 -2.4**
BOD *e*S **Sn** **15 27 00.3 -1.0**
BOD pmax pmax
comp=Z,4μm,1.7s
**GTA Gaotai 12.71 166**⇓ P **Pn** **15 24 57.8 -0.3**
GTA pP P 15 25 01.8 -7.5
GTA sP 15 25 04.5
GTA S **Sn** **15 27 25.5 +6.0**
GTA sS 15 27 31.0
GTA SS **SnSn** **15 27 40.5 +9.1**
GTA pmax pmax
comp=Z,2μm,5.2s
GTA LR LR
comp=Z,772μm,13.1s
GTA LR LR
comp=Z,370μm,13.5s
**KAPS Kapalarasan 12.79 246** *e*P **Pn** **15 24 56.4 -2.6**
**KTMS Ketmen 13.44 237** *e*P **Pn** **15 25 07.5 -0.5**
KTMS *e*S S 15 28 11.7 +11
**TDK Taldyqorghan 13.50 246** *i* P **Pn** **15 25 06.0 -2.7**
comp=Z,715nm,0.8s
TDK *e*S **Sn** **15 27 36.5 -2.0**
TDK LR LR 15 29 56.1
comp=Z,400μm,11.2s
**PDGK Podgornoye 13.97 239** P **Pn** **15 25 13.6 -1.7**
PDGK pmax pmax
comp=Z,1μm,1.1s
**SHLS Shalkode 14.11 239** *e*P **Pn** **15 25 13.4 -3.8**
**SHLS Shalkode 14.11 239** *i* P Pn 15 25 11.3 -5.8
comp=Z,3μm,1.1s
SHLS LR LR 15 30 00.7
comp=Z,103μm,11.2s
**ARXS Arharly 14.31 245** *e*P **Pn** **15 25 19.1 -0.7**
**UZB Uzynbulak 14.35 239** *e*P **Pn** **15 25 17.1 -3.3**
**KURS Kuram 14.58 242** *e*P **Pn** **15 25 21.8 -1.7**
**ZHN Zhinishke 14.65 241** *e*P **Pn** **15 25 20.9 -3.7**
**ZHN Zhinishke 14.65 241** *i* P **Pn** **15 25 21.4 -3.1**
comp=Z,743nm,2.0s
ZHN LRM MLR 15 31 23.2
comp=Z,117μm,10.2s
**SATY Saty 14.74 240** *e*P **Pn** **15 25 23.7 -2.1**
**SATY Saty 14.74 240** *i* P **Pn** **15 25 23.0 -2.8**
comp=Z,2μm,1.4s
SATY LRM MLR 15 31 25.9
comp=Z,233μm,10.1s
**BRZS Berezniki 14.79 272** *e*P **P** **15 25 34.1 +1.8**
**BTO Baotou 14.83 134** *e*P **Pn** **15 25 26.8 -0.1**
BTO LR LR
comp=Z,230μm,12.3s
BTO LR LR
comp=Z,96μm,7.1s
**CHKK Chushkaly 15.00 245** *e*P **Pn** **15 25 27.5 -1.8**
**HIA Hailar 15.31 90** *e*P **Pn** **15 25 33.4 +0.1**
HIA pmax pmax
comp=Z,3μm,1.2s
**HIA Hailar 15.31 90** *e*Pn **Pn** **15 25 33.4 +0.1**
comp=Z,3μm,1.2s
**KUU Kurty 15.35 247** *e*P **Pn** **15 25 28.4 -5.4**
**HHC Hu-ho-hao-te 15.35 130** *e*P **Pn** **15 25 32.5 -1.4**
HHC sP sP 15 25 40.0 -3.9
HHC S **Sn** **15 28 23.5 -0.3**
HHC sS sS 15 28 29.0 -17
HHC SS **S** **15 28 40.0 -0.1**
HHC pmax pmax
comp=Z,22μm,6.5s
HHC LR LR
comp=Z,401μm,9.8s
HHC LR LR
comp=Z,506μm,9.3s
**MDOK Medeo 15.41 243** *e*P **Pn** **15 25 31.2 -3.5**
**MDOK Medeo 15.41 243** *i* P **Pn** **15 25 32.2 -2.6**
comp=Z,3μm,0.8s
MDOK *e*S **Sn** **15 28 23.5 -1.8**
MDOK LR LR 15 31 01.9
comp=Z,423μm,13.6s
**AAA Alma-Ata 15.46 244** *e*P **Pn** **15 25 34.5 -0.8**
AAA *e*S **Sn** **15 28 27.5 +1.2**
AAA pmax pmax
comp=Z,65μm,5.2s
AAA smax smax
comp=E,129μm,5.5s
AAA MLR MLR
comp=Z,786μm,11.0s
**AAA Alma-Ata 15.46 244** *e*P **Pn** **15 25 34.4 -0.9**
**AAA Alma-Ata 15.46 244** *i* P **Pn** **15 25 32.6 -2.6**
comp=Z,6μm,1.5s
AAA *e*S **Sn** **15 28 24.3 -1.9**
AAA LR LR 15 30 41.3
comp=Z,298μm,12.7s
**TNSS Tian-Shan 15.55 243** *e*P **Pn** **15 25 35.0 -1.8**
**BVA0 Borovoye Array 15.62 284** *i* P **Pn** **15 25 33.1 -4.2**
BVA0 pmax pmax
comp=Z,1μm,1.4s
**BVAR Borovoye Array 15.62 284** Pn **Pn** **15 25 33.2 -4.1**
comp=Z,6.4nm,0.3s,baz=84,slow=12,SNR=104
BVAR LR LR 15 31 58.5
comp=Z,272μm,19.8s,baz=84,slow=39
**BRVK Borovoye 15.68 285***d* *i*P **Pn** **15 25 36.1 -1.9**
**BRVK Borovoye 15.68 285** *e*Pn **Pn** **15 25 34.2 -3.9**
comp=Z,802nm,0.9s
**BRVK Borovoye 15.68 285** P **Pn** **15 25 34.5 -3.5**
SNR=503
BRVK P **Pn** **15 25 34.5 -3.5**
SNR=503
**MTBS Maitube 15.78 244** *e*P **Pn** **15 25 36.9 -2.6**
**BTLS Baital 16.02 254** *e*P **Pn** **15 25 38.8 -3.7**
**KST Kastek 16.10 245** *e*P **Pn** **15 25 39.7 -3.9**
**BMNS Besmoynak 16.22 245** *e*P **Pn** **15 25 42.7 -2.5**
**BMNS Besmoynak 16.22 245** *i* P **Pn** **15 25 42.6 -2.6**
comp=Z,3μm,1.4s
BMNS *e*S **Sn** **15 28 42.8 -2.2**
**TKM2 Tokmak 2 16.38 245** P **Pn** **15 25 44.5 -2.8**
TKM2 pmax pmax
comp=Z,2μm,1.5s
**TKM2 Tokmak 2 16.38 245** P **Pn** **15 25 44.4 -2.8**
SNR=329
**ULHL Ulahol 16.47 242** P **Pn** **15 25 47.1 -1.3**
SNR=22
**LZH Lanzhou 16.72 157**⇑ P **Pn** **15 25 52.8 +1.2**
LZH pP pP 15 25 56.3 -1.1
LZH sP sP 15 25 59.5 +0.4
LZH S **Sn** **15 28 58.0 +0.9**
LZH sS S 15 29 03.0 -5.2
LZH SS **SnSn** **15 29 18.0 +7.9**
LZH pmax pmax
comp=Z,2μm,1.2s
LZH pmax pmax
comp=Z,16μm,4.4s
LZH LR LR
comp=Z,769μm,12.6s
**USP Ospenovka 16.79 248** P **Pn** **15 25 49.1 -3.2**
SNR=86
**CHMS Chumysh 16.81 247** P **Pn** **15 25 49.2 -3.3**
SNR=53
**KBK Karagaybulak 16.92 245** P **Pn** **15 25 51.6 -2.5**
SNR=252
**FRU Bishkek 16.99 246**⇓ *i*P **Pn** **15 25 54.0 -0.8**
FRU *i* S **Sn** **15 28 59.5 -3.9**
FRU pmax pmax
comp=Z,2μm,2.1s
FRU pmax pmax
comp=E,15μm,5.5s
FRU smax smax
comp=E,70μm,6.5s
**KZA Kyzart 17.13 243** P **Pn** **15 25 57.8 +0.9**
SNR=174
**AAK Ala-Archa 17.18 246** P **Pn** **15 25 54.6 -2.8**
comp=E,1.4nm,0.3s,baz=61,slow=11,SNR=86
AAK Lg Lg 15 30 49.8
comp=E,2.6nm,0.3s,baz=344,slow=15,SNR=2.5
AAK LR LR 15 32 51.6
comp=E,324μm,19.4s,baz=29,slow=38
**AAK Ala-Archa 17.18 246***d* *i*P **Pn** **15 25 56.4 -1.0**
**AAK Ala-Archa 17.18 246** P **Pn** **15 25 54.7 -2.8**
SNR=121
**AAK Ala-Archa 17.18 246** *e*Pn **Pn** **15 25 54.6 -2.8**
comp=E,3μm,1.8s
AAK Lg Lg 15 30 49.8
**AAK Ala-Archa 17.18 246** Pn **Pn** **15 25 55.4 -2.0**
SNR=256
**AAK Ala-Archa 17.18 246** P **Pn** **15 25 55.4 -2.0**
SNR=256
**UCH Uchtor 17.44 245** P **Pn** **15 25 59.1 -1.8**
SNR=198
**CLNS Chul'man 17.52 62** *e*P **P** **15 26 02.2 -0.2**
CLNS *e*S **S** **15 29 20.7 -3.3**
CLNS pmax pmax
comp=Z,254nm,1.1s
CLNS pmax pmax
comp=N,119nm,0.9s
CLNS pmax pmax
comp=E,237nm,1.0s
CLNS smax smax
comp=E,2μm,7.8s
CLNS smax smax
comp=N,10μm,8.3s
CLNS MLR MLR
comp=Z,153μm,12.0s
CLNS MLR MLR
comp=N,44μm,8.0s
CLNS MLR MLR
comp=E,96μm,10.0s
**EKS2 Erkin-Say 17.58 247** P **Pn** **15 25 59.7 -2.6**
SNR=82
**MRKS Merke 17.84 248** *e*P **Pn** **15 26 00.4 -5.1**
**AML Almayashu 17.96 246** P **Pn** **15 26 05.5 -1.8**
SNR=182
**TIY Taiyuan 18.27 134** *e*P **Pn** **15 26 10.5 -0.2**
TIY pmax pmax
comp=E,21μm,5.2s
TIY LR LR
comp=E,316μm,8.0s
TIY LR LR
comp=E,479μm,20.1s
**BJI Beijing 18.28 122** P **P** **15 26 11.3 +0.5**
BJI pmax pmax
comp=E,420nm,1.9s
BJI pmax pmax
comp=E,50μm,5.7s
BJI LR LR
comp=E,622μm,9.3s
BJI LR LR
comp=E,411μm,9.6s
BJI LR LR
comp=E,506μm,18.8s
**BJT Baijiatuau 18.29 122** *e*P **Pn** **15 26 10.8 -0.1**
BJT pmax pmax
comp=Z,2μm,1.4s
**BJT Baijiatuau 18.29 122** *e*P **Pn** **15 26 10.8 -0.1**
comp=Z,2μm,1.4s
**MNAS Manas 18.42 249** P **P** **15 26 10.5 -2.1**
MNAS pmax pmax
comp=Z,1μm,1.5s
**KSH Kashi 18.55 236** P **Pn** **15 26 19.0 +4.8**
KSH PP **PnPn** **15 26 35.0 +9.2**
KSH S **S** **15 29 47.5 +2.2**
KSH SS SnSn 15 30 10.8 +16
KSH PcS **PcS** **15 34 22.0 +2.1**
KSH ScS **ScS** **15 38 02.0 +2.8**
KSH pmax pmax
comp=Z,2μm,1.8s
KSH LR LR
comp=Z,196μm,8.1s
KSH LR LR
comp=Z,342μm,10.2s
**DZA Taraz 18.86 251** *e*P **P** **15 26 16.4 -0.9**
**DZA Taraz 18.86 251** *i* P **P** **15 26 14.3 -3.0**
comp=Z,3μm,1.3s
DZA *e*S **Sn** **15 29 46.1 -2.5**
DZA LR LR 15 32 49.3
comp=Z,86μm,10.1s
**KK31 Karatay Array 19.21 253** *i* P **P** **15 26 19.5 -1.7**
KK31 pmax pmax
comp=Z,228nm,0.8s
**KKAR Karatay Array 19.21 253** *e*P **P** **15 26 19.1 -2.1**
KKAR pmax pmax
comp=Z,2μm,0.8s
**KKAR Karatay Array 19.21 253** *e*P **P** **15 26 18.9 -2.3**
comp=Z,2μm,0.8s
**SFK Sufi-Kurgan 19.50 242** P **P** **15 26 24.3 -0.3**
SFK pmax pmax
comp=Z,1μm,1.4s
**BRLS Borolday 19.66 254** *i* P **P** **15 26 26.2 +0.2**
BRLS *e*S **Sn** **15 30 10.2 +2.3**
BRLS LR LR 15 33 11.8
comp=Z,15μm,12.4s
**IUG Iuzhnay 20.07 251** *e*P **P** **15 26 29.6 -1.1**
**IUG Iuzhnay 20.07 251** *i* P **P** **15 26 28.1 -2.6**
comp=Z,294nm,0.7s
IUG *e*S **S** **15 30 13.9 -1.9**
IUG LR LR 15 33 36.8
comp=Z,100μm,10.8s
**XAN Xi'an 20.10 147** P **P** **15 26 31.3 +0.4**
XAN pP pP 15 26 35.3 +0.7
XAN sP sP 15 26 38.3 +2.1
XAN PP **PnPn** **15 26 51.5 +4.4**
XAN S **S** **15 30 12.3 -4.1**
XAN sS Sn 15 30 18.3 -0.4
XAN SS **SnSn** **15 30 41.3 +8.2**
XAN pmax pmax
comp=Z,19μm,8.6s
XAN LR LR
comp=Z,466μm,14.7s
XAN LR LR
comp=Z,566μm,13.9s
**CHM Chimkent 20.22 252** *e*P Pn 15 26 42.1 +8.0
**YAK Yakutsk 20.79 48** P **P** **15 26 37.6 -0.5**
comp=Z,132nm,0.5s,baz=293,slow=3.3,SNR=207
YAK S **S** **15 30 27.1 -2.3**
comp=Z,239nm,0.8s,baz=83,slow=14,SNR=2.0
YAK Lg Lg 15 32 40.7
comp=Z,927nm,1.1s,baz=45,slow=23,SNR=1.9
YAK LR LR 15 35 01.7
comp=Z,158μm,20.1s,baz=269,slow=38
**YAK Yakutsk 20.79 48***d* *i*P **P** **15 26 37.8 -0.3**
YAK *e* 15 26 58.4
YAK *e*S Sn 15 30 32.1 -2.6
YAK *e* 15 38 01.6
YAK pmax pmax
comp=Z,608nm,1.2s
YAK pmax pmax
comp=N,145nm,1.3s
YAK pmax pmax
comp=E,605nm,1.3s
YAK pmax pmax
comp=Z,4μm,1.5s
YAK pmax pmax
comp=E,3μm,1.5s
YAK pmax pmax
comp=N,2μm,1.6s
YAK smax smax
comp=N,48μm,7.5s
YAK smax smax
comp=E,50μm,6.3s
YAK MLR MLR
comp=Z,148μm,19.0s
YAK MLR MLR
comp=E,99μm,19.0s
**YAK Yakutsk 20.79 48** *e*P **P** **15 26 37.5 -0.5**
comp=E,4μm,1.2s
YAK S **S** **15 30 27.1 -2.3**
YAK Lg Lg 15 32 40.7
**SVE Sverdlovsk 21.03 298***d* *i*P **P** **15 26 39.1 -1.7**
SVE *e*S Sn 15 30 38.1 -2.6
SVE pmax pmax
comp=Z,3μm,1.3s
SVE pmax pmax
comp=Z,20μm,16.5s
SVE MLR MLR
comp=N,151μm,13.0s
SVE MLR MLR
comp=Z,160μm,13.0s
SVE MLR MLR
comp=E,138μm,12.0s
**CN2 Changchun 21.25 101**⇑ P **P** **15 26 44.0 +0.7**
CN2 *e*S Sn 15 30 44.8 -1.4
**SNY Shenyang 21.26 107**⇑ P **P** **15 26 44.0 +0.7**
SNY pmax pmax
comp=E,340nm,1.3s
SNY pmax pmax
comp=E,17μm,4.7s
SNY LR LR
comp=E,295μm,10.4s
SNY LR LR
comp=E,726μm,14.5s
**CD2 Chengdu 21.68 162**⇓ *i*P **P** **15 26 49.0 +1.0**
CD2 pP sP 15 26 53.3 0.0
CD2 sP pP 15 26 57.5 +5.8
CD2 S **S** **15 30 44.5 -3.2**
CD2 pmax pmax
comp=E,830nm,1.8s
CD2 pmax pmax
comp=E,5μm,9.4s
CD2 LR LR
comp=E,409μm,10.7s
CD2 LR LR
comp=E,474μm,16.7s
**TIA Tai'an 21.68 128** P **P** **15 26 48.5 +0.5**
TIA pmax pmax
comp=E,20μm,8.3s
TIA LR LR
comp=E,276μm,12.8s
TIA LR LR
comp=E,267μm,10.0s
TIA LR LR
comp=E,622μm,12.1s
**DL2 Dalian 22.05 116**⇑ *i*P **P** **15 26 52.0 +0.2**
DL2 S **S** **15 30 56.3 +1.8**
DL2 pmax pmax
comp=E,380nm,1.2s
DL2 pmax pmax
comp=E,13μm,8.0s
DL2 LR LR
comp=E,434μm,11.4s
DL2 LR LR
comp=E,291μm,14.3s
DL2 LR LR
comp=E,709μm,12.4s
**ARU Arti 22.20 297** P **P** **15 26 51.0 -2.3**
comp=E,134nm,0.7s,baz=91,slow=7.2,SNR=88
ARU LR LR 15 36 24.5
comp=E,170μm,18.7s,baz=87,slow=39
**ARU Arti 22.20 297***c* *i*P **P** **15 26 52.1 -1.2**
ARU PPP PPP 15 27 20.8
ARU S **S** **15 30 57.1 -0.1**
ARU SS **SnSn** **15 31 25.0 +1.2**
ARU pmax pmax
comp=Z,808nm,1.7s
ARU pmax pmax
comp=Z,16μm,14.6s
ARU MLR MLR
comp=Z,151μm,19.0s
**ARU Arti 22.20 297** *e*P **P** **15 26 51.6 -1.7**
comp=Z,3μm,1.2s
**LSA Lhasa 22.40 191** P **P** **15 26 58.5 +2.3**
LSA pmax pmax
comp=Z,370nm,1.4s
LSA pmax pmax
comp=Z,20μm,5.5s
LSA LR LR
comp=Z,130μm,14.4s
LSA LR LR
comp=Z,285μm,16.4s
LSA LR LR
comp=Z,330μm,17.5s
**LSA Lhasa 22.40 191** *e*P **P** **15 26 57.7 +1.5**
LSA pmax pmax
comp=Z,4μm,1.8s
LSA MLR MLR
comp=Z,343μm,19.0s
**LSA Lhasa 22.40 191** *e*P **P** **15 26 57.7 +1.5**
comp=Z,4μm,1.8s
LSA LR LR
comp=Z,343μm,19.0s
**KLR Kul'dur 22.75 82** P **P** **15 26 59.0 -0.3**
comp=Z,2.4nm,0.7s,baz=285,slow=8.5,SNR=50
KLR S **S** **15 31 09.5 +1.9**
comp=Z,2.4nm,1.0s,baz=15,slow=8.5,SNR=1.8
KLR Lg Lg 15 33 45.8
comp=Z,20nm,1.2s,baz=222,slow=15,SNR=5.1
KLR LR LR 15 36 19.5
comp=Z,16μm,21.0s,baz=288,slow=38
**KLR Kul'dur 22.75 82**⇑ *i*P **P** **15 27 00.0 +0.7**
**AB31 Akbulak array 22.89 278** P **P** **15 26 58.7 -2.0**
AB31 pmax pmax
comp=Z,955nm,1.0s
**ABKAR Akbulak array 22.89 278** *e*P **P** **15 26 58.8 -1.9**
comp=Z,5μm,0.8s
**DZET Dzherino 22.95 246** P **P** **15 27 01.7 +0.2**
DZET pmax pmax
comp=Z,1μm,0.9s
**MDJ Mudanjiang 23.38 95** P **P** **15 27 05.0 -0.7**
MDJ pP pP 15 27 08.0 -1.5
MDJ sP sP 15 27 09.3 -1.8
MDJ PcP **PcP** **15 30 51.5 -0.5**
MDJ S **S** **15 31 18.5 +0.2**
MDJ pmax pmax
comp=Z,5μm,5.5s
MDJ LR LR
comp=Z,672μm,17.9s
MDJ LR LR
comp=Z,327μm,13.9s
**MDJ Mudanjiang 23.38 95** *e*P **P** **15 27 05.8 0.0**
comp=Z,557nm,1.3s
MDJ LR LR
comp=Z,263μm,20.0s
**AKTO Aktyubinsk 23.68 282** P **P** **15 27 06.8 -1.9**
comp=Z,531nm,0.9s,baz=85,slow=9.4,SNR=322
AKTO S **S** **15 31 22.4 -0.6**
comp=Z,67nm,0.9s,baz=84,slow=14,SNR=1.9
AKTO Lg Lg 15 34 12.2
comp=Z,309nm,1.1s,baz=79,slow=7.5,SNR=4.1
AKTO LR LR 15 36 44.7
comp=Z,219μm,19.0s,baz=71,slow=38
**AKTO Aktyubinsk 23.68 282** P **P** **15 27 06.9 -1.8**
AKTO pmax pmax

comp=Z,2μm,1.1s
**ENH Enshi 23.76 150 eP P 15 27 09.4 -0.2**
comp=Z,506nm,0.9s
ENH LR LR
comp=Z,272μm,22.0s
**DHRM DHARAMSHALA 24.28 224 eP P 15 27 14.6 -0.1**
DHRM AMB AMB 15 27 22.6
comp=Z,3μm,3.4s
**THN Thein Dam 24.38 225 eP P 15 27 13.6 -1.7**
THN ex x 15 31 15.0
**JOSI Joshimath 24.47 216 eP P 15 27 16.9 +0.4**
JOSI AMB AMB 15 27 24.4
comp=Z,7μm,0.1s
**JWA Jwalamukhi 24.59 223 eP P 15 27 16.0 -1.3**
JWA ex x 15 29 20.0
**SDNR Sundarnagar 24.64 222 eP P 15 27 18.0 +0.2**
SDNR ex x 15 36 46.0
**TIXI Tiksi 24.65 24 P P 15 27 17.0 -0.6**
comp=Z,1μm,0.9s,baz=234,slow=7.0,SNR=220
TIXI S S 15 31 37.0 -1.2
comp=Z,143nm,1.0s,baz=324,slow=21,SNR=1.7
TIXI Lg Lg 15 34 38.8
comp=Z,259nm,0.9s,baz=290,slow=14,SNR=3.2
TIXI LR LR 15 37 20.0
comp=Z,175μm,21.3s,baz=222,slow=38
**TIXI Tiksi 24.65 24⇑ iP P 15 27 16.6 -0.9**
TIXI pmax pmax
comp=Z,2μm,1.7s
TIXI MLR MLR
comp=Z,186μm,19.0s
**TIXI Tiksi 24.65 24 eP P 15 27 16.9 -0.6**
comp=Z,3μm,1.0s
TIXI S S 15 31 37.0 -1.2
TIXI Lg Lg 15 34 38.8
**PONG Pong 24.68 224 eP P 15 27 17.0 -1.1**
**SMLA Simla 24.89 221 eP P 15 27 18.7 -1.2**
SMLA AMB AMB 15 27 27.8
comp=Z,2μm,1.8s
**BHK Bhakra 24.95 223 eP P 15 27 20.0 -0.5**
BHK ex x 15 29 44.4
**HABR Khabarovsk 25.06 82 c iP P 15 27 20.4 -1.0**
HABR ePPP PPP 15 28 02.2
HABR e 15 30 53.9
HABR eS S 15 31 46.3 +1.1
HABR e*SS sS 15 31 51.7 +0.1
HABR eSS SnSn 15 32 37.2 +3.1
HABR e 15 38 21.9
HABR pmax pmax
comp=Z,76nm,1.1s
HABR pmax pmax
comp=Z,9μm,3.7s
HABR MLR MLR
comp=Z,177μm,16.0s
**GUN Gumba 25.07 201 eP P 15 27 21.6 -0.4**
comp=Z,4μm,1.6s
**USRK Ussuriysk Ar. 25.07 93 P P 15 27 21.5 0.0**
comp=Z,98nm,0.8s,baz=300,slow=7.7,SNR=99
USRK Lg Lg 15 35 08.0
comp=Z,96nm,1.2s,baz=308,slow=22,SNR=7.7
USRK LR LR 15 36 34.9
comp=Z,168μm,18.9s,baz=299,slow=35
**PTH Pithoragarh 25.16 214 eP P 15 27 21.0 -1.6**
PTH ex x 15 32 05.9
**DANN Dangsing 25.18 206 eP P 15 27 23.0 +0.1**
comp=Z,56nm,0.8s
**TAPN Taplejung 25.23 197 eP P 15 27 23.3 -0.2**
comp=Z,2μm,1.1s
**WHN Wuhan 25.24 140 ⇑P P 15 27 23.8 +0.7**
WHN S S 15 31 43.5 -4.7
WHN pmax pmax
comp=Z,1μm,1.5s
WHN LR LR
comp=Z,724μm,15.9s
**JIRN Jiri 25.24 201 eP P 15 27 23.1 -0.5**
comp=Z,10μm,1.6s
**DDI Dehra Dun 25.25 219 eP P 15 27 22.1 -1.2**
DDI AMB AMB 15 27 31.6
comp=Z,3μm,3.3s
**GKN Gorkha 25.28 204 eP P 15 27 23.9 +0.2**
comp=Z,7.7nm,0.6s
**KKN Kakani 25.32 203 eP P 15 27 24.0 -0.2**
comp=Z,6μm,1.6s
**MSHR Mys Shultsa 25.42 97⇑ iP P 15 27 25.9 +1.2**
**PKIN Phulchoki 25.50 202 eP P 15 27 25.9 +0.1**
comp=Z,1μm,0.9s
**PKI Pulchoki 25.50 202 eP P 15 27 25.8 -0.1**
comp=Z,3μm,1.3s
**DMN Daman 25.54 203 eP P 15 27 26.3 +0.1**
comp=Z,11μm,2.4s
**VLA Vladivostok 25.57 96⇑ iP P 15 27 26.7 +0.7**
VLA pmax pmax
comp=Z,503nm,1.4s
VLA MLR MLR
comp=Z,271μm,10.0s
**PYUN Piuthan 25.63 207 eP P 15 27 26.5 -0.4**
comp=Z,805nm,0.8s
**KOLN Koldanda 25.77 206 eP P 15 27 28.1 -0.1**
comp=Z,1μm,1.2s
**ODAN Odare 25.77 198 eP P 15 27 28.2 -0.1**
comp=Z,3μm,1.2s
**RAMN Ramite 25.84 199 eP P 15 27 28.6 -0.3**
comp=Z,3μm,1.4s
**INCN Inchon 25.87 112 eP P 15 27 28.9 0.0**
comp=Z,345nm,1.0s
INCN LR LR
comp=Z,333μm,19.0s
**INCN Inchon 25.87 112 P P 15 27 29.3 +0.4**
SNR=16
**NJ2 Nanjing 25.90 131 eP P 15 27 30.5 +1.4**
NJ2 sP sP 15 27 40.5 +5.9
NJ2 S S 15 31 54.5 -4.2
NJ2 pmax pmax
comp=Z,620nm,1.5s
NJ2 pmax pmax
comp=Z,16μm,6.2s
NJ2 LR LR
comp=Z,286μm,16.3s
NJ2 LR LR
comp=Z,134μm,18.4s
NJ2 LR LR
comp=Z,291μm,17.9s
**KBL Kabul 25.93 239 eP P 15 27 28.3 -1.4**
KBL pmax pmax
comp=Z,760nm,1.2s
**KBL Kabul 25.93 239 eP P 15 27 28.1 -1.6**
comp=Z,758nm,1.3s
**SHL Shillong 26.41 188 eP P 15 27 33.0 -1.0**
SHL ex x 15 32 14.0
**GYA Guiyang 26.61 158⇑ iP P 15 27 35.3 -0.4**
GYA PP PnPn 15 28 21.0 +4.8
GYA PcP PcP 15 31 01.5 +1.9
GYA S S 15 32 06.5 -3.7
GYA SS SnSn 15 33 20.8 +8.2
GYA ScP ScP 15 34 39.3 +0.2
GYA pmax pmax
comp=Z,260nm,1.0s
GYA pmax pmax
comp=Z,2μm,5.3s
GYA LR LR
comp=Z,184μm,11.2s
GYA LR LR
comp=Z,418μm,11.2s
GYA LR LR
comp=Z,161μm,11.8s
**KS01 Wonju Array Si 26.61 110 eP P 15 27 35.3 -0.2**
**KS15 Wonju Array Si 26.63 110 eP P 15 27 35.6 -0.1**
**KSAR Wonju Array Be 26.63 110 P P 15 27 35.6 -0.1**
**KSAR Wonju Array Be 26.63 110 P P 15 27 35.6 -0.1**
KSAR Lg Lg 15 36 03.6
**KSRS Korea Array 26.64 110 P P 15 27 35.6 -0.2**
comp=Z,45nm,0.9s,baz=320,slow=7.4,SNR=88
KSRS Lg Lg 15 36 03.6
comp=Z,67nm,1.3s,baz=304,slow=26,SNR=7.1
**NKL Nikolayevsk 26.93 69 i P P 15 27 44.0 +5.8**
NKL eS S 15 32 16.0 +1.4
NKL pmax pmax
comp=E,130nm,1.5s
NKL pmax pmax
comp=Z,280nm,1.5s
NKL pmax pmax
comp=E,4μm,14.0s
NKL pmax pmax
comp=Z,6μm,12.0s
NKL smax smax
comp=E,64μm,18.0s
**NDI New Delhi 27.04 218 eP P 15 27 39.0 -0.4**
NDI ex x 15 32 09.0
**TJN Taejon 27.06 112⇑ eP P 15 27 40.0 +0.4**
**KMI Kunming 27.17 166 P P 15 27 40.8 -0.1**
KMI pP sP 15 27 46.5 +0.1
KMI S S 15 32 23.0 +3.7
KMI sS sS 15 32 31.8 +6.1
KMI pmax pmax
comp=E,4μm,3.6s
KMI LR LR
comp=E,266μm,14.8s
KMI LR LR
comp=E,764μm,18.8s
KMI LR LR
comp=E,150μm,17.4s
**SSE Sheshan 27.80 128 ⇑P P 15 27 46.5 +0.3**
SSE pP pP 15 27 49.5 -0.6
SSE S S 15 32 30.0 +1.3
SSE sS sS 15 32 35.8 +0.6
SSE LR LR
comp=E,98μm,19.0s
SSE LR LR
comp=E,200μm,19.0s
SSE LR LR
comp=E,254μm,16.5s
**KHET Khetri 28.13 220 eP P 15 27 47.5 -1.8**
KHET AMB AMB 15 27 55.6
comp=Z,431nm,2.0s
**TYV Tymovskoe 28.79 73 eP P 15 28 00.0 +5.1**
TYV pmax pmax
comp=Z,3μm,3.3s
TYV pmax pmax
comp=Z,112nm,2.1s
TYV MLR MLR
comp=Z,248μm,17.0s
**BOK Bokaro 29.05 199 eP P 15 27 57.3 -0.1**
BOK AMB AMB 15 28 05.0
comp=Z,579nm,3.7s
**BRDH Bariadhala 29.30 188 P P 15 28 01.0 +1.4**
comp=Z,167nm,0.3s,baz=66,slow=13,SNR=12
BRDH LR LR 15 41 48.5
comp=Z,309μm,18.9s,baz=14,slow=41
**ASHT Ashkhabad 29.66 257 P P 15 28 01.7 -1.1**
**GEYT Alibeck 29.83 257 P P 15 28 03.3 -1.0**
comp=Z,24nm,0.8s,baz=41,slow=4.7,SNR=29
GEYT Lg Lg 15 37 50.5
comp=Z,124nm,1.2s,baz=41,slow=14,SNR=3.7
GEYT LR LR 15 41 07.6
comp=Z,160μm,20.5s,baz=50,slow=39
**YSS Yuzh-Sakhalins 30.42 80 eP P 15 28 09.5 +0.1**
YSS eS S 15 33 14.0 +4.4
YSS e 15 35 06.2
YSS pmax pmax
comp=E,110nm,1.2s
YSS pmax pmax
comp=N,2μm,4.0s
YSS pmax pmax
comp=E,2μm,4.0s
YSS pmax pmax
comp=Z,2μm,4.0s
YSS smax smax
comp=E,6μm,13.0s
YSS smax smax
comp=N,11μm,9.0s
YSS MLR MLR
comp=Z,129μm,15.0s
YSS MLR MLR
comp=N,79μm,14.0s
YSS MLR MLR
comp=E,134μm,12.0s
**YSS Yuzh-Sakhalins 30.42 80 eP P 15 28 09.7 +0.3**
comp=E,219nm,1.3s
YSS LR LR
comp=Z,156μm,21.0s
**MA2 Magadan 31.01 54⇓ iP P 15 28 15.2 +0.7**
**JBP Jabalpur 31.16 209⇓ eP P 15 28 15.6 -0.5**
JBP ex x 15 33 17.9
**JASL Jaisalmer 31.23 227 eP P 15 28 15.6 -1.1**
JASL AMB AMB 15 28 24.7
comp=Z,386nm,0.8s
**SEY Seymchan 31.31 47⇓ iP P 15 28 17.8 +0.7**
**JNU Nakatsue 31.41 113 eP P 15 28 17.8 -0.5**
comp=Z,132nm,1.1s
**KLMR Klimovskoe 31.60 309 c iP P 15 28 18.1 -1.5**
KLMR e 15 29 22.1
KLMR eS S 15 33 28.0 +0.2
KLMR pmax pmax
comp=Z,957nm,1.2s
KLMR MLR MLR
comp=Z,26μm,13.0s
**GZH Guangzhou 31.67 148 P P 15 28 17.8 -2.8**
GZH PP PnPn 15 29 26.5 +2.1
GZH S S 15 33 31.3 +1.8
GZH pmax pmax
comp=Z,3μm,6.7s
GZH LR LR
comp=Z,88μm,10.1s
GZH LR LR
comp=Z,95μm,10.2s
**ASAJ Asahikawa 31.69 85 eP P 15 28 18.9 -1.6**
comp=Z,50nm,0.9s
**TMCR Tamitsa 31.87 315 eP P 15 28 21.8 -0.1**
TMCR eS S 15 33 34.0 +2.1
TMCR pmax pmax
comp=Z,391nm,1.0s
**QZH Quanzhou 31.92 139⇓ iP P 15 28 25.5 +2.8**
QZH PP PP 15 29 32.5 -2.3
QZH S S 15 33 34.8 +1.5
QZH pmax pmax
comp=Z,3μm,6.4s
QZH LR LR
comp=Z,149μm,18.0s
QZH LR LR
comp=Z,323μm,19.6s
QZH LR LR
comp=Z,168μm,13.2s
**BHPL Bhopal 31.92 214 eP P 15 28 22.3 -0.5**
BHPL AMB AMB 15 28 29.6
comp=Z,755nm,2.1s
**LVZ Lovozero 33.01 322⇓ iP P 15 28 31.7 -0.2**
LVZ i *PP pP 15 28 36.1 +0.2
LVZ pmax pmax
comp=Z,162nm,1.2s
LVZ MLR MLR
comp=Z,70μm,16.0s
**LVZ Lovozero 33.01 322 eP P 15 28 31.4 -0.5**
comp=Z,180nm,0.9s
**CHTO Chiang Mai 33.03 175 P P 15 28 32.7 +0.1**
comp=Z,2μm,1.5s,comp=Z,26μm
**CHTO Chiang Mai 33.03 175 eP P 15 28 31.6 -1.0**
CHTO pmax pmax
comp=Z,150nm,1.1s
**CHTO Chiang Mai 33.03 175 eP P 15 28 30.9 -1.6**
comp=Z,153nm,1.1s
CHTO LR LR
comp=Z,190μm,20.0s
**CHTO Chiang Mai 33.03 175 P P 15 28 33.0 +0.4**
SNR=31
**CMMT Chiang Mai 33.04 175 P P 15 28 32.6 0.0**
comp=Z,130nm,2.4s,comp=Z,6μm
**VRH Novokhopyorsk 33.10 291 eP P 15 28 31.8 -1.1**
VRH e 15 28 33.0
VRH eS S 15 33 51.7 +0.3
VRH pmax pmax
comp=Z,340nm,0.7s
VRH smax smax
comp=E,3μm,3.8s
VRH MLR MLR
comp=Z,173μm,26.0s
**TATO Taipei 33.13 134 PFAKE 15 28 40.0 +6.7**
TATO LR LR
comp=Z,207μm,21.0s
**ERM Erimo 33.16 88⇑ iP P 15 28 34.2 +0.7**
ERM pmax pmax
comp=Z,636nm,1.7s
ERM MLR MLR
comp=Z,110μm,16.0s
**ERM Erimo 33.16 88 eP P 15 28 32.9 -0.6**
comp=Z,1μm,1.6s
ERM LR LR
comp=Z,161μm,19.0s
**NGP Nagpur 33.34 210 eP P 15 28 33.9 -1.4**
NGP AMB AMB 15 28 43.6
comp=Z,569nm,6.1s
NGP ex x 15 33 58.2
**YHNB Yeheng 33.34 135 eP P 15 28 35.5 +0.2**
comp=Z,316nm,1.6s
YHNB LR LR
comp=Z,230μm,19.0s
**CM31 Chiang Mai Arr 33.39 175 eP P 15 28 35.4 -0.3**
**CMAR Chiang Mai Arr 33.39 175 P P 15 28 34.8 -0.8**
comp=Z,17nm,0.7s,baz=354,slow=8.9,SNR=88
CMAR LR LR 15 41 17.7
comp=Z,94μm,19.9s,baz=350,slow=35
**CMAR Chiang Mai Arr 33.39 175 i P P 15 28 35.5 -0.2**
**MJB9 Matsu-Tunnel 33.40 100 eP P 15 28 33.6 -2.1**
comp=Z,96nm,1.3s
**MAJO Matsushiro 33.40 100⇑ eP P 15 28 34.9 -0.8**
MAJO pmax pmax
comp=Z,84nm,1.4s
MAJO MLR MLR
comp=Z,141μm,19.0s
**MAJO Matsushiro 33.40 100 eP P 15 28 33.5 -2.2**
comp=Z,86nm,1.3s
MAJO LR LR
comp=Z,150μm,20.0s
**MAT Matsushiro 33.40 100 P P 15 28 33.6 -2.1**
MAT S S 15 34 01.2 +4.8
**MJAR Matsushiro Arr 33.40 100 P P 15 28 33.9 -1.8**
comp=Z,10nm,1.0s,baz=311,slow=9.2,SNR=14
MJAR LR LR 15 42 28.2
comp=Z,140μm,19.2s,baz=320,slow=37
**CM01 Chiang Mai Arr 33.43 175 eP P 15 28 35.0 -1.0**
**MAK Makhachkala 33.43 274 c iP P 15 28 36.7 +0.9**
MAK ePPP PPP 15 29 50.6
MAK eS S 15 34 03.9 +7.3
MAK pmax pmax
comp=Z,690nm,1.1s
MAK pmax pmax
comp=Z,4μm,3.8s
MAK MLR MLR
comp=Z,156μm,18.0s
MAK MLR MLR
comp=N,124μm,12.0s
MAK MLR MLR
comp=E,220μm,15.0s
**PHRA Phrae 33.43 173 P P 15 28 36.6 +0.6**
comp=E,12nm,2.8s,comp=E,95μm
**APA Apatity 33.50 322⇓ iP P 15 28 38.0 +1.8**
APA i 15 30 02.0
APA i 15 31 19.5
APA i S S 15 34 02.0 +4.8
APA pmax pmax
comp=Z,91nm,1.0s
APA MLR MLR
comp=Z,111μm,25.0s
**YUK Yuzh-Kuril'sk 33.75 83 eP P 15 28 44.1 +5.5**
YUK e 15 29 48.5
YUK e 15 31 13.0
YUK i S S 15 34 00.3 -1.2
YUK i SS SnSn 15 36 06.3 +0.6
YUK pmax pmax
comp=Z,2μm,5.8s
YUK MLR MLR
comp=N,254μm,14.0s
YUK MLR MLR
comp=E,177μm,14.0s
YUK MLR MLR
comp=Z,137μm,14.0s
**MOS Moscow 33.80 300 eP P 15 28 38.7 -0.2**
MOS e 15 28 44.1
MOS e 15 29 55.2
MOS ePPP PPP 15 30 09.1
MOS e 15 31 14.6
MOS eS S 15 34 07.9 +5.7
MOS pmax pmax
comp=Z,1μm,1.5s
MOS pmax pmax
comp=E,700nm,1.8s
MOS pmax pmax
comp=Z,741nm,1.6s
MOS pmax pmax
comp=E,226nm,1.3s
MOS MLR MLR
comp=Z,88μm,14.0s
MOS MLR MLR
comp=E,70μm,12.0s
**SSLB Suanglung 33.93 136 eP P 15 28 39.4 -1.0**
comp=E,118nm,1.0s
**LPSR Galich'ya Gora 34.17 294 eP P 15 28 40.6 -1.6**
LPSR e 15 28 41.6
LPSR eS S 15 34 03.4 -4.5
LPSR pmax pmax
comp=Z,100nm,0.8s
LPSR smax smax
comp=N,270nm,1.2s
LPSR MLR MLR
comp=Z,25μm,9.0s
**NONG Nongkai 34.17 168 P P 15 28 49.4 +6.9**
comp=Z,304nm,1.5s,comp=Z,5μm
**TPUB Ta-pu 34.22 137 eP P 15 28 42.9 0.0**
comp=Z,145nm,0.9s
**GROC Groznyy 34.35 276 eP P 15 28 42.2 -1.7**
GROC e 15 30 00.0
GROC e 15 31 18.1
GROC eS S 15 34 08.8 -2.2
GROC pmax pmax
comp=Z,697nm,1.4s
**KUR Kuril'sk 34.37 80 P P 15 28 41.9 -2.0**
KUR e 15 30 06.6
KUR i PPP PPP 15 30 18.6
KUR i S S 15 34 11.9 +0.8
KUR eSS SnSn 15 36 22.7 +2.0
KUR MLR MLR
comp=Z,104μm,16.0s
KUR MLR MLR
comp=E,98μm,15.0s
KUR MLR MLR
comp=N,66μm,18.0s
**VORR Voronezh 34.37 293 eP P 15 28 42.0 -1.9**
VORR pmax pmax
comp=Z,750nm,1.6s
**YULB Yu-li 34.42 136 eP P 15 28 44.4 -0.3**
comp=Z,112nm,0.8s
**QIZ Qiongzhong 34.51 156 P P 15 28 46.8 +1.4**
QIZ PP PP 15 30 05.3 +1.7
QIZ S S 15 34 16.8 +3.1
QIZ LR LR
comp=Z,117μm,17.4s
QIZ LR LR
comp=Z,227μm,10.4s
**QIZ Qiongzhong 34.51 156 eP P 15 28 43.9 -1.5**
comp=Z,121nm,1.0s
QIZ LR LR
comp=Z,45μm,20.0s
**CHLP Challavanipeta 34.56 200 eP P 15 28 44.7 -1.1**
CHLP IAmb IAmb 15 28 52.9
comp=Z,2μm,2.2s
CHLP eS S 15 34 14.8 +0.4
CHLP IVMs_BB IVMs_BB 15 43 20.9
comp=Z,55μm,16.3s
**VSR Storozhevoye 34.58 292 eP P 15 28 44.7 -1.0**
VSR eS S 15 34 14.1 -0.1
VSR pmax pmax
comp=Z,440nm,1.2s
VSR smax smax
comp=E,2μm,3.0s
VSR MLR MLR
comp=Z,131nm,18.0s
**OBN Obninsk 34.58 299 c iP P 15 28 44.2 -1.4**
OBN i 15 30 02.4
OBN i 15 31 24.1
OBN i S S 15 34 07.7 -6.4
OBN i SS SS 15 36 58.7 +15
OBN pmax pmax
comp=Z,354nm,1.3s
OBN MLR MLR
comp=Z,121μm,19.0s
**OBN Obninsk 34.58 299 eP P 15 28 43.9 -1.8**
comp=Z,2μm,1.4s
OBN LR LR
comp=Z,126μm,19.0s
**TWG Pinlang 34.83 137 eP P 15 28 48.3 +0.1**
comp=Z,415nm,0.9s
**JOW Kunigami 34.85 123 eP P 15 28 48.3 0.0**
comp=Z,280nm,1.8s
**BHJ Bhuj 34.97 225 eP P 15 28 49.4 +0.1**
BHJ AMB AMB 15 28 58.3
comp=Z,1μm,2.9s
**GOF Gofitskoye 35.08 280⇑ iP P 15 28 49.9 -0.2**
GOF eS S 15 34 23.6 +1.5
GOF pmax pmax

comp=Z,548nm,0.9s
GOF smax smax

comp=N,382nm,1.4s
**SKNT Sakolnakorn 35.36 167** P **P** **15 28 53.6 +0.9**
comp=N,104nm,1.4s,comp=N,4µm
**PBKT Sadao Pong 35.41 172** P **P** **15 28 53.3 +0.2**
comp=N,249nm,1.3s,comp=N,7µm
**RPR Rampur 35.43 208** *e*P **P** **15 28 52.0 -1.3**
RPR IAmb IAmb 15 29 00.1

comp=Z,2µm,2.1s
RPR *e*S **S** **15 34 26.4 -1.3**
RPR IVMs_BB IVMs_BB 15 44 16.2

comp=Z,56µm,13.7s
**VIS Vishakhapatnam 35.48 201** *i* P **P** **15 28 52.0 -1.7**
VIS AMB AMB 15 29 01.3

comp=Z,513nm,0.4s
VIS *i* x x 15 34 36.0
**NCK Nalchik 35.55 278**⇓ *i*P **P** **15 28 54.2 -0.1**
NCK pmax pmax

comp=Z,423nm,1.0s
NCK MLR MLR

comp=Z,187µm,17.0s
**KEV Kevo 35.64 326** *e*P **P** **15 28 53.6 -1.0**
KEV pmax pmax

comp=Z,320nm,1.1s
**KEV Kevo 35.64 326** *e*P **P** **15 28 53.4 -1.2**
comp=Z,318nm,1.1s
KEV LR LR

comp=Z,62µm,22.0s
**SRSP Sriramsagar 35.64 209** *e*P **P** **15 28 53.1 -2.1**
SRSP IAmb IAmb 15 29 01.3

comp=Z,3µm,2.3s
SRSP *e*S **S** **15 34 24.7 -6.5**
SRSP IVMs_BB IVMs_BB 15 44 19.0

comp=Z,58µm,16.2s
**ZEI Tsey 35.75 276** *e*P P 15 28 50.3 -5.8
ZEI *e* 15 30 10.1
ZEI *e* 15 39 13.3
ZEI pmax pmax

comp=Z,644nm,0.8s
ZEI pmax pmax

comp=N,640nm,0.8s
ZEI pmax pmax

comp=E,873nm,0.9s
ZEI MLR MLR

comp=Z,470µm,17.0s
ZEI MLR MLR

comp=E,235µm,15.0s
ZEI MLR MLR

comp=N,45µm,10.0s
**KHON Khomkaen 35.83 169** P **P** **15 28 57.6 +0.8**
comp=N,105nm,1.1s,comp=N,2µm
**KBZ Khabaz 35.86 278** P **P** **15 28 56.0 -0.8**
comp=N,91nm,1.1s,baz=63,slow=11,SNR=29
KBZ S **S** **15 34 33.4 -0.6**
comp=N,52nm,0.9s,baz=59,slow=6.1,SNR=2.4
KBZ LR LR 15 45 28.7

comp=N,119µm,18.2s,baz=74,slow=40
**KIV Kislovodsk 35.87 279** *i* P **P** **15 28 56.5 -0.5**
SNR=65
**KIV Kislovodsk 35.87 279** *e*P **P** **15 28 57.1 +0.1**
KIV *e* 15 30 16.6
KIV *e*S **S** **15 34 36.0 +1.6**
KIV *e*SS **SnSn** **15 36 52.2 -5.1**
KIV *e*SSS SSS 15 37 19.6
KIV pmax pmax

comp=Z,1µm,5.2s
KIV pmax pmax

comp=Z,945nm,1.0s
KIV MLR MLR

comp=Z,60µm,16.0s
**KIV Kislovodsk 35.87 279** *e*P **P** **15 28 57.0 -0.1**
comp=Z,1µm,1.1s
KIV LR LR

comp=Z,98µm,19.0s
**KIV Kislovodsk 35.87 279** P **P** **15 28 56.8 -0.3**
SNR=170
**KIV Kislovodsk 35.87 279** P **P** **15 28 56.8 -0.3**
SNR=170
KIV P **P** **15 28 56.8 -0.3**

SNR=170
**HOPEN Hopen 35.92 338** *e*P **P** **15 28 57.8 +0.8**
HOPEN *e* 15 30 12.1
HOPEN *e*S **S** **15 34 35.9 +1.5**
HOPEN IVMs_BB IVMs_BB 15 50 55.5

comp=Z,32µm,16.1s
**CHAI Chaiyaphum 36.17 170** P **P** **15 28 59.6 -0.1**
comp=Z,51nm,1.2s
**ARCES ARCESS Array B 36.19 326** P **P** **15 28 58.7 -0.7**
comp=Z,11nm,0.5s,baz=75,slow=9.3,SNR=84
ARCES LR LR 15 44 11.9

comp=Z,62µm,21.9s,baz=74,slow=37
**ARCES ARCESS Array B 36.19 326** *e*P **P** **15 28 58.9 -0.5**
**ARCES ARCESS Array B 36.19 326** *e*P **P** **15 28 58.4 -0.9**
**ARE0 ARCESS Array S 36.19 326** *e*P **P** **15 28 59.0 -0.4**
**ARE0 ARCESS Array S 36.19 326** *e*P **P** **15 28 58.7 -0.6**
comp=Z,183nm,1.0s
**NEY Neytrino 36.22 278***d* *i*P **P** **15 29 01.2 +1.0**
NEY pmax pmax

comp=Z,242nm,1.1s
NEY MLR MLR

comp=Z,55µm,17.0s
**UTHA Uthaitani 36.30 174** P **P** **15 29 01.3 +0.6**
comp=Z,81nm,0.8s,comp=Z,880nm
**PUL Pulkovo 36.31 309**⇑ *i*P **P** **15 29 00.8 +0.4**
PUL pmax pmax

comp=Z,494nm,1.0s
PUL MLR MLR

comp=Z,146µm,19.0s
**PVM Polavaram 36.33 204** *e*P **P** **15 28 59.8 -1.2**
PVM IAmb IAmb 15 29 09.3

comp=Z,2µm,2.6s
PVM *e*S **S** **15 34 40.8 -0.8**
PVM IVMsBB 15 44 32.5

comp=Z,47µm,16.8s
**BILL Bilibino 36.36 37***c* *i*P **P** **15 29 00.8 -0.1**
BILL *i* 15 30 24.1
BILL *i* 15 31 24.8
BILL pmax pmax

comp=Z,33nm,1.2s
BILL MLR MLR

comp=Z,128µm,19.0s
**PEA0B Petropavlovsk- 36.60 63** *e*P **P** **15 29 03.4 +0.3**
comp=Z,751nm,1.0s
**PETK Petropavlovsk- 36.60 63** P **P** **15 29 03.5 +0.4**
comp=Z,67nm,0.8s,baz=306,slow=5.2,SNR=52
**PETK Petropavlovsk- 36.60 63** *e*P **P** **15 29 03.3 +0.2**
**HAMF Hammerfest 36.65 328** *e*P **P** **15 29 03.1 -0.1**
**GNI Garni 36.72 272** *i* P **P** **15 29 03.7 -0.8**
SNR=39
**GNI Garni 36.72 272***c* *i*P **P** **15 29 05.7 +1.2**
GNI pmax pmax

comp=Z,3µm,1.7s
GNI MLR MLR

comp=Z,359µm,20.0s
**GNI Garni 36.72 272** *e*P **P** **15 29 05.0 +0.5**
comp=Z,910nm,1.1s
GNI LR LR

comp=Z,187µm,22.0s
**GNI Garni 36.72 272** P **P** **15 29 06.1 +1.6**
SNR=44
**GNI Garni 36.72 272** P **P** **15 29 06.1 +1.6**
SNR=44
GNI P **P** **15 29 06.1 +1.6**

SNR=44
**SKR Severo-Kuril's 36.73 67** *e*P **P** **15 29 07.8 +3.7**
SKR *i* 15 30 36.9
SKR pmax pmax

comp=Z,2µm,3.9s
SKR pmax pmax

comp=Z,364nm,2.4s
SKR pmax pmax

comp=Z,6µm,16.5s
SKR MLR MLR

comp=Z,99µm,16.0s
**AKH Akhalkalaki 36.77 275**⇑ *i*P **P** **15 29 05.3 +0.4**
**AKH Akhalkalaki 36.77 275** P **P** **15 29 05.4 +0.5**
**KLRI Killari 37.00 212** *e*P **P** **15 29 05.2 -1.6**
KLRI IAmb IAmb 15 29 13.4

comp=Z,5µm,2.3s
KLRI *e*S **S** **15 34 49.7 -2.3**
KLRI IVMs_BB IVMs_BB 15 45 10.9

comp=Z,102µm,14.9s
**HYBB Hyderabad (bro 37.01 208** *e*P **P** **15 29 05.2 -1.7**
HYBB IAmb IAmb 15 29 14.5

comp=Z,2µm,2.3s
HYBB *e*S **S** **15 34 50.7 -1.3**
HYBB IVMs_BB IVMs_BB 15 45 01.1

comp=Z,45µm,19.8s
**HYB Hyderabad 37.01 208** *i* P **P** **15 29 06.0 -0.9**
comp=Z,340nm,1.0s
HYB *e*PP **PnPn** **15 30 32.0 +0.6**
HYB *e*S **S** **15 34 52.0 -0.1**
HYB LR LR 15 41 00.0

comp=Z,72nm,28.0s
**HYB Hyderabad 37.01 208** *e*P **P** **15 29 06.1 -0.7**
HYB AMB AMB 15 29 13.6

comp=Z,568nm,3.8s
**KTK1 Kautokeino 37.07 325** *e*P **P** **15 29 06.2 -0.7**
KTK1 IVmB_BB 15 29 17.9

comp=Z,5µm,1.8s
KTK1 *e*S **S** **15 34 52.9 +0.9**
KTK1 IVMs_BB IVMs_BB 15 49 08.1

comp=Z,30µm,8.5s
**PET Petropavlovsk 37.16 63***d* *i*P **P** **15 29 07.2 -0.6**
PET *e* 15 30 33.7
PET *e*S **S** **15 34 50.8 -2.9**
PET *e*SS **SnSn** **15 37 27.3 -0.8**
PET pmax pmax

comp=Z,4µm,15.1s
PET pmax pmax

comp=Z,13µm,3.2s
PET pmax pmax

comp=Z,700nm,2.1s
PET pmax pmax

comp=Z,9µm,8.6s
PET pmax pmax

comp=Z,13µm,11.9s
PET MLR MLR

comp=Z,88µm,14.0s
PET MLR MLR

comp=Z,83µm,15.0s
**PET Petropavlovsk 37.16 63** *e*P **P** **15 29 07.6 -0.2**
comp=Z,1µm,1.7s
PET LR LR

comp=Z,97µm,20.0s
**BJO Bjornoya 37.49 335** *e*P **P** **15 29 10.7 +0.4**
BJO *e*S **S** **15 35 00.2 +2.0**
**POO Poona 37.52 216** *e*P **P** **15 29 08.6 -2.7**
POO AMB AMB 15 29 18.6

comp=Z,789nm,3.1s
**NJS Nagarjunasagar 37.61 207** *e*P **P** **15 29 10.4 -1.5**
NJS *e*S **S** **15 34 59.2 -1.9**
NJS IVMs_BB IVMs_BB 15 45 22.6

comp=Z,51µm,19.4s
**NAYO Nakonayok 37.67 171** P **P** **15 29 13.0 +0.6**
comp=Z,154nm,1.9s
**SPA0 Spitsbergen Ar 37.77 341** *e*P **P** **15 29 13.3 +0.6**
SPA0 *e* 15 30 39.5
SPA0 *e*S **S** **15 35 03.9 +1.3**
SPA0 IVMs_BB IVMs_BB 15 48 09.9

comp=Z,49µm,15.2s
**SPA0 Spitsbergen Ar 37.77 341** *e*P **P** **15 29 11.8 -0.9**
**FIA1 FINESS Array S 37.79 313** *e*P **P** **15 29 11.8 -1.2**
**FINES FINESS Array B 37.79 313** P **P** **15 29 11.8 -1.2**
comp=Z,54nm,0.6s,baz=79,slow=8.2,SNR=153
FINES LR LR 15 46 23.9

comp=Z,73µm,18.5s,baz=84,slow=39
**ARTV Artvin 37.86 276** *e*P **P** **15 29 13.9 -0.3**
comp=Z,224nm,0.9s
**SOC Sochi 37.88 280***c* *i*P **P** **15 29 13.1 -1.0**
SOC *e* 15 30 37.8
SOC *e*S **S** **15 35 05.0 +0.1**
SOC *e*SS **SnSn** **15 37 33.0 -13**
SOC pmax pmax

comp=Z,586nm,0.9s
SOC MLR MLR

comp=E,95µm,17.0s
SOC MLR MLR

comp=Z,102µm,16.0s
SOC MLR MLR

comp=N,80µm,16.0s
**SRAK Srakaew 38.04 170** P **P** **15 29 19.1 +3.5**
comp=N,232nm,1.1s,comp=N,3µm
**HSPB Hornsund (broa 38.08 339** *e*P **P** **15 29 16.0 +0.7**
HSPB *e* 15 30 53.1
HSPB *e*PPP PPP 15 31 05.1
HSPB *e* 15 39 28.0
**ADKI Addanki 38.10 205** *e*P **P** **15 29 14.8 -1.3**
ADKI IAmb IAmb 15 29 23.2

comp=Z,3µm,2.3s
ADKI *e*S **S** **15 35 08.1 -0.5**
ADKI IVMs_BB IVMs_BB 15 45 38.4

comp=Z,43µm,21.4s
**SRLM Srisailam 38.16 207** *e*P **P** **15 29 15.0 -1.6**
SRLM IAmb IAmb 15 29 23.2

comp=Z,3µm,2.1s
SRLM *e*S **S** **15 35 07.2 -2.4**
SRLM IVMs_BB IVMs_BB 15 45 48.1

comp=Z,51µm,19.1s
**TRO Tromso 38.44 327** *e*P **P** **15 29 22.1 +3.7**
TRO *e*S **S** **15 35 14.2 +1.6**
TRO *e*SS **SS** **15 38 03.1 +1.7**
TRO IVMs_BB IVMs_BB 15 45 16.4

comp=Z,28µm,19.5s
**VSU Vasula 38.48 308***d* *i*P **P** **15 29 18.8 -0.1**
VSU pmax pmax

comp=Z,760nm,1.0s
VSU MLR MLR

comp=Z,273µm,15.0s
**KBS Kingsbay 38.56 342** *e*P **P** **15 29 20.8 +1.4**
KBS pmax pmax

comp=Z,316nm,1.3s
KBS MLR MLR

comp=Z,79µm,19.0s
**KBS Kingsbay 38.56 342** *e*P **P** **15 29 22.1 +2.7**
KBS *e*S **S** **15 35 15.5 +0.9**
KBS IVMs_BB IVMs_BB 15 47 30.7

comp=Z,25µm,18.9s
**KBS Kingsbay 38.56 342** *e*P **P** **15 29 20.8 +1.4**
comp=Z,316nm,1.3s
KBS LR LR

comp=Z,79µm,19.0s
**ANN Anapa 38.62 283***c* *i*P **P** **15 29 19.1 -1.1**
ANN *e* 15 30 48.7
ANN *e*S **S** **15 35 16.0 0.0**
ANN pmax pmax

comp=E,530nm,1.1s
ANN pmax pmax

comp=N,218nm,1.1s
ANN pmax pmax

comp=Z,1µm,1.1s
ANN pmax pmax

comp=N,782nm,4.3s
ANN pmax pmax

comp=Z,2µm,4.2s
ANN pmax pmax

comp=E,729nm,4.3s
ANN smax smax

comp=Z,8µm,8.9s
ANN smax smax

comp=N,23µm,8.9s
ANN smax smax

comp=E,2µm,4.5s
ANN MLR MLR

comp=E,130µm,21.0s
ANN MLR MLR

comp=N,189µm,21.0s
ANN MLR MLR

comp=Z,145µm,21.0s
**DGPR DIGLIPUR 38.63 185** *e*P **P** **15 29 18.4 -2.1**
DGPR AMB AMB 15 29 28.8

comp=Z,1µm,3.8s
**PHET Kaeng Krachan 38.93 174** P **P** **15 29 24.0 +0.9**
comp=Z,93nm,1.1s,comp=Z,880nm
**ABRA Dolores 39.32 141** *e*P **P** **15 29 28.2 +1.9**
**APYP Conner 39.34 140** *e*P **P** **15 29 27.6 +1.1**
**KOPT Kop Dagi 39.43 275** *e*P **P** **15 29 27.9 +0.5**
comp=Z,696nm,0.9s
**MICGM Minsk 39.46 302**⇑ *i*P **P** **15 29 27.0 -0.1**
MICGM PM 15 29 28.0

comp=Z,1.6nm,1.0s
MICGM PM 15 29 30.0

comp=Z,12nm,6.0s
MICGM PM 15 29 32.0

comp=Z,9.0nm,2.0s
MICGM *e*PP **PnPn** **15 31 00.0 -0.3**
MICGM PPM 15 31 06.0

comp=Z,12nm,10.0s
MICGM PPM 15 31 14.0

comp=Z,14nm,16.0s
MICGM *e*PcP **PcP** **15 31 36.0 +1.3**
MICGM *e*PcS PcS 15 35 10.0 -14
MICGM *e*S **S** **15 35 28.0 -0.4**
MICGM SM 15 35 42.0

comp=N,30nm,16.0s
MICGM SM 15 35 46.0

comp=N,45nm,24.0s
MICGM SM 15 35 46.0

comp=E,38nm,16.0s
MICGM SM 15 35 48.0

comp=E,64nm,24.0s
MICGM *e*SS SS 15 37 04.0 -78
MICGM *e*SSS SSS 15 38 02.0
MICGM *e*ScS ScS 15 39 00.0 -35
MICGM *e*LQ LQ 15 41 00.0
MICGM LQM 15 41 16.0

comp=E,79nm,26.0s
MICGM *e*LR LR 15 43 20.0
MICGM LRM MLR 15 47 00.0

comp=E,110nm,8.0s
MICGM LRM MLR 15 47 02.0

comp=E,101nm,8.0s
MICGM LRM MLR 15 47 06.0

comp=N,89nm,8.0s
MICGM LRM MLR 15 47 08.0

comp=N,96nm,8.0s
MICGM LRM MLR 15 47 10.0

comp=E,86nm,8.0s
MICGM LRM MLR 15 47 12.0

comp=E,145nm,8.0s
**MNK Minsk 39.46 302**⇑ *i*P **P** **15 29 27.0 -0.1**
MNK *e* 15 31 00.0
MNK *e* 15 31 36.0
MNK *e*S **S** **15 35 28.0 -0.4**
MNK pmax pmax

comp=Z,2µm,1.0s
MNK pmax pmax

comp=Z,13µm,6.0s
MNK pmax pmax

comp=Z,9µm,2.0s
MNK pmax pmax

comp=Z,12µm,10.0s
MNK pmax pmax

comp=Z,13µm,16.0s
MNK smax smax

comp=N,30µm,16.0s
MNK smax smax

comp=E,38µm,16.0s
MNK smax smax

comp=N,45µm,24.0s
MNK smax smax

comp=E,54µm,24.0s
MNK MLR MLR

comp=E,110µm,8.0s
MNK MLR MLR

comp=E,101µm,8.0s
MNK MLR MLR

comp=N,89µm,8.0s
MNK MLR MLR

comp=N,94µm,8.0s
MNK MLR MLR

comp=Z,86µm,8.0s
MNK MLR MLR

comp=Z,145µm,8.0s
**BANOM Banah 39.55 245** *i* P **P** **15 29 27.9 -0.3**
SNR=42
**BANOM Banah 39.55 245** P **P** **15 29 28.4 +0.2**
SNR=30
**BANOM Banah 39.55 245** P **P** **15 29 28.4 +0.2**
SNR=30
BANOM P **P** **15 29 28.4 +0.2**

SNR=30
**IDID Didziasalis 39.71 303** *e*P **P** **15 29 28.8 -0.5**
IDID IAmb IAmb 15 29 41.4

comp=Z,557nm,1.1s
**URV Uravakonda 39.73 209** *e*P **P** **15 29 28.0 -1.8**
URV IAmb IAmb 15 29 37.6

comp=Z,3µm,2.5s
URV *e*S **S** **15 35 32.3 -0.9**
URV IVMs_BB IVMs_BB 15 48 12.4

comp=Z,45µm,11.3s
**IZAR Zarasai 39.79 304** *e*P **P** **15 29 29.4 -0.5**
IZAR IAmb IAmb 15 29 41.9

comp=Z,453nm,0.9s
**NACGM Naroch 39.86 303** *e*P **P** **15 29 29.0 -1.5**
NACGM PM 15 29 42.0

comp=Z,2.8nm,1.0s
NACGM *e*PP **PP** **15 30 58.0 -3.9**
NACGM *e*S **S** **15 35 38.0 +3.5**
NACGM *e*SS **SS** **15 38 29.0 -1.4**
NACGM *e*SSS SSS 15 39 16.0
NACGM *e*LQ LQ 15 42 20.0
**ISAL Salakas 39.92 304** *e*P **P** **15 29 30.5 -0.4**
ISAL IAmb IAmb 15 29 43.2

comp=Z,617nm,1.2s
**IIGN Ignalina 39.97 303** *e*P **P** **15 29 30.9 -0.5**
IIGN IAmb IAmb 15 29 43.6

comp=Z,375nm,1.0s
**PBA Port Blair 40.15 185** *e*P P 15 29 32.2 -1.0
**SKHT Srikalahasti 40.19 205** *e*P **P** **15 29 32.3 -1.2**
SKHT IAmb IAmb 15 29 40.9

comp=Z,2µm,2.3s
SKHT *e*S **S** **15 35 39.8 -0.1**
SKHT IVMs_BB IVMs_BB 15 47 04.9

comp=Z,52µm,16.5s
**STEI Steigen 40.19 325** *e*P **P** **15 29 32.3 -0.8**
**GOA Goa 40.33 214** *e*P **P** **15 29 33.8 -0.9**
GOA AMB AMB 15 29 42.3

comp=Z,732nm,2.2s
**UOSS Minazif 40.37 244** *e*P **P** **15 29 33.7 -1.3**
comp=Z,173nm,0.9s
**CAUP Cauayan 40.40 140** *e*P P 15 29 41.2 +5.9
**AKASG Malin Array Be 40.44 296** P **P** **15 29 33.6 -1.7**
comp=Z,23nm,0.5s,baz=54,slow=9.1,SNR=108
AKASG PP **PP** **15 31 05.0 -3.2**
comp=Z,31nm,0.6s,baz=55,slow=9.3,SNR=2.3
AKASG LR LR 15 47 32.0

comp=Z,151µm,18.3s,baz=55,slow=38
**AKBB Malin Array Si 40.44 296** *e*P **P** **15 29 33.6 -1.8**
AKBB pmax pmax

comp=Z,276nm,1.0s
**AKBB Malin Array Si 40.44 296** *e*P **P** **15 29 33.6 -1.8**
comp=Z,276nm,1.0s
**BIDO Bidbid 40.45 240** P P 15 29 41.1 +5.4
SNR=27
**KIEV Kiev 40.46 296**⇑ *i*P **P** **15 29 35.0 -0.4**
KIEV pmax pmax

comp=Z,279nm,1.1s
KIEV MLR MLR

comp=Z,128µm,15.0s
**KIEV Kiev 40.46 296** *e*P **P** **15 29 33.3 -2.2**
comp=Z,325nm,1.1s
KIEV LR LR

comp=Z,108µm,19.0s
**AK11 Malin Array Si 40.49 296** *e*P **P** **15 29 33.5 -2.2**
**HATD Hatta, Dubai 40.50 244** *i* P **P** **15 29 35.4 -0.8**
SNR=13
**HATD Hatta, Dubai 40.50 244** P **P** **15 29 40.0 +3.8**
SNR=18
**HATD Hatta, Dubai 40.50 244** P **P** **15 29 40.0 +3.8**
SNR=18
HATD P **P** **15 29 40.0 +3.8**

SNR=18
**SIM Simferopol' 40.53 286***c* *i*P **P** **15 29 35.4 -0.8**
SIM *i* 15 31 10.0
SIM *i* S **S** **15 35 45.6 +0.9**
SIM *i* SS **SS** **15 38 37.0 -7.1**
SIM pmax pmax

comp=Z,592nm,0.9s
SIM pmax pmax

comp=Z,6µm,13.0s
SIM MLR MLR

comp=Z,113µm,22.7s
**NAZ Nazwa, Dubai 40.63 244** *i* P **P** **15 29 36.4 -0.9**
SNR=16
**NAZ Nazwa, Dubai 40.63 244** P **P** **15 29 39.0 +1.8**
SNR=14
**NAZ Nazwa, Dubai 40.63 244** P **P** **15 29 39.0 +1.8**
SNR=14
**ASHO Ashiyiah 40.65 244** *i* P **P** **15 29 36.9 -0.5**
SNR=38
**ASHO Ashiyiah 40.65 244** P **P** **15 29 37.7 +0.3**
SNR=36
**ASHO Ashiyiah 40.65 244** P **P** **15 29 37.7 +0.3**
SNR=36
ASHO P **P** **15 29 37.7 +0.3**

SNR=36

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **MDRS** | **Chennai** | **40.69 204** | *e*P | **P** | **15 29 36.2** | **-1.5** |
| MDRS | | | AMB | AMB | 15 29 41.2 | |
| | comp=Z,83nm,0.3s | | | | | |
| **SCZP** | **Santa Cruz** | **40.72 143** | *e*P | **P** | **15 29 35.5** | **-2.4** |
| **LOF** | **Lofoten** | **40.73 325** | *e*P | **P** | **15 29 36.7** | **-0.8** |
| LOF | | | *e*PP | **PP** | **15 31 10.4** | **-0.7** |
| LOF | | | *e*S | **S** | **15 35 48.0** | **+0.8** |
| LOF | | | IVMs_BB | IVMs_BB | 15 47 18.9 | |
| | comp=Z,37µm,21.7s | | | | | |
| **WBK** | **Wadi Bani Khal** | **40.74 238** | P | P | 15 29 44.0 | +5.9 |
| | SNR=12 | | | | | |
| **SMDO** | **Samad** | **40.86 240** | P | **P** | **15 29 42.0** | **+2.7** |
| | SNR=33 | | | | | |
| **SMDO** | **Samad** | **40.86 240** | P | **P** | **15 29 42.0** | **+2.7** |
| | SNR=33 | | | | | |
| **MARD** | **Mardin** | **40.91 272** | *e*P | **P** | **15 29 39.5** | **0.0** |
| | comp=Z,614nm,1.0s | | | | | |
| **MOR8** | **Moi Rana** | **41.09 322** | *e*P | **P** | **15 29 38.8** | **-1.7** |
| MOR8 | | | *e*PP | **PP** | **15 31 12.7** | **-2.3** |
| MOR8 | | | *e*S | **S** | **15 35 51.1** | **-1.4** |
| MOR8 | | | *e*SS | **SS** | **15 38 53.3** | **-1.2** |
| MOR8 | | | IVMs_BB | IVMs_BB | 15 48 21.5 | |
| | comp=Z,51µm,14.3s | | | | | |
| **BALP** | **Baler** | **41.39 141** | *e*P | P | 15 29 49.2 | +5.8 |
| **KONS** | **Konsvik** | **41.46 323** | *e*P | **P** | **15 29 43.9** | **+0.4** |
| KONS | | | *e*S | **S** | **15 35 59.9** | **+1.9** |
| KONS | | | IVMs_BB | IVMs_BB | 15 48 40.2 | |
| | comp=Z,39µm,15.1s | | | | | |
| **ARQ** | **Araqi** | **41.47 242** | P | P | 15 29 49.0 | +4.9 |
| | SNR=44 | | | | | |
| **ARQ** | **Araqi** | **41.47 242** | P | P | 15 29 49.0 | +4.9 |
| | SNR=44 | | | | | |
| **STOK** | **Stokkvaagen** | **41.56 323** | *e*P | **P** | **15 29 45.2** | **+0.9** |
| STOK | | | *e*SS | SS | 15 39 06.2 | +2.4 |
| STOK | | | IVMs_BB | IVMs_BB | 15 48 40.3 | |
| | comp=Z,60µm,17.5s | | | | | |
| **BSY** | **Bisya** | **41.57 241** | P | P | 15 29 51.0 | +6.0 |
| | SNR=25 | | | | | |
| **SUW** | **Suwalki** | **42.14 303** | *e*P | **P** | **15 29 48.4** | **-0.9** |
| SUW | | | *e*PP | PP | 15 31 34.7 | +8.1 |
| SUW | | | *e*S | **S** | **15 36 13.6** | **+5.2** |
| SUW | | | LMZ | LR | 15 46 49.2 | |
| | comp=Z,81µm,30.9s | | | | | |
| **SUW** | **Suwalki** | **42.14 303** | *e*P | **P** | **15 29 48.4** | **-0.9** |
| SUW | | | *e* | | 15 31 34.7 | |
| SUW | | | *e*S | **S** | **15 36 13.6** | **+5.2** |
| **SORM** | **Soroca** | **42.22 293** | ⇓*i*P | **P** | **15 29 48.9** | **-1.1** |
| **KIS** | **Kishinev** | **42.55 291** | *i* P | **P** | **15 29 51.0** | **-1.7** |
| | comp=Z,1µm,1.5s | | | | | |
| **KIS** | **Kishinev** | **42.55 291** | *i* PcP | PcP | 15 31 34.0 | -11 |
| **KIS** | **Kishinev** | **42.55 291** | *i* PP | PP | 15 31 41.0 | +10 |
| | comp=Z,10µm,18.0s | | | | | |
| KIS | | | *i* S | **S** | **15 36 14.0** | **-0.6** |
| | comp=Z,20µm,16.0s | | | | | |
| KIS | | | *i* SS | **SS** | **15 39 23.0** | **-0.9** |
| KIS | | | *i* SSS | SSS | 15 40 18.0 | |
| KIS | | | *i* LQ | LQ | 15 44 42.0 | |
| KIS | | | LRM | MLR | 15 51 52.0 | |
| | comp=Z,89µm,17.0s | | | | | |
| **KIS** | **Kishinev** | **42.55 291**⇑ | *i*P | **P** | **15 29 51.0** | **-1.7** |
| KIS | | | *i* | | 15 31 34.0 | |
| KIS | | | *i* | | 15 31 41.0 | |
| KIS | | | *i* S | **S** | **15 36 14.0** | **-0.6** |
| KIS | | | *i* SS | **SS** | **15 39 23.0** | **-0.9** |
| KIS | | | pmax | pmax | | |
| | comp=Z,1µm,1.5s | | | | | |
| KIS | | | pmax | pmax | | |
| | comp=Z,5µm,17.0s | | | | | |
| KIS | | | smax | smax | | |
| | comp=N,20µm,16.0s | | | | | |
| KIS | | | smax | smax | | |
| | comp=E,19µm,14.0s | | | | | |
| KIS | | | MLR | MLR | | |
| | comp=Z,89µm,17.0s | | | | | |
| **LUBP** | **Lubang** | **42.72 144** | *e*P | **P** | **15 29 54.6** | **+0.3** |
| **SURT** | **Suratani** | **42.81 176** | P | **P** | **15 29 56.1** | **+1.1** |
| | comp=Z,96nm,1.4s,comp=Z,4µm | | | | | |
| **ILGA** | **Ilgaz** | **42.98 281** | *e*P | **P** | **15 29 56.3** | **-0.3** |
| | comp=Z,576nm,1.2s | | | | | |
| **LEOM** | **Leova** | **43.16 291**⇑ | *i*P | **P** | **15 29 57.6** | **0.0** |
| **IAS** | **Iasi** | **43.17 292** | ⇓*i*P | **P** | **15 29 57.5** | **-0.2** |
| **KLNR** | **Kaliningrad** | **43.39 305**⇑ | *i*P | **P** | **15 29 59.7** | **+0.3** |
| KLNR | | | pmax | pmax | | |
| | comp=Z,2µm,1.2s | | | | | |
| KLNR | | | MLR | MLR | | |
| | comp=Z,130µm,14.0s | | | | | |
| **TLCR** | | **43.54 289** | ⇓*i*P | **P** | **15 30 00.1** | **-0.6** |
| **BOAC** | **Boac** | **43.57 142** | *e*P | **P** | **15 30 02.4** | **+1.2** |
| **LVV** | **L'vov** | **43.77 297** | ⇓*i*P | **P** | **15 30 02.0** | **-0.5** |
| LVV | | | *e* | | 15 31 48.1 | |
| LVV | | | *e*S | **S** | **15 36 30.6** | **-1.8** |
| LVV | | | *e*SS | **ScS** | **15 39 54.8** | **-6.3** |
| LVV | | | pmax | pmax | | |
| | comp=N,520nm,1.3s | | | | | |
| LVV | | | pmax | pmax | | |
| | comp=E,430nm,1.3s | | | | | |
| LVV | | | pmax | pmax | | |
| | comp=Z,3µm,1.3s | | | | | |
| LVV | | | smax | smax | | |
| | comp=N,3µm,13.0s | | | | | |
| LVV | | | smax | smax | | |
| | comp=E,4µm,13.0s | | | | | |
| LVV | | | MLR | MLR | | |
| | comp=N,31µm,18.0s | | | | | |
| LVV | | | MLR | MLR | | |
| | comp=E,58µm,17.0s | | | | | |
| LVV | | | MLR | MLR | | |
| | comp=Z,56µm,17.0s | | | | | |
| **BR131** | **Keskin Array S** | **43.83 279** | *e*P | **P** | **15 30 02.6** | **-0.7** |
| **BRTR** | **Keskin Array B** | **43.83 279** | P | **P** | **15 30 02.7** | **-0.6** |
| | comp=Z,86nm,0.8s,baz=77,slow=5.5,SNR=233 | | | | | |
| BRTR | | | LR | LR | 15 51 02.0 | |
| | comp=Z,66µm,19.2s,baz=30,slow=40 | | | | | |
| **PRAR** | **RASCA** | **43.84 293** | ⇓*i*P | **P** | **15 30 02.8** | **-0.4** |
| **TBLU** | **Trondheim** | **43.91 319** | *e*P | **P** | **15 30 01.8** | **-1.7** |
| TBLU | | | *e*S | **S** | **15 36 33.0** | **-1.1** |
| TBLU | | | IVMs_BB | IVMs_BB | 15 50 06.0 | |
| | comp=Z,29µm,16.3s | | | | | |
| **CFR** | **Carcaliu** | **43.95 289** | ⇓*i*P | **P** | **15 30 03.5** | **-0.4** |
| **TRTT** | **Trang** | **43.97 175** | P | **P** | **15 30 05.0** | **+0.6** |
| | comp=Z,97nm,2.7s,comp=Z,3µm | | | | | |
| **TESR** | **Tescani** | **44.07 292** | ⇓*i*P | **P** | **15 30 04.4** | **-0.6** |
| **PETR** | **Petresti** | **44.17 290** | ⇓*i*P | **P** | **15 30 06.8** | **+1.1** |
| **TIRR** | **Tirgusor** | **44.19 288** | ⇓*i*P | **P** | **15 30 05.4** | **-0.5** |
| **TIRR** | **Tirgusor** | **44.19 288** | *e*P | **P** | **15 30 05.0** | **-0.9** |
| TIRR | | | pmax | pmax | | |
| | comp=Z,220nm,1.0s | | | | | |
| **TIRR** | **Tirgusor** | **44.19 288** | *e*P | **P** | **15 30 04.6** | **-1.3** |
| | comp=Z,216nm,1.0s | | | | | |
| **ODBI** | **Odobesti** | **44.25 291** | ⇓*i*P | **P** | **15 30 07.3** | **+0.9** |
| **ANTO** | **Ankara** | **44.25 280** | *e*P | **P** | **15 30 06.5** | **-0.1** |
| ANTO | | | pmax | pmax | | |
| | comp=Z,630nm,1.0s | | | | | |
| **ANTO** | **Ankara** | **44.25 280** | *e*P | **P** | **15 30 06.1** | **-0.6** |
| | comp=Z,626nm,1.0s | | | | | |
| ANTO | | | LR | LR | | |
| | comp=Z,72nm,19.0s | | | | | |
| **ANTO** | **Ankara** | **44.25 280** | P | **P** | **15 30 06.8** | **+0.1** |
| | SNR=105 | | | | | |
| **ANTO** | **Ankara** | **44.25 280** | P | **P** | **15 30 06.8** | **+0.1** |
| | SNR=105 | | | | | |
| ANTO | | | P | **P** | **15 30 06.8** | **+0.1** |
| | SNR=105 | | | | | |
| ANTO | | | P | **P** | **15 30 06.8** | **+0.1** |
| | SNR=105 | | | | | |
| **BUR08** | **Bucovina Ar. S** | **44.28 294** | *e*P | **P** | **15 30 06.1** | **-0.6** |
| **BR231** | **Keskin MP Arra** | **44.28 280** | *e*P | **P** | **15 30 07.0** | **+0.1** |
| **BURAR** | **Bucovina Array** | **44.28 294** | ⇓*i*P | **P** | **15 30 06.5** | **-0.3** |
| **BUR04** | **Bucovina Ar. S** | **44.28 294** | *e*P | **P** | **15 30 05.8** | **-1.0** |
| **NC405** | **NORSAR Array S** | **44.30 316** | *e*P | **P** | **15 30 05.2** | **-1.5** |
| **BUSP** | **Coron** | **44.30 145** | *e*P | P | 15 30 13.5 | +6.4 |
| **VRI** | **Vrincioaia** | **44.38 291** | ⇓*i*P | **P** | **15 30 07.5** | **0.0** |
| **NC303** | **NORSAR Array S** | **44.39 316** | *e*P | **P** | **15 30 06.6** | **-0.8** |
| **PLOR** | **Plostina** | **44.43 291** | ⇓*i*P | **P** | **15 30 08.0** | **+0.1** |
| **BEL** | **Belsk** | **44.48 301** | *e*P | **P** | **15 30 07.3** | **-0.9** |
| BEL | | | *e*PP | PP | 15 32 04.7 | +13 |
| BEL | | | *e*S | **S** | **15 36 46.4** | **+3.7** |
| BEL | | | LMZ | LR | 15 47 59.4 | |
| | comp=Z,79µm,28.0s | | | | | |
| **BEL** | **Belsk** | **44.48 301** | *e*P | **P** | **15 30 07.3** | **-0.9** |
| BEL | | | *e*S | **S** | **15 36 46.4** | **+3.7** |
| **NB201** | **NORSAR Array S** | **44.51 316** | *e*P | **P** | **15 30 07.4** | **-0.9** |
| **GRER** | | **44.51 290**⇑ | *i*P | **P** | **15 30 10.9** | **+2.4** |
| **NB2** | **NORSAR Subarra** | **44.55 316** | P | **P** | **15 30 07.3** | **-1.4** |
| | comp=Z,254nm,0.7s,baz=61,slow=7.9 | | | | | |
| **NB2** | **NORSAR Subarra** | **44.55 316** | P | **P** | **15 30 07.3** | **-1.4** |
| | baz=61,slow=7.9 | | | | | |
| **NOA** | **NORSAR Array B** | **44.55 316** | P | **P** | **15 30 07.2** | **-1.4** |
| | comp=Z,61nm,0.6s,baz=61,slow=8.1,SNR=134 | | | | | |
| NOA | | | LR | LR | 15 50 36.5 | |
| | comp=Z,116µm,18.1s,baz=60,slow=39 | | | | | |
| **NOA** | **NORSAR Array B** | **44.55 316** | P | **P** | **15 30 07.2** | **-1.4** |
| NOA | | | pmax | pmax | | |
| | comp=Z,56nm,0.6s | | | | | |
| NOA | | | MLR | MLR | | |
| | comp=Z,116µm,18.1s | | | | | |
| **NC602** | **NORSAR Array S** | **44.55 316** | *e*P | **P** | **15 30 07.1** | **-1.5** |
| **NC602** | **NORSAR Array S** | **44.55 316** | *e*P | **P** | **15 30 07.5** | **-1.1** |
| **KWP** | **Kalwaria Pacla** | **44.60 298** | *e*P | **P** | **15 30 09.0** | **-0.2** |
| KWP | | | *e*PP | **PP** | **15 32 00.6** | **+7.6** |
| KWP | | | *e*S | **S** | **15 36 51.2** | **+6.7** |
| KWP | | | LMZ | LR | 15 49 52.9 | |
| | comp=Z,180µm,19.5s | | | | | |
| **KWP** | **Kalwaria Pacla** | **44.60 298** | *e*P | **P** | **15 30 09.0** | **-0.2** |
| KWP | | | *e* | | 15 32 00.6 | |
| KWP | | | *e*S | **S** | **15 36 51.2** | **+6.7** |
| KWP | | | MLR | MLR | | |
| | comp=Z,180µm,19.5s | | | | | |
| **NC204** | **NORSAR Array S** | **44.63 317** | *e*P | **P** | **15 30 08.0** | **-1.3** |
| **OTRP** | **Odiongan** | **44.64 142** | *e*P | **P** | **15 30 09.5** | **-0.3** |
| **SKLT** | **Songkhla** | **44.69 173** | P | **P** | **15 30 13.3** | **+3.1** |
| | comp=Z,303nm,2.4s,comp=Z,11µm | | | | | |
| **NBO02** | **NORSAR Array S** | **44.69 316** | *e*P | **P** | **15 30 08.5** | **-1.3** |
| **NBO00** | **NORSAR Array S** | **44.74 316** | *e*P | **P** | **15 30 09.0** | **-1.2** |
| **PSN** | **Preselentsi** | **44.77 288** | *i* P | **P** | **15 30 11.4** | **+0.8** |
| **PGOR** | **Pogoanele** | **44.77 290**⇑ | *i*P | **P** | **15 30 11.8** | **+1.2** |
| **ENPP** | **El Nido** | **44.77 146** | *e*P | P | 15 30 18.6 | +7.8 |
| **NA001** | **NORSAR Array S** | **44.78 316** | *e*P | **P** | **15 30 09.2** | **-1.3** |
| **ISR** | **Istrita** | **44.91 290** | ⇓*i*P | **P** | **15 30 12.8** | **+1.0** |
| **MLR** | **Muntele Rosu** | **45.05 291** | ⇓*i*P | **P** | **15 30 12.9** | **0.0** |
| **MLR** | **Muntele Rosu** | **45.05 291** | *e*P | **P** | **15 30 12.6** | **-0.3** |
| MLR | | | pmax | pmax | | |
| | comp=Z,180nm,0.8s | | | | | |
| **MLR** | **Muntele Rosu** | **45.05 291** | *e*P | **P** | **15 30 12.5** | **-0.5** |
| | comp=Z,175nm,0.8s | | | | | |
| **ARCR** | **ARCALIA** | **45.06 294** | ⇓*i*P | **P** | **15 30 13.7** | **+0.8** |
| **DOPR** | **Dopca** | **45.10 292**⇑ | *i*P | **P** | **15 30 13.3** | **+0.1** |
| **BMR** | **Baia Mare** | **45.22 295** | ⇓*i*P | **P** | **15 30 14.5** | **+0.3** |
| **SECR** | | **45.23 290** | ⇓*i*P | **P** | **15 30 14.9** | **+0.6** |
| **DAG** | **Danmarks Havn** | **45.28 343** | *i* P | P | 15 30 19.5 | +5.3 |
| DAG | | | *e* | | 15 32 03.3 | |
| DAG | | | pmax | pmax | | |
| | comp=Z,120nm,0.9s | | | | | |
| DAG | | | MLR | MLR | | |
| | comp=Z,75µm,21.0s | | | | | |
| **DAG** | **Danmarks Havn** | **45.28 343** | *i* P | P | 15 30 19.5 | +5.3 |
| | comp=Z,124nm,0.9s | | | | | |
| DAG | | | *e* | | 15 32 03.3 | |
| | comp=Z,75µm,21.0s | | | | | |
| **OSL** | **Oslo** | **45.29 315** | *e*P | **P** | **15 30 14.0** | **-0.5** |
| OSL | | | *e*S | **S** | **15 36 54.8** | **+0.6** |
| OSL | | | IVMs_BB | IVMs_BB | 15 50 57.1 | |
| | comp=Z,59µm,14.5s | | | | | |
| **SULR** | | **45.33 290** | ⇓*i*P | **P** | **15 30 14.8** | **-0.2** |
| **MOL** | **Molde** | **45.33 319** | *e*P | **P** | **15 30 14.8** | **0.0** |
| MOL | | | IVmB_BB | | 15 30 20.9 | |
| | comp=Z,5µm,3.4s | | | | | |
| MOL | | | *e*S | **S** | **15 36 56.7** | **+2.0** |
| MOL | | | IVMs_BB | IVMs_BB | 15 51 02.8 | |
| | comp=Z,34µm,14.4s | | | | | |
| **UZH** | **Uzhgorod** | **45.37 297** | *e*P | **P** | **15 30 13.7** | **-1.6** |
| UZH | | | *i* | | 15 31 53.6 | |
| UZH | | | *i* S | **S** | **15 36 50.4** | **-5.2** |
| UZH | | | *i* SS | **SS** | **15 40 15.0** | **-3.3** |
| UZH | | | MLR | MLR | | |
| | comp=Z,24µm,16.0s | | | | | |
| **TRPA** | **Tarpa** | **45.51 296**⇑ | *e*P | **P** | **15 30 16.2** | **-0.2** |
| **STHS** | **Stebnicka Huta** | **45.52 298** | *e*P | **P** | **15 30 16.5** | **0.0** |
| STHS | | | pmax | pmax | | |
| | comp=Z,145nm,1.1s | | | | | |
| **STHS** | **Stebnicka Huta** | **45.52 298** | *e*P | **P** | **15 30 16.5** | **0.0** |
| **GKP** | **Gorka Klasztor** | **45.59 304** | *e*P | **P** | **15 30 16.5** | **-0.4** |
| GKP | | | *e*S | S | 15 37 08.3 | +10 |
| GKP | | | LMZ | LR | 15 50 09.1 | |
| | comp=Z,144µm,22.7s | | | | | |
| **GKP** | **Gorka Klasztor** | **45.59 304** | *e*P | **P** | **15 30 16.5** | **-0.4** |
| GKP | | | *e*S | S | 15 37 08.3 | +10 |
| GKP | | | MLR | MLR | | |
| | comp=Z,144µm,22.7s | | | | | |
| **VOIR** | | **45.59 291**⇑ | *i*P | **P** | **15 30 16.8** | **-0.4** |
| **RCP** | **Roxas** | **45.65 142**⇑ | *e*P | **P** | **15 30 18.3** | **+0.5** |
| **CRVS** | **Cervenica-Dubn** | **45.68 297** | *e*P | **P** | **15 30 17.3** | **-0.5** |
| CRVS | | | *e*S | **S** | **15 37 08.1** | **+7.9** |
| CRVS | | | *e*SS | **ScS** | **15 40 18.3** | **+5.0** |
| **CRVS** | **Cervenica-Dubn** | **45.68 297** | *e*P | **P** | **15 30 17.3** | **-0.5** |
| CRVS | | | *e*S | **S** | **15 37 08.1** | **+7.9** |
| CRVS | | | *e*SS | **ScS** | **15 40 18.3** | **+5.0** |
| **CJR** | **Cluj-Napoca** | **45.70 294** | ⇓*i*P | **P** | **15 30 18.4** | **+0.4** |
| **MTUR** | **Matau** | **45.71 291** | ⇓*i*P | **P** | **15 30 19.2** | **+1.1** |
| **AKN** | **Aaknes** | **45.75 319** | *e*P | **P** | **15 30 18.2** | **+0.1** |
| **SGRR** | **Singureni** | **45.76 289** | ⇓*i*P | **P** | **15 30 18.1** | **-0.3** |
| **BSD** | **Bornholm Skovb** | **45.79 308** | *i* P | **P** | **15 30 23.2** | **+4.7** |
| BSD | | | *i* S | **S** | **15 37 06.5** | **+5.0** |
| BSD | | | pmax | pmax | | |
| | comp=Z,400nm,1.0s | | | | | |
| BSD | | | MLR | MLR | | |
| | comp=Z,130µm,17.0s | | | | | |
| **BSD** | **Bornholm Skovb** | **45.79 308** | *i* P | **P** | **15 30 23.2** | **+4.7** |
| | comp=Z,397nm,1.0s | | | | | |
| BSD | | | *e* | | 15 33 30.2 | |
| BSD | | | *i* S | **S** | **15 37 06.5** | **+5.0** |
| | comp=Z,133µm,17.0s | | | | | |
| **HWQ** | **Hawqa** | **45.86 272** | *e*P | **P** | **15 30 19.1** | **-0.4** |
| **OJC** | **Ojcow** | **45.87 300** | *e*P | **P** | **15 30 18.1** | **-1.1** |
| OJC | | | *e*PP | **PP** | **15 32 14.2** | **+7.8** |
| OJC | | | *e*S | **S** | **15 37 09.2** | **+6.4** |
| OJC | | | *e*SS | **SS** | **15 40 27.9** | **+1.0** |
| OJC | | | LMZ | LR | 15 49 23.6 | |
| | comp=Z,73µm,21.7s | | | | | |
| **OJC** | **Ojcow** | **45.87 300** | *e*P | **P** | **15 30 18.1** | **-1.1** |
| OJC | | | *e* | | 15 32 14.2 | |
| OJC | | | *e*S | **S** | **15 37 09.2** | **+6.4** |
| OJC | | | MLR | MLR | | |
| | comp=Z,73µm,21.7s | | | | | |
| **OJC** | **Ojcow** | **45.87 300** | *e*P | **P** | **15 30 18.3** | **-0.9** |
| | comp=Z,375nm,1.0s | | | | | |
| **TRD** | **Trivandrum** | **45.93 207** | *e*P | **P** | **15 30 19.5** | **-0.5** |
| **KONO** | **Kongsberg** | **45.93 315***c* | *i*P | **P** | **15 30 20.6** | **+1.0** |
| KONO | | | pmax | pmax | | |
| | comp=Z,829nm,1.7s | | | | | |
| KONO | | | MLR | MLR | | |
| | comp=Z,128µm,16.0s | | | | | |
| **KONO** | **Kongsberg** | **45.93 315** | *e*P | **P** | **15 30 18.5** | **-1.0** |
| KONO | | | *e*S | **S** | **15 37 04.8** | **+1.4** |
| KONO | | | *e*SS | **SS** | **15 40 28.9** | **+1.4** |
| KONO | | | IVMs_BB | IVMs_BB | 15 51 16.2 | |
| | comp=Z,67µm,16.8s | | | | | |
| **KONO** | **Kongsberg** | **45.93 315** | *e*P | **P** | **15 30 18.6** | **-1.0** |
| | comp=Z,118nm,0.8s | | | | | |
| **NIE** | **Niedzica** | **46.03 298** | *e*P | **P** | **15 30 20.6** | **0.0** |
| NIE | | | *e*S | S | 15 37 16.6 | +11 |
| NIE | | | *e*SS | **SS** | **15 40 26.6** | **-3.1** |
| NIE | | | LMZ | LR | 15 50 52.4 | |
| | comp=Z,57µm,20.0s | | | | | |
| **NIE** | **Niedzica** | **46.03 298** | *e*P | **P** | **15 30 20.6** | **0.0** |
| NIE | | | *e*S | S | 15 37 16.6 | +11 |
| NIE | | | *e*SS | **SS** | **15 40 26.6** | **-3.1** |
| NIE | | | MLR | MLR | | |
| | comp=Z,57µm,20.0s | | | | | |
| **BOLV** | **Bolvadin** | **46.09 280** | *e*P | **P** | **15 30 20.8** | **-0.5** |
| | comp=Z,786nm,0.9s | | | | | |
| **HUMR** | **Humele** | **46.16 290** | ⇓*i*P | **P** | **15 30 21.0** | **-0.6** |
| **DRGR** | | **46.16 294**⇑ | *i*P | **P** | **15 30 21.9** | **+0.2** |
| **PALK** | **Pallekele** | **46.17 201** | *i* P | **P** | **15 30 22.1** | **+0.1** |
| | SNR=9.9 | | | | | |
| **PALK** | **Pallekele** | **46.17 201***c* | *e*P | **P** | **15 30 23.5** | **+1.5** |
| **PALK** | **Pallekele** | **46.17 201** | *e*P | **P** | **15 30 22.4** | **+0.5** |
| | comp=Z,231nm,1.2s | | | | | |
| **PALK** | **Pallekele** | **46.17 201** | P | **P** | **15 30 23.6** | **+1.6** |
| | SNR=16 | | | | | |
| **GAMB** | **Gambell** | **46.26 38** | *e*P | **P** | **15 30 22.2** | **+0.1** |
| | comp=Z,170nm,1.2s | | | | | |
| **SHAO** | **Shalim** | **46.27 238** | P | **P** | **15 30 26.7** | **+3.9** |
| | SNR=18 | | | | | |
| **SHAO** | **Shalim** | **46.27 238** | P | **P** | **15 30 26.7** | **+3.9** |
| | SNR=18 | | | | | |
| SHAO | | | P | **P** | **15 30 26.7** | **+3.9** |
| | SNR=18 | | | | | |
| **BHL** | **Bhannes** | **46.29 272** | *e*P | **P** | **15 30 22.1** | **-0.8** |
| **LOT** | **Lotru** | **46.33 292** | ⇓*i*P | **P** | **15 30 23.2** | **+0.2** |
| **SZH** | **Strazhica** | **46.34 288** | *i* P | **P** | **15 30 22.3** | **-0.7** |
| **JMIC** | **Jan Mayen** | **46.36 334** | *e* | | 15 37 24.7 | |
| **JMB** | **Yambol** | **46.43 287** | *i* P | **P** | **15 30 24.1** | **+0.3** |
| **ZIMR** | | **46.44 289** | ⇓*i*P | **P** | **15 30 24.2** | **+0.4** |
| **RCY** | **Rachaya** | **46.45 271** | *e*P | **P** | **15 30 23.6** | **-0.5** |
| **KECS** | **Kecovo** | **46.45 297** | *e*P | **P** | **15 30 23.8** | **0.0** |
| KECS | | | pmax | pmax | | |
| | comp=Z,153nm,0.9s | | | | | |
| **KECS** | **Kecovo** | **46.45 297** | *e*P | **P** | **15 30 23.8** | **0.0** |
| **LHMI** | **Lhok Sumawe** | **46.46 179** | P | **P** | **15 30 25.1** | **+0.9** |
| | comp=Z,1µm,1.0s,comp=Z,32µm | | | | | |
| **LHMI** | **Lhok Sumawe** | **46.46 179** | *e*P | **P** | **15 30 25.0** | **+0.8** |
| | comp=Z,780nm,1.1s | | | | | |
| **DQRL** | **Deir Qamar** | **46.47 272** | *e*P | **P** | **15 30 24.4** | **0.0** |
| **QRWL** | **Qaraoun** | **46.51 271** | *e*P | **P** | **15 30 24.2** | **-0.4** |
| **KULM** | **Kulim** | **46.56 174** | *e*P | **P** | **15 30 24.0** | **-0.9** |
| | comp=Z,446nm,1.3s | | | | | |
| KULM | | | LR | LR | | |
| | comp=Z,135µm,19.0s | | | | | |
| **PHNC** | **Paralimni** | **46.57 274** | P | **P** | **15 30 24.0** | **-0.9** |
| **DEV** | **Deva** | **46.57 293** | ⇓*i*P | **P** | **15 30 25.6** | **+0.8** |
| **LANS** | **Liptovska Anna** | **46.64 299** | *e*P | **P** | **15 30 25.8** | **+0.5** |
| LANS | | | *e* | | 15 32 17.3 | |
| **LANS** | **Liptovska Anna** | **46.64 299** | *e*P | **P** | **15 30 25.8** | **+0.5** |
| LANS | | | *e*PP | **PP** | **15 32 17.3** | **+2.6** |
| **COP** | **Copenhagen** | **46.69 309** | *i* P | **P** | **15 30 26.8** | **+1.2** |
| COP | | | pmax | pmax | | |
| | comp=Z,230nm,1.0s | | | | | |
| COP | | | MLR | MLR | | |
| | comp=Z,100µm,16.0s | | | | | |
| **COP** | **Copenhagen** | **46.69 309** | *i* P | **P** | **15 30 26.8** | **+1.2** |
| | comp=Z,232nm,1.0s | | | | | |
| | comp=Z,100µm,16.0s | | | | | |
| **RAC** | **Raciborz** | **46.80 300** | *e*P | **P** | **15 30 26.5** | **-0.1** |
| RAC | | | *e*S | **S** | **15 37 15.0** | **-1.2** |
| RAC | | | MLR | MLR | | |
| | comp=Z,80µm,18.3s | | | | | |
| **OCLP** | **Ormoc** | **46.85 140** | *e*P | **P** | **15 30 27.1** | **-0.2** |
| **RGN** | **Rugen** | **46.87 308** | *e*P | **P** | **15 30 26.9** | **0.0** |
| | comp=Z,751nm,1.0s | | | | | |
| **MAMC** | **Mammari** | **46.96 275** | P | **P** | **15 30 27.1** | **-0.9** |
| **OKC** | **Ostrava-Krasne** | **46.97 300**⇑ | *e*P | **P** | **15 30 27.0** | **-0.9** |
| OKC | | | *ex* | x | 15 30 35.8 | |
| OKC | | | *e*PP | **PP** | **15 32 20.9** | **+2.9** |
| OKC | | | *e*XS | **sS** | **15 37 26.9** | **+1.7** |
| OKC | | | *e*SS | **SS** | **15 40 47.9** | **+3.1** |
| OKC | | | AMS | AMS | 15 51 10.0 | |
| | comp=Z,62µm,12.7s | | | | | |
| **OKC** | **Ostrava-Krasne** | **46.97 300** | *e*P | **P** | **15 30 27.0** | **-0.9** |
| OKC | | | *e* | | 15 30 35.8 | |
| OKC | | | *e* | | 15 32 20.9 | |
| OKC | | | *e*S | **sS** | **15 37 26.9** | **+1.7** |
| OKC | | | MLR | MLR | | |
| | comp=Z,62µm,12.7s | | | | | |
| **CSS** | **Mathiatis** | **47.03 275** | *e*P | **P** | **15 30 27.2** | **-1.3** |
| | comp=Z,282nm,1.2s | | | | | |
| CSS | | | LR | LR | | |
| | comp=Z,20µm,19.0s | | | | | |
| **CSS** | **Mathiatis** | **47.03 275** | P | **P** | **15 30 28.7** | **+0.1** |
| **CSS** | **Mathiatis** | **47.03 275** | P | **P** | **15 30 27.5** | **-1.1** |
| **SIRR** | **Siria** | **47.06 294** | ⇓*i*P | **P** | **15 30 29.0** | **+0.4** |
| **ODD1** | **Odda** | **47.08 317** | *e*P | **P** | **15 30 28.5** | **-0.2** |
| ODD1 | | | *e*S | **S** | **15 37 22.6** | **+2.6** |
| ODD1 | | | IVMs_BB | IVMs_BB | 15 49 28.6 | |
| | comp=Z,52µm,22.8s | | | | | |
| **PSZ** | **Piszkesteto** | **47.10 297** | ⇓*i*P | **P** | **15 30 29.5** | **+0.5** |
| **PSZ** | **Piszkesteto** | **47.10 297** | *e*P | **P** | **15 30 29.2** | **+0.2** |
| PSZ | | | pmax | pmax | | |
| | comp=Z,1µm,1.9s | | | | | |
| **PSZ** | **Piszkesteto** | **47.10 297**⇑ | *e*P | **P** | **15 30 29.1** | **+0.1** |
| **PSZ** | **Piszkesteto** | **47.10 297** | *e*P | **P** | **15 30 28.9** | **0.0** |
| | comp=Z,1µm,1.9s | | | | | |
| PSZ | | | LR | LR | | |
| | comp=Z,117µm,21.0s | | | | | |
| **SRE** | **Strehaia** | **47.11 292** | ⇓*i*P | **P** | **15 30 29.1** | **+0.1** |
| **HOMB** | **Homborsund** | **47.13 314** | *e*P | **P** | **15 30 28.4** | **-0.5** |
| HOMB | | | *e*S | **S** | **15 37 20.5** | **-0.2** |
| HOMB | | | IVMs_BB | IVMs_BB | 15 52 26.9 | |
| | comp=Z,59µm,9.9s | | | | | |
| **MORC** | **Moravsky Berou** | **47.33 300** | ⇓*i*P | **P** | **15 30 30.8** | **+0.1** |
| **MORC** | **Moravsky Berou** | **47.33 300** | *e*P | **P** | **15 30 30.2** | **-0.5** |
| MORC | | | pmax | pmax | | |
| | comp=Z,1µm,1.1s | | | | | |
| **MORC** | **Moravsky Berou** | **47.33 300** | *e*P | **P** | **15 30 30.0** | **-0.7** |
| | comp=Z,1µm,1.1s | | | | | |
| **WHFO** | **Wadi Hawf** | **47.35 240** | P | P | 15 30 37.0 | +5.7 |
| | SNR=11 | | | | | |
| **VYHS** | **Vyhne** | **47.35 298** | *e*P | **P** | **15 30 30.9** | **0.0** |
| VYHS | | | pmax | pmax | | |
| | comp=Z,204nm,1.1s | | | | | |
| **VYHS** | **Vyhne** | **47.35 298** | *e*P | **P** | **15 30 30.9** | **0.0** |
| VYHS | | | *e*PP | **PP** | **15 32 28.9** | **+7.1** |
| VYHS | | | *e*S | **S** | **15 37 28.5** | **+4.4** |
| VYHS | | | *e*SS | **SS** | **15 40 51.8** | **+0.7** |
| VYHS | | | *e*L | L | 15 51 55.8 | |
| **ALFC** | **Alefka** | **47.35 275** | P | **P** | **15 30 30.5** | **-0.6** |
| **BER** | **Bergen** | **47.37 318** | *e*P | **P** | **15 30 26.7** | **-4.1** |
| BER | | | *e*S | **S** | **15 37 24.6** | **+0.7** |
| BER | | | IVMs_BB | IVMs_BB | 15 52 10.7 | |
| | comp=Z,45µm,11.6s | | | | | |
| **ASK** | **Askoy** | **47.38 318** | *e*P | **P** | **15 30 30.6** | **-0.3** |
| ASK | | | *e*S | **S** | **15 37 25.1** | **+1.0** |
| ASK | | | IVMs_BB | IVMs_BB | 15 52 09.6 | |
| | comp=Z,42µm,16.8s | | | | | |
| **IPM** | **Ipoh** | **47.39 173** | *e*P | **P** | **15 30 29.6** | **-1.9** |
| | comp=Z,166nm,1.1s | | | | | |
| **KSP** | **Ksiaz** | **47.39 302** | *e*P | **P** | **15 30 30.8** | **-0.4** |
| KSP | | | *e*PP | **PP** | **15 32 22.4** | **+0.3** |
| KSP | | | *e*S | S | 15 37 34.7 | +10 |
| KSP | | | *e*SS | **SS** | **15 40 55.5** | **+3.8** |
| KSP | | | LMZ | LR | 15 49 54.4 | |
| | comp=Z,76µm,22.4s | | | | | |
| **KSP** | **Ksiaz** | **47.39 302** | *e*P | **P** | **15 30 30.8** | **-0.4** |
| KSP | | | *e* | | 15 32 22.4 | |
| KSP | | | *e*S | S | 15 37 34.7 | +10 |
| KSP | | | MLR | MLR | | |
| | comp=Z,76µm,22.4s | | | | | |
| **MLSI** | **Meulaboh, Aceh** | **

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **ALN** | **Alexandroupoli** | **47.70 286** | P | **P** | **15 30 33.4** | **-0.3** |
| **ALN** | **Alexandroupoli** | **47.70 286** | P | **P** | **15 30 33.4** | **-0.3** |
| **ALN** | **Alexandroupoli** | **47.70 286** | P | **P** | **15 30 33.4** | **-0.3** |
| **UPC** | **Upice** | **47.73 302**⇑ | *i*P | **P** | **15 30 33.4** | **-0.4** |
| UPC | | | *ex* | x | 15 30 46.3 | |
| UPC | | | *e*PP | **PP** | **15 32 24.8** | **-0.4** |
| UPC | | | *e*SS | SS | 15 41 01.5 | +4.4 |
| UPC | | | AMS | AMS | 15 52 30.0 | |
| | comp=Z,83µm,12.9s | | | | | |
| **UPC** | **Upice** | **47.73 302**⇑ | *i*P | **P** | **15 30 33.4** | **-0.4** |
| UPC | | | *e* | | 15 32 24.8 | |
| UPC | | | MLR | MLR | | |
| | comp=Z,83µm,12.9s | | | | | |
| **MSLP** | **Maasin** | **47.78 140** | *e*P | **P** | **15 30 35.6** | **+1.1** |
| **BUD** | **Budapest** | **47.83 297**⇑ | *e*P | **P** | **15 30 35.7** | **+1.1** |
| **RDO** | **Rodhopi** | **47.85 286** | *e*P | **P** | **15 30 34.1** | **-0.7** |
| **RDO** | **Rodhopi** | **47.85 286** | P | **P** | **15 30 34.1** | **-0.7** |
| **MDVR** | **Moldovita** | **47.90 293**⇓ | *i*P | **P** | **15 30 34.8** | **-0.4** |
| **STAV** | **Stavanger** | **48.01 316** | *e*P | **P** | **15 30 35.8** | **+0.1** |
| STAV | | | IVmB_BB | | 15 30 45.2 | |
| | comp=Z,6µm,4.0s | | | | | |
| STAV | | | *e*S | **S** | **15 37 33.5** | **+0.5** |
| STAV | | | *e*SS | **SS** | **15 40 54.6** | **-6.6** |
| STAV | | | IVMs_BB | IVMs_BB | 15 52 30.7 | |
| | comp=Z,60µm,17.2s | | | | | |
| **ABTO** | **Aybut** | **48.07 240** | P | **P** | **15 30 40.0** | **+3.2** |
| | SNR=13 | | | | | |
| **ABTO** | **Aybut** | **48.07 240** | P | **P** | **15 30 40.0** | **+3.2** |
| | SNR=13 | | | | | |
| **VRAC** | **Vranov** | **48.10 300**⇑ | *i*P | **P** | **15 30 36.5** | **-0.2** |
| **SMOL** | **Smolenice** | **48.11 299** | *e*P | **P** | **15 30 36.8** | **+0.1** |
| SMOL | | | *e* | | 15 32 35.2 | |
| **SMOL** | **Smolenice** | **48.11 299** | *e*P | **P** | **15 30 36.8** | **+0.1** |
| SMOL | | | *e*PP | **PP** | **15 32 35.1** | **+6.4** |
| **KCSI** | **Kotacane, Aceh** | **48.17 178** | P | **P** | **15 30 38.2** | **+0.7** |
| | comp=Z,111nm,1.4s,comp=Z,2µm | | | | | |
| **EZN** | **Ezine** | **48.20 284** | *e*P | **P** | **15 30 37.3** | **-0.2** |
| **EZN** | **Ezine** | **48.20 284** | *e*P | **P** | **15 30 37.3** | **-0.2** |
| **EZN** | **Ezine** | **48.20 284** | P | **P** | **15 30 37.3** | **-0.2** |
| **GADA** | **Gvkgeada** | **48.23 285** | *e*P | **P** | **15 30 38.2** | **+0.4** |
| **GADA** | **Gvkgeada** | **48.23 285** | P | **P** | **15 30 38.2** | **+0.4** |
| **SMTH** | **Samothraki Isl** | **48.28 286** | *e*P | **P** | **15 30 36.5** | **-1.7** |
| **SMTH** | **Samothraki Isl** | **48.28 286** | P | **P** | **15 30 36.5** | **-1.7** |
| **CSKK** | **Cs¨ztkako** | **48.32 297**⇑ | *e*P | **P** | **15 30 39.5** | **+1.1** |
| **VTS** | **Vitosha** | **48.35 289**⇓ | *i*P | **P** | **15 30 38.4** | **-0.4** |
| **VTS** | **Vitosha** | **48.35 289** | *e*P | **P** | **15 30 38.0** | **-0.8** |
| VTS | | | pmax | pmax | | |
| | comp=Z,180nm,1.1s | | | | | |
| **VTS** | **Vitosha** | **48.35 289** | *i* P | **P** | **15 30 39.0** | **+0.2** |
| **VTS** | **Vitosha** | **48.35 289** | *e*P | **P** | **15 30 38.0** | **-0.8** |
| | comp=Z,181nm,1.1s | | | | | |
| **VTS** | **Vitosha** | **48.35 289** | P | **P** | **15 30 38.1** | **-0.8** |
| **TPTI** | | **48.42 178** | P | **P** | **15 30 41.3** | **+1.9** |
| | comp=Z,247nm,1.3s,comp=Z,8µm | | | | | |
| **ZST** | **Bratislava** | **48.47 299** | *e*S | **S** | **15 37 47.0** | **+7.1** |
| ZST | | | *e*SS | **SS** | **15 41 15.6** | **+6.4** |
| ZST | | | *e*L | L | 15 52 48.7 | |
| **PVCC** | **Panska Ves** | **48.47 303**⇑ | *e*P | **P** | **15 30 39.6** | **+0.1** |
| PVCC | | | *ex* | x | 15 30 47.9 | |
| PVCC | | | *e*PP | **PP** | **15 32 33.3** | **+1.4** |
| PVCC | | | *e*XS | **sS** | **15 37 49.2** | **+2.6** |
| PVCC | | | *e*SS | **SS** | **15 41 14.3** | **+5.1** |
| PVCC | | | AMS | AMS | 15 53 20.0 | |
| | comp=Z,74µm,14.6s | | | | | |
| **PVCC** | **Panska Ves** | **48.47 303** | *e*P | **P** | **15 30 39.6** | **+0.1** |
| PVCC | | | *e* | | 15 30 47.9 | |
| PVCC | | | *e* | | 15 32 33.3 | |
| PVCC | | | *e*S | S | 15 37 49.2 | +9.3 |
| PVCC | | | MLR | MLR | | |
| | comp=Z,74µm,14.6s | | | | | |
| **FETY** | **Fethiye** | **48.55 279** | *e*P | **P** | **15 30 37.8** | **-2.6** |
| **FETY** | **Fethiye** | **48.55 279** | P | **P** | **15 30 37.8** | **-2.6** |
| **KAVA** | **Kavala** | **48.55 287** | *e*P | **P** | **15 30 38.9** | **-1.4** |
| **KAVA** | **Kavala** | **48.55 287** | P | **P** | **15 30 38.9** | **-1.4** |
| **PRK** | **Paraskevi** | **48.60 284** | P | **P** | **15 30 39.7** | **-0.9** |
| **PRK** | **Paraskevi** | **48.60 284** | P | **P** | **15 30 39.7** | **-0.9** |
| **PRK** | **Paraskevi** | **48.60 284** | P | **P** | **15 30 39.7** | **-0.9** |
| **BRG** | **Berggiesshubel** | **48.60 303** | *i* P | **P** | **15 30 40.0** | **-0.5** |
| | comp=Z,313nm,1.7s | | | | | |
| BRG | | | *e* | | 15 30 45.2 | |
| | comp=Z,345nm,1.1s | | | | | |
| BRG | | | *e* | | 15 30 46.0 | |
| | comp=Z,305nm,1.1s | | | | | |
| BRG | | | PP | **PP** | **15 32 39.1** | **+6.0** |
| | comp=Z,250nm,1.2s | | | | | |
| BRG | | | S | S | 15 37 52.0 | +10 |
| BRG | | | SS | **SS** | **15 41 18.0** | **+6.8** |
| | comp=N,65µm,17.3s | | | | | |
| | comp=E,84µm,17.0s | | | | | |
| | comp=Z,84µm,22.0s | | | | | |
| **BRG** | **Berggiesshubel** | **48.60 303** | *i* P | **P** | **15 30 40.0** | **-0.5** |
| BRG | | | *e* | | 15 30 45.2 | |
| BRG | | | *e* | | 15 30 46.0 | |
| BRG | | | | | 15 32 39.1 | |
| BRG | | | S | S | 15 37 52.0 | +10 |
| BRG | | | pmax | pmax | | |
| | comp=Z,313nm,1.7s | | | | | |
| BRG | | | pmax | pmax | | |
| | comp=Z,250nm,1.2s | | | | | |
| **KKM** | **Kota Kinabalu** | **48.63 153** | *e*P | **P** | **15 30 41.5** | **+0.4** |
| | comp=Z,203nm,1.5s | | | | | |
| KKM | | | LR | LR | | |
| | comp=Z,112µm,20.0s | | | | | |
| **MMB** | **Musomiste** | **48.66 288** | *i* P | **P** | **15 30 40.9** | **-0.2** |
| **GOPC** | **GO Pecny, Ondr** | **48.71 302**⇑ | *i*P | **P** | **15 30 41.1** | **-0.3** |
| GOPC | | | *e*pP | **sP** | **15 30 46.5** | **-0.5** |
| GOPC | | | *e*PP | **PP** | **15 32 36.4** | **+2.2** |
| GOPC | | | *e*XS | **sS** | **15 37 53.6** | **+3.6** |
| GOPC | | | *e*SS | **SS** | **15 41 17.0** | **+3.9** |
| GOPC | | | AMS | AMS | 15 53 20.0 | |
| | comp=Z,71µm,12.5s | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **48.71 302**⇑ | *i*P | **P** | **15 30 41.1** | **-0.3** |
| GOPC | | | *e* | | 15 30 46.5 | |
| GOPC | | | *e* | | 15 32 36.4 | |
| GOPC | | | *e*S | S | 15 37 53.6 | +10 |
| GOPC | | | MLR | MLR | | |
| | comp=Z,71µm,12.5s | | | | | |
| **PRU** | **Pruhonice** | **48.80 302**⇑ | *i*P | **P** | **15 30 41.7** | **-0.3** |
| PRU | | | *e*pP | **sP** | **15 30 47.3** | **-0.3** |
| PRU | | | *e*PP | **PP** | **15 32 34.8** | **-0.1** |
| PRU | | | *e*XS | **sS** | **15 37 52.2** | **+1.0** |
| PRU | | | *e*SS | **SS** | **15 41 15.3** | **+0.9** |
| PRU | | | AMS | AMS | 15 53 10.0 | |
| | comp=Z,81µm,14.3s | | | | | |
| **PRU** | **Pruhonice** | **48.80 302**⇑ | *i*P | **P** | **15 30 41.7** | **-0.3** |
| PRU | | | *e* | | 15 30 47.3 | |
| PRU | | | *e* | | 15 32 34.8 | |
| PRU | | | *e*S | **sS** | **15 37 52.2** | **+1.0** |
| PRU | | | *e*SS | **SS** | **15 41 15.3** | **+0.9** |
| PRU | | | MLR | MLR | | |
| | comp=Z,81µm,14.3s | | | | | |
| **CLL** | **Collm** | **48.84 304**⇑ | *i*P | **P** | **15 30 41.6** | **-0.7** |
| CLL | | | *e*S | **S** | **15 37 53.0** | **+8.0** |
| CLL | | | pmax | pmax | | |
| | comp=Z,502nm,1.0s | | | | | |
| CLL | | | MLR | MLR | | |
| | comp=Z,103µm,18.7s | | | | | |
| **CLL** | **Collm** | **48.84 304**⇑ | *i*P | **P** | **15 30 41.6** | **-0.7** |
| | comp=Z,502nm,1.0s | | | | | |
| CLL | | | *e*Plp | | 15 30 42.0 | |
| | comp=N,2µm,20.7s | | | | | |
| CLL | | | *e*Plp | | 15 30 42.0 | |
| | comp=E,2µm,22.7s | | | | | |
| CLL | | | *e*Plp | | 15 30 42.0 | |
| | comp=Z,3µm,20.9s | | | | | |
| CLL | | | *i* sP | **sP** | **15 30 50.3** | **+2.4** |
| CLL | | | *e*PP | **PP** | **15 32 39.0** | **+3.8** |
| CLL | | | *e*PPlp | | 15 32 49.0 | |
| | comp=N,3µm,27.8s | | | | | |
| CLL | | | *e*PPlp | | 15 32 49.0 | |
| | comp=E,3µm,26.1s | | | | | |
| CLL | | | *e*PPlp | | 15 32 49.0 | |
| | comp=Z,3µm,27.6s | | | | | |
| CLL | | | *e*S | **S** | **15 37 53.0** | **+8.0** |
| | comp=N,15µm,17.7s | | | | | |
| CLL | | | *e*S | **S** | **15 37 53.0** | **+8.0** |
| | comp=E,19µm,23.2s | | | | | |
| CLL | | | *e*SS | **SS** | **15 41 17.0** | **+2.0** |
| CLL | | | LmV | | 15 53 00.0 | |
| | comp=Z,103µm,18.7s | | | | | |
| CLL | | | Lmax | | 15 53 00.0 | |
| **CLL** | **Collm** | **48.84 304** | *e*P | **P** | **15 30 41.6** | **-0.7** |
| | comp=Z,477nm,1.0s | | | | | |
| **LIA** | **Limnos Island** | **48.84 285** | P | **P** | **15 30 41.3** | **-1.2** |
| **LIA** | **Limnos Island** | **48.84 285** | P | **P** | **15 30 41.3** | **-1.2** |
| **SIGR** | **SIGRI** | **48.87 284** | *e*P | **P** | **15 30 40.0** | **-2.7** |
| **SIGR** | **SIGRI** | **48.87 284** | P | **P** | **15 30 40.0** | **-2.7** |
| **PSI** | **Prapat** | **48.93 176** | S | **S** | **15 37 51.6** | **+4.5** |
| | comp=Z,8.5nm,0.9s,baz=168,slow=5.2,SNR=1.7 | | | | | |
| **PSI** | **Prapat** | **48.93 176** | *e*P | **P** | **15 30 42.5** | **-1.0** |
| PSI | | | S | **S** | **15 37 51.6** | **+4.5** |
| PSI | | | pmax | pmax | | |
| | comp=Z,82nm,1.0s | | | | | |
| **PSI** | **Prapat** | **48.93 176** | *e*P | **P** | **15 30 42.5** | **-1.0** |
| | comp=Z,82nm,1.0s | | | | | |
| PSI | | | S | **S** | **15 37 51.6** | **+4.5** |
| **SOP** | **Sopron** | **49.07 298**⇑ | *e*P | **P** | **15 30 45.4** | **+1.3** |
| **BUTP** | **Butuan** | **49.14 140** | *e*P | P | 15 30 39.5 | -5.5 |
| **SMG** | **Samos** | **49.23 282** | P | **P** | **15 30 44.7** | **-0.8** |
| **SMG** | **Samos** | **49.23 282** | P | **P** | **15 30 44.7** | **-0.8** |
| **SNSI** | **Sinabang, Aceh** | **49.26 180** | P | **P** | **15 30 46.3** | **+0.5** |
| **CHOS** | **Chios island** | **49.27 283** | P | **P** | **15 30 45.5** | **-0.4** |
| **CHOS** | **Chios island** | **49.27 283** | P | **P** | **15 30 45.5** | **-0.4** |
| **OUR** | **Ouranopolis** | **49.28 286** | *e*P | **P** | **15 30 45.1** | **-0.8** |
| **OUR** | **Ouranopolis** | **49.28 286** | *e*P | **P** | **15 30 45.1** | **-0.8** |
| **OUR** | **Ouranopolis** | **49.28 286** | P | **P** | **15 30 45.1** | **-0.8** |
| **CONA** | **Conrad Observa** | **49.30 299** | *i* pP | **P** | **15 30 46.2** | **+0.2** |
| | comp=Z,267nm,1.4s,SNR=49 | | | | | |
| **PAGZ** | **Pagadian** | **49.30 143** | *e*P | P | 15 30 40.8 | -5.4 |
| **BODT** | **Bodrum** | **49.36 281** | *e*P | **P** | **15 30 45.8** | **-0.7** |
| **BODT** | **Bodrum** | **49.36 281** | P | **P** | **15 30 45.8** | **-0.7** |
| **KNT** | **Kendrikon** | **49.41 288** | P | **P** | **15 30 45.4** | **-1.5** |
| **KNT** | **Kendrikon** | **49.41 288** | P | **P** | **15 30 45.4** | **-1.5** |
| **KNT** | **Kendrikon** | **49.41 288** | P | **P** | **15 30 45.4** | **-1.5** |
| **ARG** | **Arkhangelos** | **49.41 280** | P | **P** | **15 30 46.6** | **-0.3** |
| **ARG** | **Arkhangelos** | **49.41 280** | P | **P** | **15 30 46.6** | **-0.3** |
| **ARG** | **Arkhangelos** | **49.41 280** | P | **P** | **15 30 46.6** | **-0.3** |
| **VAY** | **Valandovo** | **49.50 288** | *e*P | **P** | **15 30 47.0** | **-0.5** |
| **VAY** | **Valandovo** | **49.50 288** | *e*P | **P** | **15 30 47.0** | **-0.5** |
| **VAY** | **Valandovo** | **49.50 288** | P | **P** | **15 30 47.0** | **-0.5** |
| **VAY** | **Valandovo** | **49.50 288** | *i* P | **P** | **15 30 47.1** | **-0.4** |
| **PLG** | **Polygyros** | **49.58 287** | P | **P** | **15 30 47.5** | **-0.7** |
| **PLG** | **Polygyros** | **49.58 287** | P | **P** | **15 30 47.5** | **-0.7** |
| **PLG** | **Polygyros** | **49.58 287** | P | **P** | **15 30 47.5** | **-0.7** |
| **EIL** | **Elat** | **49.62 268** | S | **S** | **15 37 59.2** | **+2.7** |
| | comp=Z,18nm,1.2s,baz=356,slow=17,SNR=1.8 | | | | | |
| **HORT** | **Hortiatis** | **49.64 287** | P | **P** | **15 30 48.2** | **-0.5** |
| **HORT** | **Hortiatis** | **49.64 287** | P | **P** | **15 30 48.2** | **-0.5** |
| **BEHE** | **Becsehely** | **49.67 297**⇑ | *e*P | **P** | **15 30 48.5** | **-0.2** |
| **THE** | **Thessaloniki** | **49.70 287** | *e*P | **P** | **15 30 48.6** | **-0.4** |
| **THE** | **Thessaloniki** | **49.70 287** | *e*P | **P** | **15 30 48.6** | **-0.4** |
| **THE** | **Thessaloniki** | **49.70 287** | P | **P** | **15 30 48.6** | **-0.4** |
| **PAIG** | **Paliouri** | **49.72 286** | *e*P | **P** | **15 30 48.8** | **-0.4** |
| **PAIG** | **Paliouri** | **49.72 286** | *e*P | **P** | **15 30 48.8** | **-0.4** |
| **PAIG** | **Paliouri** | **49.72 286** | P | **P** | **15 30 48.8** | **-0.4** |
| **NKC** | **Novy Kostel** | **49.75 303**⇑ | *e*P | **P** | **15 30 49.1** | **-0.2** |
| NKC | | | *e*pP | **sP** | **15 30 55.0** | **0.0** |
| NKC | | | *e*PP | **PP** | **15 32 44.1** | **+0.5** |
| NKC | | | *e*sP | S | 15 38 08.0 | +10 |
| NKC | | | *e*SS | **SS** | **15 41 33.4** | **+3.6** |
| NKC | | | AMS | AMS | 15 53 00.0 | |
| | comp=Z,82µm,14.5s | | | | | |
| **NKC** | **Novy Kostel** | **49.75 303** | *e*P | **P** | **15 30 49.1** | **-0.2** |
| NKC | | | *e* | | 15 30 55.0 | |
| NKC | | | *e* | | 15 32 44.1 | |
| NKC | | | *e*S | S | 15 38 08.0 | +10 |
| NKC | | | *e*SS | **SS** | **15 41 33.4** | **+3.6** |
| NKC | | | MLR | MLR | | |
| | comp=Z,82µm,14.5s | | | | | |
| **SKO** | **Skopje** | **49.76 290** | *e*P | **P** | **15 30 49.8** | **+0.3** |
| **SKO** | **Skopje** | **49.76 290** | *e*P | **P** | **15 30 49.8** | **+0.3** |
| **SKO** | **Skopje** | **49.76 290** | P | **P** | **15 30 49.8** | **+0.3** |
| **SKO** | **Skopje** | **49.76 290** | *i* P | **P** | **15 30 49.0** | **-0.5** |
| **KHC** | **Kasperske Hory** | **49.81 302**⇑ | *i*P | **P** | **15 30 49.5** | **-0.3** |
| KHC | | | *e*pP | **sP** | **15 30 55.0** | **-0.5** |
| KHC | | | *e*PP | **PP** | **15 32 49.5** | **+5.3** |
| KHC | | | *e*S | S | 15 38 08.0 | +9.2 |
| KHC | | | *e*SS | **SS** | **15 41 34.5** | **+3.7** |
| KHC | | | AMS | AMS | 15 55 00.0 | |
| | comp=Z,65µm,15.0s | | | | | |
| **KHC** | **Kasperske Hory** | **49.81 302**⇑ | *i*P | **P** | **15 30 49.5** | **-0.3** |
| KHC | | | *e* | | 15 30 55.0 | |
| KHC | | | *e* | | 15 32 49.5 | |
| KHC | | | *e*S | S | 15 38 08.0 | +9.2 |
| KHC | | | MLR | MLR | | |
| | comp=Z,65µm,15.0s | | | | | |
| **KHC** | **Kasperske Hory** | **49.81 302** | *e*P | **P** | **15 30 49.0** | **-0.8** |
| | comp=Z,139nm,1.1s | | | | | |
| **GRG** | **Griva** | **49.83 288** | *e*P | **P** | **15 30 48.0** | **-2.1** |
| **GRG** | **Griva** | **49.83 288** | *e*P | **P** | **15 30 48.0** | **-2.1** |
| **GRG** | **Griva** | **49.83 288** | P | **P** | **15 30 48.0** | **-2.1** |
| **ARSA** | **Arzberg** | **49.89 299** | *i* pP | **P** | **15 30 50.5** | **0.0** |
| | comp=Z,235nm,1.1s,SNR=42 | | | | | |
| **BUKP** | **Musuan** | **49.91 141** | *e*P | **P** | **15 30 51.8** | **+0.9** |
| **GEC2** | **GERESS Array S** | **49.91 301** | *e*P | **P** | **15 30 50.6** | **-0.1** |
| GEC2 | | | pmax | pmax | | |
| | comp=Z,210nm,1.1s | | | | | |
| **GEC2** | **GERESS Array S** | **49.91 301** | *e*P | **P** | **15 30 49.9** | **-0.8** |
| | comp=Z,208nm,1.1s | | | | | |
| **GERES** | **GERESS Array B** | **49.91 301** | P | **P** | **15 30 50.1** | **-0.6** |
| | comp=Z,17nm,0.8s,baz=52,slow=7.4,SNR=120 | | | | | |
| GERES | | | LR | LR | 15 54 29.6 | |
| | comp=Z,46µm,18.6s,baz=72,slow=39 | | | | | |
| **GEA0** | **GERESS Array S** | **49.92 301** | *e*P | **P** | **15 30 49.5** | **-1.3** |
| **KOGS** | **Kog** | **49.97 297** | *e*P | **P** | **15 30 51.1** | **+0.1** |
| KOGS | | | *e*PP | **PP** | **15 32 46.1** | **+0.4** |
| KOGS | | | *e*S | S | 15 38 10.2 | +9.1 |
| KOGS | | | *e*SS | SS | 15 41 44.9 | +12 |
| **IVA** | **Berane** | **50.10 292**⇑ | *i*P | **P** | **15 30 51.3** | **-0.9** |
| **PLE** | **Pljevlja** | **50.11 292**⇑ | *i*P | **P** | **15 30 51.2** | **-1.1** |
| **MYLDM** | **Lahad Datu** | **50.12 150** | *e*P | **P** | **15 30 52.6** | **+0.1** |
| | comp=Z,550nm,1.5s | | | | | |
| **SCO** | **Scoresbysund** | **50.14 337** | *i* P | **P** | **15 30 56.2** | **+4.3** |
| SCO | | | *i* S | S | 15 38 13.0 | +10 |
| SCO | | | pmax | pmax | | |
| | comp=Z,260nm,1.1s | | | | | |
| SCO | | | MLR | MLR | | |
| | comp=Z,50µm,20.0s | | | | | |
| **SCO** | **Scoresbysund** | **50.14 337** | *i* P | **P** | **15 30 56.2** | **+4.3** |
| | comp=Z,257nm,1.1s | | | | | |
| SCO | | | *i* S | S | 15 38 13.0 | +10 |
| | comp=Z,50µm,20.0s | | | | | |
| **MOA** | **Molln** | **50.21 300** | *i* pP | **P** | **15 30 52.8** | **-0.1** |
| | comp=Z,324nm,1.2s,SNR=54 | | | | | |
| **PVY** | **Plav** | **50.24 291**⇑ | *i*P | **P** | **15 30 52.5** | **-0.8** |
| **KRUS** | **Krusevo** | **50.25 289** | *i* P | **P** | **15 30 53.4** | **+0.1** |
| **MYKOM** | **Kota Tinggi** | **50.31 170** | *e*P | **P** | **15 30 54.4** | **+0.5** |
| | comp=Z,374nm,1.3s | | | | | |
| **LIT** | **Litokhoron** | **50.32 287** | *e*P | **P** | **15 30 51.4** | **-2.4** |
| **LIT** | **Litokhoron** | **50.32 287** | *e*P | **P** | **15 30 51.4** | **-2.4** |
| **LIT** | **Litokhoron** | **50.32 287** | P | **P** | **15 30 51.4** | **-2.4** |
| **SKIA** | **Skiathos** | **50.33 286** | P | **P** | **15 30 52.7** | **-1.2** |
| **KOME** | **Kolasin** | **50.33 292**⇑ | *i*P | **P** | **15 30 53.1** | **-0.9** |
| **XOR** | **Xorichti** | **50.37 286** | P | **P** | **15 30 52.2** | **-2.0** |
| **XOR** | **Xorichti** | **50.37 286** | P | **P** | **15 30 52.2** | **-2.0** |
| **GSI** | **Gunungsitoli** | **50.37 178** | P | **P** | **15 30 55.0** | **+0.7** |
| **GSI** | **Gunungsitoli** | **50.37 178** | *e*P | **P** | **15 30 54.2** | **-0.1** |
| | comp=Z,625nm,1.2s | | | | | |
| **BIA** | **Bitola** | **50.43 289** | *e*P | **P** | **15 30 56.1** | **+1.5** |
| **BIA** | **Bitola** | **50.43 289** | P | **P** | **15 30 56.1** | **+1.5** |
| **BIA** | **Bitola** | **50.43 289** | *e*P | **P** | **15 30 55.6** | **+1.0** |
| **APE** | **Apeiranthos** | **50.44 282**⇓ | *i*P | **P** | **15 30 53.8** | **-1.0** |
| **APE** | **Apeiranthos** | **50.44 282** | *d* P | **P** | **15 30 54.9** | **+0.1** |
| APE | | | pmax | pmax | | |
| | comp=Z,502nm,1.6s | | | | | |
| APE | | | MLR | MLR | | |
| | comp=Z,37µm,20.0s | | | | | |
| **APE** | **Apeiranthos** | **50.44 282** | *e*P | **P** | **15 30 53.5** | **-1.3** |
| **APE** | **Apeiranthos** | **50.44 282** | P | **P** | **15 30 53.5** | **-1.3** |
| **KARP** | **Karpathos** | **50.44 280** | *e*P | **P** | **15 30 52.7** | **-2.1** |
| | comp=Z,93nm,0.8s | | | | | |
| **KARP** | **Karpathos** | **50.44 280** | P | **P** | **15 30 53.2** | **-1.6** |
| **UPM** | **Unac-Piva** | **50.47 292** | *e*P | **P** | **15 30 53.7** | **-1.4** |
| **BLY** | **Banja Luka** | **50.49 295** | *e*P | **P** | **15 30 54.9** | **-0.1** |
| | comp=Z,222nm,1.3s | | | | | |
| **FYTO** | **Fytoko, Volos** | **50.49 286** | *e*P | **P** | **15 30 54.2** | **-0.9** |
| **FYTO** | **Fytoko, Volos** | **50.49 286** | P | **P** | **15 30 54.2** | **-0.9** |
| **SOKA** | **Soboth** | **50.50 298** | *i* pP | **P** | **15 30 54.8** | **-0.4** |
| | comp=Z,173nm,1.2s,SNR=58 | | | | | |
| **PHP** | **Peshkopia** | **50.52 290** | *e*P | **P** | **15 30 55.1** | **-0.3** |
| **PHP** | **Peshkopia** | **50.52 290** | *e*P | **P** | **15 30 55.1** | **-0.3** |
| **PHP** | **Peshkopia** | **50.52 290** | P | **P** | **15 30 55.1** | **-0.3** |
| **EREA** | **Eretria** | **50.53 285** | P | **P** | **15 30 54.6** | **-0.8** |
| **FNA** | **Florina** | **50.54 289** | P | **P** | **15 30 54.5** | **-1.0** |
| **FNA** | **Florina** | **50.54 289** | P | **P** | **15 30 54.5** | **-1.0** |
| **FNA** | **Florina** | **50.54 289** | P | **P** | **15 30 54.5** | **-1.0** |
| **KZN** | **Kozani** | **50.61 288** | P | **P** | **15 30 55.4** | **-0.7** |
| **KZN** | **Kozani** | **50.61 288** | P | **P** | **15 30 55.4** | **-0.7** |
| **KZN** | **Kozani** | **50.61 288** | P | **P** | **15 30 55.4** | **-0.7** |
| **NKY** | **Niksic** | **50.66 292**⇑ | *i*P | **P** | **15 30 55.7** | **-0.7** |
| **SMIA** | **Simia** | **50.67 285** | P | **P** | **15 30 55.4** | **-1.1** |
| **OHR** | **Ohrid** | **50.68 289** | *i* P | **P** | **15 30 55.1** | **-1.4** |
| **NKME** | **Niksic** | **50.71 292**⇑ | *i*P | **P** | **15 30 55.7** | **-1.0** |
| **GRFO** | **Grafenberg** | **50.71 303** | *e*P | **P** | **15 30 56.6** | **0.0** |
| GRFO | | | pmax | pmax | | |
| | comp=Z,560nm,1.1s | | | | | |
| **GRFO** | **Grafenberg** | **50.71 303** | *e*P | **P** | **15 30 56.5** | **0.0** |
| | comp=Z,560nm,1.1s | | | | | |
| **PDG** | **Podgorica** | **50.74 291**⇓ | *i*P | **P** | **15 30 56.1** | **-0.8** |
| **PDG** | **Podgorica** | **50.74 291** | P | **P** | **15 30 56.4** | **-0.5** |
| **TTG** | **Podgorica** | **50.74 291**⇑ | *i*P | **P** | **15 30 56.1** | **-0.8** |
| **TTG** | **Podgorica** | **50.74 291** | P | **P** | **15 30 56.4** | **-0.5** |
| **TTG** | **Podgorica** | **50.74 291** | P | **P** | **15 30 56.4** | **-0.5** |
| **PTL** | **Penteli** | **50.81 284** | *e*P | **P** | **15 30 56.5** | **-1.0** |
| **PTL** | **Penteli** | **50.81 284** | P | **P** | **15 30 56.5** | **-1.0** |
| **DAV** | **Davao City (W)** | **50.86 141**⇑ | *e*P | **P** | **15 31 02.6** | **+4.6** |
| **DAV** | **Davao City (W)** | **50.86 141** | PFAKE | | 15 31 10.0 | +12 |
| DAV | | | LR | LR | | |
| | comp=Z,69µm,20.0s | | | | | |
| **BRY** | **Bratogost** | **50.86 292** | *e*P | **P** | **15 30 56.8** | **-1.2** |
| **CEME** | **Cevo** | **50.87 292**⇑ | *i*P | **P** | **15 30 57.1** | **-0.8** |
| **OBKA** | **Obir** | **50.87 298** | *i* P | **P** | **15 30 57.5** | **-0.5** |
| | comp=Z,224nm,1.2s,SNR=26 | | | | | |
| **ATHU** | **Athens Univers** | **50.91 284** | *e*P | **P** | **15 30 57.3** | **-1.0** |
| **ATHU** | **Athens Univers** | **50.91 284** | P | **P** | **15 30 57.3** | **-1.0** |
| **DRME** | **Dracevica, Mon** | **50.94 291**⇑ | *i*P | **P** | **15 30 58.2** | **-0.2** |
| **SANT** | **Santorini** | **50.94 282** | *e*P | **P** | **15 30 57.4** | **-1.1** |
| | comp=Z,89nm,0.8s | | | | | |
| SANT | | | LR | LR | | |
| | comp=Z,25µm,19.0s | | | | | |
| **THL** | **Klokotos Trika** | **50.94 287** | P | **P** | **15 30 55.8** | **-2.6** |
| **ATH** | **Athens Observa** | **50.95 284** | P | **P** | **15 30 56.8** | **-1.7** |
| **ATH** | **Athens Observa** | **50.95 284** | P | **P** | **15 30 56.8** | **-1.7** |
| **ATH** | **Athens Observa** | **50.95 284** | P | **P** | **15 30 56.8** | **-1.7** |
| **NEST** | **Nestorio** | **50.97 288** | P | **P** | **15 30 56.7** | **-2.1** |
| **VLY** | **Voula,Athens** | **50.98 284** | *e*P | **P** | **15 30 58.0** | **-0.8** |
| **VLY** | **Voula,Athens** | **50.98 284** | P | **P** | **15 30 58.0** | **-0.8** |
| **THR6** | **Thira Island,** | **50.99 282** | *e*P | **P** | **15 30 56.6** | **-2.2** |
| **THR6** | **Thira Island,** | **50.99 282** | P | **P** | **15 30 56.6** | **-2.2** |
| **KBN** | **Korca** | **50.99 289** | *e*P | **P** | **15 30 58.2** | **-0.7** |
| **KBN** | **Korca** | **50.99 289** | *e*P | **P** | **15 30 58.2** | **-0.7** |
| **KBN** | **Korca** | **50.99 289** | P | **P** | **15 30 58.2** | **-0.7** |
| **BUM** | **Brajici-Budva** | **51.03 292**⇑ | *i*P | **P** | **15 30 58.8** | **-0.4** |
| **ULC** | **Ulcinj** | **51.04 291**⇑ | *i*P | **P** | **15 30 57.7** | **-1.5** |
| **PENT** | **Pentalofos** | **51.06 288** | P | **P** | **15 30 57.4** | **-2.1** |
| **SBUM** | **Sibu** | **51.06 159** | *e*P | **P** | **15 30 59.6** | **+0.1** |
| | comp=Z,134nm,1.1s | | | | | |
| **TIR** | **Tirane** | **51.07 290**⇓ | *i*P | **P** | **15 30 59.3** | **-0.1** |
| **TIR** | **Tirane** | **51.07 290** | *e*P | **P** | **15 31 00.5** | **+1.1** |
| TIR | | | pmax | pmax | | |
| | comp=Z,260nm,1.1s | | | | | |
| **TIR** | **Tirane** | **51.07 290** | *e*P | **P** | **15 30 58.8** | **-0.6** |
| | comp=Z,258nm,1.1s | | | | | |
| TIR | | | LR | LR | | |
| | comp=Z,79µm,20.0s | | | | | |
| **TIR** | **Tirane** | **51.07 290** | P | **P** | **15 30 59.3** | **-0.1** |
| **BOJS** | **Bojanci** | **51.10 297** | *e*P | **P** | **15 30 58.5** | **-1.1** |
| **IMAR** | **Indian Mountai** | **51.14 30** | *e*P | **P** | **15 30 58.6** | **-1.0** |
| **LJU** | **Ljubljana** | **51.17 298** | *e*P | **P** | **15 30 59.0** | **-1.1** |
| LJU | | | *e*S | **S** | **15 38 26.5** | **+8.9** |
| LJU | | | *e* | | 15 41 02.9 | |
| LJU | | | *e*SS | **SS** | **15 41 55.2** | **+2.8** |
| **HCY** | **Herceg Novi** | **51.17 292**⇑ | *i*P | **P** | **15 30 59.1** | **-1.1** |
| **KBA** | **Koelnbreinsper** | **51.17 300** | *i* pP | **P** | **15 31 00.6** | **+0.3** |
| | comp=Z,613nm,1.0s,SNR=76 | | | | | |
| **MATI** | **Mati** | **51.24 140** | *e*P | **P** | **15 31 00.3** | **-0.5** |
| **TPRI** | **Tanjung Pinang** | **51.24 169** | P | **P** | **15 31 01.9** | **+1.0** |
| **MYKA** | **Terra Mystica** | **51.29 299** | *i* pP | **P** | **15 31 00.9** | **-0.2** |
| | comp=Z,171nm,0.7s,SNR=47 | | | | | |
| **ZKR** | **Zakros** | **51.31 280** | *e*P | **P** | **15 31 00.0** | **-1.3** |
| **ZKR** | **Zakros** | **51.31 280** | P | **P** | **15 31 00.0** | **-1.3** |
| **COLD** | **Coldfoot** | **51.34 27** | *e*P | **P** | **15 31 00.5** | **-0.6** |
| | comp=Z,357nm,1.2s | | | | | |
| **STON** | **Ston** | **51.36 293** | P | **P** | **15 30 59.8** | **-1.8** |
| **DSF** | **Desfina** | **51.38 285** | *e*P | **P** | **15 30 59.0** | **-2.8** |
| **DSF** | **Desfina** | **51.38 285** | P | **P** | **15 30 59.0** | **-2.8** |
| **LOUT** | **Loutraki** | **51.38 285** | P | **P** | **15 30 59.3** | **-2.5** |
| **UDBI** | **Udbina** | **51.42 296** | P | **P** | **15 31 01.1** | **-1.0** |
| **EVR** | **Evrytania** | **51.48 286** | P | **P** | **15 31 01.5** | **-

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| STU | Stuttgart | 52.32 | 303 | eP | | P | | 15 31 08.2 | -0.5 |
| | comp=Z,602nm,1.0s | | | | | | | | |
| VAM | Vamos | 52.34 | 281 | P | | P | | 15 31 05.5 | -3.5 |
| VAM | Vamos | 52.34 | 281 | P | | P | | 15 31 05.5 | -3.5 |
| VAM | Vamos | 52.34 | 281 | P | | P | | 15 31 05.5 | -3.5 |
| IMMV | Iera Moni Meta | 52.44 | 282 | P | | P | | 15 31 06.2 | -3.5 |
| AMT | Artemida-Makis | 52.44 | 285 | P | | P | | 15 31 07.7 | -2.0 |
| KYTH | Kithira | 52.47 | 283 | eP | | P | | 15 31 11.2 | +1.2 |
| KYTH | Kithira | 52.47 | 283 | P | | P | | 15 31 11.2 | +1.2 |
| VTN | Vitineika | 52.50 | 286 | P | | P | | 15 31 09.6 | -0.5 |
| ITM | Ithomi | 52.54 | 285 | P | | P | | 15 31 07.6 | -2.9 |
| ITM | Ithomi | 52.54 | 285 | P | | P | | 15 31 07.6 | -2.9 |
| ANKY | Antikythira Is | 52.58 | 283 | eP | | P | | 15 31 08.3 | -2.4 |
| ANKY | Antikythira Is | 52.58 | 283 | P | | P | | 15 31 08.3 | -2.4 |
| KULLO | Kullorsuaq | 52.59 | 351 | i P | | P | | 15 31 14.9 | +4.6 |
| KULLO | | | | | pmax | | pmax | | |
| | comp=Z,180nm,1.0s | | | | | | | | |
| KULLO | | | | | MLR | | MLR | | |
| | comp=Z,76µm,20.0s | | | | | | | | |
| KULLO | Kullorsuaq | 52.59 | 351 | i P | | P | | 15 31 14.9 | +4.6 |
| | comp=Z,177nm,1.0s | | | | | | | | |
| | comp=Z,76µm,20.0s | | | | | | | | |
| FETA | Feichten | 52.61 | 301 | i pP | | P | | 15 31 10.7 | -0.4 |
| | comp=Z,407nm,1.1s,SNR=44 | | | | | | | | |
| MCD | Coleburn Disti | 52.61 | 318 | eP | | P | | 15 31 09.8 | -0.9 |
| VLS | Valsamata | 52.69 | 286 | P | | P | | 15 31 09.3 | -2.2 |
| VLS | Valsamata | 52.69 | 286 | P | | P | | 15 31 09.3 | -2.2 |
| VLS | Valsamata | 52.69 | 286 | P | | P | | 15 31 09.3 | -2.2 |
| PDSI | Padang | 52.69 | 174 | P | | P | | 15 31 13.2 | +1.5 |
| MLY | Manley | 52.71 | 29 | eP | | P | | 15 31 10.8 | -0.5 |
| | comp=Z,286nm,1.3s | | | | | | | | |
| DRUM | Mains of Drumt | 52.72 | 317 | eP | | P | | 15 31 10.3 | -1.2 |
| DRUM | | | | | IAMs_20 | IAMs_20 | | 15 52 37.9 | |
| | comp=Z,85µm,20.6s | | | | | | | | |
| HGN | Heimansgroeve | 52.73 | 307 | eP | | P | | 15 31 10.9 | -0.7 |
| | comp=Z,220nm,1.4s | | | | | | | | |
| HGN | | | | | ePP | PP | | 15 33 12.5 | +2.0 |
| HGN | | | | | eS | S | | 15 38 53.5 | +14 |
| GVD | Gavdhos | 52.79 | 281 | eP | | P | | 15 31 10.1 | -2.2 |
| GVD | Gavdhos | 52.79 | 281 | P | | P | | 15 31 10.1 | -2.2 |
| MEM | Membach | 52.79 | 307 | P | | P | | 15 31 11.5 | -0.6 |
| PYL | PYLOS | 52.84 | 285 | eP | | P | | 15 31 09.2 | -3.5 |
| PYL | PYLOS | 52.84 | 285 | P | | P | | 15 31 09.2 | -3.5 |
| DAVA | Damuels | 52.90 | 302 | i pP | | P | | 15 31 12.7 | -0.4 |
| | comp=Z,425nm,1.1s,SNR=37 | | | | | | | | |
| LANF | Langenberg | 52.91 | 304 | eP | | P | | 15 31 12.6 | -0.4 |
| BSTI | Sart Tilman | 53.03 | 307 | P | | P | | 15 31 13.5 | -0.3 |
| SISI | Saibi | 53.03 | 176 | P | | P | | 15 31 24.9 | +11 |
| BFO | Black Forest | 53.05 | 303 | eP | | P | | 15 31 12.9 | -1.2 |
| BFO | | | | | pmax | | pmax | | |
| | comp=Z,264nm,1.1s | | | | | | | | |
| BFO | Black Forest | 53.05 | 303 | eP | | P | | 15 31 12.9 | -1.2 |
| | comp=Z,264nm,1.1s | | | | | | | | |
| FUORN | Ofenpass-Fuorn | 53.11 | 301 | eP | | P | | 15 31 14.4 | -0.5 |
| | comp=Z,548nm,1.0s | | | | | | | | |
| FYU | Fort Yukon | 53.19 | 26 | eP | | P | | 15 31 14.9 | +0.1 |
| | comp=Z,1µm,1.6s | | | | | | | | |
| STKI | Sintang | 53.22 | 160 | P | | P | | 15 31 16.4 | +0.8 |
| BCLA | Clavier | 53.26 | 307 | P | | P | | 15 31 15.4 | -0.2 |
| BPAW | Bear Paw Mtn. | 53.28 | 30 | eP | | P | | 15 31 15.2 | -0.4 |
| | comp=Z,889nm,1.8s | | | | | | | | |
| WLF | Walferdange | 53.31 | 306 | P | | P | | 15 31 15.5 | -0.5 |
| WLF | | | | E | | | | 15 31 29.1 | |
| WLF | Walferdange | 53.31 | 306 | eP | | P | | 15 31 16.3 | +0.3 |
| WLF | | | | | pmax | | pmax | | |
| | comp=Z,350nm,1.6s | | | | | | | | |
| WLF | Walferdange | 53.31 | 306 | eP | | P | | 15 31 15.3 | -0.6 |
| | comp=Z,352nm,1.6s | | | | | | | | |
| WLF | | | | | LR | | LR | | |
| | comp=Z,160µm,19.0s | | | | | | | | |
| ESY | Stoneypath | 53.41 | 316 | eP | | P | | 15 31 15.9 | -0.7 |
| KAC | Achnashellach | 53.51 | 319 | eP | | P | | 15 31 16.6 | -0.7 |
| MDM | Murphy Dome | 53.51 | 28 | eP | | P | | 15 31 16.6 | -0.7 |
| | comp=Z,302nm,1.2s | | | | | | | | |
| EDI | Edinburgh | 53.66 | 316 | eP | | P | | 15 31 18.0 | -0.4 |
| EDI | | | | | IAMs_20 | IAMs_20 | | 15 56 30.3 | |
| | comp=Z,90µm,17.3s | | | | | | | | |
| LCP | Cassop | 53.68 | 314 | eP | | P | | 15 31 17.7 | -0.8 |
| COLA | College | 53.68 | 28 | eP | | P | | 15 31 18.5 | +0.1 |
| COLA | | | | | pmax | | pmax | | |
| | comp=Z,720nm,1.6s | | | | | | | | |
| COLA | College | 53.68 | 28 | eP | | P | | 15 31 18.3 | -0.1 |
| | comp=Z,719nm,1.6s | | | | | | | | |
| COLA | | | | | LR | | LR | | |
| | comp=Z,47µm,20.0s | | | | | | | | |
| KTH | Kantishna Hill | 53.69 | 31 | eP | | P | | 15 31 18.7 | 0.0 |
| | comp=Z,535nm,1.1s | | | | | | | | |
| TUE | Stuetta | 53.70 | 301 | eP | | P | | 15 31 17.7 | -1.4 |
| | comp=Z,239nm,1.3s | | | | | | | | |
| TUE | | | | | LR | | LR | | |
| | comp=Z,87µm,22.0s | | | | | | | | |
| ECH | Echery | 53.73 | 304 | eP | | P | | 15 31 17.9 | -1.1 |
| ECH | Echery | 53.73 | 304 | eP | | P | | 15 31 18.0 | -1.1 |
| ECH | | | | | pmax | | pmax | | |
| | comp=Z,200nm,1.1s | | | | | | | | |
| ECH | Echery | 53.73 | 304 | eP | | P | | 15 31 17.7 | -1.3 |
| | comp=Z,198nm,1.1s | | | | | | | | |
| ECH | | | | | LR | | LR | | |
| | comp=Z,91µm,22.0s | | | | | | | | |
| PPLA | Purkeypile | 53.75 | 32 | eP | | P | | 15 31 18.6 | -0.5 |
| | comp=Z,1µm,2.0s | | | | | | | | |
| KPL | Plockton | 53.76 | 319 | IAMs_20 | | IAMs_20 | | 15 55 30.0 | |
| | comp=Z,64µm,18.3s | | | | | | | | |
| DOU | Dourbes | 53.82 | 307 | P | | P | | 15 31 18.8 | -0.8 |
| DOU | | | | PCP | | sP | | 15 31 38.0 | +13 |
| EDMD | Edmundbyers | 53.84 | 315 | eP | | P | | 15 31 18.2 | -1.5 |
| EDMD | | | | IAMs_20 | | IAMs_20 | | 15 57 22.4 | |
| | comp=Z,115µm,14.8s | | | | | | | | |
| SVW2 | Sparrevohn | 53.84 | 35 | eP | | P | | 15 31 19.4 | -0.3 |
| | comp=Z,197nm,1.4s | | | | | | | | |
| CCB | Clear Creek Bu | 53.86 | 29 | eP | | P | | 15 31 18.5 | -1.2 |
| | comp=Z,962nm,1.8s | | | | | | | | |
| TRF | Thorofare Moun | 53.97 | 31 | eP | | P | | 15 31 20.2 | -0.6 |
| | comp=Z,551nm,1.4s | | | | | | | | |
| MOF | Molkenrain | 53.97 | 304 | eP | | P | | 15 31 20.0 | -0.9 |
| EAB | Aberfoyle | 53.97 | 317 | eP | | P | | 15 31 20.2 | -0.5 |
| LMK | Market Rasen | 53.99 | 313 | IAMs_20 | | IAMs_20 | | 15 57 21.7 | |
| | comp=Z,68µm,17.2s | | | | | | | | |
| ILAR | Eielson Array | 54.04 | 28 | P | | P | | 15 31 19.9 | -1.2 |
| | comp=Z,20nm,1.0s,baz=320,slow=3.6,SNR=115 | | | | | | | | |
| ILAR | | | | | LR | | LR | | 15 56 38.0 |
| | comp=Z,70µm,20.5s,baz=324,slow=38 | | | | | | | | |
| ILAR | | | | | PKPPKP | P'P'df | | 16 01 38.1 | -7.7 |
| | comp=Z,2.3nm,0.9s,baz=110,slow=1.5,SNR=5.4 | | | | | | | | |
| ILAR | Eielson Array | 54.04 | 28 | P | | P | | 15 31 19.9 | -1.2 |
| ILAR | | | | | pmax | | pmax | | |
| | comp=Z,21nm,1.0s | | | | | | | | |
| ILAR | | | | | MLR | | MLR | | |
| | comp=Z,70µm,20.5s | | | | | | | | |
| ILB | Eielson Array | 54.04 | 28 | eP | | P | | 15 31 20.3 | -0.8 |
| ESK | Eskdalemuir | 54.06 | 316 | eP | | P | | 15 31 21.0 | -0.3 |
| ESK | | | | | IAMs_20 | IAMs_20 | | 15 56 53.0 | |
| | comp=Z,87µm,17.7s | | | | | | | | |
| ESK | Eskdalemuir | 54.06 | 316 | eP | | P | | 15 31 21.2 | -0.1 |
| ESK | | | | | pmax | | pmax | | |
| | comp=Z,900nm,2.0s | | | | | | | | |
| ESK | Eskdalemuir | 54.06 | 316 | eP | | P | | 15 31 20.9 | -0.5 |
| | comp=Z,896nm,2.0s | | | | | | | | |
| ESK | | | | | LR | | LR | | |
| | comp=Z,87µm,19.0s | | | | | | | | |
| BORG | Borgarnes | 54.10 | 332 | PFAKE | | | | 15 31 30.0 | +8.5 |
| BORG | | | | | LR | | LR | | |
| | comp=Z,22µm,20.0s | | | | | | | | |
| AQU | L'Aquila | 54.13 | 295 | eP | | P | | 15 31 21.4 | -0.7 |
| AQU | | | | | pmax | | pmax | | |
| | comp=Z,300nm,0.9s | | | | | | | | |
| AQU | L'Aquila | 54.13 | 295 | eP | | P | | 15 31 20.9 | -1.2 |
| | comp=Z,299nm,0.9s | | | | | | | | |
| AQU | | | | | LR | | LR | | |
| | comp=Z,80µm,19.0s | | | | | | | | |
| MCK | McKinley | 54.18 | 30 | eP | | P | | 15 31 21.5 | -0.7 |
| MCK | | | | | pmax | | pmax | | |
| | comp=Z,140nm,1.0s | | | | | | | | |
| MCK | McKinley | 54.18 | 30 | eP | | P | | 15 31 21.3 | -0.9 |
| | comp=Z,141nm,1.0s | | | | | | | | |
| BHH | Howats Hill | 54.21 | 316 | eP | | P | | 15 31 21.5 | -0.9 |
| HPK | Haverah Park | 54.25 | 314 | eP | | P | | 15 31 22.1 | -0.7 |
| HPK | | | | | IAMs_20 | IAMs_20 | | 15 56 58.0 | |
| | comp=Z,77nm,19.1s | | | | | | | | |
| PGBU | Glenifferbraes | 54.28 | 317 | eP | | P | | 15 31 22.5 | -0.4 |
| PGBU | | | | | IAMs_20 | IAMs_20 | | 15 53 32.9 | |
| | comp=Z,105µm,22.5s | | | | | | | | |
| TIP | Timpagrande | 54.29 | 290 | eP | | P | | 15 31 22.1 | -1.3 |
| | comp=Z,292nm,1.0s | | | | | | | | |
| TIP | | | | | LR | | LR | | |
| | comp=Z,55µm,21.0s | | | | | | | | |
| TIP | Timpagrande | 54.29 | 290 | P | | P | | 15 31 23.0 | -0.3 |
| HDA | Harding Lake | 54.29 | 28 | eP | | P | | 15 31 21.1 | -1.8 |
| | comp=Z,637nm,1.9s | | | | | | | | |
| CUC | Castrocucco | 54.30 | 291 | eP | | P | | 15 31 22.0 | -1.4 |
| | comp=Z,297nm,1.1s | | | | | | | | |
| CUC | | | | | LR | | LR | | |
| | comp=Z,53µm,21.0s | | | | | | | | |
| UNV | Unalaska Valle | 54.30 | 46 | eP | | P | | 15 31 22.7 | -0.4 |
| | comp=Z,81nm,0.9s | | | | | | | | |
| THEF | They Montfort | 54.32 | 305 | eP | | P | | 15 31 22.8 | -0.6 |
| RND | Reindeer | 54.45 | 30 | eP | | P | | 15 31 24.2 | +0.1 |
| RND | | | | | pmax | | pmax | | |
| | comp=Z,100nm,0.9s | | | | | | | | |
| RND | Reindeer | 54.45 | 30 | eP | | P | | 15 31 23.5 | -0.6 |
| | comp=Z,104nm,0.9s | | | | | | | | |
| PPBI | Pangkal Pinang | 54.48 | 167 | P | | P | | 15 31 31.9 | +7.1 |
| PPSI | Pulau Pagai | 54.50 | 175 | P | | P | | 15 31 26.5 | +1.6 |
| GUMO | Guam | 54.57 | 116 | PFAKE | | | | 15 31 40.0 | +14 |
| GUMO | | | | | LR | | LR | | |
| | comp=Z,37µm,19.0s | | | | | | | | |
| LHO | Holmfirth | 54.63 | 314 | eP | | P | | 15 31 24.5 | -1.0 |
| VLC | Villacollemand | 54.63 | 298 | eP | | P | | 15 31 24.8 | -0.9 |
| | comp=Z,420nm,1.1s | | | | | | | | |
| VLC | | | | | LR | | LR | | |
| | comp=Z,84µm,22.0s | | | | | | | | |
| LBWR | Ladybower, Pea | 54.66 | 313 | eP | | P | | 15 31 24.9 | -0.8 |
| LBWR | | | | | IAMs_20 | IAMs_20 | | 15 56 51.9 | |
| | comp=Z,67µm,18.5s | | | | | | | | |
| INK | Inuvik | 54.68 | 20 | eP | | P | | 15 31 25.2 | -0.5 |
| INK | | | | | pmax | | pmax | | |
| | comp=Z,497nm,1.1s | | | | | | | | |
| INK | Inuvik | 54.68 | 20 | eP | | P | | 15 31 25.2 | -0.5 |
| | comp=Z,496nm,1.1s | | | | | | | | |
| ELSH | Elham, Standar | 54.82 | 310 | IAMs_20 | | IAMs_20 | | 15 58 25.2 | |
| | comp=Z,110µm,20.2s | | | | | | | | |
| SENIN | Lac Senin/Sane | 54.85 | 302 | eP | | P | | 15 31 26.0 | -1.5 |
| | comp=Z,236nm,1.1s | | | | | | | | |
| MTKI | Muara Teweh, K | 54.97 | 157 | P | | P | | 15 31 28.9 | +0.6 |
| SPU | Mount Spurr | 55.01 | 33 | eP | | P | | 15 31 27.3 | -0.9 |
| MASI | Maura Aman, Be | 55.03 | 172 | P | | P | | 15 31 29.9 | +1.1 |
| BDHA | Al Bayda' | 55.10 | 246 | eP | | P | | 15 31 27.8 | -1.9 |
| MPSI | Mapaga | 55.13 | 150 | P | | P | | 15 31 28.7 | -0.8 |
| | comp=Z,94nm,1.1s,comp=Z,2µm | | | | | | | | |
| DHY | Denali Highway | 55.15 | 30 | eP | | P | | 15 31 27.7 | -1.6 |
| | comp=Z,232nm,1.0s | | | | | | | | |
| RSO | Redoubt South | 55.28 | 34 | eP | | P | | 15 31 30.4 | 0.0 |
| SGKI | Sangatta, Kali | 55.28 | 153 | P | | P | | 15 31 26.0 | -4.6 |
| DAMY | Dhamar | 55.29 | 247 | eP | | P | | 15 31 30.1 | -1.0 |
| | comp=Z,1µm,1.5s | | | | | | | | |
| HMNX | Herstmonceux | 55.38 | 310 | eP | | P | | 15 31 30.9 | -0.1 |
| HMNX | | | | | IAMs_20 | IAMs_20 | | 15 58 00.3 | |
| | comp=Z,97µm,16.5s | | | | | | | | |
| MRSI | Marisa | 55.65 | 148 | P | | P | | 15 31 33.1 | -0.1 |
| | comp=Z,137nm,0.9s,comp=Z,3µm | | | | | | | | |
| EGAK | Eagle | 55.65 | 26 | eP | | P | | 15 31 31.3 | -1.4 |
| | comp=Z,545nm,1.5s | | | | | | | | |
| EGAK | | | | | LR | | LR | | |
| | comp=Z,32µm,20.0s | | | | | | | | |
| FOEL | Foel Wylfa | 55.67 | 314 | eP | | P | | 15 31 32.6 | -0.4 |
| FOEL | | | | | IAMs_20 | IAMs_20 | | 15 58 33.1 | |
| | comp=Z,53µm,15.6s | | | | | | | | |
| SSW | Stow on the Wo | 55.67 | 312 | eP | | P | | 15 31 32.2 | -0.9 |
| PMR | Palmer | 55.68 | 32 | eP | | P | | 15 31 32.4 | -0.6 |
| PMR | | | | | pmax | | pmax | | |
| | comp=Z,470nm,1.9s | | | | | | | | |
| PMR | Palmer | 55.68 | 32 | eP | | P | | 15 31 31.9 | -1.1 |
| | comp=Z,475nm,1.9s | | | | | | | | |
| DOT | Dot Lake | 55.71 | 28 | eP | | P | | 15 31 31.4 | -1.8 |
| | comp=Z,372nm,1.0s | | | | | | | | |
| WPM1 | Penmaenmawr | 55.74 | 314 | eP | | P | | 15 31 32.0 | -1.5 |
| HLM1 | Long Mynd | 55.77 | 313 | eP | | P | | 15 31 33.0 | -0.8 |
| HLM1 | | | | | IAMs_20 | IAMs_20 | | 15 58 59.1 | |
| | comp=Z,38µm,16.4s | | | | | | | | |
| SML | Sawmill | 55.78 | 31 | eP | | P | | 15 31 33.4 | -0.4 |
| SML | | | | | pmax | | pmax | | |
| | comp=Z,400nm,1.0s | | | | | | | | |
| SML | Sawmill | 55.78 | 31 | eP | | P | | 15 31 32.7 | -1.0 |
| | comp=Z,400nm,1.1s | | | | | | | | |
| PAX | Paxson | 55.80 | 29 | eP | | P | | 15 31 33.0 | -1.0 |
| PAX | | | | | pmax | | pmax | | |
| | comp=Z,200nm,1.0s | | | | | | | | |
| PAX | Paxson | 55.80 | 29 | eP | | P | | 15 31 32.6 | -1.4 |
| | comp=Z,204nm,1.0s | | | | | | | | |
| WOL | Wolverton | 55.82 | 311 | eP | | P | | 15 31 34.0 | -0.1 |
| WOL | | | | | IAMs_20 | IAMs_20 | | 15 58 38.4 | |
| | comp=Z,97µm,17.2s | | | | | | | | |
| RC01 | Rabbit Creek A | 55.85 | 32 | eP | | P | | 15 31 33.2 | -1.1 |
| | comp=Z,158nm,1.0s | | | | | | | | |
| WPS | Cemaes, Angles | 55.90 | 315 | IAMs_20 | | IAMs_20 | | 15 58 18.9 | |
| | comp=Z,64µm,16.8s | | | | | | | | |
| WLF1 | Llynfaes | 55.93 | 315 | IAMs_20 | | IAMs_20 | | 15 59 07.9 | |
| | comp=Z,131µm,15.7s | | | | | | | | |
| STRD | Stroud | 55.95 | 312 | eP | | P | | 15 31 34.5 | -0.5 |
| STRD | | | | | IAMs_20 | IAMs_20 | | 15 58 30.2 | |
| | comp=Z,54µm,17.0s | | | | | | | | |
| PBKI | Pangkalan Bun | 55.95 | 161 | P | | P | | 15 31 34.7 | -0.7 |
| | comp=Z,486nm,1.1s | | | | | | | | |
| SWN1 | Swindon | 55.95 | 312 | eP | | P | | 15 31 34.0 | -1.1 |
| SWN1 | | | | | IAMs_20 | IAMs_20 | | 15 58 23.4 | |
| | comp=Z,76µm,15.0s | | | | | | | | |
| BNI | Bardonecchia | 56.04 | 301 | eP | | P | | 15 31 34.5 | -1.5 |
| BNI | | | | | pmax | | pmax | | |
| | comp=Z,498nm,0.9s | | | | | | | | |
| BNI | | | | | MLR | | MLR | | |
| | comp=Z,93µm,19.0s | | | | | | | | |
| BNI | Bardonecchia | 56.04 | 301 | eP | | P | | 15 31 34.5 | -1.5 |
| | comp=Z,498nm,0.9s | | | | | | | | |
| BNI | | | | | LR | | LR | | |
| | comp=Z,93µm,19.0s | | | | | | | | |
| SCM | Sheep Creek Mo | 56.08 | 31 | eP | | P | | 15 31 35.8 | -0.2 |
| SCM | | | | | pmax | | pmax | | |
| | comp=Z,540nm,1.3s | | | | | | | | |
| SCM | Sheep Creek Mo | 56.08 | 31 | eP | | P | | 15 31 35.2 | -0.8 |
| | comp=Z,539nm,1.3s | | | | | | | | |
| MCH1 | Michaelchurch | 56.18 | 313 | eP | | P | | 15 31 36.0 | -0.7 |
| MCH1 | | | | | IAMs_20 | IAMs_20 | | 15 57 33.8 | |
| | comp=Z,65µm,19.3s | | | | | | | | |
| MONM | Monmouth | 56.20 | 312 | eP | | P | | 15 31 35.9 | -0.9 |
| MONM | | | | | IAMs_20 | IAMs_20 | | 15 58 14.8 | |
| | comp=Z,74µm,21.6s | | | | | | | | |
| OLDB | Oldbury-Upon-S | 56.20 | 312 | eP | | P | | 15 31 36.1 | -0.7 |
| OLDB | | | | | IAMs_20 | IAMs_20 | | 15 58 07.5 | |
| | comp=Z,52µm,17.6s | | | | | | | | |
| GDM | Grand'Maison | 56.23 | 302 | eP | | P | | 15 31 35.9 | -1.5 |
| KMSI | Cibinong | 56.25 | 146 | P | | P | | 15 31 46.4 | +8.8 |
| HARP | HAARP | 56.33 | 29 | eP | | P | | 15 31 33.8 | -3.8 |
| | comp=Z,1µm,1.5s | | | | | | | | |
| HGH | Gray Hill | 56.33 | 312 | eP | | P | | 15 31 36.4 | -1.4 |
| MENT | Mentasta | 56.35 | 28 | eP | | P | | 15 31 36.6 | -1.2 |
| | comp=Z,87nm,1.0s | | | | | | | | |
| GRN | Grenoble | 56.40 | 302 | eP | | P | | 15 31 36.9 | -1.6 |
| LUCF | Luceram | 56.45 | 300 | eP | | P | | 15 31 37.4 | -1.5 |
| CNPM | China Poot | 56.48 | 34 | eP | | P | | 15 31 38.5 | -0.3 |
| | comp=Z,276nm,1.2s | | | | | | | | |
| REVF | Revere | 56.54 | 300 | eP | | P | | 15 31 38.2 | -1.3 |
| MVIF | Mont Vial | 56.55 | 300 | eP | | P | | 15 31 40.5 | +0.8 |
| LPW | Lampeter | 56.59 | 313 | eP | | P | | 15 31 38.6 | -0.9 |
| LPW | | | | | IAMs_20 | IAMs_20 | | 15 54 45.6 | |
| | comp=Z,61µm,22.3s | | | | | | | | |
| DAWY | Dawson | 56.69 | 26 | eP | | P | | 15 31 38.9 | -1.4 |
| | comp=Z,135nm,1.0s | | | | | | | | |
| KLU | Klutina | 56.78 | 30 | eP | | P | | 15 31 39.9 | -1.1 |
| | comp=Z,176nm,0.9s | | | | | | | | |
| DSB | Dublin | 56.83 | 315 | eP | | P | | 15 31 40.0 | -1.3 |
| | comp=Z,122nm,0.9s | | | | | | | | |
| APSI | Ampana | 56.86 | 149 | P | | P | | 15 31 41.1 | -0.8 |
| | comp=Z,503nm,1.0s,comp=Z,5µm | | | | | | | | |
| ILULI | Ilulissat | 56.87 | 347 | eP | | P | | 15 31 40.6 | -0.7 |
| ILULI | | | | | pmax | | pmax | | |
| | comp=Z,380nm,1.3s | | | | | | | | |
| ILULI | Ilulissat | 56.87 | 347 | i P | | P | | 15 31 46.5 | +5.2 |
| | comp=Z,370nm,1.3s | | | | | | | | |
| | comp=Z,78µm,20.0s | | | | | | | | |
| ILULI | Ilulissat | 56.87 | 347 | eP | | P | | 15 31 39.8 | -1.5 |
| | comp=Z,376nm,1.3s | | | | | | | | |
| GLI | Glacier Island | 56.87 | 31 | eP | | P | | 15 31 40.6 | -0.9 |
| | comp=Z,453nm,1.7s | | | | | | | | |
| KLI | Kotabumi | 56.99 | 169 | P | | P | | 15 31 42.9 | +0.1 |
| SSB | Saint Sauveur | 57.01 | 303 | eP | | P | | 15 31 41.7 | -1.1 |
| SSB | Saint Sauveur | 57.01 | 303 | eP | | P | | 15 31 42.1 | -0.7 |
| SSB | | | | | pmax | | pmax | | |
| | comp=Z,420nm,1.8s | | | | | | | | |
| SSB | Saint Sauveur | 57.01 | 303 | eP | | P | | 15 31 41.8 | -0.9 |
| | comp=Z,423nm,1.8s | | | | | | | | |
| SSB | | | | | LR | | LR | | |
| | comp=Z,60µm,22.0s | | | | | | | | |
| PLDF | La Plantade | 57.02 | 304 | eP | | P | | 15 31 42.3 | -0.6 |
| LWLI | Liwa | 57.05 | 170 | P | | P | | 15 31 44.2 | +0.8 |
| OG26 | St.-Nazaire-De | 57.08 | 302 | eP | | P | | 15 31 42.7 | -0.6 |
| DIV | Divide | 57.11 | 31 | eP | | P | | 15 31 42.9 | -0.4 |
| | comp=Z,673nm,1.9s | | | | | | | | |
| FID | Port Fidalgo | 57.17 | 31 | eP | | P | | 15 31 42.4 | -1.3 |
| | comp=Z,271nm,1.2s | | | | | | | | |
| AGO | Saint Agoulin | 57.22 | 304 | eP | | P | | 15 31 43.6 | -0.6 |
| KDAK | Kodiak Island | 57.27 | 36 | eP | | P | | 15 31 44.1 | -0.2 |
| KDAK | Kodiak Island | 57.27 | 36 | eP | | P | | 15 31 43.8 | -0.5 |
| | comp=Z,144nm,0.9s | | | | | | | | |
| KDAK | | | | | LR | | LR | | |
| | comp=Z,37µm,22.0s | | | | | | | | |
| LUWI | Luwuk | 57.35 | 148 | eP | | P | | 15 31 42.1 | -3.2 |
| | comp=Z,253nm,1.1s | | | | | | | | |
| OHAK | Old Harbor | 57.42 | 37 | eP | | P | | 15 31 44.2 | -1.1 |
| | comp=Z,293nm,1.0s | | | | | | | | |
| CLTB | Caltabellotta | 57.42 | 291 | PFAKE | | | | 15 32 00.0 | +14 |
| CLTB | | | | | LR | | LR | | |
| | comp=Z,31µm,20.0s | | | | | | | | |
| PYM | Petit Puy Mans | 57.49 | 304 | eP | | P | | 15 31 45.7 | -0.5 |
| BLSI | Bandar Lampung | 57.53 | 169 | P | | P | | 15 31 52.9 | +6.3 |
| HTL | Hartland | 57.54 | 313 | eP | | P | | 15 31 45.5 | -0.9 |
| HTL | | | | | IAMs_20 | IAMs_20 | | 16 00 02.0 | |
| | comp=Z,30µm,14.7s | | | | | | | | |
| KBKI | Kotabaru | 57.55 | 156 | P | | P | | 15 31 47.5 | +0.7 |
| | comp=Z,111nm,1.6s,comp=Z,2µm | | | | | | | | |
| EYAK | Cordova Ski Ar | 57.56 | 31 | eP | | P | | 15 31 45.7 | -0.6 |
| | comp=Z,178nm,1.0s | | | | | | | | |
| LEPF | PUYLOUBIER | 57.58 | 300 | eP | | P | | 15 31 45.9 | -0.9 |
| BMRM | Bremner River | 57.60 | 30 | eP | | P | | 15 31 45.5 | -1.2 |
| | comp=Z,689nm,1.8s | | | | | | | | |
| KASI | Kota Agung | 57.60 | 170 | P | | P | | 15 31 48.5 | +1.4 |
| | comp=Z,75nm,0.9s,comp=Z,2µm | | | | | | | | |
| JQE | Queens East | 57.64 | 310 | eP | | P | | 15 31 46.0 | -1.0 |
| LBL | Lubilhac | 57.72 | 303 | eP | | P | | 15 31 47.5 | -0.3 |
| VERF | Verneugheol | 57.76 | 304 | eP | | P | | 15 31 47.0 | -1.0 |
| WDD | Wied Dalam | 57.85 | 288 | PFAKE | | | | 15 32 00.0 | +11 |
| WDD | | | | | LR | | LR | | |
| | comp=Z,36µm,22.0s | | | | | | | | |
| VSL | Villasalto | 58.31 | 295 | P | | P | | 15 31 49.4 | -2.6 |
| | comp=Z,137nm,1.3s | | | | | | | | |
| VSL | | | | | LR | | LR | | |
| | comp=Z,73µm,19.0s | | | | | | | | |
| TTSI | Tana Toraja | 58.31 | 152 | P | | P | | 15 31 51.6 | -0.5 |
| ATD | Arta Tunnel | 58.62 | 247 | P | | P | | 15 31 54.0 | -0.4 |
| | comp=Z,67nm,1.0s,baz=20,slow=4.6,SNR=14 | | | | | | | | |
| ATD | Arta Tunnel | 58.62 | 247 | eP | | P | | 15 31 51.8 | -2.6 |
| | comp=Z,728nm,1.4s | | | | | | | | |
| LBMI | Labuha | 58.66 | 142 | P | | P | | 15 31 53.5 | -1.1 |
| SFJD | Kangerlussuaq | 58.83 | 345 | i P | | P | | 15 32 00.0 | +4.9 |
| SFJD | | | | | pmax | | pmax | | |
| | comp=Z,460nm,1.4s | | | | | | | | |
| SFJD | | | | | MLR | | MLR | | |
| | comp=Z,57µm,20.0s | | | | | | | | |
| SFJD | Kangerlussuaq | 58.83 | 345 | i P | | P | | 15 32 00.0 | +4.9 |
| | comp=Z,463nm,1.4s | | | | | | | | |
| | comp=Z,57µm,20.0s | | | | | | | | |
| SFJD | Kangerlussuaq | 58.83 | 345 | eP | | P | | 15 31 52.8 | -2.3 |
| | comp=Z,543nm,1.3s | | | | | | | | |
| SFJD | | | | | LR | | LR | | |
| | comp=Z,61µm,21.0s | | | | | | | | |
| SPSI | Sidrap Palu | 59.17 | 152 | P | | P | | 15 31 56.3 | -1.8 |
| SANI | Sanana | 59.40 | 144 | P | | P | | 15 31 57.4 | -2.3 |
| VAL | Valentia | 59.43 | 316 | eP | | P | | 15 32 01.4 | +2.0 |
| VAL | | | | i S | | S | | 15 40 14.4 | +6.6 |
| PCA | Pinnacle | 59.62 | 29 | eP | | P | | 15 32 00.4 | -0.3 |
| | comp=Z,570nm,1.2s | | | | | | | | |
| CNJI | Cibinong | 59.69 | 167 | P | | P | | 15 32 09.9 | +8.3 |
| SJAF | Saint Jean de | 59.80 | 301 | eP | | P | | 15 32 01.0 | -1.2 |
| HYT | Haines Junctio | 59.83 | 27 | eP | | P | | 15 32 01.9 | -0.4 |
| | comp=Z,419nm,1.1s | | | | | | | | |
| FILF | Fillols | 59.92 | 302 | eP | | P | | 15 32 02.4 | -0.7 |
| KPJI | Karang Pucung | 59.98 | 165 | P | | P | | 15 32 02.9 | -0.7 |
| CISI | Cisompet, Garu | 60.02 | 166 | P | | P | | 15 32 05.1 | +1.1 |
| CISI | Cisompet, Garu | 60.02 | 166 | eP | | P | | 15 32 01.5 | -2.5 |
| | comp=Z,72nm,0.8s | | | | | | | | |
| CARF | Carcanieres | 60.05 | 302 | eP | | P | | 15 32 02.6 | -1.5 |
| KAPI | Kappang | 60.16 | 152 | eP | | P | | 15 32 03.4 | -1.5 |
| | comp=Z,158nm,0.9s | | | | | | | | |
| KAPI | | | | | LR | | LR | | |
| | comp=Z,33µm,20.0s | | | | | | | | |
| KAPI | Kappang | 60.16 | 152 | P | | P | | 15 32 04.6 | -0.3 |
| | SNR=13 | | | | | | | | |
| VALF | Valcebollere | 60.31 | 302 | eP | | P | | 15 32 05.7 | -0.3 |
| SWI | Sorong | 60.35 | 138 | P | | P | | 15 32 05.7 | -0.5 |
| MELF | Melles | 60.64 | 303 | eP | | P | | 15 32 06.5 | -1.6 |
| KMMI | Kalianget | 60.65 | 159 | P | | P | | 15 32 08.7 | +0.5 |
| WHY | Whitehorse | 60.69 | 26 | eP | | P | | 15 32 06.3 | -1.9 |
| | comp=Z,306nm,1.8s | | | | | | | | |
| RESF | Ens | 60.91 | 303 | eP | | P | | 15 32 10.3 | +0.3 |
| KEST | Kesra | 60.94 | 292 | P | | P | | 15 32 09.4 | -0.9 |
| | comp=Z,46nm,1.1s,baz=75,slow=1.4,SNR=9.9 | | | | | | | | |
| KEST | Kesra | 60.94 | 292 | eP | | P | | 15 32 08.4 | -1.8 |
| | comp=Z,233nm,1.1s | | | | | | | | |
| VIEF | Viey | 61.02 | 303 | eP | | P | | 15 32 10.7 | 0.0 |
| REYF | Montagne du Re | 61.10 | 304 | eP | | P | | 15 32 10.6 | -0.6 |
| ATE | Arette | 61.25 | 304 | eP | | P | | 15 32 11.7 | -0.4 |
| CMAH | Djebel Manchou | 61.41 | 294 | P | | P | | 15 32 13.3 | -0.1 |
| OSSF | Osses | 61.42 | 304 | eP | | P | | 15 32 13.3 | +0.1 |
| SKAG | Skagway | 61.57 | 27 | eP | | P | | 15 32 13.6 | -0.4 |
| | comp=Z,1µm,1.9s | | | | | | | | |
| ABSA | Djebel Ababsia | 61.63 | 293 | P | | P | | 15 32 14.3 | -0.6 |
| CKFL | Kef-Lekhel | 61.97 | 294 | P | | P | | 15 32 14.9

**PAB San Pablo 65.71 303** *e*P **P 15 32 41.3 -0.4**
**PAB San Pablo 65.71 303** *e*P **P 15 32 40.6 -1.1**
comp=Z,337nm,1.6s
PAB LR LR
comp=Z,62µm,19.0s
**MVO Moncorvo 65.86 306** *e*P **P 15 32 43.0 +0.3**
comp=Z,222nm,1.9s
MVO *e*pP **sP 15 32 49.8 +1.4**
MVO *e*S S 15 41 39.7 +10
**MVO Moncorvo 65.86 306** *e*LR LR 15 53 22.2
comp=Z,70µm,18.0s
**PGAV Gavieira, Arco 65.88 308** *e*P **P 15 32 43.5 +0.7**
comp=Z,377nm,1.9s
PGAV *e*pP **sP 15 32 50.6 +2.1**
PGAV *e*S **S 15 41 37.9 +8.4**
**PGAV Gavieira, Arco 65.88 308** *e*LR LR 15 53 42.4
comp=Z,65µm,20.0s
**OJGS Djebel Guires 65.96 297** P **P 15 32 48.0 +4.6**
**MSEY Mahe Island 65.99 225** *i*P **P 15 32 45.5 +1.8**
SNR=5.4
**MSEY Mahe Island 65.99 225** PFAKE 15 32 50.0 +6.3
MSEY LR LR
comp=Z,30µm,21.0s
**SOEI Soe 66.01 149** *e*P **P 15 32 41.3 -2.6**
comp=Z,296nm,0.9s
**POLO Lamas de Olo 66.09 307** *e*P **P 15 32 44.0 -0.2**
comp=Z,146nm,2.3s
POLO *e*pP **sP 15 32 51.8 +1.9**
POLO *e*S **S 15 41 40.9 +8.9**
**PVRL Vila Real 66.12 307** *e*P **P 15 32 44.9 +0.5**
comp=Z,236nm,1.8s
PVRL *e*pP **sP 15 32 52.4 +2.3**
**USTO Oran 66.50 298** P P 15 32 55.0 +8.2
**ODJA Bouhanifia 66.58 298** P **P 15 32 52.0 +4.6**
**PVIS Viseu 66.63 306** *e*P **P 15 32 48.0 +0.4**
comp=Z,229nm,1.7s
PVIS *e*pP **sP 15 32 56.0 +2.7**
**PTO Porto 66.67 307** *e*P **P 15 32 48.6 +0.9**
comp=Z,341nm,1.4s
**MTE Manteigas 66.70 306** *e*P **P 15 32 46.8 -1.3**
comp=Z,189nm,1.1s
MTE LR LR
comp=Z,81µm,19.0s
**MTE Manteigas 66.70 306** *e*P **P 15 32 48.5 +0.4**
comp=Z,302nm,2.1s
MTE *e*pP **sP 15 32 55.9 +2.1**
**MTE Manteigas 66.70 306** *e*PP PP 15 35 21.4 +6.9
MTE *e*S **S 15 41 47.7 +8.3**
MTE *e*SS **SS 15 45 56.4 +0.3**
MTE *e*LR LR 15 53 52.8
comp=Z,70µm,20.0s
**OTSS Djebel Tessala 66.97 298** P P 15 32 40.0 -10
**PCBR Castelo Branco 67.08 306** *e*P **P 15 32 51.5 +1.1**
comp=Z,185nm,1.3s
PCBR *e*pP **sP 15 32 58.9 +2.8**
**COI Coimbra 67.28 306** A A 15 33 14.0
comp=Z,434nm,3.0s
COI *e*S **S 15 41 53.3 +7.1**
COI *e*SS **SS 15 46 02.6 -2.3**
**OLHC Oulhaca 67.34 298** P **P 15 32 48.0 -4.2**
**PMRV Marv??o 67.35 305** *e*P **P 15 32 52.3 +0.1**
comp=Z,186nm,2.4s
PMRV *e*pP **sP 15 32 59.4 +1.5**
**PMRV Marv??o 67.35 305** *e*PP PP 15 35 16.2 -3.9
PMRV *e*S S 15 41 57.9 +11
**PMRV Marv??o 67.35 305** *e*LR LR 15 54 10.2
comp=Z,67µm,18.0s
**PCAS Casmilo, Conde 67.44 306** *e*P **P 15 32 53.3 +0.6**
comp=Z,556nm,1.6s
PCAS *e*pP **sP 15 33 00.5 +2.1**
**PCAS Casmilo, Conde 67.44 306** *e*PP PP 15 35 18.7 -2.1
PCAS *e*S **S 15 41 55.6 +7.4**
**PTOM Tomar 67.72 306** *e*P **P 15 32 55.8 +1.3**
comp=Z,210nm,1.9s
PTOM *e*pP **sP 15 33 02.5 +2.3**
**PESTR Estremoz 67.88 305** *e*P **P 15 32 55.7 +0.2**
comp=Z,220nm,2.0s
PESTR *e*pP **sP 15 33 02.9 +1.7**
**PESTR Estremoz 67.88 305** *e*PP PP 15 35 20.7 -4.0
PESTR *e*S S 15 42 04.5 +11
**PMTG Montargil 68.05 306** *e*P **P 15 32 56.5 0.0**
comp=Z,324nm,2.3s
PMTG *e*pP **sP 15 33 03.9 +1.7**
**PMTG Montargil 68.05 306** *e*PP PP 15 35 20.3 -5.8
PMTG *e*S S 15 42 05.8 +10
**PBAR Barrancos 68.12 304** *e*P **P 15 32 56.6 -0.4**
comp=Z,758nm,1.6s
PBAR *e*pP **sP 15 33 04.6 +1.9**
**PBAR Barrancos 68.12 304** *e*PP PP 15 35 25.3 -1.5
PBAR *e*S **S 15 42 02.6 +6.2**
**ALMR Almeirim 68.16 306** *e*P **P 15 32 56.4 -0.8**
ALMR *e*S **S 15 41 56.2 -0.6**
ALMR *e*SS **SS 15 46 20.3 +1.7**
ALMR AMS AMS 16 06 21.0
comp=Z,83µm,19.1s
**ALMR Almeirim 68.16 306** *e*P **P 15 32 56.4 -0.8**
ALMR *e*S **S 15 41 56.2 -0.6**
ALMR *e*SS **SS 15 46 20.3 +1.7**
**EVO Evora 68.35 305** *e*P **P 15 32 58.2 -0.2**
comp=Z,187nm,0.8s
EVO *e*pP **sP 15 33 06.2 +2.1**
**PBEJ Beja 68.66 305** *e*P **P 15 33 00.3 -0.1**
comp=Z,300nm,1.9s
PBEJ *e*pP **sP 15 33 08.3 +2.2**
**PMAFR Mafra 68.67 306** A A 15 33 20.9
comp=Z,347nm,1.7s
PMAFR *e*S **S 15 42 10.8 +7.9**
**LIS Lisbon 68.78 306** *e*P **P 15 33 00.3 -0.8**
LIS *e*S **S 15 42 03.8 -0.4**
LIS *e*SS **SS 15 46 29.9 +1.6**
LIS AMS AMS 16 06 23.9
comp=E,92µm,19.3s
**LIS Lisbon 68.78 306** *e*P **P 15 33 00.3 -0.8**
LIS *e*S **S 15 42 03.7 -0.4**
LIS *e*SS **SS 15 46 29.8 +1.6**
**PMST Lisbon--Monsan 68.78 306** A A 15 33 23.6
comp=E,413nm,1.7s
**PNCL Nicolau / Gran 68.93 305** *e*P **P 15 33 01.9 -0.2**
comp=E,262nm,2.4s
PNCL *e*pP **sP 15 33 09.9 +2.1**
PNCL *e*S S 15 42 15.3 +9.3
**MANU Manus Island 68.96 123** *e*P **P 15 33 02.0 -0.4**
comp=E,78nm,0.9s
**MESJ Messejana 68.98 305** *e*P **P 15 33 01.6 -0.8**
MESJ *e*S **S 15 42 06.0 -0.6**
MESJ AMS AMS 16 07 47.0
comp=Z,61µm,18.3s
**MESJ Messejana 68.98 305** *e*P **P 15 33 01.6 -0.8**
MESJ *e*S **S 15 42 06.0 -0.6**
**MESJ Messejana 68.98 305** *e*P **P 15 33 02.5 +0.1**
comp=Z,331nm,2.0s
MESJ *e*pP **sP 15 33 10.2 +2.1**
**MESJ Messejana 68.98 305** *e*PP PP 15 35 30.9 -3.4
**PCVE Castro Verde 69.05 304** *e*P **P 15 33 02.4 -0.4**
comp=Z,268nm,1.7s
PCVE *e*pP **sP 15 33 10.5 +2.0**
**PCVE Castro Verde 69.05 304** *e*PP PP 15 35 35.1 +0.3
PCVE *e*S S 15 42 17.1 +10
**PVAQ Vaqueiros 69.06 304** *e*P **P 15 33 03.3 +0.4**
comp=Z,286nm,1.7s
PVAQ *e*pP **sP 15 33 10.4 +1.8**
**PVAQ Vaqueiros 69.06 304** *e*PP PP 15 35 32.5 -2.4
PVAQ *e*S **S 15 42 14.1 +6.6**
**PVAQ Vaqueiros 69.06 304** *e*LR LR 15 54 58.3
comp=Z,42µm,16.0s
**PBDV Barranco-do-Ve 69.29 304** *e*P **P 15 33 06.0 +1.6**
comp=Z,307nm,2.0s
PBDV *e*pP **sP 15 33 12.2 +2.1**
**PBDV Barranco-do-Ve 69.29 304** *e*PP PP 15 35 38.7 +1.7
PBDV *e*S **S 15 42 18.3 +8.0**
**PTEO Sao Teotonio 69.46 305** *e*P **P 15 33 06.8 +1.4**
comp=Z,361nm,2.4s
PTEO *e*pP **sP 15 33 13.9 +2.8**
**MORF Marmelete 69.61 305** *e*P **P 15 33 05.3 -1.1**
MORF *e*S **S 15 42 13.7 -0.5**
MORF AMS AMS 16 01 34.9
comp=N,63µm,19.1s
**MORF Marmelete 69.61 305** *e*P **P 15 33 05.3 -1.1**
MORF *e*S **S 15 42 13.7 -0.5**
**MORF Marmelete 69.61 305** *e*P **P 15 33 05.9 -0.5**
comp=N,246nm,1.8s
MORF *e*pP **sP 15 33 14.1 +2.0**
MORF *e*S **S 15 42 22.2 +8.0**
**PFVI Vila Bisbo 69.83 305** *e*P **P 15 33 09.3 +1.6**
comp=N,296nm,1.6s
PFVI *e*pP **sP 15 33 15.3 +1.9**
**PFVI Vila Bisbo 69.83 305** *e*PP PP 15 35 41.0 -0.6
PFVI *e*S **S 15 42 24.9 +8.2**
**RTC Rabat Centre 71.22 301** PFAKE 15 33 30.0 +14
RTC LR LR
comp=Z,115µm,20.0s
**MTN Manton Dam 71.25 144** *e*P **P 15 33 14.8 -1.6**
comp=Z,118nm,1.1s
**KMBO Kilima Mbogo 72.13 244** P **P 15 33 20.9 -1.3**
comp=Z,20nm,1.0s,baz=18,slow=8.3,SNR=22
KMBO S **S 15 42 44.7 +0.5**
comp=Z,0.6nm,0.2s,baz=2.5,slow=11,SNR=1.7
KMBO LR LR 16 06 30.5
comp=Z,47µm,19.4s,baz=14,slow=37
**KMBO Kilima Mbogo 72.13 244** *e*P **P 15 33 20.4 -1.7**
comp=Z,131nm,1.1s
KMBO S **S 15 42 44.7 +0.5**
**KMBO Kilima Mbogo 72.13 244** P **P 15 33 21.4 -0.8**
SNR=102
**TAM Tamanrasset 72.68 285** *e*P **P 15 33 24.7 -0.6**
**TAM Tamanrasset 72.68 285** *e*P **P 15 33 24.5 -0.8**
TAM LR LR
comp=Z,20µm,21.0s
**SCHQ Schefferville 72.74 350** P **P 15 33 23.4 -1.6**
comp=Z,43nm,0.9s,baz=315,slow=2.7,SNR=23
SCHQ LR LR 16 07 05.3
comp=Z,31µm,20.9s,baz=17,slow=37
**SCHQ Schefferville 72.74 350** *e*P **P 15 33 23.2 -1.8**
comp=Z,354nm,1.2s
**FFC Flin Flon 72.76 11** *e*P **P 15 33 23.8 -1.3**
**FFC Flin Flon 72.76 11** *e*P **P 15 33 23.6 -1.4**
comp=Z,197nm,1.0s
FFC LR LR
comp=Z,43µm,21.0s
**LLLB Lillooet 73.01 24** *e*P **P 15 33 25.8 -0.8**
comp=Z,64nm,0.9s
**RABL Raul 73.30 120** *e*P **P 15 33 27.6 -1.2**
comp=Z,397nm,1.2s
**A04D Lummi Island 74.53 25** P **P 15 33 34.4 -1.1**
baz=336
**B06A Marblemount 75.03 25** *e*P **P 15 33 37.7 -0.8**
comp=Z,63nm,0.9s
**B05A Bryant 75.11 25** P **P 15 33 37.8 -1.1**
baz=337
B05A S **S 15 43 17.3 +0.7**
baz=337
**PMG Port Moresby 75.15 127** LR LR 16 06 16.8
comp=Z,25µm,21.9s,baz=316,slow=35
**PMG Port Moresby 75.15 127** *c i*P **P 15 33 39.3 -0.2**
PMG pmax pmax
comp=Z,319nm,1.6s
PMG MLR MLR
comp=Z,111µm,21.0s
**PMG Port Moresby 75.15 127** *e*P **P 15 33 37.9 -1.6**
comp=Z,166nm,1.5s
**MBWA Marble Bar 75.60 157** *e*P **P 15 33 40.0 -1.9**
comp=Z,152nm,0.9s
MBWA LR LR
comp=Z,29µm,21.0s
**MBWA Marble Bar 75.60 157** P **P 15 33 40.4 -1.5**
SNR=8.5
**B08A Colville Reser 75.73 23** *e*P **P 15 33 41.6 -1.0**
comp=Z,76nm,0.9s
**C06D Leavenworth 75.74 25** P **P 15 33 41.6 -0.9**
baz=338
**E03A Lebam 76.28 27** *e*P **P 15 33 45.0 -0.7**
comp=Z,185nm,0.9s
**WALA Waterton Lakes 76.31 20** *e*P **P 15 33 44.3 -1.7**
comp=Z,81nm,0.9s
**NEW Newport 76.34 22** P **P 15 33 44.5 -1.6**
baz=340,SNR=7.9
**NEW Newport 76.34 22** *e*P **P 15 33 45.6 -0.5**
**NEW Newport 76.34 22** *e*P **P 15 33 44.8 -1.3**
comp=Z,43nm,1.0s
NEW LR LR
comp=Z,47µm,21.0s
**LTY Liberty 76.41 25** *e*P **P 15 33 45.0 -1.5**
comp=Z,230nm,1.7s
**C09A Chrisman Ranch 76.50 23** *e*P **P 15 33 46.0 -1.0**
comp=Z,226nm,1.4s
**LON Longmire 76.58 26** *e*P **P 15 33 47.3 -0.1**
**LON Longmire 76.58 26** *e*P **P 15 33 46.6 -0.9**
comp=Z,214nm,1.7s
**PMPS Porto Santo 76.82 307** *e*P P 15 33 56.0 +7.1
comp=Z,449nm,1.7s
**F04D Rainier, OR 76.86 27** P **P 15 33 47.6 -1.4**
baz=336
**D08A Wollman Farm, 77.04 24** *e*P **P 15 33 48.8 -1.2**
comp=Z,143nm,1.5s
**PGRA Graciosa 77.18 318** *e*P P 15 34 03.3 +12
comp=Z,244nm,0.7s
**PGRA Graciosa 77.18 318** *e*LR LR 15 58 51.7
**CMLA Cha da Macela 77.21 316** *e*P P 15 34 01.1 +10
comp=Z,104nm,1.4s
**CMLA Cha da Macela 77.21 316** *e*LR LR 15 58 57.5
**CMLA Cha da Macela 77.21 316** PFAKE 15 34 00.0 +8.9
CMLA LR LR
comp=Z,24µm,20.0s
**COEN Coen 77.22 133** *e*P **P 15 33 49.5 -1.8**
comp=Z,126nm,1.2s
**PSET Sete Cidades 77.24 316** *e*P P 15 34 08.5 +17
comp=Z,611nm,1.4s
**PSET Sete Cidades 77.24 316** *e*LR LR 15 58 49.7
**PMAR Madeira 77.37 307** *e*P **P 15 33 54.2 +1.9**
comp=Z,648nm,1.2s
**FUL Funchal 77.42 307** *e*P **P 15 33 53.3 +1.0**
comp=Z,406nm,1.5s
**PMOZ Porto Moniz, M 77.43 308** *e*P **P 15 33 51.9 -0.6**
comp=Z,314nm,1.6s
**PMOZ Porto Moniz, M 77.43 308** *e*S S 15 43 52.6 +10
**PMOZ Porto Moniz, M 77.43 308** *e*LR LR 15 58 53.8
comp=Z,22µm,20.0s
**JTMT Jette 77.47 20** *e*P **P 15 33 51.6 -0.9**
comp=Z,342nm,1.4s
**HAWA Hanford 77.50 24** *e*P **P 15 33 51.6 -1.0**
comp=Z,50nm,1.2s
HAWA LR LR
comp=Z,31µm,19.0s
**E08A Dider Farm, El 77.53 24** *e*P **P 15 33 51.8 -0.9**
comp=Z,65nm,1.1s
**G03D McMinnville, O 77.59 27** P **P 15 33 51.4 -1.6**
baz=336
**PSMN Pico do Norte, 77.65 315** *e*P P 15 34 02.7 +9.2
comp=Z,103nm,1.9s
**PSMN Pico do Norte, 77.65 315** *e*LR LR 15 58 26.2
comp=Z,3µm,17.2s
**E09A Wood Farm, Sta 77.74 23** *e*P **P 15 33 53.3 -0.6**
comp=Z,111nm,1.5s
**ULM Lac du Bonnet 77.80 8** P **P 15 33 51.8 -2.2**
comp=Z,49nm,1.0s,baz=345,slow=6.2,SNR=53
ULM S **S 15 43 42.8 -3.2**
comp=Z,2.7nm,0.9s,baz=64,slow=14,SNR=2.5
ULM LR LR 16 08 44.0
comp=Z,25µm,21.1s,baz=356,slow=36
**ULM Lac du Bonnet 77.80 8** *e*P **P 15 33 51.9 -2.2**
ULM S **S 15 43 42.8 -3.2**
ULM pmax pmax
comp=Z,237nm,1.1s
**ULM Lac du Bonnet 77.80 8** *e*P **P 15 33 51.9 -2.2**
comp=Z,237nm,1.1s
ULM S **S 15 43 42.8 -3.2**
**F07A Phinny Hill Vi 77.86 25** *e*P **P 15 33 54.4 -0.2**
comp=Z,209nm,1.6s
**G05D Wamic, OR 78.10 26** P **P 15 33 55.3 -0.7**
baz=338
**EGMT Eagleton 78.11 17** P **P 15 33 54.7 -1.4**
baz=344
**EGMT Eagleton 78.11 17** *e*P **P 15 33 54.2 -1.9**
comp=Z,550nm,1.8s
EGMT LR LR
comp=Z,29µm,20.0s
**COR Corvallis 78.15 28** P **P 15 33 55.2 -1.0**
COR pmax pmax
comp=Z,126nm,0.9s
**COR Corvallis 78.15 28** P **P 15 33 55.2 -1.0**
comp=Z,126nm,0.9s
**G06A Carlson Farm, 78.29 25** *e*P **P 15 33 55.8 -1.2**
comp=Z,235nm,1.5s
**H04A Detroit Lake 78.38 27** *e*P **P 15 33 56.4 -1.1**
comp=Z,92nm,1.0s
**MSO Missoula 78.42 20** P **P 15 33 56.5 -1.2**
baz=342,SNR=20
**MSO Missoula 78.42 20** *e*P **P 15 33 56.4 -1.4**
comp=Z,98nm,0.9s
**F10A Beach Ranch, E 78.47 23** *e*P **P 15 33 57.2 -0.8**
comp=Z,157nm,1.4s
**DGMT Dagmar 78.60 14** P **P 15 33 57.4 -1.3**
baz=348
**DGMT Dagmar 78.60 14** *e*P **P 15 33 57.3 -1.4**
comp=Z,231nm,0.9s
DGMT LR LR
comp=Z,34µm,20.0s
**G08A Pilot Rock 78.68 24** *e*P **P 15 33 58.6 -0.7**
comp=Z,134nm,1.5s
**I05D Terrebonne, OR 78.93 26** P **P 15 33 59.7 -0.9**
baz=338,SNR=6.1
**WRAB Tennant Creek 78.94 143** *c i*P **P 15 34 00.5 -0.2**
WRAB pmax pmax
comp=Z,164nm,1.0s
WRAB MLR MLR
comp=Z,27µm,23.0s
**WRAB Tennant Creek 78.94 143** *e*P **P 15 33 58.2 -2.5**
comp=Z,190nm,0.9s
WRAB LR LR
comp=Z,21µm,21.0s
**WRA Warramunga Arr 78.95 143** P **P 15 33 59.0 -1.7**
comp=Z,32nm,0.9s,baz=343,slow=6.0,SNR=117
WRA S **S 15 43 56.9 -2.0**
comp=Z,1.4nm,0.9s,baz=320,slow=5.9,SNR=3.0
WRA PKKPbc **PKKPbc 15 52 51.0 -1.7**
comp=Z,0.9nm,0.7s,baz=161,slow=2.0,SNR=9.7
WRA PKPPKP **P'P'df 16 00 58.8 +7.0**
comp=Z,4.3nm,1.3s,baz=188,slow=1.8,SNR=4.6
WRA LR LR 16 12 33.3
comp=Z,15µm,20.5s,baz=0.0,slow=38
**I03D Drain, OR 78.95 28** P **P 15 33 58.8 -1.8**
baz=336,SNR=6.0
**WB2 Warramunga Arr 78.95 143** *e*P **P 15 33 59.1 -1.7**
comp=Z,210nm,0.9s
**HRY Holter Researc 78.97 19** *e*P **P 15 33 59.3 -1.5**
**A31A Linda, St. Vin 78.98 9** P **P 15 33 58.9 -1.8**
baz=352
**A32A Rocking H Ranc 79.06 8** P **P 15 33 59.3 -1.8**
baz=352,SNR=12
**I04A Tendick Farm, 79.13 27** P **P 15 33 59.7 -1.9**
baz=337
**A33A Warroad 79.14 8** P **P 15 33 59.5 -2.0**
baz=353
**B31A Greenbush Farm 79.44 9** P **P 15 34 01.3 -1.9**
baz=352
**BMO Blue Mountains 79.50 23** *e*P **P 15 34 03.2 -0.6**
**BMO Blue Mountains 79.50 23** *e*P **P 15 34 01.9 -1.8**
comp=Z,71nm,1.0s
BMO LR LR
comp=Z,44µm,19.0s
**B32A Ashes, Strandq 79.58 8** P **P 15 34 01.9 -2.1**
baz=352,SNR=28
**B34A Aery, Baudette 79.65 7** P **P 15 34 02.2 -2.1**
baz=353,SNR=9.4
**I07A Izee 79.66 25** *e*P **P 15 34 04.3 -0.4**
comp=Z,94nm,1.0s
**J04D Umpqua Nationa 79.73 27** P **P 15 34 03.7 -1.4**
baz=337,SNR=7.2
**AGMN Agassiz Nation 79.73 8** P **P 15 34 02.8 -2.0**
baz=353,SNR=17
**AGMN Agassiz Nation 79.73 8** *e*P **P 15 34 01.9 -2.9**
comp=Z,155nm,1.0s
AGMN LR LR
comp=Z,46µm,22.0s
**JOHN Johnston Islan 79.77 76** PFAKE 15 34 20.0 +15
JOHN LR LR
comp=Z,1µm,20.0s
**B33A Robert and Kas 79.78 8** P **P 15 34 03.0 -2.0**
baz=353
**MDND Maddock 79.80 11** P **P 15 34 03.7 -1.5**
baz=350,SNR=9.2
**MDND Maddock 79.80 11** *e*P **P 15 34 03.4 -1.8**
comp=Z,521nm,1.1s
**B35A Bob, Littlefor 79.84 7** P **P 15 34 03.6 -1.8**
baz=354,SNR=16
**J05D Fort Rock, OR 79.93 27** P **P 15 34 05.3 -0.9**
baz=338,SNR=6.4
**LAO LASA Array 80.02 15** P **P 15 34 05.6 -0.9**
baz=346,SNR=12
**LAO LASA Array 80.02 15** *e*P **P 15 34 04.8 -1.6**
comp=Z,225nm,1.6s
LAO LR LR
comp=Z,35µm,19.0s
**C31A Landman Farms, 80.06 9** P **P 15 34 04.4 -2.2**
baz=352,SNR=14
**HUMO Hull Mountain 80.06 28** *e*P **P 15 34 03.9 -2.9**
comp=Z,193nm,1.6s
**BOZ Bozeman (W) 80.08 19** P **P 15 34 05.7 -1.3**
baz=343,SNR=8.0
**BOZ Bozeman (W) 80.08 19** *e*P **P 15 34 06.3 -0.6**
**BOZ Bozeman (W) 80.08 19** *e*P **P 15 34 05.4 -1.5**
comp=Z,182nm,1.8s
BOZ LR LR
comp=Z,30µm,20.0s
**C32A Crookston 80.14 9** P **P 15 34 05.0 -2.0**
baz=352
**VLDQ Val d'Or 80.27 356** *e*P **P 15 34 06.0 -1.7**
comp=Z,230nm,1.0s
**C33A Trail 80.28 8** P **P 15 34 05.4 -2.4**
baz=353,SNR=12
**GCMT Greycliff 80.28 18** *e*P **P 15 34 06.7 -1.3**
**L02D Cave Junction, 80.28 29** P **P 15 34 05.9 -2.1**
baz=336
**EYMN Ely 80.39 5** P **P 15 34 06.2 -2.2**
baz=355,SNR=11
**EYMN Ely 80.39 5** *e*P **P 15 34 06.0 -2.4**
comp=Z,232nm,1.0s
EYMN LR LR
comp=Z,38µm,21.0s
**K04D Chiloquin, OR 80.39 27** P **P 15 34 06.6 -2.0**
baz=338
**C34A RKJ Ranch, Bem 80.46 7** P **P 15 34 06.8 -2.0**
baz=353,SNR=7.9
**C35A Jirik Farms, M 80.48 7** P **P 15 34 06.4 -2.4**
baz=354,SNR=8.2
**C36A Pine Crest Far 80.50 6** P **P 15 34 07.0 -2.0**
baz=354,SNR=14
**MCMT McKenzie Canyo 80.56 20** *e*P **P 15 34 08.2 -1.4**
**C37A Embarrass 80.57 6** P **P 15 34 07.4 -2.0**
baz=355,SNR=6.4
**C39A Grand Marais 80.59 4** P **P 15 34 07.3 -2.2**
baz=356
**J08A Circle Bar Ran 80.61 25** *e*P **P 15 34 09.1 -0.7**
comp=Z,183nm,1.4s
**C38A Sawbill Land. 80.63 5** P **P 15 34 07.7 -2.0**
baz=356,SNR=6.9
**RER Riviere de l'E 80.75 218** *e*P **P 15 34 09.0 -1.6**
comp=Z,142nm,0.8s
RER LR LR
comp=Z,43µm,19.0s
**D32A Dogwood Acres, 80.78 9** P **P 15 34 08.2 -2.3**
baz=352
**D31A Mcclaflin, Tow 80.80 9** P **P 15 34 08.2 -2.4**
baz=352,SNR=11
**QLMT Earthquake Lak 80.85 19** *e*P **P 15 34 10.0 -1.2**
**D33A AnnSam, Waubun 80.88 8** P **P 15 34 08.9 -2.1**
baz=353,SNR=6.9
**TARA Tarawa 80.89 99** PFAKE 15 34 20.0 +8.5
TARA LR LR
comp=Z,2µm,21.0s
**PQI Presque Isle 80.91 349** *e*P **P 15 34 10.5 -0.7**
comp=Z,169nm,1.0s
**YBH Yreka Blue Hor 80.94 28** *e*P **P 15 34 11.4 -0.2**
**YBH Yreka Blue Hor 80.94 28** *e*P **P 15 34 10.8 -0.7**
comp=Z,45nm,1.2s
**YHB Horse Butte 80.97 19** *e*P **P 15 34 10.8 -1.1**
comp=Z,92nm,1.0s
**D34A Park Rapids 80.99 8** P **P 15 34 09.5 -2.1**
baz=353,SNR=22
**RLMT Red Lodge 81.00 18** P **P 15 34 10.9 -1.1**
baz=345,SNR=57
**RLMT Red Lodge 81.00 18** *e*P **P 15 34 10.9 -1.1**
comp=Z,469nm,1.6s
RLMT LR LR
comp=Z,40µm,20.0s
**YHH Holmes Hill 81.01 19** *e*P **P 15 34 11.0 -1.2**
comp=Z,94nm,1.4s
**D36A Goodland 81.06 6** P **P 15 34 09.8 -2.1**
baz=354,SNR=15
**D35A Remer 81.09 7** P **P 15 34 10.0 -2.1**
baz=354,SNR=6.3
**YMR Madison River 81.10 19** *e*P **P 15 34 11.8 -0.8**
comp=Z,79nm,1.2s
**YNR Norris Junctio 81.11 19** *e*P **P 15 34 11.9 -0.7**
comp=Z,74nm,1.4s
**D37A Cotton 81.12 6** P **P 15 34 10.2 -2.1**
baz=355,SNR=15
**M04C Macdoel 81.15 28** P **P 15 34 11.4 -1.3**

baz=338,SNR=9.3
**M02C Callahan** 81.21 29 P P 15 34 10.9 -2.1
baz=337,SNR=9.6
**E31A Nome** 81.27 10 P P 15 34 11.1 -2.0
baz=351,SNR=13
**LMN Caledonia Moun** 81.29 347 eP P 15 34 11.6 -1.6
comp=Z,271nm,1.0s
**E32A Braaten, Kindr** 81.31 9 P P 15 34 11.4 -1.9
baz=352
**LKWY Lake** 81.31 19 eP P 15 34 14.4 +0.7
**LKWY Lake** 81.31 19 eP P 15 34 13.5 -0.2
comp=Z,117nm,0.9s
LKWY LR LR
comp=Z,57µm,19.0s
**YFT Old Faithful** 81.34 19 eP P 15 34 13.8 0.0
comp=Z,112nm,1.2s
**D41A Chassel** 81.41 3 P P 15 34 12.1 -1.7
baz=357
**HLID Hailey** 81.41 22 P P 15 34 13.0 -1.1
baz=342,SNR=10
**HLID Hailey** 81.41 22 eP P 15 34 13.1 -1.1
comp=Z,45nm,1.1s
HLID LR LR
comp=Z,20µm,20.0s
**KHMM Horse Mountain** 81.42 29 eP P 15 34 13.4 -0.8
comp=Z,141nm,1.3s
**WVOR Wild Horse Val** 81.43 25 eP P 15 34 14.4 +0.2
**WVOR Wild Horse Val** 81.43 25 eP P 15 34 14.1 -0.1
comp=Z,129nm,1.3s
WVOR LR LR
comp=Z,21µm,20.0s
**H17A Grant Village** 81.44 19 P P 15 34 14.4 0.0
baz=344,SNR=21
**H17A Grant Village** 81.44 19 eP P 15 34 14.8 +0.4
comp=Z,355nm,1.6s
**MOD Modoc Plateau** 81.47 27 eP P 15 34 13.9 -0.5
comp=Z,132nm,1.1s
**E33A Westby DABS, E** 81.50 8 P P 15 34 12.8 -1.5
baz=353,SNR=12
**YPP Pitchstone Pla** 81.52 19 eP P 15 34 14.6 -0.3
comp=Z,432nm,1.9s
**E34A Wadena** 81.56 8 P P 15 34 12.8 -1.8
baz=353,SNR=14
**E35A Pequot Lakes** 81.58 7 P P 15 34 12.5 -2.3
baz=354,SNR=14
**N02D Trinity Center** 81.64 29 P P 15 34 14.3 -0.9
baz=337,SNR=11
**E36A McGregor** 81.71 6 P P 15 34 13.7 -1.7
baz=354,SNR=21
**E37A Wrenshall** 81.72 6 P P 15 34 13.5 -2.0
baz=355
**E38A The Farm, Brul** 81.73 5 P P 15 34 13.8 -1.7
baz=355,SNR=7.1
**HNR Honiara** 81.90 116 LR LR 16 10 41.2
comp=Z,16µm,20.8s,baz=320,slow=36
**E44A Grand Marais A** 81.91 1 P P 15 34 14.7 -1.7
baz=359
**F31A Hecla** 81.92 10 P P 15 34 14.7 -1.8
baz=351,SNR=9.2
**E40A Wakefield** 81.97 4 P P 15 34 15.3 -1.6
baz=356,SNR=6.1
**TRQ Mont Tremblant** 81.98 353 eP P 15 34 15.7 -1.3
**E41A Kenton** 81.99 3 P P 15 34 15.2 -1.7
baz=357,SNR=6.1
**E39A Mellen** 82.01 5 P P 15 34 15.2 -1.9
baz=356,SNR=6.2
**F32A Veblen** 82.02 9 P P 15 34 15.4 -1.7
baz=352
**KMRM Mail Ridge** 82.03 30 eP P 15 34 16.0 -1.3
comp=Z,83nm,1.0s
**WDC Whiskeytown Da** 82.05 29 eP P 15 34 17.0 -0.3
**WDC Whiskeytown Da** 82.05 29 eP P 15 34 16.0 -1.4
comp=Z,120nm,1.5s
**E42A Champion** 82.06 3 P P 15 34 16.0 -1.3
baz=358,SNR=6.0
**F33A 5 Mile Ranch,** 82.13 9 P P 15 34 16.3 -1.4
baz=352,SNR=22
**E43A Lone Tree Farm** 82.14 2 P P 15 34 15.9 -1.7
baz=358
**E45A Wooded Hills,** 82.18 1 P P 15 34 16.2 -1.7
baz=359,SNR=5.7
**AS31 Alice Springs** 82.20 145 eP P 15 34 16.6 -1.5
comp=Z,31nm,0.8s
**ASAR Alice Springs** 82.20 145 P P 15 34 16.6 -1.6
comp=Z,30nm,0.8s,baz=333,slow=5.7,SNR=188
ASAR PKKPbc **PKKPbc** 15 52 45.1 -0.3
comp=Z,1.3nm,0.8s,baz=148,slow=1.8,SNR=6.0
ASAR PKPPKP P'P'df 16 00 55.7 +10
comp=Z,2.5nm,1.0s,baz=130,slow=3.1,SNR=4.8
ASAR LR LR 16 12 56.3
comp=Z,10µm,21.6s,baz=326,slow=37
**AS01 Alice Springs** 82.22 145 eP P 15 34 16.8 -1.4
**F35A Swanville** 82.26 7 P P 15 34 16.4 -2.0
baz=354,SNR=6.6
**F34A Alexandria** 82.27 8 P P 15 34 16.6 -1.8
baz=353,SNR=11
**F36A Milaca** 82.34 7 P P 15 34 16.8 -2.0
baz=354,SNR=21
**ABPO Ambohimpanom** 82.35 226 eP P 15 34 19.7 +0.5
ABPO pmax pmax
comp=Z,70nm,1.2s
ABPO MLR MLR
comp=Z,13µm,21.0s
**ABPO Ambohimpanom** 82.35 226 eP P 15 34 19.7 +0.5
comp=Z,70nm,1.2s
ABPO LR LR
comp=Z,13µm,21.0s
**F38A Pierce - Schro** 82.35 6 P P 15 34 17.4 -1.4
baz=355,SNR=16
**TOA0 Torodi Ar. Sit** 82.40 281 eP P 15 34 17.8 -1.7
**TORD Torodi Ar. Bea** 82.40 281 P P 15 34 18.1 -1.4
comp=Z,41nm,0.8s,baz=33,slow=5.2,SNR=136
**PKME Peaks-Kenny Pk** 82.45 350 eP P 15 34 18.3 -0.9
comp=Z,105nm,1.0s
PKME LR LR
comp=Z,17µm,22.0s
**F39A Loretta** 82.45 5 P P 15 34 17.5 -1.8
baz=356,SNR=10
**F40A Park Falls** 82.48 4 P P 15 34 17.7 -1.9
baz=356,SNR=5.8
**O03D Paynes Creek** 82.53 28 P P 15 34 18.6 -1.4
baz=338,SNR=15
**F37A Hinrichs Farm,** 82.54 6 P P 15 34 18.0 -1.8
baz=355,SNR=12
**F44A Big Bay de Noc** 82.55 2 P P 15 34 17.9 -1.9
baz=358
**G31A Conde** 82.55 10 P P 15 34 18.2 -1.7
baz=351
**KCPM Cahto Peak** 82.56 30 eP P 15 34 19.1 -1.0
comp=Z,140nm,1.2s
**G32A Webster** 82.59 10 P P 15 34 18.3 -1.8
baz=352,SNR=8.8
**F43A Flat Rock, Esc** 82.68 2 P P 15 34 18.8 -1.7
baz=358,SNR=5.8
**F41A Three Lakes** 82.71 4 P P 15 34 18.8 -1.9
baz=357,SNR=9.8
**F42A Maple Grove Fa** 82.72 3 P P 15 34 18.8 -1.9
baz=358
**G33A Ortonville** 82.76 9 P P 15 34 19.2 -1.8
baz=352,SNR=13
**F46A Macinaw City C** 82.77 1 P P 15 34 18.5 -2.5
baz=360
**EMMW East Machias** 82.77 348 eP P 15 34 20.8 -0.2
comp=Z,216nm,1.2s
**G34A Benson** 82.79 8 P P 15 34 19.3 -1.8
baz=353,SNR=7.8
**KIP Kipapa** 82.81 65 PFAKE 15 34 30.0 +8.5
KIP LR LR
comp=Z,25µm,19.0s
**F45A CMU Biological** 82.85 1 P P 15 34 19.5 -1.9
baz=359
**RSSD Black Hills** 82.87 14 P P 15 34 20.3 -1.6
baz=348
**RSSD Black Hills** 82.87 14 eP P 15 34 21.1 -0.7
**RSSD Black Hills** 82.87 14 eP P 15 34 20.4 -1.4
comp=Z,624nm,1.7s
**AHID Auburn Hatcher** 82.90 20 eP P 15 34 20.7 -1.3
comp=Z,56nm,1.1s
AHID LR LR
comp=Z,33µm,20.0s
**G35A Watkins** 82.91 7 P P 15 34 20.2 -1.5
baz=354
**G36A St. Michael** 82.95 7 P P 15 34 19.8 -2.1
baz=354,SNR=9.9
**SPMN Marine on St.** 83.02 6 P P 15 34 20.4 -2.0
baz=355,SNR=9.2
**SPMN Marine on St.** 83.02 6 eP P 15 34 20.2 -2.1
comp=Z,157nm,0.8s

**G39A Holcombe** 83.06 5 P P 15 34 20.5 -2.0
baz=356,SNR=11
**G40A Rib Lake** 83.13 4 P P 15 34 21.2 -1.7
baz=356,SNR=6.8
**G38A Ridgeland** 83.14 6 P P 15 34 21.0 -2.0
baz=355,SNR=6.6
**BW06 Boulder Array** 83.21 19 P P 15 34 21.7 -2.0
baz=344,SNR=6.4
**BW06 Boulder Array** 83.21 19 eP P 15 34 21.2 -2.4
comp=Z,90nm,1.8s
BW06 LR LR
comp=Z,30µm,19.0s
**PD31 Pinedale Array** 83.21 19 eP P 15 34 20.8 -2.9
**PDAR Pinedale Array** 83.21 19 P P 15 34 22.0 -1.6
comp=Z,0.9nm,0.5s,baz=18,slow=2.3,SNR=13
PDAR LR LR 16 17 27.0
comp=Z,22µm,18.2s,baz=351,slow=40
**PDAR Pinedale Array** 83.21 19 eP P 15 34 21.1 -2.6
**G42A Mountain** 83.23 3 P P 15 34 21.8 -1.5
baz=357,SNR=5.1
**G41A Antigo** 83.23 4 P P 15 34 21.7 -1.7
baz=357
**G43A Wallace** 83.24 3 P P 15 34 21.9 -1.5
baz=358,SNR=5.3
**H33A Prehn Over Nor** 83.24 9 P P 15 34 21.6 -1.8
baz=352,SNR=13
**SUSD Miller** 83.24 11 P P 15 34 21.8 -1.7
baz=351,SNR=7.0
**H31A Wolsey** 83.26 10 P P 15 34 21.7 -1.8
baz=351
**FRNY Flat Rock** 83.29 353 eP P 15 34 21.9 -1.8
comp=Z,87nm,1.5s
**ORV Oroville** 83.30 28 eP P 15 34 22.3 -1.6
ORV pmax pmax
comp=Z,60nm,1.1s
**ORV Oroville** 83.30 28 eP P 15 34 22.3 -1.6
comp=Z,60nm,1.1s
**PLVO Plevna** 83.32 355 eP P 15 34 22.4 -1.4
comp=Z,179nm,1.0s
**BEKR Beckworth** 83.34 27 eP P 15 34 23.3 -1.0
comp=Z,86nm,1.0s
**H34A Spellman Lake,** 83.34 8 P P 15 34 22.5 -1.5
baz=353,SNR=12
**H32A Carlson Farm,** 83.34 10 P P 15 34 22.4 -1.7
baz=352,SNR=24
**HOPS Hopland Field** 83.35 30 eP P 15 34 23.2 -0.9
comp=Z,268nm,1.4s
**H35A Sunnyside Ranc** 83.39 8 P P 15 34 22.6 -1.7
baz=353,SNR=12
**HVU Hansel Valley** 83.48 21 eP P 15 34 23.6 -1.3
HVU pmax pmax
comp=Z,66nm,1.1s
**HVU Hansel Valley** 83.48 21 eP P 15 34 23.6 -1.3
comp=Z,66nm,1.1s
**LONY Lake Ozonia** 83.58 353 eP P 15 34 23.9 -1.3
comp=Z,438nm,1.9s
LONY LR LR
comp=Z,28µm,21.0s
**H36A Jessenland, He** 83.59 7 P P 15 34 24.0 -1.2
baz=354,SNR=8.5
**H38A Maiden Rock** 83.61 6 P P 15 34 23.7 -1.7
baz=355,SNR=7.2
**H37A Dierke Farm, C** 83.66 6 P P 15 34 23.5 -2.1
baz=354,SNR=6.3
**H39A Augusta** 83.66 5 P P 15 34 23.9 -1.7
baz=356,SNR=10.0
**BMN Battle Mountai** 83.67 25 eP P 15 34 25.5 -0.5
BMN pmax pmax
comp=Z,139nm,1.4s
**BMN Battle Mountai** 83.67 25 eP P 15 34 25.4 -0.5
comp=Z,139nm,1.4s
**SADO Sadowa** 83.68 356 eP P 15 34 24.1 -1.6
comp=Z,273nm,1.8s
**I31A Royce, Wessing** 83.69 10 P P 15 34 24.0 -1.8
baz=351
**VT1 Waterbury** 83.72 352 eP P 15 34 25.1 -0.8
comp=Z,90nm,1.1s
**GLMI Grayling** 83.72 0 P P 15 34 24.5 -1.4
baz=360
**GLMI Grayling** 83.72 0 eP P 15 34 25.0 -0.9
comp=Z,484nm,1.3s
GLMI LR LR
comp=Z,44µm,20.0s
**LBNH Lisbon** 83.73 351 eP P 15 34 25.0 -1.0
LBNH pmax pmax
comp=Z,90nm,1.1s
**LBNH Lisbon** 83.73 351 eP P 15 34 25.0 -1.0
comp=Z,90nm,1.1s
**H40A Chili** 83.77 5 P P 15 34 24.6 -1.5
baz=356,SNR=6.0
**PAHR Pah Rah Range** 83.77 27 eP P 15 34 25.5 -0.9
comp=Z,73nm,1.1s
**H41A Junction City** 83.81 4 P P 15 34 24.7 -1.7
baz=356,SNR=6.8
**I32A Karley and Nic** 83.81 10 P P 15 34 24.7 -1.7
baz=352
**I33A Coleman** 83.86 9 P P 15 34 25.0 -1.7
baz=352
**K22A Casper** 83.89 16 P P 15 34 25.1 -2.0
baz=346
**K22A Casper** 83.89 16 eP P 15 34 25.4 -1.6
comp=Z,84nm,1.2s
**H42A Shon** 83.96 3 P P 15 34 25.1 -2.0
baz=357,SNR=5.1
**I34A Hadley** 83.96 9 P P 15 34 25.4 -1.8
baz=353
**CTAO Charters Tower** 83.98 133 eP P 15 34 25.9 -1.5
CTAO pmax pmax
comp=Z,139nm,1.1s
CTAO MLR MLR
comp=Z,42µm,21.0s
**CTAO Charters Tower** 83.98 133 eP P 15 34 25.9 -1.5
comp=Z,139nm,1.1s
CTAO LR LR
comp=Z,42µm,21.0s
**SPUT South Promonto** 84.00 21 eP P 15 34 26.3 -1.3
comp=Z,80nm,1.2s
**AFDM Forest Hills D** 84.02 28 eP P 15 34 26.4 -1.2
comp=Z,71nm,1.2s
**H43A Windswept, Lux** 84.02 3 P P 15 34 26.0 -1.5
baz=358
**I36A Fitzsimmons Fa** 84.14 7 P P 15 34 26.6 -1.4
baz=354
**I37A Lemond, Waseca** 84.19 7 P P 15 34 26.6 -1.7
baz=354,SNR=6.0
**ECSD EROS Data Cent** 84.19 9 P P 15 34 26.7 -1.7
baz=352,SNR=54
**ECSD EROS Data Cent** 84.19 9 eP P 15 34 26.5 -1.9
comp=Z,337nm,1.2s
ECSD LR LR
comp=Z,50µm,22.0s
**NCB Newcomb** 84.20 353 eP P 15 34 26.9 -1.5
comp=Z,234nm,2.0s
**I35A Creekview Farm** 84.22 8 P P 15 34 26.5 -1.9
baz=353
**BGU Big Grassy Mou** 84.23 22 eP P 15 34 27.7 -1.1
comp=Z,157nm,2.0s
**I38A Scanlan Farm,** 84.23 6 P P 15 34 26.6 -2.0
baz=355,SNR=9.7
**PNTR Pine Nut** 84.28 27 eP P 15 34 28.4 -0.7
comp=Z,142nm,1.1s
**HNH Hanover** 84.30 351 eP P 15 34 29.1 +0.2
comp=Z,245nm,1.4s
**I41A Arkdale** 84.35 4 P P 15 34 27.5 -1.7
baz=356,SNR=7.7
**J31A Geddes** 84.40 11 P P 15 34 27.8 -1.6
baz=351
**TCUT Toone Canyon** 84.41 20 eP P 15 34 29.2 -0.6
comp=Z,121nm,1.1s
**J32A Parkston** 84.42 10 P P 15 34 27.9 -1.6
baz=352
**I39A Houston** 84.47 5 P P 15 34 27.8 -2.0
baz=355,SNR=7.9
**YERR Yerington** 84.48 27 eP P 15 34 29.0 -1.2
comp=Z,77nm,1.5s
**I40A Norwalk** 84.48 5 P P 15 34 27.6 -2.2
baz=356
**I42A Draeger Farm,** 84.56 4 P P 15 34 28.8 -1.4
baz=357
**J33A Davis** 84.56 9 P P 15 34 28.3 -1.9
baz=352,SNR=11
**I43A Langenfeld Bro** 84.59 3 P P 15 34 28.6 -1.8
baz=358
**J35A Milford** 84.69 8 P P 15 34 29.1 -1.8
baz=353
**J34A George** 84.70 9 P P 15 34 29.0 -2.0
baz=353,SNR=9.1
**KVN Kaiserville** 84.73 26 eP P 15 34 30.8 -0.6

KVN pmax pmax
comp=Z,124nm,1.4s
**KVN Kaiserville** 84.73 26 eP P 15 34 30.8 -0.6
comp=Z,124nm,1.4s
**ACCN Adirondack Com** 84.73 352 eP P 15 34 30.3 -0.8
comp=Z,449nm,1.9s
**CTU Camp Tracy** 84.74 21 eP P 15 34 34.3 +2.9
comp=Z,127nm,1.8s
**KOWA Kowa** 84.78 287 eP P 15 34 30.2 -1.5
comp=Z,514nm,1.2s
**J36A Seneca 1, Swea** 84.80 8 P P 15 34 29.6 -1.8
baz=354,SNR=5.8
**WAKR Walker** 84.87 27 eP P 15 34 31.2 -0.9
comp=Z,62nm,1.1s
**J37A Redenius Farm,** 84.88 7 P P 15 34 30.4 -1.4
baz=354,SNR=9.6
**JLU Jordanelle** 84.89 21 eP P 15 34 31.1 -1.2
comp=Z,393nm,1.9s
**J38A Wedel Dairy, R** 84.94 6 P P 15 34 30.1 -2.0
baz=355
**J40A Soldiers Grove** 84.97 5 P P 15 34 30.5 -1.8
baz=356,SNR=7.8
**J39A Decorah** 84.98 6 P P 15 34 30.4 -2.0
baz=355,SNR=10.0
**DUG Dugway, Tooele** 84.98 22 P P 15 34 31.6 -0.9
baz=343,SNR=23
**DUG Dugway, Tooele** 84.98 22 eP P 15 34 31.7 -0.9
DUG pmax pmax
comp=Z,122nm,1.0s
DUG MLR MLR
comp=Z,23µm,19.0s
**DUG Dugway, Tooele** 84.98 22 eP P 15 34 31.7 -0.9
comp=Z,122nm,1.0s
DUG LR LR
comp=Z,23µm,19.0s
**CMB Columbia Colle** 85.03 28 eP P 15 34 32.3 -0.5
CMB pmax pmax
comp=Z,89nm,1.5s
**CMB Columbia Colle** 85.03 28 eP P 15 34 32.2 -0.5
comp=Z,89nm,1.5s
**J41A Loganville** 85.04 4 P P 15 34 30.8 -1.8
baz=356,SNR=6.3
**K31A O'Neill** 85.06 11 P P 15 34 31.1 -1.7
baz=351,SNR=5.1
**J43A Natural Harves** 85.09 3 P P 15 34 31.2 -1.6
baz=357
**K32A Verdigre** 85.11 10 P P 15 34 31.2 -1.8
baz=351,SNR=6.0
**J42A Columbus** 85.12 4 P P 15 34 31.5 -1.5
baz=357
**NV01 Mina Array Sit** 85.26 26 eP P 15 34 33.4 -0.7
**NVAR Mina Array Bea** 85.26 26 P P 15 34 33.6 -0.5
comp=Z,6.5nm,0.8s,baz=314,slow=3.5,SNR=39
NVAR LR LR 16 17 54.7
comp=Z,18µm,18.0s,baz=0.5,slow=39
**K33A Hardington** 85.27 10 P P 15 34 32.1 -1.7
baz=352
**K34A Le Mars** 85.28 9 P P 15 34 32.1 -1.8
baz=353,SNR=12
**NV11 Mina Array Sit** 85.30 26 eP P 15 34 33.3 -0.9
comp=Z,4.8nm,1.0s
**K35A Storm Lake** 85.32 8 P P 15 34 32.0 -2.1
baz=353
**NLU North Lily Min** 85.37 21 eP P 15 34 33.6 -1.0
comp=Z,87nm,1.3s
**TRY Troy** 85.38 352 eP P 15 34 33.7 -0.6
comp=Z,322nm,1.4s
**K37A Belmond** 85.41 7 P P 15 34 32.7 -1.8
baz=354,SNR=8.7
**HRV Adam Dziewonsk** 85.42 351 eP P 15 34 34.3 -0.2
HRV pmax pmax
comp=Z,205nm,1.5s
**HRV Adam Dziewonsk** 85.42 351 eP P 15 34 34.2 -0.2
comp=Z,205nm,1.5s
**MPU Maple Canyon** 85.42 21 eP P 15 34 33.6 -1.2
comp=Z,39nm,1.4s
**K36A Gilmore City** 85.47 8 P P 15 34 33.2 -1.6
baz=354,SNR=5.6
**JFWS Jewell Farm** 85.48 5 P P 15 34 33.1 -1.7
baz=356,SNR=11
**JFWS Jewell Farm** 85.48 5 eP P 15 34 33.0 -1.8
JFWS pmax pmax
comp=Z,261nm,0.9s
JFWS MLR MLR
comp=Z,39µm,20.0s
**JFWS Jewell Farm** 85.48 5 eP P 15 34 33.0 -1.8
comp=Z,261nm,0.9s
JFWS LR LR
comp=Z,39µm,20.0s
**POHA Pohakuloa** 85.52 64 PFAKE 15 34 50.0 +14
POHA LR LR
comp=Z,17µm,19.0s
**K38A Parkersburg** 85.59 6 P P 15 34 33.3 -2.1
baz=355,SNR=5.9
**K39A Oelwein** 85.59 6 P P 15 34 33.0 -2.4
baz=355,SNR=9.5
**K40A Colesburg** 85.64 5 P P 15 34 33.8 -1.8
baz=356,SNR=18
**K42A Prairie Point,** 85.65 4 P P 15 34 33.5 -2.2
baz=357,SNR=5.9
**MMNY Mt. Morris Dam** 85.66 355 eP P 15 34 34.2 -1.6
comp=Z,154nm,0.9s
**L33A Hoskins** 85.67 10 P P 15 34 33.8 -2.0
baz=352,SNR=5.9
**N23A Red Feather La** 85.70 16 P P 15 34 35.3 -1.0
baz=347,SNR=12
**N23A Red Feather La** 85.70 16 eP P 15 34 35.6 -0.7
comp=Z,541nm,1.8s
**QUA2 Belchertown** 85.72 351 eP P 15 34 35.4 -0.6
comp=Z,384nm,1.8s
**L32A Elgin** 85.75 10 P P 15 34 34.7 -1.5
baz=351
**K43A Burlington** 85.77 3 P P 15 34 34.3 -2.0
baz=357,SNR=5.4
**K41A Shullsburg** 85.78 5 P P 15 34 34.4 -2.0
baz=356,SNR=9.0
**MDPB Devils Postpil** 85.78 27 eP P 15 34 36.3 -0.5
comp=Z,106nm,1.2s
**MLAC Mammoth, Mammo** 85.86 27 P P 15 34 34.5 -2.6
baz=339
**SAO San Andreas Ge** 85.90 29 eP P 15 34 37.0 0.0
SAO pmax pmax
comp=Z,75nm,1.1s
**SAO San Andreas Ge** 85.90 29 eP P 15 34 37.0 0.0
comp=Z,75nm,1.1s
**L35A Bielow Farm, R** 85.90 9 P P 15 34 35.1 -1.8
baz=353
**L34A Svendsen Farm,** 85.96 9 P P 15 34 35.0 -2.2
baz=352,SNR=8.8
**L36A Harm Buss Farm** 85.99 8 P P 15 34 35.9 -1.5
baz=354,SNR=7.8
**BRYW Bryant College** 86.00 351 eP P 15 34 37.0 -0.5
comp=Z,282nm,1.5s
**O20A White River Ci** 86.01 18 P P 15 34 36.6 -1.2
baz=345,SNR=12
**O20A White River Ci** 86.01 18 eP P 15 34 36.6 -1.2
comp=Z,158nm,1.3s
**L37A Phoenix Point,** 86.04 7 P P 15 34 36.1 -1.5
baz=354,SNR=5.5
**R11A Troy Canyon, C** 86.06 24 P P 15 34 36.1 -1.9
baz=341
**L38A Oak Wood Farm,** 86.08 7 P P 15 34 35.9 -1.9
baz=354,SNR=6.4
**BINY Binghamton** 86.08 354 eP P 15 34 37.5 -0.4
comp=Z,592nm,1.8s
BINY LR LR
comp=Z,44µm,22.0s
**P18A Preston Nutter** 86.09 20 eP P 15 34 36.8 -1.5
comp=Z,92nm,1.3s
**P17A Butcher Ranch,** 86.13 20 eP P 15 34 37.1 -1.3
comp=Z,113nm,1.3s
**L39A Vinton** 86.17 6 P P 15 34 35.9 -2.4
baz=355,SNR=5.5
**BBGB Big Mountain B** 86.19 29 eP P 15 34 35.2 -3.4
**TMUT Trail Mountain** 86.20 21 eP P 15 34 37.7 -1.2
comp=Z,59nm,1.1s
**AAM Ann Arbor** 86.24 360 P P 15 34 37.1 -1.5
baz=0.3
**AAM Ann Arbor** 86.24 360 eP P 15 34 37.5 -1.1
AAM pmax pmax
comp=Z,185nm,1.1s
AAM MLR MLR
comp=Z,44µm,20.0s
**AAM Ann Arbor** 86.24 360 eP P 15 34 37.5 -1.1
comp=Z,185nm,1.1s
AAM LR LR
comp=Z,44µm,20.0s
**M33A Taylor Creek F** 86.27 10 P P 15 34 37.2 -1.6

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | baz=352,SNR=6.7 | | | | | | | | |
| L43A | **Garden Prairie** | 86.27 | 4 | P | | P | 15 34 36.9 | -1.8 | |
| | baz=357,SNR=6.1 | | | | | | | | |
| L40A | **Anamosa** | 86.27 | 5 | P | | P | 15 34 36.8 | -1.9 | |
| | baz=356,SNR=8.6 | | | | | | | | |
| OGNE | **Ogallala** | 86.28 | 14 | P | | P | 15 34 37.5 | -1.4 | |
| | baz=349,SNR=13 | | | | | | | | |
| OGNE | **Ogallala** | 86.28 | 14 | eP | | P | 15 34 37.2 | -1.7 | |
| | comp=Z,780nm,1.6s | | | | | | | | |
| OGNE | | | | LR | | LR | | | |
| | comp=Z,36µm,20.0s | | | | | | | | |
| SCIA | **State Center** | 86.30 | 7 | P | | P | 15 34 37.6 | -1.4 | |
| | baz=354 | | | | | | | | |
| SCIA | **State Center** | 86.30 | 7 | eP | | P | 15 34 37.5 | -1.4 | |
| | comp=Z,128nm,0.8s | | | | | | | | |
| SCIA | | | | LR | | LR | | | |
| | comp=Z,37µm,21.0s | | | | | | | | |
| L41A | **Preston** | 86.30 | 5 | P | | P | 15 34 37.1 | -1.8 | |
| | baz=356 | | | | | | | | |
| L44A | **Lake County Fo** | 86.31 | 3 | P | | P | 15 34 37.3 | -1.6 | |
| | baz=358 | | | | | | | | |
| PSUT | **Pine Spring** | 86.31 | 23 | eP | | P | 15 34 38.2 | -1.1 | |
| | comp=Z,73nm,1.0s | | | | | | | | |
| BGNE | **Belgrade** | 86.33 | 11 | P | | P | 15 34 37.8 | -1.3 | |
| | baz=351 | | | | | | | | |
| BGNE | **Belgrade** | 86.33 | 11 | eP | | P | 15 34 37.7 | -1.3 | |
| | comp=Z,268nm,0.9s | | | | | | | | |
| ERPA | **Erie** | 86.36 | 357 | eP | | P | 15 34 37.7 | -1.5 | |
| | comp=Z,164nm,1.0s | | | | | | | | |
| M34A | **Aspy Farms, Fr** | 86.40 | 9 | P | | P | 15 34 38.0 | -1.4 | |
| | baz=352 | | | | | | | | |
| L42A | **Oliver, Polo** | 86.41 | 4 | P | | P | 15 34 37.5 | -2.0 | |
| | baz=357,SNR=6.6 | | | | | | | | |
| NWAO | **Narrogin (SRO)** | 86.44 | 162 | LR | | LR | 16 16 00.4 | | |
| | comp=Z,19µm,18.1s,slow=38 | | | | | | | | |
| NWAO | **Narrogin (SRO)** | 86.44 | 162 | eP | | P | 15 34 38.4 | -1.0 | |
| NWAO | | | | pmax | | pmax | | | |
| | comp=Z,376nm,2.0s | | | | | | | | |
| NWAO | **Narrogin (SRO)** | 86.44 | 162 | eP | | P | 15 34 38.4 | -1.0 | |
| | comp=Z,376nm,2.0s | | | | | | | | |
| SRU | **San Rafael Swe** | 86.52 | 20 | eP | | P | 15 34 38.9 | -1.4 | |
| SRU | | | | pmax | | pmax | | | |
| | comp=Z,35nm,1.0s | | | | | | | | |
| SRU | **San Rafael Swe** | 86.52 | 20 | eP | | P | 15 34 38.9 | -1.4 | |
| | comp=Z,35nm,1.0s | | | | | | | | |
| M35A | **Neola** | 86.53 | 9 | P | | P | 15 34 38.8 | -1.2 | |
| | baz=353,SNR=7.7 | | | | | | | | |
| TIN | **Tinemaha, Big** | 86.56 | 27 | P | | P | 15 34 38.8 | -1.7 | |
| | baz=340 | | | | | | | | |
| PMPB | **Monarch Peak** | 86.60 | 29 | eP | | P | 15 34 41.4 | +0.8 | |
| | comp=Z,712nm,2.0s | | | | | | | | |
| M36A | **Felix, Anita** | 86.62 | 8 | P | | P | 15 34 39.1 | -1.4 | |
| | baz=353 | | | | | | | | |
| MSU | **Marysvale** | 86.73 | 22 | eP | | P | 15 34 40.3 | -1.1 | |
| MSU | **Marysvale** | 86.73 | 22 | eP | | P | 15 34 40.3 | -1.1 | |
| M37A | **Trindle Farm,** | 86.73 | 8 | P | | P | 15 34 39.7 | -1.3 | |
| | baz=354 | | | | | | | | |
| M38A | **Pleasantville** | 86.78 | 7 | P | | P | 15 34 39.8 | -1.5 | |
| | baz=354,SNR=14 | | | | | | | | |
| M39A | **Webster** | 86.80 | 6 | P | | P | 15 34 39.9 | -1.5 | |
| | baz=355,SNR=5.7 | | | | | | | | |
| ISCO | **Idaho Springs** | 86.82 | 16 | P | | P | 15 34 40.6 | -1.4 | |
| | baz=347,SNR=21 | | | | | | | | |
| ISCO | **Idaho Springs** | 86.82 | 16 | eP | | P | 15 34 39.9 | -2.0 | |
| ISCO | | | | pmax | | pmax | | | |
| | comp=Z,113nm,1.3s | | | | | | | | |
| ISCO | | | | MLR | | MLR | | | |
| | comp=Z,44µm,20.0s | | | | | | | | |
| ISCO | **Idaho Springs** | 86.82 | 16 | eP | | P | 15 34 39.9 | -2.0 | |
| | comp=Z,112nm,1.3s | | | | | | | | |
| ISCO | | | | LR | | LR | | | |
| | comp=Z,44µm,20.0s | | | | | | | | |
| ALLY | **Alegheny Colle** | 86.83 | 357 | eP | | P | 15 34 40.4 | -1.2 | |
| | comp=Z,268nm,1.0s | | | | | | | | |
| GRAC | **Grapevine Rang** | 86.86 | 26 | P | | P | 15 34 41.7 | -0.1 | |
| | baz=340 | | | | | | | | |
| M40A | **Post Highland** | 86.91 | 6 | P | | P | 15 34 40.2 | -1.8 | |
| | baz=355 | | | | | | | | |
| M42A | **Sheffield** | 86.95 | 4 | P | | P | 15 34 39.9 | -2.2 | |
| | baz=356 | | | | | | | | |
| FORT | **Forrest** | 86.96 | 153 | eP | | P | 15 34 40.2 | -1.8 | |
| | comp=Z,3µm,0.9s | | | | | | | | |
| M54A | **Oil Creek Stat** | 86.96 | 357 | P | | P | 15 34 40.4 | -1.8 | |
| | baz=2.7,SNR=11 | | | | | | | | |
| RCTC | **Rector, Farmer** | 86.97 | 28 | P | | P | 15 34 40.7 | -1.6 | |
| | baz=339 | | | | | | | | |
| M41A | **Milan** | 87.00 | 5 | P | | P | 15 34 40.3 | -2.0 | |
| | baz=356 | | | | | | | | |
| M43A | **Waltham Townsh** | 87.01 | 4 | P | | P | 15 34 40.7 | -1.6 | |
| | baz=357,SNR=7.0 | | | | | | | | |
| N33A | **J Bar K, Exete** | 87.07 | 10 | P | | P | 15 34 40.9 | -1.8 | |
| | baz=352 | | | | | | | | |
| N34A | **Lincoln** | 87.07 | 9 | P | | P | 15 34 41.2 | -1.5 | |
| | baz=352 | | | | | | | | |
| M44A | **Midewin, Midew** | 87.09 | 3 | P | | P | 15 34 41.3 | -1.5 | |
| | baz=358,SNR=5.8 | | | | | | | | |
| ODNJ | **Ogdensburg** | 87.10 | 353 | eP | | P | 15 34 41.3 | -1.5 | |
| | comp=Z,184nm,1.1s | | | | | | | | |
| M45A | **Boilermakers S** | 87.11 | 2 | P | | P | 15 34 41.5 | -1.4 | |
| | baz=358 | | | | | | | | |
| M46A | **Old House Fiel** | 87.11 | 2 | P | | P | 15 34 41.5 | -1.4 | |
| | baz=359,SNR=6.1 | | | | | | | | |
| PAL | **Palisades** | 87.12 | 352 | eP | | P | 15 34 41.4 | -1.5 | |
| PAL | | | | pmax | | pmax | | | |
| | comp=Z,213nm,1.3s | | | | | | | | |
| PAL | **Palisades** | 87.12 | 352 | eP | | P | 15 34 41.4 | -1.5 | |
| | comp=Z,213nm,1.3s | | | | | | | | |
| N35A | **Tabor** | 87.13 | 9 | P | | P | 15 34 41.4 | -1.6 | |
| | baz=353,SNR=12 | | | | | | | | |
| MTPU | **Mount Pierson** | 87.18 | 22 | eP | | P | 15 34 43.0 | -0.7 | |
| | comp=Z,136nm,1.4s | | | | | | | | |
| CWC | **Cottonwood Cre** | 87.18 | 27 | P | | P | 15 34 41.6 | -1.9 | |
| | baz=340 | | | | | | | | |
| TPNV | **Topopah Spring** | 87.20 | 25 | P | | P | 15 34 42.3 | -1.3 | |
| | baz=341,SNR=9.4 | | | | | | | | |
| TPNV | **Topopah Spring** | 87.20 | 25 | eP | | P | 15 34 42.1 | -1.5 | |
| TPNV | | | | pmax | | pmax | | | |
| | comp=Z,79nm,1.7s | | | | | | | | |
| TPNV | **Topopah Spring** | 87.20 | 25 | eP | | P | 15 34 42.1 | -1.5 | |
| | comp=Z,79nm,1.7s | | | | | | | | |
| PAGB | **Antelope Grade** | 87.21 | 29 | eP | | P | 15 34 42.5 | -1.0 | |
| | comp=Z,69nm,1.1s | | | | | | | | |
| N36A | **Muff Farm, Cla** | 87.24 | 8 | P | | P | 15 34 42.5 | -1.0 | |
| | baz=353,SNR=5.7 | | | | | | | | |
| N59A | **State Game Lan** | 87.35 | 354 | P | | P | 15 34 43.1 | -1.0 | |
| | baz=5.1,SNR=8.4 | | | | | | | | |
| N37A | **Lee Faris, Mou** | 87.36 | 8 | P | | P | 15 34 42.6 | -1.5 | |
| | baz=354,SNR=5.8 | | | | | | | | |
| CCUT | **Cedar City** | 87.36 | 23 | eP | | P | 15 34 42.2 | -2.3 | |
| | comp=Z,89nm,1.5s | | | | | | | | |
| N39A | **Derby Farms, D** | 87.37 | 6 | P | | P | 15 34 42.7 | -1.5 | |
| | baz=355,SNR=15 | | | | | | | | |
| SZCU | **Shurtz Canyon** | 87.39 | 23 | eP | | P | 15 34 43.1 | -1.5 | |
| | comp=Z,53nm,1.1s | | | | | | | | |
| N38A | **Joes South For** | 87.40 | 7 | P | | P | 15 34 42.8 | -1.5 | |
| | baz=354,SNR=5.6 | | | | | | | | |
| PV09 | **Paradox Valley** | 87.41 | 19 | eP | | P | 15 34 44.2 | -0.6 | |
| N40A | **Mertquake, Sal** | 87.42 | 6 | P | | P | 15 34 42.8 | -1.6 | |
| | baz=355 | | | | | | | | |
| VES | **Vestal, Richgr** | 87.45 | 28 | P | | P | 15 34 43.1 | -1.6 | |
| | baz=339 | | | | | | | | |
| DAC | **Darwin (Calif)** | 87.47 | 27 | eP | | P | 15 34 44.1 | -0.9 | |
| DAC | | | | pmax | | pmax | | | |
| | comp=Z,65nm,1.0s | | | | | | | | |
| DAC | **Darwin (Calif)** | 87.47 | 27 | eP | | P | 15 34 44.0 | -0.9 | |
| | comp=Z,65nm,1.0s | | | | | | | | |
| BRNJ | **Basking Ridge** | 87.49 | 353 | eP | | P | 15 34 44.4 | -0.3 | |
| | comp=Z,153nm,1.1s | | | | | | | | |
| FURC | **Furnace Creek,** | 87.49 | 26 | P | | P | 15 34 44.0 | -0.8 | |
| | baz=340,SNR=6.5 | | | | | | | | |
| N43A | **Stutzman Famil** | 87.50 | 4 | P | | P | 15 34 43.2 | -1.6 | |
| | baz=357 | | | | | | | | |
| N54A | **Moraine State** | 87.51 | 357 | P | | P | 15 34 43.6 | -1.3 | |
| | baz=2.5,SNR=10.0 | | | | | | | | |
| PV10 | **Paradox Valley** | 87.54 | 19 | eP | | P | 15 34 44.8 | -0.6 | |
| PV04 | **Paradox Valley** | 87.56 | 19 | eP | | P | 15 34 44.2 | -1.1 | |
| N42A | **Yates City** | 87.57 | 5 | P | | P | 15 34 43.2 | -1.9 | |
| | baz=356,SNR=6.7 | | | | | | | | |
| N46A | **Monticello** | 87.62 | 2 | P | | P | 15 34 43.7 | -1.7 | |
| | baz=358,SNR=9.3 | | | | | | | | |
| LUPA | **Lehigh Univers** | 87.63 | 353 | eP | | P | 15 34 44.0 | -1.4 | |
| | comp=Z,12nm,1.0s | | | | | | | | |
| N41A | **Harden Midland** | 87.64 | 5 | P | | P | 15 34 43.7 | -1.8 | |
| | baz=356,SNR=10 | | | | | | | | |
| N45A | **Kentland** | 87.64 | 3 | P | | P | 15 34 44.1 | -1.4 | |
| | baz=358,SNR=9.7 | | | | | | | | |
| SMMC | **Simmler** | 87.68 | 29 | P | | P | 15 34 44.5 | -1.3 | |
| | baz=339 | | | | | | | | |
| N44A | **Piper City** | 87.68 | 3 | P | | P | 15 34 44.4 | -1.2 | |
| | baz=358,SNR=7.3 | | | | | | | | |
| O35A | **Humboldt** | 87.69 | 9 | P | | P | 15 34 44.0 | -1.7 | |
| | baz=353 | | | | | | | | |
| O34A | **Beatrice** | 87.70 | 10 | P | | P | 15 34 44.0 | -1.8 | |
| | baz=352,SNR=7.5 | | | | | | | | |
| MPMC | **Manual Prospec** | 87.70 | 27 | P | | P | 15 34 45.1 | -1.1 | |
| | baz=340,SNR=19 | | | | | | | | |
| O33A | **Hebron** | 87.71 | 10 | P | | P | 15 34 44.2 | -1.6 | |
| | baz=352,SNR=11 | | | | | | | | |
| Q24A | **Divide** | 87.72 | 16 | P | | P | 15 34 44.9 | -1.3 | |
| | baz=347,SNR=11 | | | | | | | | |
| Q24A | **Divide** | 87.72 | 16 | eP | | P | 15 34 45.1 | -1.2 | |
| | comp=Z,355nm,1.8s | | | | | | | | |
| PKCU | **Pink Cliffs** | 87.72 | 22 | eP | | P | 15 34 44.8 | -1.5 | |
| | comp=Z,376nm,1.9s | | | | | | | | |
| SSPA | **Standing Stone** | 87.75 | 355 | eP | | P | 15 34 44.1 | -1.9 | |
| | comp=Z,470nm,1.8s | | | | | | | | |
| ISA | **Isabella, Lake** | 87.80 | 27 | P | | P | 15 34 45.2 | -1.2 | |
| | baz=340 | | | | | | | | |
| PV05 | **Paradox Valley** | 87.82 | 20 | eP | | P | 15 34 45.5 | -1.2 | |
| HDIL | **Hopedale** | 87.87 | 4 | P | | P | 15 34 44.9 | -1.6 | |
| | baz=357,SNR=5.4 | | | | | | | | |
| HDIL | **Hopedale** | 87.87 | 4 | eP | | P | 15 34 44.9 | -1.6 | |
| | comp=Z,232nm,1.1s | | | | | | | | |
| HDIL | | | | LR | | LR | | | |
| | comp=Z,41µm,19.0s | | | | | | | | |
| PV01 | **Paradox Valley** | 87.87 | 19 | eP | | P | 15 34 46.2 | -0.7 | |
| LCMT | **Little Creek M** | 87.91 | 23 | eP | | P | 15 34 46.5 | -0.4 | |
| | comp=Z,86nm,1.3s | | | | | | | | |
| SHPR | **Sheep Range** | 87.91 | 25 | eP | | P | 15 34 46.5 | -0.6 | |
| | comp=Z,214nm,1.9s | | | | | | | | |
| O36A | **Bolckow** | 87.92 | 8 | P | | P | 15 34 45.5 | -1.3 | |
| | baz=353,SNR=6.2 | | | | | | | | |
| O37A | **Wolven Farm, M** | 87.95 | 8 | P | | P | 15 34 45.5 | -1.5 | |
| | baz=354,SNR=8.6 | | | | | | | | |
| O39A | **Kirkville** | 87.99 | 7 | P | | P | 15 34 45.9 | -1.2 | |
| | baz=355,SNR=15 | | | | | | | | |
| O38A | **Galt** | 88.05 | 7 | P | | P | 15 34 46.3 | -1.2 | |
| | baz=354,SNR=16 | | | | | | | | |
| KSCO | **Kaye Shedlock'** | 88.08 | 14 | P | | P | 15 34 45.6 | -2.2 | |
| | baz=349,SNR=5.1 | | | | | | | | |
| KSCO | **Kaye Shedlock'** | 88.08 | 14 | eP | | P | 15 34 45.9 | -1.9 | |
| | comp=Z,574nm,1.4s | | | | | | | | |
| SFIN | **Lafayette** | 88.12 | 2 | P | | P | 15 34 46.4 | -1.3 | |
| | baz=355,SNR=11 | | | | | | | | |
| SFIN | **Lafayette** | 88.12 | 2 | eP | | P | 15 34 46.5 | -1.2 | |
| | comp=Z,510nm,1.3s | | | | | | | | |
| PKM | **Mcpherson Peak** | 88.13 | 29 | P | | P | 15 34 47.3 | -0.9 | |
| | baz=339,SNR=5.6 | | | | | | | | |
| O43A | **Sugar Creek Fa** | 88.14 | 4 | P | | P | 15 34 46.1 | -1.8 | |
| | baz=357,SNR=5.3 | | | | | | | | |
| O56A | **Blue Knob Stat** | 88.15 | 356 | P | | P | 15 34 46.9 | -1.0 | |
| | baz=3.4,SNR=12 | | | | | | | | |
| O40A | **La Belle** | 88.17 | 6 | P | | P | 15 34 46.3 | -1.6 | |
| | baz=355,SNR=22 | | | | | | | | |
| SHOC | **Shoshone, Teco** | 88.18 | 26 | P | | P | 15 34 47.2 | -0.9 | |
| | baz=341 | | | | | | | | |
| LRMC | **Laurel Mtn Rad** | 88.19 | 27 | P | | P | 15 34 47.5 | -0.8 | |
| | baz=340,SNR=33 | | | | | | | | |
| ARVC | **Arvin** | 88.19 | 28 | P | | P | 15 34 46.7 | -1.5 | |
| | baz=339 | | | | | | | | |
| O42A | **Bath** | 88.19 | 5 | P | | P | 15 34 46.9 | -1.2 | |
| | baz=356 | | | | | | | | |
| O41A | **Passleys Farm,** | 88.23 | 5 | P | | P | 15 34 46.7 | -1.6 | |
| | baz=356,SNR=18 | | | | | | | | |
| O45A | **Potomac** | 88.24 | 3 | P | | P | 15 34 47.1 | -1.2 | |
| | baz=358,SNR=14 | | | | | | | | |
| O47A | **Sheridan** | 88.29 | 2 | P | | P | 15 34 47.0 | -1.5 | |
| | baz=359,SNR=11 | | | | | | | | |
| MVL | **Millersville** | 88.30 | 354 | eP | | P | 15 34 46.9 | -1.7 | |
| | comp=Z,224nm,1.9s | | | | | | | | |
| O44A | **Mansfield** | 88.31 | 3 | P | | P | 15 34 47.3 | -1.3 | |
| | baz=357,SNR=5.3 | | | | | | | | |
| PSUB | **Penn St. - Bra** | 88.31 | 353 | eP | | P | 15 34 47.1 | -1.5 | |
| | comp=Z,116nm,1.1s | | | | | | | | |
| P34A | **Walnut Farm, R** | 88.31 | 10 | P | | P | 15 34 47.5 | -1.2 | |
| | baz=352,SNR=36 | | | | | | | | |
| P36A | **Good Intent, A** | 88.40 | 9 | P | | P | 15 34 47.8 | -1.3 | |
| | baz=353,SNR=8.0 | | | | | | | | |
| P35A | **Duane Minner,** | 88.41 | 9 | P | | P | 15 34 47.9 | -1.3 | |
| | baz=353,SNR=8.4 | | | | | | | | |
| P37A | **Lathrop** | 88.51 | 8 | P | | P | 15 34 48.4 | -1.2 | |
| | baz=354,SNR=12 | | | | | | | | |
| P38A | **Dawn** | 88.54 | 7 | P | | P | 15 34 48.4 | -1.3 | |
| | baz=354,SNR=18 | | | | | | | | |
| SBC | **Santa Barbara** | 88.57 | 29 | P | | P | 15 34 48.8 | -1.2 | |
| | baz=339 | | | | | | | | |
| S22A | **4UR Ranch, Cre** | 88.59 | 18 | P | | P | 15 34 49.4 | -1.0 | |
| | baz=346,SNR=35 | | | | | | | | |
| S22A | **4UR Ranch, Cre** | 88.59 | 18 | eP | | P | 15 34 50.1 | -0.4 | |
| | comp=Z,83nm,1.3s | | | | | | | | |
| P41A | **Barry, Barry** | 88.66 | 5 | P | | P | 15 34 49.1 | -1.2 | |
| | baz=356,SNR=12 | | | | | | | | |
| EDW2 | **Edwards Air Fo** | 88.66 | 27 | P | | P | 15 34 50.1 | -0.4 | |
| | baz=340,SNR=12 | | | | | | | | |
| CBKS | **Cedar Bluff** | 88.69 | 12 | P | | P | 15 34 49.2 | -1.3 | |
| | baz=350,SNR=9.5 | | | | | | | | |
| CBKS | **Cedar Bluff** | 88.69 | 12 | eP | | P | 15 34 49.4 | -1.1 | |
| CBKS | | | | pmax | | pmax | | | |
| | comp=Z,453nm,1.4s | | | | | | | | |
| CBKS | | | | MLR | | MLR | | | |
| | comp=Z,53µm,22.0s | | | | | | | | |
| CBKS | **Cedar Bluff** | 88.69 | 12 | eP | | P | 15 34 49.4 | -1.1 | |
| | comp=Z,453nm,1.4s | | | | | | | | |
| CBKS | | | | LR | | LR | | | |
| | comp=Z,53µm,22.0s | | | | | | | | |
| U15A | **North Rim** | 88.69 | 22 | eP | | P | 15 34 49.9 | -1.0 | |
| | comp=Z,30nm,1.0s | | | | | | | | |
| OSI | **Osito Audit: C** | 88.70 | 28 | P | | P | 15 34 49.6 | -1.1 | |
| | baz=339 | | | | | | | | |
| TUQ | **Turquoise Moun** | 88.72 | 26 | P | | P | 15 34 50.1 | -0.7 | |
| | baz=341,SNR=6.7 | | | | | | | | |
| P39B | **Salisbury** | 88.73 | 7 | P | | P | 15 34 49.4 | -1.3 | |
| | baz=355,SNR=21 | | | | | | | | |
| P40A | **Paris** | 88.74 | 6 | P | | P | 15 34 49.5 | -1.2 | |
| | baz=355,SNR=28 | | | | | | | | |
| P43A | **Skaggs, Pawnee** | 88.78 | 4 | P | | P | 15 34 49.7 | -1.2 | |
| | baz=357,SNR=15 | | | | | | | | |
| KSU1 | **Kansas State U** | 88.78 | 10 | P | | P | 15 34 49.3 | -1.6 | |
| | baz=352,SNR=7.9 | | | | | | | | |
| KSU1 | **Kansas State U** | 88.78 | 10 | eP | | P | 15 34 49.2 | -1.6 | |
| | comp=Z,340nm,1.3s | | | | | | | | |
| KSU1 | | | | LR | | LR | | | |
| | comp=Z,33µm,20.0s | | | | | | | | |
| MVCO | **Mesa Verde** | 88.78 | 19 | P | | P | 15 34 50.5 | -0.8 | |
| | baz=345,SNR=10.0 | | | | | | | | |
| MVCO | **Mesa Verde** | 88.78 | 19 | eP | | P | 15 34 50.1 | -1.1 | |
| | comp=Z,160nm,1.4s | | | | | | | | |
| MVCO | | | | LR | | LR | | | |
| | comp=Z,27µm,21.0s | | | | | | | | |
| LSZ | **Lusaka** | 88.79 | 243 | P | | P | 15 34 49.8 | -1.4 | |
| | comp=Z,4.6nm,0.8s,baz=81,slow=11,SNR=3.2 | | | | | | | | |
| LSZ | **Lusaka** | 88.79 | 243 | eP | | P | 15 34 49.2 | -2.0 | |
| | comp=Z,48nm,1.4s | | | | | | | | |
| LSZ | | | | LR | | LR | | | |
| | comp=Z,48µm,21.0s | | | | | | | | |
| LSZ | **Lusaka** | 88.79 | 243 | P | | P | 15 34 56.8 | +5.5 | |
| | SNR=5.3 | | | | | | | | |
| LSZ | | | | P | | P | 15 34 56.8 | +5.5 | |
| | SNR=5.3 | | | | | | | | |
| P42A | **Winchester** | 88.79 | 5 | P | | P | 15 34 49.4 | -1.5 | |
| | baz=356,SNR=24 | | | | | | | | |
| MCWV | **Mont Chateau** | 88.81 | 357 | eP | | P | 15 34 49.2 | -1.9 | |
| | comp=Z,458nm,2.0s | | | | | | | | |
| SDCO | **Great Sand Dun** | 88.84 | 17 | P | | P | 15 34 50.4 | -1.2 | |
| | baz=347,SNR=44 | | | | | | | | |
| SDCO | **Great Sand Dun** | 88.84 | 17 | eP | | P | 15 34 50.5 | -1.1 | |
| | comp=Z,294nm,1.5s | | | | | | | | |
| SDCO | | | | LR | | LR | | | |
| | comp=Z,29µm,20.0s | | | | | | | | |
| P46A | **Rosedale** | 88.88 | 2 | P | | P | 15 34 50.1 | -1.2 | |
| | baz=358 | | | | | | | | |
| SDMD | **Soldier's Deli** | 88.91 | 354 | eP | | P | 15 34 50.5 | -1.0 | |
| | comp=Z,87nm,1.6s | | | | | | | | |
| Q34A | **Chapman** | 88.92 | 10 | P | | P | 15 34 50.4 | -1.2 | |
| | baz=352,SNR=7.5 | | | | | | | | |
| RRX | **Edison Barstow** | 88.95 | 27 | P | | P | 15 34 51.2 | -0.6 | |
| | baz=340 | | | | | | | | |
| P45A | **Graceland, Par** | 88.96 | 3 | P | | P | 15 34 50.8 | -0.9 | |
| | baz=358,SNR=14 | | | | | | | | |
| P44A | **Sand Creek, Wi** | 88.98 | 4 | P | | P | 15 34 50.9 | -0.9 | |
| | baz=357,SNR=14 | | | | | | | | |
| SCZ2 | **Santa Cruz Isl** | 89.01 | 29 | P | | P | 15 34 50.6 | -1.5 | |
| | baz=339 | | | | | | | | |
| Q36A | **Arnold C. Orve** | 89.03 | 9 | P | | P | 15 34 50.7 | -1.4 | |
| | baz=353 | | | | | | | | |
| P47A | **Martinsville** | 89.03 | 2 | P | | P | 15 34 50.7 | -1.4 | |
| | baz=359,SNR=9.8 | | | | | | | | |
| BLG | **Laguna Peak, P** | 89.08 | 28 | P | | P | 15 34 51.8 | -0.5 | |
| | baz=339 | | | | | | | | |
| Q35A | **Mercer Eighty,** | 89.08 | 9 | P | | P | 15 34 50.8 | -1.5 | |
| | baz=353,SNR=20 | | | | | | | | |
| DECC | **Green Verdugo** | 89.15 | 28 | P | | P | 15 34 51.9 | -0.9 | |
| | baz=340 | | | | | | | | |
| Q39A | **Willow Grove F** | 89.16 | 7 | P | | P | 15 34 51.5 | -1.1 | |
| | baz=354 | | | | | | | | |
| HEC | **Hector,Ludlow** | 89.17 | 26 | P | | P | 15 34 52.3 | -0.7 | |
| | baz=341 | | | | | | | | |
| Q38A | **Cooks Store, C** | 89.19 | 7 | P | | P | 15 34 51.5 | -1.3 | |
| | baz=354,SNR=23 | | | | | | | | |
| Q37A | **Longview Farm,** | 89.21 | 8 | P | | P | 15 34 51.7 | -1.2 | |
| | baz=354,SNR=10 | | | | | | | | |
| MWC | **Mount Wilson** | 89.26 | 28 | eP | | P | 15 34 52.7 | -0.8 | |
| MWC | | | | pmax | | pmax | | | |
| | comp=Z,121nm,1.2s | | | | | | | | |
| MWC | **Mount Wilson** | 89.26 | 28 | eP | | P | 15 34 52.7 | -0.8 | |
| | comp=Z,121nm,1.2s | | | | | | | | |
| LDFC | **Landfair** | 89.27 | 25 | eP | | P | 15 34 52.2 | -1.2 | |
| | comp=Z,113nm,1.3s | | | | | | | | |
| PASC | **Pasadena Art C** | 89.27 | 28 | eP | | P | 15 34 52.6 | -0.7 | |
| | comp=Z,99nm,1.3s | | | | | | | | |
| Q40A | **Laux Farm, Aux** | 89.27 | 6 | P | | P | 15 34 51.7 | -1.5 | |
| | baz=355,SNR=19 | | | | | | | | |
| BLO | **Bloomington** | 89.34 | 2 | eP | | P | 15 34 52.8 | -0.8 | |
| BLO | | | | pmax | | pmax | | | |
| | comp=Z,135nm,0.9s | | | | | | | | |
| BLO | **Bloomington** | 89.34 | 2 | eP | | P | 15 34 52.8 | -0.8 | |
| | comp=Z,135nm,0.9s | | | | | | | | |
| BFSC | **Mount Baldy Ra** | 89.36 | 27 | P | | P | 15 34 53.1 | -0.8 | |
| | baz=340,SNR=6.1 | | | | | | | | |
| Q41A | **Truxton** | 89.37 | 6 | P | | P | 15 34 52.2 | -1.5 | |
| | baz=356,SNR=27 | | | | | | | | |
| GMRC | **Granite Mounta** | 89.40 | 26 | P | | P | 15 34 53.4 | -0.7 | |
| | baz=341,SNR=6.6 | | | | | | | | |
| Q42A | **Golden Eagle** | 89.45 | 5 | P | | P | 15 34 52.7 | -1.3 | |
| | baz=356,SNR=20 | | | | | | | | |
| Q43A | **New Douglas** | 89.46 | 4 | P | | P | 15 34 53.1 | -1.0 | |
| | baz=356,SNR=15 | | | | | | | | |
| Q46A | **CEJHS Indians,** | 89.47 | 3 | P | | P | 15 34 53.1 | -1.0 | |
| | baz=358,SNR=8.2 | | | | | | | | |
| R34A | **Isabella, Hill** | 89.50 | 10 | P | | P | 15 34 53.1 | -1.2 | |
| | baz=352,SNR=12 | | | | | | | | |
| Q44A | **Meyer Farm, Va** | 89.53 | 4 | P | | P | 15 34 53.4 | -1.0 | |
| | baz=357,SNR=12 | | | | | | | | |
| BBRC | **Big Bear Solar** | 89.55 | 27 | P | | P | 15 34 53.8 | -1.1 | |
| | baz=340 | | | | | | | | |
| W13A | **Hualapai Mount** | 89.56 | 24 | eP | | P | 15 34 53.7 | -1.2 | |
| | comp=Z,86nm,1.5s | | | | | | | | |
| Q45A | **Warren Harvey,** | 89.57 | 3 | P | | P | 15 34 53.4 | -1.2 | |
| | baz=358,SNR=21 | | | | | | | | |
| Q47A | **Bedord North L** | 89.58 | 2 | P | | P | 15 34 53.6 | -1.1 | |
| | baz=359,SNR=11 | | | | | | | | |
| R35A | **Emporia Munici** | 89.59 | 10 | P | | P | 15 34 53.7 | -1.0 | |
| | baz=353 | | | | | | | | |
| T25A | **Trinidad** | 89.62 | 16 | P | | P | 15 34 53.9 | -1.2 | |
| | baz=348,SNR=11 | | | | | | | | |
| T25A | **Trinidad** | 89.62 | 16 | eP | | P | 15 34 53.9 | -1.2 | |
| | comp=Z,290nm,1.8s | | | | | | | | |
| R36A | **Gordon, Harris** | 89.66 | 9 | P | | P | 15 34 53.4 | -1.6 | |
| | baz=353,SNR=17 | | | | | | | | |
| NEE2 | **Needles Airpor** | 89.69 | 25 | P | | P | 15 34 54.4 | -0.8 | |
| | baz=342 | | | | | | | | |
| OLIL | **Olney** | 89.74 | 3 | eP | | P | 15 34 54.3 | -1.1 | |
| | comp=Z,467nm,1.1s | | | | | | | | |
| WUAZ | **Wupatki** | 89.78 | 22 | P | | P | 15 34 55.7 | -0.2 | |
| | baz=344,SNR=19 | | | | | | | | |
| WUAZ | **Wupatki** | 89.78 | 22 | eP | | P | 15 34 55.5 | -0.4 | |
| | comp=Z,96nm,1.1s | | | | | | | | |
| WUAZ | | | | LR | | LR | | | |
| | comp=Z,22µm,20.0s | | | | | | | | |
| R39A | **Chumby, Stover** | 89.88 | 7 | P | | P | 15 34 54.9 | -1.2 | |
| | baz=354,SNR=85 | | | | | | | | |
| CIS | **Catalina Islan** | 89.92 | 28 | P | | P | 15 34 54.5 | -1.9 | |
| | baz=340 | | | | | | | | |
| R38A | **Fenwick Farm,** | 89.94 | 8 | P | | P | 15 34 54.7 | -1.6 | |
| | baz=354,SNR=25 | | | | | | | | |
| R40A | **Maddies Statio** | 89.96 | 6 | P | | P | 15 34 54.8 | -1.6 | |
| | baz=355,SNR=27 | | | | | | | | |
| R41A | **Rosebud** | 90.01 | 6 | P | | P | 15 34 55.3 | -1.3 | |
| | baz=356,SNR=31 | | | | | | | | |
| BELC | **Belle Mtn. Jos** | 90.05 | 26 | P | | P | 15 34 56.1 | -1.0 | |
| | baz=341,SNR=17 | | | | | | | | |
| R42A | **Luebbering** | 90.06 | 5 | P | | P | 15 34 55.6 | -1.3 | |
| | baz=356,SNR=19 | | | | | | | | |
| MURC | **Murrieta** | 90.09 | 27 | P | | P | 15 34 56.3 | -0.9 | |
| | baz=340 | | | | | | | | |
| S34A | **Willow Spring** | 90.11 | 10 | P | | P | 15 34 55.7 | -1.5 | |
| | baz=352,SNR=12 | | | | | | | | |
| R43A | **Red Bud** | 90.11 | 5 | P | | P | 15 34 56.0 | -1.2 | |
| | baz=356,SNR=17 | | | | | | | | |
| R48A | **Northridge Ran** | 90.12 | 1 | P | | P | 15 34 56.3 | -0.9 | |
| | baz=359,SNR=6.1 | | | | | | | | |
| IRM | **Iron Mountain** | 90.13 | 25 | P | | P | 15 34 57.1 | -0.3 | |
| | baz=341,SNR=16 | | | | | | | | |
| CBN | **Corbin Frederi** | 90.14 | 355 | PFAKE | | | 15 35 10.0 | +13 | |
| CBN | | | | LR | | LR | | | |
| | comp=Z,34µm,20.0s | | | | | | | | |
| R45A | **Skylar, Fairfi** | 90.17 | 3 | P | | P | 15 34 56.2 | -1.2 | |
| | baz=357,SNR=14 | | | | | | | | |
| R44A | **Waltonville** | 90.18 | 4 | P | | P | 15 34 56.7 | -0.7 | |
| | baz=357,SNR=24 | | | | | | | | |
| S35A | **Otter Creek Ra** | 90.21 | 10 | P | | P | 15 34 56.5 | -1.2 | |
| | baz=352,SNR=13 | | | | | | | | |
| R47A | **Wooly Knot Far** | 90.22 | 2 | P | | P | 15 34 56.6 | -1.1 | |
| | baz=358,SNR=8.4 | | | | | | | | |
| S36A | **Lake Cedric, C** | 90.24 | 9 | P | | P | 15 34 56.3 | -1.5 | |
| | baz=353,SNR=16 | | | | | | | | |
| PDMCI | **Parker Dam,Lak** | 90.25 | 25 | P | | P | 15 34 57.0 | -0.8 | |
| | baz=342 | | | | | | | | |
| CCM | **Cathedral Cave** | 90.26 | 6 | P | | P | 15 34 56.3 | -1.6 | |
| | baz=356 | | | | | | | | |
| CCM | **Cathedral Cave** | 90.26 | 6 | eP | | P | 15 34 56.1 | -1.7 | |
| CCM | | | | pmax | | pmax | | | |
| | comp=Z,193nm,1.3s | | | | | | | | |
| CCM | **Cathedral Cave** | 90.26 | 6 | eP | | P | 15 34 56.1 | -1.7 | |
| | comp=Z,193nm,1.3s | | | | | | | | |
| R46

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Y12C | **Blythe** | 90.68 | 25 | *e*P | | P | 15 34 58.7 | -1.2 | |
| | comp=Z,70nm,1.3s | | | | | | | | |
| S41A | **Jillco Farms,** | 90.69 | 6 | P | | P | 15 34 58.7 | -1.2 | |
| | baz=355,SNR=39 | | | | | | | | |
| SIUC | **Southern Illin** | 90.71 | 4 | *e*P | | P | 15 34 58.7 | -1.2 | |
| | comp=Z,689nm,1.8s | | | | | | | | |
| S44A | **Carbondale** | 90.73 | 4 | P | | P | 15 34 58.8 | -1.2 | |
| | baz=357,SNR=9.6 | | | | | | | | |
| EIDS | **Eidsvold** | 90.75 | 132 | *e*P | | P | 15 34 59.2 | -0.8 | |
| | comp=Z,91nm,1.5s | | | | | | | | |
| T34A | **McClaskey Farm** | 90.77 | 10 | P | | P | 15 34 58.9 | -1.3 | |
| | baz=352,SNR=12 | | | | | | | | |
| S45A | **Carrier Mills** | 90.77 | 4 | P | | P | 15 34 59.2 | -1.1 | |
| | baz=357 | | | | | | | | |
| 109C | **Camp Elliot, M** | 90.78 | 27 | P | | P | 15 34 59.4 | -1.0 | |
| | baz=340 | | | | | | | | |
| S46A | **Don Dixon Farm** | 90.80 | 3 | P | | P | 15 34 59.0 | -1.3 | |
| | baz=358,SNR=7.6 | | | | | | | | |
| S43A | **Fulton Ridge,** | 90.81 | 5 | P | | P | 15 34 59.1 | -1.4 | |
| | baz=356,SNR=6.8 | | | | | | | | |
| X16A | **Lo Mia Camp, P** | 90.81 | 22 | *e*P | | P | 15 34 58.6 | -2.1 | |
| | comp=Z,46nm,1.1s | | | | | | | | |
| S48A | **Wiedeman Farm,** | 90.86 | 2 | P | | P | 15 34 59.7 | -0.9 | |
| | baz=359,SNR=12 | | | | | | | | |
| T36A | **Boggs Farm, Ca** | 90.87 | 9 | P | | P | 15 34 59.4 | -1.3 | |
| | baz=353,SNR=20 | | | | | | | | |
| Y14A | **Wickenburg** | 90.89 | 24 | *e*P | | P | 15 35 00.3 | -0.6 | |
| | comp=Z,226nm,1.4s | | | | | | | | |
| T37A | **Cheneyville 18** | 90.90 | 9 | P | | P | 15 34 59.2 | -1.6 | |
| | baz=353,SNR=18 | | | | | | | | |
| T35A | **Sooner Cattle** | 90.95 | 10 | P | | P | 15 35 00.1 | -1.0 | |
| | baz=352,SNR=20 | | | | | | | | |
| MONP2 | **Monument Peak** | 90.97 | 27 | P | | P | 15 34 59.9 | -1.7 | |
| | baz=341,SNR=5.6 | | | | | | | | |
| T38A | **Diamond** | 91.05 | 8 | P | | P | 15 34 59.9 | -1.6 | |
| | baz=354,SNR=7.2 | | | | | | | | |
| X18A | **Snowflake** | 91.05 | 21 | *e*P | | P | 15 35 01.4 | -0.4 | |
| | comp=Z,307nm,2.0s | | | | | | | | |
| T40A | **Mansfield** | 91.08 | 7 | P | | P | 15 35 00.0 | -1.7 | |
| | baz=355,SNR=7.8 | | | | | | | | |
| SWSC | **Sam W. Stewart** | 91.10 | 26 | P | | P | 15 35 01.0 | -0.8 | |
| | baz=341 | | | | | | | | |
| BAR | **Barrett** | 91.10 | 27 | *e*P | | P | 15 35 01.3 | -0.6 | |
| | comp=Z,77nm,1.3s | | | | | | | | |
| T39A | **Clever** | 91.14 | 7 | P | | P | 15 35 00.6 | -1.3 | |
| | baz=354,SNR=18 | | | | | | | | |
| T41A | **Mountain View** | 91.23 | 6 | P | | P | 15 35 01.2 | -1.2 | |
| | baz=355,SNR=30 | | | | | | | | |
| GLA | **Glamis** | 91.26 | 25 | P | | P | 15 35 01.9 | -0.7 | |
| | baz=342,SNR=5.4 | | | | | | | | |
| GLA | **Glamis** | 91.26 | 25 | *e*P | | P | 15 35 01.5 | -1.2 | |
| GLA | | | | pmax | | pmax | | | |
| | comp=Z,53nm,1.1s | | | | | | | | |
| GLA | **Glamis** | 91.26 | 25 | *e*P | | P | 15 35 01.4 | -1.2 | |
| | comp=Z,53nm,1.1s | | | | | | | | |
| BLA | **Blacksburg** | 91.27 | 357 | P | | P | 15 35 00.8 | -1.8 | |
| BLA | | | | pmax | | pmax | | | |
| | comp=Z,132nm,1.6s | | | | | | | | |
| BLA | | | | MLR | | MLR | | | |
| | comp=Z,42µm,20.0s | | | | | | | | |
| BLA | **Blacksburg** | 91.27 | 357 | P | | P | 15 35 00.8 | -1.8 | |
| | comp=Z,132nm,1.6s | | | | | | | | |
| BLA | | | | LR | | LR | | | |
| | comp=Z,42µm,20.0s | | | | | | | | |
| T43A | **Greenville** | 91.28 | 5 | P | | P | 15 35 01.4 | -1.2 | |
| | baz=356,SNR=14 | | | | | | | | |
| IKP | **In-Ko-Pah, Jac** | 91.29 | 27 | P | | P | 15 35 02.1 | -0.8 | |
| | baz=341 | | | | | | | | |
| T42A | **Van Buren** | 91.29 | 6 | P | | P | 15 35 01.5 | -1.2 | |
| | baz=356,SNR=23 | | | | | | | | |
| T44A | **Benton** | 91.32 | 4 | P | | P | 15 35 01.5 | -1.2 | |
| | baz=357 | | | | | | | | |
| BBOO | **Buckleboo** | 91.33 | 147 | *e*P | | P | 15 35 00.9 | -1.6 | |
| | comp=Z,79nm,0.9s | | | | | | | | |
| ANMO | **Albuquerque** | 91.38 | 18 | P | | P | 15 35 02.2 | -1.2 | |
| | baz=346 | | | | | | | | |
| ANMO | **Albuquerque** | 91.38 | 18⇑ | *i*P | | P | 15 35 03.5 | +0.1 | |
| ANMO | | | | pmax | | pmax | | | |
| | comp=Z,87nm,1.2s | | | | | | | | |
| ANMO | | | | MLR | | MLR | | | |
| | comp=Z,42µm,19.0s | | | | | | | | |
| ANMO | **Albuquerque** | 91.38 | 18 | *e*P | | P | 15 35 02.8 | -0.5 | |
| | comp=Z,254nm,1.4s | | | | | | | | |
| ANMO | | | | LR | | LR | | | |
| | comp=Z,43µm,20.0s | | | | | | | | |
| T48A | **Bowling Green** | 91.40 | 2 | P | | P | 15 35 01.9 | -1.2 | |
| | baz=359,SNR=9.2 | | | | | | | | |
| T45A | **Paducah** | 91.42 | 4 | P | | P | 15 35 01.9 | -1.3 | |
| | baz=357 | | | | | | | | |
| T46A | **Princeton** | 91.43 | 3 | P | | P | 15 35 02.0 | -1.3 | |
| | baz=358 | | | | | | | | |
| DBIC | **Dimbokro** | 91.44 | 283 | P | | P | 15 35 01.8 | -1.9 | |
| | comp=Z,17nm,1.0s,baz=360,slow=4.3,SNR=11 | | | | | | | | |
| DBIC | **Dimbokro** | 91.44 | 283 | *e*P | | P | 15 35 01.7 | -1.9 | |
| | comp=Z,132nm,1.3s | | | | | | | | |
| U35A | **Pawnee** | 91.46 | 10 | P | | P | 15 35 02.5 | -1.0 | |
| | baz=352,SNR=6.9 | | | | | | | | |
| U35A | **Pawnee** | 91.46 | 10 | *e*P | | P | 15 35 02.9 | -0.5 | |
| | comp=Z,362nm,1.4s | | | | | | | | |
| T47A | **Sharon Grove** | 91.51 | 2 | P | | P | 15 35 02.3 | -1.4 | |
| | baz=358,SNR=6.9 | | | | | | | | |
| U36A | **Oologah** | 91.55 | 9 | P | | P | 15 35 02.5 | -1.3 | |
| | baz=353,SNR=5.7 | | | | | | | | |
| TIC | **Toumodi** | 91.56 | 283 | *e*PKIKP | | P | 15 35 01.7 | -2.5 | |
| PBMO | **Poplar Bluff** | 91.58 | 5 | *e*P | | P | 15 35 03.1 | -0.9 | |
| | comp=Z,462nm,2.0s | | | | | | | | |
| U37A | **Salina** | 91.59 | 9 | P | | P | 15 35 02.6 | -1.5 | |
| | baz=353,SNR=12 | | | | | | | | |
| KIC | **Kosan Boka** | 91.62 | 282 | *e*PKIKP | | P | 15 35 01.7 | -2.8 | |
| | comp=Z,307nm,1.2s | | | | | | | | |
| U38A | **Gravette** | 91.63 | 8 | P | | P | 15 35 02.6 | -1.6 | |
| | baz=354,SNR=9.0 | | | | | | | | |
| U39A | **Green Forest** | 91.76 | 8 | P | | P | 15 35 03.5 | -1.4 | |
| | baz=354,SNR=18 | | | | | | | | |
| LAZ | **Ladron** | 91.77 | 19 | *e*P | | P | 15 35 05.1 | -0.1 | |
| 113A | **Mohawk Valley,** | 91.81 | 25 | *e*P | | P | 15 35 04.3 | -0.8 | |
| | comp=Z,78nm,1.6s | | | | | | | | |
| HHAR | **Hobbs** | 91.83 | 8 | *e*P | | P | 15 35 03.7 | -1.4 | |
| | comp=Z,203nm,1.4s | | | | | | | | |
| U40A | **Yellville** | 91.84 | 7 | P | | P | 15 35 03.9 | -1.4 | |
| | baz=355,SNR=7.8 | | | | | | | | |
| U44A | **Portageville** | 91.89 | 5 | P | | P | 15 35 04.4 | -1.1 | |
| | baz=356 | | | | | | | | |
| LIC | **Lamto** | 91.90 | 282 | *e*PKIKP | | P | 15 35 02.2 | -3.6 | |
| | comp=Z,238nm,1.3s | | | | | | | | |
| U41A | **Viola** | 91.92 | 6 | P | | P | 15 35 04.5 | -1.1 | |
| | baz=355,SNR=14 | | | | | | | | |
| LPM | **Los Pinos Moun** | 91.96 | 19 | *e*P | | P | 15 35 05.1 | -0.9 | |
| U42A | **Revenden** | 91.96 | 6 | P | | P | 15 35 04.4 | -1.3 | |
| | baz=356,SNR=6.9 | | | | | | | | |
| U43A | **Rector** | 91.99 | 5 | P | | P | 15 35 04.5 | -1.4 | |
| | baz=356 | | | | | | | | |
| U48A | **Cassie Pea, Po** | 92.00 | 2 | P | | P | 15 35 04.7 | -1.2 | |
| | baz=358 | | | | | | | | |
| TUL1 | **Leonard** | 92.02 | 10 | P | | P | 15 35 05.2 | -0.9 | |
| | baz=353 | | | | | | | | |
| TUL1 | **Leonard** | 92.02 | 10 | *e*P | | P | 15 35 04.6 | -1.4 | |
| | comp=Z,408nm,1.6s | | | | | | | | |
| U47A | **Clarksville** | 92.05 | 3 | P | | P | 15 35 05.2 | -1.0 | |
| | baz=358 | | | | | | | | |
| V35A | **Meyer Ranch, C** | 92.05 | 10 | P | | P | 15 35 05.3 | -0.9 | |
| | baz=352,SNR=7.0 | | | | | | | | |
| V35A | **Meyer Ranch, C** | 92.05 | 10 | *e*P | | P | 15 35 04.8 | -1.4 | |
| | comp=Z,442nm,1.5s | | | | | | | | |
| U44B | **Burton Farm, H** | 92.07 | 4 | P | | P | 15 35 05.0 | -1.2 | |
| | baz=357 | | | | | | | | |
| U45A | **Rockin P Farm,** | 92.09 | 4 | P | | P | 15 35 05.2 | -1.2 | |
| | baz=357 | | | | | | | | |
| U46A | **Springville** | 92.10 | 3 | P | | P | 15 35 05.2 | -1.2 | |
| | baz=358 | | | | | | | | |
| V37A | **Hulbert** | 92.11 | 9 | P | | P | 15 35 05.0 | -1.5 | |
| | baz=353,SNR=14 | | | | | | | | |
| BNM | **Barren Site** | 92.11 | 19 | *e*P | | P | 15 35 05.9 | -1.0 | |
| V36A | **Jenks** | 92.13 | 10 | P | | P | 15 35 04.9 | -1.6 | |
| | baz=353,SNR=7.1 | | | | | | | | |
| V36A | **Jenks** | 92.13 | 10 | *e*P | | P | 15 35 05.3 | -1.2 | |
| | comp=Z,110nm,1.1s | | | | | | | | |
| Y22D | **IRIS PASSCAL I** | 92.13 | 19 | P | | P | 15 35 05.4 | -1.4 | |
| | baz=346 | | | | | | | | |
| Y22E | **IRIS PASSCAL I** | 92.13 | 19 | P | | P | 15 35 05.4 | -1.4 | |
| | baz=346 | | | | | | | | |
| V38A | **Canehill** | 92.20 | 8 | P | | P | 15 35 04.8 | -2.1 | |
| | baz=354,SNR=6.2 | | | | | | | | |
| AMTX | **Amarillo** | 92.27 | 14 | P | | P | 15 35 06.2 | -1.2 | |
| | baz=349 | | | | | | | | |
| AMTX | **Amarillo** | 92.27 | 14 | *e*P | | P | 15 35 06.3 | -1.0 | |
| | comp=Z,385nm,1.9s | | | | | | | | |
| V39A | **Pettigrew** | 92.29 | 8 | P | | P | 15 35 05.5 | -1.9 | |
| | baz=354,SNR=9.4 | | | | | | | | |
| WVT | **Waverly** | 92.34 | 3 | P | | P | 15 35 06.4 | -1.0 | |
| | baz=358 | | | | | | | | |
| WVT | **Waverly** | 92.34 | 3 | *e*P | | P | 15 35 06.5 | -1.0 | |
| WVT | | | | pmax | | pmax | | | |
| | comp=Z,177nm,1.5s | | | | | | | | |
| WVT | **Waverly** | 92.34 | 3 | *e*P | | P | 15 35 06.5 | -1.0 | |
| | comp=Z,177nm,1.5s | | | | | | | | |
| V40A | **Witts Springs** | 92.39 | 7 | P | | P | 15 35 06.1 | -1.7 | |
| | baz=355,SNR=10 | | | | | | | | |
| V41A | **Mountainview** | 92.46 | 7 | P | | P | 15 35 06.6 | -1.5 | |
| | baz=355,SNR=10 | | | | | | | | |
| STKA | **Stephens Creek** | 92.46 | 143 | P | | P | 15 35 06.1 | -1.7 | |
| | comp=Z,10nm,0.8s,baz=324,slow=7.3,SNR=14 | | | | | | | | |
| STKA | | | | LR | | LR | 16 20 32.5 | | |
| | comp=Z,26µm,20.6s,baz=310,slow=38 | | | | | | | | |
| STKA | **Stephens Creek** | 92.46 | 143 | *e*P | | P | 15 35 06.1 | -1.7 | |
| | comp=Z,8.4nm,0.9s | | | | | | | | |
| FUNA | **Funafuti** | 92.47 | 101 | PFAKE | | | | | |
| FUNA | | | | LR | | LR | 15 35 20.0 | +12 | |
| | comp=Z,14µm,20.0s | | | | | | | | |
| V42A | **Cord** | 92.49 | 6 | P | | P | 15 35 06.9 | -1.3 | |
| | baz=356,SNR=7.6 | | | | | | | | |
| V44A | **Blytheville** | 92.56 | 5 | P | | P | 15 35 07.4 | -1.1 | |
| | baz=356 | | | | | | | | |
| V43A | **Jonesboro** | 92.56 | 5 | P | | P | 15 35 06.9 | -1.7 | |
| | baz=356 | | | | | | | | |
| W35A | **Tecumseh** | 92.65 | 11 | P | | P | 15 35 08.3 | -0.7 | |
| | baz=352,SNR=7.2 | | | | | | | | |
| W35A | **Tecumseh** | 92.65 | 11 | *e*P | | P | 15 35 08.1 | -0.8 | |
| | comp=Z,167nm,1.4s | | | | | | | | |
| V45A | **Humboldt** | 92.69 | 4 | P | | P | 15 35 07.6 | -1.5 | |
| | baz=357 | | | | | | | | |
| W36A | **Wetumka** | 92.74 | 10 | P | | P | 15 35 08.2 | -1.2 | |
| | baz=352,SNR=9.6 | | | | | | | | |
| W36A | **Wetumka** | 92.74 | 10 | *e*P | | P | 15 35 08.1 | -1.3 | |
| | comp=Z,697nm,2.0s | | | | | | | | |
| V48A | **Smith Brothers** | 92.76 | 2 | P | | P | 15 35 08.1 | -1.4 | |
| | baz=358 | | | | | | | | |
| W37B | **Quinton** | 92.82 | 9 | P | | P | 15 35 08.7 | -1.1 | |
| | baz=353 | | | | | | | | |
| W37B | **Quinton** | 92.82 | 9 | *e*P | | P | 15 35 08.7 | -1.1 | |
| | comp=Z,68nm,1.1s | | | | | | | | |
| 214A | **Organ Pipe Nat** | 92.82 | 24 | P | | P | 15 35 09.1 | -0.8 | |
| | baz=343 | | | | | | | | |
| 214A | **Organ Pipe Nat** | 92.82 | 24 | *e*P | | P | 15 35 09.1 | -0.8 | |
| | comp=Z,233nm,1.3s | | | | | | | | |
| WMOK | **Wichita Mounta** | 92.83 | 12 | P | | P | 15 35 08.9 | -0.9 | |
| | baz=351,SNR=20 | | | | | | | | |
| WMOK | **Wichita Mounta** | 92.83 | 12 | *e*P | | P | 15 35 08.7 | -1.2 | |
| WMOK | | | | pmax | | pmax | | | |
| | comp=Z,60nm,0.9s | | | | | | | | |
| WMOK | | | | MLR | | MLR | | | |
| | comp=Z,42µm,22.0s | | | | | | | | |
| WMOK | **Wichita Mounta** | 92.83 | 12 | *e*P | | P | 15 35 08.7 | -1.2 | |
| | comp=Z,60nm,0.9s | | | | | | | | |
| WMOK | | | | LR | | LR | | | |
| | comp=Z,42µm,22.0s | | | | | | | | |
| W39A | **Magazine** | 92.92 | 8 | P | | P | 15 35 08.4 | -1.8 | |
| | baz=354,SNR=6.3 | | | | | | | | |
| WHAR | **Wooly Hollow** | 92.94 | 7 | *e*P | | P | 15 35 08.7 | -1.6 | |
| | comp=Z,208nm,1.3s | | | | | | | | |
| W38A | **Poteau** | 92.97 | 9 | P | | P | 15 35 09.2 | -1.2 | |
| | baz=354 | | | | | | | | |
| W40A | **Ferguson Farm,** | 92.98 | 7 | P | | P | 15 35 08.6 | -1.9 | |
| | baz=354,SNR=5.2 | | | | | | | | |
| W40A | **Ferguson Farm,** | 92.98 | 7 | *e*P | | P | 15 35 08.9 | -1.5 | |
| | comp=Z,75nm,0.9s | | | | | | | | |
| TUC | **Tucson** | 92.98 | 22 | P | | P | 15 35 09.0 | -1.7 | |
| | baz=344 | | | | | | | | |
| TUC | **Tucson** | 92.98 | 22 | *e*P | | P | 15 35 09.2 | -1.5 | |
| TUC | | | | pmax | | pmax | | | |
| | comp=Z,28nm,1.2s | | | | | | | | |
| TUC | | | | MLR | | MLR | | | |
| | comp=Z,31µm,20.0s | | | | | | | | |
| TUC | **Tucson** | 92.98 | 22 | *e*P | | P | 15 35 09.2 | -1.5 | |
| | comp=Z,28nm,1.2s | | | | | | | | |
| TUC | | | | LR | | LR | | | |
| | comp=Z,31µm,20.0s | | | | | | | | |
| X301 | **Greenbrier Sit** | 92.98 | 7 | *e*P | | P | 15 35 09.4 | -1.0 | |
| | comp=Z,187nm,1.2s | | | | | | | | |
| MSTX | **Muleshoe** | 92.99 | 16 | P | | P | 15 35 09.6 | -1.1 | |
| | baz=349,SNR=6.1 | | | | | | | | |
| MSTX | **Muleshoe** | 92.99 | 16 | *e*P | | P | 15 35 08.6 | -2.1 | |
| | comp=Z,160nm,1.4s | | | | | | | | |
| W42A | **Bald Knob** | 93.01 | 6 | P | | P | 15 35 09.3 | -1.3 | |
| | baz=355 | | | | | | | | |
| W41B | **Gary Mavity, V** | 93.06 | 7 | P | | P | 15 35 09.8 | -1.0 | |
| | baz=355,SNR=6.9 | | | | | | | | |
| CPCT | **Cooper Cave** | 93.08 | 0 | *e*P | | P | 15 35 09.2 | -1.8 | |
| | comp=Z,130nm,1.7s | | | | | | | | |
| CNNC | **Cliffs of the** | 93.13 | 355 | PFAKE | | | | | |
| CNNC | | | | LR | | LR | 15 35 20.0 | +8.9 | |
| | comp=Z,41µm,19.0s | | | | | | | | |
| W43A | **Forest City** | 93.25 | 5 | P | | P | 15 35 10.2 | -1.5 | |
| | baz=356 | | | | | | | | |
| W45A | **Hickory Valley** | 93.26 | 4 | P | | P | 15 35 10.6 | -1.2 | |
| | baz=357 | | | | | | | | |
| X36A | **Centrahoma** | 93.28 | 10 | P | | P | 15 35 10.7 | -1.2 | |
| | baz=352,SNR=7.6 | | | | | | | | |
| SWET | **Sewanee** | 93.30 | 2 | *e*P | | P | 15 35 10.2 | -1.8 | |
| | comp=Z,123nm,1.6s | | | | | | | | |
| X38A | **Whitesboro** | 93.34 | 9 | P | | P | 15 35 10.7 | -1.5 | |
| | baz=353,SNR=6.6 | | | | | | | | |
| KMSC | **Kings Mountain** | 93.36 | 358 | P | | P | 15 35 10.7 | -1.6 | |
| | baz=1.7 | | | | | | | | |
| X37A | **Clayton** | 93.37 | 9 | P | | P | 15 35 10.8 | -1.5 | |
| | baz=353 | | | | | | | | |
| X35A | **Drake** | 93.38 | 11 | P | | P | 15 35 11.0 | -1.3 | |
| | baz=352,SNR=6.3 | | | | | | | | |
| X35A | **Drake** | 93.38 | 11 | *e*P | | P | 15 35 11.1 | -1.3 | |
| | comp=Z,108nm,0.9s | | | | | | | | |
| 121A | **Cookes Peak, D** | 93.44 | 20 | P | | P | 15 35 11.8 | -1.2 | |
| | baz=346,SNR=5.4 | | | | | | | | |
| 121A | **Cookes Peak, D** | 93.44 | 20 | *e*P | | P | 15 35 12.4 | -0.5 | |
| | comp=Z,55nm,1.1s | | | | | | | | |
| UALR | **University of** | 93.45 | 7 | *e*P | | P | 15 35 10.5 | -2.2 | |
| | comp=Z,87nm,1.1s | | | | | | | | |
| PLAL | **Pickwick Lake** | 93.48 | 3 | *e*P | | P | 15 35 10.8 | -2.0 | |
| | comp=Z,56nm,1.1s | | | | | | | | |
| X39A | **Fountain Ranch** | 93.57 | 8 | P | | P | 15 35 11.9 | -1.3 | |
| | baz=354 | | | | | | | | |
| MIAR | **Mount Ida** | 93.58 | 8 | P | | P | 15 35 11.9 | -1.3 | |
| | baz=354 | | | | | | | | |
| MIAR | **Mount Ida** | 93.58 | 8 | *e*P | | P | 15 35 11.7 | -1.5 | |
| MIAR | | | | pmax | | pmax | | | |
| | comp=Z,119nm,1.5s | | | | | | | | |
| MIAR | | | | MLR | | MLR | | | |
| | comp=Z,41µm,20.0s | | | | | | | | |
| MIAR | **Mount Ida** | 93.58 | 8 | *e*P | | P | 15 35 11.7 | -1.5 | |
| | comp=Z,119nm,1.5s | | | | | | | | |
| MIAR | | | | LR | | LR | | | |
| | comp=Z,41µm,20.0s | | | | | | | | |
| X40A | **Basin Creek Fa** | 93.70 | 7 | P | | P | 15 35 12.2 | -1.6 | |
| | baz=355,SNR=9.7 | | | | | | | | |
| X41A | **Kaden, Bauxite** | 93.72 | 7 | P | | P | 15 35 12.6 | -1.3 | |
| | baz=355 | | | | | | | | |
| X42A | **Stuttgart** | 93.72 | 6 | P | | P | 15 35 12.9 | -1.0 | |
| | baz=355 | | | | | | | | |
| X43A | **Marvell** | 93.80 | 6 | P | | P | 15 35 12.9 | -1.4 | |
| | baz=356 | | | | | | | | |
| Y35A | **Marietta** | 93.86 | 11 | P | | P | 15 35 13.7 | -0.9 | |
| | baz=352 | | | | | | | | |
| X44A | **Crenshaw** | 93.86 | 5 | P | | P | 15 35 13.1 | -1.4 | |
| | baz=356 | | | | | | | | |
| X46A | **Booneville** | 93.88 | 4 | P | | P | 15 35 13.7 | -0.9 | |
| | baz=357 | | | | | | | | |
| OXF | **Oxford** | 93.89 | 4 | P | | P | 15 35 13.2 | -1.4 | |
| | baz=357 | | | | | | | | |
| OXF | **Oxford** | 93.89 | 4 | *e*P | | P | 15 35 13.7 | -1.0 | |
| OXF | | | | pmax | | pmax | | | |
| | comp=Z,113nm,1.1s | | | | | | | | |
| OXF | **Oxford** | 93.89 | 4 | *e*P | | P | 15 35 13.7 | -1.0 | |
| | comp=Z,113nm,1.1s | | | | | | | | |
| Y37A | **Hugo** | 93.95 | 10 | P | | P | 15 35 13.9 | -1.0 | |
| | baz=353 | | | | | | | | |
| X47A | **Russellville** | 93.95 | 3 | P | | P | 15 35 13.2 | -1.7 | |
| | baz=358 | | | | | | | | |
| Y36A | **Durant** | 93.96 | 10 | P | | P | 15 35 13.8 | -1.2 | |
| | baz=352 | | | | | | | | |
| X45A | **UM Field Stati** | 93.98 | 4 | P | | P | 15 35 13.9 | -1.2 | |
| | baz=357 | | | | | | | | |
| X49A | **Woodville** | 94.00 | 2 | P | | P | 15 35 13.7 | -1.5 | |
| | baz=359 | | | | | | | | |
| X48A | **Hartselle** | 94.04 | 2 | P | | P | 15 35 14.3 | -1.1 | |
| | baz=358 | | | | | | | | |
| X50A | **Fort Payne** | 94.06 | 1 | P | | P | 15 35 14.4 | -1.1 | |
| | baz=359 | | | | | | | | |
| Y38A | **Idabel** | 94.09 | 9 | P | | P | 15 35 14.6 | -1.0 | |
| | baz=353 | | | | | | | | |
| Y40A | **Okolona** | 94.13 | 8 | P | | P | 15 35 15.0 | -0.8 | |
| | baz=354 | | | | | | | | |
| Y39A | **Lockesburg** | 94.14 | 8 | P | | P | 15 35 14.6 | -1.2 | |
| | baz=354 | | | | | | | | |
| 319A | **Douglas** | 94.23 | 21 | *e*P | | P | 15 35 14.9 | -1.5 | |
| | comp=Z,194nm,1.9s | | | | | | | | |
| Y41A | **Eaglette Beard** | 94.32 | 7 | P | | P | 15 35 15.4 | -1.2 | |
| | baz=355 | | | | | | | | |
| Y44A | **Strider, Charl** | 94.40 | 5 | P | | P | 15 35 15.6 | -1.4 | |
| | baz=356 | | | | | | | | |
| Y43A | **Makayla and Ka** | 94.40 | 6 | P | | P | 15 35 16.2 | -0.8 | |
| | baz=356 | | | | | | | | |
| Y42A | **Garnett, Star** | 94.42 | 6 | P | | P | 15 35 15.9 | -1.2 | |
| | baz=355 | | | | | | | | |
| Y45A | **Yeager Farm, C** | 94.53 | 5 | P | | P | 15 35 16.3 | -1.3 | |
| | baz=357 | | | | | | | | |
| Y46A | **Houston** | 94.54 | 4 | P | | P | 15 35 15.9 | -1.8 | |
| | baz=357,SNR=8.3 | | | | | | | | |
| Z36A | **Blue Ridge** | 94.56 | 10 | P | | P | 15 35 16.7 | -1.0 | |
| | baz=352,SNR=6.4 | | | | | | | | |
| Y47A | **UCPARC, Winfie** | 94.56 | 3 | P | | P | 15 35 16.3 | -1.5 | |
| | baz=358 | | | | | | | | |
| Y48A | **Jasper** | 94.57 | 3 | P | | P | 15 35 16.5 | -1.3 | |
| | baz=358 | | | | | | | | |
| Y49A | **Blount Mountai** | 94.65 | 2 | P | | P | 15 35 17.0 | -1.2 | |
| | baz=359 | | | | | | | | |
| Z37A | **Pogue Cattle C** | 94.72 | 10 | P | | P | 15 35 17.2 | -1.3 | |
| | baz=353 | | | | | | | | |
| Z38A | **Mt. Pleasant** | 94.72 | 9 | P | | P | 15 35 17.6 | -1.0 | |
| | baz=353 | | | | | | | | |
| MNTX | **Cornudas Mount** | 94.74 | 18 | P | | P | 15 35 17.7 | -1.0 | |
| | baz=347,SNR=9.3 | | | | | | | | |
| MNTX | **Cornudas Mount** | 94.74 | 18 | *e*P | | P | 15 35 16.6 | -2.0 | |
| | comp=Z,45nm,1.4s | | | | | | | | |
| MNTX | | | | LR | | LR | | | |
| | comp=Z,34µm,22.0s | | | | | | | | |
| ABTX | **Abilene, Hawle** | 94.79 | 13 | P | | P | 15 35 18.0 | -0.9 | |
| | baz=350 | | | | | | | | |
| ABTX | **Abilene, Hawle** | 94.79 | 13 | *e*P | | P | 15 35 16.2 | -2.7 | |
| | comp=Z,50nm,1.2s | | | | | | | | |
| Z39A | **Irene McRaven,** | 94.82 | 9 | P | | P | 15 35 18.4 | -0.5 | |
| | baz=354 | | | | | | | | |
| Z40A | **Long Farm, Mag** | 94.87 | 8 | P | | P | 15 35 18.6 | -0.6 | |
| | baz=354 | | | | | | | | |
| Z41A | **Richland Creek** | 94.92 | 7 | P | | P | 15 35 18.9 | -0.6 | |
| | baz=355 | | | | | | | | |
| Z42A | **Norrel Spur, H** | 94.97 | 7 | P | | P | 15 35 18.4 | -1.2 | |
| | baz=355 | | | | | | | | |
| Z48A | **Northport** | 95.10 | 3 | P | | P | 15 35 18.8 | -1.4 | |
| | baz=358 | | | | | | | | |
| GOGA | **Godfrey** | 95.12 | 360 | *e*P | | P | 15 35 19.2 | -1.1 | |
| GOGA | | | | pmax | | pmax | | | |
| | comp=Z,59nm,1.3s | | | | | | | | |
| GOGA | | | | MLR | | MLR | | | |
| | comp=Z,43µm,20.0s | | | | | | | | |
| GOGA | **Godfrey** | 95.12 | 360 | *e*P | | P | 15 35 19.2 | -1.1 | |
| | comp=Z,59nm,1.3s | | | | | | | | |
| GOGA | | | | LR | | LR | | | |
| | comp=Z,43µm,20.0s | | | | | | | | |
| Z46A | **Louisville** | 95.22 | 4 | P | | P | 15 35 19.2 | -1.6 | |
| | baz=357 | | | | | | | | |
| Z47A | **Carrollton** | 95.25 | 3 | P | | P | 15 35 19.5 | -1.5 | |
| | baz=358 | | | | | | | | |
| 137A | **Heron Place, G** | 95.30 | 10 | P | | P | 15 35 20.5 | -0.7 | |
| | baz=353 | | | | | | | | |
| Z49A | **Columbiana** | 95.31 | 2 | P | | P | 15 35 20.1 | -1.1 | |
| | baz=358 | | | | | | | | |
| 138A | **Matatall Enter** | 95.31 | 9 | P | | P | 15 35 21.0 | -0.2 | |
| | baz=353 | | | | | | | | |
| 136A | **Ennis** | 95.34 | 11 | P | | P | 15 35 20.2 | -1.1 | |
| | baz=352 | | | | | | | | |
| NHSC | **New Hope** | 95.35 | 357 | PFAKE | | | | | |
| NHSC | | | | LR | | LR | 15 35 30.0 | +8.6 | |
| | comp=Z,37µm,19.0s | | | | | | | | |
| 139A | **Bunkhouse Ranc** | 95.36 | 9 | P | | P | 15 35 18.8 | -2.6 | |
| | baz=354 | | | | | | | | |
| SACV | **Santiago Islan** | 95.43 | 302 | PFAKE | | | | | |
| SACV | | | | LR | | LR | 15 35 30.0 | +8.0 | |
| | comp=Z,11µm,20.0s | | | | | | | | |
| LRAL | **Lakeview Retre** | 95.45 | 2 | P | | P | 15 35 20.4 | -1.5 | |
| | baz=358 | | | | | | | | |
| LRAL | **Lakeview Retre** | 95.45 | 2 | *e*P | | P | 15 35 19.8 | -2.0 | |
| | comp=Z,67nm,1.4s | | | | | | | | |
| 140A | **Cam and Jess,** | 95.47 | 8 | P | | P | 15 35 20.5 | -1.4 | |
| | baz=354 | | | | | | | | |
| 143A | **Socs Landing,** | 95.58 | 6 | P | | P | 15 35 21.5 | -0.9 | |
| | baz=356 | | | | | | | | |
| WHTX | **Lake Whitney,** | 95.70 | 11 | P | | P | 15 35 21.6 | -1.4 | |
| | baz=352 | | | | | | | | |
| 144A | **Alexander Plac** | 95.71 | 5 | P | | P | 15 35 22.2 | -0.8 | |
| | baz=356 | | | | | | | | |
| 145A | **Houston Renfro** | 95.76 | 5 | P | | P | 15 35 21.8 | -1.5 | |
| | baz=356 | | | | | | | | |
| 147A | **Livingston** | 95.77 | 4 | P | | P | 15 35 21.9 | -1.4 | |
| | baz=357 | | | | | | | | |
| 146A | **Union** | 95.77 | 4 | P | | P | 15 35 22.5 | -0.8 | |
| | baz=357 | | | | | | | | |
| DZM | **Mont Dzumac** | 95.78 | 119 | *e*P | | P | 15 35 26.9 | +3.5 | |
| | comp=Z,170nm,1.4s | | | | | | | | |
| DZM | **Mont Dzumac** | 95.78 | 119 | *e*SS | | SS | 15 53 15.3 | +4.3 | |
| | comp=Z,33µm,29.1s | | | | | | | | |
| DZM | **Mont Dzumac** | 95.78 | 119 | *e*LR | | LR | 16 06 27.7 | | |
| | comp=Z,70µm,27.7s | | | | | | | | |
| 236A | **Katherine and** | 95.81 | 11 | P | | P | 15 35 22.6 | -0.9 | |
| | baz=352 | | | | | | | | |
| 237A | **Washetta, Mont** | 95.88 | 10 | P | | P | 15 35 23.4 | -0.4 | |
| | baz=353 | | | | | | | | |
| 240A | **Hunter Patters** | 96.05 | 8 | P | | P | 15 35 23.8 | -0.8 | |
| | baz=354 | | | | | | | | |
| VBMS | **Vicksburg** | 96.11 | 6 | P | | P | 15 35 24.3 | -0.6 | |
| | baz=356 | | | | | | | | |
| NATX | **Nacogdoches** | 96.24 | 9 | P | | P | 15 35 24.4 | -1.1 | |
| | baz=354 | | | | | | | | |
| NATX | **Nacogdoches** | 96.24 | 9 | PFAKE | | | | | |
| NATX | | | | LR | | LR | 15 35 40.0 | +15 | |
| | comp=Z,39µm,20.0s | | | | | | | | |
| 244A | **Avery, Jackson** | 96.28 | 6 | P | | P | 15 35 24.5 | -1.1 | |
| | baz=356 | | | | | | | | |
| 248A | **Dixon Mills** | 96.37 | 3 | P | | P | 15 35 23.9 | -2.2 | |
| | baz=358 | | | | | | | | |
| 247A | **Quitman** | 96.38 | 4 | P | | P | 15 35 23.7 | -2.3 | |
| | baz=357 | | | | | | | | |
| 246A | **Jackson Lee, B** | 96.39 | 4 | P | | P | 15 35 24.4 | -1.7 | |
| | baz=357 | | | | | | | | |
| 341A | **Kurthwood** | 96.80 | 8 | P | | P | 15 35 24.4 | -3.6 | |
| | baz=354 | | | | | | | | |
| 342A | **Flagon Creek P** | 96.83 | 7 | P | | P | 15 35 25.8 | -2.3 | |
| | baz=355 | | | | | | | | |
| 344A |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| CAN | | | | | LR | LR | | | | |
| | comp=Z,26μm,21.0s | | | | | | | | | |
| **XMAS** | **Kiritimati** | | **98.58** | **76** | PFAKE | | | | 15 35 50.0 | +14 |
| XMAS | | | | | LR | LR | | | | |
| | comp=Z,7.0nm,19.0s | | | | | | | | | |
| **MSVF** | **Nonsavu** | | **98.97** | **107** | PFAKE | | | | 15 35 50.0 | +12 |
| MSVF | | | | | LR | LR | | | | |
| | comp=Z,17μm,22.0s | | | | | | | | | |
| **KVTX** | **Kingsville** | | **100.03** | **12** | PFAKE | | | | 15 35 50.0 | +7.5 |
| KVTX | | | | | LR | LR | | | | |
| | comp=Z,46μm,19.0s | | | | | | | | | |
| **BOSA** | **Boshof** | | **101.15** | **238** | PP | PP | | | 15 39 53.3 | -3.4 |
| | comp=Z,12nm,1.1s,baz=23,slow=6.7,SNR=3.9 | | | | | | | | | |
| **AFI** | **Afiamalu** | | **102.19** | **97** | PFAKE | | | | 15 36 00.0 | +7.7 |
| AFI | | | | | LR | LR | | | | |
| | comp=Z,21μm,21.0s | | | | | | | | | |
| **PAF** | **Port-aux-Franc** | | **103.17** | **197** | PFAKE | | | | 15 36 10.0 | +14 |
| PAF | | | | | LR | LR | | | | |
| | comp=Z,21μm,20.0s | | | | | | | | | |
| **TAU** | **Tasmania Unive** | | **104.32** | **144** | PFAKE | | | | 15 36 10.0 | +9.1 |
| TAU | | | | | LR | LR | | | | |
| | comp=Z,24μm,20.0s | | | | | | | | | |
| **GRTK** | **Grand Turk** | | **106.10** | **348** | PFAKE | | | | 15 40 30.0 | |
| GRTK | | | | | LR | LR | | | | |
| | comp=Z,18μm,20.0s | | | | | | | | | |
| **SUR** | **Sutherland** | | **106.47** | **239** | PFAKE | | | | 15 40 30.0 | |
| SUR | | | | | LR | LR | | | | |
| | comp=Z,50μm,21.0s | | | | | | | | | |
| **ANWB** | **Willy Bob** | | **108.12** | **338** | PFAKE | | | | 15 40 40.0 | |
| ANWB | | | | | LR | LR | | | | |
| | comp=Z,8μm,20.0s | | | | | | | | | |
| **GTBY** | **Guantanamo Bay** | | **108.12** | **351** | PFAKE | | | | 15 40 40.0 | |
| GTBY | | | | | LR | LR | | | | |
| | comp=Z,15μm,21.0s | | | | | | | | | |
| **SDDR** | **Presa de Saban** | | **108.61** | **347** | PFAKE | | | | 15 40 40.0 | |
| SDDR | | | | | LR | LR | | | | |
| | comp=Z,30μm,21.0s | | | | | | | | | |
| **SJG** | **San Juan** | | **108.62** | **342** | PFAKE | | | | 15 40 40.0 | |
| SJG | | | | | LR | LR | | | | |
| | comp=Z,14μm,22.0s | | | | | | | | | |
| **ASCN** | **Ascension** | | **108.72** | **281** | PFAKE | | | | 15 40 40.0 | |
| ASCN | | | | | LR | LR | | | | |
| | comp=Z,10μm,21.0s | | | | | | | | | |
| **SHEL** | **Horse Pasture** | | **109.60** | **269** | PFAKE | | | | 15 40 40.0 | |
| SHEL | | | | | LR | LR | | | | |
| | comp=Z,7μm,20.0s | | | | | | | | | |
| **MTDJ** | **Mount Denham** | | **110.01** | **353** | PFAKE | | | | 15 40 40.0 | |
| MTDJ | | | | | LR | LR | | | | |
| | comp=Z,20μm,19.0s | | | | | | | | | |
| **RAO** | **Raoul Island** | | **110.15** | **112** | PFAKE | | | | 15 40 40.0 | |
| RAO | | | | | LR | LR | | | | |
| | comp=Z,11μm,22.0s | | | | | | | | | |
| **FDF** | **Fort de France** | | **110.79** | **336** | PFAKE | | | | 15 40 40.0 | |
| FDF | | | | | LR | LR | | | | |
| | comp=Z,22μm,21.0s | | | | | | | | | |
| **BBGH** | **Gun Hill** | | **111.90** | **334** | PFAKE | | | | 15 40 40.0 | |
| BBGH | | | | | LR | LR | | | | |
| | comp=Z,18μm,21.0s | | | | | | | | | |
| **GRGR** | **Grenville** | | **113.41** | **336** | PFAKE | | | | 15 40 50.0 | |
| GRGR | | | | | LR | LR | | | | |
| | comp=Z,15μm,22.0s | | | | | | | | | |
| **SNZO** | **South Karori** | | **115.12** | **125** | PFAKE | | | | 15 40 50.0 | +12 |
| SNZO | | | | | LR | LR | | | | |
| | comp=Z,20μm,20.0s | | | | | | | | | |
| **RAR** | **Rarotonga** | | **115.13** | **93** | PFAKE | | | | 15 40 50.0 | +12 |
| RAR | | | | | LR | LR | | | | |
| | comp=Z,14μm,21.0s | | | | | | | | | |
| **PCRV** | **Puerto La Cruz** | | **116.01** | **339** | PP | PP | | | 15 41 46.9 | +3.2 |
| | comp=Z,20nm,1.1s,baz=144,slow=5.3,SNR=4.3 | | | | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | | **117.50** | **68** | *e*PP | PP | | | 15 41 42.9 | -12 |
| | comp=Z,605nm,26.9s | | | | | | | | | |
| TAOE | | | | | *e*SP | SP | | | 15 51 36.5 | -1.9 |
| | comp=Z,5μm,26.0s | | | | | | | | | |
| TAOE | | | | | *e*SS | **SS** | | | **15 58 08.8** | **+3.0** |
| | comp=Z,8μm,30.9s | | | | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | | **117.50** | **68** | *e*LQ | LQ | | | 16 11 28.8 | |
| | comp=Z,25μm,24.8s | | | | | | | | | |
| TAOE | | | | | *e*LR | LR | | | 16 16 17.7 | |
| | comp=Z,42μm,33.6s | | | | | | | | | |
| **JTS** | **JuntasAbangare** | | **118.12** | **1** | PFAKE | | | | 15 40 50.0 | +5.5 |
| JTS | | | | | LR | LR | | | | |
| | comp=Z,21μm,20.0s | | | | | | | | | |
| **SDV** | **Santo Domingo** | | **118.43** | **345** | *e*PKPdf | **PKPdf** | | | **15 40 42.8** | **-2.5** |
| SDV | | | | | LR | LR | | | | |
| | comp=Z,12μm,21.0s | | | | | | | | | |
| **PPT2** | **Papeete2** | | **118.72** | **82** | *e*PKiKP | **PKiKP** | | | **15 40 46.0** | **+0.5** |
| | comp=Z,60nm,1.1s | | | | | | | | | |
| **PPT2** | **Papeete2** | | **118.72** | **82** | *e*SP | SP | | | 15 51 47.6 | -1.8 |
| | comp=Z,4μm,26.8s | | | | | | | | | |
| PPT2 | | | | | *e*SS | **SS** | | | **15 58 19.4** | **-2.6** |
| | comp=Z,12μm,27.5s | | | | | | | | | |
| **PPT2** | **Papeete2** | | **118.72** | **82** | *e*LQ | LQ | | | 16 11 55.0 | |
| | comp=Z,36μm,26.2s | | | | | | | | | |
| PPT2 | | | | | *e*LR | LR | | | 16 17 13.4 | |
| | comp=Z,51μm,25.5s | | | | | | | | | |
| **PAE** | **Paea** | | **118.78** | **82** | *e*PKiKP | **PKiKP** | | | **15 40 45.8** | **+0.3** |
| | comp=Z,12nm,1.1s | | | | | | | | | |
| **BCIP** | **Isla Barro Col** | | **119.14** | **355** | PFAKE | | | | 15 41 00.0 | +14 |
| BCIP | | | | | LR | LR | | | | |
| | comp=Z,13μm,21.0s | | | | | | | | | |
| **RCBR** | **Riachuelo** | | **119.41** | **302** | PFAKE | | | | 15 41 00.0 | +13 |
| RCBR | | | | | LR | LR | | | | |
| | comp=Z,22μm,19.0s | | | | | | | | | |
| **BARC** | **Barichara** | | **121.06** | **347** | *e*P | **PKPdf** | | | **15 40 48.0** | **-2.4** |
| **MAW** | **Mawson** | | **121.68** | **194** | PKP | **PKPdf** | | | **15 40 48.0** | **-1.5** |
| | comp=Z,10nm,0.8s,baz=341,slow=1.4,SNR=14 | | | | | | | | | |
| **MAW** | **Mawson** | | **121.68** | **194** | PKIKP | **PKPdf** | | | **15 40 48.0** | **-1.5** |
| MAW | | | | | pmax | pmax | | | | |
| | comp=Z,10.0nm,0.8s | | | | | | | | | |
| **MAW** | **Mawson** | | **121.68** | **194** | *e*PKPdf | **PKPdf** | | | **15 40 47.7** | **-1.8** |
| **RUSC** | **La Rusia** | | **121.74** | **347** | *e*P | **PKPdf** | | | **15 40 50.4** | **-1.6** |
| **RUSC** | **La Rusia** | | **121.74** | **347** | *e*PKPdf | **PKPdf** | | | **15 40 49.1** | **-2.9** |
| **NORC** | **Norcasia** | | **122.29** | **349** | *e*P | **PKPdf** | | | **15 40 50.4** | **-2.2** |
| **GUYC** | **Guyana, Colomb** | | **122.68** | **350** | *e*P | **PKPdf** | | | **15 40 55.2** | **+1.4** |
| **CHIC** | **Chingaza** | | **123.07** | **348** | *e*P | **PKPdf** | | | **15 40 57.6** | **+3.1** |
| **YOTC** | **Yotoco, Valle** | | **124.01** | **351** | *e*P | **PKPdf** | | | **15 40 54.4** | **-1.5** |
| **PRAC** | **Prado** | | **124.12** | **349** | *e*P | **PKPdf** | | | **15 40 56.0** | **0.0** |
| **BETC** | **Betania** | | **125.20** | **349** | *e*P | **PKPdf** | | | **15 40 58.4** | **+0.3** |
| **PTGA** | **Pitinga** | | **125.20** | **330** | PKP | **PKPdf** | | | **15 40 56.6** | **-1.4** |
| | comp=Z,5.0nm,0.6s,baz=332,slow=4.1,SNR=13 | | | | | | | | | |
| **PTGA** | **Pitinga** | | **125.20** | **330** | *e*PKPdf | **PKPdf** | | | **15 40 55.8** | **-2.3** |
| PTGA | | | | | LR | LR | | | | |
| | comp=Z,38μm,21.0s | | | | | | | | | |
| **FLOC** | **Florencia** | | **126.31** | **350** | *e*P | **PKPdf** | | | **15 41 04.0** | **+3.8** |
| **SYO** | **Syowa Base** | | **127.42** | **202**‖ | *e*P | PKPpre | | | 15 40 51.0 | |
| **SYO** | **Syowa Base** | | **127.42** | **202**‖ | *e*PKPdf | **PKPdf** | | | **15 41 01.9** | **+1.4** |
| **OTAV** | **Otavalo** | | **127.90** | **353** | *e*PKPdf | **PKPdf** | | | **15 41 01.8** | **-2.0** |
| OTAV | | | | | LR | LR | | | | |
| | comp=Z,7μm,21.0s | | | | | | | | | |
| **PAYG** | **Puerto Ayora** | | **128.75** | **8** | PFAKE | | | | 15 41 20.0 | +15 |
| PAYG | | | | | LR | LR | | | | |
| | comp=Z,9μm,22.0s | | | | | | | | | |
| **TRIS** | **Tristan da Cun** | | **128.78** | **257** | PFAKE | | | | 15 41 10.0 | +5.9 |
| TRIS | | | | | LR | LR | | | | |
| | comp=Z,12μm,19.0s | | | | | | | | | |
| **RKT** | **Rikitea** | | **131.77** | **73** | *e*SS | SS | | | 16 01 03.1 | -2.5 |
| | comp=Z,9μm,34.2s | | | | | | | | | |
| **RKT** | **Rikitea** | | **131.77** | **73** | *e*LQ | LQ | | | 16 17 23.7 | |
| | comp=Z,29μm,41.2s | | | | | | | | | |
| RKT | | | | | *e*LR | LR | | | 16 22 54.2 | |
| | comp=Z,27μm,26.0s | | | | | | | | | |
| **SAML** | **Samuel** | | **133.95** | **331** | *e*PKPdf | **PKPdf** | | | **15 41 13.2** | **-1.5** |
| **VNDA** | **Vanda** | | **135.26** | **164** | PKP | **PKPdf** | | | **15 41 12.9** | **-2.2** |
| | comp=Z,3.1nm,0.9s,baz=303,slow=4.0,SNR=6.2 | | | | | | | | | |
| VNDA | | | | | PP | **PP** | | | **15 43 56.3** | **+4.0** |
| | comp=Z,4.3nm,0.9s,baz=304,slow=5.4,SNR=4.6 | | | | | | | | | |
| **VNDA** | **Vanda** | | **135.26** | **164** | *e*PKIKP | **PKPdf** | | | **15 41 14.5** | **-0.6** |
| VNDA | | | | | | | | | 15 43 56.3 | |
| **VNDA** | **Vanda** | | **135.26** | **164** | *e*PKPdf | **PKPdf** | | | **15 41 14.5** | **-0.6** |
| VNDA | | | | | PP | **PP** | | | **15 43 56.3** | **+4.0** |
| **NVL** | **N'lazarevskaya** | | **135.96** | **208** | *e*PKIKP | **PKPdf** | | | **15 41 15.9** | **-0.7** |
| NVL | | | | | *e* | | | | 15 43 57.1 | |
| NVL | | | | | *e*SS | SS | | | 16 01 57.4 | +2.1 |
| NVL | | | | | *e*SSS | SSS | | | 16 06 55.3 | |
| **PTCN** | **Pitcairn Islan** | | **136.13** | **70** | PFAKE | | | | 15 41 30.0 | +12 |
| PTCN | | | | | LR | LR | | | | |
| | comp=Z,10μm,22.0s | | | | | | | | | |
| **SBA** | **Scott Base** | | **136.32** | **163** | PFAKE | | | | 15 41 30.0 | +13 |
| SBA | | | | | LR | LR | | | | |
| | comp=Z,11μm,22.0s | | | | | | | | | |
| **NNA** | **Nana** | | **139.84** | **349** | PKP | **PKPdf** | | | **15 41 24.1** | **-1.5** |
| | comp=Z,7.1nm,0.4s,baz=280,slow=5.7,SNR=3.7 | | | | | | | | | |
| NNA | | | | | PP | **PP** | | | **15 44 22.8** | **+2.2** |
| | comp=Z,17nm,0.8s,baz=307,slow=6.9,SNR=3.6 | | | | | | | | | |
| **NNA** | **Nana** | | **139.84** | **349** | *e*PKPdf | **PKPdf** | | | **15 41 23.7** | **-1.8** |
| NNA | | | | | PP | **PP** | | | **15 44 22.8** | **+2.2** |
| NNA | | | | | LR | LR | | | | |
| | comp=Z,5μm,20.0s | | | | | | | | | |
| **SIV** | **San Ignacio** | | **139.84** | **324** | PKP | **PKPdf** | | | **15 41 24.4** | **-1.1** |
| | comp=Z,9.1nm,0.8s,baz=15,slow=3.0,SNR=8.8 | | | | | | | | | |
| **SNAA** | **Sanae** | | **140.71** | **210** | PKP | **PKPdf** | | | **15 41 23.1** | **-2.3** |
| **SNAA** | **Sanae** | | **140.71** | **210** | PKP | **PKPdf** | | | **15 41 23.3** | **-2.1** |
| | comp=Z,3.5nm,0.6s,baz=34,slow=22,SNR=8.4 | | | | | | | | | |
| SNAA | | | | | PP | **PP** | | | **15 44 27.2** | **+0.8** |
| | comp=Z,8.3nm,0.8s,baz=90,slow=6.6,SNR=2.1 | | | | | | | | | |
| **SNAA** | **Sanae** | | **140.71** | **210** | *e*PKPdf | **PKPdf** | | | **15 41 22.6** | **-2.8** |
| SNAA | | | | | PP | **PP** | | | **15 44 27.2** | **+0.8** |
| **QSPA** | **South Pole Qui** | | **141.60** | **180** | *e*PKPpre | PKPpre | | | 15 41 23.4 | |
| QSPA | | | | | LR | LR | | | | |
| | comp=Z,26μm,22.0s | | | | | | | | | |
| **VNA2** | **Neumayer--Watz** | | **141.97** | **211** | PKP | PKPpre | | | 15 41 21.3 | |
| | baz=52,slow=4.5 | | | | | | | | | |
| **VNA1** | **Neumayer--Stat** | | **142.20** | **212** | PKP | **PKPdf** | | | **15 41 27.0** | **-1.0** |
| **LPAZ** | **La Paz** | | **142.34** | **334** | PKhKP | PKPpre | | | 15 41 25.0 | |
| | comp=Z,6.4nm,0.8s,baz=21,slow=7.2,SNR=9.4 | | | | | | | | | |
| **LPAZ** | **La Paz** | | **142.34** | **334** | *e*PKPpre | PKPpre | | | 15 41 24.6 | |
| **VNA3** | **Neumayer Olymp** | | **142.76** | **211** | PKP | PKPpre | | | 15 41 23.8 | |
| **MNMC** | **Minye Minye** | | **145.44** | **335** | *e*P | **PKPbc** | | | **15 41 33.4** | **-2.2** |
| **PSGC** | **Pisagua** | | **146.03** | **336** | *e*P | PKPpre | | | 15 41 26.8 | |
| **PB11** | **IPOC Station P** | | **146.06** | **335**‖ | *e*P | **PKPdf** | | | **15 41 35.3** | **-1.2** |
| **YJA** | **Yavi** | | **147.10** | **327** | *e*P | **PKPbc** | | | **15 41 39.9** | **-0.8** |
| **PB01** | **IPOC Station P** | | **147.24** | **334** | *e*P | **PKPdf** | | | **15 41 38.8** | **+0.4** |
| **CPUP** | **Villa Florida** | | **147.50** | **311** | PKPbc | **PKPdf** | | | **15 41 37.1** | **-1.4** |
| | comp=Z,29nm,1.0s,baz=37,slow=3.3,SNR=20 | | | | | | | | | |
| **CPUP** | **Villa Florida** | | **147.50** | **311** | *e*PKPdf | **PKPdf** | | | **15 41 36.7** | **-1.8** |
| **CPUP** | **Villa Florida** | | **147.50** | **311** | *e*P | **PKPdf** | | | **15 41 37.2** | **-1.4** |
| **PB02** | **IPOC Station P** | | **147.62** | **335** | *e*P | **PKPdf** | | | **15 41 38.2** | **-0.9** |
| **PB07** | **IPOC Station P** | | **148.00** | **335** | *e*P | **PKPdf** | | | **15 41 40.9** | **+1.1** |
| **ALOL** | **LOMAS DE OLMED** | | **148.07** | **324** | *e*P | **PKPbc** | | | **15 41 42.1** | **-0.6** |
| **ASTB** | **Santa Barbara** | | **148.37** | **324** | *e*P | **PKPbc** | | | **15 41 43.0** | **-0.7** |
| **PB04** | **IPOC Station P** | | **148.65** | **335** | *e*P | PKPpre | | | 15 41 32.9 | |
| **RPN** | **Rapa Nui** | | **148.83** | **47** | *e*PKP2 | **PKPbc** | | | **15 41 43.1** | **-1.5** |
| RPN | | | | | MLR | MLR | | | | |
| | comp=Z,4μm,21.0s | | | | | | | | | |
| **RPN** | **Rapa Nui** | | **148.83** | **47** | *e*PKPbc | **PKPbc** | | | **15 41 43.1** | **-1.5** |
| RPN | | | | | LR | LR | | | | |
| | comp=Z,4μm,21.0s | | | | | | | | | |
| **AZAP** | **Zapla** | | **148.84** | **325** | *e*P | **PKPdf** | | | **15 41 41.0** | **-0.2** |
| **PB06** | **IPOC Station P** | | **148.85** | **334** | *e*P | **PKPdf** | | | **15 41 42.2** | **+1.1** |
| **SLA** | **San Lorenzo** | | **149.45** | **325** | *e*P | **PKPbc** | | | **15 41 46.0** | **-0.5** |
| **PB10** | **IPOC Station P** | | **149.88** | **335** | *e*PKPbc | **PKPbc** | | | **15 41 45.8** | **-1.6** |
| **FSA** | **Cafayete** | | **150.89** | **325** | *e*P | **PKPbc** | | | **15 41 48.3** | **-1.6** |
| **AHML** | **Horco Molle** | | **151.27** | **323** | *e*P | **PKPbc** | | | **15 41 49.1** | **-1.5** |
| **HOPE** | **Hope Point** | | **151.74** | **246** | *e*PKPbc | **PKPbc** | | | **15 41 49.3** | **-1.3** |
| HOPE | | | | | LR | LR | | | | |
| | comp=Z,11μm,20.0s | | | | | | | | | |
| **CYA** | **Choya** | | **152.94** | **323** | *e*P | **PKPbc** | | | **15 41 52.9** | **-1.4** |
| **VCA** | **Vinchina** | | **154.07** | **327** | *e*P | **PKPbc** | | | **15 41 56.2** | **-0.8** |
| **AGUA** | **GUANDACOL** | | **154.86** | **327** | *e*P | **PKPdf** | | | **15 41 49.5** | **-0.3** |
| **TCA** | **Tanti** | | **155.03** | **318** | *e*P | **PKPdf** | | | **15 41 46.6** | **-3.4** |
| **LCO** | **Las Campanas** | | **155.12** | **331** | *e*PKPdf | **PKPdf** | | | **15 41 49.6** | **-0.8** |
| LCO | | | | | LR | LR | | | | |
| | comp=Z,13μm,22.0s | | | | | | | | | |
| **LCO** | **Las Campanas** | | **155.12** | **331** | *e*P | **PKPdf** | | | **15 41 51.5** | **+1.0** |
| **RTLL** | **Cerro Villicun** | | **156.53** | **325** | *e*P | **PKPdf** | | | **15 41 58.0** | **+6.0** |
| **AUSP** | **Uspallata** | | **157.66** | **326** | *e*P | **PKPdf** | | | **15 41 53.0** | **-0.7** |
| **ASAL** | **Salagasta** | | **157.80** | **324** | *e*P | **PKPdf** | | | **15 41 52.8** | **-0.7** |
| **TRQA** | **Tornquist** | | **159.29** | **303** | *e*PKPdf | **PKPdf** | | | **15 41 52.8** | **-2.3** |
| TRQA | | | | | LR | LR | | | | |
| | comp=Z,18μm,20.0s | | | | | | | | | |
| **PMSA** | **Palmer Station** | | **163.42** | **211** | PFAKE | | | | 15 42 10.0 | +12 |
| PMSA | | | | | LR | LR | | | | |
| | comp=Z,13μm,20.0s | | | | | | | | | |
| **EFI** | **East Falkland** | | **163.94** | **260** | PFAKE | | | | 15 42 10.0 | +11 |
| EFI | | | | | LR | LR | | | | |
| | comp=Z,14μm,20.0s | | | | | | | | | |
| **PLCA** | **Paso Flores** | | **165.53** | **315** | PKP | **PKPdf** | | | **15 41 59.7** | **-1.6** |
| | comp=Z,15nm,1.0s,baz=84,slow=2.5,SNR=10.0 | | | | | | | | | |
| **PLCA** | **Paso Flores** | | **165.53** | **315** | *e*PKPdf | **PKPdf** | | | **15 41 59.4** | **-1.9** |
| **PLCA** | **Paso Flores** | | **165.53** | **315** | *e*P | **PKPdf** | | | **15 42 00.4** | **-0.9** |

**OBM 27 15:36:13.5±0.2, 51.85N×95.58E, h2km, MI4.1/1, Error ellipse: s-maj=2.7km s-min=1.5km az=11.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ULG** | **Ulaangom** | **2.92** | **231** | *e*Pg | Pb | 15 37 06.3 | 0.0 |
| ULG | | | | *e*Sg | Sb | 15 37 44.6 | +2.2 |
| **HTG** | **Hatgal** | **3.21** | **114** | *e*Sg | Sb | 15 37 52.8 | +2.0 |
| **TSC** | **Tosontsengel** | **3.52** | **150** | *e*Sg | Sg | 15 38 03.5 | -3.1 |
| **BYO** | **Bayan-Olgiy** | **4.61** | **233** | *e*Pg | Pb | 15 37 37.1 | +1.9 |
| BYO | | | | *e*Sg | Sb | 15 38 35.8 | +4.6 |
| **TTS** | **Tsetserleg** | **5.79** | **137** | *e*Sg | Sg | 15 39 13.3 | -6.2 |
| **BLGM** | **Bulgan** | **5.94** | **118** | *e*Sg | Sg | 15 39 19.0 | -5.2 |

*THE **27** 15:38:22.8, 38.17N×21.86E, h7km±2km, ML1.5/3, Error ellipse: s-maj=2.9km s-min=0.4km az=10.0*
*CSEM **27** 15:38:22.1±0.1, 38.16N×21.84E, h8km±3km, ML1.5, Error ellipse: s-maj=2.4km s-min=1.9km az=47.0*
**ATH 27 15:38:22.6, 38.16N×21.86E, h9km±3km, ML1.7/1, Error ellipse: s-maj=3.9km s-min=0.9km az=354.0, Greece**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LAKA** | **Lakka** | **0.12** | **51** | P | Pg | 15 38 25.2 | -0.3 |
| LAKA | | | | S | Sg | 15 38 27.0 | -0.5 |
| **LAKA** | **Lakka** | **0.12** | **51** | P | Pg | 15 38 25.4 | -0.1 |
| LAKA | | | | S | Sg | 15 38 27.3 | -0.2 |
| **LAKA** | **Lakka** | **0.12** | **51** | P | Pg | 15 38 25.4 | -0.1 |
| LAKA | | | | S | Sg | 15 38 27.3 | -0.2 |
| **UPR** | **University Cam** | **0.13** | **336** | P | Pg | 15 38 25.5 | -0.1 |
| UPR | | | | S | Sg | 15 38 27.7 | 0.0 |
| **UPR** | **University Cam** | **0.13** | **336** | P | Pg | 15 38 25.5 | -0.1 |
| UPR | | | | S | Sg | 15 38 27.7 | 0.0 |
| **UPR** | **University Cam** | **0.13** | **336** | P | Pg | 15 38 25.5 | -0.1 |
| **DRO** | **Drossia** | **0.24** | **209** | P | Pg | 15 38 27.2 | -0.1 |
| DRO | | | | S | Sg | 15 38 32.0 | +1.4 |
| DRO | | | | AML | AML | 15 38 34.2 | |
| | comp=N,450μm,0.3s | | | | | | |
| DRO | | | | AML | AML | 15 38 35.4 | |
| | comp=E,771μm,0.3s | | | | | | |
| **DRO** | **Drossia** | **0.24** | **209** | P | Pg | 15 38 27.2 | -0.2 |
| DRO | | | | S | Sg | 15 38 31.7 | +1.1 |
| **DRO** | **Drossia** | **0.24** | **209** | P | Pg | 15 38 27.3 | -0.1 |
| DRO | | | | S | Sg | 15 38 31.7 | +1.1 |
| **KLV** | **Kalavryta, Ach** | **0.26** | **117** | P | Pg | 15 38 27.9 | +0.1 |
| KLV | | | | S | Sg | 15 38 32.2 | +0.8 |
| **KLV** | **Kalavryta, Ach** | **0.26** | **117** | P | Pg | 15 38 27.9 | +0.1 |
| KLV | | | | S | Sg | 15 38 32.2 | +0.8 |
| **TRIZ** | **Trizonia** | **0.27** | **40** | P | Pg | 15 38 28.0 | +0.1 |
| TRIZ | | | | S | Sb | 15 38 32.9 | -1.3 |
| **TRIZ** | **Trizonia** | **0.27** | **40** | P | Pg | 15 38 28.0 | +0.1 |
| TRIZ | | | | S | Sb | 15 38 32.9 | -1.3 |
| **EFP** | **Efpalio** | **0.27** | **8** | P | Pg | 15 38 27.9 | -0.1 |
| EFP | | | | S | Sg | 15 38 32.1 | +0.5 |
| **EFP** | **Efpalio** | **0.27** | **8** | P | Pg | 15 38 27.9 | -0.1 |
| EFP | | | | S | Sg | 15 38 32.1 | +0.5 |
| **EFP** | **Efpalio** | **0.27** | **8** | P | Pg | 15 38 27.9 | -0.1 |
| EFP | | | | S | Sg | 15 38 32.5 | +0.9 |
| **SERG** | **Sergoula** | **0.30** | **32** | P | Pg | 15 38 28.4 | -0.1 |
| **SERG** | **Sergoula** | **0.30** | **32** | P | Pg | 15 38 28.5 | 0.0 |
| SERG | | | | S | Sg | 15 38 32.8 | +0.3 |
| **SERG** | **Sergoula** | **0.30** | **32** | P | Pg | 15 38 28.5 | 0.0 |
| SERG | | | | S | Sg | 15 38 32.8 | +0.3 |
| **KALE** | **Kalithea** | **0.32** | **44** | P | Pg | 15 38 28.9 | 0.0 |
| KALE | | | | S | Sg | 15 38 34.3 | +1.1 |
| **KALE** | **Kalithea** | **0.32** | **44** | P | Pg | 15 38 29.0 | 0.0 |
| KALE | | | | S | Sg | 15 38 34.0 | +0.7 |
| **KALE** | **Kalithea** | **0.32** | **44** | P | Pg | 15 38 29.0 | 0.0 |
| KALE | | | | S | Sg | 15 38 34.0 | +0.7 |
| **GUR** | **Goura** | **0.45** | **120** | P | Pg | 15 38 30.8 | -0.5 |
| GUR | | | | S | Sg | 15 38 37.1 | 0.0 |
| **GUR** | **Goura** | **0.45** | **120** | P | Pg | 15 38 31.0 | -0.3 |
| GUR | | | | S | Sg | 15 38 37.1 | 0.0 |
| **GUR** | **Goura** | **0.45** | **120** | P | Pg | 15 38 31.0 | -0.3 |
| GUR | | | | S | Sb | 15 38 38.3 | -1.1 |
| **PVO** | **Paravola** | **0.52** | **330** | P | Pg | 15 38 32.4 | -0.3 |
| **PVO** | **Paravola** | **0.52** | **330** | P | Pg | 15 38 32.4 | -0.3 |
| **PDO** | **Prodromos** | **0.69** | **310** | P | Pg | 15 38 35.2 | -0.6 |
| **PDO** | **Prodromos** | **0.69** | **310** | P | Pg | 15 38 35.2 | -0.6 |

**OBM 27 15:39:39.6±0.2, 51.78N×95.61E, h2km, MI3.6/1, Error ellipse: s-maj=3.3km s-min=1.9km az=26.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ULG** | **Ulaangom** | **2.89** | **232** | *e*Pg | Pb | 15 40 32.0 | +0.1 |
| ULG | | | | *e*Sg | Sg | 15 41 10.1 | -2.3 |
| **HTG** | **Hatgal** | **3.16** | **113** | *e*Pg | Pb | 15 40 34.6 | -2.0 |
| HTG | | | | *e*Sg | Sb | 15 41 13.5 | -2.1 |
| **TSC** | **Tosontsengel** | **3.45** | **150** | *e*Sg | Sg | 15 41 27.2 | -3.2 |
| **BYO** | **Bayan-Olgiy** | **4.58** | **234** | *e*Pg | Pb | 15 41 02.9 | +2.1 |
| BYO | | | | *e*Sg | Sg | 15 42 02.7 | -4.1 |
| **TTS** | **Tsetserleg** | **5.73** | **136** | *e*Sg | Sb | 15 42 36.0 | +6.6 |
| **BLGM** | **Bulgan** | **5.89** | **117** | *e*Sg | Sg | 15 42 42.9 | -5.8 |

*ISCJB **27** 15:49:11.6±0.2, 18.63S±0.05×179.49W±0.06, h650km, mb4.4/98, Error ellipse: s-maj=8.0km s-min=4.3km az=38.0*
*NEIC **27** 15:49:13.1±0.5, 18.51S×179.52W, h652km±5km, mb4.5/75, Error ellipse: s-maj=10.3km s-min=5.3km az=128.0*
*IDC **27** 15:49:14.2±0.6, 18.55S×179.40W, h662km±7km, mb3.7/23, mb1 3.9/25, mb1mx3.7/40, mbtmp4.7/25, Error ellipse: s-maj=13.5km s-min=9.0km az=132.0*
**ISC 27 15:49:12.9±0.4, 18.53S±0.08×179.38W±0.08, h650km, n252, σ1§14/254, mb4.5/98, 12C-2D, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MSVF** | **Nonsavu** | **2.57** | **287** | *e*P | **P** | **15 50 36.8** | **+2.5** |
| **AFI** | **Afiamalu** | **8.62** | **59** | P | **P** | **15 51 19.8** | **-0.2** |
| | 13nm,0.3s,baz=137,slow=10,SNR=17 | | | | | | |
| AFI | | | | S | **S** | **15 53 02.1** | **-1.8** |
| | 4.1nm,0.3s,baz=261,slow=19,SNR=3.6 | | | | | | |
| **AFI** | **Afiamalu** | **8.62** | **59** | *e*P | **P** | **15 51 19.5** | **-0.4** |
| **FUNA** | **Funafuti** | **10.04** | **352** | *e*P | **P** | **15 51 32.2** | **-1.1** |
| **DZM** | **Mont Dzumac** | **13.76** | **253** | P | **P** | **15 52 08.9** | **+0.9** |
| | 9nm,0.3s,baz=91,slow=10,SNR=49 | | | | | | |
| **DZM** | **Mont Dzumac** | **13.76** | **253** | *e*P | **P** | **15 52 08.6** | **+0.6** |
| **KNTN** | **Kanton** | **17.36** | **26** | *e*P | **P** | **15 52 40.1** | **-0.7** |
| | 136nm,0.6s | | | | | | |
| **URZ** | **Urewera** | **19.90** | **188** | P | **P** | **15 53 01.0** | **-2.4** |
| | 0.9nm,0.3s,baz=264,slow=1.2,SNR=6.9 | | | | | | |
| **QRZ** | **Quartz Range** | **23.29** | **196** | *e*PN | **P** | **15 53 33.7** | **+0.1** |
| **NNZ** | **Nelson** | **23.45** | **194** | *e*PN | **P** | **15 53 34.3** | **-0.7** |
| **THZ** | **Tophouse** | **24.08** | **194** | *e*P | **P** | **15 53 40.0** | **-0.7** |
| | 69nm,1.8s | | | | | | |
| **THZ** | **Tophouse** | **24.08** | **194** | *e*PN | **P** | **15 53 39.4** | **-1.2** |
| **LTZ** | **Lake Taylor** | **25.19** | **195** | *e*P | **P** | **15 53 48.4** | **-2.0** |
| | 19nm,0.6s | | | | | | |
| **INZ** | **Inchbonnie** | **25.35** | **196** | *e*PN | **P** | **15 53 50.3** | **-1.4** |
| **OXZ** | **Oxford** | **25.76** | **195** | *e*P | **P** | **15 53 53.2** | **-2.1** |
| | 23nm,0.5s | | | | | | |
| **WVZ** | **Waitaha Valley** | **25.86** | **197** | *e*PN | **P** | **15 53 55.2** | **-1.0** |
| **RPZ** | **Rata Peaks** | **26.37** | **196** | P | **P** | **15 54 00.2** | **-0.5** |
| | 8.9nm,0.5s,baz=9.2,slow=3.1,SNR=10 | | | | | | |
| **FOZ** | **Fox Glacier** | **26.54** | **198** | *e*P | **P** | **15 54 00.7** | **-1.4** |
| | 54nm,1.4s | | | | | | |
| **JCZ** | **Jackson Bay** | **27.34** | **199** | *e*PN | **P** | **15 54 08.3** | **-0.9** |
| **WHZ** | **Wether Hill Ro** | **29.24** | **198** | *e*P | **P** | **15 54 25.3** | **-0.2** |
| | 179nm,1.9s | | | | | | |
| **CTA** | **Charters Tower** | **32.44** | **262** | P | **P** | **15 54 53.4** | **+0.4** |
| | 7.8nm,0.5s,baz=92,slow=11,SNR=22 | | | | | | |
| **PMG** | **Port Moresby** | **33.66** | **281** | P | **P** | **15 55 04.6** | **+1.4** |
| | 13nm,0.9s,baz=82,slow=3.6,SNR=6.8 | | | | | | |
| **PMG** | **Port Moresby** | **33.66** | **281** | *e*P | **P** | **15 55 00.2** | **-3.0** |
| | 28nm,1.2s | | | | | | |
| **STKA** | **Stephens Creek** | **37.53** | **242** | P | **P** | **15 55 35.5** | **+0.8** |
| | 12nm,0.7s,baz=89,slow=9.8,SNR=24 | | | | | | |
| **STKA** | **Stephens Creek** | **37.53** | **242** | *e*P | **P** | **15 55 34.7** | **0.0** |
| | 3.5nm,0.9s | | | | | | |
|

comp=Z,3.8nm,0.6s,baz=225,slow=8.0,SNR=42
**SHOC Shoshone, Teco** 80.55 47 P P 16 00 20.8 +1.0
baz=239
**TUQ Turquoise Moun** 80.56 48 P P 16 00 20.9 +0.8
baz=239,SNR=6.5
**NV11 Mina Array Sit** 80.61 44 *eP* P 16 00 20.7 +0.5
comp=Z,1.6nm,1.3s
**Y12C Blythe** 80.72 50 P P 16 00 21.7 +1.0
baz=240
**J04D Umpqua Nationa** 80.83 39 P P 16 00 22.3 +1.0
baz=234,SNR=5.5
**LDFC Landfair** 80.96 48 *eP* P 16 00 23.3 +1.3
comp=Z,18nm,0.8s
**KVN Kaiserville** 80.97 44 *eP* P 16 00 22.7 +0.5
comp=Z,8.0nm,0.7s
**I04A Tendick Farm,** 80.98 38 P P 16 00 23.0 +1.1
baz=234
**TPNV Topopah Spring** 81.11 46 P P 16 00 23.8 +1.0
baz=239,SNR=7.6
**TPNV Topopah Spring** 81.11 46 *eP* P 16 00 23.6 +0.8
comp=Z,8.0nm,0.9s
**214A Organ Pipe Nat** 81.12 52 P P 16 00 24.1 +1.2
baz=242
**MOD Modoc Plateau** 81.15 40 *eP* P 16 00 23.7 +0.8
comp=Z,13nm,0.6s
**NEE2 Needles Airpor** 81.15 49 P P 16 00 24.1 +1.2
baz=240
**PDMCI Parker Dam,Lak** 81.27 50 P P 16 00 24.4 +0.9
baz=241
**J05D Fort Rock, OR** 81.38 39 P P 16 00 25.2 +1.1
baz=235,SNR=10
**MA2 Magadan** 81.55 345 P P 16 00 24.1 -0.2
comp=Z,4.2nm,0.8s,baz=136,slow=8.3,SNR=5.7
**SHPR Sheep Range** 81.64 47 *eP* P 16 00 26.5 +1.0
comp=Z,9.7nm,1.2s
**H04A Detroit Lake** 81.64 37 *eP* P 16 00 25.6 +0.4
comp=Z,19nm,0.6s
**W13A Hualapai Mount** 81.84 49 *eP* P 16 00 27.6 +0.9
comp=Z,19nm,1.7s
**Y14A Wickenburg** 81.92 50 *eP* P 16 00 27.7 +0.8
comp=Z,19nm,0.7s
**I05D Terrebonne, OR** 81.93 38 P P 16 00 27.8 +1.1
baz=234
**R11A Troy Canyon, C** 82.28 45 P P 16 00 29.5 +0.7
comp=Z,39.5nm,7.4
**R11A Troy Canyon, C** 82.28 45 *eP* P 16 00 29.1 +0.4
comp=Z,6.9nm,1.3s
**BMN Battle Mountai** 82.28 43 *eP* P 16 00 29.4 +0.7
comp=Z,7.8nm,0.8s
**G05D Wamic, OR** 82.47 37 P P 16 00 30.4 +1.0
baz=234
**WVOR Wild Horse Val** 82.47 41 *eP* P 16 00 30.4 +0.8
comp=Z,8.7nm,0.8s
**TUC Tucson** 82.80 53 P P 16 00 32.1 +0.7
baz=243
**TUC Tucson** 82.80 53 *eP* P 16 00 32.6 +1.2
comp=Z,9.3nm,1.1s
**I07A Izee** 82.86 39 *eP* P 16 00 32.4 +0.9
comp=Z,9.4nm,0.8s
**MAW Mawson** 82.97 200 P P 16 00 31.8 +0.4
comp=Z,7.2nm,0.5s,baz=137,slow=9.5,SNR=27
**MAW Mawson** 82.97 200 *eP* P 16 00 31.6 +0.2
comp=Z,1.8nm,0.6s
**J08A Circle Bar Ran** 83.08 40 *eP* P 16 00 33.3 +0.7
comp=Z,12nm,0.9s
**LCMT Little Creek M** 83.22 47 *eP* P 16 00 34.3 +0.9
comp=Z,8.1nm,1.2s
**X16A Lo Mia Camp, P** 83.28 50 *eP* P 16 00 34.9 +1.0
comp=Z,11nm,1.2s
**CCUT Cedar City** 83.40 47 *eP* P 16 00 34.3 -0.1
comp=Z,7.4nm,1.3s
**319A Douglas** 83.53 54 *eP* P 16 00 36.0 +1.0
comp=Z,23nm,1.4s
**U15A North Rim** 83.61 48 *eP* P 16 00 36.9 +1.3
comp=Z,42nm,1.7s
**SZCU Shurtz Canyon** 83.62 47 *eP* P 16 00 37.1 +1.6
comp=Z,3.3nm,1.0s
**B05A Bryant** 83.82 34 P P 16 00 37.2 +1.3
baz=233
**WUAZ Wupatki** 83.84 50 P P 16 00 37.0 +0.4
baz=242
**WUAZ Wupatki** 83.84 50 *eP* P 16 00 36.6 +0.1
comp=Z,16nm,1.5s
**G08A Pilot Rock** 83.86 38 *eP* P 16 00 36.9 +0.5
comp=Z,4.4nm,0.8s
**SCM Sheep Creek Mo** 84.06 15 *eP* P 16 00 36.6 -0.3
comp=Z,23nm,0.7s
**HAWA Hanford** 84.15 37 *eP* P 16 00 38.1 +0.5
comp=Z,64nm,1.8s
**SEY Seymchan** 84.17 347 P P 16 00 37.1 -0.2
comp=Z,7.4nm,0.5s,baz=152,slow=5.4,SNR=30
**X18A Snowflake** 84.43 51 *eP* P 16 00 41.0 +1.6
comp=Z,20nm,1.5s
**MTPU Mount Pierson** 84.46 47 *eP* P 16 00 40.8 +1.1
comp=Z,5.6nm,1.1s
**E08A Dider Farm, El** 84.47 37 *eP* P 16 00 39.8 +0.6
comp=Z,14nm,1.0s
**GYA Guiyang** 84.55 300 *eP* P 16 00 40.0 -0.1
GYA pmax pmax
comp=Z,10.0nm,0.8s
**BMO Blue Mountains** 84.60 39 *eP* P 16 00 39.8 -0.1
comp=Z,7.4nm,1.4s
**TRF Thorofare Moun** 84.81 13 *eP* P 16 00 39.7 -0.9
comp=Z,24nm,1.4s
**D08A Wollman Farm,** 84.87 37 *eP* P 16 00 41.4 +0.3
comp=Z,7.8nm,0.8s
**E09A Wood Farm, Sta** 85.01 37 *eP* P 16 00 42.0 +0.3
comp=Z,36nm,1.9s
**DUG Dugway, Tooele** 85.06 45 P P 16 00 42.9 +0.5
baz=241
**RND Reindeer** 85.08 13 *eP* P 16 00 40.9 -0.8
comp=Z,17nm,0.8s
**F10A Beach Ranch, E** 85.25 38 *eP* P 16 00 43.2 +0.2
comp=Z,10nm,0.9s
**MCK McKinley** 85.35 13 *eP* P 16 00 42.9 -0.1
**B08A Colville Reser** 85.37 35 *eP* P 16 00 43.3 -0.2
comp=Z,7.1nm,0.8s
**HLID Hailey** 85.70 41 P P 16 00 45.9 +0.6
baz=240
**HLID Hailey** 85.70 41 *eP* P 16 00 45.9 +0.6
comp=Z,5.4nm,0.8s
**TMUT Trail Mountain** 85.72 46 *eP* P 16 00 46.1 +0.4
comp=Z,4.9nm,0.7s
**SRU San Rafael Swe** 86.11 47 *eP* P 16 00 47.2 -0.2
comp=Z,4.2nm,0.7s
**MLY Manley** 86.13 12 *eP* P 16 00 45.6 -1.1
comp=Z,29nm,1.6s
**CCB Clear Creek Bu** 86.39 13 *eP* P 16 00 46.5 -1.3
comp=Z,9.6nm,0.7s
**TCUT Toone Canyon** 86.44 45 *eP* P 16 00 48.8 -0.2
comp=Z,72nm,1.7s
**IMAR Indian Mountai** 86.45 10 *eP* P 16 00 47.4 -0.7
**NEW Newport** 86.55 36 P P 16 00 49.4 +0.4
comp=Z,3.4nm,0.6s,baz=193,slow=3.4,SNR=7.8
**NEW Newport** 86.55 36 P P 16 00 49.6 +0.6
baz=237
**MDM Murphy Dome** 86.57 13 *eP* P 16 00 47.4 -1.4
comp=Z,7.4nm,0.8s
**COLA College** 86.58 13 *eP* P 16 00 47.9 -0.8
**MNTX Cornudas Mount** 86.68 55 P P 16 00 50.8 +0.8
baz=246
**ILAR Eielson Array** 86.70 13 P P 16 00 48.3 -1.0
comp=Z,3.9nm,0.6s,baz=225,slow=4.3,SNR=30
ILAR pP pP 16 03 08.1 +1.5
comp=Z,3.2nm,1.1s,baz=236,slow=3.4,SNR=3.4
**ILB Eielson Array** 86.70 13 *eP* P 16 00 48.1 -1.2
**IL1 Eielson Array** 86.70 13 *eP* P 16 00 48.0 -1.3
**HHC Hu-ho-hao-te** 87.05 315 *eP* P 16 00 52.3 +0.6
HHC pmax pmax
comp=Z,23nm,1.1s
HHC pmax pmax
comp=Z,7μm,6.8s
**TX31 Lajitas Ar. Si** 87.10 58 *eP* P 16 00 53.4 +1.2
**TXAR Lajitas Array** 87.10 58 P P 16 00 53.8 +1.7
comp=Z,4.4nm,0.6s,baz=214,slow=6.6,SNR=46
**ANMO Albuquerque** 87.20 52 P P 16 00 53.1 +0.4
baz=245
**ANMO Albuquerque** 87.20 52 *eP* P 16 00 53.0 +0.3
comp=Z,6.3nm,0.3s
**MCMT McKenzie Canyo** 87.31 41 *eP* P 16 00 53.5 +0.6
**AHID Auburn Hatcher** 87.42 43 *eP* P 16 00 54.7 +1.2
comp=Z,9.7nm,0.4s
**EGAK Eagle** 88.05 15 *eP* P 16 00 55.4 -0.2
comp=Z,9.9nm,1.0s
**S22A 4UR Ranch, Cre** 88.11 49 P P 16 00 57.4 +0.5
baz=245
**S22A 4UR Ranch, Cre** 88.11 49 *eP* P 16 00 55.3 -1.6
comp=Z,13nm,1.3s

**O20A White River Ci** 88.14 47 P P 16 00 57.4 +0.5
baz=244
**O20A White River Ci** 88.14 47 *eP* P 16 00 57.4 +0.5
comp=Z,54nm,1.6s
**COLD Coldfoot** 88.19 11 *eP* P 16 00 56.1 -0.1
comp=Z,28nm,1.6s
**CMAR Chiang Mai Arr** 88.23 290 P P 16 00 58.3 +0.7
comp=Z,0.8nm,0.9s,baz=110,slow=2.1,SNR=3.6
CMAR pP pP 16 03 18.0 +2.6
comp=Z,0.8nm,0.9s,baz=135,slow=2.9,SNR=3.4
**BW06 Boulder Array** 88.43 44 P P 16 00 58.5 +0.3
baz=243
**BW06 Boulder Array** 88.43 44 *eP* P 16 00 57.9 -0.4
comp=Z,3.7nm,0.8s
**PD31 Pinedale Array** 88.43 44 *eP* P 16 00 58.0 -0.3
**PDAR Pinedale Array** 88.43 44 P P 16 00 57.8 -0.4
comp=Z,2.2nm,0.7s,baz=215,slow=2.9,SNR=18
PDAR pP pP 16 03 19.4 +3.2
comp=Z,1.2nm,1.0s,baz=204,slow=5.5,SNR=4.0
**PDAR Pinedale Array** 88.43 44 *eP* P 16 00 58.2 -0.1
**H17A Grant Village** 88.52 42 P P 16 00 59.3 +0.6
baz=242
**H17A Grant Village** 88.52 42 *eP* P 16 00 58.8 +0.1
comp=Z,40nm,1.9s
**ISCO Idaho Springs** 89.83 48 P P 16 01 05.1 +0.2
baz=246
**SNAA Sanae** 90.00 179 P P 16 01 04.1 -0.7
**N23A Red Feather La** 90.05 47 P P 16 01 06.5 +0.6
baz=245
**N23A Red Feather La** 90.05 47 *eP* P 16 01 06.0 +0.2
comp=Z,34nm,1.8s
**VNA3 Neumayer Olymp** 90.18 177 P P 16 01 04.5 -1.1
**LZH Lanzhou** 90.54 308 *eP* P 16 01 08.8 +0.7
LZH pP pP 16 03 27.5 +0.9
LZH sP sP 16 04 32.0 +1.4
LZH PP PP 16 04 52.0 -3.7
LZH S S 16 10 57.0 -13
**LZH Lanzhou** 90.54 308 sS sS 16 15 14.3 -3.2
**LZH Lanzhou** 90.54 308 SS SS 16 17 28.0 -5.0
LZH pmax pmax
comp=Z,55nm,1.0s
LZH pmax pmax
comp=Z,4μm,9.4s
LZH LR LR
comp=N,6μm,13.6s
LZH LR LR
comp=E,7μm,13.4s
LZH LR LR
comp=Z,6μm,15.3s
**VNA2 Neumayer--Watz** 90.61 177 P P 16 01 07.2 -0.3
baz=188,slow=3.6
**LAO LASA Array** 92.28 41 P P 16 01 16.6 +0.9
baz=245
**RSSD Black Hills** 92.65 44 P P 16 01 18.1 +0.5
baz=247
**INK Inuvik** 92.72 15 P P 16 01 16.1 -1.0
comp=Z,1.9nm,0.8s,baz=254,slow=4.0,SNR=4.3
**YKA Yellowknife Ar** 95.28 25 PKKPbc PKKPbc 16 18 17.9 -2.8
comp=Z,0.1nm,0.5s,baz=37,slow=2.3,SNR=3.9
**KSH Kashi** 112.69 306 PKP **PKiKP** 16 06 36.0 -1.8
KSH PP **PP** 16 07 42.8 +4.1
KSH sPKP 16 10 08.0
KSH PKS **PKSdf** 16 10 10.3 -4.3
KSH SKS **SKSdf** 16 12 46.0 -3.7
KSH SKKS **SKKSac** 16 13 26.0 -7.4
**KSH Kashi** 112.69 306 SS SS 16 22 34.0 -0.1
KSH AMB AMB
comp=Z,860nm,3.0s
KSH LR LR
comp=N,82nm,2.2s
KSH LR LR
comp=E,18nm,7.7s
KSH LR LR
comp=Z,1μm,7.1s
**BVAR Borovoye Array** 116.74 321 PKP **PKPdf** 16 06 44.0 -0.9
comp=Z,1.2nm,0.5s,baz=95,slow=0.4,SNR=6.6
**ARU Arti** 122.85 326 PKP **PKPdf** 16 06 56.0 -0.5
comp=Z,2.8nm,0.5s,baz=247,slow=3.2,SNR=5.0
**ARCES ARCESS Array B** 126.75 349 PKP **PKPdf** 16 07 02.9 -0.9
comp=Z,2.3nm,0.5s,baz=11,slow=1.4,SNR=17
**FINES FINESS Array B** 133.52 343 pPKP pPKPdf 16 09 46.1 +0.9
comp=Z,9.1nm,1.0s,baz=5.7,slow=3.8,SNR=2.3
**NB2 NORSAR Subarra** 136.87 352 PKPdf **PKPdf** 16 07 24.2 +1.1
comp=Z,3.0nm,0.8s,baz=14,slow=1.8
**NOA NORSAR Array B** 136.87 352 PKP **PKPdf** 16 07 24.3 +1.3
comp=Z,1.0nm,0.5s,baz=14,slow=3.8,SNR=3.7
**AKASG Malin Array Be** 140.67 331 PKhKP PKPpre 16 07 23.9
comp=Z,0.4nm,0.4s,baz=43,slow=4.1,SNR=7.1
AKASG PKP **PKPdf** 16 07 31.8 +1.6
comp=Z,1.1nm,0.5s,baz=44,slow=3.1,SNR=8.2
**GKP Gorka Klasztor** 143.00 343 *e*PKP **PKPdf** 16 07 32.7 -1.5
**BR131 Keskin Array S** 144.55 314 *e*PKPdf **PKPdf** 16 07 37.2 -0.4
**BRTR Keskin Array B** 144.55 314 PKP **PKPdf** 16 07 37.7 +0.1
comp=Z,2.4nm,0.7s,baz=126,slow=4.2,SNR=15
**BUR08 Bucovina Ar. S** 144.70 331 *e*PKPdf PKPbc 16 07 38.9 +0.6
**BUR04 Bucovina Ar. S** 144.72 331 *e*PKPdf PKPbc 16 07 38.8 +0.6
**BURAR Bucovina Array** 144.72 331 ⇑*i*P **PKPab** 16 07 39.3 +0.1
**TESR Tescani** 144.81 328 ⇑*i*P **PKPdf** 16 07 38.0 +0.4
**OJC Ojcow** 144.86 338 *e*PKP **PKPdf** 16 07 38.1 +0.5
**STHS Stebnicka Huta** 145.00 336 *e*PKP PKPbc 16 07 39.1 +0.2
STHS *e* 16 07 41.6
**BR231 Keskin MP Arra** 145.09 314 *e*PKPdf **PKPdf** 16 07 38.2 -0.2
**VRI Vrincioaia** 145.22 327 ⇑*i*P **PKPbc** 16 07 40.0 +0.3
**PLOR Plostina** 145.27 327 ⇑*i*P **PKPab** 16 07 42.8 +1.4
**CRVS Cervenica-Dubn** 145.33 336 *e*PKP **PKPbc** 16 07 40.0 +0.1
CRVS *e* 16 07 42.0
**NIE Niedzica** 145.35 337 *e*PKP **PKPbc** 16 07 40.4 +0.5
**KSP Ksiaz** 145.43 342 *e*PKP **PKPbc** 16 07 40.2 +0.1
**UPC Upice** 145.81 342 *e*PKP **PKPbc** 16 07 41.3 +0.1
**DOPR Dopca** 145.82 329 ⇑*i*P **PKPbc** 16 07 41.7 +0.3
**CLL Collm** 145.85 346 *i* PKPbc **PKPbc** 16 07 41.2 0.0
comp=Z,20nm,0.8s
**CLL Collm** 145.85 346 *e*PKPbc **PKPbc** 16 07 40.8 -0.4
**DPC Dobruska-Polom** 145.86 342 *e*PKP **PKPbc** 16 07 41.1 -0.3
**MLR Muntele Rosu** 145.87 328 ⇓*i*P **PKPbc** 16 07 41.5 -0.2
**LANS Liptovska Anna** 145.88 338 *e*PKP **PKPbc** 16 07 42.2 +0.7
LANS *e* 16 07 45.2
**KRLC Kraliky** 145.97 341 *e*PKP **PKPbc** 16 07 41.8 +0.1
**KECS Kecovo** 146.05 336 *e*PKP **PKPbc** 16 07 41.6 -0.3
KECS *e* 16 07 45.3
**PVCC Panska Ves** 146.19 344 *e*PKP **PKPbc** 16 07 42.6 +0.4
**VOIR** 146.36 328 ⇑*i*P **PKPbc** 16 07 43.1 +0.1
**DRGR** 146.47 332 ⇑*i*P **PKPbc** 16 07 43.0 -0.2
**VYHS Vyhne** 146.65 338 *e*PKP **PKPbc** 16 07 43.3 -0.2
VYHS *e* 16 07 47.3
**PRU Pruhonice** 146.69 344 *e*PKP **PKPbc** 16 07 43.1 -0.5
**GOPC GO Pecny, Ondr** 146.69 343 *e*PKP **PKPbc** 16 07 43.6 0.0
**PSZ Piszkesteto** 146.74 336 ⇑*i*P **PKPbc** 16 07 43.7 -0.2
**NKC Novy Kostel** 146.98 346 *e*PKP **PKPbc** 16 07 44.7 +0.3
NKC *ex* x 16 07 48.0
**SIRR Siria** 147.33 333 ⇑*i*P **PKPbc** 16 07 45.3 -0.1
**KHC Kasperske Hory** 147.73 344 *e*PKP **PKPbc** 16 07 46.2 -0.1
KHC *ex* x 16 07 51.4
**KHC Kasperske Hory** 147.73 344 *e*PKPbc **PKPbc** 16 07 46.5 +0.1
**BZS Buzias** 147.86 332 ⇑*i*P **PKPbc** 16 07 46.6 -0.1
**GEC2 GERESS Array S** 147.96 344 *e*PKPbc **PKPbc** 16 07 46.5 -0.5
**GERES GERESS Array B** 147.96 344 PKPbc **PKPbc** 16 07 46.8 -0.2
comp=Z,4.2nm,0.6s,baz=25,slow=3.1,SNR=53
GERES pPKPbc **pPKPab** 16 10 16.7 +2.6
comp=Z,1.0nm,0.8s,baz=11,slow=2.7,SNR=4.4
**GEA0 GERESS Array S** 147.97 344 *e*PKPbc **PKPbc** 16 07 46.4 -0.6
**HERR Herculane** 148.04 330 ⇓*i*P **PKPbc** 16 07 46.7 -0.5
**CONA Conrad Observa** 148.15 340 *i* PKiKP **PKPbc** 16 07 47.7 +0.2
comp=Z,4.4nm,0.6s
**MDVR Moldovita** 148.45 331 ⇑*i*P **PKPbc** 16 07 48.0 -0.3
**MOA Molln** 148.71 342 *i* PKPbc **PKPbc** 16 07 48.6 -0.2
comp=Z,2.2nm,0.5s
**VTS Vitosha** 149.31 326 ⇑*i*P **PKPbc** 16 07 50.2 -0.4
**SOKA Soroth** 149.52 340 *i* PKPbc **PKPbc** 16 07 50.1 -0.8
comp=Z,4.9nm,0.7s
**BFO Black Forest** 149.62 350 *e*PKPbc **PKPbc** 16 07 50.2 -0.7
**KBA Koelnbreinsper** 149.67 343 *i* PKPbc **PKPbc** 16 07 50.4 -0.9
comp=Z,9.0nm,0.6s
**OBKA Obir** 149.82 341 *i* PKPbc **PKPbc** 16 07 50.5 -1.1
comp=Z,2.7nm,0.5s
**WATA Walderalm** 149.90 345 *i* PKiKP **PKPbc** 16 07 51.4 -0.4
comp=Z,9.8nm,0.5s,SNR=8.3
**RETA Reutte** 149.95 346 *i* PKiKP **PKPbc** 16 07 51.5 -0.3
comp=Z,5.0nm,0.5s
**WTTA Wattenberg** 149.95 345 *i* PKiKP **PKPbc** 16 07 51.7 -0.3
comp=Z,14nm,0.5s,SNR=5.7
**MYKA Terra Mystica** 149.99 342 *i* PKPbc **PKPbc** 16 07 50.9 -1.0
comp=Z,8.7nm,0.5s
**MOTA Moosalm** 150.00 346 *i* PKPbc **PKPbc** 16 07 51.6 -0.5
comp=Z,4.0nm,0.4s,SNR=5.5

**ABTA Abfaltersbach** 150.20 343 *i* PKPbc **PKPbc** 16 07 51.5 -1.0
comp=Z,13nm,0.5s,SNR=6.1
**LJU Ljubljana** 150.24 340 *i* PKPbc **PKPbc** 16 07 52.1 -0.3
**CRNS Crni Vrh** 150.29 341 *i* PKPdf **PKPbc** 16 07 51.9 -0.8
**DAVA Damuels** 150.33 347 *i* PKiKP **PKPbc** 16 07 52.5 -0.3
comp=Z,4.3nm,0.6s
**FETA Feichten** 150.39 346 *i* PKiKP **PKPbc** 16 07 52.9 -0.1
comp=Z,7.1nm,0.6s
**FUORN Ofenpass-Fuorn** 150.88 346 *e*PKPbc **PKPbc** 16 07 53.9 -0.3
**TUE Stuetta** 151.22 347 *e*PKPbc **PKPbc** 16 07 54.5 -0.4
**SENIN Lac Senin/Sane** 151.70 350 *e*PKPbc **PKPbc** 16 07 55.4 -0.6

**OBM 27 15:50:49.5±0.2,51.70N×95.79E,h2km,Ml3.5/1,Error ellipse: s-maj=3.0km s-min=1.6km az=15.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **ULG** | **Ulaangom** | **2.94** | **235** | *e*Pg | | Pb | Pb | 15 51 43.1 | +0.5 |
| ULG | | | | *e*Sg | | Sg | Sg | 15 52 22.1 | -1.6 |
| **HTG** | **Hatgal** | **3.03** | **112** | *e*Pg | | Pb | Pb | 15 51 44.1 | -0.1 |
| HTG | | | | *e*Sg | | Sb | Sb | 15 52 23.5 | +1.8 |
| **TSC** | **Tosontsengel** | **3.33** | **151** | *e*Sg | | Sg | Sg | 15 52 33.5 | -3.0 |
| **HBD** | **Hovd** | **4.56** | **218** | *e*Sg | | Sg | Sg | 15 53 11.2 | -4.7 |
| **BYO** | **Bayan-Olgiy** | **4.63** | **236** | *e*Pg | | Pb | Pb | 15 52 13.5 | +2.0 |
| BYO | | | | *e*Sg | | Sg | Sg | 15 53 14.3 | -3.9 |
| **TTS** | **Tsetserleg** | **5.60** | **137** | *e*Sg | | Sg | Sg | 15 53 45.3 | -3.9 |

*OBM **27** 15:53:03.8±0.1,51.95N×95.62E,h2km,Ml4.3,Error ellipse: s-maj=2.1km s-min=1.3km az=175.0*
*ISCJB **27** 15:53:06.5±0.3,51.77N±0.04×95.91E±0.04,h10km, mb4.3/25,Error ellipse: s-maj=5.9km s-min=3.7km az=9.8*
*MOS **27** 15:53:06.7±1.2,51.85N×95.95E,h10km, mb4.5/16,Error ellipse: s-maj=8.9km s-min=7.1km az=22.9*
*IDC **27** 15:53:06.7±0.7,51.87N×96.08E,h0km, mb4.2/17, mb1 4.3/21,mb1mx4.0/59,mbtmp4.2/21,ML3.5/4,Error ellipse: s-maj=16.4km s-min=11.9km az=13.0*
*ASRS **27** 15:53:07.7±0.4,51.88N×95.79E,h15km,Ms3.8/3*
*BJI **27** 15:53:08.3,51.95N×95.30E,h6km,mb4.3/4,ML4.7/1*
*NEIC **27** 15:53:09.9±1.1,51.85N×96.00E,h21km±8km, mb4.3/4, Error ellipse: s-maj=8.0km s-min=4.8km az=192.0*

**ISC 27 15:53:08.4±0.4,51.84N±0.03×95.75E±0.02,h10km,n115,** σ2s61/131,**mb4.2/25,11C-2D,Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **KZLR** | **Kyzyl** | **0.81** | **261** | *e*Pg | | **Pb** | **Pb** | **15 53 24.5** | **-0.1** |
| KZLR | | | | *e*Sg | | **Sb** | **Sb** | **15 53 35.7** | **0.0** |
| **KZLR** | **Kyzyl** | **0.81** | **261** | *e*Pg | | **Pb** | **Pb** | **15 53 24.5** | **-0.1** |
| KZLR | | | | *e* | | | | 15 53 36.7 | |
| **HVS** | **Khovu-Aksy** | **1.46** | **242** | ⇑*i*PN | | **Pn** | | **15 53 31.2** | **-3.7** |
| **ORL** | **Orlik** | **2.60** | **73** | ⇑*i*PN | | **Pb** | | **15 53 52.2** | **-2.9** |
| ORL | | | | *e* | | | | 15 54 24.9 | |
| ORL | | | | pmax | pmax | | | | |
| | comp=Z,1μm,0.6s | | | | | | | | |
| ORL | | | | smax | smax | | | | |
| | comp=N,3μm,0.7s | | | | | | | | |
| **CERR** | **Cheremushki** | **2.84** | **293** | *e*Pn | | **Pb** | | **15 53 56.4** | **-2.8** |
| CERR | | | | *e*Pg | | **Pg** | | **15 53 59.8** | **-3.0** |
| CERR | | | | *e*Sg | | **Sg** | | **15 54 36.7** | **-3.0** |
| **CERR** | **Cheremushki** | **2.84** | **293** | *e*PN | | **Pb** | | **15 53 56.4** | **-2.8** |
| CERR | | | | *e* | | | | 15 53 59.8 | |
| CERR | | | | *e* | | | | 15 54 36.7 | |
| **ULG** | **Ulaangom** | **3.00** | **233** | *e*Pg | | **Pb** | | **15 53 59.1** | **-2.8** |
| ULG | | | | *e*Sg | | **Sb** | | **15 54 37.9** | **-0.6** |
| **HTG** | **Hatgal** | **3.11** | **115** | *e*Pg | | **Pb** | | **15 54 02.9** | **-0.9** |
| HTG | | | | *e*Sg | | **Sb** | | **15 54 42.8** | **+0.9** |
| **MINR** | **Mina** | **3.21** | **344** | *e*Pn | | **Pn** | | **15 53 58.8** | **0.0** |
| MINR | | | | *e*Pg | | **Pg** | | **15 54 06.3** | **-3.4** |
| MINR | | | | *e*Sg | | **Sg** | | **15 54 46.7** | **-4.6** |
| **MOY** | **Mondy** | **3.27** | **91** | *e*PN | | **Pb** | | **15 54 03.7** | **-2.8** |
| MOY | | | | *e* | | | | 15 54 46.5 | |
| MOY | | | | pmax | pmax | | | | |
| | comp=Z,538nm,0.5s | | | | | | | | |
| MOY | | | | smax | smax | | | | |
| | comp=N,5μm,1.1s | | | | | | | | |
| **TSC** | **Tosontsengel** | **3.46** | **151** | *e*Sg | | **Sg** | | **15 54 56.8** | **-2.8** |
| **ARS** | **Arshan** | **4.14** | **86** | *e*PN | | **Pb** | | **15 54 20.3** | **-1.0** |
| ARS | | | | *e* | | | | 15 55 12.8 | |
| ARS | | | | pmax | pmax | | | | |
| | comp=Z,471nm,0.4s | | | | | | | | |
| ARS | | | | smax | smax | | | | |
| | comp=E,5μm,0.7s | | | | | | | | |
| **HBD** | **Hovd** | **4.66** | **216** | *e*Pg | | **Pb** | | **15 54 29.6** | **-0.6** |
| HBD | | | | *e*Sg | | **Sb** | | **15 55 30.6** | **+4.3** |
| **BYO** | **Bayan-Olgiy** | **4.69** | **234** | *e*Pg | | **Pb** | | **15 54 29.7** | **-1.1** |
| BYO | | | | *e*Sg | | **Sb** | | **15 55 29.4** | **+2.0** |
| **TLY** | **Talaya** | **4.91** | **89** | Pg | | **Pb** | | **15 54 33.5** | **-0.9** |
| TLY | | | | Lg | | Lg | | 15 55 36.1 | |
| **TLY** | **Talaya** | **4.91** | **89** | *e*PN | | **Pb** | | **15 54 32.6** | **-1.8** |
| TLY | | | | *e* | | | | 15 54 33.5 | |
| TLY | | | | *e* | | | | 15 55 36.1 | |
| **TLY** | **Talaya** | **4.91** | **89** | *e*Pb | | **Pb** | | **15 54 32.6** | **-1.8** |
| TLY | | | | Pg | | Pg | | 15 54 33.5 | -8.9 |
| TLY | | | | Lg | | Lg | | 15 55 36.1 | |
| **TASR** | **Tashtagol** | **4.92** | **284** | *e*Pg | | **Pb** | | **15 54 38.0** | **+3.5** |
| TASR | | | | *e*Sg | | **Sb** | | **15 55 39.2** | **+5.6** |
| **TASR** | **Tashtagol** | **4.92** | **284** | *e*PN | | **Pb** | | **15 54 38.0** | **+3.5** |
| TASR | | | | *e* | | | | 15 55 39.2 | |
| **ZAK** | **Zakamensk** | **4.97** | **104** | *e*PN | | **Pb** | | **15 54 34.4** | **-1.0** |
| ZAK | | | | pmax | pmax | | | | |
| | comp=Z,158nm,1.3s | | | | | | | | |
| **ARTR** | **Artybash** | **5.25** | **273** | *e*Pg | | **Pg** | | **15 54 45.3** | **-3.6** |
| ARTR | | | | *e*Sg | | **Sg** | | **15 55 51.1** | **-5.8** |
| **ARTR** | **Artybash** | **5.25** | **273** | *e*PN | | **Pg** | | **15 54 45.3** | **-3.6** |
| ARTR | | | | *e* | | | | 15 55 51.1 | |
| **IRK** | **Irkutsk** | **5.28** | **82** | *e*PN | | **Pb** | | **15 54 40.3** | **-0.4** |
| IRK | | | | *e* | | | | 15 55 44.4 | |
| IRK | | | | pmax | pmax | | | | |
| | comp=Z,217nm,0.3s | | | | | | | | |
| IRK | | | | smax | smax | | | | |
| | comp=N,3μm,1.2s | | | | | | | | |
| **AKAR** | **Aktash** | **5.34** | **257** | *e*Pg | | **Pg** | | **15 54 46.4** | **-4.3** |
| AKAR | | | | *e*Sg | | **Sg** | | **15 55 54.8** | **-5.0** |
| **AKAR** | **Aktash** | **5.34** | **257** | *e*PN | | **Pg** | | **15 54 46.4** | **-4.3** |
| AKAR | | | | *e* | | | | 15 55 54.8 | |
| **DGZ** | **Jazzator, Alta** | **5.69** | **251** | ⇑*i*PN | | **Pn** | | **15 54 35.3** | **+2.2** |
| **TTS** | **Tsetserleg** | **5.72** | **137** | *e*Pg | | **Pb** | | **15 54 50.7** | **+2.4** |
| TTS | | | | *e*Sg | | **Sb** | | **15 56 03.9** | **+7.0** |
| **BRCR** | **Berchikul'** | **5.82** | **314** | *e*Pn | | **Pn** | | **15 54 35.6** | **+0.9** |
| BRCR | | | | *e*Pg | | **Pg** | | **15 54 53.2** | **+3.2** |
| BRCR | | | | *e*Sg | | **Sg** | | **15 56 10.0** | **-5.2** |
| **BRCR** | **Berchikul'** | **5.82** | **314** | *e*PN | | **Pn** | | **15 54 35.6** | **+0.9** |
| BRCR | | | | *e* | | | | 15 54 53.2 | |
| BRCR | | | | *e* | | | | 15 56 09.0 | |
| **BLGM** | **Bulgan** | **5.84** | **118** | *e*Sg | | **Sg** | | **15 56 12.1** | **-3.8** |
| **ELT** | **Eltsovka** | **5.97** | **288** | *e*Pg | | **Pb** | | **15 54 55.9** | **+3.4** |
| ELT | | | | *e*Sg | | **Sg** | | **15 56 12.3** | **-7.7** |
| **ELT** | **Eltsovka** | **5.97** | **288** | *e*PN | | **Pb** | | **15 54 55.9** | **+3.4** |
| ELT | | | | *e* | | | | 15 56 12.3 | |
| **UKR** | **Ust'-Kan** | **6.93** | **267** | *e*Pg | | Pb | | 15 55 14.6 | +5.8 |
| UKR | | | | *e*Sg | | **Sg** | | **15 56 43.4** | **-7.2** |
| **UKR** | **Ust'-Kan** | **6.93** | **267** | *eP** | | Pb | | 15 55 14.6 | +5.8 |
| UKR | | | | *e* | | | | 15 56 43.4 | |
| **ZALV** | **Zalesovo Beam** | **6.94** | **292** | Pn | | **Pn** | | **15 54 53.0** | **+2.9** |
| | comp=N,1.7nm,0.3s,baz=110,slow=12,SNR=5.7 | | | | | | | | |
| ZALV | | | | Lg | | Lg | | 15 56 45.4 | |
| | comp=N,12nm,0.3s,baz=106,slow=25,SNR=6.9 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **6.94** | **292** | PN | | **Pn** | | **15 54 53.0** | **+2.9** |
| ZALV | | | | pmax | pmax | | | | |
| | comp=Z,2.0nm,0.3s | | | | | | | | |
| **OGRR** | **Ongureny** | **7.42** | **71** | *e*P | | **Pn** | | **15 54 56.8** | **+0.1** |
| OGRR | | | | pmax | pmax | | | | |
| | comp=Z,152nm,0.9s | | | | | | | | |
| **SONM** | **Songino Array** | **7.96** | **116** | Pg | | **Pb** | | **15 55 28.5** | **+2.0** |
| | comp=Z,4.0nm,0.3s,baz=304,slow=18,SNR=7.4 | | | | | | | | |
| SONM | | | | Lg | | Lg | | 15 57 14.2 | |
| | comp=Z,11nm,0.3s,baz=307,slow=30,SNR=9.9 | | | | | | | | |
| **NVS** | **Novosibirsk** | **8.07** | **297** | *e*Pg | | Pb | | 15 55 33.0 | +4.8 |
| NVS | | | | *e*Sg | | **Sg** | | **15 57 18.6** | **-8.5** |
| **NVS** | **Novosibirsk** | **8.07** | **297** | *eP* | | Pb | | 15 55 18.2 | -10 |
| **ULN** | **Ulaanbaatar** | **8.32** | **114** | ⇑*eP* | | **Pn** | | **15 55 08.6** | **-0.5** |
| **ULN** | **Ulaanbaatar** | **8.32** | **114** | *e*Pn | | **Pn** | | **15 55 07.0** | **-2.1** |
| | comp=Z,22nm,0.7s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | comp=Z,0.9nm,0.3s,baz=68,slow=27,SNR=3.9 | | | | | | | |
| **MKAR** | **Makanchi Array** | **10.13** | **245** | *i* P | | Pn | 15 55 39.0 | +5.2 |
| MKAR | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,0.8s | | | | | | | |
| **KURK** | **Kurchatov** | **10.79** | **271** | ⇑*i* P | | **Pn** | **15 55 45.4** | **+2.6** |
| **KURK** | **Kurchatov** | **10.79** | **271** | Pn | | **Pn** | **15 55 46.4** | **+3.6** |
| KURK | | | | Lg | Lg | | 15 58 48.9 | |
| **KURBB** | **Kurchatov Arra** | **10.87** | **270** | Pn | | **Pn** | **15 55 46.4** | **+2.5** |
| | comp=Z,0.3nm,0.3s,baz=74,slow=16,SNR=9.3 | | | | | | | |
| KURBB | | | | Lg | Lg | | 15 58 48.9 | |
| | comp=Z,0.2nm,0.3s,baz=74,slow=33,SNR=8.0 | | | | | | | |
| **PDGK** | **Podgornoye** | **13.86** | **239** | P | | **Pn** | **15 56 25.6** | **+0.7** |
| **HIA** | **Hailar** | **15.45** | **90** | ⇑*e*P | | **Pn** | **15 56 43.7** | **-2.6** |
| **BVAR** | **Borovoye Array** | **15.49** | **284** | Pn | | **Pn** | **15 56 47.4** | **+0.7** |
| | comp=Z,0.4nm,0.3s,baz=75,slow=14,SNR=9.9 | | | | | | | |
| **BRVK** | **Borovoye** | **15.55** | **285** | ⇑*i* P | | **P** | **15 56 49.8** | **-2.1** |
| BRVK | | | | pmax | pmax | | | |
| | comp=Z,9.0nm,1.0s | | | | | | | |
| **BRVK** | **Borovoye** | **15.55** | **285** | *e*Pn | | **P** | **15 56 49.2** | **-2.6** |
| | comp=Z,26nm,0.9s | | | | | | | |
| **AAK** | **Ala-Archa** | **17.06** | **246** | ⇑*i* P | | **P** | **15 57 10.2** | **+1.3** |
| AAK | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,1.1s | | | | | | | |
| **MNAS** | **Manas** | **18.29** | **248** | P | | **P** | **15 57 23.6** | **+1.2** |
| **KKAR** | **Karatay Array** | **19.09** | **253** | *e*P | | **Pn** | **15 57 32.6** | **+0.8** |
| KKAR | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.4s | | | | | | | |
| **KKAR** | **Karatay Array** | **19.09** | **253** | *e*P | | **Pn** | **15 57 32.6** | **+0.8** |
| | comp=Z,1.2nm,0.4s | | | | | | | |
| **SFK** | **Sufi-Kurgan** | **19.38** | **241** | P | | **Pn** | **15 57 36.4** | **+0.8** |
| **YAK** | **Yakutsk** | **20.88** | **48** | *e*P | | **P** | **15 57 49.2** | **-1.2** |
| YAK | | | | pmax | pmax | | | |
| | comp=Z,17nm,1.0s | | | | | | | |
| YAK | | | | pmax | pmax | | | |
| | comp=E,3.0nm,1.0s | | | | | | | |
| YAK | | | | pmax | pmax | | | |
| | comp=N,2.0nm,1.0s | | | | | | | |
| **SVE** | **Sverdlovsk** | **20.91** | **298** | *e*P | | Pn | 15 57 51.8 | -1.4 |
| **ARU** | **Arti** | **22.07** | **297** | P | | **P** | **15 58 04.7** | **+1.5** |
| | comp=N,5.6nm,0.6s,baz=90,slow=6.8,SNR=11 | | | | | | | |
| **ARU** | **Arti** | **22.07** | **297** | *c i*P | | **P** | **15 58 05.2** | **+2.0** |
| ARU | | | | | | | 15 58 28.8 | |
| ARU | | | | S | | Sn | 16 02 12.5 | -4.6 |
| ARU | | | | SS | | **SnSn** | **16 02 36.4** | **+4.2** |
| ARU | | | | pmax | pmax | | | |
| | comp=Z,19nm,1.7s | | | | | | | |
| **ARU** | **Arti** | **22.07** | **297** | *e*P | | **P** | **15 58 04.7** | **+1.5** |
| | comp=Z,887nm,3.2s | | | | | | | |
| **ABKAR** | **Akbulak array** | **22.75** | **278** | *e*P | | **P** | **15 58 10.8** | **+0.3** |
| | comp=Z,6.8nm,0.9s | | | | | | | |
| **KLR** | **Kul'dur** | **22.89** | **82** | ⇓P | | **P** | **15 58 11.4** | **-0.6** |
| **AKTO** | **Aktyubinsk** | **23.55** | **282** | P | | **P** | **15 58 20.0** | **+1.4** |
| | comp=Z,16nm,0.7s,baz=81,slow=11,SNR=46 | | | | | | | |
| **TIXI** | **Tiksi** | **24.71** | **24** | P | | **P** | **15 58 29.4** | **+0.1** |
| | comp=Z,20nm,0.6s,baz=216,slow=3.5,SNR=9.0 | | | | | | | |
| **TIXI** | **Tiksi** | **24.71** | **24** | ⇓*e*P | | **P** | **15 58 29.3** | **+0.1** |
| TIXI | | | | pmax | pmax | | | |
| | comp=Z,16nm,0.8s | | | | | | | |
| **TIXI** | **Tiksi** | **24.71** | **24** | *e*P | | **P** | **15 58 28.9** | **-0.4** |
| | comp=Z,20nm,0.8s | | | | | | | |
| **MSHR** | **Mys Shultsa** | **25.55** | **97** | *i* P | | **P** | **15 58 36.8** | **-0.3** |
| **KSRS** | **Korea Array** | **26.77** | **110** | *e*P | | **P** | **15 58 51.9** | **+3.7** |
| KSRS | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,0.9s | | | | | | | |
| **TJN** | **Taejon** | **27.19** | **112** | *i* P | | **P** | **15 58 51.9** | **-0.1** |
| **YSS** | **Yuzh-Sakhalins** | **30.55** | **80** | P | | **P** | **15 59 20.4** | **-1.4** |
| **SEY** | **Seymchan** | **31.41** | **47** | ⇑P | | **P** | **15 59 28.4** | **-0.8** |
| **KLMR** | **Klimovskoe** | **31.49** | **309** | *e*P | | **P** | **15 59 29.0** | **-0.9** |
| KLMR | | | | pmax | pmax | | | |
| | comp=Z,29nm,1.4s | | | | | | | |
| **CHTO** | **Chiang Mai** | **33.05** | **174** | *e*P | | **P** | **15 59 43.0** | **-1.0** |
| **CHTO** | **Chiang Mai** | **33.05** | **174** | *e*P | | **P** | **15 59 43.0** | **-1.0** |
| **CMAR** | **Chiang Mai Arr** | **33.40** | **174** | P | | **P** | **15 59 46.7** | **-0.4** |
| | comp=Z,0.6nm,0.5s,baz=358,slow=8.3,SNR=5.3 | | | | | | | |
| **OBN** | **Obninsk** | **34.46** | **299** | *e*P | | **P** | **15 59 55.3** | **-0.6** |
| OBN | | | | pmax | pmax | | | |
| | comp=Z,8.0nm,1.0s | | | | | | | |
| **ZEI** | **Tsey** | **35.61** | **276** | *e*P | | **P** | **16 00 05.9** | **-0.4** |
| ZEI | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,0.8s | | | | | | | |
| **KIV** | **Kislovodsk** | **35.73** | **279** | *e*P | | **P** | **16 00 09.6** | **+2.5** |
| KIV | | | | pmax | pmax | | | |
| | comp=Z,11nm,1.0s | | | | | | | |
| **NEY** | **Neytrino** | **36.09** | **278** | ⇑*i* P | | **P** | **16 00 13.6** | **+3.3** |
| NEY | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,1.0s | | | | | | | |
| **ARCES** | **ARCESS Array B** | **36.11** | **326** | P | | **P** | **16 00 10.0** | **0.0** |
| | comp=Z,5.7nm,1.0s,baz=64,slow=11,SNR=4.7 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **36.11** | **326** | P | | **P** | **16 00 10.0** | **0.0** |
| ARCES | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,1.0s | | | | | | | |
| **FINES** | **FINESS Array B** | **37.69** | **313** | P | | **P** | **16 00 24.2** | **+0.8** |
| | comp=Z,3.5nm,0.7s,baz=58,slow=7.5,SNR=7.9 | | | | | | | |
| **AKASG** | **Malin Array Be** | **40.32** | **296** | P | | **P** | **16 00 46.2** | **+0.6** |
| | comp=Z,2.9nm,0.9s,baz=56,slow=9.0,SNR=7.2 | | | | | | | |
| **AKASG** | **Malin Array Be** | **40.32** | **296** | *i* P | | **P** | **16 00 46.5** | **+0.9** |
| AKASG | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,0.9s | | | | | | | |
| **BRTR** | **Keskin Array B** | **43.69** | **279** | P | | **P** | **16 01 14.8** | **+1.4** |
| | comp=Z,3.5nm,0.8s,baz=76,slow=7.1,SNR=16 | | | | | | | |
| **NB2** | **NORSAR Subarra** | **44.45** | **316** | P | | **P** | **16 01 19.2** | **+0.1** |
| | comp=Z,5.9nm,0.7s,baz=61,slow=7.9 | | | | | | | |
| **NOA** | **NORSAR Array B** | **44.45** | **316** | P | | **P** | **16 01 19.3** | **+0.1** |
| | comp=Z,4.8nm,0.7s,baz=62,slow=7.9,SNR=7.9 | | | | | | | |
| **ASF** | **Jabal al Asfar** | **46.55** | **269** | P | | **P** | **16 01 37.9** | **+1.8** |
| | comp=Z,2.3nm,0.7s,baz=31,slow=5.9,SNR=3.3 | | | | | | | |
| **VYHS** | **Vyhne** | **47.23** | **298** | *e*P | | **P** | **16 01 42.2** | **+1.0** |
| **VYHS** | **Vyhne** | **47.23** | **298** | *e*P | | **P** | **16 01 42.2** | **+1.0** |
| **VYHS** | **Vyhne** | **47.23** | **298** | *e*P | | **P** | **16 01 42.2** | **+1.0** |
| **DPC** | **Dobruska-Polom** | **47.53** | **301** | *e*P | | **P** | **16 01 45.5** | **+1.9** |
| **DPC** | **Dobruska-Polom** | **47.53** | **301** | *e*P | | **P** | **16 01 45.5** | **+1.9** |
| **UPC** | **Upice** | **47.61** | **302** | *e*P | | **P** | **16 01 45.7** | **+1.6** |
| UPC | | | | *ep*P | | **sP** | **16 01 50.6** | **+2.1** |
| **UPC** | **Upice** | **47.61** | **302** | *e*P | | **P** | **16 01 45.7** | **+1.6** |
| UPC | | | | *e* | | | 16 01 50.6 | |
| **BRG** | **Berggiesshubel** | **48.49** | **303** | *e*P | | **P** | **16 01 51.1** | **+0.2** |
| BRG | | | | pmax | pmax | | | |
| | comp=Z,76nm,2.1s | | | | | | | |
| **BRG** | **Berggiesshubel** | **48.49** | **303** | *e*PKPPKP | | **P** | **16 01 51.1** | **+0.2** |
| | comp=Z,76nm,2.1s | | | | | | | |
| **PRU** | **Pruhonice** | **48.68** | **302** | *e*P | | **P** | **16 01 51.0** | **-1.4** |
| PRU | | | | *ep*P | | **sP** | **16 02 01.2** | **+4.4** |
| **PRU** | **Pruhonice** | **48.68** | **302** | *e*P | | **P** | **16 01 51.0** | **-1.4** |
| **CLL** | **Collm** | **48.72** | **304** | *i* P | | **P** | **16 01 53.8** | **+1.1** |
| **CLL** | **Collm** | **48.72** | **304** | *i* P | | **P** | **16 01 53.8** | **+1.1** |
| **KHC** | **Kasperske Hory** | **49.69** | **301** | *e*P | | **P** | **16 02 01.6** | **+1.4** |
| KHC | | | | *ep*P | | **sP** | **16 02 07.2** | **+2.6** |
| **KHC** | **Kasperske Hory** | **49.69** | **301** | *e*P | | **P** | **16 02 01.6** | **+1.4** |
| KHC | | | | *e* | | | 16 02 07.2 | |
| **GERES** | **GERESS Array B** | **49.80** | **301** | P | | **P** | **16 02 01.8** | **+0.7** |
| | comp=Z,0.8nm,0.8s,baz=39,slow=8.6,SNR=5.7 | | | | | | | |
| **GERES** | **GERESS Array B** | **49.80** | **301** | *e*P | | **P** | **16 02 03.0** | **+1.9** |
| GERES | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.7s | | | | | | | |
| **INK** | **Inuvik** | **54.73** | **20** | P | | **P** | **16 02 36.6** | **-0.7** |
| | comp=Z,2.1nm,0.9s,baz=341,slow=9.1,SNR=3.9 | | | | | | | |
| **ESDC** | **Sonseca Array** | **65.30** | **303** | P | | **P** | **16 03 51.2** | **+0.8** |
| | comp=Z,0.2nm,0.3s,baz=46,slow=5.2,SNR=5.9 | | | | | | | |
| **ULM** | **Lac du Bonnet** | **77.81** | **8** | P | | **P** | **16 05 04.2** | **-1.3** |
| | comp=Z,3.7nm,0.9s,baz=338,slow=1.9,SNR=4.3 | | | | | | | |
| **WRA** | **Warramunga Arr** | **79.03** | **143** | P | | **P** | **16 05 11.8** | **-0.7** |
| | comp=Z,1.8nm,0.9s,baz=340,slow=5.6,SNR=4.0 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **82.27** | **281** | P | | **P** | **16 05 30.5** | **+0.4** |
| | comp=Z,2.3nm,0.7s,baz=39,slow=5.4,SNR=12 | | | | | | | |
| **ASAR** | **Alice Springs** | **82.28** | **145** | P | | **P** | **16 05 30.3** | **+0.4** |
| | comp=Z,1.9nm,0.9s,baz=332,slow=4.8,SNR=9.5 | | | | | | | |
| **ASAR** | **Alice Springs** | **82.28** | **145** | *e*P | | **P** | **16 05 29.9** | **0.0** |
| ASAR | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.9s | | | | | | | |
| **NNA** | **Nana** | **139.81** | **349** | *i* PKIKP | | **PKPdf** | **16 12 40.2** | **+3.4** |

*OBM **27** 16:01:17.7±0.2,51°.85N×95°.74E,h2km,Ml4.1/2,Error ellipse: s-maj=2.4km s-min=0.9km az=170.0*
*MOS **27** 16:01:21.4±1.9,51°.66N×96°.11E,h12km,mb4.0/8,Error ellipse: s-maj=14.1km s-min=11.0km az=178.0*
*IDC **27** 16:01:22.3±0.7,51°.61N×95°.98E,h0km,mb3.8/10, mb1 3.8/15,mb1mx3.6/55,mbtmp3.7/15,ML3.0/4,Error ellipse: s-maj=17.5km s-min=11.6km az=170.0*

**ISC 27 16:01:22.6±0.5,51°.64N±0°.04×96°.05E±0°.03,h10km,n76, σ2s45/97,mb3.9/12,6C-4D,Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **HVS** | **Khovu-Aksy** | **1.56** | **252** | ⇑*i* | PN | **Pn** | **16 01 48.6** | **-1.8** |
| **ORL** | **Orlik** | **2.49** | **67** | ⇓*i* | PN | **Pn** | **16 02 05.0** | **+1.7** |
| ORL | | | | *e* | | | 16 02 36.9 | |
| ORL | | | | pmax | pmax | | | |
| | comp=Z,274nm,0.5s | | | | | | | |
| ORL | | | | smax | smax | | | |
| | comp=E,1μm,0.9s | | | | | | | |
| **HTG** | **Hatgal** | **2.85** | **113** | *e*Pg | | **Pb** | **16 02 14.8** | **+1.1** |
| HTG | | | | *e*Sg | | **Sg** | **16 02 55.5** | **+1.2** |
| **HTG** | **Hatgal** | **2.85** | **113** | *e*Pg | | **Pb** | **16 02 14.1** | **+0.4** |
| HTG | | | | *e*Sg | | **Sg** | **16 02 54.2** | **-0.1** |
| **ULG** | **Ulaangom** | **3.04** | **238** | *e*Pg | | **Pb** | **16 02 11.4** | **+0.6** |
| ULG | | | | *e*Sg | | **Sb** | **16 02 50.1** | **-3.9** |
| **ULG** | **Ulaangom** | **3.04** | **238** | *e*Pg | | **Pb** | **16 02 13.2** | **-3.6** |
| ULG | | | | *e*Sg | | **Sb** | **16 02 51.5** | **-2.5** |
| **MOY** | **Mondy** | **3.08** | **88** | ⇑*i* | PN | **Pb** | **16 02 16.5** | **-1.0** |
| MOY | | | | *e* | | | 16 02 57.8 | |
| MOY | | | | pmax | pmax | | | |
| | comp=Z,229nm,0.5s | | | | | | | |
| MOY | | | | smax | smax | | | |
| | comp=E,1μm,1.0s | | | | | | | |
| **TSC** | **Tosontsengel** | **3.20** | **153** | *e*Pg | | **Pg** | **16 02 21.6** | **-2.3** |
| TSC | | | | *e*Sg | | **Sg** | **16 03 07.1** | **+1.7** |
| **TSC** | **Tosontsengel** | **3.20** | **153** | *e*Pg | | **Pg** | **16 02 21.8** | **-2.1** |
| TSC | | | | *e*Sg | | **Sg** | **16 03 05.8** | **+0.4** |
| **ARS** | **Arshan** | **3.97** | **83** | *e*PN | | **Pb** | **16 02 32.7** | **+0.1** |
| ARS | | | | *e* | | | 16 03 25.3 | |
| ARS | | | | pmax | pmax | | | |
| | comp=Z,129nm,0.4s | | | | | | | |
| ARS | | | | smax | smax | | | |
| | comp=E,3μm,0.5s | | | | | | | |
| **HBD** | **Hovd** | **4.62** | **220** | *e*Pg | | **Pb** | **16 02 42.1** | **-1.6** |
| HBD | | | | *e*Sg | | **Sb** | **16 03 42.1** | **+2.7** |
| **HBD** | **Hovd** | **4.62** | **220** | *e*Pg | | **Pb** | **16 02 42.4** | **-1.3** |
| HBD | | | | *e*Sg | | **Sg** | **16 03 43.4** | **-7.3** |
| **TLY** | **Talaya** | **4.73** | **87** | Lg | | Lg | 16 03 48.5 | |
| | baz=60,slow=18 | | | | | | | |
| **TLY** | **Talaya** | **4.73** | **87** | ⇑*e*PN | | **Pn** | **16 02 32.8** | **-1.2** |
| **ZAK** | **Zakamensk** | **4.74** | **103** | *e*PN | | **Pb** | **16 02 46.2** | **+0.5** |
| ZAK | | | | *e* | | | 16 03 47.9 | |
| ZAK | | | | pmax | pmax | | | |
| | comp=Z,141nm,1.1s | | | | | | | |
| ZAK | | | | smax | smax | | | |
| | comp=N,549nm,1.4s | | | | | | | |
| **BYO** | **Bayan-Olgiy** | **4.74** | **238** | *e*Pg | | **Pb** | **16 02 41.6** | **-4.2** |
| BYO | | | | *e*Sg | | **Sb** | **16 03 41.5** | **-1.4** |
| **BYO** | **Bayan-Olgiy** | **4.74** | **238** | *e*Pg | | **Pb** | **16 02 43.6** | **-2.2** |
| BYO | | | | *e*Sg | | **Sb** | **16 03 44.2** | **+1.3** |
| **IRK** | **Irkutsk** | **5.12** | **80** | *e*PN | | **Pb** | **16 02 52.8** | **+0.5** |
| IRK | | | | *e* | | | 16 03 57.8 | |
| IRK | | | | pmax | pmax | | | |
| | comp=Z,96nm,0.5s | | | | | | | |
| IRK | | | | smax | smax | | | |
| | comp=N,2μm,0.9s | | | | | | | |
| **TTS** | **Tsetserleg** | **5.44** | **138** | *e*Pg | | **Pb** | **16 03 02.0** | **+4.2** |
| TTS | | | | *e*Sg | | **Sg** | **16 04 16.7** | **-0.5** |
| **TTS** | **Tsetserleg** | **5.44** | **138** | *e*Pg | | **Pb** | **16 03 01.9** | **+4.1** |
| TTS | | | | *e*Sg | | **Sg** | **16 04 15.9** | **-1.3** |
| **BLGM** | **Bulgan** | **5.58** | **118** | *e*Sg | | **Sg** | **16 04 21.9** | **+0.1** |
| **BLGM** | **Bulgan** | **5.58** | **118** | *e*Pg | | **Pb** | **16 03 04.0** | **+3.8** |
| BLGM | | | | *e*Sg | | **Sg** | **16 04 20.3** | **-1.5** |
| **DGZ** | **Jazzator, Alta** | **5.81** | **254** | ⇑*e*PN | | **Pn** | **16 02 49.3** | **+0.3** |
| **TRG** | **Tyrgan** | **6.43** | **76** | *e*PN | | **Pn** | **16 02 57.3** | **0.0** |
| TRG | | | | *e* | | | 16 03 16.3 | |
| TRG | | | | *e* | | | 16 04 36.8 | |
| TRG | | | | pmax | pmax | | | |
| | comp=Z,54nm,0.8s | | | | | | | |
| TRG | | | | smax | smax | | | |
| | comp=N,414nm,1.0s | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **7.19** | **293** | Pn | | **Pn** | **16 03 09.9** | **+2.2** |
| | comp=N,0.6nm,0.3s,baz=104,slow=12,SNR=4.2 | | | | | | | |
| ZALV | | | | Lg | | Lg | 16 04 57.9 | |
| | comp=N,5.3nm,0.3s,baz=99,slow=34,SNR=6.4 | | | | | | | |
| **SONB5** | **Songino Array** | **7.68** | **116** | *e*Pn | | **Pn** | **16 03 13.0** | **-1.6** |
| | comp=N,239nm,0.8s | | | | | | | |
| SONB5 | | | | *e*Sg | | **Sg** | **16 05 27.3** | **-1.7** |
| **SONB5** | **Songino Array** | **7.68** | **116** | *e*Sg | | **Sg** | **16 05 26.9** | **-2.1** |
| | comp=N,250nm,0.8s | | | | | | | |
| **SONB4** | **Songino Array** | **7.69** | **116** | *e*Pn | | **Pn** | **16 03 13.9** | **-0.8** |
| | comp=N,186nm,0.7s | | | | | | | |
| SONB4 | | | | *e*Sg | | **Sg** | **16 05 26.9** | **-2.3** |
| **SONB4** | **Songino Array** | **7.69** | **116** | *e*Sg | | **Sg** | **16 05 27.1** | **-2.1** |
| | comp=N,182nm,0.6s | | | | | | | |
| **SONB1** | **Songino Array** | **7.70** | **115** | *e*Pn | | **Pn** | **16 03 13.9** | **-0.9** |
| | comp=N,211nm,0.9s | | | | | | | |
| SONB1 | | | | *e*Sg | | **Sg** | **16 05 26.7** | **-2.8** |
| **SONB1** | **Songino Array** | **7.70** | **115** | *e*Sg | | **Sg** | **16 05 26.7** | **-2.8** |
| | comp=N,148nm,0.6s | | | | | | | |
| **SONA2** | **Songino Array** | **7.70** | **115** | *e*Pn | | **Pn** | **16 03 13.6** | **-1.3** |
| | comp=N,233nm,0.8s | | | | | | | |
| SONA2 | | | | *e*Sg | | **Sg** | **16 05 26.8** | **-2.8** |
| **SONA2** | **Songino Array** | **7.70** | **115** | *e*Pg | | **Pb** | **16 03 40.3** | **+4.1** |
| SONA2 | | | | *e*Sg | | **Sg** | **16 05 26.5** | **-3.1** |
| | comp=N,206nm,0.8s | | | | | | | |
| **SONA1** | **Songino Array** | **7.70** | **115** | *e*Pn | | **Pn** | **16 03 13.8** | **-1.1** |
| | comp=N,216nm,0.9s | | | | | | | |
| SONA1 | | | | *e*Sg | | **Sg** | **16 05 27.0** | **-2.7** |
| **SONA1** | **Songino Array** | **7.70** | **115** | *e*Sg | | **Sg** | **16 05 26.9** | **-2.8** |
| | comp=N,198nm,0.8s | | | | | | | |
| **SONA0** | **Songino Array** | **7.71** | **116** | *e*Sg | | **Sg** | **16 05 27.1** | **-2.7** |
| **SONA0** | **Songino Array** | **7.71** | **116** | *e*Sg | | **Sg** | **16 05 27.0** | **-2.8** |
| **SONM** | **Songino Array** | **7.71** | **116** | Pn | | **Pn** | **16 03 18.0** | **+3.0** |
| | baz=300,slow=14,SNR=2.2 | | | | | | | |
| SONM | | | | Pg | | **Pb** | **16 03 40.1** | **+3.7** |
| | comp=N,2.3nm,0.3s,baz=305,slow=16,SNR=8.2 | | | | | | | |
| SONM | | | | Lg | | Lg | 16 05 29.9 | |
| | comp=N,5.6nm,0.3s,baz=308,slow=31,SNR=9.1 | | | | | | | |
| **SONM** | **Songino Array** | **7.71** | **116** | P | | **Pn** | **16 03 18.0** | **+3.0** |
| SONM | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.3s | | | | | | | |
| **SONA3** | **Songino Array** | **7.71** | **115** | *e*Pn | | **Pn** | **16 03 13.8** | **-1.2** |
| | comp=Z,200nm,0.8s | | | | | | | |
| SONA3 | | | | *e*Sg | | **Sg** | **16 05 27.4** | **-2.4** |
| **SONA3** | **Songino Array** | **7.71** | **115** | *e*Sg | | **Sg** | **16 05 26.7** | **-3.1** |
| | comp=Z,161nm,0.7s | | | | | | | |
| **SONA4** | **Songino Array** | **7.71** | **115** | *e*Pn | | **Pn** | **16 03 14.2** | **-0.8** |
| | comp=Z,218nm,0.8s | | | | | | | |
| SONA4 | | | | *e*Sg | | **Sg** | **16 05 27.2** | **-2.7** |
| **SONA4** | **Songino Array** | **7.71** | **115** | *e*Sg | | **Sg** | **16 05 27.0** | **-2.9** |
| | comp=Z,171nm,0.6s | | | | | | | |
| **SONB2** | **Songino Ar. Si** | **7.71** | **115** | *e*Pn | | **Pn** | **16 03 13.9** | **-1.2** |
| | comp=Z,174nm,0.8s | | | | | | | |
| SONB2 | | | | *e*Sg | | **Sg** | **16 05 27.2** | **-2.9** |
| **SONB2** | **Songino Ar. Si** | **7.71** | **115** | *e*Sg | | **Sg** | **16 05 27.0** | **-3.1** |
| | comp=Z,143nm,0.6s | | | | | | | |
| **SONB3** | **Songino Array** | **7.72** | **116** | *e*Pn | | **Pn** | **16 03 13.9** | **-1.2** |
| | comp=Z,242nm,0.9s | | | | | | | |
| SONB3 | | | | *e*Sg | | **Sg** | **16 05 27.3** | **-2.9** |
| **SONB3** | **Songino Array** | **7.72** | **116** | *e*Sg | | **Sg** | **16 05 27.3** | **-2.9** |
| | comp=Z,240nm,0.9s | | | | | | | |
| **ALFM** | | **7.84** | **114** | *e*Sg | | **Sg** | **16 05 29.1** | **-5.0** |
| | comp=Z,307nm,1.1s | | | | | | | |
| **ALFM** | | **7.84** | **114** | *e*Pg | | Pb | 16 03 43.9 | +5.3 |
| ALFM | | | | *e*Sg | | **Sg** | **16 05 30.5** | **-3.6** |
| | comp=Z,250nm,1.0s | | | | | | | |
| **ARTM** | | **8.15** | **113** | *e*Sg | | **Sg** | **16 05 40.9** | **-3.2** |
| | comp=Z,149nm,0.7s | | | | | | | |
| **ARTM** | | **8.15** | **113** | *e*Pg | | Pb | 16 03 48.9 | +4.9 |
| ARTM | | | | *e*Sg | | **Sg** | **16 05 40.7** | **-3.4** |
| | comp=Z,135nm,0.7s | | | | | | | |
| **UGDM** | | **8.38** | **114** | *e*Sg | | **Sg** | **16 05 48.3** | **-3.1** |
| | comp=Z,73nm,0.6s | | | | | | | |
| **UGDM** | | **8.38** | **114** | *e*Pg | | Pb | 16 03 53.7 | +5.9 |
| UGDM | | | | *e*Sg | | **Sg** | **16 05 46.8** | **-4.6** |
| | comp=Z,138nm,0.8s | | | | | | | |
| **MKAR** | **Makanchi Array** | **10.22** | **247** | Pn | | **Pn** | **16 03 49.1** | **-0.2** |
| | comp=Z,0.2nm,0.3s,baz=53,slow=16,SNR=5.8 | | | | | | | |
| MKAR | | | | Pg | | | 16 04 28.0 | |
| | comp=Z,0.7nm,0.3s,baz=64,slow=20,SNR=5.0 | | | | | | | |
| MKAR | | | | Lg | | Lg | 16 06 47.6 | |
| | comp=Z,1.0nm,0.3s,baz=59,slow=30,SNR=5.9 | | | | | | | |
| **MKAR** | **Makanchi Array** | **10.22** | **247** | *e*P | | Pn | 16 04 02.7 | +13 |
| MKAR | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.3s | | | | | | | |
| **KURK** | **Kurchatov** | **10.98** | **272** | *e*P | | Pn | 16 04 07.5 | +7.8 |
| KURK | | | | pmax | pmax | | | |
| | comp=Z,9.0nm,1.1s | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **11.06** | **272** | Pn | | **Pn** | **16 04 01.5** | **+0.8** |
| | comp=Z,0.1nm,0.3s,baz=75,slow=16,SNR=2.8 | | | | | | | |
| KURBB | | | | Lg | | Lg | 16 07 11.9 | |
| | comp=Z,0.2nm,0.3s,baz=79,slow=30,SNR=9.2 | | | | | | | |
| **HIA** | **Hailar** | **15.26** | **90** | ⇓*i* | P | **Pn** | **16 04 56.8** | **-1.2** |
| **BVAR** | **Borovoye Array** | **15.72** | **285** | Pn | | **Pn** | **16 05 02.5** | **-1.5** |
| | comp=Z,0.2nm,0.3s,baz=83,slow=12,SNR=3.7 | | | | | | | |
| **BRVK** | **Borovoye** | **15.79** | **285** | ⇑*e*P | | **P** | **16 05 07.8** | **-0.9** |
| BRVK | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,1.3s | | | | | | | |
| **YAK** | **Yakutsk** | **20.88** | **47** | ⇓*e*P | | **P** | **16 06 02.3** | **-2.2** |
| **ARU** | **Arti** | **22.33** | **297** | ⇓*i* P | | **P** | **16 06 23.9** | **+3.7** |
| ARU | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,1.1s | | | | | | | |
| **AKTO** | **Aktyubinsk** | **23.77** | **282** | P | | **P** | **16 06 33.5** | **-1.6** |
| | comp=Z,3.1nm,0.7s,baz=65,slow=10,SNR=6.2 | | | | | | | |
| **TIXI** | **Tiksi** | **24.81** | **24** | P | | **P** | **16 06 46.3** | **+1.9** |
| | comp=Z,16nm,0.8s,baz=298,slow=1.7,SNR=4.4 | | | | | | | |
| **TIXI** | **Tiksi** | **24.81** | **24** | ⇑*e*P | | **P** | **16 06 40.8** | **-3.6** |
| TIXI | | | | *i* *PP | | **pP** | **16 06 47.5** | **+0.1** |
| TIXI | | | | pmax | pmax | | | |
| | comp=Z,18nm,1.4s | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **33.19** | **175** | P | | **P** | **16 08 01.6** | **+2.3** |
| | comp=Z,0.4nm,0.7s,baz=342,slow=8.7,SNR=3.2 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **33.19** | **175** | *e*P | | P | 16 08 07.4 | +8.0 |
| **FINES** | **FINESS Array B** | **37.96** | **313** | P | | **P** | **16 08 41.5** | **+1.5** |
| | comp=Z,1.5nm,0.6s,baz=63,slow=9.2,SNR=5.3 | | | | | | | |
| **AKASG** | **Malin Array Be** | **40.58** | **296** | P | | **P** | **16 09 02.2** | **+0.2** |
| | comp=Z,0.3nm,0.3s,baz=55,slow=8.9,SNR=3.6 | | | | | | | |
| **BRTR** | **Keskin Array B** | **43.91** | **280** | P | | **P** | **16 09 29.9** | **+0.5** |
| | comp=Z,1.4nm,0.8s,baz=83,slow=5.7,SNR=6.1 | | | | | | | |
| **BRTR** | **Keskin Array B** | **43.91** | **280** | P | | **P** | **16 09 30.0** | **+0.5** |
| BRTR | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.8s | | | | | | | |
| **ILAR** | **Eielson Array** | **54.19** | **28** | P | | **P** | **16 10 49.2** | **+1.5** |
| | comp=Z,0.5nm,1.0s,baz=330,slow=5.2,SNR=3.3 | | | | | | | |
| **INK** | **Inuvik** | **54.85** | **20** | P | | **P** | **16 10 54.0** | **+1.7** |
| | comp=Z,1.3nm,1.0s,baz=16,slow=6.3,SNR=4.2 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **63.66** | **15** | P | | **P** | **16 11 55.0** | **+1.7** |
| | comp=Z,0.2nm,0.8s,baz=342,slow=7.6,SNR=3.7 | | | | | | | |
| **ASAR** | **Alice Springs** | **82.01** | **145** | P | | **P** | **16 13 42.6** | **0.0** |
| | comp=Z,0.5nm,0.9s,baz=337,slow=4.9,SNR=4.5 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **82.49** | **282** | P | | **P** | **16 13 45.2** | **-0.2** |
| | comp=Z,0.6nm,0.6s,baz=27,slow=6.2,SNR=5.4 | | | | | | | |

*CSEM **27** 16:01:23.6±0.4,49°.37N×18°.15E,h1km,Error ellipse: s-maj=15.2km s-min=7.2km az=57.0*

**PRU 27 16:01:27.9,50°.07N×18°.39E,h0km,2D,Poland**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **OKC** | **Ostrava-Krasne** | **0.28** | **214** | ⇓*i* | PG | 16 01 33.1 | -0.2 |
| OKC | | | | *e* | SG | 16 01 37.4 | +0.5 |
| **OKC** | **Ostrava-Krasne** | **0.28** | **214** | ⇓*i* | P | 16 01 33.1 | -0.2 |
| **OKC** | **Ostrava-Krasne** | **0.28** | **214** | Pg | | 16 01 33.1 | -0.2 |
| OKC | | | | Sg | | 16 01 37.4 | +0.5 |
| **KRLC** | **Kraliky** | **1.04** | **271** | *e*P | G | 16 01 46.4 | -1.3 |
| KRLC | | | | *e*S | G | 16 01 59.7 | -1.5 |
| **KRLC** | **Kraliky** | **1.04** | **271** | *e*P | | 16 01 46.4 | -1.3 |
| **KRLC** | **Kraliky** | **1.04** | **271** | Pg | | 16 01 46.4 | -1.3 |
| KRLC | | | | Sg | | 16 01 59.7 | -1.5 |
| **DPC** | **Dobruska-Polom** | **1.36** | **283** | *e*P | G | 16 01 53.0 | -0.9 |
| DPC | | | | *e*S | G | 16 02 11.6 | +0.1 |
| **DPC** | **Dobruska-Polom** | **1.36** | **283** | Pg | | 16 01 53.0 | -0.9 |
| DPC | | | | Sg | | 16 02 11.6 | +0.1 |
| **DPC** | **Dobruska-Polom** | **1.36** | **283** | *e* | | 16 01 52.6 | -1.3 |
| **DPC** | **Dobruska-Polom** | **1.36** | **283** | *e*P | | 16 01 52.6 | -1.3 |

*CSEM **27** 16:05:29.4,44°.05N×20°

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| ZAK | | | | smax | smax | | | |
| | comp=N,135nm,1.0s | | | | | | | |
| **TTS** | **Tsetserleg** | **5.50** | **138** | *e*Pg | Pb | 16 08 07.7 | +5.2 | |
| **TTS** | **Tsetserleg** | **5.50** | **138** | *e*Pg | **Pg** | **16 08 08.8** | **-2.8** | |
| TTS | | | | *e*Sg | **Sg** | **16 09 19.8** | **-3.1** | |
| | comp=N,116nm,0.5s | | | | | | | |
| TTS | | | | *e*Sg | **Sg** | **16 09 21.7** | **-1.2** | |
| **BLGM** | **Bulgan** | **5.63** | **118** | *e*Pg | Pb | 16 08 09.8 | +5.2 | |
| **BLGM** | **Bulgan** | **5.63** | **118** | *e*Pg | Pb | 16 08 11.0 | +6.4 | |
| BLGM | | | | *e*Sg | **Sg** | **16 09 27.8** | **+0.9** | |
| BLGM | | | | *e*Sg | **Sg** | **16 09 28.2** | **+1.3** | |
| | comp=N,244nm,0.8s | | | | | | | |
| **TRG** | **Tyrgan** | **6.43** | **77** | *e*PN | **Pn** | **16 07 59.3** | **-1.6** | |
| TRG | | | | *e* | | 16 08 20.1 | | |
| TRG | | | | pmax | pmax | | | |
| | comp=Z,17nm,0.7s | | | | | | | |
| **OGRR** | **Ongureny** | **7.30** | **70** | *e*P | **Pn** | **16 08 12.2** | **-0.6** | |
| OGRR | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.5s | | | | | | | |
| **SONB5** | **Songino Array** | **7.73** | **116** | *e*Sg | **Sg** | **16 10 32.6** | **-1.5** | |
| | comp=Z,37nm,0.7s | | | | | | | |
| **SONB4** | **Songino Array** | **7.73** | **116** | *e*Sg | **Sg** | **16 10 32.9** | **-1.3** | |
| | comp=Z,57nm,0.8s | | | | | | | |
| **SONB1** | **Songino Array** | **7.74** | **116** | *e*Sg | **Sg** | **16 10 32.6** | **-1.9** | |
| **SONA2** | **Songino Array** | **7.75** | **116** | *e*Sg | **Sg** | **16 10 32.3** | **-2.3** | |
| | comp=Z,50nm,0.7s | | | | | | | |
| **SONA1** | **Songino Array** | **7.75** | **116** | *e*Sg | **Sg** | **16 10 32.8** | **-2.0** | |
| | comp=Z,40nm,0.8s | | | | | | | |
| **SONA0** | **Songino Array** | **7.75** | **116** | *e*Sg | **Sg** | **16 10 30.1** | **-4.8** | |
| SONA0 | | | | *e*Sg | **Sg** | **16 10 32.8** | **-2.1** | |
| **SONA3** | **Songino Array** | **7.75** | **116** | *e*Sg | **Sg** | **16 10 32.5** | **-2.4** | |
| | comp=Z,40nm,0.9s | | | | | | | |
| **SONA4** | **Songino Array** | **7.75** | **116** | *e*Sg | **Sg** | **16 10 32.7** | **-2.2** | |
| | comp=Z,44nm,0.8s | | | | | | | |
| **SONB2** | **Songino Ar. Si** | **7.76** | **116** | *e*Sg | **Sg** | **16 10 32.4** | **-2.7** | |
| **SONB3** | **Songino Array** | **7.76** | **116** | *e*Sg | **Sg** | **16 10 33.2** | **-2.0** | |
| **ALFM** | | **7.88** | **114** | *e*Sg | **Sg** | **16 10 33.9** | **-5.2** | |
| ALFM | | | | *e*Sg | **Sg** | **16 10 36.1** | **-3.0** | |
| | comp=Z,19nm,0.7s | | | | | | | |
| **ARTM** | | **8.20** | **113** | *e*Sg | **Sg** | **16 10 43.8** | **-5.3** | |
| ARTM | | | | *e*Sg | **Sg** | **16 10 46.6** | **-2.5** | |
| **SEMM** | | **8.23** | **116** | *e*Sg | **Sg** | **16 10 46.0** | **-4.3** | |
| **UGDM** | | **8.43** | **114** | *e*Pg | Pb | 16 08 59.5 | +7.3 | |
| UGDM | | | | *e*Sg | **Sg** | **16 10 52.6** | **-3.8** | |
| UGDM | | | | *e*Sg | **Sg** | **16 10 52.8** | **-3.6** | |

*ISCJB **27** 16:07:32.5±1.0, 34°.89S×0°.08×70°.4W±0°.1, h169km±11km, Error ellipse: s-maj=19.4km s-min=9.0km az=38.2*
*GUC **27** 16:07:34.0±0.6, 34°.84S×70°.39W, h168km±5km, ML3.8*
*SJA **27** 16:07:54.0±0.7, 33°.57S×69°.19W, h99km±5km, ML2.8, MW3.4*

**ISC 27 16:07:32.0±2.4, 35°.0S±0°.1×70°.26W±0°.10, h169km±16km, n19, σ0s90/28, 2C, Chile-Argentina border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **NICH** | **Los Niches** | **0.80** | **266** | *e*P | | **Pn** | **16 07 57.9** | **+0.7** |
| NICH | | | | *i* S | | **Sn** | **16 08 16.5** | **0.0** |
| **LMEL** | **Las Melosas** | **1.10** | **2** | *e*P | | **Pn** | **16 07 59.9** | **+0.2** |
| LMEL | | | | *e*S | | **Sn** | **16 08 22.5** | **+1.6** |
| **GO05** | **HualaæØ** | **1.37** | **267** | ⇑ *i*P | | **Pn** | **16 08 02.4** | **+0.5** |
| GO05 | | | | *i* S | | **Sn** | **16 08 23.9** | **-1.0** |
| GO05 | | | | IAML | | | 16 08 26.0 | |
| | comp=N,1μm,0.2s | | | | | | | |
| **ANTU** | **Antumapu** | **1.41** | **347** | *e*P | | **Pn** | **16 08 03.0** | **+0.7** |
| ANTU | | | | *e*S | | **Sn** | **16 08 24.6** | **-1.1** |
| ANTU | | | | IAML | | | 16 08 26.4 | |
| | comp=N,1μm,0.4s | | | | | | | |
| **RCDM** | **Rinconada Maip** | **1.52** | **343** | *e*P | | **Pn** | **16 08 03.7** | **+0.2** |
| RCDM | | | | *e*S | | **Sn** | **16 08 26.2** | **-1.4** |
| RCDM | | | | IAML | | | 16 08 28.8 | |
| | comp=N,1μm,0.1s | | | | | | | |
| **CHPI** | **Pichilemu** | **1.54** | **291** | *e*P | | **Pn** | **16 08 04.0** | **+0.6** |
| CHPI | | | | *e*S | | **Sn** | **16 08 26.6** | **-1.1** |
| **CLCH** | **Cerro Calan** | **1.57** | **352** | *e*P | | **Pn** | **16 08 04.6** | **+0.7** |
| CLCH | | | | *i* S | | **Sn** | **16 08 27.7** | **-0.7** |
| CLCH | | | | IAML | | | 16 08 33.0 | |
| | comp=E,933nm,0.4s | | | | | | | |
| **FCH** | **Farellones** | **1.62** | **359** | *e*P | | **Pn** | **16 08 05.6** | **+0.9** |
| FCH | | | | *i* S | | **Sn** | **16 08 29.4** | **-0.5** |
| FCH | | | | IAML | | | 16 08 29.8 | |
| | comp=N,779nm,0.4s | | | | | | | |
| **PEL** | **Peldehue** | **1.84** | **349** | ⇑ *i*P | | **Pn** | **16 08 07.2** | **+0.6** |
| PEL | | | | *i* S | | **Sn** | **16 08 32.3** | **-1.1** |
| PEL | | | | IAML | | | 16 08 35.0 | |
| | comp=E,631nm,0.4s | | | | | | | |
| **AVIZ** | **Vizcacheras** | **2.06** | **45** | *e*P | | **Pn** | **16 08 09.2** | **0.0** |
| **AAGR** | **Agrelo** | **2.21** | **33** | *e*P | | **Pn** | **16 08 11.2** | **+0.3** |
| AAGR | | | | *e*S | | Sn | 16 08 23.8 | -17 |
| **ASAL** | **Salagasta** | **2.63** | **27** | *e*P | | **Pn** | **16 08 15.8** | **-0.1** |
| **AUSP** | **Uspallata** | **2.81** | **15** | *e*P | | **Pn** | **16 08 19.7** | **+1.5** |
| **RTLS** | **Leoncito** | **3.24** | **15** | *e*P | | **Pn** | **16 08 25.5** | **+2.0** |
| RTLS | | | | IAML | | | 16 08 25.9 | |
| | comp=Z,98nm,0.5s | | | | | | | |
| **RTCV** | **Cerro Valdivia** | **3.40** | **26** | *e*P | | **Pn** | **16 08 25.4** | **+0.2** |
| **ACAN** | **Cantantal** | **3.70** | **45** | *e*P | | **Pn** | **16 08 29.2** | **+0.1** |
| **RTLL** | **Cerro Villicun** | **3.91** | **23** | *e*P | | **Pn** | **16 08 31.8** | **0.0** |
| RTLL | | | | IAML | | | 16 09 19.6 | |
| | comp=Z,39nm,0.3s | | | | | | | |
| **AMOG** | **MOGNA** | **4.27** | **21** | *e*P | | **Pn** | **16 08 36.7** | **+0.4** |
| **AGUA** | **GUANDACOL** | **5.65** | **16** | *e*P | | **Pn** | **16 08 54.6** | **+0.2** |

*OBM **27** 16:12:27.7±0.1, 51°.95N×95°.79E, h2km, Ml4.2/2, Error ellipse: s-maj=2.1km s-min=0.8km az=177.0*
*IDC **27** 16:12:31.3±0.6, 51°.90N×96°.03E, h0km, mb3.9/17, mb1 4.0/22, mb1mx3.9/51, mbtmp3.9/22, ML3.4/5, Error ellipse: s-maj=15.4km s-min=10.2km az=173.0*
*NEIC **27** 16:12:32.9±0.4, 51°.91N×95°.95E, h10km, mb4.5/2, Error ellipse: s-maj=10.6km s-min=6.2km az=173.0*
*MOS **27** 16:12:32.1±1.6, 51°.93N×95°.83E, h11km, mb4.1/13, Error ellipse: s-maj=8.5km s-min=6.5km az=179.8*
*ASRS **27** 16:12:32.4±0.5, 51°.87N×95°.77E, h15km, Ms4.1/3*

**ISC 27 16:12:33.4±0.4, 51°.90N±0°.03×95°.78E±0°.03, h10km, n121, σ2s50/141, mb3.9/20, 6C-4D, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **KZLR** | **Kyzyl** | **0.85** | **257** | *i* Pg | | **Pg** | **16 12 48.5** | **-1.2** |
| KZLR | | | | *e*Sg | | **Sb** | **16 12 59.9** | **-1.8** |
| **KZLR** | **Kyzyl** | **0.85** | **257** | *i* PG | | **Pg** | **16 12 48.5** | **-1.2** |
| KZLR | | | | *e* | | | 16 12 59.9 | |
| **HVS** | **Khovu-Aksy** | **1.51** | **240** | P* | | **Pn** | **16 12 59.3** | **-1.3** |
| **HVS** | **Khovu-Aksy** | **1.51** | **240** | P | | **Pn** | **16 12 59.3** | **-1.3** |
| **ORL** | **Orlik** | **2.56** | **74** | *e*PN | | **Pn** | **16 13 15.9** | **+0.8** |
| ORL | | | | *e* | | | 16 13 47.8 | |
| ORL | | | | pmax | pmax | | | |
| | comp=Z,732nm,0.5s | | | | | | | |
| ORL | | | | smax | smax | | | |
| | comp=N,2μm,0.7s | | | | | | | |
| **CERR** | **Cheremushki** | **2.84** | **291** | *e*Pn | | **Pn** | **16 13 20.2** | **+1.4** |
| CERR | | | | *e*Pg | | **Pb** | **16 13 24.6** | **+0.4** |
| CERR | | | | *e*Sg | | **Sb** | **16 14 00.9** | **+1.9** |
| **CERR** | **Cheremushki** | **2.84** | **291** | *e*PN | | **Pn** | **16 13 20.2** | **+1.4** |
| CERR | | | | *e* | | | 16 13 24.6 | |
| CERR | | | | *e* | | | 16 14 00.9 | |
| **ULG** | **Ulaangom** | **3.05** | **232** | *e*Pn | | **Pn** | **16 13 18.0** | **-3.8** |
| **ULG** | **Ulaangom** | **3.05** | **232** | *e*Pg | | **Pb** | **16 13 24.6** | **-3.2** |
| ULG | | | | *e*Sg | | **Sb** | **16 14 04.6** | **-0.5** |
| **HTG** | **Hatgal** | **3.12** | **116** | *e*Pg | | **Pb** | **16 13 25.9** | **-3.1** |
| HTG | | | | *e*Sg | | **Sb** | **16 14 05.3** | **-1.8** |
| **MINR** | **Mina** | **3.15** | **343** | *e*Pn | | **Pb** | **16 13 25.8** | **-3.7** |
| MINR | | | | *e*Pg | | **Pg** | **16 13 30.3** | **-3.5** |
| MINR | | | | *e*Sg | | **Sg** | **16 14 11.1** | **-3.4** |
| **MOY** | **Mondy** | **3.25** | **92** | ⇑ *e*PN | | **Pn** | **16 13 20.8** | **-3.7** |
| MOY | | | | *e* | | | 16 14 10.2 | |
| MOY | | | | pmax | pmax | | | |
| | comp=Z,262nm,0.5s | | | | | | | |
| MOY | | | | smax | smax | | | |
| | comp=N,3μm,1.3s | | | | | | | |
| **TSC** | **Tosontsengel** | **3.51** | **152** | *e*Pn | | **Pn** | **16 13 28.6** | **+0.5** |
| **TSC** | **Tosontsengel** | **3.51** | **152** | *e*Pg | | **Pb** | **16 13 33.9** | **-1.8** |
| TSC | | | | *e*Sg | | **Sg** | **16 14 20.8** | **-5.3** |
| **ARS** | **Arshan** | **4.11** | **87** | *e*PN | | **Pn** | **16 13 36.1** | **-0.3** |
| ARS | | | | *e* | | | 16 13 44.4 | |
| ARS | | | | *e* | | | 16 14 37.7 | |
| ARS | | | | pmax | pmax | | | |
| | comp=Z,341nm,0.6s | | | | | | | |
| ARS | | | | smax | smax | | | |
| | comp=E,6μm,0.7s | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **HBD** | **Hovd** | **4.72** | **216** | *e*Pn | | **Pn** | **16 13 47.2** | **+2.5** |
| **HBD** | **Hovd** | **4.72** | **216** | *e*Pg | | **Pb** | **16 13 54.9** | **-1.4** |
| HBD | | | | *e*Sg | | **Sb** | **16 14 56.2** | **+3.0** |
| **BYO** | **Bayan-Olgiy** | **4.74** | **234** | *e*Pn | | **Pn** | **16 13 46.3** | **+1.1** |
| **BYO** | **Bayan-Olgiy** | **4.74** | **234** | *e*Pg | | **Pb** | **16 13 55.8** | **-0.9** |
| BYO | | | | *e*Sg | | **Sb** | **16 14 55.9** | **+2.0** |
| **TLY** | **Talaya** | **4.89** | **89** | ‖ *e*PN | | **Pn** | **16 13 48.3** | **+1.4** |
| **TLY** | **Talaya** | **4.89** | **89** | *e*Pn | | **Pn** | **16 13 44.4** | **-2.5** |
| **TASR** | **Tashtagol** | **4.92** | **283** | *e*Pn | | **Pn** | **16 13 49.2** | **+1.8** |
| TASR | | | | *e*Pg | | **Pb** | **16 14 00.6** | **+1.0** |
| TASR | | | | *e*Sg | | **Sg** | **16 15 05.8** | **-5.5** |
| **TASR** | **Tashtagol** | **4.92** | **283** | *e*PN | | **Pn** | **16 13 49.2** | **+1.8** |
| TASR | | | | *e* | | | 16 14 00.6 | |
| TASR | | | | *e* | | | 16 15 05.8 | |
| **ZAK** | **Zakamensk** | **4.96** | **105** | *e*PN | | **Pn** | **16 13 51.0** | **+3.0** |
| ZAK | | | | *e* | | | 16 15 03.2 | |
| ZAK | | | | pmax | pmax | | | |
| | comp=Z,307nm,1.0s | | | | | | | |
| ZAK | | | | smax | smax | | | |
| | comp=N,1μm,1.5s | | | | | | | |
| **IRK** | **Irkutsk** | **5.25** | **83** | *e*PN | | **Pb** | **16 14 04.5** | **-0.7** |
| IRK | | | | *e* | | | 16 15 08.0 | |
| IRK | | | | pmax | pmax | | | |
| | comp=Z,166nm,0.6s | | | | | | | |
| IRK | | | | smax | smax | | | |
| | comp=N,2μm,1.0s | | | | | | | |
| **ARTR** | **Artybash** | **5.27** | **272** | *e*Pn | | **Pn** | **16 13 54.2** | **+2.0** |
| ARTR | | | | *e*Pg | | **Pb** | **16 14 08.0** | **+2.4** |
| ARTR | | | | *e*Sg | | **Sg** | **16 15 15.5** | **-6.9** |
| **ARTR** | **Artybash** | **5.27** | **272** | *e*PN | | **Pn** | **16 13 54.2** | **+2.0** |
| ARTR | | | | *e* | | | 16 14 07.0 | |
| ARTR | | | | *e* | | | 16 15 15.5 | |
| **AKAR** | **Aktash** | **5.38** | **256** | *e*Pn | | **Pn** | **16 13 56.0** | **+2.2** |
| AKAR | | | | *e*Pg | | **Pb** | **16 14 09.4** | **+1.9** |
| AKAR | | | | *e*Sg | | **Sg** | **16 15 18.3** | **-7.7** |
| **AKAR** | **Aktash** | **5.38** | **256** | *e*PN | | **Pb** | **16 14 09.4** | **+1.9** |
| AKAR | | | | *e* | | | 16 15 18.3 | |
| **DGZ** | **Jazzator, Alta** | **5.73** | **251** | ‖ *i*PN | | **Pn** | **16 14 00.6** | **+1.9** |
| **TTS** | **Tsetserleg** | **5.75** | **138** | *e*Pg | | **Pb** | **16 14 15.1** | **+1.3** |
| TTS | | | | *e*Sg | | **Sb** | **16 15 28.0** | **+5.2** |
| **BRCR** | **Berchikul'** | **5.79** | **313** | *e*Pn | | **Pn** | **16 14 00.0** | **+0.6** |
| BRCR | | | | *e*Pg | | **Pb** | **16 14 17.1** | **+2.6** |
| BRCR | | | | *e*Sg | | **Sg** | **16 15 33.1** | **-6.2** |
| **BRCR** | **Berchikul'** | **5.79** | **313** | *e*PN | | **Pn** | **16 14 00.0** | **+0.6** |
| BRCR | | | | *e* | | | 16 14 17.1 | |
| **BLGM** | **Bulgan** | **5.86** | **119** | *e*Pg | | **Pb** | **16 14 14.5** | **-1.1** |
| BLGM | | | | *e*Sg | | **Sg** | **16 15 35.1** | **-6.2** |
| **ELT** | **Eltsovka** | **5.97** | **287** | *e*Pn | | **Pn** | **16 14 03.7** | **+1.9** |
| ELT | | | | *e*Pg | | **Pb** | **16 14 21.3** | **+3.8** |
| ELT | | | | *e*Sg | | **Sg** | **16 15 36.5** | **-8.6** |
| **ELT** | **Eltsovka** | **5.97** | **287** | *e*PN | | **Pn** | **16 14 03.7** | **+1.9** |
| ELT | | | | *e* | | | 16 14 21.3 | |
| ELT | | | | *e* | | | 16 15 36.5 | |
| **ZAA0** | **Zalesovo Array** | **6.94** | **291** | *e*Pn | | **Pn** | **16 14 16.4** | **+1.3** |
| **ZALV** | **Zalesovo Beam** | **6.94** | **291** | Pn | | **Pn** | **16 14 16.7** | **+1.7** |
| | comp=N,3.1nm,0.3s,baz=100,slow=12,SNR=20 | | | | | | | |
| ZALV | | | | Lg | | Lg | 16 16 09.3 | |
| | comp=N,16nm,0.3s,baz=116,slow=29,SNR=8.0 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **6.94** | **291** | *e*PN | | **Pn** | **16 14 17.1** | **+2.1** |
| **ZALV** | **Zalesovo Beam** | **6.94** | **291** | *e*Pn | | **Pn** | **16 14 17.1** | **+2.1** |
| ZALV | | | | Lg | | Lg | 16 16 09.3 | |
| **UKR** | **Ust'-Kan** | **6.95** | **266** | *e*Pg | | Pg | 16 14 39.3 | -7.1 |
| UKR | | | | *e*Sg | | Sg | 16 16 06.6 | -10 |
| **UKR** | **Ust'-Kan** | **6.95** | **266** | *e*P* | | Pg | 16 14 39.3 | -7.2 |
| UKR | | | | *e* | | | 16 16 06.6 | |
| **OGRR** | **Ongureny** | **7.38** | **72** | *e*P | | **Pn** | **16 14 20.3** | **-0.8** |
| OGRR | | | | pmax | pmax | | | |
| | comp=Z,47nm,0.6s | | | | | | | |
| **SONB5** | **Songino Array** | **7.95** | **116** | *e*Pg | | **Pb** | **16 14 50.8** | **-0.4** |
| SONB5 | | | | *e*Sg | | Sg | 16 16 36.2 | -12 |
| | comp=Z,197nm,0.8s | | | | | | | |
| **SONB4** | **Songino Array** | **7.95** | **117** | *e*Pg | | **Pb** | **16 14 50.8** | **-0.5** |
| SONB4 | | | | *e*Sg | | Sg | 16 16 36.6 | -12 |
| | comp=Z,258nm,0.9s | | | | | | | |
| **SONB1** | **Songino Array** | **7.96** | **116** | *e*Pg | | **Pb** | **16 14 51.1** | **-0.4** |
| SONB1 | | | | *e*Sg | | Sg | 16 16 37.4 | -11 |
| | comp=Z,314nm,1.0s | | | | | | | |
| **SONA2** | **Songino Array** | **7.97** | **116** | *e*Pg | | **Pb** | **16 14 51.2** | **-0.3** |
| SONA2 | | | | *e*Sg | | Sg | 16 16 36.9 | -12 |
| | comp=Z,224nm,0.9s | | | | | | | |
| **SONA1** | **Songino Array** | **7.97** | **116** | *e*Pg | | **Pb** | **16 14 51.3** | **-0.3** |
| SONA1 | | | | *e*Sg | | Sg | 16 16 37.0 | -12 |
| | comp=Z,170nm,0.8s | | | | | | | |
| **SONA0** | **Songino Array** | **7.97** | **117** | *e*Pg | | **Pb** | **16 14 51.4** | **-0.3** |
| SONA0 | | | | *e*Sg | | Sg | 16 16 37.4 | -12 |
| **SONA3** | **Songino Array** | **7.97** | **116** | *e*Pg | | **Pb** | **16 14 51.2** | **-0.5** |
| SONA3 | | | | *e*Sg | | Sg | 16 16 37.1 | -12 |
| | comp=Z,240nm,0.8s | | | | | | | |
| **SONM** | **Songino Array** | **7.97** | **117** | Pn | | **Pn** | **16 14 28.7** | **-0.6** |
| | comp=Z,0.1nm,0.3s,baz=301,slow=16,SNR=2.6 | | | | | | | |
| SONM | | | | Pg | | **Pb** | **16 14 51.2** | **-0.5** |
| | comp=Z,3.8nm,0.3s,baz=300,slow=18,SNR=19 | | | | | | | |
| SONM | | | | Lg | | Lg | 16 16 37.4 | |
| | comp=Z,10.0nm,0.3s,baz=300,slow=28,SNR=10 | | | | | | | |
| **SONA4** | **Songino Array** | **7.97** | **116** | *e*Pg | | **Pb** | **16 14 51.3** | **-0.4** |
| SONA4 | | | | *e*Sg | | Sg | 16 16 37.0 | -12 |
| **SONB2** | **Songino Ar. Si** | **7.98** | **116** | *e*Pg | | **Pb** | **16 14 51.4** | **-0.4** |
| SONB2 | | | | *e*Sg | | Sg | 16 16 37.4 | -12 |
| | comp=Z,265nm,0.8s | | | | | | | |
| **SONB3** | **Songino Array** | **7.98** | **116** | *e*Pg | | **Pb** | **16 14 51.5** | **-0.4** |
| SONB3 | | | | *e*Sg | | Sg | 16 16 37.3 | -12 |
| **NVS** | **Novosibirsk** | **8.06** | **296** | *e*Pn | | **Pn** | **16 14 32.9** | **+2.5** |
| NVS | | | | *e*Pg | | Pg | 16 15 00.2 | -7.4 |
| NVS | | | | *e*Sg | | **Sg** | **16 16 44.2** | **-7.7** |
| **NVS** | **Novosibirsk** | **8.06** | **296** | *e*P | | **Pn** | **16 14 33.4** | **+3.0** |
| **ALFM** | | **8.10** | **115** | *e*Pg | | **Pb** | **16 14 54.0** | **+0.1** |
| **ALFM** | | **8.10** | **115** | *e*Pg | | **Pb** | **16 14 54.0** | **+0.1** |
| ALFM | | | | *e*Sg | | Sg | 16 16 41.2 | -12 |
| | comp=Z,123nm,0.8s | | | | | | | |
| **ULN** | **Ulaanbaatar** | **8.32** | **115** | ⇑ *e*P | | **Pn** | **16 14 36.4** | **+2.2** |
| **ARTM** | | **8.41** | **114** | *e*Pg | | **Pb** | **16 14 59.7** | **+0.5** |
| ARTM | | | | *e*Sg | | Sg | 16 16 51.7 | -11 |
| | comp=Z,155nm,0.6s | | | | | | | |
| **SEMM** | | **8.45** | **117** | *e*Pg | | **Pb** | **16 15 00.5** | **+0.6** |
| **UGDM** | | **8.64** | **115** | *e*Pg | | Pg | 16 15 04.5 | -14 |
| UGDM | | | | *e*Sg | | Sg | 16 17 00.1 | -11 |
| | comp=Z,70nm,0.6s | | | | | | | |
| **SYVR** | **Suvo** | **8.80** | **73** | *e*P | | **Pn** | **16 14 41.6** | **+1.0** |
| SYVR | | | | pmax | pmax | | | |
| | comp=Z,16nm,0.7s | | | | | | | |
| **NIZ** | **Nizh Angarsk** | **9.01** | **59** | *e*P | | **Pn** | **16 14 42.5** | **-1.0** |
| NIZ | | | | pmax | pmax | | | |
| | comp=Z,46nm,0.9s | | | | | | | |
| **MK31** | **Makanchi Array** | **10.17** | **245** | *e*P | | **Pn** | **16 14 58.8** | **-0.7** |
| **MK31** | **Makanchi Array** | **10.17** | **245** | *e*Pn | | **Pn** | **16 14 58.8** | **-0.7** |
| **MKAR** | **Makanchi Array** | **10.17** | **245** | Pn | | **Pn** | **16 14 59.7** | **+0.3** |
| | comp=Z,0.5nm,0.3s,baz=48,slow=16,SNR=11 | | | | | | | |
| MKAR | | | | Lg | | Lg | 16 17 55.5 | |
| | comp=Z,1.7nm,0.3s,baz=55,slow=31,SNR=5.0 | | | | | | | |
| **MKAR** | **Makanchi Array** | **10.17** | **245** | *e*P | | **Pn** | **16 15 01.7** | **+2.3** |
| MKAR | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.3s | | | | | | | |
| **MKAR** | **Makanchi Array** | **10.17** | **245** | *e*Pn | | **Pn** | **16 14 58.8** | **-0.6** |
| MKAR | | | | Lg | | Lg | 16 17 55.5 | |
| **MK01** | **Makanchi Array** | **10.18** | **245** | *e*Pn | | **Pn** | **16 14 59.5** | **0.0** |
| **MAKZ** | **Makanchi** | **10.34** | **246** | *e*P | | **Pn** | **16 15 02.7** | **+1.0** |
| **MAKZ** | **Makanchi** | **10.34** | **246** | *e*Pn | | **Pn** | **16 15 02.7** | **+1.0** |
| **KURK** | **Kurchatov** | **10.81** | **270** | ‖ *i*P | | **Pn** | **16 15 10.0** | **+1.9** |
| **KURK** | **Kurchatov** | **10.81** | **270** | *e*Pn | | **Pn** | **16 15 09.7** | **+1.6** |
| KURK | | | | Lg | | Lg | 16 18 18.8 | |
| **KURBB** | **Kurchatov Arra** | **10.89** | **270** | Pn | | **Pn** | **16 15 11.2** | **+2.0** |
| | comp=Z,0.4nm,0.3s,baz=75,slow=16,SNR=7.9 | | | | | | | |
| KURBB | | | | Lg | | Lg | 16 18 18.8 | |
| | comp=Z,0.4nm,0.3s,baz=80,slow=32,SNR=9.7 | | | | | | | |
| **GTA** | **Gaotai** | **12.80** | **166** | *e*P | | Pn | 16 15 39.8 | +4.3 |
| GTA | | | | pP | | | 16 15 43.8 | |
| GTA | | | | sP | | | 16 15 46.8 | |
| GTA | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,1.2s | | | | | | | |
| **HIA** | **Hailar** | **15.43** | **90** | ⇑ *i*P | | **P** | **16 16 13.3** | **-2.3** |
| HIA | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,1.2s | | | | | | | |
| **BVAR** | **Borovoye Array** | **15.49** | **284** | Pn | | **Pn** | **16 16 10.5** | **-1.3** |
| | comp=Z,0.5nm,0.3s,baz=74,slow=13,SNR=9.3 | | | | | | | |
| **BRVK** | **Borovoye** | **15.55** | **284** | P | | **P** | **16 16 13.8** | **-3.1** |
| BRVK | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,0.9s | | | | | | | |
| **BRVK** | **Borovoye** | **15.55** | **284** | *e*Pn | | **Pn** | **16 16 12.8** | **+0.2** |
| **AAK** | **Ala-Archa** | **17.11** | **246** | Pn | | **P** | **16 16 36.3** | **+1.9** |
| | comp=Z,0.1nm,0.3s,baz=54,slow=9.4,SNR=3.5 | | | | | | | |
| AAK | | | | Lg | | Lg | 16 21 36.0 | |
| | comp=Z,0.1nm,0.3s,baz=159,slow=20,SNR=4.8 | | | | | | | |
| **YAK** | **Yakutsk** | **20.82** | **48** | P | | **P** | **16 17 12.1** | **-2.6** |
| | comp=Z,6.2nm,0.4s,baz=250,slow=2.0,SNR=4.9 | | | | | | | |
| **YAK** | **Yakutsk** | **20.82** | **48** | *e*P | | **P** | **16 17 12.3** | **-2.4** |
| YAK | | | | pmax | pmax | | | |
| | comp=Z,11nm,1.0s | | | | | | | |
| YAK | | | | pmax | pmax | | | |
| | comp=N,4.0nm,1.1s | | | | | | | |
| YAK | | | | pmax | pmax | | | |
| | comp=E,8.0nm,1.2s | | | | | | | |
| **SVE** | **Sverdlovsk** | **20.90** | **297** | *e*P | | Pn | 16 17 16.4 | -1.7 |
| **ARU** | **Arti** | **22.07** | **297** | P | | **P** | **16 17 29.0** | **+0.9** |
| | comp=E,9.0nm,0.7s,baz=100,slow=2.4,SNR=14 | | | | | | | |
| **ARU** | **Arti** | **22.07** | **297** | *d* iP | | **P** | **16 17 30.0** | **+1.9** |
| ARU | | | | | | | 16 17 48.5 | |
| ARU | | | | S | | **S** | **16 21 35.0** | **+3.8** |
| ARU | | | | SS | | **SnSn** | **16 22 00.7** | **+3.7** |
| ARU | | | | pmax | pmax | | | |
| | comp=Z,21nm,2.5s | | | | | | | |
| **ARU** | **Arti** | **22.07** | **297** | *e*P | | **P** | **16 17 28.8** | **+0.7** |
| | comp=Z,11nm,0.8s | | | | | | | |
| **ABKAR** | **Akbulak array** | **22.77** | **278** | *e*P | | **P** | **16 17 36.1** | **+0.4** |
| | comp=Z,16nm,0.8s | | | | | | | |
| **KLR** | **Kul'dur** | **22.86** | **82** | P | | **P** | **16 17 35.6** | **-1.0** |
| | comp=Z,0.1nm,0.3s,baz=321,slow=4.7,SNR=3.9 | | | | | | | |
| **KLR** | **Kul'dur** | **22.86** | **82** | ‖ *i*P | | **P** | **16 17 37.0** | **+0.4** |
| **AKTO** | **Aktyubinsk** | **23.55** | **281** | P | | **P** | **16 17 43.9** | **+0.1** |
| | comp=Z,6.6nm,0.9s,baz=83,slow=10,SNR=12 | | | | | | | |
| **TIXI** | **Tiksi** | **24.64** | **25** | P | | **P** | **16 17 52.3** | **-1.3** |
| | comp=Z,26nm,0.6s,baz=256,slow=3.4,SNR=12 | | | | | | | |
| **TIXI** | **Tiksi** | **24.64** | **25** | ⇑ *i*P | | **P** | **16 17 53.4** | **-0.2** |
| **KSAR** | **Wonju Array Be** | **26.76** | **110** | P | | **P** | **16 18 17.9** | **+4.8** |
| **KSAR** | **Wonju Array Be** | **26.76** | **110** | P | | **P** | **16 18 17.9** | **+4.8** |
| **KSRS** | **Korea Array** | **26.77** | **110** | P | | **P** | **16 18 17.9** | **+4.7** |
| | comp=Z,1.3nm,0.7s,baz=316,slow=8.7,SNR=5.1 | | | | | | | |
| **SEY** | **Seymchan** | **31.35** | **47** | ‖ *e*P | | **P** | **16 18 53.9** | **+0.2** |
| **CMAR** | **Chiang Mai Arr** | **33.47** | **175** | P | | **P** | **16 19 13.2** | **+0.6** |
| | comp=Z,0.4nm,0.4s,baz=352,slow=8.8,SNR=6.2 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **33.47** | **175** | *e*P | | **P** | **16 19 14.1** | **+1.5** |
| **ARCES** | **ARCESS Array B** | **36.07** | **326** | P | | **P** | **16 19 34.9** | **+0.3** |
| | comp=Z,1.0nm,0.4s,baz=72,slow=8.5,SNR=10 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **36.07** | **326** | *e*P | | **P** | **16 19 35.6** | **+1.0** |
| ARCES | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.4s | | | | | | | |
| **PETK** | **Petropavlovsk-** | **36.67** | **63** | P | | **P** | **16 19 39.6** | **-0.3** |
| | comp=Z,3.8nm,1.0s,baz=340,slow=8.2,SNR=4.2 | | | | | | | |
| **PETK** | **Petropavlovsk-** | **36.67** | **63** | *e*P | | **P** | **16 19 40.8** | **+0.8** |
| PETK | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,1.0s | | | | | | | |
| **FINES** | **FINESS Array B** | **37.66** | **312** | P | | **P** | **16 19 48.1** | **-0.1** |
| | comp=Z,3.4nm,0.8s,baz=98,slow=14,SNR=5.8 | | | | | | | |
| **AKASG** | **Malin Array Be** | **40.31** | **296** | P | | **P** | **16 20 09.8** | **-0.7** |
| | comp=Z,0.2nm,0.3s,baz=56,slow=9.0,SNR=3.4 | | | | | | | |
| **BR131** | **Keskin Array S** | **43.70** | **279** | *e*P | | **P** | **16 20 41.6** | **+3.1** |
| **BRTR** | **Keskin Array B** | **43.70** | **279** | P | | **P** | **16 20 40.8** | **+2.2** |
| | comp=Z,0.7nm,0.8s,baz=81,slow=8.1,SNR=3.6 | | | | | | | |
| **NB2** | **NORSAR Subarra** | **44.42** | **316** | P | | **P** | **16 20 43.3** | **-0.6** |
| | comp=Z,1.8nm,0.5s,baz=61,slow=8.6 | | | | | | | |
| **NOA** | **NORSAR Array B** | **44.42** | **316** | P | | **P** | **16 20 43.5** | **-0.5** |
| | comp=Z,2.2nm,0.6s,baz=61,slow=8.0,SNR=4.7 | | | | | | | |
| **NOA** | **NORSAR Array B** | **44.42** | **316** | *e*P | | **P** | **16 20 44.9** | **+1.0** |
| NOA | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.6s | | | | | | | |
| **ILAR** | **Eielson Array** | **54.04** | **28** | P | | **P** | **16 21 56.0** | **-1.3** |
| | comp=Z,0.7nm,0.8s,baz=318,slow=4

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DNZL | Cakiroluk | 1.49 | 61 | P | Pb | 16 13 28.1 | +0.1 |
| APE | Apeiranthos | 1.51 | 274 | *e*PN | Pg | 16 13 29.0 | -0.2 |
| APE | Apeiranthos | 1.51 | 274 | P | Pn | 16 13 27.5 | +0.3 |
| APE | Apeiranthos | 1.51 | 274 | P | Pn | 16 13 27.5 | +0.3 |
| APE | Apeiranthos | 1.51 | 274 | *e*Pn | Pg | 16 13 29.0 | -0.2 |
| DENT | Denizli | 1.51 | 59 | *e*PN | Pn | 16 13 27.8 | +0.5 |
| URLA | Izmir | 1.52 | 335 | *e*PN | Pg | 16 13 28.9 | -0.6 |
| URLA | Izmir | 1.52 | 335 | *i* P | Pg | 16 13 29.0 | -0.6 |
| URLA | | | | *i* S | Sg | 16 13 51.0 | +1.8 |
| URLA | Izmir | 1.52 | 335 | *e*Pn | Pg | 16 13 28.9 | -0.6 |
| SANT | Santorini | 1.68 | 249 | P | Pb | 16 13 31.4 | +0.2 |
| SANT | Santorini | 1.68 | 249 | P | Pb | 16 13 31.4 | +0.2 |
| CHOS | Chios island | 1.77 | 323 | P | Pn | 16 13 30.8 | -0.1 |
| CHOS | | | | S | Sn | 16 13 51.2 | -2.2 |
| CHOS | Chios island | 1.77 | 323 | P | Pn | 16 13 30.8 | -0.1 |
| CHOS | | | | S | Sn | 16 13 51.2 | -2.2 |
| KULA | Kula-Manisa | 1.83 | 33 | *e*PN | Pn | 16 13 32.4 | +0.7 |
| KULA | Kula-Manisa | 1.83 | 33 | *e*Pn | Pn | 16 13 32.4 | +0.7 |
| ZKR | Zakros | 2.10 | 208 | P | Pn | 16 13 35.0 | -0.3 |
| ZKR | Zakros | 2.10 | 208 | P | Pn | 16 13 35.0 | -0.3 |
| BALB | Balikesir | 2.68 | 8 | *e*PN | Pn | 16 13 44.5 | +1.1 |
| BALB | Balikesir | 2.68 | 8 | *e*Pn | Pn | 16 13 44.5 | +1.1 |

**IDC 27 16:16:25.0±1.9, 0.°14N×126.°54E, h0km, mb3.5/3, mb1 3.7/3, mb1mx3.4/36, mb2mb 3.6/3, Error ellipse: s-maj=165.5km s-min=25.1km az=65.0, Northern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 21.37 | 159 | P | P | 16 21 13.1 | -1.2 |
| | 0.7nm,0.6s,baz=338,slow=11,SNR=7.3 | | | | | | |
| ASAR | Alice Springs | 24.72 | 164 | P | P | 16 21 49.0 | +0.8 |
| | 1.0nm,0.9s,baz=337,slow=8.5,SNR=29 | | | | | | |
| MKAR | Makanchi Array | 60.40 | 327 | P | P | 16 26 36.2 | -0.1 |
| | 0.8nm,0.5s,baz=138,slow=7.7,SNR=4.0 | | | | | | |

**OBM 27 16:18:29.3±0.1, 51.°78N×95.°78E, h2km, Ml3.6/1, Error ellipse: s-maj=2.1km s-min=1.1km az=170.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ULG | Ulaangom | 2.98 | 234 | *e*Pn | Pn | 16 19 19.9 | +2.3 |
| ULG | | | | *e*Sg | Sb | 16 20 01.7 | +1.7 |
| HTG | Hatgal | 3.06 | 114 | *e*Pg | Pb | 16 19 23.0 | -1.6 |
| HTG | | | | *e*Sg | Sb | 16 20 03.0 | +0.5 |
| TSC | Tosontsengel | 3.40 | 151 | *e*Pn | Pn | 16 19 25.4 | +1.9 |
| TSC | | | | *e*Sg | Sg | 16 20 17.0 | -1.5 |
| HBD | Hovd | 4.62 | 217 | *e*Pn | Pn | 16 19 43.1 | +2.9 |
| HBD | Hovd | 4.62 | 217 | *e*Pg | Pb | 16 19 52.1 | +1.0 |
| HBD | | | | *e*Sg | Sb | 16 20 52.3 | +5.0 |
| BYO | Bayan-Olgiy | 4.67 | 235 | *e*Pn | Pn | 16 19 43.9 | +2.9 |
| BYO | | | | *e*Sg | Sb | 16 20 53.8 | +4.9 |
| TTS | Tsetserleg | 5.66 | 137 | *e*Pg | Pb | 16 20 11.6 | +2.8 |
| TTS | | | | *e*Sg | Sg | 16 21 26.6 | -4.3 |
| BLGM | Bulgan | 5.80 | 118 | *e*Pg | Pb | 16 20 13.0 | +1.9 |
| BLGM | | | | *e*Sg | Sg | 16 21 32.8 | -2.6 |
| SONB4 | Songino Array | 7.90 | 116 | *e*Sg | Sg | 16 22 35.9 | -6.9 |
| SONA2 | Songino Array | 7.91 | 116 | *e*Sg | Sg | 16 22 36.6 | -6.5 |
| | 48nm,0.8s | | | | | | |
| SONA1 | Songino Array | 7.92 | 116 | *e*Sg | Sg | 16 22 36.8 | -6.5 |
| | 45nm,0.8s | | | | | | |
| SONA0 | Songino Array | 7.92 | 116 | *e*Sg | Sg | 16 22 36.4 | -7.0 |
| SONA3 | Songino Array | 7.92 | 116 | *e*Sg | Sg | 16 22 36.4 | -7.0 |
| | 55nm,0.8s | | | | | | |
| SONA4 | Songino Array | 7.92 | 116 | *e*Sg | Sg | 16 22 36.9 | -6.5 |
| | 61nm,0.9s | | | | | | |
| SONB2 | Songino Ar. Si | 7.92 | 116 | *e*Sg | Sg | 16 22 36.7 | -6.9 |
| | 25nm,0.5s | | | | | | |
| SONB3 | Songino Array | 7.93 | 116 | *e*Sg | Sg | 16 22 36.6 | -7.1 |
| | 47nm,0.7s | | | | | | |
| ALFM | | 8.05 | 114 | *e*Sg | Sg | 16 22 39.9 | -7.7 |
| | 71nm,0.7s | | | | | | |

*ISCJB 27 16:30:34.1±0.3, 7.°01S±0.°04×155.°78E±0.°04, h100km, mb4.8/45, Error ellipse: s-maj=6.3km s-min=5.7km az=41.4*
*NEIC 27 16:30:34.3±0.8, 7.°00S×155.°80E, h89km±7km, mb5.1/15, Error ellipse: s-maj=7.2km s-min=6.7km az=86.0*
*BJI 27 16:30:35.8, 6.°60S×155.°51E, h93km, mb4.6/28, mB5.3/5*
*IDC 27 16:30:35.1±1.8, 6.°99S×155.°75E, h89km±17km, mb4.1/17, mb1 4.3/21, mb1mx4.2/33, mbtmp4.5/21, Error ellipse: s-maj=12.6km s-min=11.8km az=8.0*
**ISC 27 16:30:34.3±0.4, 6.°84S±0.°07×155.°82E±0.°06, h100km, n101, σ1.°95/66, mb4.9/45, 2C, Bougainville-Solomon Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RABL | Rabaul | 4.49 | 306 | *e*Pn | Pn | 16 31 43.0 | +2.9 |
| HNR | Honiara | 4.83 | 122 | *e*P | Pn | 16 31 41.0 | -3.8 |
| HNR | | | | *e*S | Sn | 16 32 55.0 | +15 |
| HNR | Honiara | 4.83 | 122 | P | Pn | 16 31 43.9 | -0.9 |
| | 27nm,0.3s,baz=198,slow=10,SNR=12 | | | | | | |
| HNR | | | | S | Sn | 16 32 41.2 | +1.5 |
| | 62nm,0.3s,baz=324,slow=20,SNR=4.5 | | | | | | |
| HNR | Honiara | 4.83 | 122 | *e*Pn | Pn | 16 31 43.1 | -1.7 |
| HNR | | | | S | Sn | 16 32 41.2 | +1.5 |
| PMG | Port Moresby | 8.94 | 253 | P | Pn | 16 32 39.3 | -1.4 |
| | 24nm,0.3s,baz=58,slow=8.9,SNR=77 | | | | | | |
| PMG | | | | S | Sn | 16 34 20.4 | +0.8 |
| | 5.3nm,0.3s,baz=20,slow=12,SNR=6.8 | | | | | | |
| PMG | Port Moresby | 8.94 | 253 | *e*Pn | Pn | 16 32 38.7 | -2.0 |
| PMG | | | | S | Sn | 16 34 20.4 | +0.8 |
| PATS | Pohnpei | 13.81 | 10 | *e*Pn | P | 16 33 46.9 | -4.1 |
| COEN | Coen | 14.30 | 239 | *e*Pn | P | 16 33 51.1 | -5.3 |
| CTA | Charters Tower | 16.11 | 214 | P | P | 16 34 15.6 | -0.9 |
| | 1.1nm,0.3s,baz=36,slow=15,SNR=27 | | | | | | |
| CTAO | Charters Tower | 16.11 | 214 | *e*Pn | P | 16 34 14.3 | -2.2 |
| | 17nm,0.8s | | | | | | |
| DZM | Mont Dzumac | 18.29 | 147 | P | Pn | 16 34 42.5 | +0.8 |
| | 0.6nm,0.3s,baz=220,slow=16,SNR=6.0 | | | | | | |
| MSVF | Nonsavu | 24.24 | 119 | *e*P | P | 16 35 42.4 | +0.1 |
| | 93nm,1.4s | | | | | | |
| WRAB | Tennant Creek | 24.56 | 236 | *e*P | P | 16 35 45.5 | +0.4 |
| | 29nm,1.1s | | | | | | |
| WB2 | Warramunga Arr | 24.57 | 236 | *e*P | P | 16 35 45.1 | 0.0 |
| WRA | Warramunga Arr | 24.58 | 236 | P | P | 16 35 45.0 | -0.2 |
| | 7.0nm,0.7s,baz=61,slow=9.5,SNR=34 | | | | | | |
| WRA | | | | PcP | PcP | 16 39 22.9 | +2.1 |
| | 2.6nm,0.8s,baz=56,slow=2.4,SNR=4.9 | | | | | | |
| MTN | Manton Dam | 25.03 | 254 | *e*P | P | 16 35 49.5 | +0.2 |
| | 46nm,1.0s | | | | | | |
| AS01 | Alice Springs | 26.85 | 229 | *e*P | P | 16 36 05.2 | -0.5 |
| AS31 | Alice Springs | 26.89 | 229 | *e*P | P | 16 36 05.6 | -0.4 |
| | 3.2nm,1.0s | | | | | | |
| ASAR | Alice Springs | 26.89 | 229 | P | P | 16 36 05.7 | -0.4 |
| | 2.4nm,0.4s,baz=61,slow=9.9,SNR=101 | | | | | | |
| ASAR | | | | PcP | PcP | 16 39 28.4 | +2.3 |
| | 1.5nm,0.4s,baz=63,slow=2.4,SNR=6.7 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 27.36 | 23 | T | T | 17 04 23.4 | |
| | baz=202,slow=76,SNR=173 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 27.37 | 23 | T | T | 17 04 36.7 | |
| | baz=202,slow=76,SNR=183 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 27.38 | 23 | T | T | 17 04 30.9 | |
| | baz=202,slow=76,SNR=141 | | | | | | |
| STKA | Stephens Creek | 28.23 | 206 | P | P | 16 36 17.2 | -0.6 |
| | 7.8nm,0.8s,baz=22,slow=12,SNR=9.7 | | | | | | |
| STKA | | | | PcP | PcP | 16 39 30.7 | +1.6 |
| | 2.6nm,0.8s,baz=327,slow=5.1,SNR=3.1 | | | | | | |
| STKA | Stephens Creek | 28.23 | 206 | *e*P | P | 16 36 17.3 | -0.6 |
| | 11nm,1.8s | | | | | | |
| STKA | | | | PcP | PcP | 16 39 30.7 | +1.6 |
| H11N1 | WAKE ISLAND Hy | 28.55 | 22 | T | T | 17 06 01.7 | |
| | baz=203,slow=76,SNR=39 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 28.56 | 22 | T | T | 17 06 04.5 | |
| | baz=203,slow=76,SNR=41 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 28.57 | 22 | T | T | 17 06 08.7 | |
| | baz=203,slow=76,SNR=27 | | | | | | |
| FITZ | Fitzroy Crossi | 31.46 | 246 | P | P | 16 36 47.0 | +0.3 |
| | 22nm,0.6s,baz=67,slow=6.8,SNR=56 | | | | | | |
| MMRI | Maumere | 33.31 | 265 | P | P | 16 37 03.3 | +0.4 |
| | 34nm,0.5s | | | | | | |
| FORT | Forrest | 35.26 | 224 | *e*P | P | 16 37 19.1 | -0.4 |
| | 316nm,0.7s | | | | | | |
| KAPI | Kappang | 35.91 | 271 | *e*P | P | 16 37 26.2 | +0.9 |
| | 47nm,1.3s | | | | | | |
| THZ | Tophouse | 37.95 | 159 | *e*P | P | 16 37 42.0 | -0.3 |
| | 32nm,0.8s | | | | | | |
| LTZ | Lake Taylor | 38.63 | 160 | *e*P | P | 16 37 46.4 | -1.6 |
| | 29nm,0.9s | | | | | | |
| RPZ | Rata Peaks | 39.09 | 162 | P | P | 16 37 52.5 | +0.8 |
| | 21nm,0.8s,baz=117,slow=3.4,SNR=8.1 | | | | | | |
| RPZ | Rata Peaks | 39.09 | 162 | *e*P | P | 16 37 50.5 | -1.3 |
| | 24nm,0.9s | | | | | | |
| MJAR | Matsushiro Arr | 46.20 | 340 | P | P | 16 38 51.1 | +1.7 |
| | 0.9nm,0.4s,baz=164,slow=6.5,SNR=4.2 | | | | | | |
| CISI | Cisompet, Garu | 47.61 | 266 | *e*P | P | 16 38 59.8 | -1.0 |
| | 42nm,0.5s | | | | | | |
| KSRS | Korea Array | 51.19 | 331 | P | P | 16 39 29.6 | +2.2 |
| | 1.0nm,0.8s,baz=161,slow=8.6,SNR=4.1 | | | | | | |
| KSAR | Wonju Array Be | 51.20 | 331 | P | P | 16 39 29.6 | +2.1 |
| NJ2 | Nanjing | 52.32 | 320 | *e*P | P | 16 39 37.5 | +1.5 |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,16nm,0.5s | | | | | | |
| USRK | Ussuriysk Ar. | 55.17 | 339 | P | P | 16 39 59.8 | +3.2 |
| | 4.0nm,0.9s,baz=157,slow=7.8,SNR=4.0 | | | | | | |
| CHAI | Chaiyaphum | 57.88 | 293 | P | P | 16 40 18.4 | +2.1 |
| | 6.3nm,0.7s | | | | | | |
| NAYO | Nakonayok | 58.00 | 291 | P | P | 16 40 19.9 | +2.8 |
| | 105nm,0.7s | | | | | | |
| GYA | Guiyang | 58.01 | 307 | *e*P | P | 16 40 18.3 | +1.1 |
| GYA | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.9s | | | | | | |
| PHET | Kaeng Krachan | 59.17 | 289 | P | P | 16 40 28.0 | +2.8 |
| | 19nm,0.8s,173nm | | | | | | |
| BJI | Beijing | 59.26 | 325 | P | P | 16 40 27.5 | +2.1 |
| BJI | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.7s | | | | | | |
| PETK | Petropavlovsk- | 59.74 | 1 | P | P | 16 40 32.2 | +3.8 |
| | 2.3nm,0.8s,baz=178,slow=7.3,SNR=4.1 | | | | | | |
| NANT | Nan | 59.99 | 296 | P | P | 16 40 33.5 | +2.6 |
| | 14nm,0.9s,117nm | | | | | | |
| SRDT | SRDT | 60.05 | 291 | P | P | 16 40 35.2 | +3.9 |
| | 46nm,1.2s | | | | | | |
| UTHA | Uthaitani | 60.10 | 292 | P | P | 16 40 34.2 | +2.6 |
| | 14nm,0.9s,187nm | | | | | | |
| XAN | Xi'an | 60.16 | 316 | P | P | 16 40 30.3 | -1.5 |
| XAN | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.2s | | | | | | |
| PHRA | Phrae | 60.31 | 296 | P | P | 16 40 36.3 | +3.2 |
| CM01 | Chiang Mai Arr | 61.43 | 295 | *e*P | P | 16 40 42.6 | +1.9 |
| CM31 | Chiang Mai Arr | 61.45 | 295 | *e*P | P | 16 40 39.7 | -1.1 |
| CMAR | Chiang Mai Arr | 61.45 | 295 | P | P | 16 40 43.6 | +2.8 |
| | 6.4nm,0.7s,baz=119,slow=5.3,SNR=35 | | | | | | |
| CHTO | Chiang Mai | 61.57 | 296 | *e*P | P | 16 40 44.2 | +2.6 |
| | 22nm,1.1s | | | | | | |
| HHC | Hu-ho-hao-te | 62.45 | 323 | *e*P | P | 16 40 50.5 | +3.3 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,14nm,0.8s | | | | | | |
| LZH | Lanzhou | 64.78 | 315 | *e*P | P | 16 41 04.5 | +1.8 |
| LZH | | | | pP | PcP | 16 41 32.8 | -2.6 |
| LZH | | | | sP | sP | 16 41 43.8 | +5.2 |
| LZH | | | | PP | PP | 16 43 30.0 | +3.5 |
| LZH | | | | PcS | | 16 45 39.0 | |
| LZH | | | | *e*S | S | 16 49 36.0 | +0.1 |
| LZH | | | | SS | SS | 16 53 48.0 | -1.1 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,33nm,0.9s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,310nm,7.2s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=N,370nm,13.6s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=E,370nm,13.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,320nm,14.4s | | | | | | |
| SONM | Songino Array | 69.65 | 327 | P | P | 16 41 36.5 | +3.3 |
| | 6.5nm,0.8s,baz=123,slow=5.8,SNR=5.3 | | | | | | |
| VNDA | Vanda | 70.71 | 179 | P | P | 16 41 40.6 | +1.6 |
| | 1.8nm,0.9s,baz=309,slow=6.5,SNR=5.1 | | | | | | |
| ODAN | Odare | 74.16 | 300 | *e*P | P | 16 42 03.6 | +2.9 |
| | 21nm,0.5s | | | | | | |
| JIRN | Jiri | 75.40 | 301 | *e*P | P | 16 42 10.9 | +2.8 |
| | 14nm,0.7s | | | | | | |
| GUN | Gumba | 75.74 | 301 | *e*P | P | 16 42 11.9 | +2.0 |
| | 19nm,0.7s | | | | | | |
| PKI | Pulchoki | 76.05 | 300 | *e*P | P | 16 42 13.9 | +2.2 |
| | 6.6nm,0.6s | | | | | | |
| PKIN | Phulchoki | 76.06 | 300 | *e*P | P | 16 42 14.2 | +2.5 |
| | 6.5nm,0.6s | | | | | | |
| KKN | Kakani | 76.22 | 301 | *e*P | P | 16 42 15.1 | +2.6 |
| | 10.0nm,0.7s | | | | | | |
| DMN | Daman | 76.32 | 300 | *e*P | P | 16 42 15.0 | +1.9 |
| | 18nm,0.6s | | | | | | |
| KOLN | Koldanda | 77.65 | 300 | *e*P | P | 16 42 22.1 | +1.6 |
| | 10nm,0.5s | | | | | | |
| WMQ | Urumqi | 79.27 | 317 | P | P | 16 42 31.0 | +2.1 |
| WMQ | | | | pP | sP | 16 42 58.0 | -7.5 |
| WMQ | | | | sP | pP | 16 43 09.5 | +15 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,24nm,0.6s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,92nm,3.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,4μm,33.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,4μm,28.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,5μm,24.5s | | | | | | |
| ILAR | Eielson Array | 82.93 | 21 | P | P | 16 42 49.0 | +1.2 |
| | 0.6nm,0.4s,baz=243,slow=5.3,SNR=22 | | | | | | |
| QSPA | South Pole Qui | 83.13 | 180 | *e*P | P | 16 42 49.9 | +0.9 |
| | 14nm,0.9s | | | | | | |
| MK01 | Makanchi Array | 83.81 | 318 | *e*P | P | 16 42 55.5 | +2.7 |
| MKAR | Makanchi Array | 83.83 | 318 | P | P | 16 42 56.0 | +3.2 |
| | 3.3nm,0.5s,baz=93,slow=9.1,SNR=9.8 | | | | | | |
| ZALV | Zalesovo Beam | 84.51 | 326 | P | P | 16 42 56.9 | +0.9 |
| | 2.1nm,0.4s,baz=90,slow=7.2,SNR=5.3 | | | | | | |
| ZALV | Zalesovo Beam | 84.51 | 326 | *e*P | P | 16 42 56.2 | +0.2 |
| MAW | Mawson | 84.85 | 203 | P | P | 16 42 59.0 | +1.5 |
| | 5.7nm,0.8s,baz=94,slow=4.4,SNR=9.8 | | | | | | |
| MAW | Mawson | 84.85 | 203 | *e*P | P | 16 42 58.5 | +1.0 |
| | 1.6nm,0.9s | | | | | | |
| KSH | Kashi | 86.53 | 310 | P | P | 16 43 10.8 | +4.2 |
| KSH | | | | pP | sP | 16 43 39.8 | -3.7 |
| KSH | | | | PP | PP | 16 46 37.8 | +8.0 |
| KSH | | | | SKS | SKSac | 16 53 21.5 | -2.9 |
| KSH | | | | S | ScS | 16 53 36.8 | -6.3 |
| KSH | | | | SS | SS | 16 59 21.8 | +3.6 |
| KSH | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.6s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,620nm,8.3s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,4.0nm,3.7s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,870nm,5.5s | | | | | | |
| BRVK | Borovoye | 92.73 | 323 | *e*P | P | 16 43 36.0 | +0.7 |
| | 14nm,1.6s | | | | | | |
| SYO | Syowa Base | 92.74 | 199 | ⇑*i* P | P | 16 43 34.0 | -0.9 |
| SYO | Syowa Base | 92.74 | 199 | ⇑*e*pP | pP | 16 43 58.0 | -3.3 |
| YKA | Yellowknife Ar | 95.82 | 28 | P | P | 16 43 51.3 | +2.1 |
| | 0.2nm,0.5s,baz=268,slow=4.6,SNR=10 | | | | | | |
| NLU | North Lily Min | 95.96 | 51 | *e*P | P | 16 43 50.7 | +0.1 |
| | 8.7nm,0.9s | | | | | | |
| ARCES | ARCESS Array B | 109.67 | 343 | PKiKP | PKiKP | 16 48 55.0 | +2.0 |
| | 4.9nm,0.9s,baz=97,slow=1.6,SNR=12 | | | | | | |
| FINES | FINESS Array B | 114.13 | 336 | PKP | PKPdf | 16 49 03.6 | +2.0 |
| | 3.1nm,0.8s,baz=21,slow=1.5,SNR=4.6 | | | | | | |
| AKASG | Malin Array Be | 117.89 | 325 | PKP | PKPdf | 16 49 11.2 | +2.0 |
| | 0.9nm,0.5s,baz=52,slow=2.3,SNR=6.0 | | | | | | |
| BRTR | Keskin Array B | 118.89 | 312 | PKP | PKPdf | 16 49 13.8 | +2.1 |
| | 0.6nm,0.9s,baz=330,slow=1.7,SNR=3.8 | | | | | | |
| HFS | Hagfors | 119.65 | 339 | PKP | PKPdf | 16 49 13.7 | +1.4 |
| | 4.7nm,0.9s,baz=41,slow=2.2,SNR=6.2 | | | | | | |
| NOA | NORSAR Array B | 119.82 | 341 | PKP | PKPdf | 16 49 14.3 | +1.6 |
| | 1.4nm,0.9s,baz=47,slow=3.0,SNR=2.6 | | | | | | |
| BOSA | Boshof | 120.75 | 231 | PKP | PKPdf | 16 49 16.4 | +0.8 |
| | 2.8nm,0.8s,baz=180,slow=2.0,SNR=3.9 | | | | | | |
| CLL | Collm | 126.06 | 332 | *e*PKPdf | PKPdf | 16 49 27.0 | +2.1 |
| GOPC | GO Pecny, Ondr | 126.11 | 330 | *e*PKPdf | PKPdf | 16 49 28.0 | +2.9 |
| KHC | Kasperske Hory | 127.22 | 330 | *e*PKPdf | PKPdf | 16 49 29.7 | +2.5 |
| KHC | | | | *ex* | x | 16 49 43.8 | |
| KHC | | | | *ep*PKP | pPKPdf | 16 49 50.2 | -4.5 |
| GERES | GERESS Array B | 127.34 | 329 | PKP | PKPdf | 16 49 30.1 | +2.6 |
| | 1.7nm,0.7s,baz=71,slow=2.4,SNR=16 | | | | | | |
| DAVOX | Davos/Dischmat | 130.64 | 330 | PKP | PKPdf | 16 49 36.8 | +2.7 |
| | 1.5nm,0.5s,baz=146,slow=5.6,SNR=4.8 | | | | | | |
| TOA0 | Torodi Ar. Sit | 153.77 | 286 | *e*PKPbc | PKPbc | 16 50 23.4 | +0.6 |
| TORD | Torodi Ar. Bea | 153.77 | 286 | PKPbc | PKPbc | 16 50 24.2 | +1.4 |
| | 1.1nm,0.3s,baz=41,slow=1.9,SNR=12 | | | | | | |
| TORD | | | | PKPab | PKPab | 16 50 37.4 | +1.3 |
| | 1.9nm,0.6s,baz=81,slow=4.2,SNR=7.2 | | | | | | |
| KIC | Kosan Boka | 160.68 | 270 | *e*P | PKPab | 16 51 07.0 | +1.0 |
| | 42nm,1.1s | | | | | | |
| DBIC | Dimbokro | 160.81 | 271 | PKPab | PKPab | 16 51 07.9 | +1.4 |
| | 3.4nm,0.6s,baz=48,slow=7.0,SNR=5.5 | | | | | | |
| LIC | Lamto | 160.96 | 269 | *e*P | PKPab | 16 51 09.2 | +2.0 |
| | 34nm,1.0s | | | | | | |
| TIC | Toumodi | 160.97 | 271 | *e*P | PKPab | 16 51 08.2 | +0.9 |

*NEIC 27 16:32:19.7±0.0, 43.°49S×172.°72E, h9km, ML3.9(WEL), After WEL.*
*NEIC Felt at Christchurch.*
**WEL 27 16:32:19.9±0.1, 43.°49S×172.°72E, h8km, ML3.9/26, 11C-10D, Error ellipse: s-maj=1.2km s-min=0.8km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CRLZ | Canterbury Las | 0.11 | 220 | Pg | Pg | 16 32 22.9 | +0.4 |
| CRLZ | | | | Sg | Sg | 16 32 25.0 | +0.8 |
| CRLZ | Canterbury Las | 0.11 | 220 | AML | AML | 16 32 09.6 | |
| CRLZ | | | | AML | AML | 16 32 09.6 | |
| CRLZ | | | | ⇑PG | Pg | 16 32 22.8 | +0.4 |
| CRLZ | | | | SG | Sg | 16 32 25.0 | +0.8 |
| CRLZ | | | | AML | AML | 16 32 25.2 | |
| MQZ | McQueen's Vall | 0.22 | 193 | Pg | Pg | 16 32 24.5 | +0.2 |
| MQZ | | | | Sg | Sg | 16 32 28.1 | +0.8 |
| MQZ | McQueen's Vall | 0.22 | 193 | ⇓PG | Pg | 16 32 24.5 | +0.2 |
| MQZ | | | | SG | Sg | 16 32 28.1 | +0.8 |
| MQZ | | | | AML | AML | 16 32 28.2 | |
| OXZ | Oxford | 0.53 | 288 | P* | Pg | 16 32 30.1 | +0.1 |
| OXZ | Oxford | 0.53 | 288 | ⇓P* | Pg | 16 32 30.1 | +0.1 |
| OXZ | | | | SG | Sg | 16 32 37.9 | +1.1 |
| OXZ | | | | AML | AML | 16 32 38.8 | |
| OXZ | | | | AML | AML | 16 32 38.9 | |
| OXZ | | | | AML | AML | 16 32 39.7 | |
| LTZ | Lake Taylor | 0.78 | 335 | P* | Pg | 16 32 35.0 | +0.1 |
| LTZ | Lake Taylor | 0.78 | 335 | ⇓P* | Pg | 16 32 35.0 | +0.1 |
| LTZ | | | | *S** | Sg | 16 32 45.7 | +0.7 |
| INZ | Inchbonnie | 1.21 | 309 | ⇑P* | Pb | 16 32 41.4 | -1.6 |
| KHZ | Kahutara | 1.23 | 29 | P* | Pb | 16 32 41.5 | -1.8 |
| KHZ | Kahutara | 1.23 | 29 | P* | Pb | 16 32 41.5 | -1.8 |
| KHZ | | | | AML | AML | 16 33 08.9 | |
| KHZ | | | | AML | AML | 16 33 11.9 | |
| RPZ | Rata Peaks | 1.23 | 259 | P* | Pb | 16 32 41.9 | -1.6 |
| RPZ | Rata Peaks | 1.23 | 259 | ⇑P* | Pb | 16 32 41.8 | -1.6 |
| RPZ | | | | AML | AML | 16 33 00.4 | |
| RPZ | | | | AML | AML | 16 33 05.4 | |
| WVZ | Waitaha Valley | 1.51 | 285 | Pn | Pn | 16 32 46.1 | -1.1 |
| WVZ | Waitaha Valley | 1.51 | 285 | ⇓PN | Pn | 16 32 46.1 | -1.1 |
| WVZ | | | | AML | AML | 16 33 11.6 | |
| WVZ | | | | AML | AML | 16 33 14.6 | |
| THZ | Tophouse | 1.73 | 5 | Pn | Pn | 16 32 48.6 | -1.7 |
| THZ | Tophouse | 1.73 | 5 | ⇓PN | Pn | 16 32 48.6 | -1.7 |
| THZ | | | | AML | AML | 16 33 13.0 | |
| THZ | | | | AML | AML | 16 33 25.9 | |
| DSZ | Denniston Nort | 1.87 | 338 | Pn | Pn | 16 32 50.9 | -1.3 |
| DSZ | Denniston Nort | 1.87 | 338 | ⇑PN | Pn | 16 32 50.9 | -1.3 |
| DSZ | | | | AML | AML | 16 33 21.5 | |
| DSZ | | | | AML | AML | 16 33 21.5 | |
| DSZ | | | | AML | AML | 16 33 23.7 | |
| DSZ | | | | AML | AML | 16 33 23.7 | |
| BSWZ | Blackbirch Sta | 1.97 | 26 | Pn | Pn | 16 32 51.9 | -1.6 |
| BSWZ | Blackbirch Sta | 1.97 | 26 | ⇑PN | Pn | 16 32 51.9 | -1.6 |
| BSWZ | | | | AML | AML | 16 33 34.3 | |
| BSWZ | | | | AML | AML | 16 33 39.1 | |
| LBZ | Lake Benmore | 2.04 | 243 | Pn | Pn | 16 32 53.4 | -1.1 |
| LBZ | Lake Benmore | 2.04 | 243 | PN | Pn | 16 32 53.4 | -1.1 |
| LBZ | | | | AML | AML | 16 33 30.6 | |
| LBZ | | | | AML | AML | 16 33 30.6 | |
| LBZ | | | | AML | AML | 16 33 31.6 | |
| LBZ | | | | AML | AML | 16 33 31.6 | |
| FOZ | Fox Glacier | 2.12 | 268 | Pn | Pn | 16 32 55.7 | +0.2 |
| FOZ | Fox Glacier | 2.12 | 268 | ⇑PN | Pn | 16 32 55.7 | +0.2 |
| FOZ | | | | AML | AML | 16 33 23.2 | |
| FOZ | | | | AML | AML | 16 33 31.1 | |
| FOZ | | | | AML | AML | 16 33 37.4 | |
| FOZ | | | | AML | AML | 16 33 37.4 | |
| ODZ | Otahua Downs | 2.15 | 223 | Pn | Pn | 16 32 54.7 | -1.4 |
| ODZ | Otahua Downs | 2.15 | 223 | ⇑PN | Pn | 16 32 54.7 | -1.4 |
| ODZ | | | | AML | AML | 16 33 35.3 | |
| ODZ | | | | AML | AML | 16 33 35.9 | |
| ODZ | | | | AML | AML | 16 33 36.3 | |
| ODZ | | | | AML | AML | 16 33 42.9 | |
| TUWZ | Tuamarina | 2.25 | 24 | Pn | Pn | 16 32 55.3 | -2.0 |
| TUWZ | Tuamarina | 2.25 | 24 | PN | Pn | 16 32 55.3 | -2.0 |
| NNZ | Nelson | 2.32 | 12 | Pn | Pn | 16 32 57.2 | -1.2 |
| NNZ | Nelson | 2.32 | 12 | ⇑PN | Pn | 16 32 57.2 | -1.2 |
| TCW | Tory Channel | 2.55 | 27 | Pn | Pn | 16 32 59.1 | -2.4 |
| TCW | Tory Channel | 2.55 | 27 | PN | Pn | 16 32 59.1 | -2.4 |
| BHW | Baring Head | 2.62 | 38 | Pn | Pn | 16 32 59.9 | -2.5 |
| BHW | Baring Head | 2.62 | 38 | PN | Pn | 16 32 59.9 | -2.5 |
| QRZ | Quartz Range | 2.67 | 357 | Pn | Pn | 16 33 01.5 | -1.6 |
| QRZ | Quartz Range | 2.67 | 357 | ⇓PN | Pn | 16 33 01.5 | -1.6 |
| QRZ | | | | AML | AML | 16 33 14.9 | |
| QRZ | | | | AML | AML | 16 33 14.9 | |
| QRZ | | | | AML | AML | 16 33 56.8 | |
| QRZ | | | | AML | AML | 16 33 56.8 | |
| WEL | Wellington | 2.67 | 35 | Pn | Pn | 16 33 00.0 | -2.4 |
| WEL | Wellington | 2.67 | 35 | PN | Pn | 16 33 00.8 | -2.4 |
| WEL | | | | AML | AML | 16 33 33.8 | |
| PLWZ | Palliser | 2.68 | 45 | Pn | Pn | 16 33 00.7 | -2.6 |
| PLWZ | Palliser | 2.68 | 45 | PN | Pn | 16 33 00.7 | -2.6 |
| DUWZ | D'Urville Isla | 2.83 | 19 | Pn | Pn | 16 33 03.6 | -1.8 |
| DUWZ | D'Urville Isla | 2.83 | 19 | PN | Pn | 16 33 03.6 | -1.8 |
| HHSZ | Highcliff Hill | 2.83 | 212 | Pn | Pn | 16 33 03.9 | -1.5 |
| HHSZ | Highcliff Hill | 2.83 | 212 | PN | Pn | 16 33 03.9 | -1.5 |
| HHSZ | | | | AML | AML | 16 33 57.2 | |
| HHSZ | | | | AML | AML | 16 33 58.1 | |
| JCZ | Jackson Bay | 2.91 | 257 | Pn | Pn | 16 33 05.3 | -1.2 |
| JCZ | Jackson Bay | 2.91 | 257 | PN | Pn | 16 33 05.3 | -1.2 |
| JCZ | | | | AML | AML | 16 33 58.5 | |
| JCZ | | | | AML | AML | 16 34 04.9 | |
| CAW | Cannon Point | 2.95 | 37 | Pn | Pn | 16 33 04.3 | -2.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **DREZ** | **Durham Road** | **4.44** | **15** | PN | Pn | 16 33 27.3 | -0.2 | | |
| **DCZ** | **Deep Cove** | **4.45** | **242** | Pn | Pn | 16 33 25.4 | -2.1 | | |
| **DCZ** | **Deep Cove** | **4.45** | **242** | PN | Pn | 16 33 25.4 | -2.1 | | |
| DCZ | | | | AML | AML | 16 34 46.2 | | | |
| **VRZ** | **Vera Road** | **4.62** | **20** | Pn | Pn | 16 33 28.8 | -1.1 | | |
| **VRZ** | **Vera Road** | **4.62** | **20** | PN | Pn | 16 33 28.8 | -1.1 | | |
| **WNVZ** | **Wahianoa** | **4.69** | **28** | Pn | Pn | 16 33 29.4 | -1.6 | | |
| **WNVZ** | **Wahianoa** | **4.69** | **28** | PN | Pn | 16 33 29.4 | -1.6 | | |
| **TRVZ** | **Turoa** | **4.70** | **28** | Pn | Pn | 16 33 29.8 | -1.4 | | |
| **TRVZ** | **Turoa** | **4.70** | **28** | PN | Pn | 16 33 29.8 | -1.4 | | |
| **BHHZ** | **Black Hill Sta** | **4.72** | **33** | Pn | Pn | 16 33 29.0 | -2.4 | | |
| **BHHZ** | **Black Hill Sta** | **4.72** | **33** | PN | Pn | 16 33 29.0 | -2.4 | | |
| **APZ** | **The Paps** | **4.73** | **223** | Pn | Pn | 16 33 29.6 | -1.9 | | |
| **APZ** | **The Paps** | **4.73** | **223** | PN | Pn | 16 33 29.6 | -1.9 | | |
| **OTVZ** | **Oturere** | **4.86** | **28** | Pn | Pn | 16 33 31.4 | -1.9 | | |
| **OTVZ** | **Oturere** | **4.86** | **28** | PN | Pn | 16 33 31.4 | -1.9 | | |
| **BKZ** | **Black Stump Fm** | **5.17** | **35** | Pn | Pn | 16 33 34.7 | -2.8 | | |
| **BKZ** | **Black Stump Fm** | **5.17** | **35** | PN | Pn | 16 33 34.7 | -2.8 | | |
| **HIZ** | **Hauiti** | **5.23** | **19** | Pn | Pn | 16 33 36.9 | -1.4 | | |
| **HIZ** | **Hauiti** | **5.23** | **19** | ⇑PN | Pn | 16 33 36.8 | -1.4 | | |
| **TLZ** | **Tolley Road** | **5.58** | **23** | Pn | Pn | 16 33 41.1 | -2.1 | | |
| **TLZ** | **Tolley Road** | **5.58** | **23** | PN | Pn | 16 33 41.1 | -2.1 | | |
| **KNZ** | **Kokohu** | **5.82** | **42** | Pn | Pn | 16 33 42.6 | -3.8 | | |
| **KNZ** | **Kokohu** | **5.82** | **42** | PN | Pn | 16 33 42.6 | -3.8 | | |

*IDC **27** 16:35:56.4±3.7,51°.94N×96°.13E, h0km, mb1 3.3/2, mb1mx3.0/50, mbtmp3.3/2, ML2.9/2, Error ellipse: s-maj=65.2km s-min=22.7km az=15.0*
*MOS **27** 16:35:58.0±3.6,51°.94N×95°.97E, h9km, mb4.4/1, Error ellipse: s-maj=9.7km s-min=9.3km az=92.6*

**ISC 27 16:35:59.1±1.2, 52°.0N±0°.1×95°.95E±0°.08, h10km, n9, σ1§16/9, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ORL** | **Orlik** | **2.42** | **76** | *e*PN | **Pb** | **16 36 41.5** | **-1.3** |
| ORL | | | | *e* | | 16 37 14.4 | |
| ORL | | | | pmax | pmax | | |
| | comp=Z,75nm,0.4s | | | | | | |
| ORL | | | | smax | smax | | |
| | comp=N,312nm,0.5s | | | | | | |
| **MOY** | **Mondy** | **3.15** | **95** | *e*PN | **Pb** | **16 36 54.8** | **-0.3** |
| MOY | | | | *e* | | 16 37 36.5 | |
| MOY | | | | pmax | pmax | | |
| | comp=Z,65nm,0.6s | | | | | | |
| MOY | | | | smax | smax | | |
| | comp=N,497nm,1.5s | | | | | | |
| **ARS** | **Arshan** | **4.00** | **89** | *e*PN | **Pb** | **16 37 09.3** | **-0.4** |
| ARS | | | | *e* | | 16 38 02.7 | |
| ARS | | | | pmax | pmax | | |
| | comp=Z,75nm,0.5s | | | | | | |
| ARS | | | | smax | smax | | |
| | comp=E,598nm,0.6s | | | | | | |
| **TLY** | **Talaya** | **4.78** | **91** | *e*PN | **Pb** | **16 37 24.9** | **+2.0** |
| TLY | | | | *e* | | 16 38 25.5 | |
| TLY | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.4s | | | | | | |
| TLY | | | | smax | smax | | |
| | comp=E,45nm,0.8s | | | | | | |
| **ZAK** | **Zakamensk** | **4.89** | **107** | *e*PN | **Pb** | **16 37 23.7** | **-1.2** |
| ZAK | | | | *e* | | 16 38 28.3 | |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,32nm,1.0s | | | | | | |
| ZAK | | | | smax | smax | | |
| | comp=N,125nm,1.4s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **6.99** | **290** | Pn | **Pn** | **16 37 41.8** | **+0.4** |
| | comp=N,0.8nm,0.3s,baz=103,slow=13,SNR=6.7 | | | | | | |
| ZALV | | | | Lg | Lg | 16 39 36.6 | |
| | comp=N,2.0nm,0.3s,baz=117,slow=24,SNR=8.2 | | | | | | |
| **OGRR** | **Ongureny** | **7.24** | **73** | *e*P | **Pn** | **16 37 45.0** | **+0.2** |
| OGRR | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.9s | | | | | | |
| **SONM** | **Songino Array** | **7.94** | **118** | Pg | **Pb** | **16 38 17.3** | **+0.6** |
| | comp=Z,1.0nm,0.3s,baz=304,slow=16,SNR=9.0 | | | | | | |
| SONM | | | | Lg | Lg | 16 40 05.3 | |
| | comp=Z,1.6nm,0.3s,baz=306,slow=24,SNR=10 | | | | | | |
| **MKAR** | **Makanchi Array** | **10.33** | **245** | Pn | **Pn** | **16 38 26.8** | **-0.4** |
| | comp=Z,0.1nm,0.3s,baz=54,slow=12,SNR=5.7 | | | | | | |
| MKAR | | | | Lg | Lg | 16 41 20.4 | |
| | comp=Z,0.3nm,0.3s,baz=52,slow=32,SNR=4.2 | | | | | | |

*SOME **27** 16:41:20.5, 44°.60N×80°.52E, h10km*

**ISC 27 16:41:19.5±1.5, 44°.61N±0°.04×80°.52E±0°.07, h12km±14km, n7, σ0§58/12, 2C, Kazakhstan-Xinjiang border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DJR** | **Jarkent** | **0.59** | **242** | *e*P | **Pb** | **16 41 31.9** | **0.0** |
| | 4.2nm,0.2s | | | | | | |
| DJR | | | | *e*S | **Sb** | **16 41 40.0** | **-0.2** |
| | 12nm,0.4s | | | | | | |
| **KAPS** | **Kapalarasan** | **1.06** | **310** | *e*P | **Pg** | **16 41 40.1** | **+0.2** |
| | 0.5nm,0.1s | | | | | | |
| KAPS | | | | *e*S | **Sg** | **16 41 54.2** | **+0.3** |
| | 3.4nm,0.3s | | | | | | |
| **KTMS** | **Ketmen** | **1.17** | **186** | *e*P | **Pg** | **16 41 42.6** | **+0.5** |
| | 4.1nm,0.1s | | | | | | |
| KTMS | | | | *e*S | **Sn** | **16 41 58.5** | **+0.7** |
| | 3.4nm,0.1s | | | | | | |
| **SHLS** | **Shalkode** | **1.64** | **208** | *e*P | **Pb** | **16 41 49.5** | **-0.3** |
| | 1.4nm,0.2s | | | | | | |
| SHLS | | | | *e*S | **Sb** | **16 42 10.3** | **-0.2** |
| | 6.8nm,0.3s | | | | | | |
| **UZB** | **Uzynbulak** | **1.82** | **217** | *e*P | **Pg** | **16 41 53.9** | **-0.5** |
| | 0.9nm,0.5s | | | | | | |
| UZB | | | | *e*S | **Sg** | **16 42 17.8** | **-0.2** |
| | 4.6nm,0.2s | | | | | | |
| **MAKZ** | **Makanchi** | **2.42** | **24** | ⇑Pg | **Pb** | **16 42 03.5** | **+0.5** |
| | 1.7nm,0.9s | | | | | | |
| MAKZ | | | | ⇑Lg | Lg | 16 42 33.2 | |
| | 2.1nm,0.7s | | | | | | |
| **MK31** | **Makanchi Array** | **2.51** | **29** | Pg | **Pb** | **16 42 03.5** | **-1.1** |
| | 0.4nm,0.4s,baz=215,slow=17,SNR=5.6 | | | | | | |
| MK31 | | | | Lg | Lg | 16 42 34.8 | |
| | 1.6nm,0.5s,baz=207,slow=25,SNR=9.2 | | | | | | |

*ISCJB **27** 16:42:35.6±0.3, 13°.63N±0°.03×120°.55E±0°.05, h127km±3km, mb4.0/15, Error ellipse: s-maj=8.9km s-min=5.3km az=168.2*
*IDC **27** 16:42:36.2±0.7, 13°.70N×120°.92E, h126km±5km, mb3.7/15, mb1 3.8/15, mb1mx3.5/64, mbtmp4.1/15, Error ellipse: s-maj=33.8km s-min=14.0km az=62.0*
*MAN **27** 16:42:37, 13°.64N×120°.54E, h104km, mb4.6, ML3.4, MS3.3*

**ISC 27 16:42:36.4±0.7, 13°.64N±0°.04×120°.57E±0°.05, h120km±5km, n33, σ1§09/42, mb4.0/15, 3C-2D, Mindoro**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LUBP** | **Lubang** | **0.33** | **287** | *e*P | **Pn** | **16 42 53.7** | **+0.3** |
| LUBP | | | | *e*S | **Sn** | **16 43 05.9** | **-0.3** |
| **PGP** | **Puerto Galera** | **0.39** | **110** | *i*S | **Sn** | **16 43 05.1** | **-1.7** |
| **TGY** | **Tagaytay City** | **0.58** | **37** | P | **Pn** | **16 42 55.4** | **+0.4** |
| | 356nm,0.3s,baz=205,slow=3.2,SNR=19 | | | | | | |
| TGY | | | | S | **Sn** | **16 43 09.7** | **+0.8** |
| | 2μm,0.3s,baz=0.7,slow=23,SNR=72 | | | | | | |
| **TGY** | **Tagaytay City** | **0.58** | **37** | ⇑*i*P | **Pn** | **16 42 55.0** | **0.0** |
| TGY | | | | *i*S | **Sn** | **16 43 09.5** | **+0.6** |
| **LQP** | **Lukban** | **1.05** | **63** | ⇑*e*P | **Pn** | **16 42 59.9** | **+0.7** |
| **BOAC** | **Boac** | **1.25** | **98** | *e*P | **Pn** | **16 43 01.2** | **+0.2** |
| BOAC | | | | *e*S | **Sn** | **16 43 20.5** | **+0.9** |
| **SJMP** | **San Jose** | **1.28** | **155** | *e*P | **Pn** | **16 43 02.1** | **+0.7** |
| SJMP | | | | *e*S | **Sn** | **16 43 20.4** | **0.0** |
| **BUSP** | **Coron** | **1.67** | **193** | *e*P | **Pn** | **16 43 06.3** | **+0.5** |
| BUSP | | | | *e*S | **Sn** | **16 43 28.5** | **+0.3** |
| **GQP** | **Guinayangan** | **1.84** | **81** | ⇓*e*P | **Pn** | **16 43 08.8** | **+0.9** |
| **OTRP** | **Odiongan** | **1.90** | **132** | *e*P | **Pn** | **16 43 09.0** | **+0.4** |
| OTRP | | | | *e*S | **Sn** | **16 43 33.1** | **-0.1** |
| **PCPH** | **Palayan** | **1.98** | **15** | ⇓*i*P | **Pn** | **16 43 09.0** | **-0.7** |
| PCPH | | | | *e*S | **Sn** | **16 43 35.2** | **+0.2** |
| **AUQP** | **San Andres** | **2.07** | **98** | *e*P | **Pn** | **16 43 13.3** | **+2.6** |
| **SCZP** | **Santa Cruz** | **2.22** | **343** | *e*P | **Pn** | **16 43 13.2** | **+0.5** |
| SCZP | | | | *e*S | **Sn** | **16 43 40.4** | **0.0** |
| **BALP** | **Baler** | **2.31** | **25** | *e*P | **Pn** | **16 43 14.7** | **+0.9** |
| **ENPP** | **El Nido** | **2.66** | **205** | *e*P | **Pn** | **16 43 19.8** | **+1.4** |
| **BOLP** | **Bolinao** | **2.80** | **347** | *e*P | **Pn** | **16 43 21.0** | **+0.9** |
| **JAP** | **San Jose, Anti** | **3.17** | **155** | ⇑*e*P | **Pn** | **16 43 26.0** | **+1.0** |
| JAP | | | | *e*S | Sn | 16 44 21.7 | +19 |
| **CAUP** | **Cauayan** | **3.50** | **20** | *e*P | **Pn** | **16 43 30.8** | **+1.5** |
| **CMAR** | **Chiang Mai Arr** | **21.33** | **286** | P | **P** | **16 47 16.7** | **+2.6** |
| | 1.2nm,0.8s,baz=102,slow=8.1,SNR=8.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **36.01** | **158** | P | **P** | **16 49 24.1** | **-2.1** |
| | 0.7nm,0.6s,baz=337,slow=9.6,SNR=5.4 | | | | | | |
| **ASAR** | **Alice Springs** | **39.30** | **161** | P | **P** | **16 49 52.7** | **-1.2** |
| | 0.3nm,0.3s,baz=337,slow=7.2,SNR=17 | | | | | | |
| **MKAR** | **Makanchi Array** | **46.01** | **324** | P | **P** | **16 50 48.8** | **+0.9** |
| | 0.9nm,0.3s,baz=107,slow=8.4,SNR=13 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **49.06** | **333** | P | **P** | **16 51 10.9** | **-0.4** |
| | 3.2nm,0.4s,baz=132,slow=6.5,SNR=4.9 | | | | | | |
| **BVAR** | **Borovoye Array** | **55.76** | **326** | P | **P** | **16 52 00.1** | **-0.7** |
| | 0.7nm,0.4s,baz=143,slow=11,SNR=6.6 | | | | | | |
| **GEYT** | **Alibeck** | **60.07** | **306** | P | **P** | **16 52 32.8** | **+1.5** |
| | 1.7nm,0.7s,baz=112,slow=6.6,SNR=4.6 | | | | | | |
| **AKTO** | **Aktyubinsk** | **62.18** | **320** | P | **P** | **16 52 44.8** | **-0.3** |
| | 1.0nm,0.4s,baz=101,slow=9.5,SNR=4.7 | | | | | | |
| **ARU** | **Arti** | **63.37** | **327** | P | **P** | **16 52 51.9** | **-1.0** |
| | 2.1nm,0.5s,baz=57,slow=1.1,SNR=3.7 | | | | | | |
| **BRTR** | **Keskin Array B** | **79.09** | **308** | P | **P** | **16 54 29.3** | **+1.2** |
| | 0.2nm,0.5s,baz=228,slow=38,SNR=2.8 | | | | | | |
| **ARCES** | **ARCESS Array B** | **79.10** | **339** | P | **P** | **16 54 26.2** | **-1.1** |
| | 5.2nm,1.1s,baz=56,slow=4.8,SNR=4.2 | | | | | | |
| **SPITS** | **Spitsbergen Ar** | **79.63** | **348** | P | **P** | **16 54 29.7** | **-0.4** |
| | 14nm,1.0s,baz=106,slow=4.7,SNR=4.4 | | | | | | |
| **HFS** | **Hagfors** | **86.47** | **331** | P | **P** | **16 55 04.5** | **-1.1** |
| | 4.5nm,1.0s,baz=80,slow=3.2,SNR=3.5 | | | | | | |
| **NOA** | **NORSAR Array B** | **87.26** | **333** | P | **P** | **16 55 08.2** | **-1.2** |
| | 0.8nm,0.8s,baz=66,slow=7.2,SNR=2.6 | | | | | | |
| **YKA** | **Yellowknife Ar** | **92.88** | **22** | P | **P** | **16 55 35.1** | **-0.5** |
| | 0.2nm,0.5s,baz=307,slow=4.4,SNR=1.7 | | | | | | |

*ISN **27** 16:47:12.9±1.2, 38°.94N×43°.27E, h0km±56km, ML3.8*
*DDA **27** 16:47:21.0, 38°.66N×43°.23E, h20km, Ml3.9*
*ISK **27** 16:47:21.4, 38°.66N×43°.26E, h2km, ML3.5*
*CSEM **27** 16:47:21.6±0.1, 38°.63N×43°.24E, h2km, ML3.5, Error ellipse: s-maj=3.5km s-min=2.9km az=144.0*
*ISCJB **27** 16:47:21.8±0.4, 38°.67N±0°.02×43°.28E±0°.02, h4km±2km, mb3.8/3, Error ellipse: s-maj=2.9km s-min=2.1km az=151.9*
*AZER **27** 16:47:24.0±0.9, 38°.61N×43°.28E, h15km, Error ellipse: s-maj=7.7km s-min=4.8km az=35.0*
*IDC **27** 16:47:24.8±1.4, 38°.70N×44°.10E, h0km, mb3.7/4, mb1 3.7/6, mb1mx3.4/44, mbtmp3.6/6, ML2.4/2, Error ellipse: s-maj=21.3km s-min=17.5km az=172.0*

**ISC 27 16:47:22.6±0.8, 38°.67N±0°.02×43°.24E±0°.01, h13km±5km, n132, σ1§58/194, mb3.9/3, 13C-17D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.14** | **121** | *e*PG | **Pg** | **16 47 25.9** | **-0.3** |
| VANB | | | | *e*SG | **Sg** | **16 47 29.8** | **+1.0** |
| **VANB** | **Van** | **0.14** | **121** | *e*Pg | **Pg** | **16 47 25.9** | **-0.3** |
| **TVAN** | **Van** | **0.19** | **136** | *i*P | **Pg** | **16 47 25.9** | **-1.2** |
| TVAN | | | | *i*S | **Sg** | **16 47 30.1** | **0.0** |
| **TVAN** | **Van** | **0.19** | **136** | P | **Pg** | **16 47 25.9** | **-1.2** |
| TVAN | | | | S | **Sg** | **16 47 30.1** | **0.0** |
| **ERCV** | **ERCIS-VAN** | **0.36** | **12** | *e*PG | **Pg** | **16 47 28.8** | **-1.2** |
| **ERCV** | **ERCIS-VAN** | **0.36** | **12** | *e*Pg | **Pg** | **16 47 28.8** | **-1.2** |
| **GEVA** | **Gevas** | **0.38** | **202** | *i*P | **Pg** | **16 47 28.5** | **-1.8** |
| GEVA | | | | *i*S | **Sg** | **16 47 35.4** | **-0.1** |
| **GEVA** | **Gevas** | **0.38** | **202** | P | **Pg** | **16 47 28.5** | **-1.8** |
| GEVA | | | | S | **Sg** | **16 47 35.4** | **-0.1** |
| **VMUR** | **Van-Muradiye** | **0.41** | **39** | *i*P | **Pg** | **16 47 30.0** | **-0.9** |
| VMUR | | | | *i*S | **Sb** | **16 47 37.1** | **-1.0** |
| **VMUR** | **Van-Muradiye** | **0.41** | **39** | P | **Pg** | **16 47 30.0** | **-0.9** |
| VMUR | | | | S | **Sb** | **16 47 37.1** | **-1.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.43** | **289** | *i*P | **Pg** | **16 47 29.3** | **-1.8** |
| ADCV | | | | *i*S | **Sg** | **16 47 36.1** | **-0.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.43** | **289** | P | **Pg** | **16 47 29.3** | **-1.8** |
| ADCV | | | | S | **Sg** | **16 47 36.1** | **-0.8** |
| **CLDR** | **Caldiran** | **0.71** | **48** | *i*P | **Pg** | **16 47 34.9** | **-1.6** |
| CLDR | | | | *i*S | **Sb** | **16 47 46.4** | **-0.4** |
| **CLDR** | **Caldiran** | **0.71** | **48** | P | **Pg** | **16 47 34.9** | **-1.6** |
| CLDR | | | | S | **Sb** | **16 47 46.4** | **-0.4** |
| **TUTA** | **Tutak** | **0.81** | **336** | *i*P | **Pg** | **16 47 35.8** | **-2.5** |
| TUTA | | | | *i*S | **Sg** | **16 47 45.0** | **-3.9** |
| **TUTA** | **Tutak** | **0.81** | **336** | P | **Pg** | **16 47 35.8** | **-2.5** |
| TUTA | | | | S | **Sg** | **16 47 45.0** | **-3.9** |
| **AGRB** | **Hanur-Agry** | **0.93** | **348** | *e*PG | **Pg** | **16 47 40.1** | **-0.5** |
| **AGRB** | **Hanur-Agry** | **0.93** | **348** | *e*Pg | **Pg** | **16 47 40.1** | **-0.5** |
| **DYDN** | **Diyadin** | **0.94** | **22** | *i*P | **Pg** | **16 47 38.3** | **-2.5** |
| DYDN | | | | *i*S | **Sg** | **16 47 52.8** | **-0.5** |
| **DYDN** | **Diyadin** | **0.94** | **22** | P | **Pg** | **16 47 38.3** | **-2.5** |
| DYDN | | | | S | **Sg** | **16 47 52.8** | **-0.5** |
| **EKAR** | **Karacoban** | **1.09** | **303** | *i*P | **Pg** | **16 47 41.5** | **-2.1** |
| EKAR | | | | *i*S | **Sb** | **16 47 58.9** | **+1.3** |
| **EKAR** | **Karacoban** | **1.09** | **303** | P | **Pg** | **16 47 41.5** | **-2.1** |
| EKAR | | | | S | **Sb** | **16 47 58.9** | **+1.3** |
| **HAKT** | **HAKKARI** | **1.17** | **161** | *i*P | **Pg** | **16 47 43.1** | **-2.0** |
| HAKT | | | | *i*S | **Sn** | **16 48 02.5** | **+1.8** |
| **HAKT** | **HAKKARI** | **1.17** | **161** | P | **Pg** | **16 47 43.1** | **-2.0** |
| **SRTM** | **Siirt_Merkez** | **1.24** | **237** | *i*P | **Pg** | **16 47 44.1** | **-2.3** |
| SRTM | | | | *i*S | **Sn** | **16 48 03.3** | **+1.1** |
| **SRTM** | **Siirt_Merkez** | **1.24** | **237** | P | **Pg** | **16 47 44.1** | **-2.3** |
| SRTM | | | | S | **Sn** | **16 48 03.3** | **+1.1** |
| **SIRT** | **Sirnak** | **1.32** | **209** | *e*PN | **Pb** | **16 47 47.4** | **+0.1** |
| SIRT | | | | *e*SN | **Sn** | **16 48 06.5** | **+2.2** |
| **SIRT** | **Sirnak** | **1.32** | **209** | *e*Pn | **Pb** | **16 47 47.4** | **+0.1** |
| SIRT | | | | *e*Sn | **Sn** | **16 48 06.5** | **+2.2** |
| **EATA** | **Eleskirt** | **1.33** | **334** | *i*P | **Pg** | **16 47 45.1** | **-3.1** |
| EATA | | | | *i*S | **Sg** | **16 48 03.8** | **-1.7** |
| **EATA** | **Eleskirt** | **1.33** | **334** | P | **Pg** | **16 47 45.1** | **-3.1** |
| EATA | | | | S | **Sg** | **16 48 03.8** | **-1.7** |
| **SIRN** | **S¯–rnak** | **1.34** | **209** | *i*P | **Pg** | **16 47 46.2** | **-2.1** |
| SIRN | | | | *i*S | **Sb** | **16 48 05.6** | **+1.0** |
| **SIRN** | **S¯–rnak** | **1.34** | **209** | P | **Pg** | **16 47 46.2** | **-2.1** |
| SIRN | | | | S | **Sg** | **16 48 05.6** | **+1.0** |
| **YOVA** | **Hakkari_Y¨...kse** | **1.36** | **142** | *i*P | **Pg** | **16 47 46.2** | **-2.6** |
| YOVA | | | | *i*S | **Sn** | **16 48 09.0** | **+3.6** |
| **YOVA** | **Hakkari_Y¨...kse** | **1.36** | **142** | P | **Pg** | **16 47 46.2** | **-2.6** |
| **CUKT** | **Cukurca** | **1.45** | **168** | *e*PN | **Pn** | **16 47 48.8** | **+0.3** |
| **CUKT** | **Cukurca** | **1.45** | **168** | *i*P | **Pn** | **16 47 48.2** | **-0.3** |
| CUKT | | | | *i*S | **Sn** | **16 48 10.0** | **+2.6** |
| **CUKT** | **Cukurca** | **1.45** | **168** | P | **Pn** | **16 47 48.2** | **-0.3** |
| **CUKT** | **Cukurca** | **1.45** | **168** | *e*Pn | **Pn** | **16 47 48.8** | **+0.3** |
| CUKT | | | | S | **Sn** | **16 48 10.0** | **+2.6** |
| **TASB** | **TASBURUN-IGDIR** | **1.53** | **30** | *e*PN | **Pn** | **16 47 50.2** | **+0.6** |
| **TASB** | **TASBURUN-IGDIR** | **1.53** | **30** | *e*Pn | **Pn** | **16 47 50.2** | **+0.6** |
| **HYR** | **Heyderabad** | **1.64** | **50** | ⇑P | **Pb** | **16 47 51.8** | **-0.8** |
| HYR | | | | ⇓S | **Sg** | **16 48 14.5** | **-0.7** |
| **HYR** | **Heyderabad** | **1.64** | **50** | P | **Pb** | **16 47 51.8** | **-0.8** |
| HYR | | | | S | **Sg** | **16 48 14.5** | **-0.7** |
| **BNGL** | **BINGOL** | **1.66** | **281** | *i*P | **Pn** | **16 47 51.5** | **0.0** |
| BNGL | | | | *i*S | **Sg** | **16 48 15.7** | **-0.2** |
| **HOMI** | **Horasan** | **1.72** | **324** | *i*P | **Pn** | **16 47 52.4** | **-0.1** |
| HOMI | | | | *i*S | **Sg** | **16 48 18.4** | **+0.4** |
| **BTMN** | **Batman** | **1.73** | **244** | *i*P | **Pn** | **16 47 53.2** | **+0.8** |
| BTMN | | | | *i*S | **Sn** | **16 48 16.4** | **+2.0** |
| **BTMN** | **Batman** | **1.73** | **244** | P | **Pn** | **16 47 53.2** | **+0.8** |
| BTMN | | | | S | **Sn** | **16 48 16.4** | **+2.0** |
| **DIGO** | **Kars** | **1.75** | **3** | *i*P | **Pn** | **16 47 53.5** | **+0.7** |
| DIGO | | | | *i*S | **Sg** | **16 48 22.3** | **+3.4** |
| **DIGO** | **Kars** | **1.75** | **3** | P | **Pn** | **16 47 53.5** | **+0.7** |
| DIGO | | | | S | **Sg** | **16 48 22.3** | **+3.4** |
| **NAX** | **Nakhchivan** | **1.83** | **73** | ⇓P | **Pn** | **16 47 54.4** | **+0.6** |
| NAX | | | | ⇓S | **Sn** | **16 48 18.0** | **+1.1** |
| **NAX** | **Nakhchivan** | **1.83** | **73** | P | **Pn** | **16 47 54.4** | **+0.6** |
| NAX | | | | S | **Sn** | **16 48 18.0** | **+1.1** |
| **GNI** | **Garni** | **1.88** | **38** | Pn | **Pn** | **16 47 55.6** | **+1.1** |
| | 22nm,0.3s,baz=217,slow=5.1,SNR=36 | | | | | | |
| **ERZM** | **Erzurum** | **1.91** | **311** | *i*P | **Pn** | **16 47 55.5** | **+0.5** |
| ERZM | | | | *i*S | **Sg** | **16 48 23.4** | **-0.6** |
| **ERZM** | **Erzurum** | **1.91** | **311** | P | **Pn** | **16 47 55.5** | **+0.5** |
| ERZM | | | | S | **Sg** | **16 48 23.4** | **-0.6** |
| **SBZ** | **Shahbuz** | **1.94** | **67** | ⇓P | **Pn** | **16 47 55.6** | **+0.2** |
| SBZ | | | | ⇑S | **Sg** | **16 48 23.1** | **-2.0** |
| **SBZ** | **Shahbuz** | **1.94** | **67** | P | **Pn** | **16 47 55.6** | **+0.2** |
| SBZ | | | | S | **Sg** | **16 48 23.1** | **-2.0** |
| **KARS** | **Kars** | **1.96** | **356** | *e*PN | **Pn** | **16 47 56.5** | **+0.9** |
| **KARS** | **Kars** | **1.96** | **356** | *e*Pn | **Pn** | **16 47 56.5** | **+0.9** |
| **ECAT** | **Cat-ERZURUM** | **2.00** | **299** | *i*P | **Pn** | **16 47 56.3** | **+0.1** |
| ECAT | | | | *i*S | **Sg** | **16 48 26.3** | **-0.5** |
| **ECAT** | **Cat-ERZURUM** | **2.00** | **299** | P | **Pn** | **16 47 56.3** | **+0.1** |
| ECAT | | | | S | **Sg** | **16 48 26.3** | **-0.5** |
| **SENK** | **Senkaya-Erzuru** | **2.01** | **340** | *e*PN | **Pn** | **16 47 57.6** | **+1.2** |
| **SENK** | **Senkaya-Erzuru** | **2.01** | **340** | *e*Pn | **Pn** | **16 47 57.6** | **+1.2** |
| **BNGB** | **Bing¨ll** | **2.02** | **280** | *e*PN | **Pn** | **16 47 57.3** | **+0.8** |
| **EAK** | **Akyaka** | **2.04** | **8** | *i*P | **Pb** | **16 47 59.8** | **+0.3** |
| EAK | | | | *i*S | Sg | 16 48 36.2 | +8.1 |
| **EAK** | **Akyaka** | **2.04** | **8** | P | **Pb** | **16 47 59.8** | **+0.3** |
| **BINT** | **Bingol** | **2.16** | **276** | *e*Pn | **Pn** | **16 47 57.3** | **-1.0** |
| **ORD** | **Ordubad** | **2.17** | **82** | P | **Pn** | **16 47 58.8** | **+0.4** |
| ORD | | | | S | **Sn** | **16 48 25.9** | **+0.7** |
| **YEDI** | **Yedisu-Bingol** | **2.23** | **291** | *e*PN | **Pn** | **16 48 00.7** | **+1.3** |
| **YEDI** | **Yedisu-Bingol** | **2.23** | **291** | *e*Pn | **Pn** | **16 48 00.7** | **+1.3** |
| **HANI** | **Diyarbakir_Han** | **2.24** | **264** | *i*P | **Pn** | **16 47 59.4** | **0.0** |
| HANI | | | | *i*S | **Sb** | **16 48 31.7** | **+1.1** |
| **HANI** | **Diyarbakir_Han** | **2.24** | **264** | P | **Pn** | **16 47 59.4** | **0.0** |
| HANI | | | | S | **Sb** | **16 48 31.7** | **+1.1** |
| **MARD** | **Mardin** | **2.37** | **236** | *i*P | **Pn** | **16 48 02.4** | **+1.2** |
| MARD | | | | *i*S | **Sn** | **16 48 31.8** | **+1.7** |
| **DIY** | **Diyarbakir** | **2.49** | **253** | *e*Pn | **Pn** | **16 48 05.2** | **+2.3** |
| **MAZI** | **Mazidag** | **2.51** | **242** | *e*PN | **Pn** | **16 48 04.6** | **+1.4** |
| **MAZI** | **Mazidag** | **2.51** | **242** | *e*Pn | **Pn** | **16 48 04.6** | **+1.4** |
| **DYBB** | **Diyarbakir** | **2.54** | **255** | *e*PN | **Pn** | **16 48 05.2** | **+1.6** |
| **DIYA** | **Diyarbakir** | **2.56** | **254** | *i*P | **Pn** | **16 48 04.3** | **+0.5** |
| DIYA | | | | *i*S | **Sb** | **16 48 39.4** | **-0.5** |
| **DIYA** | **Diyarbakir** | **2.56** | **254** | P | **Pn** | **16 48 04.3** | **+0.5** |
| DIYA | | | | S | **Sb** | **16 48 39.4** | **-0.5** |
| **AKH** | **Akhalkalaki** | **2.75** | **4** | *e*PN | **Pn** | **16 48 08.4** | **+2.0** |
| **AKH** | **Akhalkalaki** | **2.75** | **4** | *e*Pn | **Pn** | **16 48 08.4** | **+2.0** |
| **GDB** | **GEDABAY** | **2.82** | **43** | ⇑P | **Pn** | **16 48 08.8** | **+1.3** |
| GDB | | | | ⇓S | **Sn** | **16 48 44.3** | **+2.8** |
| **GDB** | **GEDABAY** | **2.82** | **43** | P | **Pn** | **16 48 08.8** | **+1.3** |
| GDB | | | | S | **Sn** | **16 48 44.3** | **+2.8** |
| **ERZN** | **Erzincan** | **2.88** | **290** | *e*PN | **Pn** | **16 48 10.4** | **+2.1** |
| **QZX** | **Qazax, Azerbai** | **2.90** | **34** | ⇓P | **Pn** | **16 48 10.1** | **+1.7** |
| QZX | | | | ⇓S | **Sn** | **16 48 45.5** | **+2.4** |
| **QZX** | **Qazax, Azerbai** | **2.90** | **34** | P | **Pn** | **16 48 10.1** | **+1.7** |
| QZX | | | | S | **Sn** | **16 48 45.5** | **+2.4** |
| **BAYT** | **Ayd¯–ntepe-Bay** | **2.95** | **307** | *e*PN | **Pn** | **16 48 11.2** | **+1.9** |
| **BAYT** | **Ayd¯–ntepe-Bay** | **2.95** | **307** | *e*Pn | **Pn** | **16 48 11.2** | **+1.9** |
| **PTK** | **Pertek** | **3.02** | **275** | *e*PN | **Pn** | **16 48 12.2** | **+2.1** |
| **PTK** | **Pertek** | **3.02** | **275** | *e*Pn | **Pn** | **16 48 12.3** | **+2.1** |
| **BCA** | **Borcka** | **3.04** | **336** | *e*PN | **Pn** | **16 48 12.5** | **+2.2** |
| **BCA** | **Borcka** | **3.04** | **336** | *e*Pn | **Pn** | **16 48 12.5** | **+2.2** |
| **GANJ** | **Ganja** | **3.09** | **49** | ⇑P | **Pn** | **16 48 12.4** | **+1.3** |
| GANJ | | | | ⇑S | **Sn** | **16 48 49.5** | **+1.6** |
| **GANJ** | **Ganja** | **3.09** | **49** | P | **Pn** | **16 48 12.4** | **+1.3** |
| GANJ | | | | S | **Sn** | **16 48 49.5** | **+1.6** |
| **SVRC** | **Sivrice-ELAZID** | **3.10** | **266** | *e*PN | **Pn** | **16 48 13.3** | **+2.0** |
| **SVRC** | **Sivrice-ELAZID** | **3.10** | **266** | *e*Pn | **Pn** | **16 48 13.3** | **+2.0** |
| **TBLG** | **Delisi** | **3.27** | **20** | *e*PN | **Pn** | **16 48 15.4** | **+1.9** |
| **TBLG** | **Delisi** | **3.27** | **20** | *e*Pn | **Pn** | **16 48 15.4** | **+1.9** |
| **BRDA** | **Brd** | **3.44** | **61** | ⇑P | **Pn** | **16 48 16.4** | **+0.6** |
| BRDA | | | | ⇑S | **Sn** | **16 48 58.4** | **+2.0** |
| **BRDA** | **Brd** | **3.44** | **61** | P | **Pn** | **16 48 16.4** | **+0.6** |
| BRDA | | | | S | **Sn** | **16 48 58.4** | **+2.0** |
| **ZRD** | **Zardab** | **3.80** | **64** | ⇑S | **Sn** | **16 49 07.2** | **+2.0** |
| **ZRD** | **Zardab** | **3.80** | **64** | S | **Sn** | **16 49 07.2** | **+2.0** |
| **ZKTA** | **Zakatala** | **3.94** | **40** | ⇓P | **Pn** | **16 48 24.1** | **+1.4** |
| ZKTA | | | | ⇓S | **Sn** | **16 49 11.7** | **+2

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| KURK | Kurchatov | 64.55 | 329 | *e*P | P | 17 00 58.0 | -2.0 |
| | 29nm,0.6s | | | | | | |
| BVAR | Borovoye Array | 70.10 | 328 | P | P | 17 01 34.7 | -0.5 |
| | 2.0nm,0.8s,baz=133,slow=6.3,SNR=8.3 | | | | | | |
| GEYT | Alibeck | 72.75 | 310 | P | P | 17 01 51.5 | 0.0 |
| | 1.5nm,0.8s,baz=92,slow=10,SNR=4.0 | | | | | | |
| ABKAR | Akbulak array | 74.64 | 322 | *e*P | P | 17 02 01.0 | -1.2 |
| | 1.7nm,0.7s | | | | | | |
| AKTO | Aktyubinsk | 76.19 | 322 | P | P | 17 02 10.8 | -0.3 |
| | 3.4nm,0.5s,baz=117,slow=7.5,SNR=8.1 | | | | | | |
| ARU | Arti | 77.74 | 328 | P | P | 17 02 19.5 | -0.3 |
| | 1.2nm,0.4s,baz=115,slow=6.3,SNR=5.2 | | | | | | |
| TORD | Torodi Ar. Bea | 123.39 | 286 | PKP | PKPdf | 17 09 21.1 | +0.2 |
| | 0.5nm,0.7s,baz=348,slow=1.7,SNR=3.6 | | | | | | |
| TXAR | Lajitas Array | 124.33 | 54 | PKP | PKPdf | 17 09 22.8 | +0.3 |
| | 0.4nm,0.9s,baz=7.6,slow=2.7,SNR=2.6 | | | | | | |

*IDC **27** 16:51:19.8±1.9,5.˝96S×152.˝21E, h0km, mb3.9/8, mb1 4.1/9, mb1mx3.8/44, mbtmp4.0/9, ML2.1/1, Error ellipse: s-maj=70.1km s-min=19.5km az=125.0*
*ISCJB **27** 16:51:23.8±1.5, 6.˝0S±0.˝2×152.˝2E±0.˝3, h36km, mb3.9/8, Error ellipse: s-maj=50.7km s-min=10.7km az=42.1*

**ISC 27 16:51:24.7**±1.9,**6.˝1S**±0.˝4×**152.˝3E**±0.˝4,**h36**km,**n10, σ0§83/11, mb4.0/8, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| PMG | Port Moresby | 6.10 | 237 | | | Pn | Pn | 16 52 52.0 | -0.3 |
| | 3.1nm,0.3s,baz=57,slow=8.3,SNR=15 | | | | | | | | |
| PMG | | | | Sn | | Sn | Sn | 16 54 01.8 | +0.9 |
| | 3.4nm,0.3s,baz=124,slow=20,SNR=5.3 | | | | | | | | |
| WRA | Warramunga Arr | 22.26 | 230 | P | | P | P | 16 56 18.5 | -0.3 |
| | 2.1nm,0.8s,baz=52,slow=9.8,SNR=3.0 | | | | | | | | |
| ASAR | Alice Springs | 24.90 | 224 | P | | P | P | 16 56 45.5 | +1.1 |
| | 1.2nm,0.7s,baz=58,slow=9.8,SNR=6.4 | | | | | | | | |
| FITZ | Fitzroy Crossi | 28.66 | 243 | P | | P | P | 16 57 17.0 | -1.3 |
| | 2.8nm,0.5s,baz=53,slow=7.7,SNR=14 | | | | | | | | |
| MKAR | Makanchi Array | 80.99 | 319 | P | | P | P | 17 03 36.3 | +0.6 |
| | 0.2nm,0.4s,baz=82,slow=3.1,SNR=5.2 | | | | | | | | |
| ZALV | Zalesovo Beam | 81.96 | 327 | P | | P | P | 17 03 40.4 | -0.2 |
| | 0.9nm,0.6s,baz=126,slow=4.6,SNR=3.4 | | | | | | | | |
| ILAR | Eielson Array | 83.52 | 22 | P | | P | P | 17 03 49.0 | +0.5 |
| | 1.0nm,0.6s,baz=247,slow=5.0,SNR=14 | | | | | | | | |
| KURBB | Kurchatov Arra | 84.52 | 322 | P | | P | P | 17 03 53.8 | -0.1 |
| | 0.8nm,0.6s,baz=111,slow=3.9,SNR=5.3 | | | | | | | | |
| BVAR | Borovoye Array | 89.99 | 323 | P | | P | P | 17 04 20.4 | 0.0 |
| | 1.2nm,0.7s,baz=104,slow=6.3,SNR=4.7 | | | | | | | | |
| TORD | Torodi Ar. Bea | 150.24 | 286 | PKPbc | | PKPbc | PKPbc | 17 11 12.0 | -1.1 |
| | 0.3nm,0.6s,baz=82,slow=2.2,SNR=3.6 | | | | | | | | |

*SJA **27** 16:54:59.2±0.5, 24.˝09S×66.˝85W, h214km±6km, ML3.3, MW3.8*
*ISCJB **27** 16:55:01.0±0.4, 24.˝05S±0.˝04×66.˝92W±0.˝04, h181km, mb3.7/6, Error ellipse: s-maj=6.4km s-min=3.9km az=36.3*
*GUC **27** 16:55:01.2±0.5, 23.˝83S×67.˝98W, h297km±14km, ML4.9*
*IDC **27** 16:55:04.1±2.2, 23.˝79S×66.˝66W, h221km±19km, mb3.6/6, mb1 3.8/10, mb1mx3.5/31, mbtmp4.1/10, Error ellipse: s-maj=19.7km s-min=16.0km az=45.0*

**ISC 27 16:55:00.1**±0.6,**24.˝02S**±0.˝05×**66.˝87W**±0.˝05,**h181**km,**n35, σ1§87/45, mb3.7/6, 8C, Salta Province**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| SLA | San Lorenzo | 1.43 | 120 | *e*P | | P | Pn | 16 55 34.2 | +2.6 |
| SLA | | | | IAML | | | | 16 55 36.1 | |
| | comp=Z,525nm,0.5s | | | | | | | | |
| SLA | | | | *e*S | | S | Sn | 16 55 59.4 | +3.4 |
| HJA | Humahuaca | 1.56 | 59 | *e*P | | P | Pn | 16 55 36.2 | +3.0 |
| HJA | | | | IAML | | | | 16 55 36.9 | |
| | comp=Z,333nm,0.6s | | | | | | | | |
| AZAP | Zapla | 1.66 | 98 | *e*P | | P | Pn | 16 55 36.0 | +2.1 |
| AZAP | | | | IAML | | | | 16 55 36.3 | |
| | comp=Z,659nm,0.5s | | | | | | | | |
| ASTB | Santa Barbara | 2.21 | 89 | *e*P | | P | Pn | 16 55 41.5 | +1.8 |
| YJA | Yavi | 2.21 | 34 | *e*P | | P | Pn | 16 55 43.1 | +3.0 |
| YJA | | | | IAML | | | | 16 55 44.9 | |
| | comp=Z,34nm,0.4s | | | | | | | | |
| FSA | Cafayete | 2.24 | 159 | *e*P | | P | Pn | 16 55 41.1 | +1.1 |
| FSA | | | | IAML | | | | 16 55 42.2 | |
| | comp=Z,72nm,0.6s | | | | | | | | |
| ALOL | LOMAS DE OLMED | 2.65 | 86 | *e*P | | P | Pn | 16 55 46.1 | +1.5 |
| PB06 | IPOC Station P | 2.81 | 297 | ⇑*i*P | | P | Pn | 16 55 49.1 | +2.5 |
| PB06 | | | | *e*S | | S | Sn | 16 56 25.2 | +2.3 |
| AHML | Horco Molle | 3.08 | 154 | *e*P | | P | Pn | 16 55 50.3 | +0.5 |
| AHML | | | | IAML | | | | 16 56 30.6 | |
| | comp=Z,27nm,0.5s | | | | | | | | |
| PB09 | IPOC Station P | 3.11 | 315 | ⇑*i*P | | P | Pn | 16 55 53.1 | +2.8 |
| PB09 | | | | *e*S | | S | Sn | 16 56 32.4 | +2.9 |
| PB09 | | | | IAML | | | | 16 56 35.8 | |
| | comp=N,2μm,0.2s | | | | | | | | |
| PB14 | IPOC Station P | 3.29 | 259 | ⇑*i*P | | P | Pn | 16 55 53.7 | +1.1 |
| PB14 | | | | *e*S | | S | Sn | 16 56 33.1 | -0.3 |
| PB14 | | | | IAML | | | | 16 56 35.8 | |
| | comp=E,2μm,0.3s | | | | | | | | |
| PB10 | IPOC Station P | 3.42 | 278 | ⇑*i*P | | P | Pn | 16 55 55.6 | +1.7 |
| PB10 | | | | *i* S | | S | Sn | 16 56 36.1 | +0.2 |
| PB10 | | | | IAML | | | | 16 56 41.5 | |
| | comp=N,2μm,0.3s | | | | | | | | |
| PB04 | IPOC Station P | 3.46 | 298 | ⇑*i*P | | P | Pn | 16 55 55.9 | +1.3 |
| PB04 | | | | *e*S | | S | Sn | 16 56 37.4 | +0.4 |
| PB07 | IPOC Station P | 3.60 | 309 | ⇑*i*P | | P | Pn | 16 55 58.1 | +1.7 |
| PB07 | | | | *e*S | | S | Sn | 16 56 40.8 | +0.4 |
| PB01 | IPOC Station P | 3.83 | 320 | ⇑*i*P | | P | Pn | 16 56 00.6 | +1.5 |
| PB01 | | | | *e*S | | S | Sn | 16 56 46.1 | +0.8 |
| PB02 | IPOC Station P | 3.88 | 313 | ⇑*i*P | | P | Pn | 16 56 01.1 | +1.3 |
| PB02 | | | | *i* S | | S | Sn | 16 56 45.7 | -0.9 |
| CYA | Choya | 4.51 | 168 | *e*P | | P | Pn | 16 56 07.6 | -0.2 |
| CYA | | | | IAML | | | | 16 56 09.2 | |
| | comp=Z,10.0nm,0.5s | | | | | | | | |
| AGUA | GUANDACOL | 5.64 | 195 | *e*P | | P | Pn | 16 56 22.1 | -0.4 |
| LPAZ | La Paz | 7.78 | 351 | P | | P | Pn | 16 56 52.1 | +1.0 |
| | comp=Z,1.4nm,0.3s,baz=182,slow=8.1,SNR=24 | | | | | | | | |
| LPAZ | | | | S | | S | Sn | 16 58 19.1 | +0.2 |
| | comp=Z,0.8nm,0.3s,baz=311,slow=18,SNR=7.2 | | | | | | | | |
| CPUP | Villa Florida | 8.94 | 107 | P | | P | Pn | 16 57 03.4 | -2.3 |
| | comp=Z,0.4nm,0.3s,baz=283,slow=11,SNR=9.1 | | | | | | | | |
| SIV | San Ignacio | 9.66 | 35 | P | | P | Pn | 16 57 13.8 | -1.5 |
| | comp=Z,0.4nm,0.3s,baz=247,slow=13,SNR=7.7 | | | | | | | | |
| PLCA | Paso Flores | 16.95 | 190 | P | | P | Pn | 16 58 50.7 | +4.0 |
| | comp=Z,0.2nm,0.3s,baz=24,slow=12,SNR=6.3 | | | | | | | | |
| BDFB | Brasilia | 19.58 | 68 | P | | P | P | 16 59 14.0 | -0.5 |
| | baz=41,slow=7.2,SNR=8.5 | | | | | | | | |
| TXAR | Lajitas Array | 63.76 | 324 | P | | P | P | 17 05 12.5 | -0.4 |
| | comp=Z,0.7nm,0.7s,baz=152,slow=8.8,SNR=11 | | | | | | | | |
| TORD | Torodi Ar. Bea | 76.46 | 69 | P | | P | P | 17 06 28.0 | -2.3 |
| | comp=Z,1.0nm,0.5s,baz=257,slow=5.8,SNR=10 | | | | | | | | |
| TORD | | | | pP | | | pP | 17 07 18.1 | +4.0 |
| | comp=Z,0.9nm,0.8s,baz=247,slow=4.9,SNR=3.7 | | | | | | | | |
| PDAR | Pinedale Array | 77.22 | 329 | P | | P | P | 17 06 34.0 | -0.2 |
| | comp=Z,0.5nm,0.5s,baz=120,slow=8.0,SNR=7.8 | | | | | | | | |
| ULM | Lac du Bonnet | 78.28 | 341 | P | | P | P | 17 06 38.6 | -1.0 |
| | comp=Z,3.2nm,0.6s,baz=152,slow=5.2,SNR=11 | | | | | | | | |
| NVAR | Mina Array Bea | 78.63 | 321 | P | | P | P | 17 06 41.4 | -0.8 |
| | comp=Z,0.5nm,0.6s,baz=134,slow=6.4,SNR=4.6 | | | | | | | | |
| YKA | Yellowknife Ar | 94.18 | 340 | P | | P | P | 17 07 56.6 | -1.1 |
| | comp=Z,0.9nm,0.5s,baz=135,slow=4.6,SNR=35 | | | | | | | | |
| ASAR | Alice Springs | 128.49 | 205 | PKP | | PKPdf | PKPdf | 17 13 44.2 | -1.9 |
| | comp=Z,0.9nm,0.8s,baz=148,slow=1.7,SNR=13 | | | | | | | | |
| WRA | Warramunga Arr | 131.67 | 207 | PKP | | PKPdf | PKPdf | 17 13 50.9 | -1.3 |
| | comp=Z,0.5nm,0.5s,baz=158,slow=1.8,SNR=13 | | | | | | | | |
| ZALV | Zalesovo Beam | 143.35 | 28 | PKP | | PKPab | PKPab | 17 14 08.8 | -0.1 |
| | comp=Z,1.7nm,0.6s,baz=305,slow=4.5,SNR=7.8 | | | | | | | | |
| MKAR | Makanchi Array | 146.46 | 40 | PKPbc | | PKPdf | PKPdf | 17 14 17.5 | -0.6 |
| | comp=Z,3.1nm,0.7s,baz=316,slow=2.0,SNR=22 | | | | | | | | |
| KLR | Kul'dur | 150.89 | 335 | PKPbc | | PKPbc | PKPbc | 17 14 29.4 | -1.6 |
| | comp=Z,0.2nm,0.7s,baz=19,slow=3.7,SNR=7.3 | | | | | | | | |
| SONM | Songino Array | 155.63 | 11 | PKPab | | PKPab | PKPab | 17 14 58.8 | -0.4 |
| | comp=Z,0.7nm,0.6s,baz=347,slow=6.1,SNR=3.6 | | | | | | | | |

**IDC 27 17:00:43.6**±3.2,**10.˝77S**×**166.˝57E, h0**km,**mb3.7**/5, **mb1 3.9**/5,**mb1mx3.5**/42,**mbtmp3.6**/5,**Error ellipse: s-maj=116.6km s-min=31.5km az=137.0, Santa Cruz Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 32.33 | 250 | P | | P | P | 17 07 14.0 | -0.9 |
| | 0.5nm,0.4s,baz=84,slow=9.3,SNR=8.7 | | | | | | | | |
| ASAR | Alice Springs | 33.64 | 243 | P | | P | P | 17 07 27.8 | +1.5 |
| | 0.5nm,0.9s,baz=76,slow=8.3,SNR=4.7 | | | | | | | | |
| CMAR | Chiang Mai Arr | 72.74 | 293 | P | | P | P | 17 12 14.2 | -0.1 |
| | 0.3nm,0.4s,baz=122,slow=3.8,SNR=4.7 | | | | | | | | |
| ILAR | Eielson Array | 83.00 | 18 | P | | P | P | 17 13 10.8 | +0.4 |
| | 0.3nm,0.5s,baz=236,slow=5.7,SNR=7.1 | | | | | | | | |
| MKAR | Makanchi Array | 93.87 | 317 | P | | P | P | 17 14 02.1 | -1.0 |
| | 0.3nm,0.6s,baz=94,slow=5.8,SNR=3.8 | | | | | | | | |

*MOS **27** 17:02:56.2±2.3, 51.˝82N×95.˝95E, h6km, mb3.8/1, Error ellipse: s-maj=30.3km s-min=13.4km az=172.2*
*IDC **27** 17:02:57.8±1.2, 51.˝74N×95.˝91E, h0km, mb3.5/1, mb1 3.2/4, mb1mx2.9/50, mbtmp3.2/4, ML2.7/3, Error ellipse: s-maj=35.0km s-min=11.2km az=0.0*

**ISC 27 17:02:58.5**±0.9,**51.˝8N**±0.˝1×**96.˝07E**±0.˝06,**h10**km,**n16, σ1§88/17, 1C-1D, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| ORL | Orlik | 2.42 | 71 | ⇓*i*PN | | Pn | Pn | 17 03 40.2 | +2.0 |
| ORL | | | | *e* | | | | 17 04 14.9 | |
| ORL | | | | pmax | | pmax | | | |
| | comp=Z,89nm,0.3s | | | | | | | | |
| ORL | | | | smax | | smax | | | |
| | comp=N,273nm,0.7s | | | | | | | | |
| MOY | Mondy | 3.07 | 91 | ⇓*i*PN | | Pb | Pb | 17 03 52.4 | -0.8 |
| MOY | | | | *e* | | | | 17 04 34.7 | |
| MOY | | | | pmax | | pmax | | | |
| | comp=Z,66nm,0.5s | | | | | | | | |
| MOY | | | | smax | | smax | | | |
| | comp=N,269nm,0.8s | | | | | | | | |
| ARS | Arshan | 3.94 | 86 | *e*PN | | Pb | Pb | 17 04 09.4 | +1.3 |
| ARS | | | | *e* | | | | 17 05 02.0 | |
| ARS | | | | pmax | | pmax | | | |
| | comp=Z,82nm,0.4s | | | | | | | | |
| ARS | | | | smax | | smax | | | |
| | comp=E,623nm,0.7s | | | | | | | | |
| TLY | Talaya | 4.71 | 89 | Pg | | Pb | Pb | 17 04 22.6 | +1.4 |
| | comp=E,0.1nm,0.3s,baz=278,slow=12,SNR=15 | | | | | | | | |
| TLY | | | | Lg | | Lg | | 17 05 25.4 | |
| | comp=E,0.0nm,0.3s,baz=191,slow=16,SNR=3.1 | | | | | | | | |
| TLY | Talaya | 4.71 | 89 | *e*PN | | Pb | Pb | 17 04 23.2 | +2.0 |
| TLY | | | | *e* | | | | 17 05 24.7 | |
| TLY | | | | pmax | | pmax | | | |
| | comp=Z,19nm,0.4s | | | | | | | | |
| TLY | | | | smax | | smax | | | |
| | comp=E,38nm,0.8s | | | | | | | | |
| ZAK | Zakamensk | 4.77 | 105 | *e*PN | | Pb | Pb | 17 04 22.3 | +0.1 |
| ZAK | | | | *e* | | | | 17 05 25.8 | |
| ZAK | | | | pmax | | pmax | | | |
| | comp=Z,27nm,0.9s | | | | | | | | |
| ZAK | | | | smax | | smax | | | |
| | comp=N,216nm,1.2s | | | | | | | | |
| IRK | Irkutsk | 5.08 | 82 | *e*PN | | Pb | Pb | 17 04 28.6 | +1.1 |
| IRK | | | | *e* | | | | 17 05 33.4 | |
| IRK | | | | pmax | | pmax | | | |
| | comp=Z,23nm,0.1s | | | | | | | | |
| IRK | | | | smax | | smax | | | |
| | comp=N,228nm,0.5s | | | | | | | | |
| ZALV | Zalesovo Beam | 7.13 | 292 | Pn | | Pn | Pn | 17 04 42.6 | -0.2 |
| | comp=N,0.4nm,0.3s,baz=102,slow=12,SNR=5.0 | | | | | | | | |
| ZALV | | | | Pg | | Pb | Pb | 17 05 05.4 | +3.0 |
| | comp=N,0.6nm,0.3s,baz=107,slow=18,SNR=6.6 | | | | | | | | |
| ZALV | | | | Lg | | Lg | Lg | 17 06 39.5 | |
| | comp=N,2.0nm,0.3s,baz=117,slow=28,SNR=6.6 | | | | | | | | |
| OGRR | Ongureny | 7.24 | 71 | *e*P | | Pn | Pn | 17 04 45.6 | +1.3 |
| OGRR | | | | pmax | | pmax | | | |
| | comp=Z,10.0nm,0.9s | | | | | | | | |
| SONM | Songino Array | 7.78 | 117 | Pg | | Pb | Pb | 17 05 19.1 | +5.7 |
| | comp=Z,0.7nm,0.3s,baz=298,slow=17,SNR=8.5 | | | | | | | | |
| SONM | | | | Lg | | Lg | Lg | 17 07 04.9 | |
| | comp=Z,2.2nm,0.3s,baz=301,slow=32,SNR=14 | | | | | | | | |
| NIZ | Nizh Angarsk | 8.90 | 58 | *e*P | | Pn | Pn | 17 05 05.8 | -1.3 |
| NIZ | | | | *e*S | | S | Sn | 17 06 44.5 | -2.9 |
| NIZ | | | | pmax | | pmax | | | |
| | comp=Z,18nm,3.3s | | | | | | | | |
| NIZ | | | | smax | | smax | | | |
| | comp=N,56nm,1.1s | | | | | | | | |
| MKAR | Makanchi Array | 10.30 | 246 | Pn | | Pn | Pn | 17 05 25.8 | -0.5 |
| | comp=N,0.2nm,0.3s,baz=51,slow=14,SNR=7.6 | | | | | | | | |
| MKAR | | | | Pg | | | | 17 06 08.3 | |
| | comp=N,0.2nm,0.3s,baz=71,slow=18,SNR=7.4 | | | | | | | | |
| MKAR | | | | Lg | | Lg | | 17 08 21.7 | |
| | comp=N,0.5nm,0.3s,baz=52,slow=32,SNR=7.5 | | | | | | | | |
| KURK | Kurchatov | 10.99 | 271 | P | | Pn | Pn | 17 05 35.5 | -0.1 |
| KURBB | Kurchatov Arra | 11.06 | 271 | Pn | | Pn | Pn | 17 05 35.5 | -1.2 |
| KURBB | comp=N,0.0nm,0.3s,baz=72,slow=14,SNR=2.6 | | | | | | | | |
| | | | | Lg | | Lg | | 17 08 45.1 | |
| | comp=N,0.1nm,0.3s,baz=78,slow=30,SNR=6.7 | | | | | | | | |
| BVAR | Borovoye Array | 15.69 | 285 | Pn | | P | | 17 06 39.9 | -3.6 |
| | comp=N,0.1nm,0.3s,baz=82,slow=12,SNR=3.0 | | | | | | | | |
| BRTR | Keskin Array B | 43.89 | 280 | P | | P | | 17 11 04.8 | -0.3 |
| | comp=N,0.5nm,0.7s,baz=66,slow=7.0,SNR=2.7 | | | | | | | | |

*ISCJB **27** 17:21:10.9±0.4, 16.˝88N±0.˝05×93.˝61W±0.˝03, h184km±3km, mb4.2/33, Error ellipse: s-maj=8.3km s-min=4.8km az=0.4*
*IDC **27** 17:21:11.1±1.6, 17.˝07N×93.˝32W, h159km±18km, mb3.9/11, mb1 4.0/12, mb1mx3.7/43, mbtmp4.3/12, MS4.7/1, Ms1 4.7/1, ms1mx3.8/40, Error ellipse: s-maj=34.4km s-min=14.5km az=51.0*
*NEIC **27** 17:21:12.0±0.5, 16.˝88N×93.˝57W, h177km±4km, mb4.5/45, MD4.2(MEX), Error ellipse: s-maj=7.7km s-min=6.1km az=202.0*
*MEX **27** 17:21:13.5±0.6, 16.˝92N×93.˝68W, h182km±5km, MD4.2*

**ISC 27 17:21:12.1**±0.6,**16.˝92N**±0.˝06×**93.˝68W**±0.˝04,**h178**km±5km, **n179,σ1§22/190, mb4.3/33, Chiapas**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| TGIG | | 0.55 | 105 | *i* P | | Pn | Pn | 17 21 37.5 | +0.6 |
| TGIG | | | | *i* S | | S | Sn | 17 21 56.0 | 0.0 |
| TGIG | | 0.55 | 105 | *e*Pn | | Pn | Pn | 17 21 37.5 | +0.6 |
| TGIG | | | | *e*Sn | | S | Sn | 17 21 56.0 | 0.0 |
| TGBT | Tuxtla Gutierr | 0.58 | 104 | *e*P | | Pn | Pn | 17 21 37.6 | +0.6 |
| TGBT | | | | *i* S | | S | Sn | 17 21 55.2 | -0.9 |
| CMIG | Matias Romero | 1.17 | 279 | P | | Pn | Pn | 17 21 40.8 | -0.2 |
| | baz=92,slow=8.5 | | | | | | | | |
| CMIG | | | | S | | S | Sn | 17 22 01.9 | -1.3 |
| | 194nm,0.3s,baz=263,slow=19,SNR=32 | | | | | | | | |
| PCIG | | 1.28 | 160 | *e*P | | Pn | Pn | 17 21 42.4 | +0.4 |
| PCIG | | | | *e*S | | S | Sn | 17 22 04.6 | -0.5 |
| PCIG | | 1.28 | 160 | *e*Pn | | Pn | Pn | 17 21 42.4 | +0.4 |
| OXBJ | Oaxaca | 2.92 | 273 | *e*P | | Pn | Pn | 17 22 00.7 | +0.8 |
| OXBJ | | | | *i* S | | S | Sn | 17 22 36.8 | -0.3 |
| VHO | Vista Hermosa | 2.93 | 273 | *e*P | | Pn | Pn | 17 22 00.1 | +0.1 |
| VHO | | | | *e*S | | S | Sn | 17 22 36.4 | -0.9 |
| VHO | Vista Hermosa | 2.93 | 273 | *e*Pn | | Pn | Pn | 17 22 00.1 | +0.1 |
| VHO | | | | *e*Sn | | S | Sn | 17 22 36.4 | -0.9 |
| SCIG | Sabancuy | 3.12 | 49 | *i* P | | Pn | Pn | 17 22 02.2 | 0.0 |
| SCIG | | | | *i* S | | S | Sn | 17 22 40.8 | -0.4 |
| SCIG | Sabancuy | 3.12 | 49 | *e*Pn | | Pn | Pn | 17 22 01.7 | -0.5 |
| SCIG | | | | *e*Sn | | S | Sn | 17 22 40.8 | -0.4 |
| TPIG | Tehuac#an | 3.82 | 294 | *e*P | | Pn | Pn | 17 22 11.4 | +0.4 |
| TPIG | | | | *i* S | | S | Sn | 17 22 54.9 | -2.2 |
| TPIG | Tehuac#an | 3.82 | 294 | *e*Pn | | Pn | Pn | 17 22 11.4 | +0.4 |
| TPIG | | | | *e*Sn | | S | Sn | 17 22 54.9 | -2.2 |
| TLIG | Tlapa | 4.72 | 279 | *e*P | | Pn | Pn | 17 22 22.7 | +0.1 |
| TLIG | | | | *i* S | | Sn | Sn | 17 23 07.8 | -10 |
| TLIG | Tlapa | 4.72 | 279 | *e*Pn | | Pn | Pn | 17 22 22.5 | 0.0 |
| TLIG | | | | *e*Sn | | Sn | Sn | 17 23 07.5 | -10 |
| UNM | Universidad Na | 5.76 | 295 | *e*Pn | | Pn | Pn | 17 22 35.5 | -0.8 |
| ARIG | Puente Sto Nin | 6.51 | 283 | *i* P | | Pn | Pn | 17 22 47.3 | +1.4 |
| ARIG | | | | *i* S | | S | Sn | 17 23 58.4 | -1.3 |
| JRQG | Juriquilla Cam | 7.44 | 301 | *e*Pn | | Pn | Pn | 17 23 00.1 | +1.8 |
| ZAIG | Zacatecas | 10.19 | 306 | *e*Pn | | Pn | Pn | 17 23 35.0 | +0.5 |
| JCT | Junction City | 14.61 | 339 | *e*Pn | | P | P | 17 24 34.0 | +1.8 |
| NATX | Nacogdoches | 14.80 | 357 | *e*Pn | | P | P | 17 24 36.0 | +1.7 |
| LTX | Lajitas | 15.39 | 325 | *e*Pn | | P | P | 17 24 42.5 | +1.7 |
| TXAR | Lajitas Array | 15.39 | 325 | P | | P | P | 17 24 42.5 | +1.7 |
| | 0.4nm,0.3s,baz=149,slow=13,SNR=38 | | | | | | | | |
| TX31 | Lajitas Ar. Si | 15.39 | 325 | *e*Pn | | P | P | 17 24 42.3 | +1.4 |
| WHTX | Lake Whitney, | 15.39 | 348 | *e*Pn | | P | P | 17 24 47.0 | +6.2 |
| | 43nm,1.0s | | | | | | | | |
| VBMS | Vicksburg | 15.50 | 10 | *e*Pn | | Pn | Pn | 17 24 40.8 | -0.6 |
| | 50nm,0.3s | | | | | | | | |
| ABTX | Abilene, Hawle | 16.54 | 342 | *e*P | | Pn | Pn | 17 24 55.2 | +1.1 |
| | 11nm,0.6s | | | | | | | | |
| LRAL | Lakeview Retre | 17.14 | 19 | *e*P | | Pn | Pn | 17 25 01.0 | -0.1 |
| | 33nm,1.4s | | | | | | | | |
| X35A | Drake | 17.66 | 351 | *e*P | | P | P | 17 25 05.8 | +0.1 |
| | 38nm,0.6s | | | | | | | | |
| X37A | Clayton | 17.66 | 355 | *e*P | | P | P | 17 25 06.1 | +0.3 |
| | 70nm,1.8s | | | | | | | | |
| GTBY | Guantanamo Bay | 17.87 | 78 | *e*P | | P | P | 17 25 06.2 | -1.9 |
| | 71nm,0.8s | | | | | | | | |
| GDL2 | Guadalupe Moun | 18.04 | 329 | *e*P | | P | P | 17 25 11.0 | +1.0 |
| Y49A | Blount Mountai | 18.09 | 20 | P | | P | P | 17 25 10.4 | 0.0 |
| | baz=202 | | | | | | | | |
| MNTX | Cornudas Mount | 18.15 | 326 | P | | Pn | Pn | 17 25 13.8 | +0.6 |
| | baz=141 | | | | | | | | |
| W41B | Gary Mavity, V | 18.23 | 4 | P | | Pn | Pn | 17 25 16.9 | +3.0 |
| | baz=184 | | | | | | | | |
| WMOK | Wichita Mounta | 18.32 | 347 | P | | Pn | Pn | 17 25 18.6 | +3.5 |
| | baz=164 | | | | | | | | |
| WMOK | Wichita Mounta | 18.32 | 347 | *e*P | | P | P | 17 25 13.6 | +0.6 |
| | 6.9nm,0.7s | | | | | | | | |
| W35A | Tecumseh | 18.38 | 352 | P | | Pn | Pn | 17 25 18.4 | +2.5 |
| | baz=170 | | | | | | | | |
| W35A | Tecumseh | 18.38 | 352 | *e*P | | P | P | 17 25 14.1 | +0.5 |
| | 18nm,0.8s | | | | | | | | |
| X48A | Hartselle | 18.44 | 18 | P | | P | P | 17 25 13.9 | -0.4 |
| | baz=200 | | | | | | | | |
| X49A | Woodville | 18.72 | 19 | P | | Pn | Pn | 17 25 20.2 | +0.5 |
| | baz=202 | | | | | | | | |
| GOGA | Godfrey | 18.82 | 27 | *e*P | | P | P | 17 25 17.8 | -0.6 |
| | 71nm,1.7s | | | | | | | | |
| V41A | Mountainview | 18.84 | 4 | P | | Pn | Pn | 17 25 21.8 | +0.7 |
| | baz=184 | | | | | | | | |
| MSTX | Muleshoe | 18.84 | 336 | P | | Pn | Pn | 17 25 23.1 | +1.8 |
| | baz=152 | | | | | | | | |
| MSTX | Muleshoe | 18.84 | 336 | *e*P | | Pn | Pn | 17 25 20.6 | -0.7 |
| | 9.2nm,0.7s | | | | | | | | |
| V39A | Pettigrew | 18.84 | 0 | P | | Pn | Pn | 17 25 22.8 | +1.5 |
| | baz=180 | | | | | | | | |
| V38A | Canehill | 18.88 | 358 | P | | Pn | Pn | 17 25 22.7 | +1.0 |
| | baz=178 | | | | | | | | |
| X50A | Fort Payne | 18.89 | 21 | P | | Pn | Pn | 17 25 23.0 | +1.2 |
| | baz=204,SNR=5.1 | | | | | | | | |
| V36A | Jenks | 18.90 | 354 | *e*P | | P | P | 17 25 20.5 | +1.3 |
| | 13nm,0.9s | | | | | | | | |
| V37A | Hulbert | 18.93 | 356 | P | | Pn | Pn | 17 25 23.1 | +0.9 |
| | baz=175 | | | | | | | | |
| AMTX | Amarillo | 19.27 | 340 | *e*P | | P | P | 17 25 23.9 | +0.5 |
| | 44nm,1.1s | | | | | | | | |
| HHAR | Hobbs | 19.29 | 359 | *e*P | | P | P | 17 25 23.6 | +0.2 |
| | 13nm,1.1s | | | | | | | | |
| U41A | Viola | 19.41 | 4 | P | | Pn | Pn | 17 25 27.0 | -0.9 |
| | baz=185 | | | | | | | | |
| U38A | Gravette | 19.45 | 358 | P | | Pn | Pn | 17 25 28.3 | -0.1 |
| | baz=178 | | | | | | | | |
| SWET | Sewanee | 19.49 | 19 | *e*P | | P | P | 17 25 24.9 | -0.7 |
| | 7.7nm,0.8s | | | | | | | | |
| U35A | Pawnee | 19.56 | 353 | *e*P | | P | P | 17 25 26.0 | -0.3 |
| | 16nm,0.7s | | | | | | | | |
| GLAT | Glass | 19.66 | 11 | *e*P | | P | P | 17 25 27.4 | 0.0 |
| | 150nm,1.1s | | | | | | | | |
| U44B | Burton Farm, H | 19.72 | 10 | P | | Pn | Pn | 17 25 31.2 | -0.4 |
| | baz=192 | | | | | | | | |
| UTMT | University of | 19.81 | 12 | *e*P | | P | P | 17 25 27.7 | -1.3 |
| | 85nm,0.3s | | | | | | | | |
| WVT | Waverly | 19.83 | 14 | *e*P | | P | P | 17 25 29.5 | +0.3 |
| | 26nm,1.6s | | | | | | | | |
| HSIG | | 19.92 | 310 | *e*P | | P | P | 17 25 29.5 | -0.8 |
| | 4.4nm,0.7s | | | | | | | | |
| PBMO | Poplar Bluff | 19.99 | 8 | *e*P | | P | P | 17 25 30.1 | -0.8 |
| | 57nm,2.0s | | | | | | | | |
| T39A | Clever | 20.03 | 1 | P | | P | P | 17 25 33.3 | +2.0 |
| | baz=180 | | | | | | | | |
| HODGE | Hodges | 20.05 | 29 | *e*P | | P | P | 17 25 32.2 | +0.6 |
| | 66nm,1.8s | | | | | | | | |
| 121A | Cookes Peak, D | 20.11 | 323 | P | | P | Pn | 17 25 35.2 | -1.4 |
| | baz=137 | | | | | | | | |
| T41A | Mountain View | 20.12 | 4 | P | | P | P | 17 25 33.4 | +1.1 |
| | baz=185 | | | | | | | | |
| T37A | Cheneyville 18 | 20.16 | 357 | P | | P | P | 17 25 34.5 | +1.8 |
| | baz=176 | | | | | | | | |
| T40A | Mansfield | 20.18 | 3 | P | | P | P | 17 25 34.5 | +1.5 |
| | baz=183 | | | | | | | | |
| S40A | Lebanon | 20.63 | 3 | P | | P | P | 17 25 39.0 | +1.3 |
| | baz=183 | | | | | | | | |
| S39A | Bolivar | 20.70 | 1 | P | | P | P | 17 25 39.2 | +0.8 |
| | baz=181 | | | | | | | | |
| BNM | Barren Site | 20.73 | 328 | *e*P | | P | P | 17 25 40.7 | +1.6 |
| S36A | Lake Cedric, C | 20.80 | 356 | P | | P | P | 17 25 40.4 | +0.9 |
| | baz=175 | | | | | | | | |
| S35A | Otter Creek Ra | 20.82 | 354 | P | | P | P | 17 25 40.8 | +1.1 |
| | baz=173 | | | | | | | | |
| S43A | Fulton Ridge, | 20.82 | 8 | P | | P | P | 17 25 38.7 | -1.0 |
| | baz=189 | | | | | | | | |
| T47A | Sharon Grove | 20.82 | 15 | P | | P | P | 17 25 38.6 | -1.2 |
| | baz=198 | | | | | | | | |
| LPM | Los Pinos Moun | 20.86 | 329 | *e*P | | P | P | 17 25 42.4 | +2.0 |
| S42A | Caledonia | 20.93 | 6 | P | | P | P | 17 25 40.8 | -0.1 |
| | baz=187 | | | | | | | | |
| CCM | Cathedral Cave | 21.16 | 5 | P | | P | P | 17 25 42.8 | -0.6 |
| |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **ECSD** | **EROS Data Cent** | **26.85** | **355** | P | **P** | **17 26 35.7** | **-0.4** |
| | baz=174 | | | | | | |
| **ECSD** | **EROS Data Cent** | **26.85** | **355** | *e*P | **P** | **17 26 35.2** | **-0.9** |
| | 30nm,1.9s | | | | | | |
| **H32A** | **Carlson Farm,** | **27.68** | **354** | P | **P** | **17 26 43.1** | **-0.4** |
| | baz=172 | | | | | | |
| **H39A** | **Augusta** | **27.75** | **4** | P | **P** | **17 26 43.2** | **-0.8** |
| | baz=185 | | | | | | |
| **H33A** | **Prehn Over Nor** | **27.80** | **355** | P | **P** | **17 26 44.5** | **-0.1** |
| | baz=174 | | | | | | |
| **SPMN** | **Marine on St.** | **28.23** | **1** | P | **P** | **17 26 47.4** | **-0.9** |
| | baz=182,SNR=6.3 | | | | | | |
| **SPMN** | **Marine on St.** | **28.23** | **1** | *e*P | **P** | **17 26 47.1** | **-1.2** |
| | 29nm,0.4s | | | | | | |
| **G39A** | **Holcombe** | **28.36** | **4** | P | **P** | **17 26 48.6** | **-0.9** |
| | baz=185 | | | | | | |
| **F36A** | **Milaca** | **28.86** | **0** | P | **P** | **17 26 53.0** | **-0.9** |
| | baz=180 | | | | | | |
| **E36A** | **McGregor** | **29.52** | **1** | P | **P** | **17 26 58.6** | **-1.1** |
| | baz=181 | | | | | | |
| **E34A** | **Wadena** | **29.54** | **358** | P | **P** | **17 26 59.0** | **-0.8** |
| | baz=177,SNR=5.5 | | | | | | |
| **E35A** | **Pequot Lakes** | **29.56** | **359** | P | **P** | **17 26 59.4** | **-0.7** |
| | baz=178,SNR=5.5 | | | | | | |
| **E40A** | **Wakefield** | **29.61** | **5** | P | **P** | **17 26 59.3** | **-1.2** |
| | baz=187 | | | | | | |
| **HVU** | **Hansel Valley** | **29.71** | **330** | *e*P | **P** | **17 27 03.1** | **+1.4** |
| | 3.7nm,0.9s | | | | | | |
| **D35A** | **Remer** | **30.08** | **359** | P | **P** | **17 27 03.6** | **-1.1** |
| | baz=179,SNR=5.2 | | | | | | |
| **D37A** | **Cotton** | **30.17** | **2** | P | **P** | **17 27 04.3** | **-1.1** |
| | baz=182 | | | | | | |
| **D33A** | **AnnSam, Waubun** | **30.19** | **357** | P | **P** | **17 27 04.4** | **-1.2** |
| | baz=176 | | | | | | |
| **NV01** | **Mina Array Sit** | **30.41** | **320** | *e*P | **P** | **17 27 09.1** | **+1.2** |
| **NVAR** | **Mina Array Bea** | **30.41** | **320** | P | **P** | **17 27 11.0** | **+3.1** |
| | 2.2nm,0.7s,baz=131,slow=8.8,SNR=21 | | | | | | |
| **C35A** | **Jirik Farms, M** | **30.70** | **360** | P | **P** | **17 27 08.9** | **-1.2** |
| | baz=179,SNR=11 | | | | | | |
| **C36A** | **Pine Crest Far** | **30.76** | **1** | P | **P** | **17 27 09.5** | **-1.2** |
| | baz=181,SNR=5.1 | | | | | | |
| **C31A** | **Landman Farms,** | **30.97** | **355** | P | **P** | **17 27 11.8** | **-0.7** |
| | baz=172 | | | | | | |
| **MDND** | **Maddock** | **31.23** | **352** | P | **P** | **17 27 14.5** | **-0.3** |
| | baz=169 | | | | | | |
| **MDND** | **Maddock** | **31.23** | **352** | *e*P | **P** | **17 27 14.2** | **-0.6** |
| | 16nm,0.6s | | | | | | |
| **AGMN** | **Agassiz Nation** | **31.35** | **357** | P | **P** | **17 27 15.0** | **-0.7** |
| | baz=176 | | | | | | |
| **B35A** | **Bob, Littlefor** | **31.36** | **360** | P | **P** | **17 27 14.6** | **-1.3** |
| | baz=180 | | | | | | |
| **B32A** | **Ashes, Strandq** | **31.48** | **356** | P | **P** | **17 27 16.3** | **-0.7** |
| | baz=175 | | | | | | |
| **B34A** | **Aery, Baudette** | **31.49** | **359** | P | **P** | **17 27 15.8** | **-1.2** |
| | baz=178 | | | | | | |
| **CSR** | **Chase Ranch** | **31.71** | **314** | *e*PcP | **PcP** | **17 30 08.8** | **+2.4** |
| **MCMT** | **McKenzie Canyo** | **32.16** | **334** | *e*P | **P** | **17 27 25.1** | **+1.9** |
| **ULM** | **Lac du Bonnet** | **33.30** | **357** | P | **P** | **17 27 31.1** | **-1.7** |
| | 8.4nm,0.8s,baz=187,slow=7.4,SNR=10 | | | | | | |
| **ULM** | **Lac du Bonnet** | **33.30** | **357** | *e*P | **P** | **17 27 30.6** | **-2.1** |
| | 8.2nm,0.8s | | | | | | |
| **F10A** | **Beach Ranch, E** | **34.99** | **331** | *e*P | **P** | **17 27 47.7** | **+0.2** |
| | 9.3nm,0.9s | | | | | | |
| **YBH** | **Yreka Blue Hor** | **35.09** | **321** | LR | **LR** | 17 45 09.2 | |
| | comp=Z,1µm,20.0s,baz=149,slow=41 | | | | | | |
| **E09A** | **Wood Farm, Sta** | **35.82** | **331** | *e*P | **P** | **17 27 56.0** | **+1.5** |
| | 4.7nm,0.8s | | | | | | |
| E09A | | | | *e*S | **S** | **17 33 18.3** | **-0.3** |
| **FFC** | **Flin Flon** | **38.27** | **352** | *e*P | **P** | **17 28 14.4** | **-0.6** |
| | 6.4nm,0.6s | | | | | | |
| **LPAZ** | **La Paz** | **41.51** | **141** | P | **P** | **17 28 42.4** | **-0.5** |
| | 0.9nm,0.5s,baz=331,slow=9.6,SNR=3.9 | | | | | | |
| **LPAZ** | **La Paz** | **41.51** | **141** | *e*P | **P** | **17 28 41.9** | **-1.0** |
| **YKA** | **Yellowknife Ar** | **47.83** | **347** | P | **P** | **17 29 31.0** | **-0.5** |
| | 3.7nm,0.5s,baz=152,slow=7.4,SNR=76 | | | | | | |
| **YKB5** | **Yellowknife Ar** | **47.83** | **347** | *e*P | **P** | **17 29 30.7** | **-0.8** |
| **YKW3** | **Yellowknife Ar** | **47.90** | **347** | *e*P | **P** | **17 29 31.3** | **-0.7** |
| | 5.7nm,0.7s | | | | | | |
| **INK** | **Inuvik** | **57.20** | **344** | *e*P | **P** | **17 30 39.6** | **-0.6** |
| | 5.7nm,0.8s | | | | | | |
| **IL1** | **Eielson Array** | **59.53** | **337** | *e*P | **P** | **17 30 56.2** | **-0.3** |
| **ILAR** | **Eielson Array** | **59.53** | **337** | P | **P** | **17 30 56.8** | **+0.3** |
| | 1.2nm,0.7s,baz=142,slow=4.6,SNR=14 | | | | | | |
| **ILB** | **Eielson Array** | **59.53** | **337** | *e*P | **P** | **17 30 55.7** | **-0.8** |
| **TRF** | **Thorofare Moun** | **60.32** | **334** | *e*P | **P** | **17 31 02.4** | **+0.3** |
| | 45nm,1.8s | | | | | | |
| **NB2** | **NORSAR Subarra** | **82.36** | **28** | P | **P** | **17 33 14.2** | **+0.2** |
| | comp=Z,1.2nm,0.6s,baz=293,slow=5.1 | | | | | | |
| **NB200** | **NORSAR Array S** | **82.36** | **28** | *e*P | **P** | **17 33 15.2** | **+1.2** |
| **NOA** | **NORSAR Array B** | **82.36** | **28** | P | **P** | **17 33 15.2** | **+1.2** |
| | comp=Z,1.0nm,0.8s,baz=292,slow=4.4,SNR=4.9 | | | | | | |
| **ARA0** | **ARCESS Array S** | **83.88** | **18** | *e*P | **P** | **17 33 21.6** | **0.0** |
| **ARCES** | **ARCESS Array B** | **83.88** | **18** | P | **P** | **17 33 21.6** | **0.0** |
| | comp=Z,10nm,0.6s,baz=293,slow=5.1,SNR=51 | | | | | | |
| **SEY** | **Seymchan** | **85.44** | **335** | P | **P** | **17 33 30.4** | **+0.9** |
| | comp=Z,0.6nm,0.4s,baz=73,slow=14,SNR=4.3 | | | | | | |
| **GERES** | **GERESS Array B** | **88.38** | **39** | P | **P** | **17 33 42.7** | **-1.4** |
| | comp=Z,0.6nm,0.9s,baz=339,slow=3.0,SNR=3.7 | | | | | | |
| **FIA0** | **FINESS Array S** | **88.55** | **25** | *e*P | **P** | **17 33 43.8** | **-0.6** |
| **FINES** | **FINESS Array B** | **88.55** | **25** | P | **P** | **17 33 43.8** | **-0.6** |
| | comp=Z,3.3nm,0.9s,baz=195,slow=3.0,SNR=3.9 | | | | | | |
| **WR1** | **Warramunga Arr** | **134.47** | **258** | *e*PKPdf | **PKPdf** | **17 40 11.1** | **+1.1** |
| **WRA** | **Warramunga Arr** | **134.47** | **258** | PKP | **PKPdf** | **17 40 11.1** | **+1.1** |
| | comp=Z,0.7nm,1.0s,baz=86,slow=2.8,SNR=3.0 | | | | | | |
| **AS31** | **Alice Springs** | **135.03** | **253** | *e*PKPdf | PKPpre | 17 40 05.9 | |
| **ASAR** | **Alice Springs** | **135.03** | **253** | PKP | **PKPdf** | **17 40 11.7** | **+0.8** |
| | comp=Z,0.4nm,0.9s,baz=90,slow=2.8,SNR=3.0 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **142.72** | **340** | PKhKP | PKPpre | 17 40 20.7 | |
| | comp=Z,0.2nm,0.4s,baz=345,slow=3.6,SNR=3.5 | | | | | | |
| CMAR | | | | PKP | **PKPdf** | **17 40 25.8** | **+0.7** |
| | comp=Z,0.5nm,0.9s,baz=345,slow=3.5,SNR=3.9 | | | | | | |

*ISK **27** 17:25:04.7,38.78N×43.30E,h22km,MD2.6*
*ISCJB **27** 17:25:05.8±0.5,38.72N±0.03×43.10E±0.04,h13km±5km, Error ellipse: s-maj=5.9km s-min=4.5km az=136.8*
*CSEM **27** 17:25:05.3±0.3,38.72N×43.13E,h15km,MD2.6,Error ellipse: s-maj=6.4km s-min=5.1km az=76.0*
*DDA **27** 17:25:05.9,38.71N×43.14E,h7km,Ml2.8*
**ISC 27 17:25:06.1**±1.1,**38.71N**±0.03×**43.15E**±0.03,**h21**km±2km, **n22**,σ1§**06**/40,**Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.22** | **121** | *e*PG | **Pb** | **17 25 11.5** | **-0.6** |
| VANB | | | | *e*SG | **Sb** | **17 25 16.8** | **+0.5** |
| **VANB** | **Van** | **0.22** | **121** | *e*Pg | **Pb** | **17 25 11.5** | **-0.6** |
| VANB | | | | *e*Sg | **Sb** | **17 25 16.8** | **+0.5** |
| **TVAN** | **Van** | **0.27** | **132** | *i* P | **Pb** | **17 25 11.4** | **-1.2** |
| TVAN | | | | *i* S | **Sb** | **17 25 16.8** | **-0.3** |
| **TVAN** | **Van** | **0.27** | **132** | P | **Pb** | **17 25 11.4** | **-1.2** |
| TVAN | | | | S | **Sb** | **17 25 16.8** | **-0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.35** | **287** | *i* P | **Pb** | **17 25 12.3** | **-1.3** |
| ADCV | | | | *i* S | **Sb** | **17 25 18.2** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.35** | **287** | P | **Pb** | **17 25 12.3** | **-1.3** |
| ADCV | | | | S | **Sb** | **17 25 18.2** | **-0.6** |
| **GEVA** | **Gevas** | **0.40** | **190** | *i* P | **Pb** | **17 25 12.9** | **-1.6** |
| GEVA | | | | *i* S | **Sb** | **17 25 20.5** | **+0.2** |
| **GEVA** | **Gevas** | **0.40** | **190** | P | **Pb** | **17 25 12.9** | **-1.6** |
| GEVA | | | | S | **Sb** | **17 25 20.5** | **+0.2** |
| **VMUR** | **Van-Muradiye** | **0.43** | **49** | *i* P | **Pb** | **17 25 14.4** | **-0.6** |
| VMUR | | | | *i* S | **Sb** | **17 25 22.4** | **+1.2** |
| **VMUR** | **Van-Muradiye** | **0.43** | **49** | P | **Pb** | **17 25 14.4** | **-0.6** |
| VMUR | | | | S | **Sb** | **17 25 22.4** | **+1.2** |
| **CLDR** | **Caldiran** | **0.74** | **54** | *i* P | **Pb** | **17 25 19.2** | **-1.2** |
| CLDR | | | | *i* S | **Sn** | **17 25 32.0** | **-0.3** |
| **CLDR** | **Caldiran** | **0.74** | **54** | P | **Pb** | **17 25 19.2** | **-1.2** |
| CLDR | | | | S | **Sn** | **17 25 32.0** | **-0.3** |
| **TUTA** | **Tutak** | **0.74** | **339** | *i* P | **Pb** | **17 25 19.1** | **-1.3** |
| TUTA | | | | *i* S | **Sb** | **17 25 29.2** | **-1.0** |
| **TUTA** | **Tutak** | **0.74** | **339** | P | **Pb** | **17 25 19.1** | **-1.3** |
| TUTA | | | | S | **Sb** | **17 25 29.2** | **-1.0** |
| **AGRB** | **Hanur-Agry** | **0.87** | **352** | *e*PG | **Pb** | **17 25 21.2** | **-1.5** |
| AGRB | | | | *e*SG | **Sb** | **17 25 33.7** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **0.87** | **352** | *e*Pg | **Pb** | **17 25 21.2** | **-1.5** |
| AGRB | | | | *e*Sg | **Sb** | **17 25 33.7** | **-0.3** |
| **EKAR** | **Karacoban** | **1.01** | **303** | *i* P | **Pn** | **17 25 26.4** | **+1.2** |
| EKAR | | | | *i* S | **Sn** | **17 25 40.8** | **+1.9** |
| **EKAR** | **Karacoban** | **1.01** | **303** | P | **Pn** | **17 25 26.4** | **+1.2** |
| EKAR | | | | S | **Sn** | **17 25 40.8** | **+1.9** |
| **SIRT** | **Sirnak** | **1.33** | **205** | *e*PN | **Pb** | **17 25 30.2** | **-0.2** |
| **SIRT** | **Sirnak** | **1.33** | **205** | *e*Pn | **Pb** | **17 25 30.2** | **-0.2** |
| **CUKT** | **Cukurca** | **1.50** | **166** | *e*PN | **Pn** | **17 25 31.8** | **-0.2** |
| **CUKT** | **Cukurca** | **1.50** | **166** | *e*Pn | **Pn** | **17 25 31.8** | **-0.2** |

*CSEM **27** 17:25:31.4±0.3,46.92N×10.06E,h15km,ML3.0/21,Error ellipse: s-maj=5.5km s-min=3.2km az=70.0*
**LDG 27 17:25:30.5**±0.1,**46.95N×10.26E,h2km,Ml3.1**/21,**Error ellipse: s-maj=2.8km s-min=1.5km az=63.0,Northern Italy**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HINF** | **Hinteralfeld** | **2.48** | **292** | *e*Pn | Pn | 17 26 09.4 | -2.5 |
| | SNR=1.0 | | | | | | |
| HINF | | | | *e*Sg | Sb | 17 26 48.2 | +1.6 |
| | 31nm,0.5s,SNR=1.0 | | | | | | |
| **HINF** | **Hinteralfeld** | **2.48** | **292** | *e*Pn | Pn | 17 26 09.4 | -2.5 |
| | SNR=1.0 | | | | | | |
| HINF | | | | *e*Sg | Sb | 17 26 48.2 | +1.6 |
| | 16nm,0.5s,SNR=1.0 | | | | | | |
| **CDF** | **Champ du Feu** | **2.49** | **307** | *e*Pn | Pn | 17 26 10.3 | -1.9 |
| **CDF** | **Champ du Feu** | **2.49** | **307** | *e*Pg | Pb | 17 26 16.7 | +0.6 |
| | SNR=1.0 | | | | | | |
| CDF | | | | *e*Sn | Sn | 17 26 39.5 | -3.7 |
| | 14nm,0.4s,SNR=1.0 | | | | | | |
| **CDF** | **Champ du Feu** | **2.49** | **307** | *e*Pn | Pn | 17 26 10.3 | -1.9 |
| **CDF** | **Champ du Feu** | **2.49** | **307** | *e*Pg | Pb | 17 26 16.7 | +0.6 |
| | SNR=1.0 | | | | | | |
| CDF | | | | *e*Sn | Sn | 17 26 39.5 | -3.7 |
| | 7.2nm,0.4s,SNR=1.0 | | | | | | |
| **LPG** | **La Plagne** | **2.84** | **241** | *e*Pn | Pn | 17 26 15.1 | -2.0 |
| LPG | | | | *e*Sn | Sn | 17 26 48.2 | -3.8 |
| | SNR=1.0 | | | | | | |
| LPG | | | | *e*Sg | Sb | 17 26 59.4 | +2.1 |
| | 33nm,0.6s,SNR=1.0 | | | | | | |
| **LPG** | **La Plagne** | **2.84** | **241** | *e*Pn | Pn | 17 26 15.1 | -2.0 |
| LPG | | | | *e*Sn | Sn | 17 26 48.2 | -3.8 |
| | SNR=1.0 | | | | | | |
| LPG | | | | *e*Sg | Sb | 17 26 59.4 | +2.1 |
| | 16nm,0.6s,SNR=1.0 | | | | | | |
| **LPL** | **La Plagne** | **2.84** | **241** | *e*Pn | Pn | 17 26 15.3 | -1.7 |
| LPL | | | | *e*Sn | Sn | 17 26 47.8 | -4.1 |
| | 67nm,0.7s | | | | | | |
| **LPL** | **La Plagne** | **2.84** | **241** | *e*Pn | Pn | 17 26 15.3 | -1.7 |
| LPL | | | | *e*Sn | Sn | 17 26 47.8 | -4.1 |
| | 34nm,0.7s | | | | | | |
| **HAU** | **Haudompre** | **2.86** | **293** | *e*Pn | Pn | 17 26 15.3 | -1.8 |
| | SNR=1.0 | | | | | | |
| HAU | | | | *e*Sg | Sg | 17 27 00.5 | -1.8 |
| | 26nm,0.5s | | | | | | |
| **HAU** | **Haudompre** | **2.86** | **293** | *e*Pn | Pn | 17 26 15.3 | -1.8 |
| | SNR=1.0 | | | | | | |
| HAU | | | | *e*Sg | Sg | 17 27 00.5 | -1.8 |
| | 13nm,0.5s | | | | | | |
| **CABF** | **La Chapelle** | **2.89** | **265** | *e*Pn | Pn | 17 26 15.7 | -1.9 |
| **CABF** | **La Chapelle** | **2.89** | **265** | *e*Pg | Pb | 17 26 24.3 | +1.5 |
| | SNR=1.0 | | | | | | |
| **CABF** | **La Chapelle** | **2.89** | **265** | *e*Pn | Pn | 17 26 15.7 | -1.9 |
| **CABF** | **La Chapelle** | **2.89** | **265** | *e*Pg | Pb | 17 26 24.3 | +1.5 |
| | SNR=1.0 | | | | | | |
| **KHC** | **Kasperske Hory** | **3.12** | **44** | *e*PN | Pg | 17 26 36.0 | +5.8 |
| KHC | | | | *e*PG | Sn | 17 26 55.0 | -3.5 |
| KHC | | | | *e*SN | Sg | 17 27 27.8 | +17 |
| KHC | | | | ex | x | 17 27 42.5 | |
| **KHC** | **Kasperske Hory** | **3.12** | **44** | Pn | Pg | 17 26 36.0 | +5.8 |
| KHC | | | | Sn | Sg | 17 27 27.8 | +17 |
| **MBDF** | **Montbardon** | **3.30** | **229** | *e*Pn | Pn | 17 26 21.3 | -2.0 |
| **MBDF** | **Montbardon** | **3.30** | **229** | *e*P | Pn | 17 26 24.6 | +1.3 |
| MBDF | | | | *e*Sn | Sn | 17 26 58.9 | -4.3 |
| | 25nm,0.5s | | | | | | |
| **MBDF** | **Montbardon** | **3.30** | **229** | *e*Pn | Pn | 17 26 21.3 | -2.0 |
| **MBDF** | **Montbardon** | **3.30** | **229** | *e*P | Pn | 17 26 24.6 | +1.3 |
| MBDF | | | | *e*Sn | Sn | 17 26 58.9 | -4.3 |
| | 12nm,0.5s | | | | | | |
| **PAGF** | **Fort de Pagny** | **3.46** | **299** | *e*Sg | Sg | 17 27 19.1 | -2.4 |
| | 16nm,0.9s | | | | | | |
| **PAGF** | **Fort de Pagny** | **3.46** | **299** | *e*Sg | Sg | 17 27 19.1 | -2.4 |
| | 8.1nm,0.9s | | | | | | |
| **ORIF** | **Oris-en-Rattie** | **3.67** | **238** | *e*Pn | Pn | 17 26 26.4 | -2.0 |
| ORIF | | | | *e*Sn | Sn | 17 27 07.3 | -4.9 |
| | 17nm,0.5s | | | | | | |
| **ORIF** | **Oris-en-Rattie** | **3.67** | **238** | *e*Pn | Pn | 17 26 26.4 | -2.0 |
| ORIF | | | | *e*Sn | Sn | 17 27 07.3 | -4.9 |
| | 8.6nm,0.5s | | | | | | |
| **SBF** | **Sospel** | **3.67** | **214** | *e*Pn | Pn | 17 26 26.3 | -2.0 |
| SBF | | | | *e*Sn | Sn | 17 27 07.6 | -4.6 |
| | SNR=1.0 | | | | | | |
| SBF | | | | *e*Sg | Sg | 17 27 26.3 | -2.1 |
| | 31nm,0.6s,SNR=1.0 | | | | | | |
| **SBF** | **Sospel** | **3.67** | **214** | *e*Pn | Pn | 17 26 26.3 | -2.0 |
| SBF | | | | *e*Sn | Sn | 17 27 07.6 | -4.6 |
| | SNR=1.0 | | | | | | |
| SBF | | | | *e*Sg | Sg | 17 27 26.3 | -2.1 |
| | 16nm,0.6s,SNR=1.0 | | | | | | |
| **SFTF** | **Sexfontaines** | **3.75** | **291** | *e*Pg | Pb | 17 26 39.9 | +2.4 |
| SFTF | | | | *e*Sg | Sg | 17 27 28.3 | -2.7 |
| | 42nm,0.8s | | | | | | |
| **SFTF** | **Sexfontaines** | **3.75** | **291** | *e*Pg | Pb | 17 26 39.9 | +2.4 |
| SFTF | | | | *e*Sg | Sg | 17 27 28.3 | -2.7 |
| | 21nm,0.8s | | | | | | |
| **MEZF** | **Maizieres J'vi** | **3.84** | **296** | *e*Sg | Sg | 17 27 31.6 | -2.4 |
| | 31nm,0.8s | | | | | | |
| **MEZF** | **Maizieres J'vi** | **3.84** | **296** | *e*Sg | Sg | 17 27 31.6 | -2.4 |
| | 15nm,0.8s | | | | | | |
| **FRF** | **La Foret Royal** | **4.24** | **218** | *e*P | Pn | 17 26 37.8 | +1.7 |
| FRF | | | | *e*Sn | Sn | 17 27 19.9 | -6.3 |
| | 5.2nm,0.3s | | | | | | |
| **FRF** | **La Foret Royal** | **4.24** | **218** | *e*P | Pn | 17 26 37.8 | +1.7 |
| FRF | | | | *e*Sn | Sn | 17 27 19.9 | -6.3 |
| | 2.6nm,0.3s | | | | | | |
| **LOR** | **Lormes** | **4.38** | **277** | *e*Pn | Pn | 17 26 36.0 | -2.1 |
| | SNR=1.0 | | | | | | |
| LOR | | | | *e*Sn | Sn | 17 27 25.0 | -4.7 |
| | 7.0nm,0.4s | | | | | | |
| **LOR** | **Lormes** | **4.38** | **277** | *e*Pn | Pn | 17 26 36.0 | -2.1 |
| | SNR=1.0 | | | | | | |
| LOR | | | | *e*Sn | Sn | 17 27 25.0 | -4.7 |
| | 3.5nm,0.4s | | | | | | |
| **SMF** | **Signal de Mont** | **4.42** | **268** | *e*P | Pn | 17 26 40.5 | +1.9 |
| SMF | | | | *e*Sn | Sn | 17 27 25.5 | -5.1 |
| | 7.9nm,0.4s | | | | | | |
| **SMF** | **Signal de Mont** | **4.42** | **268** | *e*P | Pn | 17 26 40.5 | +1.9 |
| SMF | | | | *e*Sn | Sn | 17 27 25.5 | -5.1 |
| | 4.0nm,0.4s | | | | | | |
| **VIVF** | **Saint-Julien-l** | **4.43** | **244** | *e*Pn | Pn | 17 26 36.8 | -1.9 |
| | SNR=1.0 | | | | | | |
| VIVF | | | | *e*Sn | Sn | 17 27 24.6 | -6.2 |
| | 7.4nm,0.5s,SNR=1.0 | | | | | | |
| **VIVF** | **Saint-Julien-l** | **4.43** | **244** | *e*Pn | Pn | 17 26 36.8 | -1.9 |
| | SNR=1.0 | | | | | | |
| VIVF | | | | *e*Sn | Sn | 17 27 24.6 | -6.2 |
| | 3.7nm,0.5s,SNR=1.0 | | | | | | |
| **SMRF** | **Simiane la Rot** | **4.44** | **230** | *e*Pn | Pn | 17 26 36.5 | -2.4 |
| | SNR=1.0 | | | | | | |
| SMRF | | | | *e*Sn | Sn | 17 27 25.9 | -5.2 |
| | 14nm,0.7s,SNR=1.0 | | | | | | |
| **SMRF** | **Simiane la Rot** | **4.44** | **230** | *e*Pn | Pn | 17 26 36.5 | -2.4 |
| | SNR=1.0 | | | | | | |
| SMRF | | | | *e*Sn | Sn | 17 27 25.9 | -5.2 |
| | 6.8nm,0.7s,SNR=1.0 | | | | | | |
| **LMR** | **La Mourre** | **4.49** | **218** | *e*Pn | Pn | 17 26 36.7 | -2.7 |
| **LMR** | **La Mourre** | **4.49** | **218** | *e*Pn | Pn | 17 26 36.7 | -2.7 |
| **PGF** | **Pioggiola** | **4.49** | **192** | *e*Pn | Pn | 17 26 37.5 | -2.1 |
| **PGF** | **Pioggiola** | **4.49** | **192** | *e*Pn | Pn | 17 26 37.5 | -2.1 |
| **BRG** | **Berggiesshubel** | **4.62** | **30** | PG | Pg | 17 27 30.1 | +31 |
| BRG | | | | SG | Sg | 17 28 23.6 | +25 |
| | 19nm,1.3s | | | | | | |
| **SSF** | **Saint Saulge** | **4.62** | **274** | *e*Pn | Pn | 17 26 39.2 | -2.2 |
| | SNR=1.0 | | | | | | |
| **SSF** | **Saint Saulge** | **4.62** | **274** | *e*Pn | Pn | 17 26 39.2 | -2.2 |
| | SNR=1.0 | | | | | | |
| **CLL** | **Collm** | **4.72** | **21** | *e*(Sb) | Sg | 17 28 12.0 | +10 |
| CLL | | | | *e*Sg | Sb | 17 28 37.0 | +46 |
| **AVF** | **Avril sur Loir** | **4.74** | **271** | *e*Pn | Pn | 17 26 40.8 | -2.2 |
| | SNR=1.0 | | | | | | |
| AVF | | | | *e*Sg | Sg | 17 27 59.2 | -3.6 |
| | 2.4nm,0.2s,SNR=1.0 | | | | | | |
| **AVF** | **Avril sur Loir** | **4.74** | **271** | *e*Pn | Pn | 17 26 40.8 | -2.2 |
| | SNR=1.0 | | | | | | |
| AVF | | | | *e*Sg | Sg | 17 27 59.2 | -3.6 |
| | 1.2nm,0.2s,SNR=1.0 | | | | | | |
| **BGF** | **Bois d'Agland** | **5.11** | **268** | *e*Pn | Pn | 17 26 46.1 | -2.0 |
| | SNR=1.0 | | | | | | |
| BGF | | | | *e*Sn | Sn | 17 27 43.1 | -4.6 |
| | 11nm,0.4s,SNR=1.0 | | | | | | |
| **BGF** | **Bois d'Agland** | **5.11** | **268** | *e*Pn | Pn | 17 26 46.1 | -2.0 |
| | SNR=1.0 | | | | | | |
| BGF | | | | *e*Sn | Sn | 17 27 43.1 | -4.6 |
| | 5.4nm,0.4s,SNR=1.0 | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **DPC** | **Dobruska-Polom** | **5.26** | **47** | *e*SG | Sg | 17 28 58.1 | +39 |
| **DPC** | **Dobruska-Polom** | **5.26** | **47** | Sg | Sg | 17 28 58.1 | +39 |
| **LASF** | **Ste Croix** | **5.34** | **240** | *e*Pn | Pn | 17 26 49.2 | -2.0 |
| | SNR=1.0 | | | | | | |
| LASF | | | | *e*Sn | Sn | 17 27 47.4 | -5.9 |
| | 3.8nm,0.4s | | | | | | |
| **LASF** | **Ste Croix** | **5.34** | **240** | *e*Pn | Pn | 17 26 49.2 | -2.0 |
| | SNR=1.0 | | | | | | |
| LASF | | | | *e*Sn | Sn | 17 27 47.4 | -5.9 |
| | 1.9nm,0.4s | | | | | | |
| **TCF** | **Toulx Ste Croi** | **5.59** | **266** | *e*Sn | Sn | 17 27 54.0 | -5.4 |
| | 3.8nm,0.4s | | | | | | |
| **TCF** | **Toulx Ste Croi** | **5.59** | **266** | *e*Sn | Sn | 17 27 54.0 | -5.4 |
| | 1.9nm,0.4s | | | | | | |
| **CAF** | **Calviac** | **6.07** | **253** | *e*Pn | Pn | 17 26 59.7 | -1.5 |
| | SNR=1.0 | | | | | | |
| **CAF** | **Calviac** | **6.07** | **253** | *e*Pn | Pn | 17 26 59.7 | -1.5 |
| | SNR=1.0 | | | | | | |
| **EPF** | **Esparros** | **8.05** | **244** | *e*Sn | Sn | 17 28 52.9 | -7.1 |
| | 2.9nm,0.7s,SNR=1.0 | | | | | | |
| **EPF** | **Esparros** | **8.05** | **244** | *e*Sn | Sn | 17 28 52.9 | -7.1 |
| | 1.5nm,0.7s,SNR=1.0 | | | | | | |

*NEIC **27** 17:28:23.0±0.8,51.67N×96.35E,h10km,mb4.3/4,Error ellipse: s-maj=18.7km s-min=9.5km az=169.0*
*IDC **27** 17:28:23.5±1.6,51.59N×96.17E,h0km,mb4.0/4, mb1 3.6/8,mb1mx3.3/74,mbtmp3.6/8,ML2.8/4,MS4.4/2, Ms1 4.4/2,ms1mx3.7/46,Error ellipse: s-maj=35.0km s-min=18.4km az=157.0*
*ISCJB **27** 17:28:24.8±0.4,51.65N±0.09×95.74E±0.06,h10km, mb3.9/6,MS4.3/1,Error ellipse: s-maj=12.5km s-min=5.2km az=178.5*
*MOS **27** 17:28:26.1±3.0,51.78N×96.09E,h10km,mb4.2/3,Error ellipse: s-maj=20.2km s-min=10.7km az=170.3*
**ISC 27 17:28:26.1**±0.6,**51.79N**±0.10×**95.82E**±0.05,**h10**km,**n45**, σ1§**59**/41,**mb4.0/6,2C,Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ORL** | **Orlik** | **2.57** | **72** | ⇑*i*PN | **Pn** | **17 29 08.3** | **+0.5** |
| ORL | | | | *e* | | 17 29 41.0 | |
| ORL | | | | pmax | pmax | | |
| | comp=Z,109nm,0.4s | | | | | | |
| ORL | | | | smax | smax | | |
| | comp=N,355nm,0.8s | | | | | | |
| **MOY** | **Mondy** | **3.22** | **90** | ⇑*i*PN | **Pb** | **17 29 21.1** | **-2.3** |
| MOY | | | | *e* | | 17 30 02.5 | |
| MOY | | | | pmax | pmax | | |
| | comp=Z,43nm,0.5s | | | | | | |
| MOY | | | | smax | smax | | |
| | comp=N,209nm,0.7s | | | | | | |
| **ARS** | **Arshan** | **4.09** | **86** | *e*PN | **Pb** | **17 29 37.6** | **-0.7** |
| ARS | | | | *e* | | 17 30 29.5 | |
| ARS | | | | pmax | pmax | | |
| | comp=Z,40nm,0.5s | | | | | | |
| ARS | | | | smax | smax | | |
| | comp=E,455nm,0.7s | | | | | | |
| **TLY** | **Talaya** | **4.86** | **88** | Lg | Lg | 17 30 52.5 | |
| | baz=57,slow=18 | | | | | | |
| **TLY** | **Talaya** | **4.86** | **88** | *e*PN | **Pb** | **17 29 51.2** | **-0.1** |
| TLY | | | | *e* | | 17 30 51.0 | |
| TLY | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.4s | | | | | | |
| TLY | | | | smax | smax | | |
| | comp=N,40nm,0.6s | | | | | | |
| **TLY** | **Talaya** | **4.86** | **88** | *e*Pg | **Pb** | **17 29 47.6** | **-3.7** |
| TLY | | | | *e*Sn | **Sn** | **17 30 39.6** | **+4.0** |
| TLY | | | | *e*Lg | Lg | 17 30 52.5 | |
| **ZAK** | **Zakamensk** | **4.91** | **104** | *e*PN | **Pb** | **17 29 50.1** | **-2.1** |
| ZAK | | | | *e* | | 17 30 53.7 | |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,22nm,0.9s | | | | | | |
| ZAK | | | | smax | smax | | |
| | comp=N,131nm,1.7s | | | | | | |
| **IRK** | **Irkutsk** | **5.24** | **82** | *e*PN | **Pb** | **17 29 56.3** | **-1.4** |
| IRK | | | | *e* | | 17 31 00.9 | |
| IRK | | | | pmax | pmax | | |
| | comp=Z,107nm,0.2s | | | | | | |
| IRK | | | | smax | smax | | |
| | comp=N,219nm,0.7s | | | | | | |
| **ZAA0** | **Zalesovo Array** | **7.00** | **292** | *e*Pn | Pn | 17 30 08.4 | -0.2 |
| ZAA0 | | | | *e*Lg | Lg | 17 32 01.2 | |
| **ZALV** | **Zalesovo Beam** | **7.00** | **292** | Pn | **Pn** | **17 30 10.8** | **+2.2** |
| | comp=N,0.3nm,0.3s,baz=99,slow=12,SNR=3.9 | | | | | | |
| ZALV | | | | Lg | Lg | 17 32 00.1 | |
| | comp=N,2.0nm,0.3s,baz=118,slow=28,SNR=11 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **7.00** | **292** | *e*Pn | **Pn** | **17 30 09.3** | **+0.7** |
| ZALV | | | | *e*Lg | Lg | 17 32 00.5 | |
| **ZAA1** | **Zalesovo Array** | **7.00** | **292** | *e*Pn | **Pn** | **17 30 10.8** | **+2.2** |
| ZAA1 | | | | *e*Lg | Lg | 17 32 00.1 | |
| **OGRR** | **Ongureny** | **7.39** | **71** | *e*P | **Pn** | **17 30 12.5** | **-1.4** |
| OGRR | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.7s | | | | | | |
| **SONA1** | **Songino Array** | **7.90** | **116** | *e*Pn | **Pn** | **17 30 20.6** | **-0.5** |
| SONA1 | | | |

**WEL 27 17:32:08.6±0.6, 37.72S×176.19E, h278km±4km, ML4.5/52, 26C-12D, Error ellipse: s-maj=4.2km s-min=3.3km az=0.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WPRZ | Whakapapatarin | 0.80 | 181 | Pn | Pn | 17 32 46.2 | +0.5 |
| WPRZ | Whakapapatarin | 0.80 | 181 | ⇑PN | Pn | 17 32 46.2 | +0.5 |
| ALRZ | Allen Road | 0.85 | 172 | Pn | Pn | 17 32 46.2 | +0.3 |
| ALRZ | Allen Road | 0.85 | 172 | PN | Pn | 17 32 46.2 | +0.3 |
| MUGZ | Murupara | 0.89 | 149 | ⇑PN | Pn | 17 32 45.9 | -0.1 |
| URZ | Urewera | 0.91 | 127 | Pn | Pn | 17 32 45.5 | -0.6 |
| URZ | | | | Sn | S | 17 33 15.1 | -0.7 |
| URZ | Urewera | 0.91 | 127 | PN | Pn | 17 32 45.7 | -0.4 |
| URZ | | | | SN | S | 17 33 15.1 | -0.7 |
| RTZ | Ruatahuna | 1.09 | 145 | PN | Pn | 17 32 46.8 | -0.3 |
| RTZ | | | | SN | S | 17 33 17.1 | -0.5 |
| MRHZ | Matea Rd | 1.13 | 171 | ⇑PN | Pn | 17 32 47.2 | -0.1 |
| MRHZ | | | | AML | AML | 17 33 18.2 | |
| MRHZ | | | | AML | AML | 17 33 20.1 | |
| RATZ | Rangitukua | 1.19 | 196 | Pn | Pn | 17 32 47.7 | +0.1 |
| RATZ | Rangitukua | 1.19 | 196 | PN | Pn | 17 32 47.7 | +0.1 |
| RUGZ | Raukumara Rang | 1.21 | 102 | PN | Pn | 17 32 47.0 | -0.8 |
| MWZ | Matawai | 1.22 | 120 | Pn | Pn | 17 32 47.8 | 0.0 |
| MWZ | Matawai | 1.22 | 120 | PN | Pn | 17 32 47.8 | -0.1 |
| MWZ | | | | AML | AML | 17 33 22.1 | |
| MWZ | | | | AML | AML | 17 33 22.7 | |
| RAGZ | Rawiri | 1.24 | 129 | Pn | Pn | 17 32 48.3 | +0.3 |
| RAGZ | Rawiri | 1.24 | 129 | PN | Pn | 17 32 48.3 | +0.3 |
| RAGZ | | | | AML | AML | 17 33 22.0 | |
| RAGZ | | | | AML | AML | 17 33 23.1 | |
| MTHZ | Maungataniwha | 1.24 | 156 | ⇑PN | Pn | 17 32 48.1 | +0.2 |
| HAZ | Te Kaha | 1.27 | 92 | PN | Pn | 17 32 47.2 | -0.8 |
| HAZ | | | | AML | AML | 17 33 16.7 | |
| HAZ | | | | AML | AML | 17 33 19.6 | |
| HAZ | | | | AML | AML | 17 33 20.3 | |
| KATZ | Kakaramea | 1.31 | 197 | Pn | Pn | 17 32 48.7 | +0.2 |
| KATZ | | | | Sn | Pn | 17 32 53.9 | +5.4 |
| KATZ | Kakaramea | 1.31 | 197 | PN | Pn | 17 32 48.7 | +0.2 |
| HIZ | Hauiti | 1.31 | 233 | Pn | Pn | 17 32 48.7 | +0.4 |
| HIZ | Hauiti | 1.31 | 233 | PN | Pn | 17 32 48.7 | +0.4 |
| SNGZ | Shannon Statio | 1.40 | 140 | Pn | Pn | 17 32 49.2 | +0.3 |
| SNGZ | Shannon Statio | 1.40 | 140 | ⇓PN | Pn | 17 32 49.2 | +0.3 |
| SNGZ | | | | AML | AML | 17 33 21.4 | |
| SNGZ | | | | AML | AML | 17 33 27.1 | |
| KRVZ | Karewarewa | 1.44 | 197 | Pn | Pn | 17 32 49.2 | 0.0 |
| NMHZ | Naumai | 1.46 | 161 | Pn | Pn | 17 32 50.1 | +0.7 |
| NMHZ | Naumai | 1.46 | 161 | ⇑PN | Pn | 17 32 50.1 | +0.7 |
| NMHZ | | | | AML | AML | 17 33 24.6 | |
| NMHZ | | | | AML | AML | 17 33 26.0 | |
| BKZ | Black Stump Fm | 1.46 | 171 | Pn | Pn | 17 32 49.0 | -0.4 |
| BKZ | Black Stump Fm | 1.46 | 171 | PN | Pn | 17 32 49.2 | -0.2 |
| BKZ | | | | AML | AML | 17 33 21.6 | |
| BKZ | | | | AML | AML | 17 33 22.9 | |
| WTVZ | West Tongariro | 1.47 | 198 | Pn | Pn | 17 32 49.4 | -0.1 |
| WTVZ | West Tongariro | 1.47 | 198 | PN | Pn | 17 32 49.4 | -0.1 |
| TWVZ | Taurewa | 1.47 | 203 | Pn | Pn | 17 32 49.4 | -0.1 |
| TWVZ | Taurewa | 1.47 | 203 | PN | Pn | 17 32 49.4 | -0.1 |
| TWGZ | Tauwhareparae | 1.49 | 108 | Pn | Pn | 17 32 50.0 | +0.5 |
| TWGZ | Tauwhareparae | 1.49 | 108 | PN | Pn | 17 32 50.0 | +0.5 |
| TWGZ | | | | AML | AML | 17 33 25.3 | |
| TWGZ | | | | AML | AML | 17 33 25.4 | |
| TKGZ | Te Karaka | 1.50 | 119 | Pn | Pn | 17 32 49.7 | +0.2 |
| TKGZ | Te Karaka | 1.50 | 119 | PN | Pn | 17 32 49.7 | +0.2 |
| TKGZ | | | | AML | AML | 17 33 24.3 | |
| TKGZ | | | | AML | AML | 17 33 24.5 | |
| OTVZ | Oturere | 1.50 | 196 | Pn | Pn | 17 32 49.8 | +0.1 |
| OTVZ | Oturere | 1.50 | 196 | ⇓PN | Pn | 17 32 49.8 | +0.1 |
| PKGZ | Pakihiroa | 1.51 | 97 | PN | Pn | 17 32 49.8 | +0.2 |
| PKGZ | | | | AML | AML | 17 33 24.7 | |
| PKGZ | | | | AML | AML | 17 33 27.1 | |
| NGZ | Ngauruhoe | 1.52 | 197 | Pn | Pn | 17 32 49.7 | -0.2 |
| NGZ | Ngauruhoe | 1.52 | 197 | PN | Pn | 17 32 49.7 | -0.2 |
| RIGZ | Rimuhau | 1.58 | 129 | PN | Pn | 17 32 50.7 | +0.2 |
| RIGZ | | | | AML | AML | 17 33 26.1 | |
| RIGZ | | | | AML | AML | 17 33 26.3 | |
| WHHZ | Waihua | 1.58 | 149 | ⇑PN | Pn | 17 32 50.5 | +0.3 |
| WHHZ | | | | AML | AML | 17 33 26.9 | |
| WHHZ | | | | AML | AML | 17 33 28.7 | |
| TUVZ | Tukino | 1.60 | 195 | Pn | Pn | 17 32 50.3 | -0.1 |
| TUVZ | Tukino | 1.60 | 195 | PN | Pn | 17 32 50.3 | -0.1 |
| FWVZ | Far West T-bar | 1.61 | 198 | Pn | Pn | 17 32 50.5 | -0.1 |
| FWVZ | Far West T-bar | 1.61 | 198 | PN | Pn | 17 32 50.5 | -0.1 |
| DRZ | Dome Shelter | 1.63 | 197 | Pn | Pn | 17 32 51.2 | +0.4 |
| DRZ | Dome Shelter | 1.63 | 197 | PN | Pn | 17 32 51.2 | +0.4 |
| WHVZ | Whangaehu Hut | 1.63 | 197 | Pn | Pn | 17 32 50.7 | 0.0 |
| WHVZ | Whangaehu Hut | 1.63 | 197 | ⇑PN | Pn | 17 32 50.7 | 0.0 |
| TRVZ | Turoa | 1.65 | 197 | Pn | Pn | 17 32 50.8 | -0.1 |
| TRVZ | Turoa | 1.65 | 197 | ⇓PN | Pn | 17 32 50.8 | -0.1 |
| WNVZ | Wahianoa | 1.67 | 196 | Pn | Pn | 17 32 50.8 | -0.2 |
| WNVZ | Wahianoa | 1.67 | 196 | PN | Pn | 17 32 50.8 | -0.2 |
| PUZ | Puketiti | 1.68 | 103 | Pn | Pn | 17 32 50.8 | 0.0 |
| PUZ | Puketiti | 1.68 | 103 | ⇓PN | Pn | 17 32 50.8 | 0.0 |
| PUZ | | | | AML | AML | 17 33 31.4 | |
| PUZ | | | | AML | AML | 17 33 32.7 | |
| MXZ | Matakaoa Point | 1.69 | 85 | Pn | Pn | 17 32 50.9 | 0.0 |
| MXZ | Matakaoa Point | 1.69 | 85 | ⇓PN | Pn | 17 32 50.9 | 0.0 |
| MXZ | | | | AML | AML | 17 33 26.4 | |
| MXZ | | | | AML | AML | 17 33 29.1 | |
| PKVZ | Pokaka | 1.70 | 203 | Pn | Pn | 17 32 50.9 | -0.1 |
| PKVZ | Pokaka | 1.70 | 203 | PN | Pn | 17 32 50.9 | -0.1 |
| KWHZ | Kaweka Forest | 1.71 | 174 | PN | Pn | 17 32 51.2 | +0.1 |
| KWHZ | | | | AML | AML | 17 33 25.9 | |
| KWHZ | | | | AML | AML | 17 33 26.8 | |
| MOVZ | Moawhango | 1.72 | 191 | Pn | Pn | 17 32 50.8 | -0.4 |
| MOVZ | Moawhango | 1.72 | 191 | PN | Pn | 17 32 50.7 | -0.4 |
| KNZ | Kokohu | 1.75 | 138 | Pn | Pn | 17 32 51.2 | -0.1 |
| KNZ | Kokohu | 1.75 | 138 | ⇑PN | Pn | 17 32 51.2 | -0.1 |
| KNZ | | | | AML | AML | 17 33 26.9 | |
| KNZ | | | | AML | AML | 17 33 27.5 | |
| MTVZ | Mangateitei | 1.75 | 198 | Pn | Pn | 17 32 51.4 | 0.0 |
| MTVZ | Mangateitei | 1.75 | 198 | ⇓PN | Pn | 17 32 51.4 | -0.1 |
| MCHZ | McNeill Hill | 1.77 | 167 | Pn | Pn | 17 32 51.8 | +0.3 |
| MCHZ | McNeill Hill | 1.77 | 167 | PN | Pn | 17 32 51.8 | +0.3 |
| MCHZ | | | | AML | AML | 17 33 30.0 | |
| MCHZ | | | | AML | AML | 17 33 32.8 | |
| BHHZ | Black Hill Sta | 1.77 | 183 | Pn | Pn | 17 32 51.2 | -0.4 |
| BHHZ | Black Hill Sta | 1.77 | 183 | PN | Pn | 17 32 51.2 | -0.4 |
| BHHZ | | | | AML | AML | 17 33 27.2 | |
| BHHZ | | | | AML | AML | 17 33 27.5 | |
| WMGZ | Waiomatatini S | 1.77 | 94 | Pn | Pn | 17 32 51.5 | -0.1 |
| WMGZ | Waiomatatini S | 1.77 | 94 | PN | Pn | 17 32 51.4 | -0.1 |
| WMGZ | | | | AML | AML | 17 33 27.4 | |
| WMGZ | | | | AML | AML | 17 33 27.8 | |
| PRGZ | Paritu Road | 1.79 | 132 | Pn | Pn | 17 32 51.8 | 0.0 |
| PRGZ | Paritu Road | 1.79 | 132 | PN | Pn | 17 32 51.8 | 0.0 |
| PRGZ | | | | AML | AML | 17 33 32.1 | |
| PRGZ | | | | AML | AML | 17 33 35.5 | |
| KRHZ | Kereru | 1.93 | 176 | ⇑PN | Pn | 17 32 52.5 | -0.3 |
| KRHZ | | | | AML | AML | 17 33 28.2 | |
| KRHZ | | | | AML | AML | 17 33 30.6 | |
| MHGZ | Mahia Peninsul | 1.97 | 137 | Pn | Pn | 17 32 53.1 | +0.1 |
| MHGZ | Mahia Peninsul | 1.97 | 137 | PN | Pn | 17 32 53.1 | +0.1 |
| MHGZ | | | | AML | AML | 17 33 29.4 | |
| MHGZ | | | | AML | AML | 17 33 29.6 | |
| CKHZ | Cape Kidnapper | 2.06 | 160 | Pn | Pn | 17 32 53.9 | +0.1 |
| CKHZ | Cape Kidnapper | 2.06 | 160 | ⇑PN | Pn | 17 32 53.9 | +0.1 |
| CKHZ | | | | AML | AML | 17 33 30.6 | |
| CKHZ | | | | AML | AML | 17 33 36.2 | |
| KAHZ | Kahuranaki | 2.14 | 166 | Pn | Pn | 17 32 54.6 | 0.0 |
| KAHZ | Kahuranaki | 2.14 | 166 | ⇑PN | Pn | 17 32 54.6 | 0.0 |
| KAHZ | | | | AML | AML | 17 33 36.0 | |
| KAHZ | | | | AML | AML | 17 33 36.2 | |
| PNHZ | Pukenui | 2.19 | 180 | Pn | Pn | 17 32 54.4 | -0.6 |
| PNHZ | Pukenui | 2.19 | 180 | PN | Pn | 17 32 54.4 | -0.6 |
| PNHZ | | | | AML | AML | 17 33 33.3 | |
| PNHZ | | | | AML | AML | 17 33 33.7 | |
| WAZ | Wanganui | 2.24 | 204 | Pn | Pn | 17 32 54.9 | -0.5 |
| WAZ | Wanganui | 2.24 | 204 | PN | Pn | 17 32 54.9 | -0.5 |
| NEZ | North Egmont | 2.25 | 226 | Pn | Pn | 17 32 56.0 | +0.3 |
| NEZ | North Egmont | 2.25 | 226 | ⇓PN | Pn | 17 32 56.0 | +0.3 |
| PKE | Pukeiti | 2.27 | 229 | Pn | Pn | 17 32 56.2 | +0.4 |
| PKE | | | | Sn | Pn | 17 32 58.0 | +2.3 |
| PKE | Pukeiti | 2.27 | 229 | ⇑PN | Pn | 17 32 56.2 | +0.4 |
| KHEZ | Kahui Hut | 2.32 | 227 | Pn | Pn | 17 32 56.5 | +0.3 |
| KHEZ | Kahui Hut | 2.32 | 227 | ⇓PN | Pn | 17 32 56.5 | +0.3 |
| TSZ | Takapari Road | 2.34 | 184 | Pn | Pn | 17 32 55.5 | -0.9 |
| TSZ | Takapari Road | 2.34 | 184 | PN | Pn | 17 32 55.5 | -0.9 |
| TSZ | | | | AML | AML | 17 33 35.8 | |
| TSZ | | | | AML | AML | 17 33 36.3 | |
| WPHZ | Waipukurau | 2.35 | 175 | Pn | Pn | 17 32 55.7 | -0.7 |
| WPHZ | Waipukurau | 2.35 | 175 | PN | Pn | 17 32 55.7 | -0.7 |
| WPHZ | | | | AML | AML | 17 33 40.1 | |
| WPHZ | | | | AML | AML | 17 33 48.3 | |
| PXZ | Pawanui | 2.37 | 167 | Pn | Pn | 17 32 56.2 | -0.3 |
| PXZ | Pawanui | 2.37 | 167 | ⇑PN | Pn | 17 32 56.2 | -0.3 |
| PXZ | | | | AML | AML | 17 33 36.5 | |
| PXZ | | | | AML | AML | 17 33 37.1 | |
| PRHZ | Porangahau | 2.57 | 172 | Pn | Pn | 17 32 57.9 | -0.6 |
| PRHZ | Porangahau | 2.57 | 172 | ⇑PN | Pn | 17 32 57.9 | -0.6 |
| PRHZ | | | | AML | AML | 17 33 38.8 | |
| PRHZ | | | | AML | AML | 17 33 41.2 | |
| OHWZ | Ohakea | 2.57 | 195 | ⇑PN | Pn | 17 32 58.2 | -0.3 |
| DVHZ | Dannevirke | 2.57 | 180 | Pn | Pn | 17 32 57.5 | -1.1 |
| DVHZ | Dannevirke | 2.57 | 180 | ⇑PN | Pn | 17 32 57.5 | -1.1 |
| DVHZ | | | | AML | AML | 17 33 39.0 | |
| DVHZ | | | | AML | AML | 17 33 45.1 | |
| POWZ | Post Office Ro | 2.69 | 187 | Pn | Pn | 17 32 58.4 | -1.2 |
| POWZ | Post Office Ro | 2.69 | 187 | ⇑PN | Pn | 17 32 58.4 | -1.2 |
| POWZ | | | | AML | AML | 17 33 43.8 | |
| POWZ | | | | AML | AML | 17 33 44.7 | |
| PRWZ | Pori Road | 2.83 | 183 | Pn | Pn | 17 33 00.1 | -1.0 |
| PRWZ | Pori Road | 2.83 | 183 | ⇑PN | Pn | 17 33 00.1 | -1.0 |
| PRWZ | | | | AML | AML | 17 33 43.2 | |
| PRWZ | | | | AML | AML | 17 33 45.7 | |
| BFZ | Birch Farm | 2.96 | 179 | PN | Pn | 17 33 01.1 | -1.2 |
| BFZ | | | | AML | AML | 17 33 45.4 | |
| BFZ | | | | AML | AML | 17 33 49.0 | |
| MRZ | Mangatainoka R | 2.97 | 189 | PN | Pn | 17 33 00.7 | -1.7 |
| MRZ | | | | AML | AML | 17 33 45.4 | |
| MRZ | | | | AML | AML | 17 33 48.3 | |
| TIWZ | Tintock | 3.06 | 184 | Pn | Pn | 17 33 02.0 | -1.4 |
| TIWZ | Tintock | 3.06 | 184 | ⇑PN | Pn | 17 33 02.0 | -1.4 |
| TIWZ | | | | AML | AML | 17 33 47.1 | |
| TIWZ | | | | AML | AML | 17 33 51.2 | |
| CPWZ | Castlepoint | 3.19 | 180 | Pn | Pn | 17 33 03.9 | -0.7 |
| CPWZ | Castlepoint | 3.19 | 180 | PN | Pn | 17 33 03.9 | -0.7 |
| CPWZ | | | | AML | AML | 17 33 52.8 | |
| CPWZ | | | | AML | AML | 17 33 53.6 | |
| OGWZ | Otaki Gorge | 3.19 | 194 | Pn | Pn | 17 33 03.2 | -1.5 |
| OGWZ | Otaki Gorge | 3.19 | 194 | PN | Pn | 17 33 03.2 | -1.5 |
| OGWZ | | | | AML | AML | 17 33 04.5 | |
| OGWZ | | | | AML | AML | 17 33 04.5 | |
| HOWZ | Holdsworth Sta | 3.21 | 189 | Pn | Pn | 17 33 03.0 | -2.0 |
| HOWZ | Holdsworth Sta | 3.21 | 189 | PN | Pn | 17 33 03.0 | -2.0 |
| HOWZ | | | | AML | AML | 17 33 49.9 | |
| HOWZ | | | | AML | AML | 17 33 52.3 | |
| KIWZ | Kapiti Island | 3.29 | 197 | Pn | Pn | 17 33 03.9 | -1.9 |
| KIWZ | Kapiti Island | 3.29 | 197 | ⇑PN | Pn | 17 33 03.9 | -1.9 |
| KIW | | | | AML | AML | 17 33 51.6 | |
| KIW | | | | AML | AML | 17 33 51.8 | |
| TMWZ | Te Maipa | 3.39 | 184 | Pn | Pn | 17 33 05.2 | -1.7 |
| TMWZ | Te Maipa | 3.39 | 184 | ⇑PN | Pn | 17 33 05.2 | -1.7 |
| TMWZ | | | | AML | AML | 17 33 07.5 | |
| TMWZ | | | | AML | AML | 17 33 08.7 | |
| MTW | Mount Morrison | 3.47 | 189 | Pn | Pn | 17 33 05.6 | -2.1 |
| MTW | Mount Morrison | 3.47 | 189 | ⇑PN | Pn | 17 33 05.6 | -2.1 |
| MTW | | | | AML | AML | 17 33 54.0 | |
| MTW | | | | AML | AML | 17 33 55.1 | |
| CAW | Cannon Point | 3.49 | 194 | Pn | Pn | 17 33 05.9 | -2.0 |
| CAW | Cannon Point | 3.49 | 194 | PN | Pn | 17 33 05.9 | -2.0 |
| CAW | | | | AML | AML | 17 33 54.6 | |
| CAW | | | | AML | AML | 17 33 56.1 | |
| DUWZ | D'Urville Isla | 3.54 | 209 | Pn | Pn | 17 33 06.1 | -2.4 |
| DUWZ | D'Urville Isla | 3.54 | 209 | ⇓PN | Pn | 17 33 06.1 | -2.4 |
| TRWZ | Traveller | 3.69 | 186 | Pn | Pn | 17 33 08.2 | -1.9 |
| TRWZ | Traveller | 3.69 | 186 | ⇑PN | Pn | 17 33 08.2 | -1.9 |
| TRWZ | | | | AML | AML | 17 33 58.7 | |
| TRWZ | | | | AML | AML | 17 34 04.0 | |
| PAWZ | Paruwai Farm | 3.70 | 189 | Pn | Pn | 17 33 08.2 | -2.1 |
| PAWZ | Paruwai Farm | 3.70 | 189 | PN | Pn | 17 33 08.2 | -2.1 |
| PAWZ | | | | AML | AML | 17 33 58.5 | |
| PAWZ | | | | AML | AML | 17 33 58.8 | |
| WEL | Wellington | 3.72 | 197 | Pn | Pn | 17 33 08.3 | -2.1 |
| WEL | Wellington | 3.72 | 197 | PN | Pn | 17 33 08.3 | -2.1 |
| WEL | | | | AML | AML | 17 33 59.3 | |
| WEL | | | | AML | AML | 17 34 00.3 | |
| MSWZ | Moikau Station | 3.76 | 191 | Pn | Pn | 17 33 08.5 | -2.4 |
| MSWZ | Moikau Station | 3.76 | 191 | PN | Pn | 17 33 08.5 | -2.4 |
| MSWZ | | | | AML | AML | 17 33 59.8 | |
| MSWZ | | | | AML | AML | 17 34 01.4 | |
| SNZO | South Karori | 3.76 | 197 | *e*Pn | Pn | 17 33 08.1 | -2.8 |
| SNZO | | | | *e*S | S | 17 33 58.1 | -2.5 |
| TCW | Tory Channel | 3.79 | 202 | Pn | Pn | 17 33 08.8 | -2.4 |
| TCW | Tory Channel | 3.79 | 202 | PN | Pn | 17 33 08.8 | -2.4 |
| TCW | | | | AML | AML | 17 34 01.6 | |
| TCW | | | | AML | AML | 17 34 01.8 | |
| BHW | Baring Head | 3.82 | 195 | Pn | Pn | 17 33 09.1 | -2.5 |
| BHW | Baring Head | 3.82 | 195 | ⇓PN | Pn | 17 33 09.1 | -2.5 |
| BHW | | | | AML | AML | 17 34 00.8 | |
| BHW | | | | AML | AML | 17 34 02.0 | |
| PLWZ | Palliser | 3.91 | 190 | Pn | Pn | 17 33 10.2 | -2.5 |
| PLWZ | Palliser | 3.91 | 190 | PN | Pn | 17 33 10.1 | -2.5 |
| PLWZ | | | | AML | AML | 17 34 03.0 | |
| PLWZ | | | | AML | AML | 17 34 05.0 | |
| TUWZ | Tuamarina | 4.09 | 204 | Pn | Pn | 17 33 12.1 | -2.5 |
| TUWZ | Tuamarina | 4.09 | 204 | ⇑PN | Pn | 17 33 12.1 | -2.5 |
| TUWZ | | | | AML | AML | 17 33 14.3 | |
| TUWZ | | | | AML | AML | 17 34 05.5 | |
| NNZ | Nelson | 4.11 | 211 | PN | Pn | 17 33 11.8 | -3.0 |
| QRZ | Quartz Range | 4.20 | 221 | PN | Pn | 17 33 12.2 | -3.7 |
| BSWZ | Blackbirch Sta | 4.37 | 203 | Pn | Pn | 17 33 15.4 | -2.4 |
| BSWZ | Blackbirch Sta | 4.37 | 203 | ⇓PN | Pn | 17 33 15.4 | -2.4 |
| BSWZ | | | | AML | AML | 17 34 12.4 | |
| BSWZ | | | | AML | AML | 17 34 13.6 | |
| THZ | Tophouse | 4.76 | 211 | PN | Pn | 17 33 18.8 | -3.7 |
| KHZ | Kahutara | 5.11 | 203 | Pn | Pn | 17 33 23.5 | -3.0 |
| KHZ | Kahutara | 5.11 | 203 | ⇑PN | Pn | 17 33 23.5 | -3.0 |
| KHZ | | | | AML | AML | 17 34 27.0 | |
| KHZ | | | | AML | AML | 17 34 27.7 | |
| DSZ | Denniston Nort | 5.25 | 219 | Pn | Pn | 17 33 23.9 | -4.3 |
| DSZ | Denniston Nort | 5.25 | 219 | PN | Pn | 17 33 23.9 | -4.3 |
| LTZ | Lake Taylor | 5.88 | 209 | Pn | Pn | 17 33 31.9 | -3.9 |
| LTZ | Lake Taylor | 5.88 | 209 | PN | Pn | 17 33 31.8 | -3.9 |
| INZ | Inchbonnie | 6.17 | 214 | ⇓PN | Pn | 17 33 35.0 | -4.4 |
| OXZ | Oxford | 6.43 | 208 | Pn | Pn | 17 33 37.8 | -4.7 |
| OXZ | Oxford | 6.43 | 208 | PN | Pn | 17 33 37.8 | -4.7 |
| CRLZ | Canterbury Las | 6.44 | 204 | Pn | Pn | 17 33 38.3 | -4.3 |
| CRLZ | Canterbury Las | 6.44 | 204 | PN | Pn | 17 33 38.3 | -4.3 |
| MQZ | McQueen's Vall | 6.55 | 203 | PN | Pn | 17 33 39.2 | -4.8 |
| WVZ | Waitaha Valley | 6.77 | 216 | Pn | Pn | 17 33 42.0 | -4.6 |
| WVZ | Waitaha Valley | 6.77 | 216 | ⇑PN | Pn | 17 33 42.0 | -4.6 |
| RPZ | Rata Peaks | 7.14 | 211 | Pn | Pn | 17 33 46.6 | -4.7 |
| RPZ | Rata Peaks | 7.14 | 211 | PN | Pn | 17 33 46.6 | -4.7 |
| FOZ | Fox Glacier | 7.56 | 218 | Pn | Pn | 17 33 50.8 | -5.6 |
| FOZ | Fox Glacier | 7.56 | 218 | PN | Pn | 17 33 50.8 | -5.6 |
| LBZ | Lake Benmore | 8.05 | 212 | Pn | Pn | 17 33 57.9 | -4.7 |
| LBZ | Lake Benmore | 8.05 | 212 | PN | Pn | 17 33 57.9 | -4.7 |
| ODZ | Otahua Downs | 8.42 | 208 | *e*PN | Pn | 17 34 03.2 | -3.9 |
| JCZ | Jackson Bay | 8.46 | 219 | Pn | Pn | 17 34 01.9 | -5.8 |
| JCZ | Jackson Bay | 8.46 | 219 | PN | Pn | 17 34 01.9 | -5.8 |
| WKZ | Wanaka | 8.91 | 215 | Pn | Pn | 17 34 07.6 | -5.6 |
| WKZ | Wanaka | 8.91 | 215 | PN | Pn | 17 34 07.6 | -5.6 |
| EAZ | Earnscleugh | 9.10 | 212 | Pn | Pn | 17 34 10.5 | -5.1 |
| EAZ | Earnscleugh | 9.10 | 212 | PN | Pn | 17 34 10.5 | -5.1 |
| TUZ | Tuapeka | 9.57 | 209 | Pn | Pn | 17 34 17.5 | -3.8 |
| TUZ | Tuapeka | 9.57 | 209 | PN | Pn | 17 34 17.5 | -3.8 |
| WHZ | Wether Hill Ro | 10.22 | 214 | Pn | Pn | 17 34 24.0 | -5.4 |
| WHZ | Wether Hill Ro | 10.22 | 214 | PN | Pn | 17 34 24.0 | -5.4 |
| DCZ | Deep Cove | 10.27 | 218 | Pn | Pn | 17 34 23.6 | -6.5 |
| DCZ | Deep Cove | 10.27 | 218 | PN | Pn | 17 34 23.6 | -6.5 |

**JMA 27 17:42:27.5±0.2, 39.67N×143.64E, h17km, M3.8, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JTH | Tanohata | 1.39 | 282 | P | Pn | 17 42 52.3 | +0.1 |
| JTH | | | | *e*S | Sb | 17 43 10.6 | 0.0 |
| MIYJ | Miyakonagasawa | 1.41 | 267 | P | Pn | 17 42 52.6 | +0.2 |
| JANG | Nango | 1.78 | 294 | P | Pn | 17 42 57.8 | +0.4 |
| JNBK | Urakawa-nobuka | 2.69 | 346 | P | Pb | 17 43 13.5 | -1.7 |
| JNBK | | | | *e*S | Sb | 17 43 46.0 | -1.9 |
| JCH | Churui | 2.95 | 356 | P | Pn | 17 43 16.2 | +2.7 |
| JCH | | | | *e*S | Sn | 17 43 49.9 | +1.4 |

*ISCJB **27** 17:42:41.4±0.8, 38.67N±0.04×142.04E±0.09, h59km±7km, mb3.7/7, Error ellipse: s-maj=11.9km s-min=6.1km az=18.5*
*JMA **27** 17:42:42.6, 38.70N×141.97E, h53km±1km, M3.9*
*JMA Felt II J1.*
*IDC **27** 17:42:46.2±3.1, 38.65N×141.96E, h92km±31km, mb3.4/7, mb1 3.5/11, mb1mx3.3/55, mbtmp3.7/11, Error ellipse: s-maj=32.1km s-min=15.0km az=110.0*

**ISC 27 17:42:42.3±1.2, 38.68N±0.05×142.02E±0.09, h52km±11km, n27, σ0s71/29, mb3.7/7, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| OFUJ | Ofunato | 0.48 | 326 | P | Pn | 17 42 53.6 | +0.2 |
| OFUJ | | | | S | Sn | 17 43 01.4 | 0.0 |
| JIO | Ouri | 0.57 | 247 | P | Pn | 17 42 54.6 | +0.2 |
| JIO | | | | S | Sn | 17 43 02.8 | -0.4 |
| JMK | Ichinoseki | 0.68 | 294 | P | Pn | 17 42 55.9 | +0.1 |
| JMK | | | | S | Sn | 17 43 05.4 | -0.2 |
| JOM | Ohasama | 0.97 | 325 | P | Pn | 17 42 59.9 | +0.3 |
| JOM | | | | S | Sn | 17 43 12.6 | +0.2 |
| JOU | Okura | 1.11 | 254 | P | Pn | 17 43 01.5 | 0.0 |
| JOU | | | | S | Sn | 17 43 15.5 | -0.2 |
| JMM | Marumori | 1.26 | 230 | P | Pn | 17 43 03.3 | -0.2 |
| JMM | | | | S | Sn | 17 43 18.9 | -0.5 |
| JRG | Rokugo | 1.29 | 304 | P | Pn | 17 43 03.8 | -0.1 |
| JRG | | | | *e*S | Sn | 17 43 20.0 | -0.1 |
| JYK | Kaneyama | 1.31 | 281 | P | Pn | 17 43 04.4 | +0.1 |
| JYK | | | | *e*S | Sn | 17 43 21.0 | +0.3 |
| JFK | Kawauchi | 1.59 | 215 | P | Pn | 17 43 08.3 | +0.2 |
| JFK | | | | S | Sn | 17 43 27.3 | -0.3 |
| JYS | Shirataka | 1.60 | 254 | P | Pn | 17 43 08.6 | +0.5 |
| JYS | | | | S | Sn | 17 43 28.0 | +0.3 |
| MJAR | Matsushiro Arr | 3.70 | 236 | P | Pn | 17 43 39.6 | +2.6 |
| | 2.5nm,0.3s,baz=35,slow=13,SNR=31 | | | | | | |
| USRK | Ussuriysk Ar. | 9.33 | 309 | P | Pn | 17 44 58.4 | +4.5 |
| | 0.6nm,0.3s,baz=125,slow=14,SNR=8.2 | | | | | | |
| KSRS | Korea Array | 11.18 | 268 | P | Pn | 17 45 23.4 | +4.1 |
| | 0.3nm,0.3s,baz=74,slow=14,SNR=7.5 | | | | | | |
| PETK | Petropavlovsk- | 18.03 | 32 | P | P | 17 46 49.6 | +0.9 |
| | 0.5nm,0.3s,baz=176,slow=11,SNR=11 | | | | | | |
| SEY | Seymchan | 25.08 | 11 | P | P | 17 48 01.9 | +0.2 |
| | 1.8nm,0.7s,baz=222,slow=9.0,SNR=4.4 | | | | | | |
| H11N2 | WAKE ISLAND Hy 28.63 | 124 | | T | T | 18 19 02.0 | |
| | baz=317,slow=76,SNR=156 | | | | | | |
| H11N1 | WAKE ISLAND Hy 28.64 | 124 | | T | T | 18 19 03.3 | |
| | baz=317,slow=76,SNR=143 | | | | | | |
| H11N3 | WAKE ISLAND Hy 28.65 | 124 | | T | T | 18 19 03.9 | |
| | baz=317,slow=76,SNR=146 | | | | | | |
| H11S1 | WAKE ISLAND Hy 29.40 | 126 | | T | T | 18 20 00.7 | |
| | baz=318,slow=76,SNR=45 | | | | | | |
| H11S3 | WAKE ISLAND Hy 29.40 | 126 | | T | T | 18 19 50.6 | |
| | baz=318,slow=76,SNR=73 | | | | | | |
| H11S2 | WAKE ISLAND Hy 29.42 | 126 | | T | T | 18 19 52.9 | |
| | baz=318,slow=76,SNR=25 | | | | | | |
| MKAR | Makanchi Array | 43.67 | 301 | P | P | 17 50 41.1 | -0.7 |
| | 1.2nm,0.8s,baz=84,slow=9.8,SNR=4.4 | | | | | | |
| ILAR | Eielson Array | 47.85 | 33 | P | P | 17 51 15.2 | +0.7 |
| | 0.5nm,0.7s,baz=276,slow=6.4,SNR=7.4 | | | | | | |
| INK | Inuvik | 52.70 | 28 | P | P | 17 51 51.6 | +0.6 |
| | 0.7nm,0.6s,baz=308,slow=5.6,SNR=4.9 | | | | | | |
| WRA | Warramunga Arr | 58.76 | 188 | P | P | 17 52 33.8 | -1.2 |
| | 0.7nm,0.5s,baz=6.7,slow=7.1,SNR=12 | | | | | | |
| YKA | Yellowknife Ar | 62.15 | 31 | P | P | 17 52 56.7 | -0.9 |
| | 0.3nm,0.8s,baz=302,slow=6.3,SNR=4.3 | | | | | | |
| ASAR | Alice Springs | 62.49 | 188 | P | P | 17 53 00.3 | 0.0 |
| | 0.5nm,0.7s,baz=9.0,slow=6.0,SNR=7.6 | | | | | | |

**OBM 27 18:03:06.2±0.2, 51.73N×95.80E, h2km, Ml3.5, Error ellipse: s-maj=5.6km s-min=1.4km az=174.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ULG | Ulaangom | 2.96 | 235 | *e*Pg | Pb | 18 04 00.0 | +0.4 |
| ULG | | | | *e*Sg | Sg | 18 04 38.9 | -2.3 |
| HTG | Hatgal | 3.03 | 113 | *e*Pn | Pn | 18 03 53.7 | -1.6 |
| HTG | Hatgal | 3.03 | 113 | *e*Pg | Pb | 18 04 01.4 | +0.4 |
| HTG | | | | *e*Sg | Sb | 18 04 40.8 | +2.3 |
| | 49nm,0.3s | | | | | | |
| HBD | Hovd | 4.59 | 217 | *e*Pg | Pb | 18 04 30.1 | +2.7 |
| HBD | | | | *e*Sg | Sg | 18 05 31.3 | -2.2 |
| BYO | Bayan-Olgiy | 4.65 | 236 | *e*Pn | Pn | 18 04 21.5 | +3.8 |
| BYO | Bayan-Olgiy | 4.65 | 236 | *e*Pg | Pb | 18 04 30.8 | +2.2 |
| BYO | | | | *e*Sg | Sg | 18 05 31.2 | -4.4 |
| | 38nm,0.4s | | | | | | |
| TTS | Tsetserleg | 5.61 | 137 | *e*Sg | Sg | 18 06 02.0 | -4.3 |
| | 23nm,0.7s | | | | | | |
| BLGM | Bulgan | 5.76 | 118 | *e*Pg | P

**OBM 27 18:30:53.7±0.4, 51°.74N×95°.83E, h2km, MI3.9, Error ellipse: s-maj=9.7km s-min=3.0km az=174.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ULG** | **Ulaangom** | **2.98** | **235** | *e*Pg | Pb | 18 31 48.3 | +0.8 |
| ULG | | | | *e*Sg | Sg | 18 32 27.0 | -2.4 |
| | 348nm,0.2s | | | | | | |
| **ULG** | **Ulaangom** | **2.98** | **235** | *e*Pg | Pb | 18 31 48.3 | +0.8 |
| ULG | | | | *e*Sg | Sg | 18 32 27.3 | -2.1 |
| **HTG** | **Hatgal** | **3.02** | **113** | *e*Pg | Pb | 18 31 49.0 | +0.7 |
| HTG | | | | *e*Sg | Sb | 18 32 27.3 | +1.6 |
| | 182nm,0.4s | | | | | | |
| **HTG** | **Hatgal** | **3.02** | **113** | *e*Pg | Pb | 18 31 48.8 | +0.5 |
| HTG | | | | *e*Sg | Sb | 18 32 27.5 | +1.8 |
| | 159nm,0.3s | | | | | | |
| **HBD** | **Hovd** | **4.61** | **218** | *e*Sg | Sg | 18 33 18.2 | -3.5 |
| **HBD** | **Hovd** | **4.61** | **218** | *e*Sg | Sg | 18 33 17.5 | -4.2 |
| | 19nm,0.5s | | | | | | |
| **BYO** | **Bayan-Olgiy** | **4.68** | **236** | *e*Pg | Pb | 18 32 18.3 | +1.8 |
| BYO | | | | *e*Sg | Sb | 18 33 18.3 | +5.0 |
| | 71nm,0.6s | | | | | | |
| **BYO** | **Bayan-Olgiy** | **4.68** | **236** | *e*Sg | Sg | 18 33 19.5 | -4.3 |
| | 27nm,0.3s | | | | | | |
| **TTS** | **Tsetserleg** | **5.61** | **137** | *e*Sg | Sg | 18 33 49.1 | -4.7 |
| | 20nm,0.5s | | | | | | |
| **TTS** | **Tsetserleg** | **5.61** | **137** | *e*Sg | Sg | 18 33 48.3 | -5.5 |
| **BLGM** | **Bulgan** | **5.75** | **118** | *e*Sg | Sg | 18 33 51.7 | -6.7 |
| | 14nm,0.4s | | | | | | |

*ISCJB **27** 18:32:49.4±0.3, 52°.90S±0°.05×10°.4E±0°.1, h10km, mb5.0/43, MS4.2/8, Error ellipse: s-maj=9.0km s-min=6.9km az=177.1*

*IDC **27** 18:32:49.8±0.5, 52°.95S×10°.40E, h0km, mb4.5/14, mb1 4.6/15, mb1mx4.3/35, mbtmp4.5/15, ML4.7/1, MS4.3/7, Ms1 4.3/7, ms1mx4.0/35, Error ellipse: s-maj=19.3km s-min=15.5km az=85.0*

*NEIC **27** 18:32:51.3±0.2, 52°.92S×10°.48E, h10km, mb5.2/32, Error ellipse: s-maj=7.8km s-min=6.9km az=91.0*

**ISC 27 18:32:51.4±0.4, 52°.91S±0°.07×10°.41E±0°.09, h10km, n105, σ1§24/95, mb5.2/43, MS4.3/8, 2C, Southwest of Africa**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VNA1** | **Neumayer--Stat** | **19.70** | **198** | P | **Pn** | **18 37 25.2** | **+3.3** |
| **SNAA** | **Sanae** | **19.72** | **192** | P | **P** | **18 37 20.5** | **-0.3** |
| **SNAA** | **Sanae** | **19.72** | **192** | P | **P** | **18 37 20.2** | **-0.5** |
| | 2.1nm,0.3s,baz=25,slow=13,SNR=51 | | | | | | |
| SNAA | | | | LR | LR | 18 43 12.1 | |
| | comp=Z,888nm,21.1s,baz=317,slow=32 | | | | | | |
| **SNAA** | **Sanae** | **19.72** | **192** | *e*P | **P** | **18 37 20.3** | **-0.5** |
| | 41nm,0.7s | | | | | | |
| **VNA2** | **Neumayer--Watz** | **19.77** | **197** | P | **P** | **18 37 20.9** | **-0.3** |
| | baz=24,slow=12 | | | | | | |
| **VNA3** | **Neumayer Olymp** | **20.46** | **199** | P | **P** | **18 37 28.2** | **-0.5** |
| **SYO** | **Syowa Base** | **21.13** | **151** | *e*P | **P** | **18 37 33.6** | **-2.3** |
| **SYO** | **Syowa Base** | **21.13** | **151** | *e*Pn | **P** | **18 37 35.8** | **-0.1** |
| **SUR** | **Sutherland** | **21.85** | **24** | P | **P** | **18 37 43.9** | **-0.2** |
| | 0.6nm,0.9s,baz=176,slow=2.8,SNR=3.3 | | | | | | |
| SUR | | | | LR | LR | 18 44 07.1 | |
| | comp=Z,58nm,21.2s,baz=198,slow=31 | | | | | | |
| **SUR** | **Sutherland** | **21.85** | **24** | *e*P | **P** | **18 37 43.4** | **-0.8** |
| | 59nm,1.5s | | | | | | |
| **H09N1** | **TRISTAN DA CUN** | **22.42** | **306** | T | T | 19 01 50.2 | |
| | SNR=40 | | | | | | |
| **BOSA** | **Boshof** | **26.64** | **30** | P | **P** | **18 38 30.5** | **+0.2** |
| | 2.6nm,0.8s,baz=209,slow=13,SNR=3.0 | | | | | | |
| BOSA | | | | LR | LR | 18 46 47.1 | |
| | comp=Z,841nm,21.9s,baz=204,slow=31 | | | | | | |
| **HOPE** | **Hope Point** | **27.47** | **248** | *e*P | **P** | **18 38 39.1** | **+1.8** |
| | 228nm,1.8s | | | | | | |
| **MAW** | **Mawson** | **28.79** | **141** | P | **P** | **18 38 49.6** | **+0.6** |
| | 1.4nm,0.6s,baz=305,slow=9.9,SNR=4.3 | | | | | | |
| MAW | | | | LR | LR | 18 48 02.2 | |
| | comp=Z,376nm,21.8s,baz=266,slow=32 | | | | | | |
| **MAW** | **Mawson** | **28.79** | **141** | *e*P | **P** | **18 38 49.5** | **+0.6** |
| | 4.6nm,1.7s | | | | | | |
| **LBTB** | **Lobatse** | **30.12** | **28** | *e*P | **P** | **18 39 00.6** | **-0.7** |
| | 42nm,1.9s | | | | | | |
| **QSPA** | **South Pole Qui** | **37.33** | **180** | *e*P | **P** | **18 40 03.4** | **-0.2** |
| | 43nm,1.8s | | | | | | |
| **PMSA** | **Palmer Station** | **37.96** | **222** | *e*P | **P** | **18 40 09.9** | **+1.2** |
| | 118nm,1.5s | | | | | | |
| **GO09** | **Cerro Castillo** | **48.16** | **237** | *e*P | **P** | **18 41 32.4** | **+1.1** |
| | 55nm,1.4s | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **48.30** | **326** | T | T | 19 33 39.8 | |
| | baz=160,slow=75,SNR=11 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **48.31** | **326** | T | T | 19 33 40.6 | |
| | baz=160,slow=75,SNR=14 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **48.32** | **326** | T | T | 19 33 41.2 | |
| | baz=160,slow=75,SNR=9.8 | | | | | | |
| **VNDA** | **Vanda** | **48.63** | **172** | P | **P** | **18 41 34.6** | **-0.1** |
| | 7.5nm,0.7s,baz=225,slow=5.9,SNR=31 | | | | | | |
| VNDA | | | | LR | LR | 19 01 06.9 | |
| | comp=Z,554nm,19.8s,baz=201,slow=35 | | | | | | |
| **VNDA** | **Vanda** | **48.63** | **172** | *e*P | **P** | **18 41 33.9** | **-0.8** |
| VNDA | | | | *e*pP | **pP** | **18 41 34.9** | **-2.9** |
| **SBA** | **Scott Base** | **48.69** | **174** | *e*P | **P** | **18 41 35.9** | **+0.7** |
| | 140nm,1.9s | | | | | | |
| **TRQA** | **Tornquist** | **50.72** | **256** | *e*P | **P** | **18 41 50.9** | **-0.2** |
| | 49nm,1.8s | | | | | | |
| **PLCA** | **Paso Flores** | **53.88** | **248** | P | **P** | **18 42 14.2** | **-0.3** |
| | 2.0nm,0.8s,baz=117,slow=10,SNR=3.8 | | | | | | |
| **PLCA** | **Paso Flores** | **53.88** | **248** | *e*P | **P** | **18 42 14.9** | **+0.3** |
| | 25nm,1.8s | | | | | | |
| **CPUP** | **Villa Florida** | **56.15** | **270** | P | **P** | **18 42 30.8** | **-0.3** |
| | 9.1nm,0.7s,baz=129,slow=6.4,SNR=22 | | | | | | |
| **CPUP** | **Villa Florida** | **56.15** | **270** | *e*P | **P** | **18 42 30.9** | **-0.3** |
| | 10nm,0.8s | | | | | | |
| **BDFB** | **Brasilia** | **58.75** | **286** | *e*P | **P** | **18 42 50.2** | **+0.5** |
| | 6μm,1.0s | | | | | | |
| **RCBR** | **Riachuelo** | **60.23** | **304** | *e*P | **P** | **18 42 58.6** | **-1.2** |
| | 32nm,1.3s | | | | | | |
| **LIC** | **Lamto** | **60.34** | **342** | *e*P | **P** | **18 42 59.6** | **-0.8** |
| | 73nm,1.3s | | | | | | |
| **KIC** | **Kosan Boka** | **60.43** | **343** | *e*P | **P** | **18 43 00.8** | **-0.2** |
| | 30nm,1.3s | | | | | | |
| **DBIC** | **Dimbokro** | **60.75** | **343** | P | **P** | **18 43 03.0** | **-0.1** |
| | 13nm,0.6s,baz=144,slow=8.7,SNR=34 | | | | | | |
| DBIC | | | | LR | LR | 19 03 07.6 | |
| | comp=Z,270nm,21.3s,baz=76,slow=30 | | | | | | |
| **DBIC** | **Dimbokro** | **60.75** | **343** | *e*P | **P** | **18 43 02.8** | **-0.4** |
| | 14nm,0.6s | | | | | | |
| **TIC** | **Toumodi** | **60.75** | **342** | *e*P | **P** | **18 43 02.3** | **-0.9** |
| **LCO** | **Las Campanas** | **62.23** | **258** | *e*P | **P** | **18 43 13.2** | **-0.3** |
| | 11nm,1.2s | | | | | | |
| **TOA0** | **Torodi Ar. Sit** | **66.21** | **351** | *e*P | **P** | **18 43 38.5** | **-0.7** |
| **TORD** | **Torodi Ar. Bea** | **66.21** | **351** | P | **P** | **18 43 39.3** | **0.0** |
| | 3.2nm,0.7s,baz=171,slow=8.4,SNR=16 | | | | | | |
| TORD | | | | LR | LR | 19 08 18.6 | |
| | comp=Z,199nm,19.5s,baz=40,slow=32 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **66.22** | **351** | *e*P | **P** | **18 43 39.3** | **0.0** |
| **PB10** | **IPOC Station P** | **66.23** | **262** | *e*P | **P** | **18 43 39.7** | **+0.2** |
| | 84nm,1.6s | | | | | | |
| **PB01** | **IPOC Station P** | **67.46** | **265** | *e*P | **P** | **18 43 46.6** | **-0.9** |
| | 28nm,1.6s | | | | | | |
| **H08N3** | **Diego Garcia H** | **67.48** | **70** | T | T | 19 58 02.8 | |
| | baz=217,slow=76,SNR=5.3 | | | | | | |
| **H08N1** | **Diego Garcia H** | **67.49** | **70** | T | T | 19 58 07.8 | |
| | baz=217,slow=76,SNR=6.3 | | | | | | |
| **H08N2** | **Diego Garcia H** | **67.50** | **70** | T | T | 19 58 04.0 | |
| | baz=217,slow=76,SNR=7.1 | | | | | | |
| **KOWA** | **Kowa** | **68.27** | **345** | *e*P | **P** | **18 43 52.0** | **-0.3** |
| | 32nm,1.8s | | | | | | |
| **PB11** | **IPOC Station P** | **68.54** | **265** | *e*P | **P** | **18 43 54.2** | **-0.2** |
| | 23nm,1.4s | | | | | | |
| **MNMC** | **Minye Minye** | **68.98** | **266** | *e*P | **P** | **18 43 55.7** | **-1.5** |
| | 25nm,1.7s | | | | | | |
| **LPAZ** | **La Paz** | **70.28** | **269** | P | **P** | **18 44 06.1** | **+0.4** |
| | 6.3nm,0.8s,baz=138,slow=6.0,SNR=17 | | | | | | |
| **LPAZ** | **La Paz** | **70.28** | **269** | *e*P | **P** | **18 44 06.0** | **+0.4** |
| | 14nm,1.1s | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **70.42** | **122** | T | T | 20 01 33.3 | |
| | baz=219,slow=75,SNR=11 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **70.44** | **122** | T | T | 20 01 34.4 | |
| | baz=219,slow=75,SNR=11 | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **70.44** | **122** | T | T | 20 01 34.4 | |
| | baz=219,slow=75,SNR=12 | | | | | | |
| **SAML** | **Samuel** | **73.02** | **278** | *e*P | **P** | **18 44 22.0** | **+0.5** |
| | 5.1nm,1.5s | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **73.56** | **123** | *e*P | **P** | **18 44 23.8** | **-0.6** |
| | 61nm,1.7s | | | | | | |
| **PTGA** | **Pitinga** | **77.67** | **285** | *e*P | **P** | **18 44 48.7** | **+0.5** |
| | 44nm,2.0s | | | | | | |
| **MLZ** | **Mavora Lakes** | **80.26** | **164** | *e*P | **P** | **18 45 01.1** | **-0.9** |
| | 145nm,2.0s | | | | | | |
| **FORT** | **Forrest** | **80.61** | **129** | *e*P | **P** | **18 45 04.9** | **+0.8** |
| | 146nm,0.9s | | | | | | |
| **WKZ** | **Wanaka** | **80.93** | **165** | *e*P | **P** | **18 45 05.3** | **-0.4** |
| | 115nm,1.5s | | | | | | |
| **RPZ** | **Rata Peaks** | **82.33** | **166** | LR | LR | 19 19 08.0 | |
| | comp=Z,258nm,21.6s,baz=166,slow=34 | | | | | | |
| **THZ** | **Tophouse** | **84.50** | **167** | *e*P | **P** | **18 45 23.1** | **-1.3** |
| | 37nm,1.5s | | | | | | |
| **STKA** | **Stephens Creek** | **85.48** | **140** | P | **P** | **18 45 28.4** | **-0.9** |
| | 2.8nm,0.6s,baz=198,slow=4.7,SNR=9.7 | | | | | | |
| **STKA** | **Stephens Creek** | **85.48** | **140** | *e*P | **P** | **18 45 28.8** | **-0.6** |
| | 1.1nm,0.8s | | | | | | |
| **BFZ** | **Birch Farm** | **85.98** | **169** | *e*P | **P** | **18 45 30.5** | **-1.2** |
| | 90nm,1.3s | | | | | | |
| **KEST** | **Kesra** | **88.27** | **359** | *e*P | **P** | **18 45 40.5** | **-2.0** |
| | 60nm,1.8s | | | | | | |
| **ASAR** | **Alice Springs** | **89.36** | **130** | P | **P** | **18 45 47.4** | **-0.9** |
| | 1.3nm,0.9s,baz=202,slow=3.7,SNR=15 | | | | | | |
| **AS31** | **Alice Springs** | **89.36** | **130** | *e*P | **P** | **18 45 47.2** | **-1.0** |
| | 2.5nm,1.5s | | | | | | |
| **AS01** | **Alice Springs** | **89.39** | **130** | *e*P | **P** | **18 45 47.0** | **-1.3** |
| **PSI** | **Prapat** | **91.31** | **87** | P | **P** | **18 45 58.1** | **+0.7** |
| | 5.2nm,0.8s,baz=206,slow=6.1,SNR=6.6 | | | | | | |
| **PSI** | **Prapat** | **91.31** | **87** | *e*P | **P** | **18 45 58.2** | **+0.8** |
| | 9.1nm,0.8s | | | | | | |
| **WR1** | **Warramunga Arr** | **92.77** | **129** | *e*P | **P** | **18 46 02.5** | **-1.6** |
| | 54nm,1.7s | | | | | | |
| **WRA** | **Warramunga Arr** | **92.77** | **129** | P | **P** | **18 46 02.5** | **-1.6** |
| | 0.4nm,0.6s,baz=210,slow=4.3,SNR=3.5 | | | | | | |
| **ESDC** | **Sonseca Array** | **93.04** | **349** | P | **P** | **18 46 05.7** | **+1.0** |
| | 0.5nm,0.6s,baz=180,slow=3.9,SNR=4.4 | | | | | | |
| **ES19** | **SONSECA Array** | **93.06** | **349** | *e*P | **P** | **18 46 05.3** | **+0.6** |
| **BRTR** | **Keskin Array B** | **94.43** | **18** | P | **P** | **18 46 13.0** | **+1.8** |
| | 0.4nm,0.6s,baz=180,slow=4.1,SNR=2.9 | | | | | | |
| **BR101** | **Keskin Array S** | **94.43** | **18** | *e*P | **P** | **18 46 13.0** | **+1.8** |
| **GYA** | **Guiyang** | **114.32** | **78** | *e*Pdif | **Pdif** | **18 47 40.0** | **-0.3** |
| GYA | | | | PKP | PKPdf | 18 51 31.0 | -0.1 |
| GYA | | | | PP | PP | 18 52 36.5 | +9.2 |
| GYA | | | | AMB | AMB | | |
| | comp=Z,120nm,7.8s | | | | | | |
| **BVAR** | **Borovoye Array** | **116.81** | **36** | PKP | **PKPdf** | **18 51 34.8** | **-0.1** |
| | comp=Z,0.5nm,0.6s,baz=315,slow=0.8,SNR=3.6 | | | | | | |
| **SCHQ** | **Schefferville** | **124.86** | **317** | PKP | **PKPdf** | **18 51 50.1** | **-0.2** |
| | comp=Z,1.6nm,0.6s,baz=212,slow=5.6,SNR=3.8 | | | | | | |
| **SCHQ** | **Schefferville** | **124.86** | **317** | *e*PKPdf | **PKPdf** | **18 51 50.3** | **-0.1** |
| **LTX** | **Lajitas** | **127.13** | **271** | *e*PKPdf | **PKPdf** | **18 51 55.4** | **-0.2** |
| **TXAR** | **Lajitas Array** | **127.13** | **271** | PKP | **PKPdf** | **18 51 55.4** | **-0.2** |
| | comp=Z,0.7nm,0.7s,baz=168,slow=3.5,SNR=8.4 | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **127.13** | **271** | *e*PKPdf | **PKPdf** | **18 51 55.1** | **-0.5** |
| **HHC** | **Hu-ho-hao-te** | **127.40** | **70** | *e*PKP | **PKPdf** | **18 51 58.3** | **+2.5** |
| HHC | | | | PP | **PP** | **18 54 02.5** | **+5.9** |
| HHC | | | | SKS | **SKSdf** | **18 59 08.5** | **+1.2** |
| HHC | | | | SKKS | **SKKSac** | **19 00 54.5** | **+1.1** |
| **HHC** | **Hu-ho-hao-te** | **127.40** | **70** | SS | SS | 19 11 11.0 | +4.3 |
| HHC | | | | AMB | AMB | | |
| | comp=Z,140nm,5.4s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=N,130nm,19.0s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=E,300nm,20.0s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,78nm,19.6s | | | | | | |
| **SONA1** | **Songino Array** | **129.10** | **60** | *e*PKPdf | **PKPdf** | **18 51 58.8** | **-0.1** |
| **RWWY** | **Rawlins** | **137.52** | **281** | *e*PKPpre | PKPpre | 18 52 08.8 | |
| **PD31** | **Pinedale Array** | **139.56** | **280** | *e*PKPdf | **PKPdf** | **18 52 15.4** | **-3.4** |
| **PDAR** | **Pinedale Array** | **139.56** | **280** | PKP | **PKPdf** | **18 52 16.7** | **-2.0** |
| | comp=Z,1.0nm,0.8s,baz=109,slow=4.8,SNR=6.1 | | | | | | |
| **PDAR** | **Pinedale Array** | | | *e*PKPpre | PKPpre | 18 52 11.0 | |
| **FXWY** | **Fox Creek** | **140.94** | **281** | *e*PKPdf | **PKPdf** | **18 52 21.3** | **+0.1** |
| **NV01** | **Mina Array Sit** | **142.19** | **269** | *e*PKPdf | **PKPdf** | **18 52 23.6** | **0.0** |
| **NVAR** | **Mina Array Bea** | **142.19** | **269** | PKP | **PKPdf** | **18 52 24.2** | **+0.6** |
| | comp=Z,1.7nm,0.8s,baz=156,slow=2.8,SNR=9.0 | | | | | | |
| **MSO** | **Missoula** | **144.40** | **283** | *e*PKPdf | PKPbc | 18 52 25.9 | +0.3 |
| **WVOR** | **Wild Horse Val** | **144.82** | **274** | *e*PKPdf | **PKPdf** | **18 52 27.9** | **0.0** |
| **BMO** | **Blue Mountains** | **145.37** | **278** | *e*PKPbc | **PKPbc** | **18 52 28.7** | **0.0** |
| **F10A** | **Beach Ranch, E** | **145.91** | **280** | *e*PKPdf | **PKPbc** | **18 52 30.3** | **-0.1** |
| **WDC** | **Whiskeytown Da** | **146.09** | **268** | *e*PKPdf | **PKPbc** | **18 52 30.5** | **-0.5** |
| **G08A** | **Pilot Rock** | **146.59** | **278** | *e*PKPdf | **PKPbc** | **18 52 32.6** | **+0.1** |
| **TIXI** | **Tiksi** | **147.79** | **32** | PKPbc | **PKPbc** | **18 52 34.6** | **-0.2** |
| | comp=Z,2.4nm,0.3s,baz=266,slow=2.0,SNR=4.6 | | | | | | |
| **TIXI** | **Tiksi** | **147.79** | **32** | *e*PKPdf | **PKPbc** | **18 52 33.7** | **-1.1** |
| **YKA** | **Yellowknife Ar** | **150.01** | **310** | PKP | **PKPdf** | **18 52 33.3** | **-2.4** |
| | comp=Z,1.7nm,1.1s,baz=82,slow=1.8,SNR=9.7 | | | | | | |
| YKA | | | | PKPbc | **PKPbc** | **18 52 40.0** | **-0.7** |
| | comp=Z,6.6nm,0.6s,baz=96,slow=2.5,SNR=134 | | | | | | |
| **YKW3** | **Yellowknife Ar** | **150.02** | **311** | *e*PKPbc | **PKPbc** | **18 52 39.9** | **-0.8** |
| **ILAR** | **Eielson Array** | **163.41** | **325** | PKP | **PKPdf** | **18 52 54.3** | **+1.5** |
| | comp=Z,0.4nm,0.8s,baz=53,slow=2.4,SNR=4.4 | | | | | | |

*CRAAG **27** 18:36:11.2, 35°.67N×4°.55E, MI3.7*

*ISCJB **27** 18:36:12.8±0.5, 35°.81N±0°.05×4°.48E±0°.03, h25km, Error ellipse: s-maj=7.8km s-min=3.3km az=3.3*

*CSEM **27** 18:36:12.2±0.3, 35°.75N×4°.54E, h10km, mb4.2, Error ellipse: s-maj=9.9km s-min=3.4km az=178.0*

*MDD **27** 18:36:12.4±0.8, 35°.73N×4°.53E, h0km, mb4.2/11, Error ellipse: s-maj=14.3km s-min=3.9km az=2.0, PRXIMO*

**ISC 27 18:36:13.5±1.1, 35°.77N±0°.06×4°.55E±0°.03, h25km, n89, σ1§47/115, Northern Algeria**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ATAF** | **Djebel Tarf** | **0.24** | **294** | P | **Pb** | **18 36 16.4** | **-3.4** |
| **ATAF** | **Djebel Tarf** | **0.24** | **294** | P | **Pb** | **18 36 16.4** | **-3.4** |
| **ATAF** | **Djebel Tarf** | **0.24** | **294** | P | **Pb** | **18 36 16.4** | **-3.4** |
| **AKET** | **Djebel Ketaf** | **0.61** | **297** | P | **Pb** | **18 36 24.6** | **-1.0** |
| **AKET** | **Djebel Ketaf** | **0.61** | **297** | P | **Pb** | **18 36 24.6** | **-1.0** |
| **AKET** | **Djebel Ketaf** | **0.61** | **297** | P | **Pb** | **18 36 24.6** | **-1.0** |
| **SET** | **Setif** | **0.81** | **58** | P | **Pb** | **18 36 28.0** | **-1.0** |
| **SET** | **Setif** | **0.81** | **58** | P | **Pb** | **18 36 28.0** | **-1.0** |
| **SET** | **Setif** | **0.81** | **58** | P | **Pb** | **18 36 28.0** | **-1.0** |
| **CKHR** | **Kef el Ahmar** | **0.82** | **72** | P | **Pb** | **18 36 27.2** | **-1.9** |
| **CKHR** | **Kef el Ahmar** | **0.82** | **72** | P | **Pb** | **18 36 27.2** | **-1.9** |
| **CKHR** | **Kef el Ahmar** | **0.82** | **72** | P | **Pb** | **18 36 27.2** | **-1.9** |
| **DFRA** | **Djebel Bou Aff** | **1.32** | **54** | P | **Pn** | **18 36 37.5** | **+1.0** |
| **DFRA** | **Djebel Bou Aff** | **1.32** | **54** | P | **Pn** | **18 36 37.5** | **+1.0** |
| **DFRA** | **Djebel Bou Aff** | **1.32** | **54** | P | **Pn** | **18 36 37.5** | **+1.0** |
| **EMHD** | **Djebel Mahouad** | **1.36** | **289** | P | **Pn** | **18 36 37.4** | **+0.3** |
| **EMHD** | **Djebel Mahouad** | **1.36** | **289** | P | **Pn** | **18 36 37.4** | **+0.3** |
| **EMHD** | **Djebel Mahouad** | **1.36** | **289** | P | **Pn** | **18 36 37.4** | **+0.3** |
| **CTEI** | **Djebel Teioual** | **1.53** | **79** | P | **Pn** | **18 36 39.8** | **+0.4** |
| **CTEI** | **Djebel Teioual** | **1.53** | **79** | P | **Pn** | **18 36 39.8** | **+0.4** |
| **CTEI** | **Djebel Teioual** | **1.53** | **79** | P | **Pn** | **18 36 39.8** | **+0.4** |
| **CASM** | **Ain Smara** | **1.65** | **72** | P | **Pn** | **18 36 41.2** | **+0.3** |
| **CASM** | **Ain Smara** | **1.65** | **72** | P | **Pn** | **18 36 41.2** | **+0.3** |
| **CASM** | **Ain Smara** | **1.65** | **72** | P | **Pn** | **18 36 41.2** | **+0.3** |
| **CKFL** | **Kef-Lekhel** | **1.86** | **70** | P | **Pn** | **18 36 44.9** | **+1.0** |
| **CKFL** | **Kef-Lekhel** | **1.86** | **70** | P | **Pn** | **18 36 44.9** | **+1.0** |
| **CKFL** | **Kef-Lekhel** | **1.86** | **70** | P | **Pn** | **18 36 44.9** | **+1.0** |
| **ABSA** | **Djebel Ababsia** | **2.42** | **77** | P | **Pn** | **18 36 52.1** | **+0.5** |
| **ABSA** | **Djebel Ababsia** | **2.42** | **77** | P | **Pn** | **18 36 52.1** | **+0.5** |
| **CABS** | **Djebel Ababsia** | **2.42** | **77** | P | **Pn** | **18 36 52.1** | **+0.5** |
| **CABS** | **Djebel Ababsia** | **2.42** | **77** | P | **Pn** | **18 36 52.1** | **+0.5** |
| **CMAH** | **Djebel Manchou** | **2.47** | **69** | P | **Pn** | **18 36 52.8** | **+0.6** |
| **CMAH** | **Djebel Manchou** | **2.47** | **69** | P | **Pn** | **18 36 52.8** | **+0.6** |
| **CMAH** | **Djebel Manchou** | **2.47** | **69** | P | **Pn** | **18 36 52.8** | **+0.6** |
| **EBNR** | **Beni Rached** | **2.50** | **283** | P | **Pn** | **18 36 53.0** | **+0.3** |
| **EBNR** | **Beni Rached** | **2.50** | **283** | P | **Pn** | **18 36 53.0** | **+0.3** |
| **ECHA** | **Ech Chlef** | **2.61** | **279** | P | **Pn** | **18 36 55.0** | **+0.9** |
| **ECHA** | **Ech Chlef** | **2.61** | **279** | P | **Pn** | **18 36 55.0** | **+0.9** |
| **ECHF** | **Ech Chlef** | **2.63** | **279** | P | **Pn** | **18 36 55.0** | **+0.6** |
| **ECHF** | **Ech Chlef** | **2.63** | **279** | P | **Pn** | **18 36 55.0** | **+0.6** |
| **ETRT** | **Tiaret** | **2.68** | **263** | P | **Pb** | **18 36 59.6** | **-1.2** |
| **ETRT** | **Tiaret** | **2.68** | **263** | P | **Pb** | **18 36 59.6** | **-1.2** |
| **EANR** | **'Ain N'Sour** | **2.81** | **275** | P | **Pn** | **18 36 58.0** | **+1.1** |
| **EANR** | **'Ain N'Sour** | **2.81** | **275** | P | **Pn** | **18 36 58.0** | **+1.1** |
| **EANR** | **'Ain N'Sour** | **2.81** | **275** | P | **Pn** | **18 36 58.0** | **+1.1** |
| **OJGS** | **Djebel Guires** | **3.11** | **266** | P | **Pb** | **18 37 08.0** | **-0.1** |
| **ODJA** | **Bouhanifia** | **3.86** | **265** | P | **Pb** | **18 37 25.0** | **+4.1** |
| **EIBI** | **Ibiza** | **4.13** | **323** | P | **Pn** | **18 37 16.7** | **+1.7** |
| | 4.2nm,0.3s,SNR=7.9 | | | | | | |
| EIBI | | | | S | **Sn** | **18 38 02.9** | **+0.4** |
| | 4.6nm,0.3s,SNR=7.9 | | | | | | |
| **EIBI** | **Ibiza** | **4.13** | **323** | P | **Pn** | **18 37 16.7** | **+1.7** |
| | 4.2nm,0.3s,SNR=7.9 | | | | | | |
| EIBI | | | | S | **Sn** | **18 38 02.9** | **+0.4** |
| | 4.6nm,0.3s,SNR=7.9 | | | | | | |
| **USTO** | **Oran** | **4.15** | **271** | P | **Pn** | **18 37 15.0** | **-0.2** |
| **USTO** | **Oran** | **4.15** | **271** | P | **Pn** | **18 37 15.0** | **-0.2** |
| **ETOS** | **Mallorca** | **4.22** | **341** | P | **Pn** | **18 37 16.5** | **+0.3** |
| | 1.6nm,0.3s,SNR=7.9 | | | | | | |
| ETOS | | | | S | **Sn** | **18 38 04.1** | **-0.6** |
| | 2.1nm,0.4s,SNR=4.0 | | | | | | |
| **ETOS** | **Mallorca** | **4.22** | **341** | P | **Pn** | **18 37 16.5** | **+0.3** |
| | 1.6nm,0.3s,SNR=7.9 | | | | | | |
| ETOS | | | | S | **Sn** | **18 38 04.1** | **-0.6** |
| | 2.1nm,0.4s,SNR=4.0 | | | | | | |
| **OLHC** | **Oulhaca** | **4.90** | **266** | P | **Pn** | **18 37 28.0** | **+2.4** |
| **OLHC** | **Oulhaca** | **4.90** | **266** | P | **Pn** | **18 37 28.0** | **+2.4** |
| **EMUR** | **La Murta** | **5.09** | **296** | P | **Pn** | **18 37 27.5** | **-0.6** |
| | 10nm,0.4s,SNR=13 | | | | | | |
| EMUR | | | | S | **Sn** | **18 38 25.2** | **-0.9** |
| | 3.9nm,0.4s,SNR=4.6 | | | | | | |
| **EMUR** | **La Murta** | **5.09** | **296** | P | **Pn** | **18 37 27.5** | **-0.6** |
| | 10nm,0.4s,SNR=13 | | | | | | |
| EMUR | | | | S | **Sn** | **18 38 25.2** | **-0.9** |
| | 3.9nm,0.4s,SNR=4.6 | | | | | | |
| **ENIJ** | **Nijar** | **5.58** | **284** | P | **Pn** | **18 37 34.1** | **-0.9** |
| | 2.6nm,0.3s,SNR=4.0 | | | | | | |
| ENIJ | | | | S | **Sn** | **18 38 35.0** | **-3.3** |
| | 6.8nm,0.6s,SNR=7.9 | | | | | | |
| **ENIJ** | **Nijar** | **5.58** | **284** | P | **Pn** | **18 37 34.1** | **-0.9** |
| | 2.6nm,0.3s,SNR=4.0 | | | | | | |
| **ETOB** | **Tobarra** | **5.65** | **302** | P | **Pn** | **18 37 36.9** | **+1.0** |
| | 1.4nm,0.2s,SNR=6.5 | | | | | | |
| ETOB | | | | S | **Sn** | **18 38 41.3** | **+1.3** |
| | 5.2nm,0.5s,SNR=6.5 | | | | | | |
| **ETOB** | **Tobarra** | **5.65** | **302** | P | **Pn** | **18 37 36.9** | **+1.0** |
| | 1.4nm,0.2s,SNR=6.5 | | | | | | |
| ETOB | | | | S | **Sn** | **18 38 41.3** | **+1.3** |
| | 5.2nm,0.5s,SNR=6.5 | | | | | | |
| **EMOS** | **Mosqueruela** | **6.06** | **321** | P | **Pn** | **18 37 42.7** | **+1.1** |
| | 0.4nm,0.2s,SNR=7.9 | | | | | | |
| EMOS | | | | S | **Sn** | **18 38 47.7** | **-2.6** |
| | 1.6nm,0.5s,SNR=7.9 | | | | | | |
| **EMOS** | **Mosqueruela** | **6.06** | **321** | P | **Pn** | **18 37 42.7** | **+1.1** |
| | 0.4nm,0.2s,SNR=7.9 | | | | | | |
| **EBER** | **Berja** | **6.11** | **283** | P | **Pn** | **18 37 41.6** | **-0.8** |
| | 1.7nm,0.3s,SNR=7.9 | | | | | | |
| EBER | | | | S | **Sn** | **18 38 50.9** | **-0.7** |
| | 2.1nm,0.4s,SNR=5.6 | | | | | | |
| **EBER** | **Berja** | **6.11** | **283** | P | **Pn** | **18 37 41.6** | **-0.8** |
| | 1.7nm,0.3s,SNR=7.9 | | | | | | |
| EBER | | | | S | **Sn** | **18 38 50.9** | **-0.7** |
| | 2.1nm,0.4s,SNR=5.6 | | | | | | |
| **SESP** | **Santiago Espad** | **6.15** | **294** | P | **Pn** | **18 37 44.2** | **+1.4** |
| | 12nm,0.5s,SNR=7.9 | | | | | | |
| SESP | | | | S | **Sn** | **18 38 54.4** | **+2.0** |
| | 5.3nm,0.3s,SNR=7.9 | | | | | | |
| **SESP** | **Santiago Espad** | **6.15** | **294** | P | **Pn** | **18 37 44.2** | **+1.4** |
| | 12nm,0.5s,SNR=7.9 | | | | | | |
| SESP | | | | S | **Sn** | **18 38 54.4** | **+2.0** |
| | 5.3nm,0.3s,SNR=7.9 | | | | | | |
| **EPOB** | **Poblet** | **6.20** | **335** | P | **Pn** | **18 37 45.0** | **+1.5** |
| | 0.4nm,0.3s,SNR=7.9 | | | | | | |
| **EPOB** | **Poblet** | **6.20** | **335** | P | **Pn** | **18 37 45.0** | **+1.5** |
| | 0.4nm,0.3s,SNR=7.9 | | | | | | |
| **EQES** | **Quesada** | **6.44** | **291** | P | **Pn** | **18 37 48.1** | **+1.2** |
| | 3.9nm,0.3s,SNR=17 | | | | | | |
| EQES | | | | S | **Sn** | **18 39 01.8** | **+2.1** |
| | 4.1nm,0.3s,SNR=6.2 | | | | | | |
| **EQES** | **Quesada** | **6.44** | **291** | P | **Pn** | **18 37 48.1** | **+1.2** |
| | 3.9nm,0.3s,SNR=17 | | | | | | |
| EQ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **HBD** | **Hovd** | **4.80** | **215** | *e*Pg | | Pn | | 18 37 46.0 | +6.9 |
| HBD | | | | *e*Sg | | **Sb** | | **18 38 45.4** | **-3.3** |
| **BYO** | **Bayan-Olgiy** | **4.81** | **233** | *e*Pn | | **Pn** | | **18 37 38.2** | **-1.1** |
| **BYO** | **Bayan-Olgiy** | **4.81** | **233** | *e*Pg | | Pb | | 18 37 49.3 | -1.8 |
| BYO | comp=E,233nm,0.3s | | | *e*Sg | | **Sb** | | **18 38 48.6** | **-0.4** |
| **TLY** | **Talaya** | **4.88** | **91** | *e*PN | | **Pb** | | **18 37 49.6** | **-2.5** |
| TLY | | | | *e* | | | | 18 38 50.9 | |
| TLY | comp=Z,14nm,0.4s | | | pmax | pmax | | | | |
| TLY | comp=N,57nm,0.6s | | | smax | smax | | | | |
| **TLY** | **Talaya** | **4.88** | **91** | *e*Pg | | Pb | | 18 37 47.6 | -4.5 |
| TLY | | | | *e*Sg | | **Sb** | | **18 38 49.8** | **-1.1** |
| **ZAK** | **Zakamensk** | **4.97** | **106** | *e*PN | | Pn | | 18 37 48.6 | +7.1 |
| ZAK | | | | *e* | | | | 18 38 52.6 | |
| ZAK | comp=Z,35nm,1.0s | | | pmax | pmax | | | | |
| ZAK | comp=E,125nm,1.0s | | | smax | smax | | | | |
| **IRK** | **Irkutsk** | **5.23** | **84** | *e*PN | | **Pb** | | **18 37 54.8** | **-3.3** |
| IRK | | | | *e* | | | | 18 39 00.7 | |
| IRK | comp=Z,65nm,0.1s | | | pmax | pmax | | | | |
| IRK | comp=N,310nm,0.8s | | | smax | smax | | | | |
| **TTS** | **Tsetserleg** | **5.81** | **139** | *e*Pn | | Pn | | 18 37 49.5 | -3.5 |
| **TTS** | **Tsetserleg** | **5.81** | **139** | *e*Pg | | Pb | | 18 38 04.3 | -3.9 |
| TTS | comp=N,214nm,0.5s | | | *e*Sg | | **Sb** | | **18 39 15.6** | **-2.2** |
| **BLGM** | **Bulgan** | **5.89** | **120** | *e*Pg | | **Pb** | | **18 38 06.7** | **-2.8** |
| BLGM | comp=N,194nm,0.8s | | | *e*Sg | | **Sb** | | **18 39 26.1** | **+6.0** |
| **ZAA0** | **Zalesovo Array** | **6.92** | **291** | *e*Pn | | **Pn** | | **18 38 10.1** | **+2.1** |
| **ZAA1** | **Zalesovo Array** | **6.92** | **291** | *e*Pn | | **Pn** | | **18 38 09.5** | **+1.5** |
| ZAA1 | | | | *e*Pg | | Pg | | 18 38 38.0 | -1.1 |
| ZAA1 | | | | *e*Lg | | Lg | | 18 40 05.0 | |
| **ZALV** | **Zalesovo Beam** | **6.92** | **291** | Pn | | **Pn** | | **18 38 09.5** | **+1.5** |
| ZALV | comp=N,0.4nm,0.3s,baz=107,slow=12,SNR=4.8 | | | Pg | | Pg | | 18 38 38.0 | -1.0 |
| ZALV | comp=N,0.8nm,0.3s,baz=114,slow=14,SNR=5.1 | | | Lg | | Lg | | 18 40 05.0 | |
| **OGRR** | **Ongureny** | **7.34** | **72** | *e*P | | Pn | | 18 38 10.4 | -3.5 |
| OGRR | comp=N,2.1nm,0.3s,baz=110,slow=26,SNR=9.3 | | | pmax | pmax | | | | |
| OGRR | comp=Z,5.0nm,0.4s | | | | | | | | |
| **SONA1** | **Songino Array** | **8.00** | **117** | *e*Pn | | **Pn** | | **18 38 23.4** | **+0.3** |
| **SONA0** | **Songino Array** | **8.00** | **117** | *e*Sg | | **Sb** | | **18 40 28.2** | **+7.4** |
| **SONM** | **Songino Array** | **8.00** | **117** | Pg | | **Pb** | | **18 38 42.8** | **-2.6** |
| SONM | comp=Z,1.0nm,0.3s,baz=303,slow=19,SNR=13 | | | Lg | | Lg | | 18 40 29.9 | |
| **ALFM** | comp=Z,1.9nm,0.3s,baz=302,slow=28,SNR=10 | **8.13** | **115** | *e*Pg | | **Pb** | | **18 38 47.2** | **-0.4** |
| ALFM | comp=Z,44nm,0.8s | | | *e*Sg | | Sb | | 18 40 30.5 | +6.0 |
| **ULN** | **Ulaanbaatar** | **8.35** | **115** | *e*P | | **Pn** | | **18 38 26.4** | **-1.5** |
| **ULN** | **Ulaanbaatar** | **8.35** | **115** | *e*Pn | | **Pn** | | **18 38 26.4** | **-1.5** |
| **ARTM** | comp=Z,44nm,0.8s | **8.44** | **114** | *e*Sg | | Sb | | 18 40 41.7 | +8.3 |
| **SEMM** | | **8.48** | **117** | *e*Pg | | Pb | | 18 38 58.3 | +4.6 |
| SEMM | | | | *e*Sg | | Sb | | 18 40 40.0 | +5.3 |
| **UGDM** | | **8.67** | **116** | *e*Pg | | Pg | | 18 38 59.0 | -14 |
| UGDM | comp=Z,30nm,0.7s | | | *e*Sg | | Sg | | 18 40 47.8 | -17 |
| **NIZ** | **Nizh Angarsk** | **8.96** | **60** | *e*P | | **Pn** | | **18 38 35.7** | **-0.3** |
| NIZ | comp=Z,17nm,3.4s | | | pmax | pmax | | | | |
| **MK31** | **Makanchi Array** | **10.22** | **245** | *e*P | | **Pn** | | **18 38 53.5** | **+0.1** |
| **MK31** | **Makanchi Array** | **10.22** | **245** | *e*Pn | | **Pn** | | **18 38 53.5** | **+0.1** |
| **MK32** | **Makanchi Array** | **10.22** | **245** | *e*Pn | | **Pn** | | **18 38 53.6** | **+0.3** |
| MK32 | | | | *e* | | | | 18 39 35.5 | |
| MK32 | | | | *e*Lg | | Lg | | 18 41 56.4 | |
| **MKAR** | **Makanchi Array** | **10.22** | **245** | Pn | | **Pn** | | **18 38 53.6** | **+0.3** |
| MKAR | comp=Z,0.1nm,0.3s,baz=44,slow=9.6,SNR=9.2 | | | Pg | | | | 18 39 35.5 | |
| MKAR | comp=Z,0.3nm,0.3s,baz=66,slow=18,SNR=4.1 | | | Lg | | Lg | | 18 41 56.4 | |
| **MK01** | comp=Z,0.6nm,0.3s,baz=49,slow=29,SNR=8.2 **Makanchi Array** | **10.23** | **245** | *e*Pn | | **Pn** | | **18 38 54.1** | **+0.6** |
| **MAKZ** | **Makanchi** | **10.39** | **245** | *e*P | | **Pn** | | **18 38 56.0** | **+0.4** |
| **MAKZ** | **Makanchi** | **10.39** | **245** | *e*Pn | | **Pn** | | **18 38 56.0** | **+0.4** |
| **KURK** | **Kurchatov** | **10.82** | **270** | P | | **Pn** | | **18 39 03.1** | **+1.6** |
| KURK | | | | | | | | 18 41 06.1 | |
| **KURK** | **Kurchatov** | **10.82** | **270** | *e*Pn | | **Pn** | | **18 39 03.1** | **+1.6** |
| KURK | | | | *e*Sn | | **Sn** | | **18 41 06.1** | **+3.5** |
| KURK | | | | *e*Lg | | Lg | | 18 42 19.6 | |
| **KURBB** | **Kurchatov Arra** comp=Z,0.1nm,0.3s,baz=73,slow=15,SNR=2.9 | **10.90** | **270** | Pn | | **Pn** | | **18 39 03.1** | **+0.5** |
| KURBB | | | | Sn | | **Sn** | | **18 41 06.1** | **+1.6** |
| KURBB | comp=Z,0.1nm,0.3s,baz=242,slow=36,SNR=5.1 | | | Lg | | Lg | | 18 42 19.6 | |
| **BVAR** | comp=Z,0.1nm,0.3s,baz=81,slow=32,SNR=6.8 **Borovoye Array** | **15.48** | **284** | Pn | | **Pn** | | **18 40 05.5** | **+0.5** |
| **YAK** | comp=Z,0.1nm,0.3s,baz=74,slow=12,SNR=2.8 **Yakutsk** | **20.76** | **48** | *e*P | | **P** | | **18 41 06.5** | **-0.8** |
| YAK | comp=Z,10.0nm,0.9s | | | pmax | pmax | | | | |
| **YAK** | **Yakutsk** comp=Z,9.9nm,0.9s | **20.76** | **48** | *e*P | | **P** | | **18 41 06.5** | **-0.8** |
| **ABKAR** | **Akbulak array** comp=Z,45nm,1.8s | **22.77** | **277** | *e*P | | **P** | | **18 41 27.6** | **-1.3** |
| **AKTO** | **Aktyubinsk** comp=Z,2.1nm,0.6s,baz=88,slow=8.5,SNR=9.2 | **23.55** | **281** | P | | **P** | | **18 41 37.6** | **+0.7** |
| **TIXI** | **Tiksi** comp=Z,3.6nm,0.4s,baz=215,slow=2.0,SNR=7.2 | **24.55** | **25** | P | | **P** | | **18 41 46.6** | **+0.4** |
| **TIXI** | **Tiksi** comp=Z,5.9nm,0.8s | **24.55** | **25** | *e*P | | **P** | | **18 41 45.8** | **-0.4** |
| **BR101** | **Keskin Array S** | **43.70** | **279** | *e*P | | **P** | | **18 44 32.7** | **+0.9** |
| **BRTR** | **Keskin Array B** comp=Z,0.8nm,0.8s,baz=22,slow=8.0,SNR=4.3 | **43.70** | **279** | P | | **P** | | **18 44 32.7** | **+0.9** |
| **BUR04** | **Bucovina Ar. S** | **44.13** | **294** | *e*P | | **P** | | **18 44 36.5** | **+1.4** |
| **BR231** | **Keskin MP Arra** | **44.15** | **280** | *e*P | | P | | 18 44 33.0 | -2.4 |
| **RAYN** | **Ar Rayn** comp=Z,9.4nm,1.5s | **47.59** | **253** | *e*P | | **P** | | **18 45 02.2** | **-0.4** |
| **TOA1** | **Torodi Ar. Sit** | **82.27** | **281** | *e*P | | **P** | | **18 48 47.0** | **-1.4** |
| **TORD** | **Torodi Ar. Bea** comp=Z,1.6nm,0.9s,baz=30,slow=4.4,SNR=5.1 | **82.27** | **281** | P | | **P** | | **18 48 47.0** | **-1.4** |
| **ASAR** | **Alice Springs** comp=Z,1.0nm,0.8s,baz=337,slow=7.1,SNR=4.6 | **82.39** | **145** | P | | P | | 18 48 43.5 | -5.3 |

**OBM 27 18:40:50.0±0.2,51°.61N×95°.80E,h2km,MI3.7,Error ellipse: s-maj=3.8km s-min=1.8km az=180.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **ULG** | **Ulaangom** | **2.89** | **237** | *e*Pg | | Pb | 18 41 42.7 | +0.4 |
| ULG | | | | *e*Sg | | Sb | 18 42 19.8 | +1.7 |
| **HTG** | 205nm,0.3s **Hatgal** | **2.99** | **111** | *e*Sg | | Sb | 18 42 20.8 | -0.1 |
| **HBD** | 84nm,0.4s **Hovd** | **4.49** | **218** | *e*Pg | | Pb | 18 42 11.8 | +2.2 |
| HBD | | | | *e*Sg | | Sg | 18 43 11.6 | -2.6 |
| **BYO** | **Bayan-Olgiy** | **4.59** | **237** | *e*Pg | | Pb | 18 42 13.3 | +2.0 |
| BYO | 36nm,0.3s | | | *e*Sg | | Sg | 18 43 12.6 | -4.7 |
| **TTS** | **Tsetserleg** 24nm,0.6s | **5.52** | **136** | *e*Sg | | Sg | 18 43 42.8 | -4.5 |
| **BLGM** | **Bulgan** 26nm,0.7s | **5.71** | **117** | *e*Sg | | Sg | 18 43 47.6 | -5.6 |

*IDC **27** 18:41:51.3±0.9,3°.98N×128°.55E,h0km,mb3.7/8, mb1 3.9/8,mb1mx3.6/53,mbtmp3.7/8, Error ellipse: s-maj=50.6km s-min=16.5km az=68.0*
*ISCJB **27** 18:41:56.0±0.8,3°.9N±0°.1×128°.4E±0°.3,h46km,mb3.7/8, Error ellipse: s-maj=44.3km s-min=14.3km az=157.8*

**ISC 27 18:41:57.7±0.9,3°.9N±0°.2×128°.5E±0°.3,h46km,n8,σ1§12/8, mb3.7/8,North of Halmahera**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** 1.2nm,0.6s,baz=344,slow=10.0,SNR=13 | **24.39** | **167** | P | | **P** | **18 47 12.4** | **+0.5** |
| **ASAR** | **Alice Springs** 0.4nm,0.7s,baz=355,slow=6.6,SNR=6.4 | **27.92** | **169** | P | | **P** | **18 47 44.1** | **+0.4** |
| **CMAR** | **Chiang Mai Arr** 0.7nm,0.9s,baz=122,slow=7.1,SNR=5.6 | **32.33** | **299** | P | | **P** | **18 48 23.1** | **+0.3** |
| **STKA** | **Stephens Creek** 0.4nm,0.3s,baz=330,slow=14,SNR=2.4 | **37.71** | **162** | P | | **P** | **18 49 08.3** | **-0.7** |
| **SONM** | **Songino Array** 0.9nm,0.7s,baz=151,slow=8.5,SNR=4.9 | **47.71** | **340** | P | | **P** | **18 50 30.4** | **+0.4** |
| **MKAR** | **Makanchi Array** | **58.43** | **324** | P | | **P** | **18 51 49.2** | **+0.3** |

# 2011 DEC

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 0.8nm,0.5s,baz=115,slow=8.4,SNR=19 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **61.24** | **332** | P | | **P** | | **18 52 05.8** | **-2.1** |
| | 0.6nm,0.3s,baz=141,slow=7.1,SNR=2.3 | | | | | | | | |
| **ILAR** | **Eielson Array** | **84.17** | **25** | P | | **P** | | **18 54 24.5** | **+0.7** |
| | 0.7nm,1.1s,baz=254,slow=5.5,SNR=3.1 | | | | | | | | |

**KRSC 27 18:53:07.2±1.4,50°.49N×157°.26E,h41km±20km,ML3.7, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **SKR** | **Severo-Kuril's** | **0.76** | **286** | *e*P | | Pn | 18 53 21.8 | +0.4 |
| SKR | | | | *e*S | | Sn | 18 53 31.2 | -0.5 |
| **PAU** | **Pauzhetka** | **1.02** | **344** | *e*P | | Pn | 18 53 27.3 | +2.2 |
| PAU | | | | *e*S | | Sn | 18 53 40.1 | +1.9 |
| **KDTR** | **Khodutka, Kamc** | **1.42** | **21** | *e*P | | Pn | 18 53 31.0 | +0.5 |
| KDTR | | | | *e*S | | Sn | 18 53 49.6 | +1.6 |
| **ASAK** | **Asacha** | **1.94** | **12** | *e*P | | Pn | 18 53 40.3 | +2.5 |
| **MTVR** | **Mutnovka** | **2.08** | **16** | *e*P | | Pn | 18 53 42.9 | +3.2 |
| MTVR | | | | *e*S | | Sn | 18 54 07.3 | +2.8 |
| **RUS** | **Russkaya** | **2.10** | **21** | *e*P | | Pn | 18 53 42.3 | +2.5 |
| RUS | | | | *e*S | | Sn | 18 54 06.8 | +2.1 |
| **KRMR** | **Karymshinskiy** | **2.41** | **13** | *e*P | | Pn | 18 53 47.5 | +3.4 |
| KRMR | | | | *e*S | | Sn | 18 54 16.9 | +4.6 |
| **PET** | **Petropavlovsk** | **2.69** | **18** | *e*S | | Sn | 18 54 22.6 | +3.5 |
| **DALK** | **Dalny** | **2.71** | **19** | *e*P | | Pn | 18 53 51.3 | +3.1 |
| DALK | | | | *e*S | | Sn | 18 54 22.7 | +2.9 |
| **UGLR** | **Uglovaya** | **2.90** | **19** | *e*P | | Pn | 18 53 54.9 | +4.0 |
| **AVH** | **Avacha** | **2.93** | **18** | *e*P | | Pn | 18 53 55.6 | +4.3 |
| **SMAR** | **Somma** | **2.94** | **18** | *e*P | | Pn | 18 53 55.8 | +4.2 |
| **KRER** | **Koryakskii** | **2.97** | **17** | *e*P | | Pn | 18 53 55.1 | +3.1 |
| **KRK** | **Arik** | **3.00** | **16** | *e*P | | Pn | 18 53 56.3 | +3.9 |
| **SPN** | **Mys Shipunski** | **3.13** | **32** | *e*P | | Pn | 18 53 58.1 | +4.2 |
| SPN | | | | *e*S | | Sn | 18 54 33.3 | +3.3 |
| **KBTR** | **Krutoberegovo** | **6.63** | **28** | *e*P | | Pn | 18 54 45.2 | +3.3 |

*BEO **27** 18:53:45.5±0.7,42°.77N×17°.99E,h0km,M2.7/1*
*PDG **27** 18:53:47.5±0.2,42°.78N×18°.22E,h10km,ML2.8/14,Error ellipse: s-maj=0.3km s-min=0.5km az=0.0*
*CSEM **27** 18:53:47.8±0.2,42°.81N×18°.24E,h2km,ML2.7,Error ellipse: s-maj=3.6km s-min=2.5km az=36.0*
*PRU **27** 18:53:48.0,42°.70N×18°.41E,h2km*

**ISC 27 18:53:47.7±1.0,42°.80N±0°.02×18°.21E±0°.02,h6km±8km, n100,σ1§03/165,31C-13D,Northwestern Balkan Peninsula**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **TREB** | **Trebinje** | **0.13** | **128** | *e*Pg | | **Pg** | **18 53 50.4** | **+0.1** |
| **TREB** | **Trebinje** | **0.13** | **128** | *i*Pg | | **Pg** | **18 53 50.3** | **-0.1** |
| TREB | | | | *e*Sg | | **Sg** | **18 53 52.7** | **+0.6** |
| **BRY** | **Bratogost** | **0.26** | **66** | *i*Pg | | **Pg** | **18 53 52.5** | **-0.4** |
| BRY | | | | *e*Sg | | **Sg** | **18 53 57.0** | **+0.6** |
| **BRY** | **Bratogost** | **0.26** | **66** | *i*Pg | | **Pg** | **18 53 57.0** | **-0.4** |
| BRY | | | | *e*Sg | | **Sg** | **18 53 57.0** | **+0.6** |
| **STON** | **Ston** | **0.38** | **281** | *i*Pg | | **Pg** | **18 53 54.1** | **-1.0** |
| STON | | | | Sg | | **Sg** | **18 54 00.2** | **0.0** |
| **STON** | **Ston** | **0.38** | **281** | *i*Pg | | **Pg** | **18 53 54.1** | **-1.0** |
| STON | | | | Sg | | **Sg** | **18 54 00.1** | **-0.1** |
| **HCY** | **Herceg Novi** | **0.41** | **149** | *i*Pg | | **Pg** | **18 53 54.9** | **-0.6** |
| HCY | | | | *e*Sg | | **Sg** | **18 54 01.4** | **+0.5** |
| **HCY** | **Herceg Novi** | **0.41** | **149** | *i*Pg | | **Pg** | **18 53 54.9** | **-0.6** |
| HCY | | | | *e*Sg | | **Sg** | **18 54 01.4** | **+0.5** |
| **NKME** | **Niksic** | **0.55** | **93** | *i*Pg | | **Pg** | **18 53 57.6** | **-0.6** |
| NKME | | | | *e*Sg | | **Sb** | **18 54 06.4** | **-1.5** |
| **NKME** | **Niksic** | **0.55** | **93** | *i*Pg | | **Pg** | **18 53 57.6** | **-0.6** |
| NKME | | | | *e*Sg | | **Sb** | **18 54 06.4** | **-1.5** |
| **NKY** | **Niksic** | **0.57** | **88** | *i*Pg | | **Pg** | **18 53 58.1** | **-0.7** |
| NKY | | | | *e*Sg | | **Sg** | **18 54 07.2** | **+0.9** |
| **NKY** | **Niksic** | **0.57** | **88** | *i*Pg | | **Pg** | **18 53 58.1** | **-0.7** |
| NKY | | | | *e*Sg | | **Sg** | **18 54 07.2** | **+0.9** |
| **CEME** | **Cevo** | **0.58** | **115** | *i*Pg | | **Pg** | **18 53 57.7** | **-1.1** |
| CEME | | | | *e*Sg | | **Sg** | **18 54 07.2** | **+0.9** |
| **CEME** | **Cevo** | **0.58** | **115** | *i*Pg | | **Pg** | **18 53 57.7** | **-1.1** |
| CEME | | | | *e*Sg | | **Sg** | **18 54 07.2** | **+0.9** |
| **UPM** | **Unac-Piva** | **0.65** | **51** | *i*Pg | | **Pg** | **18 53 59.1** | **-1.1** |
| UPM | | | | *e*Sg | | **Sb** | **18 54 10.3** | **-0.7** |
| **UPM** | **Unac-Piva** | **0.65** | **51** | *i*Pg | | **Pg** | **18 53 59.1** | **-1.1** |
| UPM | | | | *e*Sg | | **Sg** | **18 54 09.5** | **+0.8** |
| **BUM** | **Brajici-Budva** | **0.71** | **134** | *i*Pg | | **Pg** | **18 54 00.4** | **-0.9** |
| BUM | | | | *e*Sg | | **Sb** | **18 54 11.4** | **-1.1** |
| **BUM** | **Brajici-Budva** | **0.71** | **134** | *i*Pg | | **Pg** | **18 54 00.4** | **-0.9** |
| BUM | | | | *e*Sg | | **Sb** | **18 54 11.4** | **-1.1** |
| **PDG** | **Podgorica** | **0.85** | **115** | *e*Pg | | **Pg** | **18 54 03.2** | **-0.8** |
| PDG | | | | *e*Sg | | **Sn** | **18 54 18.1** | **-1.0** |
| **PDG** | **Podgorica** | **0.85** | **115** | *i*P | | **Pb** | **18 54 05.0** | **+0.1** |
| PDG | | | | S | | **Sb** | **18 54 16.2** | **-0.4** |
| **PDG** | **Podgorica** | **0.85** | **115** | *i*Pg | | **Pg** | **18 54 03.2** | **-0.8** |
| **PDG** | **Podgorica** | **0.85** | **115** | *i*P | | **Pb** | **18 54 05.0** | **+0.1** |
| PDG | | | | *e*Sg | | **Sg** | **18 54 15.3** | **+0.2** |
| **TTG** | **Podgorica** | **0.85** | **115** | *i*Pg | | **Pg** | **18 54 03.2** | **-0.8** |
| TTG | | | | *e*Sg | | **Sb** | **18 54 16.5** | **-0.1** |
| **DRME** | **Dracevica, Mon** | **0.94** | **130** | *i*Pg | | **Pg** | **18 54 04.7** | **-1.0** |
| DRME | | | | *e*Sg | | **Sb** | **18 54 19.2** | **0.0** |
| **DRME** | **Dracevica, Mon** | **0.94** | **130** | *e*Pg | | **Pg** | **18 54 04.8** | **-1.0** |
| DRME | | | | *e*Sg | | **Sg** | **18 54 17.7** | **-0.3** |
| **KOME** | **Kolasin** | **0.96** | **86** | *i*Pg | | **Pg** | **18 54 05.1** | **-1.0** |
| KOME | | | | *e*Sg | | **Sb** | **18 54 20.5** | **+0.7** |
| **KOME** | **Kolasin** | **0.96** | **86** | *i*Pg | | **Pg** | **18 54 05.1** | **-1.0** |
| KOME | | | | *e*Sg | | **Sb** | **18 54 20.5** | **+0.7** |
| **PLE** | **Pljevlja** | **1.01** | **58** | *i*Pg | | **Pg** | **18 54 06.4** | **-0.7** |
| PLE | | | | *e*Sg | | **Sn** | **18 54 22.6** | **-0.7** |
| **PLE** | **Pljevlja** | **1.01** | **58** | *i*Pg | | **Pg** | **18 54 06.4** | **-0.7** |
| PLE | | | | *e*Sg | | **Sn** | **18 54 22.6** | **-0.7** |
| **ULC** | **Ulcinj** | **1.13** | **137** | *i*Pg | | **Pg** | **18 54 07.7** | **-1.7** |
| ULC | | | | *e*Sg | | **Sn** | **18 54 25.6** | **-0.4** |
| **ULC** | **Ulcinj** | **1.13** | **137** | *i*Pg | | **Pg** | **18 54 07.7** | **-1.7** |
| ULC | | | | *e*Sg | | **Sn** | **18 54 25.6** | **-0.4** |
| **BEY** | **Berane** | **1.24** | **86** | *i*Pg | | **Pg** | **18 54 10.6** | **-0.8** |
| BEY | | | | *e*Sg | | **Sn** | **18 54 29.9** | **+1.1** |
| **IVA** | **Berane** | **1.24** | **86** | *i*Pg | | **Pg** | **18 54 10.6** | **-0.8** |
| IVA | | | | *e*Sg | | **Sn** | **18 54 29.9** | **+1.1** |
| **PVY** | **Plav** | **1.30** | **98** | *e*Pg | | **Pn** | **18 54 11.8** | **-0.8** |
| PVY | | | | *e*Sg | | **Sn** | **18 54 31.9** | **+1.5** |
| **SJES** | **Sjenica** | **1.37** | **70** | *e*Pn | | **Pn** | **18 54 13.2** | **-0.3** |
| **BBLS** | **Lazići** | **1.38** | **39** | *e*Pn | | **Pn** | **18 54 13.5** | **-0.1** |
| BBLS | | | | *e*Sn | | **Sn** | **18 54 34.7** | **+2.5** |
| **BBLS** | **Lazići** | **1.38** | **39** | *e*Pg | | **Pn** | **18 54 12.7** | **-0.9** |
| **BBLS** | **Lazići** | **1.38** | **39** | *e*Pn | | **Pn** | **18 54 13.5** | **-0.1** |
| BBLS | | | | *e*Sg | | **Sn** | **18 54 32.3** | **+0.1** |
| BBLS | | | | *e*Sn | | **Sn** | **18 54 34.7** | **+2.5** |
| **HAPS** | **Han Pijesak,Bl** | **1.40** | **22** | *e*Pg | | **Pn** | **18 54 13.1** | **-0.8** |
| HAPS | | | | *e*Sg | | **Sg** | **18 54 33.6** | **+1.0** |
| **HAPS** | **Han Pijesak,Bl** | **1.40** | **22** | *e*Pg | | **Pn** | **18 54 13.2** | **-0.7** |
| HAPS | | | | *e*Sg | | **Sb** | **18 54 33.6** | **+1.0** |
| **IVAS** | **Ivanjica** | **1.62** | **61** | *e*Pn | | **Pb** | **18 54 17.5** | **-0.5** |
| IVAS | | | | *e*Sn | | **Sg** | **18 54 41.0** | **+1.3** |
| **IVAS** | **Ivanjica** | **1.62** | **61** | *e*Pn | | **Pb** | **18 54 17.5** | **-0.5** |
| IVAS | | | | *e*Sn | | **Sg** | **18 54 41.0** | **+1.3** |
| **DIVS** | **Divibare** | **1.84** | **44** | *e*Pn | | **Pn** | **18 54 20.1** | **+0.2** |
| DIVS | | | | *e*Sn | | **Sb** | **18 54 44.8** | **-0.2** |
| **DIVS** | **Divibare** | **1.84** | **44** | *e*Pn | | **Pn** | **18 54 20.1** | **+0.2** |
| DIVS | | | | *e*Sn | | **Sn** | **18 54 44.0** | **+0.5** |
| **TIR** | **Tirane** | **1.90** | **139** | *i*P | | **Pg** | **18 54 25.1** | **+1.0** |
| **TIR** | **Tirane** | **1.90** | **139** | S | | **Sg** | **18 54 49.6** | **+0.9** |
| **TIR** | **Tirane** | **1.90** | **139** | *i*P | | **Pg** | **18 54 25.1** | **+1.0** |
| **TEKS** | **Tekeris** | **2.00** | **28** | *e*Pn | | **Pn** | **18 54 22.0** | **0.0** |
| TEKS | | | | *e*Sn | | **Sb** | **18 54 49.2** | **-0.4** |
| **TEKS** | **Tekeris** | **2.00** | **28** | *e*Pn | | **Pn** | **18 54 22.0** | **0.0** |
| TEKS | | | | *e*Sn | | **Sn** | **18 54 48.4** | **+1.1** |
| **MS1** | **Monte Sant'Ang** | **2.01** | **238** | *e*Pn | | **Pb** | **18 54 24.8** | **+0.1** |
| **BLY** | **Banja Luka** | **2.09** | **339** | *e*Pn | | **Pb** | **18 54 24.0** | **+0.9** |
| BLY | | | | *e*Sn | | **Sn** | **18 54 50.5** | **+0.9** |
| **GRUS** | **Gruza** | **2.13** | **58** | *e*Pn | | **Pn** | **18 54 24.1** | **+0.3** |
| GRUS | | | | *e*Sn | | **Sb** | **18 54 52.8** | **-0.5** |
| **GRUS** | **Gruza** | **2.13** | **58** | *e*Pn | | **Pn** | **18 54 24.1** | **+0.3** |
| GRUS | | | | *e*Sn | | **Sb** | **18 54 52.8** | **-0.5** |
| **TRUS** | **Trudelj** | **2.14** | **47** | *e*Pn | | **Pn** | **18 54 24.0** | **0.0** |
| **TRUS** | **Trudelj** | **2.14** | **47** | *e*Pn | | **Pn** | **18 54 24.0** | **0.0** |
| **SELS** | **Selova** | **2.17** | **78** | *e*Pn | | **Pn** | **18 54 25.2** | **+0.7** |
| **SELS** | **Selova** | **2.17** | **78** | *e*Pn | | **Pn** | **18 54 25.2** | **+0.7** |
| **SG1** | **Sgolgore (BA)** | **2.27** | **211** | *e*Pn | | **Pb** | **18 54 28.2** | **-0.8** |
| **UDBI** | **Udbina** | **2.48** | **315** | *e*Pn | | **Pn** | **18 54 28.6** | **-0.1** |
| UDBI | | | | Sn | | **Sb** | **18 55 02.1** | **-1.4** |
| **UDBI** | **Udbina** | **2.48** | **315** | *e*Pn | | **Pn** | **18 54 28.6** | **-0.1** |
| UDBI | | | | Sn | | **Sb** | **18 55 02.1** | **-1.4** |
| **FGSL** | **Fruska Gora** | **2.63** | **26** | *e*Pn | | **Pn** | **18 54 29.9** | **-0.8** |
| FGSL | | | | *e*Sn | | **Sn** | **18 55 03.1** | **+0.2** |
| **FRGS** | **Fruska Gora** | **2.63** | **25** | *e*Pn | | **Pn** | **18 54 29.9** | **-0.8** |
| FRGS | | | | *e*Sn | | **Sn** | **18 55 03.1** | **+0.2** |
| **BARS** | **Barje** | **2.65** | **88** | *e*Pn | | **Pn** | **18 54 32.1** | **+1.1** |
| BARS | | | | *e*Sn | | **Sb** | **18 55 06.6** | **-1.8** |
| **BARS** | **Barje** | **2.65** | **88** | *e*Pn | | **Pn** | **18 54 32.1** | **+1.1** |
| BARS | | | | *e*Sn | | **Sb** | **18 55 06.6** | **-1.8** |
| **KRUS** | **Krusevo** | **2.67** | **121** | *i*Pn | | **Pn** | **18 54 31.8** | **+0.4** |
| KRUS | | | | *e*Pn | | **Sb** | **18 55 07.6** | **-1.5** |
| **BOVS** | **Bovan** | **2.69** | **71** | *e*Pn | | **Pn** | **18 54 32.5** | **+1.0** |
| **BOVS** | **Bovan** | **2.69** | **71** | *e*Pn | | **Pn** | **18 54 32.5** | **+1.0** |
| **NVLJ** | **Novalja** | **3.00** | **307** | *e*Pn | | **Pn** | **18 54 35.8** | **+0.1** |
| NVLJ | | | | Sn | | **Sn** | **18 55 12.6** | **+0.5** |
| **NVLJ** | **Novalja** | **3.00** | **307** | *e*Pn | | **Pn** | **18 54 35.8** | **+0.1** |
| NVLJ | | | | Sn | | **Sn** | **18 55 12.5** | **+0.5** |
| **ZAGS** | **Zajecar** | **3.10** | **70** | *e*Pn | | **Pn** | **18 54 37.5** | **+0.3** |
| **ZAGS** | **Zajecar** | **3.10** | **70** | *e*Pn | | **Pn** | **18 54 37.5** | **+0.3** |
| **MDVR** | **Moldovita** | **3.22** | **51** | *i*P | | **Pn** | **18 54 37.6** | **-1.3** |
| **MDVR** | **Moldovita** | **3.22** | **51** | *i*P | | **Pn** | **18 54 37.6** | **-1.3** |
| MDVR | | | | S | | **Sn** | **18 55 16.1** | **-1.5** |
| **ZAPS** | **Zavoj** | **3.28** | **80** | *e*Pn | | **Pn** | **18 54 41.3** | **+1.7** |
| **ZAPS** | **Zavoj** | **3.28** | **80** | *e*Pn | | **Pn** | **18 54 41.3** | **+1.7** |
| **OZLJ** | **Ozalj** | **3.44** | **326** | *e*Pn | | **Pn** | **18 54 41.7** | **-0.2** |
| **OZLJ** | **Ozalj** | **3.44** | **326** | *e*Pn | | **Pn** | **18 54 41.6** | **-0.2** |
| **CRES** | **Cresnjev** | **3.62** | **328** | *e*Pn | | **Pn** | **18 54 44.8** | **+0.5** |
| CRES | | | | *e*Sn | | **Sn** | **18 55 27.6** | **+0.3** |
| **VTS** | **Vitosha** | **3.69** | **91** | *i*P | | **Pn** | **18 54 46.8** | **+1.4** |
| **VTS** | **Vitosha** | **3.69** | **91** | *i*P | | **Pn** | **18 54 46.8** | **+1.4** |
| **BZS** | **Buzias** | **3.73** | **40** | *e*Pn | | **Pn** | **18 54 44.8** | **-1.1** |
| **BZS** | **Buzias** | **3.73** | **40** | *i*P | | **Pn** | **18 54 45.7** | **-0.2** |
| **BZS** | **Buzias** | **3.73** | **40** | *e*Pn | | **Pn** | **18 54 44.8** | **-1.1** |
| **BZS** | **Buzias** | **3.73** | **40** | *i*P | | **Pn** | **18 54 45.7** | **-0.2** |
| BZS | | | | S | | **Sn** | **18 55 28.4** | **-1.8** |
| **BEHE** | **Becsehely** | **3.81** | **345** | *ex* | | **Pn** | **18 54 53.8** | **-1.6** |
| **CEY** | **Cerknica** | **4.00** | **319** | *e*Pn | | **Pn** | **18 54 50.2** | **+0.6** |
| CEY | | | | *e*Sn | | **Sn** | **18 55 36.6** | **-0.3** |
| **SIRR** | **Siria** | **4.26** | **34** | *i*P | | **Pn** | **18 54 53.0** | **-0.1** |
| **SIRR** | **Siria** | **4.26** | **34** | *i*P | | **Pn** | **18 54 53.0** | **-0.1** |
| **OBKA** | **Obir** | **4.54** | **326** | *i*Pn | | **Pn** | **18 55 00.3** | **+3.3** |
| **OBKA** | **Obir** | **4.54** | **326** | Pn | | **Pn** | **18 55 00.3** | **+3.3** |
| **ARSA** | **Arzberg** 2.8nm,0.3s | **4.84** | **338** | *i*Pn | | **Pn** | **18 55 02.3** | **+1.1** |
| ARSA | 0.9nm,0.3s | | | *i*Sn | | **Sn** | **18 55 59.5** | **+1.9** |
| **ARSA** | **Arzberg** 2.8nm,0.3s | **4.84** | **338** | Pn | | **Pn** | **18 55 02.3** | **+1.1** |
| ARSA | 0.9nm,0.3s | | | Sn | | **Sn** | **18 55 59.5** | **+1.9** |
| **DRGR** | | **5.12** | **37** | *i*P | | **Pn** | **18 55 05.0** | **0.0** |
| **DRG

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| KURBB | **Kurchatov Arra** | **10.85** | **269** | Pn | | **Pn** | **19 00 40.4** | **+0.6** |
| | comp=Z,0.1nm,0.3s,baz=75,slow=16,SNR=7.1 | | | | | | | |
| KURBB | | | | Lg | | Lg | 19 03 43.4 | |
| | comp=Z,0.1nm,0.3s,baz=74,slow=31,SNR=5.1 | | | | | | | |
| **AKTO** | **Aktyubinsk** | **23.47** | **281** | P | | **P** | **19 03 13.8** | **-0.2** |
| | comp=Z,1.0nm,0.5s,baz=74,slow=8.6,SNR=3.5 | | | | | | | |
| **TIXI** | **Tiksi** | **24.44** | **25** | P | | **P** | **19 03 23.4** | **+0.5** |
| | comp=Z,1.9nm,0.3s,baz=253,slow=4.4,SNR=4.8 | | | | | | | |

**SJA 27 18:58:15.8±0.7, 31.84S×69.66W, h104km±5km, ML2.6, MW3.6, San Juan Province**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **RTLS** | **Leoncito** | **0.31** | **83** | *e*P | | Pn | 18 58 31.9 | +0.6 |
| RTLS | | | | IAML | | | 18 58 45.0 | |
| | comp=Z,204nm,0.2s | | | | | | | |
| **AUSP** | **Uspallata** | **0.45** | **149** | *e*P | | Pn | 18 58 32.9 | +0.8 |
| AUSP | | | | *e*S | | Sn | 18 58 46.0 | +1.8 |
| **RTCV** | **Cerro Valdivia** | **0.96** | **92** | *e*P | | Pn | 18 58 37.1 | +1.0 |
| **ASAL** | **Salagasta** | **1.03** | **137** | *e*P | | Pn | 18 58 38.2 | +1.2 |
| **RTLL** | **Cerro Villicun** | **1.13** | **64** | *e*P | | Pn | 18 58 38.8 | +0.8 |
| RTLL | | | | IAML | | | 18 58 57.6 | |
| | comp=Z,77nm,0.3s | | | | | | | |
| **AMOG** | **MOGNA** | **1.34** | **49** | *e*P | | Pn | 18 58 41.5 | +1.0 |
| **AAGR** | **Agrelo** | **1.43** | **151** | *e*P | | Pn | 18 58 42.6 | +1.0 |
| **ACAN** | **Cantantal** | **2.15** | **102** | *e*P | | Pn | 18 58 51.2 | +0.8 |
| **AGUA** | **GUANDACOL** | **2.55** | **24** | *e*P | | Pn | 18 58 57.2 | +1.4 |

**IDC 27 19:11:20.9±3.2, 51.82N×96.02E, h0km, mb1 3.0/2, mb1mx2.9/58, mbtmp3.0/2, ML2.6/2, Error ellipse: s-maj=54.8km s-min=21.7km az=10.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **ZALV** | **Zalesovo Beam** | **7.11** | **292** | Pn | | Pn | 19 13 05.5 | -0.6 |
| | 0.5nm,0.3s,baz=102,slow=13,SNR=5.5 | | | | | | | |
| ZALV | | | | Lg | | Lg | 19 14 56.3 | |
| | 1.1nm,0.3s,baz=116,slow=23,SNR=7.9 | | | | | | | |
| **SONM** | **Songino Array** | **7.80** | **117** | Pg | | Pb | 19 13 42.9 | +5.9 |
| | 0.2nm,0.3s,baz=301,slow=18,SNR=4.2 | | | | | | | |
| SONM | | | | Lg | | Lg | 19 15 28.2 | |
| | 0.6nm,0.3s,baz=302,slow=26,SNR=8.7 | | | | | | | |
| **MKAR** | **Makanchi Array** | **10.28** | **246** | Pn | | Pn | 19 13 50.1 | +0.6 |
| | 0.1nm,0.3s,baz=52,slow=14,SNR=5.5 | | | | | | | |
| MKAR | | | | Lg | | Lg | 19 16 45.3 | |
| | 0.2nm,0.3s,baz=54,slow=32,SNR=5.8 | | | | | | | |

*ISCJB **27** 19:14:28.4±0.7, 34.25N×23.81E±0.02, h21km±5km, mb4.6/52, MS4.2/1, Error ellipse: s-maj=3.5km s-min=2.3km az=37.5*
*CSEM **27** 19:14:31.6±0.1, 34.25N×23.78E, h30km, mb4.7/33, Error ellipse: s-maj=3.7km s-min=2.4km az=32.0*
*MOS **27** 19:14:31.6±1.1, 34.35N×23.82E, h37km, mb4.6/17, Error ellipse: s-maj=8.0km s-min=3.6km az=93.3*
*THE **27** 19:14:32.2, 34.22N×23.64E, h21km±1km, ML3.6/8, Error ellipse: s-maj=1.6km s-min=0.9km az=206.0*
*ATH **27** 19:14:32.4, 34.31N×23.78E, h42km±1km, ML3.7/15, Error ellipse: s-maj=2.7km s-min=1.4km az=195.0*
*HLW **27** 19:14:33.8, 34.23N×24.09E, h33km±36km, Md3.9, Ml3.6*
*NEIC **27** 19:14:33.9±0.5, 34.41N×23.73E, h45km±4km, mb4.3/34, Error ellipse: s-maj=5.2km s-min=3.4km az=182.0*
*IDC **27** 19:14:34.4±1.7, 34.41N×23.76E, h48km±15km, mb4.0/26, mb1 4.1/34, mb1mx4.0/53, mbtmp4.2/34, ML3.6/8, MS3.6/1, Ms1 3.6/1, ms1mx2.9/47, Error ellipse: s-maj=17.7km s-min=10.4km az=163.0*
*GII **27** 19:14:39.3±0.0, 34.00N×24.71E, h5km, mb4.1/2, MD3.9/2*
*DDA **27** 19:15:11.5, 34.35N×23.81E, h70km, Md4.0*

**ISC 27 19:14:32.7±1.1, 34.23N±0.04×23.81E±0.03, h35km±7km, n652, s1877/717, mb4.5/52, 10C-2D, Crete**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **GVD** | **Gavdhos** | **0.65** | **20** | P | | **Pn** | **19 14 45.7** | **+0.2** |
| GVD | | | | S | | **Sn** | **19 14 53.2** | **-1.3** |
| GVD | | | | AML | | AML | 19 15 01.6 | |
| | comp=N,32397μm,0.3s | | | | | | | |
| GVD | | | | AML | | AML | 19 15 04.3 | |
| | comp=E,28266μm,0.3s | | | | | | | |
| **GVD** | **Gavdhos** | **0.65** | **20** | P | | **Pn** | **19 14 45.5** | **0.0** |
| GVD | | | | S | | **Sn** | **19 14 53.2** | **-1.3** |
| **GVD** | **Gavdhos** | **0.65** | **20** | P | | **Pn** | **19 14 45.5** | **0.0** |
| GVD | | | | S | | **Sn** | **19 14 55.9** | **+1.3** |
| **SIVA** | **Sivas** | **1.14** | **46** | P | | **Pn** | **19 14 54.3** | **+2.1** |
| SIVA | | | | S | | **Sn** | **19 15 07.9** | **+1.3** |
| SIVA | | | | AML | | AML | 19 15 22.7 | |
| | comp=N,18187μm,0.8s | | | | | | | |
| SIVA | | | | AML | | AML | 19 15 29.2 | |
| | comp=E,21991μm,0.8s | | | | | | | |
| **SIVA** | **Sivas** | **1.14** | **46** | P | | **Pn** | **19 14 53.3** | **+1.1** |
| SIVA | | | | S | | **Sn** | **19 15 07.9** | **+1.3** |
| **SIVA** | **Sivas** | **1.14** | **46** | P | | **Pn** | **19 14 53.3** | **+1.1** |
| SIVA | | | | S | | **Sn** | **19 15 10.0** | **+3.4** |
| **VAM** | **Vamos** | **1.22** | **15** | P | | **Pn** | **19 14 53.4** | **+0.1** |
| **VAM** | **Vamos** | **1.22** | **15** | P | | **Pn** | **19 14 54.2** | **+0.9** |
| VAM | | | | S | | **Sn** | **19 15 10.7** | **+2.2** |
| VAM | | | | AML | | AML | 19 15 17.5 | |
| | comp=N,4545μm,0.3s | | | | | | | |
| VAM | | | | AML | | AML | 19 15 18.2 | |
| | comp=E,7282μm,0.6s | | | | | | | |
| **VAM** | **Vamos** | **1.22** | **15** | P | | **Pn** | **19 14 53.3** | **0.0** |
| VAM | | | | S | | **Sn** | **19 15 10.5** | **+1.9** |
| **VAM** | **Vamos** | **1.22** | **15** | P | | **Pn** | **19 14 53.3** | **0.0** |
| VAM | | | | S | | **Sn** | **19 15 10.5** | **+1.9** |
| **IMMV** | **Iera Moni Meta** | **1.24** | **6** | P | | **Pn** | **19 14 54.4** | **+0.8** |
| IMMV | | | | S | | **Sn** | **19 15 12.3** | **+3.2** |
| IMMV | | | | AML | | AML | 19 15 16.2 | |
| | comp=N,9966μm,0.4s | | | | | | | |
| IMMV | | | | AML | | AML | 19 15 20.4 | |
| | comp=E,11765μm,1.0s | | | | | | | |
| **IMMV** | **Iera Moni Meta** | **1.24** | **6** | P | | **Pn** | **19 14 53.5** | **-0.1** |
| **IMMV** | **Iera Moni Meta** | **1.24** | **6** | P | | **Pn** | **19 14 53.5** | **-0.1** |
| **IDI** | **Anoyia** | **1.38** | **40** | P | | **Pn** | **19 14 56.9** | **+1.3** |
| | comp=E,15nm,0.3s,baz=239,slow=11,SNR=138 | | | | | | | |
| **IDI** | **Anoyia** | **1.38** | **40** | P | | **Pn** | **19 14 57.7** | **+2.1** |
| IDI | | | | S | | **Sn** | **19 15 12.6** | **-0.1** |
| IDI | | | | AML | | AML | 19 15 27.7 | |
| | comp=N,2391μm,0.6s | | | | | | | |
| IDI | | | | AML | | AML | 19 15 32.7 | |
| | comp=E,2726μm,0.7s | | | | | | | |
| **IDI** | **Anoyia** | **1.38** | **40** | P | | **Pn** | **19 14 56.5** | **+0.9** |
| **IDI** | **Anoyia** | **1.38** | **40** | *e*Pn | | **Pn** | **19 14 56.9** | **+1.3** |
| IDI | | | | S | | **Sn** | **19 15 12.6** | **-0.1** |
| **IDI** | **Anoyia** | **1.38** | **40** | P | | **Pn** | **19 14 56.5** | **+0.9** |
| **LAST** | **Lasithi** | **1.66** | **55** | P | | **Pn** | **19 15 02.2** | **+2.8** |
| LAST | | | | AML | | AML | 19 15 46.3 | |
| | comp=N,2219μm,0.9s | | | | | | | |
| LAST | | | | AML | | AML | 19 15 47.1 | |
| | comp=E,1862μm,0.8s | | | | | | | |
| **LAST** | **Lasithi** | **1.66** | **55** | P | | **Pn** | **19 15 01.0** | **+1.6** |
| LAST | | | | S | | **Sn** | **19 15 23.0** | **+3.5** |
| **LAST** | **Lasithi** | **1.66** | **55** | P | | **Pn** | **19 15 01.0** | **+1.6** |
| LAST | | | | S | | **Sn** | **19 15 23.0** | **+3.5** |
| **ANKY** | **Antikythira Is** | **1.69** | **346** | P | | **Pn** | **19 15 01.7** | **+2.0** |
| **ANKY** | **Antikythira Is** | **1.69** | **346** | P | | **Pn** | **19 15 00.1** | **+0.4** |
| ANKY | | | | S | | **Sn** | **19 15 19.8** | **-0.3** |
| **ANKY** | **Antikythira Is** | **1.69** | **346** | P | | **Pn** | **19 15 00.1** | **+0.4** |
| ANKY | | | | S | | **Sn** | **19 15 19.8** | **-0.3** |
| **NPS** | **Neapolis** | **1.81** | **55** | P | | **Pn** | **19 14 60.0** | **-1.4** |
| NPS | | | | S | | **Sn** | **19 15 21.7** | **-1.4** |
| NPS | | | | AML | | AML | 19 15 49.4 | |
| | comp=E,3686μm,1.0s | | | | | | | |
| NPS | | | | AML | | AML | 19 15 51.7 | |
| | comp=N,2735μm,1.0s | | | | | | | |
| **NPS** | **Neapolis** | **1.81** | **55** | P | | **Pn** | **19 15 00.0** | **-1.4** |
| NPS | | | | S | | **Sn** | **19 15 21.7** | **-1.4** |
| **KYTH** | **Kithira** | **2.13** | **343** | P | | **Pn** | **19 15 06.0** | **+0.2** |
| KYTH | | | | AML | | AML | 19 16 02.5 | |
| | comp=N,1576μm,1.8s | | | | | | | |
| KYTH | | | | AML | | AML | 19 16 03.0 | |
| | comp=E,1926μm,1.6s | | | | | | | |
| **ZKR** | **Zakros** | **2.17** | **65** | P | | **Pn** | **19 15 09.9** | **+3.5** |
| ZKR | | | | AML | | AML | 19 16 12.7 | |
| | comp=E,1413μm,0.8s | | | | | | | |
| ZKR | | | | AML | | AML | 19 16 17.6 | |
| | comp=N,572μm,1.0s | | | | | | | |
| **ZKR** | **Zakros** | **2.17** | **65** | P | | **Pn** | **19 15 08.0** | **+1.6** |
| ZKR | | | | S | | **Sn** | **19 15 36.2** | **+4.1** |
| **ZKR** | **Zakros** | **2.17** | **65** | P | | **Pn** | **19 15 08.0** | **+1.6** |
| ZKR | | | | S | | **Sn** | **19 15 36.2** | **+4.1** |
| **SAP1** | **Santorini-Akro** | **2.49** | **31** | P | | **Pn** | **19 15 11.1** | **+0.4** |
| **SAP1** | **Santorini-Akro** | **2.49** | **31** | P | | **Pn** | **19 15 11.1** | **+0.4** |
| **THR6** | **Thira Island,** | **2.49** | **31** | P | | **Pn** | **19 15 11.2** | **+0.5** |
| **THR6** | **Thira Island,** | **2.49** | **31** | P | | **Pn** | **19 15 11.2** | **+0.5** |
| **MHLO** | **Agia Marina, M** | **2.50** | **11** | P | | **Pn** | **19 15 10.7** | **-0.3** |
| MHLO | | | | AML | | AML | 19 16 02.1 | |
| | comp=E,4052μm,0.6s | | | | | | | |
| MHLO | | | | AML | | AML | 19 16 02.4 | |
| | comp=N,3808μm,0.6s | | | | | | | |
| **MHLO** | **Agia Marina, M** | **2.50** | **11** | P | | **Pn** | **19 15 10.7** | **-0.3** |
| **MHLO** | **Agia Marina, M** | **2.50** | **11** | P | | **Pn** | **19 15 10.8** | **-0.1** |
| **THR5** | **Thira Island,** | **2.52** | **29** | P | | **Pn** | **19 15 10.8** | **-0.4** |
| **THR5** | **Thira Island,** | **2.52** | **29** | P | | **Pn** | **19 15 10.8** | **-0.4** |
| **THR5** | **Thira Island,** | **2.52** | **29** | P | | **Pn** | **19 15 11.3** | **+0.1** |
| **SANT** | **Santorini** | **2.53** | **32** | P | | **Pn** | **19 15 10.8** | **-0.5** |
| **SANT** | **Santorini** | **2.53** | **32** | P | | **Pn** | **19 15 10.8** | **-0.5** |
| **SANT** | **Santorini** | **2.53** | **32** | *e*Pn | | **Pn** | **19 15 11.2** | **-0.1** |
| **SANT** | **Santorini** | **2.53** | **32** | *e*Pn | | **Pn** | **19 15 11.2** | **-0.1** |
| **SANT** | **Santorini** | **2.53** | **32** | P | | **Pn** | **19 15 11.4** | **+0.1** |
| **THT1** | **Athinios (Pele** | **2.53** | **31** | P | | **Pn** | **19 15 10.5** | **-0.7** |
| **THT1** | **Athinios (Pele** | **2.53** | **31** | P | | **Pn** | **19 15 11.2** | **-0.1** |
| **THT1** | **Athinios (Pele** | **2.53** | **31** | P | | **Pn** | **19 15 11.2** | **-0.1** |
| **THR3** | **Thira Island,** | **2.53** | **30** | P | | **Pn** | **19 15 11.1** | **-0.3** |
| **THR3** | **Thira Island,** | **2.53** | **30** | P | | **Pn** | **19 15 11.1** | **-0.3** |
| **THR3** | **Thira Island,** | **2.53** | **30** | P | | **Pn** | **19 15 11.6** | **+0.2** |
| **THR7** | **Fira-Santorini** | **2.56** | **31** | P | | **Pn** | **19 15 12.1** | **+0.4** |
| **THR7** | **Fira-Santorini** | **2.56** | **31** | P | | **Pn** | **19 15 12.1** | **+0.4** |
| **MHLA** | **Plaka, Milos I** | **2.56** | **11** | P | | **Pn** | **19 15 10.8** | **-0.9** |
| MHLA | | | | AML | | AML | 19 15 48.9 | |
| | comp=E,2659μm,1.2s | | | | | | | |
| MHLA | | | | AML | | AML | 19 16 12.1 | |
| | comp=N,3378μm,1.1s | | | | | | | |
| **MHLA** | **Plaka, Milos I** | **2.56** | **11** | P | | **Pn** | **19 15 10.8** | **-0.9** |
| **THT2** | **Imerovigli** | **2.56** | **30** | P | | **Pn** | **19 15 12.3** | **+0.5** |
| **THT2** | **Imerovigli** | **2.56** | **30** | P | | **Pn** | **19 15 12.3** | **+0.5** |
| **THR8** | **Santorini-Mono** | **2.57** | **32** | P | | **Pn** | **19 15 11.3** | **-0.5** |
| **THR8** | **Santorini-Mono** | **2.57** | **32** | P | | **Pn** | **19 15 11.3** | **-0.5** |
| **THR8** | **Santorini-Mono** | **2.57** | **32** | P | | **Pn** | **19 15 11.9** | **+0.1** |
| **THR2** | **Thira Island,** | **2.58** | **30** | P | | **Pn** | **19 15 12.1** | **+0.1** |
| **THR2** | **Thira Island,** | **2.58** | **30** | P | | **Pn** | **19 15 12.1** | **+0.1** |
| **THR2** | **Thira Island,** | **2.58** | **30** | P | | **Pn** | **19 15 12.3** | **+0.3** |
| **VLI** | **Veliai** | **2.58** | **344** | P | | **Pn** | **19 15 13.6** | **+1.5** |
| VLI | | | | S | | **Sn** | **19 15 41.7** | **-0.6** |
| VLI | | | | AML | | AML | 19 16 06.0 | |
| | comp=N,821μm,0.8s | | | | | | | |
| VLI | | | | AML | | AML | 19 16 19.0 | |
| | comp=E,1075μm,1.1s | | | | | | | |
| **VLI** | **Veliai** | **2.58** | **344** | P | | **Pn** | **19 15 12.3** | **+0.2** |
| VLI | | | | S | | **Sn** | **19 15 41.7** | **-0.6** |
| **VLI** | **Veliai** | **2.58** | **344** | P | | **Pn** | **19 15 12.3** | **+0.2** |
| VLI | | | | S | | **Sn** | **19 15 42.2** | **-0.1** |
| **DYR** | **Agios Nikonas** | **2.80** | **335** | P | | **Pn** | **19 15 17.4** | **+2.3** |
| **SLUM** | **Salum** | **2.97** | **156** | P | | **Pn** | **19 15 18.3** | **+0.9** |
| SLUM | | | | S | | **Sn** | **19 15 42.2** | **-1.3** |
| **KARP** | **Karpathos** | **3.05** | **64** | *e*PN | | **Pn** | **19 15 20.8** | **+1.3** |
| **KARP** | **Karpathos** | **3.05** | **64** | P | | **Pn** | **19 15 22.0** | **+3.5** |
| KARP | | | | S | | **Sn** | **19 15 53.6** | **-0.2** |
| KARP | | | | AML | | AML | 19 16 00.6 | |
| | comp=N,845μm,0.5s | | | | | | | |
| KARP | | | | AML | | AML | 19 16 03.1 | |
| | comp=E,1074μm,0.6s | | | | | | | |
| **KARP** | **Karpathos** | **3.05** | **64** | P | | **Pn** | **19 15 20.5** | **+2.0** |
| KARP | | | | S | | **Sn** | **19 15 53.6** | **-0.2** |
| **KARP** | **Karpathos** | **3.05** | **64** | *e*Pn | | **Pn** | **19 15 20.6** | **+2.1** |
| **KARP** | **Karpathos** | **3.05** | **64** | P | | **Pn** | **19 15 20.5** | **+2.0** |
| KARP | | | | S | | **Sn** | **19 15 57.3** | **+3.5** |
| **PYL** | **PYLOS** | **3.15** | **328** | P | | **Pn** | **19 15 19.2** | **-0.6** |
| **PYL** | **PYLOS** | **3.15** | **328** | P | | **Pn** | **19 15 19.2** | **-0.6** |
| **PYL** | **PYLOS** | **3.15** | **328** | P | | **Pn** | **19 15 19.1** | **-0.8** |
| **APE** | **Apeiranthos** | **3.16** | **26** | *e*PN | | **Pn** | **19 15 20.1** | **+0.1** |
| **APE** | **Apeiranthos** | **3.16** | **26** | *i*P | | **Pn** | **19 15 19.0** | **-1.0** |
| APE | | | | S | | **Sn** | **19 15 54.6** | **-2.0** |
| **APE** | **Apeiranthos** | **3.16** | **26** | P | | **Pn** | **19 15 18.9** | **-1.0** |
| APE | | | | S | | **Sn** | **19 15 54.6** | **-2.0** |
| **APE** | **Apeiranthos** | **3.16** | **26** | P | | **Pn** | **19 15 17.6** | **-2.4** |
| APE | | | | S | | **Sn** | **19 15 54.5** | **-2.1** |
| APE | | | | AML | | AML | 19 16 15.8 | |
| | comp=N,330μm,1.7s | | | | | | | |
| APE | | | | AML | | AML | 19 16 25.9 | |
| | comp=E,388μm,0.9s | | | | | | | |
| **APE** | **Apeiranthos** | **3.16** | **26** | P | | **Pn** | **19 15 19.1** | **-1.0** |
| **APE** | **Apeiranthos** | **3.16** | **26** | *e*Pn | | **Pn** | **19 15 20.1** | **+0.1** |
| APE | | | | S | | **Sn** | **19 15 54.6** | **-2.0** |
| **APE** | **Apeiranthos** | **3.16** | **26** | P | | **Pn** | **19 15 19.1** | **-1.0** |
| **KRND** | **KRANIDI** | **3.19** | **350** | P | | **Pn** | **19 15 20.1** | **-0.3** |
| KRND | | | | S | | **Sn** | **19 15 55.5** | **-1.8** |
| **KRND** | **KRANIDI** | **3.19** | **350** | P | | **Pn** | **19 15 20.1** | **-0.3** |
| KRND | | | | S | | **Sn** | **19 15 57.2** | **-0.1** |
| **KRND** | **KRANIDI** | **3.19** | **350** | P | | **Pn** | **19 15 20.3** | **-0.1** |
| KRND | | | | S | | **Sn** | **19 15 57.2** | **-0.1** |
| **DID** | **Didima** | **3.30** | **352** | P | | **Pn** | **19 15 20.3** | **-1.7** |
| DID | | | | S | | **Sn** | **19 15 58.7** | **-1.4** |
| DID | | | | AML | | AML | 19 16 21.4 | |
| | comp=N,396μm,0.8s | | | | | | | |
| DID | | | | AML | | AML | 19 16 24.9 | |
| | comp=E,573μm,0.9s | | | | | | | |
| **DID** | **Didima** | **3.30** | **352** | P | | **Pn** | **19 15 21.4** | **-0.6** |
| DID | | | | S | | **Sn** | **19 15 58.7** | **-1.4** |
| **DID** | **Didima** | **3.30** | **352** | P | | **Pn** | **19 15 21.4** | **-0.6** |
| **ITM** | **Ithomi** | **3.32** | **333** | P | | **Pn** | **19 15 23.8** | **+1.6** |
| **ITM** | **Ithomi** | **3.32** | **333** | P | | **Pn** | **19 15 22.5** | **+0.3** |
| **ITM** | **Ithomi** | **3.32** | **333** | P | | **Pn** | **19 15 22.5** | **+0.3** |
| **VLX** | **Vlachokerasia** | **3.34** | **340** | P | | **Pn** | **19 15 24.0** | **+1.4** |
| **VLX** | **Vlachokerasia** | **3.34** | **340** | P | | **Pn** | **19 15 24.0** | **+1.4** |
| **VLY** | **Voula,Athens** | **3.62** | **360** | P | | **Pn** | **19 15 24.3** | **-2.0** |
| **VLY** | **Voula,Athens** | **3.62** | **360** | P | | **Pn** | **19 15 25.4** | **-0.9** |
| **VLY** | **Voula,Athens** | **3.62** | **360** | P | | **Pn** | **19 15 25.4** | **-0.9** |
| **AMT** | **Artemida-Makis** | **3.71** | **333** | P | | **Pn** | **19 15 28.4** | **+0.8** |
| **AMT** | **Artemida-Makis** | **3.71** | **333** | P | | **Pn** | **19 15 28.4** | **+0.8** |
| **ATHU** | **Athens Univers** | **3.73** | **360** | P | | **Pn** | **19 15 25.9** | **-1.9** |
| **ATHU** | **Athens Univers** | **3.73** | **360** | P | | **Pn** | **19 15 27.0** | **-0.8** |
| **ATHU** | **Athens Univers** | **3.73** | **360** | P | | **Pn** | **19 15 27.0** | **-0.8** |
| **ATH** | **Athens Observa** | **3.74** | **359** | P | | **Pn** | **19 15 28.8** | **+0.9** |
| **ATH** | **Athens Observa** | **3.74** | **359** | P | | **Pn** | **19 15 28.6** | **+2.3** |
| **ATH** | **Athens Observa** | **3.74** | **359** | P | | **Pn** | **19 15 28.8** | **+0.9** |
| **PTL** | **Penteli** | **3.81** | **1** | P | | **Pn** | **19 15 27.1** | **-1.9** |
| PTL | | | | S | | **Sn** | **19 16 10.1** | **-2.5** |
| **PTL** | **Penteli** | **3.81** | **1** | P | | **Pn** | **19 15 28.1** | **-0.9** |
| PTL | | | | S | | **Sn** | **19 16 10.1** | **-2.5** |
| **PTL** | **Penteli** | **3.81** | **1** | P | | **Pn** | **19 15 28.1** | **-0.9** |
| **KARY** | **Karystos** | **3.83** | **7** | P | | **Pn** | **19 15 27.3** | **-1.9** |
| **KARY** | **Karystos** | **3.83** | **7** | P | | **Pn** | **19 15 27.3** | **-1.9** |
| **LTK** | **Loutraki** | **3.85** | **350** | P | | **Pn** | **19 15 27.1** | **-2.3** |
| **LTK** | **Loutraki** | **3.85** | **350** | P | | **Pn** | **19 15 28.9** | **-0.6** |
| **LTK** | **Loutraki** | **3.85** | **350** | P | | **Pn** | **19 15 28.9** | **-0.6** |
| **GUR** | **Goura** | **3.89** | **343** | P | | **Pn** | **19 15 31.3** | **+1.2** |
| **GUR** | **Goura** | **3.89** | **343** | P | | **Pn** | **19 15 30.5** | **+0.4** |
| **GUR** | **Goura** | **3.89** | **343** | P | | **Pn** | **19 15 30.5** | **+0.4** |
| **THAL** | **Thalero** | **3.91** | **347** | P | | **Pn** | **19 15 29.7** | **-0.6** |
| **THAL** | **Thalero** | **3.91** | **347** | P | | **Pn** | **19 15 29.7** | **-0.6** |
| **VILL** | **Villia** | **3.95** | **354** | P | | **Pn** | **19 15 30.2** | **-0.7** |
| **VILL** | **Villia** | **3.95** | **354** | P | | **Pn** | **19 15 30.2** | **-0.7** |
| **VIL2** | **Platees** | **4.00** | **354** | P | | **Pn** | **19 15 28.9** | **-2.6** |
| **BODT** | **Bodrum** | **4.01** | **44** | *e*PN | | **Pn** | **19 15 31.1** | **-0.7** |
| **BODT** | **Bodrum** | **4.01** | **44** | *e*Pn | | **Pn** | **19 15 31.1** | **-0.7** |
| **KLV** | **Kalavryta, Ach** | **4.04** | **341** | P | | **Pn** | **19 15 32.0** | **-0.1** |
| KLV | | | | S | | **Sn** | **19 16 16.0** | **-2.2** |
| **KLV** | **Kalavryta, Ach** | **4.04** | **341** | P | | **Pn** | **19 15 31.8** | **-0.3** |
| KLV | | | | S | | **Sn** | **19 16 16.0** | **-2.2** |
| **KLV** | **Kalavryta, Ach** | **4.04** | **341** | P | | **Pn** | **19 15 31.8** | **-0.3** |
| **ARG** | **Arkhangelos** | **4.05** | **59** | P | | **Pn** | **19 15 32.7** | **+0.5** |
| **ARG** | **Arkhangelos** | **4.05** | **59** | P | | **Pn** | **19 15 32.7** | **+0.5** |
| **ARG** | **Arkhangelos** | **4.05** | **59** | P | | **Pn** | **19 15 33.2** | **+1.0** |
| **DRO** | **Drossia** | **4.09** | **336** | P | | **Pn** | **19 15 33.4** | **+0.7** |
| **DRO** | **Drossia** | **4.09** | **336** | P | | **Pn** | **19 15 33.1** | **+0.3** |
| **DRO** | **Drossia** | **4.09** | **336** | P | | **Pn** | **19 15 33.1** | **+0.3** |
| **PROD** | **Prodromos** | **4.09** | **350** | P | | **Pn** | **19 15 31.2** | **-1.6** |
| **PROD** | **Prodromos** | **4.09** | **350** | P | | **Pn** | **19 15 31.2** | **-1.6** |
| **SMG** | **Samos** | **4.25** | **34** | P | | **Pn** | **19 15 33.9** | **-1.1** |
| **SMG** | **Samos** | **4.25** | **34** | P | | **Pn** | **19 15 33.9** | **-1.1** |
| **RLS** | **Riolos of Patr** | **4.27** | **334** | P | | **Pn** | **19 15 35.8** | **+0.6** |
| **RLS** | **Riolos of Patr** | **4.27** | **334** | P | | **Pn** | **19 15 35.8** | **+0.6** |
| RLS | | | | S | | **Sn** | **19 16 23.2** | **-0.5** |
| **RLS** | **Riolos of Patr** | **4.27** | **334** | P | | **Pn** | **19 15 35.8** | **+0.6** |
| RLS | | | | S | | **Sn** | **19 16 23.2** | **-0.5** |
| **LAKA** | **Lakka** | **4.27** | **340** | P | | **Pn** | **19 15 35.0** | **-0.3** |
| **LAKA** | **Lakka** | **4.27** | **340** | P | | **Pn** | **19 15 35.0** | **-0.3** |
| **LAKA** | **Lakka** | **4.27** | **340** | P | | **Pn** | **19 15 35.0** | **-0.3** |
| **DSF** | **Desfina** | **4.30** | **346** | P | | **Pn** | **19 15 34.8** | **-0.9** |
| **DSF** | **Desfina** | **4.30** | **346** | P | | **Pn** | **19 15 34.8** | **-0.9** |
| DSF | | | | S | | **Sn** | **19 16 24.8** | **+0.1** |
| **DSF** | **Desfina** | **4.30** | **346** | P | | **Pn** | **19 15 35.5** | **-0.2** |
| DSF | | | | S | | **Sn** | **19 16 24.8** | **+0.1** |
| **TRIZ** | **Trizonia** | **4.36** | **342** | P | | **Pn** | **19 15 35.3** | **-1.2** |
| **TRIZ** | **Trizonia** | **4.36** | **342** | P | | **Pn** | **19 15 35.3** | **-1.2** |
| **KALE** | **Kalithea** | **4.37** | **342** | P | | **Pn** | **19 15 35.3** | **-1.4** |
| **KALE** | **Kalithea** | **4.37** | **342** | P | | **Pn** | **19 15 35.3** | **-1.4** |
| **KALE** | **Kalithea** | **4.37** | **342** | P | | **Pn** | **19 15 36.5** | **-0.1** |
| **SERG** | **Sergoula** | **4.41** | **342** | P | | **Pn** | **19 15 37.0** | **-0.2** |
| **SERG** | **Sergoula** | **4.41** | **342** | P | | **Pn** | **19 15 37.0** | **-0.2** |
| **EFP** | **Efpalio** | **4.46** | **340** | P | | **Pn** | **19 15 37.8** | **-0.1** |
| **EFP** | **Efpalio** | **4.46** | **340** | P | | **Pn** | **19 15 37.8** | **-0.1** |
| **EFP** | **Efpalio** | **4.46** | **340** | P | | **Pn** | **19 15 38.1** | **+0.2** |
| **CHOS** | **Chios island** | **4.53** | **23** | P | | **Pn** | **19 15 37.1** | **-1.8** |
| **CHOS** | **Chios island** | **4.53** | **23** | P | | **Pn** | **19 15 37.1** | **-1.8** |
| **SMIA** | **Simia** | **4.67** | **354** | P | | **Pn** | **19 15 38.7** | **-2.0** |
| **SMIA** | **Simia** | **4.67** | **354** | P | | **Pn** | **19 15 40.1** | **-0.6** |
| **SMIA** | **Simia** | **4.67** | **354** | P | | **Pn** | **19 15 40.1** | **-0.6** |
| **URLA** | **Izmir** | **4.70** | **28** | *e*PN | | **Pn** | **19 15 40.7** | **-0.4** |
| **URLA** | **Izmir** | **4.70** | **28** | *e*Pn | | **Pn** | **19 15 40.7** | **-0.4** |
| **TURN** | **Turunc** | **4.71** | **55** | *e*PN | | **Pn** | **19 15 37.7** | **-3.6** |
| **TURN** | **Turunc** | **4.71** | **55** | *i*P | | **Pn** | **19 15 37.8** | **-3.6** |
| TURN | | | | *i*S | | Sn | 19 16 23.1 | -12 |
| **TURN** | **Turunc** | **4.71** | **55** | P | | **Pn** | **19 15 37.8** | **-3.6** |
| **VLS** | **Valsamata** | **4.72** | **327** | P | | **Pn** | **19 15 41.2** | **-0.3** |
| **VLS** | **Valsamata** | **4.72** | **327** | P | | **Pn** | **19 15 40.0** | **-1.5** |
| VLS | | | | S | | **Sn** | **19 16 31.1** | **-3.9** |
| **VLS** | **Valsamata** | **4.72** | **327** | P | | **Pn** | **19 15 40.0** | **-1.5** |
| **PVO** | **Paravola** | **4.75** | **338** | P | | **Pn** | **19 15 44.7** | **+2.8** |
| **PDO** | **Prodromos** | **4.85** | **335** | P | | **Pn** | **19 15 46.2** | **+3.0** |
| **FETY** | **Fethiye** | **4.93** | **59** | *e*PN | | **Pn** | **19 15 44.5** | **+0.3** |
| **FETY** | **Fethiye** | **4.93** | **59** | P | | **Pn** | **19 15 44.1** | **-0.2** |
| **FETY** | **Fethiye** | **4.93** | **59** | *e*Pn | | **Pn** | **19 15 44.6** | **+0.3** |
| FETY | | | | S | | **Sn** | **19 16 35.9** | **-4.2** |
| **AGG** | **Agios Georgios** | **4.93** | **346** | P | | **Pn** | **19 15 42.4** | **-2.0** |
| **AGG** | **Agios Georgios** | **4.93** | **346** | P | | **Pn** | **19 15 42.3** | **-2.0** |
| **SKIA** | **Skiathos** | **4.94** | **357** | P | | **Pn** | **19 15 42.4** | **-2.0** |
| **SKIA** | **Skiathos** | **4.94** | **357** | P | | **Pn** | **19 15 42.4** | **-2.0** |
| **EVR** | **Evrytania** | **4.95** | **342** | P | | **Pn** | **19 15 45.9** | **+1.2** |
| **EVR** | **Evrytania** | **4.95** | **342** | P | | **Pn** | **19 15 45.8** | **+1.2** |
| **KSL** | **Kastellorizon** | **5.10** | **66** | P | | **Pn** | **19 15 45.1** | **-1.5** |
| **KSL** | **Kastellorizon** | **5.10** | **66** | P | | **Pn** | **19 15 45.1** | **-1.5** |
| **XOR** | **Xorichti** | **5.15** | **355** | P | | **Pn** | **19 15 45.9** | **-1.5** |
| **XOR** | **Xorichti** | **5.15** | **355** | P | | **Pn** | **19 15 45.9** | **-1.5** |
| **SWA2** | | **5.16** | **164** | P | | **Pn** | **19 15 47.8** | **+0.3** |
| **LKD2** | **Lefkada island** | **5.21** | **332** | P | | **Pn** | **19 15 48.3** | **+0.1** |
| **LKD2** | **Lefkada island** | **5.21** | **332** | P | | **Pn** | **19 15 48.3** | **+0.1** |
| **TAVA** | **DENIZLI_Tavas** | **5.25** | **51** | *i*P | | **Pn** | **19 15 49.3** | **+0.5** |
| TAVA | | | | *i*S | | Sn | 19 16 38.1 | -

DRME Dracevica, Mon 8.74 337 ePn Pn 19 16 34.0 -2.6
BAI Bari 8.79 323 ePn Pn 19 16 35.0 -2.3
SUZ Suez 8.82 117 P Pn 19 16 37.6 -0.1
PDG Podgorica 8.94 338 ⇓iP Pn 19 16 37.8 -1.4
PDG Podgorica 8.94 338 ePn Pn 19 16 36.9 -2.3
PDG Podgorica 8.94 338 ⇓iP Pn 19 16 37.8 -1.4
TTG Podgorica 8.94 338 eP Pn 19 16 37.3 -2.0
TTG e 19 18 11.0
TTG Podgorica 8.94 338 eP Pn 19 16 37.3 -2.0
TTG Podgorica 8.94 338 ePn Pn 19 16 37.2 -2.0
TTG eSn Sn 19 18 11.0 -7.6
KERG Konya-Eregli 8.96 66 iP Pn 19 16 38.0 -1.7
KERG iS Sn 19 18 10.0 -9.5
KERG Konya-Eregli 8.96 66 P Pn 19 16 38.0 -1.7
CDT Castel del Mon 9.08 321 ePn Pn 19 16 39.2 -2.1
BR231 Keskin MP Arra 9.09 49 ePn Pn 19 16 42.7 +1.1
BR231 Keskin MP Arra 9.09 49 ePn Pn 19 16 42.7 +1.1
ANTO Ankara 9.12 49 eP Pn 19 16 42.0 +0.1
ANTO Ankara 9.12 49 eP Pn 19 16 42.0 +0.1
ANTO Ankara 9.12 49 ePn Pn 19 16 42.0 +0.1
HCY Herceg Novi 9.21 335 ePn Pn 19 16 39.9 -3.1
OFRI 'Ofer 9.47 97 Pn Pn 19 16 45.8 -1.0
OFRI 'Ofer 9.47 97 Pn Pn 19 16 45.8 -1.0
BOVS Bovan 9.54 351 ePn Pn 19 16 45.5 -2.0
BR101 Keskin Array S 9.58 52 ePn Pn 19 16 48.5 +0.2
BR101 Keskin Array S 9.58 52 ePn Pn 19 16 48.5 +0.2
BR131 Keskin Array S 9.58 52 ePn Pn 19 16 48.9 +0.6
BR131 Keskin Array S 9.58 52 ePn Pn 19 16 48.9 +0.6
BRTR Keskin Array B 9.58 52 P Pn 19 16 48.5 +0.2
comp=Z,0.2nm,0.3s,baz=229,slow=12,SNR=19
SLTI Sal'it 9.61 99 Pn Pn 19 16 46.6 -2.0
SLTI Sn Sn 19 18 28.1 -7.2
SLTI Sal'it 9.61 99 Pn Pn 19 16 46.6 -2.0
ZAGS Zajecar 9.65 353 ePn Pn 19 16 47.3 -1.7
AMAZ Amatzia 9.72 103 Pn Pn 19 16 48.6 -1.4
AMAZ Sn Sn 19 18 30.6 -7.3
AMAZ Amatzia 9.72 103 Pn Pn 19 16 48.6 -1.4
KRTS Karatas 9.72 73 ePN Pn 19 16 48.6 -1.5
KRTS Karatas 9.72 73 ePn Pn 19 16 48.6 -1.5
MMA0B Mount Meron ar 9.74 94 Pn Pn 19 16 49.3 -1.1
MMA0B Mount Meron ar 9.74 94 Pn Pn 19 16 49.3 -1.1
MMAI Mount Meron Ar 9.74 94 P Pn 19 16 47.8 -2.7
comp=Z,2.4nm,0.3s,baz=282,slow=12,SNR=13
MMAI S Sn 19 18 32.4 -6.2
comp=Z,4.0nm,0.3s,baz=306,slow=12,SNR=5.9
UPM Unac-Piva 9.74 338 ePn Pn 19 16 47.6 -2.9
STON Ston 9.87 333 iPn Pn 19 16 48.1 -3.9
STON Sn Sn 19 18 30.1 -11
MMLI Mount Malkishu 9.88 97 Pn Pn 19 16 50.3 -1.9
MMLI Mount Malkishu 9.88 97 Pn Pn 19 16 50.3 -1.9
KSDI Kefar Szold 9.92 93 Pn Pn 19 16 50.2 -2.6
KSDI Sn Sn 19 18 36.9 -6.1
YTIR Yattir 9.93 104 Pn Pn 19 16 52.0 -1.1
YTIR Yattir 9.93 104 Pn Pn 19 16 52.0 -1.1
YURE YUREGIR 9.98 72 ePN Pn 19 16 52.9 -0.7
YURE YUREGIR 9.98 72 ePn Pn 19 16 52.9 -0.7
HMDT Nahal Hemdat 10.01 98 Pn Pn 19 16 52.6 -1.4
HMDT Sn Sn 19 18 37.4 -7.6
HMDT Nahal Hemdat 10.01 98 Pn Pn 19 16 52.6 -1.4
DSI Dead Sea 10.08 102 Pn Pn 19 16 53.4 -1.6
DSI Sn Sn 19 18 39.9 -6.9
DSI Dead Sea 10.08 102 Pn Pn 19 16 53.4 -1.6
KSHT Keshet 10.09 94 Pn Pn 19 16 54.3 -0.8
KSHT Keshet 10.09 94 Pn Pn 19 16 54.3 -0.8
MZDA Masada 10.15 103 Pn Pn 19 16 54.8 -1.1
MZDA Sn Sn 19 18 41.4 -7.1
MZDA Masada 10.15 103 Pn Pn 19 16 54.8 -1.1
PRNI Paran 10.23 109 Pn Pn 19 16 55.8 -1.3
PRNI Sn Sn 19 18 42.4 -8.2
PRNI Paran 10.23 109 Pn Pn 19 16 55.8 -1.3
YAYL Yayladag 10.23 76 ePN Pn 19 16 55.4 -1.8
YAYL Yayladag 10.23 76 ePn Pn 19 16 55.4 -1.8
KOZT Kozan 10.28 68 ePN Pn 19 16 56.5 -1.2
KOZT Kozan 10.28 68 ePn Pn 19 16 56.5 -1.2
DIVS Divibare 10.29 344 ePn Pn 19 16 53.5 -4.4
DIVS eSn Sn 19 18 38.1 -14
HRFI Mount Harif 10.39 111 Pn Pn 19 16 58.3 -1.0
HRFI Sn Sn 19 18 46.9 -7.6
HRFI Mount Harif 10.39 111 Pn Pn 19 16 58.3 -1.0
MBRI Mt Berech 10.41 112 Pn Pn 19 16 58.2 -1.4
MBRI Sn Sn 19 18 47.4 -7.6
EIL Elat 10.49 113 P Pn 19 16 59.1 -1.6
comp=Z,1.0nm,0.3s,baz=335,slow=4.2,SNR=12
EIL S Sn 19 18 51.3 -5.7
comp=Z,2.4nm,0.3s,baz=4.0,slow=19,SNR=9.2
EIL Elat 10.49 113 Pn Pn 19 16 59.2 -1.5
EIL Elat 10.49 113 Pn Pn 19 16 59.2 -1.5
MDVR Moldovita 10.66 352 ⇑iP Pn 19 17 00.2 -2.8
MDVR Moldovita 10.66 352 ⇑iP Pn 19 17 00.2 -2.8
ASF Jabal al Asfar 11.15 97 P Pn 19 17 04.9 -4.8
comp=Z,0.4nm,0.3s,baz=259,slow=5.2,SNR=3.2
ASF S Sn 19 19 06.4 -6.8
comp=Z,0.4nm,0.3s,baz=24,slow=2.4,SNR=3.0
MLR Muntele Rosu 11.37 8 P Pn 19 17 09.8 -2.8
comp=Z,0.0nm,0.3s,baz=164,slow=15,SNR=2.3
MLR Muntele Rosu 11.37 8 ⇑iP Pn 19 17 10.8 -1.9
MLR Muntele Rosu 11.37 8 eP Pn 19 17 12.3 -0.4
MLR Muntele Rosu 11.37 8 eP Pn 19 17 12.3 -0.4
MLR Muntele Rosu 11.37 8 ePn Pn 19 17 12.3 -0.4
BZS Buzias 11.50 352 ⇑iP Pn 19 17 11.3 -3.0
BLY Banja Luka 11.68 336 ePn Pn 19 17 13.8 -3.0
BLY Banja Luka 11.68 336 ePn Pn 19 17 11.8 -5.1
VRI Vrincioaia 11.84 10 ⇑iP Pn 19 17 16.8 -2.2
VRI Vrincioaia 11.84 10 P Pn 19 17 16.8 -2.2
VRI Vrincioaia 11.84 10 P Pn 19 17 16.8 -2.2
KEST Kesra 11.96 281 P Pn 19 17 21.1 +0.3
comp=Z,0.1nm,0.3s,baz=56,slow=17,SNR=2.5
KEST S Sn 19 19 27.3 -5.7
comp=Z,0.2nm,0.3s,baz=275,slow=19,SNR=4.3
UDBI Udbina 12.02 331 ePn Pn 19 17 19.2 -2.3
UDBI Udbina 12.02 331 ePn Pn 19 17 19.1 -2.3
NVLJ Novalja 12.41 329 ePn Pn 19 17 23.9 -3.0
NVLJ Novalja 12.41 329 ePn Pn 19 17 23.8 -3.0
OZLJ Ozalj 13.04 333 ePn Pn 19 17 32.1 -3.3
BURAR Bucovina Array 13.41 4 ⇑iP Pn 19 17 38.5 -2.1
BURAR Bucovina Array 13.41 4 ⇑iP Pn 19 17 38.5 -2.1
BUR04 Bucovina Ar. S 13.42 4 ePn Pn 19 17 44.7 +4.0
BUR08 Bucovina Ar. S 13.44 4 ePn Pn 19 17 44.1 +3.1
PSZ Piszkesteto 13.99 349 ⇑iP Pn 19 17 47.2 -1.2
PSZ Piszkesteto 13.99 349 eP Pn 19 17 48.3 -0.1
PSZ Piszkesteto 13.99 349 ePn Pn 19 17 48.3 -0.1
PSZ Piszkesteto 13.99 349 ePn Pn 19 17 48.3 -0.1
SOKA Soboth 14.11 334 iPn Pn 19 17 46.6 -3.4
comp=Z,6.8nm,1.1s
OBKA Obir 14.14 333 iPn Pn 19 17 47.2 -3.3
comp=Z,4.6nm,0.7s
ARSA Arzberg 14.43 337 iPn Pn 19 17 51.1 -3.3
comp=Z,7.6nm,1.1s
KECS Kecovo 14.46 351 eP Pn 19 17 56.2 +1.5
KECS Kecovo 14.46 351 eP Pn 19 17 56.2 +1.5
SOP Sopron 14.51 340 P P 19 18 04.7 +3.2
VYHS Vyhne 14.73 347 eP P 19 18 03.1 -1.0
VYHS Vyhne 14.73 347 eP P 19 18 03.1 -1.0
VYHS Vyhne 14.73 347 eP P 19 18 03.1 -1.0
CONA Conrad Observa 14.93 339 iPn Pn 19 18 00.4 -0.8
comp=Z,8.6nm,1.9s
SMOL Smolenice 15.05 343 eP P 19 18 06.3 -1.3
SMOL Smolenice 15.05 343 eP P 19 18 06.3 -1.3
SMOL Smolenice 15.05 343 eP P 19 18 06.3 -1.3
ABTA Abfaltersbach 15.15 329 iPn Pn 19 18 02.8 -1.3
comp=Z,8.9nm,0.9s
STHS Stebnicka Huta 15.29 354 eP P 19 18 10.6 +0.3
STHS Stebnicka Huta 15.29 354 eP P 19 18 10.6 +0.3
STHS Stebnicka Huta 15.29 354 eP P 19 18 10.6 +0.3
MOA Molln 15.38 335 iPn Pn 19 18 05.1 -1.9
comp=Z,5.4nm,0.7s
WTTA Wattenberg 15.93 328 iP P 19 18 20.4 +2.8
comp=Z,3.7nm,0.6s
VRAC Vranov 15.99 343 P Pn 19 18 14.0 -0.9
comp=Z,0.4nm,0.3s,baz=154,slow=10.0,SNR=16
VRAC Vranov 15.99 343 P Pn 19 18 14.0 -0.9
WATA Walderalm 16.01 328 Pn Pn 19 18 15.5 +0.2
comp=Z,9.3nm,0.9s
WATA Walderalm 16.01 328 P Pn 19 18 15.5 +0.2
comp=Z,9.3nm,0.9s
FUORN Ofenpass-Fuorn 16.08 324 ePn Pn 19 18 17.0 +0.7
comp=Z,9.7nm,0.9s
FUORN Ofenpass-Fuorn 16.08 324 ePn Pn 19 18 17.0 +0.7
comp=Z,9.7nm,0.9s
OKC Ostrava-Krasne 16.15 347 eP Pn 19 18 18.3 +1.4
OKC Ostrava-Krasne 16.15 347 eP Pn 19 18 18.3 +1.4
OKC Ostrava-Krasne 16.15 347 eP Pn 19 18 18.3 +1.4

FETA Feichten 16.16 326 iP P 19 18 20.9 +0.8
comp=Z,5.8nm,1.0s
FETA Feichten 16.16 326 P P 19 18 20.9 +0.8
comp=Z,5.8nm,1.0s
MORC Moravsky Berou 16.21 345 eP Pn 19 18 13.7 -4.0
MORC pmax pmax
comp=Z,40nm,0.9s
MORC Moravsky Berou 16.21 345 ePn Pn 19 18 13.7 -4.0
comp=Z,40nm,0.9s
MOTA Moosalm 16.23 328 iPn Pn 19 18 16.1 -2.0
comp=Z,3.2nm,0.8s
OJC Ojcow 16.25 351 eP Pn 19 18 15.5 -2.7
OJC pmax pmax
comp=Z,8.0nm,1.2s
OJC Ojcow 16.25 351 ePn Pn 19 18 15.4 -2.7
comp=Z,8.4nm,1.2s
OJC Ojcow 16.25 351 ePn Pn 19 18 15.4 -2.7
comp=Z,8.4nm,1.2s
DAVOX Davos/Dischmat 16.38 324 LR LR 19 26 48.2
comp=Z,214nm,18.2s,baz=104,slow=45
GEA0 GERESS Array S 16.42 336 ePn Pn 19 18 18.1 -2.3
GEA0 GERESS Array S 16.42 336 ePn Pn 19 18 18.1 -2.3
GEC2 GERESS Array S 16.43 336 eP Pn 19 18 18.3 -2.2
GEC2 pmax pmax
comp=Z,8.0nm,0.9s
GEC2 GERESS Array S 16.43 336 ePn Pn 19 18 18.3 -2.2
comp=Z,7.8nm,0.9s
GEC2 GERESS Array S 16.43 336 ePn Pn 19 18 18.3 -2.2
comp=Z,7.8nm,0.9s
GERES GERESS Array B 16.43 336 P Pn 19 18 18.4 -2.2
comp=Z,0.2nm,0.3s,baz=154,slow=13,SNR=15
TUE Stuetta 16.43 322 ePn Pn 19 18 17.3 -3.4
comp=Z,7.4nm,0.9s
RETA Reutte 16.49 327 P P 19 18 25.3 +1.7
comp=Z,2.3nm,0.6s
RETA Reutte 16.49 327 P P 19 18 25.3 +1.7
comp=Z,2.3nm,0.6s
KRLC Kraliky 16.66 344 eP P 19 18 25.3 -0.2
KRLC ex x 19 18 28.7
KRLC Kraliky 16.66 344 eP P 19 18 25.3 -0.2
KRLC Kraliky 16.66 344 eP P 19 18 25.3 -0.2
KHC Kasperske Hory 16.71 336 eP Pn 19 18 21.9 -2.2
KHC ex x 19 18 26.6
KHC Kasperske Hory 16.71 336 eP Pn 19 18 21.9 -2.2
KHC Kasperske Hory 16.71 336 ePn Pn 19 18 21.6 -2.5
comp=Z,6.1nm,1.0s
KHC Kasperske Hory 16.71 336 ePn Pn 19 18 21.6 -2.5
comp=Z,6.1nm,1.0s
DAVA Damuels 16.74 325 iP P 19 18 27.9 +1.3
comp=Z,1.6nm,0.6s
DAVA Damuels 16.74 325 P P 19 18 27.9 +1.3
comp=Z,1.6nm,0.6s
AK11 Malin Array Si 16.90 12 ePn Pn 19 18 25.6 -0.8
AK11 Malin Array Si 16.90 12 ePn Pn 19 18 25.6 -0.8
KIEV Kiev 16.92 12 eP Pn 19 18 24.9 -1.7
KIEV pmax pmax
comp=Z,56nm,1.9s
KIEV Kiev 16.92 12 ePn Pn 19 18 24.9 -1.7
comp=Z,56nm,1.9s
KIEV Kiev 16.92 12 ePn Pn 19 18 24.9 -1.7
comp=Z,56nm,1.9s
AKASG Malin Array Be 16.93 12 P Pn 19 18 22.4 -4.3
comp=Z,2.1nm,0.3s,baz=210,slow=10,SNR=14
AKBB Malin Array Si 16.93 12 eP Pn 19 18 25.3 -1.4
AKBB pmax pmax
comp=Z,11nm,0.9s
AKBB Malin Array Si 16.93 12 ePn Pn 19 18 25.3 -1.4
comp=Z,11nm,0.9s
AKBB Malin Array Si 16.93 12 ePn Pn 19 18 25.3 -1.4
comp=Z,11nm,0.9s
WET Wettzell 16.96 335 P P 19 18 29.4 +0.5
WET pmax pmax
comp=Z,44nm,2.0s
WET Wettzell 16.96 335 P P 19 18 29.4 +0.5
comp=Z,44nm,2.0s
DPC Dobruska-Polom 17.02 343 eP P 19 18 28.9 -0.6
DPC Dobruska-Polom 17.02 343 eP P 19 18 28.9 -0.6
DPC Dobruska-Polom 17.02 343 eP P 19 18 28.9 -0.6
BNI Bardonecchia 17.02 314 eP Pn 19 18 27.2 -0.9
BNI pmax pmax
comp=Z,10.0nm,1.3s
BNI Bardonecchia 17.02 314 eP Pn 19 18 27.2 -0.9
comp=Z,10.0nm,1.3s
BNI Bardonecchia 17.02 314 ePn Pn 19 18 27.2 -0.9
comp=Z,10nm,1.3s
GOPC GO Pecny, Ondr 17.02 340 eP P 19 18 29.0 -0.5
GOPC GO Pecny, Ondr 17.02 340 eP P 19 18 29.0 -0.5
GOPC GO Pecny, Ondr 17.02 340 eP P 19 18 29.0 -0.5
PRU Pruhonice 17.16 339 eP Pn 19 18 27.8 -1.8
PRU ex x 19 18 31.3
PRU Pruhonice 17.16 339 eP Pn 19 18 27.8 -1.8
UPC Upice 17.24 343 eP Pn 19 18 29.4 -1.2
UPC Upice 17.24 343 eP Pn 19 18 29.4 -1.2
UPC Upice 17.24 343 eP Pn 19 18 29.4 -1.2
SENIN Lac Senin/Sane 17.44 319 ePn Pn 19 18 31.3 -2.0
comp=Z,19nm,1.6s
SENIN Lac Senin/Sane 17.44 319 ePn Pn 19 18 31.3 -2.0
comp=Z,19nm,1.6s
KIV Kislovodsk 17.54 51 eP Pn 19 18 32.7 -1.8
KIV pmax pmax
comp=Z,9.0nm,1.1s
KIV Kislovodsk 17.54 51 ePn Pn 19 18 33.1 -1.4
comp=Z,7.9nm,0.9s
KIV Kislovodsk 17.54 51 ePn Pn 19 18 33.1 -1.4
comp=Z,7.9nm,0.9s
KVAR Kislovodsk Arr 17.55 51 P Pn 19 18 34.0 -0.6
baz=247,slow=22,SNR=2.7
KVAR Kislovodsk Arr 17.55 51 P Pn 19 18 34.0 -0.6
KBZ Khabaz 17.58 52 P Pn 19 18 33.3 -1.5
comp=Z,0.2nm,0.3s,baz=260,slow=9.2,SNR=11
PVCC Panska Ves 17.64 340 eP Pn 19 18 35.2 -0.3
PVCC Panska Ves 17.64 340 eP Pn 19 18 35.2 -0.3
PVCC Panska Ves 17.64 340 eP Pn 19 18 35.2 -0.3
GRFO Grafenberg 18.03 333 eP Pn 19 18 40.1 -0.2
GRFO pmax pmax
comp=Z,28nm,1.3s
GRFO Grafenberg 18.03 333 eP Pn 19 18 40.1 -0.2
comp=Z,28nm,1.3s
GRFO Grafenberg 18.03 333 ePn Pn 19 18 40.1 -0.2
comp=Z,28nm,1.3s
NKC Novy Kostel 18.04 336 eP Pn 19 18 39.4 -1.1
NKC Novy Kostel 18.04 336 eP Pn 19 18 39.4 -1.1
NKC Novy Kostel 18.04 336 eP Pn 19 18 39.4 -1.1
BRG Berggiesshubel 18.12 340 eP Pn 19 18 40.7 -0.8
comp=Z,9.2nm,1.1s
BRG Berggiesshubel 18.12 340 eP Pn 19 18 40.7 -0.8
BRG pmax pmax
comp=Z,9.0nm,1.1s
BRG Berggiesshubel 18.12 340 eP Pn 19 18 40.7 -0.8
comp=Z,9.0nm,1.1s
BFO Black Forest 18.22 325 eP P 19 18 41.6 -1.1
BFO pmax pmax
comp=Z,11nm,1.3s
BFO Black Forest 18.22 325 eP P 19 18 41.6 -1.1
comp=Z,11nm,1.3s
BFO Black Forest 18.22 325 eP P 19 18 41.6 -1.1
comp=Z,11nm,1.3s
MOX Moxa 18.67 335 P Pn 19 18 49.6 +1.4
MOX pmax pmax
comp=Z,13nm,2.3s
CLL Collm 18.79 339 iP P 19 18 48.8 -0.1
CLL pmax pmax
comp=Z,13nm,1.0s
CLL Collm 18.79 339 iP P 19 18 48.8 -0.1
comp=Z,13nm,1.0s
CLL Collm 18.79 339 eP P 19 18 48.0 -0.9
comp=Z,13nm,1.0s
CLL Collm 18.79 339 eP P 19 18 48.0 -0.9
comp=Z,13nm,1.0s
NSR Nassriya 19.07 93 iSn Sn 19 22 25.0 -0.8
SNR=3.0
TAM Tamanrasset 19.67 239 eP Pn 19 19 00.5 0.0
TAM pmax pmax
comp=Z,3.0nm,1.0s
TAM Tamanrasset 19.67 239 eP Pn 19 19 00.5 0.0
comp=Z,3.3nm,1.0s
SUW Suwalki 19.79 359 P P 19 18 59.0 -0.7
SUW Suwalki 19.79 359 P P 19 18 59.0 -0.7
WLF Walferdange 20.18 325 eP P 19 19 04.3 +0.2
WLF pmax pmax
comp=Z,18nm,1.1s
WLF Walferdange 20.18 325 eP P 19 19 04.3 +0.2
comp=Z,18nm,1.1s
WLF Walferdange 20.18 325 eP P 19 19 04.3 +0.2
comp=Z,18nm,1.1s
NACGM Naroch 20.78 5 e P 19 19 08.0 -2.5

RAYN Ar Rayn 21.74 114 eP P 19 19 24.6 +3.4
OBN Obninsk 22.70 19 P P 19 19 30.0 -1.1
comp=Z,13nm,0.6s,baz=73,slow=12,SNR=3.9
OBN Obninsk 22.70 19 eP P 19 19 30.3 -0.8
comp=Z,32nm,1.2s
OBN Obninsk 22.70 19 eP P 19 19 30.3 -0.8
comp=Z,32nm,1.2s
ESDC Sonseca Array 22.81 292 P P 19 19 33.4 +0.9
comp=Z,0.8nm,0.7s,baz=93,slow=9.8,SNR=4.4
MDT Midelt 23.71 275 P P 19 19 42.7 +1.1
comp=Z,1.5nm,0.7s,baz=83,slow=9.6,SNR=4.7
HFS Hagfors 26.75 349 P P 19 20 07.9 -0.9
comp=Z,3.7nm,0.5s,baz=163,slow=12,SNR=17
FIA0 FINESS Array S 27.27 2 eP P 19 20 11.6 -1.9
FIA0 FINESS Array S 27.27 2 eP P 19 20 11.6 -1.9
FIA0 FINESS Array S 27.27 2 eP P 19 20 11.6 -1.9
FINES FINESS Array B 27.27 2 P P 19 20 11.6 -1.9
comp=Z,8.3nm,1.1s,baz=173,slow=10,SNR=4.4
FIA1 FINESS Array S 27.27 2 eP P 19 20 12.0 -1.5
comp=Z,139nm,1.9s
FIA1 FINESS Array S 27.27 2 eP P 19 20 12.0 -1.5
comp=Z,139nm,1.9s
NC602 NORSAR Array S 27.69 347 eP P 19 20 15.8 -1.4
NAO01 NORSAR Array S 27.92 346 eP P 19 20 18.1 -1.2
NC405 NORSAR Array S 28.01 347 eP P 19 20 19.5 -0.7
NB201 NORSAR Array S 28.03 347 eP P 19 20 18.9 -1.4
NB2 NORSAR Subarra 28.03 347 P P 19 20 17.8 -2.6
comp=Z,9.1nm,1.2s,baz=156,slow=9.3
NB2 NORSAR Subarra 28.03 347 P P 19 20 17.8 -2.6
comp=Z,9.1nm,1.2s,SNR=5.0
NB200 NORSAR Array S 28.03 347 eP P 19 20 19.2 -1.2
NOA NORSAR Array B 28.03 347 P P 19 20 19.2 -1.2
comp=Z,1.0nm,0.6s,baz=158,slow=11,SNR=5.9
NBO00 NORSAR Array S 28.11 347 eP P 19 20 20.2 -0.8
NBO02 NORSAR Array S 28.11 347 eP P 19 20 20.1 -0.9
EKA Eskdalemuir Ar 28.18 327 P P 19 20 19.5 -2.2
comp=Z,2.4nm,0.5s,baz=122,slow=9.4,SNR=5.8
NC204 NORSAR Array S 28.34 347 eP P 19 20 20.9 -2.2
TOA1 Torodi Ar. Sit 29.04 229 eP P 19 20 30.5 +0.8
TOA1 Torodi Ar. Sit 29.04 229 eP P 19 20 30.5 +0.8
TOA0 Torodi Ar. Sit 29.04 229 eP P 19 20 29.2 -0.5
comp=Z,7.7nm,1.5s
TOA0 Torodi Ar. Sit 29.04 229 eP P 19 20 29.2 -0.5
comp=Z,7.7nm,1.5s
TORD Torodi Ar. Bea 29.04 229 P P 19 20 30.5 +0.8
comp=Z,1.3nm,0.5s,baz=34,slow=8.8,SNR=20
UOSS Minazif 29.55 100 eP P 19 20 35.0 +0.8
comp=Z,44nm,1.5s
UOSS Minazif 29.55 100 eP P 19 20 35.0 +0.8
comp=Z,44nm,1.5s
AKTK Aktyubinsk 29.70 47 P P 19 20 34.5 -0.7
comp=Z,4.0nm,0.6s
AKTO Aktyubinsk 29.70 47 P P 19 20 34.5 -0.8
comp=Z,3.5nm,0.6s,baz=256,slow=7.4,SNR=12
ABKAR Akbulak array 30.52 50 eP P 19 20 41.4 -1.1
comp=Z,31nm,1.2s
ABKAR Akbulak array 30.52 50 eP P 19 20 41.4 -1.1
comp=Z,31nm,1.2s
KOWA Kowa 31.90 239 eP P 19 20 55.6 +0.6
comp=Z,21nm,1.8s
KOWA Kowa 31.90 239 eP P 19 20 55.6 +0.6
comp=Z,21nm,1.8s
ARU Arti 32.46 36 P P 19 20 58.1 -1.4
comp=Z,3.9nm,0.6s,baz=244,slow=4.0,SNR=10
ARU Arti 32.46 36 P P 19 20 58.8 -0.7
ARU Arti 32.46 36 P P 19 20 58.8 -0.7
ARU Arti 32.46 36 eP P 19 20 58.4 -1.1
comp=Z,6.0nm,0.8s
SVE Sverdlovsk 33.66 36 eP P 19 21 09.3 -0.7
SVE pmax pmax
comp=Z,18nm,0.9s
SVE Sverdlovsk 33.66 36 eP P 19 21 09.3 -0.7
comp=Z,18nm,0.9s
ARE0 ARCESS Array S 35.37 1 eP P 19 21 22.4 -2.2
comp=Z,173nm,2.0s
ARE0 ARCESS Array S 35.37 1 eP P 19 21 22.4 -2.2
comp=Z,173nm,2.0s
ARA0 ARCESS Array S 35.37 1 eP P 19 21 22.5 -2.1
ARA0 ARCESS Array S 35.37 1 eP P 19 21 22.5 -2.1
ARCES ARCESS Array B 35.37 1 P P 19 21 22.5 -2.1
comp=Z,5.2nm,0.8s,baz=180,slow=8.4,SNR=12
KEV Kevo 35.62 2 eP P 19 21 25.2 -1.5
KEV pmax pmax
comp=Z,202nm,1.9s
KEV Kevo 35.62 2 eP P 19 21 25.2 -1.5
comp=Z,202nm,1.9s
KEV Kevo 35.62 2 eP P 19 21 25.1 -1.5
comp=Z,202nm,1.9s
KKAR Karatay Array 37.12 62 eP P 19 21 40.4 +0.5
KKAR pmax pmax
comp=Z,49nm,0.7s
KKAR Karatay Array 37.12 62 eP P 19 21 40.4 +0.5
comp=Z,49nm,0.7s
KKAR Karatay Array 37.12 62 eP P 19 21 40.4 +0.5
comp=Z,49nm,0.7s
BRVK Borovoye 37.73 46 eP P 19 21 44.9 0.0
BRVK pmax pmax
comp=Z,3.0nm,0.9s
BRVK Borovoye 37.73 46 eP P 19 21 44.9 0.0
comp=Z,3.0nm,0.9s
BRVK Borovoye 37.73 46 eP P 19 21 44.9 0.0
comp=Z,3.0nm,0.9s
BVAR Borovoye Array 37.79 46 P P 19 21 44.3 -1.2
comp=Z,2.3nm,0.8s,baz=255,slow=10,SNR=10
DBIC Dimbokro 38.12 231 P P 19 21 47.9 -0.6
comp=Z,1.9nm,0.6s,baz=7.7,slow=11,SNR=4.8
DBIC Dimbokro 38.12 231 eP P 19 21 49.2 +0.6
DBIC pmax pmax
comp=Z,11nm,1.3s
DBIC Dimbokro 38.12 231 eP P 19 21 49.2 +0.6
comp=Z,10nm,1.3s
DBIC Dimbokro 38.12 231 eP P 19 21 49.1 +0.6
comp=Z,10nm,1.3s
TIC Toumodi 38.24 231 eP P 19 21 49.2 -0.4
KIC Kosan Boka 38.28 230 eP P 19 21 50.3 +0.4
comp=Z,33nm,1.3s
LIC Lamto 38.57 230 eP P 19 21 52.4 +0.1
comp=Z,47nm,1.5s
AAK Ala-Archa 40.07 62 P P 19 22 06.0 +1.2
comp=Z,4.2nm,0.7s,baz=236,slow=4.9,SNR=14
AAK Ala-Archa 40.07 62 eP P 19 22 05.4 +0.6
comp=Z,4.6nm,0.8s
AAK Ala-Archa 40.07 62 eP P 19 22 05.4 +0.6
comp=Z,4.6nm,0.8s
AAK ePcP PcP 19 24 08.8 -0.3
KSH Kashi 41.58 67 P P 19 22 17.0 -0.3
KSH pP sP 19 22 51.3 +20
KSH PP PnPn 19 23 56.5 -2.1
KSH PcP PcP 19 24 16.5 +2.5
KSH S S 19 28 11.8 -19
KSH SS SS 19 31 12.0 -25
KSH ScS ScS 19 32 00.3 -18
KSH pmax pmax
comp=Z,4.0nm,0.9s
KSH pmax pmax
comp=Z,150nm,4.5s
KSH LR LR
comp=N,56nm,2.1s
KSH LR LR
comp=E,7.0nm,3.3s
KSH LR LR
comp=Z,180nm,3.6s
KURBB Kurchatov Arra 42.57 50 P P 19 22 24.6 -0.5
comp=Z,4.4nm,0.6s,baz=271,slow=8.7,SNR=50
KURBB PP PP 19 24 01.2 -2.7
comp=Z,1.1nm,0.9s,baz=271,slow=12,SNR=4.4
KURK Kurchatov 42.63 50 P P 19 22 24.6 -0.9
KURK 19 24 01.2
KURK pmax pmax
comp=Z,4.0nm,0.6s
KURK pmax pmax
comp=Z,1.0nm,0.9s
KURK Kurchatov 42.63 50 P P 19 22 24.6 -0.9
comp=Z,4.0nm,0.6s
MAKZ Makanchi 45.00 56 eP P 19 22 44.6 0.0
MAKZ pmax pmax
comp=Z,3.0nm,0.7s
MAKZ Makanchi 45.00 56 eP P 19 22 44.6 0.0
comp=Z,3.0nm,0.7s
MAKZ Makanchi 45.00 56 eP P 19 22 44.6 0.0
comp=Z,3.0nm,0.7s
MK31 Makanchi Array 45.22 56 eP P 19 22 46.1 -0.3
MK31 Makanchi Array 45.22 56 eP P 19 22 46.1 -0.3
MK31 Makanchi Array 45.22 56 eP P 19 22 46.1 -0.3
MK32 Makanchi Array 45.22 56 eP P 19 22 46.5 +0.1
MK32 Makanchi Array 45.22 56 eP P 19 22 46.5 +0.1

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| MKAR | **Makanchi Array** | 45.22 | 56 | P | | P | | 19 22 46.5 | +0.1 |
| | comp=Z,5.6nm,0.5s,baz=274,slow=7.4,SNR=84 | | | | | | | | |
| MKAR | **Makanchi Array** | 45.22 | 56 | *e*P | | P | | 19 22 46.1 | -0.3 |
| MKAR | | | | | pmax | | pmax | | |
| | comp=Z,54nm,0.6s | | | | | | | | |
| MKAR | **Makanchi Array** | 45.22 | 56 | *e*P | | P | | 19 22 46.1 | -0.3 |
| | comp=Z,54nm,0.6s | | | | | | | | |
| MKAR | **Makanchi Array** | 45.22 | 56 | *e*P | | P | | 19 22 46.1 | -0.3 |
| | comp=Z,54nm,0.6s | | | | | | | | |
| MK01 | **Makanchi Array** | 45.22 | 56 | *e*P | | P | | 19 22 46.3 | -0.2 |
| MK01 | **Makanchi Array** | 45.22 | 56 | *e*P | | P | | 19 22 46.3 | -0.2 |
| NVS | **Novosibirsk** | 45.53 | 44 | *e*P | | P | | 19 22 48.8 | +0.1 |
| NVS | **Novosibirsk** | 45.53 | 44 | *e*P | | P | | 19 22 48.8 | +0.1 |
| ZAA0 | **Zalesovo Array** | 46.45 | 46 | *e*P | | P | | 19 22 54.8 | -1.2 |
| | comp=Z,8.2nm,0.7s | | | | | | | | |
| ZAA0 | **Zalesovo Array** | 46.45 | 46 | *e*P | | P | | 19 22 54.8 | -1.2 |
| | comp=Z,8.2nm,0.7s | | | | | | | | |
| ZAA1 | **Zalesovo Array** | 46.45 | 46 | *e*P | | P | | 19 22 54.1 | -1.8 |
| ZAA1 | **Zalesovo Array** | 46.45 | 46 | *e*P | | P | | 19 22 54.1 | -1.8 |
| ZALV | **Zalesovo Beam** | 46.45 | 46 | P | | P | | 19 22 54.1 | -1.9 |
| | comp=Z,3.1nm,0.4s,baz=270,slow=8.9,SNR=8.5 | | | | | | | | |
| ZALV | **Zalesovo Beam** | 46.45 | 46 | *e*P | | P | | 19 22 54.8 | -1.1 |
| ZALV | **Zalesovo Beam** | 46.45 | 46 | *e*P | | P | | 19 22 54.8 | -1.1 |
| ZALV | **Zalesovo Beam** | 46.45 | 46 | *e*P | | P | | 19 22 54.8 | -1.1 |
| SACV | **Santiago Islan** | 46.72 | 258 | *e*P | | P | | 19 22 56.5 | -2.1 |
| | comp=Z,281nm,1.8s | | | | | | | | |
| SACV | **Santiago Islan** | 46.72 | 258 | *e*P | | P | | 19 22 56.5 | -2.1 |
| | comp=Z,281nm,1.8s | | | | | | | | |
| MSEY | **Mahe Island** | 48.89 | 136 | *e*P | | P | | 19 23 16.3 | +0.9 |
| MSEY | **Mahe Island** | 48.89 | 136 | *e*P | | P | | 19 23 16.2 | +0.9 |
| | comp=Z,196nm,1.5s | | | | | | | | |
| MSEY | **Mahe Island** | 48.89 | 136 | *e*P | | P | | 19 23 16.2 | +0.9 |
| | comp=Z,196nm,1.5s | | | | | | | | |
| SUMG | **Summit** | 49.45 | 339 | *e*P | | P | | 19 23 19.8 | +0.4 |
| SUMG | | | | | pmax | | pmax | | |
| | comp=Z,16nm,1.5s | | | | | | | | |
| SUMG | **Summit** | 49.45 | 339 | *e*P | | P | | 19 23 19.8 | +0.4 |
| | comp=Z,16nm,1.5s | | | | | | | | |
| SUMG | **Summit** | 49.45 | 339 | *e*P | | P | | 19 23 19.8 | +0.4 |
| | comp=Z,16nm,1.5s | | | | | | | | |
| PYUN | **Piuthan** | 50.40 | 80 | *e*P | | P | | 19 23 27.7 | +0.7 |
| | comp=Z,25nm,0.6s | | | | | | | | |
| DANN | **Dangsing** | 50.93 | 79 | *e*P | | P | | 19 23 32.2 | +1.1 |
| | comp=Z,4.1nm,0.9s | | | | | | | | |
| DMN | **Daman** | 52.32 | 80 | *e*P | | P | | 19 23 41.5 | 0.0 |
| | comp=Z,13nm,0.5s | | | | | | | | |
| KKN | **Kakani** | 52.39 | 79 | *e*P | | P | | 19 23 41.7 | -0.2 |
| | comp=Z,17nm,0.7s | | | | | | | | |
| PKIN | **Phulchoki** | 52.57 | 79 | *e*P | | P | | 19 23 43.3 | 0.0 |
| | comp=Z,7.3nm,0.5s | | | | | | | | |
| PKI | **Pulchoki** | 52.58 | 79 | *e*P | | P | | 19 23 43.4 | -0.1 |
| | comp=Z,20nm,0.8s | | | | | | | | |
| GUN | **Gumba** | 52.83 | 79 | *e*P | | P | | 19 23 45.5 | +0.2 |
| | comp=Z,20nm,0.4s | | | | | | | | |
| JIRN | **Jiri** | 53.18 | 79 | *e*P | | P | | 19 23 48.1 | +0.1 |
| | comp=Z,191nm,0.9s | | | | | | | | |
| RAMN | **Ramite** | 53.80 | 80 | *e*P | | P | | 19 23 51.6 | -0.8 |
| | comp=Z,100nm,1.9s | | | | | | | | |
| ODAN | **Odare** | 54.48 | 79 | *e*P | | P | | 19 23 57.2 | -0.1 |
| | comp=Z,20nm,1.1s | | | | | | | | |
| TAPN | **Taplejung** | 54.54 | 79 | *e*P | | P | | 19 23 57.6 | -0.2 |
| | comp=Z,12nm,0.9s | | | | | | | | |
| LSA | **Lhasa** | 56.37 | 75 | *e*P | | P | | 19 24 11.3 | +0.1 |
| LSA | | | | | pmax | | pmax | | |
| | comp=Z,4.0nm,0.9s | | | | | | | | |
| LSA | **Lhasa** | 56.37 | 75 | *e*P | | P | | 19 24 11.3 | +0.1 |
| | comp=Z,4.3nm,0.9s | | | | | | | | |
| LSA | **Lhasa** | 56.37 | 75 | *e*P | | P | | 19 24 11.3 | +0.1 |
| | comp=Z,4.3nm,0.9s | | | | | | | | |
| TULEG | **Thule** | 57.63 | 344 | *e*P | | P | | 19 24 17.4 | -1.4 |
| | comp=Z,6.0nm,1.0s | | | | | | | | |
| TULEG | **Thule** | 57.63 | 344 | *e*P | | P | | 19 24 17.4 | -1.4 |
| | comp=Z,6.0nm,1.0s | | | | | | | | |
| GTA | **Gaotai** | 59.38 | 61 | *e*P | | P | | 19 24 31.8 | 0.0 |
| GTA | | | | | pP | | pP | 19 24 34.5 | -7.9 |
| GTA | | | | | sP | | sP | 19 24 37.8 | -8.7 |
| GTA | | | | | pmax | | pmax | | |
| | comp=Z,3.0nm,0.9s | | | | | | | | |
| SONA0 | **Songino Array** | 60.93 | 50 | *e*P | | P | | 19 24 42.8 | +0.5 |
| SONA0 | **Songino Array** | 60.93 | 50 | *e*P | | P | | 19 24 42.8 | +0.5 |
| SONM | **Songino Array** | 60.93 | 50 | P | | P | | 19 24 42.8 | +0.5 |
| | comp=Z,1.4nm,0.6s,baz=292,slow=7.6,SNR=1.8 | | | | | | | | |
| SONA1 | **Songino Array** | 60.94 | 50 | *e*P | | P | | 19 24 41.3 | -1.0 |
| SONA1 | **Songino Array** | 60.94 | 50 | *e*P | | P | | 19 24 41.3 | -1.0 |
| SCHQ | **Schefferville** | 63.17 | 320 | P | | P | | 19 24 56.4 | -0.6 |
| | comp=Z,5.2nm,0.9s,baz=75,slow=12,SNR=4.7 | | | | | | | | |
| SCHQ | **Schefferville** | 63.17 | 320 | *e*P | | P | | 19 24 55.7 | -1.3 |
| | comp=Z,36nm,1.5s | | | | | | | | |
| SCHQ | **Schefferville** | 63.17 | 320 | *e*P | | P | | 19 24 55.7 | -1.3 |
| | comp=Z,36nm,1.5s | | | | | | | | |
| HHC | **Hu-ho-hao-te** | 67.08 | 55 | *e*P | | P | | 19 25 23.8 | +1.1 |
| HHC | | | | S | | S | | 19 34 11.8 | -2.5 |
| HHC | | | | sS | | sS | | 19 34 33.5 | +1.4 |
| HHC | | | | ScS | | SKSac | | 19 35 13.5 | -3.9 |
| HHC | **Hu-ho-hao-te** | 67.08 | 55 | SS | | SS | | 19 38 32.5 | -0.5 |
| HHC | | | | | pmax | | pmax | | |
| | comp=Z,12nm,1.0s | | | | | | | | |
| HHC | | | | | pmax | | pmax | | |
| | comp=Z,66nm,5.3s | | | | | | | | |
| HHC | | | | | LR | | LR | | |
| | comp=N,68nm,16.7s | | | | | | | | |
| HHC | | | | | LR | | LR | | |
| | comp=E,180nm,15.7s | | | | | | | | |
| HHC | | | | | LR | | LR | | |
| | comp=Z,81nm,14.7s | | | | | | | | |
| CM31 | **Chiang Mai Arr** | 67.79 | 82 | *e*P | | P | | 19 25 27.2 | -0.2 |
| CM31 | **Chiang Mai Arr** | 67.79 | 82 | *e*P | | P | | 19 25 27.2 | -0.2 |
| CMAR | **Chiang Mai Arr** | 67.79 | 82 | P | | P | | 19 25 27.4 | +0.1 |
| | comp=Z,1.1nm,0.9s,baz=298,slow=8.6,SNR=7.9 | | | | | | | | |
| CM01 | **Chiang Mai Arr** | 67.82 | 82 | *e*P | | P | | 19 25 27.0 | -0.6 |
| CM01 | **Chiang Mai Arr** | 67.82 | 82 | *e*P | | P | | 19 25 27.0 | -0.6 |
| RCBR | **Riachuelo** | 68.94 | 247 | *e*P | | P | | 19 25 35.0 | +0.4 |
| | comp=Z,30nm,1.4s | | | | | | | | |
| RCBR | **Riachuelo** | 68.94 | 247 | *e*P | | P | | 19 25 35.0 | +0.4 |
| | comp=Z,30nm,1.4s | | | | | | | | |
| HRV | **Adam Dziewonsk** | 71.36 | 309 | *e*P | | P | | 19 25 48.4 | -0.6 |
| HRV | | | | | pmax | | pmax | | |
| | comp=Z,131nm,1.8s | | | | | | | | |
| HRV | **Adam Dziewonsk** | 71.36 | 309 | *e*P | | P | | 19 25 48.4 | -0.6 |
| | comp=Z,131nm,1.8s | | | | | | | | |
| HRV | **Adam Dziewonsk** | 71.36 | 309 | *e*P | | P | | 19 25 48.4 | -0.6 |
| | comp=Z,131nm,1.8s | | | | | | | | |
| YKA | **Yellowknife Ar** | 77.99 | 342 | P | | P | | 19 26 26.7 | -0.3 |
| | comp=Z,0.3nm,0.4s,baz=38,slow=5.3,SNR=5.3 | | | | | | | | |
| YKB5 | **Yellowknife Ar** | 77.99 | 342 | *e*P | | P | | 19 26 26.7 | -0.3 |
| YKB5 | **Yellowknife Ar** | 77.99 | 342 | *e*P | | P | | 19 26 26.7 | -0.3 |
| USRK | **Ussuriysk Ar.** | 78.28 | 44 | P | | P | | 19 26 28.8 | -0.2 |
| | comp=Z,3.6nm,0.5s,baz=273,slow=4.6,SNR=8.4 | | | | | | | | |
| KS15 | **Wonju Array Si** | 79.71 | 52 | *e*P | | P | | 19 26 37.5 | +0.5 |
| KS15 | **Wonju Array Si** | 79.71 | 52 | *e*P | | P | | 19 26 37.5 | +0.5 |
| KSAR | **Wonju Array Be** | 79.71 | 52 | P | | P | | 19 26 37.5 | +0.5 |
| KSAR | **Wonju Array Be** | 79.71 | 52 | P | | P | | 19 26 37.5 | +0.5 |
| KSAR | **Wonju Array Be** | 79.71 | 52 | P | | P | | 19 26 37.5 | +0.5 |
| KSRS | **Korea Array** | 79.73 | 52 | P | | P | | 19 26 37.5 | +0.4 |
| | comp=Z,4.1nm,0.9s,baz=302,slow=4.8,SNR=11 | | | | | | | | |
| ILAR | **Eielson Array** | 81.06 | 356 | P | | P | | 19 26 43.7 | 0.0 |
| | comp=Z,0.8nm,0.9s,baz=352,slow=3.1,SNR=7.0 | | | | | | | | |
| ILB | **Eielson Array** | 81.06 | 356 | *e*P | | P | | 19 26 43.7 | 0.0 |
| ILB | **Eielson Array** | 81.06 | 356 | *e*P | | P | | 19 26 43.7 | 0.0 |
| JNU | **Nakatsue** | 84.23 | 54 | P | | P | | 19 27 01.4 | +0.5 |
| | comp=Z,3.7nm,0.9s,baz=305,slow=3.3,SNR=4.8 | | | | | | | | |
| JNU | **Nakatsue** | 84.23 | 54 | *e*P | | P | | 19 27 01.4 | +0.5 |
| | comp=Z,24nm,1.7s | | | | | | | | |
| JNU | **Nakatsue** | 84.23 | 54 | *e*P | | P | | 19 27 01.4 | +0.5 |
| | comp=Z,24nm,1.7s | | | | | | | | |
| MJAR | **Matsushiro Ar** | 86.77 | 47 | P | | P | | 19 27 14.2 | +0.7 |
| | comp=Z,2.2nm,0.9s,baz=319,slow=4.0,SNR=4.2 | | | | | | | | |
| WRA | **Warramunga Arr** | 117.59 | 96 | PKP | | PKPdf | | 19 33 15.2 | -0.2 |
| | comp=Z,0.3nm,0.7s,baz=326,slow=1.4,SNR=6.8 | | | | | | | | |
| WR1 | **Warramunga Arr** | 117.59 | 96 | *e*PKPdf | | PKPdf | | 19 33 15.2 | -0.2 |
| ASAR | **Alice Springs** | 118.98 | 100 | PKP | | PKPdf | | 19 33 17.7 | -0.3 |
| | comp=Z,0.4nm,0.7s,baz=325,slow=1.7,SNR=7.2 | | | | | | | | |
| AS31 | **Alice Springs** | 118.98 | 100 | *e*PKPdf | | PKPdf | | 19 33 17.7 | -0.3 |

**IDC 27 19:17:55.1±3.9,5.25S×140.11E,h0km,mb3.4/1, mb1 3.6/4,mb1mx3.3/36,mbtmp3.4/4,ML3.4/3,Error ellipse: s-maj=119.2km s-min=30.3km az=96.0,Irian Jaya**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| WRA | **Warramunga Arr** | 15.65 | 201 | Pn | | Pn | 19 21 39.3 | +2.1 |
| | 0.2nm,0.3s,baz=23,slow=13,SNR=11 | | | | | | | |
| FITZ | **Fitzroy Crossi** | 19.06 | 227 | P | | P | 19 22 18.5 | -0.7 |
| | 0.2nm,0.3s,baz=34,slow=15,SNR=4.9 | | | | | | | |
| ASAR | **Alice Springs** | 19.27 | 197 | P | | P | 19 22 21.1 | -0.4 |
| | 0.1nm,0.3s,baz=28,slow=9.6,SNR=7.3 | | | | | | | |
| MKAR | **Makanchi Array** | 72.64 | 322 | P | | P | 19 29 24.9 | +0.1 |
| | 0.3nm,0.7s,baz=127,slow=6.8,SNR=4.0 | | | | | | | |

*ISN **27** 19:18:45.5±1.4,39.51N×43.71E,h3km±76km,ML4.5*
*ISK **27** 19:18:52.6,38.89N×43.80E,h5km,ML4.4*
*NEIC **27** 19:18:52.8±0.0,38.89N×43.79E,h5km,mb4.7/55, ML4.5(ISK),After ISK.*
*DDA **27** 19:18:52.6,38.92N×43.64E,h6km,Ml4.4*
*MOS **27** 19:18:52.3±1.5,38.70N×43.64E,h17km,mb4.8/31,Error ellipse: s-maj=7.0km s-min=5.1km az=108.7*
*ISCJB **27** 19:18:53.5±0.1,38.90N±0.02×43.69E±0.01,h10km, mb4.6/58,MS3.9/19,Error ellipse: s-maj=2.5km s-min=1.4km az=163.3*
*CSEM **27** 19:18:53.9±0.1,38.92N×43.64E,h5km,mb4.6/34,Error ellipse: s-maj=3.3km s-min=2.4km az=163.0*
*IDC **27** 19:18:53.3±0.9,38.94N×43.65E,h0km,mb3.9/13, mb1 4.0/18,mb1mx3.8/48,mbtmp3.9/18,ML3.7/3,MS3.9/23, Ms1 3.9/23,ms1mx3.7/42,Error ellipse: s-maj=17.5km s-min=10.4km az=165.0*
*BJI **27** 19:18:54.5,38.80N×43.70E,h22km,mb4.6/14,mB5.1/7, Ms4.5/5,Ms7 4.2/5*
*AZER **27** 19:18:56.7±0.3,38.91N×43.92E,h1km±3km,Error ellipse: s-maj=4.4km s-min=2.2km az=74.0*

**ISC 27 19:18:53.4±0.8,38.92N±0.01×43.68E±0.02,h7km±5km, n459,σ2ş17/540,mb4.6/58,MS3.9/19,60C-52D,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| VMUR | **Van-Muradiye** | 0.11 | 307 | ⇓*i*P | | Pg | 19 18 54.3 | -1.7 |
| VMUR | | | | *i* S | | Sg | 19 18 56.7 | -1.2 |
| VMUR | **Van-Muradiye** | 0.11 | 307 | P | | Pg | 19 18 54.3 | -1.7 |
| VMUR | | | | S | | Sg | 19 18 56.7 | -1.2 |
| VANB | **Van** | 0.40 | 215 | *e*PG | | Pg | 19 19 02.4 | +1.1 |
| VANB | **Van** | 0.40 | 215 | *e*Pg | | Pg | 19 19 02.4 | +1.1 |
| TVAN | **Van** | 0.45 | 209 | ⇑*i*P | | Pg | 19 19 02.2 | 0.0 |
| TVAN | | | | *i* S | | Sb | 19 19 10.7 | 0.0 |
| TVAN | **Van** | 0.45 | 209 | P | | Pg | 19 19 02.2 | 0.0 |
| TVAN | | | | S | | Sb | 19 19 10.7 | 0.0 |
| DYDN | **Diyadin** | 0.62 | 1 | ⇓*i*P | | Pg | 19 19 04.0 | -1.4 |
| DYDN | | | | *i* S | | Sg | 19 19 14.6 | +1.0 |
| DYDN | **Diyadin** | 0.62 | 1 | P | | Pg | 19 19 04.0 | -1.4 |
| DYDN | | | | S | | Sg | 19 19 14.6 | +1.0 |
| ADCV | **BITLIS_Adilcev** | 0.76 | 262 | *i* P | | Pg | 19 19 06.9 | -1.1 |
| ADCV | | | | *i* S | | Sg | 19 19 19.8 | +1.9 |
| ADCV | **BITLIS_Adilcev** | 0.76 | 262 | P | | Pg | 19 19 06.9 | -1.1 |
| ADCV | | | | S | | Sg | 19 19 19.8 | +1.9 |
| GEVA | **Gevas** | 0.78 | 219 | ⇑*i*P | | Pg | 19 19 07.3 | -1.2 |
| GEVA | | | | *i* S | | Sb | 19 19 20.5 | +0.2 |
| GEVA | **Gevas** | 0.78 | 219 | P | | Pg | 19 19 07.3 | -1.2 |
| GEVA | | | | S | | Sb | 19 19 20.5 | +0.2 |
| TUTA | **Tutak** | 0.83 | 306 | ⇑*i*P | | Pg | 19 19 07.5 | -1.8 |
| TUTA | | | | *i* S | | Sg | 19 19 19.5 | -0.6 |
| TUTA | **Tutak** | 0.83 | 306 | P | | Pg | 19 19 07.6 | -1.8 |
| TUTA | | | | S | | Sg | 19 19 19.5 | -0.6 |
| AGRB | **Hanur-Agry** | 0.84 | 321 | *e*PG | | Pg | 19 19 10.9 | +1.2 |
| AGRB | **Hanur-Agry** | 0.84 | 321 | *e*Pg | | Pg | 19 19 10.9 | +1.2 |
| TASB | **TASBURUN-IGDIR** | 1.14 | 22 | *e*PN | | Pb | 19 19 15.3 | -0.2 |
| TASB | | | | *e*SN | | Sn | 19 19 32.7 | +0.9 |
| TASB | **TASBURUN-IGDIR** | 1.14 | 22 | *e*Pn | | Pb | 19 19 15.3 | -0.2 |
| TASB | | | | *e*Sn | | Sn | 19 19 32.7 | +0.9 |
| HYR | **Heyderabad** | 1.21 | 48 | ⇓P | | Pn | 19 19 17.1 | +0.4 |
| HYR | | | | ⇑S | | Sb | 19 19 32.6 | +0.2 |
| HYR | **Heyderabad** | 1.21 | 48 | P | | Pn | 19 19 17.1 | +0.4 |
| HYR | | | | S | | Sb | 19 19 32.6 | +0.2 |
| EKAR | **Karacoban** | 1.30 | 285 | ⇓*i*P | | Pn | 19 19 17.1 | -1.1 |
| EKAR | | | | *i* S | | Sg | 19 19 42.6 | +7.3 |
| EKAR | **Karacoban** | 1.30 | 285 | P | | Pn | 19 19 17.1 | -1.1 |
| EKAR | | | | S | | Sg | 19 19 42.6 | +7.3 |
| EATA | **Eleskirt** | 1.31 | 316 | ⇓*i*P | | Pn | 19 19 16.9 | -1.6 |
| EATA | | | | *i* S | | Sg | 19 19 39.7 | +3.9 |
| EATA | **Eleskirt** | 1.31 | 316 | P | | Pn | 19 19 16.9 | -1.6 |
| EATA | | | | S | | Sg | 19 19 39.7 | +3.9 |
| HAKT | **HAKKARI** | 1.36 | 179 | ⇓*i*P | | Pn | 19 19 18.5 | -0.6 |
| HAKT | | | | *i* S | | Sg | 19 19 45.9 | +8.6 |
| HAKT | **HAKKARI** | 1.36 | 179 | P | | Pn | 19 19 18.5 | -0.6 |
| HAKT | | | | S | | Sg | 19 19 45.9 | +8.6 |
| YOVA | **Hakkari_Y¨…kse** | 1.42 | 160 | ⇑*i*P | | Pn | 19 19 19.2 | -0.6 |
| YOVA | | | | *i* S | | Sg | 19 19 44.5 | +5.5 |
| YOVA | **Hakkari_Y¨…kse** | 1.42 | 160 | P | | Pn | 19 19 19.2 | -0.6 |
| YOVA | | | | S | | Sg | 19 19 44.5 | +5.5 |
| NAX | **Nakhchivan** | 1.43 | 79 | ⇑P | | Pg | 19 19 21.0 | 0.0 |
| NAX | | | | ⇑S | | Sb | 19 19 38.1 | -0.9 |
| NAX | **Nakhchivan** | 1.43 | 79 | P | | Pg | 19 19 21.0 | 0.0 |
| NAX | | | | S | | Sb | 19 19 38.1 | -0.9 |
| GNI | **Garni** | 1.47 | 33 | Pn | | Pb | 19 19 22.0 | +0.7 |
| | 42nm,0.3s,baz=240,slow=2.9,SNR=155 | | | | | | | |
| GNI | **Garni** | 1.47 | 33 | *e*P | | Pn | 19 19 21.1 | +0.6 |
| GNI | **Garni** | 1.47 | 33 | *e*Pn | | Pn | 19 19 20.6 | +0.1 |
| GNI | **Garni** | 1.47 | 33 | *i* P | | Pn | 19 19 21.1 | +0.6 |
| GNI | **Garni** | 1.47 | 33 | *e*Pn | | Pn | 19 19 20.6 | +0.1 |
| DIGO | **Kars** | 1.51 | 351 | ⇓*i*P | | Pn | 19 19 21.6 | +0.5 |
| DIGO | | | | *i* S | | Sg | 19 19 49.7 | +7.7 |
| DIGO | **Kars** | 1.51 | 351 | P | | Pn | 19 19 21.6 | +0.5 |
| DIGO | | | | S | | Sg | 19 19 49.7 | +7.7 |
| SBZ | **Shahbuz** | 1.53 | 71 | ⇑P | | Pg | 19 19 22.8 | 0.0 |
| SBZ | | | | ⇑S | | Sg | 19 19 43.8 | +1.2 |
| SBZ | **Shahbuz** | 1.53 | 71 | P | | Pg | 19 19 22.8 | 0.0 |
| SBZ | | | | S | | Sg | 19 19 43.8 | +1.2 |
| SRTM | **Siirt_Merkez** | 1.67 | 237 | ⇑*i*P | | Pn | 19 19 23.3 | +0.2 |
| SRTM | | | | *i* S | | Sg | 19 19 50.3 | +3.3 |
| SRTM | **Siirt_Merkez** | 1.67 | 237 | P | | Pn | 19 19 23.3 | +0.2 |
| SRTM | | | | S | | Sg | 19 19 50.3 | +3.3 |
| CUKT | **Cukurca** | 1.68 | 182 | *e*PN | | Pn | 19 19 24.1 | +0.9 |
| CUKT | | | | *e*SN | | Sb | 19 19 46.4 | +0.5 |
| CUKT | **Cukurca** | 1.68 | 182 | ⇓*i*P | | Pb | 19 19 24.4 | -0.2 |
| CUKT | | | | *i* S | | Sg | 19 19 52.1 | +4.9 |
| CUKT | **Cukurca** | 1.68 | 182 | *e*Pn | | Pn | 19 19 24.1 | +0.9 |
| CUKT | **Cukurca** | 1.68 | 182 | P | | Pb | 19 19 24.4 | -0.2 |
| CUKT | | | | *e*Sn | | Sb | 19 19 46.4 | +0.5 |
| CUKT | | | | S | | Sg | 19 19 52.2 | +4.9 |
| SIRT | **Sirnak** | 1.73 | 215 | *e*PN | | Pn | 19 19 25.3 | +1.4 |
| SIRT | **Sirnak** | 1.73 | 215 | *e*Pn | | Pn | 19 19 25.3 | +1.4 |
| SIRN | **S¨–rnak** | 1.74 | 215 | ⇑*i*P | | Pn | 19 19 24.9 | +0.8 |
| SIRN | | | | *i* S | | Sg | 19 19 54.6 | +5.3 |
| SIRN | **S¨–rnak** | 1.74 | 215 | P | | Pn | 19 19 24.9 | +0.8 |
| SIRN | | | | S | | Sg | 19 19 54.7 | +5.3 |
| EAK | **Akyaka** | 1.76 | 358 | ⇓*i*P | | Pb | 19 19 26.6 | +0.4 |
| EAK | | | | *i* S | | Sg | 19 19 54.3 | +4.2 |
| EAK | **Akyaka** | 1.76 | 358 | P | | Pb | 19 19 26.6 | +0.4 |
| EAK | | | | S | | Sg | 19 19 54.3 | +4.2 |
| KARS | **Kars** | 1.76 | 345 | *e*PN | | Pn | 19 19 25.9 | +1.4 |
| KARS | **Kars** | 1.76 | 345 | *e*Pn | | Pn | 19 19 25.9 | +1.4 |
| HOMI | **Horasan** | 1.77 | 310 | ⇓P | | Pn | 19 19 25.6 | +0.9 |
| HOMI | | | | *i* S | | Sg | 19 19 58.9 | +8.5 |
| ORD | **Ordubad** | 1.80 | 89 | P | | Pb | 19 19 27.0 | +0.2 |
| ORD | | | | S | | Sb | 19 19 49.3 | -0.3 |
| SENK | **Senkaya-Erzuru** | 1.93 | 328 | *e*PN | | Pn | 19 19 28.8 | +2.0 |
| SENK | **Senkaya-Erzuru** | 1.93 | 328 | *e*Pn | | Pn | 19 19 28.8 | +2.0 |
| BNGL | **BINGOL** | 1.98 | 272 | ⇑*i*P | | Pn | 19 19 28.1 | +0.6 |
| BNGL | | | | *i* S | | Sb | 19 19 56.7 | +2.0 |
| ERZM | **Erzurum** | 2.04 | 299 | ⇑*i*P | | Pn | 19 19 29.7 | +1.2 |
| ERZM | | | | *i* S | | Sg | 19 20 03.9 | +4.7 |
| ERZM | **Erzurum** | 2.04 | 299 | P | | Pn | 19 19 29.7 | +1.2 |
| ERZM | | | | S | | Sg | 19 20 03.8 | +4.7 |
| BTMN | **Batman** | 2.16 | 242 | ⇑*i*P | | Pn | 19 19 30.1 | +0.3 |
| BTMN | | | | *i* S | | Sg | 19 20 03.6 | +0.9 |
| BTMN | **Batman** | 2.16 | 242 | P | | Pn | 19 19 30.1 | +0.3 |
| BTMN | | | | S | | Sg | 19 20 03.7 | +0.9 |
| ECAT | **Cat-ERZURUM** | 2.21 | 289 | ⇓*i*P | | Pn | 19 19 31.4 | +0.7 |
| ECAT | | | | *i* S | | Sg | 19 20 07.4 | +3.0 |
| ECAT | **Cat-ERZURUM** | 2.21 | 289 | P | | Pn | 19 19 31.4 | +0.7 |
| ECAT | | | | S | | Sg | 19 20 07.4 | +3.0 |
| BNGB | **Bing¨l** | 2.34 | 273 | *e*PN | | Pn | 19 19 35.0 | +2.6 |
| GDB | **GEDABAY** | 2.40 | 41 | ⇓P | | Pn | 19 19 35.3 | +2.0 |
| GDB | | | | ⇓S | | Sb | 19 20 06.5 | -0.4 |
| GDB | **GEDABAY** | 2.40 | 41 | P | | Pn | 19 19 35.3 | +2.0 |
| GDB | | | | S | | Sb | 19 20 06.5 | -0.4 |
| DDEM | **Demirkent** | 2.46 | 324 | ⇓*i*P | | Pb | 19 19 38.3 | +0.2 |
| DDEM | | | | *i* S | | Sg | 19 20 17.3 | +4.7 |
| DDEM | **Demirkent** | 2.46 | 324 | P | | Pb | 19 19 38.3 | +0.2 |
| DDEM | | | | S | | Sg | 19 20 17.3 | +4.7 |
| AKH | **Akhalkalaki** | 2.49 | 357 | *e*PN | | Pn | 19 19 36.4 | +1.9 |
| AKH | **Akhalkalaki** | 2.49 | 357 | *e*Pn | | Pn | 19 19 36.4 | +1.9 |
| BINT | **Bingol** | 2.49 | 270 | *e*Pn | | Pn | 19 19 35.0 | +0.5 |
| YEDI | **Yedisu-Bingol** | 2.49 | 283 | *e*PN | | Pn | 19 19 37.1 | +2.7 |
| YEDI | **Yedisu-Bingol** | 2.49 | 283 | *e*Pn | | Pn | 19 19 37.2 | +2.7 |
| QZX | **Qazax, Azerbai** | 2.50 | 31 | ⇓P | | Pn | 19 19 36.9 | +2.5 |
| QZX | | | | ⇓S | | Sb | 19 20 09.9 | +0.4 |
| QZX | **Qazax, Azerbai** | 2.50 | 31 | P | | Pn | 19 19 36.9 | +2.5 |
| QZX | | | | S | | Sb | 19 20 09.9 | +0.4 |
| DAGI | **Agillar** | 2.54 | 328 | ⇓*i*P | | Pb | 19 19 39.9 | +0.4 |
| DAGI | | | | *i* S | | Sg | 19 20 21.6 | +6.5 |
| ARTV | **Artvin** | 2.63 | 330 | ⇓*i*P | | Pb | 19 19 41.0 | +0.1 |
| ARTV | | | | *i* S | | Sg | 19 20 25.0 | +7.1 |
| ARTV | **Artvin** | 2.63 | 330 | *e*Pn | | Pn | 19 19 37.4 | +0.9 |
| ARTV | **Artvin** | 2.63 | 330 | P | | Pb | 19 19 41.0 | +0.1 |
| ARTV | | | | S | | Sg | 19 20 25.0 | +7.1 |
| ARTV | **Artvin** | 2.63 | 330 | *e*Pn | | Pn | 19 19 37.4 | +0.9 |
| GANJ | **Ganja** | 2.66 | 49 | ⇓P | | Pn | 19 19 38.9 | +2.1 |
| GANJ | | | | ⇓S | | Sb | 19 20 12.1 | -2.2 |
| GANJ | **Ganja** | 2.66 | 49 | P | | Pn | 19 19 38.8 | +2.1 |
| GANJ | | | | S | | Sb | 19 20 12.1 | -2.2 |
| KOPT | **Kop Dagi** | 2.70 | 295 | *e*Pn | | Pn | 19 19 39.5 | +2.1 |
| KOPT | **Kop Dagi** | 2.70 | 295 | *e*Pn | | Pn | 19 19 39.5 | +2.1 |
| MARD | **Mardin** | 2.80 | 236 | *i* P | | Pn | 19 19 40.1 | +1.4 |
| MARD | | | | *i* S | | Sn | 19 20 06.7 | -6.0 |
| MARD | **Mardin** | 2.80 | 236 | *e*Pn | | Pn | 19 19 39.2 | +0.5 |
| MARD | **Mardin** | 2.80 | 236 | *e*Pn | | Pn | 19 19 39.2 | +0.5 |
| DIY | **Diyarbakir** | 2.90 | 250 | *e*Pn | | Pn | 19 19 43.6 | +3.5 |
| TBLG | **Delisi** | 2.92 | 16 | *e*PN | | Pn | 19 19 42.2 | +2.0 |
| TBLG | **Delisi** | 2.92 | 16 | *e*Pn | | Pn | 19 19 42.2 | +2.0 |
| MAZI | **Mazidag** | 2.94 | 241 | *e*PN | | Pn | 19 19 43.3 | +2.7 |
| MAZI | **Mazidag** | 2.94 | 241 | *e*Pn | | Pn | 19 19 43.3 | +2.7 |
| DYBB | **Diyarbakir** | 2.94 | 252 | *e*PN | | Pn | 19 19 43.6 | +2.9 |
| BCA | **Borcka** | 2.97 | 329 | *e*PN | | Pn | 19 19 43.8 | +2.8 |
| BCA | **Borcka** | 2.97 | 329 | *e*Pn | | Pn | 19 19 43.8 | +2.8 |
| BRDA | **Brd** | 3.02 | 63 | ⇑P | | Pn | 19 19 43.4 | +1.9 |
| BRDA | | | | ⇑S | | Sn | 19 20 19.6 | +1.7 |
| BRDA | **Brd** | 3.02 | 63 | P | | Pn | 19 19 43.4 | +1.9 |
| BRDA | | | | S | | Sn | 19 20 19.6 | +1.7 |
| BAYT | **Ayd¨–ntepe-Bay** | 3.10 | 299 | *e*PN | | Pn | 19 19 45.9 | +3.0 |
| BAYT | **Ayd¨–ntepe-Bay** | 3.10 | 299 | *e*Pn | | Pn | 19 19 45.9 | +3.0 |
| ERZN | **Erzincan** | 3.14 | 283 | *e*PN | | Pn | 19 19 46.6 | +3.2 |
| MNGR | **Mingechevir, A** | 3.21 | 54 | ⇑P | | Pn | 19 19 46.4 | +2.3 |
| MNGR | | | | ⇓S | | Sn | 19 20 24.7 | +2.2 |
| MNGR | **Mingechevir, A** | 3.21 | 54 | P | | Pn | 19 19 46.4 | +2.3 |
| MNGR | | | | S | | Sn | 19 20 24.7 | +2.2 |
| PTK | **Pertek** | 3.35 | 271 | *e*PN | | Pn | 19 19 49.7 | +3.4 |
| PTK | **Pertek** | 3.35 | 271 | *e*Pn | | Pn | 19 19 49.7 | +3.4 |
| ZRD | **Zardab** | 3.38 | 65 | ⇑P | | Pn | 19 19 48.3 | +1.8 |
| ZRD | | | | ⇑S | | Sn | 19 20 28.4 | +1.6 |
| ZRD | **Zardab** | 3.38 | 65 | P | | Pn | 19 19 48.3 | +1.8 |
| ZRD | | | | S | | Sn | 19 20 28.4 | +1.6 |
| EZC | **Erzincan** | 3.46 | 285 | *e*Pn | | Pn | 19 19 46.7 | -1.1 |
| SVRC | **Sivrice-ELAZID** | 3.47 | 262 | *e*PN | | Pn | 19 19 51.4 | +3.4 |
| SVRC | **Sivrice-ELAZID** | 3.47 | 262 | *e*Pn | | Pn | 19 19 51.4 | +3.4 |
| ZKTA | **Zakatala** | 3.52 | 39 | ⇓P |

GALA **Gala** 5.21 71 S **Sn** 19 21 13.2 +1.2
BHD **Baghdad** 5.67 174 *e*Pn **Pn** 19 20 20.0 +2.0
SNR=3.0
RTB **Rutbah** 6.49 206 *e*Pn **Pn** 19 20 30.0 +0.7
SNR=3.0
RTB *i* Sn **Sn** 19 21 45.0 +1.4
SNR=3.0
BR101 **Keskin Array S** 7.83 279 *e*Pn **Pn** 19 20 52.1 +4.4
BR131 **Keskin Array S** 7.83 279 *e*Pn **Pn** 19 20 47.9 +0.1
BR131 **Keskin Array S** 7.83 279 *e*Pn **Pn** 19 20 47.9 +0.1
BRTR **Keskin Array B** 7.83 279 Pn **Pn** 19 20 52.1 +4.4
comp=Z,0.1nm,0.3s,baz=99,slow=11,SNR=3.6
BRTR LR LR 19 23 22.6
comp=Z,166nm,18.7s,baz=126,slow=34
BRTR **Keskin Array B** 7.83 279 *ce*P Pn 19 20 53.4 +5.6
BRTR pmax pmax
comp=Z,2.0nm,1.0s
ILGA **Ilgaz** 7.94 289 *e*Pn **Pn** 19 20 47.9 -1.5
ILGA **Ilgaz** 7.94 289 *e*Pn **Pn** 19 20 47.9 -1.5
NSR **Nassriya** 8.15 165 *e*Pn **Pn** 19 20 54.5 +2.4
SNR=3.0
ANTO **Ankara** 8.48 280 *e*P **Pn** 19 20 54.3 -2.4
ANTO **Ankara** 8.48 280 *e*Pn **Pn** 19 20 54.3 -2.4
BR231 **Keskin MP Arra** 8.50 280 *e*Pn **Pn** 19 20 53.4 -3.5
MMAI **Mount Meron Ar** 8.93 231 Pn **Pn** 19 21 06.9 +4.1
comp=Z,0.4nm,0.3s,baz=78,slow=16,SNR=3.0
MMAI LR LR 19 24 31.9
comp=Z,526nm,18.3s,baz=180,slow=38
CSS **Mathiatis** 9.18 248 *e*Pn **Pn** 19 21 03.1 -3.2
GEYT **Alibeck** 11.37 90 LR LR 19 26 33.6
comp=Z,203nm,20.1s,baz=260,slow=40
MANT **Manisa** 11.83 273 *e*Pn **Pn** 19 21 40.5 -2.1
ISR **Istrita** 14.15 301⇑ *i*P **P** 19 22 21.9 0.0
ISR **Istrita** 14.15 301⇑ P **P** 19 22 21.9 0.0
ISR **Istrita** 14.15 301 P **P** 19 22 21.9 0.0
SORM **Soroca** 14.41 315⇑ *i*P **P** 19 22 24.5 -0.2
SORM **Soroca** 14.41 315⇑ P **P** 19 22 24.5 -0.2
SORM **Soroca** 14.41 315 P **P** 19 22 24.5 -0.2
MLR **Muntele Rosu** 14.68 302 Pn **P** 19 22 27.8 0.0
comp=Z,0.0nm,0.3s,baz=107,slow=14,SNR=1.8
MLR **Muntele Rosu** 14.68 302⇑ *i*P **P** 19 22 29.2 +1.4
MLR **Muntele Rosu** 14.68 302 *e*P **Pn** 19 22 22.7 +1.2
MLR **Muntele Rosu** 14.68 302 *e*Pn **Pn** 19 22 22.7 +1.2
MLR **Muntele Rosu** 14.68 302⇑ *i*P **P** 19 22 29.2 +1.4
MLR **Muntele Rosu** 14.68 302 *e*Pn **Pn** 19 22 22.7 +1.2
DOPR **Dopca** 15.21 303⇑ *i*P **P** 19 22 35.5 +1.9
DOPR **Dopca** 15.21 303⇑ *i*P **P** 19 22 35.5 +1.9
VOIR 15.25 301⇓ *i*P **P** 19 22 36.9 +2.7
VOIR 15.25 301⇓ P **P** 19 22 36.9 +2.7
VOIR 15.25 301 P **P** 19 22 36.9 +2.7
AKTO **Aktyubinsk** 15.34 37 Pn **Pn** 19 22 29.9 -0.3
comp=Z,0.1nm,0.3s,baz=216,slow=12,SNR=14
AKTO LR LR 19 30 06.7
comp=Z,445nm,19.4s,baz=205,slow=44
AKTO **Aktyubinsk** 15.34 37 P **Pn** 19 22 30.0 -0.3
AKTO MLR MLR
comp=Z,445nm,19.4s
AKTO **Aktyubinsk** 15.34 37 Pn **Pn** 19 22 30.0 -0.3
RAYN **Ar Rayn** 15.43 174 *e*Pn **Pn** 19 22 27.9 -3.7
comp=Z,49nm,1.8s
ABKAR **Akbulak array** 15.56 43 *e*Pn **Pn** 19 22 32.1 -1.0
comp=Z,52nm,1.0s
AKASG **Malin Array Be** 15.58 324 Pn **Pn** 19 22 32.3 -1.0
comp=Z,0.2nm,0.3s,baz=131,slow=10,SNR=5.5
AKASG LR LR 19 29 35.6
comp=Z,621nm,18.5s,baz=105,slow=41
AKASG **Malin Array Be** 15.58 324 *e*P **Pn** 19 22 34.1 +0.7
AKBB **Malin Array Si** 15.58 324 *e*P **Pn** 19 22 33.9 +0.5
AKBB pmax pmax
comp=Z,35nm,1.5s
AKBB **Malin Array Si** 15.58 324 *e*Pn **Pn** 19 22 33.9 +0.5
comp=Z,35nm,1.5s
AKBB **Malin Array Si** 15.58 324 *e*Pn **Pn** 19 22 33.9 +0.5
comp=Z,35nm,1.5s
KIEV **Kiev** 15.59 324 *e*P **Pn** 19 22 34.5 +1.1
KIEV pmax pmax
comp=Z,86nm,2.0s
KIEV **Kiev** 15.59 324 *e*Pn **Pn** 19 22 34.5 +1.1
comp=Z,86nm,2.0s
KIEV **Kiev** 15.59 324 *e*Pn **Pn** 19 22 34.5 +1.1
comp=Z,86nm,2.0s
AK11 **Malin Array Si** 15.59 324 *e*Pn **Pn** 19 22 34.1 +0.6
AK11 **Malin Array Si** 15.59 324 *e*Pn **Pn** 19 22 34.1 +0.6
VTS **Vitosha** 15.94 290⇑ *i*P **P** 19 22 42.5 +0.7
VTS **Vitosha** 15.94 290⇑ P **P** 19 22 42.5 +0.7
VTS **Vitosha** 15.94 290 P **P** 19 22 42.5 +0.7
VTS **Vitosha** 15.94 290 *e*Pn **Pn** 19 22 36.1 -2.1
comp=Z,18nm,1.3s
BURAR **Bucovina Array** 15.98 309⇑ *i*P **P** 19 22 44.2 +2.0
BURAR **Bucovina Array** 15.98 309⇑ P **P** 19 22 44.2 +2.0
BURAR **Bucovina Array** 15.98 309⇑ *i*P **P** 19 22 44.2 +2.0
BUR04 **Bucovina Ar. S** 15.98 309 *e*Pn **Pn** 19 22 40.2 +1.5
BUR04 **Bucovina Ar. S** 15.98 309 *e*Pn **Pn** 19 22 40.2 +1.5
BUR08 **Bucovina Ar. S** 16.00 309 *e*Pn **P** 19 22 42.2 -0.3
BUR08 **Bucovina Ar. S** 16.00 309 *e*Pn **P** 19 22 42.2 -0.3
OBN **Obninsk** 16.89 346 Pn **Pn** 19 22 50.7 +0.6
comp=Z,1.2nm,0.3s,baz=10.0,slow=19,SNR=4.3
OBN LR LR 19 29 45.4
comp=Z,957nm,19.1s,baz=120,slow=39
OBN **Obninsk** 16.89 346⇑ *i*P **Pn** 19 22 49.7 -0.4
OBN pmax pmax
comp=Z,17nm,1.1s
OBN MLR MLR
comp=Z,1µm,15.0s
OBN **Obninsk** 16.89 346 *e*Pn **Pn** 19 22 49.3 -0.8
comp=Z,94nm,1.5s
OBN **Obninsk** 16.89 346 *e*Pn **Pn** 19 22 49.3 -0.8
comp=Z,94nm,1.5s
DRGR 17.23 304⇑ *i*P **P** 19 22 58.8 +2.7
DRGR 17.23 304⇑ P **P** 19 22 58.8 +2.7
DRGR 17.23 304 P **P** 19 22 58.8 +2.7
MDVR **Moldovita** 17.36 297⇑ *i*P **P** 19 22 59.2 +1.7
MDVR **Moldovita** 17.36 297⇑ *i*P **P** 19 22 59.2 +1.7
UOSS **Minazif** 17.50 139 *e*Pn **Pn** 19 22 55.6 -2.3
comp=Z,48nm,1.3s
LVV **L'vov** 17.72 314 *e*P Pn 19 22 50.8 -10
SIRR **Siria** 17.76 302⇑ *i*P **P** 19 23 03.5 +1.6
SIRR **Siria** 17.76 302⇑ *i*P **P** 19 23 03.5 +1.6
UZH **Uzhgorod** 18.18 309 *e*P **Pn** 19 23 02.7 -3.5
TIR **Tirane** 18.36 285 *e*P **P** 19 23 07.0 -1.5
TIR pmax pmax
comp=Z,66nm,1.6s
TIR **Tirane** 18.36 285 *e*P **P** 19 23 07.0 -1.5
comp=Z,66nm,1.6s
TIR **Tirane** 18.36 285 *e*P **P** 19 23 07.0 -1.5
comp=Z,66nm,1.6s
KWP **Kalwaria Pacla** 18.38 312 *e*P **P** 19 23 08.2 -0.5
KWP pmax pmax
comp=Z,159nm,1.1s
KWP **Kalwaria Pacla** 18.38 312 *e*P **P** 19 23 08.2 -0.5
comp=Z,159nm,1.1s
KWP **Kalwaria Pacla** 18.38 312 *e*P **P** 19 23 08.2 -0.5
comp=Z,159nm,1.1s
DIVS **Divibare** 18.45 294 *e*P **P** 19 23 09.9 +0.3
comp=Z,37nm,1.8s
DIVS **Divibare** 18.45 294 *e*P **P** 19 23 09.9 +0.3
comp=Z,37nm,1.8s
CRVS **Cervenica-Dubn** 18.80 309 *e*P **Pn** 19 23 16.7 +3.0
CRVS **Cervenica-Dubn** 18.80 309 *e*P **Pn** 19 23 16.7 +3.0
TTG **Podgorica** 18.84 289 *e*P **P** 19 23 14.2 +0.5
TTG pmax pmax
comp=Z,47nm,1.8s
TTG **Podgorica** 18.84 289 *e*P **P** 19 23 14.2 +0.5
comp=Z,46nm,1.8s
TTG **Podgorica** 18.84 289 *e*P **P** 19 23 14.2 +0.5
comp=Z,46nm,1.8s
PSZ **Piszkesteto** 19.41 305 *e*P **P** 19 23 20.8 +0.7
PSZ pmax pmax
comp=Z,55nm,1.7s
PSZ **Piszkesteto** 19.41 305 *e*P **P** 19 23 20.8 +0.7
comp=Z,55nm,1.7s
PSZ **Piszkesteto** 19.41 305 *e*P **P** 19 23 20.8 +0.7
comp=Z,55nm,1.7s
ARU **Arti** 20.10 25 P **P** 19 23 28.5 +1.1
comp=Z,7.8nm,0.8s,baz=216,slow=8.3,SNR=17
ARU LR LR 19 33 10.8
comp=Z,490nm,19.1s,baz=209,slow=43
ARU **Arti** 20.10 25 *ci*P Pn 19 23 29.3 +0.1
ARU S Sn 19 27 17.4 +2.1
ARU pmax pmax
comp=Z,80nm,1.7s
ARU **Arti** 20.10 25 *i* P Pn 19 23 29.3 +0.1
comp=Z,80nm,1.7s
ARU **Arti** 20.10 25 *e*P **P** 19 23 28.0 +0.6
comp=Z,144nm,1.8s

WSAR **Wadi Sarin** 20.16 136 LR LR 19 31 15.1
comp=Z,67nm,21.1s,baz=334,slow=37
VYHS **Vyhne** 20.27 306 *e*P Pn 19 23 31.6 +0.3
VYHS pmax pmax
comp=Z,69nm,2.0s
VYHS **Vyhne** 20.27 306 *e*P Pn 19 23 31.6 +0.3
comp=Z,69nm,2.0s
VYHS **Vyhne** 20.27 306 *e*P Pn 19 23 31.6 +0.3
OJC **Ojcow** 20.33 312 *e*P **P** 19 23 30.5 +0.6
OJC pmax pmax
comp=Z,46nm,1.8s
OJC **Ojcow** 20.33 312 *e*P **P** 19 23 30.5 +0.6
comp=Z,46nm,1.8s
OJC **Ojcow** 20.33 312 *e*P **P** 19 23 30.5 +0.6
comp=Z,46nm,1.8s
BLY **Banja Luka** 20.54 295 *e*P **P** 19 23 32.0 -0.3
comp=Z,14nm,1.4s
BLY **Banja Luka** 20.54 295 *e*P **P** 19 23 32.0 -0.3
comp=Z,14nm,1.4s
KKAR **Karatay Array** 20.64 70 *e*P Pn 19 23 34.8 -0.9
KKAR pmax pmax
comp=Z,71nm,1.0s
KKAR **Karatay Array** 20.64 70 *e*P Pn 19 23 34.8 -0.9
comp=Z,71nm,1.0s
KKAR **Karatay Array** 20.64 70 *e*P Pn 19 23 34.8 -0.9
comp=Z,71nm,1.0s
KBL **Kabul** 20.77 94 *e*P **P** 19 23 34.9 -0.2
KBL pmax pmax
comp=Z,56nm,1.9s
KBL **Kabul** 20.77 94 *e*P **P** 19 23 34.9 -0.2
comp=Z,56nm,1.9s
KBL **Kabul** 20.77 94 *e*P **P** 19 23 34.9 -0.2
comp=Z,56nm,1.9s
TIP **Timpagrande** 20.89 279 *e*P **P** 19 23 37.2 +1.0
comp=Z,39nm,1.4s
TIP **Timpagrande** 20.89 279 *e*P **P** 19 23 37.2 +1.0
comp=Z,39nm,1.4s
SVE **Sverdlovsk** 21.11 26 *e*P **P** 19 23 40.4 +2.0
SVE pmax pmax
comp=Z,69nm,1.8s
SVE **Sverdlovsk** 21.11 26 *e*P **P** 19 23 40.4 +2.0
comp=Z,69nm,1.8s
CUC **Castrococco** 21.51 282 *e*P **P** 19 23 41.5 -1.4
comp=Z,13nm,1.1s
CUC **Castrococco** 21.51 282 *e*P **P** 19 23 41.5 -1.4
comp=Z,13nm,1.1s
VRAC **Vranov** 21.93 307 P **P** 19 23 48.2 +0.9
comp=Z,1.5nm,0.8s,baz=105,slow=11,SNR=3.8
VRAC LR LR 19 33 58.2
comp=Z,190nm,21.4s,baz=130,slow=41
KLMR **Klimovskoe** 22.11 355 *e*P **P** 19 23 48.6 -0.4
KLMR pmax pmax
comp=Z,60nm,1.1s
KLMR **Klimovskoe** 22.11 355 *e*P **P** 19 23 48.6 -0.4
comp=Z,60nm,1.1s
DPC **Dobruska-Polom** 22.44 310 *e*P **P** 19 23 59.9 +7.2
DPC **Dobruska-Polom** 22.44 310 *e*P **P** 19 23 59.9 +7.2
BRVK **Borovoye** 23.09 44⇑ *i*P **P** 19 24 02.2 +2.7
BRVK pmax pmax
comp=Z,33nm,1.7s
BRVK **Borovoye** 23.09 44 *e*P **P** 19 24 00.7 +1.2
comp=Z,26nm,1.5s
BRVK **Borovoye** 23.09 44 *e*P **P** 19 24 00.7 +1.2
comp=Z,26nm,1.5s
BVAR **Borovoye Array** 23.13 44 P **P** 19 24 00.1 +0.1
comp=Z,2.1nm,0.8s,baz=246,slow=10,SNR=3.7
AQU **L'Aquila** 23.17 288 *e*P **P** 19 24 00.7 +0.2
AQU pmax pmax
comp=Z,45nm,1.2s
AQU **L'Aquila** 23.17 288 *e*P **P** 19 24 00.7 +0.2
comp=Z,45nm,1.2s
AQU **L'Aquila** 23.17 288 *e*P **P** 19 24 00.7 +0.2
comp=Z,45nm,1.2s
AAK **Ala-Archa** 23.56 71 P **P** 19 24 06.2 +1.7
comp=Z,3.8nm,1.0s,baz=218,slow=13,SNR=4.5
AAK LR LR 19 33 15.1
comp=Z,220nm,21.5s,baz=254,slow=36
AAK **Ala-Archa** 23.56 71⇑ *i*P **P** 19 24 08.3 +3.8
AAK pmax pmax
comp=Z,7.0nm,1.2s
AAK **Ala-Archa** 23.56 71 *e*P **P** 19 24 04.2 -0.3
comp=Z,21nm,1.3s
AAK **Ala-Archa** 23.56 71 *e*P **P** 19 24 04.2 -0.3
comp=Z,21nm,1.3s
GEA0 **GERESS Array S** 23.63 305 *e*P **P** 19 24 05.7 +0.6
GEA0 **GERESS Array S** 23.63 305 *e*P **P** 19 24 05.7 +0.6
GEC2 **GERESS Array S** 23.64 305 *e*P **P** 19 24 06.1 +0.9
GEC2 pmax pmax
comp=Z,31nm,1.5s
GEC2 **GERESS Array S** 23.64 305 *e*P **P** 19 24 06.1 +0.9
comp=Z,31nm,1.5s
GEC2 **GERESS Array S** 23.64 305 *e*P **P** 19 24 06.1 +0.9
comp=Z,31nm,1.5s
GERES **GERESS Array B** 23.64 305 P **P** 19 24 06.7 +1.5
comp=Z,1.4nm,0.8s,baz=99,slow=8.2,SNR=16
KHC **Kasperske Hory** 23.78 305 *e*P **P** 19 24 06.6 +0.1
KHC *ex* x 19 24 13.9
KHC **Kasperske Hory** 23.78 305 *e*P **P** 19 24 07.2 +0.7
KHC pmax pmax
comp=Z,23nm,1.8s
KHC **Kasperske Hory** 23.78 305 *e*P **P** 19 24 07.2 +0.7
comp=Z,23nm,1.8s
KHC **Kasperske Hory** 23.78 305 *e*P **P** 19 24 07.2 +0.7
comp=Z,23nm,1.8s
DAMY **Dhamar** 24.27 178 *e*P **P** 19 24 07.8 -3.8
comp=Z,84nm,1.8s
CLL **Collm** 24.74 310 *e*P **P** 19 24 16.2 +0.9
CLL pmax pmax
comp=Z,17nm,1.5s
CLL **Collm** 24.74 310 *e*P **P** 19 24 17.0 +1.7
CLL *i* 19 24 29.5
CLL *e* 19 24 36.0
CLL LmH 19 35 00.0
comp=N,300nm,18.3s
CLL LmH 19 35 00.0
comp=E,300nm,19.8s
CLL **Collm** 24.74 310 *e*P **P** 19 24 16.2 +0.9
comp=E,17nm,1.5s
CLL **Collm** 24.74 310 *e*P **P** 19 24 16.2 +0.9
comp=E,17nm,1.5s
KSH **Kashi** 24.96 78 *e*P **P** 19 24 18.3 +0.8
KSH pP sP 19 24 24.5 +3.8
KSH PP **PnPn** **19 24 50.8 +0.6**
KSH S S 19 28 26.0 -15
KSH pmax pmax
comp=E,130nm,2.0s
FINES **FINESS Array B** 25.04 340 LR LR 19 34 41.6
comp=E,504nm,21.4s,baz=174,slow=38
GRFO **Grafenberg** 25.41 306 *e*P **P** 19 24 23.1 +1.7
GRFO pmax pmax
comp=Z,46nm,1.5s
GRFO **Grafenberg** 25.41 306 *e*P **P** 19 24 23.1 +1.7
comp=Z,46nm,1.5s
GRFO **Grafenberg** 25.41 306 *e*P **P** 19 24 23.1 +1.7
comp=Z,46nm,1.5s
FUORN **Ofenpass-Fuorn** 25.56 298 *e*P **P** 19 24 26.4 +3.3
comp=Z,14nm,1.3s
DAVOX **Davos/Dischmat** 25.84 299 P **P** 19 24 25.5 0.0
comp=Z,1.9nm,0.7s,baz=110,slow=9.4,SNR=7.5
TUE **Stuetta** 26.18 298 *e*P **P** 19 24 27.4 -1.2
comp=Z,12nm,1.3s
TUE **Stuetta** 26.18 298 *e*P **P** 19 24 27.4 -1.2
comp=Z,12nm,1.3s
BFO **Black Forest** 27.05 302 *e*P **P** 19 24 36.3 0.0
BFO pmax pmax
comp=Z,22nm,1.8s
BFO **Black Forest** 27.05 302 *e*P **P** 19 24 36.3 0.0
comp=Z,22nm,1.8s
BFO **Black Forest** 27.05 302 *e*P **P** 19 24 36.3 0.0
comp=Z,22nm,1.8s
KURBB **Kurchatov Arra** 27.11 53 P **P** 19 24 38.8 +2.1
comp=Z,3.5nm,1.1s,baz=264,slow=9.4,SNR=9.3
KURK **Kurchatov** 27.19 53⇓ *i*P **P** 19 24 40.8 +3.4
KURK pmax pmax
comp=Z,19nm,1.2s
KURK **Kurchatov** 27.19 53 *e*P **P** 19 24 38.8 +1.4
KURK **Kurchatov** 27.19 53 *e*P **P** 19 24 38.8 +1.4
ATD **Arta Tunnel** 27.29 182 LR LR 19 35 46.5
comp=Z,309nm,19.0s,baz=345,slow=37
ATD **Arta Tunnel** 27.29 182 *e*P **P** 19 24 36.0 -2.6
comp=Z,21nm,1.4s
KEST **Kesra** 27.39 274 *e*P **P** 19 24 40.0 +0.5
comp=Z,97nm,1.9s
KEST **Kesra** 27.39 274 *e*P **P** 19 24 40.0 +0.5
comp=Z,97nm,1.9s
MON **Monaco** 27.50 292 *e*P **P** 19 24 40.6 +0.4
MON **Monaco** 27.50 292 *e*P **P** 19 24 40.6 +0.4

SENIN **Lac Senin/Sane** 27.59 298 *e*P **P** 19 24 40.5 -0.8
comp=Z,32nm,1.6s
SENIN **Lac Senin/Sane** 27.59 298 *e*P **P** 19 24 40.5 -0.8
comp=Z,32nm,1.6s
ECH **Echery** 27.82 301 *e*P **P** 19 24 42.7 -0.4
ECH pmax pmax
comp=Z,25nm,1.6s
ECH **Echery** 27.82 301 *e*P **P** 19 24 42.7 -0.4
comp=Z,25nm,1.6s
ECH **Echery** 27.82 301 *e*P **P** 19 24 42.7 -0.4
comp=Z,25nm,1.6s
BNI **Bardonecchia** 28.00 295 *e*P **P** 19 24 44.4 -0.5
BNI pmax pmax
comp=Z,36nm,1.8s
BNI **Bardonecchia** 28.00 295 *e*P **P** 19 24 44.4 -0.5
comp=Z,36nm,1.8s
BNI **Bardonecchia** 28.00 295 *e*P **P** 19 24 44.4 -0.5
comp=Z,36nm,1.8s
HFS **Hagfors** 28.37 328 LR LR 19 36 12.6
comp=Z,222nm,18.1s,baz=136,slow=37
WLF **Walferdange** 28.65 304 *e*P **P** 19 24 49.5 -1.0
WLF pmax pmax
comp=Z,27nm,1.5s
WLF **Walferdange** 28.65 304 *e*P **P** 19 24 49.5 -1.0
comp=Z,26nm,1.5s
WLF **Walferdange** 28.65 304 *e*P **P** 19 24 49.5 -1.0
comp=Z,26nm,1.5s
MAKZ **Makanchi** 28.92 62 *e*P **P** 19 24 52.7 -0.3
MAKZ pmax pmax
comp=Z,6.0nm,0.9s
MAKZ **Makanchi** 28.92 62 *e*P **P** 19 24 52.7 -0.3
comp=Z,6.2nm,0.9s
MAKZ **Makanchi** 28.92 62 *e*P **P** 19 24 52.7 -0.3
comp=Z,6.2nm,0.9s
MK31 **Makanchi Array** 29.14 62 *e*P **P** 19 24 53.2 -1.7
MK31 **Makanchi Array** 29.14 62 *e*P **P** 19 24 53.2 -1.7
MK32 **Makanchi Array** 29.14 62 *e*P **P** 19 24 55.8 +0.9
MK32 **Makanchi Array** 29.14 62 *e*P **P** 19 24 55.8 +0.9
MKAR **Makanchi Array** 29.14 62 P **P** 19 24 55.8 +0.9
comp=Z,1.1nm,0.6s,baz=287,slow=15,SNR=5.1
MKAR LR LR 19 38 21.6
comp=Z,228nm,18.9s,baz=270,slow=40
MKAR **Makanchi Array** 29.14 62 *e*P **P** 19 24 53.3 -1.6
MKAR pmax pmax
comp=Z,24nm,0.8s
MKAR **Makanchi Array** 29.14 62 *e*P **P** 19 24 53.3 -1.6
comp=Z,24nm,0.8s
MK01 **Makanchi Array** 29.14 62 *e*P **P** 19 24 54.7 -0.3
MK01 **Makanchi Array** 29.14 62 *e*P **P** 19 24 54.7 -0.3
LVZ **Lovozero** 29.46 353 *e*P **P** 19 24 56.6 -0.9
LVZ **Lovozero** 29.46 353 *e*P **P** 19 24 56.6 -0.9
comp=Z,274nm,2.0s
LVZ **Lovozero** 29.46 353 *e*P **P** 19 24 56.6 -0.9
comp=Z,274nm,2.0s
SSB **Saint Sauveur** 29.51 295 *e*P **P** 19 24 57.4 -0.8
SSB pmax pmax
comp=Z,9.0nm,1.1s
SSB **Saint Sauveur** 29.51 295 *e*P **P** 19 24 57.4 -0.8
comp=Z,9.0nm,1.1s
SSB **Saint Sauveur** 29.51 295 *e*P **P** 19 24 57.4 -0.8
comp=Z,9.1nm,1.1s
NC602 **NORSAR Array S** 29.60 328 *e*P **P** 19 24 57.5 -1.2
NC602 **NORSAR Array S** 29.60 328 *e*P **P** 19 24 57.5 -1.2
NC405 **NORSAR Array S** 29.73 329 *e*P **P** 19 24 59.5 -0.5
NC405 **NORSAR Array S** 29.73 329 *e*P **P** 19 24 59.5 -0.5
NOA **NORSAR Array B** 29.90 328 LR LR 19 38 13.3
comp=Z,208nm,21.4s,baz=145,slow=39
NAO01 **NORSAR Array S** 29.93 328 *e*P **P** 19 25 01.2 -0.5
NAO01 **NORSAR Array S** 29.93 328 *e*P **P** 19 25 01.2 -0.5
NBO00 **NORSAR Array S** 30.07 328 *e*P **P** 19 25 05.1 +2.1
NBO00 **NORSAR Array S** 30.07 328 *e*P **P** 19 25 05.1 +2.1
ZALV **Zalesovo Beam** 31.57 48 LR LR 19 40 04.0
comp=Z,25nm,19.0s,baz=228,slow=40
ARCES **ARCESS Array B** 32.18 348 LR LR 19 39 07.2
comp=Z,525nm,20.5s,baz=158,slow=38
DYA **Yadsworthy** 35.18 305 *e*P **P** 19 25 49.8 +2.0
DYA **Yadsworthy** 35.18 305 *e*P **P** 19 25 49.8 +2.0
TAM **Tamanrasset** 36.19 255 *e*P **P** 19 25 57.9 +1.0
TAM pmax pmax
comp=Z,20nm,1.9s
TAM **Tamanrasset** 36.19 255 *e*P **P** 19 25 57.9 +1.0
comp=Z,20nm,1.9s
TAM **Tamanrasset** 36.19 255 *e*P **P** 19 25 57.9 +1.0
comp=Z,20nm,1.9s
ES19 **SONSECA Array** 36.48 287 *e*P **P** 19 25 57.0 -2.1
ES19 **SONSECA Array** 36.48 287 *e*P **P** 19 25 57.0 -2.1
ESDC **Sonseca Array** 36.53 287 P **P** 19 25 59.0 -0.6
comp=Z,1.7nm,0.7s,baz=68,slow=8.9,SNR=15
MTE **Manteigas** 39.01 289 *e*P **P** 19 26 17.8 -2.8
comp=Z,25nm,1.4s
LSA **Lhasa** 39.89 89 *e*P **P** 19 26 26.5 -2.0
LSA pmax pmax
comp=Z,7.0nm,1.1s
LSA **Lhasa** 39.89 89 *e*P **P** 19 26 26.5 -2.0
comp=Z,6.5nm,1.1s
KMBO **Kilima Mbogo** 40.29 190 LR LR 19 44 02.4
comp=Z,356nm,18.6s,baz=290,slow=37
KMBO **Kilima Mbogo** 40.29 190 *e*P **P** 19 26 28.5 -3.0
KMBO pmax pmax
comp=Z,13nm,1.8s
KMBO **Kilima Mbogo** 40.29 190 *e*P **P** 19 26 28.5 -3.0
comp=Z,13nm,1.8s
TOA1 **Torodi Ar. Sit** 45.07 247 *e*P **P** 19 27 09.4 -0.8
TOA1 **Torodi Ar. Sit** 45.07 247 *e*P **P** 19 27 09.4 -0.8
TOA0 **Torodi Ar. Sit** 45.07 247 *e*P **P** 19 27 08.6 -1.6
TOA0 **Torodi Ar. Sit** 45.07 247 *e*P **P** 19 27 08.6 -1.6
TORD **Torodi Ar. Bea** 45.07 247 P **P** 19 27 09.4 -0.8
comp=Z,3.4nm,1.0s,baz=56,slow=6.3,SNR=10
ULN **Ulaanbaatar** 45.73 57 *e*P **P** 19 27 15.9 +0.7
ULN pmax pmax
comp=Z,9.0nm,1.2s
ULN **Ulaanbaatar** 45.73 57 *e*P **P** 19 27 15.9 +0.7
comp=Z,9.3nm,1.2s
ULN **Ulaanbaatar** 45.73 57 *e*P **P** 19 27 15.9 +0.7
comp=Z,9.3nm,1.2s
BOD **Bodaibo** 48.00 43 *e*P **P** 19 27 31.5 -1.1
BOD pmax pmax
comp=Z,11nm,1.9s
BOD **Bodaibo** 48.00 43 *e*P **P** 19 27 31.5 -1.1
comp=Z,11nm,1.9s
KOWA **Kowa** 48.38 253 *e*P **P** 19 27 35.2 -0.9
comp=Z,35nm,1.9s
KOWA **Kowa** 48.38 253 *e*P **P** 19 27 35.2 -0.9
comp=Z,35nm,1.9s
HHC **Hu-ho-hao-te** 50.91 65 *e*P **P** 19 27 56.0 +0.7
HHC S **S** 19 35 09.5 -2.6
HHC ScS **ScS** 19 37 42.8 -3.7
HHC SS **SS** 19 38 41.8 -4.7
HHC pmax pmax
comp=Z,8.0nm,1.0s
HHC pmax pmax
comp=Z,55nm,5.1s
HHC LR LR
comp=Z,200nm,14.9s
HHC LR LR
comp=Z,190nm,16.3s
HHC LR LR
comp=Z,130nm,16.5s
SUMG **Summit** 51.04 337 *e*P **P** 19 27 56.8 +0.7
SUMG pmax pmax
comp=Z,27nm,1.8s
SUMG **Summit** 51.04 337 *e*P **P** 19 27 56.8 +0.7
comp=Z,27nm,1.8s
SUMG **Summit** 51.04 337 *e*P **P** 19 27 56.8 +0.7
comp=Z,27nm,1.8s
CHTO **Chiang Mai** 51.57 96 *e*P **P** 19 27 58.1 -2.2
CHTO pmax pmax
comp=Z,13nm,1.5s
CHTO **Chiang Mai** 51.57 96 *e*P **P** 19 27 58.1 -2.2
comp=Z,13nm,1.5s
XAN **Xi'an** 51.69 74 P **P** 19 28 02.5 +1.4
XAN pmax pmax
comp=Z,11nm,1.3s
XAN pmax pmax
comp=Z,200nm,6.1s
CM31 **Chiang Mai Arr** 51.77 97 *e*P **P** 19 27 59.3 -2.5
CMAR **Chiang Mai Arr** 51.77 97 P **P** 19 28 03.6 +1.8
comp=Z,1.2nm,0.9s,baz=307,slow=9.2,SNR=9.7
CM01 **Chiang Mai Arr** 51.80 97 *e*P **P** 19 28 01.8 -0.3
CM01 **Chiang Mai Arr** 51.80 97 *e*P **P** 19 28 01.8 -0.3
TIXI **Tiksi** 52.10 24 *ce*P **P** 19 28 05.6 +2.0
TIXI pmax pmax
comp=Z,2.0nm,1.2s
TIXI **Tiksi** 52.10 24 *e*P **P** 19 28 05.6 +2.0
comp=Z,2.0nm,1.2s
TIXI **Tiksi** 52.10 24 *e*P **P** 19 28 04.2 +0.6

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | comp=Z,10nm,1.5s | | | | | | | | |
| **HIA** | **Hailar** | **53.42** | **52** | *e*P | | **P** | **19 28 13.5** | **-0.2** |
| HIA | | | | pmax | | pmax | | | |
| | comp=Z,13nm,1.3s | | | | | | | | |
| **HIA** | **Hailar** | **53.42** | **52** | *e*P | | **P** | **19 28 13.5** | **-0.2** |
| | comp=Z,13nm,1.3s | | | | | | | | |
| **HIA** | **Hailar** | **53.42** | **52** | *e*P | | **P** | **19 28 13.5** | **-0.2** |
| | comp=Z,13nm,1.3s | | | | | | | | |
| **ENH** | **Enshi** | **53.81** | **78** | *e*P | | **P** | **19 28 16.3** | **-0.6** |
| | comp=Z,14nm,1.3s | | | | | | | | |
| **ENH** | **Enshi** | **53.81** | **78** | *e*P | | **P** | **19 28 16.3** | **-0.6** |
| | comp=Z,14nm,1.3s | | | | | | | | |
| **DBIC** | **Dimbokro** | **54.18** | **247** | *e*P | | **P** | **19 28 16.7** | **-2.9** |
| DBIC | | | | pmax | | pmax | | | |
| | comp=Z,42nm,1.9s | | | | | | | | |
| **DBIC** | **Dimbokro** | **54.18** | **247** | *e*P | | **P** | **19 28 16.7** | **-2.9** |
| | comp=Z,42nm,1.9s | | | | | | | | |
| **KIC** | **Kosan Boka** | **54.31** | **246** | *e*P | | **P** | **19 28 19.2** | **-1.4** |
| | comp=Z,62nm,1.6s | | | | | | | | |
| **TIC** | **Toumodi** | **54.31** | **247** | *e*P | | **P** | **19 28 22.2** | **+1.6** |
| **LIC** | **Lamto** | **54.61** | **246** | *e*P | | **P** | **19 28 23.3** | **+0.5** |
| | comp=Z,55nm,1.6s | | | | | | | | |
| **ROSA** | **Rosais** | **54.61** | **294** | *e*P | | **P** | **19 28 22.4** | **-0.1** |
| | comp=Z,1μm,2.0s | | | | | | | | |
| **ROSA** | **Rosais** | **54.61** | **294** | *e*P | | **P** | **19 28 22.4** | **-0.1** |
| | comp=Z,1μm,2.0s | | | | | | | | |
| **YAK** | **Yakutsk** | **54.73** | **35** | *e*P | | **P** | **19 28 23.4** | **+0.4** |
| YAK | | | | pmax | | pmax | | | |
| | comp=Z,11nm,0.7s | | | | | | | | |
| **YAK** | **Yakutsk** | **54.73** | **35** | *e*P | | **P** | **19 28 23.4** | **+0.4** |
| | comp=Z,11nm,0.7s | | | | | | | | |
| **YAK** | **Yakutsk** | **54.73** | **35** | *e*P | | **P** | **19 28 23.4** | **+0.4** |
| | comp=Z,11nm,0.7s | | | | | | | | |
| **TULEG** | **Thule** | **57.43** | **345** | *e*P | | **P** | **19 28 43.0** | **+0.9** |
| | comp=Z,23nm,1.8s | | | | | | | | |
| **TULEG** | **Thule** | **57.43** | **345** | *e*P | | **P** | **19 28 43.0** | **+0.9** |
| | comp=Z,23nm,1.8s | | | | | | | | |
| **ABPO** | **Ambohimpanom** | **57.73** | **176** | *e*P | | **P** | **19 28 42.7** | **-2.3** |
| ABPO | | | | pmax | | pmax | | | |
| | comp=Z,21nm,1.5s | | | | | | | | |
| **ABPO** | **Ambohimpanom** | **57.73** | **176** | *e*P | | **P** | **19 28 42.7** | **-2.3** |
| | comp=Z,21nm,1.5s | | | | | | | | |
| **KLR** | **Kul'dur** | **60.67** | **49** | ⇑P | | **P** | **19 29 06.9** | **+1.9** |
| **KLR** | **Kul'dur** | **60.67** | **49** | P | | **P** | **19 29 06.9** | **+1.9** |
| **SEY** | **Seymchan** | **63.77** | **29** | *ce*P | | **P** | **19 29 29.6** | **+4.1** |
| **KSAR** | **Wonju Array Be** | **63.80** | **62** | P | | **P** | **19 29 27.8** | **+1.6** |
| **KSAR** | **Wonju Array Be** | **63.80** | **62** | P | | **P** | **19 29 27.8** | **+1.6** |
| **KSAR** | **Wonju Array Be** | **63.80** | **62** | P | | **P** | **19 29 27.8** | **+1.6** |
| **KSRS** | **Korea Array** | **63.82** | **62** | P | | **P** | **19 29 27.8** | **+1.5** |
| | comp=Z,1.7nm,0.9s,baz=290,slow=7.9,SNR=4.5 | | | | | | | | |
| **BILL** | **Bilibino** | **65.06** | **20** | *i* P | | **P** | **19 29 34.0** | **+0.1** |
| BILL | | | | *i* | | | 19 30 07.1 | | |
| BILL | | | | pmax | | pmax | | | |
| | comp=Z,3.0nm,1.1s | | | | | | | | |
| BILL | | | | MLR | | MLR | | | |
| | comp=Z,265nm,18.0s | | | | | | | | |
| **BILL** | **Bilibino** | **65.06** | **20** | *i* P | | **P** | **19 29 34.0** | **+0.1** |
| | comp=Z,265nm,18.0s | | | | | | | | |
| **BILL** | **Bilibino** | **65.06** | **20** | *i* PcP | | **PcP** | **19 30 07.1** | **+0.4** |
| **BOSA** | **Boshof** | **69.36** | **197** | LR | | LR | 20 03 27.9 | | |
| | comp=Z,106nm,18.7s,baz=358,slow=39 | | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **71.25** | **58** | LR | | LR | 20 04 25.0 | | |
| | comp=Z,101nm,18.8s,baz=330,slow=38 | | | | | | | | |
| **PETK** | **Petropavlovsk-** | **72.07** | **35** | LR | | LR | 20 08 32.1 | | |
| | comp=Z,102nm,19.1s,baz=329,slow=41 | | | | | | | | |
| **IL1** | **Eielson Array** | **76.31** | **5** | *e*P | | **P** | **19 30 42.8** | **+0.3** |
| **IL1** | **Eielson Array** | **76.31** | **5** | *e*P | | **P** | **19 30 42.8** | **+0.3** |
| **ILAR** | **Eielson Array** | **76.31** | **5** | LR | | LR | 20 07 42.6 | | |
| | comp=Z,44nm,18.1s,baz=343,slow=38 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **77.42** | **350** | P | | **P** | **19 30 50.6** | **+1.9** |
| | comp=Z,0.7nm,0.8s,baz=16,slow=6.3,SNR=12 | | | | | | | | |
| **PDAR** | **Pinedale Array** | **95.14** | **341** | LR | | LR | 20 16 58.8 | | |
| | comp=Z,107nm,18.7s,baz=34,slow=37 | | | | | | | | |
| **Q24A** | **Divide** | **97.38** | **336** | *e*P | | P | 19 32 23.1 | -4.9 | |
| | comp=Z,4.1nm,0.8s | | | | | | | | |

*ISCJB **27** 19:41:39.9±0.3, 17°19S±0°05×174°36W±0°07, h150km, mb4.8/37, Error ellipse: s-maj=10.8km s-min=6.1km az=28.9*
*NEIC **27** 19:41:41.0±0.8, 17°18S×174°32W, h145km±8km, mb5.1/31, Error ellipse: s-maj=8.4km s-min=4.2km az=117.0*
*IDC **27** 19:41:41.4±2.5, 17°06S×174°40W, h144km±23km, mb3.9/10, mb1 4.2/11, mb1mx3.9/25, mbtmp4.4/11, Error ellipse: s-maj=28.8km s-min=12.6km az=132.0*

**ISC 27 19:41:41.5±0.5, 17°21S±0°08×174°08W±0°08, h150km, n58, σ1°57/62, mb5.0/38, 1D, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **AFI** | **Afiamalu** | **3.96** | **34** | P | | **Pn** | **19 42 42.1** | **+0.8** |
| | 197nm,0.3s,baz=193,slow=2.5,SNR=117 | | | | | | | |
| AFI | | | | S | | **Sn** | **19 43 25.7** | **-2.0** |
| | 200nm,0.3s,baz=52,slow=22,SNR=9.8 | | | | | | | |
| **AFI** | **Afiamalu** | **3.96** | **34** | *e*Pn | | **Pn** | **19 42 41.9** | **+0.6** |
| AFI | | | | *e* | | | 19 43 23.8 | | |
| AFI | | | | *e*Sn | | **Sn** | **19 43 24.0** | **-3.7** |
| **MSVF** | **Nonsavu** | **7.53** | **265** | *e*Pn | | **Pn** | **19 43 33.3** | **+4.5** |
| **RAR** | **Rarotonga** | **14.08** | **109** | *e*Pn | | **Pn** | **19 44 56.3** | **+1.8** |
| **KNTN** | **Kanton** | **14.53** | **9** | *e*Pn | | **Pn** | **19 45 01.4** | **+1.3** |
| **DZM** | **Mont Dzumac** | **18.97** | **252** | *e*P | | **Pn** | **19 45 55.5** | **+1.7** |
| | 157nm,2.0s | | | | | | | |
| **OUZ** | **Omahuta** | **21.04** | **209** | *e*P | | **P** | **19 46 13.4** | **0.0** |
| | 164nm,1.7s | | | | | | | |
| **MXZ** | **Matakaoa Point** | **21.36** | **197** | *e*P | | **P** | **19 46 17.5** | **+0.6** |
| **URZ** | **Urewera** | **22.35** | **198** | P | | **P** | **19 46 28.3** | **+1.2** |
| | 35nm,0.3s,baz=282,slow=2.2,SNR=77 | | | | | | | |
| URZ | | | | S | | **S** | **19 50 21.0** | **-0.6** |
| | 3.5nm,0.3s,baz=53,slow=20,SNR=6.5 | | | | | | | |
| **URZ** | **Urewera** | **22.35** | **198** | *e*P | | **P** | **19 46 26.6** | **-0.4** |
| | 38nm,0.7s | | | | | | | |
| URZ | | | | *e*S | | **S** | **19 50 21.0** | **-0.6** |
| **HIZ** | **Hauiti** | **23.33** | **202** | *e*P | | **P** | **19 46 39.3** | **+3.1** |
| | 64nm,1.3s | | | | | | | |
| **BKZ** | **Black Stump Fm** | **23.37** | **199** | *e*P | | **P** | **19 46 36.1** | **-0.6** |
| | 12nm,0.6s | | | | | | | |
| **BFZ** | **Birch Farm** | **24.84** | **198** | *e*P | | **P** | **19 46 49.7** | **-0.2** |
| | 103nm,1.3s | | | | | | | |
| **THZ** | **Tophouse** | **26.90** | **202** | *e*P | | **P** | **19 47 07.6** | **-0.9** |
| | 38nm,1.5s | | | | | | | |
| **KHZ** | **Kahutara** | **27.26** | **200** | *e*P | | **P** | **19 47 10.6** | **-1.0** |
| | 41nm,1.3s | | | | | | | |
| **LTZ** | **Lake Taylor** | **28.02** | **202** | *e*P | | **P** | **19 47 16.8** | **-1.7** |
| | 116nm,2.0s | | | | | | | |
| **OXZ** | **Oxford** | **28.58** | **201** | *e*P | | **P** | **19 47 21.2** | **-2.2** |
| | 50nm,1.5s | | | | | | | |
| **MQZ** | **McQueen's Vall** | **28.71** | **200** | *e*P | | **P** | **19 47 24.6** | **+0.2** |
| | 136nm,1.8s | | | | | | | |
| **RPZ** | **Rata Peaks** | **29.27** | **202** | P | | **P** | **19 47 29.8** | **+0.3** |
| | 5.8nm,0.6s,baz=30,slow=3.5,SNR=3.8 | | | | | | | |
| **RPZ** | **Rata Peaks** | **29.27** | **202** | *e*P | | **P** | **19 47 28.9** | **-0.6** |
| | 28nm,1.2s | | | | | | | |
| **FOZ** | **Fox Glacier** | **29.58** | **204** | *e*P | | **P** | **19 47 31.6** | **-0.6** |
| | 112nm,1.8s | | | | | | | |
| **LBZ** | **Lake Benmore** | **30.17** | **203** | *e*P | | **P** | **19 47 36.0** | **-1.4** |
| | 82nm,1.8s | | | | | | | |
| **ODZ** | **Otahua Downs** | **30.57** | **202** | *e*P | | **P** | **19 47 40.6** | **-0.2** |
| | 110nm,1.9s | | | | | | | |
| **WKZ** | **Wanaka** | **30.98** | **204** | *e*P | | **P** | **19 47 45.7** | **+1.1** |
| | 162nm,1.8s | | | | | | | |
| **MLZ** | **Mavora Lakes** | **31.78** | **204** | *e*P | | **P** | **19 47 51.4** | **-0.2** |
| | 106nm,1.9s | | | | | | | |
| **DCZ** | **Deep Cove** | **32.25** | **205** | *e*P | | **P** | **19 47 55.5** | **0.0** |
| | 60nm,1.4s | | | | | | | |
| **WHZ** | **Wether Hill Ro** | **32.28** | **204** | *e*P | | **P** | **19 47 55.5** | **-0.4** |
| | 167nm,2.0s | | | | | | | |
| **ARMA** | **Armidale** | **33.88** | **241** | *e*P | | **P** | **19 48 09.2** | **-0.9** |
| | 72nm,1.7s | | | | | | | |
| **JOHN** | **Johnston Islan** | **34.02** | **8** | *e*P | | **P** | **19 48 09.9** | **-1.4** |
| | 348nm,1.1s | | | | | | | |
| **CTAO** | **Charters Tower** | **37.64** | **259** | *e*P | | **P** | **19 48 39.8** | **-2.4** |
| | 47nm,1.8s | | | | | | | |
| **STKA** | **Stephens Creek** | **42.59** | **241** | P | | **P** | **19 49 22.2** | **-0.6** |
| | 3.0nm,0.5s,baz=72,slow=9.4,SNR=17 | | | | | | | |
| **STKA** | **Stephens Creek** | **42.59** | **241** | *e*P | | **P** | **19 49 22.1** | **-0.6** |
| | 5.6nm,1.9s | | | | | | | |
| **MCQ** | **Macquarie Isla** | **42.63** | **203** | *e*P | | **P** | **19 49 22.1** | **-0.7** |
| | 505nm,1.7s | | | | | | | |
| **BBOO** | **Buckleboo** | **47.36** | **241** | *e*P | | **P** | **19 49 58.8** | **-1.8** |
| | 78nm,2.0s | | | | | | | |
| **WB2** | **Warramunga Arr** | **48.81** | **258** | *e*P | | **P** | **19 50 09.1** | **-2.8** |
| | 45nm,1.7s | | | | | | | |
| **WRAB** | **Tennant Creek** | **48.81** | **258** | *e*P | | **P** | **19 50 09.1** | **-2.8** |
| | 72nm,2.0s | | | | | | | |
| **WR1** | **Warramunga Arr** | **48.82** | **258** | *e*P | | **P** | **19 50 09.7** | **-2.2** |
| | 43nm,1.7s | | | | | | | |
| **WRA** | **Warramunga Arr** | **48.82** | **258** | P | | **P** | **19 50 09.7** | **-2.2** |
| | 2.1nm,0.5s,baz=95,slow=7.1,SNR=57 | | | | | | | |
| **AS01** | **Alice Springs** | **48.91** | **253** | *e*P | | **P** | **19 50 10.5** | **-2.1** |
| **AS31** | **Alice Springs** | **48.95** | **253** | *e*P | | **P** | **19 50 10.9** | **-2.0** |
| | 4.4nm,0.6s | | | | | | | |
| **ASAR** | **Alice Springs** | **48.95** | **253** | P | | **P** | **19 50 11.2** | **-1.8** |
| | 14nm,0.8s,baz=87,slow=8.6,SNR=223 | | | | | | | |
| **SOEI** | **Soe** | **60.21** | **268** | *e*P | | **P** | **19 51 34.3** | **0.0** |
| | 48nm,1.3s | | | | | | | |
| **PEA0B** | **Petropavlovsk-** | **74.15** | **343** | *e*P | | **P** | **19 53 01.0** | **-0.2** |
| | 121nm,1.6s | | | | | | | |
| **PETK** | **Petropavlovsk-** | **74.15** | **343** | P | | **P** | **19 53 00.6** | **-0.6** |
| | 4.0nm,0.7s,baz=116,slow=8.7,SNR=6.9 | | | | | | | |
| **PETK** | **Petropavlovsk-** | **74.15** | **343** | *e*P | | **P** | **19 53 01.3** | **+0.1** |
| **PEA1** | **Petropavlovsk-** | **74.16** | **343** | *e*P | | **P** | **19 53 00.6** | **-0.6** |
| **NV01** | **Mina Array Sit** | **76.10** | **42** | *e*P | | **P** | **19 53 13.3** | **+0.3** |
| **NVAR** | **Mina Array Bea** | **76.10** | **42** | P | | **P** | **19 53 14.1** | **+1.1** |
| | 0.4nm,0.6s,baz=222,slow=9.3,SNR=4.8 | | | | | | | |
| **LTX** | **Lajitas** | **82.15** | **56** | *e*P | | **P** | **19 53 47.1** | **+1.2** |
| **TXAR** | **Lajitas Array** | **82.15** | **56** | P | | **P** | **19 53 47.1** | **+1.2** |
| | 0.6nm,0.8s,baz=211,slow=7.1,SNR=5.8 | | | | | | | |
| **PD31** | **Pinedale Array** | **84.04** | **42** | *e*P | | **P** | **19 53 55.8** | **+0.3** |
| **PDAR** | **Pinedale Array** | **84.04** | **42** | P | | **P** | **19 53 56.6** | **+1.1** |
| | 1.2nm,0.7s,baz=191,slow=2.7,SNR=12 | | | | | | | |
| **ILAR** | **Eielson Array** | **84.34** | **11** | P | | **P** | **19 53 56.1** | **-0.1** |
| | 0.4nm,0.5s,baz=221,slow=5.7,SNR=9.5 | | | | | | | |
| **ILB** | **Eielson Array** | **84.34** | **11** | *e*P | | **P** | **19 53 56.7** | **+0.5** |
| **RSSD** | **Black Hills** | **88.22** | **43** | *e*P | | **P** | **19 54 17.2** | **+1.2** |
| | 26nm,1.1s | | | | | | | |
| **SYO** | **Syowa Base** | **90.71** | **192** | *e*P | | **P** | **19 54 25.0** | **-1.9** |
| **BR101** | **Keskin Array S** | **147.11** | **319** | *e*PKPbc | | **PKPdf** | **20 01 07.2** | **+2.3** |
| **BRTR** | **Keskin Array B** | **147.11** | **319** | PKPbc | | **PKPdf** | **20 01 07.2** | **+2.3** |
| | 0.6nm,0.7s,baz=31,slow=3.7,SNR=3.2 | | | | | | | |

**IDC 27 19:45:18.1±3.3, 51°79N×96°06E, h0km, mb1 2.8/2, mb1mx2.7/32, mbtmp2.8/2, ML2.4/2, Error ellipse: s-maj=56.6km s-min=21.6km az=10.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **ZALV** | **Zalesovo Beam** | **7.14** | **292** | Pn | | Pn | 19 47 03.5 | -0.3 |
| | 0.2nm,0.3s,baz=99,slow=16,SNR=4.4 | | | | | | | |
| ZALV | | | | Lg | | Lg | 19 48 52.5 | | |
| | 1.4nm,0.3s,baz=110,slow=24,SNR=11 | | | | | | | |
| **SONM** | **Songino Array** | **7.77** | **117** | Pg | | Pb | 19 47 39.2 | +5.5 |
| | 0.2nm,0.3s,baz=300,slow=16,SNR=4.2 | | | | | | | |
| SONM | | | | Lg | | Lg | 19 49 25.3 | | |
| | 1.0nm,0.3s,baz=302,slow=30,SNR=12 | | | | | | | |
| **MKAR** | **Makanchi Array** | **10.29** | **246** | Pn | | Pn | 19 47 47.2 | +0.3 |
| | 0.0nm,0.3s,baz=50,slow=11,SNR=2.6 | | | | | | | |
| MKAR | | | | Lg | | Lg | 19 50 44.6 | | |
| | 0.1nm,0.3s,baz=55,slow=28,SNR=3.7 | | | | | | | |

**MEX 27 20:12:33.3±0.8, 15°89N×98°05W, h2km, MD3.9, Off coast of Guerrero**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **PNIG** | **Pinotepa** | **0.51** | **352** | *e*P | | Pg | 20 12 42.2 | -0.8 |
| PNIG | | | | *e*S | | Sg | 20 12 50.1 | +0.5 |
| **VHO** | **Vista Hermosa** | **1.73** | **47** | *e*P | | Pn | 20 13 03.0 | -1.6 |
| VHO | | | | *e*S | | Sg | 20 13 29.8 | +0.8 |
| **TLIG** | **Tlapa** | **1.73** | **344** | *e*P | | Pn | 20 13 01.7 | -2.9 |
| TLIG | | | | *e*S | | Sn | 20 13 22.9 | -4.6 |
| **HUIG** | **Huatulco** | **1.88** | **93** | *e*P | | Pg | 20 13 13.4 | +4.1 |
| **ACX** | **Acapulco** | **1.99** | **300** | *e*P | | Pn | 20 13 05.2 | -2.8 |
| ACX | | | | *e*S | | Sn | 20 13 30.7 | -2.8 |
| **ACP2** | **Acapulco** | **2.01** | **299** | *i* S | | Sn | 20 13 27.4 | -6.7 |
| **CAIG** | **El Cayaco** | **2.42** | **299** | *e*P | | Pn | 20 13 10.1 | -3.8 |
| **MEIG** | **Mezcala** | **2.52** | **324** | *e*P | | Pn | 20 13 12.6 | -2.8 |
| MEIG | | | | *e*S | | Sn | 20 13 42.9 | -3.8 |

**OBM 27 20:17:18.0±0.2, 52°21N×95°89E, h2km, Ml3.6/1, Error ellipse: s-maj=5.1km s-min=1.3km az=176.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **HTG** | **Hatgal** | **3.20** | **121** | *e*Pg | | Pg | 20 18 17.8 | -1.5 |
| HTG | | | | *e*Sg | | Sg | 20 18 58.0 | -2.8 |
| **ULG** | **Ulaangom** | **3.30** | **229** | *e*Pg | | Pb | 20 18 18.1 | +0.8 |
| ULG | | | | *e*Sg | | Sb | 20 19 00.2 | +2.3 |
| | 321nm,0.2s | | | | | | | |
| **BYO** | **Bayan-Olgiy** | **4.98** | **232** | *e*Pn | | Pn | 20 18 37.5 | +3.5 |
| **BYO** | **Bayan-Olgiy** | **4.98** | **232** | *e*Pg | | Pb | 20 18 49.1 | +3.1 |
| BYO | | | | *e*Sg | | Sb | 20 19 49.9 | +3.5 |
| **HBD** | **Hovd** | **5.01** | **215** | *e*Pg | | Pb | 20 18 48.5 | +2.1 |
| HBD | | | | *e*Sg | | Sg | 20 19 53.5 | -5.3 |
| **TTS** | **Tsetserleg** | **5.94** | **141** | *e*Pg | | Pb | 20 19 05.7 | +3.5 |
| TTS | | | | *e*Sg | | Sg | 20 20 23.6 | -4.9 |
| | 16nm,0.5s | | | | | | | |
| **BLGM** | **Bulgan** | **5.95** | **122** | *e*Pg | | Pg | 20 19 08.3 | -3.7 |
| BLGM | | | | *e*Sg | | Sg | 20 20 23.3 | -5.8 |
| | 26nm,0.6s | | | | | | | |
| **SONB5** | **Songino Array** | **8.03** | **119** | *e*Pg | | Pb | 20 19 44.0 | +6.2 |
| **SONB4** | **Songino Array** | **8.04** | **119** | *e*Pg | | Pb | 20 19 44.3 | +6.4 |
| SONB4 | | | | *e*Sg | | Sg | 20 21 30.3 | -5.5 |
| **SONB1** | **Songino Array** | **8.04** | **119** | *e*Pg | | Pb | 20 19 44.2 | +6.2 |
| **SONA2** | **Songino Array** | **8.05** | **119** | *e*Pg | | Pb | 20 19 44.3 | +6.2 |
| SONA2 | | | | *e*Sg | | Sg | 20 21 30.5 | -5.7 |
| | 141nm,1.2s | | | | | | | |
| **SONA1** | **Songino Array** | **8.05** | **119** | *e*Pg | | Pb | 20 19 44.6 | +6.4 |
| SONA1 | | | | *e*Sg | | Sg | 20 21 29.9 | -6.4 |
| | 147nm,1.2s | | | | | | | |
| **SONA3** | **Songino Array** | **8.05** | **119** | *e*Pg | | Pb | 20 19 44.6 | +6.4 |
| SONA3 | | | | *e*Sg | | Sg | 20 21 30.3 | -6.1 |
| | 156nm,1.2s | | | | | | | |
| **SONA0** | **Songino Array** | **8.05** | **119** | *e*Pg | | Pb | 20 19 44.5 | +6.3 |
| SONA0 | | | | *e*Sg | | Sg | 20 21 29.8 | -6.6 |
| **SONA4** | **Songino Array** | **8.05** | **119** | *e*Pg | | Pb | 20 19 44.5 | +6.2 |
| SONA4 | | | | *e*Sg | | Sg | 20 21 30.2 | -6.3 |
| | 94nm,1.0s | | | | | | | |
| **SONB2** | **Songino Ar. Si** | **8.06** | **119** | *e*Pg | | Pb | 20 19 44.8 | +6.4 |
| SONB2 | | | | *e*Sg | | Sg | 20 21 30.4 | -6.2 |
| | 157nm,1.2s | | | | | | | |
| **SONB3** | **Songino Array** | **8.06** | **119** | *e*Pg | | Pb | 20 19 44.7 | +6.3 |
| SONB3 | | | | *e*Sg | | Sg | 20 21 30.4 | -6.4 |
| | 148nm,1.2s | | | | | | | |
| **ALFM** | | **8.17** | **117** | *e*Pg | | Pg | 20 19 47.8 | -6.6 |
| ALFM | | | | *e*Sg | | Sg | 20 21 34.7 | -5.5 |
| | 48nm,0.6s | | | | | | | |
| **ARTM** | | **8.48** | **116** | *e*Pg | | Pb | 20 19 52.7 | +7.2 |
| **SEMM** | | **8.54** | **119** | *e*Pg | | Pg | 20 19 53.7 | -7.7 |
| **UGDM** | | **8.72** | **117** | *e*Pg | | Pg | 20 19 57.5 | -7.3 |

*BJI **27** 20:19:08.5, 51°91N×96°00E, h15km, mb4.5/34, mB4.8/26, ML4.9/1, Ms4.5/25, Ms7 4.2/25*
*OBM **27** 20:19:08.2±0.2, 51°70N×96°02E, h2km, Ml4.3/1, Error ellipse: s-maj=4.1km s-min=1.0km az=169.0*
*IDC **27** 20:19:09.9±0.4, 51°69N×96°23E, h0km, mb4.3/28, mb1 4.4/33, mb1mx4.3/52, mbtmp4.2/33, ML3.3/6, MS3.4/9, Ms1 3.4/9, ms1mx3.1/46, Error ellipse: s-maj=12.6km s-min=7.9km az=178.0*
*ISCJB **27** 20:19:10.1±0.1, 51°73N±0°03×96°16E±0°03, h14km, mb4.5/86, MS3.8/9, Error ellipse: s-maj=3.7km s-min=2.5km az=13.5*
*ASRS **27** 20:19:10.1±0.5, 51°75N×96°03E, h15km, Ms4.0/3*
*MOS **27** 20:19:10.0±1.2, 51°75N×96°17E, h12km, mb4.7/40, Error ellipse: s-maj=7.2km s-min=5.5km az=31.9*
*NEIC **27** 20:19:11.1±0.2, 51°73N×96°13E, h10km, mb4.7/50, Error ellipse: s-maj=4.5km s-min=3.0km az=182.0*

**ISC 27 20:19:11.1±0.5, 51.75N±0°02×96.17E±0°02, h7km±2km, h8km:pP-P, n353, σ2°77/436, mb4.6/89, MS3.8/10, 20C-19D, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **KZLR** | **Kyzyl** | **1.07** | **268** | *i* Pg | | **Pg** | **20 19 29.1** | **-2.5** |
| KZLR | | | | *e*Sg | | **Sg** | **20 19 42.4** | **-3.1** |
| **KZLR** | **Kyzyl** | **1.07** | **268** | *i* PG | | **Pg** | **20 19 29.1** | **-2.5** |
| KZLR | | | | *e* | | | 20 19 42.4 | | |
| **HVS** | **Khovu-Aksy** | **1.66** | **249** | PN | | **Pn** | **20 19 39.0** | **-1.7** |
| **HVS** | **Khovu-Aksy** | **1.66** | **249** | P | | **Pn** | **20 19 39.0** | **-1.7** |
| **HTG** | **Hatgal** | **2.83** | **116** | *e*Pg | | **Pb** | **20 20 01.3** | **-0.7** |
| HTG | | | | *e*Sg | | **Sb** | **20 20 38.4** | **+1.5** |
| **HTG** | **Hatgal** | **2.83** | **116** | *e*Pg | | **Pn** | **20 19 59.6** | **+2.8** |
| HTG | | | | *e*Sg | | **Sb** | **20 20 39.3** | **+2.4** |
| **HTG** | **Hatgal** | **2.83** | **116** | *e*Pg | | **Pn** | **20 19 59.6** | **+2.8** |
| HTG | | | | *e*Sg | | **Sb** | **20 20 39.9** | **+3.0** |
| **HTG** | **Hatgal** | **2.83** | **116** | *e*Pg | | **Pb** | **20 20 01.1** | **-0.9** |
| HTG | | | | *e*Sg | | **Sb** | **20 20 38.4** | **+1.5** |
| **MOY** | **Mondy** | **3.00** | **90** | *e*PN | | **Pn** | **20 19 57.1** | **-2.0** |
| MOY | | | | *e* | | | 20 20 04.1 | | |
| MOY | | | | *e* | | | 20 20 44.5 | | |
| MOY | | | | pmax | | pmax | | | |
| | comp=Z,832nm,1.0s | | | | | | | | |
| MOY | | | | smax | | smax | | | |
| | comp=N,4μm,0.8s | | | | | | | | |
| **CERR** | **Cheremushki** | **3.12** | **293** | *e*Pn | | **Pn** | **20 20 01.2** | **+0.5** |
| CERR | | | | *e*Pg | | **Pb** | **20 20 06.4** | **-0.5** |
| CERR | | | | *e*Sg | | **Sb** | **20 20 43.3** | **-1.9** |
| **CERR** | **Cheremushki** | **3.12** | **293** | *e*PN | | **Pn** | **20 20 01.2** | **+0.5** |
| CERR | | | | *e* | | | 20 20 06.4 | | |
| CERR | | | | *e* | | | 20 20 43.3 | | |
| **ULG** | **Ulaangom** | **3.16** | **237** | *e*Pg | | **Pb** | **20 20 05.1** | **-2.5** |
| ULG | | | | *e*Sg | | **Sb** | **20 20 44.8** | **-1.6** |
| **ULG** | **Ulaangom** | **3.16** | **237** | *e*Pg | | **Pn** | **20 20 02.5** | **+1.2** |
| ULG | | | | *e*Sg | | **Sb** | **20 20 45.0** | **-1.3** |
| **ULG** | **Ulaangom** | **3.16** | **237** | *e*Pg | | **Pn** | **20 20 03.7** | **+2.4** |
| ULG | | | | *e*Sg | | **Sb** | **20 20 44.1** | **-2.2** |
| **ULG** | **Ulaangom** | **3.16** | **237** | *e*Pg | | **Pb** | **20 20 05.1** | **-2.5** |
| ULG | | | | *e*Sg | | **Sb** | **20 20 44.7** | **-1.6** |
| **MINR** | **Mina** | **3.37** | **340** | *e*Pg | | **Pb** | **20 20 11.1** | **-0.1** |
| MINR | | | | *e*Sg | | **Sb** | **20 20 54.6** | **+2.2** |
| **ARS** | **Arshan** | **3.88** | **85** | *e*PN | | **Pb** | **20 20 21.3** | **+1.5** |
| ARS | | | | *e* | | | 20 21 12.5 | | |
| ARS | | | | pmax | | pmax | | | |
| | comp=Z,748nm,0.5s | | | | | | | | |
| ARS | | | | smax | | smax | | | |
| | comp=E,9μm,1.0s | | | | | | | | |
| **TLY** | **Talaya** | **4.65** | **88** | Pg | | **Pb** | **20 20 34.0** | **+1.1** |
| TLY | | | | Lg | | Lg | 20 21 36.0 | | |
| TLY | | | | LR | | LR | 20 22 00.6 | | |
| | comp=E,330nm,18.0s,baz=30,slow=37 | | | | | | | | |
| **TLY** | **Talaya** | **4.65** | **88** | *e*PN | | **Pb** | **20 20 32.9** | **+0.1** |
| TLY | | | | *e* | | | 20 21 33.9 | | |
| TLY | | | | pmax | | pmax | | | |
| | comp=Z,117nm,0.3s | | | | | | | | |
| **TLY** | **Talaya** | **4.65** | **88** | Pn | | **Pn** | **20 20 21.3** | **-0.3** |
| TLY | | | | *e*Pb | | **Pb** | **20 20 33.3** | **+0.5** |
| TLY | | | | *e*Pg | | Pg | 20 20 34.0 | -6.1 |
| TLY | | | | *e*Sg | | **Sb** | **20 21 33.3** | **+4.3** |
| TLY | | | | *e* | | | 20 22 00.6 | | |
| **ZAK** | **Zakamensk** | **4.69** | **104** | *e*PN | | **Pb** | **20 20 33.8** | **+0.2** |
| ZAK | | | | *e* | | | 20 21 35.8 | | |
| ZAK | | | | pmax | | pmax | | | |
| | comp=Z,312nm,1.2s | | | | | | | | |
| ZAK | | | | smax | | smax | | | |
| | comp=E,1μm,1.2s | | | | | | | | |
| **HBD** | **Hovd** | **4.75** | **220** | *e*Pg | | **Pb** | **20 20 32.7** | **-2.0** |
| HBD | | | | *e*Sg | | **Sb** | **20 21 33.9** | **+1.9** |
| **HBD** | **Hovd** | **4.75** | **220** | *e*Pg | | **Pb** | **20 20 32.7** | **-2.0** |
| HBD | | | | *e*Sg | | **Sb** | **20 21 36.6** | **+4.6** |
| **HBD** | **Hovd** | **4.75** | **220** | *e*Pg | | **Pb** | **20 20 32.7** | **-2.0** |
| HBD | | | | *e*Sg | | **Sb** | **20 21 33.2** | **+1.2** |
| **HBD** | **Hovd** | **4.75** | **220** | *e*Pg | | **Pb** | **20 20 32.7** | **-2.0** |
| HBD | | | | *e*Sg | | **Sb** | **20 21 33.0** | **+1.0** |
| **BYO** | **Bayan-Olgiy** | **4.86** | **237** | *e*Pg | | **Pb** | **20 20 36.4** | **-0.2** |
| BYO | | | | *e*Sg | | **Sb** | **20 21 35.8** | **+0.5** |
| **BYO** | **Bayan-Olgiy** | **4.86** | **237** | *e*Pg | | **Pb** | **20 20 32.2** | **-4.4** |
| BYO | | | | *e*Sg | | **Sb** | **20 21 36.1** | **+0.8** |
| **BYO** | **Bayan-Olgiy** | **4.86** | **237** | *e*Pg | | **Pb** | **20 20 35.1** | **-1.5** |
| BYO | | | | *e*Sg | | **Sb** | **20 21 35.3** | **0.0** |
| | comp=E,3μm,0.7s | | | | | | | | |
| **BYO** | **Bayan-Olgiy** | **4.86** | **237** | *e*Pg | | **Pb** | **20 20 37.2** | **+0.6** |
| BYO | | | | *e*Sg | | **Sb** | **20 21 35.2** | **0.0** |
| **IRK** | **Irkutsk** | **5.03** | **81** | *e*PN | | **Pb** | **20 20 39.8** | **+0.4** |
| IRK | | | | *e* | | | 20 21 43.5 | | |
| IRK | | | | pmax | | pmax | | | |
| | comp=Z,287nm,0.7s | | | | | | | | |
| IRK | | | | smax | | smax | | | |
| | comp=N,3μm,1.0s | | | | | | | | |
| **TASR** | **Tashtagol** | **5.20** | **285** | *e*Pn | | **Pn** | **20 20 28.3** | **-0.9** |
| TASR | | | | *e*Pg | | **Pb** | **20 20 43.0** | **+0.8** |
| TASR | | | | *e*Sg | | **Sb** | **20 21 48.8** | **+4.1** |
| **TASR** | **Tashtagol** | **5.20** | **285** | *e*PN | | **Pn** | **

SONB1 eSg Sg 20 23 11.5 -5.8
comp=Z,829nm,1.1s
**SONB1 Songino Array 7.67 116** ePg Pb **20 21 27.5 +3.0**
SONB1 eSg Sg **20 23 10.3 -7.0**
comp=Z,326nm,0.8s
**SONB1 Songino Array 7.67 116** ePg Pb **20 21 27.3 +2.8**
**SONA2 Songino Array 7.68 117** eSg Sg **20 23 10.4 -7.0**
comp=Z,369nm,0.9s
**SONA2 Songino Array 7.68 117** ePg Pb **20 21 26.6 +2.1**
SONA2 eSg Sg **20 23 11.3 -6.1**
comp=Z,1µm,1.5s
**SONA2 Songino Array 7.68 117** ePg Pb **20 21 27.5 +3.0**
SONA2 eSg Sg **20 23 09.3 -8.1**
**SONA2 Songino Array 7.68 117** ePg Pb **20 21 27.5 +3.0**
SONA2 eSg Sg **20 23 10.0 -7.4**
**SONA1 Songino Array 7.68 117** ePn Pn **20 21 02.5 -1.0**
**SONA1 Songino Array 7.68 117** eSg Sg **20 23 09.9 -7.6**
comp=Z,338nm,0.9s
**SONA1 Songino Array 7.68 117** ePg Pb **20 21 27.2 +2.6**
SONA1 eSg Sg **20 23 10.9 -6.7**
comp=Z,730nm,1.1s
**SONA1 Songino Array 7.68 117** ePg Pb **20 21 27.6 +3.0**
SONA1 eSg Sg **20 23 09.4 -8.2**
comp=Z,443nm,1.0s
**SONA1 Songino Array 7.68 117** ePg Pb **20 21 27.6 +3.0**
SONA1 eSg Sg **20 23 10.0 -7.6**
comp=Z,448nm,1.0s
**SONA0 Songino Array 7.69 117** ePn Pn **20 21 04.5 +1.0**
SONA0 ePg Pb **20 21 27.6 +2.9**
SONA0 eLg Lg 20 23 37.1
SONA0 e 20 24 07.1
**SONA0 Songino Array 7.69 117** eSg Sg 20 23 09.0 -8.6
comp=Z,299nm,1.0s
SONA0 eSg Sg 20 23 09.1 -8.5
comp=Z,360nm,1.0s
**SONA0 Songino Array 7.69 117** ePg Pb **20 21 27.0 +2.3**
SONA0 eSg Sg **20 23 09.6 -8.0**
**SONA0 Songino Array 7.69 117** ePg Pb **20 21 27.6 +2.9**
SONA0 eSg Sg 20 23 09.2 -8.4
**SONA0 Songino Array 7.69 117** ePg Pb **20 21 28.0 +3.3**
SONA0 eSg Sg 20 23 09.1 -8.5
SONA0 eSg Sg **20 23 09.7 -7.9**
**SONM Songino Array 7.69 117** Pn Pn **20 21 04.5 +1.0**
comp=Z,0.2nm,0.3s,baz=301,slow=16,SNR=3.4
SONM Pg Pb **20 21 27.6 +2.9**
comp=Z,2.4nm,0.3s,baz=304,slow=17,SNR=27
SONM Lg Lg 20 23 37.1
comp=Z,10nm,0.3s,baz=289,slow=28,SNR=4.8
SONM LR LR 20 24 07.1
comp=Z,250nm,20.4s,baz=38,slow=39
**SONA3 Songino Array 7.69 116** eSg Sg **20 23 10.3 -7.3**
comp=Z,558nm,1.3s
**SONA3 Songino Array 7.69 116** ePg Pb **20 21 27.0 +2.3**
SONA3 eSg Sg **20 23 11.6 -6.0**
comp=Z,759nm,0.9s
**SONA3 Songino Array 7.69 116** ePg Pb **20 21 27.7 +3.0**
SONA3 eSg Sg 20 23 09.3 -8.3
comp=Z,434nm,0.9s
**SONA3 Songino Array 7.69 116** ePg Pb **20 21 27.7 +3.0**
SONA3 eSg Sg **20 23 10.1 -7.5**
comp=Z,452nm,0.9s
**SONA4 Songino Array 7.69 117** eSg Sg **20 23 11.4 -6.3**
comp=Z,278nm,0.7s
**SONA4 Songino Array 7.69 117** ePg Pb **20 21 27.2 +2.5**
SONA4 eSg Sg **20 23 11.9 -5.8**
comp=Z,718nm,0.9s
**SONA4 Songino Array 7.69 117** ePg Pb **20 21 27.7 +3.0**
SONA4 eSg Sg **20 23 10.1 -7.6**
comp=Z,575nm,1.1s
**SONA4 Songino Array 7.69 117** ePg Pb **20 21 27.6 +2.9**
SONA4 eSg Sg **20 23 10.6 -7.1**
**SONB2 Songino Ar. Si 7.69 116** ePg Pb **20 21 27.0 +2.2**
SONB2 eSg Sg **20 23 11.7 -6.2**
comp=Z,1µm,1.4s
**SONB2 Songino Ar. Si 7.69 116** ePg Pb **20 21 27.8 +3.0**
SONB2 eSg Sg **20 23 10.3 -7.6**
**SONB2 Songino Ar. Si 7.69 116** ePg Pb **20 21 27.8 +3.0**
**SONB3 Songino Array 7.70 117** ePg Pb **20 21 27.3 +2.4**
**SONB3 Songino Array 7.70 117** ePg Pb **20 21 27.9 +3.0**
**ALFM 7.81 115** ePg Pb **20 21 28.9 +2.0**
ALFM eSg Sg **20 23 14.0 -7.8**
comp=Z,395nm,0.8s
**ALFM 7.81 115** ePg Pb **20 21 31.0 +4.1**
ALFM eSg Sg 20 23 13.4 -8.4
comp=Z,395nm,0.8s
**ARTM 8.13 114** ePg Pb **20 21 35.4 +3.2**
ARTM eSg Sg **20 23 24.8 -6.9**
comp=Z,442nm,0.9s
**ARTM 8.13 114** ePg Pb **20 21 35.9 +3.7**
ARTM eSg Sg **20 23 24.8 -6.9**
comp=Z,265nm,0.8s
**SEMM 8.17 117** ePg Pb **20 21 35.5 +2.6**
SEMM eSg Sg **20 23 25.8 -7.3**
**SEMM 8.17 117** ePg Pb **20 21 37.5 +4.6**
SEMM eSg Sg **20 23 25.7 -7.3**
**NVS Novosibirsk 8.35 297** ePn Pn **20 21 12.2 -0.2**
NVS ePg Pb **20 21 37.5 +1.7**
NVS eSg Sb 20 23 25.5 +10
**NVS Novosibirsk 8.35 297** eP Pn **20 21 12.2 -0.2**
**UGDM 8.36 115** ePg Pb **20 21 38.5 +2.4**
UGDM eSg Sg **20 23 31.4 -7.7**
comp=Z,263nm,0.8s
**UGDM 8.36 115** ePg Pb 20 21 41.4 +5.3
UGDM eSg Sg 20 23 29.7 -9.4
comp=Z,263nm,0.8s
**NIZ Nizh Angarsk 8.88 58** eP Pn **20 21 20.4 +0.7**
NIZ eS Sn **20 22 56.7 -3.3**
NIZ pmax pmax
comp=Z,63nm,1.0s
NIZ smax smax
comp=N,1µm,1.6s
**DZBM 9.71 142** eSg Sn 20 24 14.8 +54
**WMQ Urumqi 9.76 219** P Pn **20 21 33.0 +1.1**
WMQ S Sn **20 23 23.0 +1.3**
WMQ pmax pmax
comp=N,54nm,0.9s
WMQ pmax pmax
comp=N,48nm,3.7s
WMQ smax smax
comp=N,250nm,1.1s
WMQ smax smax
comp=N,270nm,1.3s
**MK31 Makanchi Array 10.33 247** eP Pn **20 21 37.0 -2.6**
**MK31 Makanchi Array 10.33 247** ePn Pn **20 21 37.0 -2.6**
**MK32 Makanchi Array 10.33 247** ePn Pn **20 21 39.3 -0.4**
MK32 e 20 22 18.7
MK32 eLg Lg 20 24 35.4
**MKAR Makanchi Array 10.33 247** Pn Pn **20 21 39.3 -0.4**
comp=N,0.3nm,0.3s,baz=72,slow=12,SNR=30
MKAR Pg 20 22 18.7
comp=N,1.0nm,0.3s,baz=71,slow=18,SNR=5.6
MKAR Lg Lg 20 24 35.4
comp=N,1.5nm,0.3s,baz=84,slow=32,SNR=5.0
**MKAR Makanchi Array 10.33 247** ePn Pn **20 21 36.5 -3.2**
MKAR Pg 20 22 18.7
MKAR Lg Lg 20 24 35.4
**MK01 Makanchi Array 10.34 247** ePn Pn **20 21 38.3 -1.4**
**MAKZ Makanchi 10.51 248** eP Pn **20 21 41.3 -0.7**
**MAKZ Makanchi 10.51 248** ePn Pn **20 21 41.3 -0.7**
**KURK Kurchatov 11.06 272** ceP Pn **20 21 49.3 -0.2**
KURK pmax pmax
comp=Z,22nm,0.8s
**KURK Kurchatov 11.06 272** ePn Pn **20 21 50.3 +0.8**
KURK eSn Sn 20 23 43.1 -10
KURK eLg Lg 20 25 00.5
**KURBB Kurchatov Arra 11.13 271** Pn Pn **20 21 51.7 +1.2**
comp=Z,0.2nm,0.3s,baz=78,slow=14,SNR=12
KURBB Sn Sn 20 23 43.1 -12
comp=Z,0.1nm,0.3s,baz=83,slow=16,SNR=4.6
KURBB Lg Lg 20 25 00.5
comp=Z,0.3nm,0.3s,baz=85,slow=32,SNR=6.9
**GTA Gaotai 12.60 167** P Pn **20 22 14.3 +3.6**
GTA pP 20 22 18.5
GTA sP 20 22 21.5
GTA S Sn **20 24 40.0 +8.8**
GTA pmax pmax
comp=Z,7.0nm,1.4s
GTA pmax pmax
comp=Z,120nm,5.7s
GTA LR LR
comp=Z,930nm,8.6s
GTA LR LR
comp=Z,1µm,8.3s
GTA LR LR
comp=Z,1µm,9.5s
**HIA Hailar 15.18 90** ⇓P Pn **20 22 46.2 +0.4**
HIA pmax pmax
comp=Z,1.0nm,0.8s
**HIA Hailar 15.18 90** ePn P **20 22 52.0 +1.1**
comp=Z,36nm,0.9s
**HHC Hu-ho-hao-te 15.19 130** eP Pn **20 22 44.8 -1.2**
HHC sP P 20 22 52.3 +1.1
HHC S Sn **20 25 34.5 0.0**
HHC SS S **20 25 51.5 -0.2**
HHC pmax pmax
comp=Z,20nm,0.8s
HHC pmax pmax
comp=Z,260nm,7.5s
HHC LR LR
comp=Z,440nm,8.6s
HHC LR LR
comp=Z,470nm,9.3s
HHC LR LR
comp=Z,590nm,8.6s
**BVAR Borovoye Array 15.77 285** Pn Pn **20 22 51.8 -1.6**
comp=Z,0.6nm,0.3s,baz=84,slow=14,SNR=22
BVAR Sn Sn **20 25 47.7 -0.6**
comp=Z,0.3nm,0.3s,baz=86,slow=22,SNR=3.5
BVAR Lg Lg 20 27 22.6
baz=91,slow=24,SNR=3.6
**BRVK Borovoye 15.83 285** ceP Pn **20 22 53.6 -0.6**
BRVK pmax pmax
comp=Z,16nm,0.6s
**BRVK Borovoye 15.83 285** ePn Pn **20 22 50.2 -3.9**
comp=Z,7.7nm,0.6s
**LZH Lanzhou 16.59 158** ⇑P Pn **20 23 04.8 +0.7**
LZH pP P 20 23 08.3 +1.6
LZH sP sP 20 23 11.5 +1.9
LZH PP PnPn **20 23 17.3 +4.1**
LZH eS Sn **20 26 06.5 -2.0**
LZH pmax pmax
comp=Z,24nm,1.0s
LZH pmax pmax
comp=Z,99nm,5.8s
LZH LR LR
comp=Z,980nm,10.8s
LZH LR LR
comp=Z,1µm,11.1s
LZH LR LR
comp=Z,960nm,11.9s
**AAK Ala-Archa 17.27 247** P Pn **20 23 12.4 -0.3**
comp=Z,0.2nm,0.3s,baz=19,slow=8.1,SNR=7.7
AAK LR LR 20 30 16.5
comp=Z,119nm,18.9s,baz=28,slow=39
**AAK Ala-Archa 17.27 247** ⇑iP Pn **20 23 13.2 +0.5**
**AAK Ala-Archa 17.27 247** ePn Pn **20 23 10.7 -2.1**
comp=Z,6.6nm,1.0s
**BJI Beijing 18.12 122** P Pn **20 23 21.5 -1.6**
BJI S Sn **20 26 43.3 -2.0**
BJI pmax pmax
comp=Z,5.0nm,0.6s
BJI LR LR
comp=Z,750nm,8.7s
BJI LR LR
comp=Z,520nm,7.6s
**BJT Baijiatuan 18.13 122** eP Pn **20 23 21.7 -1.5**
BJT pmax pmax
comp=Z,11nm,1.0s
**BJT Baijiatuan 18.13 122** ePn Pn **20 23 21.7 -1.5**
comp=Z,11nm,1.0s
**MNAS Manas 18.51 249** P Pn **20 23 29.9 +1.9**
MNAS pmax pmax
comp=Z,10.0nm,1.3s
**KSH Kashi 18.61 237** eP Pn 20 23 36.5 +7.3
KSH pP sP 20 23 39.5 +7.6
KSH PP PnPn 20 23 52.3 +11
KSH S **S** **20 27 04.0 +2.7**
KSH SS SnSn 20 27 29.3 +18
KSH ScS **ScS** **20 35 16.0 +1.5**
KSH pmax pmax
comp=Z,10.0nm,1.0s
KSH pmax pmax
comp=Z,210nm,3.2s
KSH LR LR
comp=Z,210nm,4.7s
**KKAR Karatay Array 19.31 254** eP P **20 23 35.6 -1.0**
KKAR pmax pmax
comp=Z,62nm,0.8s
**KKAR Karatay Array 19.31 254** eP P **20 23 35.6 -1.0**
comp=Z,62nm,0.8s
**SFK Sufi-Kurgan 19.57 242** P Pn **20 23 42.0 +1.0**
SFK pmax pmax
comp=Z,15nm,1.1s
**YAK Yakutsk 20.75 47** P P **20 23 52.6 +0.6**
comp=Z,26nm,0.8s,baz=300,slow=1.8,SNR=7.0
**YAK Yakutsk 20.75 47** eP Pn 20 23 53.2 -1.2
YAK eS S **20 27 45.7 +2.1**
YAK e 20 28 00.1
YAK eSS SnSn **20 28 10.5 +7.6**
YAK e 20 35 23.0
YAK pmax pmax
comp=Z,25nm,0.9s
YAK pmax pmax
comp=E,12nm,1.5s
YAK pmax pmax
comp=N,3.0nm,1.0s
YAK smax smax
comp=E,133nm,4.9s
YAK smax smax
comp=N,97nm,4.0s
YAK MLR MLR
comp=Z,79nm,14.0s
**YAK Yakutsk 20.75 47** eP P **20 23 52.4 +0.4**
comp=Z,32nm,0.9s
**SVE Sverdlovsk 21.19 298** eP P **20 23 56.8 0.0**
SVE pmax pmax
comp=Z,30nm,1.1s
**CD2 Chengdu 21.56 162** eP P **20 24 01.0 0.0**
CD2 sP sP 20 24 06.3 +2.3
CD2 S S **20 27 49.5 -11**
CD2 pmax pmax
comp=Z,10.0nm,1.0s
CD2 pmax pmax
comp=Z,150nm,7.1s
CD2 LR LR
comp=Z,480nm,8.3s
CD2 LR LR
comp=Z,870nm,11.9s
CD2 LR LR
comp=Z,410nm,5.9s
**LSA Lhasa 22.34 192** eP P **20 24 11.6 +1.8**
LSA pmax pmax
comp=Z,13nm,1.0s
**LSA Lhasa 22.34 192** eP P **20 24 11.6 +1.8**
comp=Z,13nm,1.0s
**ARU Arti 22.35 297** P P **20 24 09.8 +0.5**
comp=Z,8.3nm,0.7s,baz=88,slow=10,SNR=7.3
**ARU Arti 22.35 297** ceiP P **20 24 10.4 +1.1**
ARU 20 24 32.3
ARU S S **20 28 17.4 +2.4**
ARU pmax pmax
comp=Z,27nm,1.7s
**ARU Arti 22.35 297** eP P **20 24 08.7 -0.6**
comp=Z,31nm,1.3s
**KLR Kul'dur 22.64 82** P P **20 24 12.9 +0.5**
comp=Z,0.5nm,1.0s,baz=284,slow=10,SNR=10
**KLR Kul'dur 22.64 82** ⇑iP P **20 24 12.5 +0.1**
**ABKAR Akbulak array 23.03 278** eP P **20 24 15.1 -1.5**
comp=Z,53nm,0.9s
**MDJ Mudanjiang 23.24 95** eP P **20 24 18.4 -0.4**
comp=Z,8.0nm,0.9s
**ENH Enshi 23.62 150** eP P **20 24 23.5 +0.9**
comp=Z,16nm,1.2s
**AKTO Aktyubinsk 23.82 282** P P **20 24 24.3 -0.1**
comp=Z,21nm,0.6s,baz=85,slow=11,SNR=32
**TIXI Tiksi 24.68 24** P P **20 24 32.0 -0.1**
comp=Z,48nm,1.0s,baz=242,slow=5.0,SNR=36
TIXI LR LR 20 34 52.9
comp=Z,84nm,20.9s,baz=236,slow=38
**TIXI Tiksi 24.68 24** ceP P **20 24 32.6 +0.5**
TIXI *i* *PP **sP** **20 24 36.3 +1.1**
TIXI pmax pmax
comp=Z,45nm,0.9s
**TIXI Tiksi 24.68 24** eP P **20 24 31.5 -0.6**
comp=Z,42nm,0.9s
**USRK Ussuriysk Ar. 24.94 93** P P **20 24 33.8 -0.9**
comp=Z,1.9nm,0.5s,baz=284,slow=10.0,SNR=5.7
USRK LR LR 20 34 57.5
comp=Z,60nm,18.7s,baz=127,slow=38
**GUN Gumba 25.04 202** eP P **20 24 36.5 +0.4**
comp=Z,26nm,0.8s
**DANN Dangsing 25.16 206** eP P **20 24 36.7 -0.4**
comp=Z,2.9nm,1.0s
**TAPN Taplejung 25.19 198** eP P **20 24 38.5 +1.1**
comp=Z,51nm,1.2s
**JIRN Jiri 25.20 201** eP P **20 24 38.5 +0.9**
comp=Z,242nm,1.1s
**KKN Kakani 25.29 203** eP P **20 24 38.6 +0.3**
comp=Z,30nm,0.9s
**PKIN Phulchoki 25.47 203** eP P **20 24 40.8 +0.9**
comp=Z,16nm,0.7s
**PKI Pulchoki 25.47 203** eP P **20 24 40.4 +0.4**
comp=Z,45nm,1.1s
**DMN Daman 25.51 203** eP P **20 24 40.8 +0.5**
comp=Z,19nm,0.9s
**PYUN Piuthan 25.61 208** eP P **20 24 41.5 +0.4**
comp=Z,36nm,1.0s
**ODAN Odare 25.73 198** eP P **20 24 44.3 +2.1**
comp=Z,42nm,1.0s
**NJ2 Nanjing 25.74 131** eP P **20 24 41.3 -0.7**
NJ2 pmax pmax
comp=Z,17nm,0.5s
**KOLN Koldanda 25.75 206** eP P **20 24 42.7 +0.3**
comp=Z,45nm,1.0s
**KBL Kabul 26.00 239** eP P **20 24 44.3 -0.3**
KBL pmax pmax
comp=Z,6.0nm,0.9s
**KBL Kabul 26.00 239** eP P **20 24 44.3 -0.3**
comp=Z,6.3nm,0.9s
**KS01 Wonju Array Si 26.46 110** eP P **20 24 49.0 +0.4**
**KSAR Wonju Array Be 26.48 110** P P **20 24 48.3 -0.4**
**KSAR Wonju Array Be 26.48 110** P P **20 24 48.3 -0.4**
**KSRS Korea Array 26.49 110** P P **20 24 48.3 -0.5**
comp=Z,2.3nm,0.9s,baz=315,slow=7.9,SNR=5.9
**KMI Kunming 27.05 167** P P **20 24 54.0 -0.2**
KMI pmax pmax
comp=Z,8.0nm,0.7s
KMI LR LR
comp=Z,210nm,13.0s
KMI LR LR
comp=Z,280nm,16.1s
KMI LR LR
comp=Z,240nm,9.9s
**GEYT Alibeck 29.94 258** P P **20 25 20.6 +0.9**
comp=Z,1.2nm,0.7s,baz=3.8,slow=4.5,SNR=3.6
**MA2 Magadan 30.96 54** P P **20 25 29.5 +1.2**
comp=Z,2.0nm,0.5s,baz=300,slow=20,SNR=2.8
**SEY Seymchan 31.28 47** P P **20 25 32.2 +1.1**
comp=Z,2.5nm,0.9s,baz=267,slow=10,SNR=4.9
**SEY Seymchan 31.28 47** ⇑eP P **20 25 32.4 +1.3**
**CM31 Chiang Mai Arr 33.29 175** eP P **20 25 48.7 -0.5**
**CMAR Chiang Mai Arr 33.29 175** P P **20 25 49.3 +0.1**
comp=Z,2.0nm,0.9s,baz=355,slow=8.9,SNR=13
CMAR LR LR 20 41 39.9
comp=Z,22nm,18.1s,baz=285,slow=41
**CM01 Chiang Mai Arr 33.33 175** eP P **20 25 49.6 +0.1**
**APA Apatity 33.65 322** ⇓iP P **20 25 54.0 +2.1**
APA MLR MLR
comp=Z,2µm,17.0s
**NACB Ninganchiao 33.72 135** eP P **20 25 52.0 -0.8**
comp=Z,41nm,0.3s
**QIZ Qiongzhong 34.38 157** P P **20 26 01.8 +3.2**
QIZ S S **20 31 25.8 -0.8**
**OBN Obninsk 34.73 300** *i* P P **20 26 00.6 -0.8**
OBN *i* 20 28 33.3
OBN pmax pmax
comp=Z,8.0nm,1.0s
**NCK Nalchik 35.70 278** ⇑eP P **20 26 10.5 +0.6**
NCK *i* *PP **sP** **20 26 13.6 +0.7**
NCK pmax pmax
comp=Z,6.0nm,0.7s
**ZEI Tsey 35.89 277** eP P **20 26 10.5 -1.2**
ZEI pmax pmax
comp=Z,11nm,0.7s
**KBZ Khabaz 36.00 279** P P **20 26 14.6 +2.2**
comp=Z,3.2nm,0.9s,baz=51,slow=14,SNR=3.8
**KIV Kislovodsk 36.01 279** eP P **20 26 13.4 +0.8**
KIV pmax pmax
comp=Z,20nm,1.0s
**KIV Kislovodsk 36.01 279** eP P **20 26 13.6 +1.0**
comp=Z,16nm,0.9s
**ARA0 ARCESS Array S 36.33 326** eP P **20 26 15.2 +0.2**
**ARCES ARCESS Array B 36.33 326** P P **20 26 15.2 +0.2**
comp=Z,1.8nm,0.8s,baz=82,slow=8.7,SNR=3.7
**BILL Bilibino 36.36 37** *i* P P **20 26 15.1 -0.1**
BILL *i* 20 27 42.5
BILL *i* 20 28 38.0
BILL pmax pmax
comp=Z,3.0nm,0.9s
**NEY Neytrino 36.37 278** ⇑iP P **20 26 17.0 +1.2**
NEY *i* *PP **sP** **20 26 20.0 +1.2**
NEY pmax pmax
comp=Z,3.0nm,0.8s
**PEA1 Petropavlovsk- 36.52 63** eP P **20 26 18.3 +1.5**
**PETK Petropavlovsk- 36.52 63** P P **20 26 18.3 +1.5**
comp=Z,2.2nm,0.6s,baz=326,slow=4.3,SNR=5.4
PETK LR LR 20 40 26.0
comp=Z,85nm,21.8s,baz=283,slow=35
**SKR Severo-Kuril's 36.64 67** eP P 20 26 09.5 -8.3
SKR MLR MLR
comp=Z,3µm,15.0s
**AKH Akhalkalaki 36.91 275** ⇓iP P **20 26 21.8 +1.4**
**PET Petropavlovsk 37.09 63** eP P **20 26 21.3 -0.2**
PET pmax pmax
comp=Z,151nm,1.6s
**PET Petropavlovsk 37.09 63** eP P **20 26 21.3 -0.2**
comp=Z,150nm,1.6s
**FIA1 FINESS Array S 37.94 313** eP P **20 26 27.9 -0.8**
**FIA0 FINESS Array S 37.95 313** eP P **20 26 28.7 0.0**
**FIA0 FINESS Array S 37.95 313** eP P **20 26 28.7 0.0**
**FINES FINESS Array B 37.95 313** P P **20 26 28.7 0.0**
comp=Z,3.4nm,0.5s,baz=69,slow=10,SNR=12
**ARTV Artvin 38.00 276** eP P **20 26 28.9 -0.8**
comp=Z,3.7nm,0.6s
**KOPT Kop Dagi 39.57 275** eP P **20 26 43.1 +0.2**
comp=Z,11nm,0.9s
**AKASG Malin Array Be 40.60 296** P P **20 26 50.5 -0.5**
comp=Z,2.8nm,0.6s,baz=56,slow=8.9,SNR=9.5
**AKASG Malin Array Be 40.60 296** ceP P **20 26 51.5 +0.5**
AKASG pmax pmax
comp=Z,3.0nm,0.6s
**AKBB Malin Array Si 40.60 296** eP P **20 26 50.5 -0.6**
AKBB pmax pmax
comp=Z,5.0nm,0.8s
**AKBB Malin Array Si 40.60 296** eP P **20 26 50.5 -0.6**
comp=Z,5.2nm,0.8s
**KIEV Kiev 40.61 296** ⇓iP P **20 26 52.1 +1.0**
KIEV pmax pmax
comp=Z,4.0nm,1.0s
**KIEV Kiev 40.61 296** eP P **20 26 50.7 -0.4**
comp=Z,5.2nm,0.7s
**AK11 Malin Array Si 40.64 296** eP P **20 26 49.1 -2.3**
**MARD Mardin 41.04 272** eP P **20 26 54.0 -1.0**
comp=Z,20nm,1.2s
**TOKA Tokat 41.87 278** eP P **20 27 00.3 -1.3**
comp=Z,13nm,1.2s
**MALT Malatya 41.88 275** P P **20 27 04.2 +2.4**
**CBIJ Chichi jima 42.29 108** eP P **20 27 04.7 -0.5**
comp=Z,180nm,1.0s
**ILGA Ilgaz 43.13 281** eP P **20 27 12.5 +0.4**
comp=Z,32nm,1.7s
**KLNR Kaliningrad 43.55 305** ⇓eP P **20 27 14.7 -0.3**
KLNR pmax pmax
comp=Z,97nm,0.9s
**BR101 Keskin Array S 43.97 280** eP P **20 27 19.4 +0.6**
**BR131 Keskin Array S 43.97 280** eP P **20 27 16.4 -2.4**
**BRTR Keskin Array B 43.97 280** P P **20 27 19.4 +0.6**
comp=Z,4.9nm,0.7s,baz=74,slow=6.9,SNR=18
**BRTR Keskin Array B 43.97 280** ceP P **20 27 19.6 +0.8**
BRTR pmax pmax
comp=Z,5.0nm,0.7s
**PRAR RASCA 44.00 293** ⇓iP P **20 27 20.2 +1.4**
**CFR Carcaliu 44.10 290** ⇓iP P **20 27 19.9 +0.3**
**CFR Carcaliu 44.10 290** ⇓P P **20 27 19.9 +0.3**
**ANTO Ankara 44.40 280** eP P **20 27 21.4 -0.8**
ANTO pmax pmax
comp=Z,18nm,1.3s
**ANTO Ankara 44.40 280** eP P **20 27 21.4 -0.8**
comp=Z,18nm,1.3s
**BR231 Keskin MP Arra 44.42 280** eP P **20 27 19.7 -2.7**
**BUR08 Bucovina Ar. S 44.43 294** eP P **20 27 21.8 -0.6**
**BURAR Bucovina Array 44.44 294** ⇓iP P **20 27 22.6 +0.2**
**BURAR Bucovina Array 44.44 294** ⇓P P **20 27 22.6 +0.2**
**BUR04 Bucovina Ar. S 44.44 294** eP P **20 27 22.4 -0.1**
**NC405 NORSAR Array S 44.45 316** eP P **20 27 22.4 +0.2**
**VRI Vrincioaia 44.53 291** ⇑iP P 20 27 28.1 +5.0

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **VRI** | **Vrincioaia** | **44.53** | **291** | ⇑P | | P | | 20 27 28.1 | +5.0 |
| **NC303** | **NORSAR Array S** | **44.55** | **317** | *e*P | | **P** | | **20 27 22.7** | **-0.3** |
| **NB201** | **NORSAR Array S** | **44.66** | **316** | *e*P | | **P** | | **20 27 23.6** | **-0.3** |
| **NB2** | **NORSAR Subarra** | **44.70** | **316** | P | | **P** | | **20 27 23.9** | **-0.4** |
| | comp=Z,8.7nm,0.7s,baz=61,slow=7.9 | | | | | | | | | |
| **NB2** | **NORSAR Subarra** | **44.70** | **316** | P | | **P** | | **20 27 23.5** | **-0.8** |
| NB2 | | | | pmax | pmax | | | | | |
| | comp=Z,4.0nm,0.6s | | | | | | | | | |
| **NB200** | **NORSAR Array S** | **44.70** | **316** | *e*P | | **P** | | **20 27 23.9** | **-0.4** |
| **NOA** | **NORSAR Array B** | **44.70** | **316** | P | | **P** | | **20 27 23.9** | **-0.4** |
| | comp=Z,6.3nm,0.7s,baz=61,slow=7.9,SNR=12 | | | | | | | | | |
| **NC602** | **NORSAR Array S** | **44.70** | **316** | *e*P | | **P** | | **20 27 23.8** | **-0.4** |
| **NC204** | **NORSAR Array S** | **44.78** | **317** | *e*P | | **P** | | **20 27 24.7** | **-0.2** |
| **NBO02** | **NORSAR Array S** | **44.85** | **317** | *e*P | | **P** | | **20 27 24.9** | **-0.6** |
| **NBO00** | **NORSAR Array S** | **44.89** | **317** | *e*P | | **P** | | **20 27 25.4** | **-0.3** |
| **NAO01** | **NORSAR Array S** | **44.93** | **316** | *e*P | | **P** | | **20 27 25.4** | **-0.7** |
| **ISR** | **Istrita** | **45.06** | **290** | ⇓*i*P | | **P** | | **20 27 31.6** | **+4.2** |
| **ISR** | **Istrita** | **45.06** | **290** | ⇓P | | **P** | | **20 27 31.6** | **+4.2** |
| **MLR** | **Muntele Rosu** | **45.20** | **291** | ⇓*i*P | | **P** | | **20 27 29.6** | **+1.0** |
| **MLR** | **Muntele Rosu** | **45.20** | **291** | *e*P | | **P** | | **20 27 27.7** | **-0.8** |
| MLR | | | | pmax | pmax | | | | | |
| | comp=Z,12nm,1.4s | | | | | | | | | |
| **MLR** | **Muntele Rosu** | **45.20** | **291** | *e*P | | **P** | | **20 27 27.7** | **-0.8** |
| | comp=Z,12nm,1.4s | | | | | | | | | |
| **ARCR** | **ARCALIA** | **45.22** | **294** | ⇑*i*P | | **P** | | **20 27 30.1** | **+1.6** |
| **DOPR** | **Dopca** | **45.25** | **292** | ⇓*i*P | | **P** | | **20 27 29.8** | **+1.0** |
| **STHS** | **Stebnicka Huta** | **45.68** | **298** | *e*P | | P | | 20 27 41.1 | +8.9 |
| **STHS** | **Stebnicka Huta** | **45.68** | **298** | *e* | | P | | 20 27 41.1 | +8.9 |
| **OJC** | **Ojcow** | **46.02** | **300** | P | | **P** | | **20 27 36.6** | **+1.7** |
| **KONO** | **Kongsberg** | **46.08** | **315** | ⇑*e*P | | **P** | | **20 27 34.2** | **-1.0** |
| KONO | | | | pmax | pmax | | | | | |
| | comp=Z,53nm,1.5s | | | | | | | | | |
| **GAMB** | **Gambell** | **46.25** | **38** | *e*P | | **P** | | **20 27 36.0** | **-0.4** |
| | comp=Z,14nm,1.3s | | | | | | | | | |
| **DRGR** | | **46.32** | **294** | ⇓*i*P | | **P** | | **20 27 38.3** | **+1.0** |
| **DRGR** | | **46.32** | **294** | ⇓P | | **P** | | **20 27 38.3** | **+1.0** |
| **LOT** | **Lotru** | **46.48** | **292** | ⇓*i*P | | P | | 20 27 31.7 | -7.0 |
| **KECS** | **Kecovo** | **46.61** | **297** | *e*P | | **P** | | **20 27 40.4** | **+0.9** |
| KECS | | | | pmax | pmax | | | | | |
| | comp=Z,3.0nm,0.7s | | | | | | | | | |
| **KECS** | **Kecovo** | **46.61** | **297** | *e*P | | **P** | | **20 27 40.4** | **+0.9** |
| **OKC** | **Ostrava-Krasne** | **47.12** | **300** | *e*P | | **P** | | **20 27 46.8** | **+3.3** |
| **OKC** | **Ostrava-Krasne** | **47.12** | **300** | ⇓*e*P | | **P** | | **20 27 46.8** | **+3.3** |
| **CSS** | **Mathiatis** | **47.17** | **275** | *e*P | | **P** | | **20 27 43.8** | **-0.2** |
| | comp=Z,4.9nm,1.3s | | | | | | | | | |
| **SIRR** | **Siria** | **47.21** | **294** | ⇑*i*P | | **P** | | **20 27 45.5** | **+1.3** |
| **MORC** | **Moravsky Berou** | **47.48** | **300** | ⇓*i*P | | **P** | | **20 27 47.2** | **+0.8** |
| **MORC** | **Moravsky Berou** | **47.48** | **300** | *e*P | | **P** | | **20 27 46.2** | **-0.1** |
| MORC | | | | pmax | pmax | | | | | |
| | comp=Z,31nm,1.1s | | | | | | | | | |
| **MORC** | **Moravsky Berou** | **47.48** | **300** | *e*P | | **P** | | **20 27 46.2** | **-0.1** |
| | comp=Z,31nm,1.1s | | | | | | | | | |
| **VYHS** | **Vyhne** | **47.51** | **298** | *e*P | | **P** | | **20 27 47.4** | **+0.9** |
| **VYHS** | **Vyhne** | **47.51** | **298** | *e*P | | **P** | | **20 27 47.4** | **+0.9** |
| **KRLC** | **Kraliky** | **47.72** | **301** | *e*P | | **P** | | **20 27 50.1** | **+1.9** |
| **KRLC** | **Kraliky** | **47.72** | **301** | *e*P | | **P** | | **20 27 50.1** | **+1.9** |
| **RAYN** | **Ar Rayn** | **47.74** | **254** | *e*P | | **P** | | **20 27 47.8** | **-0.9** |
| | comp=Z,14nm,0.8s | | | | | | | | | |
| **DPC** | **Dobruska-Polom** | **47.81** | **302** | *e*P | | **P** | | **20 27 49.7** | **+0.8** |
| DPC | | | | *e*pP | | **sP** | | **20 27 54.0** | **+2.0** |
| **DPC** | **Dobruska-Polom** | **47.81** | **302** | *e*P | | **P** | | **20 27 49.7** | **+0.8** |
| DPC | | | | *e* | | | | 20 27 54.0 | |
| **UPC** | **Upice** | **47.88** | **302** | *e*P | | **P** | | **20 27 50.1** | **+0.7** |
| UPC | | | | *e*pP | | **sP** | | **20 27 56.1** | **+3.6** |
| **UPC** | **Upice** | **47.88** | **302** | *e*P | | **P** | | **20 27 50.1** | **+0.7** |
| UPC | | | | *e* | | | | 20 27 56.1 | |
| **VTS** | **Vitosha** | **48.50** | **289** | *e*P | | **P** | | **20 27 52.1** | **-2.3** |
| VTS | | | | pmax | pmax | | | | | |
| | comp=Z,3.0nm,0.9s | | | | | | | | | |
| **VTS** | **Vitosha** | **48.50** | **289** | *e*P | | **P** | | **20 27 52.1** | **-2.3** |
| | comp=Z,3.0nm,0.9s | | | | | | | | | |
| **BRG** | **Berggiesshubel** | **48.76** | **303** | *e*P | | **P** | | **20 27 56.3** | **+0.2** |
| | comp=Z,9.4nm,1.4s | | | | | | | | | |
| **BRG** | **Berggiesshubel** | **48.76** | **303** | *e*P | | **P** | | **20 27 56.3** | **+0.2** |
| BRG | | | | pmax | pmax | | | | | |
| | comp=Z,9.0nm,1.4s | | | | | | | | | |
| **PRU** | **Pruhonice** | **48.96** | **302** | *e*P | | **P** | | **20 27 58.5** | **+0.8** |
| PRU | | | | *ex* | | x | | 20 28 05.1 | |
| **PRU** | **Pruhonice** | **48.96** | **302** | *e*P | | **P** | | **20 27 58.5** | **+0.8** |
| PRU | | | | *e* | | | | 20 28 05.1 | |
| **CLL** | **Collm** | **48.99** | **304** | *i* P | | **P** | | **20 27 58.3** | **+0.4** |
| CLL | | | | pmax | pmax | | | | | |
| | comp=Z,10.0nm,1.0s | | | | | | | | | |
| **CLL** | **Collm** | **48.99** | **304** | *i* P | | **P** | | **20 27 58.3** | **+0.4** |
| | comp=Z,10.0nm,1.0s | | | | | | | | | |
| **CLL** | **Collm** | **48.99** | **304** | *e*P | | **P** | | **20 27 57.0** | **-0.9** |
| | comp=Z,9.8nm,1.0s | | | | | | | | | |
| **DIVS** | **Divibare** | **49.45** | **293** | *e*P | | **P** | | **20 28 01.0** | **-0.6** |
| | comp=Z,6.8nm,1.4s | | | | | | | | | |
| **KHC** | **Kasperske Hory** | **49.97** | **302** | *e*P | | **P** | | **20 28 05.7** | **+0.3** |
| KHC | | | | *e*pP | | **sP** | | **20 28 10.2** | **+1.6** |
| **KHC** | **Kasperske Hory** | **49.97** | **302** | *e*P | | **P** | | **20 28 05.1** | **-0.4** |
| KHC | | | | pmax | pmax | | | | | |
| | comp=Z,14nm,2.0s | | | | | | | | | |
| **KHC** | **Kasperske Hory** | **49.97** | **302** | *e*P | | **P** | | **20 28 05.1** | **-0.4** |
| | comp=Z,14nm,2.0s | | | | | | | | | |
| **GEC2** | **GERESS Array S** | **50.07** | **301** | *e*P | | **P** | | **20 28 06.0** | **-0.3** |
| GEC2 | | | | pmax | pmax | | | | | |
| | comp=Z,15nm,1.6s | | | | | | | | | |
| **GEC2** | **GERESS Array S** | **50.07** | **301** | *e*P | | **P** | | **20 28 06.0** | **-0.3** |
| | comp=Z,15nm,1.6s | | | | | | | | | |
| **GERES** | **GERESS Array B** | **50.07** | **301** | P | | **P** | | **20 28 06.7** | **+0.4** |
| | comp=Z,1.2nm,0.8s,baz=54,slow=6.8,SNR=11 | | | | | | | | | |
| **GEA0** | **GERESS Array S** | **50.08** | **301** | *e*P | | **P** | | **20 28 05.4** | **-0.9** |
| **MOX** | **Moxa** | **50.09** | **304** | P | | **P** | | **20 28 08.6** | **+2.3** |
| **MOA** | **Molln** | **50.37** | **300** | *i* P | | P | | 20 28 14.0 | +5.5 |
| | comp=Z,10nm,1.2s | | | | | | | | | |
| **IMAR** | **Indian Mountai** | **51.15** | **30** | *e*P | | **P** | | **20 28 13.7** | **-0.4** |
| **KBA** | **Koelnbreinsper** | **51.33** | **300** | P | | **P** | | **20 28 17.9** | **+2.0** |
| KBA | | | | pmax | pmax | | | | | |
| | comp=Z,12nm,0.8s | | | | | | | | | |
| **KBA** | **Koelnbreinsper** | **51.33** | **300** | *i* pP | | **P** | | **20 28 17.1** | **+1.1** |
| | comp=Z,8.4nm,1.1s | | | | | | | | | |
| **COLD** | **Coldfoot** | **51.36** | **27** | *e*P | | **P** | | **20 28 15.0** | **-0.7** |
| | comp=Z,7.4nm,1.0s | | | | | | | | | |
| **MYKA** | **Terra Mystica** | **51.45** | **299** | *i* pP | | **P** | | **20 28 17.5** | **+0.8** |
| | comp=Z,5.5nm,0.8s | | | | | | | | | |
| **WTTA** | **Wattenberg** | **52.13** | **301** | *i* pP | | **P** | | **20 28 23.5** | **+1.5** |
| | comp=Z,7.8nm,0.7s | | | | | | | | | |
| **STU** | **Stuttgart** | **52.48** | **304** | *e*P | | **P** | | **20 28 22.7** | **-1.5** |
| STU | | | | pmax | pmax | | | | | |
| | comp=Z,13nm,1.0s | | | | | | | | | |
| **STU** | **Stuttgart** | **52.48** | **304** | *e*P | | **P** | | **20 28 22.7** | **-1.5** |
| | comp=Z,13nm,1.0s | | | | | | | | | |
| **MLY** | **Manley** | **52.72** | **29** | *e*P | | **P** | | **20 28 24.9** | **-0.9** |
| | comp=Z,9.7nm,1.2s | | | | | | | | | |
| **FETA** | **Feichten** | **52.77** | **301** | *i* pP | | **P** | | **20 28 27.3** | **+0.6** |
| | comp=Z,5.5nm,1.0s | | | | | | | | | |
| **FUORN** | **Ofenpass-Fuorn** | **53.27** | **301** | *e*P | | **P** | | **20 28 30.4** | **-0.1** |
| | comp=Z,9.5nm,1.0s | | | | | | | | | |
| **MDM** | **Murphy Dome** | **53.53** | **29** | *e*P | | **P** | | **20 28 31.9** | **+0.1** |
| | comp=Z,19nm,1.4s | | | | | | | | | |
| **KTH** | **Kantishna Hill** | **53.70** | **31** | *e*P | | **P** | | **20 28 33.9** | **+0.8** |
| | comp=Z,31nm,1.2s | | | | | | | | | |
| **CCB** | **Clear Creek Bu** | **53.88** | **29** | *e*P | | **P** | | **20 28 34.4** | **+0.1** |
| | comp=Z,17nm,1.9s | | | | | | | | | |
| **IL1** | **Eielson Array** | **54.06** | **28** | *e*P | | **P** | | **20 28 34.1** | **-1.5** |
| IL1 | | | | *e*PcP | | **PcP** | | **20 29 39.5** | **-0.9** |
| **ILAR** | **Eielson Array** | **54.06** | **28** | P | | **P** | | **20 28 35.6** | **0.0** |
| | comp=Z,2.7nm,0.8s,baz=314,slow=4.4,SNR=20 | | | | | | | | | |
| **ILAR** | **Eielson Array** | **54.06** | **28** | P | | **P** | | **20 28 35.7** | **0.0** |
| ILAR | | | | pmax | pmax | | | | | |
| | comp=Z,4.0nm,1.0s | | | | | | | | | |
| **ILB** | **Eielson Array** | **54.06** | **28** | *e*P | | **P** | | **20 28 33.1** | **-2.5** |
| **INK** | **Inuvik** | **54.72** | **20** | P | | **P** | | **20 28 40.5** | **+0.1** |
| | comp=Z,7.1nm,0.9s,baz=341,slow=9.9,SNR=21 | | | | | | | | | |
| **INK** | **Inuvik** | **54.72** | **20** | *e*P | | **P** | | **20 28 39.7** | **-0.7** |
| | comp=Z,26nm,1.5s | | | | | | | | | |
| **DHY** | **Denali Highway** | **55.16** | **30** | *e*P | | **P** | | **20 28 43.3** | **-0.5** |
| | comp=Z,8.7nm,0.8s | | | | | | | | | |
| **RSO** | **Redoubt South** | **55.28** | **34** | *e*P | | **P** | | **20 28 43.6** | **-1.1** |
| **DAMY** | **Dhamar** | **55.37** | **248** | *e*P | | **P** | | **20 28 45.1** | **-1.0** |
| | comp=Z,10nm,1.1s | | | | | | | | | |
| **DOT** | **Dot Lake** | **55.72** | **28** | *e*P | | **P** | | **20 28 45.6** | **-2.1** |
| | comp=Z,50nm,1.4s | | | | | | | | | |
| **SML** | **Sawmill** | **55.79** | **31** | *e*P | | **P** | | **20 28 47.1** | **-1.2** |
| SML | | | | pmax | pmax | | | | | |
| | comp=Z,23nm,1.1s | | | | | | | | | |
| **SML** | **Sawmill** | **55.79** | **31** | *e*P | | **P** | | **20 28 47.1** | **-1.2** |
| | comp=Z,23nm,1.1s | | | | | | | | | |
| **PAX** | **Paxson** | **55.82** | **29** | *e*P | | **P** | | **20 28 47.8** | **-0.7** |
| PAX | | | | pmax | pmax | | | | | |
| | comp=Z,37nm,1.7s | | | | | | | | | |
| **PAX** | **Paxson** | **55.82** | **29** | *e*P | | **P** | | **20 28 47.8** | **-0.7** |
| | comp=Z,37nm,1.7s | | | | | | | | | |
| **BNI** | **Bardonecchia** | **56.20** | **301** | *e*P | | **P** | | **20 28 50.3** | **-1.2** |
| BNI | | | | pmax | pmax | | | | | |
| | comp=Z,12nm,1.0s | | | | | | | | | |
| **BNI** | **Bardonecchia** | **56.20** | **301** | *e*P | | **P** | | **20 28 50.3** | **-1.2** |
| | comp=Z,12nm,1.0s | | | | | | | | | |
| **DAWY** | **Dawson** | **56.71** | **26** | *e*P | | **P** | | **20 28 54.5** | **-0.3** |
| | comp=Z,15nm,1.6s | | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **63.53** | **15** | P | | **P** | | **20 29 40.7** | **-0.7** |
| | comp=Z,1.1nm,0.8s,baz=339,slow=6.9,SNR=10 | | | | | | | | | |
| YKA | | | | PcP | | **PcP** | | **20 30 17.9** | **-0.1** |
| | comp=Z,0.6nm,0.9s,baz=333,slow=5.3,SNR=3.6 | | | | | | | | | |
| **ES19** | **SONSECA Array** | **65.52** | **303** | *e*P | | **P** | | **20 29 53.7** | **-1.2** |
| **ESDC** | **Sonseca Array** | **65.57** | **303** | P | | **P** | | **20 29 55.5** | **+0.2** |
| | comp=Z,1.6nm,0.7s,baz=40,slow=7.1,SNR=16 | | | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **74.16** | **151** | P | | **P** | | **20 30 47.0** | **-1.0** |
| | comp=Z,2.8nm,0.8s,baz=350,slow=12,SNR=5.2 | | | | | | | | | |
| **ULM** | **Lac du Bonnet** | **77.86** | **8** | P | | **P** | | **20 31 07.7** | **-1.3** |
| | comp=Z,2.0nm,0.8s,baz=2.9,slow=8.1,SNR=3.1 | | | | | | | | | |
| **WRA** | **Warramunga Arr** | **78.80** | **144** | P | | **P** | | **20 31 13.4** | **-1.0** |
| | comp=Z,3.7nm,1.1s,baz=344,slow=6.2,SNR=12 | | | | | | | | | |
| **WRA** | **Warramunga Arr** | **78.80** | **144** | P | | **P** | | **20 31 13.4** | **-1.0** |
| WRA | | | | pmax | pmax | | | | | |
| | comp=Z,2.0nm,0.8s | | | | | | | | | |
| **WR1** | **Warramunga Arr** | **78.80** | **144** | *e*P | | **P** | | **20 31 13.4** | **-1.0** |
| | comp=Z,70nm,1.9s | | | | | | | | | |
| **AS31** | **Alice Springs** | **82.06** | **145** | *e*P | | **P** | | **20 31 30.7** | **-1.1** |
| | comp=Z,3.9nm,1.6s | | | | | | | | | |
| **ASAR** | **Alice Springs** | **82.06** | **145** | P | | **P** | | **20 31 31.0** | **-0.8** |
| | comp=Z,3.2nm,1.0s,baz=338,slow=5.7,SNR=21 | | | | | | | | | |
| **AS01** | **Alice Springs** | **82.07** | **145** | *e*P | | **P** | | **20 31 30.6** | **-1.3** |
| **TOA1** | **Torodi Ar. Sit** | **82.54** | **282** | *e*P | | **P** | | **20 31 33.9** | **-0.8** |
| **TOA0** | **Torodi Ar. Sit** | **82.55** | **282** | *e*P | | **P** | | **20 31 31.4** | **-3.4** |
| **TORD** | **Torodi Ar. Bea** | **82.55** | **282** | P | | **P** | | **20 31 33.9** | **-0.8** |
| | comp=Z,1.5nm,0.7s,baz=32,slow=4.4,SNR=7.8 | | | | | | | | | |
| **MLI** | **Malad Range** | **83.42** | **21** | *e*P | | **P** | | **20 31 38.7** | **-0.4** |
| **HWUT** | **Hardware Ranch** | **83.94** | **21** | *e*P | | **P** | | **20 31 38.7** | **-3.2** |
| | comp=Z,15nm,0.8s | | | | | | | | | |
| **NV01** | **Mina Array Sit** | **85.28** | **26** | *e*P | | **P** | | **20 31 48.1** | **-0.5** |
| **NVAR** | **Mina Array Bea** | **85.28** | **26** | P | | **P** | | **20 31 49.2** | **+0.5** |
| | comp=Z,0.4nm,0.4s,baz=318,slow=5.6,SNR=3.8 | | | | | | | | | |
| NVAR | | | | LR | | LR | | 21 16 51.0 | | |
| | comp=Z,77nm,18.0s,baz=84,slow=41 | | | | | | | | | |
| **ANMO** | **Albuquerque** | **91.42** | **18** | *ce*P | | **P** | | **20 32 19.7** | **+1.7** |
| ANMO | | | | pmax | pmax | | | | | |
| | comp=Z,10.0nm,2.5s | | | | | | | | | |
| **SYO** | **Syowa Base** | **127.39** | **202** | ⇑*e*P | | **PKPdf** | | **20 38 11.6** | **-3.3** |
| **SYO** | **Syowa Base** | **127.39** | **202** | ⇑*e*P | | **PKPdf** | | **20 38 19.0** | **+4.1** |
| **CPUP** | **Villa Florida** | **147.66** | **312** | PKPbc | | **PKPdf** | | **20 38 52.8** | **-0.5** |
| | comp=Z,2.7nm,0.8s,baz=6.1,slow=1.6,SNR=7.8 | | | | | | | | | |
| **CPUP** | **Villa Florida** | **147.66** | **312** | *e*PKPdf | | **PKPdf** | | **20 38 52.3** | **-0.9** |

**ROM 27 20:25:17.5**±0.2,**39.95N**×**16.01E**,**h8**km±1km,**Md1.5**/3, **Ml0.9**/1,**Error ellipse: s-maj=1.2km s-min=0.8km az=29.0**,**Southern Italy**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **T0711** | **Rotonda (PZ)** | **0.04** | **115** | Pg | Pg | 20 25 19.5 | +0.3 |
| T0711 | | | | Sg | Sg | 20 25 20.6 | +0.3 |
| | 504nm,0.1s | | | | | | |
| **MMN** | **Mormanno** | **0.07** | **196** | Pg | Pg | 20 25 19.6 | +0.3 |
| MMN | | | | Sg | Sg | 20 25 21.3 | +0.7 |
| | 128nm,0.2s | | | | | | |
| **CUC** | **Castrocucco** | **0.16** | **285** | Pg | Pg | 20 25 21.4 | +0.6 |
| CUC | | | | Sg | Sg | 20 25 24.2 | +1.1 |
| | 23nm,0.2s | | | | | | |

*ISCJB* ***27*** *20:25:33.7±0.7,74.22N±0.09×133.6E±0.4,h10km, mb4.4/21, Error ellipse: s-maj=20.6km s-min=6.6km az=36.8*
*IDC* ***27*** *20:25:33.3±1.6, 74.33N×133.11E, h0km, mb3.8/6, mb1 4.2/8, mb1mx3.6/53, mbtmp3.8/8, ML2.7/1, Error ellipse: s-maj=62.0km s-min=13.5km az=121.0*
*NEIC* ***27*** *20:25:36.0±0.5, 74.07N×134.20E, h10km, mb4.7/12, Error ellipse: s-maj=19.6km s-min=8.7km az=141.0*
*YARS* ***27*** *20:25:39.7±1.5, 73.89N±0.06×131.79E±0.09, h10km*

**ISC 27 20:25:35.8**±0.7,**74.04N**±0.06×**133.96E**±0.08,**h10**km,**n38,** σ2s**03**/41,**mb4.4**/21,**Laptev Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TIXI** | **Tiksi** | **2.84** | **215** | Pn | **Pn** | **20 26 22.9** | **+1.8** |
| | 4.9nm,0.3s,baz=42,slow=10,SNR=14 | | | | | | |
| TIXI | | | | Sn | **Sn** | **20 26 58.3** | **+3.0** |
| | 4.6nm,0.3s,baz=323,slow=22,SNR=3.9 | | | | | | |
| TIXI | | | | Lg | Lg | 20 27 08.3 | |
| | 6.4nm,0.3s,baz=120,slow=16,SNR=4.9 | | | | | | |
| **TIXI** | **Tiksi** | **2.84** | **215** | *e*P | **Pn** | **20 26 22.7** | **+1.6** |
| TIXI | | | | *e*S | **Sn** | **20 26 54.9** | **-0.3** |
| **TIXI** | **Tiksi** | **2.84** | **215** | *e*Pn | **Pn** | **20 26 22.2** | **+1.1** |
| TIXI | | | | *e*Sn | **Sn** | **20 26 56.4** | **+1.2** |
| **DEPR** | **Deputatskiy** | **5.03** | **155** | *e*S | **Sg** | **20 28 20.1** | **+3.1** |
| **BTGS** | **Batagay** | **6.42** | **178** | *e*S | **Sg** | **20 28 55.1** | **-6.7** |
| **MOMR** | **Moma** | **8.21** | **153** | *e*S | **Sg** | **20 29 58.9** | **-0.1** |
| **YAK** | **Yakutsk** | **12.16** | **190** | *e*Pn | **Pn** | **20 28 24.9** | **-4.0** |
| **SEY** | **Seymchan** | **12.94** | **140** | Pn | **Pn** | **20 28 43.1** | **+3.6** |
| | 0.0nm,0.3s,baz=345,slow=20,SNR=2.4 | | | | | | |
| **SPA0** | **Spitsbergen Ar** | **23.95** | **333** | *e*P | **P** | **20 30 48.7** | **-0.9** |
| **COLD** | **Coldfoot** | **24.29** | **67** | *e*P | **P** | **20 30 51.8** | **-0.9** |
| | 3.1nm,0.8s | | | | | | |
| **IMAR** | **Indian Mountai** | **24.32** | **71** | *e*P | **P** | **20 30 51.6** | **-1.5** |
| **KLR** | **Kul'dur** | **24.91** | **183** | P | **P** | **20 31 01.1** | **+2.5** |
| | 0.9nm,0.9s,baz=326,slow=4.7,SNR=5.5 | | | | | | |
| **HIA** | **Hailar** | **25.61** | **202** | *e*P | **P** | **20 31 04.8** | **-0.1** |
| | 9.3nm,1.2s | | | | | | |
| **MLY** | **Manley** | **25.86** | **70** | *e*P | **P** | **20 31 07.0** | **-0.1** |
| | 15nm,1.9s | | | | | | |
| **FYU** | **Fort Yukon** | **26.05** | **64** | *e*P | **P** | **20 31 10.6** | **+2.0** |
| | 54nm,1.9s | | | | | | |
| **MDM** | **Murphy Dome** | **26.56** | **68** | *e*P | **P** | **20 31 15.7** | **+2.3** |
| | 5.8nm,1.1s | | | | | | |
| **CCB** | **Clear Creek Bu** | **26.92** | **69** | *e*P | **P** | **20 31 19.1** | **+2.5** |
| | 30nm,2.0s | | | | | | |
| **IL1** | **Eielson Array** | **27.06** | **68** | *e*P | **P** | **20 31 17.9** | **0.0** |
| **ILAR** | **Eielson Array** | **27.06** | **68** | P | **P** | **20 31 17.2** | **-0.6** |
| | 0.6nm,0.7s,baz=325,slow=9.9,SNR=8.1 | | | | | | |
| **ILB** | **Eielson Array** | **27.06** | **68** | *e*P | **P** | **20 31 16.5** | **-1.3** |
| **PPLA** | **Purkeypile** | **27.19** | **74** | *e*P | **P** | **20 31 18.5** | **-0.7** |
| | 42nm,1.8s | | | | | | |
| **SCM** | **Sheep Creek Mo** | **29.36** | **72** | *e*P | **P** | **20 31 37.3** | **-1.2** |
| | 63nm,1.6s | | | | | | |
| **DAWY** | **Dawson** | **29.52** | **63** | *e*P | **P** | **20 31 39.0** | **-0.8** |
| | 36nm,2.0s | | | | | | |
| **OHAK** | **Old Harbor** | **31.68** | **82** | *e*P | **P** | **20 31 56.5** | **-2.4** |
| | 109nm,1.8s | | | | | | |
| **YKA** | **Yellowknife Ar** | **36.47** | **47** | P | **P** | **20 32 39.3** | **-1.0** |
| | 0.9nm,0.8s,baz=338,slow=9.3,SNR=11 | | | | | | |
| **ABKAR** | **Akbulak array** | **39.12** | **273** | *e*P | **P** | **20 33 06.0** | **+3.2** |
| | 20nm,0.5s | | | | | | |
| **MDW** | **Midway** | **50.01** | **60** | *e*P | **P** | **20 34 30.7** | **+0.9** |
| **PD31** | **Pinedale Array** | **55.99** | **53** | *e*P | **P** | **20 35 13.9** | **-0.3** |
| **PDAR** | **Pinedale Array** | **55.99** | **53** | P | **P** | **20 35 13.6** | **-0.6** |
| | 0.5nm,0.5s,baz=354,slow=2.7,SNR=4.4 | | | | | | |
| **NV01** | **Mina Array Sit** | **58.09** | **62** | *e*P | **P** | **20 35 29.0** | **-0.1** |
| **NVAR** | **Mina Array Bea** | **58.09** | **62** | P | **P** | **20 35 28.8** | **-0.3** |
| | 0.5nm,0.6s,baz=352,slow=3.1,SNR=4.2 | | | | | | |
| **MDPB** | **Devils Postpil** | **58.65** | **63** | *e*P | **P** | **20 35 33.1** | **0.0** |
| | 5.8nm,1.1s | | | | | | |
| **TMUT** | **Trail Mountain** | **58.94** | **55** | *e*P | **P** | **20 35 33.9** | **-1.2** |
| | 85nm,1.9s | | | | | | |
| **LTX** | **Lajitas** | **70.18** | **52** | *e*P | **P** | **20 36 47.6** | **-0.8** |
| **TX31** | **Lajitas Ar. Si** | **70.18** | **52** | *e*P | **P** | **20 36 46.9** | **-1.5** |
| **TXAR** | **Lajitas Array** | **70.18** | **52** | P | **P** | **20 36 47.6** | **-0.8** |
| | 1.3nm,0.7s,baz=356,slow=3.7,SNR=13 | | | | | | |
| **WR1** | **Warramunga Arr** | **93.76** | **180** | *e*P | **P** | **20 38 51.0** | **-1.4** |
| | 63nm,1.8s | | | | | | |
| **WRA** | **Warramunga Arr** | **93.76** | **180** | P | **P** | **20 38 51.0** | **-1.4** |
| | 0.7nm,0.6s,baz=350,slow=5.7,SNR=2.5 | | | | | | |

*ISCJB* ***27*** *20:26:58.9±0.7, 42.93N±0.04×76.36E±0.04, h15km±7km, Error ellipse: s-maj=6.4km s-min=5.2km az=15.1*
*KRNET* ***27*** *20:26:58.3±0.1, 42.91N×76.35E, h26km, mb2.5*
*SOME* ***27*** *20:26:59.2, 42.88N×76.35E, h10km*

**ISC 27 20:26:58.4**±1.1,**42.91N**±0.04×**76.36E**±0.03,**h20**km±4km, **n13,** σ0s**36**/26,**12C-4D,Lake Issyk-Kul region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **IZV** | **Izvestkoviy** | **0.23** | **57** | *e*P | **Pg** | **20 27 04.3** | **+0.2** |
| | 48nm,0.2s | | | | | | |
| IZV | | | | *e*S | **Sg** | **20 27 07.7** | **-0.2** |
| | 101nm,0.3s | | | | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **KST** | **Kastek** | **0.32** | **294** | *e*P | | **Pg** | | **20 27 05.5** | **+0.1** |
| | 0.6nm,0.1s | | | | | | | | | |
| KST | | | | *e*S | | **Sg** | | **20 27 10.3** | **+0.1** |
| | 32nm,0.1s | | | | | | | | | |
| **TNSS** | **Tian-Shan** | **0.45** | **74** | *e*P | | **Pb** | | **20 27 07.9** | **-0.2** |
| | 9.1nm,0.2s | | | | | | | | | |
| TNSS | | | | *e*S | | **Sg** | | **20 27 14.3** | **0.0** |
| | 19nm,0.4s | | | | | | | | | |
| **DGS** | **Degeres** | **0.54** | **308** | *e*P | | **Pb** | | **20 27 09.2** | **-0.1** |
| | 2.2nm,0.1s | | | | | | | | | |
| DGS | | | | *e*S | | **Sb** | | **20 27 16.4** | **-0.2** |
| | 7.7nm,0.2s | | | | | | | | | |
| **BMNS** | **Besmoynak** | **0.54** | **291** | *e*P | | **Pb** | | **20 27 09.2** | **-0.1** |
| | 6.7nm,0.1s | | | | | | | | | |
| BMNS | | | | *e*S | | **Sb** | | **20 27 16.2** | **-0.5** |
| | 62nm,0.1s | | | | | | | | | |
| **TKM2** | **Tokmak 2** | **0.56** | **271** | ⇑*i*P | | **Pb** | | **20 27 09.5** | **-0.1** |
| | baz=272 | | | | | | | | | |
| TKM2 | | | | ⇑*i*S | | **Sb** | | **20 27 17.4** | **+0.2** |
| | baz=272 | | | | | | | | | |
| **ULHL** | **Ulahol** | **0.67** | **187** | ⇑*i*P | | **Pg** | | **20 27 11.8** | **0.0** |
| | baz=188 | | | | | | | | | |
| ULHL | | | | ⇑*i*S | | **Sg** | | **20 27 21.1** | **+0.2** |
| | baz=188 | | | | | | | | | |
| **KBK** | **Karagaybulak** | **1.07** | **257** | ⇓*i*P | | **Pb** | | **20 27 18.0** | **-0.4** |
| | baz=257 | | | | | | | | | |
| KBK | | | | ⇓*i*S | | **Sn** | | **20 27 32.8** | **0.0** |
| | baz=257 | | | | | | | | | |
| **KZA** | **Kyzart** | **1.17** | **225** | ⇑*i*P | | **Pb** | | **20 27 20.2** | **0.0** |
| | baz=225 | | | | | | | | | |
| KZA | | | | ⇑*i*S | | **Sn** | | **20 27 35.8** | **+0.1** |
| | baz=225 | | | | | | | | | |
| **CHMS** | **Chumysh** | **1.18** | **275** | ⇓*i*P | | **Pb** | | **20 27 20.1** | **-0.1** |
| | baz=275 | | | | | | | | | |
| CHMS | | | | ⇓*i*S | | **Sn** | | **20 27 35.8** | **+0.4** |
| | baz=275 | | | | | | | | | |
| **USP** | **Ospenovka** | **1.40** | **285** | ⇑*i*P | | **Pb** | | **20 27 23.9** | **-0.1** |
| | baz=285 | | | | | | | | | |
| USP | | | | ⇑*i*S | | **Sb** | | **20 27 42.2** | **+0.7** |
| | baz=285 | | | | | | | | | |
| **UCH** | **Uchtor** | **1.52** | **244** | ⇑*e*P | | **Pb** | | **20 27 25.7** | **-0.6** |
| | baz=244 | | | | | | | | | |
| UCH | | | | ⇑*i*S | | **Sb** | | **20 27 46.0** | **+0.6** |
| | baz=244 | | | | | | | | | |
| **EKS2** | **Erkin-Say** | **1.91** | **263** | ⇑*i*P | | **Pb** | | **20 27 31.9** | **-0.9** |
| | baz=264 | | | | | | | | | |
| EKS2 | | | | ⇑*i*S | | **Sb** | | **20 27 56.1** | **-0.2** |
| | baz=264 | | | | | | | | | |

*OBM* ***27*** *20:29:42.4±0.2,51.71N×95.82E, h2km, Ml3.9/1, Error ellipse: s-maj=3.9km s-min=1.0km az=175.0*
*MOS* ***27*** *20:29:43.9±1.2,51.71N×95.98E, h11km, mb4.5/14, Error ellipse: s-maj=10.5km s-min=8.3km az=11.9*
*IDC* ***27*** *20:29:43.9±0.5,51.77N×95.99E, h0km, mb3.9/18, mb1 4.0/22, mb1mx3.8/49, mbtmp3.9/22, ML2.9/4, MS2.9/5, Ms1 2.9/5, ms1mx2.7/49, Error ellipse: s-maj=16.6km s-min=7

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **SONB1** | **Songino Array** | **7.90** | **116** | *e*Sg | | Sb | | 20 33 48.6 | +11 | |
| | comp=Z,249nm,1.1s | | | | | | | | | |
| **SONA2** | **Songino Array** | **7.91** | **116** | *e*Sg | | **Sb** | | **20 33 44.1** | **+6.5** | |
| | comp=Z,184nm,0.8s | | | | | | | | | |
| **SONA2** | **Songino Array** | **7.91** | **116** | *e*Sg | | Sb | | 20 33 48.0 | +10 | |
| | comp=Z,183nm,0.8s | | | | | | | | | |
| **SONA1** | **Songino Array** | **7.91** | **116** | *e*Sg | | **Sb** | | **20 33 43.8** | **+6.1** | |
| | comp=Z,152nm,0.9s | | | | | | | | | |
| **SONA1** | **Songino Array** | **7.91** | **116** | *e*Sg | | Sb | | 20 33 48.0 | +10 | |
| | comp=Z,151nm,0.9s | | | | | | | | | |
| **SONA0** | **Songino Array** | **7.91** | **116** | *e*Pn | | **Pn** | | **20 31 38.8** | **-2.6** | |
| SONA0 | | | | *e*Pg | | **Pb** | | **20 32 03.0** | **-0.4** | |
| SONA0 | | | | *e*Lg | | Lg | | 20 33 46.2 | | |
| **SONA0** | **Songino Array** | **7.91** | **116** | *e*Sg | | **Sb** | | **20 33 43.9** | **+6.1** | |
| **SONA0** | **Songino Array** | **7.91** | **116** | *e*Sg | | Sb | | 20 33 47.6 | +10 | |
| **SONA3** | **Songino Array** | **7.91** | **116** | *e*Sg | | **Sb** | | **20 33 44.1** | **+6.3** | |
| | comp=Z,178nm,0.9s | | | | | | | | | |
| **SONA3** | **Songino Array** | **7.91** | **116** | *e*Sg | | Sb | | 20 33 48.1 | +10 | |
| | comp=Z,159nm,0.8s | | | | | | | | | |
| **SONM** | **Songino Array** | **7.91** | **116** | Pn | | **Pn** | | **20 31 38.8** | **-2.6** | |
| | comp=Z,0.1nm,0.3s,baz=307,slow=26,SNR=2.2 | | | | | | | | | |
| SONM | | | | Pg | | **Pb** | | **20 32 03.0** | **-0.4** | |
| | comp=Z,1.0nm,0.3s,baz=299,slow=18,SNR=13 | | | | | | | | | |
| SONM | | | | Lg | | Lg | | 20 33 46.2 | | |
| | comp=Z,6.1nm,0.3s,baz=295,slow=29,SNR=14 | | | | | | | | | |
| **SONA4** | **Songino Array** | **7.92** | **116** | *e*Sg | | **Sb** | | **20 33 43.5** | **+5.7** | |
| | comp=Z,156nm,0.9s | | | | | | | | | |
| **SONA4** | **Songino Array** | **7.92** | **116** | *e*Sg | | Sb | | 20 33 48.4 | +11 | |
| | comp=Z,176nm,0.8s | | | | | | | | | |
| **SONB2** | **Songino Ar. Si** | **7.92** | **116** | *e*Sg | | **Sb** | | **20 33 43.7** | **+5.7** | |
| | comp=Z,211nm,0.8s | | | | | | | | | |
| **SONB2** | **Songino Ar. Si** | **7.92** | **116** | *e*Sg | | Sb | | 20 33 48.5 | +10 | |
| | comp=Z,320nm,1.2s | | | | | | | | | |
| **SONB3** | **Songino Array** | **7.92** | **116** | *e*Sg | | **Sb** | | **20 33 43.5** | **+5.4** | |
| | comp=Z,176nm,0.9s | | | | | | | | | |
| **SONB3** | **Songino Array** | **7.92** | **116** | *e*Sg | | Sb | | 20 33 48.5 | +10 | |
| | comp=Z,192nm,0.8s | | | | | | | | | |
| **ALFM** | | **8.04** | **114** | *e*Sg | | **Sb** | | **20 33 47.7** | **+6.2** | |
| | comp=Z,59nm,0.5s | | | | | | | | | |
| **ALFM** | | **8.04** | **114** | *e*Sg | | Sb | | 20 33 52.6 | +11 | |
| | comp=Z,144nm,0.8s | | | | | | | | | |
| **NVS** | **Novosibirsk** | **8.12** | **297** | *e*P | | Pn | | 20 31 58.0 | +14 | |
| **ULN** | **Ulaanbaatar** | **8.27** | **114** | *i* P | | Pn | | 20 31 37.2 | -9.1 | |
| **ARTM** | | **8.35** | **113** | *e*Sg | | Sb | | 20 33 57.7 | +7.2 | |
| | comp=Z,104nm,0.8s | | | | | | | | | |
| **ARTM** | | **8.35** | **113** | *e*Sg | | Sb | | 20 34 01.6 | +11 | |
| | comp=Z,125nm,0.8s | | | | | | | | | |
| **SEMM** | | **8.39** | **116** | *e*Sg | | Sb | | 20 33 59.1 | +7.5 | |
| **SEMM** | | **8.39** | **116** | *e*Sg | | Sb | | 20 34 03.8 | +12 | |
| **UGDM** | | **8.58** | **115** | *e*Sg | | Sg | | 20 34 05.4 | -16 | |
| | comp=Z,139nm,0.9s | | | | | | | | | |
| **UGDM** | | **8.58** | **115** | *e*Sg | | Sg | | 20 34 09.6 | -12 | |
| | comp=Z,156nm,0.9s | | | | | | | | | |
| **MK31** | **Makanchi Array** | **10.19** | **246** | *e*P | | **Pn** | | **20 32 12.0** | **-0.4** | |
| **MK31** | **Makanchi Array** | **10.19** | **246** | *e*Pn | | **Pn** | | **20 32 12.0** | **-0.4** | |
| **MK32** | **Makanchi Array** | **10.19** | **246** | *e*Pn | | **Pn** | | **20 32 12.3** | **-0.1** | |
| MK32 | | | | *e* | | | | 20 32 53.0 | | |
| MK32 | | | | *e*Lg | | Lg | | 20 35 05.5 | | |
| MK32 | | | | *e* | | | | 20 36 23.7 | | |
| **MKAR** | **Makanchi Array** | **10.19** | **246** | Pn | | **Pn** | | **20 32 12.3** | **-0.1** | |
| | comp=Z,0.3nm,0.3s,baz=46,slow=16,SNR=13 | | | | | | | | | |
| MKAR | | | | Pg | | | | 20 32 53.0 | | |
| | comp=Z,0.7nm,0.3s,baz=56,slow=20,SNR=7.2 | | | | | | | | | |
| MKAR | | | | Lg | | Lg | | 20 35 05.5 | | |
| | comp=Z,0.4nm,0.3s,baz=58,slow=27,SNR=3.7 | | | | | | | | | |
| MKAR | | | | LR | | LR | | 20 36 23.7 | | |
| | comp=Z,136nm,20.3s,baz=34,slow=39 | | | | | | | | | |
| **MKAR** | **Makanchi Array** | **10.19** | **246** | *e*Pn | | **Pn** | | **20 32 11.4** | **-1.1** | |
| MKAR | | | | Pg | | | | 20 32 53.0 | | |
| MKAR | | | | *e*Lg | | Lg | | 20 35 01.3 | | |
| **MK01** | **Makanchi Array** | **10.19** | **245** | *e*Pn | | **Pn** | | **20 32 11.3** | **-1.2** | |
| MK01 | | | | *e*Lg | | Lg | | 20 35 03.9 | | |
| **MAKZ** | **Makanchi** | **10.36** | **246** | *e*P | | **Pn** | | **20 32 14.1** | **-0.7** | |
| **MAKZ** | **Makanchi** | **10.36** | **246** | *e*Pn | | **Pn** | | **20 32 14.1** | **-0.7** | |
| MAKZ | | | | *e*Lg | | Lg | | 20 35 12.0 | | |
| **KURK** | **Kurchatov** | **10.85** | **271** | P | | **Pn** | | **20 32 23.8** | **+2.3** | |
| KURK | | | | | | | | 20 34 22.2 | | |
| **KURK** | **Kurchatov** | **10.85** | **271** | *e*Pn | | **Pn** | | **20 32 22.2** | **+0.7** | |
| KURK | | | | *e*Sn | | **Sn** | | **20 34 22.1** | **-0.7** | |
| KURK | | | | *e*Lg | | Lg | | 20 35 30.1 | | |
| **KURBB** | **Kurchatov Arra** | **10.93** | **270** | Pn | | **Pn** | | **20 32 23.8** | **+1.3** | |
| | comp=Z,0.1nm,0.3s,baz=76,slow=15,SNR=7.6 | | | | | | | | | |
| KURBB | | | | Sn | | **Sn** | | **20 34 22.1** | **-2.6** | |
| | comp=Z,0.0nm,0.3s,baz=76,slow=15,SNR=2.7 | | | | | | | | | |
| KURBB | | | | Lg | | Lg | | 20 35 30.1 | | |
| | comp=Z,0.1nm,0.3s,baz=72,slow=31,SNR=6.3 | | | | | | | | | |
| **HIA** | **Hailar** | **15.39** | **90** | *e*P | | **Pn** | | **20 33 24.8** | **+1.5** | |
| HIA | | | | pmax | | pmax | | | | |
| | comp=Z,12nm,0.7s | | | | | | | | | |
| **HIA** | **Hailar** | **15.39** | **90** | *e*Pn | | **Pn** | | **20 33 24.8** | **+1.5** | |
| | comp=Z,12nm,0.7s | | | | | | | | | |
| **BVAR** | **Borovoye Array** | **15.55** | **284** | Pn | | **Pn** | | **20 33 26.0** | **+0.7** | |
| | comp=Z,0.1nm,0.3s,baz=87,slow=12,SNR=3.8 | | | | | | | | | |
| BVAR | | | | Sn | | Sn | | 20 36 09.3 | -8.1 | |
| | comp=Z,0.2nm,0.3s,baz=62,slow=21,SNR=2.8 | | | | | | | | | |
| BVAR | | | | Lg | | Lg | | 20 38 07.2 | | |
| | comp=Z,0.0nm,0.3s,baz=97,slow=22,SNR=2.2 | | | | | | | | | |
| **BVAR** | **Borovoye Array** | **15.55** | **284** | P | | **Pn** | | **20 33 26.0** | **+0.7** | |
| **BRVK** | **Borovoye** | **15.61** | **285** | *e*P | | **Pn** | | **20 33 25.5** | **-0.6** | |
| BRVK | | | | pmax | | pmax | | | | |
| | comp=Z,4.0nm,0.9s | | | | | | | | | |
| **BRVK** | **Borovoye** | **15.61** | **285** | *e*Pn | | **Pn** | | **20 33 25.5** | **-0.6** | |
| | comp=Z,3.9nm,0.9s | | | | | | | | | |
| **AAK** | **Ala-Archa** | **17.12** | **246** | *e*P | | **Pn** | | **20 33 46.7** | **+1.0** | |
| AAK | | | | pmax | | pmax | | | | |
| | comp=Z,5.0nm,1.1s | | | | | | | | | |
| **AAK** | **Ala-Archa** | **17.12** | **246** | *e*Pn | | **Pn** | | **20 33 46.7** | **+1.0** | |
| | comp=Z,5.2nm,1.1s | | | | | | | | | |
| **YAK** | **Yakutsk** | **20.83** | **48** | P | | **P** | | **20 34 28.1** | **+0.5** | |
| | comp=Z,5.4nm,0.3s,baz=263,slow=19,SNR=4.5 | | | | | | | | | |
| **YAK** | **Yakutsk** | **20.83** | **48** | *i* P | | **P** | | **20 34 22.9** | **-4.8** | |
| YAK | | | | pmax | | pmax | | | | |
| | comp=Z,4.0nm,0.5s | | | | | | | | | |
| **YAK** | **Yakutsk** | **20.83** | **48** | *e*P | | **P** | | **20 34 27.7** | **+0.1** | |
| | comp=Z,17nm,0.8s | | | | | | | | | |
| **ARU** | **Arti** | **22.12** | **297** | P | | **P** | | **20 34 43.7** | **+2.1** | |
| | comp=Z,3.5nm,0.6s,baz=104,slow=3.6,SNR=7.0 | | | | | | | | | |
| **ARU** | **Arti** | **22.12** | **297** | *d i*P | | **P** | | **20 34 42.0** | **+0.4** | |
| ARU | | | | | | | | 20 35 04.4 | | |
| ARU | | | | S | | **S** | | **20 38 50.2** | **+5.0** | |
| ARU | | | | SS | | **SnSn** | | **20 39 18.3** | **+7.0** | |
| ARU | | | | pmax | | pmax | | | | |
| | comp=Z,35nm,4.1s | | | | | | | | | |
| **ARU** | **Arti** | **22.12** | **297** | *e*P | | **P** | | **20 34 44.2** | **+2.6** | |
| | comp=Z,28nm,2.0s | | | | | | | | | |
| **ABKAR** | **Akbulak array** | **22.81** | **278** | *e*P | | **P** | | **20 34 48.8** | **-0.2** | |
| | comp=Z,45nm,1.4s | | | | | | | | | |
| **KLR** | **Kul'dur** | **22.83** | **82** | LR | | LR | | 20 44 00.9 | | |
| | comp=Z,5.3nm,19.0s,baz=342,slow=38 | | | | | | | | | |
| **AKTO** | **Aktyubinsk** | **23.60** | **282** | P | | **P** | | **20 34 57.2** | **+0.2** | |
| | comp=Z,6.2nm,0.6s,baz=86,slow=11,SNR=22 | | | | | | | | | |
| **TIXI** | **Tiksi** | **24.68** | **24** | P | | **P** | | **20 35 05.9** | **-0.9** | |
| | comp=Z,8.9nm,0.5s,baz=233,slow=7.0,SNR=13 | | | | | | | | | |
| **TIXI** | **Tiksi** | **24.68** | **24** | *i* P | | **P** | | **20 35 05.8** | **-1.0** | |
| TIXI | | | | pmax | | pmax | | | | |
| | comp=Z,14nm,0.8s | | | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **25.15** | **93** | P | | **P** | | **20 35 09.7** | **-1.7** | |
| | comp=Z,1.9nm,0.6s,baz=299,slow=7.1,SNR=6.0 | | | | | | | | | |
| **KBL** | **Kabul** | **25.87** | **239** | *e*P | | **P** | | **20 35 17.3** | **-0.9** | |
| KBL | | | | pmax | | pmax | | | | |
| | comp=Z,2.0nm,0.8s | | | | | | | | | |
| **KBL** | **Kabul** | **25.87** | **239** | *e*P | | **P** | | **20 35 17.3** | **-0.9** | |
| | comp=Z,2.2nm,0.8s | | | | | | | | | |
| **KS01** | **Wonju Array Si** | **26.68** | **110** | *e*P | | **P** | | **20 35 23.4** | **-1.9** | |
| **KS15** | **Wonju Array Si** | **26.70** | **110** | *e*P | | **P** | | **20 35 23.6** | **-1.9** | |
| **KSAR** | **Wonju Array Be** | **26.70** | **110** | P | | **P** | | **20 35 24.1** | **-1.3** | |
| **KSAR** | **Wonju Array Be** | **26.70** | **110** | P | | **P** | | **20 35 24.1** | **-1.3** | |
| **KSRS** | **Korea Array** | **26.72** | **110** | P | | **P** | | **20 35 24.1** | **-1.5** | |
| | comp=Z,0.4nm,0.4s,baz=310,slow=8.1,SNR=2.8 | | | | | | | | | |
| **CM31** | **Chiang Mai Arr** | **33.41** | **175** | *e*P | | **P** | | **20 36 22.9** | **-2.0** | |
| **MJAR** | **Matsushiro Arr** | **33.48** | **100** | LR | | LR | | 20 51 39.8 | | |
| | comp=Z,24nm,18.3s,baz=245,slow=39 | | | | | | | | | |
| **KIV** | **Kislovodsk** | **35.79** | **279** | *e*P | | **P** | | **20 36 45.7** | **+0.2** | |
| KIV | | | | pmax | | pmax | | | | |
| | comp=Z,8.0nm,1.1s | | | | | | | | | |
| KIV | | | | MLR | | MLR | | | | |
| | comp=Z,101nm,16.0s | | | | | | | | | |
| **BILL** | **Bilibino** | **36.40** | **37** | *e*P | | **P** | | **20 36 49.1** | **-1.2** | |
| BILL | | | | *i* | | | | 20 38 10.7 | | |
| BILL | | | | pmax | | pmax | | | | |
| | comp=Z,2.0nm,1.1s | | | | | | | | | |
| **PEA1** | **Petropavlovsk-** | **36.66** | **63** | *e*P | | **P** | | **20 36 52.7** | **0.0** | |
| **PETK** | **Petropavlovsk-** | **36.66** | **63** | P | | **P** | | **20 36 52.7** | **0.0** | |
| | comp=Z,4.6nm,0.8s,baz=305,slow=10,SNR=5.3 | | | | | | | | | |
| **JHJ2** | **Mitsune** | **36.76** | **103** | *e*P | | **P** | | **20 36 52.1** | **-1.7** | |
| | comp=Z,238nm,1.0s | | | | | | | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **FIA1** | **FINESS Array S** | **37.73** | **313** | *e*P | | **P** | | **20 37 03.6** | **+2.0** | |
| **FIA0** | **FINESS Array S** | **37.73** | **313** | *e*P | | **P** | | **20 37 00.3** | **-1.3** | |
| **FIA0** | **FINESS Array S** | **37.73** | **313** | *e*P | | **P** | | **20 37 00.3** | **-1.3** | |
| **FINES** | **FINESS Array B** | **37.73** | **313** | P | | **P** | | **20 37 00.3** | **-1.3** | |
| | comp=Z,3.3nm,0.9s,baz=65,slow=7.8,SNR=2.9 | | | | | | | | | |
| **FINES** | **FINESS Array B** | **37.73** | **313** | *i* P | | **P** | | **20 37 04.8** | **+3.2** | |
| FINES | | | | pmax | | pmax | | | | |
| | comp=Z,7.0nm,1.0s | | | | | | | | | |
| **AKASG** | **Malin Array Be** | **40.37** | **296** | P | | **P** | | **20 37 23.1** | **-0.7** | |
| | comp=Z,0.2nm,0.3s,baz=58,slow=8.8,SNR=3.3 | | | | | | | | | |
| **AKBB** | **Malin Array Si** | **40.37** | **296** | *e*P | | **P** | | **20 37 23.4** | **-0.5** | |
| AKBB | | | | pmax | | pmax | | | | |
| | comp=Z,40nm,2.0s | | | | | | | | | |
| **AKBB** | **Malin Array Si** | **40.37** | **296** | *e*P | | **P** | | **20 37 23.4** | **-0.5** | |
| | comp=Z,40nm,2.0s | | | | | | | | | |
| **KIEV** | **Kiev** | **40.38** | **296** | *e*P | | **P** | | **20 37 24.0** | **+0.1** | |
| KIEV | | | | pmax | | pmax | | | | |
| | comp=Z,40nm,2.0s | | | | | | | | | |
| **KIEV** | **Kiev** | **40.38** | **296** | *e*P | | **P** | | **20 37 24.0** | **+0.1** | |
| | comp=Z,40nm,2.0s | | | | | | | | | |
| **BR101** | **Keskin Array S** | **43.75** | **279** | *e*P | | **P** | | **20 37 52.5** | **+0.7** | |
| **BR131** | **Keskin Array S** | **43.75** | **279** | *e*P | | **P** | | **20 37 52.5** | **+0.7** | |
| **BRTR** | **Keskin Array B** | **43.75** | **279** | P | | **P** | | **20 37 52.5** | **+0.7** | |
| | comp=Z,2.7nm,0.9s,baz=80,slow=6.7,SNR=12 | | | | | | | | | |
| **BRTR** | **Keskin Array B** | **43.75** | **279** | *i* P | | **P** | | **20 37 53.2** | **+1.4** | |
| BRTR | | | | pmax | | pmax | | | | |
| | comp=Z,4.0nm,1.0s | | | | | | | | | |
| **ANTO** | **Ankara** | **44.18** | **280** | *e*P | | **P** | | **20 37 54.3** | **-0.8** | |
| ANTO | | | | pmax | | pmax | | | | |
| | comp=Z,6.0nm,0.8s | | | | | | | | | |
| **ANTO** | **Ankara** | **44.18** | **280** | *e*P | | **P** | | **20 37 54.3** | **-0.8** | |
| | comp=Z,5.5nm,0.8s | | | | | | | | | |
| **BUR08** | **Bucovina Ar. S** | **44.20** | **294** | *e*P | | **P** | | **20 37 55.8** | **+0.5** | |
| **BR231** | **Keskin MP Arra** | **44.21** | **280** | *e*P | | P | | 20 37 53.5 | -1.9 | |
| **BUR04** | **Bucovina Ar. S** | **44.21** | **294** | *e*P | | **P** | | **20 37 56.2** | **+0.9** | |
| **NC405** | **NORSAR Array S** | **44.24** | **316** | *e*P | | **P** | | **20 37 55.5** | **+0.2** | |
| **NB2** | **NORSAR Subarra** | **44.49** | **316** | P | | **P** | | **20 37 57.1** | **-0.2** | |
| | comp=Z,7.3nm,1.1s,baz=62,slow=7.9 | | | | | | | | | |
| **NB200** | **NORSAR Array S** | **44.49** | **316** | *e*P | | **P** | | **20 37 57.4** | **+0.1** | |
| **NOA** | **NORSAR Array B** | **44.49** | **316** | P | | **P** | | **20 37 57.4** | **+0.1** | |
| | comp=Z,1.4nm,0.8s,baz=47,slow=7.6,SNR=2.9 | | | | | | | | | |
| **NOA** | **NORSAR Array B** | **44.49** | **316** | *e*P | | P | | 20 38 02.4 | +5.1 | |
| NOA | | | | pmax | | pmax | | | | |
| | comp=Z,1.0nm,0.7s | | | | | | | | | |
| **MLR** | **Muntele Rosu** | **44.97** | **291** | *e*P | | **P** | | **20 38 03.1** | **+1.6** | |
| MLR | | | | pmax | | pmax | | | | |
| | comp=Z,8.0nm,1.4s | | | | | | | | | |
| **MLR** | **Muntele Rosu** | **44.97** | **291** | *e*P | | **P** | | **20 38 03.0** | **+1.6** | |
| | comp=Z,8.3nm,1.4s | | | | | | | | | |
| **KECS** | **Kecovo** | **46.38** | **297** | *e*P | | **P** | | **20 38 13.2** | **+0.8** | |
| **KECS** | **Kecovo** | **46.38** | **297** | *e*P | | **P** | | **20 38 13.2** | **+0.8** | |
| **VYHS** | **Vyhne** | **47.28** | **298** | *e*P | | **P** | | **20 38 19.9** | **+0.4** | |
| **VYHS** | **Vyhne** | **47.28** | **298** | *e*P | | **P** | | **20 38 19.9** | **+0.4** | |
| **RAYN** | **Ar Rayn** | **47.57** | **253** | *e*P | | **P** | | **20 38 21.5** | **-0.6** | |
| | comp=Z,2.3nm,0.6s | | | | | | | | | |
| **CLL** | **Collm** | **48.77** | **304** | *e*P | | **P** | | **20 38 32.3** | **+1.4** | |
| CLL | | | | pmax | | pmax | | | | |
| | comp=Z,21nm,1.8s | | | | | | | | | |
| **CLL** | **Collm** | **48.77** | **304** | *e*P | | **P** | | **20 38 32.3** | **+1.4** | |
| | comp=Z,21nm,1.8s | | | | | | | | | |
| **GERES** | **GERESS Array B** | **49.85** | **301** | P | | **P** | | **20 38 38.8** | **-0.5** | |
| | comp=Z,0.2nm,0.7s,baz=26,slow=6.9,SNR=4.1 | | | | | | | | | |
| **IL1** | **Eielson Array** | **54.07** | **28** | *e*P | | **P** | | **20 39 09.5** | **-0.9** | |
| **ILAR** | **Eielson Array** | **54.07** | **28** | P | | **P** | | **20 39 09.1** | **-1.3** | |
| | comp=Z,0.4nm,0.6s,baz=329,slow=4.6,SNR=4.8 | | | | | | | | | |
| ILAR | | | | PcP | | **PcP** | | **20 40 13.6** | **-1.6** | |
| | comp=Z,0.5nm,0.8s,baz=332,slow=4.8,SNR=3.1 | | | | | | | | | |
| **ILAR** | **Eielson Array** | **54.07** | **28** | *e*P | | **P** | | **20 39 09.5** | **-1.0** | |
| **ILB** | **Eielson Array** | **54.07** | **28** | *e*P | | **P** | | **20 39 09.4** | **-1.0** | |
| **INK** | **Inuvik** | **54.70** | **20** | P | | **P** | | **20 39 14.0** | **-0.9** | |
| | comp=Z,1.3nm,0.6s,baz=341,slow=10,SNR=8.4 | | | | | | | | | |
| **INK** | **Inuvik** | **54.70** | **20** | *e*P | | **P** | | **20 39 14.8** | **-0.1** | |
| INK | | | | pmax | | pmax | | | | |
| | comp=Z,17nm,1.9s | | | | | | | | | |
| **INK** | **Inuvik** | **54.70** | **20** | *e*P | | **P** | | **20 39 14.8** | **-0.1** | |
| | comp=Z,17nm,1.9s | | | | | | | | | |
| **BNI** | **Bardonecchia** | **55.97** | **301** | *e*P | | **P** | | **20 39 26.6** | **+2.0** | |
| BNI | | | | pmax | | pmax | | | | |
| | comp=Z,25nm,1.8s | | | | | | | | | |
| **BNI** | **Bardonecchia** | **55.97** | **301** | *e*P | | **P** | | **20 39 26.6** | **+2.0** | |
| | comp=Z,25nm,1.8s | | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **63.49** | **15** | P | | **P** | | **20 40 14.6** | **-1.3** | |
| | comp=Z,0.4nm,0.8s,baz=338,slow=7.0,SNR=5.4 | | | | | | | | | |
| **YKB5** | **Yellowknife Ar** | **63.49** | **15** | *e*P | | **P** | | **20 40 16.0** | **+0.1** | |
| **WRA** | **Warramunga Arr** | **79.00** | **143** | P | | **P** | | **20 41 48.0** | **-2.2** | |
| | comp=Z,0.6nm,0.7s,baz=341,slow=6.1,SNR=3.8 | | | | | | | | | |
| **WRA** | **Warramunga Arr** | **79.00** | **143** | P | | **P** | | **20 41 48.0** | **-2.2** | |
| WRA | | | | pmax | | pmax | | | | |
| | comp=Z,1.0nm,0.7s | | | | | | | | | |
| **WR1** | **Warramunga Arr** | **79.00** | **143** | *e*P | | **P** | | **20 41 48.0** | **-2.2** | |
| | comp=Z,80nm,1.9s | | | | | | | | | |
| **AS31** | **Alice Springs** | **82.25** | **145** | *e*P | | **P** | | **20 42 05.5** | **-2.0** | |
| | comp=Z,1.4nm,1.2s | | | | | | | | | |
| **ASAR** | **Alice Springs** | **82.25** | **145** | P | | **P** | | **20 42 05.3** | **-2.2** | |
| | comp=Z,0.7nm,0.7s,baz=340,slow=6.1,SNR=5.4 | | | | | | | | | |
| **TOA1** | **Toyodi Ar. Sit** | **82.32** | **281** | *e*P | | **P** | | **20 42 07.3** | **-0.9** | |
| **TORD** | **Toyodi Ar. Bea** | **82.33** | **281** | P | | **P** | | **20 42 07.3** | **-0.9** | |
| | comp=Z,1.2nm,0.6s,baz=38,slow=5.4,SNR=4.8 | | | | | | | | | |

*ISCJB* ***27*** *20:30:13.0±0.5, 1.°92N±0.°03×128.°35E±0.°03, h111km±5km, mb4.8/69, Error ellipse: s-maj=6.0km s-min=4.5km az=154.0*

*BJI* ***27*** *20:30:13.1, 1.°90N×128.°30E, h111km, mb4.9/22, mB5.0/12*

*DJA* ***27*** *20:30:13.1±0.5, 2.°N±4.°×12.°8E±.°, h83km±4km, M4.7/17, mb4.9/17, mB5.1/6, ML4.9/8, Mw(mB)4.5/6*

*MOS* ***27*** *20:30:13.3±1.1, 1.°95N×128.°28E, h114km, mb5.0/25, Error ellipse: s-maj=12.4km s-min=6.0km az=107.4*

*NEIC* ***27*** *20:30:15.1±0.9, 1.°87N×128.°33E, h120km±8km, mb5.0/26, Error ellipse: s-maj=8.2km s-min=4.7km az=68.0*

*IDC* ***27*** *20:30:15.4±3.0, 1.°88N×128.°29E, h120km±27km, mb4.3/34, mb1 4.3/34, mb1mx4.3/43, mbtmp4.6/34, MS3.3/3, Ms1 3.3/3, ms1mx2.9/37, Error ellipse: s-maj=14.8km s-min=8.4km az=76.0*

**ISC 27 20:30:13.6±0.8, 1.°93N±0.°04×128.°39E±0.°05, h103km±7km, n206, σ1°$^{2}$6/218, mb4.8/68, 12C-3D, Halmahera**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **LBMI** | **Labuha** | **2.70** | **199** | P | | **Pn** | **20 30 54.3** | **-1.2** |
| **SGSI** | **Sangihe** | **3.34** | **301** | P | | **Pn** | **20 31 02.7** | **-1.3** |
| **SWI** | **Sorong** | **4.00** | **134** | P | | **Pn** | **20 31 14.1** | **+1.3** |
| SWI | | | | S | | **Sn** | **20 31 59.2** | **+0.5** |
| **SWI** | **Sorong** | **4.00** | **134** | P | | **Pn** | **20 31 14.1** | **+1.3** |
| **KMSI** | **Cibinong** | **4.61** | **253** | P | | **Pn** | **20 31 20.4** | **-0.6** |
| **SANI** | **Sanana** | **4.63** | **211** | P | | **Pn** | **20 31 19.3** | **-2.0** |
| **MSAI** | **Masohi** | **5.27** | **174** | P | | **Pn** | **20 31 31.6** | **+1.5** |
| **MATI** | **Mati** | **5.41** | **337** | *e*P | | **Pn** | **20 31 34.7** | **+2.7** |
| **AAI** | **Ambon** | **5.59** | **182** | P | | **Pn** | **20 31 35.7** | **+1.4** |
| **AAI** | **Ambon** | **5.59** | **182** | P | | **Pn** | **20 31 35.7** | **+1.4** |
| AAI | | | | pmax | | pmax | | |
| | comp=Z,277nm,0.8s | | | | | | | |
| **FAKI** | **Fak Fak** | **6.18** | **141** | P | | **Pn** | **20 31 43.7** | **+1.4** |
| **FAKI** | **Fak Fak** | **6.18** | **141** | *e*Pn | | **Pn** | **20 31 44.1** | **+1.7** |
| FAKI | | | | *e*Sn | | **Sn** | **20 32 46.0** | **-5.6** |
| **LUWI** | **Luwuk** | **6.34** | **242** | P | | **Pn** | **20 31 44.6** | **0.0** |
| **LUWI** | **Luwuk** | **6.34** | **242** | *e*Pn | | **Pn** | **20 31 43.7** | **-0.9** |
| LUWI | | | | *e*Sn | | **Sn** | **20 32 57.4** | **+1.7** |
| **BIPH** | **Bislig** | **6.53** | **342** | *e*P | | **Pn** | **20 31 47.3** | **+0.1** |
| BIPH | | | | *e*S | | **Sn** | **20 32 55.7** | **-4.5** |
| **MRSI** | **Marisa** | **6.60** | **257** | P | | **Pn** | **20 31 46.8** | **-1.3** |
| **BUKP** | **Musuan** | **6.77** | **331** | *e*P | | **Pn** | **20 31 52.5** | **+2.0** |
| **APSI** | **Ampana** | **7.30** | **247** | P | | **Pn** | **20 31 55.9** | **-1.8** |
| **BUTP** | **Butuan** | **7.51** | **339** | *e*P | | **Pn** | **20 32 02.4** | **+1.9** |
| **PAGZ** | **Pagadian** | **7.71** | **320** | *e*P | | **Pn** | **20 32 03.2** | **+0.1** |
| **MPSI** | **Mapaga** | **8.63** | **260** | P | | **Pn** | **20 32 16.1** | **+0.4** |
| **BBSI** | **Bau Bau** | **9.38** | **218** | P | | **Pn** | **20 32 25.9** | **-0.1** |
| **TTSI** | **Tana Toraja** | **9.89** | **240** | P | | **Pn** | **20 32 30.6** | **-2.2** |
| **SPSI** | **Sidrap Palu** | **10.42** | **236** | P | | **Pn** | **20 32 38.8** | **-1.2** |
| **SOEI** | **Soe** | **12.31** | **199** | P | | **Pn** | **20 33 08.3** | **+2.7** |
| **SOEI** | **Soe** | **12.31** | **199** | *e*Pn | | **Pn** | **20 33 08.5** | **+2.9** |
| **EDFI** | **Ende, Flores** | **12.54** | **212** | P | | **Pn** | **20 33 09.7** | **+1.2** |
| **GENI** | **Genyem** | **12.61** | **111** | P | | P | 20 33 23.6 | +7.0 |
| **KSM** | **Kuching** | **18.08** | **269** | *e*P | | **Pn** | **20 34 19.0** | **+0.8** |
| | comp=Z,27nm,1.2s | | | | | | | |
| **PWJI** | **Pagerwojo** | **19.27** | **239** | P | | **Pn** | **20 34 32.1** | **-0.2** |
| | comp=Z,58nm,0.9s | | | | | | | |
| **GUMO** | **Guam** | **20.00** | **54** | P | | Pn | 20 34 41.1 | +0.3 |
| | comp=Z,41nm,0.4s,baz=216,slow=19,SNR=2.7 | | | | | | | |
| **GUMO** | **Guam** | **20.00** | **54** | *e*P | | Pn | 20 34 42.4 | +1.6 |
| GUMO | | | | pmax | | pmax | | |
| | comp=Z,756nm,1.6s | | | | | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **GUMO** | **Guam** | **20.00** | **54** | *e*P | | Pn | | 20 34 42.4 | +1.5 | |
| | comp=Z,756nm,1.6s | | | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **20.09** | **188** | P | | **P** | | **20 34 38.0** | **-1.1** | |
| | comp=Z,4.0nm,0.6s,baz=12,slow=8.3,SNR=7.3 | | | | | | | | | |
| **KPJI** | **Karang Pucung** | **21.48** | **244** | P | | **P** | | **20 34 55.7** | **+1.5** | |
| **COEN** | **Coen** | **21.54** | **138** | *e*P | | **P** | | **20 34 56.2** | **+1.4** | |
| | comp=Z,23nm,1.1s | | | | | | | | | |
| **PMG** | **Port Moresby** | **21.83** | **121** | P | | **P** | | **20 34 59.2** | **+1.3** | |
| | comp=Z,8.2nm,0.7s,baz=298,slow=7.0,SNR=6.4 | | | | | | | | | |
| **PMG** | **Port Moresby** | **21.83** | **121** | ⇑*i*P | | **P** | | **20 34 59.5** | **+1.6** | |
| PMG | | | | pmax | | pmax | | | | |
| | comp=Z,25nm,0.7s | | | | | | | | | |
| **WRAB** | **Tennant Creek** | **22.50** | **165** | *c i*P | | **P** | | **20 35 05.6** | **+0.8** | |
| WRAB | | | | pmax | | pmax | | | | |
| | comp=Z,46nm,0.8s | | | | | | | | | |
| **WRAB** | **Tennant Creek** | **22.50** | **165** | *e*P | | **P** | | **20 35 04.4** | **-0.5** | |
| | comp=Z,34nm,1.0s | | | | | | | | | |
| **WR1** | **Warramunga Arr** | **22.51** | **165** | *e*P | | **P** | | **20 35 04.5** | **-0.4** | |
| | comp=Z,33nm,0.9s | | | | | | | | | |
| WR1 | | | | *e*PcP | | **PcP** | | **20 38 54.9** | **-0.5** | |
| WR1 | | | | *e*S | | **S** | | **20 39 06.9** | **+2.2** | |
| **WRA** | **Warramunga Arr** | **22.51** | **165** | P | | **P** | | **20 35 04.5** | **-0.4** | |
| | comp=Z,18nm,0.5s,baz=344,slow=11,SNR=74 | | | | | | | | | |
| WRA | | | | PcP | | **PcP** | | **20 38 54.9** | **-0.5** | |
| | comp=Z,0.8nm,0.6s,baz=330,slow=2.0,SNR=3.6 | | | | | | | | | |
| WRA | | | | S | | **S** | | **20 39 06.9** | **+2.2** | |
| | comp=Z,1.9nm,1.0s,baz=343,slow=19,SNR=5.1 | | | | | | | | | |
| **WRA** | **Warramunga Arr** | **22.51** | **165** | *e*P | | **P** | | **20 35 04.5** | **-0.4** | |
| WRA | | | | pmax | | pmax | | | | |
| | comp=Z,15nm,0.5s | | | | | | | | | |
| **TPUB** | **Ta-pu** | **22.53** | **341** | *e*P | | **P** | | **20 35 04.3** | **-0.8** | |
| | comp=Z,67nm,1.3s | | | | | | | | | |
| **TNG** | **Tangerang** | **23.15** | **250** | P | | **P** | | **20 35 13.1** | **+1.8** | |
| | comp=Z,819nm,0.5s | | | | | | | | | |
| **YHNB** | **Yeheng** | **23.60** | **344** | *e*P | | **P** | | **20 35 15.4** | **+0.1** | |
| | comp=Z,114nm,1.

SONA0 ePcP PcP 20 40 14.7 +0.3
**SONM Songino Array 49.52 341** P P 20 38 54.9 +0.9
comp=Z,11nm,0.7s,baz=154,slow=9.1,SNR=12
SONM PcP PcP 20 40 14.7 +0.3
comp=Z,3.8nm,0.7s,baz=166,slow=4.3,SNR=5.7
**SONA1 Songino Array 49.53 341** ePcP PcP 20 40 14.5 +0.1
**KOLN Koldanda 49.90 305** eP P 20 38 58.2 +0.9
comp=Z,126nm,0.8s
**DANN Dangsing 50.00 306** eP P 20 38 58.8 +0.7
comp=Z,3.5nm,0.7s
**PYUN Piuthan 50.53 305** eP P 20 39 02.9 +0.9
comp=Z,99nm,0.7s
**PETK Petropavlovsk- 56.49 21** P P 20 39 45.8 +1.0
comp=Z,3.0nm,0.6s,baz=194,slow=2.1,SNR=6.7
**PEA1 Petropavlovsk- 56.49 21** eP P 20 39 45.8 +1.0
**THN Thein Dam 57.97 308** eP P 20 39 54.8 -0.8
**DGZ Jazzator, Alta 58.96 330**c iP P 20 40 03.0 +0.6
DGZ pmax pmax
comp=Z,6.0nm,0.9s
**PDGK Podgornoye 59.84 321** P P 20 40 09.2 +0.6
PDGK pmax pmax
comp=Z,20nm,0.9s
**MK01 Makanchi Array 59.95 325** ePcP PcP 20 40 53.6 -0.8
**YAK Yakutsk 59.96 1** P P 20 40 09.4 +0.6
comp=Z,29nm,0.7s,baz=64,slow=0.4,SNR=13
**YAK Yakutsk 59.96 1** eP P 20 40 08.8 0.0
YAK pmax pmax
comp=Z,18nm,0.8s
YAK pmax pmax
comp=E,2.0nm,0.9s
YAK pmax pmax
comp=N,5.0nm,1.1s
**YAK Yakutsk 59.96 1** eP P 20 40 09.2 +0.4
comp=N,30nm,0.7s
**MK32 Makanchi Array 59.97 325** eP P 20 40 09.8 +0.5
MK32 ePcP PcP 20 40 53.9 -0.5
MK32 e 21 05 46.4
**MKAR Makanchi Array 59.97 325** P P 20 40 09.8 +0.5
comp=N,28nm,0.3s,baz=113,slow=7.6,SNR=458
MKAR PcP PcP 20 40 53.9 -0.5
comp=N,4.6nm,0.7s,baz=119,slow=6.0,SNR=4.9
MKAR LR LR 21 05 46.4
comp=N,27nm,21.3s,baz=43,slow=36
**MKAR Makanchi Array 59.97 325** eP P 20 40 09.7 +0.5
MKAR pmax pmax
comp=Z,29nm,0.3s
**MKAR Makanchi Array 59.97 325** ePcP PcP 20 40 53.7 -0.7
**KSH Kashi 60.48 315** P P 20 40 14.5 +1.5
KSH PP PP 20 42 31.5 +4.1
KSH pmax pmax
comp=Z,15nm,1.1s
KSH pmax pmax
comp=Z,120nm,3.7s
KSH LR LR
comp=Z,59nm,3.4s
KSH LR LR
comp=Z,25nm,4.1s
KSH LR LR
comp=Z,230nm,4.8s
**KZA Kyzart 62.05 318** P P 20 40 25.2 +1.3
SNR=7.4
**TKM2 Tokmak 2 62.18 319** P P 20 40 25.2 +0.7
SNR=8.1
**UCH Uchtor 62.61 317** P P 20 40 28.7 +1.0
SNR=11
**AAK Ala-Archa 62.79 318** P P 20 40 29.1 +0.6
comp=Z,2.9nm,0.4s,baz=113,slow=5.7,SNR=19
AAK PcP PcP 20 41 06.0 -0.1
comp=Z,2.1nm,0.5s,baz=99,slow=4.3,SNR=5.4
**AAK Ala-Archa 62.79 318** ||P P 20 40 29.4 +0.9
AAK pmax pmax
comp=Z,6.0nm,1.0s
**AAK Ala-Archa 62.79 318** P P 20 40 29.3 +0.8
SNR=5.5
**AAK Ala-Archa 62.79 318** eP P 20 40 29.1 +0.6
comp=Z,31nm,1.8s
AAK ePcP PcP 20 41 06.0 -0.1
**ZALV Zalesovo Beam 62.93 333** P P 20 40 28.4 -0.6
comp=Z,3.7nm,0.4s,baz=126,slow=6.8,SNR=13
**ZAA1 Zalesovo Array 62.93 333** eP P 20 40 28.4 -0.6
**USP Ospenovka 63.05 319** P P 20 40 30.5 +0.4
SNR=11
**AML Almayashu 63.12 317** P P 20 40 31.9 +0.9
SNR=8.3
**EKS2 Erkin-Say 63.28 318** P P 20 40 32.6 +0.8
SNR=8.9
**MNAS Manas 64.07 317** P P 20 40 37.8 +0.8
MNAS pmax pmax
comp=Z,15nm,0.9s
**KURBB Kurchatov Arra 64.13 327** P P 20 40 37.2 +0.3
comp=Z,56nm,0.9s,baz=123,slow=6.7,SNR=126
**KURK Kurchatov 64.14 327**c iP P 20 40 36.9 -0.1
KURK pmax pmax
comp=Z,46nm,0.9s
**KURK Kurchatov 64.14 327** eP P 20 40 37.2 +0.3
comp=Z,54nm,0.8s
**NVS Novosibirsk 64.21 333** eP P 20 40 36.6 -0.8
NVS pmax pmax
comp=Z,22nm,1.0s
NVS pmax pmax
comp=N,7.0nm,0.8s
NVS pmax pmax
comp=E,10.0nm,1.0s
**KKAR Karatay Array 65.67 317** eP P 20 40 47.2 +0.1
KKAR pmax pmax
comp=Z,97nm,0.7s
**KKAR Karatay Array 65.67 317** eP P 20 40 47.2 +0.1
comp=Z,97nm,0.7s
**TIXI Tiksi 69.61 0** P P 20 41 11.1 -0.2
comp=Z,3.6nm,0.4s,baz=156,slow=5.4,SNR=9.7
**TIXI Tiksi 69.61 0**c iP P 20 41 11.4 +0.1
TIXI pmax pmax
comp=Z,10.0nm,1.7s
**BVAR Borovoye Array 69.72 327** P P 20 41 12.2 -0.1
comp=Z,10.0nm,0.6s,baz=128,slow=7.8,SNR=36
**BRVK Borovoye 69.79 327**c iP P 20 41 12.6 -0.2
BRVK pmax pmax
comp=Z,23nm,1.0s
**BRVK Borovoye 69.79 327** eP P 20 41 12.9 +0.1
comp=Z,20nm,0.9s
**WSAR Wadi Sarin 70.66 294** P P 20 41 17.4 -1.2
comp=Z,3.6nm,0.7s,baz=89,slow=2.2,SNR=3.7
**BILL Bilibino 70.87 14** eP P 20 41 17.3 -1.7
**GEYT Alibeck 73.30 309** P P 20 41 34.4 +0.1
comp=Z,7.1nm,0.7s,baz=134,slow=4.3,SNR=24
**ABKAR Akbulak array 74.58 321** eP P 20 41 41.1 -0.3
comp=Z,56nm,0.7s
**AKTO Aktyubinsk 76.08 322** P P 20 41 49.6 -0.4
comp=Z,7.1nm,0.8s,baz=110,slow=7.9,SNR=26
**SVE Sverdlovsk 76.35 328** eP P 20 41 51.0 -0.3
SVE pmax pmax
comp=Z,19nm,1.3s
**ARU Arti 77.33 328** P P 20 41 53.9 -2.9
comp=Z,5.0nm,0.5s,baz=141,slow=3.4,SNR=11
**ARU Arti 77.33 328**c iP P 20 41 56.0 -0.8
ARU S S 20 51 38.1 -0.5
ARU SS SS 20 56 40.6 +1.6
ARU pmax pmax
comp=Z,17nm,1.7s
**ARU Arti 77.33 328** eP P 20 41 55.5 -1.4
comp=Z,8.7nm,0.8s
**VNDA Vanda 81.45 173** P P 20 42 18.1 -0.7
comp=Z,1.8nm,0.9s,baz=326,slow=6.7,SNR=6.9
**VNDA Vanda 81.45 173** eP P 20 42 17.7 -1.1
**VNDA Vanda 81.45 173** eP P 20 42 17.7 -1.1
**KDAK Kodiak Island 82.52 32** P P 20 42 26.1 +1.3
comp=Z,16nm,0.8s,baz=175,slow=1.4,SNR=24
**KDAK Kodiak Island 82.52 32**ceP P 20 42 25.9 +1.1
**KDAK Kodiak Island 82.52 32** eP P 20 42 25.6 +0.9
comp=Z,141nm,1.6s
**MAW Mawson 82.66 201** P P 20 42 24.6 -0.7
comp=Z,1.7nm,0.3s,baz=62,slow=7.6,SNR=11
**MAW Mawson 82.66 201** eP P 20 42 24.7 -0.5
MAW pmax pmax
comp=Z,2.0nm,1.2s
**MAW Mawson 82.66 201** eP P 20 42 24.7 -0.5
comp=Z,1.6nm,1.2s
**RSO Redoubt South 82.83 29** epP pP 20 42 51.0 -2.2
**GNI Garni 83.90 310** dP P 20 42 32.2 -0.3
GNI pmax pmax
comp=Z,8.0nm,0.9s
**ZEI Tsey 84.64 313** eP P 20 42 35.1 -1.2
ZEI pmax pmax
comp=Z,10.0nm,0.8s
**KBZ Khabaz 85.41 314** P P 20 42 39.2 -0.5
comp=Z,3.1nm,0.8s,baz=127,slow=6.7,SNR=7.0

**ILAR Eielson Array 86.01 25** P P 20 42 41.5 -0.9
comp=Z,0.5nm,0.4s,baz=248,slow=5.1,SNR=14
**ILB Eielson Array 86.01 25** eP P 20 42 41.0 -1.3
**KLMR Klimovskoe 87.77 331** eP P 20 42 47.2 -3.7
KLMR pmax pmax
comp=Z,13nm,0.7s
**OBN Obninsk 89.47 325** eP P 20 42 57.0 -2.0
OBN pmax pmax
comp=Z,9.0nm,0.9s
**LVZ Lovozero 89.63 338**⇑iP P 20 42 58.2 -1.4
LVZ pmax pmax
comp=Z,58nm,1.7s
**INK Inuvik 91.22 22** P P 20 43 06.4 -0.5
comp=Z,0.5nm,0.5s,baz=244,slow=5.3,SNR=4.0
**INK Inuvik 91.22 22** eP P 20 43 05.9 -1.0
INK pmax pmax
comp=Z,22nm,1.9s
**INK Inuvik 91.22 22** eP P 20 43 05.9 -1.0
comp=Z,22nm,1.9s
**SYO Syowa Base 91.36 201**⇑iP P 20 43 05.4 -2.1
**BR101 Keskin Array S 92.43 310** eP P 20 43 12.8 -0.6
BR101 e 21 33 58.3
**BRTR Keskin Array B 92.43 310** eP P 20 43 12.8 -0.6
comp=Z,0.5nm,0.6s,baz=118,slow=4.9,SNR=4.3
BRTR LR LR 21 33 58.3
comp=Z,16nm,19.3s,baz=335,slow=41
**BRTR Keskin Array B 92.43 310** eP P 20 43 14.0 +0.6
BRTR pmax pmax
comp=Z,1.0nm,0.6s
**SPITS Spitsbergen Ar 92.55 349** P P 20 43 12.6 -0.3
baz=82,slow=10
**ARA0 ARCESS Array S 92.69 340** eP P 20 43 12.8 -0.9
**ARCES ARCESS Array B 92.69 340** P P 20 43 12.8 -0.9
comp=Z,7.9nm,0.6s,baz=82,slow=6.2,SNR=39
**FIA0 FINESS Array S 94.19 332** eP P 20 43 19.2 -1.5
**FIA0 FINESS Array S 94.19 332** eP P 20 43 19.2 -1.5
**FINES FINESS Array B 94.19 332** P P 20 43 19.2 -1.5
comp=Z,7.7nm,0.9s,baz=82,slow=5.7,SNR=16
**AKASG Malin Array Be 94.32 321** P P 20 43 19.7 -1.9
comp=Z,0.7nm,0.4s,baz=65,slow=3.6,SNR=3.8
**AKBB Malin Array Si 94.32 321** eP P 20 43 19.3 -2.3
AKBB pmax pmax
comp=Z,45nm,2.0s
**AKBB Malin Array Si 94.32 321** eP P 20 43 19.3 -2.3
comp=Z,45nm,2.0s
**RES Resolute Bay 99.27 11** P Pdif 20 43 43.3 -0.1
comp=Z,2.6nm,0.8s,baz=292,slow=4.8,SNR=10
**CRVS Cervenica-Dubn 99.60 320** eP Pdif 20 43 45.3 -0.3
**CRVS Cervenica-Dubn 99.60 320** ePDIFF Pdif 20 43 45.2 -0.3
**STHS Stebnicka Huta 99.61 321** eP Pdif 20 43 45.9 +0.3
**STHS Stebnicka Huta 99.61 321** ePDIFF Pdif 20 43 45.9 +0.3
**YKA Yellowknife Ar 100.43 25** P Pdif 20 43 48.9 +0.1
comp=Z,0.2nm,0.7s,baz=296,slow=4.6,SNR=5.3
**YKA Yellowknife Ar 100.43 25** P Pdif 20 43 49.0 +0.1
**NB2 NORSAR Subarra 101.12 334** P Pdif 20 43 50.3 -1.7
comp=Z,2.5nm,0.7s,baz=68,slow=4.4
**NB2 NORSAR Subarra 101.12 334** P Pdif 20 43 50.3 -1.7
baz=68,slow=4.4
**NB200 NORSAR Array S 101.12 334** ePdif Pdif 20 43 50.5 -1.5
**NOA NORSAR Array B 101.12 334** P Pdif 20 43 50.5 -1.5
comp=Z,1.2nm,0.6s,baz=66,slow=4.5,SNR=3.7
**PDAR Pinedale Array 111.59 42** PKIKP **PKiKP** 20 48 36.7 0.0
comp=Z,0.3nm,0.4s,baz=57,slow=2.8,SNR=5.8
**ULM Lac du Bonnet 115.71 30** PKP **PKPdf** 20 48 42.9 -1.1
comp=Z,1.0nm,0.5s,baz=270,slow=1.0,SNR=3.5
**LTX Lajitas 121.35 54** ePKIKP **PKPdf** 20 48 56.0 +0.3
**LTX Lajitas 121.35 54** ePKPdf **PKPdf** 20 48 56.0 +0.3
**TXAR Lajitas Array 121.35 54** PKP **PKPdf** 20 48 56.0 +0.3
comp=Z,0.6nm,0.7s,baz=233,slow=0.7,SNR=9.2
**JCT Junction City 123.94 51** ePKIKP **PKPdf** 20 49 00.7 +0.2
**JCT Junction City 123.94 51** ePKPdf **PKPdf** 20 49 00.7 +0.2
**TORD Torodi Ar. Bea 125.04 287** PKP **PKPdf** 20 49 02.1 -0.8
comp=Z,1.1nm,0.8s,baz=58,slow=1.2,SNR=5.6
**TOA1 Torodi Ar. Sit 125.04 287** ePKPdf **PKPdf** 20 49 02.1 -0.8

*CSEM **27** 20:33:45.8±0.1,35°.87N×27°.47E, h10km, ML2.3, Error ellipse: s-maj=6.0km s-min=2.6km az=143.0*
*ATH **27** 20:33:45.2, 35°.86N×27°.46E, h22km±1km, ML2.3/2, Error ellipse: s-maj=6.5km s-min=1.1km az=143.0*
*ISK **27** 20:33:45.2, 35°.86N×27°.50E, h12km, MD2.9*
*ISCJB **27** 20:33:46.2±0.5, 35°.84N±0°.07×27°.48E±0°.07, h19km, Error ellipse: s-maj=11.4km s-min=4.4km az=143.6*
**ISC 27 20:33:45.2**±0.9,**35°.86N**±0°.05×**27°.48E**±0°.04,**h19**km,**n29,** σ1§**28**/36,**Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KARP** | **Karpathos** | **0.41** | **220** | ePG | **Pg** | **20 33 53.9** | **+0.2** |
| KARP | | | | eSG | **Sg** | **20 33 60.0** | **+0.6** |
| **KARP** | **Karpathos** | **0.41** | **220** | P | **Pg** | **20 33 53.8** | **+0.1** |
| KARP | | | | S | **Sg** | **20 33 59.0** | **-0.4** |
| KARP | | | | AML | AML | 20 34 00.4 | |
| | comp=E,1599μm,0.1s | | | | | | |
| KARP | | | | AML | AML | 20 34 01.8 | |
| | comp=N,1302μm,0.1s | | | | | | |
| **KARP** | **Karpathos** | **0.41** | **220** | ePg | **Pg** | **20 33 53.9** | **+0.2** |
| KARP | | | | S | **Sg** | **20 33 59.0** | **-0.4** |
| KARP | | | | eSg | **Sg** | **20 34 00.0** | **+0.6** |
| **ARG** | **Arkhangelos** | **0.63** | **56** | P | **Pb** | **20 33 57.5** | **0.0** |
| ARG | | | | S | **Sg** | **20 34 07.2** | **+1.1** |
| ARG | | | | AML | AML | 20 34 08.9 | |
| | comp=E,657μm,0.2s | | | | | | |
| ARG | | | | AML | AML | 20 34 09.2 | |
| | comp=N,463μm,0.2s | | | | | | |
| **ARG** | **Arkhangelos** | **0.63** | **56** | P | **Pb** | **20 33 57.5** | **0.0** |
| ARG | | | | S | **Sg** | **20 34 07.2** | **+1.1** |
| **BODT** | **Bodrum** | **1.21** | **353** | ePN | **Pb** | **20 34 08.6** | **+1.2** |
| **BODT** | **Bodrum** | **1.21** | **353** | ePn | **Pb** | **20 34 08.6** | **+1.2** |
| **ZKR** | **Zakros** | **1.27** | **235** | P | **Pg** | **20 34 09.9** | **+0.1** |
| **ZKR** | **Zakros** | **1.27** | **235** | P | **Pg** | **20 34 09.9** | **+0.1** |
| **TURN** | **Turunc** | **1.35** | **42** | ePN | **Pn** | **20 34 06.8** | **-2.3** |
| TURN | | | | eSN | **Sn** | **20 34 22.2** | **-4.3** |
| **TURN** | **Turunc** | **1.35** | **42** | ePn | **Pn** | **20 34 06.8** | **-2.3** |
| **FETY** | **Fethiye** | **1.51** | **59** | ePN | **Pn** | **20 34 12.6** | **+1.4** |
| **FETY** | **Fethiye** | **1.51** | **59** | ePn | **Pn** | **20 34 12.6** | **+1.4** |
| **NPS** | **Neapolis** | **1.64** | **249** | P | **Pb** | **20 34 14.5** | **-0.3** |
| **NPS** | **Neapolis** | **1.64** | **249** | P | **Pb** | **20 34 14.5** | **-0.3** |
| **KSL** | **Kastellorizon** | **1.73** | **80** | P | **Pb** | **20 34 16.6** | **+0.3** |
| **KSL** | **Kastellorizon** | **1.73** | **80** | P | **Pb** | **20 34 16.6** | **+0.3** |
| **LAST** | **Lasithi** | **1.78** | **247** | P | **Pb** | **20 34 17.1** | **-0.1** |
| **LAST** | **Lasithi** | **1.78** | **247** | P | **Pb** | **20 34 17.1** | **-0.1** |
| **GCAM** | **G?zelcaml?** | **1.84** | **354** | ePN | **Pb** | **20 34 17.9** | **-0.3** |
| **GCAM** | **G?zelcaml?** | **1.84** | **354** | ePn | **Pb** | **20 34 18.0** | **-0.3** |
| **APE** | **Apeiranthos** | **1.98** | **308** | ePN | **Pn** | **20 34 19.1** | **+1.4** |
| **APE** | **Apeiranthos** | **1.98** | **308** | ePn | **Pn** | **20 34 19.1** | **+1.4** |
| **GLHS** | **Glhisar (BURDU** | **2.08** | **51** | ePN | **Pn** | **20 34 20.6** | **+1.5** |
| **GLHS** | **Glhisar (BURDU** | **2.08** | **51** | ePn | **Pn** | **20 34 20.6** | **+1.5** |
| **ELL** | **Elmali** | **2.15** | **65** | ePN | **Pn** | **20 34 21.7** | **+1.6** |
| **ELL** | **Elmali** | **2.15** | **65** | ePn | **Pn** | **20 34 21.7** | **+1.6** |
| **IDI** | **Anoyia** | **2.19** | **256** | P | **Pn** | **20 34 21.3** | **+0.7** |
| **IDI** | **Anoyia** | **2.19** | **256** | P | **Pn** | **20 34 21.3** | **+0.7** |

*KRSC **27** 20:41:02.4±1.4, 52°.92N×154°.82E, h529km±13km, ML4.4*
*ISCJB **27** 20:41:03.9±0.5, 53°.12N±0°.07×154°.2E±0°.2, h496km±5km, mb3.3/10, Error ellipse: s-maj=15.8km s-min=8.4km az=28.7*
*MOS **27** 20:41:03.7±0.7, 53°.10N×154°.68E, h519km, mb4.0/4, Error ellipse: s-maj=18.6km s-min=10.2km az=58.7*
*IDC **27** 20:41:04.2±0.8, 53°.14N×153°.84E, h487km±7km, mb2.9/10, mb1 3.2/13,mb1mx2.9/42,mbtmp3.7/13, Error ellipse: s-maj=21.4km s-min=10.9km az=125.0*
**ISC 27 20:41:04.7**±0.7,**53°.11N**±0°.08×**154°.37E**±0°.10,**h499**km±7km, **n81,** σ1§**33**/112,**mb3.4**/10,**Sea of Okhotsk**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **APC** | **Apacha** | **1.69** | **95** | P | **P** | **20 42 07.7** | **-0.5** |
| APC | | | | S | **S** | **20 43 00.0** | **+0.1** |
| **APC** | **Apacha** | **1.69** | **95** | eP | **P** | **20 42 07.7** | **-0.5** |
| APC | | | | eS | **S** | **20 43 00.0** | **+0.1** |
| **PETK** | **Petropavlovsk-** | **2.00** | **89** | P | **P** | **20 42 09.7** | **0.0** |
| | 4.9nm,0.3s,baz=289,slow=1.5,SNR=79 | | | | | | |
| PETK | | | | S | **S** | **20 43 03.5** | **+0.9** |
| | 0.2nm,0.3s,baz=315,slow=22,SNR=3.2 | | | | | | |
| **GNL** | **Ganaly** | **2.21** | **73** | P | **P** | **20 42 11.0** | **+0.2** |
| GNL | | | | S | **S** | **20 43 06.1** | **+1.3** |
| **GNL** | **Ganaly** | **2.21** | **73** | eP | **P** | **20 42 11.0** | **+0.2** |
| GNL | | | | eS | **S** | **20 43 06.1** | **+1.3** |
| **PAU** | **Pauzhetka** | **2.23** | **137** | P | **P** | **20 42 10.7** | **-0.1** |
| **PAU** | **Pauzhetka** | **2.23** | **137** | eP | **P** | **20 42 10.7** | **-0.1** |

**ASAK Asacha 2.27 107** P P 20 42 11.6 +0.5
**ASAK Asacha 2.27 107** eP P 20 42 11.6 +0.5
**KRMR Karymshinskiy 2.29 96** P P 20 42 10.9 -0.2
KRMR S S 20 43 04.3 -0.9
**KRMR Karymshinskiy 2.29 96** eP P 20 42 10.9 -0.2
KRMR S S 20 43 04.3 -0.9
**MTVR Mutnovka 2.40 104** P P 20 42 12.2 +0.3
MTVR S S 20 43 06.2 -0.5
**MTVR Mutnovka 2.40 104** eP P 20 42 12.2 +0.3
MTVR eS S 20 43 06.2 -0.5
**KOK Koryaka 2.57 84** P P 20 42 13.8 +1.0
**KOK Koryaka 2.57 84** eP P 20 42 13.8 +1.0
**KRX Arik 2.58 83** P P 20 42 13.2 +0.2
**KRX Arik 2.58 83** eP P 20 42 13.2 +0.2
**PET Petropavlovsk 2.58 90** P P 20 42 13.2 +0.4
PET S S 20 43 07.8 -0.5
**PET Petropavlovsk 2.58 90** eP P 20 42 13.2 +0.4
PET eS S 20 43 07.8 -0.5
**RUS Russkaya 2.60 104** P P 20 42 12.5 -0.4
RUS S S 20 43 06.5 -2.1
**RUS Russkaya 2.60 104** eP P 20 42 12.5 -0.4
RUS eS S 20 43 06.5 -2.1
**KDTR Khodutka, Kamc 2.62 119** eP P 20 42 11.8 -1.2
KDTR eS S 20 43 06.7 -2.0
**AVH Avacha 2.63 85** P P 20 42 14.0 +0.8
**AVH Avacha 2.63 85** eP P 20 42 14.0 +0.8
**KRER Koryakskii 2.64 84** P P 20 42 13.5 +0.1
**KRER Koryakskii 2.64 84** eP P 20 42 13.5 +0.1
**DALK Dalny 2.64 90** P P 20 42 13.3 +0.2
DALK S S 20 43 07.2 -1.8
**DALK Dalny 2.64 90** eP P 20 42 13.3 +0.2
DALK eS S 20 43 07.2 -1.8
**SKR Severo-Kuril's 2.66 155** S S 20 43 09.9 +0.7
**SMAR Somma 2.67 85** P P 20 42 14.4 +0.8
**SMAR Somma 2.67 85** eP P 20 42 14.4 +0.8
**UGLR Uglovaya 2.68 86** P P 20 42 14.5 +1.0
UGLR S S 20 43 09.2 -0.5
**UGLR Uglovaya 2.68 86** eP P 20 42 14.5 +1.0
UGLR eS S 20 43 09.2 -0.5
**SDLR Sedlovina 2.72 85** P P 20 42 14.4 +0.6
**SDLR Sedlovina 2.72 85** P P 20 42 14.4 +0.6
**NLC Nalytchevo 3.00 87** P P 20 42 16.1 +0.7
NLC S S 20 43 11.7 -1.4
**NLC Nalytchevo 3.00 87** eP P 20 42 16.1 +0.7
NLC eS S 20 43 11.7 -1.4
**KII Karymskiy 3.16 71** P P 20 42 17.2 +0.6
KII S S 20 43 15.1 -0.3
**KII Karymskiy 3.16 71** P P 20 42 17.2 +0.6
KII S S 20 43 15.1 -0.3
**SPN Mys Shipunski 3.41 88** P P 20 42 17.8 -0.5
SPN S S 20 43 15.0 -3.4
**SPN Mys Shipunski 3.41 88** eP P 20 42 17.8 -0.5
SPN eS S 20 43 15.0 -3.4
**ESO Esso 3.78 40** P P 20 42 21.3 +0.2
**ESO Esso 3.78 40** eP P 20 42 21.3 +0.2
**TUMR Tumrok 4.03 55** P P 20 42 24.4 +1.2
TUMR S S 20 43 28.2 +0.8
**TUMR Tumrok 4.03 55** eP P 20 42 24.4 +1.2
TUMR eS S 20 43 28.2 +0.8
**KMNR Kamenistaya 4.33 50** P P 20 42 26.7 +1.1
**KMNR Kamenistaya 4.33 50** eP P 20 42 26.7 +1.1
**KOZ Kozyrevsk 4.35 45** P P 20 42 25.8 +0.1
**KOZ Kozyrevsk 4.35 45** eP P 20 42 25.8 +0.1
**KPT Kopyto 4.45 48** P P 20 42 26.8 +0.2
**KPT Kopyto 4.45 48** eP P 20 42 26.8 +0.2
**KIRR Kirishev 4.49 48** P P 20 42 27.5 +0.4
**KIRR Kirishev 4.49 48** P P 20 42 27.5 +0.4
**BZMR Bezymyannaya 4.55 49** P P 20 42 28.1 +0.5
**BZMR Bezymyannaya 4.55 49** eP P 20 42 28.1 +0.5
**KRSR Krestovskiy 4.75 47** P P 20 42 29.3 0.0
**KRSR Krestovskiy 4.75 47** P P 20 42 29.3 0.0
**SRKR Sorokina 5.29 45** P P 20 42 35.5 +1.4
**SRKR Sorokina 5.29 45** eP P 20 42 35.5 +1.4
**SMKR Semkarok 5.37 47** P P 20 42 35.8 +0.9
SMKR S S 20 43 48.2 -0.6
**SMKR Semkarok 5.37 47** eP P 20 42 35.8 +0.9
SMKR eS S 20 43 48.2 -0.6
**KBTR Krutoberegovo 5.80 54** P P 20 42 37.0 -1.8
KBTR S S 20 43 52.7 -3.2
**KBTR Krutoberegovo 5.80 54** eP P 20 42 37.0 -1.8
KBTR eS S 20 43 52.7 -3.2
**BKI Bering 7.13 68** P P 20 42 50.1 -1.8
BKI S S 20 44 17.1 -2.7
**BKI Bering 7.13 68** eP P 20 42 50.1 -1.8
BKI eS S 20 44 17.1 -2.7
**SEY Seymchan 9.90 355** P P 20 43 19.2 -1.4
0.3nm,0.3s,baz=153,slow=9.4,SNR=5.0
**KLR Kul'dur 14.70 264** P P 20 44 07.0 -4.6
0.0nm,0.3s,baz=63,slow=11,SNR=3.9
**YAK Yakutsk 15.88 314** P P 20 44 17.7 -5.9
0.0nm,0.3s,baz=144,slow=0.1,SNR=6.8
**YAK Yakutsk 15.88 314** eP P 20 44 16.7 -6.9
YAK pmax pmax
comp=Z,13nm,0.9s
YAK pmax pmax
comp=E,4.0nm,1.2s
YAK pmax pmax
comp=N,3.0nm,1.0s
**MJAR Matsushiro Arr 20.07 221** P P 20 45 02.9 -1.1
comp=N,0.3nm,0.3s,baz=23,slow=9.5,SNR=3.6
**TIXI Tiksi 21.70 338** P P 20 45 18.7 +0.5
comp=N,1.9nm,0.5s,baz=119,slow=8.6,SNR=4.2
**ILAR Eielson Array 31.25 45** P P 20 46 44.4 +2.1
comp=N,0.2nm,0.6s,baz=262,slow=5.6,SNR=5.3
**INK Inuvik 35.95 37** P P 20 47 23.5 +1.6
comp=N,0.5nm,0.3s,baz=302,slow=9.6,SNR=8.7
INK PcP PcP 20 49 35.5 +0.5
comp=N,0.4nm,0.8s,baz=278,slow=5.8,SNR=3.6
**YKA Yellowknife Ar 45.44 41** P P 20 48 39.0 +1.3
comp=N,0.4nm,0.6s,baz=302,slow=7.1,SNR=5.2
YKA PcP PcP 20 50 06.8 +0.5
comp=N,0.1nm,0.4s,baz=310,slow=3.4,SNR=4.9
**BVAR Borovoye Array 47.62 306** PcP PcP 20 50 12.2 -2.2
comp=N,0.5nm,0.4s,baz=46,slow=4.2,SNR=3.8
**NVAR Mina Array Bea 58.94 66** P P 20 50 19.3 +3.7
comp=N,0.3nm,0.5s,baz=301,slow=7.2,SNR=1.9
**PDAR Pinedale Array 60.47 57** P P 20 50 27.1 +1.4
comp=N,0.2nm,0.4s,baz=270,slow=1.5,SNR=3.6
**SCHQ Schefferville 67.14 24** P P 20 51 07.3 -0.6
comp=N,3.8nm,1.1s,baz=346,slow=4.2,SNR=4.4
**TXAR Lajitas Array 73.75 63** P P 20 51 50.3 +2.7
comp=N,0.3nm,0.4s,baz=302,slow=5.4,SNR=9.2
**WRA Warramunga Arr 74.80 200** P P 20 51 52.8 -0.5
comp=N,1.2nm,0.6s,baz=13,slow=5.9,SNR=13
**ASAR Alice Springs 78.50 199** P P 20 52 13.9 +0.3
comp=N,1.2nm,0.5s,baz=11,slow=5.3,SNR=23

*OBM **27** 20:42:09.6±0.2, 51°.85N×95°.79E, h2km, Ml3.6/1, Error ellipse: s-maj=3.6km s-min=0.8km az=173.0*
*MOS **27** 20:42:13.5±1.3, 51°.51N×96°.12E, h10km, mb4.0/5, Error ellipse: s-maj=17.5km s-min=15.0km az=168.3*
*IDC **27** 20:42:15.0±0.7, 51°.47N×96°.08E, h0km, mb3.6/8, mb1 3.6/12,mb1mx3.4/46,mbtmp3.5/12,ML2.9/4, MS3.3/2, Ms1 3.3/2,ms1mx2.7/50, Error ellipse: s-maj=22.9km s-min=9.8km az=179.0*
**ISC 27 20:42:15.4**±0.5,**51°.45N**±0°.06×**96°.15E**±0°.03,**h10**km,**n45,** σ1§**74**/51,**mb3.7**/10,**1C, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **HTG** | **Hatgal** | **2.73** | **110** | ePg | **Pb** | **20 43 05.9** | **+1.5** |
| HTG | | | | eSg | **Sg** | **20 43 46.3** | **+3.2** |
| **ULG** | **Ulaangom** | **3.00** | **242** | ePg | **Pn** | **20 43 04.7** | **+1.6** |
| ULG | | | | eSg | **Sb** | **20 43 44.2** | **-1.4** |
| **MOY** | **Mondy** | **3.03** | **84**⇑ | iPN | **Pb** | **20 43 09.7** | **+0.2** |
| MOY | | | | e | | 20 43 51.2 | |
| MOY | | | | pmax | pmax | | |
| | comp=Z,89nm,0.6s | | | | | | |
| MOY | | | | smax | smax | | |
| | comp=N,505nm,0.7s | | | | | | |
| **HBD** | **Hovd** | **4.51** | **222** | ePg | **Pb** | **20 43 34.6** | **-0.2** |
| HBD | | | | eSg | **Sg** | **20 44 35.8** | **-4.5** |
| **ZAK** | **Zakamensk** | **4.64** | **101** | ePN | **Pb** | **20 43 39.3** | **+2.4** |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,40nm,0.8s | | | | | | |
| **TLY** | **Talaya** | **4.68** | **84** | Pg | **Pb** | **20 43 39.1** | **+1.5** |
| | comp=Z,0.1nm,0.3s,baz=275,slow=13,SNR=15 | | | | | | |
| TLY | | | | Lg | Lg | 20 44 41.1 | |
| | comp=Z,0.1nm,0.3s,baz=38,slow=13,SNR=13 | | | | | | |
| **TLY** | **Talaya** | **4.68** | **84** | ePN | **Pb** | **20 43 39.9** | **+2.3** |
| TLY | | | | pmax | pmax | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | comp=Z,16nm,0.4s | | | | | | | | |
| **BYO** | **Bayan-Olgiy** | **4.69** | **240** | *e*Pg | | **Pb** | **20 43 35.3** | **-2.6** |
| BYO | | | | *e*Sg | | **Sb** | **20 44 36.7** | **+2.2** |
| **IRK** | **Irkutsk** | **5.10** | **78** | *e*PN | | **Pb** | **20 43 46.3** | **+1.7** |
| IRK | | | | *e* | | | 20 44 50.8 | |
| IRK | | | | pmax | pmax | | | |
| | comp=Z,52nm,0.1s | | | | | | | |
| IRK | | | | smax | smax | | | |
| | comp=N,589nm,1.3s | | | | | | | |
| **TTS** | **Tsetserleg** | **5.26** | **137** | *e*Pg | | **Pg** | **20 43 54.3** | **-1.9** |
| TTS | | | | *e*Sg | | **Sg** | **20 45 08.7** | **+4.4** |
| **BLGM** | **Bulgan** | **5.45** | **116** | *e*Pg | | **Pg** | **20 43 55.8** | **-3.8** |
| BLGM | | | | *e*Sg | | **Sg** | **20 45 11.9** | **+1.8** |
| **TRG** | **Tyrgan** | **6.42** | **74** | *e*PN | | **Pn** | **20 43 51.0** | **+1.0** |
| TRG | | | | *e* | | | 20 44 09.2 | |
| **OGRR** | **Ongureny** | **7.32** | **68** | *e*P | | **Pn** | **20 44 02.2** | **-0.1** |
| OGRR | | | | pmax | pmax | | | |
| | comp=Z,11nm,0.6s | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **7.32** | **294** | Pn | | **Pn** | **20 44 02.8** | **+0.4** |
| | comp=Z,0.3nm,0.3s,baz=100,slow=12,SNR=3.3 | | | | | | | |
| ZALV | | | | Pg | | **Pb** | **20 44 21.5** | **-1.0** |
| | comp=Z,0.7nm,0.3s,baz=98,slow=13,SNR=4.5 | | | | | | | |
| ZALV | | | | Lg | | Lg | 20 45 50.6 | |
| | comp=Z,2.7nm,0.3s,baz=120,slow=21,SNR=7.4 | | | | | | | |
| **SONB5** | **Songino Array** | **7.55** | **115** | *e*Sg | | **Sg** | **20 46 17.2** | **-0.3** |
| | comp=Z,85nm,0.8s | | | | | | | |
| **SONB4** | **Songino Array** | **7.55** | **115** | *e*Sg | | **Sg** | **20 46 17.1** | **-0.6** |
| | comp=Z,70nm,0.7s | | | | | | | |
| **SONB1** | **Songino Array** | **7.56** | **114** | *e*Sg | | **Sg** | **20 46 17.3** | **-0.7** |
| | comp=Z,70nm,0.9s | | | | | | | |
| **SONA2** | **Songino Array** | **7.57** | **114** | *e*Sg | | **Sg** | **20 46 17.4** | **-0.7** |
| | comp=Z,91nm,0.7s | | | | | | | |
| **SONA1** | **Songino Array** | **7.57** | **114** | *e*Sg | | **Sg** | **20 46 17.4** | **-0.9** |
| | comp=Z,69nm,0.7s | | | | | | | |
| **SONA0** | **Songino Array** | **7.57** | **115** | *e*Sg | | **Sg** | **20 46 17.4** | **-0.9** |
| **SONM** | **Songino Array** | **7.57** | **115** | Pg | | Pb | 20 44 33.1 | +6.2 |
| | comp=Z,0.8nm,0.3s,baz=302,slow=18,SNR=9.4 | | | | | | | |
| SONM | | | | Lg | | Lg | 20 46 18.2 | |
| | comp=Z,3.2nm,0.3s,baz=300,slow=29,SNR=14 | | | | | | | |
| SONM | | | | LR | | LR | 20 46 45.8 | |
| | comp=Z,44nm,18.2s,baz=32,slow=36 | | | | | | | |
| **SONA3** | **Songino Array** | **7.57** | **114** | *e*Sg | | **Sg** | **20 46 17.4** | **-0.9** |
| | comp=Z,88nm,0.9s | | | | | | | |
| **SONA4** | **Songino Array** | **7.58** | **115** | *e*Sg | | **Sg** | **20 46 17.2** | **-1.2** |
| | comp=Z,94nm,0.8s | | | | | | | |
| **SONB2** | **Songino Ar. Si** | **7.58** | **114** | *e*Sg | | **Sg** | **20 46 17.4** | **-1.2** |
| | comp=Z,49nm,0.6s | | | | | | | |
| **SONB3** | **Songino Array** | **7.58** | **115** | *e*Sg | | **Sg** | **20 46 17.4** | **-1.3** |
| | comp=Z,73nm,0.8s | | | | | | | |
| **ALFM** | | **7.71** | **113** | *e*Sg | | **Sg** | **20 46 22.0** | **-0.8** |
| | comp=Z,83nm,0.8s | | | | | | | |
| **ARTM** | | **8.03** | **112** | *e*Sg | | **Sg** | **20 46 32.0** | **-0.9** |
| | comp=Z,43nm,0.7s | | | | | | | |
| **SEMM** | | **8.05** | **115** | *e*Sg | | **Sg** | **20 46 32.4** | **-1.3** |
| **UGDM** | | **8.25** | **113** | *e*Sg | | **Sg** | **20 46 39.0** | **-1.1** |
| | comp=Z,70nm,0.9s | | | | | | | |
| **MKAR** | **Makanchi Array** | **10.21** | **248** | Pn | | **Pn** | **20 44 43.5** | **+1.5** |
| | comp=Z,0.2nm,0.3s,baz=54,slow=13,SNR=8.8 | | | | | | | |
| MKAR | | | | Pg | | | 20 45 25.1 | |
| | comp=Z,0.3nm,0.3s,baz=62,slow=16,SNR=5.7 | | | | | | | |
| MKAR | | | | Lg | | Lg | 20 47 38.0 | |
| | comp=Z,0.6nm,0.3s,baz=44,slow=19,SNR=4.0 | | | | | | | |
| **KURK** | **Kurchatov** | **11.05** | **273** | P | | **Pn** | **20 44 53.9** | **+0.5** |
| **KURBB** | **Kurchatov Arra** | **11.13** | **273** | Pn | | **Pn** | **20 44 53.9** | **-0.6** |
| | comp=Z,0.1nm,0.3s,baz=75,slow=16,SNR=4.5 | | | | | | | |
| KURBB | | | | Lg | | Lg | 20 48 02.6 | |
| | comp=Z,0.1nm,0.3s,baz=82,slow=32,SNR=8.9 | | | | | | | |
| **BVAR** | **Borovoye Array** | **15.83** | **286** | Pn | | **Pn** | **20 45 56.7** | **-1.5** |
| | comp=Z,0.1nm,0.3s,baz=74,slow=15,SNR=3.6 | | | | | | | |
| BVAR | | | | Sn | | **S** | **20 49 07.6** | **-0.5** |
| | comp=Z,0.2nm,0.3s,baz=76,slow=23,SNR=2.9 | | | | | | | |
| **ARU** | **Arti** | **22.47** | **298** | P | | **P** | **20 47 16.2** | **+1.7** |
| | comp=Z,1.2nm,0.4s,baz=83,slow=8.1,SNR=3.4 | | | | | | | |
| **AKTO** | **Aktyubinsk** | **23.87** | **283** | P | | **P** | **20 47 27.9** | **-1.0** |
| | comp=Z,2.5nm,0.9s,baz=76,slow=9.3,SNR=6.2 | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **24.94** | **93** | P | | **P** | **20 47 40.3** | **+1.8** |
| | comp=Z,0.9nm,0.5s,baz=264,slow=9.1,SNR=2.9 | | | | | | | |
| **TIXI** | **Tiksi** | **24.95** | **24** | P | | **P** | **20 47 36.6** | **-1.9** |
| | comp=Z,4.0nm,0.5s,baz=231,slow=4.0,SNR=9.0 | | | | | | | |
| **TGY** | **Tagaytay City** | **42.27** | **143** | LR | | LR | 21 07 26.4 | |
| | comp=Z,238nm,21.9s,baz=174,slow=36 | | | | | | | |
| **BRTR** | **Keskin Array B** | **44.00** | **280** | P | | **P** | **20 50 23.5** | **+0.5** |
| | comp=Z,1.3nm,1.0s,baz=48,slow=7.3,SNR=4.3 | | | | | | | |
| **ILAR** | **Eielson Array** | **54.33** | **28** | P | | **P** | **20 51 42.3** | **+0.8** |
| | comp=Z,0.3nm,0.6s,baz=316,slow=4.2,SNR=3.9 | | | | | | | |
| **INK** | **Inuvik** | **55.00** | **20** | P | | **P** | **20 51 44.2** | **-2.1** |
| | comp=Z,0.4nm,0.6s,baz=314,slow=8.3,SNR=3.9 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **63.82** | **15** | P | | **P** | **20 52 48.0** | **+0.7** |
| | comp=Z,0.2nm,0.7s,baz=323,slow=5.3,SNR=4.5 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **63.82** | **15** | P | | **P** | **20 52 48.0** | **+0.7** |
| **WRA** | **Warramunga Arr** | **78.57** | **144** | P | | **P** | **20 54 18.1** | **+1.1** |
| | comp=Z,0.7nm,0.9s,baz=345,slow=6.6,SNR=3.3 | | | | | | | |
| **ASAR** | **Alice Springs** | **81.82** | **145** | P | | **P** | **20 54 34.8** | **+0.3** |
| | comp=Z,0.4nm,0.7s,baz=345,slow=12,SNR=4.9 | | | | | | | |

*NSSC* ***27*** *20:48:45.9±1.4, 31.52N×34.55E, h0km±15km, ML2.3*
*JSO* ***27*** *20:48:51.2±2.5, 31.65N×34.70E, h2km±49km, MD3.9*

**ISC 27 20:48:47.0±2.0, 31.71N±0.05×34.3E±0.1, h10km, n19, σ1§64/26, Dead Sea region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **LISJ** | **El Lisan** | **1.10** | **115** | *e*P | | **Sg** | | **20 49 24.9** | **+2.4** |
| **QRNJ** | **Al-Qirein** | **1.24** | **59** | *e*P | | **Sg** | | **20 49 29.4** | **+2.4** |
| **WALJ** | **Wala** | **1.29** | **96** | *e*P | | **Pn** | | **20 49 10.4** | **-0.6** |
| **KARJ** | | **1.29** | **117** | *e*P | | **Sg** | | **20 49 27.1** | **-1.3** |
| **AJLJ** | **Ajlon** | **1.35** | **62** | *e*P | | **Pn** | | **20 49 12.2** | **+0.1** |
| **JDRJ** | **Daraweish** | **1.52** | **130** | *e*P | | **Pg** | | **20 49 16.7** | **+0.6** |
| **TCHB** | **Talchebab** | **1.70** | **55** | *e*P | | **Pn** | | **20 49 15.6** | **-1.2** |
| TCHB | | | | *e*S | | **Sn** | | **20 49 38.0** | **-0.6** |
| TCHB | | | | AML | | AML | | 20 49 43.2 | |
| | comp=N,162nm,0.6s | | | | | | | | |
| TCHB | | | | AML | | AML | | 20 49 51.6 | |
| | comp=Z,120nm,0.7s | | | | | | | | |
| **TCHB** | **Talchebab** | **1.70** | **55** | *e*P | | **Pn** | | **20 49 16.5** | **-0.3** |
| TCHB | | | | *e*S | | **Sn** | | **20 49 34.9** | **-3.8** |
| TCHB | | | | AML | | AML | | 20 49 43.2 | |
| | comp=N,162nm,0.6s | | | | | | | | |
| TCHB | | | | AML | | AML | | 20 49 43.6 | |
| | comp=E,211nm,0.7s | | | | | | | | |
| **AQBJ** | **Aqaba** | **2.07** | **162** | *e*P | | **Sg** | | **20 49 54.0** | **+0.3** |
| **BYRJ** | **Bayer** | **2.16** | **119** | *e*P | | **Sg** | | **20 49 57.8** | **+1.4** |
| **BRBR** | **Barbar** | **2.19** | **39** | *e*P | | **Pn** | | **20 49 22.8** | **-0.9** |
| BRBR | | | | *e*S | | Sn | | 20 49 44.6 | -6.4 |
| BRBR | | | | AML | | AML | | 20 50 00.1 | |
| | comp=E,64nm,0.7s | | | | | | | | |
| BRBR | | | | AML | | AML | | 20 50 03.1 | |
| | comp=N,58nm,0.9s | | | | | | | | |
| **SALA** | **Sala** | **2.28** | **63** | *e*P | | **Pn** | | **20 49 25.1** | **+0.2** |
| SALA | | | | *e*S | | **Sn** | | **20 49 51.6** | **-1.6** |
| SALA | | | | AML | | AML | | 20 50 07.6 | |
| | comp=E,4.9nm,0.5s | | | | | | | | |
| SALA | | | | AML | | AML | | 20 50 09.8 | |
| | comp=N,31nm,0.6s | | | | | | | | |
| **SALA** | **Sala** | **2.28** | **63** | *e*P | | **Pn** | | **20 49 25.6** | **+0.7** |
| SALA | | | | *e*S | | **Sn** | | **20 49 51.7** | **-1.5** |
| SALA | | | | AML | | AML | | 20 50 07.6 | |
| | comp=E,4.9nm,0.5s | | | | | | | | |
| **HITJ** | **Hittiya** | **2.36** | **146** | *e*P | | **Sg** | | **20 50 04.2** | **+1.3** |
| **TOTH** | **TOTAH** | **2.43** | **47** | *e*P | | **Pn** | | **20 49 26.8** | **-0.1** |
| TOTH | | | | *e*S | | **Sn** | | **20 49 56.8** | **+0.1** |
| TOTH | | | | AML | | AML | | 20 50 04.2 | |
| | comp=N,30nm,0.5s | | | | | | | | |
| TOTH | | | | AML | | AML | | 20 50 11.8 | |
| | comp=E,38nm,0.8s | | | | | | | | |
| **TOTH** | **TOTAH** | **2.43** | **47** | *e*P | | **Pn** | | **20 49 27.0** | **+0.1** |
| TOTH | | | | *e*S | | **Sn** | | **20 49 52.4** | **-4.3** |
| TOTH | | | | AML | | AML | | 20 50 04.3 | |
| | comp=N,30nm,0.5s | | | | | | | | |
| TOTH | | | | AML | | AML | | 20 50 11.8 | |
| | comp=E,38nm,0.8s | | | | | | | | |
| **MARH** | **Ras Al Marh** | **2.95** | **38** | *e*P | | **Pn** | | **20 49 35.5** | **+1.3** |
| MARH | | | | *e*S | | **Sn** | | **20 50 11.0** | **+1.3** |
| MARH | | | | AML | | AML | | 20 50 20.8 | |
| | comp=E,15nm,0.9s | | | | | | | | |
| MARH | | | | AML | | AML | | 20 50 23.7 | |
| | comp=N,29nm,0.6s | | | | | | | | |
| **MARH** | **Ras Al Marh** | **2.95** | **38** | *e*P | | **Pn** | | **20 49 34.4** | **+0.2** |
| MARH | | | | *e*S | | Sn | | 20 50 03.2 | -6.6 |
| MARH | | | | AML | | AML | | 20 50 20.7 | |
| | comp=E,15nm,0.9s | | | | | | | | |
| MARH | | | | AML | | AML | | 20 50 23.7 | |
| | comp=N,29nm,0.6s | | | | | | | | |
| **ROOS** | **tl_alroos** | **3.51** | **45** | *e*P | | **Pn** | | **20 49 41.9** | **+0.2** |
| ROOS | | | | *e*S | | Sn | | 20 50 16.0 | -7.2 |
| ROOS | | | | AML | | AML | | 20 50 46.7 | |
| | comp=N,27nm,0.6s | | | | | | | | |
| ROOS | | | | AML | | AML | | 20 50 53.0 | |
| | comp=E,25nm,0.8s | | | | | | | | |

*IDC* ***27*** *20:55:06.5±2.3, 48.35S×31.59E, h0km, mb3.8/6, mb1 3.9/7, mb1mx3.6/40, mbtmp3.8/7, ML2.9/1, MS3.1/5, Ms1 3.0/5, ms1mx2.9/31, Error ellipse: s-maj=133.3km s-min=21.3km az=53.0*
*NEIC* ***27*** *20:55:08.8±0.6, 47.92S×32.14E, h10km, mb4.3/7, Error ellipse: s-maj=31.3km s-min=10.2km az=60.0*

**ISC 27 20:55:08.8±0.8, 48.1S±0.1×31.8E±0.3, h12km, n21, σ1§50/18, mb4.2/9, MS3.1/4, 2D, South of Africa**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **SUR** | **Sutherland** | **17.77** | **328** | P | | **P** | | **20 59 16.1** | **-0.8** |
| | 0.0nm,0.3s,baz=146,slow=13,SNR=7.3 | | | | | | | | |
| SUR | | | | LR | | LR | | 21 04 24.2 | |
| | comp=Z,8.7nm,19.8s,baz=164,slow=31 | | | | | | | | |
| **SUR** | **Sutherland** | **17.77** | **328** | *e*Pn | | **Pn** | | **20 59 14.6** | **-1.6** |
| | 54nm,1.5s | | | | | | | | |
| **BOSA** | **Boshof** | **20.10** | **343** | P | | **P** | | **20 59 43.5** | **+1.0** |
| | 3.5nm,0.9s,baz=162,slow=14,SNR=4.6 | | | | | | | | |
| BOSA | | | | LR | | LR | | 21 06 00.9 | |
| | comp=Z,60nm,18.8s,baz=194,slow=32 | | | | | | | | |
| **BOSA** | **Boshof** | **20.10** | **343** | *e*P | | **P** | | **20 59 42.9** | **+0.5** |
| | 25nm,1.8s | | | | | | | | |
| **SYO** | **Syowa Base** | **21.33** | **172** | ⇓*e*P | | **P** | | **20 59 52.2** | **-3.1** |
| **SYO** | **Syowa Base** | **21.33** | **172** | ⇓*e*P | | P | | 21 00 01.5 | +6.2 |
| **LBTB** | **Lobatse** | **23.55** | **346** | P | | **P** | | **21 00 21.3** | **+2.2** |
| | 1.5nm,0.7s,baz=158,slow=11,SNR=3.2 | | | | | | | | |
| LBTB | | | | LR | | LR | | 21 09 01.5 | |
| | comp=Z,40nm,18.0s,baz=180,slow=35 | | | | | | | | |
| **LBTB** | **Lobatse** | **23.55** | **346** | *e*P | | **P** | | **21 00 17.7** | **-1.4** |
| | 13nm,1.4s | | | | | | | | |
| **SNAA** | **Sanae** | **28.55** | **202** | LR | | LR | | 21 09 20.5 | |
| | comp=Z,54nm,19.3s,baz=312,slow=30 | | | | | | | | |
| **QSPA** | **South Pole Qui** | **42.13** | **180** | *e*P | | **P** | | **21 03 01.0** | **+0.4** |
| | 13nm,1.4s | | | | | | | | |
| **VNDA** | **Vanda** | **50.92** | **168** | *e*P | | **P** | | **21 04 12.2** | **+3.0** |
| | 12nm,1.7s | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **66.60** | **328** | P | | **P** | | **21 05 59.8** | **+0.9** |
| | 0.7nm,0.6s,baz=166,slow=6.3,SNR=4.6 | | | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **66.61** | **328** | *e*P | | **P** | | **21 05 59.8** | **+0.8** |
| **STKA** | **Stephens Creek** | **78.64** | **125** | P | | **P** | | **21 07 09.8** | **-0.8** |
| | 1.2nm,0.7s,baz=219,slow=6.5,SNR=3.6 | | | | | | | | |
| **STKA** | **Stephens Creek** | **78.64** | **125** | *e*P | | **P** | | **21 07 10.0** | **-0.6** |
| | 5.8nm,2.0s | | | | | | | | |
| **ASAR** | **Alice Springs** | **80.36** | **115** | P | | **P** | | **21 07 20.4** | **+0.2** |
| | 1.1nm,0.7s,baz=220,slow=5.0,SNR=16 | | | | | | | | |
| **AS31** | **Alice Springs** | **80.36** | **115** | *e*P | | **P** | | **21 07 19.3** | **-0.8** |
| | 5.2nm,2.0s | | | | | | | | |
| **AS01** | **Alice Springs** | **80.39** | **115** | *e*P | | **P** | | **21 07 19.8** | **-0.5** |
| **WR1** | **Warramunga Arr** | **83.41** | **112** | *e*P | | **P** | | **21 07 35.6** | **-0.6** |
| | 69nm,1.9s | | | | | | | | |
| **WRA** | **Warramunga Arr** | **83.41** | **112** | P | | **P** | | **21 07 35.6** | **-0.6** |
| | 0.8nm,0.9s,baz=225,slow=4.7,SNR=4.3 | | | | | | | | |
| **KEST** | **Kesra** | **85.83** | **342** | LR | | LR | | 21 48 16.9 | |
| | comp=Z,27nm,18.2s,baz=277,slow=37 | | | | | | | | |

*IDC* ***27*** *21:08:29.1±1.1, 51.76N×96.02E, h0km, mb3.6/3, mb1 3.4/7, mb1mx3.1/56, mbtmp3.4/7, ML2.9/4, MS3.4/1, Ms1 3.4/1, ms1mx2.5/46, Error ellipse: s-maj=35.3km s-min=11.8km az=178.0*
*ISCJB* ***27*** *21:08:30.1±0.7, 51.7N±0.2×95.68E±0.07, h10km, mb3.5/3, MS3.3/1, Error ellipse: s-maj=25.8km s-min=6.7km az=0.5*
*MOS* ***27*** *21:08:30.6±2.7, 51.58N×95.55E, h9km, mb4.0/3, Error ellipse: s-maj=30.2km s-min=13.2km az=2.7*

**ISC 27 21:08:32.7±1.0, 51.7N±0.2×95.76E±0.07, h10km, n17, σ2§20/15, mb3.6/3, 1C, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **ORL** | **Orlik** | **2.63** | **70** | *e*PN | | **Pn** | | **21 09 12.8** | **-2.5** |
| ORL | | | | pmax | pmax | | | | |
| | comp=Z,81nm,0.5s | | | | | | | | |
| **MOY** | **Mondy** | **3.26** | **88** | ⇑*i*PN | | **Pn** | | **21 09 24.3** | **+0.5** |
| MOY | | | | *e* | | | | 21 10 06.6 | |
| MOY | | | | pmax | pmax | | | | |
| | comp=Z,78nm,0.7s | | | | | | | | |
| MOY | | | | smax | smax | | | | |
| | comp=N,335nm,0.7s | | | | | | | | |
| **ARS** | **Arshan** | **4.14** | **84** | *e*PN | | **Pn** | | **21 09 40.1** | **+4.1** |
| ARS | | | | *e* | | | | 21 10 32.3 | |
| ARS | | | | pmax | pmax | | | | |
| | comp=Z,55nm,0.4s | | | | | | | | |
| ARS | | | | smax | smax | | | | |
| | comp=E,518nm,0.7s | | | | | | | | |
| **TLY** | **Talaya** | **4.90** | **87** | Pg | | Pn | | 21 09 52.3 | +5.9 |
| | comp=E,0.0nm,0.3s,baz=282,slow=12,SNR=16 | | | | | | | | |
| TLY | | | | Lg | | Lg | | 21 10 55.6 | |
| **TLY** | **Talaya** | **4.90** | **87** | *e*PN | | Pn | | 21 09 53.5 | +7.1 |
| TLY | | | | *e* | | | | 21 10 55.3 | |
| TLY | | | | pmax | pmax | | | | |
| | comp=Z,12nm,0.4s | | | | | | | | |
| TLY | | | | smax | smax | | | | |
| | comp=E,33nm,0.5s | | | | | | | | |
| **ZAK** | **Zakamensk** | **4.92** | **103** | *e*PN | | **Pn** | | **21 09 45.7** | **-1.0** |
| ZAK | | | | pmax | pmax | | | | |
| | comp=Z,28nm,1.1s | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **7.01** | **293** | Pn | | **Pn** | | **21 10 15.6** | **+0.3** |
| | comp=Z,0.4nm,0.3s,baz=100,slow=11,SNR=6.0 | | | | | | | | |
| ZALV | | | | Pg | | **Pb** | | **21 10 38.1** | **+3.8** |
| | comp=Z,1.0nm,0.3s,baz=99,slow=13,SNR=8.3 | | | | | | | | |
| ZALV | | | | Lg | | Lg | | 21 12 07.3 | |
| | comp=Z,1.3nm,0.3s,baz=111,slow=23,SNR=7.3 | | | | | | | | |
| **SONM** | **Songino Array** | **7.89** | **115** | Pg | | Pb | | 21 10 47.0 | -2.5 |
| | comp=Z,0.6nm,0.3s,baz=302,slow=19,SNR=11 | | | | | | | | |
| SONM | | | | Lg | | Lg | | 21 12 32.4 | |
| | comp=Z,1.5nm,0.3s,baz=298,slow=28,SNR=14 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **10.08** | **246** | Pn | | **Pn** | | **21 10 57.7** | **+0.3** |
| | comp=Z,0.2nm,0.3s,baz=49,slow=16,SNR=13 | | | | | | | | |
| MKAR | | | | Pg | | | | 21 11 37.3 | |
| | comp=Z,0.2nm,0.3s,baz=69,slow=17,SNR=8.5 | | | | | | | | |
| MKAR | | | | Lg | | Lg | | 21 13 46.9 | |
| | comp=Z,0.4nm,0.3s,baz=61,slow=32,SNR=6.9 | | | | | | | | |
| **KURK** | **Kurchatov** | **10.80** | **272** | P | | **Pn** | | **21 11 08.1** | **+0.9** |
| KURK | | | | | | | | 21 13 08.3 | |
| **KURBB** | **Kurchatov Arra** | **10.88** | **271** | Pn | | **Pn** | | **21 11 08.1** | **-0.2** |
| | comp=Z,0.1nm,0.3s,baz=74,slow=15,SNR=4.0 | | | | | | | | |
| KURBB | | | | Sn | | **Sn** | | **21 13 08.3** | **-1.6** |
| | baz=73,slow=23,SNR=3.1 | | | | | | | | |
| KURBB | | | | Lg | | Lg | | 21 14 13.8 | |
| | comp=Z,0.0nm,0.3s,baz=83,slow=33,SNR=5.7 | | | | | | | | |
| **BVAR** | **Borovoye Array** | **15.54** | **285** | Pn | | **Pn** | | **21 12 08.4** | **-3.2** |
| | comp=Z,0.1nm,0.3s,baz=83,slow=12,SNR=2.9 | | | | | | | | |
| **ARU** | **Arti** | **22.15** | **297** | P | | **P** | | **21 13 27.9** | **-0.3** |
| | comp=Z,0.9nm,0.4s,baz=86,slow=13,SNR=3.3 | | | | | | | | |
| **AKTO** | **Aktyubinsk** | **23.59** | **282** | P | | **P** | | **21 13 42.1** | **-1.2** |
| | comp=Z,1.9nm,0.6s,baz=76,slow=12,SNR=6.1 | | | | | | | | |
| **AKTO** | **Aktyubinsk** | **23.59** | **282** | P | | **P** | | **21 13 42.1** | **-1.2** |
| AKTO | | | | pmax | pmax | | | | |
| | comp=Z,1.0nm,0.6s | | | | | | | | |
| **BRDH** | **Bariadhala** | **29.14** | **188** | LR | | LR | | 21 28 35.1 | |
| | comp=Z,71nm,18.1s,baz=280,slow=41 | | | | | | | | |
| **BRTR** | **Keskin Array B** | **43.73** | **279** | P | | **P** | | **21 16 36.3** | **-1.7** |
| | comp=Z,0.7nm,0.8s,baz=46,slow=6.2,SNR=3.8 | | | | | | | | |

**MAN 27 21:16:25, 7.04N×126.10E, h43km, mb4.0, ML2.7, MS2.4, 1D, Mindanao**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **MATI** | **Mati** | **0.18** | **121** | *e*P | | Pn | | 21 16 34.6 | +2.1 |
| MATI | | | | *e*S | | Sn | | 21 16 41.0 | +3.2 |
| **DMPH** | **Davao City--Mi** | **0.59** | **274** | ⇓*e*P | | Pn | | 21 16 39.0 | +1.9 |
| DMPH | | | | *e*S | | Sn | | 21 16 49.3 | +3.6 |
| **BUKP** | **Musuan** | **1.32** | **309** | *e*P | | Pn | | 21 16 48.5 | +1.4 |
| BUKP | | | | *e*S | | Sn | | 21 17 05.2 | +1.6 |

*IDC* ***27*** *21:17:50.7±7.4, 20.92S×178.49W, h528km±80km, mb3.2/6, mb1 3.4/7, mb1mx3.0/40, mbtmp4.2/7, Error ellipse: s-maj=49.6km s-min=32.0km az=23.0*
*ISCJB* ***27*** *21:17:53.4±1.5, 21.0S±0.2×178.5W±0.2, h579km, mb3.8/6, Error ellipse: s-maj=31.0km s-min=25.7km az=22.2*

**ISC 27 21:17:54.7±1.3, 21.1S±0.2×178.5W±0.2, h579km, n9, σ1§28/10, mb3.7/6, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|

*NIED* ***27*** *21:27:00, 40.70N×142.80E, h47km, Mw3.7 Best double couple: M0 4.52000×10^14 NP1:φ=329.00000°, δ=32.00000°, λ=7.00000°. NP2:φ=234.00000°, δ=86.00000°, λ=122.00000°.*
*ISCJB* ***27*** *21:27:47.0±1.4, 40.74N±0.04×142.77E±0.07, h33km±11km, mb3.8/5, Error ellipse: s-maj=9.8km s-min=5.3km az=32.7*
*JMA* ***27*** *21:27:47.1±0.2, 40.70N×142.76E, h29km±5km, M3.7*
*IDC* ***27*** *21:27:47.2±3.1, 40.77N×143.00E, h42km±26km, mb3.6/5, mb1 3.7/8, mb1mx3.3/49, mbtmp3.7/8, ML2.9/3, Error ellipse: s-maj=39.1km s-min=21.2km az=97.0*

**ISC 27 21:27:46.0±1.5, 40.71N±0.04×142.76E±0.06, h27km±11km, n24, σ1§17/27, mb3.8/5, 1C-3D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **JANG** | **Nango** | **1.01** | **251** | ⇓P | | **Pn** | | **21 28 05.2** | **+0.8** |
| JANG | | | | *e*S | | **Sn** | | **21 28 17.7** | **0.0** |
| **JTH** | **Tanohata** | **1.03** | **222** | ⇑P | | **Pn** | | **21 28 05.4** | **+0.7** |
| JTH | | | | *e*S | | **Sn** | | **21 28 18.5** | **+0.3** |
| **JTM** | **Tenmabayashi** | **1.29** | **274** | ⇓P | | **Pb** | | **21 28 09.7** | **+0.1** |
| JTM | | | | *e*S | | **Sb** | | **21 28 25.9** | **+0.1** |
| **JEM** | **Erimo** | **1.34** | **13** | P | | **Pb** | | **21 28 10.8** | **+0.3** |
| **JOT** | **Ohata** | **1.46** | **298** | ⇓P | | **Pb** | | **21 28 11.7** | **-0.9** |
| JOT | | | | *e*S | | **Sn** | | **21 28 29.1** | **+0.2** |
| **JNBK** | **Urakawa-nobuka** | **1.57** | **360** | P | | **Pb** | | **21 28 13.8** | **-0.7** |
| **JOM** | **Ohasama** | **1.67** | **223** | P | | **Pb** | | **21 28 15.4** | **-0.7** |
| JOM | | | | *e*S | | **Sb** | | **21 28 36.4** | **-0.3** |
| **JAH** | **Hinai** | **1.70** | **253** | P | | **Pb** | | **21 28 16.3** | **-0.4** |
| JAH | | | | *e*S | | **Sb** | | **21 28 37.1** | **-0.6** |
| **JKB** | **Kayabe** | **1.76** | **313** | P | | **Pn** | | **21 28 15.8** | **+1.1** |
| JKB | | | | *e*S | | **Sn** | | **21 28 36.8** | **+0.6** |
| **JCH** | **Churui** | **1.96** | **13** | P | | **Pn** | | **21 28 18.9** | **+1.4** |
| JCH | | | | *e*S | | **Sn** | | **21 28 41.4** | **+0.2** |
| **ASAJ** | **Asahikawa** | **3.41** | **358** | P | | **Pn** | | **21 28 35.4** | **-2.1** |
| | 1.7nm,0.3s,baz=184,slow=16,SNR=4.4 | | | | | | | | |
| ASAJ | | | | S | | **Sb** | | **21 29 27.4** | **+0.7** |
| | 1.5nm,0.3s,baz=20,slow=23,SNR=5.6 | | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **5.48** | **222** | P | | **Pn** | | **21 29 09.6** | **+3.7** |
| | 0.6nm,0.3s,baz=28,slow=13,SNR=8.0 | | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **8.70** | **297** | P | | **Pn** | | **21 29 52.1** | **+2.1** |
| | 0.1nm,0.3s,baz=88,slow=16,SNR=2.7 | | | | | | | | |
| **SEY** | **Seymchan** | **22.99** | **11** | P | | **P** | | **21 32 48.2** | **-0.1** |
| | 1.0nm,0.3s,baz=0.7,slow=22,SNR=5.0 | | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **29.36** | **128** | T | | T | | 22 04 55.9 | |
| | baz=319,slow=75,SNR=15 | | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **29.37** | **128** | T | | T | | 22 04 50.8 | |
| | baz=319,slow=75,SNR=16 | | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **29.38** | **128** | T | | T | | 22 04 57.8 | |
| | baz=319,slow=75,SNR=14 | | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **30.19** | **130** | T | | T | | 22 05 55.1 | |
| | baz=324,slow=74 | | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **30.20** | **130** | T | | T | | 22 05 57.6 | |
| | baz=324 | | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **30.21** | **130** | T | | T | | 22 05 58.3 | |
| | baz=324,slow=74 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **40.31** | **309** | P | | **P** | | **21 35 21.2** | **+0.4** |
| | 0.6nm,0.4s,baz=90,slow=7.2,SNR=3.5 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **43.16** | **299** | P | | **P** | | **21 35 44.0** | **-0.2** |
| | 0.2nm,0.4s,baz=81,slow=10,SNR=7.5 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **60.84** | **189** | P | | **P** | | **21 37 55.4** | **-0.6** |
| | 0.5nm,0.7s,baz=7.5,slow=6.8,SNR=4.9 | | | | | | | | |
| **FINES** | **FINESS Array B** | **66.07** | **332** | P | | **P** | | **21 38 29.3** | **-0.8** |
| | 6.4nm,1.0s,baz=47,slow=12,SNR=3.0 | | | | | | | | |

*ISCJB* ***27*** *21:28:08.1±0.4, 50.10N±0.03×18.35E±0.03, h0km, Error ellipse: s-maj=4.1km s-min=2.3km az=19.0*
*CSEM* ***27*** *21:28:09.3±0.3, 50.06N×18.36E, h1km, ML2.6/8, Error ellipse: s-maj=6.2km s-min=3.4km az=15.0*
*IPEC* ***27*** *21:28:09.3±0.2, 50.06N×18.45E, h1km±2km, ML1.9/3, Error ellipse: s-maj=2.0km s-min=1.1km az=160.0*
*WAR* ***27*** *21:28:09.3, 50.06N×18.44E, h1km, Mw2.7*
*PRU* ***27*** *21:28:10.3, 50.06N×18.35E, h0km*

**ISC 27 21:28:09.1±0.8, 50.04N±0.03×18.40E±0.02, h0km, n39, σ0§84/75, 3D, Poland**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **RAC** | **Raciborz** | **0.14** | **288** | *e*Pg | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 10.0nm,0.3s | | | | | | | |
| **SMOL** | **Smolenice** | **1.66** | **203** | *e*Pn | **Pn** | **21 28 39.5** | **+0.1** |
| SMOL | | | | *e*Sn | **Sg** | **21 29 02.5** | **+0.3** |
| **SMOL** | **Smolenice** | **1.66** | **203** | *e*PN | **Pn** | **21 28 39.5** | **+0.1** |
| SMOL | | | | *e*SN | **Sg** | **21 29 02.5** | **+0.3** |
| **STHS** | **Stebnicka Huta** | **1.95** | **108** | *e*Pn | **Pg** | **21 28 46.3** | **-0.1** |
| STHS | | | | *e*Sn | **Sg** | **21 29 11.8** | **+0.1** |
| **STHS** | **Stebnicka Huta** | **1.95** | **108** | *e*PN | **Pg** | **21 28 46.3** | **-0.1** |
| STHS | | | | *e*SN | **Sg** | **21 29 11.8** | **+0.1** |
| STHS | | | | *e*LG | Lg | 21 29 16.6 | |
| **KECS** | **Kecovo** | **2.08** | **138** | *e*Pn | **Pn** | **21 28 45.5** | **+0.4** |
| KECS | | | | *e*SN | **Sn** | **21 29 11.0** | **-0.7** |
| **GOPC** | **GO Pecny, Ondr** | **2.33** | **268** | *e*SG | **Sb** | **21 29 21.9** | **+0.5** |
| | comp=Z,4.9nm,0.4s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **2.33** | **268** | Sg | **Sb** | **21 29 21.9** | **+0.5** |
| | 4.9nm,0.4s | | | | | | |
| **PRU** | **Pruhonice** | **2.49** | **270** | *e*PG | **Pb** | **21 28 54.3** | **-0.3** |
| PRU | | | | *e*SG | **Sb** | **21 29 26.6** | **+0.8** |
| **BRG** | **Berggiesshubel** | **2.96** | **288** | PG | **Pg** | **21 29 05.0** | **-0.9** |
| BRG | | | | SG | **Sg** | **21 29 43.8** | **-0.5** |
| | 3.7nm,0.5s | | | | | | |
| **KHC** | **Kasperske Hory** | **3.27** | **256** | *e*PN | **Pn** | **21 29 00.0** | **-1.5** |
| KHC | | | | *e*PG | **Pg** | **21 29 09.8** | **-1.8** |
| KHC | | | | *e*SG | **Sg** | **21 29 52.5** | **-1.4** |
| **KHC** | **Kasperske Hory** | **3.27** | **256** | Pn | **Pn** | **21 29 00.0** | **-1.5** |
| **CLL** | **Collm** | **3.66** | **292** | *i* Pg | **Pg** | **21 29 20.4** | **+1.3** |
| CLL | | | | *i* Sg | **Sg** | **21 30 06.9** | **+0.4** |
| **NKC** | **Novy Kostel** | **3.83** | **275** | *e*SG | **Sg** | **21 30 11.5** | **-0.6** |
| **NKC** | **Novy Kostel** | **3.83** | **275** | Sg | **Sg** | **21 30 11.5** | **-0.6** |

*ISK **27** 21:34:50.4,41°.76N×32°.37E,h6km,MD3.1*
*ISCJB **27** 21:34:51.1±0.4,41°.79N±0°.03×32°.36E±0°.04,h10km,Error ellipse: s-maj=4.8km s-min=3.4km az=31.4*
*CSEM **27** 21:34:51.8±0.1,41°.74N×32°.41E,h10km,MD3.1,Error ellipse: s-maj=2.9km s-min=2.4km az=23.0*
**ISC 27 21:34:51.1**±0.9,**41°.75N**±0°.04×**32°.38E**±0°.03,**h10km**,**n54,** σ1§**49**/62,**9C-3D**,**Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KURC** | **Kurucasile-Bar** | **0.29** | **71** | *e*PG | **Pg** | **21 34 57.0** | **+0.1** |
| KURC | | | | *e*SG | **Sg** | **21 35 01.2** | **+0.4** |
| **KURC** | **Kurucasile-Bar** | **0.29** | **71** | *e*Pg | **Pg** | **21 34 57.0** | **+0.1** |
| KURC | | | | *e*Sg | **Sg** | **21 35 01.2** | **+0.4** |
| **SAFT** | **Safranbolu** | **0.56** | **156** | *e*PG | **Pg** | **21 35 01.8** | **-0.2** |
| **SAFT** | **Safranbolu** | **0.56** | **156** | *e*Pg | **Pg** | **21 35 01.8** | **-0.2** |
| **BZK** | **Bozkurt** | **1.23** | **80** | *e*PN | **Pn** | **21 35 14.4** | **+0.1** |
| BZK | | | | *e*SN | **Sn** | **21 35 32.1** | **+1.1** |
| **BZK** | **Bozkurt** | **1.23** | **80** | *e*Pn | **Pn** | **21 35 14.4** | **+0.1** |
| BZK | | | | *e*Sn | **Sn** | **21 35 32.1** | **+1.1** |
| **MDUB** | **Mudurnu** | **1.56** | **215** | *e*PN | **Pn** | **21 35 19.3** | **+0.3** |
| **MDUB** | **Mudurnu** | **1.56** | **215** | *e*Pn | **Pn** | **21 35 19.3** | **+0.3** |
| **LOD** | **Lodumlu** | **1.88** | **171** | *e*PN | **Pn** | **21 35 24.0** | **+0.6** |
| **LOD** | **Lodumlu** | **1.88** | **171** | *e*Pn | **Pn** | **21 35 24.0** | **+0.6** |
| **GULT** | **Gulveren** | **1.93** | **228** | *e*PN | **Pn** | **21 35 24.8** | **+0.8** |
| **GULT** | **Gulveren** | **1.93** | **228** | *e*Pn | **Pn** | **21 35 24.8** | **+0.8** |
| **HRT** | **Hereke** | **2.24** | **246** | *e*PN | **Pn** | **21 35 29.5** | **+1.2** |
| **HRT** | **Hereke** | **2.24** | **246** | *e*Pn | **Pn** | **21 35 29.5** | **+1.2** |
| **AFSR** | **Af˘ar-Bala (A** | **2.36** | **167** | *e*PN | **Pn** | **21 35 31.0** | **+1.0** |
| **AFSR** | **Af˘ar-Bala (A** | **2.36** | **167** | *e*Pn | **Pn** | **21 35 31.0** | **+1.0** |
| **ADVT** | **Abdulvahap** | **2.39** | **237** | *e*PN | **Pn** | **21 35 31.0** | **+0.7** |
| **ADVT** | **Abdulvahap** | **2.39** | **237** | *e*Pn | **Pn** | **21 35 31.0** | **+0.7** |
| **KLYT** | **Kilyos** | **2.56** | **260** | *e*PN | **Pn** | **21 35 33.7** | **+1.2** |
| **KLYT** | **Kilyos** | **2.56** | **260** | *e*Pn | **Pn** | **21 35 33.7** | **+1.2** |
| **YLV** | **Yalova** | **2.56** | **243** | *e*PN | **Pn** | **21 35 33.2** | **+0.5** |
| **YLV** | **Yalova** | **2.56** | **243** | *e*Pn | **Pn** | **21 35 33.2** | **+0.5** |
| **KAMT** | **Kaman** | **2.59** | **156** | *e*PN | **Pn** | **21 35 33.9** | **+0.8** |
| **KAMT** | **Kaman** | **2.59** | **156** | *e*Pn | **Pn** | **21 35 33.9** | **+0.8** |
| **ISK** | **Istanbul-Kandi** | **2.59** | **256** | *e*PN | **Pn** | **21 35 33.9** | **+0.9** |
| **ISK** | **Istanbul-Kandi** | **2.59** | **256** | *e*Pn | **Pn** | **21 35 33.9** | **+0.9** |
| **KAVV** | **Kandilli-Istan** | **2.59** | **256** | *e*PN | **Pn** | **21 35 33.7** | **+0.7** |
| **KAVV** | **Kandilli-Istan** | **2.59** | **256** | *e*Pn | **Pn** | **21 35 33.7** | **+0.7** |
| **KIZT** | **Kizilcal** | **2.89** | **188** | *e*PN | **Pn** | **21 35 38.4** | **+1.1** |
| **KIZT** | **Kizilcal** | **2.89** | **188** | *e*Pn | **Pn** | **21 35 38.4** | **+1.1** |
| **ARMT** | **Armutlu** | **2.91** | **247** | *e*PN | **Pn** | **21 35 38.1** | **+0.7** |
| **ARMT** | **Armutlu** | **2.91** | **247** | *e*Pn | **Pn** | **21 35 38.1** | **+0.7** |
| **CTKS** | **Kestanelik-??a** | **2.95** | **261** | *e*PN | **Pn** | **21 35 39.1** | **+1.1** |
| **CTKS** | **Kestanelik-??a** | **2.95** | **261** | *e*Pn | **Pn** | **21 35 39.1** | **+1.1** |
| **SLVT** | **Silivri** | **3.17** | **262** | *e*PN | **Pn** | **21 35 42.1** | **+1.0** |
| **SLVT** | **Silivri** | **3.17** | **262** | *e*Pn | **Pn** | **21 35 42.1** | **+1.0** |
| **TVSB** | **Tavsanli** | **3.20** | **225** | *e*PN | **Pn** | **21 35 42.6** | **+1.1** |
| **TVSB** | **Tavsanli** | **3.20** | **225** | *e*Pn | **Pn** | **21 35 42.6** | **+1.1** |
| **MANR** | **Mangalia** | **3.47** | **308** | ⇑*i*P | **Pn** | **21 35 46.8** | **+1.7** |
| **MANR** | **Mangalia** | **3.47** | **308** | ⇑*i*P | **Pn** | **21 35 46.8** | **+1.7** |
| MANR | | | | S | **Sn** | **21 36 27.8** | **+1.5** |
| **TIRR** | **Tirgusor** | **3.97** | **314** | ⇑*i*P | **Pn** | **21 35 52.9** | **+0.9** |
| **TIRR** | **Tirgusor** | **3.97** | **314** | ⇑*i*P | **Pn** | **21 35 52.9** | **+0.9** |
| TIRR | | | | S | **Sn** | **21 36 38.5** | **0.0** |
| **ICOR** | **Ion Corvin** | **4.11** | **307** | ⇑*i*P | **Pn** | **21 35 55.9** | **+2.0** |
| **ICOR** | **Ion Corvin** | **4.11** | **307** | ⇑*i*P | **Pn** | **21 35 55.9** | **+2.0** |
| ICOR | | | | S | **Sn** | **21 36 43.7** | **+1.7** |
| **CFR** | **Carcaliu** | **4.61** | **319** | ⇓*i*P | **Pn** | **21 36 01.4** | **+0.6** |
| **CFR** | **Carcaliu** | **4.61** | **319** | ⇓*i*P | **Pn** | **21 36 01.4** | **+0.6** |
| CFR | | | | S | **Sn** | **21 36 53.7** | **-0.7** |
| **ISR** | **Istrita** | **5.42** | **310** | ⇑*i*P | **Pn** | **21 36 14.3** | **+2.3** |
| **ISR** | **Istrita** | **5.42** | **310** | S | **Sn** | **21 37 16.7** | **+2.3** |
| **VRI** | **Vrincioaia** | **5.80** | **317** | S | **Sb** | **21 37 34.4** | **-7.4** |
| **PLOR** | **Plostina** | **5.83** | **317** | ⇑*i*P | **Pn** | **21 36 19.6** | **+2.0** |
| **MLR** | **Muntele Rosu** | **5.98** | **311** | ⇑*i*P | **Pn** | **21 36 22.3** | **+2.5** |
| **MLR** | **Muntele Rosu** | **5.98** | **311** | S | **Sn** | **21 37 29.7** | **+1.4** |
| **VOIR** | | **6.47** | **307** | ⇓*i*P | **Pn** | **21 36 28.2** | **+1.8** |
| **VOIR** | | **6.47** | **307** | S | **Sn** | **21 37 40.9** | **+0.5** |

*IDC **27** 21:59:01.4±10.0,16°.51N×100°.10W,h0km,mb3.5/3, mb1 3.8/4,mb1mx3.6/27,mbtmp3.4/4,ML2.5/1,MS2.5/1, Ms1 2.5/1,ms1mx2.2/24,Error ellipse: s-maj=211.4km s-min=30.1km az=16.0*
*ISCJB **27** 21:59:05.1±1.2,16°.66N±0°.07×100°.39W±0°.05,h29km±5km, mb3.2/3,Error ellipse: s-maj=11.9km s-min=7.9km az=17.5*
*NEIC **27** 21:59:06.4±0.0,16°.66N×100°.42W,h10km,MD4.0(MEX), After MEX.*
*MEX **27** 21:59:06.4±0.8,16°.66N×100°.42W,h10km,MD4.0*
**ISC 27 21:59:03.9**±1.6,**16°.63N**±0°.07×**100°.49W**±0°.04,**h19km**±5km, **n24,** σ1§**86**/39,**mb3.4**/3,**Near coast of Guerrero**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CAIG** | **El Cayaco** | **0.47** | **27** | *e*P | **Pg** | **21 59 13.3** | **-0.2** |
| CAIG | | | | *e*S | **Sg** | **21 59 20.4** | **+0.4** |
| **CAIG** | **El Cayaco** | **0.47** | **27** | *e*P | **Pg** | **21 59 13.3** | **-0.2** |
| CAIG | | | | *e*S | **Sg** | **21 59 20.4** | **+0.4** |
| **ACP2** | **Acapulco** | **0.63** | **67** | *e*P | **Pg** | **21 59 15.8** | **-0.6** |
| ACP2 | | | | *e*S | **Sg** | **21 59 24.0** | **-0.8** |
| **ACX** | **Acapulco** | **0.65** | **68** | *e*P | **Pn** | **21 59 20.8** | **+2.7** |
| ACX | | | | *e*S | **Sn** | **21 59 28.5** | **+0.7** |
| **ACX** | **Acapulco** | **0.65** | **68** | *e*P | **Pn** | **21 59 20.8** | **+2.7** |
| ACX | | | | *e*S | **Sn** | **21 59 28.5** | **+0.7** |
| **ZIIG** | **Zihuatanejo** | **1.35** | **316** | *e*P | **Pn** | **21 59 28.1** | **+0.4** |
| **ZIIG** | **Zihuatanejo** | **1.35** | **316** | *e*P | **Pn** | **21 59 28.1** | **+0.4** |
| **MEIG** | **Mezcala** | **1.54** | **33** | *e*P | **Pn** | **21 59 29.7** | **-0.7** |
| **MEIG** | **Mezcala** | **1.54** | **33** | *e*P | **Pn** | **21 59 29.7** | **-0.7** |
| **ARIG** | **Puente Sto Nin** | **1.65** | **5** | *e*P | **Pn** | **21 59 31.5** | **-0.4** |
| **PLIG** | **Platanillo** | **1.99** | **28** | *e*P | **Pn** | **21 59 36.6** | **0.0** |
| PLIG | | | | *i* S | **Sn** | **21 59 59.1** | **-2.0** |
| **PLIG** | **Platanillo** | **1.99** | **28** | *e*P | **Pn** | **21 59 36.6** | **0.0** |
| PLIG | | | | *i* S | **Sn** | **21 59 59.1** | **-2.0** |
| **TLIG** | **Tlapa** | **2.06** | **63** | *e*P | **Pn** | **21 59 37.3** | **-0.3** |
| TLIG | | | | *e*S | **Sn** | **22 00 00.7** | **-2.1** |
| **TLIG** | **Tlapa** | **2.06** | **63** | Pn | **Pn** | **21 59 37.3** | **-0.3** |
| TLIG | | | | Sn | **Sn** | **22 00 02.3** | **-0.5** |
| **PNIG** | **Pinotepa** | **2.28** | **96** | *e*P | **Pn** | **21 59 39.4** | **-1.1** |
| PNIG | | | | *e*S | **Sn** | **22 00 06.4** | **-1.6** |
| **PNIG** | **Pinotepa** | **2.28** | **96** | *e*P | **Pn** | **21 59 39.4** | **-1.1** |
| PNIG | | | | *e*S | **Sn** | **22 00 06.4** | **-1.6** |
| **YAIG** | **Yautepec** | **2.60** | **31** | *e*P | **Pn** | **21 59 45.3** | **+0.2** |
| YAIG | | | | *e*S | **Sn** | **22 00 15.0** | **-1.3** |
| **YAIG** | **Yautepec** | **2.60** | **31** | *e*P | **Pn** | **21 59 45.3** | **+0.2** |
| YAIG | | | | *e*S | **Sn** | **22 00 15.0** | **-1.3** |
| **SFJM** | **Santa Fe** | **4.54** | **328** | *e*P | **Pg** | **22 00 29.0** | **-1.9** |
| SFJM | | | | *e*S | **Sg** | **22 01 28.8** | **-1.0** |
| **SFJM** | **Santa Fe** | **4.54** | **328** | *e*P | **Pg** | **22 00 29.0** | **-1.9** |
| SFJM | | | | *e*S | **Sg** | **22 01 28.8** | **-1.0** |
| **CMIG** | **Matias Romero** | **5.38** | **84** | Pn | Pn | 22 00 18.5 | -4.7 |
| | 0.2nm,0.3s,baz=262,slow=15,SNR=2.4 | | | | | | |
| CMIG | | | | Sn | **Sn** | **22 01 17.6** | **-7.1** |
| | 0.5nm,0.3s,baz=302,slow=12,SNR=3.9 | | | | | | |
| CMIG | | | | LR | LR | 22 02 20.9 | |
| | comp=Z,50nm,19.2s,baz=16,slow=40 | | | | | | |
| **NVAR** | **Mina Array Bea** | **26.76** | **328** | P | **P** | **22 04 45.8** | **+3.1** |
| | 0.8nm,0.9s,baz=149,slow=11,SNR=4.3 | | | | | | |
| **PDAR** | **Pinedale Array** | **27.18** | **345** | P | **P** | **22 04 49.2** | **+2.7** |
| | 0.2nm,0.6s,baz=144,slow=13,SNR=3.9 | | | | | | |
| **YKA** | **Yellowknife Ar** | **46.88** | **351** | P | **P** | **22 07 34.1** | **+1.6** |
| | 0.4nm,0.8s,baz=161,slow=7.3,SNR=8.0 | | | | | | |

**OBM 27 22:00:56.3**±0.3,**51°.68N**×**95°.70E**,**h2km**,**Ml4.2**,**Error ellipse: s-maj=6.9km s-min=1.4km az=179.0,**
**Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ULG** | **Ulaangom** | **2.88** | **235** | *e*Pg | **Pb** | 22 01 48.9 | +0.5 |
| ULG | | | | *e*Sg | **Sg** | 22 02 28.4 | -0.3 |
| | 2µm,0.3s | | | | | | |
| **ULG** | **Ulaangom** | **2.88** | **235** | *e*Pg | **Pb** | 22 01 49.3 | +0.9 |
| ULG | | | | *e*Sg | **Sg** | 22 02 27.4 | -1.3 |
| | 496nm,0.3s | | | | | | |
| **HTG** | **Hatgal** | **3.08** | **112** | *e*Pg | **Pb** | 22 01 50.8 | -1.0 |
| HTG | | | | *e*Sg | **Sb** | 22 02 30.8 | +1.0 |
| | 301nm,0.4s | | | | | | |
| **HTG** | **Hatgal** | **3.08** | **112** | *e*Pg | **Pb** | 22 01 50.8 | -1.0 |
| HTG | | | | *e*Sg | **Sb** | 22 02 30.6 | +0.8 |
| | 243nm,0.3s | | | | | | |
| **HBD** | **Hovd** | **4.51** | **217** | *e*Pg | **Pb** | 22 02 18.5 | +2.3 |
| HBD | | | | *e*Sg | **Sg** | 22 03 19.1 | -2.0 |
| **HBD** | **Hovd** | **4.51** | **217** | *e*Pg | **Pb** | 22 02 19.0 | +2.8 |
| HBD | | | | *e*Sg | **Sg** | 22 03 16.8 | -4.3 |
| **BYO** | **Bayan-Olgiy** | **4.57** | **236** | *e*Pg | **Pb** | 22 02 19.6 | +2.2 |
| BYO | | | | *e*Sg | **Sg** | 22 03 18.4 | -4.7 |
| **BYO** | **Bayan-Olgiy** | **4.57** | **236** | *e*Pg | **Pg** | 22 02 20.8 | -3.1 |
| BYO | | | | *e*Sg | **Sg** | 22 03 20.4 | -2.7 |
| | 100nm,0.3s | | | | | | |
| **TTS** | **Tsetserleg** | **5.62** | **136** | *e*Pg | **Pb** | 22 02 39.2 | +4.0 |
| TTS | | | | *e*Sg | **Sg** | 22 03 52.4 | -4.4 |
| | 42nm,0.5s | | | | | | |
| **TTS** | **Tsetserleg** | **5.62** | **136** | *e*Pg | **Pb** | 22 02 39.2 | +4.0 |
| TTS | | | | *e*Sg | **Sg** | 22 03 52.1 | -4.7 |
| | 42nm,0.5s | | | | | | |
| **BLGM** | **Bulgan** | **5.80** | **117** | *e*Pg | **Pb** | 22 02 41.6 | +3.4 |
| BLGM | | | | *e*Sg | **Sg** | 22 03 57.8 | -4.7 |
| **BLGM** | **Bulgan** | **5.80** | **117** | *e*Pg | **Pb** | 22 02 41.9 | +3.7 |
| BLGM | | | | *e*Sg | **Sg** | 22 03 58.5 | -4.0 |
| | 89nm,0.8s | | | | | | |
| **SONA0** | **Songino Array** | **7.92** | **115** | *e*Sg | **Sg** | 22 05 03.2 | -7.4 |
| | 38nm,1.4s | | | | | | |
| **ALFM** | | **8.06** | **113** | *e*Sg | **Sg** | 22 05 08.2 | -6.8 |
| | 22nm,0.8s | | | | | | |
| **ARTM** | | **8.37** | **112** | *e*Sg | **Sg** | 22 05 17.7 | -7.3 |
| **SEMM** | | **8.41** | **115** | *e*Sg | **Sg** | 22 05 18.5 | -7.5 |
| **UGDM** | | **8.60** | **113** | *e*Sg | **Sg** | 22 05 23.7 | -8.6 |
| | 19nm,0.9s | | | | | | |
| **MK01** | **Makanchi Array** | **10.04** | **246** | *e*Sg | Sn | 22 06 09.7 | +55 |

**OBM 27 22:12:50.1**±0.5,**51°.94N**×**95°.84E**,**h2km**,**Ml3.7**,**Error ellipse: s-maj=9.6km s-min=2.5km az=175.0,**
**Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HTG** | **Hatgal** | **3.10** | **117** | *e*Pg | **Pb** | 22 13 46.4 | +0.4 |
| HTG | | | | *e*Sg | **Sb** | 22 14 26.8 | +2.4 |
| | 71nm,0.4s | | | | | | |
| **ULG** | **Ulaangom** | **3.11** | **232** | *e*Pg | **Pb** | 22 13 47.1 | +1.0 |
| ULG | | | | *e*Sg | **Sb** | 22 14 26.1 | +1.6 |
| | 372nm,0.3s | | | | | | |
| **HBD** | **Hovd** | **4.78** | **216** | *e*Pg | **Pb** | 22 14 15.7 | +1.2 |
| HBD | | | | *e*Sg | **Sg** | 22 15 18.0 | -5.4 |
| | 17nm,0.4s | | | | | | |
| **BYO** | **Bayan-Olgiy** | **4.80** | **234** | *e*Pg | **Pb** | 22 14 16.7 | +1.7 |
| BYO | | | | *e*Sg | **Sb** | 22 15 16.6 | +3.4 |
| | 33nm,0.6s | | | | | | |
| **TTS** | **Tsetserleg** | **5.76** | **139** | *e*Pg | **Pb** | 22 14 34.8 | +3.5 |
| TTS | | | | *e*Sg | **Sg** | 22 15 50.5 | -4.4 |
| | 18nm,0.4s | | | | | | |
| **BLGM** | **Bulgan** | **5.84** | **120** | *e*Pg | **Pb** | 22 14 36.6 | +3.9 |
| BLGM | | | | *e*Sg | **Sg** | 22 15 55.6 | -2.1 |
| | 20nm,0.6s | | | | | | |
| **SONA0** | **Songino Array** | **7.96** | **117** | *e*Sg | **Sg** | 22 17 01.1 | -4.4 |
| **ALFM** | | **8.09** | **115** | *e*Sg | **Sg** | 22 17 01.7 | -7.8 |
| **SEMM** | | **8.44** | **117** | *e*Sg | **Sg** | 22 17 17.0 | -3.9 |
| **UGDM** | | **8.63** | **115** | *e*Sg | **Sg** | 22 17 19.9 | -7.0 |

*ISN **27** 22:17:58.0±1.3,38°.98N×43°.68E,h1km,61km,ML4.1*
*IDC **27** 22:17:59.8±1.2,38°.92N×43°.61E,h0km,mb3.6/8, mb1 3.6/12,mb1mx3.5/56,mbtmp3.5/12,ML2.5/2,MS3.4/10, Ms1 3.3/10,ms1mx3.0/44,Error ellipse: s-maj=20.0km s-min=9.8km az=148.0*
*DDA **27** 22:17:59.3,38°.94N×43°.63E,h7km,Ml4.1*
*AZER **27** 22:17:59.6±0.4,38°.99N×43°.40E,h8km,Error ellipse: s-maj=4.4km s-min=2.3km az=63.0*
*NEIC **27** 22:18:00.3±0.0,38°.93N×43°.61E,h5km,mb3.9/4, ML4.2(ISK),After ISK.*
*ISK **27** 22:18:00.2,38°.93N×43°.62E,h5km,ML3.9*
*CSEM **27** 22:18:01.2±0.1,38°.91N×43°.66E,h2km,ML4.1,Error ellipse: s-maj=3.4km s-min=2.4km az=159.0*
**ISC 27 22:18:01.2**±1.0,**38°.94N**±0°.02×**43°.62E**±0°.02,**h2km**±7km, **n209,** σ1§**66**/274,**mb3.5**/10,**MS3.3**/7,**47C-31D**,**Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.07** | **322** | ⇓*i*P | **Pg** | **22 18 00.8** | **-1.9** |
| VMUR | | | | *i* S | **Sg** | **22 18 03.2** | **-0.4** |
| **ERCV** | **ERCIS-VAN** | **0.24** | **290** | *e*PG | **Pg** | **22 18 05.9** | **+0.1** |
| **ERCV** | **ERCIS-VAN** | **0.24** | **290** | *e*Pg | **Pg** | **22 18 05.9** | **+0.1** |
| **VANB** | **Van** | **0.39** | **208** | *e*PG | **Pg** | **22 18 09.8** | **+1.1** |
| VANB | | | | *e*SG | **Sb** | **22 18 17.7** | **+0.4** |
| **VANB** | **Van** | **0.39** | **208** | Pg | **Pg** | **22 18 09.5** | **+0.8** |
| VANB | | | | *e*Sg | **Sb** | **22 18 17.7** | **+0.4** |
| **VANB** | **Van** | **0.39** | **208** | Pg | **Pg** | **22 18 09.5** | **+0.8** |
| VANB | | | | Sg | **Sb** | **22 18 18.5** | **+1.2** |
| **TVAN** | **Van** | **0.44** | **203** | ⇓*i*P | **Pg** | **22 18 08.9** | **-0.8** |
| TVAN | | | | *i* S | **Sb** | **22 18 19.2** | **+0.2** |
| **TVAN** | **Van** | **0.44** | **203** | P | **Pg** | **22 18 08.9** | **-0.8** |
| **DYDN** | **Diyadin** | **0.61** | **5** | ⇓*i*P | **Pg** | **22 18 10.4** | **-2.4** |
| DYDN | | | | *i* S | **Sg** | **22 18 20.2** | **-0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.71** | **260** | ⇑*i*P | **Pg** | **22 18 13.5** | **-1.4** |
| ADCV | | | | *i* S | **Sg** | **22 18 25.2** | **+1.1** |
| **GEVA** | **Gevas** | **0.77** | **215** | ⇑*i*P | **Pg** | **22 18 13.9** | **-1.9** |
| GEVA | | | | *i* S | **Sn** | **22 18 30.2** | **-1.1** |
| **TUTA** | **Tutak** | **0.78** | **307** | ⇑*i*P | **Pg** | **22 18 14.1** | **-2.0** |
| TUTA | | | | *i* S | **Sg** | **22 18 26.7** | **+0.4** |
| **AGRB** | **Hanur-Agry** | **0.80** | **323** | *e*PG | **Pg** | **22 18 16.1** | **-0.5** |
| AGRB | | | | *e*SG | **Sb** | **22 18 29.1** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **0.80** | **323** | *e*Pg | **Pg** | **22 18 16.1** | **-0.5** |
| AGRB | | | | *e*Sg | **Sb** | **22 18 29.1** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **0.80** | **323** | Pg | **Pg** | **22 18 15.0** | **-1.6** |
| **TASB** | **TASBURUN-IGDIR** | **1.15** | **24** | *e*PN | **Pg** | **22 18 23.4** | **+0.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.15** | **24** | *e*Pn | **Pg** | **22 18 23.4** | **+0.2** |
| **HYR** | **Heyderabad** | **1.23** | **50** | ⇑P | **Pg** | **22 18 23.8** | **-1.0** |
| HYR | | | | ⇑S | **Sb** | **22 18 42.0** | **+0.5** |
| **HYR** | **Heyderabad** | **1.23** | **50** | P | **Pg** | **22 18 23.8** | **-1.0** |
| HYR | | | | S | **Sb** | **22 18 42.0** | **+0.5** |
| **EKAR** | **Karacoban** | **1.25** | **285** | ⇑*i*P | **Pg** | **22 18 23.2** | **-2.0** |
| EKAR | | | | *i* S | **Sn** | **22 18 47.1** | **+3.7** |
| **EATA** | **Eleskirt** | **1.27** | **317** | ⇑*i*P | **Pg** | **22 18 23.4** | **-2.2** |
| EATA | | | | *i* S | **Sg** | **22 18 38.8** | **-3.3** |
| **HAKT** | **HAKKARI** | **1.38** | **177** | ⇑*i*P | **Pn** | **22 18 23.0** | **-4.6** |
| HAKT | | | | *i* S | **Sn** | **22 18 49.5** | **+3.0** |
| HAKT | | | | *i* S | **Sb** | **22 18 49.8** | **+3.9** |
| **YOVA** | **Hakkari_Y˘...kse** | **1.45** | **159** | ⇓*i*P | **Pn** | **22 18 25.9** | **-2.6** |
| YOVA | | | | *i* S | **Sn** | **22 18 50.3** | **+2.2** |
| **YOVA** | **Hakkari_Y˘...kse** | **1.45** | **159** | P | **Pn** | **22 18 25.9** | **-2.6** |
| **NAX** | **Nakhchivan** | **1.48** | **80** | ⇑P | **Pn** | **22 18 28.5** | **-0.3** |
| NAX | | | | ⇑S | **Sg** | **22 18 51.9** | **+3.2** |
| **NAX** | **Nakhchivan** | **1.48** | **80** | P | **Pn** | **22 18 28.5** | **-0.3** |
| **DIGO** | **Kars** | **1.49** | **353** | ⇓*i*P | **Pn** | **22 18 28.4** | **-0.7** |
| DIGO | | | | *i* S | **Sn** | **22 18 51.4** | **+2.2** |
| **DIGO** | **Kars** | **1.49** | **353** | P | **Pn** | **22 18 28.4** | **-0.7** |
| DIGO | | | | S | **Sn** | **22 18 51.4** | **+2.2** |
| **GNI** | **Garni** | **1.49** | **35** | Pg | **Pn** | **22 18 27.0** | **-2.0** |
| | 40nm,0.3s,baz=225,slow=2.1,SNR=104 | | | | | | |
| GNI | | | | Lg | Lg | 22 18 50.5 | |
| | 128nm,0.3s,baz=302,slow=22,SNR=12 | | | | | | |
| **GNI** | **Garni** | **1.49** | **35** | *e*Pn | **Pn** | **22 18 27.7** | **-1.3** |
| GNI | | | | *e*S | **Sb** | **22 18 47.9** | **-1.1** |
| **GNI** | **Garni** | **1.49** | **35** | *e*Pn | **Pn** | **22 18 27.7** | **-1.3** |
| GNI | | | | *e*S | **Sb** | **22 18 47.9** | **-1.1** |
| **SBZ** | **Shahbuz** | **1.57** | **72** | ⇑P | **Pn** | **22 18 29.5** | **-0.6** |
| SBZ | | | | ⇑S | **Sg** | **22 18 54.7** | **+3.1** |
| **SBZ** | **Shahbuz** | **1.57** | **72** | P | **Pn** | **22 18 29.5** | **-0.6** |
| **SRTM** | **Siirt_Merkez** | **1.64** | **235** | ⇑*i*P | **Pn** | **22 18 29.6** | **-1.4** |
| SRTM | | | | *i* S | **Sg** | **22 18 54.4** | **+0.6** |
| **CUKT** | **Cukurca** | **1.69** | **180** | *e*PN | **Pn** | **22 18 32.3** | **+0.5** |
| **CUKT** | **Cukurca** | **1.69** | **180** | ⇓*i*P | **Pn** | **22 18 32.1** | **+0.3** |
| CUKT | | | | *i* S | **Sg** | **22 18 59.4** | **+4.0** |
| **CUKT** | **Cukurca** | **1.69** | **180** | P | **Pn** | **22 18 32.1** | **+0.3** |
| **CUKT** | **Cukurca** | **1.69** | **180** | Pn | **Pn** | **22 18 32.3** | **+0.5** |
| **SIRT** | **Sirnak** | **1.71** | **213** | *e*PN | **Pn** | **22 18 32.2** | **+0.2** |
| **SIRT** | **Sirnak** | **1.71** | **213** | *e*Pn | **Pn** | **22 18 32.2** | **+0.2** |
| **SIRN** | **S¨¨rnak** | **1.73** | **214** | ⇓*i*P | **Pn** | **22 18 32.5** | **+0.3** |
| SIRN | | | | *i* S | **Sg** | **22 18 59.6** | **+3.0** |
| **SIRN** | **S¨¨rnak** | **1.73** | **214** | P | **Pn** | **22 18 32.5** | **+0.3** |
| **HOMI** | **Horasan** | **1.73** | **310** | ⇓*i*P | **Pn** | **22 18 32.4** | **0.0** |
| HOMI | | | | *i* S | **Sg** | **22 18 59.7** | **+3.0** |
| **KARS** | **Kars** | **1.74** | **346** | *e*PN | **Pn** | **22 18 32.7** | **+0.2** |
| **KARS** | **Kars** | **1.74** | **346** | *e*Pn | **Pn** | **22 18 32.7** | **+0.2** |
| **KARS** | **Kars** | **1.74** | **346** | Pn | **Pn** | **22 18 32.7** | **+0.2** |
| **EAK** | **Akyaka** | **1.75** | **360** | ⇓*i*P | **Pn** | **22 18 32.3** | **-0.3** |
| EAK | | | | *i* S | **Sg** | **22 19 02.0** | **+4.7** |
| **EAK** | **Akyaka** | **1.75** | **360** | P | **Pn** | **22 18 32.3** | **-0.3** |
| **ORD** | **Ordubad** | **1.85** | **90** | P | **Pn** | **22 18 34.2** | **+0.3** |
| ORD | | | | S | **Sg** | **22 19 00.7** | **+0.1** |
| **SENK** | **Senkaya-Erzuru** | **1.90** | **329** | *e*PN | **Pn** | **22 18 35.0** | **+0.3** |
| **SENK** | **Senkaya-Erzuru** | **1.90** | **329** | *e*Pn | **Pn** | **22 18 35.0** | **+0.3** |
| **BNGL** | **BINGOL** | **1.93** | **271** | ⇑*i*P | **Pn** | **22 18 34.5** | **-0.7** |
| BNGL | | | | *i* S | **Sg** | **22 19 05.3** | **+2.2** |
| **ERZM** | **Erzurum** | **2.00** | **300** | ⇓*i*P | **Pn** | **22 18 35.6** | **-0.6** |
| ERZM | | | | *i* S | **Sg** | **22 19 06.2** | **+0.8** |
| **ERZM** | **Erzurum** | **2.00** | **300** | P | **Pn** | **22 18 35.6** | **-0.6** |
| **BTMN** | **Batman** | **2.12** | **241** | *i* P | **Pb** | **22 18 39.4** | **-1.1** |
| BTMN | | | | *i* S | **Sg** | **22 19 08.8** | **-0.6** |
| **BTMN** | **Batman** | **2.12** | **241** | P | **Pb** | **22 18 39.3** | **-1.1** |
| **BNGB** | **Bing¨¶l** | **2.30** | **272** | *e*PN | **Pn** | **22 18 40.6** | **+0.5** |
| **BNGB** | **Bing¨¶l** | **2.30** | **272** | Pn | **Pn** | **22 18 40.6** | **+0.5** |
| **BNGB** | **Bing¨¶l** | **2.30** | **272** | Pn | **Pn** | **22 18 40.6** | **+0.5** |
| **GDB** | **GEDABAY** | **2.42** | **42** | ⇑P | **Pn** | **22 18

ALIB S Sn 22 20 00.2 +2.3
**QSAR Qusar 4.39 53** ⇓P Pn 22 19 07.9 -0.9
QSAR ⇑S Sn 22 20 01.2 +0.8
**QSAR Qusar 4.39 53** P Pn 22 19 07.9 -0.9
QSAR S Sn 22 20 01.2 +0.8
**GBS Qobustan 4.40 67** ⇑P Pn 22 19 08.5 -0.5
GBS ⇓S Sn 22 20 03.2 +2.4
**GBS Qobustan 4.40 67** P Pn 22 19 08.5 -0.5
GBS S Sn 22 20 03.2 +2.4
**QUBA Quba, Azerbaij 4.44 56** ⇓P Pn 22 19 09.0 -0.6
QUBA ⇑S Sn 22 20 03.5 +1.6
**QUBA Quba, Azerbaij 4.44 56** P Pn 22 19 09.0 -0.6
QUBA S Sn 22 20 03.5 +1.6
**ATGJ Altiaghaj 4.52 63** ⇑P Pn 22 19 10.1 -0.5
**ATGJ Altiaghaj 4.52 63** P Pn 22 19 10.1 -0.5
**SIZA Siyzn 4.58 61** ⇓P Pn 22 19 10.9 -0.5
**SIZA Siyzn 4.58 61** P Pn 22 19 10.9 -0.5
**KBZ Khabaz 4.82 354** Pn Pn 22 19 14.6 0.0
0.1nm,0.3s,baz=190,slow=11,SNR=2.5
KBZ LR LR 22 21 30.4
comp=Z,337nm,21.8s,baz=130,slow=44
**GOBA Gobu 4.94 71** ⇑P Pn 22 19 16.1 -0.2
**GOBA Gobu 4.94 71** P Pn 22 19 16.1 -0.2
**KIV Kislovodsk 5.06 352** *e*Pn Pn 22 19 20.8 +2.7
37nm,1.0s
**KIV Kislovodsk 5.06 352** *e*Pn Pn 22 19 20.8 +2.7
37nm,1.0s
**KVAR Kislovodsk Arr 5.06 352** Pg Pb 22 19 30.0 -0.4
baz=180,slow=8.1,SNR=2.4
**BHD Baghdad 5.69 174** *e*Pn Pn 22 19 26.0 -0.6
SNR=3.0
**RTB Rutbah 6.48 206** *e*Pn Pn 22 19 37.0 -0.5
SNR=3.0
**BRTR Keskin Array B 7.78 279** Pn Pn 22 19 58.5 +3.0
baz=106,slow=12,SNR=3.9
**NSR Nasariya 8.17 165** *e*Pn Pn 22 20 00.0 -0.7
SNR=3.0
**ASF Jabal al Asfar 8.69 221** Pn Pn 22 20 11.7 +3.7
0.2nm,0.3s,baz=87,slow=13,SNR=2.7
**GEYT Alibeck 11.41 91** Pn Pn 22 20 49.5 +4.3
0.1nm,0.3s,baz=101,slow=15,SNR=3.7
**EIL Elat 11.69 220** LR LR 22 25 37.6
comp=Z,121nm,18.5s,baz=56,slow=39
**SORM Soroca 14.37 315** ⇑*i*P P 22 21 41.5 +8.8
**TESR Tescani 14.57 307** ⇓*i*P Pn 22 21 31.3 +3.0
**MLR Muntele Rosu 14.63 302** ⇑*i*P P 22 21 44.5 +8.7
**DOPR Dopca 15.16 303** ⇑*i*P P 22 21 43.1 +1.5
**DOPR Dopca 15.16 303** ⇑*i*P P 22 21 43.1 +1.5
**VOIR 15.21 301** ⇑*i*P P 22 21 44.1 +2.0
**VOIR 15.21 301** ⇑*i*P P 22 21 44.1 +2.0
**AKTO Aktyubinsk 15.36 37** Pn Pn 22 21 37.1 -1.7
0.1nm,0.3s,baz=219,slow=15,SNR=4.1
AKTO LR LR 22 29 18.2
comp=Z,90nm,18.2s,baz=66,slow=44
**RAYN Ar Rayn 15.45 174** *e*Pn Pn 22 21 34.3 -5.9
7.3nm,1.1s
RAYN eS Sn 22 24 30.4 -1.6
**AKASG Malin Array Be 15.54 324** Pn Pn 22 21 40.9 -0.3
0.6nm,0.3s,baz=132,slow=10,SNR=3.2
**ABKAR Akbulak array 15.58 43** *e*Pn Pn 22 21 42.0 +0.3
1.6nm,0.7s
**ABKAR Akbulak array 15.58 43** *e*Pn Pn 22 21 42.0 +0.3
1.6nm,0.7s
**VTS Vitosha 15.89 290** ⇑*i*P P 22 21 50.8 +1.1
**VTS Vitosha 15.89 290** ⇑*i*P P 22 21 50.8 +1.1
**BURAR Bucovina Array 15.94 309** ⇑*i*P P 22 21 50.6 +0.4
**BURAR Bucovina Array 15.94 309** ⇑*i*P P 22 21 50.6 +0.4
**CRVS Cervenica-Dubn 18.75 309** *e*P Pn 22 22 23.9 +2.3
**CRVS Cervenica-Dubn 18.75 309** *e*P Pn 22 22 23.9 +2.3
**ARU Arti 20.11 25** P P 22 22 35.6 -0.3
ARU LR LR 22 33 08.5
comp=Z,121nm,18.0s,baz=196,slow=45
**ARU Arti 20.11 25** *e*P P 22 22 35.2 -0.7
47nm,1.6s
**ARU Arti 20.11 25** *e*P P 22 22 35.2 -0.7
47nm,1.6s
**WSAR Wadi Sarin 20.21 136** LR LR 22 32 04.1
comp=Z,64nm,19.2s,baz=14,slow=42
**VYHS Vyhne 20.23 306** *e*P P 22 22 36.7 -0.6
**VYHS Vyhne 20.23 306** *e*P P 22 22 36.7 -0.6
**KKAR Karatay Array 20.67 70** *e*P P 22 22 43.4 +1.1
3.6nm,0.7s
**KKAR Karatay Array 20.67 70** *e*P P 22 22 43.4 +1.1
3.6nm,0.7s
**CONA Conrad Observa 21.97 303** pP P 22 22 58.6 +2.3
0.5nm,0.5s
**CONA Conrad Observa 21.97 303** P P 22 22 58.6 +2.3
0.5nm,0.5s
**BVAR Borovoye Array 23.16 44** P P 22 23 09.5 +0.9
0.3nm,0.4s,baz=235,slow=11,SNR=3.7
**GERES GERESS Array B 23.59 305** P P 22 23 12.4 -0.7
2.0nm,1.1s,baz=94,slow=8.3,SNR=9.0
**AAK Ala-Archa 23.60 71** LR LR 22 34 33.3
comp=Z,72nm,19.0s,baz=272,slow=42
**FINES FINESS Array B 25.01 340** LR LR 22 35 12.9
comp=Z,191nm,18.7s,baz=14,slow=41
**FETA Feichten 25.24 299** pP P 22 23 27.7 -0.8
0.9nm,0.6s
**FETA Feichten 25.24 299** P P 22 23 27.7 -0.8
0.9nm,0.6s
**DAVOX Davos/Dischmat 25.79 299** P P 22 23 32.6 -1.0
1.1nm,0.5s,baz=351,slow=3.9,SNR=2.6
**KURBB Kurchatov Arra 27.14 53** P P 22 23 45.5 +0.1
0.9nm,0.9s,baz=262,slow=9.1,SNR=6.0
**MKAR Makanchi Array 29.17 62** P P 22 24 03.7 0.0
0.5nm,0.8s,baz=267,slow=8.5,SNR=5.0
**NOA NORSAR Array B 29.86 328** LR LR 22 37 10.6
comp=Z,44nm,21.6s,baz=0.0,slow=38
**ESDC Sonseca Array 36.49 287** P P 22 25 05.5 -2.2
0.5nm,0.5s,baz=63,slow=8.5,SNR=9.4
**KMBO Kilima Mbogo 40.30 190** LR LR 22 41 58.1
comp=Z,56nm,18.7s,baz=86,slow=36
**TORD Torodi Ar. Bea 45.03 247** P P 22 26 15.7 -2.7
2.3nm,1.0s,baz=64,slow=9.0,SNR=11
**BOSA Boshof 69.36 197** LR LR 23 01 38.2
comp=Z,31nm,19.2s,baz=163,slow=38
**YKA Yellowknife Ar 77.40 350** P P 22 29 56.5 -0.7
0.3nm,0.9s,baz=14,slow=5.9,SNR=3.9

*NEIC* ***27*** *22:22:06.7±0.0, 39.˚10S×174.˚82E, h202km, mb4.1/1, After WEL.*

**WEL 27 22:22:08.0**±0.4, **39.˚13S×174.˚83E, h192km±3km, ML4.5**/55, **35C-13D, Error ellipse: s-maj=1.9km s-min=1.4km az=90.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VRZ** | **Vera Road** | **0.06 278** | | Pn | Pn | 22 22 32.5 | -0.7 |
| **VRZ** | **Vera Road** | **0.06 278** | | ⇓Pn | Pn | 22 22 32.5 | -0.7 |
| VRZ | | | | SN | Sn | 22 22 51.0 | -1.4 |
| **PKVZ** | **Pokaka** | **0.43 112** | | Pn | Pn | 22 22 33.7 | -0.2 |
| **PKVZ** | **Pokaka** | **0.43 112** | | PN | Pn | 22 22 33.7 | -0.2 |
| **LREZ** | **Lake Rotokare** | **0.47 225** | | PN | Pn | 22 22 34.0 | +0.1 |
| **TWVZ** | **Taurewa** | **0.48 83** | | Pn | Pn | 22 22 33.7 | -0.5 |
| **TWVZ** | **Taurewa** | **0.48 83** | | PN | Pn | 22 22 33.7 | -0.5 |
| **DREZ** | **Durham Road** | **0.49 263** | | Pn | Pn | 22 22 33.9 | -0.2 |
| **DREZ** | **Durham Road** | **0.49 263** | | PN | Pn | 22 22 33.9 | -0.2 |
| **MTVZ** | **Mangateitei** | **0.56 117** | | Pn | Pn | 22 22 34.3 | -0.1 |
| **MTVZ** | **Mangateitei** | **0.56 117** | | PN | Pn | 22 22 34.3 | -0.1 |
| **PREZ** | **Palmer Road** | **0.56 248** | | Pn | Pn | 22 22 34.4 | 0.0 |
| PREZ | | | | Sn | Sn | 22 22 54.6 | -0.2 |
| **PREZ** | **Palmer Road** | **0.56 248** | | ⇓PN | Pn | 22 22 34.4 | 0.0 |
| PREZ | | | | SN | Sn | 22 22 54.6 | -0.2 |
| **FWVZ** | **Far West T-bar** | **0.57 103** | | Pn | Pn | 22 22 34.4 | -0.3 |
| FWVZ | | | | Sn | Sn | 22 22 54.1 | -1.2 |
| **FWVZ** | **Far West T-bar** | **0.57 103** | | PN | Pn | 22 22 34.4 | -0.3 |
| **TRVZ** | **Turoa** | **0.58 107** | | Pn | Pn | 22 22 34.5 | -0.2 |
| **TRVZ** | **Turoa** | **0.58 107** | | PN | Pn | 22 22 34.5 | -0.2 |
| **DRZ** | **Dome Shelter** | **0.59 104** | | Pn | Pn | 22 22 34.8 | -0.1 |
| **DRZ** | **Dome Shelter** | **0.59 104** | | *e*PN | Pn | 22 22 34.6 | -0.2 |
| **NEZ** | **North Egmont** | **0.59 256** | | Pn | Pn | 22 22 34.4 | -0.1 |
| **NEZ** | **North Egmont** | **0.59 256** | | PN | Pn | 22 22 34.4 | -0.1 |
| **WTVZ** | **West Tongariro** | **0.59 89** | | Pn | Pn | 22 22 34.5 | -0.2 |
| **WTVZ** | **West Tongariro** | **0.59 89** | | ⇓PN | Pn | 22 22 34.5 | -0.2 |
| **NGZ** | **Ngauruhoe** | **0.60 94** | | Pn | Pn | 22 22 34.5 | -0.2 |
| **NGZ** | **Ngauruhoe** | **0.60 94** | | ⇓PN | Pn | 22 22 34.5 | -0.2 |
| **WHVZ** | **Whangaehu Hut** | **0.61 105** | | Pn | Pn | 22 22 34.7 | -0.2 |
| **WHVZ** | **Whangaehu Hut** | **0.61 105** | | ⇓PN | Pn | 22 22 34.7 | -0.2 |
| **HIZ** | **Hauiti** | **0.62 2** | | Pn | Pn | 22 22 33.5 | -1.2 |
| **HIZ** | **Hauiti** | **0.62 2** | | ⇓PN | Pn | 22 22 33.9 | -0.8 |
| **WNVZ** | **Wahianoa** | **0.63 108** | | Pn | Pn | 22 22 34.8 | -0.1 |
| **KRVZ** | **Karewarewa** | **0.63 87** | | PN | Pn | 22 22 34.7 | -0.2 |
| **WAZ** | **Wanganui** | **0.63 169** | | Pn | Pn | 22 22 34.7 | +0.1 |
| **WAZ** | **Wanganui** | **0.63 169** | | ⇑PN | Pn | 22 22 34.7 | +0.1 |
| **OTVZ** | **Oturere** | **0.65 93** | | Pn | Pn | 22 22 34.8 | -0.1 |
| **OTVZ** | **Oturere** | **0.65 93** | | ⇑PN | Pn | 22 22 34.8 | -0.1 |
| **TUVZ** | **Tukino** | **0.65 102** | | Pn | Pn | 22 22 35.1 | +0.2 |
| **TUVZ** | **Tukino** | **0.65 102** | | PN | Pn | 22 22 35.1 | +0.2 |
| **KHEZ** | **Kahui Hut** | **0.66 255** | | Pn | Pn | 22 22 34.9 | 0.0 |
| KHEZ | | | | Sn | Sn | 22 22 55.2 | -0.4 |
| **KHEZ** | **Kahui Hut** | **0.66 255** | | PN | Pn | 22 22 34.9 | 0.0 |
| KHEZ | | | | SN | Sn | 22 22 55.2 | -0.4 |
| **PKE** | **Pukeiti** | **0.66 264** | | Pn | Pn | 22 22 34.6 | -0.2 |
| **PKE** | **Pukeiti** | **0.66 264** | | PN | Pn | 22 22 34.6 | -0.2 |
| **KATZ** | **Kakaramea** | **0.69 77** | | Pn | Pn | 22 22 34.9 | -0.3 |
| **KATZ** | **Kakaramea** | **0.69 77** | | PN | Pn | 22 22 34.9 | -0.3 |
| **MOVZ** | **Moawhango** | **0.77 111** | | Pn | Pn | 22 22 35.1 | -0.3 |
| **MOVZ** | **Moawhango** | **0.77 111** | | PN | Pn | 22 22 35.1 | -0.3 |
| **RATZ** | **Rangitukua** | **0.78 70** | | Pn | Pn | 22 22 35.2 | -0.4 |
| **RATZ** | **Rangitukua** | **0.78 70** | | PN | Pn | 22 22 35.2 | -0.4 |
| **NMEZ** | **Namu Road** | **0.79 249** | | Pn | Pn | 22 22 35.4 | -0.1 |
| **NMEZ** | **Namu Road** | **0.79 249** | | ⇑PN | Pn | 22 22 35.4 | -0.1 |
| **RITZ** | **Rihia Road** | **0.81 79** | | Pn | Pn | 22 22 35.5 | -0.2 |
| **RITZ** | **Rihia Road** | **0.81 79** | | PN | Pn | 22 22 35.5 | -0.2 |
| **WATZ** | **Wairara** | **0.82 59** | | Pn | Pn | 22 22 35.7 | -0.1 |
| **WATZ** | **Wairara** | **0.82 59** | | ⇓PN | Pn | 22 22 35.7 | -0.1 |
| **TLZ** | **Tolley Road** | **0.97 35** | | Pn | Pn | 22 22 36.0 | -0.8 |
| **TLZ** | **Tolley Road** | **0.97 35** | | PN | Pn | 22 22 36.0 | -0.8 |
| **HATZ** | **Hinemaiaia** | **1.01 77** | | Pn | Pn | 22 22 36.4 | -0.6 |
| **HATZ** | **Hinemaiaia** | **1.01 77** | | PN | Pn | 22 22 36.4 | -0.6 |
| **BHHZ** | **Black Hill Sta** | **1.02 111** | | Pn | Pn | 22 22 36.7 | -0.4 |
| **BHHZ** | **Black Hill Sta** | **1.02 111** | | PN | Pn | 22 22 36.7 | -0.4 |
| BHHZ | | | | AML | AML | 22 22 58.1 | |
| BHHZ | | | | AML | AML | 22 22 59.7 | |
| **OHWZ** | **Ohakea** | **1.14 161** | | ⇑PN | Pn | 22 22 38.3 | +0.5 |
| **KWHZ** | **Kaweka Forest** | **1.27 104** | | PN | Pn | 22 22 39.3 | +0.4 |
| KWHZ | | | | AML | AML | 22 23 04.9 | |
| KWHZ | | | | AML | AML | 22 23 05.0 | |
| **MRHZ** | **Matea Rd** | **1.27 77** | | ⇓PN | Pn | 22 22 38.4 | -0.6 |
| MRHZ | | | | AML | AML | 22 23 02.2 | |
| MRHZ | | | | AML | AML | 22 23 02.2 | |
| **TSZ** | **Takapari Road** | **1.27 137** | | Pn | Pn | 22 22 38.7 | -0.3 |
| **TSZ** | **Takapari Road** | **1.27 137** | | PN | Pn | 22 22 38.7 | -0.3 |
| TSZ | | | | SN | Sn | 22 23 00.7 | -2.4 |
| TSZ | | | | AML | AML | 22 23 03.0 | |
| **BKZ** | **Black Stump Fm** | **1.29 92** | | Pn | Pn | 22 22 38.9 | -0.3 |
| **BKZ** | **Black Stump Fm** | **1.29 92** | | PN | Pn | 22 22 38.9 | -0.3 |
| BKZ | | | | AML | AML | 22 23 01.0 | |
| BKZ | | | | AML | AML | 22 23 03.5 | |
| **KRHZ** | **Kereru** | **1.30 114** | | PN | Pn | 22 22 39.2 | 0.0 |
| KRHZ | | | | AML | AML | 22 23 03.1 | |
| KRHZ | | | | AML | AML | 22 23 04.7 | |
| **PNHZ** | **Pukenui** | **1.31 127** | | Pn | Pn | 22 22 39.3 | 0.0 |
| **PNHZ** | **Pukenui** | **1.31 127** | | ⇑PN | Pn | 22 22 39.3 | 0.0 |
| PNHZ | | | | AML | AML | 22 23 02.6 | |
| PNHZ | | | | AML | AML | 22 23 02.7 | |
| **POWZ** | **Post Office Ro** | **1.45 150** | | Pn | Pn | 22 22 40.2 | -0.2 |
| **POWZ** | **Post Office Ro** | **1.45 150** | | ⇑PN | Pn | 22 22 40.2 | -0.2 |
| POWZ | | | | AML | AML | 22 23 11.3 | |
| POWZ | | | | AML | AML | 22 23 11.9 | |
| **MCHZ** | **McNeill Hill** | **1.48 103** | | Pn | Pn | 22 22 41.5 | +0.8 |
| **MCHZ** | **McNeill Hill** | **1.48 103** | | ⇑PN | Pn | 22 22 41.5 | +0.8 |
| MCHZ | | | | AML | AML | 22 23 12.5 | |
| MCHZ | | | | AML | AML | 22 23 18.1 | |
| **TOZ** | **Tahuroa Road** | **1.50 21** | | Pn | Pn | 22 22 40.5 | -0.4 |
| **TOZ** | **Tahuroa Road** | **1.50 21** | | PN | Pn | 22 22 40.5 | -0.4 |
| **NMHZ** | **Naumai** | **1.54 89** | | Pn | Pn | 22 22 42.1 | +0.8 |
| **NMHZ** | **Naumai** | **1.54 89** | | PN | Pn | 22 22 42.1 | +0.8 |
| NMHZ | | | | AML | AML | 22 23 13.9 | |
| NMHZ | | | | AML | AML | 22 23 14.0 | |
| **WPHZ** | **Waipukurau** | **1.55 127** | | Pn | Pn | 22 22 41.5 | +0.2 |
| **WPHZ** | **Waipukurau** | **1.55 127** | | ⇑PN | Pn | 22 22 41.5 | +0.2 |
| WPHZ | | | | AML | AML | 22 23 05.7 | |
| WPHZ | | | | AML | AML | 22 23 07.6 | |
| **DVHZ** | **Dannevirke** | **1.56 139** | | Pn | Pn | 22 22 41.3 | -0.2 |
| **DVHZ** | **Dannevirke** | **1.56 139** | | ⇑PN | Pn | 22 22 41.3 | -0.2 |
| DVHZ | | | | AML | AML | 22 23 05.6 | |
| DVHZ | | | | AML | AML | 22 23 05.9 | |
| **MTHZ** | **Maungataniwha** | **1.59 81** | | PN | Pn | 22 22 41.4 | -0.4 |
| **MRZ** | **Mangatainoka R** | **1.63 160** | | Pn | Pn | 22 22 41.7 | -0.4 |
| **MRZ** | **Mangatainoka R** | **1.63 160** | | ⇑PN | Pn | 22 22 41.7 | -0.4 |
| MRZ | | | | SN | Sn | 22 23 05.5 | -3.3 |
| MRZ | | | | AML | AML | 22 23 07.7 | |
| **MUGZ** | **Murupara** | **1.65 67** | | PN | Pn | 22 22 41.5 | -0.9 |
| **PRWZ** | **Pori Road** | **1.67 149** | | Pn | Pn | 22 22 42.5 | 0.0 |
| **PRWZ** | **Pori Road** | **1.67 149** | | ⇑PN | Pn | 22 22 42.5 | 0.0 |
| PRWZ | | | | AML | AML | 22 23 07.8 | |
| PRWZ | | | | AML | AML | 22 23 08.0 | |
| **ARHZ** | **Aropaoanui** | **1.69 95** | | PN | Pn | 22 22 43.3 | +0.7 |
| ARHZ | | | | AML | AML | 22 23 11.1 | |
| ARHZ | | | | AML | AML | 22 23 12.6 | |
| **OGWZ** | **Otaki Gorge** | **1.70 171** | | Pn | Pn | 22 22 42.6 | -0.2 |
| **OGWZ** | **Otaki Gorge** | **1.70 171** | | ⇑PN | Pn | 22 22 42.6 | -0.2 |
| OGWZ | | | | AML | AML | 22 23 07.5 | |
| OGWZ | | | | AML | AML | 22 23 07.6 | |
| **KAHZ** | **Kahuranaki** | **1.72 113** | | Pn | Pn | 22 22 43.4 | +0.4 |
| **KAHZ** | **Kahuranaki** | **1.72 113** | | ⇑PN | Pn | 22 22 43.4 | +0.4 |
| KAHZ | | | | AML | AML | 22 23 09.0 | |
| KAHZ | | | | AML | AML | 22 23 10.0 | |
| **KIW** | **Kapiti Island** | **1.73 178** | | Pn | Pn | 22 22 42.4 | -0.6 |
| **KIW** | **Kapiti Island** | **1.73 178** | | ⇑PN | Pn | 22 22 42.4 | -0.6 |
| KIW | | | | AML | AML | 22 23 07.8 | |
| KIW | | | | AML | AML | 22 23 08.7 | |
| **RTZ** | **Ruatahuna** | **1.75 74** | | PN | Pn | 22 22 42.8 | -0.6 |
| **PRHZ** | **Porangahau** | **1.79 130** | | Pn | Pn | 22 22 43.9 | +0.2 |
| **PRHZ** | **Porangahau** | **1.79 130** | | ⇑PN | Pn | 22 22 43.9 | +0.2 |
| PRHZ | | | | AML | AML | 22 23 12.1 | |
| PRHZ | | | | AML | AML | 22 23 12.6 | |
| **DUWZ** | **D'Urville Isla** | **1.81 202** | | Pn | Pn | 22 22 43.0 | -0.9 |
| **DUWZ** | **D'Urville Isla** | **1.81 202** | | PN | Pn | 22 22 43.0 | -0.9 |
| **PXZ** | **Pawanui** | **1.81 120** | | Pn | Pn | 22 22 44.0 | +0.1 |
| **PXZ** | **Pawanui** | **1.81 120** | | ⇑PN | Pn | 22 22 44.0 | +0.1 |
| PXZ | | | | AML | AML | 22 23 11.0 | |
| PXZ | | | | AML | AML | 22 23 11.0 | |
| PXZ | | | | AML | AML | 22 23 12.6 | |
| PXZ | | | | AML | AML | 22 23 12.7 | |
| **CKHZ** | **Cape Kidnapper** | **1.82 108** | | Pn | Pn | 22 22 44.4 | +0.5 |
| **CKHZ** | **Cape Kidnapper** | **1.82 108** | | PN | Pn | 22 22 44.4 | +0.5 |
| CKHZ | | | | AML | AML | 22 23 11.3 | |
| CKHZ | | | | AML | AML | 22 23 11.6 | |
| **TIWZ** | **Tintock** | **1.83 154** | | Pn | Pn | 22 22 43.7 | -0.4 |
| **TIWZ** | **Tintock** | **1.83 154** | | ⇑PN | Pn | 22 22 43.7 | -0.4 |
| TIWZ | | | | AML | AML | 22 23 10.7 | |
| TIWZ | | | | AML | AML | 22 23 11.6 | |
| **ANWZ** | **Angora Road** | **1.83 137** | | PN | Pn | 22 22 44.3 | +0.2 |
| ANWZ | | | | AML | AML | 22 23 10.7 | |
| ANWZ | | | | AML | AML | 22 23 12.2 | |
| **HOWZ** | **Holdsworth Sta** | **1.84 164** | | Pn | Pn | 22 22 43.6 | -0.6 |
| **HOWZ** | **Holdsworth Sta** | **1.84 164** | | ⇑PN | Pn | 22 22 43.6 | -0.6 |
| HOWZ | | | | AML | AML | 22 23 09.3 | |
| HOWZ | | | | AML | AML | 22 23 09.5 | |
| **WHHZ** | **Waihua** | **1.87 89** | | PN | Pn | 22 22 45.5 | +1.0 |
| WHHZ | | | | AML | AML | 22 23 19.5 | |
| WHHZ | | | | AML | AML | 22 23 24.5 | |
| **BFZ** | **Birch Farm** | **1.89 145** | | Pn | Pn | 22 22 44.2 | -0.5 |
| **BFZ** | **Birch Farm** | **1.89 145** | | ⇓PN | Pn | 22 22 44.2 | -0.5 |
| BFZ | | | | AML | AML | 22 23 11.3 | |
| BFZ | | | | AML | AML | 22 23 11.4 | |
| BFZ | | | | AML | AML | 22 23 11.4 | |
| BFZ | | | | AML | AML | 22 23 11.9 | |
| **CAW** | **Cannon Point** | **1.98 175** | | Pn | Pn | 22 22 45.0 | -0.6 |
| **CAW** | **Cannon Point** | **1.98 175** | | ⇑PN | Pn | 22 22 45.0 | -0.6 |
| CAW | | | | AML | AML | 22 22 45.9 | |
| CAW | | | | AML | AML | 22 23 12.2 | |
| **URZ** | **Urewera** | **1.98 65** | | PN | Pn | 22 22 44.6 | -1.1 |
| URZ | | | | AML | AML | 22 23 12.3 | |
| URZ | | | | AML | AML | 22 23 13.3 | |
| **SNGZ** | **Shannon Statio** | **1.99 81** | | Pn | Pn | 22 22 46.5 | +0.8 |
| **SNGZ** | **Shannon Statio** | **1.99 81** | | PN | Pn | 22 22 46.5 | +0.8 |
| SNGZ | | | | AML | AML | 22 23 19.2 | |
| SNGZ | | | | AML | AML | 22 23 24.0 | |
| **CPWZ** | **Castlepoint** | **2.06 150** | | Pn | Pn | 22 22 46.5 | 0.0 |
| **CPWZ** | **Castlepoint** | **2.06 150** | | ⇑PN | Pn | 22 22 46.5 | 0.0 |
| CPWZ | | | | AML | AML | 22 23 17.9 | |
| CPWZ | | | | AML | AML | 22 23 18.0 | |
| **MTW** | **Mount Morrison** | **2.09 166** | | Pn | Pn | 22 22 45.8 | -0.9 |
| **MTW** | **Mount Morrison** | **2.09 166** | | ⇑PN | Pn | 22 22 45.8 | -0.9 |
| MTW | | | | AML | AML | 22 23 13.6 | |
| MTW | | | | AML | AML | 22 23 15.3 | |
| **RAGZ** | **Rawiri** | **2.12 73** | | Pn | Pn | 22 22 51.8 | +4.6 |
| **RAGZ** | **Rawiri** | **2.12 73** | | PN | Pn | 22 22 51.8 | +4.6 |
| RAGZ | | | | AML | AML | 22 23 18.0 | |
| RAGZ | | | | AML | AML | 22 23 18.1 | |
| **TCW** | **Tory Channel** | **2.12 191** | | Pn | Pn | 22 22 46.4 | -0.7 |
| **TCW** | **Tory Channel** | **2.12 191** | | PN | Pn | 22 22 46.4 | -0.7 |
| TCW | | | | AML | AML | 22 22 47.2 | |
| TCW | | | | SN | Sn | 22 23 13.1 | -4.6 |
| **TMWZ** | **Te Maipa** | **2.13 158** | | Pn | Pn | 22 22 46.5 | -0.7 |
| **TMWZ** | **Te Maipa** | **2.13 158** | | ⇑PN | Pn | 22 22 46.5 | -0.7 |
| TMWZ | | | | AML | AML | 22 23 16.9 | |
| TMWZ | | | | AML | AML | 22 23 18.0 | |
| **WEL** | **Wellington** | **2.15 181** | | Pn | Pn | 22 22 46.6 | -0.8 |
| **WEL** | **Wellington** | **2.15 181** | | ⇑PN | Pn | 22 22 46.6 | -0.8 |
| WEL | | | | AML | AML | 22 23 15.7 | |
| WEL | | | | AML | AML | 22 23 15.7 | |
| **SNZO** | **South Karori** | **2.18 182** | | *e*Pn | Pn | 22 22 46.8 | -0.9 |
| SNZO | | | | eS | Sn | 22 23 15.0 | -3.8 |
| **KNZ** | **Kokohu** | **2.21 88** | | Pn | Pn | 22 22 47.8 | -0.3 |
| **KNZ** | **Kokohu** | **2.21 88** | | PN | Pn | 22 22 47.8 | -0.3 |
| **MWZ** | **Matawai** | **2.25 70** | | Pn | Pn | 22 22 47.9 | -0.7 |
| **MWZ** | **Matawai** | **2.25 70** | | ⇑PN | Pn | 22 22 47.9 | -0.7 |
| MWZ | | | | AML | AML | 22 23 18.8 | |
| MWZ | | | | AML | AML | 22 23 19.0 | |
| **BHW** | **Baring Head** | **2.27 179** | | Pn | Pn | 22 22 47.7 | -1.1 |
| **BHW** | **Baring Head** | **2.27 179** | | ⇑PN | Pn | 22 22 47.7 | -1.1 |
| BHW | | | | AML | AML | 22 23 18.1 | |
| BHW | | | | AML | AML | 22 23 19.1 | |
| **PAWZ** | **Paruwai Farm** | **2.29 169** | | Pn | Pn | 22 22 48.0 | -1.0 |
| **PAWZ** | **Paruwai Farm** | **2.29 169** | | ⇑PN | Pn | 22 22 48.0 | -1.0 |
| PAWZ | | | | AML | AML | 22 23 17.6 | |
| PAWZ | | | | AML | AML | 22 23 17.9 | |
| **MSWZ** | **Moikau Station** | **2.30 172** | | Pn | Pn | 22 22 48.0 | -1.1 |
| **MSWZ** | **Moikau Station** | **2.30 172** | | ⇑PN | Pn | 22 22 48.0 | -1.1 |
| MSWZ | | | | AML | AML | 22 23 17.8 | |
| MSWZ | | | | AML | AML | 22 23 19.5 | |
| **RIGZ** | **Rimuhau** | **2.33 80** | | ⇑PN | Pn | 22 22 49.2 | -0.2 |
| RIGZ | | | | AML | AML | 22 23 18.8 | |
| RIGZ | | | | AML | AML | 22 23 19.2 | |
| **TRWZ** | **Traveller** | **2.36 164** | | Pn | Pn | 22 22 48.7 | -1.0 |
| **TRWZ** | **Traveller** | **2.36 164** | | ⇑PN | Pn | 22 22 48.7 | -1.0 |
| TRWZ | | | | AML | AML | 22 23 20.8 | |
| TRWZ | | | | AML | AML | 22 23 22.0 | |
| **NNZ** | **Nelson** | **2.36 208** | | ⇑PN | Pn | 22 22 48.3 | -1.4 |
| **PRGZ** | **Paritu Road** | **2.39 86** | | Pn | Pn | 22 22 50.1 | 0.0 |
| **PRGZ** | **Paritu Road** | **2.39 86** | | PN | Pn | 22 22 50.1 | 0.0 |
| PRGZ | | | | AML | AML | 22 23 23.4 | |
| PRGZ | | | | AML | AML | 22 23 23.6 | |
| **MHGZ** | **Mahia Peninsul** | **2.39 91** | | Pn | Pn | 22 22 50.5 | +0.4 |
| **MHGZ** | **Mahia Peninsul** | **2.39 91** | | PN | Pn | 22 22 50.5 | +0.4 |
| MHGZ | | | | AML | AML | 22 23 28.8 | |
| MHGZ | | | | AML | AML | 22 23 30.5 | |
| **TUWZ** | **Tuamarina** | **2.39 196** | | Pn | Pn | 22 22 48.9 | -1.1 |
| **TUWZ** | **Tuamarina** | **2.39 196** | | ⇓PN | Pn | 22 22 48.9 | -1.1 |
| TUWZ | | | | AML | AML | 22 22 49.6 | |
| TUWZ | | | | AML | AML | 22 22 49.7 | |
| **QRZ** | **Quartz Range** | **2.45 226** | | ⇑PN | Pn | 22 22 48.7 | -1.9 |
| **PLWZ** | **Palliser** | **2.46 173** | | Pn | Pn | 22 22 49.5 | -1.3 |
| **PLWZ** | **Palliser** | **2.46 173** | | ⇑PN | Pn | 22 22 49.5 | -1.3 |
| PLWZ | | | | AML | AML | 22 23 22.2 | |
| PLWZ | | | | AML | AML | 22 23 22.8 | |
| **TKGZ** | **Te Karaka** | **2.46 75** | | AML | AML | 22 23 25.4 | |
| TKGZ | | | | AML | AML | 22 23 25.7 | |
| **RUGZ** | **Raukumara Rang** | **2.52 63** | | ⇓PN | Pn | 22 22 50.0 | -1.6 |
| **TWGZ** | **Tauwhareparae** | **2.64 70** | | Pn | Pn | 22 22 52.8 | -0.3 |
| **TWGZ** | **Tauwhareparae** | **2.64 70** | | PN | Pn | 22 22 52.7 | -0.3 |
| TWGZ | | | | AML | AML | 22 23 26.8 | |
| TWGZ | | | | AML | AML | 22 23 31.5 | |
| **CMWZ** | **Cape Campbell** | **2.66 190** | | Pn | Pn | 22 22 52.6 | -0.5 |
| **CMWZ** | **Cape Campbell** | **2.66 190** | | ⇑PN | Pn | 22 22 52.6 | -0.5 |
| CMWZ | | | | AML | AML | 22 23 30.6 | |
| CMWZ | | | | AML | AML | 22 23 30.7 | |
| **BSWZ** | **Blackbirch Sta** | **2.68 195** | | Pn | Pn | 22 22 52.4 | -1.0 |
| **BSWZ** | **Blackbirch Sta** | **2.68 195** | | PN | Pn | 22 22 52.3 | -1.0 |
| BSWZ | | | | AML | AML | 22 22 53.5 | |
| BSWZ | | | | AML | AML | 22 22 58.5 | |
| **HAZ** | **Te Kaha** | **2.69 60** | | PN | Pn | 22 22 51.9 | -1.6 |
| HAZ | | | | AML | AML | 22 23 26.0 | |
| HAZ | | | | AML | AML | 22 23 27.5 | |
| **PKGZ** | **Pakihiroa** | **2.83 65** | | PN | Pn | 22 22 54.3 | -0.9 |
| PKGZ | | | | AML | AML | 22 23 29.6 | |
| PKGZ | | | | AML | AML | 22 23 30.2 | |
| **PUZ** | **Puketiti** | **2.89 70** | | Pn | Pn | 22 22 54.8 | -1.1 |
| **PUZ** | **Puketiti** | **2.89 70** | | PN | Pn | 22 22 54.8 | -1.1 |
| PUZ | | | | AML | AML | 22 23 30.9 | |
| PUZ | | | | AML | AML | 22 23 32.5 | |
| **THZ** | **Tophouse** | **3.01 209** | | PN | Pn | 22 22 55.3 | -2.0 |
| **WMGZ** | **Waiomatatini S** | **3.10 66** | | Pn | Pn | 22 22 57.2 | -1.2 |
| **WMGZ** | **Waiomatatini S** | **3.10 66** | | PN | Pn | 22 22 57.2 | -1.2 |
| WMGZ | | | | AML | AML | 22 23 34.4 | |
| WMGZ | | | | AML | AML | 22 23 34.8 | |
| **MXZ** | **Matakaoa Point** | **3.15 61** | | Pn | Pn | 22 22 58.1 | -0.8 |
| **MXZ** | **Matakaoa Point** | **3.15 61** | | ⇓PN | Pn | 22 22 58.1 | -0.8 |
| MXZ | | | | AML | AML | 22 23 36.8 | |
| MXZ | | | | AML | AML | 22 23 36.8 | |
| **KHZ** | **Kahutara** | **3.42 196** | | PN | Pn | 22 23 00.8 | -1.4 |
| KHZ | | | | AML | AML | 22 23 01.5 | |
| KHZ | | | | AML |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 0.8nm,0.6s,baz=16,slow=9.2,SNR=12 | | | | | | | | |
| **DZM** | **Mont Dzumac** | **41.64** | **149** | P | | **P** | **22 32 41.6** | **+0.9** |
| | 11nm,0.5s,baz=258,slow=5.7,SNR=16 | | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **44.12** | **282** | P | | **P** | **22 33 01.4** | **+0.6** |
| | 0.5nm,0.4s,baz=90,slow=5.1,SNR=5.0 | | | | | | | | |
| **STKA** | **Stephens Creek** | **45.65** | **184** | P | | **P** | **22 33 11.8** | **-0.8** |
| | 1.6nm,0.6s,baz=16,slow=8.4,SNR=4.3 | | | | | | | | |
| **SONM** | **Songino Array** | **46.38** | **325** | P | | **P** | **22 33 18.8** | **+0.5** |
| | 0.6nm,0.7s,baz=96,slow=8.8,SNR=3.3 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **61.15** | **316** | P | | **P** | **22 35 06.1** | **+0.4** |
| | 0.9nm,0.4s,baz=92,slow=8.8,SNR=29 | | | | | | | | |
| MKAR | | | | pP | | **pP** | **22 35 40.8** | **+1.0** |
| | 0.5nm,0.7s,baz=94,slow=8.2,SNR=2.7 | | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **64.28** | **320** | P | | **P** | **22 35 26.1** | **-0.1** |
| | 1.6nm,0.5s,baz=104,slow=6.5,SNR=18 | | | | | | | | |
| KURBB | | | | pP | | **pP** | **22 36 01.9** | **+1.2** |
| | 1.1nm,0.8s,baz=103,slow=6.6,SNR=3.9 | | | | | | | | |
| **ILAR** | **Eielson Array** | **68.31** | **25** | P | | **P** | **22 35 49.1** | **-2.5** |
| | 0.4nm,0.4s,baz=252,slow=5.5,SNR=11 | | | | | | | | |
| ILAR | | | | pP | | **pP** | **22 36 25.4** | **-1.1** |
| | 0.3nm,0.4s,baz=247,slow=5.8,SNR=2.7 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **82.61** | **27** | P | | **P** | **22 37 11.4** | **-1.8** |
| | 0.1nm,0.3s,baz=286,slow=5.1,SNR=5.5 | | | | | | | | |
| YKA | | | | pP | | **pP** | **22 37 49.5** | **+0.2** |
| | 0.2nm,0.5s,baz=286,slow=5.1,SNR=2.0 | | | | | | | | |
| **NVAR** | **Mina Array Bea** | **86.81** | **51** | P | | **P** | **22 37 35.5** | **+0.4** |
| | 0.5nm,0.6s,baz=281,slow=5.1,SNR=5.7 | | | | | | | | |
| NVAR | | | | pP | | **pP** | **22 38 12.2** | **+0.7** |
| | 0.1nm,0.3s,baz=272,slow=4.9,SNR=2.2 | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **134.56** | **305** | PKP | | **PKPdf** | **22 44 09.0** | **+0.3** |
| | 0.2nm,0.6s,baz=48,slow=2.7,SNR=3.9 | | | | | | | | |
| **LPAZ** | **La Paz** | **148.20** | **98** | PKPbc | | **PKPbc** | **22 44 37.0** | **0.0** |
| | 1.1nm,0.5s,baz=85,slow=1.4,SNR=5.3 | | | | | | | | |

### MAN 27 22:32:45,9.95N×124.75E,h22km,mb4.0,ML2.8,MS2.5, 2D,Mindanao

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MSLP** | **Maasin** | **0.21** | **30** | *e*P | Pb | 22 32 51.1 | +0.4 |
| MSLP | | | | *e*S | Sb | 22 32 55.7 | +1.1 |
| **SCPH** | **Surigao** | **0.74** | **103** | ⇓*i*P | Pb | 22 32 59.4 | +0.1 |
| **LLP** | **Lapu-Lapu** | **0.86** | **295** | ⇓*i*P | Pb | 22 33 01.3 | +0.1 |
| LLP | | | | *i* S | Sn | 22 33 14.0 | +0.4 |
| **TBP** | **Tagbilaran** | **0.91** | **254** | *e*P | Pn | 22 33 10.8 | +8.2 |
| TBP | | | | *e*S | Sn | 22 33 24.1 | +9.1 |
| **OCLP** | **Ormoc** | **1.11** | **353** | *e*P | Pn | 22 33 05.0 | -0.2 |

*ISCJB* ***27*** *22:34:25.6±0.5,38.60N±0.03×43.24E±0.04,h13km±4km, Error ellipse: s-maj=5.8km s-min=4.9km az=171.7*
*CSEM* ***27*** *22:34:25.7±0.3,38.61N×43.22E, h2km, MD2.6, Error ellipse: s-maj=9.0km s-min=6.4km az=60.0*
*ISK* ***27*** *22:34:25.3,38.66N×43.42E, h2km, MD2.6*
*DDA* ***27*** *22:34:25.3,38.60N×43.25E, h7km, Ml2.8*

### ISC 27 22:34:26.2±1.1,38.61N±0.03×43.22E±0.03,h4km±12km, n23,σ1.913/33,Turkey

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.14** | **96** | *e*PG | **Pg** | **22 34 28.8** | **-0.1** |
| VANB | | | | *e*SG | **Sg** | **22 34 31.7** | **+0.9** |
| **VANB** | **Van** | **0.14** | **96** | *e*Pg | **Pg** | **22 34 28.8** | **-0.1** |
| VANB | | | | *e*Sg | **Sg** | **22 34 31.7** | **+0.9** |
| **TVAN** | **Van** | **0.17** | **118** | *i* P | **Pg** | **22 34 28.7** | **-0.9** |
| TVAN | | | | *i* S | **Sg** | **22 34 31.7** | **-0.1** |
| **TVAN** | **Van** | **0.17** | **118** | P | **Pg** | **22 34 28.7** | **-0.9** |
| TVAN | | | | S | **Sg** | **22 34 31.7** | **-0.1** |
| **GEVA** | **Gevas** | **0.32** | **203** | *i* P | **Pg** | **22 34 31.7** | **-0.7** |
| GEVA | | | | *i* S | **Sg** | **22 34 37.5** | **+0.9** |
| **ERCV** | **ERCIS-VAN** | **0.42** | **13** | *e*PG | **Pg** | **22 34 33.7** | **-0.6** |
| **ERCV** | **ERCIS-VAN** | **0.42** | **13** | *e*Pg | **Pg** | **22 34 33.7** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.43** | **297** | *i* P | **Pg** | **22 34 34.6** | **+0.1** |
| ADCV | | | | *i* S | **Sb** | **22 34 42.1** | **-1.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.43** | **297** | P | **Pg** | **22 34 34.6** | **+0.1** |
| ADCV | | | | S | **Sb** | **22 34 42.1** | **-1.3** |
| **VMUR** | **Van-Muradiye** | **0.47** | **36** | *i* P | **Pg** | **22 34 35.1** | **-0.2** |
| VMUR | | | | *i* S | **Sb** | **22 34 43.3** | **-1.2** |
| **CLDR** | **Caldiran** | **0.76** | **46** | *i* P | **Pg** | **22 34 39.5** | **-1.3** |
| **TUTA** | **Tutak** | **0.85** | **339** | *i* P | **Pg** | **22 34 41.8** | **-0.7** |
| **TUTA** | **Tutak** | **0.85** | **339** | P | **Pg** | **22 34 41.8** | **-0.7** |
| **AGRB** | **Hanur-Agry** | **0.98** | **350** | *e*PG | **Pg** | **22 34 44.9** | **-0.9** |
| AGRB | | | | *e*SG | **Sb** | **22 34 59.4** | **+0.2** |
| **AGRB** | **Hanur-Agry** | **0.98** | **350** | *e*Pg | **Pb** | **22 34 44.9** | **-0.9** |
| AGRB | | | | *e*Sg | **Sb** | **22 34 59.4** | **+0.2** |
| **EKAR** | **Karacoban** | **1.11** | **306** | *i* P | **Pg** | **22 34 45.9** | **-1.5** |
| **EKAR** | **Karacoban** | **1.11** | **306** | P | **Pg** | **22 34 45.9** | **-1.5** |
| **HAKT** | **HAKKARI** | **1.12** | **160** | *i* P | **Pg** | **22 34 45.5** | **-2.1** |
| **HAKT** | **HAKKARI** | **1.12** | **160** | P | **Pg** | **22 34 45.5** | **-2.1** |
| **SIRT** | **Sirnak** | **1.27** | **209** | *e*PN | **Pn** | **22 34 52.8** | **+2.1** |
| **SIRT** | **Sirnak** | **1.27** | **209** | *e*Pn | **Pn** | **22 34 52.8** | **+2.1** |
| **CUKT** | **Cukurca** | **1.40** | **167** | *e*PN | **Pb** | **22 34 52.9** | **+0.1** |
| **CUKT** | **Cukurca** | **1.40** | **167** | *e*Pn | **Pb** | **22 34 52.9** | **+0.1** |

### MEX 27 22:35:22.8±0.6,16.66N×100.40W,h6km±6km,MD3.6, Near coast of Guerrero

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CAIG** | **El Cayaco** | **0.40** | **18** | *i* P | Pg | 22 35 30.0 | -0.6 |
| CAIG | | | | *e*S | Sg | 22 35 36.2 | +0.4 |
| **ACP2** | **Acapulco** | **0.53** | **67** | *e*P | Pg | 22 35 32.4 | -0.7 |
| ACP2 | | | | *e*S | Sg | 22 35 40.6 | +0.6 |
| **ACX** | **Acapulco** | **0.55** | **68** | *e*P | Pn | 22 35 37.2 | 0.0 |
| ACX | | | | *e*S | Sn | 22 35 45.2 | -1.7 |
| **MEIG** | **Mezcala** | **1.46** | **30** | *e*P | Pn | 22 35 46.4 | -3.4 |
| MEIG | | | | *e*S | Sb | 22 36 03.6 | -5.7 |
| **ARIG** | **Puente Sto Nin** | **1.61** | **2** | *e*P | Pn | 22 35 48.4 | -3.5 |
| ARIG | | | | *e*S | Sn | 22 36 07.0 | -5.9 |
| **PLIG** | **Platanillo** | **1.92** | **26** | *e*P | Pn | 22 35 53.7 | -2.4 |
| PLIG | | | | *e*S | Sn | 22 36 15.5 | -5.2 |
| **TLIG** | **Tlapa** | **1.96** | **63** | *i* P | Pn | 22 35 54.0 | -2.9 |
| TLIG | | | | *e*S | Sn | 22 36 17.0 | -4.8 |

### OBM 27 22:36:19.4±0.3,51.74N×95.73E,h2km,Ml4.1,Error ellipse: s-maj=7.0km s-min=2.4km az=171.0, Southwestern Siberia

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ULG** | **Ulaangom** | **2.93** | **234** | *e*Pn | Pn | 22 37 09.0 | +1.9 |
| **ULG** | **Ulaangom** | **2.93** | **234** | *e*Pg | Pb | 22 37 12.0 | -0.4 |
| ULG | | | | *e*Sg | Sg | 22 37 51.2 | -2.4 |
| | 183nm,0.3s | | | | | | |
| **HTG** | **Hatgal** | **3.08** | **113** | *e*Pn | Pb | 22 37 12.1 | -2.9 |
| HTG | | | | *e*Sg | Sb | 22 37 51.0 | -2.0 |
| | 284nm,0.5s | | | | | | |
| **HBD** | **Hovd** | **4.58** | **217** | *e*Pn | Pn | 22 37 32.4 | +2.7 |
| **HBD** | **Hovd** | **4.58** | **217** | *e*Pg | Pg | 22 37 44.3 | -2.7 |
| HBD | | | | *e*Sg | Sg | 22 38 42.8 | -3.5 |
| **BYO** | **Bayan-Olgiy** | **4.63** | **235** | *e*Pn | Pn | 22 37 32.6 | +2.1 |
| **BYO** | **Bayan-Olgiy** | **4.63** | **235** | *e*Pg | Pg | 22 37 45.3 | -2.8 |
| BYO | | | | *e*Sg | Sg | 22 38 43.3 | -4.7 |
| | 74nm,0.4s | | | | | | |
| **TTS** | **Tsetserleg** | **5.65** | **137** | *e*Pg | Pg | 22 38 07.3 | -0.4 |
| TTS | | | | *e*Sg | Sb | 22 39 13.2 | +6.1 |
| | 60nm,0.5s | | | | | | |
| **BLGM** | **Bulgan** | **5.81** | **118** | *e*Pg | Pb | 22 38 04.8 | +3.4 |
| BLGM | | | | *e*Sg | Sg | 22 39 21.2 | -4.6 |
| | 124nm,0.8s | | | | | | |

### JMA 27 22:36:55.4±0.2,36.64N×141.60E,h41km±5km,M2.6, Near east coast of eastern Honshu

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JHO** | **Hitachi** | **0.83** | **268** | P | Pn | 22 37 10.6 | 0.0 |
| **JFK** | **Kawauchi** | **0.93** | **322** | P | Pn | 22 37 12.2 | +0.2 |
| **JMM** | **Marumori** | **1.38** | **332** | P | Pn | 22 37 17.8 | -0.4 |
| **MAT** | **Matsushiro** | **2.73** | **269** | P | Pn | 22 37 39.4 | +2.6 |
| MAT | | | | S | Sn | 22 38 13.0 | +4.4 |

### MEX 27 22:55:40.5±1.0,16.74N×99.74W,h11km±15km,MD3.6, Near coast of Guerrero

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ACX** | **Acapulco** | **0.17** | **318** | *i* P | Pb | 22 55 48.2 | +2.5 |
| ACX | | | | *e*S | Sg | 22 55 51.0 | +4.1 |
| **ACP2** | **Acapulco** | **0.19** | **313** | *e*P | Pg | 22 55 44.0 | -0.7 |
| ACP2 | | | | *e*S | Sg | 22 55 47.4 | -0.2 |
| **CAIG** | **El Cayaco** | **0.59** | **301** | *e*P | Pg | 22 55 50.4 | -1.6 |
| CAIG | | | | *e*S | Sg | 22 55 58.6 | -1.2 |
| **MEIG** | **Mezcala** | **1.18** | **6** | *e*P | Pb | 22 55 58.7 | -4.3 |
| MEIG | | | | *e*S | Sb | 22 56 13.7 | -4.8 |
| **ARIG** | **Puente Sto Nin** | **1.64** | **339** | *e*P | Pn | 22 56 07.0 | -2.3 |
| ARIG | | | | *i* S | Sn | 22 56 27.2 | -3.2 |
| **PLIG** | **Platanillo** | **1.66** | **8** | *e*P | Pn | 22 56 05.5 | -4.2 |
| PLIG | | | | *e*S | Sn | 22 56 24.7 | -6.2 |
| **ZIIG** | **Zihuatanejo** | **1.86** | **298** | *e*P | Pb | 22 56 14.8 | +0.3 |

*ISCJB* ***27*** *23:02:16.6±0.6,13.50N±0.08×57.51E±0.08,h10km, mb3.9/27,MS3.5/14, Error ellipse: s-maj=11.5km s-min=10.5km az=176.6*
*IDC* ***27*** *23:02:16.7±0.7,13.44N×57.57E,h0km,mb3.8/20, mb1 4.0/21,mb1mx3.8/58,mbtmp3.8/21,ML3.5/1,MS3.4/15, Ms1 3.5/15,ms1mx3.3/50, Error ellipse: s-maj=16.7km s-min=15.6km az=134.0*
*NEIC* ***27*** *23:02:18.2±0.5, 13.49N×57.54E,h10km,mb4.3/6,Error ellipse: s-maj=11.1km s-min=10.5km az=150.0*
*CSEM* ***27*** *23:02:18.5±0.3, 13.52N×57.53E,h10km,mb4.2/8, Error ellipse: s-maj=13.4km s-min=12.5km az=10.0*

### ISC 27 23:02:18.6±0.7,13.58N±0.08×57.5E±0.1,h10km,n79, σ1.825/67,mb3.9/27,MS3.6/14,16C-4D,Owen Fracture Zone region

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WSAR** | **Wadi Sarin** | **9.66** | **6** | Pn | **Pn** | **23 04 38.9** | **+1.0** |
| | 0.4nm,0.3s,baz=230,slow=8.0,SNR=9.1 | | | | | | |
| WSAR | | | | Sn | **Sn** | **23 06 22.4** | **-4.1** |
| | 0.1nm,0.3s,baz=256,slow=10,SNR=2.5 | | | | | | |
| WSAR | | | | LR | LR | 23 07 11.3 | |
| | comp=Z,62nm,21.8s,baz=201,slow=30 | | | | | | |
| **RAYN** | **Ar Rayn** | **15.09** | **313** | *e*Pn | **Pn** | **23 05 50.6** | **-1.4** |
| | 47nm,1.2s | | | | | | |
| **RAYN** | **Ar Rayn** | **15.09** | **313** | *e*Pn | **Pn** | **23 05 50.6** | **-1.4** |
| | 47nm,1.2s | | | | | | |
| **H08N2** | **Diego Garcia H** | **23.87** | **145** | T | T | 23 32 49.3 | |
| | baz=326,slow=76,SNR=95 | | | | | | |
| **H08N3** | **Diego Garcia H** | **23.88** | **145** | T | T | 23 32 50.2 | |
| | baz=326,slow=76,SNR=94 | | | | | | |
| **H08N1** | **Diego Garcia H** | **23.89** | **145** | T | T | 23 32 51.0 | |
| | baz=326,slow=76,SNR=88 | | | | | | |
| **GEYT** | **Alibeck** | **24.26** | **1** | P | **P** | **23 07 37.5** | **+1.5** |
| | 1.4nm,0.8s,baz=188,slow=9.0,SNR=5.8 | | | | | | |
| GEYT | | | | LR | LR | 23 17 28.8 | |
| | comp=Z,81nm,20.6s,baz=310,slow=37 | | | | | | |
| **KMBO** | **Kilima Mbogo** | **24.86** | **236** | P | **P** | **23 07 42.9** | **+1.1** |
| | 2.2nm,0.6s,baz=44,slow=15,SNR=12 | | | | | | |
| KMBO | | | | LR | LR | 23 18 03.0 | |
| | comp=Z,178nm,18.5s,baz=98,slow=38 | | | | | | |
| **KMBO** | **Kilima Mbogo** | **24.86** | **236** | *e*P | **P** | **23 07 42.2** | **+0.3** |
| | 14nm,1.2s | | | | | | |
| **KMBO** | **Kilima Mbogo** | **24.86** | **236** | *e*P | **P** | **23 07 42.1** | **+0.3** |
| | 14nm,1.2s | | | | | | |
| **MMAI** | **Mount Meron Ar** | **27.96** | **318** | P | **P** | **23 08 12.0** | **+2.5** |
| | 0.8nm,0.6s,baz=110,slow=12,SNR=3.3 | | | | | | |
| **GNI** | **Garni** | **28.76** | **339** | LR | LR | 23 21 08.8 | |
| | comp=Z,26nm,19.1s,baz=121,slow=39 | | | | | | |
| **KBZ** | **Khabaz** | **32.57** | **340** | P | **P** | **23 08 52.0** | **+2.0** |
| | 0.7nm,0.7s,baz=151,slow=18,SNR=2.6 | | | | | | |
| **KBZ** | **Khabaz** | **32.57** | **340** | P | **P** | **23 08 52.0** | **+2.0** |
| **BRTR** | **Keskin Array B** | **33.47** | **325** | P | **P** | **23 08 59.5** | **+1.3** |
| | 1.6nm,1.1s,baz=138,slow=7.9,SNR=6.0 | | | | | | |
| **AKTO** | **Aktyubinsk** | **36.76** | **1** | P | **P** | **23 09 27.1** | **+0.9** |
| | 1.2nm,0.9s,baz=197,slow=11,SNR=2.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **39.08** | **27** | P | **P** | **23 09 47.2** | **+1.3** |
| | 0.8nm,0.6s,baz=213,slow=9.0,SNR=10 | | | | | | |
| MKAR | | | | LR | LR | 23 27 32.7 | |
| | comp=Z,98nm,18.5s,baz=201,slow=39 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **40.03** | **77** | P | **P** | **23 09 53.9** | **-0.3** |
| | 1.3nm,0.8s,baz=276,slow=10,SNR=8.0 | | | | | | |
| CMAR | | | | LR | LR | 23 26 42.2 | |
| | comp=Z,37nm,19.9s,baz=234,slow=37 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **40.70** | **20** | P | **P** | **23 10 00.8** | **+1.5** |
| | 0.7nm,0.7s,baz=220,slow=8.4,SNR=3.9 | | | | | | |
| **KURK** | **Kurchatov** | **40.81** | **20** | *e*P | **P** | **23 09 59.8** | **-0.4** |
| **KURK** | **Kurchatov** | **40.81** | **20** | *e*P | **P** | **23 09 59.8** | **-0.4** |
| **VRI** | **Vrincioaia** | **41.37** | **327** | ⇑*i*P | **P** | **23 10 05.3** | **+0.4** |
| **VRI** | **Vrincioaia** | **41.37** | **327** | ⇑*i*P | **P** | **23 10 05.3** | **+0.4** |
| **VTS** | **Vitosha** | **41.38** | **321** | ⇓*i*P | **P** | **23 10 06.2** | **+1.0** |
| **VTS** | **Vitosha** | **41.38** | **321** | ⇓*i*P | **P** | **23 10 06.2** | **+1.0** |
| **PLOR** | **Plostina** | **41.40** | **327** | ⇓*i*P | **P** | **23 10 07.2** | **+2.0** |
| **PLOR** | **Plostina** | **41.40** | **327** | ⇓*i*P | **P** | **23 10 07.2** | **+2.0** |
| **MLR** | **Muntele Rosu** | **41.55** | **326** | ⇑*i*P | **P** | **23 10 08.9** | **+2.4** |
| **MLR** | **Muntele Rosu** | **41.55** | **326** | ⇑*i*P | **P** | **23 10 08.9** | **+2.4** |
| **SORM** | **Soroca** | **42.11** | **331** | ⇑*i*P | **P** | **23 10 10.3** | **-0.6** |
| **SORM** | **Soroca** | **42.11** | **331** | ⇑*i*P | **P** | **23 10 10.3** | **-0.6** |
| **DOPR** | **Dopca** | **42.15** | **326** | ⇑*i*P | **P** | **23 10 11.2** | **-0.1** |
| **DOPR** | **Dopca** | **42.15** | **326** | ⇑*i*P | **P** | **23 10 11.2** | **-0.1** |
| **ARR** | **Arges** | **42.19** | **325** | ⇑*i*P | **P** | **23 10 12.5** | **+0.8** |
| **ARR** | **Arges** | **42.19** | **325** | ⇑*i*P | **P** | **23 10 12.5** | **+0.8** |
| **LOT** | **Lotru** | **42.72** | **325** | ⇑*i*P | **P** | **23 10 15.7** | **-0.3** |
| **LOT** | **Lotru** | **42.72** | **325** | ⇑*i*P | **P** | **23 10 15.7** | **-0.3** |
| **ARU** | **Arti** | **42.77** | **1** | *e*P | **P** | **23 10 16.7** | **+0.6** |
| | 2.3nm,0.9s | | | | | | |
| **ARU** | **Arti** | **42.77** | **1** | *e*P | **P** | **23 10 16.7** | **+0.6** |
| | 2.3nm,0.9s | | | | | | |
| **MDVR** | **Moldovita** | **43.51** | **323** | ⇑*i*P | **P** | **23 10 22.6** | **+0.2** |
| **MDVR** | **Moldovita** | **43.51** | **323** | ⇑*i*P | **P** | **23 10 22.6** | **+0.2** |
| **AKASG** | **Malin Array Be** | **43.58** | **334** | P | **P** | **23 10 22.8** | **+0.1** |
| | 0.6nm,0.4s,baz=134,slow=7.1,SNR=6.3 | | | | | | |
| **BZS** | **Buzias** | **44.04** | **324** | ⇑*i*P | **P** | **23 10 26.5** | **-0.1** |
| **BZS** | **Buzias** | **44.04** | **324** | ⇑*i*P | **P** | **23 10 26.5** | **-0.1** |
| **ZALV** | **Zalesovo Beam** | **45.65** | **22** | P | **P** | **23 10 39.8** | **+0.5** |
| | 0.6nm,0.4s,baz=231,slow=7.1,SNR=4.3 | | | | | | |
| ZALV | | | | LR | LR | 23 30 37.1 | |
| | comp=Z,129nm,18.4s,baz=250,slow=37 | | | | | | |
| **MOA** | **Molln** | **49.51** | **323** | *e*P | **P** | **23 11 08.9** | **-0.5** |
| **MOA** | **Molln** | **49.51** | **323** | P | **P** | **23 11 08.9** | **-0.5** |
| **TAM** | **Tamanrasset** | **50.05** | **288** | *e*P | **P** | **23 11 14.2** | **+0.1** |
| | 3.4nm,1.1s | | | | | | |
| **TAM** | **Tamanrasset** | **50.05** | **288** | *e*P | **P** | **23 11 14.2** | **+0.1** |
| | 3.4nm,1.1s | | | | | | |
| **GERES** | **GERESS Array B** | **50.32** | **324** | P | **P** | **23 11 14.2** | **-1.4** |
| | 0.2nm,0.6s,baz=108,slow=6.3,SNR=3.1 | | | | | | |
| **MOTA** | **Moosalm** | **51.19** | **321** | *e*P | **P** | **23 11 20.7** | **-1.6** |
| | 1.7nm,0.6s | | | | | | |
| **MOTA** | **Moosalm** | **51.19** | **321** | P | **P** | **23 11 20.7** | **-1.6** |
| | 1.7nm,0.6s | | | | | | |
| **RETA** | **Reutte** | **51.46** | **321** | *e*P | **P** | **23 11 22.7** | **-1.5** |
| | 2.1nm,0.5s | | | | | | |
| **RETA** | **Reutte** | **51.46** | **321** | P | **P** | **23 11 22.7** | **-1.5** |
| | 2.1nm,0.5s | | | | | | |
| **DAVA** | **Damuels** | **51.92** | **320** | *e*P | **P** | **23 11 25.8** | **-2.0** |
| | 2.3nm,0.4s | | | | | | |
| **DAVA** | **Damuels** | **51.92** | **320** | P | **P** | **23 11 25.8** | **-2.0** |
| | 2.3nm,0.4s | | | | | | |
| **BOSA** | **Boshof** | **52.29** | **216** | P | **P** | **23 11 30.0** | **-0.7** |
| | 4.1nm,1.1s,baz=357,slow=9.0,SNR=3.8 | | | | | | |
| BOSA | | | | LR | LR | 23 30 44.2 | |
| | comp=Z,106nm,21.9s,baz=56,slow=33 | | | | | | |
| **BOSA** | **Boshof** | **52.29** | **216** | P | **P** | **23 11 30.0** | **-0.7** |
| **SONM** | **Songino Array** | **52.88** | **40** | P | **P** | **23 11 35.5** | **+0.6** |
| | 0.2nm,0.3s,baz=224,slow=8.1,SNR=1.9 | | | | | | |
| **FINES** | **FINESS Array B** | **52.91** | **342** | P | **P** | **23 11 34.3** | **-0.3** |
| | 7.3nm,1.0s,baz=111,slow=11,SNR=5.1 | | | | | | |
| **BNI** | **Bardonecchia** | **53.16** | **317** | *e*P | **P** | **23 11 37.0** | **0.0** |
| | 2.0nm,0.6s | | | | | | |
| **BNI** | **Bardonecchia** | **53.16** | **317** | *e*P | **P** | **23 11 37.0** | **0.0** |
| | 2.1nm,0.6s | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **54.23** | **277** | P | **P** | **23 11 44.9** | **-0.2** |
| | 1.0nm,0.5s,baz=64,slow=6.7,SNR=14 | | | | | | |
| TORD | | | | PcP | **PcP** | **23 12 48.8** | **-0.7** |
| | 0.5nm,0.6s,baz=83,slow=4.0,SNR=2.8 | | | | | | |
| **SSB** | **Saint Sauveur** | **54.66** | **316** | *e*P | **P** | **23 11 47.3** | **-0.5** |
| | 1.6nm,0.6s | | | | | | |
| **SSB** | **Saint Sauveur** | **54.66** | **316** | *e*P | **P** | **23 11 47.3** | **-0.5** |
| | 1.6nm,0.6s | | | | | | |
| **SUR** | **Sutherland** | **57.65** | **217** | LR | LR | 23 34 25.1 | |
| | comp=Z,8.6nm,19.3s,baz=30,slow=34 | | | | | | |
| **ARCES** | **ARCESS Array B** | **59.45** | **347** | P | **P** | **23 12 20.7** | **-0.6** |
| | 3.1nm,0.8s,baz=140,slow=6.3,SNR=8.6 | | | | | | |
| **ESDC** | **Sonseca Array** | **59.57** | **308** | P | **P** | **23 12 21.7** | **-1.1** |
| | 0.3nm,0.6s,baz=84,slow=6.1,SNR=6.3 | | | | | | |
| **KSRS** | **Korea Array** | **66.36** | **55** | LR | LR | 23 44 11.9 | |
| | comp=Z,34nm,18.2s,baz=314,slow=38 | | | | | | |
| **KLR** | **Kul'dur** | **69.54** | **42** | LR | LR | 23 46 03.2 | |
| | comp=Z,8.3nm,18.4s,baz=224,slow=38 | | | | | | |
| **TIXI** | **Tiksi** | **71.34** | **18** | LR | LR | 23 47 38.2 | |
| | comp=Z,71nm,19.3s,baz=282,slow=38 | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **H01W3** | **Cape Leeuwin H** | **72.10** | **134** | T | | T | 00 32 18.9 | | |
| | baz=303,slow=76,SNR=27 | | | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **72.11** | **134** | T | | T | 00 32 15.9 | | |
| | baz=303,slow=76,SNR=31 | | | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **72.12** | **134** | T | | T | 00 32 20.2 | | |
| | baz=303,slow=76,SNR=31 | | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **74.62** | **56** | LR | | LR | 23 47 55.2 | | |
| | comp=Z,36nm,21.2s,baz=0.0,slow=37 | | | | | | | | |
| **MA2** | **Magadan** | **80.04** | **31** | LR | | LR | 23 52 13.4 | | |
| | comp=Z,36nm,18.4s,baz=272,slow=37 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **82.54** | **113** | P | | **P** | **23 14 40.8** | **-1.5** |
| | 0.7nm,0.7s,baz=292,slow=3.9,SNR=3.1 | | | | | | | | |
| **ASAR** | **Alice Springs** | **83.28** | **116** | P | | **P** | **23 14 44.9** | **-1.3** |
| | 0.7nm,0.6s,baz=291,slow=4.8,SNR=9.9 | | | | | | | | |
| **PETK** | **Petropavlovsk-** | **85.26** | **37** | LR | | LR | 23 56 24.7 | | |
| | comp=Z,32nm,18.6s,baz=287,slow=38 | | | | | | | | |

*AZER* ***27*** *23:14:05.8±1.2,38.88N×43.23E,h15km,Error ellipse: s-maj=11.8km s-min=9.9km az=77.0*
*ISK* ***27*** *23:14:07.7,38.97N×43.65E,h5km,ML2.8*
*DDA* ***27*** *23:14:07.5,38.95N×43.64E, h5km, Ml2.6*
*CSEM* ***27*** *23:14:08.5±0.2,38.95N×43.60E,h2km,ML2.6, Error ellipse: s-maj=5.4km s-min=3.6km az=153.0*

### ISC 27 23:14:08.1±1.1,38.95N±0.02×43.63E±0.02,h2km±9km, n74,σ2.823/105,15C-16D,Turkey

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VMUR** | **Van-Muradiye** | **0.06** | **310** | *i* P | **Pg** | **23 14 09.0** | **-0.5** |
| **VMUR** | **Van-Muradiye** | **0.06** | **310** | *i* P | **Pg** | **23 14 09.2** | **-0.2** |
| **VMUR** | **Van-Muradiye** | **0.06** | **310** | P | **Pg** | **23 14 09.2** | **-0.2** |
| **ERCV** | **ERCIS-VAN** | **0.24** | **287** | *e*PG | **Pg** | **23 14 13.5** | **+0.8** |
| **ERCV** | **ERCIS-VAN** | **0.24** | **287** | *e*Pg | **Pg** | **23 14 13.5** | **+0.8** |
| **VANB** | **Van** | **0.40** | **208** | *e*PG | **Pb** | **23 14 18.0** | **+0.1** |
| VANB | | | | *e*SG | **Sb** | **23 14 26.5** | **+2.0** |
| **VANB** | **Van** | **0.40** | **208** | *e*Pg | **Pb** | **23 14 18.0** | **+0.1** |
| **TVAN** | **Van** | **0.46** | **203** | *i* P | **Pg** | **23 14 17.2** | **+0.3** |
| **TVAN** | **Van** | **0.46** | **203** | P | **Pg** | **23 14 17.2** | **+0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.72** | **259** | *i* P | **Pg** | **23 14 21.4** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.72** | **259** | P | **Pg** | **23 14 21.4** | **-0.6** |
| **GEVA** | **Gevas** | **0.78** | **215** | *i* P | **Pg** | **23 14 21.6** | **-1.4** |
| **GEVA** | **Gevas** | **0.78** | **215** | P | **Pg** | **23 14 21.6** | **-1.4** |
| **TUTA** | **Tutak** | **0.78** | **306** | *i* P | **Pg** | **23 14 22.7** | **-0.4** |
| **TUTA** | **Tutak** | **0.78** | **306** | P | **Pg** | **23 14 22.7** | **-0.4** |
| **AGRB** | **Hanur-Agry** | **0.80** | **322** | *e*PG | **Pg** | **23 14 23.5** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **0.80** | **322** | *e*Pg | **Pg** | **23 14 23.5** | **+0.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.14** | **24** | *e*PN | **Pg** | **23 14 30.0** | **+0.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.14** | **24** | *e*Pn | **Pg** | **23 14 30.0** | **+0.1** |
| **HYR** | **Heyderabad** | **1.22** | **51** | ⇓P | **Pg** | **23 14 32.9** | **+1.4** |
| HYR | | | | ⇓S | **Sn** | **23 14 53.0** | **+3.8** |
| **HYR** | **Heyderabad** | **1.22** | **51** | P | **Pg** | **23 14 32.9** | **+1.4** |
| HYR | | | | S | **Sn** | **23 14 53.0** | **+3.8** |
| **HAKT** | **HAKKARI** | **1.39** | **178** | *i* P | **Pb** | **23 14 34.1** | **-0.8** |
| **HAKT** | **HAKKARI** | **1.39** | **178** | P | **Pb** | **23 14 34.1** | **-0.8** |
| **YOVA** | **Hakkari_Y…kse** | **1.46** | **159** | *i* P | **Pb** | **23 14 34.9** | **-1.1** |
| **YOVA** | **Hakkari_Y…kse** | **1.46** | **159** | P | **Pb** | **23 14 34.9** | **-1.1** |
| **NAX** | **Nakhchīvan** | **1.47** | **81** | ⇓P | **Pg** | **23 14 35.8** | **-0.4** |
| NAX | | | | ⇓S | **Sg** | **23 14 57.9** | **+2.6** |
| **NAX** | **Nakhchivan** | **1.47** | **81** | P | **Pg** | **23 14 35.8** | **-0.4** |
| NAX | | | | S | **Sg** | **23 14 57.9** | **+2.6** |
| **SBZ** | **Shahbuz** | **1.56** | **73** | ⇓P | **Pb** | **23 14 37.1** | **-0.6** |
| SBZ | | | | 

*ISK **27** 23:19:53.5, 38˙.67N× 43˙.18E, h6km, MD2.7*
*ISCJB **27** 23:19:54.2±0.5, 38˙.68N±0˙.03× 43˙.16E±0˙.06, h11km±6km, Error ellipse: s-maj=7.8km s-min=5.2km az=175.7*
*CSEM **27** 23:19:54.3±0.2, 38˙.67N× 43˙.19E, h8km, MD2.7, Error ellipse: s-maj=6.4km s-min=5.0km az=80.0*
*DDA **27** 23:19:54.1, 38˙.66N× 43˙.19E, h7km, Md2.6*

**ISC 27 23:19:54.1±1.0, 38˙.61N±0˙.02× 43˙.20E±0˙.03, h18km±3km, n28, σ0998/34, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | h m s | ISC |
| **VANB** | **Van** | **0.15** | **96** | *e*PG | | **Pg** | **23 19 58.6** | **+0.1** |
| VANB | | | | *e*SG | | **Sg** | **23 20 02.9** | **+1.4** |
| **VANB** | **Van** | **0.15** | **96** | *e*Pg | | **Pg** | **23 19 58.6** | **+0.1** |
| VANB | | | | *e*Sg | | **Sg** | **23 20 02.9** | **+1.4** |
| **TVAN** | **Van** | **0.18** | **117** | *i* P | | **Pb** | **23 19 58.4** | **-0.4** |
| **TVAN** | **Van** | **0.18** | **117** | P | | **Pb** | **23 19 58.4** | **-0.4** |
| **GEVA** | **Gevas** | **0.32** | **200** | *i* P | | **Pg** | **23 20 01.1** | **+0.1** |
| GEVA | | | | *i* S | | **Sb** | **23 20 07.3** | **+1.1** |
| **GEVA** | **Gevas** | **0.32** | **200** | P | | **Pg** | **23 20 01.1** | **+0.1** |
| GEVA | | | | S | | **Sb** | **23 20 07.3** | **+1.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.42** | **298** | *i* P | | **Pg** | **23 20 02.0** | **-0.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.42** | **298** | P | | **Pg** | **23 20 02.0** | **-0.8** |
| **VMUR** | **Van-Muradiye** | **0.48** | **38** | *i* P | | **Pg** | **23 20 03.4** | **-0.4** |
| **VMUR** | **Van-Muradiye** | **0.48** | **38** | P | | **Pg** | **23 20 03.4** | **-0.4** |
| **CLDR** | **Caldiran** | **0.77** | **46** | *i* P | | **Pb** | **23 20 08.7** | **-0.5** |
| **CLDR** | **Caldiran** | **0.77** | **46** | P | | **Pb** | **23 20 08.7** | **-0.5** |
| **TUTA** | **Tutak** | **0.84** | **339** | *i* P | | **Pb** | **23 20 09.2** | **-1.2** |
| **TUTA** | **Tutak** | **0.84** | **339** | P | | **Pb** | **23 20 09.2** | **-1.2** |
| **AGRB** | **Hanur-Agry** | **0.97** | **351** | *e*PG | | **Pb** | **23 20 11.6** | **-1.0** |
| AGRB | | | | *e*SG | | **Sb** | **23 20 24.6** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **0.97** | **351** | *e*Pg | | **Pb** | **23 20 11.6** | **-1.0** |
| AGRB | | | | *e*Sg | | **Sb** | **23 20 24.6** | **-0.6** |
| **EKAR** | **Karacoban** | **1.09** | **306** | *i* P | | **Pg** | **23 20 17.0** | **+1.7** |
| **EKAR** | **Karacoban** | **1.09** | **306** | P | | **Pg** | **23 20 17.0** | **+1.7** |
| **HAKT** | **HAKKARI** | **1.13** | **159** | *i* P | | **Pn** | **23 20 13.4** | **-1.8** |
| **HAKT** | **HAKKARI** | **1.13** | **159** | P | | **Pn** | **23 20 13.4** | **-1.8** |
| **SIRT** | **Sirnak** | **1.26** | **209** | *e*PN | | **Pg** | **23 20 18.9** | **+0.4** |
| **SIRT** | **Sirnak** | **1.26** | **209** | *e*Pn | | **Pg** | **23 20 18.9** | **+0.4** |
| **CUKT** | **Cukurca** | **1.40** | **166** | *e*PN | | **Pg** | **23 20 21.1** | **0.0** |
| **CUKT** | **Cukurca** | **1.40** | **166** | *e*Pn | | **Pg** | **23 20 21.1** | **0.0** |
| **TASB** | **TASBURUN-IGDIR** | **1.59** | **30** | *e*PN | | **Pn** | **23 20 22.2** | **+0.8** |
| **TASB** | **TASBURUN-IGDIR** | **1.59** | **30** | *e*Pn | | **Pn** | **23 20 22.2** | **+0.8** |
| **KARS** | **Kars** | **2.02** | **357** | *e*PN | | **Pn** | **23 20 28.0** | **+0.7** |
| **KARS** | **Kars** | **2.02** | **357** | *e*Pn | | **Pn** | **23 20 28.0** | **+0.7** |

*SKHL **27** 23:21:00.7±0.3, 48˙.42N× 155˙.28E, h76km±7km, mb4.8/6*
*MOS **27** 23:21:01.9±0.9, 48˙.65N× 154˙.91E, h70km, mb4.1/10, Error ellipse: s-maj=14.4km s-min=4.6km az=71.5*
*KRSC **27** 23:21:02.4±1.7, 48˙.63N× 156˙.46E, h16km±20km, ML4.7*
*IDC **27** 23:21:06.0±2.0, 48˙.79N× 154˙.59E, h86km±16km, mb3.6/16, mb1 3.9/22, mb1mx3.7/56, mbtmp4.0/22, MS3.1/7, Ms1 3.1/7, ms1mx2.9/45, Error ellipse: s-maj=19.1km s-min=9.5km az=145.0*

**ISC 27 23:21:00.1±0.6, 48˙.41N±0˙.07× 155˙.27E±0˙.07, h43km, n96, σ2906/123, mb4.0/17, MS3.5/4, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | h m s | ISC |
| **SKR** | **Severo-Kuril's** | **2.34** | **13** | *e*PN | | **Pn** | **23 21 35.4** | **-0.5** |
| SKR | | | | *i* S | | **Sn** | **23 22 00.6** | **-2.8** |
| SKR | | | | | pmax | pmax | | |
| | comp=Z,114nm,0.3s | | | | | | | |
| SKR | | | | | smax | smax | | |
| | comp=N,1μm,0.3s | | | | | | | |
| SKR | | | | | smax | smax | | |
| | comp=E,1μm,0.4s | | | | | | | |
| **SKR** | **Severo-Kuril's** | **2.34** | **13** | *e*P | | **Pn** | **23 21 35.4** | **-0.5** |
| SKR | | | | | AMB | AMB | 23 21 36.4 | |
| | comp=E,114nm,0.3s | | | | | | | |
| SKR | | | | *i* S | | **Sn** | **23 22 01.6** | **-1.8** |
| SKR | | | | | A | A | 23 22 06.0 | |
| | comp=E,1μm,0.4s | | | | | | | |
| SKR | | | | | A | A | 23 22 06.0 | |
| | comp=E,1μm,0.4s | | | | | | | |
| **SKR** | **Severo-Kuril's** | **2.34** | **13** | *e*P | | **Pn** | **23 21 35.8** | **-0.1** |
| SKR | | | | *e*S | | **Sn** | **23 22 00.7** | **-2.7** |
| **PAU** | **Pauzhetka** | **3.21** | **18** | PN | | **Pn** | **23 21 49.7** | **+1.7** |
| PAU | | | | S | | **Sn** | **23 22 24.7** | **-0.3** |
| **PAU** | **Pauzhetka** | **3.21** | **18** | *e*P | | **Pn** | **23 21 49.0** | **+1.0** |
| PAU | | | | | AMB | AMB | 23 21 52.5 | |
| | comp=E,230nm,0.5s | | | | | | | |
| PAU | | | | *e*S | | **Sn** | **23 22 25.0** | **0.0** |
| PAU | | | | | A | A | 23 22 30.0 | |
| | comp=E,540nm,0.3s | | | | | | | |
| PAU | | | | | A | A | 23 22 30.0 | |
| | comp=E,505nm,0.3s | | | | | | | |
| **PAU** | **Pauzhetka** | **3.21** | **18** | *e*P | | **Pn** | **23 21 49.7** | **+1.7** |
| PAU | | | | *e*S | | **Sn** | **23 22 24.7** | **-0.3** |
| **KDTR** | **Khodutka, Kamc** | **3.85** | **27** | *e*P | | **Pn** | **23 21 57.4** | **+0.7** |
| KDTR | | | | *e*S | | **Sn** | **23 22 37.8** | **-2.8** |
| **ASAK** | **Asacha** | **4.32** | **22** | PN | | **Pn** | **23 22 05.0** | **+1.8** |
| **ASAK** | **Asacha** | **4.32** | **22** | *e*P | | **Pn** | **23 22 05.0** | **+1.8** |
| **MTVR** | **Mutnovka** | **4.48** | **23** | PN | | **Pn** | **23 22 07.1** | **+1.6** |
| MTVR | | | | S | | **Sn** | **23 22 54.5** | **-1.9** |
| **MTVR** | **Mutnovka** | **4.48** | **23** | *e*P | | **Pn** | **23 22 07.1** | **+1.6** |
| MTVR | | | | *e*S | | **Sn** | **23 22 54.5** | **-1.9** |
| **RUS** | **Russkaya** | **4.53** | **26** | PN | | **Pn** | **23 22 06.7** | **+0.7** |
| RUS | | | | S | | **Sn** | **23 22 55.5** | **-1.8** |
| **RUS** | **Russkaya** | **4.53** | **26** | *e*P | | **Pn** | **23 22 06.7** | **+0.7** |
| **RUS** | **Russkaya** | **4.53** | **26** | *e*P | | **Pn** | **23 22 06.7** | **+0.7** |
| RUS | | | | *e*S | | **Sn** | **23 22 55.5** | **-1.8** |
| **APC** | **Apacha** | **4.67** | **14** | PN | | **Pn** | **23 22 11.0** | **+3.0** |
| APC | | | | S | | **Sn** | **23 23 02.5** | **+1.6** |
| **APC** | **Apacha** | **4.67** | **14** | *e*P | | **Pn** | **23 22 11.0** | **+3.0** |
| APC | | | | *e*S | | **Sn** | **23 23 02.5** | **+1.6** |
| **KRMR** | **Karymshinskiy** | **4.78** | **21** | PN | | **Pn** | **23 22 12.0** | **+2.5** |
| KRMR | | | | S | | **Sn** | **23 23 03.9** | **+0.3** |
| **KRMR** | **Karymshinskiy** | **4.78** | **21** | *e*P | | **Pn** | **23 22 12.0** | **+2.5** |
| KRMR | | | | *e*S | | **Sn** | **23 23 03.9** | **+0.3** |
| **PETK** | **Petropavlovsk-** | **4.95** | **17** | P | | **Pn** | **23 22 14.2** | **+2.5** |
| | comp=E,4.0nm,0.3s,baz=174,slow=11,SNR=15 | | | | | | | |
| PETK | | | | S | | **Sn** | **23 23 10.2** | **+2.6** |
| | comp=E,1.3nm,0.3s,baz=212,slow=18,SNR=2.4 | | | | | | | |
| PETK | | | | LR | | LR | 23 24 18.2 | |
| | comp=E,173nm,21.3s,baz=205,slow=40 | | | | | | | |
| **PET** | **Petropavlovsk** | **5.09** | **24** | *e*PN | | Pn | 23 22 24.9 | +11 |
| PET | | | | *e*S | | **Sn** | **23 23 10.6** | **-0.6** |
| PET | | | | | smax | smax | | |
| | comp=E,212nm,0.7s | | | | | | | |
| **PET** | **Petropavlovsk** | **5.09** | **24** | *e*P | | **Pn** | **23 22 14.9** | **+1.2** |
| PET | | | | *e*S | | **Sn** | **23 23 10.7** | **-0.5** |
| PET | | | | | A | A | 23 23 24.0 | |
| | comp=E,220nm,0.7s | | | | | | | |
| **PET** | **Petropavlovsk** | **5.09** | **24** | P | | **Pn** | **23 22 15.7** | **+2.0** |
| PET | | | | *e*S | | **Sn** | **23 23 10.2** | **-1.0** |
| **DALK** | **Dalny** | **5.13** | **24** | PN | | **Pn** | **23 22 15.5** | **+1.3** |
| DALK | | | | S | | **Sn** | **23 23 10.8** | **-1.2** |
| **DALK** | **Dalny** | **5.13** | **24** | *e*P | | **Pn** | **23 22 15.5** | **+1.3** |
| DALK | | | | *e*S | | **Sn** | **23 23 10.8** | **-1.2** |
| **UGLR** | **Uglovaya** | **5.30** | **24** | PN | | **Pn** | **23 22 18.6** | **+1.8** |
| **UGLR** | **Uglovaya** | **5.30** | **24** | *e*P | | **Pn** | **23 22 18.6** | **+1.8** |
| **KOK** | **Koryaka** | **5.33** | **22** | PN | | **Pn** | **23 22 20.1** | **+3.0** |
| **KOK** | **Koryaka** | **5.33** | **22** | *e*P | | **Pn** | **23 22 20.1** | **+3.0** |
| **KOK** | **Koryaka** | **5.33** | **22** | *e*P | | **Pn** | **23 22 20.1** | **+3.0** |
| **AVH** | **Avacha** | **5.33** | **23** | PN | | **Pn** | **23 22 19.6** | **+2.5** |
| AVH | | | | S | | **Sn** | **23 23 16.2** | **-1.0** |
| **AVH** | **Avacha** | **5.33** | **23** | *e*P | | **Pn** | **23 22 19.6** | **+2.5** |
| **AVH** | **Avacha** | **5.33** | **23** | *e*P | | **Pn** | **23 22 19.6** | **+2.5** |
| AVH | | | | *e*S | | **Sn** | **23 23 16.2** | **-1.0** |
| **KRER** | **Koryakskii** | **5.37** | **23** | PN | | **Pn** | **23 22 19.7** | **+2.0** |
| **KRER** | **Koryakskii** | **5.37** | **23** | *e*P | | **Pn** | **23 22 19.7** | **+2.0** |
| **SDLR** | **Sedlovina** | **5.38** | **24** | PN | | **Pn** | **23 22 19.1** | **+1.3** |
| **SDLR** | **Sedlovina** | **5.38** | **24** | *e*P | | **Pn** | **23 22 19.1** | **+1.3** |
| **KRX** | **Arik** | **5.39** | **22** | PN | | **Pn** | **23 22 20.5** | **+2.5** |
| **KRX** | **Arik** | **5.39** | **22** | *e*P | | **Pn** | **23 22 20.5** | **+2.5** |
| **NLC** | **Nalytchevo** | **5.42** | **27** | *e*S | | **Sn** | **23 23 15.6** | **-3.6** |
| **GNL** | **Ganaly** | **5.55** | **17** | PN | | **Pn** | **23 22 23.2** | **+3.1** |
| GNL | | | | S | | **Sn** | **23 23 23.1** | **+0.4** |
| **GNL** | **Ganaly** | **5.55** | **17** | *e*P | | **Pn** | **23 22 23.2** | **+3.1** |
| GNL | | | | *e*S | | **Sn** | **23 23 23.1** | **+0.4** |
| **SPN** | **Mys Shipunski** | **5.58** | **31** | PN | | **Pn** | **23 22 21.1** | **+0.7** |
| **SPN** | **Mys Shipunski** | **5.58** | **31** | *e*P | | **Pn** | **23 22 21.1** | **+0.7** |
| **SPN** | **Mys Shipunski** | **5.58** | **31** | *e*P | | **Pn** | **23 22 21.1** | **+0.7** |
| SPN | | | | *e*S | | **Sn** | **23 23 20.8** | **-2.3** |
| **KUR** | **Kuril'sk** | **5.99** | **241** | *e*PN | | **Pn** | **23 22 28.7** | **+2.6** |
| KUR | | | | *e*S | | **Sn** | **23 23 35.5** | **+2.2** |
| KUR | | | | | pmax | pmax | | |
| | comp=N,33nm,0.3s | | | | | | | |
| KUR | | | | | pmax | pmax | | |
| | comp=Z,69nm,0.3s | | | | | | | |
| KUR | | | | | smax | smax | | |
| | comp=E,85nm,0.8s | | | | | | | |
| KUR | | | | | smax | smax | | |
| | comp=N,40nm,0.3s | | | | | | | |
| **KUR** | **Kuril'sk** | **5.99** | **241** | *e*P | | **Pn** | **23 22 27.3** | **+1.2** |
| KUR | | | | | AMB | AMB | 23 22 39.5 | |
| | comp=N,80nm,0.5s | | | | | | | |
| KUR | | | | *e*S | | **Sn** | **23 23 33.0** | **-0.3** |
| KUR | | | | | A | A | 23 23 59.0 | |
| | comp=N,120nm,0.4s | | | | | | | |
| KUR | | | | | A | A | 23 23 59.0 | |
| | comp=N,62nm,0.4s | | | | | | | |
| **SHO** | **Shikotan** | **7.41** | **235** | *e*PN | | **Pn** | **23 22 44.5** | **-1.1** |
| SHO | | | | | pmax | pmax | | |
| | comp=Z,28nm,0.6s | | | | | | | |
| **SHO** | **Shikotan** | **7.41** | **235** | *e*P | | **Pn** | **23 22 44.8** | **-0.8** |
| SHO | | | | | AMB | AMB | 23 22 45.5 | |
| | comp=Z,28nm,0.6s | | | | | | | |
| SHO | | | | *e*S | | **Sn** | **23 24 03.8** | **-4.5** |
| SHO | | | | | A | A | 23 24 18.4 | |
| | comp=Z,68nm,0.7s | | | | | | | |
| SHO | | | | | A | A | 23 24 18.4 | |
| | comp=Z,74nm,0.7s | | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **7.85** | **240** | *e*PN | | **Pn** | **23 22 52.6** | **+1.0** |
| YUK | | | | | pmax | pmax | | |
| | comp=Z,228nm,0.2s | | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **7.85** | **240** | *e*P | | **Pn** | **23 22 52.6** | **+1.0** |
| YUK | | | | | AMB | AMB | 23 22 53.1 | |
| | comp=Z,23nm,0.3s | | | | | | | |
| YUK | | | | *e*S | | **Sn** | **23 24 17.6** | **-1.5** |
| YUK | | | | | A | A | 23 24 29.3 | |
| | comp=Z,71nm,0.3s | | | | | | | |
| YUK | | | | | A | A | 23 24 29.3 | |
| | comp=Z,97nm,0.3s | | | | | | | |
| **KMNR** | **Kamenistaya** | **7.96** | **21** | PN | | **Pn** | **23 22 56.6** | **+3.4** |
| **KMNR** | **Kamenistaya** | **7.96** | **21** | P | | **Pn** | **23 22 56.6** | **+3.4** |
| **YSS** | **Yuzh-Sakhalins** | **8.57** | **265** | *e*PN | | **Pn** | **23 23 03.0** | **+1.6** |
| **KBTR** | **Krutoberegovo** | **9.07** | **28** | PN | | **Pn** | **23 23 09.3** | **+1.1** |
| **KBTR** | **Krutoberegovo** | **9.07** | **28** | *e*P | | **Pn** | **23 23 09.3** | **+1.1** |
| KBTR | | | | *e*S | | **Sn** | **23 24 44.9** | **-3.9** |
| **BKI** | **Bering** | **9.49** | **40** | PN | | **Pn** | **23 23 14.2** | **+0.2** |
| **BKI** | **Bering** | **9.49** | **40** | *e*P | | **Pn** | **23 23 14.2** | **+0.2** |
| BKI | | | | *e*S | | **Sn** | **23 24 51.2** | **-7.9** |
| **JKA** | **Kamikawa-asahi** | **9.77** | **249** | *e*P | | **Pn** | **23 23 20.6** | **+2.8** |
| **ASAJ** | **Asahikawa** | **9.77** | **249** | P | | **Pn** | **23 23 20.6** | **+2.8** |
| | comp=Z,6.2nm,0.3s,baz=68,slow=14,SNR=23 | | | | | | | |
| ASAJ | | | | | S | | **Sn** | **23 25 05.7** | **-0.4** |
| | comp=Z,0.5nm,0.3s,baz=155,slow=33,SNR=2.1 | | | | | | | |
| **MA2** | **Magadan** | **11.49** | **348** | P | | **Pn** | **23 23 40.7** | **-0.6** |
| | comp=Z,1.7nm,0.3s,baz=180,slow=14,SNR=3.3 | | | | | | | |
| MA2 | | | | | LR | LR | 23 28 02.3 | |
| | comp=Z,46nm,20.6s,baz=185,slow=38 | | | | | | | |
| **SEY** | **Seymchan** | **14.64** | **355** | P | | **Pn** | **23 24 23.4** | **-0.7** |
| | comp=Z,0.3nm,0.3s,baz=154,slow=7.7,SNR=3.7 | | | | | | | |
| **EKMR** | **Ekimchan** | **14.85** | **297** | *e*P | | **Pn** | **23 24 25.9** | **-1.1** |
| EKMR | | | | | AMB | AMB | 23 24 33.5 | |
| | comp=Z,12nm,0.5s | | | | | | | |
| **KLR** | **Kul'dur** | **15.50** | **282** | P | | **Pn** | **23 24 35.7** | **+0.2** |
| | comp=Z,0.0nm,0.3s,baz=102,slow=4.3,SNR=3.1 | | | | | | | |
| KLR | | | | | LR | LR | 23 30 33.6 | |
| | comp=Z,10nm,18.0s,baz=79,slow=38 | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **16.61** | **264** | P | | **Pn** | **23 24 49.6** | **+0.1** |
| | comp=Z,0.5nm,0.3s,baz=75,slow=12,SNR=4.8 | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **17.25** | **233** | P | | **P** | **23 24 59.1** | **+0.4** |
| | comp=Z,0.5nm,0.3s,baz=15,slow=14,SNR=4.5 | | | | | | | |
| **BMKR** | **Bomnak** | **17.53** | **301** | *e*rx | | rx | 23 25 01.6 | |
| **KSRS** | **Korea Array** | **22.70** | **251** | P | | **P** | **23 25 56.9** | **-1.0** |
| | comp=Z,2.9nm,0.6s,baz=50,slow=10,SNR=9.2 | | | | | | | |
| KSRS | | | | | LR | LR | 23 34 06.9 | |
| | comp=Z,30nm,21.1s,baz=320,slow=35 | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **30.12** | **158** | T | | T | 23 59 01.2 | |
| | baz=344,slow=74 | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **30.14** | **158** | T | | T | 23 58 59.7 | |
| | baz=344 | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **30.14** | **158** | T | | T | 23 58 56.9 | |
| | baz=344,slow=74 | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **31.25** | **159** | T | | T | 00 00 24.5 | |
| | baz=345,slow=76,SNR=3115 | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **31.25** | **159** | T | | T | 00 00 25.2 | |
| | baz=345,slow=76,SNR=3211 | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **31.26** | **159** | T | | T | 00 00 25.4 | |
| | baz=345,slow=76,SNR=2157 | | | | | | | |
| **ILAR** | **Eielson Array** | **34.34** | **40** | P | | **P** | **23 27 43.0** | **+0.8** |
| | comp=Z,0.3nm,0.7s,baz=264,slow=4.5,SNR=5.1 | | | | | | | |
| **ILAR** | **Eielson Array** | **34.34** | **40** | P | | **P** | **23 27 43.0** | **+0.8** |
| ILAR | | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.8s | | | | | | | |
| **INK** | **Inuvik** | **39.46** | **34** | P | | **P** | **23 28 26.7** | **+1.1** |
| | comp=Z,0.8nm,0.5s,baz=301,slow=6.1,SNR=8.7 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.84** | **305** | PcP | | **PcP** | **23 30 43.3** | **-0.5** |
| | comp=Z,1.7nm,0.8s,baz=116,slow=3.4,SNR=6.1 | | | | | | | |
| **MKAR** | **Makanchi Array** | **47.48** | **297** | P | | **P** | **23 29 27.4** | **-3.1** |
| | comp=Z,1.2nm,0.6s,baz=68,slow=7.4,SNR=17 | | | | | | | |
| MKAR | | | | | PcP | **PcP** | **23 30 59.1** | **-1.0** |
| | comp=Z,0.8nm,0.7s,baz=66,slow=2.9,SNR=4.6 | | | | | | | |
| MKAR | | | | | LR | LR | 23 52 44.4 | |
| | comp=Z,58nm,18.8s,baz=42,slow=40 | | | | | | | |
| **KURK** | **Kurchatov** | **47.66** | **303** | P | | **P** | **23 29 29.3** | **-2.5** |
| KURK | | | | | | | 23 30 59.8 | |
| KURK | | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.5s | | | | | | | |
| **KURK** | **Kurchatov** | **47.66** | **303** | *e*P | | **P** | **23 29 29.3** | **-2.5** |
| **KURBB** | **Kurchatov Arra** | **47.76** | **303** | P | | **P** | **23 29 29.3** | **-3.2** |
| | comp=Z,0.6nm,0.5s,baz=67,slow=8.2,SNR=8.0 | | | | | | | |
| KURBB | | | | | PcP | **PcP** | **23 30 59.8** | **-1.1** |
| | comp=Z,1.0nm,0.6s,baz=65,slow=3.5,SNR=9.1 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **48.72** | **38** | P | | **P** | **23 29 41.2** | **+1.5** |
| | comp=Z,1.0nm,0.8s,baz=298,slow=7.5,SNR=13 | | | | | | | |
| YKA | | | | | PcP | **PcP** | **23 31 05.2** | **+1.1** |
| | comp=Z,0.2nm,0.5s,baz=300,slow=4.4,SNR=3.9 | | | | | | | |
| **BVAR** | **Borovoye Array** | **50.93** | **309** | P | | **P** | **23 29 53.3** | **-3.4** |
| | comp=Z,0.5nm,0.4s,baz=41,slow=8.4,SNR=4.9 | | | | | | | |
| BVAR | | | | | PcP | **PcP** | **23 31 11.4** | **-1.1** |
| | comp=Z,1.0nm,0.5s,baz=64,slow=3.4,SNR=4.8 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **54.17** | **257** | P | | **P** | **23 30 21.1** | **-0.1** |
| | comp=Z,5.5nm,0.7s,baz=32,slow=7.1,SNR=19 | | | | | | | |
| **AKTO** | **Aktyubinsk** | **58.70** | **312** | LR | | LR | 00 00 42.9 | |
| | comp=Z,104nm,18.5s,baz=30,slow=41 | | | | | | | |
| **NVAR** | **Mina Array Bea** | **60.38** | **64** | P | | **P** | **23 31 08.2** | **+3.2** |
| | comp=Z,0.5nm,0.4s,baz=289,slow=7.9,SNR=7.1 | | | | | | | |
| **PDAR** | **Pinedale Array** | **62.60** | **56** | P | | **P** | **23 31 22.4** | **+2.6** |
| | comp=Z,1.6nm,0.8s,baz=321,slow=1.9,SNR=12 | | | | | | | |
| **FINES** | **FINESS Array B** | **63.15** | **335** | P | | **P** | **23 31 20.3** | **-2.6** |
| | comp=Z,8.4nm,1.1s,baz=26,slow=6.6,SNR=4.9 | | | | | | | |
| **FINES** | **FINESS Array B** | **63.15** | **335** | P | | **P** | **23 31 20.3** | **-2.6** |
| FINES | | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.0s | | | | | | | |
| **GEYT** | **Alibeck** | **66.99** | **302** | LR | | LR | 00 05 59.2 | |
| | comp=Z,29nm,18.2s,baz=275,slow=41 | | | | | | | |
| **NOA** | **NORSAR Array B** | **67.11** | **342** | P | | **P** | **23 31 46.0** | **-2.6** |
| | comp=Z,0.5nm,0.6s,baz=25,slow=6.3,SNR=3.6 | | | | | | | |
| **HFS** | **Hagfors** | **67.39** | **340** | P | | **P** | **23 31 48.2** | **-2.2** |
| | comp=Z,1.0nm,0.4s,baz=50,slow=4.5,SNR=5.3 | | | | | | | |
| **ASAR** | **Alice Springs** | **74.26** | **200** | P | | **P** | **23 32 34.2** | **+1.7** |
| | comp=Z,1.3nm,0.5s,baz=10,slow=5.0,SNR=2.8 | | | | | | | |
| **TXAR** | **Lajitas Array** | **75.42** | **62** | P | | **P** | **23 32 41.8** | **+2.4** |
| | comp=Z,1.7nm,0.8s,baz=293,slow=5.1,SNR=17 | | | | | | | |
| **GERES** | **GERESS Array B** | **77.58** | **335** | P | | **P** | **23 32 50.1** | **-1.2** |
| | comp=Z,0.4nm,0.7s,baz=34,slow=5.0,SNR=4.7 | | | | | | | |
| **CPUP** | **Villa Florida** | **146.38** | **61** | PKPbc | | **PKPbc** | **23 40 36.9** | **+0.9** |
| | comp=Z,0.8nm,0.6s,baz=8.0,slow=7.6,SNR=3.2 | | | | | | | |

*ISCJB **27** 23:22:04.9±0.2, 6˙.72S±0˙.02× 127˙.36E±0˙.03, h400km, mb4.3/55, Error ellipse: s-maj=3.9km s-min=3.1km az=150.8*
*NEIC **27** 23:22:06.6±0.3, 6˙.69S× 127˙.33E, h405km±4km, mb4.7/35, Error ellipse: s-maj=6.1km s-min=3.7km az=221.0*
*DJA **27** 23:22:06.5±0.2, 7˙S±3˙× 12˙7E±˚, h397km±3km, M4.6/22, mb4.9/22, mB5.0/16, MLv5.1/16, Mw(mB)4.3/16, Mwp7.4/1*
*IDC **27** 23:22:07.9±1.6, 6˙.77S× 127˙.35E, h420km±19km, mb3.7/21, mb1 3.8/24, mb1mx3.6/46, mbtmp4.5/24, Error ellipse: s-maj=13.3km s-min=7.6km az=63.0*

**ISC 27 23:22:06.0±0.3, 6˙.73S±0˙.04× 127˙.33E±0˙.04, h400km, n129, σ1954/149, mb4.4/55, 1C, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | h m s | ISC |
| **AAI** | **Ambon** | **3.15** | **16** | P | | **Pn** | **23 23 11.9** | **+1.4** |
| AAI | | | | S | | **S** | **23 24 04.6** | **+1.9** |
| **BNDI** | **Bandanaira** | **3.37** | **50** | P | | **Pn** | **23 23 13.7** | **+1.2** |
| **MSAI** | **Masohi** | **3.72** | **25** | P | | **Pn** | **23 23 15.0** | **-0.6** |
| **SAUI** | **Saumlaki** | **4.13** | **108** | P | | **Pn** | **23 23 20.4** | **+1.0** |
| **SAUI** | **Saumlaki** | **4.13** | **108** | *e*Pn | | **Pn** | **23 23 19.7** | **+0.4** |
| **SOEI** | **Soe** | **4.27** | **225** | P | | **Pn** | **23 23 22.4** | **+1.5** |
| SOEI | | | | S | | **S** | **23 24 20.4** | **-1.1** |
| **SOEI** | **Soe** | **4.27** | **225** | *e*Pn | | **Pn** | **23 23 22.6** | **+1.7** |
| SOEI | | | | *e*S | | **S** | **23 24 22.4** | **+0.8** |
| **SANI** | **Sanana** | **4.84** | **344** | P | | **Pn** | **23 23 26.6** | **+0.1** |
| SANI | | | | S | | **S** | **23 24 31.1** | **-0.7** |
| **BBSI** | **Bau Bau** | **4.89** | **284** | P | | **Pn** | **23 23 30.0** | **+3.0** |
| **MMRI** | **Maumere** | **5.39** | **249** | P | | **Pn** | **23 23 31.4** | **-0.8** |
| | 179nm,0.6s,5μm1.0nm | | | | | | | |
| MMRI | | | | S | | **S** | **23 24 41.4** | **-0.8** |
| | 179nm,0.6s,5μm1.0nm | | | | | | | |
| **MMRI** | **Maumere** | **5.39** | **249** | *e*Pn | | **Pn** | **23 23 32.6** | **+0.4** |
| MMRI | | | | *e*S | | **S** | **23 24 37.1** | **-5.1** |
| **EDFI** | **Ende, Flores** | **5.94** | **250** | P | | **Pn** | **23 23 38.1** | **-0.1** |
| | 120nm,1.0s,2μm0.4nm | | | | | | | |
| EDFI | | | | S | | **S** | **23 24 53.6** | **+0.5** |
| | 120nm,1.0s,2μm0.4nm | | | | | | | |
| **LBMI** | **Labuha** | **6.06** | **2** | P | | **Pn** | **23 23 40.8** | **+1.4** |
| | 56nm,0.9s,0.4nm | | | | | | | |
| **FAKI** | **Fak Fak** | **6.19** | **53** | P | | **Pn** | **23 23 40.3** | **-0.6** |
| | 672nm,0.8s,7μm2.4nm | | | | | | | |
| FAKI | | | | S | | **S** | **23 24 52.1** | **-6.0** |
| | 672nm,0.8s,7μm2.4nm | | | | | | | |
| **FAKI** | **Fak Fak** | **6.19** | **53** | *e*Pn | | **Pn** | **23 23 40.1** | **-0.7** |
| FAKI | | | | *e*S | | S | 23 24 46.7 | -11 |
| **BSSI** | **Bau Bau, Buton** | **6.82** | **275** | P | | **P** | **23 23 49.7** | **+1.3** |
| **SWI** | **Sorong** | **7.03** | **34** | P | | **Pn** | **23 23 49.5** | **-0.6** |
| | 153nm,0.7s,2μm0.5nm | | | | | | | |
| SWI | | | | S | | **S** | **23 25 12.6** | **-2.4** |
| | 153nm,0.7s,2μm0.5nm | | | | | | | |
| **KMPI** | **Kaimana, Papua** | **7.04** | **65** | P | | **Pn** | **23 23 49.0** | **-1.3** |
| | 1μm,0.7s,109μm6.4nm | | | | | | | |
| **MTN** | **Manton Dam** | **7.13** | **149** | *e*Pn | | **P** | **23 23 52.4** | **+0.5** |
| **LUWI** | **Luwuk** | **7.25** | **321** | P | | **Pn** | **23 23 53.4** | **+0.7** |
| | 175nm,1.2s,2μm0.7nm | | | | | | | |
| **LUWI** | **Luwuk** | **7.25** | **321** | *e*Pn | | **P** | **23 23 54.2** | **+1.0** |
| **BASI** | **Baing, Sumba** | **7.52** | **242** | P | | **Pn** | **23 23 56.0** | **+0.3** |
| | 208nm,1.0s,4μm3.1nm | | | | | | | |
| **KAPI** | **Kappang** | **7.73** | **282** | *e*Pn | | **P** | **23 24 00.2** | **+1.7** |
| | 201nm,1.1s | | | | | | | |
| **SPSI** | **Sidrap Palu** | **8.02** | **290** | P | | **P** | **23 24 02.7** | **+1.0** |
| | 79nm,1.2s,980nm | | | | | | | |
| **APSI** | **Ampana** | **8.10** | **315** | P | | **P** | **23 24 03.8** | **+1.2** |
| | 78nm,1.0s,1μm | | | | | | | |
| **TTSI** | **Tana Toraja** | **8.33** | **296** | P | | **P** | **23 24 07.5** | **+2.3** |
| | 54nm,1.2s,1μm | | | | | | | |
| **WBSI** | **Waikabubak, Su** | **8.37** | **249** | P | | **Pn** | **23 24 04.3** | **-1.1** |
| | 224nm,0.9s,3μm | | | | | | | |
| **RKPI** | **Ransiki, Papua** | **8.57** | **53** | P | | **P** | **23 24 09.1** | **+1.2** |
| | 617nm,1.0s,7μm | | | | | | | |
| **PLAI** | **Plampang** | **9.69** | **257** | P | | **P** | **23 24 18.5** | **-1.8** |
| **FITZ** | **Fitzroy Crossi** | **11.42** | **188** | P | | **Pn** | **23 24 40.4** | **-0.2** |
| | 1.8nm,0.3s,baz=21,slow=8.6,SNR=42 | | | | | | | |
| FITZ | | | | S | | **S** | **23 26 45.8** | **-0.1** |
| | 0.9nm,0.3s,baz=90,slow=20,SNR=5.3 | | | | | | | |
| **JAGI** | **Jajag, Banyuwa** | **13.18** | **262** | P | | **P** | **23 24 59.2** | **+0.4** |
| **JAGI** | **Jajag, Banyuwa** | **13

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| HHC | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.7s | | | | | | | |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,180nm,7.3s | | | | | | | |
| **LSA** | **Lhasa** | **50.20** | **318** | *e*P | **P** | **23 30 23.8** | **-0.1** |
| | comp=Z,6.5nm,0.6s | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **50.87** | **4** | P | **P** | **23 30 28.2** | **+0.3** |
| | comp=Z,0.8nm,0.4s,baz=193,slow=5.3,SNR=3.0 | | | | | | | |
| **ODAN** | **Odare** | **51.10** | **313** | *e*P | **P** | **23 30 29.8** | **-0.5** |
| | comp=Z,19nm,0.5s | | | | | | | |
| **TAPN** | **Taplejung** | **51.15** | **313** | *e*P | **P** | **23 30 29.9** | **-0.8** |
| | comp=Z,14nm,0.5s | | | | | | | |
| **RAMN** | **Ramite** | **51.73** | **312** | *e*P | **P** | **23 30 34.8** | **-0.1** |
| | comp=Z,39nm,0.6s | | | | | | | |
| **MLZ** | **Mavora Lakes** | **52.21** | **144** | *e*P | **P** | **23 30 38.1** | **+0.3** |
| | comp=Z,95nm,1.7s | | | | | | | |
| **FOZ** | **Fox Glacier** | **52.22** | **142** | *e*P | **P** | **23 30 37.1** | **-0.7** |
| | comp=Z,35nm,1.3s | | | | | | | |
| **WHZ** | **Wether Hill Ro** | **52.42** | **145** | *e*P | **P** | **23 30 38.9** | **-0.4** |
| | comp=Z,109nm,1.9s | | | | | | | |
| **GTA** | **Gaotai** | **52.50** | **333** | ⇑P | **P** | **23 30 40.5** | **+0.4** |
| GTA | | | | pP | pP | 23 32 10.0 | +8.2 |
| GTA | | | | sP | sP | 23 32 50.3 | +4.3 |
| GTA | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,1.1s | | | | | | | |
| **GUN** | **Gumba** | **52.80** | **313** | *e*P | **P** | **23 30 41.9** | **-0.9** |
| | comp=Z,42nm,0.7s | | | | | | | |
| **PKI** | **Pulchoki** | **52.96** | **312** | *e*P | **P** | **23 30 43.1** | **-0.8** |
| | comp=Z,14nm,0.5s | | | | | | | |
| **PKIN** | **Phulchoki** | **52.97** | **312** | *e*P | **P** | **23 30 43.6** | **-0.3** |
| | comp=Z,16nm,0.6s | | | | | | | |
| **RPZ** | **Rata Peaks** | **53.08** | **141** | *e*P | **P** | **23 30 45.4** | **+1.3** |
| | comp=Z,56nm,1.1s | | | | | | | |
| **KKN** | **Kakani** | **53.18** | **312** | *e*P | **P** | **23 30 44.6** | **-0.7** |
| | comp=Z,9.1nm,0.5s | | | | | | | |
| **THZ** | **Tophouse** | **53.32** | **138** | *e*P | **P** | **23 30 46.7** | **+0.8** |
| | comp=Z,48nm,1.6s | | | | | | | |
| **KHZ** | **Kahutara** | **54.04** | **139** | *e*P | **P** | **23 30 51.6** | **+0.7** |
| | comp=Z,60nm,1.4s | | | | | | | |
| **MQZ** | **McQueen's Vall** | **54.08** | **140** | *e*P | **P** | **23 30 53.2** | **+1.9** |
| | comp=Z,86nm,1.4s | | | | | | | |
| **KOLN** | **Koldanda** | **54.41** | **311** | *e*P | **P** | **23 30 53.8** | **-0.4** |
| | comp=Z,30nm,0.8s | | | | | | | |
| **BKZ** | **Black Stump Fm** | **54.68** | **134** | *e*P | **P** | **23 30 55.6** | **-0.1** |
| | comp=Z,46nm,1.7s | | | | | | | |
| **PYUN** | **Piuthan** | **55.04** | **311** | *e*P | **P** | **23 30 58.2** | **-0.4** |
| | comp=Z,57nm,0.9s | | | | | | | |
| **BFZ** | **Birch Farm** | **55.11** | **136** | *e*P | **P** | **23 30 59.0** | **+0.3** |
| | comp=Z,72nm,1.3s | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **55.18** | **13** | *e*P | **P** | **23 30 58.0** | **-0.9** |
| | comp=Z,19nm,0.4s | | | | | | | |
| **MXZ** | **Matakaoa Point** | **55.41** | **131** | *e*P | **P** | **23 31 01.3** | **+0.5** |
| | comp=Z,118nm,1.1s | | | | | | | |
| **SONM** | **Songino Array** | **57.39** | **343** | P | **P** | **23 31 14.9** | **+0.4** |
| | comp=Z,2.1nm,0.8s,baz=153,slow=1.0,SNR=7.7 | | | | | | | |
| **WMQ** | **Urumqi** | **61.75** | **328** | P | **P** | **23 31 44.3** | **+0.4** |
| WMQ | | | | pP | pP | 23 33 11.0 | +2.2 |
| WMQ | | | | sP | sP | 23 33 53.8 | +1.7 |
| WMQ | | | | pmax | pmax | | | |
| | comp=Z,20nm,1.1s | | | | | | | |
| WMQ | | | | pmax | pmax | | | |
| | comp=Z,84nm,3.7s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=N,120nm,16.5s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=E,110nm,16.5s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=Z,110nm,16.5s | | | | | | | |
| **PAF** | **Port-aux-Franc** | **63.85** | **218** | *e*P | **P** | **23 31 58.7** | **+1.3** |
| | comp=Z,694nm,2.0s | | | | | | | |
| **PEA0B** | **Petropavlovsk-** | **64.93** | **20** | *e*P | **P** | **23 32 05.0** | **+0.7** |
| | comp=Z,140nm,1.8s | | | | | | | |
| **PETK** | **Petropavlovsk-** | **64.93** | **20** | P | **P** | **23 32 05.0** | **+0.8** |
| | comp=Z,4.8nm,0.6s,baz=172,slow=7.2,SNR=5.8 | | | | | | | |
| **PETK** | **Petropavlovsk-** | **64.93** | **20** | *e*P | **P** | **23 32 04.5** | **+0.3** |
| **KSH** | **Kashi** | **66.05** | **319** | P | **P** | **23 32 11.8** | **0.0** |
| KSH | | | | PcP | **PcP** | **23 32 37.5** | **-1.2** |
| KSH | | | | pP | pP | 23 33 37.0 | -1.0 |
| KSH | | | | PP | **PP** | **23 34 45.5** | **+2.0** |
| KSH | | | | S | **S** | **23 40 19.5** | **-7.9** |
| KSH | | | | ScS | SKSac | 23 41 17.8 | -10 |
| **KSH** | **Kashi** | **66.05** | **319** | SS | SS | 23 44 47.3 | -4.9 |
| KSH | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,0.8s | | | | | | | |
| KSH | | | | pmax | pmax | | | |
| | comp=Z,240nm,4.6s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=N,78nm,2.9s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=E,62nm,3.8s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=Z,470nm,3.8s | | | | | | | |
| **MK01** | **Makanchi Array** | **66.55** | **328** | *e*P | **P** | **23 32 14.8** | **+0.1** |
| **MKAR** | **Makanchi Array** | **66.58** | **328** | P | **P** | **23 32 14.9** | **+0.1** |
| | comp=Z,2.3nm,0.5s,baz=128,slow=7.9,SNR=10 | | | | | | | |
| **AAK** | **Ala-Archa** | **68.65** | **321** | P | **P** | **23 32 28.4** | **+0.6** |
| | comp=Z,3.6nm,0.8s,baz=104,slow=6.1,SNR=10 | | | | | | | |
| **AAK** | **Ala-Archa** | **68.65** | **321** | *e*P | **P** | **23 32 27.5** | **-0.3** |
| | comp=Z,4.8nm,0.9s | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **70.92** | **330** | P | **P** | **23 32 41.1** | **0.0** |
| | comp=Z,6.1nm,0.6s,baz=132,slow=4.9,SNR=40 | | | | | | | |
| **KURK** | **Kurchatov** | **70.93** | **330** | *e*P | **P** | **23 32 40.8** | **-0.3** |
| | comp=Z,29nm,0.8s | | | | | | | |
| **SEY** | **Seymchan** | **72.06** | **12** | P | **P** | **23 32 46.4** | **-1.2** |
| | comp=Z,1.5nm,0.3s,baz=197,slow=19,SNR=6.1 | | | | | | | |
| **BVAR** | **Borovoye Array** | **76.44** | **329** | P | **P** | **23 33 12.9** | **+0.1** |
| | comp=Z,1.7nm,0.5s,baz=96,slow=7.6,SNR=8.0 | | | | | | | |
| **BRVK** | **Borovoye** | **76.51** | **329** | *e*P | **P** | **23 33 12.9** | **-0.3** |
| | comp=Z,5.6nm,0.4s | | | | | | | |
| **GEYT** | **Alibeck** | **78.03** | **311** | P | **P** | **23 33 22.1** | **+0.1** |
| | comp=Z,1.1nm,0.6s,baz=176,slow=4.5,SNR=4.8 | | | | | | | |
| **JCUZ** | **Jacuzzi** | **80.59** | **69** | *e*P | **P** | **23 33 34.1** | **-2.0** |
| **ABKAR** | **Akbulak array** | **80.67** | **322** | *e*P | **P** | **23 33 35.0** | **-0.7** |
| | comp=Z,1.1nm,0.5s | | | | | | | |
| **AKTO** | **Aktyubinsk** | **82.25** | **323** | P | **P** | **23 33 44.1** | **+0.2** |
| | comp=Z,2.6nm,0.8s,baz=119,slow=5.9,SNR=11 | | | | | | | |
| **ARU** | **Arti** | **84.09** | **329** | P | **P** | **23 33 52.5** | **-0.5** |
| | comp=Z,1.0nm,0.4s,baz=105,slow=5.3,SNR=4.6 | | | | | | | |
| **ARU** | **Arti** | **84.09** | **329** | *e*P | **P** | **23 33 52.2** | **-0.8** |
| | comp=Z,3.8nm,0.6s | | | | | | | |
| **RAYN** | **Ar Rayn** | **85.22** | **294** | *e*P | **P** | **23 33 59.1** | **-0.3** |
| | comp=Z,8.4nm,1.0s | | | | | | | |
| **KBZ** | **Khabaz** | **90.59** | **314** | P | **P** | **23 34 24.6** | **+0.4** |
| | comp=Z,1.9nm,0.8s,baz=84,slow=18,SNR=3.4 | | | | | | | |
| **ILAR** | **Eielson Array** | **94.24** | **25** | P | **P** | **23 34 39.4** | **-1.2** |
| | comp=Z,0.2nm,0.7s,baz=228,slow=6.7,SNR=4.9 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **126.16** | **281** | PKP | **PKPdf** | **23 40 22.0** | **-0.7** |
| | comp=Z,1.1nm,0.6s,baz=45,slow=2.3,SNR=11 | | | | | | | |
| **CPUP** | **Villa Florida** | **146.82** | **172** | PKPbc | **PKPbc** | **23 41 02.6** | **-0.2** |
| | comp=Z,1.4nm,0.8s,baz=32,slow=9.2,SNR=2.9 | | | | | | | |
| **LPAZ** | **La Paz** | **152.48** | **146** | PKPab | **PKPab** | **23 41 30.6** | **+1.2** |
| | comp=Z,1.7nm,0.7s,baz=107,slow=1.5,SNR=6.8 | | | | | | | |

*DDA* ***27*** *23:27:42.4, 38.°97N×43.°65E, h6km, Md2.7*
*CSEM* ***27*** *23:27:43.0±0.4, 38.°97N×43.°61E, h2km, MD2.7, Error ellipse: s-maj=10.3km s-min=7.0km az=94.0*
*ISK* ***27*** *23:27:43.7, 38.°97N×43.°54E, h5km, ML2.5*

**ISC 27 23:27:42.8±1.2, 38.°96N±0.°03×43.°63E±0.°03, h4km±10km, n30, σ0°73/33, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VMUR** | **Van-Muradiye** | **0.05** | **299** | *i* P | **Pg** | **23 27 44.0** | **-0.2** |
| **VMUR** | **Van-Muradiye** | **0.05** | **299** | P | **Pg** | **23 27 44.0** | **-0.2** |
| **ERCV** | **ERCIS-VAN** | **0.23** | **284** | *e*PG | **Pg** | **23 27 47.5** | **+0.1** |
| **ERCV** | **ERCIS-VAN** | **0.23** | **284** | *e*Pg | **Pg** | **23 27 47.5** | **+0.1** |
| **CLDR** | **Caldiran** | **0.29** | **51** | *i* P | **Pg** | **23 27 48.1** | **-0.2** |
| **CLDR** | **Caldiran** | **0.29** | **51** | P | **Pg** | **23 27 48.1** | **-0.2** |
| **VANB** | **Van** | **0.41** | **207** | *e*PG | **Pb** | **23 27 53.0** | **+0.3** |
| **VANB** | **Van** | **0.41** | **207** | *e*Pg | **Pb** | **23 27 53.0** | **+0.3** |
| **TVAN** | **Van** | **0.47** | **202** | *i* P | **Pg** | **23 27 52.1** | **+0.4** |
| **TVAN** | **Van** | **0.47** | **202** | P | **Pg** | **23 27 52.2** | **+0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.72** | **258** | *i* P | **Pg** | **23 27 56.8** | **+0.1** |
| ADCV | | | | *i* S | **Sb** | **23 28 09.0** | **+0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.72** | **258** | P | **Pg** | **23 27 56.8** | **+0.1** |
| **TUTA** | **Tutak** | **0.77** | **305** | *i* P | **Pg** | **23 27 57.8** | **+0.2** |
| **TUTA** | **Tutak** | **0.77** | **305** | P | **Pg** | **23 27 57.8** | **+0.2** |
| **AGRB** | **Hanur-Agry** | **0.79** | **321** | *e*PG | **Pb** | **23 27 58.6** | **-0.5** |
| AGRB | | | | *e*SG | **Sg** | **23 28 08.6** | **+0.5** |
| **AGRB** | **Hanur-Agry** | **0.79** | **321** | *e*Pg | **Pb** | **23 27 58.6** | **-0.5** |
| AGRB | | | | *e*Sg | **Sg** | **23 28 08.6** | **+0.5** |
| **GEVA** | **Gevas** | **0.79** | **215** | *i* P | **Pg** | **23 27 55.8** | **-2.1** |
| **GEVA** | **Gevas** | **0.79** | **215** | P | **Pg** | **23 27 55.8** | **-2.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.12** | **25** | *e*PN | **Pn** | **23 28 05.5** | **+0.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.12** | **25** | *e*Pn | **Pn** | **23 28 05.6** | **+0.2** |
| **CUKT** | **Cukurca** | **1.71** | **181** | *e*PN | **Pb** | **23 28 15.4** | **+0.5** |
| **CUKT** | **Cukurca** | **1.71** | **181** | *e*Pn | **Pb** | **23 28 15.4** | **+0.5** |
| **KARS** | **Kars** | **1.72** | **346** | *e*PN | **Pb** | **23 28 14.6** | **-0.4** |
| **KARS** | **Kars** | **1.72** | **346** | *e*Pn | **Pb** | **23 28 14.6** | **-0.4** |
| **SIRT** | **Sirnak** | **1.74** | **213** | *e*PN | **Pb** | **23 28 14.9** | **-0.4** |
| **SIRT** | **Sirnak** | **1.74** | **213** | *e*Pn | **Pb** | **23 28 14.9** | **-0.4** |
| **SENK** | **Senkaya-Erzuru** | **1.88** | **329** | *e*PN | **Pb** | **23 28 17.0** | **-0.7** |
| **SENK** | **Senkaya-Erzuru** | **1.88** | **329** | *e*Pn | **Pb** | **23 28 17.0** | **-0.7** |
| **BNGB** | **Bing ¶ll** | **2.30** | **272** | *e*PN | **Pn** | **23 28 22.6** | **+1.0** |
| **BINT** | **Bingol** | **2.45** | **269** | *e*Pn | **Pn** | **23 28 22.6** | **-1.1** |

*OBM* ***27*** *23:29:06.7±0.6, 51.°73N×95.°78E, h2km, Ml4.7, Error ellipse: s-maj=10.9km s-min=3.6km az=180.0*
*NEIC* ***27*** *23:29:07.0±0.7, 51.°74N×96.°21E, h10km, mb4.4/3, Error ellipse: s-maj=17.8km s-min=9.2km az=172.0*
*IDC* ***27*** *23:29:08.5±4.1, 51.°80N×96.°12E, h15km±28km, mb3.8/16, mb1 3.9/20, mb1mx3.7/47, mbtmp3.8/20, ML3.4/4, Error ellipse: s-maj=21.3km s-min=11.8km az=174.0*
*MOS* ***27*** *23:29:10.5±1.5, 52.°54N×95.°59E, h9km, mb4.3/12, Error ellipse: s-maj=16.1km s-min=12.4km az=28.2*

**ISC 27 23:29:08.2±0.5, 51.°83N±0.°05×95.°98E±0.°03, h10km, n48, σ1873/52, mb4.0/19, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ORL** | **Orlik** | **2.46** | **72** | *e*PN | **Pb** | **23 29 51.7** | **-0.9** |
| ORL | | | | *e* | | 23 30 22.6 | |
| ORL | | | | pmax | pmax | | |
| | comp=Z,213nm,0.5s | | | | | | |
| ORL | | | | smax | smax | | |
| | comp=N,413nm,0.6s | | | | | | |
| **HTG** | **Hatgal** | **2.97** | **116** | *e*Pg | **Pg** | **23 30 01.9** | **-3.2** |
| HTG | | | | *e*Sg | **Sg** | **23 30 41.3** | **-2.3** |
| | comp=N,456nm,0.4s | | | | | | |
| **ULG** | **Ulaangom** | **3.11** | **235** | *e*Pg | **Pn** | **23 30 00.5** | **+3.2** |
| ULG | | | | *e*Sg | **Sn** | **23 30 39.3** | **+4.8** |
| | comp=N,2μm,0.3s | | | | | | |
| **ARS** | **Arshan** | **3.99** | **86** | *e*PN | **Pb** | **23 30 19.6** | **+1.0** |
| ARS | | | | *e* | | 23 31 13.6 | |
| ARS | | | | pmax | pmax | | |
| | comp=Z,101nm,0.4s | | | | | | |
| ARS | | | | smax | smax | | |
| | comp=N,956nm,0.9s | | | | | | |
| **HBD** | **Hovd** | **4.74** | **218** | *e*Pn | **Pn** | **23 30 21.3** | **+1.6** |
| **HBD** | **Hovd** | **4.74** | **218** | *e*Pg | **Pb** | **23 30 29.8** | **-1.5** |
| HBD | | | | *e*Sg | **Sb** | **23 31 29.3** | **+0.9** |
| **TLY** | **Talaya** | **4.76** | **89** | *e*PN | **Pb** | **23 30 32.9** | **+1.2** |
| TLY | | | | *e* | | 23 31 34.8 | |
| TLY | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.4s | | | | | | |
| TLY | | | | smax | smax | | |
| | comp=E,56nm,0.7s | | | | | | |
| **TLY** | **Talaya** | **4.76** | **89** | *e*Pn | Pn | 23 30 14.4 | -5.6 |
| TLY | | | | *e*Pg | **Pb** | **23 30 33.1** | **+1.4** |
| TLY | | | | *e*Sg | **Sb** | **23 31 32.4** | **+3.3** |
| **BYO** | **Bayan-Olgiy** | **4.80** | **236** | *e*Pg | **Pb** | **23 30 33.4** | **+0.9** |
| BYO | | | | *e*Sg | **Sb** | **23 31 30.7** | **+0.3** |
| **ZAK** | **Zakamensk** | **4.82** | **105** | *e*PN | **Pb** | **23 30 32.2** | **-0.6** |
| ZAK | | | | *e* | | 23 31 38.3 | |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,46nm,0.8s | | | | | | |
| ZAK | | | | smax | smax | | |
| | comp=N,530nm,1.4s | | | | | | |
| **IRK** | **Irkutsk** | **5.13** | **82** | *e*PN | **Pb** | **23 30 39.1** | **+1.1** |
| IRK | | | | pmax | pmax | | |
| | comp=Z,166nm,0.1s | | | | | | |
| **TTS** | **Tsetserleg** | **5.61** | **139** | *e*Sg | **Sg** | **23 32 03.4** | **-4.8** |
| | comp=Z,350nm,0.7s | | | | | | |
| **BLGM** | **Bulgan** | **5.71** | **119** | *e*Sg | **Sg** | **23 32 13.0** | **+1.6** |
| | comp=Z,231nm,0.8s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **7.08** | **292** | Pn | **Pn** | **23 30 52.8** | **+1.0** |
| | comp=Z,2.3nm,0.3s,baz=100,slow=12,SNR=23 | | | | | | |
| ZALV | | | | Sn | **Sn** | **23 32 08.4** | **-3.8** |
| | comp=Z,2.1nm,0.3s,baz=118,slow=19,SNR=6.1 | | | | | | |
| ZALV | | | | Lg | Lg | 23 32 41.5 | |
| | comp=Z,2.7nm,0.3s,baz=110,slow=22,SNR=3.6 | | | | | | |
| **OGRR** | **Ongureny** | **7.28** | **71** | *e*P | **Pn** | **23 30 55.6** | **+1.0** |
| OGRR | | | | pmax | pmax | | |
| | comp=Z,29nm,0.8s | | | | | | |
| **SONM** | **Songino Array** | **7.83** | **117** | Pg | Pb | 23 31 28.8 | +4.8 |
| | comp=Z,0.8nm,0.3s,baz=303,slow=18,SNR=19 | | | | | | |
| SONM | | | | Sn | **Sn** | **23 32 31.5** | **+0.7** |
| | comp=Z,0.6nm,0.3s,baz=304,slow=21,SNR=4.0 | | | | | | |
| SONM | | | | Lg | Lg | 23 33 12.6 | |
| | comp=Z,1.0nm,0.3s,baz=298,slow=30,SNR=4.0 | | | | | | |
| **NVS** | **Novosibirsk** | **8.21** | **297** | *e*P | Pn | 23 31 18.8 | +12 |
| **NIZ** | **Nizh Angarsk** | **8.94** | **58** | *e*P | **Pn** | **23 31 19.2** | **+1.9** |
| NIZ | | | | pmax | pmax | | |
| | comp=Z,17nm,1.5s | | | | | | |
| **MKAR** | **Makanchi Array** | **10.26** | **246** | Pn | **Pn** | **23 31 36.0** | **+0.6** |
| | comp=Z,0.3nm,0.3s,baz=51,slow=18,SNR=7.7 | | | | | | |
| MKAR | | | | Lg | Lg | 23 34 29.2 | |
| | comp=Z,1.2nm,0.3s,baz=78,slow=40,SNR=5.5 | | | | | | |
| **KURK** | **Kurchatov** | **10.94** | **271** | *e*P | **Pn** | **23 31 44.9** | **+0.3** |
| **KURK** | **Kurchatov** | **10.94** | **271** | *e*Pn | **Pn** | **23 31 44.9** | **+0.3** |
| KURK | | | | Lg | Lg | 23 34 50.1 | |
| **KURBB** | **Kurchatov Arra** | **11.01** | **271** | Pn | **Pn** | **23 31 46.8** | **+1.1** |
| | comp=Z,0.2nm,0.3s,baz=75,slow=16,SNR=9.7 | | | | | | |
| KURBB | | | | Lg | Lg | 23 34 50.1 | |
| | comp=Z,0.1nm,0.3s,baz=73,slow=33,SNR=7.3 | | | | | | |
| **BVAR** | **Borovoye Array** | **15.64** | **284** | Pn | **Pn** | **23 32 47.4** | **-1.1** |
| | comp=Z,0.3nm,0.3s,baz=78,slow=14,SNR=7.6 | | | | | | |
| **ARU** | **Arti** | **22.21** | **297** | P | **P** | **23 34 05.0** | **+0.5** |
| | comp=Z,3.0nm,0.6s,baz=71,slow=7.0,SNR=9.1 | | | | | | |
| **ARU** | **Arti** | **22.21** | **297** | *e*P | **P** | **23 34 04.6** | **+0.1** |
| ARU | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.5s | | | | | | |
| **ARU** | **Arti** | **22.21** | **297** | *e*P | **P** | **23 34 04.6** | **+0.1** |
| | comp=Z,3.1nm,0.5s | | | | | | |
| **AKTO** | **Aktyubinsk** | **23.69** | **282** | P | **P** | **23 34 19.3** | **-0.6** |
| | comp=Z,6.6nm,0.6s,baz=82,slow=10,SNR=18 | | | | | | |
| **TIXI** | **Tiksi** | **24.66** | **24** | P | **P** | **23 34 28.8** | **+0.3** |
| | comp=Z,5.0nm,0.6s,baz=264,slow=7.9,SNR=7.7 | | | | | | |
| **TIXI** | **Tiksi** | **24.66** | **24** | *e*P | **P** | **23 34 28.6** | **+0.1** |
| | comp=Z,5.5nm,0.6s | | | | | | |
| **ZEI** | **Tsey** | **35.76** | **276** | *e*P | P | 23 35 59.7 | -7.6 |
| ZEI | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.5s | | | | | | |
| **KBZ** | **Khabaz** | **35.87** | **278** | P | **P** | **23 36 10.0** | **+2.0** |
| | comp=Z,1.9nm,0.8s,baz=68,slow=19,SNR=3.3 | | | | | | |
| **ARCES** | **ARCESS Array B** | **36.20** | **326** | P | **P** | **23 36 10.3** | **-0.2** |
| | comp=Z,5.3nm,1.0s,baz=71,slow=8.1,SNR=3.7 | | | | | | |
| **FINES** | **FINESS Array B** | **37.80** | **313** | P | **P** | **23 36 23.9** | **-0.3** |
| | comp=Z,2.1nm,0.7s,baz=64,slow=8.7,SNR=9.3 | | | | | | |
| **AKASG** | **Malin Array Be** | **40.46** | **296** | P | **P** | **23 36 45.4** | **-1.1** |
| | comp=Z,0.5nm,0.4s,baz=57,slow=8.8,SNR=2.8 | | | | | | |
| **BRTR** | **Keskin Array B** | **43.84** | **280** | P | **P** | **23 37 14.9** | **+0.5** |
| | comp=Z,2.1nm,0.8s,baz=72,slow=7.3,SNR=11 | | | | | | |
| **NB2** | **NORSAR Subarra** | **44.56** | **316** | P | **P** | **23 37 18.9** | **-0.9** |
| | comp=Z,2.3nm,0.6s,baz=62,slow=7.9 | | | | | | |
| **NOA** | **NORSAR Array B** | **44.56** | **316** | P | **P** | **23 37 19.1** | **-0.7** |
| | comp=Z,2.4nm,0.7s,baz=62,slow=7.9,SNR=5.1 | | | | | | |
| **RAYN** | **Ar Rayn** | **47.65** | **253** | *e*P | **P** | **23 37 43.9** | **-0.7** |
| | comp=Z,3.7nm,0.8s | | | | | | |
| **CLL** | **Collm** | **48.85** | **304** | *i* P | **P** | **23 37 53.5** | **0.0** |
| **GERES** | **GERESS Array B** | **49.93** | **301** | P | **P** | **23 38 02.3** | **+0.4** |
| | comp=Z,0.4nm,0.7s,baz=54,slow=6.8,SNR=5.1 | | | | | | |
| **ILAR** | **Eielson Array** | **54.04** | **28** | P | **P** | **23 38 31.9** | **-0.3** |
| | comp=Z,0.4nm,0.8s,baz=330,slow=5.2,SNR=3.4 | | | | | | |
| **INK** | **Inuvik** | **54.69** | **20** | P | **P** | **23 38 36.5** | **-0.2** |
| | comp=Z,0.9nm,0.8s,baz=349,slow=5.0,SNR=4.2 | | | | | | |
| **BNI** | **Bardonecchia** | **56.05** | **301** | *e*P | **P** | **23 38 49.9** | **+2.8** |
| BNI | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.0s | | | | | | |
| **BNI** | **Bardonecchia** | **56.05** | **301** | *e*P | **P** | **23 38 49.9** | **+2.8** |
| | comp=Z,5.3nm,1.0s | | | | | | |
| **YKA** | **Yellowknife Ar** | **63.49** | **15** | P | **P** | **23 39 37.2** | **-0.6** |
| | comp=Z,0.1nm,0.6s,baz=335,slow=7.0,SNR=3.8 | | | | | | |
| **ESDC** | **Sonseca Array** | **65.43** | **303** | P | **P** | **23 39 50.4** | **-0.6** |
| | comp=Z,0.4nm,0.6s,baz=43,slow=7.1,SNR=5.2 | | | | | | |
| **ASAR** | **Alice Springs** | **82.19** | **145** | P | **P** | **23 41 28.6** | **-0.6** |
| | comp=Z,0.8nm,1.0s,baz=341,slow=6.4,SNR=4.2 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **82.41** | **281** | P | **P** | **23 41 29.9** | **-0.7** |
| | comp=Z,1.1nm,0.6s,baz=30,slow=4.8,SNR=12 | | | | | | |

**OBM 27 23:35:29.6±0.3, 51.°82N×95.°88E, h2km, Ml3.5, Error ellipse: s-maj=7.2km s-min=2.2km az=172.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **HTG** | **Hatgal** | **3.03** | **115** | *e*Pg | Pb | 23 36 24.8 | +0.5 |
| HTG | | | | *e*Sg | Sb | 23 37 04.1 | +2.4 |
| | 55nm,0.3s | | | | | | |
| **ULG** | **Ulaangom** | **3.05** | **234** | *e*Pg | Pb | 23 36 25.3 | +0.7 |
| ULG | | | | *e*Sg | Sb | 23 37 04.2 | +2.0 |
| | 233nm,0.3s | | | | | | |
| **HBD** | **Hovd** | **4.69** | **217** | *e*Pg | Pb | 23 36 54.7 | +2.2 |
| HBD | | | | *e*Sg | Sg | 23 37 55.6 | -4.4 |
| **TTS** | **Tsetserleg** | **5.65** | **138** | *e*Sg | Sg | 23 38 26.1 | -4.7 |
| | 17nm,0.7s | | | | | | |
| **BLGM** | **Bulgan** | **5.76** | **119** | *e*Sg | Sg | 23 38 33.7 | -0.9 |
| | 9.7nm,0.5s | | | | | | |

*ISCJB* ***27*** *23:38:27.2±0.4, 24.°62N±0.°05×122.°52E±0.°02, h25km±4km, Error ellipse: s-maj=8.9km s-min=2.8km az=8.6*
*JMA* ***27*** *23:38:27.3±0.1, 24.°58N×122.°52E, h27km±2km, M2.2*
*TAP* ***27*** *23:38:27.8, 24.°63N×122.°45E, h19km±1km, ML2.8, D*

**ISC 27 23:38:27.1±1.1, 24.°61N±0.°06×122.°51E±0.°02, h23km±12km, n18, σ0°44/35, Taiwan region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JYNG** | **Yonagunijimaku** | **0.43** | **112** | P | **Pb** | **23 38 35.9** | **-0.2** |
| JYNG | | | | S | **Sb** | **23 38 42.1** | **-0.1** |
| **YOJ** | **Yonaguni jima** | **0.48** | **108** | P | **Pb** | **23 38 36.7** | **-0.3** |
| YOJ | | | | *e*S | **Sb** | **23 38 44.2** | **+0.6** |
| **TWC** | **Suao** | **0.60** | **270** | P | **Pb** | **23 38 38.2** | **-0.8** |
| | baz=268 | | | | | | |
| TWC | | | | S | **Sb** | **23 38 47.7** | **+0.7** |
| | baz=268 | | | | | | |
| **TWB1** | **Santiao Chiao** | **0.61** | **310** | *e*P | **Pb** | **23 38 38.8** | **-0.4** |
| | baz=312 | | | | | | |
| TWB1 | | | | *e*S | **Sb** | **23 38 47.8** | **+0.3** |
| | baz=312 | | | | | | |
| **ENA** | **Nanau** | **0.72** | **255** | *e*P | **Pn** | **23 38 41.7** | **-0.2** |
| | baz=252 | | | | | | |
| ENA | | | | *e*S | **Sb** | **23 38 50.9** | **+0.3** |
| | baz=252 | | | | | | |
| **TWE** | **Neicheng** | **0.77** | **278** | P | **Pb** | **23 38 41.4** | **-0.5** |
| | baz=277 | | | | | | |
| TWE | | | | S | **Sb** | **23 38 52.4** | **+0.4** |
| | baz=277 | | | | | | |
| **NWF** | **Wu-fen Shan** | **0.80** | **305** | P | **Pb** | **23 38 42.9** | **+0.4** |
| | baz=306 | | | | | | |
| NWF | | | | S | **Sn** | **23 38 53.8** | **-0.6** |
| | baz=306 | | | | | | |
| **ENTT** | **Nioudou** | **0.86** | **272** | P | **Pn** | **23 38 43.8** | **0.0** |
| | baz=270 | | | | | | |
| ENTT | | | | S | **Sb** | **23 38 54.6** | **+0.1** |
| | baz=270 | | | | | | |
| **TWD** | **Chiawan** | **0.99** | **238** | *e*P | **Pn** | **23 38 46.0** | **+0.4** |
| | baz=234 | | | | | | |
| TWD | | | | *e*S | **Sn** | **23 38 59.0** | **+0.2** |
| | baz=234 | | | | | | |
| **NNS** | **Nan Shan** | **1.05** | **261** | *e*P | **Pb** | **23 38 46.9** | **+0.2** |
| | baz=259 | | | | | | |
| NNS | | | | *e*S | **Sn** | **23 39 00.9** | **+0.4** |
| | baz=259 | | | | | | |
| **NSK** | **Sanguang** | **1.05** | **274** | P | **Pb** | **23 38 47.2** | **+0.6** |
| | baz=272 | | | | | | |
| NSK | | | | S | **Sn** | **23 39 00.2** | **-0.3** |
| | baz=272 | | | | | | |
| **IRIF** | **Iriomote-Funau** | **1.15** | **104** | P | **Pn** | **23 38 47.3** | **-0.5** |
| IRIF | | | | *e*S | **Sn** | **23 39 02.3** | **-0.4** |
| **WHF** | **Hehuan Shan** | **1.23** | **248** | *e*P | **Pb** | **23 38 49.8** | **-0.1** |
| | baz=245 | | | | | | |
| WHF | | | | S | **Sn** | **23 39 05.0** | **-0.4** |
| | baz=245 | | | | | | |
| **HATJ** | **Hateruma jima** | **1.31** | **115** | P | **Pn** | **23 38 50.0** | **+0.1** |
| HATJ | | | | *e*S | **Sn** | **23 39 05.9** | **-0.8** |
| **NSTT** | **Nanjuang** | **1.37** | **271** | *e*P | **Pn** | **23 38 50.9** | **0.0** |
| | baz=270 | | | | | | |
| NSTT | | | | *e*S | **Sb** | **23 39 08.6** | **-0.7** |
| | baz=270 | | | | | | |
| **JKRS** | **Kuro-shima** | **1.42** | **105** | P | **Pn** | **23 38 51.6** | **+0.1** |
| JKRS | | | | *e*S | **Sn** | **23 39 09.6** | **+0.2** |
| **JIJ** | **Ishigaki jima** | **1.51** | **99** | P | **Pn** | **23 38 53.0** | **+0.2** |
| JIJ | | | | *e*S | **Sn** | **23 39 11.9** | **+0.2** |
| **JISG** | **Ishigakijimahi** | **1.64** | **91** | P | **Pn** | **23 38 55.3** | **+0.8** |

*ISCJB* ***27*** *23:43:47.9±0.3, 51.°91N±0.°05×95.°96E±0.°05, h10km, mb4.0/29, MS3.3/5, Error ellipse: s-maj=7.9km s-min=4.0km az=170.8*
*IDC* ***27*** *23:43:47.8±0.6

ZAK pmax pmax
comp=Z,132nm,1.0s
ZAK smax smax
comp=N,669nm,1.3s
**IRK Irkutsk 5.23 83** *e*PN **Pb 23 45 20.8 -0.4**
IRK *e* 23 46 23.8
IRK pmax pmax
comp=Z,334nm,0.1s
IRK smax smax
comp=N,1μm,0.9s
**ARTR Artybash 5.28 272** *e*Pn **Pn 23 45 10.7 +2.1**
ARTR *e*Pg **Pb 23 45 24.5 +2.5**
ARTR *e*Sg **Sg 23 46 33.0 -6.1**
**ARTR Artybash 5.28 272** *e*PN **Pn 23 45 10.7 +2.1**
ARTR *e* 23 45 24.5
ARTR *e* 23 46 33.0
**AKAR Aktash 5.40 256** *e*Pn **Pn 23 45 12.2 +1.8**
AKAR *e*Pg **Pb 23 45 26.6 +2.5**
AKAR *e*Sg **Sg 23 46 34.4 -8.6**
**AKAR Aktash 5.40 256** *e*PN **Pn 23 45 12.2 +1.8**
AKAR *e* 23 45 26.7
AKAR *e* 23 46 34.4
**DQZ Jazzator, Alta 5.76 250** *i*PN **Pn 23 45 18.4 +3.1**
**BRCR Berchikul' 5.77 313** *e*Pn **Pn 23 45 16.5 +1.2**
BRCR *e*Pg Pb 23 45 34.8 +4.4
BRCR *e*Sg **Sg 23 46 49.4 -5.4**
**BRCR Berchikul' 5.77 313** *e*PN **Pn 23 45 16.5 +1.2**
BRCR *e* 23 45 34.8
**TTS Tsetserleg 5.78 138** *e*Sg **Sb 23 46 44.3 +4.4**
comp=N,557nm,0.7s
**BLGM Bulgan 5.87 120** *e*Sg **Sg 23 46 51.7 -6.3**
comp=N,500nm,0.8s
**ELT Eltsovka 5.97 286** *e*Pn **Pn 23 45 19.3 +1.2**
ELT *e*Pg **Pb 23 45 35.5 +1.7**
ELT *e*Sg **Sg 23 46 53.4 -7.9**
**ELT Eltsovka 5.97 286** *e*PN **Pn 23 45 19.3 +1.2**
ELT *e* 23 45 35.5
**ZALV Zalesovo Beam 6.93 291** Pn **Pn 23 45 33.6 +2.4**
comp=N,4.8nm,0.3s,baz=100,slow=13,SNR=60
ZALV Sn **Sn 23 46 53.5 +3.5**
comp=N,2.4nm,0.3s,baz=94,slow=18,SNR=3.9
ZALV Lg Lg 23 47 25.1
comp=N,10nm,0.3s,baz=122,slow=27,SNR=11
ZALV LR LR 23 48 28.2
comp=N,101nm,21.6s,baz=66,slow=39
**UKR Ust'-Kan 6.97 266** *e*Pn **Pn 23 45 33.6 +1.8**
UKR *e*Pg Pg 23 45 57.1 -5.9
UKR *e*Sg **Sg 23 47 25.1 -8.1**
**UKR Ust'-Kan 6.97 266** *e*PN **Pn 23 45 33.6 +1.8**
UKR *e* 23 45 57.1
**OGRR Ongureny 7.35 72** *e*P **Pn 23 45 36.7 -0.3**
OGRR pmax pmax
comp=Z,22nm,0.7s
**SONA0 Songino Array 7.98 117** *e*Sg Sg 23 47 55.0 -11
comp=Z,365nm,1.0s
**SONM Songino Array 7.98 117** Pg **Pb 23 46 09.0 +0.9**
comp=Z,1.6nm,0.3s,baz=304,slow=18,SNR=17
SONM Lg Lg 23 47 57.4
comp=Z,3.2nm,0.3s,baz=304,slow=27,SNR=13
SONM LR LR 23 48 55.1
comp=Z,175nm,18.7s,baz=351,slow=39
**NVS Novosibirsk 8.05 296** *e*Pn **Pn 23 45 48.4 +1.9**
NVS *e*Pg Pb 23 46 14.0 +4.9
NVS *e*Sg **Sg 23 48 01.5 -6.3**
**NVS Novosibirsk 8.05 296** *e*P **Pn 23 45 49.8 +3.2**
**ALFM 8.11 115** *e*Sg Sb 23 47 57.0 +10
comp=Z,142nm,0.8s
**ARTM 8.42 114** *e*Sg Sb 23 48 07.0 +11
comp=Z,135nm,0.8s
**SEMM 8.46 117** *e*Sg Sb 23 48 08.2 +11
**UGDM 8.65 115** *e*Sg Sg 23 48 14.7 -12
comp=Z,123nm,0.9s
**NIZ Nizh Angarsk 8.98 59** *e*P **Pn 23 45 59.1 -0.2**
NIZ *e*S **Sn 23 47 37.1 -3.3**
NIZ pmax pmax
comp=Z,22nm,1.8s
NIZ smax smax
comp=N,430nm,1.6s
**MKAR Makanchi Array 10.20 245** Pn **Pn 23 46 17.5 +1.4**
comp=N,0.3nm,0.3s,baz=75,slow=11,SNR=19
MKAR Lg Lg 23 49 12.6
comp=N,1.7nm,0.3s,baz=75,slow=32,SNR=5.7
**KURK Kurchatov 10.82 270** *c*eP Pn 23 46 29.8 +5.3
KURK pmax pmax
comp=Z,17nm,1.2s
**KURK Kurchatov 10.82 270** Pn **Pn 23 46 27.9 +3.3**
KURK Lg Lg 23 49 30.6
**KURBB Kurchatov Arra 10.90 270** Pn **Pn 23 46 27.9 +2.3**
comp=Z,0.2nm,0.3s,baz=76,slow=16,SNR=16
KURBB Lg Lg 23 49 30.6
comp=Z,0.3nm,0.3s,baz=80,slow=32,SNR=14
**BVAR Borovoye Array 15.49 284** Pn **Pn 23 47 27.7 -0.4**
comp=Z,0.4nm,0.3s,baz=79,slow=15,SNR=8.1
**BRVK Borovoye 15.55 284** *e*P **Pn 23 47 28.7 -0.2**
**BRVK Borovoye 15.55 284** *e*Pn **Pn 23 47 27.8 -1.1**
comp=Z,8.9nm,0.5s
**AAK Ala-Archa 17.14 245** *e*P **P 23 47 49.0 -2.0**
**AAK Ala-Archa 17.14 245** *e*Pn **P 23 47 49.0 -2.0**
**KKAR Karatay Array 19.15 252** *e*P **Pn 23 48 14.2 +0.3**
KKAR pmax pmax
comp=Z,2.0nm,0.5s
**KKAR Karatay Array 19.15 252** *e*P **Pn 23 48 14.2 +0.3**
comp=Z,1.5nm,0.5s
**SVE Sverdlovsk 20.89 297** *e*P Pn 23 48 32.9 -1.4
**ARU Arti 22.05 296** P **P 23 48 44.4 +0.1**
comp=Z,4.7nm,0.6s,baz=134,slow=5.3,SNR=11
ARU LR LR 23 57 30.5
comp=Z,120nm,19.4s,baz=164,slow=37
**ARU Arti 22.05 296** *c i*P **P 23 48 45.1 +0.8**
ARU 23 49 06.0
ARU S **S 23 52 47.9 +0.6**
ARU pmax pmax
comp=Z,18nm,1.7s
**ARU Arti 22.05 296** *e*P **P 23 48 46.6 +2.3**
comp=Z,6.6nm,0.8s
**ABKAR Akbulak array 22.77 278** *e*P **P 23 48 52.5 +0.5**
comp=Z,8.0nm,0.8s
**KLR Kul'dur 22.84 83** P **P 23 48 52.3 -0.5**
comp=Z,0.1nm,0.4s,baz=277,slow=8.2,SNR=4.2
**AKTO Aktyubinsk 23.56 281** P **P 23 49 00.9 +0.9**
comp=Z,13nm,0.6s,baz=86,slow=9.3,SNR=58
**TIXI Tiksi 24.59 25** P **P 23 49 09.9 +0.4**
comp=Z,8.4nm,0.7s,baz=245,slow=4.4,SNR=14
**TIXI Tiksi 24.59 25** *i*P **P 23 49 10.1 +0.6**
TIXI pmax pmax
comp=Z,11nm,0.9s
**TIXI Tiksi 24.59 25** *e*P **P 23 49 09.4 -0.1**
comp=Z,14nm,0.9s
**KSRS Korea Array 26.78 110** LR LR 00 00 45.7
comp=Z,59nm,18.3s,baz=315,slow=38
**KSRS Korea Array 26.78 110** *e*P **P 23 49 34.6 +5.1**
KSRS pmax pmax
comp=Z,1.0nm,0.7s
**GEYT Alibeck 29.76 257** P **P 23 49 57.7 +1.5**
comp=Z,1.1nm,0.7s,baz=28,slow=6.7,SNR=4.9
**NCK Nalchik 35.44 277** *e*P **P 23 50 46.8 +1.0**
NCK pmax pmax
comp=Z,4.0nm,0.9s
**ZEI Tsey 35.63 276** *e*P **P 23 50 46.9 -0.8**
ZEI pmax pmax
comp=Z,6.0nm,0.9s
**KIV Kislovodsk 35.75 279** *e*P **P 23 50 52.4 +3.8**
KIV pmax pmax
comp=Z,6.0nm,1.1s
**KIV Kislovodsk 35.75 279** *e*P **P 23 50 49.4 +0.8**
comp=Z,5.6nm,0.9s
**ARCES ARCESS Array B 36.04 326** P **P 23 50 51.5 +0.8**
comp=Z,5.8nm,1.0s,baz=76,slow=11,SNR=3.1
**ARCES ARCESS Array B 36.04 326** P **P 23 50 51.5 +0.8**
ARCES pmax pmax
comp=Z,5.0nm,1.0s
**GNI Garni 36.62 272** *i*P **P 23 50 58.9 +2.8**
GNI pmax pmax
comp=Z,29nm,1.7s
**GNI Garni 36.62 272** *e*P **P 23 50 55.9 -0.3**
comp=Z,28nm,0.9s
**PETK Petropavlovsk- 36.64 63** LR LR 00 07 25.4
comp=Z,45nm,19.0s,baz=63,slow=39
**FINES FINESS Array B 37.64 312** P **P 23 51 05.5 +1.2**
comp=Z,3.3nm,0.7s,baz=72,slow=12,SNR=5.1
**AKASG Malin Array Be 40.30 296** P **P 23 51 27.1 +0.3**
comp=Z,0.9nm,0.6s,baz=56,slow=8.5,SNR=3.6
**BRTR Keskin Array B 43.71 279** P **P 23 51 56.1 +1.3**
comp=Z,3.0nm,0.9s,baz=76,slow=6.0,SNR=17
**ANTO Ankara 44.13 280** *e*P **P 23 51 59.1 +0.9**
ANTO pmax pmax
comp=Z,15nm,0.7s
**ANTO Ankara 44.13 280** *e*P **P 23 51 59.1 +0.9**
comp=Z,16nm,0.7s
**NB2 NORSAR Subarra 44.39 316** P **P 23 52 00.2 +0.2**
comp=Z,3.9nm,0.8s,baz=60,slow=8.6
**NOA NORSAR Array B 44.39 316** P **P 23 52 00.4 +0.4**
comp=Z,2.0nm,0.6s,baz=61,slow=8.0,SNR=4.6
**NOA NORSAR Array B 44.39 316** *e*P **P 23 51 59.5 -0.5**
NOA pmax pmax
comp=Z,2.0nm,0.6s
**KECS Kecovo 46.31 297** *e*P **P 23 52 19.1 +3.8**
**KECS Kecovo 46.31 297** *e*P **P 23 52 19.1 +3.8**
**VYHS Vyhne 47.21 298** *e*P **P 23 52 24.0 +1.6**
**VYHS Vyhne 47.21 298** *e*P **P 23 52 24.0 +1.6**
**RAYN Ar Rayn 47.57 253** *e*P **P 23 52 25.7 +0.2**
comp=Z,5.3nm,0.9s
**CLL Collm 48.69 304** *i*P **P 23 52 34.8 +1.1**
CLL pmax pmax
comp=Z,7.0nm,1.0s
**CLL Collm 48.69 304** *i*P **P 23 52 34.8 +1.1**
comp=Z,7.0nm,1.0s
**GERES GERESS Array B 49.77 301** P **P 23 52 43.2 +1.0**
comp=Z,0.5nm,0.7s,baz=51,slow=7.0,SNR=7.9
**GERES GERESS Array B 49.77 301** *e*P **P 23 52 43.8 +1.6**
GERES pmax pmax
comp=Z,1.0nm,0.7s
**ILAR Eielson Array 53.99 28** P **P 23 53 12.6 -0.8**
comp=Z,0.4nm,0.9s,baz=330,slow=5.2,SNR=4.3
**INK Inuvik 54.61 20** P **P 23 53 17.9 +0.2**
comp=Z,0.4nm,0.7s,baz=2.0,slow=15,SNR=3.4
INK LR LR 00 20 14.5
comp=Z,38nm,18.2s,baz=106,slow=40
**INK Inuvik 54.61 20** P **P 23 53 17.9 +0.2**
INK pmax pmax
comp=Z,1.0nm,0.7s
INK MLR MLR
comp=Z,38nm,18.2s
**BNI Bardonecchia 55.89 301** *e*P **P 23 53 29.2 +1.7**
BNI pmax pmax
comp=Z,6.0nm,1.0s
**BNI Bardonecchia 55.89 301** *e*P **P 23 53 29.2 +1.7**
comp=Z,5.8nm,1.0s
**YKA Yellowknife Ar 63.40 15** P **P 23 54 18.7 -0.1**
comp=Z,0.2nm,0.8s,baz=345,slow=7.3,SNR=3.3
**ESDC Sonseca Array 65.27 303** P **P 23 54 32.2 +0.8**
comp=Z,0.4nm,0.6s,baz=45,slow=7.4,SNR=5.0
**KMBO Kilima Mbogo 72.09 244** LR LR 00 29 49.0
comp=Z,23nm,20.4s,baz=92,slow=38
**KMBO Kilima Mbogo 72.09 244** *c*eP **P 23 55 17.5 +3.0**
KMBO pmax pmax
comp=Z,1.0nm,0.3s
**TAM Tamanrasset 72.56 285** *e*P **P 23 55 17.6 +0.5**
TAM pmax pmax
comp=Z,1.0nm,0.8s
**TAM Tamanrasset 72.56 285** *e*P **P 23 55 17.6 +0.5**
comp=Z,0.8nm,0.8s
**WRA Warramunga Arr 79.10 143** P **P 23 55 52.4 -1.8**
comp=Z,1.0nm,0.9s,baz=344,slow=5.8,SNR=2.7
**TORD Torodi Ar. Bea 82.28 281** P **P 23 56 11.1 -0.4**
comp=Z,1.5nm,0.5s,baz=31,slow=4.4,SNR=9.9
**ASAR Alice Springs 82.35 145** P **P 23 56 10.4 -1.2**
comp=Z,1.1nm,1.0s,baz=338,slow=5.6,SNR=5.3
**ASAR Alice Springs 82.35 145** *e*P **P 23 56 13.3 +1.8**
ASAR pmax pmax
comp=Z,1.0nm,1.0s
**CPUP Villa Florida 147.35 311** PKPbc **PKPbc 00 03 32.9 -0.4**
comp=Z,0.6nm,0.5s,baz=203,slow=3.8,SNR=2.9

*ISK **27** 23:47:30.9, 39°.81N×41°.70E, h5km, MD3.0*
*ATA **27** 23:47:31.6±0.9, 39°.81N×41°.69E, h2km±3km, MD3.7, ML3.1, MW2.9*
*ISCJB **27** 23:47:32.4±0.5, 39°.83N±0°.03×41°.69E±0°.03, h4km±5km, Error ellipse: s-maj=4.7km s-min=3.5km az=164.6*
*CSEM **27** 23:47:32.0±0.2, 39°.84N×41°.70E, h2km, ML2.8, Error ellipse: s-maj=4.5km s-min=3.8km az=178.0*
*DDA **27** 23:47:32.3, 39°.82N×41°.69E, h7km, Ml2.8*
**ISC 27 23:47:32.4**±1.3, **39°.81N**±0°.02×**41°.70E**±0°.02, **h11**km±12km, **n58**, σ0**°83/67**, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **ERZM** | **Erzurum** | **0.27** | **290** | *e*P | | **Pg** | **23 47 38.2** | **+0.1** |
| **HOMI** | **Horasan** | **0.28** | **34** | *e*P | | **Pg** | **23 47 38.1** | **-0.1** |
| | baz=1.0 | | | | | | | |
| HOMI | | | | IAML | | | 23 47 46.0 | |
| | comp=Z,503nm,0.4s | | | | | | | |
| **HOMI** | **Horasan** | **0.28** | **34** | *i*P | | **Pg** | **23 47 38.3** | **+0.2** |
| **ECAT** | **Cat-ERZURUM** | **0.60** | **250** | *e*P | | **Pg** | **23 47 43.8** | **-0.3** |
| ECAT | | | | *e*S | | **Sb** | **23 47 53.0** | **-0.5** |
| ECAT | | | | IAML | | | 23 47 55.1 | |
| | comp=Z,30nm,0.3s | | | | | | | |
| **ECAT** | **Cat-ERZURUM** | **0.60** | **250** | *i*P | | **Pg** | **23 47 43.7** | **-0.3** |
| **ECAT** | **Cat-ERZURUM** | **0.60** | **250** | P | | **Pg** | **23 47 43.7** | **-0.3** |
| **EATA** | **Eleskirt** | **0.61** | **85** | *e*P | | **Pb** | **23 47 44.6** | **-0.6** |
| EATA | | | | *e*S | | **Sb** | **23 47 55.3** | **+1.3** |
| EATA | | | | IAML | | | 23 47 59.3 | |
| | comp=Z,17nm,0.4s | | | | | | | |
| **EATA** | **Eleskirt** | **0.61** | **85** | *i*P | | **Pb** | **23 47 44.7** | **-0.6** |
| **EATA** | **Eleskirt** | **0.61** | **85** | P | | **Pb** | **23 47 44.7** | **-0.6** |
| **EKAR** | **Karacoban** | **0.62** | **153** | *e*P | | **Pb** | **23 47 45.0** | **-0.5** |
| | baz=1.0 | | | | | | | |
| EKAR | | | | *e*S | | **Sb** | **23 47 55.2** | **+0.9** |
| EKAR | | | | IAML | | | 23 48 02.8 | |
| | comp=Z,99nm,0.3s | | | | | | | |
| **EKAR** | **Karacoban** | **0.62** | **153** | *i*P | | **Pb** | **23 47 45.0** | **-0.5** |
| **EKAR** | **Karacoban** | **0.62** | **153** | P | | **Pb** | **23 47 45.0** | **-0.5** |
| **SENK** | **Senkaya-Erzuru** | **0.90** | **33** | *e*PG | | **Pg** | **23 47 48.8** | **-0.9** |
| SENK | | | | *e*SG | | **Sb** | **23 48 02.7** | **+0.5** |
| **SENK** | **Senkaya-Erzuru** | **0.90** | **33** | *e*Pg | | **Pg** | **23 47 48.8** | **-0.9** |
| SENK | | | | *e*Sg | | **Sb** | **23 48 02.7** | **+0.5** |
| **KOPT** | **Kop Dagi** | **0.95** | **283** | *e*P | | **Pb** | **23 47 50.9** | **-0.1** |
| KOPT | | | | IAML | | | 23 48 13.5 | |
| | comp=Z,20nm,0.5s | | | | | | | |
| **KOPT** | **Kop Dagi** | **0.95** | **283** | *i*P | | **Pg** | **23 47 50.5** | **-0.2** |
| **KOPT** | **Kop Dagi** | **0.95** | **283** | P | | **Pg** | **23 47 50.5** | **-0.2** |
| **TUTA** | **Tutak** | **0.95** | **115** | *e*P | | **Pg** | **23 47 50.2** | **-0.5** |
| **TUTA** | **Tutak** | **0.95** | **115** | *i*P | | **Pg** | **23 47 49.8** | **-1.0** |
| **TUTA** | **Tutak** | **0.95** | **115** | P | | **Pg** | **23 47 49.8** | **-1.0** |
| **BNGL** | **BINGOL** | **0.96** | **207** | *e*P | | **Pg** | **23 47 50.8** | **-0.1** |
| BNGL | | | | IAML | | | 23 48 14.6 | |
| | comp=Z,127nm,0.4s | | | | | | | |
| **BNGL** | **BINGOL** | **0.96** | **207** | *i*P | | **Pg** | **23 47 50.7** | **-0.2** |
| **YEDI** | **Yedisu-Bingol** | **0.97** | **248** | *e*PG | | **Pg** | **23 47 50.4** | **-0.6** |
| YEDI | | | | *e*SG | | **Sb** | **23 48 04.6** | **+0.4** |
| **YEDI** | **Yedisu-Bingol** | **0.97** | **248** | *e*Pg | | **Pg** | **23 47 50.4** | **-0.6** |
| YEDI | | | | *e*Sg | | **Sb** | **23 48 04.6** | **+0.4** |
| **AGRB** | **Hanur-Agry** | **1.02** | **103** | *e*PG | | **Pg** | **23 47 51.8** | **-0.3** |
| AGRB | | | | *e*SG | | **Sb** | **23 48 06.7** | **+0.9** |
| **AGRB** | **Hanur-Agry** | **1.02** | **103** | *e*Pg | | **Pg** | **23 47 51.8** | **-0.3** |
| AGRB | | | | *e*Sg | | **Sb** | **23 48 06.7** | **+0.9** |
| **DDEM** | **Demirkent** | **1.08** | **2** | *i*P | | **Pg** | **23 47 52.6** | **-0.5** |
| **DDEM** | **Demirkent** | **1.08** | **2** | P | | **Pg** | **23 47 52.6** | **-0.5** |
| **BNGB** | **Bing˙l** | **1.14** | **224** | *e*PN | | **Pg** | **23 47 53.4** | **-0.9** |
| **DAGI** | **Agillar** | **1.27** | **7** | *i*P | | **Pg** | **23 47 56.0** | **-0.9** |
| **ADCV** | **BITLIS_Adilcev** | **1.28** | **141** | *i*P | | **Pg** | **23 47 55.5** | **-1.5** |
| **ADCV** | **BITLIS_Adilcev** | **1.28** | **141** | P | | **Pg** | **23 47 55.5** | **-1.5** |
| **BINT** | **Bingol** | **1.33** | **225** | *e*Pn | | **Pn** | **23 47 53.4** | **-3.6** |
| **BAYT** | **Ayd¯–ntepe-Bay** | **1.33** | **296** | *e*PN | | **Pb** | **23 47 57.7** | **+0.2** |
| **BAYT** | **Ayd¯–ntepe-Bay** | **1.33** | **296** | *e*Pn | | **Pb** | **23 47 57.7** | **+0.2** |
| **KARS** | **Kars** | **1.33** | **52** | *e*PN | | **Pn** | **23 47 57.4** | **+0.3** |
| **KARS** | **Kars** | **1.33** | **52** | *e*Pn | | **Pn** | **23 47 57.4** | **+0.3** |
| **ARTV** | **Artvin** | **1.38** | **7** | *e*P | | **Pb** | **23 47 58.2** | **-0.1** |
| ARTV | | | | IAML | | | 23 48 19.3 | |
| | comp=Z,7.8nm,0.4s | | | | | | | |
| **ARTV** | **Artvin** | **1.38** | **7** | *i*P | | **Pn** | **23 47 56.8** | **-1.0** |
| **ARTV** | **Artvin** | **1.38** | **7** | P | | **Pn** | **23 47 56.8** | **-1.0** |
| **EUZM** | **Uzumlu** | **1.55** | **267** | *e*P | | **Pb** | **23 48 01.2** | **0.0** |
| | baz=1.0 | | | | | | | |
| **DYDN** | **Diyadin** | **1.56** | **99** | *i*P | | **Pg** | **23 48 01.8** | **-0.5** |
| **DYDN** | **Diyadin** | **1.56** | **99** | P | | **Pg** | **23 48 01.8** | **-0.5** |
| **BCA** | **Borcka** | **1.63** | **358** | *e*PN | | **Pb** | **23 48 01.9** | **-0.5** |
| **BCA** | **Borcka** | **1.63** | **358** | *e*Pn | | **Pb** | **23 48 02.0** | **-0.5** |
| **EAK** | **Akyaka** | **1.70** | **59** | *e*P | | **Pg** | **23 48 04.8** | **-0.2** |
| | baz=1.0 | | | | | | | |
| **GEVA** | **Gevas** | **1.83** | **144** | *e*P | | **Pb** | **23 48 06.8** | **+0.7** |
| | baz=1.0 | | | | | | | |
| **KELT** | **Kelkit** | **1.91** | **281** | *e*P | | **Pg** | **23 48 07.9** | **-1.0** |
| KELT | | | | IAML | | | 23 48 09.7 | |
| | comp=Z,3.3nm,0.4s | | | | | | | |
| **BTMN** | **Batman** | **1.95** | **190** | *i*P | | **Pb** | **23 48 08.7** | **+0.7** |
| **BTMN** | **Batman** | **1.95** | **190** | P | | **Pb** | **23 48 08.7** | **+0.7** |
| **TASB** | **TASBURUN-IGDIR** | **1.96** | **84** | *e*PN | | **Pn** | **23 48 06.4** | **+0.7** |
| **TASB** | **TASBURUN-IGDIR** | **1.96** | **84** | *e*Pn | | **Pn** | **23 48 06.4** | **+0.7** |
| **PTK** | **Pertek** | **2.01** | **244** | *e*PN | | **Pn** | **23 48 07.5** | **+1.0** |
| **PTK** | **Pertek** | **2.01** | **244** | *e*Pn | | **Pn** | **23 48 07.5** | **+1.0** |
| **SIRT** | **Sirnak** | **2.38** | **166** | *e*PN | | **Pn** | **23 48 12.2** | **+0.7** |
| **SIRT** | **Sirnak** | **2.38** | **166** | *e*Pn | | **Pn** | **23 48 12.2** | **+0.7** |
| **ESPY** | **Espiye-Giresun** | **2.52** | **297** | *e*PN | | **Pn** | **23 48 14.3** | **+0.9** |
| **ESPY** | **Espiye-Giresun** | **2.52** | **297** | *e*Pn | | **Pn** | **23 48 14.3** | **+0.9** |

*CSEM **28** 00:15:27.7±0.4, 36°.89N×27°.53E, h2km, ML2.7, Error ellipse: s-maj=10.4km s-min=4.6km az=37.0*
*ISK **28** 00:15:27.7, 36°.93N×27°.49E, h5km, MD2.5*
*DDA **28** 00:15:30.5, 37°.03N×27°.50E, h4km, Ml2.7*
**ISC 28 00:15:28.4**±1.5, **36°.96N**±0°.09×**27°.55E**±0°.05, **h9**km±10km, **n14**, σ1**°15/26**, **Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **BDRM** | **Kayabasi** | **0.14** | **323** | *i*P | | **Pg** | **00 15 32.0** | **+0.5** |
| BDRM | | | | *i*S | | **Sg** | **00 15 33.5** | **-0.1** |
| **BDRM** | **Kayabasi** | **0.14** | **323** | P | | **Pg** | **00 15 32.0** | **+0.5** |
| BDRM | | | | S | | **Sg** | **00 15 33.5** | **-0.1** |
| **BODT** | **Bodrum** | **0.22** | **299** | *e*PG | | **Pg** | **00 15 32.3** | **-0.5** |
| BODT | | | | *e*SG | | **Sg** | **00 15 35.6** | **-0.3** |
| **BODT** | **Bodrum** | **0.22** | **299** | *e*Pg | | **Pg** | **00 15 32.3** | **-0.5** |
| BODT | | | | *e*Sg | | **Sg** | **00 15 35.6** | **-0.3** |
| **AYDN** | **Tasoluk** | **0.75** | **21** | *i*P | | **Pb** | **00 15 43.9** | **+0.3** |
| AYDN | | | | *i*S | | **Sb** | **00 15 54.0** | **0.0** |
| **AYDN** | **Tasoluk** | **0.75** | **21** | P | | **Pb** | **00 15 43.9** | **+0.3** |
| AYDN | | | | S | | **Sb** | **00 15 54.0** | **0.0** |
| **GCAM** | **G?zelcaml?** | **0.78** | **341** | *e*PG | | **Pb** | **00 15 43.7** | **-0.4** |
| GCAM | | | | *e*SG | | **Sb** | **00 15 55.4** | **+0.6** |
| **GCAM** | **G?zelcaml?** | **0.78** | **341** | *i*P | | **Pb** | **00 15 44.0** | **-0.1** |
| GCAM | | | | *i*S | | **Sb** | **00 15 55.1** | **+0.4** |
| **GCAM** | **G?zelcaml?** | **0.78** | **341** | *e*Pg | | **Pb** | **00 15 43.7** | **-0.4** |
| **GCAM** | **G?zelcaml?** | **0.78** | **341** | P | | **Pb** | **00 15 44.0** | **-0.1** |
| GCAM | | | | S | | **Sb** | **00 15 55.2** | **+0.4** |
| **TURN** | **Turunc** | **0.85** | **95** | *i*P | | **Pg** | **00 15 42.8** | **-1.9** |
| TURN | | | | *i*S | | **Sg** | **00 15 53.4** | **-2.4** |
| **TURN** | **Turunc** | **0.85** | **95** | P | | **Pg** | **00 15 42.8** | **-1.9** |
| **FETY** | **Fethiye** | **1.27** | **104** | *e*PN | | **Pg** | **00 15 53.3** | **+0.5** |
| FETY | | | | *e*SN | | **Sg** | **00 16 11.9** | **+2.5** |
| **FETY** | **Fethiye** | **1.27** | **104** | *e*Pn | | **Pg** | **00 15 53.3** | **+0.5** |
| FETY | | | | *e*Sn | | **Sg** | **00 16 11.9** | **+2.5** |

*IDC **28** 00:16:23.4±1.9, 26°.54S×71°.73W, h0km, mb3.5/3, mb1 3.9/4, mb1mx3.7/19, mbtmp3.6/4, ML3.8/1, MS2.9/1, Ms1 2.9/1, ms1mx2.4/17, Error ellipse: s-maj=65.5km s-min=38.7km az=25.0*
**ISC 28 00:16:29.1**±1.7, **26°.4S**±0°.2×**71°.7W**±0°.3, **h35**km, **n7**, σ0**°60/6**, **mb3.6/3**, **Off coast of northern Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **LPAZ** | **La Paz** | **10.62** | **19** | Pn | | **Pn** | **00 18 59.6** | **+0.1** |
| | 0.3nm,0.3s,baz=180,slow=5.7,SNR=5.9 | | | | | | | |
| **CPUP** | **Villa Florida** | **12.87** | **93** | LR | | LR | 00 25 08.9 | |
| | comp=Z,48nm,18.3s,baz=188,slow=41 | | | | | | | |
| **TXAR** | **Lajitas Array** | **63.37** | **329** | P | | **P** | **00 26 54.4** | **-0.7** |
| | 0.4nm,0.8s,baz=152,slow=10,SNR=2.8 | | | | | | | |
| **NVAR** | **Mina Array Bea** | **77.90** | **324** | P | | **P** | **00 28 24.4** | **+0.7** |
| | 0.2nm,0.6s,baz=162,slow=3.8,SNR=2.8 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **81.39** | **71** | P | | **P** | **00 28 42.7** | **-0.1** |
| | 0.5nm,0.7s,baz=254,slow=2.8,SNR=6.3 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **147.48** | **26** | PKPbc | | **PKPbc** | **00 36 09.2** | **+0.1** |
| | 1.0nm,0.5s,baz=304,slow=2.6,SNR=5.2 | | | | | | | |
| **MKAR** | **Makanchi Array** | **151.08** | **39** | PKPbc | | **PKPbc** | **00 36 18.4** | **0.0** |
| | 0.3nm,0.4s,baz=313,slow=2.0,SNR=7.2 | | | | | | | |

**RSNC 28 00:22:55.5**±0.5, **11°.05N×72°.13W**, **h78**km±13km, **ML3.6, Near north coast of Colombia**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **URIC** | **Uribia, Colomb** | **0.66** | **12** | *e*P | | Pn | 00 23 10.2 | -0.3 |
| URIC | | | | *e*P | | Pn | 00 23 10.3 | -0.3 |
| URIC | | | | *e*S | | Sn | 00 23 21.2 | -0.6 |
| URIC | | | | *e*S | | Sn | 00 23 21.6 | -0.2 |
| URIC | | | | *i* | | | 00 23 22.5 | |
| | comp=Z,3μm,0.1s | | | | | | | |
| URIC | | | | *i* | | | 00 23 22.6 | |
| | comp=Z,3μm,0.1s | | | | | | | |
| **CODC** | **Agust¯›n Codaz** | **1.71** | **229** | *e*P | | Pn | 00 23 22.3 | -1.2 |
| CODC | | | | *e*S | | Sn | 00 23 44.7 | 0.0 |
| CODC | | | | *i* | | | 00 23 47.9 | |
| | comp=Z,2μm,0.5s | | | | | | | |
| **OCAC** | **Ocana** | **3.03** | **203** | *e*P | | Pn | 00 23 40.3 | -1.2 |
| **PAMC** | **Pamplona, Colo** | **3.73** | **189** | *e*P | | Pn | 00 23 51.5 | +0.3 |
| PAMC | | | | *e*S | | Sn | 00 24 33.7 | -0.7 |
| PAMC | | | | *i* | | | 00 24 35.5 | |
| | comp=Z,44nm,0.4s | | | | | | | |
| **GIRC** | **Giron, Santand** | **4.09** | **195** | *e*P | | Pn | 00 23 55.7 | -0.1 |
| **MOTC** | **Monteria, Cord** | **4.16** | **237** | *e*P | | Pn | 00 23 55.9 | -0.6 |
| MOTC | | | | *i* | | | 00 25 05.6 | |
| | comp=Z,23nm,0.5s | | | | | | | |
| **BRRC** | **Barranca, Sant** | **4.22** | **202** | *e*P | | Pn | 00 23 57.1 | -0.4 |
| **ZARC** | **Zaragoza, Cauc** | **4.45** | **218** | *e*P | | Pn | 00 23 59.6 | -1.0 |
| ZARC | | | | *i* | | | 00 25 25.2 | |
| | comp=Z,60nm,0.5s | | | | | | | |
| **BARC** | **Barichara** | **4.55** | **193** | *e*P | | Pn | 00 24 01.7 | -0.6 |
| BARC | | | | *i* | | | 00 25 39.0 | |
| | comp=Z,82nm,0.5s | | | | | | | |
| **PTBC** | **PUERTO BERRIO,** | **5.04** | **207** | *e*P | | Pn | 00 24 07.8 | -0.9 |
| PTBC | | | | *e*S | | Sn | 00 25 05.3 | -0.3 |
| **RUSC** | **La Rusia** | **5.21** | **191** | *e*P | | Pn | 00 24 11.5 | 0.0 |
| RUSC | | | | *i* | | | 00 25 14.6 | |
| | comp=Z,21nm,0.4s | | | | | | | |
| **YOPC** | **Yopal, Colombi** | **5.67** | **183** | *e*P | | Pn | 00 24 17.3 | 0.0 |
| YOPC | | | | *i* | | | 00 25 23.3 | |
| | comp=Z,35nm,0.6s | | | | | | | |
| **HELC** | **Santa Helena** | **5.89** | **215** | *e*S | | Sn | 00 25 26.2 | -0.7 |
| **NORC** | **Norcasia** | **6.09** | **207** | *e*P | | Pn | 00 24 22.8 | -0.3 |
| NORC | | | | *e*S | | Sn | 00 25 30.7 | -0.7 |
| **CHIC** | **Chingaza** | **6.58** | **194** | *e*P | | Pn | 00 24 30.0 | 0.0 |
| CHIC | | | | *i* | | | 00 24 34.3 | |
| | comp=Z,17nm,0.5s | | | | | | | |
| **GUYC** | **Guyana, Colomb** | **6.63** | **209** | *e*P | | Pn | 00 24 31.1 | +0.3 |
| **VILC** | **Villavicencio,** | **7.07** | **193** | *e*P | | Pn | 00 24 35.5 | -1.0 |
| **TOLC** | **Tolima** | **7.16** | **206** | *e*P | | Pn | 00 24 37.9 | 0.0 |
| **YOTC** | **Yotoco, Valle** | **8.17** | **211** | *e*P | | Pn | 00 24 50.6 | -1.0 |

*GUC **28** 00:26:41.7±0.5, 32°.64S×71°.58W, h42km±3km, ML4.0*
*NEIC **28** 00:26:41.0±0.0, 32°.64S×71°.58W, h42km, MG4.0(GUC), After GUC.*
*NEIC Felt [III] at Puchuncavi, Quillota, Tiltil, Villa Alemana and Vina del Mar; [II] at Santiago and Valparaiso. Also felt at San Antonio.*
*ISCJB **28** 00:26:42.1±0.9, 32°.80S±0°.04×71°.73W±0°.10, h78km±9km, mb3.9/2, Error ellipse: s-maj=14.0km s-min=6.9km az=13.8*
*SJA **28** 00:26:47.5±1.2, 32°.65S×71°.24W, h75km±12km, ML3.6, MW3.9*
*IDC **28** 00:26:48.0±8.1, 32°.93S×70°.58W, h55km±45km, mb3.7/2, mb1 3.7/4, mb1mx3.4/24, mbtmp3.8

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **STL** | **Santa Lucia** | **1.19** | **128** | *e*P | | **Pn** | **00 27 01.9** | **-1.4** |
| STL | | | | *e*S | | **Sn** | **00 27 16.8** | **-2.2** |
| STL | | | | IAML | | | 00 27 17.5 | |
| | comp=N,6μm,0.3s | | | | | | | |
| **ANTU** | **Antumapu** | **1.28** | **133** | *e*P | | **Pn** | **00 27 03.5** | **-0.9** |
| ANTU | | | | *e*S | | **Sn** | **00 27 19.8** | **-1.3** |
| ANTU | | | | IAML | | | 00 27 23.0 | |
| | comp=N,6μm,0.2s | | | | | | | |
| **FSR** | **Penalolen** | **1.29** | **127** | *e*P | | **Pn** | **00 27 03.6** | **-0.9** |
| FSR | | | | *e*S | | **Sn** | **00 27 20.0** | **-1.4** |
| **FCH** | **Farellones** | **1.38** | **117** | *e*P | | **Pn** | **00 27 04.6** | **-1.4** |
| FCH | | | | *e*S | | **Sn** | **00 27 22.1** | **-1.7** |
| FCH | | | | IAML | | | 00 27 23.3 | |
| | comp=E,4μm,0.2s | | | | | | | |
| **SJCH** | **San Jose de Ma** | **1.50** | **129** | *e*P | | **Pn** | **00 27 06.6** | **-0.7** |
| SJCH | | | | *e*S | | **Sn** | **00 27 25.6** | **-0.8** |
| SJCH | | | | IAML | | | 00 27 28.4 | |
| | comp=N,2μm,0.1s | | | | | | | |
| **LMEL** | **Las Melosas** | **1.73** | **132** | *e*P | | **Pn** | **00 27 10.3** | **-0.1** |
| LMEL | | | | *e*S | | **Sn** | **00 27 32.1** | **+0.2** |
| LMEL | | | | IAML | | | 00 27 35.8 | |
| | comp=N,4μm,0.1s | | | | | | | |
| **AUSP** | **Uspallata** | **2.06** | **77** | *e*P | | **Pn** | **00 27 16.1** | **+1.2** |
| **RTLS** | **Leoncito** | **2.27** | **67** | *e*P | | **Pn** | **00 27 19.6** | **+1.9** |
| RTLS | | | | IAML | | | 00 27 58.5 | |
| | comp=Z,382nm,0.4s | | | | | | | |
| **GO05** | **HualaæØ** | **2.31** | **184** | *e*Pn | | **Pn** | **00 27 17.8** | **-0.2** |
| GO05 | | | | *e*Sn | | **Sn** | **00 27 44.0** | **-1.5** |
| **RTCV** | **Cerro Valdivia** | **2.85** | **74** | *e*P | | **Pn** | **00 27 27.9** | **+2.6** |
| **RTLL** | **Cerro Villicun** | **3.10** | **65** | *e*P | | **Pn** | **00 27 30.4** | **+1.6** |
| RTLL | | | | IAML | | | 00 28 14.8 | |
| | comp=Z,331nm,0.4s | | | | | | | |
| **AMOG** | **MOGNA** | **3.29** | **59** | *e*P | | **Pn** | **00 27 33.2** | **+1.9** |
| **LCO** | **Las Campanas** | **3.79** | **14** | *e*Pn | | **Pn** | **00 27 37.6** | **-0.7** |
| LCO | | | | *e*Sn | | **Sn** | **00 28 17.4** | **-4.5** |
| **ACAN** | **Cantantal** | **3.88** | **85** | *e*P | | **Pn** | **00 27 40.8** | **+1.4** |
| **AGUA** | **GUANDACOL** | **4.25** | **42** | *e*P | | **Pn** | **00 27 47.0** | **+2.4** |
| **VCA** | **Vinchina** | **5.00** | **39** | *e*P | | **Pn** | **00 27 57.8** | **+3.1** |
| **TCA** | **Tanti** | **6.23** | **79** | *e*P | | **Pn** | **00 28 11.9** | **+0.4** |
| **PLCA** | **Paso Flores** | **8.07** | **173** | P | | **Pn** | **00 28 38.2** | **+1.6** |
| | comp=Z,0.6nm,0.3s,baz=360,slow=12,SNR=18 | | | | | | | |
| **PLCA** | **Paso Flores** | **8.07** | **173** | *e*Pn | | **Pn** | **00 28 37.3** | **+0.7** |
| **PB10** | **IPOC Station P** | **9.21** | **7** | *e*Pn | | **Pn** | **00 28 50.4** | **-1.9** |
| **TRQA** | **Tornquist** | **9.60** | **127** | *e*Pn | | **Pn** | **00 28 58.6** | **+1.1** |
| **CPUP** | **Villa Florida** | **14.07** | **67** | P | | **Pn** | **00 29 54.7** | **-3.2** |
| | comp=Z,0.1nm,0.3s,baz=252,slow=13,SNR=2.1 | | | | | | | |
| CPUP | | | | S | | Sn | 00 32 18.8 | -14 |
| | comp=Z,0.2nm,0.3s,baz=262,slow=7.1,SNR=2.3 | | | | | | | |
| CPUP | | | | LR | | LR | 00 35 36.1 | |
| | comp=Z,42nm,21.4s,baz=202,slow=40 | | | | | | | |
| **CPUP** | **Villa Florida** | **14.07** | **67** | *e*Pn | | **Pn** | **00 29 55.5** | **-2.3** |
| CPUP | | | | S | | Sn | 00 32 18.8 | -14 |
| **LPAZ** | **La Paz** | **16.67** | **12** | LR | | LR | 00 37 35.0 | |
| | comp=Z,43nm,20.1s,baz=85,slow=39 | | | | | | | |
| **SIV** | **San Ignacio** | **19.25** | **33** | LR | | LR | 00 40 05.4 | |
| | comp=Z,40nm,20.5s,baz=294,slow=42 | | | | | | | |
| **TRIS** | **Tristan da Cun** | **48.27** | **113** | *e*P | | **P** | **00 35 14.4** | **-1.3** |
| **SNAA** | **Sanae** | **52.70** | **158** | P | | **P** | **00 35 52.4** | **+3.8** |
| | comp=Z,1.4nm,0.8s,baz=304,slow=3.6,SNR=3.7 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **83.54** | **70** | P | | **P** | **00 39 05.9** | **+3.5** |
| | comp=Z,1.1nm,0.8s,baz=252,slow=5.6,SNR=5.4 | | | | | | | |

*ISCJB* ***28*** *00:36:36.7±0.5, 67.82N±0.03×20.25E±0.07, h0km, Error ellipse: s-maj=4.9km s-min=3.6km az=168.6*
*UPP* ***28*** *00:36:37.2±0.1, 67.84N×20.19E, h1km, ML2.5*
*HEL* ***28*** *00:36:40.3±1.5, 67.86N×20.51E, h0km, ML1.5, Explosion*
**ISC 28 00:36:37.4±1.0, 67.81N±0.03×20.24E±0.03, h0km, n10, σ0=83/17, Sweden**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **KUA** | **Kurravaara** | **0.15** | **14** | P | | **Pg** | **00 36 39.7** | **-0.5** |
| KUA | | | | S | | **Sg** | **00 36 41.7** | **-0.4** |
| **RATU** | **Laukkuluspa** | **0.25** | **273** | P | | **Pg** | **00 36 41.5** | **-0.6** |
| RATU | | | | S | | **Sg** | **00 36 44.8** | **-0.5** |
| **NIKU** | **Nikkaluokta** | **0.46** | **277** | P | | **Pg** | **00 36 45.7** | **-0.6** |
| NIKU | | | | S | | **Sg** | **00 36 51.7** | **-0.5** |
| **LANU** | **Lannavaara** | **0.70** | **69** | *e*P | | **Pg** | **00 36 50.1** | **-0.7** |
| LANU | | | | *e*S | | **Sg** | **00 36 59.9** | **0.0** |
| **DUNU** | **Dundret** | **0.70** | **170** | P | | **Pg** | **00 36 50.9** | **+0.1** |
| **KIF** | **Kilpisjarvi** | **1.22** | **10** | *e*P | | **Pn** | **00 37 02.8** | **+1.2** |
| KIF | | | | *e*S | | **Sg** | **00 37 16.3** | **-0.1** |
| KIF | | | | MSG | | | 00 37 19.8 | |
| | comp=Z,6.8nm,0.1s | | | | | | | |
| **PAJU** | **Pajala** | **1.36** | **124** | P | | **Pg** | **00 37 02.8** | **-0.6** |
| PAJU | | | | S | | **Sg** | **00 37 21.2** | **+0.2** |
| **HEF** | **Hetta** | **1.41** | **63** | *e*P | | **Pn** | **00 37 03.7** | **-0.7** |
| HEF | | | | *e*SB | | **Sg** | **00 37 21.4** | **-1.4** |
| HEF | | | | MSG | | | 00 37 27.2 | |
| | comp=Z,2.8nm,0.1s | | | | | | | |
| **ERTU** | **Ertsjaerv** | **1.47** | **148** | P | | **Pn** | **00 37 05.3** | **+0.1** |
| **ARE0** | **ARCESS Array S** | **2.59** | **46** | *e*SB | | **Sn** | **00 37 54.4** | **+1.8** |

*OBM* ***28*** *00:40:29.0±0.2, 51.95N×95.94E, h2km, Ml4.6/1, Error ellipse: s-maj=5.6km s-min=1.0km az=3.0*
*IDC* ***28*** *00:40:30.8±0.4, 51.97N×95.91E, h0km, mb4.4/26, mb1 4.5/31, mb1mx4.4/42, mbtmp4.4/31, ML3.6/7, MS3.7/20, Ms1 3.7/20, ms1mx3.6/38, Error ellipse: s-maj=13.5km s-min=7.3km az=180.0*
*BJI* ***28*** *00:40:30.2, 52.10N×95.44E, h10km, mb4.4/41, mB4.8/30, ML5.0/1, Ms4.7/30, Ms7 4.3/31*
*ISCJB* ***28*** *00:40:30.4±0.2, 51.99N±0.03×95.82E±0.03, h4km, mb4.5/78, MS3.8/25, Error ellipse: s-maj=3.6km s-min=2.6km az=4.8*
*MOS* ***28*** *00:40:31.4±1.2, 51.97N×95.82E, h12km, mb4.7/45, Error ellipse: s-maj=6.6km s-min=5.0km az=24.7*
*NEIC* ***28*** *00:40:32.7±0.2, 51.97N×95.77E, h10km, mb4.7/39, Error ellipse: s-maj=5.8km s-min=3.6km az=180.0*
*NEIC Felt at Krasnoyarsk.*
*ASRS* ***28*** *00:40:35.0±0.9, 51.98N×95.54E, h15km, Ms4.3/3*
**ISC 28 00:40:33.1±0.5, 52.09N±0.03×95.85E±0.02, h8km±2km, h8km:pP-P, n307, σ1=91/361, mb4.5/90, MS3.8/25, 29C-8D, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **KZLR** | **Kyzyl** | **0.95** | **246** | *i* Pg | | **Pg** | **00 40 48.0** | **-3.3** |
| KZLR | | | | *e*Sg | | **Sg** | **00 40 59.7** | **-3.9** |
| **KZLR** | **Kyzyl** | **0.95** | **246** | *i* PG | | **Pg** | **00 40 48.0** | **-3.3** |
| KZLR | | | | *e* | | | 00 40 59.7 | |
| **HVS** | **Khovu-Aksy** | **1.65** | **235** | PN | | **Pn** | **00 40 59.1** | **-3.3** |
| **HVS** | **Khovu-Aksy** | **1.65** | **235** | P | | **Pn** | **00 40 59.1** | **-3.3** |
| **ORL** | **Orlik** | **2.47** | **78** | i/PN | | **Pn** | **00 41 14.4** | **+0.6** |
| ORL | | | | *e* | | | 00 41 46.2 | |
| ORL | | | | pmax | pmax | | | |
| | comp=Z,2μm,0.4s | | | | | | | |
| ORL | | | | smax | smax | | | |
| | comp=N,6μm,0.6s | | | | | | | |
| **CERR** | **Cheremushki** | **2.81** | **287** | *i* Pn | | **Pn** | **00 41 19.6** | **+1.2** |
| CERR | | | | *e*Pg | | **Pb** | **00 41 23.9** | **+0.3** |
| CERR | | | | *e*Sg | | **Sb** | **00 42 00.6** | **+2.4** |
| **CERR** | **Cheremushki** | **2.81** | **287** | *i* PN | | **Pn** | **00 41 19.6** | **+1.2** |
| CERR | | | | *e* | | | 00 41 23.9 | |
| CERR | | | | *e* | | | 00 42 00.6 | |
| **HTG** | **Hatgal** | **3.17** | **119** | *e*Pg | | **Pn** | **00 41 24.9** | **+1.5** |
| HTG | | | | *e*Sg | | **Sn** | **00 42 04.9** | **+3.4** |
| **ULG** | **Ulaangom** | **3.21** | **230** | *e*Pn | | **Pn** | **00 41 21.8** | **-2.0** |
| ULG | | | | *e*Sg | | **Sn** | **00 42 03.9** | **+1.7** |
| **MOY** | **Mondy** | **3.22** | **96** | *e*PN | | **Pn** | **00 41 23.4** | **-0.6** |
| MOY | | | | *i* | | | 00 41 30.4 | |
| MOY | | | | *e* | | | 00 42 08.4 | |
| **ARS** | **Arshan** | **4.07** | **90** | i/PN | | **Pb** | **00 41 42.8** | **-2.2** |
| ARS | | | | *e* | | | 00 42 35.2 | |
| ARS | | | | pmax | pmax | | | |
| | comp=Z,1μm,0.5s | | | | | | | |
| ARS | | | | smax | smax | | | |
| | comp=N,17μm,0.9s | | | | | | | |
| **TLY** | **Talaya** | **4.85** | **92** | Pn | | **Pn** | **00 41 45.8** | **-0.5** |
| | comp=N,0.0nm,0.3s,baz=277,slow=18,SNR=3.8 | | | | | | | |
| TLY | | | | Pg | | **Pb** | **00 41 56.1** | **-2.2** |
| | comp=N,0.4nm,0.3s,baz=289,slow=17,SNR=53 | | | | | | | |
| TLY | | | | Lg | | Lg | 00 42 58.8 | |
| | comp=N,1.2nm,0.3s,baz=219,slow=23,SNR=17 | | | | | | | |
| TLY | | | | LR | | LR | 00 43 45.3 | |
| | comp=N,654nm,21.1s,baz=274,slow=40 | | | | | | | |
| **TLY** | **Talaya** | **4.85** | **92** | i/PN | | Pn | 00 41 51.5 | +5.2 |
| TLY | | | | pmax | pmax | | | |
| | comp=Z,148nm,1.0s | | | | | | | |
| **TLY** | **Talaya** | **4.85** | **92** | *e*Pn | | **Pn** | **00 41 46.6** | **+0.3** |
| TLY | | | | *e*Pb | | **Pb** | **00 41 56.9** | **-1.3** |
| TLY | | | | *e*Pg | | **Pg** | **00 42 04.3** | **-1.7** |
| TLY | | | | *e*Sg | | **Sb** | **00 42 59.0** | **+2.3** |
| **BYO** | **Bayan-Olgiy** | **4.89** | **232** | *e*Pn | | **Pn** | **00 41 45.3** | **-1.8** |
| BYO | | | | *e*Sg | | **Sb** | **00 42 58.1** | **-0.1** |
| **HBD** | **Hovd** | **4.90** | **215** | *e*Pn | | **Pn** | **00 41 44.7** | **-2.5** |
| HBD | | | | *e*Sg | | **Sb** | **00 42 56.6** | **-1.7** |
| **TASR** | **Tashtagol** | **4.92** | **281** | *e*Pn | | **Pn** | **00 41 47.8** | **+0.5** |
| TASR | | | | *e*Pg | | **Pb** | **00 42 00.1** | **+0.7** |
| TASR | | | | *e*Sg | | **Sb** | **00 43 04.1** | **+5.3** |
| **TASR** | **Tashtagol** | **4.92** | **281** | *e*PN | | **Pn** | **00 41 47.8** | **+0.5** |
| TASR | | | | *e* | | | 00 42 00.2 | |
| TASR | | | | *e* | | | 00 43 04.1 | |
| **ZAK** | **Zakamensk** | **4.97** | **107** | *e*PN | | **Pn** | **00 41 50.5** | **+2.3** |
| ZAK | | | | *e* | | | 00 43 00.3 | |
| ZAK | | | | pmax | pmax | | | |
| | comp=Z,512nm,1.3s | | | | | | | |
| ZAK | | | | smax | smax | | | |
| | comp=N,4μm,1.2s | | | | | | | |
| **IRK** | **Irkutsk** | **5.19** | **85** | *e*PN | | **Pb** | **00 42 02.8** | **-1.2** |
| IRK | | | | *e* | | | 00 43 07.6 | |
| IRK | | | | pmax | pmax | | | |
| | comp=Z,598nm,0.4s | | | | | | | |
| IRK | | | | smax | smax | | | |
| | comp=N,8μm,1.0s | | | | | | | |
| **ARTR** | **Artybash** | **5.31** | **270** | *e*Pn | | **Pn** | **00 41 53.1** | **+0.5** |
| ARTR | | | | *e*Pg | | **Pb** | **00 42 06.5** | **+0.4** |
| ARTR | | | | *e*Sg | | **Sb** | **00 43 12.0** | **+2.2** |
| **ARTR** | **Artybash** | **5.31** | **270** | *e*PN | | **Pn** | **00 41 53.1** | **+0.5** |
| ARTR | | | | *e* | | | 00 42 06.5 | |
| ARTR | | | | *e* | | | 00 43 12.0 | |
| **AKAR** | **Aktash** | **5.47** | **254** | *e*Pn | | **Pn** | **00 41 55.2** | **+0.3** |
| AKAR | | | | *e*Pg | | **Pb** | **00 42 11.8** | **+2.9** |
| AKAR | | | | *e*Sg | | **Sb** | **00 43 18.1** | **+3.5** |
| **AKAR** | **Aktash** | **5.47** | **254** | *e*PN | | **Pn** | **00 41 55.2** | **+0.3** |
| AKAR | | | | *e* | | | 00 42 11.8 | |
| AKAR | | | | *e* | | | 00 43 18.1 | |
| **BRCR** | **Berchikul'** | **5.70** | **312** | *e*Pn | | **Pn** | **00 41 59.4** | **+1.5** |
| BRCR | | | | *e*Pg | | **Pb** | **00 42 15.8** | **+3.1** |
| BRCR | | | | *e*Sg | | **Sg** | **00 43 31.8** | **-4.0** |
| **BRCR** | **Berchikul'** | **5.70** | **312** | *e*PN | | **Pn** | **00 41 59.4** | **+1.5** |
| BRCR | | | | *e* | | | 00 42 15.8 | |
| **DGZ** | **Jazzator, Alta** | **5.84** | **249** | i/PN | | **Pn** | **00 41 59.9** | **-0.2** |
| **TTS** | **Tsetserleg** | **5.87** | **140** | *e*Pg | | **Pb** | **00 42 12.9** | **-2.8** |
| TTS | | | | *e*Sg | | **Sb** | **00 43 26.5** | **+0.3** |
| **BLGM** | **Bulgan** | **5.92** | **121** | *e*Pg | | **Pb** | **00 42 15.0** | **-1.5** |
| BLGM | | | | *e*Sg | | **Sb** | **00 43 30.1** | **+2.6** |
| **ELT** | **Eltsovka** | **5.96** | **285** | *e*Pn | | **Pn** | **00 42 01.3** | **-0.3** |
| ELT | | | | *e*Pg | | **Pb** | **00 42 17.7** | **+0.5** |
| ELT | | | | *e*Sg | | **Sb** | **00 43 33.8** | **+5.2** |
| **ELT** | **Eltsovka** | **5.96** | **285** | *e*PN | | **Pn** | **00 42 01.3** | **-0.3** |
| ELT | | | | *e* | | | 00 42 17.7 | |
| ELT | | | | *e* | | | 00 43 33.8 | |
| **ZAA0** | **Zalesovo Array** | **6.91** | **290** | *e*Pn | | **Pn** | **00 42 15.3** | **+0.7** |
| **ZALV** | **Zalesovo Beam** | **6.91** | **290** | Pn | | **Pn** | **00 42 15.5** | **+1.0** |
| | comp=N,18nm,0.3s,baz=98,slow=12,SNR=172 | | | | | | | |
| ZALV | | | | Sn | | **Sn** | **00 43 37.1** | **+3.9** |
| | comp=N,17nm,0.3s,baz=104,slow=16,SNR=5.1 | | | | | | | |
| ZALV | | | | Lg | | Lg | 00 44 06.8 | |
| | comp=N,37nm,0.3s,baz=120,slow=28,SNR=11 | | | | | | | |
| ZALV | | | | LR | | LR | 00 45 01.0 | |
| | comp=N,676nm,18.2s,baz=92,slow=39 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **6.91** | **290** | *e*Pn | | **Pn** | **00 42 15.1** | **+0.5** |
| ZALV | | | | Sn | | **Sn** | **00 43 37.1** | **+3.9** |
| ZALV | | | | Lg | | Lg | 00 44 06.8 | |
| **UKR** | **Ust'-Kan** | **7.01** | **265** | *e*Pn | | **Pn** | **00 42 16.5** | **+0.4** |
| UKR | | | | *e*Pg | | **Pb** | **00 42 38.2** | **+3.1** |
| UKR | | | | *e*Sg | | **Sb** | **00 44 07.1** | **+8.3** |
| **UKR** | **Ust'-Kan** | **7.01** | **265** | *e*PN | | **Pn** | **00 42 16.5** | **+0.4** |
| UKR | | | | *e* | | | 00 42 38.2 | |
| **OGRR** | **Ongureny** | **7.28** | **73** | *e*P | | **Pn** | **00 42 19.6** | **-0.1** |
| OGRR | | | | pmax | pmax | | | |
| | comp=Z,181nm,0.9s | | | | | | | |
| **SONB5** | **Songino Array** | **8.00** | **118** | *e*Pg | | **Pb** | **00 42 53.3** | **+1.3** |
| SONB5 | | | | *e*Sg | | Sb | 00 44 35.7 | +8.3 |
| | comp=Z,1μm,0.8s | | | | | | | |
| **SONB4** | **Songino Array** | **8.01** | **118** | *e*Pg | | **Pb** | **00 42 53.3** | **+1.2** |
| SONB4 | | | | *e*Sg | | Sb | 00 44 34.7 | +7.1 |
| | comp=Z,1μm,0.9s | | | | | | | |
| **NVS** | **Novosibirsk** | **8.01** | **295** | *e*Pn | | **Pn** | **00 42 30.3** | **+0.6** |
| NVS | | | | *e*Pg | | Pg | 00 43 00.2 | -6.2 |
| NVS | | | | *e*Sg | | Sg | 00 44 39.1 | -11 |
| **NVS** | **Novosibirsk** | **8.01** | **295** | *e*P | | **Pn** | **00 42 31.1** | **+1.4** |
| **SONB1** | **Songino Array** | **8.01** | **118** | *e*Pg | | **Pb** | **00 42 53.0** | **+0.8** |
| SONB1 | | | | *e*Sg | | Sb | 00 44 36.5 | +8.7 |
| | comp=Z,1μm,0.9s | | | | | | | |
| **SONA2** | **Songino Array** | **8.02** | **118** | *e*Pg | | **Pb** | **00 42 52.7** | **+0.4** |
| SONA2 | | | | *e*Sg | | Sb | 00 44 36.1 | +8.2 |
| | comp=Z,1μm,1.1s | | | | | | | |
| **SONA1** | **Songino Array** | **8.02** | **118** | *e*Pn | | **Pn** | **00 42 30.7** | **+0.7** |
| **SONA1** | **Songino Array** | **8.02** | **118** | *e*Pg | | **Pb** | **00 42 52.8** | **+0.4** |
| SONA1 | | | | *e*Sg | | Sb | 00 44 36.0 | +8.0 |
| | comp=Z,1μm,1.1s | | | | | | | |
| **SONA0** | **Songino Array** | **8.03** | **118** | *e*Pg | | **Pb** | **00 42 52.8** | **+0.4** |
| SONA0 | | | | *e*Sg | | Sb | 00 44 36.0 | +7.9 |
| **SONA3** | **Songino Array** | **8.03** | **118** | *e*Pg | | **Pb** | **00 42 52.9** | **+0.5** |
| SONA3 | | | | *e*Sg | | Sb | 00 44 36.1 | +8.0 |
| | comp=Z,702nm,0.8s | | | | | | | |
| **SONM** | **Songino Array** | **8.03** | **118** | Pn | | **Pn** | **00 42 28.4** | **-1.7** |
| | comp=Z,0.3nm,0.3s,baz=304,slow=15,SNR=9.9 | | | | | | | |
| SONM | | | | Pg | | **Pb** | **00 42 51.0** | **-1.4** |
| | comp=Z,12nm,0.3s,baz=300,slow=17,SNR=43 | | | | | | | |
| SONM | | | | Lg | | Lg | 00 44 38.1 | |
| | comp=Z,19nm,0.3s,baz=297,slow=26,SNR=7.2 | | | | | | | |
| SONM | | | | LR | | LR | 00 45 37.2 | |
| | comp=Z,608nm,19.4s,baz=318,slow=39 | | | | | | | |
| **SONA4** | **Songino Array** | **8.03** | **118** | *e*Pg | | **Pb** | **00 42 52.9** | **+0.5** |
| SONA4 | | | | *e*Sg | | Sb | 00 44 36.5 | +8.3 |
| | comp=Z,1μm,0.8s | | | | | | | |
| **SONB2** | **Songino Ar. Si** | **8.03** | **118** | *e*Pg | | **Pb** | **00 42 53.2** | **+0.7** |
| SONB2 | | | | *e*Sg | | Sb | 00 44 36.5 | +8.2 |
| | comp=Z,792nm,0.8s | | | | | | | |
| **SONB3** | **Songino Array** | **8.04** | **118** | *e*Pg | | **Pb** | **00 42 53.3** | **+0.7** |
| SONB3 | | | | *e*Sg | | Sb | 00 44 36.3 | +7.9 |
| | comp=Z,2μm,1.1s | | | | | | | |
| **ALFM** | | **8.15** | **116** | *e*Pg | | **Pb** | **00 42 55.4** | **+0.9** |
| ALFM | | | | *e*Sg | | Sb | 00 44 39.1 | +7.5 |
| | comp=Z,2μm,1.2s | | | | | | | |
| **ARTM** | | **8.45** | **115** | *e*Pg | | **Pb** | **00 43 00.5** | **+0.8** |
| ARTM | | | | *e*Sg | | Sb | 00 44 49.7 | +9.2 |
| | comp=Z,624nm,0.8s | | | | | | | |
| **UGDM** | | **8.69** | **116** | *e*Pg | | Pg | 00 43 05.1 | -14 |
| UGDM | | | | *e*Sg | | Sg | 00 44 56.7 | -15 |
| | comp=Z,598nm,0.9s | | | | | | | |
| **NIZ** | **Nizh Angarsk** | **8.88** | **60** | *e*P | | **Pn** | **00 42 41.0** | **-0.6** |
| NIZ | | | | *e*S | | **Sn** | **00 44 15.8** | **-5.9** |
| NIZ | | | | pmax | pmax | | | |
| | comp=Z,130nm,1.1s | | | | | | | |
| NIZ | | | | smax | smax | | | |
| | comp=N,2μm,1.4s | | | | | | | |
| **WMQ** | **Urumqi** | **9.91** | **217** | P | | **Pn** | **00 42 56.3** | **+0.4** |
| WMQ | | | | S | | **Sn** | **00 44 48.8** | **+1.5** |
| WMQ | | | | pmax | pmax | | | |
| | comp=Z,58nm,1.1s | | | | | | | |
| WMQ | | | | pmax | pmax | | | |
| | comp=Z,450nm,3.7s | | | | | | | |
| WMQ | | | | smax | smax | | | |
| | comp=N,400nm,0.9s | | | | | | | |
| WMQ | | | | smax | smax | | | |
| | comp=E,620nm,1.1s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=N,510nm,19.3s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=E,360nm,16.5s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=Z,850nm,17.5s | | | | | | | |
| **MK31** | **Makanchi Array** | **10.29** | **244** | *e*P | | **Pn** | **00 42 59.5** | **-1.5** |
| **MK31** | **Makanchi Array** | **10.29** | **244** | *e*Pn | | **Pn** | **00 42 59.5** | **-1.5** |
| **MKAR** | **Makanchi Array** | **10.29** | **244** | Pn | | **Pn** | **00 42 59.7** | **-1.3** |
| | comp=Z,1.4nm,0.3s,baz=54,slow=12,SNR=61 | | | | | | | |
| MKAR | | | | Lg | | Lg | 00 45 47.5 | |
| | comp=Z,2.3nm,0.3s,baz=64,slow=21,SNR=3.4 | | | | | | | |
| MKAR | | | | LR | | LR | 00 47 27.0 | |
| | comp=Z,140nm,18.3s,baz=40,slow=40 | | | | | | | |
| **MKAR** | **Makanchi Array** | **10.29** | **244** | *e*P | | **Pn** | **00 42 59.5** | **-1.5** |
| **MK01** | **Makanchi Array** | **10.30** | **244** | *e*Pn | | **Pn** | **00 42 59.0** | **-2.1** |
| **KURK** | **Kurchatov** | **10.85** | **270** | *d*/P | | **Pn** | **00 43 10.2** | **+1.6** |
| KURK | | | | pmax | pmax | | | |
| | comp=Z,68nm,1.0s | | | | | | | |
| **KURK** | **Kurchatov** | **10.85** | **270** | *e*Pn | | **Pn** | **00 43 07.7** | **-0.9** |
| KURK | | | | Sn | | **Sn** | **00 45 16.6** | **+6.5** |
| KURK | | | | *e*Lg | | Lg | 00 46 11.1 | |
| **CIT** | **Chita** | **10.91** | **83** | *e*P | | Pn | 00 43 03.4 | -6.0 |
| CIT | | | | pmax | pmax | | | |
| | comp=Z,43nm,0.9s | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **10.93** | **269** | Pn | | **Pn** | **00 43 09.6** | **-0.1** |
| | comp=Z,0.8nm,0.3s,baz=74,slow=14,SNR=27 | | | | | | | |
| KURBB | | | | Sn | | **Sn** | **00 45 16.6** | **+4.6** |
| | baz=68,slow=15,SNR=2.9 | | | | | | | |
| KURBB | | | | Lg | | Lg | 00 46 09.4 | |
| | comp=Z,0.7nm,0.3s,baz=76,slow=32,SNR=4.6 | | | | | | | |
| **BOD** | **Bodaibo** | **11.89** | **54** | *e*P | | **Pn** | **00 43 21.0** | **-1.8** |
| BOD | | | | pmax | pmax | | | |
| | comp=Z,56nm,1.6s | | | | | | | |
| **GTA** | **Gaotai** | **12.98** | **166** | *e*P | | **Pn** | **00 43 38.3** | **+0.4** |
| GTA | | | | pP | | | 00 43 42.8 | |
| GTA | | | | sP | | | 00 43 45.0 | |
| GTA | | | | S | | **Sn** | **00 46 05.5** | **+3.0** |
| GTA | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,1.6s | | | | | | | |
| GTA | | | | pmax | pmax | | | |
| | comp=Z,210nm,5.5s | | | | | | | |
| GTA | | | | LR | LR | | | |
| | comp=Z,1μm,13.1s | | | | | | | |
| GTA | | | | LR | LR | | | |
| | comp=Z,3μm,11.2s | | | | | | | |
| GTA | | | | LR | LR | | | |
| | comp=Z,1μm,10.9s | | | | | | | |
| **HIA** | **Hailar** | **15.39** | **91** | *e*P | | **Pn** | **00 44 12.1** | **+1.7** |
| HIA | | | | pmax | pmax | | | |
| | comp=Z,22nm,0.9s | | | | | | | |
| **HIA** | **Hailar** | **15.39** | **91** | *e*Pn | | **Pn** | **00 44 12.1** | **+1.7** |
| | comp=Z,22nm,0.9s | | | | | | | |
| **BVA0** | **Borovoye Array** | **15.49** | **284** | *i* P | | **Pn** | **00 44 09.4** | **-2.3** |
| BVA0 | | | | pmax | pmax | | | |
| | comp=Z,12nm,0.8s | | | | | | | |
| **BVAR** | **Borovoye Array** | **15.49** | **284** | Pn | | **Pn** | **00 44 09.1** | **-2.6** |
| | comp=Z,0.8nm,0.3s,baz=81,slow=14,SNR=20 | | | | | | | |
| BVAR | | | | Sn | | **Sn** | **00 46 60.0** | **-3.3** |
| | comp=Z,0.8nm,0.3s,baz=80,slow=16,SNR=3.3 | | | | | | | |
| BVAR | | | | Lg | | Lg | 00 48 36.8 | |
| | baz=64,slow=33,SNR=2.6 | | | | | | | |
| BVAR | | | | LR | | LR | 00 50 17.5 | |
| | comp=Z,603nm,18.9s,baz=72,slow=38 | | | | | | | |
| **BVAR** | **Borovoye Array** | **15.49** | **284** | P | | **Pn** | **00 44 09.1** | **-2.6** |
| BVAR | | | | | | | 00 47 00.0 | |
| BVAR | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.3s | | | | | | | |
| BVAR | | | | smax | smax | | | |
| | comp=N,1.0nm,0.3s | | | | | | | |
| BVAR | | | | MLR | MLR | | | |
| | comp=Z,603nm,18.9s | | | | | | | |
| **BRVK** | **Borovoye** | **15.55** | **284** | *d* iP | | **Pn** | **00 44 10.3** | **-2.1** |
| BRVK | | | | pmax | pmax | | | |
| | comp=Z,38nm,1.2s | | | | | | | |
| **BRVK** | **Borovoye** | **15.55** | **284** | *e*Pn | | **Pn** | **00 44 10.1** | **-2.4** |
| | comp=Z,20nm,0.9s | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **15.57** | **130** | *e*P | | **Pn** | **00 44 14.0** | **+1.1** |
| HHC | | | | S | | **Sn** | **00 47 07.3** | **+1.7** |
| HHC | | | | SS | | **S** | **00 47 25.5** | **+4.3** |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,12nm,0.6s | | | | | | | |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,110nm,5.1s | | | | | | | |
| HHC | | | | LR | LR | | | |
| | comp=Z,760nm,9.3s | | | | | | | |
| HHC | | | | LR | LR | | | |
| | comp=Z,640nm,9.3s | | | | | | | |
| HHC | | | | LR | LR | | | |
| | comp=Z,750nm,10.5s | | | | | | | |
| **TKM2** | **Tokmak 2** | **16.43** | **244** | P | | **Pn** | **00 44 20.8** | **-3.2** |
| TKM2 | | | | pmax | pmax | | | |
| | comp=Z,28nm,1.1s | | | | | | | |
| **LZH** | **Lanzhou** | **16.98** | **157** | ||P | | **Pn** | **00 44 31.3** | **+0.2** |
| LZH | | | | pP | sP | | 00 44 35.3 | -1.1 |
| LZH | | | | sP | pP | | 00 44 38.3 | +3.0 |
| LZH | | | | PP | | **PnPn** | **00 44 45.3** | **+4.7** |
| LZH | | | | S | | **Sn** | **00 47 37.0** | **-3.0** |
| LZH | | | | SS | | **SnSn** | **00 47 57.3** | **+4.3** |
| LZH | | | | pmax | pmax | | | |
| | comp=Z,23nm,1.0s | | | | | | | |
| LZH | | | | pmax | pmax | | | |
| | comp=Z,180nm,8.2s | | | | | | | |
| LZH | | | | LR | LR | | | |
| | comp=Z,2μm,11.8s | | | | | | | |
| LZH | | | | LR | LR | | | |
| | comp=Z,2μm,11.3s | | | | | | | |
| LZH | | | | LR | LR | | | |
| | comp=Z,960nm,13.0s | | | | | | | |
| **FRU** | **Bishkek** | **17.03** | **245** | *i* P | | **P** | **00 44 35.0** | **+1.7** |
| FRU | | | | *e* | | | 00 47 41.0 | |
| FRU | | | | pmax | pmax | | | |
| | comp=Z,34nm,1.8s | | | | | | | |
| FRU | | | | pmax | pmax | | | |
| | comp=E,320nm,1.9s | | | | | | | |
| **AAK** | **Ala-Archa** | **17.23** | **245** | P | | **Pn** | **00 44 31.2** | **-2.9** |
| | comp=E,0.3nm,0.3s,baz=39,slow=16,SNR=7.9 | | | | | | | |
| AAK | | | | Lg | | Lg | 00 49 27.5 | |
| | comp=E,0.2nm,0.3s,baz=155,slow=15,SNR=2.6 | | | | | | | |
| AAK | | | | LR | | LR | 00 50 11.6 | |
| | comp=E,124nm,19.2s,baz=20,slow=34 | | | | | | | |
| **AAK** | **Ala-Archa** | **17.23** | **245** | ||*e*P | | **Pn** | **00 44 34.9** | **+0.8** |
| AAK | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,1.0s | | | | | | | |
| **AAK** | **Ala-Archa** | **17.23** | **245** |

**YAK Yakutsk 20.67 48** *e*P P **00 45 11.8 -1.2**
YAK *e**PP **sP** **00 45 20.9 +4.5**
YAK *e* 00 45 33.0
YAK *e*S Sn 00 49 09.7 +1.5
YAK *e*SS SnSn 00 49 41.1 +18
YAK pmax pmax
comp=Z,23nm,1.0s
YAK pmax pmax
comp=N,6.0nm,1.1s
YAK pmax pmax
comp=E,21nm,1.3s
YAK pmax pmax
comp=Z,26nm,0.8s
YAK smax smax
comp=N,116nm,2.4s
YAK smax smax
comp=E,56nm,2.0s
YAK MLR MLR
comp=E,141nm,15.0s
YAK MLR MLR
comp=Z,281nm,16.0s
YAK MLR MLR
comp=N,166nm,17.0s
**YAK Yakutsk 20.67 48** *e*P P **00 45 12.4 -0.6**
comp=N,38nm,0.8s
YAK S Sn 00 49 09.9 +1.7
YAK Lg Lg 00 51 17.8
**SVE Sverdlovsk 20.85 297***c i*P **P** **00 45 15.2 +0.2**
SVE pmax pmax
comp=Z,63nm,0.8s
**CN2 Changchun 21.37 101** *e*P P **00 45 22.0 +1.2**
CN2 *e*S **S** **00 49 14.0 -4.0**
CN2 pmax pmax
comp=Z,10.0nm,0.7s
CN2 pmax pmax
comp=Z,200nm,4.0s
CN2 LR LR
comp=Z,2µm,10.0s
CN2 LR LR
comp=Z,1µm,10.0s
CN2 LR LR
comp=Z,1µm,10.0s
**CD2 Chengdu 21.95 162** P P **00 45 28.3 +1.2**
CD2 pP sP 00 45 33.0 +2.5
CD2 S **S** **00 49 29.5 -0.1**
CD2 SS **SnSn** **00 50 01.5 +6.5**
CD2 pmax pmax
comp=Z,20nm,1.4s
CD2 pmax pmax
comp=Z,190nm,4.8s
CD2 LR LR
comp=Z,580nm,9.5s
CD2 LR LR
comp=Z,2µm,11.9s
CD2 LR LR
comp=Z,410nm,10.7s
**ARU Arti 22.02 296** P P **00 45 27.3 -0.3**
comp=Z,22nm,0.7s,baz=91,slow=4.6,SNR=38
ARU S **S** **00 49 29.2 -1.1**
comp=Z,1.2nm,0.3s,baz=90,slow=20,SNR=2.6
ARU LR LR 00 55 11.9
comp=Z,238nm,19.9s,baz=94,slow=40
**ARU Arti 22.02 296***c i*P P **00 45 26.6 -1.0**
ARU 00 45 47.5
ARU S **S** **00 49 29.6 -0.8**
ARU pmax pmax
comp=Z,30nm,0.8s
**ARU Arti 22.02 296** *e*P P **00 45 26.8 -0.8**
comp=Z,25nm,0.7s
ARU S **S** **00 49 29.2 -1.1**
**LSA Lhasa 22.64 191** *e*P P **00 45 33.4 -1.6**
LSA pmax pmax
comp=Z,7.0nm,0.7s
**LSA Lhasa 22.64 191** *e*P P **00 45 33.4 -1.6**
comp=Z,6.6nm,0.7s
**ABKAR Akbulak array 22.78 277** *e*P P **00 45 34.4 -1.4**
comp=Z,200nm,0.8s
**KLR Kul'dur 22.79 83** P P **00 45 34.8 -1.2**
comp=Z,0.2nm,0.7s,baz=266,slow=12,SNR=6.2
KLR Lg Lg 00 52 23.8
comp=Z,0.1nm,0.7s,baz=82,slow=8.2,SNR=4.0
KLR LR LR 00 55 15.8
comp=Z,8.2nm,22.0s,baz=287,slow=39
**KLR Kul'dur 22.79 83**⇓*i*P P **00 45 35.6 -0.3**
**AKTO Aktyubinsk 23.56 281** P P **00 45 43.1 -0.6**
comp=Z,45nm,0.6s,baz=82,slow=9.6,SNR=132
AKTO Lg Lg 00 52 46.4
comp=Z,3.6nm,0.9s,baz=234,slow=14,SNR=2.1
AKTO LR LR 00 55 13.6
comp=Z,270nm,19.6s,baz=81,slow=37
**TIXI Tiksi 24.45 25** P P **00 45 52.1 +0.2**
comp=Z,30nm,0.8s,baz=244,slow=4.9,SNR=49
TIXI Lg Lg 00 53 14.9
comp=Z,5.3nm,0.7s,baz=321,slow=18,SNR=4.0
**TIXI Tiksi 24.45 25***c i*P P **00 45 51.8 -0.1**
TIXI pmax pmax
comp=Z,48nm,1.0s
**TIXI Tiksi 24.45 25** *e*P P **00 45 51.4 -0.5**
comp=Z,54nm,1.1s
TIXI Lg Lg 00 53 14.9
**HABR Khabarovsk 25.10 83** *e*P P **00 45 57.8 -0.2**
HABR *e**PP **sP** **00 46 00.9 -0.6**
HABR *e**SP **pP** **00 46 02.2 +1.8**
HABR *e* 00 46 32.0
HABR *e*PPP PPP 00 46 40.1
HABR *e* 00 49 30.9
HABR *e*S **S** **00 50 24.3 +1.8**
HABR *e**SS **sS** **00 50 29.6 +3.0**
HABR *e*SS **SnSn** **00 51 15.9 +4.5**
HABR *e*SSS SSS 00 51 29.8
HABR *e* 00 56 58.1
HABR pmax pmax
comp=N,13nm,1.3s
HABR pmax pmax
comp=Z,16nm,1.3s
HABR pmax pmax
comp=E,26nm,1.3s
HABR MLR MLR
comp=Z,482nm,17.0s
**USRK Ussuriysk Ar. 25.16 94** P P **00 45 59.9 +1.3**
comp=Z,6.4nm,0.7s,baz=291,slow=8.3,SNR=8.0
USRK Lg Lg 00 53 35.8
comp=Z,0.9nm,0.6s,baz=326,slow=28,SNR=2.3
USRK LR LR 00 56 23.6
comp=Z,283nm,18.6s,baz=297,slow=38
**GUN Gumba 25.28 201** *e*P P **00 46 00.0 -0.2**
**JIRN Jiri 25.46 200** *e*P P **00 46 00.5 -1.3**
**TAPN Taplejung 25.46 197** *e*P P **00 45 59.5 -2.3**
**WHN Wuhan 25.48 140** P P **00 46 01.3 -0.3**
**KKN Kakani 25.54 202** *e*P P **00 46 00.1 -2.3**
comp=Z,13nm,0.5s
**PKIN Phulchoki 25.71 202** *e*P P **00 46 01.3 -2.7**
comp=Z,21nm,0.9s
**PKI Pulchoki 25.72 202** *e*P P **00 46 01.3 -2.8**
**PYUN Piuthan 25.83 207** *e*P P **00 46 02.2 -2.8**
comp=Z,21nm,0.8s
**KOLN Koldanda 25.97 205** *e*P P **00 46 02.1 -4.2**
comp=Z,65nm,1.4s
**ODAN Odare 26.00 197** *e*P P **00 46 04.3 -2.3**
**KBL Kabul 26.00 238** *e*P P **00 46 05.3 -1.3**
KBL pmax pmax
comp=Z,9.0nm,1.0s
**KBL Kabul 26.00 238** *e*P P **00 46 05.3 -1.3**
comp=Z,9.3nm,1.0s
**RAMN Ramite 26.06 199** *e*P P **00 46 04.2 -3.0**
**NJ2 Nanjing 26.12 131** *e*P P **00 46 09.0 +1.6**
NJ2 pmax pmax
comp=Z,19nm,0.6s
**KS01 Wonju Array Si 26.77 110** *e*P P **00 46 14.6 +1.4**
**KSAR Wonju Array Be 26.79 110** P P **00 46 12.2 -1.2**
**KSAR Wonju Array Be 26.79 110** P P **00 46 12.2 -1.2**
**KSRS Korea Array 26.80 110** P P **00 46 12.2 -1.3**
comp=Z,6.5nm,1.1s,baz=321,slow=7.9,SNR=14
**KSRS Korea Array 26.80 110** P P **00 46 12.2 -1.3**
KSRS pmax pmax
comp=Z,6.0nm,1.0s
**KMI Kunming 27.44 166** P P **00 46 20.8 +1.2**
KMI pmax pmax
comp=Z,8.0nm,0.5s
**GEYT Alibeck 29.82 257** P P **00 46 39.6 -0.9**
comp=Z,2.5nm,0.7s,baz=46,slow=6.4,SNR=5.4
GEYT Lg Lg 00 56 05.6
comp=Z,0.4nm,0.4s,baz=12,slow=16,SNR=2.9
**SEY Seymchan 31.19 47** Lg Lg 00 56 55.2
comp=Z,0.5nm,0.3s,baz=214,slow=18,SNR=4.2
**VRH Novokhopyorsk 32.94 290** *e*P P **00 47 06.5 -1.3**
VRH pmax pmax
comp=Z,10.0nm,0.7s
**APA Apatity 33.25 322**⇑*i*P P **00 47 12.7 +2.4**
APA MLR MLR
comp=Z,3µm,18.0s
**MJAR Matsushiro Arr 33.52 101** LR LR 01 00 46.1
comp=Z,116nm,18.7s,baz=345,slow=36
**CMAR Chiang Mai Arr 33.65 175** P P **00 47 13.0 -1.2**
comp=Z,0.9nm,0.6s,baz=348,slow=9.4,SNR=4.1
CMAR LR LR 01 00 25.1
comp=Z,76nm,21.4s,baz=344,slow=36
**CMAR Chiang Mai Arr 33.65 175** P P **00 47 13.0 -1.2**
CMAR pmax pmax
comp=Z,1.0nm,0.6s
CMAR MLR MLR
comp=Z,76nm,21.4s
**LPSR Galich'ya Gora 34.00 294** *e*P P **00 47 14.5 -2.4**
LPSR pmax pmax
comp=Z,20nm,1.3s
**OBN Obninsk 34.39 299** P P **00 47 19.5 -0.8**
comp=Z,13nm,0.7s,baz=53,slow=20,SNR=4.6
**OBN Obninsk 34.39 299**⇓*i*P P **00 47 19.8 -0.5**
OBN *e*S **S** **00 52 54.0 +6.1**
OBN pmax pmax
comp=Z,52nm,2.5s
OBN MLR MLR
comp=Z,296nm,14.0s
**QIZ Qiongzhong 34.78 156** P P **00 47 26.3 +2.3**
QIZ S **S** **00 52 55.5 +1.0**
QIZ pmax pmax
comp=Z,44nm,1.8s
QIZ LR LR
comp=Z,830nm,11.9s
QIZ LR LR
comp=Z,520nm,11.8s
**ZEI Tsey 35.65 276** *e*P P **00 47 29.1 -2.5**
ZEI pmax pmax
comp=Z,13nm,0.8s
**KBZ Khabaz 35.75 278** P P **00 47 31.7 -0.4**
comp=Z,4.3nm,0.9s,baz=52,slow=3.3,SNR=8.1
**KIV Kislovodsk 35.76 278** *e*P P **00 47 33.3 +0.9**
KIV pmax pmax
comp=Z,18nm,1.1s
KIV MLR MLR
comp=Z,81nm,16.0s
**KIV Kislovodsk 35.76 278** *e*P P **00 47 32.4 0.0**
comp=Z,13nm,0.8s
**ARCES ARCESS Array B 35.93 326** P P **00 47 33.5 +0.1**
comp=Z,2.1nm,0.4s,baz=72,slow=8.8,SNR=19
**ARCES ARCESS Array B 35.93 326** *e*P P **00 47 33.4 0.0**
**ARCES ARCESS Array B 35.93 326** *e*P P **00 47 33.4 0.0**
**ARE0 ARCESS Array S 35.93 326** *e*P P **00 47 34.9 +1.4**
comp=Z,70nm,1.4s
**NEY Neytrino 36.12 277**⇓*i*P P **00 47 35.9 +0.4**
NEY pmax pmax
comp=Z,6.0nm,1.3s
**BILL Bilibino 36.20 37**⇑*e*P P **00 47 37.3 +1.5**
BILL *e* 00 48 57.0
BILL *e*S **S** **00 53 14.9 -0.7**
BILL pmax pmax
comp=Z,13nm,2.2s
BILL MLR MLR
comp=Z,96nm,18.0s
**PETK Petropavlovsk- 36.55 63** LR LR 01 01 34.1
comp=Z,88nm,18.8s,baz=299,slow=34
**GNI Garni 36.64 272**⇓*i*P P **00 47 41.1 +1.1**
GNI pmax pmax
comp=Z,49nm,1.1s
**GNI Garni 36.64 272** *e*P P **00 47 37.8 -2.3**
comp=Z,66nm,0.8s
**AKH Akhalkalaki 36.67 274**⇑*i*P P **00 47 41.3 +1.0**
**SPA0 Spitsbergen Ar 37.50 341** *e*P P **00 47 47.4 +0.6**
**FIA1 FINESS Array S 37.56 312** *e*P P **00 47 47.0 -0.4**
**FINES FINESS Array B 37.56 312** P P **00 47 47.2 -0.1**
comp=Z,6.4nm,0.7s,baz=76,slow=9.1,SNR=24
**FINES FINESS Array B 37.56 312** *i* P P **00 47 47.4 0.0**
FINES pmax pmax
comp=Z,6.0nm,0.7s
**ARTV Artvin 37.77 275** *e*P P **00 47 49.2 -0.5**
comp=Z,7.8nm,1.2s
**KOPT Kop Dagi 39.33 275** *e*P P **00 48 03.3 +0.4**
comp=Z,12nm,0.9s
**AKASG Malin Array Be 40.27 295** P P **00 48 09.5 -0.6**
comp=Z,4.0nm,0.7s,baz=56,slow=8.9,SNR=15
AKASG LR LR 01 05 53.6
comp=Z,268nm,18.2s,baz=65,slow=38
**AKASG Malin Array Be 40.27 295** P P **00 48 09.5 -0.6**
AKASG pmax pmax
comp=Z,2.0nm,0.4s
AKASG MLR MLR
comp=Z,268nm,18.2s
**AKBB Malin Array Si 40.27 295** *e*P P **00 48 09.7 -0.5**
AKBB *e**PP **pP** **00 48 09.9 -2.8**
**AKBB Malin Array Si 40.27 295** *e*P P **00 48 09.7 -0.5**
AKBB *e*pP **pP** **00 48 09.9 -2.8**
**KIEV Kiev 40.28 295**⇑*i*P P **00 48 10.3 0.0**
KIEV pmax pmax
comp=Z,8.0nm,1.0s
**KIEV Kiev 40.28 295** *e*P P **00 48 09.2 -1.1**
KIEV *e*pP **pP** **00 48 09.4 -3.4**
**MARD Mardin 40.83 271** *e*P P **00 48 14.7 -0.4**
comp=Z,21nm,0.9s
**TOKA Tokat 41.62 278** *e*P P **00 48 20.8 -0.7**
comp=Z,7.6nm,0.9s
**SORM Soroca 42.05 292**⇑*i*P P **00 48 23.6 -1.3**
**LVV L'vov 43.59 297** *e*P P **00 48 37.6 +0.3**
**PRAR RASCA 43.68 293**⇑*i*P P **00 48 38.5 +0.4**
**BR131 Keskin Array S 43.71 279** *e*P P **00 48 37.1 -1.5**
**BRTR Keskin Array B 43.71 279** P P **00 48 37.9 -0.7**
comp=Z,7.7nm,0.8s,baz=98,slow=8.9,SNR=3.5
BRTR LR LR 01 09 21.8
comp=Z,70nm,19.3s,baz=40,slow=40
**BUR08 Bucovina Ar. S 44.11 294** *e*P P **00 48 41.0 -0.7**
**BURAR Bucovina Array 44.11 294**⇑*i*P P **00 48 41.2 -0.5**
**BUR04 Bucovina Ar. S 44.11 294** *e*P P **00 48 41.0 -0.7**
**ANTO Ankara 44.14 280** *e*P P **00 48 41.3 -0.7**
ANTO pmax pmax
comp=Z,15nm,0.9s
**ANTO Ankara 44.14 280** *e*P P **00 48 41.3 -0.7**
comp=Z,14nm,0.9s
**BR231 Keskin MP Arra 44.16 280** *e*P P **00 48 42.0 -0.3**
**VRI Vrincioaia 44.22 291**⇑*i*P P **00 48 43.3 +0.8**
**NB2 NORSAR Subarra 44.31 316** P P **00 48 42.6 -0.4**
comp=Z,7.9nm,0.6s,baz=61,slow=8.6
**NB2 NORSAR Subarra 44.31 316** P P **00 48 42.3 -0.7**
NB2 pmax pmax
comp=Z,6.0nm,0.6s
**NOA NORSAR Array B 44.31 316** P P **00 48 42.6 -0.4**
comp=Z,9.6nm,0.7s,baz=61,slow=8.0,SNR=22
NOA LR LR 01 09 03.3
comp=Z,112nm,20.3s,baz=5.0,slow=38
**NOA NORSAR Array B 44.31 316** P P **00 48 42.6 -0.4**
NOA pmax pmax
comp=Z,9.0nm,0.7s
NOA MLR MLR
comp=Z,112nm,20.3s
**KWP Kalwaria Pacla 44.42 297** P P **00 48 44.5 +0.5**
KWP pmax pmax
comp=Z,232nm,1.2s
**ISR Istrita 44.75 290**⇑*i*P P **00 48 47.8 +1.0**
**MLR Muntele Rosu 44.88 291**⇑*i*P P **00 48 48.8 +0.8**
**ARCR ARCALIA 44.89 293**⇑*i*P P **00 48 49.0 +1.2**
**DOPR Dopca 44.93 291**⇑*i*P P **00 48 48.8 +0.6**
**STHS Stebnicka Huta 45.33 298** *e*P P **00 48 52.7 +1.4**
STHS pmax pmax
comp=Z,5.0nm,1.3s
**STHS Stebnicka Huta 45.33 298** *e*P P **00 48 52.7 +1.4**
**GKP Gorka Klasztor 45.38 304** *e*P P **00 48 52.3 +0.7**
**GKP Gorka Klasztor 45.38 304** *e*P P **00 48 52.3 +0.7**
**VOIR 45.43 291**⇑*i*P P **00 48 53.0 +0.8**
**VOIR 45.43 291** P P **00 48 55.9 +3.7**
VOIR pmax pmax
comp=Z,6.0nm,1.3s
**OJC Ojcow 45.68 299** *e*P P **00 48 54.3 +0.3**
**OJC Ojcow 45.68 299** *e*P P **00 48 54.3 +0.3**
**OJC Ojcow 45.68 299** *e*P P **00 48 52.4 -1.7**
comp=Z,13nm,1.1s
**ARR Arges 45.71 291**⇑*i*P P **00 48 55.2 +0.8**
**NIE Niedzica 45.85 298** *e*P P **00 48 56.0 +0.6**
**NIE Niedzica 45.85 298** *e*P P **00 48 56.0 +0.6**
**BOLV Bolvadin 45.97 280** *e*P P **00 48 55.6 -1.0**
comp=Z,21nm,1.0s
**DRGR 45.99 294**⇑*i*P P **00 48 56.9 +0.3**
**DRGR 45.99 294** P P **00 48 57.7 +1.1**
**KECS Kecovo 46.27 297** *e*P P **00 48 58.8 +0.1**
KECS pmax pmax
comp=Z,4.0nm,1.0s
**KECS Kecovo 46.27 297** *e*P P **00 48 58.8 +0.1**
**SIRR Siria 46.88 294**⇑*i*P P **00 49 04.1 +0.5**
**CSS Mathiatis 46.94 274** *e*P P **00 49 03.1 -1.0**
comp=Z,4.1nm,1.1s
**MORC Moravsky Berou 47.13 300**⇑*i*P P **00 49 05.9 +0.4**
**MORC Moravsky Berou 47.13 300** *e*P P **00 49 05.2 -0.3**
MORC pmax pmax
comp=Z,23nm,0.8s
**MORC Moravsky Berou 47.13 300** *e*P P **00 49 05.2 -0.3**
comp=Z,23nm,0.8s
**VYHS Vyhne 47.16 298** *e*P P **00 49 06.3 +0.6**
VYHS pmax pmax
comp=Z,5.0nm,0.9s
**VYHS Vyhne 47.16 298** *e*P P **00 49 06.3 +0.6**
**KSP Ksiaz 47.19 302** *e*P P **00 49 06.3 +0.4**
**KSP Ksiaz 47.19 302** *e*P P **00 49 06.3 +0.4**
**BZS Buzias 47.29 293**⇑*i*P P **00 49 06.6 -0.1**
**BZS Buzias 47.29 293** P P **00 49 07.8 +1.1**
BZS pmax pmax
comp=Z,4.0nm,1.2s
**KRLC Kraliky 47.37 301** *e*P P **00 49 10.1 +2.8**
**KRLC Kraliky 47.37 301** *e*P P **00 49 10.1 +2.8**
**DPC Dobruska-Polom 47.45 301** *e*P P **00 49 08.5 +0.5**
**DPC Dobruska-Polom 47.45 301** *e*P P **00 49 08.5 +0.5**
**UPC Upice 47.53 302** *e*P P **00 49 08.7 +0.2**
**UPC Upice 47.53 302** *e*P P **00 49 08.7 +0.2**
**RAYN Ar Rayn 47.64 253** *e*P P **00 49 08.5 -1.3**
comp=Z,14nm,0.8s
**VRAC Vranov 47.91 300**⇑*i*P P **00 49 12.0 +0.5**
**SMOL Smolenice 47.92 299** *e*P P **00 49 12.6 +1.0**
**SMOL Smolenice 47.92 299** *e*P P **00 49 12.6 +1.0**
**VTS Vitosha 48.19 289**⇑*i*P P **00 49 13.6 -0.4**
**PVCC Panska Ves 48.27 302** *e*P P **00 49 14.9 +0.6**
**PVCC Panska Ves 48.27 302** *e*P P **00 49 14.9 +0.6**
**BRG Berggiesshubel 48.40 303** *i* P P **00 49 15.4 +0.2**
comp=Z,7.2nm,0.9s
**BRG Berggiesshubel 48.40 303** *i* P P **00 49 15.4 +0.2**
BRG pmax pmax
comp=Z,7.0nm,0.9s
**GOPC GO Pecny, Ondr 48.52 302** *e*P P **00 49 16.4 +0.2**
**GOPC GO Pecny, Ondr 48.52 302** *e*P P **00 49 16.4 +0.2**
**PRU Pruhonice 48.60 302** *e*P P **00 49 17.2 +0.4**
**PRU Pruhonice 48.60 302** *e*P P **00 49 17.2 +0.4**
**CLL Collm 48.63 304**⇑*i*P P **00 49 17.1 +0.1**
CLL pmax pmax
comp=Z,15nm,0.6s
**CLL Collm 48.63 304**⇑*i*P P **00 49 17.1 +0.1**
comp=Z,15nm,0.6s
**CLL Collm 48.63 304** *e*P P **00 49 17.2 +0.2**
comp=Z,13nm,0.6s
**CONA Conrad Observa 49.11 299** *i* pP P **00 49 21.9 +1.0**
comp=Z,6.1nm,1.0s
**NKC Novy Kostel 49.55 303** *e*P P **00 49 24.4 +0.3**
**NKC Novy Kostel 49.55 303** *e*P P **00 49 24.4 +0.3**
**KHC Kasperske Hory 49.61 301** *e*P P **00 49 25.0 +0.4**
**KHC Kasperske Hory 49.61 301** *e*P P **00 49 25.0 +0.4**
**KHC Kasperske Hory 49.61 301** *e*P P **00 49 24.5 -0.1**
**ARSA Arzberg 49.70 298** *i* pP P **00 49 25.9 +0.6**
comp=Z,3.8nm,1.1s
**GEC2 GERESS Array S 49.72 301** *e*P P **00 49 26.2 +0.7**
GEC2 pmax pmax
comp=Z,22nm,2.0s
**GEC2 GERESS Array S 49.72 301** *e*P P **00 49 26.2 +0.7**
comp=Z,22nm,2.0s
**GERES GERESS Array B 49.72 301** P P **00 49 25.4 -0.1**
comp=Z,2.0nm,0.8s,baz=53,slow=7.3,SNR=22
GERES LR LR 01 14 25.3
comp=Z,99nm,20.1s,baz=44,slow=41
**GEA0 GERESS Array S 49.72 301** *e*P P **00 49 23.6 -2.0**
**SCO Scoresbysund 49.87 337** P P **00 49 28.8 +2.6**
SCO pmax pmax
comp=Z,29nm,1.8s
**WET Wettzell 49.97 302** P P **00 49 28.1 +0.7**
**MOA Molln 50.02 300** *i* pP P **00 49 28.3 +0.6**
comp=Z,6.3nm,0.9s
**KARP Karpathos 50.33 279** *e*P P **00 49 28.4 -1.9**
comp=Z,17nm,1.2s
**GRFO Grafenberg 50.51 303** *e*P P **00 49 31.2 -0.2**
GRFO pmax pmax
comp=Z,12nm,0.9s
**GRFO Grafenberg 50.51 303** *e*P P **00 49 31.2 -0.2**
comp=Z,12nm,0.9s
**OBKA Obir 50.68 298** *i* pP P **00 49 32.9 +0.1**
comp=Z,8.2nm,1.5s
**IMAR Indian Mountai 50.95 30** *e*P P **00 49 34.9 +0.4**
**KBA Koelnbreinsper 50.98 299** *i* pP P **00 49 36.1 +0.9**
comp=Z,11nm,0.9s
**MYKA Terra Mystica 51.10 299** *i* pP P **00 49 36.5 +0.5**
comp=Z,8.5nm,0.8s,SNR=4.6
**COLD Coldfoot 51.14 27** *e*P P **00 49 37.0 +1.1**
comp=Z,3.5nm,1.0s
**WATA Walderalm 51.77 301** *i* pP P **00 49 42.0 +1.0**
comp=Z,1.4nm,0.4s
**WTTA Wattenberg 51.78 300** *i* pP P **00 49 42.9 +1.7**
comp=Z,2.3nm,0.6s
**MOTA Moosalm 52.02 301** *i* pP P **00 49 43.7 +0.8**
comp=Z,2.9nm,0.6s
**RETA Reutte 52.11 301** *i* pP P **00 49 43.8 +0.3**
comp=Z,4.2nm,1.1s
**FETA Feichten 52.42 301** *i* pP P **00 49 46.2 +0.3**
comp=Z,6.9nm,1.1s
**MEM Membach 52.58 307** P P **00 49 47.0 +0.2**
**DAVA Damuels 52.70 301** *i* pP P **00 49 48.4 +0.4**
comp=Z,9.9nm,1.1s,SNR=4.3
**BFO Black Forest 52.84 303** *e*P P **00 49 48.2 -0.7**
BFO pmax pmax
comp=Z,6.0nm,1.1s
**BFO Black Forest 52.84 303** *e*P P **00 49 48.2 -0.7**
comp=Z,5.7nm,1.1s
**FUORN Ofenpass-Fuorn 52.92 301** *e*P P **00 49 50.1 +0.4**
comp=Z,8.6nm,0.9s
**WLF Walferdange 53.10 306** *e*P P **00 49 50.0 -0.7**
WLF pmax pmax
comp=Z,8.0nm,0.9s
**WLF Walferdange 53.10 306** *e*P P **00 49 50.0 -0.7**
comp=Z,8.4nm,0.9s
**IL1 Eielson Array 53.85 28** *e*P P **00 49 55.1 -0.9**
**ILAR Eielson Array 53.85 28** P P **00 49 55.9 -0.1**
comp=Z,1.2nm,0.8s,baz=318,slow=3.8,SNR=15
**AQU L'Aquila 53.96 295** *e*P P **00 49 56.7 -0.4**
AQU pmax pmax
comp=Z,9.0nm,0.8s
**AQU L'Aquila 53.96 295** *e*P P **00 49 56.7 -0.4**
comp=Z,8.6nm,0.8s
**TIP Timpagrande 54.13 290** *e*P P **00 49 57.7 -0.8**
comp=Z,17nm,1.1s
**VLC Villacollemand 54.44 298** *e*P P **00 50 01.0 +0.3**
comp=Z,4.2nm,0.7s
**INK Inuvik 54.46 20** P P **00 50 00.4 0.0**
comp=Z,2.2nm,0.7s,baz=331,slow=9.7,SNR=7.5
**INK Inuvik 54.46 20** *e*P P **00 50 02.3 +1.9**
**INK Inuvik 54.46 20** *e*P P **00 50 02.2 +1.9**
**BNI Bardonecchia 55.84 301** *e*P P **00 50 10.7 -0.2**
BNI pmax pmax
comp=Z,15nm,1.0s
**BNI Bardonecchia 55.84 301** *e*P P **00 50 10.7 -0.2**
comp=Z,15nm,1.0s
**KEST Kesra 60.78 291** P P **00 50 44.1 -1.3**
comp=Z,4.1nm,0.9s,baz=5.4,slow=2.0,SNR=4.6
**YKA Yellowknife Ar 63.25 15** P P **00 51 00.8 -0.7**
comp=Z,0.4nm,0.7s,baz=338,slow=6.6,SNR=5.5
**ES19 SONSECA Array 65.16 303** *e*P P **00 51 14.3 -0.1**
**ESDC Sonseca Array 65.21 303** P P **00 51 14.4 -0.4**
comp=Z,2.5nm,0.7s,baz=42,slow=6.9,SNR=21
**KMBO Kilima Mbogo 72.18 244** P P **00 51 59.3 +0.6**
comp=Z,0.9nm,0.3s,baz=18,slow=19,SNR=5.9
KMBO LR LR 01 27 00.7
comp=Z,42nm,18.9s,baz=88,slow=39
**KMBO Kilima Mbogo 72.18 244** *i* P P **00 51 59.7 +1.0**
KMBO pmax pmax
comp=Z,1.0nm,0.3s
**FFC Flin Flon 72.52 11** *e*P P **00 51 59.2 -0.8**
FFC pmax pmax
comp=Z,4.0nm,0.8s
**FFC Flin Flon 72.52 11** *e*P P **00 51 59.2 -0.8**
comp=Z,3.6nm,0.8s
**TAM Tamanrasset 72.55 285** *e*P P **00 51 59.8 -1.0**
TAM pmax pmax
comp=Z,2.0nm,0.9s
**TAM Tamanrasset 72.55 285** *e*P P **00 51 59.8 -1.0**
comp=Z,2.2nm,0.9s
**ULM Lac du Bonnet 77.55 8** P P **00 52 27.5 -1.6**
comp=Z,1.1nm,0.4s,baz=18,slow=6.4,SNR=4.6

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **79.20** | **143** | P | | **P** | **00 52 35.2** | **-3.2** |
| | comp=Z,3.6nm,1.1s,baz=352,slow=5.8,SNR=4.8 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **82.28** | **281** | P | | **P** | **00 52 53.7** | **-1.5** |
| | comp=Z,5.5nm,0.6s,baz=26,slow=5.5,SNR=32 | | | | | | | |
| **ASAR** | **Alice Springs** | **82.46** | **145** | P | | **P** | **00 52 52.5** | **-3.3** |
| | comp=Z,1.4nm,0.8s,baz=338,slow=6.3,SNR=8.7 | | | | | | | |
| **ASAR** | **Alice Springs** | **82.46** | **145** | P | | **P** | **00 52 52.5** | **-3.3** |
| ASAR | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.8s | | | | | | | |
| **PDAR** | **Pinedale Array** | **82.99** | **19** | LR | | LR | 01 34 51.1 | |
| | comp=Z,26nm,18.2s,baz=352,slow=39 | | | | | | | |
| **DUG** | **Dugway, Tooele** | **84.76** | **22** | *e*P | | **P** | **00 53 07.9** | **+0.1** |
| DUG | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.6s | | | | | | | |
| **DUG** | **Dugway, Tooele** | **84.76** | **22** | *e*P | | **P** | **00 53 07.9** | **+0.1** |
| | comp=Z,1.0nm,0.6s | | | | | | | |
| **NVAR** | **Mina Array Bea** | **85.06** | **26** | P | | **P** | **00 53 09.3** | **-0.1** |
| | comp=Z,0.3nm,0.6s,baz=284,slow=2.4,SNR=3.9 | | | | | | | |
| NVAR | | | | LR | | LR | 01 37 52.0 | |
| | comp=Z,64nm,18.7s,baz=322,slow=40 | | | | | | | |
| **ANMO** | **Albuquerque** | **91.15** | **18** | *e*P | | **P** | **00 53 39.1** | **+0.4** |
| ANMO | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.9s | | | | | | | |
| **ANMO** | **Albuquerque** | **91.15** | **18** | *e*P | | **P** | **00 53 39.1** | **+0.4** |
| | comp=Z,1.6nm,0.9s | | | | | | | |
| **TXAR** | **Lajitas Array** | **97.13** | **17** | LR | | LR | 01 42 45.3 | |
| | comp=Z,30nm,19.2s,baz=0.0,slow=38 | | | | | | | |
| **CPUP** | **Villa Florida** | **147.28** | **311** | PKPbc | | **PKPdf** | **01 00 13.2** | **-1.3** |
| | comp=Z,2.5nm,0.8s,baz=32,slow=6.3,SNR=6.6 | | | | | | | |

*ISK* ***28*** *00:53:39.6,38°.63N×43°.24E,h3km,MD2.6*
*ISCJB* ***28*** *00:53:40.4±0.5,38°.63N±0°.03×43°.17E±0°.05,h12km±6km, Error ellipse: s-maj=7.2km s-min=4.7km az=179.3*
*CSEM* ***28*** *00:53:40.1±0.2,38°.63N×43°.20E,h10km,MD2.6, Error ellipse: s-maj=6.3km s-min=4.4km az=87.0*
*DDA* ***28*** *00:53:40.0,38°.59N×43°.15E,h7km,Ml2.4*
**ISC 28 00:53:40.3±1.0, 38°.61N±0°.02×43°.20E±0°.03, h14km±7km, n24,σ0s62/34, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.15** | **96** | *e*PG | **Pg** | **00 53 44.0** | **-0.2** |
| VANB | | | | *e*SG | **Sg** | **00 53 47.6** | **-0.4** |
| **VANB** | **Van** | **0.15** | **96** | *e*Pg | **Pg** | **00 53 44.0** | **-0.2** |
| VANB | | | | *e*Sg | **Sg** | **00 53 47.6** | **-0.4** |
| **TVAN** | **Van** | **0.18** | **117** | *i* P | **Pg** | **00 53 44.1** | **-0.6** |
| TVAN | | | | *i* S | **Sg** | **00 53 48.4** | **+0.7** |
| **TVAN** | **Van** | **0.18** | **117** | P | **Pg** | **00 53 44.1** | **-0.6** |
| TVAN | | | | S | **Sg** | **00 53 48.4** | **+0.7** |
| **GEVA** | **Gevas** | **0.32** | **201** | *i* P | **Pg** | **00 53 46.4** | **-0.5** |
| GEVA | | | | *i* S | **Sb** | **00 53 53.1** | **+0.2** |
| **GEVA** | **Gevas** | **0.32** | **201** | P | **Pg** | **00 53 46.4** | **-0.5** |
| GEVA | | | | S | **Sb** | **00 53 53.1** | **+0.2** |
| **ERCV** | **ERCIS-VAN** | **0.42** | **14** | *e*PG | **Pg** | **00 53 48.1** | **-0.7** |
| **ERCV** | **ERCIS-VAN** | **0.42** | **14** | *e*Pg | **Pg** | **00 53 48.1** | **-0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.42** | **298** | *i* P | **Pg** | **00 53 48.8** | **-0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.42** | **298** | P | **Pg** | **00 53 48.8** | **-0.1** |
| **VMUR** | **Van-Muradiye** | **0.48** | **37** | *i* P | **Pg** | **00 53 50.0** | **+0.2** |
| VMUR | | | | *i* S | **Sb** | **00 53 58.7** | **+1.1** |
| **VMUR** | **Van-Muradiye** | **0.48** | **37** | P | **Pg** | **00 53 50.0** | **+0.2** |
| VMUR | | | | S | **Sb** | **00 53 58.7** | **+1.1** |
| **CLDR** | **Caldiran** | **0.77** | **46** | *i* P | **Pg** | **00 53 55.2** | **-0.1** |
| **CLDR** | **Caldiran** | **0.77** | **46** | P | **Pg** | **00 53 55.2** | **-0.1** |
| **TUTA** | **Tutak** | **0.85** | **339** | *i* P | **Pg** | **00 53 55.7** | **-1.1** |
| **TUTA** | **Tutak** | **0.85** | **339** | P | **Pg** | **00 53 55.7** | **-1.1** |
| **AGRB** | **Hanur-Agry** | **0.98** | **350** | *e*PG | **Pb** | **00 53 58.8** | **-0.4** |
| AGRB | | | | *e*SG | **Sg** | **00 54 12.8** | **+0.7** |
| **AGRB** | **Hanur-Agry** | **0.98** | **350** | *e*Pg | **Pb** | **00 53 58.8** | **-0.4** |
| AGRB | | | | *e*Sg | **Sg** | **00 54 12.8** | **+0.7** |
| **HAKT** | **HAKKARI** | **1.12** | **159** | *i* P | **Pb** | **00 54 01.1** | **-0.6** |
| **HAKT** | **HAKKARI** | **1.12** | **159** | P | **Pb** | **00 54 01.0** | **-0.6** |
| **SIRT** | **Sirnak** | **1.26** | **209** | *e*PN | **Pg** | **00 54 05.1** | **+0.5** |
| **SIRT** | **Sirnak** | **1.26** | **209** | *e*Pn | **Pg** | **00 54 05.1** | **+0.5** |
| **CUKT** | **Cukurca** | **1.40** | **167** | *e*PN | **Pg** | **00 54 07.0** | **-0.2** |
| **CUKT** | **Cukurca** | **1.40** | **167** | *e*Pn | **Pg** | **00 54 07.0** | **-0.2** |

*ISCJB* ***28*** *00:56:03.2±0.3,49°.87N±0°.02×18°.46E±0°.03,h0km, Error ellipse: s-maj=3.5km s-min=2.1km az=22.2*
*IPEC* ***28*** *00:56:04.6±0.2,49°.87N×18°.54E,h0km,ML2.7/3, Error ellipse: s-maj=2.2km s-min=1.1km az=161.0*
*CSEM* ***28*** *00:56:04.6±0.2,49°.85N×18°.47E,h2km,ML3.2/11, Error ellipse: s-maj=4.5km s-min=2.6km az=23.0*
*PRU* ***28*** *00:56:05.5,49°.86N×18°.45E,h0km*
**ISC 28 00:56:04.3±0.7, 49°.87N±0°.02×18°.50E±0°.01, h0km, n67, σ0s85/120, 17C-7D, Czech and Slovak Republics**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OKC** | **Ostrava-Krasne** | **0.23** | **263** | *i*PG | **Pg** | **00 56 10.2** | **+1.5** |
| OKC | | | | *e*SG | **Sg** | **00 56 13.5** | **+1.8** |
| | comp=Z,180nm,0.2s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **0.23** | **263** | Pg | **Pg** | **00 56 10.2** | **+1.5** |
| OKC | | | | Sg | **Sg** | **00 56 13.5** | **+1.8** |
| | 180nm,0.2s | | | | | | |
| **RAC** | **Raciborz** | **0.29** | **318** | *e*Pg | **Pb** | **00 56 11.8** | **-0.6** |
| RAC | | | | *e*Sg | **Sb** | **00 56 16.7** | **-1.2** |
| **MORC** | **Moravsky Berou** | **0.63** | **262** | *i*P | **Pb** | **00 56 17.9** | **-0.3** |
| MORC | | | | S | **Sg** | **00 56 25.6** | **+1.2** |
| **MORC** | **Moravsky Berou** | **0.63** | **262** | *e*Pg | **Pg** | **00 56 16.9** | **+0.6** |
| **MORC** | **Moravsky Berou** | **0.63** | **262** | *i*P | **Pb** | **00 56 17.9** | **-0.3** |
| MORC | | | | *e*Sg | **Sg** | **00 56 24.7** | **+0.3** |
| | 143nm,0.4s | | | | | | |
| **OJC** | **Ojcow** | **0.91** | **67** | *e*Pg | **Pg** | **00 56 21.7** | **0.0** |
| OJC | | | | *e*Sg | **Sg** | **00 56 34.0** | **+0.5** |
| **OJC** | **Ojcow** | **0.91** | **67** | *e*Pg | **Pg** | **00 56 21.7** | **0.0** |
| OJC | | | | *e*Sg | **Sg** | **00 56 34.0** | **+0.5** |
| **LANS** | **Liptovska Anna** | **0.96** | **138** | *e*Pg | **Pg** | **00 56 23.1** | **+0.5** |
| LANS | | | | *e*Sg | **Sb** | **00 56 36.9** | **-0.1** |
| **LANS** | **Liptovska Anna** | **0.96** | **138** | *e*PG | **Pg** | **00 56 23.1** | **+0.5** |
| LANS | | | | *e*SG | **Sb** | **00 56 36.9** | **-0.1** |
| **KRLC** | **Kraliky** | **1.13** | **281** | *e*PG | **Pg** | **00 56 25.6** | **-0.3** |
| KRLC | | | | *e*SG | **Sg** | **00 56 40.7** | **+0.2** |
| | comp=Z,19nm,0.2s | | | | | | |
| **KRLC** | **Kraliky** | **1.13** | **281** | Pg | **Pg** | **00 56 25.6** | **-0.3** |
| KRLC | | | | Sg | **Sg** | **00 56 40.7** | **+0.2** |
| | 19nm,0.2s | | | | | | |
| **NIE** | **Niedzica** | **1.25** | **110** | *e*Pg | **Pb** | **00 56 28.8** | **-0.1** |
| NIE | | | | *e*Sg | **Sn** | **00 56 46.4** | **-0.3** |
| **NIE** | **Niedzica** | **1.25** | **110** | *e*Pg | **Pb** | **00 56 28.8** | **-0.1** |
| NIE | | | | *e*Sg | **Sn** | **00 56 46.4** | **-0.3** |
| **VRAC** | **Vranov** | **1.36** | **246** | *i*P | **Pg** | **00 56 30.4** | **0.0** |
| **VRAC** | **Vranov** | **1.36** | **246** | S | **Sg** | **00 56 47.9** | **-0.1** |
| **VRAC** | **Vranov** | **1.36** | **246** | *i*P | **Pg** | **00 56 30.4** | **0.0** |
| VRAC | | | | *e*Sg | **Sg** | **00 56 47.9** | **-0.1** |
| | 113nm,0.3s | | | | | | |
| **VYHS** | **Vyhne** | **1.39** | **171** | *e*Pg | **Pg** | **00 56 30.5** | **-0.5** |
| VYHS | | | | *e*Sn | **Sb** | **00 56 49.4** | **-0.1** |
| **VYHS** | **Vyhne** | **1.39** | **171** | *e*PG | **Pg** | **00 56 30.5** | **-0.5** |
| VYHS | | | | *e*SN | **Sb** | **00 56 49.4** | **-0.1** |
| VYHS | | | | *e*LG | Lg | 00 56 51.0 | |
| **DPC** | **Dobruska-Polom** | **1.48** | **290** | *e*PG | **Pn** | **00 56 32.2** | **-0.1** |
| DPC | | | | *e*SG | **Sb** | **00 56 52.1** | **-0.1** |
| | comp=Z,38nm,0.3s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.48** | **290** | Pg | **Pn** | **00 56 32.2** | **-0.1** |
| DPC | | | | Sg | **Sb** | **00 56 52.1** | **-0.1** |
| | 38nm,0.3s | | | | | | |
| **SMOL** | **Smolenice** | **1.53** | **208** | *e*Pn | **Pn** | **00 56 32.6** | **-0.2** |
| SMOL | | | | *e*Sn | **Sn** | **00 56 53.4** | **0.0** |
| **SMOL** | **Smolenice** | **1.53** | **208** | *e*PN | **Pn** | **00 56 32.6** | **-0.2** |
| SMOL | | | | *e*SN | **Sn** | **00 56 53.4** | **0.0** |
| **KRUC** | **Moravsky** | **1.59** | **240** | *e*Pg | **Pn** | **00 56 33.8** | **+0.1** |
| KRUC | | | | *e*Sg | **Sb** | **00 56 55.2** | **-0.1** |
| | 51nm,0.4s | | | | | | |
| **KSP** | **Ksiaz** | **1.72** | **305** | *e*Pn | **Pn** | **00 56 35.4** | **-0.1** |
| KSP | | | | *e*Pg | **Pg** | **00 56 37.8** | **+0.5** |
| KSP | | | | *e*Sg | **Sg** | **00 57 00.4** | **+0.9** |
| **KSP** | **Ksiaz** | **1.72** | **305** | *e*Pn | **Pn** | **00 56 35.4** | **-0.1** |
| **UPC** | **Upice** | **1.72** | **293** | *e*PG | **Pb** | **00 56 36.4** | **-0.4** |
| UPC | | | | *e*SG | **Sg** | **00 57 00.2** | **+0.6** |
| **UPC** | **Upice** | **1.72** | **293** | Pg | **Pb** | **00 56 36.4** | **-0.4** |
| UPC | | | | Sg | **Sg** | **00 57 00.2** | **+0.6** |
| **STHS** | **Stebnicka Huta** | **1.84** | **103** | *e*Pn | **Pg** | **00 56 39.7** | **+0.1** |
| STHS | | | | *e*Sn | **Sg** | **00 57 05.4** | **+2.0** |
| **STHS** | **Stebnicka Huta** | **1.84** | **103** | *e*PN | **Pg** | **00 56 39.7** | **+0.1** |
| STHS | | | | *e*SN | **Sg** | **00 57 05.4** | **+2.0** |
| STHS | | | | *e*LG | Lg | 00 57 14.2 | |
| **KECS** | **Kecovo** | **1.90** | **136** | *e*Pg | **Pb** | **00 56 39.6** | **-0.3** |
| KECS | | | | *e*Sn | **Sn** | **00 57 02.4** | **-0.3** |
| **KECS** | **Kecovo** | **1.90** | **136** | *e*PG | **Pb** | **00 56 39.6** | **-0.3** |
| KECS | | | | *e*SN | **Sn** | **00 57 02.4** | **-0.3** |
| KECS | | | | *e*LG | Lg | 00 57 08.1 | |
| **PSZ** | **Piszkesteto** | **2.16** | **154** | *i*P | **Pn** | **00 56 41.4** | **-0.2** |
| **PSZ** | **Piszkesteto** | **2.16** | **154** | S | **Sn** | **00 57 06.4** | **-2.7** |
| **PSZ** | **Piszkesteto** | **2.16** | **154** | *e*x | **Pg** | **00 56 45.9** | **+0.3** |
| PSZ | | | | *e*x | **Sg** | **00 57 13.0** | **-0.6** |
| **PSZ** | **Piszkesteto** | **2.16** | **154** | *i*P | **Pn** | **00 56 41.4** | **-0.2** |
| PSZ | | | | *e*Sn | **Sg** | **00 57 13.0** | **-0.6** |
| **CSKK** | **Cs˙‡kako** | **2.51** | **184** | *e*x | **Pg** | **00 56 52.1** | **-0.3** |
| CSKK | | | | *e*x | **Sn** | **00 57 17.3** | **-0.4** |
| **CSKK** | **Cs˙‡kako** | **2.51** | **184** | *e*Sn | **Sn** | **00 57 17.3** | **-0.4** |
| **SOP** | **Sopron** | **2.54** | **211** | *i*e | **Pn** | **00 56 47.1** | **+0.4** |
| SOP | | | | *e*x | **Sn** | **00 57 17.5** | **-0.8** |
| **SOP** | **Sopron** | **2.54** | **211** | *i*Pn | **Pn** | **00 56 47.1** | **+0.4** |
| SOP | | | | *e*Sn | **Sn** | **00 57 17.5** | **-0.8** |
| **PRU** | **Pruhonice** | **2.56** | **274** | *i*PN | **Pn** | **00 56 45.9** | **-1.1** |
| PRU | | | | *e*PG | **Pb** | **00 56 51.8** | **+0.7** |
| PRU | | | | *e*SG | **Sb** | **00 57 24.7** | **+1.6** |
| | comp=Z,18nm,0.6s | | | | | | |
| **PRU** | **Pruhonice** | **2.56** | **274** | Pn | **Pn** | **00 56 45.9** | **-1.1** |
| **PRU** | **Pruhonice** | **2.56** | **274** | Pg | **Pb** | **00 56 51.8** | **+0.7** |
| PRU | | | | Sg | **Sb** | **00 57 24.7** | **+1.6** |
| | 18nm,0.6s | | | | | | |
| **CONA** | **Conrad Observa** | **2.61** | **223** | *e*Pn | **Pn** | **00 56 47.1** | **-0.6** |
| | 2.1nm,0.3s | | | | | | |
| CONA | | | | *i* Sn | **Sn** | **00 57 19.9** | **-0.3** |
| | 7.5nm,0.4s | | | | | | |
| **CONA** | **Conrad Observa** | **2.61** | **223** | Pn | **Pn** | **00 56 47.2** | **-0.6** |
| | 2.1nm,0.3s | | | | | | |
| **PVCC** | **Panska Ves** | **2.61** | **286** | *i*PN | **Pn** | **00 56 46.9** | **-0.8** |
| PVCC | | | | *e*PG | **Pb** | **00 56 52.7** | **+0.7** |
| PVCC | | | | *e*SG | **Sg** | **00 57 27.4** | **-0.8** |
| | comp=Z,25nm,0.3s | | | | | | |
| **PVCC** | **Panska Ves** | **2.61** | **286** | Pn | **Pn** | **00 56 46.9** | **-0.8** |
| **BRG** | **Berggiesshubel** | **3.09** | **291** | PG | **Pb** | **00 57 41.4** | **+1.4** |
| BRG | | | | SG | **Sg** | **00 57 42.0** | **-1.4** |
| | 14nm,0.5s | | | | | | |
| **ARSA** | **Arzberg** | **3.28** | **218** | *i* Pn | **Pn** | **00 56 57.9** | **+0.9** |
| | 1.0nm,0.3s | | | | | | |
| ARSA | | | | *i* Sn | **Sn** | **00 57 37.8** | **+1.1** |
| | 3.9nm,0.5s | | | | | | |
| **ARSA** | **Arzberg** | **3.28** | **218** | Pn | **Pn** | **00 56 57.9** | **+0.9** |
| | 1.0nm,0.3s | | | | | | |
| ARSA | | | | Sn | **Sn** | **00 57 37.8** | **+1.1** |
| | 3.9nm,0.5s | | | | | | |
| **KHC** | **Kasperske Hory** | **3.29** | **259** | *e*PN | **Pn** | **00 56 56.7** | **-0.4** |
| KHC | | | | *e*PG | **Pb** | **00 57 04.2** | **+0.6** |
| KHC | | | | *e*x | x | 00 57 32.5 | |
| KHC | | | | *e*SG | **Sg** | **00 57 48.5** | **-1.5** |
| | comp=Z,17nm,0.5s | | | | | | |
| **KHC** | **Kasperske Hory** | **3.29** | **259** | Pn | **Pn** | **00 56 56.7** | **-0.4** |
| KHC | | | | Sg | **Sg** | **00 57 48.5** | **-1.5** |
| | 17nm,0.5s | | | | | | |
| **MOA** | **Molln** | **3.45** | **236** | *e*Pn | **Pn** | **00 56 58.6** | **-0.7** |
| | 0.7nm,0.2s | | | | | | |
| MOA | | | | *i* Sn | **Sn** | **00 57 40.5** | **-0.3** |
| | 2.7nm,0.3s | | | | | | |
| **MOA** | **Molln** | **3.45** | **236** | Pn | **Pn** | **00 56 58.6** | **-0.7** |
| | 0.7nm,0.2s | | | | | | |
| MOA | | | | Sn | **Sn** | **00 57 40.5** | **-0.3** |
| | 2.7nm,0.3s | | | | | | |
| **BEHE** | **Becsehely** | **3.59** | **199** | *e*PKPPKPdf | **Pn** | **00 57 02.0** | **+0.8** |
| BEHE | | | | *e*PKiKP | **Sn** | **00 57 44.0** | **-0.3** |
| **BEHE** | **Becsehely** | **3.59** | **199** | *e*Pn | **Pn** | **00 57 02.0** | **+0.8** |
| BEHE | | | | *e*Sn | **Sn** | **00 57 44.0** | **-0.3** |
| **CLL** | **Collm** | **3.79** | **294** | *i* Pn | **Pn** | **00 57 03.9** | **0.0** |
| CLL | | | | *i* Pg | **Pg** | **00 57 16.0** | **-0.9** |
| CLL | | | | *i* Sg | **Sg** | **00 58 04.0** | **-1.9** |
| | comp=Z,7.0nm,0.5s | | | | | | |
| **DRGR** | | **4.17** | **136** | *i*P | **Pn** | **00 57 09.0** | **-0.2** |
| **DRGR** | | **4.17** | **136** | *i*P | **Pn** | **00 57 09.0** | **-0.2** |
| DRGR | | | | S | **Sn** | **00 57 55.7** | **-2.9** |
| **SIRR** | **Siria** | **4.18** | **148** | *i*P | **Pn** | **00 57 09.2** | **-0.1** |
| **SIRR** | **Siria** | **4.18** | **148** | *i*P | **Pn** | **00 57 09.2** | **-0.1** |
| **OBKA** | **Obir** | **4.28** | **220** | *e*Pn | **Pn** | **00 57 11.2** | **+0.5** |
| | comp=Z,1.3nm,0.4s | | | | | | |
| **OBKA** | **Obir** | **4.28** | **220** | Pn | **Pn** | **00 57 11.2** | **+0.5** |
| | comp=Z,1.3nm,0.4s | | | | | | |
| **BZS** | **Buzias** | **4.75** | **153** | *i*P | **Pn** | **00 57 16.9** | **-0.2** |
| **BZS** | **Buzias** | **4.75** | **153** | *i*P | **Pn** | **00 57 16.9** | **-0.2** |
| **BURAR** | **Bucovina Array** | **4.98** | **114** | *i*P | **Pn** | **00 57 22.1** | **+1.7** |
| **BURAR** | **Bucovina Array** | **4.98** | **114** | *i*P | **Pn** | **00 57 22.1** | **+1.7** |

*ISCJB* ***28*** *00:59:02.4±1.6,52°.3N±0°.1×169°.7W±0°.1,h23km±11km, mb3.2/4, Error ellipse: s-maj=23.0km s-min=5.8km az=149.3*
*IDC* ***28*** *00:59:03.9±3.6,52°.56N×168°.75W,h0km,mb3.3/4, mb1 3.7/6,mb1mx3.4/39,mbtmp3.4/6,ML3.2/2, Error ellipse: s-maj=64.7km s-min=37.2km az=102.0*
*NEIC* ***28*** *00:59:04.1±0.0,52°.74N×169°.98W,h10km,ML3.1(AEIC), After AEIC.*
**ISC 28 00:59:03.4±2.0, 52°.4N±0°.2×169°.60W±0°.10, h29km±13km, n28,σ2s02/28, mb3.3/4, Fox Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **NIKH** | **Nikolski High** | **0.72** | **38** | P | **Pn** | **00 59 18.5** | **+0.8** |
| NIKH | | | | S | **Sn** | **00 59 28.7** | **+0.9** |
| **OKSP** | **Okmok Steeple** | **1.16** | **43** | P | **Pb** | **00 59 24.8** | **-0.1** |
| **OKSO** | **Okmok South** | **1.29** | **42** | P | **Pb** | **00 59 26.8** | **-0.3** |
| OKSO | | | | S | **Sb** | **00 59 45.4** | **+2.1** |
| **OKTU** | **Okmok Mt. Tuli** | **1.36** | **43** | P | **Pb** | **00 59 28.1** | **-0.2** |
| **OKFG** | **Magazine Ridge** | **1.43** | **45** | P | **Pb** | **00 59 29.2** | **-0.2** |
| OKFG | | | | S | **Sb** | **00 59 48.1** | **+0.8** |
| **MGOD** | **Makushin Gods** | **2.15** | **49** | P | **Pb** | **00 59 39.5** | **-2.2** |
| **MSW** | **Makushin Switc** | **2.27** | **47** | P | **Pb** | **00 59 41.3** | **-2.4** |
| MSW | | | | S | **Sb** | **01 00 11.7** | **+0.4** |
| **MTBL** | **Makushin Table** | **2.35** | **47** | P | **Pb** | **00 59 43.4** | **-1.7** |
| **UNV** | **Unalaska Valle** | **2.36** | **51** | P | **Pn** | **00 59 42.3** | **+2.3** |
| UNV | | | | S | **Sb** | **01 00 12.8** | **-1.0** |
| **KOFP** | **Korovin Flat P** | **2.77** | **269** | P | **Pn** | **00 59 45.9** | **+0.1** |
| **ATKA** | **Atka Island** | **2.83** | **268** | P | **Pn** | **00 59 46.1** | **-0.5** |
| **AKUT** | **Akutan** | **2.88** | **51** | P | **Pb** | **00 59 50.9** | **-3.0** |
| **WESE** | **West Dahl East** | **3.64** | **53** | P | **Pn** | **01 00 01.7** | **+3.8** |
| **ISLZ** | **Isanotski Laza** | **4.21** | **54** | P | **Pn** | **01 00 09.3** | **+3.7** |
| **TASE** | **Tanaga Southea** | **5.23** | **267** | P | **Pn** | **01 00 21.7** | **+2.0** |
| **GAEA** | **Gareloi East** | **5.68** | **267** | P | **Pn** | **01 00 28.0** | **+2.3** |
| **KDAK** | **Kodiak Island** | **11.12** | **54** | Pn | **Pn** | **01 01 40.0** | **-0.2** |
| | 0.3nm,0.3s,baz=204,slow=6.4,SNR=12 | | | | | | |
| KDAK | | | | Sn | **Sn** | **01 03 39.0** | **-4.4** |
| | 0.2nm,0.3s,baz=294,slow=20,SNR=2.2 | | | | | | |
| **ILAR** | **Eielson Array** | **17.00** | **34** | Pn | **Pn** | **01 02 57.2** | **-1.5** |
| | 0.1nm,0.3s,baz=227,slow=12,SNR=5.0 | | | | | | |
| **INK** | **Inuvik** | **23.39** | **33** | P | **P** | **01 04 08.8** | **-0.5** |
| | 0.3nm,0.4s,baz=210,slow=8.1,SNR=3.6 | | | | | | |
| **YKA** | **Yellowknife Ar** | **30.32** | **49** | P | **P** | **01 05 11.3** | **-0.5** |
| | 0.3nm,1.0s,baz=273,slow=7.5,SNR=6.1 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **37.40** | **218** | T | T | 01 45 58.8 | |
| | baz=24,slow=76,SNR=3.8 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **37.40** | **218** | T | T | 01 46 00.2 | |
| | baz=24,slow=76,SNR=4.3 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **37.41** | **218** | T | T | 01 46 01.5 | |
| | baz=24,slow=76,SNR=3.2 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **38.59** | **218** | T | T | 01 47 25.2 | |
| | baz=22,slow=76,SNR=21 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **38.60** | **218** | T | T | 01 47 27.1 | |
| | baz=22,slow=76,SNR=13 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **38.60** | **218** | T | T | 01 47 26.8 | |
| | baz=22,slow=76,SNR=10 | | | | | | |
| **PDAR** | **Pinedale Array** | **40.53** | **79** | P | **P** | **01 06 41.1** | **+1.1** |
| | 0.4nm,0.5s,baz=304,slow=2.4,SNR=7.4 | | | | | | |
| **TXAR** | **Lajitas Array** | **52.88** | **89** | P | **P** | **01 08 17.5** | **+0.9** |
| | 0.3nm,0.6s,baz=296,slow=5.5,SNR=5.1 | | | | | | |

*ISCJB* ***28*** *01:05:56.7±0.5,37°.98N±0°.04×27°.19E±0°.05,h8km±7km, Error ellipse: s-maj=8.4km s-min=3.8km az=39.6*
*DDA* ***28*** *01:05:56.4,38°.01N×27°.19E,h7km,Ml2.6*
*ISK* ***28*** *01:05:56.7,37°.97N×27°.16E,h7km,MD2.5*
*CSEM* ***28*** *01:05:57.0±0.2,37°.98N×27°.20E,h8km,MD2.5, Error ellipse: s-maj=4.5km s-min=3.5km az=70.0*
**ISC 28 01:05:56.9±0.9, 37°.98N±0°.03×27°.19E±0°.03, h12km±7km, n22,σ0s51/34, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KUSD** | **Kusadasi-Aydin** | **0.14** | **146** | *e*Pg | **Pg** | **01 06 00.4** | **0.0** |
| KUSD | | | | *e*SG | **Sg** | **01 06 02.9** | **+0.1** |
| **KUSD** | **Kusadasi-Aydin** | **0.14** | **146** | *e*Pg | **Pg** | **01 06 00.4** | **0.0** |
| KUSD | | | | *e*Sg | **Sg** | **01 06 02.9** | **+0.1** |
| **DGB** | **˙zmir** | **0.25** | **287** | *i* P | **Pg** | **01 06 01.9** | **-0.3** |
| DGB | | | | *i* S | **Sg** | **01 06 05.4** | **-0.3** |
| **GCAM** | **G?zelcami?** | **0.28** | **172** | *i* P | **Pg** | **01 06 02.5** | **-0.2** |
| GCAM | | | | *i* S | **Sg** | **01 06 06.8** | **+0.3** |
| **GCAM** | **G?zelcami?** | **0.28** | **172** | P | **Pg** | **01 06 02.5** | **-0.2** |
| GCAM | | | | S | **Sg** | **01 06 06.8** | **+0.3** |
| **ZEY** | **˙zmir** | **0.60** | **296** | *i* P | **Pg** | **01 06 08.2** | **-0.4** |
| ZEY | | | | *i* S | **Sg** | **01 06 16.6** | **+0.1** |
| **URLA** | **Izmir** | **0.60** | **309** | *e*PG | **Pg** | **01 06 08.8** | **+0.2** |
| URLA | | | | *e*SG | **Sg** | **01 06 17.1** | **+0.4** |
| **URLA** | **Izmir** | **0.60** | **309** | *e*Pg | **Pg** | **01 06 08.8** | **+0.2** |
| URLA | | | | *e*Sg | **Sg** | **01 06 17.1** | **+0.4** |
| **AYDN** | **Tasoluk** | **0.63** | **120** | *i* P | **Pg** | **01 06 09.4** | **+0.2** |
| AYDN | | | | *i* S | **Sg** | **01 06 17.1** | **-0.5** |
| **AYDN** | **Tasoluk** | **0.63** | **120** | P | **Pg** | **01 06 09.4** | **+0.2** |
| AYDN | | | | S | **Sg** | **01 06 17.1** | **-0.5** |
| **BODT** | **Bodrum** | **0.92** | **174** | *e*PG | **Pg** | **01 06 14.6** | **0.0** |
| **BODT** | **Bodrum** | **0.92** | **174** | *e*Pg | **Pg** | **01 06 14.6** | **0.0** |
| **AKHS** | **Akhisar** | **1.02** | **29** | *i* P | **Pg** | **01 06 15.8** | **-0.8** |
| AKHS | | | | *i* S | **Sg** | **01 06 29.3** | **-0.7** |
| **AKHS** | **Akhisar** | **1.02** | **29** | P | **Pg** | **01 06 15.8** | **-0.8** |
| AKHS | | | | S | **Sg** | **01 06 29.3** | **-0.7** |
| **KULA** | **Kula-Manisa** | **1.28** | **65** | *e*PN | **Pg** | **01 06 21.9** | **+0.4** |
| **KULA** | **Kula-Manisa** | **1.28** | **65** | *e*Pn | **Pg** | **01 06 21.9** | **+0.4** |
| **TURN** | **Turunc** | **1.58** | **134** | *e*PN | **Pn** | **01 06 24.2** | **-0.4** |
| **TURN** | **Turunc** | **1.58** | **134** | *e*Pn | **Pn** | **01 06 24.2** | **-0.4** |
| **APE** | **Apeiranthos** | **1.60** | **236** | *e*PN | **Pb** | **01 06 26.1** | **-0.3** |
| **APE** | **Apeiranthos** | **1.60** | **236** | *e*Pn | **Pb** | **01 06 26.1** | **-0.3** |
| **SIMA** | **Simav-Kutahya** | **1.79** | **51** | *e*PN | **Pn** | **01 06 28.9** | **+1.3** |
| **SIMA** | **Simav-Kutahya** | **1.79** | **51** | *e*Pn | **Pn** | **01 06 28.9** | **+1.3** |

*CSEM* ***28*** *01:17:07.9±0.2,38°.99N×43°.53E,h2km,ML2.7, Error ellipse: s-maj=6.1km s-min=4.3km az=93.0*
*DDA* ***28*** *01:17:07.7,39°.00N×43°.53E,h6km,Ml2.7*
*ISK* ***28*** *01:17:07.2,38°.95N×43°.50E,h5km,MD2.7*
*ISCJB* ***28*** *01:17:08.4±0.4,39°.01N±0°.02×43°.53E±0°.03,h3km±4km, Error ellipse: s-maj=4.4km s-min=3.9km az=171.7*
**ISC 28 01:17:07.8±0.8, 39°.00N±0°.02×43°.54E±0°.02, h5km±5km, n31,σ0s65/51, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.03** | **103** | *i* P | **Pg** | **01 17 08.7** | **-0.5** |
| VMUR | | | | *i* S | **Sg** | **01 17 10.7** | **+0.6** |
| **VMUR** | **Van-Muradiye** | **0.03** | **103** | P | **Pg** | **01 17 08.7** | **-0.5** |
| VMUR | | | | S | **Sg** | **01 17 10.7** | **+0.6** |
| **ERCV** | **ERCIS-VAN** | **0.15** | **279** | *e*PG | **Pg** | **01 17 10.8** | **-0.2** |
| **CLDR** | **Caldiran** | **0.33** | **64** | *i* P | **Pg** | **01 17 14.1** | **-0.3** |
| CLDR | | | | *i* S | **Sb** | **01 17 20.8** | **-1.3** |
| **CLDR** | **Caldiran** | **0.33** | **64** | P | **Pg** | **01 17 14.1** | **-0.3** |
| CLDR | | | | S | **Sb** | **01 17 20.8** | **-1.3** |
| **VANB** | **Van** | **0.42** | **196** | *e*PG | **Pg** | **01 17 16.6** | **+0.7** |
| VANB | | | | *e*SG | **Sb** | **01 17 24.1** | **-0.3** |
| **VANB** | **Van** | **0.42** | **196** | *e*Pg | **Pg** | **01 17 16.6** | **+0.7** |
| VANB | | | | *e*Sg | **Sb** | **01 17 24.1** | **-0.3** |
| **TVAN** | **Van** | **0.48** | **192** | *i* P | **Pg** | **01 17 16.6** | **-0.5** |
| TVAN | | | | *i* S | **Sb** | **01 17 25.9** | **-0.3** |
| **TVAN** | **Van** | **0.48** | **192** | P | **Pg** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| AMT | | | | S | Sg | 01 27 56.9 | -0.6 | |
| **AMT** | **Artemida-Makis** | **1.20** | **65** | P | Pn | 01 27 41.7 | +0.3 | |
| AMT | | | | S | Sn | 01 27 58.7 | +1.0 | |
| **ITM** | **Ithomi** | **1.28** | **83** | P | Pb | 01 27 42.8 | +0.1 | |
| ITM | | | | S | Sb | 01 27 58.8 | -0.4 | |
| ITM | | | | AML | AML | 01 28 11.9 | | |
| | comp=E,1288μm,0.6s | | | | | | | |
| ITM | | | | AML | AML | 01 28 12.1 | | |
| | comp=N,1182μm,0.4s | | | | | | | |
| **ITM** | **Ithomi** | **1.28** | **83** | P | Pb | 01 27 42.9 | +0.1 | |
| ITM | | | | S | Sb | 01 27 58.8 | -0.4 | |
| **ITM** | **Ithomi** | **1.28** | **83** | P | Pb | 01 27 42.9 | +0.1 | |
| ITM | | | | S | Sg | 01 28 00.3 | +0.3 | |
| **RLS** | **Riolos of Patr** | **1.36** | **41** | P | Pb | 01 27 44.3 | +0.1 | |
| RLS | | | | S | Sg | 01 28 02.7 | +0.1 | |
| RLS | | | | AML | AML | 01 28 08.0 | | |
| | comp=N,905μm,0.5s | | | | | | | |
| RLS | | | | AML | AML | 01 28 17.8 | | |
| | comp=E,721μm,0.5s | | | | | | | |
| **RLS** | **Riolos of Patr** | **1.36** | **41** | P | Pb | 01 27 44.4 | +0.3 | |
| RLS | | | | S | Sg | 01 28 02.4 | -0.1 | |
| **RLS** | **Riolos of Patr** | **1.36** | **41** | P | Pb | 01 27 44.4 | +0.3 | |
| RLS | | | | S | Sg | 01 28 02.4 | -0.1 | |
| **DRO** | **Drossia** | **1.43** | **50** | P | Pn | 01 27 45.0 | +0.5 | |
| DRO | | | | S | Sg | 01 28 03.8 | -0.9 | |
| DRO | | | | AML | AML | 01 28 16.9 | | |
| | comp=N,1796μm,0.4s | | | | | | | |
| DRO | | | | AML | AML | 01 28 16.9 | | |
| | comp=E,2179μm,0.4s | | | | | | | |
| **DRO** | **Drossia** | **1.43** | **50** | P | Pn | 01 27 45.0 | +0.5 | |
| DRO | | | | S | Sg | 01 28 03.8 | -0.9 | |
| **DRO** | **Drossia** | **1.43** | **50** | P | Pn | 01 27 44.9 | +0.4 | |
| DRO | | | | S | Sg | 01 28 04.6 | 0.0 | |
| **DYR** | **Agios Nikonas** | **1.63** | **99** | P | Pn | 01 27 47.7 | +0.5 | |
| DYR | | | | S | Sb | 01 28 08.9 | -0.3 | |
| DYR | | | | AML | AML | 01 28 32.8 | | |
| | comp=E,394μm,0.6s | | | | | | | |
| DYR | | | | AML | AML | 01 28 34.7 | | |
| | comp=N,550μm,0.9s | | | | | | | |
| **DYR** | **Agios Nikonas** | **1.63** | **99** | P | Pn | 01 27 47.7 | +0.5 | |
| DYR | | | | S | Sb | 01 28 08.9 | -0.3 | |
| **VLX** | **Vlachokerasia** | **1.67** | **78** | P | Pn | 01 27 48.6 | +0.7 | |
| **VLX** | **Vlachokerasia** | **1.67** | **78** | P | Pn | 01 27 48.6 | +0.7 | |
| VLX | | | | S | Sb | 01 28 10.5 | +0.1 | |
| **VLX** | **Vlachokerasia** | **1.67** | **78** | P | Pb | 01 27 48.8 | -0.6 | |
| VLX | | | | S | Sb | 01 28 10.5 | +0.1 | |
| **UPR** | **University Cam** | **1.70** | **42** | P | Pb | 01 27 50.0 | +0.1 | |
| **UPR** | **University Cam** | **1.70** | **42** | P | Pb | 01 27 50.0 | +0.1 | |
| **PDO** | **Prodromos** | **1.70** | **23** | P | Pb | 01 27 50.1 | +0.2 | |
| PDO | | | | S | Sb | 01 28 10.7 | -0.6 | |
| PDO | | | | AML | AML | 01 28 20.7 | | |
| | comp=N,986μm,0.3s | | | | | | | |
| PDO | | | | AML | AML | 01 28 24.5 | | |
| | comp=E,1268μm,0.4s | | | | | | | |
| **PDO** | **Prodromos** | **1.70** | **23** | P | Pb | 01 27 49.9 | 0.0 | |
| PDO | | | | S | Sb | 01 28 10.7 | -0.6 | |
| **PDO** | **Prodromos** | **1.70** | **23** | P | Pb | 01 27 49.9 | 0.0 | |
| **KLV** | **Kalavryta, Ach** | **1.76** | **55** | P | Pn | 01 27 50.1 | +1.0 | |
| KLV | | | | S | Sb | 01 28 12.0 | -1.1 | |
| KLV | | | | AML | AML | 01 28 28.8 | | |
| | comp=E,440μm,0.8s | | | | | | | |
| KLV | | | | AML | AML | 01 28 30.0 | | |
| | comp=N,598μm,0.7s | | | | | | | |
| **KLV** | **Kalavryta, Ach** | **1.76** | **55** | P | Pn | 01 27 50.1 | +1.0 | |
| KLV | | | | S | Sb | 01 28 12.0 | -1.1 | |
| **KLV** | **Kalavryta, Ach** | **1.76** | **55** | P | Pn | 01 27 49.9 | +0.8 | |
| KLV | | | | S | Sn | 01 28 11.2 | -0.3 | |
| **LKD2** | **Lefkada island** | **1.77** | **8** | P | Pb | 01 27 51.1 | 0.0 | |
| **LKD2** | **Lefkada island** | **1.77** | **8** | P | Pb | 01 27 51.1 | 0.0 | |
| LKD2 | | | | S | Sb | 01 28 14.4 | +1.1 | |
| **LKD2** | **Lefkada island** | **1.77** | **8** | P | Pb | 01 27 52.0 | +0.9 | |
| LKD2 | | | | S | Sb | 01 28 14.4 | +1.1 | |
| **LAKA** | **Lakka** | **1.77** | **47** | P | Pb | 01 27 50.9 | -0.3 | |
| **LAKA** | **Lakka** | **1.77** | **47** | P | Pb | 01 27 50.9 | -0.3 | |
| LAKA | | | | S | Sb | 01 28 13.7 | +0.2 | |
| **LAKA** | **Lakka** | **1.77** | **47** | P | Pb | 01 27 51.0 | -0.3 | |
| LAKA | | | | S | Sb | 01 28 13.7 | +0.2 | |
| **GUR** | **Goura** | **1.83** | **60** | P | Pn | 01 27 50.9 | +0.7 | |
| GUR | | | | S | Sn | 01 28 13.2 | -0.2 | |
| GUR | | | | AML | AML | 01 28 32.9 | | |
| | comp=E,849μm,0.4s | | | | | | | |
| GUR | | | | AML | AML | 01 28 34.9 | | |
| | comp=N,912μm,0.4s | | | | | | | |
| **GUR** | **Goura** | **1.83** | **60** | P | Pn | 01 27 50.9 | +0.7 | |
| GUR | | | | S | Sb | 01 28 14.5 | -0.7 | |
| **GUR** | **Goura** | **1.83** | **60** | P | Pn | 01 27 50.9 | +0.7 | |
| GUR | | | | S | Sb | 01 28 14.5 | -0.7 | |
| **PVO** | **Paravola** | **1.84** | **31** | P | Pb | 01 27 51.7 | -0.6 | |
| **PVO** | **Paravola** | **1.84** | **31** | P | Pb | 01 27 51.7 | -0.6 | |
| PVO | | | | S | Sb | 01 28 15.0 | -0.3 | |
| **PVO** | **Paravola** | **1.84** | **31** | P | Pb | 01 27 52.3 | 0.0 | |
| PVO | | | | S | Sb | 01 28 15.0 | -0.3 | |
| **EFP** | **Efpalio** | **1.87** | **41** | P | Pb | 01 27 52.7 | 0.0 | |
| **EFP** | **Efpalio** | **1.87** | **41** | P | Pb | 01 27 52.4 | -0.3 | |
| EFP | | | | S | Sb | 01 28 14.9 | -1.2 | |
| **EFP** | **Efpalio** | **1.87** | **41** | P | Pb | 01 27 52.4 | -0.3 | |
| EFP | | | | S | Sb | 01 28 14.9 | -1.2 | |
| **TRIZ** | **Trizonia** | **1.92** | **46** | P | Pb | 01 27 53.7 | +0.2 | |
| **TRIZ** | **Trizonia** | **1.92** | **46** | P | Pb | 01 27 53.7 | +0.2 | |
| **SERG** | **Sergoula** | **1.94** | **44** | P | Pb | 01 27 53.8 | -0.2 | |
| **SERG** | **Sergoula** | **1.94** | **44** | P | Pb | 01 27 53.5 | -0.5 | |
| SERG | | | | S | Sb | 01 28 17.6 | -0.6 | |
| **SERG** | **Sergoula** | **1.94** | **44** | P | Pb | 01 27 53.5 | -0.5 | |
| SERG | | | | S | Sb | 01 28 17.6 | -0.6 | |
| **KALE** | **Kalithea** | **1.97** | **46** | P | Pb | 01 27 54.2 | -0.4 | |
| **KALE** | **Kalithea** | **1.97** | **46** | P | Pb | 01 27 54.0 | -0.6 | |
| KALE | | | | S | Sn | 01 28 17.0 | +0.3 | |
| **KALE** | **Kalithea** | **1.97** | **46** | P | Pb | 01 27 54.0 | -0.6 | |
| KALE | | | | S | Sn | 01 28 17.0 | +0.3 | |
| **THAL** | **Thalero** | **2.10** | **61** | P | Pb | 01 27 55.5 | -1.3 | |
| **THAL** | **Thalero** | **2.10** | **61** | P | Pn | 01 27 55.0 | +1.2 | |
| **THAL** | **Thalero** | **2.10** | **61** | P | Pn | 01 27 55.0 | +1.2 | |
| **VLI** | **Veliai** | **2.11** | **98** | P | Pb | 01 27 55.9 | -1.1 | |
| **VLI** | **Veliai** | **2.11** | **98** | P | Pb | 01 27 55.8 | -1.1 | |
| VLI | | | | S | Sb | 01 28 22.0 | -1.1 | |
| **VLI** | **Veliai** | **2.11** | **98** | P | Pb | 01 27 55.8 | -1.1 | |
| VLI | | | | S | Sb | 01 28 22.0 | -1.1 | |
| **DSL** | **Palaion Diasel** | **2.18** | **16** | P | Pn | 01 27 56.2 | +1.4 | |
| **DSL** | **Palaion Diasel** | **2.18** | **16** | P | Pn | 01 27 56.2 | +1.4 | |
| DSL | | | | S | Sn | 01 28 23.3 | +1.5 | |
| **DSL** | **Palaion Diasel** | **2.18** | **16** | P | Pn | 01 27 56.8 | +1.9 | |
| DSL | | | | S | Sn | 01 28 23.3 | +1.5 | |
| **EVR** | **Evrytania** | **2.21** | **31** | P | Pn | 01 27 56.9 | +1.5 | |
| **EVR** | **Evrytania** | **2.21** | **31** | P | Pn | 01 27 56.9 | +1.5 | |
| EVR | | | | S | Sn | 01 28 23.6 | +0.9 | |
| **EVR** | **Evrytania** | **2.21** | **31** | P | Pb | 01 27 58.0 | -0.7 | |
| EVR | | | | S | Sn | 01 28 23.6 | +0.9 | |
| **DSF** | **Desfina** | **2.22** | **51** | P | Pn | 01 27 57.1 | +1.7 | |
| **DSF** | **Desfina** | **2.22** | **51** | P | Pn | 01 27 56.9 | +1.5 | |
| DSF | | | | S | Sn | 01 28 23.9 | +1.1 | |
| **DSF** | **Desfina** | **2.22** | **51** | P | Pn | 01 27 56.9 | +1.5 | |
| DSF | | | | S | Sn | 01 28 23.9 | +1.1 | |
| **KRND** | **KRANIDI** | **2.27** | **80** | P | Pn | 01 27 56.7 | +0.6 | |
| **KRND** | **KRANIDI** | **2.27** | **80** | P | Pn | 01 27 56.7 | +0.6 | |
| KRND | | | | S | Sn | 01 28 24.9 | +0.8 | |
| **KRND** | **KRANIDI** | **2.27** | **80** | P | Pn | 01 27 56.7 | +0.6 | |
| KRND | | | | S | Sn | 01 28 24.9 | +0.8 | |
| **LOUT** | **Loutraki** | **2.31** | **65** | P | Pn | 01 27 57.2 | +0.7 | |
| **LOUT** | **Loutraki** | **2.31** | **65** | P | Pn | 01 27 57.2 | +0.7 | |
| **KYTH** | **Kithira** | **2.31** | **109** | P | Pb | 01 27 59.7 | -0.7 | |
| **LTK** | **Loutraki** | **2.31** | **64** | P | Pn | 01 27 57.0 | +0.4 | |
| **LTK** | **Loutraki** | **2.31** | **64** | P | Pn | 01 27 57.3 | +0.6 | |
| LTK | | | | S | Sn | 01 28 26.6 | +1.5 | |
| **LTK** | **Loutraki** | **2.31** | **64** | P | Pn | 01 27 57.3 | +0.6 | |
| LTK | | | | S | Sn | 01 28 26.6 | +1.5 | |
| **DID** | **Didima** | **2.36** | **78** | P | Pn | 01 27 57.4 | +0.1 | |
| **DID** | **Didima** | **2.36** | **78** | P | Pn | 01 27 57.7 | +0.3 | |
| DID | | | | S | Sb | 01 28 28.4 | -2.0 | |
| **DID** | **Didima** | **2.36** | **78** | P | Pn | 01 27 57.7 | +0.3 | |
| DID | | | | S | Sb | 01 28 28.4 | -2.0 | |
| **PROD** | **Prodromos** | **2.38** | **58** | P | Pn | 01 27 57.9 | +0.4 | |
| **PROD** | **Prodromos** | **2.38** | **58** | P | Pn | 01 27 57.9 | +0.4 | |
| **VIL2** | **Platees** | **2.61** | **62** | P | Pn | 01 28 00.7 | 0.0 | |
| **VILL** | **Villia** | **2.62** | **64** | P | Pn | 01 28 00.7 | -0.2 | |
| **ANKY** | **Antikythira Is** | **2.66** | **115** | P | Pb | 01 28 05.4 | -0.9 | |
| **KEK** | **Kerkira** | **2.71** | **351** | P | Pn | 01 28 01.9 | -0.2 | |
| **KEK** | **Kerkira** | **2.71** | **351** | P | Pn | 01 28 01.9 | -0.2 | |
| **ATH** | **Athens Observa** | **2.85** | **70** | P | Pn | 01 28 03.3 | -0.7 | |
| **ATH** | **Athens Observa** | **2.85** | **70** | P | Pn | 01 28 03.3 | -0.7 | |
| **THL** | **Klokotos Trika** | **2.85** | **27** | P | Pn | 01 28 05.5 | +1.5 | |
| **THL** | **Klokotos Trika** | **2.85** | **27** | P | Pn | 01 28 05.5 | +1.5 | |
| **THL** | **Klokotos Trika** | **2.85** | **27** | P | Pn | 01 28 05.8 | +1.8 | |
| **VLY** | **Voula,Athens** | **2.87** | **72** | P | Pn | 01 28 02.6 | -1.7 | |
| **VLY** | **Voula,Athens** | **2.87** | **72** | P | Pn | 01 28 02.7 | -1.7 | |
| **ATHU** | **Athens Univers** | **2.90** | **70** | P | Pn | 01 28 03.6 | -1.1 | |
| **ATHU** | **Athens Univers** | **2.90** | **70** | P | Pn | 01 28 03.6 | -1.1 | |
| **PTL** | **Penteli** | **2.98** | **69** | P | Pn | 01 28 05.0 | -0.9 | |
| **PTL** | **Penteli** | **2.98** | **69** | P | Pn | 01 28 05.0 | -0.9 | |
| **KPRO** | **Kipourio** | **3.02** | **15** | P | Pn | 01 28 09.3 | +2.8 | |
| **KPRO** | **Kipourio** | **3.02** | **15** | P | Pn | 01 28 09.0 | +2.5 | |
| KPRO | | | | S | Sn | 01 28 43.6 | +0.9 | |
| **KPRO** | **Kipourio** | **3.02** | **15** | P | Pn | 01 28 09.0 | +2.5 | |
| KPRO | | | | S | Sn | 01 28 43.6 | +0.9 | |
| **EREA** | **Eretria** | **3.17** | **63** | P | Pn | 01 28 07.5 | -1.0 | |
| **EREA** | **Eretria** | **3.17** | **63** | P | Pn | 01 28 07.5 | -1.0 | |
| **PENT** | **Pentalofos** | **3.22** | **11** | P | Pn | 01 28 12.2 | +3.0 | |
| **PENT** | **Pentalofos** | **3.22** | **11** | P | Pn | 01 28 11.8 | +2.6 | |
| **PENT** | **Pentalofos** | **3.22** | **11** | P | Pn | 01 28 11.8 | +2.6 | |
| **IMMV** | **Iera Moni Meta** | **3.34** | **117** | P | Pn | 01 28 13.0 | +2.2 | |
| **IMMV** | **Iera Moni Meta** | **3.34** | **117** | P | Pn | 01 28 13.0 | +2.2 | |
| **NEST** | **Nestorio** | **3.42** | **9** | P | Pn | 01 28 14.9 | +2.9 | |
| NEST | | | | S | Sn | 01 28 53.7 | +1.2 | |
| **NEST** | **Nestorio** | **3.42** | **9** | P | Pn | 01 28 14.9 | +2.9 | |
| NEST | | | | S | Sn | 01 28 53.7 | +1.2 | |
| **KZN** | **Kozani** | **3.46** | **19** | P | Pn | 01 28 15.1 | +2.7 | |
| **KZN** | **Kozani** | **3.46** | **19** | P | Pn | 01 28 15.1 | +2.7 | |
| **LIT** | **Litokhoron** | **3.50** | **28** | P | Pn | 01 28 12.8 | -0.1 | |
| **LIT** | **Litokhoron** | **3.50** | **28** | P | Pn | 01 28 14.0 | +1.1 | |
| LIT | | | | S | Sn | 01 28 54.7 | +0.4 | |
| **LIT** | **Litokhoron** | **3.50** | **28** | P | Pn | 01 28 14.0 | +1.1 | |
| LIT | | | | S | Sn | 01 28 54.7 | +0.4 | |
| **FNA** | **Florina** | **3.83** | **12** | P | Pn | 01 28 19.1 | +1.5 | |
| **FNA** | **Florina** | **3.83** | **12** | P | Pn | 01 28 19.1 | +1.5 | |
| **BIA** | **Bitola** | **4.05** | **11** | P | Pn | 01 28 23.0 | +2.4 | |
| **BIA** | **Bitola** | **4.05** | **11** | P | Pn | 01 28 23.0 | +2.4 | |
| **BIA** | **Bitola** | **4.05** | **11** | *i* Pn | Pn | 01 28 22.9 | +2.4 | |
| BIA | | | | *i* Sn | Sn | 01 29 06.8 | -1.3 | |
| **IDI** | **Anoyia** | **4.08** | **114** | P | Pn | 01 28 20.8 | -0.2 | |
| **IDI** | **Anoyia** | **4.08** | **114** | P | Pn | 01 28 20.8 | -0.2 | |
| **OHR** | **Ohrid** | **4.09** | **5** | *e*Pn | Pn | 01 28 21.1 | +0.1 | |
| OHR | | | | *i* Sn | Sn | 01 29 06.7 | -2.2 | |
| **PLG** | **Polygyros** | **4.13** | **35** | P | Pn | 01 28 20.8 | -0.8 | |
| **PLG** | **Polygyros** | **4.13** | **35** | P | Pn | 01 28 20.8 | -0.8 | |
| **CGL1** | **Ceglie Messapi** | **4.25** | **329** | *e*Pn | Pn | 01 28 25.0 | +1.8 | |
| CGL1 | | | | | Sn | 01 29 10.9 | -1.9 | |
| **KRUS** | **Krusevo** | **4.39** | **9** | *i* Pn | Pn | 01 28 26.3 | +1.0 | |
| KRUS | | | | *i* Sn | Sn | 01 29 13.2 | -3.1 | |
| **FASA** | **Fasano** | **4.43** | **329** | *e*Pn | Pn | 01 28 27.7 | +1.9 | |
| **SG1** | **Sgolgore (BA)** | **4.75** | **324** | *e*Pn | Pn | 01 28 32.8 | +2.6 | |
| **BAI** | **Bari** | **4.87** | **328** | *e*Pn | Pn | 01 28 33.9 | +2.1 | |
| **CDT** | **Castel del Mon** | **5.13** | **323** | *e*Pn | Pn | 01 28 37.8 | +2.4 | |
| **STON** | **Ston** | **6.17** | **342** | *e*Pn | Pn | 01 28 49.4 | -0.2 | |
| STON | | | | | Sn | 01 29 54.4 | -5.7 | |
| **STON** | **Ston** | **6.17** | **342** | *e*Pn | Pn | 01 28 49.4 | -0.2 | |
| **UDBI** | **Udbina** | **8.25** | **337** | *i* Pn | Pn | 01 29 20.6 | +2.4 | |
| UDBI | | | | | Sn | 01 30 47.8 | -3.5 | |
| **UDBI** | **Udbina** | **8.25** | **337** | *i* Pn | Pn | 01 29 20.6 | +2.4 | |
| **NVLJ** | **Novalja** | **8.58** | **333** | *i* Pn | Pn | 01 29 23.7 | +1.0 | |
| NVLJ | | | | | Sn | 01 30 53.4 | -6.1 | |
| **NVLJ** | **Novalja** | **8.58** | **333** | *i* Pn | Pn | 01 29 23.7 | +1.0 | |
| **OZLJ** | **Ozalj** | **9.32** | **338** | *e*Pn | Pn | 01 29 34.6 | +1.8 | |
| **OZLJ** | **Ozalj** | **9.32** | **338** | *e*Pn | Pn | 01 29 34.6 | +1.8 | |
| **OBKA** | **Obir** | **10.40** | **337** | Pn | Pn | 01 29 50.2 | +2.4 | |
| | comp=N,0.3nm,0.2s | | | | | | | |
| **SOKA** | **Soboth** | **10.41** | **339** | Pn | Pn | 01 29 48.8 | +0.9 | |
| | comp=N,0.6nm,0.4s | | | | | | | |
| **MOA** | **Molln** | **11.70** | **339** | Pn | Pn | 01 30 09.8 | +4.4 | |
| | comp=N,0.4nm,0.3s | | | | | | | |

*ISCJB* ***28*** *01:35:45.0±1.1,43°.34N±0°.07×146°.79E±0°.08, h43km±23km, Error ellipse: s-maj=13.8km s-min=6.3km az=144.1*

*SKHL* ***28*** *01:35:45.5±0.4,43°.28N×146°.84E, h33km±1km, mb4.4/3*

*JMA* ***28*** *01:35:45.3±0.2,43°.31N×146°.76E, h46km±3km, M3.8*

*JMA Felt I J1.*

**ISC 28 01:35:45.2±1.9, 43°.34N±0°.09×146°.80E±0°.08, h32km±12km, n13, σ0s56/23, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SHO** | **Shikotan** | **0.53** | **2** | *i* P | **Pb** | **01 35 56.1** | **-0.1** |
| SHO | | | | AMB | AMB | 01 35 57.4 | |
| | 690nm,0.3s | | | | | | |
| SHO | | | | *i* S | **Sb** | **01 36 04.1** | **+0.3** |
| SHO | | | | A | A | 01 36 04.5 | |
| | 6μm,0.4s | | | | | | |
| SHO | | | | A | A | 01 36 04.5 | |
| | 6μm,0.4s | | | | | | |
| **NEM2** | **Nemuro 2** | **0.77** | **272** | P | **Pn** | **01 35 59.5** | **-0.4** |
| NEM2 | | | | *e*S | **Sb** | **01 36 10.0** | **-0.3** |
| **YUK** | **Yuzh-Kuril'sk** | **0.97** | **316** | *i* P | **Pn** | **01 36 02.4** | **-0.3** |
| YUK | | | | AMB | AMB | 01 36 05.7 | |
| | 83nm,0.3s | | | | | | |
| YUK | | | | *i* S | **Sn** | **01 36 15.4** | **0.0** |
| YUK | | | | A | A | 01 36 18.7 | |
| | 513nm,0.4s | | | | | | |
| YUK | | | | A | A | 01 36 18.7 | |
| | 260nm,0.4s | | | | | | |
| **GRPR** | **Tuman** | **0.99** | **312** | *i* P | **Pn** | **01 36 02.8** | **-0.1** |
| GRPR | | | | *i* S | **Sn** | **01 36 15.4** | **-0.4** |
| **JRA** | **Rausu** | **1.36** | **297** | P | **Pn** | **01 36 08.1** | **+0.2** |
| JRA | | | | *e*S | **Sn** | **01 36 24.8** | **0.0** |
| **JNK** | **Nakash** | **1.54** | **280** | P | **Pn** | **01 36 10.3** | **-0.1** |
| JNK | | | | *e*S | **Sn** | **01 36 28.8** | **-0.4** |
| **JAK** | **Akkeshi** | **1.58** | **258** | P | **Pn** | **01 36 10.7** | **-0.2** |
| JAK | | | | *e*S | **Sn** | **01 36 29.4** | **-0.8** |
| **KUR** | **Kuril'sk** | **2.04** | **22** | *e*P | **Pn** | **01 36 17.5** | **+0.1** |
| KUR | | | | AMB | AMB | 01 36 18.2 | |
| | 28nm,0.3s | | | | | | |
| KUR | | | | *i* S | **Sn** | **01 36 41.5** | **-0.3** |
| KUR | | | | A | A | 01 36 47.6 | |
| | 225nm,0.3s | | | | | | |
| KUR | | | | A | A | 01 36 47.6 | |
| | 87nm,0.3s | | | | | | |
| **JTKR** | **Abashiri--Toko** | **2.19** | **288** | P | **Pn** | **01 36 20.5** | **+1.1** |
| **JAR** | **Ashorobuto** | **2.21** | **270** | P | **Pn** | **01 36 20.3** | **+0.6** |
| JAR | | | | *e*S | **Sn** | **01 36 46.8** | **+0.1** |
| **JOB** | **Onbets** | **2.21** | **260** | P | **Pn** | **01 36 20.1** | **+0.4** |
| JOB | | | | *e*S | **Sn** | **01 36 46.0** | **+0.1** |
| **JCH** | **Churui** | **2.62** | **255** | P | **Pn** | **01 36 25.6** | **+0.3** |
| **HRK** | **Horoka** | **2.68** | **274** | *e*P | **Pn** | **01 36 27.7** | **+1.5** |

*KRSC* ***28*** *01:35:44.3±1.5,60°.75N×167°.10E, h9km±12km, ML5.0*

*BJI* ***28*** *01:35:45.0,60°.90N×167°.10E, h8km, mb4.6/33, mB5.1/22, Ms4.7/15, Ms7 4.4/14*

*IDC* ***28*** *01:35:46.1±0.5,60°.84N×166°.81E, h0km, mb4.4/26, mb1 4.6/30, mb1mx4.5/38, mbtmp4.4/30, ML4.8/3, MS3.7/23, Ms1 3.7/23, ms1mx3.5/42, Error ellipse: s-maj=15.5km s-min=8.1km az=172.0*

*MOS* ***28*** *01:35:46.3±1.2,60°.78N×166°.96E, h8km, mb4.7/49, Error ellipse: s-maj=8.5km s-min=3.9km az=73.7*

*ISCJB* ***28*** *01:35:47.9±0.8,60°.81N±0°.03×166°.91E±0°.03, h22km±5km, mb4.8/190, MS3.8/22, Error ellipse: s-maj=4.6km s-min=2.5km az=160.2*

*NEIC* ***28*** *01:35:48.9±1.7,60°.84N×166°.67E, h16km±10km, mb4.9/168, Error ellipse: s-maj=5.8km s-min=2.7km az=164.0*

**ISC 28 01:35:48.9±0.7, 60°.79N±0°.04×167°.02E±0°.04, h10km±3km, n839, σ1s13/850, mb4.9/192, MS3.8/22, 17C-16D, Eastern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TILK** | **Tilichiki** | **0.55** | **232** | PN | **Pg** | **01 35 57.1** | **-2.4** |
| TILK | | | | S | **Sg** | **01 36 05.2** | **-1.6** |
| **TILK** | **Tilichiki** | **0.55** | **232** | *i* P | **Pg** | **01 35 57.1** | **-2.4** |
| TILK | | | | *i* S | **Sg** | **01 36 05.2** | **-1.6** |
| **KMSK** | **Kamenskaya** | **1.73** | **347** | PN | **Pn** | **01 36 16.5** | **-2.3** |
| KMSK | | | | S | **Sn** | **01 36 38.7** | **-2.2** |
| **KMSK** | **Kamenskaya** | **1.73** | **347** | *e*P | **Pn** | **01 36 16.5** | **-2.3** |
| KMSK | | | | *e*S | **Sn** | **01 36 38.7** | **-2.2** |
| **OSSR** | **Ossora** | **2.52** | **234** | PN | Pn | 01 36 26.9 | -2.8 |
| OSSR | | | | S | **Sn** | **01 36 57.8** | **-2.5** |
| **OSSR** | **Ossora** | **2.52** | **234** | *e*P | Pn | 01 36 26.9 | -2.8 |
| OSSR | | | | *e*S | **Sn** | **01 36 57.8** | **-2.5** |
| **PALN** | **Palana** | **3.94** | **247** | PN | **Pn** | **01 36 47.8** | **-1.4** |
| PALN | | | | S | **Sn** | **01 37 35.6** | **+0.3** |
| **PALN** | **Palana** | **3.94** | **247** | *e*P | **Pn** | **01 36 47.8** | **-1.4** |
| PALN | | | | *e*S | **Sn** | **01 37 35.6** | **+0.3** |
| **KBTR** | **Krutoberegovo** | **5.09** | **207** | PN | **Pn** | **01 37 04.1** | **-1.0** |
| **KBTR** | **Krutoberegovo** | **5.09** | **207** | *e*P | **Pn** | **01 37 04.1** | **-1.0** |
| KBTR | | | | *e*S | **Sn** | **01 38 04.0** | **+0.1** |
| **SMKR** | **Semkarok** | **5.12** | **217** | PN | **Pn** | **01 37 05.5** | **0.0** |
| **SMKR** | **Semkarok** | **5.12** | **217** | *e*P | **Pn** | **01 37 05.5** | **0.0** |
| **SRKR** | **Sorokina** | **5.15** | **219** | PN | **Pn** | **01 37 05.9** | **0.0** |
| **SRKR** | **Sorokina** | **5.15** | **219** | *e*P | **Pn** | **01 37 05.9** | **0.0** |
| **KLY** | **Klyuchi** | **5.59** | **219** | PN | **Pn** | **01 37 10.4** | **-1.5** |
| **KLY** | **Klyuchi** | **5.59** | **219** | *e*P | **Pn** | **01 37 10.4** | **-1.5** |
| **BKI** | **Bering** | **5.63** | **186** | PN | **Pn** | **01 37 11.7** | **-0.7** |
| **BKI** | **Bering** | **5.63** | **186** | *i* P | **Pn** | **01 37 11.7** | **-0.7** |
| **CIRR** | **Tsirk** | **5.73** | **218** | PN | **Pn** | **01 37 13.7** | **-0.2** |
| **CIRR** | **Tsirk** | **5.73** | **218** | P | **Pn** | **01 37 13.7** | **-0.2** |
| **LGNR** | **Loginova** | **5.77** | **218** | PN | **Pn** | **01 37 13.8** | **-0.9** |
| **LGNR** | **Loginova** | **5.77** | **218** | *e*P | **Pn** | **01 37 13.8** | **-0.9** |
| **ZLN** | **Zelenaya** | **5.79** | **217** | PN | **Pn** | **01 37 14.9** | **+0.1** |
| **ZLN** | **Zelenaya** | **5.79** | **217** | P | **Pn** | **01 37 14.9** | **+0.1** |
| **BZWR** | **Bezymyannyi-We** | **5.93** | **218** | PN | **Pn** | **01 37 16.6** | **-0.1** |
| **BZWR** | **Bezymyannyi-We** | **5.93** | **218** | P | **Pn** | **01 37 16.6** | **-0.1** |
| **BZMR** | **Bezymyannaya** | **5.96** | **218** | PN | **Pn** | **01 37 16.9** | **-0.2** |
| **BZMR** | **Bezymyannaya** | **5.96** | **218** | P | **Pn** | **01 37 16.9** | **-0.2** |
| **KIRR** | **Kirishev** | **5.99** | **219** | PN | **Pn** | **01 37 18.2** | **+0.7** |
| **KIRR** | **Kirishev** | **5.99** | **219** | P | **Pn** | **01 37 18.2** | **+0.7** |
| **KPT** | **Kopyto** | **6.01** | **219** | PN | **Pn** | **01 37 17.8** | **0.0** |
| **KPT** | **Kopyto** | **6.01** | **219** | *e*P | **Pn** | **01 37 17.8** | **0.0** |
| **KMNR** | **Kamenistaya** | **6.18** | **218** | PN | **Pn** | **01 37 20.0** | **-0.2** |
| **KMNR** | **Kamenistaya** | **6.18** | **218** | *e*P | **Pn** | **01 37 20.0** | **-0.2** |
| **ESO** | **Esso** | **6.55** | **226** | PN | **Pn** | **01 37 25.5** | **+0.4** |
| **ESO** | **Esso** | **6.55** | **226** | P | **Pn** | **01 37 25.5** | **+0.4** |
| **TUMR** | **Tumrok** | **6.62** | **216** | PN | **Pn** | **01 37 27.4** | **+1.3** |
| **TUMR** | **Tumrok** | **6.62** | **216** | *e*P | **Pn** | **01 37 27.4** | **+1.3** |
| **SEY** | **Seymchan** | **7.25** | **294** | PN | **Pn** | **01 37 32.3** | **-2.3** |
| | 4.6nm,0.3s,baz=107,slow=12,SNR=38 | | | | | | |
| SEY | | | | Lg | Lg | 01 39 27.3 | |
| | 2.1nm,0.3s,baz=47,slow=20,SNR=4.1 | | | | | | |
| **SEY** | **Seymchan** | **7.25** | **294** | *ce*PN | **Pn** | **01 37 32.5** | **-2.1** |
| **BILL** | **Bilibino** | **7.29** | **358** | *ce*PN | **Pn** | **01 37 34.2** | **-0.9** |
| BILL | | | | *e*SS | Sn | 01 39 11.3 | +14 |
| BILL | | | | pmax | pmax | | |
| | comp=Z,32nm,1.2s | | | | | | |
| BILL | | | | MLR | MLR | | |
| | comp=E,511nm,10.0s | | | | | | |
| **MA2** | **Magadan** | **8.19** | **269** | Pn | **Pn** | **01 37 44.9** | **-2.6** |
| | comp=Z,7.9nm,0.3s,baz=68,slow=14,SNR=18 | | | | | | |
| MA2 | | | | Sn | **Sn** | **01 39 17.7** | **-2.3** |
| | comp=Z,1.3nm,0.3s,baz=170,slow=18,SNR=2.4 | | | | | | |
| MA2 | | | | Lg | Lg | 01 40 02.6 | |
| | comp=Z,0.7nm,0.3s,baz=0.0,slow=12,SNR=1.6 | | | | | | |
| MA2 | | | | LR | LR | 01 40 28.7 | |
| | comp=Z,132nm,19.1s,baz=84,slow=35 | | | | | | |
| **MA2** | **Magadan** | **8.19** | **269** | *ce*PN | **Pn** | **01 37 46.4** | **-1.2** |
| **GNL** | **Ganaly** | **8.64** | **219** | PN | **Pn** | **01 37 54.2** | **+0.3** |
| **GNL** | **Ganaly** | **8.64** | **219** | *e*P | **Pn** | **01 37 54.2** | **+0.3** |
| **AVH** | **Avacha** | **8.78** | **214** | PN | **Pn** | **01 37 56.3** | **+0.5** |
| **AVH** | **Avacha** | **8.78** | **214** | P | **Pn** | **01 37 56.3** | **+0.5** |
| **UGLR** | **Uglovaya** | **8.81** | **214** | PN | **Pn** | **01 37 56.3** | **+0.1** |
| **UGLR** | **Uglovaya** | **8.81** | **214** | P | **Pn** | **01 37 56.3** | **+0.1** |
| **SMY** | **Shemya** | **8.96** | **151** | *e*PN | Pn | 01 37 56.2 | -1.9 |
| **SMY** | **Shemya** | **8.96** | **151** | *e*Pn | Pn | 01 37 56.2 | -1.9 |
| **DALK** | **Dalny** | **8.99** | **214** | PN | **Pn** | **01 37 58.1** | **-0.4** |
| **DALK** | **Dalny** | **8.99** | **214** | P | **Pn** | **01 37 58.1** | **-0.4** |
| **PEA0B** | **Petropavlovsk-** | **9.22** | **218** | *e*PN | **Pn** | **01 38 02.5** | **+0.8** |
| **PETK** | **Petropavlovsk-** | **9.22** | **218** | Pn | **Pn** | **01 38 03.3** | **+1.6** |
| | comp=Z,0.2nm,0.3s,baz=55,slow=18,SNR=2.4 | | | | | | |
| PETK | | | | LR | LR | 01 41 31.3 | |
| | comp=Z,220nm,19.5s,baz=35,slow=38 | | | | | | |
| **PETK** | **Petropavlovsk

**RC01 Rabbit Creek A** 20.73 70 *e*P P 01 40 31.3 +2.2
comp=Z,24nm,1.1s
**PMR Palmer** 20.85 69 *e*P P 01 40 32.4 +2.1
PMR pmax pmax
comp=Z,13nm,1.0s
**PMR Palmer** 20.85 69 *e*P P 01 40 32.4 +2.1
comp=Z,13nm,1.0s
**IL1 Eielson Array** 21.07 59 *e*P P 01 40 33.7 +1.0
**ILAR Eielson Array** 21.07 59 P P 01 40 33.2 +0.5
comp=Z,22nm,0.7s,baz=276,slow=11,SNR=233
ILAR LR LR 01 49 37.6
comp=Z,127nm,19.8s,baz=266,slow=39
**ILAR Eielson Array** 21.07 59 P P 01 40 33.3 +0.5
ILAR pmax pmax
comp=Z,21nm,0.7s
ILAR MLR MLR
comp=Z,127nm,19.8s
**ILB Eielson Array** 21.07 59 *e*P P 01 40 33.7 +1.0
**HDA Harding Lake** 21.12 60 *e*P P 01 40 33.9 +0.6
comp=Z,86nm,1.1s
**SML Sawmill** 21.15 68 *e*P P 01 40 33.7 0.0
SML pmax pmax
comp=Z,86nm,0.8s
**SML Sawmill** 21.15 68 *e*P P 01 40 33.7 0.0
comp=Z,86nm,0.8s
**DHY Denali Highway** 21.23 64 *e*P P 01 40 34.5 -0.2
comp=Z,31nm,0.9s
**FYU Fort Yukon** 21.47 54 *e*P P 01 40 35.1 -1.9
comp=Z,51nm,0.8s
**SCM Sheep Creek Mo** 21.60 67 *e*P P 01 40 38.7 +0.2
SCM pmax pmax
comp=Z,134nm,0.9s
**SCM Sheep Creek Mo** 21.60 67 *e*P P 01 40 38.7 +0.2
comp=Z,134nm,0.9s
**GLI Glacier Island** 22.02 70 *e*P P 01 40 42.8 -0.1
comp=Z,64nm,1.0s
**PAX Paxson** 22.10 64 *e*P P 01 40 43.5 -0.4
PAX pmax pmax
comp=Z,43nm,1.2s
**PAX Paxson** 22.10 64 *e*P P 01 40 43.5 -0.4
comp=Z,43nm,1.2s
**FID Port Fidalgo** 22.34 70 *e*P P 01 40 46.4 0.0
comp=Z,65nm,1.3s
**KLU Klutina** 22.35 67 *e*P P 01 40 46.9 +0.4
comp=Z,48nm,0.7s
**HARP HAARP** 22.40 65 *e*P P 01 40 47.3 +0.3
comp=Z,34nm,0.9s
**DOT Dot Lake** 22.53 61 *e*P P 01 40 47.2 -1.2
comp=Z,148nm,1.1s
**DIV Divide** 22.54 68 *e*P P 01 40 49.0 +0.5
comp=Z,38nm,0.7s
**EYAK Cordova Ski Ar** 22.75 70 *e*P P 01 40 51.9 +1.2
comp=Z,60nm,0.9s
**MENT Mentasta** 22.88 63 *e*P P 01 40 51.3 -0.8
comp=Z,33nm,1.0s
**KLR Kul'dur** 22.98 256 P P 01 40 51.4 -1.8
comp=Z,0.6nm,0.7s,baz=56,slow=9.8,SNR=18
**BMRM Bremner River** 23.12 68 *e*P P 01 40 54.4 -0.2
comp=Z,65nm,1.0s
**RAGM Ragged Mountai** 23.31 70 *e*P P 01 40 56.5 -0.1
comp=Z,67nm,1.0s
**EGAK Eagle** 23.47 58 *e*P P 01 40 56.5 -1.6
comp=Z,58nm,0.9s
**DAWY Dawson** 24.40 59 *e*P P 01 41 06.2 -0.8
comp=Z,50nm,1.0s
**PCA Pinnacle** 25.45 68 *e*P P 01 41 17.1 +0.7
comp=Z,49nm,0.8s
**INK Inuvik** 25.63 48 P P 01 41 17.4 -0.5
comp=Z,12nm,0.7s,baz=300,slow=7.0,SNR=51
INK PcP PcP 01 44 46.5 -1.5
comp=Z,3.4nm,0.9s,baz=298,slow=2.0,SNR=5.3
**INK Inuvik** 25.63 48 *e*P P 01 41 17.4 -0.5
comp=Z,15nm,0.8s
INK PcP PcP 01 44 46.5 -1.5
**HYT Haines Junctio** 26.38 65 *e*P P 01 41 25.1 +0.2
comp=Z,32nm,0.9s
**BOD Bodaibo** 26.61 287 *e*P P 01 41 23.7 -3.2
BOD pmax pmax
comp=Z,28nm,1.4s
**WHY Whitehorse** 27.62 64 *e*P P 01 41 37.0 +1.0
comp=Z,14nm,0.8s
**HIA Hailar** 28.78 268 *d*P P 01 41 47.0 +0.5
HIA pmax pmax
comp=Z,5.0nm,0.9s
**CN2 Changchun** 29.91 254 *e*P P 01 41 57.3 +0.8
CN2 *e*S S 01 46 52.0 -1.5
CN2 pmax pmax
comp=Z,10.0nm,0.6s
CN2 pmax pmax
comp=Z,200nm,3.0s
CN2 LR LR
comp=Z,300nm,13.0s
CN2 LR LR
comp=Z,300nm,13.0s
CN2 LR LR
comp=Z,200nm,10.0s
**MJB9 Matsu-Tunnel** 30.37 230 *e*P P 01 41 59.9 -0.8
comp=Z,21nm,1.0s
**MAJO Matsushiro** 30.37 230 *e*P P 01 41 59.8 -0.8
MAJO pmax pmax
comp=Z,22nm,1.0s
**MAJO Matsushiro** 30.37 230 *e*P P 01 41 59.8 -0.8
comp=Z,22nm,1.0s
**MAT Matsushiro** 30.37 230 P P 01 41 59.2 -1.4
**MJAR Matsushiro Arr** 30.37 230 P P 01 41 59.1 -1.6
comp=Z,16nm,0.9s,baz=18,slow=8.2,SNR=17
MJAR LR LR 01 54 07.8
comp=Z,146nm,21.5s,baz=15,slow=36
**DLBC Dease Lake** 30.86 66 *e*P P 01 42 06.2 +1.4
comp=Z,31nm,0.9s
**KS01 Wonju Array Si** 33.83 244 *e*P P 01 42 28.0 -2.9
**KSRS Korea Array** 33.83 244 P P 01 42 29.1 -1.9
comp=Z,2.3nm,0.7s,baz=28,slow=7.8,SNR=5.8
KSRS LR LR 01 55 52.0
comp=Z,52nm,20.0s,baz=16,slow=36
**KSAR Wonju Array Be** 33.86 244 P P 01 42 29.1 -2.1
**KSAR Wonju Array Be** 33.86 244 P P 01 42 29.1 -2.1
**TLY Talaya** 35.03 284 *e*P P 01 42 43.7 +2.4
TLY pmax pmax
comp=Z,18nm,1.0s
**TLY Talaya** 35.03 284 *e*P P 01 42 43.7 +2.4
comp=Z,18nm,1.0s
**YKW3 Yellowknife Ar** 35.10 52 *e*P P 01 42 41.1 -0.5
comp=Z,14nm,1.1s
**YKA Yellowknife Ar** 35.15 52 P P 01 42 41.6 -0.4
comp=Z,7.8nm,0.8s,baz=303,slow=8.4,SNR=93
YKA PcP PcP 01 45 11.8 -1.2
comp=Z,1.4nm,0.7s,baz=310,slow=3.5,SNR=14
YKA LR LR 01 57 08.9
comp=Z,13nm,19.7s,baz=180,slow=36
**ULN Ulaanbaatar** 35.94 277 ⇑*i*P P 01 42 51.0 +1.7
ULN pmax pmax
comp=Z,11nm,1.2s
**ULN Ulaanbaatar** 35.94 277 *e*P P 01 42 50.9 +1.6
comp=Z,12nm,1.3s
**SONA1 Songino Array** 36.27 277 *e*P P 01 42 53.5 +1.4
**SONM Songino Array** 36.28 277 P P 01 42 50.7 -1.4
comp=Z,5.9nm,1.1s,baz=69,slow=6.5,SNR=13
SONM LR LR 01 58 25.2
comp=Z,213nm,19.4s,baz=57,slow=38
**MOY Mondy** 36.30 286 *e*P P 01 42 55.1 +2.9
**BJI Beijing** 37.23 260 P P 01 43 01.8 +1.7
BJI pmax pmax
comp=Z,16nm,1.2s
BJI pmax pmax
comp=Z,170nm,4.6s
BJI LR LR
comp=Z,260nm,7.4s
BJI LR LR
comp=Z,250nm,7.9s
**HHC Hu-ho-hao-te** 38.85 265 *e*P P 01 43 15.0 +1.1
HHC pmax pmax
comp=Z,12nm,0.5s
HHC pmax pmax
comp=Z,220nm,5.2s
**LLLB Lillooet** 39.39 72 *e*P P 01 43 19.7 +1.5
comp=Z,17nm,0.9s
**PGC Sidney** 40.00 75 *e*P P 01 43 24.9 +1.6
comp=Z,102nm,1.7s
**B05A Bryant** 40.92 75 P P 01 43 31.7 +0.9
baz=315
**B06A Marblemount** 41.03 74 *e*P P 01 43 32.6 +0.9
comp=Z,22nm,1.2s
**ZALV Zalesovo Beam** 42.08 299 P P 01 43 37.8 -2.5
comp=Z,0.3nm,0.3s,baz=26,slow=7.0,SNR=2.4
ZALV PcP PcP 01 45 31.9 -2.8
comp=Z,1.7nm,0.8s,baz=64,slow=3.4,SNR=5.1
ZALV LR LR 02 02 38.0
comp=Z,183nm,18.4s,baz=69,slow=38
**ZALV Zalesovo Beam** 42.08 299 *e*P P 01 43 42.0 +1.7
ZALV 01 45 31.9
**ZALV Zalesovo Beam** 42.08 299 *e*P P 01 43 42.0 +1.7
ZALV PcP PcP 01 45 31.9 -2.8
**NVS Novosibirsk** 42.13 301 *e*P P 01 43 42.7 +2.0
**B08A Colville Reser** 42.15 72 *e*P P 01 43 41.2 +0.2
comp=Z,15nm,1.0s
**NJ2 Nanjing** 42.43 250 *e*P P 01 43 46.0 +2.6
NJ2 pmax pmax
comp=Z,14nm,0.6s
**G03D McMinnville, O** 42.56 79 P P 01 43 44.8 +0.5
baz=317
**C09A Chrisman Ranch** 43.05 72 *e*P P 01 43 48.6 +0.4
comp=Z,28nm,1.5s
**NEW Newport** 43.25 71 P P 01 43 50.0 0.0
baz=316,SNR=5.2
**NEW Newport** 43.25 71 *e*P P 01 43 50.4 +0.5
NEW pmax pmax
comp=Z,10.0nm,1.0s
**NEW Newport** 43.25 71 *e*P P 01 43 50.4 +0.5
comp=Z,10nm,1.0s
**D08A Wollman Farm,** 43.28 74 *e*P P 01 43 50.6 +0.5
comp=Z,18nm,1.0s
**F07A Phinny Hill Vi** 43.65 75 *e*P P 01 43 54.1 +1.0
comp=Z,21nm,1.1s
**DGZ Jazzator, Alta** 43.92 293 ⇓*i*P P 01 43 55.5 0.0
DGZ pmax pmax
comp=Z,4.0nm,1.2s
**E09A Wood Farm, Sta** 44.04 74 *e*P P 01 43 56.7 +0.4
comp=Z,17nm,1.1s
**WALA Waterton Lakes** 44.15 68 *e*P P 01 43 57.7 +0.4
comp=Z,79nm,1.5s
**F10A Beach Ranch, E** 44.87 73 *e*P P 01 44 03.4 +0.4
comp=Z,10nm,0.9s
**JTMT Jette** 44.93 70 *e*P P 01 44 03.2 -0.4
comp=Z,33nm,1.6s
**J05D Fort Rock, OR** 44.97 79 P P 01 44 04.3 +0.5
baz=319
**FFC Flin Flon** 45.18 55 *e*P P 01 44 05.1 -0.2
FFC pmax pmax
comp=Z,23nm,1.0s
**FFC Flin Flon** 45.18 55 *e*P P 01 44 05.1 -0.2
comp=Z,23nm,1.0s
**YBH Yreka Blue Hor** 45.43 82 *e*P P 01 44 07.7 +0.2
YBH pmax pmax
comp=Z,5.0nm,0.8s
**YBH Yreka Blue Hor** 45.43 82 *e*P P 01 44 07.7 +0.2
comp=Z,4.9nm,0.8s
**JCC Jacoby Creek,** 45.48 83 *e*P P 01 44 07.4 -0.4
comp=Z,118nm,1.7s
**BMO Blue Mountains** 45.67 74 *e*P P 01 44 09.8 +0.4
BMO pmax pmax
comp=Z,13nm,1.1s
**BMO Blue Mountains** 45.67 74 *e*P P 01 44 09.8 +0.4
comp=Z,13nm,1.1s
**MSO Missoula** 45.77 70 P P 01 44 10.2 0.0
baz=318,SNR=10.0
**MSO Missoula** 45.77 70 *e*P P 01 44 10.2 0.0
comp=Z,29nm,1.5s
**M04C Macdoel** 45.81 81 P P 01 44 10.8 +0.2
baz=320
**N02D Trinity Center** 46.01 82 P P 01 44 12.8 +0.7
baz=320
**KMRM Mail Ridge** 46.10 84 *e*P P 01 44 14.0 +1.2
comp=Z,20nm,1.2s
**J08A Circle Bar Ran** 46.23 77 *e*P P 01 44 14.6 +0.7
comp=Z,5.0nm,0.9s
**LZH Lanzhou** 46.34 268 *e*P P 01 44 16.3 +1.4
LZH pP sP 01 44 21.8 +2.4
LZH sP pP 01 44 23.5 +5.4
LZH PP **PP** **01 46 06.5 +3.1**
LZH *e*S **S** **01 51 03.5 +1.5**
LZH sS sS 01 51 09.0 +1.7
LZH SS **SS** **01 54 22.3 -4.8**
LZH pmax pmax
comp=Z,23nm,1.0s
LZH pmax pmax
comp=Z,130nm,5.5s
LZH LR LR
comp=Z,240nm,13.3s
LZH LR LR
comp=Z,320nm,13.0s
LZH LR LR
comp=Z,340nm,15.6s
**MOD Modoc Plateau** 46.46 79 *e*P P 01 44 16.4 +0.6
comp=Z,6.0nm,0.8s
**EGMT Eagleton** 46.79 66 P P 01 44 18.0 -0.2
baz=318,SNR=6.3
**EGMT Eagleton** 46.79 66 *e*P P 01 44 18.3 +0.2
comp=Z,25nm,0.8s
**HRY Holter Researc** 46.82 69 *e*P P 01 44 19.2 +0.7
**WVOR Wild Horse Val** 46.86 78 *e*P P 01 44 18.8 0.0
WVOR pmax pmax
comp=Z,4.0nm,0.9s
**WVOR Wild Horse Val** 46.86 78 *e*P P 01 44 18.8 0.0
comp=Z,4.3nm,0.9s
**O03D Paynes Creek** 46.97 82 P P 01 44 19.5 -0.1
baz=321
**KURK Kurchatov** 47.05 300 ⇓*i*P P 01 44 19.1 -0.9
KURK pmax pmax
comp=Z,60nm,1.2s
**KURK Kurchatov** 47.05 300 *e*P P 01 44 17.7 -2.3
comp=Z,9.4nm,0.7s
**ARCES ARCESS Array B** 47.10 343 P P 01 44 17.2 -2.9
comp=Z,4.2nm,1.0s,baz=49,slow=9.8,SNR=5.3
**ILULI Ilulissat** 47.45 17 *e*P P 01 44 23.1 +0.3
ILULI pmax pmax
comp=Z,45nm,1.2s
**ILULI Ilulissat** 47.45 17 *e*P P 01 44 23.1 +0.3
comp=Z,45nm,1.2s
**DLMT Dillon** 47.49 71 *e*P P 01 44 24.3 +0.6
comp=Z,10nm,1.0s
**ORV Oroville** 47.69 82 *e*P P 01 44 24.8 -0.3
ORV pmax pmax
comp=Z,3.0nm,0.8s
**ORV Oroville** 47.69 82 *e*P P 01 44 24.8 -0.3
comp=Z,3.1nm,0.8s
**BOZ Bozeman (W)** 47.75 70 P P 01 44 26.0 +0.2
baz=319,SNR=5.3
**BOZ Bozeman (W)** 47.75 70 *e*P P 01 44 26.4 +0.6
BOZ pmax pmax
comp=Z,6.0nm,0.9s
**BOZ Bozeman (W)** 47.75 70 *e*P P 01 44 26.4 +0.6
comp=Z,5.9nm,0.9s
**MCMT McKenzie Canyo** 47.77 71 *e*P P 01 44 26.1 +0.1
**BEKR Beckworth** 48.00 81 *e*P P 01 44 27.9 +0.1
comp=Z,6.8nm,1.4s
**HLID Hailey** 48.00 73 P P 01 44 27.8 0.0
baz=320,SNR=6.7
**HLID Hailey** 48.00 73 *e*P P 01 44 28.1 +0.3
comp=Z,3.2nm,0.8s
HLID *e*PcP PcP 01 45 56.0 +0.4
**WMQ Urumqi** 48.16 287 P P 01 44 31.8 +3.0
WMQ pP sP 01 44 36.8 +3.4
WMQ sP pP 01 44 38.5 +6.4
WMQ pmax pmax
comp=Z,31nm,0.7s
WMQ pmax pmax
comp=Z,480nm,4.9s
WMQ LR LR
comp=Z,1μm,9.9s
WMQ LR LR
comp=Z,710nm,5.7s
WMQ LR LR
comp=Z,1μm,7.9s
**MK31 Makanchi Array** 48.38 294 *e*P P 01 44 27.3 -3.2
**MK31 Makanchi Array** 48.38 294 *e*P P 01 44 27.3 -3.1
**MKAR Makanchi Array** 48.38 294 P P 01 44 27.3 -3.2
comp=Z,0.7nm,0.5s,baz=37,slow=6.1,SNR=12
MKAR PP **PP** **01 46 22.4 -0.3**
comp=Z,1.4nm,0.9s,baz=53,slow=6.5,SNR=4.6
MKAR LR LR 02 04 14.9
comp=Z,134nm,19.1s,baz=32,slow=35
**MKAR Makanchi Array** 48.38 294 *e*P P 01 44 27.3 -3.1
comp=Z,9.4nm,0.8s
MKAR PP **PP** **01 46 22.4 -0.3**
**MK01 Makanchi Array** 48.40 294 *e*P P 01 44 27.4 -3.2
**QLMT Earthquake Lak** 48.43 70 *e*P P **01 44 31.8 +0.7**
**MAKZ Makanchi** 48.51 294 *e*P P **01 44 31.6 +0.2**
MAKZ pmax pmax
comp=Z,8.0nm,1.4s
**MAKZ Makanchi** 48.51 294 *e*P P **01 44 31.6 +0.2**
comp=Z,7.8nm,1.4s
**YHB Horse Butte** 48.60 70 *e*P P **01 44 33.2 +0.8**
comp=Z,10nm,0.9s
**PAHR Pah Rah Range** 48.60 81 *e*P P 01 44 32.5 +0.2
comp=Z,3.4nm,0.8s
**BVAR Borovoye Array** 48.68 307 P P 01 44 30.7 -1.9
comp=Z,3.4nm,0.7s,baz=52,slow=8.2,SNR=8.9
**BRVK Borovoye** 48.69 307 *e*P P 01 44 34.8 +2.1
BRVK pmax pmax
comp=Z,8.0nm,1.1s
**BRVK Borovoye** 48.69 307 *e*P P 01 44 34.8 +2.1
comp=Z,8.1nm,1.1s
**YHH Holmes Hill** 48.73 70 *e*P P 01 44 34.1 +0.6
comp=Z,9.1nm,0.9s
**YMR Madison River** 48.77 70 *e*P P 01 44 34.6 +0.9
comp=Z,20nm,1.2s
**DGMT Dagmar** 48.90 62 P P 01 44 34.5 +0.1
baz=320,SNR=9.5
**PNTR Pine Nut** 48.97 81 *e*P P 01 44 35.9 +0.6
comp=Z,6.4nm,0.7s
**YFT Old Faithful** 48.99 70 *e*P P 01 44 37.5 +2.0
comp=Z,11nm,0.9s
**H17A Grant Village** 49.15 70 P P 01 44 37.9 +1.2
baz=320,SNR=7.1
**H17A Grant Village** 49.15 70 *e*P P 01 44 38.4 +1.7
comp=Z,14nm,1.0s
**RLMT Red Lodge** 49.20 68 P P 01 44 37.7 +0.8
baz=320,SNR=17
**RLMT Red Lodge** 49.20 68 *e*P P 01 44 37.8 +0.8
comp=Z,27nm,0.8s
**YERR Yerington** 49.23 81 *e*P P 01 44 38.2 +0.9
comp=Z,7.0nm,1.2s
**IMW Indian Meadow** 49.37 71 *e*P P 01 44 39.4 +1.0
comp=Z,50nm,1.9s
**LAO LASA Array** 49.37 65 P P 01 44 38.6 +0.5
baz=320,SNR=5.8
**LAO LASA Array** 49.37 65 *e*P P 01 44 38.9 +0.8
comp=Z,29nm,0.9s
**FXWY Fox Creek** 49.53 71 *e*P P 01 44 40.0 +0.4
comp=Z,6.5nm,0.8s
**MOOW Moose Ponds** 49.57 71 *e*P P 01 44 40.4 +0.5
comp=Z,5.8nm,1.1s
**TPAW Teton Pass** 49.68 71 *e*P P 01 44 41.8 +1.1
comp=Z,10nm,0.8s
**KVN Kaiserville** 49.73 80 *e*P P 01 44 41.7 +0.6
KVN *e* 01 46 02.1
KVN pmax pmax
comp=Z,3.0nm,0.8s
**KVN Kaiserville** 49.73 80 *e*P P 01 44 41.7 +0.6
comp=Z,3.2nm,0.8s
KVN *e*PcP PcP **01 46 02.1 +0.1**
**REDW Red Top Meadow** 49.82 71 *e*P P 01 44 42.8 +1.0
comp=Z,10nm,1.0s
**NV01 Mina Array Sit** 50.12 81 *e*P P 01 44 44.1 0.0
NV01 *e*PcP PcP **01 46 03.5 0.0**
**NVAR Mina Array Bea** 50.12 81 P P 01 44 44.2 +0.1
comp=Z,2.5nm,0.7s,baz=309,slow=7.4,SNR=25
NVAR PcP PcP **01 46 03.5 +0.1**
comp=Z,2.1nm,0.8s,baz=312,slow=2.6,SNR=8.0
NVAR LR LR 02 04 19.9
comp=Z,75nm,18.7s,baz=296,slow=34
**HVU Hansel Valley** 50.15 74 *e*P P 01 44 45.0 +0.8
HVU pmax pmax
comp=Z,9.0nm,1.1s
**HVU Hansel Valley** 50.15 74 *e*P P 01 44 45.0 +0.8
comp=Z,9.4nm,1.1s
**NV11 Mina Array Sit** 50.19 81 *e*P P 01 44 44.6 +0.1
comp=Z,1.9nm,1.9s
**BPIM Pinnacles** 50.26 85 *e*P P 01 44 44.6 -0.3
**MDPB Devils Postpil** 50.37 82 *e*P P 01 44 47.0 +1.0
comp=Z,6.3nm,0.9s
MDPB *e*PcP PcP **01 46 05.1 +0.7**
**CD2 Chengdu** 50.57 264 *e*P P **01 44 48.5 +1.1**
CD2 pmax pmax
comp=Z,20nm,1.1s
**SPUT Sputh Promonto** 50.67 74 *e*P P 01 44 48.8 +0.7
comp=Z,11nm,1.3s
**BGU Big Grassy Mou** 50.69 75 *e*P P 01 44 49.2 +0.9
comp=Z,4.7nm,1.2s
**BW06 Boulder Array** 50.88 71 P P 01 44 49.9 0.0
baz=321,SNR=17
**BW06 Boulder Array** 50.88 71 *e*P P 01 44 49.8 0.0
comp=Z,11nm,0.8s
**PD31 Pinedale Array** 50.88 71 *e*P P 01 44 49.8 0.0
**PDAR Pinedale Array** 50.88 71 P P 01 44 49.8 0.0
comp=Z,8.0nm,0.7s,baz=314,slow=3.1,SNR=79
PDAR PcP PcP **01 46 05.1 -1.1**
comp=Z,2.3nm,0.8s,baz=329,slow=1.1,SNR=3.9
PDAR LR LR 02 09 16.7
comp=Z,84nm,18.6s,baz=349,slow=40
**PDAR Pinedale Array** 50.88 71 *e*P P 01 44 49.2 -0.6
PDAR *e*PcP PcP **01 46 04.6 -1.6**
**ULM Lac du Bonnet** 51.01 55 P P 01 44 50.3 -0.1
comp=Z,16nm,0.9s,baz=314,slow=7.6,SNR=21
ULM PcP PcP 01 46 04.8 -1.5
comp=Z,4.9nm,0.8s,baz=306,slow=4.7,SNR=3.7
**ULM Lac du Bonnet** 51.01 55 *e*P P 01 44 50.5 +0.1
ULM 01 46 04.8
ULM pmax pmax
comp=Z,22nm,1.0s
**ULM Lac du Bonnet** 51.01 55 *e*P P 01 44 50.5 +0.1
comp=Z,22nm,1.0s
ULM PcP PcP 01 46 04.8 -1.5
**TIN Tinemaha, Big** 51.24 82 P P 01 44 53.1 +0.7
baz=323
**TCUT Toone Canyon** 51.30 73 *e*P P 01 44 53.8 +0.8
comp=Z,8.2nm,0.9s
TCUT *e*PcP PcP **01 46 08.1 +0.3**
**MDND Maddock** 51.35 59 P P 01 44 53.5 +0.5
baz=321
**DUG Dugway, Tooele** 51.37 75 P P 01 44 53.6 +0.2
baz=322,SNR=6.2
**DUG Dugway, Tooele** 51.37 75 *e*P P 01 44 53.9 +0.6
DUG pmax pmax
comp=Z,8.0nm,1.2s
**DUG Dugway, Tooele** 51.37 75 *e*P P 01 44 53.9 +0.6
comp=Z,8.2nm,1.2s
**CTU Camp Tracy** 51.48 74 *e*P P 01 44 54.8 +0.5
comp=Z,7.1nm,1.0s
**R11A Troy Canyon, C** 51.49 79 P P 01 44 54.6 +0.2
baz=322
**GRAC Grapevine Rang** 51.71 81 P P 01 44 56.3 +0.5
baz=323
**B31A Greenbush Farm** 51.71 58 P P 01 44 55.9 +0.2
baz=322,SNR=11
**SMMC Simmler** 51.77 85 P P 01 44 56.9 +0.6
baz=324
**VES Vestal, Richgr** 51.79 83 P P 01 44 56.2 -0.2
baz=323
**A32A Rocking H Ranc** 51.80 57 P P 01 44 56.3 0.0
baz=322,SNR=9.0
**CWC Cottonwood Cre** 51.80 82 P P 01 44 56.8 +0.1
baz=323
**NLU North Lily Min** 51.90 75 *e*P P 01 44 58.1 +0.6
**MPU Maple Canyon** 52.06 74 *e*P P 01 44 59.4 +0.7
**DAC Darwin (Calif)** 52.17 82 *e*P P 01 44 59.8 +0.3
DAC pmax pmax
comp=Z,5.0nm,1.1s
**DAC Darwin (Calif)** 52.17 82 *e*P P 01 44 59.8 +0.3
comp=Z,5.2nm,1.1s
**C31A Landman Farms,** 52.17 58 P P 01 44 59.2 +0.1
baz=322,SNR=22
**B32A Ashes, Strandq** 52.20 57 P P 01 44 59.1 -0.1
baz=322,SNR=10
**PKM Mcpherson Peak** 52.20 85 P P 01 45 00.2 +0.5
baz=324
**A33A Warroad** 52.24 56 P P 01 44 59.5 -0.1
baz=322,SNR=16
**TPNV Topopah Spring** 52.28 80 P P 01 45 00.2 0.0
baz=323
**TPNV Topopah Spring** 52.28 80 *e*P P 01 45 00.8 +0.5
TPNV pmax pmax
comp=Z,4.0nm,0.8s
**TPNV Topopah Spring** 52.28 80 *e*P P 01 45 00.8 +0.5
comp=Z,3.8nm,0.8s
**PDGK Podgornoye** 52.32 293 P P 01 45 02.2 +1.8
PDGK pmax pmax
comp=Z,4.0nm,1.4s
**RSSD Black Hills** 52.33 65 P P 01 45 00.7 0.0
baz=322
**RSSD Black Hills** 52.33 65 *e*P P 01 45 00.6 0.0
RSSD pmax pmax
comp=Z,25nm,0.8s
**RSSD Black Hills** 52.33 65 *e*P P 01 45 00.6 0.0
comp=Z,25nm,0.8s
**K22A Casper** 52.37 68 P P 01 45 00.8 0.0
baz=322,SNR=7.6
**K22A Casper** 52.37 68 *e*P P 01 45 00.8 0.0
comp=Z,21nm,0.9s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| FURC | Furnace Creek, baz=323 | 52.37 | 81 | P | | P | 01 45 01.1 | +0.5 |
| MPMC | Manual Prospec baz=323,SNR=7.4 | 52.39 | 82 | P | | P | 01 45 01.4 | +0.2 |
| AGMN | Agassiz Nation baz=322,SNR=13 | 52.55 | 57 | P | | P | 01 45 01.8 | -0.1 |
| AGMN | Agassiz Nation comp=Z,26nm,0.8s | 52.55 | 57 | eP | | P | 01 45 01.7 | -0.1 |
| C32A | Crookston baz=322 | 52.65 | 57 | P | | P | 01 45 02.3 | -0.3 |
| B33A | Robert and Kas baz=322,SNR=12 | 52.68 | 56 | P | | P | 01 45 02.7 | -0.2 |
| LRMC | Laurel Mtn Rad baz=324 | 52.76 | 83 | P | | P | 01 45 03.8 | 0.0 |
| D31A | Mcclaflin, Tow baz=322,SNR=5.4 | 52.77 | 59 | P | | P | 01 45 03.2 | -0.3 |
| B34A | Aery, Baudette baz=323,SNR=8.3 | 52.89 | 56 | P | | P | 01 45 04.1 | -0.3 |
| D32A | Dogwood Acres, baz=323 | 52.99 | 58 | P | | P | 01 45 04.9 | -0.3 |
| MSU | Marysvale | 52.99 | 76 | eP | | P | 01 45 06.5 | +0.9 |
| MSU | Marysvale | 52.99 | 76 | eP | | P | 01 45 06.5 | +0.9 |
| C33A | Trail baz=323,SNR=10 | 53.01 | 57 | P | | P | 01 45 04.9 | -0.4 |
| P18A | Preston Nutter | 53.02 | 74 | eP | | P | 01 45 07.3 | +1.5 |
| E31A | Nome baz=323,SNR=6.4 | 53.08 | 59 | P | | P | 01 45 05.8 | -0.1 |
| EDW2 | Edwards Air Fo baz=324 | 53.09 | 83 | P | | P | 01 45 06.0 | -0.2 |
| SZCU | Shurtz Canyon comp=Z,18nm,1.7s | 53.29 | 77 | eP | | P | 01 45 08.5 | +0.7 |
| B35A | Bob, Littlefor baz=323,SNR=8.4 | 53.37 | 55 | P | | P | 01 45 07.5 | -0.4 |
| E32A | Braaten, Kindr baz=323 | 53.40 | 59 | P | | P | 01 45 07.7 | -0.5 |
| C34A | RKJ Ranch, Bem baz=323 | 53.45 | 56 | P | | P | 01 45 08.1 | -0.5 |
| D33A | AnnSam, Waubun baz=323,SNR=13 | 53.47 | 57 | P | | P | 01 45 08.5 | -0.2 |
| F31A | Hecla baz=323,SNR=6.4 | 53.48 | 60 | P | | P | 01 45 08.7 | -0.1 |
| O20A | White River Ci baz=323,SNR=6.0 | 53.56 | 72 | P | | P | 01 45 09.8 | +0.1 |
| O20A | White River Ci comp=Z,13nm,0.9s | 53.56 | 72 | eP | | P | 01 45 09.4 | -0.3 |
| TUQ | Turquoise Moun baz=324 | 53.65 | 81 | P | | P | 01 45 10.6 | +0.2 |
| BFSC | Mount Baldy Ra baz=324 | 53.77 | 83 | P | | P | 01 45 11.3 | +0.1 |
| D34A | Park Rapids baz=323,SNR=29 | 53.79 | 57 | P | | P | 01 45 10.8 | -0.2 |
| C35A | Jirik Farms, M baz=323,SNR=9.1 | 53.79 | 56 | P | | P | 01 45 10.5 | -0.5 |
| E33A | Westby DABS, E baz=323,SNR=20 | 53.91 | 58 | P | | P | 01 45 12.0 | +0.1 |
| HEC | Hector,Ludlow baz=324,SNR=5.6 | 53.94 | 82 | P | | P | 01 45 12.7 | +0.4 |
| F32A | Veblen baz=323,SNR=7.7 | 53.95 | 59 | P | | P | 01 45 12.0 | -0.2 |
| G31A | Conde baz=323 | 54.01 | 61 | P | | P | 01 45 12.2 | -0.4 |
| N23A | Red Feather La baz=323,SNR=8.7 | 54.02 | 69 | P | | P | 01 45 13.2 | +0.1 |
| N23A | Red Feather La comp=Z,14nm,0.9s | 54.02 | 69 | eP | | P | 01 45 13.6 | +0.5 |
| C36A | Pine Crest Far baz=324,SNR=8.5 | 54.21 | 55 | P | | P | 01 45 13.9 | -0.2 |
| E34A | Wadena baz=324,SNR=9.0 | 54.25 | 57 | P | | P | 01 45 14.5 | +0.1 |
| D35A | Remer baz=324,SNR=13 | 54.26 | 56 | P | | P | 01 45 14.2 | -0.2 |
| G32A | Webster baz=323,SNR=14 | 54.28 | 60 | P | | P | 01 45 14.6 | -0.1 |
| GMRC | Granite Mounta baz=324,SNR=6.6 | 54.30 | 81 | P | | P | 01 45 15.5 | +0.4 |
| SUSD | Miller baz=323 | 54.31 | 62 | P | | P | 01 45 14.3 | -0.6 |
| F33A | 5 Mile Ranch, baz=323,SNR=26 | 54.33 | 59 | P | | P | 01 45 15.0 | 0.0 |
| LDFC | Landfair comp=Z,15nm,0.9s | 54.33 | 81 | eP | | P | 01 45 15.8 | +0.5 |
| PV09 | Paradox Valley | 54.45 | 74 | eP | | P | 01 45 16.8 | +0.5 |
| FINES | FINESS Array B comp=Z,1.6nm,0.7s,baz=36,slow=12,SNR=2.3 | 54.46 | 338 | P | | P | 01 45 13.0 | -2.7 |
| FINES | | | | LR | | LR | 02 11 14.2 | |
| FINES | FINESS Array B comp=Z,32nm,21.6s,baz=84,slow=39 | 54.46 | 338 | P | | P | 01 45 13.0 | -2.7 |
| FINES | | | | pmax | | pmax | | |
| FINES | comp=Z,2.0nm,0.7s | | | MLR | | MLR | | |
| H31A | comp=Z,33nm,21.6s Wolsey | 54.49 | 61 | P | | P | 01 45 15.7 | -0.5 |
| C37A | Embarrass baz=324 | 54.49 | 55 | P | | P | 01 45 15.6 | -0.5 |
| MURC | Murrieta baz=324 | 54.51 | 84 | P | | P | 01 45 16.9 | +0.4 |
| E35A | Pequot Lakes baz=324,SNR=6.0 | 54.53 | 57 | P | | P | 01 45 16.2 | -0.2 |
| D36A | Goodland baz=324,SNR=6.6 | 54.54 | 56 | P | | P | 01 45 16.2 | -0.3 |
| PV10 | Paradox Valley | 54.59 | 74 | eP | | P | 01 45 18.7 | +1.4 |
| EYMN | Ely baz=324 | 54.59 | 54 | P | | P | 01 45 16.3 | -0.6 |
| U15A | North Rim comp=Z,9.8nm,1.1s | 54.60 | 78 | eP | | P | 01 45 18.4 | +0.9 |
| U15A | | | | eP | cP | PcP | 01 46 21.1 | +0.7 |
| BELC | Belle Mtn. Jos baz=324 | 54.77 | 82 | P | | P | 01 45 18.5 | -0.1 |
| G33A | Ortonville baz=324,SNR=32 | 54.78 | 59 | P | | P | 01 45 18.4 | +0.1 |
| F34A | Alexandria baz=324,SNR=10.0 | 54.79 | 58 | P | | P | 01 45 18.3 | -0.1 |
| PV05 | Paradox Valley | 54.80 | 74 | eP | | P | 01 45 19.4 | +0.6 |
| I31A | Royce, Wessing baz=324 | 54.82 | 62 | P | | P | 01 45 18.1 | -0.5 |
| D37A | Cotton baz=324,SNR=7.7 | 54.85 | 55 | P | | P | 01 45 18.4 | -0.4 |
| PFO | Pinyon Flats O baz=324 | 54.86 | 83 | P | | P | 01 45 19.1 | 0.0 |
| PFO | Pinyon Flats O comp=Z,6.0nm,0.8s | 54.86 | 83 | eP | | P | 01 45 19.4 | +0.2 |
| PFO | | | | pmax | | pmax | | |
| PFO | Pinyon Flats O comp=Z,5.8nm,0.8s | 54.86 | 83 | eP | | P | 01 45 19.4 | +0.2 |
| C38A | Sawbill Land. baz=324 | 54.86 | 54 | P | | P | 01 45 18.2 | -0.7 |
| XPFO | Piæon Flat comp=Z,6.1nm,0.8s | 54.87 | 83 | eP | | P | 01 45 19.4 | +0.2 |
| H32A | Carlson Farm, baz=324,SNR=27 | 54.91 | 61 | P | | P | 01 45 19.0 | -0.2 |
| PV01 | Paradox Valley | 55.00 | 73 | eP | | P | 01 45 20.5 | +0.3 |
| F35A | Swanville baz=324,SNR=17 | 55.03 | 58 | P | | P | 01 45 20.1 | 0.0 |
| E36A | McGregor baz=324,SNR=10 | 55.04 | 56 | P | | P | 01 45 20.0 | -0.1 |
| ISCO | Idaho Springs baz=324 | 55.04 | 70 | P | | P | 01 45 21.0 | +0.3 |
| IRM | Iron Mountain baz=324,SNR=14 | 55.06 | 81 | P | | P | 01 45 21.1 | +0.7 |
| H33A | Prehn Over Nor baz=324,SNR=7.5 | 55.06 | 60 | P | | P | 01 45 20.3 | -0.1 |
| G34A | Benson baz=324,SNR=18 | 55.08 | 59 | P | | P | 01 45 20.6 | +0.2 |
| AAK | Ala-Archa comp=Z,8.0nm,1.4s | 55.10 | 296 | eP | | P | 01 45 22.3 | +1.5 |
| AAK | | | | pmax | | pmax | | |
| AAK | Ala-Archa comp=Z,8.4nm,1.4s | 55.10 | 296 | eP | | P | 01 45 22.3 | +1.5 |
| C39A | Grand Marais baz=325 | 55.23 | 53 | P | | P | 01 45 19.6 | -1.9 |
| BC3 | Big Chuckawall baz=325 | 55.32 | 82 | P | | P | 01 45 22.2 | -0.2 |
| J31A | Geddes baz=324 | 55.33 | 62 | P | | P | 01 45 21.8 | -0.5 |
| E37A | Wrenshall baz=324 | 55.34 | 56 | P | | P | 01 45 22.1 | -0.2 |
| AKTO | Aktyubinsk comp=Z,138nm,18.8s,baz=33,slow=40 | 55.40 | 313 | LR | | LR | 02 12 51.3 | |
| PDMCI | Parker Dam,Lak baz=324 | 55.43 | 81 | P | | P | 01 45 23.4 | +0.3 |
| F36A | Milaca baz=324,SNR=10 | 55.46 | 57 | P | | P | 01 45 22.7 | -0.4 |
| MONP2 | Monument Peak baz=325 | 55.46 | 83 | P | | P | 01 45 23.6 | 0.0 |
| H34A | Spellman Lake, baz=324,SNR=23 | 55.48 | 59 | P | | P | 01 45 23.4 | 0.0 |
| I33A | Coleman baz=324,SNR=8.9 | 55.55 | 60 | P | | P | 01 45 23.5 | -0.3 |
| G35A | Watkins baz=324,SNR=10 | 55.58 | 58 | P | | P | 01 45 24.2 | +0.1 |
| J32A | Parkston baz=324,SNR=6.0 | 55.65 | 62 | P | | P | 01 45 23.7 | -0.8 |
| E38A | The Farm, Brul baz=325,SNR=6.1 | 55.65 | 55 | P | | P | 01 45 24.0 | -0.5 |
| ABKAR | Akulak array comp=Z,18nm,0.7s | 55.67 | 311 | eP | | P | 01 45 26.2 | +1.6 |
| Y12C | Blythe baz=325 | 55.69 | 81 | P | | P | 01 45 25.5 | +0.6 |
| Y12C | Blythe comp=Z,12nm,0.8s | 55.69 | 81 | eP | | P | 01 45 26.0 | +1.1 |
| SWSC | Sam W. Stewart baz=325 | 55.72 | 83 | P | | P | 01 45 25.4 | +0.2 |
| OGNE | Ogallala baz=324 | 55.76 | 66 | P | | P | 01 45 25.5 | 0.0 |
| WUAZ | Wupatki baz=324,SNR=7.4 | 55.78 | 77 | P | | P | 01 45 26.5 | +0.7 |
| WUAZ | Wupatki comp=Z,21nm,1.4s | 55.78 | 77 | eP | | P | 01 45 26.6 | +0.8 |
| IKP | In-Ko-Pah, Jac baz=325 | 55.81 | 83 | P | | P | 01 45 26.1 | +0.1 |
| K31A | O'Neill baz=324 | 55.86 | 63 | P | | P | 01 45 25.8 | -0.3 |
| H35A | Sunnyside Ranc baz=324,SNR=20 | 55.86 | 59 | P | | P | 01 45 26.3 | +0.3 |
| G36A | St. Michael baz=324,SNR=7.3 | 55.87 | 57 | P | | P | 01 45 25.9 | -0.3 |
| KMI | Kunming comp=Z,18nm,1.0s | 55.88 | 261 | P | | P | 01 45 27.3 | +0.6 |
| KMI | | | | pmax | | pmax | | |
| ECSD | EROS Data Cent baz=324,SNR=19 | 55.88 | 60 | P | | P | 01 45 25.8 | -0.5 |
| ECSD | EROS Data Cent comp=Z,61nm,1.4s | 55.88 | 60 | eP | | P | 01 45 25.7 | -0.5 |
| Q24A | Divide baz=324 | 55.93 | 70 | P | | P | 01 45 27.1 | +0.1 |
| F37A | Hinrichs Farm, baz=325 | 55.94 | 56 | P | | P | 01 45 26.1 | -0.4 |
| I34A | Hadley baz=324,SNR=24 | 55.96 | 60 | P | | P | 01 45 26.8 | 0.0 |
| F38A | Pierce - Schro baz=325,SNR=14 | 56.05 | 56 | P | | P | 01 45 27.6 | +0.2 |
| J33A | Davis baz=324,SNR=7.6 | 56.07 | 61 | P | | P | 01 45 27.0 | -0.6 |
| MNAS | Manas comp=Z,7.0nm,1.4s | 56.09 | 297 | P | | P | 01 45 30.2 | +2.3 |
| MNAS | | | | pmax | | pmax | | |
| GLA | Glamis baz=325 | 56.11 | 82 | P | | P | 01 45 28.7 | +0.6 |
| GLA | Glamis comp=Z,9.0nm,0.6s | 56.11 | 82 | eP | | P | 01 45 29.0 | +1.0 |
| GLA | | | | pmax | | pmax | | |
| GLA | Glamis comp=Z,8.7nm,0.6s | 56.11 | 82 | eP | | P | 01 45 29.0 | +1.0 |
| S22A | 4UR Ranch, Cre baz=324,SNR=7.4 | 56.13 | 72 | P | | P | 01 45 29.2 | +0.7 |
| S22A | 4UR Ranch, Cre comp=Z,23nm,1.4s | 56.13 | 72 | eP | | P | 01 45 29.4 | +0.9 |
| K32A | Verdigre baz=324 | 56.17 | 62 | P | | P | 01 45 27.4 | -0.9 |
| SPMN | Marine on St. baz=325,SNR=8.8 | 56.27 | 57 | P | | P | 01 45 28.9 | -0.1 |
| SPMN | Marine on St. comp=Z,27nm,0.8s | 56.27 | 57 | eP | | P | 01 45 28.8 | -0.1 |
| Y14A | Wickenburg comp=Z,19nm,0.8s | 56.27 | 80 | eP | | P | 01 45 29.9 | +0.7 |
| H36A | Jessenland, He baz=325,SNR=12 | 56.33 | 58 | P | | P | 01 45 29.8 | +0.4 |
| E40A | Wakefield baz=325 | 56.45 | 54 | P | | P | 01 45 29.7 | -0.6 |
| KKAR | Karatay Array comp=Z,18nm,0.6s | 56.45 | 299 | eP | | P | 01 45 32.0 | +1.6 |
| KKAR | | | | pmax | | pmax | | |
| KKAR | Karatay Array comp=Z,18nm,0.6s | 56.45 | 299 | eP | | P | 01 45 32.0 | +1.6 |
| D41A | Chassel baz=326 | 56.46 | 53 | P | | P | 01 45 29.9 | -0.4 |
| F39A | Loretta baz=325,SNR=7.5 | 56.47 | 55 | P | | P | 01 45 30.2 | -0.2 |
| I35A | Creekview Farm baz=325,SNR=12 | 56.48 | 59 | P | | P | 01 45 30.2 | -0.3 |
| J34A | George baz=324,SNR=15 | 56.53 | 60 | P | | P | 01 45 30.6 | -0.2 |
| K33A | Hardington baz=324,SNR=8.1 | 56.63 | 62 | P | | P | 01 45 31.6 | 0.0 |
| X16A | Lo Mia Camp, P comp=Z,4.7nm,0.9s | 56.64 | 78 | eP | | P | 01 45 33.5 | +1.5 |
| L32A | Elgin baz=324,SNR=5.8 | 56.68 | 63 | P | | P | 01 45 31.7 | -0.3 |
| G38A | Ridgeland baz=325,SNR=5.4 | 56.70 | 56 | P | | P | 01 45 31.6 | -0.5 |
| H37A | Dierke Farm, C baz=325 | 56.75 | 57 | P | | P | 01 45 31.7 | -0.7 |
| I36A | Fitzsimmons Fa baz=325,SNR=6.6 | 56.75 | 58 | P | | P | 01 45 32.4 | 0.0 |
| SDCO | Great Sand Dun baz=324,SNR=6.8 | 56.75 | 71 | P | | P | 01 45 33.4 | +0.5 |
| SDCO | Great Sand Dun comp=Z,10nm,1.3s | 56.75 | 71 | eP | | P | 01 45 33.5 | +0.7 |
| J35A | Milford baz=325,SNR=15 | 56.78 | 60 | P | | P | 01 45 32.5 | -0.1 |
| F40A | Park Falls baz=325 | 56.79 | 54 | P | | P | 01 45 32.1 | -0.6 |
| L33A | Hoskins baz=325 | 56.87 | 62 | P | | P | 01 45 32.6 | -0.7 |
| W18A | Petrified Fore baz=325 | 56.88 | 76 | P | | P | 01 45 33.8 | 0.0 |
| G39A | Holcombe baz=325 | 56.88 | 56 | P | | P | 01 45 32.7 | -0.6 |
| H38A | Maiden Rock baz=325 | 56.93 | 57 | P | | P | 01 45 33.4 | -0.3 |
| KSH | Kashi | 56.95 | 293 | P | | P | 01 45 37.8 | +3.7 |
| KSH | | | | pP | | sP | 01 45 40.5 | +1.9 |
| KSH | | | | PcP | | PcP | 01 46 31.5 | +2.2 |
| KSH | | | | PP | | PP | 01 47 45.8 | +5.6 |
| KSH | | | | S | | S | 01 53 30.8 | +2.9 |
| KSH | | | | ScS | | ScS | 01 55 22.8 | -0.4 |
| KSH | | | | SS | | SS | 01 57 20.5 | +4.9 |
| KSH | comp=Z,6.0nm,1.2s | | | pmax | | pmax | | |
| K34A | Le Mars baz=325,SNR=26 | 56.95 | 61 | P | | P | 01 45 33.8 | -0.1 |
| I37A | Lemond, Waseca baz=325,SNR=9.9 | 57.01 | 58 | P | | P | 01 45 34.4 | +0.1 |
| KSCO | Kaye Shedlock' baz=324 | 57.05 | 68 | P | | P | 01 45 35.0 | +0.2 |
| KSCO | Kaye Shedlock' comp=Z,37nm,1.0s | 57.05 | 68 | eP | | P | 01 45 35.7 | +1.0 |
| NB2 | NORSAR Subarra comp=Z,13nm,1.1s,baz=14,slow=7.4 | 57.08 | 346 | P | | P | 01 45 32.3 | -2.2 |
| NOA | NORSAR Array B comp=Z,5.8nm,1.1s,baz=14,slow=6.4,SNR=6.4 | 57.08 | 346 | P | | P | 01 45 32.8 | -1.7 |
| NOA | NORSAR Array B | 57.08 | 346 | P | | P | 01 45 32.8 | -1.7 |
| NOA | comp=Z,3.0nm,0.9s | | | pmax | | pmax | | |
| SCHQ | Schefferville comp=Z,8.3nm,0.7s,baz=330,slow=5.8,SNR=11 | 57.09 | 34 | P | | P | 01 45 33.0 | -1.7 |
| BGNE | Belgrade baz=325,SNR=8.8 | 57.10 | 63 | P | | P | 01 45 34.9 | -0.1 |
| BGNE | Belgrade comp=Z,105nm,1.0s | 57.10 | 63 | eP | | P | 01 45 35.0 | 0.0 |
| J36A | Seneca 1, Swea baz=325,SNR=16 | 57.18 | 59 | P | | P | 01 45 35.3 | -0.1 |
| X18A | Snowflake comp=Z,32nm,1.5s | 57.26 | 77 | eP | | P | 01 45 36.7 | +0.3 |
| G40A | Rib Lake baz=326 | 57.29 | 55 | P | | P | 01 45 35.6 | -0.7 |
| K35A | Storm Lake baz=325,SNR=13 | 57.29 | 60 | P | | P | 01 45 35.8 | -0.5 |
| H39A | Augusta baz=326 | 57.34 | 56 | P | | P | 01 45 36.2 | -0.4 |
| M33A | Taylor Creek F baz=325,SNR=6.5 | 57.39 | 62 | P | | P | 01 45 36.8 | -0.2 |
| L34A | Svendsen Farm, baz=325,SNR=7.0 | 57.42 | 62 | P | | P | 01 45 36.7 | -0.5 |
| I38A | Scanlan Farm, baz=325 | 57.43 | 57 | P | | P | 01 45 36.7 | -0.5 |
| J37A | Redenius Farm, baz=325,SNR=7.9 | 57.52 | 59 | P | | P | 01 45 37.7 | -0.2 |
| MHTCO | State Highway comp=Z,24nm,1.0s | 57.63 | 71 | eP | | P | 01 45 39.1 | +0.1 |
| L35A | Bielow Farm, R baz=325 | 57.66 | 61 | P | | P | 01 45 38.2 | -0.7 |
| K36A | Gilmore City baz=325,SNR=6.1 | 57.70 | 60 | P | | P | 01 45 38.8 | -0.3 |
| M34A | Aspy Farms, Fr baz=325 | 57.71 | 62 | P | | P | 01 45 38.9 | -0.3 |
| G41A | Antigo baz=326 | 57.74 | 54 | P | | P | 01 45 38.8 | -0.7 |
| H40A | Chili baz=326 | 57.75 | 55 | P | | P | 01 45 39.0 | -0.4 |
| T25A | Trinidad baz=325,SNR=5.3 | 57.75 | 71 | P | | P | 01 45 39.9 | +0.1 |
| T25A | Trinidad comp=Z,14nm,1.2s | 57.75 | 71 | eP | | P | 01 45 40.4 | +0.6 |
| I39A | Houston baz=326 | 57.92 | 57 | P | | P | 01 45 39.8 | -0.8 |
| K37A | Belmond baz=325,SNR=11 | 57.93 | 59 | P | | P | 01 45 40.4 | -0.4 |
| N33A | J Bar K, Exete baz=325 | 57.95 | 63 | P | | P | 01 45 40.3 | -0.7 |
| J38A | Wedel Dairy, R baz=326 | 57.96 | 58 | P | | P | 01 45 40.4 | -0.6 |
| OBN | Obninsk | 57.97 | 329 | eP | | P | 01 45 43.5 | +2.7 |
| OBN | | | | pmax | | pmax | | |
| OBN | comp=Z,5.0nm,1.1s | | | MLR | | MLR | | |
| 214A | comp=Z,324nm,19.0s Organ Pipe Nat baz=326 | 57.98 | 81 | P | | P | 01 45 41.6 | +0.3 |
| L36A | Harm Buss Farm baz=325 | 58.04 | 60 | P | | P | 01 45 41.0 | -0.6 |
| H41A | Junction City baz=326 | 58.05 | 55 | P | | P | 01 45 40.8 | -0.7 |
| M35A | Neola baz=325,SNR=6.2 | 58.12 | 61 | P | | P | 01 45 41.7 | -0.4 |
| I40A | Norwalk baz=326 | 58.26 | 56 | P | | P | 01 45 42.0 | -1.1 |
| J39A | Decorah baz=326 | 58.27 | 57 | P | | P | 01 45 42.1 | -1.0 |
| N34A | Lincoln baz=325,SNR=14 | 58.29 | 62 | P | | P | 01 45 42.8 | -0.5 |
| G43A | Wallace baz=326 | 58.30 | 53 | P | | P | 01 45 42.8 | -0.4 |
| K38A | Parkersburg baz=326 | 58.39 | 58 | P | | P | 01 45 43.2 | -0.8 |
| L37A | Phoenix Point, baz=326,SNR=5.2 | 58.41 | 60 | P | | P | 01 45 43.5 | -0.7 |
| I41A | Arkdale baz=326 | 58.42 | 56 | P | | P | 01 45 43.8 | -0.4 |
| O33A | Hebron baz=325,SNR=17 | 58.44 | 64 | P | | P | 01 45 43.8 | -0.6 |
| CBKS | Cedar Bluff baz=325,SNR=6.7 | 58.51 | 66 | P | | P | 01 45 44.7 | -0.3 |
| CBKS | Cedar Bluff comp=Z,42nm,0.8s | 58.51 | 66 | eP | | P | 01 45 45.1 | +0.1 |
| CBKS | | | | pmax | | pmax | | |
| CBKS | Cedar Bluff comp=Z,42nm,0.8s | 58.51 | 66 | eP | | P | 01 45 45.1 | +0.1 |
| M36A | Felix, Anita baz=325 | 58.52 | 61 | P | | P | 01 45 44.2 | -0.7 |
| ANMO | Albuquerque baz=325 | 58.58 | 74 | P | | P | 01 45 45.8 | +0.2 |
| ANMO | Albuquerque comp=Z,3.0nm,1.2s | 58.58 | 74 | iP | | P | 01 45 46.0 | +0.4 |
| ANMO | | | | pmax | | pmax | | |
| N35A | Tabor baz=326,SNR=24 | 58.64 | 62 | P | | P | 01 45 46.0 | +0.2 |
| TUC | Tucson baz=326 | 58.67 | 79 | P | | P | 01 45 46.5 | +0.4 |
| TUC | Tucson comp=Z,3.0nm,0.9s | 58.67 | 79 | eP | | P | 01 45 47.2 | +1.0 |
| TUC | | | | pmax | | pmax | | |
| TUC | Tucson comp=Z,2.9nm,0.9s | 58.67 | 79 | eP | | P | 01 45 47.2 | +1.0 |
| K39A | Oelwein baz=326 | 58.71 | 58 | P | | P | 01 45 44.7 | -1.5 |
| L38A | Oak Wood Farm, baz=326 | 58.73 | 59 | P | | P | 01 45 45.5 | -0.9 |
| O34A | Beatrice baz=326,SNR=14 | 58.74 | 63 | P | | P | 01 45 45.7 | -0.7 |
| SCIA | State Center baz=326 | 58.82 | 59 | P | | P | 01 45 46.6 | -0.4 |
| SCIA | State Center comp=Z,44nm,0.9s | 58.82 | 59 | eP | | P | 01 45 46.7 | -0.3 |
| M37A | Trindle Farm, baz=326,SNR=7.4 | 58.88 | 60 | P | | P | 01 45 47.2 | -0.2 |
| I42A | Draeger Farm, baz=326 | 58.95 | 55 | P | | P | 01 45 47.2 | -0.6 |
| N36A | Muff Farm, Cla baz=326,SNR=6.2 | 58.97 | 61 | P | | P | 01 45 47.9 | -0.1 |
| O35A | Humboldt baz=326 | 59.01 | 62 | P | | P | 01 45 47.7 | -0.6 |
| K40A | Colesburg baz=326 | 59.03 | 57 | P | | P | 01 45 47.3 | -1.1 |
| L39A | Vinton baz=326 | 59.15 | 58 | P | | P | 01 45 48.3 | -1.0 |
| P34A | Walnut Farm, R baz=326,SNR=16 | 59.20 | 63 | P | | P | 01 45 49.0 | -0.7 |
| M38A | Pleasantville baz=326,SNR=6.6 | 59.23 | 60 | P | | P | 01 45 49.3 | -0.5 |
| I43A | Langenfeld Bro baz=327 | 59.26 | 54 | P | | P | 01 45 48.8 | -1.2 |
| J42A | Columbus baz=327 | 59.34 | 55 | P | | P | 01 45 49.7 | -0.9 |
| N37A | Lee Faris, Mou baz=326,SNR=7.8 | 59.34 | 61 | P | | P | 01 45 50.3 | -0.3 |
| K41A | Shullsburg baz=326 | 59.45 | 57 | P | | P | 01 45 50.0 | -1.3 |
| L40A | Anamosa baz=326 | 59.52 | 58 | P | | P | 01 45 50.6 | -1.2 |
| O36A | Bolckow baz=326,SNR=6.6 | 59.53 | 62 | P | | P | 01 45 51.6 | -0.4 |
| P35A | Duane Minner, baz=326,SNR=8.6 | 59.57 | 63 | P | | P | 01 45 51.5 | -0.8 |
| M39A | Webster baz=326,SNR=6.7 | 59.61 | 59 | P | | P | 01 45 51.6 | -0.8 |
| VLDQ | Val d'Or comp=Z,19nm,0.9s | 59.66 | 44 | eP | | P | 01 45 50.0 | -2.6 |
| KSU1 | Kansas State U baz=326,SNR=10 | 59.67 | 64 | P | | P | 01 45 52.1 | -0.8 |
| KSU1 | Kansas State U comp=Z,32nm,0.7s | 59.67 | 64 | eP | | P | 01 45 52.4 | -0.5 |
| Q34A | Chapman baz=326 | 59.67 | 64 | P | | P | 01 45 52.1 | -0.8 |
| K42A | Prairie Point, baz=327 | 59.70 | 56 | P | | P | 01 45 51.9 | -1.1 |
| N38A | Joes South For baz=326,SNR=11 | 59.73 | 60 | P | | P | 01 45 52.6 | -0.7 |
| L41A | Preston baz=327 | 59.81 | 57 | P | | P | 01 45 52.5 | -1.3 |
| P36A | Good Intent, A baz=326 | 59.85 | 62 | P | | P | 01 45 53.2 | -0.9 |
| O37A | Wolven Farm, M baz=326,SNR=5.3 | 59.86 | 61 | P | | P | 01 45 53.5 | -0.7 |
| M40A | Post Highland baz=326 | 59.95 | 58 | P | | P | 01 45 53.4 | -1.4 |
| N39A | Derby Farms, D baz=326,SNR=7.5 | 59.97 | 59 | P | | P | 01 45 54.0 | -0.9 |
| R34A | Isabella, Hill baz=326,SNR=6.1 | 60.05 | 65 | P | | P | 01 45 54.6 | -1.0 |
| Q35A | Mercer Eighty, baz=326 | 60.12 | 63 | P | | P | 01 45 54.9 | -1.1 |
| 319A | Douglas comp=Z,12nm,1.1s | 60.16 | 79 | eP | | P | 01 45 58.1 | +1.6 |
| O38A | Galt baz=326 | 60.18 | 61 | P | | P | 01 45 55.6 | -0.8 |
| L42A | Oliver, Polo baz=327 | 60.21 | 57 | P | | P | 01 45 55.1 | -1.5 |
| P37A | Lathrop baz=326,SNR=15 | 60.25 | 62 | P | | P | 01 45 56.2 | -0.6 |
| Q36A | Arnold C. Orve baz=326 | 60.29 | 63 | P | | P | 01 45 56.1 | -1.1 |
| N40A | Mertquake, Sal baz=327 | 60.35 | 59 | P | | P | 01 45 56.5 | -1.0 |
| M41A | Milan baz=327 | 60.38 | 58 | P | | P | 01 45 56.2 | -1.5 |
| O39A | Kirksville baz=327 | 60.47 | 60 | P | | P | 01 45 57.5 | -0.9 |
| R35A | Emporia Munici baz=326 | 60.49 | 64 | P | | P | 01 45 57.3 | -1.2 |
| P38A | Dawn baz=326 | 60.57 | 61 | P | | P | 01 45 58.3 | -0.8 |
| S34A | Willow Spring baz=326 | 60.60 | 65 | P | | P | 01 45 58.1 | -1.2 |
| R36A | Gordon, Harris baz=326,SNR=6.2 | 60.80 | 63 | P | | P | 01 45 59.5 | -1.1 |
| Q37A | Longview Farm, baz=326,SNR=12 | 60.80 | 62 | P | | P | 01 45 59.5 | -1.1 |
| N41A | Harden Midland baz=327 | 60.80 | 58 | P | | P | 01 45 59.2 | -1.4 |
| U32A | Winter Ranch, baz=326 | 60.85 | 67 | P | | P | 01 46 00.2 | -0.8 |
| AMTX | Amarillo | 60.86 | 70 | P | | P | 01 46 00.5 | -0.7 |

baz=326
**AMTX Amarillo** 60.86 70 *e*P P 01 46 01.1 -0.1
comp=Z,17nm,1.0s
**O40A La Belle** 60.86 59 P P 01 46 00.2 -0.9
baz=327,SNR=14
**S35A Otter Creek Ra** 60.97 64 P P 01 46 00.8 -1.0
baz=326,SNR=7.2
**M43A Waltham Townsh** 60.98 57 P P 01 46 00.5 -1.3
baz=327
**P39B Salisbury** 61.02 61 P P 01 46 00.9 -1.2
baz=327
**N42A Yates City** 61.04 58 P P 01 46 00.9 -1.4
baz=327
**Q38A Cooks Store, C** 61.09 61 P P 01 46 01.6 -1.0
baz=327,SNR=10
**MSTX Muleshoe** 61.11 72 P P 01 46 02.2 -0.8
baz=326
**MSTX Muleshoe** 61.11 72 *e*P P 01 46 03.0 0.0
comp=Z,9.0nm,0.8s
**T34A McClaskey Farm** 61.13 65 P P 01 46 01.7 -1.2
baz=326,SNR=7.5
**S36A Lake Cedric, C** 61.25 64 P P 01 46 02.4 -1.4
baz=327,SNR=9.4
**P40A Paris** 61.28 60 P P 01 46 02.9 -1.0
baz=327,SNR=13
**O41A Passleys Farm,** 61.29 59 P P 01 46 02.6 -1.3
baz=327,SNR=7.3
**Q39A Willow Grove F** 61.29 61 P P 01 46 02.9 -1.1
baz=327
**N43A Stutzman Famil** 61.31 57 P P 01 46 02.7 -1.4
baz=327
**T35A Sooner Cattle** 61.52 65 P P 01 46 04.4 -1.1
baz=327
**S37A Fort Scott** 61.56 63 P P 01 46 04.4 -1.4
baz=327
**HDIL Hopedale** 61.58 57 P P 01 46 04.5 -1.4
baz=327,SNR=5.2
**HDIL Hopedale** 61.58 57 *e*P P 01 46 03.9 -2.0
comp=Z,33nm,0.8s
**P41A Barry, Barry** 61.58 59 P P 01 46 04.7 -1.2
baz=327
**R38A Fenwick Farm,** 61.61 62 P P 01 46 04.5 -1.6
baz=327,SNR=8.9
**T36A Boggs Farm, Ca** 61.68 64 P P 01 46 05.4 -1.3
baz=327,SNR=6.1
**Q40A Laux Farm, Aux** 61.72 60 P P 01 46 05.8 -1.0
baz=327,SNR=11
**MNTX Cornudas Mount** 61.76 75 P P 01 46 07.7 +0.5
baz=326
**MNTX Cornudas Mount** 61.76 75 *e*P P 01 46 08.1 +0.8
comp=Z,8.9nm,1.2s
**O43A Sugar Creek Fa** 61.80 58 P P 01 46 06.2 -1.2
baz=328
**N44A Piper City** 61.85 56 P P 01 46 06.7 -1.1
baz=326
**U35A Pawnee** 61.87 65 P P 01 46 06.8 -1.1
baz=327
**U35A Pawnee** 61.87 65 *e*P P 01 46 07.2 -0.7
comp=Z,15nm,0.8s
**R39A Chumby, Stover** 61.88 61 P P 01 46 06.8 -1.1
baz=327
**P42A Winchester** 61.96 59 P P 01 46 07.4 -1.0
baz=327
**T37A Cheneyville 18** 62.05 64 P P 01 46 07.7 -1.4
baz=327,SNR=14
**M46A Old House Fiel** 62.06 55 P P 01 46 08.0 -1.1
baz=328
**S38A Stockton** 62.07 63 P P 01 46 07.5 -1.7
baz=327,SNR=20
**Q41A Truxton** 62.11 60 P P 01 46 08.5 -1.0
baz=327,SNR=9.9
**R40A Maddies Statio** 62.23 61 P P 01 46 09.1 -1.2
baz=327,SNR=8.3
**P43A Skaggs, Pawnee** 62.25 58 P P 01 46 09.0 -1.4
baz=328
**O44A Mansfield** 62.26 57 P P 01 46 08.9 -1.5
baz=328
**S39A Bolivar** 62.27 62 P P 01 46 09.1 -1.5
baz=327,SNR=12
**U36A Oologah** 62.30 65 P P 01 46 09.9 -0.9
baz=327
**WMOK Wichita Mounta** 62.31 68 P P 01 46 10.4 -0.5
baz=327
**WMOK Wichita Mounta** 62.31 68 *e*P P 01 46 10.5 -0.5
WMOK pmax pmax
comp=Z,21nm,1.0s
**WMOK Wichita Mounta** 62.31 68 *e*P P 01 46 10.5 -0.5
comp=Z,21nm,1.0s
**V35A Meyer Ranch, C** 62.33 66 P P 01 46 10.1 -0.9
baz=327
**AAM Ann Arbor** 62.36 52 P P 01 46 10.4 -0.7
baz=329
**T38A Diamond** 62.40 63 P P 01 46 10.1 -1.3
baz=327,SNR=12
**Q42A Golden Eagle** 62.44 59 P P 01 46 10.6 -1.1
baz=328,SNR=5.9
**O45A Potomac** 62.48 56 P P 01 46 10.8 -1.2
baz=328
**OK021 N3530 Road, Sp** 62.52 66 *e*P P 01 46 11.8 -0.5
**U37A Salina** 62.56 64 P P 01 46 11.5 -1.1
baz=327,SNR=8.0
**OK022 N3560 Road, Pr** 62.60 66 *e*P P 01 46 12.3 -0.5
comp=Z,21nm,0.8s
**R41A Rosebud** 62.60 60 P P 01 46 11.6 -1.2
baz=328,SNR=12
**TUL1 Leonard** 62.68 65 P P 01 46 12.3 -1.0
baz=327
**S40A Lebanon** 62.70 62 P P 01 46 12.3 -1.2
baz=327,SNR=11
**V36A Jenks** 62.71 65 P P 01 46 12.6 -1.0
baz=327,SNR=6.5
**V36A Jenks** 62.71 65 *e*P P 01 46 12.6 -1.0
comp=Z,18nm,0.8s
**Q43A New Douglas** 62.77 59 P P 01 46 12.6 -1.3
baz=328
**P44A Sand Creek, Wi** 62.77 57 P P 01 46 12.6 -1.3
baz=328
**T39A Clever** 62.81 63 P P 01 46 12.7 -1.5
baz=327,SNR=9.4
**W35A Tecumseh** 62.83 66 P P 01 46 13.3 -1.0
baz=327
**U38A Gravette** 62.86 64 P P 01 46 13.1 -1.4
baz=327,SNR=11
**CCM Cathedral Cave** 62.86 60 P P 01 46 13.2 -1.3
baz=328
**CCM Cathedral Cave** 62.86 60 *e*P P 01 46 13.5 -1.0
CCM pmax pmax
comp=Z,19nm,1.0s
**CCM Cathedral Cave** 62.86 60 *e*P P 01 46 13.5 -1.0
comp=Z,18nm,1.0s
**R42A Luebbering** 62.86 60 P P 01 46 13.4 -1.2
baz=328,SNR=11
**V37A Hulbert** 62.99 65 P P 01 46 14.1 -1.3
baz=327
**S41A Jillco Farms,** 63.04 61 P P 01 46 14.5 -1.2
baz=328,SNR=16
**T40A Mansfield** 63.07 62 P P 01 46 14.5 -1.4
baz=328,SNR=10
**Q44A Meyer Farm, Va** 63.09 58 P P 01 46 14.7 -1.3
baz=328
**O47A Sheridan** 63.12 55 P P 01 46 14.6 -1.7
baz=328
**W36A Wetumka** 63.13 66 P P 01 46 15.6 -0.7
baz=327
**W36A Wetumka** 63.13 66 *e*P P 01 46 16.1 -0.3
comp=Z,15nm,0.9s
**HHAR Hobbs** 63.18 63 *e*P P 01 46 15.5 -1.2
comp=Z,48nm,0.8s
**P46A Rosedale** 63.23 56 P P 01 46 16.0 -0.9
baz=328
**R43A Red Bud** 63.23 59 P P 01 46 15.4 -1.5
baz=328
**FVM French Village** 63.27 60 *e*P P 01 46 16.2 -1.0
FVM pmax pmax
comp=Z,29nm,0.8s
**FVM French Village** 63.27 60 *e*P P 01 46 16.2 -1.0
comp=Z,29nm,0.8s
**S42A Caledonia** 63.29 60 P P 01 46 16.0 -1.4
baz=328,SNR=7.5
**U39A Green Forest** 63.30 63 P P 01 46 16.1 -1.4
baz=328,SNR=17
**V38A Canehill** 63.33 64 P P 01 46 16.7 -1.0
baz=327,SNR=23
**CMAR Chiang Mai Arr** 63.38 260 P P 01 46 16.3 -1.8
comp=Z,6.8nm,0.3s,baz=4.7,slow=5.3,SNR=7.8
**X35A Drake** 63.41 67 P P 01 46 17.3 -0.9
baz=327,SNR=5.1
**X35A Drake** 63.41 67 *e*P P 01 46 17.7 -0.5
comp=Z,14nm,0.9s
**Q45A Warren Harvey,** 63.45 57 P P 01 46 17.0 -1.4
baz=328
**W37B Quinton** 63.48 65 P P 01 46 18.2 -0.5
baz=327
**T41A Mountain View** 63.49 61 P P 01 46 17.2 -1.5
baz=328,SNR=11
**X36A Centrahoma** 63.55 66 P P 01 46 18.5 -0.6
baz=327
**U40A Yellville** 63.60 63 P P 01 46 18.0 -1.4
baz=328,SNR=6.9
**R44A Waltonville** 63.61 59 P P 01 46 18.1 -1.3
baz=328
**ABTX Abilene, Hawle** 63.67 70 P P 01 46 19.3 -0.7
baz=327,SNR=7.9
**ABTX Abilene, Hawle** 63.67 70 *e*P P 01 46 19.6 -0.5
comp=Z,18nm,1.0s
**V39A Pettigrew** 63.68 63 P P 01 46 18.9 -1.2
baz=328,SNR=47
**P47A Martinsville** 63.72 56 P P 01 46 18.4 -1.8
baz=329
**S43A Fulton Ridge,** 63.77 60 P P 01 46 19.1 -1.4
baz=328,SNR=6.4
**T42A Van Buren** 63.79 61 P P 01 46 19.3 -1.4
baz=328,SNR=10
**Y35A Marietta** 63.79 67 P P 01 46 20.4 -0.4
baz=327,SNR=8.5
**AKASG Malin Array Be** 63.80 332 P P 01 46 18.1 -2.5
comp=Z,4.0nm,0.7s,baz=26,slow=6.6,SNR=7.0
AKASG LR LR 02 16 27.4
comp=Z,83nm,19.6s,baz=340,slow=38
**AKASG Malin Array Be** 63.80 332 *i* P P 01 46 21.2 +0.7
AKASG pmax pmax
comp=Z,4.0nm,0.7s
**KIEV Kiev** 63.81 332 ⇑ *i* P P 01 46 19.9 -0.7
KIEV pmax pmax
comp=Z,5.0nm,0.9s
**W38A Poteau** 63.95 65 P P 01 46 21.3 -0.4
baz=328
**X37A Clayton** 63.97 66 P P 01 46 21.3 -0.6
baz=328
**X37A Clayton** 63.97 66 *e*P P 01 46 21.8 -0.1
comp=Z,9.5nm,0.8s
**S44A Carbondale** 64.01 59 P P 01 46 20.9 -1.1
baz=328
**U41A Viola** 64.01 62 P P 01 46 20.8 -1.3
baz=328,SNR=7.7
**V40A Witts Springs** 64.07 63 P P 01 46 21.3 -1.3
baz=328,SNR=22
**T43A Greenville** 64.09 60 P P 01 46 21.1 -1.5
baz=328,SNR=6.9
**Q47A Bedord North L** 64.12 56 P P 01 46 21.3 -1.6
baz=329
**Y36A Durant** 64.14 67 P P 01 46 22.7 -0.4
baz=328,SNR=9.2
**X38A Whitesboro** 64.14 65 P P 01 46 22.8 -0.2
baz=328,SNR=5.8
**W39A Magazine** 64.16 64 P P 01 46 22.3 -0.8
baz=328,SNR=6.7
**PBMO Poplar Bluff** 64.28 60 *e*P P 01 46 22.9 -1.0
comp=Z,16nm,0.8s
**U42A Revenden** 64.30 61 P P 01 46 22.9 -1.1
baz=328
**S45A Carrier Mills** 64.30 59 P P 01 46 22.8 -1.3
baz=328
**Y37A Hugo** 64.37 66 P P 01 46 24.2 -0.3
baz=328
**V41A Mountainview** 64.38 62 P P 01 46 23.1 -1.5
baz=328,SNR=11
**T44A Benton** 64.38 60 P P 01 46 23.2 -1.3
baz=328
**W40A Ferguson Farm,** 64.48 63 P P 01 46 24.5 -0.7
baz=328,SNR=17
**W40A Ferguson Farm,** 64.48 63 *e*P P 01 46 24.6 -0.6
comp=Z,76nm,0.8s
**TX31 Lajitas Ar. Si** 64.54 75 *e*P P 01 46 26.1 +0.3
**TXAR Lajitas Array** 64.54 75 P P 01 46 25.9 0.0
comp=Z,2.6nm,1.0s,baz=305,slow=4.4,SNR=18
TXAR LR LR 02 14 03.8
comp=Z,67nm,19.0s,baz=0.0,slow=36
**M54A Oil Creek Stat** 64.56 50 P P 01 46 24.0 -1.8
baz=330
**X39A Fountain Ranch** 64.59 65 P P 01 46 25.6 -0.5
baz=328,SNR=8.7
**Z36A Blue Ridge** 64.60 67 P P 01 46 25.4 -0.7
baz=328
**R47A Wooly Knot Far** 64.63 57 P P 01 46 24.2 -2.0
baz=329
**U43A Rector** 64.64 61 P P 01 46 25.2 -1.1
baz=328
**X301 Greenbrier Sit** 64.73 63 *e*P P 01 46 26.0 -0.9
comp=Z,14nm,0.9s
**WHAR Wooly Hollow** 64.74 63 *e*P P 01 46 26.1 -0.9
comp=Z,27nm,0.8s
**WCI Wyandotte Cave** 64.78 56 P P 01 46 25.6 -1.5
baz=329
**MIAR Mount Ida** 64.80 64 P P 01 46 26.8 -0.6
baz=328
**MIAR Mount Ida** 64.80 64 *e*P P 01 46 27.1 -0.2
MIAR pmax pmax
comp=Z,18nm,1.0s
**MIAR Mount Ida** 64.80 64 *e*P P 01 46 27.1 -0.2
comp=Z,18nm,1.0s
**R48A Northridge Ran** 64.81 56 P P 01 46 25.8 -1.5
baz=329
**Y38A Idabel** 64.81 65 P P 01 46 26.2 -1.2
baz=328
**W41B Gary Mavity, V** 64.86 63 P P 01 46 26.7 -1.0
baz=328,SNR=13
**Z37A Pogue Cattle C** 65.03 67 P P 01 46 28.5 -0.3
baz=328
**Y39A Lockesburg** 65.09 65 P P 01 46 28.7 -0.5
baz=328,SNR=6.2
**W42A Bald Knob** 65.09 62 P P 01 46 28.2 -1.0
baz=328
**U44B Burton Farm, H** 65.12 60 P P 01 46 28.8 -0.5
baz=329
**T46A Princeton** 65.13 58 P P 01 46 28.0 -1.4
baz=329
**X40A Basin Creek Fa** 65.18 64 P P 01 46 28.9 -0.8
baz=328,SNR=8.9
**WHTX Lake Whitney,** 65.21 69 P P 01 46 29.5 -0.6
baz=328
**136A Ennis** 65.22 68 P P 01 46 29.7 -0.5
baz=328
**Z38A Mt. Pleasant** 65.26 66 P P 01 46 29.8 -0.5
baz=328
**X41A Kaden, Bauxite** 65.31 63 P P 01 46 29.6 -1.0
baz=328
**V44A Blytheville** 65.32 61 P P 01 46 30.1 -0.5
baz=328
**U45A Rockin P Farm,** 65.36 59 P P 01 46 30.0 -0.9
baz=329
**S48A Wiedeman Farm,** 65.37 57 P P 01 46 29.9 -1.1
baz=329
**Y40A Okolona** 65.38 64 P P 01 46 30.4 -0.7
baz=328,SNR=7.3
**JCT Junction City** 65.40 71 P P 01 46 30.5 -0.8
baz=328
**JCT Junction City** 65.40 71 *e*P P 01 46 31.0 -0.3
JCT pmax pmax
comp=Z,40nm,1.6s
**JCT Junction City** 65.40 71 *e*P P 01 46 31.0 -0.3
comp=Z,40nm,1.6s
**137A Heron Place, G** 65.47 67 P P 01 46 31.2 -0.5
baz=328
**T47A Sharon Grove** 65.51 58 P P 01 46 30.6 -1.3
baz=329,SNR=5.1
**U46A Springville** 65.59 59 P P 01 46 31.5 -1.0
baz=329,SNR=6.7
**236A Katherine and** 65.62 68 P P 01 46 32.0 -0.7
baz=328
**Z39A Irene McRaven,** 65.63 65 P P 01 46 31.8 -1.0
baz=328
**X42A Stuttgart** 65.65 63 P P 01 46 32.1 -0.8
baz=328
**T48A Bowling Green** 65.70 57 P P 01 46 32.4 -0.7
baz=329
**138A Matatall Enter** 65.72 66 P P 01 46 32.9 -0.4
baz=328
**WLAR White Oak Lake** 65.73 64 *e*P P 01 46 33.5 +0.1
comp=Z,28nm,1.1s
**Y41A Eaglette Beard** 65.79 64 P P 01 46 33.5 -0.3
baz=328,SNR=7.9
**V45A Humboldt** 65.79 60 P P 01 46 32.4 -1.3
baz=329
**U47A Clarksville** 65.90 58 P P 01 46 33.5 -0.9
baz=329
**GEYT Alibeck** 65.93 305 P P 01 46 33.5 -1.2
comp=Z,1.6nm,0.6s,baz=54,slow=7.7,SNR=5.0
GEYT LR LR 02 17 30.6
comp=Z,86nm,18.6s,baz=40,slow=38
**WVT Waverly** 65.94 59 P P 01 46 33.7 -0.9
baz=329
**WVT Waverly** 65.94 59 *e*P P 01 46 33.8 -0.9
WVT pmax pmax
comp=Z,24nm,0.8s
**WVT Waverly** 65.94 59 *e*P P 01 46 33.8 -0.9
comp=Z,24nm,0.8s
**Z40A Long Farm, Mag** 65.97 65 P P 01 46 34.6 -0.3
baz=328
**X43A Marvell** 66.00 62 P P 01 46 34.4 -0.7
baz=329
**139A Bunkhouse Ranc** 66.02 66 P P 01 46 35.0 -0.2
baz=328
**O56A Blue Knob Stat** 66.05 50 P P 01 46 33.5 -1.9
baz=331
**U48A Cassie Pea, Po** 66.15 58 P P 01 46 34.8 -1.3
baz=329
**435B Jarrell** 66.17 70 P P 01 46 35.6 -0.6
baz=328
**Y42A Garnett, Star** 66.19 63 P P 01 46 35.7 -0.6
baz=328
**W45A Hickory Valley** 66.19 60 P P 01 46 35.7 -0.6
baz=329
**Z41A Richland Creek** 66.23 64 P P 01 46 36.3 -0.3
baz=328
**CLL Collm** 66.32 343 *e*P P 01 46 37.0 +0.1
CLL pmax pmax
comp=Z,5.0nm,1.1s
**CLL Collm** 66.32 343 *e*P P 01 46 37.0 +0.1
comp=Z,5.0nm,1.1s
**X44A Crenshaw** 66.34 62 P P 01 46 36.9 -0.4
baz=329
**KBZ Khabaz** 66.37 319 LR LR 02 18 04.1
comp=Z,65nm,19.0s,baz=36,slow=38
**SORM Soroca** 66.40 331 ⇓ *i* P P 01 46 40.6 +3.2
**SORM Soroca** 66.40 331 ⇓ P P 01 46 40.6 +3.2
**140A Cam and Jess,** 66.41 65 P P 01 46 37.3 -0.5
baz=328
**Y43A Makayla and Ka** 66.50 62 P P 01 46 38.1 -0.2
baz=329
**Z42A Norrel Spur, H** 66.60 64 P P 01 46 38.4 -0.6
baz=329
**OXF Oxford** 66.64 61 P P 01 46 38.1 -1.1
baz=329
**OXF Oxford** 66.64 61 *e*P P 01 46 39.0 -0.2
OXF pmax pmax
comp=Z,34nm,0.9s
**OXF Oxford** 66.64 61 *e*P P 01 46 39.0 -0.2
comp=Z,34nm,0.9s
**NATX Nacogdoches** 66.67 67 P P 01 46 39.2 -0.3
baz=328
**V48A Smith Brothers** 66.69 58 P P 01 46 38.1 -1.5
baz=329,SNR=5.6
**DPC Dobruska-Polom** 66.73 340 *e*P P 01 46 39.2 -0.4
DPC *e*pP pP 01 46 42.4 -0.6
**DPC Dobruska-Polom** 66.73 340 *e*P P 01 46 39.2 -0.4
DPC *e* 01 46 42.4
**X45A UM Field Stati** 66.73 61 P P 01 46 38.5 -1.2
baz=329
**STHS Stebnicka Huta** 66.73 336 *e*P P 01 46 39.0 -0.6
STHS pmax pmax
comp=Z,4.0nm,0.9s
**STHS Stebnicka Huta** 66.73 336 *e*P P 01 46 39.0 -0.6
**141A Papa Simpson,** 66.74 65 P P 01 46 39.6 -0.2
baz=328
**Y44A Strider, Charl** 66.77 62 P P 01 46 39.4 -0.6
baz=329
**PLAL Pickwick Lake** 66.81 60 *e*P P 01 46 39.0 -1.3
comp=Z,16nm,0.9s
**240A Hunter Patters** 66.84 66 P P 01 46 40.5 0.0
baz=328
**X46A Booneville** 66.96 60 P P 01 46 40.2 -1.1
baz=329
**MORC Moravsky Berou** 67.07 339 ⇓ *i* P P 01 46 44.3 +2.5
**MORC Moravsky Berou** 67.07 339 ⇓ P P 01 46 44.3 +2.5
**Y45A Yeager Farm, C** 67.14 61 P P 01 46 41.8 -0.6
baz=329,SNR=6.4
**142A Monroe** 67.21 64 P P 01 46 42.8 0.0
baz=329
**241A Mo Tay, Goldon** 67.23 65 P P 01 46 42.8 -0.2
baz=329
**Z44A Pea Ridge, Bel** 67.26 62 P P 01 46 42.4 -0.7
baz=329
**X47A Russelville** 67.30 60 P P 01 46 41.9 -1.5
baz=329
**143A Socs Landing,** 67.32 64 P P 01 46 43.3 -0.2
baz=329,SNR=5.1
**PRU Pruhonice** 67.37 341 *e*P P 01 46 45.5 +1.9
PRU *e*pP sP 01 46 51.7 +3.5
**PRU Pruhonice** 67.37 341 *e*P P 01 46 45.5 +1.9
PRU *e* 01 46 51.7
**833A Chaparral WMA,** 67.40 72 P P 01 46 43.7 -0.5
baz=328
**Y46A Houston** 67.42 61 P P 01 46 43.2 -1.0
baz=329
**Z45A Winona** 67.50 62 P P 01 46 44.1 -0.6
baz=329
**SWET Sewanee** 67.51 58 *e*P P 01 46 43.2 -1.6
comp=Z,24nm,1.2s
**242A Grayson** 67.54 64 P P 01 46 44.6 -0.3
baz=329
**BUR08 Bucovina Ar. S** 67.59 333 *e*P P 01 46 47.3 +2.2
**BUR04 Bucovina Ar. S** 67.61 333 *e*P P 01 46 44.7 -0.6
**BURAR Bucovina Array** 67.61 333 ⇑ *i* P P 01 46 42.9 -2.4
**BURAR Bucovina Array** 67.61 333 ⇑ P P 01 46 42.9 -2.4
**X48A Hartselle** 67.70 59 P P 01 46 45.1 -0.8
baz=330
**341A Kurthwood** 67.70 66 P P 01 46 45.5 -0.5
baz=329
**144A Alexander Plac** 67.81 63 P P 01 46 46.4 -0.2
baz=329
**Y47A UCPARC, Winfie** 67.83 60 P P 01 46 45.4 -1.3
baz=330
**MEM Membach** 67.91 347 P P 01 46 46.8 -0.2
**X49A Woodville** 67.95 59 P P 01 46 46.1 -1.4
baz=330
**Z46A Louisville** 67.97 61 P P 01 46 47.0 -0.7
baz=329
**243A Waterproof** 67.99 64 P P 01 46 47.6 -0.1
baz=329
**342A Flagon Creek P** 68.05 65 P P 01 46 47.9 -0.2
baz=329
**145A Houston Renfro** 68.05 62 P P 01 46 47.6 -0.5
baz=329
**VYHS Vyhne** 68.07 338 *e*P P 01 46 47.5 -0.6
**VYHS Vyhne** 68.07 338 *e*P P 01 46 47.5 -0.6
**Y48A Jasper** 68.11 60 P P 01 46 47.0 -1.5
baz=330
**VBMS Vicksburg** 68.12 63 P P 01 46 47.9 -0.6
baz=329
**441A DeRidder** 68.19 66 P P 01 46 49.6 +0.5
baz=329
**244A Avery, Jackson** 68.20 63 P P 01 46 48.8 -0.2
baz=329,SNR=5.9
**X50A Fort Payne** 68.28 58 P P 01 46 48.2 -1.5
baz=330
**TESR Tescani** 68.33 332 ⇓ *i* P P 01 46 49.3 -0.4
**Z47A Carrollton** 68.34 61 P P 01 46 49.1 -0.8
baz=330
**KHC Kasperske Hory** 68.35 342 *e*P P 01 46 49.3 -0.6
KHC *e*pP pP 01 46 53.1 -0.1
**KHC Kasperske Hory** 68.35 342 *e*P P 01 46 49.3 -0.6
KHC *e* 01 46 53.1
**146A Union** 68.40 62 P P 01 46 49.8 -0.5
baz=329,SNR=5.1
**Z48A Northport** 68.41 60 P P 01 46 48.6 -1.8
baz=330
**Y49A Blount Mountai** 68.48 59 P P 01 46 49.3 -1.6
baz=330
**245A Little AP, Sta** 68.55 63 P P 01 46 50.9 -0.4
baz=329
**GERES GERESS Array B** 68.61 341 P P 01 46 48.8 -2.7
comp=Z,0.5nm,0.7s,baz=35,slow=4.9,SNR=5.2
GERES LR LR 02 19 55.1
comp=Z,49nm,18.8s,baz=358,slow=39
**344A Westbrook Farm** 68.68 64 P P 01 46 51.1 -1.0
baz=329
**147A Livingston** 68.71 61 P P 01 46 50.9 -1.3
baz=330
**443A Delano Plantat** 68.81 65 P P 01 46 52.0 -0.9
baz=329
**CJR Cluj-Napoca** 68.82 334 ⇑ *i* P P 01 46 57.0 +4.2
**CJR Cluj-Napoca** 68.82 334 ⇑ P P 01 46 57.0 +4.2

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **246A** | **Jackson Lee, B** | **68.90** | **62** | P | | **P** | **01 46 53.3** | **-0.2** |
| | baz=330 | | | | | | | | |
| **LRAL** | **Lakeview Retre** | **68.94** | **60** | *e*P | | P | 01 46 51.7 | -2.0 |
| | comp=Z,16nm,0.8s | | | | | | | | |
| **LRAL** | **Lakeview Retre** | **68.94** | **60** | P | | **P** | **01 46 52.5** | **-1.5** |
| | baz=330 | | | | | | | | |
| **Z49A** | **Columbiana** | **69.00** | **59** | P | | **P** | **01 46 52.5** | **-1.5** |
| | baz=330 | | | | | | | | |
| **247A** | **Quitman** | **69.09** | **62** | P | | **P** | **01 46 54.0** | **-0.7** |
| | baz=330 | | | | | | | | |
| **345A** | **Thompson Farm,** | **69.11** | **63** | P | | **P** | **01 46 54.6** | **-0.2** |
| | baz=330 | | | | | | | | |
| **346A** | **Big Creek Wild** | **69.29** | **63** | P | | **P** | **01 46 55.8** | **-0.1** |
| | baz=330 | | | | | | | | |
| **444A** | **Pine Grove** | **69.31** | **64** | P | | **P** | **01 46 56.0** | **0.0** |
| | baz=329 | | | | | | | | |
| **KMSC** | **Kings Mountain** | **69.45** | **54** | P | | **P** | **01 46 55.5** | **-1.4** |
| | baz=331 | | | | | | | | |
| **MLR** | **Muntele Rosu** | **69.45** | **332** | ⇑*i*P | | **P** | **01 47 00.5** | **+3.6** |
| **MLR** | **Muntele Rosu** | **69.45** | **332** | ⇑P | | **P** | **01 47 00.5** | **+3.6** |
| **445A** | **Amite** | **69.47** | **64** | P | | **P** | **01 46 57.3** | **+0.2** |
| | baz=330 | | | | | | | | |
| **SIRR** | **Siria** | **69.65** | **335** | ⇑*i*P | | **P** | **01 46 58.4** | **+0.4** |
| **ISR** | **Istrita** | **69.66** | **331** | ⇑*i*P | | P | 01 46 55.2 | -2.9 |
| **ISR** | **Istrita** | **69.66** | **331** | ⇑P | | P | 01 46 55.2 | -2.9 |
| **347A** | **Saraland** | **69.68** | **62** | P | | **P** | **01 46 58.0** | **-0.3** |
| | baz=330 | | | | | | | | |
| **VOIR** | | **69.71** | **332** | ⇑*i*P | | **P** | **01 46 59.4** | **+1.0** |
| **VOIR** | | **69.71** | **332** | ⇑P | | **P** | **01 46 59.4** | **+1.0** |
| **446A** | **Poplarville** | **69.85** | **63** | P | | **P** | **01 46 59.1** | **-0.2** |
| | baz=330 | | | | | | | | |
| **ARR** | **Arges** | **69.87** | **333** | ⇓*i*P | | **P** | **01 47 00.4** | **+1.0** |
| **447A** | **Lucedale** | **70.16** | **62** | P | | **P** | **01 47 01.1** | **-0.1** |
| | baz=330 | | | | | | | | |
| **BZS** | **Buzias** | **70.28** | **335** | ⇓*i*P | | **P** | **01 47 05.3** | **+3.5** |
| **BZS** | **Buzias** | **70.28** | **335** | ⇓P | | **P** | **01 47 05.3** | **+3.5** |
| **OBKA** | **Obir** | **70.74** | **340** | pP | | **P** | **01 47 04.3** | **-0.4** |
| | comp=Z,4.4nm,0.7s | | | | | | | | |
| **FETA** | **Feichten** | **70.83** | **343** | pP | | **P** | **01 47 04.8** | **-0.5** |
| | comp=Z,1.5nm,0.7s | | | | | | | | |
| **ABTA** | **Abfaltersbach** | **70.84** | **342** | P | | **P** | **01 47 04.4** | **-0.9** |
| | comp=Z,2.1nm,0.7s | | | | | | | | |
| **PMG** | **Port Moresby** | **71.72** | **201** | ⇓*e*P | | **P** | **01 47 12.6** | **+1.9** |
| PMG | | | | pmax | pmax | | | | |
| | comp=Z,27nm,0.7s | | | | | | | | |
| **VTS** | **Vitosha** | **72.83** | **333** | ⇓*i*P | | **P** | **01 47 17.5** | **+0.1** |
| **VTS** | **Vitosha** | **72.83** | **333** | ⇓P | | **P** | **01 47 17.5** | **+0.1** |
| **BRTR** | **Keskin Array B** | **72.85** | **324** | P | | **P** | **01 47 16.8** | **-0.8** |
| | comp=Z,0.5nm,0.6s,baz=4.6,slow=7.2,SNR=2.9 | | | | | | | | |
| BRTR | | | | LR | | LR | 02 22 41.5 | | |
| | comp=Z,44nm,18.0s,baz=22,slow=39 | | | | | | | | |
| **BR231** | **Keskin MP Arra** | **72.99** | **325** | *e*P | | **P** | **01 47 20.6** | **+2.3** |
| **PGAV** | **Gavieira, Arco** | **77.53** | **356** | *e*P | | **P** | **01 47 44.3** | **-0.1** |
| **PBRG** | **Braganca** | **77.63** | **355** | *e*P | | **P** | **01 47 44.7** | **-0.2** |
| **POLO** | **Lamas de Olo** | **78.10** | **356** | *e*P | | **P** | **01 47 47.3** | **-0.3** |
| **PVRL** | **Vila Real** | **78.20** | **356** | *e*P | | **P** | **01 47 47.5** | **-0.6** |
| **MVO** | **Moncorvo** | **78.28** | **355** | *e*P | | **P** | **01 47 48.5** | **-0.1** |
| **PVIS** | **Viseu** | **78.76** | **356** | *e*P | | **P** | **01 47 50.6** | **-0.6** |
| **MTE** | **Manteigas** | **79.07** | **356** | *e*P | | **P** | **01 47 51.9** | **-1.0** |
| **PCAS** | **Casmilo, Conde** | **79.44** | **356** | *e*P | | **P** | **01 47 53.7** | **-1.2** |
| **ES19** | **SONSECA Array** | **79.59** | **353** | *e*P | | **P** | **01 47 54.5** | **-1.2** |
| **ESDC** | **Sonseca Array** | **79.62** | **353** | P | | **P** | **01 47 53.9** | **-2.1** |
| | comp=Z,3.6nm,0.9s,baz=2.6,slow=6.5,SNR=13 | | | | | | | | |
| **PCBR** | **Castelo Branco** | **79.62** | **356** | *e*P | | **P** | **01 47 54.9** | **-0.9** |
| **PMRV** | **Marv??o** | **80.03** | **356** | *e*P | | **P** | **01 47 59.0** | **+0.9** |
| **PMTG** | **Montargil** | **80.42** | **356** | *e*P | | **P** | **01 47 59.2** | **-1.0** |
| **PESTR** | **Estremoz** | **80.60** | **356** | *e*P | | **P** | **01 47 59.5** | **-1.7** |
| **EVO** | **Evora** | **80.95** | **356** | *e*P | | **P** | **01 48 02.0** | **-1.0** |
| **PBAR** | **Barrancos** | **81.27** | **355** | *e*P | | **P** | **01 48 03.7** | **-1.0** |
| **PCVE** | **Castro Verde** | **81.84** | **356** | *e*P | | P | 01 48 02.3 | -5.5 |
| **WRAB** | **Tennant Creek** | **84.66** | **211** | ⇑*i*P | | **P** | **01 48 22.1** | **-0.2** |
| WRAB | | | | pmax | pmax | | | | |
| | comp=Z,9.0nm,1.1s | | | | | | | | |
| **WRA** | **Warramunga Arr** | **84.67** | **211** | P | | **P** | **01 48 20.3** | **-2.1** |
| | comp=Z,6.1nm,0.9s,baz=16,slow=5.4,SNR=17 | | | | | | | | |
| **PPT** | **Papeete** | **85.50** | **139** | LR | | LR | 02 19 13.1 | | |
| | comp=Z,27nm,20.6s,baz=334,slow=30 | | | | | | | | |
| **AS01** | **Alice Springs** | **88.33** | **210** | *e*P | | **P** | **01 48 38.2** | **-2.0** |
| **ASAR** | **Alice Springs** | **88.35** | **210** | P | | **P** | **01 48 38.7** | **-1.6** |
| | comp=Z,1.8nm,0.8s,baz=10,slow=4.5,SNR=13 | | | | | | | | |
| **MAW** | **Mawson** | **148.31** | **225** | PKPbc | | **PKPdf** | **01 55 31.9** | **+2.0** |
| | comp=Z,6.8nm,0.9s,baz=107,slow=1.3,SNR=6.9 | | | | | | | | |
| **MAW** | **Mawson** | **148.31** | **225** | *e*PKPdf | | **PKPdf** | **01 55 32.2** | **+2.3** |

*ISK **28** 01:43:13.8, 38.01N×27.16E, h5km, MD2.8*
*ATH **28** 01:43:14.2, 37.98N×27.23E, h14km±2km, ML2.1/2, Error ellipse: s-maj=4.1km s-min=1.6km az=267.0*
*DDA **28** 01:43:14.1, 38.00N×27.20E, h7km, Ml2.9*
*CSEM **28** 01:43:15.0±0.1, 37.99N×27.21E, h5km, MD2.8, Error ellipse: s-maj=3.2km s-min=2.8km az=60.0*

**ISC 28 01:43:14.7±0.9, 37.98N±0.02×27.23E±0.02, h12km±7km, n47, σ0s76/69, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KUSD** | **Kusadasi-Aydin** | **0.13** | **159** | *e*PG | **Pg** | **01 43 18.3** | **+0.4** |
| **KUSD** | **Kusadasi-Aydin** | **0.13** | **159** | *e*Pg | **Pg** | **01 43 18.3** | **+0.4** |
| **DGB** | **˜zmir** | **0.28** | **284** | *i* P | **Pg** | **01 43 19.8** | **-0.7** |
| DGB | | | | *i* S | **Sg** | **01 43 23.4** | **-1.0** |
| **GCAM** | **G?zelcaml?** | **0.28** | **179** | *i* P | **Pg** | **01 43 20.4** | **-0.1** |
| GCAM | | | | *i* S | **Sb** | **01 43 25.0** | **-1.3** |
| **GCAM** | **G?zelcaml?** | **0.28** | **179** | P | **Pg** | **01 43 20.4** | **-0.1** |
| GCAM | | | | S | **Sb** | **01 43 25.0** | **-1.3** |
| **SMG** | **Samos** | **0.41** | **229** | P | **Pg** | **01 43 22.2** | **-0.7** |
| SMG | | | | S | **Sg** | **01 43 28.8** | **+0.4** |
| SMG | | | | AML | AML | 01 43 29.9 | |
| | comp=N,706μm,0.3s | | | | | | |
| SMG | | | | AML | AML | 01 43 31.4 | |
| | comp=E,603μm,0.2s | | | | | | |
| **SMG** | **Samos** | **0.41** | **229** | P | **Pg** | **01 43 22.2** | **-0.7** |
| SMG | | | | S | **Sg** | **01 43 28.8** | **+0.4** |
| **AYDN** | **Tasoluk** | **0.61** | **122** | *i* P | **Pb** | **01 43 27.2** | **-0.1** |
| AYDN | | | | *i* S | **Sb** | **01 43 35.1** | **-0.7** |
| **AYDN** | **Tasoluk** | **0.61** | **122** | P | **Pb** | **01 43 27.2** | **-0.1** |
| AYDN | | | | S | **Sb** | **01 43 35.1** | **-0.7** |
| **URLA** | **Izmir** | **0.62** | **307** | *e*PG | **Pg** | **01 43 25.8** | **-1.0** |
| URLA | | | | *e*SG | **Sg** | **01 43 34.9** | **-0.3** |
| **URLA** | **Izmir** | **0.62** | **307** | *i* P | **Pg** | **01 43 26.0** | **-0.9** |
| URLA | | | | *i* S | **Sg** | **01 43 34.7** | **-0.4** |
| **URLA** | **Izmir** | **0.62** | **307** | *e*Pg | **Pg** | **01 43 25.8** | **-1.0** |
| **URLA** | **Izmir** | **0.62** | **307** | P | **Pg** | **01 43 26.0** | **-0.9** |
| URLA | | | | S | **Sg** | **01 43 34.7** | **-0.4** |
| **ZEY** | **˜zmir** | **0.63** | **294** | *i* P | **Pg** | **01 43 25.8** | **-1.1** |
| ZEY | | | | *i* S | **Sg** | **01 43 34.5** | **-0.6** |
| **BODT** | **Bodrum** | **0.92** | **176** | *e*PG | **Pn** | **01 43 33.4** | **-0.1** |
| BODT | | | | *e*SG | **Sn** | **01 43 47.6** | **+1.0** |
| **BODT** | **Bodrum** | **0.92** | **176** | *e*Pg | **Pn** | **01 43 33.4** | **-0.1** |
| **BDRM** | **Kayabasi** | **0.93** | **169** | *i* P | **Pg** | **01 43 32.1** | **-0.5** |
| BDRM | | | | *i* S | **Sb** | **01 43 45.4** | **+0.4** |
| **BDRM** | **Kayabasi** | **0.93** | **169** | P | **Pg** | **01 43 32.1** | **-0.5** |
| BDRM | | | | S | **Sb** | **01 43 45.4** | **+0.4** |
| **AKHS** | **Akhisar** | **1.01** | **27** | *i* P | **Pg** | **01 43 33.4** | **-0.7** |
| AKHS | | | | *i* S | **Sb** | **01 43 47.3** | **0.0** |
| **AKHS** | **Akhisar** | **1.01** | **27** | P | **Pg** | **01 43 33.4** | **-0.7** |
| AKHS | | | | S | **Sb** | **01 43 47.3** | **0.0** |
| **AKS** | **Akhisar** | **1.01** | **27** | *e*PG | **Pb** | **01 43 34.3** | **+0.3** |
| **AKS** | **Akhisar** | **1.01** | **27** | *e*Pg | **Pb** | **01 43 34.3** | **+0.3** |
| **CHOS** | **Chios island** | **1.01** | **294** | P | **Pg** | **01 43 33.7** | **-0.4** |
| CHOS | | | | S | **Sb** | **01 43 47.6** | **+0.2** |
| **CAND** | **Candarli** | **1.03** | **341** | *e*PG | **Pg** | **01 43 33.8** | **-0.7** |
| **MANT** | **Manisa** | **1.16** | **64** | *i* P | **Pn** | **01 43 37.3** | **+0.3** |
| MANT | | | | *i* S | **Sg** | **01 43 51.0** | **-1.3** |
| **MANT** | **Manisa** | **1.16** | **64** | P | **Pn** | **01 43 37.3** | **+0.3** |
| MANT | | | | S | **Sg** | **01 43 51.0** | **-1.3** |
| **KULA** | **Kula-Manisa** | **1.25** | **64** | *e*PN | **Pn** | **01 43 39.3** | **+1.3** |
| **KULA** | **Kula-Manisa** | **1.25** | **64** | *e*Pn | **Pn** | **01 43 39.3** | **+1.3** |
| **PRK** | **Paraskevi** | **1.47** | **330** | P | **Pn** | **01 43 41.6** | **+0.7** |
| **PRK** | **Paraskevi** | **1.47** | **330** | P | **Pn** | **01 43 41.6** | **+0.7** |
| **TURN** | **Turunc** | **1.56** | **135** | *e*PN | **Pb** | **01 43 43.4** | **0.0** |
| **TURN** | **Turunc** | **1.56** | **135** | *e*Pn | **Pb** | **01 43 43.4** | **0.0** |
| **APE** | **Apeiranthos** | **1.63** | **236** | *e*PN | **Pb** | **01 43 44.3** | **-0.4** |
| **APE** | **Apeiranthos** | **1.63** | **236** | P | **Pb** | **01 43 44.6** | **0.0** |
| **APE** | **Apeiranthos** | **1.63** | **236** | *e*Pn | **Pb** | **01 43 44.3** | **-0.4** |
| **APE** | **Apeiranthos** | **1.63** | **236** | P | **Pb** | **01 43 44.7** | **0.0** |
| **SIGR** | **SIGRI** | **1.63** | **319** | P | **Pg** | **01 43 45.8** | **-0.2** |
| SIGR | | | | S | **Sb** | **01 44 06.1** | **+0.9** |
| **SIGR** | **SIGRI** | **1.63** | **319** | P | **Pg** | **01 43 45.8** | **-0.2** |
| SIGR | | | | S | **Sb** | **01 44 06.1** | **+0.9** |
| **SIMA** | **Simav-Kutahya** | **1.76** | **51** | *e*PN | **Pb** | **01 43 47.4** | **+0.5** |
| **SIMA** | **Simav-Kutahya** | **1.76** | **51** | *e*Pn | **Pb** | **01 43 47.4** | **+0.5** |
| **FETY** | **Fethiye** | **2.00** | **132** | *e*PN | **Pb** | **01 43 51.1** | **+0.2** |
| **FETY** | **Fethiye** | **2.00** | **132** | *e*Pn | **Pb** | **01 43 51.1** | **+0.2** |
| **TVSB** | **Tavsanli** | **2.28** | **49** | *e*PN | **Pb** | **01 43 54.3** | **-1.5** |
| **TVSB** | **Tavsanli** | **2.28** | **49** | *e*Pn | **Pb** | **01 43 54.3** | **-1.5** |
| **KCTX** | **Karacabey (Bur** | **2.44** | **21** | *e*PN | **Pn** | **01 43 56.2** | **+1.8** |
| **KCTX** | **Karacabey (Bur** | **2.44** | **21** | *e*Pn | **Pn** | **01 43 56.2** | **+1.8** |

*ISCJB **28** 02:03:32.0±0.6, 67.78N±0.03×20.32E±0.07, h0km, Error ellipse: s-maj=4.8km s-min=3.9km az=22.7*
*HEL **28** 02:03:31.8±0.3, 67.76N×20.08E, h0km, ML1.3, Explosion*
*UPP **28** 02:03:32.8±0.0, 67.84N×20.21E, h0km, ML2.5*

**ISC 28 02:03:32.4±0.9, 67.81N±0.03×20.26E±0.03, h0km, n13, σ0s66/20, Sweden**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KUA** | **Kurravaara** | **0.14** | **12** | P | **Pg** | **02 03 35.5** | **+0.4** |
| KUA | | | | S | **Sg** | **02 03 37.3** | **+0.3** |
| **RATU** | **Laukkuluspa** | **0.25** | **272** | P | **Pg** | **02 03 37.5** | **+0.2** |
| **NIKU** | **Nikkaluokta** | **0.47** | **277** | P | **Pg** | **02 03 41.5** | **+0.2** |
| NIKU | | | | S | **Sg** | **02 03 47.8** | **+0.4** |
| **LANU** | **Lannavaara** | **0.69** | **69** | P | **Pg** | **02 03 46.2** | **+0.5** |
| **LANU** | **Lannavaara** | **0.69** | **69** | *e*P | **Pg** | **02 03 46.0** | **+0.3** |
| LANU | | | | *e*S | **Sg** | **02 03 55.4** | **+0.7** |
| **DUNU** | **Dundret** | **0.71** | **170** | P | **Pg** | **02 03 46.5** | **+0.6** |
| **MASU** | **Masugnsbyn** | **0.76** | **118** | P | **Pg** | **02 03 47.8** | **+1.0** |
| **KIF** | **Kilpisjarvi** | **1.21** | **9** | *e*PN | **Pn** | **02 03 57.0** | **+0.4** |
| KIF | | | | MSG | | 02 04 12.3 | |
| | comp=Z,3.0nm,0.2s | | | | | | |
| KIF | | | | *e*SB | **Sn** | **02 04 13.1** | **-0.6** |
| **PAJU** | **Pajala** | **1.36** | **124** | P | **Pg** | **02 03 58.3** | **-0.1** |
| **HEF** | **Hetta** | **1.41** | **63** | *e*PG | **Pn** | **02 03 58.8** | **-0.5** |
| HEF | | | | *e*S | **Sg** | **02 04 17.9** | **+0.3** |
| HEF | | | | MSG | | 02 04 18.3 | |
| | comp=Z,1.9nm,0.2s | | | | | | |
| **ERTU** | **Ertsjaerv** | **1.47** | **148** | P | **Pn** | **02 04 00.2** | **0.0** |
| **TOF** | **Tornio** | **2.37** | **136** | *e*PG | **Pb** | **02 04 14.7** | **-1.1** |
| TOF | | | | *e*SG | **Sb** | **02 04 40.4** | **+1.3** |
| **SGF** | **Sodankyl** | **2.43** | **96** | *e*PG | **Pb** | **02 04 16.1** | **-0.8** |
| SGF | | | | *e*SG | **Sg** | **02 04 49.5** | **-0.7** |

**OBM 28 02:11:02.7±0.1, 45.39N×107.75E, h2km, Ml3.6/1, Error ellipse: s-maj=2.4km s-min=1.0km az=51.0, Mongolia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SEMM** | | **2.23** | **347** | *e*Pn | Pn | 02 11 42.1 | +1.2 |
| **SEMM** | | **2.23** | **347** | *e*Pg | Pb | 02 11 44.1 | +0.2 |
| SEMM | | | | *e*Sg | Sg | 02 12 13.6 | -0.8 |
| | 13nm,0.2s | | | | | | |
| **UGDM** | | **2.26** | **354** | *e*Pn | Pn | 02 11 42.4 | +1.1 |
| **UGDM** | | **2.26** | **354** | *e*Pg | Pb | 02 11 44.4 | 0.0 |
| UGDM | | | | *e*Sg | Sg | 02 12 14.2 | -1.2 |
| | 189nm,0.4s | | | | | | |
| **ARTM** | | **2.56** | **353** | *e*Pn | Pn | 02 11 44.5 | -0.9 |
| **ARTM** | | **2.56** | **353** | *e*Pg | Pb | 02 11 49.7 | +0.2 |
| ARTM | | | | *e*Sg | Sb | 02 12 23.1 | +1.6 |
| | 113nm,0.3s | | | | | | |
| **SONB3** | **Songino Array** | **2.61** | **340** | *e*Pn | Pn | 02 11 47.2 | +1.2 |
| **SONB3** | **Songino Array** | **2.61** | **340** | *e*Pg | Pb | 02 11 49.7 | -0.6 |
| SONB3 | | | | *e*Sg | Sb | 02 12 23.9 | +1.0 |
| **SONA0** | **Songino Array** | **2.62** | **340** | *e*Pn | Pn | 02 11 46.8 | +0.7 |
| **SONA0** | **Songino Array** | **2.62** | **340** | *e*Pg | Pb | 02 11 50.2 | -0.2 |
| SONA0 | | | | *e*Sg | Sb | 02 12 24.0 | +1.0 |
| | 128nm,0.3s | | | | | | |
| **SONB2** | **Songino Ar. Si** | **2.62** | **340** | *e*Pn | Pn | 02 11 47.5 | +1.3 |
| **SONB2** | **Songino Ar. Si** | **2.62** | **340** | *e*Pg | Pb | 02 11 50.3 | -0.2 |
| SONB2 | | | | *e*Sg | Sb | 02 12 24.4 | +1.2 |
| **SONB4** | **Songino Array** | **2.62** | **339** | *e*Pn | Pn | 02 11 46.6 | +0.4 |
| **SONB4** | **Songino Array** | **2.62** | **339** | *e*Pg | Pb | 02 11 50.2 | -0.3 |
| SONB4 | | | | *e*Sg | Sb | 02 12 24.7 | +1.5 |
| **SONB1** | **Songino Array** | **2.64** | **340** | *e*Pn | Pn | 02 11 47.5 | +1.0 |
| **SONB1** | **Songino Array** | **2.64** | **340** | *e*Pg | Pb | 02 11 50.7 | -0.1 |
| SONB1 | | | | *e*Sg | Sb | 02 12 25.2 | +1.5 |
| **SONB5** | **Songino Array** | **2.64** | **339** | *e*Pn | Pn | 02 11 47.1 | +0.7 |
| **SONB5** | **Songino Array** | **2.64** | **339** | *e*Pg | Pb | 02 11 50.6 | -0.2 |
| SONB5 | | | | *e*Sg | Sb | 02 12 25.3 | +1.6 |
| **UB1M** | | **2.66** | **343** | *e*Pg | Pg | 02 11 52.6 | -1.0 |
| UB1M | | | | *e*Sg | Sb | 02 12 25.7 | +1.6 |
| | 98nm,0.3s | | | | | | |
| **ALFM** | | **2.68** | **346** | *e*Pn | Pn | 02 11 48.6 | +1.5 |
| **ALFM** | | **2.68** | **346** | *e*Pg | Pb | 02 11 52.1 | +0.6 |
| ALFM | | | | *e*Sg | Sb | 02 12 26.7 | +1.7 |
| | 107nm,0.3s | | | | | | |
| **DZBM** | | **2.80** | **237** | *e*Pn | Pn | 02 11 49.7 | +1.0 |
| **DZBM** | | **2.80** | **237** | *e*Pg | Pb | 02 11 53.4 | -0.2 |
| DZBM | | | | *e*Sg | Sb | 02 12 30.5 | +2.1 |
| **BLGM** | **Bulgan** | **4.46** | **321** | *e*Pn | Pn | 02 12 09.6 | -1.8 |
| **BLGM** | **Bulgan** | **4.46** | **321** | *e*Pg | Pb | 02 12 21.9 | +0.2 |
| BLGM | | | | *e*Sg | Sb | 02 13 16.1 | +0.2 |
| | 40nm,0.3s | | | | | | |
| **TTS** | **Tsetserleg** | **4.83** | **298** | *e*Pg | Pb | 02 12 31.0 | +2.8 |
| TTS | | | | *e*Sg | Sg | 02 13 34.9 | -3.0 |
| | 12nm,0.3s | | | | | | |
| **HTG** | **Hatgal** | **7.18** | **318** | *e*Sg | Sg | 02 14 48.0 | -5.3 |
| | 7.2nm,0.4s | | | | | | |
| **TSC** | **Tosontsengel** | **7.31** | **301** | *e*Sg | Sg | 02 14 53.7 | -3.7 |
| | 3.8nm,0.5s | | | | | | |

*AZER **28** 02:39:27.8±1.4, 38.97N×42.94E, h18km±35km, Error ellipse: s-maj=37.8km s-min=8.3km az=68.0*
*ISK **28** 02:39:33.0, 38.93N×43.64E, h5km, ML3.0*
*CSEM **28** 02:39:34.4±0.2, 38.99N×43.70E, h10km, ML3.0, Error ellipse: s-maj=6.8km s-min=4.1km az=156.0*

**ISC 28 02:39:33.1±1.1, 39.01N±0.03×43.49E±0.03, h14km±10km, n58, σ1s95/80, 17C-12D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ERCV** | **ERCIS-VAN** | **0.12** | **276** | *e*PG | **Pb** | **02 39 39.1** | **+1.7** |
| **ERCV** | **ERCIS-VAN** | **0.12** | **276** | *e*Pg | **Pb** | **02 39 39.1** | **+1.7** |
| **VANB** | **Van** | **0.42** | **191** | *e*PG | **Pb** | **02 39 43.1** | **+0.7** |
| VANB | | | | *e*SG | **Sb** | **02 39 50.5** | **+1.9** |
| **VANB** | **Van** | **0.42** | **191** | *e*Pg | **Pb** | **02 39 43.1** | **+0.7** |
| VANB | | | | *e*Sg | **Sb** | **02 39 50.5** | **+1.9** |
| **AGRB** | **Hanur-Agry** | **0.69** | **326** | *e*PG | **Pn** | **02 39 49.6** | **+1.0** |
| **AGRB** | **Hanur-Agry** | **0.69** | **326** | *e*Pg | **Pn** | **02 39 49.6** | **+1.0** |
| **TASB** | **TASBURUN-IGDIR** | **1.13** | **30** | *e*PN | **Pg** | **02 39 56.2** | **+1.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.13** | **30** | *e*Pn | **Pg** | **02 39 56.2** | **+1.2** |
| **HYR** | **Heyderabad** | **1.27** | **56** | ⇑P | **Pb** | **02 39 56.4** | **-0.5** |
| HYR | | | | ⇓S | **Sg** | **02 40 17.8** | **+3.6** |
| **HYR** | **Heyderabad** | **1.27** | **56** | P | **Pb** | **02 39 56.4** | **-0.5** |
| **NAX** | **Nakhchivan** | **1.57** | **83** | P | **Pn** | **02 40 00.7** | **+0.1** |
| | SNR=94 | | | | | | |
| NAX | | | | ⇑S | **Sg** | **02 40 24.8** | **+1.2** |
| **NAX** | **Nakhchivan** | **1.57** | **83** | P | **Pn** | **02 40 00.7** | **+0.1** |
| | SNR=94 | | | | | | |
| **SBZ** | **Shahbuz** | **1.65** | **76** | ⇑P | **Pn** | **02 40 01.5** | **-0.2** |
| SBZ | | | | ⇓S | **Sg** | **02 40 26.5** | **+0.3** |
| **SBZ** | **Shahbuz** | **1.65** | **76** | P | **Pn** | **02 40 01.5** | **-0.2** |
| **KARS** | **Kars** | **1.65** | **349** | *e*PN | **Pg** | **02 40 05.7** | **+0.9** |
| **KARS** | **Kars** | **1.65** | **349** | *e*Pn | **Pg** | **02 40 05.7** | **+0.9** |
| **SIRT** | **Sirnak** | **1.72** | **209** | *e*PN | **Pg** | **02 40 05.1** | **-1.0** |
| **SIRT** | **Sirnak** | **1.72** | **209** | *e*Pn | **Pg** | **02 40 05.1** | **-1.0** |
| **CUKT** | **Cukurca** | **1.76** | **177** | *e*PN | **Pb** | **02 40 04.8** | **-0.4** |
| **CUKT** | **Cukurca** | **1.76** | **177** | *e*Pn | **Pb** | **02 40 04.8** | **-0.4** |
| **SENK** | **Senkaya-Erzuru** | **1.79** | **331** | *e*PN | **Pg** | **02 40 07.7** | **+0.3** |
| **SENK** | **Senkaya-Erzuru** | **1.79** | **331** | *e*Pn | **Pg** | **02 40 07.7** | **+0.3** |
| **ORD** | **Ordubad** | **1.95** | **92** | P | **Pn** | **02 40 06.0** | **+0.1** |
| **BNGB** | **Bing ¶ll** | **2.19** | **270** | *e*PN | **Pg** | **02 40 13.8** | **-1.4** |
| **YEDI** | **Yedisu-Bingol** | **2.33** | **282** | *e*PN | **Pg** | **02 40 15.9** | **-1.9** |
| **YEDI** | **Yedisu-Bingol** | **2.33** | **282** | *e*Pn | **Pg** | **02 40 15.9** | **-1.9** |
| **BINT** | **Bingol** | **2.35** | **268** | *e*Pn | **Pb** | **02 40 13.8** | **-1.5** |
| **GDB** | **GEDABAY** | **2.44** | **45** | ⇑P | **Pn** | **02 40 11.9** | **-0.8** |
| GDB | | | | ⇓S | **Sb** | **02 40 45.7** | **-1.2** |
| **GDB** | **GEDABAY** | **2.44** | **45** | P | **Pn** | **02 40 11.9** | **-0.8** |
| GDB | | | | S | **Sb** | **02 40 45.7** | **-1.2** |
| **QZX** | **Qazax, Azerbai** | **2.50** | **35** | ⇓P | **Pn** | **02 40 11.8** | **-1.7** |
| QZX | | | | ⇓S | **Sb** | **02 40 45.7** | **-2.9** |
| **QZX** | **Qazax, Azerbai** | **2.50** | **35** | P | **Pn** | **02 40 11.8** | **-1.7** |
| QZX | | | | S | **Sb** | **02 40 45.7** | **-2.9** |
| **GANJ** | **Ganja** | **2.72** | **52** | ⇓P | **Pn** | **02 40 16.0** | **-0.5** |
| GANJ | | | | ⇑S | **Sb** | **02 40 53.4** | **-1.5** |
| **GANJ** | **Ganja** | **2.72** | **52** | P | **Pn** | **02 40 16.0** | **-0.5** |
| GANJ | | | | S | **Sb** | **02 40 53.4** | **-1.5** |
| **MAZI** | **Mazidag** | **2.85** | **238** | *e*PN | **Pb** | **02 40 22.6** | **-1.3** |
| **MAZI** | **Mazidag** | **2.85** | **238** | *e*Pn | **Pb** | **02 40 22.6** | **-1.3** |
| **BAYT** | **Ayd¨¯ntepe-Bay** | **2.93** | **299** | *e*PN | **Pb** | **02 40 24.9** | **-0.4** |
| **BAYT** | **Ayd¨¯ntepe-Bay** | **2.93** | **299** | *e*Pn | **Pb** | **02 40 24.9** | **-0.4** |
| **BRDA** | **Brd** | **3.11** | **65** | ⇓P | **Pn** | **02 40 21.8** | **+0.1** |
| BRDA | | | | ⇑S | **Sb** | **02 41 03.3** | **-2.7** |
| **BRDA** | **Brd** | **3.11** | **65** | P | **Pn** | **02 40 21.8** | **+0.1** |
| **PTK** | **Pertek** | **3.20** | **269** | *e*PN | **Pb** | **02 40 28.1** | **-1.7** |
| **PTK** | **Pertek** | **3.20** | **269** | *e*Pn | **Pb** | **02 40 28.1** | **-1.7** |
| **MNGR** | **Mingechevir, A** | **3.28** | **56** | ⇑P | **Pn** | **02 40 23.9** | **-0.1** |
| MNGR | | | | ⇓S | **Sb** | **02 41 07.1** | **-3.6** |
| **MNGR** | **Mingechevir, A** | **3.28** | **56** | P | **Pn** | **02 40 23.9** | **-0.1** |
| MNGR | | | | S | **Sb** | **02 41 07.1** | **-3.6** |
| **SVRC** | **Sivrice-ELAZID** | **3.34** | **260** | *e*PN | **Pb** | **02 40 30.0** | **-2.2** |
| **SVRC** | **Sivrice-ELAZID** | **3.34** | **260** | *e*Pn | **Pb** | **02 40 30.0** | **-2.2** |
| **ZRD** | **Zardab** | **3.48** | **67** | ⇑P | **Pn** | **02 40 27.0** | **+0.3** |
| ZRD | | | | ⇑S | **Sb** | **02 41 12.6** | **-3.9** |
| **ZRD** | **Zardab** | **3.48** | **67** | P | **Pn** | **02 40 27.0** | **+0.3** |
| **ZKTA** | **Zakatala** | **3.55** | **41** | ⇑P | **Pn** | **02 40 26.8** | **-1.0** |
| ZKTA | | | | ⇑S | **Sn** | **02 41 12.5** | **+2.9** |
| **SEKA** | **Sheki** | **3.59** | **51** | ⇓P | **Pn** | **02 40 28.8** | **+0.4** |
| SEKA | | | | ⇓S | **Sb** | **02 41 15.9** | **-4.0** |
| **SEKA** | **Sheki** | **3.59** | **51** | P | **Pn** | **02 40 28.8** | **+0.4** |
| **LRK** | **Lerik** | **3.80** | **94** | ⇑P | **Pn** | **02 40 31.9** | **+0.5** |
| LRK | | | | ⇓S | **Sb** | **02 41 21.2** | **-4.8** |
| **LRK** | **Lerik** | **3.80** | **94** | P | **Pn** | **02 40 31.9** | **+0.5** |
| **GLBA** | **Clilabad** | **3.82** | **85** | ⇑P | **Pn** | **02 40 31.9** | **+0.5** |
| GLBA | | | | ⇑S | **Sb** | **02 41 21.9** | **-4.4** |
| **GLBA** | **Clilabad** | **3.82** | **85** | P | **Pn** | **02 40 31.9** | **+0.5** |
| **QBL** | **Gabala** | **3.86** | **59** | ⇑P | **Pn** | **02 40 31.8** | **-0.3** |
| QBL | | | | ⇓S | **Sn** | **02 41 21.6** | **+4.4** |
| **QBL** | **Gabala** | **3.86** | **59** | P | **Pn** | **02 40 31.8** | **-0.3** |
| QBL | | | | S | **Sn** | **02 41 21.6** | **+4.4** |
| **KDMR** | **Kurdemir** | **3.87** | **68** | ⇑P | **Pn** | **02 40 32.2** | **+0.1** |
| KDMR | | | | ⇑S | **Sb** | **02 41 22.3** | **-5.5** |
| **KDMR** | **Kurdemir** | **3.87** | **68** | P | **Pn** | **02 40 32.2** | **+0.1** |

*IDC **28** 03:03:40.8±2.3, 51.68N×179.51W, h0km, mb3.3/5, mb1 3.8/6, mb1mx3.5/54, mbtmp3.5/6, ML3.5/1, Error ellipse: s-maj=60.2km s-min=27.8km az=176.0*
*ISCJB **28** 03:03:42.4±1.3, 51.9N±0.2×179.51W±0.09, h15km±9km, mb3.3/5, Error ellipse: s-maj=29.8km s-min=9.1km az=2.3*
*NEIC **28** 03:03:43.3±0.0, 51.65N×179.38W, h11km, ML3.7(AEIC), After AEIC.*

**ISC 28 03:03:43.0±2.2, 51.8N±0.3×179.38W±0.08, h11km±11km, n25, σ0s72/33, mb3.5/5, Andreanof Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GALAA** | **Gareloi Lava P** | **0

| | | | | | | |
|---|---|---|---|---|---|---|
| **H08S3** | **Diego Garcia H** | **29.17 261** | T | T | 03 48 41.9 | |
| | baz=85,slow=74 | | | | | |
| **H08S1** | **Diego Carcia H** | **29.18 261** | T | T | 03 48 35.7 | |
| | baz=85 | | | | | |
| **H01W3** | **Cape Leeuwin H** | **33.17 161** | T | T | 03 54 11.5 | |
| | baz=333 | | | | | |
| **H01W2** | **Cape Leeuwin H** | **33.19 161** | T | T | 03 54 14.3 | |
| | baz=333 | | | | | |
| **H01W1** | **Cape Leeuwin H** | **33.19 161** | T | T | 03 54 10.2 | |
| | baz=333 | | | | | |
| **WRA** | **Warramunga Arr** | **35.83 119** | P | **P** | **03 19 40.5** | **-0.8** |
| | 1.0nm,0.4s,baz=302,slow=8.8,SNR=14 | | | | | |
| **ASAR** | **Alice Springs** | **37.03 125** | P | **P** | **03 19 51.2** | **-0.3** |
| | 1.8nm,0.4s,baz=297,slow=8.1,SNR=35 | | | | | |
| ASAR | | | PcP | **PcP** | **03 22 12.0** | **+0.3** |
| | 0.2nm,0.4s,baz=328,slow=3.3,SNR=2.7 | | | | | |
| **STKA** | **Stephens Creek** | **46.89 131** | P | **P** | **03 21 12.1** | **+0.3** |
| | 1.1nm,0.4s,baz=301,slow=7.2,SNR=7.6 | | | | | |
| **SONM** | **Songino Array** | **51.48 4** | P | **P** | **03 21 47.4** | **+0.7** |
| | 1.7nm,0.6s,baz=189,slow=10.0,SNR=11 | | | | | |
| **MKAR** | **Makanchi Array** | **53.06 344** | P | **P** | **03 21 58.3** | **0.0** |
| | 1.8nm,0.5s,baz=156,slow=8.9,SNR=31 | | | | | |
| **USRK** | **Ussuriysk Ar.** | **54.94 26** | P | **P** | **03 22 12.2** | **+0.2** |
| | 1.8nm,0.6s,baz=222,slow=5.1,SNR=3.6 | | | | | |
| **ZALV** | **Zalesovo Beam** | **59.10 349** | P | **P** | **03 22 40.9** | **-0.3** |
| | 2.4nm,0.5s,baz=170,slow=5.2,SNR=13 | | | | | |
| **BRTR** | **Keskin Array B** | **75.58 312** | P | **P** | **03 24 25.9** | **-0.1** |
| | 0.9nm,0.6s,baz=142,slow=8.5,SNR=7.0 | | | | | |
| **TXAR** | **Lajitas Array** | **145.04 40** | PKPbc | **PKPab** | **03 32 18.5** | **+0.2** |
| | 2.9nm,0.5s,baz=259,slow=0.9,SNR=71 | | | | | |

*CSEM* ***28*** *03:17:14.2±0.2, 49.85N×18.39E, h1km, ML2.8/12, Error ellipse: s-maj=4.6km s-min=2.6km az=15.0*
*VIE* ***28*** *03:17:15.1±0.6, 49.73N×18.41E, h0km, mb2.4/2, ML2.5/4, Error ellipse: s-maj=3.5km s-min=2.9km az=71.0, Suspected Mining induced.*

**IPEC 28 03:17:14.1±0.2, 49.85N×18.50E, h0km, ML2.0/3, 4D, Error ellipse: s-maj=2.1km s-min=1.1km az=161.0, Czech and Slovak Republics**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OKC** | **Ostrava-Krasne** | **0.23** | **268** | ⇓*i* Pg | Pg | 03 17 19.1 | +0.6 |
| OKC | | | | *e*SG | Sg | 03 17 21.7 | +0.2 |
| | comp=Z,315nm,0.4s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **0.23** | **268** | Pg | Pg | 03 17 19.1 | +0.6 |
| OKC | | | | Sg | Sg | 03 17 21.7 | +0.2 |
| | 315nm,0.4s | | | | | | |
| **RAC** | **Raciborz** | **0.31** | **320** | *e*Pg | Pg | 03 17 21.0 | +0.9 |
| RAC | | | | *e*Sg | Sb | 03 17 26.3 | -1.9 |
| **MORC** | **Moravsky Berou** | **0.63** | **264** | *e*Pg | Pg | 03 17 25.7 | -0.4 |
| MORC | | | | *e*Sg | Sg | 03 17 33.5 | -0.7 |
| | 34nm,0.3s | | | | | | |
| **OJC** | **Ojcow** | **0.92** | **65** | *e*Pg | Pg | 03 17 32.0 | +0.4 |
| OJC | | | | *e*Sg | Sb | 03 17 44.7 | -0.9 |
| **OJC** | **Ojcow** | **0.92** | **65** | *e*Pg | Pg | 03 17 32.0 | +0.4 |
| OJC | | | | *e*Sg | Sb | 03 17 44.7 | -0.9 |
| **LANS** | **Liptovska Anna** | **0.94** | **138** | *e*Pg | Pb | 03 17 33.4 | +0.2 |
| LANS | | | | *e*Sg | Sn | 03 17 48.4 | -0.3 |
| **LANS** | **Liptovska Anna** | **0.94** | **138** | *e*PG | Pb | 03 17 33.4 | +0.2 |
| LANS | | | | *e*SG | Sn | 03 17 48.4 | -0.3 |
| **KRLC** | **Kraliky** | **1.14** | **282** | *e*PG | Pg | 03 17 34.6 | -1.2 |
| KRLC | | | | *e*SG | Sg | 03 17 49.8 | -0.8 |
| | comp=Z,10nm,0.4s | | | | | | |
| **KRLC** | **Kraliky** | **1.14** | **282** | Pg | Pg | 03 17 34.6 | -1.2 |
| KRLC | | | | Sg | Sg | 03 17 49.8 | -0.8 |
| | 10nm,0.4s | | | | | | |
| **NIE** | **Niedzica** | **1.24** | **109** | *e*Pg | Pn | 03 17 39.1 | +0.3 |
| NIE | | | | *e*Sg | Sn | 03 17 57.9 | +1.6 |
| **NIE** | **Niedzica** | **1.24** | **109** | *e*Pg | Pn | 03 17 39.1 | +0.3 |
| NIE | | | | *e*Sg | Sn | 03 17 57.9 | +1.6 |
| **VRAC** | **Vranov** | **1.35** | **247** | *e*Pg | Pg | 03 17 39.4 | -0.6 |
| VRAC | | | | *e*Sg | Sg | 03 17 56.5 | -1.1 |
| | 20nm,0.3s | | | | | | |
| **VYHS** | **Vyhne** | **1.37** | **171** | *e*Pn | Pg | 03 17 40.3 | 0.0 |
| VYHS | | | | *e*Sn | Sn | 03 17 59.2 | -0.1 |
| **VYHS** | **Vyhne** | **1.37** | **171** | *e*PN | Pg | 03 17 40.3 | 0.0 |
| VYHS | | | | *e*SN | Sn | 03 17 59.2 | -0.1 |
| VYHS | | | | *e*LG | Lg | 03 18 01.1 | |
| **DPC** | **Dobruska-Polom** | **1.49** | **291** | *e*PG | Pn | 03 17 41.1 | -1.1 |
| DPC | | | | *e*SG | Sg | 03 18 00.8 | -1.2 |
| | comp=Z,14nm,0.3s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.49** | **291** | Pg | Pn | 03 17 41.1 | -1.1 |
| DPC | | | | Sg | Sg | 03 18 00.8 | -1.2 |
| | 14nm,0.3s | | | | | | |
| **SMOL** | **Smolenice** | **1.51** | **208** | *e*Pn | Pn | 03 17 42.1 | -0.3 |
| SMOL | | | | *e*Sn | Sn | 03 18 03.0 | +0.3 |
| **SMOL** | **Smolenice** | **1.51** | **208** | *e*PN | Pn | 03 17 42.1 | -0.3 |
| SMOL | | | | *e*SN | Sn | 03 18 03.0 | +0.3 |
| **KRUC** | **Moravsky** | **1.58** | **241** | *e*Pg | Pn | 03 17 42.8 | -0.6 |
| KRUC | | | | *e*Sg | Sn | 03 18 03.7 | -0.9 |
| | 12nm,0.2s | | | | | | |
| **KSP** | **Ksiaz** | **1.73** | **306** | *e*Pn | Pn | 03 17 44.4 | -1.0 |
| KSP | | | | *e*Pg | Pb | 03 17 46.9 | +0.2 |
| KSP | | | | *e*Sg | Sn | 03 18 08.3 | +0.1 |
| **KSP** | **Ksiaz** | **1.73** | **306** | *e*Pn | Pn | 03 17 44.4 | -1.0 |
| **UPC** | **Upice** | **1.73** | **293** | ⇓*e*PG | Sn | 03 17 45.7 | +0.2 |
| UPC | | | | *e*SG | Sn | 03 18 08.7 | +0.4 |
| | comp=Z,14nm,0.4s | | | | | | |
| **UPC** | **Upice** | **1.73** | **293** | Pg | Pn | 03 17 45.7 | +0.2 |
| UPC | | | | Sg | Sn | 03 18 08.7 | +0.4 |
| | 14nm,0.4s | | | | | | |
| **STHS** | **Stebnicka Huta** | **1.83** | **102** | *e*Pn | Pg | 03 17 49.9 | +0.7 |
| **STHS** | **Stebnicka Huta** | **1.83** | **102** | *e*PN | Pg | 03 17 49.9 | +0.7 |
| STHS | | | | *e*SN | Sg | 03 18 16.5 | +3.6 |
| STHS | | | | *e*LG | Lg | 03 18 22.4 | |
| **KECS** | **Kecovo** | **1.89** | **136** | *e*Pn | Pn | 03 17 48.1 | +0.6 |
| KECS | | | | *e*Sn | Sg | 03 18 14.6 | 0.0 |
| **KECS** | **Kecovo** | **1.89** | **136** | *e*PN | Pn | 03 17 48.1 | +0.6 |
| KECS | | | | *e*SN | Sg | 03 18 14.6 | 0.0 |
| KECS | | | | *e*LG | Lg | 03 18 14.6 | |
| **GOPC** | **GO Pecny, Ondr** | **2.41** | **273** | *e*PN | Pn | 03 17 53.3 | -1.4 |
| GOPC | | | | *e*PG | Pb | 03 17 56.4 | -1.8 |
| GOPC | | | | *e*SG | Sb | 03 18 28.2 | -0.2 |
| **GOPC** | **GO Pecny, Ondr** | **2.41** | **273** | Pn | Pn | 03 17 53.3 | -1.4 |
| GOPC | | | | Sg | Sb | 03 18 28.2 | -0.2 |
| **PRU** | **Pruhonice** | **2.56** | **275** | ⇓*e*PG | Pb | 03 18 01.3 | +0.4 |
| PRU | | | | *e*SG | Sb | 03 18 34.2 | +1.2 |
| | comp=Z,7.0nm,0.4s | | | | | | |
| **PRU** | **Pruhonice** | **2.56** | **275** | Pg | Pb | 03 18 01.3 | +0.4 |
| PRU | | | | Sg | Sb | 03 18 34.2 | +1.2 |
| | 7.0nm,0.4s | | | | | | |
| **CONA** | **Conrad Observa** | **2.59** | **223** | Pn | Pn | 03 17 56.4 | -1.0 |
| | 0.9nm,0.2s | | | | | | |
| CONA | | | | Sn | Sn | 03 18 29.0 | -0.6 |
| | 2.5nm,0.3s | | | | | | |
| **PVCC** | **Panska Ves** | **2.62** | **287** | ⇓*e*PN | Pn | 03 17 55.8 | -1.8 |
| PVCC | | | | *e*PG | Pb | 03 18 02.0 | +0.1 |
| PVCC | | | | *e*SG | Sg | 03 18 36.7 | -1.5 |
| | comp=Z,12nm,0.3s | | | | | | |
| **PVCC** | **Panska Ves** | **2.62** | **287** | Pn | Pn | 03 17 55.8 | -1.8 |
| **PVCC** | **Panska Ves** | **2.62** | **287** | Pg | Pb | 03 18 02.0 | +0.1 |
| PVCC | | | | Sg | Sg | 03 18 36.7 | -1.5 |
| | 12nm,0.3s | | | | | | |
| **BRG** | **Berggiesshubel** | **3.10** | **291** | PG | Pb | 03 18 10.4 | +0.4 |
| BRG | | | | SG | Sb | 03 18 50.7 | +2.4 |
| | 6.4nm,0.6s | | | | | | |
| **KHC** | **Kasperske Hory** | **3.29** | **259** | *e*PN | Pn | 03 18 05.8 | -1.1 |
| KHC | | | | *e*PG | Pb | 03 18 14.5 | +1.2 |
| KHC | | | | *e*SN | Sn | 03 18 44.0 | -2.7 |
| KHC | | | | *e*SG | Sg | 03 18 57.9 | -1.8 |
| | comp=Z,6.4nm,0.4s | | | | | | |
| **KHC** | **Kasperske Hory** | **3.29** | **259** | Pn | Pn | 03 18 05.8 | -1.1 |
| **MOA** | **Molln** | **3.44** | **236** | Pn | Pn | 03 18 08.8 | -0.1 |
| | 0.3nm,0.2s | | | | | | |
| MOA | | | | Sg | Sg | 03 19 02.7 | -1.8 |
| | 4.4nm,0.3s | | | | | | |
| **CLL** | **Collm** | **3.80** | **295** | *i* Pg | Pg | 03 18 24.8 | -2.1 |
| CLL | | | | *i* Sg | Sg | 03 19 12.7 | -3.4 |
| | comp=Z,6.0nm,0.8s | | | | | | |

*ATH* ***28*** *03:20:16.8, 37.98N×27.25E, h13km±2km, ML1.8/2, Error ellipse: s-maj=4.3km s-min=1.3km az=263.0*
*ISCJB* ***28*** *03:20:17.1±0.5, 37.99N±0.02×27.22E±0.03, h7km±5km, Error ellipse: s-maj=4.7km s-min=3.3km az=38.4*
*CSEM* ***28*** *03:20:17.2±0.2, 37.99N×27.23E, h5km, ML1.8, Error ellipse: s-maj=4.2km s-min=3.9km az=22.0*
*DDA* ***28*** *03:20:17.1, 38.00N×27.20E, h7km, Ml2.6*
*ISK* ***28*** *03:20:17.0, 38.01N×27.20E, h14km, MD2.6*

**ISC 28 03:20:16.9±0.9, 37.98N±0.02×27.22E±0.02, h12km±8km, n37, σ0.50/63, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DGB** | **˜zmir** | **0.28** | **285** | *i* P | **Pg** | **03 20 22.6** | **0.0** |
| DGB | | | | *i* S | **Sg** | **03 20 26.1** | **-0.3** |
| **SMG** | **Samos** | **0.41** | **228** | P | **Pg** | **03 20 24.8** | **-0.3** |
| SMG | | | | S | **Sb** | **03 20 32.0** | **-0.2** |
| SMG | | | | AML | AML | 03 20 32.2 | |
| | comp=N,345μm,0.2s | | | | | | |
| SMG | | | | AML | AML | 03 20 35.4 | |
| | comp=E,294μm,0.3s | | | | | | |
| **SMG** | **Samos** | **0.41** | **228** | P | **Pg** | **03 20 24.8** | **-0.3** |
| SMG | | | | S | **Sb** | **03 20 32.0** | **-0.2** |
| **AYDN** | **Tasoluk** | **0.61** | **121** | *i* P | **Pb** | **03 20 29.9** | **+0.4** |
| AYDN | | | | *i* S | **Sb** | **03 20 38.0** | **-0.1** |
| **AYDN** | **Tasoluk** | **0.61** | **121** | P | **Pb** | **03 20 29.9** | **+0.4** |
| AYDN | | | | S | **Sb** | **03 20 38.0** | **-0.1** |
| **URLA** | **Izmir** | **0.62** | **308** | *e*PG | **Pg** | **03 20 28.8** | **-0.2** |
| URLA | | | | *e*SG | **Sg** | **03 20 37.8** | **+0.5** |
| **URLA** | **Izmir** | **0.62** | **308** | *i* P | **Pg** | **03 20 29.1** | **+0.1** |
| URLA | | | | *i* S | **Sg** | **03 20 37.7** | **+0.5** |
| **URLA** | **Izmir** | **0.62** | **308** | *e*Pg | **Pg** | **03 20 28.8** | **-0.2** |
| **URLA** | **Izmir** | **0.62** | **308** | P | **Pg** | **03 20 29.1** | **+0.1** |
| URLA | | | | S | **Sg** | **03 20 37.7** | **+0.5** |
| **ZEY** | **˜zmir** | **0.62** | **295** | *i* P | **Pg** | **03 20 28.6** | **-0.4** |
| ZEY | | | | *i* S | **Sg** | **03 20 37.1** | **-0.1** |
| **BODT** | **Bodrum** | **0.92** | **176** | *e*PG | **Pn** | **03 20 35.7** | **+0.1** |
| BODT | | | | *e*SG | **Sn** | **03 20 49.6** | **+0.8** |
| **BDRM** | **Kayabasi** | **0.93** | **169** | *i* P | **Pb** | **03 20 34.8** | **-0.2** |
| BDRM | | | | *i* S | **Sg** | **03 20 46.3** | **-0.8** |
| **BDRM** | **Kayabasi** | **0.93** | **169** | P | **Pb** | **03 20 34.8** | **-0.2** |
| BDRM | | | | S | **Sg** | **03 20 46.3** | **-0.8** |
| **CHOS** | **Chios island** | **1.00** | **294** | P | **Pg** | **03 20 36.5** | **+0.2** |
| CHOS | | | | S | **Sg** | **03 20 49.9** | **+0.5** |
| CHOS | | | | AML | AML | 03 20 52.2 | |
| | comp=N,103μm,0.3s | | | | | | |
| CHOS | | | | AML | AML | 03 20 53.1 | |
| | comp=E,127μm,0.2s | | | | | | |
| **CHOS** | **Chios island** | **1.00** | **294** | P | **Pg** | **03 20 36.5** | **+0.2** |
| CHOS | | | | S | **Sg** | **03 20 49.9** | **+0.5** |
| **AKHS** | **Akhisar** | **1.01** | **27** | *i* P | **Pg** | **03 20 36.2** | **-0.1** |
| AKHS | | | | *i* S | **Sn** | **03 20 50.3** | **-0.7** |
| **AKHS** | **Akhisar** | **1.01** | **27** | P | **Pg** | **03 20 36.2** | **-0.1** |
| AKHS | | | | S | **Sn** | **03 20 50.3** | **-0.7** |
| **AKS** | **Akhisar** | **1.01** | **27** | *e*PG | **Pn** | **03 20 36.6** | **-0.3** |
| **AKS** | **Akhisar** | **1.01** | **27** | *e*Pg | **Pn** | **03 20 36.6** | **-0.3** |
| **MANT** | **Manisa** | **1.17** | **64** | *i* P | **Pg** | **03 20 39.9** | **+0.5** |
| MANT | | | | *i* S | **Sb** | **03 20 53.8** | **-0.5** |
| **MANT** | **Manisa** | **1.17** | **64** | P | **Pg** | **03 20 39.9** | **+0.5** |
| MANT | | | | S | **Sb** | **03 20 53.8** | **-0.5** |
| **KULA** | **Kula-Manisa** | **1.25** | **64** | *e*PN | **Pg** | **03 20 41.2** | **+0.2** |
| KULA | | | | *e*SN | **Sg** | **03 20 57.9** | **+0.6** |
| **KULA** | **Kula-Manisa** | **1.25** | **64** | *e*Pn | **Pg** | **03 20 41.2** | **+0.2** |
| KULA | | | | *e*Sn | **Sg** | **03 20 57.9** | **+0.6** |
| **PRK** | **Paraskevi** | **1.47** | **330** | P | **Pb** | **03 20 43.8** | **-0.2** |
| PRK | | | | S | **Sg** | **03 21 05.3** | **+1.2** |
| **PRK** | **Paraskevi** | **1.47** | **330** | P | **Pb** | **03 20 43.8** | **-0.2** |
| PRK | | | | S | **Sg** | **03 21 05.3** | **+1.2** |
| **TURN** | **Turunc** | **1.56** | **135** | *e*PN | **Pn** | **03 20 44.3** | **-0.1** |
| **DEMI** | **Demirci** | **1.58** | **47** | *i* P | **Pg** | **03 20 46.7** | **-0.6** |
| **DEMI** | **Demirci** | **1.58** | **47** | P | **Pg** | **03 20 46.7** | **-0.6** |
| **APE** | **Apeiranthos** | **1.62** | **236** | *e*PN | **Pn** | **03 20 45.9** | **+0.5** |
| **APE** | **Apeiranthos** | **1.62** | **236** | P | **Pn** | **03 20 46.0** | **+0.7** |
| **APE** | **Apeiranthos** | **1.62** | **236** | P | **Pn** | **03 20 46.0** | **+0.7** |
| **SIGR** | **SIGRI** | **1.63** | **319** | P | **Pg** | **03 20 48.5** | **+0.3** |
| SIGR | | | | S | **Sg** | **03 21 09.8** | **+0.5** |
| **SIGR** | **SIGRI** | **1.63** | **319** | P | **Pg** | **03 20 48.5** | **+0.3** |
| SIGR | | | | S | **Sg** | **03 21 09.8** | **+0.5** |
| **SIMA** | **Simav-Kutahya** | **1.77** | **51** | *e*PN | **Pn** | **03 20 47.9** | **+0.6** |
| **SIMA** | **Simav-Kutahya** | **1.77** | **51** | *e*Pn | **Pn** | **03 20 47.9** | **+0.6** |
| **BAYC** | **CANAKKALE_Bayr** | **1.83** | **344** | *i* P | **Pn** | **03 20 47.3** | **-0.9** |
| BAYC | | | | *i* S | **Sn** | **03 21 11.2** | **-0.1** |
| **BAYC** | **CANAKKALE_Bayr** | **1.83** | **344** | P | **Pn** | **03 20 47.3** | **-0.9** |
| BAYC | | | | S | **Sn** | **03 21 11.2** | **-0.1** |

*PRE* ***28*** *03:22:04.3±2.3, 26.98S×26.87E, h2km, ML4.3*
*ISCJB* ***28*** *03:22:06.1±0.7, 26.95S±0.03×26.84E±0.03, h20km±5km, mb4.5/17, Error ellipse: s-maj=5.7km s-min=4.5km az=144.2*
*NEIC* ***28*** *03:22:06.9±0.4, 26.89S×26.62E, h5km, mb4.9/9, Error ellipse: s-maj=16.6km s-min=8.8km az=84.0*
*IDC* ***28*** *03:22:06.3±0.9, 26.86S×26.73E, h0km, mb4.1/8, mb1 4.2/12, mb1mx3.9/31, mbtmp4.1/12, ML4.0/4, Error ellipse: s-maj=25.7km s-min=14.4km az=84.0*

**ISC 28 03:22:07.1±1.4, 26.90S±0.03×26.89E±0.04, h17km±9km, n60, σ2.21/79, mb4.6/17, South Africa**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WDLM** | **Western Deep L** | **0.67** | **46** | *e*P | **Pg** | **03 22 19.5** | **-0.9** |
| WDLM | | | | *e*S | **Sb** | **03 22 30.6** | **+1.1** |
| WDLM | | | | AML | AML | 03 22 36.9 | |
| | comp=Z,4μm,0.4s | | | | | | |
| **KLOF** | **Kloof** | **0.85** | **50** | *e*P | **Pb** | **03 22 22.9** | **-0.5** |
| KLOF | | | | *e*S | **Sb** | **03 22 32.9** | **-1.7** |
| KLOF | | | | AML | AML | 03 22 40.8 | |
| | comp=Z,5μm,0.2s | | | | | | |
| **KSR** | **Koster** | **1.04** | **1** | *e*P | **Pb** | **03 22 26.4** | **-0.3** |
| KSR | | | | *e*S | **Sb** | **03 22 40.2** | **+0.1** |
| KSR | | | | AML | AML | 03 22 45.3 | |
| | comp=Z,2μm,0.2s | | | | | | |
| **ERPM** | **east rand prop** | **1.33** | **66** | *e*P | **Pg** | **03 22 33.3** | **+0.4** |
| ERPM | | | | *e*S | **Sg** | **03 22 50.7** | **+0.4** |
| ERPM | | | | AML | AML | 03 22 55.0 | |
| | comp=Z,450nm,0.3s | | | | | | |
| **SWZ** | **Schweizer** | **1.42** | **258** | *e*P | **Pn** | **03 22 29.8** | **-2.4** |
| SWZ | | | | *e*S | **Sn** | **03 22 49.2** | **-1.3** |
| SWZ | | | | AML | AML | 03 22 51.2 | |
| | comp=Z,8μm,0.5s | | | | | | |
| **SEK** | **Senekal** | **1.57** | **155** | *e*P | **Pn** | **03 22 33.7** | **-0.6** |
| SEK | | | | *e*S | **Sn** | **03 22 52.6** | **-1.6** |
| SEK | | | | AML | AML | 03 23 01.4 | |
| | comp=Z,2μm,0.6s | | | | | | |
| **LBTB** | **Lobatse** | **2.20** | **328** | Pn | **Pn** | **03 22 44.3** | **+1.3** |
| | comp=Z,67nm,0.3s,baz=154,slow=14,SNR=516 | | | | | | |
| LBTB | | | | Lg | Lg | 03 23 13.6 | |
| | comp=Z,309nm,0.3s,baz=53,slow=23,SNR=69 | | | | | | |
| LBTB | | | | Rg | Rg | 03 23 22.8 | |
| | comp=Z,295nm,0.4s,baz=122,slow=3.9,SNR=27 | | | | | | |
| **LBTB** | **Lobatse** | **2.20** | **328** | *e*P | **Pn** | **03 22 43.8** | **+0.9** |
| LBTB | | | | *e*S | **Sb** | **03 23 13.1** | **-0.5** |
| LBTB | | | | AML | AML | 03 23 17.4 | |
| | comp=Z,537nm,0.4s | | | | | | |
| **LBTB** | **Lobatse** | **2.20** | **328** | *e*Pn | **Pn** | **03 22 44.3** | **+1.3** |
| LBTB | | | | *e*Sn | **Sn** | **03 23 08.3** | **-1.6** |
| LBTB | | | | *e*Lg | Lg | 03 23 13.6 | |
| LBTB | | | | Rg | Rg | 03 23 22.8 | |
| **BOSA** | **Boshof** | **2.24** | **220** | Pn | **Pn** | **03 22 43.4** | **-0.1** |
| | comp=Z,43nm,0.3s,baz=37,slow=13,SNR=590 | | | | | | |
| BOSA | | | | Sn | **Sb** | **03 23 13.6** | **-1.1** |
| | comp=Z,186nm,0.3s,baz=312,slow=16,SNR=28 | | | | | | |
| **BOSA** | **Boshof** | **2.24** | **220** | *e*P | **Pn** | **03 22 42.1** | **-1.3** |
| BOSA | | | | *e*S | **Sn** | **03 23 10.4** | **-0.4** |
| BOSA | | | | AML | AML | 03 23 14.8 | |
| | comp=Z,529nm,0.5s | | | | | | |
| **BOSA** | **Boshof** | **2.24** | **220** | *e*Pn | **Pn** | **03 22 42.9** | **-0.6** |
| BOSA | | | | *e*Sn | **Sn** | **03 23 09.4** | **-1.4** |
| **POGA** | **Pongola** | **4.32** | **97** | *e*P | **Pn** | **03 23 12.8** | **+0.8** |
| POGA | | | | *e*S | **Sn** | **03 24 00.8** | **-1.2** |
| POGA | | | | AML | AML | 03 24 27.5 | |
| | comp=Z,675nm,0.5s | | | | | | |
| **CNG** | **Changalane** | **4.79** | **84** | *e*P | **Pn** | **03 23 16.6** | **-1.7** |
| CNG | | | | *e*S | **Sn** | **03 24 07.5** | **-5.9** |
| CNG | | | | AML | AML | 03 24 40.7 | |
| | comp=Z,187nm,0.4s | | | | | | |
| **UPI** | **Upington** | **5.21** | **252** | *e*P | **Pn** | **03 23 23.6** | **-0.7** |
| UPI | | | | *e*S | **Sn** | **03 24 20.9** | **-3.1** |
| UPI | | | | AML | AML | 03 24 51.0 | |
| | comp=Z,705nm,0.4s | | | | | | |
| **UPI** | **Upington** | **5.21** | **252** | *i* P | **Pn** | **03 23 25.2** | **+1.0** |
| **MSNA** | **Messina** | **5.36** | **33** | *e*P | **Pn** | **03 23 24.8** | **-1.5** |
| MSNA | | | | *e*S | **Sn** | **03 24 25.1** | **-2.4** |
| MSNA | | | | AML | AML | 03 25 03.0 | |
| | comp=Z,244nm,0.5s | | | | | | |
| **ARMS** | **Ukamas** | **6.45** | **258** | *i* P | **Pn** | **03 23 40.7** | **-0.6** |
| **BUFB** | **Buffelsbos** | **7.46** | **194** | *e*P | **Pn** | **03 23 52.9** | **-2.3** |
| BUFB | | | | *e*S | **Sn** | **03 25 13.5** | **-5.9** |
| BUFB | | | | AML | AML | 03 25 19.0 | |
| | comp=Z,26nm,0.4s | | | | | | |
| **SUR** | **Sutherland** | **7.60** | **223** | Pn | **Pn** | **03 23 57.0** | **-0.3** |
| | comp=Z,0.6nm,0.3s,baz=66,slow=13,SNR=46 | | | | | | |
| SUR | | | | Sn | **Sn** | **03 25 18.0** | **-5.1** |
| | comp=Z,0.5nm,0.3s,baz=315,slow=4.5,SNR=9.3 | | | | | | |
| SUR | | | | Lg | Lg | 03 26 01.3 | |
| | comp=Z,2.0nm,0.3s,baz=299,slow=23,SNR=7.9 | | | | | | |
| **CVNA** | **Calvinia** | **7.72** | **232** | *e*P | **Pn** | **03 23 58.9** | **0.0** |
| CVNA | | | | *e*S | **Sn** | **03 25 21.3** | **-4.7** |
| CVNA | | | | AML | AML | 03 26 08.6 | |
| | comp=Z,392nm,0.9s | | | | | | |
| **KOMG** | **Komaggas** | **8.77** | **249** | *e*P | **Pn** | **03 24 12.7** | **-0.5** |
| KOMG | | | | *e*S | **Sn** | **03 25 47.3** | **-4.4** |
| KOMG | | | | AML | AML | 03 26 41.0 | |
| | comp=Z,220nm,0.5s | | | | | | |
| **KOMG** | **Komaggas** | **8.77** | **249** | *i* P | **Pn** | **03 24 09.6** | **-3.6** |
| **LSZ** | **Lusaka** | **11.62** | **6** | Pn | **Pn** | **03 24 51.5** | **-0.9** |
| | comp=Z,1.7nm,0.3s,baz=188,slow=12,SNR=38 | | | | | | |
| LSZ | | | | Sn | **Sn** | **03 26 56.0** | **-5.9** |
| | comp=Z,1.5nm,0.3s,baz=242,slow=23,SNR=5.1 | | | | | | |
| LSZ | | | | Lg | Lg | 03 28 06.1 | |
| | comp=Z,1.8nm,0.3s,baz=103,slow=23,SNR=7.2 | | | | | | |
| **LSZ** | **Lusaka** | **11.62** | **6** | *e*Pn | **Pn** | **03 24 51.2** | **-1.2** |
| LSZ | | | | *e*Sn | **Sn** | **03 26 56.0** | **-5.9** |
| LSZ | | | | *e*Lg | Lg | 03 28 06.1 | |
| **KJAB** | **KAMANJAB** | **13.22** | **301** | *i* S | **P** | **03 25 25.6** | **+1.6** |
| **DBIC** | **Dimbokro** | **45.37** | **313** | P | **P** | **03 30 25.0** | **+0.3** |
| | comp=Z,4.4nm,1.0s,baz=156,slow=10.0,SNR=2.9 | | | | | | |
| **DBIC** | **Dimbokro** | **45.37** | **313** | *e*P | **P** | **03 30 25.0** | **+0.3** |
| | comp=Z,18nm,1.4s | | | | | | |
| **TOA0** | **Torodi Ar. Sit** | **46.72** | **325** | *e*P | **P** | **03 30 36.0** | **+0.6** |
| | comp=Z,20nm,1.8s | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **46.72** | **325** | P | **P** | **03 30 35.6** | **+0.2** |
| | comp=Z,1.2nm,0.3s,baz=156,slow=7.9,SNR=29 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **46.73** | **325** | *e*P | **P** | **03 30 35.6** | **+0.2** |
| **SNAA** | **Sanae** | **47.76** | **192** | P | **P** | **03 30 41.5** | **-1.4** |
| **SNAA** | **Sanae** | **47.76** | **192** | *e*P | **P** | **03 30 44.6** | **+1.6** |
| | comp=Z,5.2nm,0.9s | | | | | | |
| **VNA2** | **Neumayer--Watz** | **48.12** | **194** | P | **P** | **03 30 46.3** | **+0.7** |
| | baz=28,slow=7.0 | | | | | | |
| **VNA3** | **Neumayer Olymp** | **48.87** | **195** | P | **P** | **03 30 50.3** | **-1.1** |
| **KOWA** | **Kowa** | **50.93** | **320** | *e*P | **P** | **03 31 07.1** | **-0.6** |
| | comp=Z,35nm,2.0s | | | | | | |
| **QSPA** | **South Pole Qui** | **63.29** | **180** | *e*P | **P** | **03 32 36.5** | **+1.7** |
| | comp=Z,6.8nm,1.2s | | | | | | |
| **CART** | **Cartagena** | **69.28** | **337** | *e*P | **P** | **03 33 11.9** | **-1.3** |
| | comp=Z,61nm,1.2s | | | | | | |
| **MLR** | **Muntele Rosu** | **72.04** | **359** | *e*P | **P** | **03 33 31.5** | **+1.5** |
| | comp=Z,16nm,1.6s | | | | | | |
| **ES19** | **SONSECA Array** | **72.20** | **335** | *e*P | **P** | **03 33 32.1** | **+1.1** |
| **ESDC** | **Sonseca Array** | **72.20** | **335** | P | **P** | **03 33 32.5** | **+1.4** |
| | comp=Z,0.7nm,0.5s,baz=158,slow=5.9,SNR=8.4 | | | | | | |
| **ESLA** | **Sonseca Array** | **72.20** | **335** | *e*P | **P** | **03 33 32.5** | **+1.4** |
| | comp=Z,24nm,1.6s | | | | | | |
| **GERES** | **GERESS Array B** | **76.31** | **351** | P | **P** | **03 33 56.6** | **+1.7** |
| | comp=Z,0.2nm,0.6s,baz=217,slow=4.8,SNR=3.6 | | | | | | |
| **AKASG** | **Malin Array Be** | **77.28** | **2** | P | **P** | **03 34 01.5** | **+1.4** |
| | comp=Z,0.7nm,0.4s,baz=178,slow=6.1,SNR=4.6 | | | | | | |
| **AKBB** | **Malin Array Si** | **77.28** | **2** | *e*P | **P** | **03 34 01.5** | **+1.4** |
| | comp=Z,29nm,1.7s | | | | | | |
| **LPAZ** | **La Paz** | **87.11** | **253** | P | **P** | **03 34 54.2** | **+1.0** |
| | comp=Z,1.0nm,0.4s,baz=116,slow=6.3,SNR=5.7 | | | | | | |
| **FIA0** | **FINESS Array S** | **88.03** | **360** | *e*P | **P** | **03 34 57.4** | **+1.6** |
| **FINES** | **FINESS Array B** | **88.03** | **360** | P | **P** | **03 34 57.4** | **+1.6** |
| | comp=Z,7.4nm,1.1s,baz=181,slow=7.0,SNR=4.6 | | | | | | |
| **ASAR** | **Alice Springs** | **93.44** | **119** | P | **P** | **03 35 25.6** | **+3.5** |
| | comp=Z,0.2nm,0.5s,baz=229,slow=4.5,SNR=4.6 | | | | | | |
| **AS31** | **Alice Springs** | **93.44** | **119** | *e*P | **P** | **03 35 25.6** | **+3.5** |
| | comp=Z,3.7nm,1.6s | | | | | | |
| **YKA** | **Yellowknife Ar** | **136.30** | **335** | PKP | **PKPdf** | **03 41 26.4** | **-0.6** |
| | comp=Z,0.1nm,0.5s,baz=52,slow=3.4,SNR=4.4 | | | | | | |
| **YKB5** | **Yellowknife Ar** | **136.30** | **335** | *e*PKPdf | **PKPdf** | **03 41 26.4** | **-0.6** |
| **LTX** | **Lajitas** | **136.58** | **285** | *e*PKPdf | **PKPdf** | **03 41 32.2** | **+3.5** |
| **TXAR** | **Lajitas Array** | **136.58** | **285** | PKP | **PKPdf** | **03 41 32.2** | **+3.5** |
| | comp=Z,0.4nm,0.9s,baz=160,slow=4.0,SNR=3.5 | | | | | | |
| **PD31** | **Pinedale Array** | **141.35** | **306** | *e*PKPdf | **PKPdf** | **03 41 37.0** | **-0.3** |
| **PDAR** | **Pinedale Array** | **141.35** | **306** | PKP | **PKPdf** | **03 41 37.0** | **-0.3** |
| | comp=Z,0.2nm,0.5s,baz=85,slow=2.1,SNR=3.0 | | | | | | |
| **ILAR** | **Eielson Array** | **141.91** | **356** | PKhKP | PKPpre | 03 41 34

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **EKAR** | **Karacoban** | **1.27** | **289** | *i* P | **Pg** | **03 32 47.1** | **0.0** |
| EKAR | | | | *i* S | **Sg** | **03 33 04.9** | **+1.2** |
| **EKAR** | **Karacoban** | **1.27** | **289** | P | **Pg** | **03 32 47.1** | **0.0** |
| **HAKT** | **HAKKARI** | **1.30** | **177** | *i* P | **Pn** | **03 32 46.0** | **-0.2** |
| HAKT | | | | *i* S | **Sg** | **03 33 06.5** | **+1.7** |
| **HAKT** | **HAKKARI** | **1.30** | **177** | P | **Pn** | **03 32 46.0** | **-0.2** |

**WEL 28 03:41:38.6±0.1, 37.78S×176.73E, h5km, ML3.5/31, 5C-5D, Error ellipse: s-maj=0.8km s-min=0.7km az=0.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OPRZ** | **Ohinepanea** | **0.15** | **243** | ⇓PG | Pg | 03 41 42.0 | +0.3 |
| OPRZ | | | | SG | Sg | 03 41 44.5 | +0.8 |
| OPRZ | | | | AML | AML | 03 41 44.7 | |
| **WHRZ** | **Whale Island** | **0.21** | **112** | ⇑PG | Pg | 03 41 43.3 | +0.5 |
| **MARZ** | **Manawahe** | **0.21** | **191** | ⇑PG | Pg | 03 41 43.3 | +0.4 |
| MARZ | | | | SG | Sg | 03 41 46.8 | +1.1 |
| MARZ | | | | AML | AML | 03 41 49.7 | |
| **EDRZ** | **Edgecumbe** | **0.33** | **178** | ⇑PG | Pg | 03 41 45.5 | +0.4 |
| EDRZ | | | | AML | AML | 03 41 53.6 | |
| EDRZ | | | | AML | AML | 03 41 54.7 | |
| **LIRZ** | **Lichensteins R** | **0.35** | **230** | ⇓PG | Pg | 03 41 46.2 | +0.7 |
| LIRZ | | | | AML | AML | 03 41 51.8 | |
| LIRZ | | | | AML | AML | 03 41 54.8 | |
| **TGRZ** | **Tauranga** | **0.37** | **277** | ⇑PG | Pg | 03 41 46.3 | +0.5 |
| TGRZ | | | | AML | AML | 03 41 51.8 | |
| TGRZ | | | | AML | AML | 03 41 52.2 | |
| **MKRZ** | **Makatiti** | **0.42** | **209** | ⇓PG | Pb | 03 41 47.7 | -0.9 |
| MKRZ | | | | AML | AML | 03 41 57.6 | |
| MKRZ | | | | AML | AML | 03 41 58.0 | |
| **OMRZ** | **Omania** | **0.43** | **220** | ⇓PG | Pg | 03 41 47.5 | +0.5 |
| OMRZ | | | | AML | AML | 03 41 59.4 | |
| OMRZ | | | | AML | AML | 03 42 08.9 | |
| **WIZ** | **White Island** | **0.44** | **56** | ⇑PG | Pg | 03 41 47.4 | +0.2 |
| WIZ | | | | AML | AML | 03 41 54.1 | |
| WIZ | | | | AML | AML | 03 41 54.3 | |
| **KARZ** | **Kaharoa** | **0.45** | **237** | PG | Pg | 03 41 47.9 | +0.5 |
| KARZ | | | | AML | AML | 03 41 58.5 | |
| KARZ | | | | AML | AML | 03 41 60.0 | |
| **TARZ** | **Mount Tarawera** | **0.49** | **201** | PG | Pg | 03 41 49.0 | +0.9 |
| TARZ | | | | AML | AML | 03 41 57.7 | |
| TARZ | | | | AML | AML | 03 41 58.8 | |
| **NGRZ** | **Ngongotaha** | **0.54** | **232** | ⇓PG | Pg | 03 41 49.8 | +0.8 |
| **URZ** | **Urewera** | **0.57** | **148** | PG | Pg | 03 41 49.5 | -0.1 |
| URZ | | | | AML | AML | 03 42 00.4 | |
| URZ | | | | AML | AML | 03 42 03.4 | |
| **RRRZ** | **Republican Roa** | **0.59** | **196** | PG | Pg | 03 41 50.3 | +0.4 |
| RRRZ | | | | AML | AML | 03 42 02.1 | |
| RRRZ | | | | AML | AML | 03 42 02.2 | |
| **HSRZ** | **Hossack Road** | **0.66** | **215** | P* | Pb | 03 41 52.0 | -0.7 |
| HSRZ | | | | AML | AML | 03 42 10.9 | |
| HSRZ | | | | AML | AML | 03 42 13.1 | |
| **RUGZ** | **Raukumara Rang** | **0.78** | **104** | P* | Pg | 03 41 53.5 | 0.0 |
| **HAZ** | **Te Kaha** | **0.84** | **89** | P* | Pg | 03 41 54.7 | -0.1 |
| HAZ | | | | AML | AML | 03 42 08.0 | |
| HAZ | | | | AML | AML | 03 42 08.4 | |
| **ALRZ** | **Allen Road** | **0.84** | **201** | P* | Pg | 03 41 55.2 | +0.4 |
| ALRZ | | | | AML | AML | 03 41 58.7 | |
| ALRZ | | | | AML | AML | 03 42 10.2 | |
| **MWZ** | **Matawai** | **0.84** | **132** | P* | Pg | 03 41 54.7 | -0.1 |
| MWZ | | | | AML | AML | 03 42 08.0 | |
| MWZ | | | | AML | AML | 03 42 09.8 | |
| **RAGZ** | **Rawiri** | **0.90** | **143** | AML | AML | 03 42 10.0 | |
| RAGZ | | | | AML | AML | 03 42 10.1 | |
| **TOZ** | **Tahuroa Road** | **0.97** | **272** | AML | AML | 03 42 10.9 | |
| TOZ | | | | AML | AML | 03 42 11.2 | |
| **PKGZ** | **Pakihiroa** | **1.07** | **96** | AML | AML | 03 42 17.5 | |
| PKGZ | | | | AML | AML | 03 42 18.8 | |
| **SNGZ** | **Shannon Statio** | **1.11** | **155** | AML | AML | 03 42 19.1 | |
| SNGZ | | | | AML | AML | 03 42 22.0 | |
| **RIGZ** | **Rimuhau** | **1.24** | **139** | P* | Pn | 03 42 02.7 | +0.1 |
| RIGZ | | | | AML | AML | 03 42 25.2 | |
| RIGZ | | | | AML | AML | 03 42 32.1 | |
| **KUZ** | **Kuaotunu** | **1.30** | **322** | AML | AML | 03 42 10.0 | |
| KUZ | | | | AML | AML | 03 42 10.9 | |
| **NMHZ** | **Naumai** | **1.32** | **177** | AML | AML | 03 42 28.3 | |
| NMHZ | | | | AML | AML | 03 42 32.5 | |
| **WMGZ** | **Waiomatatini S** | **1.34** | **92** | AML | AML | 03 42 26.9 | |
| WMGZ | | | | AML | AML | 03 42 29.9 | |
| **WHHZ** | **Waihua** | **1.36** | **163** | AML | AML | 03 42 28.6 | |
| WHHZ | | | | AML | AML | 03 42 36.4 | |
| **MKAZ** | **Moumakai** | **1.42** | **298** | AML | AML | 03 42 30.3 | |
| MKAZ | | | | AML | AML | 03 42 30.9 | |
| **KNZ** | **Kokohu** | **1.45** | **149** | AML | AML | 03 42 36.8 | |
| **ARHZ** | **Aropaoanui** | **1.50** | **172** | PN | Pn | 03 42 06.1 | -0.2 |
| ARHZ | | | | AML | AML | 03 42 31.8 | |
| ARHZ | | | | AML | AML | 03 42 32.8 | |
| **WIAZ** | **Waiheke Island** | **1.60** | **307** | AML | AML | 03 42 11.0 | |
| WIAZ | | | | AML | AML | 03 42 40.2 | |
| **MCHZ** | **McNeill Hill** | **1.67** | **181** | AML | AML | 03 42 40.1 | |
| MCHZ | | | | AML | AML | 03 42 41.4 | |
| **GRZ** | **Great Barrier** | **1.83** | **326** | AML | AML | 03 42 44.2 | |
| GRZ | | | | AML | AML | 03 42 52.7 | |

*IDC **28** 03:48:32.8±0.8, 34°.12N×69°.54E, h0km, mb4.1/10, mb1 4.1/15, mb1mx3.8/57, mbtmp4.0/15, ML3.7/5, MS3.0/4, Ms1 3.1/4, ms1mx2.7/43, Error ellipse: s-maj=22.1km s-min=16.3km az=93.0*

*ISCJB **28** 03:48:33.1±0.5, 34°.04N±0°.04×69°.54E±0°.06, h19km, mb4.1/13, MS3.1/2, Error ellipse: s-maj=7.3km s-min=4.1km az=148.2*

*NEIC **28** 03:48:34.2±0.4, 34°.14N×69°.48E, h10km, mb4.1/5, Error ellipse: s-maj=8.1km s-min=6.9km az=91.0*

*NNC **28** 03:48:38.4±6.9, 34°.47N×68°.83E, h0km, mb4.6, mpv4.3, Error ellipse: s-maj=72.7km s-min=51.2km az=122.0*

**ISC 28 03:48:35.1±0.7, 34°.07N±0°.06×69°.41E±0°.07, h19km, n54, σ2s35/61, mb4.1/13, 4C-4D, Southeastern Afghanistan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KBL** | **Kabul** | **0.56** | **328** | *e*Pg | **Pb** | **03 48 43.5** | **-2.7** |
| KBL | | | | *e*Sg | **Sg** | **03 48 51.2** | **-2.7** |
| **SFK** | **Sufi-Kurgan** | **6.78** | **28** | ⇓Pn | **Pn** | **03 50 16.3** | **+2.6** |
| SFK | 16nm,0.6s | | | ⇓Sn | **Sn** | **03 51 35.3** | **+4.9** |
| | 16nm,0.5s | | | | | | |
| **SDNR** | **Sundarnagar** | **6.87** | **110** | *e*P | **Pn** | **03 50 15.0** | **+0.2** |
| SDNR | | | | *e*S | **Sn** | **03 51 33.0** | **+0.6** |
| **AML** | **Almayashu** | **8.73** | **22** | P | **Pn** | **03 50 42.3** | **+1.7** |
| | SNR=22 | | | | | | |
| **MNAS** | **Manas** | **8.75** | **15** | ⇑Pn | **Pn** | **03 50 44.3** | **+3.7** |
| MNAS | 7.7nm,0.6s | | | ⇓Sn | **Sn** | **03 52 22.3** | **+3.5** |
| | 16nm,0.7s | | | | | | |
| **KK31** | **Karatay Array** | **9.06** | **5** | ⇑Pn | **Pn** | **03 50 47.1** | **+2.3** |
| | 6.5nm,0.5s,baz=198,slow=15 | | | | | | |
| KK31 | | | | ⇑Sn | **Sn** | **03 52 27.0** | **+0.7** |
| | 10nm,0.6s,baz=191,slow=22 | | | | | | |
| **KKAR** | **Karatay Array** | **9.06** | **5** | *e*Pn | **Pn** | **03 50 45.1** | **+0.3** |
| KKAR | | | | *e*Sn | **Sn** | **03 52 20.8** | **-5.5** |
| **UCH** | **Uchtor** | **9.08** | **25** | P | **Pn** | **03 50 46.8** | **+1.3** |
| | SNR=27 | | | | | | |
| **AAK** | **Ala-Archa** | **9.44** | **24** | Pn | **Pn** | **03 50 50.6** | **+0.4** |
| | 0.8nm,0.3s,baz=193,slow=8.0,SNR=19 | | | | | | |
| AAK | | | | Sn | **Sn** | **03 52 36.0** | **+0.3** |
| | 0.7nm,0.3s,baz=312,slow=23,SNR=8.1 | | | | | | |
| AAK | | | | LR | LR | 03 54 14.5 | |
| | comp=Z,69nm,19.2s,baz=208,slow=36 | | | | | | |
| **AAK** | **Ala-Archa** | **9.44** | **24** | ⇓Pn | **Pn** | **03 50 53.3** | **+3.2** |
| | 8.2nm,0.9s | | | | | | |
| AAK | | | | ⇑Sn | **Sn** | **03 52 38.0** | **+2.2** |
| | 11nm,0.7s | | | | | | |
| **AAK** | **Ala-Archa** | **9.44** | **24** | P | Pn | 03 50 55.0 | +4.8 |
| | SNR=7.9 | | | | | | |
| **AAK** | **Ala-Archa** | **9.44** | **24** | *e*Pn | **Pn** | **03 50 49.5** | **-0.6** |
| AAK | | | | *e*Sn | **Sn** | **03 52 33.3** | **-2.5** |
| **CHMS** | **Chumysh** | **9.85** | **24** | P | **Pn** | **03 50 59.9** | **+4.3** |
| | SNR=8.9 | | | | | | |
| **TKM2** | **Tokmak 2** | **10.08** | **27** | P | **Pn** | **03 51 03.1** | **+4.1** |
| | SNR=8.9 | | | | | | |
| **PYUN** | **Piuthan** | **13.07** | **113** | *e*P | **Pn** | **03 51 37.5** | **-2.4** |
| | 38nm,0.4s | | | | | | |
| **KOLN** | **Koldanda** | **13.70** | **113** | *e*P | **Pn** | **03 51 46.0** | **-2.5** |
| | 14nm,0.5s | | | | | | |
| **DMN** | **Daman** | **14.94** | **111** | *e*P | **Pn** | **03 52 02.0** | **-3.5** |
| | 56nm,0.6s | | | | | | |
| **KKN** | **Kakani** | **14.99** | **110** | *e*P | **Pn** | **03 52 01.9** | **-4.2** |
| | 44nm,0.7s | | | | | | |
| **PKIN** | **Phulchoki** | **15.18** | **111** | *e*P | **Pn** | **03 52 05.2** | **-3.5** |
| | 37nm,0.4s | | | | | | |
| **PKI** | **Pulchoki** | **15.19** | **111** | *e*P | **Pn** | **03 52 04.8** | **-4.1** |
| | 61nm,0.6s | | | | | | |
| **GUN** | **Gumba** | **15.40** | **109** | *e*P | **Pn** | **03 52 08.0** | **-3.6** |
| | 20nm,0.6s | | | | | | |
| **JIRN** | **Jiri** | **15.76** | **109** | *e*P | **Pn** | **03 52 12.5** | **-3.8** |
| | 300nm,0.6s | | | | | | |
| **MAKZ** | **Makanchi** | **15.89** | **33** | *e*Pn | **Pn** | **03 52 15.7** | **-1.9** |
| | 4.3nm,0.8s | | | | | | |
| **MK01** | **Makanchi Array** | **16.01** | **34** | *e*Pn | **Pn** | **03 52 20.5** | **+1.3** |
| **MK31** | **Makanchi Array** | **16.03** | **34** | *e*Pn | **Pn** | **03 52 19.4** | **+0.1** |
| **MK32** | **Makanchi Array** | **16.03** | **34** | *e*Pn | **Pn** | **03 52 18.5** | **-0.8** |
| **MKAR** | **Makanchi Array** | **16.03** | **34** | Pn | **Pn** | **03 52 18.5** | **-0.8** |
| | 0.3nm,0.3s,baz=216,slow=14,SNR=12 | | | | | | |
| MKAR | | | | LR | LR | 03 59 29.1 | |
| | comp=Z,43nm,19.2s,baz=212,slow=41 | | | | | | |
| **RAMN** | **Ramite** | **16.42** | **111** | *e*P | **Pn** | **03 52 21.5** | **-3.2** |
| | 25nm,0.4s | | | | | | |
| **TAPN** | **Taplejung** | **17.10** | **108** | *e*P | **Pn** | **03 52 30.4** | **-2.9** |
| | 13nm,0.4s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **17.84** | **19** | P | **Pn** | **03 52 41.3** | **-0.8** |
| | 0.1nm,0.3s,baz=210,slow=11,SNR=9.0 | | | | | | |
| **KURK** | **Kurchatov** | **17.95** | **19** | *e*Pn | **Pn** | **03 52 41.3** | **-2.1** |
| **AKTO** | **Aktyubinsk** | **18.36** | **336** | P | **Pn** | **03 52 49.4** | **+0.9** |
| | 0.2nm,0.3s,baz=154,slow=12,SNR=6.8 | | | | | | |
| **BVAR** | **Borovoye Array** | **18.96** | **2** | P | **P** | **03 52 54.4** | **-0.6** |
| | 0.8nm,0.3s,baz=167,slow=12,SNR=15 | | | | | | |
| **BRVK** | **Borovoye** | **18.99** | **2** | *e*P | **P** | **03 52 54.8** | **-0.5** |
| | 27nm,1.9s | | | | | | |
| **ZAA0** | **Zalesovo Array** | **22.66** | **24** | *e*P | **P** | **03 53 34.4** | **-0.5** |
| | 3.2nm,0.6s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **22.66** | **24** | P | **P** | **03 53 33.8** | **-1.2** |
| | 3.1nm,0.4s,baz=226,slow=11,SNR=12 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **22.66** | **24** | *e*P | **P** | **03 53 33.3** | **-1.7** |
| **ZAA1** | **Zalesovo Array** | **22.66** | **24** | *e*P | **P** | **03 53 33.8** | **-1.2** |
| **ARU** | **Arti** | **23.57** | **345** | P | **P** | **03 53 45.0** | **+0.8** |
| | 8.1nm,0.2s,baz=106,slow=5.4,SNR=5.6 | | | | | | |
| **ARU** | **Arti** | **23.57** | **345** | *e*P | **P** | **03 53 45.0** | **+0.8** |
| | 6.3nm,1.0s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **30.57** | **113** | P | **P** | **03 54 47.5** | **-0.3** |
| | 1.1nm,0.3s,baz=302,slow=9.8,SNR=4.4 | | | | | | |
| CMAR | | | | LR | LR | 04 09 13.8 | |
| | comp=Z,16nm,18.3s,baz=195,slow=41 | | | | | | |
| **ARA0** | **ARCESS Array S** | **42.91** | **339** | *e*P | **P** | **03 56 32.1** | **0.0** |
| **ARCES** | **ARCESS Array B** | **42.91** | **339** | P | **P** | **03 56 32.1** | **0.0** |
| | 1.9nm,0.7s,baz=110,slow=6.8,SNR=3.2 | | | | | | |
| **NOA** | **NORSAR Array B** | **45.57** | **325** | LR | LR | 04 17 10.7 | |
| | comp=Z,59nm,20.9s,baz=355,slow=38 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **64.36** | **269** | *e*P | **P** | **03 59 10.9** | **+1.0** |
| **TORD** | **Torodi Ar. Bea** | **64.36** | **269** | P | **P** | **03 59 10.9** | **+1.0** |
| | 1.0nm,0.8s,baz=51,slow=5.5,SNR=9.3 | | | | | | |
| **BOSA** | **Boshof** | **75.05** | **219** | P | **P** | **04 00 18.1** | **+2.5** |
| | 1.2nm,0.6s,baz=6.7,slow=4.2,SNR=4.6 | | | | | | |
| **INK** | **Inuvik** | **76.50** | **9** | P | **P** | **04 00 24.6** | **+1.4** |
| | 1.6nm,0.7s,baz=0.7,slow=5.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **81.85** | **121** | P | **P** | **04 00 53.3** | **+0.1** |
| | 0.9nm,0.8s,baz=319,slow=5.2,SNR=5.2 | | | | | | |
| **WR1** | **Warramunga Arr** | **81.85** | **121** | *e*P | **P** | **04 00 53.3** | **+0.1** |
| | 42nm,1.8s | | | | | | |
| **YKA** | **Yellowknife Ar** | **83.72** | **2** | P | **P** | **04 01 02.9** | **+0.5** |
| | 0.4nm,0.6s,baz=350,slow=5.3,SNR=10 | | | | | | |
| **YKB5** | **Yellowknife Ar** | **83.72** | **2** | *e*P | **P** | **04 01 02.9** | **+0.5** |
| **AS31** | **Alice Springs** | **83.97** | **124** | *e*P | **P** | **04 01 04.8** | **+0.6** |
| | 1.6nm,1.3s | | | | | | |
| **ASAR** | **Alice Springs** | **83.97** | **124** | P | **P** | **04 01 04.8** | **+0.6** |
| | 1.3nm,0.8s,baz=310,slow=5.0,SNR=10.0 | | | | | | |

*OBM **28** 04:11:44.1±0.2, 51°.94N×95°.85E, h2km, Ml4.1/1, Error ellipse: s-maj=3.2km s-min=1.6km az=171.0*

*IDC **28** 04:11:45.4±0.9, 51°.80N×96°.28E, h0km, mb3.8/13, mb1 3.9/17, mb1mx3.7/45, mbtmp3.8/17, ML3.0/4, MS3.4/1, Ms1 3.4/1, ms1mx2.6/57, Error ellipse: s-maj=22.5km s-min=13.6km az=165.0*

*MOS **28** 04:11:45.8±1.1, 51°.81N×96°.14E, h15km, mb4.2/8, Error ellipse: s-maj=11.0km s-min=10.0km az=10.3*

*NEIC **28** 04:11:47.5±0.4, 51°.88N×96°.13E, h10km, mb4.5/4, Error ellipse: s-maj=8.7km s-min=5.9km az=172.0*

**ISC 28 04:11:46.6±0.4, 51°.74N±0°.04×96°.15E±0°.03, h10km, n99, σ1s89/105, mb4.2/20, 7C-1D, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HVS** | **Khovu-Aksy** | **1.65** | **249** | PN | **Pn** | **04 12 14.9** | **-0.8** |
| **HVS** | **Khovu-Aksy** | **1.65** | **249** | P | **Pn** | **04 12 14.9** | **-0.8** |
| **ORL** | **Orlik** | **2.39** | **69** | ⇑*i*PN | **Pb** | **04 12 30.7** | **+0.8** |
| ORL | | | | *e* | | 04 13 03.2 | |
| ORL | | | | pmax | pmax | | |
| | comp=Z,232nm,0.8s | | | | | | |
| ORL | | | | smax | smax | | |
| | comp=N,592nm,0.8s | | | | | | |
| **HTG** | **Hatgal** | **2.84** | **115** | *e*Pg | **Pg** | **04 12 41.2** | **+0.2** |
| HTG | | | | *e*Sg | **Sg** | **04 13 21.4** | **+3.6** |
| **MOY** | **Mondy** | **3.02** | **89** | *e*PN | **Pb** | **04 12 42.1** | **+1.6** |
| MOY | | | | *i* | | 04 13 28.4 | |
| **ULG** | **Ulaangom** | **3.14** | **237** | *e*Pg | **Pb** | **04 12 40.2** | **-2.4** |
| ULG | | | | *e*Sg | **Sb** | **04 13 20.4** | **-0.6** |
| **ARS** | **Arshan** | **3.90** | **85** | *e*PN | **Pg** | **04 13 00.0** | **-1.2** |
| ARS | | | | *e* | | 04 13 53.0 | |
| ARS | | | | pmax | pmax | | |
| | comp=Z,129nm,0.7s | | | | | | |
| ARS | | | | smax | smax | | |
| | comp=E,2μm,0.7s | | | | | | |
| **TLY** | **Talaya** | **4.66** | **88** | *e*PN | **Pg** | **04 13 13.8** | **-2.1** |
| TLY | | | | pmax | pmax | | |
| | comp=Z,37nm,0.8s | | | | | | |
| **ZAK** | **Zakamensk** | **4.70** | **104** | *e*PN | **Pg** | **04 13 13.0** | **-3.6** |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,55nm,0.7s | | | | | | |
| **HBD** | **Hovd** | **4.73** | **220** | *e*Pg | **Pb** | **04 13 09.3** | **-0.4** |
| HBD | | | | *e*Sg | **Sb** | **04 14 09.8** | **+3.1** |
| **BYO** | **Bayan-Olgiy** | **4.84** | **237** | *e*Pg | **Pb** | **04 13 10.8** | **-0.8** |
| BYO | | | | *e*Sg | **Sb** | **04 14 11.9** | **+1.9** |
| | comp=Z,845nm,0.6s | | | | | | |
| **IRK** | **Irkutsk** | **5.04** | **81** | *e*PN | **Pg** | **04 13 19.4** | **-3.8** |
| IRK | | | | pmax | pmax | | |
| | comp=Z,309nm,0.2s | | | | | | |
| **TTS** | **Tsetserleg** | **5.48** | **139** | *e*Pg | **Pg** | **04 13 30.3** | **-1.2** |
| TTS | | | | *e*Sg | **Sg** | **04 14 43.5** | **+1.1** |
| **BLGM** | **Bulgan** | **5.58** | **119** | *e*Pg | **Pg** | **04 13 31.3** | **-2.1** |
| BLGM | | | | *e*Sg | **Sg** | **04 14 50.2** | **+4.6** |
| **DGZ** | **Jazzator, Alta** | **5.90** | **253** | ⇑*i*PN | **Pb** | **04 13 33.0** | **+3.4** |
| **ZAA0** | **Zalesovo Array** | **7.21** | **292** | *e*Pn | **Pn** | **04 13 32.3** | **+0.3** |
| ZAA0 | | | | *e*Sn | **Sn** | **04 14 50.8** | **-3.0** |
| **ZALV** | **Zalesovo Beam** | **7.21** | **292** | Pn | **Pn** | **04 13 32.6** | **+0.6** |
| | comp=Z,1.0nm,0.3s,baz=105,slow=12,SNR=12 | | | | | | |
| ZALV | | | | Lg | Lg | 04 15 23.3 | |
| | comp=Z,2.7nm,0.3s,baz=126,slow=22,SNR=6.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **7.21** | **292** | *e*PN | **Pn** | **04 13 33.5** | **+1.5** |
| ZALV | | | | | | 04 15 23.3 | |
| **ZALV** | **Zalesovo Beam** | **7.21** | **292** | *e*Pn | **Pn** | **04 13 33.5** | **+1.5** |
| ZALV | | | | Lg | Lg | 04 15 23.3 | |
| **ZAA1** | **Zalesovo Array** | **7.21** | **292** | *e*Pn | **Pn** | **04 13 32.6** | **+0.6** |
| **SONB5** | **Songino Array** | **7.67** | **116** | *e*Pg | Pg | 04 14 07.1 | -6.3 |
| SONB5 | | | | *e*Sg | **Sg** | **04 15 52.6** | **-0.1** |
| | comp=Z,163nm,0.8s | | | | | | |
| **SONB4** | **Songino Array** | **7.68** | **117** | *e*Pg | Pg | 04 14 07.2 | -6.3 |
| SONB4 | | | | *e*Sg | **Sg** | **04 15 52.9** | **0.0** |
| | comp=Z,160nm,0.8s | | | | | | |
| **SONB1** | **Songino Array** | **7.69** | **116** | *e*Pg | Pg | 04 14 08.6 | -5.1 |
| SONB1 | | | | *e*Sg | **Sg** | **04 15 51.5** | **-1.6** |
| | comp=Z,187nm,0.9s | | | | | | |
| **SONA2** | **Songino Array** | **7.69** | **116** | *e*Pg | Pg | 04 14 07.6 | -6.2 |
| SONA2 | | | | *e*Sg | **Sg** | **04 15 52.5** | **-0.8** |
| | comp=Z,159nm,0.9s | | | | | | |
| **SONA1** | **Songino Array** | **7.69** | **116** | *e*Pn | Pn | 04 13 46.3 | +7.5 |
| **SONA1** | **Songino Array** | **7.69** | **116** | *e*Pg | Pg | 04 14 07.7 | -6.2 |
| SONA1 | | | | *e*Sg | **Sg** | **04 15 52.4** | **-1.0** |
| | comp=Z,163nm,1.0s | | | | | | |
| **SONA0** | **Songino Array** | **7.70** | **116** | *e*Pg | Pg | 04 14 07.5 | -6.4 |
| SONA0 | | | | *e*Sg | **Sg** | **04 15 52.2** | **-1.3** |
| **SONA3** | **Songino Array** | **7.70** | **116** | *e*Pg | Pg | 04 14 07.7 | -6.2 |
| SONA3 | | | | *e*Sg | **Sg** | **04 15 51.8** | **-1.7** |
| | comp=Z,175nm,0.9s | | | | | | |
| **SONM** | **Songino Array** | **7.70** | **116** | Pg | Pb | 04 14 05.3 | +5.1 |
| | comp=Z,1.2nm,0.3s,baz=296,slow=15,SNR=16 | | | | | | |
| SONM | | | | Lg | Lg | 04 15 51.9 | |
| | comp=Z,2.9nm,0.3s,baz=299,slow=27,SNR=10 | | | | | | |
| **SONA4** | **Songino Array** | **7.70** | **116** | *e*Pg | Pg | 04 14 08.5 | -5.4 |
| SONA4 | | | | *e*Sg | **Sg** | **04 15 52.6** | **-0.9** |
| **SONB2** | **Songino Ar. Si** | **7.70** | **116** | *e*Pg | Pg | 04 14 08.1 | -5.9 |
| SONB2 | | | | *e*Sg | **Sg** | **04 15 52.1** | **-1.6** |
| | comp=Z,180nm,0.9s | | | | | | |
| **SONB3** | **Songino Array** | **7.71** | **116** | *e*Pg | Pg | 04 14 08.7 | -5.4 |
| SONB3 | | | | *e*Sg | **Sg** | **04 15 52.1** | **-1.7** |
| **UB1M** | | **7.75** | **115** | *e*Pg | Pg | 04 14 08.4 | -6.6 |
| UB1M | | | | *e*Sg | **Sg** | **04 15 54.3** | **-1.0** |
| | comp=Z,123nm,0.8s | | | | | | |
| **ALFM** | | **7.83** | **114** | *e*Pg | Pg | 04 14 11.4 | -5.0 |
| ALFM | | | | *e*Sg | **Sg** | **04 15 55.5** | **-2.2** |
| **ULN** | **Ulaanbaatar** | **8.05** | **115** | *e*P | **Pn** | **04 13 46.7** | **+3.1** |
| **ULN** | **Ulaanbaatar** | **8.05** | **115** | *e*Pn | **Pn** | **04 13 46.7** | **+3.1** |
| **ARTM** | | **8.14** | **114** | *e*Pg | Pg | 04 14 16.1 | -6.2 |
| ARTM | | | | *e*Sg | **Sg** | **04 16 08.2** | **+0.6** |
| **SEMM** | | **8.18** | **117** | *e*Pg | Pg | 04 14 16.9 | -6.2 |
| SEMM | | | | *e*Sg | **Sg** | **04 16 08.6** | **-0.3** |
| **NVS** | **Novosibirsk** | **8.34** | **297** | *e*P | **Pn** | **04 13 47.6** | **+0.2** |
| **UGDM** | | **8.37** | **115** | *e*Pg | Pg | 04 14 20.0 | -6.7 |
| UGDM | | | | *e*Sg | **Sg** | **04 16 13.9** | **-1.1** |
| **DZBM** | | **9.71** | **141** | *e*Sg | | 04 16 56.4 | |
| **MK31** | **Makanchi Array** | **10.32** | **247** | *e*P | **Pn** | **04 14 16.7** | **+2.1** |
| MK31 | | | | *e* | | 04 16 09.6 | |
| **MK31** | **Makanchi Array** | **10.32** | **247** | *e*Pn | **Pn** | **04 14 16.7** | **+2.1** |
| MK31 | | | | *e*Sn | **Sn** | **04 16 09.6** | **-0.7** |
| **MK32** | **Makanchi Array** | **10.32** | **247** | *e*Pn | **Pn** | **04 14 16.5** | **+1.9** |
| MK32 | | | | *e*Sn | **Sn** | **04 16 02.8** | **-7.4** |
| **MKAR** | **Makanchi Array** | **10.32** | **247** | Pn | **Pn** | **04 14 16.5** | **+1.9** |
| | comp=Z,0.1nm,0.3s,baz=74,slow=13,SNR=5.3 | | | | | | |
| MKAR | | | | Sn | **Sn** | **04 16 02.8** | **-7.4** |
| | comp=Z,0.5nm,0.3s,baz=61,slow=15,SNR=3.9 | | | | | | |
| MKAR | | | | Lg | Lg | 04 17 03.8 | |
| | comp=Z,0.2nm,0.3s,baz=44,slow=23,SNR=3.0 | | | | | | |
| **MK01** | **Makanchi Array** | **10.32** | **247** | *e*Pn | **Pn** | **04 14 16.6** | **+1.9** |
| **MAKZ** | **Makanchi** | **10.49** | **247** | *e*P | **Pn** | **04 14 20.1** | **+3.1** |
| **MAKZ** | **Makanchi** | **10.49** | **247** | *e*Pn | **Pn** | **04 14 20.1** | **+3.1** |
| **KURK** | **Kurchatov** | **11.04** | **272** | P | **Pn** | **04 14 26.4** | **+1.9** |
| **KURK** | **Kurchatov** | **11.04** | **272** | *e*Pn | **Pn** | **04 14 26.4** | **+1.9** |
| KURK | | | | *e*Sn | Sn | 04 16 40.7 | +13 |
| KURK | | | | Lg | Lg | 04 17 24.9 | |
| **KURBB** | **Kurchatov Arra** | **11.12** | **271** | Pn | **Pn** | **04 14 26.4** | **+0.9** |
| | comp=Z,0.1nm,0.3s,baz=73,slow=15,SNR=7.6 | | | | | | |
| KURBB | | | | Sn | Sn | 04 16 40.7 | +11 |
| | comp=Z,0.0nm,0.3s,baz=74,slow=16,SNR=3.1 | | | | | | |
| KURBB | | | | Lg | Lg | 04 17 24.9 | |
| | comp=Z,0.1nm,0.3s,baz=82,slow=29,SNR=4.5 | | | | | | |
| **BOD** | **Bodaibo** | **11.95** | **52** | *e*P | **Pn** | **04 14 36.5** | **-0.4** |
| **BVAR** | **Borovoye Array** | **15.76** | **285** | Pn | **Pn** | **04 15 27.5** | **-1.0** |
| | comp=Z,0.2nm,0.3s,baz=83,slow=12,SNR=3.2 | | | | | | |
| BVAR | | | | Sn | **Sn** | **04 18 20.0** | **-3.0** |
| | comp=Z,0.7nm,0.3s,baz=80,slow=25,SNR=3.1 | | | | | | |
| **AAK** | **Ala-Archa** | **17.25** | **247** | Lg | Lg | 04 20 50.0 | |
| | comp=Z,0.1nm,0.3s,baz=173,slow=14,SNR=3.9 | | | | | | |
| AAK | | | | LR | LR | 04 22 29.0 | |
| | comp=Z,116nm,19.6s,baz=20,slow=37 | | | | | | |
| **YAK** | **Yakutsk** | **20.77** | **47** | Lg | Lg | 04 22 37.6 | |
| | comp=Z,19nm,0.4s,baz=15,slow=20,SNR=4.1 | | | | | | |
| **ARU** | **Arti** | **22.34** | **297** | P | **P** | **04 16 44.5** | **+0.2** |
| | comp=Z,5.0nm,0.2s,baz=87,slow=3.7,SNR=5.4 | | | | | | |
| **ARU** | **Arti** | **22.34** | **297** | P | **P** | **04 16 45.7** | **+1.4** |
| **ARU** | **Arti** | **22.34** | **297** | *e*P | **P** | **04 16 44.5** | **+0.2** |
| | comp=Z,28nm,1.8s | | | | | | |
| **AKTO** | **Aktyubinsk** | **23.81** | **282** | P | **P** | **04 16 59.5** | **+0.1** |
| | comp=Z,5.4nm,0.6s,baz=82,slow=10,SNR=20 | | | | | | |
| **TIXI** | **Tiksi** | **24.69** | **24** | P | **P** | **04 17 06.2** | **-1.1** |
| | comp=Z,3.9nm,0.6s,baz=290,slow=15,SNR=3.2 | | | | | | |
| TIXI | | | | Lg | Lg | 04 24 37.7 | |
| | comp=Z,2.7nm,0.4s,baz=138,slow=20,SNR=3.3 | | | | | | |
| **TIXI** | **Tiksi** | **24.69** | **24** | *c* *i*P | **P** | **04 17 07.5** | **+0.2** |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.9s | | | | | | |
| **SEY** | **Seymchan** | **31.29** | **47** | ⇓*i*P | **P** | **04 18 05.4** | **-1.0** |
| **ERM** | **Erimo** | **33.05** | **88** | ⇑*i*P | **P** | **04 18 21.7** | **-0.3** |
| ERM | | | | pmax | pmax | | |
| | comp=Z,23nm,0.9s | | | | | | |
| **JOW** | **Kunigami** | **34.70** | **123** | *e*P | **P** | **04 18 39.1** | **+2.6** |
| | comp=Z,43nm,1.3s | | | | | | |
| **BILL** | **Bilibino** | **36.37** | **37** | ⇑*i*P | **P** | **04 18 50.9** | **+0.4** |
| BILL | | | | pmax | pmax | | |
| | comp=Z,1.0nm,1.1s | | | | | | |
| **PET** | **Petropavlovsk** | **37.10** | **63** | ⇑*e*P | **P** | **04 18 57.4** | **+0.6** |
| PET | | | | pmax | pmax | | |
| | comp=Z,23nm,1.1s | | | | | | |
| **FIA0** | **FINESS Array

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **KZLR** | **Kyzyl** | **0.87** | **258** | *i* Pg | | **Pg** | **04 23 56.0** | **-2.3** |
| KZLR | | | | *e*Sg | | **Sg** | **04 24 07.8** | **-1.9** |
| **KZLR** | **Kyzyl** | **0.87** | **258** | *i* PG | | **Pg** | **04 23 56.0** | **-2.3** |
| KZLR | | | | *e* | | | 04 24 07.8 | |
| **HVS** | **Khovu-Aksy** | **1.53** | **241** | PG | | **Pn** | **04 24 06.8** | **-2.0** |
| **HVS** | **Khovu-Aksy** | **1.53** | **241** | P | | **Pn** | **04 24 06.8** | **-2.0** |
| **ORL** | **Orlik** | **2.54** | **74** | *e*PN | | **Pn** | **04 24 23.5** | **+0.8** |
| ORL | | | | *e* | | | 04 24 56.2 | |
| ORL | | | | | pmax | pmax | | |
| | comp=Z,1μm,0.4s | | | | | | | |
| ORL | | | | | smax | smax | | |
| | comp=E,7μm,1.7s | | | | | | | |
| **CERR** | **Cheremushki** | **2.87** | **291** | *e*Pn | | **Pn** | **04 24 28.2** | **+1.0** |
| CERR | | | | *e*Pg | | **Pb** | **04 24 32.8** | **0.0** |
| CERR | | | | *e*Sn | | **Sn** | **04 25 00.9** | **-0.9** |
| CERR | | | | *e*Sg | | **Sb** | **04 25 09.9** | **+2.0** |
| **CERR** | **Cheremushki** | **2.87** | **291** | *e*PN | | **Pn** | **04 24 28.2** | **+1.0** |
| CERR | | | | *e* | | | 04 24 32.8 | |
| CERR | | | | *e* | | | 04 25 00.9 | |
| CERR | | | | *e* | | | 04 25 09.9 | |
| **ULG** | **Ulaangom** | **3.07** | **232** | *e*Pg | | **Pb** | **04 24 32.7** | **-3.4** |
| ULG | | | | *e*Sg | | **Sb** | **04 25 11.4** | **-2.1** |
| **ULG** | **Ulaangom** | **3.07** | **232** | *e*Pg | | **Pn** | **04 24 32.6** | **+2.6** |
| ULG | | | | *e*Sg | | **Sb** | **04 25 11.5** | **-2.0** |
| **HTG** | **Hatgal** | **3.08** | **116** | *e*Pg | | **Pn** | **04 24 32.5** | **+2.2** |
| HTG | | | | *e*Sg | | **Sb** | **04 25 11.3** | **-2.8** |
| **HTG** | **Hatgal** | **3.08** | **116** | *e*Pg | | **Pn** | **04 24 32.6** | **+2.3** |
| HTG | | | | *e*Sg | | **Sb** | **04 25 10.8** | **-3.3** |
| **MOY** | **Mondy** | **3.22** | **92** | *e*PN | | **Pn** | **04 24 34.7** | **+2.7** |
| MOY | | | | *i* | | | 04 24 38.7 | |
| MOY | | | | *e* | | | 04 25 16.7 | |
| **ARS** | **Arshan** | **4.08** | **87** | *e*PN | | **Pb** | **04 24 52.0** | **-1.4** |
| ARS | | | | *e* | | | 04 25 44.8 | |
| ARS | | | | | pmax | pmax | | |
| | comp=Z,349nm,0.5s | | | | | | | |
| ARS | | | | | smax | smax | | |
| | comp=N,13μm,1.0s | | | | | | | |
| **HBD** | **Hovd** | **4.73** | **216** | *e*Pg | | **Pb** | **04 25 02.0** | **-2.4** |
| HBD | | | | *e*Sg | | **Sb** | **04 26 01.7** | **+0.4** |
| **HBD** | **Hovd** | **4.73** | **216** | *e*Pg | | **Pb** | **04 25 01.0** | **-3.4** |
| HBD | | | | *e*Sg | | **Sb** | **04 26 02.1** | **+0.8** |
| **BYO** | **Bayan-Olgiy** | **4.76** | **234** | *e*Pg | | **Pb** | **04 25 03.3** | **-1.7** |
| BYO | | | | *e*Sg | | **Sb** | **04 26 03.0** | **+0.6** |
| **BYO** | **Bayan-Olgiy** | **4.76** | **234** | *e*Pn | | **Pn** | **04 24 53.4** | **+0.1** |
| **BYO** | **Bayan-Olgiy** | **4.76** | **234** | *e*Pg | | **Pb** | **04 25 03.0** | **-2.0** |
| BYO | | | | *e*Sg | | **Sb** | **04 26 03.2** | **+0.8** |
| **TLY** | **Talaya** | **4.86** | **89** | *e*PN | | **Pb** | **04 25 04.6** | **-1.9** |
| TLY | | | | *e* | | | 04 26 07.0 | |
| TLY | | | | | pmax | pmax | | |
| | comp=Z,183nm,1.1s | | | | | | | |
| **TLY** | **Talaya** | **4.86** | **89** | *e*Pb | | **Pb** | **04 25 03.2** | **-3.4** |
| TLY | | | | *e*Sn | | **Sn** | **04 25 50.9** | **+0.3** |
| **ZAK** | **Zakamensk** | **4.93** | **105** | *e*PN | | **Pb** | **04 25 05.2** | **-2.6** |
| ZAK | | | | *e* | | | 04 26 10.3 | |
| ZAK | | | | | pmax | pmax | | |
| | comp=Z,666nm,0.9s | | | | | | | |
| ZAK | | | | | smax | smax | | |
| | comp=N,6μm,1.4s | | | | | | | |
| **TASR** | **Tashtagol** | **4.95** | **283** | *e*Pn | | **Pn** | **04 24 56.8** | **+1.0** |
| TASR | | | | *e*Pg | | **Pb** | **04 25 09.4** | **+1.2** |
| TASR | | | | *e*Sg | | **Sb** | **04 26 14.0** | **+6.3** |
| **TASR** | **Tashtagol** | **4.95** | **283** | *e*PN | | **Pn** | **04 24 56.8** | **+1.0** |
| TASR | | | | *e* | | | 04 25 09.4 | |
| TASR | | | | *e* | | | 04 26 13.0 | |
| **IRK** | **Irkutsk** | **5.22** | **83** | *e*PN | | **Pb** | **04 25 11.0** | **-1.7** |
| IRK | | | | *e* | | | 04 26 16.9 | |
| IRK | | | | | pmax | pmax | | |
| | comp=Z,388nm,0.4s | | | | | | | |
| IRK | | | | | smax | smax | | |
| | comp=N,9μm,1.7s | | | | | | | |
| **ARTR** | **Artybash** | **5.30** | **272** | *e*Pn | | **Pn** | **04 25 01.4** | **+0.8** |
| ARTR | | | | *e*Pg | | **Pb** | **04 25 17.3** | **+3.2** |
| ARTR | | | | *e*Sn | | **Sn** | **04 26 01.4** | **-0.2** |
| ARTR | | | | *e*Sg | | **Sg** | **04 26 24.9** | **-6.7** |
| **ARTR** | **Artybash** | **5.30** | **272** | *e*PN | | **Pn** | **04 25 01.4** | **+0.8** |
| ARTR | | | | *e* | | | 04 25 17.3 | |
| ARTR | | | | *e* | | | 04 26 01.4 | |
| **AKAR** | **Aktash** | **5.41** | **256** | *e*Pn | | **Pn** | **04 25 03.7** | **+1.6** |
| AKAR | | | | *e*Pg | | **Pb** | **04 25 18.7** | **+2.8** |
| AKAR | | | | *e*Sn | | **Sn** | **04 26 02.8** | **-1.5** |
| AKAR | | | | *e*Sg | | **Sb** | **04 26 25.8** | **+5.0** |
| **AKAR** | **Aktash** | **5.41** | **256** | *e*PN | | **Pn** | **04 25 03.7** | **+1.6** |
| AKAR | | | | *e* | | | 04 25 18.7 | |
| AKAR | | | | *e* | | | 04 26 02.8 | |
| AKAR | | | | *e* | | | 04 26 25.8 | |
| **TTS** | **Tsetserleg** | **5.72** | **138** | *e*Pg | | **Pb** | **04 25 22.0** | **+0.6** |
| TTS | | | | *e*Sg | | **Sb** | **04 26 35.4** | **+5.5** |
| **TTS** | **Tsetserleg** | **5.72** | **138** | *e*Pg | | **Pb** | **04 25 22.0** | **+0.6** |
| TTS | | | | *e*Sg | | **Sb** | **04 26 34.6** | **+4.7** |
| **DGZ** | **Jazzator, Alta** | **5.76** | **251** | *i* PN | | **Pn** | **04 25 06.8** | **-0.2** |
| **BLGM** | **Bulgan** | **5.83** | **119** | *e*Pg | | **Pb** | **04 25 22.5** | **-0.6** |
| BLGM | | | | *e*Sg | | **Sb** | **04 26 40.2** | **+7.3** |
| **BLGM** | **Bulgan** | **5.83** | **119** | *e*Pg | | **Pb** | **04 25 22.8** | **-0.3** |
| BLGM | | | | *e*Sg | | **Sb** | **04 26 40.1** | **+7.2** |
| **BRCR** | **Berchikul'** | **5.83** | **313** | *e*Pn | | **Pn** | **04 25 08.4** | **+0.7** |
| BRCR | | | | *e*Pg | | **Pb** | **04 25 24.8** | **+1.8** |
| BRCR | | | | *e*Sg | | **Sg** | **04 26 42.8** | **-5.5** |
| **BRCR** | **Berchikul'** | **5.83** | **313** | *e*PN | | **Pn** | **04 25 08.4** | **+0.7** |
| BRCR | | | | *e* | | | 04 25 24.8 | |
| **ELT** | **Eltsovka** | **6.01** | **287** | *e*Pn | | **Pn** | **04 25 10.7** | **+0.5** |
| ELT | | | | *e*Pg | | **Pb** | **04 25 26.3** | **+0.2** |
| ELT | | | | *e*Sg | | **Sb** | **04 26 44.9** | **+7.0** |
| **ELT** | **Eltsovka** | **6.01** | **287** | *e*PN | | **Pn** | **04 25 10.7** | **+0.5** |
| ELT | | | | *e* | | | 04 25 26.6 | |
| ELT | | | | *e* | | | 04 26 44.9 | |
| **TRG** | **Tyrgan** | **6.51** | **78** | *e*PN | | Pn | 04 25 12.2 | -5.0 |
| TRG | | | | *e* | | | 04 26 57.1 | |
| TRG | | | | | pmax | pmax | | |
| | comp=Z,27nm,1.5s | | | | | | | |
| TRG | | | | | smax | smax | | |
| | comp=N,5μm,1.6s | | | | | | | |
| **ZAA0** | **Zalesovo Array** | **6.97** | **292** | *e*Pn | | **Pn** | **04 25 25.3** | **+1.9** |
| ZAA0 | | | | *e*Sn | | **Sn** | **04 26 43.7** | **+1.1** |
| **ZALV** | **Zalesovo Beam** | **6.97** | **292** | Pn | | **Pn** | **04 25 25.2** | **+1.8** |
| | comp=N,3.0nm,0.3s,baz=103,slow=12,SNR=48 | | | | | | | |
| ZALV | | | | Pg | | **Pb** | **04 25 44.6** | **+2.1** |
| | comp=N,9.3nm,0.3s,baz=103,slow=13,SNR=25 | | | | | | | |
| ZALV | | | | Lg | Lg | | 04 27 14.1 | |
| | comp=N,7.3nm,0.3s,baz=94,slow=24,SNR=3.7 | | | | | | | |
| ZALV | | | | LR | LR | | 04 28 18.5 | |
| | comp=N,792nm,21.0s,baz=84,slow=40 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **6.97** | **292** | *e*Pn | | **Pn** | **04 25 24.5** | **+1.1** |
| ZALV | | | | *e*Sn | | **Sn** | **04 26 43.5** | **+0.9** |
| **ZAA1** | **Zalesovo Array** | **6.97** | **292** | *e*Pn | | **Pn** | **04 25 25.2** | **+1.8** |
| ZAA1 | | | | *e*Pg | | **Pb** | **04 25 44.6** | **+2.1** |
| **UKR** | **Ust'-Kan** | **6.98** | **267** | *e*Pn | | **Pn** | **04 25 24.5** | **+0.8** |
| UKR | | | | *e*Pg | | Pb | 04 25 47.5 | +4.7 |
| UKR | | | | *e*Sn | | **Sn** | **04 26 40.2** | **-2.9** |
| UKR | | | | *e*Sg | | **Sg** | **04 27 17.1** | **-8.3** |
| **UKR** | **Ust'-Kan** | **6.98** | **267** | *e*PN | | **Pn** | **04 25 24.5** | **+0.8** |
| UKR | | | | *e* | | | 04 25 47.5 | |
| **SONB5** | **Songino Array** | **7.92** | **117** | *e*Pg | | **Pb** | **04 25 57.7** | **-1.0** |
| SONB5 | | | | *e*Sg | | Sg | 04 27 44.9 | -10 |
| | comp=N,2μm,1.1s | | | | | | | |
| **SONB5** | **Songino Array** | **7.92** | **117** | *e*Pg | | **Pb** | **04 25 57.7** | **-1.0** |
| SONB5 | | | | *e*Sg | | Sg | 04 27 44.9 | -10 |
| | comp=N,2μm,1.1s | | | | | | | |
| **SONB4** | **Songino Array** | **7.92** | **117** | *e*Pg | | **Pb** | **04 25 57.8** | **-1.0** |
| SONB4 | | | | *e*Sg | | **Sg** | **04 27 46.8** | **-8.8** |
| | comp=N,2μm,1.1s | | | | | | | |
| **SONB4** | **Songino Array** | **7.92** | **117** | *e*Pg | | **Pb** | **04 25 58.2** | **-0.6** |
| SONB4 | | | | *e*Sg | | Sg | 04 27 45.2 | -10 |
| | comp=N,2μm,1.1s | | | | | | | |
| **SONB1** | **Songino Array** | **7.93** | **116** | *e*Pg | | **Pb** | **04 25 58.0** | **-0.9** |
| SONB1 | | | | *e*Sg | | Sg | 04 27 46.0 | -10 |
| **SONB1** | **Songino Array** | **7.93** | **116** | *e*Pg | | **Pb** | **04 25 58.1** | **-0.8** |
| SONB1 | | | | *e*Sg | | Sg | 04 27 45.3 | -11 |
| **SONA2** | **Songino Array** | **7.93** | **116** | *e*Pg | | **Pb** | **04 25 58.0** | **-1.0** |
| SONA2 | | | | *e*Sg | | Sg | 04 27 46.0 | -10 |
| **SONA2** | **Songino Array** | **7.93** | **116** | *e*Pg | | **Pb** | **04 25 58.0** | **-1.0** |
| SONA2 | | | | *e*Sg | | Sg | 04 27 45.7 | -10 |
| **SONA1** | **Songino Array** | **7.94** | **116** | *e*Pn | | **Pn** | **04 25 38.6** | **+1.7** |
| SONA1 | | | | *e*Sn | | **Sn** | **04 27 06.8** | **+0.2** |
| **SONA1** | **Songino Array** | **7.94** | **116** | *e*Pg | | **Pb** | **04 25 57.9** | **-1.2** |
| SONA1 | | | | *e*Sg | | Sg | 04 27 46.2 | -10 |
| **SONA1** | **Songino Array** | **7.94** | **116** | *e*Pg | | **Pb** | **04 25 58.1** | **-1.0** |
| SONA1 | | | | *e*Sg | | Sg | 04 27 45.8 | -10 |
| **SONA0** | **Songino Array** | **7.94** | **117** | *e*Pn | | **Pn** | **04 25 35.2** | **-1.7** |
| SONA0 | | | | *e*Pg | | **Pb** | **04 25 58.7** | **-0.4** |
| **SONA0** | **Songino Array** | **7.94** | **117** | *e*Pg | | **Pb** | **04 25 58.1** | **-1.0** |
| SONA0 | | | | *e*Sg | | Sb | 04 27 43.0 | +9.3 |
| | comp=N,3μm,1.5s | | | | | | | |
| **SONA0** | **Songino Array** | **7.94** | **117** | *e*Pg | | **Pb** | **04 25 58.2** | **-0.9** |
| SONA0 | | | | *e*Sg | | Sb | 04 27 43.0 | +9.3 |
| **SONA3** | **Songino Array** | **7.94** | **116** | *e*Pg | | **Pb** | **04 25 58.2** | **-0.9** |
| SONA3 | | | | *e*Sg | | Sg | 04 27 46.4 | -10 |
| | comp=N,2μm,1.2s | | | | | | | |
| **SONA3** | **Songino Array** | **7.94** | **116** | *e*Pg | | **Pb** | **04 25 58.1** | **-1.0** |
| SONA3 | | | | *e*Sg | | Sg | 04 27 46.0 | -10 |
| | comp=N,2μm,1.2s | | | | | | | |
| **SONM** | **Songino Array** | **7.94** | **117** | Pn | | **Pn** | **04 25 35.2** | **-1.7** |
| | comp=N,0.2nm,0.3s,baz=312,slow=11,SNR=5.6 | | | | | | | |
| SONM | | | | Pg | | **Pb** | **04 25 58.7** | **-0.4** |
| | comp=N,4.3nm,0.3s,baz=302,slow=16,SNR=62 | | | | | | | |
| SONM | | | | Lg | Lg | | 04 27 42.8 | |
| | comp=N,16nm,0.3s,baz=308,slow=24,SNR=14 | | | | | | | |
| SONM | | | | LR | LR | | 04 28 36.9 | |
| | comp=N,1μm,18.3s,baz=354,slow=38 | | | | | | | |
| **SONA4** | **Songino Array** | **7.94** | **117** | *e*Pg | | **Pb** | **04 25 58.1** | **-1.1** |
| SONA4 | | | | *e*Sg | | Sg | 04 27 46.1 | -10 |
| | comp=N,2μm,1.2s | | | | | | | |
| **SONA4** | **Songino Array** | **7.94** | **117** | *e*Pg | | **Pb** | **04 25 58.4** | **-0.8** |
| SONA4 | | | | *e*Sg | | Sg | 04 27 46.1 | -10 |
| | comp=N,2μm,1.2s | | | | | | | |
| **SONB2** | **Songino Ar. Si** | **7.95** | **116** | *e*Pg | | **Pb** | **04 25 58.4** | **-0.9** |
| SONB2 | | | | *e*Sg | | Sg | 04 27 46.6 | -10 |
| | comp=N,3μm,1.6s | | | | | | | |
| **SONB2** | **Songino Ar. Si** | **7.95** | **116** | *e*Pg | | **Pb** | **04 25 58.6** | **-0.7** |
| SONB2 | | | | *e*Sg | | Sg | 04 27 46.5 | -10 |
| | comp=N,3μm,1.6s | | | | | | | |
| **SONB3** | **Songino Array** | **7.95** | **117** | *e*Pg | | **Pb** | **04 25 58.2** | **-1.1** |
| SONB3 | | | | *e*Sg | | Sg | 04 27 46.4 | -10 |
| | comp=N,2μm,1.2s | | | | | | | |
| **SONB3** | **Songino Array** | **7.95** | **117** | *e*Pg | | **Pb** | **04 25 58.5** | **-0.8** |
| SONB3 | | | | *e*Sg | | Sg | 04 27 46.4 | -10 |
| | comp=N,2μm,1.2s | | | | | | | |
| **UB1M** | | **8.00** | **116** | *e*Pg | | **Pb** | **04 25 59.3** | **-0.8** |
| UB1M | | | | *e*Sg | | Sg | 04 27 48.0 | -10 |
| | comp=N,885nm,0.9s | | | | | | | |
| **UB1M** | | **8.00** | **116** | *e*Pg | | **Pb** | **04 25 59.4** | **-0.7** |
| UB1M | | | | *e*Sg | | Sb | 04 27 45.8 | +10 |
| **ALFM** | | **8.07** | **115** | *e*Pg | | **Pb** | **04 26 02.2** | **+0.9** |
| ALFM | | | | *e*Sg | | Sb | 04 27 46.9 | +10 |
| | comp=N,2μm,1.1s | | | | | | | |
| **ALFM** | | **8.07** | **115** | *e*Pg | | **Pb** | **04 26 01.4** | **+0.1** |
| ALFM | | | | *e*Sg | | Sb | 04 27 48.0 | +11 |
| **NVS** | **Novosibirsk** | **8.09** | **296** | *e*Pn | | **Pn** | **04 25 39.7** | **+0.9** |
| NVS | | | | *e*Pg | | **Pb** | **04 26 06.2** | **+4.6** |
| NVS | | | | *e*Sn | | **Sn** | **04 27 09.2** | **-1.0** |
| NVS | | | | *e*Sg | | **Sg** | **04 27 53.1** | **-7.8** |
| **NVS** | **Novosibirsk** | **8.09** | **296** | *e*P | | **Pn** | **04 25 40.2** | **+1.4** |
| **ULN** | **Ulaanbaatar** | **8.29** | **115** | *e*P | | **Pn** | **04 25 43.8** | **+2.1** |
| ULN | | | | | pmax | pmax | | |
| | comp=Z,27nm,1.7s | | | | | | | |
| **ULN** | **Ulaanbaatar** | **8.29** | **115** | *e*Pn | | **Pn** | **04 25 44.8** | **+3.0** |
| ULN | | | | *e*Sn | | **Sn** | **04 27 14.5** | **-0.9** |
| **ARTM** | | **8.38** | **114** | *e*Pg | | **Pb** | **04 26 07.2** | **+0.6** |
| ARTM | | | | *e*Sg | | Sg | 04 27 58.6 | -12 |
| **ARTM** | | **8.38** | **114** | *e*Pg | | **Pb** | **04 26 07.2** | **+0.6** |
| ARTM | | | | *e*Sg | | Sg | 04 28 00.6 | -10 |
| **SEMM** | | **8.42** | **117** | *e*Pg | | **Pb** | **04 26 07.8** | **+0.5** |
| SEMM | | | | *e*Sg | | Sb | 04 27 58.5 | +11 |
| **SEMM** | | **8.42** | **117** | *e*Pg | | **Pb** | **04 26 08.6** | **+1.3** |
| SEMM | | | | *e*Sg | | Sg | 04 28 00.2 | -11 |
| **UGDM** | | **8.61** | **115** | *e*Pg | | Pg | 04 26 12.0 | -14 |
| UGDM | | | | *e*Sg | | Sg | 04 28 06.4 | -11 |
| **UGDM** | | **8.61** | **115** | *e*Pg | | Pg | 04 26 11.9 | -14 |
| UGDM | | | | *e*Sg | | Sg | 04 28 06.2 | -11 |
| **SYVR** | **Suvo** | **8.77** | **73** | *e*P | | Pn | 04 25 57.2 | +9.0 |
| SYVR | | | | | pmax | pmax | | |
| | comp=Z,50nm,1.3s | | | | | | | |
| **WMQ** | **Urumqi** | **9.74** | **217** | P | | **Pn** | **04 26 03.3** | **+1.8** |
| WMQ | | | | pP | | | 04 26 07.0 | |
| WMQ | | | | sP | | | 04 26 09.3 | |
| WMQ | | | | S | | **Sn** | **04 27 51.0** | **+0.1** |
| WMQ | | | | SS | | **SnSn** | **04 28 02.8** | **+0.6** |
| WMQ | | | | | pmax | pmax | | |
| | comp=Z,33nm,1.5s | | | | | | | |
| WMQ | | | | | pmax | pmax | | |
| | comp=Z,490nm,4.7s | | | | | | | |
| WMQ | | | | | smax | smax | | |
| | comp=Z,560nm,1.3s | | | | | | | |
| WMQ | | | | | smax | smax | | |
| | comp=Z,640nm,1.5s | | | | | | | |
| WMQ | | | | | LR | LR | | |
| | comp=Z,950nm,25.3s | | | | | | | |
| WMQ | | | | | LR | LR | | |
| | comp=Z,660nm,20.7s | | | | | | | |
| WMQ | | | | | LR | LR | | |
| | comp=Z,2μm,20.7s | | | | | | | |
| **DZBM** | | **9.96** | **141** | *e*Sg | | Sn | 04 28 46.4 | +50 |
| **MK31** | **Makanchi Array** | **10.20** | **245** | *i* P | | **Pn** | **04 26 07.8** | **+0.1** |
| MK31 | | | | | pmax | pmax | | |
| | comp=Z,14nm,0.8s | | | | | | | |
| **MK31** | **Makanchi Array** | **10.20** | **245** | *e*Pn | | **Pn** | **04 26 07.7** | **0.0** |
| **MK32** | **Makanchi Array** | **10.20** | **245** | *e*Pn | | **Pn** | **04 26 07.6** | **-0.1** |
| **MKAR** | **Makanchi Array** | **10.20** | **245** | Pn | | **Pn** | **04 26 07.6** | **-0.1** |
| | comp=Z,0.5nm,0.3s,baz=74,slow=13,SNR=24 | | | | | | | |
| MKAR | | | | Lg | Lg | | 04 28 58.2 | |
| | comp=Z,1.9nm,0.3s,baz=55,slow=28,SNR=3.3 | | | | | | | |
| MKAR | | | | LR | LR | | 04 30 19.7 | |
| | comp=Z,354nm,20.2s,baz=48,slow=39 | | | | | | | |
| **MKAR** | **Makanchi Array** | **10.20** | **245** | *i* P | | **Pn** | **04 26 07.5** | **-0.1** |
| MKAR | | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.9s | | | | | | | |
| **MK01** | **Makanchi Array** | **10.20** | **245** | *e*Pn | | **Pn** | **04 26 07.7** | **-0.2** |
| **MAKZ** | **Makanchi** | **10.36** | **246** | *e*P | | **Pn** | **04 26 09.9** | **-0.1** |
| MAKZ | | | | *e* | | | 04 28 06.2 | |
| **MAKZ** | **Makanchi** | **10.36** | **246** | *e*Pn | | **Pn** | **04 26 09.9** | **-0.1** |
| MAKZ | | | | *e*Sn | | **Sn** | **04 28 06.2** | **+0.1** |
| **KURK** | **Kurchatov** | **10.84** | **271** | *i* P | | **Pn** | **04 26 17.4** | **+0.9** |
| KURK | | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.0s | | | | | | | |
| **KURK** | **Kurchatov** | **10.84** | **271** | *e*Pn | | **Pn** | **04 26 17.3** | **+0.9** |
| KURK | | | | *e*Sn | | **Sn** | **04 28 13.1** | **-4.5** |
| **KURBB** | **Kurchatov Arra** | **10.92** | **270** | Pn | | **Pn** | **04 26 18.4** | **+0.9** |
| | comp=Z,0.2nm,0.3s,baz=78,slow=15,SNR=19 | | | | | | | |
| KURBB | | | | Sn | | **Sn** | **04 28 13.1** | **-6.4** |
| | comp=Z,0.3nm,0.3s,baz=84,slow=15,SNR=4.9 | | | | | | | |
| KURBB | | | | Lg | Lg | | 04 29 19.4 | |
| | comp=Z,0.4nm,0.3s,baz=82,slow=30,SNR=5.3 | | | | | | | |
| **BOD** | **Bodaibo** | **12.02** | **53** | *e*P | | **Pn** | **04 26 30.8** | **-1.7** |
| BOD | | | | | pmax | pmax | | |
| | comp=Z,53nm,1.5s | | | | | | | |
| **GTA** | **Gaotai** | **12.78** | **166** | P | | **Pn** | **04 26 44.8** | **+1.6** |
| GTA | | | | pP | | P | 04 26 49.0 | -5.3 |
| GTA | | | | sP | | | 04 26 51.8 | |
| GTA | | | | S | | **Sn** | **04 29 08.0** | **+2.5** |
| GTA | | | | sS | | | 04 29 13.0 | |
| GTA | | | | SS | | **SnSn** | **04 29 23.3** | **+5.9** |
| GTA | | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.4s | | | | | | | |
| GTA | | | | | pmax | pmax | | |
| | comp=Z,230nm,5.2s | | | | | | | |
| GTA | | | | | LR | LR | | |
| | comp=Z,2μm,10.5s | | | | | | | |
| GTA | | | | | LR | LR | | |
| | comp=Z,6μm,10.5s | | | | | | | |
| GTA | | | | | LR | LR | | |
| | comp=Z,2μm,9.0s | | | | | | | |
| **PDGK** | **Podgornoye** | **13.93** | **238** | P | | **Pn** | **04 26 58.5** | **-0.3** |
| PDGK | | | | | pmax | pmax | | |
| | comp=Z,12nm,1.0s | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **15.45** | **129** | *e*P | | **Pn** | **04 27 19.5** | **+0.2** |
| HHC | | | | S | | **Sn** | **04 30 10.5** | **+0.1** |
| HHC | | | | | pmax | pmax | | |
| | comp=Z,27nm,0.6s | | | | | | | |
| HHC | | | | | pmax | pmax | | |
| | comp=Z,160nm,5.3s | | | | | | | |
| HHC | | | | | LR | LR | | |
| | comp=Z,1μm,13.6s | | | | | | | |
| HHC | | | | | LR | LR | | |
| | comp=Z,1μm,12.3s | | | | | | | |
| HHC | | | | | LR | LR | | |
| | comp=Z,2μm,9.9s | | | | | | | |
| **BVA0** | **Borovoye Array** | **15.53** | **284** | *e*P | | **Pn** | **04 27 18.0** | **-2.2** |
| BVA0 | | | | | pmax | pmax | | |
| | comp=Z,29nm,1.1s | | | | | | | |
| **BVAR** | **Borovoye Array** | **15.53** | **284** | Pn | | **Pn** | **04 27 18.2** | **-2.0** |
| | comp=Z,0.4nm,0.3s,baz=80,slow=17,SNR=11 | | | | | | | |
| BVAR | | | | Sn | | Sn | 04 29 55.1 | -17 |
| | comp=Z,0.2nm,0.3s,baz=97,slow=12,SNR=2.5 | | | | | | | |
| BVAR | | | | Lg | Lg | | 04 31 55.2 | |
| | baz=95,slow=25,SNR=2.2 | | | | | | | |
| BVAR | | | | LR | LR | | 04 33 34.2 | |
| | comp=Z,625nm,21.1s,baz=76,slow=38 | | | | | | | |
| **BRVK** | **Borovoye** | **15.59** | **284** | *e*P | | **Pn** | **04 27 20.2** | **-0.8** |
| BRVK | | | | *e* | | | 04 30 10.9 | |
| BRVK | | | | | pmax | pmax | | |
| | comp=Z,25nm,1.1s | | | | | | | |
| **BRVK** | **Borovoye** | **15.59** | **284** | *e*Pn | | **Pn** | **04 27 20.2** | **-0.8** |
| | comp=Z,25nm,1.1s | | | | | | | |
| BRVK | | | | *e*Sn | | **Sn** | **04 30 10.9** | **-2.6** |
| **LZH** | **Lanzhou** | **16.80** | **157** | *e*P | | **Pn** | **04 27 35.5** | **-1.2** |
| LZH | | | | pP | | P | 04 27 39.0 | +0.1 |
| LZH | | | | sP | | pP | 04 27 42.0 | 0.0 |
| LZH | | | | PP | | **PnPn** | **04 27 54.5** | **+8.4** |
| LZH | | | | *e*S | | **Sn** | **04 30 38.0** | **-5.3** |
| LZH | | | | sS | | S | 04 30 46.3 | -7.8 |
| LZH | | | | SS | | **SnSn** | **04 31 01.0** | **+4.7** |
| LZH | | | | | pmax | pmax | | |
| | comp=Z,46nm,1.0s | | | | | | | |
| LZH | | | | | pmax | pmax | | |
| | comp=Z,390nm,5.2s | | | | | | | |
| LZH | | | | | LR | LR | | |
| | comp=Z,3μm,11.6s | | | | | | | |
| LZH | | | | | LR | LR | | |
| | comp=Z,5μm,11.7s | | | | | | | |
| LZH | | | | | LR | LR | | |
| | comp=Z,3μm,13.9s | | | | | | | |
| **AAK** | **Ala-Archa** | **17.13** | **246** | P | | **Pn** | **04 27 39.3** | **-1.6** |
| | comp=Z,0.2nm,0.3s,baz=67,slow=13,SNR=5.3 | | | | | | | |
| AAK | | | | Lg | Lg | | 04 32 39.3 | |
| | comp=Z,0.1nm,0.3s,baz=155,slow=18,SNR=6.4 | | | | | | | |
| AAK | | | | LR | LR | | 04 34 33.2 | |
| | comp=Z,195nm,20.6s,baz=28,slow=38 | | | | | | | |
| **AAK** | **Ala-Archa** | **17.13** | **246** | *i* P | | **Pn** | **04 27 40.0** | **-0.9** |
| AAK | | | | | pmax | pmax | | |
| | comp=Z,11nm,1.8s | | | | | | | |
| **AAK** | **Ala-Archa** | **17.13** | **246** | *e*Pn | | **Pn** | **04 27 39.3** | **-1.6** |
| | comp=Z,34nm,1.8s | | | | | | | |
| **MNAS** | **Manas** | **18.36** | **248** | P | | **Pn** | **04 27 51.2** | **-4.9** |
| MNAS | | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.2s | | | | | | | |
| **BJI** | **Beijing** | **18.38** | **122** | P | | **P** | **04 27 58.0** | **+1.9** |
| BJI | | | | S | | **Sn** | **04 31 21.0** | **-0.2** |
| BJI | | | | ScS | | **ScS** | **04 39 45.5** | **+2.8** |
| BJI | | | | | pmax | pmax | | |
| | comp=Z,12nm,1.1s | | | | | | | |
| BJI | | | | | pmax | pmax | | |
| | comp=Z,260nm,5.1s | | | | | | | |
| BJI | | | | | LR | LR | | |
| | comp=Z,2μm,9.3s | | | | | | | |
| BJI | | | | | LR | LR | | |
| | comp=Z,1μm,8.4s | | | | | | | |
| BJI | | | | | LR | LR | | |
| | comp=Z,640nm,18.5s | | | | | | | |
| **KSH** | **Kashi** | **18.51** | **236** | *e*P | | **Pn** | **04 28 01.3** | **+3.4** |
| KSH | | | | pP | | sP | 04 28 05.5 | +3.2 |
| KSH | | | | PP | | **PnPn** | **04 28 17.3** | **+7.9** |
| KSH | | | | S | | **Sn** | **04 31 25.8** | **+1.2** |
| KSH | | | | SS | | **SnSn** | **04 31 51.8** | **+14** |
| KSH | | | | ScS | | **ScS** | **04 39 41.5** | **-2.0** |
| KSH | | | | | pmax | pmax | | |
| | comp=Z,11nm,1.0s | | | | | | | |
| KSH | | | | | LR | LR | | |
| | comp=Z,230nm,3.3s | | | | | | | |
| KSH | | | | | LR | LR | | |
| | comp=Z,51nm,5.7s | | | | | | | |
| KSH | | | | | LR | LR | | |
| | comp=Z,1μm,7.8s | | | | | | | |
| **KK31** | **Karatay Array** | **19.15** | **253** | *i* P | | **P** | **04 28 03.2** | **-1.4** |
| KK31 | | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.1s | | | | | | | |
| **KKAR** | **Karatay Array** | **19.15** | **253** | *e*P | | **P** | **04 28 04.4** | **-0.3** |
| KKAR | | | | | pmax | pmax | | |
| | comp=Z,43nm,0.9s | | | | | | | |
| **KKAR** | **Karatay Array** | **19.15** | **253** | *e*P | | **P** | **04 28 04.4** | **-0.3** |
| | comp=Z,43nm,0.9s | | | | | | | |
| **SFK** | **Sufi-Kurgan** | **19.45** | **241** | P | | **P** | **04 28 05.2** | **-3.0** |
| SFK | | | | | pmax | pmax | | |
| | comp=Z,14nm,1.1s | | | | | | | |
| **XAN** | **Xi'an** | **20.19** | **147** | P | | Pn | 04 28 17.3 | -0.7 |
| XAN | | | | pP | | pP | 04 28 20.3 | +1.0 |
| XAN | | | | S | | Sn | 04 32 03.5 | -1.6 |
| XAN | | | | sS | | sS | 04 32 07.3 | -0.3 |
| XAN | | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.2s | | | | | | | |
| XAN | | | | | pmax | pmax | | |
| | comp=Z,94nm,4.0s | | | | | | | |
| XAN | | | | | LR | LR | | |
| | comp=Z,1μm,10.7s | | | | | | | |
| XAN | | | | | LR | LR | | |
| | comp=Z,2μm,14.2s | | | | | | | |
| XAN | | | | | LR | LR | | |
| | comp=Z,2μm,13.3s | | | | | | | |
| **YAK** | **Yakutsk** | **20.81** | **48** | P | | **P** | **04 28 21.6** | **-0.9** |
| | comp=Z,16nm,0.6s,baz=95,slow=11,SNR=4.6 | | | | | | | |
| YAK | | | | S | | **S** | **04 32 17.3** | **+3.0** |
| | comp=Z,6.2nm,0.3s,baz=184,slow=19,SNR=2.3 | | | | | | | |
| YAK | | | | Lg | Lg | | 04 34 23.7 | |
| | comp=Z,5.0nm,0.3s,baz=41,slow=19,SNR=4.5 | | | | | | | |
| **YAK** | **Yakutsk** | **20.81** | **48** | *e*P | | Pn | 04 28 24.3 | -0.7 |
| YAK | | | | *e**PP | | sP | 04 28 28.1 | +1.0 |
| YAK | | | | *e* | | | 04 28 39.2 | |
| YAK | | | | *e*S | | **S** | **04 32 16.8** | **+2.5** |
| YAK | | | | *e*SS | | **SnSn** | **04 32 40.9** | **+6.9** |
| YAK | | | | | pmax | pmax | | |
| | comp=N,4.0nm,1.1s | | | | | | | |
| YAK | | | | | pmax | p

**AB31 Akbulak array 22.80 278** P **P** **04 28 40.8 -3.1**
AB31 pmax pmax
comp=Z,20nm,1.0s
**KLR Kul'dur 22.83 82** P **P** **04 28 41.0 -3.3**
comp=Z,0.2nm,0.8s,baz=279,slow=10.0,SNR=2.1
KLR Lg Lg 04 35 32.3
comp=Z,0.4nm,0.8s,baz=237,slow=1.5,SNR=8.7
**KLR Kul'dur 22.83 82** *i*P **P** **04 28 45.5 +1.2**
**AKTO Aktyubinsk 23.59 282** P **P** **04 28 52.2 +0.2**
comp=Z,31nm,0.8s,baz=87,slow=9.2,SNR=82
AKTO LR LR 04 38 21.1
comp=Z,320nm,20.2s,baz=71,slow=37
**AKTO Aktyubinsk 23.59 282** P **P** **04 28 51.5 -0.4**
AKTO pmax pmax
comp=Z,43nm,0.9s
**TIXI Tiksi 24.64 24** P **P** **04 29 01.3 -0.3**
comp=Z,33nm,0.8s,baz=238,slow=4.7,SNR=15
TIXI Lg Lg 04 36 26.2
comp=Z,6.9nm,0.9s,baz=199,slow=7.5,SNR=4.6
**TIXI Tiksi 24.64 24** *e*P **P** **04 29 01.2 -0.3**
TIXI pmax pmax
comp=Z,40nm,0.8s
**TIXI Tiksi 24.64 24** *e*P **P** **04 29 01.2 -0.3**
comp=Z,40nm,0.8s
**HABR Khabarovsk 25.14 82** *e*P **P** **04 29 06.1 -0.1**
HABR *e**PP **pP** **04 29 09.0 -0.6**
HABR *e**SP **sP** **04 29 10.4 -0.6**
HABR *e*PPP PPP 04 29 48.3
HABR *e* 04 32 38.9
HABR *e*S **S** **04 33 32.9 +2.2**
HABR *e**SS **sS** **04 33 37.8 +1.5**
HABR *e*SS **SnSn** **04 34 24.4 +4.2**
HABR *e*SSS SSS 04 34 38.3
HABR *e* 04 40 06.6
HABR pmax pmax
comp=Z,44nm,1.8s
HABR pmax pmax
comp=N,14nm,1.8s
HABR pmax pmax
comp=E,29nm,1.8s
HABR MLR MLR
comp=Z,160nm,16.0s
**USRK Ussuriysk Ar. 25.16 93** P **P** **04 29 06.5 0.0**
comp=Z,5.9nm,0.7s,baz=294,slow=7.9,SNR=11
USRK Lg Lg 04 36 49.6
comp=Z,0.8nm,0.6s,baz=278,slow=39,SNR=2.5
USRK LR LR 04 39 32.8
comp=Z,180nm,21.5s,baz=293,slow=38
**DANN Dangsing 25.19 206** *e*P **P** **04 29 06.3 -0.9**
**TAPN Taplejung 25.26 197** *e*P **P** **04 29 07.6 -0.3**
comp=Z,48nm,1.1s
**JIRN Jiri 25.26 200** *e*P **P** **04 29 07.2 -0.8**
comp=Z,139nm,0.8s
**WHN Wuhan 25.33 140** P **P** **04 29 07.8 -0.3**
WHN S **S** **04 33 31.5 -2.6**
WHN LR LR
comp=Z,920nm,10.2s
WHN LR LR
comp=Z,2μm,11.7s
WHN LR LR
comp=Z,1μm,13.7s
**PKI Pulchoki 25.52 202** *e*P **P** **04 29 09.5 -0.8**
comp=Z,36nm,1.1s
**DMN Daman 25.56 203** *e*P **P** **04 29 10.1 -0.4**
comp=Z,32nm,1.2s
**PYUN Piuthan 25.64 207** *e*P **P** **04 29 11.0 -0.2**
**KOLN Koldanda 25.78 206** *e*P **P** **04 29 11.6 -0.9**
comp=Z,40nm,1.2s
**ODAN Odare 25.80 198** *e*P **P** **04 29 12.5 -0.2**
comp=Z,43nm,1.0s
**RAMN Ramite 25.86 199** *e*P **P** **04 29 12.6 -0.7**
comp=Z,76nm,1.4s
**KBL Kabul 25.89 238** *e*P **P** **04 29 11.9 -1.5**
KBL pmax pmax
comp=Z,8.0nm,0.9s
**KBL Kabul 25.89 238** *e*P **P** **04 29 11.9 -1.5**
comp=Z,8.3nm,0.9s
**NJ2 Nanjing 26.00 131** *e*P **P** **04 29 14.8 +0.6**
NJ2 sP **sP** **04 29 23.5 +4.6**
NJ2 pmax pmax
comp=Z,15nm,0.9s
**KS01 Wonju Array Si 26.71 110** *e*P **P** **04 29 19.5 -1.1**
**KS15 Wonju Array Si 26.73 110** *e*P **P** **04 29 20.3 -0.4**
**KSRS Korea Array 26.74 110** P **P** **04 29 20.3 -0.5**
comp=Z,1.0nm,0.4s,baz=299,slow=8.7,SNR=6.3
KSRS LR LR 04 38 54.9
comp=Z,88nm,20.1s,baz=322,slow=34
**KMI Kunming 27.24 166** P **P** **04 29 28.8 +3.1**
KMI pmax pmax
comp=Z,10.0nm,0.5s
**BRDH Bariadhala 29.34 188** LR LR 04 43 28.5
comp=Z,415nm,18.5s,baz=16,slow=41
**MA2 Magadan 31.05 54** Lg Lg 04 39 51.1
comp=Z,1.6nm,0.3s,baz=267,slow=3.0,SNR=4.8
MA2 LR LR 04 42 55.7
comp=Z,126nm,18.1s,baz=280,slow=37
**SEY Seymchan 31.34 47** P **P** **04 30 00.8 -0.7**
comp=Z,1.1nm,0.3s,baz=271,slow=9.4,SNR=4.5
SEY Lg Lg 04 40 01.1
comp=Z,0.8nm,0.5s,baz=63,slow=14,SNR=4.6
**KLMR Klimovskoe 31.50 309** *e*P **P** **04 30 01.9 -1.0**
KLMR pmax pmax
comp=Z,22nm,1.2s
**MAK Makhachkala 33.34 274** *e*P **P** **04 30 16.2 -3.0**
MAK *e* 04 31 24.7
MAK *e*S **S** **04 35 38.1 -1.5**
MAK pmax pmax
comp=Z,79nm,0.8s
MAK MLR MLR
comp=Z,339nm,17.0s
**CM31 Chiang Mai Arr 33.45 175** *e*P **P** **04 30 19.4 -1.0**
**CMAR Chiang Mai Arr 33.45 175** P **P** **04 30 19.4 -1.0**
comp=Z,0.9nm,0.4s,baz=357,slow=9.6,SNR=5.7
CMAR LR LR 04 44 49.0
comp=Z,208nm,18.0s,baz=350,slow=38
**CMAR Chiang Mai Arr 33.45 175** *ce*P **P** **04 30 20.2 -0.2**
CMAR pmax pmax
comp=Z,1.0nm,0.4s
**MJAR Matsushiro Arr 33.50 100** LR LR 04 44 06.0
comp=Z,199nm,18.7s,baz=310,slow=37
**TPUB Ta-pu 34.32 137** *e*P **P** **04 30 25.8 -2.1**
comp=Z,194nm,1.8s
**OBN Obninsk 34.48 299** LR LR 04 45 37.0
comp=Z,465nm,18.6s,baz=338,slow=38
**OBN Obninsk 34.48 299** *e*P **P** **04 30 26.0 -3.0**
OBN pmax pmax
comp=Z,7.0nm,1.0s
OBN MLR MLR
comp=Z,329nm,17.0s
**SEKA Sheki 34.50 272** P **P** **04 30 27.9 -1.6**
**QIZ Qiongzhong 34.59 156** P **P** **04 30 31.5 +1.2**
QIZ S **S** **04 36 01.5 +2.2**
QIZ LR LR
comp=Z,1μm,14.7s
QIZ LR LR
comp=Z,1μm,10.6s
**ZKTA Zakatala 34.62 273** P **P** **04 30 29.4 -1.0**
**MNGR Mingechevir, A 34.82 271** P **P** **04 30 31.2 -0.9**
**LKRN Lenkeran, Azer 35.00 267** P **P** **04 30 32.8 -0.9**
**GANJ Ganja 35.37 271** P **P** **04 30 35.8 -1.1**
**ZEI Tsey 35.66 276** *e*P **P** **04 30 38.2 -1.4**
ZEI pmax pmax
comp=Z,15nm,0.8s
**KBZ Khabaz 35.77 278** P **P** **04 30 39.6 -0.6**
comp=Z,5.0nm,1.0s,baz=74,slow=7.8,SNR=3.7
KBZ LR LR 04 46 56.4
comp=Z,160nm,20.6s,baz=74,slow=39
**KVAR Kislovodsk Arr 35.77 279** P **P** **04 30 40.9 +0.4**
comp=Z,16nm,0.9s,baz=78,slow=2.4,SNR=7.3
KVAR LR LR 04 46 56.7
comp=Z,160nm,18.8s,baz=7.5,slow=39
**KIV Kislovodsk 35.78 279** *e*P **P** **04 30 41.3 +0.9**
KIV pmax pmax
comp=Z,23nm,1.1s
KIV MLR MLR
comp=Z,142nm,16.0s
**KIV Kislovodsk 35.78 279** *e*P **P** **04 30 41.6 +1.2**
**ARA0 ARCESS Array S 36.09 326** *e*P **P** **04 30 41.9 -0.9**
**ARCES ARCESS Array B 36.09 326** P **P** **04 30 41.9 -0.9**
comp=Z,1.9nm,0.7s,baz=62,slow=8.4,SNR=6.8
ARCES LR LR 04 49 56.9
comp=Z,205nm,18.6s,baz=44,slow=44
**ARCES ARCESS Array B 36.09 326** *e*P **P** **04 30 42.9 +0.1**
**GNI Garni 36.64 272** P **P** **04 30 48.7 +0.8**
comp=Z,9.8nm,0.9s,baz=9.5,slow=6.1,SNR=5.7
**GNI Garni 36.64 272** *ce*P **P** **04 30 50.6 +2.7**
GNI pmax pmax
comp=Z,63nm,1.2s
**GNI Garni 36.64 272** *e*P **P** **04 30 47.9 0.0**
comp=Z,18nm,1.1s
**PETK Petropavlovsk- 36.65 63** LR LR 04 45 31.5
comp=Z,205nm,18.3s,baz=291,slow=36
**AKH Akhalkalaki 36.68 275** *i*P **P** **04 30 50.1 +1.8**
**AKH Akhalkalaki 36.68 275** P **P** **04 30 50.0 +1.8**
**NAX Nakhchivan 36.75 270** P **P** **04 30 47.8 -1.0**
**FIA1 FINESS Array S 37.69 312** *e*P **P** **04 30 57.0 +0.6**
**FIA0 FINESS Array S 37.69 312** *e*P **P** **04 30 56.7 +0.3**
**FIA0 FINESS Array S 37.69 312** *e*P **P** **04 30 56.7 +0.3**
**FINES FINESS Array B 37.69 312** P **P** **04 30 56.7 +0.3**
comp=Z,6.4nm,0.8s,baz=74,slow=8.3,SNR=12
FINES LR LR 04 47 44.2
comp=Z,277nm,18.1s,baz=122,slow=38
**ARTV Artvin 37.77 275** *e*P **P** **04 30 59.4 +1.7**
comp=Z,7.3nm,1.0s
**KOPT Kop Dagi 39.34 275** *e*P **P** **04 31 13.0 +2.1**
comp=Z,16nm,1.0s
**AKASG Malin Array Be 40.34 296** P **P** **04 31 18.7 0.0**
comp=Z,1.7nm,0.5s,baz=53,slow=9.0,SNR=12
AKASG LR LR 04 48 59.7
comp=Z,369nm,18.7s,baz=85,slow=38
**AKBB Malin Array Si 40.34 296** *e*P **P** **04 31 18.7 0.0**
AKBB pmax pmax
comp=Z,31nm,1.8s
**AKBB Malin Array Si 40.34 296** *e*P **P** **04 31 18.7 0.0**
comp=Z,30nm,1.8s
**TOKA Tokat 41.63 278** *e*P **P** **04 31 28.7 -0.9**
comp=Z,9.3nm,0.7s
**SORM Soroca 42.12 293** *i*P **P** **04 31 33.8 +0.5**
**SORM Soroca 42.12 293** P **P** **04 31 33.8 +0.5**
**LVV L'vov 43.67 297** *e*P **P** **04 31 47.2 +1.3**
**BR101 Keskin Array S 43.73 279** *e*P **P** **04 31 47.4 +0.7**
**BR131 Keskin Array S 43.73 279** *e*P **P** **04 31 47.6 +0.9**
**BRTR Keskin Array B 43.73 279** P **P** **04 31 47.4 +0.7**
comp=Z,8.4nm,0.9s,baz=79,slow=5.6,SNR=31
BRTR LR LR 04 52 39.2
comp=Z,109nm,18.5s,baz=20,slow=40
**PRAR RASCA 43.75 293** *i*P **P** **04 31 46.7 +0.1**
**HFS Hagfors 43.79 314** LR LR 04 51 52.4
comp=Z,397nm,18.5s,baz=63,slow=39
**CFR Carcaliu 43.85 289** *i*P **P** **04 31 47.4 0.0**
**CFR Carcaliu 43.85 289** P **P** **04 31 47.4 0.0**
**TESR Tescani 43.97 292** *i*P **P** **04 31 49.5 +1.1**
**TIRR Tirgusor 44.09 288** *e*P **P** **04 31 47.3 -2.0**
TIRR pmax pmax
comp=Z,16nm,1.2s
**TIRR Tirgusor 44.09 288** *e*P **P** **04 31 47.3 -2.0**
comp=Z,16nm,1.2s
**BUR08 Bucovina Ar. S 44.18 294** *e*P **P** **04 31 51.0 +0.9**
**BURAR Bucovina Array 44.18 294** *i*P **P** **04 31 51.3 +1.1**
**BURAR Bucovina Array 44.18 294** P **P** **04 31 51.3 +1.1**
**BUR04 Bucovina Ar. S 44.19 294** *e*P **P** **04 31 50.5 +0.3**
**BR231 Keskin MP Arra 44.19 280** *e*P **P** **04 31 48.0 -2.4**
**NC405 NORSAR Array S 44.20 316** *e*P **P** **04 31 50.5 +0.4**
**NC303 NORSAR Array S 44.29 316** *e*P **P** **04 31 49.9 -0.9**
**PLOR Plostina 44.34 291** *i*P **P** **04 31 52.6 +1.2**
**PLOR Plostina 44.34 291** P **P** **04 31 52.6 +1.2**
**NB201 NORSAR Array S 44.41 316** *e*P **P** **04 31 51.5 -0.3**
**NB2 NORSAR Subarra 44.45 316** P **P** **04 31 51.9 -0.2**
comp=Z,6.7nm,0.7s,baz=61,slow=7.9
**NB2 NORSAR Subarra 44.45 316** P **P** **04 31 56.1 +4.0**
NB2 pmax pmax
comp=Z,204nm,1.2s
**NB200 NORSAR Array S 44.45 316** *e*P **P** **04 31 51.6 -0.4**
**NOA NORSAR Array B 44.45 316** P **P** **04 31 51.6 -0.4**
comp=Z,7.6nm,0.8s,baz=62,slow=7.9,SNR=4.4
NOA LR LR 04 52 14.1
comp=Z,280nm,18.2s,baz=50,slow=38
**NC602 NORSAR Array S 44.45 316** *e*P **P** **04 31 50.7 -1.3**
**NC605 NORSAR Array S 44.49 316** *e*P **P** **04 31 51.5 -0.8**
**KWP Kalwaria Pacla 44.50 297** P **P** **04 31 54.7 +2.1**
KWP pmax pmax
comp=Z,204nm,1.2s
**NC204 NORSAR Array S 44.53 317** *e*P **P** **04 31 52.6 -0.1**
**NBO02 NORSAR Array S 44.60 316** *e*P **P** **04 31 53.8 +0.5**
**NBO00 NORSAR Array S 44.64 316** *e*P **P** **04 31 53.7 +0.2**
**ISR Istrita 44.81 290** P **P** **04 31 58.8 +3.6**
ISR pmax pmax
comp=Z,24nm,1.2s
**MLR Muntele Rosu 44.95 291** P **P** **04 31 57.4 +1.1**
comp=Z,0.4nm,0.8s,baz=79,slow=22,SNR=3.6
MLR LR LR 04 52 36.2
comp=Z,85nm,19.8s,baz=64,slow=39
**MLR Muntele Rosu 44.95 291** *i*P **P** **04 31 57.5 +1.1**
**MLR Muntele Rosu 44.95 291** *e*P **P** **04 31 56.5 +0.2**
MLR pmax pmax
comp=Z,15nm,1.5s
**MLR Muntele Rosu 44.95 291** *e*P **P** **04 31 56.5 +0.2**
comp=Z,15nm,1.5s
**DOPR Dopca 45.00 292** *i*P **P** **04 31 58.5 +1.9**
**UZH Uzhgorod 45.27 296** *e*P **P** **04 31 54.6 -4.1**
**VOIR 45.50 291** *i*P **P** **04 32 01.9 +1.3**
**VOIR 45.50 291** P **P** **04 32 01.9 +1.3**
**ARR Arges 45.78 291** *i*P **P** **04 32 04.3 +1.5**
**DRGR 46.06 294** *i*P **P** **04 32 06.7 +1.6**
**DRGR 46.06 294** P **P** **04 32 06.7 +1.6**
**KECS Kecovo 46.35 297** *e*P **P** **04 32 05.7 -1.6**
KECS pmax pmax
comp=Z,5.0nm,1.1s
**KECS Kecovo 46.35 297** *e*P **P** **04 32 05.7 -1.6**
**ASF Jabal al Asfar 46.60 269** P **P** **04 32 09.8 +0.3**
comp=Z,6.4nm,1.0s,baz=359,slow=4.3,SNR=7.8
**MMAI Mount Meron Ar 46.95 271** P **P** **04 32 11.9 -0.4**
comp=Z,4.1nm,0.7s,baz=62,slow=5.8,SNR=7.2
MMAI LR LR 04 54 03.7
comp=Z,88nm,19.3s,baz=55,slow=39
**SIRR Siria 46.96 294** *i*P **P** **04 32 13.3 +1.2**
**MORC Moravsky Berou 47.23 300** *i*P **P** **04 32 15.2 +1.1**
**MORC Moravsky Berou 47.23 300** *e*P **P** **04 32 15.0 +0.9**
MORC pmax pmax
comp=Z,27nm,1.0s
**MORC Moravsky Berou 47.23 300** *e*P **P** **04 32 15.0 +0.9**
comp=Z,27nm,1.0s
**VYHS Vyhne 47.25 298** *e*P **P** **04 32 15.2 +0.9**
VYHS pmax pmax
comp=Z,9.0nm,1.4s
**VYHS Vyhne 47.25 298** *e*P **P** **04 32 15.2 +0.9**
**HERR Herculane 47.34 292** *i*P **P** **04 32 15.9 +0.9**
**BZS Buzias 47.36 293** *i*P **P** **04 32 15.7 +0.5**
**BZS Buzias 47.36 293** P **P** **04 32 15.7 +0.5**
**KRLC Kraliky 47.46 301** *e*P **P** **04 32 13.4 -2.6**
KRLC *ep*P **sP** **04 32 21.7 +0.8**
**KRLC Kraliky 47.46 301** *e*P **P** **04 32 13.4 -2.6**
KRLC *e* 04 32 21.7
**DPC Dobruska-Polom 47.55 301** *e*P **P** **04 32 17.8 +1.1**
DPC *ep*P **sP** **04 32 23.0 +1.4**
**DPC Dobruska-Polom 47.55 301** *e*P **P** **04 32 17.8 +1.1**
DPC *e* 04 32 23.0
**UPC Upice 47.63 302** *e*P **P** **04 32 18.2 +1.0**
UPC *ep*P **sP** **04 32 23.3 +1.2**
**UPC Upice 47.63 302** *e*P **P** **04 32 18.2 +1.0**
UPC *e* 04 32 23.3
**VRAC Vranov 48.00 300** P **P** **04 32 20.0 -0.1**
comp=Z,3.5nm,0.8s,baz=55,slow=9.9,SNR=4.4
VRAC LR LR 04 54 03.7
comp=Z,184nm,18.1s,baz=72,slow=38
**VRAC Vranov 48.00 300** *i*P **P** **04 32 20.5 +0.4**
**VRAC Vranov 48.00 300** P **P** **04 32 20.0 -0.1**
VRAC pmax pmax
comp=Z,5.0nm,1.0s
VRAC MLR MLR
comp=Z,184nm,18.1s
**VTS Vitosha 48.25 289** *i*P **P** **04 32 23.3 +1.0**
**VTS Vitosha 48.25 289** *e*P **P** **04 32 23.1 +0.8**
VTS pmax pmax
comp=Z,7.0nm,1.3s
**VTS Vitosha 48.25 289** *e*P **P** **04 32 23.1 +0.8**
comp=Z,7.0nm,1.3s
**BRG Berggiesshubel 48.50 303** *i*P **P** **04 32 24.5 +0.6**
comp=Z,6.8nm,1.1s
**BRG Berggiesshubel 48.50 303** *i*P **P** **04 32 24.5 +0.6**
BRG pmax pmax
comp=Z,7.0nm,1.1s
**PRU Pruhonice 48.70 302** *e*P **P** **04 32 26.2 +0.7**
**PRU Pruhonice 48.70 302** *e*P **P** **04 32 26.2 +0.7**
**CLL Collm 48.74 304** *i*P **P** **04 32 26.3 +0.5**
CLL pmax pmax
comp=Z,11nm,0.7s
**CLL Collm 48.74 304** *i*P **P** **04 32 26.3 +0.5**
comp=Z,11nm,0.7s
CLL *i* sP **sP** **04 32 31.2 +0.6**
CLL Lm MLR 04 54 00.0
comp=Z,300nm,18.9s
**CLL Collm 48.74 304** *e*P **P** **04 32 26.2 +0.5**
comp=Z,20nm,1.3s
**PSI Prapat 48.99 176** *e*P **P** **04 32 28.7 +0.6**
PSI pmax pmax
comp=Z,17nm,1.5s
**PSI Prapat 48.99 176** *e*P **P** **04 32 28.7 +0.6**
comp=Z,16nm,1.5s
**CONA Conrad Observa 49.20 299** *i*pP **P** **04 32 31.0 +1.6**
comp=Z,4.8nm,1.0s
**EIL Elat 49.53 268** P **P** **04 32 32.0 -0.1**
comp=Z,3.5nm,0.8s,baz=71,slow=7.4,SNR=2.8
**NKC Novy Kostel 49.65 303** *e*P **P** **04 32 33.6 +0.8**
**NKC Novy Kostel 49.65 303** *e*P **P** **04 32 33.6 +0.8**
**KHC Kasperske Hory 49.71 301** *e*P **P** **04 32 34.1 +0.8**
KHC *ep*P **sP** **04 32 40.2 +2.0**
**KHC Kasperske Hory 49.71 301** *e*P **P** **04 32 34.0 +0.8**
KHC pmax pmax
comp=Z,2.0nm,0.9s
**KHC Kasperske Hory 49.71 301** *e*P **P** **04 32 34.0 +0.7**
comp=Z,1.9nm,0.9s
**GERES GERESS Array B 49.81 301** P **P** **04 32 34.5 +0.3**
comp=Z,1.7nm,0.9s,baz=46,slow=7.7,SNR=13
GERES LR LR 04 55 11.0
comp=Z,278nm,18.7s,baz=42,slow=38
**GEA0 GERESS Array S 49.82 301** *e*P **P** **04 32 34.2 0.0**
**MOX Moxa 49.84 304** P **P** **04 32 36.2 +2.0**
MOX pmax pmax
comp=Z,8.0nm,1.1s
**WET Wettzell 50.07 302** P **P** **04 32 40.1 +4.1**
WET pmax pmax
comp=Z,59nm,0.8s
**SOKA Soboth 50.40 298** pP **P** **04 32 39.5 +0.9**
comp=Z,5.2nm,1.3s
**KBA Koelnbreinsper 51.08 299** P **P** **04 32 45.6 +1.8**
KBA pmax pmax
comp=Z,19nm,1.5s
**KBA Koelnbreinsper 51.08 299** *i*pP **P** **04 32 45.4 +1.6**
comp=Z,16nm,1.2s
**IMAR Indian Mountai 51.13 30** *e*P **P** **04 32 43.4 -0.3**
**MYKA Terra Mystica 51.19 299** *i*pP **P** **04 32 46.5 +2.0**
comp=Z,11nm,1.1s
**COLD Coldfoot 51.33 27** *e*P **P** **04 32 45.3 +0.1**
comp=Z,5.6nm,1.0s
**MOTA Moosalm 52.11 301** *i*pP **P** **04 32 52.7 +1.2**
comp=Z,3.6nm,0.9s
**RETA Reutte 52.20 301** *i*pP **P** **04 32 53.1 +1.0**
comp=Z,7.0nm,1.4s
**FETA Feichten 52.51 301** *i*pP **P** **04 32 55.3 +0.8**
comp=Z,6.2nm,1.0s
**DAVA Damuels 52.80 302** *i*pP **P** **04 32 57.5 +0.9**
comp=Z,10nm,1.2s
**FUORN Ofenpass-Fuorn 53.01 301** *e*P **P** **04 32 59.4 +1.0**
comp=Z,18nm,1.4s
**DAVOX Davos/Dischmat 53.12 301** P **P** **04 32 58.8 -0.2**
comp=Z,1.9nm,0.7s,baz=91,slow=3.7,SNR=6.1
**BPAW Bear Paw Mtn. 53.28 30** *e*P **P** **04 32 59.4 -0.4**
comp=Z,18nm,1.8s
**KTH Kantishna Hill 53.69 31** *e*P **P** **04 33 04.3 +1.5**
comp=Z,22nm,1.3s
**IL1 Eielson Array 54.03 28** *e*P **P** **04 33 04.2 -1.1**
**ILAR Eielson Array 54.03 28** P **P** **04 33 04.8 -0.4**
comp=Z,1.4nm,0.9s,baz=307,slow=4.0,SNR=15
ILAR LR LR 04 58 03.2
comp=Z,162nm,19.7s,baz=329,slow=38
**ILB Eielson Array 54.03 28** *e*P **P** **04 33 04.8 -0.4**
**TIP Timpagrande 54.19 290** *e*P **P** **04 33 09.1 +2.3**
comp=Z,39nm,1.6s
**VLC Villacolmenard 54.53 298** *e*P **P** **04 33 10.3 +1.2**
comp=Z,20nm,1.2s
**INK Inuvik 54.66 20** P **P** **04 33 09.3 -0.3**
comp=Z,5.6nm,1.0s,baz=354,slow=11,SNR=12
**INK Inuvik 54.66 20** *e*P **P** **04 33 09.8 +0.1**
comp=Z,13nm,1.2s
**BNI Bardonecchia 55.94 301** *e*P **P** **04 33 20.2 +0.8**
BNI pmax pmax
comp=Z,14nm,1.0s
**BNI Bardonecchia 55.94 301** *e*P **P** **04 33 20.2 +0.8**
comp=Z,14nm,1.0s
**YKA Yellowknife Ar 63.45 15** P **P** **04 34 10.0 -0.7**
comp=Z,1.1nm,0.8s,baz=338,slow=7.3,SNR=15
YKA LR LR 05 05 39.2
comp=Z,5.3nm,18.3s,baz=0.0,slow=40
**YKA Yellowknife Ar 63.45 15** P **P** **04 34 10.0 -0.7**
YKA pmax pmax
comp=Z,1.0nm,0.8s
**YKB5 Yellowknife Ar 63.45 15** *e*P **P** **04 34 10.0 -0.7**
**ES19 SONSECA Array 65.26 303** *e*P **P** **04 34 23.8 +0.8**
**ESDC Sonseca Array 65.31 303** P **P** **04 34 23.7 +0.4**
comp=Z,1.5nm,0.7s,baz=52,slow=6.3,SNR=12
ESDC LR LR 05 05 09.8
comp=Z,65nm,21.6s,baz=50,slow=38
**MDT Midelt 70.81 299** P **P** **04 34 58.5 +0.4**
comp=Z,3.4nm,1.0s,baz=27,slow=6.6,SNR=5.2
**KMBO Kilima Mbogo 72.08 244** LR LR 05 08 07.6
comp=Z,54nm,19.0s,baz=54,slow=37
**ULM Lac du Bonnet 77.75 8** P **P** **04 35 36.9 -1.2**
comp=Z,3.6nm,0.9s,baz=355,slow=4.8,SNR=5.2
ULM LR LR 05 10 28.6
comp=Z,48nm,19.8s,baz=314,slow=36
**WR1 Warramunga Arr 79.04 143** *e*P **P** **04 35 43.6 -1.9**
comp=Z,64nm,1.8s
**WRA Warramunga Arr 79.04 143** P **P** **04 35 43.6 -1.9**
comp=Z,3.7nm,1.1s,baz=342,slow=5.7,SNR=6.8
**WRA Warramunga Arr 79.04 143** *i*P **P** **04 35 46.7 +1.2**
WRA pmax pmax
comp=Z,3.0nm,1.1s
**AS31 Alice Springs 82.29 145** *e*P **P** **04 36 01.5 -1.4**
comp=Z,6.0nm,1.9s
**ASAR Alice Springs 82.30 145** P **P** **04 36 01.5 -1.4**
comp=Z,3.1nm,1.0s,baz=336,slow=4.8,SNR=13
**TOA1 Torodi Ar. Sit 82.31 281** *e*P **P** **04 36 02.9 -0.3**
**TOA0 Torodi Ar. Sit 82.31 281** *e*P **P** **04 36 03.0 -0.2**
**TORD Torodi Ar. Bea 82.31 281** P **P** **04 36 02.9 -0.3**
comp=Z,2.8nm,0.8s,baz=41,slow=4.7,SNR=19
**AS01 Alice Springs 82.31 145** *e*P **P** **04 36 02.0 -0.9**
**PDAR Pinedale Array 83.19 19** LR LR 05 18 27.8
comp=Z,59nm,18.1s,baz=343,slow=40
**NV01 Mina Array Sit 85.25 26** *e*P **P** **04 36 18.5 +0.2**
**NVAR Mina Array Bea 85.25 26** P **P** **04 36 18.5 +0.2**
comp=Z,0.5nm,0.7s,baz=307,slow=3.2,SNR=4.4
NVAR LR LR 05 20 32.8
comp=Z,55nm,20.9s,baz=2.5,slow=40
**ANMO Albuquerque 91.35 18** *ce*P **P** **04 36 50.2 +2.8**
ANMO pmax pmax
comp=Z,8.0nm,2.5s
**TXAR Lajitas Array 97.33 17** LR LR 05 27 07.3
comp=Z,45nm,19.1s,baz=0.0,slow=39
**CPUP Villa Florida 147.40 311** PKPbc **PKPdf** **04 43 23.3 +0.7**
comp=Z,2.9nm,1.1s,baz=358,slow=1.5,SNR=3.7

**DJA 28 04:28:01.5±0.7, 0°S±8°×12°3E±°, h10km, M3.6/5, MLv3.6/5, Minahassa Peninsula, Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op ISC | h m s | ISC |
| **LUWI** | **Luwuk** | **1.08** | **212** | P | | Pg | 04 28 22.5 | +0.1 |
| LUWI | | | | S | | Sn | 04 28 39.3 | +1.5 |
| **MRSI** | **Marisa** | **1.53** | **293** | P | | Pn | 04 28 29.1 | +0.2 |
| MRSI | | | | S | | Sn | 04 28 48.2 | -0.6 |
| **APSI** | **Ampana** | **1.87** | **245** | P | | Pn | 04 28 32.7 | -0.9 |
| APSI | | | | S | | Sg | 04 29 03.6 | +1.8 |
| **SANI** | **Sanana** | **3.26** | **126** | P | | Pn | 04 28 51.9 | -0.8 |
| SANI | | | | S | | Sn | 04 29 25.1 | -6.5 |
| **MPSI** | **Mapaga** | **3.48** | **277** | P | | Pn | 04 28 57.6 | +1.8 |
| MPSI | | | | S | | Sn | 04 29 37.3 | +0.2 |

**OBM 28 04:30:04.1±0.2, 51°78N×95°99E, h2km, MI3.7/1, Error ellipse: s-maj=2.6km s-min=1.3km az=165.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op ISC | h m s | ISC |
| **HTG** | **Hatgal** | **2.94** | **115** | *e*Pg | | Pb | 04 30 58.0 | +0.6 |
| HTG | | | | *e*Sg | | Sb | 04 31 35.5 | +1.6 |
| **ULG** | **Ulaangom** | **3.09** | **235** | *e*Pg | | Pg | 04 31 01.6 | -1.6 |
| ULG | | | | *e*Sg | | Sg | 04 31 40.6 | -2.6 |
| **HBD** | **Hovd** | **4.70** | **218** | *e*Sg | | Sg | 04 32 31.2 | -3.9 |
| **BYO** | **Bayan-Olgiy** | **4.78** | **236** | *e*Pn | | Pn | 04 31 22.4 | +5.1 |
| BYO | | | | *e*Sg | | Sg | 04 32 32.9 | -4.8 |
| **TTS** | **Tsetserleg** 118nm,0.6s | **5.57** | **138** | *e*Sg | | Sg | 04 32 56.5 | -6.5 |
| **BLGM** | **Bulgan** | **5.68** | **119** | *e*Sg | | Sg | 04 33 03.6 | -2.9 |

*CSEM **28** 04:32:08.4±0.3,38°.96N×43°.62E,h2km,ML2.7, Error ellipse: s-maj=7.1km s-min=4.2km az=91.0*
*DDA **28** 04:32:08.0,38°.97N×43°.64E,h3km,Ml2.7*
*ISK **28** 04:32:08.0,38°.91N×43°.65E,h7km,MD2.9*
**ISC 28 04:32:08.4**±1.0,**38°.95N**±0°.02×**43°.61E**±0°.04,**h3**km±7km, **n37**,σ0°**77**/54,**Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.05** | **330** | *i* P | **Pg** | **04 32 09.6** | **0.0** |
| VMUR | | | | *i* S | **Sg** | **04 32 11.1** | **+0.6** |
| **VMUR** | **Van-Muradiye** | **0.05** | **330** | P | **Sg** | **04 32 09.6** | **0.0** |
| VMUR | | | | S | **Sg** | **04 32 11.1** | **+0.6** |
| **ERCV** | **ERCIS-VAN** | **0.22** | **290** | *e*PG | **Pg** | **04 32 13.2** | **+0.6** |
| **ERCV** | **ERCIS-VAN** | **0.22** | **290** | *e*Pg | **Pg** | **04 32 13.3** | **+0.6** |
| **VANB** | **Van** | **0.39** | **206** | *e*PG | **Pb** | **04 32 17.5** | **-0.5** |
| **VANB** | **Van** | **0.39** | **206** | *e*Pg | **Pb** | **04 32 17.5** | **-0.5** |
| **TVAN** | **Van** | **0.44** | **201** | *i* P | **Pg** | **04 32 17.1** | **+0.2** |
| TVAN | | | | *i* S | **Sb** | **04 32 25.1** | **-1.0** |
| **TVAN** | **Van** | **0.44** | **201** | P | **Pg** | **04 32 17.1** | **+0.2** |
| TVAN | | | | S | **Sb** | **04 32 25.1** | **-1.0** |
| **DYDN** | **Diyadin** | **0.60** | **6** | *i* P | **Pg** | **04 32 19.4** | **-0.6** |
| DYDN | | | | *i* S | **Sg** | **04 32 28.2** | **+0.4** |
| **DYDN** | **Diyadin** | **0.60** | **6** | P | **Pg** | **04 32 19.4** | **-0.6** |
| DYDN | | | | S | **Sg** | **04 32 28.2** | **+0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.70** | **259** | *i* P | **Pg** | **04 32 22.1** | **+0.3** |
| ADCV | | | | *i* S | **Sb** | **04 32 33.4** | **-0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.70** | **259** | P | **Pg** | **04 32 22.1** | **+0.3** |
| ADCV | | | | S | **Sb** | **04 32 33.4** | **-0.1** |
| **GEVA** | **Gevas** | **0.76** | **214** | *i* P | **Pg** | **04 32 22.7** | **-0.3** |
| GEVA | | | | *i* S | **Sg** | **04 32 31.6** | **-1.3** |
| **GEVA** | **Gevas** | **0.76** | **214** | P | **Pg** | **04 32 22.7** | **-0.3** |
| **TUTA** | **Tutak** | **0.77** | **307** | *i* P | **Pg** | **04 32 22.9** | **-0.2** |
| TUTA | | | | *i* S | **Sb** | **04 32 34.4** | **-1.0** |
| **TUTA** | **Tutak** | **0.77** | **307** | P | **Pg** | **04 32 22.9** | **-0.2** |
| TUTA | | | | S | **Sb** | **04 32 34.4** | **-1.0** |
| **AGRB** | **Hanur-Agry** | **0.79** | **323** | *e*PG | **Pb** | **04 32 24.0** | **-0.9** |
| AGRB | | | | *e*SG | **Sb** | **04 32 37.1** | **+1.0** |
| **AGRB** | **Hanur-Agry** | **0.79** | **323** | *e*Pg | **Pb** | **04 32 24.0** | **-0.9** |
| AGRB | | | | *e*Sg | **Sb** | **04 32 37.1** | **+1.0** |
| **TASB** | **TASBURUN-IGDIR** | **1.15** | **25** | *e*PN | **Pn** | **04 32 30.6** | **-0.8** |
| **TASB** | **TASBURUN-IGDIR** | **1.15** | **25** | *e*Pn | **Pn** | **04 32 30.6** | **-0.8** |
| **EKAR** | **Karacoban** | **1.24** | **285** | *i* P | **Pn** | **04 32 32.8** | **0.0** |
| **EKAR** | **Karacoban** | **1.24** | **285** | P | **Pn** | **04 32 32.8** | **0.0** |
| **EATA** | **Eleskirt** | **1.26** | **317** | *i* P | **Pg** | **04 32 32.1** | **-0.4** |
| EATA | | | | *i* S | **Sb** | **04 32 50.0** | **+0.3** |
| **EATA** | **Eleskirt** | **1.26** | **317** | P | **Pg** | **04 32 32.1** | **-0.4** |
| EATA | | | | S | **Sb** | **04 32 50.0** | **+0.3** |
| **HAKT** | **HAKKARI** | **1.39** | **177** | *i* P | **Pb** | **04 32 35.3** | **+0.2** |
| HAKT | | | | *i* S | **Sn** | **04 32 55.5** | **+1.6** |
| **HAKT** | **HAKKARI** | **1.39** | **177** | P | **Pb** | **04 32 35.3** | **+0.2** |
| HAKT | | | | S | **Sn** | **04 32 55.5** | **+1.6** |
| **DIGO** | **Kars** | **1.48** | **353** | *i* P | **Pg** | **04 32 37.9** | **+1.2** |
| **DIGO** | **Kars** | **1.48** | **353** | P | **Pg** | **04 32 37.9** | **+1.2** |
| **SIRT** | **Sirnak** | **1.71** | **213** | *e*PN | **Pn** | **04 32 38.9** | **-0.3** |
| **SIRT** | **Sirnak** | **1.71** | **213** | *e*Pn | **Pn** | **04 32 38.9** | **-0.3** |
| **HOMI** | **Horasan** | **1.71** | **310** | *i* P | **Pg** | **04 32 41.3** | **0.0** |
| **SENK** | **Senkaya-Erzuru** | **1.88** | **329** | *e*PN | **Pb** | **04 32 42.3** | **-1.2** |
| **SENK** | **Senkaya-Erzuru** | **1.88** | **329** | *e*Pn | **Pb** | **04 32 42.3** | **-1.2** |
| **BNGB** | **Bing ¶‖** | **2.28** | **272** | *e*PN | **Pn** | **04 32 47.5** | **+0.4** |
| **YEDI** | **Yedisu-Bingol** | **2.43** | **283** | *e*PN | **Pn** | **04 32 49.8** | **+0.7** |
| **YEDI** | **Yedisu-Bingol** | **2.43** | **283** | *e*Pn | **Pn** | **04 32 49.8** | **+0.7** |
| **BINT** | **Bingol** | **2.43** | **269** | *e*Pn | **Pn** | **04 32 47.5** | **-1.6** |

**NEIC 28 04:40:27.6**±0.0,**20°.04N×156°.03W,h10km,ML3.8**(HVO), **After HVO.,Hawaiian Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HPAH** | **Hawaii Prepara** | **0.31** | **92** | *e*Pg | Pg | 04 40 33.7 | -0.1 |
| HPAH | | | | *e*Sg | Sb | 04 40 39.3 | -1.0 |
| **POHA** | **Pohakuloa** | **0.54** | **121** | *e*Pg | Pg | 04 40 37.6 | -0.7 |
| POHA | | | | *e*Sn | Sb | 04 40 46.4 | -0.9 |
| **MLOA** | **Mauna Loa Obse** | **0.66** | **140** | *e*Pg | Pg | 04 40 39.4 | -1.0 |
| MLOA | | | | *e*Sn | Sb | 04 40 50.8 | +0.1 |
| **MWH** | **Moku'aweowe** | **0.69** | **144** | *e*Pg | Pg | 04 40 39.7 | -1.3 |
| MWH | | | | *e*Sn | Sn | 04 40 53.6 | -1.1 |
| **HLK** | **Haleakala** | **0.74** | **344** | *e*Pn | Pg | 04 40 41.6 | -0.4 |
| HLK | | | | *e*Sn | Sg | 04 40 51.0 | -0.8 |
| **MLH** | **Mauna Loa** | **0.81** | **132** | *e*Pg | Pg | 04 40 41.3 | -2.0 |
| MLH | | | | *e*Sg | Sb | 04 40 55.1 | +0.1 |
| **UWE** | **Uwekahuna** | **0.93** | **132** | *e*Pn | Pg | 04 40 42.8 | -2.7 |
| UWE | | | | *e*Sg | Sn | 04 40 60.0 | -0.2 |
| **RIM** | **Rim** | **0.96** | **132** | *e*Pn | Pg | 04 40 42.8 | -3.3 |
| RIM | | | | *e*Sn | Sn | 04 41 00.1 | -0.8 |
| **PUH** | **Pauahi** | **1.01** | **131** | *e*Pn | Pg | 04 40 45.2 | -1.9 |
| PUH | | | | *e*Sn | Sg | 04 41 00.1 | -0.1 |
| **HPO** | **Honuapo** | **1.05** | **155** | *e*Pn | Pg | 04 40 44.2 | -3.5 |
| **STCH** | **Steam Cracks** | **1.07** | **127** | *e*Pg | Pg | 04 40 44.5 | -3.7 |
| STCH | | | | *e*Sg | Sb | 04 41 02.4 | +0.1 |
| **NPOC** | **North of Pu'u** | **1.08** | **127** | *e*Pn | Pg | 04 40 46.2 | -2.1 |
| NPOC | | | | *e*Sn | Sn | 04 41 03.3 | -0.4 |
| **JCUZ** | **Jacuzzi** | **1.09** | **127** | *e*Pn | Pb | 04 40 43.7 | -4.9 |
| JCUZ | | | | *e*Sn | Sn | 04 41 03.9 | -0.2 |
| **HULD** | **Heiheiahulu Di** | **1.17** | **122** | *e*Pn | Pb | 04 40 45.9 | -4.0 |
| HULD | | | | *e*Sn | Sn | 04 41 05.7 | -0.3 |
| **HON** | **Honolulu** | **2.25** | **305** | *e*Pn | Pn | 04 40 59.8 | -5.0 |
| HON | | | | *e*Sn | Sn | 04 41 24.1 | -8.5 |
| **KIP** | **Kipapa** | **2.31** | **307** | *e*Pn | Pn | 04 41 00.3 | -5.4 |
| KIP | | | | *e*Sn | Sn | 04 41 26.1 | -8.2 |
| **OPA** | **Opana** | **2.48** | **312** | *e*Pn | Pn | 04 41 02.8 | -5.1 |
| OPA | | | | *e*Sn | Sn | 04 41 29.8 | -8.4 |
| **KEKH** | **Kekaha** | **3.95** | **300** | *e*Pn | Pn | 04 41 21.9 | -6.3 |
| KEKH | | | | *e*Sn | Sn | 04 42 03.5 | -11 |

*CSEM **28** 04:40:52.3±0.1,46°.38N×13°.68E,h2km,ML1.3/7, Error ellipse: s-maj=2.9km s-min=2.2km az=72.0*
*LJU **28** 04:40:52.0,46°.39N×13°.68E,h7km,ML0.9*
**VIE 28 04:40:52.2**±0.2,**46°.40N×13°.67E,h8km,ML0.8**/3,**1C-2D, Error ellipse: s-maj=2.7km s-min=1.3km az=85.0, Austria**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PRED** | **Cave del Predi** | **0.08** | **302** | *e*Pg | Pg | 04 40 54.2 | -0.2 |
| PRED | | | | *e*Sg | Sg | 04 40 55.7 | -0.2 |
| **PRED** | **Cave del Predi** | **0.08** | **302** | *e*P | Pg | 04 40 54.2 | -0.2 |
| **PRED** | **Cave del Predi** | **0.08** | **302** | *e*Pg | Pg | 04 40 55.7 | +1.3 |
| **CADS** | **Cadrg** | **0.18** | **164** | *i* Pg | Pg | 04 40 55.5 | -0.4 |
| CADS | | | | *i* Sg | Sg | 04 40 58.1 | -0.3 |
| | comp=Z,16nm,0.1s | | | | | | |
| **CADS** | **Cadrg** | **0.18** | **164** | *i* Pg | Pg | 04 40 55.5 | -0.4 |
| CADS | | | | *i* Sg | Sg | 04 40 58.1 | -0.3 |
| | comp=Z,16nm,0.1s | | | | | | |
| **ACOM** | **Acomizza, Ital** | **0.18** | **325** | *e*Pg | Pg | 04 40 56.1 | 0.0 |
| ACOM | | | | *e*Sg | Sg | 04 40 59.5 | +0.8 |
| **ACOM** | **Acomizza, Ital** | **0.18** | **325** | *e*P | Pg | 04 40 56.1 | 0.0 |
| **ACOM** | **Acomizza, Ital** | **0.18** | **325** | *e*Pg | Pg | 04 40 59.5 | +3.4 |
| **ROBS** | **Robic** | **0.19** | **215** | *i* Pg | Pg | 04 40 55.8 | -0.2 |
| ROBS | | | | *i* Sg | Sg | 04 40 58.9 | +0.2 |
| | comp=Z,4.0nm,0.0s | | | | | | |
| **ROBS** | **Robic** | **0.19** | **215** | *i* Pg | Pg | 04 40 55.8 | -0.2 |
| ROBS | | | | *i* Sg | Sg | 04 40 58.9 | +0.3 |
| | comp=Z,4.0nm,0.0s | | | | | | |
| **DRE** | **Drenchia** | **0.23** | **184** | *e*Pg | Pg | 04 40 56.5 | -0.3 |
| DRE | | | | *e*Sg | Sg | 04 41 00.1 | +0.2 |
| **DRE** | **Drenchia** | **0.23** | **184** | *e*P | Pg | 04 40 56.5 | -0.2 |
| **DRE** | **Drenchia** | **0.23** | **184** | *e*Pg | Pg | 04 41 00.1 | +3.4 |
| **MYKA** | **Terra Mystica** | **0.23** | **356** | Pg | Pg | 04 40 57.0 | +0.1 |
| | comp=Z,0.9nm,0.1s | | | | | | |
| MYKA | | | | Sg | Sg | 04 41 00.6 | +0.5 |
| | comp=Z,3.4nm,0.1s | | | | | | |
| **GORS** | **Gorjuse** | **0.24** | **110** | *i* Pg | Pg | 04 40 56.6 | -0.5 |
| GORS | | | | *i* Sg | Sg | 04 41 00.4 | 0.0 |
| | comp=Z,8.0nm,0.1s | | | | | | |
| **GORS** | **Gorjuse** | **0.24** | **110** | *i* Pg | Pg | 04 40 56.6 | -0.5 |
| GORS | | | | *i* Sg | Sg | 04 41 00.4 | 0.0 |
| | comp=Z,8.0nm,0.1s | | | | | | |
| **VINO** | **Villanova** | **0.30** | **242** | *e*Pg | Pg | 04 40 57.8 | -0.4 |
| **VINO** | **Villanova** | **0.30** | **242** | *e*Pg | Pg | 04 40 57.8 | -0.4 |
| **VOJS** | **Vojsko** | **0.40** | **158** | *i* Pg | Pg | 04 40 59.4 | -0.6 |
| VOJS | | | | *e*Sg | Sg | 04 41 05.6 | +0.5 |
| | comp=Z,3.0nm,0.1s | | | | | | |
| **VOJS** | **Vojsko** | **0.40** | **158** | *i* Pg | Pg | 04 40 59.4 | -0.6 |
| VOJS | | | | *e*Sg | Sg | 04 41 05.6 | +0.4 |
| | comp=Z,3.0nm,0.1s | | | | | | |
| **SABO** | **M.te Sabotino** | **0.42** | **186** | *e*Pg | Pg | 04 41 00.2 | -0.2 |
| **SABO** | **M.te Sabotino** | **0.42** | **186** | *e*Pg | Pg | 04 41 00.2 | -0.2 |
| **ZOU** | **Zoufplan** | **0.50** | **289** | *e*Pg | Pg | 04 41 02.0 | 0.0 |
| **OBKA** | **Obir** | **0.62** | **79** | Pg | Pg | 04 41 04.1 | -0.1 |
| | comp=Z,0.1nm,0.1s | | | | | | |
| OBKA | | | | Sg | Sg | 04 41 13.1 | +0.8 |
| | comp=Z,0.5nm,0.1s | | | | | | |
| **KBA** | **Koelnbreinsper** | **0.71** | **342** | Pg | Pb | 04 41 06.7 | -0.3 |
| | comp=Z,0.1nm,0.1s | | | | | | |
| KBA | | | | Sg | Sg | 04 41 15.9 | +0.5 |
| | comp=Z,0.6nm,0.2s | | | | | | |

*OBM **28** 04:45:21.8±0.3,52°.82N×96°.08E,h2km,Ml3.7/1, Error ellipse: s-maj=4.1km s-min=2.8km az=143.0*
*ISCJB **28** 04:45:54.1±0.4,51°.70N±0°.07×96°.06E±0°.06,h10km, mb4.2/10, Error ellipse: s-maj=10.3km s-min=4.9km az=176.0*
*MOS **28** 04:45:54.3±1.0,51°.73N×96°.06E,h12km,mb4.2/7, Error ellipse: s-maj=12.8km s-min=9.1km az=177.8*
*IDC **28** 04:45:54.8±1.3,51°.65N×96°.18E,h0km,mb4.0/6, mb1 3.8/10,mb1mx3.5/58,mbtmp3.8/10,ML3.0/4,MS2.9/1, Ms1 2.9/1,ms1mx2.5/35, Error ellipse: s-maj=26.9km s-min=16.9km az=172.0*
*NEIC **28** 04:45:58.4±0.6,51°.80N×95°.77E,h10km,mb4.5/1, Error ellipse: s-maj=13.0km s-min=7.9km az=176.0*
**ISC 28 04:45:55.3**±0.5,**51°.68N**±0°.07×**96°.22E**±0°.04,**h10**km,**n62,** σ1§**49**/62,**mb4.2**/10,**6C-5D,Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HVS** | **Khovu-Aksy** | **1.67** | **252** | PN | **Pn** | **04 46 22.4** | **-2.2** |
| **HVS** | **Khovu-Aksy** | **1.67** | **252** | P | **Pn** | **04 46 22.4** | **-2.2** |
| **ORL** | **Orlik** | **2.38** | **67** | *e*PN | **Pb** | **04 46 38.8** | **+0.6** |
| ORL | | | | *e* | | 04 47 10.8 | |
| ORL | | | | pmax | pmax | | |
| | comp=Z,93nm,0.4s | | | | | | |
| ORL | | | | smax | smax | | |
| | comp=N,291nm,0.9s | | | | | | |
| **ABNR** | **Abakan** | **3.56** | **307** | *e*PN | **Pn** | **04 46 48.1** | **-2.4** |
| **ARS** | **Arshan** | **3.86** | **84** | *e*PN | **Pb** | **04 47 06.2** | **+2.7** |
| ARS | | | | *e* | | 04 47 58.8 | |
| ARS | | | | pmax | pmax | | |
| | comp=Z,102nm,0.5s | | | | | | |
| ARS | | | | smax | smax | | |
| | comp=E,766nm,0.6s | | | | | | |
| **TLY** | **Talaya** | **4.62** | **87** | *e*PN | **Pn** | **04 47 06.3** | **+1.1** |
| **TLY** | **Talaya** | **4.62** | **87** | *e*Pn | **Pb** | **04 47 13.2** | **-3.3** |
| TLY | | | | *e*Sn | **Sb** | **04 48 10.5** | **-1.6** |
| **ZAK** | **Zakamensk** | **4.64** | **103** | *e*PN | **Pg** | **04 47 20.7** | **-3.5** |
| ZAK | | | | *e* | | 04 48 23.3 | |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,52nm,0.7s | | | | | | |
| ZAK | | | | smax | smax | | |
| | comp=N,192nm,1.0s | | | | | | |
| **HBD** | **Hovd** | **4.71** | **221** | *e*Sg | **Sb** | **04 48 16.3** | **+1.5** |
| **IRK** | **Irkutsk** | **5.01** | **80** | *e*PN | **Pg** | **04 47 28.0** | **-3.2** |
| IRK | | | | *e* | | 04 48 31.3 | |
| IRK | | | | pmax | pmax | | |
| | comp=Z,201nm,0.1s | | | | | | |
| IRK | | | | smax | smax | | |
| | comp=N,359nm,0.6s | | | | | | |
| **DGZ** | **Jazzator, Alta** | **5.92** | **254** | *e*PN | **Pn** | **04 47 22.6** | **-0.5** |
| **OGRR** | **Ongureny** | **7.20** | **70** | *e*P | **Pn** | **04 47 41.8** | **+1.3** |
| OGRR | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.3s | | | | | | |
| **ZAA0** | **Zalesovo Array** | **7.27** | **293** | *e*Pn | **Pn** | **04 47 41.2** | **-0.3** |
| **ZALV** | **Zalesovo Beam** | **7.27** | **293** | Pn | **Pn** | **04 47 41.8** | **+0.3** |
| | comp=Z,0.6nm,0.3s,baz=98,slow=13,SNR=6.8 | | | | | | |
| ZALV | | | | Pg | **Pb** | **04 48 00.2** | **-1.3** |
| | comp=Z,0.7nm,0.3s,baz=100,slow=13,SNR=5.4 | | | | | | |
| ZALV | | | | Sn | Sn | 04 48 50.5 | -13 |
| | comp=Z,0.8nm,0.3s,baz=104,slow=24,SNR=4.0 | | | | | | |
| ZALV | | | | Lg | Lg | 04 49 33.1 | |
| | comp=Z,2.0nm,0.3s,baz=113,slow=25,SNR=9.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **7.27** | **293** | *e*Pn | **Pn** | **04 47 42.2** | **+0.7** |
| ZALV | | | | | | 04 49 33.2 | |
| **ZALV** | **Zalesovo Beam** | **7.27** | **293** | *e*Pn | **Pn** | **04 47 42.2** | **+0.7** |
| ZALV | | | | Pg | **Pb** | **04 48 00.2** | **-1.3** |
| ZALV | | | | Sn | Sn | 04 48 50.5 | -13 |
| ZALV | | | | Lg | Lg | 04 49 33.1 | |
| **ZAA1** | **Zalesovo Array** | **7.27** | **293** | *e*Pn | **Pn** | **04 47 41.8** | **+0.3** |
| ZAA1 | | | | *e*Pg | **Pb** | **04 48 00.2** | **-1.3** |
| ZAA1 | | | | *e*Sn | Sn | 04 48 50.5 | -13 |
| **SONM** | **Songino Array** | **7.63** | **116** | Pg | Pg | 04 48 14.4 | -6.8 |
| | comp=Z,0.5nm,0.3s,baz=295,slow=18,SNR=8.7 | | | | | | |
| SONM | | | | Lg | Lg | 04 49 58.4 | |
| | comp=Z,1.9nm,0.3s,baz=297,slow=30,SNR=9.8 | | | | | | |
| **ULN** | **Ulaanbaatar** | **7.99** | **114** | *e*P | Pn | 04 47 55.9 | +4.5 |
| **ULN** | **Ulaanbaatar** | **7.99** | **114** | Pn | Pn | 04 47 59.7 | +8.3 |
| | comp=Z,3.5nm,0.6s | | | | | | |
| **SYVR** | **Suvo** | **8.61** | **71** | *e*P | **Pn** | **04 48 03.5** | **+3.7** |
| SYVR | | | | pmax | pmax | | |
| | comp=Z,18nm,2.1s | | | | | | |
| **MK31** | **Makanchi Array** | **10.33** | **247** | *e*P | **Pn** | **04 48 24.6** | **+1.1** |
| **MK31** | **Makanchi Array** | **10.33** | **247** | *e*Pn | **Pn** | **04 48 24.6** | **+1.1** |
| **MK32** | **Makanchi Array** | **10.33** | **247** | *e*Pn | **Pn** | **04 48 23.4** | **0.0** |
| **MKAR** | **Makanchi Array** | **10.33** | **247** | Pn | **Pn** | **04 48 23.4** | **0.0** |
| | comp=Z,0.2nm,0.3s,baz=74,slow=15,SNR=5.3 | | | | | | |
| MKAR | | | | Pg | | 04 48 50.6 | |
| | comp=Z,0.2nm,0.3s,baz=59,slow=12,SNR=6.2 | | | | | | |
| MKAR | | | | Lg | Lg | 04 51 13.5 | |
| | comp=Z,0.2nm,0.3s,baz=64,slow=31,SNR=3.0 | | | | | | |
| MKAR | | | | LR | LR | 04 51 36.5 | |
| | comp=Z,64nm,19.0s,baz=28,slow=33 | | | | | | |
| **MKAR** | **Makanchi Array** | **10.33** | **247** | *i* P | Pn | 04 48 30.7 | +7.3 |
| **MAKZ** | **Makanchi** | **10.50** | **248** | *e*P | **Pn** | **04 48 26.2** | **+0.4** |
| **MAKZ** | **Makanchi** | **10.50** | **248** | *e*Pn | **Pn** | **04 48 26.2** | **+0.4** |
| **KURK** | **Kurchatov** | **11.09** | **272** | P | **Pn** | **04 48 35.1** | **+1.4** |
| **KURK** | **Kurchatov** | **11.09** | **272** | *e*Pn | **Pn** | **04 48 35.1** | **+1.4** |
| KURK | | | | Lg | Lg | 04 51 36.5 | |
| **KURBB** | **Kurchatov Arra** | **11.16** | **272** | Pn | **Pn** | **04 48 35.1** | **+0.4** |
| | comp=Z,0.1nm,0.3s,baz=88,slow=14,SNR=6.2 | | | | | | |
| KURBB | | | | Lg | Lg | 04 51 36.5 | |
| | comp=Z,0.1nm,0.3s,baz=84,slow=30,SNR=4.2 | | | | | | |
| **HIA** | **Hailar** | **15.16** | **90** | *e*P | **Pn** | **04 49 30.5** | **+1.2** |
| **BVAR** | **Borovoye Array** | **15.81** | **285** | Pn | **Pn** | **04 49 36.1** | **-1.7** |
| | comp=Z,0.2nm,0.3s,baz=96,slow=10,SNR=3.1 | | | | | | |
| **BRVK** | **Borovoye** | **15.87** | **285** | *e*P | **Pn** | **04 49 37.9** | **-0.7** |
| **AAK** | **Ala-Archa** | **17.27** | **247** | *e*P | **Pn** | **04 49 55.4** | **-1.1** |
| **YAK** | **Yakutsk** | **20.78** | **47** | Lg | Lg | 04 56 44.5 | |
| | comp=Z,11nm,0.4s,baz=173,slow=5.0,SNR=2.7 | | | | | | |
| **YAK** | **Yakutsk** | **20.78** | **47** | *i* P | **P** | **04 50 37.0** | **+0.9** |
| YAK | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.6s | | | | | | |
| **ARU** | **Arti** | **22.41** | **297** | *d i* P | **P** | **04 50 52.5** | **-1.1** |
| ARU | | | | S | **S** | **04 54 59.5** | **0.0** |
| ARU | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.9s | | | | | | |
| **KLR** | **Kul'dur** | **22.62** | **82** | *e*P | **P** | **04 50 57.2** | **+1.2** |
| **ABKAR** | **Akbulak array** | **23.07** | **278** | *e*P | **P** | **04 51 01.4** | **+0.7** |
| | comp=Z,9.5nm,0.6s | | | | | | |
| **AKTO** | **Aktyubinsk** | **23.86** | **282** | P | **P** | **04 51 08.4** | **-0.1** |
| | comp=Z,3.7nm,0.8s,baz=80,slow=10,SNR=12 | | | | | | |
| **TIXI** | **Tiksi** | **24.73** | **24** | P | **P** | **04 51 17.7** | **+1.4** |
| | comp=Z,5.9nm,0.5s,baz=236,slow=6.1,SNR=6.2 | | | | | | |
| **TIXI** | **Tiksi** | **24.73** | **24** | *e*P | **P** | **04 51 17.6** | **+1.3** |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.8s | | | | | | |
| **JOW** | **Kunigami** | **34.63** | **123** | *e*P | **P** | **04 52 45.0** | **+0.5** |
| | comp=Z,72nm,1.8s | | | | | | |
| **FIA0** | **FINESS Array S** | **38.01** | **313** | *e*P | **P** | **04 53 13.2** | **+0.2** |
| **FIA0** | **FINESS Array S** | **38.01** | **313** | *e*P | **P** | **04 53 13.2** | **+0.2** |
| **FINES** | **FINESS Array B** | **38.01** | **313** | P | **P** | **04 53 13.2** | **+0.2** |
| | comp=Z,6.5nm,1.2s,baz=79,slow=10,SNR=4.0 | | | | | | |
| **FINES** | **FINESS Array B** | **38.01** | **313** | *i* P | **P** | **04 53 14.6** | **+1.6** |
| FINES | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.2s | | | | | | |
| **BR101** | **Keskin Array S** | **44.01** | **280** | *e*P | **P** | **04 54 04.5** | **+1.7** |
| **BR131** | **Keskin Array S** | **44.01** | **280** | *e*P | **P** | **04 54 04.5** | **+1.7** |
| **BRTR** | **Keskin Array B** | **44.01** | **280** | P | **P** | **04 54 04.5** | **+1.7** |
| | comp=Z,2.3nm,0.9s,baz=90,slow=6.2,SNR=13 | | | | | | |
| **BRTR** | **Keskin Array B** | **44.01** | **280** | *i* P | **P** | **04 54 03.9** | **+1.1** |
| BRTR | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.9s | | | | | | |
| **BR231** | **Keskin MP Arra** | **44.46** | **281** | *e*P | **P** | **04 54 04.9** | **-1.5** |
| **BUR04** | **Bucovina Ar. S** | **44.49** | **294** | *e*P | **P** | **04 54 05.4** | **-1.2** |
| **NC405** | **NORSAR Array S** | **44.52** | **316** | *e*P | **P** | **04 54 04.3** | **-2.2** |
| **NB200** | **NORSAR Array S** | **44.77** | **316** | *e*P | **P** | **04 54 09.4** | **+0.8** |
| **NOA** | **NORSAR Array B** | **44.77** | **316** | P | **P** | **04 54 09.4** | **+0.8** |
| | comp=Z,1.2nm,0.9s,baz=57,slow=5.6,SNR=2.5 | | | | | | |
| **KKM** | **Kota Kinabalu** | **48.41** | **153** | *e*P | **P** | **04 54 38.9** | **+1.3** |
| | comp=Z,87nm,1.9s | | | | | | |
| **CLL** | **Collm** | **49.05** | **304** | *e*P | **P** | **04 54 41.0** | **-1.1** |
| **CLL** | **Collm** | **49.05** | **304** | *e*P | **P** | **04 54 41.0** | **-1.1** |
| **TOA1** | **Torodi Ar. Sit** | **82.58** | **282** | *e*P | **P** | **04 58 19.4** | **+0.8** |
| **TORD** | **Torodi Ar. Bea** | **82.58** | **282** | P | **P** | **04 58 19.4** | **+0.8** |
| | comp=Z,0.7nm,0.8s,baz=29,slow=3.9,SNR=4.5 | | | | | | |

*IDC **28** 04:53:28.6±4.7,5°.03S×129°.85E,h170km±49km,mb3.6/8, mb1 3.9/11,mb1mx3.6/36,mbtmp4.3/11, Error ellipse: s-maj=27.6km s-min=14.8km az=51.0*
*ISCJB **28** 04:53:30.2±0.3,5°.14S±0°.03×129°.82E±0°.04,h200km, mb3.7/8, Error ellipse: s-maj=6.1km s-min=4.0km az=156.4*
*DJA **28** 04:53:32.7±0.4,5°.S±3°×13°.0E±°,h191km±7km,M4.9/11, mB5.2/2,mb4.9/5,MLv4.9/11,Mw(mB)4.6/2*
**ISC 28 04:53:31.1**±0.5,**5°.11S**±0°.05×**129°.89E**±0°.05,**h200**km,**n43,** σ1§**55**/53,**mb3.8**/8,**Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BNDI** | **Bandanaira** | **0.58** | **1** | P | **Pn** | **04 54 01.3** | **+2.7** |
| BNDI | | | | Pg | **Pn** | **04 54 01.2** | **+2.7** |
| **MSAI** | **Masohi** | **2.00** | **331** | P | **Pn** | **04 54 11.3** | **+1.6** |
| MSAI | | | | Pg | **Pn** | **04 54 11.2** | **+1.6** |
| MSAI | | | | S | **Sn** | **04 54 39.6** | **0.0** |
| **AAI** | **Ambon** | **2.21** | **310** | P | **Pn** | **04 54 13.5** | **+1.7** |
| AAI | | | | S | **Sn** | **04 54 44.8** | **+1.3** |
| **SAUI** | **Saumlaki** | **3.18** | **154** | P | **Pn** | **04 54 23.8** | **+0.9** |
| **FAKI** | **Fak Fak** | **3.20** | **47** | P | **Pn** | **04 54 24.7** | **+1.5** |
| FAKI | | | | S | **Sn** | **04 55 03.0** | **-0.9** |
| **KMPI** | **Kaimana, Papua** | **4.06** | **69** | P | **Pn** | **04 54 35.7** | **+2.0** |
| KMPI | | | | S | **Sn** | **04 55 19.3** | **-3.5** |
| **SWI** | **Sorong** | **4.43** | **18** | P | **Pn** | **04 54 39.0** | **+0.7** |
| SWI | | | | S | **Sn** | **04 55 28.5** | **-2.8** |
| **SANI** | **Sanana** | **4.94** | **308** | P | **Pn** | **04 54 45.5** | **+0.7** |
| SANI | | | | S | **Sn** | **04 55 38.8** | **-4.1** |
| **LBMI** | **Labuha** | **5.04** | **332** | P | **Pn** | **04 54 47.6** | **+1.5** |
| LBMI | | | | S | **Sn** | **04 55 44.3** | **-1.0** |
| **RKPI** | **Ransiki, Papua** | **5.57** | **50** | P | **Pn** | **04 54 54.7** | **+1.8** |
| **SOEI** | **Soe** | **7.24** | **230** | P | **Pn** | **04 55 16.5** | **+1.9** |
| **MTN** | **Manton Dam** | **7.78** | **171** | P | **Pn** | **04 55 21.5** | **0.0** |
| | baz=7.8,SNR=63 | | | | | | |
| **KDU** | **Kakadu** | **7.95** | **161** | P | **Pn** | **04 55 23.8** | **0.0** |
| | baz=8.0,SNR=19 | | | | | | |
| **PLAI** | **Plampang** | **12.58** | **252** | P | **Pn** | **04 56 23.1** | **-0.3** |
| **FITZ** | **Fitzroy Crossi** | **13.57** | **198** | P | **Pn** | **04 56 34.1** | **-1.6** |
| | 2.8nm,0.3s,baz=35,slow=10,SNR=35 | | | | | | |
| FITZ | | | | S | S | 04 58 56.4 | -11 |
| | 4.9nm,0.3s,baz=288,slow=24,SNR=8.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **15.37** | **164** | P | **Pn** | **04 56 57.2** | **-0.6** |
| | 2.7nm,0.3s,baz=338,slow=12,SNR=68 | | | | | | |
| WRA | | | | S | S | 04 59 38.6 | -10 |
| | 2.4nm,0.3s,baz=339,slow=24,SNR=8.7 | | | | | | |
| **COEN** | **Coen** | **15.77** | **125** | P | **Pn** | **04 57 04.4** | **+1.7** |
| | baz=16,SNR=5.6 | | | | | | |
| **PMG** | **Port Moresby** | **17.65** | **105** | P | **Pn** | **04 57 27.1** | **+1.9** |
| | 1.0nm,0.3s,baz=289,slow=14,SNR=5.7 | | | | | | |
| **QIS** | **Mount Isa** | **18.03** | **149** | P | **P** | **04 57 29.1** | **+1.8** |
| | baz=18,SNR=12 | | | | | | |
| **ASAR** | **Alice Springs** | **18.85** | **169** | P | **P** | **04 57 37.6** | **+1.3** |
| | 7.8nm,0.3s,baz=348,slow=11,SNR=661 | | | | | | |
| ASAR | | | | S | **S** | **05 00 56.2** | **-3.8** |
| | 0.5nm,0.3s,baz=348,slow=21,SNR=8.4 | | | | | | |
| **MTSU** | **Mount Surprise** | **19.14** | **134** | P | **P** | **04 57 39.3** | **-0.2** |
| | baz=19,SNR=12 | | | | | | |
| **WRKA** | **Warakurna** | **19.87** | **184** | P | **P** | **04 57 47.9** | **+0.6** |
| | baz=20,SNR=120 | | | | | | |
| **CTA** | **Charters Tower** | **21.80** | **135** | P | **P** | **04 58 08.8** | **+1.3** |
| | 1.1nm,0.3s,baz=299,slow=10,SNR=3

*ISCJB **28** 05:27:32.3±0.6, 52.°94S±0.°08×10.°5E±0.°2, h10km, mb4.5/10, MS3.5/8, Error ellipse: s-maj=18.9km s-min=10.9km az=172.2*

*IDC **28** 05:27:32.7±0.8, 52.°90S×10.°60E, h0km, mb4.4/7, mb1 4.5/8, mb1mx4.1/28, mbtmp4.4/8, ML4.5/1, MS3.7/8, Ms1 3.7/8, ms1mx3.5/23, Error ellipse: s-maj=32.0km s-min=20.3km az=72.0*

*NEIC **28** 05:27:38.0±0.4, 52.°93S×10.°58E, h35km, mb4.6/7, Error ellipse: s-maj=19.2km s-min=11.5km az=78.0*

**ISC 28 05:27:34.1±0.6, 52.°9S±0.°1×10.°6E±0.°2, h10km, n49, σ0°84/36, mb4.6/10, MS3.6/8, 1C, Southwest of Africa**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SNAA** | **Sanae** | **19.74** | **193** | P | **P** | **05 32 03.8** | **+0.2** |
| **SNAA** | **Sanae** | **19.74** | **193** | P | **P** | **05 32 03.5** | **-0.2** |
| | 1.3nm,0.3s,baz=23,slow=12,SNR=50 | | | | | | |
| SNAA | | | | LR | LR | 05 37 52.8 | |
| | comp=Z,194nm,21.0s,baz=314,slow=31 | | | | | | |
| **SNAA** | **Sanae** | **19.74** | **193** | *eP* | **P** | **05 32 03.5** | **-0.2** |
| | 20nm,0.9s | | | | | | |
| **VNA2** | **Neumayer--Watz** | **19.80** | **197** | P | **P** | **05 32 04.1** | **-0.2** |
| | baz=25,slow=12 | | | | | | |
| **VNA3** | **Neumayer Olymp** | **20.49** | **199** | P | **P** | **05 32 11.8** | **0.0** |
| **SYO** | **Syowa Base** | **21.06** | **151**⇑ | *eP* | **P** | **05 32 17.0** | **-0.8** |
| **SUR** | **Sutherland** | **21.80** | **24** | LR | LR | 05 38 39.1 | |
| | comp=Z,14nm,21.1s,baz=181,slow=31 | | | | | | |
| **BOSA** | **Boshof** | **26.58** | **30** | LR | LR | 05 41 41.6 | |
| | comp=Z,154nm,20.8s,baz=170,slow=32 | | | | | | |
| **MAW** | **Mawson** | **28.71** | **141** | LR | LR | 05 42 54.6 | |
| | comp=Z,203nm,19.4s,baz=244,slow=32 | | | | | | |
| **QSPA** | **South Pole Qui** | **37.33** | **180** | *eP* | **P** | **05 34 46.4** | **+0.2** |
| | 43nm,1.8s | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **48.38** | **326** | T | T | 06 28 26.2 | |
| | baz=160,slow=75,SNR=10 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **48.39** | **326** | T | T | 06 28 23.4 | |
| | baz=160,slow=75,SNR=9.7 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **48.39** | **326** | T | T | 06 28 25.2 | |
| | baz=160,slow=75,SNR=9.0 | | | | | | |
| **VNDA** | **Vanda** | **48.61** | **172** | P | **P** | **05 36 17.9** | **+0.7** |
| | 5.8nm,0.7s,baz=230,slow=6.7,SNR=31 | | | | | | |
| VNDA | | | | LR | LR | 05 55 48.7 | |
| | comp=Z,153nm,20.1s,baz=194,slow=35 | | | | | | |
| **TRQA** | **Tornquist** | **50.84** | **256** | *eP* | **P** | **05 36 34.4** | **-0.3** |
| | 6.6nm,0.9s | | | | | | |
| **KMBO** | **Kilima Mbogo** | **56.16** | **33** | LR | LR | 06 01 21.3 | |
| | comp=Z,69nm,18.3s,baz=81,slow=36 | | | | | | |
| **CPUP** | **Villa Florida** | **56.28** | **270** | P | **P** | **05 37 14.6** | **-0.1** |
| | 6.5nm,0.8s,baz=117,slow=5.6,SNR=16 | | | | | | |
| **CPUP** | **Villa Florida** | **56.28** | **270** | *eP* | **P** | **05 37 14.2** | **-0.4** |
| **DBIC** | **Dimbokro** | **60.79** | **342** | P | **P** | **05 37 46.4** | **+0.3** |
| | 5.0nm,0.7s,baz=151,slow=10,SNR=6.9 | | | | | | |
| DBIC | | | | LR | LR | 05 58 44.8 | |
| | comp=Z,62nm,19.7s,baz=134,slow=31 | | | | | | |
| **DBIC** | **Dimbokro** | **60.79** | **342** | *eP* | **P** | **05 37 46.4** | **+0.3** |
| | 17nm,1.4s | | | | | | |
| **TOA0** | **Torodi Ar. Sit** | **66.23** | **350** | *eP* | **P** | **05 38 22.4** | **+0.4** |
| **TORD** | **Torodi Ar. Bea** | **66.23** | **350** | P | **P** | **05 38 22.4** | **+0.3** |
| | 2.6nm,0.9s,baz=178,slow=6.7,SNR=13 | | | | | | |
| TORD | | | | LR | LR | 06 01 14.4 | |
| | comp=Z,32nm,22.0s,baz=340,slow=30 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **66.24** | **350** | *eP* | **P** | **05 38 22.4** | **+0.3** |
| **H08N3** | **Diego Garcia H** | **67.36** | **69** | T | T | 06 52 44.8 | |
| | baz=217,slow=76,SNR=3.9 | | | | | | |
| **H08N1** | **Diego Garcia H** | **67.38** | **69** | T | T | 06 52 48.9 | |
| | baz=217,slow=76,SNR=4.7 | | | | | | |
| **H08N2** | **Diego Garcia H** | **67.38** | **69** | T | T | 06 52 47.1 | |
| | baz=217,slow=76,SNR=3.9 | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **70.31** | **122** | T | T | 06 56 18.6 | |
| | baz=219,slow=76,SNR=13 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **70.33** | **122** | T | T | 06 56 18.9 | |
| | baz=219,slow=76,SNR=11 | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **70.33** | **122** | T | T | 06 56 21.0 | |
| | baz=219,slow=76,SNR=13 | | | | | | |
| **LPAZ** | **La Paz** | **70.41** | **269** | P | **P** | **05 38 49.4** | **+0.4** |
| | 6.5nm,1.0s,baz=95,slow=5.5,SNR=13 | | | | | | |
| **LPAZ** | **La Paz** | **70.41** | **269** | *eP* | **P** | **05 38 49.5** | **+0.4** |
| | 9.4nm,1.1s | | | | | | |
| **STKA** | **Stephens Creek** | **85.39** | **140** | P | **P** | **05 40 12.2** | **+0.6** |
| | 1.9nm,0.6s,baz=212,slow=4.3,SNR=5.2 | | | | | | |
| **STKA** | **Stephens Creek** | **85.39** | **140** | *eP* | **P** | **05 40 12.2** | **+0.6** |
| | 2.5nm,1.4s | | | | | | |
| **ASAR** | **Alice Springs** | **89.26** | **130** | P | **P** | **05 40 30.1** | **-0.3** |
| | 0.7nm,0.8s,baz=250,slow=2.5,SNR=4.8 | | | | | | |
| **AS31** | **Alice Springs** | **89.27** | **130** | *eP* | **P** | **05 40 30.1** | **-0.3** |
| | 4.6nm,1.8s | | | | | | |
| **BRTR** | **Keskin Array B** | **94.40** | **18** | LR | LR | 06 27 23.9 | |
| | comp=Z,18nm,19.0s,baz=308,slow=38 | | | | | | |
| **JSC** | **Jenkinsville** | **117.55** | **291** | *e*PKPdf | **PKPdf** | **05 46 17.0** | **-2.5** |
| **LTX** | **Lajitas** | **127.25** | **271** | *e*PKPdf | **PKPdf** | **05 46 39.1** | **+0.6** |
| **TXAR** | **Lajitas Array** | **127.25** | **271** | PKP | **PKPdf** | **05 46 39.1** | **+0.6** |
| | 1.3nm,1.1s,baz=159,slow=2.8,SNR=5.1 | | | | | | |
| **PD31** | **Pinedale Array** | **139.69** | **280** | *e*PKPdf | **PKPdf** | **05 47 00.7** | **-0.9** |
| **PDAR** | **Pinedale Array** | **139.69** | **280** | PKP | **PKPdf** | **05 47 00.7** | **-0.9** |
| | 0.3nm,0.6s,baz=86,slow=4.6,SNR=3.4 | | | | | | |
| **SNUT** | **Stansbury Nort** | **140.34** | **276** | *e*PKPdf | **PKPdf** | **05 47 04.7** | **+2.0** |
| **FXWY** | **Fox Creek** | **141.07** | **280** | *e*PKPdf | **PKPdf** | **05 47 05.2** | **+1.2** |
| **NV01** | **Mina Array Sit** | **142.32** | **268** | *e*PKPdf | **PKPdf** | **05 47 06.4** | **0.0** |
| **NVAR** | **Mina Array Bea** | **142.32** | **268** | PKP | **PKPdf** | **05 47 07.3** | **+0.9** |
| | 0.8nm,0.9s,baz=134,slow=3.0,SNR=4.4 | | | | | | |
| **JTMT** | **Jette** | **145.19** | **284** | *e*PKPbc | **PKPdf** | **05 47 11.5** | **+0.5** |
| **J08A** | **Circle Bar Ran** | **145.38** | **275** | *e*PKPbc | **PKPab** | **05 47 12.3** | **+0.7** |
| **YKA** | **Yellowknife Ar** | **150.11** | **310** | PKP | **PKPdf** | **05 47 16.5** | **-1.9** |
| | 0.6nm,1.0s,baz=62,slow=1.3,SNR=6.0 | | | | | | |
| YKA | | | | PKPbc | **PKPbc** | **05 47 23.8** | **+0.3** |
| | 3.3nm,0.7s,baz=96,slow=2.5,SNR=66 | | | | | | |
| **YKW3** | **Yellowknife Ar** | **150.12** | **311** | *e*PKPbc | **PKPbc** | **05 47 23.0** | **-0.6** |

*BKK **28** 05:48:21.0±1.0, 23.°N±8.°×10.°1E±1.°3, h10km, M4.9/8, MLv4.9/8*

*BJI **28** 05:48:39.1, 22.°04N×100.°54E, h12km, ML3.3/4, Ms3.5/1, Ms7 3.2/1*

**ISC 28 05:48:38.4±1.1, 22.°13N±0.°09×100.°3E±0.°2, h10km, n5, σ2°51/9, Myanmar-China border region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CHTO** | **Chiang Mai** | **3.54** | **202** | P | **Pn** | **05 49 31.8** | **-1.8** |
| CHTO | | | | S | **Sb** | **05 50 26.8** | **+2.5** |
| **CMMT** | **Chiang Mai** | **3.54** | **202** | P | **Pn** | **05 49 31.4** | **-2.2** |
| CMMT | | | | S | **Sb** | **05 50 27.6** | **+3.3** |
| **PHRA** | **Phrae** | **3.61** | **181** | P | **Pn** | **05 49 31.8** | **-2.7** |
| PHRA | | | | S | **Sb** | **05 50 27.3** | **+0.9** |
| **KMI** | **Kunming** | **3.71** | **36** | Pg | **Pb** | **05 49 46.3** | **+2.0** |
| KMI | | | | Sg | **Sg** | **05 50 37.5** | **-0.4** |
| KMI | | | | smax | smax | | |
| | comp=N,60nm,1.1s | | | | | | |
| KMI | | | | smax | smax | | |
| | comp=E,52nm,1.1s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=N,320nm,5.0s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=E,310nm,5.1s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,210nm,7.0s | | | | | | |
| **WMQ** | **Urumqi** | **24.03** | **337** | *eP* | **P** | **05 53 52.5** | **-1.2** |

**IDC 28 06:02:29.5±4.1, 18.°40S×174.°88W, h0km, mb3.8/3, mb1 4.1/3, mb1mx3.6/36, mbtmp3.8/3, Error ellipse: s-maj=289.3km s-min=28.8km az=152.0, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **47.84** | **259** | P | P | 06 11 09.6 | +0.2 |
| | 0.4nm,0.3s,baz=97,slow=7.7,SNR=26 | | | | | | |
| **ASAR** | **Alice Springs** | **47.89** | **254** | P | P | 06 11 09.3 | -0.5 |
| | 1.4nm,0.5s,baz=89,slow=8.4,SNR=35 | | | | | | |
| **NVAR** | **Mina Array Bea** | **77.49** | **42** | P | P | 06 14 27.3 | 0.0 |
| | 0.4nm,0.8s,baz=232,slow=6.7,SNR=2.8 | | | | | | |

*BKK **28** 06:05:13.3±1.1, 23.°N±12.°×10.°1E±1.°9, h10km, M4.6/9, MLv4.6/9*

*BJI **28** 06:05:29.1, 22.°04N×100.°55E, h23km, ML3.1/4, Ms3.2/1, Ms7 3.2/1*

**ISC 28 06:05:27.7±1.1, 22.°16N±0.°07×100.°3E±0.°1, h10km, n8, σ2°28/11, Myanmar-China border region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CMMT** | **Chiang Mai** | **3.57** | **201** | P | **Pn** | **06 06 21.4** | **-1.9** |
| CMMT | | | | S | **Sb** | **06 07 16.1** | **+1.6** |
| **CMMT** | **Chiang Mai** | **3.57** | **201** | P | **Pb** | **06 06 32.9** | **+1.8** |
| **CHTO** | **Chiang Mai** | **3.57** | **201** | P | **Pn** | **06 06 21.2** | **-2.1** |
| CHTO | | | | S | **Sb** | **06 07 16.1** | **+1.6** |
| **CHTO** | **Chiang Mai** | **3.57** | **201** | P | **Pb** | **06 06 33.0** | **+1.9** |
| **KMI** | **Kunming** | **3.69** | **37** | Pg | **Pb** | **06 06 36.0** | **+2.8** |
| KMI | | | | Sg | **Sg** | **06 07 25.0** | **-1.4** |
| KMI | | | | smax | smax | | |
| | comp=N,49nm,0.6s | | | | | | |
| KMI | | | | smax | smax | | |
| | comp=E,33nm,0.6s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=N,150nm,4.2s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=E,140nm,4.8s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,180nm,5.4s | | | | | | |
| **PBKT** | **Sadao Pong** | **5.60** | **174** | P | **Pb** | **06 07 08.5** | **+2.9** |
| **CHAI** | **Chaiyaphum** | **6.42** | **166** | P | **Pg** | **06 07 29.0** | **-1.8** |
| **WMQ** | **Urumqi** | **24.00** | **337** | *eP* | **P** | **06 10 42.3** | **-0.4** |

**IDC 28 06:14:28.4±4.3, 20.°94S×179.°32W, h0km, mb3.8/2, mb1 4.1/2, mb1mx3.4/37, mbtmp3.8/2, Error ellipse: s-maj=260.5km s-min=43.3km az=155.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ASAR** | **Alice Springs** | **43.22** | **257** | P | P | 06 22 30.5 | -1.1 |
| | 0.7nm,0.7s,baz=98,slow=6.8,SNR=8.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.32** | **263** | P | P | 06 22 33.2 | +0.7 |
| | 0.8nm,0.3s,baz=96,slow=8.4,SNR=24 | | | | | | |
| **ARCES** | **ARCESS Array B** | **129.13** | **349** | PKP | PKPdf | 06 33 37.8 | 0.0 |
| | 5.9nm,1.1s,baz=35,slow=3.3,SNR=2.5 | | | | | | |
| **AKASG** | **Malin Array Be** | **142.79** | **330** | PKP | PKPdf | 06 34 00.6 | -3.0 |
| | 0.4nm,0.3s,baz=42,slow=4.3,SNR=4.5 | | | | | | |
| **BRTR** | **Keskin Array B** | **146.21** | **311** | PKPbc | PKPdf | 06 34 10.5 | +0.3 |
| | 0.5nm,0.6s,baz=102,slow=3.0,SNR=2.8 | | | | | | |

*ISCJB **28** 06:28:49.2±0.7, 67.°81N±0.°03×20.°23E±0.°10, h0km, Error ellipse: s-maj=5.5km s-min=4.5km az=158.7*

*HEL **28** 06:28:49.9±0.2, 67.°88N×20.°10E, h0km, ML1.6, Explosion*

*UPP **28** 06:28:49.7±0.1, 67.°88N×20.°18E, h0km, ML2.5*

**ISC 28 06:28:50.0±1.0, 67.°86N±0.°04×20.°20E±0.°04, h0km, n12, σ1°07/18, Sweden**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KUA** | **Kurravaara** | **0.11** | **29** | P | **Pg** | **06 28 51.8** | **-0.3** |
| KUA | | | | S | **Sg** | **06 28 53.3** | **-0.2** |
| **RATU** | **Laukkuluspa** | **0.23** | **261** | P | **Pg** | **06 28 54.2** | **-0.2** |
| **NIKU** | **Nikkaluokta** | **0.44** | **272** | P | **Pg** | **06 28 58.2** | **-0.2** |
| **LANU** | **Lannavaara** | **0.70** | **73** | P | **Pg** | **06 29 03.2** | **-0.2** |
| **LANU** | **Lannavaara** | **0.70** | **73** | PG | **Pg** | **06 29 03.2** | **-0.2** |
| | baz=266 | | | | | | |
| LANU | | | | SG | **Sg** | **06 29 13.2** | **+0.7** |
| **KIF** | **Kilpisjarvi** | **1.17** | **11** | PN | **Pn** | **06 29 13.4** | **-0.2** |
| | baz=188 | | | | | | |
| KIF | | | | SN | **Sn** | **06 29 31.1** | **+0.8** |
| **PAJU** | **Pajala** | **1.40** | **125** | P | **Pn** | **06 29 15.1** | **-1.7** |
| **HEF** | **Hetta** | **1.41** | **65** | PG | **Pn** | **06 29 15.6** | **-1.3** |
| | baz=246 | | | | | | |
| HEF | | | | MSG | | 06 29 32.9 | |
| | comp=Z,5.4nm,0.2s | | | | | | |
| HEF | | | | SN | **Sn** | **06 29 38.7** | **+2.5** |
| **ERTU** | **Ertsjaerv** | **1.52** | **148** | PN | **Pn** | **06 29 18.5** | **+0.1** |
| ERTU | | | | SN | **Sg** | **06 29 38.5** | **-0.3** |
| **KALU** | **Kalix** | **2.36** | **147** | SG | **Sg** | **06 30 05.0** | **-0.9** |
| **TOF** | **Tornio** | **2.41** | **136** | PG | **Pn** | **06 29 32.3** | **+1.6** |
| TOF | | | | SG | **Sb** | **06 30 04.6** | **+0.1** |
| **SGF** | **Sodankyl** | **2.46** | **97** | SB | **Sb** | **06 30 04.7** | **-1.0** |

*ISCJB **28** 06:38:56.4±0.6, 21.°93S±0.°04×179.°53W±0.°03, h587km±7km, mb4.7/171, Error ellipse: s-maj=6.9km s-min=3.6km az=162.0*

*IDC **28** 06:38:57.5±0.5, 21.°90S×179.°48W, h591km±5km, mb4.1/27, mb1 4.2/29, mb1mx4.2/35, mbtmp5.0/29, Error ellipse: s-maj=9.5km s-min=7.2km az=148.0*

*MOS **28** 06:38:57.4±1.1, 21.°87S×179.°54W, h598km, mb4.7/29, Error ellipse: s-maj=9.8km s-min=8.5km az=151.2*

*NEIC **28** 06:38:58.7±0.5, 21.°90S×179.°55W, h603km±5km, mb4.7/117, Error ellipse: s-maj=6.0km s-min=3.6km az=165.0*

*BJI **28** 06:38:59.3, 21.°33S×179.°24W, h612km, mb4.8/34, mB5.1/21*

**ISC 28 06:38:58.3±0.4, 21.°95S±0.°05×179.°43W±0.°04, h602km±3km, h603km:pP-P, n504, σ1°29/588, mb4.7/170, 43C-16D, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MSVF** | **Nonsavu** | **4.82** | **330** | *eP* | **P** | **06 40 28.9** | **-1.3** |
| **MSVF** | **Nonsavu** | **4.82** | **330** | *eP* | **P** | **06 40 28.9** | **-1.3** |
| **RAO** | **Raoul Island** | **7.39** | **170** | *eP* | **P** | **06 40 53.6** | **+1.7** |
| **RAO** | **Raoul Island** | **7.39** | **170** | *eP* | **P** | **06 40 53.6** | **+1.7** |
| **NIUE** | **Niue** | **9.36** | **74** | P | **P** | **06 41 08.9** | **-2.0** |
| | baz=9.2,SNR=5.7 | | | | | | |
| **AFI** | **Afiamalu** | **10.82** | **44** | P | **P** | **06 41 20.9** | **-4.6** |
| | 9.8nm,0.3s,baz=197,slow=20,SNR=9.6 | | | | | | |
| AFI | | | | S | S | 06 43 15.6 | -11 |
| | 7.3nm,0.3s,baz=68,slow=19,SNR=6.9 | | | | | | |
| **DZM** | **Mont Dzumac** | **13.10** | **267** | P | **P** | **06 41 47.0** | **-1.3** |
| | 7.2nm,0.3s,baz=89,slow=18,SNR=50 | | | | | | |
| DZM | | | | S | **S** | **06 44 07.7** | **-0.3** |
| | 0.3nm,0.3s,baz=306,slow=19,SNR=2.1 | | | | | | |
| **DZM** | **Mont Dzumac** | **13.10** | **267** | *eP* | **P** | **06 41 47.3** | **-1.0** |
| | 97nm,0.8s | | | | | | |
| **DZM** | **Mont Dzumac** | **13.10** | **267** | *eP* | **P** | **06 41 49.9** | **+1.6** |
| DZM | | | | S | **S** | **06 44 07.7** | **-0.3** |
| **URZ** | **Urewera** | **16.52** | **190** | P | **P** | **06 42 17.1** | **-3.0** |
| | 2.5nm,0.3s,baz=300,slow=2.0,SNR=12 | | | | | | |
| URZ | | | | S | **S** | **06 44 58.7** | **-5.7** |
| | 0.9nm,0.3s,baz=218,slow=19,SNR=8.3 | | | | | | |
| **URZ** | **Urewera** | **16.52** | **190** | *eP* | **P** | **06 42 19.2** | **-0.9** |
| | 26nm,0.9s | | | | | | |
| URZ | | | | S | **S** | **06 44 58.7** | **-5.7** |
| URZ | | | | *eS* | S | 06 45 05.1 | +0.7 |
| **BKZ** | **Black Stump Fm** | **17.51** | **191** | *eP* | **P** | **06 42 28.6** | **-0.7** |
| | 19nm,1.3s | | | | | | |
| BKZ | | | | *eS* | **S** | **06 45 22.5** | **+1.8** |
| **RAR** | **Rarotonga** | **18.30** | **91** | P | **P** | **06 42 35.8** | **-0.9** |
| | 2.1nm,0.3s,baz=226,slow=10,SNR=3.0 | | | | | | |
| **LTZ** | **Lake Taylor** | **21.89** | **197** | *eP* | **P** | **06 43 09.4** | **+0.6** |
| | 20nm,0.5s | | | | | | |
| **RPZ** | **Rata Peaks** | **23.09** | **198** | P | **P** | **06 43 19.5** | **+0.1** |
| | 6.1nm,0.5s,baz=314,slow=4.3,SNR=4.2 | | | | | | |
| RPZ | | | | S | **S** | **06 46 49.7** | **+0.6** |
| | 4.7nm,0.4s,baz=217,slow=15,SNR=4.1 | | | | | | |
| **WHZ** | **Wether Hill Ro** | **26.01** | **200** | *eP* | **P** | **06 43 46.0** | **+0.9** |
| | 34nm,0.7s | | | | | | |
| **EIDS** | **Eidsvold** | **27.19** | **257** | P | **P** | **06 43 55.8** | **+0.1** |
| | baz=27,SNR=38 | | | | | | |
| **EIDS** | **Eidsvold** | **27.19** | **257** | *eP* | **P** | **06 43 55.9** | **+0.1** |
| | 47nm,0.6s | | | | | | |
| **ARMA** | **Armidale** | **27.24** | **246** | P | **P** | **06 43 57.6** | **+1.3** |
| | baz=27,SNR=38 | | | | | | |
| **ARMA** | **Armidale** | **27.24** | **246** | *eP* | **P** | **06 43 57.6** | **+1.3** |
| | 43nm,0.8s | | | | | | |
| **MGCD** | **Mangrove Creek** | **28.32** | **240** | P | **P** | **06 44 07.0** | **+1.5** |
| | baz=28,SNR=6.0 | | | | | | |
| **PPT2** | **Papeete2** | **28.41** | **87** | *eP* | **P** | **06 44 05.9** | **-0.6** |
| | 93nm,1.2s | | | | | | |
| **PPT** | **Papeete** | **28.41** | **87** | P | **P** | **06 44 06.5** | **+0.1** |
| | 46nm,0.7s,baz=69,slow=4.7,SNR=10 | | | | | | |
| **PPTF** | **Pamatai, Papee** | **28.42** | **87** | *eP* | **P** | **06 44 06.6** | **+0.1** |
| | 354nm,1.5s | | | | | | |
| **TIAR** | **Tiarei** | **28.63** | **87** | *eP* | **P** | **06 44 08.0** | **-0.3** |
| | 13nm,0.8s | | | | | | |
| **TVO** | **Taravao** | **28.66** | **87** | *eP* | **P** | **06 44 07.8** | **-0.9** |
| | 14nm,0.7s | | | | | | |
| **RMQ** | **Roma** | **29.32** | **255** | P | **P** | **06 44 15.2** | **+1.0** |
| | baz=29,SNR=31 | | | | | | |
| **CNB** | **Canberra Magne** | **30.31** | **237** | P | **P** | **06 44 23.8** | **+1.2** |
| | baz=30,SNR=61 | | | | | | |
| **CAN** | **Canberra** | **30.60** | **237** | *eP* | **P** | **06 44 26.1** | **+1.0** |
| CAN | | | | pmax | pmax | | |
| | comp=Z,54nm,1.0s | | | | | | |
| **CAN** | **Canberra** | **30.60** | **237** | *eP* | **P** | **06 44 26.1** | **+1.0** |
| | comp=Z,54nm,1.0s | | | | | | |
| **PMOR** | **Pomariorio Ree** | **30.66** | **82** | *eP* | **P** | **06 44 25.0** | **-0.8** |
| | comp=Z,162nm,1.2s | | | | | | |
| **YNG** | **Young** | **30.79** | **239** | P | **P** | **06 44 27.3** | **+0.6** |
| | baz=31,SNR=6.1 | | | | | | |
| **VAH** | **Vaihoa** | **30.84** | **83** | *eP* | **P** | **06 44 26.3** | **-1.0** |
| | comp=Z,155nm,1.1s | | | | | | |
| **CTA** | **Charters Tower** | **32.05** | **267** | P | **P** | **06 44 37.4** | **-0.1** |
| | comp=Z,65nm,0.4s,baz=91,slow=11,SNR=161 | | | | | | |
| CTA | | | | PcP | **PcP** | **06 47 07.4** | **-1.0** |
| | comp=Z,3.1nm,0.5s,baz=105,slow=3.4,SNR=3.8 | | | | | | |
| CTA | | | | ScP | **ScP** | **06 49 57.9** | **+2.2** |
| | comp=Z,6.6nm,0.8s,baz=127,slow=2.8,SNR=6.0 | | | | | | |
| **CTAO** | **Charters Tower** | **32.05** | **267** | *eP* | **P** | **06 44 37.4** | **-0.1** |
| CTAO | | | | pmax | pmax | | |
| | comp=Z,61nm,0.6s | | | | | | |
| **CTAO** | **Charters Tower** | **32.05** | **267** | *eP* | **P** | **06 44 37.4** | **-0.1** |
| | comp=Z,61nm,0.6s | | | | | | |
| **CMSA** | **Cobar Meteorol** | **32.46** | **245** | P | **P** | **06 44 41.0** | **+0.2** |
| | baz=33,SNR=174 | | | | | | |
| **QLP** | **Quilpie** | **33.37** | **255** | P | **P** | **06 44 48.7** | **+0.1** |
| | baz=34,SNR=41 | | | | | | |
| **TOO** | **Toolangi** | **33.97** | **235** | P | **P** | **06 44 54.2** | **+0.7** |
| | baz=34,SNR=33 | | | | | | |
| **TOO** | **Toolangi** | **33.97** | **235** | P | **P** | **06 44 54.5** | **+1.0** |
| TOO | | | | pmax | pmax | | |
| | comp=Z,60nm,1.1s | | | | | | |
| **MTSU** | **Mount Surprise** | **34.22** | **270** | P | **P** | **06 44 55.5** | **-0.3** |
| | baz=34,SNR=105 | | | | | | |
| **PMG** | **Port Moresby** | **34.41** | **286** | P | **P** | **06 44 56.6** | **-0.8** |
| | comp=Z,91nm,0.7s,baz=89,slow=5.4,SNR=40 | | | | | | |
| PMG | | | | ScP | **ScP** | **06 50 07.2** | **+3.1** |
| | comp=Z,6.5nm,0.7s,baz=22,slow=5.4,SNR=3.7 | | | | | | |
| **PMG** | **Port Moresby** | **34.41** | **286** | *d iP* | **P** | **06 44 56.2** | **-1.2** |
| PMG | | | | pmax | pmax | | |
| | comp=Z,515nm,0.8s | | | | | | |
| **PMG** | **Port Moresby** | **34.41** | **286** | *eP* | **P** | **06 44 56.7** | **-0.7** |
| | comp=Z,111nm,0.8s | | | | | | |
| **STKA** | **Stephens Creek** | **35.96** | **246** | P | **P** | **06 45 10.5** | **+0.4** |
| | comp=Z,38nm,0.5s,baz=92,slow=9.5,SNR=92 | | | | | | |
| STKA | | | | S | **S** | **06 50 07.2** | **+0.1** |
| | comp=Z,1.1nm,0.6s,baz=266,slow=15,SNR=2.7 | | | | | | |
| STKA | | | | ScP | **ScP** | **06 50 12.3** | **+2.7** |
| | comp=Z,6.9nm,0.8s,baz=81,slow=3.4,SNR=7.9 | | | | | | |
| **STKA** | **Stephens Creek** | **35.96** | **246** | P | **P** | **06 45 10.3** | **+0.3** |
| | baz=36,SNR=87 | | | | | | |
| **STKA** | **Stephens Creek** | **35.96** | **246** | *eP* | **P** | **06 45 10.4** | **+0.3** |
| STKA | | | | *eS* | **S** | **06 50 09.5** | **+2.3** |
| STKA | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.8s | | | | | | |
| **STKA** | **Stephens Creek** | **35.96** | **246** | *eP* | **P** | **06 45 10.4** | **+0.3** |
| | comp=Z,9.1nm,0.8s | | | | | | |
| STKA | | | | *eS* | **S** | **06 50 09.5** | **+2.3** |
| **COEN** | **Coen** | **36.37** | **276** | P | **P** | **06 45 13.5** | **-0.1** |
| | baz=36,SNR=40 | | | | | | |
| **COEN** | **Coen** | **36.37** | **276** | *eP* | **P** | **06 45 14.0** | **+0.4** |
| | comp=Z,66nm,0.8s | | | | | | |
| **ARPS** | **Mount Arapiles** | **36.58** | **237** | P | **P** | **06 45 15.4** | **+0.5** |
| | baz=37,SNR=6.2 | | | | | | |
| **MANU** | **Manus Island** | **37.86** | **297** | *eP* | **P** | **06 45 24.7** | **-1.0** |
| | comp=Z,125nm,1.4s | | | | | | |
| **QIS** | **Mount Isa** | **38.12** | **264** | P | **P** | **06 45 27.0** | **-0.8** |
| | baz=38,SNR=9.8 | | | | | | |
| **BBOO** | **Buckleboo** | **40.71** | **245** | P | **P** | **06 45 48.1** | **-0.3** |
| | baz=41,SNR=116 | | | | | | |
| **BBOO** | **Buckleboo** | **40.71** | **245** | *eP* | **P** | **06 45 48.0** | **-0.4** |
| | comp=Z,66nm,0.9s | | | | | | |
| **AS01** | **Alice Springs** | **42.86** | **258** | *eP* | **P** | **06 46 04.5** | **-0.9** |
| **AS31** | **Alice Springs** | **42.90** | **258** | *eP* | **P** | **06 46 05.0** | **-0.7** |
| | comp=Z,44nm,1.3s | | | | | | |
| **ASAR** | **Alice Springs** | **42.90** | **258** | P | **P** | **06 46 05.0** | **-0.7** |
| | comp=Z,73nm,0.7s,baz=100,slow=8.0,SNR=531 | | | | | | |
| ASAR | | | | PcP | **PcP** | **06 47 42.4** | **0.0** |
| | comp=Z,4.3nm,0.5s,baz=118,slow=4.1,SNR=5.4 | | | | | | |
| ASAR | | | | ScP | **ScP** | **06 50 39.8** | **+2.9** |
| | comp=Z,4.3nm,0.8s,baz=101,slow=4.0,SNR=9.2 | | | | | | |
| ASAR | | | | S | **S** | **06 51 46.5** | **-1.8** |
| | comp=Z,3.1nm,0.9s,baz=97,slow=15,SNR=9.3 | | | | | | |
| ASAR | | | | ScS | **ScS** | **06 55 00.4** | **+1.0** |
| | comp=Z,1.3nm,0.8s,baz=93,slow=6.9,SNR=5.6 | | | | | | |
| **WB2** | **Warramunga Arr** | **43.09** | **264** | *eP* | **P** | **06 46 06.3** | **-0.9** |
| | comp=Z,79nm,0.8s | | | | | | |
| **WRAB** | **Tennant Creek** | **43.09** | **264** | *d iP* | **P** | **06 46 05.6** | **-1.5** |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,103nm,1.0s | | | | | | |
| **WRAB** | **Tennant Creek** | **43.09** | **264** | *eP* | **P** | **06 46 06.2** | **-1.0** |
| | comp=Z,74nm,0.8s | | | | | | |
| **WRA** | **Warramunga Arr** | **43.10** | **264** | P | **P** | **06 46 05.9** | **-1.3** |
| | comp=Z,28nm,0.3s,baz=95,slow=7.9,SNR=309 | | | | | | |
| WRA | | | | ScP | **ScP** | **06 50 40.3** | **+2.5** |
| | comp=Z,6.9nm,0.9s,baz=98,slow=4.1,SNR=8.8 | | | | | | |
| WRA | | | | S | **S** | **06 51 48.0** | **-3.1** |
| | comp=Z,1.0nm,0.8s,baz=99,slow=25,SNR=2.8 | | | | | | |
| **JAY** | **Jayapura** | **43.27** | **291** | P | **P** | **06 46 08.2** | **-0.5** |
| | comp=Z,1μm,1.4s,comp=Z,13μm | | | | | | |
| **JAY** | **Jayapura** | **43.27** | **291** | P | **P** | **06 46 08.2** | **-0.5** |
| **GENI** | **Genyem** | **43.70** | **290** | P | **P** | **06 46 11.9** | **0.0** |
| **KDU** | **Kakadu** | **46.67** | **273** | P | **P** | **06 46 33.7** | **-0.8** |
| | baz=47,SNR=10 | | | | | | |
| **FORT** | **Forrest** | **47.50** | **248** | P | **P** | **06 46 40.0** | **-0.5** |
| | baz=48,SNR=75 | | | | | | |
| **FORT** | **Forrest** | **47.50** | **248** | *eP* | **P** | **06 46 40.0** | **-0.5** |
| | comp=Z,937nm,0.6s | | | | | | |
| **WRKA** | **Warakurna** | **47.80** | **256** | P | **P** | **06 46 42.2** | **-0.7** |
| | baz=48,SNR=136 | | | | | | |
| **MTN** | **Manton Dam** | **47.86** | **272** |

SRBI Singaraja 64.20 272 P P 06 48 34.9 -0.8
JAGI Jajag, Banyuwa 65.05 271 P P 06 48 39.3 -1.8
JAGI Jajag, Banyuwa 65.05 271 eP P 06 48 39.2 -1.9
comp=Z,77nm,1.0s
PWJI Pagerwojo 67.38 270 P P 06 48 54.5 -1.0
PCJI Pacitan 67.91 270 P P 06 48 58.5 -0.2
QSPA South Pole Qui 68.12 180 eP P 06 48 59.7 +0.5
comp=Z,19nm,0.9s
KKM Kota Kinabalu 68.85 286 eP P 06 49 03.5 -1.0
comp=Z,29nm,0.7s
JOW Kunigami 70.09 311 eP P 06 49 11.7 +0.2
comp=Z,44nm,0.8s
KPJI Karang Pucung 70.29 270 P P 06 49 12.1 -0.8
MJAR Matsushiro Arr 70.60 325 P P 06 49 13.2 -1.1
comp=Z,10.0nm,0.6s,baz=159,slow=6.2,SNR=28
MAJO Matsushiro 70.61 325 eP P 06 49 13.6 -0.7
MAJO pmax pmax
comp=Z,14nm,0.8s
MAJO Matsushiro 70.61 325 eP P 06 49 13.6 -0.7
comp=Z,14nm,0.8s
MAT Matsushiro 70.61 325 P P 06 49 13.6 -0.7
MJB9 Matsu-Tunnel 70.61 325 eP P 06 49 13.9 -0.4
comp=Z,14nm,0.7s
KSM Kuching 72.30 279 eP P 06 49 24.3 -0.4
comp=Z,45nm,0.7s
JNU Nakatsue 72.43 318 eP P 06 49 23.7 -1.3
TWG Pinlang 73.06 304 eP P 06 49 26.9 -1.8
comp=Z,170nm,0.4s
YULB Yu-li 73.19 304 eP P 06 49 28.2 -1.4
comp=Z,58nm,1.5s
NACB Ninganchiao 73.40 305 eP P 06 49 29.6 -1.1
comp=Z,84nm,1.2s
TPUB Ta-pu 73.66 304 eP P 06 49 30.5 -1.7
comp=Z,63nm,0.7s
SSLB Suanglung 73.67 305 eP P 06 49 31.1 -1.2
comp=Z,37nm,0.6s
ASAJ Asahikawa 74.38 333 P P 06 49 36.2 +0.5
comp=Z,12nm,0.6s,baz=170,slow=4.7,SNR=9.5
YSS Yuzh-Sakhalins 76.61 334‖ eP P 06 49 49.1 +1.1
YSS pmax pmax
comp=Z,56nm,1.3s
TJN Taejon 76.75 318 i P P 06 49 49.7 +0.7
KSRS Korea Array 77.10 320 P P 06 49 51.3 +0.4
comp=Z,3.9nm,0.9s,baz=139,slow=6.6,SNR=11
KSAR Wonju Array Be 77.12 320 P P 06 49 51.3 +0.3
KSAR Wonju Array Be 77.12 320 P P 06 49 51.3 +0.3
KS01 Wonju Array Si 77.14 320 eP P 06 49 50.8 -0.3
PETK Petropavlovsk- 77.34 346 P P 06 49 51.2 -0.6
comp=Z,20nm,0.6s,baz=121,slow=5.7,SNR=27
VLA Vladivostok 78.72 326‖ eP P 06 49 59.9 +0.5
VLA pmax pmax
comp=Z,26nm,1.0s
USRK Ussuriysk Ar. 79.43 327 P P 06 50 03.4 +0.2
comp=Z,7.8nm,0.8s,baz=127,slow=3.8,SNR=15
NJ2 Nanjing 79.79 311 eP P 06 50 06.3 +1.0
NJ2 pmax pmax
comp=Z,14nm,0.6s
SAO San Andreas Ge 80.00 44 eP P 06 50 07.3 +1.0
SAO pmax pmax
comp=Z,20nm,1.0s
SAO San Andreas Ge 80.00 44 eP P 06 50 07.3 +1.0
comp=Z,20nm,1.0s
QIZ Qiongzhong 80.24 295 P P 06 50 10.3 +2.3
QIZ pP pP 06 52 16.0 +1.8
QIZ S S 06 59 26.3 +1.2
QIZ sS sS 07 03 12.3 +2.2
QIZ pmax pmax
comp=Z,42nm,2.6s
HOPS Hopland Field 80.34 41 eP P 06 50 09.1 +1.0
comp=Z,21nm,0.9s
109C Camp Elliot, M 80.69 49 P P 06 50 10.4 +0.5
baz=236
KMRM Mail Ridge 80.72 40 eP P 06 50 11.7 +1.6
comp=Z,54nm,0.9s
ARVC Arvin 80.76 46 P P 06 50 10.8 +0.5
baz=235
MWC Mount Wilson 80.77 47 eP P 06 50 10.9 +0.3
MWC pmax pmax
comp=Z,14nm,1.1s
MWC Mount Wilson 80.77 47 eP P 06 50 10.9 +0.3
comp=Z,14nm,1.1s
MDJ Mudanjiang 80.95 326 P P 06 50 11.8 +0.8
MDJ pmax pmax
comp=Z,16nm,0.9s
MDJ pmax pmax
comp=Z,77nm,6.2s
VES Vestal, Richgr 81.00 46 P P 06 50 12.2 +0.7
baz=235
MURC Murrieta 81.02 48 P P 06 50 12.4 +0.7
baz=236
BFSC Mount Baldy Ra 81.05 48 P P 06 50 12.3 +0.3
baz=236
RCTC Rector, Farmer 81.16 45 P P 06 50 12.9 +0.6
baz=235
MONP2 Monument Peak 81.17 49 P P 06 50 13.1 +0.4
baz=237,SNR=9.3
EDW2 Edwards Air Fo 81.18 47 P P 06 50 13.0 +0.5
baz=236,SNR=7.5
IKP In-Ko-Pah, Jac 81.26 50 P P 06 50 13.6 +0.6
baz=237
ISA Isabella, Lake 81.30 46 P P 06 50 13.9 +0.7
baz=235
ISA Isabella, Lake 81.30 46 eP P 06 50 13.9 +0.7
ISA pmax pmax
comp=Z,14nm,0.9s
ISA Isabella, Lake 81.30 46 eP P 06 50 13.9 +0.7
comp=Z,14nm,0.9s
CMB Columbia Colle 81.43 43 eP P 06 50 14.1 +0.4
CMB pmax pmax
comp=Z,13nm,0.9s
CMB Columbia Colle 81.43 43 eP P 06 50 14.1 +0.4
comp=Z,13nm,0.9s
PFO Pinyon Flats O 81.53 49 P P 06 50 14.7 +0.3
baz=237
PFO Pinyon Flats O 81.53 49 i P P 06 50 16.4 +1.9
AFDM Forest Hills D 81.61 42 eP P 06 50 15.3 +0.7
comp=Z,17nm,1.2s
SWSC Sam W. Stewart 81.63 50 P P 06 50 15.5 +0.7
baz=237
WDC Whiskeytown Da 81.64 40 eP P 06 50 16.0 +1.3
WDC pmax pmax
comp=Z,20nm,1.0s
WDC Whiskeytown Da 81.64 40 eP P 06 50 16.0 +1.3
comp=Z,20nm,1.0s
ORV Oroville 81.65 41 eP P 06 50 15.7 +0.9
ORV pmax pmax
comp=Z,11nm,0.9s
ORV Oroville 81.65 41 eP P 06 50 15.7 +0.9
comp=Z,11nm,0.9s
LRMC Laurel Mtn Rad 81.73 47 P P 06 50 15.6 +0.2
baz=236,SNR=8.3
N02D Trinity Center 81.79 40 P P 06 50 16.5 +1.0
baz=232,SNR=5.4
O03D Paynes Creek 81.91 41 P P 06 50 16.4 +0.2
baz=232,SNR=11
M02C Callahan 81.96 39 P P 06 50 17.5 +1.1
baz=232,SNR=7.7
IPM Ipoh 82.00 278 eP P 06 50 17.4 +0.2
comp=Z,35nm,0.7s
L02D Cave Junction, 82.00 38 P P 06 50 17.4 +0.9
baz=231
CWC Cottonwood Cre 82.01 46 P P 06 50 17.3 +0.4
baz=235
MDPB Devils Postpil 82.03 44 eP P 06 50 17.6 +0.5
comp=Z,14nm,0.9s
BELC Belle Mtn. Jos 82.07 49 P P 06 50 17.5 +0.3
baz=237,SNR=11
MPMC Manual Prospec 82.19 46 P P 06 50 18.2 +0.4
baz=236,SNR=12
MLAC Mammoth, Mammo 82.19 44 P P 06 50 18.4 +0.5
baz=235
GSC Goldstone, Bar 82.22 47 P P 06 50 18.2 +0.3
baz=236
DAC Darwin (Calif) 82.24 46 eP P 06 50 18.7 +0.6
DAC pmax pmax
comp=Z,5.0nm,0.8s
DAC Darwin (Calif) 82.24 46 eP P 06 50 18.7 +0.6
comp=Z,5.2nm,0.8s
WHN Wuhan 82.24 307 P P 06 50 18.8 +0.9
YBH Yreka Blue Hor 82.25 39 eP P 06 50 19.0 +1.1
YBH pmax pmax
comp=Z,30nm,1.4s
YBH Yreka Blue Hor 82.25 39 eP P 06 50 19.0 +1.1
comp=Z,30nm,1.4s
TIN Tinemaha, Big 82.26 45 P P 06 50 18.5 +0.5
baz=235
BC3 Big Chuckawall 82.26 49 P P 06 50 18.9 +0.8
baz=237
HEC Hector,Ludlow 82.29 48 P P 06 50 18.3 +0.1
baz=237,SNR=14
WAKR Walker 82.31 43 eP P 06 50 18.9 +0.5
comp=Z,18nm,0.8s
GLA Glamis 82.38 50 P P 06 50 19.5 +0.8
baz=238,SNR=7.1
GLA Glamis 82.38 50 eP P 06 50 20.2 +1.5
GLA pmax pmax
comp=Z,22nm,0.9s
GLA Glamis 82.38 50 eP P 06 50 20.2 +1.5
comp=Z,22nm,0.9s
BEKR Beckworth 82.54 42 eP P 06 50 19.9 +0.4
comp=Z,9.8nm,0.8s
PNTR Pine Nut 82.55 43 eP P 06 50 20.3 +0.7
comp=Z,33nm,0.7s
CN2 Changchun 82.64 323 eP P 06 50 19.5 -0.1
CN2 pmax pmax
comp=Z,30nm,1.4s
YERR Yerington 82.72 43 eP P 06 50 20.8 +0.4
comp=Z,18nm,0.6s
GMRC Granite Mounta 82.73 48 P P 06 50 20.9 +0.4
baz=237,SNR=5.6
IRM Iron Mountain 82.75 49 P P 06 50 21.0 +0.5
baz=238,SNR=10
GRAC Grapevine Rang 82.79 45 P P 06 50 21.1 +0.5
baz=236,SNR=10
M04C Macdoel 82.80 40 P P 06 50 21.2 +0.5
baz=232
FURC Furnace Creek, 82.83 46 P P 06 50 21.0 +0.3
baz=236,SNR=6.5
TUQ Turquoise Moun 82.90 47 P P 06 50 21.4 +0.1
baz=237,SNR=11
SHOC Shoshone, Teco 82.92 47 P P 06 50 21.3 +0.1
baz=237,SNR=6.8
Y12C Blythe 82.97 49 P P 06 50 22.3 +0.8
baz=238
Y12C Blythe 82.97 49 eP P 06 50 22.5 +1.0
comp=Z,10nm,0.8s
113A Mohawk Valley, 82.99 51 eP P 06 50 22.8 +1.2
comp=Z,18nm,1.1s
NV01 Mina Array Sit 83.00 44 eP P 06 50 21.7 -0.1
NV01 epP pP 06 52 29.2 -0.1
NVAR Mina Array Bea 83.00 44 P P 06 50 22.0 +0.2
NVAR pP pP 06 52 28.4 -0.9
comp=Z,7.9nm,0.8s,baz=228,slow=7.9,SNR=54
comp=Z,0.5nm,0.3s,baz=227,slow=8.5,SNR=6.6
PAHR Pah Rah Range 83.05 42 eP P 06 50 22.9 +0.9
comp=Z,16nm,1.0s
NV11 Mina Array Sit 83.09 44 eP P 06 50 22.5 +0.3
comp=Z,1.0nm,1.0s
NV11 epP pP 06 52 32.8 +3.1
KLR Kul'dur 83.11 330 P P 06 50 22.4 +0.6
comp=Z,0.4nm,0.8s,baz=120,slow=8.1,SNR=12
KLR Kul'dur 83.11 330‖ iP P 06 50 22.1 +0.3
HSIG 83.18 55 eP P 06 50 23.2 +0.5
comp=Z,16nm,0.8s
214A Organ Pipe Nat 83.26 52 P P 06 50 23.7 +0.7
baz=239
LDFC Landfair 83.27 48 eP P 06 50 24.1 +1.0
comp=Z,31nm,0.8s
LDFC epP pP 06 52 34.1 +3.4
K04D Chiloquin, OR 83.36 39 P P 06 50 24.0 +0.5
baz=232
NEE2 Needles Airpor 83.44 49 P P 06 50 24.4 +0.5
baz=238
KVN Kaiserville 83.48 43 eP P 06 50 24.4 +0.2
KVN e*PP pP 06 52 34.9 +3.0
KVN pmax pmax
comp=Z,8.0nm,0.8s
KVN Kaiserville 83.48 43 eP P 06 50 24.4 +0.2
comp=Z,8.1nm,0.8s
KVN epP pP 06 52 34.9 +3.0
TPNV Topopah Spring 83.51 46 P P 06 50 24.5 +0.1
baz=236,SNR=9.3
TPNV Topopah Spring 83.51 46 eP P 06 50 24.7 +0.3
TPNV pmax pmax
comp=Z,17nm,1.2s
TPNV Topopah Spring 83.51 46 eP P 06 50 24.6 +0.3
comp=Z,17nm,1.2s
PDMCI Parker Dam,Lak 83.53 49 P P 06 50 24.7 +0.5
baz=238,SNR=7.4
J04D Umpqua Nationa 83.54 38 P P 06 50 25.1 +0.7
baz=232
I04A Tendick Farm, 83.71 38 P P 06 50 25.7 +0.7
baz=232
MOD Modoc Plateau 83.78 40 eP P 06 50 26.5 +0.9
comp=Z,6.6nm,0.8s
GSI Gunungsitoli 83.98 274 eP P 06 50 26.9 -0.1
comp=Z,44nm,1.0s
SHPR Sheep Range 84.00 47 eP P 06 50 27.8 +1.0
comp=Z,16nm,1.5s
SHPR epP pP 06 52 38.1 +3.5
J05D Fort Rock, OR 84.07 39 P P 06 50 27.7 +0.8
baz=232
W13A Hualapai Mount 84.13 49 eP P 06 50 28.1 +0.6
comp=Z,7.8nm,0.8s
W13A epP pP 06 52 38.5 +3.0
Y14A Wickenburg 84.14 50 eP P 06 50 28.0 +0.6
comp=Z,28nm,0.8s
Y14A eS S 07 00 04.1 +0.7
I05D Terrebonne, OR 84.65 38 P P 06 50 30.5 +0.9
baz=232
R11A Troy Canyon, C 84.72 45 P P 06 50 31.4 +1.2
baz=237
BMN Battle Mountai 84.82 43 eP P 06 50 31.1 +0.4
BMN pmax pmax
comp=Z,7.0nm,0.8s
BMN Battle Mountai 84.82 43 eP P 06 50 31.1 +0.4
comp=Z,6.7nm,0.8s
MA2 Magadan 84.83 345 P P 06 50 28.7 -1.4
comp=Z,6.7nm,0.7s,baz=127,slow=8.0,SNR=7.1
MA2 Magadan 84.83 345‖ iP P 06 50 29.0 -1.1
TUC Tucson 84.92 52 P P 06 50 32.2 +0.9
baz=240
TUC Tucson 84.92 52 eP P 06 50 32.5 +1.2
TUC e*PP pP 06 52 40.8 +1.3
TUC pmax pmax
comp=Z,11nm,0.9s
TUC Tucson 84.92 52 eP P 06 50 32.5 +1.2
comp=Z,11nm,0.9s
TUC epP pP 06 52 40.8 +1.3
SYO Syowa Base 85.02 193‖ iP P 06 50 29.7 -1.3
SYO Syowa Base 85.02 193‖ ePcP PcP 06 50 32.9 -0.1
WVOR Wild Horse Val 85.10 40 eP P 06 50 32.9 +0.9
WVOR pmax pmax
comp=Z,7.0nm,0.9s
WVOR Wild Horse Val 85.10 40 eP P 06 50 32.9 +0.9
comp=Z,7.2nm,0.9s
KHON Khomkaen 85.11 290 P P 06 50 34.0 +1.6
X16A Lo Mia Camp, P 85.50 50 eP P 06 50 35.4 +1.2
comp=Z,10.0nm,1.1s
X16A epP pP 06 52 45.4 +2.7
I07A Izee 85.55 39 eP P 06 50 35.2 +1.1
comp=Z,9.9nm,1.0s
LCMT Little Creek M 85.57 47 eP P 06 50 35.4 +1.0
comp=Z,7.1nm,0.9s
319A Douglas 85.58 54 eP P 06 50 35.7 +1.2
comp=Z,24nm,1.0s
CHAI Chaiyaphum 85.66 289 P P 06 50 36.3 +1.3
comp=Z,8.2nm,0.9s
J08A Circle Bar Ran 85.73 40 eP P 06 50 35.9 +0.9
comp=Z,25nm,1.3s
ENH Enshi 85.76 305 eP P 06 50 35.8 +0.5
comp=Z,43nm,1.1s
CCUT Cedar City 85.77 47 eP P 06 50 36.6 +1.2
comp=Z,5.8nm,0.9s
U15A North Rim 85.92 48 eP P 06 50 37.1 +0.9
comp=Z,14nm,0.8s
U15A epP pP 06 52 49.1 +4.2
SZCU Shurtz Canyon 85.98 47 eP P 06 50 37.6 +1.2
comp=Z,6.3nm,1.0s
BJI Beijing 85.99 316 P P 06 50 35.3 -0.8
BJI pmax pmax
comp=Z,13nm,0.8s
WUAZ Wupatki 86.10 49 P P 06 50 37.5 +0.6
baz=240
WUAZ Wupatki 86.10 49 eP P 06 50 37.5 +0.6
comp=Z,11nm,1.1s
WUAZ epP pP 06 52 50.5 +4.8
GYA Guiyang 86.22 300 eP P 06 50 39.5 +1.9
GYA pP pP 06 52 50.3 +3.9
GYA sP sP 06 53 50.0 +3.3
GYA PP PP 06 54 12.5 +2.3
GYA SKS SKSac 07 00 05.5 -1.9
GYA S S 07 00 23.0 -0.6
GYA sS sS 07 04 14.5 +1.5
GYA pmax pmax
comp=Z,20nm,1.0s
GYA pmax pmax
comp=Z,120nm,5.8s
PKCU Pink Cliffs 86.43 47 eP P 06 50 40.4 +1.8
comp=Z,11nm,1.0s
G08A Pilot Rock 86.58 38 eP P 06 50 39.4 +0.5
comp=Z,13nm,0.8s
SNAA Sanae 86.59 179 P P 06 50 36.3 -2.2
SNAA Sanae 86.59 179‖ iP P 06 50 37.8 -0.7
X18A Snowflake 86.62 51 eP P 06 50 40.3 +0.9
comp=Z,5.7nm,0.9s
B05A Bryant 86.66 34 P P 06 50 40.0 +1.0
baz=232
VNA3 Neumayer Olymp 86.78 177 P P 06 50 38.9 -0.5
PBKT Sadao Pong 86.82 289 P P 06 50 42.3 +1.8
comp=Z,28nm,2.2s,comp=Z,2µm
MTPU Mount Pierson 86.83 47 eP P 06 50 41.9 +1.3
comp=Z,10nm,1.1s
MTPU epP pP 06 52 53.7 +4.1
HAWA Hanford 86.91 37 eP P 06 50 41.0 +0.8
comp=Z,17nm,0.9s
ZAIG Zacatecas 87.04 64 eP P 06 50 42.9 +1.1
comp=Z,9.1nm,1.0s
W18A Petrified Fore 87.06 50 P P 06 50 41.8 +0.3
baz=241
C06D Leavenworth 87.09 35 P P 06 50 41.6 +0.5
baz=232
VNA2 Neumayer--Watz 87.20 177 P P 06 50 41.0 -0.3
baz=186,slow=3.1
BMO Blue Mountains 87.28 39 eP P 06 50 42.7 +0.5
BMO pmax pmax
comp=Z,6.0nm,0.8s
BMO Blue Mountains 87.28 39 eP P 06 50 42.7 +0.5
comp=Z,5.8nm,0.8s
MFID Camas Ranch 87.35 41 eP P 06 50 43.3 +0.8
comp=Z,13nm,1.0s
SEY Seymchan 87.49 348 P P 06 50 41.9 -0.7
comp=Z,8.0nm,0.7s,baz=147,slow=5.8,SNR=28
SEY pP pP 06 52 49.2 -2.7
comp=Z,0.4nm,0.3s,baz=148,slow=7.9,SNR=1.8
SEY Seymchan 87.49 348‖ iP P 06 50 42.5 0.0
DUG Dugway, Tooele 87.52 45 P P 06 50 43.8 +0.4
baz=238
D08A Wollman Farm, 87.64 37 eP P 06 50 44.6 +0.9
comp=Z,12nm,0.8s
E09A Wood Farm, Sta 87.75 37 eP P 06 50 44.8 +0.6
comp=Z,11nm,1.0s
EPT El Paso 87.86 55 eP P 06 50 46.3 +1.1
comp=Z,23nm,1.1s
XAN Xi'an 87.96 308 P P 06 50 46.0 +0.5
XAN pmax pmax
comp=Z,26nm,1.0s
F10A Beach Ranch, E 87.97 38 eP P 06 50 45.8 +0.4
comp=Z,19nm,0.9s
TMUT Trail Mountain 88.12 46 eP P 06 50 45.5 -1.0
comp=Z,37nm,1.5s
MPU Maple Canyon 88.20 45 eP P 06 50 47.5 +0.8
comp=Z,8.0nm,1.2s
HLID Hailey 88.30 41 P P 06 50 47.7 +0.7
baz=237
HLID Hailey 88.30 41 eP P 06 50 47.5 +0.4
comp=Z,8.1nm,0.8s
HLID epP pP 06 52 58.8 +2.2
TLIG Tlapa 88.33 70 eP P 06 50 48.8 +1.1
comp=Z,9.5nm,0.8s
SPUT South Promonto 88.34 44 eP P 06 50 47.8 +0.5
comp=Z,11nm,1.0s
HVU Hansel Valley 88.37 43 eP P 06 50 48.3 +0.9
HVU pmax pmax
comp=Z,40nm,1.6s
HVU Hansel Valley 88.37 43 eP P 06 50 48.3 +0.9
comp=Z,40nm,1.6s
RND Reindeer 88.41 13 eP P 06 50 46.4 -0.5
RND pmax pmax
comp=Z,7.0nm,0.8s
RND Reindeer 88.41 13 eP P 06 50 46.4 -0.5
comp=Z,6.9nm,0.8s
C09A Chrisman Ranch 88.43 36 eP P 06 50 47.9 +0.6
comp=Z,8.7nm,0.8s
CTU Camp Tracy 88.47 45 eP P 06 50 49.0 +1.1
comp=Z,11nm,1.1s
SRU San Rafael Swe 88.49 47 eP P 06 50 48.5 +0.4
SRU e*PP pP 06 53 01.2 +3.5
SRU pmax pmax
comp=Z,12nm,0.8s
SRU San Rafael Swe 88.49 47 eP P 06 50 48.5 +0.4
comp=Z,12nm,0.8s
SRU epP pP 06 53 01.2 +3.5
P17A Butcher Ranch, 88.53 46 eP P 06 50 49.5 +1.3
comp=Z,18nm,1.3s
LAZ Ladron 88.60 52 eP P 06 50 49.6 +0.9
JLU Jordanelle 88.62 45 eP P 06 50 49.3 +0.6
comp=Z,9.4nm,1.1s
MNTX Cornudas Mount 88.68 55 P P 06 50 49.8 +0.9
baz=243
MNTX Cornudas Mount 88.68 55 eP P 06 50 49.3 +0.4
comp=Z,12nm,0.8s
MNTX epP pP 06 52 59.2 +0.7
KMI Kunming 88.83 298 P P 06 50 51.5 +1.5
KMI pmax pmax
comp=Z,17nm,0.5s
BNM Barren Site 88.86 52 eP P 06 50 50.9 +0.9
TCUT Toone Canyon 88.91 44 eP P 06 50 50.7 +0.6
comp=Z,31nm,0.9s
LPM Los Pinos Moun 88.93 52 eP P 06 50 51.0 +0.8
LPM epP pP 06 53 03.8 +3.8
P18A Preston Nutter 88.93 46 eP P 06 50 51.1 +0.8
comp=Z,8.6nm,1.1s
TX31 Lajitas Ar. Si 88.96 58 eP P 06 50 50.9 +0.5
TX31 eP P 06 50 51.3 +0.9
TX31 epP pP 06 53 00.8 +0.7
TX31 epP pP 06 53 04.2 +4.1
TXAR Lajitas Array 88.96 58 P P 06 50 51.3 +0.9
comp=Z,7.0nm,0.8s,baz=215,slow=6.1,SNR=64
TXAR pP pP 06 52 59.2 -1.0
comp=Z,1.5nm,0.9s,baz=215,slow=6.2,SNR=5.9
TXAR PKKPbc PKKPbc 07 08 26.1 +0.6
comp=Z,0.1nm,0.5s,baz=64,slow=2.1,SNR=4.5
HIA Hailar 89.11 325‖ eP P 06 50 50.9 +0.4
HIA pmax pmax
comp=Z,5.0nm,1.1s
PV09 Paradox Valley 89.13 48 eP P 06 50 51.6 +0.4
PV10 Paradox Valley 89.14 48 eP P 06 50 51.2 0.0
PLCA Paso Flores 89.24 134 P P 06 50 52.3 +0.8
comp=Z,5.7nm,0.8s,baz=249,slow=4.7,SNR=20
PLCA Paso Flores 89.24 134 eP P 06 50 52.7 +1.2
PLCA pmax pmax
comp=Z,7.0nm,0.8s
PLCA Paso Flores 89.24 134 eP P 06 50 52.7 +1.2
comp=Z,7.4nm,0.8s
CM01 Chiang Mai Arr 89.32 290 eP P 06 50 53.1 +1.0
CM01 epP pP 06 53 02.3 +0.4
NEW Newport 89.33 36 P P 06 50 52.1 +0.5
baz=235
CMAR Chiang Mai Arr 89.35 290 P P 06 50 53.6 +1.4
comp=Z,14nm,0.8s,baz=131,slow=3.2,SNR=63
CMAR pP pP 06 52 59.2 -2.9
comp=Z,1.0nm,0.3s,baz=130,slow=3.8,SNR=2.6
ANMO Albuquerque 89.35 52 P P 06 50 52.4 +0.2
baz=243
ANMO Albuquerque 89.35 52‖ iP P 06 50 52.3 +0.2
ANMO i *PP pP 06 53 05.6 +3.6
ANMO pmax pmax
comp=Z,11nm,1.1s
ANMO Albuquerque 89.35 52 eP P 06 50 51.9 -0.3
comp=Z,8.8nm,1.0s
ANMO epP pP 06 53 06.0 +3.9
HHC Hu-ho-hao-te 89.42 315 eP P 06 50 54.5 +2.3
HHC pmax pmax
comp=Z,17nm,0.6s
HHC pmax pmax
comp=Z,150nm,5.2s
CMMT Chiang Mai 89.48 290 P P 06 50 54.3 +1.4
CHTO Chiang Mai 89.49 290 P P 06 50 54.4 +1.5
comp=Z,121nm,0.8s
CHTO Chiang Mai 89.49 290 eP P 06 50 54.1 +1.2
CHTO pmax pmax
comp=Z,22nm,0.8s
CHTO Chiang Mai 89.49 290 eP P 06 50 54.1 +1.2
comp=Z,22nm,0.8s
MCMT McKenzie Canyo 89.92 41 eP P 06 50 55.9 +1.2
AHID Auburn Hatcher 89.95 43 eP P 06 50 55.4 +0.7
comp=Z,9.3nm,0.7s
ILAR Eielson Array 90.03 13 P P 06 50 52.9 -1.5
comp=Z,0.9nm,0.5s,baz=215,slow=5.2,SNR=13

ILAR pP **pP** 06 53 02.6 -1.8
comp=Z,1.1nm,1.0s,baz=199,slow=7.6,SNR=2.5
**BILL Bilibino** 90.35 355⇑ *e*P **P** 06 50 55.3 -0.4
BILL *e* 06 54 42.2
BILL pmax pmax
comp=Z,6.0nm,0.9s
**S22A 4UR Ranch, Cre** 90.38 49 P **P** 06 50 57.5 +0.5
baz=242
**S22A 4UR Ranch, Cre** 90.38 49 *e*P **P** 06 50 57.9 +0.9
comp=Z,8.2nm,1.1s
**REDW Red Top Meadow** 90.40 43 *e*P **P** 06 50 57.5 +0.7
comp=Z,9.5nm,0.9s
**TPAW Teton Pass** 90.41 43 *e*P **P** 06 50 57.7 +0.8
comp=Z,5.2nm,0.8s
**FXWY Fox Creek** 90.43 42 *e*P **P** 06 50 57.9 +0.9
comp=Z,2.6nm,0.8s
**LNIG Linares** 90.50 63 *e*P **P** 06 50 56.9 -0.6
comp=Z,16nm,0.9s
**SNOW Snow King Moun** 90.52 43 *e*P **P** 06 50 58.0 +0.6
comp=Z,9.0nm,0.8s
**O20A White River Ci** 90.53 47 P **P** 06 50 57.8 +0.3
baz=242
**O20A White River Ci** 90.53 47 *e*P **P** 06 50 58.0 +0.5
comp=Z,6.3nm,0.8s
**BW06 Boulder Array** 90.93 44 P **P** 06 50 59.6 +0.2
baz=241
**BW06 Boulder Array** 90.93 44 *e*P **P** 06 50 59.5 +0.2
comp=Z,7.6nm,1.1s
**PD31 Pinedale Array** 90.93 44 *e*P **P** 06 50 59.5 +0.1
**PDAR Pinedale Array** 90.93 44 P **P** 06 50 58.9 -0.5
comp=Z,1.9nm,0.6s,baz=196,slow=3.3,SNR=21
PDAR pP **pP** 06 53 08.5 -1.0
comp=Z,0.3nm,0.7s,baz=260,slow=2.6,SNR=1.9
**SMCO Snowmass** 90.94 48 *e*P **P** 06 50 59.8 +0.1
comp=Z,4.7nm,0.9s
**SDCO Great Sand Dun** 91.31 50 P **P** 06 51 01.2 -0.1
baz=243
**SDCO Great Sand Dun** 91.31 50 *e*P **P** 06 51 01.3 0.0
comp=Z,3.6nm,0.8s
**MSTX Muleshoe** 91.65 54 P **P** 06 51 02.8 +0.1
baz=245
**MSTX Muleshoe** 91.65 54 *e*P **P** 06 51 03.0 +0.3
comp=Z,28nm,1.7s
**T25A Trinidad** 91.82 51 P **P** 06 51 03.8 +0.3
baz=244
**833A Chaparral WMA,** 91.94 60 P **P** 06 51 04.7 +0.7
baz=246
**ISCO Idaho Springs** 92.16 48 P **P** 06 51 05.4 +0.2
baz=243
**RLMT Red Lodge** 92.26 42 *e*P **P** 06 51 06.7 +1.3
comp=Z,17nm,1.1s
**JCT Junction City** 92.48 58 P **P** 06 51 06.1 -0.4
baz=246
**LZH Lanzhou** 92.59 308 *e*P **P** 06 51 08.0 +0.9
LZH pP pP 06 53 18.8 +1.4
LZH sP sP 06 54 16.5 -0.6
LZH PP **PP** 06 55 04.5 +4.6
LZH SKS **SKSac** 07 00 44.0 +0.3
LZH *e*S **S** 07 01 19.0 -1.9
LZH sS sS 07 05 12.0 -2.8
LZH SS **SS** 07 07 54.5 +1.7
LZH pmax pmax
comp=Z,13nm,1.0s
LZH pmax pmax
comp=Z,120nm,4.9s
**K22A Casper** 92.84 45 P **P** 06 51 08.2 +0.2
baz=243
**YAK Yakutsk** 92.96 339 *e*P **P** 06 51 07.3 -0.5
YAK pmax pmax
comp=Z,11nm,0.8s
**EGMT Eagleton** 93.39 39 P **P** 06 51 10.2 -0.1
baz=241
**ABTX Abilene, Hawle** 93.47 56 P **P** 06 51 11.0 +0.1
baz=246
**KSCO Kaye Shedlock'** 93.90 49 P **P** 06 51 12.7 -0.1
baz=245
**WHTX Lake Whitney,** 94.93 58 P **P** 06 51 17.5 0.0
baz=247
**RSSD Black Hills** 95.12 44 P **P** 06 51 18.6 +0.2
baz=244
**HKT Hockley** 95.44 60⇓ *e*P **P** 06 51 23.6 +3.8
HKT pmax pmax
comp=Z,8.0nm,1.2s
**ULN Ulaanbaatar** 95.59 320⇑ *e*P **P** 06 51 20.0 -0.4
ULN pmax pmax
comp=Z,1.0nm,0.9s
**136A Ennis** 95.84 57 P **P** 06 51 21.3 -0.3
baz=248
**SONM Songino Array** 95.97 319 P **P** 06 51 21.4 -0.7
comp=Z,0.4nm,0.5s,baz=118,slow=6.1,SNR=3.3
SONM PP **PP** 06 55 30.3 +4.8
comp=Z,1.0nm,0.9s,baz=126,slow=7.3,SNR=4.3
**INK Inuvik** 96.02 16 P **P** 06 51 20.0 -1.5
comp=Z,0.4nm,0.5s,baz=199,slow=3.1,SNR=4.2
**GTA Gaotai** 96.86 310 *e*P **P** 06 51 26.8 +0.6
GTA PP **PP** 06 55 29.5 -2.9
GTA pmax pmax
comp=Z,5.0nm,1.8s
**T35A Sooner Cattle** 97.50 53 P **P** 06 51 29.0 0.0
baz=248
**YKA Yellowknife Ar** 98.39 25 P Pdif 06 51 31.6 -0.7
comp=Z,0.2nm,0.4s,baz=240,slow=4.4,SNR=7.3
YKA PKKPbc **PKKPbc** 07 07 58.4 -3.6
comp=Z,0.1nm,0.4s,baz=38,slow=2.5,SNR=7.1
**X39A Fountain Ranch** 98.46 56 P **P** 06 51 33.5 +0.1
baz=249
**342A Flagon Creek P** 98.77 60 P **P** 06 51 34.7 -0.1
baz=250
**545A Edgard** 99.81 62 P **Pdif** 06 51 39.4 +0.1
baz=250
**R38A Fenwick Farm,** 99.89 53 P **Pdif** 06 51 39.5 -0.1
baz=250
**ULM Lac du Bonnet** 102.60 41 PKKP **PKKPdf** 07 07 55.1 -1.5
comp=Z,1.1nm,0.3s,baz=306,slow=17,SNR=9.3
**ZALV Zalesovo Beam** 110.78 321 PKiKP **PKiKP** 06 56 22.4 -1.1
comp=Z,0.8nm,0.5s,baz=88,slow=1.0,SNR=3.6
**MKAR Makanchi Array** 111.22 313 Pdiff **Pdif** 06 52 32.8 +3.0
comp=Z,0.2nm,0.5s,baz=100,slow=5.7,SNR=4.7
MKAR PKiKP **PKiKP** 06 56 23.0 -1.6
comp=Z,0.5nm,0.5s,baz=110,slow=0.8,SNR=10
MKAR PP **PP** 06 57 12.6 -4.1
comp=Z,1.8nm,1.2s,baz=93,slow=8.6,SNR=4.6
MKAR SKP 06 59 04.1
comp=Z,0.3nm,0.6s,baz=119,slow=0.1,SNR=3.0
MKAR PKKPbc **PKKPbc** 07 07 22.7 -0.5
comp=Z,1.0nm,0.8s,baz=277,slow=3.3,SNR=8.9
MKAR PKKPab **PKKPab** 07 07 34.1 +0.7
comp=Z,0.7nm,0.7s,baz=277,slow=4.8,SNR=6.5
**AAK Ala-Archa** 116.14 308⇑ *i*PKIKP **PKPdf** 06 56 33.5 -0.9
**KKAR Karatay Array** 119.09 308 *e*PKIKP **PKPdf** 06 56 39.0 -0.9
**KKAR Karatay Array** 119.09 308 *e*PKPdf **PKPdf** 06 56 39.0 -0.9
**BRVK Borovoye** 119.38 319⇓ *i*PKIKP **PKPdf** 06 56 39.6 -0.4
**ARU Arti** 125.62 325 *i* PKIKP **PKPdf** 06 56 52.1 +0.2
ARU 06 58 52.0
ARU 07 03 06.8
**GEYT Alibeck** 128.42 302 PKP **PKPdf** 06 56 58.5 +0.6
comp=Z,1.1nm,0.4s,baz=90,slow=1.4,SNR=3.7
GEYT SKPbc SKPbc 06 59 23.6
comp=Z,2.8nm,0.7s,baz=151,slow=3.3,SNR=4.6
**ARCES ARCESS Array B** 130.09 349 PKP **PKPdf** 06 56 58.9 -1.2
comp=Z,1.8nm,0.6s,baz=17,slow=1.3,SNR=7.1
ARCES SKPbc **SKPab** 06 59 28.6 +0.7
comp=Z,4.7nm,0.7s,baz=18,slow=3.2,SNR=6.2
**FINES FINESS Array B** 136.77 342 PKhKP PKPpre 06 56 59.6
comp=Z,2.6nm,0.9s,baz=44,slow=8.4,SNR=3.1
FINES PKP **PKPdf** 06 57 11.7 -1.0
comp=Z,1.6nm,0.5s,baz=67,slow=3.6,SNR=4.8
FINES SKPbc **SKPbc** 06 59 49.9 +0.2
comp=Z,10.0nm,1.0s,baz=42,slow=3.1,SNR=5.5
**FINES FINESS Array B** 136.77 342*c* *i*PKIKP **PKPdf** 06 57 18.2 +5.5
FINES pmax pmax
comp=Z,5.0nm,1.0s
**OBN Obninsk** 137.37 330 *i* PKIKP **PKPdf** 06 57 16.2 +2.2
OBN pmax pmax
comp=Z,7.0nm,1.3s
**KMBO Kilima Mbogo** 137.48 242 SKP **SKPdf** 06 59 56.5 +1.9
comp=Z,3.4nm,0.8s,baz=32,slow=3.2,SNR=8.3
**GNI Garni** 138.51 306⇓ *i*PKIKP **PKPdf** 06 57 19.5 +2.6
**KIV Kislovodsk** 138.97 312⇓ *e*PKIKP **PKPdf** 06 57 21.4 +3.9
KIV pmax pmax
comp=Z,17nm,2.5s
**NB2 NORSAR Subarra** 140.24 352 PKP PKPpre 06 57 12.4
comp=Z,1.0nm,0.6s,baz=16,slow=3.2
**NOA NORSAR Array B** 140.24 352 PKhKP PKPpre 06 57 11.8
comp=Z,0.8nm,0.6s,baz=20,slow=1.5,SNR=5.7
NOA SKPbc **SKPbc** 07 00 00.2 +0.8
comp=Z,2.2nm,0.7s,baz=15,slow=4.4,SNR=4.9

**AKASG Malin Array Be** 143.60 329 PKhKP PKPpre 06 57 23.0
comp=Z,29nm,0.6s,baz=43,slow=4.2,SNR=100
AKASG SKPbc **SKPbc** 07 00 08.1 +0.2
comp=Z,0.7nm,0.4s,baz=46,slow=3.1,SNR=9.8
**AKASG Malin Array Be** 143.60 329 PKPpre 06 57 23.0
**AKBB Malin Array Si** 143.60 329 *e*PKIKP PKPbc 06 57 23.2 -1.2
**AKBB Malin Array Si** 143.60 329 *e*PKPbc PKPbc 06 57 23.2 -1.2
**KIEV Kiev** 143.61 329 *e*PKIKP PKPbc 06 57 22.8 -1.6
**KIEV Kiev** 143.61 329 *e*PKPbc PKPbc 06 57 22.8 -1.7
**AK11 Malin Array Si** 143.64 329 *e*PKPbc PKPbc 06 57 23.0 -1.6
**SUW Suwalki** 143.69 337 *e*PKP PKPab 06 57 24.7 0.0
**SUW Suwalki** 143.69 337 *e*PKIKP PKPab 06 57 24.7 0.0
**SIM Simferopol'** 144.21 318 *i* PKIKP **PKPab** 06 57 27.7 +0.7
**BSD Bornholm Skovb** 145.18 346 *i* PKIKP **PKPdf** 06 57 27.9 0.0
BSD pmax pmax
comp=Z,7.0nm,0.5s
**BSD Bornholm Skovb** 145.18 346 *i* P **PKPdf** 06 57 27.9 0.0
comp=Z,6.6nm,0.5s
**SORM Soroca** 145.71 326⇑ *i*P **PKPdf** 06 57 29.8 +0.8
**SORM Soroca** 145.71 326⇑ *e*PKIKP **PKPdf** 06 57 29.8 +0.8
**ILGA Ilgaz** 146.20 312 *e*PKPdf **PKPbc** 06 57 33.0 +0.3
**BR131 Keskin Array S** 146.78 310 *e*PKPdf **PKPbc** 06 57 33.2 -1.0
**BRTR Keskin Array B** 146.78 310 PKPbc **PKPbc** 06 57 33.4 -0.9
comp=Z,6.1nm,0.6s,baz=90,slow=1.4,SNR=34
BRTR SKPbc **SKPbc** 07 00 15.0 -0.8
comp=Z,1.1nm,0.8s,baz=44,slow=3.3,SNR=4.0
**TLCR** 147.26 322⇑ *i*P **PKPbc** 06 57 34.3 -0.8
**TLCR** 147.26 322⇑ *e*PKIKP **PKPbc** 06 57 34.3 -0.8
**KWP Kalwaria Pacla** 147.30 333 *e*PKP **PKPbc** 06 57 35.0 -0.1
**KWP Kalwaria Pacla** 147.30 333 *e*PKP2 **PKPbc** 06 57 35.0 -0.1
**ANTO Ankara** 147.32 311 *e*PKP2 **PKPbc** 06 57 35.3 -0.3
**ANTO Ankara** 147.32 311 *e*PKPdf **PKPbc** 06 57 35.3 -0.3
**BR231 Keskin MP Arra** 147.35 310 *e*PKPdf **PKPdf** 06 57 33.9 +1.6
**BUR08 Bucovina Ar. S** 147.62 328 *e*PKPbc **PKPbc** 06 57 36.2 +0.1
**BUR04 Bucovina Ar. S** 147.63 328 *e*PKPbc **PKPbc** 06 57 36.8 +0.7
**BURAR Bucovina Array** 147.63 328⇑ *i*P **PKPbc** 06 57 36.3 +0.2
**BURAR Bucovina Array** 147.63 328⇑ *i*PKP2 **PKPbc** 06 57 36.3 +0.2
**TESR Tescani** 147.64 325⇓ *i*P **PKPbc** 06 57 35.2 -0.9
**CFR Carcaliu** 147.65 322⇑ *i*P **PKPdf** 06 57 31.6 -0.8
**CFR Carcaliu** 147.65 322⇑ *e*PKIKP **PKPdf** 06 57 31.6 -0.8
**OJC Ojcow** 147.99 336 *e*PKP **PKPbc** 06 57 36.5 -0.3
**OJC Ojcow** 147.99 336 *e*PKP2 **PKPbc** 06 57 36.5 -0.3
**OJC Ojcow** 147.99 336 *e*PKPdf **PKPbc** 06 57 36.3 -0.5
**VRI Vrincioaia** 148.01 324⇑ *i*P **PKPbc** 06 57 36.2 -0.8
**VRI Vrincioaia** 148.01 324⇑ *e*PKHKP **PKPbc** 06 57 36.2 -0.8
**PLOR Plostina** 148.06 324⇑ *i*P **PKPbc** 06 57 35.8 -1.4
**PLOR Plostina** 148.06 324⇑ *e*PKHKP **PKPbc** 06 57 35.8 -1.4
**STHS Stebnicka Huta** 148.07 334 *e*PKP2 **PKPbc** 06 57 36.8 -0.3
**STHS Stebnicka Huta** 148.07 334 *e*PKP **PKPbc** 06 57 36.8 -0.3
STHS *e* 06 57 42.7
**UZH Uzhgorod** 148.24 332⇑ *i*PKHKP **PKPbc** 06 57 37.0 -0.5
UZH *e* 06 57 42.2
**CRVS Cervenica-Dubn** 148.38 333 *e*PKP2 **PKPbc** 06 57 38.0 +0.1
**CRVS Cervenica-Dubn** 148.38 333 *e*PKP **PKPbc** 06 57 38.0 +0.1
CRVS *e* 06 57 43.8
**NIE Niedzica** 148.45 335 *e*PKP **PKPbc** 06 57 38.5 +0.5
**NIE Niedzica** 148.45 335 *e*PKP2 **PKPbc** 06 57 38.5 +0.5
**KSP Ksiaz** 148.65 341 *e*PKP **PKPbc** 06 57 38.4 -0.1
**KSP Ksiaz** 148.65 341 *e*PKHKP **PKPbc** 06 57 38.4 -0.1
**MLR Muntele Rosu** 148.67 325⇑ *i*P **PKPbc** 06 57 38.3 -0.5
**MLR Muntele Rosu** 148.67 325⇑ *e*PKHKP **PKPbc** 06 57 38.3 -0.5
**MLR Muntele Rosu** 148.67 325 *e*PKPbc **PKPbc** 06 57 38.6 -0.3
**LANS Liptovska Anna** 148.99 336 *e*PKP2 **PKPbc** 06 57 39.8 +0.4
**LANS Liptovska Anna** 148.99 336 *e*PKP **PKPbc** 06 57 39.8 +0.4
LANS *e* 06 57 45.8
**UPC Upice** 149.03 341⇑ *e*PKP **PKPbc** 06 57 39.1 -0.3
UPC *e*PKPAB **PKPab** 06 57 45.8 -0.3
UPC *e*pPKP **pPKPab** 07 00 00.7 +1.7
**CJR Cluj-Napoca** 149.05 328⇑ *i*P **PKPbc** 06 57 39.2 -0.4
**CJR Cluj-Napoca** 149.05 328⇑ *e*PKHKP **PKPbc** 06 57 39.2 -0.4
**DPC Dobruska-Polom** 149.07 340⇑ *e*PKP **PKPbc** 06 57 39.4 -0.1
DPC *e*PKPAB **PKPab** 06 57 46.3 -0.1
DPC *e*pPKP **pPKPab** 07 00 01.1 +1.9
**KECS Kecovo** 149.12 334 *e*PKHKP **PKPbc** 06 57 40.0 +0.4
KECS *e* 06 57 45.8
**KECS Kecovo** 149.12 334 *e*PKP **PKPbc** 06 57 40.0 +0.4
KECS *e* 06 57 45.8
**CLL Collm** 149.14 345 *e*PKHKP **PKPdf** 06 57 36.0 +1.4
CLL *i* 06 57 46.1
CLL pmax pmax
comp=Z,18nm,1.1s
CLL pmax pmax
comp=Z,12nm,0.7s
**CLL Collm** 149.14 345 *e*PKPdf **PKPdf** 06 57 36.0 +1.4
CLL *i* PKPbc **PKPbc** 06 57 39.3 -0.3
comp=Z,18nm,1.1s
CLL *i* PKPab **PKPab** 06 57 46.1 -0.4
comp=Z,12nm,0.7s
CLL *i* pPKPab **pPKPab** 07 00 00.3 +1.0
**CLL Collm** 149.14 345 *e*PKPbc **PKPbc** 06 57 38.6 -1.0
**KRLC Kraliky** 149.16 339⇑ *e*PKP **PKPbc** 06 57 39.2 -0.6
KRLC *e*PKPAB **PKPab** 06 57 47.3 +0.6
KRLC *e*pPKP **pPKPab** 07 00 02.0 +2.4
**MORC Moravsky Berou** 149.16 338⇑ *i*P **PKPbc** 06 57 39.5 -0.3
**MORC Moravsky Berou** 149.16 338 *e*PKHKP **PKPbc** 06 57 39.8 0.0
**MORC Moravsky Berou** 149.16 338 *e*PKPbc **PKPbc** 06 57 39.8 0.0
**VOIR** 149.18 325⇓ *i*P **PKPbc** 06 57 39.7 -0.3
**VOIR** 149.18 325⇓ *e*PKHKP **PKPbc** 06 57 39.7 -0.3
**BRG Berggiesshubel** 149.30 343 *e*PKP **PKPbc** 06 57 39.2 -0.8
comp=Z,14nm,0.9s
BRG *i* 06 57 47.1
comp=Z,8.1nm,0.9s
BRG pPKP **pPKPab** 07 00 02.6 +2.6
comp=Z,21nm,1.5s
**BRG Berggiesshubel** 149.30 343 *e*PKHKP **PKPbc** 06 57 39.2 -0.8
BRG *i* 06 57 47.1
BRG pmax pmax
comp=Z,14nm,0.9s
BRG pmax pmax
comp=Z,8.0nm,0.9s
**DRGR** 149.42 329⇑ *i*P **PKPbc** 06 57 39.6 -0.9
**DRGR** 149.42 329⇑ *e*PKHKP **PKPbc** 06 57 39.6 -0.9
**PVCC Panska Ves** 149.44 342⇑ *e*PKP **PKPbc** 06 57 40.2 -0.1
PVCC *e*PKPAB **PKPab** 06 57 48.4 +0.6
**PVCC Panska Ves** 149.44 342 *e*PKHKP **PKPbc** 06 57 40.2 -0.1
PVCC *e* 06 57 48.4
**ARR Arges** 149.45 326⇑ *i*P **PKPbc** 06 57 40.1 -0.5
**VYHS Vyhne** 149.76 336 *e*PKHKP **PKPbc** 06 57 40.9 -0.3
VYHS *e* 06 57 48.6
**VYHS Vyhne** 149.76 336 *e*PKP **PKPbc** 06 57 40.9 -0.3
VYHS *e* 06 57 48.6
**PSZ Piszkesteto** 149.81 334 *e*PKPbc **PKPbc** 06 57 40.9 -0.5
**VRAC Vranov** 149.89 339⇑ *i*P **PKPbc** 06 57 41.8 +0.3
**GOPC GO Pecny, Ondr** 149.92 342⇑ *e*PKP **PKPbc** 06 57 41.4 -0.1
**PRU Pruhonice** 149.93 342⇑ *e*PKP **PKPbc** 06 57 41.0 -0.5
PRU *e*PKPAB **PKPab** 06 57 48.3 -1.6
**NKC Novy Kostel** 150.27 345⇑ *e*PKP **PKPbc** 06 57 41.8 -0.5
NKC *e*PKPAB **PKPab** 06 57 50.7 -0.6
**NKC Novy Kostel** 150.27 345 *e*PKIKP **PKPbc** 06 57 41.8 -0.5
NKC *e* 06 57 50.7
**SIRR Siria** 150.29 330⇑ *i*P **PKPbc** 06 57 41.6 -0.9
**BZS Buzias** 150.79 329⇑ *i*P **PKPbc** 06 57 42.7 -0.9
**BZS Buzias** 150.79 329⇑ *e*PKIKP **PKPbc** 06 57 42.7 -0.9
**MANT Manisa** 150.89 311 *e*PKPbc **PKPbc** 06 57 44.0 -0.4
**HERR Herculane** 150.93 327⇓ *i*P **PKPbc** 06 57 43.1 -0.9
**KHC Kasperske Hory** 150.97 342⇑ *e*PKP **PKPbc** 06 57 43.2 -0.8
KHC *e*PKPAB **PKPab** 06 57 54.2 -0.1
KHC *e*pPKP **pPKPbc** 07 00 01.8 -0.4
**KHC Kasperske Hory** 150.97 342 *e*PKIKP **PKPbc** 06 57 43.2 -0.8
KHC *e* 06 57 54.2
KHC *e* 07 00 01.8
**KHC Kasperske Hory** 150.97 342 *e*PKPbc **PKPbc** 06 57 43.5 -0.5
KHC *e*PKPab **PKPab** 06 57 54.4 +0.1
**GEC2 GERESS Array S** 151.20 342 *e*PKIKP **PKPbc** 06 57 44.2 -0.4
**GEC2 GERESS Array S** 151.20 342 *e*PKPbc **PKPbc** 06 57 44.2 -0.4
**GERES GERESS Array B** 151.20 342 PKPbc **PKPbc** 06 57 44.0 -0.6
comp=Z,1.5nm,0.6s,baz=36,slow=2.3,SNR=18
GERES PKPab **PKPab** 06 57 54.8 -0.6
comp=Z,1.7nm,0.6s,baz=28,slow=4.4,SNR=10
**GEA0 GERESS Array S** 151.20 342 *e*PKPbc **PKPbc** 06 57 43.8 -0.8
**CONA Conrad Observa** 151.32 338 *i* PKPbc **PKPbc** 06 57 44.7 -0.2
comp=Z,11nm,1.2s
CONA *i* PKPab **PKPab** 06 57 56.6 +0.7
comp=Z,4.7nm,0.6s
**MOA Molln** 151.91 340 *i* PKPab **PKPab** 06 57 59.0 +0.7
comp=Z,11nm,1.2s
**ARSA Arzberg** 152.02 338 *i* PKPab **PKPab** 06 57 56.9 -1.9
comp=Z,2.4nm,0.6s
**VTS Vitosha** 152.05 323⇑ *i*P **PKPbc** 06 57 45.3 -1.4
**VTS Vitosha** 152.05 323 *e*PKIKP **PKPbc** 06 57 45.4 -1.4
**VTS Vitosha** 152.05 323 *e*PKPbc **PKPbc** 06 57 45.4 -1.4

**KBA Koelnbreinsper** 152.89 341 *i* PKPab **PKPab** 06 58 02.9 +0.2
comp=Z,3.0nm,0.5s
**OBKA Obir** 153.00 338 *i* PKPab **PKPab** 06 58 03.0 0.0
comp=Z,4.3nm,0.9s
**MYKA Terra Mystica** 153.19 340 *i* PKPbc **PKPbc** 06 57 47.6 -1.4
MYKA *i* PKPab **PKPab** 06 58 03.2 -0.6
comp=Z,3.7nm,0.5s
**WTTA Wattenberg** 153.21 343 *i* PKiKP **PKPbc** 06 57 49.0 -0.2
comp=Z,3.1nm,0.6s
WTTA *i* PKPab **PKPab** 06 58 03.5 -0.6
comp=Z,6.9nm,0.7s
**RETA Reutte** 153.23 345 *i* PKPab **PKPab** 06 58 03.7 -0.3
comp=Z,7.3nm,1.1s
**MOTA Moosalm** 153.28 344 *i* PKPab **PKPab** 06 58 04.8 +0.5
comp=Z,1.9nm,0.6s
**SQTA Sankt Quirin** 153.37 344 *i* PKPab **PKPab** 06 58 05.2 +0.6
**ABTA Abfaltersbach** 153.44 341 *i* PKPbc **PKPbc** 06 57 47.8 -1.7
comp=Z,1.6nm,0.5s
ABTA *i* PKPab **PKPab** 06 58 04.5 -0.4
comp=Z,6.6nm,0.6s
**LIC Lamto** 163.45 160 *e*P **PKPab** 06 58 48.8 -0.4
comp=Z,47nm,1.3s
**KIC Kosan Boka** 163.67 161 *e*P **PKPab** 06 58 50.7 +0.6
comp=Z,11nm,0.7s
**TIC Toumodi** 163.85 160 *e*P **PKPab** 06 58 50.8 -0.1
**DBIC Dimbokro** 163.93 160 PKPab **PKPab** 06 58 51.9 +0.6
comp=Z,3.8nm,0.7s,baz=217,slow=5.1,SNR=6.7
**TORD Torodi Ar. Bea** 171.18 187 PKP **PKPdf** 06 57 56.2 -3.2
comp=Z,0.8nm,0.8s,baz=158,slow=1.1,SNR=5.1
TORD PKPab **PKPab** 06 59 22.9 -0.3
comp=Z,1.4nm,0.7s,baz=175,slow=3.7,SNR=8.4

*ISK* ***28*** *06:39:56.9, 37.59N× 38.65E, h5km, ML2.6*
*ISCJB* ***28*** *06:39:57.7±0.6, 37.60N±0.03× 38.68E±0.03, h6km±5km, Error ellipse: s-maj=5.1km s-min=4.3km az=141.2*
*CSEM* ***28*** *06:39:57.8±0.2, 37.60N× 38.69E, h8km, ML2.6, Error ellipse: s-maj=4.0km s-min=3.9km az=124.0*
*DDA* ***28*** *06:39:57.4, 37.62N× 38.71E, h7km, Ml2.8*
**ISC 28 06:39:57.4±1.1, 37.59N±0.02× 38.68E±0.02, h7km±10km, n28, σ0.37/41, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **URFA** | **Urfa** | **0.19** | **142** | PG | | **Pg** | **06 40 01.1** | **-0.2** |
| **URFA** | **Urfa** | **0.19** | **142** | *i* Pg | | **Pg** | **06 40 01.1** | **-0.2** |
| **ATAB** | **Bozova** | **0.33** | **248** | *i* P | | **Pb** | **06 40 04.9** | **-0.7** |
| ATAB | | | | *i* S | | **Sb** | **06 40 11.3** | **+0.3** |
| **ATAB** | **Bozova** | **0.33** | **248** | P | | **Pb** | **06 40 04.9** | **-0.7** |
| ATAB | | | | S | | **Sb** | **06 40 11.4** | **+0.3** |
| **SURC** | **SANLIURFA_SURC** | **0.71** | **184** | *i* P | | **Pg** | **06 40 11.5** | **+0.4** |
| SURC | | | | *i* S | | **Sb** | **06 40 22.0** | **-0.2** |
| **SURC** | **SANLIURFA_SURC** | **0.71** | **184** | P | | **Pg** | **06 40 11.5** | **+0.4** |
| SURC | | | | S | | **Sb** | **06 40 22.0** | **-0.2** |
| **MALT** | **Malatya** | **0.75** | **345** | *e*PG | | **Pg** | **06 40 11.5** | **-0.4** |
| MALT | | | | *e*SG | | **Sg** | **06 40 22.0** | **+0.4** |
| **MALT** | **Malatya** | **0.75** | **345** | *e*Pg | | **Pg** | **06 40 11.5** | **-0.4** |
| MALT | | | | *e*Sg | | **Sg** | **06 40 22.0** | **+0.4** |
| **AKCD** | **Akcadag** | **0.92** | **320** | *i* P | | **Pg** | **06 40 15.2** | **+0.1** |
| AKCD | | | | *i* S | | **Sb** | **06 40 28.0** | **-0.4** |
| **AKCD** | **Akcadag** | **0.92** | **320** | P | | **Pg** | **06 40 15.2** | **+0.1** |
| AKCD | | | | S | | **Sb** | **06 40 28.0** | **-0.4** |
| **SVRC** | **Sivrice-ELAZID** | **0.93** | **32** | *e*PG | | **Pb** | **06 40 15.8** | **-0.2** |
| SVRC | | | | *e*SG | | **Sb** | **06 40 29.4** | **+0.7** |
| **SVRC** | **Sivrice-ELAZID** | **0.93** | **32** | *e*Pg | | **Pb** | **06 40 15.8** | **-0.2** |
| SVRC | | | | *e*Sg | | **Sb** | **06 40 29.4** | **+0.7** |
| **DIYA** | **Diyarbakir** | **1.19** | **73** | *i* P | | **Pg** | **06 40 19.9** | **-0.4** |
| DIYA | | | | *i* S | | **Sn** | **06 40 37.1** | **-0.1** |
| **DIYA** | **Diyarbakir** | **1.19** | **73** | P | | **Pg** | **06 40 19.9** | **-0.4** |
| DIYA | | | | S | | **Sn** | **06 40 37.1** | **-0.1** |
| **DYBB** | **Diyarbakir** | **1.22** | **72** | *e*PN | | **Pn** | **06 40 21.2** | **+0.3** |
| **GAZ** | **Gaziantep** | **1.24** | **251** | *e*Pn | | **Pb** | **06 40 21.0** | **-0.2** |
| **GAZ** | **Gaziantep** | **1.24** | **251** | *e*Pn | | **Pb** | **06 40 21.0** | **-0.2** |
| **DIY** | **Diyarbakir** | **1.27** | **76** | *e*Pn | | **Pn** | **06 40 21.2** | **-0.5** |
| **DARE** | **Darende-Malaty** | **1.36** | **317** | *e*PN | | **Pn** | **06 40 23.0** | **+0.1** |
| **DARE** | **Darende-Malaty** | **1.36** | **317** | *e*Pn | | **Pn** | **06 40 23.0** | **+0.1** |
| **KMRS** | **Kahramanmaras** | **1.41** | **267** | *e*PN | | **Pn** | **06 40 24.0** | **+0.3** |
| **KMRS** | **Kahramanmaras** | **1.41** | **267** | *e*Pn | | **Pn** | **06 40 24.0** | **+0.3** |
| **MAZI** | **Mazidag** | **1.41** | **95** | *e*PN | | **Pg** | **06 40 24.8** | **+0.2** |
| **MAZI** | **Mazidag** | **1.41** | **95** | *e*Pn | | **Pg** | **06 40 24.8** | **+0.2** |
| **PTK** | **Pertek** | **1.42** | **23** | *e*PN | | **Pb** | **06 40 24.2** | **-0.1** |
| **PTK** | **Pertek** | **1.42** | **23** | *e*Pn | | **Pb** | **06 40 24.2** | **-0.1** |
| **HCB** | **Kahramanmara¯** | **1.43** | **261** | *i* P | | **Pn** | **06 40 23.8** | **-0.1** |
| HCB | | | | *i* S | | **Sn** | **06 40 42.8** | **-0.1** |
| **SARI** | **SarD1z-Kayseri** | **1.96** | **295** | *e*PN | | **Pn** | **06 40 32.0** | **+0.7** |

*IDC* ***28*** *06:44:34.9±4.4, 16.22S× 174.17W, h88km±29km, mb3.4/5, mb1 3.8/6, mb1mx3.5/31, mbtmp3.8/6, Error ellipse: s-maj=151.8km s-min=20.9km az=149.0*
**ISC 28 06:44:38.2±2.6, 15.8S±0.9× 174.2W±0.6, h115km, n8, σ1.8/63/9, mb3.6/5, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **AFI** | **Afiamalu** | **2.99** | **50** | P | | **Pn** | **06 45 24.0** | **-0.3** |
| | 29nm,0.3s,baz=200,slow=3.2,SNR=14 | | | | | | |
| AFI | | | | S | | **Sn** | **06 45 57.7** | **-2.1** |
| | 64nm,0.3s,baz=27,slow=23,SNR=21 | | | | | | |
| **WRA** | **Warramunga Arr** | **49.04** | **257** | P | | **P** | **06 53 12.2** | **-1.8** |
| | 0.5nm,0.5s,baz=94,slow=6.7,SNR=4.4 | | | | | | |
| **ASAR** | **Alice Springs** | **49.29** | **252** | P | | **P** | **06 53 14.3** | **-1.5** |
| | 1.0nm,0.5s,baz=89,slow=7.6,SNR=7.3 | | | | | | |
| **NVAR** | **Mina Array Bea** | **75.14** | **42** | P | | **P** | **06 56 09.9** | **+1.7** |
| | 0.5nm,0.7s,baz=235,slow=9.3,SNR=3.9 | | | | | | |
| **ILAR** | **Eielson Array** | **83.01** | **11** | P | | **P** | **06 56 51.6** | **+1.3** |
| | 0.3nm,0.5s,baz=206,slow=4.5,SNR=4.4 | | | | | | |
| **PDAR** | **Pinedale Array** | **83.07** | **42** | P | | **P** | **06 56 52.3** | **+0.9** |
| | 0.7nm,0.7s,baz=222,slow=4.7,SNR=7.5 | | | | | | |
| **ARCES** | **ARCESS Array B** | **124.94** | **352** | PKP | | **PKPdf** | **07 03 24.5** | **+0.4** |
| | 4.8nm,1.1s,baz=48,slow=1.3,SNR=5.2 | | | | | | |
| **BRTR** | **Keskin Array B** | **146.03** | **320** | PKPbc | | **PKPbc** | **07 04 05.7** | **+0.5** |
| | 0.5nm,0.8s,baz=90,slow=1.4,SNR=2.7 | | | | | | |

**JMA 28 06:44:58.9±0.1, 24.69N× 125.23E, h48km±2km, M3.0, Southwestern Ryukyu Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JMJ** | **Miyako jima 2** | **0.14** | **25** | P | | Pn | 06 45 06.6 | -0.1 |
| JMJ | | | | S | | Sn | 06 45 12.4 | +0.3 |
| **JIRB** | **Irabujima** | **0.15** | **339** | P | | Pn | 06 45 06.5 | -0.2 |
| JIRB | | | | S | | Sn | 06 45 12.0 | -0.2 |
| **JOGS** | **Gusukube** | **0.17** | **66** | P | | Pn | 06 45 06.8 | -0.1 |
| JOGS | | | | S | | Sn | 06 45 13.0 | +0.5 |
| **JIKM** | **Ikemajima** | **0.23** | **4** | P | | Pn | 06 45 07.3 | 0.0 |
| JIKM | | | | S | | Sn | 06 45 13.3 | +0.1 |
| **JTJ** | **Tarama** | **0.48** | **264** | P | | Pn | 06 45 09.7 | -0.1 |
| JTJ | | | | S | | Sn | 06 45 17.6 | 0.0 |
| **JISG** | **Ishigakijimahi** | **0.84** | **263** | P | | Pn | 06 45 14.3 | -0.1 |
| JISG | | | | *e*S | | Sn | 06 45 25.9 | +0.1 |
| **JIJ** | **Ishigaki jima** | **1.04** | **252** | P | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **ATVO** | **AVT- Monte Val** | **0.13** | **238** | Pg | Pg | 06 55 27.0 | +0.5 |
| ATVO | | | | Sg | Sg | 06 55 29.5 | +0.7 |
| | 22nm,0.3s | | | | | | |
| **ATVO** | **AVT- Monte Val** | **0.13** | **238** | Pg | Pg | 06 55 27.0 | +0.5 |
| ATVO | | | | Sg | Sg | 06 55 29.5 | +0.7 |
| | 22nm,0.3s | | | | | | |
| **FRON** | **Frontone** | **0.14** | **61** | Pg | Pg | 06 55 27.2 | +0.5 |
| FRON | | | | Sg | Sg | 06 55 29.8 | +0.8 |
| **FRON** | **Frontone** | **0.14** | **61** | Pg | Pg | 06 55 27.2 | +0.5 |
| FRON | | | | Sg | Sg | 06 55 29.8 | +0.8 |
| **SSFR** | **Montelago di S** | **0.16** | **95** | Pg | Pg | 06 55 27.6 | +0.5 |
| SSFR | | | | Sg | Sg | 06 55 30.8 | +1.2 |
| | 32nm,0.2s | | | | | | |
| **SSFR** | **Montelago di S** | **0.16** | **95** | Pg | Pg | 06 55 27.6 | +0.5 |
| SSFR | | | | Sg | Sg | 06 55 30.8 | +1.2 |
| | 32nm,0.2s | | | | | | |

**MAN 28 06:57:09,11˝.51N×125˚.96E,h89km,mb4.1,ML2.9,MS2.7, 1D,Samar**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BESP** | **Borongan** | **0.52** | **280** | *e*P | Pn | 06 57 24.8 | +1.0 |
| BESP | | | | *e*S | Sn | 06 57 38.4 | +3.6 |
| **PLP** | **Palo** | **1.02** | **251⇓** | *e*P | Pn | 06 57 29.6 | +0.7 |
| PLP | | | | *i* S | Sn | 06 57 44.3 | +0.5 |
| **OCLP** | **Ormoc** | **1.41** | **251** | *e*P | Pn | 06 57 38.0 | +4.5 |
| **MSLP** | **Maasin** | **1.75** | **219** | *e*P | Pn | 06 57 38.8 | +1.0 |
| MSLP | | | | *e*S | Sn | 06 58 01.2 | +1.4 |

*IDC **28** 06:57:22.7±0.6,62˚.62S×164˚.26W,h0km,mb4.3/7, mb1 4.4/7,mb1mx4.3/22,mbtmp4.3/7,MS4.4/15, Ms1 4.4/15,ms1mx4.3/21,Error ellipse: s-maj=55.0km s-min=18.5km az=20.0*

*ISCJB **28** 06:57:23.3±0.4,62˚.99S±0˚.07×164˚.5W±0˚.2,h10km, mb4.8/18,MS4.4/14,Error ellipse: s-maj=12.2km s-min=8.5km az=152.1*

*NEIC **28** 06:57:24.8±0.3,62˚.95S×164˚.34W,h10km,mb5.0/14, Error ellipse: s-maj=10.7km s-min=7.9km az=51.0*

*GCMT **28** 06:57:24.8±0.2,63˚.12S×164˚.45W,h12km±1km,MW5.1/88, Moment Tensor Solution. s35,c43; s88,c129; Duration: 0 Moment tensor: Scale $10^{16}$Nm; $M_{rr}$-1.98±.20; $M_{\theta\theta}$5.21±.18; $M_{\phi\phi}$-3.23±.15; $M_{r\theta}$-2.28±.47; $M_{r\phi}$2.52±.13; $M_{\theta\phi}$-1.64±.51; Best double couple: $M_0$5.58200×$10^{16}$ NP1:ϕs=35.00000°,δ83.00000°,λ-147.00000°. NP2: ϕs=300.00000°,δ57.00000°,λ-9.00000°. Principal axes: T 6.7120, Plg17.0000°, Azm163.0000°; N -2.2590, Plg56.0000°, Azm46.0000°; P -4.4520, Plg28.0000°, Azm262.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

**ISC 28 06:57:24.7±0.5,62˚.97S±0˚.09×164˚.4W±0˚.1,h10km,n75, σ1§12/52,mb4.8/18,MS4.4/14,2C,Pacific-Antarctic Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SBA** | **Scott Base** | **17.43** | **200** | *e*Pn | **Pn** | **07 01 28.1** | **+0.7** |
| | 148nm,1.4s | | | | | | |
| **VNDA** | **Vanda** | **18.04** | **203** | LR | LR | 07 06 44.6 | |
| | comp=Z,3μm,20.7s,baz=56,slow=31 | | | | | | |
| **VNDA** | **Vanda** | **18.04** | **203** | *e*Pn | **P** | **07 01 36.4** | **+1.0** |
| **MLZ** | **Mavora Lakes** | **23.56** | **306** | *e*P | **P** | **07 02 36.9** | **+1.8** |
| | 159nm,1.9s | | | | | | |
| **RPZ** | **Rata Peaks** | **23.95** | **312** | LR | LR | 07 09 34.6 | |
| | comp=Z,1μm,20.8s,baz=182,slow=31 | | | | | | |
| **FOZ** | **Fox Glacier** | **24.54** | **310** | *e*P | **P** | **07 02 45.5** | **+1.3** |
| | 67nm,1.3s | | | | | | |
| **THZ** | **Tophouse** | **25.10** | **317** | *e*P | **P** | **07 02 51.6** | **+2.2** |
| | 121nm,1.9s | | | | | | |
| **QSPA** | **South Pole Qui** | **27.14** | **180** | *e*P | **P** | **07 03 07.7** | **-0.1** |
| | 26nm,1.2s | | | | | | |
| **URZ** | **Urewera** | **27.17** | **327** | LR | LR | 07 11 34.3 | |
| | comp=Z,1μm,21.4s,baz=160,slow=32 | | | | | | |
| **RAR** | **Rarotonga** | **41.85** | **6** | LR | LR | 07 17 48.0 | |
| | comp=Z,478nm,18.5s,baz=237,slow=30 | | | | | | |
| **RKT** | **Rikitea** | **44.47** | **40** | *e*LQ | LQ | 07 15 52.0 | |
| | 2μm,29.8s | | | | | | |
| **RKT** | **Rikitea** | **44.47** | **40** | *e*T | T | 07 52 55.3 | |
| | 11nm,0.3s | | | | | | |
| **VNA3** | **Neumayer Olymp** | **44.92** | **169** | P | **P** | **07 05 39.0** | **+0.1** |
| **SNAA** | **Sanae** | **45.03** | **172** | P | **P** | **07 05 39.8** | **-0.1** |
| **SNAA** | **Sanae** | **45.03** | **172** | *e*P | **P** | **07 05 39.3** | **-0.6** |
| | 34nm,1.2s | | | | | | |
| **MAW** | **Mawson** | **45.35** | **203** | LR | LR | 07 23 26.2 | |
| | comp=Z,905nm,19.1s,baz=153,slow=34 | | | | | | |
| **MAW** | **Mawson** | **45.35** | **203** | *e*P | **P** | **07 05 42.5** | **+0.2** |
| | 1.5nm,0.8s | | | | | | |
| **DZM** | **Mont Dzumac** | **45.38** | **321** | LR | LR | 07 22 10.3 | |
| | comp=Z,736nm,19.2s,baz=212,slow=33 | | | | | | |
| **DZM** | **Mont Dzumac** | **45.38** | **321** | *e*LR | LR | 07 18 34.3 | |
| | 1μm,23.1s | | | | | | |
| **VNA2** | **Neumayer--Watz** | **45.43** | **170** | P | **P** | **07 05 42.5** | **-0.5** |
| | baz=183,slow=6.4 | | | | | | |
| **VNA1** | **Neumayer--Stat** | **45.62** | **169** | P | **P** | **07 05 45.0** | **+0.6** |
| **STKA** | **Stephens Creek** | **45.90** | **287** | P | **P** | **07 05 47.4** | **+0.2** |
| | 2.8nm,1.0s,baz=156,slow=14,SNR=3.8 | | | | | | |
| STKA | | | | LR | LR | 07 21 50.3 | |
| | comp=Z,275nm,20.5s,baz=152,slow=32 | | | | | | |
| **STKA** | **Stephens Creek** | **45.90** | **287** | *e*P | **P** | **07 05 47.4** | **+0.2** |
| | 6.8nm,1.9s | | | | | | |
| **TVO** | **Taravao** | **46.35** | **20** | *e*T | T | 07 55 10.8 | |
| | 2.6nm,0.3s | | | | | | |
| **PAE** | **Paea** | **46.42** | **20** | *e*T | T | 07 55 15.5 | |
| | 3.6nm,0.3s | | | | | | |
| **PPT2** | **Papeete2** | **46.49** | **20** | *e*S | **S** | **07 12 40.7** | **+0.7** |
| | 175nm,26.2s | | | | | | |
| PPT2 | | | | *e*LR | LR | 07 18 56.8 | |
| | 1μm,24.8s | | | | | | |
| **PPT2** | **Papeete2** | **46.49** | **20** | *e*T | T | 07 55 21.2 | |
| | 13nm,0.3s | | | | | | |
| **PPT** | **Papeete** | **46.51** | **20** | LR | LR | 07 20 42.1 | |
| | comp=Z,502nm,19.2s,baz=182,slow=30 | | | | | | |
| **TIAR** | **Tiarei** | **46.56** | **20** | *e*T | T | 07 55 26.3 | |
| | 3.0nm,0.3s | | | | | | |
| **SYO** | **Syowa Base** | **47.21** | **192⇑** | *e*P | **P** | **07 05 55.0** | **-1.9** |
| **SYO** | **Syowa Base** | **47.21** | **192⇑** | *e*sP | sP | 07 06 02.0 | +0.8 |
| **VAH** | **Vaihoa** | **49.11** | **22** | *e*T | T | 07 58 37.6 | |
| | 149nm,0.3s | | | | | | |
| **AFI** | **Afiamalu** | **49.27** | **351** | LR | LR | 07 23 53.9 | |
| | comp=Z,402nm,18.4s,baz=176,slow=32 | | | | | | |
| **AFI** | **Afiamalu** | **49.27** | **351** | *e*P | **P** | **07 06 13.0** | **-0.5** |
| | 176nm,1.3s | | | | | | |
| **PMOR** | **Pomariorio Ree** | **49.30** | **21** | *e*T | T | 07 58 51.7 | |
| | 4.0nm,0.3s | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **55.78** | **259** | T | T | 08 07 57.1 | |
| | baz=147,slow=76,SNR=20 | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **55.78** | **259** | T | T | 08 07 57.2 | |
| | baz=147,slow=76,SNR=20 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **55.80** | **259** | T | T | 08 07 58.3 | |
| | baz=147,slow=76,SNR=18 | | | | | | |
| **PLCA** | **Paso Flores** | **56.29** | **114** | P | **P** | **07 07 05.5** | **+0.3** |
| | 2.7nm,0.8s,baz=207,slow=2.3,SNR=5.9 | | | | | | |
| PLCA | | | | LR | LR | 07 26 39.7 | |
| | comp=Z,181nm,18.6s,baz=210,slow=31 | | | | | | |
| **PLCA** | **Paso Flores** | **56.29** | **114** | *e*P | **P** | **07 07 05.5** | **+0.3** |
| | 32nm,1.8s | | | | | | |
| **AS01** | **Alice Springs** | **56.37** | **284** | *e*P | **P** | **07 07 05.0** | **-0.9** |
| **AS31** | **Alice Springs** | **56.38** | **284** | *e*P | **P** | **07 07 06.2** | **+0.2** |
| | 6.8nm,1.8s | | | | | | |
| **ASAR** | **Alice Springs** | **56.38** | **284** | P | **P** | **07 07 05.3** | **-0.7** |
| | 4.1nm,0.9s,baz=151,slow=7.1,SNR=20 | | | | | | |
| ASAR | | | | LR | LR | 07 29 02.2 | |
| | comp=Z,183nm,18.7s,baz=152,slow=34 | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **56.79** | **29** | *e*LR | LR | 07 23 38.4 | |
| | 579nm,26.6s | | | | | | |
| **HNR** | **Honiara** | **59.27** | **318** | LR | LR | 07 31 10.0 | |
| | comp=Z,238nm,18.0s,baz=181,slow=34 | | | | | | |
| **WB2** | **Warramunga Arr** | **59.45** | **287** | *e*P | **P** | **07 07 28.6** | **+1.1** |
| **WR1** | **Warramunga Arr** | **59.45** | **287** | *e*P | **P** | **07 07 26.6** | **-1.0** |
| | 90nm,1.9s | | | | | | |
| **WRA** | **Warramunga Arr** | **59.45** | **287** | P | **P** | **07 07 26.5** | **-1.0** |
| | 3.1nm,1.0s,baz=156,slow=6.0,SNR=7.0 | | | | | | |
| **TRQA** | **Tornquist** | **62.06** | **119** | *e*P | **P** | **07 07 45.9** | **+0.8** |
| | 18nm,1.4s | | | | | | |
| **CPUP** | **Villa Florida** | **74.21** | **117** | P | **P** | **07 09 01.0** | **-0.5** |
| | 3.2nm,0.9s,baz=220,slow=5.8,SNR=7.2 | | | | | | |
| CPUP | | | | LR | LR | 07 38 17.7 | |
| | comp=Z,147nm,18.4s,baz=205,slow=33 | | | | | | |
| **CPUP** | **Villa Florida** | **74.21** | **117** | *e*P | **P** | **07 09 01.9** | **+0.4** |
| | 10nm,1.1s | | | | | | |
| **MNMC** | **Minye Minye** | **75.31** | **103** | *e*P | **P** | **07 09 09.2** | **+1.0** |
| | 14nm,0.9s | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **LPAZ** | **La Paz** | **78.46** | **103** | P | **P** | **07 09 26.8** | **+0.3** |
| | 6.4nm,1.1s,baz=177,slow=3.4,SNR=9.7 | | | | | | |
| **LPAZ** | **La Paz** | **78.46** | **103** | *e*P | **P** | **07 09 26.8** | **+0.3** |
| | 26nm,1.7s | | | | | | |
| **BOSA** | **Boshof** | **88.41** | **188** | P | **P** | **07 10 18.6** | **+1.8** |
| | 1.7nm,0.9s,baz=180,slow=8.1,SNR=2.4 | | | | | | |
| BOSA | | | | LR | LR | 07 45 54.8 | |
| | comp=Z,573nm,20.4s,baz=174,slow=33 | | | | | | |
| **H06S1** | **SOCORRO T** | **91.49** | **50** | T | T | 08 52 03.8 | |
| | SNR=9.3 | | | | | | |
| **SDV** | **Santo Domingo** | **99.56** | **89** | LR | LR | 07 50 29.6 | |
| | comp=Z,43nm,18.6s,baz=0.0,slow=32 | | | | | | |
| **IL1** | **Eielson Array** | **128.09** | **9** | *e*PKPdf | **PKPdf** | **07 16 29.4** | **+0.2** |
| **ILAR** | **Eielson Array** | **128.09** | **9** | PKP | **PKPdf** | **07 16 28.2** | **-1.0** |
| | 0.9nm,0.9s,baz=190,slow=3.3,SNR=9.3 | | | | | | |
| **IM3** | **Indian Mountai** | **128.89** | **6** | *e*PKPdf | **PKPdf** | **07 16 31.8** | **+1.1** |
| **TORD** | **Torodi Ar. Bea** | **129.28** | **162** | PKP | **PKPdf** | **07 16 32.4** | **-0.6** |
| | 1.1nm,1.0s,baz=114,slow=1.8,SNR=4.2 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **129.28** | **162** | *e*PKPdf | **PKPdf** | **07 16 32.4** | **-0.6** |
| **YKA** | **Yellowknife Ar** | **130.61** | **28** | PKP | **PKPdf** | **07 16 32.5** | **-1.5** |
| | 0.5nm,0.7s,baz=197,slow=1.7,SNR=7.9 | | | | | | |
| **FRB** | **Frobisher Bay** | **144.83** | **50** | PKP | **PKPab** | **07 16 58.8** | **-0.3** |
| | 7.1nm,0.8s,baz=46,slow=2.8,SNR=4.8 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **144.91** | **279** | PKP | **PKPab** | **07 16 57.5** | **-2.3** |
| | 3.9nm,0.9s,baz=141,slow=2.6,SNR=14 | | | | | | |
| **KURK** | **Kurchatov** | **144.93** | **280** | *e*PKPdf | **PKPab** | **07 16 57.5** | **-2.4** |
| KURK | | | | *e*PKPdf | PKPbc | 07 17 00.1 | +0.1 |
| **MDT** | **Midelt** | **147.22** | **147** | PKPbc | **PKPdf** | **07 17 01.6** | **-3.7** |
| | 2.6nm,1.0s,baz=180,slow=2.0,SNR=2.0 | | | | | | |
| **BVAR** | **Borovoye Array** | **150.24** | **276** | PKPbc | **PKPbc** | **07 17 13.9** | **-0.6** |
| | 3.6nm,0.8s,baz=142,slow=3.4,SNR=8.9 | | | | | | |
| **BRVK** | **Borovoye** | **150.31** | **276** | *e*PKPbc | **PKPbc** | **07 17 14.5** | **-0.2** |
| **TULEG** | **Thule** | **151.06** | **29** | *e*PKPbc | **PKPbc** | **07 17 16.2** | **+0.4** |
| **ESDC** | **Sonseca Array** | **153.88** | **144** | PKP | **PKPdf** | **07 17 14.4** | **-1.0** |
| | 0.1nm,0.3s,baz=198,slow=3.7,SNR=3.6 | | | | | | |
| ESDC | | | | PKPbc | **PKiKP** | **07 17 24.1** | **+0.7** |
| | 1.1nm,0.7s,baz=179,slow=0.8,SNR=6.5 | | | | | | |
| ESDC | | | | PKPab | **PKPab** | **07 17 37.4** | **+0.8** |
| | 0.3nm,0.3s,baz=206,slow=2.8,SNR=5.5 | | | | | | |
| **ES19** | **SONSECA Array** | **153.92** | **144** | *e*PKPbc | **PKPbc** | **07 17 24.2** | **+0.8** |
| **BR101** | **Keskin Array S** | **154.33** | **213** | *e*PKPbc | **PKPbc** | **07 17 23.9** | **-0.5** |
| **BRTR** | **Keskin Array B** | **154.33** | **213** | PKPbc | **PKPbc** | **07 17 23.9** | **-0.5** |
| | 2.0nm,0.9s,baz=130,slow=1.9,SNR=7.8 | | | | | | |
| **BR231** | **Keskin MP Arra** | **154.65** | **212** | *e*PKPbc | **PKPbc** | **07 17 25.4** | **+0.4** |

*ISCJB **28** 06:59:14.5±0.3,32˚.68N±0˚.02×115˚.92W±0˚.02,h22km±3km, Error ellipse: s-maj=3.4km s-min=3.1km az=151.9*

*NEIC **28** 06:59:14.9±0.0,32˚.66N×115˚.91W,h8km,ML2.9(PAS), After PAS.*

*NEIC Felt at Ocotillo.*

*ECX **28** 06:59:15.9±0.6,32˚.65N×115˚.95W,h4km,MD2.7,ML2.9*

*MEX **28** 06:59:15.8±0.6,32˚.80N×115˚.94W,h16km±999km,MD3.7*

**ISC 28 06:59:13.8±0.9,32˚.68N±0˚.02×115˚.92W±0˚.02,h17km±6km, n48,σ0°89/71,7C-1D,California-Baja California border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **IKP** | **In-Ko-Pah, Jac** | **0.17** | **260** | P | **Pg** | **06 59 18.4** | **+0.1** |
| | baz=86,SNR=641 | | | | | | |
| IKP | | | | S | **Sg** | **06 59 20.9** | **-0.5** |
| | baz=86 | | | | | | |
| **IKP** | **In-Ko-Pah, Jac** | **0.17** | **260⇑** | *i*P | **Pg** | **06 59 18.5** | **+0.1** |
| **SWSC** | **Sam W. Stewart** | **0.28** | **20** | P | **Pb** | **06 59 20.9** | **+0.4** |
| | baz=199,SNR=542 | | | | | | |
| SWSC | | | | S | **Sb** | **06 59 25.0** | **+0.1** |
| | baz=199 | | | | | | |
| **DREC** | **Desert Rsrch C** | **0.41** | **72⇑** | *i*P | **Pn** | **06 59 24.0** | **-1.0** |
| **MONP2** | **Monument Peak** | **0.48** | **297** | P | **Pb** | **06 59 24.0** | **+0.1** |
| | baz=118,SNR=47 | | | | | | |
| MONP2 | | | | S | **Sg** | **06 59 30.2** | **+0.1** |
| | baz=118 | | | | | | |
| **CPBX** | **Cerro Prieto** | **0.58** | **117** | *e*P | **Pb** | **06 59 26.5** | **+1.1** |
| CPBX | | | | ⇑*e* | | 06 59 41.2 | |
| CPBX | | | | IAML | | 06 59 41.2 | |
| | comp=N,2μm,0.3s | | | | | | |
| **CPBX** | **Cerro Prieto** | **0.58** | **117** | *e*Pg | **Pn** | **06 59 27.1** | **-0.2** |
| CPBX | | | | *e*Sg | **Sn** | **06 59 36.9** | **+0.6** |
| **BAR** | **Barrett** | **0.64** | **270⇑** | *i*P | **Pb** | **06 59 26.8** | **+0.3** |
| **BAR** | **Barrett** | **0.64** | **270** | *e*Pg | **Pb** | **06 59 26.8** | **+0.3** |
| BAR | | | | *e*Sg | **Sg** | **06 59 34.9** | **-0.1** |
| **MBIG** | **Mexicali** | **0.66** | **114** | *i*P | **Pn** | **06 59 28.3** | **-0.1** |
| **TJIG** | **Tijuana** | **0.69** | **249** | *e*P | **Pb** | **06 59 27.4** | **+0.1** |
| TJIG | | | | *e*S | **Sb** | **06 59 35.7** | **-0.8** |
| **TJIG** | **Tijuana** | **0.69** | **249** | *e*P | **Pb** | **06 59 27.3** | **-0.1** |
| **CBX** | **Cerro Bola** | **0.73** | **240** | *i*P | **Pg** | **06 59 28.5** | **+0.3** |
| CBX | | | | *e*S | **Sb** | **06 59 37.2** | **-0.6** |
| **CBX** | **Cerro Bola** | **0.73** | **240⇑** | *e*P | **Pg** | **06 59 28.5** | **+0.3** |
| CBX | | | | IAML | | 06 59 39.0 | |
| | comp=N,518nm,0.3s | | | | | | |
| CBX | | | | ⇑*e* | | 06 59 39.0 | |
| **CBX** | **Cerro Bola** | **0.73** | **240** | *e*Pg | **Pg** | **06 59 28.5** | **+0.3** |
| CBX | | | | *e*Pn | Pn | 06 59 37.2 | +7.8 |
| **SDRC** | **San Diego Road** | **0.87** | **274⇑** | *i*P | **Pb** | **06 59 30.6** | **+0.2** |
| **GLA** | **Glamis** | **0.99** | **68** | P | **Pb** | **06 59 32.6** | **+0.1** |
| | baz=247,SNR=84 | | | | | | |
| GLA | | | | S | **Sg** | **06 59 45.7** | **-0.3** |
| | baz=247 | | | | | | |
| **GLA** | **Glamis** | **0.99** | **68** | *e*Pg | **Pb** | **06 59 32.7** | **+0.1** |
| GLA | | | | *e*Sg | **Sb** | **06 59 44.2** | **-1.1** |
| **109C** | **Camp Elliot, M** | **1.02** | **282** | P | **Pn** | **06 59 33.3** | **-0.1** |
| | baz=102,SNR=38 | | | | | | |
| 109C | | | | S | **Sb** | **06 59 46.2** | **0.0** |
| | baz=102 | | | | | | |
| **XPFO** | **Pæon Flat** | **1.03** | **334** | *e*Pg | **Pb** | **06 59 33.2** | **-0.1** |
| XPFO | | | | *e*Sg | **Sg** | **06 59 47.2** | **-0.4** |
| **PFO** | **Pinyon Flats O** | **1.04** | **334** | P | **Pb** | **06 59 33.4** | **0.0** |
| | baz=154,SNR=59 | | | | | | |
| PFO | | | | S | **Sn** | **06 59 47.6** | **-0.3** |
| | baz=154 | | | | | | |
| **PFO** | **Pinyon Flats O** | **1.04** | **334** | *e*Pg | **Pb** | **06 59 33.2** | **-0.2** |
| PFO | | | | *e*Sg | **Sg** | **06 59 47.5** | **-0.2** |
| **BC3** | **Big Chuckawall** | **1.05** | **22** | P | **Pg** | **06 59 34.5** | **+0.3** |
| | baz=201,SNR=16 | | | | | | |
| BC3 | | | | S | **Sb** | **06 59 46.7** | **-0.4** |
| | baz=201 | | | | | | |
| **ECNX** | **Esteban Cantu** | **1.17** | **210** | *e*P | **Pb** | **06 59 35.6** | **-0.1** |
| ECNX | | | | *e*P | **Pn** | **06 59 33.7** | **-1.8** |
| ECNX | | | | *i* S | **Sb** | **06 59 50.8** | **+0.2** |
| **BELC** | **Belle Mtn. Jos** | **1.32** | **357** | P | **Pn** | **06 59 37.6** | **-0.1** |
| | baz=177,SNR=19 | | | | | | |
| BELC | | | | S | **Sn** | **06 59 53.8** | **-1.1** |
| | baz=177 | | | | | | |
| **ECBX** | **El Chinero** | **1.41** | **148** | *e*P | **Pb** | **06 59 40.0** | **+0.4** |
| ECBX | | | | ⇓*e* | | 06 59 60.0 | |
| ECBX | | | | IAML | | 06 59 60.0 | |
| | comp=N,202nm,0.4s | | | | | | |
| **MURC** | **Murrieta** | **1.41** | **311** | P | **Pb** | **06 59 39.3** | **-0.4** |
| | baz=131 | | | | | | |
| MURC | | | | Sb | **Sg** | **06 59 58.7** | **-0.8** |
| | baz=131 | | | | | | |
| **Y12C** | **Blythe** | **1.58** | **47** | P | **Pn** | **06 59 41.2** | **+0.1** |
| | baz=227,SNR=25 | | | | | | |
| Y12C | | | | S | **Sb** | **07 00 01.8** | **-0.6** |
| | baz=227 | | | | | | |
| **Y12C** | **Blythe** | **1.58** | **47** | *e*Pn | **Pn** | **06 59 41.3** | **+0.3** |
| **IRM** | **Iron Mountain** | **1.61** | **23** | P | **Pn** | **06 59 42.1** | **+0.6** |
| | baz=203 | | | | | | |
| IRM | | | | S | **Sb** | **07 00 02.7** | **-0.5** |
| | baz=203 | | | | | | |
| **SPIG** | **San Pedro Mart** | **1.67** | **167** | *e*P | **Pb** | **06 59 43.9** | **-0.5** |
| SPIG | | | | *i* S | **Sn** | **07 00 04.5** | **+0.7** |
| **SPIG** | **San Pedro Mart** | **1.67** | **167** | *e*Pn | **Pb** | **06 59 43.9** | **-0.5** |
| SPIG | | | | *e*Sn | **Sn** | **07 00 04.5** | **+0.7** |
| **BBRC** | **Big Bear Solar** | **1.79** | **332** | P | **Pn** | **06 59 44.7** | **+0.6** |
| | baz=152,SNR=22 | | | | | | |
| BBRC | | | | Sb | **Sg** | **07 00 11.1** | **-0.5** |
| | baz=152 | | | | | | |
| **113A** | **Mohawk Valley,** | **1.81** | **87** | *e*Pn | **Pn** | **06 59 44.5** | **+0.3** |
| **GMRC** | **Granite Mounta** | **2.11** | **6** | S | **Sn** | **07 00 12.9** | **-1.5** |
| | baz=186 | | | | | | |
| **BFSC** | **Mount Baldy Ra** | **2.13** | **317** | Sb | **Sb** | **07 00 20.2** | **+1.9** |
| | baz=137 | | | | | | |
| **SSK** | **Sunset Peak** | **2.13** | **316** | *e*Pn | **Pg** | **06 59 53.7** | **-1.1** |
| **HEC** | **Hector,Ludlow** | **2.17** | **351** | S | **Sn** | **07 00 15.2** | **-0.6** |
| | baz=171 | | | | | | |
| **PDMCI** | **Parker Dam,Lak** | **2.20** | **42** | S | **Sn** | **07 00 16.4** | **+0.1** |
| | baz=222 | | | | | | |
| **SCI2** | **San Clemente I** | **2.24** | **278** | S | **Sn** | **07 00 17.4** | **+0.1** |
| | baz=98 | | | | | | |
| **FMP** | **Fort Macarthur** | **2.25** | **298** | Sb | **Sb** | **07 00 23.4** | **+2.0** |
| | baz=117 | | | | | | |
| **MWC** | **Mount Wilson** | **2.36** | **311** | *e*Pn | **Pb** | **06 59 57.1** | **+1.0** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **PASC** | **Pasadena Art C** | **2.41** | **309** | *e*Pn | **Pn** | **06 59 54.5** | **+2.0** |
| **LDFC** | **Landfair** | **2.49** | **15** | *e*Pn | **Pb** | **06 59 57.2** | **-0.9** |
| **214A** | **Organ Pipe Nat** | **2.73** | **104** | S | **Sn** | **07 00 28.8** | **-0.6** |
| | baz=286 | | | | | | |
| **EDW2** | **Edwards Air Fo** | **2.80** | **322** | Sb | **Sg** | **07 00 40.7** | **-3.1** |
| | baz=142 | | | | | | |
| **X16A** | **Lo Mia Camp, P** | **4.12** | **64** | *e*Pn | **Pn** | **07 00 18.2** | **+2.1** |
| **LCMT** | **Little Creek M** | **4.85** | **26** | *e*Pn | **Pn** | **07 00 28.8** | **+2.7** |

*IDC **28** 07:04:58.8±1.0,8˚.21N×122˚.66E,h0km,mb4.0/5, mb1 4.0/5,mb1mx3.5/51,mbtmp4.0/5,Error ellipse: s-maj=137.4km s-min=20.4km az=64.0*

*ISCJB **28** 07:05:01.7±0.8,8˚.01N±0˚.05×122˚.02E±0˚.08,h32km, mb3.9/5,Error ellipse: s-maj=11.0km s-min=6.9km az=162.4*

*MAN **28** 07:05:01,7˝.95N×121˚.96E,h34km,mb4.5,ML3.4,MS3.3*

**ISC 28 07:05:03.5±0.9,8˚.01N±0˚.06×122˚.07E±0˚.08,h32km,n13, σ1§10/17,mb3.6/5,1C,Mindanao**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PAGZ** | **Pagadian** | **1.31** | **97** | *e*P | **Pn** | **07 05 25.4** | **-0.2** |
| PAGZ | | | | *e*S | **Sn** | **07 05 42.3** | **+0.3** |
| **TBP** | **Tagbilaran** | **2.43** | **47** | *e*P | **Pb** | **07 05 47.1** | **+0.5** |
| TBP | | | | *e*S | **Sb** | **07 06 15.3** | **-0.9** |
| **GUIM** | **Jordan** | **2.65** | **11** | *e*P | **Pn** | **07 05 43.9** | **-0.1** |
| GUIM | | | | *e*S | **Sn** | **07 06 13.2** | **-1.9** |
| **RCP** | **Roxas** | **3.59** | **11⇑** | *e*P | **Pn** | **07 05 59.5** | **+2.5** |
| RCP | | | | *e*S | **Sn** | **07 06 38.1** | **-0.2** |
| **OTRP** | **Odiongan** | **4.32** | **359** | *e*P | **Pn** | **07 06 06.8** | **-0.3** |
| **SJMP** | **San Jose** | **4.52** | **348** | *e*P | **Pn** | **07 06 08.8** | **-0.9** |
| **WRA** | **Warramunga Arr** | **30.29** | **157** | P | **P** | **07 11 11.0** | **-1.1** |
| | 0.4nm,0.5s,baz=336,slow=9.8,SNR=4.8 | | | | | | |
| **ASAR** | **Alice Springs** | **33.54** | **160** | P | **P** | **07 11 40.2** | **-0.4** |
| | 0.5nm,0.7s,baz=338,slow=7.5,SNR=6.8 | | | | | | |
| **STKA** | **Stephens Creek** | **43.83** | **156** | P | **P** | **07 13 07.1** | **+0.3** |
| | 2.7nm,0.7s,baz=332,slow=11,SNR=7.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **51.42** | **326** | P | **P** | **07 14 06.7** | **+1.1** |
| | 0.5nm,0.7s,baz=116,slow=8.2,SNR=5.8 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **55.66** | **328** | P | **P** | **07 14 37.9** | **+1.3** |
| | 3.2nm,0.2s,baz=128,slow=6.4,SNR=4.1 | | | | | | |
| **TXAR** | **Lajitas Array** | **122.42** | **48** | PKP | **PKPdf** | **07 23 55.6** | **-0.9** |
| | 0.2nm,0.6s,baz=20,slow=2.9,SNR=3.2 | | | | | | |
| **PLCA** | **Paso Flores** | **145.53** | **163** | PKPbc | **PKPdf** | **07 24 38.8** | **-0.2** |
| | 2.7nm,0.8s,baz=263,slow=3.6,SNR=7.7 | | | | | | |

*ISK **28** 07:13:18.9,38˚.73N×43˚.02E,h5km,ML2.4*

*CSEM **28** 07:13:19.5±0.2,38˚.73N×43˚.04E,h10km,ML3.2,Error ellipse: s-maj=4.2km s-min=3.8km az=82.0*

*DDA **28** 07:13:19.6,38˚.73N×43˚.07E,h7km,ML3.2*

*ISCJB **28** 07:13:20.1±0.5,38˚.74N±0˚.03×43˚.06E±0˚.04,h5km±8km, Error ellipse: s-maj=4.9km s-min=4.1km az=159.1*

**ISC 28 07:13:19.7±0.9,38˚.73N±0˚.02×43˚.07E±0˚.03,h14km±8km, n20,σ0°83/39,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ADCV** | **BITLIS_Adilcev** | **0.28** | **286** | *i*P | **Pg** | **07 13 26.2** | **+0.5** |
| ADCV | | | | *i* S | **Sg** | **07 13 30.1** | **+0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.28** | **286** | P | **Pg** | **07 13 26.2** | **+0.5** |
| ADCV | | | | S | **Sg** | **07 13 30.1** | **+0.3** |
| **VANB** | **Van** | **0.29** | **119** | *e*PG | **Pg** | **07 13 26.4** | **+0.5** |
| VANB | | | | *e*SG | **Sb** | **07 13 32.9** | **+1.5** |
| **VANB** | **Van** | **0.29** | **119** | *e*Pg | **Pg** | **07 13 26.4** | **+0.5** |
| VANB | | | | *e*Sg | **Sb** | **07 13 32.9** | **+1.5** |
| **TVAN** | **Van** | **0.34** | **127** | *i*P | **Pg** | **07 13 26.2** | **-0.6** |
| TVAN | | | | *i* S | **Sg** | **07 13 32.1** | **+0.6** |
| **TVAN** | **Van** | **0.34** | **127** | P | **Pg** | **07 13 26.2** | **-0.6** |
| TVAN | | | | S | **Sg** | **07 13 32.1** | **+0.6** |
| **GEVA** | **Gevas** | **0.42** | **181** | *i*P | **Pg** | **07 13 27.4** | **-0.9** |
| GEVA | | | | *i* S | **Sg** | **07 13 33.7** | **-0.3** |
| **GEVA** | **Gevas** | **0.42** | **181** | P | **Pg** | **07 13 27.4** | **-0.9** |
| GEVA | | | | S | **Sg** | **07 13 33.7** | **-0.3** |
| **VMUR** | **Van-Muradiye** | **0.47** | **57** | *i*P | **Pg** | **07 13 29.0** | **-0.2** |
| VMUR | | | | *i* S | **Sb** | **07 13 36.6** | **-0.2** |
| **VMUR** | **Van-Muradiye** | **0.47** | **57** | P | **Pg** | **07 13 29.0** | **-0.2** |
| VMUR | | | | S | **Sb** | **07 13 36.6** | **-0.2** |
| **TUTA** | **Tutak** | **0.70** | **344** | *i*P | **Pg** | **07 13 33.2** | **-0.2** |
| TUTA | | | | *i* S | **Sg** | **07 13 43.0** | **+0.4** |
| **TUTA** | **Tutak** | **0.70** | **344** | P | **Pg** | **07 13 33.2** | **-0.2** |
| TUTA | | | | S | **Sg** | **07 13 43.0** | **+0.4** |
| **CLDR** | **Caldiran** | **0.78** | **58**

σ2$^{2}$27/9, **Myanmar-China border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KMI** | **Kunming** | **3.56** | **27** | Pg | **Pg** | **07 17 43.3** | **+1.4** |
| **CMMT** | **Chiang Mai** | **3.64** | **212** | P | **Pb** | **07 17 39.4** | **+1.3** |
| | 42nm,0.6s,2μm | | | | | | |
| **CMMT** | **Chiang Mai** | **3.64** | **212** | P | **Pb** | **07 17 37.8** | **-0.3** |
| CMMT | | | | S | **Sb** | **07 18 23.6** | **+1.2** |
| **CHTO** | **Chiang Mai** | **3.64** | **212** | P | **Pb** | **07 17 40.0** | **+1.9** |
| | 188nm,0.6s,6μm | | | | | | |
| **CHTO** | **Chiang Mai** | **3.64** | **212** | P | **Pb** | **07 17 37.8** | **-0.3** |
| CHTO | | | | S | **Sb** | **07 18 24.7** | **+2.3** |
| **PBKT** | **Sadao Pong** | **5.35** | **180** | P | **Pg** | **07 18 15.3** | **-0.7** |
| | 25nm,0.9s | | | | | | |
| **WMQ** | **Urumqi** | **24.43** | **336** | *e*P | **P** | **07 21 48.5** | **-4.0** |

**IDC 28 07:19:54.2±7.7, 21°42S×179°68W, h583$^{km}$±92km, mb3.0/6, mb1 3.3/6, mb1mx3.0/24, mbtmp3.9/6, Error ellipse: s-maj=85.9km s-min=31.0km az=151.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **STKA** | **Stephens Creek** | **35.98** | **245** | P | P | 07 26 06.7 | -0.5 |
| | 4.0nm,0.8s,baz=97,slow=7.1,SNR=6.9 | | | | | | |
| **ASAR** | **Alice Springs** | **42.79** | **258** | P | P | 07 27 01.9 | 0.0 |
| | 3.4nm,0.8s,baz=95,slow=8.6,SNR=27 | | | | | | |
| ASAR | | | | PcP | PcP | 07 28 39.4 | -0.3 |
| | 0.3nm,0.7s,baz=81,slow=5.7,SNR=3.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **42.93** | **263** | P | P | 07 27 03.0 | -0.1 |
| | 1.3nm,0.3s,baz=96,slow=8.2,SNR=47 | | | | | | |
| **NVAR** | **Mina Array Bea** | **82.77** | **44** | P | P | 07 31 18.3 | +0.1 |
| | 0.3nm,0.7s,baz=237,slow=9.6,SNR=3.0 | | | | | | |
| **TXAR** | **Lajitas Array** | **88.87** | **58** | P | P | 07 31 47.6 | +0.1 |
| | 0.2nm,0.8s,baz=198,slow=5.7,SNR=3.9 | | | | | | |
| **ILAR** | **Eielson Array** | **89.56** | **13** | P | P | 07 31 49.4 | -0.4 |
| | 0.4nm,0.9s,baz=217,slow=5.2,SNR=3.4 | | | | | | |

*ISK **28** 07:25:45.6, 38°.03N×27°.32E, h2$^{km}$, Ml2.3*
*ISCJB **28** 07:25:46.5±0.7, 38°.02N±0°.05×27°.22E±0°.06, h3$^{km}$±18$^{km}$, Error ellipse: s-maj=11.7km s-min=3.8km az=42.6*
*DDA **28** 07:25:46.4, 38°.01N×27°.22E, h7$^{km}$, Ml2.6*
*CSEM **28** 07:25:47.0±0.2, 38°.02N×27°.23E, h2$^{km}$, Ml2.3, Error ellipse: s-maj=3.8km s-min=2.6km az=56.0*

**ISC 28 07:25:46.6±1.0, 38°02N±0°.03×27°24E±0°.03, h5$^{km}$±12$^{km}$, n17, σ0$^{s}$45/33, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KUSD** | **Kusadasi-Aydin** | **0.17** | **167** | *e*PG | **Pg** | **07 25 49.6** | **-0.3** |
| KUSD | | | | *e*SG | **Sg** | **07 25 52.7** | **+0.5** |
| **KUSD** | **Kusadasi-Aydin** | **0.17** | **167** | *e*Pg | **Pg** | **07 25 49.7** | **-0.3** |
| KUSD | | | | *e*Sg | **Sg** | **07 25 52.7** | **+0.5** |
| **DGB** | **˙zmir** | **0.28** | **276** | *i* P | **Pg** | **07 25 52.0** | **-0.1** |
| DGB | | | | *i* S | **Sg** | **07 25 55.6** | **-0.2** |
| **GCAM** | **G?zelcaml?** | **0.32** | **181** | *e*PG | **Pg** | **07 25 52.7** | **-0.2** |
| GCAM | | | | *e*SG | **Sg** | **07 25 58.0** | **+0.8** |
| **GCAM** | **G?zelcaml?** | **0.32** | **181** | *i* P | **Pg** | **07 25 52.6** | **-0.2** |
| GCAM | | | | *i* S | **Sg** | **07 25 57.0** | **-0.2** |
| **GCAM** | **G?zelcaml?** | **0.32** | **181** | *e*Pg | **Pg** | **07 25 52.7** | **-0.2** |
| GCAM | | | | S | **Sg** | **07 25 57.0** | **-0.2** |
| GCAM | | | | *e*Sg | **Sg** | **07 25 58.0** | **+0.8** |
| **URLA** | **Izmir** | **0.61** | **304** | *e*PG | **Pg** | **07 25 59.2** | **-0.5** |
| **URLA** | **Izmir** | **0.61** | **304** | *i* P | **Pg** | **07 25 58.4** | **+0.1** |
| URLA | | | | *i* S | **Sg** | **07 26 06.9** | **+0.7** |
| **URLA** | **Izmir** | **0.61** | **304** | P | **Pg** | **07 25 58.4** | **+0.1** |
| **URLA** | **Izmir** | **0.61** | **304** | *e*Pg | **Pb** | **07 25 59.2** | **-0.5** |
| URLA | | | | S | **Sg** | **07 26 06.9** | **+0.7** |
| **ZEY** | **˙zmir** | **0.62** | **291** | *i* P | **Pg** | **07 25 58.0** | **-0.5** |
| ZEY | | | | *i* S | **Sg** | **07 26 06.6** | **+0.1** |
| **AYDN** | **Tasoluk** | **0.62** | **125** | *i* P | **Pb** | **07 25 59.5** | **-0.5** |
| AYDN | | | | *i* S | **Sg** | **07 26 07.4** | **+0.7** |
| **AYDN** | **Tasoluk** | **0.62** | **125** | P | **Pb** | **07 25 59.5** | **-0.5** |
| AYDN | | | | S | **Sg** | **07 26 07.4** | **+0.7** |
| **BODT** | **Bodrum** | **0.96** | **177** | *e*PG | **Pg** | **07 26 04.9** | **-0.2** |
| BODT | | | | *e*SG | **Sb** | **07 26 19.1** | **+0.3** |
| **BODT** | **Bodrum** | **0.96** | **177** | *e*Pg | **Pg** | **07 26 04.9** | **-0.2** |
| BODT | | | | *e*Sg | **Sb** | **07 26 19.1** | **+0.3** |
| **MANT** | **Manisa** | **1.14** | **65** | *i* P | **Pn** | **07 26 09.6** | **+0.2** |
| MANT | | | | *i* S | **Sg** | **07 26 23.3** | **0.0** |
| **MANT** | **Manisa** | **1.14** | **65** | P | **Pn** | **07 26 09.6** | **+0.2** |
| MANT | | | | S | **Sg** | **07 26 23.3** | **0.0** |

**MOS 28 07:31:44.0±0.7, 51°87N×95°97E, h10$^{km}$, mb4.4/1, 2C-7D, Error ellipse: s-maj=31.1km s-min=16.9km az=169.3, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HVS** | **Khovu-Aksy** | **1.60** | **243** | *e*PN | Pb | 07 32 13.2 | -0.4 |
| **TLY** | **Talaya** | **4.77** | **89** | *e*PN | Pn | 07 32 57.5 | +1.6 |
| **ULN** | **Ulaanbaatar** | **8.21** | **115** | *e*P | Pn | 07 33 45.3 | +2.1 |
| **KURK** | **Kurchatov** | **10.93** | **271** | *e*P | Pn | 07 34 22.2 | +1.9 |
| **HIA** | **Hailar** | **15.31** | **90** | *e*P | Pn | 07 35 22.4 | +2.3 |
| HIA | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.9s | | | | | | |
| **BRVK** | **Borovoye** | **15.67** | **284** | *e*P | Pn | 07 35 26.6 | +1.9 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.9s | | | | | | |
| **AAK** | **Ala-Archa** | **17.20** | **246** | *e*P | P | 07 35 46.6 | +0.6 |
| AAK | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | |
| **YAK** | **Yakutsk** | **20.76** | **48** | *e*P | Pn | 07 36 27.5 | +0.5 |
| YAK | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.5s | | | | | | |
| **KLR** | **Kul'dur** | **22.75** | **82** | *e*P | P | 07 36 47.7 | +1.6 |

*IDC **28** 07:32:56.4±2.5, 37°.91N×141°.82E, h0$^{km}$, mb3.4/2, mb1 3.5/3, mb1mx3.3/34, mbtmp3.3/3, ML3.0/1, MS3.9/1, Ms1 4.0/1, ms1mx2.6/28, Error ellipse: s-maj=46.0km s-min=38.2km az=48.0*
*NIED **28** 07:33:00, 37°.50N×141°.30E, h77$^{km}$, Mw3.7 Best double couple: Mo3.75000×10$^{14}$ NP1:φ$_{s}$218.00000°, δ30.00000°, λ99.00000°. NP2:φ$_{s}$28.00000°, δ60.00000°, λ85.00000°.*
*ISCJB **28** 07:33:05.7±0.9, 37°.50N±0°.04×141°.4E±0°.1, h59$^{km}$±8$^{km}$, mb3.4/2, MS3.9/1, Error ellipse: s-maj=13.7km s-min=6.5km az=16.6*
*JMA **28** 07:33:06.9, 37°.52N×141°.35E, h51$^{km}$±1$^{km}$, M3.5*
*JMA Felt I J1.*

**ISC 28 07:33:05.6±1.5, 37°52N±0°.05×141°49E±0°.10, h46$^{km}$±13$^{km}$, n22, σ1$^{s}$96/25, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JFK** | **Kawauchi** | **0.51** | **252** | P | **Pn** | **07 33 17.2** | **+0.3** |
| JFK | | | | S | **Sn** | **07 33 24.2** | **-0.7** |
| **JMM** | **Marumori** | **0.65** | **302** | P | **Pn** | **07 33 19.1** | **+0.5** |
| JMM | | | | S | **Sn** | **07 33 27.7** | **-0.1** |
| **ONAJ** | **Iwakimizuishiy** | **0.69** | **233** | P | **Pn** | **07 33 19.4** | **+0.2** |
| ONAJ | | | | S | **Sn** | **07 33 28.0** | **-1.0** |
| **JFT** | **Otama** | **0.91** | **270** | P | **Pn** | **07 33 22.6** | **+0.5** |
| JFT | | | | S | **Sn** | **07 33 33.6** | **-0.6** |
| **JIO** | **Ouri** | **0.94** | **353** | P | **Pn** | **07 33 23.8** | **+1.4** |
| JIO | | | | S | **Sn** | **07 33 35.7** | **+1.0** |
| **JOU** | **Okura** | **1.06** | **323** | P | **Pn** | **07 33 24.6** | **+0.4** |
| JOU | | | | *e*S | **Sn** | **07 33 38.0** | **+0.2** |
| **JYS** | **Shirataka** | **1.32** | **302** | P | **Pn** | **07 33 28.1** | **+0.4** |
| JYS | | | | *e*S | **Sn** | **07 33 43.8** | **-0.4** |
| **JFY** | **Yanaizu** | **1.42** | **266** | P | **Pn** | **07 33 29.2** | **+0.1** |
| **JMK** | **Ichinoseki** | **1.44** | **352** | P | **Pn** | **07 33 30.6** | **+1.3** |
| JMK | | | | *e*S | **Sn** | **07 33 48.2** | **+1.2** |
| **JYK** | **Kaneyama** | **1.65** | **328** | P | **Pn** | **07 33 33.3** | **+1.1** |
| **JNS** | **Sasagawa** | **1.75** | **280** | P | **Pn** | **07 33 33.6** | **+0.1** |
| **MJAR** | **Matsushiro Arr** | **2.80** | **250** | Pn | **Pn** | **07 33 47.8** | **-0.1** |
| | 1.8nm,0.3s,baz=74,slow=12,SNR=9.1 | | | | | | |
| MJAR | | | | Sn | **Sn** | **07 34 26.8** | **+6.3** |
| | 1.6nm,0.3s,baz=307,slow=19,SNR=4.1 | | | | | | |
| **MAT** | **Matsushiro** | **2.80** | **251** | P | **Pn** | **07 33 49.2** | **+1.2** |
| MAT | | | | S | **Sn** | **07 34 25.1** | **+4.6** |
| **H11N2** | **WAKE ISLAND Hy** | **28.35** | **122** | T | T | 08 09 11.8 | |
| | baz=314,slow=75,SNR=19 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.36** | **122** | T | T | 08 09 13.3 | |
| | baz=314,slow=75,SNR=17 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.37** | **122** | T | T | 08 09 12.7 | |
| | baz=314,slow=75,SNR=17 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.08** | **124** | T | T | 08 10 05.1 | |
| | baz=316,slow=75,SNR=14 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.08** | **124** | T | T | 08 10 02.7 | |
| | baz=316,slow=75,SNR=12 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.09** | **124** | T | T | 08 10 07.3 | |
| | baz=316,slow=75,SNR=8.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.91** | **302** | P | **P** | **07 41 04.8** | **-2.9** |
| | 0.4nm,0.6s,baz=86,slow=10.0,SNR=4.3 | | | | | | |
| **ILAR** | **Eielson Array** | **49.05** | **33** | LR | LR | 08 01 42.3 | |
| | comp=Z,123nm,21.3s,baz=206,slow=36 | | | | | | |
| **WRA** | **Warramunga Arr** | **57.55** | **188** | P | **P** | **07 42 50.6** | **+0.1** |
| | 0.3nm,0.8s,baz=5.6,slow=7.3,SNR=4.3 | | | | | | |

*ISK **28** 07:47:53.6, 37°.06N×28°.81E, h9$^{km}$, MD2.8*
*ISCJB **28** 07:47:54.1±0.5, 37°.05N±0°.02×28°.79E±0°.03, h1$^{km}$±5$^{km}$, Error ellipse: s-maj=3.7km s-min=3.2km az=38.4*
*CSEM **28** 07:47:54.6±0.1, 37°.07N×28°.82E, h8$^{km}$, ML3.1, Error ellipse: s-maj=2.8km s-min=2.4km az=144.0*
*ATH **28** 07:47:54.2, 37°.09N×28°.78E, h12$^{km}$±2$^{km}$, ML2.5/3, Error ellipse: s-maj=3.1km s-min=1.5km az=27.0*
*DDA **28** 07:47:54.3, 37°.05N×28°.81E, h7$^{km}$, Ml3.1*

**ISC 28 07:47:54.6±1.0, 37°08N±0°.02×28°81E±0°02, h7$^{km}$±9$^{km}$, n55, σ1$^{s}$26/82, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TURN** | **Turunc** | **0.26** | **219** | PG | **Pn** | **07 48 04.4** | **-0.4** |
| TURN | | | | *e*SG | **Sb** | **07 48 12.2** | **+5.9** |
| **TURN** | **Turunc** | **0.26** | **219** | *i* P | **Pn** | **07 48 04.8** | **0.0** |
| TURN | | | | *i* S | **Sb** | **07 48 12.2** | **+5.9** |
| **TAVA** | **DENIZLI_Tavas** | **0.40** | **12** | *i* P | **Pb** | **07 48 03.3** | **-0.7** |
| TAVA | | | | *i* S | **Sg** | **07 48 08.3** | **+0.8** |
| **TAVA** | **DENIZLI_Tavas** | **0.40** | **12** | P | **Pb** | **07 48 03.3** | **-0.7** |
| TAVA | | | | S | **Sg** | **07 48 08.4** | **+0.8** |
| **FETY** | **Fethiye** | **0.49** | **153** | PG | **Pg** | **07 48 03.4** | **-0.7** |
| FETY | | | | *e*SG | **Sg** | **07 48 10.5** | **-0.1** |
| **FETY** | **Fethiye** | **0.49** | **153** | P | **Pg** | **07 48 03.6** | **-0.5** |
| FETY | | | | S | **Sg** | **07 48 10.4** | **-0.1** |
| **GLHS** | **Glhisar (BURDU** | **0.56** | **82** | *e*PG | **Pg** | **07 48 04.9** | **-0.4** |
| GLHS | | | | *e*SG | **Sg** | **07 48 13.2** | **+0.7** |
| **GLHS** | **Glhisar (BURDU** | **0.56** | **82** | *e*Pg | **Pg** | **07 48 04.9** | **-0.4** |
| GLHS | | | | *e*Sg | **Sg** | **07 48 13.3** | **+0.7** |
| **MRSB** | **Marmaris-Mugla** | **0.61** | **234** | *e*PG | **Pg** | **07 48 05.6** | **-0.7** |
| **MRSB** | **Marmaris-Mugla** | **0.61** | **234** | *e*Pg | **Pg** | **07 48 05.6** | **-0.7** |
| **GOLH** | **Golhisar** | **0.62** | **75** | *i* P | **Pg** | **07 48 06.6** | **0.0** |
| GOLH | | | | *i* S | **Sb** | **07 48 16.4** | **-0.4** |
| **GOLH** | **Golhisar** | **0.62** | **75** | P | **Pg** | **07 48 06.6** | **0.0** |
| GOLH | | | | S | **Sb** | **07 48 16.4** | **-0.4** |
| **DNZL** | **Cakiroluk** | **0.64** | **17** | *i* P | **Pg** | **07 48 07.4** | **+0.4** |
| DNZL | | | | *i* S | **Sn** | **07 48 19.0** | **-1.8** |
| **DNZL** | **Cakiroluk** | **0.64** | **17** | P | **Pg** | **07 48 07.4** | **+0.4** |
| **DENT** | **Denizli** | **0.70** | **15** | *e*PG | **Pg** | **07 48 07.9** | **-0.1** |
| **DENT** | **Denizli** | **0.70** | **15** | *e*Pg | **Pg** | **07 48 07.9** | **-0.1** |
| **ELL** | **Elmali** | **0.94** | **110** | *e*PG | **Pg** | **07 48 11.8** | **-0.9** |
| **ELL** | **Elmali** | **0.94** | **110** | *e*Pg | **Pg** | **07 48 11.8** | **-0.9** |
| **AYDN** | **Tasoluk** | **0.94** | **308** | *i* P | **Pb** | **07 48 13.1** | **-0.2** |
| AYDN | | | | *i* S | **Sn** | **07 48 27.3** | **-0.7** |
| **AYDN** | **Tasoluk** | **0.94** | **308** | P | **Pb** | **07 48 13.1** | **-0.2** |
| AYDN | | | | S | **Sn** | **07 48 27.3** | **-0.7** |
| **ARG** | **Arkhangelos** | **1.02** | **213** | P | **Pg** | **07 48 13.8** | **-0.4** |
| ARG | | | | S | **Sb** | **07 48 27.3** | **-0.8** |
| ARG | | | | AML | AML | 07 48 33.5 | |
| | comp=E,604μm,0.4s | | | | | | |
| ARG | | | | AML | AML | 07 48 33.9 | |
| | comp=N,255μm,0.2s | | | | | | |
| **ARG** | **Arkhangelos** | **1.02** | **213** | P | **Pg** | **07 48 13.8** | **-0.4** |
| ARG | | | | S | **Sb** | **07 48 27.3** | **-0.8** |
| **BDRM** | **Kayabasi** | **1.09** | **270** | *i* P | **Pg** | **07 48 15.0** | **-0.5** |
| BDRM | | | | *i* S | **Sn** | **07 48 30.8** | **-0.9** |
| **BDRM** | **Kayabasi** | **1.09** | **270** | P | **Pg** | **07 48 15.0** | **-0.5** |
| BDRM | | | | S | **Sn** | **07 48 30.8** | **-0.9** |
| **KSL** | **Kastellorizon** | **1.12** | **146** | P | **Pn** | **07 48 15.9** | **-0.7** |
| KSL | | | | S | **Sn** | **07 48 30.8** | **-1.4** |
| KSL | | | | AML | AML | 07 48 36.6 | |
| | comp=N,371μm,0.7s | | | | | | |
| KSL | | | | AML | AML | 07 48 38.0 | |
| | comp=E,314μm,0.8s | | | | | | |
| **BRDR** | **BURDUR-Merkez** | **1.17** | **58** | *i* P | **Pn** | **07 48 17.1** | **-0.4** |
| BRDR | | | | *i* S | **Sn** | **07 48 35.7** | **+1.9** |
| **BRDR** | **BURDUR-Merkez** | **1.17** | **58** | P | **Pn** | **07 48 17.1** | **-0.4** |
| **BODT** | **Bodrum** | **1.20** | **270** | *e*PN | **Pb** | **07 48 17.0** | **-0.6** |
| **BODT** | **Bodrum** | **1.20** | **270** | *e*Pn | **Pb** | **07 48 17.0** | **-0.6** |
| **KORT** | **Korkueli** | **1.24** | **93** | *e*PN | **Pn** | **07 48 17.4** | **-1.0** |
| **KORT** | **Korkueli** | **1.24** | **93** | *i* P | **Pg** | **07 48 19.2** | **+0.9** |
| KORT | | | | *i* S | **Sn** | **07 48 39.3** | **+3.9** |
| **KORT** | **Korkueli** | **1.24** | **93** | *e*Pn | **Pn** | **07 48 17.4** | **-1.0** |
| **KORT** | **Korkueli** | **1.24** | **93** | P | **Pg** | **07 48 19.2** | **+0.9** |
| **KHAL** | **Karahalli** | **1.40** | **23** | *i* P | **Pn** | **07 48 20.5** | **-0.1** |
| KHAL | | | | *i* S | **Sb** | **07 48 38.9** | **-0.3** |
| **KHAL** | **Karahalli** | **1.40** | **23** | P | **Pn** | **07 48 20.5** | **-0.1** |
| KHAL | | | | S | **Sb** | **07 48 38.9** | **-0.3** |
| **GCAM** | **G?zelcaml?** | **1.40** | **297** | *e*PN | **Pn** | **07 48 20.1** | **-0.4** |
| **GCAM** | **G?zelcaml?** | **1.40** | **297** | *e*Pn | **Pn** | **07 48 20.1** | **-0.4** |
| **MANT** | **Manisa** | **1.43** | **352** | *i* P | **Pn** | **07 48 21.0** | **-0.1** |
| MANT | | | | *i* S | **Sn** | **07 48 39.4** | **-0.8** |
| **MANT** | **Manisa** | **1.43** | **352** | P | **Pn** | **07 48 21.0** | **-0.1** |
| MANT | | | | S | **Sn** | **07 48 39.4** | **-0.8** |
| **NISR** | **Nisiros** | **1.43** | **251** | P | **Pn** | **07 48 20.5** | **-0.3** |
| **NISR** | **Nisiros** | **1.43** | **251** | P | **Pn** | **07 48 20.5** | **-0.3** |
| **KULA** | **Kula-Manisa** | **1.44** | **355** | *e*PN | **Pn** | **07 48 20.7** | **-0.5** |
| **KULA** | **Kula-Manisa** | **1.44** | **355** | *e*Pn | **Pn** | **07 48 20.7** | **-0.5** |
| **KZIL** | **AFYON_Kizioren** | **1.58** | **41** | *i* P | **Pb** | **07 48 23.4** | **-0.8** |
| KZIL | | | | *i* S | **Sg** | **07 48 47.6** | **+2.1** |
| **KZIL** | **AFYON_Kizioren** | **1.58** | **41** | P | **Pb** | **07 48 23.4** | **-0.8** |
| **SMG** | **Samos** | **1.69** | **292** | P | **Pn** | **07 48 24.6** | **0.0** |
| **SMG** | **Samos** | **1.69** | **292** | P | **Pn** | **07 48 24.6** | **0.0** |
| **KARP** | **Karpathos** | **2.03** | **222** | *e*PN | **Pn** | **07 48 29.5** | **+0.3** |
| **KARP** | **Karpathos** | **2.03** | **222** | P | **Pb** | **07 48 30.8** | **-0.9** |
| KARP | | | | S | **Sb** | **07 48 56.5** | **-0.7** |
| KARP | | | | AML | AML | 07 49 00.7 | |
| | comp=N,236μm,0.6s | | | | | | |
| KARP | | | | AML | AML | 07 49 02.6 | |
| | comp=E,164μm,0.3s | | | | | | |
| **KARP** | **Karpathos** | **2.03** | **222** | *e*Pn | **Pn** | **07 48 29.5** | **+0.3** |
| **KARP** | **Karpathos** | **2.03** | **222** | P | **Pb** | **07 48 30.8** | **-0.9** |
| KARP | | | | S | **Sb** | **07 48 56.5** | **-0.7** |
| **TVSB** | **Tavsanli** | **2.42** | **12** | *e*PN | **Pn** | **07 48 34.8** | **+0.1** |
| **TVSB** | **Tavsanli** | **2.42** | **12** | *e*Pn | **Pn** | **07 48 34.8** | **+0.1** |
| **NPS** | **Neapolis** | **3.16** | **236** | P | **Pn** | **07 48 45.7** | **+1.0** |
| **NPS** | **Neapolis** | **3.16** | **236** | P | **Pn** | **07 48 45.7** | **+1.0** |

*DDA **28** 07:52:06.9, 39°.97N×44°.58E, h4$^{km}$, Ml3.3*
*AZER **28** 07:52:06.9±0.3, 40°.01N×44°.86E, h2$^{km}$, Error ellipse: s-maj=1.3km s-min=0.6km az=288.0*
*NSSP **28** 07:52:07.6, 39°.92N×44°.55E, h10$^{km}$, Ms3.1*
*ISK **28** 07:52:08.6, 39°.92N×44°.52E, h6$^{km}$, ML3.0*
*CSEM **28** 07:52:08.1±0.1, 39°.95N×44°.57E, h2$^{km}$, ML3.0, Error ellipse: s-maj=3.5km s-min=2.7km az=167.0*
*MOS **28** 07:52:09.5±3.1, 39°.76N×44°.62E, h9$^{km}$, mb3.9/3, Error ellipse: s-maj=11.7km s-min=5.5km az=86.2*

**ISC 28 07:52:07.9±0.8, 39°94N±0°.02×44°66E±0°.01, h13$^{km}$±5$^{km}$, n118, σ1$^{s}$39/172, mb3.5/3, 19C-19D, Iran-Armenia-Azerbaijan border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GNI** | **Garni** | **0.22** | **16** | *i*P | **Pg** | **07 52 13.4** | **+0.5** |
| GNI | | | | *i*S | **Sb** | **07 52 17.5** | **-0.3** |
| **GNI** | **Garni** | **0.22** | **16** | *e*PG | **Pg** | **07 52 13.3** | **+0.5** |
| **GNI** | **Garni** | **0.22** | **16** | P | **Pg** | **07 52 13.4** | **+0.5** |
| GNI | | | | S | **Sb** | **07 52 17.5** | **-0.3** |
| **HYR** | **Heyderabad** | **0.26** | **147** | P | **Pb** | **07 52 14.7** | **+0.2** |
| | SNR=522 | | | | | | |
| HYR | | | | S | **Sb** | **07 52 19.8** | **+0.9** |
| **HYR** | **Heyderabad** | **0.26** | **147** | P | **Pb** | **07 52 14.7** | **+0.2** |
| | SNR=522 | | | | | | |
| HYR | | | | S | **Sb** | **07 52 19.8** | **+0.9** |
| **TASB** | **TASBURUN-IGDIR** | **0.33** | **278** | *e*PG | **Pg** | **07 52 13.6** | **-1.1** |
| TASB | | | | *e*SG | **Sg** | **07 52 17.2** | **-2.0** |
| **TASB** | **TASBURUN-IGDIR** | **0.33** | **278** | *e*Pg | **Pg** | **07 52 13.6** | **-1.1** |
| TASB | | | | *e*Sg | **Sg** | **07 52 17.3** | **-2.0** |
| **DYDN** | **Diyadin** | **0.85** | **243** | *i* P | **Pb** | **07 52 22.9** | **-1.7** |
| DYDN | | | | *i* S | **Sb** | **07 52 34.5** | **-1.5** |
| **DYDN** | **Diyadin** | **0.85** | **243** | P | **Pb** | **07 52 22.9** | **-1.7** |
| DYDN | | | | S | **Sb** | **07 52 34.5** | **-1.5** |
| **VADZ** | **Vardenis** | **0.86** | **74** | *e*P | **Pb** | **07 52 24.0** | **-0.8** |
| VADZ | | | | *e*S | **Sb** | **07 52 35.0** | **-1.3** |
| **VADZ** | **Vardenis** | **0.86** | **74** | P | **Pb** | **07 52 24.0** | **-0.8** |
| VADZ | | | | S | **Sb** | **07 52 35.0** | **-1.3** |
| **SBZ** | **Shahbuz** | **0.87** | **128** | P | **Pn** | **07 52 25.5** | **-0.5** |
| | SNR=117 | | | | | | |
| SBZ | | | | S | **Sn** | **07 52 39.1** | **+0.5** |
| **SBZ** | **Shahbuz** | **0.87** | **128** | P | **Pn** | **07 52 25.5** | **-0.5** |
| | SNR=117 | | | | | | |
| SBZ | | | | S | **Sn** | **07 52 39.1** | **+0.5** |
| **CLDR** | **Caldiran** | **0.98** | **216** | *e*PG | **Pb** | **07 52 26.2** | **-0.6** |
| CLDR | | | | *e*SG | **Sb** | **07 52 39.4** | **-0.5** |
| **CLDR** | **Caldiran** | **0.98** | **216** | *i* P | **Pb** | **07 52 25.9** | **-1.0** |
| CLDR | | | | *i* S | **Sb** | **07 52 39.4** | **-0.5** |
| **CLDR** | **Caldiran** | **0.98** | **216** | P | **Pb** | **07 52 25.9** | **-1.0** |
| **CLDR** | **Caldiran** | **0.98** | **216** | *e*Pg | **Pb** | **07 52 26.3** | **-0.6** |
| CLDR | | | | S | **Sb** | **07 52 39.3** | **-0.5** |
| **NAX** | **Nakhchivan** | **1.00** | **140** | P | **Pn** | **07 52 27.6** | **-0.1** |
| | SNR=16 | | | | | | |
| NAX | | | | S | **Sn** | **07 52 42.1** | **+0.5** |
| **NAX** | **Nakhchivan** | **1.00** | **140** | PG | **Pn** | **07 52 27.5** | **-0.1** |
| **NAX** | **Nakhchivan** | **1.00** | **140** | P | **Pn** | **07 52 27.6** | **-0.1** |
| | SNR=16 | | | | | | |
| NAX | | | | S | **Sn** | **07 52 42.1** | **+0.5** |
| **DIGO** | **Kars** | **1.10** | **296** | *i* P | **Pb** | **07 52 26.2** | **-2.6** |
| DIGO | | | | *i* S | **Sb** | **07 52 41.0** | **-2.1** |
| **DIGO** | **Kars** | **1.10** | **296** | P | **Pb** | **07 52 26.2** | **-2.6** |
| DIGO | | | | S | **Sb** | **07 52 41.0** | **-2.1** |
| **EAK** | **Akyaka** | **1.10** | **313** | *i* P | **Pb** | **07 52 27.7** | **-1.2** |
| EAK | | | | *i* S | **Sb** | **07 52 42.3** | **-0.9** |
| **EAK** | **Akyaka** | **1.10** | **313** | P | **Pb** | **07 52 27.7** | **-1.2** |
| EAK | | | | S | **Sb** | **07 52 42.3** | **-0.9** |
| **GDB** | **GEDABAY** | **1.14** | **47** | P | **Pn** | **07 52 29.6** | **-0.1** |
| | SNR=108 | | | | | | |
| GDB | | | | S | **Sg** | **07 52 45.7** | **+0.9** |
| **GDB** | **GEDABAY** | **1.14** | **47** | P | **Pn** | **07 52 29.6** | **-0.1** |
| | SNR=108 | | | | | | |
| GDB | | | | S | **Sg** | **07 52 45.7** | **+0.9** |
| **QZX** | **Qazax, Azerbai** | **1.24** | **26** | P | **Pn** | **07 52 31.0** | **+0.1** |
| | SNR=102 | | | | | | |
| QZX | | | | S | **Sg** | **07 52 47.9** | **-0.1** |
| **QZX** | **Qazax, Azerbai** | **1.24** | **26** | P | **Pn** | **07 52 31.0** | **+0.1** |
| | SNR=102 | | | | | | |
| QZX | | | | S | **Sg** | **07 52 47.9** | **-0.1** |
| **VMUR** | **Van-Muradiye** | **1.27** | **222** | *i* P | **Pn** | **07 52 30.9** | **-0.6** |
| VMUR | | | | *i* S | **Sg** | **07 52 50.3** | **+1.3** |
| **VMUR** | **Van-Muradiye** | **1.27** | **222** | P | **Pn** | **07 52 30.9** | **-0.6** |
| VMUR | | | | S | **Sg** | **07 52 50.3** | **+1.3** |
| **AGRB** | **Hanur-Agry** | **1.34** | **255** | *e*PN | **Pn** | **07 52 32.7** | **+0.3** |
| **AGRB** | **Hanur-Agry** | **1.34** | **255** | *e*Pn | **Pn** | **07 52 32.7** | **+0.3** |
| **KARS** | **Kars** | **1.39** | **300** | *e*PN | **Pn** | **07 52 33.7** | **+0.5** |
| **KARS** | **Kars** | **1.39** | **300** | *e*Pn | **Pn** | **07 52 33.7** | **+0.5** |
| **ORD** | **Ordubad** | **1.44** | **134** | P | **Pg** | **07 52 35.3** | **-0.3** |
| | SNR=3.2 | | | | | | |
| ORD | | | | S | **Sg** | **07 52 55.6** | **+1.2** |
| **GANJ** | **Ganja** | **1.45** | **60** | P | **Pb** | **07 52 34.9** | **+0.2** |
| | SNR=4.6 | | | | | | |
| GANJ | | | | S | **Sg** | **07 52 55.0** | **+0.4** |
| **GANJ** | **Ganja** | **1.45** | **60** | PG | **Pb** | **07 52 35.0** | **+0.2** |
| **GANJ** | **Ganja** | **1.45** | **60** | P | **Pb** | **07 52 34.9** | **+0.2** |
| | SNR=4.6 | | | | | | |
| GANJ | | | | S | **Sg** | **07 52 55.0** | **+0.4** |
| **TUTA** | **Tutak** | **1.53** | **250** | *i* P | **Pn** | **07 52 34.8** | **-0.2** |
| TUTA | | | | *i* S | **Sb** | **07 52 55.5** | **+0.1** |
| **TUTA** | **Tutak** | **1.53** | **250** | P | **Pn** | **07 52 34.8** | **-0.2** |
| TUTA | | | | S | **Sb** | **07 52 55.5** | **+0.1** |
| **VANB** | **Van** | **1.67** | **217** | *e*PN | **Pb** | **07 52 39.0** | **+0.5** |
| **VANB** | **Van** | **1.67** | **217** | *e*Pn | **Pb** | **07 52 39.0** | **+0.5** |
| **EATA** | **Eleskirt** | **1.67** | **268** | *i* P | **Pb** | **07 52 38.2** | **-0.5** |
| EATA | | | | *i* S | **Sg** | **07 53 03.1** | **+1.3** |
| **EATA** | **Eleskirt** | **1.67** | **268** | P | **Pb** | **07 52 38.2** | **-0.5** |
| EATA | | | | S | **Sg** | **07 53 03.1** | **+1.3** |
| **AKH** | **Akhalkalaki** | **1.72** | **329** | *e*PN | **Pb** | **07 52 39.3** | **-0.1** |
| **AKH** | **Akhalkalaki** | **1.72** | **329** | PN | **Pn** | **07 52 38.3** | **+0.7** |
| **AKH** | **Akhalkalaki** | **1.72** | **329** | *e*Pn | **Pb** | **07 52 39.3** | **-0.1** |
| **TBLG** | **Delisi** | **1.79** | **2** | *e*PN | **Pb** | **07 52 41.1** | **+0.6** |
| **TBL

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **BNGB** | **Bing˜ǁ** | **3.23** | **254** | *e*PN | | **Pn** | **07 53 00.2** | **+1.9** |
| **ARNR** | **Ardon** | **3.25** | **355** | *e*PN | | **Pg** | **07 53 10.0** | **-0.2** |
| ARNR | | | | *e*S | | **Sg** | **07 53 50.0** | **-2.3** |
| **GROC** | **Groznyy** | **3.37** | **14** | PN | | **Pg** | **07 53 10.5** | **-1.9** |
| GROC | | | | *e*S | | **Sg** | **07 53 55.4** | **-0.7** |
| GROC | | | | pmax | pmax | | | |
| | comp=Z,58nm,1.8s | | | | | | | |
| GROC | | | | smax | smax | | | |
| | comp=E,144nm,1.1s | | | | | | | |
| GROC | | | | smax | smax | | | |
| | comp=E,69nm,0.7s | | | | | | | |
| **GROC** | **Groznyy** | **3.37** | **14** | *e*Sb | | **Sg** | **07 53 55.4** | **-0.7** |
| **ATGJ** | **Altiaghaj** | **3.39** | **73** | ⇓P | | **Pn** | **07 53 03.4** | **+2.8** |
| **ATGJ** | **Altiaghaj** | **3.39** | **73** | P | | **Pn** | **07 53 03.4** | **+2.8** |
| **BINT** | **Bingol** | **3.40** | **253** | PN | | **Pn** | **07 53 00.1** | **-0.7** |
| **BINT** | **Bingol** | **3.40** | **253** | *e*Pn | | **Pn** | **07 53 00.2** | **-0.6** |
| **LKRN** | **Lenkeran, Azer** | **3.42** | **110** | ⇓S | | **Sn** | **07 53 44.7** | **+3.6** |
| **LKRN** | **Lenkeran, Azer** | **3.42** | **110** | S | | **Sn** | **07 53 44.7** | **+3.6** |
| **ASTR** | **Astara** | **3.49** | **112** | ⇓S | | **Sb** | **07 53 48.6** | **-3.1** |
| **ASTR** | **Astara** | **3.49** | **112** | S | | **Sb** | **07 53 48.6** | **-3.1** |
| **NEY** | **Neytrino** | **3.61** | **337** | ⇓*e*PN | | **Pb** | **07 53 13.5** | **+1.8** |
| **KIV** | **Kislovodsk** | **4.28** | **340** | *e*PN | | **Pb** | **07 53 18.9** | **-4.0** |
| KIV | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,1.0s | | | | | | | |
| **OBN** | **Obninsk** | **16.12** | **343** | ⇑*e*P | | P | 07 56 04.8 | +7.6 |
| OBN | | | | pmax | pmax | | | |
| | comp=Z,16nm,1.1s | | | | | | | |
| **ARU** | **Arti** | **18.86** | **24** | ⇓*e*P | | Pn | 07 56 35.6 | +7.6 |
| ARU | | | | pmax | pmax | | | |
| | comp=Z,20nm,2.8s | | | | | | | |
| **AAK** | **Ala-Archa** | **22.52** | **73** | ⇑*e*P | | P | 07 57 13.2 | +5.8 |
| AAK | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,1.1s | | | | | | | |
| **KURK** | **Kurchatov** | **25.97** | **54** | ⇑*e*P | | P | 07 57 47.0 | +7.1 |
| KURK | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,1.0s | | | | | | | |
| **ULN** | **Ulaanbaatar** | **44.55** | **58** | *e*P | | P | 08 00 25.4 | +6.1 |
| ULN | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,1.0s | | | | | | | |

**NNC 28 07:52:45.1±5.3, 38°52N×72°58E, h0km, mb3.6, mpv3.3, 3C-5D, Error ellipse: s-maj=48.8km s-min=19.2km az=147.0, Tajikistan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SFK** | **Sufi-Kurgan** | **1.65** | **25** | ⇓P | Pn | 07 53 15.1 | -0.5 |
| | 11nm,0.2s | | | | | | |
| SFK | | | | ⇓S | Sg | 07 53 38.5 | +0.2 |
| | 76nm,0.3s | | | | | | |
| **DZET** | **Dzherino** | **2.95** | **277** | ⇓Pg | Pb | 07 53 38.1 | -0.5 |
| | 2.6nm,0.4s | | | | | | |
| DZET | | | | ⇓Lg | Lg | 07 54 20.2 | |
| | 46nm,0.6s | | | | | | |
| **MNAS** | **Manas** | **3.96** | **359** | ⇑Pn | Pn | 07 53 47.0 | -0.3 |
| | 2.6nm,0.3s | | | | | | |
| MNAS | | | | ⇑Sn | Sn | 07 54 33.8 | -0.7 |
| | 4.9nm,0.6s | | | | | | |
| **KK31** | **Karatay Array** | **4.84** | **342** | ⇑Pn | Pn | 07 54 00.4 | +1.2 |
| | 1.5nm,0.3s,baz=149,slow=13,SNR=40 | | | | | | |
| KK31 | | | | ⇓Sn | Sn | 07 54 57.0 | +1.0 |
| | 6.4nm,0.5s,baz=151,slow=23,SNR=17 | | | | | | |

**NNC 28 08:24:42.7±3.0, 38°14N×71°79E, h0km, mb3.7, mpv3.3, 4C-4D, Error ellipse: s-maj=22.8km s-min=17.6km az=172.0, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SFK** | **Sufi-Kurgan** | **2.29** | **35** | ⇑Pn | Pn | 08 25 21.9 | -0.1 |
| | 3.3nm,0.2s | | | | | | |
| SFK | | | | ⇓Sn | Sb | 08 25 52.8 | -1.2 |
| | 12nm,0.2s | | | | | | |
| **MNAS** | **Manas** | **4.37** | **7** | ⇓Pn | Pn | 08 25 50.6 | +0.2 |
| | 3.8nm,0.4s | | | | | | |
| MNAS | | | | ⇑Sn | Sn | 08 26 42.9 | +0.7 |
| | 9.6nm,0.7s | | | | | | |
| **AAK** | **Ala-Archa** | **4.94** | **24** | ⇓Pn | Pn | 08 25 57.2 | -1.0 |
| | 1.5nm,0.6s | | | | | | |
| AAK | | | | ⇑Sn | Sn | 08 26 55.5 | -0.6 |
| | 9.0nm,0.6s | | | | | | |
| **KK31** | **Karatay Array** | **5.05** | **349** | ⇓Pn | Pn | 08 26 00.3 | +0.6 |
| | 2.2nm,0.3s,baz=163,slow=13,SNR=26 | | | | | | |
| KK31 | | | | ⇑Sn | Sn | 08 27 00.4 | +1.7 |
| | 1.1nm,0.3s,baz=171,slow=23,SNR=7.3 | | | | | | |

*CSEM **28** 08:50:00.9±0.7, 51.49N×16.08E, h2km, ML3.0/5, Error ellipse: s-maj=9.7km s-min=5.5km az=12.0*
*PRU **28** 08:50:02.0, 51.48N×16.09E, h0km*
**WAR 28 08:50:02.1, 51.49N×16.09E, h1km, Mw2.1, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KSP** | **Ksiaz** | **0.66** | **169** | *e*Pg | Pg | 08 50 14.5 | -0.2 |
| KSP | | | | *e*Sg | Sg | 08 50 23.6 | +0.3 |
| **KSP** | **Ksiaz** | **0.66** | **169** | *e*Pg | Pg | 08 50 14.5 | -0.2 |
| KSP | | | | *e*Sg | Sg | 08 50 23.6 | +0.4 |
| **KSP** | **Ksiaz** | **0.66** | **169** | *e*Pg | Pg | 08 50 14.5 | -0.2 |
| KSP | | | | *e*Sg | Sg | 08 50 23.6 | +0.4 |
| **UPC** | **Upice** | **0.98** | **183** | *e*PG | Pg | 08 50 20.4 | -0.5 |
| UPC | | | | *e*SG | Sg | 08 50 33.4 | -0.3 |
| | comp=Z,22nm,0.2s | | | | | | |
| **UPC** | **Upice** | **0.98** | **183** | Pg | Pg | 08 50 20.4 | -0.5 |
| UPC | | | | Sg | Sg | 08 50 33.4 | -0.3 |
| | 22nm,0.2s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.15** | **173** | *e*PG | Pg | 08 50 23.3 | -0.8 |
| DPC | | | | *e*SG | Sg | 08 50 37.9 | -1.1 |
| | comp=Z,10.0nm,0.4s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.15** | **173** | Pg | Pg | 08 50 23.3 | -0.8 |
| DPC | | | | Sg | Sg | 08 50 37.9 | -1.1 |
| | 10.0nm,0.4s | | | | | | |
| **PVCC** | **Panska Ves** | **1.36** | **226** | *e*PG | Pg | 08 50 27.8 | -0.3 |
| PVCC | | | | *e*SG | Sb | 08 50 46.2 | 0.0 |
| | comp=Z,41nm,0.2s | | | | | | |
| **PVCC** | **Panska Ves** | **1.36** | **226** | Pg | Pg | 08 50 27.8 | -0.3 |
| PVCC | | | | Sg | Sb | 08 50 46.2 | 0.0 |
| | 41nm,0.2s | | | | | | |
| **KRLC** | **Kraliky** | **1.48** | **162** | *e*PG | Pn | 08 50 28.4 | -1.5 |
| KRLC | | | | *e*SG | Sg | 08 50 48.4 | -1.3 |
| **KRLC** | **Kraliky** | **1.48** | **162** | Pg | Pn | 08 50 28.4 | -1.5 |
| KRLC | | | | Sg | Sg | 08 50 48.4 | -1.3 |
| **BRG** | **Berggiesshubel** | **1.48** | **246** | PG | Pb | 08 50 30.3 | -0.2 |
| BRG | | | | SG | Sn | 08 50 50.1 | +0.1 |
| | 14nm,0.3s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **1.78** | **208** | *e*PG | Pb | 08 50 35.2 | -0.3 |
| GOPC | | | | *e*SG | Sb | 08 50 58.2 | -0.2 |
| **GOPC** | **GO Pecny, Ondr** | **1.78** | **208** | Pg | Pb | 08 50 35.2 | -0.3 |
| GOPC | | | | Sg | Sb | 08 50 58.2 | -0.2 |
| **PRU** | **Pruhonice** | **1.80** | **214** | *e*SG | Sb | 08 50 58.4 | -0.4 |
| **PRU** | **Pruhonice** | **1.80** | **214** | Sg | Sb | 08 50 58.4 | -0.4 |
| **CLL** | **Collm** | **1.94** | **266** | *i* Pg | Pb | 08 50 37.9 | -0.4 |
| CLL | | | | *i* | | 08 50 40.5 | |
| CLL | | | | *i* Sg | Sg | 08 51 04.5 | 0.0 |
| **MORC** | **Moravsky Berou** | **1.95** | **151** | *e*Pn | Pn | 08 50 35.6 | -0.7 |
| MORC | | | | *e*Sg | Sb | 08 51 02.6 | -0.6 |
| **OKC** | **Ostrava-Krasne** | **2.11** | **141** | *e*SG | Sg | 08 51 08.8 | -1.0 |
| **OKC** | **Ostrava-Krasne** | **2.11** | **141** | Sg | Sg | 08 51 08.8 | -1.0 |
| **VRAC** | **Vranov** | **2.21** | **171** | *e*Sg | Sb | 08 51 11.4 | +0.8 |
| **NKC** | **Novy Kostel** | **2.63** | **243** | *e*SG | Sg | 08 51 25.4 | -1.1 |
| | comp=Z,7.9nm,0.3s | | | | | | |
| **NKC** | **Novy Kostel** | **2.63** | **243** | Sg | Sg | 08 51 25.4 | -1.1 |
| | 7.9nm,0.3s | | | | | | |
| **KHC** | **Kasperske Hory** | **2.86** | **215** | *e*PN | Pn | 08 50 47.3 | -1.5 |
| KHC | | | | *e*PG | Pb | 08 50 54.1 | +0.2 |
| KHC | | | | *e*SG | Sg | 08 51 31.8 | -2.0 |
| | comp=Z,3.8nm,0.4s | | | | | | |
| **KHC** | **Kasperske Hory** | **2.86** | **215** | Pn | Pn | 08 50 47.3 | -1.5 |
| **KHC** | **Kasperske Hory** | **2.86** | **215** | Pg | Pb | 08 50 54.1 | +0.2 |
| KHC | | | | Sg | Sg | 08 51 31.8 | -2.0 |
| | 3.1nm,0.3s | | | | | | |

*IDC **28** 08:50:12.5±1.2, 1.55N×96.73E, h0km, mb4.0/10, mb1 4.1/11, mb1mx3.8/67, mbtmp4.0/11, ML2.8/1, MS2.9/2, Ms1 3.0/2, ms1mx2.7/50, Error ellipse: s-maj=34.2km s-min=19.6km az=52.0*
*ISCJB **28** 08:50:15.7±0.6, 1.68N±0.06×96.80E±0.07, h28km, mb4.1/12, Error ellipse: s-maj=12.0km s-min=6.3km az=144.5*
*DJA **28** 08:50:16.6±1.2, 2°N±6°×9°7E±°, h23km±16km, M3.9/6, MLv3.9/6*
*NEIC **28** 08:50:17.7±2.8, 1.64N×96.85E, h32km±18km, mb4.3/2, Error ellipse: s-maj=13.9km s-min=4.7km az=57.0*
**ISC 28 08:50:17.2±0.8, 1.68N±0.07×96.79E±0.07, h28km, n43, σ0.9s0/38, mb4.1/12, Off west coast of northern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SNSI** | **Sinabang, Aceh** | **0.86** | **327** | P | **Pn** | **08 50 32.9** | **-0.5** |
| **GSI** | **Gunungsitoli** | **0.87** | **116** | P | **Pn** | **08 50 33.2** | **-0.4** |
| **GSI** | **Gunungsitoli** | **0.87** | **116** | *e*Pn | **Pn** | **08 50 33.2** | **-0.4** |
| **TPTI** | | **1.61** | **14** | P | **Pn** | **08 50 42.6** | **-1.2** |
| **KCSI** | **Kotacane, Aceh** | **2.07** | **28** | P | **Pn** | **08 50 50.3** | **+0.1** |
| **PBSI** | **Pulau Batu** | **2.28** | **139** | P | **Pn** | **08 50 53.1** | **+0.1** |
| **PSI** | **Prapat** | **2.40** | **62** | Pn | **Pn** | **08 50 54.6** | **-0.2** |
| | 2.2nm,0.3s,baz=291,slow=8.2,SNR=5.3 | | | | | | |
| PSI | | | | LR | LR | 08 51 33.5 | |
| | comp=Z,132nm,20.8s,baz=320,slow=33 | | | | | | |
| **PSI** | **Prapat** | **2.40** | **62** | *e*Pn | **Pn** | **08 50 54.3** | **-0.5** |
| PSI | | | | *e*Pg | **Pb** | **08 51 00.3** | **+0.4** |
| **MLSI** | **Meulaboh, Aceh** | **2.59** | **351** | P | **Pn** | **08 50 56.9** | **-0.5** |
| **LHMI** | **Lhok Sumawe** | **3.52** | **3** | *e*Pn | **Pn** | **08 51 10.4** | **+0.2** |
| **IPM** | **Ipoh** | **5.06** | **57** | *e*Pn | **Pn** | **08 51 30.8** | **-0.4** |
| **KULM** | **Kulim** | **5.26** | **47** | *e*Pn | **Pn** | **08 51 34.0** | **-0.1** |
| **CMAR** | **Chiang Mai Arr** | **16.80** | **7** | Pn | **P** | **08 54 11.8** | **-0.8** |
| | baz=198,slow=11,SNR=3.9 | | | | | | |
| CMAR | | | | LR | LR | 09 01 32.6 | |
| | comp=Z,63nm,18.3s,baz=192,slow=40 | | | | | | |
| **H08S2** | **Diego Garcia H** | **25.95** | **249** | T | T | 09 22 37.3 | |
| | baz=70,slow=75,SNR=78 | | | | | | |
| **H08S3** | **Diego Garcia H** | **25.95** | **249** | T | T | 09 22 46.4 | |
| | baz=70,slow=75,SNR=298 | | | | | | |
| **H08S1** | **Diego Garcia H** | **25.97** | **249** | T | T | 09 22 39.5 | |
| | baz=70,slow=75,SNR=12 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **39.84** | **158** | T | T | 09 40 08.8 | |
| | baz=333,slow=76,SNR=6.6 | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **39.86** | **158** | T | T | 09 40 10.1 | |
| | baz=333,slow=76,SNR=7.6 | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **39.86** | **157** | T | T | 09 40 09.9 | |
| | baz=333,slow=76,SNR=7.3 | | | | | | |
| **WR1** | **Warramunga Arr** | **42.64** | **122** | *e*P | **P** | **08 58 10.8** | **-0.8** |
| | 69nm,1.9s | | | | | | |
| **WRA** | **Warramunga Arr** | **42.64** | **122** | P | **P** | **08 58 10.9** | **-0.8** |
| | 0.8nm,0.6s,baz=303,slow=8.9,SNR=5.3 | | | | | | |
| **ASAR** | **Alice Springs** | **44.01** | **127** | P | **P** | **08 58 21.9** | **-0.8** |
| | 0.7nm,0.6s,baz=302,slow=8.0,SNR=11 | | | | | | |
| **AS31** | **Alice Springs** | **44.01** | **127** | *e*P | **P** | **08 58 21.9** | **-0.8** |
| | 1.2nm,1.1s | | | | | | |
| **KS15** | **Wonju Array Si** | **45.66** | **35** | *e*P | **P** | **08 58 35.6** | **+0.1** |
| **KSAR** | **Wonju Array Be** | **45.66** | **35** | P | **P** | **08 58 35.6** | **+0.1** |
| **KSRS** | **Korea Array** | **45.69** | **35** | P | **P** | **08 58 35.6** | **-0.2** |
| | 0.7nm,0.5s,baz=232,slow=7.4,SNR=3.5 | | | | | | |
| **MK01** | **Makanchi Array** | **46.65** | **346** | *e*P | **P** | **08 58 43.7** | **+0.5** |
| **MK31** | **Makanchi Array** | **46.68** | **346** | *e*P | **P** | **08 58 44.1** | **+0.6** |
| **MK32** | **Makanchi Array** | **46.68** | **346** | *e*P | **P** | **08 58 43.9** | **+0.5** |
| **MKAR** | **Makanchi Array** | **46.68** | **346** | P | **P** | **08 58 43.9** | **+0.5** |
| | 3.0nm,0.8s,baz=162,slow=7.8,SNR=28 | | | | | | |
| **MKAR** | **Makanchi Array** | **46.68** | **346** | *e*P | **P** | **08 58 44.1** | **+0.6** |
| | 13nm,0.6s | | | | | | |
| **SONA0** | **Songino Array** | **46.72** | **9** | *e*P | **P** | **08 58 44.2** | **+0.3** |
| **SONM** | **Songino Array** | **46.72** | **9** | P | **P** | **08 58 44.2** | **+0.3** |
| | 1.3nm,0.7s,baz=185,slow=9.2,SNR=6.9 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **53.02** | **351** | P | **P** | **08 59 32.0** | **+0.5** |
| | 6.2nm,0.5s,baz=181,slow=6.5,SNR=32 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **53.02** | **351** | *e*P | **P** | **08 59 32.0** | **+0.5** |
| **KLR** | **Kul'dur** | **56.01** | **27** | P | **P** | **08 59 53.8** | **+0.5** |
| | 0.3nm,0.8s,baz=249,slow=7.9,SNR=9.0 | | | | | | |
| **FIA0** | **FINESS Array S** | **79.38** | **333** | *e*P | **P** | **09 02 20.5** | **+0.1** |
| **FINES** | **FINESS Array B** | **79.38** | **333** | P | **P** | **09 02 20.5** | **+0.1** |
| | 3.6nm,1.0s,baz=345,slow=6.5,SNR=3.8 | | | | | | |
| **ARA0** | **ARCESS Array S** | **81.94** | **340** | *e*P | **P** | **09 02 34.4** | **+0.3** |
| **ARCES** | **ARCESS Array B** | **81.94** | **340** | P | **P** | **09 02 34.4** | **+0.3** |
| | 6.4nm,1.0s,baz=105,slow=5.9,SNR=4.3 | | | | | | |
| **GERES** | **GERESS Array B** | **84.18** | **319** | P | **P** | **09 02 46.3** | **+0.1** |
| | 0.3nm,0.2s,baz=90,slow=2.9,SNR=3.9 | | | | | | |
| **LTX** | **Lajitas** | **143.47** | **31** | *e*PKPdf | **PKPdf** | **09 09 49.8** | **-0.4** |
| **TXAR** | **Lajitas Array** | **143.47** | **31** | PKP | **PKPdf** | **09 09 49.8** | **-0.4** |
| | 0.1nm,0.7s,baz=146,slow=0.7,SNR=2.9 | | | | | | |

*MOS **28** 08:57:59.1±1.3, 54.80N×111.12E, h10km, mb4.2/1, Error ellipse: s-maj=67.5km s-min=30.8km az=79.9*
**BYKL 28 08:57:58.7±0.2, 54.80N×111.11E, h15km±3km, 1C-1D, Lake Baykal region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **YLYR** | **Ulyunkhan** | **0.08** | **21** | ⇓*i*Pg | Pg | 08 58 01.8 | -0.1 |
| YLYR | | | | *e*Sg | Sg | 08 58 04.1 | +0.2 |
| **KMO** | **Kumora** | **1.09** | **3** | *e*Pg | Pb | 08 58 18.2 | -1.1 |
| KMO | | | | *e*Sg | Sb | 08 58 33.0 | -0.3 |
| KMO | | | | Pmax | | | |
| | 171nm,0.3s | | | | | | |
| KMO | | | | Smax | | | |
| | 559nm,1.1s | | | | | | |
| **KMO** | **Kumora** | **1.09** | **3** | *e*PG | Pb | 08 58 18.2 | -1.1 |
| KMO | | | | *e* | | 08 58 32.9 | |
| KMO | | | | pmax | pmax | | |
| | comp=Z,171nm,0.4s | | | | | | |
| KMO | | | | smax | smax | | |
| | comp=E,556nm,1.0s | | | | | | |
| **SYVR** | **Suvo** | **1.32** | **210** | *e*Pg | Pb | 08 58 23.0 | -0.1 |
| SYVR | | | | *e*Sg | Sg | 08 58 40.9 | -0.3 |
| SYVR | | | | *e*Sb | Sn | 08 58 43.2 | +3.4 |
| SYVR | | | | Pmax | | | |
| | comp=E,60nm,0.6s | | | | | | |
| SYVR | | | | max | | | |
| | comp=E,342nm,0.4s | | | | | | |
| **SYVR** | **Suvo** | **1.32** | **210** | *e*PG | Pb | 08 58 23.3 | +0.2 |
| SYVR | | | | *e* | | 08 58 40.9 | |
| SYVR | | | | pmax | pmax | | |
| | comp=Z,61nm,0.4s | | | | | | |
| SYVR | | | | smax | smax | | |
| | comp=N,385nm,0.4s | | | | | | |
| **NIZ** | **Nizh Angarsk** | **1.33** | **318** | ⇑*i*Pg | Pn | 08 58 22.8 | +0.1 |
| NIZ | | | | *e*Sg | Sn | 08 58 40.7 | +0.6 |
| NIZ | | | | *e*Sb | Sg | 08 58 42.4 | +0.9 |
| NIZ | | | | Pmax | | | |
| | comp=N,101nm,0.4s | | | | | | |
| NIZ | | | | max | | | |
| | comp=N,245nm,0.3s | | | | | | |
| **NIZ** | **Nizh Angarsk** | **1.33** | **318** | *e*PG | Pn | 08 58 22.5 | -0.2 |
| NIZ | | | | *e* | | 08 58 40.6 | |
| NIZ | | | | pmax | pmax | | |
| | comp=Z,26nm,0.4s | | | | | | |
| NIZ | | | | smax | smax | | |
| | comp=N,275nm,0.4s | | | | | | |
| **YOA** | **Uoyan** | **1.38** | **14** | *e*Pg | Pn | 08 58 23.5 | +0.1 |
| YOA | | | | *e*Sg | Sg | 08 58 42.8 | -0.4 |
| YOA | | | | *e* | | 08 58 46.0 | |
| YOA | | | | Pmax | | | |
| | comp=N,132nm,0.3s | | | | | | |
| YOA | | | | max | | | |
| | comp=N,1μm,0.5s | | | | | | |
| **UKT** | **Uakit** | **1.60** | **63** | *e*Pg | Pn | 08 58 26.8 | +0.3 |
| UKT | | | | *e*Sg | Sb | 08 58 48.5 | +0.4 |
| UKT | | | | Pmax | | | |
| | comp=N,31nm,0.2s | | | | | | |
| UKT | | | | Smax | | | |
| | comp=N,200nm,0.4s | | | | | | |
| **SVKR** | **Severomuysk** | **1.92** | **46** | *e*Pg | Pb | 08 58 33.3 | -0.1 |
| SVKR | | | | *e*Sg | Sb | 08 58 58.7 | +1.5 |
| SVKR | | | | Pmax | | | |
| | comp=N,119nm,0.3s | | | | | | |
| SVKR | | | | Smax | | | |
| | comp=N,790nm,0.4s | | | | | | |
| **MXMB** | **Maximikha** | **2.08** | **223** | *e*Pg | Pb | 08 58 35.5 | -0.6 |
| MXMB | | | | *e* | | 08 58 41.4 | |
| MXMB | | | | *e*Sg | Sb | 08 59 02.2 | +0.5 |
| **OGRR** | **Ongureny** | **2.37** | **242** | *e*Pn | Pn | 08 58 37.8 | +0.8 |
| OGRR | | | | *e*Pg | Pb | 08 58 41.3 | +0.3 |
| OGRR | | | | *e* | | 08 58 46.9 | |
| OGRR | | | | *e*Sg | Sb | 08 59 11.7 | +1.7 |
| OGRR | | | | max | | | |
| | comp=N,43nm,0.2s | | | | | | |
| OGRR | | | | Smax | | | |
| | comp=N,198nm,0.3s | | | | | | |
| **OGRR** | **Ongureny** | **2.37** | **242** | *e*PN | Pn | 08 58 37.7 | +0.7 |
| OGRR | | | | *e* | | 08 58 41.0 | |
| OGRR | | | | *e* | | 08 59 11.8 | |
| OGRR | | | | pmax | pmax | | |
| | comp=Z,44nm,0.5s | | | | | | |
| OGRR | | | | smax | smax | | |
| | comp=E,97nm,0.3s | | | | | | |

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KELR** | **Kotokel** | **2.72** | **223** | *e*Pg | Pb | 08 58 48.5 | +1.4 |
| KELR | | | | *e*Sg | Sg | 08 59 23.5 | -2.6 |
| **CIT** | **Chita** | **3.14** | **151** | *e*Sg | Sg | 08 59 36.5 | -3.1 |
| CIT | | | | Smax | | | |
| | comp=E,193nm,0.3s | | | | | | |
| **ZRHB** | **Zarechye** | **3.26** | **228** | *e*Pg | Pb | 08 58 56.4 | +0.2 |
| ZRHB | | | | *e*Sg | Sb | 08 59 39.2 | +3.6 |
| ZRHB | | | | Pmax | | | |
| | comp=E,32nm,0.2s | | | | | | |
| ZRHB | | | | Smax | | | |
| | comp=E,304nm,0.8s | | | | | | |
| **TRTB** | **Turuntaevo** | **3.31** | **220** | *e*Pn | Pn | 08 58 50.4 | +0.5 |
| TRTB | | | | *e*Pg | Pb | 08 58 58.3 | +1.2 |
| TRTB | | | | *e*Sg | Sg | 08 59 41.5 | -3.4 |
| TRTB | | | | Pmax | | | |
| | comp=E,9.0nm,0.4s | | | | | | |
| TRTB | | | | Smax | | | |
| | comp=E,53nm,0.4s | | | | | | |
| **BOD** | **Bodaibo** | **3.43** | **27** | *e*Pn | Pn | 08 58 51.7 | +0.2 |
| BOD | | | | *e*Pg | Pb | 08 58 59.5 | +0.4 |
| BOD | | | | *e*Sn | Sn | 08 59 31.4 | -0.5 |
| BOD | | | | *e*Sg | Sb | 08 59 44.0 | +3.5 |
| BOD | | | | Pmax | | | |
| | comp=E,6.0nm,0.2s | | | | | | |
| BOD | | | | Smax | | | |
| | comp=E,60nm,0.5s | | | | | | |
| **TRG** | **Tyrgan** | **3.49** | **236** | *e*Pg | Pb | 08 59 00.9 | +0.8 |
| TRG | | | | *e*Sn | Sn | 08 59 33.3 | -0.1 |
| TRG | | | | *e*Sg | Sb | 08 59 44.9 | +2.7 |
| TRG | | | | *e*SgSg | Sg | 08 59 49.5 | -1.1 |
| TRG | | | | Pmax | | | |
| | comp=E,5.0nm,0.2s | | | | | | |
| TRG | | | | max | | | |
| | comp=E,89nm,0.3s | | | | | | |
| **UUDB** | **Ulan-Yde** | **3.59** | **217** | *e*Pn | Pn | 08 58 54.4 | +0.6 |
| UUDB | | | | *e*Pg | Pb | 08 59 03.7 | +1.8 |
| UUDB | | | | *e* | | 08 59 09.7 | |
| UUDB | | | | *e*Sn | Sn | 08 59 35.5 | -0.5 |
| UUDB | | | | *e*Sg | Sg | 08 59 50.3 | -3.7 |
| UUDB | | | | max | | | |
| | comp=E,23nm,0.6s | | | | | | |
| UUDB | | | | Smax | | | |
| | comp=E,86nm,1.0s | | | | | | |
| **HRMR** | **Khuramsha** | **4.04** | **220** | *e*Pn | Pn | 08 59 01.1 | +1.1 |
| HRMR | | | | *e*Pg | Pb | 08 59 12.3 | +2.8 |
| HRMR | | | | *e*Sg | Sg | 09 00 05.1 | -3.3 |
| HRMR | | | | Pmax | | | |
| | comp=E,17nm,0.4s | | | | | | |
| HRMR | | | | Smax | | | |
| | comp=E,192nm,0.4s | | | | | | |
| **CRS** | **Chara** | **4.55** | **60** | *e*Pn | Pn | 08 59 09.8 | +2.8 |
| CRS | | | | *e*Pg | Pb | 08 59 21.2 | +3.0 |
| CRS | | | | *e*Sn | Sn | 08 59 57.8 | -1.8 |
| CRS | | | | *e*Sg | Sg | 09 00 19.5 | -5.1 |
| CRS | | | | Pmax | | | |
| | comp=E,17nm,0.9s | | | | | | |
| CRS | | | | Smax | | | |
| | comp=E,53nm,0.8s | | | | | | |
| **CRS** | **Chara** | **4.55** | **60** | *e*PN | Pb | 08 59 21.1 | +2.9 |
| CRS | | | | *e* | | 09 00 18.7 | |
| CRS | | | | pmax | pmax | | |
| | comp=Z,25nm,0.8s | | | | | | |
| CRS | | | | smax | smax | | |
| | comp=E,53nm,0.8s | | | | | | |
| **LSTR** | **Listvyanka** | **4.77** | **235** | *e*Sg | Sb | 09 00 24.3 | +5.1 |
| LSTR | | | | Smax | | | |
| | comp=E,36nm,1.0s | | | | | | |
| **TUP** | **Tupik** | **5.16** | **91** | *e*Pn | Pn | 08 59 14.9 | -0.4 |
| TUP | | | | *e*Pg | Pb | 08 59 30.9 | +2.4 |
| TUP | | | | *e*Sn | Sn | 09 00 11.1 | -3.4 |
| TUP | | | | *e*Sg | Sg | 09 00 37.9 | -6.1 |
| TUP | | | | Pmax | | | |
| | comp=E,10.0nm,0.5s | | | | | | |
| TUP | | | | Smax | | | |
| | comp=E,78nm,0.8s | | | | | | |
| **KPC** | **Khapcheranga** | **5.16** | **171** | *e*Pn | Pn | 08 59 15.8 | +0.3 |
| KPC | | | | *e*Pg | Pb | 08 59 30.5 | +1.8 |
| KPC | | | | *e*Sn | Sn | 09 00 12.2 | -2.6 |
| KPC | | | | *e*Sg | Sg | 09 00 38.5 | -5.8 |
| KPC | | | | Pmax | | | |
| | comp=E,4.0nm,0.3s | | | | | | |
| KPC | | | | Smax | | | |
| | comp=E,74nm,1.0s | | | | | | |
| **ARS** | **Arshan** | **5.95** | **245** | *e*Sg | Sb | 09 01 00.6 | +7.6 |
| ARS | | | | Smax | | | |
| | comp=E,107nm,0.9s | | | | | | |
| **ZAK** | **Zakamensk** | **6.50** | **230** | *e*Sg | Sg | 09 01 20.2 | -7.1 |
| ZAK | | | | Smax | | | |
| | comp=E,22nm,1.0s | | | | | | |
| **MOY** | **Mondy** | **6.83** | **247** | *e*Pn | Pn | 08 59 39.8 | +1.4 |
| MOY | | | | *e*Sn | Sn | 09 00 53.0 | -3.0 |
| MOY | | | | *e*Sg | Sg | 09 01 30.4 | -7.5 |
| MOY | | | | Smax | | | |
| | comp=E,36nm,1.5s | | | | | | |

*IDC **28** 09:02:21.3±3.3, 64.74N×31.85E, h0km, mb1 3.4/4, mb1mx3.0/48, mbtmp3.3/4, ML2.9/4, Error ellipse: s-maj=47.0km s-min=10.6km az=99.0*
*ISCJB **28** 09:02:21.9±0.7, 64.76N±0.03×30.5E±0.1, h0km, Error ellipse: s-maj=6.5km s-min=4.1km az=22.8*
*HEL **28** 09:02:22.3±0.3, 64.73N×30.63E, h0km, ML2.1, Explosion*
*NAO **28** 09:02:24.6±1.4, 64.86N×30.50E, ML2.4*
*CSEM **28** 09:02:24.1±0.5, 64.86N×30.15E, h2km, ML2.0, Error ellipse: s-maj=11.7km s-min=6.4km az=116.0, Mining explosion.*
*UPP **28** 09:02:25.1±3.0, 64.76N×30.45E, h0km, ML1.7*
*BER **28** 09:02:25.3±3.4, 64.85N×30.50E, h0km, ML2.4(NAO), Suspected explosion*
**ISC 28 09:02:23.5±1.0, 64.84N±0.03×30.51E±0.05, h0km, n51, σ1§13/77, Finland-Karelia border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KU6** | **Riekki** | **1.22** | **348** | P | **Pg** | **09 02 46.1** | **-0.6** |
| KU6 | | | | S | **Sb** | **09 03 03.3** | **-0.2** |
| **KU6** | **Riekki** | **1.22** | **348** | *e*P | **Pg** | **09 02 46.2** | **-0.6** |
| KU6 | | | | MSG | | 09 03 03.0 | |
| | comp=Z,14nm,0.2s | | | | | | |
| KU6 | | | | *e*S | **Sb** | **09 03 03.4** | **-0.2** |
| **MSF** | **Maaselka** | **1.24** | **331** | Pb | **Pg** | **09 02 46.9** | **-0.3** |
| MSF | | | | Sb | **Sb** | **09 03 04.7** | **+0.5** |
| **MSF** | **Maaselka** | **1.24** | **331** | *e*PB | **Pg** | **09 02 46.9** | **-0.3** |
| MSF | | | | *e*SB | **Sb** | **09 03 04.8** | **+0.5** |
| **OUL** | **Oulu** | **1.98** | **279** | Pb | **Pn** | **09 02 58.2** | **+0.1** |
| OUL | | | | Sg | **Sb** | **09 03 25.0** | **-0.5** |
| **OUL** | **Oulu** | **1.98** | **279** | *e*PB | **Pn** | **09 02 58.3** | **+0.1** |
| OUL | | | | *e*SG | **Sb** | **09 03 25.0** | **-0.5** |
| **OUF** | **Merijarvi** | **2.54** | **262** | Pb | **Pn** | **09 03 07.3** | **+1.5** |
| **OUF** | **Merijarvi** | **2.54** | **262** | *e*PB | **Pn** | **09 03 07.3** | **+1.5** |
| OUF | | | | *e*SG | **Sb** | **09 03 42.1** | **+0.6** |
| **TOF** | **Tornio** | **2.87** | **298** | Pg

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | SNR=9.6 | | | | | | | |
| **SGF** | **Sodankyl** | **3.07 330** | *P* | | **Pn** | 09 03 13.9 | **+0.7** | |
| **SGF** | **Sodankyl** | **3.07 330** | *eP* | | **Pn** | 09 03 13.9 | **+0.7** | |
| SGF | | | *e*SB | | **Sb** | **09 03 57.0** | **0.0** | |
| **KALU** | **Kalix** | **3.17 292** | Pb | | **Pn** | 09 03 17.1 | **+2.6** | |
| **KALU** | **Kalix** | **3.17 292** | P | | **Pn** | 09 03 16.0 | **+1.5** | |
| **KALU** | **Kalix** | **3.17 292** | *e*PB | | **Pn** | 09 03 17.2 | **+2.6** | |
| **KAF** | **Kangasniemi** | **3.33 216** | *e*PB | | **Pn** | 09 03 17.9 | **+1.2** | |
| **KEF** | **Keuruu** | **3.69 226** | *e*PB | | **Pn** | 09 03 23.2 | **+1.6** | |
| **PAJU** | **Pajala** | **3.74 309** | P | | **Pn** | 09 03 23.6 | **+1.2** | |
| **SJUU** | **Sjulsmark** | **3.82 284** | P | | **Pn** | 09 03 24.4 | **+1.0** | |
| SJUU | | | S | | **Sn** | **09 04 08.9** | **0.0** | |
| **ERTU** | **Ertsjaerv** | **3.85 300** | P | | **Pn** | 09 03 25.0 | **+1.2** | |
| **FIA0** | **FINESS Array S** | **3.96 213** | Pn | | **Pn** | **09 03 25.4** | **0.0** | |
| | baz=27,slow=14 | | | | | | | |
| FIA0 | | | Pg | | **Pb** | **09 03 34.8** | **+0.7** | |
| | baz=26,slow=16 | | | | | | | |
| FIA0 | | | Sn | | **Sn** | **09 04 11.6** | **-0.9** | |
| | baz=42,slow=22 | | | | | | | |
| FIA0 | | | Lg | | Lg | 09 04 26.4 | | |
| | baz=21,slow=37 | | | | | | | |
| **FIA0** | **FINESS Array S** | **3.96 213** | Pn | | **Pn** | **09 03 25.4** | **0.0** | |
| | SNR=50 | | | | | | | |
| **FIA0** | **FINESS Array S** | **3.96 213** | Pg | | **Pb** | **09 03 34.8** | **+0.7** | |
| | SNR=90 | | | | | | | |
| FIA0 | | | Sn | | **Sn** | **09 04 11.6** | **-0.9** | |
| | SNR=50 | | | | | | | |
| FIA0 | | | Lg | | Lg | 09 04 26.5 | | |
| | SNR=26 | | | | | | | |
| **FINES** | **FINESS Array B** | **3.96 213** | Pn | | **Pn** | **09 03 25.6** | **+0.2** | |
| | comp=Z,0.4nm,0.3s,baz=40,slow=15,SNR=8.1 | | | | | | | |
| FINES | | | Pg | | **Pb** | **09 03 34.5** | **+0.4** | |
| | comp=Z,0.7nm,0.3s,baz=34,slow=16,SNR=12 | | | | | | | |
| FINES | | | Lg | | Lg | 09 04 26.8 | | |
| | comp=Z,2.4nm,0.3s,baz=34,slow=28,SNR=11 | | | | | | | |
| **HARU** | **Harads** | **4.19 293** | P | | **Pn** | **09 03 30.6** | **+2.1** | |
| **MASU** | **Masugnsbyn** | **4.34 311** | P | | **Pn** | **09 03 32.7** | **+2.1** | |
| **LILU** | **Lilltraesk** | **4.54 280** | P | | **Pn** | **09 03 34.3** | **+1.0** | |
| LILU | | | S | | **Sn** | **09 04 27.9** | **+1.2** | |
| **DUNU** | **Dundret** | **4.66 304** | P | | **Pn** | **09 03 37.0** | **+1.9** | |
| **LANU** | **Lannavaara** | **4.70 317** | P | | **Pn** | **09 03 36.3** | **+0.8** | |
| **ARA0** | **ARCESS Array S** | **5.10 340** | Pn | | **Pn** | **09 03 40.8** | **-0.2** | |
| | baz=153,slow=14 | | | | | | | |
| ARA0 | | | Sn | | **Sn** | **09 04 38.7** | **-1.8** | |
| | baz=159,slow=28 | | | | | | | |
| ARA0 | | | Lg | | Lg | 09 04 59.8 | | |
| | baz=154,slow=37 | | | | | | | |
| **ARA0** | **ARCESS Array S** | **5.10 340** | Pn | | **Pn** | **09 03 40.8** | **-0.2** | |
| | baz=153,slow=14 | | | | | | | |
| ARA0 | | | Sn | | **Sn** | **09 04 38.7** | **-1.8** | |
| | baz=159,slow=28 | | | | | | | |
| ARA0 | | | Lg | | Lg | 09 04 59.8 | | |
| | baz=154,slow=37 | | | | | | | |
| **ARA0** | **ARCESS Array S** | **5.10 340** | Pn | | **Pn** | **09 03 40.8** | **-0.2** | |
| | SNR=50 | | | | | | | |
| ARA0 | | | Sn | | **Sn** | **09 04 38.7** | **-1.8** | |
| | SNR=50 | | | | | | | |
| ARA0 | | | Lg | | Lg | 09 04 59.8 | | |
| | SNR=47 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **5.10 340** | Pn | | **Pn** | **09 03 41.1** | **0.0** | |
| | comp=Z,1.2nm,0.3s,baz=155,slow=13,SNR=92 | | | | | | | |
| ARCES | | | Sn | | **Sn** | **09 04 39.7** | **-0.8** | |
| | comp=Z,0.7nm,0.3s,baz=154,slow=25,SNR=4.4 | | | | | | | |
| ARCES | | | Lg | | Lg | 09 05 00.0 | | |
| | comp=Z,2.2nm,0.3s,baz=148,slow=35,SNR=18 | | | | | | | |
| **KUA** | **Kurravaara** | **5.14 312** | P | | **Pn** | **09 03 43.0** | **+1.3** | |
| **RATU** | **Laukkuluspa** | **5.32 309** | P | | **Pn** | **09 03 45.7** | **+1.7** | |
| **NIKU** | **Nikkaluokta** | **5.52 308** | P | | **Pn** | **09 03 48.3** | **+1.4** | |
| **HFS** | **Hagfors** | **9.09 246** | Pn | | **Pn** | **09 04 35.3** | **-0.4** | |
| | baz=55,slow=12 | | | | | | | |
| **HFS** | **Hagfors** | **9.09 246** | Pn | | **Pn** | **09 04 36.3** | **+0.6** | |
| | comp=Z,0.1nm,0.3s,baz=58,slow=14,SNR=4.9 | | | | | | | |
| **HFS** | **Hagfors** | **9.09 246** | Pn | | **Pn** | **09 04 35.3** | **-0.4** | |
| | baz=55,slow=12 | | | | | | | |
| **HFS** | **Hagfors** | **9.09 246** | Pn | | **Pn** | **09 04 35.3** | **-0.4** | |
| | SNR=50 | | | | | | | |
| **NB2** | **NORSAR Subarra** | **9.57 255** | Pn | | **Pn** | **09 04 44.0** | **+1.7** | |
| | baz=62,slow=16 | | | | | | | |
| **NB2** | **NORSAR Subarra** | **9.57 255** | Pn | | **Pn** | **09 04 44.0** | **+1.7** | |
| | baz=62,slow=16 | | | | | | | |
| **NOA** | **NORSAR Array B** | **9.57 255** | Pn | | **Pn** | **09 04 43.1** | **+0.7** | |
| | comp=Z,0.1nm,0.3s,baz=64,slow=19,SNR=3.5 | | | | | | | |
| NOA | | | Lg | | Lg | 09 07 22.2 | | |
| | comp=Z,0.3nm,0.3s,baz=124,slow=22,SNR=3.5 | | | | | | | |

**IDC 28 09:04:19.5±3.6, 55°40N×85°98E, h0km, mb1 2.7/2, mb1mx2.7/49, mbtmp2.7/2, ML2.5/2, Error ellipse: s-maj=28.7km s-min=23.8km az=24.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **I46RU** | **ZALESOVO INFRA** | **1.60 205** | | *i* | | 09 14 47.2 | |
| | baz=25,slow=355,SNR=5.5 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **1.60 205** | | Pg | Pn | 09 04 47.1 | -1.9 |
| | 3.6nm,0.3s,baz=25,slow=14,SNR=15 | | | | | | |
| ZALV | | | | Lg | Lg | 09 05 10.6 | |
| | 4.0nm,0.3s,baz=23,slow=29,SNR=9.6 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **6.56 226** | | Pn | Pn | 09 05 56.8 | -0.3 |
| | 0.1nm,0.3s,baz=44,slow=14,SNR=3.3 | | | | | | |
| KURBB | | | | Lg | Lg | 09 07 48.0 | |
| | 0.0nm,0.3s,baz=46,slow=32,SNR=3.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **8.92 197** | | Pn | Pn | 09 06 30.3 | +0.7 |
| | 0.1nm,0.3s,baz=26,slow=9.9,SNR=4.4 | | | | | | |

*NEIC **28** 09:06:30.2±0.0, 37°02S×176°66E, h202km, MG4.0(WEL), After WEL.*

**WEL 28 09:06:30.4±0.3, 37°03S×176°65E, h201km±3km, ML4.0/29, 11C-3D, Error ellipse: s-maj=4.8km s-min=4.6km az=90.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MARZ** | **Manawahe** | **0.95 179** | | *e*PN | Pn | 09 07 01.5 | +1.6 |
| **HAZ** | **Te Kaha** | **1.15 129** | | ⇑PN | Pn | 09 07 01.4 | +0.1 |
| HAZ | | | | *e*SN | S | 09 07 24.1 | -1.0 |
| HAZ | | | | AML | AML | 09 07 27.4 | |
| HAZ | | | | AML | AML | 09 07 27.8 | |
| **RUGZ** | **Raukumara Rang** | **1.24 139** | | PN | Pn | 09 07 01.6 | -0.5 |
| **URZ** | **Urewera** | **1.28 164** | | Pn | Pn | 09 07 02.4 | +0.1 |
| **URZ** | **Urewera** | **1.28 164** | | ⇑PN | Pn | 09 07 02.4 | +0.1 |
| URZ | | | | *e*SN | S | 09 07 27.3 | +0.4 |
| **RRRZ** | **Republican Roa** | **1.31 185** | | Pn | Pn | 09 07 03.6 | +1.1 |
| **RRRZ** | **Republican Roa** | **1.31 185** | | *e*PN | Pn | 09 07 03.6 | +1.1 |
| **PKGZ** | **Pakihiroa** | **1.42 128** | | PN | Pn | 09 07 03.8 | +0.3 |
| PKGZ | | | | AML | AML | 09 07 05.0 | |
| PKGZ | | | | AML | AML | 09 07 32.4 | |
| **MXZ** | **Matakaoa Point** | **1.42 112** | | Pn | Pn | 09 07 03.5 | +0.1 |
| **MXZ** | **Matakaoa Point** | **1.42 112** | | ⇑PN | Pn | 09 07 03.5 | +0.1 |
| MXZ | | | | SN | S | 09 07 29.4 | +0.7 |
| MXZ | | | | AML | AML | 09 07 32.8 | |
| **MUGZ** | **Murupara** | **1.45 176** | | ⇓PN | Pn | 09 07 04.1 | +0.4 |
| MUGZ | | | | SN | S | 09 07 29.8 | +0.4 |
| **MWZ** | **Matawai** | **1.47 152** | | Pn | Pn | 09 07 03.8 | -0.1 |
| **MWZ** | **Matawai** | **1.47 152** | | ⇑PN | Pn | 09 07 03.8 | -0.1 |
| MWZ | | | | SN | S | 09 07 30.2 | +0.4 |
| MWZ | | | | AML | AML | 09 07 31.9 | |
| **ALRZ** | **Allen Road** | **1.55 189** | | Pn | Pn | 09 07 05.5 | +0.9 |
| **ALRZ** | **Allen Road** | **1.55 189** | | PN | Pn | 09 07 05.5 | +0.9 |
| **TWGZ** | **Tauwhareparae** | **1.56 138** | | Pn | Pn | 09 07 05.3 | +0.6 |
| **TWGZ** | **Tauwhareparae** | **1.56 138** | | ⇓PN | Pn | 09 07 05.3 | +0.6 |
| TWGZ | | | | AML | AML | 09 07 34.3 | |
| TWGZ | | | | AML | AML | 09 07 34.9 | |
| **RAGZ** | **Rawiri** | **1.58 158** | | Pn | Pn | 09 07 05.0 | 0.0 |
| RAGZ | | | | Sn | S | 09 07 32.3 | +0.7 |
| **RAGZ** | **Rawiri** | **1.58 158** | | PN | Pn | 09 07 05.0 | 0.0 |
| RAGZ | | | | SN | S | 09 07 32.3 | +0.7 |
| RAGZ | | | | AML | AML | 09 07 35.5 | |
| **RTZ** | **Ruatahuna** | **1.60 171** | | ⇑PN | Pn | 09 07 05.1 | 0.0 |
| **WMGZ** | **Waiomatatini S** | **1.61 120** | | Pn | Pn | 09 07 05.2 | +0.1 |
| **WMGZ** | **Waiomatatini S** | **1.61 120** | | ⇑PN | Pn | 09 07 05.2 | +0.1 |
| WMGZ | | | | AML | AML | 09 07 33.5 | |
| WMGZ | | | | AML | AML | 09 07 34.3 | |
| **PUZ** | **Puketiti** | **1.64 130** | | Pn | Pn | 09 07 05.3 | -0.2 |
| **PUZ** | **Puketiti** | **1.64 130** | | ⇑PN | Pn | 09 07 05.3 | -0.2 |
| PUZ | | | | AML | AML | 09 07 35.2 | |
| PUZ | | | | AML | AML | 09 07 36.0 | |
| **TKGZ** | **Te Karaka** | **1.69 146** | | Pn | Pn | 09 07 05.8 | -0.1 |
| **TKGZ** | **Te Karaka** | **1.69 146** | | ⇑PN | Pn | 09 07 05.8 | -0.1 |
| TKGZ | | | | AML | AML | 09 07 36.4 | |
| TKGZ | | | | AML | AML | 09 07 38.8 | |
| **MTHZ** | **Maungataniwha** | **1.82 175** | | PN | Pn | 09 07 07.1 | -0.1 |
| **SNGZ** | **Shannon Statio** | **1.83 163** | | Pn | Pn | 09 07 07.3 | 0.0 |
| **SNGZ** | **Shannon Statio** | **1.83 163** | | PN | Pn | 09 07 07.3 | 0.0 |
| SNGZ | | | | AML | AML | 09 07 37.7 | |
| SNGZ | | | | AML | AML | 09 07 39.0 | |
| **RIGZ** | **Rimuhau** | **1.89 153** | | PN | Pn | 09 07 08.1 | +0.2 |
| RIGZ | | | | AML | AML | 09 07 40.0 | |
| RIGZ | | | | AML | AML | 09 07 40.6 | |
| **NMHZ** | **Naumai** | **2.07 177** | | Pn | Pn | 09 07 09.9 | +0.2 |
| **NMHZ** | **Naumai** | **2.07 177** | | PN | Pn | 09 07 09.9 | +0.2 |
| NMHZ | | | | AML | AML | 09 07 41.9 | |
| NMHZ | | | | AML | AML | 09 07 43.9 | |
| **WHHZ** | **Waihua** | **2.09 168** | | PN | Pn | 09 07 09.9 | 0.0 |
| WHHZ | | | | AML | AML | 09 07 43.5 | |
| WHHZ | | | | AML | AML | 09 07 45.9 | |
| **PRGZ** | **Paritu Road** | **2.12 153** | | Pn | Pn | 09 07 09.9 | -0.3 |
| **PRGZ** | **Paritu Road** | **2.12 153** | | PN | Pn | 09 07 09.9 | -0.3 |
| PRGZ | | | | AML | AML | 09 07 44.6 | |
| PRGZ | | | | AML | AML | 09 07 50.2 | |
| **BKZ** | **Black Stump Fm** | **2.14 183** | | Pn | Pn | 09 07 09.8 | -0.6 |
| **BKZ** | **Black Stump Fm** | **2.14 183** | | ⇑PN | Pn | 09 07 09.8 | -0.6 |
| BKZ | | | | AML | AML | 09 07 41.0 | |
| BKZ | | | | AML | AML | 09 07 42.5 | |
| **KNZ** | **Kokohu** | **2.15 158** | | Pn | Pn | 09 07 09.7 | -0.8 |
| **KNZ** | **Kokohu** | **2.15 158** | | ⇑PN | Pn | 09 07 09.6 | -0.8 |
| **ARHZ** | **Aropaoanui** | **2.25 173** | | PN | Pn | 09 07 11.3 | -0.2 |
| ARHZ | | | | AML | AML | 09 07 46.0 | |
| ARHZ | | | | AML | AML | 09 07 46.2 | |
| **OTVZ** | **Oturere** | **2.27 200** | | Pn | Pn | 09 07 12.5 | +0.6 |
| **OTVZ** | **Oturere** | **2.27 200** | | PN | Pn | 09 07 12.5 | +0.6 |
| **NGZ** | **Ngauruhoe** | **2.30 201** | | Pn | Pn | 09 07 13.3 | +1.1 |
| **NGZ** | **Ngauruhoe** | **2.30 201** | | PN | Pn | 09 07 13.3 | +1.1 |
| **MHGZ** | **Mahia Peninsul** | **2.34 155** | | Pn | Pn | 09 07 12.2 | -0.3 |
| **MHGZ** | **Mahia Peninsul** | **2.34 155** | | PN | Pn | 09 07 12.2 | -0.3 |
| **TUVZ** | **Tukino** | **2.37 199** | | Pn | Pn | 09 07 13.2 | +0.2 |
| **TUVZ** | **Tukino** | **2.37 199** | | PN | Pn | 09 07 13.2 | +0.2 |
| **FWVZ** | **Far West T-bar** | **2.38 201** | | Pn | Pn | 09 07 14.0 | +0.7 |
| **FWVZ** | **Far West T-bar** | **2.38 201** | | PN | Pn | 09 07 14.0 | +0.7 |
| **KWHZ** | **Kaweka Forest** | **2.40 184** | | ⇓PN | Pn | 09 07 12.8 | -0.4 |
| KWHZ | | | | AML | AML | 09 07 46.9 | |
| KWHZ | | | | AML | AML | 09 07 48.4 | |
| **MCHZ** | **McNeill Hill** | **2.41 179** | | Pn | Pn | 09 07 13.1 | -0.3 |
| **MCHZ** | **McNeill Hill** | **2.41 179** | | PN | Pn | 09 07 13.1 | -0.3 |
| MCHZ | | | | AML | AML | 09 07 51.2 | |
| MCHZ | | | | AML | AML | 09 07 55.5 | |
| **TRVZ** | **Turoa** | **2.43 201** | | Pn | Pn | 09 07 14.1 | +0.4 |
| **TRVZ** | **Turoa** | **2.43 201** | | PN | Pn | 09 07 14.1 | +0.4 |
| **WNVZ** | **Wahianoa** | **2.44 200** | | Pn | Pn | 09 07 13.7 | -0.1 |
| **WNVZ** | **Wahianoa** | **2.44 200** | | PN | Pn | 09 07 13.7 | -0.1 |
| **MOVZ** | **Moawhango** | **2.48 196** | | Pn | Pn | 09 07 13.8 | -0.3 |
| **MOVZ** | **Moawhango** | **2.48 196** | | PN | Pn | 09 07 13.8 | -0.3 |
| **BHHZ** | **Black Hill Sta** | **2.50 191** | | Pn | Pn | 09 07 13.6 | -0.8 |
| **BHHZ** | **Black Hill Sta** | **2.50 191** | | PN | Pn | 09 07 13.5 | -0.8 |
| **MTVZ** | **Mangateitei** | **2.53 201** | | Pn | Pn | 09 07 14.9 | +0.2 |
| **KRHZ** | **Kereru** | **2.62 185** | | PN | Pn | 09 07 14.9 | -0.8 |
| KRHZ | | | | AML | AML | 09 07 52.0 | |
| KRHZ | | | | AML | AML | 09 07 54.2 | |
| **CKHZ** | **Cape Kidnapper** | **2.65 173** | | Pn | Pn | 09 07 15.2 | -0.7 |
| **CKHZ** | **Cape Kidnapper** | **2.65 173** | | PN | Pn | 09 07 15.2 | -0.7 |
| CKHZ | | | | AML | AML | 09 07 52.9 | |
| CKHZ | | | | AML | AML | 09 07 56.6 | |
| **KAHZ** | **Kahuranaki** | **2.77 176** | | Pn | Pn | 09 07 16.4 | -0.9 |
| **KAHZ** | **Kahuranaki** | **2.77 176** | | PN | Pn | 09 07 16.4 | -0.9 |
| KAHZ | | | | AML | AML | 09 07 56.7 | |
| KAHZ | | | | AML | AML | 09 07 57.0 | |
| **PNHZ** | **Pukenui** | **2.90 187** | | Pn | Pn | 09 07 17.5 | -1.5 |
| **PNHZ** | **Pukenui** | **2.90 187** | | PN | Pn | 09 07 17.5 | -1.5 |
| PNHZ | | | | AML | AML | 09 07 57.1 | |
| **PXZ** | **Pawanui** | **3.00 177** | | Pn | Pn | 09 07 18.6 | -1.4 |
| **PXZ** | **Pawanui** | **3.00 177** | | PN | Pn | 09 07 18.6 | -1.4 |
| PXZ | | | | AML | AML | 09 08 00.2 | |
| PXZ | | | | AML | AML | 09 08 00.2 | |
| **WAZ** | **Wanganui** | **3.02 205** | | Pn | Pn | 09 07 20.0 | -0.2 |
| **WAZ** | **Wanganui** | **3.02 205** | | PN | Pn | 09 07 20.0 | -0.2 |
| **WPHZ** | **Waipukurau** | **3.03 183** | | Pn | Pn | 09 07 19.4 | -1.0 |
| **WPHZ** | **Waipukurau** | **3.03 183** | | PN | Pn | 09 07 19.4 | -1.0 |
| **TSZ** | **Takapari Road** | **3.07 190** | | Pn | Pn | 09 07 19.3 | -1.6 |
| **TSZ** | **Takapari Road** | **3.07 190** | | PN | Pn | 09 07 19.3 | -1.6 |
| **PRHZ** | **Porangahau** | **3.23 180** | | Pn | Pn | 09 07 21.1 | -1.7 |
| **PRHZ** | **Porangahau** | **3.23 180** | | PN | Pn | 09 07 21.1 | -1.7 |
| PRHZ | | | | AML | AML | 09 08 03.8 | |
| PRHZ | | | | AML | AML | 09 08 05.0 | |
| **DVHZ** | **Dannevirke** | **3.29 187** | | Pn | Pn | 09 07 21.3 | -2.1 |
| **DVHZ** | **Dannevirke** | **3.29 187** | | PN | Pn | 09 07 21.3 | -2.1 |
| **ANWZ** | **Angora Road** | **3.43 182** | | PN | Pn | 09 07 23.4 | -1.7 |
| ANWZ | | | | AML | AML | 09 08 07.5 | |
| ANWZ | | | | AML | AML | 09 08 09.2 | |
| **POWZ** | **Post Office Ro** | **3.43 191** | | Pn | Pn | 09 07 23.2 | -1.9 |
| **POWZ** | **Post Office Ro** | **3.43 191** | | PN | Pn | 09 07 23.2 | -1.9 |
| **PRWZ** | **Pori Road** | **3.56 188** | | Pn | Pn | 09 07 24.9 | -1.8 |
| **PRWZ** | **Pori Road** | **3.56 188** | | PN | Pn | 09 07 24.9 | -1.8 |
| PRWZ | | | | AML | AML | 09 08 15.6 | |
| **BFZ** | **Birch Farm** | **3.66 185** | | Pn | Pn | 09 07 25.6 | -2.4 |
| **BFZ** | **Birch Farm** | **3.66 185** | | PN | Pn | 09 07 25.6 | -2.4 |
| **MRZ** | **Mangatainoka R** | **3.72 193** | | Pn | Pn | 09 07 26.0 | -2.7 |
| **MRZ** | **Mangatainoka R** | **3.72 193** | | ⇑PN | Pn | 09 07 26.0 | -2.7 |
| MRZ | | | | *e*SN | S | 09 08 10.4 | -3.5 |
| MRZ | | | | AML | AML | 09 08 12.7 | |
| **TIWZ** | **Tintock** | **3.79 189** | | Pn | Pn | 09 07 27.1 | -2.4 |
| **TIWZ** | **Tintock** | **3.79 189** | | PN | Pn | 09 07 27.1 | -2.4 |
| **CPWZ** | **Castlepoint** | **3.89 185** | | Pn | Pn | 09 07 29.6 | -1.2 |
| **CPWZ** | **Castlepoint** | **3.89 185** | | PN | Pn | 09 07 29.6 | -1.2 |
| **OGWZ** | **Otaki Gorge** | **3.95 197** | | Pn | Pn | 09 07 29.1 | -2.5 |
| **OGWZ** | **Otaki Gorge** | **3.95 197** | | PN | Pn | 09 07 29.1 | -2.5 |
| OGWZ | | | | AML | AML | 09 08 18.1 | |
| OGWZ | | | | AML | AML | 09 08 19.2 | |
| **KIW** | **Kapiti Island** | **4.06 199** | | Pn | Pn | 09 07 30.0 | -2.9 |
| **KIW** | **Kapiti Island** | **4.06 199** | | PN | Pn | 09 07 30.0 | -2.9 |
| **TMWZ** | **Te Maipa** | **4.11 188** | | Pn | Pn | 09 07 31.0 | -2.6 |
| **TMWZ** | **Te Maipa** | **4.11 188** | | PN | Pn | 09 07 31.0 | -2.6 |
| **CAW** | **Cannon Point** | **4.25 196** | | Pn | Pn | 09 07 32.0 | -3.3 |
| **CAW** | **Cannon Point** | **4.25 196** | | PN | Pn | 09 07 32.0 | -3.3 |
| **DUWZ** | **D'Urville Isla** | **4.33 209** | | Pn | Pn | 09 07 33.5 | -2.7 |
| **DUWZ** | **D'Urville Isla** | **4.33 209** | | PN | Pn | 09 07 33.5 | -2.7 |
| **TRWZ** | **Traveller** | **4.43 189** | | Pn | Pn | 09 07 33.7 | -3.8 |
| **TRWZ** | **Traveller** | **4.43 189** | | PN | Pn | 09 07 33.7 | -3.8 |
| **WEL** | **Wellington** | **4.49 198** | | Pn | Pn | 09 07 36.1 | -2.2 |
| **MSWZ** | **Moikau Station** | **4.51 194** | | Pn | Pn | 09 07 35.3 | -3.3 |
| **MSWZ** | **Moikau Station** | **4.51 194** | | PN | Pn | 09 07 35.3 | -3.3 |
| **TCW** | **Tory Channel** | **4.56 203** | | Pn | Pn | 09 07 36.5 | -2.7 |
| **TCW** | **Tory Channel** | **4.56 203** | | PN | Pn | 09 07 36.5 | -2.7 |
| **BHW** | **Baring Head** | **4.59 197** | | Pn | Pn | 09 07 35.9 | -3.5 |
| **BHW** | **Baring Head** | **4.59 197** | | PN | Pn | 09 07 35.9 | -3.5 |
| **PLWZ** | **Palliser** | **4.66 193** | | Pn | Pn | 09 07 36.9 | -3.6 |
| **PLWZ** | **Palliser** | **4.66 193** | | PN | Pn | 09 07 36.9 | -3.6 |
| **TUWZ** | **Tuamarina** | **4.87 205** | | Pn | Pn | 09 07 40.0 | -3.1 |
| **TUWZ** | **Tuamarina** | **4.87 205** | | PN | Pn | 09 07 40.0 | -3.1 |
| TUWZ | | | | AML | AML | 09 08 39.0 | |
| **QRZ** | **Quartz Range** | **4.97 219** | | Pn | Pn | 09 07 41.1 | -3.3 |
| **QRZ** | **Quartz Range** | **4.97 219** | | PN | Pn | 09 07 41.1 | -3.3 |
| **BSWZ** | **Blackbirch Sta** | **5.15 204** | | Pn | Pn | 09 07 43.0 | -3.0 |
| **THZ** | **Tophouse** | **5.55 210** | | Pn | Pn | 09 07 48.6 | -3.2 |
| **THZ** | **Tophouse** | **5.55 210** | | PN | Pn | 09 07 48.6 | -3.2 |
| **KHZ** | **Kahutara** | **5.89 203** | | Pn | Pn | 09 07 52.3 | -3.9 |
| **KHZ** | **Kahutara** | **5.89 203** | | PN | Pn | 09 07 52.3 | -3.9 |
| **DSZ** | **Denniston Nort** | **6.02 217** | | Pn | Pn | 09 07 54.9 | -3.1 |
| **LTZ** | **Lake Taylor** | **6.66 209** | | Pn | Pn | 09 08 01.9 | -4.3 |
| **LTZ** | **Lake Taylor** | **6.66 209** | | PN | Pn | 09 08 01.9 | -4.3 |
| **INZ** | **Inchbonnie** | **6.96 214** | | PN | Pn | 09 08 06.3 | -3.7 |
| **OXZ** | **Oxford** | **7.21 208** | | Pn | Pn | 09 08 07.9 | -5.4 |
| **OXZ** | **Oxford** | **7.21 208** | | PN | Pn | 09 08 07.9 | -5.4 |

*NIED **28** 09:18:00, 43°50N×147°10E, h65km, Mw4.3 Best double couple: M0 3.16000×10^15 NP1:φ=139.00000°, δ=34.00000°, λ=-13.00000°. NP2:φ=239.00000°, δ=83.00000°, λ=-123.00000°.*

*IDC **28** 09:18:30.5±2.1, 43°75N×147°05E, h46km±19km, mb4.2/32, mb1 4.3/38, mb1mx4.2/57, mbtmp4.4/38, ML3.5/3, MS3.0/6, Ms1 3.0/6, ms1mx2.8/42, Error ellipse: s-maj=14.4km s-min=11.6km az=147.0*

*BJI **28** 09:18:30.6, 43°68N×146°97E, h61km, mb4.7/28, mB5.0/13, Ms4.5/10, Ms7 4.3/10*

*ISCJB **28** 09:18:31.0±0.4, 43°66N±0°03×147°10E±0°04, h66km±3km, mb4.5/77, Error ellipse: s-maj=6.1km s-min=3.5km az=140.0*

*MOS **28** 09:18:31.9±1.2, 43°81N×146°98E, h67km, mb4.9/35, Error ellipse: s-maj=7.9km s-min=5.0km az=113.6*

*MOS Felt (III-IV) at Malokuril'skoye, Yuzhno-Kuril'sk.*

*JMA **28** 09:18:31.8±0.2, 43°53N×147°11E, h51km±4km, M4.2*

*JMA Felt II J1.*

*SKHL **28** 09:18:32.0±0.3, 43°55N×147°03E, h81km±2km, mb5.4/5, msh6.3/3*

*SKHL Felt (III-IV) at Malokurilskoe,(II) at Yushno-Kurilsk.*

*NEIC **28** 09:18:32.0±0.6, 43°70N×147°10E, h63km±5km, mb4.7/25, Error ellipse: s-maj=6.8km s-min=4.3km az=142.0*

*NEIC Recorded [2 JMA] in eastern Hokkaido.*

**ISC 28 09:18:31.6±0.6, 43°67N±0°05×147°08E±0°04, h59km±4km, n276, σ1$20/305, mb4.6/81, MS3.7/5, 26C-20D, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SHO** | **Shikotan** | **0.27 318** | | *d*PN | **Pn** | **09 18 41.5** | **+0.2** |
| SHO | | | | *i* S | **Sn** | **09 18 48.7** | **+0.3** |
| SHO | | | | pmax | pmax | | |
| | comp=E,6μm,0.5s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=Z,27μm,0.5s | | | | | | |
| SHO | | | | pmax | pmax | | |
| | comp=N,7μm,0.2s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=N,82μm,0.3s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=E,61μm,0.6s | | | | | | |
| **SHO** | **Shikotan** | **0.27 318** | | *eP* | **Pn** | **09 18 41.6** | **+0.2** |
| SHO | | | | AMB | AMB | 09 18 41.7 | |
| | comp=E,13μm,0.3s | | | | | | |
| SHO | | | | *i* S | **Sn** | **09 18 48.9** | **+0.5** |
| SHO | | | | A | A | 09 18 49.8 | |
| | comp=E,46μm,0.2s | | | | | | |
| SHO | | | | A | A | 09 18 49.8 | |
| | comp=E,68μm,0.2s | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **0.95 293** | | *d*PN | **Pn** | **09 18 49.7** | **+0.7** |
| YUK | | | | *i* S | **Sn** | **09 19 02.7** | **+0.9** |
| YUK | | | | pmax | pmax | | |
| | comp=Z,10μm,0.2s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,21μm,0.2s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=E,20μm,0.2s | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **0.95 293** | | *i* P | **Pn** | **09 18 49.5** | **+0.5** |
| YUK | | | | AMB | AMB | 09 18 49.6 | |
| | comp=E,10μm,0.2s | | | | | | |
| YUK | | | | *i* S | **Sn** | **09 19 02.8** | **+0.9** |
| YUK | | | | A | A | 09 19 04.6 | |
| | comp=E,21μm,0.2s | | | | | | |
| YUK | | | | A | A | 09 19 04.6 | |
| | comp=E,20μm,0.2s | | | | | | |
| **GRPR** | **Tuman** | **1.00 289** | | *i* PN | **Pn** | **09 18 50.3** | **+0.7** |
| GRPR | | | | *i* S | **Sn** | **09 19 04.4** | **+1.5** |
| **GRPR** | **Tuman** | **1.00 289** | | *i* P | **Pn** | **09 18 50.3** | **+0.7** |
| GRPR | | | | *i* S | **Sn** | **09 19 04.4** | **+1.5** |
| **LAGR** | **Lagunnoye** | **1.01 293** | | *d*PN | **Pn** | **09 18 50.3** | **+0.6** |
| LAGR | | | | *i* S | **Sn** | **09 19 03.8** | **+0.6** |
| **LAGR** | **Lagunnoye** | **1.01 293** | | *i* P | **Pn** | **09 18 50.3** | **+0.6** |
| LAGR | | | | *i* S | **Sn** | **09 19 03.8** | **+0.6** |
| **NEM2** | **Nemuro 2** | **1.02 253** | | P | **Pn** | **09 18 50.0** | **+0.2** |
| NEM2 | | | | *e*S | **Sn** | **09 19 03.3** | **-0.1** |
| **GLVR** | **Golovnino** | **1.13 274** | | *i* PN | **Pn** | **09 18 52.3** | **+1.0** |
| GLVR | | | | *i* S | **Sn** | **09 19 07.7** | **+1.7** |
| **GLVR** | **Golovnino** | **1.13 274** | | *eP* | **Pn** | **09 18 52.0** | **+0.7** |
| GLVR | | | | *i* S | **Sn** | **09 19 07.7** | **+1.7** |
| **JRA** | **Rausu** | **1.44 281** | | P | **Pn** | **09 18 56.8** | **+1.3** |
| JRA | | | | *e*S | **Sn** | **09 19 15.7** | **+2.3** |
| **KUR** | **Kuril'sk** | **1.66 20** | | *d*PN | **Pn** | **09 18 59.0** | **+0.6** |
| KUR | | | | *i* S | **Sn** | **09 19 19.0** | **+0.4** |
| KUR | | | | pmax | pmax | | |
| | comp=E,398nm,0.2s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=Z,773nm,0.2s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=N,485nm,0.3s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,3μm,0.6s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=N,3μm,0.2s | | | | | | |
| **KUR** | **Kuril'sk** | **1.66 20** | | *i* P | **Pn** | **09 18 59.0** | **+0.6** |
| KUR | | | | AMB | AMB | 09 19 01.0 | |
| | comp=N,960nm,0.2s | | | | | | |
| KUR | | | | *i* S | **Sn** | **09 19 19.5** | **+0.9** |
| KUR | | | | A | A | 09 19 20.6 | |
| | comp=N,4μm,0.3s | | | | | | |
| KUR | | | | A | A | 09 19 20.6 | |
| | comp=N,3μm,0.3s | | | | | | |
| **JNK** | **Nakash** | **1.72 268** | | P | **Pn** | **09 18 59.9** | **+0.7** |
| JNK | | | | *e*S | **Sn** | **09 19 21.4** | **+1.3** |
| **JAK** | **Akkeshi** | **1.87 250** | | P | **Pn** | **09 19 01.4** | **+0.2** |
| JAK | | | | *e*S | **Sn** | **09 19

MAJO Matsushiro 9.84 227 ePN Pn 09 20 50.1 -0.2
MAJO Matsushiro 9.84 227 eP Pn 09 20 49.3 -1.0
MAJO Matsushiro 9.84 227 ePn Pn 09 20 50.1 -0.2
OKH Okha 10.26 346 eP Pn 09 20 47.6 -8.3
NKL Nikolayevsk 10.39 338 ePN Pn 09 21 00.5 +2.8
NKL Nikolayevsk 10.39 338 eP Pn 09 21 00.5 +2.8
USRK Ussuriysk Ar. 10.90 278 P Pn 09 21 03.3 -1.4
comp=Z,0.1nm,0.3s,baz=71,slow=11,SNR=2.3
VLA Vladivostok 11.07 272⇑ePN Pn 09 21 06.8 -0.3
VLA Vladivostok 11.07 272 eP Pn 09 21 06.8 -0.3
PEA0B Petropavlovsk- 11.78 33 ePn Pn 09 21 14.5 -2.2
PETK Petropavlovsk- 11.78 33 eP Pn 09 21 15.5 -1.1
comp=Z,1.1nm,0.3s,baz=192,slow=8.6,SNR=17
PETK Petropavlovsk- 11.78 33 ePn Pn 09 21 14.8 -1.9
KLR Kul'dur 11.94 303 P Pn 09 21 22.0 +3.1
comp=Z,0.0nm,0.3s,baz=117,slow=15,SNR=3.4
KLR LR LR 09 25 57.6
comp=Z,12nm,18.6s,baz=124,slow=38
KLR Kul'dur 11.94 303⇑ePN Pn 09 21 17.7 -1.2
JHJ2 Mitsune 11.98 211 ePn Pn 09 21 20.4 +0.9
EKMR Ekimchan 13.27 320 eP Pn 09 21 38.0 +1.0
EKMR AMB AMB 09 21 45.2
comp=Z,5.0nm,0.7s
KSRS Korea Array 15.81 253 P Pn 09 22 10.0 -0.4
comp=Z,0.2nm,0.3s,baz=72,slow=12,SNR=3.5
KSRS LR LR 09 28 08.9
comp=Z,26nm,21.2s,baz=35,slow=36
KSAR Wonju Array Be 15.85 253 P Pn 09 22 10.0 -0.8
KSAR Wonju Array Be 15.85 253 P Pn 09 22 10.0 -0.8
MA2 Magadan 16.09 7 P Pn 09 22 13.0 -0.7
comp=Z,2.0nm,0.3s,baz=182,slow=7.9,SNR=13
MA2 LR LR 09 28 08.1
comp=Z,57nm,19.0s,baz=194,slow=36
MA2 Magadan 16.09 7⇓eP P 09 22 15.0 -1.1
BMKR Bomnak 16.20 319 eP Pn 09 22 14.0 -1.2
ZEA Zeya 16.46 315 eP Pn 09 22 18.0 -0.4
ZEA AMB AMB 09 22 35.0
comp=Z,18nm,1.0s
KROS Kirovskiy 16.95 316 eP Pn 09 22 25.0 +0.4
SEY Seymchan 19.54 7 P P 09 22 52.4 -1.6
comp=Z,1.2nm,0.3s,baz=184,slow=8.3,SNR=15
SEY Seymchan 19.54 7⇓eP P 09 22 53.2 -0.8
HIA Hailar 19.59 296⇓eP P 09 22 53.9 -0.8
HIA pmax pmax
comp=Z,3.0nm,0.7s
YAK Yakutsk 21.05 337 P P 09 23 07.5 -2.8
comp=Z,15nm,0.3s,baz=67,slow=1.3,SNR=8.9
YAK Yakutsk 21.05 337 eP P 09 23 07.3 -3.0
YAK pmax pmax
comp=Z,19nm,0.8s
YAK Yakutsk 21.05 337 eP P 09 23 07.9 -2.4
YAK epP P 09 23 08.2 -2.1
JOW Kunigami 22.68 228 eP P 09 23 28.1 0.0
comp=Z,28nm,1.1s
BJI Beijing 23.23 272 P P 09 23 33.8 +0.2
BJI pmax pmax
comp=Z,7.0nm,0.8s
NJ2 Nanjing 25.00 252 eP P 09 23 49.0 -0.8
NJ2 pmax pmax
comp=Z,16nm,0.5s
HHC Hu-ho-hao-te 26.31 276 eP P 09 24 02.8 +1.0
HHC pmax pmax
comp=Z,12nm,0.5s
HHC pmax pmax
comp=Z,39nm,5.1s
BILL Bilibino 26.45 16⇑eP P 09 24 02.6 0.0
BILL e 09 25 02.0
BILL pmax pmax
comp=Z,17nm,3.2s
ULN Ulaanbaatar 28.01 293⇓eP P 09 24 17.4 +0.4
ULN pmax pmax
comp=Z,3.0nm,0.6s
ULN Ulaanbaatar 28.01 293 eP P 09 24 17.3 +0.3
ULN Ulaanbaatar 28.01 293 eP P 09 24 17.3 +0.3
comp=Z,3.1nm,0.6s
SONA1 Songino Array 28.45 293 eP P 09 24 20.8 -0.1
SONM Songino Array 28.45 293 P P 09 24 21.1 +0.2
comp=Z,3.6nm,0.7s,baz=86,slow=8.4,SNR=19
SONM LR LR 09 36 11.1
comp=Z,73nm,18.6s,baz=170,slow=37
H11N2 WAKE ISLAND Hy 29.07 139 T T 09 55 10.8
baz=330,slow=75,SNR=2484
H11N1 WAKE ISLAND Hy 29.09 139 T T 09 55 11.7
baz=330,slow=75,SNR=2072
H11N3 WAKE ISLAND Hy 29.09 139 T T 09 55 12.1
baz=330,slow=75,SNR=2357
TIXI Tiksi 29.43 348⇑eP P 09 24 31.1 +2.0
TIXI pmax pmax
comp=Z,2.0nm,0.8s
TLY Talaya 29.94 301 LR LR 09 36 21.6
comp=Z,57nm,19.2s,baz=78,slow=36
H11S1 WAKE ISLAND Hy 30.04 140 T T 09 56 22.5
baz=331,slow=76,SNR=4512
H11S3 WAKE ISLAND Hy 30.05 141 T T 09 56 22.3
baz=331,slow=76,SNR=4362
H11S2 WAKE ISLAND Hy 30.06 140 T T 09 56 23.8
baz=331,slow=76,SNR=2235
LZH Lanzhou 33.72 272 eP P 09 25 07.3 -0.1
LZH pP pP 09 25 22.0 -0.2
LZH sP sP 09 25 30.8 +1.7
LZH PP PnPn 09 26 20.8 -0.3
LZH eS S 09 30 25.5 -1.2
LZH sS sS 09 30 51.0 -0.7
LZH SS SnSn 09 32 28.0 -7.5
LZH pmax pmax
comp=Z,9.0nm,1.2s
LZH pmax pmax
comp=Z,140nm,6.0s
LZH LR LR
comp=Z,260nm,13.3s
LZH LR LR
comp=Z,240nm,13.8s
LZH LR LR
comp=Z,320nm,15.2s
GTA Gaotai 35.26 280 eP P 09 25 21.3 +0.7
GTA pP pP 09 25 37.5 +2.1
GTA sP sP 09 25 44.8 +2.5
GTA pmax pmax
comp=Z,2.0nm,1.0s
IMAR Indian Mountai 38.74 34 eP P 09 25 49.7 +0.1
PPLA Purkeypile 39.27 39 eP P 09 25 55.4 +1.1
KDAK Kodiak Island 39.34 47 iP P 09 25 59.5 +4.8
QIZ Qiongzhong 39.69 244 P P 09 25 57.0 -1.1
QIZ PP PnPn 09 27 35.8 +2.1
QIZ S S 09 31 57.0 -0.4
MLY Manley 39.94 36 eP P 09 26 00.3 +0.6
comp=Z,23nm,1.9s
COLD Coldfoot 40.24 32 eP P 09 26 01.6 -0.5
comp=Z,4.9nm,0.8s
DGZ Jazzator, Alta 40.41 300⇓eP P 09 26 05.0 +1.0
DGZ pmax pmax
comp=Z,2.0nm,1.4s
KMI Kunming 40.45 258 P P 09 26 05.3 +0.7
KMI pmax pmax
comp=Z,8.0nm,0.5s
MDM Murphy Dome 41.00 36 eP P 09 26 08.7 +0.3
comp=Z,5.5nm,0.6s
ZALV Zalesovo Beam 41.01 307 P P 09 26 07.8 -0.8
comp=Z,2.3nm,0.5s,baz=68,slow=8.1,SNR=9.8
ZALV Zalesovo Beam 41.01 307 eP P 09 26 08.4 -0.2
ZALV Zalesovo Beam 41.01 307 eP P 09 26 08.4 -0.2
SML Sawmill 41.11 41 eP P 09 26 09.9 +0.5
SML Sawmill 41.11 41 eP P 09 26 09.9 +0.5
COLA College 41.16 36 eP P 09 26 10.2 +0.5
COLA pmax pmax
comp=Z,12nm,0.8s
COLA College 41.16 36 eP P 09 26 10.2 +0.5
COLA College 41.16 36 eP P 09 26 10.2 +0.5
comp=Z,12nm,0.8s
DHY Denali Highway 41.46 39 eP P 09 26 12.7 +0.2
comp=Z,6.2nm,0.6s
HDA Harding Lake 41.57 37 eP P 09 26 12.8 -0.3
comp=Z,35nm,2.0s
ILAR Eielson Array 41.58 36 P P 09 26 13.1 -0.1
comp=Z,5.0nm,0.7s,baz=268,slow=6.9,SNR=41
ILB Eielson Array 41.58 36 eP P 09 26 13.1 -0.1
IL1 Eielson Array 41.58 36 eP P 09 26 13.2 0.0
WMQ Urumqi 42.08 292 P P 09 26 17.3 -0.3
WMQ pP pP 09 26 34.5 +1.8
WMQ sP sP 09 26 43.8 +4.3
WMQ pmax pmax
comp=Z,22nm,0.7s
WMQ LR LR
comp=Z,110nm,15.9s
WMQ LR LR
comp=Z,110nm,11.3s
WMQ LR LR
comp=Z,120nm,22.5s
FYU Fort Yukon 42.20 33 eP P 09 26 18.7 +0.6
comp=Z,20nm,0.8s
DOT Dot Lake 42.90 38 eP P 09 26 24.2 +0.2
comp=Z,46nm,1.6s
MENT Mentasta 43.13 39 eP P 09 26 29.4 +3.6
comp=Z,20nm,1.6s
EGAK Eagle 44.02 36 eP P 09 26 32.8 -0.1
comp=Z,10.0nm,1.1s
MKAR Makanchi Array 44.58 298 P P 09 26 37.7 +0.1
comp=Z,5.2nm,0.5s,baz=79,slow=8.7,SNR=56
MKAR Makanchi Array 44.58 298 eP P 09 26 38.0 +0.4
MKAR pmax pmax
comp=Z,5.0nm,0.5s
MKAR Makanchi Array 44.58 298 eP P 09 26 38.0 +0.4
MAKZ Makanchi 44.77 298 eP P 09 26 39.5 +0.3
MAKZ pmax pmax
comp=Z,9.0nm,0.8s
MAKZ Makanchi 44.77 298 eP P 09 26 39.5 +0.3
comp=Z,8.6nm,0.8s
KURK Kurchatov 45.53 304 eP P 09 26 45.5 +0.4
KURK pmax pmax
comp=Z,12nm,1.5s
KURK Kurchatov 45.53 304 eP P 09 26 45.5 +0.4
KURK Kurchatov 45.53 304 P P 09 26 45.7 +0.6
KURBB Kurchatov Arra 45.62 304 P P 09 26 45.7 -0.1
comp=Z,2.2nm,0.4s,baz=77,slow=8.6,SNR=9.0
INK Inuvik 46.50 30 P P 09 26 52.9 +0.5
comp=Z,11nm,0.4s,baz=296,slow=8.5,SNR=152
INK Inuvik 46.50 30 eP P 09 26 52.5 +0.1
comp=Z,14nm,0.6s
BVAR Borovoye Array 49.51 309 P P 09 27 15.8 -0.2
comp=Z,1.9nm,0.3s,baz=82,slow=9.8,SNR=7.4
BRVK Borovoye 49.56 309⇓eP P 09 27 16.5 +0.2
BRVK pmax pmax
comp=Z,2.0nm,1.1s
BRVK Borovoye 49.56 309 eP P 09 27 16.5 +0.2
ULHL Ulahol 50.38 294 P P 09 27 23.7 +0.8
SNR=8.9
TKM2 Tokmak 2 50.49 295 P P 09 27 24.9 +1.1
SNR=19
KBK Karagaybulak 51.04 295 P P 09 27 28.8 +0.9
SNR=17
USP Ospenovka 51.05 296 P P 09 27 28.7 +1.0
SNR=20
KZA Kyzart 51.11 295 P P 09 27 29.8 +1.1
SNR=17
AAK Ala-Archa 51.34 296 P P 09 27 30.5 +0.3
comp=Z,5.4nm,0.6s,baz=88,slow=5.1,SNR=16
AAK Ala-Archa 51.34 296c iP P 09 27 30.6 +0.5
AAK pmax pmax
comp=Z,6.0nm,1.1s
AAK Ala-Archa 51.34 296 P P 09 27 30.8 +0.6
SNR=8.5
AAK Ala-Archa 51.34 296 eP P 09 27 30.6 +0.5
EKS2 Erkin-Say 51.80 296 P P 09 27 34.3 +0.8
SNR=9.3
AML Almayashu 52.10 295 P P 09 27 37.1 +1.0
SNR=9.1
KKAR Karatay Array 53.70 298 eP P 09 27 47.4 0.0
KKAR Karatay Array 53.70 298 eP P 09 27 47.4 0.0
comp=Z,86nm,0.7s
ARU Arti 54.37 317 P P 09 27 51.6 -0.4
comp=Z,6.7nm,0.6s,baz=68,slow=3.6,SNR=12
ARU Arti 54.37 317c iP P 09 27 51.2 -0.7
ARU 09 29 52.5
ARU S S 09 35 27.1 +1.6
ARU SS SS 09 39 07.5 -0.1
ARU pmax pmax
comp=Z,6.0nm,0.6s
ARU Arti 54.37 317 eP P 09 27 51.3 -0.7
ARU Arti 54.37 317 eP P 09 27 51.2 -0.7
comp=Z,8.0nm,0.5s
SPITS Spitsbergen Ar 54.85 349 P P 09 27 52.8 -2.4
comp=Z,17nm,1.0s,baz=30,slow=8.6,SNR=8.6
YKW3 Yellowknife Ar 55.86 34 eP P 09 28 04.8 +2.2
comp=Z,5.5nm,0.8s
YKA Yellowknife Ar 55.89 34 P P 09 28 02.9 0.0
comp=Z,3.4nm,0.7s,baz=303,slow=6.9,SNR=56
ABKAR Akbulak array 57.07 309 eP P 09 28 11.7 +0.3
comp=Z,341nm,0.4s
AKTO Aktyubinsk 57.55 311 P P 09 28 14.8 0.0
comp=Z,5.1nm,0.6s,baz=61,slow=9.0,SNR=17
TULEG Thule 57.91 9 eP P 09 28 14.9 -2.0
comp=Z,5.4nm,0.7s
ARCES ARCESS Array B 59.30 340 P P 09 28 26.3 -0.4
comp=Z,1.7nm,0.3s,baz=48,slow=7.1,SNR=34
DAG Danmarks Havn 59.49 356 P P 09 28 28.4 +0.5
DAG pmax pmax
comp=Z,28nm,0.7s
DAG Danmarks Havn 59.49 356 i P P 09 28 25.7 -2.2
comp=Z,3.7nm,0.5s
SUMG Summit 63.99 2 i P P 09 28 58.5 -0.2
SUMG pmax pmax
comp=Z,14nm,0.7s
SUMG Summit 63.99 2 i P P 09 28 58.5 -0.2
comp=Z,14nm,0.7s
SUMG Summit 63.99 2 eP P 09 28 58.3 -0.4
comp=Z,15nm,0.7s
WRA Warramunga Arr 64.37 193 P P 09 29 01.1 -0.2
comp=Z,1.6nm,0.7s,baz=12,slow=7.0,SNR=8.2
WRA Warramunga Arr 64.37 193 i P P 09 29 00.8 -0.5
WRA pmax pmax
comp=Z,2.0nm,0.7s
GEYT Alibeck 64.43 299 P P 09 29 02.4 +0.7
comp=Z,2.3nm,0.4s,baz=93,slow=3.0,SNR=4.5
GEYT LR LR 09 57 02.5
comp=Z,44nm,19.2s,baz=315,slow=36
FINES FINESS Array B 64.92 333 P P 09 29 03.2 -1.2
comp=Z,10nm,0.5s,baz=42,slow=8.0,SNR=54
FINES FINESS Array B 64.92 333 i P P 09 29 03.0 -1.4
FINES pmax pmax
comp=Z,10.0nm,0.5s
OBN Obninsk 65.35 324⇑iP P 09 29 07.4 +0.2
OBN e 09 31 32.2
OBN pmax pmax
comp=Z,6.0nm,0.4s
OBN Obninsk 65.35 324 eP P 09 29 07.4 +0.2
NV01 Mina Array Sit 67.66 58 eP P 09 29 23.1 +0.4
NV01 epP pP 09 29 38.6 -0.1
NVAR Mina Array Bea 67.66 58 P P 09 29 23.4 +0.8
comp=Z,0.8nm,0.7s,baz=284,slow=7.0,SNR=7.4
ASAR Alice Springs 68.09 193 P P 09 29 25.6 +0.5
comp=Z,0.6nm,0.7s,baz=8.9,slow=6.4,SNR=7.4
GOF Gofitskoye 68.86 313⇑eP pP 09 29 42.6 -3.3
IDID Didziasalis 69.20 328 eP P 09 29 32.1 +0.5
IDID IAmb IAmb 09 29 33.0
comp=Z,9.4nm,0.7s
IIGN Ignalina 69.37 328 eP P 09 29 33.2 +0.5
IIGN IAmb IAmb 09 29 34.0
comp=Z,16nm,0.5s
NACGM Naroch 69.49 328 e P 09 29 33.0 -0.5
NB201 NORSAR Array S 69.63 339 eP P 09 29 33.9 -0.3
NB2 NORSAR Subarra 69.66 339 P P 09 29 33.6 -0.8
comp=Z,9.2nm,0.5s,baz=32,slow=6.5
NB2 NORSAR Subarra 69.66 339 P P 09 29 33.3 -1.1
NB2 pmax pmax
comp=Z,5.0nm,0.5s
NB2 NORSAR Subarra 69.66 339 P P 09 29 33.6 -0.8
baz=32,slow=6.5
NOA NORSAR Array B 69.66 339 P P 09 29 33.8 -0.6
comp=Z,6.1nm,0.5s,baz=32,slow=6.6,SNR=35
HFS Hagfors 69.74 337 P P 09 29 34.1 -0.8
comp=Z,15nm,0.6s,baz=51,slow=5.7,SNR=39
KIV Kislovodsk 69.78 312 eP P 09 29 37.6 +2.1
KIV pmax pmax
comp=Z,17nm,1.1s
KBZ Khabaz 69.81 312 P P 09 29 36.0 +0.4
comp=Z,6.7nm,0.9s,baz=48,slow=3.4,SNR=7.2
KBZ Khabaz 69.81 312 P P 09 29 36.0 +0.4
KBZ pmax pmax
comp=Z,7.0nm,0.9s
KBZ Khabaz 69.81 312 eP P 09 29 36.0 +0.4
ZEI Tsey 69.88 310 eP P 09 29 35.2 -1.2
ZEI pmax pmax
comp=Z,15nm,0.9s
PDAR Pinedale Array 70.00 50 P P 09 29 37.2 +0.1
comp=Z,0.3nm,0.5s,baz=246,slow=0.5,SNR=6.6
GNI Garni 71.15 308⇓eP P 09 29 46.9 +2.8
GNI pmax pmax
comp=Z,21nm,1.3s
BORG Borgarnes 71.54 355 P P 09 29 46.7 +1.0
baz=27,slow=4.5
AKASG Malin Array Be 71.61 324 P P 09 29 46.1 -0.3
comp=Z,3.4nm,0.3s,baz=40,slow=6.1,SNR=42
AKASG Malin Array Be 71.61 324ceP P 09 29 46.0 -0.4
AKASG pmax pmax
comp=Z,3.0nm,0.3s
AKBB Malin Array Si 71.61 324 eP P 09 29 45.7 -0.7
AKBB pmax pmax
comp=Z,12nm,0.8s
AKBB Malin Array Si 71.61 324 eP P 09 29 45.7 -0.7
comp=Z,12nm,0.8s
KIEV Kiev 71.62 324⇓eP P 09 29 46.4 -0.1
KIEV pmax pmax
comp=Z,18nm,1.0s
KIEV Kiev 71.62 324 eP P 09 29 46.4 -0.1
KIEV Kiev 71.62 324 eP P 09 29 45.4 -1.1
comp=Z,13nm,0.8s
AK11 Malin Array Si 71.65 324 eP P 09 29 46.2 -0.5
SRU San Rafael Swe 71.87 53 eP P 09 29 49.1 +0.6
SRU e*PP pP 09 30 04.8 +0.1
SRU San Rafael Swe 71.87 53 eP P 09 29 49.0 +0.6
SRU epP pP 09 30 04.8 +0.1
PV10 Paradox Valley 73.23 53 eP P 09 29 55.6 -1.0
PV10 epP pP 09 30 13.5 +0.6
KWP Kalwaria Pacla 75.14 326 eP P 09 30 08.4 +1.1
KWP Kalwaria Pacla 75.14 326 eP P 09 30 08.4 +1.1
BUR08 Bucovina Ar. S 75.65 324 eP P 09 30 10.0 -0.4
BUR04 Bucovina Ar. S 75.67 324 eP P 09 30 10.5 0.0
BURAR Bucovina Array 75.67 324⇓iP P 09 30 10.6 +0.2
BURAR Bucovina Array 75.67 324⇓P P 09 30 10.7 +0.3
OJC Ojcow 75.82 328 eP P 09 30 12.4 +1.3
OJC Ojcow 75.82 328 eP P 09 30 12.4 +1.3
TESR Tescani 75.89 322⇑iP P 09 30 11.8 +0.2
STHS Stebnicka Huta 75.90 327 eP P 09 30 12.6 +1.0
STHS pmax pmax
comp=Z,6.0nm,0.6s
STHS Stebnicka Huta 75.90 327 eP P 09 30 12.6 +1.0
TLCR 75.91 320⇓iP P 09 30 12.3 +0.6
TLCR 75.91 320⇓P P 09 30 12.3 +0.6
CRVS Cervenica-Dubn 76.22 326 eP P 09 30 14.6 +1.2
CRVS Cervenica-Dubn 76.22 326 eP P 09 30 14.5 +1.1
CFR Carcaliu 76.23 320⇓iP P 09 30 13.8 +0.3
CFR Carcaliu 76.23 320⇓P P 09 30 13.8 +0.3
NIE Niedzica 76.27 327 eP P 09 30 15.9 +2.2
NIE Niedzica 76.27 327 eP P 09 30 15.9 +2.2
KSP Ksiaz 76.61 330 eP P 09 30 16.1 +0.5
KSP Ksiaz 76.61 330 eP P 09 30 16.1 +0.5
LANS Liptovska Anna 76.81 328 eP P 09 30 17.6 +0.8
LANS Liptovska Anna 76.81 328 eP P 09 30 17.6 +0.8
UPC Upice 76.99 330 eP P 09 30 18.9 +1.2
UPC Upice 76.99 330 eP P 09 30 18.9 +1.2
MLR Muntele Rosu 76.99 322 P P 09 30 18.6 +0.6
comp=Z,0.9nm,0.4s,baz=352,slow=9.8,SNR=5.7
MLR Muntele Rosu 76.99 322⇑iP P 09 30 19.4 +1.4
MLR Muntele Rosu 76.99 322⇑P P 09 30 19.4 +1.4
MLR Muntele Rosu 76.99 322 eP P 09 30 16.2 -1.8
comp=Z,39nm,2.0s
DPC Dobruska-Polom 77.00 330 eP P 09 30 18.7 +0.8
DPC Dobruska-Polom 77.00 330 eP P 09 30 18.7 +0.8
MORC Moravsky Berou 77.03 329⇑iP P 09 30 19.0 +1.0
MORC Moravsky Berou 77.03 329⇑P P 09 30 19.0 +1.0
MORC Moravsky Berou 77.03 329 eP P 09 30 18.0 0.0
comp=Z,34nm,0.9s
KRLC Kraliky 77.06 330 eP P 09 30 18.7 +0.5
KRLC Kraliky 77.06 330 eP P 09 30 18.7 +0.5
CLL Collm 77.36 332 iP P 09 30 19.7 -0.1
CLL pmax pmax
comp=Z,14nm,0.8s
CLL Collm 77.36 332 iP P 09 30 19.7 -0.1
comp=Z,14nm,0.8s
CLL Collm 77.36 332 eP P 09 30 19.7 -0.1
CLL Collm 77.36 332 eP P 09 30 18.9 -0.8
comp=Z,13nm,0.7s
VOIR 77.43 322⇓iP P 09 30 21.3 +0.9
VOIR 77.43 322⇓P P 09 30 21.3 +0.9
BRTR Keskin Array B 77.56 314 P P 09 30 21.3 0.0
comp=Z,1.1nm,0.5s,baz=93,slow=2.4,SNR=7.2
BRTR Keskin Array B 77.56 314ceP P 09 30 22.3 +1.0
BRTR pmax pmax
comp=Z,1.0nm,0.5s
PSZ Piszkesteto 77.63 327⇓iP P 09 30 23.4 +1.9
PSZ Piszkesteto 77.63 327⇓P P 09 30 23.4 +1.9
ARR Arges 77.67 322⇑iP P 09 30 24.0 +2.3
SCHQ Schefferville 77.71 19 P P 09 30 21.5 -0.2
comp=Z,1.9nm,0.5s,baz=314,slow=4.7,SNR=6.2
VRAC Vranov 77.77 329 P P 09 30 22.2 +0.1
comp=Z,3.7nm,0.6s,baz=58,slow=6.1,SNR=4.9
VRAC Vranov 77.77 329⇑iP P 09 30 22.6 +0.5
VRAC Vranov 77.77 329⇑P P 09 30 22.6 +0.5
EKA Eskdalemuir Ar 78.18 343 P P 09 30 24.1 -0.1
comp=Z,2.1nm,0.5s,baz=20,slow=5.1,SNR=8.3
KHC Kasperske Hory 79.00 331 eP P 09 30 28.8 -0.2
KHC pmax pmax
comp=Z,6.0nm,0.8s
KHC Kasperske Hory 79.00 331 eP P 09 30 28.8 -0.2
KHC Kasperske Hory 79.00 331 eP P 09 30 28.8 -0.2
comp=Z,6.4nm,0.8s
HERR Herculane 79.02 323⇑iP P 09 30 27.4 -1.7
CONA Conrad Observa 79.18 329 iP P 09 30 31.4 +1.4
comp=Z,2.3nm,0.5s
GEC2 GERESS Array S 79.20 331 eP P 09 30 29.9 -0.2
GEC2 pmax pmax
comp=Z,16nm,1.0s
GEC2 GERESS Array S 79.20 331 eP P 09 30 29.9 -0.2
comp=Z,16nm,1.0s
GERES GERESS Array B 79.20 331 P P 09 30 30.1 -0.1
comp=Z,1.8nm,0.5s,baz=37,slow=6.1,SNR=13
GEA0 GERESS Array S 79.21 331 eP P 09 30 29.6 -0.5
MDVR Moldovita 79.40 324⇑iP P 09 30 31.5 +0.3
VTS Vitosha 80.48 322 eP P 09 30 36.8 -0.4
VTS pmax pmax
comp=Z,4.0nm,0.7s
VTS Vitosha 80.48 322 eP P 09 30 36.8 -0.4
comp=Z,3.6nm,0.7s
SOKA Soboth 80.54 329 iP P 09 30 37.8 +0.4
comp=Z,2.8nm,0.7s
KBA Koelnbreinsper 80.82 330 iPcP P 09 30 40.8 +1.8
comp=Z,2.3nm,0.3s
WATA Walderalm 81.23 331 iP P 09 30 41.7 +0.6
comp=Z,2.6nm,0.3s
WTTA Wattenberg 81.28 331 iP P 09 30 42.0 +0.6
comp=Z,1.7nm,0.3s
MOTA Moosalm 81.39 331 eP P 09 30 42.2 +0.2
comp=Z,0.4nm,0.2s
FETA Feichten 81.80 332 ePcP P 09 30 45.6 +1.4
comp=Z,0.9nm,0.4s
DAVOX Davos/Dischmat 82.30 332 P P 09 30 47.3 +0.5
comp=Z,1.1nm,0.3s,baz=0.0,slow=5.1,SNR=4.2
TX31 Lajitas Ar. Si 82.73 56 eP P 09 30 49.5 +0.3
TX31 epP pP 09 31 05.8 -0.1
TXAR Lajitas Array 82.73 56 P P 09 30 49.6 +0.3
comp=Z,0.2nm,0.4s,baz=300,slow=3.1,SNR=7.9
PLCA Paso Flores 152.12 97 PKPbc PKPbc 09 38 20.5 +0.5
comp=Z,1.2nm,0.8s,baz=311,slow=5.3,SNR=4.0

---

*MAN* ***28*** *09:28:43,4.˚54N×126.˚38E,h70km,mb5.2,ML4.1,MS4.3*
*ISCJB* ***28*** *09:28:44.3±0.3,4.˚60N±0.˚03×126.˚39E±0.˚05,h85km, mb4.0/19,Error ellipse: s-maj=6.6km s-min=3.7km az=173.1*
*DJA* ***28*** *09:28:45.2±1.0,4.˚N±8.˚×12.˚6E±.˚,h10km,M4.7/7,mb4.8/5, mB5.1/4,MLv4.8/7,Mw(mB)4.5/4*
*NEIC* ***28*** *09:28:49.2±0.9,4.˚54N×126.˚31E,h120km±9km,mb4.5/1, Error ellipse: s-maj=17.9km s-min=7.2km az=77.0*
*IDC* ***28*** *09:28:50.7±1.3,4.˚56N×126.˚18E,h132km±11km,mb3.8/16, mb1 4.0/17,mb1mx3.7/55,mbtmp4.2/17,MS3.5/5, Ms1 3.5/5,ms1mx3.1/36,Error ellipse: s-maj=26.1km s-min=9.8km az=77.0*
**ISC 28 09:28:45.8±0.5,4.˚56N±0.˚04×126.˚31E±0.˚06,h85km,n44, σ2s15/49,mb4.1/19,1C,Talaud Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| SGSI | Sangihe | 1.17 | 222 | P | Pn | 09 29 06.3 | -0.9 |
| SGSI | | | | S | Sn | 09 29 22.5 | -0.7 |
| MATI | Mati | 2.37 | 359 | eP | Pn | 09 29 21.6 | -1.3 |
| DAV | Davao City (W) | 2.60 | 344 | P | Pn | 09 29 32.1 | +6.2 |
| | 98nm,0.3s,baz=221,slow=19,SNR=3.1 | | | | | | |
| DAV | | | | S | Sn | 09 30 04.0 | +7.4 |
| | 107nm,0.3s,baz=220,slow=21,SNR=7.6 | | | | | | |
| DMPH | Davao City--Mi | 2.63 | 342⇑ | eP | Pn | 09 29 29.9 | +3.5 |
| DMPH | | | | eS | Sn | 09 29 58.5 | +1.1 |
| BUKP | Musuan | 3.52 | 339 | eP | Pn | 09 29 38.4 | 0.0 |
| BUKP | | | | eS | Sn | 09 30 19.3 | +0.2 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **TNTI** | **Ternate** | **3.91** | **164** | *e*Pn | **Pn** | **09 29 44.4** | **+0.8** |
| TNTI | | | | *e*Sn | **Sn** | **09 30 29.4** | **+1.1** |
| **PAGZ** | **Pagadian** | **4.38** | **318** | *e*P | **Pn** | **09 29 49.9** | **0.0** |
| **BUTP** | **Butuan** | **4.43** | **351** | *e*P | **Pn** | **09 29 50.2** | **-0.5** |
| BUTP | | | | *e*S | Sn | 09 30 58.1 | +17 |
| **KMSI** | **Cibinong** | **4.59** | **210** | P | **Pn** | **09 29 53.2** | **+0.3** |
| **MSLP** | **Maasin** | **5.72** | **346** | *e*P | Pn | 09 30 16.0 | +7.7 |
| **MRSI** | **Marisa** | **5.96** | **227** | P | **Pn** | **09 30 11.8** | **+0.3** |
| | 79nm,0.7s,2μm0.4nm | | | | | | |
| MRSI | | | | S | **Sn** | **09 31 14.3** | **-4.1** |
| | 79nm,0.7s,2μm0.4nm | | | | | | |
| **SANI** | **Sanana** | **6.57** | **183** | P | **Pn** | **09 30 18.7** | **-1.2** |
| **LUWI** | **Luwuk** | **6.59** | **213** | P | Pn | 09 30 25.2 | +5.0 |
| **LUWI** | **Luwuk** | **6.59** | **213** | *e*Pn | **Pn** | **09 30 24.3** | **+4.2** |
| | 295nm,1.2s | | | | | | |
| LUWI | | | | *e*Sn | **Sn** | **09 31 38.0** | **+4.1** |
| **APSI** | **Ampana** | **7.16** | **221** | P | **Pn** | **09 30 31.8** | **+3.9** |
| APSI | | | | S | **Sn** | **09 31 54.3** | **+6.6** |
| **SWI** | **Sorong** | **7.31** | **137** | P | **Pn** | **09 30 30.8** | **+0.8** |
| | 80nm,0.8s | | | | | | |
| SWI | | | | S | **Sn** | **09 31 51.0** | **-0.5** |
| | 80nm,0.8s | | | | | | |
| **MPSI** | **Mapaga** | **7.65** | **237** | P | **Pn** | **09 30 36.7** | **+2.0** |
| **FAKI** | **Fak Fak** | **9.51** | **141** | P | **Pn** | **09 31 00.5** | **+0.5** |
| **TTSI** | **Tana Toraja** | **9.96** | **221** | P | **Pn** | **09 31 08.4** | **+2.3** |
| **FITZ** | **Fitzroy Crossi** | **22.53** | **182** | P | **P** | **09 33 39.9** | **+1.0** |
| | 21nm,1.1s,baz=19,slow=8.7,SNR=10 | | | | | | |
| **WRAB** | **Tennant Creek** | **25.59** | **162** | *e*P | **P** | **09 34 08.1** | **+0.8** |
| | 14nm,0.8s | | | | | | |
| **WRA** | **Warramunga Arr** | **25.60** | **162** | P | **P** | **09 34 07.6** | **+0.3** |
| | 4.9nm,0.3s,baz=335,slow=11,SNR=107 | | | | | | |
| **ASAR** | **Alice Springs** | **29.02** | **166** | P | **P** | **09 34 38.3** | **+0.4** |
| | 0.9nm,0.7s,baz=347,slow=7.4,SNR=12 | | | | | | |
| ASAR | | | | PcP | **PcP** | **09 37 44.4** | **-0.3** |
| | 0.6nm,0.8s,baz=347,slow=2.9,SNR=3.1 | | | | | | |
| ASAR | | | | LR | LR | 09 46 41.4 | |
| | comp=Z,66nm,18.1s,baz=158,slow=37 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **30.10** | **300** | P | **P** | **09 34 47.7** | **+0.1** |
| | 1.0nm,0.5s,baz=108,slow=5.8,SNR=3.4 | | | | | | |
| **CTAO** | **Charters Tower** | **31.37** | **142** | *e*P | **P** | **09 34 59.0** | **+0.2** |
| **KSAR** | **Wonju Array Be** | **32.76** | **2** | P | **P** | **09 35 10.1** | **-0.6** |
| **KSRS** | **Korea Array** | **32.77** | **2** | P | **P** | **09 35 10.1** | **-0.7** |
| | 1.3nm,0.6s,baz=183,slow=10.0,SNR=6.2 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **33.66** | **17** | LR | LR | 09 49 57.6 | |
| | comp=Z,17nm,20.3s,baz=335,slow=38 | | | | | | |
| **STKA** | **Stephens Creek** | **39.05** | **159** | P | **P** | **09 36 05.2** | **+0.7** |
| | 2.3nm,0.4s,baz=339,slow=8.1,SNR=9.6 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **39.80** | **6** | P | **P** | **09 36 10.9** | **+0.4** |
| | 1.8nm,0.7s,baz=176,slow=4.3,SNR=4.1 | | | | | | |
| **KLR** | **Kul'dur** | **44.75** | **5** | P | **P** | **09 36 51.2** | **+0.5** |
| | 0.1nm,0.4s,baz=187,slow=12,SNR=4.9 | | | | | | |
| **SONM** | **Songino Array** | **46.38** | **342** | P | **P** | **09 37 03.2** | **-0.6** |
| | 0.3nm,0.5s,baz=159,slow=7.4,SNR=2.9 | | | | | | |
| SONM | | | | LR | LR | 10 00 10.8 | |
| | comp=Z,45nm,18.3s,baz=50,slow=41 | | | | | | |
| **PETK** | **Petropavlovsk-** | **54.83** | **23** | P | **P** | **09 38 07.9** | **+0.8** |
| | 4.0nm,0.9s,baz=186,slow=3.7,SNR=5.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **56.64** | **325** | P | **P** | **09 38 18.6** | **-1.6** |
| | 0.5nm,0.4s,baz=120,slow=7.2,SNR=14 | | | | | | |
| MKAR | | | | PcP | **PcP** | **09 39 14.6** | **-1.0** |
| | 0.6nm,0.5s,baz=151,slow=2.5,SNR=5.5 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **59.66** | **333** | LR | LR | 10 08 18.5 | |
| | comp=Z,54nm,18.4s,baz=291,slow=40 | | | | | | |
| **BVAR** | **Borovoye Array** | **66.40** | **327** | P | **P** | **09 39 25.2** | **-0.6** |
| | 0.8nm,0.5s,baz=103,slow=6.5,SNR=3.7 | | | | | | |
| **ILAR** | **Eielson Array** | **84.54** | **25** | P | **P** | **09 41 09.1** | **-0.2** |
| | 0.3nm,0.6s,baz=246,slow=5.8,SNR=5.3 | | | | | | |
| **ARCES** | **ARCESS Array B** | **89.53** | **340** | P | **P** | **09 41 32.0** | **-1.4** |
| | 9.1nm,1.0s,baz=67,slow=6.8,SNR=4.0 | | | | | | |
| **INK** | **Inuvik** | **89.55** | **21** | P | **P** | **09 41 32.4** | **-1.0** |
| | 1.5nm,1.1s,baz=276,slow=12,SNR=3.5 | | | | | | |
| **SPITS** | **Spitsbergen Ar** | **89.59** | **349** | P | **P** | **09 41 32.9** | **-0.6** |
| | 14nm,0.9s,baz=70,slow=3.6,SNR=8.9 | | | | | | |
| **FINES** | **FINESS Array B** | **90.91** | **332** | P | **P** | **09 41 38.2** | **-1.7** |
| | 4.5nm,1.0s,baz=111,slow=4.3,SNR=4.8 | | | | | | |
| **NOA** | **NORSAR Array B** | **97.86** | **334** | LR | LR | 10 34 02.9 | |
| | comp=Z,60nm,20.6s,baz=0.0,slow=40 | | | | | | |
| **YKA** | **Yellowknife Ar** | **98.92** | **24** | P | **P** | **09 42 16.0** | **-0.5** |
| | 0.4nm,0.8s,baz=296,slow=5.0,SNR=6.8 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **122.26** | **289** | PKP | **PKPdf** | **09 47 31.3** | **-0.7** |
| | 0.6nm,0.8s,baz=54,slow=2.3,SNR=3.1 | | | | | | |

*ISCJB **28** 09:30:31.4±0.5,22°.59S±0°.07×66°.40W±0°.05,h245km, Error ellipse: s-maj=11.0km s-min=5.0km az=26.8*
*SJA **28** 09:30:31.7±0.7,22°.63S×66°.21W,h249km±12km, ML2.7, MW2.9*
*GUC **28** 09:30:33.8±0.3,22°.51S×66°.82W,h262km±59km, ML3.8*
**ISC 28 09:30:31.1±1.3,22°.56S±0°.08×66°.37W±0°.06,h245km,n18, σ0s87/26,7C,Jujuy Province**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **YJA** | **Yavi** | **0.88** | **64** | *e*P | | **Pn** | **09 31 06.7** | **+1.1** |
| YJA | | | | IAML | | | 09 31 07.0 | |
| | comp=Z,35nm,0.3s | | | | | | | |
| YJA | | | | *e*S | | **S** | **09 31 32.7** | **+0.2** |
| **HJA** | **Humahuaca** | **1.10** | **126** | *e*P | | **Pn** | **09 31 07.5** | **+0.9** |
| HJA | | | | IAML | | | 09 31 07.7 | |
| | comp=Z,79nm,0.3s | | | | | | | |
| **AZAP** | **Zapla** | **2.04** | **144** | *e*P | | **Pn** | **09 31 13.5** | **-0.3** |
| AZAP | | | | IAML | | | 09 31 14.7 | |
| | comp=Z,16nm,0.5s | | | | | | | |
| **ASTB** | **Santa Barbara** | **2.24** | **128** | *e*P | | **Pn** | **09 31 15.4** | **-0.2** |
| **SLA** | **San Lorenzo** | **2.29** | **160** | *e*P | | **Pn** | **09 31 16.6** | **+0.5** |
| **ALOL** | **LOMAS DE OLMED** | **2.53** | **120** | *e*P | | **Pn** | **09 31 17.9** | **-0.4** |
| **PB09** | **IPOC Station P** | **2.77** | **285** | ⇑*i*P | | **Pn** | **09 31 22.6** | **+1.6** |
| PB09 | | | | *e*S | | **S** | **09 32 01.0** | **+0.7** |
| PB09 | | | | IAML | | | 09 32 06.7 | |
| | comp=E,145nm,0.4s | | | | | | | |
| **PB06** | **IPOC Station P** | **2.96** | **267** | *e*P | | **Pn** | **09 31 23.9** | **+0.8** |
| PB06 | | | | *e*S | | **S** | **09 32 04.1** | **+0.1** |
| PB06 | | | | IAML | | | 09 32 07.1 | |
| | comp=N,102nm,0.1s | | | | | | | |
| **PB01** | **IPOC Station P** | **3.27** | **297** | ⇑*i*P | | **Pn** | **09 31 27.1** | **+0.8** |
| PB01 | | | | *e*S | | **S** | **09 32 09.9** | **0.0** |
| PB01 | | | | IAML | | | 09 32 10.9 | |
| | comp=E,91nm,0.3s | | | | | | | |
| **PB07** | **IPOC Station P** | **3.36** | **284** | ⇑*i*P | | **Pn** | **09 31 28.3** | **+0.7** |
| PB07 | | | | *e*S | | **S** | **09 32 10.9** | **-1.2** |
| PB07 | | | | IAML | | | 09 32 11.5 | |
| | comp=N,146nm,0.2s | | | | | | | |
| **PB02** | **IPOC Station P** | **3.50** | **290** | ⇑*i*P | | **Pn** | **09 31 29.5** | **+0.5** |
| PB02 | | | | *e*S | | **S** | **09 32 13.6** | **-1.1** |
| PB02 | | | | IAML | | | 09 32 16.3 | |
| | comp=E,100nm,0.1s | | | | | | | |
| **PB04** | **IPOC Station P** | **3.50** | **273** | ⇑*i*P | | **Pn** | **09 31 29.7** | **+0.6** |
| PB04 | | | | *e*S | | **S** | **09 32 13.7** | **-1.2** |
| PB04 | | | | IAML | | | 09 32 17.9 | |
| | comp=E,142nm,0.4s | | | | | | | |
| **PB08** | **IPOC Station P** | **3.54** | **312** | ⇑*i*P | | Pn | 09 31 31.5 | +1.8 |
| PB08 | | | | *e*S | | **S** | **09 32 17.0** | **+0.9** |
| PB08 | | | | IAML | | | 09 32 21.3 | |
| | comp=E,34nm,0.2s | | | | | | | |
| **PB11** | **IPOC Station P** | **4.14** | **312** | ⇑*i*P | | **Pn** | **09 31 36.8** | **+0.2** |
| PB11 | | | | *e*S | | **S** | **09 32 26.9** | **-1.5** |
| **PB14** | **IPOC Station P** | **4.23** | **240** | *e*P | | **Pn** | **09 31 37.8** | **+0.1** |
| **MNMC** | **Minye Minye** | **4.55** | **318** | *e*P | | **Pn** | **09 31 42.4** | **+0.8** |
| **PSGC** | **Pisagua** | **4.58** | **309** | *e*P | | **Pn** | **09 31 41.3** | **-0.5** |
| **PB12** | **IPOC Station P** | **5.40** | **316** | *e*P | | **Pn** | **09 31 50.7** | **-1.2** |

**MOS 28 09:54:18.0±1.0,51°.94N×95°.97E,h10km,mb3.9/1,5C-4D, Error ellipse: s-maj=28.3km s-min=17.7km az=170.9, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **HVS** | **Khovu-Aksy** | **1.63** | **241** | *d i*PN | | Pg | 09 54 48.7 | -0.5 |
| **TLY** | **Talaya** | **4.77** | **90** | ⇑*e*PN | | Pn | 09 55 30.8 | +0.9 |
| **ZAK** | **Zakamensk** | **4.86** | **106** | *e*PN | | Pg | 09 55 49.8 | -1.2 |
| ZAK | | | | pmax | | pmax | | |
| | comp=Z,10.0nm,0.7s | | | | | | | |
| **ULN** | **Ulaanbaatar** | **8.23** | **115** | ⇑*e*P | | Pn | 09 56 19.7 | +2.1 |
| **KURK** | **Kurchatov** | **10.93** | **270** | ⇓*e*P | | Pn | 09 56 56.5 | +2.2 |
| **BRVK** | **Borovoye** | **15.66** | **284** | ⇑*e*P | | Pn | 09 57 59.4 | +0.9 |
| BRVK | | | | pmax | | pmax | | |
| | comp=Z,1.0nm,0.9s | | | | | | | |
| **AAK** | **Ala-Archa** | **17.23** | **246** | ⇓*e*P | | P | 09 58 20.0 | -0.3 |
| AAK | | | | pmax | | pmax | | |
| | comp=Z,1.0nm,1.3s | | | | | | | |
| **YAK** | **Yakutsk** | **20.71** | **48** | ⇑*e*P | | Pn | 09 59 02.0 | +1.5 |
| **ARU** | **Arti** | **22.15** | **296** | ⇓*e*P | | P | 09 59 15.3 | +1.6 |
| ARU | | | | pmax | | pmax | | |
| | comp=Z,2.0nm,1.0s | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **KLR** | **Kul'dur** | **22.74** | **83** | ⇑*e*P | P | 09 59 21.9 | +1.9 |

*ISCJB **28** 10:01:20.5±0.6,67°.19N±0°.02×20°.72E±0°.09,h0km, Error ellipse: s-maj=5.0km s-min=3.5km az=2.0*
*UPP **28** 10:01:21.5±0.1,67°.17N×20°.67E,h0km, ML2.7*
*HEL **28** 10:01:21.1±0.2,67°.14N×20°.42E,h0km, ML1.4, Explosion*
**ISC 28 10:01:21.8±0.9,67°.14N±0°.03×20°.67E±0°.03,h0km,n13, σ0s82/21,Sweden**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **DUNU** | **Dundret** | **0.04** | **241** | P | | **Pg** | **10 01 22.9** | **+0.3** |
| DUNU | | | | S | | **Sg** | **10 01 23.9** | **+0.7** |
| **MASU** | **Masugnsbyn** | **0.60** | **58** | P | | **Pg** | **10 01 32.8** | **-0.5** |
| **RATU** | **Laukkuluspa** | **0.80** | **329** | P | | **Pg** | **10 01 36.1** | **-0.9** |
| **ERTU** | **Ertsjaerv** | **0.84** | **134** | P | | **Pg** | **10 01 37.4** | **-0.5** |
| **ERTU** | **Ertsjaerv** | **0.84** | **134** | PG | | **Pg** | **10 01 37.4** | **-0.5** |
| ERTU | | | | SG | | **Sg** | **10 01 49.6** | **+0.8** |
| **LANU** | **Lannavaara** | **1.04** | **28** | PG | | **Pg** | **10 01 40.7** | **-0.9** |
| LANU | | | | SB | | **Sg** | **10 01 55.3** | **+0.2** |
| **KALU** | **Kalix** | **1.68** | **139** | PG | | **Pn** | **10 01 52.7** | **+0.4** |
| | baz=314 | | | | | | | |
| KALU | | | | SN | | **Sg** | **10 02 16.5** | **+0.9** |
| **HEF** | **Hetta** | **1.71** | **40** | PG | | **Pn** | **10 01 52.8** | **0.0** |
| HEF | | | | MSG | | | 10 02 14.0 | |
| | comp=Z,2.9nm,0.2s | | | | | | | |
| HEF | | | | SG | | **Sn** | **10 02 15.0** | **-0.2** |
| **TOF** | **Tornio** | **1.81** | **125** | PG | | **Pn** | **10 01 54.9** | **+0.9** |
| | baz=310 | | | | | | | |
| TOF | | | | SG | | **Sg** | **10 02 19.9** | **+0.2** |
| **KIF** | **Kilpisjarvi** | **1.87** | **1** | PG | | **Pn** | **10 01 55.6** | **+0.7** |
| | baz=182 | | | | | | | |
| KIF | | | | MSG | | | 10 02 18.1 | |
| | comp=Z,1.9nm,0.2s | | | | | | | |
| KIF | | | | SG | | **Sg** | **10 02 21.2** | **-0.6** |
| **SGF** | **Sodankyl** | **2.29** | **80** | SB | | **Sb** | **10 02 32.8** | **+0.1** |
| **BURU** | **Burvik** | **2.59** | **173** | PG | | **Pb** | **10 02 07.0** | **-2.0** |
| **ARE0** | **ARCESS Array S** | **3.00** | **35** | PG | | **Pb** | **10 02 17.3** | **+1.4** |
| | baz=216 | | | | | | | |
| ARE0 | | | | SN | | **Sn** | **10 02 47.2** | **+0.2** |

*CSEM **28** 10:04:46.2,38°.62N×29°.27W,h0km,ML3.2*
**PDA 28 10:04:46.2±1.2,38°.62N×29°.27W,h0km±8km,MD3.6, ML3.2,Error ellipse: s-maj=8.7km s-min=6.3km az=90.0, Azores Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **PCED** | **Cedros** | **0.44** | **88** | *e*P | | Pg | 10 04 54.4 | -0.3 |
| PCED | | | | *e*S | | Sg | 10 05 00.1 | -0.3 |
| PCED | | | | A | | A | 10 05 01.6 | |
| | 880nm,0.5s | | | | | | | |
| **PCED** | **Cedros** | **0.44** | **88** | *e*P | | Pg | 10 04 54.4 | -0.3 |
| PCED | | | | *e*S | | Sg | 10 05 00.1 | -0.3 |
| **CALA** | **Caldeira** | **0.44** | **95** | *e*P | | Pn | 10 05 07.9 | +8.0 |
| CALA | | | | *e*S | | Sb | 10 05 14.3 | +10 |
| **CALA** | **Caldeira** | **0.44** | **95** | *e*P | | Pn | 10 05 07.9 | +8.0 |
| CALA | | | | *e*S | | Sb | 10 05 14.3 | +10 |
| **HOR** | **Horta** | **0.51** | **100** | *e*P | | Pg | 10 04 55.5 | -0.4 |
| HOR | | | | *e*S | | Sg | 10 05 02.3 | -0.2 |
| HOR | | | | A | | A | 10 05 03.5 | |
| | 2μm,0.3s | | | | | | | |
| **HOR** | **Horta** | **0.51** | **100** | *e*P | | Pg | 10 04 55.5 | -0.4 |
| HOR | | | | *e*S | | Sg | 10 05 02.3 | -0.2 |
| **PCAN** | **Candelaria** | **0.63** | **104** | *e*P | | Pg | 10 04 57.1 | -1.2 |
| PCAN | | | | *e*S | | Sg | 10 05 05.2 | -1.3 |
| PCAN | | | | A | | A | 10 05 09.5 | |
| | 610nm,0.3s | | | | | | | |
| **PCAN** | **Candelaria** | **0.63** | **104** | *e*P | | Pg | 10 04 57.1 | -1.2 |
| PCAN | | | | *e*S | | Sg | 10 05 05.2 | -1.3 |
| **PICO** | **Pico** | **0.67** | **100** | *e*P | | Pg | 10 04 58.0 | -1.0 |
| PICO | | | | *e*S | | Sg | 10 05 07.2 | -0.5 |
| PICO | | | | A | | A | 10 05 07.7 | |
| | 898nm,0.5s | | | | | | | |
| **PICO** | **Pico** | **0.67** | **100** | *e*P | | Pg | 10 04 58.0 | -1.0 |
| PICO | | | | *e*S | | Sg | 10 05 07.2 | -0.5 |
| **ROSA** | **Rosais** | **0.81** | **82** | *e*P | | Pg | 10 04 59.9 | -1.8 |
| ROSA | | | | *e*S | | Sg | 10 05 10.0 | -2.2 |
| ROSA | | | | A | | A | 10 05 16.2 | |
| | 723nm,0.7s | | | | | | | |
| **ROSA** | **Rosais** | **0.81** | **82** | *e*P | | Pg | 10 04 59.9 | -1.8 |
| ROSA | | | | *e*S | | Sg | 10 05 10.0 | -2.2 |
| **PGRA** | **Graciosa** | **1.08** | **67** | *e*P | | Pg | 10 05 03.6 | -3.4 |
| PGRA | | | | *e*S | | Sg | 10 05 16.8 | -4.2 |
| PGRA | | | | A | | A | 10 05 19.0 | |
| | 115nm,0.4s | | | | | | | |
| **PGRA** | **Graciosa** | **1.08** | **67** | *e*P | | Pg | 10 05 03.6 | -3.4 |
| PGRA | | | | *e*S | | Sg | 10 05 16.8 | -4.2 |
| **ADH** | **Angra Heroismo** | **1.59** | **88** | *e*P | | Pn | 10 05 13.7 | -4.9 |
| ADH | | | | *e*S | | Sn | 10 05 29.6 | -7.3 |
| ADH | | | | A | | A | 10 05 30.8 | |
| | 47nm,0.3s | | | | | | | |
| **ADH** | **Angra Heroismo** | **1.59** | **88** | *e*P | | Pn | 10 05 10.7 | -4.9 |
| ADH | | | | *e*S | | Sn | 10 05 29.6 | -7.3 |
| **PSET** | **Sete Cidades** | **2.90** | **105** | *e*P | | Pn | 10 05 29.2 | -4.5 |
| **PSET** | **Sete Cidades** | **2.90** | **105** | *e*P | | Pn | 10 05 29.2 | -4.5 |
| **PDA** | **Ponta Delgada** | **2.97** | **106** | *e*P | | Pn | 10 05 30.1 | -4.5 |
| **PDA** | **Ponta Delgada** | **2.97** | **106** | *e*P | | Pn | 10 05 30.1 | -4.5 |
| **CMLA** | **Cha da Macela** | **3.07** | **105** | *e*P | | Pn | 10 05 31.8 | -4.2 |
| CMLA | | | | *e*S | | Sn | 10 06 05.7 | -7.7 |
| CMLA | | | | A | | A | 10 06 10.5 | |
| | 28nm,0.3s | | | | | | | |
| **CMLA** | **Cha da Macela** | **3.07** | **105** | *e*P | | Pn | 10 05 31.8 | -4.2 |
| CMLA | | | | *e*S | | Sn | 10 06 05.7 | -7.7 |
| **BART** | **Pico Bartolome** | **3.33** | **103** | *e*P | | Pn | 10 05 35.5 | -4.2 |
| **BART** | **Pico Bartolome** | **3.33** | **103** | *e*P | | Pn | 10 05 35.5 | -4.2 |
| **PSMA** | **Santa Maria** | **3.66** | **115** | *e*P | | Pn | 10 05 39.1 | -4.9 |
| PSMA | | | | *e*S | | Sn | 10 06 19.1 | -8.7 |
| PSMA | | | | A | | A | 10 06 21.4 | |
| | 8.7nm,0.4s | | | | | | | |
| **PSMN** | **Pico do Norte,** | **3.70** | **115** | *e*P | | Pn | 10 05 39.6 | -5.0 |
| **PSMN** | **Pico do Norte,** | **3.70** | **115** | *e*P | | Pn | 10 05 39.6 | -5.0 |

*ISCJB **28** 10:20:21.5±0.6,39°.13N±0°.04×27°.60E±0°.06,h0km, Error ellipse: s-maj=8.3km s-min=3.9km az=137.7*
*CSEM **28** 10:20:21.6±0.3,39°.13N×27°.60E,h1km,MD2.6, Error ellipse: s-maj=8.0km s-min=4.5km az=45.0, Suspected Mining explosion.*
*DDA **28** 10:20:21.5,39°.12N×27°.62E,h7km,Md2.6, Suspected Mining explosion.*
*ISK **28** 10:20:21.8,39°.15N×27°.64E,h8km,ML1.9*
**ISC 28 10:20:20.9±0.9,39°.15N±0°.04×27°.62E±0°.04,h0km,n18, σ0s49/26,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **BALY** | **Balya** | **0.59** | **0** | *i*P | | **Pb** | **10 20 33.8** | **-0.3** |
| BALY | | | | *i*S | | **Sb** | **10 20 42.7** | **-0.3** |
| **BALY** | **Balya** | **0.59** | **0** | P | | **Pb** | **10 20 33.8** | **-0.3** |
| BALY | | | | S | | **Sb** | **10 20 42.7** | **-0.3** |
| **MANT** | **Manisa** | **0.99** | **132** | *i*P | | **Pg** | **10 20 39.9** | **+0.1** |
| MANT | | | | *i*S | | **Sn** | **10 20 55.9** | **-1.1** |
| **MANT** | **Manisa** | **0.99** | **132** | P | | **Pg** | **10 20 39.9** | **+0.1** |
| MANT | | | | S | | **Sn** | **10 20 55.9** | **-1.1** |
| **BAYC** | **CANAKKALE_Bayr** | **1.02** | **306** | *i*P | | **Pb** | **10 20 41.4** | **0.0** |
| BAYC | | | | *i*S | | **Sb** | **10 20 56.1** | **+0.8** |
| **BAYC** | **CANAKKALE_Bayr** | **1.02** | **306** | P | | **Pb** | **10 20 41.4** | **0.0** |
| BAYC | | | | S | | **Sb** | **10 20 56.2** | **+0.8** |
| **KULA** | **Kula-Manisa** | **1.03** | **128** | *e*PG | | **Pb** | **10 20 41.4** | **-0.3** |
| KULA | | | | *e*SG | | **Sb** | **10 20 56.2** | **+0.5** |
| **KULA** | **Kula-Manisa** | **1.03** | **128** | *e*Pg | | **Pb** | **10 20 41.4** | **-0.3** |
| KULA | | | | *e*Sg | | **Sb** | **10 20 56.3** | **+0.5** |
| **SIMA** | **Simav-Kutahya** | **1.06** | **93** | *e*PG | | **Pb** | **10 20 42.5** | **+0.3** |
| **SIMA** | **Simav-Kutahya** | **1.06** | **93** | *e*Pg | | **Pb** | **10 20 42.5** | **+0.3** |
| **URLA** | **Izmir** | **1.12** | **226** | *e*PN | | **Pn** | **10 20 44.0** | **+0.1** |
| **URLA** | **Izmir** | **1.12** | **226** | *e*Pn | | **Pn** | **10 20 44.0** | **+0.1** |
| **KCTX** | **Karacabey (Bur** | **1.25** | **27** | *e*PN | | **Pn** | **10 20 45.8** | **+0.1** |
| **KCTX** | **Karacabey (Bur** | **1.25** | **27** | *e*Pn | | **Pn** | **10 20 45.8** | **+0.1** |
| **KRBG** | **Karabiga-Canak** | **1.27** | **349** | *e*PN | | **Pn** | **10 20 46.0** | **+0.2** |
| **KRBG** | **Karabiga-Canak** | **1.27** | **349** | *e*Pn | | **Pn** | **10 20 46.0** | **+0.2** |
| **TVSB** | **Tavsanli** | **1.46** | **78** | *e*PN | | **Pb** | **10 20 49.5** | **+0.6** |
| **TVSB** | **Tavsanli** | **1.46** | **78** | *e*Pn | | **Pb** | **10 20 49.6** | **+0.6** |

*IDC **28** 10:23:45.2±0.8,27°.92N×56°.12E,h0km,mb3.9/20, mb1 4.0/21,mb1mx3.9/54,mbtmp3.9/21,ML3.6/1, Error ellipse: s-maj=17.0km s-min=16.1km az=161.0*

*ISCJB **28** 10:23:46.7±0.3,28°.01N±0°.02×56°.33E±0°.06,h10km, mb3.8/19, Error ellipse: s-maj=7.1km s-min=3.4km az=172.8*
*TEH **28** 10:23:47.2,27°.92N×56°.17E,h10km,ML3.8*
*OMAN **28** 10:23:48.4±99.0,27°.92N×55°.73E,h10km,Error ellipse: s-maj=113.5km s-min=17.4km az=356.0*
*DSN **28** 10:23:49.0±1.2,27°.96N×55°.99E,h15km,ML3.9/9, Error ellipse: s-maj=29.3km s-min=8.8km az=71.0*
*THR **28** 10:23:48.5±0.7,27°.90N×56°.32E,h14km±7km,ML3.8*
*CSEM **28** 10:23:49.5±0.2,27°.89N×56°.23E,h10km,ML3.8, Error ellipse: s-maj=7.9km s-min=3.6km az=81.0*
**ISC 28 10:23:47.1±0.5,27°.92N±0°.03×56°.18E±0°.04,h10km,n68, σ1s63/75,mb3.8/19,Southern Iran**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **BNDS** | **Bandar-Abbas** | **0.52** | **181** | *e*Pg | | **Pg** | **10 23 58.6** | **+1.4** |
| BNDS | | | | AML | | AML | 10 24 09.5 | |
| | comp=E,8μm,0.1s | | | | | | | |
| BNDS | | | | AML | | AML | 10 24 12.7 | |
| | comp=N,11μm,0.4s | | | | | | | |
| **BNDS** | **Bandar-Abbas** | **0.52** | **181** | *e*Pg | | **Pg** | **10 23 58.6** | **+1.4** |
| **IBND** | **Bandar-abas** | **0.57** | **145** | *e*Pg | | **Pb** | **10 23 59.1** | **0.0** |
| IBND | | | | *e*Sg | | **Sb** | **10 24 08.1** | **+0.8** |
| **IBND** | **Bandar-abas** | **0.57** | **145** | *e*Pg | | **Pb** | **10 23 59.1** | **0.0** |
| IBND | | | | *e*Sg | | **Sb** | **10 24 08.1** | **+0.8** |
| **NGRK** | **Negar Kerman** | **1.79** | **16** | *e*Pn | | **Pb** | **10 24 20.7** | **+0.5** |
| **NGRK** | **Negar Kerman** | **1.79** | **16** | *e*Pn | | **Pb** | **10 24 20.7** | **+0.5** |
| **SHME** | **Shamm** | **1.86** | **181** | P | | **Pb** | **10 24 22.0** | **+0.7** |
| | SNR=23 | | | | | | | |
| **BANOM** | **Banah** | **1.99** | **177** | *e*P | | **Pb** | **10 24 23.7** | **+0.2** |
| | SNR=54 | | | | | | | |
| BANOM | | | | S | | **Sb** | **10 24 49.2** | **+0.9** |
| **BANOM** | **Banah** | **1.99** | **177** | P | | **Pb** | **10 24 23.7** | **+0.2** |
| | SNR=54 | | | | | | | |
| BANOM | | | | S | | **Sb** | **10 24 49.2** | **+0.9** |
| **BANOM** | **Banah** | **1.99** | **177** | P | | **Pb** | **10 24 23.7** | **+0.2** |
| | SNR=54 | | | | | | | |
| **KRBR** | **Kerman** | **2.12** | **14** | *e*Pg | | **Pb** | **10 24 26.8** | **+0.9** |
| KRBR | | | | *e*Sg | | **Sg** | **10 24 55.2** | **0.0** |
| KRBR | | | | AML | | AML | 10 24 58.5 | |
| | comp=N,551nm,0.6s | | | | | | | |
| **KRBR** | **Kerman** | **2.12** | **14** | *e*Pn | | **Pb** | **10 24 26.3** | **+0.5** |
| KRBR | | | | *e*Sg | | **Sg** | **10 24 56.2** | **+0.9** |
| **TVBK** | **TV Kerman** | **2.12** | **14** | *e*Pn | | **Pb** | **10 24 26.3** | **+0.4** |
| **TVBK** | **TV Kerman** | **2.12** | **14** | *e*Pn | | **Pb** | **10 24 26.3** | **+0.4** |
| **KHGB** | **Koh Gabri** | **2.46** | **6** | *e*Pn | | **Pb** | **10 24 31.3** | **-0.3** |
| **KHGB** | **Koh Gabri** | **2.46** | **6** | *e*Pn | | **Pb** | **10 24 31.3** | **-0.3** |
| **GHIR** | **Ghir-Karzin** | **2.84** | **278** | *e*Pn | | **Pb** | **10 24 37.5** | **-0.6** |
| GHIR | | | | AML | | AML | 10 25 45.2 | |
| | comp=N,222nm,0.6s | | | | | | | |
| **GHIR** | **Ghir-Karzin** | **2.84** | **278** | *e*P | | **Pb** | **10 24 37.3** | **-0.7** |
| **NAZ** | **Nazwa, Dubai** | **2.96** | **189** | P | | **Pn** | **10 24 35.6** | **+1.5** |
| **NAZ** | **Nazwa, Dubai** | **2.96** | **189** | P | | **Pn** | **10 24 35.6** | **+1.5** |
| **UOSS** | **Minazif** | **2.96** | **180** | P | | **Pn** | **10 24 36.0** | **+1.8** |
| | SNR=21 | | | | | | | |
| **UOSS** | **Minazif** | **2.96** | **180** | P | | **Pn** | **10 24 36.0** | **+1.8** |
| | SNR=21 | | | | | | | |
| **ISRV** | **Sarvestan** | **3.06** | **299** | *e*Pn | | **Pn** | **10 24 38.8** | **+2.9** |
| ISRV | | | | *e*AMB | | AMB | 10 25 56.7 | |
| | comp=Z,2μm,0.3s | | | | | | | |
| **ISRV** | **Sarvestan** | **3.06** | **299** | *e*Pn | | **Pn** | **10 24 38.8** | **+2.9** |
| **HATD** | **Hatta, Dubai** | **3.08** | **181** | P | | **Pn** | **10 24 38.1** | **+2.2** |
| **HATD** | **Hatta, Dubai** | **3.08** | **181** | P | | **Pn** | **10 24 38.1** | **+2.2** |
| **FAQ** | **Al Faqa, Dubai** | **3.20** | **190** | P | | **Pn** | **10 24 39.0** | **+1.5** |
| **FAQ** | **Al Faqa, Dubai** | **3.20** | **190** | P | | **Pn** | **10 24 39.0** | **+1.5** |
| **ASHO** | **Ashiyiah** | **3.22** | **182** | *i* P | | **Pn** | **10 24 40.1** | **+2.3** |
| | SNR=12 | | | | | | | |
| **ASHO** | **Ashiyiah** | **3.22** | **182** | P | | **Pn** | **10 24 40.7** | **+2.9** |
| | SNR=17 | | | | | | | |
| **ASHO** | **Ashiyiah** | **3.22** | **182** | P | | **Pn** | **10 24 40.7** | **+2.9** |
| | SNR=12 | | | | | | | |
| ASHO | | | | P | | **Pn** | **10 24 40.7** | **+2.9** |
| | SNR=17 | | | | | | | |
| **IPAR** | **Pars** | **3.35** | **306** | *e*Pn | | **Pn** | **10 24 43.0** | **+3.2** |
| IPAR | | | | *e*AMB | | AMB | 10 25 46.6 | |
| | comp=Z,2μm,0.4s | | | | | | | |
| **IPAR** | **Pars** | **3.35** | **306** | *e*Pn | | **

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RABL** | **Rabaul** | **2.20** | **32** | *e*Pn | **Pn** | **10 36 13.5** | **+0.5** |
| **PMG** | **Port Moresby** | **5.05** | **229** | Pn | **Pn** | **10 36 52.5** | **+0.3** |
| | 1.7nm,0.3s,baz=30,slow=8.7,SNR=10 | | | | | | |
| PMG | | | | Sn | **Sn** | **10 37 49.1** | **-0.2** |
| | 17nm,0.3s,baz=0.9,slow=22,SNR=9.0 | | | | | | |
| PMG | | | | LR | LR | 10 38 37.7 | |
| | comp=Z,244nm,18.4s,baz=23,slow=36 | | | | | | |
| **PMG** | **Port Moresby** | **5.05** | **229** | *e*Pn | **Pn** | **10 36 52.7** | **+0.5** |
| PMG | | | | *e*Sn | **Sn** | **10 37 50.4** | **+1.1** |
| **MANU** | **Manus Island** | **5.41** | **318** | *e*Pn | **Pn** | **10 36 56.5** | **-0.6** |
| **HNR** | **Honiara** | **9.46** | **111** | LR | LR | 10 40 49.7 | |
| | comp=Z,354nm,21.8s,baz=281,slow=34 | | | | | | |
| **COEN** | **Coen** | **10.99** | **224** | *e*Pn | **Pn** | **10 38 16.2** | **+2.5** |
| **CTA** | **Charters Tower** | **14.67** | **198** | Pn | **P** | **10 39 08.2** | **-1.1** |
| | 0.2nm,0.3s,baz=31,slow=13,SNR=5.3 | | | | | | |
| **EIDS** | **Eidsvold** | **19.18** | **180** | *e*P | **P** | **10 39 58.5** | **-0.7** |
| | 16nm,1.1s | | | | | | |
| **GUMO** | **Guam** | **20.47** | **343** | LR | LR | 10 48 23.5 | |
| | comp=Z,55nm,18.0s,baz=106,slow=38 | | | | | | |
| **WRAB** | **Tennant Creek** | **21.25** | **228** | *e*P | **P** | **10 40 21.3** | **-0.4** |
| | 22nm,0.8s | | | | | | |
| **WB2** | **Warramunga Arr** | **21.26** | **228** | *e*P | **P** | **10 40 21.3** | **-0.5** |
| **WRA** | **Warramunga Arr** | **21.27** | **228** | P | **P** | **10 40 21.7** | **-0.1** |
| | 19nm,0.8s,baz=54,slow=11,SNR=80 | | | | | | |
| WRA | | | | ScP | **ScP** | **10 48 03.6** | **+4.2** |
| | 1.9nm,1.0s,baz=34,slow=2.7,SNR=5.4 | | | | | | |
| WRA | | | | LR | LR | 10 49 20.5 | |
| | comp=Z,96nm,19.1s,baz=35,slow=39 | | | | | | |
| **DZM** | **Mont Dzumac** | **21.80** | **138** | P | **P** | **10 40 25.0** | **-2.6** |
| | 18nm,1.0s,baz=279,slow=13,SNR=5.5 | | | | | | |
| DZM | | | | LR | LR | 10 47 19.5 | |
| | comp=Z,295nm,19.0s,baz=350,slow=33 | | | | | | |
| **DZM** | **Mont Dzumac** | **21.80** | **138** | *e*P | **P** | **10 40 26.2** | **-1.4** |
| | 33nm,1.2s | | | | | | |
| **SARN** | **Sarigan** | **23.21** | **347** | *e*P | **P** | **10 40 41.2** | **-1.3** |
| **AS01** | **Alice Springs** | **23.98** | **221** | *e*P | **P** | **10 40 49.4** | **-0.3** |
| **AS31** | **Alice Springs** | **24.01** | **222** | *e*P | **P** | **10 40 50.4** | **+0.4** |
| | 9.3nm,1.0s | | | | | | |
| **ASAR** | **Alice Springs** | **24.01** | **222** | P | **P** | **10 40 50.2** | **+0.2** |
| | 17nm,0.8s,baz=57,slow=9.1,SNR=119 | | | | | | |
| ASAR | | | | ScP | **ScP** | **10 48 10.8** | **+4.4** |
| | 1.4nm,1.0s,baz=49,slow=2.6,SNR=6.0 | | | | | | |
| ASAR | | | | LR | LR | 10 50 14.1 | |
| | comp=Z,153nm,18.3s,baz=54,slow=37 | | | | | | |
| **STKA** | **Stephens Creek** | **27.14** | **198** | P | **P** | **10 41 17.7** | **-0.5** |
| | 13nm,1.0s,baz=10,slow=10,SNR=17 | | | | | | |
| STKA | | | | LR | LR | 10 52 45.4 | |
| | comp=Z,149nm,19.3s,baz=27,slow=38 | | | | | | |
| **STKA** | **Stephens Creek** | **27.14** | **198** | *e*P | **P** | **10 41 18.2** | **0.0** |
| | 4.1nm,0.8s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **27.49** | **242** | P | **P** | **10 41 21.6** | **+0.1** |
| | 8.0nm,0.7s,baz=54,slow=9.0,SNR=9.2 | | | | | | |
| **URZ** | **Urewera** | **39.84** | **147** | LR | LR | 10 58 56.8 | |
| | comp=Z,78nm,18.2s,baz=315,slow=35 | | | | | | |
| **RPZ** | **Rata Peaks** | **41.43** | **158** | LR | LR | 11 00 05.3 | |
| | comp=Z,167nm,18.1s,baz=280,slow=36 | | | | | | |
| **JNU** | **Nakatsue** | **43.42** | **335** | P | **P** | **10 43 38.2** | **+0.5** |
| | 3.0nm,0.7s,baz=126,slow=6.4,SNR=3.7 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **44.06** | **345** | LR | LR | 11 00 26.4 | |
| | comp=Z,34nm,18.4s,baz=190,slow=34 | | | | | | |
| **QIZ** | **Qiongzhong** | **47.61** | **303** | P | **P** | **10 44 11.0** | **-0.1** |
| QIZ | | | | pP | **pP** | **10 44 19.5** | **-3.6** |
| QIZ | | | | S | **S** | **10 51 08.0** | **+4.1** |
| QIZ | | | | sS | **sS** | **10 51 19.8** | **-4.2** |
| QIZ | | | | LR | LR | | |
| | comp=Z,64nm,23.2s | | | | | | |
| **KSRS** | **Korea Array** | **48.37** | **335** | P | **P** | **10 44 16.6** | **+0.1** |
| | comp=Z,1.0nm,0.8s,baz=153,slow=8.2,SNR=4.6 | | | | | | |
| KSRS | | | | LR | LR | 11 02 38.1 | |
| | comp=Z,31nm,20.1s,baz=94,slow=34 | | | | | | |
| **KSAR** | **Wonju Array Be** | **48.37** | **335** | P | **P** | **10 44 16.6** | **0.0** |
| **WHN** | **Wuhan** | **50.57** | **318** | P | **P** | **10 44 31.0** | **-2.5** |
| **USRK** | **Ussuriysk Ar.** | **52.90** | **343** | LR | LR | 11 07 31.6 | |
| | comp=Z,37nm,18.1s,baz=156,slow=36 | | | | | | |
| **BJI** | **Beijing** | **55.99** | **328** | P | P | 10 45 19.8 | +6.6 |
| BJI | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.8s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,68nm,16.4s | | | | | | |
| **KMI** | **Kunming** | **56.24** | **306** | P | **P** | **10 45 17.8** | **+2.2** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.5s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **56.83** | **297** | LR | LR | 11 08 33.4 | |
| | comp=Z,13nm,20.8s,baz=120,slow=35 | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **59.06** | **326** | *e*P | **P** | **10 45 37.3** | **+2.3** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.6s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,160nm,5.2s | | | | | | |
| **PETK** | **Petropavlovsk-** | **59.23** | **5** | LR | LR | 11 06 50.4 | |
| | comp=Z,36nm,19.7s,baz=189,slow=32 | | | | | | |
| **LZH** | **Lanzhou** | **60.92** | **317** | *e*P | **P** | **10 45 49.3** | **+1.4** |
| LZH | | | | pP | pP | 10 45 59.0 | -1.3 |
| LZH | | | | sP | sP | 10 46 03.5 | -1.8 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,14nm,1.0s | | | | | | |
| **SONM** | **Songino Array** | **66.47** | **329** | P | **P** | **10 46 24.9** | **+0.7** |
| | comp=Z,0.8nm,0.9s,baz=126,slow=7.5,SNR=4.2 | | | | | | |
| **VNDA** | **Vanda** | **71.63** | **179** | P | **P** | **10 46 55.6** | **+0.1** |
| | comp=Z,1.6nm,0.8s,baz=318,slow=7.5,SNR=6.8 | | | | | | |
| **WMQ** | **Urumqi** | **75.48** | **318** | P | **P** | **10 47 19.5** | **+0.6** |
| WMQ | | | | pP | pP | 10 47 29.3 | -2.3 |
| WMQ | | | | sP | sP | 10 47 34.3 | -2.2 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,18nm,0.6s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,530nm,5.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,65nm,18.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,74nm,17.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,89nm,18.5s | | | | | | |
| **MK01** | **Makanchi Array** | **80.11** | **319** | *e*P | **P** | **10 47 44.4** | **-0.1** |
| **MKAR** | **Makanchi Array** | **80.12** | **319** | P | **P** | **10 47 44.8** | **+0.2** |
| | comp=Z,1.4nm,0.8s,baz=107,slow=5.3,SNR=10 | | | | | | |
| **MAKZ** | **Makanchi** | **80.33** | **319** | *e*P | **P** | **10 47 45.4** | **-0.3** |
| | comp=Z,3.3nm,1.0s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **81.23** | **327** | P | **P** | **10 47 49.4** | **-0.9** |
| | comp=Z,0.7nm,0.6s,baz=104,slow=6.3,SNR=3.6 | | | | | | |
| **MCK** | **McKinley** | **82.72** | **23** | *e*P | **P** | **10 47 57.3** | **-0.7** |
| | comp=Z,7.2nm,0.9s | | | | | | |
| **KURK** | **Kurchatov** | **83.68** | **322** | *e*P | **P** | **10 48 02.9** | **-0.3** |
| | comp=Z,4.9nm,1.0s | | | | | | |
| **MAW** | **Mawson** | **83.71** | **203** | LR | LR | 11 24 17.8 | |
| | comp=Z,84nm,18.0s,baz=61,slow=35 | | | | | | |
| **ILAR** | **Eielson Array** | **84.01** | **22** | P | **P** | **10 48 03.2** | **-1.3** |
| | comp=Z,5.3nm,1.1s,baz=252,slow=5.0,SNR=19 | | | | | | |
| ILAR | | | | LR | LR | 11 23 18.1 | |
| | comp=Z,37nm,21.1s,baz=242,slow=34 | | | | | | |
| **COLD** | **Coldfoot** | **84.05** | **20** | *e*P | **P** | **10 48 04.0** | **-0.6** |
| | comp=Z,4.1nm,1.0s | | | | | | |
| **AAK** | **Ala-Archa** | **84.25** | **314** | LR | LR | 11 29 46.8 | |
| | comp=Z,54nm,19.1s,baz=186,slow=39 | | | | | | |
| **DOT** | **Dot Lake** | **84.61** | **24** | *e*P | **P** | **10 48 07.0** | **-0.7** |
| | comp=Z,18nm,1.0s | | | | | | |
| **EGAK** | **Eagle** | **86.23** | **23** | *e*P | **P** | **10 48 14.8** | **-0.8** |
| | comp=Z,15nm,1.3s | | | | | | |
| **KKAR** | **Karatay Array** | **87.21** | **314** | *e*P | **P** | **10 48 20.6** | **-0.4** |
| | comp=Z,1.2nm,0.8s | | | | | | |
| **BVAR** | **Borovoye Array** | **89.19** | **323** | LR | LR | 11 28 60.0 | |
| | comp=Z,81nm,20.4s,baz=259,slow=36 | | | | | | |
| **NVAR** | **Mina Array Bea** | **94.27** | **52** | P | **P** | **10 48 55.0** | **+0.7** |
| | comp=Z,0.5nm,0.7s,baz=276,slow=6.3,SNR=4.2 | | | | | | |
| NVAR | | | | LR | LR | 11 26 57.7 | |
| | comp=Z,78nm,18.4s,baz=264,slow=33 | | | | | | |
| **YKA** | **Yellowknife Ar** | **97.38** | **28** | P | Pdif | 10 49 07.6 | 0.0 |
| | comp=Z,0.4nm,0.6s,baz=271,slow=4.8,SNR=14 | | | | | | |
| **GERES** | **GERESS Array B** | **124.18** | **327** | PKP | **PKPdf** | **10 54 33.3** | **+0.1** |
| | comp=Z,0.5nm,0.6s,baz=325,slow=1.6,SNR=6.5 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **148.96** | **285** | PKPbc | **PKPbc** | **10 55 23.2** | **-0.1** |
| | comp=Z,3.8nm,0.7s,baz=65,slow=3.1,SNR=22 | | | | | | |

**IDC 28 10:38:13.3±1.8, 57°13S×28°61W, h0km, mb4.4/2, mb1 4.6/2, mb1mx3.9/19, mbtmp4.4/2, Error ellipse: s-maj=72.8km s-min=40.8km az=8.0, South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LPAZ** | **La Paz** | **50.39** | **307** | P | P | 10 47 13.3 | +0.4 |
| | 4.1nm,0.5s,baz=180,slow=3.4,SNR=16 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **74.39** | **31** | P | P | 10 49 52.7 | -0.1 |
| | 1.3nm,0.5s,baz=200,slow=6.5,SNR=20 | | | | | | |
| **YKA** | **Yellowknife Ar** | **136.45** | **318** | PKP | PKPdf | 10 57 33.4 | -2.1 |
| | 0.1nm,0.3s,baz=134,slow=2.0,SNR=4.8 | | | | | | |
| **ILAR** | **Eielson Array** | **150.24** | **311** | PKPbc | PKPbc | 10 58 03.5 | -1.2 |
| | 0.4nm,0.7s,baz=113,slow=1.5,SNR=6.0 | | | | | | |
| **SONM** | **Songino Array** | **151.55** | **90** | PKPbc | PKPbc | 10 58 09.0 | +0.6 |
| | 0.2nm,0.5s,baz=230,slow=3.4,SNR=2.7 | | | | | | |

**IDC 28 10:45:34.5±10.0, 15°28S×165°04E, h0km, mb3.8/4, mb1 3.9/5, mb1mx3.5/43, mbtmp3.7/5, ML3.2/1, Error ellipse: s-maj=186.0km s-min=32.9km az=53.0, Vanuatu Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **6.88** | **169** | Pn | Pn | 10 47 16.8 | -0.1 |
| | 0.5nm,0.3s,baz=333,slow=16,SNR=11 | | | | | | |
| DZM | | | | Sn | Sn | 10 48 37.3 | +1.3 |
| | 0.2nm,0.3s,baz=342,slow=19,SNR=3.8 | | | | | | |
| **STKA** | **Stephens Creek** | **27.01** | **228** | P | P | 10 51 18.2 | -0.2 |
| | 0.5nm,0.4s,baz=46,slow=9.6,SNR=7.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **29.60** | **256** | P | P | 10 51 41.8 | +0.1 |
| | 0.3nm,0.7s,baz=86,slow=9.0,SNR=4.9 | | | | | | |
| **ASAR** | **Alice Springs** | **30.46** | **249** | P | P | 10 51 49.2 | 0.0 |
| | 0.4nm,0.4s,baz=79,slow=9.2,SNR=16 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **37.80** | **260** | P | P | 10 52 52.9 | 0.0 |
| | 2.9nm,1.0s,baz=63,slow=11,SNR=3.4 | | | | | | |

*NIED* ***28*** *10:49:00, 38°.20N×144°.40E, h11km, Mw3.5 Best double couple: M0 2.35000×10^14 NP1:φs168.00000°, δ66.00000°, λ-167.00000°. NP2:φs72.00000°, δ78.00000°, λ-25.00000°.*

*IDC* ***28*** *10:49:41.3±1.2, 38°.91N×144°.19E, h0km, mb3.4/5, mb1 3.6/6, mb1mx3.4/44, mbtmp3.4/6, ML3.9/1, Error ellipse: s-maj=39.6km s-min=23.3km az=125.0*

*JMA* ***28*** *10:49:41.8±0.2, 38°.23N×144°.39E, h53km, M4.3*

**ISC 28 10:49:41.3±2.2, 38°81N±0°.06×144°16E±0°.07, h9km±12km, n21, σ2s47/34, mb3.4/5, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OFUJ** | **Ofunato** | **1.96** | **279** | P | **Pg** | **10 50 18.5** | **-0.3** |
| OFUJ | | | | *e*S | **Sg** | **10 50 45.3** | **+1.1** |
| **MIYJ** | **Miyakonagasawa** | **1.97** | **294** | P | **Pg** | **10 50 19.8** | **+0.7** |
| MIYJ | | | | S | **Sg** | **10 50 48.4** | **+3.8** |
| **JIO** | **Ouri** | **2.23** | **262** | P | **Pn** | **10 50 19.8** | **+1.5** |
| JIO | | | | S | **Sn** | **10 50 47.9** | **+2.0** |
| **JMK** | **Ichinoseki** | **2.30** | **274** | P | **Pb** | **10 50 22.7** | **-0.1** |
| JMK | | | | *e*S | **Sb** | **10 50 52.8** | **+1.5** |
| **JOM** | **Ohasama** | **2.32** | **287** | P | **Pg** | **10 50 24.6** | **-1.2** |
| JOM | | | | *e*S | **Sg** | **10 50 56.4** | **+0.5** |
| **JANG** | **Nango** | **2.57** | **308** | P | **Pg** | **10 50 28.8** | **-1.7** |
| JANG | | | | *e*S | **Sg** | **10 51 04.7** | **+0.9** |
| **JYK** | **Kaneyama** | **2.97** | **273** | P | **Pb** | **10 50 31.9** | **-2.4** |
| **JFT** | **Otama** | **3.27** | **248** | P | **Pn** | **10 50 32.6** | **-0.2** |
| JFT | | | | S | **Sn** | **10 51 10.3** | **-1.5** |
| **JOT** | **Ohata** | **3.50** | **318** | P | **Pb** | **10 50 42.7** | **-0.7** |
| JOT | | | | S | **Sb** | **10 51 27.1** | **+1.1** |
| **JCH** | **Churui** | **3.85** | **351** | P | **Pb** | **10 50 46.4** | **-2.9** |
| JCH | | | | *e*S | **Sb** | **10 51 34.9** | **-1.0** |
| **JKB** | **Kayabe** | **3.89** | **323** | P | **Pb** | **10 50 48.5** | **-1.5** |
| JKB | | | | S | **Sb** | **10 51 36.6** | **-0.6** |
| **NEM2** | **Nemuro 2** | **4.71** | **14** | P | **Pn** | **10 50 54.8** | **+2.4** |
| **JRY** | **Ryogami san** | **5.03** | **238** | P | **Pn** | **10 50 54.0** | **-2.9** |
| JRY | | | | S | **Sn** | **10 51 47.9** | **-7.2** |
| **MJAR** | **Matsushiro Arr** | **5.23** | **246** | Pn | **Pn** | **10 50 59.6** | **-0.1** |
| | 3.8nm,0.3s,baz=79,slow=14,SNR=32 | | | | | | |
| MJAR | | | | Sn | **Sn** | **10 51 56.6** | **-3.5** |
| | 1.2nm,0.3s,baz=106,slow=18,SNR=4.3 | | | | | | |
| **MAT** | **Matsushiro** | **5.23** | **246** | P | **Pn** | **10 50 59.4** | **-0.3** |
| MAT | | | | S | **Sn** | **10 51 57.8** | **-2.3** |
| **ASAJ** | **Asahikawa** | **5.43** | **348** | Pn | Pb | 10 51 09.3 | -6.9 |
| | 2.6nm,0.3s,baz=175,slow=11,SNR=11 | | | | | | |
| ASAJ | | | | Sn | **Sb** | **10 52 15.7** | **-5.7** |
| | 1.7nm,0.3s,baz=108,slow=20,SNR=3.9 | | | | | | |
| **SEY** | **Seymchan** | **24.66** | **9** | P | **P** | **10 55 04.1** | **+2.1** |
| | 1.0nm,0.5s,baz=202,slow=11,SNR=5.5 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **46.64** | **307** | P | **P** | **10 58 11.1** | **+1.3** |
| | 0.1nm,0.4s,baz=81,slow=8.4,SNR=2.6 | | | | | | |
| **ILAR** | **Eielson Array** | **46.83** | **33** | P | **P** | **10 58 11.5** | **+0.4** |
| | 0.2nm,0.5s,baz=278,slow=6.3,SNR=3.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **59.16** | **191** | P | **P** | **10 59 45.4** | **+3.0** |
| | 0.4nm,0.5s,baz=8.5,slow=7.0,SNR=4.6 | | | | | | |
| **YKA** | **Yellowknife Ar** | **61.17** | **31** | P | **P** | **10 59 55.1** | **-0.6** |
| | 0.2nm,0.7s,baz=301,slow=7.1,SNR=4.6 | | | | | | |

*ISK* ***28*** *11:07:22.3, 40°.49N×37°.27E, h5km, MD3.0*

*DDA* ***28*** *11:07:22.9, 40°.48N×37°.28E, h7km, Ml2.6*

*CSEM* ***28*** *11:07:23.1±0.2, 40°.48N×37°.28E, h2km, MD3.0, Error ellipse: s-maj=4.0km s-min=3.4km az=11.0*

**ISC 28 11:07:22.4±1.5, 40°48N±0°.03×37°27E±0°.03, h1km±14km, n37, σ0s94/40, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RSDY** | **Resadiye-TOKAT** | **0.10** | **155** | *e*Pg | **Pg** | **11 07 24.6** | **+0.4** |
| **RSDY** | **Resadiye-TOKAT** | **0.10** | **155** | *e*Pg | **Pg** | **11 07 24.6** | **+0.4** |
| **ERBA** | **Erbaa** | **0.44** | **297** | *i* P | **Pg** | **11 07 31.6** | **+0.8** |
| **ERBA** | **Erbaa** | **0.44** | **297** | P | **Pg** | **11 07 31.6** | **+0.8** |
| **SVSK** | **Karacayir** | **0.60** | **201** | *e*Pg | **Pb** | **11 07 35.0** | **-0.7** |
| SVSK | | | | *e*Sg | **Sb** | **11 07 45.3** | **+0.6** |
| **SVSK** | **Karacayir** | **0.60** | **201** | *e*Pg | **Pb** | **11 07 35.0** | **-0.7** |
| **SCER** | **sogukcermik** | **0.63** | **190** | *i* P | **Pg** | **11 07 35.2** | **+0.8** |
| **SCER** | **sogukcermik** | **0.63** | **190** | P | **Pg** | **11 07 35.2** | **+0.8** |
| **CUZAR** | **Zara_SIVAS** | **0.71** | **147** | *i* P | **Pb** | **11 07 36.9** | **-0.6** |
| **CUZAR** | **Zara_SIVAS** | **0.71** | **147** | P | **Pb** | **11 07 36.9** | **-0.6** |
| **SUSE** | **Susehri** | **0.76** | **111** | *i* P | **Pb** | **11 07 38.2** | **-0.3** |
| **SUSE** | **Susehri** | **0.76** | **111** | P | **Pb** | **11 07 38.2** | **-0.3** |
| **GRSN** | **GIRESUNGRSN** | **0.88** | **59** | *i* P | **Pg** | **11 07 39.8** | **+0.7** |
| **GRSN** | **GIRESUNGRSN** | **0.88** | **59** | P | **Pg** | **11 07 39.8** | **+0.7** |
| **CUKAN** | **kangal_SIVAS** | **1.18** | **173** | *i* P | **Pb** | **11 07 44.6** | **-0.9** |
| **CUKAN** | **kangal_SIVAS** | **1.18** | **173** | P | **Pb** | **11 07 44.6** | **-0.9** |
| **ESPY** | **Espiye-Giresun** | **1.19** | **68** | *e*PN | **Pn** | **11 07 45.5** | **-0.6** |
| ESPY | | | | *e*SN | **Sn** | **11 08 04.1** | **+1.2** |
| **ESPY** | **Espiye-Giresun** | **1.19** | **68** | *e*Pn | **Pn** | **11 07 45.5** | **-0.6** |
| ESPY | | | | *e*Sn | **Sn** | **11 08 04.1** | **+1.2** |
| **HAVZ** | **Havza** | **1.32** | **297** | *i* P | **Pb** | **11 07 47.9** | **-0.1** |
| **HAVZ** | **Havza** | **1.32** | **297** | P | **Pb** | **11 07 47.9** | **-0.1** |
| **CUSAR** | **Sarkisla-SIVAS** | **1.33** | **217** | *i* P | **Pg** | **11 07 48.7** | **+0.9** |
| **CUSAR** | **Sarkisla-SIVAS** | **1.33** | **217** | P | **Pg** | **11 07 48.7** | **+0.9** |
| **ILIC** | **ilic-Erzincan** | **1.43** | **136** | *e*PN | **Pg** | **11 07 50.6** | **+0.9** |
| **ILIC** | **ilic-Erzincan** | **1.43** | **136** | *e*Pn | **Pg** | **11 07 50.7** | **+0.9** |
| **KEMA** | **Kemaliye** | **1.53** | **142** | *i* P | **Pb** | **11 07 51.2** | **-0.4** |
| **KEMA** | **Kemaliye** | **1.53** | **142** | P | **Pb** | **11 07 51.2** | **-0.4** |
| **KELT** | **Kelkit** | **1.55** | **102** | *i* P | **Pb** | **11 07 51.5** | **-0.5** |
| **KELT** | **Kelkit** | **1.55** | **102** | P | **Pb** | **11 07 51.5** | **-0.5** |
| **YOZ** | **Yozgat** | **1.72** | **241** | *e*PN | **Pg** | **11 07 55.2** | **-0.1** |
| **YOZ** | **Yozgat** | **1.72** | **241** | *e*Pn | **Pg** | **11 07 55.2** | **-0.1** |
| **DIKM** | **Dikmen** | **1.92** | **308** | *e*PN | **Pb** | **11 07 56.8** | **-1.3** |
| **DIKM** | **Dikmen** | **1.92** | **308** | *e*Pn | **Pb** | **11 07 56.8** | **-1.3** |
| **SARI** | **SarD1z-Kayseri** | **2.18** | **198** | *e*PN | **Pb** | **11 08 01.9** | **-0.8** |
| **BAYT** | **Ayd¨–ntepe-Bay** | **2.19** | **91** | *e*PN | **Pb** | **11 08 01.3** | **-1.5** |
| **BAYT** | **Ayd¨–ntepe-Bay** | **2.19** | **91** | *e*Pn | **Pb** | **11 08 01.3** | **-1.5** |
| **PTK** | **Pertek** | **2.28** | **134** | *e*PN | **Pb** | **11 08 02.4** | **-2.0** |
| **PTK** | **Pertek** | **2.28** | **134** | *e*Pn | **Pb** | **11 08 02.4** | **-2.0** |

*ISCJB* ***28*** *11:17:41.7±1.1, 3°.9N±0°.4×62°.8E±0°.2, h10km, mb3.8/4, MS3.4/7, Error ellipse: s-maj=61.9km s-min=21.1km az=171.1*

*IDC* ***28*** *11:17:41.3±1.3, 4°.05N×62°.77E, h0km, mb3.9/4, mb1 4.2/4, mb1mx3.5/71, mbtmp3.9/4, MS3.4/8, Ms1 3.4/8, ms1mx3.1/46, Error ellipse: s-maj=65.3km s-min=27.9km az=173.0*

**ISC 28 11:17:42.9±1.1, 4°.1N±0°.4×62°.8E±0°.2, h10km, n15, σ0s71/6, mb3.8/4, MS3.5/7, Carlsberg Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **H08N2** | **Diego Garcia H** | **13.23** | **141** | T | T | 11 35 13.6 | |
| | baz=322,slow=76,SNR=110 | | | | | | |
| **H08N3** | **Diego Garcia H** | **13.24** | **142** | T | T | 11 35 16.3 | |
| | baz=322,slow=76,SNR=112 | | | | | | |
| **H08N1** | **Diego Garcia H** | **13.25** | **141** | T | T | 11 35 15.3 | |
| | baz=322,slow=76,SNR=114 | | | | | | |
| **PALK** | **Pallekele** | **18.13** | **79** | LR | LR | 11 27 04.7 | |
| | comp=Z,164nm,21.2s,baz=296,slow=31 | | | | | | |
| **KMBO** | **Kilima Mbogo** | **26.01** | **259** | P | **P** | **11 23 17.3** | **+0.6** |
| | 0.5nm,0.3s,baz=51,slow=15,SNR=4.2 | | | | | | |
| KMBO | | | | LR | LR | 11 34 08.3 | |
| | comp=Z,53nm,18.5s,baz=89,slow=38 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **38.13** | **65** | P | **P** | **11 25 03.2** | **+0.6** |
| | 0.5nm,0.3s,baz=253,slow=9.2,SNR=3.4 | | | | | | |
| CMAR | | | | LR | LR | 11 40 26.2 | |
| | comp=Z,11nm,18.4s,baz=285,slow=36 | | | | | | |
| **BOSA** | **Boshof** | **48.56** | **226** | LR | LR | 11 45 20.8 | |
| | comp=Z,49nm,18.4s,baz=47,slow=34 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **52.86** | **16** | LR | LR | 11 52 48.8 | |
| | comp=Z,54nm,18.4s,baz=253,slow=40 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **60.91** | **283** | LR | LR | 11 52 39.6 | |
| | comp=Z,24nm,19.1s,baz=355,slow=34 | | | | | | |
| **WRA** | **Warramunga Arr** | **74.19** | **112** | P | **P** | **11 29 20.3** | **-0.2** |
| | 2.5nm,1.1s,baz=291,slow=5.0,SNR=5.8 | | | | | | |
| **ASAR** | **Alice Springs** | **74.50** | **116** | P | **P** | **11 29 22.1** | **-0.1** |
| | 1.2nm,1.0s,baz=293,slow=4.9,SNR=5.9 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **75.88** | **53** | LR | LR | 12 04 28.7 | |
| | comp=Z,20nm,18.5s,baz=320,slow=37 | | | | | | |
| **SPITS** | **Spitsbergen Ar** | **77.79** | **351** | LR | LR | 12 07 58.4 | |
| | comp=Z,63nm,18.1s,baz=195,slow=39 | | | | | | |
| **NVAR** | **Mina Array Bea** | **137.67** | **1** | PKP | **PKPdf** | **11 37 07.4** | **-0.8** |
| | 0.3nm,0.7s,baz=208,slow=1.5,SNR=2.8 | | | | | | |
| **TXAR** | **Lajitas Array** | **144.29** | **339** | PKP | **PKPab** | **11 37 17.6** | **-0.5** |
| | 0.3nm,0.7s,baz=52,slow=5.8,SNR=3.4 | | | | | | |

*IDC* ***28*** *11:18:41.6±0.8, 34°.74N×85°.79E, h0km, mb3.6/11, mb1 3.8/15, mb1mx3.6/70, mbtmp3.7/15, ML3.4/4, MS3.2/6, Ms1 3.2/6, ms1mx3.0/50, Error ellipse: s-maj=24.6km s-min=16.3km az=54.0*

*BJI* ***28*** *11:18:42.9, 35°.05N×85°.97E, h7km, mb4.0/4*

*ISCJB* ***28*** *11:18:44.9±0.4, 34°.96N±0°.04×86°.0E±0°.1, h33km, mb3.5/10, MS3.1/2, Error ellipse: s-maj=13.7km s-min=5.3km az=178.0*

**ISC 28 11:18:47.2±0.6, 34°94N±0°.07×85°9E±0°.1, h35km, n28, σ1s08/26, mb3.6/10, Xizang**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GUN** | **Gumba** | **7.01** | **180** | *e*P | **Pn** | **11 20 28.7** | **+1.0** |
| | 26nm,0.5s | | | | | | |
| **KKN** | **Kakani** | **7.15** | **185** | *e*P | **Pn** | **11 20 31.0** | **+1.5** |
| | 30nm,0.9s | | | | | | |
| **JIRN** | **Jiri** | **7.26** | **178** | *e*P | **Pn** | **11 20 31.5** | **+0.3** |
| | 220nm,0.4s | | | | | | |
| **PYUN** | **Piuthan** | **7.27** | **201** | *e*P | **Pn** | **11 20 31.4** | **+0.3** |
| | 38nm,0.9s | | | | | | |
| **DMN** | **Daman** | **7.34** | **186** | *e*P | **Pn** | **11 20 33.7** | **+1.5** |
| | 18nm,0.6s | | | | | | |
| **PKIN** | **Phulchoki** | **7.36** | **184** | *e*P | **Pn** | **11 20 33.2** | **+0.8** |
| | 26nm,0.5s | | | | | | |
| **PKI** | **Pulchoki** | **7.36** | **184** | *e*P | **Pn** | **11 20 33.2** | **+0.7** |
| | 16nm,0.4s | | | | | | |
| **KOLN** | **Koldanda** | **7.42** | **196** | *e*P | **Pn** | **11 20 33.6** | **+0.4** |
| | 24nm,0.7s | | | | | | |
| **RAMN** | **Ramite** | **7.99** | **176** | *e*P | **Pn** | **11 20 40.6** | **-0.4** |
| | 30nm,0.6s | | | | | | |
| **ODAN** | **Odare** | **8.15** | **171** | *e*P | **Pn** | **11 20 42.9** | **-0.4** |
| | 16nm,0.5s | | | | | | |
| **WMQ** | **Urumqi** | **8.97** | **8** | P | **Pn** | **11 20 52.8** | **-1.5** |
| **MKAR** | **Makanchi Array** | **12.16** | **348** | Pn | **Pn** | **11 21 37.2** | **-0.7** |
| | 0.2nm,0.3s,baz=155,slow=13,SNR=49 | | | | | | |
| MKAR | | | | LR | LR | 11 27 05.1 | |
| | comp=Z,80nm,20.1s,baz=166,slow=41 | | | | | | |
| **BRDH** | **Bariadhala** | **13.20** | **156** | LR | LR | 11 27 49.8 | |
| | comp=Z,82nm,19.9s,baz=58,slow=42 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **16.57** | **343** | Pn | **Pn** | **11 22 35.6** | **-1.2** |
| | 0.1nm,0.3s,baz=160,slow=11,SNR=16 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **19.02** | **358** | P | **Pn** | **11 23 07.1** | **+0.3** |
| | 0.1nm,0.3s,baz=179,slow=10,SNR=7.8 | | | | | | |
| ZALV | | | | LR | LR | 11 31 31.1 | |
| | comp=Z,133nm,18.2s,baz=75,slow=40 | | | | | | |
| **SONM** | **Songino Array** | **19.97** | **44** | P | **Pn** | **11 23 18.1** | **-0.2** |
| | 0.8nm,0.7s,baz=238,slow=14,SNR=4.6 | | | | | | |
| SONM | | | | LR | LR | 11 31 17.6 | |
| | comp=Z,84nm,20.6s,baz=326,slow=37 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **20.08** | **142** | P | **P** | **11 23 16.9** | **-0.9** |
| | 0.2nm,0.3s,baz=311,slow=8.2,SNR=7.8 | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NAX | | | | ⇓S | | Sg | 11 22 31.6 | +2.0 |
| **NAX** | **Nakhchivan** | **1.45** | **82** | P | | Pg | 11 22 11.3 | +0.5 |
| | SNR=35 | | | | | | | |
| NAX | | | | S | | Sg | 11 22 31.6 | +2.0 |
| **YOVA** | **Hakkari_Y`…kse** | **1.49** | **160** | *i* P | | Pb | 11 22 10.7 | -1.0 |
| **YOVA** | **Hakkari_Y`…kse** | **1.49** | **160** | P | | Pb | 11 22 10.7 | -1.0 |
| **SBZ** | **Shahbuz** | **1.54** | **74** | P | | Pb | 11 22 11.6 | -0.8 |
| | SNR=177 | | | | | | | |
| SBZ | | | | ⇑S | | Sg | 11 22 33.6 | +1.2 |
| **SBZ** | **Shahbuz** | **1.54** | **74** | P | | Pb | 11 22 11.6 | -0.8 |
| | SNR=177 | | | | | | | |
| SBZ | | | | S | | Sg | 11 22 33.6 | +1.2 |
| **SRTM** | **Siirt_Merkez** | **1.68** | **234** | *i* P | | Pb | 11 22 14.6 | -0.2 |
| **SRTM** | **Siirt_Merkez** | **1.68** | **234** | P | | Pb | 11 22 14.6 | -0.2 |
| **KARS** | **Kars** | **1.69** | **345** | *e*PN | | Pg | 11 22 15.5 | +0.1 |
| **KARS** | **Kars** | **1.69** | **345** | *e*Pn | | Pg | 11 22 15.5 | +0.1 |
| **HOMI** | **Horasan** | **1.71** | **309** | *i* P | | Pb | 11 22 15.4 | +0.1 |
| **CUKT** | **Cukurca** | **1.74** | **181** | *e*PN | | Pb | 11 22 15.6 | -0.3 |
| **CUKT** | **Cukurca** | **1.74** | **181** | *e*Pn | | Pb | 11 22 15.6 | -0.3 |
| **SIRT** | **Sirnak** | **1.77** | **213** | *e*PN | | Pb | 11 22 16.7 | +0.4 |
| **SIRT** | **Sirnak** | **1.77** | **213** | *e*Pn | | Pb | 11 22 16.7 | +0.4 |
| **SIRN** | **S¨–rnak** | **1.78** | **213** | *i* P | | Pb | 11 22 15.6 | -0.9 |
| **SIRN** | **S¨–rnak** | **1.78** | **213** | P | | Pb | 11 22 15.6 | -0.9 |
| **ORD** | **Ordubad** | **1.83** | **91** | P | | Pb | 11 22 16.5 | -0.9 |
| | SNR=246 | | | | | | | |
| ORD | | | | S | | Sg | 11 22 41.3 | -0.6 |
| **SENK** | **Senkaya-Erzuru** | **1.86** | **328** | *e*PN | | Pb | 11 22 17.5 | -0.4 |
| **SENK** | **Senkaya-Erzuru** | **1.86** | **328** | *e*Pn | | Pb | 11 22 17.5 | -0.4 |
| **BNGL** | **BINGÖL** | **1.94** | **270** | *i* P | | Pb | 11 22 19.4 | 0.0 |
| **ERZM** | **Erzurum** | **1.98** | **298** | *i* P | | Pb | 11 22 20.3 | +0.2 |
| **BTMN** | **Batman** | **2.17** | **240** | *i* P | | Pb | 11 22 22.8 | -0.2 |
| **BNGB** | **Bing¨¶l** | **2.31** | **271** | *e*PN | | Pb | 11 22 24.6 | -1.0 |
| **GDB** | **GEDABAY** | **2.37** | **43** | ⇑P | | Pn | 11 22 23.1 | -0.1 |
| | SNR=42 | | | | | | | |
| GDB | | | | ⇑S | | Sb | 11 22 53.2 | -3.2 |
| **GDB** | **GEDABAY** | **2.37** | **43** | P | | Pn | 11 22 23.1 | -0.1 |
| | SNR=42 | | | | | | | |
| GDB | | | | S | | Sb | 11 22 53.2 | -3.2 |
| **DDEM** | **Demirkent** | **2.39** | **323** | *i* P | | Pg | 11 22 28.8 | 0.0 |
| **AKH** | **Akhalkalaki** | **2.42** | **357** | *e*PN | | Pb | 11 22 25.8 | -1.6 |
| **AKH** | **Akhalkalaki** | **2.42** | **357** | *e*Pn | | Pb | 11 22 25.8 | -1.6 |
| **YEDI** | **Yedisu-Bingol** | **2.45** | **281** | *e*PN | | Pb | 11 22 26.9 | -1.1 |
| **YEDI** | **Yedisu-Bingol** | **2.45** | **281** | *e*Pn | | Pb | 11 22 26.9 | -1.1 |
| **QZX** | **Qazax, Azerbai** | **2.45** | **32** | ⇓P | | Pn | 11 22 23.8 | -0.4 |
| | SNR=31 | | | | | | | |
| QZX | | | | ⇑S | | Sn | 11 22 54.3 | -0.6 |
| **QZX** | **Qazax, Azerbai** | **2.45** | **32** | P | | Pn | 11 22 23.8 | -0.4 |
| | SNR=31 | | | | | | | |
| QZX | | | | S | | Sn | 11 22 54.3 | -0.6 |
| **BINT** | **Bingol** | **2.46** | **268** | *e*Pn | | Pn | 11 22 24.6 | +0.1 |
| **DAGI** | **Agillar** | **2.47** | **328** | *i* P | | Pg | 11 22 30.1 | -0.2 |
| **ARTV** | **Artvin** | **2.55** | **330** | *i* P | | Pg | 11 22 31.7 | -0.2 |
| **HANI** | **Diyarbakir_Han** | **2.60** | **258** | *i* P | | Pb | 11 22 30.5 | 0.0 |
| **GANJ** | **Ganja** | **2.64** | **50** | ⇓P | | Pn | 11 22 26.9 | 0.0 |
| | SNR=9.2 | | | | | | | |
| GANJ | | | | ⇓S | | Sb | 11 23 00.1 | -4.0 |
| **GANJ** | **Ganja** | **2.64** | **50** | P | | Pn | 11 22 26.9 | 0.0 |
| | SNR=9.2 | | | | | | | |
| GANJ | | | | S | | Sb | 11 23 00.1 | -4.0 |
| **MARD** | **Mardin** | **2.81** | **234** | *i* P | | Pn | 11 22 29.9 | +0.7 |
| **BCA** | **Borcka** | **2.90** | **328** | *e*PN | | Pn | 11 22 32.6 | +2.3 |
| **BCA** | **Borcka** | **2.90** | **328** | *e*Pn | | Pn | 11 22 32.6 | +2.3 |
| **DIY** | **Diyarbakir** | **2.90** | **249** | *e*Pn | | Pb | 11 22 33.4 | -2.2 |
| **DYBB** | **Diyarbakir** | **2.94** | **250** | *e*PN | | Pn | 11 22 33.4 | +2.4 |
| **MAZI** | **Mazidag** | **2.95** | **240** | *e*PN | | Pn | 11 22 33.4 | +2.3 |
| **MAZI** | **Mazidag** | **2.95** | **240** | *e*Pn | | Pn | 11 22 33.4 | +2.3 |
| **BRDA** | **Brd** | **3.01** | **64** | ⇓P | | Pn | 11 22 32.0 | +0.2 |
| | SNR=7.3 | | | | | | | |
| BRDA | | | | ⇑S | | Sn | 11 23 09.2 | +0.6 |
| **BRDA** | **Brd** | **3.01** | **64** | P | | Pn | 11 22 32.0 | +0.2 |
| | SNR=7.3 | | | | | | | |
| BRDA | | | | S | | Sn | 11 23 09.2 | +0.6 |
| **BAYT** | **Ayd¨–ntepe-Bay** | **3.04** | **298** | *e*PN | | Pn | 11 22 35.1 | +2.6 |
| **BAYT** | **Ayd¨–ntepe-Bay** | **3.04** | **298** | *e*Pn | | Pn | 11 22 35.1 | +2.6 |
| **ERZN** | **Erzincan** | **3.10** | **282** | *e*Pn | | Pn | 11 22 35.7 | +2.4 |
| **MNGR** | **Mingechevir, A** | **3.19** | **55** | ⇑S | | Sn | 11 23 13.5 | +0.5 |
| **MNGR** | **Mingechevir, A** | **3.19** | **55** | S | | Sn | 11 23 13.5 | +0.5 |
| **PTK** | **Pertek** | **3.32** | **270** | *e*PN | | Pn | 11 22 38.8 | +2.5 |
| **PTK** | **Pertek** | **3.32** | **270** | *e*Pn | | Pn | 11 22 38.8 | +2.5 |
| **EZC** | **Erzincan** | **3.41** | **284** | *e*Pn | | Pn | 11 22 35.7 | -1.8 |
| **SVRC** | **Sivrice-ELAZID** | **3.45** | **261** | *e*PN | | Pn | 11 22 40.5 | +2.4 |
| **SVRC** | **Sivrice-ELAZID** | **3.45** | **261** | *e*Pn | | Pn | 11 22 40.5 | +2.4 |
| **ZKTA** | **Zakatala** | **3.49** | **40** | ⇑P | | Pn | 11 22 38.2 | -0.2 |
| | SNR=8.6 | | | | | | | |
| ZKTA | | | | ⇑S | | Sn | 11 23 20.2 | -0.2 |
| **SEKA** | **Sheki** | **3.51** | **50** | ⇑P | | Pn | 11 22 39.5 | +0.7 |
| | SNR=8.2 | | | | | | | |
| SEKA | | | | ⇑S | | Sn | 11 23 22.7 | +1.7 |
| **SEKA** | **Sheki** | **3.51** | **50** | P | | Pn | 11 22 39.5 | +0.7 |
| | SNR=8.2 | | | | | | | |
| SEKA | | | | S | | Sn | 11 23 22.7 | +1.7 |
| **LRK** | **Lerik** | **3.69** | **94** | ⇑P | | Pn | 11 22 41.7 | +0.4 |
| | SNR=6.0 | | | | | | | |
| LRK | | | | ⇑S | | Sn | 11 23 27.1 | +1.6 |
| **LRK** | **Lerik** | **3.69** | **94** | P | | Pn | 11 22 41.7 | +0.4 |
| | SNR=6.0 | | | | | | | |
| LRK | | | | S | | Sn | 11 23 27.1 | +1.6 |
| **GLBA** | **Clilabad** | **3.70** | **85** | ⇑P | | Pn | 11 22 41.9 | +0.5 |
| | SNR=21 | | | | | | | |
| GLBA | | | | ⇓S | | Sn | 11 23 27.1 | +1.4 |
| **GLBA** | **Clilabad** | **3.70** | **85** | P | | Pn | 11 22 41.9 | +0.5 |
| | SNR=21 | | | | | | | |
| GLBA | | | | S | | Sn | 11 23 27.1 | +1.4 |
| **KDMR** | **Kurdemir** | **3.77** | **67** | ⇓S | | Sn | 11 23 28.2 | +1.0 |
| **KDMR** | **Kurdemir** | **3.77** | **67** | S | | Sn | 11 23 28.2 | +1.0 |
| **QBL** | **Gabala** | **3.77** | **57** | ⇓P | | Pn | 11 22 42.3 | 0.0 |
| | SNR=6.5 | | | | | | | |
| **QBL** | **Gabala** | **3.77** | **57** | P | | Pn | 11 22 42.3 | 0.0 |
| | SNR=6.5 | | | | | | | |
| **SAAT** | **Saatly** | **3.80** | **75** | ⇑S | | Sn | 11 23 28.7 | +0.6 |
| **SAAT** | **Saatly** | **3.80** | **75** | S | | Sn | 11 23 28.7 | +0.6 |
| **LKRN** | **Lenkeran, Azer** | **4.02** | **92** | ⇑P | | Pn | 11 22 46.7 | +1.0 |
| | SNR=12 | | | | | | | |
| **LKRN** | **Lenkeran, Azer** | **4.02** | **92** | P | | Pn | 11 22 46.7 | +1.0 |
| | SNR=12 | | | | | | | |
| **ASTR** | **Astara** | **4.05** | **95** | ⇓P | | Pn | 11 22 46.8 | +0.7 |
| | SNR=4.8 | | | | | | | |
| **ASTR** | **Astara** | **4.05** | **95** | P | | Pn | 11 22 46.8 | +0.7 |
| | SNR=4.8 | | | | | | | |
| **XNQ** | **Khinaliq** | **4.08** | **56** | ⇓P | | Pn | 11 22 46.5 | -0.3 |
| | SNR=3.2 | | | | | | | |
| XNQ | | | | ⇑S | | Sn | 11 23 35.6 | +0.3 |
| **XNQ** | **Khinaliq** | **4.08** | **56** | P | | Pn | 11 22 46.5 | -0.3 |
| | SNR=3.2 | | | | | | | |
| XNQ | | | | S | | Sn | 11 23 35.6 | +0.3 |
| **PQL** | **Pirkuli** | **4.21** | **63** | ⇑P | | Pn | 11 22 48.6 | +0.1 |
| **PQL** | **Pirkuli** | **4.21** | **63** | P | | Pn | 11 22 48.6 | +0.1 |
| **QSAR** | **Qusar** | **4.34** | **53** | ⇓P | | Pn | 11 22 49.9 | -0.3 |
| **QSAR** | **Qusar** | **4.34** | **53** | P | | Pn | 11 22 49.9 | -0.3 |
| **QUBA** | **Quba, Azerbaij** | **4.40** | **56** | ⇓P | | Pn | 11 22 50.8 | -0.2 |
| **QUBA** | **Quba, Azerbaij** | **4.40** | **56** | P | | Pn | 11 22 50.8 | -0.2 |
| **ATGJ** | **Altiaghaj** | **4.48** | **64** | ⇓P | | Pn | 11 22 52.1 | -0.1 |
| | SNR=3.9 | | | | | | | |
| **ATGJ** | **Altiaghaj** | **4.48** | **64** | P | | Pn | 11 22 52.1 | -0.1 |
| | SNR=3.9 | | | | | | | |
| **KVAR** | **Kislovodsk Arr** | **5.01** | **352** | LR | | LR | 11 25 30.7 | |
| | comp=Z,504nm,20.7s,baz=183,slow=45 | | | | | | | |
| **MMAI** | **Mount Meron Ar** | **8.95** | **231** | LR | | LR | 11 27 39.3 | |
| | comp=Z,79nm,19.5s,baz=55,slow=40 | | | | | | | |
| **AKTO** | **Aktyubinsk** | **15.30** | **37** | Pn | | Pn | 11 25 19.8 | -0.3 |
| | 0.1nm,0.3s,baz=227,slow=16,SNR=2.3 | | | | | | | |
| **AKASG** | **Malin Array Be** | **15.51** | **324** | LR | | LR | 11 32 26.0 | |
| | comp=Z,158nm,18.2s,baz=275,slow=42 | | | | | | | |
| **OBN** | **Obninsk** | **16.82** | **346** | LR | | LR | 11 33 03.4 | |
| | comp=Z,270nm,18.2s,baz=289,slow=40 | | | | | | | |
| **ARU** | **Arti** | **20.05** | **25** | P | | Pn | 11 26 18.2 | -0.9 |
| | 5.8nm,0.9s,baz=224,slow=12,SNR=6.7 | | | | | | | |
| **WSAR** | **Wadi Sarin** | **20.23** | **137** | P | | Pn | 11 26 19.9 | -1.6 |
| | 7.3nm,0.9s,baz=350,slow=6.1,SNR=2.6 | | | | | | | |
| **GERES** | **GERESS Array B** | **23.57** | **304** | P | | **P** | **11 26 56.3** | **+1.2** |
| | 0.8nm,0.9s,baz=100,slow=8.1,SNR=5.4 | | | | | | | |
| **FINES** | **FINESS Array B** | **24.96** | **340** | LR | | LR | 11 36 52.9 | |
| | comp=Z,164nm,21.3s,baz=216,slow=36 | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **27.09** | **53** | P | | **P** | **11 27 29.0** | **+1.9** |
| | 0.5nm,0.6s,baz=270,slow=8.3,SNR=3.2 | | | | | | | |
| **MKAR** | **Makanchi Array** | **29.13** | **62** | P | | **P** | **11 27 47.3** | **+1.8** |
| | 0.2nm,0.4s,baz=276,slow=8.8,SNR=2.5 | | | | | | | |
| **NOA** | **NORSAR Array B** | **29.82** | **328** | LR | | LR | 11 41 25.1 | |
| | comp=Z,65nm,18.1s,baz=145,slow=40 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **32.10** | **348** | LR | | LR | 11 43 27.2 | |
| | comp=Z,192nm,19.1s,baz=64,slow=41 | | | | | | | |
| **ESDC** | **Sonseca Array** | **36.49** | **287** | P | | **P** | **11 28 49.5** | **-0.3** |
| | 0.3nm,0.3s,baz=75,slow=6.4,SNR=5.7 | | | | | | | |
| **KMBO** | **Kilima Mbogo** | **40.36** | **190** | LR | | LR | 11 45 52.6 | |
| | comp=Z,47nm,18.8s,baz=90,slow=36 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **45.07** | **247** | P | | **P** | **11 30 01.1** | **+0.3** |
| | 2.2nm,1.2s,baz=34,slow=10,SNR=5.2 | | | | | | | |
| **DBIC** | **Dimbokro** | **54.18** | **247** | P | | **P** | **11 31 08.9** | **-1.3** |
| | 2.4nm,0.8s,baz=68,slow=5.4,SNR=2.7 | | | | | | | |
| **FRB** | **Frobisher Bay** | **64.51** | **333** | LR | | LR | 11 58 36.1 | |
| | comp=Z,42nm,20.7s,baz=311,slow=34 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **77.35** | **350** | P | | **P** | **11 33 39.3** | **+0.2** |
| | 0.1nm,0.7s,baz=19,slow=3.9,SNR=3.7 | | | | | | | |

*ISCJB **28** 11:27:58.7±0.6,36°.20S±0°.06×71°.78W±0°.09,h100km, Error ellipse: s-maj=12.2km s-min=5.1km az=37.0*
*GUC **28** 11:28:00.2±0.7,36°.20S×71°.70W,h90km±5km, ML3.9*
*SJA **28** 11:28:08.7±1.3,35°.40S×70°.84W,h257km±43km, ML3.5, MW3.6*
**ISC 28 11:27:59.4**±1.3,**36°.23S**±0°.06×**71°.78W**±0°.09,**h100**km,**n16,** σ1§**24**/20,**Central Chile**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **CCHI** | **Chillan** | **0.45** | **213** | *e*P | | **Pn** | | **11 28 14.6** | **-0.2** |
| CCHI | | | | *e*S | | **Sn** | | **11 28 25.1** | **-1.2** |
| CCHI | | | | IAML | | | | 11 28 26.2 | |
| | comp=N,13μm,0.3s | | | | | | | | |
| **COCH** | **Cobquecura** | **0.82** | **276** | *e*P | | **Pn** | | **11 28 18.3** | **+0.3** |
| COCH | | | | *e*S | | **Sn** | | **11 28 31.6** | **-0.3** |
| COCH | | | | IAML | | | | 11 28 33.2 | |
| | comp=E,3μm,0.4s | | | | | | | | |
| **GO05** | **HualaæØ** | **1.22** | **354** | *e*P | | **Pn** | | **11 28 22.0** | **-0.3** |
| GO05 | | | | *e*S | | **Sn** | | **11 28 38.3** | **-1.4** |
| GO05 | | | | IAML | | | | 11 28 41.0 | |
| | comp=E,3μm,0.4s | | | | | | | | |
| **CCSP** | **San Pedro de C** | **1.24** | **240** | *e*P | | **Pn** | | **11 28 23.4** | **+1.0** |
| CCSP | | | | *e*S | | **Sn** | | **11 28 39.0** | **-0.9** |
| CCSP | | | | IAML | | | | 11 28 42.8 | |
| | comp=N,3μm,0.2s | | | | | | | | |
| **NICH** | **Los Niches** | **1.30** | **20** | *e*S | | **Sn** | | **11 28 39.9** | **-1.4** |
| **TMU** | **Temuco** | **2.59** | **194** | *e*P | | **Pn** | | **11 28 40.3** | **+0.7** |
| **LMEL** | **Las Melosas** | **2.70** | **29** | *e*P | | **Pn** | | **11 28 42.0** | **+0.7** |
| **CLCH** | **Cerro Calan** | **3.00** | **20** | *e*P | | **Pn** | | **11 28 44.8** | **-0.4** |
| **PEL** | **Peldehue** | **3.21** | **17** | *e*P | | **Pn** | | **11 28 47.4** | **-0.5** |
| **ROC1** | **El Roble** | **3.31** | **11** | *e*P | | Pn | | 11 28 56.7 | +7.2 |
| ROC1 | | | | *e*S | | **Sn** | | **11 29 31.7** | **+3.6** |
| **ASAL** | **Salagasta** | **4.37** | **35** | *e*P | | **Pn** | | **11 29 04.4** | **+0.8** |
| **AUSP** | **Uspallata** | **4.46** | **27** | *e*P | | **Pn** | | **11 29 06.1** | **+1.1** |
| **RTLS** | **Leoncito** | **4.88** | **26** | *e*P | | **Pn** | | **11 29 11.7** | **+1.0** |
| RTLS | | | | IAML | | | | 11 29 13.5 | |
| | comp=Z,31nm,0.3s | | | | | | | | |
| **ACAN** | **Cantantal** | **5.48** | **45** | *e*P | | **Pn** | | **11 29 18.4** | **-0.2** |
| **RTLL** | **Cerro Villicun** | **5.61** | **30** | *e*P | | **Pn** | | **11 29 19.4** | **-1.0** |
| RTLL | | | | IAML | | | | 11 29 21.1 | |
| | comp=Z,36nm,0.5s | | | | | | | | |
| **AMOG** | **MOGNA** | **5.95** | **28** | *e*P | | **Pn** | | **11 29 24.2** | **-0.8** |

*ISCJB **28** 11:37:06.9±0.3,23°.94N±0°.02×121°.95E±0°.02, h36km±14km, Error ellipse: s-maj=4.5km s-min=2.8km az=149.9*
*JMA **28** 11:37:06.1±0.1,23°.92N×121°.94E, h34km±3km, M2.2*
*TAP **28** 11:37:07.0,23°.97N×121°.89E, h41km, ML2.9, C*
**ISC 28 11:37:06.8**±1.1,**23°.93N**±0°.03×**121°.95E**±0°.03,**h33**km±4km, **n38,**σ0§**71**/68,**2C-3D,Taiwan**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **HWA** | **Hwalien** | **0.31** | **278** | *e*P | | **Pb** | | **11 37 15.3** | **+0.6** |
| | baz=262 | | | | | | | | |
| **TWD** | **Chiawan** | **0.35** | **294** | ⇓*i*P | | **Pb** | | **11 37 15.3** | **+0.1** |
| TWD | baz=293 | | | S | | **Sb** | | **11 37 21.3** | **+0.4** |
| | baz=293 | | | | | | | | |
| **ESL** | **Shilin** | **0.48** | **256** | *e*P | | **Pb** | | **11 37 17.2** | **+0.1** |
| | baz=256 | | | | | | | | |
| ESL | | | | *e*S | | **Sb** | | **11 37 24.7** | **+0.5** |
| | baz=256 | | | | | | | | |
| **ENA** | **Nanau** | **0.53** | **339** | P | | **Pb** | | **11 37 17.5** | **-0.2** |
| | baz=335 | | | | | | | | |
| ENA | | | | *i* S | | **Sb** | | **11 37 25.4** | **+0.1** |
| | baz=335 | | | | | | | | |
| **WHF** | **Hehuan Shan** | **0.66** | **289** | ⇑P | | **Pb** | | **11 37 19.5** | **-0.7** |
| | baz=278 | | | | | | | | |
| WHF | | | | S | | **Sb** | | **11 37 28.6** | **-0.7** |
| | baz=278 | | | | | | | | |
| **TWC** | **Suao** | **0.68** | **353** | P | | **Pb** | | **11 37 20.1** | **-0.1** |
| | baz=5.0 | | | | | | | | |
| TWC | | | | *i* S | | **Sb** | | **11 37 29.6** | **+0.2** |
| | baz=5.0 | | | | | | | | |
| **EHY** | **Hungye** | **0.71** | **233** | *e*P | | **Pb** | | **11 37 20.7** | **-0.1** |
| | baz=228 | | | | | | | | |
| EHY | | | | *e*S | | **Sb** | | **11 37 29.7** | **-0.7** |
| | baz=228 | | | | | | | | |
| **NNS** | **Nan Shan** | **0.73** | **314** | *e*P | | **Pb** | | **11 37 20.6** | **-0.5** |
| | baz=315 | | | | | | | | |
| NNS | | | | *e*S | | **Sb** | | **11 37 30.1** | **-0.8** |
| | baz=315 | | | | | | | | |
| **WDT** | **Danda** | **0.77** | **257** | ⇑*i*P | | **Pb** | | **11 37 21.4** | **-0.5** |
| | baz=244 | | | | | | | | |
| WDT | | | | S | | **Sb** | | **11 37 31.4** | **-0.8** |
| | baz=244 | | | | | | | | |
| **TWT** | **Tachien** | **0.77** | **294** | *e*P | | **Pb** | | **11 37 22.2** | **+0.3** |
| | baz=287 | | | | | | | | |
| TWT | | | | *e*S | | **Sb** | | **11 37 31.5** | **-0.7** |
| | baz=287 | | | | | | | | |
| **ENTT** | **Nioudou** | **0.78** | **334** | *e*P | | **Pn** | | **11 37 21.6** | **+0.1** |
| | baz=330 | | | | | | | | |
| ENTT | | | | S | | **Sb** | | **11 37 32.0** | **-0.4** |
| | baz=330 | | | | | | | | |
| **TWE** | **Neicheng** | **0.82** | **342** | P | | **Pn** | | **11 37 21.8** | **-0.3** |
| | baz=353 | | | | | | | | |
| TWE | | | | *e*S | | **Sb** | | **11 37 32.5** | **-1.0** |
| | baz=353 | | | | | | | | |
| **TWF1** | **Yuli** | **0.83** | **226** | *e*P | | **Pn** | | **11 37 21.7** | **-0.5** |
| | baz=232 | | | | | | | | |
| TWF1 | | | | *e*S | | **Sb** | | **11 37 32.3** | **-1.4** |
| | baz=232 | | | | | | | | |
| **NSK** | **Sanguang** | **0.91** | **324** | *e*P | | **Pn** | | **11 37 23.3** | **0.0** |
| | baz=316 | | | | | | | | |
| NSK | | | | *e*S | | **Sn** | | **11 37 34.6** | **-0.8** |
| | baz=316 | | | | | | | | |
| **SMLT** | **Sun Moon Lake** | **0.96** | **267** | *e*P | | **Pn** | | **11 37 24.7** | **+0.7** |
| | baz=260 | | | | | | | | |
| SMLT | | | | *e*S | | **Sn** | | **11 37 36.6** | **+0.1** |
| | baz=260 | | | | | | | | |
| **TYC** | **Yuchr** | **1.00** | **268** | *e*P | | **Pn** | | **11 37 24.5** | **+0.1** |
| | baz=266 | | | | | | | | |
| TYC | | | | *e*S | | **Sn** | | **11 37 37.2** | **-0.1** |
| | baz=266 | | | | | | | | |
| **YUS** | **Yu-Shan** | **1.01** | **244** | *e*P | | **Pn** | | **11 37 25.4** | **+0.3** |
| | baz=231 | | | | | | | | |
| YUS | | | | *e*S | | **Sn** | | **11 37 38.0** | **-0.4** |
| | baz=231 | | | | | | | | |
| **JYNG** | **Yonagunijimaku** | **1.05** | **60** | P | | **Pn** | | **11 37 25.2** | **+0.1** |
| JYNG | | | | *e*S | | **Sn** | | **11 37 39.2** | **+0.6** |
| **YOJ** | **Yonaguni jima** | **1.10** | **61** | P | | **Pn** | | **11 37 26.1** | **+0.2** |
| YOJ | | | | S | | **Sn** | | **11 37 41.0** | **+0.9** |
| **NSTT** | **Nanjuang** | **1.11** | **309** | *e*P | | **Pn** | | **11 37 25.7** | **-0.2** |
| | baz=309 | | | | | | | | |
| NSTT | | | | *e*S | | **Sn** | | **11 37 39.9** | **-0.2** |
| | baz=309 | | | | | | | | |
| **ALS** | **Alishan** | **1.13** | **248** | *e*P | | **Pn** | | **11 37 26.9** | **+0.4** |
| | baz=245 | | | | | | | | |
| ALS | | | | *e*S | | **Sn** | | **11 37 40.6** | **-0.4** |
| | baz=245 | | | | | | | | |
| **ELDTW** | **Lidau** | **1.13** | **229** | ⇓P | | **Pn** | | **11 37 25.8** | **-0.6** |
| | baz=225 | | | | | | | | |
| **NWF** | **Wu-fen Shan** | **1.14** | **352** | *e*P | | **Pn** | | **11 37 27.7** | **+1.2** |
| | baz=355 | | | | | | | | |
| **TWQ1** | **Liyutan** | **1.15** | **291** | *e*P | | **Pn** | | **11 37 27.1** | **+0.6** |
| | baz=291 | | | | | | | | |
| TWQ1 | | | | *e*S | | **Sn** | | **11 37 41.3** | **+0.2** |
| | baz=291 | | | | | | | | |
| **WNT** | **Mingjian** | **1.16** | **267** | *e*P | | **Pn** | | **11 37 27.8** | **+1.1** |
| | baz=265 | | | | | | | | |
| **CHN5** | **Tsauling** | **1.21** | **254** | ⇓*e*P | | **Pn** | | **11 37 28.1** | **+0.7** |
| | baz=252 | | | | | | | | |
| CHN5 | | | | *e*S | | **Sn** | | **11 37 43.8** | **+1.1** |
| | baz=252 | | | | | | | | |
| **STYT** | **Tauyuan** | **1.33** | **235** | *e*P | | **Pn** | | **11 37 30.1** | **+1.0** |
| | baz=223 | | | | | | | | |
| **CHN4** | **Tsaushan** | **1.37** | **245** | *e*P | | **Pn** | | **11 37 30.7** | **+1.1** |
| | baz=243 | | | | | | | | |
| CHN4 | | | | *e*S | | **Sn** | | **11 37 47.6** | **+1.0** |
| | baz=243 | | | | | | | | |
| **TWG** | **Pinlang** | **1.37** | **216** | *e*P | | **Pn** | | **11 37 27.9** | **-1.6** |
| | baz=212 | | | | | | | | |
| **WTP** | **Ta-pu** | **1.40** | **241** | *e*P | | **Pn** | | **11 37 31.0** | **+0.9** |
| | baz=238 | | | | | | | | |
| WTP | | | | *e*S | | **Sb** | | **11 37 49.6** | **-0.3** |
| | baz=238 | | | | | | | | |
| **TWK** | **Hsinying** | **1.49** | **244** | *e*P | | **Pn** | | **11 37 32.1** | **+0.8** |
| | baz=241 | | | | | | | | |
| TWK | | | | *e*S | | **Sn** | | **11 37 49.9** | **+0.1** |
| | baz=241 | | | | | | | | |
| **CHN1** | **Nanshi** | **1.50** | **240** | *e*P | | **Pn** | | **11 37 32.3** | **+1.0** |
| | baz=238 | | | | | | | | |
| CHN1 | | | | *e*S | | **Sn** | | **11 37 51.5** | **+1.7** |
| | baz=238 | | | | | | | | |
| **SGST** | **Jiashian** | **1.51** | **236** | *e*P | | **Pn** | | **11 37 32.7** | **+1.1** |
| | baz=233 | | | | | | | | |
| **IRIF** | **Iriomote-Funau** | **1.68** | **76** | P | | **Pn** | | **11 37 34.2** | **+0.4** |
| IRIF | | | | *e*S | | **Sn** | | **11 37 54.7** | **+0.5** |
| **EAST** | **Anshuo** | **1.84** | **213** | *e*P | | **Pn** | | **11 37 36.7** | **+0.5** |
| | baz=209 | | | | | | | | |
| **JKRS** | **Kuro-shima** | **1.91** | **80** | P | | **Pn** | | **11 37 37.9** | **+0.9** |
| JKRS | | | | S | | **Sn** | | **11 38 00.7** | **+0.8** |
| **JIJ** | **Ishigaki jima** | **2.05** | **78** | P | | **Pn** | | **11 37 39.1** | **+0.1** |
| JIJ | | | | S | | **Sn** | | **11 38 02.7** | **-0.7** |
| **JISG** | **Ishigakijimahi** | **2.25** | **73** | P | | **Pn** | | **11 37 41.8** | **+0.1** |
| JISG | | | | S | | **Sn** | | **11 38 07.4** | **-1.0** |

*SJA **28** 11:43:38.8±1.0,27°.84S×71°.09W,h55km,ML4.7,MW5.0*
*GUC **28** 11:43:41.0±0.5,27°.77S×70°.80W,h76km±6km,ML4.7*
*ISCJB **28** 11:43:41.9±0.3,27°.72S±0°.02×70°.52W±0°.05,h68km±3km, mb4.7/92, Error ellipse: s-maj=7.0km s-min=3.7km az=174.8*
*BJI **28** 11:43:41.5,27°.70S×70°.30W,h34km,mB5.2/6,Ms6.5/6.3, Ms7 5.6/4*
*IDC **28** 11:43:43.5±0.4,27°.82S×70°.43W,h66km±3km,mb4.3/18, mb1 4.4/19,mb1mx4.4/31,mbtmp4.6/19,MS3.7/16, Ms1 3.7/16,ms1mx3.6/30, Error ellipse: s-maj=16.6km s-min=10.3km az=72.0*
*NEIC **28** 11:43:43.5±0.2,27°.78S×70°.25W,mb4.9/70, Error ellipse: s-maj=7.7km s-min=4.8km az=81.0*
*NEIC Felt [IV] at Calderas, Copiapo and Tierra Amarilla; [II] at La Higuera.*
**ISC 28 11:43:43.2**±0.3,**27°.83S**±0°.04×**70°.69W**±0°.05,**h65**km±3km, **h65**km**:pP-P,n516,**σ1§**17**/549,**mb4.9**/92,**1C-4D,Near coast of northern Chile**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **CPCH** | **Copiapo** | **0.56** | **33** | *e*P | | **Pn** | | **11 43 55.2** | **-1.0** |
| CPCH | | | | *e*S | | **Sn** | | **11 44 05.0** | **-0.7** |
| **VACH** | **Vallenar** | **0.75** | **184** | *e*P | | **Pn** | | **11 43 57.9** | **-0.5** |
| VACH | | | | *e*S | | **Sn** | | **11 44 09.5** | **-0.1** |
| **LCO** | **Las Campanas** | **1.18** | **180** | *e*Pn | | **Pn** | | **11 44 04.0** | **-0.1** |
| LCO | | | | *e*Sn | | **Sn** | | **11 44 18.8** | **-0.9** |
| **LCO** | **Las Campanas** | **1.18** | **180** | *e*P | | **Pn** | | **11 44 03.7** | **-0.4** |
| LCO | | | | *e*S | | **Sn** | | **11 44 17.7** | **-1.9** |
| **LCO** | **Las Campanas** | **1.18** | **180** | ⇑*i*P | | **Pn** | | **11 44 03.7** | **-0.4** |
| LCO | | | | *e*S | | **Sn** | | **11 44 19.4** | **-0.2** |
| LCO | | | | IAML | | | | 11 44 22.6 | |
| | comp=E,17μm,0.2s | | | | | | | | |
| **TLL** | **Tololo Astrono** | **2.33** | **182** | *e*P | | **Pn** | | **11 44 19.7** | **+0.2** |
| TLL | | | | IAML | | | | 11 44 58.6 | |
| | comp=N,6μm,0.8s | | | | | | | | |
| **VCA** | **Vinchina** | **2.38** | **113** | *e*P | | Pn | | 11 44 22.4 | +2.4 |
| VCA | | | | IAML | | | | 11 44 25.1 | |
| | comp=Z,3μm,0.4s | | | | | | | | |
| VCA | | | | *e*S | | **Sn** | | **11 44 49.3** | **+1.1** |
| **VCA** | **Vinchina** | **2.38** | **113** | ⇓*i*P | | Pn | | 11 44 22.4 | +2.4 |
| VCA | | | | IAML | | | | 11 45 13.8 | |
| | comp=E,4μm,1.6s | | | | | | | | |
| **AGUA** | **GUANDACOL** | **2.55** | **131** | *e*P | | **Pn** | | **11 44 24.3** | **+2.0** |
| **PB14** | **IPOC Station P** | **3.20** | **5** | *e*P | | **Pn** | | **11 44 30.2** | **-1.3** |
| PB14 | | | | *e*S | | Sn | | 11 45 20.5 | +12 |
| **PB14** | **IPOC Station P** | **3.20** | **5** | *e*P | | **Pn** | | **11 44 30.1** | **-1.3** |
| **AMOG** | **MOGNA** | **3.65** | **149** | *e*P | | **Pn** | | **11 44 38.5** | **+1.1** |
| AMOG | | | | *e*S | | **Sn** | | **11 45 21.6** | **+2.4** |
| **RTLL** | **Cerro Villicun** | **3.99** | **152** | *e*P | | **Pn** | | **11 44 43.0** | **+1.1** |
| RTLL | | | | *e*S | | **Sn** | | **11 45 28.8** | **+1.3** |
| RTLL | | | | IAML | | | | 11 45 34.5 | |
| | comp=Z,2μm,0.7s | | | | | | | | |
| **RTLS

comp=Z,122nm,1.8s
RUSC La Rusia 33.60 356 eP P 11 50 18.1 +0.1
comp=Z,61nm,1.7s
HELC Santa Helena 34.14 351 eP P 11 50 23.2 +0.7
comp=Z,95nm,1.2s
SDV Santo Domingo 36.49 0 eP P 11 50 41.1 -1.5
comp=Z,9.8nm,0.8s
PCRV Puerto La Cruz 38.23 10 P P 11 50 56.9 -0.1
comp=Z,6.7nm,0.4s,baz=228,slow=6.8,SNR=4.8
VNA3 Neumayer Olymp 54.68 160 P P 11 53 02.5 -2.7
VNA2 Neumayer--Watz 55.30 159 P P 11 53 09.5 -0.1
baz=292,slow=8.3
SNAA Sanae 56.90 160 P P 11 53 20.9 -0.2
SNAA Sanae 56.90 160 P P 11 53 20.7 -0.4
comp=Z,11nm,0.5s,baz=278,slow=8.1,SNR=53
SNAA pP pP 11 53 37.5 -0.6
comp=Z,5.0nm,0.6s,baz=281,slow=9.8,SNR=3.4
SNAA Sanae 56.90 160 eP P 11 53 20.6 -0.4
comp=Z,63nm,1.4s
SNAA pP pP 11 53 37.5 -0.6
247A Quitman 61.94 343 P P 11 53 56.0 -0.1
baz=162
344A Westbrook Farm 61.97 341 P P 11 53 57.7 +1.4
baz=160
833A Chaparral WMA, 62.24 331 P P 11 53 59.3 +1.1
baz=151,SNR=12
244A Avery, Jackson 62.51 341 P P 11 54 00.4 +0.4
baz=160
Z49A Columbiana 62.52 345 P P 11 53 59.4 -0.6
baz=164
Z47A Carrollton 62.89 344 P P 11 54 02.0 -0.5
baz=162
Z48A Northport 62.94 344 P P 11 54 02.4 -0.4
baz=163
242A Grayson 62.96 340 P P 11 54 03.8 +0.9
baz=158
Z46A Louisville 63.11 343 P P 11 54 04.0 +0.1
baz=162
Y49A Blount Mountai 63.13 345 P P 11 54 04.0 0.0
baz=164
241A Mo Tay, Goldon 63.17 339 P P 11 54 05.5 +1.2
baz=158
143A Socs Landing, 63.33 341 P P 11 54 05.9 +0.5
baz=159
KMSC Kings Mountain 63.43 350 P P 11 54 06.3 +0.3
baz=169
Z45A Winona 63.48 342 P P 11 54 06.7 +0.4
baz=161
Y47A UCPARC, Winfie 63.51 344 P P 11 54 06.0 -0.6
baz=163
X50A Fort Payne 63.55 346 P P 11 54 06.6 -0.2
baz=165
Y46A Houston 63.74 343 P P 11 54 07.4 -0.7
baz=162
X48A Hartselle 63.84 345 P P 11 54 08.2 -0.5
baz=164
Y45A Yeager Farm, C 63.91 343 P P 11 54 09.1 0.0
baz=161
237A Washetta, Mont 64.12 336 P P 11 54 11.4 +0.7
baz=155
Z41A Richland Creek 64.27 340 P P 11 54 11.9 +0.3
baz=158
JCT Junction City 64.30 332 P P 11 54 12.6 +0.7
baz=151,SNR=5.3
JCT Junction City 64.30 332 eP P 11 54 12.4 +0.5
comp=Z,15nm,0.8s
Y43A Makayla and Ka 64.33 341 P P 11 54 12.3 +0.4
baz=160
236A Katherine and 64.38 336 P P 11 54 12.8 +0.5
baz=154
X45A UM Field Stati 64.39 343 P P 11 54 12.0 -0.3
baz=161
Z40A Long Farm, Mag 64.46 339 P P 11 54 13.2 +0.4
baz=157
OXF Oxford 64.48 343 P P 11 54 12.8 -0.1
baz=161
137A Heron Place, G 64.64 337 P P 11 54 14.9 +0.9
baz=155
WHTX Lake Whitney, 64.71 335 P P 11 54 15.0 +0.5
baz=154,SNR=5.5
WHTX Lake Whitney, 64.71 335 eP P 11 54 15.1 +0.6
comp=Z,16nm,1.0s
Y41A Eaglette Beard 64.79 340 P P 11 54 15.3 +0.3
baz=158
136A Ennis 64.81 336 P P 11 54 15.4 +0.3
baz=154
X43A Marvell 64.88 342 P P 11 54 15.8 +0.3
baz=160
TXAR Lajitas Array 65.01 328 P P 11 54 17.6 +1.0
comp=Z,2.3nm,0.9s,baz=151,slow=9.2,SNR=21
TXAR pP pP 11 54 35.9 +1.9
comp=Z,2.3nm,0.8s,baz=139,slow=7.3,SNR=8.8
TX31 Lajitas Ar. Si 65.01 328 eP P 11 54 17.6 +0.9
V48A Smith Brothers 65.03 346 P P 11 54 16.4 -0.1
baz=164
W45A Hickory Valley 65.03 343 P P 11 54 16.5 0.0
baz=162
X42A Stuttgart 65.13 341 P P 11 54 17.5 +0.4
baz=159
Y39A Lockesburg 65.31 339 P P 11 54 19.0 +0.7
baz=157
Z36A Blue Ridge 65.49 336 P P 11 54 20.2 +0.7
baz=155,SNR=9.2
V45A Humboldt 65.53 344 P P 11 54 19.4 -0.3
baz=162
WVT Waverly 65.63 345 P P 11 54 19.8 -0.5
baz=163
WVT Waverly 65.63 345 eP P 11 54 19.2 -1.1
comp=Z,24nm,1.1s
MIAR Mount Ida 65.71 339 P P 11 54 20.5 -0.4
baz=158
MIAR Mount Ida 65.71 339 eP P 11 54 21.9 +1.1
MIAR ePcP sP 11 54 47.5 +1.9
U48A Cassie Pea, Po 65.71 346 P P 11 54 20.2 -0.6
baz=164
U47A Clarksville 65.81 345 P P 11 54 20.3 -1.2
baz=164,SNR=5.1
X39A Fountain Ranch 65.84 339 P P 11 54 22.1 +0.3
baz=157
W41B Gary Mavity, V 65.89 341 P P 11 54 22.0 0.0
baz=159
U46A Springville 65.93 345 P P 11 54 21.5 -0.8
baz=163
X301 Greenbrier Sit 65.99 341 eP P 11 54 23.7 +1.0
comp=Z,124nm,0.9s
Y36A Durant 66.01 337 P P 11 54 23.3 +0.5
baz=155
U45A Rockin P Farm, 66.06 344 P P 11 54 23.6 +0.5
baz=162
ABTX Abilene, Hawle 66.12 333 P P 11 54 24.1 +0.5
baz=152,SNR=6.8
ABTX Abilene, Hawle 66.12 333 eP P 11 54 24.0 +0.5
comp=Z,39nm,1.3s
W40A Ferguson Farm, 66.15 340 P P 11 54 24.0 +0.3
baz=158
X38A Whitesboro 66.22 338 P P 11 54 24.8 +0.7
baz=156
T48A Bowling Green 66.26 346 P P 11 54 23.3 -1.0
baz=164
Y35A Marietta 66.28 336 P P 11 54 24.9 +0.3
baz=154
T47A Sharon Grove 66.29 346 P P 11 54 23.8 -0.7
baz=164
X37A Clayton 66.33 338 P P 11 54 25.1 +0.3
baz=156
X37A Clayton 66.33 338 eP P 11 54 25.6 +0.8
comp=Z,22nm,1.1s
W39A Magazine 66.37 339 P P 11 54 25.1 0.0
baz=157
V41A Mountainview 66.43 341 P P 11 54 25.1 -0.4
baz=159,SNR=6.5
W38A Poteau 66.49 339 P P 11 54 25.7 -0.1
baz=157
U43A Rector 66.50 343 P P 11 54 25.4 -0.5
baz=161
T46A Princeton 66.52 345 P P 11 54 25.4 -0.7
baz=163,SNR=5.7
X36A Centrahoma 66.64 337 P P 11 54 26.4 -0.4
baz=155
V40A Witts Springs 66.64 341 P P 11 54 26.4 -0.5
baz=158
T45A Paducah 66.67 344 P P 11 54 26.4 -0.5
baz=162
X35A Drake 66.70 337 P P 11 54 27.0 -0.3
baz=154
X35A Drake 66.70 337 eP P 11 54 27.1 -0.1
X35A ePcP sP 11 54 53.9 +1.9
U42A Revenden 66.70 342 P P 11 54 26.8 -0.4
baz=160,SNR=12
S48A Wiedeman Farm, 66.72 347 P P 11 54 26.7 -0.6
baz=165
W37B Quinton 66.85 338 P P 11 54 28.2 0.0
baz=156,SNR=5.4
W37B Quinton 66.85 338 eP P 11 54 28.2 0.0
comp=Z,27nm,1.0s
U41A Viola 66.89 341 P P 11 54 28.0 -0.3
baz=159,SNR=8.8
PBMO Poplar Bluff 66.89 343 eP P 11 54 28.2 -0.1
comp=Z,32nm,1.1s
V39A Pettigrew 66.92 340 P P 11 54 28.9 +0.2
baz=158,SNR=7.3
T44A Benton 66.97 344 P P 11 54 28.5 -0.4
baz=162
S46A Don Dixon Farm 67.09 345 P P 11 54 28.5 -1.1
baz=163
W36A Wetumka 67.11 337 P P 11 54 29.1 -0.7
baz=155,SNR=5.7
W36A Wetumka 67.11 337 eP P 11 54 29.7 -0.2
comp=Z,19nm,1.0s
T43A Greenville 67.14 343 P P 11 54 29.5 -0.5
baz=161,SNR=11
U40A Yellville 67.17 341 P P 11 54 28.7 -1.4
baz=158,SNR=9.8
V38A Canehill 67.18 339 P P 11 54 30.1 -0.2
baz=157,SNR=7.3
S45A Carrier Mills 67.28 345 P P 11 54 30.3 -0.5
baz=162
T42A Van Buren 67.30 342 P P 11 54 30.6 -0.4
baz=160
W35A Tecumseh 67.35 337 P P 11 54 31.0 -0.3
baz=155
U39A Green Forest 67.38 340 P P 11 54 31.0 -0.5
baz=158,SNR=5.0
R48A Northridge Ran 67.39 347 P P 11 54 31.2 -0.3
baz=165
HHAR Hobbs 67.42 340 eP P 11 54 31.8 0.0
comp=Z,18nm,1.2s
V37A Hulbert 67.43 339 P P 11 54 31.8 0.0
baz=156,SNR=5.9
S44A Carbondale 67.46 344 P P 11 54 31.7 -0.3
baz=162
SIUC Southern Illin 67.47 344 eP P 11 54 30.7 -1.3
comp=Z,66nm,1.8s
T41A Mountain View 67.50 342 P P 11 54 32.1 -0.1
baz=160,SNR=11
S43A Fulton Ridge, 67.55 343 P P 11 54 31.8 -0.7
baz=161,SNR=11
R46A Gibon Southern 67.56 346 P P 11 54 32.2 -0.3
baz=164
V36A Jenks 67.61 338 P P 11 54 32.7 -0.2
baz=156,SNR=7.9
V36A Jenks 67.61 338 eP P 11 54 32.6 -0.4
comp=Z,34nm,1.0s
V36A ePcP sP 11 54 58.5 +0.8
TUL1 Leonard 67.67 338 P P 11 54 33.1 -0.2
baz=156
TUL1 Leonard 67.67 338 eP P 11 54 32.3 -1.0
comp=Z,12nm,0.8s
U38A Gravette 67.70 340 P P 11 54 33.3 -0.3
baz=157
MNTX Cornudas Mount 67.79 328 P P 11 54 34.3 +0.1
baz=147,SNR=5.1
MNTX Cornudas Mount 67.79 328 eP P 11 54 33.2 -1.1
MNTX ePcP pP 11 54 52.7 +1.0
R45A Skylar, Fairfi 67.80 345 P P 11 54 33.4 -0.8
baz=163
T40A Mansfield 67.81 341 P P 11 54 34.1 -0.1
baz=159
V35A Meyer Ranch, C 67.89 337 P P 11 54 34.4 -0.3
baz=155
U37A Salina 67.90 339 P P 11 54 34.7 -0.1
baz=156,SNR=5.3
T39A Clever 67.94 341 P P 11 54 34.9 -0.1
baz=158,SNR=6.2
R44A Waltonville 67.95 344 P P 11 54 34.1 -0.9
baz=162
S41A Jillco Farms, 68.00 342 P P 11 54 34.9 -0.5
baz=160,SNR=13
FVM French Village 68.03 343 eP P 11 54 35.4 -0.2
comp=Z,72nm,1.4s
R43A Red Bud 68.18 344 P P 11 54 36.0 -0.5
baz=161
S40A Lebanon 68.22 341 P P 11 54 36.8 0.0
baz=159,SNR=6.8
T38A Diamond 68.22 340 P P 11 54 36.8 0.0
baz=157,SNR=15
CCM Cathedral Cave 68.31 343 P P 11 54 37.2 -0.1
baz=160
CCM Cathedral Cave 68.31 343 eP P 11 54 37.2 -0.1
comp=Z,23nm,0.9s
Q45A Warren Harvey, 68.35 345 P P 11 54 36.9 -0.6
baz=163
R42A Luebbering 68.40 343 P P 11 54 37.4 -0.5
baz=161,SNR=6.0
U35A Pawnee 68.40 338 P P 11 54 37.9 -0.1
baz=155,SNR=5.7
U35A Pawnee 68.40 338 eP P 11 54 38.1 +0.2
comp=Z,27nm,1.0s
T37A Chrisville 18 68.50 339 P P 11 54 38.5 0.0
baz=157,SNR=9.5
S39A Bolivar 68.54 341 P P 11 54 38.8 0.0
baz=158,SNR=11
N59A State Game Lan 68.56 356 P P 11 54 38.2 -0.6
baz=175
Q44A Meyer Farm, Va 68.56 345 P P 11 54 38.1 -0.8
baz=162
MSTX Muleshoe 68.57 332 P P 11 54 39.2 0.0
baz=149,SNR=7.2
MSTX Muleshoe 68.57 332 eP P 11 54 40.0 +0.8
MSTX ePcP pP 11 54 58.6 +1.9
R41A Rosebud 68.57 343 P P 11 54 38.7 -0.2
baz=160,SNR=11
S38A Stockton 68.66 340 P P 11 54 39.3 -0.2
baz=158,SNR=9.3
T36A Boggs Farm, Ca 68.75 339 P P 11 54 39.8 -0.2
baz=156
Q43A New Douglas 68.75 344 P P 11 54 39.7 -0.4
baz=162
R40A Maddies Statio 68.80 342 P P 11 54 40.3 -0.1
baz=159,SNR=16
P46A Rosedale 68.84 346 P P 11 54 39.9 -0.6
baz=164
P45A Graceland, Par 68.87 346 P P 11 54 40.2 -0.5
baz=164
AMTX Amarillo 68.91 333 P P 11 54 41.1 -0.1
baz=150
AMTX Amarillo 68.91 333 eP P 11 54 41.5 +0.3
comp=Z,26nm,1.5s
AMTX ePcP sP 11 55 10.6 +4.5
Q42A Golden Eagle 68.93 344 P P 11 54 40.7 -0.5
baz=161,SNR=9.2
N54A Moraine State 68.98 352 P P 11 54 41.0 -0.5
baz=171
P44A Sand Creek, Wi 69.00 345 P P 11 54 41.0 -0.6
baz=163
R39A Chumby, Stover 69.04 341 P P 11 54 41.6 -0.2
baz=158,SNR=6.2
S37A Fort Scott 69.06 340 P P 11 54 41.9 -0.1
baz=157,SNR=8.0
Q41A Truxton 69.15 343 P P 11 54 42.3 -0.2
baz=160,SNR=8.4
R38A Fenwick Farm, 69.17 341 P P 11 54 42.0 -0.7
baz=158,SNR=6.3
U32A Winter Ranch, 69.20 336 P P 11 54 42.8 -0.2
baz=153
O47A Sheridan 69.23 347 P P 11 54 41.7 -1.3
baz=165
S36A Lake Cedric, C 69.26 339 P P 11 54 42.9 -0.4
baz=156,SNR=6.0
P43A Skaggs, Pawnee 69.38 345 P P 11 54 43.4 -0.5
baz=162
Q40A Laux Farm, Aux 69.41 342 P P 11 54 43.8 -0.3
baz=160,SNR=6.8
S35A Otter Creek Ra 69.46 339 P P 11 54 44.3 -0.2
baz=156
P42A Winchester 69.52 344 P P 11 54 44.0 -0.8
baz=161,SNR=5.3
O45A Potomac 69.56 346 P P 11 54 44.2 -0.8
baz=164
O44A Mansfield 69.62 346 P P 11 54 44.8 -0.6
baz=163
Q39A Willow Grove F 69.70 342 P P 11 54 45.6 -0.4
baz=159
S34A Willow Spring 69.73 338 P P 11 54 46.2 0.0
baz=155
P41A Barry, Barry 69.79 343 P P 11 54 45.8 -0.6
baz=160,SNR=5.4
Q38A Cooks Store, C 69.81 341 P P 11 54 46.6 0.0
baz=158,SNR=13
P40A Paris 69.91 343 P P 11 54 47.0 -0.2
baz=160,SNR=10
Q37A Longview Farm, 69.97 340 P P 11 54 47.1 -0.5
baz=157
N46A Monticello 69.97 347 P P 11 54 46.5 -1.0
baz=164
R35A Emporia Munici 70.00 339 P P 11 54 47.8 0.0
baz=156
O42A Bath 70.04 344 P P 11 54 47.4 -0.5
baz=161
P39B Salisbury 70.06 342 P P 11 54 47.7 -0.4
baz=159,SNR=7.1
O41A Passleys Farm, 70.16 344 P P 11 54 48.1 -0.6
baz=161
N44A Piper City 70.17 346 P P 11 54 48.0 -0.7
baz=163
HDIL Hopedale 70.19 345 P P 11 54 48.1 -0.8
baz=162
R34A Isabella, Hill 70.32 338 P P 11 54 49.9 +0.1
baz=155,SNR=7.1
VNDA Vanda 70.36 191 P P 11 54 50.8 +1.2
comp=Z,1.4nm,0.6s,baz=123,slow=5.2,SNR=3.7
P38A Dawn 70.40 341 P P 11 54 49.7 -0.5
baz=158,SNR=5.4
O40A La Belle 70.42 343 P P 11 54 49.7 -0.6
baz=160
Q35A Mercer Eighty, 70.44 339 P P 11 54 49.9 -0.6
baz=156
N43A Stutzman Famil 70.53 345 P P 11 54 50.4 -0.5
baz=162
P37A Lathrop 70.60 341 P P 11 54 50.9 -0.5
baz=158
N42A Yates City 70.63 345 P P 11 54 50.7 -0.8
baz=162
N41A Harden Midland 70.71 344 P P 11 54 51.7 -0.3
baz=161
O39A Kirksville 70.72 342 P P 11 54 51.8 -0.3
baz=159,SNR=6.2
Q34A Chapman 70.79 339 P P 11 54 52.2 -0.4
baz=155
KSU1 Kansas State U 70.84 339 P P 11 54 52.4 -0.5
baz=156
O38A Galt 70.85 342 P P 11 54 51.9 -0.9
baz=158
P36A Good Intent, A 70.88 340 P P 11 54 52.6 -0.6
baz=157
TUC Tucson 70.93 325 eP P 11 54 54.4 +0.7
comp=Z,7.0nm,1.3s
M43A Waltham Townsh 70.96 346 P P 11 54 52.9 -0.7
baz=163
ANMO Albuquerque 71.00 329 eP P 11 54 55.1 +1.0
comp=Z,18nm,1.8s
P35A Duane Minner, 71.05 340 P P 11 54 53.4 -0.7
baz=156
N40A Mertquake, Sal 71.06 343 P P 11 54 53.7 -0.4
baz=160
O37A Wolven Farm, M 71.08 341 P P 11 54 53.7 -0.6
baz=158
SYO Syowa Base 71.19 159 eP P 11 54 53.6 -1.1
SYO Syowa Base 71.19 159 epP pP 11 55 10.1 -2.2
M41A Milan 71.27 344 P P 11 54 54.5 -0.8
baz=161
O36A Bolckow 71.28 341 P P 11 54 55.1 -0.5
baz=157
N39A Derby Farms, D 71.29 343 P P 11 54 55.0 -0.5
baz=159,SNR=5.3
P34A Walnut Farm, R 71.32 339 P P 11 54 55.9 +0.1
baz=155
M40A Post Highland 71.53 344 P P 11 54 56.4 -0.6
baz=160
N37A Lee Faris, Mou 71.64 341 P P 11 54 57.7 0.0
baz=158
LIC Lamto 71.77 72 eP P 11 54 57.8 -1.3
comp=Z,51nm,1.6s
O34A Beatrice 71.86 339 P P 11 54 58.9 -0.1
baz=156
N36A Muff Farm, Cla 71.91 341 P P 11 54 58.6 -0.7
baz=157
L41A Preston 71.92 345 P P 11 54 58.5 -0.8
baz=161
T25A Trinidad 71.97 332 P P 11 55 00.6 +0.6
baz=149
T25A Trinidad 71.97 332 eP P 11 55 00.1 0.0
comp=Z,29nm,1.6s
M38A Pleasantville 71.98 342 P P 11 54 59.3 -0.4
baz=159
TIC Toumodi 72.00 72 eP P 11 54 59.3 -1.2
O33A Hebron 72.04 339 P P 11 55 00.1 0.0
baz=155
L40A Anamosa 72.08 344 P P 11 54 59.9 -0.4
baz=161,SNR=7.7
KIC Kosan Boka 72.08 73 eP P 11 54 59.9 -1.1
comp=Z,56nm,1.4s
DBIC Dimbokro 72.15 72 P P 11 55 00.4 -1.0
comp=Z,10nm,1.0s,baz=222,slow=5.7,SNR=5.8
DBIC pP PcP 11 55 19.0 -0.4
comp=Z,6.0nm,0.8s,baz=204,slow=4.3,SNR=3.8
DBIC LR LR 12 25 44.1
comp=Z,37nm,18.5s,baz=214,slow=35
N35A Tabor 72.16 340 P P 11 55 00.7 -0.1
baz=157
M37A Trindle Farm, 72.20 342 P P 11 55 01.2 +0.2
baz=158,SNR=13
K42A Prairie Point, 72.33 346 P P 11 55 01.3 -0.4
baz=162
L39A Vinton 72.33 344 P P 11 55 01.7 -0.1
baz=160
K41A Shullsburg 72.38 345 P P 11 55 02.0 0.0
baz=162
N34A Lincoln 72.39 340 P P 11 55 01.9 -0.3
baz=156
SCIA State Center 72.44 343 P P 11 55 02.2 -0.3
baz=159
M36A Felix, Anita 72.46 341 P P 11 55 02.4 -0.1
baz=157
L38A Oak Wood Farm, 72.59 343 P P 11 55 03.1 -0.2
baz=159
SADO Sadowa 72.66 354 P P 11 55 03.3 -0.4
baz=180,slow=8.4
K40A Colesburg 72.66 344 P P 11 55 03.5 -0.2
baz=161
W18A Petrified Fore 72.66 327 P P 11 55 04.4 +0.3
baz=144
W18A Petrified Fore 72.66 327 eP P 11 55 06.7 +2.5
comp=Z,14nm,1.1s
J43A Natural Harves 72.70 347 P P 11 55 03.9 -0.1
baz=163
M35A Neola 72.73 341 P P 11 55 04.2 +0.1
baz=157
L37A Phoenix Point, 72.79 342 P P 11 55 03.9 -0.6
baz=158
K39A Oelwein 72.85 344 P P 11 55 04.0 -0.8
baz=160,SNR=6.0
KSCO Kaye Shedlock' 72.87 334 P P 11 55 05.4 +0.2
baz=150
KSCO Kaye Shedlock' 72.87 334 eP P 11 55 06.4 +1.2
comp=Z,33nm,1.3s
SDCO Great Sand Dun 72.94 332 P P 11 55 06.7 +0.9
baz=148
SDCO Great Sand Dun 72.94 332 eP P 11 55 06.8 +0.9
comp=Z,24nm,1.6s
K38A Parkersburg 73.02 343 P P 11 55 05.6 -0.2
baz=159
L36A Harm Buss Farm 73.02 342 P P 11 55 05.5 -0.3
baz=158
J41A Loganville 73.03 345 P P 11 55 05.5 -0.4
baz=162
J40A Soldiers Grove 73.23 345 P P 11 55 06.6 -0.5
baz=161,SNR=5.3
L35A Bielow Farm, R 73.28 341 P P 11 55 07.0 -0.4
baz=157
M33A Taylor Creek F 73.28 340 P P 11 55 07.4 0.0
baz=155
Y14A Wickenburg 73.35 324 eP P 11 55 09.9 +1.8
K37A Belmond 73.36 343 P P 11 55 07.9 +0.1
baz=158
L34A Svendsen Farm, 73.39 340 P P 11 55 07.7 -0.4
baz=156
J39A Decorah 73.40 344 P P 11 55 07.6 -0.5
baz=160,SNR=6.0
BGNE Belgrade 73.43 339 P P 11 55 08.2 -0.1
baz=154
K36A Gilmore City 73.45 342 P P 11 55 08.2 -0.2
baz=158
J38A Wedel Dairy, R 73.57 344 P P 11 55 08.7 -0.4

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | baz=160 | | | | | | | |
| I41A | **Arkdale** | 73.66 | 346 | P | | P | 11 55 09.0 | -0.6 |
| | baz=162 | | | | | | | |
| I40A | **Norwalk** | 73.67 | 345 | P | | P | 11 55 09.3 | -0.4 |
| | baz=161 | | | | | | | |
| WUAZ | **Wupatki** | 73.78 | 326 | P | | P | 11 55 11.7 | +1.0 |
| | baz=143 | | | | | | | |
| WUAZ | **Wupatki** | 73.78 | 326 | *e*P | | P | 11 55 12.2 | +1.5 |
| | comp=Z,14nm,1.1s | | | | | | | |
| MVCO | **Mesa Verde** | 73.80 | 329 | P | | P | 11 55 11.4 | +0.6 |
| | baz=145 | | | | | | | |
| MVCO | **Mesa Verde** | 73.80 | 329 | *e*P | | P | 11 55 10.9 | 0.0 |
| | comp=Z,11nm,1.1s | | | | | | | |
| H42A | **Shiocton** | 73.81 | 347 | P | | P | 11 55 10.3 | -0.1 |
| | baz=163 | | | | | | | |
| Q24A | **Divide** | 73.83 | 333 | P | | P | 11 55 11.7 | +0.6 |
| | baz=148 | | | | | | | |
| Q24A | **Divide** | 73.83 | 333 | *e*P | | P | 11 55 12.7 | +1.6 |
| | comp=Z,13nm,1.0s | | | | | | | |
| J37A | **Redenius Farm,** | 73.84 | 343 | P | | P | 11 55 10.6 | 0.0 |
| | baz=159 | | | | | | | |
| I39A | **Houston** | 73.84 | 344 | P | | P | 11 55 10.6 | 0.0 |
| | baz=160 | | | | | | | |
| L32A | **Elgin** | 73.92 | 339 | P | | P | 11 55 11.6 | +0.4 |
| | baz=155 | | | | | | | |
| K34A | **Le Mars** | 73.97 | 341 | P | | P | 11 55 11.7 | +0.2 |
| | baz=156 | | | | | | | |
| Y12C | **Blythe** | 74.00 | 323 | P | | P | 11 55 12.3 | +0.5 |
| | baz=140 | | | | | | | |
| Y12C | **Blythe** | 74.00 | 323 | *e*P | | P | 11 55 14.1 | +2.3 |
| | comp=Z,7.3nm,0.9s | | | | | | | |
| J36A | **Seneca 1, Swea** | 74.07 | 342 | P | | P | 11 55 12.0 | 0.0 |
| | baz=158 | | | | | | | |
| I38A | **Scanlan Farm,** | 74.21 | 344 | P | | P | 11 55 12.5 | -0.4 |
| | baz=160,SNR=6.1 | | | | | | | |
| H40A | **Chili** | 74.31 | 346 | P | | P | 11 55 13.7 | +0.3 |
| | baz=162 | | | | | | | |
| I37A | **Lemond, Waseca** | 74.46 | 343 | P | | P | 11 55 14.4 | +0.1 |
| | baz=159 | | | | | | | |
| H39A | **Augusta** | 74.57 | 345 | P | | P | 11 55 14.7 | -0.1 |
| | baz=161 | | | | | | | |
| PV01 | **Paradox Valley** | 74.59 | 330 | *e*P | | P | 11 55 17.0 | +1.5 |
| G41A | **Antigo** | 74.62 | 347 | P | | P | 11 55 14.9 | -0.2 |
| | baz=163 | | | | | | | |
| I36A | **Fitzsimmons Fa** | 74.62 | 343 | P | | P | 11 55 14.9 | -0.2 |
| | baz=158 | | | | | | | |
| IRM | **Iron Mountain** | 74.65 | 323 | P | | P | 11 55 15.9 | +0.3 |
| | baz=140 | | | | | | | |
| W13A | **Hualapai Mount** | 74.71 | 324 | *e*P | | P | 11 55 18.3 | +2.1 |
| K31A | **O'Neill** | 74.72 | 339 | P | | P | 11 55 15.9 | +0.1 |
| | baz=154,SNR=6.5 | | | | | | | |
| H38A | **Maiden Rock** | 74.80 | 344 | P | | P | 11 55 16.0 | -0.2 |
| | baz=160 | | | | | | | |
| J33A | **Davis** | 74.80 | 340 | P | | P | 11 55 16.1 | -0.1 |
| | baz=156 | | | | | | | |
| H37A | **Dierke Farm, C** | 74.87 | 344 | P | | P | 11 55 16.7 | +0.1 |
| | baz=159 | | | | | | | |
| PFO | **Pinyon Flats O** | 74.94 | 322 | P | | P | 11 55 18.4 | +0.9 |
| | baz=139 | | | | | | | |
| BELC | **Belle Mtn. Jos** | 74.99 | 322 | P | | P | 11 55 18.8 | +1.1 |
| | baz=139 | | | | | | | |
| E45A | **Wooded Hills,** | 74.99 | 350 | P | | P | 11 55 17.4 | +0.1 |
| | baz=166 | | | | | | | |
| ECSD | **EROS Data Cent** | 75.08 | 341 | P | | P | 11 55 17.8 | 0.0 |
| | baz=156,SNR=7.6 | | | | | | | |
| ECSD | **EROS Data Cent** | 75.08 | 341 | *e*P | | P | 11 55 18.0 | +0.2 |
| | comp=Z,20nm,1.1s | | | | | | | |
| F41A | **Three Lakes** | 75.11 | 347 | P | | P | 11 55 17.4 | -0.6 |
| | baz=163 | | | | | | | |
| J32A | **Parkston** | 75.11 | 340 | P | | P | 11 55 17.8 | -0.2 |
| | baz=155 | | | | | | | |
| G39A | **Holcombe** | 75.12 | 345 | P | | P | 11 55 17.6 | -0.4 |
| | baz=161 | | | | | | | |
| H36A | **Jessenland, He** | 75.12 | 343 | P | | P | 11 55 18.2 | +0.1 |
| | baz=158 | | | | | | | |
| G38A | **Ridgeland** | 75.16 | 345 | P | | P | 11 55 18.0 | -0.3 |
| | baz=160 | | | | | | | |
| GMRC | **Granite Mounta** | 75.40 | 323 | P | | P | 11 55 21.0 | +1.0 |
| | baz=140 | | | | | | | |
| SPMN | **Marine on St.** | 75.44 | 344 | P | | P | 11 55 19.4 | -0.4 |
| | baz=160,SNR=5.1 | | | | | | | |
| SPMN | **Marine on St.** | 75.44 | 344 | *e*P | | P | 11 55 19.8 | -0.1 |
| | comp=Z,27nm,1.2s | | | | | | | |
| H35A | **Sunnyside Ranc** | 75.47 | 342 | P | | P | 11 55 19.8 | -0.3 |
| | baz=158,SNR=5.7 | | | | | | | |
| F40A | **Park Falls** | 75.49 | 346 | P | | P | 11 55 20.0 | -0.2 |
| | baz=162 | | | | | | | |
| E42A | **Champion** | 75.54 | 348 | P | | P | 11 55 20.1 | -0.3 |
| | baz=164 | | | | | | | |
| F39A | **Loretta** | 75.66 | 346 | P | | P | 11 55 21.0 | -0.1 |
| | baz=161 | | | | | | | |
| N23A | **Red Feather La** | 75.79 | 333 | P | | P | 11 55 22.7 | +0.4 |
| | baz=148 | | | | | | | |
| G35A | **Watkins** | 75.86 | 343 | P | | P | 11 55 22.2 | -0.1 |
| | baz=158 | | | | | | | |
| F37A | **Hinrichs Farm,** | 75.87 | 344 | P | | P | 11 55 22.1 | -0.2 |
| | baz=160 | | | | | | | |
| LCMT | **Little Creek M** | 75.88 | 326 | *e*P | | P | 11 55 24.3 | +1.5 |
| | comp=Z,7.8nm,1.3s | | | | | | | |
| F38A | **Pierce - Schro** | 75.91 | 345 | P | | P | 11 55 22.5 | 0.0 |
| | baz=160 | | | | | | | |
| E40A | **Wakefield** | 75.94 | 346 | P | | P | 11 55 22.5 | -0.2 |
| | baz=162 | | | | | | | |
| H33A | **Prehn Over Nor** | 75.98 | 341 | P | | P | 11 55 23.0 | 0.0 |
| | baz=156,SNR=8.2 | | | | | | | |
| E39A | **Mellen** | 76.02 | 346 | P | | P | 11 55 22.8 | -0.4 |
| | baz=162 | | | | | | | |
| H32A | **Carlson Farm,** | 76.02 | 341 | P | | P | 11 55 23.2 | 0.0 |
| | baz=155 | | | | | | | |
| TUQ | **Turquoise Moun** | 76.03 | 323 | P | | P | 11 55 24.7 | +1.0 |
| | baz=139 | | | | | | | |
| BFSC | **Mount Baldy Ra** | 76.07 | 321 | P | | P | 11 55 25.3 | +1.3 |
| | baz=138 | | | | | | | |
| O20A | **White River Ci** | 76.10 | 331 | P | | P | 11 55 25.2 | +1.2 |
| | baz=146 | | | | | | | |
| O20A | **White River Ci** | 76.10 | 331 | *e*P | | P | 11 55 25.9 | +1.8 |
| | comp=Z,27nm,1.3s | | | | | | | |
| Q20A | | | | *e*PcP | | **pP** | 11 55 44.6 | +2.8 |
| MTPU | **Mount Pierson** | 76.18 | 327 | *e*P | | P | 11 55 26.6 | +1.8 |
| MTPU | | | | *e*PcP | | **pP** | 11 55 45.1 | +2.6 |
| F36A | **Milaca** | 76.22 | 344 | P | | P | 11 55 24.0 | -0.3 |
| | baz=159,SNR=6.6 | | | | | | | |
| SZCU | **Shurtz Canyon** | 76.26 | 327 | *e*P | | P | 11 55 27.3 | +2.3 |
| | comp=Z,14nm,1.4s | | | | | | | |
| D41A | **Chassel** | 76.27 | 348 | P | | P | 11 55 24.8 | +0.3 |
| | baz=163 | | | | | | | |
| SRU | **San Rafael Swe** | 76.27 | 329 | *e*P | | P | 11 55 25.8 | +0.8 |
| | comp=Z,7.7nm,0.9s | | | | | | | |
| H31A | **Wolsey** | 76.31 | 340 | P | | P | 11 55 24.8 | -0.1 |
| | baz=154 | | | | | | | |
| CCUT | **Cedar City** | 76.36 | 326 | *e*P | | P | 11 55 27.7 | +2.0 |
| | comp=Z,8.6nm,1.0s | | | | | | | |
| G33A | **Ortonville** | 76.37 | 342 | P | | P | 11 55 24.6 | -0.6 |
| | baz=156 | | | | | | | |
| SHPR | **Sheep Range** | 76.45 | 325 | *e*P | | P | 11 55 27.7 | +1.6 |
| | comp=Z,10nm,1.3s | | | | | | | |
| F35A | **Swanville** | 76.48 | 343 | P | | P | 11 55 25.8 | 0.0 |
| | baz=158 | | | | | | | |
| MSU | **Marysvale** | 76.55 | 328 | *e*P | | P | 11 55 28.8 | +2.2 |
| P18A | **Preston Nutter** | 76.56 | 330 | *e*P | | P | 11 55 29.3 | +2.5 |
| | comp=Z,18nm,1.1s | | | | | | | |
| P17A | **Butcher Ranch,** | 76.66 | 329 | *e*P | | P | 11 55 29.0 | +1.8 |
| | comp=Z,15nm,1.1s | | | | | | | |
| G32A | **Webster** | 76.72 | 341 | P | | P | 11 55 27.1 | -0.1 |
| | baz=155 | | | | | | | |
| LRMC | **Laurel Mtn Rad** | 77.01 | 322 | P | | P | 11 55 30.5 | +1.3 |
| | baz=138 | | | | | | | |
| KOWA | **Kowa** | 77.05 | 66 | *e*P | | P | 11 55 28.9 | -0.8 |
| | comp=Z,39nm,1.4s | | | | | | | |
| KOWA | | | | *e*PcP | | **pP** | 11 55 47.1 | -0.4 |
| E35A | **Pequot Lakes** | 77.08 | 343 | P | | P | 11 55 28.9 | -0.3 |
| | baz=158 | | | | | | | |
| D37A | **Cotton** | 77.17 | 345 | P | | P | 11 55 29.5 | -0.2 |
| | baz=160 | | | | | | | |
| FURC | **Furnace Creek,** | 77.31 | 323 | P | | P | 11 55 32.1 | +1.4 |
| | baz=139 | | | | | | | |
| MPMC | **Manual Prospec** | 77.34 | 323 | P | | P | 11 55 32.4 | +1.3 |
| | baz=138 | | | | | | | |
| TPNV | **Topopah Spring** | 77.36 | 324 | P | | P | 11 55 32.9 | +1.8 |
| | baz=139 | | | | | | | |
| TPNV | **Topopah Spring** | 77.36 | 324 | *e*P | | P | 11 55 33.1 | +1.9 |
| | comp=Z,16nm,1.4s | | | | | | | |
| SBC | **Santa Barbara** | 77.37 | 320 | P | | P | 11 55 32.3 | +1.2 |
| | baz=136 | | | | | | | |
| C38A | **Sawbill Land.** | 77.44 | 346 | P | | P | 11 55 31.1 | -0.1 |
| | baz=161 | | | | | | | |
| E33A | **Westby DABS, E** | 77.45 | 342 | P | | P | 11 55 31.5 | +0.3 |
| | baz=157 | | | | | | | |
| D35A | **Remer** | 77.49 | 344 | P | | P | 11 55 31.2 | -0.3 |
| | baz=159 | | | | | | | |
| F31A | **Hecla** | 77.49 | 341 | P | | P | 11 55 31.5 | 0.0 |
| | baz=155 | | | | | | | |
| MPU | **Maple Canyon** | 77.50 | 329 | *e*P | | P | 11 55 33.7 | +1.8 |
| | comp=Z,8.7nm,1.1s | | | | | | | |
| K22A | **Casper** | 77.51 | 334 | P | | P | 11 55 33.1 | +1.3 |
| | baz=148 | | | | | | | |
| K22A | **Casper** | 77.51 | 334 | *e*P | | P | 11 55 33.5 | +1.6 |
| | comp=Z,33nm,1.4s | | | | | | | |
| DAC | **Darwin (Calif)** | 77.56 | 323 | *e*P | | P | 11 55 34.1 | +1.7 |
| | comp=Z,7.6nm,1.1s | | | | | | | |
| NLU | **North Lily Min** | 77.66 | 329 | *e*P | | P | 11 55 34.9 | +2.1 |
| | comp=Z,22nm,1.7s | | | | | | | |
| PKM | **Mcpherson Peak** | 77.75 | 321 | P | | P | 11 55 34.9 | +1.5 |
| | baz=136 | | | | | | | |
| RSSD | **Black Hills** | 77.83 | 336 | P | | P | 11 55 35.1 | +1.4 |
| | baz=150 | | | | | | | |
| JLU | **Jordanelle** | 77.89 | 329 | *e*P | | P | 11 55 35.8 | +1.6 |
| | comp=Z,9.7nm,1.1s | | | | | | | |
| CWC | **Cottonwood Cre** | 77.94 | 323 | P | | P | 11 55 35.6 | +1.1 |
| | baz=138 | | | | | | | |
| GRAC | **Grapevine Rang** | 77.98 | 323 | P | | P | 11 55 35.7 | +1.2 |
| | baz=139 | | | | | | | |
| VES | **Vestal, Richgr** | 78.04 | 322 | P | | P | 11 55 35.8 | +1.0 |
| | baz=137 | | | | | | | |
| C35A | **Jirik Farms, M** | 78.05 | 344 | P | | P | 11 55 34.9 | +0.4 |
| | baz=159 | | | | | | | |
| R11A | **Troy Canyon, C** | 78.09 | 325 | P | | P | 11 55 36.9 | +1.7 |
| | baz=140 | | | | | | | |
| SMMC | **Simmler** | 78.17 | 321 | P | | P | 11 55 36.5 | +0.9 |
| | baz=136 | | | | | | | |
| DUG | **Dugway, Tooele** | 78.19 | 328 | P | | P | 11 55 37.0 | +1.4 |
| | baz=142 | | | | | | | |
| DUG | **Dugway, Tooele** | 78.19 | 328 | *e*P | | P | 11 55 37.0 | +1.4 |
| | comp=Z,13nm,1.3s | | | | | | | |
| TCUT | **Toone Canyon** | 78.29 | 330 | *e*P | | P | 11 55 38.7 | +2.3 |
| | comp=Z,66nm,1.8s | | | | | | | |
| C33A | **Trail** | 78.55 | 343 | P | | P | 11 55 37.2 | -0.1 |
| | baz=157 | | | | | | | |
| B35A | **Bob, Littlefor** | 78.60 | 345 | P | | P | 11 55 37.2 | -0.4 |
| | baz=159 | | | | | | | |
| MAW | **Mawson** | 78.75 | 164 | P | | P | 11 55 38.5 | +0.2 |
| | comp=Z,5.2nm,0.4s,baz=221,slow=7.2,SNR=22 | | | | | | | |
| MAW | | | | pP | | **pP** | 11 55 56.3 | +0.1 |
| | comp=Z,4.3nm,0.6s,baz=171,slow=6.0,SNR=4.6 | | | | | | | |
| MAW | | | | LR | | LR | 12 29 12.9 | |
| | comp=Z,59nm,20.8s,baz=239,slow=35 | | | | | | | |
| MAW | **Mawson** | 78.75 | 164 | *e*P | | P | 11 55 38.4 | +0.1 |
| | comp=Z,11nm,1.8s | | | | | | | |
| MAW | | | | pP | | **pP** | 11 55 56.3 | +0.1 |
| BW06 | **Boulder Array** | 78.83 | 332 | P | | P | 11 55 39.6 | +0.3 |
| | baz=145 | | | | | | | |
| BW06 | **Boulder Array** | 78.83 | 332 | *e*P | | P | 11 55 40.1 | +0.8 |
| | comp=Z,10.0nm,1.3s | | | | | | | |
| PD31 | **Pinedale Array** | 78.83 | 332 | *e*P | | P | 11 55 40.1 | +0.8 |
| PDAR | **Pinedale Array** | 78.83 | 332 | P | | P | 11 55 39.9 | +0.6 |
| | comp=Z,1.1nm,0.6s,baz=128,slow=7.0,SNR=12 | | | | | | | |
| PDAR | | | | pP | | **pP** | 11 55 58.1 | +0.9 |
| | comp=Z,4.7nm,1.1s,baz=142,slow=5.6,SNR=7.5 | | | | | | | |
| PDAR | | | | LR | | LR | 12 28 13.5 | |
| | comp=Z,45nm,18.1s,baz=58,slow=34 | | | | | | | |
| PDAR | **Pinedale Array** | 78.83 | 332 | *e*P | | P | 11 55 39.6 | +0.3 |
| PDAR | | | | pP | | **pP** | 11 55 58.1 | +0.9 |
| BGU | **Big Grassy Mou** | 78.87 | 329 | *e*P | | P | 11 55 41.3 | +1.9 |
| | comp=Z,15nm,1.5s | | | | | | | |
| SPUT | **South Promonto** | 78.91 | 329 | *e*P | | P | 11 55 41.0 | +1.4 |
| | comp=Z,14nm,1.1s | | | | | | | |
| B34A | **Aery, Baudette** | 78.94 | 344 | P | | P | 11 55 39.6 | +0.2 |
| | baz=158 | | | | | | | |
| B33A | **Robert and Kas** | 78.98 | 343 | P | | P | 11 55 39.4 | -0.3 |
| | baz=157 | | | | | | | |
| AGMN | **Agassiz Nation** | 79.07 | 343 | P | | P | 11 55 40.2 | +0.1 |
| | baz=157 | | | | | | | |
| AGMN | **Agassiz Nation** | 79.07 | 343 | *e*P | | P | 11 55 40.4 | +0.2 |
| | comp=Z,11nm,1.1s | | | | | | | |
| C31A | **Landman Farms,** | 79.11 | 342 | P | | P | 11 55 40.6 | +0.3 |
| | baz=156 | | | | | | | |
| MLAC | **Mammoth, Mammo** | 79.23 | 323 | P | | P | 11 55 41.4 | -0.1 |
| | baz=138 | | | | | | | |
| B32A | **Ashes, Strandq** | 79.33 | 343 | P | | P | 11 55 41.2 | -0.4 |
| | baz=156 | | | | | | | |
| HVU | **Hansel Valley** | 79.43 | 329 | *e*P | | P | 11 55 43.5 | +1.0 |
| | comp=Z,6.6nm,1.0s | | | | | | | |
| AHID | **Auburn Hatcher** | 79.48 | 331 | *e*P | | P | 11 55 44.1 | +1.3 |
| | comp=Z,16nm,1.1s | | | | | | | |
| NV01 | **Mina Array Sit** | 79.54 | 324 | *e*P | | P | 11 55 44.3 | +1.1 |
| NVAR | **Mina Array Bea** | 79.54 | 324 | P | | P | 11 55 44.6 | +1.4 |
| | comp=Z,1.4nm,0.9s,baz=143,slow=6.4,SNR=11 | | | | | | | |
| NVAR | | | | pP | | **pP** | 11 56 02.5 | +1.4 |
| | comp=Z,1.0nm,0.8s,baz=158,slow=5.5,SNR=5.9 | | | | | | | |
| RAR | **Rarotonga** | 79.61 | 252 | LR | | LR | 12 21 20.8 | |
| | comp=Z,78nm,21.8s,baz=275,slow=28 | | | | | | | |
| B31A | **Greenbush Farm** | 79.66 | 342 | P | | P | 11 55 43.2 | -0.1 |
| | baz=156 | | | | | | | |
| MDND | **Maddock** | 79.69 | 341 | P | | P | 11 55 44.0 | +0.4 |
| | baz=154 | | | | | | | |
| MDND | **Maddock** | 79.69 | 341 | *e*P | | P | 11 55 45.0 | +1.5 |
| | comp=Z,54nm,1.1s | | | | | | | |
| A32A | **Rocking H Ranc** | 79.80 | 343 | P | | P | 11 55 45.2 | +1.1 |
| | baz=157 | | | | | | | |
| KVN | **Kaiserville** | 79.90 | 324 | *e*P | | P | 11 55 46.4 | +1.2 |
| | comp=Z,6.3nm,0.4s | | | | | | | |
| YERR | **Yerington** | 80.44 | 324 | *e*P | | P | 11 55 49.9 | +1.8 |
| | comp=Z,12nm,1.2s | | | | | | | |
| LAO | **LASA Array** | 80.83 | 336 | P | | P | 11 55 50.7 | +1.0 |
| | baz=148 | | | | | | | |
| LAO | **LASA Array** | 80.83 | 336 | *e*P | | P | 11 55 50.8 | +1.0 |
| | comp=Z,21nm,1.1s | | | | | | | |
| ULM | **Lac du Bonnet** | 80.88 | 344 | P | | P | 11 55 49.7 | -0.1 |
| | comp=Z,5.6nm,0.4s,baz=171,slow=5.8,SNR=20 | | | | | | | |
| ULM | | | | pP | | **pP** | 11 56 08.0 | +0.2 |
| | comp=Z,17nm,1.1s,baz=168,slow=5.8,SNR=8.0 | | | | | | | |
| ULM | **Lac du Bonnet** | 80.88 | 344 | *e*P | | P | 11 55 49.8 | -0.1 |
| | comp=Z,16nm,1.0s | | | | | | | |
| ULM | | | | pP | | **pP** | 11 56 08.0 | +0.2 |
| YMR | **Madison River** | 80.98 | 332 | *e*P | | P | 11 55 53.4 | +2.6 |
| | comp=Z,26nm,1.2s | | | | | | | |
| TOA0 | **Torodi Ar. Sit** | 81.02 | 70 | *e*P | | P | 11 55 50.1 | -1.3 |
| | comp=Z,31nm,1.3s | | | | | | | |
| TORD | **Torodi Ar. Bea** | 81.02 | 70 | P | | P | 11 55 50.5 | -0.9 |
| | comp=Z,6.5nm,0.5s,baz=253,slow=5.6,SNR=95 | | | | | | | |
| TORD | | | | pP | | **pP** | 11 56 08.7 | -0.7 |
| | comp=Z,6.5nm,0.5s,baz=260,slow=4.9,SNR=10 | | | | | | | |
| TORD | | | | LR | | LR | 12 31 56.9 | |
| | comp=Z,34nm,19.9s,baz=345,slow=36 | | | | | | | |
| YHH | **Holmes Hill** | 81.03 | 332 | *e*P | | P | 11 55 53.1 | +1.9 |
| | comp=Z,12nm,1.0s | | | | | | | |
| PAHR | **Pah Rah Range** | 81.05 | 324 | *e*P | | P | 11 55 53.0 | +1.8 |
| | comp=Z,14nm,1.2s | | | | | | | |
| YHB | **Horse Butte** | 81.14 | 332 | *e*P | | P | 11 55 54.1 | +2.4 |
| | comp=Z,12nm,1.2s | | | | | | | |
| AFDM | **Forest Hills D** | 81.34 | 323 | *e*P | | P | 11 55 54.5 | +1.9 |
| | comp=Z,9.5nm,1.5s | | | | | | | |
| HLID | **Hailey** | 81.58 | 329 | P | | P | 11 55 55.1 | +1.1 |
| | baz=142 | | | | | | | |
| HLID | **Hailey** | 81.58 | 329 | *e*P | | P | 11 55 55.3 | +1.4 |
| | comp=Z,12nm,1.1s | | | | | | | |
| DGMT | **Dagmar** | 81.67 | 338 | P | | P | 11 55 54.6 | +0.5 |
| | baz=150 | | | | | | | |
| DGMT | **Dagmar** | 81.67 | 338 | *e*P | | P | 11 55 55.0 | +0.9 |
| | comp=Z,9.1nm,0.7s | | | | | | | |
| MCMT | **McKenzie Canyo** | 81.90 | 331 | *e*P | | P | 11 55 57.6 | +1.9 |
| BOSA | **Boshof** | 81.92 | 118 | P | | P | 11 55 55.2 | -1.0 |
| | comp=Z,2.3nm,0.5s,baz=251,slow=5.4,SNR=13 | | | | | | | |
| BOSA | | | | pP | | **pP** | 11 56 13.2 | -1.0 |
| | comp=Z,4.4nm,0.5s,baz=234,slow=3.6,SNR=5.0 | | | | | | | |
| BOSA | | | | LR | | LR | 12 28 09.8 | |
| | comp=Z,46nm,18.2s,baz=227,slow=33 | | | | | | | |
| ORV | **Oroville** | 82.06 | 323 | *e*P | | P | 11 55 58.1 | +1.8 |
| | comp=Z,36nm,1.8s | | | | | | | |
| SCHQ | **Schefferville** | 82.39 | 2 | P | | P | 11 55 57.5 | -0.2 |
| | comp=Z,4.9nm,1.0s,baz=207,slow=11,SNR=3.8 | | | | | | | |
| LRM | **Limekiln Ridge** | 82.53 | 332 | *e*P | | P | 11 55 59.4 | +0.5 |
| O03D | **Paynes Creek** | 82.75 | 323 | P | | P | 11 55 59.9 | -0.1 |
| | baz=136 | | | | | | | |
| J08A | **Circle Bar Ran** | 83.31 | 327 | *e*P | | P | 11 56 04.0 | +1.1 |
| | comp=Z,24nm,1.4s | | | | | | | |
| N02D | **Trinity Center** | 83.72 | 323 | P | | P | 11 56 04.5 | -0.5 |
| | baz=135 | | | | | | | |
| M04C | **Macdoel** | 83.84 | 324 | P | | P | 11 56 05.8 | +0.2 |
| | baz=136 | | | | | | | |
| WALA | **Waterton Lakes** | 85.71 | 333 | *e*P | | P | 11 56 16.4 | +1.5 |
| | comp=Z,17nm,0.6s | | | | | | | |
| URZ | **Urewera** | 88.69 | 227 | P | | P | 11 56 30.2 | +0.6 |
| | comp=Z,9.0nm,0.8s,baz=93,slow=12,SNR=3.0 | | | | | | | |
| RPZ | **Rata Peaks** | 89.10 | 220 | P | | P | 11 56 32.7 | +1.2 |
| | comp=Z,7.4nm,1.0s,baz=162,slow=3.2,SNR=3.9 | | | | | | | |
| SFJD | **Kangerlussuaq** | 95.74 | 8 | LR | | LR | 12 41 13.9 | |
| | comp=Z,43nm,18.4s,baz=110,slow=36 | | | | | | | |
| YKA | **Yellowknife Ar** | 96.60 | 341 | P | | P | 11 57 04.8 | -0.5 |
| | comp=Z,0.5nm,0.6s,baz=144,slow=4.7,SNR=16 | | | | | | | |
| YKA | | | | pP | | **pP** | 11 57 23.6 | +0.1 |
| | comp=Z,1.4nm,1.0s,baz=138,slow=4.6,SNR=8.7 | | | | | | | |
| KEST | **Kesra** | 98.36 | 54 | LR | | LR | 12 42 46.5 | |
| | comp=Z,94nm,20.5s,baz=250,slow=36 | | | | | | | |
| ILAR | **Eielson Array** | 109.20 | 334 | PP | | PP | 12 02 30.4 | -4.7 |
| | comp=Z,0.9nm,1.2s,baz=127,slow=4.8,SNR=4.8 | | | | | | | |
| AKASG | **Malin Array Be** | 117.09 | 45 | PKP | | **PKPdf** | 12 02 18.8 | -1.6 |
| | comp=Z,0.6nm,0.3s,baz=270,slow=2.5,SNR=3.1 | | | | | | | |
| BRTR | **Keskin Array B** | 117.69 | 58 | PKP | | **PKPdf** | 12 02 21.1 | -1.0 |
| | comp=Z,0.9nm,1.0s,baz=291,slow=4.0,SNR=2.5 | | | | | | | |
| ARCES | **ARCESS Array B** | 117.92 | 23 | PKP | | **PKPdf** | 12 02 21.2 | -0.3 |
| | comp=Z,6.3nm,1.0s,baz=262,slow=3.3,SNR=3.4 | | | | | | | |
| ASAR | **Alice Springs** | 123.57 | 207 | PKP | | **PKPdf** | 12 02 32.8 | -1.2 |
| | comp=Z,1.4nm,0.6s,baz=135,slow=1.5,SNR=33 | | | | | | | |
| WRA | **Warramunga Arr** | 126.69 | 210 | PKhKP | | PKPpre | 12 02 33.1 | |
| | comp=Z,0.9nm,1.2s,baz=236,slow=1.5,SNR=7.6 | | | | | | | |
| WRA | | | | PKP | | **PKPdf** | 12 02 39.4 | -0.5 |
| | comp=Z,2.0nm,0.5s,baz=159,slow=1.7,SNR=68 | | | | | | | |
| H11S2 | **WAKE ISLAND Hyl** | 26.81 | 273 | T | | T | 14 22 08.0 | |
| | baz=76 | | | | | | | |
| H11S1 | **WAKE ISLAND Hyl** | 26.83 | 273 | T | | T | 14 22 13.3 | |
| | baz=76 | | | | | | | |
| H11S3 | **WAKE ISLAND Hyl** | 26.83 | 273 | T | | T | 14 22 12.1 | |
| | baz=76 | | | | | | | |
| H11N3 | **WAKE ISLAND Hyl** | 27.07 | 275 | T | | T | 14 22 31.5 | |
| | baz=109 | | | | | | | |
| H11N1 | **WAKE ISLAND Hyl** | 27.08 | 274 | T | | T | 14 22 31.6 | |
| | baz=109 | | | | | | | |
| H11N2 | **WAKE ISLAND Hyl** | 27.08 | 275 | T | | T | 14 22 33.1 | |
| | baz=109 | | | | | | | |
| FITZ | **Fitzroy Crossi** | 131.68 | 201 | PKP | | **PKPdf** | 12 02 49.2 | -0.2 |
| | comp=Z,1.2nm,0.6s,baz=283,slow=2.2 | | | | | | | |
| GEYT | **Alibeck** | 136.32 | 63 | PKP | | **PKPdf** | 12 02 56.8 | -0.7 |
| | comp=Z,1.6nm,0.6s,baz=270,slow=2.9,SNR=2.5 | | | | | | | |
| PETK | **Petropavlovsk-** | 136.47 | 319 | PKP | | **PKPdf** | 12 02 58.6 | +1.4 |
| | comp=Z,1.3nm,0.6s,baz=58,slow=5.8,SNR=4.3 | | | | | | | |
| ABKAR | **Akbulak array** | 136.78 | 47 | *e*PKPdf | | **PKPdf** | 12 02 58.2 | +0.2 |
| KKAR | **Karatay Array** | 145.26 | 54 | *e*PKPdf | | **PKPbc** | 12 03 12.4 | -0.9 |
| KURK | **Kurchatov** | 147.42 | 37 | *e*PKPdf | | **PKPdf** | 12 03 16.9 | +0.1 |
| KURK | | | | *e*PKPbc | | **PKPbc** | 12 03 19.3 | 0.0 |
| KURK | | | | pPKPbc | | **pPKPbc** | 12 03 37.8 | -0.3 |
| KURBB | **Kurchatov Arra** | 147.42 | 37 | PKPbc | | **PKPdf** | 12 03 17.5 | +0.7 |
| | comp=Z,5.3nm,0.5s,baz=304,slow=3.0,SNR=62 | | | | | | | |
| KURBB | | | | pPKPbc | | **pPKPbc** | 12 03 37.8 | -0.3 |
| | comp=Z,3.2nm,0.6s,baz=306,slow=3.3,SNR=3.9 | | | | | | | |
| EKS2 | **Erkin-Say** | 147.69 | 53 | P | | **PKPdf** | 12 03 18.9 | +1.2 |
| | SNR=12 | | | | | | | |
| AML | **Almayashu** | 147.77 | 54 | P | | **PKPdf** | 12 03 19.1 | +0.8 |
| | SNR=13 | | | | | | | |
| USP | **Ospenovka** | 148.03 | 52 | P | | **PKPdf** | 12 03 18.4 | +0.2 |
| | SNR=13 | | | | | | | |
| AAK | **Ala-Archa** | 148.21 | 53 | PKP | | **PKPdf** | 12 03 19.9 | +1.3 |
| | comp=Z,7.8nm,0.7s,baz=216,slow=8.2,SNR=19 | | | | | | | |
| AAK | | | | PKPbc | | **PKPbc** | 12 03 22.7 | +0.7 |
| | comp=Z,11nm,0.4s,baz=240,slow=4.3,SNR=19 | | | | | | | |
| AAK | **Ala-Archa** | 148.21 | 53 | P | | **PKPbc** | 12 03 22.7 | +0.7 |
| | SNR=15 | | | | | | | |
| AAK | **Ala-Archa** | 148.21 | 53 | *e*PKPdf | | **PKPdf** | 12 03 19.2 | +0.6 |
| AAK | | | | *e*PKPbc | | **PKPbc** | 12 03 22.7 | +0.7 |
| AAK | | | | *e*PKPab | | **PKPab** | 12 03 25.1 | 0.0 |
| CHMS | **Chumysh** | 148.28 | 52 | P | | **PKPbc** | 12 03 22.4 | +0.4 |
| | SNR=8.8 | | | | | | | |
| ZALV | **Zalesovo Beam** | 148.32 | 28 | PKP | | **PKPdf** | 12 03 18.1 | -0.1 |
| | comp=Z,20nm,0.6s,baz=283,slow=3.0,SNR=35 | | | | | | | |
| ZALV | | | | PKPbc | | **PKPbc** | 12 03 21.9 | +0.2 |
| | comp=Z,14nm,0.4s,baz=303,slow=3.4,SNR=50 | | | | | | | |
| ZALV | | | | pPKPbc | | **pPKPbc** | 12 03 40.4 | 0.0 |
| | comp=Z,8.4nm,0.5s,baz=299,slow=3.8,SNR=5.9 | | | | | | | |
| UCH | **Uchtor** | 148.33 | 54 | P | | **PKPdf** | 12 03 20.5 | +1.3 |
| | SNR=23 | | | | | | | |
| KBK | **Karagaybulak** | 148.52 | 53 | P | | **PKPbc** | 12 03 23.3 | +0.5 |
| | SNR=7.6 | | | | | | | |
| TKM2 | **Tokmak 2** | 148.90 | 52 | P | | **PKPdf** | 12 03 20.0 | +0.2 |
| | SNR=11 | | | | | | | |
| KZA | **Kyzart** | 148.90 | 54 | P | | **PKPbc** | 12 03 24.8 | +0.7 |
| | SNR=8.1 | | | | | | | |
| ULHL | **Ulahol** | 149.56 | 53 | P | | **PKPbc** | 12 03 26.2 | +0.7 |
| | SNR=12 | | | | | | | |
| KSH | **Kashi** | 150.07 | 58 | *e*PKPbc | | **PKPbc** | 12 03 25.5 | -1.2 |
| KSH | | | | pPKP | | PKPab | 12 03 34.5 | +1.7 |
| KSH | | | | PP | | **PP** | 12 07 06.5 | +4.5 |
| KSH | | | | SKS | | **SKSdf** | 12 10 28.0 | +4.0 |
| KSH | | | | SKKS | | **SKKSac** | 12 13 50.0 | +2.9 |
| KSH | | | | AMB | | AMB | | |
| | comp=Z,72nm,5.0s | | | | | | | |
| KSH | | | | LR | | LR | | |
| | comp=Z,250nm,5.2s | | | | | | | |
| MKAR | **Makanchi Array** | 151.58 | 41 | PKP | | **PKPdf** | 12 03 23.0 | -0.6 |
| | comp=Z,0.6nm,0.8s,baz=5.7,slow=2.9,SNR=3.7 | | | | | | | |
| MKAR | | | | PKPbc | | **PKPbc** | 12 03 29.6 | -0.3 |
| | comp=Z,8.7nm,0.5s,baz=300,slow=2.0,SNR=74 | | | | | | | |
| MKAR | | | | pPKPbc | | **pPKPbc** | 12 03 48.2 | -0.5 |
| | comp=Z,2.4nm,0.5s,baz=294,slow=1.8,SNR=4.7 | | | | | | | |
| MJAR | **Matsushiro Arr** | 154.12 | 297 | PKPab | | **PKPab** | 12 03 50.7 | +1.0 |
| | comp=Z,0

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | comp=N,256nm,0.3s | | | | | | |
| **TLL** | **Tololo Astrono** | **1.90** | **321** | *e*P | **Pn** | **11 56 40.7** | **-0.9** |
| TLL | | | | *e*S | **Sn** | **11 57 05.3** | **-0.5** |
| TLL | | | | IAML | | 11 57 07.5 | |
| | comp=N,382nm,0.4s | | | | | | |
| **CLCH** | **Cerro Calan** | **1.96** | **208** | *e*P | **Pn** | **11 56 41.5** | **-0.7** |
| CLCH | | | | *e*S | **Sn** | **11 57 06.7** | **-0.2** |
| **ACAN** | **Cantantal** | **2.00** | **108** | *e*P | **Pn** | **11 56 42.0** | **-0.6** |
| **RCDM** | **Rinconada Maip** | **2.16** | **212** | ⇓*i*P | **Pn** | **11 56 43.5** | **-1.2** |
| RCDM | | | | *e*S | **Sn** | **11 57 10.0** | **-1.3** |
| **LMEL** | **Las Melosas** | **2.27** | **196** | ⇑P | **Pn** | **11 56 45.6** | **-0.6** |
| LMEL | | | | *e*S | **Sn** | **11 57 14.7** | **+0.6** |
| LMEL | | | | IAML | | 11 57 23.4 | |
| | comp=N,176nm,0.1s | | | | | | |
| **AGUA** | **GUANDACOL** | **2.32** | **21** | *e*P | **Pn** | **11 56 47.3** | **+0.5** |

*IDC* ***28*** *11:57:17.1±1.1,27˚58N×100˚85E,h0km,mb3.5/5, mb1 3.8/6,mb1mx3.5/53,mbtmp3.5/6,MS3.3/6,Ms1 3.3/6, ms1mx3.0/38,Error ellipse: s-maj=47.6km s-min=20.4km az=76.0*

**ISC 28 11:57:18.0±1.6,27˚4N±0˚2×100˚6E±0˚5,h10km,n11, σ0§50/6,mb3.6/5,MS3.2/5,Yunnan**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CMAR** | **Chiang Mai Arr** | **9.02** | **190** | Pn | Pn | 11 59 33.2 | +4.9 |
| | baz=0.0,slow=12,SNR=5.8 | | | | | | |
| CMAR | | | | Pg | | 12 00 07.5 | |
| | 0.2nm,0.3s,baz=2.3,slow=17,SNR=15 | | | | | | |
| CMAR | | | | Lg | Lg | 12 02 08.5 | |
| | 0.2nm,0.3s,baz=6.9,slow=31,SNR=2.9 | | | | | | |
| CMAR | | | | LR | LR | 12 03 43.7 | |
| | comp=Z,41nm,19.6s,baz=5.0,slow=42 | | | | | | |
| **SONM** | **Songino Array** | **20.91** | **11** | P | **P** | **12 02 01.3** | **+0.6** |
| | 0.7nm,0.5s,baz=194,slow=11,SNR=4.4 | | | | | | |
| SONM | | | | LR | LR | 12 11 02.2 | |
| | comp=Z,91nm,21.1s,baz=195,slow=40 | | | | | | |
| **MKAR** | **Makanchi Array** | **24.13** | **328** | P | **P** | **12 02 34.2** | **+0.2** |
| | 0.4nm,0.6s,baz=138,slow=11,SNR=2.8 | | | | | | |
| **TLY** | **Talaya** | **24.37** | **5** | LR | LR | 12 12 49.3 | |
| | comp=Z,25nm,20.4s,baz=175,slow=39 | | | | | | |
| **AAK** | **Ala-Archa** | **26.08** | **312** | LR | LR | 12 14 48.7 | |
| | comp=Z,70nm,19.9s,baz=310,slow=40 | | | | | | |
| **WRA** | **Warramunga Arr** | **57.31** | **142** | P | **P** | **12 07 06.3** | **+0.1** |
| | 0.5nm,0.6s,baz=329,slow=7.8,SNR=6.7 | | | | | | |
| **ASAR** | **Alice Springs** | **60.10** | **144** | P | **P** | **12 07 26.0** | **+0.3** |
| | 0.2nm,0.4s,baz=327,slow=6.5,SNR=7.6 | | | | | | |
| **KDAK** | **Kodiak Island** | **75.62** | **32** | LR | LR | 12 45 13.1 | |
| | comp=Z,68nm,21.7s,baz=237,slow=38 | | | | | | |
| **INK** | **Inuvik** | **76.65** | **18** | P | **P** | **12 09 08.3** | **-0.3** |
| | 1.3nm,0.8s,baz=340,slow=6.0,SNR=9.3 | | | | | | |
| **RES** | **Resolute Bay** | **77.68** | **4** | LR | LR | 12 48 03.4 | |
| | comp=Z,43nm,18.6s,baz=16,slow=39 | | | | | | |
| **YKA** | **Yellowknife Ar** | **86.11** | **16** | P | **P** | **12 09 58.4** | **-0.5** |
| | 0.2nm,0.6s,baz=331,slow=5.2,SNR=6.8 | | | | | | |

*ISN* ***28*** *11:58:31.5±1.3,35˚40N×50˚04E,h0km±62km, ML4.0*
*AZER* ***28*** *11:58:33.3±5.7,35˚40N×49˚86E,h2km, Error ellipse: s-maj=66.2km s-min=40.6km az=73.0*
*CSEM* ***28*** *11:58:35.6±0.2,35˚58N×49˚87E,h2km,ML4.0,Error ellipse: s-maj=5.9km s-min=4.2km az=40.0*
*THR* ***28*** *11:58:35.7±1.4,35˚58N×49˚91E,h15km±12km,ML3.8*
*TEH* ***28*** *11:58:36.5,35˚57N×49˚91E,h2km,ML4.0*

**ISC 28 11:58:35.3±1.2,35˚59N±0˚02×49˚90E±0˚03,h3km±10km, n58,σ1§53/77,5C-10D,Western Iran**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **IRAZ** | **Razeghan** | **0.19** | **172** | ⇓*e*Pg | **Pg** | **11 58 39.6** | **+0.6** |
| IRAZ | | | | *e*AMB | AMB | 11 58 39.9 | |
| | comp=Z,85μm,0.1s | | | | | | |
| IRAZ | | | | *e*Sg | **Sg** | **11 58 42.5** | **+0.9** |
| **IRAZ** | **Razeghan** | **0.19** | **172** | ⇓*e*Pg | **Pg** | **11 58 39.6** | **+0.6** |
| IRAZ | | | | *e*Sg | **Sg** | **11 58 42.5** | **+0.9** |
| **IMHD** | **Mahdasht** | **0.63** | **81** | *e*Pg | **Pg** | **11 58 47.4** | **-0.1** |
| IMHD | | | | *e*AMB | AMB | 11 58 48.6 | |
| | comp=Z,84μm,0.0s | | | | | | |
| IMHD | | | | *e*Sg | **Sg** | **11 58 57.0** | **+1.3** |
| **IMHD** | **Mahdasht** | **0.63** | **81** | *e*Pg | **Pg** | **11 58 47.4** | **-0.1** |
| IMHD | | | | *e*Sg | **Sg** | **11 58 57.0** | **+1.3** |
| **IR5** | **Iran Long-Peri** | **0.68** | **124** | *e*Pg | **Pg** | **11 58 48.7** | **+0.4** |
| IR5 | | | | *e*AMB | AMB | 11 58 58.0 | |
| | comp=Z,22μm,0.0s | | | | | | |
| **IR5** | **Iran Long-Peri** | **0.68** | **124** | *e*Pg | **Pg** | **11 58 48.7** | **+0.4** |
| **IGZV** | **Ghazvin** | **0.83** | **18** | *e*Pg | **Pg** | **11 58 51.2** | **-0.1** |
| IGZV | | | | *e*AMB | AMB | 11 58 52.0 | |
| | comp=Z,6μm,0.0s | | | | | | |
| **IGZV** | **Ghazvin** | **0.83** | **18** | *e*Pg | **Pg** | **11 58 51.2** | **-0.1** |
| **THKV** | **Tehran--Karaj** | **0.86** | **68** | *e*Pg | **Pg** | **11 58 52.3** | **+0.5** |
| **THKV** | **Tehran--Karaj** | **0.86** | **68** | *e*Pg | **Pg** | **11 58 52.3** | **+0.5** |
| **CHTH** | **Charan** | **1.05** | **72** | *e*Pg | **Pg** | **11 58 55.2** | **-0.2** |
| **CHTH** | **Charan** | **1.05** | **72** | *e*Pg | **Pg** | **11 58 55.2** | **-0.2** |
| **ASAO** | **Ashtian** | **1.05** | **174** | *e*Pg | **Pg** | **11 58 55.3** | **-0.1** |
| **ASAO** | **Ashtian** | **1.05** | **174** | *e*Pg | **Pg** | **11 58 55.3** | **-0.1** |
| **ZNJK** | **Zanjan** | **1.46** | **318** | *e*Pg | **Pn** | **11 59 02.4** | **-0.3** |
| **ZNJK** | **Zanjan** | **1.46** | **318** | *e*Pg | **Pn** | **11 59 02.4** | **-0.3** |
| **GHVR** | **GHOM** | **1.60** | **134** | *e*Pg | **Pn** | **11 59 04.4** | **-0.1** |
| GHVR | | | | AML | AML | 11 59 30.7 | |
| | comp=N,1μm,0.5s | | | | | | |
| GHVR | | | | AML | AML | 11 59 31.1 | |
| | comp=E,3μm,0.4s | | | | | | |
| **GHVR** | **GHOM** | **1.60** | **134** | *e*Pg | **Pn** | **11 59 04.4** | **-0.1** |
| **IVRN** | **Varamin** | **1.61** | **111** | *e*AMB | AMB | 11 59 29.9 | |
| | comp=Z,50μm,0.0s | | | | | | |
| IVRN | | | | *e*Pn | **Pb** | **11 59 05.6** | **-0.1** |
| **IDMV** | **Damavand** | **1.74** | **90** | *e*Sn | **Sn** | **11 59 29.0** | **-0.5** |
| IDMV | | | | *e*Pn | **Pn** | **11 59 07.0** | **+0.3** |
| IDMV | | | | *e*AMB | AMB | 11 59 38.4 | |
| | comp=Z,14μm,0.2s | | | | | | |
| **KHMZ** | **Khomeyn** | **1.85** | **178** | *e*Pg | **Pb** | **11 59 08.8** | **-1.2** |
| **KHMZ** | **Khomeyn** | **1.85** | **178** | *e*Pn | **Pb** | **11 59 08.7** | **-1.2** |
| **IPRN** | **Peran** | **2.08** | **71** | *e*Pn | **Pb** | **11 59 13.8** | **0.0** |
| IPRN | | | | *e*AMB | AMB | 11 59 16.8 | |
| | comp=Z,12μm,0.3s | | | | | | |
| **SNGE** | **Sanandaj** | **2.14** | **257** | *e*Pn | **Pb** | **11 59 14.0** | **-0.9** |
| SNGE | | | | AML | AML | 11 59 45.3 | |
| | comp=N,382nm,0.5s | | | | | | |
| **SNGE** | **Sanandaj** | **2.14** | **257** | *e*Pn | **Pb** | **11 59 14.2** | **-0.7** |
| **QAM** | **Ghamsar** | **2.23** | **145** | *e*Pn | **Pb** | **11 59 14.9** | **-1.4** |
| QAM | | | | *e*Sg | **Sb** | **11 59 44.4** | **+0.1** |
| QAM | | | | *e*AMB | AMB | 11 59 49.9 | |
| | comp=Z,31μm,0.2s | | | | | | |
| **IFIR** | **Firoozkooh** | **2.33** | **88** | *e*Pn | **Pb** | **11 59 16.6** | **-1.5** |
| IFIR | | | | *e*AMB | AMB | 11 59 18.4 | |
| | comp=Z,37μm,0.2s | | | | | | |
| **IFIR** | **Firoozkooh** | **2.33** | **88** | *e*Pn | **Pb** | **11 59 16.6** | **-1.5** |
| **IALA** | **Alasht** | **2.42** | **77** | *e*Pn | **Pb** | **11 59 18.6** | **-1.0** |
| **IALA** | **Alasht** | **2.42** | **77** | *e*Pn | **Pb** | **11 59 18.6** | **-1.0** |
| **ILIN** | **Lien** | **2.50** | **255** | *e*Pn | **Pb** | **11 59 21.5** | **+0.6** |
| ILIN | | | | *e*AMB | AMB | 11 59 56.4 | |
| | comp=Z,3μm,0.3s | | | | | | |
| **IKLH** | **Kolahrood** | **2.66** | **148** | *e*Pn | **Pb** | **11 59 22.2** | **-1.5** |
| IKLH | | | | *e*AMB | AMB | 11 59 59.1 | |
| | comp=Z,15μm,0.2s | | | | | | |
| **IKLH** | **Kolahrood** | **2.66** | **148** | *e*Pn | **Pb** | **11 59 22.2** | **-1.5** |
| **IVIS** | **Veis** | **2.72** | **248** | *e*Pn | **Pb** | **11 59 24.7** | **+0.1** |
| IVIS | | | | *e*AMB | AMB | 11 59 32.2 | |
| | comp=Z,1μm,0.2s | | | | | | |
| **ISHM** | **Shahmirzad** | **2.77** | **85** | *e*Pn | **Pn** | **11 59 22.8** | **+1.9** |
| ISHM | | | | *e*AMB | AMB | 11 59 29.6 | |
| | comp=Z,6μm,0.2s | | | | | | |
| **IDHR** | **Dehrash** | **3.01** | **254** | *e*Pn | **Pb** | **11 59 28.8** | **-0.9** |
| IDHR | | | | *e*AMB | AMB | 11 59 40.5 | |
| | comp=Z,2μm,0.2s | | | | | | |
| **IPIR** | **Pirpir** | **3.02** | **164** | *e*Pn | **Pb** | **11 59 28.5** | **-1.3** |
| IPIR | | | | *e*AMB | AMB | 12 00 16.2 | |
| | comp=Z,2μm,0.3s | | | | | | |
| **ASTR** | **Astara** | **3.09** | **344** | ⇓P | **Pn** | **11 59 24.7** | **-0.3** |
| ASTR | | | | ⇑S | **Sb** | **12 00 05.8** | **-3.2** |
| **ASTR** | **Astara** | **3.09** | **344** | P | **Pn** | **11 59 24.7** | **-0.3** |
| ASTR | | | | S | **Sb** | **12 00 05.8** | **-3.2** |
| **LKRN** | **Lenkeran, Azer** | **3.24** | **344** | ⇓P | **Pn** | **11 59 27.3** | **+0.3** |
| LKRN | | | | ⇑S | **Sb** | **12 00 09.5** | **-3.7** |
| **LKRN** | **Lenkeran, Azer** | **3.24** | **344** | P | **Pn** | **11 59 27.3** | **+0.3** |
| LKRN | | | | S | **Sb** | **12 00 09.5** | **-3.7** |
| **IANJ** | **Anjilo** | **3.28** | **91** | *e*Pn | **Pn** | **11 59 29.1** | **+1.3** |
| IANJ | | | | *e*AMB | AMB | 11 59 39.7 | |
| | comp=Z,1μm,0.1s | | | | | | |
| **IANJ** | **Anjilo** | **3.28** | **91** | *e*Pn | **Pn** | **11 59 29.1** | **+1.3** |
| **LRK** | **Lerik** | **3.29** | **338** | ⇓P | **Pn** | **11 59 28.7** | **+0.8** |
| LRK | | | | ⇓S | **Sb** | **12 00 12.3** | **-2.6** |
| **LRK** | **Lerik** | **3.29** | **338** | P | **Pn** | **11 59 28.7** | **+0.8** |
| LRK | | | | S | **Sb** | **12 00 12.3** | **-2.6** |
| **IZEF** | **Zefreh** | **3.36** | **142** | *e*Pn | **Pn** | **11 59 31.4** | **+2.4** |
| IZEF | | | | *e*AMB | AMB | 12 00 21.4 | |
| | comp=Z,3μm,0.2s | | | | | | |
| **IZEF** | **Zefreh** | **3.36** | **142** | *e*Pn | **Pn** | **11 59 31.4** | **+2.4** |
| **GLBA** | **Ciilabad** | **3.83** | **342** | ⇑P | **Pn** | **11 59 36.3** | **+1.1** |
| GLBA | | | | ⇓S | **Sn** | **12 00 23.9** | **+3.1** |
| **GLBA** | **Ciilabad** | **3.83** | **342** | P | **Pn** | **11 59 36.3** | **+1.1** |
| GLBA | | | | S | **Sn** | **12 00 23.9** | **+3.1** |
| **ORD** | **Ordubad** | **4.56** | **318** | P | **Pn** | **11 59 45.3** | **+0.1** |
| ORD | | | | S | **Sn** | **12 00 41.1** | **+2.4** |
| **NAX** | **Nakhchivan** | **5.01** | **317** | ⇓S | **Sn** | **12 00 51.5** | **+1.7** |
| **NAX** | **Nakhchivan** | **5.01** | **317** | S | **Sn** | **12 00 51.5** | **+1.7** |
| **BHD** | **Baghdad** | **5.12** | **245** | *e*Pn | **Pn** | **11 59 51.0** | **-1.8** |
| | SNR=3.0 | | | | | | |
| **SBZ** | **Shahbuz** | **5.13** | **319** | ⇑P | **Pn** | **11 59 53.6** | **+0.4** |
| SBZ | | | | ⇑S | **Sn** | **12 00 55.9** | **+2.9** |
| **SBZ** | **Shahbuz** | **5.13** | **319** | P | **Pn** | **11 59 53.6** | **+0.4** |
| SBZ | | | | S | **Sn** | **12 00 55.9** | **+2.9** |
| **GDB** | **GEDABAY** | **6.07** | **329** | ⇓P | **Pn** | **12 00 07.0** | **+0.9** |
| GDB | | | | ⇓S | **Sn** | **12 01 17.7** | **+1.6** |
| **GDB** | **GEDABAY** | **6.07** | **329** | P | **Pn** | **12 00 07.0** | **+0.9** |
| GDB | | | | S | **Sn** | **12 01 17.7** | **+1.6** |
| **RTB** | **Rutbah** | **8.34** | **255** | *e*Pn | **Pn** | **12 00 37.0** | **-0.1** |
| | SNR=3.0 | | | | | | |

*ISCJB* ***28*** *12:03:28.0±0.6,38˚01N±0˚02×42˚62E±0˚03,h0km±5km, mb3.4/2, Error ellipse: s-maj=3.9km s-min=3.4km az=140.3*
*ISK* ***28*** *12:03:27.4,37˚99N×42˚58E,h5km,ML3.5*
*CSEM* ***28*** *12:03:28.3±0.1,38˚00N×42˚63E,h2km,ML3.6, Error ellipse: s-maj=3.8km s-min=3.0km az=152.0*
*DDA* ***28*** *12:03:28.0,38˚04N×42˚63E,h16km, Ml3.6*
*IDC* ***28*** *12:03:45.9±2.0,39˚67N×43˚88E,h0km,mb3.5/2, mb1 3.3/4,mb1mx3.1/42,mbtmp3.3/4,ML3.1/2,Error ellipse: s-maj=51.1km s-min=17.1km az=174.0*

**ISC 28 12:03:28.4±1.2,38˚03N±0˚02×42˚62E±0˚02,h1km±10km, n83,σ1§10/101,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GEVA** | **Gevas** | **0.45** | **50** | *i* P | **Pg** | **12 03 36.5** | **-0.5** |
| GEVA | | | | *i* S | **Sg** | **12 03 43.9** | **+1.0** |
| **GEVA** | **Gevas** | **0.45** | **50** | P | **Pg** | **12 03 36.5** | **-0.5** |
| GEVA | | | | S | **Sg** | **12 03 43.9** | **+1.0** |
| **SIRT** | **Sirnak** | **0.54** | **195** | *e*PG | **Pg** | **12 03 38.4** | **-0.4** |
| SIRT | | | | *e*SG | **Sg** | **12 03 46.3** | **+0.5** |
| **SIRT** | **Sirnak** | **0.54** | **195** | *e*Pg | **Pg** | **12 03 38.4** | **-0.4** |
| SIRT | | | | *e*Sg | **Sg** | **12 03 46.3** | **+0.5** |
| **SRTM** | **Siirt_Merkez** | **0.55** | **267** | *i* P | **Pg** | **12 03 38.7** | **-0.3** |
| **SRTM** | **Siirt_Merkez** | **0.55** | **267** | P | **Pg** | **12 03 38.7** | **-0.3** |
| **SIRN** | **S¨¨rnak** | **0.55** | **197** | *i* P | **Pg** | **12 03 39.5** | **+0.5** |
| **SIRN** | **S¨¨rnak** | **0.55** | **197** | P | **Pg** | **12 03 39.5** | **+0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.79** | **6** | *i* P | **Pg** | **12 03 42.7** | **-0.8** |
| ADCV | | | | *i* S | **Sb** | **12 03 54.5** | **-1.9** |
| **ADCV** | **BITLIS_Adilcev** | **0.79** | **6** | P | **Pg** | **12 03 42.7** | **-0.8** |
| ADCV | | | | S | **Sb** | **12 03 54.5** | **-1.9** |
| **TVAN** | **Van** | **0.80** | **51** | *i* P | **Pg** | **12 03 43.4** | **-0.3** |
| **TVAN** | **Van** | **0.80** | **51** | P | **Pg** | **12 03 43.4** | **-0.3** |
| **VANB** | **Van** | **0.83** | **46** | *e*PG | **Pg** | **12 03 44.1** | **-0.2** |
| VANB | | | | *e*SG | **Sb** | **12 03 57.3** | **-0.2** |
| **VANB** | **Van** | **0.83** | **46** | *e*Pg | **Pg** | **12 03 44.1** | **-0.2** |
| VANB | | | | *e*Sg | **Sb** | **12 03 57.3** | **-0.2** |
| **HAKT** | **HAKKARI** | **0.98** | **118** | *i* P | **Pg** | **12 03 46.9** | **-0.3** |
| HAKT | | | | *i* S | **Sb** | **12 04 01.2** | **-0.7** |
| **HAKT** | **HAKKARI** | **0.98** | **118** | P | **Pg** | **12 03 46.9** | **-0.3** |
| HAKT | | | | S | **Sb** | **12 04 01.2** | **-0.7** |
| **BTMN** | **Batman** | **1.08** | **263** | *i* P | **Pg** | **12 03 49.2** | **+0.2** |
| BTMN | | | | *i* S | **Sn** | **12 04 05.4** | **-1.0** |
| **BTMN** | **Batman** | **1.08** | **263** | P | **Pg** | **12 03 49.2** | **+0.2** |
| BTMN | | | | S | **Sn** | **12 04 05.4** | **-1.0** |
| **CUKT** | **Cukurca** | **1.10** | **134** | *e*PN | **Pg** | **12 03 48.8** | **-0.8** |
| CUKT | | | | *e*SN | **Sn** | **12 04 05.8** | **-1.3** |
| **CUKT** | **Cukurca** | **1.10** | **134** | *i* P | **Pg** | **12 03 48.8** | **-0.8** |
| **CUKT** | **Cukurca** | **1.10** | **134** | P | **Pg** | **12 03 48.8** | **-0.8** |
| CUKT | | | | *e*Sn | **Sn** | **12 04 05.8** | **-1.3** |
| **VMUR** | **Van-Muradiye** | **1.22** | **37** | *i* P | **Pg** | **12 03 49.6** | **-2.2** |
| **EKAR** | **Karacoban** | **1.30** | **341** | *i* P | **Pg** | **12 03 53.0** | **-0.4** |
| **EKAR** | **Karacoban** | **1.30** | **341** | P | **Pg** | **12 03 53.0** | **-0.4** |
| **TUTA** | **Tutak** | **1.38** | **6** | *i* P | **Pn** | **12 03 53.5** | **-1.7** |
| **TUTA** | **Tutak** | **1.38** | **6** | P | **Pn** | **12 03 53.5** | **-1.7** |
| **YOVA** | **Hakkari_Y¨¨kse** | **1.39** | **108** | *i* P | **Pn** | **12 03 54.5** | **-0.8** |
| **YOVA** | **Hakkari_Y¨¨kse** | **1.39** | **108** | P | **Pn** | **12 03 54.5** | **-0.8** |
| **BNGL** | **BINGOL** | **1.48** | **309** | *i* P | **Pn** | **12 03 55.6** | **-0.9** |
| BNGL | | | | *i* S | **Sg** | **12 04 18.9** | **+2.9** |
| **CLDR** | **Caldiran** | **1.51** | **42** | *e*PN | **Pg** | **12 03 57.3** | **-0.1** |
| **CLDR** | **Caldiran** | **1.51** | **42** | *i* P | **Pn** | **12 03 55.9** | **-1.0** |
| **CLDR** | **Caldiran** | **1.51** | **42** | P | **Pn** | **12 03 55.9** | **-1.0** |
| **CLDR** | **Caldiran** | **1.51** | **42** | *e*Pn | **Pg** | **12 03 57.3** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **1.58** | **11** | *e*PN | **Pg** | **12 03 58.3** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **1.58** | **11** | *e*Pn | **Pg** | **12 03 58.3** | **-0.3** |
| **MARD** | **Mardin** | **1.62** | **245** | *i* P | **Pn** | **12 03 58.0** | **-0.3** |
| MARD | | | | *i* S | **Sb** | **12 04 20.3** | **-0.1** |
| **DYDN** | **Diyadin** | **1.73** | **29** | *i* P | **Pb** | **12 04 00.5** | **-0.7** |
| **DYDN** | **Diyadin** | **1.73** | **29** | P | **Pb** | **12 04 00.5** | **-0.7** |
| **HANI** | **Diyarbakir_Han** | **1.79** | **283** | *i* P | **Pn** | **12 03 59.0** | **-1.6** |
| HANI | | | | *i* S | **Sn** | **12 04 22.4** | **-1.7** |
| **HANI** | **Diyarbakir_Han** | **1.79** | **283** | P | **Pn** | **12 03 59.0** | **-1.6** |
| HANI | | | | S | **Sn** | **12 04 22.4** | **-1.7** |
| **BNGB** | **Bing¨¶l** | **1.80** | **303** | *e*PN | **Pn** | **12 04 01.0** | **+0.2** |
| **MAZI** | **Mazidag** | **1.81** | **253** | *e*PN | **Pn** | **12 04 00.5** | **-0.4** |
| **MAZI** | **Mazidag** | **1.81** | **253** | *e*Pn | **Pn** | **12 04 00.5** | **-0.4** |
| **EATA** | **Eleskirt** | **1.84** | **357** | *i* P | **Pb** | **12 04 01.7** | **-1.4** |
| **EATA** | **Eleskirt** | **1.84** | **357** | P | **Pb** | **12 04 01.7** | **-1.4** |
| **BINT** | **Bingol** | **1.88** | **298** | *e*Pn | **Pn** | **12 04 01.0** | **-0.9** |
| **DIY** | **Diyarbakir** | **1.90** | **267** | *e*Pn | **Pn** | **12 04 02.0** | **-0.1** |
| **DYBB** | **Diyarbakir** | **1.96** | **269** | *e*PN | **Pn** | **12 04 02.0** | **-0.9** |
| **DIYA** | **Diyarbakir** | **1.98** | **268** | *i* P | **Pn** | **12 04 01.8** | **-1.4** |
| **DIYA** | **Diyarbakir** | **1.98** | **268** | P | **Pn** | **12 04 01.8** | **-1.4** |
| **ECAT** | **Cat-ERZURUM** | **2.04** | **321** | *i* P | **Pb** | **12 04 04.8** | **-1.6** |
| **ECAT** | **Cat-ERZURUM** | **2.04** | **321** | P | **Pb** | **12 04 04.8** | **-1.6** |
| **HOMI** | **Horasan** | **2.09** | **345** | *i* P | **Pn** | **12 04 05.4** | **+0.5** |
| **ERZM** | **Erzurum** | **2.12** | **333** | *i* P | **Pb** | **12 04 07.4** | **-0.4** |
| **ERZM** | **Erzurum** | **2.12** | **333** | P | **Pb** | **12 04 07.4** | **-0.4** |
| **TASB** | **TASBURUN-IGDIR** | **2.33** | **32** | *e*PN | **Pn** | **12 04 08.8** | **+0.8** |
| **TASB** | **TASBURUN-IGDIR** | **2.33** | **32** | *e*Pn | **Pn** | **12 04 08.8** | **+0.8** |
| **SENK** | **Senkaya-Erzuru** | **2.54** | **355** | *e*PN | **Pn** | **12 04 11.7** | **+0.6** |
| **SENK** | **Senkaya-Erzuru** | **2.54** | **355** | *e*Pn | **Pn** | **12 04 11.7** | **+0.6** |
| **KARS** | **Kars** | **2.62** | **8** | *e*PN | **Pn** | **12 04 13.2** | **+1.0** |
| **KARS** | **Kars** | **2.62** | **8** | *e*Pn | **Pn** | **12 04 13.2** | **+1.0** |
| **SVRC** | **Sivrice-ELAZID** | **2.63** | **279** | *e*PN | **Pn** | **12 04 12.1** | **-0.2** |
| **SVRC** | **Sivrice-ELAZID** | **2.63** | **279** | *e*Pn | **Pn** | **12 04 12.1** | **-0.2** |
| **TNCL** | **Tunceli-Merkez** | **2.65** | **295** | *i* P | **Pn** | **12 04 12.7** | **+0.2** |
| **TNCL** | **Tunceli-Merkez** | **2.65** | **295** | P | **Pn** | **12 04 12.6** | **+0.2** |
| **PTK** | **Pertek** | **2.68** | **290** | *e*PN | **Pn** | **12 04 12.9** | **0.0** |
| **PTK** | **Pertek** | **2.68** | **290** | *e*Pn | **Pn** | **12 04 12.9** | **0.0** |
| **ERZN** | **Erzincan** | **2.75** | **305** | *e*PN | **Pn** | **12 04 14.4** | **+0.5** |
| **BAYT** | **Ayd¨¨ntepe-Bay** | **3.05** | **322** | *e*PN | **Pn** | **12 04 19.0** | **+1.0** |
| **BAYT** | **Ayd¨¨ntepe-Bay** | **3.05** | **322** | *e*Pn | **Pn** | **12 04 19.0** | **+1.0** |
| **URFA** | **Urfa** | **3.07** | **260** | *e*PN | **Pn** | **12 04 18.3** | **+0.1** |
| **URFA** | **Urfa** | **3.07** | **260** | *e*Pn | **Pn** | **12 04 18.3** | **+0.1** |
| **EZC** | **Erzincan** | **3.08** | **305** | *e*Pn | **Pn** | **12 04 14.4** | **-4.0** |
| **MALT** | **Malatya** | **3.32** | **276** | *e*PN | **Pn** | **12 04 21.4** | **-0.2** |
| **MALT** | **Malatya** | **3.32** | **276** | *e*Pn | **Pn** | **12 04 21.5** | **-0.2** |
| **ILIC** | **ilic-Erzincan** | **3.48** | **295** | *e*PN | **Pn** | **12 04 24.4** | **+0.6** |
| **ILIC** | **ilic-Erzincan** | **3.48** | **295** | *e*Pn | **Pn** | **12 04 24.4** | **+0.6** |
| **BCA** | **Borcka** | **3.50** | **348** | *e*PN | **Pn** | **12 04 25.6** | **+1.5** |
| **BCA** | **Borcka** | **3.50** | **348** | *e*Pn | **Pn** | **12 04 25.6** | **+1.5** |
| **BRTR** | **Keskin Array B** | **7.21** | **286** | Pn | **Pg** | **12 05 44.8** | **-1.8** |
| | 0.1nm,0.3s,baz=94,slow=19,SNR=4.2 | | | | | | |
| **AKASG** | **Malin Array Be** | **15.85** | **327** | Pn | **P** | **12 07 18.3** | **+1.7** |
| | 0.3nm,0.3s,baz=138,slow=11,SNR=6.1 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **28.32** | **52** | P | **P** | **12 09 25.2** | **+1.7** |
| | 0.1nm,0.3s,baz=263,slow=9.0,SNR=3.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **30.30** | **60** | P | **P** | **12 09 44.1** | **+2.8** |
| | 0.7nm,0.7s,baz=258,slow=8.5,SNR=6.7 | | | | | | |

*DDA* ***28*** *12:09:50.9,39˚71N×36˚93E,h7km,Md2.5*
*ISCJB* ***28*** *12:09:51.7±0.7,39˚67N±0˚04×36˚92E±0˚04,h6km±5km, Error ellipse: s-maj=6.9km s-min=4.8km az=149.6*
*CSEM* ***28*** *12:09:51.3±0.3,39˚69N×36˚94E,h10km,MD2.8, Error ellipse: s-maj=8.0km s-min=5.9km az=150.0*
*ISK* ***28*** *12:09:53.0,39˚73N×36˚97E,h28km, MD2.8*

**ISC 28 12:09:52.0±1.0,39˚67N±0˚03×36˚97E±0˚03,h13km±8km, n24,σ1§13/38,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SCER** | **sogukcermik** | **0.23** | **33** | *i* P | **Pg** | **12 09 55.9** | **-1.1** |
| **SCER** | **sogukcermik** | **0.23** | **33** | P | **Pg** | **12 09 55.9** | **-1.1** |
| **SVSK** | **Karacayir** | **0.24** | **5** | *e*PG | **Pg** | **12 09 59.2** | **+1.9** |
| **CUALT** | **Altinyayla-SIV** | **0.43** | **202** | *i* P | **Pg** | **12 10 00.3** | **-0.4** |
| CUALT | | | | *i* S | **Sg** | **12 10 07.3** | **+0.9** |
| **CUALT** | **Altinyayla-SIV** | **0.43** | **202** | P | **Pg** | **12 10 00.3** | **-0.4** |
| CUALT | | | | S | **Sg** | **12 10 07.3** | **+0.9** |
| **CUKAN** | **kangal_SIVAS** | **0.53** | **133** | *i* P | **Pg** | **12 10 00.9** | **-1.5** |
| CUKAN | | | | *i* S | **Sg** | **12 10 14.4** | **+1.0** |
| **CUKAN** | **kangal_SIVAS** | **0.53** | **133** | P | **Pg** | **12 10 00.9** | **-1.5** |
| CUKAN | | | | S | **Sg** | **12 10 14.4** | **+1.0** |
| **CUZAR** | **Zara_SIVAS** | **0.65** | **71** | *i* P | **Pg** | **12 10 03.7** | **-1.1** |
| CUZAR | | | | *i* S | **Sb** | **12 10 14.4** | **-0.1** |
| **CUZAR** | **Zara_SIVAS** | **0.65** | **71** | P | **Pg** | **12 10 03.7** | **-1.1** |
| CUZAR | | | | S | **Sb** | **12 10 14.4** | **-0.1** |
| **SUSE** | **Susehri** | **1.09** | **60** | *i* P | **Pb** | **12 10 12.4** | **-0.4** |
| SUSE | | | | *i* S | **Sn** | **12 10 29.2** | **+1.0** |
| **SUSE** | **Susehri** | **1.09** | **60** | P | **Pb** | **12 10 12.4** | **-0.4** |
| SUSE | | | | S | **Sn** | **12 10 29.2** | **+1.0** |
| **HEKM** | **Malatya_Hekimh** | **1.10** | **136** | *i* P | **Pb** | **12 10 12.1** | **-1.0** |
| **HEKM** | **Malatya_Hekimh** | **1.10** | **136** | P | **Pb** | **12 10 12.1** | **-1.0** |
| **KEMA** | **Kemaliye** | **1.25** | **108** | *i* P | **Pn** | **12 10 15.3** | **0.0** |
| KEMA | | | | *i* S | **Sn** | **12 10 34.6** | **+2.7** |
| **KEMA** | **Kemaliye** | **1.25** | **108** | P | **Pn** | **12 10 15.3** | **0.0** |
| KEMA | | | | S | **Sn** | **12 10 34.6** | **+2.7** |
| **YOZ** | **Yozgat** | **1.27** | **269** | *e*PN | **Pg** | **12 10 15.4** | **-1.2** |
| YOZ | | | | *e*SN | **Sn** | **12 10 32.0** | **-0.7** |
| **YOZ** | **Yozgat** | **1.27** | **269** | *e*Pn | **Pg** | **12 10 15.4** | **-1.2** |
| YOZ | | | | *e*Sn | **Sn** | **12 10 32.0** | **-0.7** |
| **SARI** | **SarD1z-Kayseri** | **1.33** | **199** | *e*PN | **Pb** | **12 10 17.1** | **+0.1** |
| **MALT** | **Malatya** | **1.77** | **140** | *e*PN | **Pn** | **12 10 23.1** | **+0.7** |
| **MALT** | **Malatya** | **1.77** | **140** | *e*Pn | **Pn** | **12 10 23.1** | **+0.7** |
| **KELT** | **Kelkit** | **1.82** | **74** | *i* P | **Pb** | **12 10 24.2** | **-1.1** |
| KELT | | | | *i* S | **Sg** | **12 10 50.5** | **-0.2** |
| **KELT** | **Kelkit** | **1.82** | **74** | P | **Pb** | **12 10 24.2** | **-1.1** |
| KELT | | | | S | **Sg** | **12 10 50.5** | **-0.2** |
| **PTK** | **Pertek** | **2.04** | **112** | *e*PN | **Pn** | **12 10 26.6** | **+0.4** |
| **PTK** | **Pertek** | **2.04** | **112** | *e*

*PRU* ***28*** *12:42:51.2, 51°.40N × 16°.20E, h0km*
**WAR 28 12:42:51.0, 51°.44N × 16°.20E, h1km, Mw2.2, Poland**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KSP** | **Ksiaz** | **0.60** | **174** | *e*Pg | Pg | 12 43 02.2 | -0.2 |
| KSP | | | | *e*Sg | Sg | 12 43 10.1 | 0.0 |
| **KSP** | **Ksiaz** | **0.60** | **174** | *e*Pg | Pg | 12 43 02.2 | -0.2 |
| KSP | | | | *e*Sg | Sg | 12 43 10.1 | 0.0 |
| **KSP** | **Ksiaz** | **0.60** | **174** | *e*Pg | Pg | 12 43 02.2 | -0.2 |
| KSP | | | | *e*Sg | Sg | 12 43 10.1 | 0.0 |
| **UPC** | **Upice** | **0.94** | **187** | *e*PG | Pg | 12 43 08.5 | -0.4 |
| UPC | | | | *e*SG | Sg | 12 43 20.4 | -0.7 |
| | comp=Z,30nm,0.3s | | | | | | |
| **UPC** | **Upice** | **0.94** | **187** | Pg | Pg | 12 43 08.5 | -0.4 |
| UPC | | | | Sg | Sg | 12 43 20.4 | -0.7 |
| | 30nm,0.3s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.09** | **176** | *e*PG | Pg | 12 43 11.2 | -0.7 |
| DPC | | | | *e*SG | Sg | 12 43 25.1 | -0.9 |
| | comp=Z,10nm,0.4s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.09** | **176** | Pg | Pg | 12 43 11.2 | -0.7 |
| DPC | | | | Sg | Sg | 12 43 25.1 | -0.9 |
| | 10nm,0.4s | | | | | | |
| **PVCC** | **Panska Ves** | **1.37** | **229** | *e*PG | Pg | 12 43 16.9 | -0.4 |
| PVCC | | | | *e*SG | Sb | 12 43 35.3 | -0.2 |
| | comp=Z,48nm,0.4s | | | | | | |
| **PVCC** | **Panska Ves** | **1.37** | **229** | Pg | Pg | 12 43 16.9 | -0.4 |
| PVCC | | | | Sg | Sb | 12 43 35.3 | -0.2 |
| | 48nm,0.4s | | | | | | |
| **KRLC** | **Kraliky** | **1.41** | **164** | *e*PG | Pn | 12 43 17.2 | -0.7 |
| KRLC | | | | *e*SG | Sg | 12 43 34.7 | -1.6 |
| | comp=Z,1.6nm,0.3s | | | | | | |
| **KRLC** | **Kraliky** | **1.41** | **164** | Pg | Pn | 12 43 17.2 | -0.7 |
| KRLC | | | | Sg | Sg | 12 43 34.7 | -1.6 |
| | 1.6nm,0.3s | | | | | | |
| **BRG** | **Berggiesshubel** | **1.53** | **249** | PG | Pb | 12 43 19.8 | -0.3 |
| BRG | | | | SG | Sb | 12 43 39.9 | 0.0 |
| | 13nm,0.4s | | | | | | |
| **PRU** | **Pruhonice** | **1.79** | **217** | *e*SG | Sb | 12 43 47.2 | -0.3 |
| | comp=Z,8.2nm,0.4s | | | | | | |
| **PRU** | **Pruhonice** | **1.79** | **217** | Sg | Sb | 12 43 47.2 | -0.3 |
| | 8.2nm,0.4s | | | | | | |
| **MORC** | **Moravsky Berou** | **1.87** | **152** | *e*Pn | Pn | 12 43 23.1 | -1.1 |
| MORC | | | | *e*Sg | Sn | 12 43 48.8 | +0.4 |
| **CLL** | **Collm** | **2.00** | **268** | *i* Pg | Pb | 12 43 27.6 | -0.6 |
| CLL | | | | *i* | | 12 43 28.9 | |
| CLL | | | | *i* Sg | Sg | 12 43 55.3 | -0.1 |
| | comp=Z,5.0nm,0.7s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **2.03** | **141** | *e*PG | Pb | 12 43 28.5 | -0.1 |
| OKC | | | | *e*SG | Sb | 12 43 53.8 | -0.5 |
| **OKC** | **Ostrava-Krasne** | **2.03** | **141** | Pg | Pb | 12 43 28.5 | -0.1 |
| OKC | | | | Sg | Sb | 12 43 53.8 | -0.5 |
| **VRAC** | **Vranov** | **2.15** | **173** | *e*Sg | Sb | 12 43 58.1 | +0.4 |
| **KHC** | **Kasperske Hory** | **2.85** | **217** | *e*PG | Pb | 12 43 42.2 | -0.5 |
| KHC | | | | *e*SG | Sb | 12 44 20.1 | +2.0 |

**WEL 28 13:10:08.5±0.4, 45°.01S × 167°.04E, h12km, ML3.3/7, 2C-1D, Error ellipse: s-maj=4.0km s-min=2.1km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DCZ** | **Deep Cove** | **0.46** | **170** | ⇑P* | Pb | 13 10 18.1 | -0.5 |
| DCZ | | | | S* | Sb | 13 10 24.8 | -0.5 |
| DCZ | | | | AML | AML | 13 10 25.4 | |
| DCZ | | | | AML | AML | 13 10 27.5 | |
| DCZ | | | | AML | AML | 13 10 28.6 | |
| **MLZ** | **Mavora Lakes** | **0.84** | **115** | P* | Pg | 13 10 23.7 | -1.1 |
| MLZ | | | | S* | Sg | 13 10 34.9 | -0.9 |
| MLZ | | | | AML | AML | 13 10 37.2 | |
| **WHZ** | **Wether Hill Ro** | **1.09** | **144** | ⇓P* | Pb | 13 10 28.0 | -1.3 |
| WHZ | | | | *e*S* | Sb | 13 10 42.4 | -1.0 |
| WHZ | | | | AML | AML | 13 10 46.1 | |
| **PYZ** | **Puysegur Point** | **1.18** | **192** | *e*P* | Pb | 13 10 28.9 | -2.0 |
| PYZ | | | | AML | AML | 13 10 51.5 | |
| PYZ | | | | AML | AML | 13 10 51.5 | |
| PYZ | | | | AML | AML | 13 10 52.9 | |
| PYZ | | | | AML | AML | 13 10 52.9 | |
| **WKZ** | **Wanaka** | **1.42** | **83** | PN | Pn | 13 10 33.4 | -0.7 |
| WKZ | | | | AML | AML | 13 10 52.9 | |
| WKZ | | | | AML | AML | 13 10 52.9 | |
| WKZ | | | | AML | AML | 13 10 53.7 | |
| WKZ | | | | AML | AML | 13 10 53.7 | |
| **JCZ** | **Jackson Bay** | **1.56** | **54** | PN | Pn | 13 10 32.9 | -3.2 |
| JCZ | | | | *e*SN | Sn | 13 10 54.4 | -2.0 |
| JCZ | | | | AML | AML | 13 11 01.1 | |
| **EAZ** | **Earnscleugh** | **1.62** | **99** | ⇑PN | Pn | 13 10 36.5 | -0.4 |
| EAZ | | | | AML | AML | 13 10 57.9 | |
| EAZ | | | | AML | AML | 13 10 58.6 | |
| EAZ | | | | AML | AML | 13 10 59.4 | |
| EAZ | | | | AML | AML | 13 11 00.3 | |
| **TUZ** | **Tuapeka** | **2.05** | **118** | PN | Pn | 13 10 42.2 | -0.6 |
| **SYZ** | **Scrubby Hill** | **2.12** | **137** | PN | Pn | 13 10 42.4 | -1.3 |
| **LBZ** | **Lake Benmore** | **2.33** | **76** | PN | Pn | 13 10 45.4 | -1.2 |
| **FOZ** | **Fox Glacier** | **2.48** | **54** | *e*PN | Pn | 13 10 44.5 | -4.2 |
| **ODZ** | **Otahua Downs** | **2.56** | **92** | PN | Pn | 13 10 48.7 | -1.1 |
| **HHSZ** | **Highcliff Hill** | **2.65** | **110** | PN | Pn | 13 10 50.4 | -0.7 |
| **RPZ** | **Rata Peaks** | **3.16** | **67** | *e*PN | Pn | 13 10 55.6 | -2.5 |
| **WVZ** | **Waitaha Valley** | **3.30** | **55** | PN | Pn | 13 10 56.0 | -3.9 |
| **INZ** | **Inchbonnie** | **3.92** | **56** | PN | Pn | 13 11 04.7 | -3.8 |
| **DSZ** | **Denniston Nort** | **4.77** | **48** | *e*PN | Pn | 13 11 14.9 | -5.3 |

**IDC 28 13:48:24.1±8.3, 18°.33S × 178°.51W, h650km±93km, mb3.3/5, mb1 3.4/5, mb1mx2.8/35, mbtmp4.4/5, Error ellipse: s-maj=76.1km s-min=29.0km az=30.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **URZ** | **Urewera** | **20.22** | **190** | P | P | 13 52 17.1 | -0.3 |
| | 4.6nm,0.5s,baz=156,slow=13,SNR=3.6 | | | | | | |
| **CTA** | **Charters Tower** | **33.29** | **261** | P | P | 13 54 10.7 | -0.5 |
| | 5.5nm,1.0s,baz=70,slow=12,SNR=3.7 | | | | | | |
| **STKA** | **Stephens Creek** | **38.35** | **242** | P | P | 13 54 53.8 | +1.3 |
| | 1.8nm,0.5s,baz=87,slow=7.8,SNR=5.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.47** | **260** | P | P | 13 55 39.8 | -0.7 |
| | 1.6nm,0.3s,baz=94,slow=7.5,SNR=92 | | | | | | |
| **ASAR** | **Alice Springs** | **44.59** | **255** | P | P | 13 55 41.9 | +0.4 |
| | 6.7nm,0.5s,baz=86,slow=8.7,SNR=110 | | | | | | |
| ASAR | | | | PcP | PcP | 13 57 10.3 | +0.7 |
| | 0.4nm,0.4s,baz=98,slow=3.9,SNR=5.1 | | | | | | |
| **BRTR** | **Keskin Array B** | **145.01** | **314** | PKPbc | PKPbc | 14 06 50.1 | -0.4 |
| | 0.5nm,0.5s,baz=100,slow=2.7,SNR=3.0 | | | | | | |
| **GERES** | **GERESS Array B** | **148.00** | **345** | PKPbc | PKPbc | 14 06 57.3 | -0.9 |
| | 0.2nm,0.4s,baz=29,slow=2.2,SNR=4.1 | | | | | | |

*BJI* ***28*** *13:54:29.1, 52°.29N × 96°.15E, h12km, mb4.3/22, mB4.7/14, ML4.6/2, Ms4.2/15, Ms7 4.0/15*
*MOS* ***28*** *13:54:35.3±1.1, 52°.02N × 95°.96E, h13km, mb4.3/15, Error ellipse: s-maj=8.8km s-min=7.2km az=10.7*
*OBM* ***28*** *13:54:35.3±0.1, 51°.85N × 95°.83E, h2km, Ml4.3/2, Error ellipse: s-maj=1.7km s-min=1.0km az=2.0*
*IDC* ***28*** *13:54:35.3±0.5, 52°.02N × 95°.95E, h0km, mb3.9/17, mb1 4.0/22, mb1mx3.8/65, mbtmp3.9/22, ML3.5/5, MS2.9/9, Ms1 2.9/9, ms1mx2.8/49, Error ellipse: s-maj=14.9km s-min=8.3km az=176.0*
*NEIC* ***28*** *13:54:36.6±0.4, 51°.99N × 95°.94E, h10km, mb4.6/4, Error ellipse: s-maj=10.1km s-min=5.9km az=177.0*
*ASRS* ***28*** *13:54:37.8±1.0, 51°.97N × 95°.68E, h15km, Ms3.6/3*
**ISC 28 13:54:37.0±0.3, 52°.03N±0°.03 × 95°.75E±0°.02, h10km, n135, s265/151, mb4.2/26, MS3.1/6, 13C-4D, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KZLR** | **Kyzyl** | **0.87** | **249** | *i* Pg | **Pg** | **13 54 52.4** | **-1.3** |
| KZLR | | | | *e*Sg | **Sg** | **13 55 04.2** | **-0.8** |
| **KZLR** | **Kyzyl** | **0.87** | **249** | *i* PG | **Pg** | **13 54 52.4** | **-1.3** |
| KZLR | | | | *e* | | 13 55 04.2 | |
| **HVS** | **Khovu-Aksy** | **1.56** | **236** | PN | **Pn** | **13 55 03.5** | **-1.4** |
| **HVS** | **Khovu-Aksy** | **1.56** | **236** | P | **Pn** | **13 55 03.5** | **-1.4** |
| **ORL** | **Orlik** | **2.54** | **77** | *e*PN | **Pn** | **13 55 19.8** | **+1.4** |
| ORL | | | | *e* | | 13 55 51.1 | |
| ORL | | | | pmax | pmax | | |
| | comp=Z,471nm,0.3s | | | | | | |
| ORL | | | | smax | smax | | |
| | comp=N,2μm,0.7s | | | | | | |
| **ULG** | **Ulaangom** | **3.12** | **230** | *e*Pn | **Pn** | **13 55 26.8** | **+0.5** |
| **ULG** | **Ulaangom** | **3.12** | **230** | *e*Pg | **Pb** | **13 55 30.8** | **-1.7** |
| ULG | | | | *e*Sg | **Sb** | **13 56 08.3** | **-2.3** |
| **HTG** | **Hatgal** | **3.19** | **118** | *e*Pg | **Pn** | **13 55 29.9** | **+2.6** |
| HTG | | | | *e*Sg | **Sn** | **13 56 08.5** | **+3.1** |
| **MOY** | **Mondy** | **3.27** | **94** | *e*PN | **Pn** | **13 55 31.8** | **+3.4** |
| MOY | | | | *i* | | 13 55 33.3 | |
| MOY | | | | *e* | | 13 56 13.1 | |
| MOY | | | | *i* | | 13 56 16.1 | |
| **VEH** | **Verkhnyaya Baz** | **3.53** | **292** | *e*PN | **Pb** | **13 55 41.4** | **+1.8** |
| VEH | | | | *e* | | 13 56 28.2 | |
| **TSC** | **Tosontsengel** | **3.63** | **153** | *e*Pn | **Pn** | **13 55 32.9** | **-0.4** |
| TSC | | | | *e*Sg | **Sb** | **13 56 24.8** | **-0.6** |
| **ARS** | **Arshan** | **4.12** | **89** | *e*PN | **Pn** | **13 55 40.5** | **+0.4** |
| ARS | | | | *e* | | 13 55 46.9 | |
| ARS | | | | *e* | | 13 56 40.0 | |
| ARS | | | | pmax | pmax | | |
| | comp=Z,294nm,0.4s | | | | | | |
| ARS | | | | smax | smax | | |
| | comp=E,4μm,0.7s | | | | | | |
| **BYO** | **Bayan-Olgiy** | **4.81** | **233** | *e*Pn | **Pn** | **13 55 50.2** | **+0.6** |
| **BYO** | **Bayan-Olgiy** | **4.81** | **233** | *e*Pg | **Pb** | **13 56 00.0** | **-1.4** |
| BYO | | | | *e*Sg | **Sb** | **13 57 01.5** | **+2.2** |
| **HBD** | **Hovd** | **4.81** | **215** | *e*Pg | **Pb** | **13 55 57.9** | **-3.5** |
| HBD | | | | *e*Sg | **Sb** | **13 56 56.8** | **-2.6** |
| **TASR** | **Tashtagol** | **4.88** | **282** | *e*Pn | **Pn** | **13 55 52.9** | **+2.5** |
| TASR | | | | *e*Pg | **Pb** | **13 56 04.6** | **+2.1** |
| TASR | | | | *e*Sg | **Sg** | **13 57 09.0** | **-4.5** |
| **TASR** | **Tashtagol** | **4.88** | **282** | *e*PN | **Pn** | **13 55 52.9** | **+2.5** |
| TASR | | | | *e* | | 13 56 04.6 | |
| TASR | | | | *e* | | 13 57 08.0 | |
| **TLY** | **Talaya** | **4.90** | **91** | Pg | Pb | 13 55 59.6 | -3.3 |
| | comp=E,0.2nm,0.3s,baz=278,slow=10,SNR=32 | | | | | | |
| TLY | | | | Lg | Lg | 13 57 04.0 | |
| | comp=E,0.5nm,0.3s,baz=21,slow=19,SNR=14 | | | | | | |
| TLY | | | | LR | LR | 13 57 11.7 | |
| | comp=E,20nm,21.9s,baz=256,slow=33 | | | | | | |
| **TLY** | **Talaya** | **4.90** | **91** | ⇑*e*PN | Pn | 13 55 45.3 | -5.4 |
| **TLY** | **Talaya** | **4.90** | **91** | *e*Pb | Pb | 13 55 59.6 | -3.3 |
| TLY | | | | *e*Pg | **Pg** | **13 56 08.7** | **-2.2** |
| TLY | | | | Lg | Lg | 13 57 04.0 | |
| **ZAK** | **Zakamensk** | **5.01** | **106** | *e*PN | **Pb** | **13 56 01.6** | **-3.2** |
| ZAK | | | | *e* | | 14 57 06.6 | |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,204nm,1.0s | | | | | | |
| ZAK | | | | smax | smax | | |
| | comp=N,1μm,1.2s | | | | | | |
| **ARTR** | **Artybash** | **5.25** | **271** | *e*Pn | **Pn** | **13 55 57.9** | **+2.4** |
| ARTR | | | | *e*Pg | **Pb** | **13 56 11.0** | **+2.2** |
| ARTR | | | | *e*Sg | **Sg** | **13 57 21.9** | **-3.6** |
| **ARTR** | **Artybash** | **5.25** | **271** | *e*PN | **Pn** | **13 55 57.9** | **+2.4** |
| ARTR | | | | *e* | | 13 56 11.0 | |
| ARTR | | | | *e* | | 13 57 21.9 | |
| **IRK** | **Irkutsk** | **5.25** | **84** | *e*PN | **Pb** | **13 56 07.8** | **-1.0** |
| IRK | | | | *e* | | 13 57 11.9 | |
| IRK | | | | pmax | pmax | | |
| | comp=Z,117nm,0.4s | | | | | | |
| IRK | | | | smax | smax | | |
| | comp=N,1μm,0.6s | | | | | | |
| **AKAR** | **Aktash** | **5.39** | **255** | *e*Pn | **Pn** | **13 55 59.9** | **+2.3** |
| AKAR | | | | *e*Pg | **Pg** | **13 56 15.9** | **-4.4** |
| AKAR | | | | *e*Sg | **Sb** | **13 57 21.6** | **+5.5** |
| **AKAR** | **Aktash** | **5.39** | **255** | *e*PN | **Pn** | **13 55 59.9** | **+2.3** |
| AKAR | | | | *e* | | 13 56 15.9 | |
| AKAR | | | | *e* | | 13 57 21.6 | |
| **BRCR** | **Berchikul'** | **5.70** | **312** | *i* Pn | **Pn** | **13 56 04.0** | **+2.4** |
| BRCR | | | | *e*Pg | **Pb** | **13 56 20.7** | **+4.3** |
| BRCR | | | | *e*Sg | **Sg** | **13 57 34.7** | **-5.1** |
| **BRCR** | **Berchikul'** | **5.70** | **312** | *i* PN | **Pn** | **13 56 03.0** | **+1.4** |
| BRCR | | | | *e* | | 13 56 20.7 | |
| BRCR | | | | *e* | | 13 57 34.7 | |
| **DGZ** | **Jazzator, Alta** | **5.76** | **249** | *de*PN | **Pn** | **13 56 04.8** | **+2.2** |
| **TTS** | **Tsetserleg** | **5.85** | **139** | *e*Pg | **Pb** | **13 56 17.5** | **-1.7** |
| TTS | | | | *e*Sg | **Sb** | **13 57 31.0** | **+1.6** |
| **ELT** | **Eltsovka** | **5.92** | **286** | *e*Pn | **Pn** | **13 56 06.4** | **+1.7** |
| ELT | | | | *e*Pg | **Pb** | **13 56 22.0** | **+1.8** |
| ELT | | | | *e*Sg | **Sg** | **13 57 40.0** | **-7.0** |
| **ELT** | **Eltsovka** | **5.92** | **286** | *e*PN | **Pn** | **13 56 06.4** | **+1.7** |
| ELT | | | | *e* | | 13 56 22.0 | |
| ELT | | | | *e* | | 13 57 40.0 | |
| **BLGM** | **Bulgan** | **5.93** | **120** | *e*Pn | **Pb** | **13 56 19.2** | **-1.3** |
| BLGM | | | | *e*Sg | **Sb** | **13 57 38.7** | **+7.1** |
| **ZAA0** | **Zalesovo Array** | **6.88** | **291** | *e*Pn | **Pn** | **13 56 20.0** | **+2.3** |
| **ZALV** | **Zalesovo Beam** | **6.88** | **291** | Pn | **Pn** | **13 56 20.5** | **+2.7** |
| | comp=N,4.8nm,0.3s,baz=100,slow=13,SNR=39 | | | | | | |
| ZALV | | | | Lg | Lg | 13 58 11.4 | |
| | comp=N,9.2nm,0.3s,baz=110,slow=26,SNR=6.6 | | | | | | |
| ZALV | | | | LR | LR | 13 59 13.8 | |
| | comp=N,141nm,20.6s,baz=64,slow=40 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **6.88** | **291** | *i* PN | **Pn** | **13 56 20.5** | **+2.7** |
| ZALV | | | | pmax | pmax | | |
| | comp=Z,13nm,0.4s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **6.88** | **291** | *e*Pn | **Pn** | **13 56 20.1** | **+2.3** |
| ZALV | | | | Lg | Lg | 13 58 11.4 | |
| **UKR** | **Ust'-Kan** | **6.95** | **265** | *e*Pg | Pb | 13 56 43.2 | +5.5 |
| UKR | | | | *e*Sg | **Sg** | **13 58 11.8** | **-8.0** |
| **UKR** | **Ust'-Kan** | **6.95** | **265** | *e*P* | Pb | 13 56 43.2 | +5.5 |
| UKR | | | | *e* | | 13 58 11.8 | |
| **OGRR** | **Ongureny** | **7.36** | **73** | *e*P | **Pn** | **13 56 22.9** | **-1.4** |
| OGRR | | | | pmax | pmax | | |
| | comp=Z,51nm,0.6s | | | | | | |
| **NVS** | **Novosibirsk** | **7.99** | **296** | *e*Pn | **Pn** | **13 56 35.6** | **+2.6** |
| NVS | | | | *e*Pg | Pb | 13 57 02.0 | +6.6 |
| NVS | | | | *e*Sg | **Sg** | **13 58 47.8** | **-5.3** |
| **NVS** | **Novosibirsk** | **7.99** | **296** | *e*P | **Pn** | **13 56 36.1** | **+3.1** |
| **SONB5** | **Songino Array** | **8.02** | **117** | *e*Pg | **Pb** | **13 56 55.0** | **-1.0** |
| SONB5 | | | | *e*Sg | Sb | 13 58 42.5 | +11 |
| | comp=Z,301nm,0.8s | | | | | | |
| **SONB4** | **Songino Array** | **8.03** | **117** | *e*Pg | **Pb** | **13 56 55.6** | **-0.5** |
| SONB4 | | | | *e*Sg | Sb | 13 58 42.4 | +11 |
| **SONB1** | **Songino Array** | **8.03** | **117** | *e*Pg | **Pb** | **13 56 55.5** | **-0.8** |
| SONB1 | | | | *e*Sg | Sb | 13 58 41.3 | +9.3 |
| | comp=Z,420nm,0.9s | | | | | | |
| **SONA2** | **Songino Array** | **8.04** | **117** | *e*Pg | **Pb** | **13 56 55.8** | **-0.5** |
| SONA2 | | | | *e*Sg | Sb | 13 58 42.9 | +11 |
| | comp=Z,368nm,1.0s | | | | | | |
| **SONA1** | **Songino Array** | **8.04** | **117** | *e*Pg | **Pb** | **13 56 55.7** | **-0.7** |
| SONA1 | | | | *e*Sg | Sb | 13 58 43.1 | +11 |
| | comp=Z,302nm,0.9s | | | | | | |
| **SONA0** | **Songino Array** | **8.04** | **117** | *e*Pg | **Pb** | **13 56 54.8** | **-1.6** |
| SONA0 | | | | *e*Sg | Sb | 13 58 43.0 | +11 |
| | comp=Z,309nm,1.0s | | | | | | |
| SONA0 | | | | *e*Sg | Sg | 13 58 43.1 | -12 |
| **SONA3** | **Songino Array** | **8.04** | **117** | *e*Pg | **Pb** | **13 56 55.4** | **-1.0** |
| SONA3 | | | | *e*Sg | Sb | 13 58 43.1 | +11 |
| | comp=Z,386nm,0.9s | | | | | | |
| **SONM** | **Songino Array** | **8.04** | **117** | Pn | **Pn** | **13 56 33.3** | **-0.7** |
| | baz=311,slow=16,SNR=1.7 | | | | | | |
| SONM | | | | Pg | **Pb** | **13 56 53.8** | **-2.6** |
| | comp=Z,3.4nm,0.3s,baz=296,slow=17,SNR=24 | | | | | | |
| SONM | | | | Sn | Sn | 13 57 32.8 | -32 |
| | comp=Z,3.1nm,0.3s,baz=297,slow=21,SNR=4.1 | | | | | | |
| SONM | | | | Lg | Lg | 13 58 42.8 | |
| | comp=Z,7.3nm,0.3s,baz=307,slow=30,SNR=12 | | | | | | |
| SONM | | | | LR | LR | 13 59 55.7 | |
| | comp=Z,88nm,21.3s,baz=262,slow=40 | | | | | | |
| **SONA4** | **Songino Array** | **8.05** | **117** | *e*Pg | **Pb** | **13 56 55.9** | **-0.6** |
| SONA4 | | | | *e*Sg | Sb | 13 58 43.0 | +11 |
| | comp=Z,367nm,1.0s | | | | | | |
| **SONB2** | **Songino Ar. Si** | **8.05** | **117** | *e*Pg | **Pb** | **13 56 55.9** | **-0.7** |
| SONB2 | | | | *e*Sg | Sb | 13 58 42.4 | +10 |
| | comp=Z,476nm,0.9s | | | | | | |
| **SONB3** | **Songino Array** | **8.05** | **117** | *e*Pg | **Pb** | **13 56 56.3** | **-0.3** |
| SONB3 | | | | *e*Sg | Sb | 13 58 42.7 | +10 |
| **ALFM** | | **8.17** | **115** | *e*Pg | **Pb** | **13 56 58.2** | **-0.4** |
| ALFM | | | | *e*Sg | Sb | 13 58 42.9 | +7.0 |
| | comp=Z,240nm,0.6s | | | | | | |
| **ULN** | **Ulaanbaatar** | **8.39** | **115** | ⇑*e*Pn | Pn | 13 56 33.3 | -5.4 |
| **ARTM** | | **8.48** | **114** | *e*Pg | **Pb** | **13 57 04.0** | **+0.2** |
| ARTM | | | | *e*Sg | Sb | 13 58 56.6 | +12 |
| **SEMM** | | **8.53** | **117** | *e*Pg | Pg | 13 57 05.2 | -15 |
| SEMM | | | | *e*Sg | Sg | 13 58 56.7 | -14 |
| **UGDM** | | **8.71** | **116** | *e*Pg | Pg | 13 57 08.5 | -15 |
| UGDM | | | | *e*Sg | Sg | 13 59 01.6 | -15 |
| **SYVR** | **Suvo** | **8.78** | **74** | *e*P | Pn | 13 56 53.9 | +10 |
| SYVR | | | | pmax | pmax | | |
| | comp=Z,18nm,1.3s | | | | | | |
| **WMQ** | **Urumqi** | **9.82** | **216** | P | **Pn** | **13 56 59.8** | **+1.5** |
| WMQ | | | | pP | | 13 57 02.5 | |
| WMQ | | | | sP | | 13 57 05.8 | |
| WMQ | | | | S | **Sn** | **13 58 53.0** | **+4.4** |
| WMQ | | | | SS | **SnSn** | **13 59 06.8** | **+6.8** |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,19nm,0.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,180nm,24.3s | | | | | | |
| **DZBM** | | **10.09** | **141** | *e*Sg | Sn | 13 59 43.3 | +48 |
| **MKAR** | **Makanchi Array** | **10.21** | **244** | Pn | **Pn** | **13 57 04.3** | **+0.7** |
| | comp=Z,0.4nm,0.3s,baz=52,slow=18,SNR=20 | | | | | | |
| MKAR | | | | Lg | Lg | 13 59 59.0 | |
| | comp=Z,2.3nm,0.3s,baz=54,slow=29,SNR=3.6 | | | | | | |
| MKAR | | | | LR | LR | 14 01 38.1 | |
| | comp=Z,64nm,19.5s,baz=30,slow=41 | | | | | | |
| **MKAR** | **Makanchi Array** | **10.21** | **244** | *i* P | **Pn** | **13 57 05.1** | **+1.6** |
| MKAR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.3s | | | | | | |
| **MAKZ** | **Makanchi** | **10.38** | **245** | *e*P | **Pn** | **13 57 07.9** | **+2.1** |
| **MAKZ** | **Makanchi** | **10.38** | **245** | *e*Pn | **Pn** | **13 57 07.9** | **+2.1** |
| **KURK** | **Kurchatov** | **10.79** | **270** | ⇓*e*P | **Pn** | **13 57 13.6** | **+2.2** |
| **KURK** | **Kurchatov** | **10.79** | **270** | *e*Pn | **Pn** | **13 57 13.8** | **+2.3** |
| KURK | | | | Lg | Lg | 14 00 20.4 | |
| **KURBB** | **Kurchatov Arra** | **10.87** | **269** | Pn | **Pn** | **13 57 14.1** | **+1.6** |
| | comp=Z,0.3nm,0.3s,baz=72,slow=14,SNR=7.5 | | | | | | |
| KURBB | | | | Lg | Lg | 14 00 20.3 | |
| | comp=Z,0.4nm,0.3s,baz=325,slow=20,SNR=4.9 | | | | | | |
| **BOD** | **Bodaibo** | **11.97** | **54** | *e*P | **Pn** | **13 57 26.1** | **-1.4** |
| BOD | | | | pmax | pmax | | |
| | comp=Z,20nm,0.9s | | | | | | |
| **GTA** | **Gaotai** | **12.93** | **166** | *e*P | **Pn** | **13 57 41.3** | **+0.5** |
| GTA | | | | pP | | 13 57 45.3 | |
| GTA | | | | sP | | 13 57 47.5 | |
| GTA | | | | S | **Sn** | **14 00 12.5** | **+7.8** |
| GTA | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.3s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,300nm,8.8s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,930nm,11.2s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,190nm,10.7s | | | | | | |
| **BVAR** | **Borovoye Array** | **15.45** | **284** | Pn | **Pn** | **13 58 14.2** | **-0.6** |
| | comp=Z,0.4nm,0.3s,baz=81,slow=14,SNR=7.1 | | | | | | |
| **BRVK** | **Borovoye** | **15.51** | **284** | ⇓*e*P | **Pn** | **13 58 16.9** | **+1.3** |
| **HHC** | **Hu-ho-hao-te** | **15.57** | **130** | *e*P | Pn | 13 58 07.3 | -9.3 |
| HHC | | | | S | Sn | 14 00 56.3 | -13 |
| HHC | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.6s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,68nm,5.4s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,310nm,11.1s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,350nm,12.3s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,150nm,13.6s | | | | | | |
| **LZH** | **Lanzhou** | **16.94** | **157** | *e*P | **Pn** | **13 58 28.8** | **-5.4** |
| LZH | | | | pP | P | 13 58 31.5 | -4.7 |
| LZH | | | | sP | pP | 13 58 35.3 | -3.7 |
| LZH | | | | PP | **sP** | **13 58 41.0** | **+0.7** |
| LZH | | | | pmax | pmax | | |
| | comp=Z,26nm,1.0s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,84nm,4.1s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,520nm,10.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,750nm,11.3s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,520nm,11.5s | | | | | | |
| **AAK** | **Ala-Archa** | **17.14** | **245** | Pn | **Pn** | **13 58 35.7** | **-1.0** |
| | comp=Z,0.1nm,0.3s,baz=40,slow=7.9,SNR=3.1 | | | | | | |
| AAK | | | | Lg | Lg | 14 03 34.2 | |
| | comp=Z,0.1nm,0.3s,baz=308,slow=16,SNR=4.0 | | | | | | |
| **AAK** | **Ala-Archa** | **17.14** | **245** | ⇑*e*P | **P** | **13 58 38.2** | **-0.2** |
| AAK | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.5s | | | | | | |
| **KSH** | **Kashi** | **18.55** | **235** | P | Pn | 13 59 02.0 | +8.0 |
| KSH | | | | pP | sP | 13 59 04.8 | +6.9 |
| KSH | | | | PP | PnPn | 13 59 19.3 | +14 |
| KSH | | | | S | **S** | **14 02 32.0** | **+6.7** |
| KSH | | | | SS | SnSn | 14 02 57.0 | +22 |
| KSH | | | | ScS | **ScS** | **14 10 38.5** | **-0.9** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.9s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,210nm,4.6s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,150nm,5.8s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,76nm,4.4s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,200nm,5.5s | | | | | | |
| **YAK** | **Yakutsk** | **20.75** | **48** | P | **P** | **13 59 15.9** | **-1.6** |
| | comp=Z,5.2nm,0.5s,baz=18,slow=2.4,SNR=3.6 | | | | | | |
| **YAK** | **Yakutsk** | **20.75** | **48** | *e*P | **P** | **13 59 17.2** | **-0.3** |
| YAK | | | | *e**PP | **pP** | **13 59 21.9** | **+1.5** |
| YAK | | | | *e*PPP | PPP | 13 59 43.0 | |
| YAK | | | | *e*S | **S** | **14 03 09.0** | **+0.1** |
| YAK | | | | *e*SS | **SnSn** | **14 03 37.5** | **+9.2** |
| YAK | | | | *e*SSS | SSS | 14 03 46.2 | |
| YAK | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.9s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,5.0nm,1.2s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=E,130nm,3.9s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=N,53nm,2.5s | | | | | | |
| **SVE** | **Sverdlovsk** | **20.83** | **297** | ⇑*e*P | **P** | **13 59 20.0** | **+1.6** |
| SVE | | | | pmax | pmax | | |
| | comp=Z,21nm,0.9s | | | | | | |
| **CD2** | **Chengdu** | **21.91** | **161** | *e*P | **P** | **13 59 25.3** | **-4.9** |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.0s | | | | | | |
| **ARU** | **Arti** | **21.99** | **296** | P | **P** | **13 59 31.6** | **+0.7** |
| | comp=Z,5.2nm,0.6s,baz=89,slow=6.6,SNR=12 | | | | | | |
| **ARU** | **Arti** | **21.99** | **296** | *c i*P | **P** | **13 59 32.1** | **+1.2** |
| ARU | | | | | | 13 59 51.7 | |
| ARU | | | | S | **S** | **14 03 38.3** | **+4.9** |
| ARU | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | comp=Z,2.8nm,0.8s,baz=316,slow=10,SNR=2.4 | | | | | | | |
| **FINES** | **FINESS Array B** | **37.56** | **312** | P | | **P** | **14 01 50.4** | **-0.6** |
| | comp=Z,3.0nm,0.8s,baz=79,slow=9.9,SNR=6.4 | | | | | | | |
| **FINES** | **FINESS Array B** | **37.56** | **312** | *i* P | | **P** | **14 01 52.5** | **+1.5** |
| FINES | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,0.8s | | | | | | | |
| **VSU** | **Vasula** | **38.26** | **308** | *e*P | | **P** | **14 01 56.7** | **-0.2** |
| VSU | | | | pmax | pmax | | | |
| | comp=Z,50nm,1.2s | | | | | | | |
| **HFS** | **Hagfors** | **43.66** | **314** | P | | **P** | **14 02 42.0** | **+0.6** |
| | comp=Z,3.5nm,0.7s,baz=75,slow=7.6,SNR=7.7 | | | | | | | |
| **HFS** | **Hagfors** | **43.66** | **314** | P | | **P** | **14 02 42.0** | **+0.6** |
| HFS | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,0.7s | | | | | | | |
| **BR131** | **Keskin Array S** | **43.67** | **279** | *e*P | | **P** | **14 02 43.0** | **+1.2** |
| **BRTR** | **Keskin Array B** | **43.67** | **279** | P | | **P** | **14 02 43.2** | **+1.4** |
| | comp=Z,2.0nm,0.8s,baz=81,slow=7.6,SNR=8.9 | | | | | | | |
| **BUR08** | **Bucovina Ar. S** | **44.08** | **294** | *e*P | | **P** | **14 02 46.4** | **+1.3** |
| **BURAR** | **Bucovina Array** | **44.09** | **294** | *i*P | | **P** | **14 02 47.0** | **+1.9** |
| **BUR04** | **Bucovina Ar. S** | **44.09** | **294** | *e*P | | **P** | **14 02 46.3** | **+1.2** |
| **BR231** | **Keskin MP Arra** | **44.12** | **280** | *e*P | | **P** | **14 02 44.0** | **-1.5** |
| **NB2** | **NORSAR Subarra** | **44.32** | **316** | P | | **P** | **14 02 47.6** | **+0.9** |
| | comp=Z,3.4nm,0.7s,baz=60,slow=8.6 | | | | | | | |
| **NOA** | **NORSAR Array B** | **44.32** | **316** | P | | **P** | **14 02 47.5** | **+0.9** |
| | comp=Z,2.7nm,0.6s,baz=60,slow=8.0,SNR=6.4 | | | | | | | |
| **VYHS** | **Vyhne** | **47.15** | **298** | *e*P | | **P** | **14 03 10.4** | **+1.2** |
| **VYHS** | **Vyhne** | **47.15** | **298** | *e*P | | **P** | **14 03 10.4** | **+1.2** |
| **DPC** | **Dobruska-Polom** | **47.44** | **301** | *e*P | | **P** | **14 03 13.5** | **+2.0** |
| DPC | | | | *e*pP | | **sP** | **14 03 18.7** | **+2.9** |
| **DPC** | **Dobruska-Polom** | **47.44** | **301** | *e*P | | **P** | **14 03 13.5** | **+2.0** |
| DPC | | | | *e* | | | 14 03 18.7 | |
| **RAYN** | **Ar Rayn** | **47.57** | **253** | *e*P | | **P** | **14 03 13.1** | **+0.3** |
| | comp=Z,3.6nm,0.8s | | | | | | | |
| **CLL** | **Collm** | **48.62** | **304** | *e*P | | **P** | **14 03 20.0** | **-0.5** |
| **CLL** | **Collm** | **48.62** | **304** | *e*P | | **P** | **14 03 20.0** | **-0.5** |
| | comp=Z,4.0nm,0.6s | | | | | | | |
| **KHC** | **Kasperske Hory** | **49.60** | **301** | *e*P | | **P** | **14 03 29.7** | **+1.6** |
| KHC | | | | *e*pP | | **sP** | **14 03 35.2** | **+2.7** |
| **KHC** | **Kasperske Hory** | **49.60** | **301** | *e*P | | **P** | **14 03 29.7** | **+1.6** |
| KHC | | | | *e* | | | 14 03 35.2 | |
| **GERES** | **GERESS Array B** | **49.70** | **301** | P | | **P** | **14 03 29.8** | **+0.9** |
| | comp=Z,0.3nm,0.5s,baz=72,slow=8.6,SNR=4.0 | | | | | | | |
| **ILAR** | **Eielson Array** | **53.93** | **28** | P | | **P** | **14 04 00.3** | **+0.1** |
| | comp=Z,0.5nm,1.0s,baz=310,slow=5.3,SNR=5.1 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **63.33** | **15** | P | | **P** | **14 05 04.3** | **-1.2** |
| | comp=Z,0.1nm,0.5s,baz=340,slow=7.3,SNR=2.2 | | | | | | | |
| **ESDC** | **Sonseca Array** | **65.20** | **303** | P | | **P** | **14 05 18.5** | **+0.2** |
| | comp=Z,0.3nm,0.5s,baz=49,slow=7.2,SNR=3.4 | | | | | | | |
| **WRA** | **Warramunga Arr** | **79.18** | **143** | P | | **P** | **14 06 42.7** | **+0.8** |
| | comp=Z,0.9nm,1.0s,baz=343,slow=6.2,SNR=3.3 | | | | | | | |
| **TOA0** | **Torodi Ar. Sit** | **82.23** | **281** | *e*P | | **P** | **14 06 58.6** | **+0.1** |
| **TORD** | **Torodi Ar. Bea** | **82.23** | **281** | P | | **P** | **14 06 58.7** | **+0.2** |
| | comp=Z,1.2nm,0.6s,baz=32,slow=5.3,SNR=10 | | | | | | | |
| **ASAR** | **Alice Springs** | **82.43** | **145** | P | | **P** | **14 06 59.4** | **+0.2** |
| | comp=Z,0.6nm,0.8s,baz=335,slow=5.8,SNR=5.8 | | | | | | | |
| **EFD** | **Emergency Oper** | **87.35** | **29** | *e*P | | **P** | **14 07 21.6** | **-2.4** |
| **TXAR** | **Lajitas Array** | **97.21** | **17** | LR | | LR | 14 56 32.8 | |
| | comp=Z,22nm,19.3s,baz=0.0,slow=38 | | | | | | | |

**IDC 28 14:05:39.9±1.9, 13°.84N×93°.11E, h0km, mb3.4/3, mb1 3.5/4, mb1mx3.2/48, mbtmp3.3/4, ML2.7/1, Error ellipse: s-maj=61.7km s-min=28.5km az=68.0, Andaman Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CMAR** | **Chiang Mai Arr** | **7.25** | **50** | Pn | Pn | 14 07 27.2 | +0.1 |
| | 0.0nm,0.3s,baz=238,slow=15,SNR=4.8 | | | | | | |
| CMAR | | | | Sn | Sn | 14 08 45.9 | -4.3 |
| | 0.3nm,0.3s,baz=239,slow=28,SNR=5.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **34.09** | **347** | P | P | 14 12 25.9 | -0.2 |
| | 0.3nm,0.7s,baz=160,slow=8.1,SNR=3.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **52.65** | **129** | P | P | 14 14 56.0 | -0.2 |
| | 0.6nm,1.0s,baz=313,slow=7.3,SNR=3.3 | | | | | | |
| WRA | | | | PcP | PcP | 14 16 05.9 | -0.4 |
| | 0.4nm,0.5s,baz=319,slow=2.9,SNR=7.8 | | | | | | |
| **ASAR** | **Alice Springs** | **54.59** | **133** | P | P | 14 15 10.7 | +0.2 |
| | 0.4nm,0.5s,baz=308,slow=6.9,SNR=9.3 | | | | | | |

*ISCJB **28** 14:09:27.9±0.4, 23°.22N±0°.02×121°.70E±0°.02, h26km±3km, Error ellipse: s-maj=3.5km s-min=2.5km az=141.4*
*JMA **28** 14:09:27.6, 23°.23N×121°.65E, h37km±2km, M2.9*
*TAP **28** 14:09:29.0, 23°.26N×121°.59E, h41km, ML3.2, C*
**ISC 28 14:09:28.5±1.1, 23°.25N±0°.02×121°.63E±0°.03, h33km±3km, n53, σ0°.77/95, 10C, Taiwan**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TWF1** | **Yuli** | **0.32** | **289** | *i*P | **Pn** | **14 09 37.4** | **+0.5** |
| TWF1 | baz=288 | | | *e*S | **Sb** | **14 09 44.0** | **+1.8** |
| | baz=288 | | | | | | |
| **EHY** | **Hungye** | **0.38** | **313** | *i*P | **Pn** | **14 09 37.9** | **+0.1** |
| EHY | baz=303 | | | S | **Sn** | **14 09 44.2** | **+0.3** |
| | baz=303 | | | | | | |
| **TEGC** | **Jichi Village** | **0.47** | **350** | *e*P | **Pn** | **14 09 39.5** | **+0.5** |
| | baz=1.0 | | | | | | |
| **ELDTW** | **Lidau** | **0.57** | **264** | *i*P | **Pb** | **14 09 40.0** | **-0.2** |
| ELDTW | baz=256 | | | S | **Sb** | **14 09 47.5** | **-0.9** |
| | baz=256 | | | | | | |
| **ESL** | **Shilin** | **0.59** | **342** | P | **Pb** | **14 09 40.3** | **-0.3** |
| ESL | baz=337 | | | S | **Sn** | **14 09 48.5** | **-0.7** |
| | baz=337 | | | | | | |
| **TWG** | **Pinlang** | **0.67** | **231** | *i*P | **Pn** | **14 09 41.3** | **-0.4** |
| TWG | baz=236 | | | S | **Sn** | **14 09 50.4** | **-0.6** |
| | baz=236 | | | | | | |
| **YUS** | **Yu-Shan** | **0.67** | **291** | ↑P | **Pb** | **14 09 42.4** | **+0.2** |
| YUS | baz=291 | | | S | **Sn** | **14 09 51.3** | **-0.4** |
| | baz=291 | | | | | | |
| **WDT** | **Danda** | **0.68** | **318** | ↑P | **Pb** | **14 09 42.1** | **-0.2** |
| WDT | baz=320 | | | S | **Sn** | **14 09 51.0** | **-0.8** |
| | baz=320 | | | | | | |
| **HWA** | **Hwalien** | **0.73** | **358** | *e*P | **Pn** | **14 09 40.1** | **-2.4** |
| | baz=8.0 | | | | | | |
| **ALS** | **Alishan** | **0.80** | **289** | *i*P | **Pb** | **14 09 44.5** | **+0.3** |
| ALS | baz=288 | | | *e*S | **Sb** | **14 09 55.2** | **+0.2** |
| | baz=288 | | | | | | |
| **STYT** | **Tauyuan** | **0.81** | **264** | P | **Pb** | **14 09 44.0** | **-0.3** |
| STYT | baz=262 | | | S | **Sb** | **14 09 54.7** | **-0.2** |
| | baz=262 | | | | | | |
| **TWD** | **Chiawan** | **0.83** | **358** | P | **Pb** | **14 09 44.1** | **-0.5** |
| TWD | baz=348 | | | S | **Sb** | **14 09 54.9** | **-0.6** |
| | baz=348 | | | | | | |
| **ECL** | **Taimali** | **0.90** | **224** | *e*P | **Pn** | **14 09 44.0** | **-0.8** |
| ECL | baz=221 | | | *e*S | **Sn** | **14 09 54.7** | **-1.9** |
| | baz=221 | | | | | | |
| **SMLT** | **Sun Moon Lake** | **0.92** | **314** | ↑P | **Pb** | **14 09 45.8** | **-0.3** |
| SMLT | baz=318 | | | *e*S | **Sb** | **14 09 57.8** | **-0.4** |
| | baz=318 | | | | | | |
| **WTP** | **Ta-pu** | **0.93** | **270** | P | **Pb** | **14 09 46.5** | **+0.1** |
| WTP | baz=268 | | | S | **Sb** | **14 09 59.3** | **+0.9** |
| | baz=268 | | | | | | |
| **CHN5** | **Tsauling** | **0.94** | **292** | ↑P | **Pb** | **14 09 46.8** | **+0.3** |
| CHN5 | baz=291 | | | *e*S | **Sb** | **14 09 59.7** | **+1.0** |
| | baz=291 | | | | | | |
| **WHF** | **Hehuan Shan** | **0.95** | **340** | *e*P | **Pn** | **14 09 45.8** | **-0.2** |
| WHF | baz=341 | | | *e*S | **Sn** | **14 09 58.0** | **-0.7** |
| | baz=341 | | | | | | |
| **CHN4** | **Tsaushan** | **0.96** | **276** | ↑P | **Pb** | **14 09 47.0** | **+0.3** |
| CHN4 | baz=275 | | | S | **Sb** | **14 10 00.2** | **+1.1** |
| | baz=275 | | | | | | |
| **TYC** | **Yuchr** | **0.96** | **313** | P | **Pb** | **14 09 46.6** | **-0.2** |
| TYC | baz=320 | | | S | **Sb** | **14 09 59.6** | **+0.4** |
| | baz=320 | | | | | | |
| **SGST** | **Jiashian** | **0.98** | **261** | P | **Pb** | **14 09 47.2** | **+0.1** |
| SGST | baz=253 | | | *e*S | **Sb** | **14 10 00.7** | **+1.1** |
| | baz=253 | | | | | | |
| **CHN1** | **Nanshi** | **1.01** | **267** | P | **Pb** | **14 09 47.9** | **+0.2** |
| | baz=264 | | | | | | |
| CHN1 | | | | S | **Sb** | **14 10 02.0** | **+1.3** |
| | baz=264 | | | | | | |
| **SSD** | **Sandimen** | **1.04** | **242** | *e*P | **Pb** | **14 09 47.3** | **-0.9** |
| | baz=236 | | | | | | |
| **TWK** | **Hsinying** | **1.05** | **271** | P | **Pb** | **14 09 48.3** | **+0.1** |
| | baz=269 | | | | | | |
| TWK | | | | *e*S | **Sb** | **14 10 02.2** | **+0.5** |
| | baz=269 | | | | | | |
| **WNT** | **Mingjian** | **1.07** | **306** | *e*P | **Pb** | **14 09 48.2** | **-0.4** |
| | baz=306 | | | | | | |
| WNT | | | | *e*S | **Sb** | **14 10 03.0** | **+0.7** |
| | baz=306 | | | | | | |
| **WGK** | **Gukeng** | **1.07** | **294** | *e*P | **Pb** | **14 09 48.8** | **+0.2** |
| | baz=294 | | | | | | |
| WGK | | | | *e*S | **Sb** | **14 10 03.3** | **+1.0** |
| | baz=294 | | | | | | |
| **TWT** | **Tachien** | **1.08** | **338** | *e*P | **Pb** | **14 09 48.3** | **-0.7** |
| | baz=345 | | | | | | |
| TWT | | | | *e*S | **Sn** | **14 10 01.2** | **-0.3** |
| | baz=345 | | | | | | |
| **CHN2** | **Minshiung** | **1.10** | **285** | *e*P | **Pb** | **14 09 48.0** | **-1.0** |
| | baz=284 | | | | | | |
| CHN2 | | | | *e*S | **Sb** | **14 10 03.8** | **+0.7** |
| | baz=284 | | | | | | |
| **EAST** | **Anshuo** | **1.12** | **220** | *e*P | **Pn** | **14 09 47.8** | **-0.2** |
| | baz=217 | | | | | | |
| EAST | | | | *e*S | **Sn** | **14 10 01.1** | **-1.2** |
| | baz=217 | | | | | | |
| **CHY** | **Chiayi** | **1.14** | **283** | *e*P | **Pb** | **14 09 49.3** | **-0.4** |
| | baz=281 | | | | | | |
| CHY | | | | *e*S | **Sb** | **14 10 04.7** | **+0.6** |
| | baz=281 | | | | | | |
| **SGLT** | **Jiouru** | **1.17** | **244** | *e*P | **Pn** | **14 09 48.5** | **-0.1** |
| | baz=242 | | | | | | |
| **ENA** | **Nanau** | **1.18** | **5** | *e*P | **Pn** | **14 09 49.0** | **+0.2** |
| | baz=16 | | | | | | |
| **TWM1** | **Shoushan** | **1.19** | **249** | *e*P | **Pb** | **14 09 52.1** | **+1.5** |
| | baz=247 | | | | | | |
| TWM1 | | | | *e*S | **Sb** | **14 10 07.5** | **+1.8** |
| | baz=247 | | | | | | |
| **LAY** | **Lan-yu** | **1.20** | **183** | *e*P | **Pn** | **14 09 48.7** | **-0.4** |
| | baz=176 | | | | | | |
| LAY | | | | *e*S | **Sn** | **14 10 04.3** | **0.0** |
| | baz=176 | | | | | | |
| **NNS** | **Nan Shan** | **1.21** | **349** | *e*P | **Pb** | **14 09 50.2** | **-0.8** |
| | baz=360 | | | | | | |
| **TCU** | **Taichung** | **1.25** | **316** | *e*P | **Pb** | **14 09 51.6** | **0.0** |
| | baz=304 | | | | | | |
| TCU | | | | *e*S | **Sb** | **14 10 08.1** | **+0.6** |
| | baz=304 | | | | | | |
| **SCZT** | **Fangliau** | **1.27** | **227** | *e*P | **Pb** | **14 09 51.6** | **-0.4** |
| | baz=216 | | | | | | |
| SCZT | | | | *e*S | **Sb** | **14 10 07.7** | **-0.4** |
| | baz=216 | | | | | | |
| **CHN8** | **Yiju** | **1.31** | **275** | *e*P | **Pn** | **14 09 51.0** | **+0.5** |
| | baz=273 | | | | | | |
| CHN8 | | | | *e*S | **Sb** | **14 10 08.3** | **-0.7** |
| | baz=273 | | | | | | |
| **TWQ1** | **Liyutan** | **1.35** | **325** | *e*P | **Pb** | **14 09 53.2** | **0.0** |
| | baz=335 | | | | | | |
| TWQ1 | | | | *e*S | **Sb** | **14 10 10.7** | **+0.5** |
| | baz=335 | | | | | | |
| **TWC** | **Suao** | **1.37** | **8** | P | **Pb** | **14 09 52.1** | **-1.5** |
| | baz=11 | | | | | | |
| TWC | | | | S | **Sn** | **14 10 08.9** | **+0.5** |
| | baz=11 | | | | | | |
| **WTCT** | **Ta-ch'eng** | **1.38** | **297** | *e*P | **Pn** | **14 09 51.8** | **+0.3** |
| | baz=296 | | | | | | |
| WTCT | | | | *e*S | **Sb** | **14 10 10.0** | **-1.1** |
| | baz=296 | | | | | | |
| **ENTT** | **Nioudou** | **1.39** | **358** | *e*P | **Pn** | **14 09 52.0** | **+0.3** |
| **NSY** | **Sanyi** | **1.41** | **326** | *e*P | **Pb** | **14 09 54.1** | **-0.2** |
| | baz=339 | | | | | | |
| NSY | | | | *e*S | **Sb** | **14 10 12.8** | **+0.8** |
| | baz=339 | | | | | | |
| **NSK** | **Sanguang** | **1.44** | **350** | *e*P | **Pn** | **14 09 53.1** | **+0.6** |
| | baz=351 | | | | | | |
| NSK | | | | *e*S | **Sn** | **14 10 10.4** | **+0.1** |
| | baz=351 | | | | | | |
| **TWE** | **Neicheng** | **1.47** | **1** | *e*P | **Pn** | **14 09 52.5** | **-0.2** |
| | baz=355 | | | | | | |
| TWE | | | | *e*S | **Sn** | **14 10 11.4** | **+0.7** |
| | baz=355 | | | | | | |
| **NSTT** | **Nanjuang** | **1.49** | **337** | *e*P | **Pb** | **14 09 54.5** | **-1.2** |
| | baz=338 | | | | | | |
| NSTT | | | | *e*S | **Sb** | **14 10 13.0** | **-1.3** |
| | baz=338 | | | | | | |
| **JYNG** | **Yonagunijimaku** | **1.70** | **45** | *e*S | **Sn** | **14 10 16.7** | **+0.2** |
| **YOJ** | **Yonaguni jima** | **1.75** | **46** | *e*S | **Sn** | **14 10 18.7** | **+1.0** |
| **PNG** | **Penghu** | **1.93** | **280** | *e*P | **Pn** | **14 09 59.3** | **+0.3** |
| | baz=278 | | | | | | |
| **IRIF** | **Iriomote-Funau** | **2.21** | **60** | P | **Pn** | **14 10 04.0** | **+1.1** |
| IRIF | | | | *e*S | **Sn** | **14 10 29.7** | **+0.7** |
| **JKRS** | **Kuro-shima** | **2.39** | **65** | P | **Pn** | **14 10 06.2** | **+0.8** |
| JKRS | | | | *e*S | **Sn** | **14 10 34.5** | **+0.9** |
| **JIJ** | **Ishigaki jima** | **2.56** | **64** | P | **Pn** | **14 10 08.3** | **+0.6** |
| JIJ | | | | S | **Sn** | **14 10 37.5** | **-0.2** |
| **JISG** | **Ishigakijimahi** | **2.79** | **61** | P | **Pn** | **14 10 11.3** | **+0.4** |
| JISG | | | | S | **Sn** | **14 10 42.6** | **-0.9** |
| **JTJ** | **Tarama** | **3.14** | **63** | S | **Sn** | **14 10 52.9** | **+1.0** |

**IDC 28 14:14:05.0±2.9, 6°.58N×125°.91E, h0km, mb3.3/3, mb1 3.5/3, mb1mx3.3/37, mbtmp3.3/3, Error ellipse: s-maj=262.2km s-min=27.7km az=65.0, Mindanao**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **27.63** | **163** | P | P | 14 19 53.3 | -1.2 |
| | 0.3nm,0.4s,baz=342,slow=11,SNR=9.1 | | | | | | |
| **ASAR** | **Alice Springs** | **31.06** | **166** | P | P | 14 20 26.2 | +1.3 |
| | 0.3nm,0.8s,baz=339,slow=8.2,SNR=3.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **54.77** | **325** | P | P | 14 23 36.5 | -0.1 |
| | 0.1nm,0.4s,baz=119,slow=7.3,SNR=4.2 | | | | | | |

*ISK **28** 14:14:51.7, 39°.72N×32°.62E, h5km, MD3.1*
*CSEM **28** 14:14:52.9±0.2, 39°.75N×32°.62E, h5km, MD3.1, Error ellipse: s-maj=4.2km s-min=4.1km az=164.0*
*DDA **28** 14:14:53.0, 39°.76N×32°.60E, h7km, Ml2.3*
**ISC 28 14:14:53.4±1.2, 39°.73N±0°.02×32°.62E±0°.02, h6km±10km, n30, σ0°.72/44, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **LOD** | **Lodumlu** | **0.20** | **35** | *e*PG | **Pg** | **14 14 56.6** | **-0.7** |
| **LOD** | **Lodumlu** | **0.20** | **35** | *e*Pg | **Pg** | **14 14 56.6** | **-0.7** |
| **BBAL** | **Bala** | **0.43** | **115** | *i* P | **Pg** | **14 15 02.0** | **+0.3** |
| **BBAL** | **Bala** | **0.43** | **115** | P | **Pg** | **14 15 02.0** | **+0.3** |
| **AFSR** | **Afˇar-Bala (A** | **0.45** | **128** | *e*PG | **Pg** | **14 15 01.6** | **-0.5** |
| AFSR | | | | *e*SG | **Sg** | **14 15 08.9** | **+1.0** |
| **AFSR** | **Afˇar-Bala (A** | **0.45** | **128** | *e*Pg | **Pg** | **14 15 01.6** | **-0.5** |
| AFSR | | | | *e*Sg | **Sg** | **14 15 08.9** | **+1.0** |
| **KKUL** | **Konya-Kulu** | **0.60** | **157** | *i* P | **Pb** | **14 15 05.7** | **-0.6** |
| KKUL | | | | *i* S | **Sn** | **14 15 17.2** | **-1.4** |
| **KKUL** | **Konya-Kulu** | **0.60** | **157** | P | **Pb** | **14 15 05.7** | **-0.6** |
| KKUL | | | | S | **Sn** | **14 15 17.2** | **-1.4** |
| **SVRH** | **Sivrihisar-ESK** | **0.89** | **252** | *e*PG | **Pg** | **14 15 09.8** | **-0.6** |
| SVRH | | | | *e*SG | **Sb** | **14 15 23.3** | **-0.1** |
| **SVRH** | **Sivrihisar-ESK** | **0.89** | **252** | *e*Pg | **Pg** | **14 15 09.8** | **-0.6** |
| SVRH | | | | *e*Sg | **Sb** | **14 15 23.3** | **-0.1** |
| **KAMT** | **Kaman** | **0.92** | **112** | *e*PG | **Pg** | **14 15 10.4** | **-0.6** |
| KAMT | | | | *e*SG | **Sb** | **14 15 24.1** | **-0.2** |
| **KAMT** | **Kaman** | **0.92** | **112** | *e*Pg | **Pg** | **14 15 10.4** | **-0.6** |
| KAMT | | | | *e*Sg | **Sb** | **14 15 24.1** | **-0.2** |
| **ELDT** | **Eldivan** | **0.98** | **39** | *i* P | **Pg** | **14 15 11.4** | **-0.8** |
| ELDT | | | | *i* S | **Sn** | **14 15 28.4** | **+0.3** |
| **ELDT** | **Eldivan** | **0.98** | **39** | P | **Pg** | **14 15 11.4** | **-0.8** |
| ELDT | | | | S | **Sn** | **14 15 28.4** | **+0.3** |
| **KIZT** | **Kizilcal** | **1.02** | **214** | *e*PG | **Pg** | **14 15 12.5** | **-0.4** |
| KIZT | | | | *e*SG | **Sb** | **14 15 27.3** | **+0.2** |
| **KIZT** | **Kizilcal** | **1.02** | **214** | *e*Pg | **Pg** | **14 15 12.5** | **-0.4** |
| KIZT | | | | *e*Sg | **Sb** | **14 15 27.3** | **+0.2** |
| **SERE** | **Sereflikochisa** | **1.07** | **136** | *e*PG | **Pg** | **14 15 13.3** | **-0.6** |
| **SERE** | **Sereflikochisa** | **1.07** | **136** | *e*Pg | **Pg** | **14 15 13.3** | **-0.6** |
| **CHBY** | **Cihanbeyli** | **1.16** | **169** | *e*PN | **Pg** | **14 15 14.5** | **-1.1** |
| **CHBY** | **Cihanbeyli** | **1.16** | **169** | *e*Pn | **Pg** | **14 15 14.5** | **-1.1** |
| **BCAM** | **Yenicaga** | **1.17** | **339** | *i* P | **Pg** | **14 15 14.8** | **-1.0** |
| **BCAM** | **Yenicaga** | **1.17** | **339** | P | **Pg** | **14 15 14.8** | **-1.0** |
| **KDHN** | **Kadinhani** | **1.27** | **198** | *i* P | **Pg** | **14 15 17.2** | **-0.4** |
| KDHN | | | | *i* S | **Sn** | **14 15 35.9** | **+1.0** |
| **KDHN** | **Kadinhani** | **1.27** | **198** | P | **Pg** | **14 15 17.2** | **-0.4** |
| KDHN | | | | S | **Sn** | **14 15 35.9** | **+1.0** |
| **MDUB** | **Mudurnu** | **1.32** | **305** | *e*PN | **Pb** | **14 15 18.9** | **+0.4** |
| **MDUB** | **Mudurnu** | **1.32** | **305** | *e*Pn | **Pb** | **14 15 18.9** | **+0.4** |
| **SULT** | **Sultanhani-AKS** | **1.68** | **155** | *e*PN | **Pn** | **14 15 23.4** | **+0.1** |
| **SULT** | **Sultanhani-AKS** | **1.68** | **155** | *e*Pn | **Pn** | **14 15 23.4** | **+0.1** |
| **YOZ** | **Yozgat** | **2.09** | **91** | *e*PN | **Pn** | **14 15 29.7** | **+0.7** |
| **YOZ** | **Yozgat** | **2.09** | **91** | *e*Pn | **Pn** | **14 15 29.7** | **+0.7** |

**KRSC 28 14:22:22.5±0.8, 60°.83N×166°.94E, h6km±6km, ML3.8, Eastern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TILK** | **Tilichiki** | **0.55** | **226** | *e*P | Pb | 14 22 34.5 | 0.0 |
| TILK | | | | *e*S | Sb | 14 22 41.9 | -0.7 |
| **KMSK** | **Kamenskaya** | **1.68** | **348** | *e*P | Pb | 14 22 53.3 | -0.5 |
| KMSK | | | | *e*S | Sn | 14 23 14.4 | +0.2 |
| **OSSR** | **Ossora** | **2.51** | **233** | *e*P | Pn | 14 23 05.4 | +1.6 |
| OSSR | | | | *e*S | Sn | 14 23 36.4 | +1.8 |
| **PALN** | **Palana** | **3.92** | **247** | *e*P | Pn | 14 23 27.4 | +4.3 |
| PALN | | | | *e*S | Sb | 14 24 14.4 | -5.1 |

*ISCJB **28** 14:23:53.3±0.9, 6°.44S±0°.05×103°.75E±0°.05, h55km±7km, mb4.7/39, MS3.7/9, Error ellipse: s-maj=10.9km s-min=4.8km az=140.0*
*DJA **28** 14:23:53.6±0.5, 6°.5S±3°×107°.4E±°, h38km±7km, M4.9/9, mb5.0/9, mB5.3/6, MLv5.1/6, Mw(mB)4.7/6*
*NEIC **28** 14:23:55.0±0.4, 6°.29S×103°.83E, mb4.7/16, Error ellipse: s-maj=13.1km s-min=5.0km az=222.0*
*IDC **28** 14:23:55.2±0.7, 6°.22S×103°.91E, h45km±5km, mb4.3/17, mb1 4.4/17, mb1mx4.2/41, mbtmp4.5/17, MS3.6/6, Ms1 3.6/6, ms1mx3.2/36, Error ellipse: s-maj=26.5km s-min=11.2km az=52.0*
**ISC 28 14:23:53.9±0.6, 6°.48S±0°.06×103°.70E±0°.06, h44km±4km, h44km:pP-P,n135,σ1s74/147, mb4.8/39, MS3.7/9, 5C-2D, Southwest of Sumatera**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KASI** | **Kota Agung** | **1.24** | **40** | P | **Pn** | **14 24 12.9** | **-1.8** |
| KASI | | | | S | **Sn** | **14 24 29.5** | **-0.7** |
| **LWLI** | **Liwa** | **1.49** | **14** | P | **Pn** | **14 24 17.6** | **-0.8** |
| LWLI | | | | S | **Sn** | **14 24 36.6** | **-0.1** |
| **BLSI** | **Bandar Lampung** | **1.89** | **54** | P | **Pn** | **14 24 23.9** | **+0.1** |
| BLSI | | | | S | **Sn** | **14 24 44.8** | **-1.6** |
| **KLI** | **Kotabumi** | **1.98** | **36** | P | **Pn** | **14 24 24.9** | **0.0** |
| **SBJI** | **Serang** | **2.44** | **82** | P | **Pn** | **14 24 31.0** | **-0.3** |
| SBJI | | | | S | **Sn** | **14 25 01.9** | **+1.9** |
| **SKJI** | **Sukabumi** | **2.89** | **101** | P | **Pn** | **14 24 39.9** | **+2.5** |
| **CNJI** | **Cibinong** | **3.51** | **104** | P | **Pn** | **14 24 45.0** | **-0.9** |
| CNJI | | | | S | **Sn** | **14 25 21.4** | **-4.8** |
| **MASI** | **Maura Aman, Be** | **3.62** | **336** | P | **Pn** | **14 24 47.7** | **+0.2** |
| **PMBI** | **Palembang** | **3.69** | **17** | P | **Pn** | **14 24 48.7** | **+0.3** |
| **CISI** | **Cisompet, Garu** | **4.22** | **105** | P | **Pn** | **14 24 54.9** | **-1.0** |
| CISI | | | | S | **Sn** | **14 25 39.3** | **-4.7** |
| **CISI** | **Cisompet, Garu** | **4.22** | **105** | *e*Pn | **Pn** | **14 24 54.6** | **-1.3** |
| **PPBI** | **Pangkal Pinang** | **4.93** | **30** | P | **Pn** | **14 25 06.2** | **+0.7** |
| **KPJI** | **Karang Pucung** | **5.26** | **100** | P | **Pn** | **14 25 11.5** | **+1.4** |
| | 53nm,0.7s,2µm0.4nm | | | | | | |
| **RGRI** | **Rengat** | **6.24** | **347** | P | **Pn** | **14 25 20.2** | **-3.3** |
| | 336nm,0.4s,96µm5.7nm | | | | | | |
| **UGM** | **Wanagama** | **6.92** | **102** | P | **Pn** | **14 25 33.7** | **+0.8** |
| **UGM** | **Wanagama** | **6.92** | **102** | *e*Pn | **Pn** | **14 25 33.4** | **+0.5** |
| **PCJI** | **Pacitan** | **7.61** | **103** | P | **Pn** | **14 25 42.9** | **+0.6** |
| | 220nm,0.5s,4µm0.9nm | | | | | | |
| **PWJI** | **Pagerwojo** | **8.19** | **101** | P | **Pn** | **14 25 50.6** | **+0.4** |
| **GSI** | **Gunungsitoli** | **9.85** | **321** | P | **Pn** | **14 26 10.0** | **-3.1** |
| **GSI** | **Gunungsitoli** | **9.85** | **321** | *e*Pn | **Pn** | **14 26 10.5** | **-2.6** |
| **ABJI** | **Asem Bagus** | **10.54** | **98** | P | **Pn** | **14 26 24.3** | **+1.9** |
| **JAGI** | **Jajag, Banyuwa** | **10.55** | **101** | P | **Pn** | **14 26 21.3** | **-1.4** |
| **JAGI** | **Jajag, Banyuwa** | **10.55** | **101** | *e*Pn | **Pn** | **14 26 21.5** | **-1.1** |
| **SRBI** | **Singaraja** | **11.53** | **99** | P | **Pn** | **14 26 35.8** | **-0.3** |
| **PLAI** | **Plampang** | **14.15** | **100** | P | Pn | 14 27 06.9 | -4.9 |
| **MPSI** | **Mapaga** | **17.53** | **68** | P | **P** | **14 27 56.6** | **+0.7** |
| | 17nm,0.7s,743nm | | | | | | |
| **EDFI** | **Ende, Flores** | **17.98** | **98** | P | **P** | **14 28 03.2** | **+2.2** |
| | 25nm,0.5s | | | | | | |
| **MMRI** | **Maumere** | **18.50** | **98** | P | **Pn** | **14 28 07.0** | **-0.2** |
| | 102nm,0.6s,1µm | | | | | | |
| **MMRI** | **Maumere** | **18.50** | **98** | *e*P | **P** | **14 28 04.8** | **-1.8** |
| | 79nm,0.5s | | | | | | |
| **APSI** | **Ampana** | **18.74** | **74** | P | **Pn** | **14 28 12.1** | **+2.1** |
| | 97nm,1.0s,950nm | | | | | | |
| **MYLDM** | **Lahad Datu** | **18.77** | **52** | *e*P | **Pn** | **14 28 10.8** | **+0.4** |
| | 24nm,1.0s | | | | | | |
| **MRSI** | **Marisa** | **19.47** | **70** | P | **Pn** | **14 28 16.7** | **-2.1** |
| | 61nm,0.6s,528nm | | | | | | |
| **LUWI** | **Luwuk** | **19.78** | **75** | P | **Pn** | **14 28 20.6** | **-1.8** |
| **LUWI** | **Luwuk** | **19.78** | **75** | *e*P | **Pn** | **14 28 20.5** | **-1.8** |
| | 57nm,1.0s | | | | | | |
| **SOEI** | **Soe** | **20.62** | **100** | P | **P** | **14 28 29.0** | **-0.9** |
| | 291nm,0.8s,2µm | | | | | | |
| **SOEI** | **Soe** | **20.62** | **100** | *e*P | **P** | **14 28 28.5** | **-1.4** |
| | 198nm,0.8s | | | | | | |
| **MBWA** | **Marble Bar** | **21.31** | **135** | *e*P | **P** | **14 28 38.3** | **+1.2** |
| **UTHA** | **Uthaitani** | **22.30** | **349** | P | **P** | **14 28 48.3** | **+0.6** |
| | 3.7nm,1.2s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **24.32** | **120** | P | **P** | **14 29 07.4** | **-0.2** |
| | 4.2nm,0.8s,baz=312,slow=7.0,SNR=6.1 | | | | | | |
| **CM01** | **Chiang Mai Arr** | **25.18** | **349**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **GUN** | **Gumba** | **38.28** | **334** | *eP* | **P** | | **14 31 10.9** | **+0.3** |
| | comp=Z,79nm,0.6s | | | | | | | |
| **DMN** | **Daman** | **38.36** | **333** | *eP* | **P** | | **14 31 11.3** | **+0.1** |
| | comp=Z,14nm,0.8s | | | | | | | |
| **KKN** | **Kakani** | **38.44** | **333** | *eP* | **P** | | **14 31 11.9** | **+0.1** |
| | comp=Z,30nm,0.6s | | | | | | | |
| **KOLN** | **Koldanda** | **39.20** | **331** | *eP* | **P** | | **14 31 18.7** | **+0.5** |
| | comp=Z,35nm,0.8s | | | | | | | |
| **DANN** | **Dangsing** | **39.61** | **332** | *eP* | **P** | | **14 31 22.4** | **+0.7** |
| | comp=Z,2.7nm,0.8s | | | | | | | |
| **PYUN** | **Piuthan** | **39.77** | **331** | *eP* | **P** | | **14 31 23.3** | **+0.4** |
| | comp=Z,18nm,0.6s | | | | | | | |
| **XAN** | **Xi'an** | **40.60** | **7** | P | **P** | | **14 31 27.5** | **-2.0** |
| XAN | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,0.5s | | | | | | | |
| XAN | | | | pmax | pmax | | | |
| | comp=Z,46nm,4.4s | | | | | | | |
| **NJ2** | **Nanjing** | **40.95** | **20** | *eP* | **P** | | **14 31 32.8** | **+0.4** |
| NJ2 | | | | pmax | pmax | | | |
| | comp=Z,12nm,0.6s | | | | | | | |
| **LZH** | **Lanzhou** | **42.34** | **0** | *eP* | **P** | | **14 31 47.0** | **+3.1** |
| LZH | | | | pP | pP | | 14 31 52.5 | -3.5 |
| LZH | | | | sP | sP | | 14 31 54.8 | -6.3 |
| LZH | | | | pmax | pmax | | | |
| | comp=Z,13nm,1.0s | | | | | | | |
| **STKA** | **Stephens Creek** | **43.45** | **131** | P | **P** | | **14 31 54.2** | **+1.4** |
| | comp=Z,7.0nm,0.5s,baz=306,slow=8.1,SNR=42 | | | | | | | |
| STKA | | | | pP | **pP** | | **14 32 06.8** | **+1.9** |
| | comp=Z,20nm,0.6s,baz=315,slow=9.1,SNR=17 | | | | | | | |
| **STKA** | **Stephens Creek** | **43.45** | **131** | *eP* | **P** | | **14 31 53.6** | **+0.7** |
| | comp=Z,3.8nm,0.6s | | | | | | | |
| STKA | | | | pP | **pP** | | **14 32 06.8** | **+1.9** |
| **GTA** | **Gaotai** | **45.80** | **356** | *eP* | **P** | | **14 32 10.8** | **-0.8** |
| GTA | | | | pP | pP | | 14 32 15.0 | -8.7 |
| GTA | | | | sP | sP | | 14 32 17.5 | -11 |
| GTA | | | | S | **S** | | **14 38 53.0** | **+0.6** |
| GTA | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,1.2s | | | | | | | |
| GTA | | | | pmax | pmax | | | |
| | comp=Z,75nm,4.5s | | | | | | | |
| GTA | | | | LR | LR | | | |
| | comp=N,170nm,15.2s | | | | | | | |
| GTA | | | | LR | LR | | | |
| | comp=E,160nm,15.0s | | | | | | | |
| GTA | | | | LR | LR | | | |
| | comp=Z,170nm,15.9s | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **47.65** | **8** | *eP* | **P** | | **14 32 28.0** | **+2.0** |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,8.0nm,0.5s | | | | | | | |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,150nm,5.4s | | | | | | | |
| **BJI** | **Beijing** | **47.70** | **13** | P | **P** | | **14 32 25.8** | **-0.4** |
| BJI | | | | sP | **pP** | | **14 32 33.0** | **-5.4** |
| BJI | | | | S | S | | 14 39 30.0 | +11 |
| BJI | | | | pmax | pmax | | | |
| | comp=Z,19nm,0.7s | | | | | | | |
| BJI | | | | LR | LR | | | |
| | comp=Z,76nm,21.5s | | | | | | | |
| **KS15** | **Wonju Array Si** | **49.18** | **26** | *eP* | **P** | | **14 32 37.4** | **-0.3** |
| **KSAR** | **Wonju Array Be** | **49.18** | **26** | P | **P** | | **14 32 37.2** | **-0.5** |
| **KSRS** | **Korea Array** | **49.21** | **26** | P | **P** | | **14 32 37.2** | **-0.6** |
| | comp=Z,7.5nm,0.7s,baz=222,slow=7.6,SNR=28 | | | | | | | |
| **KS01** | **Wonju Array Si** | **49.22** | **26** | *eP* | **P** | | **14 32 37.7** | **-0.3** |
| **WMQ** | **Urumqi** | **52.12** | **345** | P | **P** | | **14 33 01.0** | **+1.2** |
| WMQ | | | | pP | pP | | 14 33 06.0 | -6.2 |
| WMQ | | | | sP | sP | | 14 33 08.5 | -8.7 |
| WMQ | | | | pmax | pmax | | | |
| | comp=Z,40nm,0.6s | | | | | | | |
| WMQ | | | | pmax | pmax | | | |
| | comp=Z,750nm,5.5s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=N,110nm,20.3s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=E,120nm,12.1s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=Z,89nm,18.9s | | | | | | | |
| **KSH** | **Kashi** | **52.45** | **333** | P | **P** | | **14 33 01.5** | **-1.0** |
| KSH | | | | pP | pP | | 14 33 08.8 | -6.0 |
| KSH | | | | PcP | **PcP** | | **14 34 13.5** | **+0.7** |
| KSH | | | | PP | **PP** | | **14 35 01.8** | **0.0** |
| KSH | | | | S | **S** | | **14 40 23.0** | **-2.9** |
| KSH | | | | ScS | **ScS** | | **14 42 45.5** | **-3.5** |
| **KSH** | **Kashi** | **52.45** | **333** | SS | **SS** | | **14 43 59.0** | **-5.6** |
| KSH | | | | pmax | pmax | | | |
| | comp=Z,8.0nm,0.5s | | | | | | | |
| KSH | | | | pmax | pmax | | | |
| | comp=Z,60nm,2.7s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=N,170nm,5.9s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=E,120nm,5.7s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=Z,130nm,5.5s | | | | | | | |
| **MAT** | **Matsushiro** | **53.63** | **35** | P | **P** | | **14 33 08.1** | **-3.0** |
| **MJAR** | **Matsushiro Arr** | **53.63** | **35** | P | **P** | | **14 33 08.3** | **-2.8** |
| | comp=Z,2.0nm,0.4s,baz=206,slow=8.2,SNR=12 | | | | | | | |
| **CN2** | **Changchun** | **53.77** | **19** | *eP* | **P** | | **14 33 10.5** | **-1.4** |
| CN2 | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,1.1s | | | | | | | |
| **SONM** | **Songino Array** | **54.13** | **2** | P | **P** | | **14 33 14.7** | **+0.1** |
| | comp=Z,11nm,0.7s,baz=181,slow=9.6,SNR=91 | | | | | | | |
| **SONA1** | **Songino Array** | **54.14** | **2** | *eP* | **P** | | **14 33 14.5** | **-0.3** |
| **ULN** | **Ulaanbaatar** | **54.19** | **3** | *eP* | **P** | | **14 33 14.6** | **-0.5** |
| | comp=Z,6.3nm,0.7s | | | | | | | |
| **AAK** | **Ala-Archa** | **55.64** | **334** | *eP* | **P** | | **14 33 24.9** | **-0.8** |
| | comp=Z,4.1nm,1.3s | | | | | | | |
| **MK01** | **Makanchi Array** | **56.32** | **342** | *eP* | **P** | | **14 33 29.5** | **-0.8** |
| **MK31** | **Makanchi Array** | **56.34** | **342** | *eP* | **P** | | **14 33 29.9** | **-0.6** |
| **MKAR** | **Makanchi Array** | **56.34** | **342** | P | **P** | | **14 33 30.2** | **-0.3** |
| | comp=Z,4.0nm,0.5s,baz=146,slow=9.1,SNR=67 | | | | | | | |
| MKAR | | | | pP | **pP** | | **14 33 42.8** | **-0.2** |
| | comp=Z,4.8nm,0.8s,baz=148,slow=7.1,SNR=9.8 | | | | | | | |
| **MKAR** | **Makanchi Array** | **56.34** | **342** | *eP* | **P** | | **14 33 30.1** | **-0.3** |
| | comp=Z,35nm,0.6s | | | | | | | |
| MKAR | | | | pP | **pP** | | **14 33 42.8** | **-0.2** |
| **MAKZ** | **Makanchi** | **56.45** | **342** | *eP* | **P** | | **14 33 30.0** | **-1.2** |
| | comp=Z,8.9nm,1.6s | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **56.53** | **24** | P | **P** | | **14 33 30.9** | **-0.9** |
| | comp=Z,12nm,0.6s,baz=210,slow=5.7,SNR=18 | | | | | | | |
| **KURK** | **Kurchatov** | **60.94** | **342** | *eP* | **P** | | **14 34 02.0** | **-0.4** |
| | comp=Z,5.7nm,0.8s | | | | | | | |
| **GEYT** | **Alibeck** | **61.22** | **320** | P | **P** | | **14 34 05.4** | **+0.7** |
| | comp=Z,2.7nm,0.8s,baz=148,slow=8.7,SNR=5.5 | | | | | | | |
| **ZAA0** | **Zalesovo Array** | **62.26** | **348** | *eP* | **P** | | **14 34 10.3** | **-0.9** |
| | comp=Z,8.9nm,0.9s | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **62.26** | **348** | P | **P** | | **14 34 10.7** | **-0.5** |
| | comp=Z,4.7nm,0.3s,baz=153,slow=4.5,SNR=32 | | | | | | | |
| ZALV | | | | pP | **pP** | | **14 34 23.8** | **0.0** |
| | comp=Z,4.5nm,0.5s,baz=156,slow=4.2,SNR=8.3 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **62.26** | **348** | *eP* | **P** | | **14 34 10.1** | **-1.2** |
| ZALV | | | | pP | **pP** | | **14 34 23.8** | **0.0** |
| **BRVK** | **Borovoye** | **65.71** | **339** | *eP* | **P** | | **14 34 33.0** | **-0.9** |
| | comp=Z,4.1nm,0.6s | | | | | | | |
| **KMBO** | **Kilima Mbogo** | **66.47** | **272** | LR | LR | | 14 58 10.3 | |
| | comp=Z,50nm,21.1s,baz=98,slow=31 | | | | | | | |
| **MAW** | **Mawson** | **66.94** | **196** | LR | LR | | 15 01 12.5 | |
| | comp=Z,82nm,19.3s,baz=63,slow=33 | | | | | | | |
| **ABKAR** | **Akbulak array** | **67.32** | **331** | *eP* | **P** | | **14 34 43.9** | **-0.3** |
| | comp=Z,48nm,0.6s | | | | | | | |
| **YAK** | **Yakutsk** | **71.20** | **13** | P | **P** | | **14 35 06.3** | **-1.7** |
| | comp=Z,3.4nm,0.3s,baz=157,slow=3.5,SNR=4.0 | | | | | | | |
| **KBZ** | **Khabaz** | **74.08** | **319** | P | **P** | | **14 35 26.4** | **+0.9** |
| | comp=Z,3.3nm,0.9s,baz=148,slow=7.9,SNR=8.4 | | | | | | | |
| **LSZ** | **Lusaka** | **74.38** | **256** | LR | LR | | 15 02 11.3 | |
| | comp=Z,77nm,21.3s,baz=110,slow=31 | | | | | | | |
| **SYO** | **Syowa Base** | **74.88** | **200** | *lE* | **P** | | **14 35 29.0** | **-0.7** |
| **BRTR** | **Keskin Array B** | **79.05** | **312** | P | **P** | | **14 35 54.9** | **+1.0** |
| | comp=Z,0.3nm,0.3s,baz=75,slow=9.2,SNR=6.8 | | | | | | | |
| BRTR | | | | pP | **pP** | | **14 36 08.1** | **+1.2** |
| | comp=Z,2.6nm,0.8s,baz=126,slow=7.9,SNR=7.5 | | | | | | | |
| **AKASG** | **Malin Array Be** | **85.26** | **322** | P | **P** | | **14 36 26.4** | **+0.4** |
| | comp=Z,0.6nm,0.5s,baz=85,slow=5.0,SNR=5.0 | | | | | | | |
| **VRI** | **Vrincioaia** | **85.62** | **317** | *iP* | **P** | | **14 36 32.2** | **+4.3** |
| **MLR** | **Muntele Rosu** | **86.06** | **316** | *iP* | **P** | | **14 36 34.1** | **+3.8** |
| **DOPR** | **Dopca** | **86.55** | **317** | *iP* | P | | 14 36 24.8 | -7.8 |
| **VOIR** | | **86.67** | **316** | *iP* | **P** | | **14 36 36.6** | **+3.4** |
| **BURAR** | **Bucovina Array** | **87.03** | **318** | *iP* | **P** | | **14 36 37.9** | **+2.9** |
| **BUR04** | **Bucovina Ar. S** | **87.04** | **318** | *eP* | **P** | | **14 36 36.7** | **+1.7** |
| **BUR08** | **Bucovina Ar. S** | **87.05** | **318** | *eP* | **P** | | **14 36 37.2** | **+2.1** |
| **LOT** | **Lotru** | **87.55** | **316** | *iP* | P | | 14 36 45.2 | +7.7 |
| **FINES** | **FINESS Array B** | **89.77** | **332** | P | **P** | | **14 36 47.6** | **+0.2** |
| | comp=Z,4.2nm,0.9s,baz=120,slow=3.7,SNR=9.1 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **117.47** | **19** | PKP | **PKPdf** | | **14 42 34.4** | **-0.1** |
| | comp=Z,0.2nm,0.8s,baz=322,slow=2.9,SNR=4.7 | | | | | | | |
| YKA | | | | pPKP | **pPKPdf** | | **14 42 48.8** | **+0.7** |
| | comp=Z,0.3nm,0.8s,baz=295,slow=1.6,SNR=4.3 | | | | | | | |
| **NVAR** | **Mina Array Bea** | **130.49** | **44** | PKP | **PKPdf** | | **14 43 02.0** | **+1.4** |
| | comp=Z,0.3nm,0.5s,baz=299,slow=3.0,SNR=3.9 | | | | | | | |
| **ULM** | **Lac du Bonnet** | **133.39** | **17** | PKP | **PKPdf** | | **14 43 06.5** | **+1.2** |
| | comp=Z,1.5nm,0.8s,baz=219,slow=5.4,SNR=3.4 | | | | | | | |
| **PDAR** | **Pinedale Array** | **133.45** | **34** | PKP | **PKPdf** | | **14 43 06.8** | **+0.8** |
| | comp=Z,0.2nm,0.6s,baz=270,slow=1.8,SNR=2.8 | | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **145.61** | **45** | *e*PKPdf | **PKPdf** | | **14 43 29.1** | **+0.8** |
| **TXAR** | **Lajitas Array** | **145.61** | **45** | PKPbc | **PKPdf** | | **14 43 29.4** | **+1.1** |
| | comp=Z,6.1nm,0.5s,baz=292,slow=1.0,SNR=127 | | | | | | | |
| **X35A** | **Drake** | **146.28** | **32** | *e*PKPdf | **PKPdf** | | **14 43 29.7** | **+0.5** |
| **JCT** | **Junction City** | **147.49** | **40** | *e*PKPbc | **PKPbc** | | **14 43 34.5** | **+0.5** |
| **WVT** | **Waverly** | **148.65** | **18** | *e*PKPbc | **PKPbc** | | **14 43 36.6** | **-0.2** |

*ISCJB **28** 14:30:12.2±0.8, 6°.55S±0°.07×103°.6E±0°.1, h35km, mb3.8/9, Error ellipse: s-maj=15.6km s-min=9.4km az=11.8*
*IDC **28** 14:30:17.0±1.8, 6°.32S×103°.85E, h46km±9km, mb3.6/9, mb1 3.7/9, mb1mx3.5/38, mbtmp3.8/9, Error ellipse: s-maj=64.5km s-min=15.0km az=58.0*
*DJA **28** 14:30:18.0±1.4, 6°.S±7°.×10°4E±°, h10km, M3.9/4, MLv3.9/4*

**ISC 28 14:30:14.4**±1.0, **6°.48S**±0°.09×**103°.5E**±0°.1, **h35**km, **n14**, σ1§**44**/19, **mb3.9**/9, **Southwest of Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KASI** | **Kota Agung** | **1.35** | **46** | P | **Pn** | **14 30 35.3** | **-1.5** |
| KASI | | | | S | **Sn** | **14 30 51.5** | **-2.0** |
| **LWLI** | **Liwa** | **1.54** | **20** | P | **Pn** | **14 30 40.2** | **+0.6** |
| LWLI | | | | S | **Sn** | **14 30 58.8** | **+0.3** |
| **BLSI** | **Bandar Lampung** | **2.03** | **57** | P | **Pn** | **14 30 49.2** | **+3.0** |
| **KLI** | **Kotabumi** | **2.08** | **40** | P | **Pn** | **14 30 50.1** | **+3.3** |
| **CMAR** | **Chiang Mai Arr** | **25.19** | **350** | P | **P** | **14 35 36.9** | **0.0** |
| | 1.2nm,0.6s,baz=182,slow=8.8,SNR=12 | | | | | | |
| CMAR | | | | pP | **sP** | **14 35 49.9** | **-1.2** |
| | 1.1nm,0.8s,baz=179,slow=9.0,SNR=4.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **32.77** | **117** | P | **P** | **14 36 43.6** | **-0.9** |
| | 1.0nm,0.6s,baz=287,slow=12,SNR=6.5 | | | | | | |
| **ASAR** | **Alice Springs** | **33.82** | **124** | P | **P** | **14 36 53.5** | **-0.1** |
| | 0.2nm,0.5s,baz=313,slow=8.2,SNR=6.2 | | | | | | |
| ASAR | | | | pP | **pP** | **14 37 04.8** | **+1.0** |
| | 0.4nm,0.4s,baz=301,slow=7.7,SNR=3.9 | | | | | | |
| **STKA** | **Stephens Creek** | **43.57** | **130** | P | **P** | **14 38 15.1** | **-0.2** |
| | 1.0nm,0.6s,baz=338,slow=5.0,SNR=4.8 | | | | | | |
| STKA | | | | pP | **sP** | **14 38 29.1** | **-0.7** |
| | 2.7nm,0.6s,baz=308,slow=7.9,SNR=3.9 | | | | | | |
| **KSRS** | **Korea Array** | **49.28** | **26** | P | **P** | **14 38 59.3** | **-0.6** |
| | 1.7nm,0.9s,baz=219,slow=6.4,SNR=5.5 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **53.73** | **35** | P | **P** | **14 39 31.9** | **-1.4** |
| | 0.5nm,0.3s,baz=228,slow=7.3,SNR=4.4 | | | | | | |
| **SONM** | **Songino Array** | **54.14** | **2** | P | **P** | **14 39 36.6** | **+0.5** |
| | 1.4nm,0.7s,baz=177,slow=9.1,SNR=4.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **56.29** | **343** | P | **P** | **14 39 52.1** | **+0.5** |
| | 0.6nm,0.5s,baz=143,slow=10.0,SNR=8.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **62.23** | **348** | P | **P** | **14 40 32.9** | **+0.5** |
| | 0.6nm,0.3s,baz=131,slow=6.3,SNR=3.8 | | | | | | |
| **TXAR** | **Lajitas Array** | **145.73** | **45** | PKPbc | **PKPab** | **14 49 51.3** | **+0.4** |
| | 0.8nm,0.6s,baz=266,slow=0.6,SNR=15 | | | | | | |

*ISK **28** 14:43:38.1, 41°.13N×36°.51E, h5km, MD2.6*
*ISCJB **28** 14:43:42.8±1.1, 41°.24N±0°.07×36°.18E±0°.07, h0km, Error ellipse: s-maj=10.7km s-min=6.7km az=30.5*
*CSEM **28** 14:43:43.2±0.9, 41°.19N×36°.16E, h1km, ML2.5, Error ellipse: s-maj=23.8km s-min=15.8km az=48.0, Suspected Mining explosion.*
*DDA **28** 14:43:45.7, 41°.00N×36°.09E, h7km, Ml2.5, Suspected Mining explosion.*

**ISC 28 14:43:41.0**±1.1, **41°.15N**±0°.05×**36°.30E**±0°.05, **h0**km, **n17**, σ1§**35**/22, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KVT** | **Kavak** | **0.20** | **251** | *e*PG | **Pg** | **14 43 45.9** | **+1.1** |
| **KVT** | **Kavak** | **0.20** | **251** | *e*Pg | **Pg** | **14 43 45.9** | **+1.1** |
| **HAVZ** | **Havza** | **0.44** | **261** | *i* P | **Pb** | **14 43 51.3** | **-0.4** |
| HAVZ | | | | *i* S | **Sb** | **14 43 56.9** | **-2.0** |
| **HAVZ** | **Havza** | **0.44** | **261** | P | **Pb** | **14 43 51.3** | **-0.4** |
| HAVZ | | | | S | **Sb** | **14 43 56.9** | **-2.0** |
| **ERBA** | **Erbaa** | **0.58** | **143** | *i* P | **Pn** | **14 43 57.7** | **+1.2** |
| ERBA | | | | *i* S | **Sn** | **14 44 08.2** | **+1.4** |
| **ERBA** | **Erbaa** | **0.58** | **143** | P | **Pn** | **14 43 57.7** | **+1.2** |
| ERBA | | | | S | **Sn** | **14 44 08.2** | **+1.4** |
| **DIKM** | **Dikmen** | **0.93** | **303** | *e*PG | **Pb** | **14 44 00.0** | **0.0** |
| DIKM | | | | *e*SG | **Sn** | **14 44 16.0** | **+0.6** |
| **DIKM** | **Dikmen** | **0.93** | **303** | *e*Pg | **Pb** | **14 44 00.0** | **0.0** |
| **SNOP** | **Sinop** | **1.20** | **317** | *e*PN | **Pg** | **14 44 04.1** | **+0.1** |
| **SNOP** | **Sinop** | **1.20** | **317** | *e*Pn | **Pg** | **14 44 04.1** | **+0.1** |
| **COAL** | **Corum-Alaca** | **1.33** | **229** | *i* P | **Pg** | **14 44 06.7** | **+0.1** |
| **COAL** | **Corum-Alaca** | **1.33** | **229** | P | **Pg** | **14 44 06.7** | **+0.1** |
| **SVSK** | **Karacayir** | **1.34** | **156** | *e*PN | **Pg** | **14 44 03.3** | **-3.3** |
| **YOZ** | **Yozgat** | **1.68** | **207** | *e*PN | **Pn** | **14 44 11.3** | **-0.5** |
| **YOZ** | **Yozgat** | **1.68** | **207** | *e*Pn | **Pn** | **14 44 11.3** | **-0.5** |
| **CUSAR** | **Sarkisla-SIVAS** | **1.73** | **181** | *i* P | **Pg** | **14 44 15.7** | **+1.6** |
| **CUSAR** | **Sarkisla-SIVAS** | **1.73** | **181** | P | **Pg** | **14 44 15.7** | **+1.6** |

*ISCJB **28** 14:46:01.7±0.5, 39°.84N±0°.03×30°.05E±0°.04, h12km, Error ellipse: s-maj=4.4km s-min=4.2km az=145.3*
*CSEM **28** 14:46:01.7±0.1, 39°.83N×30°.06E, h10km, ML2.5, Error ellipse: s-maj=2.5km s-min=2.2km az=119.0*
*DDA **28** 14:46:01.8, 39°.84N×30°.05E, h7km, Ml2.5*
*ISK **28** 14:46:01.2, 39°.83N×30°.06E, h10km, MD2.6*

**ISC 28 14:46:01.9**±0.8, **39°.84N**±0°.02×**30°.07E**±0°.02, **h12**km, **n36**, σ0§**40**/44, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **BORA** | **Eskisehir** | **0.30** | **82** | *i* P | **Pg** | **14 46 07.7** | **-0.3** |
| BORA | | | | *i* S | **Sb** | **14 46 13.5** | **-0.7** |
| **BORA** | **Eskisehir** | **0.30** | **82** | P | **Pg** | **14 46 07.7** | **-0.3** |
| BORA | | | | S | **Sb** | **14 46 13.5** | **-0.7** |
| **CAVI** | **Cavuskoy** | **0.40** | **335** | *e*PG | **Pg** | **14 46 09.4** | **-0.5** |
| CAVI | | | | *e*SG | **Sg** | **14 46 16.0** | **+0.7** |
| **CAVI** | **Cavuskoy** | **0.40** | **335** | *e*Pg | **Pg** | **14 46 09.4** | **-0.5** |
| CAVI | | | | *e*Sg | **Sg** | **14 46 16.0** | **+0.7** |
| **TVSB** | **Tavsanli** | **0.61** | **231** | *e*PG | **Pg** | **14 46 13.3** | **-0.3** |
| TVSB | | | | *e*SG | **Sg** | **14 46 22.2** | **+0.5** |
| **TVSB** | **Tavsanli** | **0.61** | **231** | *e*Pg | **Pg** | **14 46 13.4** | **-0.3** |
| TVSB | | | | *e*Sg | **Sg** | **14 46 22.2** | **+0.5** |
| **GEYV** | **SAKARYA_Geyve** | **0.67** | **15** | *i* P | **Pg** | **14 46 14.4** | **-0.5** |
| **GEYV** | **SAKARYA_Geyve** | **0.67** | **15** | P | **Pg** | **14 46 14.4** | **-0.5** |
| **ESKT** | **Eskisehir** | **0.68** | **117** | *i* P | **Pg** | **14 46 15.3** | **+0.2** |
| **SEYT** | **Eskypehyr** | **0.68** | **117** | P | **Pg** | **14 46 15.3** | **+0.2** |
| **GULT** | **Gulveren** | **0.69** | **30** | *e*PG | **Pg** | **14 46 15.1** | **-0.1** |
| **GULT** | **Gulveren** | **0.69** | **30** | *e*Pg | **Pg** | **14 46 15.1** | **-0.1** |
| **GDZ** | **Gediz** | **0.87** | **211** | *i* P | **Pg** | **14 46 18.7** | **0.0** |
| **GDZ** | **Gediz** | **0.87** | **211** | P | **Pg** | **14 46 18.7** | **0.0** |
| **YLV** | **Yalova** | **0.90** | **324** | *e*PG | **Pg** | **14 46 19.0** | **-0.3** |
| YLV | | | | *e*SG | **Sb** | **14 46 31.9** | **+0.4** |
| **YLV** | **Yalova** | **0.90** | **324** | *e*Pg | **Pg** | **14 46 19.0** | **-0.3** |
| YLV | | | | *e*Sg | **Sb** | **14 46 31.9** | **+0.4** |
| **HRT** | **Hereke** | **1.03** | **343** | *e*PG | **Pb** | **14 46 20.8** | **-0.9** |
| **HRT** | **Hereke** | **1.03** | **343** | *e*Pg | **Pb** | **14 46 20.8** | **-0.9** |
| **MDUB** | **Mudurnu** | **1.07** | **53** | *e*PG | **Pb** | **14 46 22.5** | **+0.1** |
| **MDUB** | **Mudurnu** | **1.07** | **53** | *e*Pg | **Pb** | **14 46 22.5** | **+0.1** |
| **SIMA** | **Simav-Kutahya** | **1.13** | **228** | *e*PN | **Pb** | **14 46 23.1** | **-0.3** |
| **SIMA** | **Simav-Kutahya** | **1.13** | **228** | *e*Pn | **Pb** | **14 46 23.1** | **-0.3** |
| **ARMT** | **Armutlu** | **1.18** | **309** | *e*PN | **Pg** | **14 46 24.5** | **0.0** |
| **ARMT** | **Armutlu** | **1.18** | **309** | *e*Pn | **Pg** | **14 46 24.5** | **0.0** |
| **SAHE** | **Sakarya_HENDEK** | **1.18** | **30** | *i* P | **Pg** | **14 46 24.9** | **+0.4** |
| **SAHE** | **Sakarya_HENDEK** | **1.18** | **30** | P | **Pg** | **14 46 25.0** | **+0.4** |
| **SVRH** | **Sivrihisar-ESK** | **1.19** | **109** | *e*PN | **Pn** | **14 46 24.4** | **0.0** |
| **SVRH** | **Sivrihisar-ESK** | **1.19** | **109** | *e*Pn | **Pn** | **14 46 24.4** | **0.0** |
| **SILT** | **Sile** | **1.35** | **346** | *e*PN | **Pb** | **14 46 27.1** | **-0.1** |
| **SILT** | **Sile** | **1.35** | **346** | *e*Pn | **Pb** | **14 46 27.1** | **-0.1** |
| **KCTX** | **Karacabey (Bur** | **1.38** | **289** | *e*PN | **Pn** | **14 46 27.2** | **+0.2** |
| **KCTX** | **Karacabey (Bur** | **1.38** | **289** | *e*Pn | **Pn** | **14 46 27.2** | **+0.2** |
| **KAVV** | **Kandilli-Istan** | **1.45** | **328** | *e*PN | **Pn** | **14 46 28.0** | **+0.1** |
| **KAVV** | **Kandilli-Istan** | **1.45** | **328** | *e*Pn | **Pn** | **14 46 28.0** | **+0.1** |
| **KULA** | **Kula-Manisa** | **1.71** | **220** | *e*PN | **Pn** | **14 46 31.6** | **0.0** |
| **KULA** | **Kula-Manisa** | **1.71** | **220** | *e*Pn | **Pn** | **14 46 31.6** | **0.0** |

*ISCJB **28** 14:46:25.6±1.8, 37°.16N±0°.10×42°.51E±0°.09, h2km±12km, Error ellipse: s-maj=17.2km s-min=10.6km az=20.7*
*CSEM **28** 14:46:27.2±0.8, 37°.30N×42°.53E, h10km, ML2.5, Error ellipse: s-maj=25.0km s-min=11.2km az=13.0*
*DDA **28** 14:46:27.9, 37°.36N×42°.69E, h7km, Ml2.4*
*ISK **28** 14:46:27.1, 37°.32N×42°.44E, h7km, ML2.5*

**ISC 28 14:46:25.8**±1.5, **37°.22N**±0°.08×**42°.50E**±0°.04, **h0**km±14km, **n14**, σ0§**99**/18, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SIRN** | **S¯¯rnak** | **0.29** | **346** | *i* P | **Pg** | **14 46 32.1** | **+0.8** |
| **SIRN** | **S¯¯rnak** | **0.29** | **346** | P | **Pg** | **14 46 32.1** | **+0.8** |
| **SIRT** | **Sirnak** | **0.29** | **351** | *e*PG | **Pg** | **14 46 31.4** | **+0.1** |
| **SIRT** | **Sirnak** | **0.29** | **351** | *e*Pg | **Pg** | **14 46 31.4** | **+0.1** |
| **CUKT** | **Cukurca** | **0.89** | **88** | *e*PG | **Pb** | **14 46 45.5** | **+1.4** |
| **CUKT** | **Cukurca** | **0.89** | **88** | *e*Pg | **Pb** | **14 46 45.5** | **+1.4** |
| **SRTM** | **Siirt_Merkez** | **0.90** | **330** | *i* P | **Pn** | **14 46 44.4** | **-1.3** |
| SRTM | | | | *i* S | **Sn** | **14 46 58.9** | **-0.6** |
| **SRTM** | **Siirt_Merkez** | **0.90** | **330** | P | **Pn** | **14 46 44.4** | **-1.3** |
| SRTM | | | | S | **Sn** | **14 46 58.9** | **-0.6** |
| **HAKT** | **HAKKARI** | **1.02** | **70** | *i* P | **Pg** | **14 46 44.5** | **-0.9** |
| **HAKT** | **HAKKARI** | **1.02** | **70** | P | **Pg** | **14 46 44.5** | **-0.9** |
| **MAZI** | **Mazidag** | **1.65** | **279** | *e*PN | **Pn** | **14 46 56.4** | **+0.3** |
| MAZI | | | | *e*SN | **Sg** | **14 47 17.9** | **-1.0** |
| **MAZI** | **Mazidag** | **1.65** | **279** | *e*Pn | **Pn** | **14 46 56.4** | **+0.3** |
| MAZI | | | | *e*Sn | **Sg** | **14 47 17.9** | **-1.0** |
| **AGRB** | **Hanur-Agry** | **2.39** | **9** | *e*PN | **Pn** | **14 47 06.5** | **+0.2** |
| **AGRB** | **Hanur-Agry** | **2.39** | **9** | *e*Pn | **Pn** | **14 47 06.5** | **+0.2** |

**IDC 28 14:58:54.5**±3.0, **31°.88S×58°.21E, h0**km, **mb3.4**/2, **mb1 3.7**/2, **mb1mx3.2**/41, **mbtmp3.4**/2, **MS3.3**/1, **Ms1 3.3**/1, **ms1mx2.7**/17, **Error ellipse: s-maj=97.2km s-min=61.6km az=44.0, Southwest Indian Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KMBO** | **Kilima Mbogo** | **36.43** | **323** | LR | LR | 15 19 04.7 | |
| | comp=Z,42nm,18.6s,baz=94,slow=33 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **63.48** | **44** | P | P | 15 09 26.4 | 0.0 |
| | 0.4nm,0.7s,baz=232,slow=8.0,SNR=4.1 | | | | | | |
| **ASAR** | **Alice Springs** | **66.26** | **104** | P | P | 15 09 44.9 | 0.0 |
| | 0.2nm,0.9s,baz=233,slow=6.5,SNR=4.3 | | | | | | |
| **YKA** | **Yellowknife Ar** | **149.02** | **354** | PKPbc | PKPbc | 15 18 43.1 | -0.6 |
| | 0.1nm,0.5s,baz=360,slow=3.4,SNR=5.1 | | | | | | |

*ISCJB **28** 15:25:39.8±0.2, 51°.70N±0°.03×96°.03E±0°.03, h10km, mb4.2/44, MS3.3/11, Error ellipse: s-maj=4.5km s-min=2.8km az=17.7*
*MOS **28** 15:25:39.7±1.5, 51°.57N×96°.04E, h14km, mb4.5/28, Error ellipse: s-maj=7.7km s-min=5.8km az=11.1*
*BJI **28** 15:25:39.1, 51°.97N×95°.75E, h16km, mb4.2/31, mB4.7/21, ML4.5/2, Ms4.3/23, Ms7 4.0/22*
*OBM **28** 15:25:40.3±0.1, 51°.73N×95°.99E, h2km, Ml4.2/2, Error ellipse: s-maj=2.1km s-min=1.1km az=3.0*
*NNC **28** 15:25:40.4±4.0, 50°.26N×96°.74E, h0km, mb4.7, Error ellipse: s-maj=49.4km s-min=20.2km az=27.0*
*IDC **28** 15:25:40.3±0.5, 51°.70N×96°.09E, h0km, mb4.2/24, mb1 4.2/29, mb1mx4.1/48, mbtmp4.1/29, ML3.3/6, MS3.2/11, Ms1 3.2/11, ms1mx3.0/52, Error ellipse: s-maj=13.2km s-min=7.1km az=1.0*
*NEIC **28** 15:25:41.2±2.3, 51°.71N×96°.00E, h7km±15km, mb4.6/13, Error ellipse: s-maj=8.2km s-min=4.5km az=179.0*
*ASRS **28** 15:25:43.3±0.9, 51°.85N×95°.67E, h15km, Ms3.8/3*

**ISC 28 15:25:42.5**±0.3, **51°.84N**±0°.03×**95°.82E**±0°.02, **h10**km, **n186**, σ2§**59**/204, **mb4.3**/43, **MS3.4**/11, **21C-11D, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Ph

comp=Z,3.6nm,0.3s,baz=104,slow=20,SNR=6.4
ZALV Lg Lg 15 29 18.8
comp=Z,9.3nm,0.3s,baz=116,slow=24,SNR=8.5
**ZALV Zalesovo Beam 6.98 292** *i* P **Pn 15 27 27.0 +2.3**
ZALV pmax pmax
comp=Z,4.0nm,0.4s
**ZALV Zalesovo Beam 6.98 292** *e*Pn **Pn 15 27 25.7 +1.0**
ZALV Sn **Sn 15 28 50.0 +5.9**
ZALV Lg Lg 15 29 18.8
**OGRR Ongureny 7.38 71** *e*P Pn 15 27 39.4 +9.2
OGRR pmax pmax
comp=Z,43nm,0.8s
**SONB5 Songino Array 7.90 116** *e*Pg **Pb 15 27 58.0 -1.5**
SONB5 *e*Sg Sb 15 29 43.0 +9.4
comp=Z,288nm,1.0s
**SONB4 Songino Array 7.91 116** *e*Pg **Pb 15 27 58.3 -1.3**
SONB4 *e*Sg Sb 15 29 44.2 +10
comp=Z,295nm,0.9s
**SONB1 Songino Array 7.91 116** *e*Pg **Pb 15 27 58.2 -1.5**
SONB1 *e*Sg Sb 15 29 43.5 +9.5
comp=Z,264nm,1.0s
**SONA2 Songino Array 7.92 116** *e*Pg **Pb 15 27 58.2 -1.6**
SONA2 *e*Sg Sb 15 29 43.0 +8.9
comp=Z,315nm,0.9s
**SONA1 Songino Array 7.92 116** *e*Pg **Pb 15 27 58.4 -1.5**
SONA1 *e*Sg Sb 15 29 43.6 +9.3
comp=Z,327nm,0.9s
**SONA0 Songino Array 7.92 116** *e*Pg **Pb 15 27 58.5 -1.4**
SONA0 *e*Sg Sb 15 29 43.8 +9.5
comp=Z,838nm,1.9s
**SONA3 Songino Array 7.92 116** *e*Pg **Pb 15 27 58.6 -1.3**
SONA3 *e*Sg Sb 15 29 43.2 +8.9
comp=Z,325nm,0.9s
**SONM Songino Array 7.92 116** Pn **Pn 15 27 35.6 -2.2**
comp=Z,0.2nm,0.3s,baz=298,slow=16,SNR=3.4
SONM Pg **Pb 15 27 58.5 -1.4**
comp=Z,1.3nm,0.3s,baz=299,slow=16,SNR=36
SONM Sn **Sn 15 29 01.8 -5.7**
comp=Z,1.0nm,0.3s,baz=299,slow=24,SNR=2.6
SONM Lg Lg 15 29 46.0
comp=Z,3.6nm,0.3s,baz=307,slow=31,SNR=13
SONM LR LR 15 30 51.9
comp=Z,144nm,18.6s,baz=332,slow=40
**SONA4 Songino Array 7.93 116** *e*Pg **Pb 15 27 58.5 -1.4**
SONA4 *e*Sg Sb 15 29 44.2 +10
comp=Z,339nm,0.9s
**SONB2 Songino Ar. Si 7.93 116** *e*Pg **Pb 15 27 58.5 -1.5**
SONB2 *e*Sg Sb 15 29 43.5 +8.9
comp=Z,393nm,1.0s
**SONB3 Songino Array 7.94 116** *e*Pg **Pb 15 27 58.4 -1.7**
SONB3 *e*Sg Sb 15 29 43.4 +8.8
comp=Z,407nm,1.0s
**ALFM 8.05 114** *e*Pg **Pb 15 28 01.6 -0.5**
ALFM *e*Sg Sb 15 29 46.4 +8.3
comp=Z,209nm,0.8s
**NVS Novosibirsk 8.11 297** *e*Pg Pg 15 28 10.0 -7.6
NVS *e*Sg Sg 15 29 51.7 -11
**NVS Novosibirsk 8.11 297** *e*P **Pn 15 27 43.3 +3.2**
**ULN Ulaanbaatar 8.28 114**⇑*e*P Pn 15 27 35.6 -7.0
**ARTM 8.37 113** *e*Pg **Pb 15 28 07.7 +0.3**
ARTM *e*Sg Sb 15 29 59.3 +12
**SEMM 8.40 116** *e*Pg **Pb 15 28 09.0 +0.9**
SEMM *e*Sg Sb 15 29 57.9 +10
**UGDM 8.60 115** *e*Pg Pg 15 28 12.3 -15
UGDM *e*Sg Sg 15 30 03.8 -14
**SYVR Suvo 8.80 72** *e*P **Pn 15 27 48.7 -0.9**
**NIZ Nizh Angarsk 9.03 59** *e*P **Pn 15 27 52.3 -0.4**
NIZ pmax pmax
comp=Z,40nm,1.0s
**WMQ Urumqi 9.70 217** P **Pn 15 28 03.0 +1.0**
WMQ pP 15 28 07.5
WMQ sP 15 28 12.5
WMQ S **Sn 15 29 55.3 +4.4**
WMQ sS 15 30 02.8
WMQ pmax pmax
comp=Z,29nm,1.3s
**DZBM 9.92 141** *e*Sg Sn 15 30 42.5 +46
**MK31 Makanchi Array 10.17 246** ⇓Pn **Pn 15 28 07.9 -0.5**
comp=Z,12nm,1.0s,baz=73,slow=11,SNR=42
MK31 Pg 15 28 44.7
comp=Z,16nm,0.8s,baz=60,slow=18,SNR=6.5
MK31 ⇑Lg Lg 15 31 02.4
comp=Z,88nm,1.3s,baz=61,slow=30,SNR=5.0
**MK31 Makanchi Array 10.17 246** *e*P **Pn 15 28 08.1 -0.3**
**MK31 Makanchi Array 10.17 246** *e*Pn **Pn 15 28 08.1 -0.3**
**MKAR Makanchi Array 10.17 246** Pn **Pn 15 28 08.4 0.0**
comp=Z,0.4nm,0.3s,baz=76,slow=12,SNR=32
MKAR Lg Lg 15 31 05.9
comp=Z,2.9nm,0.3s,baz=38,slow=20,SNR=4.4
MKAR LR LR 15 32 20.1
comp=Z,214nm,20.6s,baz=46,slow=39
**MKAR Makanchi Array 10.17 246** *e*Pn **Pn 15 28 08.0 -0.4**
MKAR Lg Lg 15 31 05.9
**MK01 Makanchi Array 10.17 245** *e*Pn **Pn 15 28 08.0 -0.5**
**MAKZ Makanchi 10.34 246** ⇓Pn **Pn 15 28 10.2 -0.5**
comp=Z,11nm,1.0s
MAKZ ⇑Pg 15 28 51.5
comp=Z,10nm,0.7s
MAKZ ⇓Lg Lg 15 31 11.4
comp=Z,96nm,1.3s
**MAKZ Makanchi 10.34 246** *e*P **Pn 15 28 10.6 -0.1**
**MAKZ Makanchi 10.34 246** *e*Pn **Pn 15 28 10.6 -0.1**
**KURK Kurchatov 10.83 271** ⇓Sn Sn 15 30 36.0 +17
comp=Z,28nm,1.1s
KURK ⇑Lg Lg 15 31 46.8
comp=Z,121nm,1.2s
**KURK Kurchatov 10.83 271**⇓*e*P **Pn 15 28 19.6 +2.1**
**KURK Kurchatov 10.83 271** *e*Pn **Pn 15 28 19.3 +1.9**
KURK Lg Lg 15 31 22.2
**KURBB Kurchatov Arra 10.91 270** Pn **Pn 15 28 19.4 +0.9**
comp=Z,0.1nm,0.3s,baz=78,slow=15,SNR=19
KURBB Lg Lg 15 31 22.2
comp=Z,0.2nm,0.3s,baz=78,slow=31,SNR=4.7
**KURBB Kurchatov Arra 10.91 270** ⇓Sn Sn 15 30 40.7 +20
comp=Z,63nm,0.8s
KURBB ⇑Lg Lg 15 31 48.0
comp=Z,102nm,0.8s
**BOD Bodaibo 12.06 53** *e*P Pn 15 28 30.6 -3.6
BOD pmax pmax
comp=Z,25nm,1.2s
**GTA Gaotai 12.73 166** *e*P **Pn 15 28 47.0 +3.4**
GTA pP 15 28 50.5
GTA sP 15 28 53.0
GTA S **Sn 15 31 12.3 +6.8**
GTA pmax pmax
comp=Z,5.0nm,1.5s
GTA pmax pmax
comp=Z,98nm,4.8s
GTA LR LR
comp=Z,450nm,7.6s
GTA LR LR
comp=Z,740nm,9.0s
GTA LR LR
comp=Z,400nm,9.7s
**PDGK Podgornoye 13.90 239** P **Pn 15 28 55.2 -4.3**
PDGK pmax pmax
comp=Z,9.0nm,1.0s
**HIA Hailar 15.41 90** *e*P **Pn 15 29 16.5 -3.3**
HIA pmax pmax
comp=Z,20nm,0.8s
**HIA Hailar 15.41 90** *e*Pn **Pn 15 29 16.5 -3.3**
comp=Z,20nm,0.8s
**HHC Hu-ho-hao-te 15.42 129** *e*P **Pn 15 29 17.3 -2.8**
HHC S **Sn 15 32 06.3 -4.6**
HHC pmax pmax
comp=Z,6.0nm,0.6s
HHC pmax pmax
comp=Z,160nm,5.4s
HHC LR LR
comp=Z,250nm,9.3s
HHC LR LR
comp=Z,220nm,6.2s
HHC LR LR
comp=Z,340nm,7.4s
**BVAR Borovoye Array 15.53 284** Pn **Pn 15 29 21.1 -0.3**
comp=Z,0.5nm,0.3s,baz=81,slow=12,SNR=8.8
**BRVK Borovoye 15.59 285**⇑*i*P **Pn 15 29 22.5 +0.4**
BRVK pmax pmax
comp=Z,3.0nm,0.5s
**BRVK Borovoye 15.59 285** *e*Pn **Pn 15 29 23.4 +1.3**
comp=Z,5.4nm,0.8s
**LZH Lanzhou 16.75 157** *e*P **Pn 15 29 36.8 -0.5**
LZH pP P 15 29 39.0 -0.5
LZH sP pP 15 29 43.0 +0.7
LZH PP **PnPn 15 29 49.3 +2.8**
LZH SS **S 15 32 59.0 +4.6**
LZH pmax pmax
comp=Z,32nm,1.1s
LZH pmax pmax
comp=Z,120nm,5.7s
LZH LR LR
comp=Z,400nm,12.0s
LZH LR LR
comp=Z,650nm,12.1s
LZH LR LR
comp=Z,380nm,13.4s
**AAK Ala-Archa 17.10 246** P **Pn 15 29 40.5 -1.1**
comp=Z,0.1nm,0.3s,baz=134,slow=6.2,SNR=5.4
AAK Lg Lg 15 34 44.0
comp=Z,0.2nm,0.3s,baz=335,slow=22,SNR=5.5
AAK LR LR 15 36 33.4
comp=Z,166nm,19.1s,baz=26,slow=38
**AAK Ala-Archa 17.10 246**⇑*i*P **Pn 15 29 39.4 -2.2**
AAK pmax pmax
comp=Z,1.0nm,0.8s
**AAK Ala-Archa 17.10 246** *e*Pn **Pn 15 29 40.1 -1.5**
comp=Z,13nm,1.8s
AAK Lg Lg 15 34 44.0
**MNAS Manas 18.33 249** P **Pn 15 29 54.6 -2.3**
MNAS pmax pmax
comp=Z,5.0nm,1.6s
**BJI Beijing 18.36 122** P **P 15 29 55.0 -2.0**
BJI S **Sn 15 33 17.0 -4.8**
BJI pmax pmax
comp=Z,6.0nm,0.9s
BJI LR LR
comp=Z,440nm,7.5s
BJI LR LR
comp=Z,290nm,6.9s
BJI LR LR
comp=Z,80nm,17.2s
**KSH Kashi 18.47 236** P **Pn 15 30 03.5 +4.9**
KSH pP sP 15 30 07.0 +4.4
KSH PP **PnPn 15 30 20.0 +10**
KSH S **S 15 33 28.0 -1.3**
KSH SS SnSn 15 33 53.0 +15
KSH pmax pmax
comp=Z,9.0nm,1.1s
KSH pmax pmax
comp=Z,300nm,4.8s
KSH LR LR
comp=Z,250nm,5.6s
KSH LR LR
comp=Z,270nm,6.5s
KSH LR LR
comp=Z,330nm,7.8s
**KKAR Karatay Array 19.13 253** *e*P **P 15 30 04.4 -1.1**
KKAR pmax pmax
comp=Z,25nm,0.5s
**KKAR Karatay Array 19.13 253** *e*P **P 15 30 04.4 -1.1**
comp=Z,25nm,0.5s
**SFK Sufi-Kurgan 19.42 241** P **P 15 30 08.7 -0.3**
SFK pmax pmax
comp=Z,6.0nm,0.9s
**YAK Yakutsk 20.85 48** P **P 15 30 23.7 -0.4**
comp=Z,12nm,0.7s,baz=107,slow=23,SNR=6.8
**YAK Yakutsk 20.85 48** *e*P **P 15 30 25.9 +1.8**
YAK *e**PP **pP 15 30 28.6 +1.7**
YAK *e*PPP PPP 15 30 50.4
YAK *e*S **S 15 34 14.7 -1.6**
YAK *e*SS Sn 15 34 30.0 +8.3
YAK *e*SSS SSS 15 34 41.2
YAK pmax pmax
comp=Z,18nm,0.9s
YAK pmax pmax
comp=N,3.0nm,1.5s
YAK smax smax
comp=E,162nm,4.3s
YAK smax smax
comp=N,165nm,5.0s
YAK MLR MLR
comp=Z,93nm,18.0s
YAK MLR MLR
comp=E,59nm,17.0s
YAK MLR MLR
comp=N,56nm,15.0s
**SVE Sverdlovsk 20.95 298** *e*P Pn 15 30 32.1 +4.3
SVE pmax pmax
comp=Z,13nm,0.9s
**CN2 Changchun 21.34 100** *e*P **P 15 30 31.5 +2.0**
CN2 *e*S **S 15 34 22.0 -4.4**
CN2 pmax pmax
comp=Z,10.0nm,0.6s
CN2 pmax pmax
comp=Z,200nm,3.0s
CN2 LR LR
comp=Z,500nm,13.0s
CN2 LR LR
comp=Z,400nm,13.0s
CN2 LR LR
comp=Z,500nm,10.0s
**CD2 Chengdu 21.71 161** *e*P **P 15 30 32.5 -1.2**
CD2 pmax pmax
comp=Z,10.0nm,1.0s
**ARU Arti 22.11 297** P **P 15 30 40.9 +3.2**
comp=Z,4.6nm,0.5s,baz=78,slow=6.4,SNR=12
**ARU Arti 22.11 297***c i*P **P 15 30 39.1 +1.4**
ARU 15 31 01.3
ARU S Sn 15 34 48.2 -3.9
ARU SS **SnSn 15 35 15.8 +8.5**
ARU pmax pmax
comp=Z,10.0nm,1.2s
**ARU Arti 22.11 297** *e*P **P 15 30 37.5 -0.2**
comp=Z,9.1nm,0.8s
**AB31 Akbulak array 22.80 278** *i* P **P 15 30 44.8 -0.3**
AB31 pmax pmax
comp=Z,7.0nm,1.0s
**ABKAR Akbulak array 22.80 278** *e*P **P 15 30 44.3 -0.7**
comp=Z,40nm,0.8s
**KLR Kul'dur 22.84 82** P **P 15 30 43.3 -2.3**
comp=Z,0.3nm,0.9s,baz=286,slow=10,SNR=7.2
KLR LR LR 15 40 07.7
comp=Z,8.0nm,18.2s,baz=288,slow=38
**KLR Kul'dur 22.84 82**⇓*e*P P 15 30 39.7 -5.9
**AKTO Aktyubinsk 23.59 282** P **P 15 30 54.2 +1.1**
comp=Z,18nm,1.0s,baz=87,slow=8.2,SNR=32
**TIXI Tiksi 24.69 24** P **P 15 31 02.3 -0.8**
comp=Z,19nm,0.6s,baz=249,slow=4.8,SNR=15
TIXI LR LR 15 40 47.2
comp=Z,82nm,19.1s,baz=246,slow=37
**TIXI Tiksi 24.69 24**⇓*e*P **P 15 31 02.1 -1.1**
TIXI pmax pmax
comp=Z,21nm,0.7s
**TIXI Tiksi 24.69 24** *e*P **P 15 31 01.3 -1.8**
comp=Z,22nm,0.7s
**GUN Gumba 25.04 201** *e*P **P 15 31 09.8 +2.8**
comp=Z,18nm,1.0s
**DANN Dangsing 25.14 206** *e*P **P 15 31 09.5 +1.6**
comp=Z,1.7nm,0.9s
**USRK Ussuriysk Ar. 25.16 93** P **P 15 31 05.5 -2.1**
comp=Z,3.3nm,0.6s,baz=290,slow=7.9,SNR=8.6
**TAPN Taplejung 25.21 197** *e*P **P 15 31 10.1 +1.6**
comp=Z,24nm,1.0s
**JIRN Jiri 25.21 200** *e*P **P 15 31 11.2 +2.6**
**KKN Kakani 25.29 202** *e*P **P 15 31 10.5 +1.3**
comp=Z,5.6nm,0.5s
**PKIN Phulchoki 25.47 202** *e*P **P 15 31 11.1 +0.2**
comp=Z,11nm,1.0s
**PKI Pulchoki 25.47 202** *e*P **P 15 31 11.9 +0.9**
comp=Z,14nm,0.9s
**PYUN Piuthan 25.59 207** *e*P **P 15 31 12.0 +0.1**
comp=Z,13nm,0.8s
**KOLN Koldanda 25.73 206** *e*P **P 15 31 12.4 -0.8**
comp=Z,26nm,1.2s
**ODAN Odare 25.74 198** *e*P **P 15 31 12.3 -1.0**
comp=Z,27nm,1.1s
**RAMN Ramite 25.81 199** *e*P **P 15 31 12.3 -1.7**
comp=Z,12nm,0.9s
**NJ2 Nanjing 25.97 131** *e*P **P 15 31 12.8 -2.3**
NJ2 pmax pmax
comp=Z,13nm,0.9s
**KSAR Wonju Array Be 26.71 110** P **P 15 31 19.5 -2.3**
**KSAR Wonju Array Be 26.71 110** P **P 15 31 19.5 -2.3**
**KSRS Korea Array 26.73 110** P **P 15 31 19.5 -2.4**
comp=Z,1.6nm,0.8s,baz=330,slow=7.2,SNR=5.0
**KMI Kunming 27.19 166** P **P 15 31 25.0 -1.4**
KMI pmax pmax
comp=Z,10.0nm,0.5s
**BRDH Bariadhala 29.29 188** LR LR 15 45 39.1
comp=Z,81nm,18.2s,baz=324,slow=41
**SEY Seymchan 31.38 47**⇑*e*P **P 15 32 00.0 -3.0**
**CMAR Chiang Mai Arr 33.40 175** P **P 15 32 20.6 -0.5**
comp=Z,0.7nm,1.0s,baz=357,slow=10,SNR=6.3
CMAR LR LR 15 46 45.7
comp=Z,44nm,18.6s,baz=315,slow=38
**OBN Obninsk 34.50 299** *e*P **P 15 32 30.4 +0.1**
OBN *e* 15 32 39.0
OBN pmax pmax
comp=Z,5.0nm,0.8s
OBN MLR MLR
comp=Z,165nm,16.0s
**ZEI Tsey 35.66 276** *e*P **P 15 32 41.1 +0.4**
ZEI pmax pmax
comp=Z,9.0nm,0.8s
**KBZ Khabaz 35.77 278** P **P 15 32 43.9 +2.6**
comp=Z,4.0nm,0.9s,baz=66,slow=2.7,SNR=6.9
**KIV Kislovodsk 35.78 279** *e*P **P 15 32 39.7 -1.9**
KIV pmax pmax
comp=Z,11nm,1.0s
**NEY Neytrino 36.13 278**⇓*e*P **P 15 32 42.3 -2.4**
NEY pmax pmax
comp=Z,3.0nm,0.9s
**ARCES ARCESS Array B 36.13 326** P **P 15 32 45.4 +1.1**
comp=Z,3.5nm,0.8s,baz=75,slow=8.5,SNR=3.7
**BILL Bilibino 36.42 37**⇑*e*P P 15 32 42.5 -4.2
BILL pmax pmax
comp=Z,5.0nm,1.9s
BILL MLR MLR
comp=Z,66nm,18.0s
**GNI Garni 36.63 272**⇓*e*P **P 15 32 46.7 -2.3**
GNI pmax pmax
comp=Z,12nm,1.5s
**PETK Petropavlovsk- 36.68 63** P **P 15 32 49.2 +0.1**
comp=Z,4.9nm,0.8s,baz=264,slow=9.3,SNR=3.4
PETK LR LR 15 47 23.1
comp=Z,61nm,20.1s,baz=288,slow=36
**FINES FINESS Array B 37.72 313** P **P 15 32 59.1 +1.3**
comp=Z,2.2nm,0.6s,baz=70,slow=8.3,SNR=16
**ARTV Artvin 37.77 275** *e*P **P 15 32 59.4 +0.6**
comp=Z,4.7nm,1.1s
**KOPT Kop Dagi 39.34 275** *e*P **P 15 33 13.6 +1.6**
comp=Z,9.2nm,0.7s
**AKASG Malin Array Be 40.36 296** P **P 15 33 20.8 +0.8**
comp=Z,0.9nm,0.4s,baz=55,slow=8.8,SNR=6.8
**KIEV Kiev 40.37 296**⇓*e*P **P 15 33 19.8 -0.3**
KIEV pmax pmax
comp=Z,4.0nm,1.1s
**BR131 Keskin Array S 43.73 279** *e*P **P 15 33 49.7 +1.8**
**BRTR Keskin Array B 43.73 279** P **P 15 33 49.3 +1.4**
comp=Z,8.5nm,0.8s,baz=81,slow=6.3,SNR=26
**HFS Hagfors 43.82 314** P **P 15 33 49.8 +1.6**
comp=Z,3.9nm,0.7s,baz=66,slow=4.9,SNR=7.1
**BUR08 Bucovina Ar. S 44.19 294** *e*P **P 15 33 51.5 +0.1**
**BURAR Bucovina Array 44.20 294**⇑*i*P **P 15 33 52.6 +1.1**
**BURAR Bucovina Array 44.20 294**⇑P **P 15 33 52.6 +1.1**
**BUR04 Bucovina Ar. S 44.20 294** *e*P **P 15 33 51.5 0.0**
**VRI Vrincioaia 44.30 291** P **P 15 33 53.1 +1.0**
**NB2 NORSAR Subarra 44.48 316** P **P 15 33 54.8 +1.3**
comp=Z,2.8nm,0.7s,baz=61,slow=7.9
**NOA NORSAR Array B 44.48 316** P **P 15 33 54.6 +1.1**
comp=Z,0.4nm,0.5s,baz=57,slow=18,SNR=6.0
**ARR Arges 45.79 291**⇑*i*P **P 15 34 06.1 +2.0**
**SIRR Siria 46.97 294**⇑*i*P **P 15 34 15.2 +1.9**
**BZS Buzias 47.38 293**⇑*i*P **P 15 34 18.9 +2.5**
**BZS Buzias 47.38 293** ⇑P **P 15 34 18.9 +2.5**
**RAYN Ar Rayn 47.55 253** *e*P **P 15 34 18.2 +0.1**
comp=Z,6.8nm,0.8s
**VRAC Vranov 48.02 300**⇑*i*P **P 15 34 23.0 +1.6**
**VRAC Vranov 48.02 300** ⇑P **P 15 34 23.0 +1.6**
**PRU Pruhonice 48.72 302** P **P 15 34 29.6 +2.8**
**CLL Collm 48.76 304** *e*P **P 15 34 29.0 +1.9**
**CLL Collm 48.76 304** *e*P **P 15 34 29.0 +1.9**
**GERES GERESS Array B 49.84 301** P **P 15 34 36.9 +1.4**
comp=Z,0.5nm,0.6s,baz=61,slow=8.4,SNR=3.8
**MOX Moxa 49.86 304** P **P 15 34 37.8 +2.3**
**WET Wettzell 50.09 302** P **P 15 34 39.6 +2.3**
WET pmax pmax
comp=Z,16nm,2.7s
**KBA Koelnbreinsper 51.09 299** P **P 15 34 46.3 +1.2**
KBA pmax pmax
comp=Z,14nm,2.6s
**COLD Coldfoot 51.38 27** *e*P **P 15 34 45.5 -1.2**
comp=Z,3.4nm,0.8s
**IL1 Eielson Array 54.09 28** *e*P **P 15 35 05.3 -1.5**
**ILAR Eielson Array 54.09 28** P **P 15 35 06.0 -0.8**
comp=Z,1.1nm,0.9s,baz=323,slow=3.6,SNR=10
ILAR PcP **PcP 15 36 09.9 -1.5**
comp=Z,0.4nm,0.7s,baz=319,slow=4.3,SNR=4.2
**INK Inuvik 54.71 20** P **P 15 35 09.8 -1.4**
comp=Z,2.8nm,0.8s,baz=342,slow=9.2,SNR=14
INK LR LR 16 00 39.6
comp=Z,31nm,18.6s,baz=186,slow=38
**INK Inuvik 54.71 20** *e*P **P 15 35 10.5 -0.7**
INK pmax pmax
comp=Z,18nm,1.8s
**INK Inuvik 54.71 20** *e*P **P 15 35 10.5 -0.7**
comp=Z,18nm,1.8s
**BNI Bardonecchia 55.96 301** *e*P **P 15 35 22.5 +1.7**
BNI pmax pmax
comp=Z,13nm,1.3s
**BNI Bardonecchia 55.96 301** *e*P **P 15 35 22.5 +1.7**
comp=Z,13nm,1.3s
**YKA Yellowknife Ar 63.50 15** P **P 15 36 11.0 -1.2**
comp=Z,0.6nm,0.8s,baz=338,slow=7.3,SNR=9.0
YKA LR LR 16 06 10.9
comp=Z,6.1nm,18.0s,baz=0.0,slow=38
**ESDC Sonseca Array 65.33 303** P **P 15 36 24.9 +0.2**
comp=Z,0.2nm,0.3s,baz=45,slow=6.9,SNR=4.1
**KMBO Kilima Mbogo 72.05 244***ce*P **P 15 37 07.0 0.0**
KMBO pmax pmax
comp=Z,1.0nm,0.3s
**FFC Flin Flon 72.78 11** *i* P **P 15 37 10.1 -0.5**
**WRA Warramunga Arr 79.00 143** P **P 15 37 44.1 -2.3**
comp=Z,2.1nm,0.9s,baz=343,slow=6.2,SNR=10
**WRA Warramunga Arr 79.00 143** *i* P P 15 37 42.7 -3.7
WRA pmax pmax
comp=Z,2.0nm,0.7s
**ASAR Alice Springs 82.26 145** P **P 15 38 01.4 -2.4**
comp=Z,1.7nm,0.7s,baz=330,slow=5.2,SNR=18
**AS01 Alice Springs 82.27 145** *e*P **P 15 38 01.6 -2.3**
**TOA0 Torodi Ar. Sit 82.31 281** *e*P **P 15 38 03.5 -0.9**
**TORD Torodi Ar. Bea 82.31 281** P **P 15 38 03.8 -0.6**
comp=Z,2.7nm,0.7s,baz=33,slow=4.5,SNR=18
**NVAR Mina Array Bea 85.30 26** P **P 15 38 19.4 -0.3**
comp=Z,0.8nm,0.8s,baz=334,slow=4.9,SNR=4.4
**CPUP Villa Florida 147.43 311** PKPbc **PKPdf 15 45 25.6 +1.8**
comp=Z,2.1nm,1.0s,baz=326,slow=2.8,SNR=3.4

---

*NEIC* ***28*** *15:29:35.4*±*0.6,51.59N*×*96.37E,h10km,mb4.3/1,Error ellipse: s-maj=17.4km s-min=7.1km az=190.0*
*MOS* ***28*** *15:29:36.2*±*1.5,51.82N*×*95.88E,h10km,mb4.1/4,Error ellipse: s-maj=24.5km s-min=18.2km az=157.9*
*IDC* ***28*** *15:29:36.6*±*0.8,51.84N*×*95.98E,h0km,mb3.8/6, mb1 3.9/8,mb1mx3.5/51,mbtmp3.9/8,MS3.2/2,Ms1 3.2/2, ms1mx2.7/43,Error ellipse: s-maj=24.6km s-min=11.1km az=1.0*
*OBM* ***28*** *15:29:38.3*±*0.2,51.77N*×*95.73E,h2km,Ml3.9/1,Error ellipse: s-maj=3.5km s-min=2.0km az=173.0*

**ISC 28 15:29:39.2**±0.7**,52.03N**±0.06**×95.74E**±0.04**,h10km,n42,**
**σ2s17/31,mb3.9/6,3C,Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **HVS** | **Khovu-Aksy** | **1.56** | **236** | *c i* | PG | **Pn** | **15 30 04.9** | **-2.1** |
| **ORL** | **Orlik** | **2.55** | **77** | *e* | PN | **Pn** | **15 30 21.3** | **+0.6** |
| ORL | | | | *e* | | | 15 30 52.5 | |
| ORL | | | | pmax | pmax | | | |
| | comp=Z,152nm,0.5s | | | | | | | |
| ORL | | | | smax | smax | | | |
| | comp=N,836nm,1.0s | | | | | | | |
| **ULG** | **Ulaangom** | **3.12** | **230** | *e* | Pn | **Pn** | **15 30 28.6** | **+0.1** |
| ULG | | | | *e* | Sg | **Sn** | **15 31 09.5** | **+3.7** |
| **HTG** | **Hatgal** | **3.20** | **118** | *e* | Pn | **Pn** | **15 30 31.0** | **+1.3** |
| HTG | | | | *e* | Sg | **Sn** | **15 31 11.0** | **+3.1** |
| **MOY** | **Mondy** | **3.28** | **94** | ⇑*i* | PN | **Pn** | **15 30 33.1** | **+2.4** |
| MOY | | | | *e* | | | 15 31 15.3 | |
| MOY | | | | pmax | pmax | | | |
| | comp=Z,118nm,0.8s | | | | | | | |
| MOY | | | | smax | smax | | | |
| | comp=N,769nm,0.9s | | | | | | | |
| **TSC** | **Tosontsengel** | **3.64** | **153** | *e* | Pg | **Sb** | **15 31 25.7** | **-2.3** |
| **BYO** | **Bayan-Olgiy** | **4.80** | **232** | *e* | Pg | **Pb** | **15 31 04.2** | **+0.6** |
| BYO | | | | *e* | Sg | **Sb** | **15 31 01.7** | **+0.3** |
| **HBD** | **Hovd** | **4.81** | **215** | *e* | Sg | **Sb** | **15 32 00.2** | **-1.5** |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **TLY** | **Talaya** | **4.91** | **91** | Pg | | **Pb** | **15 31 01.4** | **-3.9** | |
| | comp=N,0.0nm,0.3s,baz=285,slow=11,SNR=3.0 | | | | | | | | |
| TLY | | | | Lg | | Lg | 15 32 05.8 | | |
| | comp=N,0.1nm,0.3s,baz=20,slow=21,SNR=9.5 | | | | | | | | |
| **TLY** | **Talaya** | **4.91** | **91** | *e*PN | | **Pb** | **15 31 03.0** | **-2.3** | |
| TLY | | | | *e* | | | 15 32 04.1 | | |
| TLY | | | | pmax | pmax | | | | |
| | comp=Z,31nm,0.4s | | | | | | | | |
| TLY | | | | smax | smax | | | | |
| | comp=N,126nm,0.8s | | | | | | | | |
| **TLY** | **Talaya** | **4.91** | **91** | *e*Pg | | **Pb** | **15 31 02.4** | **-3.0** | |
| TLY | | | | Lg | | Lg | 15 32 05.8 | | |
| **ZAK** | **Zakamensk** | **5.02** | **106** | *e*PN | | **Pb** | **15 31 04.7** | **-2.5** | |
| ZAK | | | | *e* | | | 15 32 07.9 | | |
| ZAK | | | | pmax | pmax | | | | |
| | comp=Z,93nm,1.1s | | | | | | | | |
| ZAK | | | | smax | smax | | | | |
| | comp=N,448nm,1.4s | | | | | | | | |
| **TTS** | **Tsetserleg** | **5.87** | **139** | *e*Sg | | **Sb** | **15 32 32.0** | **0.0** | |
| **BLGM** | **Bulgan** | **5.95** | **120** | *e*Pg | | **Pb** | **15 31 20.8** | **-2.1** | |
| BLGM | | | | *e*Sg | | **Sb** | **15 32 39.9** | **+5.7** | |
| **ZALV** | **Zalesovo Beam** | **6.87** | **291** | Pn | | **Pn** | **15 31 22.1** | **+2.3** | |
| | baz=101,slow=12,SNR=2.0 | | | | | | | | |
| ZALV | | | | Lg | | Lg | 15 33 13.3 | | |
| | comp=N,2.4nm,0.3s,baz=117,slow=24,SNR=3.9 | | | | | | | | |
| ZALV | | | | LR | | LR | 15 33 43.9 | | |
| | comp=N,58nm,21.9s,baz=114,slow=35 | | | | | | | | |
| **SONB5** | **Songino Array** | **8.03** | **117** | *e*Sg | | Sb | 15 33 45.1 | +11 | |
| | comp=N,127nm,0.9s | | | | | | | | |
| **SONB4** | **Songino Array** | **8.04** | **117** | *e*Sg | | Sb | 15 33 45.0 | +11 | |
| | comp=N,168nm,1.0s | | | | | | | | |
| **SONB1** | **Songino Array** | **8.04** | **117** | *e*Sg | | Sb | 15 33 46.0 | +11 | |
| | comp=N,170nm,0.9s | | | | | | | | |
| **SONA0** | **Songino Array** | **8.06** | **117** | *e*Sg | | Sb | 15 33 43.8 | +9.0 | |
| | comp=N,164nm,1.0s | | | | | | | | |
| **SONA3** | **Songino Array** | **8.06** | **117** | *e*Sg | | Sb | 15 33 46.1 | +11 | |
| | comp=N,159nm,1.0s | | | | | | | | |
| **SONM** | **Songino Array** | **8.06** | **117** | Pg | | **Pb** | **15 31 58.3** | **-0.5** | |
| | comp=N,2.0nm,0.3s,baz=306,slow=18,SNR=4.3 | | | | | | | | |
| SONM | | | | Lg | | Lg | 15 33 45.5 | | |
| | comp=N,3.6nm,0.3s,baz=293,slow=31,SNR=9.3 | | | | | | | | |
| **SONA4** | **Songino Array** | **8.06** | **117** | *e*Sg | | Sb | 15 33 45.7 | +11 | |
| | comp=N,156nm,1.0s | | | | | | | | |
| **SONB2** | **Songino Ar. Si** | **8.06** | **117** | *e*Sg | | Sb | 15 33 46.0 | +11 | |
| | comp=N,196nm,0.9s | | | | | | | | |
| **SONB3** | **Songino Array** | **8.07** | **117** | *e*Sg | | Sb | 15 33 46.4 | +11 | |
| | comp=N,183nm,1.1s | | | | | | | | |
| **ALFM** | | **8.18** | **115** | *e*Sg | | Sb | 15 33 45.9 | +7.4 | |
| **ULN** | **Ulaanbaatar** | **8.40** | **115**‖ | *e*P | | Pn | 15 31 51.8 | +11 | |
| **ARTM** | | **8.49** | **114** | *e*Sg | | Sg | 15 33 57.4 | -14 | |
| **UGDM** | | **8.72** | **116** | *e*Sg | | Sg | 15 34 04.2 | -15 | |
| **MKAR** | **Makanchi Array** | **10.21** | **244** | Pn | | **Pn** | **15 32 05.4** | **-0.3** | |
| | baz=45,slow=16,SNR=1.5 | | | | | | | | |
| **KURK** | **Kurchatov** | **10.79** | **270** | Lg | | Lg | 15 35 23.1 | | |
| **KURBB** | **Kurchatov Arra** | **10.86** | **269** | Lg | | Lg | 15 35 23.1 | | |
| | comp=N,0.1nm,0.3s,baz=78,slow=33,SNR=5.7 | | | | | | | | |
| **CIT** | **Chita** | **10.98** | **83** | *e*P | | **Pn** | **15 32 15.7** | **-0.6** | |
| **ARU** | **Arti** | **21.98** | **296** | P | | **P** | **15 34 34.6** | **+1.6** | |
| | comp=N,2.6nm,0.6s,baz=81,slow=4.0,SNR=4.2 | | | | | | | | |
| **AKTO** | **Aktyubinsk** | **23.50** | **281** | P | | **P** | **15 34 49.6** | **+0.6** | |
| | comp=N,3.7nm,0.6s,baz=85,slow=11,SNR=9.7 | | | | | | | | |
| **TIXI** | **Tiksi** | **24.53** | **25** | P | | **P** | **15 34 58.1** | **-0.3** | |
| | comp=N,3.2nm,0.6s,baz=221,slow=5.2,SNR=4.7 | | | | | | | | |
| **TIXI** | **Tiksi** | **24.53** | **25** | *e*P | | **P** | **15 34 57.8** | **-0.6** | |
| TIXI | | | | pmax | pmax | | | | |
| | comp=Z,4.0nm,0.7s | | | | | | | | |
| **TIXI** | **Tiksi** | **24.53** | **25** | *e*P | | **P** | **15 34 57.8** | **-0.6** | |
| | comp=Z,4.4nm,0.7s | | | | | | | | |
| **AKASG** | **Malin Array Be** | **40.23** | **295** | LR | | LR | 15 54 45.5 | | |
| | comp=Z,86nm,18.6s,baz=280,slow=37 | | | | | | | | |
| **NOA** | **NORSAR Array B** | **44.30** | **316** | P | | **P** | **15 37 49.6** | **+0.8** | |
| | comp=Z,1.6nm,0.8s,baz=79,slow=7.4,SNR=3.2 | | | | | | | | |
| **NOA** | **NORSAR Array B** | **44.30** | **316** | P | | **P** | **15 37 49.6** | **+0.8** | |
| NOA | | | | pmax | pmax | | | | |
| | comp=Z,1.0nm,0.6s | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **82.22** | **281** | P | | **P** | **15 42 00.0** | **-0.7** | |
| | comp=Z,0.5nm,0.8s,baz=29,slow=6.4,SNR=2.8 | | | | | | | | |
| **ASAR** | **Alice Springs** | **82.45** | **145** | P | | **P** | **15 41 59.4** | **-2.2** | |
| | comp=Z,0.4nm,0.9s,baz=319,slow=5.1,SNR=3.3 | | | | | | | | |

*ISCJB **28** 15:35:22.8±0.8,26°.33N±0°.05×111°.70W±0°.09,h10km, mb3.1/2, Error ellipse: s-maj=12.6km s-min=5.9km az=156.9*

*IDC **28** 15:35:22.0±1.6,26°.19N×111°.66W,h0km,mb3.1/2, mb1 3.7/6,mb1mx3.6/45,mbtmp3.3/6,ML3.5/4,MS3.1/3, Ms1 3.1/3,ms1mx2.9/9, Error ellipse: s-maj=41.4km s-min=13.9km az=63.0*

*NEIC **28** 15:35:23.0±0.0,26°.17N×111°.84W,h5km,MD4.0(MEX), After MEX.*

*MEX **28** 15:35:23.0±0.6,26°.17N×111°.84W,h5km±26km, MD4.0*

**ISC 28 15:35:21.3±1.0,26°21N±0°.05×111°9W±0°.1,h10km,n13, σ1s93/18,Gulf of California**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **SRIG** | **Santa Rosalia** | **1.16** | **344** | *e*P | | **Pb** | **15 35 42.4** | **-1.1** |
| SRIG | | | | *e*S | | **Sb** | **15 35 58.0** | **-0.5** |
| **SRIG** | **Santa Rosalia** | **1.16** | **344** | *e*P | | **Pb** | **15 35 42.4** | **-1.1** |
| SRIG | | | | *e*S | | **Sb** | **15 35 58.0** | **-0.5** |
| **GUYB** | **Guaymas** | **1.91** | **28** | *e*P | | **Pn** | **15 35 53.0** | **-0.9** |
| GUYB | | | | *i* S | | **Sn** | **15 36 16.3** | **-1.7** |
| **LPIG** | **La Paz** | **2.53** | **146** | Pn | | **Pn** | **15 36 03.8** | **+1.3** |
| | 15nm,0.3s,baz=339,slow=8.6,SNR=3.7 | | | | | | | |
| LPIG | | | | Lg | | Lg | 15 36 38.2 | |
| | 37nm,0.3s,baz=5.9,slow=22,SNR=12 | | | | | | | |
| LPIG | | | | LR | | LR | 15 37 04.6 | |
| | comp=Z,120nm,20.3s,baz=299,slow=42 | | | | | | | |
| **LPIG** | **La Paz** | **2.53** | **146** | *e*P | | **Pb** | **15 36 05.8** | **-1.1** |
| LPIG | | | | *e*S | | **Sb** | **15 36 36.9** | **-1.2** |
| **LPIG** | **La Paz** | **2.53** | **146** | *e*P | | **Pb** | **15 36 05.8** | **-1.1** |
| LPIG | | | | *e*S | | **Sb** | **15 36 36.9** | **-1.2** |
| LPIG | | | | Lg | | Lg | 15 36 38.2 | |
| **TUC** | **Tucson** | **6.16** | **9** | *e*Pn | | **Pn** | **15 36 53.8** | **+1.3** |
| **MNTX** | **Cornudas Mount** | **7.89** | **45** | *e*Pn | | **Pn** | **15 37 18.1** | **+1.8** |
| | 3.6nm,0.5s | | | | | | | |
| **TXAR** | **Lajitas Array** | **7.91** | **65** | Pn | | **Pn** | **15 37 16.8** | **+0.2** |
| | 0.2nm,0.3s,baz=242,slow=14,SNR=12 | | | | | | | |
| TXAR | | | | LR | | LR | 15 40 24.2 | |
| | comp=Z,250nm,20.2s,baz=0.0,slow=39 | | | | | | | |
| **NVAR** | **Mina Array Bea** | **13.34** | **338** | Pn | | **P** | **15 38 36.6** | **-4.1** |
| | baz=143,slow=9.1,SNR=3.0 | | | | | | | |
| NVAR | | | | LR | | LR | 15 43 19.2 | |
| | comp=Z,108nm,18.9s,baz=90,slow=36 | | | | | | | |
| **PDAR** | **Pinedale Array** | **16.63** | **6** | Pn | | **P** | **15 39 20.6** | **+3.4** |
| | 0.0nm,0.3s,baz=167,slow=8.3,SNR=7.4 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **36.33** | **358** | P | | **P** | **15 42 26.5** | **+1.4** |
| | 0.1nm,0.5s,baz=179,slow=8.8,SNR=3.7 | | | | | | | |
| **ILAR** | **Eielson Array** | **44.59** | **339** | P | | **P** | **15 43 35.9** | **+2.6** |
| | 0.2nm,0.6s,baz=142,slow=10,SNR=4.6 | | | | | | | |

**IDC 28 15:48:23.3±1.6,51°.73N×96°.17E,h0km,mb3.7/2, mb1 3.3/4,mb1mx3.1/43,mbtmp3.3/4,ML2.5/2,MS3.3/2, Ms1 3.3/2,ms1mx2.7/33,Error ellipse: s-maj=29.3km s-min=18.1km az=173.0,Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **ZALV** | **Zalesovo Beam** | **7.23** | **292** | Pn | | Pn | 15 50 11.3 | +1.2 |
| | 0.2nm,0.3s,baz=106,slow=15,SNR=3.1 | | | | | | | |
| ZALV | | | | Sn | | Sn | 15 51 34.5 | +1.7 |
| | 0.4nm,0.3s,baz=109,slow=20,SNR=3.4 | | | | | | | |
| ZALV | | | | Lg | | Lg | 15 52 03.2 | |
| | 0.7nm,0.3s,baz=105,slow=22,SNR=8.5 | | | | | | | |
| **SONM** | **Songino Array** | **7.68** | **117** | Pg | | Pb | 15 50 43.1 | +5.7 |
| | 0.2nm,0.3s,baz=306,slow=20,SNR=3.6 | | | | | | | |
| SONM | | | | Lg | | Lg | 15 52 27.5 | |
| | 0.4nm,0.3s,baz=301,slow=29,SNR=13 | | | | | | | |
| **MKAR** | **Makanchi Array** | **10.33** | **247** | Pn | | Pn | 15 50 53.6 | +1.0 |
| | 0.1nm,0.3s,baz=67,slow=11,SNR=6.5 | | | | | | | |
| MKAR | | | | Lg | | Lg | 15 53 47.8 | |
| | 0.2nm,0.3s,baz=60,slow=32,SNR=6.0 | | | | | | | |
| **AKTO** | **Aktyubinsk** | **23.83** | **282** | P | | P | 15 53 36.3 | -1.4 |
| | 0.8nm,0.5s,baz=75,slow=12,SNR=6.0 | | | | | | | |
| **TIXI** | **Tiksi** | **24.69** | **24** | P | | P | 15 53 45.4 | -0.1 |
| | 0.9nm,0.3s,baz=237,slow=6.0,SNR=2.5 | | | | | | | |
| **KSRS** | **Korea Array** | **26.48** | **110** | LR | | LR | 16 05 53.6 | |
| | comp=Z,36nm,19.1s,baz=334,slow=40 | | | | | | | |
| **PETK** | **Petropavlovsk-** | **36.53** | **63** | LR | | LR | 16 10 32.4 | |
| | comp=Z,58nm,18.8s,baz=77,slow=36 | | | | | | | |

*DDA **28** 16:10:11.1,38°.76N×43°.71E,h7km,Ml2.9*

*ISCJB **28** 16:10:12.9±0.7,38°.72N±0°.03×43°.64E±0°.06, h8km±5km, Error ellipse: s-maj=7.6km s-min=4.2km az=5.9*

*CSEM **28** 16:10:12.4±0.5,38°.69N×43°.61E,h10km,MD2.6, Error ellipse: s-maj=10.4km s-min=6.7km az=101.0*

*ISK **28** 16:10:12.7,38°.69N×43°.51E,h14km, MD2.6*

**ISC 28 16:10:12.6±1.1,38°.71N±0°.02×43°.67E±0°.04,h6km±9km, n24,σ1s09/44,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **VANB** | **Van** | **0.25** | **242** | *e*PG | | **Pg** | **16 10 17.6** | **+0.1** |
| **VANB** | **Van** | **0.25** | **242** | *e*Pg | | **Pg** | **16 10 17.6** | **+0.1** |
| **TVAN** | **Van** | **0.27** | **228** | *i* P | | **Pg** | **16 10 17.7** | **-0.4** |
| TVAN | | | | *i* S | | **Sg** | **16 10 22.9** | **+1.2** |
| **TVAN** | **Van** | **0.27** | **228** | P | | **Pg** | **16 10 17.7** | **-0.4** |
| TVAN | | | | S | | **Sg** | **16 10 22.9** | **+1.2** |
| **VMUR** | **Van-Muradiye** | **0.29** | **345** | *i* P | | **Pg** | **16 10 17.3** | **-1.1** |
| VMUR | | | | *i* S | | **Sg** | **16 10 23.2** | **+1.0** |
| **VMUR** | **Van-Muradiye** | **0.29** | **345** | P | | **Pg** | **16 10 17.3** | **-1.1** |
| VMUR | | | | S | | **Sg** | **16 10 23.2** | **+1.0** |
| **CLDR** | **Caldiran** | **0.47** | **24** | *e*PG | | **Pb** | **16 10 24.1** | **+0.6** |
| CLDR | | | | *e*SG | | **Sb** | **16 10 32.2** | **+1.3** |
| **CLDR** | **Caldiran** | **0.47** | **24** | *e*Pg | | **Pb** | **16 10 24.2** | **+0.6** |
| CLDR | | | | *e*Sg | | **Sb** | **16 10 32.2** | **+1.3** |
| **GEVA** | **Gevas** | **0.62** | **230** | *i* P | | **Pg** | **16 10 23.2** | **-1.4** |
| GEVA | | | | *i* S | | **Sb** | **16 10 34.8** | **-0.3** |
| **GEVA** | **Gevas** | **0.62** | **230** | P | | **Pg** | **16 10 23.2** | **-1.4** |
| GEVA | | | | S | | **Sb** | **16 10 34.8** | **-0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.74** | **278** | *i* P | | **Pg** | **16 10 25.4** | **-1.6** |
| ADCV | | | | *i* S | | **Sg** | **16 10 37.5** | **+0.9** |
| **ADCV** | **BITLIS_Adilcev** | **0.74** | **278** | P | | **Pg** | **16 10 25.4** | **-1.6** |
| ADCV | | | | S | | **Sg** | **16 10 37.5** | **+0.9** |
| **TUTA** | **Tutak** | **0.96** | **316** | *i* P | | **Pg** | **16 10 28.8** | **-2.2** |
| TUTA | | | | *i* S | | **Sg** | **16 10 42.5** | **-1.0** |
| **TUTA** | **Tutak** | **0.96** | **316** | P | | **Pg** | **16 10 28.8** | **-2.2** |
| TUTA | | | | S | | **Sg** | **16 10 42.5** | **-1.0** |
| **AGRB** | **Hanur-Agry** | **1.01** | **329** | *e*PG | | **Pg** | **16 10 31.8** | **-0.3** |
| AGRB | | | | *e*SG | | **Sb** | **16 10 46.0** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **1.01** | **329** | *e*Pg | | **Pg** | **16 10 31.8** | **-0.3** |
| AGRB | | | | *e*Sg | | **Sb** | **16 10 46.0** | **-0.3** |
| **HAKT** | **HAKKARI** | **1.15** | **178** | *i* P | | **Pg** | **16 10 33.5** | **-1.3** |
| HAKT | | | | *i* S | | **Sn** | **16 10 51.9** | **+0.2** |
| **HAKT** | **HAKKARI** | **1.15** | **178** | P | | **Pg** | **16 10 33.5** | **-1.3** |
| HAKT | | | | S | | **Sn** | **16 10 51.9** | **+0.2** |
| **EKAR** | **Karacoban** | **1.36** | **294** | *i* P | | **Pg** | **16 10 38.3** | **-0.5** |
| EKAR | | | | *i* S | | **Sb** | **16 10 57.1** | **+0.6** |
| **EKAR** | **Karacoban** | **1.36** | **294** | P | | **Pg** | **16 10 38.3** | **-0.5** |
| EKAR | | | | S | | **Sb** | **16 10 57.1** | **+0.6** |
| **SIRT** | **Sirnak** | **1.55** | **219** | *e*PN | | **Pn** | **16 10 39.3** | **-1.6** |
| **SIRT** | **Sirnak** | **1.55** | **219** | *e*Pn | | **Pn** | **16 10 39.3** | **-1.6** |
| **BTMN** | **Batman** | **2.06** | **247** | *i* P | | **Pn** | **16 10 47.9** | **+0.1** |
| BTMN | | | | *i* S | | **Sn** | **16 11 15.2** | **+1.4** |
| **BTMN** | **Batman** | **2.06** | **247** | P | | **Pn** | **16 10 47.9** | **+0.1** |
| BTMN | | | | S | | **Sn** | **16 11 15.2** | **+1.4** |

*ISCJB **28** 16:18:59.0±0.8, 16°.7N±0°.1×93°.79W±0°.07,h147km±6km, mb3.9/2, Error ellipse: s-maj=19.1km s-min=9.0km az=17.1*

*IDC **28** 16:18:58.8±3.7, 16°.62N×93°.80W,h144km±43km,mb2.8/1, mb1 3.2/2,mb1mx2.8/30,mbtmp3.3/2,MS3.4/1,Ms1 3.4/1, ms1mx2.5/40,Error ellipse: s-maj=144.8km s-min=59.7km az=52.0*

*MEX **28** 16:19:01.7±0.4, 16°.66N×93°.82W,h143km±7km, MD4.1*

**ISC 28 16:18:59.6±1.0,16°.7N±0°.1×93°.81W±0°.07,h146km±8km,n9, σ0s59/13,Chiapas**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **TGIG** | | **0.66** | **82** | *e*P | | **Pn** | **16 19 22.0** | **+0.5** |
| TGIG | | | | *e*S | | **Sn** | **16 19 37.7** | **-0.4** |
| **TGBT** | **Tuxtla Gutierr** | **0.69** | **82** | *i* P | | **Pn** | **16 19 22.2** | **+0.6** |
| TGBT | | | | *i* S | | **Sn** | **16 19 38.2** | **-0.1** |
| **CMIG** | **Matias Romero** | **1.11** | **292** | P | | **Pn** | **16 19 24.9** | **0.0** |
| | baz=114,slow=9.6 | | | | | | | |
| CMIG | | | | S | | **Sn** | **16 19 43.5** | **-0.8** |
| | 49nm,0.3s,baz=282,slow=20,SNR=26 | | | | | | | |
| **PCIG** | | **1.12** | **150** | *e*P | | **Pn** | **16 19 25.4** | **+0.3** |
| PCIG | | | | *e*S | | **Sn** | **16 19 44.2** | **-0.3** |
| **VHO** | **Vista Hermosa** | **2.83** | **278** | *e*P | | **Pn** | **16 19 45.6** | **+0.8** |
| VHO | | | | *i* S | | **Sn** | **16 20 19.6** | **-0.1** |
| **TXAR** | **Lajitas Array** | **15.51** | **326** | P | | **P** | **16 22 32.6** | **+0.8** |
| | baz=148,slow=14,SNR=5.0 | | | | | | | |
| **PCRV** | **Puerto La Cruz** | **29.08** | **99** | LR | | LR | 16 36 53.5 | |
| | comp=Z,72nm,20.6s,baz=262,slow=37 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **48.03** | **347** | P | | **P** | **16 27 23.3** | **-0.3** |
| | 0.2nm,0.5s,baz=153,slow=7.3,SNR=4.9 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **84.14** | **18** | P | | **P** | **16 31 13.4** | **-0.5** |
| | 23nm,1.3s,baz=286,slow=3.7,SNR=4.2 | | | | | | | |

*MAN **28** 16:27:29, 7°.07N×127°.13E,h100km,mb5.3,ML4.3,MS4.5*

*MOS **28** 16:27:33.9±0.9, 7°.44N×126°.54E,h57km,mb4.8/23, Error ellipse: s-maj=15.9km s-min=6.9km az=109.7*

*ISCJB **28** 16:27:37.6±0.6, 7°.43N±0°.03×126°.66E±0°.05,h90km±4km, mb4.5/68, Error ellipse: s-maj=8.4km s-min=5.2km az=170.0*

*NEIC **28** 16:27:38.9±0.8, 7°.46N×126°.57E,h85km±8km,mb4.7/18, Error ellipse: s-maj=8.5km s-min=5.0km az=74.0*

*IDC **28** 16:27:39.0±1.1, 7°.48N×126°.68E,h83km±9km,mb4.1/29, mb1 4.2/29,mb1mx4.1/41,mbtmp4.4/29,MS3.5/11, Ms1 3.5/11,ms1mx3.3/33,Error ellipse: s-maj=14.0km s-min=9.4km az=79.0*

**ISC 28 16:27:38.0±0.6,7°.36N±0°.04×126°.73E±0°.06,h81km±4km, n150,σ2s00/179,mb4.5/67,15C-7D,Mindanao**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **MATI** | **Mati** | **0.62** | **229** | *e*P | | **Pn** | **16 27 49.1** | **-3.8** |
| MATI | | | | *e*S | | **Sn** | **16 27 58.5** | **-5.5** |
| **DAV** | **Davao City (W)** | **1.17** | **256** | P | | **Pn** | **16 27 58.3** | **-0.9** |
| | 424nm,0.3s,baz=61,slow=2.5,SNR=126 | | | | | | | |
| DAV | | | | S | | **Sn** | **16 28 17.0** | **+1.8** |
| | 1μm,0.3s,baz=72,slow=20,SNR=21 | | | | | | | |
| **DMPH** | **Davao City--Mi** | **1.24** | **257**‖ | *e*P | | **Pn** | **16 28 03.4** | **+3.3** |
| DMPH | | | | *e*S | | **Sn** | **16 28 20.8** | **+4.2** |
| **BUKP** | **Musuan** | **1.73** | **288** | *e*P | | **Pn** | **16 28 04.6** | **-1.9** |
| BUKP | | | | *e*S | | **Sn** | **16 28 31.2** | **+3.2** |
| **BUTP** | **Butuan** | **1.94** | **326** | *e*P | | **Pn** | **16 28 08.6** | **-0.5** |
| BUTP | | | | *e*S | | **Sn** | **16 28 37.0** | **+4.1** |
| **SCPH** | **Surigao** | **2.70** | **333**‖ | *e*P | | **Pn** | **16 28 17.9** | **-1.5** |
| **MSLP** | **Maasin** | **3.32** | **326** | *e*P | | **Pn** | **16 28 25.7** | **-2.1** |
| MSLP | | | | *e*S | | **Sn** | **16 29 10.0** | **+3.9** |
| **PAGZ** | **Pagadian** | **3.35** | **279** | *e*P | | **Pn** | **16 28 26.7** | **-1.5** |
| **TBP** | **Tagbilaran** | **3.66** | **310** | *e*P | | **Pn** | **16 28 37.0** | **+4.6** |
| TBP | | | | *e*S | | **Sn** | **16 29 20.4** | **+5.9** |
| **LLP** | **Lapu-Lapu** | **4.01** | **317**‖ | *i* P | | **Pn** | **16 28 36.2** | **-1.0** |
| LLP | | | | *e*S | | **Sn** | **16 29 25.4** | **+2.4** |
| **PLP** | **Palo** | **4.16** | **336**‖ | *e*P | | **Pn** | **16 28 37.2** | **-1.9** |
| PLP | | | | *e*S | | **Sn** | **16 29 30.6** | **+4.0** |
| **OCLP** | **Ormoc** | **4.22** | **330** | *e*P | | **Pn** | **16 28 38.8** | **-1.2** |
| OCLP | | | | *e*S | | **Sn** | **16 29 34.1** | **+6.0** |
| **BESP** | **Borongan** | **4.40** | **343** | *e*P | | **Pn** | **16 28 45.9** | **+3.3** |
| **RCP** | **Roxas** | **5.73** | **317**‖ | *e*P | | **Pn** | **16 29 00.5** | **-0.1** |
| **JAP** | **San Jose, Anti** | **5.80** | **306** | *e*P | | **Pn** | **16 29 01.2** | **-0.3** |
| **PVCP** | **Virac** | **6.70** | **338** | *e*P | | **Pn** | **16 29 15.4** | **+1.6** |
| **OTRP** | **Odiongan** | **6.80** | **317** | *e*P | | **Pn** | **16 29 15.0** | **-0.2** |
| **MYLDM** | **Lahad Datu** | **8.46** | **256** | *e*Pn | | **Pn** | **16 29 37.1** | **-0.8** |
| **TGY** | **Tagaytay City** | **8.79** | **320** | LR | | LR | 16 33 23.5 | |
| | comp=Z,341nm,19.7s,baz=109,slow=40 | | | | | | | |
| **LUWI** | **Luwuk** | **9.23** | **205** | *e*Pn | | **Pn** | **16 29 52.2** | **+3.8** |
| **KAPI** | **Kappang** | **14.12** | **210** | *e*Pn | | **Pn** | **16 30 54.9** | **+0.5** |
| **SOEI** | **Soe** | **17.18** | **188** | *e*Pn | | **P** | **16 31 35.1** | **+1.6** |
| | 41nm,0.9s | | | | | | | |
| **JOW** | **Kunigami** | **19.42** | **4** | *e*P | | **P** | **16 31 57.4** | **-0.6** |
| | 61nm,1.1s | | | | | | | |
| **QIZ** | **Qiongzhong** | **20.09** | **307** | P | | **P** | **16 32 04.3** | **-1.0** |
| QIZ | | | | pP | | **pP** | **16 32 21.8** | **+0.3** |
| QIZ | | | | sP | | **sP** | **16 32 31.3** | **-0.4** |
| QIZ | | | | S | | **S** | **16 35 44.8** | **-2.0** |
| QIZ | | | | pmax | pmax | | | |
| | comp=Z,42nm,2.5s | | | | | | | |
| QIZ | | | | LR | LR | | | |
| | comp=Z,310nm,4.0s | | | | | | | |
| **QIZ** | **Qiongzhong** | **20.09** | **307** | *e*Pn | | **P** | **16 32 05.9** | **+0.6** |
| **MTN** | **Manton Dam** | **20.54** | **168** | *e*P | | **P** | **16 32 11.7** | **+1.5** |
| | comp=Z,39nm,1.1s | | | | | | | |
| **SKNT** | **Sakolnakorn** | **24.17** | **295** | P | | **P** | **16 32 49.7** | **+2.7** |
| | comp=Z,14nm,1.1s | | | | | | | |
| **KHON** | **Khomkaen** | **25.01** | **293** | P | | **P** | **16 33 01.6** | **+6.9** |
| | comp=Z,9.4nm,0.8s | | | | | | | |
| **JNU** | **Nakatsue** | **25.93** | **8** | P | | **P** | **16 33 01.6** | **-1.2** |
| | comp=Z,13nm,0.8s,baz=128,slow=5.2,SNR=11 | | | | | | | |
| **JNU** | **Nakatsue** | **25.93** | **8** | *e*P | | **P** | **16 33 01.2** | **-1.5** |
| | comp=Z,13nm,0.8s | | | | | | | |
| **PMG** | **Port Moresby** | **26.30** | **129** | P | | **P** | **16 33 07.9** | **+1.6** |
| | comp=Z,5.7nm,0.7s,baz=318,slow=6.0,SNR=4.2 | | | | | | | |
| **PBKT** | **Sadao Pong** | **26.78** | **292** | P | | **P** | **16 33 14.7** | **+4.1** |
| | comp=Z,22nm,0.8s | | | | | | | |
| **PHET** | **Kaeng Krachan** | **27.23** | **284** | P | | **P** | **16 33 20.6** | **+5.9** |
| | comp=Z,6.0nm,1.0s | | | | | | | |
| **NANT** | **Nan** | **27.74** | **297** | P | | **P** | **16 33 24.4** | **+5.2** |
| | comp=Z,4.4nm,0.8s | | | | | | | |
| **UTHA** | **Uthaitani** | **27.93** | **289** | P | | **P** | **16 33 26.3** | **+5.4** |
| **WRAB** | **Tennant Creek** | **28.14** | **165**‖ | *e*P | | **P** | **16 33 23.2** | **+0.5** |
| WRAB | | | | pmax | pmax | | | |
| | comp=Z,26nm,2.6s | | | | | | | |
| **WRA** | **Warramunga Arr** | **28.14** | **165** | P | | **P** | **16 33 23.4** | **+0.7** |
| | comp=Z,2.2nm,0.7s,baz=347,slow=8.8,SNR=36 | | | | | | | |
| WRA | | | | PcP | | **PcP** | **16 36 36.6** | **+1.4** |
| | comp=Z,1.2nm,0.6s,baz=334,slow=2.6,SNR=5.7 | | | | | | | |
| WRA | | | | S | | **S** | **16 38 01.0** | **-1.4** |
| | comp=Z,0.3nm,0.5s,baz=341,slow=15,SNR=2.7 | | | | | | | |
| WRA | | | | ScP | | **ScP** | **16 40 11.0** | **+1.9** |
| | comp=Z,0.3nm,0.6s,baz=344,slow=2.7,SNR=2.8 | | | | | | | |
| **KMI** | **Kunming** | **28.93** | **310** | P | | **P** | **16 33 30.8** | **+0.8** |
| KMI | | | | pmax | pmax | | | |
| | comp=Z,13nm,0.5s | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **29.19** | **295** | P | | **P** | **16 33 32.6** | **+0.5** |
| | comp=Z,1.0nm,0.8s,baz=98,slow=7.3,SNR=11 | | | | | | | |
| CMAR | | | | PcP | | **PcP** | **16 36 39.6** | **+1.7** |
| | comp=Z,0.4nm,0.6s,baz=93,slow=1.3,SNR=8.0 | | | | | | | |
| CMAR | | | | ScP | | **ScP** | **16 40 15.0** | **+2.5** |
| | comp=Z,0.5nm,0.9s,baz=116,slow=4.1,SNR=3.7 | | | | | | | |
| CMAR | | | | LR | | LR | 16 45 31.8 | |
| | comp=Z,124nm,19.4s,baz=109,slow=37 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **29.19** | **295** | *e*P | | **P** | **16 33 33.2** | **+1.0** |
| CMAR | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.6s | | | | | | | |
| **INU** | **Inuyama** | **29.42** | **17** | *e*P | | **P** | **16 33 32.5** | **-1.4** |
| | comp=Z,12nm,0.8s | | | | | | | |
| **GSI** | **Gunungsitoli** | **29.67** | **260** | *e*P | | **P** | **16 33 35.5** | **-0.9** |
| | comp=Z,16nm,0.9s | | | | | | | |
| **KSAR** | **Wonju Array Be** | **29.97** | **2** | P | | **P** | **16 33 38.7** | **0.0** |
| **KSAR** | **Wonju Array Be** | **29.97** | **2** | P | | **P** | **16 33 38.7** | **0.0** |
| **KSRS** | **Korea Array** | **29.98** | **2** | P | | **P** | **16 33 38.7** | **-0.1** |
| | comp=Z,1.6nm,0.8s,baz=173,slow=8.6,SNR=5.4 | | | | | | | |
| KSRS | | | | LR | | LR | 16 45 05.6 | |
| | comp=Z,37nm,21.7s,baz=196,slow=35 | | | | | | | |
| **MAJO** | **Matsushiro** | **30.88** | **18**‖ | *e*P | | **P** | **16 33 45.7** | **-1.2** |
| MAJO | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,0.9s | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **30.88** | **18** | LR | | LR | 16 43 50.5 | |
| | comp=Z,41nm,21.9s,baz=240,slow=32 | | | | | | | |
| **AS31** | **Alice Springs** | **31.62** | **167** | *e*P | | **P** | **16 33 54.6** | **+1.1** |
| | comp=Z,1.1nm,0.8s | | | | | | | |
| **ASAR** | **Alice Springs** | **31.62** | **167** | P | | **P** | **16 33 54.5** | **+1.0** |
| | comp=Z,2.0nm,0.5s,baz=343,slow=7.3,SNR=59 | | | | | | | |
| ASAR | | | | PcP | | **PcP** | **16 36 45.5** | **+1.3** |
| | comp=Z,1.8nm,0.6s,baz=349,slow=2.4,SNR=14 | | | | | | | |
| ASAR | | | | S | | **S** | **16 38 55.7** | **-1.2** |
| | comp=Z,0.5nm,0.9s,baz=328,slow=12,SNR=3.6 | | | | | | | |
| ASAR | | | | ScP | | **ScP** | **16 40 21.7** | **+1.3** |
| | comp=Z,0.3nm,0.5s,baz=344,slow=3.5,SNR=4.7 | | | | | | | |
| **AS01** | **Alice Springs** | **31.63** | **167** | *e*P | | **P** | **16 33 54.2** | **+0.6** |
| AS01 | | | | *e*PcP | | **PcP** | **16 36 45.4** | **+1.2** |
| **CD2** | **Chengdu** | **31.79** | **320** | *e*P | | **P** | **16 33 56.0** | **+1.0** |
| CD2 | | | | S | | **S** | **16 38 57.0** | **-2.6** |
| CD2 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | comp=Z,4.0nm,0.7s | | | | | | | |
| **MAKZ** | **Makanchi** | **54.81** | **324** | *e*P | | **P** | **16 36 58.6** | **-1.2** |
| MAKZ | | | | pmax | | pmax | | |
| | comp=Z,8.0nm,1.0s | | | | | | | |
| **MAKZ** | **Makanchi** | **54.81** | **324** | *e*P | | **P** | **16 36 58.5** | **-1.2** |
| | comp=Z,8.0nm,1.0s | | | | | | | |
| **MA2** | **Magadan** | **55.21** | **15** | P | | **P** | **16 37 03.2** | **+0.8** |
| | comp=Z,9.6nm,0.7s,baz=201,slow=6.6,SNR=20 | | | | | | | |
| **MA2** | **Magadan** | **55.21** | **15** | *de*P | | **P** | **16 37 03.3** | **+0.9** |
| **KSH** | **Kashi** | **55.53** | **313** | P | | **P** | **16 37 05.8** | **+0.6** |
| KSH | | | | pP | | pP | 16 37 26.8 | +1.3 |
| KSH | | | | PcP | | **PcP** | **16 38 04.8** | **+0.5** |
| KSH | | | | PP | | **PP** | **16 39 11.8** | **+1.8** |
| KSH | | | | S | | **S** | **16 44 40.0** | **-4.7** |
| KSH | | | | ScS | | **ScS** | **16 46 41.8** | **-5.3** |
| **KSH** | **Kashi** | **55.53** | **313** | SS | | **SS** | **16 48 25.8** | **-4.9** |
| KSH | | | | pmax | | pmax | | |
| | comp=Z,3.0nm,0.4s | | | | | | | |
| KSH | | | | pmax | | pmax | | |
| | comp=Z,190nm,4.4s | | | | | | | |
| KSH | | | | LR | | LR | | |
| | comp=N,150nm,4.0s | | | | | | | |
| KSH | | | | LR | | LR | | |
| | comp=E,140nm,5.0s | | | | | | | |
| KSH | | | | LR | | LR | | |
| | comp=Z,180nm,6.1s | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **57.39** | **332** | P | | **P** | **16 37 17.5** | **-0.5** |
| | comp=Z,2.2nm,0.4s,baz=141,slow=10,SNR=2.4 | | | | | | | |
| ZALV | | | | LR | | LR | 17 03 19.5 | |
| | comp=Z,65nm,18.9s,baz=282,slow=37 | | | | | | | |
| **SFK** | **Sufi-Kurgan** | **57.48** | **313** | P | | **P** | **16 37 18.9** | **-0.3** |
| SFK | | | | pmax | | pmax | | |
| | comp=Z,4.0nm,0.6s | | | | | | | |
| **AAK** | **Ala-Archa** | **57.72** | **316** | P | | **P** | **16 37 20.6** | **-0.1** |
| | comp=Z,1.7nm,0.7s,baz=141,slow=6.1,SNR=8.7 | | | | | | | |
| **SEY** | **Seymchan** | **58.52** | **13** | P | | **P** | **16 37 27.0** | **+1.2** |
| | comp=Z,3.8nm,0.9s,baz=226,slow=7.1,SNR=14 | | | | | | | |
| **SEY** | **Seymchan** | **58.52** | **13**⇑ | *e*P | | **P** | **16 37 27.1** | **+1.4** |
| SEY | | | | *i* *PP | | **pP** | **16 37 44.4** | **-1.8** |
| **KURK** | **Kurchatov** | **58.72** | **326**⇑ | *e*P | | **P** | **16 37 26.2** | **-1.1** |
| KURK | | | | pmax | | pmax | | |
| | comp=Z,8.0nm,0.6s | | | | | | | |
| **KURK** | **Kurchatov** | **58.72** | **326** | *e*P | | **P** | **16 37 26.1** | **-1.2** |
| | comp=Z,11nm,0.5s | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **58.72** | **326** | P | | **P** | **16 37 26.4** | **-0.9** |
| | comp=Z,5.3nm,0.4s,baz=124,slow=6.6,SNR=15 | | | | | | | |
| **MNAS** | **Manas** | **59.03** | **316** | P | | **P** | **16 37 29.8** | **-0.1** |
| MNAS | | | | pmax | | pmax | | |
| | comp=Z,7.0nm,0.9s | | | | | | | |
| **KBL** | **Kabul** | **59.37** | **306** | P | | **P** | **16 37 31.6** | **-0.8** |
| KBL | | | | pmax | | pmax | | |
| | comp=Z,6.0nm,0.9s | | | | | | | |
| **KKAR** | **Karatay Array** | **60.62** | **316** | *e*P | | **P** | **16 37 39.6** | **-1.0** |
| KKAR | | | | pmax | | pmax | | |
| | comp=Z,53nm,0.6s | | | | | | | |
| **KKAR** | **Karatay Array** | **60.62** | **316** | *e*P | | **P** | **16 37 39.6** | **-1.0** |
| | comp=Z,53nm,0.6s | | | | | | | |
| **TIXI** | **Tiksi** | **64.24** | **1** | P | | **P** | **16 38 03.2** | **-0.9** |
| | comp=Z,2.7nm,0.5s,baz=218,slow=6.1,SNR=5.5 | | | | | | | |
| **TIXI** | **Tiksi** | **64.24** | **1**⇓ | *e*P | | **P** | **16 38 03.4** | **-0.7** |
| TIXI | | | | pmax | | pmax | | |
| | comp=Z,4.0nm,0.7s | | | | | | | |
| **BVAR** | **Borovoye Array** | **64.31** | **326** | P | | **P** | **16 38 04.3** | **-0.7** |
| | comp=Z,2.8nm,0.5s,baz=131,slow=5.0,SNR=12 | | | | | | | |
| **BRVK** | **Borovoye** | **64.38** | **326**⇑ | *e*P | | **P** | **16 38 04.4** | **-1.0** |
| BRVK | | | | pmax | | pmax | | |
| | comp=Z,2.0nm,0.6s | | | | | | | |
| **BILL** | **Bilibino** | **66.07** | **15**⇑ | *e*P | | **P** | **16 38 16.0** | **-0.1** |
| BILL | | | | pmax | | pmax | | |
| | comp=Z,5.0nm,1.8s | | | | | | | |
| BILL | | | | MLR | | MLR | | |
| | comp=Z,56nm,16.0s | | | | | | | |
| **GEYT** | **Alibeck** | **68.66** | **308** | P | | **P** | **16 38 33.1** | **+0.1** |
| | comp=Z,2.7nm,0.7s,baz=180,slow=1.5,SNR=7.2 | | | | | | | |
| **AKTO** | **Aktyubinsk** | **70.85** | **321** | P | | **P** | **16 38 45.7** | **-0.5** |
| | comp=Z,2.0nm,0.7s,baz=98,slow=9.6,SNR=6.8 | | | | | | | |
| **SVE** | **Sverdlovsk** | **70.90** | **328** | *e*P | | **P** | **16 38 46.7** | **+0.4** |
| **ARU** | **Arti** | **71.90** | **327** | P | | **P** | **16 38 51.3** | **-1.1** |
| | comp=Z,3.6nm,0.6s,baz=95,slow=5.0,SNR=9.6 | | | | | | | |
| **ARU** | **Arti** | **71.90** | **327** | *c* *i*P | | **P** | **16 38 51.7** | **-0.7** |
| ARU | | | | *PP | | **PcP** | **16 39 09.5** | **-1.2** |
| ARU | | | | | | | 16 41 30.0 | |
| ARU | | | | S | | **S** | **16 48 07.6** | **+0.7** |
| ARU | | | | SS | | **SS** | **16 52 42.7** | **-1.9** |
| ARU | | | | pmax | | pmax | | |
| | comp=Z,3.0nm,0.6s | | | | | | | |
| **KDAK** | **Kodiak Island** | **78.85** | **33** | *i* P | | **P** | **16 39 33.5** | **+1.3** |
| **IMAR** | **Indian Mountai** | **79.05** | **24** | *e*P | | **P** | **16 39 33.8** | **+0.7** |
| **RAYN** | **Ar Rayn** | **79.08** | **293** | *e*P | | **P** | **16 39 33.3** | **-1.0** |
| | comp=Z,7.3nm,0.8s | | | | | | | |
| **ZEI** | **Tsey** | **79.79** | **312** | *e*P | | **P** | **16 39 37.0** | **-0.9** |
| ZEI | | | | pmax | | pmax | | |
| | comp=Z,10.0nm,0.6s | | | | | | | |
| **BPAW** | **Bear Paw Mtn.** | **80.05** | **26** | *e*P | | **P** | **16 39 39.7** | **+1.0** |
| | comp=Z,9.4nm,0.9s | | | | | | | |
| **MLY** | **Manley** | **80.22** | **25** | *e*P | | **P** | **16 39 40.6** | **+1.0** |
| | comp=Z,4.3nm,0.8s | | | | | | | |
| **TRF** | **Thorofare Moun** | **80.32** | **27** | *e*P | | **P** | **16 39 41.0** | **+0.7** |
| | comp=Z,18nm,1.2s | | | | | | | |
| **COLD** | **Coldfoot** | **80.58** | **23** | *e*P | | **P** | **16 39 42.4** | **+1.0** |
| | comp=Z,3.9nm,1.0s | | | | | | | |
| **KIV** | **Kislovodsk** | **80.66** | **313** | *e*P | | **P** | **16 39 40.9** | **-1.5** |
| KIV | | | | pmax | | pmax | | |
| | comp=Z,7.0nm,0.9s | | | | | | | |
| **MCK** | **McKinley** | **80.94** | **27** | *e*P | | **P** | **16 39 43.4** | **0.0** |
| MCK | | | | pmax | | pmax | | |
| | comp=Z,12nm,0.8s | | | | | | | |
| **MCK** | **McKinley** | **80.94** | **27** | *e*P | | **P** | **16 39 43.4** | **0.0** |
| | comp=Z,12nm,0.8s | | | | | | | |
| **RND** | **Reindeer** | **80.97** | **27** | *e*P | | **P** | **16 39 43.2** | **-0.4** |
| RND | | | | pmax | | pmax | | |
| | comp=Z,48nm,2.0s | | | | | | | |
| **RND** | **Reindeer** | **80.97** | **27** | *e*P | | **P** | **16 39 43.2** | **-0.4** |
| | comp=Z,48nm,2.0s | | | | | | | |
| **COLA** | **College** | **81.44** | **25** | P | | **P** | **16 39 47.4** | **+1.4** |
| COLA | | | | pmax | | pmax | | |
| | comp=Z,10.0nm,1.1s | | | | | | | |
| **IL1** | **Eielson Array** | **81.85** | **26** | *e*P | | **P** | **16 39 47.9** | **-0.3** |
| **ILAR** | **Eielson Array** | **81.85** | **26** | P | | **P** | **16 39 48.2** | **0.0** |
| | comp=Z,2.0nm,0.8s,baz=247,slow=4.9,SNR=22 | | | | | | | |
| **ILB** | **Eielson Array** | **81.85** | **26** | *e*P | | **P** | **16 39 47.8** | **-0.4** |
| **KLMR** | **Klimovskoe** | **82.27** | **330** | *e*P | | **P** | **16 39 48.3** | **-2.1** |
| KLMR | | | | pmax | | pmax | | |
| | comp=Z,18nm,1.3s | | | | | | | |
| **DAWY** | **Dawson** | **85.14** | **26** | *e*P | | **P** | **16 40 06.2** | **+1.2** |
| | comp=Z,5.9nm,0.9s | | | | | | | |
| **VNDA** | **Vanda** | **87.00** | **173** | P | | **P** | **16 40 15.4** | **+1.6** |
| | comp=Z,1.5nm,0.7s,baz=320,slow=7.5,SNR=6.3 | | | | | | | |
| VNDA | | | | LR | | LR | 17 20 47.6 | |
| | comp=Z,38nm,18.0s,baz=323,slow=37 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **87.06** | **340** | P | | **P** | **16 40 14.1** | **-0.3** |
| | comp=Z,2.6nm,0.8s,baz=74,slow=6.7,SNR=2.9 | | | | | | | |
| **BRTR** | **Keskin Array B** | **87.72** | **310** | P | | **P** | **16 40 17.4** | **-1.0** |
| | comp=Z,1.1nm,0.8s,baz=119,slow=4.3,SNR=6.1 | | | | | | | |
| **BRTR** | **Keskin Array B** | **87.72** | **310** | *ce*P | | **P** | **16 40 16.0** | **-2.4** |
| BRTR | | | | pmax | | pmax | | |
| | comp=Z,1.0nm,0.7s | | | | | | | |
| **FINES** | **FINESS Array B** | **88.65** | **332** | P | | **P** | **16 40 21.2** | **-0.9** |
| | comp=Z,1.3nm,0.5s,baz=113,slow=5.0,SNR=6.5 | | | | | | | |
| FINES | | | | LR | | LR | 17 23 45.1 | |
| | comp=Z,157nm,19.5s,baz=316,slow=38 | | | | | | | |
| **FINES** | **FINESS Array B** | **88.65** | **332** | *i* P | | **P** | **16 40 22.7** | **+0.6** |
| FINES | | | | pmax | | pmax | | |
| | comp=Z,2.0nm,0.5s | | | | | | | |
| **VSU** | **Vasula** | **88.98** | **329** | P | | **P** | **16 40 22.9** | **-0.8** |
| **AKASG** | **Malin Array Be** | **89.09** | **321** | P | | **P** | **16 40 23.3** | **-1.1** |
| | comp=Z,1.4nm,0.6s,baz=65,slow=5.6,SNR=9.7 | | | | | | | |
| **AKASG** | **Malin Array Be** | **89.09** | **321** | *ce*P | | **P** | **16 40 23.2** | **-1.1** |
| AKASG | | | | pmax | | pmax | | |
| | comp=Z,2.0nm,0.5s | | | | | | | |
| **AK11** | **Malin Array Si** | **89.13** | **321** | *e*P | | **P** | **16 40 22.9** | **-1.7** |
| **DAG** | **Danmarks Havn** | **93.68** | **352** | P | | **P** | **16 40 43.8** | **-1.3** |
| **NOA** | **NORSAR Array B** | **95.55** | **334** | LR | | LR | 17 31 58.6 | |
| | comp=Z,24nm,20.6s,baz=250,slow=40 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **96.22** | **24** | P | | **P** | **16 40 57.1** | **+0.1** |
| | comp=Z,1.2nm,0.9s,baz=301,slow=4.8,SNR=20 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **96.22** | **24** | *ce*P | | **P** | **16 40 57.5** | **+0.5** |
| YKA | | | | pmax | | pmax | | |
| | comp=Z,1.0nm,0.9s | | | | | | | |
| **GERES** | **GERESS Array B** | **99.25** | **322** | P | | **Pdif** | **16 41 10.5** | **-0.6** |
| | comp=Z,0.5nm,0.6s,baz=71,slow=5.8,SNR=4.7 | | | | | | | |
| **TXAR** | **Lajitas Array** | **119.35** | **51** | PKP | | **PKPdf** | **16 46 20.2** | **+1.2** |
| | comp=Z,0.5nm,0.6s,baz=357,slow=1.1,SNR=8.7 | | | | | | | |
| **JCT** | **Junction City** | **121.66** | **47** | *e*PKIKP | | **PKPdf** | **16 46 24.2** | **+0.9** |
| **JCT** | **Junction City** | **121.66** | **47** | *e*PKPdf | | **PKPdf** | **16 46 24.2** | **+0.9** |
| **TORD** | **Torodi Ar. Bea** | **121.73** | **290** | PKP | | **PKPdf** | **16 46 23.9** | **+0.2** |
| | comp=Z,1.4nm,0.7s,baz=31,slow=1.9,SNR=7.7 | | | | | | | |
| **LPAZ** | **La Paz** | **162.98** | **123** | PKPab | | **PKPab** | **16 48 25.8** | **+3.3** |
| | comp=Z,1.5nm,0.7s,baz=63,slow=2.7,SNR=4.5 | | | | | | | |

*IDC* ***28*** *16:32:20.0±1.2,51˚.90N×96˚.06E,h0km,mb3.7/1, mb1 3.5/4,mb1mx3.1/42,mbtmp3.5/4,ML2.9/3,Error ellipse: s-maj=40.6km s-min=10.9km az=1.0*
*MOS* ***28*** *16:32:23.8±3.1,52˚.00N×95˚.43E,h12km,mb3.9/2,Error ellipse: s-maj=23.7km s-min=13.5km az=1.7*
**ISC 28 16:32:20.6±1.0,52˚.00N±0˚.2×96˚.16E±0˚.07,h10km,n16,**
**σ1s98/11,3C,Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ORL** | **Orlik** | **2.32** | **74**⇑ | *i*PN | **Pb** | **16 33 03.8** | **+1.3** |
| ORL | | | | pmax | pmax | | |
| | comp=Z,97nm,0.4s | | | | | | |
| **MOY** | **Mondy** | **3.02** | **94** | *e*PN | **Pb** | **16 33 16.0** | **+1.5** |
| MOY | | | | *e* | | 16 33 57.4 | |
| MOY | | | | pmax | pmax | | |
| | comp=Z,58nm,0.4s | | | | | | |
| MOY | | | | smax | smax | | |
| | comp=N,381nm,1.0s | | | | | | |
| **ARS** | **Arshan** | **3.88** | **88** | *e*PN | **Pb** | **16 33 32.2** | **+3.1** |
| ARS | | | | *e* | | 16 34 24.4 | |
| ARS | | | | pmax | pmax | | |
| | comp=Z,50nm,0.5s | | | | | | |
| ARS | | | | smax | smax | | |
| | comp=E,665nm,0.8s | | | | | | |
| **TLY** | **Talaya** | **4.65** | **91** | Pg | **Pb** | **16 33 44.0** | **+1.7** |
| | comp=E,0.0nm,0.3s,baz=283,slow=9.4,SNR=2.6 | | | | | | |
| TLY | | | | Lg | Lg | 16 34 47.1 | |
| | comp=E,0.1nm,0.3s,baz=29,slow=11,SNR=11 | | | | | | |
| **TLY** | **Talaya** | **4.65** | **91** | *e*PN | **Pg** | **16 33 46.8** | **-2.9** |
| TLY | | | | *e* | | 16 34 47.4 | |
| TLY | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.5s | | | | | | |
| TLY | | | | smax | smax | | |
| | comp=N,33nm,0.6s | | | | | | |
| **ZAK** | **Zakamensk** | **4.76** | **107** | *e*PN | **Pb** | **16 33 46.1** | **+2.0** |
| ZAK | | | | *e* | | 16 34 50.7 | |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,21nm,0.9s | | | | | | |
| ZAK | | | | smax | smax | | |
| | comp=N,289nm,1.4s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **7.13** | **291** | Pn | **Pn** | **16 34 05.7** | **+0.9** |
| | comp=N,1.0nm,0.3s,baz=107,slow=11,SNR=5.8 | | | | | | |
| ZALV | | | | Lg | Lg | 16 35 57.0 | |
| | comp=N,1.7nm,0.3s,baz=107,slow=26,SNR=7.9 | | | | | | |
| **SONM** | **Songino Array** | **7.80** | **118** | Pg | Pb | 16 34 41.8 | +5.9 |
| | comp=N,0.8nm,0.3s,baz=304,slow=19,SNR=5.8 | | | | | | |
| SONM | | | | Lg | Lg | 16 36 25.7 | |
| | comp=N,1.4nm,0.3s,baz=307,slow=28,SNR=11 | | | | | | |
| **ULN** | **Ulaanbaatar** | **8.14** | **116**⇑ | *e*P | Pn | 16 34 29.0 | +10 |
| **MKAR** | **Makanchi Array** | **10.41** | **246** | Pn | **Pn** | **16 34 50.2** | **+0.2** |
| | comp=N,0.1nm,0.3s,baz=53,slow=18,SNR=5.7 | | | | | | |
| MKAR | | | | Lg | Lg | 16 37 43.1 | |
| | comp=N,0.0nm,0.3s,baz=53,slow=27,SNR=2.8 | | | | | | |
| **KURK** | **Kurchatov** | **11.04** | **270** | P | **Pn** | **16 34 58.3** | **-0.2** |
| **KURBB** | **Kurchatov Arra** | **11.12** | **270** | Pn | **Pn** | **16 34 58.3** | **-1.3** |
| | comp=N,0.1nm,0.3s,baz=76,slow=16,SNR=3.5 | | | | | | |
| KURBB | | | | Lg | Lg | 16 38 02.4 | |
| | comp=N,0.1nm,0.3s,baz=78,slow=31,SNR=5.3 | | | | | | |
| **GTA** | **Gaotai** | **12.82** | **167** | P | Pn | 16 35 32.3 | +9.4 |
| GTA | | | | pP | | 16 35 35.5 | |
| GTA | | | | sP | | 16 35 38.3 | |
| GTA | | | | sP | | 16 35 40.5 | |
| GTA | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.7s | | | | | | |
| GTA | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.3s | | | | | | |
| **YAK** | **Yakutsk** | **20.61** | **48**⇑ | *e*P | Pn | 16 37 09.7 | +7.9 |
| YAK | | | | pmax | pmax | | |
| | comp=Z,1.0nm,1.1s | | | | | | |
| **AKTO** | **Aktyubinsk** | **23.77** | **282** | P | **P** | **16 37 32.8** | **-0.2** |
| | comp=Z,1.4nm,0.6s,baz=79,slow=16,SNR=5.0 | | | | | | |
| **PALK** | **Pallekele** | **46.34** | **201** | *i* P | P | 16 40 52.7 | +5.9 |

*NIED* ***28*** *16:32:00,38˚.60N×143˚.40E,h11km,Mw3.4 Best double couple: Mo1.51000×10^14 NP1:φs=236.00000°,δ40.00000°, λ110.00000°. NP2:φs=30.00000°,δ53.00000°,λ74.00000°.*
*IDC* ***28*** *16:32:26.8±2.5,38˚.50N×143˚.68E,h0km,mb3.6/4, mb1 3.7/6,mb1mx3.4/43,mbtmp3.7/6,ML3.3/2,Error ellipse: s-maj=59.7km s-min=27.5km az=78.0*
*ISCJB* ***28*** *16:32:29.2±2.1,38˚.56N±0˚.06×143˚.36E±0˚.08, h22km±18km,mb3.6/4,Error ellipse: s-maj=11.4km s-min=10.1km az=139.2*
*JMA* ***28*** *16:32:29.2±0.1,38˚.63N×143˚.35E,h24km±5km,M3.6*
**ISC 28 16:32:27.2±3.5,38˚.55N±0˚.06×143˚.4E±0˚.1,h2km±19km,**
**n22,σ1s99/26,mb3.6/4,Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **OFUJ** | **Ofunato** | **1.43** | **292** | P | **Pn** | **16 32 53.7** | **-0.4** |
| OFUJ | | | | S | **Sg** | **16 33 11.5** | **-1.6** |
| **MIYJ** | **Miyakonagasawa** | **1.58** | **311** | P | **Pn** | **16 32 55.1** | **-1.2** |
| MIYJ | | | | S | **Sn** | **16 33 14.9** | **-2.4** |
| **JIO** | **Ouri** | **1.58** | **267** | P | **Pn** | **16 32 56.4** | **+0.1** |
| JIO | | | | S | **Sn** | **16 33 15.8** | **-1.5** |
| **JMK** | **Ichinoseki** | **1.73** | **284** | P | **Pn** | **16 32 58.3** | **+0.1** |
| JMK | | | | S | **Sn** | **16 33 20.1** | **-0.7** |
| **JOM** | **Ohasama** | **1.86** | **300** | P | **Pn** | **16 32 59.8** | **-0.3** |
| **JOU** | **Okura** | **2.13** | **266** | P | **Pn** | **16 33 04.5** | **+0.7** |
| JOU | | | | S | **Sn** | **16 33 30.3** | **-0.5** |
| **JMM** | **Marumori** | **2.14** | **252** | P | **Pn** | **16 33 04.3** | **+0.4** |
| JMM | | | | S | **Sn** | **16 33 30.2** | **-0.8** |
| **JRG** | **Rokugo** | **2.29** | **293** | P | **Pn** | **16 33 06.6** | **+0.6** |
| **JFK** | **Kawauchi** | **2.29** | **240** | P | **Pn** | **16 33 06.5** | **+0.4** |
| **JYK** | **Kaneyama** | **2.38** | **280** | P | **Pn** | **16 33 08.1** | **+0.9** |
| **JFT** | **Otama** | **2.60** | **248** | P | **Pn** | **16 33 11.5** | **+1.2** |
| **JYS** | **Shirataka** | **2.61** | **264** | P | **Pn** | **16 33 11.5** | **+1.1** |
| **MJAR** | **Matsushiro Arr** | **4.56** | **246** | Pn | **Pn** | **16 33 40.2** | **+3.0** |
| | 0.8nm,0.3s,baz=80,slow=14,SNR=7.7 | | | | | | |
| **MJAR** | **Matsushiro Ar** | **4.56** | **246** | P | **Pn** | **16 33 40.2** | **+3.0** |
| MJAR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.3s | | | | | | |
| **JHJ** | **Hachijo jima 2** | **6.15** | **209** | Pn | **Pn** | **16 33 58.9** | **-0.1** |
| | comp=Z,2.8nm,0.3s,baz=148,slow=23,SNR=4.0 | | | | | | |
| JHJ | | | | Sn | **Sn** | **16 35 03.5** | **-6.4** |
| | comp=Z,6.6nm,0.3s,baz=179,slow=23,SNR=2.6 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **27.69** | **126** | T | T | 17 07 12.9 | |
| | baz=318,slow=74,SNR=13 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **27.70** | **126** | T | T | 17 07 12.5 | |
| | baz=318,slow=74,SNR=8.4 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **27.70** | **126** | T | T | 17 07 13.2 | |
| | baz=318,slow=74,SNR=13 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.06** | **311** | P | **P** | **16 40 22.4** | **+2.3** |
| | comp=Z,0.4nm,0.3s,baz=90,slow=8.6,SNR=2.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.64** | **301** | P | **P** | **16 40 43.2** | **+2.1** |
| | comp=Z,0.4nm,0.7s,baz=84,slow=8.8,SNR=2.6 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **46.31** | **307** | P | **P** | **16 40 54.6** | **+0.4** |
| | comp=Z,0.9nm,0.5s,baz=80,slow=8.0,SNR=4.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **58.79** | **190** | P | **P** | **16 42 27.0** | **+0.1** |
| | comp=Z,0.4nm,0.7s,baz=8.5,slow=7.0,SNR=5.8 | | | | | | |

*IDC* ***28*** *16:45:12.6±0.9,14˚.33N×56˚.53E,h0km,mb3.7/11, mb1 3.8/12,mb1mx3.6/52,mbtmp3.7/12,ML3.4/1,MS3.3/7, Ms1 3.3/7,ms1mx3.1/50,Error ellipse: s-maj=24.1km s-min=20.1km az=133.0*
*ISCJB* ***28*** *16:45:14.1±0.7,14˚.4N±0˚.1×56˚.5E±0˚.1,h19km,mb3.6/11, MS3.2/5,Error ellipse: s-maj=19.2km s-min=14.0km az=31.6*
**ISC 28 16:45:15.7±0.9,14˚.4N±0˚.1×56˚.5E±0˚.2,h19km,n20,**
**σ0s85/12,mb3.8/11,MS3.2/5,Owen Fracture Zone region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WSAR** | **Wadi Sarin** | **9.07** | **12** | Pn | **Pn** | **16 47 25.7** | **+0.1** |
| | 0.4nm,0.3s,baz=185,slow=11,SNR=5.3 | | | | | | |
| WSAR | | | | LR | LR | 16 50 45.3 | |
| | comp=Z,304nm,19.7s,baz=199,slow=37 | | | | | | |
| **ATD** | **Arta Tunnel** | **13.61** | **260** | LR | LR | 16 52 10.7 | |
| | comp=Z,78nm,20.6s,baz=110,slow=31 | | | | | | |
| **GEYT** | **Alibeck** | **23.53** | **3** | P | **P** | **16 50 24.3** | **-0.5** |
| | 2.1nm,0.7s,baz=204,slow=10,SNR=6.7 | | | | | | |
| GEYT | | | | LR | LR | 17 00 14.9 | |
| | comp=Z,67nm,20.9s,baz=10.0,slow=38 | | | | | | |
| **KMBO** | **Kilima Mbogo** | **24.50** | **233** | P | **P** | **16 50 34.8** | **+0.5** |
| | 1.3nm,0.4s,baz=29,slow=8.2,SNR=5.6 | | | | | | |
| KMBO | | | | LR | LR | 17 00 45.4 | |
| | comp=Z,77nm,18.5s,baz=89,slow=38 | | | | | | |
| **H08N2** | **Diego Garcia H** | **25.07** | **144** | T | T | 17 17 00.2 | |
| | baz=325,slow=76,SNR=86 | | | | | | |
| **H08N3** | **Diego Garcia H** | **25.09** | **144** | T | T | 17 17 01.9 | |
| | baz=325,slow=76,SNR=53 | | | | | | |
| **H08N1** | **Diego Garcia H** | **25.10** | **144** | T | T | 17 17 10.2 | |
| | baz=325,slow=76,SNR=34 | | | | | | |
| **BRTR** | **Keskin Array B** | **32.27** | **326** | LR | LR | 17 05 22.3 | |
| | comp=Z,62nm,18.0s,baz=283,slow=37 | | | | | | |
| **MKAR** | **Makanchi Array** | **38.87** | **28** | P | **P** | **16 52 39.7** | **-0.2** |
| | 0.9nm,1.0s,baz=210,slow=7.0,SNR=5.2 | | | | | | |
| MKAR | | | | LR | LR | 17 08 44.9 | |
| | comp=Z,67nm,18.3s,baz=324,slow=36 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **40.85** | **78** | P | **P** | **16 52 56.4** | **-0.3** |
| | 0.4nm,0.6s,baz=282,slow=8.6,SNR=4.8 | | | | | | |
| CMAR | | | | LR | LR | 17 09 50.5 | |
| | comp=Z,14nm,19.8s,baz=315,slow=36 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **45.33** | **23** | P | **P** | **16 53 31.7** | **-0.7** |
| | 0.6nm,0.5s,baz=232,slow=7.8,SNR=6.3 | | | | | | |
| **FINES** | **FINESS Array B** | **51.86** | **342** | P | **P** | **16 54 22.0** | **-0.5** |
| | 1.5nm,0.8s,baz=145,slow=10.0,SNR=2.9 | | | | | | |
| **SONM** | **Songino Array** | **52.94** | **40** | P | **P** | **16 54 31.1** | **+0.2** |
| | 0.3nm,0.4s,baz=243,slow=6.3,SNR=4.4 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **53.15** | **276** | P | **P** | **16 54 32.6** | **-0.3** |
| | 0.2nm,0.5s,baz=97,slow=7.4,SNR=2.9 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **73.36** | **134** | T | T | 18 16 35.4 | |
| | baz=303,slow=76,SNR=7.7 | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **73.36** | **134** | T | T | 18 16 35.3 | |
| | baz=303,slow=76,SNR=7.9 | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **73.38** | **134** | T | T | 18 16 36.4 | |
| | baz=303,slow=76,SNR=7.3 | | | | | | |
| **SEY** | **Seymchan** | **80.00** | **28** | P | **P** | **16 57 25.7** | **+2.1** |
| | 0.8nm,0.7s,baz=93,slow=6.7,SNR=3.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **83.76** | **112** | P | **P** | **16 57 43.7** | **-0.5** |
| | 0.5nm,0.9s,baz=288,slow=3.9,SNR=3.2 | | | | | | |
| **ASAR** | **Alice Springs** | **84.52** | **116** | P | **P** | **16 57 47.5** | **-0.6** |
| | 0.4nm,0.6s,baz=291,slow=5.1,SNR=7.6 | | | | | | |

*ISCJB* ***28*** *16:53:12.5±0.8,67˚.82N±0˚.04×20˚.20E±0˚.10,h0km,Error ellipse: s-maj=5.7km s-min=5.3km az=7.9*
*UPP* ***28*** *16:53:12.1±0.2,67˚.83N×20˚.22E,h0km,ML2.5*
*HEL* ***28*** *16:53:15.6±0.8,67˚.85N×20˚.38E,h0km,ML1.3,Explosion*
**ISC 28 16:53:12.8±1.1,67˚.80N±0˚.05×20˚.19E±0˚.04,h0km,n10,**
**σ1s20/15,Sweden**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KUA** | **Kurravaara** | **0.16** | **20** | P | **Pg** | **16 53 14.9** | **-0.9** |
| KUA | | | | S | **Sg** | **16 53 16.6** | **-1.3** |
| **RATU** | **Laukkuluspa** | **0.23** | **275** | P | **Pg** | **16 53 16.7** | **-0.4** |
| **NIKU** | **Nikkaluokta** | **0.44** | **279** | P | **Pg** | **16 53 20.9** | **-0.3** |
| **LANU** | **Lannavaara** | **0.72** | **69** | *e*P | **Pg** | **16 53 27.5** | **+0.9** |
| LANU | | | | *e*S | **Sg** | **16 53 35.4** | **-0.5** |
| **KIF** | **Kilpisjarvi** | **1.23** | **10** | *e*P | **Pn** | **16 53 38.2** | **+1.1** |
| KIF | | | | MSG | | 16 53 48.8 | |
| | comp=Z,2.8nm,0.2s | | | | | | |
| KIF | | | | *e*S | **Sg** | **16 53 52.3** | **+0.1** |
| **PAJU** | **Pajala** | **1.37** | **123** | P | **Pg** | **16 53 37.8** | **-1.2** |
| **HEF** | **Hetta** | **1.44** | **63** | *e*P | **Pn** | **16 53 39.0** | **-1.0** |
| HEF | | | | MSG | | 16 53 59.1 | |
| | comp=Z,2.2nm,0.2s | | | | | | |
| HEF | | | | *e*SN | **Sn** | **16 54 01.9** | **+2.4** |
| **TOF** | **Tornio** | **2.38** | **135** | *e*SB | **Sb** | **16 54 26.7** | **+0.6** |
| **ARE0** | **ARCESS Array S** | **2.61** | **46** | *e*P | **Pn** | **16 53 56.9** | **+0.8** |
| ARE0 | | | | *e*SB | **Sb** | **16 54 31.1** | **-1.7** |
| **VRF** | **Varrio** | **3.58** | **87** | *e*SB | **Sb** | **16 55 00.3** | **-0.4** |

*IDC* ***28*** *16:55:35.9±1.6,10˚.15S×118˚.80E,h0km,mb3.9/5, mb1 3.9/7,mb1mx3.7/33,mbtmp3.8/7,ML3.5/2,Error ellipse: s-maj=77.9km s-min=22.5km az=51.0*
*ISCJB* ***28*** *16:55:38.6±1.4,10˚.2S±0˚.3×118˚.8E±0˚.4,h33km,mb3.9/5, Error ellipse: s-maj=65.7km s-min=13.5km az=140.8*
**ISC 28 16:55:40.5±1.6,10˚.2S±0˚.3×118˚.9E±0˚.4,h33km,n11,**
**σ0s47/8,mb4.1/5,South of Sumbawa**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **17.77** | **125** | P | **P** | **16 59 46.1** | **+0.1** |
| | 0.2nm,0.3s,baz=299,slow=13,SNR=13 | | | | | | |
| **ASAR** | **Alice Springs** | **19.61** | **135** | P | **Pn** | **17 00 07.5** | **-0.2** |
| | 0.2nm,0.3s,baz=318,slow=11,SNR=23 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **34.62** | **325** | P | **P** | **17 02 27.0** | **+0.2** |
| | 0.3nm,0.5s,baz=157,slow=7.7,SNR=4.5 | | | | | | |
| **H08S2** | **Diego Garcia H** | **45.88** | **269** | T | T | 17 53 03.9 | |
| | baz=

comp=N,357nm,0.6s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **ULG** | **Ulaangom** | **3.06** | **232** | *e*Pn | | Pn | 17 17 30.9 | -2.7 |
| ULG | | | | *e*Sg | | **Sn** | **17 18 12.4** | **+2.1** |
| **HTG** | **Hatgal** | **3.12** | **116** | *e*Pg | | **Pn** | **17 17 32.1** | **-2.4** |
| HTG | | | | *e*Sg | | **Sn** | **17 18 11.3** | **-0.6** |
| **MOY** | **Mondy** | **3.24** | **92** | *e*PN | | **Pn** | **17 17 34.8** | **-1.4** |
| MOY | | | | *e* | | | 17 18 16.7 | |
| MOY | | | | pmax | pmax | | | |

comp=Z,120nm,0.7s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MOY | | | | smax | smax | | | | |

comp=N,253nm,0.7s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **TSC** | **Tosontsengel** | **3.52** | **152** | *e*Pn | | Pn | 17 17 34.8 | -5.2 |
| TSC | | | | *e*Sg | | **Sn** | **17 18 23.5** | **+1.9** |
| **ARS** | **Arshan** | **4.11** | **87** | *e*PN | | Pn | 17 17 43.7 | -4.4 |
| ARS | | | | *e* | | | 17 17 51.2 | |
| ARS | | | | *e* | | | 17 18 43.7 | |
| ARS | | | | pmax | pmax | | | |

comp=Z,40nm,0.3s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ARS | | | | smax | smax | | | | |

comp=E,495nm,0.6s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **HBD** | **Hovd** | **4.73** | **216** | *e*Pn | | Pn | 17 17 52.8 | -3.8 |
| HBD | | | | *e*Sg | | **Sb** | **17 19 02.4** | **-2.7** |
| **BYO** | **Bayan-Olgiy** | **4.75** | **234** | *e*Pn | | Pn | 17 17 54.4 | -2.6 |
| BYO | | | | *e*Sg | | **Sb** | **17 19 04.6** | **-1.3** |
| **TLY** | **Talaya** | **4.88** | **90** | Pg | | Pn | 17 18 05.0 | +6.3 |
| TLY | | | | Lg | | Lg | 17 19 06.5 | |
| **TLY** | **Talaya** | **4.88** | **90** | *e*PN | | Pb | 17 18 05.8 | -5.0 |
| TLY | | | | *e* | | | 17 19 07.3 | |
| TLY | | | | pmax | pmax | | | |

comp=Z,12nm,0.2s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **ZAK** | **Zakamensk** | **4.96** | **105** | *e*PN | | **Pn** | **17 18 04.3** | **+4.5** |
| ZAK | | | | *e* | | | 17 19 07.9 | |
| ZAK | | | | pmax | pmax | | | |

comp=Z,28nm,0.8s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ZAK | | | | smax | smax | | | | |

comp=N,117nm,1.3s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **IRK** | **Irkutsk** | **5.25** | **83** | *e*PN | | Pb | 17 18 11.9 | -5.0 |
| IRK | | | | *e* | | | 17 19 17.0 | |
| IRK | | | | pmax | pmax | | | |

comp=Z,65nm,0.5s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| IRK | | | | smax | smax | | | | |

comp=N,269nm,0.7s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **TTS** | **Tsetserleg** | **5.75** | **138** | *e*Sg | | **Sb** | **17 19 31.4** | **-3.3** |
| **BLGM** | **Bulgan** | **5.86** | **119** | *e*Sg | | **Sb** | **17 19 40.1** | **+2.5** |
| **ZALV** | **Zalesovo Beam** | **6.94** | **291** | Pn | | **Pn** | **17 18 27.6** | **+0.8** |

comp=N,0.2nm,0.3s,baz=108,slow=15,SNR=3.7

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ZALV | | | | Sn | | **Sn** | **17 19 46.7** | **+1.0** |

comp=N,0.4nm,0.3s,baz=120,slow=22,SNR=2.8

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ZALV | | | | Lg | | Lg | 17 20 16.5 | | |

comp=N,0.8nm,0.3s,baz=104,slow=23,SNR=3.3

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **OGRR** | **Ongureny** | **7.37** | **72** | *e*P | | Pn | 17 18 28.5 | -4.3 |
| OGRR | | | | pmax | pmax | | | | |

comp=Z,5.0nm,0.4s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **SONM** | **Songino Array** | **7.97** | **117** | Pg | | Pb | 17 18 58.6 | -4.8 |

comp=Z,0.4nm,0.3s,baz=302,slow=15,SNR=22

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SONM | | | | Lg | | Lg | 17 20 42.9 | | |

comp=Z,2.3nm,0.3s,baz=302,slow=28,SNR=9.5

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **DZBM** | | **9.99** | **141** | *e*Sg | | Sn | 17 21 43.1 | +42 | |
| **MKAR** | **Makanchi Array** | **10.18** | **245** | Pn | | **Pn** | **17 19 09.4** | **-1.9** |

comp=Z,0.1nm,0.3s,baz=55,slow=14,SNR=4.5

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MKAR | | | | Lg | | Lg | 17 21 57.8 | | |

comp=Z,0.2nm,0.3s,baz=52,slow=28,SNR=3.7

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **KURK** | **Kurchatov** | **10.81** | **270** | P | | **Pn** | **17 19 21.6** | **+1.7** |
| **KURBB** | **Kurchatov Arra** | **10.89** | **270** | Pn | | **Pn** | **17 19 21.6** | **+0.6** |

comp=Z,0.0nm,0.3s,baz=76,slow=15,SNR=3.4

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| KURBB | | | | Lg | | Lg | 17 22 23.2 | | |

baz=79,slow=33,SNR=4.3

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **BVAR** | **Borovoye Array** | **15.50** | **284** | Pn | | **Pn** | **17 20 25.0** | **+1.4** |

comp=Z,0.1nm,0.3s,baz=91,slow=15,SNR=2.3

*IDC **28** 17:19:06.1±1.0, 18°.64S×173°.56W, h0km, mb4.3/8, mb1 4.5/10, mb1mx4.1/43, mbtmp4.3/10, ML3.9/2, MS3.6/4, Ms1 3.6/4, ms1mx3.1/45, Error ellipse: s-maj=38.6km s-min=18.7km az=139.0*

*ISCJB **28** 17:19:08.9±0.6, 18°.5S±0°.1×173°.8W±0°.1, h31km, mb4.5/12, MS3.4/2, Error ellipse: s-maj=24.9km s-min=9.5km az=143.4*

*NEIC **28** 17:19:11.3±0.6, 18°.61S×173°.71W, h35km, mb4.8/5, Error ellipse: s-maj=24.6km s-min=9.6km az=143.0*

**ISC 28 17:19:11.1±0.8, 18°.4S±0°.1×173°.7W±0°.2, h31km, n42, σ1§44/39, mb4.3/12, 4C-2D, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **AFI** | **Afiamalu** | **4.82** | **23** | Pn | | **Pn** | **17 20 21.4** | **-0.3** |

5.3nm,0.3s,baz=178,slow=4.0,SNR=5.9

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| AFI | | | | Sn | | **Sn** | **17 21 14.5** | **-2.0** |

16nm,0.3s,baz=158,slow=12,SNR=6.1

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **AFI** | **Afiamalu** | **4.82** | **23** | *e*Pn | | **Pn** | **17 20 23.0** | **+1.3** |
| AFI | | | | Sn | | **Sn** | **17 21 14.5** | **-2.0** |
| **RAR** | **Rarotonga** | **13.40** | **104** | LR | | LR | 17 26 42.4 | |

comp=Z,234nm,18.4s,baz=262,slow=34

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **18.99** | **256** | P | | **Pn** | **17 23 30.3** | **-0.8** |

0.3nm,0.3s,baz=90,slow=19,SNR=4.6

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DZM | | | | LR | | LR | 17 30 03.5 | | |

comp=Z,172nm,19.5s,baz=112,slow=34

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **18.99** | **256** | *e*P | | **Pn** | **17 23 32.6** | **+1.5** |

71nm,1.1s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DZM | | | | *e*LR | | LR | 17 28 08.2 | | |

270nm,26.1s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **18.99** | **256** | *e*P | | **P** | **17 23 29.0** | **-1.3** |

38nm,1.4s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **PPT2** | **Papeete2** | **22.95** | **92** | *e*LR | | LR | 17 29 15.4 | | |

298nm,29.0s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **PPT** | **Papeete** | **22.96** | **92** | LR | | LR | 17 31 01.6 | | |

comp=Z,195nm,18.7s,baz=341,slow=31

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **HNR** | **Honiara** | **27.06** | **286** | LR | | LR | 17 34 23.1 | | |

comp=Z,65nm,18.0s,baz=191,slow=34

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **RPZ** | **Rata Peaks** | **28.33** | **204** | P | | **P** | **17 25 01.5** | **-0.6** |

9.5nm,0.3s,baz=261,slow=4.1,SNR=8.7

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **AS01** | **Alice Springs** | **48.93** | **254** | *e*P | | **P** | **17 27 53.1** | **-1.6** |
| **WB2** | **Warramunga Arr** | **48.94** | **259** | *e*P | | **P** | **17 27 52.5** | **-2.3** |
| **WR1** | **Warramunga Arr** | **48.95** | **259** | *e*P | | **P** | **17 27 53.0** | **-1.8** |

77nm,2.0s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **48.95** | **259** | P | | **P** | **17 27 53.0** | **-1.8** |

2.0nm,0.7s,baz=97,slow=5.6,SNR=42

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **AS31** | **Alice Springs** | **48.97** | **254** | *e*P | | **P** | **17 27 53.3** | **-1.7** |

3.0nm,1.1s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **ASAR** | **Alice Springs** | **48.97** | **254** | P | | **P** | **17 27 53.7** | **-1.3** |

7.5nm,1.0s,baz=89,slow=8.6,SNR=39

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **MJAR** | **Matsushiro Arr** | **71.04** | **321** | P | | **P** | **17 30 29.2** | **+3.0** |

2.6nm,0.9s,baz=144,slow=7.2,SNR=5.5

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **MLHM** | **Little Hot Cre** | **75.97** | **42** | *e*P | | **P** | **17 30 56.4** | **+1.0** |
| **NV01** | **Mina Array Sit** | **76.74** | **42** | *e*P | | **P** | **17 30 59.8** | **0.0** |
| **NVAR** | **Mina Array Bea** | **76.74** | **42** | P | | **P** | **17 30 59.8** | **0.0** |

0.7nm,0.8s,baz=223,slow=9.2,SNR=4.9

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **KS01** | **Wonju Array Si** | **78.13** | **316** | *e*P | | **P** | **17 31 07.1** | **-0.1** |
| **TX31** | **Lajitas Ar. Si** | **82.51** | **56** | *e*P | | **P** | **17 31 30.5** | **-0.7** |
| **LTX** | **Lajitas** | **82.51** | **56** | *e*P | | **P** | **17 31 30.1** | **-1.1** |
| **TXAR** | **Lajitas Array** | **82.51** | **56** | P | | **P** | **17 31 30.1** | **-1.1** |

1.5nm,1.1s,baz=250,slow=3.6,SNR=6.6

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **YHB** | **Horse Butte** | **84.70** | **39** | *e*P | | **P** | **17 31 43.1** | **+0.8** |

6.4nm,0.8s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **CCB** | **Clear Creek Bu** | **85.14** | **11** | *e*P | | **P** | **17 31 44.9** | **+1.3** |

26nm,1.7s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **IL1** | **Eielson Array** | **85.42** | **11** | *e*P | | **P** | **17 31 45.9** | **+0.9** |
| **ILAR** | **Eielson Array** | **85.42** | **11** | P | | **P** | **17 31 46.4** | **+1.3** |

1.7nm,1.1s,baz=215,slow=6.2,SNR=5.9

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **ILB** | **Eielson Array** | **85.42** | **11** | *e*P | | **P** | **17 31 46.4** | **+1.3** |
| **CMAR** | **Chiang Mai Arr** | **93.28** | **288** | P | | **P** | **17 32 25.7** | **+2.4** |

0.5nm,0.3s,baz=107,slow=3.1,SNR=5.4

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **CLL** | **Collm** | **146.73** | **352** | *i* PKPbc | | **PKPab** | **17 38 51.2** | **+0.3** |

comp=Z,23nm,1.7s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **BR101** | **Keskin Array S** | **148.23** | **318** | *e*PKPbc | | **PKPbc** | **17 38 55.4** | **+0.9** |
| **BR131** | **Keskin Array S** | **148.23** | **318** | *e*PKPdf | | **PKPbc** | **17 38 52.7** | **-1.8** |
| **BRTR** | **Keskin Array B** | **148.23** | **318** | PKPbc | | **PKPbc** | **17 38 55.3** | **+0.9** |

comp=Z,1.3nm,0.8s,baz=95,slow=2.8,SNR=8.3

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **MLR** | **Muntele Rosu** | **148.43** | **333** | *i* P | | **PKPab** | **17 38 56.4** | **-1.6** |
| **DRGR** | | **148.62** | **338** | *i* P | | PKPab | 17 39 07.9 | +9.2 |
| **BR231** | **Keskin MP Arra** | **148.71** | **319** | *e*PKPbc | | **PKPbc** | **17 38 56.4** | **+0.8** |
| **VOIR** | | **148.85** | **334** | *i* P | | **PKPab** | **17 38 57.8** | **-1.9** |
| **GERES** | **GERESS Array B** | **149.03** | **350** | PKPbc | | **PKPbc** | **17 38 56.8** | **+0.6** |

comp=Z,0.7nm,0.8s,baz=14,slow=4.4,SNR=5.5

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **ARR** | **Arges** | **149.07** | **334** | *i* P | | **PKPab** | **17 38 59.1** | **-1.5** |
| **BZS** | **Buzias** | **150.02** | **338** | *i* P | | **PKPbc** | **17 38 59.4** | **+0.8** |
| **HERR** | **Herculane** | **150.35** | **336** | *i* P | | **PKPbc** | **17 39 00.0** | **+0.6** |

*BJI **28** 17:33:52.0, 1°.45N×127°.95E, h167km, mb5.4/74, mB5.1/47*

*ISCJB **28** 17:33:53.5±0.3, 1°.67N±0°.02×127°.64E±0°.03, h157km±2km, mb5.2/169, Error ellipse: s-maj=4.3km s-min=2.5km az=162.1*

*GCMT **28** 17:33:53.6±0.2, 1°.75N×127°.67E, h153km±1km, MW5.2/107, Moment Tensor Solution. s71,c100; s107,c177; Duration: 1s0 Moment tensor: Scale 10^16 Nm; Mrr3.45±.15; Mθθ-3.53±.17; Mφφ0.08±.19; Mrθ-6.22±.12; Mrφ0.06±.18; Mθφ-2.31±.14; Best double couple: M7.49300×10^16 NP1:φs252.00000°, δ77.00000°, λ81.00000°. NP2:φs106.00000°, δ16.00000°, λ123.00000°. Principal axes: T 7.6400, Plg57.0000°, Azm151.0000°; N -0.2920, Plg8.0000°, Azm254.0000°; P -7.3470, Plg31.0000°, Azm350.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **28** 17:33:53.6±0.1, 1°.69N×127°.64E, mb5.4/84 Error ellipse: s-maj=3.8km s-min=2.8km az=73.0*

*IDC **28** 17:33:54.2±0.6, 1°.64N×127°.56E, h147km±4km, mb4.7/34, mb1 4.8/36, mb1mx4.7/40, mbtmp5.1/36, MS3.9/18, Ms1 3.9/18, ms1mx3.6/42, Error ellipse: s-maj=10.2km s-min=5.9km az=76.0*

*MOS **28** 17:33:54.0±0.9, 1°.73N×127°.55E, h158km, mb5.2/51, Error ellipse: s-maj=8.9km s-min=4.8km az=107.8*

*DJA **28** 17:33:56.6±0.4, 2°.N±4°×12°.7E±°, h119km±10km, M5.5/12, mb5.5/7, mB5.7/8, MLv5.7/12, Mw(mB)5.2/8, Mwp5.2/1*

**ISC 28 17:33:54.9±0.3, 1°.69N±0°.03×127°.62E±0°.04, h155km±2km, h156km:pP-P, n516, σ1§35/677, mb5.2/168, 23C-25D, Halmahera**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **LBMI** | **Labuha** | **2.32** | **183** | P | | **Pn** | **17 34 34.4** | **+0.3** |
| **SGSI** | **Sangihe** | **2.88** | **314** | P | | **Pn** | **17 34 39.5** | **-1.4** |
| **KMSI** | **Cibinong** | **3.80** | **253** | P | | **Pn** | **17 34 52.3** | **-0.4** |
| **SANI** | **Sanana** | **4.06** | **204** | P | | **Pn** | **17 34 54.3** | **-1.8** |
| **SWI** | **Sorong** | **4.44** | **125** | P | | **Pn** | **17 35 01.9** | **+0.8** |
| **MSAI** | **Masohi** | **5.17** | **165** | P | | **Pn** | **17 35 12.8** | **+2.1** |
| **AAI** | **Ambon** | **5.37** | **174** | P | | **Pn** | **17 35 14.2** | **+0.8** |
| **MATI** | **Mati** | **5.39** | **346** | *e*P | | **Pn** | **17 35 13.4** | **-0.2** |
| MATI | | | | *e*S | | **Sn** | **17 36 14.3** | **-0.9** |
| **LUWI** | **Luwuk** | **5.55** | **241** | P | | **Pn** | **17 35 14.2** | **-1.5** |
| **LUWI** | **Luwuk** | **5.55** | **241** | *e*Pn | | **Pn** | **17 35 13.9** | **-1.8** |
| **DAV** | **Davao City (W)** | **5.71** | **339** | P | | **Pn** | **17 35 17.3** | **-0.6** |

186nm,0.3s,baz=193,slow=2.9,SNR=13

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DAV | | | | S | | **Sn** | **17 36 21.2** | **-1.7** |

81nm,0.3s,baz=24,slow=19,SNR=13

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DAV | | | | LR | | LR | 17 36 50.0 | | |

comp=Z,1μm,21.4s,baz=103,slow=31

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **DAV** | **Davao City (W)** | **5.71** | **339** | P | | **Pn** | **17 35 17.6** | **-0.3** |

SNR=16

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **DAV** | **Davao City (W)** | **5.71** | **339** | Pn | | **Pn** | **17 35 17.6** | **-0.3** |

SNR=16

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **DMPH** | **Davao City--Mi** | **5.75** | **339** | *i*P | | **Pn** | **17 35 21.6** | **+3.2** |
| DMPH | | | | *e*S | | **Sn** | **17 36 26.1** | **+2.3** |
| **MRSI** | **Marisa** | **5.80** | **258** | P | | **Pn** | **17 35 18.3** | **-0.7** |
| **APSI** | **Ampana** | **6.50** | **247** | P | | **Pn** | **17 35 27.0** | **-1.4** |
| **FAKI** | **Fak Fak** | **6.51** | **135** | P | | **Pn** | **17 35 30.3** | **+1.7** |

586nm,1.2s,7μm4μm1.9nm

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **FAKI** | **Fak Fak** | **6.51** | **135** | *e*Pn | | **Pn** | **17 35 30.2** | **+1.7** |
| **BUKP** | **Musuan** | **6.65** | **338** | *e*P | | **Pn** | **17 35 29.5** | **-0.9** |
| BUKP | | | | *e*S | | **Sn** | **17 36 45.5** | **+0.2** |
| **BUTP** | **Butuan** | **7.50** | **345** | *e*P | | **Pn** | **17 35 41.2** | **-0.4** |
| BUTP | | | | *e*S | | **Sn** | **17 37 05.7** | **+0.1** |
| **MPSI** | **Mapaga** | **7.83** | **260** | P | | **Pn** | **17 35 46.4** | **+0.3** |
| **SCPH** | **Surigao** | **8.31** | **345** | *i*P | | **Pn** | **17 35 51.4** | **-1.0** |
| **PALU** | **Palau** | **8.85** | **50** | P | | **Pn** | **17 35 59.3** | **-0.3** |

baz=9.0,SNR=8.9

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **LLP** | **Lapu-Lapu** | **9.30** | **337** | *i*P | | **Pn** | **17 36 04.3** | **-1.4** |
| LLP | | | | *e*S | | **Sn** | **17 37 45.0** | **-4.0** |
| **MYLDM** | **Lahad Datu** | **9.73** | **291** | *e*Pn | | **Pn** | **17 36 12.8** | **+1.4** |
| **OCLP** | **Ormoc** | **9.77** | **342** | *e*P | | **Pn** | **17 36 12.0** | **+0.2** |
| OCLP | | | | *e*S | | **Sn** | **17 37 51.8** | **-8.3** |
| **KAPI** | **Kappang** | **10.30** | **230** | *e*Pn | | **Pn** | **17 36 18.2** | **-0.6** |

166nm,0.4s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **KAPI** | **Kappang** | **10.30** | **230** | P | | **Pn** | **17 36 19.8** | **+1.0** |

SNR=12

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **KAPI** | **Kappang** | **10.30** | **230** | Pn | | **Pn** | **17 36 19.8** | **+1.0** |

SNR=12

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **RCP** | **Roxas** | **10.93** | **334** | *i*P | | **Pn** | **17 36 27.5** | **+0.4** |
| **MMRI** | **Maumere** | **11.57** | **208** | *e*Pn | | **Pn** | **17 36 36.5** | **+0.9** |
| **SOEI** | **Soe** | **11.85** | **196** | *e*Pn | | **Pn** | **17 36 40.9** | **+1.7** |
| **KKM** | **Kota Kinabalu** | **12.17** | **291** | *e*Pn | | **Pn** | **17 36 43.2** | **-0.1** |
| **ENPP** | **El Nido** | **12.47** | **320** | *e*P | | **Pn** | **17 36 46.4** | **-0.7** |
| **BUSP** | **Coron** | **12.61** | **325** | *e*P | | **Pn** | **17 36 48.5** | **-0.5** |
| **BOAC** | **Boac** | **13.01** | **334** | *e*P | | **Pn** | **17 36 54.9** | **+0.8** |
| **TGY** | **Tagaytay City** | **13.99** | **332** | P | | **Pn** | **17 37 06.5** | **-0.1** |

31nm,0.3s,baz=201,slow=4.0,SNR=19

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TGY | | | | S | | **Sn** | **17 39 43.0** | **+1.2** |

54nm,0.3s,baz=202,slow=6.7,SNR=10

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **MTN** | **Manton Dam** | **14.86** | **167** | P | | **Pn** | **17 37 16.0** | **-1.4** |

baz=15,SNR=131

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **MTN** | **Manton Dam** | **14.86** | **167** | *e*Pn | | **Pn** | **17 37 16.2** | **-1.2** |
| **KDU** | **Kakadu** | **15.08** | **161** | P | | **Pn** | **17 37 18.4** | **-1.8** |

baz=15,SNR=14

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **BALP** | **Baler** | **15.18** | **337** | *e*P | | **Pn** | **17 37 21.4** | **+0.1** |
| **SBUM** | **Sibu** | **15.40** | **273** | *e*Pn | | **Pn** | **17 37 22.6** | **-1.5** |

112nm,1.0s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **CAUP** | **Cauayan** | **16.19** | **340** | *e*P | | **P** | **17 37 34.7** | **+0.7** |
| **BOLP** | **Bolinao** | **16.45** | **333** | *e*P | | **P** | **17 37 36.7** | **-0.1** |
| **JAGI** | **Jajag, Banyuwa** | **16.79** | **233** | *e*P | | **Pn** | **17 37 42.6** | **+1.5** |

384nm,1.0s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **APYP** | **Conner** | **17.25** | **339** | *e*P | | **P** | **17 37 45.5** | **-0.1** |
| **ABRA** | **Dolores** | **17.25** | **337** | *e*P | | **P** | **17 37 45.8** | **+0.2** |
| **KNRA** | **Kununurra** | **17.30** | **176** | P | | **P** | **17 37 45.9** | **-0.3** |

baz=17,SNR=46

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **KSM** | **Kuching** | **17.30** | **270** | *e*P | | **Pn** | **17 37 47.9** | **+0.7** |

73nm,0.8s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **SMRI** | **Semarang** | **19.21** | **243** | *e*P | | **P** | **17 38 07.3** | **+0.1** |

623nm,1.0s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **MANU** | **Manus Island** | **20.09** | **101** | *e*P | | **P** | **17 38 16.7** | **0.0** |

100nm,1.0s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **GUMO** | **Guam** | **20.76** | **54** | P | | **P** | **17 38 22.7** | **-1.0** |

125nm,0.8s,baz=191,slow=16,SNR=3.5

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| GUMO | | | | LR | | LR | 17 45 06.5 | | |

comp=Z,183nm,21.7s,baz=265,slow=32

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **GUMO** | **Guam** | **20.76** | **54** | P | | **P** | **17 38 22.7** | **-1.0** |
| GUMO | | | | pmax | pmax | | | | |

comp=Z,49nm,0.4s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| GUMO | | | | MLR | | MLR | | | |

comp=Z,183nm,21.7s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **CISI** | **Cisompet, Garu** | **21.78** | **245** | *e*P | | **P** | **17 38 34.3** | **-0.4** |

comp=Z,204nm,0.8s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **COEN** | **Coen** | **21.90** | **136** | P | | **P** | **17 38 36.0** | **+0.1** |

baz=22,SNR=31

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **COEN** | **Coen** | **21.90** | **136** | *e*P | | **P** | **17 38 35.3** | **-0.5** |

comp=Z,94nm,0.8s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **TWG** | **Pinlang** | **21.94** | **344** | *e*P | | **P** | **17 38 33.9** | **-2.3** |

comp=Z,852nm,0.6s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **22.38** | **120** | P | | **P** | **17 38 39.7** | **-0.9** |

comp=Z,51nm,0.9s,baz=310,slow=2.3,SNR=13

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **22.38** | **120** | *e*P | | **P** | **17 38 39.6** | **-0.9** |
| PMG | | | | pmax | pmax | | | | |

comp=Z,64nm,0.9s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **22.38** | **120** | *e*P | | **P** | **17 38 39.5** | **-1.0** |

comp=Z,64nm,0.9s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **YULB** | **Yu-li** | **22.43** | **345** | *e*P | | **P** | **17 38 39.5** | **-1.5** |

comp=Z,75nm,0.8s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **WRAB** | **Tennant Creek** | **22.48** | **163** | *c i*P | | **P** | **17 38 40.6** | **-0.9** |
| WRAB | | | | pmax | pmax | | | | |

comp=Z,336nm,0.7s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **WRAB** | **Tennant Creek** | **22.48** | **163** | *e*P | | **P** | **17 38 40.8** | **-0.7** |

comp=Z,359nm,0.8s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **WR1** | **Warramunga Arr** | **22.49** | **163** | *e*P | | **P** | **17 38 40.7** | **-0.9** |

comp=Z,448nm,0.8s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| WR1 | | | | *e*S | | **S** | **17 42 37.9** | **+1.1** |
| WR1 | | | | *e* | | | 17 47 57.5 | | |
| **WRA** | **Warramunga Arr** | **22.49** | **163** | P | | **P** | **17 38 40.7** | **-0.9** |

comp=Z,286nm,0.7s,baz=344,slow=11,SNR=490

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| WRA | | | | S | | **S** | **17 42 37.9** | **+1.1** |

comp=Z,18nm,0.8s,baz=347,slow=18,SNR=8.8

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| WRA | | | | LR | | LR | 17 47 57.5 | | |

comp=Z,288nm,21.5s,baz=355,slow=38

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **WB2** | **Warramunga Arr** | **22.49** | **163** | *e*P | | **P** | **17 38 39.1** | **-2.5** |
| **TPUB** | **Ta-pu** | **22.52** | **343** | *e*P | | **P** | **17 38 41.0** | **-0.9** |

comp=Z,364nm,0.9s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **SSLB** | **Suanglung** | **22.89** | **344** | *e*P | | **P** | **17 38 44.0** | **-1.2** |

comp=Z,158nm,0.8s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **YOJ** | **Yonaguni jima** | **23.07** | **349** | *e*P | | **P** | **17 38 46.4** | **-0.4** |
| YOJ | | | | pmax | pmax | | | | |

comp=Z,180nm,0.7s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **YOJ** | **Yonaguni jima** | **23.07** | **349** | *e*P | | **P** | **17 38 46.4** | **-0.4** |

comp=Z,180nm,0.7s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **NACB** | **Ninganchiao** | **23.10** | **346** | *e*P | | **P** | **17 38 46.3** | **-0.8** |

comp=Z,83nm,1.0s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **YHNB** | **Yeheng** | **23.63** | **346** | *e*P | | **P** | **17 38 52.2** | **+0.2** |

comp=Z,251nm,0.8s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **MYKOM** | **Kota Tinggi** | **23.75** | **271** | *e*P | | **P** | **17 38 54.2** | **+1.0** |

comp=Z,49nm,0.8s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **TATO** | **Taipei** | **23.89** | **346** | *e*P | | **P** | **17 38 54.3** | **0.0** |

comp=Z,264nm,1.1s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **MBWA** | **Marble Bar** | **23.98** | **198** | *e*P | | **P** | **17 38 54.7** | **-0.5** |

comp=Z,320nm,0.8s

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **MBWA** | **Marble Bar** | **23.98** | **198** | P | | **P** | **17 38 55.1** | **-0.1** |

SNR=14

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **MBWA** | **Marble Bar** | **23.98** | **198** | P | | **P** | **17 38 55.1** | **-0.1** |

SNR=14

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **MCO** | **Taipa Grande** | **24.48** | **327** | P | | **P** | **17 39 01.0** | **+1.3** |
| **QIZ** | **Qiongzhong** | **24.50** | **316** | P | | **P** | **17 39 00.8** | **+0.9** |
| QIZ | | | | *p*P | | ***p*P** | **17 39 32.0** | **+0.5** |
| QIZ | | | | S | | **S** | **17 43 12.0** | **+2.9** |
| QIZ | | | | *s*S | | ***s*S** | **17 44 08.3** | **

CMAR PKiKP **PKiKP** **17 50 21.1 -0.8**
comp=Z,0.5nm,0.7s,baz=263,slow=0.7,SNR=4.2
CMAR LR LR 17 54 23.2
comp=Z,77nm,19.6s,baz=145,slow=38
**CMMT Chiang Mai 32.84 303** P **P** **17 40 14.9 +0.8**
comp=Z,23nm,1.7s
**CHTO Chiang Mai 32.85 303** P **P** **17 40 15.0 +0.9**
comp=Z,103nm,1.2s
**CHTO Chiang Mai 32.85 303** *e*P **P** **17 40 14.3 +0.2**
CHTO pmax pmax
comp=Z,21nm,0.9s
**CHTO Chiang Mai 32.85 303** *e*P **P** **17 40 14.3 +0.2**
comp=Z,20nm,0.9s
**CHTO Chiang Mai 32.85 303** P **P** **17 40 15.9 +1.8**
SNR=5.4
**CHTO Chiang Mai 32.85 303** P **P** **17 40 15.9 +1.8**
SNR=5.4
**ENH Enshi 33.22 331** *e*P **P** **17 40 18.5 +1.2**
comp=Z,269nm,0.8s
**KMBL Kambalda 33.33 189** P **P** **17 40 17.3 -0.7**
baz=33,SNR=62
**KMI Kunming 33.44 316** P **P** **17 40 21.3 +1.8**
KMI sP sP 17 41 10.8 +0.4
KMI S **S** **17 45 31.8 +2.1**
KMI pmax pmax
comp=Z,69nm,1.1s
KMI pmax pmax
comp=Z,160nm,3.1s
KMI LR LR
comp=Z,99nm,4.5s
KMI LR LR
comp=Z,200nm,6.1s
KMI LR LR
comp=Z,220nm,6.5s
**COCO West Island 33.54 245** *i*P **P** **17 40 20.3 +0.2**
**BLDU Ballidu 33.77 197** P **P** **17 40 21.0 -0.9**
baz=34,SNR=99
**KLBR Kellerberrin 34.40 195** P **P** **17 40 26.6 -0.8**
baz=34,SNR=69
**TJN Taejon 34.51 360** *d*/*i*P **P** **17 40 28.4 +0.2**
**INU Inuyama 34.61 14** *e*P **P** **17 40 29.4 +0.3**
comp=Z,98nm,0.9s
**RMQ Roma 34.66 145** P **P** **17 40 29.7 0.0**
baz=35,SNR=21
**MUN Mundaring 35.19 197** P **P** **17 40 33.4 -0.7**
baz=35,SNR=35
**EIDS Eidsvold 35.22 141** P **P** **17 40 34.1 -0.3**
baz=35,SNR=61
**EIDS Eidsvold 35.22 141** *e*P **P** **17 40 34.1 -0.3**
comp=Z,186nm,0.9s
**BBOO Buckleboo 35.23 168** P **P** **17 40 33.8 -0.7**
baz=35,SNR=220
**BBOO Buckleboo 35.23 168** *e*P **P** **17 40 33.8 -0.7**
comp=Z,169nm,0.9s
**KS15 Wonju Array Si 35.58 0** *e*P **P** **17 40 38.2 +0.8**
KS15 *e*ScP **ScP** **17 46 34.4 0.0**
KS15 *e* 17 57 25.3
**KSAR Wonju Array Be 35.58 0** P **P** **17 40 38.1 +0.8**
KSAR 17 43 03.8
**KSAR Wonju Array Be 35.58 0** P **P** **17 40 38.1 +0.8**
KSAR PcP **PcP** **17 43 03.8 +0.9**
KSAR ScP **ScP** **17 46 34.4 0.0**
**KSRS Korea Array 35.59 0** P **P** **17 40 38.1 +0.7**
comp=Z,56nm,0.8s,baz=178,slow=9.9,SNR=146
KSRS PcP **PcP** **17 43 03.8 +0.9**
comp=Z,4.4nm,0.7s,baz=185,slow=3.2,SNR=7.0
KSRS ScP **ScP** **17 46 34.4 -0.1**
comp=Z,4.4nm,0.8s,baz=184,slow=3.8,SNR=9.4
KSRS LR LR 17 57 25.3
comp=Z,84nm,19.4s,baz=185,slow=40
**KSRS Korea Array 35.59 0** P **P** **17 40 38.1 +0.7**
KSRS 17 43 03.8
KSRS pmax pmax
comp=Z,60nm,0.8s
KSRS MLR MLR
comp=Z,84nm,19.4s
**KS01 Wonju Array Si 35.61 0** *e*P **P** **17 40 38.1 +0.4**
**INCN Inchon 35.63 359** *e*P **P** **17 40 38.5 +0.7**
comp=Z,60nm,0.8s
**TIA Tai'an 35.70 345** P **P** **17 40 38.8 +0.4**
TIA pmax pmax
comp=Z,34nm,0.8s
**NWAO Narrogin (SRO) 35.80 195** P **P** **17 40 38.9 -0.5**
baz=36,SNR=75
NWAO P **P** **17 40 38.9 -0.5**
baz=36,SNR=75
**NWAO Narrogin (SRO) 35.80 195** *e*P **P** **17 40 38.8 -0.5**
NWAO pmax pmax
comp=Z,124nm,0.8s
**NWAO Narrogin (SRO) 35.80 195** *e*P **P** **17 40 38.8 -0.5**
comp=Z,124nm,0.8s
**NWAO Narrogin (SRO) 35.80 195** P **P** **17 40 39.2 -0.1**
SNR=6.2
**NWAO Narrogin (SRO) 35.80 195** P **P** **17 40 39.2 -0.1**
SNR=6.2
**STKA Stephens Creek 35.92 159** P **P** **17 40 40.2 -0.2**
comp=Z,150nm,0.8s,baz=334,slow=8.6,SNR=198
STKA PcP **PcP** **17 43 03.7 -0.3**
comp=Z,26nm,0.7s,baz=341,slow=6.4,SNR=5.6
STKA LR LR 17 55 59.5
comp=Z,519nm,21.3s,baz=342,slow=37
**STKA Stephens Creek 35.92 159** P **P** **17 40 40.1 -0.2**
baz=36,SNR=30
**STKA Stephens Creek 35.92 159** *e*P **P** **17 40 40.3 -0.2**
STKA *e* 17 43 03.7
STKA pmax pmax
comp=Z,39nm,0.9s
**STKA Stephens Creek 35.92 159** *e*P **P** **17 40 40.3 -0.1**
comp=Z,39nm,0.9s
STKA *e*PcP **PcP** **17 43 03.7 -0.3**
**PBA Port Blair 35.98 288** *e*P P 17 40 40.0 -1.0
**MAJO Matsushiro 36.04 15** *d*/*i*P **P** **17 40 40.0 -1.3**
MAJO pmax pmax
comp=Z,85nm,0.9s
**MAJO Matsushiro 36.04 15** *e*P **P** **17 40 40.2 -1.1**
comp=Z,70nm,0.8s
**MAT Matsushiro 36.04 15** P **P** **17 40 40.0 -1.3**
MAT S **S** **17 46 04.6 -4.2**
**MJAR Matsushiro Arr 36.04 15** P **P** **17 40 40.1 -1.3**
comp=Z,43nm,0.9s,baz=185,slow=9.4,SNR=90
MJAR PcP **PcP** **17 43 04.9 +0.6**
comp=Z,4.4nm,0.7s,baz=174,slow=2.6,SNR=4.4
MJAR LR LR 17 54 40.9
comp=Z,288nm,19.7s,baz=190,slow=34
**MJB9 Matsu-Tunnel 36.04 15** *e*P **P** **17 40 40.3 -1.1**
comp=Z,72nm,0.8s
**DGPR DIGLIPUR 36.17 290** *e*P **P** **17 40 41.7 -1.1**
**XAN Xi'an 36.62 334** P **P** **17 40 47.3 +0.9**
XAN pP pP 17 41 22.0 +2.1
XAN sP sP 17 41 40.5 +2.9
XAN PP **PnPn** **17 42 15.0 0.0**
XAN S **S** **17 46 13.8 -4.0**
XAN pmax pmax
comp=Z,340nm,1.0s
XAN pmax pmax
comp=Z,220nm,4.2s
XAN LR LR
comp=Z,140nm,16.8s
XAN LR LR
comp=Z,190nm,15.2s
XAN LR LR
comp=Z,250nm,14.0s
**CD2 Chengdu 36.80 325**⇓ *i*P **P** **17 40 48.8 +0.9**
CD2 sP sP 17 41 43.8 +4.6
CD2 PP **PP** **17 42 14.5 -0.6**
CD2 PcP **PcP** **17 43 04.5 -2.3**
CD2 S **S** **17 46 19.8 -0.9**
CD2 SS **SS** **17 49 00.3 -8.3**
CD2 ScS **ScS** **17 50 41.3 -5.4**
CD2 pmax pmax
comp=Z,180nm,0.9s
CD2 pmax pmax
comp=Z,90nm,6.6s
**CMSA Cobar Meteorol 37.24 154** P **P** **17 40 51.5 -0.1**
baz=37,SNR=30
**DL2 Dalian 37.44 352** P **P** **17 40 54.0 +0.9**
DL2 S **S** **17 46 33.3 +3.4**
DL2 pmax pmax
comp=Z,120nm,0.8s
**RKGY Rocky Gully 37.47 194** P **P** **17 40 53.9 +0.5**
baz=38,SNR=14
**ARMA Armidale 39.29 146** P **P** **17 41 09.6 +0.7**
baz=39,SNR=51
**ARMA Armidale 39.29 146** *e*P **P** **17 41 09.5 +0.6**
comp=Z,143nm,0.8s
**BJT Baijiatuau 39.54 346** *e*P **P** **17 41 11.3 +0.6**
BJT pmax pmax
comp=Z,153nm,0.9s
**BJT Baijiatuau 39.54 346** *e*P **P** **17 41 11.3 +0.6**
comp=Z,153nm,0.9s
**BJI Beijing 39.56 346** P **P** **17 41 11.3 +0.5**
BJI pP **pP** **17 41 45.8 +1.1**
BJI sP **sP** **17 42 01.5 -0.8**
BJI PcP **PcP** **17 43 16.0 +0.9**
BJI ScP **ScP** **17 46 49.5 +0.1**
BJI S **S** **17 47 01.3 -0.5**
BJI PcS **PcS** **17 47 06.0 +0.8**
BJI pmax pmax
comp=Z,180nm,1.1s
**ARPS Mount Arapiles 40.49 162** P **P** **17 41 18.9 +0.4**
baz=41,SNR=76
**BRDH Bariadhala 40.68 304** P **P** **17 41 22.2 +2.0**
comp=Z,87nm,0.4s,baz=292,slow=10,SNR=6.3
**LZH Lanzhou 40.70 330**⇓ P **P** **17 41 22.5 +2.0**
LZH pP pP 17 41 57.0 +2.5
LZH sP sP 17 42 16.0 +3.9
LZH PP **PnPn** **17 43 01.3 -1.8**
LZH *e*S **S** **17 47 15.0 -4.2**
LZH SS **SS** **17 50 20.0 -6.3**
LZH pmax pmax
comp=Z,130nm,1.2s
LZH pmax pmax
comp=Z,410nm,6.3s
LZH LR LR
comp=Z,1μm,15.2s
LZH LR LR
comp=Z,1μm,12.4s
LZH LR LR
comp=Z,1μm,17.5s
**YNG Young 40.78 153** P **P** **17 41 22.0 +1.0**
baz=41,SNR=12
**MSHR Mys Shultsa 40.83 4**⇑ *i*P **P** **17 41 22.4 +1.2**
**VLA Vladivostok 41.42 5** *d*/*i*P **P** **17 41 26.9 +0.9**
VLA pmax pmax
comp=Z,63nm,1.0s
**HHC Hu-ho-hao-te 41.60 342** *e*P **P** **17 41 28.5 +0.8**
HHC pmax pmax
comp=Z,22nm,0.6s
HHC pmax pmax
comp=Z,350nm,5.2s
**SHL Shillong 41.80 308** *e*P **P** **17 41 30.6 +0.9**
SHL AMB AMB 17 41 31.1
comp=Z,104nm,0.4s
**BTO Baotou 41.89 340** *e*P **P** **17 41 28.5 -1.5**
**CAN Canberra 41.91 153** *e*P **P** **17 41 30.9 +0.7**
CAN pmax pmax
comp=Z,137nm,1.3s
**CAN Canberra 41.91 153** *e*P **P** **17 41 30.9 +0.7**
comp=Z,137nm,1.3s
**CN2 Changchun 41.97 358** *e*P **P** **17 41 30.5 0.0**
CN2 pmax pmax
comp=Z,20nm,1.0s
**CNB Canberra Magne 42.06 153** P **P** **17 41 32.4 +0.9**
baz=42,SNR=6.7
**H11N1 WAKE ISLAND Hy 42.37 62** T T 18 26 30.1
baz=249,slow=76,SNR=6.4
**H11N2 WAKE ISLAND Hy 42.38 62** T T 18 26 06.7
baz=249,slow=76,SNR=4.2
**H11N3 WAKE ISLAND Hy 42.39 62** T T 18 25 60.0
baz=249,slow=76,SNR=6.5
**TOO Toolangi 42.43 159** P **P** **17 41 35.6 +1.2**
baz=42,SNR=8.6
**USRK Ussuriysk Ar. 42.51 5** P **P** **17 41 35.4 +0.6**
comp=Z,72nm,0.9s,baz=187,slow=7.3,SNR=62
**ERM Erimo 42.51 17**⇓ *e*P **P** **17 41 36.0 +1.2**
ERM pmax pmax
comp=Z,56nm,1.0s
**MDJ Mudanjiang 42.78 2** P **P** **17 41 38.0 +1.0**
MDJ pmax pmax
comp=Z,110nm,0.8s
MDJ pmax pmax
comp=Z,100nm,6.1s
**MDJ Mudanjiang 42.78 2** *e*P **P** **17 41 37.8 +0.8**
comp=Z,114nm,1.0s
**ASAJ Asahikawa 44.29 15** P **P** **17 41 50.0 +0.9**
comp=Z,23nm,0.7s,baz=227,slow=8.1,SNR=28
**ASAJ Asahikawa 44.29 15** P **P** **17 41 50.0 +0.9**
ASAJ pmax pmax
comp=Z,23nm,0.7s
**ASAJ Asahikawa 44.29 15** *e*P **P** **17 41 49.9 +0.9**
comp=Z,34nm,0.9s
**LSA Lhasa 44.45 312** *e*P **P** **17 41 53.3 +2.1**
LSA *e*S **S** **17 48 16.9 +1.9**
LSA pmax pmax
comp=Z,101nm,0.8s
**LSA Lhasa 44.45 312** *e*P **P** **17 41 53.2 +2.1**
comp=Z,101nm,0.8s
LSA *e*S **S** **17 48 16.9 +1.9**
**DZM Mont Dzumac 44.66 124** *e*P **P** **17 41 52.9 +0.4**
comp=Z,204nm,1.4s
**GTA Gaotai 45.29 329**⇓ P **P** **17 41 58.5 +1.2**
GTA pP pP 17 42 34.5 +2.5
GTA sP sP 17 42 52.8 +3.4
GTA PcP **PcP** **17 43 36.0 +1.6**
GTA ScP **ScP** **17 47 12.8 +0.1**
GTA S **S** **17 48 28.3 +2.2**
GTA sS sS 17 49 30.5 +4.1
GTA ScS **ScS** **17 51 37.3 -0.6**
GTA SS **SS** **17 51 47.5 -4.3**
GTA pmax pmax
comp=Z,64nm,1.1s
GTA pmax pmax
comp=Z,220nm,4.8s
GTA LR LR
comp=Z,250nm,18.1s
GTA LR LR
comp=Z,260nm,18.1s
GTA LR LR
comp=Z,250nm,18.5s
**TAPN Taplejung 45.94 307** *e*P **P** **17 42 04.0 +1.2**
comp=Z,134nm,0.6s
**BOK Bokaro 45.97 302** *e*P **P** **17 42 02.6 -0.1**
**ODAN Odare 45.98 307** *e*P **P** **17 42 04.1 +1.1**
comp=Z,271nm,0.8s
**VIS Vishakhapatnam 46.30 293** *e*P **P** **17 42 05.5 +0.1**
**RAMN Ramite 46.65 306** *e*P **P** **17 42 09.8 +1.5**
comp=Z,330nm,0.8s
**YSS Yuzh-Sakhalins 46.97 14** *i*P **P** **17 42 10.4 +0.3**
YSS pmax pmax
comp=Z,40nm,0.8s
**YSS Yuzh-Sakhalins 46.97 14** *e*P **P** **17 42 10.3 +0.3**
comp=Z,53nm,0.9s
**HABR Khabarovsk 47.04 7** *e*P **P** **17 42 08.8 -1.8**
HABR *e**PP **pP** **17 42 44.6 -0.9**
HABR *e**SP **sP** **17 43 02.7 -0.2**
HABR *e* 17 43 38.2
HABR *e* 17 44 01.0
HABR *e*PPP PPP 17 44 51.3
HABR *e*S **S** **17 48 48.4 -2.1**
HABR *e**SS **sS** **17 49 51.5 +0.3**
HABR *e* 17 51 45.9
HABR *e*SS **SS** **17 52 19.5 -0.1**
HABR pmax pmax
comp=E,7.0nm,1.3s
HABR pmax pmax
comp=N,23nm,1.3s
HABR pmax pmax
comp=Z,74nm,1.3s
HABR MLR MLR
comp=Z,121nm,20.0s
**JIRN Jiri 47.28 307** *e*P **P** **17 42 14.6 +1.2**
comp=Z,1μm,0.7s
**KLR Kul'dur 47.49 4** P **P** **17 42 14.4 +0.3**
comp=Z,2.9nm,0.8s,baz=204,slow=4.9,SNR=70
KLR ScP **ScP** **17 47 20.5 -1.0**
comp=Z,0.3nm,0.8s,baz=241,slow=3.6,SNR=4.7
**KLR Kul'dur 47.49 4** *d*/*iP* **P** **17 42 14.2 +0.1**
**GUN Gumba 47.64 307** *e*P **P** **17 42 17.3 +1.2**
comp=Z,499nm,0.7s
**PKI Pulchoki 47.87 306** *e*P **P** **17 42 18.5 +0.7**
comp=Z,152nm,1.0s
**HIA Hailar 47.87 353** *e*P **P** **17 42 17.6 +0.5**
HIA pmax pmax
comp=Z,41nm,1.2s
**HIA Hailar 47.87 353** *e*P **P** **17 42 17.6 +0.5**
comp=Z,41nm,1.2s
**KKN Kakani 48.07 307** *e*P **P** **17 42 20.1 +0.9**
comp=Z,213nm,0.9s
**DMN Daman 48.13 306** *e*P **P** **17 42 20.6 +0.8**
comp=Z,265nm,0.9s
**MDRS Chennai 48.22 286** *e*P **P** **17 42 21.8 +1.5**
MDRS AMB AMB 17 42 48.3
comp=Z,125nm,1.8s
**GKN Gorkha 48.67 307** *e*P **P** **17 42 24.8 +1.0**
**NFK Norfolk Island 49.22 132** P **P** **17 42 27.5 -0.2**
baz=49,SNR=3.6
**ULN Ulaanbaatar 49.32 342** *d*/*i*P **P** **17 42 29.0 +0.7**
ULN pmax pmax
comp=Z,107nm,1.1s
**ULN Ulaanbaatar 49.32 342** *e*P **P** **17 42 28.9 +0.6**
comp=Z,90nm,1.0s
**ULN Ulaanbaatar 49.32 342** P **P** **17 42 29.5 +1.2**
SNR=29
**ULN Ulaanbaatar 49.32 342** P **P** **17 42 29.5 +1.2**
SNR=29
**KOLN Koldanda 49.41 306** *e*P **P** **17 42 30.9 +1.4**
comp=Z,564nm,0.7s
**SONA0 Songino Array 49.50 341** *e*P **P** **17 42 30.3 +0.6**
SONA0 *e*PcP **PcP** **17 43 49.9 +0.6**
SONA0 *e*PP **PP** **17 44 27.3 +1.8**
SONA0 *e*ScP **ScP** **17 47 29.3 -1.0**
SONA0 *e*PKKPdf PKKPdf 18 04 20.5 -44
**SONM Songino Array 49.50 341** P **P** **17 42 30.3 +0.6**
comp=Z,28nm,0.7s,baz=156,slow=8.7,SNR=242
SONM PcP **PcP** **17 43 49.9 +0.6**
comp=Z,8.1nm,0.8s,baz=154,slow=4.6,SNR=4.1
SONM PP **PP** **17 44 27.3 +1.8**
comp=Z,8.9nm,1.1s,baz=168,slow=11,SNR=3.5
SONM ScP **ScP** **17 47 29.3 -0.9**
comp=Z,4.9nm,0.9s,baz=162,slow=5.0,SNR=8.4
SONM LR LR 18 04 20.5
comp=Z,214nm,19.3s,baz=208,slow=37
**SONA1 Songino Array 49.51 341** *e*P **P** **17 42 30.2 +0.4**
**DANN Dangsing 49.52 307** *e*P **P** **17 42 31.6 +1.2**
comp=Z,23nm,0.8s
**PYUN Piuthan 50.04 306** *e*P **P** **17 42 35.8 +1.6**
comp=Z,671nm,0.8s
**TYV Tymovskoe 50.62 12** *e*P P 17 42 45.7 +7.8
TYV *e*S S 17 49 54.6 +14
TYV pmax pmax
comp=Z,17nm,1.1s
TYV smax smax
comp=N,7.0nm,2.5s
**HYB Hyderabad 50.65 291** *i*P **P** **17 42 39.0 +0.3**
HYB *e*S **S** **17 49 40.0 -2.1**
**HYB Hyderabad 50.65 291** *e*P **P** **17 42 39.6 +0.9**
HYB AMB AMB 17 42 40.3
comp=Z,102nm,1.2s
**JBP Jabalpur 50.85 299**⇓ *e*P **P** **17 42 41.6 +1.6**
JBP AMB AMB 17 42 42.1
comp=Z,85nm,0.7s
JBP *ex* x 17 49 40.8
**TRD Trivandrum 50.87 280** *e*P **P** **17 42 41.0 +0.6**
**NGP Nagpur 51.10 296** *e*P **P** **17 42 42.3 +0.3**
NGP AMB AMB 17 42 43.9
comp=Z,53nm,1.0s
**CIT Chita 51.52 349** *e*P **P** **17 42 45.4 +0.8**
CIT *e* 17 43 23.0
CIT pmax pmax
comp=Z,102nm,1.3s
**FUNA Funafuti 52.41 102** *e*P **P** **17 42 52.1 +0.3**
comp=Z,165nm,0.9s
**NKL Nikolayevsk 52.42 10** *e*P **P** **17 42 51.0 -0.1**
NKL pmax pmax
comp=N,43nm,1.0s
NKL pmax pmax
comp=Z,130nm,1.0s
**ZAK Zakamensk 52.73 341** *e*P **P** **17 42 53.4 -0.3**
ZAK *e* 17 43 51.0
ZAK pmax pmax
comp=Z,7.0nm,1.1s
ZAK pmax pmax
comp=Z,6.0nm,1.0s
**AKL Akola 52.82 295** *ex* x 17 43 32.4
AKL AMB AMB 17 43 33.5
comp=Z,74nm,0.9s
**BHPL Bhopal 53.12 298** *e*P **P** **17 42 56.6 -0.3**
**MSVF Nonsavu 53.28 114** *e*P **P** **17 42 59.8 +1.6**
MSVF pmax pmax
comp=Z,126nm,1.0s
**MSVF Nonsavu 53.28 114** *e*P **P** **17 42 59.8 +1.6**
comp=Z,126nm,1.0s
**TLY Talaya 53.73 342** *e*P P 17 43 08.0 +7.2
TLY *e*S **S** **17 50 22.1 -0.8**
TLY *e*SS **SS** **17 54 09.4 +3.4**
TLY pmax pmax
comp=Z,19nm,1.0s
TLY MLR MLR
comp=Z,72nm,17.0s
**MOY Mondy 54.59 340** *e*P **P** **17 43 08.2 +1.0**
MOY pmax pmax
comp=Z,22nm,1.9s
**GOA Goa 54.75 288** *e*P **P** **17 43 08.0 -0.8**
**DDI Dehra Dun 54.87 306** *e*P **P** **17 43 09.9 +0.3**
DDI AMB AMB 17 43 11.2
comp=Z,66nm,1.4s
**WMQ Urumqi 54.89 325** P **P** **17 43 11.3 +1.8**
WMQ pP pP 17 43 45.5 +0.1
WMQ sP sP 17 44 04.0 +1.5
WMQ PcP **PcP** **17 44 10.0 +0.4**
WMQ S **S** **17 50 43.3 +4.4**
WMQ SS **SS** **17 54 31.0 +6.3**
WMQ pmax pmax
comp=Z,160nm,0.9s
WMQ pmax pmax
comp=Z,34nm,3.6s
WMQ LR LR
comp=Z,2μm,7.1s
WMQ LR LR
comp=Z,430nm,7.1s
WMQ LR LR
comp=Z,380nm,21.3s
**POO Poona 55.26 291** *e*P **P** **17 43 11.9 -0.7**
**SMLA Simla 55.88 307** *e*P **P** **17 43 18.0 +1.4**
SMLA AMB AMB 17 43 20.5
comp=Z,79nm,0.4s
**HVS Khovu-Aksy 56.95 335** *d*/*i*P **P** **17 43 25.0 +1.0**
HVS pmax pmax
comp=Z,75nm,0.9s
**DHRM DHARAMSHALA 56.98 308** *e*P **P** **17 43 23.5 -1.2**
DHRM AMB AMB 17 43 25.9
comp=Z,116nm,0.3s
**PETK Petropavlovsk- 56.99 21** P **P** **17 43 25.0 +0.9**
comp=Z,17nm,0.8s,baz=177,slow=3.5,SNR=21
PETK pP **pP** **17 43 58.2 -2.1**
comp=Z,5.2nm,0.6s,baz=193,slow=4.8,SNR=2.3
PETK S **S** **17 51 09.0 +2.9**
comp=Z,2.9nm,0.8s,baz=192,slow=10.0,SNR=9.7
**PEA1 Petropavlovsk- 56.99 21** *e*P **P** **17 43 25.0 +0.9**
PEA1 *e*pP **pP** **17 43 58.2 -2.1**
PEA1 *e*S **S** **17 51 09.0 +2.8**
**BOD Bodaibo 57.00 351**⇑ *i*P **P** **17 43 23.9 -0.1**
BOD pmax pmax
comp=Z,52nm,0.9s
**PET Petropavlovsk 57.27 22**⇑ *e*P **P** **17 43 26.6 +0.6**
PET pmax pmax
comp=Z,79nm,1.4s
**THN Thein Dam 57.50 308** *e*P **P** **17 43 27.3 -0.8**
THN *e*S **S** **17 51 13.0 -0.6**
**LBZ Lake Benmore 59.51 146** *e*P **P** **17 43 41.0 -0.8**
comp=Z,296nm,1.9s
**PDGK Podgornoye 59.54 321** P **P** **17 43 42.4 +0.2**
PDGK pmax pmax
comp=Z,29nm,0.9s
**THZ Tophouse 59.56 142** *e*P **P** **17 43 41.4 -0.8**
comp=Z,26nm,0.7s
**RPZ Rata Peaks 59.60 145** P **P** **17 43 42.4 0.0**
comp=Z,26nm,0.8s,baz=191,slow=5.2
**RPZ Rata Peaks 59.60 145** *e*P **P** **17 43 42.2 -0.2**
comp=Z,33nm,1.0s
**MK01 Makanchi Array 59.70 326** *e*P **P** **17 43 43.8 +0.7**
MK01 *e*S **S** **17 51 41.8 +0.2**
**MK31 Makanchi Array 59.72 326** *e*P **P** **17 43 44.0 +0.7**
MK31 *e*S **S** **17 51 42.5 +0.6**
**MK31 Makanchi Array 59.72 326** *e*P **P** **17 43 44.0 +0.7**
MK31 *e*S **S** **17 51 42.5 +0.6**
**MK32 Makanchi Array 59.72 326** *e*P **P** **17 43 43.9 +0.7**
MK32 *e*pP **pP** **17 44 17.8 -1.9**
MK32 *e*ScP **ScP** **17 48 14.0 -0.9**
MK32 *e*S **S** **17 51 42.2 +0.3**
MK32 *e* 18 09 27.3
MK32 *e* 18 12 55.6
**MKAR Makanchi Array 59.72 326** P **P** **17 43 43.9 +0.7**
comp=Z,50nm,0.7s,baz=116,slow=8.1,SNR=590
MKAR pP **pP** **17 44 17.8 -1.9**
comp=Z,10nm,0.5s,baz=116,slow=8.4,SNR=2.7

MKAR ScP **ScP** **17 48 14.0 -0.9**
comp=Z,3.2nm,0.8s,baz=123,slow=4.5,SNR=4.4
MKAR S **S** **17 51 42.2 +0.3**
comp=Z,1.6nm,0.9s,baz=123,slow=16,SNR=8.9
MKAR LR LR 18 09 27.3
comp=Z,140nm,21.8s,baz=91,slow=36
MKAR PKPPKP P'P'df 18 12 55.6 -14
comp=Z,1.2nm,0.9s,baz=278,slow=4.2,SNR=7.2
**MKAR Makanchi Array 59.72 326** *eP* **P** **17 43 44.0 +0.7**
MKAR *PP **pP** **17 44 17.8 -1.9**
MKAR *eS* **S** **17 51 42.5 +0.6**
MKAR pmax pmax
comp=Z,254nm,0.6s
**MKAR Makanchi Array 59.72 326** *eP* **P** **17 43 44.0 +0.7**
comp=Z,254nm,0.6s
MKAR pP **pP** **17 44 17.8 -1.9**
MKAR ScP **ScP** **17 48 14.0 -0.9**
MKAR *eS* **S** **17 51 42.5 +0.6**
MKAR P'P' 18 12 55.6
**MAKZ Makanchi 59.91 325** *eP* **P** **17 43 45.1 +0.6**
MAKZ *eS* **S** **17 51 44.9 +0.6**
MAKZ pmax pmax
comp=Z,39nm,0.8s
**MAKZ Makanchi 59.91 325** *eP* **P** **17 43 45.1 +0.6**
comp=Z,39nm,0.8s
MAKZ *eS* **S** **17 51 44.9 +0.6**
**BHJ Bhuj 60.05 296** *eP* **P** **17 43 45.2 -0.7**
**KSH Kashi 60.10 316** P **P** **17 43 48.0 +1.9**
KSH pP pP 17 44 25.5 +2.8
KSH PcP **PcP** **17 44 32.5 +2.2**
KSH PP **PP** **17 46 07.0 +6.5**
KSH S **S** **17 51 43.0 -4.3**
KSH ScS SKKSac 17 53 14.3 -7.3
KSH pmax pmax
comp=Z,16nm,0.7s
KSH pmax pmax
comp=Z,120nm,3.2s
KSH LR LR
comp=Z,220nm,5.5s
KSH LR LR
comp=Z,230nm,5.3s
KSH LR LR
comp=Z,380nm,6.1s
**YAK Yakutsk 60.21 1** P **P** **17 43 46.8 +0.6**
comp=Z,191nm,0.7s,baz=279,slow=0.2,SNR=146
**YAK Yakutsk 60.21 1***d iP* **P** **17 43 46.3 +0.1**
YAK *e* 17 44 24.2
YAK *e* 17 46 01.1
YAK *eS* **S** **17 51 46.3 -1.2**
YAK *e**SS pS 17 52 09.0 -19
YAK *e* 17 53 18.2
YAK *eSS* **SS** **17 55 43.6 -3.9**
YAK pmax pmax
comp=Z,136nm,0.8s
YAK pmax pmax
comp=N,26nm,1.2s
YAK pmax pmax
comp=E,5.0nm,0.8s
YAK pmax pmax
comp=Z,23nm,1.1s
YAK pmax pmax
comp=N,69nm,2.5s
YAK pmax pmax
comp=E,34nm,2.8s
YAK smax smax
comp=E,188nm,2.0s
YAK smax smax
comp=N,83nm,1.8s
**YAK Yakutsk 60.21 1** *eP* **P** **17 43 46.4 +0.2**
comp=N,240nm,0.7s
**MA2 Magadan 60.46 13** P **P** **17 43 49.2 +1.3**
comp=N,27nm,0.8s,baz=195,slow=7.5,SNR=36
**MA2 Magadan 60.46 13***d iP* **P** **17 43 49.0 +1.0**
**BKZ Black Stump Fm 60.49 138** *eP* **P** **17 43 48.3 -0.3**
comp=N,196nm,1.9s
**KZA Kyzart 61.71 318** P **P** **17 43 58.9 +1.7**
SNR=25
**TKM2 Tokmak 2 61.85 319** P **P** **17 43 58.2 +0.3**
TKM2 pmax pmax
comp=Z,16nm,0.6s
**TKM2 Tokmak 2 61.85 319** P **P** **17 43 58.7 +0.8**
SNR=32
**SFK Sufi-Kurgan 62.04 315** P **P** **17 44 00.1 +0.8**
SFK pmax pmax
comp=Z,13nm,0.7s
**KBK Karagaybulak 62.16 318** P **P** **17 44 01.2 +1.2**
SNR=10
**UCH Uchtor 62.27 318** P **P** **17 44 02.5 +1.5**
SNR=23
**CHMS Chumysh 62.44 319** P **P** **17 44 02.0 +0.4**
SNR=8.5
**AAK Ala-Archa 62.45 318***d iP* **P** **17 44 02.7 +0.8**
AAK pmax pmax
comp=Z,5.0nm,1.0s
**AAK Ala-Archa 62.45 318** P **P** **17 44 03.0 +1.1**
SNR=7.5
**AAK Ala-Archa 62.45 318** *eP* **P** **17 44 03.0 +1.1**
comp=Z,21nm,1.4s
**AAK Ala-Archa 62.45 318** P **P** **17 44 03.4 +1.5**
SNR=6.2
**AAK Ala-Archa 62.45 318** P **P** **17 44 03.4 +1.5**
SNR=6.2
**USP Ospenovka 62.72 319** P **P** **17 44 04.4 +0.9**
SNR=32
**AML Almayashu 62.78 317** P **P** **17 44 05.7 +1.4**
SNR=27
**ZAA0 Zalesovo Array 62.79 333** *eP* **P** **17 44 03.0 -0.6**
comp=Z,17nm,0.8s
**ZALV Zalesovo Beam 62.79 333** P **P** **17 44 03.2 -0.5**
comp=Z,12nm,0.9s,baz=116,slow=6.8,SNR=28
ZALV S **S** **17 52 18.8 -1.6**
comp=Z,0.6nm,0.5s,baz=128,slow=9.3,SNR=4.2
ZALV PKP2bc 18 13 07.4
comp=Z,4.7nm,0.9s,baz=298,slow=3.2,SNR=11
ZALV LR LR 18 14 59.8
comp=Z,77nm,18.5s,baz=70,slow=39
**ZAA1 Zalesovo Array 62.80 333** *eP* **P** **17 44 03.2 -0.5**
ZAA1 *eS* **S** **17 52 18.8 -1.6**
ZAA1 *e* 18 14 59.8
**EKS2 Erkin-Say 62.94 318** P **P** **17 44 06.4 +1.3**
SNR=26
**KBL Kabul 63.46 308** *eP* **P** **17 44 09.0 +0.2**
KBL pmax pmax
comp=Z,18nm,0.9s
**KBL Kabul 63.46 308** *eP* **P** **17 44 09.0 +0.2**
comp=Z,18nm,0.9s
**MNAS Manas 63.73 317** P **P** **17 44 10.5 +0.2**
MNAS pmax pmax
comp=Z,16nm,1.1s
**SEY Seymchan 63.81 12** P **P** **17 44 11.7 +1.5**
comp=Z,26nm,0.8s,baz=211,slow=4.9,SNR=87
**SEY Seymchan 63.81 12***deP* **P** **17 44 12.0 +1.8**
**KURBB Kurchatov Arra 63.92 328** PKPPKP P'P'df 18 12 49.9 -13
comp=Z,0.7nm,0.3s,baz=283,slow=3.5,SNR=5.1
KURBB PKP2bc 18 13 01.1
comp=Z,1.8nm,0.7s,baz=295,slow=3.4,SNR=6.8
**KURK Kurchatov 63.92 328***d iP* **P** **17 44 11.3 +0.1**
KURK pmax pmax
comp=Z,81nm,0.7s
**KURK Kurchatov 63.92 328** *eP* **P** **17 44 11.5 +0.4**
comp=Z,85nm,0.8s
KURK *eS* **S** **17 52 34.5 0.0**
KURK *e* 18 12 49.9
KURK ⇑*e* 18 13 01.1
**KURK Kurchatov 63.92 328** P **P** **17 44 11.8 +0.7**
SNR=19
**KURK Kurchatov 63.92 328** P **P** **17 44 11.8 +0.7**
SNR=19
**NVS Novosibirsk 64.08 333** *eP* **P** **17 44 11.3 -0.8**
NVS *eS* **S** **17 52 34.4 -1.8**
NVS *e* 17 53 45.5
NVS pmax pmax
comp=Z,25nm,0.9s
NVS pmax pmax
comp=N,16nm,1.1s
NVS pmax pmax
comp=E,13nm,0.9s
NVS smax smax
comp=N,15nm,1.7s
NVS smax smax
comp=E,26nm,1.7s
**KK31 Karatay Array 65.32 317** *iP* **P** **17 44 20.3 -0.1**
KK31 pmax pmax
comp=Z,15nm,0.9s
**KKAR Karatay Array 65.32 317** *eP* **P** **17 44 20.9 +0.5**
**KKAR Karatay Array 65.32 317** *eP* **P** **17 44 20.9 +0.5**

**BVAR Borovoye Array 69.50 327** PKPPKP **P'P'bc** **18 12 52.3 -0.8**
comp=Z,0.5nm,0.5s,baz=353,slow=6.2,SNR=5.0
**BRVK Borovoye 69.57 327***d iP* **P** **17 44 46.9 0.0**
BRVK pmax pmax
comp=Z,40nm,0.9s
**BRVK Borovoye 69.57 327** *eP* **P** **17 44 47.0 +0.1**
comp=Z,34nm,0.8s
**BRVK Borovoye 69.57 327** P **P** **17 44 47.4 +0.5**
SNR=10
**BRVK Borovoye 69.57 327** P **P** **17 44 47.4 +0.5**
SNR=10
**TIXI Tiksi 69.86 0** P **P** **17 44 48.1 -0.1**
comp=Z,19nm,0.4s,baz=183,slow=3.9,SNR=35
**TIXI Tiksi 69.86 0***c iP* **P** **17 44 48.0 -0.3**
TIXI *i* *PP **pP** **17 45 27.4 +1.6**
TIXI pmax pmax
comp=Z,25nm,0.8s
**TIXI Tiksi 69.86 0** *eP* **P** **17 44 47.5 -0.7**
comp=Z,21nm,0.6s
**BILL Bilibino 71.29 14***deP* **P** **17 44 57.0 -0.1**
BILL *i* 17 47 42.1
BILL *eS* **S** **17 54 00.3 -1.4**
BILL pmax pmax
comp=Z,8.0nm,1.4s
**MRIV Mauritius Mete 72.00 248** *eP* **P** **17 45 01.0 -1.3**
comp=Z,48nm,1.0s
**GEYT Alibeck 72.86 309** P **P** **17 45 07.8 +0.7**
comp=Z,5.7nm,0.6s,baz=140,slow=5.2,SNR=24
GEYT pP **pP** **17 45 44.9 0.0**
comp=Z,6.3nm,0.9s,baz=134,slow=6.4,SNR=3.0
GEYT LR LR 18 21 23.6
comp=Z,64nm,18.7s,baz=220,slow=39
**AB31 Akbulak array 74.28 321** *iP* **P** **17 45 14.5 -0.5**
AB31 pmax pmax
comp=Z,14nm,0.9s
**ABKAR Akbulak array 74.28 321** *eP* **P** **17 45 14.9 -0.1**
comp=Z,92nm,0.8s
**GAMB Gambell 75.89 24** *eP* **P** **17 45 25.3 +1.4**
comp=Z,21nm,1.2s
**SVE Sverdlovsk 76.15 329***c iP* **P** **17 45 25.5 -0.1**
SVE pmax pmax
comp=Z,33nm,0.8s
**ARU Arti 77.12 328***d iP* **P** **17 45 30.3 -0.7**
ARU *PP **pP** **17 46 08.2 -1.1**
ARU **17 48 23.1**
ARU S **S** **17 55 07.3 +0.1**
ARU SS **SS** **18 00 05.4 -2.6**
ARU pmax pmax
comp=Z,25nm,1.0s
**ARU Arti 77.12 328** *eP* **P** **17 45 30.4 -0.7**
comp=Z,18nm,0.7s
**SDPT Sand Point 78.38 34** *eP* **P** **17 45 38.7 +0.7**
comp=Z,58nm,0.6s
**LKRN Lenkeran, Azer 80.23 309** P **P** **17 45 47.5 -0.9**
**VNDA Vanda 81.31 173** P **P** **17 45 53.3 0.0**
comp=Z,66nm,0.8s,baz=315,slow=6.1,SNR=230
VNDA PKKP **PKKPdf** **18 04 18.9 -1.4**
comp=Z,2.0nm,0.7s,baz=302,slow=3.5,SNR=4.2
VNDA LR LR 18 23 25.8
comp=Z,68nm,18.4s,baz=336,slow=37
**ABPO Ambohimpanom 81.47 251** *eP* **P** **17 45 55.6 0.0**
ABPO pmax pmax
comp=Z,13nm,1.0s
**ABPO Ambohimpanom 81.47 251** *eP* **P** **17 45 55.6 0.0**
comp=Z,13nm,1.0s
**OPO Ambohidratompo 81.47 251** P **P** **17 45 55.7 +0.1**
comp=Z,9.6nm,1.0s,baz=88,slow=10,SNR=7.9
**MAK Makhachkala 81.61 313** *eP* **P** **17 45 55.7 +0.1**
MAK *e**PP **pP** **17 46 32.2 -2.0**
MAK *e* 17 49 01.2
MAK *e*PPP PPP 17 50 56.7
MAK *eS* **S** **17 55 56.7 +1.7**
MAK *e**SS **sS** **17 57 00.7 -1.2**
MAK *eSS* **SS** **18 01 13.0 -2.7**
MAK pmax pmax
comp=Z,322nm,1.9s
**SEKA Sheki 81.67 311** P **P** **17 45 54.7 -1.4**
**MNGR Mingechevir, A 81.72 311** P **P** **17 45 55.4 -0.9**
**RAYN Ar Rayn 82.09 293** *eP* **P** **17 45 58.4 -0.3**
comp=Z,17nm,1.2s
**ZKTA Zakatala 82.14 312** P **P** **17 45 57.5 -1.0**
**MAW Mawson 82.16 200** P **P** **17 45 58.1 +0.2**
comp=Z,39nm,0.8s,baz=63,slow=5.4,SNR=41
**MAW Mawson 82.16 200** P **P** **17 45 58.2 +0.2**
baz=82,SNR=29
**SBA Scott Base 82.21 172** *eP* **P** **17 45 58.5 +0.4**
SBA pmax pmax
comp=Z,46nm,0.9s
**SBA Scott Base 82.21 172** *eP* **P** **17 45 58.5 +0.4**
comp=Z,46nm,0.9s
**GANJ Ganja 82.29 311** P **P** **17 45 58.3 -1.0**
**NAX Nakhchivan 82.82 309** P **P** **17 46 01.0 -1.2**
**KDAK Kodiak Island 83.13 32** P **P** **17 46 04.3 +1.1**
comp=Z,14nm,0.6s,baz=251,slow=3.8,SNR=20
KDAK pP **pP** **17 46 40.5 -1.5**
comp=Z,85nm,1.4s,baz=223,slow=4.1,SNR=3.0
**KDAK Kodiak Island 83.13 32** *eP* **P** **17 46 03.7 +0.5**
KDAK *PP **pP** **17 46 40.5 -1.5**
KDAK pmax pmax
comp=Z,140nm,1.6s
**KDAK Kodiak Island 83.13 32** *eP* **P** **17 46 03.7 +0.5**
comp=Z,140nm,1.6s
KDAK pP **pP** **17 46 40.5 -1.5**
**PPT Papeete 83.65 108** LR LR 18 21 33.4
comp=Z,24nm,19.3s,baz=278,slow=34
**IM3 Indian Mountai 83.84 24** *eP* **P** **17 46 07.5 +0.8**
**ZEI Tsey 84.24 313** *eP* **P** **17 46 08.3 -1.2**
ZEI pmax pmax
comp=Z,15nm,0.6s
**ATD Arta Tunnel 84.54 281** P **P** **17 46 10.8 -0.5**
comp=Z,8.2nm,0.6s,baz=260,slow=10.0,SNR=4.7
**MLY Manley 84.94 25** *eP* **P** **17 46 12.2 -0.1**
comp=Z,45nm,2.0s
**RC01 Rabbit Creek A 84.96 29** *eP* **P** **17 46 12.2 -0.3**
comp=Z,21nm,0.5s
**NEY Neytrino 85.12 313**⇑ *eP* **P** **17 46 14.7 +0.8**
NEY pmax pmax
comp=Z,1.0nm,0.8s
**KIV Kislovodsk 85.17 314** *eP* **P** **17 46 14.7 +0.7**
KIV pmax pmax
comp=Z,5.0nm,1.0s
**PMR Palmer 85.30 28** *eP* **P** **17 46 14.1 0.0**
PMR pmax pmax
comp=Z,15nm,0.9s
**PMR Palmer 85.30 28** *eP* **P** **17 46 14.1 0.0**
comp=Z,15nm,0.9s
**COLD Coldfoot 85.42 23** *eP* **P** **17 46 15.3 +0.8**
comp=Z,17nm,1.2s
**ARTV Artvin 85.64 311** *eP* **P** **17 46 17.1 +0.5**
comp=Z,25nm,1.7s
**VRH Novokhopyorsk 86.11 321** *eP* **P** **17 46 17.6 -0.7**
VRH pmax pmax
comp=Z,10.0nm,0.6s
**CCB Clear Creek Bu 86.15 25** *eP* **P** **17 46 17.9 -0.3**
comp=Z,5.6nm,1.0s
**ILAR Eielson Array 86.55 25** P **P** **17 46 19.4 -0.9**
comp=Z,0.9nm,0.5s,baz=250,slow=4.9,SNR=18
ILAR PP **PP** **17 49 41.6 -2.4**
comp=Z,1.1nm,1.1s,baz=271,slow=6.2,SNR=4.5
ILAR PKKPbc **PKKPbc** **18 04 15.0 -3.4**
comp=Z,0.9nm,1.0s,baz=109,slow=1.3,SNR=5.6
ILAR LR LR 18 20 13.3
comp=Z,44nm,21.1s,baz=240,slow=32
**ILB Eielson Array 86.55 25** *eP* **P** **17 46 18.9 -1.3**
ILB *ePP* **PP** **17 49 41.6 -2.4**
ILB *e* 18 20 13.3
**KLMR Klimovskoe 87.60 331** *eP* **P** **17 46 28.4 +3.1**
KLMR pmax pmax
comp=Z,23nm,1.3s
**VSR Storozhevoye 87.72 321** *eP* **P** **17 46 25.5 -0.6**
VSR pmax pmax
comp=Z,4.0nm,0.5s
**LPSR Galich'ya Gora 87.87 322** *eP* **P** **17 46 26.4 -0.3**
LPSR pmax pmax
comp=Z,5.0nm,0.6s
**OBN Obninsk 89.22 325**⇑ *eP* **P** **17 46 32.3 -0.7**
OBN *i* *PP **pP** **17 47 14.9 +2.6**
OBN *i* 17 50 11.2
OBN *eS* **SKSac** **17 56 45.8 -2.5**
OBN *eSS* **SS** **18 03 11.0 +4.3**
OBN pmax pmax
comp=Z,6.0nm,1.0s
**DAWY Dawson 89.81 26** *eP* **P** **17 46 36.4 +0.7**
comp=Z,8.2nm,1.1s
**KMBO Kilima Mbogo 90.39 269** P **P** **17 46 40.1 +0.3**
baz=90,slow=6.1,SNR=13

KMBO LR LR 18 25 52.1
comp=Z,43nm,19.3s,baz=92,slow=34
**KMBO Kilima Mbogo 90.39 269** *eP* **P** **17 46 40.1 +0.3**
comp=Z,17nm,1.3s
KMBO ⇑*e* 18 25 52.1
**SYO Syowa Base 90.86 201**⇓ *iP* **P** **17 46 39.0 -1.3**
**SYO Syowa Base 90.86 201**⇓ *iPcP* **P** **17 46 40.7 +0.4**
**SYO Syowa Base 90.86 201**⇑ *epP* pP 17 47 17.8 -1.8
**MMAI Mount Meron Ar 90.95 303** P **P** **17 46 41.5 -0.2**
comp=Z,1.0nm,0.5s,baz=72,slow=9.3,SNR=3.2
**QSPA South Pole Qui 91.61 180** *eP* **P** **17 46 44.0 -0.1**
comp=Z,102nm,1.5s
**INK Inuvik 91.72 22** P **P** **17 46 43.5 -0.8**
comp=Z,1.7nm,0.6s,baz=335,slow=32,SNR=7.5
**INK Inuvik 91.72 22** *eP* **P** **17 46 43.5 -0.8**
comp=Z,38nm,1.3s
**BR101 Keskin Array S 91.99 310** *eP* **P** **17 46 45.0 -1.5**
BR101 *e*PP **PP** **17 50 27.7 -0.5**
BR101 *e*PKKPdf **PKKPbc** **18 04 03.2 -0.9**
**BRTR Keskin Array B 91.99 310** P **P** **17 46 45.0 -1.5**
comp=Z,1.2nm,0.9s,baz=105,slow=6.0,SNR=5.1
BRTR PP **PP** **17 50 27.7 -0.5**
comp=Z,1.8nm,0.9s,baz=117,slow=8.4,SNR=5.8
BRTR PKKPbc **PKKPbc** **18 04 03.2 -0.9**
comp=Z,0.5nm,0.7s,baz=123,slow=5.3,SNR=3.6
**BRTR Keskin Array B 91.99 310** *iP* **P** **17 46 44.7 -1.8**
BRTR pmax pmax
comp=Z,1.0nm,0.9s
**ARA0 ARCESS Array S 92.65 340** *eP* **P** **17 46 47.9 -0.9**
ARA0 *e*PKiKP **PKiKP** **17 51 35.5 -0.6**
ARA0 *e*SS SS 18 03 59.8 +4.4
ARA0 *e* 18 33 58.1
**ARCES ARCESS Array B 92.65 340** P **P** **17 46 47.9 -0.9**
comp=Z,8.0nm,0.6s,baz=81,slow=5.6,SNR=30
ARCES PKiKP **PKiKP** **17 51 35.5 -0.6**
comp=Z,5.4nm,1.0s,baz=65,slow=2.4,SNR=5.6
ARCES PKKP **PKKPdf** **18 03 59.8 -0.6**
comp=Z,4.1nm,0.9s,baz=235,slow=3.2,SNR=6.7
ARCES LR LR 18 33 58.1
comp=Z,91nm,18.5s,baz=66,slow=39
**AKASG Malin Array Be 94.02 321** P **P** **17 46 53.9 -1.5**
comp=Z,0.2nm,0.3s,baz=72,slow=4.6,SNR=3.3
AKASG PP **PP** **17 50 41.2 -2.2**
comp=Z,2.2nm,0.8s,baz=63,slow=8.5,SNR=3.5
**FIA0 FINESS Array S 94.03 332** *eP* **P** **17 46 54.2 -1.0**
**FIA0 FINESS Array S 94.03 332** *eP* **P** **17 46 54.1 -1.0**
FIA0 *e*PKKPdf **PKKPdf** **18 03 55.8 -1.9**
FIA0 *e* 18 31 26.6
**FINES FINESS Array B 94.03 332** P **P** **17 46 54.2 -1.0**
comp=Z,1.0nm,0.5s,baz=51,slow=6.1,SNR=13
FINES PKKP **PKKPdf** **18 03 55.8 -1.9**
comp=Z,3.1nm,1.0s,baz=204,slow=4.2,SNR=4.1
FINES LR LR 18 31 26.6
comp=Z,82nm,18.9s,baz=27,slow=37
**FINES FINESS Array B 94.03 332** *iP* **P** **17 46 54.4 -0.8**
FINES pmax pmax
comp=Z,1.0nm,0.5s
**BURAR Bucovina Array 97.10 318**⇑ *iP* **P** **17 47 09.1 -0.5**
**BURAR Bucovina Array 97.10 318**⇑ *eP* **P** **17 47 09.1 -0.5**
**BUR04 Bucovina Ar. S 97.10 318** *eP* **P** **17 47 09.3 -0.3**
**BUR08 Bucovina Ar. S 97.11 318** *eP* Pdif 17 47 09.8 0.0
**MATP Matopo 99.13 250** P **Pdif** **17 47 18.9 -0.5**
comp=Z,5.2nm,1.0s,baz=77,slow=6.6,SNR=6.2
**CRVS Cervenica-Dubn 99.29 320** *eP* **Pdif** **17 47 21.0 +1.7**
**CRVS Cervenica-Dubn 99.29 320** *e*PDIFF **Pdif** **17 47 21.0 +1.7**
**DAG Danmarks Havn 99.38 353** P **Pdif** **17 47 18.3 -0.7**
**DAG Danmarks Havn 99.38 353** *iP* **Pdif** **17 47 17.9 -1.1**
**LSZ Lusaka 99.54 255** P **Pdif** **17 47 20.7 -0.5**
comp=Z,2.8nm,0.7s,baz=85,slow=4.6,SNR=6.9
**LSZ Lusaka 99.54 255** *eP* **Pdif** **17 47 20.8 -0.4**
LSZ pmax pmax
comp=Z,12nm,1.3s
**LSZ Lusaka 99.54 255** *eP*dif **Pdif** **17 47 20.8 -0.4**
comp=Z,12nm,1.3s
**YKA Yellowknife Ar 100.97 25** P **Pdif** **17 47 26.5 +0.1**
comp=Z,0.4nm,0.6s,baz=294,slow=4.6,SNR=10
YKA PKiKP **PKiKP** **17 51 50.3 -0.6**
comp=Z,0.2nm,0.5s,baz=299,slow=1.7,SNR=5.0
YKA PKKPbc **PKKPbc** **18 03 36.3 -4.1**
comp=Z,0.8nm,0.7s,baz=110,slow=2.5,SNR=14
**YKB5 Yellowknife Ar 100.97 25** *eP*dif **Pdif** **17 47 26.6 +0.1**
**NB200 NORSAR Array S 100.99 334** *eP*dif **Pdif** **17 47 24.9 -1.7**
**NOA NORSAR Array B 100.99 334** P **Pdif** **17 47 24.9 -1.7**
comp=Z,1.1nm,0.7s,baz=68,slow=4.6,SNR=2.9
**LBTB Lobatse 101.61 245** P **Pdif** **17 47 29.4 -0.8**
comp=Z,1.7nm,0.7s,baz=189,slow=8.7,SNR=3.2
**CONA Conrad Observa 103.15 320** *i* PKKPbc PKKPbc 18 03 32.1 -1.6
comp=Z,2.3nm,0.8s
**MOA Molln 104.19 320** *i* PKKPbc PKKPbc 18 03 29.0 -1.5
comp=Z,6.1nm,0.8s
**GERES GERESS Array B 104.22 321** PKiKP **PKiKP** **17 51 56.3 -1.1**
comp=Z,0.3nm,0.5s,baz=159,slow=0.8,SNR=4.0
GERES PKKPbc **PKKPbc** **18 03 28.9 -1.7**
comp=Z,0.6nm,0.8s,baz=215,slow=1.6,SNR=6.4
**OBKA Obir 104.43 319** *i* PKKPbc PKKPbc 18 03 28.6 -1.2
comp=Z,3.2nm,0.8s
**MYKA Terra Mystica 104.99 319** *i* PKKPbc PKKPbc 18 03 26.7 -1.4
comp=Z,3.3nm,0.6s
**VNA2 Neumayer--Watz 105.08 194** P **Pdif** **17 47 45.2 +0.7**
baz=77,slow=7.7
**ABTA Abfaltersbach 105.68 320** *i* PKKPbc PKKPbc 18 03 24.7 -1.4
comp=Z,7.2nm,1.0s
**MOTA Moosalm 106.38 321** *i* PKKPbc PKKPbc 18 03 23.0 -1.1
comp=Z,3.3nm,0.8s
**FETA Feichten 106.73 320** *i* PKKPbc PKKPbc 18 03 22.5 -0.4
comp=Z,6.6nm,1.1s
**DAVOX Davos/Dischmat 107.36 320** PKKPbc PKKPbc 18 03 19.2 -1.8
comp=Z,1.6nm,0.7s,baz=4.0,slow=16,SNR=5.3
DAVOX PKKP **PKKPab** **18 03 35.1 -0.1**
comp=Z,3.9nm,0.9s,baz=62,slow=23,SNR=3.3
**NV01 Mina Array Sit 107.59 49** *e*PKiKP **PKiKP** **17 52 04.0 -0.1**
NV01 *e*PKKPbc **PKKPbc** **18 03 19.9 -0.1**
**NVAR Mina Array Bea 107.59 49** Pdiff **Pdif** **17 47 58.0 +1.3**
comp=Z,0.9nm,0.9s,baz=268,slow=6.6,SNR=4.3
NVAR PKiKP **PKiKP** **17 52 04.0 -0.1**
comp=Z,0.7nm,0.7s,baz=264,slow=2.7,SNR=4.6
NVAR PKKPbc **PKKPbc** **18 03 20.0 -0.1**
comp=Z,1.2nm,0.8s,baz=139,slow=4.3,SNR=9.3
NVAR PKKP **PKKPab** **18 03 33.6 -0.7**
comp=Z,0.8nm,0.7s,baz=120,slow=5.3,SNR=5.1
**ELK Elko 109.11 46** PKKPbc PKKPbc 18 03 14.9 -0.4
comp=Z,1.0nm,0.8s,baz=157,slow=1.1,SNR=7.2
ELK PKKP **PKKPab** **18 03 27.8 +0.3**
comp=Z,1.0nm,0.9s,baz=165,slow=4.2,SNR=5.7
**PD31 Pinedale Array 112.28 42** *e*PKiKP **PKiKP** **17 52 13.3 +0.5**
**PDAR Pinedale Array 112.28 42** PKiKP **PKiKP** **17 52 13.3 +0.5**
comp=Z,0.2nm,0.5s,baz=258,slow=1.7,SNR=4.1
PDAR PKKPbc **PKKPbc** **18 03 03.5 -1.6**
comp=Z,1.7nm,0.9s,baz=99,slow=4.0,SNR=8.7
**S22A 4UR Ranch, Cre 116.29 46** *e*PKPdf **PKPdf** **17 52 19.6 -1.2**
**ULM Lac du Bonnet 116.30 30** PKP **PKPdf** **17 52 18.9 -1.0**
comp=Z,4.1nm,0.7s,baz=302,slow=3.7,SNR=9.5
**ULM Lac du Bonnet 116.30 30** PKIKP **PKPdf** **17 52 19.0 -1.0**
**ANMO Albuquerque 117.72 49** PKP **PKPdf** **17 52 23.0 -0.4**
comp=Z,4.9nm,0.9s,baz=39,slow=4.7,SNR=11
**ANMO Albuquerque 117.72 49** *e*PKIKP **PKPdf** **17 52 23.4 -0.1**
**ANMO Albuquerque 117.72 49** *e*PKPdf **PKPdf** **17 52 23.4 -0.1**
**T25A Trinidad 118.29 46** *e*PKPdf **PKPdf** **17 52 24.3 -0.2**
**ESDC Sonseca Array 119.56 318** PKP **PKPdf** **17 52 26.2 -0.5**
comp=Z,0.6nm,0.6s,baz=6.6,slow=3.0,SNR=3.7
ESDC PKKPbc **PKKPbc** **18 02 39.5 0.0**
comp=Z,0.7nm,0.5s,baz=246,slow=3.3,SNR=6.6
**MNTX Cornudas Mount 119.83 52** *e*PKPdf **PKPdf** **17 52 28.0 +0.6**
**ECSD EROS Data Cent 119.93 36** *e*PKPdf **PKPdf** **17 52 26.8 -0.4**
**MSTX Muleshoe 120.89 48** *e*PKPdf **PKPdf** **17 52 29.0 -0.5**
**POLO Lamas de Olo 121.00 322** *e*PKPdf **PKPdf** **17 52 30.2 +0.6**
**PVRL Vila Real 121.10 322** *e*PKPdf **PKPdf** **17 52 30.5 +0.9**
**MTE Manteigas 121.49 321** *e*PKPdf **PKPdf** **17 52 30.9 +0.5**
**PVIS Viseu 121.53 321** *e*PKPdf **PKPdf** **17 52 30.7 +0.3**
**PCBR Castelo Branco 121.76 320** *e*PKPdf **PKPdf** **17 52 31.2 +0.4**
**PMRV Marv??o 121.93 320** *e*PKPdf **PKPdf** **17 52 31.8 +0.6**
**TX31 Lajitas Ar. Si 122.11 54** *e*PKPdf **PKPdf** **17 52 32.1 +0.1**
TX31 *e*PKPdf **PKiKP** **17 52 32.5 +0.3**
**LTX Lajitas 122.12 54** *e*PKiKP **PKPdf** **17 52 32.1 +0.1**
**LTX Lajitas 122.12 54** *e*PKPdf **PKPdf** **17 52 32.1 +0.1**
LTX *e*PKKPbc **PKKPbc** **18 02 29.7 0.0**
**TXAR Lajitas Array 122.12 54** PKP **PKPdf** **17 52 32.1 +0.1**
comp=Z,3.1nm,0.8s,baz=219,slow=1.3,SNR=37
TXAR PKKPbc **PKKPbc** **18 02 29.7 +0.1**
comp=Z,2.0nm,0.7s,baz=122,slow=7.2,SNR=23
**PCAS Casmilo, Conde 122.29 321** *e*PKPdf **PKPdf** **17 52 32.1 +0.2**
**PBAR Barrancos 122.39 318** *e*PKPdf **PKPdf** **17 52 32.7 +0.6**
**SCHQ Schefferville 122.42 10** PKP **PKPdf** **17 52 31.7 +0.1**
comp=Z,3.1nm,0.5s,baz=352,slow=2.2,SNR=7.9
**EVO Evora 122.83 319** *e*PKPdf **PKPdf** **17 52 33.4 +0.5**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **PCVE** | **Castro Verde** | **123.34** | **318** | *e*PKPdf | **PKPdf** | **17 52 34.9** | **+1.0** |
| **PNCL** | **Nicolau / Gran** | **123.40** | **319** | *e*PKPdf | **PKPdf** | **17 52 34.6** | **+0.6** |
| **WMOK** | **Wichita Mounta** | **123.44** | **46** | *e*PKIKP | **PKPdf** | **17 52 34.3** | **0.0** |
| **WMOK** | **Wichita Mounta** | **123.44** | **46** | *e*PKPdf | **PKPdf** | **17 52 34.3** | **0.0** |
| **PBDV** | **Barranco-do-Ve** | **123.48** | **318** | *e*PKPdf | **PKPdf** | **17 52 36.3** | **+2.0** |
| **MORF** | **Marmelete** | **123.93** | **318** | *e*PKPdf | **PKPdf** | **17 52 36.2** | **+1.1** |
| **JFWS** | **Jewell Farm** | **124.05** | **33** | *e*PKIKP | **PKPdf** | **17 52 34.5** | **-0.6** |
| **JFWS** | **Jewell Farm** | **124.05** | **33** | *e*PKPdf | **PKPdf** | **17 52 34.5** | **-0.6** |
| **TOA0** | **Torodi Ar. Sit** | **124.37** | **287** | *e*PKPdf | **PKPdf** | **17 52 35.4** | **-1.1** |
| TOA0 | | | | *e*PKPdf | **PKiKP** | **17 52 36.2** | **-0.6** |
| **TORD** | **Torodi Ar. Bea** | **124.37** | **287** | PKP | **PKPdf** | **17 52 36.1** | **-0.4** |
| | comp=Z,8.6nm,0.8s,baz=62,slow=2.0,SNR=46 | | | | | | |
| TORD | | | | PKKPbc | **PKKPab** | **18 02 21.5** | **+1.1** |
| | comp=Z,3.6nm,0.9s,baz=272,slow=3.6,SNR=13 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **124.38** | **287** | *e*PKPdf | **PKPdf** | **17 52 36.1** | **-0.4** |
| TOA1 | | | | *e*PKKPbc | **PKKPab** | **18 02 21.5** | **+1.1** |
| **JCT** | **Junction City** | **124.69** | **51** | *e*PKIKP | **PKPdf** | **17 52 37.2** | **+0.4** |
| **JCT** | **Junction City** | **124.69** | **51** | *e*PKPdf | **PKPdf** | **17 52 37.2** | **+0.4** |
| **V36A** | **Jenks** | **124.88** | **43** | *e*PKPdf | **PKPdf** | **17 52 37.4** | **+0.4** |
| **W36A** | **Wetumka** | **125.03** | **44** | *e*PKPdf | **PKPdf** | **17 52 37.8** | **+0.5** |
| **USHA** | **Ushuaia** | **125.43** | **169** | PKP | **PKPdf** | **17 52 38.1** | **+0.8** |
| | comp=Z,100nm,1.0s,baz=198,slow=8.4,SNR=3.9 | | | | | | |
| **CCM** | **Cathedral Cave** | **126.61** | **38** | *e*PKIKP | **PKPdf** | **17 52 40.3** | **+0.1** |
| **CCM** | **Cathedral Cave** | **126.61** | **38** | *e*PKPdf | **PKPdf** | **17 52 40.3** | **+0.1** |
| **FVM** | **French Village** | **127.16** | **38** | *e*PKIKP | **PKPdf** | **17 52 41.6** | **+0.3** |
| **FVM** | **French Village** | **127.16** | **38** | *e*PKPdf | **PKPdf** | **17 52 41.6** | **+0.3** |
| **MIAR** | **Mount Ida** | **127.18** | **43** | *e*PKIKP | **PKPdf** | **17 52 41.9** | **+0.5** |
| **MIAR** | **Mount Ida** | **127.18** | **43** | *e*PKPdf | **PKPdf** | **17 52 41.9** | **+0.5** |
| **SADO** | **Sadowa** | **127.97** | **24** | PKP | **PKPdf** | **17 52 42.7** | **+0.1** |
| | comp=Z,100nm,0.9s,baz=323,slow=2.0,SNR=3.6 | | | | | | |
| **KIC** | **Kosan Boka** | **131.77** | **280** | *e*PKP1 | **PKPdf** | **17 52 50.9** | **+0.3** |
| | comp=Z,52nm,1.6s | | | | | | |
| **KIC** | **Kosan Boka** | **131.77** | **280** | *e*PKP1 | **SKPbc** | **17 56 01.8** | **-0.4** |
| **DBIC** | **Dimbokro** | **131.84** | **280** | PKP | **PKPdf** | **17 52 51.1** | **+0.4** |
| | comp=Z,5.7nm,0.9s,baz=172,slow=3.7,SNR=3.5 | | | | | | |
| DBIC | | | | SKPbc | **SKPbc** | **17 56 02.4** | **0.0** |
| | comp=Z,21nm,1.1s,baz=64,slow=6.5,SNR=6.8 | | | | | | |
| **TIC** | **Toumodi** | **132.00** | **280** | *e*PKP1 | **PKPdf** | **17 52 51.3** | **+0.2** |
| **TIC** | **Toumodi** | **132.00** | **280** | *e*PKP1 | **SKPbc** | **17 56 02.8** | **-0.3** |
| **LIC** | **Lamto** | **132.07** | **280** | *e*PKP1 | **PKPdf** | **17 52 50.2** | **-1.0** |
| | comp=Z,38nm,1.0s | | | | | | |
| **LIC** | **Lamto** | **132.07** | **280** | *e*PKP1 | **SKPbc** | **17 56 02.7** | **-0.6** |
| | comp=Z,93nm,1.6s | | | | | | |
| **LRAL** | **Lakeview Retre** | **132.46** | **40** | *e*PKPdf | **PKPdf** | **17 52 51.4** | **0.0** |
| **TKL** | **Tuckaleechee C** | **132.68** | **35** | PKP | **PKPdf** | **17 52 52.7** | **+0.9** |
| | comp=Z,12nm,0.8s,baz=149,slow=3.9,SNR=10.0 | | | | | | |
| TKL | | | | SKPbc | **SKPbc** | **17 56 04.0** | **-0.7** |
| | comp=Z,18nm,1.1s,baz=184,slow=4.4,SNR=5.8 | | | | | | |
| **TKL** | **Tuckaleechee C** | **132.68** | **35** | PKIKP | **PKPdf** | **17 52 52.7** | **+0.9** |
| TKL | | | | pmax | pmax | | |
| | comp=Z,19nm,1.0s | | | | | | |
| **TKL** | **Tuckaleechee C** | **132.68** | **35** | *e*PKPdf | **PKPdf** | **17 52 53.0** | **+1.2** |
| TKL | | | | *e*SKPbc | **SKPbc** | **17 56 04.8** | **0.0** |
| **PLCA** | **Paso Flores** | **137.80** | **159** | PKhKP | PKPpre | 17 52 50.1 | |
| | comp=Z,3.7nm,0.9s,baz=165,slow=2.2,SNR=6.5 | | | | | | |
| PLCA | | | | PKP | **PKPdf** | **17 53 02.2** | **+0.9** |
| | comp=Z,16nm,0.8s,baz=217,slow=2.5,SNR=22 | | | | | | |
| PLCA | | | | SKPbc | **SKPbc** | **17 56 21.4** | **+0.6** |
| | comp=Z,2.6nm,0.8s,baz=224,slow=3.7,SNR=6.9 | | | | | | |
| **TRQA** | **Tornquist** | **142.75** | **167** | *e*PKPpre | PKPpre | 17 53 06.0 | |
| **PEL** | **Peldehue** | **144.31** | **153** | *e*PKIKP | PKPbc | 17 53 12.0 | +0.2 |
| **PEL** | **Peldehue** | **144.31** | **153** | *e*PKPdf | PKPbc | 17 53 12.0 | +0.2 |
| **JTS** | **JuntasAbangare** | **145.47** | **69** | *e*PKP2 | **PKPbc** | **17 53 16.0** | **+0.1** |
| **JTS** | **JuntasAbangare** | **145.47** | **69** | *e*PKPdf | **PKPbc** | **17 53 16.0** | **+0.1** |
| **RTLL** | **Cerro Villicun** | **146.83** | **154** | ⇑*i*P | **PKPbc** | **17 53 19.2** | **-0.3** |
| **LCO** | **Las Campanas** | **147.71** | **149** | *e*PKPdf | **PKPdf** | **17 53 19.9** | **+0.5** |
| **LCO** | **Las Campanas** | **147.71** | **149** | *i* P | **PKPbc** | **17 53 22.4** | **+0.1** |
| **TCA** | **Tanti** | **148.34** | **160** | ⇑*i*P | **PKPbc** | **17 53 23.9** | **+0.3** |
| **GTBY** | **Guantanamo Bay** | **149.04** | **45** | *e*PKPbc | **PKPbc** | **17 53 26.2** | **+0.6** |
| **GO03** | **Copiap** | **149.09** | **148** | ⇑*i*P | **PKPbc** | **17 53 26.1** | **+0.4** |
| **VCA** | **Vinchina** | **149.16** | **152** | ⇓*i*P | **PKPbc** | **17 53 24.9** | **-1.0** |
| **CYA** | **Choya** | **150.47** | **156** | *i* P | **PKPbc** | **17 53 28.8** | **-0.2** |
| **CYA** | **Choya** | **150.47** | **156** | ⇑*i*P | **PKPbc** | **17 53 28.8** | **-0.2** |
| **PB14** | **IPOC Station P** | **151.31** | **144** | ⇑*i*P | **PKPbc** | **17 53 31.9** | **+0.5** |
| **PB10** | **IPOC Station P** | **152.06** | **142** | *e*PKPbc | **PKPbc** | **17 53 33.1** | **+0.5** |
| **AHML** | **Horco Molle** | **152.12** | **155** | *i* P | **PKPbc** | **17 53 32.9** | **+0.2** |
| **AHML** | **Horco Molle** | **152.12** | **155** | ⇑*i*P | **PKPbc** | **17 53 33.0** | **+0.2** |
| **SDDR** | **Presa de Saban** | **152.30** | **41** | *e*PKPbc | **PKPbc** | **17 53 33.5** | **+0.1** |
| **ATAH** | **Atahualpa** | **153.52** | **103** | PKP | **PKPdf** | **17 53 30.6** | **+1.7** |
| | comp=Z,9.6nm,0.8s,baz=354,slow=3.2,SNR=7.3 | | | | | | |
| ATAH | | | | PKPbc | **PKiKP** | **17 53 38.4** | **+1.6** |
| | comp=Z,36nm,0.9s,baz=151,slow=0.8,SNR=14 | | | | | | |
| ATAH | | | | PKPab | **PKPab** | **17 53 51.9** | **+2.3** |
| | comp=Z,27nm,0.9s,baz=204,slow=3.0,SNR=9.6 | | | | | | |
| **NNA** | **Nana** | **153.68** | **114** | PKP | **PKPdf** | **17 53 29.3** | **+0.7** |
| | comp=Z,3.7nm,0.3s,baz=254,slow=5.8,SNR=4.3 | | | | | | |
| NNA | | | | PKPbc | **PKiKP** | **17 53 37.0** | **+0.4** |
| | comp=Z,11nm,0.4s,baz=271,slow=7.2,SNR=8.7 | | | | | | |
| **NNA** | **Nana** | **153.68** | **114** | PKIKP | **PKPdf** | **17 53 29.3** | **+0.7** |
| NNA | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.8s | | | | | | |
| **NNA** | **Nana** | **153.68** | **114** | *e*PKPdf | **PKPdf** | **17 53 29.3** | **+0.7** |
| NNA | | | | *e*PKPbc | **PKiKP** | **17 53 37.0** | **+0.4** |
| NNA | | | | *e*PKPbc | **PKPbc** | **17 53 37.3** | **+0.7** |
| **PB01** | **IPOC Station P** | **154.54** | **140** | *e*PKPdf | **PKPdf** | **17 53 30.6** | **+0.8** |
| PB01 | | | | *e*PKPbc | **PKiKP** | **17 53 38.8** | **+0.5** |
| **CPUP** | **Villa Florida** | **155.05** | **169** | PKP | **PKPdf** | **17 53 30.7** | **+0.6** |
| | comp=Z,6.5nm,1.1s,baz=70,slow=3.4,SNR=6.7 | | | | | | |
| CPUP | | | | PKPbc | PKPbc | 17 53 39.6 | |
| | comp=Z,29nm,0.9s,baz=191,slow=1.3,SNR=39 | | | | | | |
| CPUP | | | | PKPab | **PKPab** | **17 53 55.2** | **+0.2** |
| | comp=Z,40nm,0.9s,baz=176,slow=3.7,SNR=18 | | | | | | |
| **PB11** | **IPOC Station P** | **155.34** | **138** | *e*PKPdf | **PKPdf** | **17 53 31.0** | **+0.1** |
| **MNMC** | **Minye Minye** | **155.82** | **137** | *e*PKPdf | **PKPdf** | **17 53 32.3** | **+0.6** |
| **RUSC** | **La Rusia** | **158.00** | **70** | *e*PKPdf | **PKPdf** | **17 53 34.4** | **-0.6** |
| RUSC | | | | *e*PKPab | **PKPab** | **17 54 09.7** | **+0.7** |
| **LPAZ** | **La Paz** | **158.77** | **134** | PKP | **PKPdf** | **17 53 36.2** | **+0.3** |
| | comp=Z,7.8nm,1.0s,baz=29,slow=1.9,SNR=16 | | | | | | |
| **LPAZ** | **La Paz** | **158.77** | **134** | *e*PKPdf | **PKPdf** | **17 53 37.0** | **+1.1** |
| **SDV** | **Santo Domingo** | **159.00** | **60** | PKP | **PKPdf** | **17 53 35.7** | **0.0** |
| | comp=Z,14nm,0.9s,baz=31,slow=0.9,SNR=14 | | | | | | |
| SDV | | | | PKPab | **PKPab** | **17 54 13.5** | **+0.7** |
| | comp=Z,8.7nm,0.6s,baz=357,slow=0.7,SNR=8.8 | | | | | | |
| **RCBR** | **Riachuelo** | **163.05** | **256** | PKPab | **PKPab** | **17 54 29.7** | **-0.8** |
| | comp=Z,25nm,1.1s,baz=121,slow=5.8,SNR=5.4 | | | | | | |
| **SIV** | **San Ignacio** | **163.41** | **149** | PKP | **PKPdf** | **17 53 40.2** | **+0.1** |
| | comp=Z,4.9nm,0.9s,baz=291,slow=2.9,SNR=5.6 | | | | | | |
| SIV | | | | PKPab | **PKPab** | **17 54 31.8** | **+0.1** |
| | comp=Z,20nm,0.9s,baz=218,slow=4.6,SNR=16 | | | | | | |
| **SAML** | **Samuel** | **167.06** | **124** | *e*PKPdf | **PKPdf** | **17 53 43.3** | **+0.1** |
| SAML | | | | *e*PKPab | **PKPab** | **17 54 48.9** | **+0.9** |

**SOME 28 17:36:53.4, 42.18N×81.02E, h0km, 2C-1D, Northern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KTMS** | **Ketmen** | **1.35** | **339** | *eP* | Pg | 17 37 19.0 | -0.3 |
| KTMS | | | | *eS* | Sg | 17 37 37.0 | +0.1 |
| **SHLS** | **Shalkode** | **1.50** | **311** | *eP* | Pn | 17 37 17.2 | -4.6 |
| | 2.8nm,0.1s | | | | | | |
| SHLS | | | | *eS* | Sg | 17 37 34.0 | -7.7 |
| **UZB** | **Uzynbulak** | **1.76** | **304** | *eP* | Pg | 17 37 26.9 | -0.2 |
| | 1.2nm,0.2s | | | | | | |
| UZB | | | | *eS* | Sg | 17 37 50.6 | +0.7 |
| | 2.7nm,0.2s | | | | | | |
| **SATY** | **Saty** | **2.12** | **295** | ⇓*iP* | Pb | 17 37 32.8 | +0.1 |
| | 4.2nm,0.4s | | | | | | |
| SATY | | | | ⇑*iS* | Sg | 17 38 01.8 | +0.3 |
| | 6.0nm,0.3s | | | | | | |
| **KAPS** | **Kapalarasan** | **3.33** | **339** | ⇑*iP* | Pb | 17 37 52.3 | -1.0 |
| | 0.8nm,0.2s | | | | | | |
| KAPS | | | | *eS* | Sb | 17 38 34.8 | +0.5 |
| | 1.4nm,0.3s | | | | | | |

**MAN 28 17:39:27, 13.69N×120.53E, h100km, mb4.2, ML3.1, MS2.8, Mindoro**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **LUBP** | **Lubang** | **0.28** | **279** | *eP* | Pn | 17 39 43.6 | +2.1 |
| LUBP | | | | *eS* | Sn | 17 39 55.4 | +3.0 |
| **BOAC** | **Boac** | **1.29** | **100** | *eP* | Pn | 17 39 52.0 | +1.2 |
| **SJMP** | **San Jose** | **1.35** | **155** | *eP* | Pn | 17 39 52.7 | +1.2 |
| SJMP | | | | *eS* | Sn | 17 40 11.4 | +1.5 |
| **BUSP** | **Coron** | **1.71** | **191** | *eP* | Pn | 17 39 57.0 | +1.1 |
| BUSP | | | | *eS* | Sn | 17 40 19.2 | +1.3 |

*LJU **28** 17:45:25.3, 45.32N×14.62E, h19km, ML1.8*
*CSEM **28** 17:45:25.9±0.2, 45.29N×14.63E, h2km, ML2.7/23, Error ellipse: s-maj=3.4km s-min=2.4km az=20.0*

*ROM **28** 17:45:26.6±0.4, 45.05N×14.27E, h11km, Md2.5/3, Ml2.3/3, Error ellipse: s-maj=20.5km s-min=3.4km az=64.0*
*VIE **28** 17:45:26.2±1.1, 45.32N×14.62E, h0km, mb1.6/2, ML2.3/5, Error ellipse: s-maj=7.2km s-min=4.2km az=22.0*

**ISC 28 17:45:25.8±1.1, 45.29N±0.03×14.63E±0.02, h7km±9km, n78, σ0.85/130, Northwestern Balkan Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GBRS** | **Gornja Briga** | **0.27** | **27** | *i* Pg | **Pg** | **17 45 31.5** | **+0.3** |
| GBRS | | | | *i* Sg | **Sg** | **17 45 35.2** | **+0.4** |
| | 32nm,0.1s | | | | | | |
| **KNDS** | **Knezji Dol** | **0.30** | **323** | *i* Pg | **Pg** | **17 45 31.3** | **-0.4** |
| KNDS | | | | *i* Sg | **Sg** | **17 45 35.9** | **+0.2** |
| | comp=Z,108nm,0.1s | | | | | | |
| **KNDS** | **Knezji Dol** | **0.30** | **323** | *i* Pg | **Pg** | **17 45 31.3** | **-0.4** |
| KNDS | | | | *i* Sg | **Sg** | **17 45 35.9** | **+0.2** |
| | comp=Z,108nm,0.1s | | | | | | |
| **CEY** | **Cerknica** | **0.47** | **342** | *e*Pg | **Pg** | **17 45 34.8** | **-0.2** |
| CEY | | | | *e*Sg | **Sg** | **17 45 41.9** | **+0.7** |
| | comp=Z,73nm,0.2s | | | | | | |
| **CEY** | **Cerknica** | **0.47** | **342** | *e*Pg | **Pg** | **17 45 34.8** | **-0.2** |
| CEY | | | | *e*Sg | **Sg** | **17 45 41.9** | **+0.7** |
| | comp=Z,73nm,0.2s | | | | | | |
| **BOJS** | **Bojanci** | **0.49** | **64** | *i* Pg | **Pg** | **17 45 35.3** | **+0.1** |
| BOJS | | | | *e*Sg | **Sg** | **17 45 42.2** | **+0.6** |
| | comp=Z,22nm,0.2s | | | | | | |
| **BOJS** | **Bojanci** | **0.49** | **64** | *i* Pg | **Pg** | **17 45 35.3** | **+0.1** |
| BOJS | | | | *e*Sg | **Sg** | **17 45 42.2** | **+0.6** |
| | comp=Z,22nm,0.2s | | | | | | |
| **SKDS** | **Skadanscina** | **0.51** | **301** | *i* Pg | **Pg** | **17 45 34.8** | **-0.8** |
| SKDS | | | | *e*Sg | **Sg** | **17 45 42.8** | **+0.6** |
| | comp=Z,24nm,0.1s | | | | | | |
| **SKDS** | **Skadanscina** | **0.51** | **301** | *i* Pg | **Pg** | **17 45 34.8** | **-0.8** |
| SKDS | | | | *e*Sg | **Sg** | **17 45 42.8** | **+0.6** |
| | comp=Z,24nm,0.1s | | | | | | |
| **VISS** | **Visnje** | **0.53** | **16** | *i* Pg | **Pg** | **17 45 35.7** | **-0.5** |
| VISS | | | | *i* Sg | **Sg** | **17 45 43.1** | **0.0** |
| | comp=Z,18nm,0.1s | | | | | | |
| **VISS** | **Visnje** | **0.53** | **16** | *i* Pg | **Pg** | **17 45 35.7** | **-0.5** |
| VISS | | | | *i* Sg | **Sg** | **17 45 43.2** | **0.0** |
| | comp=Z,18nm,0.1s | | | | | | |
| **GBAS** | **Gorenja Brezov** | **0.66** | **348** | *i* Pg | **Pg** | **17 45 38.0** | **-0.5** |
| GBAS | | | | *i* Sg | **Sg** | **17 45 47.3** | **+0.2** |
| | comp=Z,21nm,0.1s | | | | | | |
| **GBAS** | **Gorenja Brezov** | **0.66** | **348** | *i* Pg | **Pg** | **17 45 38.0** | **-0.5** |
| GBAS | | | | *i* Sg | **Sg** | **17 45 47.3** | **+0.2** |
| | comp=Z,21nm,0.1s | | | | | | |
| **OZLJ** | **Ozalj** | **0.67** | **61** | *e*Pg | **Pg** | **17 45 38.6** | **-0.1** |
| OZLJ | | | | Sg | **Sg** | **17 45 48.1** | **+0.5** |
| **OZLJ** | **Ozalj** | **0.67** | **61** | *e*Pg | **Pg** | **17 45 38.6** | **-0.1** |
| OZLJ | | | | Sg | **Sg** | **17 45 48.0** | **+0.5** |
| **JAVS** | **Javornik** | **0.72** | **327** | *i* Pg | **Pg** | **17 45 38.7** | **-1.1** |
| JAVS | | | | *e*Sg | **Sg** | **17 45 49.2** | **0.0** |
| | comp=Z,19nm,0.1s | | | | | | |
| **JAVS** | **Javornik** | **0.72** | **327** | *i* Pg | **Pg** | **17 45 38.7** | **-1.1** |
| JAVS | | | | *e*Sg | **Sg** | **17 45 49.2** | **0.0** |
| | comp=Z,19nm,0.1s | | | | | | |
| **TRI** | **Trieste** | **0.74** | **305** | Pg | **Pb** | **17 45 40.6** | **-0.5** |
| TRI | | | | Sg | **Sb** | **17 45 51.0** | **-0.4** |
| **TRI** | **Trieste** | **0.74** | **305** | Pg | **Pb** | **17 45 40.6** | **-0.5** |
| TRI | | | | Sg | **Sb** | **17 45 51.0** | **-0.4** |
| **NVLJ** | **Novalja** | **0.74** | **167** | *e*Pg | **Pb** | **17 45 40.8** | **-0.4** |
| NVLJ | | | | Sg | **Sn** | **17 45 53.6** | **-0.7** |
| **NVLJ** | **Novalja** | **0.74** | **167** | *e*Pg | **Pb** | **17 45 40.7** | **-0.4** |
| NVLJ | | | | Sg | **Sn** | **17 45 53.6** | **-0.7** |
| **LJU** | **Ljubljana** | **0.76** | **354** | *i* Sg | **Sn** | **17 45 51.5** | **-0.5** |
| **LJU** | **Ljubljana** | **0.76** | **354** | *i* Sg | **Sb** | **17 45 51.5** | **-0.5** |
| **CRES** | **Cresnjev** | **0.79** | **47** | *i* Sg | **Sg** | **17 45 51.9** | **+0.6** |
| | comp=Z,14nm,0.2s | | | | | | |
| **CRES** | **Cresnjev** | **0.79** | **47** | *i* Sg | **Sg** | **17 45 51.9** | **+0.6** |
| | comp=Z,14nm,0.2s | | | | | | |
| **PDKS** | **Podkum** | **0.81** | **18** | *i* Pg | **Pg** | **17 45 41.0** | **-0.5** |
| PDKS | | | | *e*Sg | **Sg** | **17 45 51.6** | **-0.4** |
| | comp=Z,10.0nm,0.1s | | | | | | |
| **PDKS** | **Podkum** | **0.81** | **18** | *i* Pg | **Pg** | **17 45 41.0** | **-0.5** |
| PDKS | | | | *e*Sg | **Sg** | **17 45 51.6** | **-0.4** |
| | comp=Z,10.0nm,0.1s | | | | | | |
| **VNDS** | **Vrh nad Dolski** | **0.81** | **3** | *i* Pg | **Pg** | **17 45 41.0** | **-0.5** |
| VNDS | | | | *e*Sg | **Sb** | **17 45 53.0** | **-0.6** |
| | comp=Z,10.0nm,0.2s | | | | | | |
| **VNDS** | **Vrh nad Dolski** | **0.81** | **3** | *i* Pg | **Pg** | **17 45 41.0** | **-0.5** |
| VNDS | | | | *e*Sg | **Sb** | **17 45 53.0** | **-0.6** |
| | comp=Z,10.0nm,0.2s | | | | | | |
| **LEGS** | **Legarje** | **0.82** | **36** | *i* Pg | **Pg** | **17 45 41.4** | **-0.1** |
| **LEGS** | **Legarje** | **0.82** | **36** | *i* Pg | **Pg** | **17 45 41.4** | **-0.1** |
| **CRNS** | **Crni Vrh** | **0.83** | **342** | *i* Pg | **Pg** | **17 45 41.0** | **-0.8** |
| CRNS | | | | Sg | **Sb** | **17 45 54.0** | **-0.2** |
| | comp=Z,12nm,0.1s | | | | | | |
| **CRNS** | **Crni Vrh** | **0.83** | **342** | *i* Pg | **Pg** | **17 45 41.0** | **-0.8** |
| | comp=Z,12nm,0.1s | | | | | | |
| **CESS** | **Cesta pri Krsk** | **0.90** | **40** | *e*Sg | **Sg** | **17 45 55.3** | **+0.5** |
| | comp=Z,5.0nm,0.1s | | | | | | |
| **CESS** | **Cesta pri Krsk** | **0.90** | **40** | *e*Sg | **Sg** | **17 45 55.3** | **+0.5** |
| | comp=Z,5.0nm,0.1s | | | | | | |
| **GCIS** | **Gornji Cirnik** | **0.91** | **50** | *e*Sg | **Sg** | **17 45 55.7** | **+0.7** |
| | comp=Z,5.0nm,0.2s | | | | | | |
| **GCIS** | **Gornji Cirnik** | **0.91** | **50** | *e*Sg | **Sg** | **17 45 55.7** | **+0.7** |
| | comp=Z,5.0nm,0.2s | | | | | | |
| **VOJS** | **Vojsko** | **0.91** | **325** | *e*Pg | **Pg** | **17 45 41.9** | **-1.4** |
| VOJS | | | | *e*Sg | **Sb** | **17 45 56.1** | **-0.3** |
| | comp=Z,9.0nm,0.1s | | | | | | |
| **VOJS** | **Vojsko** | **0.91** | **325** | *e*Pg | **Pg** | **17 45 41.9** | **-1.4** |
| VOJS | | | | *e*Sg | **Sb** | **17 45 56.1** | **-0.3** |
| | comp=Z,9.0nm,0.1s | | | | | | |
| **SABO** | **M.te Sabotino** | **1.00** | **314** | Pg | **Pn** | **17 45 46.0** | **-0.4** |
| SABO | | | | Sg | **Sn** | **17 45 59.8** | **-1.0** |
| **SABO** | **M.te Sabotino** | **1.00** | **314** | *e*Pg | **Pg** | **17 45 44.0** | **-1.0** |
| SABO | | | | *e*Sg | **Sb** | **17 45 58.7** | **-0.3** |
| **SABO** | **M.te Sabotino** | **1.00** | **314** | Pg | **Pn** | **17 45 46.0** | **-0.4** |
| SABO | | | | Sg | **Sn** | **17 45 59.8** | **-1.0** |
| **GOLS** | **Golise** | **1.00** | **44** | *e*Pg | **Pb** | **17 45 45.5** | **-0.1** |
| | comp=Z,33nm,0.3s | | | | | | |
| **GOLS** | **Golise** | **1.00** | **44** | *e*Pg | **Pb** | **17 45 45.5** | **-0.1** |
| | comp=Z,33nm,0.3s | | | | | | |
| **MOZS** | **Mozjanca** | **1.01** | **353** | *i* Pg | **Pb** | **17 45 45.5** | **-0.3** |
| **MOZS** | **Mozjanca** | **1.01** | **353** | *i* Pg | **Pb** | **17 45 45.5** | **-0.3** |
| **UDBI** | **Udbina** | **1.11** | **133** | *e*Pg | **Pn** | **17 45 48.3** | **+0.4** |
| UDBI | | | | Sg | **Sn** | **17 46 03.9** | **+0.4** |
| **UDBI** | **Udbina** | **1.11** | **133** | *e*Pg | **Pn** | **17 45 48.3** | **+0.4** |
| UDBI | | | | Sg | **Sn** | **17 46 03.8** | **+0.4** |
| **GORS** | **Gorjuse** | **1.12** | **337** | *i* Pg | **Pg** | **17 45 47.0** | **-0.4** |
| GORS | | | | *e*Sg | **Sn** | **17 46 03.3** | **-0.5** |
| | comp=Z,16nm,0.2s | | | | | | |
| **GORS** | **Gorjuse** | **1.12** | **337** | *i* Pg | **Pg** | **17 45 47.0** | **-0.4** |
| GORS | | | | *e*Sg | **Sn** | **17 46 03.3** | **-0.5** |
| | comp=Z,16nm,0.2s | | | | | | |
| **DRE** | **Drenchia** | **1.12** | **322** | *e*Pg | **Pg** | **17 45 46.9** | **-0.5** |
| DRE | | | | *e*Sg | **Sn** | **17 46 03.5** | **-0.3** |
| **DRE** | **Drenchia** | **1.12** | **322** | *e*Pg | **Pg** | **17 45 46.9** | **-0.5** |
| DRE | | | | *e*Sg | **Sn** | **17 46 03.5** | **-0.3** |
| **OBKA** | **Obir** | **1.22** | **357** | Pg | **Pg** | **17 45 49.0** | **-0.3** |
| | comp=Z,3.3nm,0.1s | | | | | | |
| OBKA | | | | Sg | **Sn** | **17 46 06.9** | **+0.6** |
| | comp=Z,12nm,0.2s | | | | | | |
| **VINO** | **Villanova** | **1.35** | **316** | Pg | **Pg** | **17 45 52.2** | **+0.4** |
| VINO | | | | Sg | **Sn** | **17 46 10.8** | **+1.3** |
| | comp=Z,47nm,0.7s | | | | | | |
| **VINO** | **Villanova** | **1.35** | **316** | *e*Pg | **Pg** | **17 45 51.9** | **+0.1** |
| VINO | | | | *e*Sg | **Sn** | **17 46 11.1** | **+1.6** |
| **VINO** | **Villanova** | **1.35** | **316** | Pg | **Pg** | **17 45 52.2** | **+0.4** |
| VINO | | | | Sg | **Sn** | **17 46 10.8** | **+1.3** |
| | comp=Z,47nm,0.7s | | | | | | |
| **BAD** | **Bernadia** | **1.36** | **315** | *e*Pg | **Pg** | **17 45 51.9** | **+0.1** |
| BAD | | | | *e*Sg | **Sg** | **17 46 11.8** | **+2.3** |
| **BAD** | **Bernadia** | **1.36** | **315** | *e*Pg | **Pg** | **17 45 51.9** | **+0.1** |
| BAD | | | | *e*Sg | **Sg** | **17 46 11.8** | **+2.3** |
| **PRED** | **Cave del Predi** | **1.37** | **327** | *e*Pg | **Pb** | **17 45 51.8** | **-0.1** |
| PRED | | | | *e*Sg | **Sg** | **17 46 12.2** | **+2.2** |
| **PRED** | **Cave del Predi** | **1.37** | **327** | *e*Pg | **Pb** | **17 45 51.8** | **-0.1** |
| PRED | | | | *e*Sg | **Sg** | **17 46 12.2** | **+2.2** |
| **SOKA** | **Soboth** | **1.42** | **11** | Pg | **Pn** | **17 45 52.2** | **0.0** |
| | comp=Z,1.6nm,0.4s | | | | | | |
| SOKA | | | | Sg | **Sg** | **17 46 11.6** | **+0.2** |
| | comp=Z,5.5nm,0.4s | | | | | | |
| **PTCC** | **Patocco-Chiusa** | **1.43** | **322** | Pg | **Pg** | **17 45 53.8** | **+0.5** |
| PTCC | | | | Sg | **Sg** | **17 46 13.8** | **+2.0** |
| | comp=Z,387nm,3.7s | | | | | | |
| **PTCC** | **Patocco-Chiusa** | **1.43** | **322** | Pg | **Pg** | **17 45 53.8** | **+0.5** |
| PTCC | | | | Sg | **Sg** | **17 46 13.8** | **+2.0** |
| | comp=Z,387nm,3.7s | | | | | | |
| **ACOM** | **Acomizza, Ital** | **1.48** | **329** | Pg | **Pg** | **17 45 55.3** | **+1.0** |
| ACOM | | | | Sg | **Sg** | **17 46 16.5** | **+3.0** |
| | comp=Z,46nm,0.5s | | | | | | |
| **ACOM** | **Acomizza, Ital** | **1.48** | **329** | *e*Pg | **Pn** | **17 45 53.3** | **+0.1** |
| **ACOM** | **Acomizza, Ital** | **1.48** | **329** | Pg | **Pg** | **17 45 55.3** | **+1.0** |
| ACOM | | | | Sg | **Sg** | **17 46 16.5** | **+3.0** |
| | comp=Z,46nm,0.5s | | | | | | |
| **MYKA** | **Terra Mystica** | **1.51** | **333** | Pg | **Pg** | **17 45 54.5** | **-0.3** |
| | comp=Z,1.4nm,0.2s | | | | | | |
| MYKA | | | | Sg | **Sg** | **17 46 15.9** | **+1.6** |
| | comp=Z,9.6nm,0.3s | | | | | | |
| **FUSE** | **Fusea** | **1.60** | **315** | *e*Pg | **Pb** | **17 45 55.9** | **+0.1** |
| **FUSE** | **Fusea** | **1.60** | **315** | *e*Pg | **Pb** | **17 45 55.9** | **+0.1** |
| **POLC** | **Polcenigo** | **1.67** | **297** | *e*Pg | **Pb** | **17 45 56.4** | **-0.5** |
| **POLC** | **Polcenigo** | **1.67** | **297** | *e*Pg | **Pb** | **17 45 56.4** | **-0.5** |
| **CLUD** | **Cludinico** | **1.69** | **314** | *e*Pg | **Pb** | **17 45 57.0** | **-0.3** |
| **CLUD** | **Cludinico** | **1.69** | **314** | *e*Pg | **Pb** | **17 45 57.0** | **-0.3** |
| **ZOU** | **Zoufplan** | **1.72** | **318** | *e*Pg | **Pb** | **17 45 57.6** | **-0.3** |
| **CIMO** | **Cimolais** | **1.84** | **304** | *e*Pn | **Pb** | **17 45 59.1** | **-0.8** |
| **CIMO** | **Cimolais** | **1.84** | **304** | *e*Pn | **Pb** | **17 45 59.1** | **-0.8** |
| **KBA** | **Koelnbreinsper** | **2.00** | **334** | Sg | **Sg** | **17 46 30.8** | **+0.7** |
| | comp=Z,2.4nm,0.2s | | | | | | |
| **ABTA** | **Abfaltersbach** | **2.08** | **315** | Pn | **Pb** | **17 46 02.5** | **-1.4** |
| | comp=Z,0.2nm,0.1s | | | | | | |
| ABTA | | | | Sg | **Sg** | **17 46 32.8** | **+0.3** |
| | comp=Z,12nm,0.5s | | | | | | |

**IDC 28 17:47:57.6±999.0, 49.32N×72.63E, h0km, Error ellipse: s-maj=524.3km s-min=149.7km az=48.0, Central Kazakhstan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **I46RU** | **ZALESOVO INFRA** | **8.88** | **54** | *i* | | 18 44 50.0 | |
| | baz=245,slow=322,SNR=5.0 | | | | | | |
| **I34MN** | **SONGINO INFRAS** | **22.30** | **81** | *i* | | 20 04 30.0 | |
| | baz=282,slow=328,SNR=0.7 | | | | | | |
| **I45RU** | **USSURIYSK INFR** | **40.06** | **74** | *i* | | 21 52 00.0 | |
| | baz=284,slow=338,SNR=1.6 | | | | | | |
| **I18DK** | **QAANAAQ INFRAS** | **51.28** | **350** | *i* | | 23 00 30.0 | |
| | baz=25,slow=346,SNR=1.0 | | | | | | |

**WEL 28 17:50:08.4±0.5, 37.01S×176.76E, h193km±5km, ML3.6/5, 2C-1D, Error ellipse: s-maj=6.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| KK31 | Karatay Array | 4.28 | 6 | ⇑Pn | Pn | 17 53 03.7 | +2.0 |
| | 3.2nm,0.3s,baz=194,slow=15,SNR=122 | | | | | | |
| KK31 | | | | ⇑Sn | Sb | 17 54 02.6 | -0.8 |
| | 30nm,0.7s,baz=186,slow=25,SNR=5.5 | | | | | | |
| AML | Almayashu | 4.35 | 40 | P | Pn | 17 53 02.5 | -0.5 |
| | SNR=14 | | | | | | |
| EKS2 | Erkin-Say | 4.80 | 36 | P | Pn | 17 53 09.9 | +1.0 |
| | SNR=12 | | | | | | |
| UCH | Uchtor | 4.85 | 44 | P | Pn | 17 53 09.6 | -0.4 |
| | SNR=26 | | | | | | |
| AAK | Ala-Archa | 5.13 | 41 | Pn | Pn | 17 53 12.9 | -0.5 |
| | 3.8nm,0.3s,baz=210,slow=8.0,SNR=39 | | | | | | |
| AAK | | | | Sn | Sn | 17 54 17.0 | +4.4 |
| | 2.0nm,0.3s,baz=297,slow=21,SNR=6.4 | | | | | | |
| AAK | Ala-Archa | 5.13 | 41 | ⇓Pn | Pn | 17 53 14.4 | +1.0 |
| | 7.9nm,0.4s | | | | | | |
| AAK | | | | ⇓Sn | Sn | 17 54 18.0 | +5.4 |
| | 12nm,0.6s | | | | | | |
| AAK | Ala-Archa | 5.13 | 41 | P | Pn | 17 53 14.4 | +1.0 |
| | SNR=14 | | | | | | |
| KZA | Kyzart | 5.18 | 50 | P | Pn | 17 53 16.1 | +1.7 |
| | SNR=40 | | | | | | |
| KBK | Karagaybulak | 5.38 | 43 | P | Pn | 17 53 17.3 | +0.4 |
| | SNR=46 | | | | | | |
| CHMS | Chumysh | 5.52 | 40 | P | Pn | 17 53 19.8 | +1.1 |
| | SNR=23 | | | | | | |
| USP | Ospenovka | 5.60 | 36 | P | Pn | 17 53 19.3 | -0.5 |
| | SNR=15 | | | | | | |
| TKM2 | Tokmak 2 | 5.91 | 45 | ⇑Pn | Pn | 17 53 24.9 | +0.6 |
| | 18nm,0.5s | | | | | | |
| TKM2 | | | | ⇓Sn | Sn | 17 54 35.5 | +3.5 |
| | 17nm,0.8s | | | | | | |
| TKM2 | Tokmak 2 | 5.91 | 45 | P | Pn | 17 53 25.0 | +0.8 |
| | SNR=47 | | | | | | |
| GEYT | Alibeck | 9.33 | 268 | Pn | Pn | 17 54 10.0 | -1.0 |
| | 0.3nm,0.3s,baz=95,slow=18,SNR=4.3 | | | | | | |
| GEYT | | | | Sn | Sn | 17 55 57.4 | +1.6 |
| | 0.5nm,0.3s,baz=96,slow=15,SNR=3.8 | | | | | | |
| MKAR | Makanchi Array | 12.04 | 45 | Pn | Pn | 17 54 46.2 | -1.9 |
| | 0.0nm,0.3s,baz=232,slow=14,SNR=3.6 | | | | | | |
| KURBB | Kurchatov Arra | 13.25 | 25 | Pn | Pn | 17 55 00.9 | -3.6 |
| | 0.1nm,0.3s,baz=216,slow=12,SNR=3.5 | | | | | | |
| BVAR | Borovoye Array | 14.19 | 1 | Pn | Pn | 17 55 15.2 | -2.1 |
| | 0.2nm,0.3s,baz=170,slow=8.8,SNR=4.6 | | | | | | |
| ZALV | Zalesovo Beam | 18.20 | 29 | P | Pn | 17 56 05.5 | -3.5 |
| | 0.2nm,0.3s,baz=225,slow=13,SNR=4.0 | | | | | | |
| FINES | FINESS Array B | 35.08 | 325 | P | P | 17 58 49.7 | +0.5 |
| | 2.5nm,0.9s,baz=111,slow=7.6,SNR=3.4 | | | | | | |
| ARCES | ARCESS Array B | 38.66 | 337 | P | P | 17 59 19.8 | +0.1 |
| | 2.0nm,0.8s,baz=94,slow=6.7,SNR=3.1 | | | | | | |
| HFS | Hagfors | 40.72 | 320 | P | P | 17 59 37.0 | +0.1 |
| | 4.5nm,0.9s,baz=109,slow=13,SNR=3.0 | | | | | | |
| ESDC | Sonseca Array | 55.65 | 296 | P | P | 18 01 33.1 | +0.6 |
| | 0.1nm,0.3s,baz=58,slow=7.8,SNR=4.0 | | | | | | |
| TORD | Torodi Ar. Bea | 64.97 | 267 | P | P | 18 02 36.4 | -0.2 |
| | 0.5nm,0.8s,baz=50,slow=5.5,SNR=2.8 | | | | | | |

*NIED **28** 18:06:00, 36°.90N×140°.70E, h5km, Mw3.6 Best double couple: $M_0$2.94000×$10^{14}$ NP1:$\phi_s$54.00000°, δ17.00000°, λ-58.00000°. NP2:$\phi_s$201.00000°, δ76.00000°, λ-99.00000°.*

*IDC **28** 18:06:31.6±0.9, 36°.80N×140°.89E, h0km, mb3.5/7, mb1 3.6/9, mb1mx3.4/49, mbtmp3.5/9, ML3.3/2, Error ellipse: s-maj=22.2km s-min=19.3km az=128.0*

*ISCJB **28** 18:06:32.7±0.8, 36°.83N±0°.04×140°.86E±0°.06, h18km±5km, mb3.5/7, Error ellipse: s-maj=9.4km s-min=4.8km az=26.8*

*JMA **28** 18:06:34.3, 36°.87N×140°.66E, h8km±1km, M3.6 Broadband fault plane solution: P waves. NP1: $\phi_s$208.00000°, δ47.00000°, λ-95.00000°. NP2:$\phi_s$35.00000°, δ43.00000°, λ-85.00000°. Principal axes: T Plg2.0000°, Azm301.0000°; N Plg4.0000°, Azm211.0000°; P Plg86.0000°, Azm58.0000°;*

*JMA Felt II J1.*

**ISC 28 18:06:33.3±1.2, 36°.84N±0°.04×140°.78E±0°.06, h10km±8km, n22, σ0s.94/24, mb3.4/7, 2C, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| ONAJ | Iwakimizuishiy | 0.26 | 4 | P | Pb | 18 06 39.6 | -0.6 |
| ONAJ | | | | S | Sg | 18 06 43.3 | +1.1 |
| JHO | Hitachi | 0.28 | 216 | ⇑P | Pb | 18 06 39.6 | -0.9 |
| JHO | | | | S | Sg | 18 06 43.7 | +0.9 |
| JFK | Kawauchi | 0.53 | 8 | P | Pb | 18 06 44.3 | -0.4 |
| JFK | | | | S | Sg | 18 06 51.3 | +0.7 |
| JSB | Shiboa | 0.70 | 281 | ⇑P | Pg | 18 06 46.5 | -0.3 |
| JSB | | | | S | Sg | 18 06 55.1 | -0.8 |
| JFT | Otama | 0.76 | 333 | P | Pg | 18 06 47.8 | -0.2 |
| JFT | | | | S | Sg | 18 06 56.9 | -1.0 |
| JYT | Yasato | 0.77 | 218 | P | Pg | 18 06 47.9 | -0.2 |
| JYT | | | | eS | Sg | 18 06 58.5 | +0.3 |
| MJAR | Matsushiro Arr | 2.08 | 263 | Pn | Pn | 18 07 08.7 | +0.4 |
| | 22nm,0.3s,baz=76,slow=17,SNR=51 | | | | | | |
| MJAR | | | | Sn | Sn | 18 07 35.2 | +0.8 |
| | 32nm,0.3s,baz=97,slow=18,SNR=21 | | | | | | |
| MAT | Matsushiro | 2.09 | 263 | P | Pn | 18 07 09.1 | +0.7 |
| MAT | | | | S | Sn | 18 07 35.6 | +1.2 |
| ASAJ | Asahikawa | 7.40 | 10 | Pn | Pn | 18 08 21.9 | +0.6 |
| | 0.3nm,0.3s,baz=199,slow=20,SNR=5.2 | | | | | | |
| SONM | Songino Array | 27.47 | 304 | P | P | 18 12 19.3 | -0.4 |
| | 0.5nm,0.8s,baz=98,slow=8.0,SNR=2.7 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 28.49 | 120 | T | T | 18 42 15.4 | |
| | baz=313,slow=75,SNR=395 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 28.50 | 120 | T | T | 18 42 15.9 | |
| | baz=313,slow=75,SNR=353 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 28.51 | 120 | T | T | 18 42 16.7 | |
| | baz=313,slow=75,SNR=288 | | | | | | |
| H11S1 | WAKE ISLAND Hy | 29.19 | 122 | T | T | 18 43 07.7 | |
| | baz=314,slow=76,SNR=375 | | | | | | |
| H11S3 | WAKE ISLAND Hy | 29.19 | 122 | T | T | 18 43 07.0 | |
| | baz=314,slow=76,SNR=258 | | | | | | |
| H11S2 | WAKE ISLAND Hy | 29.20 | 122 | T | T | 18 43 10.3 | |
| | baz=314,slow=76,SNR=184 | | | | | | |
| MKAR | Makanchi Array | 43.79 | 302 | P | P | 18 14 40.4 | +1.2 |
| | 0.3nm,0.7s,baz=93,slow=8.7,SNR=2.8 | | | | | | |
| KURBB | Kurchatov Arra | 45.72 | 308 | P | P | 18 14 55.4 | +1.0 |
| | 0.8nm,0.2s,baz=69,slow=5.1,SNR=3.2 | | | | | | |
| ILAR | Eielson Array | 49.93 | 32 | P | P | 18 15 24.6 | -2.3 |
| | 0.3nm,0.9s,baz=282,slow=4.5,SNR=3.5 | | | | | | |
| WRA | Warramunga Arr | 56.80 | 187 | P | P | 18 16 17.6 | -0.3 |
| | 0.6nm,0.6s,baz=4.3,slow=7.4,SNR=8.6 | | | | | | |
| ASAR | Alice Springs | 60.53 | 187 | P | P | 18 16 43.2 | -0.5 |
| | 0.3nm,0.7s,baz=15,slow=5.6,SNR=5.1 | | | | | | |
| YKA | Yellowknife Ar | 64.23 | 30 | P | P | 18 17 08.9 | +0.8 |
| | 0.2nm,0.8s,baz=301,slow=6.5,SNR=2.9 | | | | | | |

*IDC **28** 18:16:42.8±0.8, 11°.85N×125°.78E, h0km, mb3.9/13, mb1 4.0/13, mb1mx3.8/43, mbtmp3.9/13, MS3.4/4, Ms1 3.5/4, ms1mx2.9/51, Error ellipse: s-maj=45.7km s-min=14.5km az=67.0*

*MAN **28** 18:16:44, 12°.01N×125°.96E, h5km, mb5.0, ML3.9, MS4.0*

*NEIC **28** 18:16:55.2±5.2, 11°.77N×125°.74E, h103km±48km, mb4.7/9, Error ellipse: s-maj=25.1km s-min=8.6km az=61.0*

**ISC 28 18:16:43.5±2.0, 11°.98N±0°.04×125°.98E±0°.07, h5km±12km, n54, σ1s.58/61, mb4.3/20, MS3.3/3, 1C-3D, Samar**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| BESP | Borongan | 0.65 | 234 | eP | Pb | 18 16 57.4 | 0.0 |
| BESP | | | | eS | Sb | 18 17 06.8 | 0.0 |
| PLP | Palo | 1.27 | 230 | ⇓iP | Pg | 18 17 07.1 | -0.9 |
| PLP | | | | i S | Sg | 18 17 22.5 | -2.0 |
| CNP | Catarman | 1.39 | 292 | eP | Pn | 18 17 09.2 | -0.3 |
| CNP | | | | eS | Sn | 18 17 29.1 | +0.8 |
| OCLP | Ormoc | 1.63 | 236 | eP | Pn | 18 17 13.7 | +0.7 |
| OCLP | | | | eS | Sb | 18 17 35.4 | +0.4 |
| MSLP | Maasin | 2.14 | 211 | eP | Pn | 18 17 21.5 | +1.6 |
| MSLP | | | | eS | Sg | 18 17 52.3 | 0.0 |
| SCPH | Surigao | 2.24 | 192 | ⇑eP | Pn | 18 17 21.4 | 0.0 |
| MMPH | Masbate | 2.33 | 279 | eP | Pb | 18 17 27.1 | +1.0 |
| MMPH | | | | eS | Sg | 18 17 59.1 | +0.6 |
| PVCP | Virac | 2.40 | 312 | eP | Pn | 18 17 23.8 | +0.3 |
| PVCP | | | | eS | Sg | 18 18 05.0 | +4.5 |
| LLP | Lapu-Lapu | 2.58 | 230 | eP | Pb | 18 17 28.9 | -1.4 |
| LLP | | | | eS | Sb | 18 18 03.6 | +1.3 |
| BUTP | Butuan | 3.02 | 187 | eP | Pn | 18 17 34.0 | +2.0 |
| BUTP | | | | eS | Sn | 18 18 12.6 | +4.0 |
| RCP | Roxas | 3.19 | 263 | ⇓eP | Pn | 18 17 35.7 | +1.2 |
| GUIM | Jordan | 3.59 | 248 | eP | Pn | 18 17 40.8 | +0.9 |
| JAP | San Jose, Anti | 4.14 | 253 | ⇓eP | Pg | 18 18 01.6 | -1.3 |
| BUKP | Musuan | 4.18 | 193 | eP | Pn | 18 17 49.6 | +1.5 |
| BUKP | | | | eS | Sb | 18 18 53.5 | +5.0 |
| SJMP | San Jose | 4.78 | 276 | eP | Pn | 18 17 59.3 | +3.1 |
| PAGZ | Pagadian | 4.84 | 212 | eP | Pn | 18 17 57.8 | +0.6 |
| GUMO | Guam | 18.49 | 83 | LR | LR | 18 26 48.7 | |
| | comp=Z,78nm,19.9s,baz=73,slow=32 | | | | | | |
| CM31 | Chiang Mai Arr | 26.85 | 287 | eP | P | 18 22 23.7 | -1.6 |
| CMAR | Chiang Mai Arr | 26.85 | 287 | P | P | 18 22 24.2 | -1.1 |
| | 0.7nm,0.8s,baz=95,slow=7.6,SNR=8.3 | | | | | | |
| CMAR | | | | LR | LR | 18 32 42.6 | |
| | comp=Z,27nm,19.5s,baz=327,slow=36 | | | | | | |
| FITZ | Fitzroy Crossi | 29.90 | 181 | P | P | 18 22 51.3 | -1.1 |
| | 3.1nm,0.8s,baz=360,slow=9.5,SNR=4.4 | | | | | | |
| WR1 | Warramunga Arr | 32.77 | 165 | eP | P | 18 23 16.2 | -1.6 |
| | 39nm,1.8s | | | | | | |
| WR1 | | | | ePcP | PcP | 18 26 03.5 | +0.3 |
| WRA | Warramunga Arr | 32.77 | 165 | P | P | 18 23 16.2 | -1.6 |
| | 0.5nm,0.7s,baz=348,slow=9.2,SNR=3.6 | | | | | | |
| WRA | | | | PcP | PcP | 18 26 03.6 | +0.3 |
| | 0.4nm,0.6s,baz=338,slow=3.0,SNR=4.0 | | | | | | |
| AS31 | Alice Springs | 36.27 | 168 | eP | P | 18 23 49.2 | +1.1 |
| | 5.5nm,1.8s | | | | | | |
| ASAR | Alice Springs | 36.27 | 168 | P | P | 18 23 47.4 | -0.7 |
| | 0.3nm,0.5s,baz=352,slow=7.1,SNR=17 | | | | | | |
| ASAR | | | | PcP | PcP | 18 26 13.1 | -0.3 |
| | 0.4nm,0.5s,baz=340,slow=2.3,SNR=7.6 | | | | | | |
| SONA0 | Songino Array | 39.33 | 339 | eP | P | 18 24 14.6 | +0.8 |
| SONM | Songino Array | 39.33 | 339 | P | P | 18 24 14.6 | +0.8 |
| | 0.4nm,0.9s,baz=170,slow=9.5,SNR=2.4 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 40.02 | 74 | T | T | 19 07 33.9 | |
| | baz=266,slow=74,SNR=7.8 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 40.03 | 74 | T | T | 19 07 49.1 | |
| | baz=266,slow=74,SNR=4.5 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 40.04 | 74 | T | T | 19 07 39.0 | |
| | baz=266,slow=74,SNR=7.4 | | | | | | |
| STKA | Stephens Creek | 46.11 | 161 | P | P | 18 25 08.7 | -0.2 |
| | 3.0nm,0.8s,baz=321,slow=8.2,SNR=7.0 | | | | | | |
| STKA | Stephens Creek | 46.11 | 161 | eP | P | 18 25 09.5 | +0.6 |
| | 3.3nm,1.5s | | | | | | |
| MK01 | Makanchi Array | 50.49 | 322 | eP | P | 18 25 43.7 | +1.0 |
| MK31 | Makanchi Array | 50.50 | 322 | eP | P | 18 25 44.0 | +1.2 |
| MK32 | Makanchi Array | 50.50 | 322 | eP | P | 18 25 44.2 | +1.4 |
| MKAR | Makanchi Array | 50.50 | 322 | P | P | 18 25 44.2 | +1.4 |
| | 2.9nm,0.7s,baz=115,slow=8.6,SNR=30 | | | | | | |
| MKAR | Makanchi Array | 50.50 | 322 | eP | P | 18 25 44.0 | +1.2 |
| | 19nm,0.7s | | | | | | |
| MAKZ | Makanchi | 50.70 | 322 | eP | P | 18 25 45.4 | +1.2 |
| | 5.9nm,1.3s | | | | | | |
| ZALV | Zalesovo Beam | 53.00 | 331 | P | P | 18 26 01.2 | 0.0 |
| | 0.6nm,0.4s,baz=100,slow=8.1,SNR=4.3 | | | | | | |
| ZAA1 | Zalesovo Array | 53.00 | 331 | eP | P | 18 26 01.2 | 0.0 |
| KURK | Kurchatov | 54.51 | 325 | eP | P | 18 26 13.3 | +1.0 |
| | 8.2nm,0.8s | | | | | | |
| ABKAR | Akbulak array | 65.40 | 319 | eP | P | 18 27 27.5 | +0.3 |
| | 12nm,0.7s | | | | | | |
| RAO | Raoul Island | 67.88 | 128 | LR | LR | 18 53 38.4 | |
| | comp=Z,217nm,21.1s,baz=130,slow=33 | | | | | | |
| RAYN | Ar Rayn | 76.67 | 292 | eP | P | 18 28 35.3 | -1.0 |
| | 12nm,1.7s | | | | | | |
| KVAR | Kislovodsk Arr | 76.98 | 313 | LR | LR | 19 05 05.4 | |
| | comp=Z,17nm,21.2s,baz=160,slow=38 | | | | | | |
| ARA0 | ARCESS Array S | 82.50 | 340 | eP | P | 18 29 05.5 | -1.4 |
| ARCES | ARCESS Array B | 82.50 | 340 | P | P | 18 29 05.5 | -1.4 |
| | 2.4nm,0.8s,baz=96,slow=4.6,SNR=2.8 | | | | | | |
| BR101 | Keskin Array S | 84.23 | 309 | eP | P | 18 29 15.3 | -1.4 |
| BRTR | Keskin Array B | 84.23 | 309 | P | P | 18 29 15.3 | -1.4 |
| | 0.8nm,0.7s,baz=117,slow=3.0,SNR=5.9 | | | | | | |
| FIA0 | FINESS Array S | 84.26 | 332 | eP | P | 18 29 15.8 | -0.3 |
| FINES | FINESS Array B | 84.26 | 332 | P | P | 18 29 15.8 | -0.3 |
| | 2.6nm,0.9s,baz=54,slow=3.3,SNR=6.8 | | | | | | |
| BR231 | Keskin MP Arra | 84.86 | 309 | eP | P | 18 29 17.0 | -2.9 |
| AKASG | Malin Array Be | 85.06 | 321 | P | P | 18 29 20.0 | -0.5 |
| | 1.9nm,0.8s,baz=65,slow=5.3,SNR=5.3 | | | | | | |
| YKA | Yellowknife Ar | 92.32 | 24 | P | P | 18 29 56.5 | +1.7 |
| | 0.1nm,0.5s,baz=301,slow=4.2,SNR=3.2 | | | | | | |
| E09A | Wood Farm, Sta | 98.38 | 39 | eP | P | 18 30 21.3 | -1.5 |
| | 8.9nm,0.9s | | | | | | |

*ISCJB **28** 18:20:41.3±0.4, 25°.23S±0°.03×69°.52W±0°.05, h35km, mb3.8/4, Error ellipse: s-maj=6.4km s-min=4.7km az=177.8*

*NEIC **28** 18:20:42.7±0.7, 25°.21S×69°.27W, h36km±7km, mb4.7/1, Error ellipse: s-maj=11.9km s-min=7.9km az=75.0*

*GUC **28** 18:20:42.0±0.6, 25°.26S×69°.79W, h85km±8km, ML4.2*

*IDC **28** 18:20:45.9±11.0, 25°.10S×69°.72W, h80km±80km, mb3.3/3, mb1 3.7/5, mb1mx3.5/30, mbtmp3.8/5, ML3.8/2, Error ellipse: s-maj=105.2km s-min=31.7km az=13.0*

*SJA **28** 18:21:01.6±0.5, 25°.20S×68°.49W, h65km±40km, ML2.9, MW3.0*

**ISC 28 18:20:42.5±0.8, 25°.22S±0°.05×69°.63W±0°.06, h35km, n33, σ1s.58/29, mb3.7/4, 4D, Northern Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PB14 | IPOC Station P | 0.92 | 310 | ⇓iP | Pn | 18 21 00.3 | +1.1 |
| PB14 | | | | i S | Sn | 18 21 12.9 | +1.5 |
| PB14 | | | | IAML | | 18 21 14.2 | |
| | comp=E,9μm,0.3s | | | | | | |
| ANCH | Antofagasta | 1.69 | 335 | ⇓iP | Pn | 18 21 10.6 | +1.1 |
| ANCH | | | | i S | Sn | 18 21 28.6 | -1.4 |
| PB10 | IPOC Station P | 1.90 | 333 | ePn | Pn | 18 21 13.2 | +0.8 |
| PB10 | IPOC Station P | 1.90 | 333 | ⇓iP | Pn | 18 21 13.2 | +0.8 |
| PB10 | | | | IAML | | 18 21 44.4 | |
| | comp=E,3μm,0.2s | | | | | | |
| CDCH | Caldera | 2.13 | 210 | eP | Pn | 18 21 15.8 | +0.3 |
| CPCH | Copiapo | 2.22 | 197 | eP | Pn | 18 21 16.9 | 0.0 |
| GO03 | Copiap | 2.42 | 193 | ⇓iP | Pn | 18 21 19.8 | +0.1 |
| GO03 | | | | i S | Sn | 18 21 47.4 | -0.7 |
| GO03 | | | | IAML | | 18 21 59.3 | |
| | comp=N,1μm,0.3s | | | | | | |
| PB06 | IPOC Station P | 2.51 | 1 | IAML | | 18 22 01.4 | |
| | comp=N,1μm,0.6s | | | | | | |
| PB04 | IPOC Station P | 2.92 | 350 | ePn | Pn | 18 21 27.4 | +0.8 |
| FSA | Cafayete | 3.41 | 106 | eP | Pn | 18 21 41.4 | +8.0 |
| FSA | | | | IAML | | 18 21 42.3 | |
| | comp=Z,13nm,0.5s | | | | | | |
| FSA | | | | eS | Sn | 18 22 10.8 | -1.9 |
| SLA | San Lorenzo | 3.78 | 83 | eP | Pn | 18 21 48.6 | +10 |
| SLA | | | | IAML | | 18 21 50.5 | |
| | comp=Z,17nm,0.4s | | | | | | |
| LCO | Las Campanas | 3.89 | 194 | ePn | Pn | 18 21 42.2 | +2.1 |
| PB01 | IPOC Station P | 4.16 | 2 | ePn | Pn | 18 21 44.7 | +1.0 |
| AZAP | Zapla | 4.27 | 77 | eP | Pn | 18 21 53.5 | +8.2 |
| AZAP | | | | IAML | | 18 21 55.5 | |
| | comp=Z,60nm,0.4s | | | | | | |
| HJA | Humahuaca | 4.34 | 63 | eP | Pn | 18 21 55.9 | +9.5 |
| HJA | | | | IAML | | 18 21 57.8 | |
| | comp=Z,195nm,0.6s | | | | | | |
| YJA | Yavi | 4.84 | 52 | eP | Pn | 18 22 01.6 | +8.4 |
| YJA | | | | IAML | | 18 22 04.1 | |
| | comp=Z,13nm,0.7s | | | | | | |
| ASTB | Santa Barbara | 4.88 | 76 | eP | Pn | 18 22 01.4 | +7.8 |
| ALOL | LOMAS DE OLMED | 5.33 | 76 | eP | Pn | 18 22 06.8 | +7.2 |
| PB11 | IPOC Station P | 5.44 | 360 | ePn | Pn | 18 22 01.3 | +0.1 |
| MNMC | Minye Minye | 6.06 | 0 | ePn | Pn | 18 22 09.9 | 0.0 |
| LPAZ | La Paz | 9.00 | 9 | P | Pn | 18 22 51.8 | +1.3 |
| | comp=Z,0.1nm,0.3s,baz=199,slow=11,SNR=3.2 | | | | | | |
| LPAZ | La Paz | 9.00 | 9 | ePn | Pn | 18 22 50.0 | -0.6 |
| CPUP | Villa Florida | 11.14 | 98 | ePn | Pn | 18 23 14.5 | -4.8 |
| SIV | San Ignacio | 12.18 | 43 | P | Pn | 18 23 36.5 | +2.9 |
| | comp=Z,2.8nm,0.3s,baz=249,slow=12,SNR=15 | | | | | | |
| SIV | | | | S | Sn | 18 25 50.9 | +2.6 |
| | comp=Z,0.1nm,0.3s,baz=120,slow=20,SNR=2.7 | | | | | | |
| LTX | Lajitas | 63.33 | 327 | eP | P | 18 31 05.5 | -2.8 |
| TXAR | Lajitas Array | 63.33 | 327 | P | P | 18 31 05.5 | -2.8 |
| | comp=Z,0.2nm,0.6s,baz=140,slow=11,SNR=2.8 | | | | | | |
| BW06 | Boulder Array | 77.01 | 331 | eP | P | 18 32 32.5 | +0.5 |
| | comp=Z,5.3nm,0.6s | | | | | | |
| PDAR | Pinedale Array | 77.01 | 331 | eP | P | 18 32 32.9 | +1.0 |
| NV01 | Mina Array Sit | 78.03 | 323 | eP | P | 18 32 39.6 | +1.9 |
| NVAR | Mina Array Bea | 78.03 | 323 | P | P | 18 32 35.6 | -2.1 |
| | comp=Z,0.1nm,0.4s,baz=169,slow=5.2,SNR=2.7 | | | | | | |
| TOA1 | Torodi Ar. Sit | 79.24 | 70 | eP | P | 18 32 43.0 | -1.6 |
| TORD | Torodi Ar. Bea | 79.24 | 70 | P | P | 18 32 43.0 | -1.6 |
| | comp=Z,1.2nm,0.6s,baz=253,slow=5.2,SNR=14 | | | | | | |
| LRM | Limekiln Ridge | 80.70 | 331 | eP | P | 18 32 52.6 | +0.5 |

*IDC **28** 18:24:04.0±2.3, 21°.95S×179°.53W, h556km±24km, mb3.4/10, mb1 3.7/11, mb1mx3.4/35, mbtmp4.3/11, Error ellipse: s-maj=21.8km s-min=16.4km az=149.0*

*ISCJB **28** 18:24:05.4±0.6, 22°.14S±0°.09×179°.6W±0°.2, h592km, mb3.8/10, Error ellipse: s-maj=19.2km s-min=11.6km az=15.8*

**ISC 28 18:24:06.4±0.7, 22°.2S±0°.1×179°.5W±0°.2, h592km, n15, σ1s.77/17, mb3.7/10, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| URZ | Urewera | 16.32 | 190 | P | P | 18 27 26.2 | -0.6 |
| | 1.2nm,0.3s,baz=231,slow=4.8,SNR=5.0 | | | | | | |
| URZ | | | | S | S | 18 30 06.9 | -3.3 |
| | 0.5nm,0.3s,baz=211,slow=23,SNR=6.4 | | | | | | |
| STKA | Stephens Creek | 35.83 | 246 | P | P | 18 30 18.2 | +0.6 |
| | 8.1nm,0.5s,baz=92,slow=10.0,SNR=28 | | | | | | |
| ASAR | Alice Springs | 42.80 | 259 | P | P | 18 31 13.6 | -0.1 |
| | 18nm,0.8s,baz=92,slow=8.6,SNR=214 | | | | | | |
| ASAR | | | | ScP | ScP | 18 35 49.6 | +3.2 |
| | 0.4nm,0.8s,baz=116,slow=4.4,SNR=3.3 | | | | | | |
| WRA | Warramunga Arr | 43.01 | 264 | P | P | 18 31 14.1 | -1.2 |
| | 6.1nm,0.3s,baz=96,slow=7.9,SNR=70 | | | | | | |
| WRA | | | | ScP | ScP | 18 35 50.2 | +2.9 |
| | 1.9nm,0.9s,baz=96,slow=4.4,SNR=4.9 | | | | | | |
| VNDA | Vanda | 56.16 | 185 | P | P | 18 32 52.6 | +2.1 |
| | 0.6nm,0.5s,baz=0.8,slow=6.8,SNR=6.5 | | | | | | |
| MJAR | Matsushiro Arr | 70.72 | 325 | P | P | 18 34 23.0 | -0.9 |
| | 1.0nm,0.6s,baz=148,slow=6.1,SNR=4.3 | | | | | | |
| NVAR | Mina Array Bea | 83.17 | 44 | P | P | 18 35 32.1 | +0.4 |
| | 1.2nm,0.8s,baz=226,slow=8.3,SNR=8.1 | | | | | | |
| TXAR | Lajitas Array | 89.11 | 58 | P | P | 18 36 00.8 | +0.8 |
| | 1.4nm,0.8s,baz=211,slow=5.4,SNR=11 | | | | | | |
| CMAR | Chiang Mai Arr | 89.36 | 290 | P | P | 18 36 02.3 | +1.0 |
| | 1.8nm,0.8s,baz=140,slow=3.4,SNR=17 | | | | | | |
| ILAR | Eielson Array | 90.23 | 13 | P | P | 18 36 02.1 | -2.1 |
| | 0.2nm,0.6s,baz=202,slow=3.7,SNR=3.7 | | | | | | |
| PDAR | Pinedale Array | 91.11 | 44 | P | P | 18 36 09.2 | 0.0 |
| | 0.2nm,0.5s,baz=222,slow=6.6,SNR=3.5 | | | | | | |
| AKASG | Malin Array Be | 143.73 | 329 | PKhKP | PKPpre | 18 42 32.5 | |
| | 0.7nm,0.3s,baz=47,slow=4.6,SNR=7.9 | | | | | | |
| BRTR | Keskin Array B | 146.86 | 310 | PKPbc | PKPab | 18 42 45.8 | -1.0 |
| | 0.3nm,0.4s,baz=129,slow=4.2,SNR=3.0 | | | | | | |
| GERES | GERESS Array B | 151.36 | 342 | PKPbc | PKPbc | 18 42 53.9 | -0.2 |
| | 0.3nm,0.4s,baz=270,slow=1.0,SNR=3.5 | | | | | | |
| TORD | Torodi Ar. Bea | 170.98 | 187 | PKPab | PKPab | 18 44 30.8 | -0.5 |
| | 0.5nm,0.7s,baz=169,slow=5.0,SNR=3.6 | | | | | | |

*ISCJB **28** 18:33:23.4±0.5, 23°.73S±0°.06×179°.74W±0°.10, h500km, mb4.1/12, Error ellipse: s-maj=12.2km s-min=8.2km az=6.6*

*IDC **28** 18:33:23.6±1.3, 23°.67S×179°.80W, h487km±15km, mb3.7/11, mb1 3.9/14, mb1mx3.6/36, mbtmp4.6/14, Error ellipse: s-maj=18.6km s-min=13.8km az=155.0*

**ISC 28 18:33:24.7±0.7, 23°.85S±0°.08×179°.7W±0°.1, h500km, n19, σ1s.53/22, mb4.1/12, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RAO | Raoul Island | 5.63 | 164 | P | P | 18 34 58.8 | +1.5 |
| | 115nm,0.3s,baz=104,slow=22,SNR=4.3 | | | | | | |
| RAO | | | | S | S | 18 36 14.2 | +1.1 |
| | 83nm,0.3s,baz=90,slow=20,SNR=3.2 | | | | | | |
| AFI | Afiamalu | 12.43 | 39 | P | P | 18 36 05.3 | -2.7 |
| | 3.2nm,0.3s,baz=100,slow=17,SNR=2.9 | | | | | | |
| AFI | | | | S | S | 18 38 13.9 | -8.6 |
| | 3.9nm,0.3s,baz=38,slow=22,SNR=9.2 | | | | | | |
| DZM | Mont Dzumac | 12.85 | 275 | P | P | 18 36 14.1 | +1.7 |
| | 0.5nm,0.3s,baz=100,slow=16,SNR=7.4 | | | | | | |
| URZ | Urewera | 14.62 | 190 | P | P | 18 36 29.9 | -0.7 |
| | 5.3nm,0.3s,baz=34,slow=2.0,SNR=16 | | | | | | |
| URZ | | | | S | S | 18 39 01.0 | -3.1 |
| | 3.1nm,0.3s,baz=73,slow=21,SNR=13 | | | | | | |
| RPZ | Rata Peaks | 21.22 | 199 | P | P | 18 37 35.3 | +1.2 |
| | 6.3nm,0.6s,baz=8.7,slow=4.9,SNR=8.4 | | | | | | |
| HNR | Honiara | 24.12 | 303 | P | P | 18 37 53.3 | -7.2 |
| | 31nm,0.3s,baz=82,slow=10,SNR=4.2 | | | | | | |
| PMG | Port Moresby | 34.70 | 289 | P | P | 18 39 31.7 | -0.6 |
| | 25nm,0.7s,baz=125,slow=4.7,SNR=10.0 | | | | | | |
| STKA | Stephens Creek | 34.96 | 248 | P | P | 18 39 34.2 | 0.0 |
| | 4.8nm,0.5s,baz=96,slow=12,SNR=15 | | | | | | |
| STKA | | | | PcP | PcP | 18 41 52.6 | -0.3 |
| | 0.7nm,0.5s,baz=194,slow=4.2,SNR=2.8 | | | | | | |
| ASAR | Alice Springs | 42.28 | 260 | P | P | 18 40 33.2 | -0.7 |
| | 20nm,0.8s,baz=96,slow=7.5,SNR=347 | | | | | | |
| ASAR | | | | ScP | ScP | 18 45 19.9 | +0.7 |
| | 1.8nm,0.8s,baz=118,slow=3.5,SNR=8.5 | | | | | | |
| WRA | Warramunga Arr | 42.65 | 266 | P | P | 18 40 35.5 | -1.3 |
| | 14nm,0.4s,baz=92,slow=8.4,SNR=157 | | | | | | |
| WRA | | | | ScP | ScP | 18 45 21.9 | +1.2 |
| | 1.6nm,1.0s,baz=113,slow=4.4,SNR=4.4 | | | | | | |
| PETK | Petropavlovsk- | 79.10 | 346 | P | P | 18 44 35.7 | -0.7 |
| | 3.6nm,0.8s,baz=115,slow=16,SNR=5.6 | | | | | | |
| NVAR | Mina Array Bea | 84.55 | 44 | P | P | 18 45 04.7 | -0.3 |
| | 0.6nm,0.6s,baz=221,slow=8.6,SNR=4.9 | | | | | | |
| CMAR | Chiang Mai Arr | 89.73 | 290 | P | P | 18 45 29.7 | +0.1 |
| | 1.4nm,0.9s,baz=138,slow=3.2,SNR=11 | | | | | | |
| TXAR | Lajitas Array | 90.20 | 58 | P | P | 18 45 32.0 | +0.3 |
| | 1.1nm,0.7s,baz=216,slow=6.2,SNR=12 | | | | | | |
| ILAR | Eielson Array | 91.92 | 13 | P | P | 18 45 37.0 | -1.7 |
| | 0.4nm,0.7s,baz=220,slow=6.8,SNR=3.4 | | | | | | |
| PDAR | Pinedale Array | 92.49 | 44 | P | P | 18 45 41.0 | -1.2 |
| | 0.4nm,0.6s,baz=193,slow=6.1,SNR=4.0 | | | | | | |
| AKASG | Malin Array Be | 145.05 | 327 | PKP | PKPdf | 18 52 03.9 | -0.5 |
| | 0.2nm,0.2s,baz=51,slow=3.6,SNR=3.0 | | | | | | |
| BRTR | Keskin Array B | 147.73 | 307 | PKPbc | PKPdf | 18 52 11.9 | +2.4 |
| | 0.6nm,0.6s,baz=150,slow=4.6,SNR=3.9 | | | | | | |
| MMAI | Mount Meron Ar | 147.89 | 294 | PKPbc | PKPdf | 18 52 13.2 | +3.4 |
| | 1.9nm,0.4s,baz=74,slow=7.1,SNR=15 | | | | | | |

*CRAAG **28** 18:34:34.4, 36°.34N×1°.65E, Ml3.1*

*ISCJB **28** 18:34:35.3±0.9, 36°.57N±0°.05×1°.60E±0°.06, h14km, Error ellipse: s-maj=7.9km s-min=7.0km az=168.5*

*MDD **28** 18:34:37.3±2.1, 36°.40N×1°.77E, h93km±25km, mb2.0/6, Error ellipse: s-maj=16.3km s-min=11.2km az=170.0, PRXIMO*

*CSEM **28** 18:34:38.8±0.6, 36°.62N×1°.69E, h30km, mb2.0, Error ellipse: s-maj=17.0km s-min=13.5km az=81.0*

**ISC 28 18:34:35.4±0.9, 36°.57N±0°.04×1°.61E±0°.05, h14km, n21, σ2s.35/30, Northern Algeria**

| Code | Station Name | Δ° | AZ° | Phase ID Op | Phase ID ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| EBNR | Beni Rached | 0.28 | 193 | P | Pg | 18 34 38.1 | -3.2 |
| ECHA | Ech Chlef | 0.46 | 206 | P | Pn | 18 34 51.5 | +4.0 |
| ECHA | Ech Chlef | 0.46 | 206 | P | Pn | 18 34 51.5 | +4.0 |
| ECHF | Ech Chlef | 0.46 | 208 | P | Pn | 18 34 51.5 | +3.9 |
| ECHF | Ech Chlef | 0.46 | 208 | P | Pn | 18 34 51.5 | +3.9 |
| EANR | 'Ain N'Sour | 0.74 | 214 | P | Pg | 18 34 46.8 | -3.0 |
| EANR | 'Ain N'Sour | 0.74 | 214 | P | Pg | 18 34 46.8 | -3.0 |
| EMHD | Djebel Mahouad | 1.14 | 108 | P | Pb | 18 34 56.3 | -0.7 |
| EMHD | Djebel Mahouad | 1.14 | 108 | P | Pb | 18 34 56.3 | -0.7 |
| EMHD | Djebel Mahouad | 1.14 | 108 | P | Pb | 18 34 56.3 | -0.7 |
| EIBI | Ibiza | 2.47 | 355 | P | Pn | 18 35 17.4 | +2.2 |
| | 0.6nm,0.1s,SNR=7.9 | | | | | | |
| EIBI | | | | S | Sn | 18 35 45.2 | +0.1 |
| | 2.0nm,0.1s,SNR=7.9 | | | | | | |
| EIBI | Ibiza | 2.47 | 355 | P | Pn | 18 35 17.4 | +2.2 |
| | 0.6nm,0.1s,SNR=7.9 | | | | | | |
| EIBI | | | | S | Sn | 18 35 45.2 | +0.1 |
| | 2.0nm,0.1s,SNR=7.9 | | | | | | |
| ETOS | Mallorca | 3.33 | 16 | P | Pn | 18 35 29.8 | +2.6 |
| | 0.6nm,0.3s,SNR=4.0 | | | | | | |
| ETOS | | | | S | Sn | 18 36 06.1 | -0.5 |
| | 0.6nm,0.3s,SNR=7.9 | | | | | | |
| EBER | Berja | 3.63 | 277 | P | Pn | 18 35 31.4 | +0.1 |
| | 0.4nm,0.1s,SNR=7.9 | | | | | | |
| EBER | Berja | 3.63 | 277 | P | Pn | 18 35 31.4 | +0.1 |
| | 0.4nm,0.1s,SNR=7.9 | | | | | | |
| SESP | Santiago Espad | 3.66 | 296 | P | Pn | 18 35 33.7 | +2.0 |
| | 0.2nm,0.3s,SNR=7.9 | | | | | | |
| SESP | | | | S | Sn | 18 36 16.2 | +1.5 |
| | 1.7nm,0.2s,SNR=7.9 | | | | | | |
| SESP | Santiago Espad | 3.66 | 296 | P | Pn | 18 35 33.7 | +2.0 |
| | 0.2nm,0.3s,SNR=7.9 | | | | | | |
| SESP | | | | S | Sn | 18 36 16.2 | +1.5 |
| | 1.7nm,0.2s,SNR=7.9 | | | | | | |
| EQES | Quesada | 3.94 | 290 | P | Pn | 18 35 37.0 | +1.5 |
| | 0.1nm,0.2s,SNR=4.0 | | | | | | |
| EQES | | | | S | Sn | 18 36 22.6 | +1.1 |
| | 0.6nm,0.2s,SNR=7.9 | | | | | | |
| EQES | Quesada | 3.94 | 290 | P | Pn | 18 35 37.0 | +1.5 |
| | 0.1nm,0.2s,SNR=4.0 | | | | | | |
| EQES | | | | S | Sn | 18 36 22.6 | +1.1 |
| | 0.6nm,0.2s,SNR=7.9 | | | | | | |
| EMOS | Mosqueruela | 4.13 | 337 | P | Pn | 18 35 41.4 | +3.2 |
| | 0.3nm,0.1s,SNR=7.9 | | | | | | |
| EMOS | | | | S | Sn | 18 36 26.2 | -0.2 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 0.5nm,0.2s,SNR=7.9 | | | | | | | |
| **EMOS** | **Mosqueruela** | **4.13** | **337** | P | **Pn** | **18 35 41.4** | **+3.2** |
| | 0.3nm,0.1s,SNR=7.9 | | | | | | | |
| EMOS | | | | S | **Sn** | **18 36 26.2** | **-0.2** |
| | 0.5nm,0.2s,SNR=7.9 | | | | | | | |

*SOME **28** 18:35:38.5,50˚.62N×86˚.12E,h20km*
*MOS **28** 18:35:38.6±1.1,50˚.53N×87˚.60E,h10km,mb4.2/3,Error ellipse: s-maj=17.8km s-min=16.2km az=48.2*
*NNC **28** 18:35:44.6±2.1,50˚.64N×87˚.12E,h0km,mb4.0,mpv3.6,Error ellipse: s-maj=19.6km s-min=10.9km az=96.0*

**ISC 28 18:35:39.0±0.8,50˚.64N±0˚.05×87˚.19E±0˚.06,h5km,n20,σ4§10/17,11C-7D,Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ZSN** | **Zaisan** | **3.54** | **207** | *e*P | **Pb** | **18 36 41.1** | **-1.0** |
| | 5.5nm,0.5s | | | | | | |
| ZSN | | | | *e*S | **Sb** | **18 37 24.3** | **-1.0** |
| | 19nm,0.6s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **3.62** | **337** | *i* PN | **Pb** | **18 36 40.3** | **-3.1** |
| ZALV | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.4s | | | | | | |
| **HVS** | **Khovu-Aksy** | **4.15** | **81⇑** | *e*PN | **Pn** | **18 36 41.1** | **-2.0** |
| **SEM** | **Semipalatinsk** | **4.44** | **270** | *e*P | **Pg** | **18 36 59.6** | **-4.3** |
| SEM | | | | *e*S | **Sg** | **18 38 03.4** | **+2.0** |
| **NVS** | **Novosibirsk** | **4.85** | **332** | *e*PN | **Pg** | **18 37 12.0** | **+0.2** |
| NVS | | | | *e* | | 18 37 53.2 | |
| NVS | | | | *e* | | 18 38 16.5 | |
| **MK31** | **Makanchi Array** | **5.03** | **222** | Pn | Pb | 18 37 01.1 | -6.4 |
| | comp=Z,1.3nm,0.3s,baz=44,slow=11,SNR=108 | | | | | | |
| MK31 | | | | ⇑Sn | **Sb** | **18 38 00.9** | **-7.4** |
| | comp=Z,6.9nm,0.5s,baz=37,slow=22,SNR=7.7 | | | | | | |
| MK31 | | | | ⇑Lg | Lg | 18 38 21.8 | |
| | comp=Z,8.3nm,0.5s,baz=48,slow=27,SNR=4.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **5.03** | **222** | *i* PN | Pb | 18 37 01.2 | -6.3 |
| MKAR | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.4s | | | | | | |
| **MAKZ** | **Makanchi** | **5.16** | **224** | ⇑Pn | Pb | 18 37 02.9 | -6.7 |
| | comp=Z,3.1nm,0.4s | | | | | | |
| MAKZ | | | | ⇓Sn | **Sb** | **18 38 03.7** | **-8.1** |
| | comp=Z,22nm,0.8s | | | | | | |
| MAKZ | | | | ⇓Lg | Lg | 18 38 23.9 | |
| | comp=Z,12nm,0.6s | | | | | | |
| **KURK** | **Kurchatov** | **5.45** | **274** | ⇑Pn | Pn | 18 37 05.8 | +5.0 |
| | comp=Z,4.4nm,0.6s | | | | | | |
| KURK | | | | ⇑Lg | Lg | 18 38 38.2 | |
| | comp=Z,9.8nm,0.5s | | | | | | |
| **KURK** | **Kurchatov** | **5.45** | **274** | *de*PN | Pn | 18 37 06.0 | +5.2 |
| **KURBB** | **Kurchatov Arra** | **5.51** | **273** | ⇑Pn | Pn | 18 37 06.8 | +5.2 |
| | comp=Z,7.2nm,0.3s | | | | | | |
| KURBB | | | | ⇓Lg | Lg | 18 38 38.7 | |
| | comp=Z,27nm,0.5s | | | | | | |
| **KAPS** | **Kapalarasan** | **7.50** | **227** | *e*P | Pn | 18 37 34.1 | +5.0 |
| | comp=Z,3.7nm,0.6s | | | | | | |
| KAPS | | | | ⇑*i*S | **Sn** | **18 38 58.6** | **+4.1** |
| | comp=Z,12nm,0.7s | | | | | | |
| **DJR** | **Jarkent** | **8.05** | **221** | *e*P | Pn | 18 37 42.0 | +5.3 |
| | comp=Z,6.1nm,0.6s | | | | | | |
| DJR | | | | *e*S | **Sn** | **18 39 13.2** | **+5.1** |
| | comp=Z,14nm,0.6s | | | | | | |
| **BRVK** | **Borovoye** | **10.74** | **290⇑** | *e*P | Pn | 18 38 18.9 | +5.6 |
| **AAK** | **Ala-Archa** | **11.83** | **232⇓** | *e*P | **Pn** | **18 38 31.4** | **+3.0** |
| AAK | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.8s | | | | | | |
| **ARU** | **Arti** | **17.90** | **300⇓** | *e*P | **P** | **18 39 53.4** | **+4.3** |
| ARU | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.4s | | | | | | |
| **TIXI** | **Tiksi** | **28.11** | **27⇑** | *e*P | **P** | **18 41 30.8** | **-0.5** |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,1.0nm,1.4s | | | | | | |
| **KLR** | **Kul'dur** | **28.39** | **75⇓** | *e*P | **P** | **18 41 33.4** | **-0.6** |
| **NCK** | **Nalchik** | **30.18** | **273⇑** | *e*P | **P** | **18 41 51.9** | **+1.9** |
| NCK | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.8s | | | | | | |
| **KMBO** | **Kilima Mbogo** | **66.75** | **236** | *i* P | **P** | **18 46 32.7** | **+1.1** |
| KMBO | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.3s | | | | | | |

*IDC **28** 18:48:21.7±1.2,0˚.29S×16˚.03W,h0km,mb4.2/19,mb1 4.2/19,mb1mx3.9/60,mbtmp4.2/19,MS3.7/14,Ms1 3.7/14,ms1mx3.4/41,Error ellipse: s-maj=38.1km s-min=17.1km az=72.0*
*ISCJB **28** 18:48:22.5±0.6,0˚.21S±0˚.07×15˚.9W±0˚.1,h10km,mb4.3/24,MS3.7/12,Error ellipse: s-maj=17.1km s-min=10.7km az=5.5*
*NEIC **28** 18:48:23.9±0.5,0˚.23S×15˚.96W,h10km,mb4.8/6,Error ellipse: s-maj=14.4km s-min=9.4km az=98.0*

**ISC 28 18:48:24.0±0.7,0˚.2S±0˚.1×15˚.8W±0˚.2,h10km,n63,σ1§05/48,mb4.3/24,MS3.7/12,7C-2D,North of Ascension Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **H10N2** | **ASCENSION HYDR** | **7.66** | **170** | T | T | 18 58 01.3 | |
| | baz=348,slow=74,SNR=130 | | | | | | |
| **H10N3** | **ASCENSION HYDR** | **7.67** | **170** | T | T | 18 58 02.0 | |
| | baz=348,slow=74,SNR=134 | | | | | | |
| **H10N1** | **ASCENSION HYDR** | **7.67** | **170** | T | T | 18 58 03.2 | |
| | baz=348,slow=74,SNR=84 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **8.72** | **172** | T | T | 18 59 15.6 | |
| | baz=350,slow=74,SNR=86 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **8.73** | **172** | T | T | 18 59 24.1 | |
| | baz=350,slow=74,SNR=99 | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **8.74** | **172** | T | T | 18 59 18.4 | |
| | baz=350,slow=74,SNR=80 | | | | | | |
| **DBIC** | **Dimbokro** | **12.94** | **58** | Pn | **Pn** | **18 51 26.4** | **-1.7** |
| | 0.2nm,0.3s,baz=238,slow=13,SNR=2.4 | | | | | | |
| DBIC | | | | Sn | Sn | 18 53 43.2 | -9.0 |
| | 0.7nm,0.3s,baz=144,slow=19,SNR=6.0 | | | | | | |
| DBIC | | | | LR | LR | 18 55 36.9 | |
| | comp=Z,298nm,20.6s,baz=214,slow=33 | | | | | | |
| **BBTS** | **Babate** | **14.82** | **357** | LR | LR | 18 56 55.6 | |
| | comp=Z,134nm,21.8s,baz=204,slow=35 | | | | | | |
| **KOWA** | **Kowa** | **18.75** | **38** | *e*P | **Pn** | **18 52 44.7** | **+1.0** |
| | 44nm,1.8s | | | | | | |
| **RCBR** | **Riachuelo** | **20.78** | **254** | LR | LR | 18 58 48.1 | |
| | comp=Z,225nm,20.4s,baz=72,slow=30 | | | | | | |
| **TOA0** | **Torodi Ar. Sit** | **21.89** | **52** | *e*P | **P** | **18 53 18.3** | **+0.8** |
| **TORD** | **Torodi Ar. Bea** | **21.89** | **52** | P | **P** | **18 53 17.7** | **+0.2** |
| | 6.8nm,0.8s,baz=242,slow=9.8,SNR=23 | | | | | | |
| TORD | | | | LR | LR | 19 01 08.2 | |
| | comp=Z,182nm,18.9s,baz=230,slow=35 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **21.89** | **52** | *e*P | **P** | **18 53 17.7** | **+0.2** |
| **KEST** | **Kesra** | **42.80** | **31** | LR | LR | 19 15 28.8 | |
| | comp=Z,204nm,18.4s,baz=244,slow=38 | | | | | | |
| **LSZ** | **Lusaka** | **45.98** | **111** | P | **P** | **18 56 49.9** | **+1.9** |
| | 0.8nm,0.5s,baz=41,slow=0.9,SNR=3.8 | | | | | | |
| LSZ | | | | LR | LR | 19 13 58.1 | |
| | comp=Z,67nm,18.3s,baz=290,slow=33 | | | | | | |
| **LBTB** | **Lobatse** | **47.01** | **125** | P | **P** | **18 56 56.0** | **+0.1** |
| | 3.9nm,0.8s,baz=324,slow=9.3,SNR=6.3 | | | | | | |
| **LBTB** | **Lobatse** | **47.01** | **125** | *e*P | **P** | **18 56 56.0** | **+0.1** |
| | 51nm,1.9s | | | | | | |
| **CPUP** | **Villa Florida** | **47.61** | **234** | LR | LR | 19 16 21.1 | |
| | comp=Z,89nm,18.4s,baz=38,slow=35 | | | | | | |
| **MATP** | **Matopo** | **47.76** | **118** | P | **P** | **18 57 02.2** | **+0.2** |
| | 4.7nm,1.0s,baz=279,slow=8.4,SNR=4.6 | | | | | | |
| MATP | | | | LR | LR | 19 13 57.1 | |
| | comp=Z,88nm,19.6s,baz=282,slow=32 | | | | | | |
| **BOSA** | **Boshof** | **48.35** | **129** | P | **P** | **18 57 05.8** | **-0.6** |
| | 4.9nm,0.8s,baz=314,slow=7.2,SNR=6.6 | | | | | | |
| BOSA | | | | LR | LR | 19 14 13.1 | |
| | comp=Z,48nm,19.4s,baz=244,slow=32 | | | | | | |
| **DAVOX** | **Davos/Dischmat** | **51.97** | **22** | P | **P** | **18 57 34.0** | **+0.3** |
| | 3.9nm,0.9s,baz=319,slow=3.5,SNR=8.2 | | | | | | |
| **FETA** | **Feichten** | **52.49** | **23** | *i* P | **P** | **18 57 37.9** | **+0.5** |
| | 2.1nm,0.6s | | | | | | |
| **KMBO** | **Kilima Mbogo** | **53.10** | **91** | LR | LR | 19 18 58.9 | |
| | comp=Z,130nm,18.3s,baz=288,slow=34 | | | | | | |
| **LPAZ** | **La Paz** | **53.94** | **250** | LR | LR | 19 19 21.8 | |
| | comp=Z,94nm,20.0s,baz=82,slow=35 | | | | | | |
| **MOA** | **Molln** | **54.58** | **24** | P | **P** | **18 57 52.7** | **+0.1** |
| | 0.3nm,0.3s | | | | | | |
| **GEA0** | **GERESS Array S** | **55.14** | **23** | *e*P | **P** | **18 57 57.1** | **+0.4** |
| **GEC2** | **GERESS Array S** | **55.14** | **23** | *e*P | **P** | **18 57 57.3** | **+0.6** |
| | 18nm,1.9s | | | | | | |
| **GERES** | **GERESS Array B** | **55.14** | **23** | P | **P** | **18 57 57.3** | **+0.6** |
| | 1.3nm,0.6s,baz=208,slow=6.3,SNR=12 | | | | | | |
| **VTS** | **Vitosha** | **55.21** | **35⇓** | *i* P | **P** | **18 57 59.7** | **+2.3** |
| **VTS** | **Vitosha** | **55.21** | **35** | *e*P | **P** | **18 57 59.8** | **+2.4** |
| | 2.7nm,0.8s | | | | | | |
| **MDVR** | **Moldovita** | **55.83** | **32⇑** | *i* P | **P** | **18 58 04.1** | **+2.4** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **HERR** | **Herculane** | **56.27** | **32⇑** | *i* P | **P** | **18 58 07.1** | **+2.3** |
| **BZS** | **Buzias** | **56.35** | **31⇑** | *i* P | **P** | **18 58 05.9** | **+0.6** |
| **SIRR** | **Siria** | **56.82** | **30⇑** | *i* P | **P** | **18 58 08.1** | **-0.6** |
| **DRGR** | | **57.71** | **30⇑** | *i* P | **P** | **18 58 16.6** | **+1.6** |
| **VOIR** | | **58.05** | **33⇓** | *i* P | **P** | **18 58 18.1** | **+0.6** |
| **MMAI** | **Mount Meron Ar** | **58.42** | **50** | LR | LR | 19 25 03.0 | |
| | comp=Z,28nm,18.6s,baz=95,slow=38 | | | | | | |
| **MLR** | **Muntele Rosu** | **58.57** | **33** | P | **P** | **18 58 21.1** | **-0.1** |
| | 0.3nm,0.6s,baz=215,slow=3.3,SNR=5.9 | | | | | | |
| **MLR** | **Muntele Rosu** | **58.57** | **33** | *i* P | **P** | **18 58 22.4** | **+1.2** |
| **VRI** | **Vrincioaia** | **59.23** | **33** | *i* P | **P** | **18 58 25.3** | **-0.3** |
| **BR101** | **Keskin Array S** | **60.13** | **43** | *e*P | **P** | **18 58 33.1** | **+1.1** |
| **BRTR** | **Keskin Array B** | **60.11** | **43** | P | **P** | **18 58 33.1** | **+1.1** |
| | 0.9nm,0.9s,baz=251,slow=7.7,SNR=5.1 | | | | | | |
| **AKASG** | **Malin Array Be** | **63.52** | **30** | P | **P** | **18 58 53.2** | **-1.3** |
| | 0.2nm,0.3s,baz=231,slow=5.3,SNR=5.9 | | | | | | |
| **PLCA** | **Paso Flores** | **63.78** | **224** | LR | LR | 19 23 45.4 | |
| | comp=Z,30nm,18.6s,baz=274,slow=33 | | | | | | |
| **HFS** | **Hagfors** | **64.42** | **16** | P | **P** | **18 59 00.0** | **-0.2** |
| | 1.6nm,0.6s,baz=185,slow=6.9,SNR=9.5 | | | | | | |
| **NB200** | **NORSAR Array S** | **64.55** | **14** | *e*P | **P** | **18 59 01.1** | **-0.1** |
| **NOA** | **NORSAR Array B** | **64.55** | **14** | P | **P** | **18 59 01.1** | **-0.1** |
| | 1.7nm,0.8s,baz=225,slow=8.1,SNR=3.6 | | | | | | |
| **FIA0** | **FINESS Array S** | **69.28** | **20** | *e*P | **P** | **18 59 31.5** | **+0.3** |
| **FINES** | **FINESS Array B** | **69.28** | **20** | P | **P** | **18 59 31.5** | **+0.3** |
| | 2.5nm,0.5s,baz=219,slow=4.7,SNR=19 | | | | | | |
| **PMSA** | **Palmer Station** | **73.18** | **199** | *e*P | **P** | **18 59 55.5** | **+0.8** |
| | 41nm,0.8s | | | | | | |
| **ARA0** | **ARCESS Array S** | **74.92** | **14** | *e*P | **P** | **19 00 04.7** | **-0.2** |
| **ARCES** | **ARCESS Array B** | **74.92** | **14** | P | **P** | **19 00 04.7** | **-0.2** |
| | 5.4nm,1.0s,baz=23,slow=9.6,SNR=4.8 | | | | | | |
| **SPITS** | **Spitsbergen Ar** | **80.19** | **6** | P | **P** | **19 00 34.8** | **+0.6** |
| | 11nm,1.0s,baz=248,slow=7.6,SNR=3.2 | | | | | | |
| **ARU** | **Arti** | **81.61** | **33** | P | **P** | **19 00 42.0** | **-0.1** |
| | 2.6nm,0.8s,baz=107,slow=2.4,SNR=4.0 | | | | | | |
| **MAW** | **Mawson** | **85.48** | **158** | P | **P** | **19 01 01.8** | **0.0** |
| | 4.0nm,0.8s,baz=308,slow=8.8,SNR=4.4 | | | | | | |
| **QSPA** | **South Pole Qui** | **89.83** | **180** | *e*P | **P** | **19 01 23.1** | **+0.1** |
| | 5.2nm,0.9s | | | | | | |
| **PDAR** | **Pinedale Array** | **92.90** | **313** | LR | LR | 19 36 51.3 | |
| | comp=Z,35nm,21.6s,baz=56,slow=31 | | | | | | |
| **YKA** | **Yellowknife Ar** | **94.27** | **333** | P | **P** | **19 01 42.0** | **-1.3** |
| | 0.2nm,0.8s,baz=81,slow=5.4,SNR=4.1 | | | | | | |
| **MK32** | **Makanchi Array** | **95.75** | **43** | *e*P | **P** | **19 01 49.6** | **-1.0** |
| **MKAR** | **Makanchi Array** | **95.75** | **43** | P | **P** | **19 01 49.6** | **-1.0** |
| | 0.7nm,0.9s,baz=255,slow=3.6,SNR=4.8 | | | | | | |
| **ASAR** | **Alice Springs** | **142.22** | **131** | PKhKP | PKPpre | 19 07 50.9 | |
| | 0.4nm,0.7s,baz=234,slow=2.6,SNR=5.5 | | | | | | |
| ASAR | | | | PKP | **PKPdf** | **19 07 57.5** | **-0.2** |
| | 0.8nm,1.0s,baz=224,slow=2.0,SNR=4.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **144.57** | **126** | PKP | **PKPab** | **19 07 59.1** | **-1.2** |
| | 1.3nm,0.8s,baz=236,slow=2.7,SNR=9.7 | | | | | | |
| **WR1** | **Warramunga Arr** | **144.57** | **126** | *e*PKPdf | **PKPab** | **19 07 59.1** | **-1.2** |

**MEX 28 19:03:16.5±0.5,17˚.36N×100˚.76W,h10km±9km,MD3.8,Guerrero**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CAIG** | **El Cayaco** | **0.56** | **124** | *e*P | Pg | 19 03 26.5 | -0.9 |
| CAIG | | | | *e*S | Sg | 19 03 34.6 | -0.2 |
| **ZIIG** | **Zihuatanejo** | **0.72** | **290** | *e*P | Pg | 19 03 28.5 | -1.9 |
| ZIIG | | | | *e*S | Sg | 19 03 38.6 | -1.2 |
| **ACP2** | **Acapulco** | **0.96** | **120** | *e*P | Pg | 19 03 32.4 | -2.6 |
| ACP2 | | | | *i* S | Sg | 19 03 43.7 | -3.8 |
| **ACX** | **Acapulco** | **0.99** | **120** | *e*P | Pn | 19 03 36.1 | -0.3 |
| ACX | | | | *e*S | Sg | 19 03 48.4 | 0.0 |
| **ARIG** | **Puente Sto Nin** | **0.99** | **23** | *e*P | Pg | 19 03 32.5 | -3.1 |
| ARIG | | | | *e*S | Sg | 19 03 45.2 | -3.4 |
| **MEIG** | **Mezcala** | **1.22** | **62** | *e*P | Pn | 19 03 36.8 | -2.9 |
| MEIG | | | | *i* S | Sb | 19 03 51.2 | -4.4 |
| **PLIG** | **Platanillo** | **1.57** | **49** | *e*P | Pn | 19 03 41.7 | -2.9 |
| PLIG | | | | *e*S | Sn | 19 04 03.9 | -1.2 |
| **TLIG** | **Tlapa** | **2.10** | **84** | *e*P | Pn | 19 03 50.4 | -1.4 |

*ISCJB **28** 19:15:29.2±0.9,27˚.13N±0˚.03×55˚.35E±0˚.04,h9km±7km,Error ellipse: s-maj=7.1km s-min=4.4km az=140.7*
*OMAN **28** 19:15:29.2±0.1,27˚.19N×55˚.36E,h19km,Error ellipse: s-maj=15.9km s-min=4.1km az=235.0*
*CSEM **28** 19:15:30.0±0.2,27˚.08N×55˚.39E,h8km,ML3.1,Error ellipse: s-maj=6.4km s-min=4.2km az=63.0*
*DSN **28** 19:15:30.4±0.9,27˚.14N×55˚.53E,h15km,ML3.4/6,Error ellipse: s-maj=14.8km s-min=4.4km az=45.0*
*TEH **28** 19:15:30.3,26˚.83N×55˚.44E,h32km,ML3.1*

**ISC 28 19:15:29.4±1.4,27˚.08N±0˚.03×55˚.38E±0˚.05,h4km±12km,n29,σ0§87/39,Southern Iran**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BNDS** | **Bandar-Abbas** | **0.77** | **65** | *e*Pg | **Pg** | **19 15 43.1** | **-1.2** |
| BNDS | | | | *e*Sg | **Sg** | **19 15 54.7** | **+0.3** |
| **IBND** | **Bandar-abas** | **1.10** | **70** | *e*Pg | **Pb** | **19 15 51.6** | **+0.6** |
| IBND | | | | *e*Sg | **Sn** | **19 16 07.7** | **+0.5** |
| **IBND** | **Bandar-abas** | **1.10** | **70** | *e*Pg | **Pb** | **19 15 51.6** | **+0.6** |
| IBND | | | | *e*Sg | **Sn** | **19 16 07.7** | **+0.5** |
| **SHME** | **Shamm** | **1.23** | **146** | P | **Pg** | **19 15 52.6** | **-0.4** |
| | SNR=19 | | | | | | |
| SHME | | | | S | **Sb** | **19 16 10.6** | **+1.0** |
| **BANOM** | **Banah** | **1.42** | **144** | *e*P | **Pn** | **19 15 55.4** | **-0.7** |
| | SNR=89 | | | | | | |
| BANOM | | | | S | **Sg** | **19 16 14.8** | **-0.1** |
| **BANOM** | **Banah** | **1.42** | **144** | P | **Pn** | **19 15 55.6** | **-0.4** |
| | SNR=89 | | | | | | |
| BANOM | | | | S | **Sg** | **19 16 14.8** | **-0.1** |
| **BANOM** | **Banah** | **1.42** | **144** | P | **Pn** | **19 15 55.6** | **-0.4** |
| | SNR=89 | | | | | | |
| BANOM | | | | S | **Sb** | **19 16 15.6** | **+0.8** |
| **MSFE** | **Esma-Masafi** | **1.85** | **158** | P | **Pn** | **19 16 02.1** | **+0.1** |
| | SNR=6.1 | | | | | | |
| **NAZ** | **Nazwa, Dubai** | **2.10** | **173** | P | **Pn** | **19 16 06.0** | **+0.6** |
| **NAZ** | **Nazwa, Dubai** | **2.10** | **173** | P | **Pn** | **19 16 06.0** | **+0.6** |
| **UOSS** | **Minazif** | **2.25** | **161** | P | **Pn** | **19 16 07.2** | **-0.3** |
| **UOSS** | **Minazif** | **2.25** | **161** | P | **Pn** | **19 16 07.2** | **-0.3** |
| **GHIR** | **Ghir-Karzin** | **2.44** | **300** | *e*Pn | **Pn** | **19 16 10.5** | **+0.3** |
| GHIR | | | | *e*Sg | **Sg** | **19 16 48.8** | **+1.0** |
| **ASHO** | **Ashiyiah** | **2.46** | **165** | *e*P | **Pn** | **19 16 10.5** | **+0.1** |
| | SNR=44 | | | | | | |
| **ASHO** | **Ashiyiah** | **2.46** | **165** | P | **Pn** | **19 16 10.5** | **+0.1** |
| | SNR=44 | | | | | | |
| **ASHO** | **Ashiyiah** | **2.46** | **165** | P | **Pn** | **19 16 10.5** | **+0.1** |
| | SNR=44 | | | | | | |
| **KRBR** | **Kerman** | **3.14** | **22** | *e*Pn | **Pn** | **19 16 20.7** | **+0.7** |
| **IMEH** | **Mehriz** | **4.35** | **351** | *e*Pn | **Pn** | **19 16 37.6** | **+1.0** |
| **IMEH** | **Mehriz** | **4.35** | **351** | *e*Pn | **Pn** | **19 16 37.6** | **+1.0** |
| **IBAF** | **Bafgh** | **4.50** | **2** | *e*Pn | **Pn** | **19 16 38.9** | **+0.3** |
| IBAF | | | | *e*Sn | **Sn** | **19 17 29.2** | **-2.3** |
| **IBAF** | **Bafgh** | **4.50** | **2** | *e*Pn | **Pn** | **19 16 38.9** | **+0.3** |
| IBAF | | | | *e*Sn | **Sn** | **19 17 29.2** | **-2.3** |
| **ISAD** | **Sadrabad** | **5.04** | **343** | *e*Pn | **Pn** | **19 16 47.3** | **+1.2** |
| ISAD | | | | *e*AMB | AMB | 19 17 49.5 | |
| | comp=Z,83nm,0.1s | | | | | | |
| **ISAD** | **Sadrabad** | **5.04** | **343** | *e*Pn | **Pn** | **19 16 47.3** | **+1.2** |
| **IRAM** | **Ramesheh** | **5.39** | **332** | *e*Pn | **Pn** | **19 16 50.9** | **0.0** |
| IRAM | | | | *e*AMB | AMB | 19 17 55.7 | |
| | comp=Z,108nm,0.2s | | | | | | |
| **IRAM** | **Ramesheh** | **5.39** | **332** | *e*Pn | **Pn** | **19 16 50.9** | **0.0** |
| **IZEF** | **Zefreh** | **6.37** | **336** | *e*Pn | **Pn** | **19 17 03.2** | **-1.2** |
| **IZEF** | **Zefreh** | **6.37** | **336** | *e*Pn | **Pn** | **19 17 03.2** | **-1.2** |
| **IKLH** | **Kolahrood** | **7.04** | **333** | *e*Pn | **Pn** | **19 17 14.0** | **+0.5** |
| IKLH | | | | *e*AMB | AMB | 19 18 36.4 | |
| | comp=Z,69nm,0.3s | | | | | | |
| **IKLH** | **Kolahrood** | **7.04** | **333** | *e*Pn | **Pn** | **19 17 14.0** | **+0.5** |

*ISCJB **28** 19:19:14.5±0.3,36˚.42N±0˚.02×70˚.30E±0˚.02,h216km±3km,mb4.5/114,Error ellipse: s-maj=3.3km s-min=2.6km az=142.9*
*BJI **28** 19:19:15.3,36˚.60N×70˚.30E,h208km,mb4.6/22,mB4.8/16*
*MOS **28** 19:19:15.2±0.9,36˚.48N×70˚.29E,h222km,mb4.6/55,Error ellipse: s-maj=5.8km s-min=4.1km az=99.6*
*IDC **28** 19:19:17.3±0.5,36˚.46N×70˚.27E,h231km±4km,mb4.0/33,mb1 4.1/39,mb1mx4.1/49,mbtmp4.7/39,Error ellipse: s-maj=8.2km s-min=6.4km az=173.0*
*NEIC **28** 19:19:17.1±0.2,36˚.48N×70˚.28E,mb4.7/61,Error ellipse: s-maj=4.7km s-min=3.6km az=162.0*
*NEIC Felt at Haripur, Islamabad, Lahore, Mansehra, Peshawar and Sargodha, Pakistan.*
*NNC **28** 19:19:32.5±6.6,38˚.29N×70˚.07E,h0km,mb5.4,mpv5.0,Error ellipse: s-maj=64.1km s-min=51.0km az=172.0*

**ISC 28 19:19:16.7±0.3,36˚.43N±0˚.03×70˚.28E±0˚.03,h225km±3km,h225km:pP-P,n353,σ1§77/425,mb4.6/116,26C-29D,Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KBL** | **Kabul** | **2.14** | **208** | *e*PN | **Pn** | **19 19 57.8** | **-1.0** |
| **KBL** | **Kabul** | **2.14** | **208** | *e*Pn | **Pn** | **19 19 57.8** | **-1.0** |
| **CEP** | **Cherat** | **2.92** | **152** | P | **Pn** | **19 20 07.0** | **0.0** |
| **CHCP** | **Chirah Chowk** | **3.69** | **138** | P | **Pn** | **19 20 16.0** | **+0.2** |
| **THW** | **Thamme Wali** | **3.83** | **161** | ⇓P | **Pn** | **19 20 17.1** | **-0.3** |
| **SFK** | **Sufi-Kurgan** | **4.38** | **34** | ⇓Pn | **Pn** | **19 20 22.9** | **-1.3** |
| | 225nm,0.6s | | | | | | |
| SFK | | | | ⇑Lg | Lg | 19 21 14.3 | |
| | 2μm,0.5s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **4.38** | **34** | PN | **Pn** | **19 20 22.9** | **-1.3** |
| SFK | | | | pmax | pmax | | |
| | comp=Z,225nm,0.6s | | | | | | |
| **SARP** | **Sargodha** | **4.92** | **156** | P | **Pn** | **19 20 29.9** | **-0.8** |
| **JMU** | **Jammu** | **5.32** | **133** | *e*P | **Pn** | **19 20 32.0** | **-3.7** |
| JMU | | | | *e*S | **S** | **19 21 33.0** | **-5.2** |
| **KSH** | **Kashi** | **5.45** | **54** | Pn | Pn | 19 20 31.8 | -5.6 |
| KSH | | | | Sn | S | 19 21 27.5 | -14 |
| KSH | | | | smax | smax | | |
| | comp=N,1μm,0.4s | | | | | | |
| KSH | | | | smax | smax | | |
| | comp=E,1μm,0.5s | | | | | | |
| **THN** | **Thein Dam** | **6.01** | **130** | *e*P | **Pn** | **19 20 42.4** | **-2.0** |
| THN | | | | *e*S | **S** | **19 21 49.4** | **-4.7** |
| **AML** | **Almayashu** | **6.28** | **24** | P | **Pn** | **19 20 46.6** | **-1.5** |
| | SNR=514 | | | | | | |
| **MNAS** | **Manas** | **6.29** | **15** | ⇓Pn | **Pn** | **19 20 46.5** | **-1.5** |
| | comp=E,348nm,1.4s | | | | | | |
| MNAS | | | | ⇑Lg | Lg | 19 21 55.5 | |
| | comp=E,293nm,0.5s | | | | | | |
| **MNAS** | **Manas** | **6.29** | **15** | PN | **Pn** | **19 20 46.5** | **-1.5** |
| MNAS | | | | pmax | pmax | | |
| | comp=Z,348nm,1.4s | | | | | | |
| **PONG** | **Pong** | **6.48** | **132** | *e*P | **Pn** | **19 20 48.0** | **-2.5** |
| PONG | | | | *e*S | **S** | **19 22 00.0** | **-5.1** |
| **DHRM** | **DHARAMSHALA** | **6.50** | **128** | *e*P | **Pn** | **19 20 49.9** | **-0.9** |
| DHRM | | | | *e*S | **S** | **19 22 02.1** | **-3.7** |
| **UCH** | **Uchtor** | **6.65** | **28** | P | **Pn** | **19 20 51.6** | **-1.3** |
| | SNR=149 | | | | | | |
| **KK31** | **Karatay Array** | **6.67** | **1** | ⇓Pn | **Pn** | **19 20 49.8** | **-2.9** |
| | comp=Z,67nm,0.3s,baz=192,slow=14,SNR=1644 | | | | | | |
| KK31 | | | | ⇓Lg | Lg | 19 22 03.7 | |
| | comp=Z,177nm,0.6s,baz=194,slow=26 | | | | | | |
| **KK31** | **Karatay Array** | **6.67** | **1** | PN | **Pn** | **19 20 49.8** | **-2.9** |
| KK31 | | | | pmax | pmax | | |
| | comp=Z,67nm,0.4s | | | | | | |
| **KKAR** | **Karatay Array** | **6.67** | **1** | *e*PN | **Pn** | **19 20 50.4** | **-2.3** |
| **KKAR** | **Karatay Array** | **6.67** | **1** | *e*Pn | **Pn** | **19 20 50.4** | **-2.3** |
| **JWA** | **Jwalamukhi** | **6.78** | **130** | *e*P | **Pn** | **19 20 52.0** | **-2.2** |
| JWA | | | | *ex* | x | 19 21 56.0 | |
| **EKS2** | **Erkin-Say** | **6.78** | **22** | P | **Pn** | **19 20 53.1** | **-1.2** |
| | SNR=148 | | | | | | |
| **KZA** | **Kyzart** | **6.83** | **33** | P | **Pn** | **19 20 53.7** | **-1.4** |
| | SNR=308 | | | | | | |
| **AAK** | **Ala-Archa** | **7.00** | **26** | P | **Pn** | **19 20 56.0** | **-1.1** |
| | baz=165,slow=6.9 | | | | | | |
| AAK | | | | S | **S** | **19 22 13.0** | **-4.3** |
| | comp=Z,28nm,0.3s,baz=145,slow=21,SNR=10 | | | | | | |
| **AAK** | **Ala-Archa** | **7.00** | **26** | ⇓Pn | **Pn** | **19 20 55.9** | **-1.1** |
| | comp=Z,142nm,0.6s | | | | | | |
| AAK | | | | ⇑Lg | Lg | 19 22 23.9 | |
| | comp=Z,224nm,0.6s | | | | | | |
| **AAK** | **Ala-Archa** | **7.00** | **26** | *d i* PN | **Pn** | **19 20 55.8** | **-1.3** |
| **AAK** | **Ala-Archa** | **7.00** | **26** | P | **Pn** | **19 20 56.0** | **-1.1** |
| | SNR=239 | | | | | | |
| **BHK** | **Bhakra** | **7.14** | **133** | *e*P | **Pn** | **19 20 56.0** | **-3.0** |
| BHK | | | | *e*S | **S** | **19 22 12.4** | **-8.2** |
| **KBK** | **Karagaybulak** | **7.18** | **29** | P | **Pn** | **19 20 58.7** | **-0.8** |
| | SNR=219 | | | | | | |
| **FRU** | **Bishkek** | **7.21** | **26** | ⇓*i* PN | **Pn** | **19 21 00.0** | **+0.3** |
| FRU | | | | *i* S | **S** | **19 22 20.0** | **-2.1** |
| FRU | | | | pmax | pmax | | |
| | comp=Z,220nm,1.6s | | | | | | |
| **CHMS** | **Chumysh** | **7.41** | **26** | P | **Pn** | **19 21 00.8** | **-1.4** |
| | SNR=24 | | | | | | |
| **ULHL** | **Ulahol** | **7.42** | **37** | P | **Pn** | **19 21 01.1** | **-1.4** |
| | SNR=143 | | | | | | |
| **SDNR** | **Sundarnagar** | **7.42** | **130** | *e*P | **Pn** | **19 21 02.0** | **-0.5** |
| SDNR | | | | *e*S | **S** | **19 22 19.0** | **-8.1** |
| **USP** | **Ospenovka** | **7.56** | **24** | P | **Pn** | **19 21 02.7** | **-1.5** |
| | SNR=82 | | | | | | |
| **TKM2** | **Tokmak 2** | **7.67** | **31** | ⇑Pn | **Pn** | **19 21 04.2** | **-1.5

KURK **Kurchatov** 15.49 20*d* iP P 19 22 41.3 -1.8
KURK pmax pmax
comp=Z,63nm,1.2s
**KURK Kurchatov** 15.49 20 *e*P P 19 22 41.4 -1.6
**PKIN Phulchoki** 15.55 120 *e*P P 19 22 44.2 -0.2
comp=Z,224nm,0.5s
**PKI Pulchoki** 15.57 120 *e*P P 19 22 43.8 -0.8
comp=Z,456nm,0.9s
**JBP Jabalpur** 15.66 145⇑ *i*P P 19 22 45.4 +0.2
JBP *ex* x 19 25 28.5
**GUN Gumba** 15.69 118 *e*P P 19 22 45.4 -0.6
comp=Z,574nm,0.9s
BANOM **Banah** 15.88 233 P P 19 22 46.9 -0.9
**JIRN Jiri** 16.06 118 *e*P P 19 22 50.5 +0.4
comp=Z,994nm,0.5s
**AKTO Aktyubinsk** 16.56 332 P Pn 19 22 55.7 -0.5
comp=Z,7.9nm,0.3s,baz=143,slow=8.5,SNR=171
**WSAR Wadi Sarin** 16.56 221 P Pn 19 22 57.2 +0.6
comp=Z,2.4nm,0.3s,baz=68,slow=7.9,SNR=21
**BVAR Borovoye Array** 16.59 0 P P 19 22 55.8 +0.6
comp=Z,5.0nm,0.3s,baz=176,slow=9.8,SNR=41
BVAR S S 19 25 53.3 -3.7
baz=183,slow=18,SNR=2.4
**BRVK Borovoye** 16.62 0*c*e P P 19 22 55.9 +0.3
BRVK pmax pmax
comp=Z,102nm,1.2s
**BRVK Borovoye** 16.62 0 *e*P P 19 22 56.2 +0.6
comp=Z,30nm,0.8s
**UOSS Minazif** 16.64 230 *e*P P 19 22 56.3 +0.2
comp=Z,19nm,0.7s
**AKL Akola** 16.74 158 *ex* x 19 23 35.6
**RAMN Ramite** 16.78 120 *e*P P 19 22 58.5 +0.7
comp=Z,344nm,0.6s
**ASHO Ashiyiah** 16.92 230 *i*P P 19 22 60.0 +0.8
SNR=13
**NGP Nagpur** 17.04 151 *e*P P 19 23 01.2 +0.7
NGP *ex* x 19 26 01.7
**TAPN Taplejung** 17.33 117 *e*P Pn 19 23 05.5 -0.4
comp=Z,210nm,0.7s
**ODAN Odare** 17.39 118 *e*P Pn 19 23 06.1 -0.5
comp=Z,413nm,0.6s
**POO Poona** 18.11 169 *e*P P 19 23 12.2 0.0
POO AMB AMB 19 23 17.4
comp=Z,86nm,0.5s
**BOK Bokaro** 18.43 129 *e*P P 19 23 16.2 +0.7
**LSA Lhasa** 18.72 105 *e*P Pn 19 23 21.6 -0.7
LSA pmax pmax
comp=Z,34nm,0.6s
**LSA Lhasa** 18.72 105 *e*P Pn 19 23 21.6 -0.7
comp=Z,34nm,0.6s
**GROC Groznyy** 19.95 297 *e*P P 19 23 31.7 +0.1
GROC *e*S S 19 27 04.9 +1.5
GROC pmax pmax
comp=Z,56nm,1.1s
**ZAA0 Zalesovo Array** 20.22 25 *e*P P 19 23 34.3 -0.1
comp=Z,40nm,0.6s
**ZALV Zalesovo Beam** 20.22 25 P P 19 23 34.2 -0.2
comp=Z,40nm,0.4s,baz=224,slow=10,SNR=60
ZALV S S 19 27 06.8 -1.5
comp=Z,14nm,0.9s,baz=215,slow=18,SNR=5.1
**ZAA1 Zalesovo Array** 20.22 25 *e*P P 19 23 34.2 -0.2
ZAA1 *e*S S 19 27 06.8 -1.6
**HYB Hyderabad** 20.31 157 *i*P P 19 23 38.0 +2.3
HYB *e*S S 19 27 18.0 +7.3
**GNI Garni** 20.36 288 P P 19 23 38.6 +2.3
comp=Z,47nm,1.0s,baz=148,slow=5.1,SNR=9.9
**GNI Garni** 20.36 288*c* *i*P P 19 23 38.3 +2.0
GNI pmax pmax
comp=Z,221nm,1.1s
**NVS Novosibirsk** 20.45 22 *e*P P 19 23 37.1 +0.2
NVS *e*S S 19 27 12.3 -0.3
NVS pmax pmax
comp=Z,64nm,0.8s
NVS pmax pmax
comp=N,54nm,0.8s
NVS pmax pmax
comp=E,10.0nm,0.6s
NVS smax smax
comp=E,61nm,1.7s
**GOA Goa** 21.09 170 *e*P P 19 23 45.2 +1.3
**ZEI Tsey** 21.24 295 *e*P P 19 23 45.7 +0.2
ZEI pmax pmax
comp=Z,31nm,1.0s
**SHL Shillong** 21.41 114 *e*P P 19 23 46.4 -0.8
SHL *e*S S 19 27 34.0 +4.1
**SVE Sverdlovsk** 21.41 345⇓ *e*P P 19 23 46.7 0.0
SVE pmax pmax
comp=Z,61nm,1.4s
**ARU Arti** 21.51 342 P P 19 23 48.2 +0.5
comp=Z,52nm,0.6s,baz=139,slow=3.9,SNR=89
**ARU Arti** 21.51 342*d* *i*P P 19 23 48.1 +0.3
ARU 19 24 18.4
ARU S S 19 27 32.7 +2.0
ARU pmax pmax
comp=Z,157nm,1.2s
**ARU Arti** 21.51 342 *e*P P 19 23 47.5 -0.2
comp=Z,87nm,0.8s
**NCK Nalchik** 21.58 297⇑ *e*P P 19 23 49.0 +0.4
NCK pmax pmax
comp=Z,24nm,0.9s
**VIS Vishakhapatnam** 21.92 145 *e*P P 19 23 52.8 +0.8
**NEY Neytrino** 22.17 296⇑ *e*P P 19 23 56.1 +1.7
NEY pmax pmax
comp=Z,12nm,2.2s
**GOF Gofitskoye** 22.28 301⇑ *e*P P 19 23 55.6 +0.4
GOF pmax pmax
comp=Z,79nm,1.3s
**KVAR Kislovodsk Arr** 22.30 298 P P 19 23 56.1 +0.6
comp=Z,4.8nm,0.5s,baz=144,slow=19,SNR=5.2
**KIV Kislovodsk** 22.31 298 *e*P P 19 23 55.8 +0.3
KIV *e*S S 19 27 44.8 +0.9
KIV pmax pmax
comp=Z,14nm,1.0s
**KIV Kislovodsk** 22.31 298 *e*P P 19 23 55.2 -0.4
comp=Z,23nm,0.7s
**ARTV Artvin** 22.55 291 *e*P P 19 23 58.6 +0.7
comp=Z,24nm,1.8s
**GTA Gaotai** 23.44 74 P P 19 24 07.3 +1.4
GTA PcP PcP 19 27 43.8 -1.4
GTA S S 19 28 06.3 +4.0
GTA ScP ScP 19 31 01.5 -0.2
GTA ScS ScS 19 34 46.0 -2.5
GTA pmax pmax
comp=Z,15nm,1.7s
GTA pmax pmax
comp=Z,59nm,5.5s
**MARD Mardin** 23.58 281 *e*P P 19 24 07.5 +0.3
comp=Z,12nm,0.9s
**KOPT Kop Dagi** 23.62 288 *e*P P 19 24 07.8 +0.2
comp=Z,26nm,1.4s
**RAYN Ar Rayn** 24.94 246 *e*P P 19 24 19.8 +0.3
comp=Z,29nm,1.1s
**VRH Novokhopyorsk** 25.14 315 *e*P P 19 24 19.3 -1.7
VRH *e**PP pP 19 25 01.1 -3.4
VRH pmax pmax
comp=Z,10.0nm,0.7s
**VSR Storozhevoye** 26.63 314 *e*P P 19 24 32.4 -1.9
VSR *e**PP pP 19 25 16.9 -2.0
VSR pmax pmax
comp=Z,10.0nm,0.9s
**LPSR Galich'ya Gora** 27.30 316 *e*P P 19 24 39.3 -0.9
LPSR *e**PP pP 19 25 25.9 +1.0
LPSR pmax pmax
comp=Z,10.0nm,0.8s
**ZAK Zakamensk** 27.47 49 *e*P P 19 24 42.2 +0.2
ZAK *e* 19 25 30.6
ZAK pmax pmax
comp=Z,8.0nm,1.2s
ZAK pmax pmax
comp=Z,9.0nm,1.4s
**ASF Jabal al Asfar** 27.82 271 P P 19 24 46.0 +0.7
comp=Z,1.2nm,0.6s,baz=56,slow=10,SNR=3.7
**ASF Jabal al Asfar** 27.82 271 P P 19 24 46.0 +0.7
ASF pmax pmax
comp=Z,1.0nm,0.6s
**ILGA Ilgaz** 28.75 290 *e*P P 19 24 53.5 0.0
comp=Z,30nm,1.7s
**MMAI Mount Meron Ar** 28.77 274 P P 19 24 54.8 +1.1
comp=Z,1.6nm,0.6s,baz=68,slow=11,SNR=5.7
MMAI PcP PcP 19 27 57.4 -0.2
comp=Z,1.3nm,0.6s,baz=79,slow=4.3,SNR=4.2
**SONA0 Songino Array** 28.85 55 *e*P P 19 24 55.8 +1.6
**SONM Songino Array** 28.85 55 P P 19 24 55.8 +1.6
comp=Z,6.2nm,0.7s,baz=266,slow=9.3,SNR=33
**SONA1 Songino Array** 28.86 55 *e*P P 19 24 55.7 +1.4

**BR101 Keskin Array S** 28.90 288 *e*P P 19 24 55.5 +0.7
**BRTR Keskin Array B** 28.90 288 P P 19 24 55.5 +0.7
comp=Z,2.1nm,0.6s,baz=101,slow=9.0,SNR=16
**ULN Ulaanbaatar** 29.29 55*c* *i*P P 19 24 59.3 +1.1
ULN pmax pmax
comp=Z,7.0nm,0.8s
**ULN Ulaanbaatar** 29.29 55 *e*P P 19 24 59.1 +0.9
comp=Z,14nm,1.1s
**BR231 Keskin MP Arra** 29.55 288 *e*P P 19 24 56.3 -4.2
**OBN Obninsk** 29.61 320 P P 19 25 01.3 +0.6
comp=Z,15nm,0.5s,baz=352,slow=4.7,SNR=6.6
**OBN Obninsk** 29.61 320*de*P P 19 25 01.2 +0.6
OBN *e**PP pP 19 25 48.1 +2.3
OBN *e* 19 26 06.0
OBN pmax pmax
comp=Z,69nm,1.8s
**OBN Obninsk** 29.61 320 *e*P P 19 25 00.9 +0.3
comp=Z,30nm,0.9s
**EIL Elat** 30.25 267 P P 19 25 08.1 +1.4
comp=Z,8.4nm,1.0s,baz=72,slow=4.5,SNR=4.7
**CHTO Chiang Mai** 30.70 117 *e*P P 19 25 12.3 +1.6
CHTO pmax pmax
comp=Z,12nm,1.3s
**CHTO Chiang Mai** 30.70 117 *e*P P 19 25 12.3 +1.6
comp=Z,12nm,1.3s
**CM31 Chiang Mai Arr** 30.93 118 *e*P P 19 25 13.6 +0.9
CM31 *e*pP pP 19 25 59.3 +1.3
**CMAR Chiang Mai Arr** 30.93 118 P P 19 25 13.4 +0.7
comp=Z,4.2nm,0.7s,baz=296,slow=8.2,SNR=40
CMAR pP pP 19 25 59.3 +1.3
comp=Z,2.3nm,0.9s,baz=298,slow=8.2,SNR=2.8
**CM01 Chiang Mai Arr** 30.97 118 *e*P P 19 25 13.1 +0.1
**KLMR Klimovskoe** 31.26 331 *e*P P 19 25 13.9 -1.1
KLMR *e**PP pP 19 26 02.0 +1.7
KLMR *e* 19 26 28.6
KLMR pmax pmax
comp=Z,42nm,1.0s
**NANT Nan** 31.98 115 P P 19 25 21.9 0.0
comp=Z,2.8nm,0.7s
AKASG **Malin Array Be** 32.54 309 P P 19 25 26.1 -0.3
comp=Z,4.8nm,0.7s,baz=83,slow=7.0,SNR=24
AKASG pP pP 19 26 12.8 +1.0
comp=Z,3.1nm,0.7s,baz=84,slow=7.4,SNR=2.8
AKASG PcP PcP 19 28 06.2 -1.0
comp=Z,1.6nm,0.6s,baz=79,slow=3.3,SNR=5.1
**AKBB Malin Array Si** 32.54 309 *e*P P 19 25 26.1 -0.2
AKBB *e**PP pP 19 26 12.8 +1.0
AKBB *e* 19 28 06.2
**AKBB Malin Array Si** 32.54 309 *e*P P 19 25 26.1 -0.2
AKBB *e*pP pP 19 26 12.8 +1.0
AKBB *e*PcP PcP 19 28 06.2 -1.0
**KIEV Kiev** 32.55 309 *e*P P 19 25 26.1 -0.3
KIEV pmax pmax
comp=Z,10.0nm,0.9s
**KIEV Kiev** 32.55 309 *e*P P 19 25 26.1 -0.3
comp=Z,10nm,0.9s
**SORM Soroca** 32.76 304⇑ *i*P P 19 25 28.0 -0.3
**SORM Soroca** 32.76 304 ⇑P P 19 25 28.0 -0.3
**CFR Carcaliu** 32.76 299⇓ *i*P P 19 25 28.6 +0.3
**CFR Carcaliu** 32.76 299 ⇓P P 19 25 28.6 +0.3
**ENH Enshi** 33.16 89 *e*P P 19 25 32.5 +0.5
comp=Z,18nm,1.4s
**UTHA Uthaitani** 33.24 121 P P 19 25 35.8 +3.0
**PBKT Sadao Pong** 33.63 118 P P 19 25 38.8 +2.7
comp=Z,23nm,0.8s,comp=Z,1µm
**VRI Vrincioaia** 33.76 300⇑ *i*P P 19 25 33.9 -3.1
**VRI Vrincioaia** 33.76 300 P P 19 25 37.9 +0.9
VRI pmax pmax
comp=Z,81nm,2.6s
**PLOR Plostina** 33.81 300⇓ *i*P P 19 25 36.0 -1.5
**PLOR Plostina** 33.81 300 ⇓P P 19 25 36.0 -1.5
**TESR Tescani** 33.82 301⇑ *i*P P 19 25 38.8 +1.3
**CIT Chita** 34.13 49 *e*P P 19 25 36.6 -3.6
**MLR Muntele Rosu** 34.31 299⇓ *i*P P 19 25 44.0 +2.2
**MLR Muntele Rosu** 34.31 299 *e*P P 19 25 43.8 +1.9
MLR pmax pmax
comp=Z,17nm,0.9s
**MLR Muntele Rosu** 34.31 299 *e*P P 19 25 43.8 +1.9
comp=Z,17nm,0.9s
**KARP Karpathos** 34.69 282 *e*P P 19 25 45.8 +0.7
comp=Z,26nm,0.8s
**DOPR Dopca** 34.69 300⇓ *i*P P 19 25 46.3 +1.3
BURAR **Bucovina Array** 34.84 303⇓ *i*P P 19 25 47.1 +0.8
BURAR **Bucovina Array** 34.84 303 ⇓P P 19 25 47.1 +0.8
BUR04 **Bucovina Ar. S** 34.84 303 *e*P P 19 25 46.7 +0.3
**VOIR** 34.94 299⇓ *i*P P 19 25 48.0 +0.8
**VOIR** 34.94 299 ⇓P P 19 25 48.0 +0.8
**KHON Khomkaen** 35.11 116 P P 19 25 50.4 +1.6
**ARR Arges** 35.23 299⇑ *i*P P 19 25 50.5 +0.8
**BOD Bodaibo** 35.77 39 *e*P P 19 25 53.7 -0.2
BOD pmax pmax
comp=Z,19nm,0.9s
**LOT Lotru** 35.84 299⇑ *i*P P 19 25 55.9 +1.0
**DRGR** 36.54 302⇓ *i*P P 19 26 02.0 +1.3
**DRGR** 36.54 302 ⇓P P 19 26 02.0 +1.3
**KWP Kalwaria Pacla** 36.58 306 P P 19 26 02.3 +1.3
**FIA1 FINESS Array S** 37.22 326 *e*P P 19 26 06.3 +0.2
**FIA0 FINESS Array S** 37.22 326 *e*P P 19 26 06.0 -0.1
**FIA0 FINESS Array S** 37.22 326 *e*P P 19 26 06.0 -0.1
**FINES FINESS Array B** 37.22 326 P P 19 26 06.0 -0.1
comp=Z,12nm,0.8s,baz=120,slow=5.9,SNR=24
**FINES FINESS Array B** 37.22 326 P P 19 26 06.0 -0.1
FINES pmax pmax
comp=Z,12nm,0.8s
**SIRR Siria** 37.28 301⇑ *i*P P 19 26 08.4 +1.5
**LVZ Lovozero** 37.31 339 *e*P P 19 26 06.8 -0.1
LVZ *e* 19 28 18.5
LVZ pmax pmax
comp=Z,248nm,1.9s
**LVZ Lovozero** 37.31 339 *e*P P 19 26 06.8 -0.1
comp=Z,248nm,1.9s
LVZ *e*PcP PcP 19 28 18.5 -2.4
**MDVR Moldovita** 37.33 298⇑ *i*P P 19 26 08.7 +1.3
**BZS Buzias** 37.34 300⇓ *i*P P 19 26 08.3 +0.9
**BZS Buzias** 37.34 300 ⇑P P 19 26 08.3 +0.9
**CRVS Cervenica-Dubn** 37.38 305 *e*PP PP 19 27 38.6 +0.8
**STHS Stebnicka Huta** 37.53 306 *e*P P 19 26 09.5 +0.6
**STHS Stebnicka Huta** 37.53 306 *e*P P 19 26 09.5 +0.6
**SUF Sumiainen** 37.67 328 P P 19 26 10.9 +1.0
SUF pmax pmax
comp=Z,56nm,1.4s
**MSF Maaselka** 37.99 334 P P 19 26 12.8 +0.2
MSF pmax pmax
comp=Z,25nm,1.7s
**FNA Florina** 38.07 292 P P 19 26 13.8 +0.2
**NIE Niedzica** 38.14 306 P P 19 26 15.6 +1.5
**OJC Ojcow** 38.48 307 P P 19 26 17.2 +0.3
**OUL Oulu** 38.76 332 P P 19 26 18.1 -0.8
**VYHS Vyhne** 39.12 304 *e*P P 19 26 23.8 +1.6
**VYHS Vyhne** 39.12 304 *e*P P 19 26 23.8 +1.6
**SGF Sodankyl** 39.62 335 P P 19 26 26.2 +0.2
SGF pmax pmax
comp=Z,22nm,1.7s
**MORC Moravsky Berou** 39.94 307⇓ *i*P P 19 26 29.8 +0.9
**MORC Moravsky Berou** 39.94 307 ⇓P P 19 26 29.8 +0.9
**GKP Gorka Klasztor** 40.19 312 P P 19 26 31.2 +0.4
GKP pmax pmax
comp=Z,55nm,1.9s
**SOP Sopron** 40.68 303 P P 19 26 35.3 +0.3
**ARA0 ARCESS Array S** 40.99 338 *e*P P 19 26 37.8 +0.6
ARA0 *e*pP pP 19 27 24.8 +0.5
**ARE0 ARCESS Array S** 40.99 338 *e*P P 19 26 37.4 +0.2
**ARCES ARCESS Array B** 40.99 338 P P 19 26 37.8 +0.6
comp=Z,24nm,0.7s,baz=112,slow=8.3,SNR=51
ARCES pP pP 19 27 24.8 +0.5
comp=Z,4.2nm,0.6s,baz=119,slow=7.3,SNR=1.9
**ARCES ARCESS Array B** 40.99 338 P P 19 26 37.8 +0.6
ARCES *PP pP 19 27 24.8 +0.5
ARCES pmax pmax
comp=Z,24nm,0.7s
ARCES pmax pmax
comp=Z,5.0nm,0.6s
**HEF Hetta** 41.03 336 *e*P P 19 26 38.2 +0.6
**CONA Conrad Observa** 41.13 304 *i*P P 19 26 39.4 +0.6
comp=Z,7.2nm,1.0s
**KTK1 Kautokeino** 41.45 337 *e*P P 19 26 41.4 +0.4
KTK1 IAmb IAmb 19 26 41.8
comp=Z,30nm,0.8s
**SOKA Soboth** 41.81 302 *i*P P 19 26 44.9 +0.5
comp=Z,6.0nm,0.9s
**HAMF Hammerfest** 42.08 339 *e*P P 19 26 47.1 +1.1
HAMF IAmb IAmb 19 26 47.6
comp=Z,54nm,0.7s
**BRG Berggiesshubel** 42.21 308 *i*P P 19 26 48.1 +0.8
comp=Z,14nm,1.1s
BRG *e*pP pP 19 27 37.5 +2.8
comp=Z,44nm,1.8s
**BRG Berggiesshubel** 42.21 308 *i*P P 19 26 48.1 +0.8
BRG *e**PP pP 19 27 37.5 +2.8
BRG pmax pmax
comp=Z,14nm,1.1s
BRG pmax pmax
comp=Z,44nm,1.8s
**MOA Molln** 42.21 304 *i*P P 19 26 47.5 0.0
comp=Z,6.2nm,0.9s
**KIF Kilpisjarvi** 42.23 336 *e*P P 19 26 47.6 +0.3
**CUC Castrocucco** 42.39 292 *e*P P 19 26 50.7 +1.7
comp=Z,8.7nm,0.9s
**GEC2 GERESS Array S** 42.49 305 *e*P P 19 26 48.9 -0.9
GEC2 pmax pmax
comp=Z,17nm,1.8s
**GEC2 GERESS Array S** 42.49 305 *e*P P 19 26 48.9 -0.9
comp=Z,17nm,1.8s
GERES **GERESS Array B** 42.49 305 P P 19 26 48.9 -0.9
comp=Z,0.4nm,0.3s,baz=43,slow=8.0,SNR=4.4
**CLL Collm** 42.78 309 *e*pP pP 19 27 40.0 +0.6
**GSI Gunungsitoli** 43.13 138 *e*P P 19 26 59.1 +4.1
comp=Z,26nm,1.2s
**NKC Novy Kostel** 43.20 307 P P 19 26 55.9 +0.6
**ABTA Abfaltersbach** 43.52 302 *i*P P 19 26 57.8 -0.2
comp=Z,1.5nm,0.7s
**MOR8 Moi Rana** 43.59 331 *e*P P 19 26 58.0 -0.1
**NC405 NORSAR Array S** 43.85 323 *e*P P 19 27 00.5 +0.1
**NC303 NORSAR Array S** 43.85 323 *e*P P 19 27 02.3 +0.6
**NB2 NORSAR Subarra** 44.09 323 P P 19 27 01.6 -0.6
comp=Z,8.6nm,0.8s,baz=96,slow=7.9
**NB2 NORSAR Subarra** 44.09 323 P P 19 27 01.6 -0.6
NB2 pmax pmax
comp=Z,7.0nm,0.8s
**NB2 NORSAR Subarra** 44.09 323 P P 19 27 01.6 -0.6
baz=96,slow=7.9
**NB200 NORSAR Array S** 44.09 323 *e*P P 19 27 01.9 -0.3
NB200 *e*pP pP 19 27 50.7 +0.7
NB200 *e*S S 19 33 12.8 -4.4
**NOA NORSAR Array B** 44.09 323 P P 19 27 01.9 -0.3
comp=Z,15nm,0.8s,baz=97,slow=7.9,SNR=23
NOA pP pP 19 27 50.7 +0.7
comp=Z,1.6nm,0.7s,baz=105,slow=7.2,SNR=2.0
NOA S S 19 33 12.8 -4.4
comp=Z,1.0nm,0.8s,baz=83,slow=6.9,SNR=2.9
**YAK Yakutsk** 44.36 35 P P 19 27 04.7 +0.4
comp=Z,20nm,0.3s,baz=68,slow=0.4,SNR=36
**YAK Yakutsk** 44.36 35 *e*P P 19 27 03.7 -0.6
YAK pmax pmax
comp=E,6.0nm,0.9s
YAK pmax pmax
comp=Z,35nm,0.9s
YAK pmax pmax
comp=N,4.0nm,1.0s
**YAK Yakutsk** 44.36 35 *e*P P 19 27 04.4 +0.1
comp=N,52nm,0.8s
**MOTA Moosalm** 44.40 303 *i*P P 19 27 04.7 -0.3
comp=N,0.7nm,0.3s
**FETA Feichten** 44.70 303 *i*P P 19 27 07.3 -0.1
comp=N,2.3nm,0.9s
**DAVA Damuels** 45.23 304 *i*P P 19 27 11.4 -0.2
comp=N,9.7nm,0.8s
**KS01 Wonju Array Si** 45.42 71 *e*P P 19 27 13.5 +0.5
**KS15 Wonju Array Si** 45.42 71 *e*P P 19 27 12.9 -0.1
KS15 *e*pP pP 19 28 02.5 +1.4
**KSAR Wonju Array Be** 45.42 71 P P 19 27 13.4 +0.4
KSAR *PP pP 19 28 02.5 +1.4
**KSAR Wonju Array Be** 45.42 71 P P 19 27 13.4 +0.4
KSAR pP pP 19 28 02.5 +1.4
**KSRS Korea Array** 45.45 71 P P 19 27 13.4 +0.2
comp=N,3.5nm,0.7s,baz=274,slow=7.2,SNR=15
KSRS pP pP 19 28 02.5 +1.2
comp=N,2.7nm,1.0s,baz=277,slow=7.5,SNR=3.1
**KSRS Korea Array** 45.45 71 P P 19 27 13.4 +0.2
KSRS *PP pP 19 28 02.5 +1.2
KSRS pmax pmax
comp=Z,3.0nm,0.5s
KSRS pmax pmax
comp=Z,3.0nm,1.0s
**KLR Kul'dur** 45.65 54 P P 19 27 15.5 +0.8
comp=Z,0.6nm,0.7s,baz=280,slow=8.8,SNR=22
**KLR Kul'dur** 45.65 54*c* *i*P P 19 27 15.3 +0.6
**TIXI Tiksi** 46.05 22*c* *i*P P 19 27 17.6 +0.2
TIXI *i* *PP pP 19 28 06.4 +0.8
TIXI pmax pmax
comp=Z,26nm,1.0s
**TIXI Tiksi** 46.05 22 *e*P P 19 27 17.2 -0.2
comp=Z,22nm,0.9s
**SLE Schleitheim** 46.08 304 P P 19 27 17.8 -0.3
**PDSI Padang** 46.55 136 P P 19 27 27.5 +5.4
**USRK Ussuriysk Ar.** 46.71 60 P P 19 27 23.1 +0.1
comp=Z,3.7nm,0.8s,baz=272,slow=6.3,SNR=5.2
**VLA Vladivostok** 46.88 62*de*P P 19 27 24.9 +0.6
VLA pmax pmax
comp=Z,23nm,0.8s
**SENIN Lac Senin/Sane** 47.13 303 *e*P P 19 27 26.4 -0.1
comp=Z,69nm,2.0s
**KMBO Kilima Mbogo** 48.36 227 P P 19 27 37.5 +1.3
comp=Z,6.8nm,0.6s,baz=34,slow=12,SNR=18
**KMBO Kilima Mbogo** 48.36 227 *i*P P 19 27 37.7 +1.5
KMBO pmax pmax
comp=Z,7.0nm,0.6s
**KEST Kesra** 48.51 288 P P 19 27 37.5 +0.5
comp=Z,9.0nm,1.0s,baz=293,slow=23,SNR=6.9
**KEST Kesra** 48.51 288 *e*P P 19 27 37.8 +0.8
comp=Z,15nm,1.0s
**JNU Nakatsue** 49.17 75 P P 19 27 43.2 +1.2
comp=Z,4.3nm,0.7s,baz=350,slow=1.2,SNR=5.3
**JNU Nakatsue** 49.17 75 *e*P P 19 27 43.2 +1.2
comp=Z,7.5nm,1.0s
**NKL Nikolayevsk** 50.58 47 *e*P P 19 27 52.8 +0.6
NKL pmax pmax
comp=N,26nm,1.0s
NKL pmax pmax
comp=Z,69nm,1.0s
**MJAR Matsushiro Arr** 53.52 68 P P 19 28 14.3 +0.1
comp=Z,6.7nm,1.0s,baz=289,slow=9.1,SNR=9.8
**DAG Danmarks Havn** 54.63 344 *i*P P 19 28 21.7 +0.2
DAG pmax pmax
comp=Z,14nm,0.9s
**DAG Danmarks Havn** 54.63 344 *i*P P 19 28 21.7 +0.2
comp=Z,14nm,0.9s
**MA2 Magadan** 54.77 38⇑ *e*P P 19 28 23.0 +0.2
**SEY Seymchan** 54.80 34⇑ *e*P P 19 28 23.6 +0.7
**SCO Scoresbysund** 56.88 336 *i*P P 19 28 39.0 +1.5
**SCO Scoresbysund** 56.88 336 *i*P P 19 28 39.0 +1.5
**ES19 SONSECA Array** 56.92 298 *e*P P 19 28 38.2 -0.2
ES19 *e*pP PcP 19 29 30.0 -1.1
**TAM Tamanrasset** 56.97 275 *e*P P 19 28 38.9 -0.2
TAM pmax pmax
comp=Z,6.0nm,1.1s
**TAM Tamanrasset** 56.97 275 *e*P P 19 28 38.9 -0.2
comp=Z,5.9nm,1.1s
**ESDC Sonseca Array** 56.98 298 P P 19 28 38.5 -0.3
comp=Z,2.4nm,0.8s,baz=62,slow=7.2,SNR=12
ESDC pP pP 19 29 29.6 +0.6
comp=Z,2.4nm,0.8s,baz=63,slow=6.6,SNR=5.0
**BILL Bilibino** 58.92 26*c* *i*P P 19 28 52.5 +0.8
BILL *i* *PP pP 19 29 44.4 +2.1
BILL *e* 19 31 03.8
BILL *e*S S 19 36 41.0 +1.7
BILL pmax pmax
comp=Z,24nm,1.5s
**ABPO Ambohimpanom** 59.30 206 *i*P P 19 28 57.0 +1.9
**MRSI Marisa** 59.66 115 P P 19 28 58.7 +1.2
**APSI Ampana** 60.39 116 P P 19 29 05.6 +3.1
**PEA1 Petropavlovsk-** 60.42 44 *e*P P 19 29 02.1 0.0
**PETK Petropavlovsk-** 60.42 44 P P 19 29 02.1 0.0
comp=Z,4.5nm,0.7s,baz=266,slow=5.6,SNR=4.9
**SUMG Summit** 60.94 341 *i*P P 19 29 06.8 +1.0
SUMG pmax pmax
comp=Z,42nm,1.1s
**SUMG Summit** 60.94 341 *i*P P 19 29 06.8 +1.0
comp=Z,42nm,1.1s
**SUMG Summit** 60.94 341 *e*P P 19 29 06.0 +0.2
comp=Z,52nm,1.2s
**TULEG Thule** 64.41 350 *e*P P 19 29 28.0 -0.1
comp=Z,15nm,1.0s
**LSZ Lusaka** 64.99 226 *e*P P 19 29 33.1 +0.2
LSZ pmax pmax
comp=Z,6.0nm,0.8s
**LSZ Lusaka** 64.99 226 *e*P P 19 29 33.1 +0.2
comp=Z,6.4nm,0.8s
**TOA1 Torodi Ar. Sit** 65.14 268 *e*P P 19 29 32.4 -1.5
**TOA0 Torodi Ar. Sit** 65.14 268 *e*P P 19 29 32.3 -1.5

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **TORD** | **Torodi Ar. Bea** | **65.14** | **268** | P | | **P** | | **19 29 32.4** | **-1.5** |
| | comp=Z,5.5nm,0.6s,baz=44,slow=5.5,SNR=41 | | | | | | | | |
| **KOWA** | **Kowa** | **68.99** | **273** | *e*P | | **P** | | **19 29 57.1** | **-0.9** |
| | comp=Z,14nm,0.7s | | | | | | | | |
| **COLD** | **Coldfoot** | **72.19** | **15** | *e*P | | **P** | | **19 30 17.0** | **+0.5** |
| | comp=Z,19nm,1.0s | | | | | | | | |
| **IM3** | **Indian Mountai** | **72.41** | **17** | *e*P | | **P** | | **19 30 17.5** | **-0.3** |
| **FYU** | **Fort Yukon** | **73.78** | **14** | *e*P | | **P** | | **19 30 26.5** | **+0.8** |
| | comp=Z,21nm,0.8s | | | | | | | | |
| **MLY** | **Manley** | **73.91** | **17** | *e*P | | **P** | | **19 30 27.1** | **+0.4** |
| | comp=Z,12nm,1.0s | | | | | | | | |
| **INK** | **Inuvik** | **74.06** | **9** | *e*P | | **P** | | **19 30 28.2** | **+0.8** |
| INK | | | | pmax | | pmax | | | |
| | comp=Z,20nm,0.8s | | | | | | | | |
| **INK** | **Inuvik** | **74.06** | **9** | *e*P | | **P** | | **19 30 28.1** | **+0.8** |
| | comp=Z,20nm,0.8s | | | | | | | | |
| **DBIC** | **Dimbokro** | **74.11** | **267** | P | | **P** | | **19 30 27.0** | **-1.6** |
| | comp=Z,4.7nm,0.7s,baz=42,slow=2.8,SNR=7.9 | | | | | | | | |
| **DBIC** | **Dimbokro** | **74.11** | **267** | *e*P | | **P** | | **19 30 27.0** | **-1.6** |
| | comp=Z,26nm,1.5s | | | | | | | | |
| **KIC** | **Kosan Boka** | **74.20** | **266** | *e*P | | **P** | | **19 30 27.7** | **-1.4** |
| | comp=Z,25nm,0.9s | | | | | | | | |
| **LBTB** | **Lobatse** | **74.24** | **222** | *e*P | | **P** | | **19 30 29.8** | **+0.6** |
| LBTB | | | | pmax | | pmax | | | |
| | comp=Z,19nm,0.9s | | | | | | | | |
| **LBTB** | **Lobatse** | **74.24** | **222** | *e*P | | **P** | | **19 30 29.8** | **+0.6** |
| | comp=Z,19nm,0.9s | | | | | | | | |
| **TIC** | **Toumodi** | **74.26** | **267** | *e*P | | **P** | | **19 30 28.3** | **-1.2** |
| **LIC** | **Lamto** | **74.51** | **266** | *e*P | | **P** | | **19 30 29.5** | **-1.4** |
| | comp=Z,57nm,1.5s | | | | | | | | |
| **MDM** | **Murphy Dome** | **74.55** | **16** | *e*P | | **P** | | **19 30 31.0** | **+0.7** |
| | comp=Z,21nm,1.0s | | | | | | | | |
| **BPAW** | **Bear Paw Mtn.** | **74.63** | **17** | *e*P | | **P** | | **19 30 30.8** | **0.0** |
| | comp=Z,7.3nm,0.8s | | | | | | | | |
| **COLA** | **College** | **74.70** | **16** | *e*P | | **P** | | **19 30 31.5** | **+0.4** |
| COLA | | | | pmax | | pmax | | | |
| | comp=Z,28nm,0.8s | | | | | | | | |
| **COLA** | **College** | **74.70** | **16** | *e*P | | **P** | | **19 30 31.5** | **+0.4** |
| | comp=Z,28nm,0.8s | | | | | | | | |
| **CCB** | **Clear Creek Bu** | **74.91** | **16** | *e*P | | **P** | | **19 30 31.9** | **-0.4** |
| | comp=Z,4.7nm,0.8s | | | | | | | | |
| **IL1** | **Eielson Array** | **75.00** | **16** | *e*P | | **P** | | **19 30 31.9** | **-1.0** |
| **ILAR** | **Eielson Array** | **75.00** | **16** | P | | **P** | | **19 30 32.4** | **-0.5** |
| | comp=Z,6.1nm,0.8s,baz=316,slow=4.7,SNR=60 | | | | | | | | |
| **ILB** | **Eielson Array** | **75.00** | **16** | *e*P | | **P** | | **19 30 32.1** | **-0.7** |
| **KTH** | **Kantishna Hill** | **75.11** | **18** | *e*P | | **P** | | **19 30 33.1** | **-0.4** |
| | comp=Z,14nm,0.8s | | | | | | | | |
| **PPLA** | **Purkeypile** | **75.34** | **19** | *e*P | | **P** | | **19 30 34.9** | **-0.1** |
| | comp=Z,66nm,1.8s | | | | | | | | |
| **MCK** | **McKinley** | **75.43** | **17** | *e*P | | **P** | | **19 30 35.3** | **-0.1** |
| MCK | | | | pmax | | pmax | | | |
| | comp=Z,9.0nm,0.7s | | | | | | | | |
| **MCK** | **McKinley** | **75.43** | **17** | *e*P | | **P** | | **19 30 35.3** | **-0.1** |
| | comp=Z,8.9nm,0.7s | | | | | | | | |
| **RND** | **Reindeer** | **75.73** | **17** | *e*P | | **P** | | **19 30 36.8** | **-0.3** |
| RND | | | | pmax | | pmax | | | |
| | comp=Z,10.0nm,0.7s | | | | | | | | |
| **RND** | **Reindeer** | **75.73** | **17** | *e*P | | **P** | | **19 30 36.8** | **-0.3** |
| | comp=Z,9.6nm,0.7s | | | | | | | | |
| **EGAK** | **Eagle** | **76.15** | **13** | *e*P | | **P** | | **19 30 40.0** | **+0.6** |
| | comp=Z,9.8nm,0.9s | | | | | | | | |
| **DHY** | **Denali Highway** | **76.36** | **17** | *e*P | | **P** | | **19 30 40.5** | **-0.3** |
| | comp=Z,17nm,0.7s | | | | | | | | |
| **DOT** | **Dot Lake** | **76.59** | **15** | *e*P | | **P** | | **19 30 41.9** | **0.0** |
| | comp=Z,23nm,0.8s | | | | | | | | |
| **PAX** | **Paxson** | **76.88** | **16** | *e*P | | **P** | | **19 30 43.6** | **0.0** |
| PAX | | | | pmax | | pmax | | | |
| | comp=Z,14nm,0.6s | | | | | | | | |
| **PAX** | **Paxson** | **76.88** | **16** | *e*P | | **P** | | **19 30 43.6** | **0.0** |
| | comp=Z,14nm,0.6s | | | | | | | | |
| **DAWY** | **Dawson** | **77.12** | **13** | *e*P | | **P** | | **19 30 45.5** | **+0.6** |
| | comp=Z,10nm,0.9s | | | | | | | | |
| **SML** | **Sawmill** | **77.23** | **18** | *e*P | | **P** | | **19 30 45.5** | **0.0** |
| SML | | | | pmax | | pmax | | | |
| | comp=Z,25nm,0.7s | | | | | | | | |
| **SML** | **Sawmill** | **77.23** | **18** | *e*P | | **P** | | **19 30 45.5** | **0.0** |
| | comp=Z,25nm,0.7s | | | | | | | | |
| **BOSA** | **Boshof** | **77.32** | **220** | P | | **P** | | **19 30 46.3** | **-0.2** |
| | comp=Z,9.4nm,0.9s,baz=9.5,slow=4.5,SNR=8.7 | | | | | | | | |
| **HARP** | **HAARP** | **77.45** | **16** | *e*P | | **P** | | **19 30 47.9** | **+1.2** |
| | comp=Z,57nm,0.8s | | | | | | | | |
| **KLU** | **Klutina** | **78.08** | **17** | *e*P | | **P** | | **19 30 50.8** | **+0.5** |
| | comp=Z,13nm,0.9s | | | | | | | | |
| **DIV** | **Divide** | **78.43** | **17** | *e*P | | **P** | | **19 30 52.6** | **+0.4** |
| | comp=Z,15nm,0.7s | | | | | | | | |
| **KDAK** | **Kodiak Island** | **79.48** | **22** | *i* P | | **P** | | **19 30 57.9** | **+0.1** |
| **HYT** | **Haines Junctio** | **80.45** | **13** | *e*P | | **P** | | **19 31 04.0** | **+0.9** |
| **YKW3** | **Yellowknife Ar** | **81.27** | **2** | *e*P | | **P** | | **19 31 07.2** | **-0.1** |
| | comp=Z,12nm,0.8s | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **81.34** | **2** | P | | **P** | | **19 31 07.6** | **0.0** |
| | comp=Z,12nm,0.8s,baz=348,slow=5.3,SNR=218 | | | | | | | | |
| YKA | | | | pP | | **pP** | | **19 32 01.7** | **+0.1** |
| | comp=Z,4.1nm,0.9s,baz=349,slow=5.4,SNR=5.4 | | | | | | | | |
| YKA | | | | PP | | **PP** | | **19 34 15.2** | **-0.5** |
| | comp=Z,1.2nm,0.9s,baz=355,slow=7.8,SNR=4.3 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **81.34** | **2** | *i* P | | **P** | | **19 31 07.5** | **0.0** |
| YKA | | | | pmax | | pmax | | | |
| | comp=Z,13nm,0.8s | | | | | | | | |
| **YKB5** | **Yellowknife Ar** | **81.34** | **2** | *e*P | | **P** | | **19 31 07.6** | **0.0** |
| YKB5 | | | | *e*pP | | **pP** | | **19 32 01.7** | **+0.1** |
| YKB5 | | | | *e*PP | | **PP** | | **19 34 15.2** | **-0.5** |
| **SCHQ** | **Schefferville** | **81.93** | **337** | P | | **P** | | **19 31 10.6** | **-0.3** |
| | comp=Z,6.1nm,0.7s,baz=52,slow=5.5,SNR=8.8 | | | | | | | | |
| **SCHQ** | **Schefferville** | **81.93** | **337** | *e*P | | **P** | | **19 31 10.9** | **+0.1** |
| | comp=Z,81nm,1.9s | | | | | | | | |
| **WRA** | **Warramunga Arr** | **82.45** | **121** | P | | **P** | | **19 31 12.5** | **-1.5** |
| | comp=Z,4.4nm,0.8s,baz=324,slow=4.8,SNR=27 | | | | | | | | |
| WRA | | | | pP | | **pP** | | **19 32 08.8** | **+0.6** |
| | comp=Z,4.4nm,0.8s,baz=326,slow=5.1,SNR=8.0 | | | | | | | | |
| WRA | | | | PKKPbc | | **PKKPbc** | | **19 49 39.2** | **+0.9** |
| | comp=Z,0.7nm,0.7s,baz=126,slow=2.5,SNR=8.1 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **82.45** | **121** | P | | **P** | | **19 31 12.5** | **-1.5** |
| WRA | | | | *PP | | **pP** | | **19 32 08.8** | **+0.6** |
| WRA | | | | pmax | | pmax | | | |
| | comp=Z,4.0nm,0.8s | | | | | | | | |
| WRA | | | | pmax | | pmax | | | |
| | comp=Z,4.0nm,0.9s | | | | | | | | |
| **WR1** | **Warramunga Arr** | **82.45** | **121** | *e*P | | **P** | | **19 31 12.5** | **-1.6** |
| WR1 | | | | *e*pP | | **pP** | | **19 32 08.8** | **+0.6** |
| WR1 | | | | *e*PKKPbc | | **PKKPbc** | | **19 49 39.2** | **+0.9** |
| **AS31** | **Alice Springs** | **84.69** | **124** | *e*P | | **P** | | **19 31 24.4** | **-1.0** |
| | comp=Z,1.9nm,0.8s | | | | | | | | |
| AS31 | | | | *e*pP | | **pP** | | **19 32 20.2** | **+0.5** |
| AS31 | | | | *e*PKKPbc | | **PKKPbc** | | **19 49 32.5** | **-0.7** |
| **ASAR** | **Alice Springs** | **84.69** | **124** | P | | **P** | | **19 31 24.2** | **-1.1** |
| | comp=Z,4.2nm,0.8s,baz=319,slow=3.9,SNR=9.9 | | | | | | | | |
| ASAR | | | | pP | | **pP** | | **19 32 20.2** | **+0.5** |
| | comp=Z,4.1nm,1.0s,baz=324,slow=5.3,SNR=6.4 | | | | | | | | |
| ASAR | | | | PKKPbc | | **PKKPbc** | | **19 49 32.5** | **-0.7** |
| | comp=Z,0.4nm,0.7s,baz=136,slow=2.4,SNR=4.8 | | | | | | | | |
| **AS01** | **Alice Springs** | **84.72** | **124** | *e*P | | **P** | | **19 31 24.3** | **-1.3** |
| AS01 | | | | *e*pP | | **pP** | | **19 32 19.9** | **-0.1** |
| **FFC** | **Flin Flon** | **88.96** | **356** | *e*P | | **P** | | **19 31 45.6** | **+0.1** |
| FFC | | | | pmax | | pmax | | | |
| | comp=Z,8.0nm,0.9s | | | | | | | | |
| **FFC** | **Flin Flon** | **88.96** | **356** | *e*P | | **P** | | **19 31 45.6** | **+0.1** |
| | comp=Z,7.5nm,0.9s | | | | | | | | |
| **CTA** | **Charters Tower** | **91.04** | **114** | P | | **P** | | **19 31 53.9** | **-1.8** |
| | comp=Z,2.3nm,0.7s,baz=278,slow=5.2,SNR=3.0 | | | | | | | | |
| **ULM** | **Lac du Bonnet** | **92.83** | **351** | *e*P | | **P** | | **19 32 02.6** | **-0.9** |
| ULM | | | | pmax | | pmax | | | |
| | comp=Z,11nm,1.2s | | | | | | | | |
| **ULM** | **Lac du Bonnet** | **92.83** | **351** | *e*P | | **P** | | **19 32 02.5** | **-0.9** |
| | comp=Z,11nm,1.2s | | | | | | | | |
| **CPUP** | **Villa Florida** | **134.63** | **267** | PKP | | **PKPdf** | | **19 38 07.6** | **-0.8** |
| | comp=Z,2.9nm,0.8s,baz=40,slow=4.9,SNR=6.8 | | | | | | | | |
| **LPAZ** | **La Paz** | **138.08** | **287** | PKP | | **PKPdf** | | **19 38 14.6** | **-1.2** |
| | comp=Z,0.6nm,0.4s,baz=121,slow=4.4,SNR=5.0 | | | | | | | | |
| **PLCA** | **Paso Flores** | **149.26** | **250** | PKPbc | | **PKPbc** | | **19 38 37.9** | **-0.6** |
| | comp=Z,8.3nm,1.0s,baz=135,slow=4.6,SNR=9.7 | | | | | | | | |
| **PLCA** | **Paso Flores** | **149.26** | **250** | *e*PKPbc | | **PKPbc** | | **19 38 38.9** | **+0.4** |

**GUC 28 19:22:43.3±0.5, 17°36S×70°88W, h79km±9km, ML3.7, 1C-1D, Near coast of Peru**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ARCH** | **Arica** | **1.26** | **154** | *e*P | Pn | 19 23 05.7 | +0.2 |
| ARCH | | | | *e*S | Sn | 19 23 23.2 | +1.1 |
| **PB12** | **IPOC Station P** | **1.36** | **157** | ⇓*i*P | Pn | 19 23 07.2 | +0.3 |
| PB12 | | | | *i* S | Sn | 19 23 25.4 | +0.9 |
| **MNMC** | **Minye Minye** | **2.14** | **146** | *e*P | Pn | 19 23 18.5 | +1.1 |
| MNMC | | | | *i* S | Sn | 19 23 44.6 | +1.2 |
| MNMC | | | | IAML | | 19 23 51.4 | |
| | comp=E,1μm,0.3s | | | | | | |
| **PSGC** | **Pisagua** | **2.34** | **162** | *e*P | Pn | 19 23 21.2 | +1.3 |
| PSGC | | | | *e*S | Sn | 19 23 49.5 | +1.6 |
| PSGC | | | | IAML | | 19 24 07.1 | |
| | comp=E,198nm,0.5s | | | | | | |
| **PB11** | **IPOC Station P** | **2.66** | **154** | *e*P | Pn | 19 23 25.2 | +1.0 |
| PB11 | | | | *e*S | Sn | 19 23 57.4 | +1.9 |
| **PB08** | **IPOC Station P** | **3.21** | **150** | IAML | | 19 24 33.2 | |
| | comp=E,145nm,0.5s | | | | | | |
| **PB01** | **IPOC Station P** | **3.90** | **161** | ⇑*i*P | Pn | 19 23 42.5 | +1.6 |
| PB01 | | | | *i* S | Sn | 19 24 26.4 | +0.9 |
| **PB07** | **IPOC Station P** | **4.45** | **168** | *e*P | Pn | 19 23 50.4 | +1.9 |

*INMG **28** 19:30:42.2±1.7, 36°.50N×7°.70W, h18km±4km, ML1.3, Error ellipse: s-maj=5.4km s-min=3.4km az=44.0*
*MDD **28** 19:30:43.6±1.3, 36°.64N×7°.68W, h45km, mb3.2/4, Error ellipse: s-maj=14.3km s-min=7.8km az=3.0, PRXIMO SOLUCIN PODRE*

**ISC 28 19:30:41.2±1.6, 36°.59N±0°.07×7°.68W±0°.04, h28km±13km, n19, σ0.95/34, Strait of Gibraltar**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PBDV** | **Barranco-do-Ve** | **0.68** | **343** | *e*Pg | **Pn** | **19 30 55.3** | **+0.3** |
| PBDV | | | | *e*Sg | **Sb** | **19 31 04.3** | **+0.5** |
| PBDV | | | | A | A | 19 31 06.1 | |
| | 4.8nm,0.2s | | | | | | |
| **PVAQ** | **Vaqueiros** | **0.81** | **358** | *e*P | **Pn** | **19 30 57.1** | **+0.3** |
| PVAQ | | | | *e*S | **Sb** | **19 31 07.8** | **+0.4** |
| PVAQ | | | | A | A | 19 31 08.1 | |
| | 7.5nm,0.2s | | | | | | |
| **EGRO** | **El Granado** | **0.96** | **9** | P | **Pn** | **19 30 59.3** | **+0.6** |
| | 0.9nm,0.3s,SNR=7.9 | | | | | | |
| EGRO | | | | S | **Sb** | **19 31 11.1** | **-0.4** |
| | 3.5nm,0.2s,SNR=7.9 | | | | | | |
| **MORF** | **Marmelete** | **1.06** | **313** | *e*Pn | **Pn** | **19 31 00.2** | **0.0** |
| MORF | | | | *e*S | **Sb** | **19 31 13.4** | **-1.0** |
| MORF | | | | A | A | 19 31 22.8 | |
| | 4.6nm,0.2s | | | | | | |
| **PFVI** | **Vila Bisbo** | **1.07** | **301** | P | **Pb** | **19 31 01.5** | **+0.4** |
| | 1.2nm,0.2s,SNR=7.9 | | | | | | |
| PFVI | | | | S | **Sb** | **19 31 13.3** | **-1.4** |
| | 5.9nm,0.2s,SNR=7.9 | | | | | | |
| **PFVI** | **Vila Bisbo** | **1.07** | **301** | *e*P | **Pb** | **19 31 01.7** | **+0.6** |
| PFVI | | | | *e*S | **Sb** | **19 31 13.9** | **-0.8** |
| PFVI | | | | A | A | 19 31 17.8 | |
| | 4.5nm,0.6s | | | | | | |
| **PCVE** | **Castro Verde** | **1.08** | **345** | *e*P | **Pb** | **19 31 01.1** | **-0.2** |
| PCVE | | | | *e*S | **Sb** | **19 31 13.9** | **-1.1** |
| PCVE | | | | A | A | 19 31 14.7 | |
| | 4.7nm,0.3s | | | | | | |
| **MESJ** | **Messejana** | **1.32** | **341** | *e*P | **Pn** | **19 31 04.3** | **+0.5** |
| MESJ | | | | *e*S | **Sn** | **19 31 20.6** | **+0.1** |
| MESJ | | | | A | A | 19 31 21.6 | |
| | 3.3nm,0.3s | | | | | | |
| **EMIN** | **Mina Concepcio** | **1.42** | **34** | P | **Pb** | **19 31 06.5** | **-0.6** |
| | 0.2nm,0.2s,SNR=7.9 | | | | | | |
| EMIN | | | | S | **Sn** | **19 31 21.9** | **-1.1** |
| | 0.6nm,0.1s,SNR=7.9 | | | | | | |
| **ESPR** | **Espera** | **1.49** | **79** | P | **Pn** | **19 31 07.1** | **+1.1** |
| | 7.9nm,0.2s,SNR=9.8 | | | | | | |
| ESPR | | | | S | **Sn** | **19 31 25.0** | **+0.5** |
| | 12nm,0.3s,SNR=7.9 | | | | | | |
| **PBAR** | **Barrancos** | **1.66** | **18** | *e*Pn | **Pn** | **19 31 09.1** | **+0.6** |
| **PBAR** | **Barrancos** | **1.66** | **18** | *e*Pg | **Pb** | **19 31 11.4** | **+0.3** |
| PBAR | | | | *e*Sn | **Sn** | **19 31 29.5** | **+0.6** |
| PBAR | | | | *e*Sg | **Sb** | **19 31 33.1** | **+1.4** |
| PBAR | | | | A | A | 19 31 35.8 | |
| | 1.4nm,0.2s | | | | | | |
| **PNCL** | **Nicolau / Gran** | **1.67** | **336** | *e*Pn | **Pn** | **19 31 09.0** | **+0.5** |
| PNCL | | | | *e*S | **Sn** | **19 31 30.0** | **+1.1** |
| PNCL | | | | A | A | 19 31 30.9 | |
| | 1.4nm,0.2s | | | | | | |
| **EBAD** | **Badajoz** | **2.23** | **13** | S | **Sn** | **19 31 42.6** | **-0.2** |
| | 1.3nm,0.2s,SNR=7.9 | | | | | | |
| **PESTR** | **Estremoz** | **2.28** | **2** | *e*Sn | **Sn** | **19 31 43.6** | **-0.4** |
| **ECAB** | **El Cabril** | **2.33** | **50** | P | **Pn** | **19 31 18.4** | **+0.7** |
| | 1.3nm,0.6s,SNR=7.9 | | | | | | |
| ECAB | | | | S | **Sn** | **19 31 42.8** | **-2.6** |
| | 0.5nm,0.1s,SNR=7.9 | | | | | | |
| **PMTG** | **Montargil** | **2.51** | **350** | *e*Sn | **Sn** | **19 31 49.4** | **-0.5** |
| PMTG | | | | A | A | 19 31 51.3 | |
| | 0.6nm,0.2s | | | | | | |
| **PMRV** | **Marv??o** | **2.84** | **4** | *e*Sn | **Sn** | **19 31 57.9** | **-0.2** |
| **EADA** | **Adamuz** | **2.93** | **57** | P | **Pn** | **19 31 26.5** | **+0.6** |
| | 0.2nm,0.1s,SNR=7.9 | | | | | | |
| EADA | | | | S | **Sn** | **19 31 58.1** | **-2.1** |
| | 1.0nm,0.1s,SNR=7.9 | | | | | | |

*MOS **28** 19:38:00.9±2.1, 51°.15N×158°.48E, h51km, mb4.3/1, Error ellipse: s-maj=21.0km s-min=5.1km az=86.9*

**KRSC 28 19:38:00.9±1.9, 51°.15N×158°.48E, h51km±21km, ML4.2, Near east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KDTR** | **Khodutka, Kamc** | **0.71** | **339** | *i* P | Pn | 19 38 16.7 | +1.9 |
| KDTR | | | | *e*S | Sn | 19 38 25.6 | +0.8 |
| **PAU** | **Pauzhetka** | **1.10** | **287** | PN | Pn | 19 38 21.4 | +1.5 |
| **PAU** | **Pauzhetka** | **1.10** | **287** | *e*P | Pn | 19 38 21.4 | +1.5 |
| **RUS** | **Russkaya** | **1.28** | **1** | PN | Pn | 19 38 24.4 | +1.9 |
| RUS | | | | S | Sn | 19 38 39.5 | +0.9 |
| **RUS** | **Russkaya** | **1.28** | **1** | *e*P | Pn | 19 38 24.4 | +1.9 |
| RUS | | | | *e*S | Sn | 19 38 39.5 | +0.9 |
| **ASAK** | **Asacha** | **1.29** | **344** | PN | Pn | 19 38 24.7 | +2.1 |
| ASAK | | | | S | Sn | 19 38 39.2 | +0.4 |
| **ASAK** | **Asacha** | **1.29** | **344** | *e*P | Pn | 19 38 24.7 | +2.1 |
| ASAK | | | | *e*S | Sn | 19 38 39.2 | +0.4 |
| **MTVR** | **Mutnovka** | **1.35** | **352** | PN | Pn | 19 38 25.8 | +2.3 |
| MTVR | | | | S | Sn | 19 38 41.2 | +0.9 |
| **MTVR** | **Mutnovka** | **1.35** | **352** | *e*P | Pn | 19 38 25.8 | +2.3 |
| MTVR | | | | *e*S | Sn | 19 38 41.2 | +0.9 |
| **SKR** | **Severo-Kuril's** | **1.57** | **254** | PN | Pn | 19 38 27.6 | +1.3 |
| SKR | | | | S | Sn | 19 38 45.0 | -0.5 |
| **SKR** | **Severo-Kuril's** | **1.57** | **254** | *e*P | Pn | 19 38 27.6 | +1.3 |
| SKR | | | | *i* S | Sn | 19 38 45.0 | -0.5 |
| **KRMR** | **Karymshinskiy** | **1.70** | **353** | PN | Pn | 19 38 30.9 | +2.8 |
| KRMR | | | | S | Sn | 19 38 50.8 | +2.2 |
| **KRMR** | **Karymshinskiy** | **1.70** | **353** | *e*P | Pn | 19 38 30.9 | +2.8 |
| KRMR | | | | *e*S | Sn | 19 38 50.8 | +2.2 |
| **PET** | **Petropavlovsk** | **1.88** | **3** | *e*PN | Pn | 19 38 33.3 | +2.7 |
| PET | | | | *e*S | Sn | 19 38 54.6 | +1.5 |
| PET | | | | pmax | pmax | | |
| | comp=Z,61nm,0.3s | | | | | | |
| PET | | | | smax | smax | | |
| | comp=N,181nm,0.4s | | | | | | |
| **PET** | **Petropavlovsk** | **1.88** | **3** | *e*P | Pn | 19 38 33.2 | +2.6 |
| PET | | | | *e*S | Sn | 19 38 54.9 | +1.8 |
| **DALK** | **Dalny** | **1.89** | **5** | PN | Pn | 19 38 33.6 | +2.9 |
| DALK | | | | S | Sn | 19 38 55.4 | +2.0 |
| **DALK** | **Dalny** | **1.89** | **5** | *e*P | Pn | 19 38 33.6 | +2.9 |
| DALK | | | | *e*S | Sn | 19 38 55.4 | +2.0 |
| **APC** | **Apacha** | **1.96** | **336** | PN | Pn | 19 38 33.7 | +2.1 |
| **APC** | **Apacha** | **1.96** | **336** | *e*P | Pn | 19 38 33.7 | +2.1 |
| **UGLR** | **Uglovaya** | **2.07** | **6** | PN | Pn | 19 38 36.7 | +3.4 |
| **UGLR** | **Uglovaya** | **2.07** | **6** | *e*P | Pn | 19 38 36.7 | +3.4 |
| **NLC** | **Nalytchevo** | **2.09** | **14** | PN | Pn | 19 38 35.5 | +2.0 |
| NLC | | | | S | Sn | 19 38 58.9 | +0.6 |
| **NLC** | **Nalytchevo** | **2.09** | **14** | *e*P | Pn | 19 38 35.5 | +2.0 |
| NLC | | | | *e*S | Sn | 19 38 58.9 | +0.6 |
| **AVH** | **Avacha** | **2.12** | **4** | PN | Pn | 19 38 37.6 | +3.6 |
| AVH | | | | S | Sn | 19 39 03.0 | +3.8 |
| **AVH** | **Avacha** | **2.12** | **4** | P | Pn | 19 38 37.6 | +3.6 |
| AVH | | | | *e*S | Sn | 19 39 03.0 | +3.8 |
| **SMAR** | **Somma** | **2.12** | **5** | PN | Pn | 19 38 37.0 | +2.8 |
| **SMAR** | **Somma** | **2.12** | **5** | P | Pn | 19 38 37.0 | +2.8 |
| **SDLR** | **Sedlovina** | **2.15** | **6** | PN | Pn | 19 38 37.1 | +2.7 |
| **SDLR** | **Sedlovina** | **2.15** | **6** | *e*P | Pn | 19 38 37.1 | +2.7 |
| **KOK** | **Koryaka** | **2.15** | **2** | PN | Pn | 19 38 37.9 | +3.5 |
| **KOK** | **Koryaka** | **2.15** | **2** | P | Pn | 19 38 37.9 | +3.5 |
| **KRER** | **Koryakskii** | **2.16** | **4** | PN | Pn | 19 38 36.8 | +2.1 |
| **KRER** | **Koryakskii** | **2.16** | **4** | P | Pn | 19 38 36.8 | +2.1 |
| **SPN** | **Mys Shipunski** | **2.17** | **25** | PN | Pn | 19 38 38.7 | +4.1 |
| SPN | | | | S | Sn | 19 39 04.0 | +3.8 |
| **SPN** | **Mys Shipunski** | **2.17** | **25** | *e*P | Pn | 19 38 38.7 | +4.1 |
| SPN | | | | *e*S | Sn | 19 39 04.0 | +3.8 |
| **KRX** | **Arik** | **2.21** | **3** | PN | Pn | 19 38 38.8 | +3.5 |
| **KRX** | **Arik** | **2.21** | **3** | *e*P | Pn | 19 38 38.8 | +3.5 |
| **GNL** | **Ganaly** | **2.57** | **353** | PN | Pn | 19 38 43.0 | +2.8 |
| **GNL** | **Ganaly** | **2.57** | **353** | *e*P | Pn | 19 38 43.0 | +2.8 |
| **KII** | **Karymskiy** | **2.95** | **11** | PN | Pn | 19 38 49.6 | +4.3 |
| KII | | | | S | Sn | 19 39 24.9 | +5.4 |
| **KII** | **Karymskiy** | **2.95** | **11** | *e*P | Pn | 19 38 49.6 | +4.3 |
| KII | | | | *e*S | Sn | 19 39 24.9 | +5.4 |
| **TUMR** | **Tumrok** | **4.26** | **13** | PN | Pn | 19 39 08.5 | +5.2 |
| **TUMR** | **Tumrok** | **4.26** | **13** | *e*P | Pn | 19 39 08.5 | +5.2 |
| **KBTR** | **Krutoberegovo** | **5.68** | **25** | PN | Pn | 19 39 26.6 | +3.9 |
| **KBTR** | **Krutoberegovo** | **5.68** | **25** | *e*P | Pn | 19 39 26.6 | +3.9 |
| **BKI** | **Bering** | **6.06** | **45** | PN | Pn | 19 39 31.9 | +4.1 |
| **BKI** | **Bering** | **6.06** | **45** | *e*P | Pn | 19 39 31.9 | +4.1 |
| BKI | | | | *e*S | Sn | 19 40 34.0 | -1.8 |

**WEL 28 19:40:54.3±0.2, 41°.10S×173°.41E, h95km±2km, ML3.3/13, 4C-11D, Error ellipse: s-maj=1.8km s-min=1.6km az=0.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **NNZ** | **Nelson** | **0.12** | **191** | PN | Pn | 19 41 07.1 | -0.6 |
| NNZ | | | | SN | Sn | 19 41 15.7 | -1.9 |
| **DUWZ** | **D'Urville Isla** | **0.49** | **52** | ⇓PN | Pn | 19 41 09.8 | +0.3 |
| DUWZ | | | | SN | Sn | 19 41 20.9 | 0.0 |
| **TUWZ** | **Tuamarina** | **0.52** | **129** | ⇓PN | Pn | 19 41 09.8 | +0.1 |
| TUWZ | | | | SN | Sn | 19 41 20.2 | -1.0 |
| TUWZ | | | | AML | AML | 19 41 20.4 | |
| **TCW** | **Tory Channel** | **0.66** | **100** | ⇓PN | Pn | 19 41 11.3 | +0.4 |
| TCW | | | | SN | Sn | 19 41 22.7 | -0.6 |
| TCW | | | | SN | | 19 41 23.1 | |
| **BSWZ** | **Blackbirch Sta** | **0.71** | **150** | PN | Pn | 19 41 11.8 | +0.5 |
| BSWZ | | | | SN | Sn | 19 41 24.3 | +0.3 |
| **QRZ** | **Quartz Range** | **0.72** | **292** | PN | Pn | 19 41 11.3 | -0.1 |
| QRZ | | | | SN | Sn | 19 41 22.9 | -1.4 |
| **THZ** | **Tophouse** | **0.76** | **210** | PN | Pn | 19 41 11.7 | -0.3 |
| THZ | | | | SN | Sn | 19 41 24.2 | -0.9 |
| **WEL** | **Wellington** | **1.04** | **101** | PN | Pn | 19 41 14.9 | +0.1 |
| WEL | | | | AML | AML | 19 41 30.6 | |
| WEL | | | | AML | AML | 19 41 33.3 | |
| WEL | | | | AML | AML | 19 41 33.4 | |
| WEL | | | | AML | AML | 19 41 34.8 | |
| **BHW** | **Baring Head** | **1.14** | **106** | PN | Pn | 19 41 15.6 | -0.3 |
| **KIW** | **Kapiti Island** | **1.16** | **79** | ⇓PN | Pn | 19 41 16.5 | +0.4 |
| KIW | | | | AML | AML | 19 41 17.4 | |
| KIW | | | | AML | AML | 19 41 35.0 | |
| **CAW** | **Cannon Point** | **1.25** | **91** | ⇓PN | Pn | 19 41 17.1 | -0.2 |
| CAW | | | | AML | AML | 19 41 39.6 | |
| CAW | | | | AML | AML | 19 41 41.5 | |
| **KHZ** | **Kahutara** | **1.32** | **176** | ⇑PN | Pn | 19 41 18.0 | -0.1 |
| **OGWZ** | **Otaki Gorge** | **1.36** | **79** | ⇓PN | Pn | 19 41 18.8 | +0.2 |
| OGWZ | | | | AML | AML | 19 41 38.9 | |
| OGWZ | | | | AML | AML | 19 41 42.4 | |
| **DSZ** | **Denniston Nort** | **1.37** | **241** | PN | Pn | 19 41 18.5 | -0.2 |
| **MSWZ** | **Moikau Station** | **1.42** | **103** | ⇓PN | Pn | 19 41 18.8 | -0.6 |
| MSWZ | | | | AML | AML | 19 41 45.9 | |
| MSWZ | | | | AML | AML | 19 41 47.2 | |
| **PLWZ** | **Palliser** | **1.47** | **109** | PN | Pn | 19 41 19.3 | -0.6 |
| PLWZ | | | | AML | AML | 19 41 37.5 | |
| PLWZ | | | | AML | AML | 19 41 37.7 | |
| **PAWZ** | **Paruwai Farm** | **1.55** | **101** | PN | Pn | 19 41 20.2 | -0.7 |
| **MTW** | **Mount Morrison** | **1.58** | **93** | PN | Pn | 19 41 20.6 | -0.7 |
| MTW | | | | AML | AML | 19 41 50.2 | |
| MTW | | | | AML | AML | 19 41 50.9 | |
| **HOWZ** | **Holdsworth Sta** | **1.61** | **83** | ⇓PN | Pn | 19 41 21.2 | -0.5 |
| **MRZ** | **Mangatainoka R** | **1.70** | **76** | ⇓PN | Pn | 19 41 22.3 | -0.5 |
| MRZ | | | | AML | AML | 19 41 45.1 | |
| MRZ | | | | AML | AML | 19 41 45.1 | |
| **NMEZ** | **Namu Road** | **1.72** | **12** | PN | Pn | 19 41 25.0 | +1.9 |
| **TRWZ** | **Traveller** | **1.74** | **101** | PN | Pn | 19 41 22.7 | -0.7 |
| **WAZ** | **Wanganui** | **1.80** | **42** | PN | Pn | 19 41 26.3 | +2.2 |
| **WAZ** | **Wanganui** | **1.80** | **42** | PN | Pn | 19 41 26.3 | +2.2 |
| **LREZ** | **Lake Rotokare** | **1.81** | **25** | PN | Pn | 19 41 26.8 | +2.7 |
| **KHEZ** | **Kahui Hut** | **1.86** | **15** | PN | Pn | 19 41 27.1 | +2.1 |
| **TMWZ** | **Te Maipa** | **1.87** | **91** | ⇑PN | Pn | 19 41 24.3 | -0.7 |
| **LTZ** | **Lake Taylor** | **1.88** | **206** | PN | Pn | 19 41 24.9 | -0.2 |
| **NEZ** | **North Egmont** | **1.90** | **16** | PN | Pn | 19 41 26.9 | +1.4 |
| **TIWZ** | **Tintock** | **1.90** | **81** |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **BOJS** | **Bojanci** | **0.51** | **67** | *i* Pg | **Pg** | **19 50 52.6** | **-0.4** |
| BOJS | | | | *i* Sg | **Sg** | **19 50 59.5** | **-0.2** |
| | comp=Z,14nm,0.1s | | | | | | |
| **VISS** | **Visnje** | **0.53** | **19** | *i* Pg | **Pg** | **19 50 52.9** | **-0.5** |
| VISS | | | | *i* Sg | **Sg** | **19 51 00.4** | **+0.1** |
| | comp=Z,28nm,0.1s | | | | | | |
| **VISS** | **Visnje** | **0.53** | **19** | *i* Pg | **Pg** | **19 50 52.9** | **-0.5** |
| VISS | | | | *i* Sg | **Sg** | **19 51 00.4** | **+0.1** |
| | comp=Z,28nm,0.1s | | | | | | |
| **GBAS** | **Gorenja Brezov** | **0.64** | **351** | *i* Pg | **Pg** | **19 50 55.3** | **-0.2** |
| GBAS | | | | *i* Sg | **Sb** | **19 51 04.5** | **-1.3** |
| | comp=Z,18nm,0.1s | | | | | | |
| **GBAS** | **Gorenja Brezov** | **0.64** | **351** | *i* Pg | **Pg** | **19 50 55.3** | **-0.2** |
| GBAS | | | | *i* Sg | **Sb** | **19 51 04.5** | **-1.3** |
| | comp=Z,18nm,0.1s | | | | | | |
| **OZLJ** | **Ozalj** | **0.69** | **63** | *e*Pg | **Pb** | **19 50 57.2** | **-0.4** |
| OZLJ | | | | Sg | **Sg** | **19 51 05.6** | **0.0** |
| **OZLJ** | **Ozalj** | **0.69** | **63** | *e*Pg | **Pb** | **19 50 57.1** | **-0.4** |
| OZLJ | | | | Sg | **Sg** | **19 51 05.5** | **0.0** |
| **JAVS** | **Javornik** | **0.69** | **328** | *i* Pg | **Pg** | **19 50 55.7** | **-0.9** |
| JAVS | | | | *e*Sg | **Sb** | **19 51 06.8** | **-0.7** |
| | comp=Z,36nm,0.2s | | | | | | |
| **JAVS** | **Javornik** | **0.69** | **328** | *i* Pg | **Pg** | **19 50 55.7** | **-0.9** |
| JAVS | | | | *e*Sg | **Sb** | **19 51 06.8** | **-0.7** |
| | comp=Z,36nm,0.2s | | | | | | |
| **TRI** | **Trieste** | **0.71** | **305**⇓ | *e*Pg | **Pg** | **19 50 56.5** | **-0.3** |
| **TRI** | **Trieste** | **0.71** | **305** | *e*Pg | **Pg** | **19 50 56.5** | **-0.3** |
| **LJU** | **Ljubljana** | **0.74** | **357** | *i* Sg | **Sb** | **19 51 08.8** | **+0.1** |
| **LJU** | **Ljubljana** | **0.74** | **357** | *i* Sg | **Sb** | **19 51 08.8** | **+0.1** |
| **NVLJ** | **Novalja** | **0.77** | **165** | *e*Pg | **Pg** | **19 50 58.0** | **0.0** |
| NVLJ | | | | Sg | **Sn** | **19 51 10.8** | **-1.3** |
| **NVLJ** | **Novalja** | **0.77** | **165** | *e*Pg | **Pg** | **19 50 57.9** | **0.0** |
| NVLJ | | | | Sg | **Sn** | **19 51 10.8** | **-1.3** |
| **VNDS** | **Vrh nad Dolski** | **0.80** | **6** | *i* Pg | **Pg** | **19 50 58.6** | **0.0** |
| VNDS | | | | *e*Sg | **Sb** | **19 51 10.4** | **0.0** |
| | comp=Z,7.0nm,0.1s | | | | | | |
| **VNDS** | **Vrh nad Dolski** | **0.80** | **6** | *i* Pg | **Pg** | **19 50 58.6** | **0.0** |
| VNDS | | | | *e*Sg | **Sb** | **19 51 10.4** | **0.0** |
| | comp=Z,7.0nm,0.1s | | | | | | |
| **CRES** | **Cresnjev** | **0.80** | **49** | *i* Pg | **Pg** | **19 50 58.2** | **-0.4** |
| CRES | | | | *e*Sg | **Sg** | **19 51 09.1** | **0.0** |
| | comp=Z,14nm,0.2s | | | | | | |
| **CRES** | **Cresnjev** | **0.80** | **49** | *i* Pg | **Pg** | **19 50 58.2** | **-0.4** |
| CRES | | | | *e*Sg | **Sg** | **19 51 09.1** | **0.0** |
| | comp=Z,14nm,0.2s | | | | | | |
| **PDKS** | **Podkum** | **0.81** | **21** | *i* Pg | **Pg** | **19 50 58.3** | **-0.5** |
| PDKS | | | | *i* Sg | **Sg** | **19 51 09.0** | **-0.3** |
| | comp=Z,14nm,0.1s | | | | | | |
| **PDKS** | **Podkum** | **0.81** | **21** | *i* Pg | **Pg** | **19 50 58.3** | **-0.5** |
| PDKS | | | | *i* Sg | **Sg** | **19 51 09.0** | **-0.3** |
| | comp=Z,14nm,0.1s | | | | | | |
| **CRNS** | **Crni Vrh** | **0.81** | **344** | *i* Pg | **Pg** | **19 50 58.3** | **-0.5** |
| CRNS | | | | *i* Sg | **Sb** | **19 51 11.4** | **+0.7** |
| | comp=Z,12nm,0.1s | | | | | | |
| **CRNS** | **Crni Vrh** | **0.81** | **344** | *i* Pg | **Pg** | **19 50 58.3** | **-0.5** |
| CRNS | | | | *i* Sg | **Sb** | **19 51 11.4** | **+0.7** |
| | comp=Z,12nm,0.1s | | | | | | |
| **LEGS** | **Legarje** | **0.82** | **38** | *i* Pg | **Pg** | **19 50 58.7** | **-0.3** |
| LEGS | | | | *e*Sg | **Sg** | **19 51 09.4** | **-0.3** |
| **LEGS** | **Legarje** | **0.82** | **38** | *i* Pg | **Pg** | **19 50 58.7** | **-0.3** |
| LEGS | | | | *e*Sg | **Sg** | **19 51 09.4** | **-0.3** |
| **VOJS** | **Vojsko** | **0.88** | **326** | *i* Pg | **Pg** | **19 50 59.1** | **-1.0** |
| | comp=Z,16nm,0.2s | | | | | | |
| **VOJS** | **Vojsko** | **0.88** | **326** | *i* Pg | **Pg** | **19 50 59.1** | **-1.0** |
| | comp=Z,16nm,0.2s | | | | | | |
| **GCIS** | **Gornji Cirnik** | **0.92** | **52** | *e*Sg | **Sg** | **19 51 12.9** | **0.0** |
| | comp=Z,7.0nm,0.2s | | | | | | |
| **GCIS** | **Gornji Cirnik** | **0.92** | **52** | *e*Sg | **Sg** | **19 51 12.9** | **0.0** |
| | comp=Z,7.0nm,0.2s | | | | | | |
| **SABO** | **M.te Sabotino** | **0.97** | **315** | *e*Pg | **Pg** | **19 51 00.6** | **-1.2** |
| SABO | | | | *e*Sg | **Sn** | **19 51 16.0** | **-1.1** |
| **SABO** | **M.te Sabotino** | **0.97** | **315** | *e*Pg | **Pg** | **19 51 00.6** | **-1.2** |
| SABO | | | | *e*Sg | **Sn** | **19 51 16.0** | **-1.1** |
| **MOZS** | **Mozjanca** | **0.99** | **354** | *i* Pg | **Pb** | **19 51 02.7** | **0.0** |
| **MOZS** | **Mozjanca** | **0.99** | **354** | *i* Pg | **Pb** | **19 51 02.7** | **0.0** |
| **GOLS** | **Golise** | **1.01** | **45** | *e*Pg | **Pb** | **19 51 03.1** | **+0.1** |
| | comp=Z,50nm,0.4s | | | | | | |
| **GOLS** | **Golise** | **1.01** | **45** | *e*Pg | **Pb** | **19 51 03.1** | **+0.1** |
| | comp=Z,50nm,0.4s | | | | | | |
| **DRE** | **Drenchia** | **1.09** | **323** | *e*Pg | **Pg** | **19 51 03.4** | **-0.8** |
| DRE | | | | *e*Sg | **Sn** | **19 51 20.9** | **+0.7** |
| **DRE** | **Drenchia** | **1.09** | **323** | *e*Pg | **Pg** | **19 51 03.4** | **-0.8** |
| DRE | | | | *e*Sg | **Sn** | **19 51 20.9** | **+0.7** |
| **GORS** | **Gorjuse** | **1.09** | **338** | *e*Pg | **Pn** | **19 51 04.3** | **-0.7** |
| GORS | | | | *e*Sg | **Sn** | **19 51 20.3** | **-0.1** |
| | comp=Z,16nm,0.2s | | | | | | |
| **GORS** | **Gorjuse** | **1.09** | **338** | *e*Pg | **Pn** | **19 51 04.3** | **-0.7** |
| GORS | | | | *e*Sg | **Sn** | **19 51 20.3** | **-0.1** |
| | comp=Z,16nm,0.2s | | | | | | |
| **UDBI** | **Udbina** | **1.14** | **133** | *e*Pg | **Pn** | **19 51 05.5** | **-0.1** |
| UDBI | | | | Sg | **Sn** | **19 51 21.3** | **-0.2** |
| **UDBI** | **Udbina** | **1.14** | **133** | *e*Pg | **Pn** | **19 51 05.4** | **-0.1** |
| UDBI | | | | Sg | **Sn** | **19 51 21.2** | **-0.2** |
| **COLI** | **Coloredo** | **1.19** | **315** | *e*Pg | **Pn** | **19 51 05.9** | **-0.2** |
| **COLI** | **Coloredo** | **1.19** | **315** | *e*Pg | **Pn** | **19 51 05.9** | **-0.2** |
| **OBKA** | **Obir** | **1.20** | **359** | Pg | **Pn** | **19 51 06.4** | **-0.1** |
| | comp=Z,3.0nm,0.2s | | | | | | |
| OBKA | | | | Sg | **Sn** | **19 51 23.6** | **+0.5** |
| | comp=Z,19nm,0.3s | | | | | | |
| **VINO** | **Villanova** | **1.32** | **317** | *e*Pg | **Pg** | **19 51 08.7** | **+0.2** |
| VINO | | | | *e*Sg | **Sn** | **19 51 29.6** | **+3.8** |
| **VINO** | **Villanova** | **1.32** | **317** | *e*Pg | **Pg** | **19 51 08.7** | **+0.2** |
| VINO | | | | *e*Sg | **Sn** | **19 51 29.6** | **+3.8** |
| **BAD** | **Bernadia** | **1.32** | **315** | *e*Pg | **Pg** | **19 51 08.6** | **0.0** |
| **BAD** | **Bernadia** | **1.32** | **315** | *e*Pg | **Pg** | **19 51 08.6** | **0.0** |
| **PRED** | **Cave del Predi** | **1.34** | **328** | *e*Pg | **Pb** | **19 51 08.3** | **-0.4** |
| **PRED** | **Cave del Predi** | **1.34** | **328** | *e*Pg | **Pb** | **19 51 08.3** | **-0.4** |
| **SOKA** | **Soboth** | **1.41** | **13** | Pg | **Pb** | **19 51 09.4** | **-0.4** |
| | comp=Z,0.7nm,0.2s | | | | | | |
| SOKA | | | | Sg | **Sg** | **19 51 28.9** | **+0.4** |
| | comp=Z,3.5nm,0.2s | | | | | | |
| **ACOM** | **Acomizza, Ital** | **1.45** | **329** | *e*Pg | **Pg** | **19 51 10.8** | **-0.3** |
| **ACOM** | **Acomizza, Ital** | **1.45** | **329** | *e*Pg | **Pg** | **19 51 10.8** | **-0.3** |
| **MYKA** | **Terra Mystica** | **1.48** | **334** | Pg | **Pg** | **19 51 11.8** | **+0.2** |
| | comp=Z,1.1nm,0.2s | | | | | | |
| MYKA | | | | Sg | **Sg** | **19 51 33.4** | **+2.6** |
| | comp=Z,6.4nm,0.2s | | | | | | |
| **FUSE** | **Fusea** | **1.57** | **316** | *e*Pg | **Pg** | **19 51 13.1** | **-0.2** |
| **FUSE** | **Fusea** | **1.57** | **316** | *e*Pg | **Pg** | **19 51 13.1** | **-0.2** |
| **POLC** | **Polcenigo** | **1.63** | **297** | *e*Pg | **Pg** | **19 51 13.8** | **-0.7** |
| **POLC** | **Polcenigo** | **1.63** | **297** | *e*Pg | **Pg** | **19 51 13.8** | **-0.7** |
| **CLUD** | **Cludinico** | **1.66** | **315** | *e*Pg | **Pg** | **19 51 14.3** | **-0.7** |
| **CLUD** | **Cludinico** | **1.66** | **315** | *e*Pg | **Pg** | **19 51 14.3** | **-0.7** |
| **CIMO** | **Cimolais** | **1.81** | **305** | *e*Pn | **Pb** | **19 51 15.6** | **-1.0** |
| **CIMO** | **Cimolais** | **1.81** | **305** | *e*Pn | **Pb** | **19 51 15.6** | **-1.0** |
| **KBA** | **Koelnbreinsper** | **1.97** | **334** | Pg | **Pg** | **19 51 20.8** | **-0.2** |
| | comp=Z,0.2nm,0.1s | | | | | | |
| KBA | | | | Sg | **Sg** | **19 51 47.5** | **+0.9** |
| | comp=Z,5.7nm,0.5s | | | | | | |
| **ABTA** | **Abfaltersbach** | **2.04** | **316** | Pg | **Pg** | **19 51 21.0** | **-1.3** |
| | comp=Z,0.6nm,0.1s | | | | | | |
| ABTA | | | | Sg | **Sg** | **19 51 50.4** | **+1.6** |
| | comp=Z,2µm,0.0s | | | | | | |
| **STON** | **Ston** | **3.31** | **136** | *e*Pn | **Pn** | **19 51 38.2** | **+3.0** |
| **STON** | **Ston** | **3.31** | **136** | *e*Pn | **Pn** | **19 51 38.2** | **+3.0** |

*IDC **28** 19:54:18.6±0.9,38°.08S×75°.33W,h0km,mb4.3/9, mb1 4.4/11,mb1mx4.3/25,mbtmp4.2/11,ML4.2/2,MS3.7/5, Ms1 3.7/5,ms1mx3.3/20,Error ellipse: s-maj=34.9km s-min=21.1km az=50.0*

*GUC **28** 19:54:22.9±0.4,37°.88S×75°.04W,h23km±5km,ML4.2*

*ISCJB **28** 19:54:23.3±0.3,37°.81S±0°.03×75°.11W±0°.04,h33km, mb4.7/32,MS3.3/3,Error ellipse: s-maj=4.5km s-min=3.8km az=42.7*

*NEIC **28** 19:54:24.9±1.2,37°.94S×75°.06W,h36km±9km,mb4.9/27, Error ellipse: s-maj=12.5km s-min=5.8km az=68.0*

**ISC 28 19:54:24.8±0.5,37°.82S±0°.04×75°.22W±0°.07,h35km,n101, σ1℁10/112,mb4.8/32,MS3.2/3,1C-4D,Off coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CCSP** | **San Pedro de C** | **1.94** | **61** | *e*S | **Sn** | **19 55 16.6** | **-1.9** |
| CCSP | | | | IAML | | 19 55 21.6 | |
| | comp=N,3µm,0.4s | | | | | | |
| **TMU** | **Temuco** | **2.25** | **115** | ⇓*i*P | **Pn** | **19 54 57.9** | **-1.7** |
| TMU | | | | *i* S | **Sn** | **19 55 24.2** | **-2.0** |
| TMU | | | | IAML | | 19 55 25.5 | |
| | comp=N,1µm,0.6s | | | | | | |
| **COCH** | **Cobquecura** | **2.58** | **50** | *e*P | **Pn** | **19 55 03.4** | **-0.6** |
| **COCH** | **Cobquecura** | **2.58** | **50** | *e*P | **Pn** | **19 55 02.8** | **-1.1** |
| COCH | | | | *i* S | **Sn** | **19 55 33.0** | **-1.1** |
| COCH | | | | IAML | | 19 55 36.4 | |
| | comp=E,1µm,0.5s | | | | | | |
| **CCHI** | **Chillan** | **2.79** | **65** | *e*P | **Pn** | **19 55 07.7** | **+0.8** |
| **CCHI** | **Chillan** | **2.79** | **65** | ⇓*i*P | **Pn** | **19 55 08.3** | **+1.4** |
| CCHI | | | | *i* S | **Sn** | **19 55 40.5** | **+1.2** |
| CCHI | | | | IAML | | 19 55 44.1 | |
| | comp=N,2µm,0.3s | | | | | | |
| **CANA** | **Caviahue** | **3.29** | **92** | *e*P | **Pn** | **19 55 14.2** | **+0.2** |
| CANA | | | | *e*S | **Sn** | **19 55 54.2** | **+2.2** |
| **GO05** | **HualaæØ** | **3.86** | **44** | *e*Pn | **Pn** | **19 55 20.2** | **-1.5** |
| **GO05** | **HualaæØ** | **3.86** | **44** | *e*P | **Pn** | **19 55 20.2** | **-1.5** |
| GO05 | | | | *e*S | **Sn** | **19 56 05.3** | **-0.6** |
| **GO05** | **HualaæØ** | **3.86** | **44** | ⇓*i*P | **Pn** | **19 55 20.4** | **-1.3** |
| GO05 | | | | *i* S | **Sn** | **19 56 05.1** | **-0.8** |
| **PLCA** | **Paso Flores** | **4.65** | **130** | Pn | **Pn** | **19 55 30.9** | **-1.6** |
| | comp=N,1.8nm,0.3s,baz=311,slow=5.5,SNR=51 | | | | | | |
| PLCA | | | | Sn | **Sn** | **19 56 26.4** | **+1.2** |
| | comp=N,11nm,0.3s,baz=357,slow=20,SNR=9.0 | | | | | | |
| **PLCA** | **Paso Flores** | **4.65** | **130** | *e*Pn | **Pn** | **19 55 30.5** | **-2.1** |
| PLCA | | | | Sn | **Sn** | **19 56 26.4** | **+1.2** |
| **PLCA** | **Paso Flores** | **4.65** | **130** | ⇓*e*P | **Pn** | **19 55 31.3** | **-1.3** |
| PLCA | | | | ⇓*e*S | **Sn** | **19 56 27.0** | **+1.7** |
| **RCDM** | **Rinconada Maip** | **5.62** | **41** | *e*P | **Pn** | **19 55 45.0** | **-0.9** |
| RCDM | | | | *e*S | **Sn** | **19 56 48.8** | **-0.4** |
| **LMEL** | **Las Melosas** | **5.69** | **47** | *e*P | **Pn** | **19 55 46.5** | **-0.4** |
| LMEL | | | | *e*S | **Sn** | **19 56 51.0** | **0.0** |
| **ROC1** | **El Roble** | **5.93** | **37** | *e*Pn | **Pn** | **19 55 51.9** | **+1.6** |
| **PEL** | **Peldehue** | **5.95** | **40** | *e*Pn | **Pn** | **19 55 49.7** | **-0.8** |
| **PEL** | **Peldehue** | **5.95** | **40** | *e*P | **Pn** | **19 55 49.9** | **-0.6** |
| PEL | | | | *i* S | **Sn** | **19 56 57.1** | **-0.5** |
| **FCH** | **Farellones** | **6.02** | **43** | *e*P | **Pn** | **19 55 50.7** | **-0.9** |
| FCH | | | | *i* S | **Sn** | **19 57 00.2** | **+0.7** |
| **AUSP** | **Uspallata** | **7.35** | **42** | *e*P | **Pn** | **19 56 10.2** | **+0.3** |
| AUSP | | | | *e*S | **Sn** | **19 57 31.6** | **-0.7** |
| **RTLS** | **Leoncito** | **7.73** | **41** | *e*P | **Pn** | **19 56 15.5** | **+0.3** |
| RTLS | | | | IAML | | 19 56 18.0 | |
| | comp=Z,55nm,0.5s | | | | | | |
| **RTCV** | **Cerro Valdivia** | **8.09** | **45** | *e*P | **Pn** | **19 56 20.1** | **+0.3** |
| **RTLL** | **Cerro Villicun** | **8.53** | **43** | *e*P | **Pn** | **19 56 24.9** | **-1.0** |
| RTLL | | | | IAML | | 19 56 35.1 | |
| | comp=Z,65nm,0.4s | | | | | | |
| **ACAN** | **Cantantal** | **8.60** | **52** | *e*P | **Pn** | **19 56 26.5** | **-0.3** |
| **AMOG** | **MOGNA** | **8.83** | **41** | *e*P | **Pn** | **19 56 28.7** | **-1.3** |
| **LCO** | **Las Campanas** | **9.56** | **25** | *e*Pn | **Pn** | **19 56 37.4** | **-2.8** |
| **AGUA** | **GUANDACOL** | **10.02** | **36** | *e*P | **Pn** | **19 56 45.7** | **-0.7** |
| **TRQA** | **Tornquist** | **10.46** | **95** | *e*Pn | **Pn** | **19 56 50.6** | **-1.7** |
| **VCA** | **Vinchina** | **10.79** | **35** | IAML | | 19 57 17.6 | |
| | comp=Z,14nm,0.3s | | | | | | |
| **TCA** | **Tanti** | **10.88** | **57** | IAML | | 19 56 59.7 | |
| | comp=Z,7.7nm,0.5s | | | | | | |
| **USHA** | **Ushuaia** | **17.63** | **167** | LR | LR | 20 04 58.0 | |
| | comp=Z,930nm,18.7s,baz=254,slow=37 | | | | | | |
| **CPUP** | **Villa Florida** | **18.97** | **58** | P | **P** | **19 58 44.1** | **+1.1** |
| | comp=Z,0.3nm,0.3s,baz=241,slow=11,SNR=5.9 | | | | | | |
| CPUP | | | | LR | LR | 20 06 12.4 | |
| | comp=Z,267nm,22.0s,baz=236,slow=37 | | | | | | |
| **MNMC** | **Minye Minye** | **19.26** | **16** | *e*P | **Pn** | **19 58 49.0** | **+1.3** |
| | comp=Z,15nm,0.9s | | | | | | |
| **LPAZ** | **La Paz** | **22.34** | **18** | P | **P** | **19 59 22.2** | **+1.9** |
| | comp=Z,4.8nm,0.9s,baz=170,slow=9.6,SNR=9.1 | | | | | | |
| **LPAZ** | **La Paz** | **22.34** | **18** | *e*P | **P** | **19 59 21.9** | **+1.6** |
| | comp=Z,20nm,1.5s | | | | | | |
| **SIV** | **San Ignacio** | **25.08** | **34** | LR | LR | 20 11 25.2 | |
| | comp=Z,64nm,19.4s,baz=310,slow=40 | | | | | | |
| **NNA** | **Nana** | **25.77** | **356** | LR | LR | 20 08 27.1 | |
| | comp=Z,59nm,18.1s,baz=177,slow=33 | | | | | | |
| **RUSC** | **La Rusia** | **43.53** | **3** | *e*P | **P** | **20 02 26.3** | **+0.6** |
| | comp=Z,12nm,1.5s | | | | | | |
| **VNA2** | **Neumayer--Watz** | **47.55** | **156** | P | **P** | **20 02 55.8** | **-0.5** |
| | baz=273,slow=7.2 | | | | | | |
| **SNAA** | **Sanae** | **49.07** | **156** | P | **P** | **20 03 07.3** | **-0.9** |
| **SNAA** | **Sanae** | **49.07** | **156** | *e*P | **P** | **20 03 07.2** | **-1.0** |
| | comp=Z,24nm,1.1s | | | | | | |
| **QSPA** | **South Pole Qui** | **52.42** | **180** | *e*P | **P** | **20 03 32.3** | **-1.3** |
| | comp=Z,23nm,1.1s | | | | | | |
| **VNDA** | **Vanda** | **59.84** | **192** | *e*P | **P** | **20 04 26.2** | **+0.1** |
| | comp=Z,9.2nm,1.4s | | | | | | |
| **LTX** | **Lajitas** | **71.92** | **334** | *e*P | **P** | **20 05 45.2** | **+0.8** |
| **TXAR** | **Lajitas Array** | **71.92** | **334** | P | **P** | **20 05 45.2** | **+0.8** |
| | comp=Z,2.2nm,0.8s,baz=153,slow=7.8,SNR=17 | | | | | | |
| TXAR | | | | LR | LR | 20 31 08.6 | |
| | comp=Z,47nm,21.4s,baz=0.0,slow=31 | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **71.92** | **334** | *e*P | **P** | **20 05 44.9** | **+0.5** |
| **SWET** | **Sewanee** | **73.35** | **351** | *e*P | **P** | **20 05 53.5** | **+0.7** |
| | comp=Z,62nm,1.6s | | | | | | |
| **X301** | **Greenbrier Sit** | **74.42** | **345** | *e*P | **P** | **20 05 59.6** | **+0.7** |
| | comp=Z,54nm,1.9s | | | | | | |
| **MNTX** | **Cornudas Mount** | **74.67** | **334** | *e*P | **P** | **20 05 59.6** | **-1.0** |
| | comp=Z,16nm,1.9s | | | | | | |
| **V36A** | **Jeks** | **75.72** | **343** | *e*P | **P** | **20 06 06.8** | **+0.4** |
| | comp=Z,51nm,1.6s | | | | | | |
| **HHAR** | **Hobbs** | **75.74** | **344** | *e*P | **P** | **20 06 07.2** | **+0.5** |
| | comp=Z,13nm,0.6s | | | | | | |
| **CCM** | **Cathedral Cave** | **76.94** | **347** | *e*P | **P** | **20 06 13.7** | **+0.4** |
| | comp=Z,19nm,1.1s | | | | | | |
| **ANMO** | **Albuquerque** | **77.99** | **334** | *e*P | **P** | **20 06 20.3** | **+0.8** |
| | comp=Z,7.7nm,1.3s | | | | | | |
| **DBIC** | **Dimbokro** | **78.82** | **72** | P | **P** | **20 06 23.5** | **-0.9** |
| | comp=Z,6.4nm,1.1s,baz=245,slow=3.2,SNR=3.6 | | | | | | |
| **DBIC** | **Dimbokro** | **78.82** | **72** | *e*P | **P** | **20 06 23.5** | **-0.9** |
| | comp=Z,42nm,1.6s | | | | | | |
| **BOSA** | **Boshof** | **80.54** | **119** | P | **P** | **20 06 32.6** | **-1.2** |
| | comp=Z,4.2nm,0.9s,baz=194,slow=6.0,SNR=3.2 | | | | | | |
| **XPFO** | **Piæon Flat** | **80.76** | **326** | *e*P | **P** | **20 06 35.8** | **+1.2** |
| | comp=Z,7.1nm,0.9s | | | | | | |
| **PFO** | **Pinyon Flats O** | **80.76** | **326** | *e*P | **P** | **20 06 35.9** | **+1.2** |
| | comp=Z,6.7nm,0.9s | | | | | | |
| **W13A** | **Hualapai Mount** | **80.94** | **329** | *e*P | **P** | **20 06 37.5** | **+1.8** |
| | comp=Z,2.9nm,1.0s | | | | | | |
| **LBTB** | **Lobatse** | **83.00** | **116** | P | **P** | **20 06 46.2** | **-0.6** |
| | comp=Z,2.5nm,0.6s,baz=258,slow=3.2,SNR=5.5 | | | | | | |
| **LBTB** | **Lobatse** | **83.00** | **116** | *e*P | **P** | **20 06 46.2** | **-0.6** |
| | comp=Z,42nm,1.9s | | | | | | |
| **SRU** | **San Rafael Swe** | **83.16** | **333** | *e*P | **P** | **20 06 47.6** | **+0.5** |
| | comp=Z,19nm,0.9s | | | | | | |
| **ECSD** | **EROS Data Cent** | **83.46** | **345** | *e*P | **P** | **20 06 49.0** | **+0.6** |
| | comp=Z,18nm,1.2s | | | | | | |
| **DAC** | **Darwin (Calif)** | **83.51** | **327** | *e*P | **P** | **20 06 50.8** | **+1.7** |
| | comp=Z,4.7nm,1.1s | | | | | | |
| **KOWA** | **Kowa** | **84.53** | **67** | *e*P | **P** | **20 06 55.2** | **+0.8** |
| | comp=Z,9.3nm,1.0s | | | | | | |
| **DUG** | **Dugway, Tooele** | **84.94** | **332** | *e*P | **P** | **20 06 57.1** | **+1.0** |
| | comp=Z,12nm,1.3s | | | | | | |
| **NV01** | **Mina Array Sit** | **85.62** | **327** | *e*P | **P** | **20 07 00.6** | **+0.9** |
| **NVAR** | **Mina Array Bea** | **85.62** | **327** | P | **P** | **20 07 00.6** | **+0.9** |
| | comp=Z,0.3nm,0.5s,baz=161,slow=6.5,SNR=4.7 | | | | | | |
| **SPUT** | **South Promonto** | **85.79** | **333** | *e*P | **P** | **20 07 02.2** | **+1.9** |
| | comp=Z,12nm,1.1s | | | | | | |
| **PD31** | **Pinedale Array** | **86.08** | **335** | *e*P | **P** | **20 07 02.1** | **+0.3** |
| **PDAR** | **Pinedale Array** | **86.08** | **335** | P | **P** | **20 07 02.1** | **+0.3** |
| | comp=Z,5.3nm,1.1s,baz=132,slow=4.2,SNR=4.3 | | | | | | |
| **PDAR** | **Pinedale Array** | **86.08** | **335** | *e*P | **P** | **20 07 02.3** | **+0.5** |
| **AGMN** | **Agassiz Nation** | **87.69** | **346** | *e*P | **P** | **20 07 09.0** | **-0.3** |
| | comp=Z,5.9nm,0.8s | | | | | | |
| **BEKR** | **Beckworth** | **87.70** | **327** | *e*P | **P** | **20 07 09.9** | **+0.1** |
| | comp=Z,11nm,0.5s | | | | | | |
| **TORD** | **Tordi Ar. Bea** | **87.90** | **72** | P | **P** | **20 07 10.7** | **-0.3** |
| | comp=Z,0.6nm,0.7s,baz=232,slow=4.9,SNR=10 | | | | | | |
| **TOA1** | **Tordi Ar. Sit** | **87.90** | **72** | *e*P | **P** | **20 07 10.7** | **-0.4** |
| **HLID** | **Hailey** | **88.46** | **333** | *e*P | **P** | **20 07 14.6** | **+1.3** |
| | comp=Z,17nm,1.5s | | | | | | |
| **MCMT** | **McKenzie Canyo** | **89.01** | **334** | *e*P | **P** | **20 07 18.4** | **+2.5** |
| **ULM** | **Lac du Bonnet** | **89.57** | **347** | P | **P** | **20 07 17.2** | **-0.9** |
| | comp=Z,2.7nm,0.8s,baz=154,slow=3.3,SNR=5.3 | | | | | | |
| **YKA** | **Yellowknife Ar** | **104.87** | **342** | Pdiff | **Pdif** | **20 08 27.0** | **0.0** |
| | comp=Z,0.2nm,0.7s,baz=148,slow=4.0,SNR=4.6 | | | | | | |
| **GEC2** | **GERESS Array S** | **116.65** | **48** | *e*PKPdf | **PKPdf** | **20 13 04.0** | **-0.7** |
| **GERES** | **GERESS Array B** | **116.65** | **48** | PKP | **PKPdf** | **20 13 04.0** | **-0.7** |
| | comp=Z,0.2nm,0.5s,baz=161,slow=4.2,SNR=2.4 | | | | | | |
| **BR101** | **Keskin Array S** | **125.88** | **64** | *e*PKPdf | **PKPdf** | **20 13 22.5** | **-0.4** |
| **BRTR** | **Keskin Array B** | **125.88** | **64** | PKP | **PKPdf** | **20 13 22.5** | **-0.4** |
| | comp=Z,1.1nm,1.0s,baz=48,slow=3.7,SNR=3.9 | | | | | | |
| **GEYT** | **Alibeck** | **143.47** | **75** | PKP | PKPab | 20 13 52.6 | +0.8 |
| | comp=Z,1.9nm,0.7s,baz=222,slow=2.0,SNR=7.2 | | | | | | |
| **PSI** | **Prapat** | **144.74** | **170** | *e*PKPdf | **PKPab** | **20 13 56.0** | **-1.4** |
| **ABKAR** | **Akbulak array** | **146.02** | **56** | *e*PKPdf | **PKPdf** | **20 13 59.8** | **+0.3** |
| **YAK** | **Yakutsk** | **151.30** | **336** | *e*PKPbc | **PKPbc** | **20 14 13.4** | **-0.3** |
| **ZAA1** | **Zalesovo Array** | **158.83** | **34** | *e*PKPdf | **PKPdf** | **20 14 16.9** | **-1.3** |
| ZAA1 | | | | *e*PKPab | **PKPab** | **20 14 54.8** | **+0.7** |
| **ZALV** | **Zalesovo Beam** | **158.83** | **34** | PKPdf | **PKPdf** | **20 14 16.9** | **-1.3** |
| | comp=Z,0.3nm,0.3s,baz=293,slow=4.2,SNR=4.8 | | | | | | |
| ZALV | | | | PKPab | **PKPab** | **20 14 54.8** | **+0.6** |
| | comp=Z,2.8nm,0.8s,baz=302,slow=5.7,SNR=10 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **158.83** | **34** | *e*PKPdf | **PKPdf** | **20 14 17.3** | **-0.8** |
| ZALV | | | | PKPab | **PKPab** | **20 14 54.8** | **+0.6** |
| **CMAR** | **Chiang Mai Arr** | **160.04** | **164** | PKPab | **PKPab** | **20 14 58.8** | **-1.5** |
| | comp=Z,0.8nm,0.9s,baz=236,slow=6.1,SNR=4.7 | | | | | | |
| **MAKZ** | **Makanchi** | **160.95** | **55** | *e*PKPdf | **PKPdf** | **20 14 21.2** | **+0.4** |
| **MK31** | **Makanchi Array** | **161.16** | **54** | *e*PKPdf | **PKPdf** | **20 14 21.2** | **+0.2** |
| **MK32** | **Makanchi Array** | **161.16** | **54** | *e*PKPdf | **PKPdf** | **20 14 19.4** | **-1.6** |
| **MKAR** | **Makanchi Array** | **161.16** | **54** | PKP | **PKPdf** | **20 14 19.4** | **-1.6** |
| | comp=Z,1.0nm,0.9s,baz=270,slow=1.2,SNR=6.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **161.16** | **54** | *e*PKPdf | **PKPdf** | **20 14 21.2** | **+0.2** |
| **MK01** | **Makanchi Array** | **161.17** | **55** | *e*PKPdf | **PKPdf** | **20 14 20.8** | **-0.3** |
| **LSA** | **Lhasa** | **166.08** | **122** | *e*PKPab | **PKPab** | **20 15 27.2** | **-0.1** |
| **SONA0** | **Songino Array** | **169.92** | **354** | *e*PKPab | **PKPab** | **20 15 44.7** | **+1.5** |
| **SONM** | **Songino Array** | **169.92** | **354** | PKPab | **PKPab** | **20 15 44.7** | **+1.5** |
| | comp=Z,0.7nm,1.0s,baz=25,slow=1.2,SNR=3.7 | | | | | | |

**MEX 28 19:54:44.9±0.3,32°.26N×115°.15W,h21km±14km,MD3.5, California-Baja California border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SPIG** | **San Pedro Mart** | **1.24** | **193** | *e*P | Pn | 19 55 04.2 | -3.1 |
| SPIG | | | | *e*S | Sb | 19 55 19.2 | -4.2 |
| **CBX** | **Cerro Bola** | **1.29** | **273** | *e*P | Pn | 19 55 04.8 | -3.0 |
| **TJIG** | **Tijuana** | **1.31** | **278** | *e*P | Pn | 19 55 04.6 | -3.3 |

*IDC **28** 20:04:48.3±11.0,6°.26S×130°.39E,h66km±110km,mb3.5/5, mb1 3.7/7,mb1mx3.5/30,mbtmp3.9/7,ML4.1/2,Error ellipse: s-maj=114.2km s-min=30.0km az=58.0*

*DJA **28** 20:04:52.7±1.2,6°.5S×13°.1E±1°.0,h189km±26km,M4.2/3, mB4.9/1,mb4.2/3,MLv4.2/3,Mw(mB)4.2/1*

*ISCJB **28** 20:04:53.0±0.4,6°.45S±0°.04×130°.51E±0°.07,h150km, mb3.7/6,Error ellipse: s-maj=9.6km s-min=5.1km az=166.8*

*NEIC **28** 20:04:56.9±0.7,6°.68S×130°.36E,h167km±8km,mb4.2/3, Error ellipse: s-maj=14.2km s-min=7.1km az=62.0*

**ISC 28 20:04:55.0±0.7,6°.59S±0°.06×130°.43E±0°.08,h150km,n40, σ2℁00/39,mb3.7/6,Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SAUI** | **Saumlaki** | **1.63** | **148** | P | **Pn** | **20 05 28.6** | **+2.6** |
| **SAUI** | **Saumlaki** | **1.63** | **148** | *e*Pn | **Pn** | **20 05 28.6** | **+2.6** |
| **BNDI** | **Bandanaira** | **2.12** | **346** | P | **Sn** | **20 05 55

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | SNR=90 | | | | | | | | |
| **PUK** | **Puka** | **0.92** | **356** | *i* PG | | **Pg** | **20 10 14.2** | **-0.9** |
| PUK | | | | *i* SG | | **Sn** | **20 10 28.9** | **-0.8** |
| **PUK** | **Puka** | **0.92** | **356** | *i* Pg | | **Pg** | **20 10 14.2** | **-0.9** |
| | SNR=90 | | | | | | | | |
| PUK | | | | *i* Sg | | **Sn** | **20 10 28.9** | **-0.8** |
| **KRUS** | **Krusevo** | **0.98** | **75** | *i* Pg | | **Pb** | **20 10 15.8** | **-0.6** |
| KRUS | | | | *i* Sg | | **Sb** | **20 10 29.7** | **+0.2** |
| **BIA** | **Bitola** | **1.02** | **95** | *i* Pg | | **Pn** | **20 10 17.5** | **-0.1** |
| BIA | | | | *i* Sg | | **Sn** | **20 10 32.6** | **+0.6** |
| **SKO** | **Skopje** | **1.38** | **52** | *i* Pg | | **Pb** | **20 10 22.4** | **-0.8** |
| SKO | | | | *i* Sg | | **Sn** | **20 10 40.5** | **-0.5** |
| **PDG** | **Podgorica** | **1.42** | **337** | *e*Pg | | **Pg** | **20 10 23.6** | **-0.9** |
| PDG | | | | *e*Sg | | **Sg** | **20 10 45.2** | **+2.3** |
| **PDG** | **Podgorica** | **1.42** | **337** | *e*Pg | | **Pg** | **20 10 23.6** | **-0.9** |
| PDG | | | | *e*Sg | | **Sg** | **20 10 45.2** | **+2.3** |
| **VAY** | **Valandovo** | **1.96** | **83** | *e*Sg | | **Sg** | **20 11 00.2** | **-0.1** |
| **VAY** | **Valandovo** | **1.96** | **83** | *e*Sg | | **Sg** | **20 11 00.2** | **-0.1** |
| **TREB** | **Trebinje** | **2.01** | **323** | *e*Pn | | **Pb** | **20 10 33.2** | **-0.7** |
| TREB | | | | *e*Sn | | **Sg** | **20 11 01.4** | **-0.5** |
| **TREB** | **Trebinje** | **2.01** | **323** | *e*Pn | | **Pb** | **20 10 33.2** | **-0.7** |
| TREB | | | | *e*Sn | | **Sg** | **20 11 01.4** | **-0.5** |
| **SJES** | **Sjenica** | **2.14** | **360** | *e*Pn | | **Pb** | **20 10 36.1** | **-0.1** |
| SJES | | | | *e*Sg | | **Sg** | **20 11 06.4** | **+0.4** |
| **SJES** | **Sjenica** | **2.14** | **360** | *e*Pn | | **Pb** | **20 10 36.1** | **-0.1** |
| SJES | | | | *e*Sg | | **Sg** | **20 11 06.4** | **+0.4** |
| **ZAPS** | **Zavoj** | **2.91** | **42** | *e*Pn | | **Pn** | **20 10 45.8** | **+2.1** |

*NIED* ***28*** *20:30:00, 30.˙10N× 131.˙90E, h8km, Mw3.8 Best double couple: M₀5.46000×10¹⁴ NP1:φ₀25.00000°, δ40.00000°, λ-124.00000°. NP2:φ₀246.00000°, δ58.00000°, λ-65.00000°.*

*IDC* ***28*** *20:30:04.2± 1.2, 30.˙01N× 131.˙77E, h0km, mb3.5/4, mb1 3.6/7, mb1mx3.4/61, mbtmp3.5/7, ML3.5/4, MS3.0/2, Ms1 3.0/2, ms1mx2.5/44, Error ellipse: s-maj=47.2km s-min=18.6km az=81.0*

*ISCJB* ***28*** *20:30:05.8± 1.7, 30.˙06N±0.˙03× 131.˙90E±0.˙05, h29km± 15km, mb3.4/4, MS3.3/1, Error ellipse: s-maj=7.5km s-min=5.1km az=22.8*

*JMA* ***28*** *20:30:06.6± 0.2, 30.˙07N× 131.˙90E, h49km± 5km, M4.0*

**ISC 28 20:30:05.2±3.3, 30.˙09N±0.˙05×131.˙90E±0.˙06, h15km±21km, n23, σ1§48/36, mb3.5/4, 6C-2D, Kyushu**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **JTN** | **Tanegashima 3** | **0.98** | **306** | ⇑P | | **Pn** | **20 30 24.2** | **-0.3** |
| JTN | | | | S | | **Sn** | **20 30 37.9** | **-0.3** |
| **JYAK** | **Yakushimahirau** | **1.22** | **278** | P | | **Pn** | **20 30 27.3** | **-0.5** |
| JYAK | | | | S | | **Sb** | **20 30 42.2** | **-1.4** |
| **JTSR** | **Tashiro 2** | **1.37** | **322** | P | | **Pb** | **20 30 29.9** | **-0.8** |
| JTSR | | | | S | | **Sb** | **20 30 47.1** | **-0.9** |
| **JKC** | **Kuchinoerabu** | **1.52** | **285** | P | | **Pb** | **20 30 33.0** | **-0.2** |
| JKC | | | | S | | **Sn** | **20 30 51.1** | **-0.5** |
| **JNAR** | **Kushima--Naru** | **1.54** | **339** | ⇑P | | **Pb** | **20 30 32.6** | **-0.9** |
| JNAR | | | | S | | **Sn** | **20 30 51.0** | **-0.9** |
| **JNN** | **Nakanoshima** | **1.78** | **263** | P | | **Pn** | **20 30 35.7** | **+0.2** |
| JNN | | | | *e*S | | **Sn** | **20 30 57.5** | **-0.4** |
| **JTZ** | **Takazaki** | **1.94** | **339** | ⇑P | | **Pn** | **20 30 38.4** | **+0.6** |
| JTZ | | | | S | | **Sn** | **20 31 01.3** | **-0.6** |
| **JSJ** | **Shimokoshiki** | **2.46** | **311** | ⇑P | | **Pn** | **20 30 43.8** | **-1.1** |
| JSJ | | | | S | | **Sn** | **20 31 12.5** | **-2.3** |
| **JTAJ** | **Takarajima** | **2.53** | **249** | P | | **Pn** | **20 30 46.1** | **+0.3** |
| JTAJ | | | | S | | **Sn** | **20 31 15.5** | **-0.9** |
| **JAM** | **Amami Oshima** | **2.61** | **231** | ⇓P | | **Pn** | **20 30 46.4** | **-0.5** |
| JAM | | | | S | | **Sn** | **20 31 15.9** | **-2.5** |
| **JIU2** | **Izumi 2** | **2.62** | **339** | ⇑P | | **Pn** | **20 30 47.8** | **+0.7** |
| JIU2 | | | | S | | **Sn** | **20 31 19.3** | **+0.5** |
| **JTO** | **Tosashimizu** | **2.87** | **15** | ⇑P | | **Pn** | **20 30 49.8** | **-0.7** |
| JTO | | | | S | | **Sn** | **20 31 20.6** | **-4.2** |
| **JAMN** | **Amaminishikomi** | **3.01** | **233** | P | | **Pn** | **20 30 52.0** | **-0.4** |
| **JNU** | **Nakatsue** | **3.15** | **344** | Pn | | **Pn** | **20 30 55.5** | **+1.0** |
| | 37nn,0.3s,baz=153,slow=6.8,SNR=14 | | | | | | | |
| JNU | | | | | | **Sn** | **20 31 32.2** | **+0.4** |
| | 2.7nm,0.3s,baz=330,slow=20,SNR=4.2 | | | | | | | |
| **UWA2** | **Uwa jima 2** | **3.18** | **11** | ⇓P | | **Pn** | **20 30 54.7** | **-0.1** |
| UWA2 | | | | S | | **Sn** | **20 31 28.7** | **-3.8** |
| **KSRS** | **Korea Array** | **8.06** | **337** | Pn | | **Pn** | **20 32 03.9** | **+2.1** |
| | 0.3nm,0.3s,baz=154,slow=14,SNR=3.8 | | | | | | | |
| KSRS | | | | LR | | LR | 20 35 34.5 | |
| | comp=Z,41nm,18.4s,baz=148,slow=41 | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **8.32** | **38** | Pn | | **Pn** | **20 32 07.9** | **+2.4** |
| | 0.4nm,0.3s,baz=246,slow=14,SNR=4.5 | | | | | | | |
| **KLR** | **Kul'dur** | **19.12** | **360** | P | | **Pn** | **20 34 29.7** | **+1.2** |
| | 0.0nm,0.3s,baz=175,slow=11,SNR=4.7 | | | | | | | |
| **SONM** | **Songino Array** | **26.41** | **319** | P | | **P** | **20 35 42.4** | **+1.0** |
| | 0.3nm,0.5s,baz=118,slow=8.9,SNR=3.9 | | | | | | | |
| **MKAR** | **Makanchi Array** | **41.56** | **308** | LR | | LR | 20 55 55.1 | |
| | comp=Z,42nn,19.7s,baz=253,slow=37 | | | | | | | |
| **WRA** | **Warramunga Arr** | **49.79** | **177** | P | | **P** | **20 38 57.8** | **+0.3** |
| | 0.3nm,0.8s,baz=355,slow=7.8,SNR=5.0 | | | | | | | |
| **ASAR** | **Alice Springs** | **53.48** | **178** | P | | **P** | **20 39 26.3** | **+1.2** |
| | 0.4nm,0.5s,baz=12,slow=13,SNR=9.2 | | | | | | | |
| **BRTR** | **Keskin Array B** | **77.21** | **308** | P | | **P** | **20 41 59.8** | **+0.7** |
| | 0.9nm,0.9s,baz=79,slow=6.4,SNR=3.8 | | | | | | | |

*IDC* ***28*** *20:32:26.6± 0.3, 60.˙69S× 26.˙03W, h0km, mb5.1/16, mb1 5.1/16, mb1mx4.9/25, mbtmp5.1/16, MS4.4/14, Ms1 4.4/14, ms1mx4.4/17, Error ellipse: s-maj=17.0km s-min=13.7km az=50.0*

*ISCJB* ***28*** *20:32:26.4± 0.2, 60.˙60S±0.˙05× 26.˙05W±0.˙10, h10km, mb5.2/54, MS4.5/15, Error ellipse: s-maj=8.5km s-min=5.5km az=42.5*

*NEIC* ***28*** *20:32:28.4± 0.1, 60.˙65S× 25.˙93W, h10km, mb5.4/40, Error ellipse: s-maj=7.3km s-min=5.4km az=218.0*

*GCMT* ***28*** *20:32:28.4± 0.1, 61.˙02S× 25.˙37W, h12km, MW5.2/115, Moment Tensor Solution. s69,c93; s115,c190; Duration: 1§0 Moment tensor: Scale 10¹⁷Nm; Mrr-0.72±.01; Mθθ0.51±.01; Mϕϕ0.21±.01; Mrθ0.07±.04; Mθϕ0.40±.01; Mϕr0.21±.04; Best double couple: M₀0.78800×10¹⁷ NP1:φ₀224.00000°, δ53.00000°, λ-103.00000°. NP2:φ₀66.00000°, δ39.00000°, λ-73.00000°. Principal axes: T 0.8080, Plg7.0000°, Azm324.0000°; N -0.0400, Plg11.0000°, Azm233.0000°; P -0.7680, Plg77.0000°, Azm86.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*MOS* ***28*** *20:32:30.9± 1.5, 60.˙72S× 25.˙97W, h33km, mb5.3/34 Error ellipse: s-maj=23.0km s-min=11.9km az=101.2*

*BJI* ***28*** *20:32:30.8, 60.˙60S× 25.˙90W, h31km, mB5.5/16, Ms5.6/14, Ms7 5.3/14*

**ISC 28 20:32:28.3±0.2, 60.˙76S±0.˙07×25.˙91W±0.˙06, h10km, n376, σ1§82/401, mb5.3/54, MS4.5/16, 16C-7D, South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **HOPE** | **Hope Point** | **8.62** | **314** | *e*Pn | | **Pn** | **20 34 37.2** | **+4.2** |
| **VNA1** | **Neumayer--Stat** | **12.23** | **152** | P | | **Pn** | **20 35 20.2** | **-2.0** |
| VNA1 | | | | S | | Sn | 20 37 29.0 | -9.4 |
| **VNA3** | **Neumayer Olymp** | **12.36** | **155** | P | | **Pn** | **20 35 21.4** | **-2.6** |
| VNA3 | | | | S | | Sn | 20 37 29.8 | -12 |
| **VNA2** | **Neumayer--Watz** | **12.63** | **151** | P | | **Pn** | **20 35 24.9** | **-2.8** |
| | baz=309,slow=14 | | | | | | | |
| **SNAA** | **Sanae** | **14.22** | **150** | P | | **Pn** | **20 35 47.2** | **-2.3** |
| SNAA | | | | S | | Sn | 20 38 15.3 | -12 |
| **SNAA** | **Sanae** | **14.22** | **150** | Pn | | **Pn** | **20 35 46.9** | **-2.7** |
| | 64nm,0.3s,baz=309,slow=14,SNR=601 | | | | | | | |
| SNAA | | | | Sn | | Sn | 20 38 15.2 | -12 |
| | 2.6nm,0.3s,baz=229,slow=20,SNR=4.2 | | | | | | | |
| SNAA | | | | LR | | LR | 20 40 07.3 | |
| | comp=Z,2μm,20.9s,baz=302,slow=32 | | | | | | | |
| **SNAA** | **Sanae** | **14.22** | **150** | *c*iP | | **Pn** | **20 35 46.7** | **-2.8** |
| **NVL** | **N'lazarevskaya** | **18.08** | **139** | *e*P | | **Pn** | **20 36 38.6** | **-0.6** |
| NVL | | | | *e*S | | **S** | **20 40 06.9** | **+0.5** |
| NVL | | | | MLR | | MLR | | |
| | comp=Z,2μm,20.0s | | | | | | | |
| **EFI** | **East Falkland** | **19.86** | **283** | ⇑*e*P | | **P** | **20 36 58.9** | **-0.3** |
| EFI | | | | pmax | | pmax | | |
| | comp=Z,105nm,1.1s | | | | | | | |
| **EFI** | **East Falkland** | **19.86** | **283** | *e*P | | **P** | **20 36 59.7** | **+0.5** |
| | comp=Z,523nm,1.9s | | | | | | | |
| **USHA** | **Ushuaia** | **23.09** | **266** | P | | **P** | **20 37 34.5** | **+0.8** |
| | comp=Z,160nm,0.9s,baz=100,slow=9.1,SNR=4.8 | | | | | | | |
| USHA | | | | LR | | LR | 20 44 38.2 | |
| | comp=Z,4μm,20.5s,baz=63,slow=32 | | | | | | | |
| **SYO** | **Syowa Base** | **27.62** | **135** | ⇓*e*P | | **P** | **20 38 12.8** | **-2.6** |
| **QSPA** | **South Pole Qui** | **29.48** | **180** | *e*P | | **P** | **20 38 34.4** | **+2.2** |
| | comp=Z,39nm,0.7s | | | | | | | |
| **TRQA** | **Tornquist** | **32.00** | **299** | *e*P | | **P** | **20 38 53.2** | **-1.2** |
| | comp=Z,56nm,0.8s | | | | | | | |
| **PLCA** | **Paso Flores** | **33.72** | **286** | P | | **P** | **20 39 07.5** | **-2.1** |
| | comp=Z,5.9nm,0.7s,baz=156,slow=7.7,SNR=10 | | | | | | | |
| PLCA | | | | LR | | LR | 20 51 43.1 | |
| | comp=Z,411nm,20.4s,baz=157,slow=34 | | | | | | | |
| **PLCA** | **Paso Flores** | **33.72** | **286** | *e*P | | **P** | **20 39 07.8** | **-1.8** |
| PLCA | | | | pmax | | pmax | | |
| | comp=Z,24nm,1.3s | | | | | | | |
| **PLCA** | **Paso Flores** | **33.72** | **286** | *e*P | | **P** | **20 39 07.8** | **-1.8** |
| | comp=Z,24nm,1.3s | | | | | | | |
| **MAW** | **Mawson** | **36.03** | **139** | P | | **P** | **20 39 29.8** | **+0.7** |
| | comp=Z,21nm,1.0s,baz=234,slow=8.9,SNR=14 | | | | | | | |
| MAW | | | | PcP | | **PcP** | **20 41 55.1** | **+0.1** |
| | comp=Z,15nm,1.0s,baz=242,slow=3.6,SNR=5.3 | | | | | | | |
| MAW | | | | LR | | LR | 20 52 38.3 | |
| | comp=Z,515nm,19.5s,baz=246,slow=34 | | | | | | | |
| **MAW** | **Mawson** | **36.03** | **139** | *e*P | | **P** | **20 39 29.7** | **+0.7** |
| | comp=Z,6.2nm,1.0s | | | | | | | |
| MAW | | | | *e*PcP | | **PcP** | **20 41 55.6** | **+0.6** |
| **TCA** | **Tanti** | **38.85** | **302** | *e*P | | **P** | **20 39 51.6** | **-1.9** |
| **GO05** | **HualaæØ** | **38.98** | **290** | *e*P | | **P** | **20 39 53.3** | **-1.1** |
| | comp=Z,122nm,1.4s | | | | | | | |
| **ACAN** | **Cantantal** | **39.15** | **298** | *e*P | | **P** | **20 39 53.2** | **-2.6** |
| **PEL** | **Peldehue** | **39.96** | **293** | *e*P | | **P** | **20 40 01.3** | **-1.4** |
| PEL | | | | pmax | | pmax | | |
| | comp=Z,245nm,0.7s | | | | | | | |
| **PEL** | **Peldehue** | **39.96** | **293** | *e*P | | **P** | **20 40 01.3** | **-1.4** |
| | comp=Z,245nm,0.7s | | | | | | | |
| **RTCV** | **Cerro Valdivia** | **40.09** | **297** | ⇓*e*P | | **P** | **20 40 03.2** | **-0.6** |
| **AUSP** | **Uspallata** | **40.16** | **295** | *e*P | | **P** | **20 40 03.6** | **-1.0** |
| **ROC1** | **El Roble** | **40.25** | **293** | *e*P | | P | 20 40 13.5 | +8.2 |
| **ROCH** | **El Roble** | **40.25** | **293** | *e*P | | P | 20 40 11.8 | +6.5 |
| **CPUP** | **Villa Florida** | **40.51** | **314** | P | | **P** | **20 40 05.1** | **-2.1** |
| | comp=Z,19nm,0.7s,baz=153,slow=6.8,SNR=52 | | | | | | | |
| CPUP | | | | LR | | LR | 20 55 27.5 | |
| | comp=Z,299nm,21.8s,baz=159,slow=34 | | | | | | | |
| **CPUP** | **Villa Florida** | **40.51** | **314** | *e*P | | **P** | **20 40 05.0** | **-2.1** |
| | comp=Z,50nm,1.2s | | | | | | | |
| **CPUP** | **Villa Florida** | **40.51** | **314** | *e*P | | **P** | **20 40 05.1** | **-2.1** |
| **RTLL** | **Cerro Villicun** | **40.52** | **297** | *e*P | | **P** | **20 40 06.1** | **-1.2** |
| **RTLL** | **Cerro Villicun** | **40.52** | **297** | *e*P | | **P** | **20 40 05.4** | **-1.9** |
| **AMOG** | **MOGNA** | **40.86** | **297** | *e*P | | **P** | **20 40 10.2** | **0.0** |
| **SBA** | **Scott Base** | **41.41** | **184** | *e*P | | **P** | **20 40 15.4** | **+1.3** |
| SBA | | | | pmax | | pmax | | |
| | comp=Z,33nm,1.3s | | | | | | | |
| **SBA** | **Scott Base** | **41.41** | **184** | *e*P | | **P** | **20 40 15.4** | **+1.3** |
| | comp=Z,33nm,1.3s | | | | | | | |
| **VNDA** | **Vanda** | **41.88** | **183** | P | | **P** | **20 40 20.6** | **+2.6** |
| | comp=Z,11nm,1.0s,baz=188,slow=7.5,SNR=35 | | | | | | | |
| VNDA | | | | LR | | LR | 20 56 24.4 | |
| | comp=Z,391nm,21.3s,baz=168,slow=34 | | | | | | | |
| **VNDA** | **Vanda** | **41.88** | **183** | *e*P | | **P** | **20 40 20.2** | **+2.2** |
| **VNDA** | **Vanda** | **41.88** | **183** | *e*P | | **P** | **20 40 20.2** | **+2.2** |
| VNDA | | | | *e*pP | | **P** | **20 40 20.5** | **+2.6** |
| **CYA** | **Choya** | **41.88** | **302** | *e*P | | **P** | **20 40 14.7** | **-3.8** |
| **CYA** | **Choya** | **41.88** | **302** | *e*P | | **P** | **20 40 15.5** | **-3.1** |
| **AGUA** | **GUANDACOL** | **42.11** | **298** | *e*P | | **P** | **20 40 21.8** | **+1.3** |
| **TLL** | **Tololo Astrono** | **42.54** | **295** | *e*P | | **P** | **20 40 23.6** | **-0.5** |
| **VCA** | **Vinchina** | **42.64** | **299** | *e*P | | **P** | **20 40 26.7** | **+1.9** |
| **VCA** | **Vinchina** | **42.64** | **299** | *e*P | | **P** | **20 40 24.1** | **-0.7** |
| **AHML** | **Horco Molle** | **43.15** | **304** | ⇓*e*P | | **P** | **20 40 26.7** | **-2.2** |
| **LCO** | **Las Campanas** | **43.49** | **296** | *e*P | | **P** | **20 40 30.8** | **-1.1** |
| | comp=Z,75nm,0.8s | | | | | | | |
| **FSA** | **Cafayete** | **44.02** | **304** | *e*P | | **P** | **20 40 33.7** | **-2.3** |
| **ALOL** | **LOMAS DE OLMED** | **45.27** | **307** | *e*P | | **P** | **20 40 43.2** | **-2.6** |
| **ASTB** | **Santa Barbara** | **45.33** | **307** | *e*P | | **P** | **20 40 46.1** | **-0.4** |
| **HJA** | **Humahuaca** | **46.38** | **306** | ⇓*e*P | | **P** | **20 40 52.7** | **-2.3** |
| **BOSA** | **Boshof** | **46.71** | **70** | P | | **P** | **20 40 56.7** | **-0.6** |
| | comp=Z,16nm,0.9s,baz=200,slow=7.0,SNR=21 | | | | | | | |
| BOSA | | | | PcP | | **PcP** | **20 42 30.4** | **-0.3** |
| | comp=Z,7.3nm,0.8s,baz=185,slow=3.6,SNR=4.2 | | | | | | | |
| BOSA | | | | LR | | LR | 20 55 43.6 | |
| | comp=Z,313nm,20.3s,baz=203,slow=30 | | | | | | | |
| **YJA** | **Yavi** | **47.35** | **307** | *e*P | | **P** | **20 41 00.6** | **-2.1** |
| **PB10** | **IPOC Station P** | **48.22** | **300** | *e*P | | **P** | **20 41 08.8** | **-0.2** |
| | comp=Z,79nm,1.1s | | | | | | | |
| **PB04** | **IPOC Station P** | **49.09** | **301** | *e*P | | **P** | **20 41 14.5** | **-1.3** |
| | comp=Z,98nm,0.8s | | | | | | | |
| **LBTB** | **Lobatse** | **49.94** | **68** | *e*P | | **P** | **20 41 21.2** | **-1.0** |
| LBTB | | | | pmax | | pmax | | |
| | comp=Z,18nm,0.9s | | | | | | | |
| **LBTB** | **Lobatse** | **49.94** | **68** | *e*P | | **P** | **20 41 21.2** | **-1.0** |
| | comp=Z,18nm,0.9s | | | | | | | |
| **PB01** | **IPOC Station P** | **49.97** | **303** | *e*P | | **P** | **20 41 21.0** | **-1.4** |
| | comp=Z,97nm,0.8s | | | | | | | |
| **PB11** | **IPOC Station P** | **51.18** | **303** | *e*P | | **P** | **20 41 29.2** | **-2.5** |
| | comp=Z,209nm,1.6s | | | | | | | |
| **MNMC** | **Minye Minye** | **51.72** | **304** | *e*P | | **P** | **20 41 34.6** | **-1.2** |
| | comp=Z,109nm,0.8s | | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **52.38** | **14** | T | | T | 21 38 27.9 | |
| | baz=187,slow=75,SNR=119 | | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **52.38** | **14** | T | | T | 21 38 25.3 | |
| | baz=187,slow=75,SNR=84 | | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **52.39** | **14** | T | | T | 21 38 29.4 | |
| | baz=187,slow=75,SNR=100 | | | | | | | |
| **LPAZ** | **La Paz** | **53.70** | **307** | P | | **P** | **20 41 49.6** | **-1.3** |
| | comp=Z,16nm,0.4s,baz=93,slow=6.5,SNR=44 | | | | | | | |
| LPAZ | | | | LR | | LR | 21 06 17.1 | |
| | comp=Z,102nm,19.7s,baz=156,slow=38 | | | | | | | |
| **LPAZ** | **La Paz** | **53.70** | **307** | *e*P | | **P** | **20 41 49.4** | **-1.5** |
| LPAZ | | | | *e*pP | | **P** | **20 41 49.6** | **-1.3** |
| **RCBR** | **Riachuelo** | **55.33** | **348** | PcP | | **PcP** | **20 43 03.1** | **+0.5** |
| | comp=Z,14nm,0.9s,baz=193,slow=8.3,SNR=6.1 | | | | | | | |
| **SAML** | **Samuel** | **58.63** | **316** | *e*P | | **P** | **20 42 22.7** | **-2.7** |
| | comp=Z,12nm,0.8s | | | | | | | |
| **LSZ** | **Lusaka** | **59.61** | **65** | *e*P | | **P** | **20 42 31.0** | **-1.3** |
| LSZ | | | | pmax | | pmax | | |
| | comp=Z,14nm,0.8s | | | | | | | |
| **LSZ** | **Lusaka** | **59.61** | **65** | *e*P | | **P** | **20 42 31.0** | **-1.3** |
| | comp=Z,14nm,0.8s | | | | | | | |
| **NNA** | **Nana** | **61.15** | **300** | *i* P | | **P** | **20 42 43.6** | **+0.8** |
| **NNA** | **Nana** | **61.15** | **300** | *e*P | | **P** | **20 42 42.1** | **-0.7** |
| | comp=Z,22nm,0.8s | | | | | | | |
| **PTGA** | **Pitinga** | **65.31** | **322** | *e*P | | **P** | **20 43 07.8** | **-2.5** |
| | comp=Z,9.3nm,0.9s | | | | | | | |
| **ABPO** | **Ambohimpanom** | **65.36** | **85** | *e*P | | **P** | **20 43 11.7** | **+0.8** |
| ABPO | | | | pmax | | pmax | | |
| | comp=Z,18nm,1.2s | | | | | | | |
| **ABPO** | **Ambohimpanom** | **65.36** | **85** | *e*P | | **P** | **20 43 11.7** | **+0.8** |
| | comp=Z,18nm,1.2s | | | | | | | |
| **LIC** | **Lamto** | **68.77** | **22** | *e*P | | **P** | **20 43 31.7** | **-0.5** |
| | comp=Z,148nm,1.3s | | | | | | | |
| **KIC** | **Kosan Boka** | **68.95** | **23** | *e*P | | **P** | **20 43 33.2** | **-0.2** |
| | comp=Z,142nm,1.2s | | | | | | | |
| **TIC** | **Toumodi** | **69.18** | **22** | *e*P | | **P** | **20 43 34.5** | **-0.3** |
| **DBIC** | **Dimbokro** | **69.23** | **22** | P | | **P** | **20 43 35.0** | **0.0** |
| | comp=Z,27nm,0.9s,baz=168,slow=8.5,SNR=17 | | | | | | | |
| DBIC | | | | LR | | LR | 21 06 57.6 | |
| | comp=Z,212nm,20.1s,baz=179,slow=30 | | | | | | | |
| **DBIC** | **Dimbokro** | **69.23** | **22** | *e*P | | **P** | **20 43 35.1** | **0.0** |
| DBIC | | | | pmax | | pmax | | |
| | comp=Z,45nm,1.1s | | | | | | | |
| **DBIC** | **Dimbokro** | **69.23** | **22** | *e*P | | **P** | **20 43 35.1** | **0.0** |
| | comp=Z,45nm,1.1s | | | | | | | |
| **MRIV** | **Mauritius Mete** | **69.31** | **95** | *e*P | | **P** | **20 43 36.8** | **+1.1** |
| | comp=Z,73nm,1.1s | | | | | | | |
| **OTAV** | **Otavalo** | **72.84** | **304** | *e*P | | **P** | **20 43 57.6** | **0.0** |
| **FLOC** | **Florencia** | **72.95** | **307** | *e*P | | **P** | **20 43 56.5** | **-1.2** |
| **LBZ** | **Lake Benmore** | **74.39** | **192** | *e*P | | **P** | **20 44 06.3** | **+0.4** |
| | comp=Z,96nm,1.5s | | | | | | | |
| **PRAC** | **Prado** | **74.60** | **309** | *e*P | | **P** | **20 44 04.5** | **-2.9** |
| **PRAC** | **Prado** | **74.60** | **309** | *e*P | | **P** | **20 44 06.5** | **-0.9** |
| | comp=Z,41nm,0.7s | | | | | | | |
| **MQZ** | **McQueen's Vall** | **74.79** | **194** | *e*P | | **P** | **20 44 08.4** | **+0.2** |
| | comp=Z,39nm,1.0s | | | | | | | |
| **RPZ** | **Rata Peaks** | **74.96** | **193** | P | | **P** | **20 44 09.9** | **+0.7** |
| | comp=Z,18nm,0.9s,baz=183,slow=8.2,SNR=7.0 | | | | | | | |
| **RPZ** | **Rata Peaks** | **74.96** | **193** | *e*P | | **P** | **20 44 09.6** | **+0.4** |
| | comp=Z,35nm,1.1s | | | | | | | |
| **CHIC** | **Chingaza** | **75.00** | **310** | *e*P | | **P** | **20 44 07.8** | **-2.5** |
| **YOTC** | **Yotoco, Valle** | **75.41** | **307** | *e*P | | **P** | **20 44 11.6** | **-0.6** |
| **BBTS** | **Babate** | **75.54** | **9** | P | | **P** | **20 44 13.7** | **+1.0** |
| | comp=Z,20nm,0.8s,baz=230,slow=1.4,SNR=4.1 | | | | | | | |
| **LTZ** | **Lake Taylor** | **75.75** | **194** | *e*P | | **P** | **20 44 15.1** | **+1.3** |
| | comp=Z,50nm,1.1s | | | | | | | |
| **RUSC** | **La Rusia** | **75.93** | **311** | *e*P | | **P** | **20 44 12.2** | **-3.3** |
| **RUSC** | **La Rusia** | **75.93** | **311** | *e*P | | **P** | **20 44 13.8** | **-1.8** |
| | comp=Z,26nm,1.3s | | | | | | | |
| **KMBO** | **Kilima Mbogo** | **76.20** | **67** | P | | **P** | **20 44 21.0** | **+4.1** |
| | comp=Z,0.8nm,0.3s,baz=181,slow=6.5,SNR=5.4 | | | | | | | |
| KMBO | | | | LR | | LR | 21 15 43.4 | |
| | comp=Z,284nm,18.4s,baz=192,slow=34 | | | | | | | |
| **KMBO** | **Kilima Mbogo** | **76.20** | **67** | *e*P | | **P** | **20 44 18.6** | **+1.7** |
| KMBO | | | | pmax | | pmax | | |
| | comp=Z,10.0nm,1.3s | | | | | | | |
| **KMBO** | **Kilima Mbogo** | **76.20** | **67** | *e*P | | **P** | **20 44 18.6** | **+1.7** |
| | comp=Z,10nm,1.3s | | | | | | | |
| **NORC** | **Norcasia** | **76.29** | **309** | *e*P | | **P** | **20 44 16.0** | **-1.1** |
| **BARC** | **Barichara** | **76.61** | **311** | *e*P | | **P** | **20 44 15.4** | **-3.8** |
| **THZ** | **Tophouse** | **76.68** | **194** | *e*P | | **P** | **20 44 20.4** | **+1.3** |
| | comp=Z,31nm,0.9s | | | | | | | |
| **TOA0** | **Torodi Ar. Sit** | **76.89** | **28** | *e*P | | **P** | **20 44 20.6** | **+0.3** |
| **TORD** | **Torodi Ar. Bea** | **76.89** | **28** | P | | **P** | **20 44 20.6** | **+0.3** |
| | comp=Z,61nm,0.8s,baz=192,slow=6.7,SNR=306 | | | | | | | |
| TORD | | | | LR | | LR | 21 13 15.2 | |
| | comp=Z,146nm,19.3s,baz=185,slow=32 | | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **76.89** | **28** | *e*P | | **P** | **20 44 20.6** | **+0.3** |
| **SNZO** | **South Karori** | **76.89** | **196** | *e*P | | **P** | **20 44 20.7** | **+0.5** |
| | comp=Z,72nm,0.9s | | | | | | | |
| **KOWA** | **Kowa** | **77.03** | **22** | *e*P | | **P** | **20 44 21.6** | **+0.5** |
| | comp=Z,86nm,1.4s | | | | | | | |
| **PTBC** | **PUERTO BERRIO,** | **77.03** | **310** | *e*P | | **P** | **20 44 17.3** | **-4.0** |
| **HELC** | **Santa Helena** | **77.12** | **309** | *e*P | | **P** | **20 44 19.9** | **-2.3** |
| | comp=Z,22nm,0.8s | | | | | | | |
| **SDV** | **Santo Domingo** | **77.82** | **315** | *e*P | | **P** | **20 44 24.0** | **-1.8** |
| | comp=Z,23nm,0.8s | | | | | | | |
| **BKZ** | **Black Stump Fm** | **78.75** | **198** | *e*P | | **P** | **20 44 32.1** | **+1.5** |
| | comp=Z,40nm,1.3s | | | | | | | |
| **URZ** | **Urewera** | **79.54** | **198** | P | | **P** | **20 44 35.6** | **+0.7** |
| | comp=Z,16nm,0.9s,baz=84,slow=9.6,SNR=3.1 | | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **81.90** | **149** | P | | **P** | **20 44 47.5** | **-0.1** |
| | comp=Z,6.2nm,0.8s,baz=58,slow=6.7,SNR=2.8 | | | | | | | |
| **CAN** | **Canberra** | **84.17** | **176** | *e*P | | **P** | **20 44 59.6** | **+0.1** |
| CAN | | | | pmax | | pmax | | |
| | comp=Z,38nm,1.2s | | | | | | | |
| **CAN** | **Canberra** | **84.17** | **176** | *e*P | | **P** | **20 44 59.6** | **+0.1** |
| | comp=Z,38nm,1.2s | | | | | | | |
| **FORT** | **Forrest** | **86.33** | **158** | *e*P | | **P** | **20 45 10.8** | **+0.5** |
| | comp=Z,663nm,1.3s | | | | | | | |
| **TAM** | **Tamanrasset** | **87.08** | **29** | *e*P | | **P** | **20 45 15.6** | **+1.7** |
| TAM | | | | pmax | | pmax | | |
| | comp=Z,20nm,1.2s | | | | | | | |
| **TAM** | **Tamanrasset** | **87.08** | **29** | *e*P | | **P** | **20 45 15.6** | **+1.7** |
| | comp=Z,20nm,1.2s | | | | | | | |
| **STKA** | **Stephens Creek** | **87.13** | **169** | P | | **P** | **20 45 14.4** | **+0.3** |
| | comp=Z,310nm,19.4s,baz=202,slow=34 | | | | | | | |
| STKA | | | | LR | | LR | 21 22 13.9 | |
| | comp=Z,310nm,19.4s,baz=202,slow=34 | | | | | | | |
| **STKA** | **Stephens Creek** | **87.13** | **169** | *e*P | | **P** | **20 45 14.1** | **-0.1** |
| STKA | | | | pmax | | pmax | | |
| | comp=Z,6.0nm,1.2s | | | | | | | |
| **STKA** | **Stephens Creek** | **87.13** | **169** | *e*P | | **P** | **20 45 14.1** | **-0.1** |
| | comp=Z,6.3nm,1.2s | | | | | | | |
| **ASAR** | **Alice Springs** | **94.29** | **162** | P | | **P** | **20 45 47.4** | **-0.3** |
| | comp=Z,8.5nm,0.8s,baz=182,slow=3.8,SNR=65 | | | | | | | |
| ASAR | | | | PKKPbc | | **PKKPbc** | **21 02 46.2** | **+1.3** |
| | comp=Z,0.8nm,0.9s,baz=357,slow=3.9,SNR=5.0 | | | | | | | |
| ASAR | | | | LR | | LR | 21 24 44.9 | |
| | comp=Z,642nm,21.6s,baz=179,slow=33 | | | | | | | |
| **AS31** | **Alice Springs** | **94.29** | **162** | *e*P | | **P** | **20 45 47.5** | **-0.3** |
| | comp=Z,2.9nm,0.8s | | | | | | | |
| **AS01** | **Alice Springs** | **94.30** | **162** | *e*P | | **P** | **20 45 46.7** | **-1.1** |
| **MDT** | **Midelt** | **94.86** | **18** | P | | **P** | **20 45 51.2** | **+1.3** |
| | comp=Z,3.4nm,0.9s,baz=268,slow=2.1,SNR=5.9 | | | | | | | |
| **WR1** | **Warramunga Arr** |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ULM | Lac du Bonnet | 124.05 | 313 | *e*PKIKP | **PKPdf** | **20 51 24.4** | **-1.2** |
| ULM | Lac du Bonnet | 124.05 | 313 | *e*PKPdf | **PKPdf** | **20 51 24.4** | **-1.2** |
| RAMN | Ramite | 124.09 | 95 | *e*P | **PKPdf** | **20 51 26.6** | **-0.1** |
| | comp=Z,79nm,1.0s | | | | | | |
| KVN | Kaiserville | 124.14 | 290 | *e*PKIKP | **PKPdf** | **20 51 27.3** | **+0.9** |
| KVN | Kaiserville | 124.14 | 290 | *e*PKPdf | **PKPdf** | **20 51 27.3** | **+0.9** |
| KKN | Kakani | 124.14 | 94 | *e*P | **PKPdf** | **20 51 26.1** | **-0.7** |
| | comp=Z,22nm,0.8s | | | | | | |
| ELK | Elko | 124.20 | 293 | PKP | **PKPdf** | **20 51 27.8** | **+1.3** |
| | comp=Z,2.0nm,1.0s,baz=299,slow=2.4,SNR=9.6 | | | | | | |
| CMB | Columbia Colle | 124.39 | 287 | *e*PKIKP | **PKPdf** | **20 51 27.9** | **+1.2** |
| CMB | Columbia Colle | 124.39 | 287 | *e*PKPdf | **PKPdf** | **20 51 27.9** | **+1.2** |
| ODAN | Odare | 124.40 | 96 | *e*P | **PKPdf** | **20 51 27.2** | **-0.1** |
| | comp=Z,65nm,1.1s | | | | | | |
| JIRN | Jiri | 124.48 | 94 | *e*P | **PKPdf** | **20 51 27.2** | **-0.4** |
| | comp=Z,559nm,0.9s | | | | | | |
| GUN | Gumba | 124.54 | 94 | *e*P | **PKPdf** | **20 51 27.3** | **-0.4** |
| | comp=Z,46nm,0.9s | | | | | | |
| MOOW | Moose Ponds | 124.63 | 299 | *e*PKPdf | **PKPdf** | **20 51 27.4** | **+0.2** |
| FXWY | Fox Creek | 124.66 | 298 | *e*PKPdf | **PKPdf** | **20 51 28.0** | **+0.8** |
| NB2 | NORSAR Subarra | 124.79 | 21 | PKPdf | **PKPdf** | **20 51 25.7** | **-1.0** |
| | comp=Z,29nm,1.4s,baz=202,slow=1.9 | | | | | | |
| NB2 | NORSAR Subarra | 124.79 | 21 | PKPdf | **PKPdf** | **20 51 25.7** | **-1.0** |
| | baz=202,slow=1.9 | | | | | | |
| NB200 | NORSAR Array S | 124.79 | 21 | *e*PKPdf | **PKPdf** | **20 51 26.4** | **-0.2** |
| NOA | NORSAR Array B | 124.79 | 21 | PKP | **PKPdf** | **20 51 26.4** | **-0.2** |
| | comp=Z,7.4nm,0.8s,baz=188,slow=1.6,SNR=12 | | | | | | |
| BMN | Battle Mountai | 124.84 | 292 | *e*PKIKP | **PKPdf** | **20 51 28.6** | **+1.0** |
| BMN | Battle Mountai | 124.84 | 292 | *e*PKPdf | **PKPdf** | **20 51 28.6** | **+1.0** |
| TAPN | Taplejung | 124.97 | 96 | *e*P | **PKPdf** | **20 51 28.3** | **-0.2** |
| | comp=Z,15nm,1.0s | | | | | | |
| GTK | Tadong | 125.38 | 97 | *e*P | **PKPdf** | **20 51 29.4** | **+0.4** |
| AFDM | Forest Hills D | 125.39 | 288 | *e*PKPdf | **PKPdf** | **20 51 29.8** | **+1.3** |
| SHL | Shillong | 125.50 | 101 | *e*P | **PKPdf** | **20 51 29.4** | **+0.1** |
| SHL | | | | AMB | AMB | 20 51 30.2 | |
| | comp=Z,16nm,0.8s | | | | | | |
| SHL | Shillong | 125.50 | 101 | *e*P | **PKPdf** | **20 51 33.0** | **+3.6** |
| YHH | Holmes Hill | 125.51 | 299 | *e*PKPdf | **PKPdf** | **20 51 29.4** | **+0.5** |
| OBN | Obninsk | 125.64 | 39 | PKP | **PKPdf** | **20 51 27.2** | **-1.1** |
| | comp=Z,5.2nm,0.3s,baz=222,slow=8.5,SNR=3.3 | | | | | | |
| OBN | Obninsk | 125.64 | 39 | ⇑*i*PKIKP | **PKPdf** | **20 51 28.1** | **-0.3** |
| OBN | | | | *e* | | 20 53 20.5 | |
| OBN | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.7s | | | | | | |
| IMP | Imphal | 125.87 | 103 | *e*P | **PKPdf** | **20 51 29.9** | **-0.1** |
| IMP | | | | AMB | AMB | 20 51 33.4 | |
| | comp=Z,7.1nm,1.1s | | | | | | |
| HLID | Hailey | 126.08 | 296 | *e*PKPdf | **PKPdf** | **20 51 30.8** | **+0.9** |
| ORV | Oroville | 126.12 | 288 | *e*PKIKP | **PKPdf** | **20 51 30.8** | **+0.9** |
| ORV | Oroville | 126.12 | 288 | *e*PKPdf | **PKPdf** | **20 51 30.8** | **+0.9** |
| MOS | Moscow | 126.50 | 39 | *e*PKIKP | **PKPdf** | **20 51 28.8** | **-1.2** |
| MOS | | | | *e* | | 20 53 31.4 | |
| MOS | | | | *e* | | 20 56 20.0 | |
| MFID | Camas Ranch | 126.59 | 295 | *e*PKPdf | **PKPdf** | **20 51 31.8** | **+0.9** |
| TEZP | TEZPUR | 126.82 | 101 | *e*P | **PKPdf** | **20 51 30.6** | **-1.0** |
| WVOR | Wild Horse Val | 127.08 | 292 | *e*PKIKP | **PKPdf** | **20 51 33.3** | **+1.5** |
| WVOR | Wild Horse Val | 127.08 | 292 | *e*PKPdf | **PKPdf** | **20 51 33.3** | **+1.5** |
| MOKO | MOKOCHONG | 127.40 | 103 | *e*P | **PKPdf** | **20 51 34.1** | **+1.1** |
| ITAN | ITANAGAR | 127.71 | 102 | *e*P | **PKPdf** | **20 51 33.2** | **-0.1** |
| QIZ | Qiongzhong | 127.96 | 123 | PKP | **PKPdf** | **20 51 34.8** | **+0.8** |
| QIZ | | | | SS | SS | 21 10 47.5 | -1.9 |
| ZIRO | ZIRO | 128.09 | 102 | *e*P | **PKPdf** | **20 51 34.7** | **+0.4** |
| FIA0 | FINESS Array S | 128.23 | 29 | *e*PKIKP | **PKPdf** | **20 51 32.6** | **-0.5** |
| FIA0 | FINESS Array S | 128.23 | 29 | *e*PKPdf | **PKPdf** | **20 51 32.6** | **-0.5** |
| FINES | FINESS Array B | 128.23 | 29 | PKP | **PKPdf** | **20 51 32.6** | **-0.5** |
| | comp=Z,16nm,0.7s,baz=132,slow=2.8,SNR=28 | | | | | | |
| FIA1 | FINESS Array S | 128.23 | 29 | *e*PKPdf | **PKPdf** | **20 51 32.6** | **-0.6** |
| BMO | Blue Mountains | 128.38 | 295 | *e*PKIKP | **PKPdf** | **20 51 34.6** | **+0.5** |
| BMO | Blue Mountains | 128.38 | 295 | *e*PKPdf | **PKPdf** | **20 51 34.6** | **+0.5** |
| MSO | Missoula | 128.44 | 299 | *e*PKPdf | **PKPdf** | **20 51 34.9** | **+0.7** |
| LSA | Lhasa | 128.59 | 98 | *e*PKIKP | **PKPdf** | **20 51 35.7** | **+0.1** |
| LSA | Lhasa | 128.59 | 98 | *e*PKPdf | **PKPdf** | **20 51 35.6** | **+0.1** |
| I07A | Izee | 128.76 | 293 | *e*PKPdf | **PKPdf** | **20 51 36.0** | **+1.1** |
| LKP | Lekhapani | 128.89 | 104 | *e*P | **PKPdf** | **20 51 35.8** | **+0.3** |
| KSH | Kashi | 129.07 | 77 | PKP | **PKPdf** | **20 51 35.5** | **-0.2** |
| KSH | | | | sPKP | | 20 51 51.0 | |
| KSH | | | | PP | **PP** | **20 53 47.8** | **+3.5** |
| KSH | | | | PKS | **PKSdf** | **20 55 10.0** | **-2.2** |
| KSH | | | | SKS | **SKSdf** | **20 58 41.8** | **-5.2** |
| KSH | | | | SKKS | **SKKSac** | **21 00 33.5** | **-7.1** |
| KSH | | | | SS | **SS** | **21 10 59.0** | **-5.0** |
| KSH | | | | AMB | AMB | | |
| | comp=Z,99nm,4.2s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,120nm,5.0s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,81nm,4.5s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,350nm,5.7s | | | | | | |
| F10A | Beach Ranch, E | 129.21 | 296 | *e*PKPdf | **PKPdf** | **20 51 35.5** | **-0.1** |
| KKAR | Karatay Array | 129.30 | 70 | *e*PKIKP | **PKPdf** | **20 51 35.3** | **-0.6** |
| KKAR | Karatay Array | 129.30 | 70 | *e*PKPdf | **PKPdf** | **20 51 35.3** | **-0.6** |
| ABKAR | Akbulak array | 129.41 | 58 | *e*PKPdf | **PKPdf** | **20 51 35.1** | **-0.7** |
| G08A | Pilot Rock | 129.46 | 294 | *e*PKPdf | **PKPdf** | **20 51 37.4** | **+1.2** |
| AKTO | Aktyubinsk | 129.54 | 56 | PKP | **PKPdf** | **20 51 35.8** | **-0.2** |
| | comp=Z,15nm,1.1s,baz=173,slow=3.3,SNR=14 | | | | | | |
| AML | Almayashu | 130.03 | 73 | P | **PKPdf** | **20 51 37.5** | **-0.2** |
| | SNR=6.4 | | | | | | |
| WALA | Waterton Lakes | 130.16 | 301 | *e*PKPdf | **PKPdf** | **20 51 37.8** | **+0.4** |
| KMI | Kunming | 130.23 | 112 | PKP | **PKPdf** | **20 51 38.8** | **+0.3** |
| EKS2 | Erkin-Say | 130.48 | 73 | P | **PKPdf** | **20 51 38.0** | **-0.2** |
| | SNR=12 | | | | | | |
| UCH | Uchtor | 130.49 | 74 | P | **PKPdf** | **20 51 38.3** | **-0.5** |
| | SNR=12 | | | | | | |
| KZA | Kyzart | 130.72 | 75 | P | **PKPdf** | **20 51 39.0** | **-0.1** |
| | SNR=9.9 | | | | | | |
| D08A | Wollman Farm, | 130.80 | 296 | *e*PKPdf | **PKPdf** | **20 51 39.8** | **+1.2** |
| AAK | Ala-Archa | 130.80 | 73 | PKP | **PKPdf** | **20 51 38.7** | **-0.2** |
| | comp=Z,8.0nm,0.8s,baz=199,slow=4.3,SNR=30 | | | | | | |
| AAK | Ala-Archa | 130.80 | 73 | ⇑*i*PKIKP | **PKPdf** | **20 51 38.6** | **-0.3** |
| AAK | Ala-Archa | 130.80 | 73 | P | **PKPdf** | **20 51 38.4** | **-0.5** |
| | SNR=13 | | | | | | |
| SCO | Scoresbysund | 130.99 | 2 | *i* P | **SKPab** | **20 55 04.0** | **+1.5** |
| | comp=Z,63nm,1.7s | | | | | | |
| KBK | Karagaybulak | 131.03 | 74 | P | **PKPdf** | **20 51 39.2** | **-0.2** |
| | SNR=6.1 | | | | | | |
| CHMS | Chumysh | 131.20 | 73 | P | **PKPdf** | **20 51 38.9** | **-0.6** |
| | SNR=7.0 | | | | | | |
| KLMR | Klimovskoe | 131.28 | 36 | *e*PKIKP | **PKPdf** | **20 51 37.8** | **-1.1** |
| KLMR | | | | *e* | | 20 53 57.7 | |
| KLMR | | | | pmax | pmax | | |
| | comp=Z,27nm,1.3s | | | | | | |
| USP | Ospenovka | 131.28 | 73 | P | **PKPdf** | **20 51 39.0** | **-0.6** |
| | SNR=11 | | | | | | |
| B08A | Colville Reser | 131.96 | 296 | *e*PKPdf | **PKPdf** | **20 51 41.0** | **+0.2** |
| GYA | Guiyang | 133.14 | 115 | Pdif | **Pdif** | **20 48 42.0** | **+1.3** |
| GYA | | | | PKP | **sPKPdf** | **20 51 58.8** | **+10** |
| GYA | | | | PP | **PP** | **20 54 16.3** | **+5.9** |
| GYA | | | | AMB | AMB | | |
| | comp=Z,140nm,7.8s | | | | | | |
| SUMG | Summit | 133.34 | 355 | *i* PKIKP | **PKPdf** | **20 51 43.7** | **+0.6** |
| SUMG | | | | *e* | | 20 51 57.3 | |
| SUMG | Summit | 133.34 | 355 | *i* P | **PKPdf** | **20 51 43.7** | **+0.6** |
| SUMG | | | | *e* | | 20 51 57.3 | |
| SUMG | Summit | 133.34 | 355 | *i* P | **SKPab** | **20 55 13.0** | **-0.1** |
| | comp=Z,25nm,0.9s | | | | | | |
| SUMG | Summit | 133.34 | 355 | *i* P | **SKPab** | **20 55 13.4** | **+0.3** |
| | comp=Z,36nm,1.0s | | | | | | |
| SUMG | Summit | 133.34 | 355 | *e*PKPdf | **PKPdf** | **20 51 43.7** | **+0.6** |
| ARU | Arti | 134.28 | 51 | PKP | **PKPdf** | **20 51 43.6** | **-1.1** |
| | comp=Z,2.2nm,0.8s,baz=280,slow=2.4,SNR=3.7 | | | | | | |
| ARU | Arti | 134.28 | 51 | *i* PKIKP | **PKPdf** | **20 51 45.9** | **+1.1** |
| ARU | | | | | | 20 54 17.1 | |
| ARA0 | ARCESS Array S | 135.06 | 23 | *e*PKPdf | **PKPdf** | **20 51 44.5** | **-1.3** |
| ARCES | ARCESS Array B | 135.06 | 23 | PKP | **PKPdf** | **20 51 44.5** | **-1.4** |
| | comp=Z,7.9nm,0.9s,baz=205,slow=4.8,SNR=8.0 | | | | | | |
| ARCES | | | | SKP | | 20 55 19.8 | |
| | comp=Z,5.2nm,0.8s,baz=222,slow=1.6,SNR=7.3 | | | | | | |
| CD2 | Chengdu | 135.62 | 109 | *e*PKP | **PKPdf** | **20 51 48.0** | **-0.2** |
| CD2 | | | | sPKP | | 20 52 01.0 | |
| CD2 | | | | PP | **PP** | **20 54 27.5** | **+1.4** |
| CD2 | | | | SKS | **SKSdf** | **20 58 51.3** | **-7.7** |
| CD2 | | | | SKKS | **SKKSac** | **21 01 14.0** | **-6.8** |
| CD2 | | | | AMB | AMB | | |
| | comp=Z,100nm,6.0s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,650nm,14.4s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,180nm,16.8s | | | | | | |
| BRVK | Borovoye | 136.60 | 61 | *c i*PKIKP | **PKPdf** | **20 51 50.8** | **+1.6** |
| BRVK | Borovoye | 136.60 | 61 | *e*PKPdf | **PKPdf** | **20 51 50.0** | **+0.8** |
| BVAR | Borovoye Array | 136.62 | 61 | PKhKP | PKPpre | 20 51 37.1 | |
| | comp=Z,2.6nm,0.8s,baz=218,slow=7.0,SNR=8.3 | | | | | | |
| BVAR | | | | PKP | **PKPdf** | **20 51 48.8** | **-0.5** |
| | comp=Z,7.9nm,0.9s,baz=198,slow=0.5,SNR=15 | | | | | | |
| BVAR | | | | SKPab | **SKPab** | **20 55 30.3** | **+2.6** |
| | comp=Z,2.1nm,0.8s,baz=213,slow=5.1,SNR=5.4 | | | | | | |
| DAG | Danmarks Havn | 137.36 | 2 | *e*PKIKP | **PKPdf** | **20 51 49.1** | **-0.8** |
| DAG | | | | *e* | | 20 52 03.2 | |
| DAG | Danmarks Havn | 137.36 | 2 | *i* P | **PKPdf** | **20 51 49.1** | **-0.8** |
| DAG | | | | *e* | | 20 52 03.2 | |
| MK01 | Makanchi Array | 137.58 | 75 | *e*PKPdf | **PKPdf** | **20 51 49.8** | **-1.5** |
| MK32 | Makanchi Array | 137.59 | 75 | *e*PKPdf | **PKPdf** | **20 51 50.1** | **-1.2** |
| MKAR | Makanchi Array | 137.59 | 75 | PKP | **PKPdf** | **20 51 50.1** | **-1.2** |
| | comp=Z,6.9nm,0.9s,baz=247,slow=4.7,SNR=7.2 | | | | | | |
| MKAR | | | | SKPab | **SKPab** | **20 55 35.0** | **+2.8** |
| | comp=Z,0.5nm,0.6s,baz=236,slow=3.6,SNR=4.0 | | | | | | |
| ENH | Enshi | 137.68 | 116 | *e*PKPdf | **PKPdf** | **20 51 53.7** | **+1.7** |
| WMQ | Urumqi | 138.02 | 83 | PKP | **PKPdf** | **20 51 50.8** | **-1.5** |
| WMQ | | | | LR | LR | | |
| | comp=Z,150nm,17.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,160nm,18.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,150nm,21.7s | | | | | | |
| KURBB | Kurchatov Arra | 138.56 | 69 | PKP | **PKPdf** | **20 51 52.0** | **-0.9** |
| | comp=Z,4.3nm,0.9s,baz=240,slow=3.1,SNR=5.2 | | | | | | |
| KURK | Kurchatov | 138.66 | 69 | ⇓*i*PKIKP | **PKPdf** | **20 51 55.3** | **+2.2** |
| KURK | Kurchatov | 138.66 | 69 | *e*PKPdf | **PKPdf** | **20 51 52.0** | **-1.1** |
| LZH | Lanzhou | 139.93 | 105 | *e*PKP | **PKPdf** | **20 51 53.5** | **-2.6** |
| WHN | Wuhan | 140.02 | 121 | PKP | **PKPdf** | **20 51 55.8** | **-0.4** |
| WHN | | | | PP | **PP** | **20 54 56.5** | **+3.3** |
| WHN | | | | LR | LR | | |
| | comp=Z,490nm,18.5s | | | | | | |
| WHN | | | | LR | LR | | |
| | comp=Z,220nm,7.8s | | | | | | |
| YKA | Yellowknife Ar | 140.03 | 314 | PKhKP | PKPpre | 20 51 45.7 | |
| | comp=Z,1.0nm,0.7s,baz=121,slow=3.4,SNR=8.9 | | | | | | |
| YKA | | | | PKP | **PKPdf** | **20 51 56.0** | **+0.8** |
| | comp=Z,7.2nm,0.8s,baz=124,slow=2.0,SNR=34 | | | | | | |
| YKA | | | | SKPbc | **SKPbc** | **20 55 32.7** | **+1.9** |
| | comp=Z,1.1nm,0.8s,baz=123,slow=2.4,SNR=8.2 | | | | | | |
| YKB5 | Yellowknife Ar | 140.03 | 314 | *e*PKPdf | **PKPdf** | **20 51 54.5** | **-0.7** |
| YKB5 | | | | *e*SKPbc | **SKPbc** | **20 55 31.1** | **+0.4** |
| YKW3 | Yellowknife Ar | 140.08 | 314 | *e*PKPdf | **PKPdf** | **20 51 53.9** | **-1.4** |
| XAN | Xi'an | 140.61 | 112 | PKP | **PKPdf** | **20 51 52.5** | **-4.8** |
| GTA | Gaotai | 140.62 | 98 | *e*PKP | **PKPdf** | **20 52 00.0** | **+2.8** |
| GTA | | | | sPKP | | 20 52 14.5 | |
| SPITS | Spitsbergen Ar | 141.04 | 13 | PKhKP | PKPpre | 20 51 49.8 | |
| | comp=Z,18nm,1.0s,baz=317,slow=10,SNR=4.0 | | | | | | |
| SPITS | | | | PKP | **PKPdf** | **20 51 54.6** | **-2.1** |
| | comp=Z,10nm,0.9s,baz=240,slow=1.6,SNR=4.2 | | | | | | |
| NJ2 | Nanjing | 143.19 | 125 | *e*PKP | PKPab | 20 51 58.8 | +1.3 |
| NVS | Novosibirsk | 143.49 | 67 | *e*PKIKP | PKPab | 20 51 59.1 | +1.1 |
| NVS | | | | pmax | pmax | | |
| | comp=Z,27nm,1.1s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=N,8.0nm,0.9s | | | | | | |
| NVS | | | | pmax | pmax | | |
| | comp=E,8.0nm,1.2s | | | | | | |
| DLBC | Dease Lake | 143.50 | 301 | *e*PKPdf | PKPbc | 20 52 00.7 | +1.6 |
| ZALV | Zalesovo Beam | 143.65 | 69 | PKhKP | PKPpre | 20 51 58.1 | |
| | comp=E,4.5nm,0.8s,baz=260,slow=3.8,SNR=5.1 | | | | | | |
| ZALV | Zalesovo Beam | 143.65 | 69 | *e*PKPpre | PKPpre | 20 51 57.9 | |
| BESE | Bessie Mountai | 145.65 | 299 | *e*PKPdf | **PKPab** | **20 52 07.2** | **+1.1** |
| TIA | Tai'an | 146.06 | 119 | PKPbc | **PKPdf** | **20 52 06.5** | **-0.3** |
| SKAG | Skagway | 146.34 | 300 | *e*PKPdf | **PKPbc** | **20 52 08.9** | **+1.2** |
| BTO | Baotou | 146.45 | 107 | *e*PKPbc | **PKPdf** | **20 52 05.5** | **-1.9** |
| WHY | Whitehorse | 146.80 | 302 | *e*PKPdf | **PKPdf** | **20 52 09.1** | **+1.7** |
| HHC | Hu-ho-hao-te | 147.36 | 108 | *e*PKPbc | **PKPdf** | **20 52 09.8** | **+0.9** |
| HYT | Haines Junctio | 147.99 | 301 | *e*PKPbc | **PKPbc** | **20 52 13.5** | **+1.0** |
| JNU | Nakatsue | 148.48 | 141 | PKPbc | **PKPbc** | **20 52 14.7** | **+0.1** |
| | comp=E,10nm,0.9s,baz=143,slow=6.8,SNR=8.8 | | | | | | |
| PCA | Pinnacle | 148.80 | 298 | *e*PKPbc | **PKPbc** | **20 52 15.8** | **+1.3** |
| BJT | Baijiatuan | 148.81 | 114 | *e*PKP2 | **PKPbc** | **20 52 15.3** | **+0.2** |
| BJT | Baijiatuan | 148.81 | 114 | *e*PKPbc | **PKPbc** | **20 52 15.3** | **+0.2** |
| BJI | Beijing | 148.83 | 114 | PKPbc | **PKPdf** | **20 52 11.5** | **+0.3** |
| BJI | | | | PP | **PP** | **20 55 45.8** | **-0.2** |
| BJI | | | | AMB | AMB | | |
| | comp=E,290nm,4.8s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=E,380nm,9.6s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=E,470nm,8.5s | | | | | | |
| INK | Inuvik | 149.76 | 315 | PKPbc | **PKPbc** | **20 52 16.1** | **-0.4** |
| | comp=E,42nm,0.9s,baz=93,slow=3.2,SNR=87 | | | | | | |
| MOY | Mondy | 149.91 | 83 | *e*PKP2 | **PKPbc** | **20 52 17.9** | **+0.3** |
| MOY | | | | pmax | pmax | | |
| | comp=Z,104nm,1.8s | | | | | | |
| SONA0 | Songino Array | 150.05 | 94 | *e*PKPdf | **PKPdf** | **20 52 11.8** | **-1.2** |
| SONA0 | | | | *e*PKPbc | **pPKPdf** | **20 52 17.8** | **+1.3** |
| SONM | Songino Array | 150.05 | 94 | PKP | **PKPdf** | **20 52 11.8** | **-1.2** |
| | comp=Z,3.2nm,0.9s,baz=226,slow=5.8,SNR=4.3 | | | | | | |
| SONM | | | | PKPbc | **pPKPdf** | **20 52 17.8** | **+1.3** |
| | comp=Z,50nm,0.9s,baz=216,slow=2.9,SNR=42 | | | | | | |
| SONA1 | Songino Array | 150.06 | 94 | *e*PKPbc | **PKPbc** | **20 52 17.8** | **-0.3** |
| ZAK | Zakamensk | 150.21 | 87 | *e*PKIKP | **PKPbc** | **20 52 16.9** | **-1.4** |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,59nm,1.2s | | | | | | |
| DAWY | Dawson | 150.28 | 306 | *e*PKPbc | **PKPbc** | **20 52 18.1** | **+0.1** |
| RAGM | Ragged Mountai | 150.87 | 297 | *e*PKPbc | **PKPbc** | **20 52 19.9** | **+0.4** |
| INCN | Inchon | 150.98 | 131 | *e*PKPbc | **PKPbc** | **20 52 20.6** | **+0.2** |
| BMRM | Bremner River | 151.10 | 298 | *e*PKPbc | **PKPbc** | **20 52 21.2** | **+1.1** |
| TLY | Talaya | 151.21 | 85 | *e*PKIKP | **PKPbc** | **20 52 20.3** | **-0.2** |
| TLY | Talaya | 151.21 | 85 | *e*PKPbc | **PKPbc** | **20 52 20.3** | **-0.2** |
| KS15 | Wonju Array Si | 151.40 | 133 | *e*PKPbc | **PKPbc** | **20 52 21.8** | **+0.4** |
| KSAR | Wonju Array Be | 151.40 | 133 | PKIKP | **PKPdf** | **20 52 14.7** | **-0.6** |
| KSAR | | | | | | 20 52 21.5 | |
| KSAR | | | | | | 20 52 30.8 | |
| KSAR | Wonju Array Be | 151.40 | 133 | PKP | **PKPdf** | **20 52 14.7** | **-0.6** |
| KSAR | | | | PKPbc | **sPKPdf** | **20 52 21.5** | **+1.6** |
| KSAR | | | | PKPab | **PKPab** | **20 52 30.8** | **+1.1** |
| EYAK | Cordova Ski Ar | 151.41 | 296 | *e*PKPbc | **PKPbc** | **20 52 21.8** | **+1.2** |
| KSRS | Korea Array | 151.43 | 133 | PKP | **PKPdf** | **20 52 14.7** | **-0.7** |
| | comp=Z,1.9nm,0.8s,baz=173,slow=1.0,SNR=6.2 | | | | | | |
| KSRS | | | | PKPbc | **PKPbc** | **20 52 21.5** | **+0.1** |
| | comp=Z,23nm,1.0s,baz=192,slow=2.0,SNR=35 | | | | | | |
| KSRS | | | | PKPab | **PKPab** | **20 52 30.8** | **+1.0** |
| | comp=Z,15nm,0.9s,baz=205,slow=3.6,SNR=11 | | | | | | |
| KS01 | Wonju Array Si | 151.44 | 133 | *e*PKPdf | **PKPdf** | **20 52 14.6** | **-0.8** |
| KS01 | | | | *e*PKPbc | **PKPbc** | **20 52 21.7** | **+0.2** |
| MENT | Mentasta | 151.58 | 302 | *e*PKPbc | **PKPbc** | **20 52 21.7** | **+0.6** |
| DIV | Divide | 151.68 | 297 | *e*PKPbc | **PKPbc** | **20 52 22.4** | **+1.0** |
| KLU | Klutina | 151.91 | 298 | *e*PKPbc | **PKPbc** | **20 52 22.7** | **+0.8** |
| DOT | Dot Lake | 152.00 | 303 | *e*PKPbc | **PKPbc** | **20 52 22.8** | **+0.8** |
| INU | Inuyama | 152.31 | 149 | *e*PKPbc | **PKPbc** | **20 52 23.9** | **+0.3** |
| PAX | Paxson | 152.32 | 301 | *e*PKIKP | **PKPbc** | **20 52 23.2** | **+0.4** |
| PAX | Paxson | 152.32 | 301 | *e*PKPbc | **PKPbc** | **20 52 23.2** | **+0.4** |
| SCM | Sheep Creek Mo | 152.66 | 298 | *e*PKIKP | **PKPbc** | **20 52 24.4** | **+0.8** |
| SCM | Sheep Creek Mo | 152.66 | 298 | *e*PKPbc | **PKPbc** | **20 52 24.4** | **+0.8** |
| SML | Sawmill | 153.09 | 298 | *e*PKIKP | **PKPbc** | **20 52 25.0** | **+0.5** |
| SML | Sawmill | 153.09 | 298 | *e*PKPbc | **PKPbc** | **20 52 25.0** | **+0.5** |
| DHY | Denali Highway | 153.17 | 301 | *e*PKPbc | **PKPbc** | **20 52 25.5** | **+0.7** |
| KDAK | Kodiak Island | 153.22 | 288 | *i* PKIKP | **PKPbc** | **20 52 26.7** | **+1.9** |
| PMR | Palmer | 153.35 | 297 | *e*PKIKP | **PKPbc** | **20 52 25.5** | **+0.5** |
| PMR | Palmer | 153.35 | 297 | *e*PKPbc | **PKPbc** | **20 52 25.5** | **+0.5** |
| RC01 | Rabbit Creek A | 153.41 | 296 | *e*PKPbc | **PKPbc** | **20 52 26.0** | **+0.9** |
| FYU | Fort Yukon | 153.46 | 309 | *e*PKPbc | **PKPbc** | **20 52 26.2** | **+1.1** |
| HDA | Harding Lake | 153.47 | 304 | *e*PKPbc | **PKPbc** | **20 52 26.3** | **+1.2** |
| ILAR | Eielson Array | 153.56 | 304 | PKP | **PKPdf** | **20 52 14.3** | **-3.3** |
| | comp=Z,1.0nm,1.0s,baz=327,slow=2.5,SNR=7.7 | | | | | | |
| ILAR | | | | PKPbc | **PKPbc** | **20 52 25.2** | **-0.2** |
| | comp=Z,25nm,1.0s,baz=149,slow=1.7,SNR=36 | | | | | | |
| ILAR | | | | PKPab | **PKPab** | **20 52 38.0** | **-0.1** |
| | comp=Z,11nm,0.9s,baz=161,slow=2.0,SNR=9.8 | | | | | | |
| ILB | Eielson Array | 153.56 | 304 | *e*PKPbc | **PKPbc** | **20 52 25.6** | **+0.2** |
| MAJO | Matsushiro | 153.74 | 150 | *e*PKIKP | **PKPbc** | **20 52 27.0** | **+0.3** |
| MAJO | Matsushiro | 153.74 | 150 | *e*PKPbc | **PKPbc** | **20 52 27.0** | **+0.3** |
| MAT | Matsushiro | 153.74 | 150 | PKP | **PKPbc** | **20 52 26.6** | **-0.1** |
| MJAR | Matsushiro Arr | 153.74 | 150 | PKPbc | **PKPbc** | **20 52 26.6** | **-0.1** |
| | comp=Z,12nm,0.9s,baz=193,slow=2.8,SNR=18 | | | | | | |
| MJAR | | | | PKPab | **PKPab** | **20 52 39.6** | **0.0** |
| | comp=Z,7.9nm,0.8s,baz=177,slow=4.0,SNR=4.1 | | | | | | |
| MJB9 | Matsu-Tunnel | 153.74 | 150 | *e*PKPbc | **PKPbc** | **20 52 27.1** | **+0.4** |
| CCB | Clear Creek Bu | 153.89 | 304 | *e*PKPbc | **PKPbc** | **20 52 26.1** | **0.0** |
| RND | Reindeer | 153.91 | 301 | *e*PKIKP | **PKPbc** | **20 52 27.0** | **+0.7** |
| RND | Reindeer | 153.91 | 301 | *e*PKPbc | **PKPbc** | **20 52 27.0** | **+0.7** |
| COLA | College | 153.99 | 304 | *e*PKIKP | **PKPbc** | **20 52 29.7** | **+3.5** |
| COLA | College | 153.99 | 304 | *e*PKPbc | **PKPbc** | **20 52 29.7** | **+3.5** |
| MCK | McKinley | 154.06 | 301 | *e*PKIKP | **PKPbc** | **20 52 27.2** | **+0.7** |
| MCK | McKinley | 154.06 | 301 | *e*PKPbc | **PKPbc** | **20 52 27.2** | **+0.7** |
| MDM | Murphy Dome | 154.16 | 304 | *e*PKPbc | **PKPbc** | **20 52 26.5** | **-0.2** |
| TRF | Thorofare Moun | 154.53 | 300 | *e*PKPbc | **PKPbc** | **20 52 29.3** | **+1.6** |
| KTH | Kantishna Hill | 154.84 | 300 | *e*PKPbc | **PKPbc** | **20 52 28.6** | **+0.3** |
| BPAW | Bear Paw Mtn. | 155.03 | 302 | *e*PKPbc | PKPbc | 20 52 28.8 | |
| PPLA | Purkeypile | 155.16 | 298 | *e*PKPbc | PKPbc | 20 52 30.1 | |
| IM3 | Indian Mountai | 156.66 | 305 | *e*PKPdif | PKPdf | 20 52 33.0 | +11 |
| HIA | Hailar | 157.49 | 105 | *e*PKP2 | **PKPab** | **20 52 55.2** | **-0.2** |
| HIA | Hailar | 157.49 | 105 | *e*PKPab | **PKPab** | **20 52 55.2** | **-0.2** |
| USRK | Ussuriysk Ar. | 158.82 | 132 | PKPab | **PKPab** | **20 53 01.0** | **-0.2** |
| | comp=Z,9.5nm,1.1s,baz=221,slow=4.3,SNR=6.3 | | | | | | |
| KLR | Kul'dur | 162.86 | 122 | PKP | **PKPdf** | **20 52 28.6** | **-0.8** |
| | comp=Z,0.5nm,1.1s,baz=321,slow=1.4,SNR=7.9 | | | | | | |
| KLR | | | | PKPab | **PKPab** | **20 53 18.3** | **-0.4** |
| | comp=Z,0.7nm,1.0s,baz=249,slow=3.8,SNR=10 | | | | | | |
| TIXI | Tiksi | 165.24 | 32 | PKPab | **PKPab** | **20 53 29.4** | **+0.8** |
| | comp=Z,4.0nm,0.7s,baz=312,slow=3.0,SNR=8.7 | | | | | | |
| YAK | Yakutsk | 168.26 | 73 | PKPab | **PKPab** | **20 53 42.4** | **+0.2** |
| | comp=Z,12nm,0.5s,baz=61,slow=2.4,SNR=6.1 | | | | | | |
| BILL | Bilibino | 171.01 | 329 | *de*PKIKP | PKPpre | 20 52 29.4 | |
| BILL | | | | pmax | pmax | | |
| | comp=Z,11nm,2.0s | | | | | | |
| PETK | Petropavlovsk- | 172.08 | 196 | PKP | **PKPdf** | **20 52 35.1** | **-0.8** |
| | comp=Z,9.0nm,1.0s,baz=333,slow=0.3,SNR=4.1 | | | | | | |
| PETK | | | | PKPab | **PKPab** | **20 54 00.8** | **+1.6** |
| | comp=Z,6.4nm,0.9s,baz=229,slow=5.7,SNR=3.9 | | | | | | |
| PEA1 | Petropavlovsk- | 172.08 | 196 | *e*PKPdf | **PKPdf** | **20 52 35.1** | **-0.8** |
| PEA1 | | | | *e*PKPab | **PKPab** | **20 54 00.8** | **+1.5** |
| MA2 | Magadan | 177.96 | 124 | PKPab | PKPab | 20 54 25.2 | -0.1 |
| | comp=Z,13nm,0.9s,baz=178,slow=4.8,SNR=8.0 | | | | | | |

**WEL 28 20:37:19.1±0.5,38°84'S×175°37'E,h165$^{km}_{\pm 3km}$,ML3.9/47, 28C-9D,Error ellipse: s-maj=1.7km s-min=1.5km az=90.0,North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WATZ | Wairara | 0.32 | 65 | PN | Pn | 20 37 41.3 | -0.3 |
| RATZ | Rangitukua | 0.32 | 95 | ⇑PN | Pn | 20 37 41.2 | -0.3 |
| KRVZ | Karewarewa | 0.33 | 140 | ⇑PN | Pn | 20 37 41.5 | -0.1 |
| NGZ | Ngauruhoe | 0.38 | 151 

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **MTW** | **Mount Morrison** | **2.32** | **177** | PN | Pn | 20 37 57.3 | -1.4 |
| MTW | | | | AML | AML | 20 38 27.6 | |
| MTW | | | | AML | AML | 20 38 27.7 | |
| **PKGZ** | **Pakihiroa** | **2.33** | **67** | ⇓PN | Pn | 20 37 58.8 | -0.3 |
| PKGZ | | | | AML | AML | 20 38 30.5 | |
| PKGZ | | | | AML | AML | 20 38 30.7 | |
| **PUZ** | **Puketiti** | **2.40** | **72** | ⇓PN | Pn | 20 37 59.2 | -0.5 |
| PUZ | | | | *e*SN | Sn | 20 38 28.3 | -2.9 |
| PUZ | | | | AML | AML | 20 38 33.3 | |
| **WEL** | **Wellington** | **2.48** | **190** | PN | Pn | 20 37 59.3 | -1.4 |
| WEL | | | | AML | AML | 20 38 31.2 | |
| WEL | | | | AML | AML | 20 38 31.8 | |
| **TCW** | **Tory Channel** | **2.51** | **199** | ⇑PN | Pn | 20 37 59.6 | -1.4 |
| TCW | | | | AML | AML | 20 38 31.6 | |
| TCW | | | | AML | AML | 20 38 31.8 | |
| **PAWZ** | **Paruwai Farm** | **2.54** | **179** | ⇑PN | Pn | 20 37 59.8 | -1.6 |
| PAWZ | | | | AML | AML | 20 38 32.1 | |
| PAWZ | | | | AML | AML | 20 38 32.4 | |
| **TRWZ** | **Traveller** | **2.56** | **175** | PN | Pn | 20 38 00.3 | -1.5 |
| TRWZ | | | | AML | AML | 20 38 33.2 | |
| TRWZ | | | | AML | AML | 20 38 33.4 | |
| **MSWZ** | **Moikau Station** | **2.57** | **182** | ⇑PN | Pn | 20 38 00.2 | -1.6 |
| MSWZ | | | | AML | AML | 20 38 30.6 | |
| MSWZ | | | | AML | AML | 20 38 32.9 | |
| **BHW** | **Baring Head** | **2.59** | **188** | PN | Pn | 20 38 00.4 | -1.6 |
| BHW | | | | AML | AML | 20 38 33.1 | |
| BHW | | | | AML | AML | 20 38 33.5 | |
| **WMGZ** | **Waiomatatini S** | **2.60** | **68** | PN | Pn | 20 38 01.6 | -0.6 |
| WMGZ | | | | AML | AML | 20 38 36.0 | |
| WMGZ | | | | AML | AML | 20 38 36.8 | |
| **MXZ** | **Matakaoa Point** | **2.64** | **62** | ⇓PN | Pn | 20 38 02.5 | -0.2 |
| MXZ | | | | AML | AML | 20 38 18.1 | |
| MXZ | | | | AML | AML | 20 38 33.2 | |
| **PLWZ** | **Palliser** | **2.73** | **182** | ⇑PN | Pn | 20 38 01.9 | -1.8 |
| PLWZ | | | | AML | AML | 20 38 36.1 | |
| PLWZ | | | | AML | AML | 20 38 36.4 | |
| **TUWZ** | **Tuamarina** | **2.81** | **202** | PN | Pn | 20 38 03.0 | -1.6 |
| TUWZ | | | | AML | AML | 20 38 38.0 | |
| TUWZ | | | | AML | AML | 20 38 38.3 | |
| **BSWZ** | **Blackbirch Sta** | **3.09** | **201** | PN | Pn | 20 38 06.5 | -1.6 |
| **INZ** | **Inchbonnie** | **4.89** | **216** | PN | Pn | 20 38 27.4 | -3.8 |
| **OXZ** | **Oxford** | **5.14** | **208** | PN | Pn | 20 38 30.9 | -3.6 |
| **MQZ** | **McQueen's Vall** | **5.27** | **202** | ⇓PN | Pn | 20 38 32.3 | -3.9 |
| **JCZ** | **Jackson Bay** | **7.19** | **221** | PN | Pn | 20 38 57.7 | -4.0 |

*OBM **28** 20:44:37.3±0.1,51˚.83N×95˚.80E, h2km, Ml3.8/1, Error ellipse: s-maj=2.0km s-min=1.8km az=20.0*
*MOS **28** 20:44:39.5±3.0,51˚.82N×96˚.01E, h10km, mb4.4/1, Error ellipse: s-maj=23.7km s-min=12.3km az=177.1*
*IDC **28** 20:44:39.5±1.1,51˚.48N×96˚.03E, h0km, mb1 3.2/5, mb1mx3.0/58, mbtmp3.2/5, ML2.9/5, Error ellipse: s-maj=34.1km s-min=10.8km az=0.0*

**ISC 28 20:44:42.0±1.0, 52˚.05N±0˚.08×95˚.83E±0˚.05, h10km, n24, σ1§76/17, 1C-1D, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ORL** | **Orlik** | **2.49** | **77** | ⇓*i*PN | **Pn** | **20 45 22.6** | **-0.1** |
| ORL | | | | *e* | | 20 45 56.2 | |
| ORL | | | | pmax | pmax | | |
| | comp=Z,141nm,0.3s | | | | | | |
| ORL | | | | smax | smax | | |
| | comp=N,380nm,0.6s | | | | | | |
| **HTG** | **Hatgal** | **3.16** | **119** | *e*Pg | **Pn** | **20 45 32.2** | **+0.3** |
| HTG | | | | *e*Sg | **Sn** | **20 46 11.4** | **+1.7** |
| **ULG** | **Ulaangom** | **3.17** | **230** | *e*Pn | Pn | 20 45 29.6 | -2.4 |
| ULG | | | | *e*Sg | **Sn** | **20 46 11.4** | **+1.4** |
| **MOY** | **Mondy** | **3.22** | **95** | ⇑*e*PN | **Pn** | **20 45 31.2** | **-1.6** |
| MOY | | | | *i* | | 20 45 35.4 | |
| MOY | | | | *e* | | 20 46 17.0 | |
| MOY | | | | pmax | pmax | | |
| | comp=Z,102nm,0.6s | | | | | | |
| MOY | | | | smax | smax | | |
| | comp=N,927nm,1.1s | | | | | | |
| **TSC** | **Tosontsengel** | **3.63** | **154** | *e*Pn | Pn | 20 45 34.7 | -3.7 |
| TSC | | | | *e*Sg | **Sn** | **20 46 25.6** | **+4.3** |
| **ARS** | **Arshan** | **4.08** | **89** | *e*PN | **Pb** | **20 45 53.2** | **-0.7** |
| **TLY** | **Talaya** | **4.86** | **91** | Pg | Pn | 20 46 03.0 | +7.9 |
| | comp=N,0.1nm,0.3s,baz=277,slow=15,SNR=23 | | | | | | |
| TLY | | | | Lg | Lg | 20 47 06.7 | |
| | comp=N,0.3nm,0.3s,baz=3.4,slow=20,SNR=7.3 | | | | | | |
| **TLY** | **Talaya** | **4.86** | **91** | *e*PN | **Pb** | **20 46 05.4** | **-1.7** |
| TLY | | | | *e* | | 20 47 06.3 | |
| TLY | | | | pmax | pmax | | |
| | comp=Z,14nm,0.3s | | | | | | |
| **BYO** | **Bayan-Olgiy** | **4.86** | **233** | *e*Pg | Pn | 20 46 03.3 | +7.9 |
| BYO | | | | *e*Sg | **Sb** | **20 47 04.5** | **-1.4** |
| **HBD** | **Hovd** | **4.86** | **215** | *e*Pn | Pn | 20 45 51.4 | -3.9 |
| HBD | | | | *e*Sg | **Sb** | **20 47 03.4** | **-2.5** |
| **ZAK** | **Zakamensk** | **4.97** | **107** | *e*PN | Pn | 20 46 04.0 | +7.2 |
| ZAK | | | | *e* | | 20 47 08.8 | |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,29nm,0.5s | | | | | | |
| ZAK | | | | smax | smax | | |
| | comp=N,256nm,1.3s | | | | | | |
| **IRK** | **Irkutsk** | **5.20** | **85** | *e*PN | **Pb** | **20 46 13.0** | **0.0** |
| IRK | | | | *e* | | 20 47 16.4 | |
| IRK | | | | pmax | pmax | | |
| | comp=Z,184nm,0.2s | | | | | | |
| IRK | | | | smax | smax | | |
| | comp=N,474nm,1.3s | | | | | | |
| **TTS** | **Tsetserleg** | **5.84** | **139** | *e*Pg | Pb | 20 46 19.5 | -4.5 |
| TTS | | | | *e*Sg | **Sb** | **20 47 32.5** | **-1.6** |
| **BLGM** | **Bulgan** | **5.90** | **121** | *e*Pg | Pb | 20 46 21.9 | -3.1 |
| **ZALV** | **Zalesovo Beam** | **6.92** | **290** | Pn | **Pn** | **20 46 24.9** | **+1.6** |
| | comp=N,0.6nm,0.3s,baz=101,slow=13,SNR=8.5 | | | | | | |
| ZALV | | | | Lg | Lg | 20 48 17.8 | |
| | comp=N,2.4nm,0.3s,baz=110,slow=25,SNR=8.9 | | | | | | |
| **OGRR** | **Ongureny** | **7.30** | **73** | *e*P | Pn | 20 46 25.8 | -2.9 |
| OGRR | | | | pmax | pmax | | |
| | comp=Z,21nm,0.6s | | | | | | |
| **SONM** | **Songino Array** | **8.01** | **118** | Pn | Pn | 20 46 30.2 | -8.3 |
| | comp=Z,0.1nm,0.3s,baz=301,slow=15,SNR=2.7 | | | | | | |
| SONM | | | | Pg | Pb | 20 46 58.6 | -2.4 |
| | comp=Z,1.0nm,0.3s,baz=298,slow=18,SNR=23 | | | | | | |
| SONM | | | | Lg | Lg | 20 48 45.9 | |
| | comp=Z,2.5nm,0.3s,baz=306,slow=25,SNR=8.7 | | | | | | |
| **NVS** | **Novosibirsk** | **8.02** | **295** | *e*P | Pn | 20 46 49.8 | +11 |
| **SYVR** | **Suvo** | **8.72** | **74** | *e*P | Pn | 20 46 58.7 | +11 |
| SYVR | | | | pmax | pmax | | |
| | comp=Z,17nm,1.6s | | | | | | |
| **NIZ** | **Nizh Angarsk** | **8.91** | **60** | *e*P | **Pn** | **20 46 50.5** | **-0.2** |
| NIZ | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.4s | | | | | | |
| **MKAR** | **Makanchi Array** | **10.27** | **245** | Pn | Pn | 20 47 06.6 | -2.7 |
| | comp=Z,0.1nm,0.3s,baz=60,slow=14,SNR=6.7 | | | | | | |
| MKAR | | | | Lg | Lg | 20 50 02.3 | |
| | comp=Z,0.5nm,0.3s,baz=51,slow=27,SNR=6.1 | | | | | | |
| **KURK** | **Kurchatov** | **10.84** | **270** | P | **Pn** | **20 47 17.8** | **+0.7** |
| **KURBB** | **Kurchatov Arra** | **10.92** | **269** | Pn | **Pn** | **20 47 17.8** | **-0.5** |
| | comp=Z,0.1nm,0.3s,baz=74,slow=15,SNR=5.9 | | | | | | |
| KURBB | | | | Lg | Lg | 20 50 22.9 | |
| | comp=Z,0.1nm,0.3s,baz=82,slow=33,SNR=9.8 | | | | | | |
| **BVAR** | **Borovoye Array** | **15.49** | **284** | Pn | **Pn** | **20 48 21.0** | **+0.7** |
| | comp=Z,0.2nm,0.3s,baz=96,slow=13,SNR=3.5 | | | | | | |

**GUC 28 20:52:31.3±0.4, 22˚.24S×67˚.77W, h199km±8km, ML3.5, 3C-2D, Chile-Bolivia border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PB06** | **IPOC Station P** | **1.73** | **254** | ⇓*i*P | Pn | 20 53 08.2 | +1.0 |
| PB06 | | | | *e*S | Sn | 20 53 36.5 | +1.4 |
| PB06 | | | | IAML | | 20 53 39.0 | |
| | comp=E,169nm,0.1s | | | | | | |
| **PB01** | **IPOC Station P** | **1.99** | **306** | ⇓*i*P | Pn | 20 53 10.9 | +1.1 |
| PB01 | | | | *i* S | Sn | 20 53 41.1 | +1.4 |
| **PB07** | **IPOC Station P** | **2.03** | **284** | *e*P | Pn | 20 53 11.7 | +1.4 |
| PB07 | | | | *e*S | Sn | 20 53 42.0 | +1.5 |
| PB07 | | | | IAML | | 20 53 43.0 | |
| | comp=N,246nm,0.2s | | | | | | |
| **PB02** | **IPOC Station P** | **2.18** | **294** | ⇑*i*P | Pn | 20 53 13.0 | +1.2 |
| PB02 | | | | *i* S | Sn | 20 53 44.5 | +1.3 |
| PB02 | | | | IAML | | 20 53 46.8 | |
| | comp=E,192nm,0.2s | | | | | | |
| **PB04** | **IPOC Station P** | **2.21** | **267** | ⇑*i*P | Pn | 20 53 13.6 | +1.5 |
| PB04 | | | | *e*S | Sn | 20 53 45.6 | +1.8 |
| PB04 | | | | IAML | | 20 53 47.3 | |
| | comp=N,251nm,0.1s | | | | | | |
| **PB08** | **IPOC Station P** | **2.46** | **328** | ⇑*i*P | Pn | 20 53 16.6 | +1.5 |
| PB08 | | | | *i* S | Sn | 20 53 51.5 | +2.4 |

*DDA **28** 21:01:36.0,36˚.38N×28˚.80E, h16km, Md3.4*
*CSEM **28** 21:01:37.9±0.1,36˚.44N×28˚.79E, h2km, ML3.5, Error ellipse: s-maj=3.4km s-min=2.2km az=171.0*
*ISCJB **28** 21:01:37.6±0.4,36˚.43N±0˚.02×28˚.80E±0˚.02, h11km±3km, mb3.7/13, MS3.4/1, Error ellipse: s-maj=3.1km s-min=2.4km az=173.6*
*ATH **28** 21:01:37.3,36˚.51N×28˚.79E, h19km, ML3.6/7, Error ellipse: s-maj=1.1km s-min=0.5km az=169.0*
*ISK **28** 21:01:37.7,36˚.50N×28˚.76E, h6km, ML3.5*
*THE **28** 21:01:38.1,36˚.49N×28˚.94E, h6km±1km, ML3.6/3, Error ellipse: s-maj=1.3km s-min=0.2km az=148.0*
*IDC **28** 21:01:40.3±2.1,36˚.37N×28˚.83E, h36km±20km, mb3.6/13, mb1 3.7/20, mb1mx3.6/54, mbtmp3.7/20, ML3.5/7, MS3.2/2, Ms1 3.2/2, ms1mx2.5/49, Error ellipse: s-maj=14.7km s-min=12.2km az=171.0*
*NIC **28** 21:01:43.1±0.3,36˚.11N×28˚.91E, h25km, mb4.4, ML4.1*

**ISC 28 21:01:37.7±0.9, 36˚.42N±0˚.02×28˚.80E±0˚.01, h14km±6km, n243, σ1§63/306, mb3.6/13, 14C-3D, Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FETY** | **Fethiye** | **0.32** | **47** | *e*PG | **Pg** | **21 01 43.7** | **-0.5** |
| **FETY** | **Fethiye** | **0.32** | **47** | P | **Pg** | **21 01 43.1** | **-1.1** |
| **FETY** | **Fethiye** | **0.32** | **47** | *e*P | **Pg** | 21 01 43.7 | -0.5 |
| FETY | | | | S | **Sg** | **21 01 48.4** | **-0.2** |
| **FETI** | **Fethiye-Mugla** | **0.36** | **42** | *e*PG | **Pg** | 21 01 44.8 | -0.2 |
| FETI | | | | *e*SG | **Sg** | **21 01 50.3** | **+0.3** |
| **FETI** | **Fethiye-Mugla** | **0.36** | **42** | *e*Pg | **Pg** | 21 01 44.8 | -0.2 |
| FETI | | | | *e*Sg | **Sg** | **21 01 50.3** | **+0.3** |
| **TURN** | **Turunc** | **0.48** | **341** | *e*PG | **Pg** | **21 01 47.6** | **+0.4** |
| TURN | | | | *e*SG | **Sb** | **21 01 55.2** | **+0.3** |
| **TURN** | **Turunc** | **0.48** | **341** | *i* P | **Pb** | **21 01 47.7** | **-0.2** |
| TURN | | | | *i* S | **Sb** | **21 01 56.5** | **+1.6** |
| **TURN** | **Turunc** | **0.48** | **341** | *e*Pg | **Pg** | **21 01 47.6** | **+0.4** |
| TURN | | | | S | **Sb** | **21 01 56.5** | **+1.6** |
| **MRSB** | **Marmaris-Mugla** | **0.57** | **302** | *e*PG | **Pg** | **21 01 47.9** | **-0.9** |
| MRSB | | | | *e*SG | **Sg** | **21 01 55.6** | **-0.8** |
| **MRSB** | **Marmaris-Mugla** | **0.57** | **302** | *e*Pg | **Pg** | **21 01 47.9** | **-0.9** |
| MRSB | | | | *e*Sg | **Sg** | **21 01 55.6** | **-0.8** |
| **ARG** | **Arkhangelos** | **0.58** | **250** | P | **Pg** | **21 01 48.7** | **-0.2** |
| ARG | | | | S | **Sb** | **21 01 58.4** | **+0.7** |
| ARG | | | | AML | AML | 21 01 59.8 | |
| | comp=N,17109μm,0.6s | | | | | | |
| ARG | | | | AML | AML | 21 02 01.1 | |
| | comp=E,21347μm,0.2s | | | | | | |
| **ARG** | **Arkhangelos** | **0.58** | **250** | P | **Pg** | **21 01 48.8** | **-0.2** |
| ARG | | | | S | **Sb** | **21 01 58.4** | **+0.7** |
| **ARG** | **Arkhangelos** | **0.58** | **250** | P | **Pg** | **21 01 48.8** | **-0.2** |
| **KSL** | **Kastellorizon** | **0.69** | **113** | P | **Pg** | **21 01 51.5** | **+0.3** |
| KSL | | | | S | **Sn** | **21 02 02.7** | **-0.9** |
| KSL | | | | AML | AML | 21 02 08.5 | |
| | comp=N,5401μm,0.6s | | | | | | |
| KSL | | | | AML | AML | 21 02 08.9 | |
| | comp=E,12636μm,0.5s | | | | | | |
| **KSL** | **Kastellorizon** | **0.69** | **113** | P | **Pg** | **21 01 50.5** | **-0.6** |
| KSL | | | | S | **Sg** | **21 02 00.0** | **-0.2** |
| **GLHS** | **Glhisar (BURDU** | **0.93** | **37** | *e*PG | **Pg** | **21 01 54.9** | **-0.8** |
| GLHS | | | | *e*SG | **Sb** | **21 02 07.8** | **-0.1** |
| **GLHS** | **Glhisar (BURDU** | **0.93** | **37** | *e*Pg | **Pg** | **21 01 54.9** | **-0.8** |
| GLHS | | | | *e*Sg | **Sb** | **21 02 07.8** | **-0.1** |
| **ELL** | **Elmali** | **0.95** | **69** | *e*PG | **Pb** | **21 01 56.0** | **-0.1** |
| **ELL** | **Elmali** | **0.95** | **69** | *e*Pg | **Pb** | **21 01 56.0** | **-0.1** |
| **GOLH** | **Golhisar** | **1.02** | **37** | *i* P | **Pb** | **21 01 56.0** | **-1.2** |
| **GOLH** | **Golhisar** | **1.02** | **37** | P | **Pb** | **21 01 56.0** | **-1.2** |
| **TAVA** | **DENIZLI_Tavas** | **1.05** | **5** | *i* P | **Pb** | **21 01 56.5** | **-1.2** |
| **TAVA** | **DENIZLI_Tavas** | **1.05** | **5** | P | **Pb** | **21 01 56.5** | **-1.2** |
| **BDRM** | **Kayabasi** | **1.26** | **301** | *i* P | **Pn** | **21 02 00.8** | **-0.2** |
| BDRM | | | | *i* S | **Sg** | **21 02 19.0** | **+0.5** |
| **BDRM** | **Kayabasi** | **1.26** | **301** | P | **Pn** | **21 02 00.8** | **-0.2** |
| BDRM | | | | S | **Sg** | **21 02 19.0** | **+0.5** |
| **DNZL** | **Cakiroluk** | **1.28** | **9** | *i* P | **Pn** | **21 02 00.7** | **-0.8** |
| DNZL | | | | *i* S | **Sg** | **21 02 21.8** | **+2.6** |
| **DNZL** | **Cakiroluk** | **1.28** | **9** | P | **Pn** | **21 02 00.7** | **-0.8** |
| DNZL | | | | S | **Sg** | **21 02 21.8** | **+2.6** |
| **DENT** | **Denizli** | **1.35** | **8** | *e*PN | **Pn** | **21 02 02.1** | **-0.1** |
| **DENT** | **Denizli** | **1.35** | **8** | *e*Pn | **Pn** | **21 02 02.1** | **-0.1** |
| **BODT** | **Bodrum** | **1.36** | **299** | *e*PN | **Pb** | **21 02 02.8** | **-0.1** |
| BODT | | | | *e*SN | **Sg** | **21 02 11.1** | **-0.3** |
| **BODT** | **Bodrum** | **1.36** | **299** | *e*Pn | **Pb** | **21 02 02.8** | **-0.1** |
| BODT | | | | *e*Sn | **Sg** | **21 02 21.1** | **-0.3** |
| **NISR** | **Nisiros** | **1.36** | **279** | P | **Pb** | **21 02 03.3** | **+0.4** |
| **NISR** | **Nisiros** | **1.36** | **279** | P | **Pb** | **21 02 03.3** | **+0.4** |
| **KORT** | **Korkueli** | **1.38** | **65** | *e*PN | **Pg** | **21 02 05.0** | **+0.8** |
| **KORT** | **Korkueli** | **1.38** | **65** | *i* P | **Pg** | **21 02 04.1** | **-0.1** |
| KORT | | | | *i* S | **Sg** | **21 02 28.0** | **+5.9** |
| **KORT** | **Korkueli** | **1.38** | **65** | P | **Pg** | **21 02 04.1** | **-0.1** |
| **KORT** | **Korkueli** | **1.38** | **65** | *e*Pn | **Pg** | **21 02 05.0** | **+0.8** |
| **YKAV** | **Yalikavak-Bodr** | **1.41** | **300** | *e*PN | **Pn** | **21 02 02.6** | **-0.3** |
| **YKAV** | **Yalikavak-Bodr** | **1.41** | **300** | *e*Pn | **Pn** | **21 02 02.6** | **-0.3** |
| **AYDN** | **Tasoluk** | **1.44** | **330** | *i* P | **Pn** | **21 02 04.0** | **+0.5** |
| AYDN | | | | *i* S | **Sg** | **21 02 23.7** | **-0.4** |
| **AYDN** | **Tasoluk** | **1.44** | **330** | P | **Pn** | **21 02 04.0** | **+0.5** |
| AYDN | | | | S | **Sg** | **21 02 23.7** | **-0.4** |
| **ANTB** | **Antalya** | **1.57** | **72** | *e*PN | **Pg** | **21 02 07.9** | **+0.1** |
| **ANTB** | **Antalya** | **1.57** | **72** | *e*Pn | **Pg** | **21 02 07.9** | **+0.1** |
| **KARP** | **Karpathos** | **1.59** | **237** | *e*PN | **Pn** | **21 02 07.5** | **+0.7** |
| **KARP** | **Karpathos** | **1.59** | **237** | P | **Pb** | **21 02 07.8** | **+0.9** |
| KARP | | | | S | **Sg** | **21 02 29.3** | **+0.5** |
| **KARP** | **Karpathos** | **1.59** | **237** | P | **Pb** | **21 02 07.8** | **+0.9** |
| **KARP** | **Karpathos** | **1.59** | **237** | *e*Pn | **Pb** | **21 02 07.5** | **+0.7** |
| KARP | | | | S | **Sg** | **21 02 29.3** | **+0.5** |
| **BRDR** | **BURDUR-Merkez** | **1.63** | **38** | *i* P | **Pn** | **21 02 06.8** | **+0.7** |
| BRDR | | | | *i* S | **Sg** | **21 02 31.0** | **+0.9** |
| **BRDR** | **BURDUR-Merkez** | **1.63** | **38** | P | **Pn** | **21 02 06.8** | **+0.7** |
| BRDR | | | | S | **Sg** | **21 02 31.0** | **+0.9** |
| **BCK** | **Bucak** | **1.77** | **54** | *e*PN | **Pb** | **21 02 09.2** | **-0.8** |
| **BCK** | **Bucak** | **1.77** | **54** | *e*Pn | **Pb** | **21 02 09.2** | **-0.8** |
| **GCAM** | **G?zelcaml?** | **1.79** | **316** | *e*PN | **Pn** | **21 02 07.9** | **-0.3** |
| **GCAM** | **G?zelcaml?** | **1.79** | **316** | *i* P | **Pn** | **21 02 08.7** | **+0.5** |
| GCAM | | | | *i* S | **Sn** | **21 02 31.5** | **+0.8** |
| **GCAM** | **G?zelcaml?** | **1.79** | **316** | *e*Pn | **Pn** | **21 02 07.9** | **-0.3** |
| **GCAM** | **G?zelcaml?** | **1.79** | **316** | P | **Pn** | **21 02 08.7** | **+0.5** |
| GCAM | | | | S | **Sn** | **21 02 31.5** | **+0.8** |
| **KUSD** | **Kusadasi-Aydin** | **1.88** | **320** | *e*PN | **Pn** | **21 02 10.1** | **+0.6** |
| **KUSD** | **Kusadasi-Aydin** | **1.88** | **320** | *e*Pn | **Pn** | **21 02 10.1** | **+0.6** |
| **KHAL** | **Karahalli** | **2.02** | **16** | *i* P | **Pn** | **21 02 12.8** | **+1.3** |
| KHAL | | | | *i* S | **Sg** | **21 02 43.9** | **+1.0** |
| **KHAL** | **Karahalli** | **2.02** | **16** | P | **Pn** | **21 02 12.9** | **+1.3** |
| **SMG** | **Samos** | **2.03** | **310** | P | **Pn** | **21 02 12.0** | **+0.5** |
| **SMG** | **Samos** | **2.03** | **310** | P | **Pn** | **21 02 12.0** | **+0.5** |
| SMG | | | | S | **Sn** | **21 02 38.0** | **+1.3** |
| **SMG** | **Samos** | **2.03** | **310** | P | **Pn** | **21 02 11.6** | **+0.1** |
| SMG | | | | S | **Sn** | **21 02 38.0** | **+1.3** |
| **MANT** | **Manisa** | **2.08** | **355** | *i* P | **Pn** | **21 02 12.6** | **+0.2** |
| MANT | | | | *i* S | **Sn** | **21 02 39.4** | **+1.1** |
| **MANT** | **Manisa** | **2.08** | **355** | P | **Pn** | **21 02 12.6** | **+0.2** |
| MANT | | | | S | **Sn** | **21 02 39.3** | **+1.1** |
| **KULA** | **Kula-Manisa** | **2.10** | **357** | *e*PN | **Pn** | **21 02 13.8** | **+1.3** |
| **KULA** | **Kula-Manisa** | **2.10** | **357** | *e*Pn | **Pn** | **21 02 13.8** | **+1.3** |
| **KZIL** | **AFYON_Kizioren** | **2.12** | **30** | *i* P | **Pb** | **21 02 14.8** | **-1.3** |
| **KZIL** | **AFYON_Kizioren** | **2.12** | **30** | P | **Pb** | **21 02 14.8** | **-1.3** |
| **BAGO** | **Egridir - ISPA** | **2.23** | **45** | *i* P | **Pb** | **21 02 16.8** | **-1.2** |
| BAGO | | | | *i* S | **Sg** | **21 02 54.1** | **+4.6** |
| **DGB** | **˜zmir** | **2.23** | **317** | *i* P | **Pn** | **21 02 14.2** | **-0.1** |
| DGB | | | | *i* S | **Sn** | **21 02 42.3** | **+0.6** |
| **GMLD** | **Gumuldur** | **2.23** | **318** | *e*PN | **Pn** | **21 02 15.4** | **+1.1** |
| **GMLD** | **Gumuldur** | **2.23** | **318** | *e*Pn | **Pn** | **21 02 15.4** | **+1.1** |
| **KEPZ** | **Antalya-Kepez** | **2.31** | **77** | *i* P | **Pb** | **21 02 18.6** | **-0.5** |
| KEPZ | | | | *i* S | **Sg** | **21 02 51.2** | **-0.7** |
| **KEPZ** | **Antalya-Kepez** | **2.31** | **77** | P | **Pb** | **21 02 18.6** | **-0.5** |
| **ZKR** | **Zakros** | **2.47** | **239** | P | **Pb** | **21 02 20.1** | **-1.7** |
| ZKR | | | | S | **Sn** | **21 02 49.7** | **+2.2** |
| ZKR | | | | AML | AML | 21 03 05.9 | |
| | comp=E,1667μm,0.7s | | | | | | |
| ZKR | | | | AML | AML | 21 03 06.0 | |
| | comp=N,644μm,0.5s | | | | | | |
| **ZKR** | **Zakros** | **2.47** | **239** | P | **Pn** | **21 02 19.9** | **+2.3** |
| ZKR | | | | S | **Sn** | **21 02 49.7** | **+2.2** |
| **ZKR** | **Zakros** | **2.47** | **239** | P | **Pn** | **21 02 19.9** | **+2.3** |
| ZKR | | | | S | **Sb** | **21 02 51.1** | **-1.1** |
| **SHUT** | **Suhut-Afyon** | **2.55** | **33** | *e*PN | **Pn** | **21 02 20.2** | **+1.5** |
| **SHUT** | **Suhut-Afyon** | **2.55** | **33** | *e*Pn | **Pn** | **21 02 20.2** | **+1.5** |
| **AKHS** | **Akhisar** | **2.58** | **343** | *i* P | **Pn** | **21 02 19.5** | **+0.4** |
| AKHS | | | | *i* S | **Sn** | **21 02 51.5** | **+1.3** |
| **AKHS** | **Akhisar** | **2.58** | **343** | P | **Pn** | **21 02 19.5** | **+0.4** |
| AKHS | | | | S | **Sn** | **21 02 51.5** | **+1.3** |
| **AKS** | **Akhisar** | **2.58** | **343** | *e*PN | **Pn** | **21 02 20.1** | **+1.0** |
| **AKS** | **Akhisar** | **2.58** | **343** | *e*Pn | **Pn** | **21 02 20.1** | **+1.0** |
| **ZEY** | **˜zmir** | **2.58** | **316** | *i* P | **Pn** | **21 02 18.8** | **-0.2** |
| ZEY | | | | *i* S | **Sn** | **21 02 51.7** | **+1.5** |
| **URLA** | **Izmir** | **2.61** | **319** | *e*PN | **Pn** | **21 02 20.1** | **+0.5** |
| **URLA** | **Izmir** | **2.61** | **319** | *i* P | **Pb** | **21 02 23.0** | **-1.4** |
| URLA | | | | *i* S | **Sb** | **21 02 56.2** | **-0.2** |
| **URLA** | **Izmir** | **2.61** | **319** | *e*Pn | **Pn** | **21 02 20.1** | **+0.5** |
| **URLA** | **Izmir** | **2.61** | **319** | P | **Pb** | **21 02 23.0** | **-1.4** |
| URLA | | | | S | **Sb** | **21 02 56.2** | **-0.2** |
| **DEMI** | **Demirci** | **2.62** | **359** | *i* P | **Pn** | **21 02 20.1** | **+0.4** |
| DEMI | | | | *i* S | **Sn** | **21 02 52.2** | **+0.8** |
| **DEMI** | **Demirci** | **2.62** | **359** | P | **Pn** | **21 02 20.1** | **+0.4** |
| DEMI | | | | S | **Sn** | **21 02 52.2** | **+0.8** |
| **SIMA** | **Simav-Kutahya** | **2.66** | **3** | *e*PN | **Pn** | **21 02 20.8** | **+0.5** |
| **SIMA** | **Simav-Kutahya** | **2.66** | **3** | *e*Pn | **Pn** | **21 02 20.8** | **+0.5** |
| **SANT** | **Santorini** | **2.69** | **270** | P | **Pn** | **21 02 22.0** | **+1.3** |
| **SANT** | **Santorini** | **2.69** | **270** | P | **Pn** | **21 02 22.0** | **+1.3** |
| **APE** | **Apeiranthos** | **2.70** | **285** | *e*PN | **Pn** | **21 02 22.1** | **+1.3** |
| **APE** | **Apeiranthos** | **2.70** | **285** | P | **Pn** | **21 02 21.7** | **+0.9** |
| APE | | | | S | **Sn** | **21 02 54.8** | **+1.4** |
| APE | | | | AML | AML | 21 03 03.4 | |
| | comp=N,189μm,0.6s | | | | | | |
| APE | | | | AML | AML | 21 03 07.8 | |
| | comp=E,245μm,0.7s | | | | | | |
| **APE** | **Apeiranthos** | **2.70** | **285** | P | **Pn** | **21 02 21.7** | **+0.9** |
| **APE** | **Apeiranthos** | **2.70** | **285** | *e*Pn | **Pn** | **21 02 22.1** | **+1.3** |
| APE | | | | S | **Sn** | **21 02 54.8** | **+1.4** |
| **THR3** | **Thira Island,** | **2.74** | **271** | P | **Pn** | **21 02 22.3** | **+1.0** |
| **THR3** | **Thira Island,** | **2.74** | **271** | P | **Pn** | **21 02 22.3** | **+1.0** |
| **THR6** | **Thira Island,** | **2.74** | **270** | P | **Pn** | **21 02 22.8** | **+1.5** |
| **THR6** | **Thira Island,** | **2.74** | **270** | P | **Pn** | **21 02 22.8** | **+1.5** |
| **THR5** | **Thira Island,** | **2.78** | **271** | P | **Pn** | **21 02 23.4** | **+1.5** |
| **THR5** | **Thira Island,** | **2.78** | **271** | P | **Pn** | **21 02 23.4** | **+1.5** |
| **NPS** | **Neapolis** | **2.83** | **247** | P | **Pn** | **21 02 23.9** | **+1.3** |
| NPS | | | | S | **Sn** | **21 02 59.3** | **+2.8** |
| NPS | | | | AML | AML | 21 03 06.8 | |
| | comp=N,1483μm,0.5s | | | | | | |
| NPS | | | | AML | AML | 21 03 07.9 | |
| | comp=E,2687μm,0.6s | | | | | | |
| **NPS** | **Neapolis** | **2.83** | **247** | P | **Pn** | **21 02 24.0** | **+1.4** |
| NPS | | | | S | **Sn** | **21 02 59.3** | **+2.8** |
| **NPS** | **Neapolis** | **2.83** | **247** | P | **Pn** | **21 02 24.0** | **+1.4** |
| NPS | | | | S | **Sn** | **21 02 59.6** | **+3.1** |
| **CHOS** | **Chios island** | **2.94** | **313** | P | **Pn** | **21 02 24.5** | **+0.4** |
| **CHOS** | **Chios island** | **2.94** | **313** | P | **Pn** | **21 02 24.5** | **+0.4** |
| **LAST** | **Lasithi** | **2.98** | **246** | P | **Pn** | **21 02 26.2** | **+1.6** |
| LAST | | | | S | **Sn** | **21 03 02.6** | **+2.4** |
| LAST | | | | AML | AML | 21 03 10.4 | |
| | comp=E,734μm,0.9s | | | | | | |
| LAST | | | | AML | AML | 21 03 15.5 | |
| | comp=N,847μm,0.6s | | | | | | |
| **LAST** | **Lasithi** | **2.98** | **246** | P | **Pn** | **21 02 26.2** | **+1.6** |
| LAST | | | | S | **Sn** | **21 03 02.6** | **+2.4** |
| **TVSB** | **Tavsanli** | **3.07** | **10** | *e*PN | **Pn** | **21 02 27.0** | **+1.1** |
| **TVSB** | **Tavsanli** | **3.07** | **10** | *e*Pn | **Pn** | **21 02 27.0** | **+1.1** |
| **AKMC** | **Akamas** | **3.19** | **115** | P | **Pn** | **21 02 27.5** | **0.0** |
| **AKMC** | **Akamas** | **3.19** | **115** | P | **Pn** | **21 02 27.5** | **0.0** |
| | baz=292 | | | | | | |
| **KONT** | **Konya--Tatoy** | **3.23** | **61** | *e*PN | **Pn** | **21 02 30.4** | **+2.4** |
| **KONT** | **Konya--Tatoy** | **3.23** | **61** | *e*Pn | **Pn** | **21 02 30.4** | **+2.4** |
| **PPCY** | **Paphos** | **3.27** | **117** | P | **Pn** | **21 02 28.8** | **+0.2** |
| **PPCY** | **Paphos** | **3.27** | **117** | P | **Pn** | **21 02 28.8** | **+0.2** |
| | baz=294 | | | | | | |
| **ERMK** | **Ermenek** | **3.32** | **85** | *i* P | **Pn** | **21 02 33.0** | **+3.5** |
| **ERMK** | **Ermenek** | **3.32** | **85** | P | **Pn** | **21 02 33.0** | **+3.5** |
| **ALFC** | **Alefka** | **3.34** | **111** | P | **Pn** | **21 02 29.5** | **0.0** |
| ALFC | | | | S | **Sn** | **21 03 07.0** | **-2.0** |
|

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| MMAI | **Mount Meron Ar** | **6.41** | **120** | Pn | **Pn** | **21 03 11.2** | **-0.6** | |
| | comp=N,4.7nm,0.3s,baz=308,slow=12,SNR=14 | | | | | | | |
| MMAI | | | | Sn | **Sn** | **21 04 23.0** | **-1.9** | |
| | comp=N,9.0nm,0.3s,baz=308,slow=18,SNR=9.0 | | | | | | | |
| **PDO** | **Prodromos** | **6.43** | **292** | P | **Pn** | **21 03 13.2** | **+1.1** | |
| **PDO** | **Prodromos** | **6.43** | **292** | P | **Pn** | **21 03 13.1** | **+1.1** | |
| **KNT** | **Kendrikon** | **6.61** | **318** | P | **Pn** | **21 03 16.6** | **+2.2** | |
| **KNT** | **Kendrikon** | **6.61** | **318** | P | **Pn** | **21 03 16.6** | **+2.2** | |
| **DSL** | **Palaion Diasel** | **6.67** | **296** | P | **Pn** | **21 03 16.8** | **+1.4** | |
| **DSL** | **Palaion Diasel** | **6.67** | **296** | P | **Pn** | **21 03 16.8** | **+1.4** | |
| **LKD2** | **Lefkada island** | **6.88** | **293** | P | **Pn** | **21 03 20.3** | **+2.1** | |
| **LKD2** | **Lefkada island** | **6.88** | **293** | P | **Pn** | **21 03 20.3** | **+2.1** | |
| **VTS** | **Vitosha** | **7.53** | **327** | S | **Sn** | **21 04 54.4** | **+2.0** | |
| **ASF** | **Jabal al Asfar** | **7.93** | **120** | Pn | **Pn** | **21 03 32.7** | **+0.1** | |
| | comp=N,0.4nm,0.3s,baz=98,slow=4.6,SNR=3.5 | | | | | | | |
| **TIRR** | **Tirgusor** | **8.04** | **358** | ⇑*iP* | **Pn** | **21 03 35.1** | **+1.1** | |
| **TIRR** | **Tirgusor** | **8.04** | **358** | ⇑*iP* | **Pn** | **21 03 35.1** | **+1.1** | |
| **EIL** | **Elat** | **8.48** | **141** | Pn | **Pn** | **21 03 38.8** | **-1.4** | |
| | comp=N,1.2nm,0.3s,baz=291,slow=2.0,SNR=11 | | | | | | | |
| EIL | | | | Sn | **Sn** | **21 05 11.4** | **-4.3** | |
| | comp=N,6.1nm,0.3s,baz=319,slow=12,SNR=14 | | | | | | | |
| **TIR** | **Tirane** | **8.53** | **308** | ⇑*iP* | Pn | 21 03 50.0 | +9.3 | |
| **CFR** | **Carcaliu** | **8.77** | **357** | ⇓*iP* | **Pn** | **21 03 45.6** | **+1.6** | |
| **CFR** | **Carcaliu** | **8.77** | **357** | ⇓*iP* | **Pn** | **21 03 45.6** | **+1.6** | |
| **BOVS** | **Bovan** | **9.03** | **325** | *e*Pn | **Pn** | **21 03 50.5** | **+2.9** | |
| **MLR** | **Muntele Rosu** | **9.32** | **348** | Pn | **Pn** | **21 03 54.6** | **+2.9** | |
| | comp=N,0.1nm,0.3s,baz=208,slow=2.9,SNR=17 | | | | | | | |
| **MLR** | **Muntele Rosu** | **9.32** | **348** | ⇑*iP* | **Pn** | **21 03 55.3** | **+3.6** | |
| **MLR** | **Muntele Rosu** | **9.32** | **348** | ⇑*iP* | **Pn** | **21 03 55.3** | **+3.6** | |
| **VOIR** | | **9.44** | **344** | ⇑*iP* | Pn | 21 03 59.9 | +6.5 | |
| **PDG** | **Podgorica** | **9.51** | **312** | ⇓*iP* | Pn | 21 04 02.5 | +8.3 | |
| **PLOR** | **Plostina** | **9.56** | **351** | ⇑*iP* | **Pn** | **21 03 57.4** | **+2.4** | |
| **PLOR** | **Plostina** | **9.56** | **351** | ⇑*iP* | **Pn** | **21 03 57.4** | **+2.4** | |
| **VRI** | **Vrincioaia** | **9.57** | **351** | ⇑*iP* | **Pn** | **21 03 58.3** | **+3.3** | |
| **VRI** | **Vrincioaia** | **9.57** | **351** | ⇑*iP* | **Pn** | **21 03 58.3** | **+3.3** | |
| **DOPR** | **Dopca** | **9.88** | **346** | ⇑*iP* | **Pn** | **21 04 01.3** | **+2.0** | |
| **DOPR** | **Dopca** | **9.88** | **346** | ⇑*iP* | **Pn** | **21 04 01.3** | **+2.0** | |
| **BURAR** | **Bucovina Array** | **11.50** | **348** | ⇑*iP* | **Pn** | **21 04 24.8** | **+3.3** | |
| **BURAR** | **Bucovina Array** | **11.50** | **348** | ⇑*iP* | **Pn** | **21 04 24.8** | **+3.3** | |
| **GNI** | **Garni** | **13.07** | **69** | LR | LR | 21 10 55.6 | | |
| | comp=N,67nm,19.2s,baz=268,slow=42 | | | | | | | |
| **KEST** | **Kesra** | **15.75** | **273** | Pn | **P** | **21 05 22.5** | **-0.6** | |
| | comp=N,0.1nm,0.3s,baz=31,slow=21,SNR=5.7 | | | | | | | |
| **GERES** | **GERESS Array B** | **16.62** | **323** | Pn | **P** | **21 05 32.9** | **+0.2** | |
| | comp=N,0.1nm,0.3s,baz=134,slow=11,SNR=8.1 | | | | | | | |
| **GEYT** | **Alibeck** | **23.37** | **77** | P | **P** | **21 06 46.8** | **+0.9** | |
| | comp=N,0.6nm,0.6s,baz=288,slow=12,SNR=2.5 | | | | | | | |
| **FINES** | **FINESS Array B** | **25.11** | **357** | P | **P** | **21 07 01.7** | **0.0** | |
| | comp=N,4.4nm,0.6s,baz=159,slow=10,SNR=16 | | | | | | | |
| **HFS** | **Hagfors** | **25.64** | **342** | P | **P** | **21 07 06.1** | **-0.6** | |
| | comp=N,7.2nm,1.0s,baz=171,slow=13,SNR=2.5 | | | | | | | |
| **ESDC** | **Sonseca Array** | **25.92** | **287** | P | **P** | **21 07 08.6** | **-0.9** | |
| | comp=N,0.3nm,0.4s,baz=82,slow=9.4,SNR=6.3 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **33.22** | **358** | P | **P** | **21 08 14.1** | **+0.2** | |
| | comp=N,4.3nm,1.0s,baz=168,slow=9.8,SNR=2.5 | | | | | | | |
| **BVAR** | **Borovoye Array** | **33.34** | **47** | P | **P** | **21 08 13.5** | **-1.6** | |
| | comp=N,0.2nm,0.3s,baz=270,slow=5.8,SNR=2.1 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **33.59** | **233** | P | **P** | **21 08 17.1** | **-0.5** | |
| | comp=N,1.6nm,0.5s,baz=32,slow=9.0,SNR=30 | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **38.02** | **52** | P | **P** | **21 08 54.9** | **-0.4** | |
| | comp=N,0.7nm,0.7s,baz=275,slow=8.8,SNR=10 | | | | | | | |
| **MKAR** | **Makanchi Array** | **40.61** | **58** | P | **P** | **21 09 15.8** | **-1.2** | |
| | comp=N,0.7nm,0.6s,baz=281,slow=6.5,SNR=10 | | | | | | | |
| **DBIC** | **Dimbokro** | **42.68** | **234** | P | **P** | **21 09 33.0** | **-1.2** | |
| | comp=N,3.5nm,0.9s,baz=23,slow=7.5,SNR=3.9 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **63.51** | **86** | P | **P** | **21 12 07.6** | **-0.2** | |
| | comp=N,0.5nm,0.8s,baz=297,slow=8.0,SNR=3.5 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **77.12** | **344** | P | **P** | **21 13 30.2** | **-0.2** | |
| | comp=N,0.1nm,0.3s,baz=346,slow=4.6,SNR=2.5 | | | | | | | |
| YKA | | | | LR | LR | 21 49 00.5 | | |
| | comp=N,17nm,18.4s,baz=180,slow=37 | | | | | | | |
| **ILAR** | **Eielson Array** | **79.08** | **358** | P | **P** | **21 13 41.3** | **0.0** | |
| | comp=N,0.3nm,0.8s,baz=352,slow=5.6,SNR=3.5 | | | | | | | |

*ISCJB **28** 21:07:30.4±0.5,43.°94N±0.°04×105.°30W±0.°07, h0km, Error ellipse: s-maj=7.8km s-min=5.5km az=27.8*
*IDC **28** 21:07:31.4±2.1,43.°75N×105.°42W, h0km, mb1 3.2/3, mb1mx3.1/39, mbtmp3.0/3, ML2.4/2, Error ellipse: s-maj=52.1km s-min=9.1km az=150.0*
*NEIC **28** 21:07:32.1±0.5,43.°80N×105.°31W, h0km, MN2.8, Error ellipse: s-maj=9.8km s-min=6.4km az=152.0, Suspected Mining explosion.*
*NEIC 55 km [34 miles] SSE of Gillette.*

**ISC 28 21:07:31.5±0.8, 43.°88N±0.°05×105.°35W±0.°04, h0km, n12, σ1§48/19, Wyoming**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RSSD** | **Black Hills** | **0.98** | **75** | *e*Pg | **Pg** | **21 07 50.8** | **+0.5** |
| **K22A** | **Casper** | **1.50** | **215** | *e*Pn | **Pn** | **21 07 58.1** | **-1.7** |
| K22A | | | | *e*S | **Sn** | **21 08 21.8** | **+1.5** |
| **PDAR** | **Pinedale Array** | **3.27** | **251** | Pn | **Pn** | **21 08 25.4** | **+1.2** |
| | 3.5nm,0.3s,baz=77,slow=16,SNR=30 | | | | | | |
| PDAR | | | | Lg | Lg | 21 09 11.7 | |
| | 8.6nm,0.3s,baz=75,slow=28,SNR=9.7 | | | | | | |
| **BW06** | **Boulder Array** | **3.27** | **251** | *e*Pn | **Pn** | **21 08 25.1** | **+0.9** |
| **H17A** | **Grant Village** | **3.80** | **280** | *e*Pn | **Pn** | **21 08 32.3** | **+0.8** |
| H17A | | | | *e*S | **Sg** | **21 09 32.3** | **-1.1** |
| **OGNE** | **Ogallala** | **3.83** | **139** | *e*Pn | **Pn** | **21 08 31.6** | **-0.2** |
| OGNE | | | | *e*S | **Sg** | **21 09 32.2** | **-2.2** |
| **ISCO** | **Idaho Springs** | **4.08** | **183** | *e*Pn | **Pn** | **21 08 35.3** | **-0.2** |
| ISCO | | | | *e*S | **Sn** | **21 09 26.1** | **+1.9** |
| **AHID** | **Auburn Hatcher** | **4.34** | **257** | *e*Pn | **Pn** | **21 08 39.1** | **+0.2** |
| AHID | | | | *e*Pg | **Pg** | **21 08 54.2** | **-0.5** |
| **DGMT** | **Dagmar** | **4.66** | **10** | *e*Pn | **Pn** | **21 08 45.3** | **+2.2** |
| DGMT | | | | *e*Pg | **Pg** | **21 09 01.2** | **+0.4** |
| DGMT | | | | *e*S | **Sb** | **21 09 47.6** | **-3.1** |
| **CBKS** | **Cedar Bluff** | **6.59** | **138** | *e*Pn | **Pn** | **21 09 10.8** | **+1.1** |
| | 8.2nm,0.4s | | | | | | |
| **ULM** | **Lac du Bonnet** | **9.07** | **42** | Pn | **Pn** | **21 09 43.8** | **+0.1** |
| | 0.3nm,0.3s,baz=232,slow=14,SNR=4.0 | | | | | | |
| ULM | | | | Lg | Lg | 21 12 14.7 | |
| | 0.2nm,0.3s,baz=133,slow=19,SNR=2.6 | | | | | | |
| **YKA** | **Yellowknife Ar** | **19.41** | **347** | P | **P** | **21 11 58.9** | **-0.1** |
| | 0.0nm,0.3s,baz=153,slow=11,SNR=2.8 | | | | | | |

*ISCJB **28** 21:21:41.9±0.5,43.°14N±0.°02×13.°52E±0.°04, h2km±8km, Error ellipse: s-maj=4.8km s-min=3.6km az=140.6*
*CSEM **28** 21:21:42.5±0.2,43.°13N×13.°50E, h2km, ML2.9/9, Error ellipse: s-maj=3.1km s-min=3.1km az=176.0*
*ROM **28** 21:21:43.2±0.2,43.°10N×13.°40E, h25km±2km, Md2.2/16, Ml1.9/10, Error ellipse: s-maj=2.4km s-min=1.6km az=77.0*

**ISC 28 21:21:42.5±0.9, 43.°11N±0.°02×13.°52E±0.°02, h11km±7km, n36, σ1§12/69, Central Italy**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GUMA** | **Gualdo di Mace** | **0.31** | **99** | Pg | **Pg** | **21 21 47.6** | **-1.2** |
| GUMA | | | | Sg | **Sg** | **21 21 50.8** | **-2.2** |
| **GUMA** | **Gualdo di Mace** | **0.31** | **99** | Pg | **Pg** | **21 21 47.6** | **-1.2** |
| GUMA | | | | Sg | **Sg** | **21 21 50.8** | **-2.2** |
| **NRCA** | **Norcia** | **0.40** | **227** | Pg | **Pg** | **21 21 50.8** | **+0.3** |
| NRCA | | | | Sg | **Sb** | **21 21 56.6** | **-1.3** |
| | 484nm,0.1s | | | | | | |
| **NRCA** | **Norcia** | **0.40** | **227** | Pg | **Pg** | **21 21 50.8** | **+0.3** |
| NRCA | | | | Sg | **Sb** | **21 21 56.6** | **-1.3** |
| | 484nm,0.1s | | | | | | |
| **AOI** | **Ancona** | **0.45** | **8** | Pg | **Pb** | **21 21 52.8** | **+0.4** |
| AOI | | | | Sg | **Sn** | **21 22 01.4** | **+4.2** |
| | 34nm,0.4s | | | | | | |
| **AOI** | **Ancona** | **0.45** | **8** | Pg | **Pb** | **21 21 52.8** | **+0.4** |
| **CESI** | **CESI - Serrava** | **0.46** | **257** | Pg | **Pg** | **21 21 51.1** | **-0.4** |
| CESI | | | | Sg | **Sg** | **21 21 57.3** | **-0.3** |
| | 33nm,0.3s | | | | | | |
| **CESI** | **CESI - Serrava** | **0.46** | **257** | Pg | **Pg** | **21 21 51.1** | **-0.4** |
| CESI | | | | Sg | **Sg** | **21 21 57.3** | **-0.3** |
| | 33nm,0.3s | | | | | | |
| **SMA1** | **SAN MARTINO** | **0.50** | **196** | Pg | **Pb** | **21 21 53.0** | **-0.3** |
| SMA1 | | | | Sg | **Sb** | **21 22 01.3** | **+0.7** |
| | 45nm,0.3s | | | | | | |
| **SMA1** | **SAN MARTINO** | **0.50** | **196** | Pg | **Pb** | **21 21 53.0** | **-0.3** |
| SMA1 | | | | Sg | **Sb** | **21 22 01.3** | **+0.7** |
| | 45nm,0.3s | | | | | | |
| **CAMP** | **Campotosto** | **0.58** | **188** | Pg | **Pb** | **21 21 54.7** | **0.0** |
| **CAMP** | **Campotosto** | **0.58** | **188** | Pg | **Pb** | **21 21 54.7** | **0.0** |
| **LNSS** | **Leonessa** | **0.61** | **215** | Pg | **Pg** | **21 21 54.4** | **-0.1** |
| LNSS | | | | Sg | **Sb** | **21 22 03.8** | **-0.3** |
| | 38nm,0.2s | | | | | | |
| **LNSS** | **Leonessa** | **0.61** | **215** | Pg | **Pg** | **21 21 54.4** | **-0.1** |
| LNSS | | | | Sg | **Sb** | **21 22 03.8** | **-0.3** |
| | 38nm,0.2s | | | | | | |
| **SSFR** | **Montelago di S** | **0.63** | **302** | Pg | **Pg** | **21 21 54.0** | **-0.7** |
| SSFR | | | | Sg | **Sb** | **21 22 02.8** | **-1.6** |
| | 140nm,0.2s | | | | | | |
| **SSFR** | **Montelago di S** | **0.63** | **302** | Pg | **Pg** | **21 21 54.0** | **-0.7** |
| SSFR | | | | Sg | **Sb** | **21 22 02.8** | **-1.6** |
| | 140nm,0.2s | | | | | | |
| **ATCC** | **AVT- Casa Cast** | **0.65** | **277** | Pg | **Pg** | **21 21 54.0** | **-1.0** |
| ATCC | | | | Sg | **Sg** | **21 22 02.7** | **-0.8** |
| | 79nm,0.5s | | | | | | |
| **ATCC** | **AVT- Casa Cast** | **0.65** | **277** | Pg | **Pg** | **21 21 54.0** | **-1.0** |
| ATCC | | | | Sg | **Sg** | **21 22 02.7** | **-0.8** |
| | 79nm,0.5s | | | | | | |
| **FRON** | **Frontone** | **0.71** | **306** | Pg | **Pg** | **21 21 55.5** | **-0.7** |
| FRON | | | | Sg | **Sb** | **21 22 05.2** | **-1.4** |
| | 33nm,0.3s | | | | | | |
| **FRON** | **Frontone** | **0.71** | **306** | Pg | **Pg** | **21 21 55.5** | **-0.7** |
| FRON | | | | Sg | **Sb** | **21 22 05.2** | **-1.4** |
| | 33nm,0.3s | | | | | | |
| **MURB** | **Monte Urbino** | **0.74** | **282** | Pg | **Pg** | **21 21 55.8** | **-1.0** |
| MURB | | | | Sg | **Sb** | **21 22 06.1** | **-1.6** |
| | 123nm,0.2s | | | | | | |
| **MURB** | **Monte Urbino** | **0.74** | **282** | Pg | **Pg** | **21 21 55.8** | **-1.0** |
| MURB | | | | Sg | **Sb** | **21 22 06.1** | **-1.6** |
| | 123nm,0.2s | | | | | | |
| **MPAG** | **Monte Paganucc** | **0.76** | **314** | Pg | **Pg** | **21 21 56.8** | **-0.4** |
| MPAG | | | | Sg | **Sb** | **21 22 07.2** | **-1.0** |
| **MPAG** | **Monte Paganucc** | **0.76** | **314** | Pg | **Pg** | **21 21 56.8** | **-0.4** |
| MPAG | | | | Sg | **Sb** | **21 22 07.2** | **-1.0** |
| **FSSB** | **Fossombrone** | **0.79** | **318** | Pg | **Pg** | **21 21 57.7** | **-0.1** |
| FSSB | | | | Sg | **Sb** | **21 22 08.8** | **-0.3** |
| **FSSB** | **Fossombrone** | **0.79** | **318** | Pg | **Pg** | **21 21 57.7** | **-0.1** |
| FSSB | | | | Sg | **Sb** | **21 22 08.8** | **-0.3** |
| **CESX** | **Cesi** | **0.85** | **234** | Pg | **Pg** | **21 21 58.6** | **-0.3** |
| CESX | | | | Sg | **Sb** | **21 22 09.6** | **-1.1** |
| **CESX** | **Cesi** | **0.85** | **234** | Pg | **Pg** | **21 21 58.6** | **-0.3** |
| CESX | | | | Sg | **Sb** | **21 22 09.6** | **-1.1** |
| **ATVO** | **AVT- Monte Val** | **0.85** | **289** | Pg | **Pg** | **21 21 57.7** | **-1.3** |
| ATVO | | | | Sg | **Sg** | **21 22 09.2** | **-0.9** |
| | 24nm,0.3s | | | | | | |
| **ATVO** | **AVT- Monte Val** | **0.85** | **289** | Pg | **Pg** | **21 21 57.7** | **-1.3** |
| ATVO | | | | Sg | **Sg** | **21 22 09.2** | **-0.9** |
| | 24nm,0.3s | | | | | | |
| **ATPC** | **Poggio Castell** | **0.86** | **296** | Pg | **Pg** | **21 21 58.1** | **-0.9** |
| ATPC | | | | Sg | **Sb** | **21 22 10.2** | **-0.8** |
| **ATPC** | **Poggio Castell** | **0.86** | **296** | Pg | **Pg** | **21 21 58.1** | **-0.9** |
| ATPC | | | | Sg | **Sb** | **21 22 10.2** | **-0.8** |
| **NVLJ** | **Novalja** | **1.75** | **34** | *e*Pn | **Pn** | **21 22 13.4** | **+0.5** |
| NVLJ | | | | Sn | **Sn** | **21 22 36.0** | **+0.8** |
| **NVLJ** | **Novalja** | **1.75** | **34** | *e*Pn | **Pn** | **21 22 13.3** | **+0.5** |
| NVLJ | | | | Sn | **Sn** | **21 22 36.0** | **+0.8** |
| **UDBI** | **Udbina** | **2.16** | **48** | *i* Pn | **Pn** | **21 22 20.6** | **+2.0** |
| UDBI | | | | Sn | **Sn** | **21 22 46.1** | **+0.8** |
| **UDBI** | **Udbina** | **2.16** | **48** | *i* Pn | **Pn** | **21 22 20.5** | **+2.0** |
| UDBI | | | | Sn | **Sn** | **21 22 46.1** | **+0.8** |

*CSEM **28** 21:26:47.5,38.°47N×28.°26E, h7km, ML2.6*
**DDA 28 21:26:47.5, 38.°47N×28.°26E, h7km, Ml2.6, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MANT** | **Manisa** | **0.24** | **86** | *i* P | Pg | 21 26 52.8 | +0.6 |
| MANT | | | | *i* S | Sg | 21 26 56.0 | +0.6 |
| **MANT** | **Manisa** | **0.24** | **86** | P | Pg | 21 26 52.8 | +0.5 |
| MANT | | | | S | Sg | 21 26 56.0 | +0.5 |
| **AKHS** | **Akhisar** | **0.53** | **320** | *i* P | Pg | 21 26 57.9 | +0.1 |
| AKHS | | | | *i* S | Sg | 21 27 05.3 | +0.6 |
| **AKHS** | **Akhisar** | **0.53** | **320** | P | Pg | 21 26 57.8 | +0.1 |
| AKHS | | | | S | Sg | 21 27 05.3 | +0.6 |
| **DEMI** | **Demirci** | **0.67** | **32** | *i* P | Pg | 21 27 00.6 | +0.1 |
| DEMI | | | | *i* S | Sg | 21 27 08.9 | -0.3 |
| **DEMI** | **Demirci** | **0.67** | **32** | P | Pg | 21 27 00.6 | +0.2 |
| DEMI | | | | S | Sg | 21 27 08.9 | -0.3 |
| **AYDN** | **Tasoluk** | **0.86** | **200** | *i* P | Pg | 21 27 04.0 | 0.0 |
| AYDN | | | | *i* S | Sb | 21 27 16.0 | -0.6 |
| **AYDN** | **Tasoluk** | **0.86** | **200** | P | Pg | 21 27 04.0 | -0.1 |
| AYDN | | | | S | Sb | 21 27 16.0 | -0.6 |
| **KHAL** | **Karahalli** | **0.98** | **96** | *i* P | Pb | 21 27 06.5 | -0.2 |
| KHAL | | | | *i* S | Sg | 21 27 18.0 | -0.9 |
| **KHAL** | **Karahalli** | **0.98** | **96** | P | Pb | 21 27 06.5 | -0.3 |
| KHAL | | | | S | Sg | 21 27 18.0 | -0.9 |
| **TAVA** | **DENIZLI_Tavas** | **1.13** | **152** | *i* P | Pn | 21 27 09.7 | -0.2 |
| TAVA | | | | *i* S | Sb | 21 27 25.0 | +0.6 |
| **TAVA** | **DENIZLI_Tavas** | **1.13** | **152** | P | Pb | 21 27 09.6 | +0.2 |
| TAVA | | | | S | Sb | 21 27 25.0 | +0.6 |
| **GDZ** | **Gediz** | **1.14** | **57** | *i* P | Pg | 21 27 08.7 | -0.6 |
| GDZ | | | | *i* S | Sg | 21 27 23.7 | -0.4 |
| **GDZ** | **Gediz** | **1.14** | **57** | P | Pg | 21 27 08.7 | -0.6 |
| GDZ | | | | S | Sg | 21 27 23.7 | -0.4 |
| **DGB** | **˜zmir** | **1.16** | **249** | *i* P | Pn | 21 27 10.1 | 0.0 |
| DGB | | | | *i* S | Sg | 21 27 23.7 | -1.1 |

**IDC 28 21:29:16.2±1.6, 51.°32N×96.°22E, h0km, mb1 2.8/2, mb1mx2.7/49, mbtmp2.8/2, ML2.4/2, Error ellipse: s-maj=44.2km s-min=12.4km az=174.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TLY** | **Talaya** | **4.65** | **83** | Pg | Pb | 21 30 38.3 | -0.4 |
| | 0.0nm,0.3s,baz=253,slow=20,SNR=5.2 | | | | | | |
| TLY | | | | Lg | Lg | 21 31 40.2 | |
| **ZALV** | **Zalesovo Beam** | **7.42** | **295** | Pn | Pn | 21 31 07.8 | +2.1 |
| | 0.2nm,0.3s,baz=105,slow=11,SNR=3.7 | | | | | | |
| **SONM** | **Songino Array** | **7.48** | **114** | Pg | Pb | 21 31 32.8 | +6.0 |
| | 0.1nm,0.3s,baz=303,slow=17,SNR=7.8 | | | | | | |
| SONM | | | | Lg | Lg | 21 33 17.2 | |
| | 0.3nm,0.3s,baz=301,slow=31,SNR=7.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **10.20** | **249** | Pn | Pn | 21 31 43.8 | 0.0 |
| | 0.0nm,0.3s,baz=63,slow=7.1,SNR=3.6 | | | | | | |
| MKAR | | | | Lg | Lg | 21 34 37.2 | |
| | 0.1nm,0.3s,baz=53,slow=32,SNR=3.6 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **11.18** | **273** | Lg | Lg | 21 35 11.0 | |
| | 0.0nm,0.3s,baz=324,slow=26,SNR=7.8 | | | | | | |

*SJA **28** 21:33:11.6±0.4,24.°17S×67.°12W, h190km±8km, ML2.6, MW3.5*
*ISCJB **28** 21:33:12.1±0.4,24.°12S±0.°04×67.°13W±0.°04, h181km, mb3.3/3, Error ellipse: s-maj=6.4km s-min=4.0km az=24.2*
*IDC **28** 21:33:12.4±2.6,24.°09S×66.°83W, h170km±22km, mb3.1/3, mb1 3.4/7, mb1mx3.3/22, mbtmp3.7/7, MS2.8/1, Ms1 2.9/1, ms1mx2.5/9, Error ellipse: s-maj=26.9km s-min=18.9km az=56.0*
*GUC **28** 21:33:15.5±0.4,23.°85S×67.°74W, h237km±10km, ML4.6*

**ISC 28 21:33:12.9±0.7, 24.°09S±0.°06×67.°09W±0.°05, h181km, n26, σ1§39/36, mb3.5/3, 4C-1D, Chile-Argentina border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HJA** | **Humahuaca** | **1.77** | **61** | *e*P | **Pn** | **21 33 49.4** | **+1.3** |
| HJA | | | | IAML | | 21 34 21.0 | |
| | comp=Z,51nm,0.5s | | | | | | |
| **AZAP** | **Zapla** | **1.85** | **95** | *e*P | **Pn** | **21 33 49.4** | **+0.6** |
| AZAP | | | | IAML | | 21 33 50.9 | |
| | comp=Z,64nm,0.3s | | | | | | |
| AZAP | | | | *e*S | **Sn** | **21 34 17.0** | **+0.6** |
| **FSA** | **Cafayete** | **2.25** | **154** | *e*P | **Pn** | **21 33 52.4** | **-0.6** |
| FSA | | | | IAML | | 21 33 57.9 | |
| | comp=Z,7.8nm,0.3s | | | | | | |
| **YJA** | **Yavi** | **2.39** | **38** | *e*P | **Pn** | **21 33 56.3** | **+1.3** |
| YJA | | | | IAML | | 21 34 31.9 | |
| | comp=Z,12nm,0.5s | | | | | | |
| **ASTB** | **Santa Barbara** | **2.41** | **87** | *e*P | **Pn** | **21 33 55.2** | **+0.3** |
| **PB06** | **IPOC Station P** | **2.66** | **301** | ⇑*iP* | **Pn** | **21 33 58.7** | **+0.9** |
| PB06 | | | | *i* S | **Sn** | **21 34 32.1** | **-0.6** |
| PB06 | | | | IAML | | 21 34 34.5 | |
| | comp=N,1μm,0.2s | | | | | | |
| **ALOL** | **LOMAS DE OLMED** | **2.85** | **85** | *e*P | **Pn** | **21 34 00.2** | **+0.3** |
| **PB09** | **IPOC Station P** | **3.02** | **319** | *e*P | **Pn** | **21 34 03.9** | **+1.8** |
| PB09 | | | | *i* S | **Sn** | **21 34 41.2** | **+0.8** |
| PB09 | | | | IAML | | 21 34 49.5 | |
| | comp=E,1μm,0.3s | | | | | | |
| **ANCH** | **Antofagasta** | **3.07** | **277** | ⇑*iP* | **Pn** | **21 34 03.0** | **+0.6** |
| ANCH | | | | *e*S | **Sn** | **21 34 39.1** | **-1.8** |
| **PB10** | **IPOC Station P** | **3.23** | **280** | ⇑*iP* | **Pn** | **21 34 04.7** | **+0.3** |
| PB10 | | | | *i* S | **Sn** | **21 34 42.0** | **-2.5** |
| PB10 | | | | IAML | | 21 34 47.2 | |
| | comp=E,2μm,0.5s | | | | | | |
| **PB04** | **IPOC Station P** | **3.31** | **301** | ⇓*iP* | **Pn** | **21 34 06.2** | **+0.5** |
| PB04 | | | | *e*S | **Sn** | **21 34 44.4** | **-2.3** |
| PB04 | | | | IAML | | 21 34 51.0 | |
| | comp=N,709nm,0.4s | | | | | | |
| **PB07** | **IPOC Station P** | **3.49** | **312** | ⇑*iP* | **Pn** | **21 34 08.4** | **+0.6** |
| PB07 | | | | *e*S | **Sn** | **21 34 48.8** | **-1.9** |
| PB07 | | | | IAML | | 21 34 50.6 | |
| | comp=E,785nm,0.3s | | | | | | |
| **PB02** | **IPOC Station P** | **3.78** | **316** | *e*P | **Pn** | **21 34 11.7** | **+0.3** |
| PB02 | | | | *e*S | **Sn** | **21 34 54.7** | **-2.5** |
| **LPAZ** | **La Paz** | **7.82** | **353** | P | **Pn** | **21 35 04.7** | **+0.1** |
| | comp=E,1.6nm,0.3s,baz=150,slow=9.5,SNR=22 | | | | | | |
| LPAZ | | | | S | **Sn** | **21 36 30.9** | **-1.9** |
| | comp=E,0.4nm,0.3s,baz=316,slow=20,SNR=4.7 | | | | | | |
| LPAZ | | | | LR | LR | 21 38 25.9 | |
| | comp=E,62nm,18.1s,baz=36,slow=40 | | | | | | |
| **CPUP** | **Villa Florida** | **9.12** | **106** | P | **Pn** | **21 35 18.4** | **-2.4** |
| | comp=E,0.1nm,0.3s,baz=306,slow=7.7,SNR=6.2 | | | | | | |
| **SIV** | **San Ignacio** | **9.84** | **36** | P | **Pn** | **21 35 28.4** | **-2.1** |
| | comp=E,1.7nm,0.3s,baz=224,slow=14,SNR=28 | | | | | | |
| SIV | | | | S | **Sn** | **21 37 18.0** | **-2.1** |
| | comp=E,0.2nm,0.3s,baz=260,slow=5.4,SNR=4.4 | | | | | | |
| **PLCA** | **Paso Flores** | **16.85** | **189** | P | **Pn** | **21 36 57.5** | **-0.8** |
| | comp=E,0.1nm,0.3s,baz=165,slow=6.9,SNR=2.9 | | | | | | |
| **VNA3** | **Neumayer Olymp** | **57.10** | **161** | P | **P** | **21 42 40.4** | **+0.5** |
| **VNA2** | **Neumayer--Watz** | **57.66** | **160** | P | **P** | **21 42 44.3** | **+0.4** |
| | baz=292,slow=7.0 | | | | | | |
| **SNAA** | **Sanae** | **59.30** | **161** | P | **P** | **21 42 55.8** | **+0.6** |
| **TXAR** | **Lajitas Array** | **63.70** | **325** | P | **P** | **21 43 27.9** | **+2.5** |
| | comp=E,0.1nm,0.5s,baz=138,slow=8.2,SNR=2.3 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **76.68** | **69** | P | **P** | **21 44 43.6** | **-0.8** |
| | comp=E,0.5nm,0.6s,baz=266,slow=6.2,SNR=11 | | | | | | |
| **YKA** | **Yellowknife Ar** | **94.18** | **340** | P | **P** | **21 46 11.5** | **+1.0** |
| | comp=E,0.2nm,0.5s,baz=133,slow=4.7,SNR=5.5 | | | | | | |
| **ASAR** | **Alice Springs** | **128.34** | **205** | PKP | **PKPdf** | **21 51 58.9** | **+0.2** |
| | comp=E,0.5nm,0.6s,baz=129,slow=1.5,SNR=7.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **131.51** | **207** | PKP | **PKPdf** | **21 52 04.9** | **+0.2** |
| | comp=E,0.7nm,0.9s,baz=252,slow=2.9,SNR=8.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **146.64** | **40** | PKPbc | **PKPbc** | **21 52 32.9** | **-0.3** |
| | comp=E,0.8nm,0.7s,baz=294,slow=3.6,SNR=8.3 | | | | | | |

*IDC **28** 21:35:03.8±0.7, 51.°78N×96.°06E, h0km, mb3.9/12, mb1 4.0/17, mb1mx3.7/55, mbtmp3.9/17, ML3.2/6, MS3.2/3, Ms1 3.2/3, ms1mx2.8/41, Error ellipse: s-maj=20.9km s-min=9.5km az=1.0*
*BJI **28** 21:35:03.5, 51.°76N×95.°57E, h10km, mb4.1/2, mB4.6/5, ML4.8/1, Ms4.4/4, Ms7 4.1/4*
*OBM **28** 21:35:03.2±0.1, 51.°71N×95.°96E, h2km, Ml4.2/2, Error ellipse: s-maj=2.0km s-min=1.1km az=7.0*
*ASRS **28** 21:35:04.8±1.1, 51.°76N×95.°88E, h15km, Ms3.7/3*
*NEIC **28** 21:35:05.5±0.4, 51.°77N×95.°87E, h10km, mb4.4/4, Error ellipse: s-maj=10.2km s-min=6.4km az=185.0*
*MOS **28** 21:35:05.4±1.1, 51.°76N×95.°92E, h21km, mb4.3/12, Error ellipse: s-maj=11.9km s-min=8.0km az=19.6*

**ISC 28 21:35:04.6±0.4, 51.°76N±0.°04×95.°92E±0.°03, h10km, n99, σ2§88/120, mb3.9/17, 19C-5D, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KZLR** | **Kyzyl** | **0.92** | **267** | *i* Pg | **Pg** | **21 35 21.0** | **-1.2** |
| KZLR | | | | *e*Sg | **Sg** | **21 35 33.5** | **-0.6** |
| **KZLR** | **Kyzyl** | **0.92** | **267** | *i* PG | **Pg** | **21 35 21.0** | **-1.2** |
| KZLR | | | | *e* | | 21 35 33.6 | |
| **HVS** | **Khovu-Aksy** | **1.52** | **247** | PG | **Pn** | **21 35 31.2** | **-0.8** |
| **HVS** | **Khovu-Aksy** | **1.52** | **247** | P | **Pn** | **21 35 31.2** | **-0.8** |
| **ORL** | **Orlik** | **2.52** | **70** | *e*PN | **Pn** | **21 35 48.1** | **+2.4** |
| ORL | | | | *e* | | 21 36 20.4 |

comp=Z,8.0nm,0.6s
**SONB5 Songino Array 7.80 116** *e*Pg **Pb 21 37 20.9 +0.9**
SONB5 *e*Sg **Sg 21 39 07.0 -8.0**
comp=Z,446nm,0.8s
**SONB4 Songino Array 7.81 116** *e*Pg **Pb 21 37 21.6 +1.5**
SONB4 *e*Sg **Sg 21 39 08.4 -6.8**
comp=Z,323nm,0.7s
**SONB1 Songino Array 7.82 116** *e*Pg **Pb 21 37 21.2 +0.9**
SONB1 *e*Sg Sg 21 39 06.9 -8.5
comp=Z,326nm,0.8s
**SONA2 Songino Array 7.82 116** *e*Pg **Pb 21 37 21.2 +0.9**
SONA2 *e*Sg Sg 21 39 06.2 -9.3
comp=Z,398nm,0.8s
**SONA1 Songino Array 7.83 116** *e*Pg **Pb 21 37 22.0 +1.6**
SONA1 *e*Sg Sg 21 39 06.2 -9.5
comp=Z,373nm,0.8s
**SONM Songino Array 7.83 116** Pn **Pn 21 36 59.9 +1.3**
comp=Z,0.1nm,0.3s,baz=305,slow=15,SNR=5.4
SONM Pg **Pb 21 37 21.7 +1.3**
comp=Z,2.8nm,0.3s,baz=298,slow=17,SNR=53
SONM Lg Lg 21 39 08.3
comp=Z,8.7nm,0.3s,baz=297,slow=30,SNR=13
**SONA3 Songino Array 7.83 116** *e*Pg **Pb 21 37 21.6 +1.1**
SONA3 *e*Sg Sg 21 39 06.9 -8.9
comp=Z,381nm,0.8s
**SONA4 Songino Array 7.83 116** *e*Pg **Pb 21 37 22.0 +1.5**
SONA4 *e*Sg Sg 21 39 07.0 -8.8
comp=Z,435nm,0.9s
**SONB2 Songino Ar. Si 7.84 116** *e*Pg **Pb 21 37 21.2 +0.6**
SONB2 *e*Sg **Sg 21 39 08.0 -8.0**
comp=Z,296nm,0.8s
**SONB3 Songino Array 7.84 116** *e*Pg **Pb 21 37 22.3 +1.7**
SONB3 *e*Sg **Sg 21 39 08.2 -7.9**
comp=Z,433nm,0.9s
**ULN Ulaanbaatar 8.18 114**⇑ *e*P Pn 21 36 58.6 -4.9
**ULN Ulaanbaatar 8.18 114** Pn Pn 21 37 09.3 +5.8
comp=Z,47nm,1.3s
ULN *e*Pb **Pb 21 37 27.0 +0.6**
ULN *e*S Sb 21 39 12.2 +8.2
**NVS Novosibirsk 8.20 297** *e*Pn **Pn 21 37 06.1 +2.5**
NVS *e*Pg Pg 21 37 34.3 -7.2
NVS *e*Sg **Sg 21 39 19.1 -8.6**
**NVS Novosibirsk 8.20 297** *e*P **Pn 21 37 06.5 +2.9**
**SYVR Suvo 8.76 72** *e*P Pn 21 37 23.2 +12
SYVR pmax pmax
comp=Z,18nm,1.4s
**NIZ Nizh Angarsk 9.01 58** *e*P **Pn 21 37 18.0 +3.3**
NIZ pmax pmax
comp=Z,26nm,1.3s
**MKAR Makanchi Array 10.20 246** Pn **Pn 21 37 31.9 +1.0**
comp=Z,0.2nm,0.3s,baz=70,slow=11,SNR=6.1
MKAR Lg Lg 21 40 25.1
comp=Z,1.5nm,0.3s,baz=61,slow=25,SNR=6.7
**MKAR Makanchi Array 10.20 246** *i* P **Pn 21 37 31.8 +0.8**
MKAR pmax pmax
comp=Z,1.0nm,0.9s
**KURK Kurchatov 10.90 271**⇑ *i*P **Pn 21 37 42.3 +1.8**
**KURK Kurchatov 10.90 271** *e*Pn **Pn 21 37 41.7 +1.2**
comp=Z,32nm,0.7s
KURK *e*S Sn 21 39 59.2 +17
KURK Lg Lg 21 40 53.7
**KURBB Kurchatov Arra 10.98 271** Pn **Pn 21 37 43.6 +2.0**
comp=Z,0.1nm,0.3s,baz=75,slow=15,SNR=13
KURBB Lg Lg 21 40 53.7
comp=Z,0.2nm,0.3s,baz=79,slow=32,SNR=11
**BOD Bodaibo 12.05 53** *e*P **Pn 21 37 55.7 -0.5**
**GTA Gaotai 12.64 166** *e*P Pn 21 38 14.8 +10
GTA pP 21 38 19.3
GTA sP 21 38 22.0
GTA S Sn 21 40 42.0 +17
GTA pmax pmax
comp=Z,3.0nm,1.0s
GTA pmax pmax
comp=Z,140nm,4.5s
GTA LR LR
comp=N,170nm,8.1s
GTA LR LR
comp=E,460nm,8.3s
GTA LR LR
comp=Z,190nm,7.6s
**HIA Hailar 15.34 90**⇓ *e*P **Pn 21 38 36.6 -4.4**
HIA pmax pmax
comp=Z,3.0nm,1.2s
**BVAR Borovoye Array 15.62 285** Pn **Pn 21 38 44.2 -0.4**
comp=Z,0.5nm,0.3s,baz=74,slow=14,SNR=12
**BRVK Borovoye 15.68 285**⇑ *e*P **Pn 21 38 45.8 +0.4**
BRVK pmax pmax
comp=Z,3.0nm,0.9s
**BRVK Borovoye 15.68 285** *e*Pn **Pn 21 38 44.8 -0.5**
comp=Z,11nm,0.6s
**AAK Ala-Archa 17.13 246** P **P 21 39 05.4 -0.4**
comp=Z,0.1nm,0.3s,baz=96,slow=8.2,SNR=4.4
AAK Lg Lg 21 44 03.2
comp=Z,0.1nm,0.3s,baz=260,slow=12,SNR=5.6
**AAK Ala-Archa 17.13 246**⇑ *e*P **Pn 21 39 04.4 +0.3**
AAK pmax pmax
comp=Z,1.0nm,0.9s
**YAK Yakutsk 20.86 47** *e*P **P 21 39 44.0 -2.3**
YAK *e**PP Pn 21 39 48.4 -0.3
YAK *e*S **S 21 43 40.9 +2.3**
YAK *e*SS Sn 21 43 50.3 +6.3
YAK *e*SSS SSS 21 44 20.2
YAK pmax pmax
comp=Z,3.0nm,0.8s
YAK smax smax
comp=N,94nm,4.7s
YAK smax smax
comp=E,60nm,4.1s
**ARU Arti 22.21 297** P **P 21 40 02.1 +1.3**
comp=E,6.9nm,0.7s,baz=83,slow=5.7,SNR=17
**ARU Arti 22.21 297** *c i*P **P 21 40 03.3 +2.4**
ARU 21 40 23.5
ARU SS Sn 21 44 39.3 +23
ARU pmax pmax
comp=Z,19nm,1.2s
**ARU Arti 22.21 297** *e*P **P 21 40 01.9 +1.0**
comp=Z,14nm,0.9s
**KLR Kul'dur 22.79 82**⇑ *e*P **P 21 40 02.0 -5.1**
**ABKAR Akbulak array 22.88 278** *e*P **P 21 40 08.1 +0.1**
comp=Z,2.8nm,0.8s
**AKTO Aktyubinsk 23.67 282** P **P 21 40 16.9 +0.8**
comp=Z,5.2nm,0.5s,baz=87,slow=11,SNR=19
**TIXI Tiksi 24.73 24** P **P 21 40 26.7 +1.0**
comp=Z,6.6nm,0.6s,baz=270,slow=9.1,SNR=4.6
**TIXI Tiksi 24.73 24**⇑ *e*P **P 21 40 25.6 -0.1**
TIXI pmax pmax
comp=Z,6.0nm,1.2s
**TIXI Tiksi 24.73 24** *e*P **P 21 40 26.8 +1.2**
comp=Z,7.7nm,0.7s
**OBN Obninsk 34.59 299**⇑ *e*P **P 21 41 54.5 +1.2**
OBN pmax pmax
comp=Z,5.0nm,1.2s
**KIV Kislovodsk 35.85 279** *e*P **P 21 42 06.2 +1.8**
KIV pmax pmax
comp=Z,7.0nm,1.1s
**NEY Neytrino 36.21 278**⇓ *e*P **P 21 42 09.3 +1.8**
NEY pmax pmax
comp=Z,1.0nm,0.8s
**BILL Bilibino 36.44 37** *e*P **P 21 42 08.5 -0.5**
BILL pmax pmax
comp=Z,1.0nm,0.4s
**GNI Garni 36.70 272**⇑ *e*P **P 21 42 13.0 +1.2**
GNI pmax pmax
comp=Z,11nm,1.0s
**FINES FINESS Array B 37.82 313** P **P 21 42 21.2 +0.4**
comp=Z,1.0nm,0.4s,baz=70,slow=10.0,SNR=12
**AKASG Malin Array Be 40.45 296** P **P 21 42 42.9 -0.1**
comp=Z,1.0nm,0.4s,baz=56,slow=8.8,SNR=5.5
AKASG LR LR 22 00 28.1
comp=Z,83nm,18.4s,baz=310,slow=38
**AKASG Malin Array Be 40.45 296** *i* P **P 21 42 43.5 +0.6**
AKASG pmax pmax
comp=Z,1.0nm,0.4s
**BRTR Keskin Array B 43.81 280** P **P 21 43 12.8 +2.1**
comp=Z,3.5nm,0.8s,baz=76,slow=7.3,SNR=18
**CFR Carcaliu 43.95 289**⇓ *i*P **P 21 43 12.6 +1.2**
**CFR Carcaliu 43.95 289**⇑ P **P 21 43 12.6 +1.2**
**BURAR Bucovina Array 44.29 294**⇓ *i*P **P 21 43 16.0 +1.7**
**BURAR Bucovina Array 44.29 294**⇓ P **P 21 43 16.0 +1.7**
**NOA NORSAR Array B 44.58 316** P **P 21 43 17.6 +1.2**
comp=Z,1.5nm,0.9s,baz=53,slow=8.2,SNR=3.4
**MLR Muntele Rosu 45.05 291**⇑ *i*P **P 21 43 23.0 +2.5**
**MLR Muntele Rosu 45.05 291**⇑ P **P 21 43 23.0 +2.5**
**ARCR ARCALIA 45.07 294**⇑ *i*P **P 21 43 22.4 +1.9**
**DOPR Dopca 45.10 292**⇓ *i*P **P 21 43 23.5 +2.8**
**ARR Arges 45.88 292**⇓ *i*P **P 21 43 28.9 +1.9**
**DRGR 46.17 294**⇑ *i*P **P 21 43 31.1 +1.9**
**DRGR 46.17 294**⇑ P **P 21 43 31.1 +1.9**
**ILAR Eielson Array 54.12 28** P **P 21 44 29.6 +0.4**
comp=Z,0.2nm,0.7s,baz=308,slow=4.4,SNR=3.3
**ESDC Sonseca Array 65.43 303** P **P 21 45 48.9 +1.4**
comp=Z,0.5nm,0.7s,baz=39,slow=6.8,SNR=3.2
**WRA Warramunga Arr 78.90 143** P **P 21 47 08.7 +0.7**
comp=Z,0.7nm,0.9s,baz=337,slow=6.1,SNR=3.8
**ASAR Alice Springs 82.15 145** P **P 21 47 26.9 +1.5**
comp=Z,0.4nm,0.8s,baz=358,slow=5.0,SNR=3.9
**TORD Torodi Ar. Bea 82.39 281** P **P 21 47 27.1 +0.1**
comp=Z,1.0nm,0.7s,baz=24,slow=5.4,SNR=10.0

*SJA **28** 21:38:58.3±0.5, 29.°30S×72.°00W, h50km, ML4.0, MW4.1*
*GUC **28** 21:39:03.7±0.6, 29.°50S×71.°09W, h22km±4km, ML3.7*
**ISC 28 21:39:02.2**±1.9, **29.°47S**±0.°03×**71.°33W**±0.°07, **h7**km±14km,
**n19**,σ1°**79**/**30**, **1C-4D**, **Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **LCO** | **Las Campanas** | **0.72** | **50** | *e*P | | **Pg** | | **21 39 17.0** | **+1.1** |
| LCO | | | | *e*S | | **Sg** | | **21 39 26.6** | **+1.2** |
| **LCO** | **Las Campanas** | **0.72** | **50** | ⇓ *i*P | | **Pb** | | **21 39 16.7** | **-0.5** |
| LCO | | | | *e*S | | **Sg** | | **21 39 26.5** | **+1.2** |
| LCO | | | | IAML | | | | 21 39 27.4 | |
| | comp=N,8μm,0.3s | | | | | | | | |
| **TLL** | **Tololo Astrono** | **0.83** | **147** | ⇓ *i*P | | **Pb** | | **21 39 18.3** | **-0.8** |
| TLL | | | | *i* S | | **Sb** | | **21 39 29.2** | **-1.4** |
| TLL | | | | IAML | | | | 21 39 31.6 | |
| | comp=E,5μm,0.5s | | | | | | | | |
| **VACH** | **Vallenar** | **1.02** | **29** | ⇓ *i*P | | **Pn** | | **21 39 22.2** | **-0.8** |
| VACH | | | | *i* S | | **Sg** | | **21 39 36.0** | **+0.8** |
| **GO03** | **Copiap** | **2.10** | **27** | ⇓ *i*P | | **Pb** | | **21 39 39.1** | **-1.6** |
| GO03 | | | | *i* S | | **Sb** | | **21 40 06.2** | **-0.9** |
| GO03 | | | | IAML | | | | 21 40 10.2 | |
| | comp=N,1μm,0.3s | | | | | | | | |
| **CPCH** | **Copiapo** | **2.27** | **22** | *e*P | | **Pb** | | **21 39 43.1** | **-0.5** |
| CPCH | | | | *e*S | | **Sb** | | **21 40 12.9** | **+0.9** |
| **AGUA** | **GUANDACOL** | **2.48** | **91** | *e*P | | **Pb** | | **21 39 46.6** | **-0.5** |
| AGUA | | | | *e*S | | **Sg** | | **21 40 22.6** | **+0.8** |
| **AMOG** | **MOGNA** | **2.86** | **121** | *e*P | | **Pb** | | **21 39 51.7** | **-1.9** |
| AMOG | | | | *e*S | | **Sg** | | **21 40 32.4** | **-1.6** |
| **RTLS** | **Leoncito** | **2.91** | **143** | *e*P | | **Pb** | | **21 39 52.6** | **-2.0** |
| RTLS | | | | *e*S | | **Sb** | | **21 40 31.9** | **+1.5** |
| RTLS | | | | IAML | | | | 21 40 34.5 | |
| | comp=Z,591nm,0.8s | | | | | | | | |
| **RTLL** | **Cerro Villicun** | **3.08** | **128** | *e*P | | **Pn** | | **21 39 53.2** | **+1.8** |
| RTLL | | | | IAML | | | | 21 40 48.1 | |
| | comp=Z,162nm,0.7s | | | | | | | | |
| **AUSP** | **Uspallata** | **3.21** | **149** | *e*P | | **Pn** | | **21 39 55.9** | **+2.6** |
| AUSP | | | | *e*S | | **Sb** | | **21 40 36.5** | **-2.7** |
| **RTCV** | **Cerro Valdivia** | **3.38** | **135** | *e*P | | **Pn** | | **21 39 57.1** | **+1.6** |
| **ROC1** | **El Roble** | **3.50** | **176** | *e*P | | **Pb** | | **21 40 04.2** | **-0.5** |
| **CLCH** | **Cerro Calan** | **3.97** | **170** | ⇑ *i*P | | **Pn** | | **21 40 05.2** | **+1.6** |
| CLCH | | | | *e*S | | **Sn** | | **21 40 52.7** | **+2.2** |
| **ACAN** | **Cantantal** | **4.53** | **129** | *e*P | | **Pn** | | **21 40 12.6** | **+1.4** |
| **CYA** | **Choya** | **4.95** | **79** | *e*P | | **Pn** | | **21 40 17.8** | **+0.7** |
| **GO05** | **HualaæØ** | **5.54** | **185** | *e*P | | **Pn** | | **21 40 23.6** | **-1.6** |
| **FSA** | **Cafayete** | **5.80** | **56** | *e*S | | **Sg** | | **21 42 03.6** | **-5.0** |
| **TCA** | **Tanti** | **6.11** | **109** | *e*P | | **Pn** | | **21 40 33.0** | **0.0** |

*IDC **28** 21:45:49.9±0.7, 16.°51N×94.°25W, h51km±4km, mb3.8/10, mb1 4.1/11, mb1mx3.8/46, mbtmp4.0/11, MS3.3/10, Ms1 3.3/10, ms1mx3.2/34, Error ellipse: s-maj=26.3km s-min=7.6km az=42.0*
*ISCJB **28** 21:45:50.4±0.5, 16.°31N±0.°04×94.°92W±0.°03, h69km±4km, mb4.2/31, Error ellipse: s-maj=7.0km s-min=4.2km az=28.6*
*NEIC **28** 21:45:50.7±0.5, 16.°21N×94.°97W, mb4.4/41, MD4.3(MEX), Error ellipse: s-maj=8.4km s-min=5.2km az=31.0*
*NEIC Felt at Ixtepec and Salina Cruz.*
*MEX **28** 21:45:51.1±1.1, 15.°99N×95.°12W, h60km±52km, MD4.3*
**ISC 28 21:45:49.7**±0.5, **16.°26N**±0.°05×**95.°05W**±0.°03, **h55**km±4km,
**n195**,σ2°**20**/207, **mb4.3**/32, **MS3.2**/8, **Oaxaca**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **CMIG** | **Matias Romero** | **0.84** | **11** | P | | **Pn** | | **21 46 05.7** | **+0.2** |
| | baz=184,slow=12 | | | | | | | | |
| CMIG | | | | S | | **Sn** | | **21 46 18.1** | **+0.9** |
| | 574nm,0.3s,baz=136,slow=18,SNR=48 | | | | | | | | |
| **VHO** | **Vista Hermosa** | **1.81** | **297** | *e*P | | **Pn** | | **21 46 19.8** | **+1.0** |
| VHO | | | | *e*S | | **Sn** | | **21 46 43.7** | **+3.0** |
| **VHO** | **Vista Hermosa** | **1.81** | **297** | *e*P | | **Pn** | | **21 46 19.8** | **+1.0** |
| VHO | | | | *e*S | | **Sn** | | **21 46 43.7** | **+3.0** |
| **PCIG** | | **1.84** | **107** | *i* P | | **Pn** | | **21 46 18.9** | **0.0** |
| PCIG | | | | *i* S | | **Sn** | | **21 46 41.5** | **+0.3** |
| **PCIG** | | **1.84** | **107** | *i* P | | **Pn** | | **21 46 18.9** | **0.0** |
| PCIG | | | | *i* S | | **Sn** | | **21 46 41.5** | **+0.3** |
| **TGIG** | | **1.91** | **74** | *e*P | | **Pn** | | **21 46 21.3** | **+1.3** |
| TGIG | | | | *i* S | | **Sn** | | **21 46 40.6** | **-2.5** |
| **TGIG** | | **1.91** | **74** | *e*P | | **Pn** | | **21 46 21.3** | **+1.3** |
| TGIG | | | | *i* S | | **Sn** | | **21 46 40.6** | **-2.5** |
| **PNIG** | **Pinotepa** | **2.96** | **273** | *i* P | | **Pn** | | **21 46 33.2** | **-1.2** |
| PNIG | | | | *e*S | | **Sn** | | **21 47 03.9** | **-4.8** |
| **PNIG** | **Pinotepa** | **2.96** | **273** | *i* P | | **Pn** | | **21 46 33.2** | **-1.2** |
| PNIG | | | | *e*S | | **Sn** | | **21 47 03.9** | **-4.8** |
| **PPM** | **Popocatepetl** | **4.41** | **310** | *e*P | | **Pn** | | **21 46 59.1** | **+4.5** |
| **PPM** | **Popocatepetl** | **4.41** | **310** | *e*P | | **Pn** | | **21 46 59.1** | **+4.5** |
| **SCIG** | **Sabancuy** | **4.56** | **53** | *e*Pn | | **Pn** | | **21 46 56.7** | **+0.5** |
| **YAIG** | **Yautepec** | **4.63** | **305** | *e*P | | **Pn** | | **21 47 00.0** | **+2.7** |
| **YAIG** | **Yautepec** | **4.63** | **305** | *e*P | | **Pn** | | **21 47 00.0** | **+2.7** |
| **MEIG** | **Mezcala** | **4.68** | **291** | *i* P | | **Pn** | | **21 46 59.6** | **+1.7** |
| MEIG | | | | *e*S | | **Sn** | | **21 47 46.8** | **-4.1** |
| **MEIG** | **Mezcala** | **4.68** | **291** | *i* P | | **Pn** | | **21 46 59.6** | **+1.7** |
| MEIG | | | | *e*S | | **Sn** | | **21 47 46.8** | **-4.1** |
| **UNM** | **Universidad Na** | **4.98** | **308** | *e*Pn | | **Pn** | | **21 47 06.9** | **+4.7** |
| **CAIG** | **El Cayaco** | **5.07** | **280** | *i* P | | **Pn** | | **21 47 02.9** | **-0.3** |
| CAIG | | | | *e*S | | Sn | | 21 47 51.1 | -9.3 |
| **CAIG** | **El Cayaco** | **5.07** | **280** | *i* P | | **Pn** | | **21 47 02.9** | **-0.3** |
| CAIG | | | | *e*S | | Sn | | 21 47 51.1 | -9.3 |
| **ARIG** | **Puente Sto Nin** | **5.45** | **292** | *i* P | | **Pn** | | **21 47 10.4** | **+2.0** |
| ARIG | | | | *e*S | | **Sn** | | **21 48 08.6** | **-1.3** |
| **MOIG** | **Morelia** | **6.76** | **301** | *e*Pn | | **Pn** | | **21 47 30.7** | **+4.1** |
| **MYIG** | **MOrida** | **6.86** | **46** | *e*Pn | | **Pn** | | **21 47 28.5** | **+0.7** |
| **TGUH** | **Tegucigalpa,Un** | **7.82** | **105** | *e*Pn | | **Pn** | | **21 47 43.2** | **+2.3** |
| **LNIG** | **Linares** | **9.54** | **335** | *e*Pn | | **Pn** | | **21 48 05.1** | **+0.7** |
| **ZAIG** | **Zacatecas** | **9.60** | **314** | *e*Pn | | **Pn** | | **21 48 08.7** | **+3.1** |
| **JTS** | **JuntasAbangare** | **11.47** | **120** | *e*Pn | | **Pn** | | **21 48 32.5** | **+1.6** |
| JTS | | | | *e*S | | **Sn** | | **21 50 37.0** | **-0.7** |
| **833A** | **Chaparral WMA,** | **12.66** | **342** | P | | **Pn** | | **21 48 47.6** | **+0.6** |
| | baz=160,SNR=9.0 | | | | | | | | |
| **HKT** | **Hockley** | **13.64** | **357** | *e*Pn | | **Pn** | | **21 49 03.2** | **+2.7** |
| **HPIG** | | **14.49** | **319** | *e*Pn | | **Pn** | | **21 49 14.6** | **+2.5** |
| **435B** | **Jarrell** | **14.64** | **351** | P | | **Pn** | | **21 49 14.7** | **+0.9** |
| | baz=170,SNR=9.5 | | | | | | | | |
| **JCT** | **Junction City** | **14.81** | **344** | P | | **Pn** | | **21 49 17.6** | **+1.6** |
| | baz=162 | | | | | | | | |
| **JCT** | **Junction City** | **14.81** | **344** | *e*Pn | | **Pn** | | **21 49 18.1** | **+2.1** |
| JCT | | | | *e*S | | **Sn** | | **21 51 54.8** | **-4.1** |
| **341A** | **Kurthwood** | **15.10** | **6** | S | | Sn | | 21 51 53.1 | -13 |
| | baz=187 | | | | | | | | |
| **TXAR** | **Lajitas Array** | **15.24** | **330** | P | | **Pn** | | **21 49 24.1** | **+2.5** |
| | 0.1nm,0.3s,baz=149,slow=12,SNR=20 | | | | | | | | |
| TXAR | | | | LR | | LR | | 21 55 42.7 | |
| | comp=Z,47nm,18.8s,baz=0.0,slow=38 | | | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **15.24** | **330** | *e*Pn | | **Pn** | | **21 49 23.7** | **+2.1** |
| **446A** | **Poplarville** | **15.37** | **19** | S | | **Sn** | | **21 52 03.8** | **-8.5** |
| | baz=201 | | | | | | | | |
| **NATX** | **Nacogdoches** | **15.43** | **1** | *e*Pn | | **Pn** | | **21 49 25.6** | **+1.7** |
| **344A** | **Westbrook Farm** | **15.63** | **14** | S | | **Sn** | | **21 52 08.4** | **-10** |
| | baz=195 | | | | | | | | |
| **WHTX** | **Lake Whitney,** | **15.81** | **352** | P | | **P** | | **21 49 31.5** | **-0.2** |
| | baz=171,SNR=15 | | | | | | | | |
| **WHTX** | **Lake Whitney,** | **15.81** | **352** | *e*Pn | | **P** | | **21 49 31.8** | **0.0** |
| | 36nm,0.6s | | | | | | | | |
| WHTX | | | | *e*S | | **Sn** | | **21 52 17.9** | **-5.2** |
| **243A** | **Waterproof** | **15.88** | **11** | S | | Sn | | 21 52 13.4 | -11 |
| | baz=192 | | | | | | | | |
| **244A** | **Avery, Jackson** | **16.20** | **13** | S | | Sn | | 21 52 19.0 | -14 |
| | baz=195 | | | | | | | | |
| **LPIG** | **La Paz** | **16.30** | **301** | P | | **P** | | **21 49 41.3** | **+4.1** |
| | 32nm,0.3s,baz=323,slow=1.3,SNR=4.3 | | | | | | | | |
| LPIG | | | | LR | | LR | | 21 55 32.1 | |
| | comp=Z,138nm,21.7s,baz=187,slow=35 | | | | | | | | |
| **ABTX** | **Abilene, Hawle** | **16.82** | **346** | P | | **Pn** | | **21 49 41.5** | **0.0** |
| | baz=164,SNR=6.2 | | | | | | | | |
| **ABTX** | **Abilene, Hawle** | **16.82** | **346** | *e*Pn | | **Pn** | | **21 49 41.9** | **+0.4** |
| | 65nm,1.4s | | | | | | | | |
| **Z40A** | **Long Farm, Mag** | **16.99** | **5** | P | | **P** | | **21 49 46.0** | **+1.2** |
| | baz=185 | | | | | | | | |
| **Z41A** | **Richland Creek** | **17.04** | **6** | P | | **P** | | **21 49 46.7** | **+1.4** |
| | baz=187 | | | | | | | | |
| **WLAR** | **White Oak Lake** | **17.44** | **5** | *e*Pn | | **Pn** | | **21 49 49.7** | **+0.6** |
| | 53nm,1.3s | | | | | | | | |
| **Y36A** | **Durant** | **17.60** | **357** | P | | **P** | | **21 49 53.1** | **+1.6** |
| | baz=176 | | | | | | | | |
| **Y35A** | **Marietta** | **17.66** | **355** | P | | **Pn** | | **21 49 52.6** | **+0.8** |
| | baz=174,SNR=13 | | | | | | | | |
| **MNTX** | **Cornudas Mount** | **18.02** | **330** | P | | **P** | | **21 49 56.5** | **+0.4** |
| | baz=146 | | | | | | | | |
| **MNTX** | **Cornudas Mount** | **18.02** | **330** | *e*P | | **P** | | **21 49 56.0** | **-0.2** |
| | 6.3nm,1.0s | | | | | | | | |
| MNTX | | | | *e*Pn | | **Pn** | | **21 49 57.5** | **+1.2** |
| **X35A** | **Drake** | **18.14** | **355** | P | | **P** | | **21 49 57.8** | **+0.3** |
| | baz=174,SNR=8.5 | | | | | | | | |
| **X35A** | **Drake** | **18.14** | **355** | *e*P | | **Pn** | | **21 49 59.8** | **+2.0** |
| | 26nm,0.8s | | | | | | | | |
| X35A | | | | *e*Sn | | **Sn** | | **21 53 12.8** | **-6.8** |
| **X39A** | **Fountain Ranch** | **18.19** | **2** | P | | **Pn** | | **21 49 59.8** | **+1.4** |
| | baz=183 | | | | | | | | |
| **X37A** | **Clayton** | **18.25** | **359** | P | | **Pn** | | **21 50 00.4** | **+1.3** |
| | baz=179,SNR=7.4 | | | | | | | | |
| **X37A** | **Clayton** | **18.25** | **359** | *e*P | | **Pn** | | **21 50 03.5** | **+4.5** |
| | 21nm,0.7s | | | | | | | | |
| **MIAR** | **Mount Ida** | **18.25** | **4** | P | | **Pn** | | **21 50 00.5** | **+1.4** |
| | baz=184 | | | | | | | | |
| **MIAR** | **Mount Ida** | **18.25** | **4** | *e*Pn | | **P** | | **21 49 59.5** | **+0.8** |
| MIAR | | | | *e*S | | Sn | | 21 53 10.0 | -12 |
| **X40A** | **Basin Creek Fa** | **18.26** | **6** | P | | **Pn** | | **21 50 01.8** | **+2.6** |
| | baz=186 | | | | | | | | |
| **X36A** | **Centrahoma** | **18.27** | **357** | P | | **P** | | **21 49 59.2** | **+0.3** |
| | baz=176 | | | | | | | | |
| **X38A** | **Whitesboro** | **18.33** | **1** | P | | **Pn** | | **21 50 01.4** | **+1.3** |
| | baz=180,SNR=7.3 | | | | | | | | |
| **WMOK** | **Wichita Mounta** | **18.70** | **350** | P | | **P** | | **21 50 03.4** | **-0.2** |
| | baz=169 | | | | | | | | |
| **WMOK** | **Wichita Mounta** | **18.70** | **350** | *e*Pn | | **P** | | **21 50 04.9** | **+1.2** |
| | 9.6nm,0.7s | | | | | | | | |
| WMOK | | | | *e*S | | Sn | | 21 53 20.8 | -12 |
| **W38A** | **Poteau** | **18.74** | **1** | P | | **Pn** | | **21 50 06.1** | **+1.1** |
| | baz=181,SNR=9.2 | | | | | | | | |
| **W37B** | **Quinton** | **18.80** | **359** | P | | **P** | | **21 50 04.0** | **-0.7** |
| | baz=179 | | | | | | | | |
| **W37B** | **Quinton** | **18.80** | **359** | *e*P | | **Pn** | | **21 50 06.3** | **+0.6** |
| | 11nm,0.8s | | | | | | | | |
| **W36A** | **Wetumka** | **18.83** | **357** | P | | **P** | | **21 50 06.0** | **+1.0** |
| | baz=176 | | | | | | | | |
| **W36A** | **Wetumka** | **18.83** | **357** | *e*P | | **Pn** | | **21 50 08.4** | **+2.4** |
| | 16nm,0.6s | | | | | | | | |
| **W35A** | **Tecumseh** | **18.89** | **355** | P | | **P** | | **21 50 05.1** | **-0.6** |
| | baz=174 | | | | | | | | |
| **W35A** | **Tecumseh** | **18.89** | **355** | *e*P | | **P** | | **21 50 06.9** | **+1.3** |
| | 26nm,1.0s | | | | | | | | |
| **W39A** | **Magazine** | **18.89** | **3** | P | | **Pn** | | **21 50 07.1** | **+0.4** |
| | baz=184,SNR=5.3 | | | | | | | | |
| **MSTX** | **Muleshoe** | **18.96** | **340** | P | | **P** | | **21 50 06.5** | **0.0** |
| | baz=156 | | | | | | | | |
| **MSTX** | **Muleshoe** | **18.96** | **340** | *e*P | | **Pn** | | **21 50 08.5** | **+0.8** |
| | 15nm,1.0s | | | | | | | | |
| **OK022** | **N3560 Road, Pr** | **19.25** | **356** | *e*P | | **P** | | **21 50 10.3** | **+0.7** |
| | 42nm,0.6s | | | | | | | | |
| **OK020** | **N3440 Road, Me** | **19.27** | **355** | *e*P | | **P** | | **21 50 10.5** | **+0.7** |
| | 31nm,1.0s | | | | | | | | |
| **OK021** | **N3330 Road, Sp** | **19.32** | **356** | *e*P | | **P** | | **21 50 11.4** | **+1.0** |
| | 48nm,0.6s | | | | | | | | |
| **V36A** | **Jenks** | **19.46** | **358** | P | | **P** | | **21 50 12.8** | **+0.9** |
| | baz=177 | | | | | | | | |
| **V36A** | **Jenks** | **19.46** | **358** | *e*P | | **Pn** | | **21 50 14.1** | **+0.5** |
| | 27nm,1.0s | | | | | | | | |
| **AMTX** | **Amarillo** | **19.48** | **343** | P | | **P** | | **21 50 13.5** | **+1.3** |
| | baz=160 | | | | | | | | |
| **AMTX** | **Amarillo** | **19.48** | **343** | *e*P | | **Pn** | | **21 50 14.3** | **+0.4** |
| | 24nm,1.3s | | | | | | | | |
| **V35A** | **Meyer Ranch, C** | **19.49** | **356** | P | | **P** | | **21 50 12.8** | **+0.6** |
| | baz=175,SNR=7.1 | | | | | | | | |
| **V35A** | **Meyer Ranch, C** | **19.49** | **356** | *e*P | | **P** | | **21 50 13.0** | **+0.8** |
| | 167nm,1.5s | | | | | | | | |
| **V38A** | **Canehill** | **19.53** | **2** | P | | **P** | | **21 50 13.3** | **+0.7** |
| | baz=182,SNR=5.7 | | | | | | | | |
| **V39A** | **Pettigrew** | **19.54** | **3** | P | | **P** | | **21 50 13.5** | **+0.6** |
| | baz=184,SNR=7.4 | | | | | | | | |
| **V37A** | **Hulbert** | **19.54** | **360** | P | | **P** | | **21 50 13.5** | **+0.7** |
| | baz=180 | | | | | | | | |
| **V40A** | **Witts Springs** | **19.56** | **5** | P | | **Pn** | | **21 50 14.8** | **0.0** |
| | baz=186 | | | | | | | | |
| **TUL1** | **Leonard** | **19.58** | **358** | P | | **P** | | **21 50 13.9** | **+0.7** |
| | baz=178 | | | | | | | | |
| **TUL1** | **Leonard** | **19.58** | **358** | *e*P | | **P** | | **21 50 13.8** | **+0.6** |
| | 16nm,0.8s | | | | | | | | |
| **V41A** | **Mountainview** | **19.61** | **7** | P | | **P** | | **21 50 15.0** | **+1.4** |
| | baz=188 | | | | | | | | |
| **319A** | **Douglas** | **19.87** | **322** | *e*P | | **Pn** | | **21 50 20.0** | **+1.4** |
| | 17nm,0.6s | | | | | | | | |
| **121A** | **Cookes Peak, D** | **19.89** | **327** | P | | **P** | | **21 50 15.9** | **-1.0** |
| | baz=142,SNR=11 | | | | | | | | |
| **121A** | **Cookes Peak, D** | **19.89** | **327** | *e*P | | **Pn** | | **21 50 18.9** | **0.0** |
| | 26nm,1.0s | | | | | | | | |
| **HHAR** | **Hobbs** | **19.96** | **3** | *e*P | | **Pn** | | **21 50 20.5** | **+1.0** |
| | 8.0nm,0.7s | | | | | | | | |
| **U37A** | **Salina** | **20.06** | **360** | P | | **P** | | **21 50 19.6** | **+1.2** |
| | baz=180 | | | | | | | | |
| **U35A** | **Pawnee** | **20.09** | **356** | *e*P | | **P** | | **21 50 18.9** | **+0.2** |
| | 28nm,0.8s | | | | | | | | |
| **U39A** | **Green Forest** | **20.09** | **4** | P | | **P** | | **21 50 18.9** | **+0.2** |
| | baz=184 | | | | | | | | |
| **U38A** | **Gravette** | **20.11** | **2** | P | | **P** | | **21 50 19.7** | **+0.7** |
| | baz=182 | | | | | | | | |
| **U40A** | **Yellville** | **20.11** | **5** | P | | **P** | | **21 50 19.4** | **+0.4** |
| | baz=186,SNR=9.7 | | | | | | | | |
| **U41A** | **Viola** | **20.19** | **7** | P | | **P** | | **21 50 21.6** | **+1.7** |
| | baz=188 | | | | | | | | |
| **T35A** | **Sooner Cattle** | **20.61** | **357** | P | | **P** | | **21 50 24.5** | **0.0** |
| | baz=176,SNR=11 | | | | | | | | |
| **BNM** | **Barren Site** | **20.64** | **332** | *e*P | | Pn | | 21 50 27.8 | 0.0 |
| **T38A** | **Diamond** | **20.70** | **2** | P | | **P** | | **21 50 26.1** | **+0.7** |
| | baz=182,SNR=11 | | | | | | | | |
| **T36A** | **Boggs Farm, Ca** | **20.73** | **358** | P | | **P** | | **21 50 26.6** | **+0.9** |
| | baz=178 | | | | | | | | |
| **T39A** | **Clever** | **20.73** | **4** | P | | Pn | | 21 50 28.8 | +0.2 |
| | baz=184 | | | | | | | | |
| **T34A** | **McClaskey Farm** | **20.77** | **355** | P | | **P** | | **21 50 27.1** | **+1.0** |
| | baz=174 | | | | | | | | |
| **LPM** | **Los Pinos Moun** | **20.77** | **332** | *e*P | | Pn | | 21 50 29.8 | +0.5 |
| **T37A** | **Cheneyville 18** | **

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| R36A | Gordon, Harris<br>baz=179 | 21.98 | 359 | P | P | 21 50 40.6 | +1.5 |
| R39A | Chumby, Stover<br>baz=185 | 22.04 | 4 | P | P | 21 50 40.8 | +1.1 |
| R34A | Isabella, Hill<br>baz=174 | 22.04 | 355 | P | P | 21 50 40.5 | +0.8 |
| T48A | Bowling Green<br>baz=202 | 22.14 | 19 | P | P | 21 50 46.0 | +5.3 |
| T25A | Trinidad<br>baz=156,SNR=5.2 | 22.39 | 340 | P | P | 21 50 44.0 | +0.3 |
| T25A | Trinidad<br>23nm,1.1s | 22.39 | 340 | *eP* | P | 21 50 46.4 | +2.7 |
| MHTCO | State Highway<br>23nm,1.1s | 22.47 | 339 | *eP* | P | 21 50 46.9 | +2.2 |
| X18A | Snowflake<br>9.7nm,1.0s | 22.58 | 326 | *eP* | P | 21 50 46.1 | +0.3 |
| Q38A | Cooks Store, C<br>baz=183 | 22.65 | 3 | P | P | 21 50 46.8 | +0.6 |
| R45A | Skylar, Fairfi<br>baz=197 | 22.74 | 14 | P | P | 21 50 50.1 | +2.9 |
| CBKS | Cedar Bluff<br>baz=168 | 22.84 | 351 | P | P | 21 50 48.2 | -0.1 |
| CBKS | Cedar Bluff<br>61nm,1.8s | 22.84 | 351 | *eP* | P | 21 50 48.9 | +0.6 |
| W18A | Petrified Fore<br>7.2nm,0.9s | 22.92 | 328 | *eP* | P | 21 50 51.9 | +2.6 |
| P34A | Walnut Farm, R<br>baz=176 | 23.25 | 357 | P | P | 21 50 53.6 | +1.3 |
| SDCO | Great Sand Dun<br>baz=154 | 23.31 | 339 | P | P | 21 50 54.8 | +1.6 |
| SDCO | Great Sand Dun<br>17nm,1.4s | 23.31 | 339 | *eP* | P | 21 50 55.0 | +1.8 |
| PRAC | Prado<br>37nm,1.6s | 23.41 | 120 | *eP* | P | 21 50 54.7 | +0.6 |
| P42A | Winchester<br>baz=191 | 23.60 | 9 | P | P | 21 50 57.4 | +1.8 |
| S22A | 4UR Ranch, Cre<br>baz=151 | 23.80 | 336 | P | P | 21 50 58.0 | +0.2 |
| RUSC | La Rusia<br>8.8nm,1.5s | 23.86 | 113 | *eP* | P | 21 51 00.5 | +1.7 |
| MVCO | Mesa Verde<br>baz=147 | 24.02 | 333 | P | P | 21 50 59.1 | -0.7 |
| MVCO | Mesa Verde<br>7.7nm,0.9s | 24.02 | 333 | *eP* | P | 21 51 01.8 | +2.0 |
| WUAZ | Wupatki<br>baz=139 | 24.09 | 326 | P | P | 21 50 58.0 | -2.3 |
| WUAZ | Wupatki<br>15nm,0.8s | 24.09 | 326 | *eP* | P | 21 51 03.1 | +2.8 |
| PV01 | Paradox Valley<br>761nm,1.0s | 24.83 | 334 | *eP* | P | 21 51 09.6 | +2.4 |
| SDV | Santo Domingo<br>comp=Z,48nm,19.7s,baz=262,slow=37 | 24.91 | 104 | LR | LR | 22 00 52.9 | |
| PV05 | Paradox Valley | 25.01 | 333 | *eP* | P | 21 51 10.9 | +2.1 |
| IKP | In-Ko-Pah, Jac<br>baz=126 | 25.10 | 314 | P | P | 21 51 10.2 | +0.8 |
| SMCO | Snowmass<br>9.3nm,0.9s | 25.11 | 338 | *eP* | P | 21 51 13.0 | +3.2 |
| W13A | Hualapai Mount<br>23nm,1.8s | 25.22 | 322 | *eP* | P | 21 51 13.7 | +3.0 |
| PV10 | Paradox Valley | 25.23 | 334 | *eP* | P | 21 51 13.2 | +2.4 |
| BC3 | Big Chuckawall<br>baz=128 | 25.26 | 317 | P | P | 21 51 11.1 | +0.1 |
| OGNE | Ogallala<br>baz=164 | 25.33 | 348 | P | P | 21 51 12.3 | +0.8 |
| PV09 | Paradox Valley | 25.38 | 334 | *eP* | P | 21 51 16.4 | +4.2 |
| K38A | Parkersburg<br>baz=185 | 26.37 | 4 | P | P | 21 51 20.5 | -0.3 |
| MTPU | Mount Pierson<br>6.0nm,0.9s | 26.43 | 328 | *eP* | P | 21 51 25.0 | +3.3 |
| K37A | Belmond<br>baz=183 | 26.44 | 2 | P | P | 21 51 19.8 | -1.6 |
| TUQ | Turquoise Moun<br>baz=130 | 26.69 | 320 | P | P | 21 51 24.7 | +0.9 |
| ECSD | EROS Data Cent<br>baz=177 | 27.42 | 358 | P | P | 21 51 29.1 | -1.0 |
| MPMC | Manual Prospec<br>baz=129 | 28.07 | 319 | P | P | 21 51 38.0 | +1.7 |
| ATAH | Atahualpa<br>comp=Z,43nm,21.0s,baz=315,slow=30 | 28.50 | 143 | LR | LR | 22 00 12.8 | |
| SPMN | Marine on St.<br>14nm,0.8s | 28.93 | 3 | *eP* | P | 21 51 41.3 | -2.3 |
| PSUB | Penn St. - Bra<br>219nm,1.9s | 29.10 | 32 | *eP* | P | 21 51 44.9 | -0.3 |
| PDAR | Pinedale Array<br>0.3nm,0.7s,baz=163,slow=7.5,SNR=3.2 | 29.19 | 338 | P | P | 21 51 48.9 | +2.7 |
| NV11 | Mina Array Sit<br>1.4nm,1.7s | 29.99 | 322 | *eP* | P | 21 51 56.4 | +3.1 |
| NV01 | Mina Array Sit | 30.08 | 322 | *eP* | P | 21 51 57.0 | +2.9 |
| NVAR | Mina Array Bea<br>4.0nm,0.7s,baz=138,slow=9.4,SNR=33 | 30.08 | 322 | P | P | 21 51 57.2 | +3.1 |
| NVAR | 3.2nm,0.9s,baz=131,slow=9.3,SNR=7.4 | | | pP | **pP** | 21 52 10.1 | +1.9 |
| NVAR | 3.5nm,0.9s,baz=141,slow=9.3,SNR=5.7 | | | sP | **sP** | 21 52 16.8 | +2.1 |
| NVAR | comp=Z,86nm,20.2s,baz=161,slow=40 | | | LR | LR | 22 05 59.9 | |
| E34A | Wadena<br>baz=180 | 30.16 | 360 | P | P | 21 51 55.6 | +1.1 |
| REDW | Red Top Meadow<br>12nm,1.4s | 30.18 | 337 | *eP* | P | 21 51 57.1 | +2.0 |
| SNOW | Snow King Moun<br>11nm,0.9s | 30.23 | 337 | *eP* | P | 21 51 56.6 | +1.1 |
| C31A | Landman Farms,<br>baz=175 | 31.52 | 357 | P | P | 21 52 06.3 | -0.1 |
| MDND | Maddock<br>39nm,0.7s | 31.72 | 354 | *eP* | P | 21 52 08.3 | +0.1 |
| AGMN | Agassiz Nation<br>baz=178 | 31.95 | 359 | P | P | 21 52 09.7 | -0.6 |
| A32A | Rocking H Ranc<br>baz=177 | 32.59 | 358 | P | P | 21 52 15.2 | -0.6 |
| NNA | Nana<br>comp=Z,53nm,19.9s,baz=310,slow=32 | 33.35 | 146 | LR | LR | 22 03 30.2 | |
| ULM | Lac du Bonnet<br>6.1nm,0.9s,baz=170,slow=9.2,SNR=7.5 | 33.91 | 359 | pP | **pP** | 21 52 39.8 | -1.6 |
| ULM | 6.0nm,0.9s,baz=172,slow=7.2,SNR=5.2 | | | sP | sP | 21 52 45.7 | -2.2 |
| ULM | comp=Z,37nm,18.6s,baz=180,slow=40 | | | LR | LR | 22 08 06.9 | |
| EGMT | Eagleton<br>baz=154 | 33.91 | 342 | P | P | 21 52 24.3 | -3.1 |
| LPAZ | La Paz<br>0.7nm,0.7s,baz=350,slow=6.1,SNR=3.1 | 41.84 | 139 | P | P | 21 53 33.7 | -1.6 |
| SIV | San Ignacio<br>2.5nm,0.8s,baz=334,slow=5.0,SNR=3.6 | 46.38 | 132 | P | P | 21 54 09.1 | -1.9 |
| YKA | Yellowknife Ar<br>1.4nm,0.7s,baz=153,slow=7.4,SNR=20 | 48.19 | 348 | P | P | 21 54 24.5 | +0.2 |
| YKA | 1.9nm,0.8s,baz=152,slow=7.5,SNR=14 | | | pP | **pP** | 21 54 38.3 | -0.6 |
| YKA | 1.2nm,0.7s,baz=151,slow=7.4,SNR=6.1 | | | sP | **sP** | 21 54 43.7 | -1.7 |
| CPUP | Villa Florida<br>comp=Z,40nm,18.6s,baz=238,slow=34 | 56.01 | 139 | LR | LR | 22 17 02.4 | |
| INK | Inuvik<br>1.1nm,0.7s,baz=130,slow=4.9,SNR=6.5 | 57.46 | 344 | P | P | 21 55 32.5 | -0.1 |
| INK | 1.4nm,0.6s,baz=120,slow=7.4,SNR=3.3 | | | pP | **pP** | 21 55 47.8 | +0.2 |
| IL1 | Eielson Array | 59.62 | 337 | *eP* | P | 21 55 48.4 | +0.7 |
| ILAR | Eielson Array<br>1.2nm,1.0s,baz=126,slow=3.5,SNR=7.9 | 59.62 | 337 | P | P | 21 55 48.8 | +1.1 |
| ILAR | 0.5nm,0.8s,baz=145,slow=5.2,SNR=3.6 | | | pP | **pP** | 21 56 03.4 | +0.5 |
| ILAR | 1.1nm,1.0s,baz=119,slow=6.5,SNR=4.2 | | | sP | **sP** | 21 56 08.7 | -0.4 |
| PLCA | Paso Flores<br>3.3nm,1.0s,baz=333,slow=5.9,SNR=4.7 | 61.10 | 159 | P | P | 21 55 58.0 | -0.2 |
| PLCA | 1.9nm,0.9s,baz=320,slow=5.3,SNR=2.4 | | | pP | **pP** | 21 56 12.5 | -0.8 |
| FINES | FINESS Array B<br>comp=Z,96nm,20.1s,baz=266,slow=36 | 89.68 | 24 | LR | LR | 22 39 06.9 | |

*ISN **28** 21:53:38.9±1.1,37.°98N×42.°65E,h0km±605km,ML3.0*
*CSEM **28** 21:53:40.2±0.2,38.°00N×42.°63E,h5km,ML2.8,Error ellipse: s-maj=4.4km s-min=4.0km az=107.0*
*ISK **28** 21:53:40.9,37.°98N×42.°60E,h1km,MD3.0*
*DDA **28** 21:53:40.1,38.°04N×42.°61E,h7km,Ml2.8*

**ISC 28 21:53:40.4±1.0,38.°01N±0.°02×42.°62E±0.°02,h11km±9km, n50,σ0991/60,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| GEVA | Gevas | 0.46 | 49 | *i* | P | Pg | 21 53 48.6 | -0.8 |
| GEVA | | | | *i* | S | Sg | 21 53 56.3 | +0.8 |
| GEVA | Gevas | 0.46 | 49 | P | | Pg | 21 53 48.6 | -0.8 |
| GEVA | | | | S | | Sg | 21 53 56.3 | +0.8 |
| SIRT | Sirnak | 0.53 | 196 | *e*Pg | | Pg | 21 53 50.9 | +0.1 |
| SIRT | | | | *e*Sg | | Sg | 21 53 58.2 | +0.4 |
| SIRN | S¨–rnak | 0.54 | 198 | *i* | P | Pb | 21 53 51.5 | -0.5 |
| SIRN | S¨–rnak | 0.54 | 198 | P | | Pb | 21 53 51.5 | -0.5 |
| SRTM | Siirt_Merkez | 0.55 | 268 | *i* | P | Pg | 21 53 50.5 | -0.7 |
| SRTM | Siirt_Merkez | 0.55 | 268 | P | | Pg | 21 53 50.5 | -0.7 |
| ADCV | BITLIS_Adilcev | 0.80 | 6 | *i* | P | Pg | 21 53 54.8 | -1.1 |
| ADCV | BITLIS_Adilcev | 0.80 | 6 | P | | Pg | 21 53 54.8 | -1.1 |
| TVAN | Van | 0.80 | 50 | *i* | P | Pg | 21 53 55.2 | -0.8 |
| TVAN | Van | 0.80 | 50 | P | | Pg | 21 53 55.2 | -0.8 |
| VANB | Van | 0.84 | 46 | *e*PG | | Pb | 21 53 57.1 | 0.0 |
| VANB | | | | *e*SG | | Sb | 21 54 09.2 | +0.7 |
| VANB | Van | 0.84 | 46 | *e*Pg | | Pb | 21 53 57.1 | 0.0 |
| VANB | | | | *e*Sg | | Sb | 21 54 09.2 | +0.7 |
| BTMN | Batman | 1.08 | 264 | *i* | P | Pb | 21 54 01.4 | +0.2 |
| BTMN | Batman | 1.08 | 264 | P | | Pb | 21 54 01.4 | +0.2 |
| CUKT | Cukurca | 1.09 | 134 | *e*PN | | Pn | 21 54 02.2 | +0.3 |
| CUKT | | | | *e*SN | | Sn | 21 54 17.6 | +0.5 |
| CUKT | Cukurca | 1.09 | 134 | *i* | P | Pg | 21 54 00.6 | -0.9 |
| CUKT | Cukurca | 1.09 | 134 | P | | Pg | 21 54 00.6 | -0.9 |
| CUKT | Cukurca | 1.09 | 134 | *e*Pn | | Pn | 21 54 02.2 | +0.3 |
| CUKT | | | | *e*Sn | | Sn | 21 54 17.6 | +0.5 |
| EKAR | Karacoban | 1.32 | 341 | *i* | P | Pn | 21 54 04.7 | -0.4 |
| EKAR | Karacoban | 1.32 | 341 | P | | Pn | 21 54 04.7 | -0.4 |
| YOVA | Hakkari_Y¨…kse | 1.39 | 107 | *i* | P | Pg | 21 54 07.7 | +0.6 |
| YOVA | Hakkari_Y¨…kse | 1.39 | 107 | P | | Pg | 21 54 07.7 | +0.6 |
| TUTA | Tutak | 1.40 | 6 | *i* | P | Pn | 21 54 05.8 | -0.3 |
| TUTA | Tutak | 1.40 | 6 | P | | Pn | 21 54 05.8 | -0.3 |
| BNGL | BINGOL | 1.49 | 310 | *i* | P | Pg | 21 54 08.9 | -0.1 |
| CLDR | Caldiran | 1.52 | 42 | *e*PN | | Pg | 21 54 09.3 | -0.3 |
| CLDR | Caldiran | 1.52 | 42 | *e*Pn | | Pg | 21 54 09.3 | -0.3 |
| AGRB | Hanur-Agry | 1.59 | 10 | *e*PN | | Pb | 21 54 09.7 | -0.2 |
| AGRB | Hanur-Agry | 1.59 | 10 | *e*Pn | | Pb | 21 54 09.7 | -0.2 |
| MARD | Mardin | 1.62 | 245 | *i* | P | Pb | 21 54 10.7 | +0.2 |
| MARD | | | | *i* | S | Sg | 21 54 32.4 | -0.2 |
| HANI | Diyarbakir_Han | 1.80 | 284 | *i* | P | Pn | 21 54 11.2 | -0.3 |
| HANI | Diyarbakir_Han | 1.80 | 284 | P | | Pn | 21 54 11.2 | -0.3 |
| BNGB | Bing¶l | 1.81 | 303 | *e*PN | | Pb | 21 54 13.8 | +0.1 |
| MAZI | Mazidag | 1.81 | 253 | *e*PN | | Pn | 21 54 12.1 | +0.4 |
| MAZI | Mazidag | 1.81 | 253 | *e*Pn | | Pn | 21 54 12.1 | +0.4 |
| EATA | Eleskirt | 1.85 | 357 | *i* | P | Pn | 21 54 13.7 | +1.2 |
| EATA | Eleskirt | 1.85 | 357 | P | | Pn | 21 54 13.7 | +1.2 |
| BINT | Bingol | 1.88 | 298 | *e*Pn | | Pn | 21 54 13.8 | +1.0 |
| DIYA | Diyarbakir | 1.98 | 268 | *i* | P | Pn | 21 54 14.3 | +0.3 |
| DIYA | Diyarbakir | 1.98 | 268 | P | | Pn | 21 54 14.3 | +0.3 |
| HOMI | Horasan | 2.10 | 345 | *i* | P | Pb | 21 54 18.1 | -0.7 |
| YEDI | Yedisu-Bingol | 2.16 | 312 | *e*PN | | Pn | 21 54 18.3 | +1.7 |
| YEDI | Yedisu-Bingol | 2.16 | 312 | *e*Pn | | Pn | 21 54 18.3 | +1.7 |
| SVRC | Sivrice-ELAZID | 2.64 | 279 | *e*PN | | Pn | 21 54 23.9 | +0.7 |
| SVRC | Sivrice-ELAZID | 2.64 | 279 | *e*Pn | | Pn | 21 54 23.9 | +0.7 |
| PTK | Pertek | 2.68 | 290 | *e*PN | | Pn | 21 54 25.5 | +1.7 |
| PTK | Pertek | 2.68 | 290 | *e*Pn | | Pn | 21 54 25.5 | +1.7 |
| BHD | Baghdad<br>SNR=3.0 | 4.94 | 163 | *e*Pn | | Pn | 21 54 55.0 | +0.3 |
| BHD | SNR=3.0 | | | *i* | Sn | Sn | 21 55 48.0 | -3.9 |

*IDC **28** 21:55:40.4±2.1,17.°94S×175.°01W,h177km±19km, mb4.2/18,mb1 4.3/20,mb1mx4.2/33,mbtmp4.6/20,MS3.1/1, Ms1 3.1/1,ms1mx2.6/28,Error ellipse: s-maj=14.5km s-min=10.0km az=119.0*
*BJI **28** 21:55:42.0,18.°58S×175.°04W,h227km,mb4.7/23, mB5.1/18*
*NEIC **28** 21:55:42.0±1.1,17.°93S×174.°99W,h195km±10km, mb5.1/36,Error ellipse: s-maj=9.1km s-min=5.4km az=112.0*
*ISCJB **28** 21:55:44.2±0.3,18.°02S±0.°04×175.°05W±0.°05,h228km, mb4.7/63,Error ellipse: s-maj=7.0km s-min=5.5km az=5.6*

**ISC 28 21:55:45.6±0.3,18.°07S±0.°07×174.°97W±0.°06,h228km, n187,σ1939/201,mb4.9/63,9C-9D,Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| NIUE | Niue<br>baz=4.8,SNR=9.9 | 4.88 | 103 | P | | Pn | 21 56 57.5 | -1.7 |
| AFI | Afiamalu<br>32nm,0.3s,baz=171,slow=3.7,SNR=16 | 5.15 | 37 | P | | Pn | 21 56 55.1 | -7.6 |
| AFI | 122nm,0.3s,baz=86,slow=19,SNR=9.7 | | | S | | S | 21 57 49.8 | -14 |
| AFI | comp=Z,180nm,20.2s,baz=197,slow=32 | | | LR | | LR | 21 58 25.4 | |
| AFI | Afiamalu | 5.15 | 37 | *e*Pn | | Pn | 21 56 56.2 | -6.5 |
| AFI | | | | *e*S | | S | 21 57 50.9 | -13 |
| MSVF | Nonsavu | 6.66 | 272 | *e*Pn | | Pn | 21 57 23.7 | +1.3 |
| MSVF | | | | *e*S | | S | 21 58 37.2 | -1.3 |
| DZM | Mont Dzumac<br>1.0nm,0.3s,baz=77,slow=18,SNR=17 | 17.91 | 254 | P | | P | 21 59 38.2 | -0.5 |
| DZM | Mont Dzumac | 17.91 | 254 | *e*P | | P | 21 59 39.8 | +1.0 |
| OUZ | Omahuta<br>332nm,2.0s | 19.88 | 209 | *e*P | | Pn | 22 00 03.5 | -0.9 |
| MXZ | Matakaoa Point<br>157nm,1.1s | 20.30 | 196 | *e*P | | P | 22 00 06.6 | +2.5 |
| HAZ | Te Kaha | 20.62 | 197 | *e*PN | | P | 22 00 08.3 | +0.8 |
| URZ | Urewera<br>18nm,0.3s,baz=270,slow=3.3,SNR=32 | 21.27 | 197 | P | | P | 22 00 13.0 | -1.3 |
| URZ | 4.6nm,0.9s,baz=345,slow=20,SNR=4.7 | | | S | | S | 22 03 54.4 | -1.3 |
| URZ | Urewera | 21.27 | 197 | *e*P | | P | 22 00 14.2 | -0.1 |
| URZ | | | | S | | S | 22 03 54.4 | -1.3 |
| URZ | Urewera | 21.27 | 197 | *e*PN | | P | 22 00 13.6 | -0.7 |
| RIGZ | Rimuhau | 21.52 | 196 | *e*PN | | P | 22 00 17.9 | +1.1 |
| HIZ | Hauiti<br>42nm,0.6s | 22.22 | 202 | *e*P | | P | 22 00 25.5 | +2.1 |
| BKZ | Black Stump Fm<br>83nm,1.8s | 22.29 | 198 | *e*P | | P | 22 00 24.2 | +0.1 |
| BFZ | Birch Farm<br>28nm,0.6s | 23.77 | 197 | *e*P | | P | 22 00 37.9 | +0.4 |
| SNZO | South Karori<br>37nm,0.6s | 24.80 | 199 | *e*P | | P | 22 00 46.7 | 0.0 |
| QRZ | Quartz Range | 25.10 | 203 | *e*PN | | P | 22 00 50.4 | +1.0 |
| THZ | Tophouse<br>29nm,1.0s | 25.79 | 201 | *e*P | | P | 22 00 56.3 | +0.6 |
| THZ | Tophouse | 25.79 | 201 | *e*PN | | P | 22 00 56.4 | +0.6 |
| HNR | Honiara<br>70nm,0.3s,baz=355,slow=16,SNR=4.7 | 25.81 | 286 | P | | P | 22 00 54.7 | -1.4 |
| KHZ | Kahutara<br>36nm,1.0s | 26.17 | 200 | *e*P | | P | 22 01 00.4 | +1.4 |
| LTZ | Lake Taylor<br>26nm,0.6s | 26.91 | 201 | *e*P | | P | 22 01 05.8 | +0.1 |
| INZ | Inchbonnie | 27.15 | 202 | *e*PN | | P | 22 01 07.2 | -0.6 |
| OXZ | Oxford<br>52nm,1.0s | 27.47 | 201 | *e*P | | P | 22 01 10.9 | +0.3 |
| MQZ | McQueen's Vall<br>95nm,1.9s | 27.61 | 200 | *e*P | | P | 22 01 13.0 | +1.2 |
| WVZ | Waitaha Valley | 27.72 | 203 | *e*PN | | P | 22 01 12.1 | -0.7 |
| RPZ | Rata Peaks<br>14nm,0.4s,baz=349,slow=6.8,SNR=10 | 28.16 | 202 | P | | P | 22 01 16.9 | +0.2 |
| FOZ | Fox Glacier<br>250nm,2.0s | 28.45 | 204 | *e*P | | P | 22 01 19.0 | -0.3 |
| LBZ | Lake Benmore<br>94nm,1.9s | 29.05 | 202 | *e*P | | P | 22 01 23.5 | -1.1 |
| JCZ | Jackson Bay | 29.31 | 204 | *e*PN | | P | 22 01 26.2 | -0.8 |
| WKZ | Wanaka<br>226nm,2.0s | 29.86 | 203 | *e*P | | P | 22 01 31.1 | -0.6 |
| MLZ | Mavora Lakes<br>177nm,2.0s | 30.65 | 204 | *e*P | | P | 22 01 39.5 | +0.8 |
| DCZ | Deep Cove<br>241nm,2.0s | 31.11 | 205 | *e*P | | P | 22 01 43.1 | +0.4 |
| WHZ | Wether Hill Ro<br>33nm,0.7s | 31.16 | 203 | *e*P | | P | 22 01 44.0 | +0.8 |
| EIDS | Eidsvold<br>baz=32,SNR=6.5 | 32.30 | 251 | P | | P | 22 01 53.0 | -0.4 |
| EIDS | Eidsvold<br>9.1nm,0.8s | 32.30 | 251 | *e*P | | P | 22 01 53.5 | +0.1 |
| ARMA | Armidale<br>baz=33,SNR=26 | 32.72 | 242 | P | | P | 22 01 57.6 | +0.5 |
| ARMA | Armidale<br>28nm,0.9s | 32.72 | 242 | *e*P | | P | 22 01 57.6 | +0.5 |
| RMQ | Roma<br>baz=35,SNR=3.9 | 34.51 | 249 | P | | P | 22 02 12.8 | +0.4 |
| CNB | Canberra Magne<br>baz=36,SNR=5.1 | 35.96 | 234 | P | | P | 22 02 24.8 | 0.0 |
| CTAO | Charters Tower<br>17nm,0.7s | 36.65 | 260 | *e*P | | P | 22 02 30.0 | -0.7 |
| CMSA | Cobar Meteorol<br>baz=38,SNR=30 | 37.94 | 242 | P | | P | 22 02 41.2 | -0.2 |
| QLP | Quilpie<br>baz=39,SNR=50 | 38.55 | 250 | P | | P | 22 02 45.8 | -0.7 |
| MTSU | Mount Surprise<br>baz=39,SNR=11 | 38.65 | 263 | P | | P | 22 02 46.2 | -1.3 |
| TOO | Toolangi<br>baz=40,SNR=9.1 | 39.64 | 232 | P | | P | 22 02 54.6 | -0.8 |
| COEN | Coen<br>baz=40,SNR=9.1 | 40.38 | 270 | P | | P | 22 03 02.4 | +0.7 |
| COEN | Coen<br>201nm,2.0s | 40.38 | 270 | *e*P | | P | 22 03 00.7 | -1.1 |
| STKA | Stephens Creek<br>31nm,1.0s,baz=87,slow=9.4,SNR=32 | 41.44 | 242 | P | | P | 22 03 09.8 | -0.3 |
| STKA | Stephens Creek<br>baz=42,SNR=28 | 41.44 | 242 | P | | P | 22 03 10.0 | -0.2 |
| STKA | Stephens Creek<br>9.5nm,1.1s | 41.44 | 242 | *e*P | | P | 22 03 09.9 | -0.3 |
| ARPS | Mount Arapiles<br>baz=42,SNR=7.6 | 42.22 | 235 | P | | P | 22 03 16.3 | 0.0 |
| QIS | Mount Isa<br>baz=43,SNR=3.6 | 42.84 | 259 | P | | P | 22 03 21.3 | -0.3 |
| BBOO | Buckleboo<br>baz=46,SNR=47 | 46.20 | 242 | P | | P | 22 03 47.7 | -0.3 |
| BBOO | Buckleboo<br>86nm,0.6s | 46.20 | 242 | *e*P | | P | 22 03 47.5 | -0.5 |
| WB2 | Warramunga Arr | 47.81 | 259 | *e*P | | P | 22 03 59.9 | -0.7 |
| WRAB | Tennant Creek<br>21nm,0.3s | 47.81 | 259 | *e*P | | P | 22 03 59.8 | -0.9 |
| WRA | Warramunga Arr<br>24nm,0.3s,baz=98,slow=6.6,SNR=535 | 47.82 | 259 | P | | P | 22 03 59.8 | -0.9 |
| WRA | 3.6nm,1.0s,baz=92,slow=4.0,SNR=3.5 | | | PcP | | PcP | 22 05 26.3 | +0.4 |
| AS01 | Alice Springs | 47.86 | 254 | *e*P | | P | 22 04 00.3 | -0.7 |
| AS31 | Alice Springs<br>43nm,0.9s | 47.90 | 254 | *e*P | | P | 22 04 00.2 | -1.1 |
| ASAR | Alice Springs<br>134nm,0.7s,baz=92,slow=7.5,SNR=1033 | 47.90 | 254 | P | | P | 22 04 00.3 | -1.0 |
| ASAR | 3.2nm,0.6s,baz=98,slow=4.5,SNR=5.6 | | | PcP | | PcP | 22 05 25.9 | -0.2 |
| MTN | Manton Dam<br>baz=52,SNR=7.1 | 52.07 | 268 | P | | P | 22 04 31.4 | -1.2 |
| FORT | Forrest<br>baz=53,SNR=6.3 | 52.90 | 245 | P | | P | 22 04 37.7 | -0.8 |
| WRKA | Warakurna<br>baz=53,SNR=87 | 52.91 | 252 | P | | P | 22 04 38.0 | -0.8 |
| KNRA | Kununurra<br>baz=54,SNR=14 | 53.73 | 264 | P | | P | 22 04 43.8 | -0.9 |
| SOEI | Soe<br>54nm,0.8s | 59.35 | 269 | *e*P | | P | 22 05 24.4 | -0.1 |
| VNDA | Vanda<br>3.0nm,0.7s,baz=16,slow=6.2,SNR=9.5 | 60.58 | 186 | P | | P | 22 05 34.2 | +2.5 |
| MBWA | Marble Bar<br>61nm,0.3s | 61.21 | 255 | *e*P | | P | 22 05 36.0 | -0.9 |
| MEEK | Meekatharra<br>baz=62,SNR=5.3 | 61.44 | 249 | P | | P | 22 05 37.5 | -0.9 |
| KLBR | Kellerberrin<br>baz=62,SNR=6.0 | 61.69 | 243 | P | | P | 22 05 39.6 | -0.3 |
| NWAO | Narrogin (SRO)<br>baz=62,SNR=4.5 | 62.03 | 242 | P | | P | 22 05 42.0 | -0.1 |
| NWAO | baz=62,SNR=4.5 | | | P | | P | 22 05 42.0 | -0.1 |
| NWAO | Narrogin (SRO)<br>53nm,1.0s | 62.03 | 242 | P | | P | 22 05 41.7 | -0.4 |
| BLDU | Ballidu<br>baz=63,SNR=22 | 62.67 | 244 | P | | P | 22 05 45.6 | -0.8 |
| MUN | Mundaring<br>baz=63,SNR=7.3 | 62.97 | 243 | P | | P | 22 05 48.1 | -0.2 |
| MORW | Morawa<br>baz=64,SNR=4.7 | 63.41 | 246 | P | | P | 22 05 50.8 | -0.5 |
| GIRL | Giralia<br>baz=66,SNR=3.3 | 65.98 | 253 | P | | P | 22 06 08.7 | +0.8 |
| MJAR | Matsushiro Arr<br>7.5nm,0.8s,baz=158,slow=6.3,SNR=19 | 70.04 | 321 | P | | P | 22 06 31.7 | -1.1 |
| MAT | Matsushiro | 70.04 | 321 | P | | P | 22 06 32.4 | -0.4 |
| QSPA | South Pole Qui<br>40nm,0.9s | 71.99 | 180 | *e*P | | P | 22 06 45.7 | +1.4 |
| JNU | Nakatsue<br>14nm,0.7s,baz=151,slow=0.5,SNR=17 | 72.56 | 315 | P | | P | 22 06 47.7 | -0.3 |
| ASAJ | Asahikawa<br>6.7nm,0.7s,baz=254,slow=4.1,SNR=5.2 | 73.03 | 329 | P | | P | 22 06 50.5 | 0.0 |
| PETK | Petropavlovsk-<br>6.5nm,0.7s,baz=133,slow=8.4,SNR=7.1 | 74.72 | 343 | P | | P | 22 06 59.6 | -0.4 |
| KSM | Kuching<br>90nm,1.8s | 75.96 | 276 | *e*P | | P | 22 07 08.3 | +0.3 |
| KSRS | Korea Array<br>8.0nm,0.9s,baz=133,slow=6.7,SNR=17 | 77.03 | 317 | P | | P | 22 07 14.7 | +1.2 |
| KSAR | Wonju Array Be | 77.05 | 317 | P | | P | 22 07 14.7 | +1.1 |
| NVAR | Mina Array Bea<br>1.4nm,0.7s,baz=226,slow=9.3,SNR=9.7 | 77.30 | 42 | P | | P | 22 07 15.8 | +0.5 |
| NJ2 | Nanjing<br>NJ2 | 80.60 | 308 | *e*P | | P<br>pmax | 22 07 30.3<br>pmax | -2.7 |
| KLR | comp=Z,14nm,0.7s<br>Kul'dur<br>0.2nm,0.8s,baz=139,slow=8.0,SNR=4.1 | 81.95 | 328 | P | | P | 22 07 39.7 | 0.0 |
| CN2 | Changchun<br>CN2 | 82.18 | 321 | *e*P | | P<br>pmax | 22 07 41.5<br>pmax | +0.5 |
| TXAR | comp=Z,10.0nm,1.0s<br>Lajitas Array<br>0.2nm,0.5s,baz=217,slow=7.4,SNR=3.9 | 83.33 | 56 | P | | P | 22 07 48.8 | +1.4 |
| WHN | Wuhan | 83.36 | 305 | P | | P | 22 07 49.3 | +1.9 |
| MCK | McKinley<br>12nm,1.0s | 84.02 | 11 | *e*P | | P | 22 07 48.5 | -1.4 |
| SEY | Seymchan<br>5.6nm,0.8s,baz=131,slow=5.7,SNR=23 | 84.71 | 346 | P | | P | 22 07 52.5 | -0.9 |
| MAW | Mawson<br>3.9nm,0.5s,baz=142,slow=8.9,SNR=8.7 | 84.80 | 199 | P | | P | 22 07 55.0 | +1.1 |
| MAW | Mawson<br>baz=85,SNR=8.3 | 84.80 | 199 | P | | P | 22 07 55.1 | +1.2 |
| PDAR | Pinedale Array<br>0.5nm,0.7s,baz=203,slow=2.9,SNR=5.8 | 85.24 | 42 | P | | P | 22 07 57.0 | +0.1 |
| ILAR | Eielson Array<br>1.9nm,0.6s,baz=225,slow=5.8,SNR=34 | 85.34 | 12 | P | | P | 22 07 55.8 | -0.7 |
| BJI | Beijing | 86.23 | 314 | P | | P | 22 08 00.8 | -0.6 |
| KULM | Kulim<br>23nm,1.3s | 86.31 | 277 | *e*P | | P | 22 08 02.8 | +0.4 |
| ENH | Enshi<br>10nm,0.7s | 87.09 | 303 | P | | P | 22 08 05.8 | -0.1 |
| GYA | Guiyang | 87.98 | 299 | P | | P | 22 08 08.5 | -1.8 |
| GYA | | | | pP | | pP | 22 09 06.8 | +0.9 |
| GYA | | | | sP | | sP | 22 09 31.0 | +1.3 |
| GYA | | | | PP | | **PP** | 22 11 41.5 | +1.1 |
| GYA | | | | SKS | | **SKSac** | 22 18 12.0 | -5.2 |
| GYA | | | | S | | **SKKSac** | 22 18 29.3 | +1.2 |
| GYA | comp=Z,20nm,1.0s | | | pmax | | pmax | | |
| GYA | comp=Z,120nm,5.9s | | | pmax | | pmax | | |
| GSI | Gunungsitoli<br>96nm,1.4s | 87.98 | 272 | *e*P | | P | 22 08 11.5 | +1.1 |
| XAN | Xi'an<br>XAN | 88.98 | 306 | P | | P<br>pmax | 22 08 15.3<br>pmax | +0.6 |
| XAN | comp=Z,14nm,1.1s | | | pmax | | pmax | | |
| XAN | comp=Z,95nm,3.9s | | | pmax | | pmax | | |
| SYO | Syowa Base | 89.70 | 192 | *e*P | | P | 22 08 15.5 | -1.9 |
| HHC | Hu-ho-hao-te<br>HHC | 89.75 | 313 | *e*P | | P<br>pmax | 22 08 17.0<br>pmax | -1.2 |
| HHC | comp=Z,5.0nm,0.6s | | | pmax | | pmax | | |
| HHC | comp=Z,100nm,5.5s | | | pmax | | pmax | | |
| SNAA | Sanae | 90.32 | 178 | P | | P | 22 08 21.3 | +0.9 |
| VNA3 | Neumayer Olymp | 90.34 | 175 | P | | P | 22 08 21.1 | +0.7 |
| VNA2 | Neumayer--Watz<br>baz=184,slow=3.8 | 90.82 | 176 | P | | P | 22 08 23.8 | +1.1 |
| KMI | Kunming<br>KMI | 90.83 | 296 | P | | P<br>pmax | 22 08 20.5<br>pmax | -3.3 |
| KMI | comp=Z,5.0nm,0.5s | | | pmax | | pmax | | |
| VNA1 | Neumayer--Stat | 91.03 | 176 | P | | P | 22 08 25.2 | +1.7 |
| INK | Inuvik<br>3.1nm,0.9s,baz=187,slow=7.9,SNR=5.5 | 91.21 | 14 | P | | P | 22 08 23.4 | -0.8 |
| INK | Inuvik<br>4.3nm,1.0s | 91.21 | 14 | *e*P | | P | 22 08 23.0 | -1.2 |
| CD2 | Chengdu<br>CD2 | 91.93 | 302 | *e*P | | P<br>S | 22 08 25.3<br>22 19 04.0 | -3.2<br>-6

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LZH | | | | LR | LR | | | |
| | comp=Z,220nm,19.3s | | | | | | | |
| **SONM** | **Songino Array** | **95.83** | **318** | P | **P** | **22 08 47.8** | **+1.7** | |
| | 0.6nm,0.9s,baz=108,slow=4.8,SNR=4.0 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **110.39** | **322** | PKiKP | **PKiKP** | **22 13 49.2** | **-1.1** | |
| | 0.6nm,0.6s,baz=270,slow=0.9,SNR=4.0 | | | | | | | |
| **MKAR** | **Makanchi Array** | **111.61** | **314** | PKiKP | **PKiKP** | **22 13 51.5** | **-1.4** | |
| | 0.8nm,0.7s,baz=60,slow=3.4,SNR=8.5 | | | | | | | |
| **KSH** | **Kashi** | **115.83** | **306** | PKP | **PKPdf** | **22 14 02.3** | **+1.0** | |
| KSH | | | | PP | **PP** | **22 15 15.3** | **+6.7** | |
| KSH | | | | sPKP | | 22 15 22.3 | | |
| KSH | | | | PKS | **PKSdf** | **22 17 37.3** | **-0.8** | |
| KSH | | | | SKS | **SKSdf** | **22 20 50.3** | **-1.5** | |
| KSH | | | | SKKS | **SKKSac** | **22 21 44.3** | **-1.9** | |
| KSH | | | | SS | **SS** | **22 30 57.5** | **+5.6** | |
| KSH | | | | AMB | AMB | | | |
| | comp=Z,250nm,5.0s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=N,88nm,5.3s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=E,72nm,4.0s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=Z,260nm,5.1s | | | | | | | |
| **ARCES** | **ARCESS Array B** | **127.02** | **351** | PKP | **PKPdf** | **22 14 21.3** | **-0.5** | |
| | 1.1nm,0.4s,baz=93,slow=0.4,SNR=19 | | | | | | | |
| **GEYT** | **Alibeck** | **129.84** | **305** | PKP | **PKPdf** | **22 14 28.5** | **+0.4** | |
| | 1.4nm,0.8s,baz=283,slow=7.4,SNR=3.9 | | | | | | | |
| **FINES** | **FINESS Array B** | **134.19** | **346** | PKP | **PKPdf** | **22 14 36.6** | **+1.1** | |
| | 2.6nm,0.8s,baz=12,slow=2.6,SNR=6.5 | | | | | | | |
| **SUW** | **Suwalki** | **141.48** | **343** | ePKP | PKPdf | 22 15 00.2 | +11 | |
| **AKASG** | **Malin Array Be** | **142.16** | **335** | PKhKP | PKPpre | 22 14 46.0 | | |
| | 2.0nm,0.7s,baz=43,slow=4.3,SNR=11 | | | | | | | |
| **KMBO** | **Kilima Mbogo** | **143.00** | **242** | PKP | **PKPdf** | **22 14 52.1** | **-1.4** | |
| | 1.7nm,0.5s,baz=64,slow=7.8,SNR=8.5 | | | | | | | |
| **KMBO** | **Kilima Mbogo** | **143.00** | **242** | *e*PKPdf | **PKPdf** | **22 14 51.7** | **-1.7** | |
| KMBO | | | | PKP | **PKPdf** | **22 14 52.1** | **-1.4** | |
| **KWP** | **Kalwaria Pacla** | **145.45** | **340** | *e*PKP | **PKPab** | **22 14 57.5** | **+0.2** | |
| **LEOM** | **Leova** | **145.80** | **331** | ⇓*i*P | **PKPab** | **22 15 00.0** | **+1.4** | |
| **OJC** | **Ojcow** | **145.81** | **343** | *e*PKP | **PKPbc** | **22 14 57.6** | **-0.2** | |
| **PRAR** | **RASCA** | **146.00** | **334** | ⇓*i*P | **PKPbc** | **22 14 58.1** | **-0.4** | |
| **KSP** | **Ksiaz** | **146.09** | **347** | *e*PKP | **PKPbc** | **22 14 59.1** | **+0.5** | |
| **STHS** | **Stebnicka Huta** | **146.10** | **341** | *e*PKP | **PKPab** | **22 14 59.7** | **-0.1** | |
| **BURAR** | **Bucovina Array** | **146.22** | **335** | ⇓*i*P | **PKPbc** | **22 14 59.4** | **+0.2** | |
| **CLL** | **Collm** | **146.24** | **351** | ⇓*i*PKPbc | **PKPbc** | **22 14 59.3** | **+0.3** | |
| | comp=Z,34nm,1.2s | | | | | | | |
| **NIE** | **Niedzica** | **146.39** | **342** | *e*PKP | **PKPab** | **22 15 00.8** | **-0.1** | |
| **UPC** | **Upice** | **146.47** | **347** | *e*PKP | **PKPbc** | **22 15 00.3** | **+0.6** | |
| **CRVS** | **Cervenica-Dubn** | **146.49** | **340** | *e*PKP | **PKPdf** | **22 14 59.0** | **+0.9** | |
| CRVS | | | | *e* | | 22 15 01.6 | | |
| **BRG** | **Berggiesshubel** | **146.51** | **350** | *i* PKP | **PKPbc** | **22 15 00.5** | **+0.7** | |
| | comp=Z,22nm,1.4s | | | | | | | |
| **DPC** | **Dobruska-Polom** | **146.55** | **347** | *e*PKP | **PKPbc** | **22 15 00.7** | **+0.7** | |
| **OKC** | **Ostrava-Krasne** | **146.60** | **345** | *e*PKP | **PKPbc** | **22 15 00.5** | **+0.4** | |
| **KRLC** | **Kraliky** | **146.71** | **346** | *e*PKP | **PKPab** | **22 15 01.9** | **-0.2** | |
| **PVCC** | **Panska Ves** | **146.73** | **349** | *e*PKP | **PKPbc** | **22 15 01.3** | **+0.8** | |
| **MORC** | **Moravsky Berou** | **146.81** | **345** | ⇑*i*P | **PKPbc** | **22 15 01.5** | **+0.7** | |
| **CFR** | **Carcaliu** | **146.81** | **330** | *i*P | **PKPbc** | **22 15 01.0** | **+0.2** | |
| **LANS** | **Liptovska Anna** | **146.87** | **343** | *e*PKP | **PKPab** | **22 15 02.4** | **-0.4** | |
| **ODBI** | **Odobesti** | **146.88** | **331** | ⇑*i*P | **PKPbc** | **22 15 01.8** | **+0.8** | |
| **ARCR** | **ARCALIA** | **146.99** | **335** | ⇑*i*P | **PKPab** | **22 15 02.6** | **-0.7** | |
| **KECS** | **Kecovo** | **147.16** | **341** | *e*PKP | **PKPbc** | **22 15 01.8** | **+0.1** | |
| KECS | | | | *e* | | 22 15 03.7 | | |
| **BRTR** | **Keskin Array B** | **147.18** | **317** | PKPbc | **PKPbc** | **22 15 02.5** | **+0.2** | |
| | comp=Z,8.0nm,0.8s,baz=141,slow=3.2,SNR=36 | | | | | | | |
| **PRU** | **Pruhonice** | **147.25** | **349** | *e*PKP | **PKPbc** | **22 15 02.6** | **+0.7** | |
| **GOPC** | **GO Pecny, Ondr** | **147.28** | **348** | *e*PKP | **PKPbc** | **22 15 02.8** | **+0.8** | |
| **NKC** | **Novy Kostel** | **147.37** | **351** | *e*PKP | **PKPbc** | **22 15 03.0** | **+0.7** | |
| **DOPR** | **Dopca** | **147.46** | **333** | ⇓*i*P | **PKPbc** | **22 15 02.7** | **0.0** | |
| **MEM** | **Membach** | **147.53** | **359** | PKPbc | **PKPdf** | **22 15 00.5** | **+0.8** | |
| **MLR** | **Muntele Rosu** | **147.59** | **332** | ⇑*i*P | **PKPbc** | **22 15 03.7** | **+0.5** | |
| **CJR** | **Cluj-Napoca** | **147.59** | **336** | ⇓*i*P | **PKPbc** | **22 15 03.8** | **+0.8** | |
| **VYHS** | **Vyhne** | **147.64** | **343** | *e*PKP | **PKPbc** | **22 15 04.0** | **+0.9** | |
| **DRGR** | | **147.86** | **337** | ⇑*i*P | **PKPbc** | **22 15 04.5** | **+0.7** | |
| **DOU** | **Dourbes** | **148.05** | **1** | PKP | **PKPbc** | **22 15 04.7** | **+0.7** | |
| **KHC** | **Kasperske Hory** | **148.25** | **349** | *e*PKP | **PKPbc** | **22 15 05.2** | **+0.5** | |
| KHC | | | | *ex* | x | 22 15 08.1 | | |
| **ARR** | **Arges** | **148.26** | **333** | ⇓*i*P | **PKPdf** | **22 15 02.8** | **+0.8** | |
| **GERES** | **GERESS Array B** | **148.51** | **349** | PKPbc | **PKPbc** | **22 15 05.0** | **-0.4** | |
| | comp=Z,3.8nm,0.8s,baz=29,slow=3.0,SNR=26 | | | | | | | |
| **DEV** | **Deva** | **148.55** | **336** | ⇑*i*P | **PKPbc** | **22 15 06.2** | **+0.7** | |
| **LOT** | **Lotru** | **148.56** | **334** | ⇑*i*P | **PKPdf** | **22 14 59.1** | **-2.6** | |
| **CONA** | **Conrad Observa** | **148.93** | **346** | *i* PKiKP | **PKiKP** | **22 15 07.5** | **-0.2** | |
| | comp=Z,13nm,1.1s | | | | | | | |
| **BZS** | **Buzias** | **149.26** | **337** | ⇑*i*P | **PKPbc** | **22 15 07.8** | **+0.6** | |
| **MOA** | **Molln** | **149.35** | **348** | *i* PKiKP | **PKiKP** | **22 15 08.1** | **-0.4** | |
| | comp=Z,9.0nm,1.3s | | | | | | | |
| **CRAR** | **CRAIOVA** | **149.45** | **333** | ⇑*i*P | **PKPbc** | **22 15 10.3** | **+2.6** | |
| **ARSA** | **Arzberg** | **149.65** | **346** | *i* PKiKP | **PKiKP** | **22 15 08.8** | **-0.3** | |
| | comp=Z,5.5nm,1.2s | | | | | | | |
| **BFO** | **Black Forest** | **149.70** | **356** | *e*PKPbc | **PKPbc** | **22 15 08.5** | **+0.2** | |
| **CSS** | **Mathiatis** | **149.75** | **309** | *e*PKPbc | **PKPbc** | **22 15 08.7** | **-0.1** | |
| **KBA** | **Koelnbreinsper** | **150.27** | **349** | *i* PKiKP | **PKPbc** | **22 15 10.1** | **+0.2** | |
| | comp=Z,5.2nm,0.7s | | | | | | | |
| **RETA** | **Reutte** | **150.29** | **352** | *i* PKiKP | **PKiKP** | **22 15 10.4** | **-0.1** | |
| | comp=Z,8.8nm,1.0s | | | | | | | |
| **SOKA** | **Soboth** | **150.30** | **346** | *i* PKiKP | **PKPbc** | **22 15 10.2** | **+0.3** | |
| | comp=Z,6.5nm,0.8s | | | | | | | |
| **WATA** | **Walderalm** | **150.32** | **351** | *i* PKiKP | **PKPbc** | **22 15 10.1** | **+0.2** | |
| | comp=Z,2.4nm,0.5s,SNR=5.5 | | | | | | | |
| **MOTA** | **Moosalm** | **150.38** | **352** | *i* PKiKP | **PKPbc** | **22 15 10.4** | **+0.3** | |
| | comp=Z,12nm,1.0s,SNR=7.1 | | | | | | | |
| **WTTA** | **Wattenberg** | **150.38** | **351** | *i* PKiKP | **PKiKP** | **22 15 10.6** | **-0.2** | |
| | comp=Z,4.7nm,0.4s | | | | | | | |
| **OBKA** | **Obir** | **150.57** | **347** | *i* PKPbc | **PKPbc** | **22 15 10.2** | **-0.3** | |
| | comp=Z,6.5nm,1.2s | | | | | | | |
| **DAVA** | **Damuels** | **150.59** | **353** | *i* PKiKP | **PKiKP** | **22 15 11.3** | **+0.1** | |
| | comp=Z,10.0nm,0.8s | | | | | | | |
| **MYKA** | **Terra Mystica** | **150.65** | **348** | *i* PKPbc | **PKPbc** | **22 15 10.4** | **-0.2** | |
| | comp=Z,9.4nm,1.0s | | | | | | | |
| **ABTA** | **Abfaltersbach** | **150.74** | **349** | *i* PKiKP | **PKPbc** | **22 15 10.9** | **0.0** | |
| | comp=Z,11nm,0.7s,SNR=6.2 | | | | | | | |
| **FETA** | **Feichten** | **150.75** | **352** | *i* PKiKP | **PKiKP** | **22 15 11.8** | **+0.2** | |
| | comp=Z,12nm,0.9s | | | | | | | |
| **TUE** | **Stuetta** | **151.45** | **354** | *e*PKPbc | **PKPbc** | **22 15 13.2** | **+0.5** | |
| **ESDC** | **Sonseca Array** | **157.10** | **18** | PKPab | **PKPab** | **22 15 45.9** | **0.0** | |
| | comp=Z,1.0nm,0.8s,baz=322,slow=3.9,SNR=7.3 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **174.14** | **146** | PKP | **PKPdf** | **22 15 27.6** | **-1.1** | |
| | comp=Z,1.2nm,1.0s,baz=216,slow=0.7,SNR=6.0 | | | | | | | |
| TORD | | | | PKPab | **PKPab** | **22 17 02.4** | **+1.1** | |
| | comp=Z,0.8nm,0.9s,baz=321,slow=2.0,SNR=3.4 | | | | | | | |

**MEX 28 21:59:41.1±0.3, 18°.11N×103°.40W, h10km±8km, MD3.7, Near coast of Michoacan**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MMIG** | **Aquila** | **0.19** | **16** | *i* P | Pg | 21 59 44.7 | -0.4 |
| MMIG | | | | *e*S | Sg | 21 59 47.6 | -0.3 |
| **R15V** | | **1.20** | **332** | *e*P | Pb | 22 00 00.2 | -3.7 |
| R15V | | | | *i* S | Sb | 22 00 14.9 | -4.5 |
| **EZ5V** | | **1.38** | **352** | *i* P | Pn | 22 00 03.0 | -3.7 |
| EZ5V | | | | *e*S | Sb | 22 00 20.1 | -4.9 |

*ISCJB **28** 22:07:40.6±0.5, 44°.14N±0°.05×105°.31W±0°.05, h0km, Error ellipse: s-maj=7.0km s-min=4.8km az=169.1*
*NEIC **28** 22:07:41.5±0.6, 44°.14N×105°.42W, h0km, MN2.7, Error ellipse: s-maj=9.5km s-min=7.4km az=4.0, Suspected Mining explosion.*
*NEIC 18 km [11 miles] SSE of Gillette.*
*IDC **28** 22:07:41.0±2.3, 43°.70N×105°.25W, h0km, mb1 3.5/2, mb1mx3.2/36, mbtmp3.3/2, ML3.3/2, Error ellipse: s-maj=60.2km s-min=9.4km az=151.0*

**ISC 28 22:07:39.6±0.8, 44°.10N±0°.03×105°.25W±0°.04, h0km, n13, σ1s97/27, Wyoming**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RSSD** | **Black Hills** | **0.87** | **88** | *e*Pg | **Pn** | **22 08 00.3** | **+0.9** |
| RSSD | | | | *e*S | **Sn** | **22 08 11.2** | **-1.7** |
| **K22A** | **Casper** | **1.72** | **213** | *e*Pn | **Pb** | **22 08 11.7** | **-0.5** |
| K22A | | | | *e*S | **Sb** | **22 08 34.7** | **+0.3** |
| **LAO** | **LASA Array** | **2.68** | **345** | *e*Pn | **Pn** | **22 08 24.6** | **+0.4** |
| LAO | | | | *e*S | **Sg** | **22 09 06.2** | **+0.4** |
| **RLMT** | **Red Lodge** | **3.05** | **291** | *e*Pn | **Pn** | **22 08 29.6** | **+0.3** |
| RLMT | | | | *e*Pg | **Pb** | **22 08 33.7** | **-1.2** |
| RLMT | | | | *e*S | **Sb** | **22 09 10.3** | **-2.4** |
| **BW06** | **Boulder Array** | **3.41** | **249** | *e*Pn | **Pn** | **22 08 34.5** | **+0.2** |
| BW06 | | | | *e*Pg | **Pb** | **22 08 41.9** | **+0.9** |
| BW06 | | | | *e*S | **Sb** | **22 09 22.8** | **-0.4** |
| **PDAR** | **Pinedale Array** | **3.41** | **249** | Pn | **Pn** | **22 08 36.8** | **+2.5** |
| | 3.2nm,0.3s,baz=72,slow=17,SNR=33 | | | | | | |
| PDAR | | | | Lg | Lg | 22 09 23.6 | |
| | 10.0nm,0.3s,baz=73,slow=31,SNR=21 | | | | | | |
| **H17A** | **Grant Village** | **3.84** | **276** | *e*Pn | **Pn** | **22 08 43.1** | **+2.9** |
| H17A | | | | *e*Pg | **Pg** | **22 08 53.6** | **+0.4** |
| H17A | | | | *e*S | **Sb** | **22 09 36.8** | **+1.2** |
| **OGNE** | **Ogallala** | **3.94** | **142** | *e*Pn | **Pn** | **22 08 44.3** | **+2.8** |
| OGNE | | | | *e*Pg | **Pg** | **22 08 55.5** | **+0.4** |
| OGNE | | | | *e*S | **Sg** | **22 09 43.5** | **-2.8** |
| **ISCO** | **Idaho Springs** | **4.30** | **184** | *e*Pn | **Pn** | **22 08 49.8** | **+3.2** |
| ISCO | | | | *e*S | **Sb** | **22 09 49.1** | **+0.2** |
| **DGMT** | **Dagmar** | **4.44** | **9** | *e*Pn | **Pn** | **22 08 47.9** | **-0.3** |
| DGMT | | | | *e*Pg | **Pg** | **22 09 05.3** | **+0.7** |
| DGMT | | | | *e*S | **Sg** | **22 10 02.3** | **+0.2** |
| **ECSD** | **EROS Data Cent** | **6.25** | **90** | *e*Pn | **Pn** | **22 09 17.1** | **+4.1** |
| | 4.4nm,0.5s | | | | | | |
| ECSD | | | | *e*Pg | **Pg** | **22 09 36.7** | **-2.5** |
| **I10CA** | **LAC DU BONNET** | **8.76** | **43** | *i* | | 23 04 00.0 | |
| | baz=220,slow=326,SNR=0.6 | | | | | | |
| **ULM** | **Lac du Bonnet** | **8.86** | **43** | Pn | **Pn** | **22 09 52.7** | **+3.9** |
| | 0.6nm,0.3s,baz=226,slow=11,SNR=8.0 | | | | | | |
| ULM | | | | Lg | Lg | 22 12 19.3 | |
| | 0.3nm,0.3s,baz=45,slow=2.9,SNR=2.5 | | | | | | |

**IDC 28 22:22:10.0±9.3, 21°.92N×142°.51E, h332km±85km, mb3.0/6, mb1 3.1/7, mb1mx2.8/39, mbtmp3.7/7, Error ellipse: s-maj=86.8km s-min=17.6km az=74.0, Mariana Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KSRS** | **Korea Array** | **19.96** | **324** | P | P | 22 26 18.6 | +0.1 |
| | 0.2nm,0.3s,baz=146,slow=9.8,SNR=4.6 | | | | | | |
| **SONM** | **Songino Array** | **38.77** | **321** | P | P | 22 29 03.1 | -0.4 |
| | 0.4nm,0.6s,baz=118,slow=7.2,SNR=5.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **42.37** | **191** | P | P | 22 29 32.4 | -0.4 |
| | 0.8nm,1.0s,baz=11,slow=8.4,SNR=8.1 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **53.65** | **322** | P | P | 22 30 57.6 | -0.5 |
| | 0.5nm,0.4s,baz=99,slow=8.5,SNR=2.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **54.08** | **313** | P | P | 22 31 01.8 | +0.4 |
| | 0.1nm,0.3s,baz=86,slow=9.3,SNR=4.1 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **56.93** | **317** | P | P | 22 31 21.8 | +0.5 |
| | 0.6nm,0.2s,baz=83,slow=7.7,SNR=4.5 | | | | | | |
| **FINES** | **FINESS Array B** | **82.71** | **334** | P | P | 22 33 56.1 | -0.7 |
| | 0.7nm,0.3s,baz=43,slow=3.6,SNR=11 | | | | | | |
| **PLCA** | **Paso Flores** | **146.38** | **132** | PKPbc | PKPbc | 22 41 12.4 | 0.0 |
| | baz=312,slow=5.2,SNR=3.2 | | | | | | |

*ISCJB **28** 22:32:11.1±0.5, 67°.80N±0°.03×20°.29E±0°.07, h0km, Error ellipse: s-maj=4.2km s-min=3.6km az=174.9*
*UPP **28** 22:32:11.9±0.3, 67°.83N×20°.20E, h1km±4km, ML2.7*
*HEL **28** 22:32:12.6±0.2, 67°.78N×20°.26E, h0km, ML1.3, Explosion*

**ISC 28 22:32:11.6±0.9, 67°.83N±0°.03×20°.24E±0°.03, h0km, n16, σ0s46/23, Sweden**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KUA** | **Kurravaara** | **0.14** | **16** | P | **Pg** | **22 32 14.6** | **+0.4** |
| KUA | | | | S | **Sg** | **22 32 16.5** | **+0.6** |
| **RATU** | **Laukkuluspa** | **0.25** | **270** | P | **Pg** | **22 32 16.4** | **+0.1** |
| RATU | | | | S | **Sg** | **22 32 19.7** | **+0.2** |
| **NIKU** | **Nikkaluokta** | **0.46** | **276** | P | **Pg** | **22 32 20.3** | **-0.1** |
| NIKU | | | | S | **Sg** | **22 32 26.5** | **+0.2** |
| **LANU** | **Lannavaara** | **0.70** | **70** | P | **Pg** | **22 32 25.2** | **+0.2** |
| **LANU** | **Lannavaara** | **0.70** | **70** | PG | **Pg** | **22 32 25.1** | **+0.2** |
| LANU | | | | SG | **Sg** | **22 32 34.7** | **+0.8** |
| **DUNU** | **Dundret** | **0.72** | **170** | P | **Pg** | **22 32 25.3** | **0.0** |
| **MASU** | **Masugnsbyn** | **0.77** | **118** | P | **Pg** | **22 32 26.6** | **+0.3** |
| **KIF** | **Kilpisjarvi** | **1.20** | **10** | SG | **Sn** | **22 32 52.6** | **0.0** |
| **PAJU** | **Pajala** | **1.37** | **125** | P | **Pg** | **22 32 37.2** | **-0.7** |
| **HEF** | **Hetta** | **1.41** | **64** | PG | **Pn** | **22 32 37.9** | **-0.6** |
| HEF | | | | MSG | | 22 32 55.4 | |
| | comp=Z,2.3nm,0.2s | | | | | | |
| HEF | | | | SG | **Sg** | **22 32 56.6** | **-0.2** |
| **ERTU** | **Ertsjaerv** | **1.49** | **148** | P | **Pn** | **22 32 39.4** | **-0.2** |
| **ERTU** | **Ertsjaerv** | **1.49** | **148** | PN | **Pn** | **22 32 39.8** | **+0.3** |
| ERTU | | | | SN | **Sb** | **22 32 59.4** | **0.0** |
| **KALU** | **Kalix** | **2.33** | **147** | SG | **Sb** | **22 33 24.4** | **+0.8** |
| **TOF** | **Tornio** | **2.38** | **136** | SG | **Sb** | **22 33 24.7** | **-0.4** |
| **SGF** | **Sodankyl** | **2.44** | **96** | SG | **Sb** | **22 33 27.2** | **+0.5** |
| **ARE0** | **ARCESS Array S** | **2.58** | **46** | PG | **Pb** | **22 32 58.5** | **-0.2** |
| | baz=225 | | | | | | |
| ARE0 | | | | SB | **Sb** | **22 33 29.9** | **-1.0** |

**IDC 28 22:50:01.3±21.0, 5°.74S×106°.68E, h110km±197km, mb3.5/6, mb1 3.6/6, mb1mx3.2/45, mbtmp3.8/6, MS2.7/1, Ms1 2.9/1, ms1mx2.5/21, Error ellipse: s-maj=176.1km s-min=42.2km az=42.0, Jawa**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **FITZ** | **Fitzroy Crossi** | **22.22** | **125** | P | P | 22 54 48.9 | -0.1 |
| | 0.9nm,0.5s,baz=316,slow=10,SNR=5.2 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **25.22** | **343** | LR | LR | 23 05 59.7 | |
| | comp=Z,19nm,20.5s,baz=172,slow=38 | | | | | | |
| **WRA** | **Warramunga Arr** | **30.37** | **120** | P | P | 22 56 03.1 | +0.1 |
| | 0.3nm,0.4s,baz=294,slow=9.8,SNR=6.8 | | | | | | |
| **ASAR** | **Alice Springs** | **31.69** | **127** | P | P | 22 56 14.8 | +0.1 |
| | 1.0nm,0.5s,baz=304,slow=8.0,SNR=23 | | | | | | |
| **STKA** | **Stephens Creek** | **41.72** | **133** | P | P | 22 57 39.5 | -0.2 |
| | 2.0nm,0.4s,baz=306,slow=8.2,SNR=12 | | | | | | |
| **MMAI** | **Mount Meron Ar** | **77.61** | **305** | P | P | 23 01 46.2 | +0.3 |
| | 0.7nm,0.6s,baz=116,slow=6.7,SNR=2.7 | | | | | | |
| **BRTR** | **Keskin Array B** | **80.76** | **312** | P | P | 23 02 02.7 | -0.3 |
| | 0.4nm,0.7s,baz=110,slow=6.3,SNR=3.1 | | | | | | |

*NEIC **28** 22:58:28.0±0.0, 17°.83N×99°.94W, h57km, MD4.1(MEX), After MEX.*

**MEX 28 22:58:28.0±0.7, 17°.83N×99°.94W, h57km±6km, MD4.1, Guerrero**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MEIG** | **Mezcala** | **0.32** | **72** | *i* P | Pn | 22 58 36.4 | -1.6 |
| MEIG | | | | *e*S | Sn | 22 58 43.6 | -1.7 |
| **MEIG** | **Mezcala** | **0.32** | **72** | *i* P | Pn | 22 58 36.4 | -1.6 |
| MEIG | | | | *e*S | Sn | 22 58 43.6 | -1.7 |
| **ARIG** | **Puente Sto Nin** | **0.59** | **319** | *i* P | Pn | 22 58 39.5 | -1.4 |
| ARIG | | | | *e*S | Sn | 22 58 48.7 | -1.5 |
| **PLIG** | **Platanillo** | **0.70** | **36** | *i* P | Pn | 22 58 40.7 | -1.5 |
| PLIG | | | | *i* S | Sn | 22 58 51.0 | -1.5 |
| **PLIG** | **Platanillo** | **0.70** | **36** | *i* P | Pn | 22 58 40.7 | -1.5 |
| PLIG | | | | *i* S | Sn | 22 58 51.0 | -1.5 |
| **CAIG** | **El Cayaco** | **0.84** | **202** | *i* P | Pn | 22 58 41.9 | -1.9 |
| CAIG | | | | *e*S | Sn | 22 58 53.8 | -1.6 |
| **CAIG** | **El Cayaco** | **0.84** | **202** | *i* P | Pn | 22 58 41.9 | -1.9 |
| CAIG | | | | *e*S | Sn | 22 58 53.8 | -1.6 |
| **ACP2** | **Acapulco** | **0.95** | **177** | *e*P | Pn | 22 58 43.5 | -1.8 |
| ACP2 | | | | *i* S | Sn | 22 58 56.6 | -1.4 |
| **ACX** | **Acapulco** | **0.96** | **175** | *i* P | Pn | 22 58 45.8 | +0.4 |
| ACX | | | | *e*S | Sn | 22 58 58.6 | +0.4 |
| **ACX** | **Acapulco** | **0.96** | **175** | *i* P | Pn | 22 58 45.8 | +0.4 |
| ACX | | | | *e*S | Sn | 22 58 58.6 | +0.4 |
| **YAIG** | **Yautepec** | **1.32** | **39** | *i* P | Pn | 22 58 48.5 | -1.8 |
| YAIG | | | | *e*S | Sn | 22 59 05.2 | -1.8 |
| **YAIG** | **Yautepec** | **1.32** | **39** | *i* P | Pn | 22 58 48.5 | -1.8 |
| YAIG | | | | *e*S | Sn | 22 59 05.2 | -1.8 |
| **ZIIG** | **Zihuatanejo** | **1.47** | **262** | *e*P | Pn | 22 58 51.2 | -1.0 |
| **ZIIG** | **Zihuatanejo** | **1.47** | **262** | *e*P | Pn | 22 58 51.2 | -1.0 |
| **UNM** | **Universidad Na** | **1.66** | **26** | Pn | Pn | 22 58 54.1 | -0.9 |
| **PPM** | **Popocatepetl** | **1.75** | **45** | *e*P | Pn | 22 58 54.9 | -1.6 |
| **PPM** | **Popocatepetl** | **1.75** | **45** | *e*P | Pn | 22 58 54.9 | -1.6 |
| **MOIG** | **Morelia** | **2.19** | **327** | Pn | Pn | 22 59 02.1 | -0.1 |

*CSEM **28** 23:03:12.0, 38°.59N×29°.27W, h6km, ML2.9*

**PDA 28 23:03:12.0±1.1, 38°.59N×29°.27W, h6km±11km, MD3.5, ML2.9, Error ellipse: s-maj=9.1km s-min=6.5km az=90.0, Azores Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CALA** | **Caldeira** | **0.44** | **91** | *e*P | Pg | 23 03 20.0 | -0.6 |
| CALA | | | | *e*S | Sg | 23 03 25.4 | -1.0 |
| **CALA** | **Caldeira** | **0.44** | **91** | *e*P | Pg | 23 03 20.0 | -0.6 |
| CALA | | | | *e*S | Sg | 23 03 25.4 | -1.0 |
| **PCED** | **Cedros** | **0.44** | **85** | *e*P | Pg | 23 03 19.6 | -1.0 |
| PCED | | | | *e*S | Sg | 23 03 25.5 | -0.9 |
| PCED | | | | A | A | 23 03 26.4 | |
| | 401nm,0.3s | | | | | | |
| **PCED** | **Cedros** | **0.44** | **85** | *e*P | Pg | 23 03 19.6 | -1.0 |
| PCED | | | | *e*S | Sg | 23 03 25.5 | -0.9 |
| **HOR** | **Horta** | **0.50** | **97** | *e*P | Pg | 23 03 20.3 | -1.4 |
| HOR | | | | *e*S | Sg | 23 03 27.1 | -1.2 |
| HOR | | | | A | A | 23 03 28.4 | |
| | 891nm,0.3s | | | | | | |
| **HOR** | **Horta** | **0.50** | **97** | *e*P | Pg | 23 03 20.3 | -1.4 |
| HOR | | | | *e*S | Sg | 23 03 27.1 | -1.2 |
| **PCAN** | **Candelaria** | **0.63** | **102** | *e*P | Pg | 23 03 22.1 | -2.0 |
| PCAN | | | | *e*S | Sg | 23 03 30.5 | -1.7 |
| PCAN | | | | A | A | 23 03 34.2 | |
| | 341nm,0.3s | | | | | | |
| **PCAN** | **Candelaria** | **0.63** | **102** | *e*P | Pg | 23 03 22.1 | -2.0 |
| PCAN | | | | *e*S | Sg | 23 03 30.5 | -1.7 |
| **PICO** | **Pico** | **0.67** | **98** | *e*P | Pg | 23 03 23.0 | -1.8 |
| PICO | | | | *e*S | Sg | 23 03 31.8 | -1.7 |
| PICO | | | | A | A | 23 03 33.5 | |
| | 494nm,0.3s | | | | | | |
| **PICO** | **Pico** | **0.67** | **98** | *e*P | Pg | 23 03 23.0 | -1.8 |
| PICO | | | | *e*S | Sg | 23 03 31.8 | -1.7 |
| **ROSA** | **Rosais** | **0.81** | **81** | *e*P | Pg | 23 03 25.0 | -2.6 |
| ROSA | | | | *e*S | Sg | 23 03 34.8 | -3.4 |
| ROSA | | | | A | A | 23 03 35.3 | |
| | 324nm,0.3s | | | | | | |
| **ROSA** | **Rosais** | **0.81** | **81** | *e*P | Pg | 23 03 25.0 | -2.6 |
| ROSA | | | | *e*S | Sg | 23 03 34.8 | -3.4 |
| **PMAN** | **Manadas** | **0.92** | **87** | *e*P | Pg | 23 03 26.5 | -3.2 |
| PMAN | | | | *e*S | Sg | 23 03 37.5 | -4.2 |
| PMAN | | | | A | A | 23 03 38.3 | |
| | 135nm,0.3s | | | | | | |
| **PMAN** | **Manadas** | **0.92** | **87** | *e*P | Pg | 23 03 26.5 | -3.2 |
| PMAN | | | | *e*S | Sg | 23 03 37.5 | -4.2 |
| **PGRA** | **Graciosa** | **1.09** | **66** | *e*P | Pg | 23 03 29.0 | -4.0 |
| PGRA | | | | *e*S | Sg | 23 03 41.6 | -5.6 |
| PGRA | | | | A | A | 23 03 44.8 | |
| | 49nm,0.3s | | | | | | |
| **PGRA** | **Graciosa** | **1.09** | **66** | *e*P | Pg | 23 03 29.0 | -4.0 |
| PGRA | | | | *e*S | Sg | 23 03 41.6 | -5.6 |
| **ADH** | **Angra Heroismo** | **1.59** | **87** | *e*S | Sn | 23 03 54.1 | -7.5 |
| ADH | | | | A | A | 23 03 55.5 | |
| | 41nm,0.2s | | | | | | |
| **ADH** | **Angra Heroismo** | **1.59** | **87** | *e*S | Sn | 23 03 54.1 | -7.5 |
| **PSET** | **Sete Cidades** | **2.90** | **104** | *e*P | Pn | 23 03 54.4 | -4.3 |
| PSET | | | | *e*S | Sn | 23 04 25.2 | -8.6 |
| PSET | | | | A | A | 23 04 25.2 | |
| | 42nm,0.4s | | | | | | |
| **PSET** | **Sete Cidades** | **2.90** | **104** | *e*P | Pn | 23 03 54.4 | -4.3 |
| PSET | | | | *e*S | Sn | 23 04 25.2 | -8.6 |
| **PDA** | **Ponta Delgada** | **2.96** | **105** | *e*P | Pn | 23 03 55.0 | -4.5 |
| **PDA** | **Ponta Delgada** | **2.96** | **105** | *e*P | Pn | 23 03 55.0 | -4.5 |
| **GRON** | **Grota Negra** | **3.06** | **104** | *e*P | Pn | 23 03 58.4 | -2.5 |
| **CMLA** | **Cha da Macela** | **3.06** | **105** | *e*P | Pn | 23 03 56.6 | -4.3 |
| CMLA | | | | *e*S | Sn | 23 04 31.6 | -6.3 |
| CMLA | | | | A | A | 23 04 32.9 | |
| | 11nm,0.4s | | | | | | |
| **CMLA** | **Cha da Macela** | **3.06** | **105** | *e*P | Pn | 23 03 56.6 | -4.3 |
| CMLA | | | | *e*S | Sn | 23 04 31.6 | -6.3 |
| **BART** | **Pico Bartolome** | **3.33** | **103** | *e*P | Pn | 23 04 00.3 | -4.4 |
| **BART** | **Pico Bartolome** | **3.33** | **103** | *e*P | Pn | 23 04 00.3 | -4.4 |
| **PSMA** | **Santa Maria** | **3.65** | **115** | *e*P | Pn | 23 04 04.1 | -4.8 |
| **PSMN** | **Pico do Norte,** | **3.69** | **114** | *e*P | Pn | 23 04 04.5 | -5.0 |
| **PSMN** | **Pico do Norte,** | **3.69** | **114** | *e*P | Pn | 23 04 04.5 | -5.0 |

*NIED **28** 23:17:00, 21°.40N×120°

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| EHY | | | | | *e*S | | **Sn** | **23 18 45.1** | **-2.7** |
| | baz=359 | | | | | | | | | |
| **ALS** | **Alishan** | **2.08** | **352** | ⇑ *i*P | | | **Pn** | **23 18 23.7** | **+0.3** |
| | baz=351 | | | | | | | | | |
| **CHY** | **Chiayi** | **2.14** | **342** | *e*P | | | **Pn** | **23 18 23.5** | **-0.6** |
| | baz=330 | | | | | | | | | |
| **CHN2** | **Minshiung** | **2.16** | **344** | *e*P | | | **Pn** | **23 18 24.2** | **-0.1** |
| | baz=343 | | | | | | | | | |
| **CHN5** | **Tsauling** | **2.18** | **349** | *e*P | | | **Pn** | **23 18 25.3** | **+0.6** |
| | baz=348 | | | | | | | | | |
| CHN5 | | | | | *e*S | | **Sn** | **23 18 50.2** | **-0.7** |
| | baz=348 | | | | | | | | | |
| **WDGT** | **Dungji** | **2.26** | **323** | *e*P | | | **Pn** | **23 18 24.8** | **-0.9** |
| | baz=333 | | | | | | | | | |
| WDGT | | | | | *e*S | | **Sn** | **23 18 51.5** | **-1.3** |
| | baz=333 | | | | | | | | | |
| **WGK** | **Gukeng** | **2.29** | **347** | *e*P | | | **Pn** | **23 18 25.3** | **-0.8** |
| | baz=346 | | | | | | | | | |
| **WSF** | **Szhu** | **2.34** | **339** | *e*P | | | **Pn** | **23 18 26.0** | **-0.7** |
| | baz=328 | | | | | | | | | |
| **ESL** | **Shilin** | **2.37** | **7** | *e*P | | | **Pn** | **23 18 25.6** | **-1.7** |
| | baz=6.0 | | | | | | | | | |
| ESL | | | | | *e*S | | **Sn** | **23 18 52.7** | **-2.9** |
| | baz=6.0 | | | | | | | | | |
| **SMLT** | **Sun Moon Lake** | **2.44** | **355** | *e*P | | | **Pn** | **23 18 29.0** | **+0.8** |
| | baz=354 | | | | | | | | | |
| **WNT** | **Mingjian** | **2.46** | **350** | *e*P | | | **Pn** | **23 18 28.2** | **-0.1** |
| | baz=350 | | | | | | | | | |
| **TYC** | **Yuchr** | **2.46** | **354** | ⇓ *e*P | | | **Pn** | **23 18 29.4** | **+1.0** |
| | baz=353 | | | | | | | | | |
| **PNG** | **Penghu** | **2.57** | **326** | *e*P | | | **Pn** | **23 18 29.8** | **0.0** |
| | baz=325 | | | | | | | | | |
| **TWD** | **Chiawan** | **2.66** | **9** | *e*P | | | **Pn** | **23 18 29.8** | **-1.3** |
| | baz=1.0 | | | | | | | | | |
| TWD | | | | | *e*S | | **Sn** | **23 19 01.8** | **-0.8** |
| | baz=1.0 | | | | | | | | | |
| **WHF** | **Hehuan Shan** | **2.69** | **3** | *e*P | | | **Pn** | **23 18 31.0** | **-0.9** |
| | baz=11 | | | | | | | | | |
| WHF | | | | | *e*S | | **Sn** | **23 19 00.9** | **-3.0** |
| | baz=11 | | | | | | | | | |
| **TCU** | **Taichung** | **2.72** | **351** | *e*P | | | **Pn** | **23 18 32.9** | **+0.8** |
| | baz=351 | | | | | | | | | |
| **TWT** | **Tachien** | **2.79** | **1** | *e*P | | | **Pn** | **23 18 33.2** | **0.0** |
| | baz=348 | | | | | | | | | |
| TWT | | | | | *e*S | | **Sn** | **23 19 05.3** | **-0.9** |
| | baz=348 | | | | | | | | | |
| **TWQ1** | **Liyutan** | **2.91** | **354** | *e*P | | | **Pn** | **23 18 35.3** | **+0.7** |
| | baz=353 | | | | | | | | | |
| **NSY** | **Sanyi** | **2.98** | **353** | *e*P | | | **Pn** | **23 18 37.0** | **+1.4** |
| | baz=353 | | | | | | | | | |
| **NNS** | **Nan Shan** | **2.99** | **4** | *e*P | | | **Pn** | **23 18 36.2** | **+0.4** |
| | baz=11 | | | | | | | | | |
| NNS | | | | | *e*S | | **Sn** | **23 19 10.9** | **-0.1** |
| | baz=11 | | | | | | | | | |
| **ENA** | **Nanau** | **3.02** | **11** | *e*P | | | **Pn** | **23 18 34.7** | **-1.4** |
| | baz=356 | | | | | | | | | |
| ENA | | | | | *e*S | | **Sn** | **23 19 08.6** | **-3.0** |
| | baz=356 | | | | | | | | | |
| **NSTT** | **Nanjuang** | **3.17** | **358** | *e*P | | | **Pn** | **23 18 38.8** | **+0.5** |
| | baz=357 | | | | | | | | | |
| **ENTT** | **Nioudou** | **3.21** | **7** | *e*P | | | **Pn** | **23 18 37.4** | **-1.3** |
| | baz=14 | | | | | | | | | |
| **TWC** | **Suao** | **3.22** | **12** | *e*P | | | **Pn** | **23 18 38.8** | **-0.1** |
| | baz=358 | | | | | | | | | |
| TWC | | | | | *e*S | | **Sn** | **23 19 16.6** | **+0.2** |
| | baz=358 | | | | | | | | | |
| **NSK** | **Sanguang** | **3.22** | **4** | *e*P | | | **Pn** | **23 18 39.0** | **0.0** |
| | baz=352 | | | | | | | | | |
| NSK | | | | | *e*S | | **Sn** | **23 19 13.8** | **-2.8** |
| | baz=352 | | | | | | | | | |
| **TWE** | **Neicheng** | **3.30** | **9** | *e*P | | | **Pn** | **23 18 39.9** | **0.0** |
| | baz=8.0 | | | | | | | | | |
| **JYNG** | **Yonagunijimaku** | **3.43** | **29** | P | | | **Pn** | **23 18 41.9** | **+0.2** |
| JYNG | | | | | *e*S | | **Sn** | **23 19 22.4** | **+0.9** |
| **YOJ** | **Yonaguni jima** | **3.47** | **30** | P | | | **Pn** | **23 18 42.5** | **+0.3** |
| YOJ | | | | | *e*S | | **Sn** | **23 19 23.4** | **+0.9** |
| **HATJ** | **Hateruma jima** | **3.58** | **43** | P | | | **Pn** | **23 18 44.5** | **+0.6** |
| HATJ | | | | | *e*S | | **Sn** | **23 19 26.3** | **+0.9** |
| **TWB1** | **Santiao Chiao** | **3.63** | **12** | *e*P | | | **Pn** | **23 18 45.8** | **+1.2** |
| | baz=359 | | | | | | | | | |
| **NWF** | **Wu-fen Shan** | **3.66** | **9** | *e*P | | | **Pn** | **23 18 45.5** | **+0.6** |
| | baz=9.0 | | | | | | | | | |
| **IRIF** | **Iriomote-Funau** | **3.74** | **39** | P | | | **Pn** | **23 18 46.9** | **+0.8** |
| IRIF | | | | | *e*S | | **Sn** | **23 19 29.8** | **+0.5** |
| **JKRS** | **Kuro-shima** | **3.84** | **43** | P | | | **Pn** | **23 18 47.9** | **+0.5** |
| JKRS | | | | | S | | **Sn** | **23 19 32.3** | **+0.5** |
| **JIJ** | **Ishigaki jima** | **4.02** | **43** | P | | | **Pn** | **23 18 49.9** | **+0.1** |
| JIJ | | | | | *e*S | | **Sn** | **23 19 35.7** | **-0.4** |
| **JISG** | **Ishigakijimahi** | **4.28** | **43** | P | | | **Pn** | **23 18 53.5** | **0.0** |
| JISG | | | | | S | | **Sn** | **23 19 42.7** | **0.0** |
| **JTJ** | **Tarama** | **4.58** | **45** | P | | | **Pn** | **23 18 57.8** | **+0.3** |
| JTJ | | | | | *e*S | | **Sn** | **23 19 50.0** | **+0.1** |
| **JIRB** | **Irabujima** | **5.02** | **47** | P | | | **Pn** | **23 19 03.9** | **+0.3** |
| **JIKM** | **Ikemajima** | **5.13** | **47** | *e*S | | | **Sn** | **23 20 03.9** | **+0.3** |
| **JOGS** | **Gusukube** | **5.13** | **49** | *e*S | | | **Sn** | **23 20 05.5** | **+1.8** |
| **XAN** | **Xi'an** | **16.54** | **322** | P | | | **Pn** | **23 21 41.3** | **+1.1** |
| XAN | | | | | pmax | | pmax | | | |
| | comp=Z,6.0nm,1.1s | | | | | | | | | |
| XAN | | | | | pmax | | pmax | | | |
| | comp=Z,11nm,4.2s | | | | | | | | | |
| **KSRS** | **Korea Array** | **17.00** | **19** | P | | | **Pn** | **23 21 46.5** | **+0.5** |
| | comp=Z,0.2nm,0.3s,baz=198,slow=11,SNR=3.0 | | | | | | | | | |
| KSRS | | | | | LR | | LR | 23 28 19.0 | | |
| | comp=Z,79nm,20.7s,baz=204,slow=37 | | | | | | | | | |
| **LZH** | **Lanzhou** | **20.98** | **318** | *e*P | | | **P** | **23 22 32.8** | **+1.3** |
| LZH | | | | | pP | | sP | 23 22 43.0 | +1.3 | |
| LZH | | | | | sP | | pP | 23 22 49.8 | +11 | |
| LZH | | | | | pmax | | pmax | | | |
| | comp=Z,19nm,1.2s | | | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **21.07** | **266** | P | | | **P** | **23 22 31.1** | **-1.2** |
| | comp=Z,1.7nm,0.6s,baz=78,slow=9.8,SNR=8.8 | | | | | | | | | |
| CMAR | | | | | LR | | LR | 23 31 46.9 | | |
| | comp=Z,64nm,20.6s,baz=84,slow=40 | | | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **21.15** | **41** | P | | | **P** | **23 22 35.3** | **+2.2** |
| | comp=Z,1.1nm,0.8s,baz=230,slow=9.8,SNR=2.9 | | | | | | | | | |
| **BRDH** | **Bariadhala** | **27.34** | **278** | LR | | | LR | 23 36 01.8 | | |
| | comp=Z,28nm,19.7s,baz=148,slow=40 | | | | | | | | | |
| **SONM** | **Songino Array** | **28.88** | **339** | P | | | **P** | **23 23 46.9** | **+0.2** |
| | comp=Z,1.0nm,0.6s,baz=156,slow=9.9,SNR=6.2 | | | | | | | | | |
| SONM | | | | | LR | | LR | 23 36 55.7 | | |
| | comp=Z,106nm,18.5s,baz=124,slow=40 | | | | | | | | | |
| **TLY** | **Talaya** | **33.11** | **340** | LR | | | LR | 23 39 23.1 | | |
| | comp=Z,109nm,19.5s,baz=140,slow=39 | | | | | | | | | |
| **WMQ** | **Urumqi** | **35.56** | **317** | *e*P | | | **P** | **23 24 46.5** | **+1.3** |
| WMQ | | | | | LR | | LR | | | |
| | comp=N,140nm,15.9s | | | | | | | | | |
| WMQ | | | | | LR | | LR | | | |
| | comp=E,170nm,16.9s | | | | | | | | | |
| WMQ | | | | | LR | | LR | | | |
| | comp=Z,180nm,16.9s | | | | | | | | | |
| **MKAR** | **Makanchi Array** | **40.30** | **318** | P | | | **P** | **23 25 26.5** | **+1.4** |
| | comp=Z,0.8nm,0.6s,baz=114,slow=9.6,SNR=10 | | | | | | | | | |
| **YAK** | **Yakutsk** | **40.98** | **6** | LR | | | LR | 23 44 27.4 | | |
| | comp=Z,91nm,18.9s,baz=258,slow=39 | | | | | | | | | |
| **PALK** | **Pallekele** | **41.48** | **256** | LR | | | LR | 23 43 29.9 | | |
| | comp=Z,29nm,18.3s,baz=116,slow=37 | | | | | | | | | |
| **PETK** | **Petropavlovsk-** | **42.17** | **32** | LR | | | LR | 23 44 41.6 | | |
| | comp=Z,24nm,19.2s,baz=227,slow=38 | | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.53** | **329** | P | | | **P** | **23 25 43.8** | **+0.6** |
| | comp=Z,3.2nm,0.7s,baz=112,slow=8.1,SNR=8.1 | | | | | | | | | |
| ZALV | | | | | LR | | LR | 23 44 15.9 | | |
| | comp=Z,82nm,18.1s,baz=76,slow=37 | | | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **42.76** | **84** | T | | | T | 00 11 47.9 | | |
| | baz=281,slow=75,SNR=25 | | | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **42.76** | **84** | T | | | T | 00 11 51.2 | | |
| | baz=281,slow=75,SNR=20 | | | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **42.78** | **84** | T | | | T | 00 11 49.1 | | |
| | baz=281,slow=75,SNR=17 | | | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **42.81** | **86** | T | | | T | 00 11 51.2 | | |
| | baz=282,slow=74,SNR=40 | | | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **42.82** | **86** | T | | | T | 00 11 50.6 | | |
| | baz=282,slow=74,SNR=49 | | | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **42.82** | **86** | T | | | T | 00 11 52.5 | | |
| | baz=282,slow=74,SNR=45 | | | | | | | | | |
| **WRA** | **Warramunga Arr** | **43.12** | **162** | P | | | **P** | **23 25 45.0** | **-3.4** |
| | comp=Z,1.2nm,0.5s,baz=345,slow=8.6,SNR=14 | | | | | | | | | |
| **AAK** | **Ala-Archa** | **44.17** | **310** | LR | | | LR | 23 44 39.0 | | |
| | comp=Z,123nm,18.7s,baz=84,slow=36 | | | | | | | | | |
| **ASAR** | **Alice Springs** | **46.53** | **164** | P | | | **P** | **23 26 13.7** | **-1.9** |
| | comp=Z,0.5nm,0.3s,baz=343,slow=6.6,SNR=8.1 | | | | | | | | | |
| **TIXI** | **Tiksi** | **50.42** | **3** | LR | | | LR | 23 52 22.4 | | |
| | comp=Z,72nm,18.5s,baz=206,slow=41 | | | | | | | | | |
| **STKA** | **Stephens Creek** | **56.53** | **159** | P | | | **P** | **23 27 28.1** | **-2.1** |
| | comp=Z,2.0nm,0.7s,baz=330,slow=10,SNR=5.0 | | | | | | | | | |
| **AKTO** | **Aktyubinsk** | **56.71** | **317** | LR | | | LR | 23 53 57.9 | | |
| | comp=Z,128nm,18.5s,baz=47,slow=38 | | | | | | | | | |
| **ILAR** | **Eielson Array** | **71.66** | **27** | P | | | **P** | **23 29 11.6** | **+2.4** |
| | comp=Z,0.3nm,0.9s,baz=238,slow=5.2,SNR=3.0 | | | | | | | | | |
| **FINES** | **FINESS Array B** | **73.78** | **330** | P | | | **P** | **23 29 22.0** | **+0.2** |
| | comp=Z,4.6nm,1.0s,baz=66,slow=7.8,SNR=3.7 | | | | | | | | | |
| **NOA** | **NORSAR Array B** | **80.61** | **332** | LR | | | LR | 00 09 31.2 | | |
| | comp=Z,138nm,19.1s,baz=285,slow=38 | | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **85.50** | **23** | P | | | **P** | **23 30 24.2** | **-1.2** |
| | comp=Z,0.3nm,0.7s,baz=308,slow=4.9,SNR=5.9 | | | | | | | | | |

**IDC 28 23:27:09.4±4.8, 23°.01S×178°.36W, h0km, mb4.5/3, mb1 4.7/3, mb1mx3.9/30, mbtmp4.5/3, Error ellipse: s-maj=223.2km s-min=43.9km az=153.0, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | | h m s | ISC |
| **CTA** | **Charters Tower** | **32.99** | **268** | P | P | | 23 33 48.4 | +2.0 |
| | 4.2nm,0.3s,baz=93,slow=11,SNR=10 | | | | | | | |
| **ASAR** | **Alice Springs** | **43.67** | **259** | P | P | | 23 35 15.2 | -1.1 |
| | 3.7nm,0.8s,baz=97,slow=8.0,SNR=26 | | | | | | | |
| **WRA** | **Warramunga Arr** | **43.98** | **265** | P | P | | 23 35 17.4 | -1.3 |
| | 2.4nm,0.3s,baz=97,slow=8.5,SNR=49 | | | | | | | |
| **AKASG** | **Malin Array Be** | **145.01** | **329** | PKPbc | PKPbc | | 23 46 45.8 | -2.0 |
| | 0.4nm,0.4s,baz=42,slow=3.5,SNR=3.5 | | | | | | | |
| **BRTR** | **Keskin Array B** | **148.21** | **309** | PKPbc | PKPbc | | 23 46 58.8 | +1.0 |
| | 0.4nm,0.6s,baz=60,slow=3.5,SNR=3.0 | | | | | | | |

*MOS **28** 23:40:40.8±1.0, 51°.52N×96°.20E, h9km, mb4.0/7, Error ellipse: s-maj=14.9km s-min=10.1km az=173.6*
*OBM **28** 23:40:43.7±0.1, 51°.79N×95°.93E, h2km, Ml3.7/1, Error ellipse: s-maj=1.8km s-min=1.1km az=171.0*
*IDC **28** 23:40:43.5±0.8, 51°.80N×95°.85E, h0km, mb3.8/9, mb1 3.7/13, mb1mx3.5/44, mbtmp3.7/13, ML2.9/5, Error ellipse: s-maj=22.3km s-min=9.9km az=173.0*
*NEIC **28** 23:40:45.1±0.7, 51°.81N×95°.88E, h10km, mb4.4/2, Error ellipse: s-maj=15.1km s-min=9.6km az=165.0*

**ISC 28 23:40:44.6±0.4, 51°.74N±0°.03×96°.12E±0°.02, h10km, n77, σ2s 24/78, mb3.8/12, 6C-4D, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | | h m s | ISC |
| **HVS** | **Khovu-Aksy** | **1.63** | **249** | PN | Pn | | 23 41 10.7 | -2.8 |
| **HVS** | **Khovu-Aksy** | **1.63** | **249** | P | Pn | | 23 41 10.7 | -2.8 |
| **ORL** | **Orlik** | **2.41** | **69** | *e*PN | **Pn** | | **23 41 28.3** | **+4.1** |
| ORL | | | | *e* | | | 23 42 00.9 | |
| ORL | | | | pmax | pmax | | | |
| | comp=Z,173nm,0.4s | | | | | | | |
| ORL | | | | smax | smax | | | |
| | comp=N,452nm,0.6s | | | | | | | |
| **HTG** | **Hatgal** | **2.86** | **115** | *e*Pg | **Pb** | | **23 41 38.3** | **+2.5** |
| HTG | | | | *e*Sg | **Sg** | | **23 42 17.4** | **+1.0** |
| **MOY** | **Mondy** | **3.03** | **90** | *e*PN | **Pb** | | **23 41 38.9** | **+0.1** |
| MOY | | | | *e* | | | 23 42 21.6 | |
| MOY | | | | pmax | pmax | | | |
| | comp=Z,69nm,0.5s | | | | | | | |
| MOY | | | | smax | smax | | | |
| | comp=N,300nm,0.8s | | | | | | | |
| **ULG** | **Ulaangom** | **3.13** | **237** | *e*Pn | **Pn** | | **23 41 34.1** | **0.0** |
| **ULG** | **Ulaangom** | **3.13** | **237** | *e*Pg | **Pn** | | **23 41 37.2** | **+3.1** |
| ULG | | | | *e*Sg | **Sn** | | **23 42 16.1** | **+4.6** |
| **TSC** | **Tosontsengel** | **3.28** | **154** | *e*Pn | **Pn** | | **23 41 40.4** | **+4.3** |
| TSC | | | | *e*Sg | **Sg** | | **23 42 31.4** | **+1.6** |
| **ARS** | **Arshan** | **3.92** | **85** | *e*PN | **Pn** | | **23 41 47.2** | **+2.3** |
| ARS | | | | *e* | | | 23 41 55.6 | |
| ARS | | | | *e* | | | 23 42 50.2 | |
| ARS | | | | pmax | pmax | | | |
| | comp=Z,67nm,0.5s | | | | | | | |
| ARS | | | | smax | smax | | | |
| | comp=E,842nm,0.8s | | | | | | | |
| **TLY** | **Talaya** | **4.68** | **88** | Pg | **Pb** | | **23 42 08.9** | **+2.1** |
| | comp=E,0.1nm,0.3s,baz=277,slow=12,SNR=15 | | | | | | | |
| TLY | | | | Lg | Lg | | 23 43 11.5 | |
| | comp=E,0.1nm,0.3s,baz=13,slow=15,SNR=3.1 | | | | | | | |
| **TLY** | **Talaya** | **4.68** | **88** | ⇓ *e*PN | **Pn** | | **23 41 53.4** | **-1.9** |
| **TLY** | **Talaya** | **4.68** | **88** | *e*Pb | **Pb** | | **23 42 09.4** | **+2.7** |
| TLY | | | | *e*S | **Sb** | | **23 43 10.9** | **+7.7** |
| **ZAK** | **Zakamensk** | **4.72** | **104** | *e*PN | **Pb** | | **23 42 10.1** | **+2.6** |
| ZAK | | | | *e* | | | 23 43 13.0 | |
| ZAK | | | | pmax | pmax | | | |
| | comp=Z,41nm,0.9s | | | | | | | |
| ZAK | | | | smax | smax | | | |
| | comp=N,202nm,1.4s | | | | | | | |
| **HBD** | **Hovd** | **4.72** | **219** | *e*Pn | **Pn** | | **23 41 57.9** | **+1.9** |
| HBD | | | | *e*Sg | **Sb** | | **23 43 04.3** | **-0.2** |
| **BYO** | **Bayan-Olgiy** | **4.83** | **237** | *e*Pn | **Pn** | | **23 41 57.4** | **-0.1** |
| BYO | | | | *e*Sg | **Sb** | | **23 43 08.7** | **+1.1** |
| **IRK** | **Irkutsk** | **5.06** | **81** | *e*PN | **Pb** | | **23 42 17.1** | **+3.8** |
| IRK | | | | pmax | pmax | | | |
| | comp=Z,165nm,0.1s | | | | | | | |
| **TTS** | **Tsetserleg** | **5.49** | **139** | *e*Pn | **Pn** | | **23 42 10.7** | **+4.1** |
| TTS | | | | *e*Sg | **Sg** | | **23 43 38.9** | **-2.0** |
| **BLGM** | **Bulgan** | **5.60** | **119** | *e*Pg | Pb | | 23 42 27.9 | +5.5 |
| BLGM | | | | *e*Sg | **Sg** | | **23 43 45.4** | **+1.2** |
| **TRG** | **Tyrgan** | **6.37** | **77** | *e*PN | **Pn** | | **23 42 17.5** | **-1.0** |
| TRG | | | | *e* | | | 23 42 38.5 | |
| TRG | | | | *e*S | **Sn** | | **23 43 31.1** | **-0.1** |
| TRG | | | | pmax | pmax | | | |
| | comp=Z,11nm,0.6s | | | | | | | |
| TRG | | | | smax | smax | | | |
| | comp=N,73nm,0.8s | | | | | | | |
| **ZAA0** | **Zalesovo Array** | **7.19** | **292** | *e*Pn | **Pn** | | **23 42 30.1** | **+0.3** |
| **ZALV** | **Zalesovo Beam** | **7.19** | **292** | Pn | **Pn** | | **23 42 27.6** | **-2.1** |
| | comp=N,0.7nm,0.3s,baz=101,slow=13,SNR=10 | | | | | | | |
| ZALV | | | | Lg | Lg | | 23 44 19.8 | |
| | comp=N,3.5nm,0.3s,baz=114,slow=25,SNR=9.3 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **7.19** | **292** | *e*P | **Pn** | | **23 42 29.7** | **0.0** |
| **ZALV** | **Zalesovo Beam** | **7.19** | **292** | *e*Pn | **Pn** | | **23 42 29.7** | **0.0** |
| ZALV | | | | Lg | Lg | | 23 44 19.8 | |
| **SONB5** | **Songino Array** | **7.69** | **116** | *e*Pg | Pb | | 23 43 04.4 | +6.3 |
| SONB5 | | | | *e*Sg | **Sg** | | **23 44 50.9** | **-0.4** |
| | comp=N,104nm,0.8s | | | | | | | |
| **SONB4** | **Songino Array** | **7.70** | **117** | *e*Pg | Pb | | 23 43 04.6 | +6.4 |
| SONB4 | | | | *e*Sg | **Sg** | | **23 44 52.2** | **+0.7** |
| **SONB1** | **Songino Array** | **7.70** | **116** | *e*Pg | Pb | | 23 43 04.7 | +6.4 |
| SONB1 | | | | *e*Sg | **Sg** | | **23 44 51.5** | **-0.2** |
| | comp=N,104nm,1.1s | | | | | | | |
| **SONA2** | **Songino Array** | **7.71** | **116** | *e*Pg | Pb | | 23 43 04.6 | +6.2 |
| SONA2 | | | | *e*Sg | **Sg** | | **23 44 49.8** | **-2.1** |
| | comp=N,88nm,1.0s | | | | | | | |
| **SONA1** | **Songino Array** | **7.71** | **116** | *e*Pg | Pb | | 23 43 04.5 | +6.0 |
| SONA1 | | | | *e*Sg | **Sg** | | **23 44 48.6** | **-3.4** |
| **SONA0** | **Songino Array** | **7.71** | **116** | *e*Pg | Pb | | 23 43 04.8 | +6.3 |
| SONA0 | | | | *e*Sg | **Sg** | | **23 44 48.9** | **-3.2** |
| | comp=N,64nm,1.1s | | | | | | | |
| **SONA3** | **Songino Array** | **7.71** | **116** | *e*Pg | Pb | | 23 43 04.9 | +6.4 |
| SONA3 | | | | *e*Sg | **Sg** | | **23 44 50.1** | **-2.0** |
| | comp=N,91nm,1.0s | | | | | | | |
| **SONM** | **Songino Array** | **7.71** | **116** | Pn | **Pn** | | **23 42 39.9** | **+2.8** |
| | comp=N,0.0nm,0.3s,baz=301,slow=17,SNR=3.0 | | | | | | | |
| SONM | | | | Pg | Pb | | 23 43 04.9 | +6.4 |
| | comp=N,0.6nm,0.3s,baz=299,slow=18,SNR=35 | | | | | | | |
| SONM | | | | Lg | | | 23 44 52.8 | |
| | comp=N,1.2nm,0.3s,baz=301,slow=28,SNR=15 | | | | | | | |
| **SONA4** | **Songino Array** | **7.72** | **116** | *e*Pg | Pb | | 23 43 04.9 | +6.4 |
| SONA4 | | | | *e*Sg | **Sg** | | **23 44 50.8** | **-1.4** |
| | comp=N,94nm,1.0s | | | | | | | |
| **SONB2** | **Songino Ar. Si** | **7.72** | **116** | *e*Pg | Pb | | 23 43 05.1 | +6.5 |
| SONB2 | | | | *e*Sg | **Sg** | | **23 44 52.1** | **-0.2** |
| | comp=N,121nm,1.2s | | | | | | | |
| **SONB3** | **Songino Array** | **7.73** | **116** | *e*Pg | Pb | | 23 43 05.0 | +6.3 |
| SONB3 | | | | *e*Sg | **Sg** | | **23 44 51.3** | **-1.1** |
| | comp=N,112nm,1.1s | | | | | | | |
| **ALFM** | | **7.84** | **114** | *e*Pg | Pb | | 23 43 07.5 | +6.8 |
| ALFM | | | | *e*Sg | **Sg** | | **23 44 52.9** | **-3.4** |
| | comp=N,74nm,1.0s | | | | | | | |
| **ULN** | **Ulaanbaatar** | **8.07** | **114** | ⇓ *e*P | Pn | | 23 42 38.5 | -3.4 |
| **ULN** | **Ulaanbaatar** | **8.07** | **114** | *e*Pn | **Pb** | | **23 43 08.1** | **+3.6** |
| **ARTM** | | **8.16** | **114** | *e*Pg | Pb | | 23 43 12.9 | +6.9 |
| ARTM | | | | *e*Sg | **Sg** | | **23 45 06.9** | **+0.7** |
| **SEMM** | | **8.20** | **116** | *e*Pg | Pb | | 23 43 14.9 | +8.2 |
| **NVS** | **Novosibirsk** | **8.32** | **297** | *e*P | Pn | | 23 42 56.1 | +11 |
| **UGDM** | | **8.39** | **115** | *e*Pg | Pb | | 23 43 18.6 | +8.6 |
| UGDM | | | | *e*Sg | **Sg** | | **23 45 10.5** | **-3.1** |
| **WMQ** | **Urumqi** | **9.74** | **219** | Pn | Pn | | 23 43 02.3 | -2.5 |
| WMQ | | | | Sg | Sn | | 23 45 45.3 | +51 |
| WMQ | | | | smax | smax | | | |
| | comp=N,24nm,0.7s | | | | | | | |
| WMQ | | | | smax | smax | | | |
| | comp=E,19nm,0.8s | | | | | | | |
| **MK31** | **Makanchi Array** | **10.30** | **247** | *e*P | **Pn** | | **23 43 12.3** | **-0.1** |
| **MK31** | **Makanchi Array** | **10.30** | **247** | *e*Pn | **Pn** | | **23 43 12.2** | **-0.1** |
| **MKAR** | **Makanchi Array** | **10.30** | **247** | Pn | **Pn** | | **23 43 10.7** | **-1.8** |
| | comp=E,0.1nm,0.3s,baz=49,slow=16,SNR=9.4 | | | | | | | |
| MKAR | | | | Lg | Lg | | 23 46 06.6 | |
| | comp=E,0.7nm,0.3s,baz=50,slow=30,SNR=7.1 | | | | | | | |
| **MKAR** | **Makanchi Array** | **10.30** | **247** | *i* P | **Pn** | | **23 43 12.8** | **+0.4** |
| **MKAR** | **Makanchi Array** | **10.30** | **247** | *e*Pn | **Pn** | | **23 43 12.2** | **-0.2** |
| MKAR | | | | Lg | Lg | | 23 46 06.6 | |
| **MK01** | **Makanchi Array** | **10.31** | **247** | *e*Pn | **Pn** | | **23 43 11.2** | **-1.3** |
| **MAKZ** | **Makanchi** | **10.47** | **247** | *e*P | **Pn** | | **23 43 14.9** | **+0.2** |
| **MAKZ** | **Makanchi** | **10.47** | **247** | *e*Pn | **Pn** | | **23 43 14.9** | **+0.2** |
| **KURK** | **Kurchatov** | **11.02** | **272** | ⇑ *e*P | **Pn** | | **23 43 21.9** | **-0.3** |
| **KURK** | **Kurchatov** | **11.02** | **272** | Pn | **Pn** | | **23 43 22.2** | **-0.1** |
| KURK | | | | Lg | Lg | | 23 46 30.2 | |
| **KURBB** | **Kurchatov Arra** | **11.10** | **271** | Pn | **Pn** | | **23 43 21.7** | **-1.6** |
| | comp=E,0.1nm,0.3s,baz=74,slow=15,SNR=6.8 | | | | | | | |
| KURBB | | | | Lg | Lg | | 23 46 30.2 | |
| | comp=E,0.1nm,0.3s,baz=72,slow=32,SNR=5.9 | | | | | | | |
| **HIA** | **Hailar** | **15.22** | **90** | *ce*P | **Pn** | | **23 44 17.9** | **-1.6** |
| **BVAR** | **Borovoye Array** | **15.74** | **285** | Pn | **Pn** | | **23 44 21.7** | **-4.5** |
| | comp=E,0.2nm,0.3s,baz=101,slow=11,SNR=2.6 | | | | | | | |
| **BRVK** | **Borovoye** | **15.80** | **285** | P | **Pn** | | **23 44 25.8** | **-1.2** |
| **BRVK** | **Borovoye** | **15.80** | **285** | Pn | **Pn** | | **23 44 25.8** | **-1.2** |
| **ARU** | **Arti** | **22.32** | **297** | P | **P** | | **23 45 40.5** | **-1.7** |
| | comp=E,1.5nm,0.4s,baz=89,slow=7.4,SNR=5.7 | | | | | | | |
| **ARU** | **Arti** | **22.32** | **297** | ⇓ *e*P | **P** | | **23 45 40.8** | **-1.3** |
| ARU | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,0.9s | | | | | | | |
| **ABKAR** | **Akbulak array** | **23.00** | **278** | *e*P | **P** | | **23 45 46.6** | **-2.7** |
| | comp=Z,12nm,0.8s | | | | | | | |
| **AKTO** | **Aktyubinsk** | **23.79** | **282** | P | **P** | | **23 45 55.5** | **-1.8** |
| | comp=Z,3.6nm,0.7s,baz=81,slow=11,SNR=14 | | | | | | | |
| **TIXI** | **Tiksi** | **24.70** | **24** | P | **P** | | **23 46 05.7** | **+0.3** |
| | comp=Z,4.5nm,0.6s,baz=236,slow=5.7,SNR=9.2 | | | | | | | |
| **TIXI** | **Tiksi** | **24.70** | **24** | ⇑ *e*P | **P** | | **23 46 06.2** | **+0.8** |
| TIXI | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,1.0s | | | | | | | |
| **TIXI** | **Tiksi** | **24.70** | **24** | *e*P | **P** | | **23 46 06.1** | **+0.8** |
| | comp=Z,5.6nm,0.8s | | | | | | | |
| **WHN** | **Wuhan** | **25.11** | **140** | P | **P** | | **23 46 07.3** | **-2.1** |
| **MSHR** | **Mys Shultsa** | **25.31** | **97** | ⇓ *e*P | **P** | | **23 46 06.8** | **-4.4** |
| **YSS** | **Yuzh-Sakhalins** | **30.34** | **80** | ⇑ *e*P | P | | 23 46 53.4 | -2.8 |
| YSS | | | | pmax | pmax | | | |
| | comp=Z,31nm,1.6s | | | | | | | |
| **BILL** | **Bilibino** | **36.38** | **37** | ⇑ *e*P | **P** | | **23 47 47.4** | **-1.1** |
| BILL | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,1.2s | | | | | | | |
| **GNI** | **Garni** | **36.82** | **272** | ⇑ *e*P | **P** | | **23 47 52.7** | **-0.1** |
| GNI | | | | pmax | pmax | | | |
| | comp=Z,25nm,1.4s | | | | | | | |
| **FINES** | **FINESS Array B** | **37.92** | **313** | P | **P** | | **23 47 59.4** | **-2.2** |
| | comp=Z,4.2nm,1.1s,baz=72,slow=6.2,SNR=4.7 | | | | | | | |
| **FINES** | **FINESS Array B** | **37.92** | **313** | *i* P | **P** | | **23 48 00.7** | **-0.9** |
| FINES | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.7s | | | | | | | |
| **AKASG** | **Malin Array Be** | **40.57** | **296** | P | **P** | | **23 48 21.7** | **-2.2** |
| | comp=Z,0.2nm,0.3s,baz=56,slow=9.3,SNR=3.0 | | | | | | | |
| **BRTR** | **Keskin Array B** | **43.93** | **280** | P | **P** | | **23 48 51.4** | **-0.3** |
| | comp=Z,0.7nm,0.7s,baz=79,slow=4.9,SNR=5.2 | | | | | | | |
| **ILAR** | **Eielson Array** | **54.08** | **28** | P | **P** | | **23 50 10.5** | **+1.7** |
| | comp=Z,0.1nm,0.5s,baz=193,slow=12,SNR=2.9 | | | | | | | |
| **ILAR** | **Eielson Array** | **54.08** | **28** | P | **P** | | **23 50 10.5** | **+1.7** |
| ILAR | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,1.1s | | | | | | | |
| **INK** | **Inuvik** | **54.73** | **20** | P | **P** | | **23 50 13.9** | **+0.3** |
| | comp=Z,1.1nm,1.0s,baz=316,slow=2.6,SNR=3.3 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **82.51** | **282** | P | **P** | | **23 53 06.4** | **-1.2** |
| | comp=Z,0.6nm,0.9s,baz=18,slow=5.4,SNR=6.2 | | | | | | | |

**WEL 28 23:40:47.5±0.5, 36°.41S×179°.02W, h33km, ML3.5/7, Error ellipse: s-maj=7.5km s-min=5.4km az=0.0, East of North Island**

| Code | Station Name |

387nm,0.4s
**GKN Gorkha 3.61 279** *e*Pn Pn 23 59 45.5 -1.6
GKN *e*Sn Sn 00 00 25.6 -4.4
**DANN Dangsing 4.43 283** *e*Pn Pn 23 59 56.3 -2.2
**KOLN Koldanda 4.51 275** *e*Pn Pn 23 59 56.7 -2.8
**PYUN Piuthan 5.07 278** *e*Pn Pn 00 00 04.0 -3.2
PYUN *e*Sn Sn 00 01 00.4 -5.6
87nm,0.3s

*CSEM* ***29*** *00:05:09.2, 40.66N×22.39E, h18km, ML1.3/1*
**ATH 29 00:05:09.2, 40.66N×22.39E, h18km±6km, ML1.3/1, Error ellipse: s-maj=6.4km s-min=1.2km az=318.0, Greece**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GRG** | **Griva** | **0.29** | **2** | P | Pg | 00 05 15.4 | -0.3 |
| GRG | | | | S | Sb | 00 05 20.5 | 0.0 |
| GRG | | | | AML | AML | 00 05 25.9 | |
| | comp=E,132μm,0.2s | | | | | | |
| GRG | | | | AML | AML | 00 05 26.3 | |
| | comp=N,171μm,0.3s | | | | | | |
| **GRG** | **Griva** | **0.29** | **2** | P | Pg | 00 05 15.4 | -0.3 |
| GRG | | | | S | Sb | 00 05 20.5 | 0.0 |
| **THE** | **Thessaloniki** | **0.44** | **94** | P | Pg | 00 05 16.7 | -1.5 |
| **THE** | **Thessaloniki** | **0.44** | **94** | P | Pg | 00 05 16.7 | -1.5 |
| **HORT** | **Hortiatis** | **0.55** | **97** | P | Pg | 00 05 19.6 | -0.6 |
| HORT | | | | S | Sb | 00 05 28.1 | +0.2 |
| **HORT** | **Hortiatis** | **0.55** | **97** | P | Pg | 00 05 19.6 | -0.6 |
| HORT | | | | S | Sb | 00 05 28.1 | +0.2 |
| **LIT** | **Litokhoron** | **0.57** | **172** | P | Pg | 00 05 19.8 | -0.7 |
| LIT | | | | S | Sb | 00 05 29.3 | +0.9 |
| **LIT** | **Litokhoron** | **0.57** | **172** | P | Pg | 00 05 19.8 | -0.8 |
| LIT | | | | S | Sb | 00 05 29.3 | +0.9 |
| **KNT** | **Kendrikon** | **0.63** | **38** | P | Pg | 00 05 21.4 | -0.3 |
| **KNT** | **Kendrikon** | **0.63** | **38** | P | Pg | 00 05 21.4 | -0.3 |
| **SOH** | **Sokhos** | **0.75** | **78** | P | Pg | 00 05 24.4 | +0.4 |
| **SOH** | **Sokhos** | **0.75** | **78** | P | Pg | 00 05 24.4 | +0.4 |
| **FNA** | **Florina** | **0.78** | **279** | P | Pg | 00 05 24.5 | +0.1 |
| **FNA** | **Florina** | **0.78** | **279** | P | Pg | 00 05 24.5 | +0.1 |
| **PLG** | **Polygyros** | **0.86** | **109** | P | Pn | 00 05 26.3 | -0.1 |
| **PLG** | **Polygyros** | **0.86** | **109** | P | Pn | 00 05 26.3 | -0.2 |
| **SRS** | **Serrai** | **1.02** | **63** | P | Pn | 00 05 28.8 | +0.1 |
| **SRS** | **Serrai** | **1.02** | **63** | P | Pn | 00 05 28.8 | +0.1 |
| **OUR** | **Ouranopolis** | **1.26** | **105** | P | Pb | 00 05 32.8 | +0.3 |
| **OUR** | **Ouranopolis** | **1.26** | **105** | P | Pb | 00 05 32.8 | +0.4 |

*ISN* ***29*** *00:06:34.8±0.3, 38.66N×43.36E, h0km, ML3.4*
*DDA* ***29*** *00:06:45.9, 38.75N×43.27E, h20km, Ml3.8*
*ISK* ***29*** *00:06:45.7, 38.76N×43.33E, h5km, ML3.1*
*CSEM* ***29*** *00:06:46.6±0.2, 38.76N×43.28E, h2km, ML3.1, Error ellipse: s-maj=5.1km s-min=4.0km az=103.0*
**ISC 29 00:06:47.4±0.8, 38.75N±0.01×43.29E±0.02, h16km±6km, n80, σ1°59/124, 1C-6D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.17** | **152** | *e*PG | **Pg** | **00 06 52.1** | **+0.3** |
| VANB | | | | *e*SG | **Sg** | **00 06 56.6** | **+1.8** |
| **VANB** | **Van** | **0.17** | **152** | *e*Pg | **Pg** | **00 06 52.1** | **+0.3** |
| **TVAN** | **Van** | **0.24** | **157** | ⇑*i*P | **Pg** | **00 06 52.0** | **-0.9** |
| TVAN | | | | *i* S | **Sg** | **00 06 57.0** | **+0.4** |
| **TVAN** | **Van** | **0.24** | **157** | P | **Pg** | **00 06 52.0** | **-0.9** |
| TVAN | | | | S | **Sg** | **00 06 57.0** | **+0.4** |
| **ERCV** | **ERCIS-VAN** | **0.27** | **9** | *e*PG | **Pg** | **00 06 51.8** | **-1.6** |
| ERCV | | | | *e*SG | **Sb** | **00 06 57.3** | **-1.2** |
| **ERCV** | **ERCIS-VAN** | **0.27** | **9** | *e*Pg | **Pg** | **00 06 51.8** | **-1.6** |
| ERCV | | | | *e*Sg | **Sb** | **00 06 57.3** | **-1.2** |
| **VMUR** | **Van-Muradiye** | **0.33** | **43** | ⇓*i*P | **Pg** | **00 06 53.4** | **-1.6** |
| VMUR | | | | *i* S | **Sb** | **00 06 59.7** | **-0.4** |
| **VMUR** | **Van-Muradiye** | **0.33** | **43** | P | **Pb** | **00 06 53.4** | **-1.6** |
| VMUR | | | | S | **Sb** | **00 06 59.7** | **-0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.44** | **278** | ⇓*i*P | **Pg** | **00 06 54.7** | **-1.7** |
| ADCV | | | | *i* S | **Sg** | **00 07 01.8** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.44** | **278** | P | **Pg** | **00 06 54.7** | **-1.7** |
| ADCV | | | | S | **Sg** | **00 07 01.8** | **-0.6** |
| **GEVA** | **Gevas** | **0.47** | **202** | ⇓*i*P | **Pg** | **00 06 55.0** | **-1.9** |
| GEVA | | | | *i* S | **Sb** | **00 07 03.3** | **-0.9** |
| **GEVA** | **Gevas** | **0.47** | **202** | P | **Pg** | **00 06 55.0** | **-1.9** |
| GEVA | | | | S | **Sb** | **00 07 03.3** | **-0.9** |
| **CLDR** | **Caldiran** | **0.63** | **51** | *e*PG | **Pg** | **00 06 58.1** | **-1.7** |
| CLDR | | | | *e*SG | **Sb** | **00 07 08.0** | **-0.8** |
| **CLDR** | **Caldiran** | **0.63** | **51** | ⇓*i*P | **Pg** | **00 06 58.1** | **-1.7** |
| CLDR | | | | *i* S | **Sb** | **00 07 08.6** | **-0.3** |
| **CLDR** | **Caldiran** | **0.63** | **51** | P | **Pg** | **00 06 58.1** | **-1.7** |
| CLDR | | | | *e*Sg | **Sb** | **00 07 08.0** | **-0.8** |
| **TUTA** | **Tutak** | **0.75** | **331** | ⇓*i*P | **Pg** | **00 06 59.8** | **-2.2** |
| TUTA | | | | *i* S | **Sg** | **00 07 10.3** | **-1.7** |
| **TUTA** | **Tutak** | **0.75** | **331** | P | **Pg** | **00 06 59.8** | **-2.2** |
| TUTA | | | | S | **Sg** | **00 07 10.3** | **-1.7** |
| **DYDN** | **Diyadin** | **0.85** | **21** | *i* P | **Pg** | **00 07 01.8** | **-2.2** |
| DYDN | | | | *i* S | **Sb** | **00 07 15.2** | **-0.1** |
| **DYDN** | **Diyadin** | **0.85** | **21** | P | **Pg** | **00 07 01.8** | **-2.2** |
| DYDN | | | | S | **Sb** | **00 07 15.1** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **0.86** | **345** | *e*PG | **Pg** | **00 07 02.8** | **-1.2** |
| **AGRB** | **Hanur-Agry** | **0.86** | **345** | *e*Pg | **Pg** | **00 07 02.8** | **-1.2** |
| **EKAR** | **Karacoban** | **1.08** | **298** | *i* P | **Pg** | **00 07 06.5** | **-1.8** |
| EKAR | | | | *i* S | **Sn** | **00 07 25.2** | **+2.4** |
| **EKAR** | **Karacoban** | **1.08** | **298** | P | **Pg** | **00 07 06.4** | **-1.8** |
| EKAR | | | | S | **Sn** | **00 07 25.2** | **+2.4** |
| **EATA** | **Eleskirt** | **1.27** | **331** | *i* P | **Pg** | **00 07 09.4** | **-2.5** |
| EATA | | | | *i* S | **Sb** | **00 07 27.5** | **+0.1** |
| **EATA** | **Eleskirt** | **1.27** | **331** | P | **Pg** | **00 07 09.4** | **-2.5** |
| EATA | | | | S | **Sb** | **00 07 27.5** | **+0.1** |
| **SRTM** | **Siirt_Merkez** | **1.31** | **235** | ⇓*i*P | **Pn** | **00 07 09.9** | **-1.2** |
| SRTM | | | | *i* S | **Sn** | **00 07 30.1** | **+1.7** |
| **SRTM** | **Siirt_Merkez** | **1.31** | **235** | P | **Pn** | **00 07 09.9** | **-1.2** |
| SRTM | | | | S | **Sn** | **00 07 30.0** | **+1.7** |
| **YOVA** | **Hakkari_Y¨…kse** | **1.40** | **145** | *i* P | **Pn** | **00 07 12.1** | **-0.4** |
| YOVA | | | | *i* S | **Sn** | **00 07 31.6** | **+0.8** |
| **YOVA** | **Hakkari_Y¨…kse** | **1.40** | **145** | P | **Pn** | **00 07 12.1** | **-0.4** |
| YOVA | | | | S | **Sn** | **00 07 31.6** | **+0.8** |
| **SIRT** | **Sirnak** | **1.41** | **208** | *e*PN | **Pb** | **00 07 13.3** | **-0.1** |
| **SIRT** | **Sirnak** | **1.41** | **208** | *e*Pn | **Pb** | **00 07 13.3** | **-0.1** |
| **SIRN** | **S¨–rnak** | **1.43** | **209** | *i* P | **Pn** | **00 07 12.4** | **-0.3** |
| SIRN | | | | *i* S | **Sg** | **00 07 33.4** | **-0.1** |
| **SIRN** | **S¨–rnak** | **1.43** | **209** | P | **Pn** | **00 07 12.4** | **-0.3** |
| SIRN | | | | S | **Sg** | **00 07 33.4** | **-0.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.44** | **31** | *e*PN | **Pg** | **00 07 13.8** | **-1.3** |
| **TASB** | **TASBURUN-IGDIR** | **1.44** | **31** | *e*Pn | **Pg** | **00 07 13.8** | **-1.3** |
| **CUKT** | **Cukurca** | **1.52** | **170** | *e*PN | **Pg** | **00 07 14.9** | **-1.7** |
| **CUKT** | **Cukurca** | **1.52** | **170** | *i* P | **Pn** | **00 07 13.9** | **-0.1** |
| CUKT | | | | *i* S | **Sg** | **00 07 37.0** | **+0.6** |
| **CUKT** | **Cukurca** | **1.52** | **170** | P | **Pn** | **00 07 13.9** | **-0.1** |
| **CUKT** | **Cukurca** | **1.52** | **170** | *e*Pn | **Pg** | **00 07 14.9** | **-1.7** |
| CUKT | | | | S | **Sg** | **00 07 37.0** | **+0.6** |
| **DIGO** | **Kars** | **1.67** | **2** | *i* P | **Pn** | **00 07 16.2** | **+0.1** |
| DIGO | | | | *i* S | **Sg** | **00 07 43.6** | **+2.5** |
| **DIGO** | **Kars** | **1.67** | **2** | P | **Pn** | **00 07 16.2** | **+0.1** |
| DIGO | | | | S | **Sg** | **00 07 43.6** | **+2.5** |
| **HOMI** | **Horasan** | **1.68** | **321** | *i* P | **Pb** | **00 07 17.1** | **-0.9** |
| HOMI | | | | *i* S | **Sg** | **00 07 43.1** | **+1.6** |
| **BNGL** | **BINGOL** | **1.68** | **278** | *i* P | **Pn** | **00 07 16.8** | **+0.5** |
| BNGL | | | | *i* S | **Sn** | **00 07 38.7** | **+1.1** |
| **BTMN** | **Batman** | **1.80** | **242** | *i* P | **Pn** | **00 07 17.3** | **-0.5** |
| BTMN | | | | *i* S | **Sb** | **00 07 42.6** | **+0.3** |
| **BTMN** | **Batman** | **1.80** | **242** | P | **Pn** | **00 07 17.3** | **-0.5** |
| BTMN | | | | S | **Sb** | **00 07 42.7** | **+0.3** |
| **KARS** | **Kars** | **1.88** | **355** | *e*PN | **Pb** | **00 07 20.2** | **-1.3** |
| **KARS** | **Kars** | **1.88** | **355** | *e*Pn | **Pb** | **00 07 20.2** | **-1.3** |
| **ERZM** | **Erzurum** | **1.88** | **308** | *i* P | **Pn** | **00 07 19.3** | **+0.1** |
| ERZM | | | | *i* S | **Sb** | **00 07 46.2** | **+1.2** |
| **ERZM** | **Erzurum** | **1.88** | **308** | P | **Pn** | **00 07 19.3** | **+0.1** |
| ERZM | | | | S | **Sb** | **00 07 46.2** | **+1.2** |
| **SENK** | **Senkaya-Erzuru** | **1.95** | **339** | *e*PN | **Pb** | **00 07 21.8** | **-0.8** |
| **SENK** | **Senkaya-Erzuru** | **1.95** | **339** | *e*Pn | **Pb** | **00 07 21.8** | **-0.8** |
| **EAK** | **Akyaka** | **1.95** | **7** | *i* P | **Pg** | **00 07 23.2** | **-1.6** |
| EAK | | | | *i* S | **Sg** | **00 07 54.5** | **+4.3** |
| **EAK** | **Akyaka** | **1.95** | **7** | P | **Pg** | **00 07 23.2** | **-1.6** |
| **ECAT** | **Cat-ERZURUM** | **1.99** | **296** | *i* P | **Pn** | **00 07 19.7** | **-0.8** |
| ECAT | | | | *i* S | **Sb** | **00 07 48.6** | **+0.7** |
| **ECAT** | **Cat-ERZURUM** | **1.99** | **296** | P | **Pn** | **00 07 19.7** | **-0.8** |
| ECAT | | | | S | **Sb** | **00 07 48.6** | **+0.7** |
| **BNGB** | **Bing¨¶l** | **2.05** | **278** | *e*PN | **Pn** | **00 07 22.9** | **+1.6** |
| **BINT** | **Bingol** | **2.19** | **274** | *e*Pn | **Pn** | **00 07 22.9** | **-0.3** |
| **YEDI** | **Yedisu-Bingol** | **2.24** | **289** | *e*PN | **Pb** | **00 07 26.1** | **-1.5** |
| **YEDI** | **Yedisu-Bingol** | **2.24** | **289** | *e*Pn | **Pb** | **00 07 26.1** | **-1.5** |
| **HANI** | **Diyarbakir_Han** | **2.29** | **263** | *i* P | **Pn** | **00 07 23.2** | **-1.3** |
| HANI | | | | *i* S | **Sn** | **00 07 54.7** | **+2.3** |
| **HANI** | **Diyarbakir_Han** | **2.29** | **263** | P | **Pn** | **00 07 23.2** | **-1.3** |
| HANI | | | | S | **Sn** | **00 07 54.7** | **+2.3** |
| **MARD** | **Mardin** | **2.44** | **235** | *i* P | **Pn** | **00 07 25.2** | **-1.5** |
| MARD | | | | *i* S | **Sb** | **00 07 59.9** | **-1.0** |
| **DIY** | **Diyarbakir** | **2.55** | **251** | *e*PN | **Pb** | **00 07 31.3** | **-1.5** |
| **MAZI** | **Mazidag** | **2.58** | **241** | *e*PN | **Pn** | **00 07 30.8** | **+2.2** |
| **MAZI** | **Mazidag** | **2.58** | **241** | *e*Pn | **Pn** | **00 07 30.8** | **+2.2** |
| **DYBB** | **Diyarbakir** | **2.60** | **253** | *e*PN | **Pn** | **00 07 31.3** | **+2.5** |
| **ERZN** | **Erzincan** | **2.89** | **288** | *e*PN | **Pb** | **00 07 36.1** | **-2.6** |
| **BAYT** | **Ayd¨–ntepe-Bay** | **2.93** | **305** | *e*PN | **Pn** | **00 07 36.1** | **+2.6** |
| **BAYT** | **Ayd¨–ntepe-Bay** | **2.93** | **305** | *e*Pn | **Pn** | **00 07 36.1** | **+2.6** |
| **BCA** | **Borcka** | **2.98** | **335** | *e*PN | **Pn** | **00 07 36.1** | **+2.1** |
| **BCA** | **Borcka** | **2.98** | **335** | *e*Pn | **Pn** | **00 07 36.1** | **+2.1** |
| **PTK** | **Pertek** | **3.04** | **274** | *e*PN | **Pn** | **00 07 37.4** | **+2.4** |
| **PTK** | **Pertek** | **3.04** | **274** | *e*Pn | **Pn** | **00 07 37.4** | **+2.4** |
| **SVRC** | **Sivrice-ELAZID** | **3.14** | **264** | *e*PN | **Pn** | **00 07 38.7** | **+2.4** |
| **SVRC** | **Sivrice-ELAZID** | **3.14** | **264** | *e*Pn | **Pn** | **00 07 38.7** | **+2.4** |
| **EZC** | **Erzincan** | **3.21** | **289** | *e*Pn | **Pn** | **00 07 36.1** | **-1.2** |
| **URFA** | **Urfa** | **3.76** | **251** | *e*PN | **Pn** | **00 07 47.7** | **+3.0** |
| **URFA** | **Urfa** | **3.76** | **251** | *e*Pn | **Pn** | **00 07 47.7** | **+3.0** |
| **MALT** | **Malatya** | **3.83** | **265** | *e*PN | **Pn** | **00 07 48.5** | **+2.7** |
| **MALT** | **Malatya** | **3.83** | **265** | *e*Pn | **Pn** | **00 07 48.5** | **+2.7** |

*IDC* ***29*** *00:14:46.1±0.8, 5.00N×126.57E, h0km, mb4.0/11, mb1 4.2/11, mb1mx3.9/43, mbtmp4.0/11, MS3.1/4, Ms1 3.1/4, ms1mx2.7/41, Error ellipse: s-maj=66.0km s-min=14.6km az=72.0*
*ISCJB* ***29*** *00:14:49.9±0.6, 4.84N±0.10×126.2E±0.3, h35km, mb3.9/12, MS3.0/3, Error ellipse: s-maj=45.8km s-min=8.3km az=164.9*
**ISC 29 00:14:52.0±0.8, 4.38N±0.1×126.1E±0.4, h35km, n16, σ0°75/14, mb3.9/12, MS3.0/3, Talaud Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DAV** | **Davao City (W)** | **2.30** | **347** | Sn | **Sn** | **00 15 54.2** | **-0.5** |
| | 50nm,0.3s,baz=58,slow=15,SNR=3.0 | | | | | | |
| DAV | | | | LR | LR | 00 16 36.3 | |
| | comp=Z,331nm,19.7s,baz=317,slow=48 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **22.77** | **181** | P | **P** | **00 19 52.3** | **+0.8** |
| | 2.3nm,0.5s,baz=1.7,slow=8.7,SNR=14 | | | | | | |
| **WRA** | **Warramunga Arr** | **25.90** | **162** | P | **P** | **00 20 20.2** | **-0.8** |
| | 1.9nm,0.7s,baz=341,slow=10,SNR=14 | | | | | | |
| **PSI** | **Prapat** | **27.17** | **267** | LR | LR | 00 31 54.9 | |
| | comp=Z,41nm,21.8s,baz=74,slow=37 | | | | | | |
| **ASAR** | **Alice Springs** | **29.31** | **165** | P | **P** | **00 20 51.4** | **-0.1** |
| | 1.2nm,0.5s,baz=345,slow=7.1,SNR=23 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **29.78** | **299** | LR | LR | 00 34 12.9 | |
| | comp=Z,15nm,18.2s,baz=185,slow=39 | | | | | | |
| **STKA** | **Stephens Creek** | **39.36** | **159** | P | **P** | **00 22 17.9** | **-0.4** |
| | 3.1nm,0.7s,baz=340,slow=7.9,SNR=7.0 | | | | | | |
| **KLR** | **Kul'dur** | **44.52** | **5** | P | **P** | **00 23 01.6** | **+1.5** |
| | 0.1nm,0.5s,baz=209,slow=23,SNR=3.6 | | | | | | |
| **SONM** | **Songino Array** | **46.08** | **342** | P | **P** | **00 23 12.9** | **+0.2** |
| | 0.3nm,0.4s,baz=133,slow=6.3,SNR=2.5 | | | | | | |
| SONM | | | | LR | LR | 00 42 57.9 | |
| | comp=Z,41nm,19.0s,baz=324,slow=37 | | | | | | |
| **MKAR** | **Makanchi Array** | **56.31** | **325** | P | **P** | **00 24 29.8** | **+0.4** |
| | 0.7nm,0.4s,baz=121,slow=8.0,SNR=22 | | | | | | |
| MKAR | | | | PcP | **PcP** | **00 25 26.6** | **+0.1** |
| | 0.7nm,0.6s,baz=112,slow=3.6,SNR=5.6 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **59.34** | **333** | P | **P** | **00 24 49.5** | **-1.0** |
| | 0.6nm,0.4s,baz=120,slow=7.1,SNR=3.9 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **60.49** | **327** | P | **P** | **00 24 58.7** | **+0.2** |
| | 0.4nm,0.5s,baz=125,slow=6.3,SNR=2.8 | | | | | | |
| **ILAR** | **Eielson Array** | **84.41** | **25** | P | P | 00 27 18.1 | -2.6 |
| | 0.7nm,1.1s,baz=237,slow=5.0,SNR=3.1 | | | | | | |
| **ARCES** | **ARCESS Array B** | **89.22** | **340** | P | **P** | **00 27 43.1** | **-0.9** |
| | 3.1nm,0.9s,baz=75,slow=8.5,SNR=1.4 | | | | | | |
| **FINES** | **FINESS Array B** | **90.58** | **332** | P | **P** | **00 27 49.9** | **-0.6** |
| | 4.9nm,1.1s,baz=20,slow=6.1,SNR=6.0 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **121.97** | **289** | PKP | **PKPdf** | **00 33 43.7** | **-0.1** |
| | 0.3nm,0.7s,baz=26,slow=1.2,SNR=6.3 | | | | | | |

*CSEM* ***29*** *00:21:29.1±0.1, 46.06N×10.58E, h5km, MD2.0, Error ellipse: s-maj=1.8km s-min=1.5km az=82.0*
*VIE* ***29*** *00:21:29.8±0.7, 46.11N×10.62E, h8km, mb1.6/1, ML1.9/3*
**ROM 29 00:21:28.5±0.1, 46.06N×10.63E, h6km±2km, Md2.0/4, Ml1.5/3, 1D, Error ellipse: s-maj=3.0km s-min=1.6km az=73.0, Northern Italy**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RNI** | **Roncone** | **0.08** | **184** | ⇓*i*Pg | Pg | 00 21 31.3 | +0.8 |
| RNI | | | | *i* Sg | Sg | 00 21 32.5 | +0.6 |
| **RNI** | **Roncone** | **0.08** | **184** | *i* Pg | Pg | 00 21 31.3 | +0.8 |
| RNI | | | | *i* Sg | Sg | 00 21 32.5 | +0.6 |
| **MABI** | **Malga Bissina** | **0.08** | **269** | Pg | Pg | 00 21 31.0 | +0.5 |
| MABI | | | | Sg | Sg | 00 21 32.0 | 0.0 |
| **MABI** | **Malga Bissina** | **0.08** | **269** | Pg | Pg | 00 21 31.0 | +0.5 |
| MABI | | | | Sg | Sg | 00 21 32.0 | 0.0 |
| **MAGA** | **Magasa** | **0.28** | **180** | Pg | Pg | 00 21 34.8 | +0.8 |
| MAGA | | | | Sg | Sb | 00 21 39.7 | -1.4 |
| | 32nm,0.3s | | | | | | |
| **MAGA** | **Magasa** | **0.28** | **180** | Pg | Pg | 00 21 34.8 | +0.8 |
| MAGA | | | | Sg | Sb | 00 21 39.7 | -1.4 |
| | 32nm,0.3s | | | | | | |
| **PANI** | **Panarotta** | **0.49** | **91** | *e*Pg | Pb | 00 21 39.3 | -0.3 |
| **ROVR** | **Rover¨¤ Verone** | **0.51** | **143** | Pg | Pb | 00 21 39.4 | -0.6 |
| ROVR | | | | Sg | Sb | 00 21 47.1 | -0.6 |
| **ROVR** | **Rover¨¤ Verone** | **0.51** | **143** | Pg | Pb | 00 21 39.4 | -0.6 |
| ROVR | | | | Sg | Sb | 00 21 47.1 | -0.6 |
| **MARN** | **Marana (Italy)** | **0.58** | **136** | *e*Pg | Pb | 00 21 41.4 | +0.3 |
| **MARN** | **Marana (Italy)** | **0.58** | **136** | *e*Pg | Pb | 00 21 41.4 | +0.3 |
| **APPI** | **Appiano** | **0.59** | **44** | Pg | Pb | 00 21 41.0 | -0.3 |
| APPI | | | | Sg | Sb | 00 21 49.1 | -0.9 |
| | 616nm,4.1s | | | | | | |
| **APPI** | **Appiano** | **0.59** | **44** | Pg | Pb | 00 21 41.0 | -0.3 |
| APPI | | | | Sg | Sb | 00 21 49.1 | -0.9 |
| | 616nm,4.1s | | | | | | |
| **FETA** | **Feichten** | **0.97** | **4** | Pg | Pb | 00 21 48.0 | +0.2 |
| | 0.2nm,0.1s | | | | | | |
| FETA | | | | Sg | Sb | 00 22 00.8 | -0.1 |
| | 0.4nm,0.1s | | | | | | |
| **VARN** | **Col Varnada, M** | **1.03** | **93** | *e*Pg | Pn | 00 21 49.7 | +0.2 |
| **VARN** | **Col Varnada, M** | **1.03** | **93** | *e*Pg | Pn | 00 21 49.7 | +0.2 |
| **MUGIO** | **Muggio** | **1.12** | **264** | Pg | Pg | 00 21 49.8 | -0.1 |
| | 562nm,5.0s | | | | | | |
| **MUGIO** | **Muggio** | **1.12** | **264** | Pg | Pg | 00 21 49.8 | -0.1 |
| | 562nm,5.0s | | | | | | |

*NIED* ***29*** *00:30:00, 36.80N×140.60E, h8km, Mw3.4 Best double couple: M0 1.45000×10^14 NP1:φs320.00000°, δ38.00000°, λ-132.00000°. NP2:φs189.00000°, δ62.00000°, λ-62.00000°.*
*ISCJB* ***29*** *00:30:38.8±0.7, 36.83N±0.03×140.64E±0.09, h5km±7km, mb3.7/3, Error ellipse: s-maj=11.9km s-min=4.5km az=15.3*
*IDC* ***29*** *00:30:39.4±2.0, 36.82N×140.58E, h0km, mb3.6/3, mb1 3.9/3, mb1mx3.3/56, mbtmp3.6/3, Error ellipse: s-maj=38.5km s-min=23.4km az=59.0*
*JMA* ***29*** *00:30:39.4, 36.84N×140.61E, h10km±1km, M3.6 Broadband fault plane solution: P waves. NP1: φs183.00000°, δ50.00000°, λ-64.00000°. NP2: φs326.00000°, δ47.00000°, λ-118.00000°. Principal axes: T Plg2.0000°, Azm255.0000°; N Plg20.0000°, Azm346.0000°; P Plg70.0000°, Azm160.0000°;*
*JMA Felt II J1.*
**ISC 29 00:30:39.4±1.2, 36.84N±0.03×140.58E±0.07, h3km±11km, n16, σ0°90/16, mb3.7/3, 4C-1D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JHO** | **Hitachi** | **0.23** | **183** | ⇑P | **Pg** | **00 30 44.1** | **+0.3** |
| JHO | | | | S | **Sg** | **00 30 47.2** | **+0.4** |
| **ONAJ** | **Iwakimizuishiy** | **0.31** | **33** | ⇑P | **Pg** | **00 30 45.5** | **0.0** |
| **JFK** | **Kawauchi** | **0.57** | **24** | ⇑P | **Pg** | **00 30 50.0** | **-0.5** |
| JFK | | | | S | **Sg** | **00 30 57.8** | **-0.1** |
| **JYT** | **Yasato** | **0.69** | **207** | ⇑P | **Pg** | **00 30 52.3** | **-0.3** |
| JYT | | | | S | **Sg** | **00 31 01.3** | **-0.2** |
| **JFT** | **Otama** | **0.70** | **344** | ⇓P | **Pg** | **00 30 53.1** | **+0.1** |
| JFT | | | | S | **Sg** | **00 31 02.7** | **+0.6** |
| **MJAR** | **Matsushiro Arr** | **1.93** | **262** | Pn | **Pn** | **00 31 12.1** | **-1.1** |
| | 17nm,0.3s,baz=77,slow=17,SNR=116 | | | | | | |
| MJAR | | | | Sn | **Sb** | **00 31 39.4** | **-0.4** |
| | 20nm,0.3s,baz=80,slow=29,SNR=7.7 | | | | | | |
| **MAT** | **Matsushiro** | **1.93** | **262** | P | **Pn** | **00 31 13.3** | **+0.1** |
| MAT | | | | S | **Sb** | **00 31 39.5** | **-0.3** |
| **H11N2** | **WAKE ISLAND Hy** | **28.63** | **119** | T | T | 01 06 22.8 | |
| | baz=312,slow=75,SNR=140 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.63** | **119** | T | T | 01 06 23.3 | |
| | baz=312,slow=75,SNR=166 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.64** | **119** | T | T | 01 06 24.1 | |
| | baz=312,slow=75,SNR=138 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.32** | **121** | T | T | 01 07 13.4 | |
| | baz=314,slow=75,SNR=378 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.32** | **121** | T | T | 01 07 10.8 | |
| | baz=314,slow=75,SNR=206 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.34** | **121** | T | T | 01 07 14.6 | |
| | baz=314,slow=75,SNR=248 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.66** | **302** | P | **P** | **00 38 46.1** | **+0.8** |
| | 0.3nm,0.8s,baz=90,slow=9.1,SNR=3.4 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **56.44** | **197** | P | **P** | **00 40 24.2** | **+1.8** |
| | 2.0nm,0.7s,baz=27,slow=8.7,SNR=7.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **56.78** | **187** | P | **P** | **00 40 23.1** | **-1.8** |
| | 0.5nm,0.6s,baz=3.3,slow=7.4,SNR=5.0 | | | | | | |

*IDC* ***29*** *00:30:53.0±0.3, 58.25S×139.99W, h0km, mb5.1/22, mb1 5.2/22, mb1mx5.0/38, mbtmp5.1/22, MS4.9/15, Ms1 4.9/15, ms1mx4.9/16, Error ellipse: s-maj=18.1km s-min=11.0km az=171.0*
*ISCJB* ***29*** *00:30:53.7±0.2, 58.49S±0.05×139.85W±0.07, h10km, mb5.3/75, MS5.1/141, Error ellipse: s-maj=6.8km s-min=5.3km az=170.7*
*MOS* ***29*** *00:30:53.9±1.2, 58.36S×139.97W, h10km, mb5.3/21, MS5.1/18, Error ellipse: s-maj=20.5km s-min=12.8km az=86.4*
*BJI* ***29*** *00:30:54.9, 58.40S×139.90W, h10km, mB5.6/18, Ms5.4/12, MS7 4.9/12*
*NEIC* ***29*** *00:30:54.8±0.1, 58.42S×139.87W, h10km, mb5.6/58, MS5.2/116, Error ellipse: s-maj=8.3km s-min=5.4km az=172.0*
*GCMT* ***29*** *00:30:54.8±0.1, 58.67S×139.68W, h12km, MW5.4/125, Moment Tensor Solution. s89,c148; s125,c265; Duration: 1s2 Moment tensor: Scale 10^17Nm; Mrr1.58±.02; Mθθ-1.30±.02; Mφφ-0.27±.02; Mrθ0.47±.04; Mrφ-0.16±.01; Mθφ0.17±.04; Best double couple: M0 1.53500×10^17 NP1:φs78.00000°, δ54.00000°, λ87.00000°. NP2:φs264.00000°, δ36.00000°, λ95.00000°. Principal axes: T 1.6660, Plg80.0000°, Azm335.0000°; N -0.2560, Plg3.0000°, Azm80.0000°; P -1.4040, Plg9.0000°, Azm171.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*
**ISC 29 00:30:55.4±0.5, 58.35S±0.07×139.61W±0.05, h12km±3km, h13km:pP-P, n568, σ1°58/551, mb5.4/73, MS5.1/142, 19C-36D, Pacific-Antarctic Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SBA** | **Scott Base** | **26.28** | **203** | *e*P | **P** | **00 36 31.0** | **+1.0** |
| SBA | | | | pmax | pmax | | |
| | comp=Z,279nm,1.8s | | | | | | |
| SBA | | | | MLR | MLR | | |
| | comp=Z,4μm,20.0s | | | | | | |
| **SBA** | **Scott Base** | **26.28** | **203** | *e*P | **P** | **00 36 31.0** | **+1.0** |
| | comp=Z,279nm,1.8s | | | | | | |
| SBA | | | | LR | LR | | |
| | comp=Z,4μm,20.0s | | | | | | |
| **VNDA** | **Vanda** | **27.23** | **204** | P | **P** | **00 36 38.6** | **+0.1** |
| | comp=Z,11nm,1.0s,baz=20,slow=4.5,SNR=23 | | | | | | |
| VNDA | | | | LR | LR | 00 44 38.0 | |
| | comp=Z,5μm,20.4s,baz=92,slow=30 | | | | | | |
| **VNDA** | **Vanda** | **27.23** | **204** | *e*P | **P** | **00 36 38.3** | **-0.2** |
| VNDA | | | | *e* | | 00 39 58.5 | |
| VNDA | | | | pmax | pmax | | |
| | comp=Z,134nm,1.9s | | | | | | |
| **VNDA** | **Vanda** | **27.23** | **204** | *e*P | **P** | **00 36 38.3** | **-0.2** |
| | comp=Z,134nm,1.9s | | | | | | |
| VNDA | | | | *e*PcP | **PcP** | **00 39 58.5** | **+0.6** |
| **QSPA** | **South Pole Qui** | **31.80** | **180** | *e*P | **P** | **00 37 19.5** | **+0.1** |
| | comp=Z,370nm,1.7s | | | | | | |
| QSPA | | | | LR | LR | | |
| | comp=Z,5μm,20.0s | | | | | | |
| **MQZ** | **McQueen's Vall** | **32.63** | **275** | *e*P | **P** | **00 37 23.2** | **-3.4** |
| | comp=Z,48nm,1.6s | | | | | | |
| **OXZ** | **Oxford** | **33.21** | **

comp=Z,3μm,21.0s
**CAN Canberra 51.20 264** PFAKE 00 40 10.0 +12
CAN LR LR
comp=Z,1μm,20.0s
**ROC1 El Roble 51.53 92** *e*P P 00 40 09.3 +8.2
comp=Z,53nm,0.9s
ROC1 *e*PP **PP 00 41 58.2 +0.1**
**PEL Peldehue 51.58 92** *e*P **P 00 40 01.9 +0.7**
PEL pmax pmax
comp=Z,190nm,1.0s
**PEL Peldehue 51.58 92** *e*P **P 00 40 02.7 +1.5**
comp=Z,190nm,1.0s
**HOPE Hope Point 51.82 133** *e*P **P 00 40 03.1 +0.5**
comp=Z,46nm,1.0s
HOPE LR LR
comp=Z,1μm,19.0s
**TRQA Tornquist 52.35 103** *e*P **P 00 40 08.3 +1.4**
comp=Z,138nm,1.2s
TRQA LR LR
comp=Z,1μm,20.0s
**DZM Mont Dzumac 52.75 290** P **P 00 40 08.1 -1.9**
comp=Z,24nm,1.3s,baz=148,slow=11,SNR=4.0
**DZM Mont Dzumac 52.75 290** *e*P **P 00 40 10.8 +0.8**
comp=Z,69nm,1.4s
DZM *e*S **S 00 47 40.2 +2.4**
comp=Z,285nm,23.7s
DZM *e*LR LR 00 55 23.9
comp=Z,3μm,24.4s
**DZM Mont Dzumac 52.75 290** *e*P **P 00 40 10.9 +0.9**
comp=Z,71nm,1.6s
**SYO Syowa Base 52.94 180**⇑ *e*P **P 00 40 09.0 -1.7**
**SYO Syowa Base 52.94 180**⇑ *i*PP **P 00 40 10.4 -0.3**
**AUSP Uspallata 52.98 93** *e*P **P 00 40 13.6 +1.7**
**MAW Mawson 53.26 191** P **P 00 40 14.0 +0.9**
comp=Z,25nm,0.9s,baz=172,slow=8.7,SNR=21
**MAW Mawson 53.26 191** *e*P **P 00 40 14.2 +1.1**
MAW pmax pmax
comp=Z,9.0nm,1.0s
**MAW Mawson 53.26 191** *e*P **P 00 40 14.2 +1.1**
comp=Z,8.9nm,1.0s
**ACAN Cantantal 54.09 94** *e*P **P 00 40 21.2 +1.5**
**AMOG MOGNA 54.45 92** *e*P **P 00 40 23.4 +1.0**
**LCO Las Campanas 54.82 89** *e*P **P 00 40 26.2 +0.9**
comp=Z,86nm,1.0s
LCO LR LR
comp=Z,1μm,21.0s
**AGUA GUANDACOL 55.60 91** *e*P **P 00 40 33.3 +2.5**
**TCA Tanti 56.19 96** *e*P **P 00 40 35.1 +0.1**
**VCA Vinchina 56.35 91** *e*P **P 00 40 37.3 +1.0**
**STKA Stephens Creek 57.74 261** P **P 00 40 44.9 -1.0**
comp=Z,11nm,0.9s,baz=134,slow=9.8,SNR=13
STKA LR LR 01 00 11.9
comp=Z,550nm,21.9s,baz=162,slow=31
**STKA Stephens Creek 57.74 261** *e*P **P 00 40 44.9 -1.0**
comp=Z,3.9nm,1.0s
**EIDS Eidsvold 57.96 273** *e*P **P 00 40 47.4 0.0**
comp=Z,25nm,1.2s
**FUNA Funafuti 58.83 310** PFAKE 00 41 10.0 +16
FUNA LR LR
comp=Z,2μm,19.0s
**AHML Horco Molle 59.43 92** *e*P **P 00 40 59.0 +1.3**
**FSA Cafayete 59.63 91** *e*P **P 00 41 00.2 +1.0**
**BBOO Buckleboo 59.86 256** *e*P **P 00 41 00.8 +0.2**
comp=Z,39nm,1.2s
**PB04 IPOC Station P 60.51 85** *e*P **P 00 41 07.3 +2.0**
comp=Z,147nm,1.7s
**AZAP Zapla 61.64 91** *e*P **P 00 41 14.1 +1.0**
**XMAS Kiritimati 61.87 340** PFAKE 00 41 30.0 +16
XMAS LR LR
comp=Z,6.0nm,19.0s
**PB01 IPOC Station P 61.91 85** *e*P **P 00 41 15.1 +0.3**
comp=Z,58nm,1.1s
**PB11 IPOC Station P 62.88 84** *e*P **P 00 41 22.1 +0.8**
comp=Z,78nm,1.0s
**YJA Yavi 63.08 89** *e*P **P 00 41 23.7 +0.8**
**MNMC Minye Minye 63.44 83** *e*P **P 00 41 25.4 +0.3**
comp=Z,117nm,0.9s
**CPUP Villa Florida 64.00 98** P **P 00 41 28.3 -0.1**
comp=Z,26nm,1.1s,baz=221,slow=5.1,SNR=27
CPUP LR LR 01 05 45.8
comp=Z,644nm,18.2s,baz=214,slow=33
**CPUP Villa Florida 64.00 98** *e*P **P 00 41 29.3 +0.9**
**CTA Charters Tower 64.81 272** P **P 00 41 31.7 -2.2**
comp=Z,26nm,1.1s,baz=170,slow=7.4,SNR=5.9
**CTAO Charters Tower 64.81 272** *e*P **P 00 41 33.4 -0.5**
CTAO pmax pmax
comp=Z,30nm,1.0s
**CTAO Charters Tower 64.81 272** *e*P **P 00 41 33.4 -0.5**
comp=Z,30nm,1.0s
CTAO LR LR
comp=Z,1μm,20.0s
**FORT Forrest 65.53 251** *e*P **P 00 41 35.9 -2.5**
comp=Z,300nm,1.0s
**NNA Nana 65.70 73** P **P 00 41 39.5 -0.2**
comp=Z,72nm,1.0s,baz=224,slow=8.5,SNR=18
**NNA Nana 65.70 73** *i* P **P 00 41 41.4 +1.7**
**NNA Nana 65.70 73** *e*P **P 00 41 41.0 +1.3**
comp=Z,125nm,1.1s
NNA LR LR
comp=Z,540nm,19.0s
**LPAZ La Paz 66.56 83** P **P 00 41 47.7 +1.8**
comp=Z,67nm,1.2s,baz=203,slow=2.8,SNR=81
LPAZ LR LR 01 03 58.3
comp=Z,332nm,20.4s,baz=173,slow=30
**LPAZ La Paz 66.56 83** *e*P **P 00 41 46.6 +0.7**
LPAZ pmax pmax
comp=Z,140nm,1.3s
**LPAZ La Paz 66.56 83** *e*P **P 00 41 46.6 +0.7**
comp=Z,138nm,1.4s
**HNR Honiara 66.74 291** PFAKE 00 42 00.0 +14
HNR LR LR
comp=Z,392nm,19.0s
**AS01 Alice Springs 68.34 260** *e*P **P 00 41 54.3 -2.1**
AS01 *e*PP **PP 00 44 23.1 -3.8**
**ASAR Alice Springs 68.36 260** P **P 00 41 54.3 -2.2**
comp=Z,0.3nm,0.4s,baz=338,slow=11,SNR=6.3
ASAR LR LR 01 07 29.5
comp=Z,813nm,20.8s,baz=148,slow=32
**AS31 Alice Springs 68.36 260** *e*P **P 00 41 54.2 -2.3**
comp=Z,11nm,1.0s
**H01W1 Cape Leeuwin H 68.74 238** T T 01 57 49.9
baz=146,slow=76,SNR=15
**H01W2 Cape Leeuwin H 68.74 238** T T 01 57 49.7
baz=146,slow=76,SNR=15
**H01W3 Cape Leeuwin H 68.75 238** T T 01 57 47.8
baz=146,slow=76,SNR=15
**NWAO Narrogin (SRO) 68.98 241** P **P 00 42 00.9 +0.7**
comp=Z,16nm,1.0s,baz=25,slow=6.4,SNR=4.4
**NWAO Narrogin (SRO) 68.98 241** P **P 00 42 00.9 +0.7**
NWAO LR LR
comp=Z,1μm,22.0s
**ATAH Atahualpa 69.09 69** P **P 00 42 03.8 +2.2**
comp=Z,38nm,1.0s,baz=245,slow=5.6,SNR=28
**TARA Tarawa 70.34 309** PFAKE 00 42 20.0 +11
TARA LR LR
comp=Z,59nm,19.0s
**WC3 Warramunga Arr 71.17 263** *e*P **P 00 42 12.1 -1.7**
comp=Z,64nm,1.6s
**WB2 Warramunga Arr 71.20 262** *e*P **P 00 42 12.8 -1.2**
comp=Z,24nm,1.1s
**WRA Warramunga Arr 71.20 262** P **P 00 42 11.6 -2.5**
comp=Z,15nm,0.9s,baz=148,slow=5.4,SNR=21
WRA LR LR 01 10 30.3
comp=Z,429nm,19.1s,baz=155,slow=34
**WRAB Tennant Creek 71.20 263**‖ *e*P **P 00 42 11.2 -2.9**
WRAB pmax pmax
comp=Z,30nm,1.4s
**WRAB Tennant Creek 71.20 263** PFAKE 00 42 20.0 +5.9
WRAB LR LR
comp=Z,657nm,19.0s
**PMG Port Moresby 73.26 279** P **P 00 42 26.1 -0.2**
comp=Z,23nm,0.8s,baz=84,slow=4.1,SNR=3.8
**PMG Port Moresby 73.26 279**‖ *e*P **P 00 42 25.5 -0.8**
PMG pmax pmax
comp=Z,271nm,1.5s
**PMG Port Moresby 73.26 279** P **P 00 42 26.1 -0.2**
PMG LR LR
comp=Z,634nm,20.0s
**TRIS Tristan da Cun 75.26 139** *e*P **P 00 42 37.6 -0.1**
comp=Z,163nm,1.0s
TRIS LR LR
comp=Z,1μm,20.0s
**SAML Samuel 75.31 83** *e*P **P 00 42 38.9 +0.6**
comp=Z,38nm,1.3s
**OTAV Otavalo 75.47 65** *e*P **P 00 42 40.9 +1.1**
comp=Z,187nm,1.6s
OTAV LR LR
comp=Z,647nm,22.0s
**CMBC Cumbal 76.38 65** *e*P **P 00 42 47.5 +2.5**
**FITZ Fitzroy Crossi 77.24 256** P **P 00 42 48.6 -0.6**
comp=Z,15nm,1.0s,baz=134,slow=9.2,SNR=9.0
**MBWA Marble Bar 77.65 250** PFAKE 00 43 00.0 +8.5
MBWA LR LR
comp=Z,823nm,19.0s
**FLOC Florencia 77.99 67** *e*P **P 00 42 54.2 +0.8**
**POPC Popayan, Colom 78.33 65** *e*P **P 00 42 55.0 -0.6**
**BETC Betania 79.05 66** *e*P **P 00 43 00.2 +0.9**
**YOTC Yotoco, Valle 79.75 65** *e*P **P 00 43 02.9 -0.3**
**PRAC Prado 80.21 66** *e*P **P 00 43 05.6 0.0**
comp=Z,83nm,1.4s
**PLMC San Jos˜ del 80.58 64** *e*P **P 00 43 07.4 -0.3**
**TOLC Tolima 80.76 65** *e*P **P 00 43 10.8 +1.9**
**VILC Villavicencio, 81.14 67** *e*P **P 00 43 12.6 +1.9**
**GUYC Guyana, Colomb 81.28 65** *e*P **P 00 43 08.1 -3.7**
**JTS JuntasAbangare 81.41 54** *e*P **P 00 43 13.1 +1.2**
**JTS JuntasAbangare 81.41 54** PFAKE 00 43 20.0 +8.1
JTS LR LR
comp=Z,1μm,20.0s
**HDC Heredia 81.51 55** *e*P **P 00 43 14.9 +2.3**
comp=Z,94nm,1.0s
**CHIC Chingaza 81.56 67** *e*P **P 00 43 14.1 +0.8**
**NORC Norcasia 81.83 65** *e*P **P 00 43 14.1 -0.1**
**HELC Santa Helena 82.06 65** *e*P **P 00 43 16.7 +0.9**
**HELC Santa Helena 82.06 65** *e*P **P 00 43 16.7 +0.9**
comp=Z,210nm,1.6s
**BCIP Isla Barro Col 82.67 59** PFAKE 00 43 30.0 +11
BCIP LR LR
comp=Z,483nm,21.0s
**PTBC PUERTO BERRIO, 82.88 65** *e*P **P 00 43 18.6 -1.0**
**RUSC La Rusia 82.98 67** *e*P **P 00 43 20.1 -0.6**
**RUSC La Rusia 82.98 67** *e*P **P 00 43 21.2 +0.5**
comp=Z,47nm,1.4s
**ZARC Zaragoza, Cauc 83.51 65** *e*P **P 00 43 22.4 -0.6**
**BARC Barichara 83.53 66** *e*P **P 00 43 20.1 -3.2**
**CMIG Matias Romero 83.68 43** P **P 00 43 24.4 +0.8**
comp=Z,13nm,1.1s,baz=192,slow=4.2,SNR=6.1
**BRRC Barranca, Sant 83.73 66** *e*P **P 00 43 21.2 -2.8**
**TGUH Tegucigalpa,Un 83.82 51** *e*P **P 00 43 26.2 +1.9**
comp=Z,121nm,1.3s
**PTGA Pitinga 83.94 82** P **P 00 43 25.9 +0.7**
comp=Z,23nm,1.1s,baz=223,slow=3.7,SNR=18
**PTGA Pitinga 83.94 82** *e*P **P 00 43 25.4 +0.2**
comp=Z,59nm,1.3s
PTGA LR LR
comp=Z,42μm,22.0s
**GIRC Giron, Santand 83.95 66** *e*P **P 00 43 23.5 -1.8**
**MOIG Morelia 83.98 36** *e*P **P 00 43 27.1 +1.7**
comp=Z,34nm,0.5s
**MOTC Monteria, Cord 84.25 63** *e*P **P 00 43 26.1 -0.6**
**PAMC Pamplona, Colo 84.42 66** *e*P **P 00 43 27.9 -0.2**
**OCAC Ocana 84.90 65** *e*P **P 00 43 29.5 -0.7**
**SOEI Soe 84.98 260** P **P 00 43 35.1 +4.5**
**SOEI Soe 84.98 260** *e*P **P 00 43 30.5 -0.1**
comp=Z,102nm,1.4s
**ZAIG Zacatecas 86.47 34** *e*P **P 00 43 40.2 +2.3**
comp=Z,26nm,1.4s
**SDV Santo Domingo 86.76 67** P **P 00 43 37.5 -2.0**
comp=Z,28nm,1.0s,baz=233,slow=3.9,SNR=22
**SDV Santo Domingo 86.76 67** *e*P **P 00 43 37.8 -1.6**
comp=Z,43nm,1.0s
SDV LR LR
comp=Z,379nm,19.0s
**SUR Sutherland 88.14 164** P **P 00 43 45.8 -0.2**
comp=Z,2.8nm,1.0s,baz=141,slow=1.2,SNR=8.2
**SUR Sutherland 88.14 164** *e*P **P 00 43 44.6 -1.4**
comp=Z,72nm,1.1s
SUR LR LR
comp=Z,2μm,22.0s
**LNIG Linares 89.41 36** *e*P **P 00 43 51.5 0.0**
comp=Z,59nm,1.5s
**HPIG 89.56 30** *e*P **P 00 43 53.0 +0.5**
comp=Z,20nm,1.3s
**SANI Sanana 90.59 265** P **P 00 44 00.6 +3.2**
**KAPI Kappang 91.33 258** PFAKE 00 44 10.0 +9.1
KAPI LR LR
comp=Z,342nm,19.0s
**MTDJ Mount Denham 91.69 57** PFAKE 00 44 10.0 +7.6
MTDJ LR LR
comp=Z,614nm,21.0s
**RCBR Riachuelo 92.21 105** PFAKE 00 44 20.0 +15
RCBR LR LR
comp=Z,993nm,20.0s
**TX31 Lajitas Ar. Si 92.37 31** *e*P **P 00 44 06.8 +1.4**
**TXAR Lajitas Array 92.37 31** P **P 00 44 03.7 -1.6**
comp=Z,0.5nm,0.7s,baz=194,slow=10,SNR=6.7
TXAR PKKPbc **PKKPbc 01 01 20.4 +2.3**
comp=Z,0.5nm,0.9s,baz=29,slow=2.9,SNR=4.3
TXAR LR LR 01 16 50.0
comp=Z,256nm,21.6s,baz=0.0,slow=30
**TXAR Lajitas Array 92.37 31** P **P 00 44 03.7 -1.6**
TXAR 01 01 20.4
TXAR pmax pmax
comp=Z,1.0nm,0.7s
TXAR pmax pmax
comp=Z,1.0nm,0.9s
**KVTX Kingsville 92.37 36** PFAKE 00 44 20.0 +15
KVTX LR LR
comp=Z,526nm,20.0s
**BOSA Boshof 92.44 167** P **P 00 44 04.7 -1.3**
comp=Z,8.6nm,1.1s,baz=197,slow=13,SNR=4.3
BOSA LR LR 01 24 44.2
comp=Z,982nm,18.0s,baz=188,slow=35
**214A Organ Pipe Nat 92.72 23** P **P 00 44 08.9 +2.1**
baz=194
**319A Douglas 92.92 26** *e*P **P 00 44 09.0 +1.2**
comp=Z,25nm,1.7s
**MONP2 Monument Peak 92.95 19** P **P 00 44 10.2 +2.2**
baz=192
**SWSC Sam W. Stewart 93.11 20** P **P 00 44 11.2 +2.7**
baz=192
**113A Mohawk Valley, 93.32 22** *e*P **P 00 44 11.3 +1.9**
comp=Z,16nm,1.6s
**GLA Glamis 93.39 21** P **P 00 44 12.4 +2.5**
baz=193
**TUC Tucson 93.49 24** P **P 00 44 12.7 +2.3**
baz=195
**TUC Tucson 93.49 24** *e*P **P 00 44 10.7 +0.3**
TUC pmax pmax
comp=Z,15nm,1.6s
TUC MLR MLR
comp=Z,928nm,20.0s
**TUC Tucson 93.49 24** *e*P **P 00 44 10.7 +0.3**
comp=Z,15nm,1.6s
TUC LR LR
comp=Z,928nm,20.0s
**TPFO Pinon Flats 93.64 19** P **P 00 44 14.0 +2.9**
baz=192
**PFO Pinyon Flats O 93.65 19** P **P 00 44 13.6 +2.5**
baz=192
**PFO Pinyon Flats O 93.65 19** *e*P **P 00 44 12.1 +1.0**
PFO pmax pmax
comp=Z,13nm,1.3s
PFO MLR MLR
comp=Z,1μm,20.0s
**PFO Pinyon Flats O 93.65 19** *e*P **P 00 44 12.1 +1.0**
comp=Z,13nm,1.3s
PFO LR LR
comp=Z,1μm,20.0s
**XPFO Piæon Flat 93.65 19** *e*P **P 00 44 12.4 +1.2**
comp=Z,12nm,1.2s
**BC3 Big Chuckawall 93.87 20** P **P 00 44 14.6 +2.5**
baz=192
**GRGR Grenville 94.00 73** PFAKE 00 44 20.0 +6.9
GRGR LR LR
comp=Z,458nm,20.0s
**BFSC Mount Baldy Ra 94.06 18** P **P 00 44 15.0 +2.0**
baz=192
**BELC Belle Mtn. Jos 94.11 19** P **P 00 44 15.4 +2.2**
baz=192
**MNTX Cornudas Mount 94.17 29** P **P 00 44 15.2 +1.8**
baz=197
**MNTX Cornudas Mount 94.17 29** PFAKE 00 44 20.0 +6.6
MNTX LR LR
comp=Z,1μm,20.0s
**IRM Iron Mountain 94.41 20** P **P 00 44 17.2 +2.7**
baz=193
**JCT Junction City 94.54 34** P **P 00 44 17.5 +2.3**
baz=200
**JCT Junction City 94.54 34** *e*P **P 00 44 16.1 +0.9**
JCT pmax pmax
comp=Z,31nm,1.5s
JCT MLR MLR
comp=Z,287nm,21.0s
**JCT Junction City 94.54 34** *e*P **P 00 44 16.1 +0.9**
comp=Z,30nm,1.5s
JCT LR LR
comp=Z,287nm,21.0s
**EDW2 Edwards Air Fo 94.63 18** P **P 00 44 16.9 +1.3**
baz=191
**HEC Hector,Ludlow 94.86 19** P **P 00 44 18.6 +2.0**
baz=192
**LDFC Landfair 95.31 20** *e*P **P 00 44 19.0 +0.3**
comp=Z,12nm,1.2s
**MPMC Manual Prospec 95.86 18** P **P 00 44 22.8 +1.5**
baz=192
**LBTB Lobatse 96.04 167** P **P 00 44 21.6 -0.9**
comp=Z,7.7nm,1.1s,baz=164,slow=7.3,SNR=3.9
**WUAZ Wupatki 96.46 23** PFAKE 00 44 40.0 +16
WUAZ LR LR
comp=Z,956nm,20.0s
**FDF Fort de France 96.47 73** PFAKE 00 44 40.0 +16
FDF LR LR
comp=Z,405nm,20.0s
**ABTX Abilene, Hawle 96.60 33** P **P 00 44 26.8 +2.3**
baz=200
**ABTX Abilene, Hawle 96.60 33** *e*P **P 00 44 26.8 +2.3**
comp=Z,38nm,1.9s
**SHPR Sheep Range 96.69 20** *e*P **P 00 44 27.1 +2.1**
comp=Z,15nm,1.9s
**SHEL Horse Pasture 96.85 136** PFAKE 00 44 40.0 +14
SHEL LR LR
comp=Z,429nm,22.0s
**SJG San Juan 96.88 67** PFAKE 00 44 40.0 +14
SJG LR LR
comp=Z,312nm,19.0s
**ANMO Albuquerque 97.00 27**‖ *e*P **P 00 44 25.4 -1.1**
**ANMO Albuquerque 97.00 27** PFAKE 00 44 40.0 +13
ANMO LR LR
comp=Z,854nm,22.0s
**NATX Nacogdoches 97.31 37** PFAKE 00 44 40.0 +12
NATX LR LR
comp=Z,636nm,19.0s
**NVAR Mina Array Bea 98.06 17** P Pdif 00 44 32.3 +1.1
comp=Z,0.1nm,0.3s,baz=186,slow=7.2,SNR=3.6
NVAR LR LR 01 19 47.7
comp=Z,1μm,20.0s,baz=188,slow=30
**R11A Troy Canyon, C 98.42 19** P Pdif 00 44 34.2 +1.4
baz=193
**R11A Troy Canyon, C 98.42 19** *e*P Pdif 00 44 35.0 +2.2
comp=Z,12nm,2.0s
**ANWB Willy Bob 98.64 71** PFAKE 00 44 50.0 +16
ANWB LR LR
comp=Z,739nm,19.0s
**MVCO Mesa Verde 98.70 25** PFAKE 00 44 50.0 +16
MVCO LR LR
comp=Z,653nm,20.0s
**WMOK Wichita Mounta 98.83 33** PFAKE 00 44 50.0 +15
WMOK LR LR
comp=Z,889nm,19.0s
**H10S3 ASCENSION HYDR 99.61 125** T T 02 36 06.3
baz=207,slow=75,SNR=16
**H10S2 ASCENSION HYDR 99.61 125** T T 02 36 06.4
baz=207,slow=75,SNR=18
**H10S1 ASCENSION HYDR 99.63 125** T T 02 36 09.0
baz=207,slow=75,SNR=15
**SDCO Great Sand Dun 99.90 27** PFAKE 00 44 50.0 +10
SDCO LR LR
comp=Z,1μm,21.0s
**MIAR Mount Ida 100.22 37** PFAKE 00 44 50.0 +9.3
MIAR LR LR
comp=Z,445nm,20.0s
**ASCN Ascension 100.66 125** PFAKE 00 44 50.0 +6.7
ASCN LR LR
comp=Z,562nm,19.0s
**H10N3 ASCENSION HYDR 100.68 124** T T 02 37 34.2
baz=207,slow=75,SNR=52
**H10N1 ASCENSION HYDR 100.68 124** T T 02 37 37.0
baz=207,slow=75,SNR=57
**H10N2 ASCENSION HYDR 100.69 124** T T 02 37 35.9
baz=207,slow=75,SNR=61
**DUG Dugway, Tooele 100.70 21** PFAKE 00 44 50.0 +7.1
DUG LR LR
comp=Z,794nm,20.0s
**MATP Matopo 100.90 169** P **Pdif 00 44 44.2 -0.3**
comp=Z,4.3nm,1.0s,baz=130,slow=1.4,SNR=4.2
**ISCO Idaho Springs 101.83 26** PFAKE 00 45 00.0 +12
ISCO LR LR
comp=Z,946nm,21.0s
**WVOR Wild Horse Val 101.93 16** PFAKE 00 45 00.0 +12
WVOR LR LR
comp=Z,1μm,20.0s
**CBKS Cedar Bluff 102.37 31** PFAKE 00 45 00.0 +10
CBKS LR LR
comp=Z,1μm,21.0s
**GOGA Godfrey 102.71 45** PFAKE 00 45 00.0 +8.2
GOGA LR LR
comp=Z,298nm,20.0s
**ABPO Ambohimpanom 102.71 187** PFAKE 00 45 00.0 +7.4
ABPO LR LR
comp=Z,566nm,19.0s
**DSRI Dabo 102.86 247** P **Pdif 00 45 02.8 +10**
**AHID Auburn Hatcher 103.51 21** PFAKE 00 45 10.0 +15
AHID LR LR
comp=Z,786nm,21.0s
**KSU1 Kansas State U 103.51 33** PFAKE 00 45 10.0 +15
KSU1 LR LR
comp=Z,384nm,19.0s
**HLID Hailey 103.69 19** PFAKE 00 45 10.0 +14
HLID LR LR
comp=Z,1μm,20.0s
**OGNE Ogallala 103.78 28** PFAKE 00 45 10.0 +14
OGNE LR LR
comp=Z,885nm,20.0s
**BW06 Boulder Array 103.81 22** PFAKE 00 45 10.0 +13
BW06 LR LR
comp=Z,1μm,20.0s
**BMO Blue Mountains 104.49 16** PFAKE 00 45 10.0 +10
BMO LR LR
comp=Z,791nm,20.0s
**LKWY Lake 105.38 21** PFAKE 00 49 30.0
LKWY LR LR
comp=Z,796nm,19.0s
**HAWA Hanford 105.70 14** PFAKE 00 49 30.0
HAWA LR LR
comp=Z,1μm,19.0s
**LSZ Lusaka 105.95 168** Pdiff **Pdif 00 45 07.3 +0.3**
comp=Z,2.7nm,1.0s,baz=192,slow=7.4,SNR=4.9
**LSZ Lusaka 105.95 168** Pdif **Pdif 00 45 07.3 +0.3**
LSZ LR LR
comp=Z,1μm,20.0s
**RLMT Red Lodge 106.14 22** PFAKE 00 49 30.0
RLMT LR LR
comp=Z,856nm,20.0s
**BOZ Bozeman (W) 106.15 20** PFAKE 00 49 30.0
BOZ LR LR
comp=Z,654nm,19.0s
**CNNC Cliffs of the 106.47 49** PFAKE 00 49 30.0
CNNC LR LR
comp=Z,622nm,21.0s
**HDIL Hopedale 107.08 38** PFAKE 00 49 30.0
HDIL LR LR
comp=Z,312nm,19.0s
**SCIA State Center 107.10 34** PFAKE 00 49 30.0
SCIA LR LR
comp=Z,802nm,21.0s
**ECSD EROS Data Cent 107.81 31** PFAKE 00 49 30.0
ECSD LR LR
comp=Z,2μm,20.0s
**NEW Newport 107.86 16** PFAKE 00 49 30.0
NEW LR LR
comp=Z,701nm,21.0s
**LAO LASA Array 108.25 24** PFAKE 00 49 30.0
LAO LR LR
comp=Z,633nm,20.0s
**EGMT Eagleton 108.83 21** PFAKE 00 49 40.0
EGMT LR LR
comp=Z,617nm,20.0s
**JFWS Jewell Farm 108.92 36** PFAKE 00 49 40.0
JFWS LR LR
comp=Z,612nm,20.0s
**CBN Corbin Frederi 109.26 48** PFAKE 00 49 40.0
CBN LR LR
comp=Z,465nm,22.0s
**DGMT Dagmar 110.38 24** PFAKE 00 49 40.0
DGMT LR LR
comp=Z,769nm,19.0s
**AGMN Agassiz Nation 112.22 30** PFAKE 00 49 40.0
AGMN LR LR
comp=Z,946nm,21.0s

**EYMN Ely 113.10 33** PFAKE 00 49 40.0
EYMN LR LR
comp=Z,1µm,20.0s
**WRAK Wrangell Islan 114.57 4** PFAKE 00 49 50.0 +16
WRAK LR LR
comp=Z,1µm,20.0s
**YHNB Yeheng 115.33 276** PFAKE 00 49 50.0 +14
YHNB LR LR
comp=Z,478nm,19.0s
**MSEY Mahe Island 116.02 197** PFAKE 00 49 50.0 +12
MSEY LR LR
comp=Z,1µm,21.0s
**SACV Santiago Islan 116.20 104** PFAKE 00 49 50.0 +12
SACV LR LR
comp=Z,232nm,21.0s
**KDAK Kodiak Island 116.25 352** PFAKE 00 49 50.0 +13
KDAK LR LR
comp=Z,974nm,20.0s
**MAJO Matsushiro 116.49 297** PFAKE 00 49 50.0 +12
MAJO LR LR
comp=Z,319nm,22.0s
**FFC Flin Flon 116.74 23** *i* PKIKP **PKPdf** **00 49 40.1 +2.0**
**FFC Flin Flon 116.74 23** PFAKE 00 49 50.0 +12
FFC LR LR
comp=Z,626nm,19.0s
**QIZ Qiongzhong 116.78 263** Pdif **Pdif** **00 45 56.8 +2.1**
QIZ S **Sdif** **00 58 36.5 +2.2**
QIZ SS **SS** **01 06 58.3 +4.2**
**ERM Erimo 118.67 304** PFAKE 00 49 50.0 +7.8
ERM LR LR
comp=Z,475nm,21.0s
**KMBO Kilima Mbogo 120.65 176** PFAKE 00 50 00.0 +13
KMBO LR LR
comp=Z,1µm,21.0s
**PPLA Purkeypile 121.31 353** *e*PKPdf **PKPdf** **00 49 47.1 +0.2**
**TRF Thorofare Moun 121.75 354** *e*PKPdf **PKPdf** **00 49 47.1 -0.6**
**PET Petropavlovsk 121.76 321** PFAKE 00 50 00.0 +12
PET LR LR
comp=Z,982nm,20.0s
**CM01 Chiang Mai Arr 121.87 253** *e*PKPdf **PKPdf** **00 49 48.4 -0.7**
**KTH Kantishna Hill 121.89 354** *e*PKPdf **PKPdf** **00 49 48.7 +0.9**
**CM31 Chiang Mai Arr 121.91 253** *e*PKPdf **PKPdf** **00 49 46.6 -2.6**
**CMAR Chiang Mai Arr 121.91 253** PKP **PKPdf** **00 49 48.5 -0.7**
comp=Z,1.6nm,0.7s,baz=193,slow=2.9,SNR=12
CMAR PKKPbc **PKKPbc** **00 59 45.5 +0.7**
comp=Z,0.4nm,0.3s,baz=312,slow=5.7,SNR=5.6
**MCK McKinley 121.97 355** *e*PKIKP **PKPdf** **00 49 48.1 +0.2**
**MCK McKinley 121.97 355** *e*PKPdf **PKPdf** **00 49 48.1 +0.2**
MCK *e*PP **PP** **00 51 20.5 -2.8**
**YKA Yellowknife Ar 122.05 13** PKP **PKPdf** **00 49 46.6 -1.4**
comp=Z,5.5nm,1.1s,baz=206,slow=1.9,SNR=32
YKA PKKPbc **PKKPbc** **00 59 45.5 +0.7**
comp=Z,0.9nm,0.8s,baz=7.2,slow=4.4,SNR=16
**DAWY Dawson 122.09 0** *e*PKPdf **PKPdf** **00 49 47.8 -0.4**
DAWY *e*PP **PP** **00 51 20.2 -3.9**
**YKW3 Yellowknife Ar 122.12 13** *e*PKPdf **PKPdf** **00 49 46.7 -1.5**
**PETK Petropavlovsk- 122.15 321** PKP **PKPdf** **00 49 48.9 +0.3**
comp=Z,6.5nm,0.8s,baz=132,slow=2.2,SNR=4.4
**PETK Petropavlovsk- 122.15 321** PKIKP **PKPdf** **00 49 48.9 +0.3**
PETK pmax pmax
comp=Z,11nm,1.0s
**CHTO Chiang Mai 122.20 253** *e*PKIKP **PKPdf** **00 49 48.8 -1.0**
CHTO MLR MLR
comp=Z,216nm,19.0s
**CHTO Chiang Mai 122.20 253** *e*PKPdf **PKPdf** **00 49 48.8 -1.0**
CHTO LR LR
comp=Z,216nm,19.0s
**BPAW Bear Paw Mtn. 122.44 354** *e*PKPdf **PKPdf** **00 49 49.0 +0.2**
**HDA Harding Lake 122.57 356** *e*PKPdf **PKPdf** **00 49 48.3 -0.7**
**NJ2 Nanjing 122.57 279** *e*PKP **PKPdf** **00 49 51.3 +1.3**
**YSS Yuzh-Sakhalins 122.80 307**⇑ *e*PKIKP **PKPdf** **00 49 49.5 -0.5**
**EGAK Eagle 122.81 359** *e*PKPdf **PKPdf** **00 49 49.8 +0.3**
EGAK LR LR
comp=Z,951nm,20.0s
**CCB Clear Creek Bu 122.83 356** *e*PKPdf **PKPdf** **00 49 48.1 -1.4**
**INCN Inchon 122.85 289** PFAKE 00 50 00.0 +10
INCN LR LR
comp=Z,427nm,19.0s
**IL1 Eielson Array 122.93 356** *e*PKPdf **PKPdf** **00 49 48.6 -1.1**
**ILAR Eielson Array 122.93 356** PKP **PKPdf** **00 49 48.4 -1.4**
comp=Z,38nm,1.1s,baz=223,slow=1.5,SNR=54
ILAR SKKPbc SKKPbc 01 03 24.6 -8.1
comp=Z,0.6nm,1.0s,baz=5.7,slow=2.7,SNR=4.6
**ILB Eielson Array 122.93 356** *e*PKPdf **PKPdf** **00 49 48.7 -1.0**
**COLA College 123.06 356** *e*PKIKP **PKPdf** **00 49 48.9 -1.0**
**COLA College 123.06 356** *e*PKPdf **PKPdf** **00 49 48.9 -1.0**
COLA LR LR
comp=Z,746nm,19.0s
**MDM Murphy Dome 123.16 356** *e*PKPdf **PKPdf** **00 49 48.4 -1.8**
**MLY Manley 123.35 354** *e*PKPdf **PKPdf** **00 49 49.6 -1.0**
**WHN Wuhan 123.74 274** PKPbc PKPdf 00 50 03.0 +11
WHN PP PP 00 51 45.5 +10
WHN LR LR
comp=Z,700nm,26.0s
**GAMB Gambell 124.25 343** *e*PKPdf **PKPdf** **00 49 51.0 -1.1**
**IMAR Indian Mountai 124.47 353** *e*PKPdf **PKPdf** **00 49 52.0 -0.7**
**GYA Guiyang 124.52 265** Pdif **Pdif** **00 46 31.0 +1.8**
GYA PKP **PKiKP** **00 49 55.5 +1.0**
GYA PP **PP** **00 51 46.8 +5.9**
GYA AMB AMB
comp=Z,130nm,7.9s
**FYU Fort Yukon 124.68 357** *e*PKPdf **PKPdf** **00 49 53.6 +0.6**
**KOWA Kowa 125.18 124** *e*PKPdf **PKPdf** **00 49 55.4 -0.1**
**USRK Ussuriysk Ar. 125.44 298** PKP **PKPdf** **00 49 55.8 +0.7**
comp=Z,2.9nm,0.9s,baz=123,slow=5.3,SNR=2.3
**KMI Kunming 125.49 260** PKP **PKPdf** **00 49 56.0 -0.2**
**COLD Coldfoot 125.52 355** *e*PKPdf **PKPdf** **00 49 54.9 +0.3**
**ENH Enshi 126.08 270** PFAKE 00 50 10.0 +13
ENH LR LR
comp=Z,224nm,20.0s
**TOA0 Torodi Ar. Sit 126.36 131** *e*PKPdf **PKPdf** **00 49 57.2 -0.6**
TOA0 *e*PP **PP** **00 51 47.6 -5.0**
**TORD Torodi Ar. Bea 126.36 131** PKP **PKPdf** **00 49 57.6 -0.3**
comp=Z,11nm,0.9s,baz=195,slow=2.1,SNR=38
TORD PP **PP** **00 51 49.5 -3.1**
comp=Z,9.0nm,1.2s,baz=200,slow=4.5,SNR=9.5
TORD SKKPbc SKKPbc 01 03 17.1 +1.5
comp=Z,2.3nm,1.2s,baz=29,slow=3.3,SNR=4.1
**INK Inuvik 126.43 3** PKP **PKPdf** **00 49 55.8 -0.5**
comp=Z,13nm,1.2s,baz=140,slow=4.0,SNR=14
**MDJ Mudanjiang 126.87 297** PFAKE 00 50 10.0 +12
MDJ LR LR
comp=Z,351nm,22.0s
**SCHQ Schefferville 127.06 44** PKP **PKPdf** **00 49 57.0 -1.0**
comp=Z,8.3nm,0.9s,baz=299,slow=4.0,SNR=4.3
**CN2 Changchun 128.24 293** *e*PKP **PKPdf** **00 50 01.0 +0.5**
**KLR Kul'dur 129.31 302** PKP **PKPdf** **00 50 00.3 -2.1**
comp=Z,0.8nm,1.1s,baz=331,slow=3.7,SNR=7.8
**XAN Xi'an 129.32 273** PKP **PKPdf** **00 50 02.5 -0.5**
**CD2 Chengdu 129.60 266** PKP **PKPdf** **00 50 04.8 +1.2**
CD2 PP **PP** **00 52 19.5 +5.1**
CD2 SKKS 00 59 10.8
CD2 SS **SS** **01 09 39.0 +2.0**
CD2 AMB AMB
comp=Z,150nm,7.6s
CD2 LR LR
comp=Z,230nm,14.2s
CD2 LR LR
comp=Z,190nm,21.8s
**BJT Baijiatuau 130.07 283** PFAKE 00 50 20.0 +16
BJT LR LR
comp=Z,293nm,20.0s
**SEY Seymchan 131.70 325***c* *i*PKIKP **PKPdf** **00 50 06.3 -0.2**
**BILL Bilíbino 132.15 336**⇓ *i*PKIKP **PKPdf** **00 50 08.1 +0.9**
BILL *e* 00 52 26.9
BILL pmax pmax
comp=Z,2.0nm,1.1s
BILL MLR MLR
comp=Z,247nm,17.0s
**HHC Hu-ho-hao-te 133.06 281** *e*PKP **PKPdf** **00 50 13.0 +3.1**
HHC PP **PP** **00 52 42.8 +6.0**
HHC SS SS 01 10 23.5 +4.2
HHC LR LR
comp=Z,190nm,21.0s
HHC LR LR
comp=Z,230nm,21.0s
HHC LR LR
comp=Z,240nm,28.4s
**LZH Lanzhou 133.56 270** *e*PKP **PKPdf** **00 50 09.3 -1.8**
LZH SKKS 00 59 34.0
LZH SS **SS** **01 10 24.0 -1.6**
LZH AMB AMB
comp=Z,270nm,4.8s
LZH LR LR
comp=Z,290nm,15.3s
LZH LR LR
comp=Z,310nm,16.0s
LZH LR LR
comp=Z,490nm,18.7s
**HIA Hailar 134.90 295**⇓ *i*PKIKP **PKPdf** **00 50 14.0 +1.0**
**HIA Hailar 134.90 295** PFAKE 00 50 20.0 +7.0
HIA LR LR
comp=Z,296nm,20.0s
**LSA Lhasa 135.16 253** *e*PKIKP **PKPdf** **00 50 16.5 +1.8**
LSA MLR MLR
comp=Z,285nm,19.0s
**LSA Lhasa 135.16 253** *e*PKPdf **PKPdf** **00 50 16.5 +1.8**
LSA LR LR
comp=Z,285nm,19.0s
**TAM Tamanrasset 136.59 130** *e*PKIKP **PKPdf** **00 50 17.0 -0.2**
**TAM Tamanrasset 136.59 130** *e*PKPdf **PKPdf** **00 50 17.7 +0.5**
TAM LR LR
comp=Z,649nm,20.0s
**GTA Gaotai 138.17 270**⇓ PKP **PKPdf** **00 50 20.0 +0.5**
GTA PP **PP** **00 53 13.5 +4.5**
GTA SKS **SKSdf** **00 57 25.0 -4.6**
GTA SKKS **SKKSac** **00 59 59.5 -2.9**
GTA AMB AMB
comp=Z,98nm,5.5s
GTA LR LR
comp=Z,160nm,17.1s
GTA LR LR
comp=Z,130nm,17.6s
GTA LR LR
comp=Z,130nm,17.3s
**YAK Yakutsk 138.80 314** PFAKE 00 50 30.0 +10
YAK LR LR
comp=Z,356nm,19.0s
**ULN Ulaanbaatar 140.25 285**⇓ *i*PKIKP **PKPdf** **00 50 23.1 0.0**
**ULN Ulaanbaatar 140.25 285** PFAKE 00 50 30.0 +6.9
ULN LR LR
comp=Z,256nm,19.0s
**RTC Rabat Centre 140.37 107** PFAKE 00 50 40.0 +16
RTC LR LR
comp=Z,2µm,21.0s
**SONM Songino Array 140.57 284** PKhKP PKPpre 00 50 11.4
comp=Z,0.1nm,0.3s,baz=155,slow=4.4,SNR=2.5
SONM PKP **PKPdf** **00 50 22.5 -1.1**
comp=Z,1.2nm,1.1s,baz=128,slow=2.4,SNR=3.6
SONM PP **PP** **00 53 26.1 +2.3**
comp=Z,0.4nm,0.3s,baz=125,slow=8.2,SNR=4.5
**TULEG Thule 141.76 21** *e*PKPdf **PKPdf** **00 50 26.6 +1.9**
**PBDV Barranco-do-Ve 142.36 103** *e*PKPdf **PKPdf** **00 50 28.0 +0.9**
**BOD Bodaibo 142.88 302** *e*PKHKP PKPpre 00 50 22.4
BOD pmax pmax
comp=Z,18nm,1.6s
**PMTG Montargil 143.58 100** *e*PKPdf **PKPdf** **00 50 28.1 -1.0**
**PESTR Estremoz 143.76 101** *e*PKPdf **PKPdf** **00 50 28.4 -1.1**
**ZAK Zakamensk 143.76 285** *e*PKIKP PKPbc 00 50 26.9 0.0
ZAK pmax pmax
comp=Z,11nm,1.3s
**TIXI Tiksi 144.14 327**⇑ *e*PKIKP **PKPab** **00 50 26.2 -0.6**
**TIXI Tiksi 144.14 327** *e*PKPdf **PKPab** **00 50 25.6 -1.1**
TIXI LR LR
comp=Z,268nm,19.0s
**COI Coimbra 144.32 99** *e*PKPdf **PKPdf** **00 50 31.0 +0.6**
**TLY Talaya 144.36 287** PKP **PKPab** **00 50 28.0 -0.2**
comp=Z,7.9nm,0.8s,baz=145,slow=2.1,SNR=5.6
**TLY Talaya 144.36 287** *e*PKIKP PKPbc 00 50 28.5 -0.1
TLY pmax pmax
comp=Z,21nm,1.2s
**TLY Talaya 144.36 287** *e*PKPdf **PKPab** **00 50 28.0 -0.2**
TLY LR LR
comp=Z,254nm,21.0s
**PCBR Castelo Branco 144.54 100** *e*PKPdf **PKPdf** **00 50 30.9 +0.1**
**THN Thein Dam 144.82 238** *e*P **PKPab** **00 50 27.8 -2.7**
**PTO Porto 144.90 98** *e*PKPdf **PKPab** **00 50 30.5 0.0**
**MTE Manteigas 144.92 99** *e*PKPbc **PKPab** **00 50 29.5 -1.2**
MTE LR LR
comp=Z,566nm,19.0s
**MTE Manteigas 144.92 99** *e*PKPdf **PKPab** **00 50 30.1 -0.6**
**PVIS Viseu 144.97 99** *e*PKPdf **PKPdf** **00 50 32.1 +0.6**
**RAYN Ar Rayn 145.01 188** *e*PKPdf **PKPdf** **00 50 31.9 -0.3**
RAYN LR LR
comp=Z,563nm,20.0s
**PVRL Vila Real 145.46 98** *e*PKPdf **PKPab** **00 50 33.3 +0.6**
**POLO Lamas de Olo 145.49 98** *e*PKPdf **PKPbc** **00 50 32.7 +0.1**
**PGAV Gavieira, Arco 145.67 97** *e*PKPdf **PKPab** **00 50 33.8 +0.3**
**MOY Mondy 145.69 286** *e*PKIKP **PKPdf** **00 50 32.1 -0.4**
MOY pmax pmax
comp=Z,108nm,1.7s
**MVO Moncorvo 145.74 99** *e*PKPdf **PKPab** **00 50 34.5 +0.7**
**PAB San Pablo 145.94 104** *e*PKP2 **PKPab** **00 50 35.0 +0.5**
PAB MLR MLR
comp=Z,329nm,20.0s
**PAB San Pablo 145.94 104** *e*PKPdf **PKPab** **00 50 35.0 +0.5**
PAB LR LR
comp=Z,329nm,20.0s
**CART Cartagena 146.13 110** *e*PKPdf **PKPdf** **00 50 33.6 +0.1**
**ESDC Sonseca Array 146.23 104** PKPbc **PKPbc** **00 50 34.8 -0.1**
comp=Z,6.8nm,0.9s,baz=223,slow=4.3,SNR=28
**ESLA Sonseca Array 146.23 104** *e*PKPdf **PKPab** **00 50 36.4 +0.7**
**ES19 SONSECA Array 146.28 104** *e*PKPdf **PKPab** **00 50 35.7 -0.1**
**PBRG Braganca 146.35 99** *e*PKPdf **PKPab** **00 50 36.2 +0.2**
**SUMG Summit 147.24 33** *i*PKP2 **PKPdf** **00 50 35.7 +0.8**
SUMG pmax pmax
comp=Z,110nm,1.1s
**SUMG Summit 147.24 33** *i* P **PKPdf** **00 50 35.7 +0.8**
comp=Z,110nm,1.1s
**SUMG Summit 147.24 33** *e*PKPdf **PKPdf** **00 50 35.4 +0.5**
SUMG *e*PKPbc **PKPbc** **00 50 37.6 +0.3**
**WMQ Urumqi 147.68 264** PKPbc **PKPbc** **00 50 37.5 -1.4**
WMQ PP **PP** **00 54 10.0 +3.7**
WMQ SS SS 01 13 11.0 +0.7
WMQ AMB AMB
comp=Z,880nm,6.9s
WMQ LR LR
comp=Z,300nm,20.1s
WMQ LR LR
comp=Z,320nm,21.3s
WMQ LR LR
comp=Z,440nm,22.7s
**KBL Kabul 149.49 231** *e*PKIKP **PKPdf** **00 50 41.2 +1.7**
**KBL Kabul 149.49 231** *e*PKPdf **PKPdf** **00 50 39.9 +0.4**
KBL *e*PKPbc **sPKPdf** **00 50 44.6 -0.6**
**KEST Kesra 149.49 124** PKPbc **PKPbc** **00 50 44.3 +0.5**
comp=Z,19nm,1.1s,baz=254,slow=2.2,SNR=9.7
**KEST Kesra 149.49 124** *e*PKPdf **PKPdf** **00 50 37.1 -2.2**
KEST *e*PKPbc **PKiKP** **00 50 44.9 0.0**
**KSH Kashi 150.48 246** PKPbc **PKPdf** **00 50 41.3 +0.5**
KSH PP **PP** **00 54 25.5 +2.9**
KSH SKS **SKSdf** **00 57 43.5 -4.6**
KSH SKKS **SKKSac** **01 01 09.3 -3.4**
KSH SS **SS** **01 13 38.5 -3.0**
KSH AMB AMB
comp=Z,180nm,5.6s
**WDD Wied Dalam 151.74 132** PFAKE 00 50 50.0 +1.0
WDD LR LR
comp=Z,681nm,19.0s
**SCO Scoresbysund 151.95 39** *i*PKIKP **PKPbc** **00 50 48.3 -0.1**
SCO pmax pmax
comp=Z,70nm,1.3s
**SCO Scoresbysund 151.95 39** *i* P **PKPbc** **00 50 48.3 -0.1**
comp=Z,70nm,1.3s
**ULHL Ulahol 152.44 250** P **PKPbc** **00 50 52.0 +1.3**
SNR=9.0
**MK01 Makanchi Array 152.48 264** *e*PKPdf **PKPdf** **00 50 42.7 -0.7**
MK01 *e*PKPbc **sPKPdf** **00 50 48.8 -0.4**
MK01 *e*PKPab **PKPab** **00 51 00.5 -0.4**
**MK31 Makanchi Array 152.50 264** *e*PKIKP **PKPdf** **00 50 42.6 -0.9**
MK31 *e* 00 50 49.7
MK31 *e* 00 51 00.2
**MK31 Makanchi Array 152.50 264** *e*PKPdf **PKPdf** **00 50 42.6 -0.9**
MK31 *e*PKPbc **PKPbc** **00 50 49.7 -0.7**
MK31 *e*PKPab **PKPab** **00 51 00.2 -0.7**
**MKAR Makanchi Array 152.50 264** PKP **PKPdf** **00 50 42.4 -1.1**
comp=Z,0.8nm,1.0s,baz=241,slow=4.0,SNR=4.3
MKAR PKPbc **sPKPdf** **00 50 48.0 -1.2**
comp=Z,22nm,1.2s,baz=116,slow=2.8,SNR=38
**MKAR Makanchi Array 152.50 264** *e*PKIKP **PKPdf** **00 50 42.3 -1.2**
MKAR *e* 00 50 49.7
MKAR *e* 00 51 01.1
**MKAR Makanchi Array 152.50 264** *e*PKPdf **PKPdf** **00 50 42.3 -1.2**
MKAR *e*PKPbc **PKPbc** **00 50 49.7 -0.7**
MKAR *e*PKPab **PKPab** **00 51 01.1 +0.1**
**VSL Villasalto 152.61 120** PFAKE 00 50 50.0 -0.9
VSL LR LR
comp=Z,635nm,19.0s
**MAKZ Makanchi 152.68 263** *e*PKIKP **PKPdf** **00 50 46.6 +2.9**
**MAKZ Makanchi 152.68 263** *e*PKPbc **PKPbc** **00 50 50.8 0.0**
**DAG Danmarks Havn 152.79 26** *i*PKIKP **PKPbc** **00 50 49.7 -0.4**
DAG *i* 00 51 01.8
DAG pmax pmax
comp=Z,8.0nm,0.8s
**DAG Danmarks Havn 152.79 26** *i* P **PKPbc** **00 50 49.7 -0.4**
comp=Z,8.1nm,0.8s
DAG *i* 00 51 01.8
**KZA Kyzart 152.80 249** P **PKPbc** **00 50 53.1 +1.3**
SNR=13
**TKM2 Tokmak 2 153.26 250** P **PKPbc** **00 50 53.5 +1.1**
SNR=8.0
**UCH Uchtor 153.27 248** P **PKPbc** **00 50 54.1 +1.3**
SNR=10
**KBK Karagaybulak 153.38 249** P **PKPbc** **00 50 51.7 -1.0**
SNR=9.3
**AAK Ala-Archa 153.59 248** *e*PKIKP **PKPdf** **00 50 45.3 -0.1**
AAK *e* 00 50 53.8
AAK MLR MLR
comp=Z,368nm,19.0s
**AAK Ala-Archa 153.59 248** P **PKPbc** **00 50 53.7 +0.5**
SNR=8.9
**AAK Ala-Archa 153.59 248** *e*PKPdf **PKPdf** **00 50 45.3 -0.1**
AAK *e*PKPbc **PKiKP** **00 50 53.8 +0.6**
AAK LR LR
comp=Z,368nm,19.0s
**AML Almayashu 153.60 247** P **PKPbc** **00 50 54.6 +1.1**
SNR=11
**FRU Bishkek 153.68 249** *e*PKIKP **PKPbc** **00 50 54.0 +0.8**
FRU pmax pmax
comp=Z,60nm,1.4s
**CHMS Chumysh 153.73 249** P **PKPbc** **00 50 54.0 +0.7**
SNR=7.4
**EKS2 Erkin-Say 153.96 248** P **PKPbc** **00 50 54.4 +0.5**
SNR=7.9
**USP Ospenovka 154.05 249** P **PKPbc** **00 50 54.7 +0.7**
SNR=7.9
**TCHB Talchebab 154.14 171** *e*P **PKPdf** **00 50 46.4 +0.1**
**SALA Sala 154.24 173** *e*P **PKPdf** **00 50 47.6 +0.9**
**BRBR Barbar 154.88 171** *e*P **PKPdf** **00 50 48.3 +0.7**
**ZAA0 Zalesovo Array 155.22 279** *e*PKPdf **PKPdf** **00 50 45.8 -1.3**
ZAA0 *e*PKPab **PKPab** **00 51 09.6 -2.6**
**ZALV Zalesovo Beam 155.22 279** PKP **PKPdf** **00 50 45.6 -1.4**
comp=Z,0.2nm,0.4s,baz=43,slow=11,SNR=2.8
ZALV PKPab **PKPab** **00 51 09.1 -3.1**
comp=Z,7.0nm,0.7s,baz=119,slow=3.3,SNR=14
**ZALV Zalesovo Beam 155.22 279** *e*PKPdf **PKPdf** **00 50 49.6 +2.6**
ZALV *e*PKPab **PKPab** **00 51 09.4 -2.8**
**TIP Timpagrande 155.51 131** *e*PKPdf **PKPdf** **00 50 47.8 -0.2**
TIP *e*PKPab **PKPab** **00 51 14.1 +0.1**
TIP LR LR
comp=Z,563nm,21.0s
**BNI Bardonecchia 155.54 108** *e*PKIKP **PKPdf** **00 50 48.0 0.0**
BNI MLR MLR
comp=Z,556nm,20.0s
**BNI Bardonecchia 155.54 108** *e*PKPdf **PKPdf** **00 50 48.0 0.0**
BNI LR LR
comp=Z,556nm,20.0s
**ROOS tl_alroos 155.72 174** *e*P **PKPdf** **00 50 49.1 +0.6**
**CUC Castrocucco 155.83 129** PFAKE 00 51 00.0 +12
CUC LR LR
comp=Z,269nm,19.0s
**KKAR Karatay Array 155.86 244** *e*PKIKP **PKPdf** **00 50 47.7 -0.7**
**KKAR Karatay Array 155.86 244** *e*PKPdf **PKPdf** **00 50 47.6 -0.7**
**SANT Santorini 155.90 149** PFAKE 00 51 00.0 +11
SANT LR LR
comp=Z,404nm,22.0s
**CSS Mathiatis 156.13 166** *e*PKPdf **PKPdf** **00 50 48.2 -0.7**
CSS *e*PKPab **PKPab** **00 51 16.8 +0.2**
CSS LR LR
comp=Z,129nm,21.0s
**NVS Novosibirsk 156.46 280** *e*PKP2 **PKPab** **00 51 14.6 -2.9**
NVS *e* 00 54 51.9
NVS pmax pmax
comp=N,8.0nm,1.3s
NVS pmax pmax
comp=E,12nm,1.3s
NVS pmax pmax
comp=Z,24nm,1.3s
**GEYT Alibeck 156.53 217** PKP **PKPdf** **00 50 49.0 -0.4**
comp=Z,1.2nm,0.8s,baz=250,slow=16,SNR=4.2
GEYT PKPab **PKPab** **00 51 17.5 -0.8**
comp=Z,4.6nm,0.9s,baz=90,slow=1.5,SNR=11
**AQU L'Aquila 156.72 122** PFAKE 00 51 00.0 +10
AQU LR LR
comp=Z,658nm,20.0s
**KURK Kurchatov 156.81 267**⇑ *e*PKIKP **PKPdf** **00 50 47.8 -1.4**
**KURK Kurchatov 156.81 267** *e*PKPdf **PKPdf** **00 50 46.8 -2.5**
KURK LR LR
comp=Z,837nm,21.0s
**ARNB Al Arnab 157.31 171** *e*P **PKPdf** **00 50 50.1 -0.5**
**TUE Stuetta 157.87 109** *e*PKPdf **PKPdf** **00 50 51.5 +0.5**
TUE *e*PKPab **PKPab** **00 51 24.7 +0.6**
TUE LR LR
comp=Z,571nm,21.0s
**DRWC Darouich 158.12 172** *e*P **PKPdf** **00 50 50.5 -1.0**
**FUORN Ofenpass-Fuorn 158.43 110** *e*PKPdf **PKPdf** **00 50 51.1 -0.7**
FUORN *e*PKPab **PKPab** **00 51 27.6 +1.1**
**SPA0 Spitsbergen Ar 158.55 13** *e*PKPdf **PKPdf** **00 50 51.5 +0.8**
**TIR Tirane 158.59 134** *e*PKIKP **PKPdf** **00 50 51.7 -0.1**
TIR *e* 00 51 26.0
TIR MLR MLR
comp=Z,846nm,22.0s
**TIR Tirane 158.59 134** *e*PKPdf **PKPdf** **00 50 51.7 -0.1**
TIR *e*PKPab **PKPab** **00 51 26.0 -1.1**
TIR LR LR
comp=Z,846nm,22.0s
**BFO Black Forest 158.59 104** *e*PKIKP **PKPdf** **00 50 51.3 -0.3**
BFO MLR MLR
comp=Z,435nm,21.0s
**BFO Black Forest 158.59 104** *e*PKPdf **PKPdf** **00 50 51.2 -0.3**
BFO LR LR
comp=Z,435nm,21.0s
**DAVA Damuels 158.69 108** *i*PKPab **PKPab** **00 51 28.2 +0.7**
comp=Z,29nm,1.2s
**MANT Manisa 158.69 154** *e*PKPdf **PKPdf** **00 50 52.8 +0.5**
MANT *e*PKPab **PKPab** **00 51 26.0 -1.8**
**FETA Feichten 158.93 110** pPKPdf **pPKPdf** **00 50 54.2 -2.3**
comp=Z,9.9nm,1.2s
FETA *i*PKPab **PKPab** **00 51 29.7 +1.0**
comp=Z,28nm,1.1s,SNR=8.5
**MARD Mardin 158.95 181** *e*PKPdf **PKPdf** **00 50 51.9 -0.7**
MARD *e*PKPab **PKPab** **00 51 29.0 +0.2**
**RETA Reutte 159.27 109** *i*PKPdf **PKPdf** **00 50 53.8 +1.3**
comp=Z,16nm,1.5s
RETA *i*PKPab **PKPab** **00 51 30.5 +0.6**
comp=Z,27nm,1.2s,SNR=4.8
**SQTA Sankt Quirin 159.31 110** *i*PKPab **PKPab** **00 51 31.4 +1.2**
comp=Z,0.3nm,0.7s
**STU Stuttgart 159.32 104** *e*PKIKP **PKPdf** **00 50 51.7 -0.7**
**STU Stuttgart 159.32 104** *e*PKPdf **PKPdf** **00 50 51.7 -0.7**
**MOTA Moosalm 159.34 109** *i*PKPdf **PKPdf** **00 50 53.5 +0.8**
comp=Z,10nm,1.0s,SNR=7.7
MOTA *i*PKPab **PKPab** **00 51 31.1 +0.7**
comp=Z,18nm,1.0s
**BOLV Bolvadin 159.42 159** *e*PKPdf **PKPdf** **00 50 53.4 +0.3**
BOLV *e*PKPab **PKPab** **00 51 30.4 -0.5**
**TRI Trieste 159.47 116** *e*PKIKP **PKPdf** **00 50 51.1 -1.6**
TRI *e* 00 51 31.3
**TRI Trieste 159.47 116** *e*PKPdf **PKPdf** **00 50 51.1 -1.6**
TRI *e*PKPab **PKPab** **00 51 31.3 +0.5**
**WTTA Wattenberg 159.55 110** *i*PKPdf **PKPdf** **00 50 54.4 +1.5**
comp=Z,16nm,1.3s
WTTA *i*PKPab **PKPab** **00 51 31.7 +0.4**
comp=Z,20nm,1.2s
**WATA Walderalm 159.57 110** *i*PKPdf **PKPdf** **00 50 54.7 +1.8**
comp=Z,24nm,1.4s
WATA *i*PKPab **PKPab** **00 51 32.7 +1.3**
comp=Z,21nm,1.1s
**ABTA Abfaltersbach 159.62 113** *i*PKPdf **PKPdf** **00 50 54.2 +1.2**
comp=Z,14nm,1.3s,SNR=5.3
ABTA *i*PKPab **PKPab** **00 51 32.2 +0.7**
comp=Z,48nm,1.2s
**CADS Cadrg 159.84 115** *e*PKPdf **PKPdf** **00 50 53.4 +0.2**
**LJU Ljubljana 160.08 117** *e*PKPdf **PKPdf** **00 50 54.3 +0.9**
**MYKA Terra Mystica 160.08 114** *i*PKPdf **PKPdf** **00 50 54.4 +1.0**
comp=Z,26nm,2.0s,SNR=6.6
MYKA *i*PKPab **PKPab** **00 51 34.6 +1.1**
comp=Z,24nm,1.4s
**KBA Koelnbreinsper 160.26 113** *i*PKPab **PKPab** **00 51 35.0 +0.6**
comp=Z,19nm,1.3s
**BLY Banja Luka 160.30 124** *e*PKPdf **PKPdf** **00 50 53.7 +0.1**
BLY *e*PKPab **PKPab** **00 51 34.2 -0.2**
**OBKA Obir 160.43 116** *i*PKPdf **PKPdf** **00 50 55.4 +1.5**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | SNR=5.2 | | | | | | | |
| **SOKA** | **Soboth** | **160.78** | **116** | *i* PKPdf | **PKPdf** | **00 50 55.5** | **+1.2** |
| | comp=Z,16nm,1.1s,SNR=6.6 | | | | | | | |
| SOKA | | | | *i* PKPab | **PKPab** | **00 51 37.4** | **+0.8** |
| | comp=Z,21nm,1.2s | | | | | | | |
| **BR231** | **Keskin MP Arra** | **160.84** | **162** | *e*PKPdf | **PKPdf** | **00 50 54.3** | **-0.2** |
| BR231 | | | | *e*PKPab | **PKPab** | **00 51 37.0** | **0.0** |
| BR231 | | | | *e*PKPab | **pPKPab** | **00 51 37.3** | **-3.8** |
| **BRTR** | **Keskin Array B** | **160.86** | **164** | PKP | **PKPdf** | **00 50 54.4** | **-0.3** |
| | comp=Z,4.1nm,1.0s,baz=194,slow=4.7,SNR=10 | | | | | | | |
| BRTR | | | | PKPab | **PKPab** | **00 51 37.4** | **+0.3** |
| | comp=Z,4.8nm,0.9s,baz=180,slow=7.4,SNR=12 | | | | | | | |
| **ANTO** | **Ankara** | **160.87** | **162** | *e*PKIKP | **PKPdf** | **00 50 55.0** | **+0.4** |
| ANTO | | | | *e* | | 00 51 37.2 | | |
| ANTO | | | | MLR | MLR | | | |
| | comp=Z,543nm,21.0s | | | | | | | |
| **ANTO** | **Ankara** | **160.87** | **162** | *e*PKPdf | **PKPdf** | **00 50 55.0** | **+0.4** |
| ANTO | | | | *e*PKPab | **PKPab** | **00 51 37.2** | **+0.1** |
| ANTO | | | | LR | LR | | | |
| | comp=Z,543nm,21.0s | | | | | | | |
| **VTS** | **Vitosha** | **160.90** | **138** | *e*PKIKP | **PKPdf** | **00 50 53.6** | **-1.0** |
| VTS | | | | *e* | | 00 51 37.1 | | |
| **VTS** | **Vitosha** | **160.90** | **138** | *e*PKPdf | **PKPdf** | **00 50 53.6** | **-1.0** |
| VTS | | | | *e*PKPab | **PKPab** | **00 51 37.1** | **-0.2** |
| **MOA** | **Molln** | **161.24** | **113** | *i* PKPdf | **PKPdf** | **00 50 55.1** | **+0.4** |
| | comp=Z,13nm,1.5s | | | | | | | |
| MOA | | | | *i* PKPab | **PKPab** | **00 51 38.3** | **-0.2** |
| | comp=Z,15nm,1.2s | | | | | | | |
| **ARSA** | **Arzberg** | **161.43** | **116** | *i* PKPdf | **PKPdf** | **00 50 55.6** | **+0.8** |
| | comp=Z,14nm,1.5s,SNR=6.1 | | | | | | | |
| ARSA | | | | *i* PKPab | **PKPab** | **00 51 40.6** | **+1.3** |
| | comp=Z,8.3nm,1.1s | | | | | | | |
| **GNI** | **Garni** | **161.57** | **191** | PFAKE | | 00 51 10.0 | +15 | |
| GNI | | | | LR | LR | | | |
| | comp=Z,933nm,22.0s | | | | | | | |
| **GEA0** | **GERESS Array S** | **161.63** | **110** | *e*PKPdf | **PKPdf** | **00 50 53.7** | **-1.3** |
| **GEC2** | **GERESS Array S** | **161.64** | **110** | *e*PKIKP | **PKPdf** | **00 50 55.1** | **0.0** |
| GEC2 | | | | *e* | | 00 51 39.6 | | |
| **GEC2** | **GERESS Array S** | **161.64** | **110** | *e*PKPdf | **PKPdf** | **00 50 55.0** | **0.0** |
| GEC2 | | | | *e*PKPab | **PKPab** | **00 51 39.6** | **-0.7** |
| **GERES** | **GERESS Array B** | **161.64** | **110** | PKP | **PKPdf** | **00 50 53.2** | **-1.9** |
| | comp=Z,1.1nm,0.8s,baz=165,slow=2.1,SNR=7.6 | | | | | | | |
| GERES | | | | PKPab | **PKPab** | **00 51 40.9** | **+0.5** |
| | comp=Z,4.6nm,1.0s,baz=248,slow=1.4,SNR=5.9 | | | | | | | |
| **KOPT** | **Kop Dagi** | **161.65** | **180** | *e*PKPdf | **PKPdf** | **00 50 55.5** | **-0.2** |
| KOPT | | | | *e*PKPab | **PKPab** | **00 51 39.7** | **-1.0** |
| **KHC** | **Kasperske Hory** | **161.77** | **109** | *e*PKPAB | **PKPab** | **00 51 40.2** | **-0.6** |
| **KHC** | **Kasperske Hory** | **161.77** | **109** | *e*PKIKP | **PKPdf** | **00 50 54.3** | **-0.8** |
| KHC | | | | *e* | | 00 51 39.9 | | |
| **KHC** | **Kasperske Hory** | **161.77** | **109** | *e*PKPdf | **PKPdf** | **00 50 54.3** | **-0.8** |
| KHC | | | | *e*PKPab | **PKPab** | **00 51 39.9** | **-0.9** |
| **TOKA** | **Tokat** | **161.78** | **170** | *e*PKPdf | **PKPdf** | **00 50 54.2** | **-1.3** |
| TOKA | | | | *e*PKPab | **PKPab** | **00 51 40.0** | **-0.9** |
| **CONA** | **Conrad Observa** | **162.07** | **115** | *i* PKPdf | **PKPdf** | **00 50 55.9** | **+0.3** |
| | comp=Z,10nm,1.4s | | | | | | | |
| CONA | | | | *i* PKPab | **PKPab** | **00 51 43.5** | **+1.3** |
| | comp=Z,20nm,1.4s,SNR=4.4 | | | | | | | |
| **ILGA** | **Ilgaz** | **162.17** | **163** | *e*PKPdf | **PKPdf** | **00 50 56.2** | **+0.1** |
| ILGA | | | | *e*PKPab | **PKPab** | **00 51 42.8** | **-0.1** |
| **BRVK** | **Borovoye** | **162.44** | **265** | PFAKE | | 00 51 10.0 | +14 | |
| BRVK | | | | LR | LR | | | |
| | comp=Z,346nm,20.0s | | | | | | | |
| **HERR** | **Herculane** | **162.57** | **133** | ⇓*i* P | **PKPab** | **00 51 44.5** | **+0.2** |
| **ARTV** | **Artvin** | **162.79** | **184** | *e*PKPdf | **PKPdf** | **00 50 55.9** | **-0.8** |
| ARTV | | | | *e*PKPab | **PKPab** | **00 51 44.1** | **-1.5** |
| **PRU** | **Pruhonice** | **162.80** | **108** | *e*PKPAB | **PKPab** | **00 51 44.9** | **-0.3** |
| PRU | | | | *e*pPKP | **sPKPab** | **00 51 53.7** | **+2.9** |
| **PRU** | **Pruhonice** | **162.80** | **108** | *e*PKP2 | **PKPab** | **00 51 44.9** | **-0.3** |
| **CLL** | **Collm** | **162.81** | **102** | *e*PKPdiff | PKPdf | 00 51 16.0 | +20 | |
| CLL | | | | *i* PKPab | **PKPab** | **00 51 46.2** | **+1.0** |
| | comp=Z,16nm,1.2s | | | | | | | |
| CLL | | | | LmV | | 02 10 00.0 | | |
| | comp=Z,400nm,19.4s | | | | | | | |
| **BZS** | **Buzias** | **162.87** | **130** | ⇓*i* P | **PKPab** | **00 51 46.0** | **+0.4** |
| **BZS** | **Buzias** | **162.87** | **130** | ⇓PKP2 | **PKPab** | **00 51 46.1** | **+0.4** |
| **GOPC** | **GO Pecny, Ondr** | **162.87** | **108** | *e*PKPAB | **PKPab** | **00 51 47.0** | **+1.4** |
| **GOPC** | **GO Pecny, Ondr** | **162.87** | **108** | *e*PKP2 | **PKPab** | **00 51 47.0** | **+1.4** |
| **BRG** | **Berggiesshubel** | **163.04** | **105** | *e*PKP | PKPab | 00 51 28.7 | -18 | |
| | comp=Z,17nm,1.5s | | | | | | | |
| **PVCC** | **Panska Ves** | **163.15** | **106** | *e*PKPAB | **PKPab** | **00 51 49.7** | **+3.0** |
| **PVCC** | **Panska Ves** | **163.15** | **106** | *e*PKP2 | **PKPab** | **00 51 49.7** | **+3.0** |
| **HUMR** | **Humele** | **163.21** | **139** | ⇑*i*P | **PKPab** | **00 51 47.7** | **+0.6** |
| **VRAC** | **Vranov** | **163.37** | **113** | ⇓*i* P | **PKPab** | **00 51 48.0** | **+0.2** |
| **VRAC** | **Vranov** | **163.37** | **113** | ⇓PKP2 | **PKPab** | **00 51 48.0** | **+0.2** |
| **SIRR** | **Siria** | **163.41** | **129** | ⇓*i* P | **PKPab** | **00 51 48.6** | **+0.6** |
| **LOT** | **Lotru** | **163.57** | **135** | ⇓*i* P | **PKPab** | **00 51 49.3** | **+0.5** |
| **DEV** | **Deva** | **163.60** | **132** | ⇑*i*P | **PKPab** | **00 51 50.0** | **+1.2** |
| **DEV** | **Deva** | **163.60** | **132** | ⇑PKP2 | **PKPab** | **00 51 50.0** | **+1.2** |
| **ARR** | **Arges** | **163.82** | **137** | ⇑*i*P | **PKPab** | **00 51 50.9** | **+1.0** |
| **MTUR** | **Matau** | **163.85** | **138** | ⇓*i* P | **PKPab** | **00 51 50.2** | **+0.2** |
| **MTUR** | **Matau** | **163.85** | **138** | ⇓PKP2 | **PKPab** | **00 51 50.2** | **+0.2** |
| **UPC** | **Upice** | **163.86** | **109** | *e*PKPAB | **PKPab** | **00 51 50.9** | **+1.0** |
| **UPC** | **Upice** | **163.86** | **109** | *e*PKP2 | **PKPab** | **00 51 50.9** | **+1.0** |
| **VYHS** | **Vyhne** | **163.87** | **118** | *e*PKIKP | **PKPdf** | **00 51 03.1** | **+5.9** |
| VYHS | | | | *e* | | 00 51 50.2 | | |
| **VYHS** | **Vyhne** | **163.87** | **118** | *e*PKP | **PKPdf** | **00 51 03.1** | **+5.9** |
| VYHS | | | | *e* | | 00 51 50.2 | | |
| **DPC** | **Dobruska-Polom** | **163.91** | **109** | *e*PKPDF | **PKPdf** | **00 50 57.4** | **+0.2** |
| DPC | | | | *e*pPKP | **sPKPdf** | **00 51 02.3** | **-0.6** |
| DPC | | | | *e*PKPAB | **PKPab** | **00 51 51.1** | **+0.9** |
| DPC | | | | *ex* | x | 00 51 57.5 | | |
| **DPC** | **Dobruska-Polom** | **163.91** | **109** | *e*PKIKP | **PKPdf** | **00 50 57.4** | **+0.2** |
| DPC | | | | *e* | | 00 51 02.3 | | |
| DPC | | | | *e* | | 00 51 51.1 | | |
| **PSZ** | **Piszkesteto** | **163.94** | **122** | ⇓*i* P | **PKPab** | **00 51 50.5** | **+0.1** |
| **PSZ** | **Piszkesteto** | **163.94** | **122** | *e*PKIKP | **PKPdf** | **00 50 56.8** | **-0.5** |
| PSZ | | | | *e* | | 00 51 49.2 | | |
| PSZ | | | | MLR | MLR | | | |
| | comp=Z,523nm,20.0s | | | | | | | |
| **PSZ** | **Piszkesteto** | **163.94** | **122** | *e*PKPdf | **PKPdf** | **00 50 56.8** | **-0.5** |
| PSZ | | | | *e*PKPab | **PKPab** | **00 51 49.2** | **-1.1** |
| PSZ | | | | LR | LR | | | |
| | comp=Z,523nm,20.0s | | | | | | | |
| **VOIR** | | **164.03** | **137** | ⇑*i*P | **PKPab** | **00 51 51.0** | **+0.2** |
| **VOIR** | | **164.03** | **137** | ⇑PKP2 | **PKPab** | **00 51 51.0** | **+0.2** |
| **MORC** | **Moravsky Berou** | **164.14** | **113** | ⇓*i* P | **PKPab** | **00 51 52.0** | **+0.8** |
| **MORC** | **Moravsky Berou** | **164.14** | **113** | *e*PKP2 | **PKPab** | **00 51 51.2** | **0.0** |
| **MORC** | **Moravsky Berou** | **164.14** | **113** | *e*PKPab | **PKPab** | **00 51 51.2** | **0.0** |
| **TIRR** | **Tirgusor** | **164.25** | **147** | *e*PKIKP | **PKPdf** | **00 50 56.0** | **-1.6** |
| TIRR | | | | *e* | | 00 51 48.9 | | |
| **TIRR** | **Tirgusor** | **164.25** | **147** | *e*PKPdf | **PKPdf** | **00 50 56.0** | **-1.6** |
| TIRR | | | | *e*PKPab | **PKPab** | **00 51 48.9** | **-2.7** |
| **ISR** | **Istrita** | **164.26** | **141** | ⇓*i* P | **PKPab** | **00 51 51.8** | **0.0** |
| **ISR** | **Istrita** | **164.26** | **141** | ⇓PKP2 | **PKPab** | **00 51 51.9** | **+0.1** |
| **ZEI** | **Tsey** | **164.26** | **190** | *e*PKP2 | **PKPab** | **00 51 51.0** | **-1.0** |
| ZEI | | | | pmax | pmax | | | |
| | comp=Z,14nm,1.3s | | | | | | | |
| **DRGR** | | **164.27** | **130** | ⇓*i* P | **PKPab** | **00 51 51.9** | **+0.1** |
| **DRGR** | | **164.27** | **130** | ⇓PKP2 | **PKPab** | **00 51 51.9** | **+0.1** |
| **MLR** | **Muntele Rosu** | **164.39** | **139** | ⇓*i* P | **PKPab** | **00 51 52.5** | **+0.1** |
| **MLR** | **Muntele Rosu** | **164.39** | **139** | *e*PKIKP | **PKPdf** | **00 50 57.6** | **-0.3** |
| MLR | | | | *e* | | 00 51 52.5 | | |
| **MLR** | **Muntele Rosu** | **164.39** | **139** | *e*PKPdf | **PKPdf** | **00 50 57.6** | **-0.3** |
| MLR | | | | *e*PKPab | **PKPab** | **00 51 51.4** | **-1.1** |
| MLR | | | | *e*PP | **PP** | **00 55 35.4** | **-3.4** |
| **DOPR** | **Dopca** | **164.60** | **137** | ⇓*i* P | **PKPab** | **00 51 53.8** | **+0.5** |
| **RGN** | **Rugen** | **164.61** | **93** | *e*PKPdf | **PKPdf** | **00 50 55.9** | **-1.7** |
| RGN | | | | *e*PKPab | **PKPab** | **00 51 53.0** | **-0.1** |
| **KECS** | **Kecovo** | **164.62** | **121** | *e*PKP2 | **PKPab** | **00 51 53.8** | **+0.5** |
| **KECS** | **Kecovo** | **164.62** | **121** | *e*PKP | **PKPab** | **00 51 53.8** | **+0.5** |
| **LANS** | **Liptovska Anna** | **164.63** | **118** | *e*PKP2 | **PKPab** | **00 51 54.7** | **+1.3** |
| **LANS** | **Liptovska Anna** | **164.63** | **118** | *e*PKP | **PKPab** | **00 51 54.7** | **+1.3** |
| **CFR** | **Carcaliu** | **164.82** | **145** | ⇓*i* P | **PKPab** | **00 51 54.9** | **+0.8** |
| **CFR** | **Carcaliu** | **164.82** | **145** | ⇓PKP2 | **PKPab** | **00 51 54.9** | **+0.8** |
| **NBO02** | **NORSAR Array S** | **164.92** | **67** | *e*PKPdf | **PKPdf** | **00 50 57.6** | **-0.1** |
| NBO02 | | | | *e*PKPab | **PKPab** | **00 51 55.3** | **+1.0** |
| **PLOR** | **Plostina** | **164.94** | **140** | ⇓*i* P | **PKPab** | **00 51 54.2** | **-0.6** |
| **PLOR** | **Plostina** | **164.94** | **140** | ⇓PKP2 | **PKPab** | **00 51 54.2** | **-0.6** |
| **VRI** | **Vrincioaia** | **164.98** | **140** | ⇓*i* P | **PKPab** | **00 51 54.6** | **-0.3** |
| **VRI** | **Vrincioaia** | **164.98** | **140** | ⇓PKP2 | **PKPab** | **00 51 54.6** | **-0.3** |
| **ODBI** | **Odobesti** | **165.00** | **141** | ⇑*i*P | **PKPab** | **00 51 55.7** | **+0.8** |
| **NB2** | **NORSAR Subarra** | **165.09** | **67** | P | **PKPab** | **00 51 55.7** | **+0.6** |
| | comp=Z,44nm,1.4s,baz=269,slow=4.8 | | | | | | | |
| **NB2** | **NORSAR Subarra** | **165.09** | **67** | P | **PKPab** | **00 51 55.7** | **+0.6** |
| | baz=269,slow=4.8 | | | | | | | |
| **NOA** | **NORSAR Array B** | **165.09** | **67** | PKPab | **PKPab** | **00 51 56.0** | **+0.9** |
| | comp=Z,8.2nm,1.0s,baz=267,slow=4.5,SNR=5.8 | | | | | | | |
| **NOA** | **NORSAR Array B** | **165.09** | **67** | PKP2 | **PKPab** | **00 51 56.0** | **+0.9** |
| NOA | | | | pmax | pmax | | | |
| | comp=Z,8.0nm,1.0s | | | | | | | |
| **ARCR** | **ARCALIA** | **165.16** | **133** | ⇓*i* P | **PKPab** | **00 51 55.8** | **+0.2** |
| **NIE** | **Niedzica** | **165.21** | **119** | *e*PKP | **PKPab** | **00 51 57.2** | **+1.3** |
| **NIE** | **Niedzica** | **165.21** | **119** | *e*PKP2 | **PKPab** | **00 51 57.2** | **+1.3** |
| **ABKAR** | **Akbulak array** | **165.34** | **240** | *e*PKPdf | **PKPdf** | **00 50 57.3** | **-1.1** |
| ABKAR | | | | *e*PKPab | **PKPab** | **00 51 54.7** | **-1.7** |
| **CRVS** | **Cervenica-Dubn** | **165.37** | **122** | *e*PKP2 | **PKPab** | **00 51 57.6** | **+1.0** |
| **CRVS** | **Cervenica-Dubn** | **165.37** | **122** | *e*PKP | **PKPab** | **00 51 57.6** | **+1.0** |
| **KIV** | **Kislovodsk** | **165.51** | **187** | *e*PKIKP | **PKPdf** | **00 50 57.1** | **-1.8** |
| KIV | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,1.0s | | | | | | | |
| **KIV** | **Kislovodsk** | **165.51** | **187** | PFAKE | | 00 51 10.0 | +11 | |
| KIV | | | | LR | LR | | | |
| | comp=Z,628nm,22.0s | | | | | | | |
| **TESR** | **Tescani** | **165.52** | **139** | ⇓*i* P | **PKPab** | **00 51 56.9** | **-0.3** |
| **OJC** | **Ojcow** | **165.53** | **115** | *e*PKP | **PKPab** | **00 51 58.8** | **+1.6** |
| **OJC** | **Ojcow** | **165.53** | **115** | *e*PKIKP | **PKPdf** | **00 50 58.9** | **+0.4** |
| OJC | | | | *e* | | 00 51 56.9 | | |
| **OJC** | **Ojcow** | **165.53** | **115** | *e*PKPdf | **PKPdf** | **00 50 58.9** | **+0.4** |
| OJC | | | | *e*PKPab | **PKPab** | **00 51 56.9** | **-0.3** |
| **UZH** | **Uzhgorod** | **165.53** | **124** | *e*PKIKP | **PKPdf** | **00 50 57.3** | **-1.3** |
| UZH | | | | *e* | | 00 51 56.8 | | |
| UZH | | | | *e* | | 00 55 41.6 | | |
| UZH | | | | *i* | | 00 57 54.0 | | |
| **BURAR** | **Bucovina Array** | **165.93** | **133** | ⇓*i* P | **PKPab** | **00 52 00.7** | **+1.5** |
| **BURAR** | **Bucovina Array** | **165.93** | **133** | ⇓PKP2 | **PKPab** | **00 52 00.7** | **+1.5** |
| **BUR04** | **Bucovina Ar. S** | **165.93** | **133** | *e*PKPdf | **PKPdf** | **00 50 59.5** | **+0.4** |
| BUR04 | | | | *e*PKPab | **PKPab** | **00 51 59.3** | **+0.2** |
| BUR04 | | | | *e*PP | **PP** | **00 55 45.4** | **-1.4** |
| **BUR08** | **Bucovina Ar. S** | **165.94** | **133** | *e*PKPdf | **PKPdf** | **00 50 59.2** | **+0.1** |
| BUR08 | | | | *e*PKPab | **PKPab** | **00 51 59.4** | **+0.1** |
| BUR08 | | | | *e*PP | **PP** | **00 55 44.0** | **-2.9** |
| **LEOM** | **Leova** | **166.01** | **143** | ⇑*i*P | **PKPab** | **00 52 00.0** | **+0.6** |
| **LEOM** | **Leova** | **166.01** | **143** | ⇑PKP2 | **PKPab** | **00 52 00.0** | **+0.6** |
| **PRAR** | **RASCA** | **166.09** | **136** | ⇓*i* P | **PKPab** | **00 52 00.5** | **+0.7** |
| **IAS** | **Iasi** | **166.42** | **140** | ⇓*i* P | **PKPab** | **00 52 00.8** | **-0.4** |
| **IAS** | **Iasi** | **166.42** | **140** | ⇓PKP2 | **PKPab** | **00 52 00.8** | **-0.4** |
| **KWP** | **Kalwaria Pacla** | **166.46** | **122** | PKIKP | **PKPdf** | **00 50 59.9** | **+0.6** |
| **KIS** | **Kishinev** | **166.66** | **143** | *e*PKP | **PKPab** | **00 52 02.0** | **-0.2** |
| KIS | | | | LRM | MLR | 02 05 56.0 | | |
| | comp=Z,400nm,23.0s | | | | | | | |
| **KIS** | **Kishinev** | **166.66** | **143** | *e*PKP2 | **PKPab** | **00 52 02.0** | **-0.2** |
| **ARCES** | **ARCESS Array B** | **167.07** | **24** | PKPab | **PKPab** | **00 52 01.3** | **-2.2** |
| | comp=Z,2.7nm,0.8s,baz=343,slow=2.8,SNR=5.9 | | | | | | | |
| **SORM** | **Soroca** | **167.50** | **140** | ⇑*i*P | **PKPab** | **00 52 05.5** | **-0.4** |
| **SORM** | **Soroca** | **167.50** | **140** | ⇑PKP2 | **PKPab** | **00 52 05.5** | **-0.4** |
| **KIEV** | **Kiev** | **169.96** | **135** | *e*PKIKP | **PKPdf** | **00 50 59.4** | **-2.2** |
| KIEV | | | | *e* | | 00 52 16.0 | | |
| KIEV | | | | *e* | | 00 56 03.3 | | |
| KIEV | | | | MLR | MLR | | | |
| | comp=Z,680nm,19.0s | | | | | | | |
| **KIEV** | **Kiev** | **169.96** | **135** | *e*PKPdf | **PKPdf** | **00 50 59.4** | **-2.2** |
| KIEV | | | | *e*PKPab | **PKPab** | **00 52 16.0** | **-0.7** |
| KIEV | | | | *e*PP | **PP** | **00 56 03.2** | **-3.9** |
| KIEV | | | | LR | LR | | | |
| | comp=Z,680nm,19.0s | | | | | | | |
| **AKASG** | **Malin Array Be** | **169.97** | **135** | PKP | **PKPdf** | **00 51 00.5** | **-1.1** |
| | comp=Z,0.6nm,0.6s,baz=292,slow=0.5,SNR=11 | | | | | | | |
| AKASG | | | | PKPab | **PKPab** | **00 52 15.8** | **-1.0** |
| | comp=Z,12nm,0.8s,baz=217,slow=4.0,SNR=34 | | | | | | | |
| AKASG | | | | PP | **PP** | **00 56 04.7** | **-2.5** |
| | comp=Z,0.8nm,0.6s,baz=218,slow=4.6,SNR=12 | | | | | | | |
| **ARU** | **Arti** | **170.01** | **267** | PKIKP | **PKPdf** | **00 50 57.7** | **-3.7** |
| **ARU** | **Arti** | **170.01** | **267** | PFAKE | | 00 51 10.0 | +8.6 | |
| ARU | | | | LR | LR | | | |
| | comp=Z,548nm,19.0s | | | | | | | |
| **FINES** | **FINESS Array B** | **172.17** | **61** | PKPab | **PKPab** | **00 52 26.6** | **+0.2** |
| | comp=Z,17nm,1.1s,baz=264,slow=15,SNR=6.9 | | | | | | | |
| **FIA1** | **FINESS Array S** | **172.17** | **61** | *e*PKPab | **PKPab** | **00 52 26.9** | **+0.6** |
| **OBN** | **Obninsk** | **176.13** | **145** | *e*PKIKP | **PKPdf** | **00 51 01.0** | **-2.9** |
| OBN | | | | *e* | | 00 56 34.3 | | |
| OBN | | | | *e*PPP | PPP | 01 00 50.5 | | |
| OBN | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,1.1s | | | | | | | |
| **OBN** | **Obninsk** | **176.13** | **145** | PFAKE | | 00 51 10.0 | +6.1 | |
| OBN | | | | LR | LR | | | |
| | comp=Z,626nm,20.0s | | | | | | | |
| **MOS** | **Moscow** | **176.97** | **149** | *e*PKIKP | **PKPdf** | **00 51 02.2** | **-1.9** |
| MOS | | | | *e* | | 00 52 45.9 | | |
| **KLMR** | **Klimovskoe** | **177.45** | **10** | *e*PKIKP | **PKPdf** | **00 50 58.5** | **-5.5** |
| KLMR | | | | pmax | pmax | | | |
| | comp=Z,19nm,1.5s | | | | | | | |

*CSEM **29** 00:48:16.3±0.5, 45°.74N×14°.65E, h15km, ML0.4, Error ellipse: s-maj=18.2km s-min=9.1km az=115.0*

**LJU 29 00:48:15.9, 45°.33N×14°.62E, h18km, ML0.4, Northwestern Balkan Peninsula**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GBRS** | **Gornja Briga** | **0.24** | **33** | *i* Pg | Pb | 00 48 21.9 | +0.3 |
| GBRS | | | | *i* Sg | Sb | 00 48 25.7 | +0.2 |
| | 1.0nm,0.1s | | | | | | |
| **KNDS** | **Knezji Dol** | **0.26** | **319** | *i* Pg | Pg | 00 48 21.9 | 0.0 |
| KNDS | | | | *i* Sg | Sb | 00 48 26.6 | +0.4 |
| | comp=Z,3.0nm,0.2s | | | | | | |
| **KNDS** | **Knezji Dol** | **0.26** | **319** | *i* Pg | Pg | 00 48 21.9 | 0.0 |
| KNDS | | | | *i* Sg | Sb | 00 48 26.6 | +0.4 |
| | comp=Z,2.0nm,0.2s | | | | | | |
| **VISS** | **Visnje** | **0.50** | **18** | *i* Pg | Pb | 00 48 26.1 | -0.1 |
| VISS | | | | *i* Sg | Sb | 00 48 33.6 | +0.5 |

*CSEM **29** 00:49:04.6±0.8, 49°.91N×18°.48E, h1km, Error ellipse: s-maj=14.6km s-min=7.6km az=37.0*

**PRU 29 00:49:06.4, 49°.82N×18°.40E, h0km, 4D, Czech and Slovak Republics**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **OKC** | **Ostrava-Krasne** | **0.17** | **276** | ⇓*i* PG | Pg | 00 49 09.9 | +0.4 |
| OKC | | | | *e*SG | Sg | 00 49 12.9 | +1.2 |
| | comp=Z,22nm,0.3s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **0.17** | **276** | Pg | Pg | 00 49 09.9 | +0.4 |
| OKC | | | | Sg | Sg | 00 49 12.9 | +1.2 |
| | 22nm,0.3s | | | | | | |
| **LANS** | **Liptovska Anna** | **0.97** | **133** | *e*PG | Pg | 00 49 25.4 | +0.5 |
| LANS | | | | *e*SG | Sg | 00 49 37.5 | +0.1 |
| **VRAC** | **Vranov** | **1.28** | **247** | *e*Sg | Sb | 00 49 48.1 | -0.3 |
| **VRAC** | **Vranov** | **1.28** | **247** | *e*Pg | Pg | 00 49 30.3 | -0.7 |
| **VYHS** | **Vyhne** | **1.36** | **168** | *e*Pg | Pg | 00 49 31.4 | -1.0 |
| **VYHS** | **Vyhne** | **1.36** | **168** | *e*PG | Pg | 00 49 31.4 | -1.0 |
| VYHS | | | | *e*SN | Sg | 00 49 49.9 | -0.1 |
| **DPC** | **Dobruska-Polom** | **1.44** | **292** | *e*PG | Pn | 00 49 32.3 | -1.5 |
| DPC | | | | *e*SG | Sg | 00 49 52.3 | -0.3 |
| **DPC** | **Dobruska-Polom** | **1.44** | **292** | Pg | Pn | 00 49 32.3 | -1.5 |
| DPC | | | | Sg | Sg | 00 49 52.3 | -0.3 |
| **UPC** | **Upice** | **1.68** | **295** | ⇓*e*PG | Pn | 00 49 36.5 | -0.6 |
| UPC | | | | *e*SG | Sg | 00 50 00.4 | 0.0 |
| **UPC** | **Upice** | **1.68** | **295** | Pg | Pn | 00 49 36.5 | -0.6 |
| UPC | | | | Sg | Sg | 00 50 00.4 | 0.0 |
| **PRU** | **Pruhonice** | **2.50** | **275** | ⇓*e*SG | Sg | 00 50 27.0 | +0.3 |
| **PRU** | **Pruhonice** | **2.50** | **275** | Sg | Sg | 00 50 27.0 | +0.3 |
| **KHC** | **Kasperske Hory** | **3.22** | **259** | *e*SG | Sg | 00 50 47.6 | -2.2 |
| **KHC** | **Kasperske Hory** | **3.22** | **259** | Sg | Sg | 00 50 47.6 | -2.2 |
| **VTS** | **Vitosha** | **7.96** | **153** | ⇓*i* P | Pg | 00 51 37.8 | -1.0 |

*NIED **29** 00:49:00, 36°.80N×140°.60E, h8km, Mw3.3 Best double couple: M0 9.98000×10^13 NP1:ϕs186.00000°, δ53.00000°, λ-44.00000°. NP2:ϕs306.00000°, δ56.00000°, λ-134.00000°.*

**JMA 29 00:49:47.5, 36°.84N×140°.61E, h10km±1km, M3.5, 5C-1D Broadband fault plane solution: P waves. NP1:** ϕs330.00000°, δ58.00000°, λ-106.00000°. **NP2:** ϕs179.00000°, δ36.00000°, λ-66.00000°. **Principal axes:** T Plg11.0000°, Azm72.0000°; N Plg14.0000°, Azm339.0000°; P Plg72.0000°, Azm201.0000°; **Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JHO** | **Hitachi** | **0.23** | **188** | ⇑P | Pg | 00 49 52.2 | -0.1 |
| JHO | | | | S | Sg | 00 49 55.4 | 0.0 |
| **ONAJ** | **Iwakimizuishiy** | **0.30** | **30** | ⇑P | Pg | 00 49 53.6 | 0.0 |
| ONAJ | | | | S | Sg | 00 49 57.9 | +0.2 |
| **JFK** | **Kawauchi** | **0.57** | **22** | ⇑P | Pg | 00 49 58.0 | -0.5 |
| JFK | | | | S | Sg | 00 50 05.8 | -0.2 |
| **JSB** | **Shiboa** | **0.57** | **283** | ⇑P | Pg | 00 49 59.0 | +0.5 |
| **JYT** | **Yasato** | **0.70** | **209** | ⇑P | Pg | 00 50 00.4 | -0.6 |
| JYT | | | | S | Sg | 00 50 09.7 | -0.4 |
| **JFT** | **Otama** | **0.71** | **342** | ⇓P | Pg | 00 50 01.3 | 0.0 |
| JFT | | | | S | Sg | 00 50 10.5 | -0.1 |
| **MAT** | **Matsushiro** | **1.95** | **262** | P | Pn | 00 50 21.4 | +0.7 |
| MAT | | | | S | Sb | 00 50 47.8 | +0.2 |

*IDC **29** 01:01:28.4±1.4, 4°.62S×121°.89E, h0km, mb3.9/3, mb1 4.2/4, mb1mx3.7/24, mbtmp4.0/4, ML4.6/1 Error ellipse: s-maj=305.5km s-min=21.8km az=58.0*
*ISCJB **29** 01:02:24.6±0.8, 7°.8S±0°.1×123°.54E±0°.08, h250km, mb3.5/1, Error ellipse: s-maj=17.1km s-min=11.2km az=8.5*
*DJA **29** 01:02:24.2±0.8, 8°S±10°×12°3E±°, h278km±15km, M4.0/6, mB4.8/1, mb4.0/2, MLv4.0/6, Mw(mB)4.1/1*

**ISC 29 01:02:25.3±1.3, 7°.8S±0°.1×123°.5E±0°.1, h250km, n11, σ1s07/10, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MMRI** | **Maumere** | **1.46** | **235** | P | **Pn** | **01 03 04.8** | **+1.5** |
| **EDFI** | **Ende, Flores** | **1.98** | **241** | P | **Pn** | **01 03 08.8** | **+1.1** |
| **SOEI** | **Soe** | **2.11** | **157** | P | **Pn** | **01 03 09.8** | **+0.8** |
| **BSSI** | **Bau Bau, Buton** | **3.36** | **299** | P | **Pn** | **01 03 22.4** | **+0.6** |
| **BASI** | **Baing, Sumba** | **3.72** | **229** | P | **Pn** | **01 03 26.3** | **+0.4** |
| **WBSI** | **Waikabubak, Su** | **4.41** | **245** | P | Pn | 01 03 39.4 | +5.4 |
| **PLAI** | **Plampang** | **5.70** | **259** | P | **Pn** | **01 03 48.3** | **-1.5** |
| **BNDI** | **Bandanaira** | **7.20** | **64** | P | **Pn** | **01 04 07.9** | **-0.6** |
| **WRA** | **Warramunga Arr** | **16.04** | **140** | P | **P** | **01 05 56.0** | **-0.7** |
| | 1.7nm,0.3s,baz=313,slow=13,SNR=46 | | | | | | |
| **ASAR** | **Alice Springs** | **18.70** | **149** | P | **P** | **01 06 26.1** | **+0.5** |
| | 12nm,0.6s,baz=333,slow=13,SNR=52 | | | | | | |
| **STKA** | **Stephens Creek** | **29.32** | **147** | P | **P** | **01 08 04.7** | **-0.4** |
| | 0.5nm,0.3s,baz=322,slow=12,SNR=2.9 | | | | | | |

**IDC 29 01:12:24.4±2.8, 51°.40N×95°.75E, h0km, mb1 2.8/2, mb1mx2.7/30, mbtmp2.8/2, ML1.9/2, Error ellipse: s-maj=47.1km s-min=21.0km az=11.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ZALV** | **Zalesovo Beam** | **7.12** | **295** | Pn | Pn | 01 14 10.1 | +0.3 |
| | 0.2nm,0.3s,baz=103,slow=12,SNR=3.3 | | | | | | |
| ZALV | | | | Pg | Pb | 01 14 34.3 | +5.5 |
| | 0.2nm,0.3s,baz=89,slow=15,SNR=3.8 | | | | | | |
| ZALV | | | | Lg | Lg | 01 16 04.0 | | |
| | 0.4nm,0.3s,baz=113,slow=23,SNR=6.8 | | | | | | |
| **SONM** | **Songino Array** | **7.78** | **113** | Pg | Pb | 01 14 44.9 | +4.7 |
| | 0.1nm,0.3s,baz=294,slow=19,SNR=3.0 | | | | | | |
| SONM | | | | Lg | Lg | 01 16 33.3 | | |
| | 0.4nm,0.3s,baz=301,slow=26,SNR=9.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **9.96** | **248** | Pn | Pn | 01 14 49.0 | +0.3 |
| | 0.0nm,0.3s,baz=45,slow=8.4,SNR=2.2 | | | | | | |
| MKAR | | | | Lg | Lg | 01 17 41.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **TASB** | **TASBURUN-IGDIR** | **1.42** | **30** | *e*PN | Pg | 01 30 04.0 | +1.0 |
| **TASB** | **TASBURUN-IGDIR** | **1.42** | **30** | *e*Pn | Pg | 01 30 04.0 | +1.1 |
| **SIRT** | **Sirnak** | **1.43** | **209** | *e*PN | Pg | 01 30 03.2 | +0.1 |
| **SIRT** | **Sirnak** | **1.43** | **209** | *e*Pn | Pg | 01 30 03.2 | +0.1 |
| **CUKT** | **Cukurca** | **1.53** | **171** | *e*PN | Pg | 01 30 04.8 | -0.1 |
| **CUKT** | **Cukurca** | **1.53** | **171** | *e*Pn | Pg | 01 30 04.8 | -0.2 |
| **KARS** | **Kars** | **1.88** | **355** | *e*PN | Pb | 01 30 10.6 | 0.0 |
| **KARS** | **Kars** | **1.88** | **355** | *e*Pn | Pb | 01 30 10.6 | +0.1 |
| **SENK** | **Senkaya-Erzuru** | **1.95** | **338** | *e*PN | Pb | 01 30 11.1 | -0.7 |
| **SENK** | **Senkaya-Erzuru** | **1.95** | **338** | *e*Pn | Pb | 01 30 11.1 | -0.7 |
| **BNGB** | **Bing¶‖** | **2.07** | **277** | *e*PN | Pb | 01 30 13.5 | -0.3 |
| **BINT** | **Bingol** | **2.21** | **274** | *e*Pn | Pn | 01 30 13.5 | +0.4 |
| **YEDI** | **Yedisu-Bingol** | **2.25** | **288** | *e*PN | Pb | 01 30 15.5 | -1.5 |
| **YEDI** | **Yedisu-Bingol** | **2.25** | **288** | *e*Pn | Pb | 01 30 15.5 | -1.5 |
| **MAZI** | **Mazidag** | **2.60** | **241** | *e*PN | Pb | 01 30 20.9 | -2.1 |
| **MAZI** | **Mazidag** | **2.60** | **241** | *e*Pn | Pb | 01 30 20.9 | -2.0 |
| **BAYT** | **Ayd¨–ntepe-Bay** | **2.94** | **305** | *e*PN | Pn | 01 30 25.4 | +2.1 |
| **BAYT** | **Ayd¨–ntepe-Bay** | **2.94** | **305** | *e*Pn | Pn | 01 30 25.4 | +2.1 |
| **PTK** | **Pertek** | **3.06** | **274** | *e*PN | Pn | 01 30 27.2 | +2.3 |
| **PTK** | **Pertek** | **3.06** | **274** | *e*Pn | Pn | 01 30 27.2 | +2.3 |
| **SVRC** | **Sivrice-ELAZID** | **3.16** | **264** | *e*PN | Pn | 01 30 28.5 | +2.3 |
| **SVRC** | **Sivrice-ELAZID** | **3.16** | **264** | *e*Pn | Pn | 01 30 28.5 | +2.2 |
| **URFA** | **Urfa** | **3.78** | **251** | *e*PN | Pn | 01 30 37.8 | +3.1 |
| **URFA** | **Urfa** | **3.78** | **251** | *e*Pn | Pn | 01 30 37.8 | +3.1 |

*CSEM **29** 01:54:27.7±0.4, 37.02N×21.66E, h20km, ML1.3, Error ellipse: s-maj=11.0km s-min=6.1km az=78.0*

**ATH 29 01:54:27.8, 37.04N×21.66E, h24km±1km, ML1.3/5, Error ellipse: s-maj=2.1km s-min=0.9km az=222.0, Southern Greece**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PYL** | **PYLOS** | **0.16** | **156** | P | Pb | 01 54 33.0 | +0.1 |
| PYL | | | | S | Sb | 01 54 36.0 | -0.2 |
| PYL | | | | AML | AML | 01 54 36.7 | |
| | comp=N,533μm,0.4s | | | | | | |
| PYL | | | | AML | AML | 01 54 37.0 | |
| | comp=E,559μm,0.2s | | | | | | |
| **PYL** | **PYLOS** | **0.16** | **156** | P | Pb | 01 54 33.0 | +0.1 |
| PYL | | | | S | Sb | 01 54 36.0 | -0.3 |
| **MES3** | **Kyparissia** | **0.21** | **2** | P | Pb | 01 54 33.3 | -0.2 |
| MES3 | | | | S | Sb | 01 54 37.6 | +0.2 |
| **MES3** | **Kyparissia** | **0.21** | **2** | P | Pb | 01 54 33.3 | -0.2 |
| MES3 | | | | S | Sb | 01 54 37.6 | +0.2 |
| **MES2** | **Methoni** | **0.22** | **171** | P | Pb | 01 54 34.0 | +0.4 |
| MES2 | | | | S | Sb | 01 54 37.8 | +0.3 |
| MES2 | | | | AML | AML | 01 54 38.6 | |
| | comp=E,359μm,0.1s | | | | | | |
| MES2 | | | | AML | AML | 01 54 38.7 | |
| | comp=N,618μm,0.3s | | | | | | |
| **MES2** | **Methoni** | **0.22** | **171** | P | Pb | 01 54 34.0 | +0.4 |
| MES2 | | | | S | Sb | 01 54 37.8 | +0.3 |
| **ITM** | **Ithomi** | **0.25** | **56** | P | Pb | 01 54 33.9 | -0.2 |
| ITM | | | | S | Sb | 01 54 37.9 | -0.5 |
| ITM | | | | AML | AML | 01 54 38.6 | |
| | comp=N,87μm,0.3s | | | | | | |
| ITM | | | | AML | AML | 01 54 40.0 | |
| | comp=E,75μm,0.2s | | | | | | |
| **ITM** | **Ithomi** | **0.25** | **56** | P | Pb | 01 54 33.9 | -0.2 |
| ITM | | | | S | Sb | 01 54 37.9 | -0.5 |
| **AMT** | **Artemida-Makis** | **0.49** | **4** | P | Pb | 01 54 38.3 | +0.4 |
| AMT | | | | S | Sn | 01 54 46.1 | -1.0 |
| **AMT** | **Artemida-Makis** | **0.49** | **4** | P | Pb | 01 54 38.3 | +0.4 |
| AMT | | | | S | Sn | 01 54 46.1 | -1.1 |
| **DYR** | **Agios Nikonas** | **0.60** | **117** | P | Pb | 01 54 39.9 | +0.1 |
| DYR | | | | S | Sb | 01 54 48.3 | +0.4 |
| DYR | | | | AML | AML | 01 54 51.8 | |
| | comp=N,21μm,0.2s | | | | | | |
| DYR | | | | AML | AML | 01 54 52.0 | |
| | comp=E,30μm,0.4s | | | | | | |
| **DYR** | **Agios Nikonas** | **0.60** | **117** | P | Pb | 01 54 39.8 | +0.1 |
| DYR | | | | S | Sb | 01 54 48.3 | +0.4 |
| **VLX** | **Vlachokerasia** | **0.66** | **60** | P | Pb | 01 54 41.0 | +0.2 |
| VLX | | | | S | Sn | 01 54 50.6 | -0.7 |
| VLX | | | | AML | AML | 01 54 52.4 | |
| | comp=N,32μm,0.4s | | | | | | |
| VLX | | | | AML | AML | 01 54 54.8 | |
| | comp=E,55μm,0.6s | | | | | | |
| **VLX** | **Vlachokerasia** | **0.66** | **60** | P | Pb | 01 54 41.0 | +0.3 |
| VLX | | | | S | Sn | 01 54 50.6 | -0.8 |
| **DRO** | **Drossia** | **0.91** | **2** | P | Pn | 01 54 45.2 | +0.1 |
| DRO | | | | S | Sn | 01 54 58.8 | +1.4 |
| **DRO** | **Drossia** | **0.91** | **2** | P | Pn | 01 54 45.2 | +0.1 |
| DRO | | | | S | Sn | 01 54 58.8 | +1.3 |
| **GUR** | **Goura** | **1.05** | **31** | P | Pn | 01 54 46.3 | -0.7 |
| **GUR** | **Goura** | **1.05** | **31** | P | Pn | 01 54 46.3 | -0.7 |
| **KLV** | **Kalavryta, Ach** | **1.07** | **21** | P | Pn | 01 54 47.0 | -0.3 |
| **KLV** | **Kalavryta, Ach** | **1.07** | **21** | P | Pn | 01 54 47.0 | -0.4 |
| **LAKA** | **Lakka** | **1.23** | **12** | P | Pb | 01 54 51.9 | +1.6 |
| **LAKA** | **Lakka** | **1.23** | **12** | P | Pb | 01 54 51.9 | +1.6 |
| **KALE** | **Kalithea** | **1.40** | **15** | P | Pb | 01 54 54.2 | +0.9 |
| **KALE** | **Kalithea** | **1.40** | **15** | P | Pb | 01 54 54.2 | +0.9 |

*CSEM **29** 01:55:04.5±0.1, 40.14N×24.08E, h10km, ML1.9, Error ellipse: s-maj=2.2km s-min=2.0km az=133.0*

*THE **29** 01:55:05.0, 40.15N×24.05E, h10km, ML1.9/11, Error ellipse: s-maj=1.0km s-min=0.4km az=356.0*

**ATH 29 01:55:04.2, 40.15N×24.06E, h22km±1km, ML1.9/14, Error ellipse: s-maj=1.3km s-min=0.8km az=266.0, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **OUR** | **Ouranopolis** | **0.19** | **342** | P | Pb | 01 55 09.0 | -0.6 |
| OUR | | | | S | Sb | 01 55 12.0 | -1.2 |
| OUR | | | | AML | AML | 01 55 13.2 | |
| | comp=E,4625μm,0.3s | | | | | | |
| OUR | | | | AML | AML | 01 55 13.2 | |
| | comp=N,6922μm,0.2s | | | | | | |
| **OUR** | **Ouranopolis** | **0.19** | **342** | P | Pb | 01 55 09.2 | -0.4 |
| OUR | | | | S | Sb | 01 55 12.3 | -1.0 |
| **OUR** | **Ouranopolis** | **0.19** | **342** | P | Pb | 01 55 09.2 | -0.4 |
| OUR | | | | S | Sb | 01 55 12.3 | -1.0 |
| **PAIG** | **Paliouri** | **0.37** | **233** | P | Pb | 01 55 11.9 | -0.2 |
| PAIG | | | | S | Sb | 01 55 17.2 | -0.3 |
| PAIG | | | | AML | AML | 01 55 18.0 | |
| | comp=E,467μm,0.2s | | | | | | |
| PAIG | | | | AML | AML | 01 55 19.5 | |
| | comp=N,338μm,0.2s | | | | | | |
| **PAIG** | **Paliouri** | **0.37** | **233** | P | Pb | 01 55 12.1 | 0.0 |
| PAIG | | | | S | Sb | 01 55 17.2 | -0.3 |
| **PAIG** | **Paliouri** | **0.37** | **233** | P | Pb | 01 55 12.1 | 0.0 |
| PAIG | | | | S | Sb | 01 55 17.5 | 0.0 |
| **PLG** | **Polygyros** | **0.52** | **296** | P | Pb | 01 55 15.2 | +0.3 |
| PLG | | | | S | Sb | 01 55 21.9 | 0.0 |
| PLG | | | | AML | AML | 01 55 22.8 | |
| | comp=E,317μm,0.2s | | | | | | |
| PLG | | | | AML | AML | 01 55 23.1 | |
| | comp=N,472μm,0.2s | | | | | | |
| **PLG** | **Polygyros** | **0.52** | **296** | P | Pb | 01 55 15.1 | +0.3 |
| PLG | | | | S | Sb | 01 55 22.0 | +0.1 |
| **PLG** | **Polygyros** | **0.52** | **296** | P | Pb | 01 55 15.1 | +0.3 |
| PLG | | | | S | Sb | 01 55 22.3 | +0.4 |
| **HORT** | **Hortiatis** | **0.86** | **302** | P | Pn | 01 55 21.0 | -0.1 |
| HORT | | | | S | Sn | 01 55 33.4 | +0.4 |
| HORT | | | | AML | AML | 01 55 36.7 | |
| | comp=N,286μm,0.3s | | | | | | |
| HORT | | | | AML | AML | 01 55 37.2 | |
| | comp=E,177μm,0.3s | | | | | | |
| **HORT** | **Hortiatis** | **0.86** | **302** | P | Pn | 01 55 21.1 | 0.0 |
| HORT | | | | S | Sn | 01 55 33.1 | +0.1 |
| **HORT** | **Hortiatis** | **0.86** | **302** | P | Pn | 01 55 21.1 | 0.0 |
| HORT | | | | S | Sn | 01 55 33.1 | +0.1 |
| **SOH** | **Sokhos** | **0.86** | **321** | P | Pn | 01 55 21.4 | +0.3 |
| SOH | | | | S | Sn | 01 55 33.0 | 0.0 |
| SOH | | | | AML | AML | 01 55 34.4 | |
| | comp=E,261μm,0.3s | | | | | | |
| SOH | | | | AML | AML | 01 55 37.6 | |
| | comp=N,318μm,0.4s | | | | | | |
| **SOH** | **Sokhos** | **0.86** | **321** | P | Pn | 01 55 21.4 | +0.3 |
| SOH | | | | S | Sn | 01 55 33.0 | 0.0 |
| **SOH** | **Sokhos** | **0.86** | **321** | P | Pn | 01 55 21.4 | +0.3 |
| SOH | | | | S | Sn | 01 55 33.1 | +0.1 |
| **LIA** | **Limnos Island** | **0.90** | **106** | P | Pn | 01 55 22.1 | +0.7 |
| LIA | | | | S | Sn | 01 55 34.3 | +0.6 |
| LIA | | | | AML | AML | 01 55 36.0 | |
| | comp=E,101μm,0.8s | | | | | | |
| LIA | | | | AML | AML | 01 55 36.5 | |
| | comp=N,100μm,0.3s | | | | | | |
| **LIA** | **Limnos Island** | **0.90** | **106** | P | Pn | 01 55 22.1 | +0.6 |
| LIA | | | | S | Sn | 01 55 34.3 | +0.5 |
| **LIA** | **Limnos Island** | **0.90** | **106** | P | Pn | 01 55 22.1 | +0.6 |
| LIA | | | | S | Sn | 01 55 34.9 | +1.1 |
| **KAVA** | **Kavala** | **0.91** | **22** | P | Pn | 01 55 22.5 | +0.7 |
| KAVA | | | | S | Sn | 01 55 34.6 | +0.4 |
| KAVA | | | | AML | AML | 01 55 35.6 | |
| | comp=N,207μm,0.4s | | | | | | |
| KAVA | | | | AML | AML | 01 55 36.5 | |
| | comp=E,267μm,0.3s | | | | | | |
| **KAVA** | **Kavala** | **0.91** | **22** | P | Pn | 01 55 22.5 | +0.8 |
| KAVA | | | | S | Sn | 01 55 34.6 | +0.4 |
| **KAVA** | **Kavala** | **0.91** | **22** | P | Pn | 01 55 22.3 | +0.6 |
| KAVA | | | | S | Sn | 01 55 35.3 | +1.1 |
| **THE** | **Thessaloniki** | **0.97** | **300** | P | Pn | 01 55 23.4 | +1.0 |
| THE | | | | S | Sn | 01 55 36.4 | +1.0 |
| THE | | | | AML | AML | 01 55 38.9 | |
| | comp=E,60μm,0.4s | | | | | | |
| THE | | | | AML | AML | 01 55 39.0 | |
| | comp=N,52μm,0.1s | | | | | | |
| **THE** | **Thessaloniki** | **0.97** | **300** | P | Pn | 01 55 23.4 | +1.0 |
| THE | | | | S | Sn | 01 55 36.4 | +0.9 |
| **THE** | **Thessaloniki** | **0.97** | **300** | P | Pn | 01 55 23.6 | +1.2 |
| **THE** | **Thessaloniki** | **0.97** | **300** | P | Pn | 01 55 23.6 | +1.2 |
| THE | | | | S | Sn | 01 55 36.5 | +1.0 |
| **SRS** | **Serrai** | **1.03** | **340** | P | Pb | 01 55 24.5 | +1.1 |
| SRS | | | | S | Sn | 01 55 38.3 | +1.2 |
| **SRS** | **Serrai** | **1.03** | **340** | P | Pb | 01 55 24.8 | +1.4 |
| SRS | | | | S | Sn | 01 55 38.3 | +1.2 |
| **SRS** | **Serrai** | **1.03** | **340** | P | Pb | 01 55 24.8 | +1.4 |
| SRS | | | | S | Sn | 01 55 38.9 | +1.8 |
| **XOR** | **Xorichti** | **1.03** | **221** | P | Pb | 01 55 24.4 | +1.0 |
| XOR | | | | S | Sn | 01 55 38.5 | +1.4 |
| XOR | | | | AML | AML | 01 55 39.6 | |
| | comp=E,150μm,0.4s | | | | | | |
| XOR | | | | AML | AML | 01 55 41.1 | |
| | comp=N,217μm,0.3s | | | | | | |
| **XOR** | **Xorichti** | **1.03** | **221** | P | Pb | 01 55 24.4 | +1.0 |
| XOR | | | | S | Sn | 01 55 38.5 | +1.4 |
| **XOR** | **Xorichti** | **1.03** | **221** | S | Sn | 01 55 39.1 | +2.0 |
| **XOR** | **Xorichti** | **1.03** | **221** | P | Pb | 01 55 24.4 | +1.0 |
| XOR | | | | S | Sn | 01 55 39.1 | +2.0 |
| **NEO** | **Neokhori** | **1.06** | **218** | P | Pb | 01 55 25.6 | +1.6 |
| NEO | | | | S | Sn | 01 55 39.5 | +1.6 |
| NEO | | | | AML | AML | 01 55 41.1 | |
| | comp=N,198μm,0.4s | | | | | | |
| NEO | | | | AML | AML | 01 55 42.1 | |
| | comp=E,172μm,0.4s | | | | | | |
| **NEO** | **Neokhori** | **1.06** | **218** | P | Pb | 01 55 25.0 | +1.1 |
| NEO | | | | S | Sn | 01 55 39.5 | +1.6 |
| **NEO** | **Neokhori** | **1.06** | **218** | S | Sn | 01 55 39.9 | +2.0 |
| **NEO** | **Neokhori** | **1.06** | **218** | P | Pb | 01 55 25.0 | +1.1 |
| NEO | | | | S | Sn | 01 55 39.9 | +2.0 |
| **SKIA** | **Skiathos** | **1.08** | **205** | P | Pb | 01 55 25.2 | +0.9 |
| SKIA | | | | S | Sn | 01 55 40.0 | +1.6 |
| **SKIA** | **Skiathos** | **1.08** | **205** | P | Pb | 01 55 25.2 | +0.9 |
| SKIA | | | | S | Sn | 01 55 40.0 | +1.6 |
| **SKIA** | **Skiathos** | **1.08** | **205** | P | Pb | 01 55 24.7 | +0.4 |
| **FYTO** | **Fytoko, Volos** | **1.14** | **230** | P | Pb | 01 55 26.1 | +0.9 |
| FYTO | | | | S | Sn | 01 55 42.2 | +2.5 |
| **FYTO** | **Fytoko, Volos** | **1.14** | **230** | P | Pb | 01 55 26.1 | +0.9 |
| FYTO | | | | S | Sn | 01 55 42.2 | +2.5 |
| **SMTH** | **Samothraki Isl** | **1.17** | **74** | P | Pb | 01 55 26.2 | +0.5 |
| **SMTH** | **Samothraki Isl** | **1.17** | **74** | P | Pb | 01 55 26.4 | +0.6 |
| **SMTH** | **Samothraki Isl** | **1.17** | **74** | P | Pb | 01 55 26.4 | +0.6 |
| **LIT** | **Litokhoron** | **1.21** | **268** | P | Pb | 01 55 26.7 | +0.3 |
| LIT | | | | S | Sb | 01 55 43.0 | +1.5 |
| LIT | | | | AML | AML | 01 55 46.4 | |
| | comp=E,44μm,0.3s | | | | | | |
| LIT | | | | AML | AML | 01 55 46.5 | |
| | comp=N,54μm,0.2s | | | | | | |
| **LIT** | **Litokhoron** | **1.21** | **268** | P | Pb | 01 55 26.8 | +0.4 |
| LIT | | | | S | Sb | 01 55 43.0 | +1.5 |
| **LIT** | **Litokhoron** | **1.21** | **268** | P | Pb | 01 55 26.8 | +0.4 |
| LIT | | | | S | Sb | 01 55 44.3 | +2.8 |
| **KNT** | **Kendrikon** | **1.34** | **319** | P | Pb | 01 55 30.1 | +1.4 |
| KNT | | | | S | Sb | 01 55 48.5 | +3.0 |
| KNT | | | | AML | AML | 01 55 50.2 | |
| | comp=E,48μm,0.2s | | | | | | |
| KNT | | | | AML | AML | 01 55 51.0 | |
| | comp=N,52μm,0.3s | | | | | | |
| **KNT** | **Kendrikon** | **1.34** | **319** | P | Pb | 01 55 30.1 | +1.4 |
| KNT | | | | S | Sb | 01 55 48.5 | +3.0 |
| **KNT** | **Kendrikon** | **1.34** | **319** | P | Pb | 01 55 29.4 | +0.7 |
| **KNT** | **Kendrikon** | **1.34** | **319** | P | Pb | 01 55 29.4 | +0.7 |
| **MMB** | **Musomiste** | **1.46** | **350** | *e*P | Pb | 01 55 30.8 | +0.1 |
| **GRG** | **Griva** | **1.50** | **303** | P | Pb | 01 55 32.5 | +1.1 |
| GRG | | | | S | Sb | 01 55 51.6 | +1.6 |
| GRG | | | | AML | AML | 01 55 58.6 | |
| | comp=E,57μm,0.3s | | | | | | |
| GRG | | | | AML | AML | 01 55 59.8 | |
| | comp=N,53μm,0.5s | | | | | | |
| **GRG** | **Griva** | **1.50** | **303** | P | Pb | 01 55 31.7 | +0.3 |
| GRG | | | | S | Sb | 01 55 51.6 | +1.6 |
| **GRG** | **Griva** | **1.50** | **303** | P | Pb | 01 55 31.7 | +0.3 |
| **RDO** | **Rodhopi** | **1.50** | **48** | P | Pb | 01 55 30.7 | -0.7 |
| RDO | | | | S | Sb | 01 55 52.0 | +2.0 |
| RDO | | | | AML | AML | 01 55 54.9 | |
| | comp=E,29μm,0.2s | | | | | | |
| RDO | | | | AML | AML | 01 55 55.2 | |
| | comp=N,30μm,0.2s | | | | | | |
| **RDO** | **Rodhopi** | **1.50** | **48** | P | Pb | 01 55 30.9 | -0.5 |
| RDO | | | | S | Sb | 01 55 52.0 | +2.0 |
| **RDO** | **Rodhopi** | **1.50** | **48** | P | Pb | 01 55 30.9 | -0.5 |
| **RZN** | **Rozhen** | **1.61** | **18** | *e*P | Pb | 01 55 33.0 | -0.5 |
| **THL** | **Klokotos Trika** | **1.68** | **250** | P | Pb | 01 55 33.6 | -0.9 |
| **THL** | **Klokotos Trika** | **1.68** | **250** | P | Pb | 01 55 33.6 | -0.8 |
| **ALN** | **Alexandroupoli** | **1.69** | **63** | P | Pn | 01 55 33.4 | +1.1 |
| **ALN** | **Alexandroupoli** | **1.69** | **63** | P | Pn | 01 55 33.4 | +1.1 |
| **EREA** | **Eretria** | **1.73** | **183** | P | Pn | 01 55 33.0 | 0.0 |
| **EREA** | **Eretria** | **1.73** | **183** | P | Pn | 01 55 33.0 | 0.0 |
| **KDZ** | **Kurdzhali** | **1.82** | **34** | *e*P | Pb | 01 55 36.6 | -0.2 |
| **KKB** | **Krupnik** | **1.87** | **337** | *e*P | Pb | 01 55 37.1 | -0.6 |

**WEL 29 02:00:19.4±0.6, 38.63S×175.34E, h235km±4km, ML3.9/38, 2C-6D, Error ellipse: s-maj=4.1km s-min=3.5km az=90.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **HIZ** | **Hauiti** | **0.40** | **287** | PN | Pn | 02 00 50.3 | -0.1 |
| **FWVZ** | **Far West T-bar** | **0.65** | **165** | ‖PN | Pn | 02 00 51.4 | 0.0 |
| FWVZ | | | | SN | S | 02 01 15.0 | -1.6 |
| **WNVZ** | **Wahianoa** | **0.72** | **164** | ⇑PN | Pn | 02 00 51.7 | +0.1 |
| WNVZ | | | | SN | S | 02 01 17.1 | +0.1 |
| **MOVZ** | **Moawhango** | **0.84** | **158** | ‖PN | Pn | 02 00 51.8 | -0.3 |
| MOVZ | | | | SN | S | 02 01 17.4 | -0.4 |
| **MRHZ** | **Matea Rd** | **0.87** | **104** | PN | Pn | 02 00 52.1 | -0.1 |
| MRHZ | | | | AML | AML | 02 01 21.2 | |
| MRHZ | | | | AML | AML | 02 01 21.4 | |
| **BHHZ** | **Black Hill Sta** | **1.03** | **147** | PN | Pn | 02 00 52.9 | -0.2 |
| BHHZ | | | | AML | AML | 02 01 21.9 | |
| BHHZ | | | | AML | AML | 02 01 22.1 | |
| **BKZ** | **Black Stump Fm** | **1.05** | **121** | ‖PN | Pn | 02 00 53.3 | 0.0 |
| BKZ | | | | AML | AML | 02 01 22.5 | |
| BKZ | | | | AML | AML | 02 01 22.8 | |
| **WAZ** | **Wanganui** | **1.16** | **194** | PN | Pn | 02 00 53.5 | -0.3 |
| **KWHZ** | **Kaweka Forest** | **1.16** | **134** | PN | Pn | 02 00 54.2 | +0.3 |
| KWHZ | | | | AML | AML | 02 01 24.4 | |
| KWHZ | | | | AML | AML | 02 01 26.8 | |
| **MTHZ** | **Maungataniwha** | **1.20** | **101** | ‖PN | Pn | 02 00 54.3 | +0.2 |
| **NMHZ** | **Naumai** | **1.24** | **113** | PN | Pn | 02 00 54.8 | +0.4 |
| NMHZ | | | | AML | AML | 02 01 27.1 | |
| NMHZ | | | | AML | AML | 02 01 34.0 | |
| **KRHZ** | **Kereru** | **1.29** | **142** | PN | Pn | 02 00 54.7 | -0.1 |
| KRHZ | | | | AML | AML | 02 01 25.4 | |
| KRHZ | | | | AML | AML | 02 01 25.6 | |
| **MCHZ** | **McNeill Hill** | **1.33** | **128** | PN | Pn | 02 00 55.2 | +0.1 |
| MCHZ | | | | AML | AML | 02 01 27.8 | |
| MCHZ | | | | AML | AML | 02 01 30.1 | |
| **ARHZ** | **Aropaoanui** | **1.44** | **117** | PN | Pn | 02 00 56.3 | +0.5 |
| ARHZ | | | | AML | AML | 02 01 28.5 | |
| ARHZ | | | | AML | AML | 02 01 28.5 | |
| **URZ** | **Urewera** | **1.44** | **76** | ‖PN | Pn | 02 00 55.1 | -0.8 |
| URZ | | | | AML | AML | 02 01 25.3 | |
| URZ | | | | AML | AML | 02 01 25.5 | |
| **PNHZ** | **Pukenui** | **1.45** | **153** | PN | Pn | 02 00 56.0 | +0.1 |
| PNHZ | | | | AML | AML | 02 01 27.2 | |
| PNHZ | | | | AML | AML | 02 01 27.4 | |
| **TSZ** | **Takapari Road** | **1.51** | **162** | ⇑PN | Pn | 02 00 55.8 | -0.6 |
| TSZ | | | | AML | AML | 02 01 27.2 | |
| TSZ | | | | AML | AML | 02 01 28.4 | |
| **WHHZ** | **Waihua** | **1.55** | **107** | PN | Pn | 02 00 57.0 | +0.3 |
| WHHZ | | | | AML | AML | 02 01 31.2 | |
| WHHZ | | | | AML | AML | 02 01 33.1 | |
| **SNGZ** | **Shannon Statio** | **1.57** | **96** | PN | Pn | 02 00 57.1 | +0.1 |
| SNGZ | | | | AML | AML | 02 01 29.9 | |
| SNGZ | | | | AML | AML | 02 01 31.6 | |
| **OHWZ** | **Ohakea** | **1.57** | **181** | PN | Pn | 02 00 56.6 | -0.3 |
| **KAHZ** | **Kahuranaki** | **1.67** | **135** | PN | Pn | 02 00 57.8 | +0.1 |
| KAHZ | | | | AML | AML | 02 01 34.0 | |
| **WPHZ** | **Waipukurau** | **1.67** | **150** | PN | Pn | 02 00 58.1 | +0.4 |
| WPHZ | | | | AML | AML | 02 01 30.2 | |
| WPHZ | | | | AML | AML | 02 01 34.0 | |
| **MWZ** | **Matawai** | **1.74** | **81** | ‖PN | Pn | 02 00 57.9 | -0.5 |
| MWZ | | | | AML | AML | 02 01 30.7 | |
| MWZ | | | | AML | AML | 02 01 31.0 | |
| **DVHZ** | **Dannevirke** | **1.79** | **159** | AML | AML | 02 01 30.8 | |
| DVHZ | | | | AML | AML | 02 01 31.0 | |
| **POWZ** | **Post Office Ro** | **1.79** | **169** | PN | Pn | 02 00 57.4 | -1.4 |
| POWZ | | | | AML | AML | 02 01 34.4 | |
| POWZ | | | | AML | AML | 02 01 37.0 | |
| **PXZ** | **Pawanui** | **1.83** | **140** | PN | Pn | 02 01 01.4 | +2.3 |
| PXZ | | | | AML | AML | 02 01 33.2 | |
| **KNZ** | **Kokohu** | **1.86** | **103** | PN | Pn | 02 00 59.3 | -0.1 |
| **RIGZ** | **Rimuhau** | **1.90** | **93** | PN | Pn | 02 00 59.8 | 0.0 |
| RIGZ | | | | AML | AML | 02 01 34.7 | |
| RIGZ | | | | AML | AML | 02 01 34.8 | |
| **PRHZ** | **Porangahau** | **1.92** | **149** | PN | Pn | 02 00 59.2 | -0.7 |
| PRHZ | | | | AML | AML | 02 01 34.5 | |
| PRHZ | | | | AML | AML | 02 01 35.0 | |
| **RUGZ** | **Raukumara Rang** | **1.96** | **71** | PN | Pn | 02 00 58.8 | -1.6 |
| **PRWZ** | **Pori Road** | **1.98** | **166** | PN | Pn | 02 00 59.2 | -1.3 |
| PRWZ | | | | AML | AML | 02 01 33.3 | |
| PRWZ | | | | AML | AML | 02 01 34.0 | |
| **MRZ** | **Mangatainoka R** | **2.04** | **175** | PN | Pn | 02 00 59.2 | -1.7 |
| MRZ | | | | AML | AML | 02 01 34.1 | |
| MRZ | | | | AML | AML | 02 01 34.2 | |
| **HAZ** | **Te Kaha** | **2.11** | **66** | PN | Pn | 02 01 00.5 | -1.3 |
| HAZ | | | | AML | AML | 02 01 34.8 | |
| HAZ | | | | AML | AML | 02 01 40.7 | |
| **BFZ** | **Birch Farm** | **2.17** | **161** | PN | Pn | 02 01 00.7 | -1.5 |
| **TIWZ** | **Tintock** | **2.19** | **169** | PN | Pn | 02 01 00.6 | -1.8 |
| TIWZ | | | | AML | AML | 02 01 36.1 | |
| TIWZ | | | | AML | AML | 02 01 36.4 | |
| **OGWZ** | **Otaki Gorge** | **2.19** | **183** | PN | Pn | 02 01 00.5 | -1.9 |
| OGWZ | | | | AML | AML | 02 01 34.6 | |
| OGWZ | | | | AML | AML | 02 01 35.8 | |
| **CNGZ** | **Carnagh Statio** | **2.25** | **87** | PN | Pn | 02 01 03.4 | +0.3 |
| **KIW** | **Kapiti Island** | **2.25** | **188** | PN | Pn | 02 01 00.7 | -2.4 |
| KIW | | | | AML | AML | 02 01 36.5 | |
| KIW | | | | AML | AML | 02 01 37.0 | |
| **HOWZ** | **Holdsworth Sta** | **2.27** | **177** | PN | Pn | 02 01 00.9 | -2.3 |
| HOWZ | | | | AML | AML | 02 01 35.7 | |
| HOWZ | | | | AML | AML | 02 01 37.0 | |
| **DUWZ** | **D'Urville Isla** | **2.43** | **206** | PN | Pn | 02 01 02.1 | -2.8 |
| **CAW** | **Cannon Point** | **2.48** | **185** | PN | Pn | 02 01 02.8 | -2.6 |
| CAW | | | | AML | AML | 02 01 40.4 | |
| CAW | | | | AML | AML | 02 01 42.3 | |
| **TMWZ** | **Te Maipa** | **2.51** | **170** | AML | AML | 02 01 41.6 | |
| **MTW** | **Mount Morrison** | **2.53** | **177** | PN | Pn | 02 01 03.2 | -2.6 |
| MTW | | | | AML | AML | 02 01 41.3 | |
| MTW | | | | AML | AML | 02 01 41.4 | |
| **WMGZ** | **Waiomatatini S** | **2.55** | **72** | PN | Pn | 02 01 06.1 | -0.1 |
| WMGZ | | | | AML | AML | 02 01 42.4 | |
| WMGZ | | | | AML | AML | 02 01 45.3 | |
| **TCW** | **Tory Channel** | **2.71** | **197** | PN | Pn | 02 01 04.9 | -2.9 |
| TCW | | | | AML | AML | 02 01 42.7 | |
| TCW | | | | AML | AML | 02 01 43.5 | |
| **PAWZ** | **Paruwai Farm** | **2.75** | **179** | PN | Pn | 02 01 05.4 | -2.8 |
| PAWZ | | | | AML | AML | 02 01 44.5 | |
| PAWZ | | | | AML | AML | 02 01 45.5 | |
| **TRWZ** | **Traveller** | **2.78** | **175** | PN | Pn | 02 01 06.3 | -2.2 |
| **MSWZ** | **Moikau Station** | **2.78** | **181** | PN | Pn | 02 01 05.6 | -3.0 |
| MSWZ | | | | AML | AML | 02 01 45.5 | |
| **BHW** | **Baring Head** | **2.80** | **187** | PN | Pn | 02 01 05.5 | -3.2 |
| BHW | | | | AML | AML | 02 01 46.9 | |
| **PLWZ** | **Palliser** | **2.94** | **181** | PN | Pn | 02 01 07.1 | -3.2 |
| PLWZ | | | | AML | AML | 02 01 48.4 | |
| **NNZ** | **Nelson** | **2.99** | **210** | PN | Pn | 02 01 07.2 | -3.6 |
| **TUWZ** | **Tuamarina** | **3.00** | **201** | PN | Pn | 02 01 07.8 | -3.1 |
| TUWZ | | | | AML | AML | 02 01 47.5 | |
| TUWZ | | | | AML | AML | 02 01 48.0 | |
| **QRZ** | **Quartz Range** | **3.08** | **224** | PN | Pn | 02 01 07.5 | -4.4 |
| **BSWZ** | **Blackbirch Sta** | **3.28** | **200** | PN | Pn | 02 01 10.1 | -3.3 |
| **THZ** | **Tophouse** | **3.64** | **210** | PN | Pn | 02 01 13.9 | -4.5 |
| **KHZ** | **Kahutara** | **4.02** | **199** | PN | Pn | 02 01 18.6 | -4.1 |
| **DSZ** | **Denniston Nort** | **4.12** | **220** | PN | Pn | 02 01 18.6 | -5.5 |
| **LTZ** | **Lake Taylor** | **4.76** | **208** | PN | Pn | 02 01 26.3 | -5.4 |
| **INZ** | **Inchbonnie** | **5.05** | **215** | PN | Pn | 02 01 29.1 | -6.1 |
| **OXZ** | **Oxford** | **5.32** | **207** | PN | Pn | 02 01 32.4 | -6.2 |
| **MQZ** | **McQueen's Vall** | **5.46** | **201** | PN | Pn | 02 01 34.0 | -6.4 |
| **WVZ** | **Waitaha Valley** | **5.65** | **217** | PN | Pn | 02 01 36.0 | -6.7 |
| **RPZ** | **Rata Peaks** | **6.02** | **211** | PN | Pn | 02 01 40.7 | -6.8 |
| **FOZ** | **Fox Glacier** | **6.43** | **219** | PN | Pn | 02 01 45.1 | -7.5 |
| **LBZ** | **Lake Benmore** | **6.93** | **212** | PN | Pn | 02 01 52.2 | -6.8 |
| **ODZ** | **Otahua Downs** | **7.30** | **207** | PN | Pn | 02 01 57.7 | -6.0 |
| **JCZ** | **Jackson Bay** | **7.34** | **220** | PN | Pn | 02 01 56.3 | -8.0 |

**WEL 29 02:14:59.2±0.5, 37.44S×179.83W, h33km, ML3.6/9, Error ellipse: s-maj=4.8km s-min=3.8km az=90.0, East of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WMGZ** | **Waiomatatini S** | **1.45** | **254** | PN | Pn | 02 15 22.4 | -0.6 |
| WMGZ | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **JANG** | **Nango** | **1.62** | **284** | P | **Pn** | **02 21 59.4** | **+0.2** |
| JANG | | | | *e*S | **Sn** | **02 22 18.8** | **-1.8** |
| **JOM** | **Ohasama** | **1.84** | **254** | P | **Pn** | **02 22 03.3** | **+1.1** |
| **JTM** | **Tenmabayashi** | **2.06** | **293** | P | **Pn** | **02 22 06.5** | **+1.2** |
| **JMK** | **Ichinoseki** | **2.11** | **241** | P | **Pn** | **02 22 06.3** | **+0.4** |
| JMK | | | | *e*S | **Sn** | **02 22 30.4** | **-2.3** |
| **JAH** | **Hinai** | **2.26** | **275** | P | **Pn** | **02 22 09.6** | **+1.6** |
| **JNBK** | **Urakawa-nobuka** | **2.35** | **345** | P | **Pn** | **02 22 11.1** | **+1.9** |
| JNBK | | | | *e*S | **Sn** | **02 22 39.9** | **+1.3** |
| **JRG** | **Rokugo** | **2.35** | **256** | P | **Pn** | **02 22 11.2** | **+1.9** |
| **JOT** | **Ohata** | **2.36** | **306** | P | **Pb** | **02 22 11.8** | **-1.0** |
| **JCH** | **Churui** | **2.60** | **357** | P | **Pn** | **02 22 13.3** | **+0.6** |
| JCH | | | | *e*S | **Sn** | **02 22 43.8** | **-1.1** |
| **JYK** | **Kaneyama** | **2.72** | **247** | P | **Pn** | **02 22 15.7** | **+1.4** |
| **JOU** | **Okura** | **2.80** | **235** | P | **Pn** | **02 22 16.0** | **+0.6** |
| JOU | | | | S | **Sn** | **02 22 48.8** | **-0.9** |
| **JAK** | **Akkeshi** | **3.10** | **15** | P | **Pn** | **02 22 19.3** | **-0.2** |
| JAK | | | | *e*S | **Sn** | **02 22 53.9** | **-3.2** |
| **ASAJ** | **Asahikawa** | **4.17** | **350** | Pn | **Pn** | **02 22 36.0** | **+1.9** |
| | 1.4nm,0.3s,baz=152,slow=15,SNR=3.7 | | | | | | |
| ASAJ | | | | Sn | **Sn** | **02 23 22.9** | **-0.5** |
| | 2.1nm,0.3s,baz=100,slow=19,SNR=4.2 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **5.46** | **232** | Pn | **Pn** | **02 22 53.7** | **+1.6** |
| | 1.1nm,0.3s,baz=48,slow=11,SNR=8.0 | | | | | | |
| **MAT** | **Matsushiro** | **5.46** | **232** | P | **Pn** | **02 22 53.6** | **+1.5** |
| MAT | | | | *e*S | **Sn** | **02 23 56.7** | **+1.2** |
| **SEY** | **Seymchan** | **23.55** | **10** | P | **P** | **02 26 42.1** | **+1.1** |
| | 1.4nm,0.7s,baz=219,slow=8.2,SNR=4.9 | | | | | | |
| **SONM** | **Songino Array** | **27.68** | **299** | P | **P** | **02 27 20.4** | **+1.3** |
| | 0.4nm,0.5s,baz=90,slow=9.1,SNR=4.0 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.44** | **128** | T | T | 02 57 07.8 | |
| | baz=318 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.45** | **128** | T | T | 02 57 02.3 | |
| | baz=318 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.46** | **128** | T | T | 02 57 09.4 | |
| | baz=318 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.27** | **130** | T | T | 02 58 12.0 | |
| | baz=322,slow=76,SNR=4.2 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.27** | **130** | T | T | 02 58 16.7 | |
| | baz=322,slow=76,SNR=4.8 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.29** | **130** | T | T | 02 58 13.3 | |
| | baz=322,slow=76,SNR=4.6 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.23** | **310** | P | **P** | **02 29 17.4** | **+1.7** |
| | 0.8nm,0.4s,baz=87,slow=7.4,SNR=2.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.04** | **300** | P | **P** | **02 29 39.2** | **+0.5** |
| | 0.2nm,0.6s,baz=73,slow=9.8,SNR=2.6 | | | | | | |
| **ILAR** | **Eielson Array** | **46.08** | **34** | P | **P** | **02 29 52.6** | **-2.0** |
| | 0.4nm,0.8s,baz=249,slow=6.6,SNR=3.8 | | | | | | |
| **INK** | **Inuvik** | **50.97** | **28** | P | **P** | **02 30 32.2** | **0.0** |
| | 0.4nm,0.6s,baz=297,slow=7.0,SNR=3.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **60.26** | **190** | P | **P** | **02 31 38.1** | **-1.4** |
| | 1.8nm,0.5s,baz=8.2,slow=7.0,SNR=34 | | | | | | |
| **YKA** | **Yellowknife Ar** | **60.38** | **32** | P | **P** | **02 31 39.7** | **-0.2** |
| | 0.1nm,0.6s,baz=301,slow=6.2,SNR=5.3 | | | | | | |
| **ASAR** | **Alice Springs** | **63.99** | **190** | P | **P** | **02 32 03.5** | **-1.0** |
| | 1.1nm,1.0s,baz=4.9,slow=5.3,SNR=5.7 | | | | | | |
| **TXAR** | **Lajitas Array** | **86.98** | **54** | P | **P** | **02 34 18.1** | **+1.4** |
| | 0.2nm,0.6s,baz=296,slow=4.8,SNR=2.6 | | | | | | |

*IDC **29** 02:34:56.8±2.9, 0.°88S×133.°13E, h0km, mb3.4/2, mb1 3.7/4, mb1mx3.3/40, mbtmp3.5/4, ML3.7/2, Error ellipse: s-maj=127.5km s-min=25.6km az=79.0*
*ISCJB **29** 02:34:58.7±1.3, 0.°78S±0.°09×133.°47E±0.°09, h33km, mb3.4/2, Error ellipse: s-maj=14.9km s-min=11.3km az=39.4*
*DJA **29** 02:35:00.2±0.5, 1.°5S×13.°3E±.°, h10km, M4.0/4, MLv4.0/4*
**ISC 29 02:35:01.9±1.3, 0.°8S±0.°1×133.°29E±0.°06, h35km, n7, σ1°65/10, Irian Jaya region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RKPI** | **Ransiki, Papua** | **1.12** | **127** | P | **Pn** | **02 35 21.8** | **+0.6** |
| RKPI | | | | S | **Sn** | **02 35 37.2** | **+1.8** |
| **SWI** | **Sorong** | **2.02** | **269** | P | **Pn** | **02 35 33.6** | **+0.1** |
| SWI | | | | S | **Sn** | **02 36 00.1** | **+2.5** |
| **FAKI** | **Fak Fak** | **2.33** | **206** | P | **Pn** | **02 35 37.9** | **+0.2** |
| FAKI | | | | S | **Sn** | **02 36 06.8** | **+1.7** |
| **FITZ** | **Fitzroy Crossi** | **18.74** | **203** | P | **P** | **02 39 15.8** | **-2.1** |
| | 0.2nm,0.3s,baz=18,slow=7.5,SNR=9.2 | | | | | | |
| FITZ | | | | S | Sn | 02 42 32.0 | -15 |
| | 0.1nm,0.3s,baz=22,slow=23,SNR=3.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **19.03** | **177** | P | **P** | **02 39 20.1** | **-1.0** |
| | 0.2nm,0.3s,baz=358,slow=13,SNR=11 | | | | | | |
| WRA | | | | S | Sn | 02 42 43.8 | -10 |
| | 0.1nm,0.3s,baz=11,slow=22,SNR=3.6 | | | | | | |
| **ASAR** | **Alice Springs** | **22.72** | **179** | P | **P** | **02 39 60.0** | **-0.9** |
| | 0.9nm,0.8s,baz=3.7,slow=10,SNR=9.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **65.04** | **324** | P | **P** | **02 45 38.6** | **-0.1** |
| | 0.3nm,0.6s,baz=108,slow=7.8,SNR=5.8 | | | | | | |

*CSEM **29** 03:04:13.8±0.2, 38.°71N×43.°13E, h2km, MD2.6, Error ellipse: s-maj=4.5km s-min=3.9km az=87.0*
*DDA **29** 03:04:13.7, 38.°69N×43.°16E, h7km, Ml2.8*
*ISK **29** 03:04:13.3, 38.°71N×43.°20E, h4km, MD2.6*
*ISCJB **29** 03:04:14.1±0.5, 38.°71N±0.°02×43.°14E±0.°04, h1km±8km, Error ellipse: s-maj=4.9km s-min=3.9km az=158.6*
**ISC 29 03:04:14.2±1.0, 38.°72N±0.°02×43.°15E±0.°02, h7km±10km, n34, σ0°82/52, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.23** | **122** | *e*PG | **Pg** | **03 04 19.0** | **+0.3** |
| VANB | | | | *e*SG | **Sg** | **03 04 23.2** | **+1.4** |
| **VANB** | **Van** | **0.23** | **122** | *e*Pg | **Pg** | **03 04 19.0** | **+0.3** |
| VANB | | | | *e*Sg | **Sg** | **03 04 23.2** | **+1.4** |
| **TVAN** | **Van** | **0.28** | **133** | *i* P | **Pg** | **03 04 18.7** | **-1.0** |
| TVAN | | | | *i* S | **Sg** | **03 04 23.6** | **+0.2** |
| **TVAN** | **Van** | **0.28** | **133** | P | **Pg** | **03 04 18.7** | **-1.0** |
| TVAN | | | | S | **Sg** | **03 04 23.6** | **+0.2** |
| **ERCV** | **ERCIS-VAN** | **0.34** | **26** | *e*PG | **Pg** | **03 04 20.4** | **-0.5** |
| **ERCV** | **ERCIS-VAN** | **0.34** | **26** | *e*Pg | **Pg** | **03 04 20.4** | **-0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.34** | **286** | *i* P | **Pg** | **03 04 20.9** | **-0.1** |
| ADCV | | | | *i* S | **Sb** | **03 04 27.5** | **-0.9** |
| **ADCV** | **BITLIS_Adilcev** | **0.34** | **286** | P | **Pg** | **03 04 20.9** | **-0.1** |
| ADCV | | | | S | **Sb** | **03 04 27.5** | **-0.9** |
| **GEVA** | **Gevas** | **0.41** | **190** | *i* P | **Pg** | **03 04 20.6** | **-1.6** |
| GEVA | | | | *i* S | **Sg** | **03 04 28.1** | **+0.6** |
| **GEVA** | **Gevas** | **0.41** | **190** | P | **Pg** | **03 04 20.6** | **-1.6** |
| GEVA | | | | S | **Sg** | **03 04 28.1** | **+0.6** |
| **VMUR** | **Van-Muradiye** | **0.43** | **50** | *i* P | **Pg** | **03 04 22.5** | **-0.1** |
| VMUR | | | | *i* S | **Sb** | **03 04 29.7** | **-1.2** |
| **VMUR** | **Van-Muradiye** | **0.43** | **50** | P | **Pg** | **03 04 22.5** | **-0.1** |
| VMUR | | | | S | **Sb** | **03 04 29.7** | **-1.2** |
| **TUTA** | **Tutak** | **0.73** | **339** | *i* P | **Pg** | **03 04 27.7** | **-0.6** |
| TUTA | | | | *i* S | **Sb** | **03 04 39.0** | **-0.7** |
| **TUTA** | **Tutak** | **0.73** | **339** | P | **Pg** | **03 04 27.7** | **-0.6** |
| TUTA | | | | S | **Sb** | **03 04 39.0** | **-0.7** |
| **CLDR** | **Caldiran** | **0.74** | **54** | *e*PG | **Pg** | **03 04 27.8** | **-0.6** |
| CLDR | | | | *e*SG | **Sg** | **03 04 38.0** | **0.0** |
| **CLDR** | **Caldiran** | **0.74** | **54** | *i* P | **Pg** | **03 04 27.5** | **-0.9** |
| CLDR | | | | *i* S | **Sb** | **03 04 39.5** | **-0.3** |
| **CLDR** | **Caldiran** | **0.74** | **54** | P | **Pg** | **03 04 27.5** | **-0.9** |
| **CLDR** | **Caldiran** | **0.74** | **54** | *e*Pg | **Pg** | **03 04 27.8** | **-0.6** |
| CLDR | | | | *e*Sg | **Sg** | **03 04 38.0** | **0.0** |
| CLDR | | | | S | **Sb** | **03 04 39.5** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **0.87** | **352** | *e*PG | **Pg** | **03 04 30.4** | **-0.4** |
| **AGRB** | **Hanur-Agry** | **0.87** | **352** | *e*Pg | **Pg** | **03 04 30.4** | **-0.4** |
| **DYDN** | **Diyadin** | **0.93** | **27** | *i* P | **Pn** | **03 04 34.1** | **+0.3** |
| **DYDN** | **Diyadin** | **0.93** | **27** | P | **Pn** | **03 04 34.1** | **+0.3** |
| **EKAR** | **Karacoban** | **1.00** | **303** | *i* P | **Pg** | **03 04 33.2** | **-0.2** |
| **EKAR** | **Karacoban** | **1.00** | **303** | P | **Pg** | **03 04 33.2** | **-0.2** |
| **EATA** | **Eleskirt** | **1.25** | **336** | *i* P | **Pg** | **03 04 37.1** | **-1.1** |
| EATA | | | | *i* S | **Sn** | **03 04 57.4** | **+1.8** |
| **EATA** | **Eleskirt** | **1.25** | **336** | P | **Pg** | **03 04 37.1** | **-1.1** |
| EATA | | | | S | **Sn** | **03 04 57.4** | **+1.8** |
| **SIRT** | **Sirnak** | **1.33** | **205** | *e*PN | **Pb** | **03 04 40.0** | **+0.4** |
| **SIRT** | **Sirnak** | **1.33** | **205** | *e*Pn | **Pb** | **03 04 40.0** | **+0.4** |
| **CUKT** | **Cukurca** | **1.51** | **166** | *e*PN | **Pb** | **03 04 42.3** | **-0.3** |
| **CUKT** | **Cukurca** | **1.51** | **166** | *e*Pn | **Pb** | **03 04 42.3** | **-0.3** |
| **TASB** | **TASBURUN-IGDIR** | **1.52** | **33** | *e*PN | **Pn** | **03 04 42.0** | **+0.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.52** | **33** | *e*Pn | **Pn** | **03 04 42.0** | **+0.2** |
| **DIGO** | **Kars** | **1.71** | **6** | *i* P | **Pb** | **03 04 45.4** | **-0.6** |
| **DIGO** | **Kars** | **1.71** | **6** | P | **Pb** | **03 04 45.4** | **-0.6** |

*ISCJB **29** 03:05:08.8±0.4, 4.°00N±0.°04×96.°43E±0.°04, h88km±3km, mb4.5/56, Error ellipse: s-maj=7.8km s-min=4.9km az=145.0*
*NEIC **29** 03:05:09.7±0.8, 4.°05N×96.°47E, h80km±7km, mb4.8/28,*

*Error ellipse: s-maj=8.9km s-min=5.5km az=59.0*
*IDC **29** 03:05:09.1±0.5, 4.°10N×96.°47E, h72km±4km, mb4.0/28, mb1 4.1/30, mb1mx3.9/66, mbtmp4.3/30, MS3.0/3, Ms1 3.1/3, ms1mx2.7/41, Error ellipse: s-maj=14.0km s-min=7.3km az=42.0*
*DJA **29** 03:05:09.7±0.5, 4.°N±2.°×9.°6E±.°, h54km±6km, M4.5/9, mb4.3/1, MLv4.5/9*
**ISC 29 03:05:08.7±0.5, 3.°91N±0.°03×96.°39E±0.°05, h73km±4km, n129, σ1°61/148, mb4.5/56, 7C-7D, Northern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MLSI** | **Meulaboh, Aceh** | **0.35** | **3** | P | **Pn** | **03 05 22.2** | **+1.6** |
| MLSI | | | | *e*Sn | **Sn** | **03 05 31.0** | **+1.7** |
| **TPTI** | | **1.02** | **129** | P | **Pn** | **03 05 28.8** | **+1.2** |
| TPTI | | | | S | **Sn** | **03 05 42.4** | **+0.7** |
| **LHMI** | **Lhok Sumawe** | **1.42** | **23** | P | **Pn** | **03 05 34.9** | **+2.1** |
| LHMI | | | | S | **Sn** | **03 05 53.1** | **+2.2** |
| **LHMI** | **Lhok Sumawe** | **1.42** | **23** | *e*Pn | **Pn** | **03 05 35.0** | **+2.3** |
| LHMI | | | | *e*Sn | **Sn** | **03 05 46.2** | **-4.7** |
| **KCSI** | **Kotacane, Aceh** | **1.44** | **106** | P | **Pn** | **03 05 34.7** | **+1.8** |
| KCSI | | | | S | **Sn** | **03 05 52.1** | **+0.9** |
| **SNSI** | **Sinabang, Aceh** | **1.49** | **182** | P | **Pn** | **03 05 34.6** | **+0.9** |
| SNSI | | | | S | **Sn** | **03 05 50.2** | **-2.3** |
| **TSI** | **Tuntungan** | **2.21** | **101** | P | **Pn** | **03 05 44.7** | **+1.4** |
| TSI | | | | S | **Sn** | **03 06 11.9** | **+2.2** |
| **PSI** | **Prapat** | **2.76** | **113** | P | **Pn** | **03 05 53.3** | **+2.5** |
| | 14nm,0.3s,baz=291,slow=9.3,SNR=41 | | | | | | |
| PSI | | | | S | **Sn** | **03 06 26.0** | **+2.7** |
| | 29nm,0.3s,baz=38,slow=3.3,SNR=9.7 | | | | | | |
| **GSI** | **Gunungsitoli** | **2.85** | **155** | P | **Pn** | **03 05 51.9** | **0.0** |
| **GSI** | **Gunungsitoli** | **2.85** | **155** | *e*Pn | **Pn** | **03 05 51.5** | **-0.4** |
| GSI | | | | *e*Sn | **Sn** | **03 06 23.3** | **-1.9** |
| **PKDT** | **Phuket** | **4.41** | **26** | P | **Pn** | **03 06 14.0** | **+0.8** |
| **SKLT** | **Songkhla** | **5.31** | **52** | P | **Pn** | **03 06 27.0** | **+1.4** |
| **SURT** | **Suratani** | **5.56** | **25** | P | **Pn** | **03 06 31.1** | **+2.2** |
| | 41nm,0.8s,581nm0.2nm | | | | | | |
| **PHET** | **Kaeng Krachan** | **9.50** | **20** | P | Pn | 03 07 27.1 | +4.3 |
| | 15nm,0.8s | | | | | | |
| **SRAK** | **Srakaew** | **11.48** | **29** | P | Pn | 03 07 57.4 | +7.5 |
| | 153nm,1.0s,2µm | | | | | | |
| **UTHA** | **Uthitani** | **11.96** | **14** | P | Pn | 03 08 02.6 | +6.2 |
| | 4.7nm,0.4s,126nm | | | | | | |
| **PBKT** | **Sadao Pong** | **13.36** | **19** | P | **P** | **03 08 20.0** | **-2.3** |
| | 56nm,0.6s,2µm | | | | | | |
| **KHON** | **Khomkaen** | **13.88** | **27** | P | **P** | **03 08 30.1** | **+2.1** |
| | 16nm,0.9s | | | | | | |
| **CM01** | **Chiang Mai Arr** | **14.64** | **10** | *e*Pn | **Pn** | **03 08 31.3** | **-0.8** |
| **CM31** | **Chiang Mai Arr** | **14.67** | **10** | *e*Pn | **Pn** | **03 08 30.6** | **-1.9** |
| CM31 | | | | *e*ScP | **ScP** | **03 17 09.3** | **+0.9** |
| **CMAR** | **Chiang Mai Arr** | **14.67** | **10** | P | **Pn** | **03 08 30.6** | **-1.9** |
| | baz=199,slow=13,SNR=2.6 | | | | | | |
| CMAR | | | | LR | LR | 03 14 42.8 | |
| | comp=Z,68nm,21.7s,baz=181,slow=40 | | | | | | |
| CMAR | | | | ScP | **ScP** | **03 17 09.3** | **+0.9** |
| | 0.5nm,0.3s,baz=202,slow=1.0,SNR=4.2 | | | | | | |
| **NONG** | **Nongkai** | **15.54** | **25** | P | **P** | **03 08 49.7** | **+3.1** |
| **CISI** | **Cisompet, Garu** | **16.12** | **135** | *e*Pn | **Pn** | **03 08 46.3** | **-4.8** |
| | 24nm,0.7s | | | | | | |
| **SHL** | **Shillong** | **21.96** | **349** | *e*P | **P** | **03 09 52.0** | **-4.8** |
| **LSA** | **Lhasa** | **26.13** | **350** | *e*P | **P** | **03 10 36.7** | **+0.1** |
| | 7.5nm,0.5s | | | | | | |
| **H08S2** | **Diego Garcia H** | **26.46** | **244** | T | T | 03 37 47.1 | |
| | baz=69,slow=74 | | | | | | |
| **H08S3** | **Diego Garcia H** | **26.46** | **244** | T | T | 03 37 37.8 | |
| | baz=69,slow=74 | | | | | | |
| **H08S1** | **Diego Garcia H** | **26.48** | **244** | T | T | 03 37 47.8 | |
| | baz=69 | | | | | | |
| **LUWI** | **Luwuk** | **26.82** | **100** | *e*P | **P** | **03 10 42.8** | **+0.3** |
| | 40nm,1.2s | | | | | | |
| **SSLB** | **Suanglung** | **30.87** | **48** | *e*P | **P** | **03 11 14.4** | **-4.0** |
| | 53nm,1.6s | | | | | | |
| **YULB** | **Yu-li** | **30.89** | **49** | *e*P | **P** | **03 11 18.5** | **-0.1** |
| | 94nm,1.9s | | | | | | |
| **TNTI** | **Ternate** | **31.11** | **95** | *e*P | **P** | **03 11 16.3** | **-4.2** |
| | 36nm,0.8s | | | | | | |
| **XAN** | **Xi'an** | **32.17** | **20** | P | P | 03 11 24.3 | -5.4 |
| XAN | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.9s | | | | | | |
| XAN | | | | pmax | pmax | | |
| | comp=Z,65nm,5.8s | | | | | | |
| **GTA** | **Gaotai** | **35.47** | **5** | ⇓P | **P** | **03 11 57.8** | **-0.6** |
| GTA | | | | pP | pP | 03 12 01.0 | -15 |
| GTA | | | | sP | sP | 03 12 03.8 | -21 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,12nm,0.7s | | | | | | |
| **KSH** | **Kashi** | **39.98** | **335** | *e*P | **P** | **03 12 34.3** | **-2.2** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,90nm,6.5s | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **41.62** | **153** | P | **P** | **03 12 51.5** | **+1.6** |
| | comp=Z,13nm,0.9s,baz=189,slow=9.2,SNR=4.3 | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **41.62** | **153** | *e*P | **P** | **03 12 51.5** | **+1.6** |
| | comp=Z,44nm,1.4s | | | | | | |
| **AAK** | **Ala-Archa** | **43.21** | **336** | P | **P** | **03 13 02.5** | **-0.3** |
| | comp=Z,1.3nm,0.5s,baz=224,slow=7.7,SNR=5.6 | | | | | | |
| **AAK** | **Ala-Archa** | **43.21** | **336** | *e*P | **P** | **03 13 02.5** | **-0.3** |
| | comp=Z,3.0nm,1.0s | | | | | | |
| **KS15** | **Wonju Array Si** | **44.10** | **37** | *e*P | **P** | **03 13 07.8** | **-2.1** |
| **KSAR** | **Wonju Array Be** | **44.10** | **37** | P | **P** | **03 13 07.8** | **-2.1** |
| **KSRS** | **Korea Array** | **44.13** | **37** | P | **P** | **03 13 07.8** | **-2.3** |
| | comp=Z,1.3nm,0.7s,baz=226,slow=8.9,SNR=4.3 | | | | | | |
| KSRS | | | | LR | LR | 03 34 17.6 | |
| | comp=Z,23nm,19.1s,baz=240,slow=40 | | | | | | |
| **WR1** | **Warramunga Arr** | **44.18** | **124** | *e*P | **P** | **03 13 10.8** | **0.0** |
| | comp=Z,39nm,1.8s | | | | | | |
| WR1 | | | | *e*ScP | **ScP** | **03 18 39.2** | **-1.1** |
| **WRA** | **Warramunga Arr** | **44.18** | **124** | P | **P** | **03 13 10.8** | **0.0** |
| | comp=Z,9.4nm,0.6s,baz=303,slow=9.2,SNR=68 | | | | | | |
| WRA | | | | pP | **pP** | **03 13 29.1** | **+0.3** |
| | comp=Z,9.0nm,0.7s,baz=302,slow=9.2,SNR=7.3 | | | | | | |
| WRA | | | | ScP | **ScP** | **03 18 39.2** | **-1.1** |
| | comp=Z,1.0nm,1.0s,baz=325,slow=3.8,SNR=3.4 | | | | | | |
| **WRAB** | **Tennant Creek** | **44.19** | **124** | *e*P | **P** | **03 13 10.9** | **0.0** |
| | comp=Z,44nm,1.5s | | | | | | |
| **WB2** | **Warramunga Arr** | **44.19** | **124** | *e*P | **P** | **03 13 11.2** | **+0.4** |
| | comp=Z,11nm,0.8s | | | | | | |
| **MK01** | **Makanchi Array** | **44.41** | **346** | *e*P | **P** | **03 13 10.8** | **-1.5** |
| **MK31** | **Makanchi Array** | **44.43** | **346** | *e*P | **P** | **03 13 10.9** | **-1.5** |
| **MK32** | **Makanchi Array** | **44.43** | **346** | *e*P | **P** | **03 13 11.1** | **-1.3** |
| **MKAR** | **Makanchi Array** | **44.43** | **346** | P | **P** | **03 13 11.1** | **-1.3** |
| | comp=Z,3.2nm,0.3s,baz=158,slow=9.1,SNR=51 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.43** | **346** | *e*P | **P** | **03 13 11.3** | **-1.1** |
| | comp=Z,65nm,0.3s | | | | | | |
| **MAKZ** | **Makanchi** | **44.52** | **346** | *e*P | **P** | **03 13 12.2** | **-0.9** |
| | comp=Z,7.1nm,0.4s | | | | | | |
| **SONA0** | **Songino Array** | **44.60** | **10** | *e*P | **P** | **03 13 13.4** | **-0.4** |
| SONA0 | | | | *e*PcP | **PcP** | **03 14 56.5** | **+0.8** |
| SONA0 | | | | *e*ScP | **ScP** | **03 18 40.6** | **-1.0** |
| **SONM** | **Songino Array** | **44.60** | **10** | P | **P** | **03 13 13.4** | **-0.4** |
| | comp=Z,8.2nm,0.6s,baz=190,slow=9.2,SNR=13 | | | | | | |
| SONM | | | | PcP | **PcP** | **03 14 56.5** | **+0.8** |
| | comp=Z,0.7nm,0.5s,baz=197,slow=4.1,SNR=4.5 | | | | | | |
| SONM | | | | ScP | **ScP** | **03 18 40.6** | **-1.0** |
| | comp=Z,0.5nm,0.8s,baz=199,slow=4.3,SNR=3.1 | | | | | | |
| **SONA1** | **Songino Array** | **44.61** | **10** | *e*P | **P** | **03 13 13.6** | **-0.3** |
| **ULN** | **Ulaanbaatar** | **44.74** | **10** | *e*P | **P** | **03 13 14.3** | **-0.7** |
| | comp=Z,5.1nm,0.6s | | | | | | |
| **ASAR** | **Alice Springs** | **45.69** | **129** | P | **P** | **03 13 22.9** | **+0.1** |
| | comp=Z,2.3nm,0.7s,baz=298,slow=7.7,SNR=30 | | | | | | |
| ASAR | | | | PcP | **PcP** | **03 15 00.5** | **+0.7** |
| | comp=Z,0.9nm,0.8s,baz=296,slow=3.2,SNR=4.5 | | | | | | |
| ASAR | | | | ScP | **ScP** | **03 18 46.5** | **0.0** |
| | comp=Z,0.7nm,1.0s,baz=308,slow=4.6,SNR=3.6 | | | | | | |
| **AS31** | **Alice Springs** | **45.69** | **129** | *e*P | **P** | **03 13 22.9** | **+0.1** |
| | comp=Z,0.9nm,0.8s | | | | | | |
| AS31 | | | | *e*PcP | **PcP** | **03 15 00.5** | **+0.7** |
| AS31 | | | | *e*ScP | **ScP** | **03 18 46.5** | **0.0** |
| **AS01** | **Alice Springs** | **45.73** | **129** | *e*P | **P** | **03 13 22.9** | **-0.1** |
| **FORT** | **Forrest** | **45.87** | **141** | *e*P | **P** | **03 13 25.3** | **+1.4** |
| | comp=Z,140nm,0.7s | | | | | | |
| **TLY** | **Talaya** | **47.99** | **6** | *e*P | **P** | **03 13 39.6** | **-0.6** |
| | comp=Z,6.3nm,1.0s | | | | | | |
| **GEYT** | **Alibeck** | **48.63** | **319** | P | **P** | **03 13 46.5** | **+1.1** |
| | comp=Z,5.3nm,0.6s,baz=142,slow=7.5,SNR=13 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **48.92** | **345** | P | **P** | **03 13 46.5** | **-0.8** |
| | comp=Z,2.6nm,0.5s,baz=157,slow=7.1,SNR=6.1 | | | | | | |
| **KURK** | **Kurchatov** | **48.98** | **345** | *e*P | **P** | **03 13 46.5** | **-1.3** |
| **COEN** | **Coen** | **49.69** | **112** | *e*P | **P** | **03 13 54.8** | **+1.0** |
| | comp=Z,143nm,1.9s | | | | | | |
| **MJAR** | **Matsushiro Arr** | **50.29** | **44** | LR | LR | 03 36 09.8 | |
| | comp=Z,13nm,21.8s,baz=50,slow=37 | | | | | | |
| **ZAA0** | **Zalesovo Array** | **50.77** | **351** | *e*P | **P** | **03 13 59.2** | **-2.1** |
| | comp=Z,3.8nm,0.6s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **50.77** | **351** | P | **P** | **03 13 59.9** | **-1.4** |
| | comp=Z,5.3nm,0.6s,baz=172,slow=7.6,SNR=12 | | | | | | |
| **ZAA1** | **Zalesovo Array** | **50.78** | **351** | *e*P | **P** | **03 13 59.9** | **-1.5** |
| **USRK** | **Ussuriysk Ar.** | **50.91** | **33** | P | **P** | **03 14 02.4** | **-0.2** |
| | comp=Z,1.2nm,0.7s,baz=234,slow=7.3,SNR=4.1 | | | | | | |
| **DAMY** | **Dhamar** | **52.28** | **285** | *e*P | **P** | **03 14 12.6** | **-1.0** |
| | comp=Z,28nm,1.5s | | | | | | |
| **RAYN** | **Ar Rayn** | **52.80** | **297** | *e*P | **P** | **03 14 19.4** | **+2.4** |
| | comp=Z,5.9nm,1.4s | | | | | | |
| **BVAR** | **Borovoye Array** | **53.44** | **341** | P | **P** | **03 14 20.1** | **-1.1** |
| | comp=Z,9.5nm,0.8s,baz=138,slow=9.0,SNR=24 | | | | | | |
| **BRVK** | **Borovoye** | **53.50** | **341** | *e*P | **P** | **03 14 20.5** | **-1.1** |
| | comp=Z,6.9nm,0.6s | | | | | | |
| **KLR** | **Kul'dur** | **54.23** | **28** | P | **P** | **03 14 26.1** | **-0.9** |
| | comp=Z,0.2nm,0.8s,baz=245,slow=7.4,SNR=5.5 | | | | | | |
| **ABKAR** | **Akbulak array** | **54.76** | **332** | *e*P | **P** | **03 14 30.4** | **-0.4** |
| | comp=Z,37nm,1.0s | | | | | | |
| **STKA** | **Stephens Creek** | **55.78** | **133** | P | **P** | **03 14 39.0** | **+0.5** |
| | comp=Z,2.4nm,0.7s,baz=305,slow=9.0,SNR=6.2 | | | | | | |
| **STKA** | **Stephens Creek** | **55.78** | **133** | *e*P | **P** | **03 14 39.0** | **+0.5** |
| | comp=Z,0.7nm,0.8s | | | | | | |
| **AKTO** | **Aktyubinsk** | **56.48** | **332** | P | **P** | **03 14 42.4** | **-0.7** |
| | comp=Z,1.7nm,0.5s,baz=136,slow=5.7,SNR=9.1 | | | | | | |
| **FURI** | **Furi** | **57.52** | **278** | *e*P | **P** | **03 14 50.5** | **-1.0** |
| | comp=Z,14nm,0.4s | | | | | | |
| **CAN** | **Canberra** | **62.84** | **133** | *e*P | **P** | **03 15 27.3** | **0.0** |
| | comp=Z,33nm,1.4s | | | | | | |
| **MMAI** | **Mount Meron Ar** | **63.68** | **305** | P | **P** | **03 15 33.4** | **+0.5** |
| | comp=Z,1.5nm,0.7s,baz=95,slow=10,SNR=4.4 | | | | | | |
| MMAI | | | | pP | **pP** | **03 15 53.4** | **+1.5** |
| | comp=Z,0.9nm,0.6s,baz=67,slow=6.4,SNR=2.8 | | | | | | |
| **BR101** | **Keskin Array S** | **66.70** | **312** | P | **P** | **03 15 52.5** | **+0.1** |
| **BRTR** | **Keskin Array B** | **66.70** | **312** | P | **P** | **03 15 52.5** | **+0.1** |
| | comp=Z,4.1nm,0.8s,baz=130,slow=7.3,SNR=32 | | | | | | |
| BRTR | | | | pP | **pP** | **03 16 10.8** | **-0.8** |
| | comp=Z,1.4nm,0.6s,baz=133,slow=7.5,SNR=4.4 | | | | | | |
| **ILGA** | **Ilgaz** | **67.00** | **313** | *e*P | **P** | **03 15 52.2** | **-2.2** |
| | comp=Z,6.6nm,1.2s | | | | | | |
| **BR231** | **Keskin MP Arra** | **67.38** | **312** | *e*P | **P** | **03 15 54.2** | **-2.5** |
| **TIXI** | **Tiksi** | **70.68** | **10** | P | **P** | **03 16 14.7** | **-1.6** |
| | comp=Z,4.2nm,0.6s,baz=215,slow=2.4,SNR=6.3 | | | | | | |
| **MATP** | **Matopo** | **70.81** | **247** | P | **P** | **03 16 19.8** | **+1.5** |
| | comp=Z,1.5nm,0.7s,baz=81,slow=5.3,SNR=3.5 | | | | | | |
| **TIRR** | **Tirgusor** | **71.63** | **316** | ⇓*i*P | **P** | **03 16 22.8** | **+0.2** |
| **TIRR** | **Tirgusor** | **71.63** | **316** | *e*P | **P** | **03 16 22.7** | **+0.1** |
| | comp=Z,4.1nm,0.7s | | | | | | |
| **CFR** | **Carcaliu** | **71.98** | **316** | ⇑*i*P | **P** | **03 16 25.7** | **+1.0** |
| **SORM** | **Soroca** | **72.53** | **319** | ⇑*i*P | **P** | **03 16 28.1** | **+0.2** |
| **AKASG** | **Malin Array Be** | **72.63** | **322** | P | **P** | **03 16 27.6** | **-0.9** |
| | comp=Z,1.3nm,0.4s,baz=89,slow=5.2,SNR=12 | | | | | | |
| **AKBB** | **Malin Array Si** | **72.63** | **322** | *e*P | **P** | **03 16 27.6** | **-0.9** |
| | comp=Z,27nm,1.8s | | | | | | |
| **VRI** | **Vrincioaia** | **73.09** | **317** | ⇑*i*P | **P** | **03 16 33.3** | **+2.0** |
| **PLOR** | **Plostina** | **73.14** | **317** | ⇓*i*P | **P** | **03 16 33.6** | **+1.9** |
| **TESR** | **Tescani** | **73.28** | **317** | ⇓*i*P | **P** | **03 16 34.0** | **+1.6** |
| **MLR** | **Mu

comp=Z,10.0nm,0.6s
**ZAK Zakamensk 4.93 104** *e*PN **Pb 03 07 38.7 -1.3**
ZAK *e* 03 08 43.8
ZAK pmax pmax
comp=Z,32nm,0.7s
ZAK smax smax
comp=N,124nm,1.4s
**TTS Tsetserleg 5.67 137** *e*Pg **Pb 03 07 55.4 +2.7**
TTS *e*Sg **Sg 03 09 08.9 -6.6**
comp=N,90nm,0.5s
**BLGM Bulgan 5.80 118** *e*Pg **Pb 03 07 56.4 +1.5**
BLGM *e*Sg **Sg 03 09 15.1 -4.6**
comp=N,105nm,0.6s
**ZALV Zalesovo Beam 6.99 292** Pn Pn 03 07 59.7 +3.8
comp=N,0.4nm,0.3s,baz=116,slow=11,SNR=4.7
ZALV Lg Lg 03 09 50.3
comp=N,1.7nm,0.3s,baz=114,slow=21,SNR=8.3
**OGRR Ongureny 7.40 71** *e*P **Pb** 03 08 11.5 -11
OGRR pmax pmax
comp=Z,6.0nm,0.7s
**SONM Songino Array 7.92 116** Pg **Pb 03 08 32.9 +1.9**
comp=Z,0.7nm,0.3s,baz=300,slow=18,SNR=10
SONM Lg Lg 03 10 18.6
comp=Z,1.5nm,0.3s,baz=305,slow=31,SNR=9.6
**UB1M 7.98 115** *e*Pg **Pb 03 08 33.9 +1.9**
**ALFM 8.05 114** *e*Pg **Pb 03 08 36.2 +3.0**
**SEMM 8.40 116** *e*Pg **Pb 03 08 43.0 +3.8**
**DZBM 9.90 140** *e*Sg Sn 03 11 24.1 +57
**MKAR Makanchi Array 10.14 246** Pn **Pn 03 08 41.5 +2.3**
comp=Z,0.1nm,0.3s,baz=56,slow=14,SNR=4.9
MKAR Pg 03 09 21.0
comp=Z,0.1nm,0.3s,baz=44,slow=12,SNR=4.1
MKAR Lg Lg 03 11 35.3
comp=Z,0.3nm,0.3s,baz=58,slow=27,SNR=5.4
**KURK Kurchatov 10.82 271** P Pn 03 08 54.7 +6.2
**KURBB Kurchatov Arra 10.90 271** Pn Pn 03 08 54.7 +5.2
baz=71,slow=15,SNR=1.6
KURBB Lg Lg 03 11 58.2
comp=Z,0.0nm,0.3s,baz=76,slow=34,SNR=6.0
**BVAR Borovoye Array 15.53 285** Pn **P 03 09 59.5 +2.6**
comp=Z,0.2nm,0.3s,baz=90,slow=7.6,SNR=3.0

*ISK* ***29*** *03:09:01.3,38.76N×43.06E,h5km,MD2.8*
*CSEM* ***29*** *03:09:02.8±0.2,38.75N×43.09E,h5km,ML2.7, Error ellipse: s-maj=5.8km s-min=4.5km az=77.0*
*DDA* ***29*** *03:09:02.4,38.73N×43.06E,h7km, Ml2.7*
**ISC 29 03:09:02.4±1.2, 38.76N±0.02×43.06E±0.03, h2km±11km, n26, σ0.78/44, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **ADCV** | **BITLIS_Adilcev** | **0.27** | **281** | *i* P | | **Pb** | | **03 09 08.9** | **-1.1** |
| ADCV | | | | *i* S | | **Sb** | | **03 09 14.6** | **-0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.27** | **281** | P | | **Pb** | | **03 09 08.9** | **-1.1** |
| ADCV | | | | S | | **Sb** | | **03 09 14.6** | **-0.5** |
| **VANB** | **Van** | **0.30** | **122** | *e*PG | | **Pb** | | **03 09 09.5** | **-1.1** |
| **VANB** | **Van** | **0.30** | **122** | *e*Pg | | **Pb** | | **03 09 09.5** | **-1.1** |
| **ERCV** | **ERCIS-VAN** | **0.34** | **40** | *e*PG | | **Pg** | | **03 09 09.0** | **0.0** |
| **ERCV** | **ERCIS-VAN** | **0.34** | **40** | *e*Pg | | **Pg** | | **03 09 09.0** | **0.0** |
| **TVAN** | **Van** | **0.35** | **130** | *i* P | | **Pg** | | **03 09 09.1** | **-0.2** |
| TVAN | | | | *i* S | | **Sg** | | **03 09 15.0** | **+1.1** |
| **TVAN** | **Van** | **0.35** | **130** | P | | **Pg** | | **03 09 09.1** | **-0.2** |
| TVAN | | | | S | | **Sg** | | **03 09 15.0** | **+1.1** |
| **GEVA** | **Gevas** | **0.44** | **180** | *i* P | | **Pg** | | **03 09 10.2** | **-0.8** |
| GEVA | | | | *i* S | | **Sg** | | **03 09 17.2** | **+0.5** |
| **GEVA** | **Gevas** | **0.44** | **180** | P | | **Pg** | | **03 09 10.1** | **-0.8** |
| GEVA | | | | S | | **Sg** | | **03 09 17.2** | **+0.5** |
| **VMUR** | **Van-Muradiye** | **0.46** | **60** | *i* P | | **Pg** | | **03 09 11.8** | **+0.5** |
| VMUR | | | | *i* S | | **Sb** | | **03 09 19.5** | **-1.3** |
| **VMUR** | **Van-Muradiye** | **0.46** | **60** | P | | **Pg** | | **03 09 11.8** | **+0.5** |
| VMUR | | | | S | | **Sb** | | **03 09 19.5** | **-1.3** |
| **TUTA** | **Tutak** | **0.67** | **344** | *i* P | | **Pg** | | **03 09 15.9** | **+0.6** |
| TUTA | | | | *i* S | | **Sb** | | **03 09 26.0** | **-0.9** |
| **TUTA** | **Tutak** | **0.67** | **344** | P | | **Pg** | | **03 09 15.9** | **+0.6** |
| TUTA | | | | S | | **Sb** | | **03 09 26.0** | **-0.9** |
| **CLDR** | **Caldiran** | **0.77** | **60** | *e*PG | | **Pg** | | **03 09 17.2** | **0.0** |
| CLDR | | | | *e*SG | | **Sb** | | **03 09 28.9** | **-0.8** |
| **CLDR** | **Caldiran** | **0.77** | **60** | *e*Pg | | **Pg** | | **03 09 17.2** | **0.0** |
| CLDR | | | | *e*Sg | | **Sb** | | **03 09 28.9** | **-0.8** |
| **AGRB** | **Hanur-Agry** | **0.82** | **356** | *e*PG | | **Pg** | | **03 09 18.2** | **+0.1** |
| AGRB | | | | *e*SG | | **Sb** | | **03 09 30.4** | **-0.7** |
| **AGRB** | **Hanur-Agry** | **0.82** | **356** | *e*Pg | | **Pg** | | **03 09 18.2** | **+0.1** |
| AGRB | | | | *e*Sg | | **Sb** | | **03 09 30.4** | **-0.7** |
| **EKAR** | **Karacoban** | **0.92** | **303** | *i* P | | **Pn** | | **03 09 23.6** | **+1.0** |
| **EKAR** | **Karacoban** | **0.92** | **303** | P | | **Pn** | | **03 09 23.6** | **+1.0** |
| **EATA** | **Eleskirt** | **1.19** | **338** | *i* P | | **Pg** | | **03 09 24.6** | **-0.6** |
| EATA | | | | *i* S | | **Sn** | | **03 09 43.2** | **0.0** |
| **EATA** | **Eleskirt** | **1.19** | **338** | P | | **Pg** | | **03 09 24.6** | **-0.6** |
| EATA | | | | S | | **Sn** | | **03 09 43.2** | **0.0** |
| **SIRT** | **Sirnak** | **1.34** | **201** | *e*PN | | **Pg** | | **03 09 28.1** | **0.0** |
| SIRT | | | | *e*SN | | **Sn** | | **03 09 48.0** | **+1.3** |
| **SIRT** | **Sirnak** | **1.34** | **201** | *e*Pn | | **Pg** | | **03 09 28.2** | **0.0** |
| SIRT | | | | *e*Sn | | **Sn** | | **03 09 48.0** | **+1.3** |
| **CUKT** | **Cukurca** | **1.57** | **164** | *e*PN | | **Pb** | | **03 09 31.6** | **-0.6** |
| **CUKT** | **Cukurca** | **1.57** | **164** | *e*Pn | | **Pb** | | **03 09 31.6** | **-0.6** |

**IDC 29 03:23:51.5±14.0, 49.52N×150.07E, h380km±160km, mb2.6/5, mb1 3.0/5, mb1mx2.6/45, mbtmp3.4/5, Error ellipse: s-maj=48.8km s-min=23.4km az=149.0, Northwest of Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **ILAR** | **Eielson Array** | **35.72** | **41** | P | | P | | 03 30 15.6 | +0.4 |
| | 0.2nm,0.5s,baz=259,slow=8.2,SNR=4.8 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **43.91** | **293** | P | | P | | 03 31 21.6 | -0.4 |
| | 0.3nm,0.7s,baz=48,slow=13,SNR=4.5 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **70.56** | **196** | P | | P | | 03 34 26.3 | -0.1 |
| | 0.5nm,0.7s,baz=30,slow=7.9,SNR=2.5 | | | | | | | | |
| **ASAR** | **Alice Springs** | **74.27** | **195** | P | | P | | 03 34 48.5 | +0.5 |
| | 0.2nm,0.4s,baz=16,slow=5.2,SNR=2.2 | | | | | | | | |
| **TXAR** | **Lajitas Array** | **77.86** | **59** | P | | P | | 03 35 07.8 | -0.5 |
| | 0.3nm,0.7s,baz=318,slow=4.9,SNR=4.8 | | | | | | | | |

*SCB* ***29*** *03:32:43.4±0.5, 15.33S×70.33W, h177km, Ml4.2/2, Error ellipse: s-maj=12.0km s-min=9.5km az=129.0*
*NEIC* ***29*** *03:32:44.1±0.6, 15.51S×70.37W, h169km±7km, mb4.6/66, Error ellipse: s-maj=9.7km s-min=6.8km az=84.0*
*ISCJB* ***29*** *03:32:45.1±0.4, 15.57S±0.04×70.49W±0.05, h203km±4km, mb4.3/70, Error ellipse: s-maj=7.3km s-min=6.1km az=159.3*
*IDC* ***29*** *03:32:47.5±1.0, 15.32S×70.25W, h200km±10km, mb3.7/10, mb1 3.9/13, mb1mx3.8/30, mbtmp4.2/13, MS3.2/2, Ms1 3.2/2, ms1mx2.7/28, Error ellipse: s-maj=20.5km s-min=13.2km az=44.0*
**ISC 29 03:32:45.1±0.6, 15.72S±0.05×70.61W±0.05, h199km±6km, n320, σ1.975/337, mb4.4/70, 1C, Southern Peru**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **BBOD** | **La Paz, Gloria** | **2.13** | **116** | *e*Pn | | **Pn** | | **03 33 26.8** | **+1.3** |
| BBOD | | | | *e*Sn | | **Sn** | | **03 33 57.9** | **+1.0** |
| | 870nm,0.8s | | | | | | | | |
| **BBOB** | **La Paz, Bander** | **2.42** | **100** | *e*Pn | | **Pn** | | **03 33 28.6** | **+0.1** |
| BBOB | | | | *e*Sn | | **Sn** | | **03 34 02.2** | **-0.1** |
| | 255nm,0.4s | | | | | | | | |
| **LPAZ** | **La Paz** | **2.45** | **104** | P | | **Pn** | | **03 33 29.8** | **+0.8** |
| | 58nm,0.3s,baz=293,slow=9.0,SNR=876 | | | | | | | | |
| LPAZ | | | | S | | **Sn** | | **03 34 02.5** | **-0.5** |
| | 18nm,0.3s,baz=195,slow=25,SNR=19 | | | | | | | | |
| **LPAZ** | **La Paz** | **2.45** | **104** | *e*Pn | | **Pn** | | **03 33 29.6** | **+0.6** |
| LPAZ | | | | ↑↑ *i*Sn | | **Sn** | | **03 34 02.2** | **-0.9** |
| **LPAZ** | **La Paz** | **2.45** | **104** | *e*Pn | | **Pn** | | **03 33 29.9** | **+0.8** |
| LPAZ | | | | *e*Sn | | **Sn** | | **03 34 00.2** | **-2.8** |
| **BBOJ** | **La Paz, Jacaqu** | **2.63** | **119** | *e*Pn | | **Pn** | | **03 33 32.8** | **+1.8** |
| **BBOE** | **La Paz, Chanca** | **2.74** | **114** | *e*Pn | | **Pn** | | **03 33 34.0** | **+1.7** |
| **MNMC** | **Minye Minye** | **3.52** | **164** | *e*Pn | | **Pn** | | **03 33 42.2** | **+1.0** |
| MNMC | | | | *e*Sn | | **Sn** | | **03 34 24.8** | **-0.6** |
| **PB11** | **IPOC Station P** | **4.12** | **167** | *e*Pn | | **Pn** | | **03 33 49.0** | **+0.5** |
| PB11 | | | | *e*Sn | | **Sn** | | **03 34 36.1** | **-2.3** |
| **PB01** | **IPOC Station P** | **5.40** | **169** | *e*Pn | | **Pn** | | **03 34 04.5** | **-0.2** |
| PB01 | | | | *e*Sn | | **Sn** | | **03 35 01.5** | **-6.1** |
| **PB04** | **IPOC Station P** | **6.59** | **176** | *e*Pn | | **Pn** | | **03 34 20.1** | **0.0** |
| PB04 | | | | *e*Sn | | **Sn** | | **03 35 30.6** | **-4.9** |
| **NNA** | **Nana** | **7.10** | **301** | P | | **Pn** | | **03 34 27.0** | **+0.2** |
| | 3.7nm,0.3s,baz=133,slow=10,SNR=42 | | | | | | | | |
| NNA | | | | S | | **Sn** | | **03 35 42.6** | **-4.9** |
| | 12nm,0.3s,baz=152,slow=12,SNR=4.6 | | | | | | | | |
| NNA | | | | LR | | LR | | 03 37 33.2 | |
| | comp=Z,65nm,19.8s,baz=32,slow=40 | | | | | | | | |
| **NNA** | **Nana** | **7.10** | **301** | *e*Pn | | **Pn** | | **03 34 27.3** | **+0.5** |
| NNA | | | | *e*Sn | | **Sn** | | **03 35 46.0** | **-1.4** |
| **MOCB** | **Mochara** | **7.24** | **140** | *e*P | | **Pn** | | **03 34 30.4** | **+1.5** |
| **PB10** | **IPOC Station P** | **7.75** | **180** | *e*Pn | | **Pn** | | **03 34 35.6** | **+0.6** |
| PB10 | | | | *e*Sn | | **Sn** | | **03 35 57.4** | **-5.2** |
| **SIV** | **San Ignacio** | **9.18** | **93** | P | | **Pn** | | **03 34 52.1** | **-1.7** |
| | 3.4nm,0.3s,baz=73,slow=2.3,SNR=23 | | | | | | | | |
| SIV | | | | S | | **Sn** | | **03 36 34.0** | **-2.8** |
| | 0.8nm,0.3s,baz=264,slow=10,SNR=3.0 | | | | | | | | |
| **SIV** | **San Ignacio** | **9.18** | **93** | *e*P | | Pn | | 03 34 50.1 | -3.7 |
| **SAML** | **Samuel** | **9.89** | **48** | *e*Pn | | **Pn** | | **03 35 00.9** | **-2.1** |
| **ATAH** | **Atahualpa** | **11.45** | **317** | P | | **Pn** | | **03 35 25.3** | **+1.8** |
| | 0.1nm,0.3s,baz=153,slow=16,SNR=4.1 | | | | | | | | |
| **LCO** | **Las Campanas** | **13.23** | **180** | *e*Pn | | **Pn** | | **03 35 48.6** | **+2.9** |
| LCO | | | | *e*S | | **Sn** | | **03 38 12.8** | **-0.6** |
| **CPUP** | **Villa Florida** | **16.27** | **133** | P | | **P** | | **03 36 22.2** | **+0.2** |
| | 0.3nm,0.3s,baz=313,slow=8.8,SNR=5.3 | | | | | | | | |
| **CPUP** | **Villa Florida** | **16.27** | **133** | *e*P | | **P** | | **03 36 23.0** | **+1.0** |
| | 6.6nm,1.3s | | | | | | | | |
| **OTAV** | **Otavalo** | **17.65** | **333** | *e*P | | **Pn** | | **03 36 41.2** | **+1.6** |
| **OTAV** | **Otavalo** | **17.65** | **333** | *e*P | | **Pn** | | **03 36 41.2** | **+1.6** |
| | 14nm,1.0s | | | | | | | | |
| **FLOC** | **Florencia** | **17.90** | **343** | *e*P | | **P** | | **03 36 38.1** | **-2.0** |
| **CMBC** | **Cumbal** | **18.03** | **336** | *e*P | | **Pn** | | **03 36 43.4** | **-0.7** |
| **PTGA** | **Pitinga** | **18.23** | **36** | P | | **P** | | **03 36 43.0** | **-0.6** |
| | 2.6nm,0.3s,baz=215,slow=15,SNR=18 | | | | | | | | |
| **PTGA** | **Pitinga** | **18.23** | **36** | *e*P | | **P** | | **03 36 43.3** | **-0.3** |
| | 38nm,1.3s | | | | | | | | |
| **CRUC** | **La Cruz** | **18.29** | **339** | *e*P | | **Pn** | | **03 36 49.8** | **+2.7** |
| **YOTC** | **Yotoco, Valle** | **20.39** | **343** | *e*P | | **P** | | **03 37 04.4** | **-2.5** |
| **CHIC** | **Chingaza** | **20.46** | **351** | *e*P | | **P** | | **03 37 06.8** | **-1.2** |
| **PLMC** | **San Jos˜ del** | **21.25** | **344** | *e*P | | **P** | | **03 37 13.5** | **-2.5** |
| **RUSC** | **La Rusia** | **21.61** | **353** | *e*P | | **P** | | **03 37 17.1** | **-3.2** |
| **RUSC** | **La Rusia** | **21.61** | **353** | *e*P | | **P** | | **03 37 17.9** | **-2.3** |
| | 2.4nm,0.6s | | | | | | | | |
| **HELC** | **Santa Helena** | **22.31** | **347** | *e*P | | **P** | | **03 37 24.6** | **-2.3** |
| | 7.5nm,0.7s | | | | | | | | |
| **BARC** | **Barichara** | **22.32** | **353** | *e*P | | **P** | | **03 37 21.3** | **-5.5** |
| **PTBC** | **PUERTO BERRIO,** | **22.44** | **350** | *e*P | | **P** | | **03 37 22.3** | **-5.4** |
| **ZARC** | **Zaragoza, Cauc** | **23.45** | **349** | *e*P | | **P** | | **03 37 32.5** | **-4.2** |
| **SDV** | **Santo Domingo** | **24.45** | **360** | P | | **P** | | **03 37 44.5** | **-1.6** |
| | 2.9nm,0.4s,baz=151,slow=13,SNR=5.3 | | | | | | | | |
| **SDV** | **Santo Domingo** | **24.45** | **360** | *e*P | | **P** | | **03 37 44.7** | **-1.4** |
| | 11nm,1.2s | | | | | | | | |
| **PLCA** | **Paso Flores** | **24.92** | **180** | P | | **P** | | **03 37 55.5** | **+5.6** |
| | 1.1nm,0.5s,baz=20,slow=11,SNR=10 | | | | | | | | |
| **PLCA** | **Paso Flores** | **24.92** | **180** | *e*P | | **P** | | **03 37 55.1** | **+5.2** |
| | 18nm,1.3s | | | | | | | | |
| **SVB** | **Belmont** | **30.26** | **18** | *e*P | | **P** | | **03 38 35.5** | **-2.1** |
| | 104nm,1.2s | | | | | | | | |
| **CBYP** | **Canovanas** | **34.10** | **8** | *e*P | | **P** | | **03 39 10.2** | **-0.9** |
| | 58nm,1.4s | | | | | | | | |
| **LNIG** | **Linares** | **49.21** | **325** | *e*P | | **P** | | **03 41 15.1** | **+1.6** |
| | 7.5nm,0.7s | | | | | | | | |
| **NHSC** | **New Hope** | **49.41** | **349** | *e*P | | **P** | | **03 41 14.6** | **-0.1** |
| | 89nm,1.4s | | | | | | | | |
| **ZAIG** | **Zacatecas** | **49.42** | **320** | *e*P | | **P** | | **03 41 13.5** | **-1.9** |
| | 8.4nm,1.3s | | | | | | | | |
| **347A** | **Saraland** | **49.92** | **340** | P | | **P** | | **03 41 19.2** | **+0.6** |
| | baz=157 | | | | | | | | |
| **248A** | **Dixon Mills** | **50.30** | **341** | P | | **P** | | **03 41 21.6** | **+0.1** |
| | baz=158 | | | | | | | | |
| **GOGA** | **Godfrey** | **50.38** | **346** | *e*P | | **P** | | **03 41 23.4** | **+1.4** |
| | 33nm,1.6s | | | | | | | | |
| **247A** | **Quitman** | **50.54** | **340** | P | | **P** | | **03 41 23.6** | **+0.3** |
| | baz=157 | | | | | | | | |
| **344A** | **Westbrook Farm** | **50.73** | **338** | P | | **P** | | **03 41 25.2** | **+0.5** |
| | baz=154 | | | | | | | | |
| **LRAL** | **Lakeview Retre** | **50.95** | **342** | P | | **P** | | **03 41 25.6** | **-0.7** |
| | baz=159 | | | | | | | | |
| **245A** | **Little AP, Sta** | **50.96** | **339** | P | | **P** | | **03 41 26.5** | **+0.1** |
| | baz=156 | | | | | | | | |
| **146A** | **Union** | **51.22** | **340** | P | | **P** | | **03 41 29.1** | **+0.7** |
| | baz=157 | | | | | | | | |
| **244A** | **Avery, Jackson** | **51.24** | **338** | P | | **P** | | **03 41 28.9** | **+0.3** |
| | baz=155 | | | | | | | | |
| **342A** | **Flagon Creek P** | **51.26** | **336** | P | | **P** | | **03 41 29.5** | **+0.8** |
| | baz=153 | | | | | | | | |
| **243A** | **Waterproof** | **51.39** | **337** | P | | **P** | | **03 41 29.8** | **+0.2** |
| | baz=154 | | | | | | | | |
| **Z47A** | **Carrollton** | **51.43** | **341** | P | | **P** | | **03 41 29.5** | **-0.3** |
| | baz=158 | | | | | | | | |
| **Z48A** | **Northport** | **51.44** | **342** | P | | **P** | | **03 41 29.2** | **-0.7** |
| | baz=159 | | | | | | | | |
| **145A** | **Houston Renfro** | **51.49** | **339** | P | | **P** | | **03 41 30.8** | **+0.5** |
| | baz=156 | | | | | | | | |
| **Y49A** | **Blount Mountai** | **51.55** | **343** | P | | **P** | | **03 41 29.9** | **-0.9** |
| | baz=160 | | | | | | | | |
| **341A** | **Kurthwood** | **51.56** | **335** | P | | **P** | | **03 41 32.2** | **+1.3** |
| | baz=152 | | | | | | | | |
| **Z46A** | **Louisville** | **51.70** | **340** | P | | **P** | | **03 41 32.8** | **+0.9** |
| | baz=157 | | | | | | | | |
| **242A** | **Grayson** | **51.81** | **337** | P | | **P** | | **03 41 33.6** | **+0.9** |
| | baz=153 | | | | | | | | |
| **833A** | **Chaparral WMA,** | **51.90** | **327** | P | | **P** | | **03 41 35.0** | **+1.5** |
| | baz=144,SNR=5.7 | | | | | | | | |
| **Y47A** | **UCPARC, Winfie** | **52.01** | **342** | P | | **P** | | **03 41 34.4** | **+0.2** |
| | baz=158 | | | | | | | | |
| **241A** | **Mc Tay, Goldon** | **52.07** | **336** | P | | **P** | | **03 41 35.7** | **+1.1** |
| | baz=152 | | | | | | | | |
| **142A** | **Monroe** | **52.16** | **337** | P | | **P** | | **03 41 36.0** | **+0.7** |
| | baz=153 | | | | | | | | |
| **Z44A** | **Pea Ridge, Bel** | **52.27** | **339** | P | | **P** | | **03 41 36.8** | **+0.7** |
| | baz=155 | | | | | | | | |
| **NATX** | **Nacogdoches** | **52.55** | **334** | P | | **P** | | **03 41 38.9** | **+0.7** |
| | baz=150 | | | | | | | | |
| **141A** | **Papa Simpson,** | **52.58** | **336** | P | | **P** | | **03 41 39.1** | **+0.7** |
| | baz=152 | | | | | | | | |
| **SWET** | **Sewanee** | **52.70** | **344** | *e*P | | **P** | | **03 41 38.7** | **-0.6** |
| | 44nm,1.9s | | | | | | | | |
| **140A** | **Cam and Jess,** | **52.87** | **336** | P | | **P** | | **03 41 42.3** | **+1.8** |
| | baz=152 | | | | | | | | |
| **435B** | **Jarrell** | **53.02** | **331** | P | | **P** | | **03 41 42.6** | **+1.0** |
| | baz=147 | | | | | | | | |
| **OXF** | **Oxford** | **53.06** | **341** | P | | **P** | | **03 41 42.9** | **+1.1** |
| | baz=157 | | | | | | | | |
| **Z41A** | **Richland Creek** | **53.12** | **337** | P | | **P** | | **03 41 43.5** | **+1.2** |
| | baz=153 | | | | | | | | |
| **139A** | **Bunkhouse Ranc** | **53.24** | **335** | P | | **P** | | **03 41 45.4** | **+2.3** |
| | baz=151 | | | | | | | | |
| **237A** | **Washetta, Mont** | **53.25** | **333** | P | | **P** | | **03 41 45.2** | **+2.0** |
| | baz=149 | | | | | | | | |
| **Y42A** | **Garnett, Star** | **53.26** | **338** | P | | **P** | | **03 41 44.9** | **+1.6** |
| | baz=154 | | | | | | | | |
| **Z40A** | **Long Farm, Mag** | **53.35** | **336** | P | | **P** | | **03 41 44.4** | **+0.4** |
| | baz=152 | | | | | | | | |
| **138A** | **Matatall Enter** | **53.51** | **334** | P | | **P** | | **03 41 46.9** | **+1.7** |
| | baz=150 | | | | | | | | |
| **236A** | **Katherine and** | **53.56** | **333** | P | | **P** | | **03 41 47.4** | **+1.9** |
| | baz=148 | | | | | | | | |
| **WLAR** | **White Oak Lake** | **53.62** | **337** | *e*P | | **P** | | **03 41 48.2** | **+2.3** |
| | 76nm,1.9s | | | | | | | | |
| **Z39A** | **Irene McRaven,** | **53.64** | **335** | P | | **P** | | **03 41 47.9** | **+1.8** |
| | baz=151 | | | | | | | | |
| **137A** | **Heron Place, G** | **53.74** | **334** | P | | **P** | | **03 41 48.8** | **+2.0** |
| | baz=149 | | | | | | | | |
| **JCT** | **Junction City** | **53.85** | **329** | P | | **P** | | **03 41 48.7** | **+0.9** |
| | baz=144 | | | | | | | | |
| **136A** | **Ennis** | **53.97** | **333** | P | | **P** | | **03 41 49.8** | **+1.3** |
| | baz=148 | | | | | | | | |
| **Y40A** | **Okolona** | **53.97** | **337** | P | | **P** | | **03 41 49.8** | **+1.3** |
| | baz=152 | | | | | | | | |
| **WHTX** | **Lake Whitney,** | **53.98** | **332** | P | | **P** | | **03 41 49.8** | **+1.3** |
| | baz=147 | | | | | | | | |
| **WHTX** | **Lake Whitney,** | **53.98** | **332** | *e*P | | **P** | | **03 41 50.4** | **+1.8** |
| | 9.9nm,0.6s | | | | | | | | |
| **Z38A** | **Mt. Pleasant** | **53.99** | **335** | P | | **P** | | **03 41 49.7** | **+1.1** |
| | baz=150 | | | | | | | | |
| **X41A** | **Kaden, Bauxite** | **54.11** | **338** | P | | **P** | | **03 41 50.3** | **+0.8** |
| | baz=153 | | | | | | | | |
| **Z37A** | **Pogue Cattle C** | **54.20** | **334** | P | | **P** | | **03 41 51.1** | **+0.9** |
| | baz=150 | | | | | | | | |
| **Y39A** | **Lockesburg** | **54.22** | **336** | P | | **P** | | **03 41 51.2** | **+0.9** |
| | baz=152,SNR=11 | | | | | | | | |
| **Y38A** | **Idabel** | **54.46** | **335** | P | | **P** | | **03 41 53.1** | **+1.0** |
| | baz=151 | | | | | | | | |
| **Z36A** | **Blue Ridge** | **54.60** | **333** | P | | **P** | | **03 41 54.3** | **+1.2** |
| | baz=149 | | | | | | | | |
| **X39A** | **Fountain Ranch** | **54.73** | **336** | P | | **P** | | **03 41 54.9** | **+0.9** |
| | baz=152,SNR=7.4 | | | | | | | | |
| **Y37A** | **Hugo** | **54.87** | **335** | P | | **P** | | **03 41 56.8** | **+1.9** |
| | baz=150,SNR=10 | | | | | | | | |
| **V42A** | **Cord** | **54.90** | **339** | P | | **P** | | **03 41 55.9** | **+0.8** |
| | baz=155 | | | | | | | | |
| **W40A** | **Ferguson Farm,** | **54.94** | **338** | P | | **P** | | **03 41 56.9** | **+1.5** |
| | baz=153 | | | | | | | | |
| **TXAR** | **Lajitas Array** | **55.00** | **324** | P | | **P** | | **03 41 57.5** | **+1.3** |
| | 1.6nm,0.7s,baz=151,slow=9.1,SNR=22 | | | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **55.00** | **324** | *e*P | | **P** | | **03 41 57.6** | **+1.4** |
| **Y36A** | **Durant** | **55.08** | **334** | P | | **P** | | **03 41 58.5** | **+2.0** |
| | baz=149 | | | | | | | | |
| **V41A** | **Mountainview** | **55.14** | **339** | P | | **P** | | **03 41 57.5** | **+0.6** |
| | baz=154,SNR=6.5 | | | | | | | | |
| **X38A** | **Whitesboro** | **55.15** | **336** | P | | **P** | | **03 41 58.3** | **+1.3** |
| | baz=151,SNR=9.3 | | | | | | | | |
| **W39A** | **Magazine** | **55.21** | **337** | P | | **P** | | **03 41 58.3** | **+0.9** |
| | baz=152,SNR=5.7 | | | | | | | | |
| **X37A** | **Clayton** | **55.30** | **335** | P | | **P** | | **03 41 59.2** | **+1.2** |
| | baz=150,SNR=5.0 | | | | | | | | |
| **X37A** | **Clayton** | **55.30** | **335** | *e*P | | **P** | | **03 41 59.6** | **+1.6** |
| | 54nm,1.5s | | | | | | | | |
| **U42A** | **Revenden** | **55.34** | **340** | P | | **P** | | **03 41 58.2** | **-0.1** |
| | baz=155,SNR=5.7 | | | | | | | | |
| **V40A** | **Witts Springs** | **55.40** | **338** | P | | **P** | | **03 41 59.6** | **+0.8** |
| | baz=154 | | | | | | | | |
| **Y35A** | **Marietta** | **55.41** | **333** | P | | **P** | | **03 42 00.3** | **+1.5** |
| | baz=148 | | | | | | | | |
| **PBMO** | **Poplar Bluff** | **55.47** | **341** | *e*P | | **P** | | **03 41 59.7** | **+0.6** |
| | 11nm,0.6s | | | | | | | | |
| **T44A** | **Benton** | **55.49** | **342** | P | | **P** | | **03 42 00.2** | **+0.9** |
| | baz=157 | | | | | | | | |
| **ABTX** | **Abilene, Hawle** | **55.52** | **330** | P | | **P** | | **03 42 00.2** | **+0.5** |
| | baz=145,SNR=7.0 | | | | | | | | |
| **ABTX** | **Abilene, Hawle** | **55.52** | **330** | *e*P | | **P** | | **03 42 01.3** | **+1.5** |
| | 9.5nm,0.8s | | | | | | | | |
| **U41A** | **Viola** | **55.56** | **339** | P | | **P** | | **03 41 59.7** | **-0.2** |
| | baz=155,SNR=7.0 | | | | | | | | |
| **X36A** | **Centrahoma** | **55.69** | **334** | P | | **P** | | **03 42 01.1** | **+0.3** |
| | baz=149,SNR=5.1 | | | | | | | | |
| **T43A** | **Greenville** | **55.70** | **341** | P | | **P** | | **03 42 00.6** | **-0.2** |
| | baz=157 | | | | | | | | |
| **V39A** | **Pettigrew** | **55.73** | **337** | P | | **P** | | **03 42 01.3** | **+0.1** |
| | baz=159,SNR=14 | | | | | | | | |
| **X35A** | **Drake** | **55.80** | **334** | P | | **P** | | **03 42 02.0** | **+0.4** |
| | baz=149 | | | | | | | | |
| **X35A** | **Drake** | **55.80** | **334** | *e*P | | **P** | | **03 42 02.7** | **+1.1** |
| | 10.0nm,1.1s | | | | | | | | |
| **U40A** | **Yellville** | **55.90** | **338** | P | | **P** | | **03 42 01.6** | **-0.7** |
| | baz=154 | | | | | | | | |
| **S44A** | **Carbondale** | **55.95** | **342** | P | | **P** | | **03 42 02.5** | **-0.1** |
| | baz=158,SNR=7.2 | | | | | | | | |
| **SIUC** | **Southern Illin** | **55.96** | **342** | *e*P | | **P** | | **03 42 02.7** | **0.0** |
| | 15nm,0.6s | | | | | | | | |
| **V38A** | **Canehill** | **56.03** | **337** | P | | **P** | | **03 42 03.6** | **+0.3** |
| | baz=152,SNR=7.9 | | | | | | | | |
| **W36A** | **Wetumka** | **56.12** | **335** | P | | **P** | | **03 42 04.3** | **+0.4** |
| | baz=150,SNR=9.7 | | | | | | | | |
| **W36A** | **Wetumka** | **56.12** | **335** | *e*P | | **P** | | **03 42 04.7** | **+0.8** |
| | 20nm,0.8s | | | | | | | | |
| **U39A** | **Green Forest** | **56.15** | **338** | P | | **P** | | **03 42 04.9** | **+0.8** |
| | baz=153 | | | | | | | | |
| **V37A** | **Hulbert** | **56.34** | **336** | P | | **P** | | **03 42 06.1** | **+0.7** |
| | baz=151,SNR=5.6 | | | | | | | | |
| **W35A** | **Tecumseh** | **56.40** | **334** | P | | **P** | | **03 42 05.8** | **-0.1** |
| | baz=149 | | | | | | | | |
| **W35A** | **Tecumseh** | **56.40** | **334** | *e*P | | **P** | | **03 42 06.5** | **+0.6** |
| | 63nm,1.8s | | | | | | | | |
| **S42A** | **Caledonia** | **56.49** | **341** | P | | **P** | | **03 42 06.2** | **-0.3** |
| | baz=156 | | | | | | | | |
| **T40A** | **Mansfield** | **56.50** | **339** | P | | **P** | | **03 42 06.7** | **+0.2** |
| | baz=154 | | | | | | | | |
| **V36A** | **Jenks** | **56.57** | **335** | P | | **P** | | **03 42 07.6** | **+0.6** |
| | baz=150,SNR=7.4 | | | | | | | | |
| **V36A** | **Jenks** | **56.57** | **335** | *e*P | | **P** | | **03 42 08.1** | **+1.1** |
| | 30nm,1.0s | | | | | | | | |
| **FVM** | **French Village** | **56.57** | **341** | *e*P | | **P** | | **03 42 07.8** | **+0.8** |
| | 16nm,0.7s | | | | | | | | |
| **TUL1** | **Leonard** | **56.62** | **336** | P | | **P** | | **03 42 07.5** | **+0.2** |
| | baz=150 | | | | | | | | |
| **S41A** | **Jillco Farms,** | **56.63** | **340** | P | | **P** | | **03 42 07.4** | **0.0** |
| | baz=155 | | | | | | | | |
| **OK022** | **N3560 Road, Pr** | **56.65** | **335** | *e*P | | **P** | | **03 42 08.9** | **+1.3** |
| | 34nm,1.3s | | | | | | | | |
| **T39A** | **Clever** | **56.69** | **338** | P | | **P** | | **03 42 08.5** | **+0.6** |
| | baz=153 | | | | | | | | |
| **R43A** | **Red Bud** | **56.69** | **342** | P | | **P** | | **03 42 08.3** | **+0.5** |
| | baz=157 | | | | | | | | |
| **OK021** | **N3530 Road, Sp** | **56.73** | **335** | *e*P | | **P** | | **03 42 09.0** | **+0.9** |
| | 19nm,1.1s | | | | | | | | |
| **OK020** | **N3440 Road, Me** | **56.73** | **334** | *e*P | | **P** | | **03 42 08.9** | **+0.7** |
| | 63nm,1.8s | | | | | | | | |
| **U37A** | **Salina** | **56.78** | **336** | P | | **P** | | **03 42 09.2** | **+0.6** |
| | baz=151 | | | | | | | | |
| **CCM** | **Cathedral

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 12nm,0.6s | | | | | | | |
| 121A | **Cookes Peak, D** | 59.73 | 324 | P | P | 03 42 30.2 | +1.0 | |
| | baz=137 | | | | | | | |
| P34A | **Walnut Farm, R** | 60.18 | 337 | P | P | 03 42 32.6 | +0.6 | |
| | baz=150,SNR=11 | | | | | | | |
| N37A | **Lee Faris, Mou** | 60.31 | 340 | P | P | 03 42 32.8 | 0.0 | |
| | baz=153 | | | | | | | |
| N36A | **Muff Farm, Cla** | 60.62 | 339 | P | P | 03 42 35.6 | +0.7 | |
| | baz=153 | | | | | | | |
| O34A | **Beatrice** | 60.69 | 337 | P | P | 03 42 36.0 | +0.7 | |
| | baz=151 | | | | | | | |
| CBKS | **Cedar Bluff** | 60.72 | 334 | *e*P | P | 03 42 37.3 | +1.6 | |
| | baz=147,SNR=5.1 | | | | | | | |
| CBKS | **Cedar Bluff** | 60.72 | 334 | *e*P | P | 03 42 37.3 | +1.6 | |
| | 26nm,1.0s | | | | | | | |
| ANMO | **Albuquerque** | 60.81 | 327 | P | P | 03 42 37.8 | +1.2 | |
| | baz=140 | | | | | | | |
| ANMO | **Albuquerque** | 60.81 | 327 | *e*P | P | 03 42 38.3 | +1.8 | |
| | 2.5nm,0.8s | | | | | | | |
| N35A | **Tabor** | 60.90 | 338 | P | P | 03 42 37.3 | +0.5 | |
| | baz=152 | | | | | | | |
| O33A | **Hebron** | 60.93 | 337 | P | P | 03 42 38.1 | +1.1 | |
| | baz=150,SNR=5.5 | | | | | | | |
| M36A | **Felix, Anita** | 61.14 | 339 | P | P | 03 42 38.2 | -0.2 | |
| | baz=153 | | | | | | | |
| N34A | **Lincoln** | 61.19 | 338 | P | P | 03 42 38.7 | 0.0 | |
| | baz=151 | | | | | | | |
| N33A | **J Bar K, Exete** | 61.45 | 337 | P | P | 03 42 41.2 | +0.7 | |
| | baz=150 | | | | | | | |
| M35A | **Neola** | 61.45 | 339 | P | P | 03 42 40.7 | +0.3 | |
| | baz=152 | | | | | | | |
| M34A | **Aspy Farms, Fr** | 61.80 | 338 | P | P | 03 42 43.7 | +0.9 | |
| | baz=151 | | | | | | | |
| J39A | **Decorah** | 61.87 | 343 | P | P | 03 42 43.1 | -0.2 | |
| | baz=157 | | | | | | | |
| L35A | **Bielow Farm, R** | 61.98 | 339 | P | P | 03 42 44.1 | +0.2 | |
| | baz=152,SNR=7.6 | | | | | | | |
| K36A | **Gilmore City** | 62.08 | 340 | P | P | 03 42 44.9 | +0.3 | |
| | baz=154 | | | | | | | |
| J38A | **Wedel Dairy, R** | 62.08 | 342 | P | P | 03 42 46.3 | +1.7 | |
| | baz=156 | | | | | | | |
| L34A | **Svendsen Farm,** | 62.13 | 338 | P | P | 03 42 45.7 | +0.7 | |
| | baz=152 | | | | | | | |
| KSCO | **Kaye Shedlock'** | 62.14 | 332 | P | P | 03 42 46.2 | +0.9 | |
| | baz=144 | | | | | | | |
| BGNE | **Belgrade** | 62.30 | 337 | P | P | 03 42 47.5 | +1.4 | |
| | baz=150 | | | | | | | |
| BGNE | **Belgrade** | 62.30 | 337 | *e*P | P | 03 42 47.2 | +1.1 | |
| | 41nm,0.7s | | | | | | | |
| 214A | **Organ Pipe Nat** | 62.32 | 320 | P | P | 03 42 47.8 | +1.3 | |
| | baz=133 | | | | | | | |
| SDCO | **Great Sand Dun** | 62.48 | 329 | P | P | 03 42 49.5 | +1.8 | |
| | baz=141,SNR=8.4 | | | | | | | |
| SDCO | **Great Sand Dun** | 62.48 | 329 | *e*P | P | 03 42 49.8 | +2.1 | |
| | 4.8nm,0.8s | | | | | | | |
| I38A | **Scanlan Farm,** | 62.70 | 343 | P | P | 03 42 49.2 | +0.5 | |
| | baz=156 | | | | | | | |
| L32A | **Elgin** | 62.76 | 337 | P | P | 03 42 49.9 | +0.7 | |
| | baz=150 | | | | | | | |
| S22A | **4UR Ranch, Cre** | 63.15 | 328 | P | P | 03 42 52.9 | +0.7 | |
| | baz=140 | | | | | | | |
| S22A | **4UR Ranch, Cre** | 63.15 | 328 | *e*P | P | 03 42 54.1 | +2.0 | |
| | 12nm,2.0s | | | | | | | |
| X16A | **Lo Mia Camp, P** | 63.20 | 323 | *e*P | P | 03 42 55.2 | +2.7 | |
| | 2.9nm,0.8s | | | | | | | |
| Q24A | **Divide** | 63.27 | 330 | P | P | 03 42 54.8 | +1.9 | |
| | baz=142 | | | | | | | |
| J33A | **Davis** | 63.53 | 339 | P | P | 03 42 54.5 | +0.3 | |
| | baz=151,SNR=9.5 | | | | | | | |
| K31A | **O'Neill** | 63.57 | 337 | P | P | 03 42 55.7 | +1.2 | |
| | baz=149 | | | | | | | |
| ECSD | **EROS Data Cent** | 63.77 | 339 | P | P | 03 42 56.2 | +0.4 | |
| | baz=152,SNR=7.4 | | | | | | | |
| ECSD | **EROS Data Cent** | 63.77 | 339 | *e*P | P | 03 42 56.1 | +0.4 | |
| | 15nm,1.3s | | | | | | | |
| I34A | **Hadley** | 63.79 | 340 | P | P | 03 42 56.6 | +0.7 | |
| | baz=152 | | | | | | | |
| J32A | **Parkston** | 63.89 | 338 | P | P | 03 42 57.0 | +0.4 | |
| | baz=150,SNR=6.6 | | | | | | | |
| WUAZ | **Wupatki** | 63.94 | 324 | P | P | 03 42 59.2 | +1.9 | |
| | baz=135 | | | | | | | |
| WUAZ | **Wupatki** | 63.94 | 324 | *e*P | P | 03 43 00.1 | +2.8 | |
| | 3.4nm,0.8s | | | | | | | |
| H35A | **Sunnyside Ranc** | 64.05 | 341 | P | P | 03 42 57.4 | -0.1 | |
| | baz=154 | | | | | | | |
| I33A | **Coleman** | 64.11 | 339 | P | P | 03 42 58.3 | +0.3 | |
| | baz=152 | | | | | | | |
| J31A | **Geddes** | 64.14 | 338 | P | P | 03 42 58.5 | +0.3 | |
| | baz=150 | | | | | | | |
| ISCO | **Idaho Springs** | 64.15 | 331 | P | P | 03 43 00.3 | +1.6 | |
| | baz=142 | | | | | | | |
| SMCO | **Snowmass** | 64.32 | 329 | *e*P | P | 03 43 02.2 | +2.3 | |
| | 5.7nm,1.0s | | | | | | | |
| H34A | **Spellman Lake,** | 64.32 | 340 | P | P | 03 43 00.3 | +1.0 | |
| | baz=153 | | | | | | | |
| I32A | **Karley and Nic** | 64.33 | 339 | P | P | 03 43 00.6 | +1.2 | |
| | baz=151 | | | | | | | |
| F37A | **Hinrichs Farm,** | 64.33 | 343 | P | P | 03 43 00.8 | +1.5 | |
| | baz=156 | | | | | | | |
| G35A | **Watkins** | 64.41 | 342 | P | P | 03 43 01.3 | +1.5 | |
| | baz=154 | | | | | | | |
| H33A | **Prehn Over Nor** | 64.65 | 340 | P | P | 03 43 02.5 | +1.0 | |
| | baz=152,SNR=5.1 | | | | | | | |
| I31A | **Royce, Wessing** | 64.71 | 338 | P | P | 03 43 03.0 | +1.2 | |
| | baz=150 | | | | | | | |
| H32A | **Carlson Farm,** | 64.73 | 339 | P | P | 03 43 03.0 | +1.0 | |
| | baz=151 | | | | | | | |
| G33A | **Ortonville** | 65.01 | 340 | P | P | 03 43 04.0 | +0.2 | |
| | baz=152,SNR=5.3 | | | | | | | |
| BC3 | **Big Chuckawall** | 65.10 | 320 | P | P | 03 43 06.2 | +1.5 | |
| | baz=131 | | | | | | | |
| U15A | **North Rim** | 65.11 | 324 | *e*P | P | 03 43 07.9 | +2.9 | |
| | 3.7nm,0.7s | | | | | | | |
| SUSD | **Miller** | 65.22 | 338 | P | P | 03 43 06.1 | +1.0 | |
| | baz=150 | | | | | | | |
| IRM | **Iron Mountain** | 65.25 | 320 | P | P | 03 43 07.1 | +1.6 | |
| | baz=132 | | | | | | | |
| F33A | **5 Mile Ranch,** | 65.53 | 341 | P | P | 03 43 07.3 | +0.3 | |
| | baz=152,SNR=6.7 | | | | | | | |
| G31A | **Conde** | 65.63 | 339 | P | P | 03 43 08.5 | +0.8 | |
| | baz=150 | | | | | | | |
| E34A | **Wadena** | 65.78 | 342 | P | P | 03 43 09.0 | +0.3 | |
| | baz=154 | | | | | | | |
| GMRC | **Granite Mounta** | 65.98 | 320 | P | P | 03 43 11.8 | +1.5 | |
| | baz=132 | | | | | | | |
| SRU | **San Rafael Swe** | 66.08 | 327 | *e*P | P | 03 43 13.2 | +2.2 | |
| | 3.7nm,0.7s | | | | | | | |
| MTPU | **Mount Pierson** | 66.20 | 325 | *e*P | P | 03 43 14.0 | +2.0 | |
| | 2.3nm,0.8s | | | | | | | |
| F31A | **Hecla** | 66.20 | 339 | P | P | 03 43 12.2 | +0.8 | |
| | baz=150,SNR=6.4 | | | | | | | |
| CCUT | **Cedar City** | 66.51 | 324 | *e*P | P | 03 43 17.2 | +3.4 | |
| | 4.7nm,0.9s | | | | | | | |
| D33A | **AnnSam, Waubun** | 66.55 | 342 | P | P | 03 43 13.7 | +0.1 | |
| | baz=153 | | | | | | | |
| TUQ | **Turquoise Moun** | 66.57 | 321 | P | P | 03 43 16.3 | +2.2 | |
| | baz=132 | | | | | | | |
| E31A | **Nome** | 66.69 | 340 | P | P | 03 43 15.0 | +0.5 | |
| | baz=151 | | | | | | | |
| C34A | **RKJ Ranch, Bem** | 66.73 | 342 | P | P | 03 43 15.0 | +0.3 | |
| | baz=154 | | | | | | | |
| CIS | **Catalina Islan** | 66.83 | 318 | P | P | 03 43 15.4 | -0.3 | |
| | baz=129 | | | | | | | |
| SHPR | **Sheep Range** | 66.83 | 322 | *e*P | P | 03 43 18.8 | +3.0 | |
| | 4.1nm,0.8s | | | | | | | |
| D32A | **Dogwood Acres,** | 66.91 | 341 | P | P | 03 43 16.9 | +1.0 | |
| | baz=152 | | | | | | | |
| RSSD | **Black Hills** | 66.92 | 334 | P | P | 03 43 17.6 | +1.4 | |
| | baz=145 | | | | | | | |
| D31A | **Mcclaflin, Tow** | 67.06 | 340 | P | P | 03 43 17.6 | +0.8 | |
| | baz=151 | | | | | | | |
| C33A | **Trail** | 67.08 | 342 | P | P | 03 43 17.7 | +0.8 | |
| | baz=153 | | | | | | | |
| MPU | **Maple Canyon** | 67.32 | 327 | *e*P | P | 03 43 21.7 | +2.9 | |
| | 4.7nm,1.2s | | | | | | | |
| B34A | **Aery, Baudette** | 67.41 | 343 | P | P | 03 43 20.9 | +1.9 | |
| | baz=155 | | | | | | | |
| AGMN | **Agassiz Nation** | 67.59 | 342 | P | P | 03 43 20.2 | +0.1 | |
| | baz=153,SNR=5.9 | | | | | | | |
| AGMN | **Agassiz Nation** | 67.59 | 342 | *e*P | P | 03 43 20.6 | +0.5 | |
| | 7.6nm,0.6s | | | | | | | |
| C31A | **Landman Farms,** | 67.72 | 341 | P | P | 03 43 21.2 | +0.3 | |
| | baz=151,SNR=7.3 | | | | | | | |
| TPNV | **Topopah Spring** | 67.78 | 322 | P | P | 03 43 24.1 | +2.4 | |
| | baz=132 | | | | | | | |
| TPNV | **Topopah Spring** | 67.78 | 322 | *e*P | P | 03 43 24.9 | +3.2 | |
| | 5.8nm,1.0s | | | | | | | |
| FURC | **Furnace Creek,** | 67.83 | 321 | P | P | 03 43 24.6 | +2.8 | |
| | baz=131 | | | | | | | |
| B32A | **Ashes, Strandq** | 67.88 | 342 | P | P | 03 43 22.7 | +0.8 | |
| | baz=153 | | | | | | | |
| MPMC | **Manual Prospec** | 67.94 | 320 | P | P | 03 43 23.3 | +0.5 | |
| | baz=130 | | | | | | | |
| DUG | **Dugway, Tooele** | 68.08 | 326 | P | P | 03 43 25.6 | +2.1 | |
| | baz=136,SNR=5.3 | | | | | | | |
| DUG | **Dugway, Tooele** | 68.08 | 326 | *e*P | P | 03 43 26.1 | +2.6 | |
| | 4.1nm,0.9s | | | | | | | |
| DAC | **Darwin (Calif)** | 68.15 | 320 | *e*P | P | 03 43 26.9 | +2.8 | |
| | 4.7nm,1.0s | | | | | | | |
| WCHM | **Chimney Peak** | 68.19 | 320 | *e*P | P | 03 43 28.1 | +3.7 | |
| ISA | **Isabella, Lake** | 68.30 | 319 | P | P | 03 43 26.6 | +1.8 | |
| | baz=130 | | | | | | | |
| PD31 | **Pinedale Array** | 68.33 | 330 | *e*P | P | 03 43 26.9 | +1.9 | |
| PDAR | **Pinedale Array** | 68.33 | 330 | P | P | 03 43 26.7 | +1.6 | |
| | 0.7nm,0.5s,baz=125,slow=8.1,SNR=17 | | | | | | | |
| PDAR | **Pinedale Array** | 68.33 | 330 | *e*P | P | 03 43 25.9 | +0.9 | |
| R11A | **Troy Canyon, C** | 68.33 | 323 | P | P | 03 43 27.5 | +2.4 | |
| | baz=133 | | | | | | | |
| MDND | **Maddock** | 68.39 | 339 | P | P | 03 43 26.2 | +1.2 | |
| | baz=150,SNR=12 | | | | | | | |
| MDND | **Maddock** | 68.39 | 339 | *e*P | P | 03 43 26.7 | +1.7 | |
| | 108nm,1.3s | | | | | | | |
| CWC | **Cottonwood Cre** | 68.55 | 320 | P | P | 03 43 29.6 | +3.0 | |
| | baz=130 | | | | | | | |
| DBIC | **Dimbokro** | 68.79 | 76 | P | P | 03 43 27.7 | -0.5 | |
| | 2.9nm,0.6s,baz=235,slow=5.2,SNR=6.5 | | | | | | | |
| SMMC | **Simmler** | 69.04 | 318 | P | P | 03 43 32.6 | +3.1 | |
| | baz=128 | | | | | | | |
| HVU | **Hansel Valley** | 69.20 | 328 | *e*P | P | 03 43 32.5 | +2.1 | |
| | 2.6nm,0.8s | | | | | | | |
| ULM | **Lac du Bonnet** | 69.35 | 343 | P | P | 03 43 30.5 | -0.4 | |
| | 6.4nm,0.6s,baz=157,slow=6.7,SNR=21 | | | | | | | |
| ULM | | | | LR | LR | 04 17 14.1 | | |
| | comp=Z,40nm,18.2s,baz=355,slow=39 | | | | | | | |
| ULM | **Lac du Bonnet** | 69.35 | 343 | *e*P | P | 03 43 31.1 | +0.2 | |
| | 33nm,2.0s | | | | | | | |
| FXWY | **Fox Creek** | 69.69 | 330 | *e*P | P | 03 43 35.9 | +2.4 | |
| | 13nm,1.9s | | | | | | | |
| LAO | **LASA Array** | 69.90 | 335 | P | P | 03 43 36.5 | +2.0 | |
| | baz=143 | | | | | | | |
| LAO | **LASA Array** | 69.90 | 335 | *e*P | P | 03 43 36.4 | +2.0 | |
| | 25nm,1.4s | | | | | | | |
| MDPB | **Devils Postpil** | 69.93 | 321 | *e*P | P | 03 43 38.0 | +2.9 | |
| | 3.5nm,1.0s | | | | | | | |
| NV01 | **Mina Array Sit** | 69.98 | 322 | *e*P | P | 03 43 37.8 | +2.4 | |
| NVAR | **Mina Array Bea** | 69.98 | 322 | P | P | 03 43 37.4 | +2.0 | |
| | 1.1nm,0.8s,baz=155,slow=6.8,SNR=7.4 | | | | | | | |
| DGMT | **Dagmar** | 70.55 | 337 | P | P | 03 43 40.4 | +2.1 | |
| | baz=145 | | | | | | | |
| YHB | **Horse Butte** | 70.60 | 331 | *e*P | P | 03 43 42.3 | +3.3 | |
| | 4.9nm,0.8s | | | | | | | |
| YERR | **Yerington** | 70.89 | 322 | *e*P | P | 03 43 44.1 | +3.2 | |
| | 4.3nm,0.9s | | | | | | | |
| PNTR | **Pine Nut** | 71.17 | 322 | *e*P | P | 03 43 45.9 | +3.3 | |
| | 6.9nm,0.9s | | | | | | | |
| HLID | **Hailey** | 71.32 | 328 | P | P | 03 43 45.5 | +2.2 | |
| | baz=135 | | | | | | | |
| HLID | **Hailey** | 71.32 | 328 | *e*P | P | 03 43 46.0 | +2.8 | |
| | 1.9nm,0.7s | | | | | | | |
| PAHR | **Pah Rah Range** | 71.44 | 322 | *e*P | P | 03 43 47.3 | +3.2 | |
| | 5.7nm,0.8s | | | | | | | |
| EGMT | **Eagleton** | 72.44 | 334 | P | P | 03 43 51.4 | +1.7 | |
| | baz=140 | | | | | | | |
| EGMT | **Eagleton** | 72.44 | 334 | *e*P | P | 03 43 50.9 | +1.3 | |
| | 41nm,1.9s | | | | | | | |
| ORV | **Oroville** | 72.61 | 321 | *e*P | P | 03 43 54.0 | +3.2 | |
| | 7.3nm,1.0s | | | | | | | |
| TOA0 | **Torodi Ar. Sit** | 77.04 | 72 | *e*P | P | 03 44 16.2 | -0.4 | |
| TORD | **Torodi Ar. Bea** | 77.04 | 72 | P | P | 03 44 16.0 | -0.7 | |
| | 1.5nm,0.5s,baz=265,slow=4.9,SNR=32 | | | | | | | |
| ESDC | **Sonseca Array** | 82.91 | 46 | P | P | 03 44 48.8 | +1.1 | |
| | 0.5nm,0.5s,baz=265,slow=6.6,SNR=3.8 | | | | | | | |
| YKA | **Yellowknife Ar** | 85.23 | 341 | P | P | 03 44 59.6 | +0.8 | |
| | 3.5nm,0.6s,baz=135,slow=5.2,SNR=112 | | | | | | | |
| YKW3 | **Yellowknife Ar** | 85.28 | 341 | *e*P | P | 03 45 00.2 | +1.2 | |
| | 5.9nm,0.7s | | | | | | | |
| STHS | **Stebnicka Huta** | 102.96 | 42 | *e*PDIFF | Pdif | 03 46 21.9 | +1.3 | |
| ASAR | **Alice Springs** | 134.10 | 212 | PKP | PKPdf | 03 51 42.0 | +2.4 | |
| | 0.3nm,0.5s,baz=113,slow=2.4,SNR=5.5 | | | | | | | |
| WRA | **Warramunga Arr** | 136.90 | 216 | PKP | PKPdf | 03 51 47.1 | +2.1 | |
| | 0.4nm,0.5s,baz=128,slow=1.8,SNR=6.5 | | | | | | | |
| ZALV | **Zalesovo Beam** | 137.30 | 21 | PKP | PKPdf | 03 51 46.4 | +1.9 | |
| | 2.9nm,0.6s,baz=293,slow=4.4,SNR=4.4 | | | | | | | |
| KSH | **Kashi** | 142.41 | 44 | *e*PKP | PKPdf | 03 51 51.5 | -3.0 | |
| KSH | | | | pPKP | pPKPdf | 03 52 48.5 | +2.3 | |
| KSH | | | | sPKP | | 03 53 12.5 | | |
| KSH | | | | PP | PP | 03 55 04.0 | +0.4 | |
| KSH | | | | PKS | PKSdf | 03 55 26.8 | -3.6 | |
| KSH | | | | SKS | SKSdf | 03 58 37.5 | -8.2 | |
| KSH | | | | SKKS | SKKSac | 04 01 30.5 | -6.7 | |
| USRK | **Ussuriysk Ar.** | 145.75 | 331 | PKPbc | PKPab | 03 52 02.9 | +1.5 | |
| | 1.4nm,0.6s,baz=76,slow=6.1,SNR=4.8 | | | | | | | |
| WMQ | **Urumqi** | 146.46 | 29 | *e*P | PKPdf | 03 52 01.5 | +0.2 | |
| MJAR | **Matsushiro Arr** | 147.05 | 314 | PKPbc | PKPab | 03 52 07.2 | +0.4 | |
| | 5.2nm,0.8s,baz=86,slow=2.1,SNR=16 | | | | | | | |
| SONM | **Songino Array** | 147.88 | 4 | PKPbc | PKPbc | 03 52 08.5 | +1.6 | |
| | 3.5nm,0.6s,baz=306,slow=1.7,SNR=4.6 | | | | | | | |
| NJ2 | **Nanjing** | 161.60 | 334 | *e*P | PKPdf | 03 52 23.5 | +0.9 | |
| NJ2 | | | | pmax | pmax | | | |
| | comp=Z,15nm,0.5s | | | | | | | |

*IDC* ***29*** *03:44:01.4±0.7,51.75N×96.10E,h0km,mb3.7/9, mb1 3.8/13,mb1mx3.6/37,mbtmp3.7/13,ML3.2/4,MS2.9/3, Ms1 3.0/3,ms1mx2.5/44,Error ellipse: s-maj=19.8km s-min=9.3km az=176.0*

*OBM* ***29*** *03:44:01.0±0.1,51.82N×95.78E,h2km,Ml3.8/1,Error ellipse: s-maj=2.3km s-min=1.2km az=169.0*

*MOS* ***29*** *03:44:03.1±1.8,51.81N×95.83E,h17km,mb4.0/9,Error ellipse: s-maj=12.9km s-min=9.3km az=167.8*

*NNC* ***29*** *03:44:08.5±3.0,51.71N×95.11E,h0km,mb4.0,mpv3.2, Error ellipse: s-maj=28.6km s-min=20.9km az=92.0*

**ISC 29 03:44:04.9±0.5,52.02N±0.05×95.71E±0.03,h10km,n65,**
**σ2ş07/55,mb3.7/13,16C-7D,Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **HVS** | **Khovu-Aksy** | **1.53** | **236** | *d* | *i* | PG | **Pn** | **03 44 30.3** | **-2.1** |
| **ORL** | **Orlik** | **2.58** | **77** | ⇓ | *i* | PN | **Pn** | **03 44 45.7** | **-1.1** |
| ORL | | | | | *e* | | | 03 45 19.5 | |
| ORL | | | | | | pmax | pmax | | |
| | comp=Z,269nm,0.5s | | | | | | | | |
| ORL | | | | | | smax | smax | | |
| | comp=N,759nm,0.8s | | | | | | | | |
| **ULG** | **Ulaangom** | **3.09** | **230** | | *e* | Pg | **Pn** | **03 44 53.1** | **-0.7** |
| ULG | | | | | *e* | Sg | **Sn** | **03 45 35.3** | **+4.5** |
| **HTG** | **Hatgal** | **3.21** | **117** | | *e* | Pg | **Pn** | **03 44 55.9** | **+0.3** |
| HTG | | | | | *e* | Sg | **Sn** | **03 45 34.6** | **+0.7** |
| **MOY** | **Mondy** | **3.30** | **94** | | *e* | PN | **Pn** | **03 44 58.1** | **+1.4** |
| MOY | | | | | *e* | | | 03 45 39.4 | |
| MOY | | | | | | pmax | pmax | | |
| | comp=Z,189nm,0.7s | | | | | | | | |
| MOY | | | | | | smax | smax | | |
| | comp=N,1μm,1.5s | | | | | | | | |
| **TSC** | **Tosontsengel** | **3.64** | **152** | | *e* | Pg | **Pn** | **03 44 58.8** | **-2.6** |
| TSC | | | | | *e* | Sg | **Sb** | **03 45 51.2** | **-2.4** |
| **ARS** | **Arshan** | **4.16** | **89** | | *e* | PN | Pn | 03 45 13.8 | +5.3 |
| ARS | | | | | *e* | | | 03 46 07.7 | |
| ARS | | | | | | pmax | pmax | | |
| | comp=Z,252nm,0.6s | | | | | | | | |
| ARS | | | | | | smax | smax | | |
| | comp=E,1μm,1.1s | | | | | | | | |
| **BYO** | **Bayan-Olgiy** | **4.78** | **232** | | *e* | Pn | **Pn** | **03 45 16.4** | **-0.7** |
| **BYO** | **Bayan-Olgiy** | **4.78** | **232** | | *e* | Pg | **Pb** | **03 45 26.6** | **-2.2** |
| BYO | | | | | *e* | Sg | **Sb** | **03 46 27.4** | **+1.0** |
| **HBD** | **Hovd** | **4.79** | **215** | | *e* | Pn | **Pn** | **03 45 16.0** | **-1.2** |
| **HBD** | **Hovd** | **4.79** | **215** | | *e* | Pg | Pb | 03 45 25.4 | -3.6 |
| HBD | | | | | *e* | Sg | **Sb** | **03 46 24.2** | **-2.5** |
| **TLY** | **Talaya** | **4.93** | **91** | | | Pg | Pn | 03 45 25.7 | +6.6 |
| | comp=E,0.1nm,0.3s,baz=292,slow=12,SNR=26 | | | | | | | | |
| TLY | | | | | | Lg | Lg | 03 46 28.6 | |
| | comp=E,0.3nm,0.3s,baz=46,slow=13,SNR=17 | | | | | | | | |
| TLY | | | | | | LR | LR | 03 47 14.0 | |
| | comp=E,70nm,21.7s,baz=270,slow=41 | | | | | | | | |
| **TLY** | **Talaya** | **4.93** | **91** | ⇑ | *e* | PN | **Pn** | **03 45 18.0** | **-1.1** |
| **ZAK** | **Zakamensk** | **5.04** | **106** | | *e* | PN | Pb | 03 45 27.7 | -5.5 |
| ZAK | | | | | *e* | | | 03 46 31.8 | |
| ZAK | | | | | | pmax | pmax | | |
| | comp=Z,79nm,0.8s | | | | | | | | |
| ZAK | | | | | | smax | smax | | |
| | comp=N,604nm,1.1s | | | | | | | | |
| **IRK** | **Irkutsk** | **5.28** | **84** | | *e* | PN | Pb | 03 45 32.9 | -4.4 |
| **DGZ** | **Jazzator, Alta** | **5.73** | **249** | ⇑ | *e* | PN | **Pn** | **03 45 28.4** | **-1.8** |
| **TTS** | **Tsetserleg** | **5.87** | **138** | | *e* | Pg | **Pb** | **03 45 44.6** | **-2.8** |
| TTS | | | | | *e* | Sg | **Sb** | **03 46 57.4** | **-0.4** |
| | comp=N,231nm,0.6s | | | | | | | | |
| **BLGM** | **Bulgan** | **5.96** | **120** | | *e* | Pg | **Pb** | **03 45 45.4** | **-3.4** |
| BLGM | | | | | *e* | Sg | **Sb** | **03 47 05.8** | **+5.6** |
| | comp=N,629nm,0.6s | | | | | | | | |
| **ZAA0** | **Zalesovo Array** | **6.85** | **291** | ⇓ | | Pn | **Pn** | **03 45 47.6** | **+2.3** |
| | baz=101,slow=13 | | | | | | | | |
| ZAA0 | | | | ⇑ | | Pg | Pb | 03 46 10.2 | +6.2 |
| | comp=N,1.9nm,0.9s,baz=104,slow=13 | | | | | | | | |
| ZAA0 | | | | ⇑ | | Lg | Lg | 03 47 39.5 | |
| | comp=N,12nm,0.8s,baz=118,slow=26 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **6.85** | **291** | | | Pn | **Pn** | **03 45 48.7** | **+3.3** |
| | comp=N,0.8nm,0.3s,baz=102,slow=13,SNR=7.3 | | | | | | | | |
| ZALV | | | | | | Pg | Pb | 03 46 09.4 | +5.4 |
| | comp=N,2.0nm,0.3s,baz=99,slow=15,SNR=14 | | | | | | | | |
| ZALV | | | | | | Sn | **Sn** | **03 47 01.7** | **-1.6** |
| | comp=N,1.4nm,0.3s,baz=109,slow=14,SNR=5.3 | | | | | | | | |
| ZALV | | | | | | Lg | Lg | 03 47 41.0 | |
| | comp=N,6.1nm,0.3s,baz=98,slow=27,SNR=10 | | | | | | | | |
| **OGRR** | **Ongureny** | **7.39** | **73** | | *e* | P | Pn | 03 45 47.1 | -5.6 |
| OGRR | | | | | | pmax | pmax | | |
| | comp=Z,32nm,0.7s | | | | | | | | |
| **NVS** | **Novosibirsk** | **7.97** | **296** | | *e* | P | **Pn** | **03 46 04.4** | **+3.8** |
| **SONM** | **Songino Array** | **8.07** | **117** | | | Pg | **Pb** | **03 46 22.3** | **-2.5** |
| | comp=Z,1.5nm,0.3s,baz=303,slow=18,SNR=17 | | | | | | | | |
| SONM | | | | | | Lg | Lg | 03 48 07.2 | |
| | comp=Z,4.7nm,0.3s,baz=303,slow=30,SNR=14 | | | | | | | | |
| **UB1M** | | **8.12** | **116** | | *e* | Pg | **Pb** | **03 46 23.4** | **-2.3** |
| UB1M | | | | | *e* | Sg | Sb | 03 48 10.5 | +8.0 |
| | comp=Z,76nm,0.6s | | | | | | | | |
| **ALFM** | | **8.19** | **115** | | *e* | Pg | **Pb** | **03 46 25.4** | **-1.5** |
| ALFM | | | | | *e* | Sg | Sb | 03 48 11.3 | +6.8 |
| | comp=Z,116nm,0.7s | | | | | | | | |
| **ULN** | **Ulaanbaatar** | **8.41** | **115** | ⇓ | *e* | P | Pn | 03 45 56.9 | -10 |
| **ARTM** | | **8.50** | **114** | | *e* | Pg | | 03 46 31.1 | |
| **SEMM** | | **8.55** | **117** | | *e* | Pg | | 03 46 32.1 | |
| **UGDM** | | **8.74** | **116** | | *e* | Sg | Sg | 03 48 26.6 | -18 |
| **DZBM** | | **10.10** | **141** | | *e* | Sg | Sn | 03 49 14.7 | +51 |
| **MK31** | **Makanchi Array** | **10.18** | **244** | ⇑ | | Pn | **Pn** | **03 46 29.5** | **-1.6** |
| | comp=Z,4.0nm,0.8s,baz=77,slow=12,SNR=14 | | | | | | | | |
| MK31 | | | | ⇓ | | Pg | | 03 47 04.9 | |
| | comp=Z,3.1nm,0.7s,baz=60,slow=15,SNR=4.5 | | | | | | | | |
| MK31 | | | | ⇑ | | Lg | Lg | 03 49 16.0 | |
| | comp=Z,28nm,1.1s,baz=52,slow=32,SNR=4.6 | | | | | | | | |
| **MK31** | **Makanchi Array** | **10.18** | **244** | | | P | **Pn** | **03 46 29.5** | **-1.6** |
| MK31 | | | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.8s | | | | | | | | |
| **MKAR** | **Makanchi Array** | **10.18** | **244** | | | Pn | **Pn** | **03 46 30.8** | **-0.2** |
| | comp=Z,0.3nm,0.3s,baz=74,slow=13,SNR=14 | | | | | | | | |
| MKAR | | | | | | Pg | | 03 47 09.5 | |
| | comp=Z,0.5nm,0.3s,baz=38,slow=14,SNR=4.9 | | | | | | | | |
| MKAR | | | | | | Lg | Lg | 03 49 27.1 | |
| | comp=Z,0.9nm,0.3s,baz=67,slow=29,SNR=5.0 | | | | | | | | |
| MKAR | | | | | | LR | LR | 03 50 46.2 | |
| | comp=Z,110nm,18.4s,baz=28,slow=39 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **10.18** | **244** | | *i* | P | Pn | 03 46 36.5 | +5.4 |
| MKAR | | | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.4s | | | | | | | | |
| **MAKZ** | **Makanchi** | **10.35** | **245** | ⇓ | | Pn | **Pn** | **03 46 32.4** | **-0.9** |
| | comp=Z,5.9nm,1.1s | | | | | | | | |
| MAKZ | | | | ⇑ | | Pg | | 03 47 07.2 | |
| | comp=Z,5.7nm,0.8s | | | | | | | | |
| MAKZ | | | | ⇑ | | Lg | Lg | 03 49 18.5 | |
| | comp=Z,44nm,1.5s | | | | | | | | |
| **MAKZ** | **Makanchi** | **10.35** | **245** | | | P | **Pn** | **03 46 32.4** | **-0.9** |
| MAKZ | | | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.2s | | | | | | | | |
| **KURK** | **Kurchatov** | **10.76** | **270** | ⇑ | | Pn | **Pn** | **03 46 39.2** | **+0.2** |
| | comp=Z,2.3nm,0.8s | | | | | | | | |
| KURK | | | | ⇓ | | Lg | Lg | 03 49 37.0 | |
| | comp=Z,51nm,1.0s | | | | | | | | |
| **KURK** | **Kurchatov** | **10.76** | **270** | ⇑ | *e* | P | **Pn** | **03 46 39.0** | **0.0** |
| **KURBB** | **Kurchatov Arra** | **10.84** | **269** | | | Pn | **Pn** | **03 46 41.7** | **+1.7** |
| | comp=Z,0.1nm,0.3s,baz=74,slow=15,SNR=3.1 | | | | | | | | |
| KURBB | | | | | | Lg | Lg | 03 49 49.0 | |
| | comp=Z,0.2nm,0.3s,baz=73,slow=34,SNR=6.9 | | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **10.84** | **269** | ⇑ | | Lg | Lg | 03 49 38.6 | |
| | comp=Z,112nm,1.0s | | | | | | | | |
| **GTA** | **Gaotai** | **12.93** | **166** | | *e* | P | **Pn** | **03 47 12.0** | **+3.2** |
| GTA | | | | | | pP | | 03 47 15.3 | |
| GTA | | | | | | sP | | 03 47 18.0 | |
| GTA | | | | | | S | **Sn** | **03 49 37.3** | **+4.6** |
| GTA | | | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.0s | | | | | | | | |
| GTA | | | | | | pmax | pmax | | |
| | comp=Z,110nm,3.6s | | | | | | | | |
| GTA | | | | | | LR | LR | | |
| | comp=N,250nm,7.1s | | | | | | | | |
| GTA | | | | | | LR | LR | | |
| | comp=E,360nm,9.5s | | | | | | | | |
| GTA | | | | | | LR | LR | | |
| | comp=Z,200nm,9.5s | | | | | | | | |
| **BVAR** | **Borovoye Array** | **15.42** | **284** | | | Pn | **Pn** | **03 47 41.6** | **-0.8** |
| | comp=Z,0.2nm,0.3s,baz=93,slow=13,SNR=3.5 | | | | | | | | |
| **HIA** | **Hailar** | **15.48** | **91** | ⇑ | *e* | P | Pn | 03 47 36.7 | -6.4 |
| HIA | | | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.8s | | | | | | | | |
| **BRVK** | **Borovoye** | **15.48** | **284** | ⇑ | *e* | P | **Pn** | **03 47 43.8** | **+0.7** |
| BRVK | | | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.9s | | | | | | | | |
| **LZH** | **Lanzhou** | **16.95** | **157** | | *e* | P | **Pn** | **03 48 00.3** | **-1.9** |
| LZH | | | | | | pP | pP | 03 48 07.5 | +0.5 |
| LZH | | | | | | sP | sP | 03 48 11.5 | +3.2 |
| LZH | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **OCLP** | **Ormoc** | **1.03 217** | *e*P | Pg | 03 45 55.7 | -0.2 |
| OCLP | | | *e*S | Sn | 03 46 11.9 | +0.1 |
| **MSLP** | **Maasin** | **1.77 192** | *e*P | Pn | 03 46 06.7 | -0.5 |
| MSLP | | | *e*S | Sg | 03 46 34.2 | +1.1 |
| **RCP** | **Roxas** | **2.47 263**⇑*e*P | | Pn | 03 46 18.1 | +1.3 |

*IDC* ***29*** *04:08:30.0±3.2, 7.°90S×116.°59E, h0km, mb3.6/3, mb1 4.0/3, mb1mx3.5/36, mbtmp3.7/3, Error ellipse: s-maj=258.1km s-min=24.7km az=50.0*
*DJA* ***29*** *04:08:31.8±0.7, 8.°3S±5.°5×11.°7E±.°, h11km±5km, M3.7/10, MLv3.7/10*
*ISCJB* ***29*** *04:08:33.0±0.7, 7.°86S±0.°08×116.°54E±0.°04, h33km, mb3.7/3, Error ellipse: s-maj=12.3km s-min=5.4km az=5.9*

**ISC 29 04:08:34.7±1.1, 7.°96S±0.°10×116.°51E±0.°04, h35km, n11, σ0.°82/14, Bali Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SRBI** | **Singaraja** | **1.29 265** | | P | **Pn** | **04 08 54.9** | **-1.3** |
| SRBI | | | | S | **Sn** | **04 09 13.1** | **+0.9** |
| **DNP** | **Denpasar** | **1.47 241** | | P | **Pn** | **04 08 58.5** | **-0.2** |
| DNP | | | | S | **Sn** | **04 09 17.9** | **+1.2** |
| **PLAI** | **Plampang** | **1.52 124** | | P | **Pn** | **04 08 59.3** | **-0.2** |
| PLAI | | | | S | **Sn** | **04 09 18.6** | **+0.5** |
| **ABJI** | **Asem Bagus** | **2.26 274** | | P | **Pn** | **04 09 09.0** | **-0.6** |
| **JAGI** | **Jajag, Banyuwa** | **2.38 258** | | P | **Pn** | **04 09 10.2** | **-1.1** |
| **KMMI** | **Kalianget** | **2.68 290** | | P | **Pn** | **04 09 15.1** | **-0.3** |
| **WBSI** | **Waikabubak, Su** | **3.30 121** | | P | **Pn** | **04 09 23.2** | **-0.8** |
| **BSSI** | **Bau Bau, Buton** | **4.35 66** | | P | **Pn** | **04 09 38.0** | **-0.4** |
| **WRA** | **Warramunga Arr** | **20.98 126** | | P | **P** | **04 13 14.7** | **-0.5** |
| | 5.4nm,0.7s,baz=302,slow=12,SNR=24 | | | | | | |
| **ASAR** | **Alice Springs** | **22.85 135** | | P | **P** | **04 13 34.9** | **-0.3** |
| | 1.6nm,0.7s,baz=310,slow=9.3,SNR=16 | | | | | | |
| **MKAR** | **Makanchi Array** | **62.44 334** | | P | **P** | **04 18 54.8** | **+0.5** |
| | 0.3nm,0.6s,baz=125,slow=7.6,SNR=3.7 | | | | | | |

**IDC 29 04:40:26.5±3.4, 60.°10N×118.°72E, h35km±7km, mb3.1/4, mb1 3.3/5, mb1mx3.1/35, mbtmp3.3/5, ML2.8/1, Error ellipse: s-maj=145.3km s-min=16.9km az=152.0, Northern and central Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ZALV** | **Zalesovo Beam** | **19.29 266** | | P | Pn | 04 44 49.6 | +0.4 |
| | 0.2nm,0.3s,baz=29,slow=12,SNR=2.6 | | | | | | |
| ZALV | | | | pP | pP | 04 44 58.8 | +1.8 |
| | 0.5nm,0.3s,baz=27,slow=10,SNR=4.0 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **24.36 265** | | P | P | 04 45 40.9 | 0.0 |
| | 0.7nm,0.4s,baz=40,slow=11,SNR=4.7 | | | | | | |
| KURBB | | | | pP | pP | 04 45 50.9 | +0.1 |
| | 1.1nm,0.4s,baz=39,slow=11,SNR=6.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **25.07 254** | | P | P | 04 45 46.7 | -0.7 |
| | 0.3nm,0.5s,baz=46,slow=12,SNR=6.3 | | | | | | |
| MKAR | | | | sP | sP | 04 46 00.5 | -0.9 |
| | 0.2nm,0.6s,baz=39,slow=9.3,SNR=2.6 | | | | | | |
| **ILAR** | **Eielson Array** | **40.05 42** | | P | P | 04 47 58.0 | +0.4 |
| | 0.2nm,0.7s,baz=307,slow=6.5,SNR=3.3 | | | | | | |
| ILAR | | | | pP | pP | 04 48 08.1 | +0.3 |
| | 0.5nm,0.6s,baz=307,slow=6.2,SNR=6.5 | | | | | | |
| **YKA** | **Yellowknife Ar** | **51.13 29** | | P | P | 04 49 24.1 | -1.0 |
| | 0.2nm,0.7s,baz=338,slow=7.8,SNR=4.1 | | | | | | |

*NNC* ***29*** *04:55:23.1±2.4, 42.°34N×80.°68E, h0km, mb3.4, mpv2.8, Error ellipse: s-maj=19.2km s-min=12.9km az=169.0*
*KRNET* ***29*** *04:55:27.9±0.1, 43.°00N×80.°72E, mb2.6*
*SOME* ***29*** *04:55:28.0, 42.°60N×80.°60E, h15km*

**ISC 29 04:55:28.5±2.6, 42.°69N±0.°07×80.°49E±0.°07, h1km±16km, n28, σ2.°14/52, 15C-15D, Kyrgyzstan-Xinjiang border region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KTMS** | **Ketmen** | **0.76 352** | | *e*P | **Pb** | **04 55 42.8** | **-1.9** |
| KTMS | 45nm,0.2s | | | *e*S | **Sg** | **04 55 53.4** | **+0.3** |
| | 276nm,0.2s | | | | | | |
| **SHLS** | **Shalkode** | **0.89 302** | | *e*P | Pb | 04 55 41.7 | -5.1 |
| SHLS | 36nm,0.1s | | | *e*S | **Sb** | **04 55 51.9** | **-7.3** |
| | 503nm,0.2s | | | | | | |
| **PDGK** | **Podgornoye** | **0.97 311** | ⇓ | *i*P | **Pb** | **04 55 46.9** | **-1.3** |
| PDGK | baz=290 | | ⇓ | *i*S | **Sb** | **04 56 00.8** | **-0.8** |
| | baz=290 | | | | | | |
| **PDGK** | **Podgornoye** | **0.97 311** | ⇓ | P | **Pb** | **04 55 47.0** | **-1.2** |
| PDGK | 0.9nm,0.1s | | ⇑ | S | **Sn** | **04 56 06.9** | **+3.0** |
| | 32nm,0.4s | | | | | | |
| **UZB** | **Uzynbulak** | **1.17 293** | ⇑ | *i*P | **Pn** | **04 55 50.8** | **-1.4** |
| UZB | 12nm,0.2s | | | *e*S | **Sb** | **04 56 07.8** | **+0.5** |
| | 138nm,0.3s | | | | | | |
| **SATY** | **Saty** | **1.57 284** | ⇓ | *i*P | **Pb** | **04 55 59.0** | **+0.5** |
| SATY | 26nm,0.2s | | ⇑ | *i*S | **Sb** | **04 56 20.7** | **+1.7** |
| | 195nm,0.2s | | | | | | |
| **ZHN** | **Zhinishke** | **1.58 288** | ⇑ | *i*P | **Pb** | **04 55 58.7** | **0.0** |
| ZHN | 18nm,0.2s | | ⇑ | *i*S | **Sb** | **04 56 20.9** | **+1.7** |
| | 120nm,0.2s | | | | | | |
| **DJR** | **Jarkent** | **1.72 343** | ⇓ | *i*P | **Pb** | **04 56 00.1** | **-0.8** |
| DJR | 18nm,0.5s | | | *e*S | **Sn** | **04 56 22.9** | **+0.6** |
| | 72nm,0.6s | | | | | | |
| **KURS** | **Kuram** | **1.88 296** | | *e*P | **Pb** | **04 56 03.2** | **-0.4** |
| KURS | 2.1nm,0.5s | | | *e*S | **Sb** | **04 56 29.1** | **+1.5** |
| | 16nm,0.5s | | | | | | |
| **ARXS** | **Arharly** | **2.46 309** | | *e*P | **Pb** | **04 56 13.4** | **-0.3** |
| ARXS | 4.2nm,0.5s | | | *e*S | **Sb** | **04 56 46.0** | **+1.5** |
| | 13nm,0.4s | | | | | | |
| **KOTS** | **Kotyrbulak** | **2.54 284** | | *e*P | **Pb** | **04 56 15.9** | **+1.0** |
| KOTS | | | | *e*S | **Sg** | **04 56 50.3** | **+0.2** |
| **MDOK** | **Medeo** | **2.57 282** | ⇓ | Pg | **Pb** | **04 56 15.1** | **-0.4** |
| MDOK | | | ⇑ | Lg | Lg | 04 56 50.0 | |
| **MDOK** | **Medeo** | **2.57 282** | | *e*P | **Pb** | **04 56 16.0** | **+0.5** |
| MDOK | 7.8nm,0.3s | | ⇓ | *i*S | **Sb** | **04 56 50.2** | **+2.5** |
| | 32nm,0.4s | | | | | | |
| **TNSS** | **Tian-Shan** | **2.63 279** | ⇑ | *i*P | **Pb** | **04 56 16.5** | **-0.1** |
| TNSS | 12nm,0.3s | | | *e*S | **Sb** | **04 56 51.1** | **+1.6** |
| | 38nm,0.4s | | | | | | |
| **KAPS** | **Kapalarasan** | **2.72 343** | | *e*P | **Pb** | **04 56 17.2** | **-0.8** |
| KAPS | 3.6nm,0.2s | | | *e*S | **Sb** | **04 56 51.9** | **+0.1** |
| | 50nm,0.3s | | | | | | |
| **CHKK** | **Chushkaly** | **2.81 296** | | *e*P | **Pn** | **04 56 13.7** | **-0.8** |
| CHKK | 3.2nm,0.2s | | | *e*S | **Sn** | **04 56 45.4** | **-3.7** |
| | 28nm,0.3s | | | | | | |
| **IZV** | **Izvestkoviy** | **2.87 278** | | *e*P | **Pb** | **04 56 21.0** | **+0.4** |
| IZV | 8.2nm,0.1s | | | *e*S | **Sb** | **04 56 59.0** | **+2.7** |
| | 27nm,0.5s | | | | | | |
| **MTBS** | **Maitube** | **3.02 280** | | *e*P | **Pb** | **04 56 23.4** | **+0.3** |
| MTBS | 3.8nm,0.1s | | | *e*S | **Sb** | **04 57 03.3** | **+2.9** |
| | 20nm,0.5s | | | | | | |
| **ULHL** | **Ulahol** | **3.17 263** | ⇑ | *i*P | **Pb** | **04 56 24.7** | **-1.1** |
| ULHL | baz=258 | | ⇑ | *i*S | **Sb** | **04 57 06.1** | **+1.0** |
| | baz=258 | | | | | | |
| **KUU** | **Kurty** | **3.26 293** | | *e*P | **Pb** | **04 56 26.9** | **-0.3** |
| KUU | 2.3nm,0.2s | | ⇓ | *i*S | **Sb** | **04 57 09.5** | **+2.2** |
| | 11nm,0.3s | | | | | | |
| **KST** | **Kastek** | **3.35 278** | | *e*P | **Pb** | **04 56 29.9** | **+1.2** |
| KST | 1.7nm,0.3s | | ⇓ | *i*S | **Sb** | **04 57 14.0** | **+4.0** |
| | 20nm,1.2s | | | | | | |
| **DGS** | **Degeres** | **3.50 281** | | *e*P | **Pb** | **04 56 32.1** | **+0.7** |
| DGS | 2.6nm,0.4s | | | *e*S | **Sb** | **04 57 18.3** | **+3.8** |
| | 7.1nm,0.6s | | | | | | |
| **BMNS** | **Besmoynak** | **3.57 278** | | *e*P | **Pb** | **04 56 33.2** | **+0.7** |
| BMNS | 3.2nm,0.6s | | ⇑ | *i*S | **Sb** | **04 57 18.7** | **+2.4** |
| | 16nm,0.6s | | | | | | |
| **TKM2** | **Tokmak 2** | **3.61 275** | ⇑ | *i*P | **Pb** | **04 56 29.7** | **-3.5** |
| | baz=271 | | | | | | |
| TKM2 | | | ⇑ | *i*S | **Sb** | **04 57 14.6** | **-2.9** |
| | baz=271 | | | | | | |
| **TKM2** | **Tokmak 2** | **3.61 275** | ⇑ | Pg | **Pb** | **04 56 33.7** | **+0.4** |
| | 2.3nm,0.7s | | | | | | |
| TKM2 | | | ⇑ | Lg | Lg | 04 57 22.0 | |
| | 3.4nm,0.3s | | | | | | |
| **KZA** | **Kyzart** | **3.93 263** | ⇓ | *i*P | **Pb** | **04 56 35.2** | **-3.6** |
| | baz=259 | | | | | | |
| KZA | | | ⇓ | *i*S | **Sb** | **04 57 24.2** | **-2.8** |
| | baz=259 | | | | | | |
| **MK31** | **Makanchi Array** | **4.30 17** | ⇓ | Pn | **Pn** | **04 56 35.6** | **+0.6** |
| | 0.1nm,0.1s,baz=218,slow=3.6,SNR=28 | | | | | | |
| MK31 | | | ⇓ | Pg | **Pb** | **04 56 46.3** | **+1.5** |
| | 1.1nm,0.4s,baz=193,slow=15,SNR=10 | | | | | | |
| MK31 | | | ⇓ | Lg | Lg | 04 57 47.6 | |
| | 2.6nm,0.4s,baz=193,slow=28,SNR=13 | | | | | | |
| **AAK** | **Ala-Archa** | **4.42 271** | ⇓ | Pg | **Pb** | **04 56 48.8** | **+1.8** |
| | 1.3nm,0.6s | | | | | | |
| AAK | | | ⇑ | Lg | Lg | 04 57 49.3 | |
| | 4.2nm,0.7s | | | | | | |

*IDC* ***29*** *04:56:54.7±2.9, 39.°37N×67.°64E, h0km, mb3.3/3, mb1 3.5/5, mb1mx3.2/49, mbtmp3.4/5, ML3.2/2, Error ellipse: s-maj=101.6km s-min=14.0km az=157.0*
*ISCJB* ***29*** *04:56:56.0±1.0, 39.°7N±0.°1×67.°44E±0.°07, h10km, mb3.2/3, Error ellipse: s-maj=17.4km s-min=7.4km az=169.8*
*NNC* ***29*** *04:56:57.5±1.8, 39.°59N×67.°46E, h8km±8km, mb3.6, mpv3.3, Error ellipse: s-maj=13.7km s-min=10.0km az=4.0*

**ISC 29 04:56:57.8±1.3, 39.°5N±0.°1×67.°47E±0.°08, h10km, n11, σ1.°21/15, mb3.5/3, 8C-5D, Southeastern Uzbekistan**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KK31** | **Karatay Array** | **4.25 32** | | Pn | **Pn** | **04 58 02.4** | **-0.2** |
| | 0.8nm,0.5s,baz=216,slow=14,SNR=7.4 | | | | | | |
| KK31 | | | ⇑ | Pg | **Pb** | **04 58 14.5** | **+1.9** |
| | 3.7nm,0.6s,baz=211,slow=15,SNR=16 | | | | | | |
| KK31 | | | ⇑ | Lg | Lg | 04 59 11.8 | |
| | 9.9nm,0.6s,baz=214,slow=29,SNR=4.8 | | | | | | |
| **SFK** | **Sufi-Kurgan** | **4.68 82** | ⇑ | Pn | **Pn** | **04 58 08.0** | **-0.7** |
| | 2.1nm,0.5s | | | | | | |
| SFK | 8.0nm,0.6s | | ⇓ | Sn | **Sn** | **04 59 05.0** | **+1.9** |
| SFK | 15nm,0.9s | | ⇑ | Lg | Lg | 04 59 24.5 | |
| **MNAS** | **Manas** | **4.82 51** | ⇓ | Pn | **Pn** | **04 58 09.8** | **-0.8** |
| | 3.1nm,0.9s | | | | | | |
| MNAS | | | ⇑ | Sn | **Sn** | **04 59 05.0** | **-1.6** |
| | 5.7nm,0.6s | | | | | | |
| MNAS | | | ⇓ | Lg | Lg | 04 59 30.7 | |
| | 14nm,1.1s | | | | | | |
| **AAK** | **Ala-Archa** | **6.15 57** | | Pn | **Pn** | **04 58 28.3** | **-0.6** |
| | 1.2nm,0.3s,baz=223,slow=6.4,SNR=9.1 | | | | | | |
| AAK | | | | Sn | **Sn** | **04 59 38.6** | **-0.7** |
| | baz=0.0,slow=20,SNR=2.4 | | | | | | |
| **AAK** | **Ala-Archa** | **6.15 57** | ⇑ | Pn | **Pn** | **04 58 27.3** | **-1.6** |
| | 4.0nm,0.6s | | | | | | |
| AAK | | | ⇓ | Sn | **Sn** | **04 59 39.3** | **-0.1** |
| | 8.7nm,1.1s | | | | | | |
| AAK | | | ⇑ | Lg | Lg | 05 00 11.6 | |
| | 12nm,1.4s | | | | | | |
| **TKM2** | **Tokmak 2** | **7.00 58** | ⇓ | Pn | **Pn** | **04 58 39.7** | **-0.9** |
| | 3.4nm,0.8s | | | | | | |
| **AB31** | **Akbulak array** | **11.11 334** | ⇑ | Pn | **Pn** | **04 59 36.4** | **-0.3** |
| | 0.6nm,0.6s,baz=151,slow=12,SNR=12 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **18.62 34** | | P | **P** | **05 01 14.8** | **-0.4** |
| | 0.2nm,0.3s,baz=215,slow=12,SNR=2.7 | | | | | | |
| **BRTR** | **Keskin Array B** | **25.97 281** | | P | **P** | **05 02 31.9** | **+1.2** |
| | 1.0nm,1.0s,baz=79,slow=7.5,SNR=4.8 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **63.10 265** | | P | **P** | **05 07 25.0** | **-0.8** |
| | 0.2nm,0.6s,baz=48,slow=5.7,SNR=4.4 | | | | | | |
| **YKA** | **Yellowknife Ar** | **78.31 1** | | P | P | 05 08 55.3 | -2.4 |
| | 0.1nm,0.7s,baz=358,slow=5.8,SNR=4.4 | | | | | | |

*IDC* ***29*** *05:03:19.0±1.1, 33.°43N×140.°95E, h0km, mb3.5/4, mb1 3.8/5, mb1mx3.5/47, mbtmp3.5/5, ML3.4/1, MS2.6/1, Ms1 2.6/1, ms1mx2.1/45, Error ellipse: s-maj=24.3km s-min=23.4km az=112.0*
*JMA* ***29*** *05:03:23.7±0.1, 33.°73N×140.°64E, h46km, M3.1*
*ISCJB* ***29*** *05:03:24.2±0.8, 33.°73N±0.°03×140.°61E±0.°07, h37km±11km, mb3.5/4, Error ellipse: s-maj=9.5km s-min=4.8km az=16.7*

**ISC 29 05:03:23.1±1.6, 33.°68N±0.°04×140.°68E±0.°08, h27km±14km, n20, σ1.°39/28, mb3.4/4, Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JHJ2** | **Mitsune** | **0.92 232** | | P | **Pn** | **05 03 40.7** | **+0.5** |
| JHJ2 | | | | S | **Sn** | **05 03 52.3** | **-0.2** |
| **JHJ** | **Hachijo jima 2** | **0.94 233** | | Pn | **Pn** | **05 03 40.8** | **+0.3** |
| | 93nm,0.3s,baz=341,slow=19,SNR=57 | | | | | | |
| JHJ | | | | Sn | **Sn** | **05 03 52.5** | **-0.5** |
| | 302nm,0.3s,baz=79,slow=22,SNR=40 | | | | | | |
| **JHCJ** | **Hachijojimakas** | **0.95 231** | | P | **Pn** | **05 03 41.1** | **+0.3** |
| JHCJ | | | | S | **Sn** | **05 03 53.2** | **-0.3** |
| **BSO1** | **Boso 1** | **1.00 14** | | P | **Pb** | **05 03 41.1** | **-0.4** |
| BSO1 | | | | *e*S | **Sb** | **05 03 54.1** | **+0.1** |
| **BSO3** | **Boso 3** | **1.12 353** | | P | **Pn** | **05 03 43.1** | **+0.3** |
| BSO3 | | | | *e*S | **Sn** | **05 03 56.4** | **-0.9** |
| **BSO4** | **Boso 4** | **1.33 348** | | P | **Pn** | **05 03 46.3** | **+0.4** |
| BSO4 | | | | S | **Sn** | **05 04 00.9** | **-1.7** |
| **JKO** | **Kozu shima** | **1.38 292** | | P | **Pn** | **05 03 46.7** | **+0.2** |
| JKO | | | | S | **Sn** | **05 04 03.1** | **-0.7** |
| **JIM2** | **Oshima 3** | **1.46 315** | | P | **Pn** | **05 03 47.4** | **-0.3** |
| JIM2 | | | | *e*S | **Sn** | **05 04 03.9** | **-2.0** |
| **JIZS** | **Izushimoda** | **1.81 305** | | P | **Pn** | **05 03 52.9** | **+0.4** |
| JIZS | | | | *e*S | **Sn** | **05 04 12.9** | **-1.7** |
| **JOD2** | **Odawara 2** | **2.05 321** | | P | **Pn** | **05 03 55.7** | **-0.1** |
| JOD2 | | | | S | **Sn** | **05 04 17.4** | **-3.1** |
| **MJAR** | **Matsushiro Arr** | **3.50 325** | | Pn | **Pn** | **05 04 17.6** | **+1.9** |
| | 2.7nm,0.3s,baz=146,slow=12,SNR=19 | | | | | | |
| MJAR | | | | Sn | **Sn** | **05 04 57.5** | **+1.3** |
| | 1.1nm,0.3s,baz=153,slow=11,SNR=4.5 | | | | | | |
| **MAT** | **Matsushiro** | **3.50 325** | | P | **Pn** | **05 04 17.8** | **+2.1** |
| MAT | | | | S | **Sn** | **05 04 57.1** | **+0.9** |
| **KSRS** | **Korea Array** | **11.04 294** | | LR | LR | 05 09 50.0 | |
| | comp=Z,28nm,18.6s,baz=135,slow=34 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy 27.14** | **114** | | T | T | 05 37 51.1 | |
| | baz=306,slow=75,SNR=5.5 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy 27.14** | **114** | | T | T | 05 37 50.8 | |
| | baz=306,slow=75,SNR=13 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy 27.16** | **114** | | T | T | 05 37 52.7 | |
| | baz=306,slow=75,SNR=7.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **45.46 305** | | P | **P** | **05 11 42.3** | **+2.5** |
| | 0.1nm,0.5s,baz=92,slow=10,SNR=2.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **53.67 187** | | P | **P** | **05 12 40.8** | **-1.7** |
| | 1.3nm,0.5s,baz=4.9,slow=7.7,SNR=24 | | | | | | |
| **ASAR** | **Alice Springs** | **57.40 187** | | P | **P** | **05 13 07.3** | **-1.9** |
| | 0.4nm,0.6s,baz=3.3,slow=7.9,SNR=9.4 | | | | | | |
| **NVAR** | **Mina Array Bea** | **77.50 52** | | P | **P** | **05 15 17.0** | **+0.4** |
| | 0.1nm,0.4s,baz=286,slow=7.4,SNR=3.3 | | | | | | |

*ISCJB* ***29*** *05:06:39.1±0.3, 58.°91N±0.°03×152.°51W±0.°05, h79km±4km, mb3.7/7, Error ellipse: s-maj=5.0km s-min=3.8km az=148.3*
*IDC* ***29*** *05:06:39.8±1.7, 59.°07N×152.°90W, h46km±22km, mb3.4/6, mb1 3.5/9, mb1mx3.3/51, mbtmp3.6/9, ML3.3/3, MS3.3/1, Ms1 3.3/1, ms1mx2.5/26, Error ellipse: s-maj=20.5km s-min=14.1km az=101.0*
*NEIC* ***29*** *05:06:41.3±0.0, 58.°92N×152.°62W, h60km, ML3.6(AEIC), After AEIC.*
*NEIC Felt at Homer.*

**ISC 29 05:06:40.9±0.8, 58.°95N±0.°04×152.°55W±0.°04, h67km±8km, n99, σ0.°98/106, mb3.4/7, Kodiak Island region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **FOPK** | **Fourpeaked Vol** | **0.52 249** | | P | **Pn** | **05 06 52.2** | **-1.4** |
| **CDD** | **Cape Douglas** | **0.57 268** | | P | **Pn** | **05 06 53.0** | **-1.1** |
| **AUE** | **Augustine Isla** | **0.59 315** | | P | **Pn** | **05 06 53.9** | **-0.4** |
| **AUI** | **Augustine Isla** | **0.59 311** | | P | **Pn** | **05 06 53.7** | **-0.7** |
| AUI | | | | S | **Sn** | **05 07 02.5** | **-1.8** |
| **FOSS** | **Fourpeaked Sta** | **0.61 256** | | P | **Pn** | **05 06 53.6** | **-1.0** |
| **AUW** | **Augustine West** | **0.64 312** | | P | **Pn** | **05 06 54.2** | **-0.6** |
| **HOM** | **Homer** | **0.85 33** | | P | **Pn** | **05 06 57.5** | **+0.2** |
| HOM | | | | S | **Sn** | **05 07 10.3** | **+0.8** |
| **CNPM** | **China Poot** | **0.89 49** | | P | **Pn** | **05 06 57.9** | **+0.1** |
| CNPM | | | | S | **Sn** | **05 07 11.4** | **+1.0** |
| **KAPH** | **Katmai Pasha** | **1.00 250** | | P | **Pn** | **05 06 58.6** | **-0.7** |
| KAPH | | | | S | **Sn** | **05 07 12.2** | **-0.7** |
| **ILS** | **Iliamna Low So** | **1.05 346** | | P | **Pn** | **05 06 59.4** | **-0.5** |
| **IVE** | **Iliamna Volcan** | **1.10 348** | | P | **Pn** | **05 06 60.0** | **-0.6** |
| **KDAK** | **Kodiak Island** | **1.17 181** | | P | **Pn** | **05 07 00.5** | **-0.9** |
| | 160nm,0.3s,baz=42,slow=8.3,SNR=1778 | | | | | | |
| KDAK | | | | S | **Sn** | **05 07 17.8** | **+1.2** |
| | 295nm,0.3s,baz=190,slow=18,SNR=33 | | | | | | |
| **BRLK** | **Bradley Lake** | **1.18 45** | | P | **Pn** | **05 07 01.3** | **-0.3** |
| **KAHC** | **Katmai Hardscr** | **1.31 258** | | P | **Pn** | **05 07 02.4** | **-0.9** |
| **RED** | **Redoubt Volcan** | **1.48 356** | | P | **Pn** | **05 07 05.3** | **-0.2** |
| **RSO** | **Redoubt South** | **1.52 356** | | *e*Pn | **Pn** | **05 07 06.2** | **0.0** |
| RSO | | | | *e*Sn | **Sn** | **05 07 25.9** | **+0.6** |
| **RDWB** | **Redoubt West** | **1.55 355** | | P | **Pn** | **05 07 06.3** | **-0.3** |
| **RDJH** | **Redoubt Jeurge** | **1.65 356** | | P | **Pn** | **05 07 08.0** | **+0.1** |
| **KELA** | **Mount Kelaz** | **1.74 254** | | P | **Pn** | **05 07 08.2** | **-0.9** |
| **OHAK** | **Old Harbor** | **1.78 193** | | P | **Pn** | **05 07 08.3** | **-1.1** |
| **SLKM** | **Skilak Lake** | **1.96 36** | | P | **Pn** | **05 07 11.8** | **-0.2** |
| **SPU** | **Mount Spurr** | **2.25 6** | | *e*Pn | **Pn** | **05 07 16.5** | **+0.6** |
| SPU | | | | *e*Sn | **Sn** | **05 07 43.2** | **+0.5** |
| **CKL** | **Chakachamna La** | **2.26 3** | | P | **Pn** | **05 07 16.7** | **+0.6** |
| **SPCP** | **Crater Peak Br** | **2.33 5** | | P | **Pn** | **05 07 18.0** | **+0.9** |
| **SPWE** | **Spurr West** | **2.33 360** | | P | **Pn** | **05 07 17.8** | **+0.8** |
| **SPCG** | **Spurr Capps Gl** | **2.37 6** | | P | **Pn** | **05 07 18.4** | **+0.9** |
| **FIB** | **Fire Island** | **2.52 27** | | P | **Pn** | **05 07 20.6** | **+1.1** |
| **RC01** | **Rabbit Creek A** | **2.57 32** | | P | **Pn** | **05 07 20.5** | **+0.3** |
| **STLK** | **Strandline Lak** | **2.58 8** | | P | **Pn** | **05 07 21.5** | **+1.1** |
| **SVW2** | **Sparrevohn** | **2.64 326** | | P | **Pn** | **05 07 20.5** | **-0.6** |
| **PMR** | **Palmer** | **3.15 31** | | P | **Pn** | **05 07 27.7** | **-0.3** |
| **KNIK** | **Knik Glacier** | **3.21 38** | | P | **Pn** | **05 07 28.5** | **-0.4** |
| **MIDI** | **Middleton Isla** | **3.23 79** | | *e*Pn | **Pn** | **05 07 28.5** | **-0.7** |
| **GHO** | **Glory Hole Cre** | **3.36 31** | | P | **Pn** | **05 07 30.8** | **-0.2** |
| **GLI** | **Glacier Island** | **3.36 52** | | P | **Pn** | **05 07 29.7** | **-1.3** |
| **SML** | **Sawmill** | **3.55 34** | | P | **Pn** | **05 07 33.4** | **-0.2** |
| **FID** | **Port Fidalgo** | **3.56 57** | | P | **Pn** | **05 07 31.9** | **-1.7** |
| **EYAK** | **Cordova Ski Ar** | **3.80 62** | | P | **Pn** | **05 07 36.0** | **-0.9** |
| **SCM** | **Sheep Creek Mo** | **3.88 40** | | P | **Pn** | **05 07 38.2** | **+0.1** |
| **PPLA** | **Purkeypile** | **3.96 2** | | P | **Pn** | **05 07 40.4** | **+1.1** |
| **DIV** | **Divide** | **4.04 54** | | *e*Pn | **Pn** | **05 07 39.9** | **-0.4** |
| **CHGN** | **Chignik** | **4.12 232** | | *e*Pn | **Pn** | **05 07 40.7** | **-0.6** |
| **KLU** | **Klutina** | **4.18 50** | | P | **Pn** | **05 07 41.6** | **-0.5** |
| **RAGM** | **Ragged Mountai** | **4.25 67** | | *e*Pn | **Pn** | **05 07 42.3** | **-0.7** |
| RAGM | | | | *e*Sn | **Sn** | **05 08 29.0** | **-2.4** |
| **TT01** | **Tatalina** | **4.32 338** | | P | **Pn** | **05 07 43.8** | **-0.2** |
| **TTA** | **Tatalina** | **4.34 339** | | *e*Pn | **Pn** | **05 07 44.0** | **-0.3** |
| **BMRM** | **Bremner River** | **4.48 60** | | P | **Pn** | **05 07 45.2** | **-1.1** |
| **NICHA** | **Nichawak Mount** | **4.55 70** | | P | **Pn** | **05 07 46.8** | **-0.4** |
| **TRF** | **Thorofare Moun** | **4.65 13** | | P | **Pn** | **05 07 49.2** | **+0.8** |
| **KTH** | **Kantishna Hill** | **4.69 9** | | P | **Pn** | **05 07 50.5** | **+1.4** |
| **PS11** | **TAPS Pump St11** | **4.70 45** | | P | **Pn** | **05 07 50.6** | **+1.4** |
| **RND** | **Reindeer** | **4.82 20** | | P | **Pn** | **05 07 51.2** | **+0.4** |
| **DHY** | **Denali Highway** | **4.85 29** | | P | **Pn** | **05 07 51.5** | **+0.2** |
| **KHIT** | **Khitrov Hills** | **4.94 68** | | P | **Pn** | **05 07 51.8** | **-0.8** |
| **HARP** | **HAARP** | **5.02 43** | | P | **Pn** | **05 07 54.5** | **+0.8** |
| **MCK** | **McKinley** | **5.11 18** | | P | **Pn** | **05 07 55.3** | **+0.6** |
| **BPAW** | **Bear Paw Mtn.** | **5.22 8** | | P | **Pn** | **05 07 56.9** | **+0.5** |
| **PAX** | **Paxson** | **5.31 38** | | P | **Pn** | **05 07 58.1** | **+0.6** |
| **ISLE** | **Juniper Island** | **5.42 68** | | P | **Pn** | **05 07 58.9** | **-0.3** |
| **BAGL** | **Bagley Icefiel** | **5.51 69** | | P | **Pn** | **05 08 00.4** | **+0.1** |
| **MESA** | **MESA** | **5.53 73** | | P | **Pn** | **05 08 00.8** | **+0.1** |
| **RKAV** | **Rock Avalanche** | **5.84 72** | | P | **Pn** | **05 08 05.4** | **+0.4** |
| **MENT** | **Mentasta** | **5.87 43** | | *e*Pn | Pn | 05 08 12.6 | +7.3 |
| **HDA** | **Harding Lake** | **6.09 24** | | P | **Pn** | **05 08 08.9** | **+0.7** |
| **SAMH** | **Samovar Hills** | **6.10 74** | | P | **Pn** | **05 08 08.9** | **+0.4** |
| **CCB** | **Clear Creek Bu** | **6.14 19** | | P | **Pn** | **05 08 09.1** | **-0.4** |
| **MLY** | **Manley** | **6.16 7** | | P | **Pn** | **05 08 09.6** | **+0.4** |
| **PS08** | **TAPS Pump Stn8** | **6.24 23** | | P | **Pn** | **05 08 10.4** | **+0.3** |
| **DOT** | **Dot Lake** | **6.24 37** | | *e*Pn | **Pn** | **05 08 10.5** | **+0.3** |
| **COLA** | **College** | **6.34 18** | | P | **Pn** | **05 08 11.4** | **-0.2** |
| **PCA** | **Pinnacle** | **6.36 74** | | P | **Pn** | **05 08 11.8** | **-0.2** |
| **MDM** | **Murphy Dome** | **6.37 17** | | P | **Pn** | **05 08 11.7** | **-0.3** |
| **ILAR** | **Eielson Array** | **6.42 22** | | P | **Pn** | **05 08 11.8** | **-0.9** |
| | 1.9nm,0.3s,baz=208,slow=13,SNR=93 | | | | | | |
| ILAR | | | | S | **Sn** | **05 09 19.0** | **-5.6** |
| | 0.8nm,0.3s,baz=206,slow=24,SNR=4.2 | | | | | | |
| **ILB** | **Eielson Array** | **6.42 22** | | P | **Pn** | **05 08 12.4** | **-0.3** |
| **IL1** | **Eielson Array** | **6.43 22** | | *e*Pn | **Pn** | **05 08 11.8** | **-0.9** |
| **BCA3** | **Beaver Creek A** | **6.66 47** | | P | **Pn** | **05 08 16.7** | **+0.6** |
| **PNL** | **Peninsula** | **6.77 78** | | P | **Pn** | **05 08 16.9** | **-0.7** |
| **IM3** | **Indian Mountai** | **7.08 356** | | P | **Pn** | **05 08 22.4** | **+0.6** |
| **IMAR** | **Indian Mountai** | **7.08 356** | | *e*Pn | **Pn** | **05 08 22.1** | **+0.4** |
| **HYT** | **Haines Junctio** | **7.80 70** | | *e*Pn | **Pn** | **05 08 31.3** | **-0.4** |
| **EGAK** | **Eagle** | **7.94 38** | | *e*Pn | **Pn** | **05 08 33.2** | **-0.3** |
| **DAWY** | **Dawson** | **8.11 45** | | P | **Pn** | **05 08 36.3** | **+0.5** |
| **PLBC** | **Pleasant Camp** | **8.32 80** | | P | **Pn** | **05 08 39.0** | **+0.3** |
| **FYU** | **Fort

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | baz=267 | | | | | | | |
| **EHP** | **Heping Village** | **0.60** | **335** | *e*P | **Pn** | **05 15 25.2** | **-0.4** |
| | baz=327 | | | | | | | |
| **EHY** | **Hungye** | **0.69** | **248** | ⇑*i*P | **Pb** | **05 15 26.3** | **0.0** |
| | baz=260 | | | | | | | |
| EHY | | | | *e*S | **Sb** | **05 15 35.5** | **-0.1** |
| | baz=260 | | | | | | | |
| **ENA** | **Nanau** | **0.71** | **339** | ⇑*i*P | **Pb** | **05 15 26.5** | **0.0** |
| | baz=333 | | | | | | | |
| ENA | | | | *e*S | **Sb** | **05 15 36.1** | **+0.2** |
| | baz=333 | | | | | | | |
| **TWF1** | **Yuli** | **0.78** | **238** | ⇑*i*P | **Pb** | **05 15 28.0** | **+0.1** |
| | baz=250 | | | | | | | |
| TWF1 | | | | S | **Sb** | **05 15 38.2** | **+0.1** |
| | baz=250 | | | | | | | |
| **WHF** | **Hehuan Shan** | **0.79** | **299** | ⇑*i*P | **Pb** | **05 15 27.7** | **-0.5** |
| | baz=291 | | | | | | | |
| WHF | | | | S | **Sb** | **05 15 37.9** | **-0.8** |
| | baz=291 | | | | | | | |
| **WDT** | **Danda** | **0.82** | **269** | ⇑*i*P | **Pb** | **05 15 28.4** | **-0.2** |
| | baz=268 | | | | | | | |
| WDT | | | | S | **Sb** | **05 15 38.6** | **-0.7** |
| | baz=268 | | | | | | | |
| **TWC** | **Suao** | **0.85** | **349** | ⇑P | **Pn** | **05 15 29.3** | **+0.1** |
| | baz=352 | | | | | | | |
| TWC | | | | *i* S | **Sn** | **05 15 40.5** | **-0.3** |
| | baz=352 | | | | | | | |
| **NNS** | **Nan Shan** | **0.90** | **319** | ⇑*i*P | **Pb** | **05 15 29.5** | **-0.3** |
| | baz=311 | | | | | | | |
| NNS | | | | *e*S | **Sb** | **05 15 41.1** | **-0.3** |
| | baz=311 | | | | | | | |
| **TWT** | **Tachien** | **0.91** | **302** | ⇑*i*P | **Pn** | **05 15 30.1** | **0.0** |
| | baz=301 | | | | | | | |
| TWT | | | | *e*S | **Sb** | **05 15 41.9** | **-0.1** |
| | baz=301 | | | | | | | |
| **ENTT** | **Nioudou** | **0.96** | **334** | *e*P | **Pb** | **05 15 30.6** | **-0.3** |
| | baz=336 | | | | | | | |
| ENTT | | | | *e*S | **Sb** | **05 15 42.7** | **-0.5** |
| | baz=336 | | | | | | | |
| **TWE** | **Neicheng** | **1.00** | **341** | *e*P | **Pn** | **05 15 31.1** | **-0.1** |
| | baz=343 | | | | | | | |
| **YUS** | **Yu-Shan** | **1.02** | **255** | ⇑*i*P | **Pb** | **05 15 32.0** | **-0.1** |
| | baz=253 | | | | | | | |
| YUS | | | | S | **Sb** | **05 15 44.5** | **-0.8** |
| | baz=253 | | | | | | | |
| **SMLT** | **Sun Moon Lake** | **1.03** | **277** | ⇑*i*P | **Pb** | **05 15 32.0** | **-0.2** |
| | baz=283 | | | | | | | |
| SMLT | | | | S | **Sb** | **05 15 44.6** | **-0.8** |
| | baz=283 | | | | | | | |
| **TYC** | **Yuchr** | **1.08** | **278** | ⇑*i*P | **Pb** | **05 15 32.4** | **-0.4** |
| | baz=284 | | | | | | | |
| TYC | | | | S | **Sb** | **05 15 45.8** | **-0.6** |
| | baz=284 | | | | | | | |
| **JYNG** | **Yonaguni jima** | **1.08** | **51** | P | **Pn** | **05 15 32.6** | **+0.3** |
| JYNG | | | | S | **Sb** | **05 15 46.6** | **-0.1** |
| **ELDTW** | **Lidau** | **1.09** | **238** | *e*P | **Pn** | **05 15 31.9** | **-0.6** |
| | baz=236 | | | | | | | |
| **NSK** | **Sanguang** | **1.09** | **326** | ⇑*i*P | **Pn** | **05 15 32.5** | **0.0** |
| | baz=327 | | | | | | | |
| NSK | | | | *e*S | **Sb** | **05 15 45.6** | **-1.3** |
| | baz=327 | | | | | | | |
| **YOJ** | **Yonaguni jima** | **1.14** | **52** | *e*P | **Pn** | **05 15 33.5** | **+0.4** |
| | baz=54 | | | | | | | |
| YOJ | | | | *e*S | **Sn** | **05 15 48.0** | **+0.2** |
| | baz=54 | | | | | | | |
| **YOJ** | **Yonaguni jima** | **1.14** | **52** | P | **Pn** | **05 15 33.6** | **+0.6** |
| YOJ | | | | S | **Sn** | **05 15 48.0** | **+0.2** |
| **ALS** | **Alishan** | **1.15** | **257** | ⇑*i*P | **Pb** | **05 15 34.1** | **-0.1** |
| | baz=266 | | | | | | | |
| ALS | | | | S | **Sb** | **05 15 48.2** | **-0.5** |
| | baz=266 | | | | | | | |
| **WNT** | **Mingjian** | **1.23** | **275** | *e*P | **Pb** | **05 15 35.5** | **+0.1** |
| | baz=274 | | | | | | | |
| WNT | | | | *e*S | **Sb** | **05 15 51.8** | **+0.9** |
| | baz=274 | | | | | | | |
| **TWB1** | **Santiao Chiao** | **1.24** | **359** | *e*P | **Pn** | **05 15 34.7** | **+0.3** |
| **CHN5** | **Tsauling** | **1.25** | **262** | ⇑*i*P | **Pb** | **05 15 35.8** | **+0.1** |
| | baz=261 | | | | | | | |
| CHN5 | | | | S | **Sn** | **05 15 50.7** | **+0.1** |
| | baz=261 | | | | | | | |
| **NSTT** | **Nanjuang** | **1.27** | **313** | ⇑*i*P | **Pb** | **05 15 36.0** | **-0.1** |
| | baz=313 | | | | | | | |
| NSTT | | | | *i* S | **Sb** | **05 15 51.3** | **-0.7** |
| | baz=313 | | | | | | | |
| **TWA** | **Mucha** | **1.27** | **342** | *e*P | **Pb** | **05 15 36.7** | **+0.5** |
| | baz=343 | | | | | | | |
| **TWQ1** | **Liyutan** | **1.28** | **297** | ⇑P | **Pb** | **05 15 36.6** | **+0.3** |
| | baz=297 | | | | | | | |
| TWQ1 | | | | S | **Sb** | **05 15 52.7** | **+0.4** |
| | baz=297 | | | | | | | |
| **TWG** | **Pinlang** | **1.28** | **223** | *e*P | **Pn** | **05 15 34.7** | **-0.4** |
| | baz=231 | | | | | | | |
| **TCU** | **Taichung** | **1.29** | **287** | *e*P | **Pb** | **05 15 36.8** | **+0.4** |
| | baz=287 | | | | | | | |
| TCU | | | | *e*S | **Sb** | **05 15 53.8** | **+1.2** |
| | baz=287 | | | | | | | |
| **STYT** | **Tauyuan** | **1.31** | **243** | *e*P | **Pn** | **05 15 36.1** | **+0.6** |
| | baz=231 | | | | | | | |
| **NWF** | **Wu-fen Shan** | **1.32** | **350** | *e*P | **Pb** | **05 15 36.5** | **-0.4** |
| | baz=351 | | | | | | | |
| NWF | | | | *e*S | **Sb** | **05 15 53.3** | **-0.1** |
| | baz=351 | | | | | | | |
| **NSY** | **Sanyi** | **1.32** | **300** | *e*P | **Pb** | **05 15 37.3** | **+0.3** |
| | baz=299 | | | | | | | |
| NSY | | | | *e*S | **Sb** | **05 15 54.4** | **+0.9** |
| | baz=299 | | | | | | | |
| **WGK** | **Gukeng** | **1.34** | **267** | *e*P | **Pb** | **05 15 37.2** | **-0.1** |
| | baz=266 | | | | | | | |
| **CHN4** | **Tsaushan** | **1.38** | **253** | ⇑P | **Pb** | **05 15 37.6** | **-0.3** |
| | baz=251 | | | | | | | |
| CHN4 | | | | *e*S | **Sb** | **05 15 55.6** | **+0.6** |
| | baz=251 | | | | | | | |
| **WTP** | **Ta-pu** | **1.39** | **248** | ⇑P | **Pb** | **05 15 37.8** | **-0.4** |
| | baz=247 | | | | | | | |
| WTP | | | | *e*S | **Sb** | **05 15 56.1** | **+0.5** |
| | baz=247 | | | | | | | |
| **HSN** | **Hsinchu** | **1.41** | **317** | *e*P | **Pb** | **05 15 38.3** | **-0.1** |
| | baz=319 | | | | | | | |
| HSN | | | | *e*S | **Sb** | **05 15 56.8** | **+0.8** |
| | baz=319 | | | | | | | |
| **NCU** | **National Centr** | **1.42** | **328** | *e*P | **Pn** | **05 15 36.9** | **-0.1** |
| | baz=328 | | | | | | | |
| NCU | | | | *e*S | **Sb** | **05 15 56.0** | **-0.3** |
| | baz=328 | | | | | | | |
| **TWS1** | **Kuangyinshan** | **1.44** | **338** | *e*P | **Pb** | **05 15 38.3** | **-0.6** |
| | baz=338 | | | | | | | |
| TWS1 | | | | *e*S | **Sb** | **05 15 56.4** | **-0.4** |
| | baz=338 | | | | | | | |
| **CHN2** | **Minshiung** | **1.44** | **261** | *e*P | **Pn** | **05 15 37.8** | **+0.6** |
| | baz=260 | | | | | | | |
| **SGST** | **Jiashian** | **1.49** | **243** | *e*P | **Pb** | **05 15 40.0** | **+0.2** |
| | baz=231 | | | | | | | |
| SGST | | | | *e*S | **Sb** | **05 15 60.0** | **+1.7** |
| | baz=231 | | | | | | | |
| **CHN1** | **Nanshi** | **1.49** | **247** | *e*P | **Pb** | **05 15 39.4** | **-0.4** |
| | baz=246 | | | | | | | |
| CHN1 | | | | S | **Sb** | **05 15 59.5** | **+1.2** |
| | baz=246 | | | | | | | |
| **CHY** | **Chiayi** | **1.49** | **260** | *e*P | **Pb** | **05 15 39.5** | **-0.3** |
| | baz=259 | | | | | | | |
| **TWK** | **Hsinying** | **1.50** | **251** | P | **Pb** | **05 15 39.8** | **-0.2** |
| | baz=249 | | | | | | | |
| TWK | | | | *e*S | **Sb** | **05 15 59.0** | **+0.5** |
| | baz=249 | | | | | | | |
| **TWY** | **Chenhua** | **1.55** | **346** | *e*P | **Pn** | **05 15 39.5** | **+0.8** |
| | baz=347 | | | | | | | |
| **WTCT** | **Ta-ch'eng** | **1.60** | **274** | *e*P | **Pb** | **05 15 41.1** | **-0.6** |
| | baz=273 | | | | | | | |
| WTCT | | | | *e*S | **Sb** | **05 16 02.5** | **+1.0** |
| | baz=273 | | | | | | | |
| **SSD** | **Sandimen** | **1.63** | **232** | *e*P | **Pb** | **05 15 41.4** | **-0.9** |
| | baz=223 | | | | | | | |
| **HATJ** | **Hateruma jima** | **1.66** | **80** | P | **Pn** | **05 15 40.6** | **+0.4** |
| HATJ | | | | S | **Sn** | **05 16 00.9** | **+0.3** |
| **IRIF** | **Iriomote-Funau** | **1.66** | **70** | P | **Pn** | **05 15 40.8** | **+0.6** |
| IRIF | | | | S | **Sn** | **05 16 01.2** | **+0.5** |
| **CHN8** | **Yiju** | **1.71** | **256** | *e*P | **Pb** | **05 15 43.4** | **-0.2** |
| | baz=255 | | | | | | | |
| CHN8 | | | | *e*S | **Sb** | **05 16 04.2** | **-0.6** |
| | baz=255 | | | | | | | |
| **TWM1** | **Shoushan** | **1.75** | **238** | *e*P | **Pb** | **05 15 44.2** | **0.0** |
| | baz=236 | | | | | | | |
| **EAST** | **Anshuo** | **1.75** | **218** | *e*P | **Pn** | **05 15 42.5** | **+1.0** |
| | baz=217 | | | | | | | |
| **SCLT** | **Jiali** | **1.78** | **251** | *e*P | **Pn** | **05 15 42.9** | **+1.0** |
| | baz=250 | | | | | | | |
| SCLT | | | | *e*S | **Sb** | **05 16 06.2** | **-0.4** |
| | baz=250 | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **JKRS** | **Kuro-shima** | **1.88** | **75** | P | **Pn** | **05 15 43.9** | **+0.7** |
| JKRS | | | | S | **Sn** | **05 16 07.1** | **+1.1** |
| **SCZT** | **Fangliau** | **1.90** | **223** | *e*P | **Pb** | **05 15 45.3** | **-1.4** |
| | baz=218 | | | | | | | |
| **JIJ** | **Ishigaki jima** | **2.03** | **73** | P | **Pn** | **05 15 45.4** | **+0.1** |
| JIJ | | | | S | **Sn** | **05 16 08.9** | **-0.9** |
| **TSEB** | **Hengchuen, Pin** | **2.13** | **209** | *e*P | **Pn** | **05 15 45.8** | **-0.9** |
| | baz=209 | | | | | | | |
| **WDGT** | **Dungji** | **2.23** | **257** | *e*P | **Pn** | **05 15 48.5** | **+0.5** |
| | baz=256 | | | | | | | |
| WDGT | | | | *e*S | **Sn** | **05 16 14.1** | **-0.6** |
| | baz=256 | | | | | | | |
| **JISG** | **Ishigakijimahi** | **2.24** | **68** | P | **Pn** | **05 15 47.9** | **-0.4** |
| JISG | | | | S | **Sn** | **05 16 14.3** | **-0.8** |
| **PNG** | **Penghu** | **2.27** | **265** | *e*P | **Pn** | **05 15 49.5** | **+0.9** |
| | baz=264 | | | | | | | |
| PNG | | | | *e*S | **Sn** | **05 16 16.1** | **+0.2** |
| | baz=264 | | | | | | | |
| **JTJ** | **Tarama** | **2.60** | **70** | P | **Pn** | **05 15 53.5** | **+0.4** |
| JTJ | | | | S | **Sn** | **05 16 23.1** | **-0.7** |
| **JIKM** | **Ikemajima** | **3.16** | **68** | P | **Pn** | **05 16 00.9** | **0.0** |
| JIKM | | | | S | **Sn** | **05 16 37.2** | **-0.5** |
| **JMJ** | **Miyako jima 2** | **3.16** | **70** | *e*S | **Sn** | **05 16 38.0** | **+0.2** |
| **KNM** | **Kinmen** | **3.34** | **282** | *e*P | **Pn** | **05 16 04.9** | **+1.5** |
| | baz=280 | | | | | | | |

*CASC* ***29*** *05:19:51.0±0.9, 15°.25N×91°.75W, h3km±94km, ML3.7, mb4.6(NEIC)*

*IDC* ***29*** *05:19:53.7±0.8, 15°.36N×91°.20W, h0km, mb4.1/15, mb1 4.4/17, mb1mx4.2/37, mbtmp4.2/17, ML4.4/2, MS3.7/21, Ms1 3.7/21, ms1mx3.7/31, Error ellipse: s-maj=25.9km s-min=14.4km az=48.0*

*MEX* ***29*** *05:19:55.8±0.6, 14°.95N×91°.28W, h10km, MD4.7*

*ISCJB* ***29*** *05:19:56.1±1.0, 15°.41N±0°.03×91°.26W±0°.03, h23km±7km, mb4.5/81, MS3.8/19, Error ellipse: s-maj=5.2km s-min=3.6km az=137.2*

*NEIC* ***29*** *05:19:57.2±0.4, 15°.41N×91°.31W, h10km, mb4.6/103, MD4.7(MEX), Error ellipse: s-maj=7.4km s-min=4.9km az=33.0*

*NEIC Felt [IV] at Huehuetenango and Quetzaltenango. Also felt at Aguacatan, Antigua Guatemala, Chiantla, Coatepeque, Coban, Guatemala, Ostuncalco, San Cristobal Cucho and San Marcos La Laguna. Felt at Huixtla and Tuxtla Gutierrez, Mexico.*

**ISC 29 05:19:59.0±1.4, 15°.36N±0°.05×91°.27W±0°.05, h32km±10km, n458, σ1°83/447, mb4.6/81, MS3.8/20, 1D, Mexico-Guatemala border region**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **IXG** | **Ixpaco** | **1.42** | **146** | ⇓*i*P | **Pn** | **Pb** | **05 20 20.5** | **-2.2** |
| IXG | | | | *e*S | **Sb** | **Sb** | **05 20 44.1** | **+1.4** |
| **MRL** | **Marmol** | **1.56** | **100** | *e*P | **Pb** | **Pb** | **05 20 25.8** | **-1.4** |
| MRL | | | | *e*S | **Sb** | **Sb** | **05 20 52.8** | **+6.1** |
| **PCIG** | | **1.91** | **281** | *e*P | **Pn** | **Pn** | **05 20 27.2** | **-2.0** |
| PCIG | | | | *e*S | **Sn** | **Sn** | **05 20 50.3** | **-1.9** |
| **PCIG** | | **1.91** | **281** | *e*P | **Pn** | **Pn** | **05 20 27.2** | **-2.0** |
| PCIG | | | | *e*S | **Sn** | **Sn** | **05 20 50.3** | **-1.9** |
| **CUS1** | **Cusmapa** | **1.93** | **138** | *e*P | **Pn** | **Pn** | **05 20 28.5** | **-1.1** |
| **RTR** | **El Retiro** | **2.14** | **132** | *e*P | **Pn** | **Pn** | **05 20 32.2** | **-0.5** |
| **UNIC** | **Santa Ana** | **2.14** | **129** | IAML | | | 05 20 35.3 | |
| | comp=Z,1µm,0.4s | | | | | | | |
| **MONT** | **Ecomontaæa** | **2.17** | **133** | *e*P | **Pn** | **Pn** | **05 20 32.2** | **-0.9** |
| **TGBT** | **Tuxtla Gutierr** | **2.25** | **309** | *e*P | **Pn** | **Pn** | **05 20 33.6** | **-0.3** |
| TGBT | | | | *e*S | **Sn** | **Sn** | **05 21 03.0** | **+2.5** |
| **TGIG** | | **2.27** | **309** | *e*P | **Pn** | **Pn** | **05 20 33.8** | **-0.5** |
| TGIG | | | | *e*S | **Sn** | **Sn** | **05 21 04.2** | **+2.9** |
| **TGIG** | | **2.27** | **309** | *e*P | **Pn** | **Pn** | **05 20 33.8** | **-0.5** |
| TGIG | | | | *e*S | **Sn** | **Sn** | **05 21 04.2** | **+2.9** |
| **SNET** | **Serv Nac Est T** | **2.58** | **130** | IAML | | | 05 20 48.8 | |
| | comp=Z,474nm,0.4s | | | | | | | |
| **SCIG** | **Sabancuy** | **3.59** | **1** | *e*Pn | **Pn** | **Pn** | **05 20 51.1** | **-1.3** |
| **CMIG** | **Matias Romero** | **3.87** | **297** | Pn | **Pn** | **Pn** | **05 20 54.5** | **-1.9** |
| | comp=Z,33nm,0.3s,baz=107,slow=8.2,SNR=227 | | | | | | | |
| CMIG | | | | Sn | **Sn** | | **05 21 41.6** | **+0.8** |
| | comp=Z,177nm,0.3s,baz=131,slow=20,SNR=3.3 | | | | | | | |
| CMIG | | | | Lg | Lg | | 05 21 53.2 | |
| | comp=Z,475nm,0.3s,baz=65,slow=5.1,SNR=16 | | | | | | | |
| CMIG | | | | LR | LR | | 05 22 36.5 | |
| | comp=Z,816nm,18.3s,baz=117,slow=41 | | | | | | | |
| **TGUH** | **Tegucigalpa,Un** | **4.08** | **108** | *e*Pn | **Pn** | **Pn** | **05 21 00.2** | **+1.0** |
| **TGUH** | **Tegucigalpa,Un** | **4.08** | **108** | *e*P | **Pn** | **Pn** | **05 20 59.1** | **-0.1** |
| TGUH | | | | *e*S | **Sb** | **Sb** | **05 21 54.0** | **-5.0** |
| **MYIG** | **MØrida** | **5.76** | **14** | *e*Pn | **Pn** | **Pn** | **05 21 21.1** | **-1.1** |
| **LVIG** | **Laguna Verde** | **6.55** | **312** | *e*Pn | **Pn** | **Pn** | **05 21 31.6** | **-1.6** |
| **JTS** | **JuntasAbangare** | **7.96** | **128** | *e*Pn | **Pn** | **Pn** | **05 21 54.1** | **+1.6** |
| | comp=Z,35nm,1.0s | | | | | | | |
| **HDC** | **Heredia** | **8.78** | **126** | *e*Pn | **Pn** | **Pn** | **05 22 05.6** | **+1.7** |
| **MOIG** | **Morelia** | **10.39** | **296** | *e*Pn | **Pn** | **Pn** | **05 22 26.7** | **+0.7** |
| **APOP** | **Alto Boquete** | **10.79** | **127** | IAML | | | 05 21 29.5 | |
| | comp=Z,1µm,0.4s | | | | | | | |
| **LNIG** | **Linares** | **12.21** | **322** | *e*Pn | **Pn** | **Pn** | **05 22 48.4** | **-2.4** |
| **ZAIG** | **Zacatecas** | **12.97** | **306** | *e*Pn | **Pn** | **Pn** | **05 23 02.4** | **+1.0** |
| **MTDJ** | **Mount Denham** | **13.46** | **76** | Pn | **Pn** | **Pn** | **05 23 07.5** | **-0.4** |
| **546A** | **Slidell** | **14.88** | **5** | P | **Pn** | **Pn** | **05 23 24.4** | **-2.6** |
| | baz=186 | | | | | | | |
| **833A** | **Chaparral WMA,** | **14.94** | **331** | P | **Pn** | **Pn** | **05 23 25.5** | **-2.3** |
| | baz=148,SNR=11 | | | | | | | |
| **HKT** | **Hockley** | **15.12** | **345** | *e*Pn | **Pn** | **Pn** | **05 23 30.2** | **0.0** |
| **442A** | **Mamou** | **15.32** | **356** | P | **Pn** | **Pn** | **05 23 32.0** | **-1.0** |
| | baz=176 | | | | | | | |
| **445A** | **Amite** | **15.33** | **3** | P | **Pn** | **Pn** | **05 23 31.4** | **-1.6** |
| | baz=184 | | | | | | | |
| **441A** | **DeRidder** | **15.42** | **354** | P | **Pn** | **Pn** | **05 23 32.2** | **-2.1** |
| | baz=173 | | | | | | | |
| **446A** | **Poplarville** | **15.46** | **6** | P | **Pn** | **Pn** | **05 23 33.9** | **-0.9** |
| | baz=187 | | | | | | | |
| **447A** | **Lucedale** | **15.55** | **8** | P | **Pn** | **Pn** | **05 23 35.0** | **-0.9** |
| | baz=190,SNR=10 | | | | | | | |
| **DWPF** | **Disney Wildern** | **15.63** | **34** | *e*Pn | **Pn** | **Pn** | **05 23 36.3** | **-0.6** |
| | comp=Z,69nm,1.0s | | | | | | | |
| DWPF | | | | *e*Sn | Sn | Sn | 05 26 17.3 | -12 |
| **448A** | **Bay Minette** | **15.82** | **11** | P | **Pn** | **Pn** | **05 23 40.0** | **+0.7** |
| | baz=192 | | | | | | | |
| **345A** | **Thompson Farm,** | **15.92** | **4** | P | **Pn** | **Pn** | **05 23 41.9** | **+1.2** |
| | baz=184 | | | | | | | |
| **342A** | **Flagon Creek P** | **15.97** | **357** | P | **Pn** | **Pn** | **05 23 39.8** | **-1.5** |
| | baz=176 | | | | | | | |
| **341A** | **Kurthwood** | **16.00** | **354** | P | **Pn** | **Pn** | **05 23 39.0** | **-2.7** |
| | baz=174 | | | | | | | |
| **344A** | **Westbrook Farm** | **16.03** | **2** | P | **Pn** | **Pn** | **05 23 41.2** | **-0.8** |
| | baz=182,SNR=11 | | | | | | | |
| **346A** | **Big Creek Wild** | **16.05** | **6** | P | **Pn** | **Pn** | **05 23 41.9** | **-0.4** |
| | baz=186 | | | | | | | |
| **347A** | **Saraland** | **16.17** | **8** | P | **Pn** | **Pn** | **05 23 44.9** | **+1.1** |
| | baz=190,SNR=6.2 | | | | | | | |
| **435B** | **Jarrell** | **16.41** | **340** | P | **Pn** | **Pn** | **05 23 46.3** | **-0.7** |
| | baz=158 | | | | | | | |
| **MOTC** | **Monteria, Cord** | **16.60** | **111** | *e*P | **Pn** | **Pn** | **05 23 46.0** | **-3.5** |
| **NATX** | **Nacogdoches** | **16.62** | **350** | *e*P | **P** | **P** | **05 23 51.5** | **-0.3** |
| NATX | | | | *e*S | Sn | Sn | 05 26 38.4 | -15 |
| **244A** | **Avery, Jackson** | **16.62** | **2** | P | **Pn** | **Pn** | **05 23 49.5** | **-0.1** |
| | baz=182 | | | | | | | |
| **245A** | **Little AP, Sta** | **16.65** | **4** | P | **Pn** | **Pn** | **05 23 50.5** | **+0.6** |
| | baz=185 | | | | | | | |
| **242A** | **Grayson** | **16.65** | **357** | P | **Pn** | **Pn** | **05 23 49.4** | **-0.5** |
| | baz=177 | | | | | | | |
| **241A** | **Mo Tay, Goldon** | **16.66** | **355** | P | **Pn** | **Pn** | **05 23 50.0** | **-0.1** |
| | baz=175 | | | | | | | |
| **247A** | **Quitman** | **16.80** | **8** | P | **P** | **P** | **05 23 53.1** | **-0.6** |
| | baz=189 | | | | | | | |
| **VBMS** | **Vicksburg** | **16.80** | **2** | P | **P** | **P** | **05 23 53.6** | **-0.1** |
| | baz=183 | | | | | | | |
| **VBMS** | **Vicksburg** | **16.80** | **2** | *e*Pn | **Pn** | **Pn** | **05 23 51.5** | **-0.3** |
| **JCT** | **Junction City** | **16.97** | **334** | P | **Pn** | **Pn** | **05 23 52.4** | **-1.6** |
| | baz=151 | | | | | | | |
| **JCT** | **Junction City** | **16.97** | **334** | *e*Pn | **Pn** | **Pn** | **05 23 53.2** | **-0.8** |
| | comp=Z,33nm,1.0s | | | | | | | |
| **248A** | **Dixon Mills** | **16.97** | **10** | P | **Pn** | **Pn** | **05 23 49.4** | **-4.6** |
| | baz=192 | | | | | | | |
| **237A** | **Washetta, Mont** | **17.08** | **347** | P | **Pn** | **Pn** | **05 23 52.3** | **-3.1** |
| | baz=165 | | | | | | | |
| **145A** | **Houston Renfro** | **17.21** | **4** | P | **Pn** | **Pn** | **05 23 56.3** | **-0.7** |
| | baz=184 | | | | | | | |
| **141A** | **Papa Simpson,** | **17.24** | **355** | P | **Pn** | **Pn** | **05 23 56.6** | **-0.7** |
| | baz=175 | | | | | | | |
| **236A** | **Katherine and** | **17.25** | **345** | P | **Pn** | **Pn** | **05 23 55.8** | **-1.7** |
| | baz=163 | | | | | | | |
| **143A** | **Socs Landing,** | **17.27** | **360** | P | **Pn** | **Pn** | **05 23 56.3** | **-1.4** |
| | baz=180 | | | | | | | |
| **146A** | **Union** | **17.32** | **6** | P | **Pn** | **Pn** | **05 23 57.7** | **-0.7** |
| | baz=187 | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **140A** | **Cam and Jess,** | **17.34** | **353** | P | **Pn** | **05 23 57.6** | **-0.9** |
| | baz=173 | | | | | | | |
| **147A** | **Livingston** | **17.46** | **8** | P | **Pn** | **05 23 59.6** | **-0.5** |
| | baz=190 | | | | | | | |
| **139A** | **Bunkhouse Ranc** | **17.48** | **351** | P | **Pn** | **05 24 00.0** | **-0.3** |
| | baz=170 | | | | | | | |
| **TIGA** | **Tifton** | **17.48** | **22** | P | **Pn** | **05 23 59.2** | **-1.2** |
| | baz=206 | | | | | | | |
| **WHTX** | **Lake Whitney,** | **17.49** | **342** | P | **Pn** | **05 23 59.7** | **-0.8** |
| | baz=160 | | | | | | | |
| **WHTX** | **Lake Whitney,** | **17.49** | **342** | *e*Pn | **Pn** | **05 23 59.1** | **-1.4** |
| | comp=Z,45nm,0.8s | | | | | | | |
| **138A** | **Matatall Enter** | **17.57** | **349** | P | **Pn** | **05 24 01.0** | **-0.5** |
| | baz=168 | | | | | | | |
| **137A** | **Heron Place, G** | **17.64** | **347** | P | **Pn** | **05 24 00.2** | **-2.1** |
| | baz=166 | | | | | | | |
| **136A** | **Ennis** | **17.70** | **345** | P | **Pn** | **05 24 01.2** | **-1.9** |
| | baz=163 | | | | | | | |
| **Z43A** | **Armstrong Fami** | **17.78** | **0** | P | **Pn** | **05 24 02.9** | **-1.1** |
| | baz=180 | | | | | | | |
| **Z42A** | **Norrel Spur, H** | **17.85** | **358** | P | **Pn** | **05 24 04.2** | **-0.7** |
| | baz=178 | | | | | | | |
| **Z44A** | **Pea Ridge, Bel** | **17.86** | **2** | P | **Pn** | **05 24 04.1** | **-0.9** |
| | baz=183 | | | | | | | |
| **ZARC** | **Zaragoza, Cauc** | **17.88** | **114** | *e*P | **Pn** | **05 24 03.9** | **-1.5** |
| **Z41A** | **Richland Creek** | **17.88** | **356** | P | **Pn** | **05 24 05.0** | **-0.2** |
| | baz=175 | | | | | | | |
| **Z46A** | **Louisville** | **17.89** | **6** | P | **P** | **05 24 06.3** | **+0.5** |
| | baz=187,SNR=7.3 | | | | | | | |
| **Z40A** | **Long Farm, Mag** | **17.93** | **354** | P | **Pn** | **05 24 04.0** | **-1.8** |
| | baz=173 | | | | | | | |
| **Z45A** | **Winona** | **17.99** | **4** | P | **Pn** | **05 24 06.5** | **-0.2** |
| | baz=185 | | | | | | | |
| **Z47A** | **Carrollton** | **18.00** | **9** | P | **P** | **05 24 07.5** | **+0.5** |
| | baz=190 | | | | | | | |
| **TXAR** | **Lajitas Array** | **18.00** | **323** | P | **P** | **05 24 08.0** | **+0.7** |
| | comp=Z,0.2nm,0.3s,baz=146,slow=9.1,SNR=46 | | | | | | | |
| TXAR | | | | S | **Sn** | **05 27 24.2** | **-2.7** |
| | comp=Z,0.1nm,0.3s,baz=127,slow=25,SNR=2.4 | | | | | | | |
| TXAR | | | | LR | LR | 05 32 05.2 | | |
| | comp=Z,124nm,19.0s,baz=0.0,slow=41 | | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **18.00** | **323** | *e*Pn | **P** | **05 24 07.7** | **+0.5** |
| **LRAL** | **Lakeview Retre** | **18.02** | **12** | P | **P** | **05 24 08.2** | **+0.9** |
| | baz=194 | | | | | | | |
| **LRAL** | **Lakeview Retre** | **18.02** | **12** | *e*Pn | **P** | **05 24 09.5** | **+2.3** |
| | comp=Z,22nm,1.1s | | | | | | | |
| LRAL | | | | *e*Sn | Sn | 05 27 15.2 | -12 |
| **Z37A** | **Pogue Cattle C** | **18.20** | **348** | P | **P** | **05 24 09.6** | **+0.4** |
| | baz=167 | | | | | | | |
| **Z48A** | **Northport** | **18.26** | **10** | P | **Pn** | **05 24 09.9** | **+0.1** |
| | baz=192 | | | | | | | |
| **Z49A** | **Columbiana** | **18.27** | **13** | P | **Pn** | **05 24 11.4** | **+1.3** |
| | baz=195,SNR=13 | | | | | | | |
| **WLAR** | **White Oak Lake** | **18.33** | **355** | *e*Pn | **P** | **05 24 08.4** | **-2.2** |
| | comp=Z,72nm,1.0s | | | | | | | |
| WLAR | | | | *e*Sn | Sn | 05 27 23.3 | -11 |
| **Y42A** | **Garnett, Star** | **18.41** | **359** | P | **P** | **05 24 11.1** | **-0.4** |
| | baz=178 | | | | | | | |
| **Z36A** | **Blue Ridge** | **18.44** | **346** | P | **P** | **05 24 11.2** | **-0.7** |
| | baz=164 | | | | | | | |
| **Y43A** | **Makayla and Ka** | **18.48** | **1** | P | **P** | **05 24 11.9** | **-0.4** |
| | baz=181 | | | | | | | |
| **Y41A** | **Eaglette Beard** | **18.48** | **356** | P | **P** | **05 24 11.0** | **-1.3** |
| | baz=176 | | | | | | | |
| **Y45A** | **Yeager Farm, C** | **18.50** | **5** | P | **Pn** | **05 24 13.9** | **+1.2** |
| | baz=185,SNR=6.8 | | | | | | | |
| **Y44A** | **Strider, Charl** | **18.55** | **3** | P | **Pn** | **05 24 14.5** | **+1.1** |
| | baz=183 | | | | | | | |
| **Y46A** | **Houston** | **18.58** | **6** | P | **Pn** | **05 24 14.3** | **+0.6** |
| | baz=187,SNR=6.6 | | | | | | | |
| **Y40A** | **Okolona** | **18.66** | **355** | P | **P** | **05 24 13.9** | **-0.4** |
| | baz=174 | | | | | | | |
| **Y39A** | **Lockesburg** | **18.68** | **353** | P | **P** | **05 24 14.1** | **-0.4** |
| | baz=172 | | | | | | | |
| **Y47A** | **UCPARC, Winfie** | **18.72** | **9** | P | **Pn** | **05 24 16.7** | **+1.2** |
| | baz=190,SNR=13 | | | | | | | |
| **Y38A** | **Idabel** | **18.75** | **351** | P | **P** | **05 24 14.9** | **-0.4** |
| | baz=170 | | | | | | | |
| **ABTX** | **Abilene, Hawle** | **18.80** | **338** | P | **P** | **05 24 15.8** | **-0.1** |
| | baz=154 | | | | | | | |
| **ABTX** | **Abilene, Hawle** | **18.80** | **338** | *e*P | **P** | **05 24 14.5** | **-1.4** |
| | comp=Z,20nm,0.8s | | | | | | | |
| **Y48A** | **Jasper** | **18.85** | **11** | P | **P** | **05 24 16.4** | **+0.1** |
| | baz=192 | | | | | | | |
| **Y49A** | **Blount Mountai** | **18.94** | **13** | P | **Pn** | **05 24 18.1** | **-0.1** |
| | baz=195 | | | | | | | |
| **Y37A** | **Hugo** | **18.95** | **349** | P | **P** | **05 24 17.3** | **-0.2** |
| | baz=167 | | | | | | | |
| **Y36A** | **Durant** | **19.01** | **347** | P | **P** | **05 24 18.4** | **+0.3** |
| | baz=165 | | | | | | | |
| **X45A** | **UM Field Stati** | **19.06** | **5** | P | **Pn** | **05 24 19.5** | **-0.1** |
| | baz=186,SNR=9.5 | | | | | | | |
| **X44A** | **Crenshaw** | **19.09** | **3** | P | **Pn** | **05 24 21.6** | **+1.7** |
| | baz=183 | | | | | | | |
| **X41A** | **Kaden, Bauxite** | **19.09** | **357** | P | **Pn** | **05 24 20.0** | **0.0** |
| | baz=176 | | | | | | | |
| **X40A** | **Basin Creek Fa** | **19.10** | **356** | P | **Pn** | **05 24 21.3** | **+1.2** |
| | baz=176 | | | | | | | |
| **X42A** | **Stuttgart** | **19.12** | **359** | P | **Pn** | **05 24 21.7** | **+1.4** |
| | baz=179 | | | | | | | |
| **OXF** | **Oxford** | **19.15** | **5** | P | **Pn** | **05 24 20.3** | **-0.4** |
| | baz=186,SNR=9.3 | | | | | | | |
| **OXF** | **Oxford** | **19.15** | **5** | *e*P | **Pn** | **05 24 20.6** | **0.0** |
| | comp=Z,107nm,1.1s | | | | | | | |
| **Y35A** | **Marietta** | **19.19** | **345** | P | **Pn** | **05 24 20.9** | **-0.3** |
| | baz=163,

baz=166,SNR=13
W36A **Wetumka** 20.20 348 eP P 05 24 31.1 0.0
comp=Z,21nm,0.7s
CHIC **Chingaza** 20.28 120 eP P 05 24 29.1 -3.4
W35A **Tecumseh** 20.35 347 P P 05 24 32.4 -0.3
baz=164,SNR=24
W35A **Tecumseh** 20.35 347 eP P 05 24 32.1 -0.6
comp=Z,48nm,0.7s
SWET **Sewanee** 20.35 13 eP P 05 24 33.6 +0.8
comp=Z,23nm,0.8s
V43A **Jonesboro** 20.36 2 P P 05 24 32.5 -0.3
baz=182
V41A **Mountainview** 20.36 358 P P 05 24 33.1 +0.2
baz=178,SNR=6.2
V42A **Cord** 20.37 360 P P 05 24 32.6 -0.3
baz=180
V45A **Humboldt** 20.41 5 P P 05 24 33.7 +0.4
baz=186
V40A **Witts Springs** 20.41 356 P P 05 24 33.4 0.0
baz=176,SNR=8.6
WMOK **Wichita Mounta** 20.45 342 P P 05 24 33.1 -0.8
baz=159,SNR=16
WMOK **Wichita Mounta** 20.45 342 eP P 05 24 33.1 -0.8
comp=Z,15nm,0.8s
HODGE **Hodges** 20.48 22 eP Pn 05 24 38.7 +2.3
comp=Z,37nm,1.4s
V39A **Pettigrew** 20.51 354 P P 05 24 34.4 -0.1
baz=174,SNR=12
FLOC **Florencia** 20.61 130 eP P 05 24 35.8 0.0
V38A **Canehill** 20.61 353 P P 05 24 35.3 -0.3
baz=172,SNR=17
OK022 **N3560 Road, Pr** 20.67 347 eP P 05 24 35.8 -0.4
comp=Z,16nm,0.7s
V48A **Smith Brothers** 20.69 10 P P 05 24 36.9 +0.5
baz=192,SNR=11
OK020 **N3440 Road, Me** 20.72 347 eP P 05 24 36.1 -0.6
comp=Z,30nm,0.8s
V37A **Hulbert** 20.73 351 P P 05 24 36.5 -0.4
baz=170,SNR=14
OK021 **N3530 Road, Sp** 20.74 347 eP P 05 24 36.4 -0.6
comp=Z,18nm,0.8s
MNTX **Cornudas Mount** 20.75 324 P P 05 24 37.3 +0.2
baz=138,SNR=17
MNTX **Cornudas Mount** 20.75 324 eP P 05 24 37.3 +0.2
comp=Z,15nm,0.9s
V36A **Jenks** 20.77 349 P P 05 24 32.9 -4.4
baz=167
V36A **Jenks** 20.77 349 eP P 05 24 37.2 -0.1
comp=Z,26nm,1.1s
SJAC **San Juan de Ar** 20.86 123 eP P 05 24 35.1 -3.5
TUL1 **Leonard** 20.86 350 P P 05 24 35.9 -2.4
baz=168
TUL1 **Leonard** 20.86 350 eP P 05 24 38.6 +0.3
comp=Z,24nm,0.7s
JSC **Jenkinsville** 20.90 24 eP Pn 05 24 42.1 +0.9
comp=Z,56nm,1.6s
CPCT **Cooper Cave** 20.91 16 eP Pn 05 24 40.0 -1.4
comp=Z,65nm,1.4s
U42A **Revenden** 20.91 0 P P 05 24 36.2 -2.5
baz=180
U41A **Viola** 20.91 359 P P 05 24 36.5 -2.3
baz=178
WVT **Waverly** 20.92 8 P P 05 24 37.4 -1.4
baz=189
WVT **Waverly** 20.92 8 eP P 05 24 39.6 +0.7
comp=Z,14nm,0.9s
V35A **Meyer Ranch, C** 20.92 347 P P 05 24 37.5 -1.5
baz=165
V35A **Meyer Ranch, C** 20.92 347 eP P 05 24 38.0 -1.0
comp=Z,27nm,0.9s
BG3 **Lake Jocassee** 20.94 19 eP Pn 05 24 42.6 +0.8
comp=Z,42nm,1.2s
U43A **Rector** 20.94 2 P P 05 24 38.9 -0.2
baz=182
U40A **Yellville** 20.96 356 P P 05 24 39.6 +0.3
baz=176,SNR=15
U44B **Burton Farm, H** 20.97 4 P P 05 24 37.8 -1.6
baz=185
HHAR **Hobbs** 20.98 354 eP P 05 24 39.4 -0.1
comp=Z,19nm,0.7s
U45A **Rockin P Farm,** 21.03 6 P P 05 24 39.3 -0.7
baz=187
U39A **Green Forest** 21.03 355 P P 05 24 40.5 +0.4
baz=174,SNR=7.5
U46A **Springville** 21.10 7 P P 05 24 40.3 -0.5
baz=188
SDV **Santo Domingo** 21.17 105 P P 05 24 41.9 -0.1
comp=Z,12nm,0.9s,baz=308,slow=2.9,SNR=9.4
SDV **Santo Domingo** 21.17 105 eP P 05 24 41.8 -0.1
SDV **Santo Domingo** 21.17 105 eP P 05 24 42.2 +0.2
comp=Z,33nm,0.9s
U38A **Gravette** 21.18 353 P P 05 24 41.0 -0.8
baz=172
U37A **Salina** 21.24 351 P P 05 24 41.8 -0.6
baz=170,SNR=8.7
MSTX **Muleshoe** 21.25 333 P P 05 24 42.8 +0.3
baz=148,SNR=7.7
MSTX **Muleshoe** 21.25 333 eP P 05 24 43.1 +0.6
comp=Z,31nm,1.1s
U47A **Clarksville** 21.30 9 P P 05 24 41.8 -1.1
baz=191
TKL **Tuckaleechee C** 21.30 17 P P 05 24 41.6 -1.4
comp=Z,3.4nm,0.7s,baz=189,slow=17,SNR=3.8
TKL **Tuckaleechee C** 21.30 17 eP P 05 24 47.0 +4.0
U36A **Oologah** 21.33 350 P P 05 24 42.7 -0.5
baz=168
PBMO **Poplar Bluff** 21.35 2 eP P 05 24 43.3 -0.2
comp=Z,20nm,0.8s
U48A **Cassie Pea, Po** 21.49 10 P P 05 24 45.6 +0.6
baz=193,SNR=12
U35A **Pawnee** 21.49 348 P P 05 24 44.0 -1.0
baz=166
AMTX **Amarillo** 21.58 336 P P 05 24 45.2 -0.9
baz=152
AMTX **Amarillo** 21.58 336 eP P 05 24 46.1 0.0
comp=Z,41nm,0.7s
T42A **Van Buren** 21.59 0 P P 05 24 45.1 -0.9
baz=181
T41A **Mountain View** 21.61 359 P P 05 24 46.4 +0.2
baz=179,SNR=5.8
KMSC **Kings Mountain** 21.63 23 P P 05 24 45.6 -1.0
baz=207
KMSC **Kings Mountain** 21.63 23 eP P 05 24 47.4 +0.9
comp=Z,20nm,1.0s
T43A **Greenville** 21.66 2 P P 05 24 45.2 -1.6
baz=183
T39A **Clever** 21.66 355 P P 05 24 44.8 -2.1
baz=175
T44A **Benton** 21.70 4 P P 05 24 45.4 -1.8
baz=184
T40A **Mansfield** 21.74 357 P P 05 24 46.7 -0.9
baz=177
T38A **Diamond** 21.76 353 P P 05 24 47.0 -0.9
baz=172
T46A **Princeton** 21.81 7 P P 05 24 48.8 +0.5
baz=189,SNR=12
T47A **Sharon Grove** 21.86 9 P P 05 24 49.2 +0.2
baz=191,SNR=7.4
T37A **Chenevville 18** 21.92 352 P P 05 24 49.3 -0.3
baz=171,SNR=6.5
T35A **Sooner Cattle** 21.97 349 P P 05 24 48.1 -2.1
baz=166
T36A **Boggs Farm, Ca** 22.00 350 P P 05 24 49.2 -1.3
baz=168,SNR=6.7
U32A **Winter Ranch,** 22.04 343 P P 05 24 50.0 -1.0
baz=160
S43A **Fulton Ridge,** 22.15 3 P P 05 24 48.5 -3.6
baz=183
S40A **Lebanon** 22.18 357 P P 05 24 50.8 -1.6
baz=177
T34A **McClaskey Farm** 22.21 347 P P 05 24 51.1 -1.7
baz=165
S38A **Stockton** 22.31 354 P P 05 24 51.7 -2.1
baz=173
S39A **Bolivar** 22.32 356 P P 05 24 52.5 -1.4
baz=175
S44A **Carbondale** 22.32 4 P P 05 24 53.9 0.0
baz=185,SNR=13
S42A **Caledonia** 22.33 1 P P 05 24 53.3 -0.7
baz=181
SIUC **Southern Illin** 22.35 4 eP P 05 24 54.1 0.0
comp=Z,45nm,1.0s
S45A **Carrier Mills** 22.36 6 P P 05 24 53.4 -0.9
baz=187
S46A **Don Dixon Farm** 22.46 7 P P 05 24 55.2 -0.2
baz=189
S37A **Fort Scott** 22.54 353 P P 05 24 55.3 -1.0
baz=171
S36A **Lake Cedric, C** 22.61 351 P P 05 24 56.7 -0.3
baz=169
CCM **Cathedral Cave** 22.61 0 P P 05 24 55.9 -1.2
baz=180
CCM **Cathedral Cave** 22.61 0 eP P 05 24 58.6 +1.5
comp=Z,15nm,0.8s
S35A **Otter Creek Ra** 22.68 350 P P 05 24 58.2 +0.4
baz=167
S48A **Wiedeman Farm,** 22.69 11 P P 05 24 58.5 +0.7
baz=193
USIN **University of** 22.75 7 eP P 05 25 00.2 +1.7
comp=Z,44nm,0.8s
121A **Cookes Peak, D** 22.75 322 P P 05 24 58.7 -0.1
baz=135
121A **Cookes Peak, D** 22.75 322 eP P 05 24 59.3 +0.6
comp=Z,14nm,0.8s
R41A **Rosebud** 22.85 360 P P 05 24 55.0 -4.6
baz=180
R38A **Fenwick Farm,** 22.86 355 P P 05 24 56.2 -3.4
baz=174
R43A **Red Bud** 22.86 3 P P 05 24 57.2 -2.5
baz=183
R40A **Maddies Statio** 22.86 358 P P 05 24 57.8 -1.8
baz=178
319A **Douglas** 22.91 317 eP P 05 25 05.0 +4.6
comp=Z,26nm,0.9s
R39A **Chumby, Stover** 22.92 356 P P 05 24 58.2 -2.0
baz=176
R45A **Skylar, Fairfi** 23.00 6 P P 05 24 59.8 -1.3
baz=188
R46A **Gibon Southern** 23.01 8 P P 05 25 01.0 -0.2
baz=189
R36A **Gordon, Harris** 23.18 352 P P 05 25 01.9 -1.0
baz=170
WCI **Wyandotte Cave** 23.20 10 P P 05 25 02.2 -1.0
baz=192
WCI **Wyandotte Cave** 23.20 10 eP P 05 25 03.9 +0.8
comp=Z,24nm,0.8s
R47A **Wooly Knot Far** 23.23 10 P P 05 25 03.4 0.0
baz=192,SNR=6.3
BNM **Barren Site** 23.28 326 eP P 05 25 05.2 +0.9
R35A **Emporia Munici** 23.29 350 P P 05 25 01.6 -2.4
baz=168
Y22D **IRIS PASSCAL I** 23.38 326 P P 05 25 02.9 -2.2
baz=139
Y22E **IRIS PASSCAL I** 23.38 326 P P 05 25 04.0 -1.1
baz=139
LPM **Los Pinos Moun** 23.41 327 eP P 05 25 06.5 +1.1
R48A **Northridge Ran** 23.45 11 P P 05 25 06.3 +0.8
baz=193,SNR=8.2
OLIL **Olney** 23.46 6 eP P 05 25 05.6 0.0
comp=Z,35nm,0.9s
R34A **Isabella, Hill** 23.46 348 P P 05 25 06.1 +0.5
baz=166
Q42A **Golden Eagle** 23.48 1 P P 05 24 59.3 -6.5
baz=182
Q41A **Truxton** 23.51 0 P P 05 25 00.3 -5.8
baz=180
Q43A **New Douglas** 23.54 3 P P 05 25 01.1 -5.3
baz=184
Q44A **Meyer Farm, Va** 23.54 4 P P 05 25 00.5 -6.0
baz=186
Q40A **Laux Farm, Aux** 23.56 358 P P 05 25 00.6 -6.0
baz=178
Q38A **Cooks Store, C** 23.61 355 P P 05 25 02.9 -4.2
baz=174
Q39A **Willow Grove F** 23.65 357 P P 05 25 03.7 -3.7
baz=176
LAZ **Ladron** 23.75 326 eP P 05 25 09.8 +1.1
Q35A **Mercer Eighty,** 23.79 351 P P 05 25 05.4 -3.4
baz=169
Q36A **Arnold C. Orve** 23.80 352 P P 05 25 05.8 -3.1
baz=170
ANMO **Albuquerque** 23.80 328 P P 05 25 08.4 -0.8
comp=Z,1.2nm,0.6s,baz=319,slow=11,SNR=8.7
ANMO **Albuquerque** 23.80 328 P P 05 25 07.0 -2.2
baz=141
ANMO **Albuquerque** 23.80 328 eP P 05 25 09.2 0.0
comp=Z,5.6nm,0.9s
Q47A **Bedord North L** 23.88 9 P P 05 25 06.7 -2.9
baz=192
Q34A **Chapman** 24.00 349 P P 05 25 07.1 -3.6
baz=167
P39B **Salisbury** 24.08 357 P P 05 25 07.2 -4.3
baz=177
BLO **Bloomington** 24.09 9 eP P 05 25 13.4 +1.8
comp=Z,20nm,0.8s
P40A **Paris** 24.09 359 P P 05 25 10.3 -1.3
baz=178
KSU1 **Kansas State U** 24.11 350 P P 05 25 10.0 -1.8
baz=167
KSU1 **Kansas State U** 24.11 350 eP P 05 25 10.8 -1.0
comp=Z,18nm,0.8s
P44A **Sand Creek, Wi** 24.13 5 P P 05 25 08.0 -4.0
baz=186
P42A **Winchester** 24.15 2 P P 05 25 07.9 -4.3
baz=182
P41A **Barry, Barry** 24.23 0 P P 05 25 08.8 -4.1
baz=181
P43A **Skaggs, Pawnee** 24.24 3 P P 05 25 09.0 -4.0
baz=184
P38A **Dawn** 24.26 356 P P 05 25 09.6 -3.6
baz=175
P45A **Graceland, Par** 24.28 7 P P 05 25 09.3 -4.0
baz=188
P37A **Lathrop** 24.29 354 P P 05 25 10.3 -3.2
baz=173
P36A **Good Intent, A** 24.42 353 P P 05 25 11.2 -3.4
baz=171
P46A **Rosedale** 24.43 8 P P 05 25 11.8 -2.9
baz=190
P47A **Martinsville** 24.44 9 P P 05 25 14.2 -0.6
baz=192
P35A **Duane Minner,** 24.44 351 P P 05 25 14.0 -0.8
baz=169,SNR=6.2
TUC **Tucson** 24.49 317 P P 05 25 14.6 -0.9
baz=129
TUC **Tucson** 24.49 317 eP P 05 25 19.7 +4.2
comp=Z,12nm,1.0s
CBKS **Cedar Bluff** 24.53 344 P P 05 25 13.8 -1.9
baz=160
P34A **Walnut Farm, R** 24.59 350 P P 05 25 14.6 -1.6
baz=167
T25A **Trinidad** 24.64 334 P P 05 25 15.6 -1.3
baz=148
T25A **Trinidad** 24.64 334 eP P 05 25 17.9 +1.0
comp=Z,33nm,1.2s
O40A **La Belle** 24.68 359 P P 05 25 16.7 -0.3
baz=179,SNR=5.9
MHTCO **State Highway** 24.75 334 eP P 05 25 19.3 +1.4
comp=Z,20nm,1.0s
O38A **Galt** 24.75 356 P P 05 25 14.9 -2.7
baz=175
O42A **Bath** 24.77 2 P P 05 25 15.4 -2.4
baz=183
O44A **Mansfield** 24.83 5 P P 05 25 17.0 -1.3
baz=186
O39A **Kirksville** 24.83 358 P P 05 25 16.4 -2.0
baz=177
O37A **Wolven Farm, M** 24.85 355 P P 05 25 16.5 -2.0
baz=174
O36A **Bolckow** 24.89 353 P P 05 25 18.3 -0.6
baz=172
O43A **Sugar Creek Fa** 24.90 4 P P 05 25 17.7 -1.3
baz=185
O45A **Potomac** 25.00 6 P P 05 25 20.4 +0.6
baz=188
O35A **Humboldt** 25.15 352 P P 05 25 19.0 -2.2
baz=170
O34A **Beatrice** 25.18 350 P P 05 25 20.9 -0.6
baz=168
O47A **Sheridan** 25.18 9 P P 05 25 21.7 +0.1
baz=192
SFIN **Lafayette** 25.20 8 P P 05 25 22.7 +1.0
baz=190
SFIN **Lafayette** 25.20 8 eP P 05 25 24.2 +2.6
comp=Z,46nm,1.3s
O33A **Hebron** 25.24 349 P P 05 25 21.9 -0.2
baz=166
N41A **Harden Midland** 25.26 1 P P 05 25 21.9 -0.3
baz=181
IP07 **Quail** 25.34 25 eP P 05 25 25.3 +2.3
comp=Z,96nm,1.9s
IP06 **Yanceyville** 25.38 25 eP P 05 25 25.5 +2.2
comp=Z,44nm,1.4s
IP05 **Hopewell Churc** 25.38 26 eP P 05 25 28.8 +5.4
comp=Z,40nm,1.3s
N38A **Joes South For** 25.40 357 P P 05 25 22.9 -0.6
baz=176
N42A **Yates City** 25.40 2 P P 05 25 23.0 -0.6
baz=183
IP01 **Cuckoo** 25.43 25 eP P 05 25 26.1 +2.4
comp=Z,29nm,1.1s
IP03 **Louisa** 25.44 25 eP P 05 25 26.7 +2.8
comp=Z,53nm,1.5s
N40A **Mertquake, Sal** 25.44 359 P P 05 25 23.5 -0.3
baz=179
X18A **Snowflake** 25.44 322 eP P 05 25 25.6 +1.4
comp=Z,14nm,1.2s
N37A **Lee Faris, Mou** 25.44 355 P P 05 25 23.5 -0.4
baz=174
IP04 **Greensprings** 25.47 25 eP P 05 25 27.0 +2.9
comp=Z,26nm,1.1s
SPRD **Spring Road, M** 25.50 25 eP P 05 25 26.8 +2.5
comp=Z,20nm,1.1s
N43A **Stutzman Famil** 25.56 4 P P 05 25 25.3 +0.3
baz=185
CVRD **Centerville Ro** 25.56 25 eP P 05 25 28.1 +3.1
comp=Z,77nm,1.6s
N36A **Muff Farm, Cla** 25.57 354 P P 05 25 25.1 +0.1
baz=172
KSCO **Kaye Shedlock'** 25.59 339 P P 05 25 24.1 -1.3
baz=154
KSCO **Kaye Shedlock'** 25.59 339 eP P 05 25 28.8 +3.4
comp=Z,15nm,0.7s
SDCO **Great Sand Dun** 25.61 333 P P 05 25 23.6 -2.3
baz=147
214A **Organ Pipe Nat** 25.65 314 P P 05 25 24.9 -1.0
baz=125
214A **Organ Pipe Nat** 25.65 314 eP P 05 25 28.6 +2.6
comp=Z,36nm,1.0s
N35A **Tabor** 25.70 352 P P 05 25 25.1 -1.1
baz=170
W18A **Petrified Fore** 25.73 323 P P 05 25 25.4 -1.3
baz=135
N46A **Monticello** 25.75 8 P P 05 25 26.8 +0.1
baz=190
N34A **Lincoln** 25.79 351 P P 05 25 26.9 -0.2
baz=168
M41A **Milan** 25.93 1 P P 05 25 28.5 +0.1
baz=182
M40A **Post Highland** 25.96 360 P P 05 25 28.0 -0.6
baz=180
M38A **Pleasantville** 26.02 357 P P 05 25 29.7 +0.6
baz=176
M42A **Sheffield** 26.04 3 P P 05 25 30.1 +0.8
baz=183
M39A **Webster** 26.04 358 P P 05 25 29.0 -0.3
baz=178
M43A **Waltham Townsh** 26.07 4 P P 05 25 29.9 +0.4
baz=185
M44A **Midewin, Midew** 26.09 6 P P 05 25 29.9 +0.1
baz=187
S22A **4UR Ranch, Cre** 26.21 331 P P 05 25 31.8 +0.5
baz=144,SNR=14
S22A **4UR Ranch, Cre** 26.21 331 eP P 05 25 32.0 +0.8
comp=Z,17nm,1.1s
M35A **Neola** 26.30 352 P P 05 25 31.3 -0.4
baz=170
M34A **Aspy Farms, Fr** 26.46 351 P P 05 25 32.7 -0.4
baz=168
Q24A **Divide** 26.49 335 P P 05 25 33.8 0.0
baz=149
L42A **Oliver, Polo** 26.59 3 P P 05 25 36.2 +2.0
baz=184
MVCO **Mesa Verde** 26.60 328 P P 05 25 31.8 -2.9
baz=140
MVCO **Mesa Verde** 26.60 328 eP P 05 25 35.8 +1.0
comp=Z,10nm,1.0s
L40A **Anamosa** 26.61 0 P P 05 25 33.9 -0.6
baz=180
M33A **Taylor Creek F** 26.62 350 P P 05 25 36.2 +1.6
baz=167
L41A **Preston** 26.64 1 P P 05 25 35.0 +0.4
baz=182
L39A **Vinton** 26.68 359 P P 05 25 36.1 +1.0
baz=178
L36A **Harm Buss Farm** 26.81 354 P P 05 25 36.4 +0.1
baz=173
WUAZ **Wupatki** 26.96 322 P P 05 25 38.3 +0.4
baz=133,SNR=6.3
WUAZ **Wupatki** 26.96 322 eP P 05 25 39.7 +1.8
comp=Z,18nm,1.3s
K39A **Oelwein** 27.26 359 P P 05 25 38.6 -1.7
baz=179
K36A **Gilmore City** 27.33 355 P P 05 25 39.6 -1.3
baz=173
PV01 **Paradox Valley** 27.35 329 eP P 05 25 42.4 +1.0
K37A **Belmond** 27.39 356 P P 05 25 41.8 +0.3
baz=175
SMCO **Snowmass** 27.44 333 eP P 05 25 44.3 +1.9
comp=Z,15nm,1.3s
PV05 **Paradox Valley** 27.57 329 eP P 05 25 44.3 +0.9
PV04 **Paradox Valley** 27.72 329 eP P 05 25 45.0 +0.3
PV10 **Paradox Valley** 27.77 329 eP P 05 25 45.6 +0.3
J39A **Decorah** 27.89 359 P P 05 25 47.7 +1.7
baz=179
U15A **North Rim** 28.13 322 eP P 05 25 52.6 +4.2
comp=Z,5.5nm,1.1s
W13A **Hualapai Mount** 28.25 318 eP P 05 25 55.4 +5.9
comp=Z,3.7nm,1.0s
I39A **Houston** 28.41 360 P P 05 25 49.8 -0.8
baz=180
BC3 **Big Chuckawall** 28.45 314 P P 05 25 49.6 -1.6
baz=124
J32A **Parkston** 28.48 350 P P 05 25 49.3 -1.9
baz=167
I38A **Scanlan Farm,** 28.61 358 P P 05 25 50.9 -1.4
baz=178
ECSD **EROS Data Cent** 28.65 352 P P 05 25 52.1 -0.6
baz=169
O20A **White River Ci** 28.79 332 P P 05 25 55.3 +1.1
baz=144
O20A **White River Ci** 28.79 332 eP P 05 25 56.8 +2.6
comp=Z,14nm,1.1s
SRU **San Rafael Swe** 29.08 328 eP P 05 26 00.8 +4.0
comp=Z,4.1nm,0.9s
LCMT **Little Creek M** 29.09 322 eP P 05 26 01.3 +4.5
comp=Z,4.3nm,1.0s
MTPU **Mount Pierson** 29.18 325 eP P 05 25 59.2 +1.2
comp=Z,14nm,1.4s
H38A **Maiden Rock** 29.24 359 P P 05 25 57.6 -0.3
baz=178
SZCU **Shurtz Canyon** 29.39 323 eP P 05 26 01.4 +1.8
comp=Z,6.8nm,1.0s
P17A **Butcher Ranch,** 29.46 328 eP P 05 26 01.3 +1.1
comp=Z,11nm,0.9s
CCUT **Cedar City** 29.52 323 eP P 05 26 05.9 +5.1
comp=Z,5.8nm,1.2s
H32A **Carlson Farm,** 29.52 351 P P 05 26 01.0 +0.6
baz=168
SPMN **Marine on St.** 29.80 358 P P 05 26 01.9 -1.0
baz=177
SPMN **Marine on St.** 29.80 358 eP P 05 26 01.8 -1.1
comp=Z,14nm,1.0s
SHPR **Sheep Range** 29.93 319 eP P 05 26 08.9 +4.5
comp=Z,5.1nm,1.3s
K22A **Casper** 30.19 337 eP P 05 26 09.9 +3.3
comp=Z,55nm,1.9s
MPU **Maple Canyon** 30.32 328 eP P 05 26 08.8 +1.0
comp=Z,5.8nm,1.0s
F36A **Milaca** 30.47 357 P P 05 26 08.1 -0.7
baz=176
CTU **Camp Tracy** 30.89 329 eP P 05 26 16.8 +3.9
comp=Z,8.8nm,1.2s
TPNV **Topopah Spring** 30.90 319 P P 05 26 12.9 0.0
baz=128
TPNV **Topopah Spring** 30.90 319 eP P 05 26 17.4 +4.5
comp=Z,6.7nm,1.1s
SADO **Sadowa** 31.07 17 P P 05 26 11.7 -2.4
comp=Z,2.8nm,0.5s,baz=247,slow=13,SNR=2.8
R11A **Troy Canyon, C** 31.36 322 P P 05 26 17.9 +0.9
baz=130
R11A **Troy Canyon, C** 31.36 322 eP P 05 26 20.4 +3.3
comp=Z,21nm,2.0s
PDAR **Pinedale Array** 31.50 334 P P 05 26 17.9 -0.3
comp=Z,0.6nm,0.7s,baz=128,slow=9.7,SNR=5.8
PDAR LR LR 05 43 27.7
comp=Z,135nm,18.6s,baz=152,slow=45
PDAR **Pinedale Array** 31.50 334 eP P 05 26 19.9 +1.6
BW06 **Boulder Array** 31.50 334 P P 05 26 17.2 -1.0
baz=145
D31A **Mcclaflin, Tow** 32.05 352 P P 05 26 22.4 -0.3
baz=168
C35A **Jirik Farms, M** 32.33 357 P P 05 26 22.8 -2.3
baz=175

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **C39A** | **Grand Marais** baz=182 | **32.38** | **1** | P | | **P** | **05 26 25.3** | **-0.3** |
| **REDW** | **Red Top Meadow** comp=Z,14nm,0.8s | **32.54** | **333** | *e*P | | **P** | **05 26 28.0** | **+0.6** |
| **SNOW** | **Snow King Moun** comp=Z,16nm,0.8s | **32.58** | **333** | *e*P | | **P** | **05 26 28.5** | **+0.7** |
| **TPAW** | **Teton Pass** comp=Z,38nm,1.4s | **32.69** | **333** | *e*P | | P | 05 26 34.0 | +5.3 |
| **MOOW** | **Moose Ponds** comp=Z,4.7nm,1.0s | **32.81** | **334** | *e*P | | **P** | **05 26 29.9** | **+0.2** |
| **FXWY** | **Fox Creek** comp=Z,16nm,1.6s | **32.84** | **333** | *e*P | | **P** | **05 26 30.6** | **+0.7** |
| **B35A** | **Bob, Littlefor** baz=176 | **32.97** | **357** | P | | **P** | **05 26 29.6** | **-1.2** |
| **NV11** | **Mina Array Sit** comp=Z,1.8nm,1.6s | **32.99** | **319** | *e*P | | P | 05 26 36.3 | +5.0 |
| **NV01** | **Mina Array Sit** | **33.09** | **319** | *e*P | | **P** | **05 26 33.5** | **+1.4** |
| **NVAR** | **Mina Array Bea** comp=Z,2.9nm,0.6s,baz=125,slow=8.5,SNR=25 | **33.09** | **319** | P | | **P** | **05 26 33.8** | **+1.6** |
| NVAR | comp=Z,291nm,18.8s,baz=128,slow=40 | | | LR | | LR | 05 42 01.6 | |
| **B34A** | **Aery, Baudette** baz=174 | **33.15** | **356** | P | | **P** | **05 26 31.6** | **-0.8** |
| **KVN** | **Kaiserville** comp=Z,6.9nm,1.0s | **33.33** | **320** | *e*P | | **P** | **05 26 36.0** | **+1.7** |
| **B31A** | **Greenbush Farm** baz=169 | **33.39** | **352** | P | | **P** | **05 26 34.1** | **-0.3** |
| **BMN** | **Battle Mountai** comp=Z,5.9nm,0.8s | **33.68** | **323** | *e*P | | **P** | **05 26 41.1** | **+3.9** |
| **YERR** | **Yerington** comp=Z,16nm,1.6s | **34.01** | **319** | *e*P | | **P** | **05 26 44.9** | **+4.7** |
| **PNTR** | **Pine Nut** comp=Z,6.0nm,0.7s | **34.29** | **319** | *e*P | | **P** | **05 26 46.9** | **+4.2** |
| **HLID** | **Hailey** baz=138 | **34.35** | **330** | P | | **P** | **05 26 42.9** | **-0.1** |
| **HLID** | **Hailey** comp=Z,17nm,2.0s | **34.35** | **330** | *e*P | | **P** | **05 26 43.8** | **+0.7** |
| **MCMT** | **McKenzie Canyo** | **34.58** | **333** | *e*P | | **P** | **05 26 46.9** | **+1.8** |
| **BOZ** | **Bozeman (W)** baz=144 | **34.67** | **335** | P | | **P** | **05 26 45.9** | **+0.1** |
| **ULM** | **Lac du Bonnet** comp=Z,3.5nm,0.7s,baz=171,slow=11,SNR=5.3 | **35.00** | **355** | P | | **P** | **05 26 48.0** | **-0.3** |
| ULM | comp=Z,114nm,18.1s,baz=128,slow=40 | | | LR | | LR | 05 43 19.5 | |
| **ULM** | **Lac du Bonnet** comp=Z,41nm,1.9s | **35.00** | **355** | *e*P | | **P** | **05 26 50.4** | **+2.0** |
| **BEKR** | **Beckworth** comp=Z,5.4nm,0.9s | **35.22** | **320** | *e*P | | **P** | **05 26 53.0** | **+2.4** |
| **EGMT** | **Eagleton** baz=149 | **35.97** | **339** | P | | **P** | **05 26 57.4** | **+0.6** |
| **J08A** | **Circle Bar Ran** comp=Z,9.4nm,0.6s | **36.30** | **326** | *e*P | | **P** | **05 27 00.7** | **+0.9** |
| **MSO** | **Missoula** baz=142 | **36.62** | **334** | P | | **P** | **05 27 00.6** | **-1.8** |
| **M04C** | **Macdoel** baz=126 | **37.25** | **321** | P | | **P** | **05 27 08.1** | **+0.2** |
| **LPAZ** | **La Paz** comp=Z,84nm,19.6s,baz=324,slow=37 | **38.87** | **143** | LR | | LR | 05 43 53.6 | |
| **FFC** | **Flin Flon** comp=Z,27nm,2.0s | **40.16** | **350** | *e*P | | **P** | **05 27 31.1** | **-0.8** |
| **SIV** | **San Ignacio** comp=Z,2.1nm,0.6s,baz=322,slow=10,SNR=3.9 | **43.12** | **135** | P | | **P** | **05 27 54.9** | **-1.8** |
| **SCHQ** | **Schefferville** comp=Z,8.6nm,0.8s,baz=218,slow=8.8,SNR=6.0 | **43.71** | **20** | P | | **P** | **05 27 59.5** | **-1.5** |
| SCHQ | comp=Z,300nm,18.8s,baz=212,slow=37 | | | LR | | LR | 05 46 54.6 | |
| **YKA** | **Yellowknife Ar** comp=Z,2.5nm,0.7s,baz=148,slow=7.5,SNR=28 | **49.88** | **346** | P | | **P** | **05 28 48.2** | **-0.9** |
| YKA | comp=Z,12nm,20.9s,baz=180,slow=39 | | | LR | | LR | 05 52 25.5 | |
| **YKW3** | **Yellowknife Ar** comp=Z,12nm,1.3s | **49.94** | **346** | *e*P | | **P** | **05 28 51.1** | **+1.6** |
| **CPUP** | **Villa Florida** comp=Z,1.3nm,0.7s,baz=242,slow=7.5,SNR=3.5 | **52.98** | **141** | P | | **P** | **05 29 15.8** | **+3.0** |
| CPUP | comp=Z,53nm,18.5s,baz=12,slow=36 | | | LR | | LR | 05 51 30.3 | |
| **SFJD** | **Kangerlussuaq** comp=Z,166nm,18.6s,baz=220,slow=38 | **58.02** | **18** | LR | | LR | 05 56 28.0 | |
| **PLCA** | **Paso Flores** comp=Z,2.0nm,0.8s,baz=286,slow=8.5,SNR=4.0 | **59.03** | **162** | P | | **P** | **05 29 55.4** | **-0.5** |
| PLCA | comp=Z,71nm,18.6s,baz=336,slow=31 | | | LR | | LR | 05 50 32.0 | |
| **INK** | **Inuvik** comp=Z,129nm,18.2s,baz=158,slow=41 | **59.35** | **343** | LR | | LR | 06 00 16.0 | |
| **INK** | **Inuvik** comp=Z,8.8nm,1.3s | **59.35** | **343** | *e*P | | **P** | **05 29 57.7** | **+0.1** |
| **RES** | **Resolute Bay** comp=Z,106nm,19.6s,baz=94,slow=39 | **59.37** | **359** | LR | | LR | 05 58 16.6 | |
| **IL1** | **Eielson Array** | **61.88** | **336** | *e*P | | **P** | **05 30 17.0** | **+2.0** |
| **ILAR** | **Eielson Array** comp=Z,1.1nm,0.6s,baz=167,slow=5.2,SNR=14 | **61.88** | **336** | P | | **P** | **05 30 14.3** | **-0.6** |
| ILAR | comp=Z,73nm,20.2s,baz=124,slow=38 | | | LR | | LR | 05 59 22.4 | |
| **MLY** | **Manley** comp=Z,21nm,1.7s | **63.49** | **336** | *e*P | | **P** | **05 30 25.4** | **-0.4** |
| **BORG** | **Borgarnes** comp=Z,32nm,20.1s,baz=291,slow=34 | **67.69** | **26** | LR | | LR | 05 58 41.3 | |
| **ESDC** | **Sonseca Array** comp=Z,1.6nm,0.9s,baz=289,slow=4.4,SNR=5.6 | **78.33** | **52** | P | | **P** | **05 31 55.5** | **-0.9** |
| **ES19** | **SONSECA Array** | **78.37** | **52** | *e*P | | **P** | **05 31 55.6** | **-1.0** |
| **NOA** | **NORSAR Array B** comp=Z,64nm,21.9s,baz=250,slow=34 | **82.63** | **29** | LR | | LR | 06 06 34.4 | |
| **DBIC** | **Dimbokro** comp=Z,21nm,19.5s,baz=275,slow=34 | **84.82** | **85** | LR | | LR | 06 07 53.1 | |
| **GERES** | **GERESS Array B** comp=Z,38nm,20.1s,baz=286,slow=34 | **88.12** | **40** | LR | | LR | 06 10 24.5 | |
| **FINES** | **FINESS Array B** comp=Z,4.7nm,1.0s,baz=328,slow=5.1,SNR=3.7 | **88.98** | **25** | P | | **P** | **05 32 51.6** | **+1.3** |
| FINES | comp=Z,113nm,18.9s,baz=264,slow=36 | | | LR | | LR | 06 13 13.7 | |
| **TORD** | **Torodi Ar. Bea** comp=Z,0.4nm,0.6s,baz=280,slow=3.1,SNR=4.0 | **89.38** | **77** | P | | **P** | **05 32 54.0** | **+0.8** |
| TORD | comp=Z,22nm,19.9s,baz=250,slow=35 | | | LR | | LR | 06 12 18.9 | |
| **AKASG** | **Malin Array Be** comp=Z,48nm,19.5s,baz=285,slow=36 | **96.22** | **33** | LR | | LR | 06 17 52.9 | |
| **HHC** | **Hu-ho-hao-te** | **120.20** | **340** | *e*P | | **PKPdf** | **05 38 49.3** | **+2.1** |
| HHC | comp=Z,17nm,0.6s | | | pmax | | pmax | | |
| HHC | comp=Z,120nm,5.3s | | | pmax | | pmax | | |
| **WMQ** | **Urumqi** | **121.11** | **1** | P | | **PKPdf** | **05 38 50.0** | **+1.2** |
| WMQ | comp=N,99nm,32.1s | | | LR | | LR | | |
| WMQ | comp=E,110nm,17.1s | | | LR | | LR | | |
| WMQ | comp=Z,120nm,18.9s | | | LR | | LR | | |
| **KSH** | **Kashi** | **124.13** | **12** | *e*P | | **PKPdf** | **05 38 58.3** | **+3.5** |
| KSH | comp=Z,220nm,4.7s | | | pmax | | pmax | | |
| **NJ2** | **Nanjing** | **124.72** | **329** | *e*P | | **PKPdf** | **05 38 56.3** | **+0.3** |
| NJ2 | comp=Z,15nm,0.5s | | | pmax | | pmax | | |
| **WRA** | **Warramunga Arr** comp=Z,0.7nm,0.7s,baz=34,slow=0.8,SNR=5.2 | **136.39** | **257** | PKP | | **PKPdf** | **05 39 16.9** | **-1.5** |
| **ASAR** | **Alice Springs** comp=Z,0.2nm,0.6s,baz=102,slow=2.5,SNR=3.3 | **136.77** | **252** | PKhKP | | PKPpre | 05 39 12.3 | |
| ASAR | comp=Z,0.4nm,0.7s,baz=103,slow=4.0,SNR=4.7 | | | PKP | | **PKPdf** | **05 39 18.0** | **-1.0** |
| **CMAR** | **Chiang Mai Arr** comp=Z,0.4nm,0.3s,baz=344,slow=3.4,SNR=4.6 | **144.93** | **343** | PKP | | **PKPab** | **05 39 31.6** | **-1.3** |

**WEL 29 05:20:47.9±0.1, 43.50S×172.80E, h9km, ML3.6/17, 5C-2D, Error ellipse: s-maj=1.2km s-min=0.6km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.15** | **241** | ⇓PG | Pg | 05 20 51.4 | +0.3 |
| CRLZ | | | | SG | Sg | 05 20 53.7 | +0.3 |
| CRLZ | | | | AML | AML | 05 20 53.9 | |
| CRLZ | | | | AML | AML | 05 20 53.9 | |
| CRLZ | | | | AML | AML | 05 20 54.5 | |
| **MQZ** | **McQueen's Vall** | **0.23** | **208** | ⇑PG | Pg | 05 20 52.7 | +0.1 |
| MQZ | | | | SG | Sg | 05 20 55.9 | +0.2 |
| MQZ | | | | AML | AML | 05 20 56.2 | |
| **OXZ** | **Oxford** | **0.58** | **287** | ⇓P* | Pg | 05 20 59.4 | +0.2 |
| OXZ | | | | AML | AML | 05 21 08.7 | |
| OXZ | | | | AML | AML | 05 21 09.7 | |
| OXZ | | | | AML | AML | 05 21 09.8 | |
| OXZ | | | | AML | AML | 05 21 09.8 | |
| **LTZ** | **Lake Taylor** | **0.82** | **331** | P* | Pb | 05 21 04.3 | 0.0 |
| LTZ | | | | S* | Sb | 05 21 15.8 | +0.4 |
| LTZ | | | | AML | AML | 05 21 16.7 | |
| **KHZ** | **Kahutara** | **1.21** | **27** | ⇑P* | Pb | 05 21 09.7 | -1.2 |
| KHZ | | | | AML | AML | 05 21 35.0 | |
| KHZ | | | | AML | AML | 05 21 36.9 | |
| KHZ | | | | AML | AML | 05 21 36.9 | |
| **INZ** | **Inchbonnie** | **1.26** | **307** | P* | Pn | 05 21 10.7 | -1.0 |
| **RPZ** | **Rata Peaks** | **1.29** | **260** | ⇑P* | Pn | 05 21 11.0 | -1.1 |
| RPZ | | | | AML | AML | 05 21 31.6 | |
| RPZ | | | | AML | AML | 05 21 31.9 | |
| **WVZ** | **Waitaha Valley** | **1.57** | **285** | PN | Pn | 05 21 15.4 | -0.4 |
| WVZ | | | | AML | AML | 05 21 41.8 | |
| WVZ | | | | AML | AML | 05 21 47.3 | |
| **THZ** | **Tophouse** | **1.74** | **3** | ⇑PN | Pn | 05 21 17.6 | -0.7 |
| THZ | | | | AML | AML | 05 21 44.2 | |
| THZ | | | | AML | AML | 05 21 50.5 | |
| **DSZ** | **Denniston Nort** | **1.90** | **337** | PN | Pn | 05 21 20.1 | -0.4 |
| DSZ | | | | AML | AML | 05 21 53.7 | |
| DSZ | | | | AML | AML | 05 21 55.2 | |
| DSZ | | | | AML | AML | 05 21 55.8 | |
| DSZ | | | | AML | AML | 05 21 55.8 | |
| **BSWZ** | **Blackbirch Sta** | **1.95** | **24** | PN | Pn | 05 21 20.7 | -0.5 |
| **LBZ** | **Lake Benmore** | **2.09** | **244** | PN | Pn | 05 21 22.4 | -0.7 |
| LBZ | | | | AML | AML | 05 21 59.9 | |
| LBZ | | | | AML | AML | 05 22 03.1 | |
| **FOZ** | **Fox Glacier** | **2.17** | **268** | PN | Pn | 05 21 24.8 | +0.7 |
| FOZ | | | | AML | AML | 05 21 52.9 | |
| **ODZ** | **Otahua Downs** | **2.19** | **224** | ⇑PN | Pn | 05 21 23.4 | -0.9 |
| ODZ | | | | AML | AML | 05 22 00.1 | |
| ODZ | | | | AML | AML | 05 22 04.8 | |
| ODZ | | | | AML | AML | 05 22 06.4 | |
| ODZ | | | | AML | AML | 05 22 06.5 | |
| **TUWZ** | **Tuamarina** | **2.24** | **23** | PN | Pn | 05 21 24.2 | -0.8 |
| **NNZ** | **Nelson** | **2.32** | **11** | PN | Pn | 05 21 26.0 | -0.2 |
| **TCW** | **Tory Channel** | **2.54** | **26** | PN | Pn | 05 21 28.2 | -1.1 |
| **BHW** | **Baring Head** | **2.59** | **37** | PN | Pn | 05 21 28.6 | -1.3 |
| **PLWZ** | **Palliser** | **2.65** | **44** | PN | Pn | 05 21 29.2 | -1.6 |
| **HHSZ** | **Highcliff Hill** | **2.85** | **213** | PN | Pn | 05 21 32.5 | -1.1 |
| **CAW** | **Cannon Point** | **2.92** | **36** | PN | Pn | 05 21 33.0 | -1.4 |
| CAW | | | | AML | AML | 05 22 07.2 | |
| CAW | | | | AML | AML | 05 22 08.0 | |
| **JCZ** | **Jackson Bay** | **2.96** | **258** | PN | Pn | 05 21 35.2 | +0.1 |
| JCZ | | | | AML | AML | 05 22 29.4 | |
| **WKZ** | **Wanaka** | **3.03** | **243** | PN | Pn | 05 21 35.1 | -0.9 |
| WKZ | | | | AML | AML | 05 22 30.8 | |
| **EAZ** | **Earnscleugh** | **3.04** | **234** | PN | Pn | 05 21 35.4 | -0.8 |
| EAZ | | | | AML | AML | 05 22 28.2 | |
| EAZ | | | | AML | AML | 05 22 28.7 | |
| EAZ | | | | AML | AML | 05 22 35.3 | |
| EAZ | | | | AML | AML | 05 22 42.6 | |
| **OGWZ** | **Otaki Gorge** | **3.21** | **34** | PN | Pn | 05 21 37.2 | -1.2 |
| **TUZ** | **Tuapeka** | **3.33** | **222** | PN | Pn | 05 21 39.3 | -0.9 |
| TUZ | | | | AML | AML | 05 22 38.5 | |
| TUZ | | | | AML | AML | 05 22 41.4 | |
| TUZ | | | | AML | AML | 05 22 42.3 | |
| TUZ | | | | AML | AML | 05 22 43.9 | |
| **MRZ** | **Mangatainoka R** | **3.51** | **37** | PN | Pn | 05 21 40.9 | -1.6 |
| **BFZ** | **Birch Farm** | **3.81** | **43** | PN | Pn | 05 21 44.5 | -2.1 |
| **MLZ** | **Mavora Lakes** | **3.84** | **239** | PN | Pn | 05 21 45.8 | -1.3 |
| **SYZ** | **Scrubby Hill** | **4.00** | **219** | PN | Pn | 05 21 48.9 | -0.2 |

*ISCJB **29** 05:24:22.9±0.6, 33.93N±0.03×36.14E±0.05, h6km±8km, Error ellipse: s-maj=6.5km s-min=5.3km az=171.2*
*NSSC **29** 05:24:23.4±0.8, 33.92N×36.18E, h5km±4km, ML1.8*
*CSEM **29** 05:24:24.1, 33.94N×36.12E, h0km, ML2.7*
*GRAL **29** 05:24:24.1±0.3, 33.94N×36.12E, h0km±62km, MD2.7*

**ISC 29 05:24:22.2±1.3, 33.97N±0.04×36.17E±0.05, h11km±13km, n14, σ0842/22, Jordan-Syria region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MARH** | **Ras Al Marh** | **0.27** | **79** | *e*P | **Pb** | **05 24 28.8** | **-0.4** |
| MARH | comp=N,185nm,0.2s | | | AML | AML | 05 24 35.6 | |
| MARH | comp=E,208nm,0.7s | | | AML | AML | 05 24 35.9 | |
| **HWQ** | **Hawqa** | **0.35** | **329** | *e*P | **Pb** | **05 24 30.6** | **0.0** |
| HWQ | | | | *e*S | **Sb** | **05 24 35.4** | **-0.8** |
| **HWQ** | **Hawqa** | **0.35** | **329** | *e*P | **Pb** | **05 24 30.6** | **0.0** |
| HWQ | | | | *e*S | **Sb** | **05 24 35.4** | **-0.8** |
| **BHL** | **Bhannes** | **0.43** | **261** | *e*P | **Pg** | **05 24 31.0** | **+0.3** |
| BHL | | | | *e*S | **Sg** | **05 24 36.3** | **-0.2** |
| **BHL** | **Bhannes** | **0.43** | **261** | *e*P | **Pg** | **05 24 31.0** | **+0.3** |
| BHL | | | | *e*S | **Sg** | **05 24 36.3** | **-0.2** |
| **QASN** | **Qassioun** | **0.45** | **168** | *e*P | **Pb** | **05 24 32.1** | **-0.1** |
| QASN | comp=E,465nm,0.4s | | | AML | AML | 05 24 39.1 | |
| QASN | comp=N,183nm,0.2s | | | AML | AML | 05 24 41.8 | |
| **RCY** | **Rachaya** | **0.55** | **210** | *e*P | **Pg** | **05 24 33.2** | **+0.2** |
| RCY | | | | *e*S | **Sg** | **05 24 39.8** | **-0.4** |
| **DQRL** | **Deir Qamar** | **0.56** | **242** | *e*P | **Pg** | **05 24 33.4** | **+0.2** |
| **DQRL** | **Deir Qamar** | **0.56** | **242** | *e*P | **Pg** | **05 24 33.4** | **+0.2** |
| **BRBR** | **Barbar** | **0.59** | **198** | *e*P | **Pg** | **05 24 34.0** | **+0.2** |
| BRBR | | | | *e*P | Pn | 05 24 42.8 | +6.1 |
| BRBR | comp=E,37nm,0.8s | | | AML | AML | 05 24 45.4 | |
| BRBR | comp=N,29nm,0.6s | | | AML | AML | 05 24 46.1 | |
| **TOTH** | **TOTAH** | **0.65** | **160** | *e*P | **Pb** | **05 24 35.4** | **-0.1** |
| TOTH | | | | *e*S | **Sg** | **05 24 42.9** | **-0.4** |
| TOTH | comp=N,23nm,0.6s | | | AML | AML | 05 24 49.2 | |
| **ROOS** | **tl_alroos** | **0.95** | **78** | *e*P | **Pn** | **05 24 42.3** | **+0.8** |
| ROOS | comp=N,53nm,0.6s | | | AML | AML | 05 25 01.2 | |
| ROOS | comp=E,29nm,0.7s | | | AML | AML | 05 25 01.6 | |
| **TCHB** | **Talchebab** | **1.31** | **187** | *e*P | **Pn** | **05 24 46.8** | **+0.4** |
| TCHB | | | | *e*S | **Sb** | **05 25 03.2** | **-0.4** |
| TCHB | comp=E,24nm,0.3s | | | AML | AML | 05 25 05.2 | |
| TCHB | comp=N,26nm,0.6s | | | AML | AML | 05 25 05.3 | |
| **SALA** | **Sala** | **1.35** | **159** | *e*P | **Pn** | **05 24 47.2** | **+0.1** |
| SALA | | | | *e*S | **Sb** | **05 25 04.8** | **0.0** |
| SALA | comp=N,16nm,0.6s | | | AML | AML | 05 25 08.7 | |
| SALA | comp=E,2.8nm,0.3s | | | AML | AML | 05 25 10.8 | |

**WEL 29 06:03:58.7±0.4, 46.01S×166.01E, h12km, ML4.0/13, 3C, Error ellipse: s-maj=3.9km s-min=1.7km az=90.0, Off west coast of South Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PYZ** | **Puysegur Point** | **0.50** | **109** | ⇑P* | Pg | 06 04 08.5 | 0.0 |
| PYZ | | | | S* | Sg | 06 04 15.5 | +0.4 |
| PYZ | | | | AML | AML | 06 04 16.0 | |
| PYZ | | | | AML | AML | 06 04 16.2 | |
| PYZ | | | | AML | AML | 06 04 16.3 | |
| **DCZ** | **Deep Cove** | **0.97** | **57** | P* | Pg | 06 04 16.4 | -1.0 |
| DCZ | | | | S* | Sb | 06 04 30.1 | 0.0 |
| DCZ | | | | AML | AML | 06 04 30.2 | |
| DCZ | | | | AML | AML | 06 04 31.1 | |
| DCZ | | | | AML | AML | 06 04 31.1 | |
| **WHZ** | **Wether Hill Ro** | **1.36** | **86** | PN | Pn | 06 04 22.5 | -1.0 |
| WHZ | | | | SN | Sb | 06 04 40.1 | -1.4 |
| WHZ | | | | AML | AML | 06 04 49.1 | |
| **APZ** | **The Paps** | **1.60** | **122** | PN | Pn | 06 04 24.5 | -2.4 |
| APZ | | | | SN | Sn | 06 04 44.4 | -3.1 |
| APZ | | | | AML | AML | 06 04 45.6 | |
| **MLZ** | **Mavora Lakes** | **1.61** | **67** | ⇑PN | Pn | 06 04 27.5 | +0.5 |
| MLZ | | | | SN | Sb | 06 04 49.3 | +0.6 |
| MLZ | | | | AML | AML | 06 04 54.1 | |
| **SYZ** | **Scrubby Hill** | **2.24** | **105** | ⇑PN | Pn | 06 04 34.9 | -0.7 |
| SYZ | | | | AML | AML | 06 05 04.5 | |
| SYZ | | | | AML | AML | 06 05 04.5 | |
| SYZ | | | | AML | AML | 06 05 09.4 | |
| SYZ | | | | AML | AML | 06 05 09.4 | |
| **WKZ** | **Wanaka** | **2.43** | **62** | PN | Pn | 06 04 39.7 | +1.5 |
| WKZ | | | | AML | AML | 06 05 18.3 | |
| WKZ | | | | AML | AML | 06 05 21.5 | |
| WKZ | | | | AML | AML | 06 05 23.0 | |
| WKZ | | | | AML | AML | 06 05 26.9 | |
| **EAZ** | **Earnscleugh** | **2.44** | **73** | PN | Pn | 06 04 39.5 | +1.1 |
| EAZ | | | | AML | AML | 06 05 14.4 | |
| EAZ | | | | AML | AML | 06 05 20.0 | |
| EAZ | | | | AML | AML | 06 05 20.0 | |
| EAZ | | | | AML | AML | 06 05 25.4 | |
| **TUZ** | **Tuapeka** | **2.53** | **90** | PN | Pn | 06 04 39.3 | -0.2 |
| TUZ | | | | AML | AML | 06 05 14.4 | |
| TUZ | | | | AML | AML | 06 05 14.4 | |
| TUZ | | | | AML | AML | 06 05 14.8 | |
| TUZ | | | | AML | AML | 06 05 14.8 | |
| **JCZ** | **Jackson Bay** | **2.76** | **47** | PN | Pn | 06 04 44.0 | +1.2 |
| JCZ | | | | AML | AML | 06 05 34.4 | |
| JCZ | | | | AML | AML | 06 05 36.7 | |
| **HHSZ** | **Highcliff Hill** | **3.21** | **89** | PN | Pn | 06 04 48.7 | -0.2 |
| **LBZ** | **Lake Benmore** | **3.37** | **63** | PN | Pn | 06 04 51.0 | -0.2 |
| LBZ | | | | AML | AML | 06 05 35.3 | |
| LBZ | | | | AML | AML | 06 05 35.9 | |
| **ODZ** | **Otahua Downs** | **3.40** | **75** | PN | Pn | 06 04 50.6 | -1.0 |
| ODZ | | | | AML | AML | 06 05 33.8 | |
| ODZ | | | | AML | AML | 06 05 34.5 | |
| ODZ | | | | AML | AML | 06 05 52.1 | |
| **FOZ** | **Fox Glacier** | **3.67** | **49** | PN | Pn | 06 04 55.4 | +0.2 |
| **RPZ** | **Rata Peaks** | **4.26** | **59** | PN | Pn | 06 05 02.6 | -0.8 |
| RPZ | | | | AML | AML | 06 05 58.5 | |
| RPZ | | | | AML | AML | 06 05 58.5 | |

*NNC **29** 06:37:32.4±2.7, 53.82N×88.34E, h0km, mb3.3, mpv3.0, Error ellipse: s-maj=21.7km s-min=12.7km az=53.0*

**IDC 29 06:37:34.8±3.5, 53.76N×88.25E, h0km, mb1 2.9/3, mb1mx2.7/47, mbtmp2.9/3, ML2.5/3, 4C-3D, Error ellipse: s-maj=35.4km s-min=19.7km az=84.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **I46RU** | **ZALESOVO INFRA** baz=91,slow=349,SNR=3.8 | **2.04** | **277** | *i* | | 06 51 27.6 | |
| **ZAA0** | **Zalesovo Array** 0.7nm,0.5s | **2.04** | **277** | ⇓Pg | Pn | 06 38 10.0 | -0.4 |
| ZAA0 | 3.9nm,0.8s | | | ⇑Lg | Lg | 06 38 38.9 | |
| **ZALV** | **Zalesovo Beam** 3.1nm,0.3s,baz=89,slow=13,SNR=30 | **2.04** | **277** | Pn | Pn | 06 38 10.2 | -0.2 |
| ZALV | 4.3nm,0.3s,baz=94,slow=24,SNR=17 | | | Sn | Sb | 06 38 37.7 | -0.9 |
| **KURBB** | **Kurchatov Arra** 0.1nm,0.3s,baz=64,slow=14,SNR=4.5 | **6.75** | **246** | Pn | Pn | 06 39 15.5 | +0.5 |
| KURBB | 0.1nm,0.3s,baz=64,slow=32,SNR=4.4 | | | Lg | Lg | 06 41 08.0 | |
| **KURBB** | **Kurchatov Arra** 1.4nm,0.4s | **6.75** | **246** | ⇑Pn | Pn | 06 39 15.4 | +0.4 |
| KURBB | 1.0nm,0.3s | | | ⇑Sn | Sn | 06 40 33.7 | +1.2 |
| KURBB | 5.6nm,0.8s | | | ⇓Lg | Lg | 06 41 07.6 | |
| **MK31** | **Makanchi Array** 1.7nm,1.1s,baz=28,slow=13,SNR=7.8 | **7.95** | **211** | Pn | Pn | 06 39 29.9 | -1.6 |
| MK31 | 1.2nm,0.8s,baz=153,slow=55,SNR=4.3 | | | ⇑Sn | Sn | 06 41 02.0 | 0.0 |
| MK31 | 3.5nm,1.2s,baz=87,slow=14,SNR=4.0 | | | ⇓Lg | Lg | 06 41 47.2 | |
| **MKAR** | **Makanchi Array** 0.1nm,0.3s,baz=29,slow=14,SNR=6.9 | **7.95** | **211** | Pn | Pn | 06 39 32.9 | +1.4 |
| MKAR | 0.1nm,0.3s,baz=31,slow=28,SNR=4.0 | | | Sn | Sn | 06 41 01.3 | -0.7 |
| MKAR | 0.1nm,0.3s,baz=28,slow=29,SNR=5.7 | | | Lg | Lg | 06 41 45.5 | |

**ISK 29 06:40:56.2, 38.60N×42.95E, h5km, MD2.7, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GEVA** | **Gevas** | **0.30** | **163** | *i* P | Pb | 06 41 05.7 | +1.5 |
| **VANB** | **Van** | **0.34** | **91** | *e*PG | Pb | 06 41 04.6 | -0.3 |
| VANB | | | | *e*SG | Sb | 06 41 10.9 | +0.2 |
| **VMUR** | **Van-Muradiye** | **0.62** | **51** | *i* P | Pg | 06 41 06.6 | -1.6 |
| VMUR | | | | *i* S | Sg | 06 41 14.2 | -2.1 |
| **TUTA** | **Tutak** | **0.81** | **352** | *i* P | Pn | 06 41 16.1 | +1.6 |
| **CLDR** | **Caldiran** | **0.93** | **54** | *e*PG | Pb | 06 41 15.2 | +0.3 |
| **AGRB** | **Hanur-Agry** | **0.97** | **2** | *e*PG | Pb | 06 41 16.1 | +0.4 |
| AGRB | | | | *e*SG | Sn | 06 41 30.5 | -0.5 |

*IDC **29** 07:01:49.8±18.0, 12.73N×87.53W, h0km, mb3.6/3, mb1 3.9/3, mb1mx3.5/40, mbtmp3.6/3, Error ellipse: s-maj=344.6km s-min=91.2km az=5.0*
*CASC **29** 07:01:50.0±1.6, 11.93N×88.34W, h73km±60km, MD3.8, ML3.0*

**ISC 29 07:01:50.9±2.5, 11.9N±0.1×88.35W±0.08, h42km±26km, n19, σ1804/23, mb3.4/3, Off coast of central America**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CSGN** | **Cosiguina Volc** | **1.32** | **36** | *e*P | **Pn** | **07 02 12.9** | **0.0** |
| **CNCH** | **Conchagua** | **1.46** | **20** | *e*P | **Pn** | **07 02 13.9** | **-1.0** |
| CNCH | | | | *e*S | **Sn** | **07 02 33.3** | **+0.5** |
| **LCND** | **La Caˆ–ada** | **1.47** | **18** | *e*P | **Pn** | **07 02 13.7** | **-1.3** |
| **CRIN** | **San Cristobal** | **1.50** | **58** | *e*P | **Pn** | **07 02 14.9** | **-0.4** |
| CRIN | | | | *e*S | **Sn** | **07 02 35.9** | **+2.2** |
| **LCY** | **Lacayo** | **1.52** | **2** | *e*P | **Pn** | **07 02 15.2** | **-0.5** |
| **VSM** | **San Miguel** | **1.52** | **3** | *e*P | **Pn** | **07 02 15.8** | **-0.1** |
| **PACA** | **Pacayal** | **1.56** | **1** | *e*P | **Pn** | **07 02 15.7** | **-0.6** |
| PACA | | | | *e*S | **Sn** | **07 02 34.9** | **-0.5** |
| **COPN** | **Copaltepe** | **1.74** | **81** | *e*P | **Pn** | **07 02 18.0** | **-0.6** |
| COPN | | | | *e*S | **Sn** | **07 02 40.0** | **+0.4** |
| **MOMN** | **Momotombo** | **1.84** | **74** | *e*P | **Pn** | **07 02 19.1** | **-0.9** |
| MOMN | | | | *e*S | **Sn** | **07 02 41.5** | **-0.6** |
| **LFRS** | **El Faro** | **1.85** | **338** | *e*P | **Pn** | **07 02 20.2** | **0.0** |
| **LBRS** | **Las Brisas** | **1.95** | **340** | *e*P | **Pn** | **07 02 21.6** | **0.0** |
| **SNET** | **Serv Nac Est T** comp=Z,126nm,0.3s | **1.98** | **334** | IAML | | 07 02 53.3 | |
| **BOQS** | **Boqueron** | **2.04** | **334** | *e*P | **Pn** | **07 02 22.0** | **-0.9** |
| BOQS | | | | *e*S | **Sn** | **07 02 47.4** | **+0.1** |
| **ESTN** | **Estel** | **2.27** | **58** | *e*P | **Pn** | **07 02 25.0** | **-1.0** |
| **TGUH** | **Tegucigalpa,Un** | **2.39** | **26** | *e*P | **Pn** | **07 02 27.2** | **-0.3** |
| **MATN** | **Matagalpa** | **2.58** | **66** | *e*P | **Pn** | **07 02 30.6** | **+0.4** |
| **TXAR** | **Lajitas Array** comp=Z,0.4nm,0.5s,baz=143,slow=11,SNR=9.2 | **22.46** | **323** | P | **P** | **07 06 49.1** | **+2.5** |
| **ULM** | **Lac du Bonnet** comp=Z,1.9nm,0.5s,baz=174,slow=9.8,SNR=6.6 | **38.74** | **352** | P | **P** | **07 09 09.6** | **-1.4** |
| **YKA** | **Yellowknife Ar** comp=Z,0.3nm,0.7s,baz=134,slow=8.6,SNR=11 | **53.91** | **345** | P | P | 07 11 10.4 | +0.6 |

*ISCJB **29** 07:07:02.5±0.6, 52.1N±0.1×30.6W±0.1, h10km, mb3.7/17, MS3.4/11, Error ellipse: s-maj=18.4km s-min=8.8km az=9.9*
*IDC **29** 07:07:03.0±0.8, 52.10N×30.59W, h0km, mb3.7/16, mb1 3.9/17, mb1mx3.8/55, mbtmp3.7/17, ML4.6/1, MS3.5/12, Ms1 3.5/12, ms1mx3.2/44, Error ellipse: s-maj=28.3km s-min=12.7km az=10.0*
*NEIC **29** 07:07:04.6±0.4, 52.09N×30.57W, h10km, mb4.2/1, Error ellipse: s-maj=12.9km s-min=6.3km az=191.0*
*CSEM **29** 07:07:04.6, 52.09N×30.57W, h10km, mb4.2/1*

**ISC 29 07:07:04.4±0.8, 52.1N±0.2×30.58W±0.08, h10km, n32, σ0885/26, mb3.8/17, MS3.3/11, Northern Mid-Atlantic Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **EKA** | **Eskdalemuir Ar** baz=266,slow=14,SNR=14 

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **MDT** | **Midelt** | **26.91 125** | LR | LR | 07 22 44.0 | | |
| | comp=Z,34nm,18.0s,baz=346,slow=35 | | | | | | |
| **GERES** | **GERESS Array B** | **28.05 79** | P | **P** | **07 12 55.8** | **+0.1** |
| | 0.8nm,0.8s,baz=264,slow=7.9,SNR=3.9 | | | | | | |
| GERES | | | LR | LR | 07 22 21.6 | | |
| | comp=Z,123nm,19.9s,baz=288,slow=33 | | | | | | |
| **VRAC** | **Vranov** | **29.61 76** | LR | LR | 07 25 31.7 | | |
| | comp=Z,65nm,18.6s,baz=318,slow=38 | | | | | | |
| **FINES** | **FINESS Array B** | **31.47 50** | P | **P** | **07 13 25.3** | **-0.4** |
| | 3.2nm,0.9s,baz=284,slow=9.6,SNR=3.5 | | | | | | |
| FINES | | | LR | LR | 07 24 05.3 | | |
| | comp=Z,150nm,20.1s,baz=270,slow=32 | | | | | | |
| **AKASG** | **Malin Array Be** | **36.43 68** | P | **P** | **07 14 08.2** | **-0.6** |
| | 2.6nm,1.0s,baz=296,slow=9.2,SNR=4.2 | | | | | | |
| **ULM** | **Lac du Bonnet** | **39.75 294** | P | **P** | **07 14 36.4** | **-0.4** |
| | 0.7nm,0.5s,baz=79,slow=10,SNR=3.1 | | | | | | |
| **YKA** | **Yellowknife Ar** | **43.40 318** | P | **P** | **07 15 06.7** | **+0.1** |
| | 1.8nm,0.8s,baz=60,slow=8.8,SNR=27 | | | | | | |
| YKA | | | PcP | **PcP** | **07 16 54.4** | **-0.3** |
| | 0.4nm,0.6s,baz=61,slow=3.7,SNR=11 | | | | | | |
| **BRTR** | **Keskin Array B** | **44.94 79** | P | **P** | **07 15 20.1** | **+0.6** |
| | 0.8nm,0.7s,baz=303,slow=7.2,SNR=5.3 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **46.66 134** | P | **P** | **07 15 33.6** | **+0.6** |
| | 0.8nm,0.7s,baz=335,slow=7.6,SNR=5.5 | | | | | | |
| TORD | | | LR | LR | 07 33 00.8 | | |
| | comp=Z,52nm,19.2s,baz=350,slow=33 | | | | | | |
| **INK** | **Inuvik** | **47.24 330** | P | **P** | **07 15 36.4** | **-0.5** |
| | 0.8nm,0.7s,baz=33,slow=9.7,SNR=4.5 | | | | | | |
| **PDAR** | **Pinedale Array** | **51.74 293** | P | **P** | **07 16 11.8** | **-0.2** |
| | 0.4nm,0.6s,baz=61,slow=7.4,SNR=4.5 | | | | | | |
| **ILAR** | **Eielson Array** | **53.59 331** | P | **P** | **07 16 25.3** | **+0.3** |
| | 1.0nm,0.8s,baz=40,slow=5.9,SNR=12 | | | | | | |
| ILAR | | | PcP | **PcP** | **07 17 31.5** | **+0.1** |
| | 0.7nm,0.8s,baz=15,slow=2.6,SNR=5.9 | | | | | | |
| **TXAR** | **Lajitas Array** | **57.30 277** | P | **P** | **07 16 52.8** | **+0.5** |
| | 0.3nm,0.7s,baz=57,slow=13,SNR=2.8 | | | | | | |
| **NVAR** | **Mina Array Bea** | **59.59 294** | P | **P** | **07 17 08.0** | **-0.3** |
| | 0.2nm,0.6s,baz=52,slow=4.7,SNR=2.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **66.00 44** | LR | LR | 07 46 07.7 | | |
| | comp=Z,44nm,19.5s,baz=8.5,slow=36 | | | | | | |
| **SONM** | **Songino Array** | **73.91 29** | P | **P** | **07 18 40.4** | **+1.1** |
| | 0.9nm,1.2s,baz=339,slow=7.7,SNR=2.6 | | | | | | |
| **CPUP** | **Villa Florida** | **81.50 204** | LR | LR | 07 51 49.8 | | |
| | comp=Z,31nm,19.8s,baz=18,slow=33 | | | | | | |
| **WRA** | **Warramunga Arr** | **145.85 26** | PKPbc | **PKPbc** | **07 26 43.7** | **0.0** |
| | 0.9nm,0.8s,baz=346,slow=3.5,SNR=4.2 | | | | | | |
| **ASAR** | **Alice Springs** | **149.25 29** | PKPbc | **PKPbc** | **07 26 52.6** | **-0.5** |
| | 0.5nm,0.6s,baz=351,slow=2.1,SNR=12 | | | | | | |

**MEX 29 07:07:33.3±0.6, 17.04N×99.58W, h45km±16km, MD3.6, Guerrero**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ACX** | **Acapulco** | **0.31** | **238** | *i* P | Pn | 07 07 41.9 | -0.3 |
| ACX | | | | *e*S | Sn | 07 07 47.9 | -0.4 |
| **ACP2** | **Acapulco** | **0.33** | **241** | *e*P | Pn | 07 07 40.6 | -1.7 |
| ACP2 | | | | *i* S | Sn | 07 07 47.1 | -1.5 |
| **CAIG** | **El Cayaco** | **0.65** | **271** | *e*P | Pn | 07 07 44.7 | -1.6 |
| CAIG | | | | *e*S | Sn | 07 07 53.5 | -2.1 |
| **MEIG** | **Mezcala** | **0.89** | **358** | *e*P | Pn | 07 07 47.2 | -2.3 |
| MEIG | | | | *e*S | Sn | 07 07 59.4 | -1.9 |
| **PLIG** | **Platanillo** | **1.35** | **3** | *e*P | Pn | 07 07 54.7 | -1.1 |
| PLIG | | | | *e*S | Sn | 07 08 10.7 | -1.9 |
| **ARIG** | **Puente Sto Nin** | **1.44** | **330** | *e*P | Pn | 07 07 56.3 | -0.6 |
| ARIG | | | | *e*S | Sn | 07 08 12.7 | -1.9 |

*IDC **29** 07:07:48.2±4.0, 9.21S×118.92E, h0km, mb3.5/2, mb1 3.9/4, mb1mx3.6/33, mbtmp3.7/4, ML3.7/2, Error ellipse: s-maj=206.4km s-min=25.1km az=59.0*
*DJA **29** 07:08:00.0±0.3, 9.5S±4.4×11.9E±1.1, h31km±5km, M4.1/8, MLv4.1/8*
**ISC 29 07:07:59.0±1.1, 9.35S±0.07×119.22E±0.05, h46km, n11, σ1s89/14, Sumba region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WBSI** | **Waikabubak, Su** | **0.33** | **150** | P | **Pn** | **07 08 09.8** | **+1.6** |
| WBSI | | | | S | **Sn** | **07 08 16.4** | **+1.7** |
| **PLAI** | **Plampang** | **1.52** | **290** | P | **Pn** | **07 08 24.8** | **+1.0** |
| PLAI | | | | S | **Sn** | **07 08 44.0** | **+1.6** |
| **BASI** | **Baing, Sumba** | **1.59** | **123** | P | **Pn** | **07 08 26.4** | **+1.6** |
| BASI | | | | S | **Sn** | **07 08 46.5** | **+2.4** |
| **EDFI** | **Ende, Flores** | **2.51** | **76** | P | **Pn** | **07 08 38.3** | **+0.8** |
| EDFI | | | | S | **Sn** | **07 09 07.6** | **+0.7** |
| **MMRI** | **Maumere** | **3.06** | **77** | P | **Pn** | **07 08 46.2** | **+1.3** |
| **BSSI** | **Bau Bau, Buton** | **3.42** | **22** | P | **Pn** | **07 08 51.0** | **+1.0** |
| **SOEI** | **Soe** | **4.99** | **95** | P | **Pn** | **07 09 12.9** | **+1.3** |
| **FITZ** | **Fitzroy Crossi** | **10.70** | **145** | Pn | **Pn** | **07 10 27.2** | **-2.6** |
| | 0.8nm,0.3s,baz=326,slow=13,SNR=16 | | | | | | |
| FITZ | | | | Sn | Sn | 07 12 18.2 | -10 |
| | 1.0nm,0.3s,baz=352,slow=16,SNR=9.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **18.00** | **127** | P | **Pn** | **07 12 03.6** | **-2.5** |
| | 0.2nm,0.3s,baz=300,slow=14,SNR=8.7 | | | | | | |
| WRA | | | | S | Sn | 07 15 12.2 | -14 |
| | 0.1nm,0.3s,baz=295,slow=24,SNR=5.1 | | | | | | |
| **ASAR** | **Alice Springs** | **19.99** | **137** | P | **P** | **07 12 25.9** | **-2.0** |
| | 0.9nm,0.8s,baz=313,slow=9.4,SNR=9.2 | | | | | | |
| **SONM** | **Songino Array** | **58.06** | **350** | P | P | 07 17 41.8 | -5.8 |
| | 1.1nm,0.8s,baz=169,slow=8.7,SNR=7.7 | | | | | | |

*IDC **29** 07:12:19.1±8.0, 28.11N×88.55W, h0km, mb3.3/5, mb1 3.6/8, mb1mx3.5/46, mbtmp3.3/8, ML3.1/3, MS3.7/12, Ms1 3.7/12, ms1mx3.6/19, Error ellipse: s-maj=139.2km s-min=18.3km az=153.0*
**ISC 29 07:12:24.4±4.4, 28.6N±0.4×88.8W±0.3, h10km, n15, σ1s81/9, mb3.2/5, MS3.5/11, Gulf of Mexico**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TKL** | **Tuckaleechee C** | **8.22** | **30** | Pn | **Pn** | **07 14 24.1** | **+0.3** |
| | 0.1nm,0.3s,baz=192,slow=15,SNR=2.8 | | | | | | |
| TKL | | | | Sn | **Sn** | **07 15 54.9** | **-1.9** |
| | 0.2nm,0.3s,baz=146,slow=7.3,SNR=2.5 | | | | | | |
| **TXAR** | **Lajitas Array** | **13.08** | **277** | Pn | **Pn** | **07 15 28.5** | **-1.9** |
| | 0.0nm,0.3s,baz=104,slow=11,SNR=5.3 | | | | | | |
| **ANMO** | **Albuquerque** | **16.33** | **297** | LR | LR | 07 24 20.6 | |
| | comp=Z,314nm,21.8s,baz=300,slow=43 | | | | | | |
| **SADO** | **Sadowa** | **17.88** | **23** | P | **P** | **07 16 33.9** | **+0.1** |
| | 0.2nm,0.3s,baz=184,slow=14,SNR=3.3 | | | | | | |
| SADO | | | | LR | LR | 07 24 43.0 | |
| | comp=Z,240nm,19.1s,baz=243,slow=41 | | | | | | |
| **PDAR** | **Pinedale Array** | **21.96** | **316** | P | **P** | **07 17 21.0** | **+2.4** |
| | 0.9nm,0.9s,baz=117,slow=12,SNR=5.2 | | | | | | |
| PDAR | | | | LR | LR | 07 27 46.6 | |
| | comp=Z,201nm,18.2s,baz=120,slow=41 | | | | | | |
| **ULM** | **Lac du Bonnet** | **22.31** | **348** | P | **P** | **07 17 23.4** | **+1.5** |
| | 1.6nm,0.7s,baz=153,slow=9.0,SNR=2.5 | | | | | | |
| ULM | | | | LR | LR | 07 27 35.5 | |
| | comp=Z,156nm,18.2s,baz=62,slow=40 | | | | | | |
| **SJG** | **San Juan** | **23.19** | **112** | LR | LR | 07 27 54.6 | |
| | comp=Z,142nm,18.4s,baz=280,slow=41 | | | | | | |
| **SDV** | **Santo Domingo** | **25.98** | **135** | LR | LR | 07 28 09.5 | |
| | comp=Z,93nm,19.6s,baz=280,slow=37 | | | | | | |
| **NVAR** | **Mina Array Bea** | **26.42** | **300** | P | **P** | **07 18 02.1** | **+0.6** |
| | 0.3nm,0.7s,baz=100,slow=9.4,SNR=2.9 | | | | | | |
| NVAR | | | | LR | LR | 07 31 33.7 | |
| | comp=Z,246nm,18.0s,baz=125,slow=43 | | | | | | |
| **NEW** | **Newport** | **29.40** | **320** | LR | LR | 07 33 40.4 | |
| | comp=Z,82nm,19.7s,baz=164,slow=43 | | | | | | |
| **YBH** | **Yreka Blue Hor** | **30.50** | **305** | LR | LR | 07 32 03.5 | |
| | comp=Z,113nm,18.8s,baz=104,slow=38 | | | | | | |
| **YKA** | **Yellowknife Ar** | **37.91** | **341** | P | **P** | **07 19 40.1** | **-1.4** |
| | 0.1nm,0.8s,baz=132,slow=8.4,SNR=3.3 | | | | | | |
| YKA | | | | LR | LR | 07 36 41.3 | |
| | comp=Z,7.0nm,21.2s,baz=180,slow=38 | | | | | | |
| **LPAZ** | **La Paz** | **48.87** | **153** | LR | LR | 07 44 38.1 | |
| | comp=Z,34nm,19.0s,baz=312,slow=40 | | | | | | |
| **ILAR** | **Eielson Array** | **51.02** | **332** | P | **P** | **07 21 27.7** | **+1.4** |
| | 0.6nm,0.9s,baz=113,slow=5.4,SNR=5.0 | | | | | | |
| ILAR | | | | LR | LR | 07 46 14.1 | |
| | comp=Z,90nm,20.0s,baz=114,slow=40 | | | | | | |
| **KDAK** | **Kodiak Island** | **52.43** | **323** | LR | LR | 07 44 48.1 | |
| | comp=Z,169nm,18.0s,baz=136,slow=37 | | | | | | |

**IDC 29 07:12:54.6±18.0, 12.81N×87.55W, h0km, mb3.5/3, mb1 3.8/4, mb1mx3.5/41, mbtmp3.5/4, ML3.2/1, Error ellipse: s-maj=335.1km s-min=60.7km az=180.0, Near coast of Nicaragua**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **CMIG** | **Matias Romero** | **8.27** | **302** | Pn | **Pn** | 07 14 54.8 | -1.1 |
| | 0.3nm,0.3s,baz=112,slow=11,SNR=5.2 | | | | | | |
| **TXAR** | **Lajitas Array** | **22.24** | **320** | P | P | 07 17 54.0 | +0.8 |
| | 0.9nm,0.9s,baz=143,slow=11,SNR=7.6 | | | | | | |
| **ULM** | **Lac du Bonnet** | **37.95** | **351** | P | P | 07 20 13.3 | -0.6 |
| | 1.2nm,0.5s,baz=174,slow=7.7,SNR=4.6 | | | | | | |
| **YKA** | **Yellowknife Ar** | **53.24** | **345** | P | P | 07 22 14.7 | +0.1 |
| | 0.3nm,0.7s,baz=134,slow=8.8,SNR=7.5 | | | | | | |

*IDC **29** 07:30:11.7±3.7, 5.92S×147.20E, h48km±34km, mb3.7/7, mb1 4.0/10, mb1mx3.7/35, mbtmp4.0/10, ML3.9/2, MS3.2/5, Ms1 3.2/5, ms1mx2.9/30, Error ellipse: s-maj=35.7km s-min=24.0km az=98.0*
*NEIC **29** 07:30:12.3±2.3, 5.96S×147.19E, h56km±20km, mb4.5/2, Error ellipse: s-maj=22.6km s-min=17.0km az=105.0*
*ISCJB **29** 07:30:13.3±0.8, 6.07S±0.08×147.2E±0.2, h78km, mb3.9/8, Error ellipse: s-maj=23.3km s-min=10.9km az=0.5*
**ISC 29 07:30:14.7±0.9, 6.03S±0.08×147.2E±0.3, h78km, n22, σ1s85/18, mb3.9/8, Eastern New Guinea region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PMG** | **Port Moresby** | **3.36** | **181** | P | **Pn** | **07 31 03.7** | **-1.2** |
| | 29nm,0.3s,baz=28,slow=2.9,SNR=21 | | | | | | |
| PMG | | | | S | **Sn** | **07 31 40.7** | **-3.1** |
| | 20nm,0.3s,baz=150,slow=20,SNR=4.0 | | | | | | |
| PMG | | | | LR | LR | 07 32 43.4 | |
| | comp=Z,301nm,21.5s,baz=36,slow=44 | | | | | | |
| **PMG** | **Port Moresby** | **3.36** | **181** | *e*Pn | **Pn** | **07 31 02.8** | **-2.1** |
| PMG | | | | *e*Sn | **Sn** | **07 31 48.7** | **+4.9** |
| **CTA** | **Charters Tower** | **14.01** | **184** | P | **Pn** | **07 33 29.9** | **+0.2** |
| | 0.2nm,0.3s,baz=349,slow=10,SNR=2.1 | | | | | | |
| **WRAB** | **Tennant Creek** | **18.64** | **221** | *e*P | **P** | **07 34 26.3** | **-0.2** |
| | 6.3nm,0.8s | | | | | | |
| **WRA** | **Warramunga Arr** | **18.66** | **221** | P | **P** | **07 34 25.3** | **-1.3** |
| | 0.5nm,0.3s,baz=46,slow=12,SNR=21 | | | | | | |
| WRA | | | | PcP | **PcP** | **07 38 53.9** | **+1.5** |
| | 0.2nm,0.3s,baz=25,slow=1.9,SNR=11 | | | | | | |
| **ASAR** | **Alice Springs** | **21.72** | **215** | P | **P** | **07 34 58.5** | **-1.3** |
| | 2.5nm,0.5s,baz=45,slow=8.6,SNR=29 | | | | | | |
| ASAR | | | | LR | LR | 07 45 18.7 | |
| | comp=Z,57nm,19.2s,baz=49,slow=42 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **24.24** | **238** | P | **P** | **07 35 24.9** | **+0.3** |
| | 8.4nm,0.5s,baz=46,slow=10,SNR=16 | | | | | | |
| FITZ | | | | LR | LR | 07 46 18.0 | |
| | comp=Z,48nm,18.8s,baz=60,slow=40 | | | | | | |
| **STKA** | **Stephens Creek** | **26.25** | **191** | P | **P** | **07 35 43.9** | **+1.2** |
| | 1.6nm,0.6s,baz=354,slow=7.2,SNR=5.1 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **31.02** | **38** | T | T | 08 09 14.2 | |
| | baz=220,slow=75,SNR=14 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **31.03** | **38** | T | T | 08 09 03.3 | |
| | baz=220,slow=75,SNR=6.7 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **31.04** | **38** | T | T | 08 09 04.7 | |
| | baz=220,slow=75,SNR=7.1 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **32.08** | **37** | T | T | 08 10 20.3 | |
| | baz=219,slow=76,SNR=9.2 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **32.09** | **37** | T | T | 08 10 27.4 | |
| | baz=219,slow=76,SNR=13 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **32.09** | **37** | T | T | 08 10 21.8 | |
| | baz=219,slow=76,SNR=12 | | | | | | |
| **KSRS** | **Korea Array** | **46.85** | **339** | LR | LR | 07 57 11.2 | |
| | comp=Z,13nm,21.0s,baz=295,slow=35 | | | | | | |
| **SONM** | **Songino Array** | **64.53** | **331** | P | **P** | **07 40 44.9** | **+1.3** |
| | 0.5nm,0.5s,baz=152,slow=4.5,SNR=3.6 | | | | | | |
| **VNDA** | **Vanda** | **71.87** | **177** | P | **P** | **07 41 29.7** | **+0.8** |
| | 1.1nm,0.5s,baz=337,slow=5.7,SNR=5.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **77.66** | **320** | P | **P** | **07 42 01.9** | **-0.9** |
| | 0.2nm,0.4s,baz=96,slow=8.5,SNR=7.2 | | | | | | |
| MKAR | | | | LR | LR | 08 16 20.7 | |
| | comp=Z,50nm,21.9s,baz=25,slow=36 | | | | | | |
| **QSPA** | **South Pole Qui** | **83.94** | **180** | *e*P | **P** | **07 42 36.2** | **+0.1** |
| | 25nm,1.1s | | | | | | |
| **ILAR** | **Eielson Array** | **85.42** | **23** | P | **P** | **07 42 42.2** | **-1.1** |
| | 0.8nm,0.6s,baz=252,slow=4.6,SNR=14 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **145.31** | **284** | PKPbc | **PKPbc** | **07 49 44.5** | **0.0** |
| | 1.2nm,0.6s,baz=75,slow=3.7,SNR=13 | | | | | | |
| **DBIC** | **Dimbokro** | **152.24** | **273** | PKPbc | **PKPbc** | **07 50 02.7** | **+0.1** |
| | 2.1nm,0.8s,baz=80,slow=5.8,SNR=4.4 | | | | | | |

**TRN 29 07:34:51.2, 16.17N×61.87W, h177km, MD3.8, 1C-2D, Leeward Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MLG** | **Mont-d'or** | **0.19** | **126** | *i* P | Pn | 07 35 15.8 | +1.1 |
| **PHG** | **Guadaloupe-2** | **0.27** | **126** | *e*P | Pn | 07 35 16.3 | +1.3 |
| **TBG** | **Guadaloupe-3** | **0.38** | **146** | *i* P | Pn | 07 35 16.4 | +1.2 |
| TBG | | | | *e*S | Sn | 07 35 34.9 | +1.3 |
| **SEG** | **Port Louis** | **0.42** | **57** | *e*P | Pn | 07 35 16.4 | +1.2 |
| **MLYT** | **Lee's Yard** | **0.63** | **331** | *e*P | Pn | 07 35 18.2 | +2.0 |
| MLYT | | | | *e*S | Sn | 07 35 35.5 | -0.1 |
| **MBWH** | | **0.65** | **331** | *e*P | Pn | 07 35 16.8 | +0.5 |
| **MDMP** | **Dominica, Moor** | **0.72** | **142** | *e*P | Pn | 07 35 17.9 | +1.1 |
| **BBL** | **Barber's Block** | **0.75** | **149** | *e*P | Pn | 07 35 17.9 | +1.0 |
| BBL | | | | *e*S | Sn | 07 35 37.3 | +0.5 |
| **DEG** | **La Desirade** | **0.79** | **80** | *i* P | Pn | 07 35 18.5 | +1.3 |
| DEG | | | | *e*S | Sn | 07 35 37.5 | +0.4 |
| **BPA** | **Boggy Peak** | **0.87** | **1** | *e*S | Sn | 07 35 39.1 | +0.8 |
| **ANWB** | **Willy Bob** | **1.49** | **3** | *e*P | Pn | 07 35 23.7 | +0.9 |
| ANWB | | | | *e*S | Sn | 07 35 47.3 | 0.0 |
| **PCM** | **Pelee Case Pet** | **1.49** | **155** | *e*P | Pn | 07 35 23.2 | +0.4 |
| **PCM** | **Pelee Case Pet** | **1.49** | **155** | *e*P | Pn | 07 35 23.9 | +1.1 |
| **CXM** | **Morne La Croix** | **1.51** | **153** | *e*P | Pn | 07 35 23.7 | +0.5 |
| **BAMF** | **Morne Balai** | **1.52** | **153** | *e*P | Pn | 07 35 23.8 | +0.6 |
| **FDF** | **Fort de France** | **1.59** | **154** | *e*P | Pn | 07 35 24.4 | +0.6 |
| FDF | | | | *e*S | Sn | 07 35 49.9 | +0.8 |
| **MVM** | **Montagne Vaucl** | **1.86** | **150** | *e*P | Pn | 07 35 27.2 | +0.6 |
| **SMRT** | **St. Maarten** | **2.19** | **328** | *e*P | Pn | 07 35 31.3 | +1.1 |
| SMRT | | | | *e*S | Sn | 07 36 00.4 | -0.2 |
| **BBGH** | **Gun Hill** | **3.75** | **143** | *e*P | Pn | 07 35 49.8 | +0.7 |
| BBGH | | | | *e*S | Sn | 07 36 33.8 | -0.5 |
| **GRGR** | **Grenville** | **4.02** | **177** | *e* | Pn | 07 35 55.7 | +3.2 |

**NNC 29 07:48:00.8±2.1, 53.83N×90.53E, h10km±9km, mb3.6, mpv3.3, 9C-3D, Error ellipse: s-maj=17.6km s-min=13.0km az=29.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ZAA0** | **Zalesovo Array** | **3.38** | **274** | ⇓Pg | Pb | 07 49 01.8 | +1.0 |
| | 2.1nm,0.9s | | | | | | |
| ZAA0 | | | | ⇑Lg | Lg | 07 49 51.1 | |
| | 12nm,0.9s | | | | | | |
| **KURK** | **Kurchatov** | **7.94** | **252** | ⇑Pn | Pn | 07 49 57.0 | +0.8 |
| | 3.2nm,0.8s | | | | | | |
| KURK | | | | ⇑Sn | Sn | 07 51 26.6 | +0.5 |
| | 11nm,0.9s | | | | | | |
| KURK | | | | ⇑Lg | Lg | 07 52 13.9 | |
| | 28nm,0.9s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **8.04** | **251** | ⇑Sn | Sn | 07 51 29.1 | +0.7 |
| | 36nm,0.8s | | | | | | |
| KURBB | | | | ⇑Lg | Lg | 07 52 17.7 | |
| | 57nm,1.0s | | | | | | |
| **MK31** | **Makanchi Array** | **8.79** | **220** | ⇑Pn | Pn | 07 50 08.5 | +0.6 |
| | 0.9nm,0.6s,baz=31,slow=12,SNR=25 | | | | | | |
| MK31 | | | | Sn | Sn | 07 51 48.1 | +1.1 |
| | 3.4nm,0.8s,baz=39,slow=26,SNR=4.5 | | | | | | |
| MK31 | | | | ⇓Lg | Lg | 07 52 40.3 | |
| | 10nm,0.8s,baz=41,slow=28,SNR=4.4 | | | | | | |
| **MAKZ** | **Makanchi** | **8.90** | **221** | ⇑Pn | Pn | 07 50 09.3 | -0.1 |
| | 2.0nm,0.9s | | | | | | |
| MAKZ | | | | ⇓Sn | Sn | 07 51 51.0 | +1.3 |
| | 7.3nm,1.2s | | | | | | |
| MAKZ | | | | ⇑Lg | Lg | 07 52 40.9 | |
| | 13nm,1.1s | | | | | | |

**IDC 29 07:48:30.5±2.8, 5.74S×150.92E, h0km, mb3.9/3, mb1 4.0/4, mb1mx3.5/38, mbtmp3.8/4, ML1.3/1, Error ellipse: s-maj=75.6km s-min=43.4km az=114.0, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PMG** | **Port Moresby** | **5.21** | **225** | Pn | Pn | 07 49 49.6 | -0.1 |
| | 0.7nm,0.3s,baz=158,slow=18,SNR=2.2 | | | | | | |
| PMG | | | | Sn | Sn | 07 50 46.6 | -4.1 |
| | 1.8nm,0.3s,baz=107,slow=20,SNR=6.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **21.43** | **227** | P | P | 07 53 20.6 | +0.3 |
| | 2.0nm,0.5s,baz=52,slow=11,SNR=20 | | | | | | |
| **ASAR** | **Alice Springs** | **24.21** | **221** | P | P | 07 53 49.0 | -0.1 |
| | 2.5nm,0.6s,baz=58,slow=8.9,SNR=59 | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **STKA** | **Stephens Creek** | **27.43** | **197** | P | P | 07 54 18.0 | -0.1 |
| | 1.4nm,0.8s,baz=345,slow=16,SNR=2.5 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **148.78** | **286** | PKPbc | PKPbc | 08 08 20.5 | -0.6 |
| | 0.7nm,0.7s,baz=61,slow=2.1,SNR=4.1 | | | | | | |

**IDC 29 07:59:55.7±2.5, 52.31N×35.89E, h0km, mb3.2/1, mb1 3.9/3, mb1mx3.2/43, mbtmp3.7/3, ML3.1/3, Error ellipse: s-maj=29.9km s-min=13.4km az=122.0, Baltic States-Belarus-Northwestern Russia**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **OBN** | **Obninsk** | **2.84** | **8** | Lg | Lg | 08 01 25.5 | |
| | 8.4nm,0.3s,baz=359,slow=23,SNR=7.5 | | | | | | |
| **AKASG** | **Malin Array Be** | **4.46** | **251** | Pn | Pn | 08 01 03.2 | -1.4 |
| | 0.9nm,0.3s,baz=61,slow=15,SNR=3.2 | | | | | | |
| AKASG | | | | Pg | Pb | 08 01 13.3 | -1.5 |
| | 2.2nm,0.3s,baz=57,slow=16,SNR=8.9 | | | | | | |
| AKASG | | | | Sn | Sn | 08 01 54.1 | -3.1 |
| | 2.4nm,0.3s,baz=63,slow=28,SNR=5.8 | | | | | | |
| AKASG | | | | Lg | Lg | 08 02 09.4 | |
| | 3.3nm,0.3s,baz=67,slow=30,SNR=5.7 | | | | | | |
| **I43RU** | **DUBNA INFRASON** | **4.49** | **9** | *i* | | 08 28 20.0 | |
| | baz=183,slow=318,SNR=0.7 | | | | | | |
| **FINES** | **FINESS Array B** | **10.60** | **334** | Pn | Pn | 08 02 25.1 | -3.6 |
| | 0.1nm,0.3s,baz=150,slow=11,SNR=3.4 | | | | | | |
| FINES | | | | Sn | Sn | 08 04 17.5 | -10 |
| | 0.4nm,0.3s,baz=149,slow=23,SNR=4.3 | | | | | | |
| **ARCES** | **ARCESS Array B** | **17.95** | **348** | P | Pn | 08 04 05.9 | -0.5 |
| | 0.3nm,0.3s,baz=162,slow=12,SNR=7.3 | | | | | | |
| **YKA** | **Yellowknife Ar** | **63.19** | **345** | P | P | 08 10 24.7 | -0.3 |
| | 0.2nm,0.6s,baz=14,slow=6.8,SNR=5.6 | | | | | | |

*JMA **29** 08:13:38.7±0.5, 32.37N×141.88E, h63km, M3.3*
*ISCJB **29** 08:13:39.1±0.9, 32.47N±0.06×141.9E±0.1, h39km, mb3.6/5, Error ellipse: s-maj=15.0km s-min=7.7km az=171.8*
*IDC **29** 08:13:42.6±1.1, 32.26N×141.71E, h47km±9km, mb3.3/5, mb1 3.5/6, mb1mx3.3/40, mbtmp3.5/6, ML3.1/1, MS2.7/1, Ms1 2.7/1, ms1mx2.3/21, Error ellipse: s-maj=33.0km s-min=15.6km az=69.0*
**ISC 29 08:13:41.5±1.0, 32.42N±0.07×141.8E±0.1, h39km, n17, σ1s07/22, mb3.7/5, Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JHCJ** | **Hachijojimakas** | **1.81** | **292** | P | **Pn** | **08 14 09.3** | **-0.9** |
| **JHJ2** | **Mitsune** | **1.81** | **293** | P | **Pn** | **08 14 09.3** | **-0.8** |
| **JHJ** | **Hachijo jima 2** | **1.84** | **293** | P | **Pn** | **08 14 09.7** | **-0.9** |
| | 45nm,0.3s,baz=266,slow=23,SNR=13 | | | | | | |
| **BSO1** | **Boso 1** | **2.33** | **343** | P | **Pn** | **08 14 16.8** | **0.0** |
| **JHU** | **Hanno** | **4.01** | **329** | S | **Sn** | **08 15 26.5** | **+0.4** |
| **JHO** | **Hitachi** | **4.30** | **347** | P | **Pn** | **08 14 43.7** | **-0.7** |
| JHO | | | | S | **Sn** | **08 15 31.8** | **-1.5** |
| **JRY** | **Ryogami san** | **4.32** | **327** | P | **Pn** | **08 14 45.0** | **+0.4** |
| **JAG** | **Ashikaga** | **4.44** | **335** | P | **Pn** | **08 14 46.3** | **0.0** |
| **JFK** | **Kawauchi** | **4.99** | **351** | P | **Pn** | **08 14 52.3** | **-1.6** |
| **MJAR** | **Matsushiro Arr** | **5.07** | **325** | P | **Pn** | **08 14 55.1** | **+0.1** |
| | 0.7nm,0.3s,baz=147,slow=11,SNR=8.3 | | | | | | |
| **JFT** | **Otama** | **5.22** | **347** | P | **Pn** | **08 14 56.8** | **-0.3** |
| JFT | | | | S | **Sn** | **08 15 54.5** | **-1.6** |
| **KSRS** | **Korea Array** | **12.44** | **298** | LR | LR | 08 21 40.8 | |
| | comp=Z,33nm,18.1s,baz=5.0,slow=38 | | | | | | |
| **SONM** | **Songino Array** | **30.83** | **310** | P | **P** | **08 19 55.7** | **+2.0** |
| | 0.9nm,0.7s,baz=121,slow=9.2,SNR=4.3 | | | | | | |
| SONM | | | | pP | **sP** | **08 20 09.2** | **-0.2** |
| | 0.7nm,0.5s,baz=110,slow=8.9,SNR=3.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **46.96** | **306** | P | **P** | **08 22 09.3** | **+0.8** |
| | 0.6nm,0.5s,baz=87,slow=9.1,SNR=7.5 | | | | | | |
| MKAR | | | | pP | **sP** | **08 22 22.8** | **-1.6** |
| | 1.1nm,0.7s,baz=95,slow=9.6,SNR=7.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **52.56** | **189** | P | **P** | **08 22 50.0** | **-1.2** |
| | 1.0nm,0.5s,baz=5.9,slow=7.7,SNR=22 | | | | | | |
| WRA | | | | pP | **pP** | **08 23 02.9** | **+0.3** |
| | 1.4nm,0.5s,baz=6.1,slow=7.6,SNR=7.9 | | | | | | |
| **ASAR** | **Alice Springs** | **56.28** | **189** | P | **P** | **08 23 17.1** | **-1.1** |
| | 0.5nm,0.9s,baz=2.7,slow=6.2,SNR=3.6 | | | | | | |
| ASAR | | | | pP | **pP** | **08 23 30.3** | **+0.6** |
| | 0.3nm,0.7s,baz=15,slow=12,SNR=2.7 | | | | | | |
| **YKA** | **Yellowknife Ar** | **67.65** | **29** | P | **P** | **08 24 35.3** | **+1.2** |
| | 0.1nm,0.6s,baz=306,slow=6.2,SNR=3.5 | | | | | | |

**IDC 29 08:28:35.1±16.0, 11.65N×87.63W, h0km, mb3.5/3, mb1 3.8/4, mb1mx3.5/35, mbtmp3.5/4, ML3.2/1, Error ellipse: s-maj=327.8km s-min=65.3km az=6.0, Near coast of Nicaragua**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CMIG** | **Matias Romero** | **8.86** | **308** | Pn | Pn | 08 30 43.3 | -1.2 |
|

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VNA1** | **Neumayer--Stat** | **14.94** | **157** | P | **Pn** | **08 45 09.1** | **+1.4** |
| **VNA3** | **Neumayer Olymp** | **15.14** | **160** | P | **Pn** | **08 45 09.6** | **-0.8** |
| **VNA2** | **Neumayer--Watz** | **15.34** | **157** | P | **Pn** | **08 45 13.6** | **+0.6** |
| | baz=313,slow=14 | | | | | | |
| **SNAA** | **Sanae** | **16.89** | **155** | P | **Pn** | **08 45 34.0** | **+1.2** |
| **SNAA** | **Sanae** | **16.89** | **155** | P | **Pn** | **08 45 32.6** | **-0.2** |
| | 0.3nm,0.3s,baz=298,slow=14,SNR=5.8 | | | | | | |
| **MAW** | **Mawson** | **38.34** | **142** | P | **P** | **08 48 55.2** | **-1.2** |
| | 1.0nm,0.5s,baz=220,slow=7.9,SNR=3.1 | | | | | | |
| **VNDA** | **Vanda** | **44.92** | **182** | P | **P** | **08 49 50.4** | **+0.3** |
| | 1.0nm,0.6s,baz=189,slow=7.8,SNR=6.4 | | | | | | |
| **BOSA** | **Boshof** | **45.69** | **73** | LR | LR | 09 05 33.8 | |
| | comp=Z,22nm,21.1s,baz=38,slow=31 | | | | | | |
| **LPAZ** | **La Paz** | **51.97** | **305** | P | **P** | **08 50 44.8** | **-0.9** |
| | 0.9nm,0.6s,baz=134,slow=3.2,SNR=5.3 | | | | | | |
| **DBIC** | **Dimbokro** | **66.41** | **23** | P | **P** | **08 52 24.4** | **-0.4** |
| | 1.8nm,0.6s,baz=211,slow=3.3,SNR=3.0 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **74.17** | **28** | P | **P** | **08 53 11.4** | **-0.8** |
| | 1.6nm,0.5s,baz=199,slow=6.6,SNR=21 | | | | | | |
| TORD | | | | pP | **PcP** | **08 53 28.2** | **+1.1** |
| | 2.5nm,0.8s,baz=195,slow=6.2,SNR=10.0 | | | | | | |
| **ASAR** | **Alice Springs** | **97.15** | **161** | P | **P** | **08 55 05.7** | **-2.5** |
| | 0.4nm,0.6s,baz=185,slow=3.9,SNR=7.2 | | | | | | |
| **YKA** | **Yellowknife Ar** | **137.93** | **316** | PKP | **PKPdf** | **09 00 57.0** | **-1.6** |
| | 0.2nm,0.3s,baz=124,slow=2.2,SNR=11 | | | | | | |
| **SONM** | **Songino Array** | **150.04** | **88** | PKPbc | **PKPdf** | **09 01 23.4** | **+3.0** |
| | 1.0nm,0.5s,baz=213,slow=3.5,SNR=6.5 | | | | | | |
| **ILAR** | **Eielson Array** | **151.79** | **309** | PKPbc | **PKPdf** | **09 01 27.2** | **+4.8** |
| | 2.3nm,0.9s,baz=137,slow=3.6,SNR=23 | | | | | | |

**IDC 29 08:47:24.6±17.0, 13°.43N×87°.67W, h0km, mb3.6/3, mb1 4.0/3, mb1mx3.5/38, mbtmpg3.7/3, MS3.5/1, Ms1 3.5/1, ms1mx2.6/34, Error ellipse: s-maj=318.2km s-min=88.5km az=2.0, Honduras**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TXAR** | **Lajitas Array** | **21.69** | **319** | P | P | 08 52 17.2 | -0.1 |
| | 1.7nm,0.6s,baz=135,slow=10,SNR=27 | | | | | | |
| **PCRV** | **Puerto La Cruz** | **22.77** | **96** | LR | LR | 09 02 28.0 | |
| | comp=Z,119nm,18.9s,baz=166,slow=40 | | | | | | |
| **ULM** | **Lac du Bonnet** | **37.33** | **351** | P | P | 08 54 39.0 | +0.4 |
| | 0.7nm,0.4s,baz=170,slow=11,SNR=2.8 | | | | | | |
| **YKA** | **Yellowknife Ar** | **52.62** | **345** | P | P | 08 56 39.6 | -0.5 |
| | 0.6nm,0.7s,baz=138,slow=8.0,SNR=14 | | | | | | |

**AUST 29 08:57:26.6±1.3, 19°.86S×133°.99E, h0km, Error ellipse: s-maj=1.1km s-min=0.4km az=344.0, Northern Territory**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WC3** | **Warramunga Arr** | **0.37** | **105** | P | Pg | 08 57 33.3 | -0.4 |
| | baz=0.4 | | | | | | |
| **QIS** | **Mount Isa** | **5.32** | **98** | P | Pn | 08 58 47.7 | +0.4 |
| | baz=5.3,SNR=5.2 | | | | | | |
| **KNRA** | **Kununurra** | **6.49** | **309** | P | Pn | 08 59 03.5 | +0.1 |
| | baz=6.5,SNR=7.1 | | | | | | |
| **KDU** | **Kakadu** | **7.28** | **348** | P | Pn | 08 59 14.8 | +0.5 |
| | baz=7.3,SNR=6.1 | | | | | | |
| KDU | | | | S | Sn | 09 00 34.0 | -3.7 |
| | baz=7.3,SNR=5.5 | | | | | | |
| **WRKA** | **Warakurna** | **7.37** | **225** | P | Pn | 08 59 15.7 | +0.2 |
| | baz=7.4,SNR=5.7 | | | | | | |
| **MTN** | **Manton Dam** | **7.50** | **338** | P | Pn | 08 59 16.3 | -0.9 |
| | baz=7.5,SNR=5.0 | | | | | | |
| MTN | | | | S | Sn | 09 00 38.9 | -4.1 |
| | baz=7.5,SNR=6.7 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **8.09** | **281** | P | Pn | 08 59 25.5 | 0.0 |
| | baz=8.1,SNR=11 | | | | | | |
| **COEN** | **Coen** | **10.57** | **58** | P | Pn | 08 59 57.9 | -1.5 |
| | baz=11 | | | | | | |
| COEN | | | | S | Sn | 09 01 49.5 | -9.0 |
| | baz=11,SNR=6.0 | | | | | | |
| **UGM** | **Wanagama** | **25.65** | **294** | S | S | 09 07 25.6 | -2.2 |
| | baz=26,SNR=4.8 | | | | | | |

**NNC 29 09:01:42.2±1.3, 54°.42N×86°.13E, h0km, mb3.6, mpv2.8, 7C-2D, Error ellipse: s-maj=22.2km s-min=6.7km az=154.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ZAA0** | **Zalesovo Array** | **0.90** | **239** | ⇑P | Pg | 09 01 59.4 | 0.0 |
| | 0.1nm,0.2s | | | | | | |
| ZAA0 | | | | ⇑S | Sb | 09 02 12.2 | -1.0 |
| | 0.9nm,0.3s | | | | | | |
| **KURK** | **Kurchatov** | **5.89** | **234** | ⇑Pn | Pn | 09 03 11.7 | +1.1 |
| | 3.2nm,1.1s | | | | | | |
| KURK | | | | ⇑Lg | Lg | 09 04 52.0 | |
| | 2.6nm,0.7s | | | | | | |
| **KURBB** | **Kurchatov Arra** | **5.99** | **234** | ⇓Pn | Pn | 09 03 12.5 | +0.4 |
| | 1.2nm,0.4s | | | | | | |
| KURBB | | | | ⇓Lg | Lg | 09 04 51.6 | |
| | 3.5nm,0.7s | | | | | | |
| **MK31** | **Makanchi Array** | **8.01** | **199** | ⇑Pn | Pn | 09 03 41.2 | +1.4 |
| | 0.6nm,0.5s,baz=30,slow=13,SNR=23 | | | | | | |
| MK31 | | | | ⇑Sn | Sn | 09 05 11.4 | +0.2 |
| | 1.4nm,1.1s,baz=290,slow=37,SNR=4.8 | | | | | | |
| MK31 | | | | ⇑Lg | Lg | 09 05 54.8 | |
| | 0.6nm,0.6s,baz=60,slow=37,SNR=2.9 | | | | | | |

*RSNC **29** 09:24:51.9±1.1, 6°.56N×72°.29W, h0km±9km, ML3.5*
*IDC **29** 09:24:51.8±0.9, 6°.97N×72°.45W, h0km, mb3.4/5, mb1 3.8/7, mb1mx3.6/29, mbtmpg3.6/7, ML3.4/2, Error ellipse: s-maj=25.1km s-min=22.5km az=37.0*
*ISCJB **29** 09:24:52.9±0.5, 6°.58N±0°.04×72°.26W±0°.04, h33km, mb3.4/5, Error ellipse: s-maj=5.9km s-min=5.0km az=29.6*
**ISC 29 09:24:55.5±0.7, 6°.61N±0°.05×72°.35W±0°.05, h35km, n20, σ2°.11/25, mb3.5/5, Northern Colombia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PAMC** | **Pamplona, Colo** | **0.81** | **335** | *e*P | **Pn** | **09 25 08.5** | **-2.3** |
| PAMC | | | | *e*S | **Sn** | **09 25 20.6** | **-1.2** |
| PAMC | | | | *i* | | 09 25 22.1 | |
| | comp=Z,2μm,0.4s | | | | | | |
| **BARC** | **Barichara** | **0.83** | **269** | *i* P | **Pn** | **09 25 08.6** | **-2.3** |
| BARC | | | | *e*S | **Sn** | **09 25 20.6** | **-1.4** |
| BARC | | | | *i* | | 09 25 33.0 | |
| | comp=Z,1μm,0.6s | | | | | | |
| **GIRC** | **Giron, Santand** | **0.96** | **299** | *e*S | **Sn** | **09 25 26.1** | **+1.0** |
| **RUSC** | **La Rusia** | **1.02** | **226** | *e*P | **Pn** | **09 25 10.4** | **-3.3** |
| RUSC | | | | *i* | | 09 25 26.8 | |
| | comp=Z,1μm,0.6s | | | | | | |
| **YOPC** | **Yopal, Colombi** | **1.25** | **183** | *e*P | **Pn** | **09 25 13.3** | **-3.2** |
| YOPC | | | | *e*S | **Sn** | **09 25 30.6** | **-1.6** |
| YOPC | | | | *i* | | 09 25 34.4 | |
| | comp=Z,721nm,0.4s | | | | | | |
| **PTBC** | **PUERTO BERRIO,** | **2.09** | **268** | *e*P | **Pn** | **09 25 28.4** | **+0.3** |
| **CHIC** | **Chingaza** | **2.40** | **215** | *e*P | **Pn** | **09 25 31.8** | **-0.9** |
| CHIC | | | | *i* | | 09 26 18.9 | |
| | comp=Z,186nm,0.7s | | | | | | |
| **VILC** | **Villavicencio,** | **2.82** | **208** | *e*P | **Pn** | **09 25 36.8** | **-1.3** |
| VILC | | | | *i* | | 09 26 30.7 | |
| | comp=Z,332nm,0.6s | | | | | | |
| **SDV** | **Santo Domingo** | **2.83** | **37** | Pn | **Pn** | **09 25 37.4** | **-1.0** |
| | comp=Z,28nm,0.3s,baz=181,slow=4.3,SNR=164 | | | | | | |
| SDV | | | | Sn | **Sn** | **09 26 12.6** | **+1.1** |
| | comp=Z,67nm,0.3s,baz=270,slow=19,SNR=11 | | | | | | |
| SDV | | | | Lg | Lg | 09 26 20.4 | |
| | comp=Z,123nm,0.3s,baz=273,slow=19,SNR=15 | | | | | | |
| **TOLC** | **Tolima** | **3.57** | **236** | *e*P | **Pn** | **09 25 48.9** | **+0.2** |
| **PRAC** | **Prado** | **3.83** | **221** | *e*P | **Pn** | **09 25 51.7** | **-0.2** |
| **GUVC** | **San Jose del G** | **4.04** | **184** | *e*P | **Pn** | **09 25 54.0** | **-1.0** |
| GUVC | | | | *i* | | 09 26 58.6 | |
| | comp=Z,36nm,0.2s | | | | | | |
| **PCRV** | **Puerto La Cruz** | **8.41** | **65** | Pn | **Pn** | **09 26 53.3** | **-1.8** |
| | comp=Z,1.1nm,0.3s,baz=225,slow=7.1,SNR=6.0 | | | | | | |
| PCRV | | | | Sn | **Sn** | **09 28 26.6** | **-2.3** |
| | comp=Z,1.6nm,0.3s,baz=41,slow=20,SNR=3.6 | | | | | | |
| **LPAZ** | **La Paz** | **23.13** | **170** | P | **P** | **09 30 05.2** | **+5.8** |
| | comp=Z,1.8nm,0.6s,baz=360,slow=8.2,SNR=6.3 | | | | | | |
| **TXAR** | **Lajitas Array** | **37.18** | **311** | P | **P** | **09 32 02.0** | **-1.5** |
| | comp=Z,0.1nm,0.6s,baz=128,slow=5.8,SNR=2.1 | | | | | | |
| **NVAR** | **Mina Array Bea** | **52.18** | **314** | P | **P** | **09 34 03.1** | **0.0** |
| | comp=Z,0.2nm,0.5s,baz=141,slow=8.7,SNR=2.6 | | | | | | |
| **YKA** | **Yellowknife Ar** | **63.73** | **340** | P | **P** | **09 35 22.2** | **-1.2** |
| | comp=Z,0.4nm,0.5s,baz=128,slow=6.9,SNR=13 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **73.03** | **78** | P | **P** | **09 36 24.2** | **+1.7** |
| | comp=Z,0.5nm,0.9s,baz=276,slow=5.7,SNR=3.1 | | | | | | |
| **ASAR** | **Alice Springs** | **149.60** | **233** | PKPbc | **PKPbc** | **09 44 43.9** | **+1.6** |
| | comp=Z,0.8nm,0.7s,baz=116,slow=3.4,SNR=7.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **150.90** | **240** | PKPbc | **PKPbc** | **09 44 47.0** | **+1.5** |
| | comp=Z,0.9nm,0.8s,baz=111,slow=2.3,SNR=6.0 | | | | | | |

*ISCJB **29** 09:48:49.1±0.9, 43°.63S±0°.05×172°.99E±0°.06, h16km±8km, mb3.6/2, Error ellipse: s-maj=10.7km s-min=3.3km az=137.3*
*NEIC **29** 09:48:51.5±0.0, 43°.53S×172°.81E, h12km, ML4.3(WEL), After WEL.*
*NEIC Felt at Christchurch.*
*WEL **29** 09:48:51.7±0.1, 43°.53S×172°.79E, h12km, ML4.3/58, Mw4.0, Error ellipse: s-maj=1.4km s-min=0.7km az=90.0*
*WEL Felt in the Canterbury region, maximum reported intensity MM 6.*
*IDC **29** 09:48:51.6±1.8, 43°.21S×172°.56E, h0km, mb3.7/2, mb1 4.0/3, mb1mx3.7/21, mbtmpg3.8/3, ML3.5/1, MS3.2/1, Ms1 3.2/1, ms1mx2.7/17, Error ellipse: s-maj=46.5km s-min=15.5km az=146.0*
**ISC 29 09:48:50.3±1.0, 43°.57S±0°.05×172°.90E±0°.05, h15km±6km, n128, σ0°.95/132, 6C-2D, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.20** | **268** | P* | **Pg** | **09 48 55.0** | **+0.1** |
| CRLZ | | | | S* | **Sg** | **09 48 56.9** | **-1.1** |
| **CRLZ** | **Canterbury Las** | **0.20** | **268** | PG | **Pg** | **09 48 55.0** | **+0.1** |
| CRLZ | | | | SG | **Sg** | **09 48 56.9** | **-1.1** |
| CRLZ | | | | AML | AML | 09 48 57.3 | |
| CRLZ | | | | AML | AML | 09 48 57.3 | |
| CRLZ | | | | AML | AML | 09 48 57.3 | |
| **MQZ** | **McQueen's Vall** | **0.23** | **232** | P* | **Pb** | **09 48 56.2** | **+0.1** |
| MQZ | | | | S* | **Sg** | **09 48 59.3** | **+0.5** |
| **MQZ** | **McQueen's Vall** | **0.23** | **232** | PG | **Pb** | **09 48 56.2** | **+0.1** |
| MQZ | | | | SG | **Sg** | **09 48 59.3** | **+0.5** |
| MQZ | | | | AML | AML | 09 48 59.4 | |
| **OXZ** | **Oxford** | **0.67** | **291** | P* | **Pg** | **09 49 03.0** | **-0.4** |
| **OXZ** | **Oxford** | **0.67** | **291** | P* | **Pg** | **09 49 03.0** | **-0.4** |
| OXZ | | | | AML | AML | 09 49 11.6 | |
| OXZ | | | | AML | AML | 09 49 11.7 | |
| OXZ | | | | AML | AML | 09 49 12.7 | |
| OXZ | | | | AML | AML | 09 49 12.7 | |
| **LTZ** | **Lake Taylor** | **0.91** | **329** | *e*P* | **Pg** | **09 49 08.1** | **+0.2** |
| **LTZ** | **Lake Taylor** | **0.91** | **329** | ⇓*e*P* | **Pg** | **09 49 08.1** | **+0.2** |
| LTZ | | | | ⇓AML | AML | 09 49 20.3 | |
| **KHZ** | **Kahutara** | **1.24** | **22** | P* | **Pb** | **09 49 13.7** | **+0.3** |
| **KHZ** | **Kahutara** | **1.24** | **22** | P* | **Pb** | **09 49 13.7** | **+0.3** |
| KHZ | | | | AML | AML | 09 49 36.5 | |
| KHZ | | | | AML | AML | 09 49 43.4 | |
| KHZ | | | | AML | AML | 09 49 46.2 | |
| KHZ | | | | AML | AML | 09 49 46.3 | |
| **RPZ** | **Rata Peaks** | **1.35** | **263** | Pg | **Pn** | **09 49 14.3** | **-0.3** |
| | 129nm,0.3s,baz=148,slow=2.4,SNR=540 | | | | | | |
| RPZ | | | | Lg | Lg | 09 49 30.6 | |
| | 510nm,0.3s,baz=6.0,slow=19,SNR=29 | | | | | | |
| **RPZ** | **Rata Peaks** | **1.35** | **263** | P* | **Pn** | **09 49 14.3** | **-0.3** |
| RPZ | | | | AML | AML | 09 49 32.9 | |
| RPZ | | | | AML | AML | 09 49 38.3 | |
| **INZ** | **Inchbonnie** | **1.36** | **308** | P* | **Pn** | **09 49 14.2** | **-0.4** |
| **WVZ** | **Waitaha Valley** | **1.65** | **287** | Pn | **Pn** | **09 49 18.7** | **+0.1** |
| **WVZ** | **Waitaha Valley** | **1.65** | **287** | ⇑PN | **Pn** | **09 49 18.7** | **+0.1** |
| WVZ | | | | AML | AML | 09 49 48.1 | |
| WVZ | | | | AML | AML | 09 49 50.9 | |
| **THZ** | **Tophouse** | **1.80** | **0** | Pn | **Pn** | **09 49 21.0** | **+0.2** |
| **THZ** | **Tophouse** | **1.80** | **0** | ⇑PN | **Pn** | **09 49 21.0** | **+0.2** |
| THZ | | | | AML | AML | 09 49 47.7 | |
| THZ | | | | AML | AML | 09 50 01.3 | |
| **BSWZ** | **Blackbirch Sta** | **1.99** | **22** | Pn | **Pn** | **09 49 24.4** | **+1.2** |
| **BSWZ** | **Blackbirch Sta** | **1.99** | **22** | ⇑PN | **Pn** | **09 49 24.4** | **+1.2** |
| BSWZ | | | | AML | AML | 09 50 12.6 | |
| BSWZ | | | | AML | AML | 09 50 19.3 | |
| **DSZ** | **Denniston Nort** | **1.99** | **336** | Pn | **Pn** | **09 49 24.4** | **+1.0** |
| **DSZ** | **Denniston Nort** | **1.99** | **336** | PN | **Pn** | **09 49 24.4** | **+1.0** |
| DSZ | | | | AML | AML | 09 50 01.5 | |
| DSZ | | | | AML | AML | 09 50 01.5 | |
| DSZ | | | | AML | AML | 09 50 05.2 | |
| DSZ | | | | AML | AML | 09 50 05.3 | |
| **CMWZ** | **Cape Campbell** | **2.06** | **29** | Pn | Pg | 09 49 34.8 | +5.0 |
| **LBZ** | **Lake Benmore** | **2.12** | **246** | Pn | **Pn** | **09 49 25.7** | **+0.5** |
| **LBZ** | **Lake Benmore** | **2.12** | **246** | PN | **Pn** | **09 49 25.7** | **+0.5** |
| LBZ | | | | AML | AML | 09 50 04.6 | |
| LBZ | | | | AML | AML | 09 50 04.7 | |
| LBZ | | | | AML | AML | 09 50 04.7 | |
| LBZ | | | | AML | AML | 09 50 04.8 | |
| **ODZ** | **Otahua Downs** | **2.19** | **227** | Pn | **Pn** | **09 49 26.4** | **+0.3** |
| **ODZ** | **Otahua Downs** | **2.19** | **227** | ⇑PN | **Pn** | **09 49 26.4** | **+0.3** |
| ODZ | | | | AML | AML | 09 50 03.0 | |
| ODZ | | | | AML | AML | 09 50 03.0 | |
| ODZ | | | | AML | AML | 09 50 07.2 | |
| ODZ | | | | AML | AML | 09 50 07.2 | |
| **FOZ** | **Fox Glacier** | **2.24** | **270** | Pn | **Pn** | **09 49 28.1** | **+1.4** |
| **FOZ** | **Fox Glacier** | **2.24** | **270** | PN | **Pn** | **09 49 28.1** | **+1.4** |
| FOZ | | | | AML | AML | 09 49 55.2 | |
| FOZ | | | | AML | AML | 09 49 55.2 | |
| FOZ | | | | AML | AML | 09 50 11.3 | |
| FOZ | | | | AML | AML | 09 50 11.3 | |
| **TUWZ** | **Tuamarina** | **2.27** | **20** | PN | **Pn** | **09 49 27.9** | **+0.7** |
| TUWZ | | | | AML | AML | 09 49 40.7 | |
| TUWZ | | | | AML | AML | 09 49 41.8 | |
| **NNZ** | **Nelson** | **2.38** | **9** | Pn | **Pn** | **09 49 29.8** | **+1.2** |
| **NNZ** | **Nelson** | **2.38** | **9** | PN | **Pn** | **09 49 29.8** | **+1.2** |
| NNZ | | | | AML | AML | 09 50 07.5 | |
| NNZ | | | | AML | AML | 09 50 17.5 | |
| NNZ | | | | AML | AML | 09 50 17.5 | |
| NNZ | | | | AML | AML | 09 50 27.6 | |
| **TCW** | **Tory Channel** | **2.57** | **24** | Pn | **Pn** | **09 49 31.9** | **+0.7** |
| **TCW** | **Tory Channel** | **2.57** | **24** | PN | **Pn** | **09 49 31.9** | **+0.7** |
| TCW | | | | AML | AML | 09 49 47.6 | |
| TCW | | | | AML | AML | 09 50 08.1 | |
| **BHW** | **Baring Head** | **2.60** | **35** | Pn | **Pn** | **09 49 32.3** | **+0.5** |
| **BHW** | **Baring Head** | **2.60** | **35** | PN | **Pn** | **09 49 32.3** | **+0.5** |
| BHW | | | | AML | AML | 09 50 46.3 | |
| BHW | | | | AML | AML | 09 50 57.2 | |
| **PLWZ** | **Palliser** | **2.65** | **42** | Pn | **Pn** | **09 49 32.9** | **+0.5** |
| **PLWZ** | **Palliser** | **2.65** | **42** | PN | **Pn** | **09 49 32.9** | **+0.5** |
| PLWZ | | | | AML | AML | 09 50 09.1 | |
| PLWZ | | | | AML | AML | 09 51 00.5 | |
| **WEL** | **Wellington** | **2.67** | **32** | PN | **Pn** | **09 49 33.4** | **+0.7** |
| WEL | | | | AML | AML | 09 50 06.3 | |
| WEL | | | | AML | AML | 09 50 07.8 | |
| WEL | | | | AML | AML | 09 50 07.8 | |
| WEL | | | | AML | AML | 09 50 21.9 | |
| **QRZ** | **Quartz Range** | **2.75** | **354** | PN | **Pn** | **09 49 35.5** | **+1.7** |
| QRZ | | | | AML | AML | 09 49 46.6 | |
| QRZ | | | | AML | AML | 09 49 46.6 | |
| QRZ | | | | AML | AML | 09 50 31.7 | |
| QRZ | | | | AML | AML | 09 50 31.7 | |
| **HHSZ** | **Highcliff Hill** | **2.84** | **215** | Pn | **Pn** | **09 49 35.5** | **+0.5** |
| **HHSZ** | **Highcliff Hill** | **2.84** | **215** | PN | **Pn** | **09 49 35.5** | **+0.5** |
| HHSZ | | | | AML | AML | 09 50 31.8 | |
| HHSZ | | | | AML | AML | 09 50 46.6 | |
| **DUWZ** | **D'Urville Isla** | **2.87** | **16** | Pn | **Pn** | **09 49 36.6** | **+1.2** |
| **DUWZ** | **D'Urville Isla** | **2.87** | **16** | PN | **Pn** | **09 49 36.6** | **+1.2** |
| DUWZ | | | | AML | AML | 09 50 39.3 | |
| DUWZ | | | | AML | AML | 09 50 45.9 | |
| **CAW** | **Cannon Point** | **2.94** | **34** | Pn | **Pn** | **09 49 36.7** | **+0.3** |
| **CAW** | **Cannon Point** | **2.94** | **34** | PN | **Pn** | **09 49 36.7** | **+0.3** |
| CAW | | | | AML | AML | 09 50 18.1 | |
| CAW | | | | AML | AML | 09 50 19.1 | |
| **JCZ** | **Jackson Bay** | **3.02** | **259** | Pn | **Pn** | **09 49 37.9** | **+0.3** |
| **JCZ** | **Jackson Bay** | **3.02** | **259** | PN | **Pn** | **09 49 37.9** | **+0.3** |
| JCZ | | | | AML | AML | 09 50 36.8 | |
| JCZ | | | | AML | AML | 09 50 37.0 | |
| **WKZ** | **Wanaka** | **3.06** | **244** | Pn | **Pn** | **09 49 38.3** | **+0.2** |
| **WKZ** | **Wanaka** | **3.06** | **244** | ⇑PN | **Pn** | **09 49 38.3** | **+0.2** |
| WKZ | | | | AML | AML | 09 50 33.6 | |
| WKZ | | | | AML | AML | 09 50 33.7 | |
| WKZ | | | | AML | AML | 09 50 35.5 | |
| WKZ | | | | AML | AML | 09 50 35.5 | |
| **EAZ** | **Earnscleugh** | **3.06** | **236** | Pn | **Pn** | **09 49 38.4** | **+0.3** |
| **EAZ** | **Earnscleugh** | **3.06** | **236** | ⇑PN | **Pn** | **09 49 38.4** | **+0.3** |
| EAZ | | | | AML | AML | 09 50 31.9 | |
| EAZ | | | | AML | AML | 09 50 31.9 | |
| EAZ | | | | AML | AML | 09 50 34.2 | |
| EAZ | | | | AML | AML | 09 50 34.3 | |
| **MTW** | **Mount Morrison** | **3.08** | **40** | Pn | **Pn** | **09 49 38.5** | **+0.2** |
| **MTW** | **Mount Morrison** | **3.08** | **40** | PN | **Pn** | **09 49 38.5** | **+0.2** |
| MTW | | | | AML | AML | 09 50 14.0 | |
| MTW | | | | AML | AML | 09 50 21.7 | |
| **KIW** | **Kapiti Island** | **3.09** | **30** | Pn | **Pn** | **09 49 39.1** | **+0.7** |
| **KIW** | **Kapiti Island** | **3.09** | **30** | PN | **Pn** | **09 49 39.1** | **+0.7** |
| KIW | | | | AML | AML | 09 50 30.6 | |
| KIW | | | | AML | AML | 09 51 04.0 | |
| **OGWZ** | **Otaki Gorge** | **3.23** | **32** | Pn | **Pn** | **09 49 40.7** | **+0.4** |
| **OGWZ** | **Otaki Gorge** | **3.23** | **32** | PN | **Pn** | **09 49 40.7** | **+0.4** |
| OGWZ | | | | AML | AML | 09 50 18.8 | |
| OGWZ | | | | AML | AML | 09 50 28.3 | |
| **HOWZ** | **Holdsworth Sta** | **3.30** | **37** | Pn | **Pn** | **09 49 42.0** | **+0.7** |
| **HOWZ** | **Holdsworth Sta** | **3.30** | **37** | PN | **Pn** | **09 49 42.2** | **+0.9** |
| HOWZ | | | | AML | AML | 09 50 23.3 | |
| HOWZ | | | | AML | AML | 09 50 23.9 | |
| **TUZ** | **Tuapeka** | **3.33** | **223** | Pn | **Pn** | **09 49 42.2** | **+0.5** |
| **TUZ** | **Tuapeka** | **3.33** | **223** | PN | **Pn** | **09 49 42.2** | **+0.5** |
| TUZ | | | | AML | AML | 09 50 47.4 | |
| TUZ | | | | AML | AML | 09 50 47.4 | |
| TUZ | | | | AML | AML | 09 50 49.5 | |
| TUZ | | | | AML | AML | 09 50 49.5 | |
| **MRZ** | **Mangatainoka R** | **3.52** | **35** | Pn | **Pn** | **09 49 44.3** | **-0.1** |
| **MRZ** | **Mangatainoka R** | **3.52** | **35** | PN | **Pn** | **09 49 44.5** | **+0.1** |
| MRZ | | | | AML | AML | 09 50 28.2 | |
| MRZ | | | | AML | AML | 09 50 33.8 | |
| **TIWZ** | **Tintock** | **3.56** | **40** | Pn | **Pn** | **09 49 45.8** | **+0.8** |
| **TIWZ** | **Tintock** | **3.56** | **40** | PN | **Pn** | **09 49 45.3** | **+0.3** |
| TIWZ | | | | AML | AML | 09 50 28.2 | |
| TIWZ | | | | AML | AML | 09 50 29.8 | |
| **PRWZ** | **Pori Road** | **3.78** | **38** | Pn | **Pn** | **09 49 47.9** | **0.0** |
| **PRWZ** | **Pori Road** | **3.78** | **38** | PN | **Pn** | **09 49 47.9** | **0.0** |
| PRWZ | | | | AML | AML | 09 50 33.5 | |
| PRWZ | | | | AML | AML | 09 50 37.2 | |
| **BFZ** | **Birch Farm** | **3.81** | **42** | Pn | **Pn** | **09 49 48.3** | **-0.1** |
| BFZ | | | | AML | AML | 09 50 45.5 | |
| BFZ | | | | AML | AML | 09 50 50.7 | |
| BFZ | | | | AML | AML | 09 50 50.7 | |
| **OHWZ** | **Ohakea** | **3.81** | **29** | PN | **Pn** | **09 49 50.1** | **+1.8** |
| **POWZ** | **Post Office Ro** | **3.83** | **35** | PN | **Pn** | **09 49 49.8** | **+1.2** |
| POWZ | | | | AML | AML | 09 50 48.3 | |
| POWZ | | | | AML | AML | 09 51 13.9 | |
| **MLZ** | **Mavora Lakes** | **3.87** | **241** | Pn | **Pn** | **09 49 49.2** | **+0.1** |
| **MLZ** | **Mavora Lakes** | **3.87** | **241** | ⇓PN | **Pn** | **09 49 49.2** | **+0.1** |
| MLZ | | | | AML | AML | 09 51 02.8 | |
| MLZ | | | | AML | AML | 09 51 03.1 | |
| **SYZ** | **Scrubby Hill** | **3.99** | **221** | Pn | **Pn** | **09 49 51.6** | **+0.8** |
| **SYZ** | **Scrubby Hill** | **3.99** | **221** | PN | **Pn** | **09 49 51.6** | **+0.8** |
| SYZ | | | | AML | AML | 09 51 12.6 | |
| SYZ | | | | AML | AML | 09 51 12.8 | |
| **DVHZ** | **Dannevirke** | **4.07** | **38** | Pn | **Pn** | **09 49 51.9** | **-0.1** |
| **DVHZ** | **Dannevirke** | **4.07** | **38** | PN | **Pn** | **09 49 51.9** | **-0.1** |
| DVHZ | | | | AML | AML | 09 50 40.7 | |
| DVHZ | | | | AML | AML | 09 50 47.2 | |
| **ANWZ** | **Angora Road** | **4.09** | **42** | PN | **Pn** | **09 49 52.3** | **+0.1** |
| ANWZ | | | | AML | AML | 09 50 42.7 | |
| ANWZ | | | | AML | AML | 09 50 45.5 | |
| **TSZ** | **Takapari Road** | **4.19** | **34** | Pn | **Pn** | **09 49 53.3** | **-0.3** |
| **TSZ** | **Takapari Road** | **4.19** | **34** | PN | **Pn** | **09 49 53.7** | **+0.1** |
| TSZ | | | | AML | AML | 09 51 38.2 | |
| **WHZ** | **Wether Hill Ro** | **4.23** | **235** | Pn | **Pn** | **09 49 53.5** | **-0.6** |
| **WHZ** | **Wether Hill Ro** | **4.23** | **235** | PN | **Pn** | **09 49 53.5** | **-0.6** |
| WHZ | | | | AML | AML | 09 51 16.2 | |
| WHZ | | | | AML | AML | 09 51 17.3 | |
| **PNHZ** | **Pukenui** | **4.41** | **35** | Pn | **Pn** | **09 49 56.2** | **-0.4** |
| **PNHZ** | **Pukenui** | **4.41** | **35** | PN | **Pn** | **09 49 56.2** | **-0.4** |
| PNHZ | | | | AML | AML | 09 50 49.2 | |
| PNHZ | | | | AML | AML | 09 50 49.7 | |
| **DCZ** | **Deep Cove** | **4.53** | **243** | Pn | **Pn** | **09 49 58.0** | **-0.2** |
| **DCZ** | **Deep Cove** | **4.53** | **243** | PN | **Pn** | **09 49 58.7** | **+0.6** |
| DCZ | | | | AML | AML | 09 51 21.7 | |
| DCZ | | | | AML | AML | 09 51 24.2 | |
| **MTVZ** | **Mangateitei** | **4.60** | **26** | Pn | **Pn** | **09 50 01.3** | **+2.0** |
| **MTVZ** | **Mangateitei** | **4.60** | **26** | PN | **Pn** | **09 50 01.3** | **+2.0** |
| MTVZ | | | | AML | AML | 09 51 43.1 | |
| MTVZ | | | | AML | AML | 09 51 54.9 | |
| **PXZ** | **Pawanui** | **4.61** | **41** | Pn | **Pn** | **09 49 59.2** | **-0.1** |
| **PXZ** | **Pawanui** | **4.61** | **41** | PN | **Pn** | **09 49 59.2** | **-0.1** |
| **VRZ** | **Vera Road** | **4.65** | **18** | Pn | **Pn** | **09 50 01.8** | **+1.9** |
| **VRZ** | **Vera Road** | **4.65** | **18** | PN | **Pn** | **09 50 01.8** | **+1.9** |
| VRZ | | | | AML | AML | 09 51 09.9 | |
| VRZ | | | | AML | AML | 09 51 26.6 | |
| **MOVZ** | **Moawhango** | **4.68** | **28** | Pn | **Pn** | **09 50 01.9** | **+1.6** |
| **MOVZ** | **Moawhango** | **4.68** | **28** | PN | **Pn** | **09 50 01.6** | **+1.3** |
| **WNVZ** | **Wahianoa** | **4.70** | **26** | Pn | **Pn** | **09 50 02.3** | **+1.6** |
| **WNVZ** | **Wahianoa** | **4.70** | **26** | PN | **Pn** | **09 50 01.9** | **+1.2** |
| **KRHZ** | **Kereru** | **4.71** | **35** | PN | **Pn** | **09 50 01.3** | **+0.6** |
| KRHZ | | | | AML | AML | 09 51 04.8 | |
| KRHZ | | | | AML | AML | 09 51 06.0 | |
| **BHHZ** | **Black Hill Sta** | **4.71** | **31** | Pn | **Pn** | **09 50 01.5** | **+0.6** |
| **BHHZ** | **Black Hill Sta** | **4.71** | **31** | PN | **Pn** | **09 50 01.5** | **+0.6** |
| BHHZ | | | | AML | AML | 09 51 00.9 | |
| **APZ** | **The Paps** | **4.76** | **225** | Pn | **Pn** | **09 50 01.6** | **+0.1** |
| **APZ** | **The Paps** | **4.76** | **225** | PN | **Pn** | **09 50 01.6** | **+0.1** |
| APZ | | | | AML | AML | 09 51 30.7 | |
| APZ | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **H10S2** | **ASCENSION HYDR** | **4.55** | **215** | T | T | 10 09 44.4 | | |
| | baz=44,slow=75,SNR=143 | | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **4.55** | **215** | T | T | 10 09 45.0 | | |
| | baz=44,slow=75,SNR=134 | | | | | | | |
| **DBIC** | **Dimbokro** | **13.80** | **31** | Pn | Pn | 10 07 11.0 | +1.3 | |
| | 0.2nm,0.3s,baz=190,slow=12,SNR=2.2 | | | | | | | |
| DBIC | | | | LR | LR | 10 11 23.0 | | |
| | comp=Z,46nm,19.7s,baz=185,slow=33 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **22.76** | **37** | P | P | 10 08 56.2 | -0.6 | |
| | 3.1nm,0.5s,baz=216,slow=11,SNR=42 | | | | | | | |
| TORD | | | | LR | LR | 10 16 33.4 | | |
| | comp=Z,57nm,20.0s,baz=350,slow=33 | | | | | | | |
| **KMBO** | **Kilima Mbogo** | **49.33** | **87** | LR | LR | 10 31 52.6 | | |
| | comp=Z,50nm,18.3s,baz=92,slow=34 | | | | | | | |
| **LPAZ** | **La Paz** | **56.06** | **254** | LR | LR | 10 37 13.9 | | |
| | comp=Z,38nm,18.0s,baz=83,slow=36 | | | | | | | |
| **BRTR** | **Keskin Array B** | **61.35** | **39** | P | P | 10 14 11.2 | +0.5 | |
| | 0.8nm,0.8s,baz=218,slow=9.1,SNR=4.2 | | | | | | | |
| **AKASG** | **Malin Array Be** | **66.01** | **27** | P | P | 10 14 40.7 | -0.3 | |
| | 0.3nm,0.4s,baz=225,slow=6.0,SNR=5.3 | | | | | | | |

**IDC 29 10:10:11.1±17.0, 12.47N×87.67W, h0km, mb3.4/3, mb1 3.7/4, mb1mx3.4/32, mbtmp3.4/4, ML3.1/1, Error ellipse: s-maj=323.4km s-min=61.0km az=2.0, Near coast of Nicaragua**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CMIG** | **Matias Romero** | **8.36** | **304** | Pn | Pn | 10 12 12.9 | -0.7 |
| | 0.3nm,0.3s,baz=125,slow=12,SNR=5.3 | | | | | | |
| **TXAR** | **Lajitas Array** | **22.43** | **321** | P | P | 10 15 12.0 | +0.3 |
| | 0.3nm,0.5s,baz=141,slow=11,SNR=9.5 | | | | | | |
| **ULM** | **Lac du Bonnet** | **38.27** | **351** | P | P | 10 17 33.0 | -0.1 |
| | 1.4nm,0.5s,baz=160,slow=8.0,SNR=6.2 | | | | | | |
| **YKA** | **Yellowknife Ar** | **53.54** | **345** | P | P | 10 19 33.3 | -0.1 |
| | 0.3nm,0.8s,baz=135,slow=8.2,SNR=9.2 | | | | | | |

**IDC 29 10:41:02.0±1.0, 7.09S×128.86E, h0km, mb3.9/2, mb1 4.1/5, mb1mx3.8/27, mbtmp4.0/5, ML4.2/3, Error ellipse: s-maj=73.2km s-min=23.3km az=74.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **FITZ** | **Fitzroy Crossi** | **11.39** | **196** | Pn | Pn | 10 43 46.2 | +0.1 |
| | 1.9nm,0.3s,baz=22,slow=8.5,SNR=52 | | | | | | |
| FITZ | | | | Sn | Sn | 10 45 40.9 | -13 |
| | 3.0nm,0.3s,baz=97,slow=16,SNR=8.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **13.84** | **158** | Pn | Pn | 10 44 21.7 | +2.0 |
| | 1.0nm,0.3s,baz=331,slow=13,SNR=86 | | | | | | |
| WRA | | | | Sn | Sn | 10 46 44.7 | -10 |
| | 2.4nm,0.3s,baz=326,slow=22,SNR=11 | | | | | | |
| **ASAR** | **Alice Springs** | **17.18** | **164** | P | P | 10 45 05.5 | +0.1 |
| | 0.4nm,0.3s,baz=336,slow=9.5,SNR=29 | | | | | | |
| ASAR | | | | S | Sn | 10 48 05.2 | -10 |
| | 0.7nm,0.3s,baz=345,slow=26,SNR=6.4 | | | | | | |
| **SONM** | **Songino Array** | **58.17** | **342** | P | P | 10 50 59.7 | +1.8 |
| | 0.8nm,0.6s,baz=167,slow=5.5,SNR=7.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.69** | **327** | P | P | 10 52 00.3 | -0.8 |
| | 0.7nm,0.6s,baz=124,slow=7.8,SNR=8.9 | | | | | | |
| **TXAR** | **Lajitas Array** | **125.94** | **59** | PKP | PKPdf | 11 00 06.2 | -0.7 |
| | 0.1nm,0.4s,baz=228,slow=2.3,SNR=2.7 | | | | | | |
| **LPAZ** | **La Paz** | **151.32** | **144** | PKPbc | PKPbc | 11 00 58.0 | -1.5 |
| | 0.7nm,0.4s,baz=207,slow=2.3,SNR=3.7 | | | | | | |

*IDC 29 11:00:01.8±1.2,51.4N×96.09E, h0km, mb3.4/1, mb1 3.2/4, mb1mx2.9/47, mbtmp3.2/4, ML2.6/3, Error ellipse: s-maj=39.2km s-min=10.8km az=0.0*
*OBM 29 11:00:03.9±0.2,51.76N×95.77E, h2km, Ml3.7/2, Error ellipse: s-maj=3.1km s-min=1.6km az=163.0*
*MOS 29 11:00:05.5±3.3,51.87N×95.41E, h10km, mb3.9/1, Error ellipse: s-maj=43.2km s-min=17.9km az=1.0*
**ISC 29 11:00:04.0±1.0, 51.72N±0.06×95.84E±0.03, h10km, n47, σ3s83/53, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ORL** | **Orlik** | **2.58** | **70** | *e*PN | **Pn** | **11 00 47.6** | **+1.6** |
| ORL | | | | pmax | pmax | | |
| | comp=Z,176nm,0.4s | | | | | | |
| **ULG** | **Ulaangom** | **2.97** | **235** | *e*Pg | **Pn** | **11 00 52.0** | **+0.7** |
| ULG | | | | *e*Sg | **Sb** | **11 01 33.9** | **+0.4** |
| **ULG** | **Ulaangom** | **2.97** | **235** | *e*Pn | **Pn** | **11 00 51.8** | **+0.5** |
| ULG | | | | *e*Sg | **Sg** | **11 01 40.2** | **+0.8** |
| **HTG** | **Hatgal** | **3.01** | **113** | *e*Pg | **Pb** | **11 00 55.6** | **-2.2** |
| HTG | | | | *e*Sg | **Sb** | **11 01 38.1** | **+3.5** |
| **HTG** | **Hatgal** | **3.01** | **113** | *e*Pn | **Pb** | **11 00 55.8** | **-2.0** |
| HTG | | | | *e*Sg | **Sg** | **11 01 42.3** | **+1.7** |
| **MOY** | **Mondy** | **3.21** | **89** | *e*PN | **Pn** | **11 00 58.2** | **+3.6** |
| MOY | | | | *e* | | 11 01 40.6 | |
| MOY | | | | pmax | pmax | | |
| | comp=Z,73nm,0.4s | | | | | | |
| MOY | | | | smax | smax | | |
| | comp=N,516nm,1.3s | | | | | | |
| **TSC** | **Tosontsengel** | **3.33** | **151** | *e*Pg | **Pb** | **11 01 03.0** | **-0.3** |
| TSC | | | | *e*Sg | **Sg** | **11 01 52.4** | **+1.4** |
| **TSC** | **Tosontsengel** | **3.33** | **151** | *e*Pn | **Pn** | **11 00 58.2** | **+1.9** |
| TSC | | | | *e*Sg | **Sg** | **11 01 50.9** | **-0.1** |
| **HBD** | **Hovd** | **4.59** | **218** | *e*Pg | **Pb** | **11 01 21.5** | **-3.3** |
| HBD | | | | *e*Sg | **Sg** | **11 02 27.5** | **-4.0** |
| **HBD** | **Hovd** | **4.59** | **218** | *e*Sg | **Sg** | **11 02 27.8** | **-3.7** |
| **BYO** | **Bayan-Olgiy** | **4.67** | **236** | *e*Pg | **Pb** | **11 01 21.5** | **-4.6** |
| BYO | | | | *e*Sg | **Sb** | **11 02 24.5** | **+2.1** |
| **BYO** | **Bayan-Olgiy** | **4.67** | **236** | *e*Pn | **Pn** | **11 01 15.9** | **+1.2** |
| BYO | | | | *e*Sg | **Sg** | **11 02 29.7** | **-4.1** |
| **TLY** | **Talaya** | **4.86** | **87** | Pg | Pb | 11 01 24.6 | -4.6 |
| | comp=N,0.0nm,0.3s,baz=270,slow=10,SNR=2.3 | | | | | | |
| TLY | | | | Lg | Lg | 11 02 30.1 | |
| | comp=N,0.1nm,0.3s,baz=52,slow=11,SNR=6.6 | | | | | | |
| **TLY** | **Talaya** | **4.86** | **87** | *e*PN | **Pb** | **11 01 28.8** | **-0.4** |
| TLY | | | | *e* | | 11 02 30.8 | |
| TLY | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.3s | | | | | | |
| **ZAK** | **Zakamensk** | **4.88** | **103** | *e*PN | **Pb** | **11 01 27.7** | **-1.9** |
| ZAK | | | | *e* | | 11 02 33.5 | |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,25nm,0.8s | | | | | | |
| ZAK | | | | smax | smax | | |
| | comp=E,167nm,0.9s | | | | | | |
| **TTS** | **Tsetserleg** | **5.59** | **137** | *e*Pg | **Pb** | **11 01 46.1** | **+4.3** |
| TTS | | | | *e*Sg | **Sg** | **11 03 01.2** | **-2.2** |
| | comp=E,177nm,0.6s | | | | | | |
| **TTS** | **Tsetserleg** | **5.59** | **137** | *e*Sg | **Sg** | **11 03 01.2** | **-2.2** |
| | comp=E,177nm,0.6s | | | | | | |
| **BLGM** | **Bulgan** | **5.74** | **118** | *e*Pg | **Pb** | **11 01 45.7** | **+1.5** |
| BLGM | | | | *e*Sg | **Sb** | **11 03 00.7** | **+7.7** |
| **BLGM** | **Bulgan** | **5.74** | **118** | *e*Pg | Pg | 11 01 50.0 | -3.9 |
| BLGM | | | | *e*Sg | **Sg** | **11 03 05.2** | **-2.9** |
| | comp=E,437nm,0.9s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **7.04** | **293** | Pn | **Pn** | **11 01 48.6** | **+1.5** |
| | comp=E,0.4nm,0.3s,baz=101,slow=12,SNR=3.7 | | | | | | |
| ZALV | | | | Lg | Lg | 11 03 44.5 | |
| | comp=E,1.5nm,0.3s,baz=115,slow=25,SNR=7.3 | | | | | | |
| **SONB4** | **Songino Array** | **7.84** | **116** | *e*Sg | **Sg** | **11 04 08.9** | **-6.6** |
| | comp=E,64nm,0.7s | | | | | | |
| **SONB1** | **Songino Array** | **7.85** | **115** | *e*Sg | **Sg** | **11 04 10.0** | **-5.8** |
| | comp=E,84nm,0.7s | | | | | | |
| **SONB1** | **Songino Array** | **7.85** | **115** | *e*Pg | Pb | 11 02 27.8 | +7.6 |
| SONB1 | | | | *e*Sg | **Sg** | **11 04 12.3** | **-3.5** |
| | comp=E,84nm,0.7s | | | | | | |
| **SONA2** | **Songino Array** | **7.85** | **115** | *e*Sg | **Sg** | **11 04 10.5** | **-5.4** |
| **SONA2** | **Songino Array** | **7.85** | **115** | *e*Pg | Pb | 11 02 27.7 | +7.4 |
| SONA2 | | | | *e*Sg | **Sg** | **11 04 11.5** | **-4.4** |
| | comp=E,160nm,1.3s | | | | | | |
| **SONA1** | **Songino Array** | **7.86** | **115** | *e*Sg | **Sg** | **11 04 09.8** | **-6.3** |
| **SONA0** | **Songino Array** | **7.86** | **115** | *e*Pg | **Pb** | **11 02 22.3** | **+1.9** |
| **SONA0** | **Songino Array** | **7.86** | **115** | *e*Pg | Pb | 11 02 27.0 | +6.6 |
| **SONM** | **Songino Array** | **7.86** | **115** | Pg | **Pb** | **11 02 21.9** | **+1.5** |
| | comp=E,0.3nm,0.3s,baz=302,slow=18,SNR=7.5 | | | | | | |
| SONM | | | | Lg | Lg | 11 04 10.4 | |
| | comp=E,1.6nm,0.3s,baz=303,slow=22,SNR=8.8 | | | | | | |
| **SONA3** | **Songino Array** | **7.86** | **115** | *e*Sg | **Sg** | **11 04 09.3** | **-6.9** |
| | comp=E,215nm,1.6s | | | | | | |
| **SONA3** | **Songino Array** | **7.86** | **115** | *e*Pg | Pb | 11 02 27.8 | +7.4 |
| SONA3 | | | | *e*Sg | **Sg** | **11 04 11.4** | **-4.8** |
| | comp=E,215nm,1.6s | | | | | | |
| **SONA4** | **Songino Array** | **7.86** | **115** | *e*Sg | **Sg** | **11 04 11.6** | **-4.6** |
| | comp=E,78nm,0.9s | | | | | | |
| **SONA4** | **Songino Array** | **7.86** | **115** | *e*Pg | Pb | 11 02 27.7 | +7.3 |
| SONA4 | | | | *e*Sg | **Sg** | **11 04 12.1** | **-4.1** |
| | comp=E,117nm,1.1s | | | | | | |
| **SONB2** | **Songino Ar. Si** | **7.87** | **115** | *e*Sg | **Sg** | **11 04 09.4** | **-7.0** |
| | comp=E,154nm,1.0s | | | | | | |
| **SONB2** | **Songino Ar. Si** | **7.87** | **115** | *e*Sg | **Sg** | **11 04 12.6** | **-3.8** |
| **SONB3** | **Songino Array** | **7.87** | **115** | *e*Sg | **Sg** | **11 04 09.5** | **-7.0** |
| | comp=E,170nm,1.6s | | | | | | |
| **ALFM** | | **7.99** | **114** | *e*Sg | Sg | 11 04 10.9 | -10 |
| | comp=E,117nm,1.0s | | | | | | |
| **ALFM** | | **7.99** | **114** | *e*Sg | **Sg** | **11 04 14.9** | **-5.5** |
| | comp=E,63nm,0.9s | | | | | | |
| **ARTM** | | **8.31** | **113** | *e*Sg | **Sg** | **11 04 25.7** | **-4.7** |
| | comp=E,72nm,0.8s | | | | | | |
| **UGDM** | | **8.54** | **114** | *e*Sg | **Sg** | **11 04 36.3** | **-1.5** |
| **UGDM** | | **8.54** | **114** | *e*Sg | **Sg** | **11 04 32.1** | **-5.7** |
| **DZBM** | | **9.82** | **140** | *e*Sg | Sn | 11 05 13.5 | +58 |
| **DZBM** | | **9.82** | **140** | *e*Sg | Sn | 11 05 12.5 | +57 |
| **MKAR** | **Makanchi Array** | **10.13** | **246** | Pn | **Pn** | **11 02 31.2** | **+1.8** |
| | comp=E,0.1nm,0.3s,baz=74,slow=13,SNR=3.0 | | | | | | |
| MKAR | | | | Pg | | 11 03 14.4 | |
| | comp=E,0.2nm,0.3s,baz=66,slow=19,SNR=5.0 | | | | | | |
| MKAR | | | | Lg | Lg | 11 05 24.4 | |
| | comp=E,0.3nm,0.3s,baz=48,slow=16,SNR=3.8 | | | | | | |
| **KURK** | **Kurchatov** | **10.85** | **271** | P | **Pn** | **11 02 41.3** | **+2.0** |
| **KURBB** | **Kurchatov Arra** | **10.93** | **271** | Pn | **Pn** | **11 02 41.3** | **+1.0** |
| | comp=E,0.0nm,0.3s,baz=73,slow=15,SNR=2.8 | | | | | | |
| KURBB | | | | Lg | Lg | 11 05 49.1 | |
| | comp=E,0.1nm,0.3s,baz=73,slow=33,SNR=4.2 | | | | | | |
| **AKTO** | **Aktyubinsk** | **23.63** | **282** | P | **P** | **11 05 14.3** | **-0.7** |
| | comp=E,0.7nm,0.6s,baz=62,slow=15,SNR=2.6 | | | | | | |

**GUC 29 11:03:02.4±0.4, 26.96S×71.20W, h42km±5km, ML4.1, Off coast of northern Chile**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CDCH** | **Caldera** | **0.36** | **108** | *e*P | Pn | 11 03 11.0 | -0.4 |
| CDCH | | | | *e*S | Sn | 11 03 16.9 | -0.8 |
| **CPCH** | **Copiapo** | **0.85** | **118** | *e*P | Pn | 11 03 18.4 | +0.4 |
| CPCH | | | | *e*S | Sn | 11 03 29.9 | +0.6 |
| **GO03** | **Copiap** | **1.07** | **126** | *e*P | Pn | 11 03 22.8 | +1.8 |
| GO03 | | | | *e*S | Sn | 11 03 37.2 | +2.6 |
| GO03 | | | | IAML | | 11 03 39.5 | |
| | comp=N,12μm,0.3s | | | | | | |
| **VACH** | **Vallenar** | **1.66** | **166** | *e*P | Pn | 11 03 32.4 | +3.4 |
| VACH | | | | *e*S | Sn | 11 03 52.6 | +3.5 |
| **LCO** | **Las Campanas** | **2.09** | **168** | *e*P | Pn | 11 03 38.0 | +2.7 |
| LCO | | | | *e*S | Sn | 11 04 04.1 | +3.9 |
| **TLL** | **Tololo Astrono** | **3.21** | **174** | *e*P | Pn | 11 03 53.7 | +3.0 |
| TLL | | | | IAML | | 11 04 58.5 | |
| | comp=E,236nm,0.7s | | | | | | |

*ISCJB 29 11:04:15.4±0.5,27.79N±0.06×139.85E±0.09, h478km, mb3.3/13, Error ellipse: s-maj=11.7km s-min=7.0km az=159.7*
*IDC 29 11:04:17.4±1.6,27.80N×139.81E, h492km±18km, mb3.0/12, mb1 3.1/15, mb1mx2.9/39, mbtmp3.9/15, Error ellipse: s-maj=20.3km s-min=13.4km az=81.0*
*JMA 29 11:04:18.2±0.2,27.97N×140.07E, h468km, M3.7*
**ISC 29 11:04:16.3±0.8, 27.86N±0.09×140.0E±0.1, h478km, n30, σ1s53/32, mb3.5/13, Bonin Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CBIJ** | **Chichi jima** | **2.10** | **111** | P | **P** | **11 05 21.0** | **+1.1** |
| CBIJ | | | | S | **S** | **11 06 10.7** | **-0.8** |
| **JHHJ** | **Haha-jima-NKT** | **2.31** | **122** | P | **P** | **11 05 22.7** | **+1.6** |
| JHHJ | | | | S | **S** | **11 06 13.0** | **-0.7** |
| **JHJ2** | **Mitsune** | **5.23** | **358** | P | **P** | **11 05 45.5** | **+1.4** |
| **JHJ** | **Hachijo jima 2** | **5.24** | **358** | P | **P** | **11 05 45.9** | **+1.7** |
| | 4.9nm,0.3s,baz=75,slow=20,SNR=4.1 | | | | | | |
| **BSO1** | **Boso 1** | **6.82** | **7** | P | **P** | **11 06 01.8** | **+2.6** |
| BSO1 | | | | X | | 11 07 21.8 | |
| **BSO3** | **Boso 3** | **6.93** | **4** | P | **P** | **11 06 01.5** | **+0.9** |
| BSO3 | | | | X | | 11 07 27.8 | |
| **JIE** | **Ise** | **7.09** | **337** | P | **P** | **11 06 05.3** | **+2.8** |
| **JKN2** | **Miekihoku** | **7.11** | **334** | P | **P** | **11 06 05.7** | **+3.0** |
| **BSO4** | **Boso 4** | **7.11** | **2** | P | **P** | **11 06 05.1** | **+2.5** |
| BSO4 | | | | X | | 11 07 30.1 | |
| **JOD2** | **Odawara 2** | **7.42** | **354** | P | **P** | **11 06 07.7** | **+1.8** |
| **JTO** | **Tosashimizu** | **7.95** | **311** | P | **P** | **11 06 13.6** | **+2.0** |
| **JHU** | **Hanno** | **7.99** | **356** | P | **P** | **11 06 12.0** | **+0.1** |
| JHU | | | | S | **S** | **11 07 44.3** | **-2.6** |
| **JRY** | **Ryogami san** | **8.18** | **354** | P | **P** | **11 06 15.3** | **+1.3** |
| **JYT** | **Yasato** | **8.34** | **1** | S | **S** | **11 07 52.4** | **-1.3** |
| **MJAR** | **Matsushiro Arr** | **8.78** | **351** | P | **P** | **11 06 22.0** | **+1.7** |
| | 0.3nm,0.3s,baz=170,slow=9.5,SNR=4.3 | | | | | | |
| **JNU** | **Nakatsue** | **9.44** | **306** | P | **P** | **11 06 28.6** | **+1.2** |
| | 0.5nm,0.3s,baz=4.2,slow=6.0,SNR=6.0 | | | | | | |
| **KSRS** | **Korea Array** | **13.94** | **316** | P | P | 11 07 21.4 | +6.0 |
| | 0.4nm,0.3s,baz=149,slow=8.6,SNR=6.5 | | | | | | |
| **KLR** | **Kul'dur** | **22.26** | **346** | P | **P** | **11 08 36.7** | **+0.4** |
| | 0.1nm,0.5s,baz=174,slow=10,SNR=3.5 | | | | | | |
| **SONM** | **Songino Array** | **32.81** | **317** | P | **P** | **11 10 08.8** | **-0.2** |
| | 0.4nm,0.5s,baz=123,slow=7.9,SNR=3.5 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **47.63** | **319** | P | **P** | **11 12 07.1** | **-0.6** |
| | 1.0nm,0.3s,baz=104,slow=9.1,SNR=3.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **47.84** | **187** | P | **P** | **11 12 08.8** | **-0.9** |
| | 0.2nm,0.4s,baz=4.1,slow=7.6,SNR=9.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **48.48** | **309** | P | **P** | **11 12 13.8** | **-0.5** |
| | 0.6nm,0.3s,baz=87,slow=10,SNR=16 | | | | | | |
| **ASAR** | **Alice Springs** | **51.56** | **187** | P | **P** | **11 12 36.9** | **-0.4** |
| | 0.2nm,0.7s,baz=8.1,slow=4.7,SNR=5.4 | | | | | | |
| **AAK** | **Ala-Archa** | **54.21** | **304** | P | **P** | **11 12 55.8** | **-0.5** |
| | 0.8nm,0.4s,baz=159,slow=12,SNR=3.4 | | | | | | |
| **BVAR** | **Borovoye Array** | **56.15** | **317** | P | **P** | **11 13 09.3** | **-0.2** |
| | 4.4nm,0.4s,baz=93,slow=7.5,SNR=28 | | | | | | |
| **ILAR** | **Eielson Array** | **57.98** | **29** | P | **P** | **11 13 22.6** | **+0.7** |
| | 0.2nm,0.5s,baz=248,slow=5.8,SNR=6.3 | | | | | | |
| **AKTO** | **Aktyubinsk** | **64.12** | **315** | P | **P** | **11 14 00.9** | **-1.6** |
| | 1.2nm,0.6s,baz=67,slow=13,SNR=3.7 | | | | | | |
| **ARCES** | **ARCESS Array B** | **72.17** | **340** | P | **P** | **11 14 51.1** | **-0.3** |
| | 3.8nm,1.1s,baz=79,slow=4.8,SNR=3.8 | | | | | | |
| **YKA** | **Yellowknife Ar** | **72.39** | **28** | P | **P** | **11 14 53.7** | **+1.0** |
| | 0.1nm,0.3s,baz=297,slow=6.1,SNR=8.3 | | | | | | |
| **FINES** | **FINESS Array B** | **76.39** | **333** | P | **P** | **11 15 15.1** | **-0.3** |
| | 1.9nm,0.3s,baz=69,slow=5.3,SNR=23 | | | | | | |

*ISK 29 11:04:43.6, 40.05N×38.90E, h5km, MD2.7*
*ISCJB 29 11:04:44.6±0.5, 40.05N±0.03×38.89E±0.04, h10km±6km, Error ellipse: s-maj=5.5km s-min=5.4km az=32.0*
*CSEM 29 11:04:44.6±0.2, 40.04N×38.92E, h10km, MD2.7, Error ellipse: s-maj=5.3km s-min=4.4km az=99.0*
*DDA 29 11:04:45.2, 40.00N×38.90E, h7km, Md2.7*
**ISC 29 11:04:44.5±1.1, 40.04N±0.02×38.91E±0.03, h9km±12km, n25, σ0s53/35, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KELT** | **Kelkit** | **0.29** | **68** | *i* P | **Pb** | **11 04 52.0** | **0.0** |
| KELT | | | | *i* S | **Sb** | **11 04 56.3** | **-0.7** |
| **KELT** | **Kelkit** | **0.29** | **68** | P | **Pb** | **11 04 52.0** | **0.0** |
| KELT | | | | S | **Sb** | **11 04 56.3** | **-0.7** |
| **SUSE** | **Susehri** | **0.57** | **287** | *i* P | **Pb** | **11 04 56.4** | **-0.3** |
| SUSE | | | | *i* S | **Sb** | **11 05 04.5** | **-0.5** |
| **SUSE** | **Susehri** | **0.57** | **287** | P | **Pb** | **11 04 56.4** | **-0.3** |
| SUSE | | | | S | **Sb** | **11 05 04.5** | **-0.5** |
| **ILIC** | **ilic-Erzincan** | **0.65** | **204** | *e*PG | **Pg** | **11 04 55.8** | **-1.1** |
| ILIC | | | | *e*SG | **Sg** | **11 05 06.0** | **+0.6** |
| **ILIC** | **ilic-Erzincan** | **0.65** | **204** | *e*Pg | **Pg** | **11 04 55.8** | **-1.1** |
| ILIC | | | | *e*Sg | **Sg** | **11 05 06.0** | **+0.6** |
| **ERZN** | **Erzincan** | **0.77** | **126** | *e*PG | **Pg** | **11 04 59.6** | **+0.2** |
| **KEMA** | **Kemaliye** | **0.83** | **203** | *i* P | **Pg** | **11 05 00.3** | **-0.2** |
| **KEMA** | **Kemaliye** | **0.83** | **203** | P | **Pg** | **11 05 00.3** | **-0.2** |
| **ESPY** | **Espiye-Giresun** | **0.89** | **351** | *e*PG | **Pg** | **11 05 01.8** | **+0.3** |
| ESPY | | | | *e*SG | **Sg** | **11 05 13.5** | **+0.5** |
| **ESPY** | **Espiye-Giresun** | **0.89** | **351** | *e*Pg | **Pg** | **11 05 01.8** | **+0.3** |
| ESPY | | | | *e*Sg | **Sg** | **11 05 13.5** | **+0.5** |
| **BAYT** | **Ayd¨–ntepe-Bay** | **1.01** | **69** | *e*PG | **Pg** | **11 05 03.2** | **-0.6** |
| **BAYT** | **Ayd¨–ntepe-Bay** | **1.01** | **69** | *e*Pg | **Pg** | **11 05 03.2** | **-0.6** |
| **TNCL** | **Tunceli-Merkez** | **1.05** | **152** | *i* P | **Pn** | **11 05 05.6** | **+0.1** |
| TNCL | | | | *i* S | **Sb** | **11 05 19.1** | **+0.4** |
| **TNCL** | **Tunceli-Merkez** | **1.05** | **152** | P | **Pn** | **11 05 05.6** | **+0.1** |
| TNCL | | | | S | **Sb** | **11 05 19.1** | **+0.4** |
| **KTUT** | **Trabzon** | **1.15** | **34** | *e*PN | **Pg** | **11 05 05.9** | **-0.6** |
| **KTUT** | **Trabzon** | **1.15** | **34** | *e*Pn | **Pg** | **11 05 05.9** | **-0.6** |
| **PTK** | **Pertek** | **1.21** | **162** | *e*PN | **Pg** | **11 05 07.4** | **-0.3** |
| **PTK** | **Pertek** | **1.21** | **162** | *e*Pn | **Pg** | **11 05 07.4** | **-0.3** |
| **SVSK** | **Karacayir** | **1.47** | **266** | *e*PN | **Pn** | **11 05 11.7** | **+0.5** |
| **SVSK** | **Karacayir** | **1.47** | **266** | *e*Pn | **Pn** | **11 05 11.7** | **+0.5** |
| **SVRC** | **Sivrice-ELAZID** | **1.69** | **169** | *e*PN | **Pn** | **11 05 14.8** | **+0.4** |
| **SVRC** | **Sivrice-ELAZID** | **1.69** | **169** | *e*Pn | **Pn** | **11 05 14.8** | **+0.4** |
| **MALT** | **Malatya** | **1.77** | **192** | *e*PN | **Pn** | **11 05 15.6** | **+0.3** |
| **MALT** | **Malatya** | **1.77** | **192** | *e*Pn | **Pn** | **11 05 15.6** | **+0.3** |

*ISCJB 29 11:14:21.8±0.5,38.68N±0.03×30.97E±0.05, h11km±4km, Error ellipse: s-maj=6.3km s-min=5.4km az=33.6*
*CSEM 29 11:14:21.5±0.1,38.68N×30.96E, h12km, ML2.7, Error ellipse: s-maj=2.6km s-min=2.4km az=146.0*
*DDA 29 11:14:21.1,38.69N×30.98E, h16km, Ml2.7*
*ISK 29 11:14:21.3,38.69N×30.94E, h13km, ML1.9*
**ISC 29 11:14:21.5±0.8, 38.69N±0.03×30.97E±0.03, h15km±5km, n21, σ0s38/32, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **BOLV** | **Bolvadin** | **0.03** | **331** | *i* P | **Pg** | **11 14 24.5** | **0.0** |
| BOLV | | | | *i* S | **Sg** | **11 14 26.1** | **-0.4** |
| **BOLV** | **Bolvadin** | **0.03** | **331** | P | **Pg** | **11 14 24.5** | **0.0** |
| BOLV | | | | S | **Sg** | **11 14 26.0** | **-0.4** |
| **SHUT** | **Suhut-Afyon** | **0.36** | **248** | *e*PG | **Pg** | **11 14 28.8** | **-0.1** |
| SHUT | | | | *e*SG | **Sg** | **11 14 33.5** | **-0.4** |
| **SHUT** | **Suhut-Afyon** | **0.36** | **248** | *e*Pg | **Pg** | **11 14 28.8** | **-0.1** |
| SHUT | | | | *e*Sg | **Sg** | **11 14 33.5** | **-0.4** |
| **BAGO** | **Egridir - ISPA** | **0.71** | **192** | *i* P | **Pb** | **11 14 35.8** | **+0.2** |
| BAGO | | | | *i* S | **Sb** | **11 14 45.5** | **+0.3** |
| **KIZT** | **Kizilcal** | **0.74** | **75** | *e*PG | **Pb** | **11 14 36.1** | **+0.1** |
| **KIZT** | **Kizilcal** | **0.74** | **75** | *e*Pg | **Pb** | **11 14 36.1** | **+0.1** |
| **KZIL** | **AFYON_Kizioren** | **0.78** | **237** | *i* P | **Pg** | **11 14 36.3** | **-0.4** |
| KZIL | | | | *i* S | **Sb** | **11 14 47.5** | **+0.3** |
| **KZIL** | **AFYON_Kizioren** | **0.78** | **237** | P | **Pg** | **11 14 36.3** | **-0.4** |
| KZIL | | | | S | **Sb** | **11 14 47.5** | **+0.3** |
| **DOGA** | **KONYA_Doganhis** | **0.80** | **137** | *i* P | **Pg** | **11 14 36.8** | **-0.3** |
| DOGA | | | | *i* S | **Sg** | **11 14 47.6** | **0.0** |
| **DOGA** | **KONYA_Doganhis** | **0.80** | **137** | P | **Pg** | **11 14 36.8** | **-0.3** |
| DOGA | | | | S | **Sg** | **11 14 47.6** | **0.0** |
| **ESKT** | **Eskisehir** | **0.83** | **354** | *i* P | **Pg** | **11 14 37.3** | **-0.4** |
| ESKT | | | | *i* S | **Sn** | **11 14 50.2** | **-0.6** |
| **SEYT** | **Eskypehyr** | **0.83** | **354** | P | **Pg** | **11 14 37.3** | **-0.4** |
| SEYT | | | | S | **Sn** | **11 14 50.2** | **-0.6** |
| **SVRH** | **Sivrihisar-ESK** | **0.87** | **29** | *e*PG | **Pb** | **11 14 38.9** | **+0.6** |
| **SVRH** | **Sivrihisar-ESK** | **0.87** | **29** | *e*Pg | **Pb** | **11 14 38.9** | **+0.6** |
| **SUTC** | **Sutluce-Ispart** | **1.21** | **179** | *e*PN | **Pg** | **11 14 44.5** | **-0.4** |
| **SUTC** | **Sutluce-Ispart** | **1.21** | **179** | *e*Pn | **Pg** | **11 14 44.5** | **-0.4** |
| **KONT** | **Konya--Tatoy** | **1.32** | **124** | *e*PN | **Pb** | **11 14 46.3** | **+0.3** |
| **KONT** | **Konya--Tatoy** | **1.32** | **124** | *e*Pn | **Pb** | **11 14 46.3** | **+0.3** |
| **TVSB** | **Tavsanli** | **1.40** | **303** | *e*PN | **Pn** | **11 14 46.9** | **+0.4** |
| **TVSB** | **Tavsanli** | **1.40** | **303** | *e*Pn | **Pn** | **11 14 46.9** | **+0.4** |

**WEL 29 11:38:54.7±0.4, 36.38S×177.31E, h186km±8km, ML3.6/7, 1C, Error ellipse: s-maj=9.4km s-min=6.3km az=0.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **HAZ** | **Te Kaha** | **1.43** | **165** | PN | Pn | 11 39 26.6 | +0.2 |
| HAZ | | | | SN | Sn | 11 39 50.7 | -0.6 |
| HAZ | | | | AML | AML | 11 39 58.3 | |
| **RUGZ** | **Raukumara Rang** | **1.61** | **170** | PN | Pn | 11 39 28.7 | +0.4 |
| **PKGZ** | **Pakihiroa** | **1.63** | **158** | PN | Pn | 11 39 28.6 | +0.1 |
| PKGZ | | | | SN | Sn | 11 39 53.5 | -1.3 |
| PKGZ | | | | AML | AML | 11 39 56.0 | |
| **WMGZ** | **Waiomatatini S** | **1.69** | **149** | PN | Pn | 11 39 28.5 | -0.1 |
| WMGZ | | | | SN | Sn | 11 39 53.0 | -0.7 |
| WMGZ | | | | AML | AML | 11 39 56.6 | |
| **PUZ** | **Puketiti** | **1.85** | **156** | PN | Pn | 11 39 30.5 | -0.2 |
| **TWGZ** | **Tauwhareparae** | **1.88** | **164** | PN | Pn | 11 39 31.3 | +0.4 |
| TWGZ | | | | AML | AML | 11 40 02.0 | |
| TWGZ | | | | AML | AML | 11 40 02.7 | |
| **URZ** | **Urewera** | **1.89** | **185** | PN | Pn | 11 39 31.1 | +0.2 |
| **MWZ** | **Matawai** | **1.96** | **175** | PN | Pn | 11 39 31.7 | -0.1 |
| **TKGZ** | **Te Karaka** | **2.10**

**RUSC La Rusia 0.91 182** *e*P **Pn 11 58 53.6 +0.3**
RUSC *e*S **Sn 11 59 11.8 -0.2**
RUSC *i* 11 59 13.8
comp=Z,4µm,0.3s
**RUSC La Rusia 0.91 182** *e*Pn **Pn 11 58 53.7 +0.3**
RUSC *e*Sn **Sn 11 59 11.4 -0.7**
**GUEC Guerrero, Nort 1.03 7** *e*P **Pn 11 58 55.1 +1.1**
**PTBC PUERTO BERRIO, 1.42 259** *i*P **Pn 11 58 56.3 -1.1**
PTBC *e*S **Sn 11 59 16.9 -2.4**
**OCAC Ocana 1.45 350** *e*P **Pn 11 58 59.0 +1.1**
OCAC *e*S **Sn 11 59 20.7 +0.3**
OCAC *i* 11 59 26.4
comp=Z,3µm,0.2s
**YOPC Yopal, Colombi 1.57 156** *e*P **Pn 11 59 00.5 +1.3**
YOPC *e*S **Sn 11 59 22.0 -0.5**
YOPC *i* 11 59 27.5
comp=Z,2µm,0.5s
**ZARC Zaragoza, Cauc 1.92 291** *e*P **Pn 11 59 02.6 -0.3**
ZARC *e*S **Sn 11 59 28.4 -0.7**
ZARC *i* 11 59 33.8
comp=Z,3µm,0.4s
**NORC Norcasia 2.18 236** *e*P **Pn 11 59 05.6 -0.5**
NORC *e*S **Sn 11 59 33.3 -1.4**
**CHIC Chingaza 2.26 197** *e*P **Pn 11 59 07.8 +0.4**
CHIC *e*S **Sn 11 59 36.0 -1.1**
CHIC *i* 11 59 40.8
comp=Z,1µm,0.5s
**HELC Santa Helena 2.53 256** *e*P **Pn 11 59 10.0 -0.6**
HELC *e*S **Sn 11 59 41.4 -1.4**
HELC *i* 11 59 48.5
comp=Z,1µm,0.4s
**HELC Santa Helena 2.53 256** *e*Pn **Pn 11 59 10.2 -0.4**
HELC *e*Sn **Sn 11 59 39.5 -3.3**
**VILC Villavicencio, 2.75 193** *e*P **Pn 11 59 13.2 +0.2**
VILC *e*S **Sn 11 59 46.6 -0.7**
VILC *i* 11 59 51.3
comp=Z,496nm,0.3s
**GUYC Guyana, Colomb 2.80 236** *e*P **Pn 11 59 14.6 +0.6**
GUYC *i* 11 59 54.8
comp=Z,2µm,0.3s
**TOLC Tolima 3.15 226** *e*P **Pn 11 59 19.1 +0.8**
**SDV Santo Domingo 3.17 49** P **Pn 11 59 19.6 +1.2**
comp=Z,61nm,0.3s,baz=151,slow=2.2,SNR=311
SDV S **Sn 11 59 57.2 +0.4**
comp=Z,239nm,0.3s,baz=255,slow=21,SNR=70
**SDV Santo Domingo 3.17 49** *e*P **Pn 11 59 19.7 +1.3**
SDV *i* 12 00 01.7
comp=Z,1µm,0.6s
**PRAC Prado 3.57 211** *e*P **Pn 11 59 23.3 -0.2**
PRAC *e*S **Sn 12 00 05.6 -0.2**
PRAC *i* 12 00 15.6
comp=Z,1µm,0.3s
**PRAC Prado 3.57 211** *e*Pn **Pn 11 59 23.7 +0.3**
**PLMC San Jos¨ del 3.72 240** *e*P **Pn 11 59 25.7 +0.3**
PLMC *i* 11 59 27.9
comp=Z,538nm,0.2s
PLMC *e*S **Sn 12 00 07.9 -1.5**
**GUVC San Jose del G 4.25 174** *e*P **Pn 11 59 32.4 +0.1**
GUVC *i* 12 00 27.6
comp=Z,86nm,0.3s
**YOTC Yotoco, Valle 4.31 230** *e*P **Pn 11 59 32.3 -0.8**
YOTC *i* 11 59 36.0
comp=Z,166nm,0.7s
YOTC *e*S **Sn 12 00 22.7 -0.6**
**BETC Betania 4.73 210** *e*P **Pn 11 59 38.0 -0.7**
**FLOC Florencia 5.80 207** *e*P **Pn 11 59 52.2 -0.5**
**BCIP Isla Barro Col 7.11 290** *e*Pn **Pn 12 00 09.7 -0.6**
**OTAV Otavalo 8.46 220** *e*Pn **Pn 12 00 29.1 +0.4**
**PCRV Puerto La Cruz 8.98 68** P **Pn 12 00 34.0 -1.2**
comp=Z,2.7nm,0.3s,baz=265,slow=2.9,SNR=17
PCRV S **Sn 12 02 10.3 -4.6**
comp=Z,1.8nm,0.3s,baz=0.0,slow=20,SNR=2.3
**SJG San Juan 13.10 30** P **Pn 12 01 28.5 -0.7**
comp=Z,3.6nm,0.3s,baz=205,slow=19,SNR=4.0
**PTGA Pitinga 15.05 119** P **P 12 01 57.7 +2.1**
comp=Z,0.4nm,0.3s,baz=290,slow=12,SNR=9.1
PTGA S **Sn 12 04 35.0 -6.3**
comp=Z,0.4nm,0.3s,baz=212,slow=19,SNR=2.9
**PTGA Pitinga 15.05 119** *e*Pn **P 12 01 58.1 +2.5**
comp=Z,11nm,1.0s
**SAML Samuel 18.48 148** *e*P **P 12 02 34.1 +0.8**
comp=Z,3.4nm,1.1s
SAML *e*S **S 12 05 58.3 +1.7**
**LPAZ La Paz 23.45 168** P **P 12 03 25.5 +0.1**
comp=Z,0.9nm,0.5s,baz=342,slow=13,SNR=3.9
**LPAZ La Paz 23.45 168** *e*P **P 12 03 25.8 +0.4**
comp=Z,3.3nm,1.0s
**CMIG Matias Romero 23.65 298** P **P 12 03 27.5 +1.0**
comp=Z,1.0nm,0.5s,baz=117,slow=11,SNR=4.3
**347A Saraland 28.44 331** P **P 12 04 11.4 +2.0**
baz=146
**Z49A Columbiana 29.09 336** P **P 12 04 17.0 +1.9**
baz=152
**LRAL Lakeview Retre 29.14 335** P **P 12 04 17.2 +1.6**
baz=151
**Y49A Blount Mountai 29.62 337** P **P 12 04 21.7 +1.8**
baz=153
**442A Mamou 29.93 325** P **P 12 04 24.8 +2.1**
baz=139
**Y48A Jasper 29.97 336** P **P 12 04 25.4 +2.4**
baz=151
**244A Avery, Jackson 30.02 329** P **P 12 04 25.5 +2.2**
baz=143
**145A Houston Renfro 30.09 331** P **P 12 04 26.0 +2.0**
baz=145
**X49A Woodville 30.17 338** P **P 12 04 26.8 +2.1**
baz=153
**Y47A UCPARC, Winfie 30.24 335** P **P 12 04 27.1 +1.8**
baz=150
**X48A Hartselle 30.39 337** P **P 12 04 28.3 +1.7**
baz=152
**Y46A Houston 30.66 334** P **P 12 04 31.0 +2.0**
baz=148
**Z44A Pea Ridge, Bel 30.89 331** P **P 12 04 33.4 +2.4**
baz=145
**Y45A Yeager Farm, C 30.95 333** P **P 12 04 33.5 +1.9**
baz=147
**LNIG Linares 31.02 308** *e*P **P 12 04 32.3 -0.1**
comp=Z,2.9nm,0.9s
**V48A Smith Brothers 31.45 338** P **P 12 04 37.8 +1.8**
baz=153
**X44A Crenshaw 31.76 333** P **P 12 04 39.9 +1.3**
baz=147
**W45A Hickory Valley 31.88 334** P **P 12 04 41.3 +1.6**
baz=149
**U48A Cassie Pea, Po 32.04 339** P **P 12 04 43.1 +2.0**
baz=154
**WVT Waverly 32.17 337** P **P 12 04 43.7 +1.4**
baz=152
**Z40A Long Farm, Mag 32.39 327** P **P 12 04 45.1 +0.9**
baz=140
**833A Chaparral WMA, 32.84 314** P **P 12 04 48.4 +0.1**
baz=126
**237A Washetta, Mont 32.85 323** P **P 12 04 49.2 +1.0**
baz=135
**Y40A Okolona 32.91 328** P **P 12 04 49.5 +0.8**
baz=141
**X40A Basin Creek Fa 33.05 329** P **P 12 04 50.9 +1.0**
baz=142
**Y39A Lockesburg 33.28 327** P **P 12 04 52.4 +0.4**
baz=140
**W41B Gary Mavity, V 33.30 331** P **P 12 04 53.3 +1.2**
baz=144
**S46A Don Dixon Farm 33.51 339** P **P 12 04 54.7 +0.9**
baz=153
**W40A Ferguson Farm, 33.72 330** P **P 12 04 57.0 +1.3**
baz=142
**V41A Mountainview 33.75 331** P **P 12 04 56.4 +0.4**
baz=144,SNR=5.7
**U42A Revenden 33.79 333** P **P 12 04 57.4 +1.2**
baz=146
**S45A Carrier Mills 33.82 338** P **P 12 04 57.5 +1.0**
baz=152
**R46A Gibson Southern 33.90 339** P **P 12 04 58.5 +1.3**
baz=154
**T43A Greenville 33.99 335** P **P 12 04 59.4 +1.4**
baz=148
**V40A Witts Springs 34.09 331** P **P 12 05 00.0 +1.1**
baz=144
**W39A Magazine 34.09 329** P **P 12 04 60.0 +1.1**
baz=141
**U41A Viola 34.09 332** P **P 12 04 59.4 +0.5**
baz=145,SNR=5.1
**Y37A Hugo 34.16 325** P **P 12 05 00.6 +1.1**
baz=138
**X38A Whitesboro 34.23 327** P **P 12 05 01.3 +1.2**
baz=139
**R45A Skylar, Fairfi 34.25 338** P **P 12 05 01.8 +1.6**
baz=153
**T42A Van Buren 34.29 334** P **P 12 05 01.4 +0.8**
baz=147
**R44A Waltonville 34.51 337** P **P 12 05 03.4 +0.9**
baz=151
**V39A Pettigrew 34.52 330** P **P 12 05 03.4 +0.7**
baz=142
**U40A Yellville 34.54 331** P **P 12 05 03.5 +0.7**
baz=144,SNR=8.1
**T41A Mountain View 34.60 333** P **P 12 05 04.0 +0.7**
baz=146
**S42A Caledonia 34.78 335** P **P 12 05 05.7 +0.8**
baz=148
**R43A Red Bud 34.86 336** P **P 12 05 06.7 +1.1**
baz=150
**U39A Green Forest 34.87 330** P **P 12 05 06.1 +0.5**
baz=143
**V38A Canehill 34.92 329** P **P 12 05 06.3 +0.2**
baz=141
**X36A Centrahoma 35.00 325** P **P 12 05 07.1 +0.3**
baz=137
**T40A Mansfield 35.03 332** P **P 12 05 07.6 +0.6**
baz=145
**S41A Jillco Farms, 35.04 334** P **P 12 05 08.0 +0.9**
baz=147
**P46A Rosedale 35.06 341** P **P 12 05 08.6 +1.4**
baz=155
**P45A Graceland, Par 35.16 340** P **P 12 05 09.0 +0.9**
baz=154
**CCM Cathedral Cave 35.22 335** P **P 12 05 09.2 +0.7**
baz=148
**CCM Cathedral Cave 35.22 335** *e*P **P 12 05 09.5 +1.0**
comp=Z,11nm,0.9s
**R42A Lusbering 35.22 335** P **P 12 05 09.3 +0.7**
baz=149
**O47A Sheridan 35.31 343** P **P 12 05 10.3 +1.0**
baz=157
**T39A Clever 35.33 331** P **P 12 05 09.9 +0.3**
baz=144
**U38A Gravette 35.36 330** P **P 12 05 10.1 +0.2**
baz=142
**S40A Lebanon 35.39 333** P **P 12 05 10.6 +0.5**
baz=146,SNR=7.9
**R41A Rosebud 35.48 335** P **P 12 05 11.5 +0.7**
baz=148
**ABTX Abilene, Hawle 35.66 320** P **P 12 05 12.9 +0.4**
baz=131
**U37A Salina 35.71 329** P **P 12 05 12.9 +0.1**
baz=141
**SFIN Lafayette 35.72 341** P **P 12 05 13.4 +0.6**
baz=156
**T38A Diamond 35.78 330** P **P 12 05 13.6 +0.1**
baz=142
**S39A Bolivar 35.84 332** P **P 12 05 14.5 +0.6**
baz=144
**R40A Maddies Statio 35.85 334** P **P 12 05 14.7 +0.7**
baz=146
**Q41A Truxton 35.97 336** P **P 12 05 15.6 +0.6**
baz=148
**U36A Oologah 36.02 328** P **P 12 05 15.2 -0.2**
baz=140
**S38A Stockton 36.07 331** P **P 12 05 15.8 -0.1**
baz=143
**N46A Monticello 36.08 342** P **P 12 05 17.6 +1.7**
baz=157
**V35A Meyer Ranch, C 36.14 326** P **P 12 05 16.6 +0.1**
baz=138
**T37A Cheneyville 18 36.16 330** P **P 12 05 16.5 -0.1**
baz=142
**R39A Chunky, Stover 36.22 333** P **P 12 05 17.4 +0.4**
baz=145
**Q40A Laux Farm, Aux 36.35 335** P **P 12 05 18.4 +0.2**
baz=147
**R38A Fenwick Farm, 36.51 332** P **P 12 05 19.5 0.0**
baz=144
**P41A Barry, Barry 36.51 336** P **P 12 05 19.8 +0.3**
baz=149
**TX31 Lajitas Ar. Si 36.52 312** *e*P **P 12 05 20.3 +0.3**
TX31 *e*P **P 12 05 20.8 +0.8**
**TXAR Lajitas Array 36.52 312** P **P 12 05 20.6 +0.7**
comp=Z,2.1nm,0.6s,baz=127,slow=9.1,SNR=34
TXAR PcP **PcP 12 07 42.0 +1.5**
comp=Z,0.3nm,0.6s,baz=127,slow=5.7,SNR=4.2
**WMOK Wichita Mounta 36.53 323** P **P 12 05 19.0 -0.8**
baz=134
**U35A Pawnee 36.53 327** P **P 12 05 20.2 +0.4**
baz=138
**U35A Pawnee 36.53 327** *e*P **P 12 05 19.9 +0.1**
comp=Z,18nm,1.0s
**T36A Boggs Farm, Ca 36.60 329** P **P 12 05 21.3 +1.0**
baz=140
**S37A Fort Scott 36.61 330** P **P 12 05 20.9 +0.4**
baz=142
**Q39A Willow Grove F 36.79 334** P **P 12 05 22.2 +0.3**
baz=146
**P40A Paris 36.79 335** P **P 12 05 22.2 +0.2**
baz=148
**O41A Passleys Farm, 36.82 337** P **P 12 05 22.1 -0.1**
baz=150
**T35A Sooner Cattle 36.82 328** P **P 12 05 21.9 -0.4**
baz=139
**S36A Lake Cedric, C 36.96 330** P **P 12 05 24.6 +1.1**
baz=141
**Q38A Cooks Store, C 37.01 333** P **P 12 05 24.3 +0.5**
baz=145,SNR=5.5
**P39B Salisbury 37.06 334** P **P 12 05 24.7 +0.6**
baz=146
**N42A Yates City 37.12 338** P **P 12 05 24.8 +0.1**
baz=152
**T34A McClaskey Farm 37.26 327** P **P 12 05 26.9 +0.9**
baz=138
**P38A Dawn 37.51 334** P **P 12 05 28.4 +0.4**
baz=146
**U32A Winter Ranch, 37.80 325** P **P 12 05 30.7 +0.1**
baz=135
**O38A Galt 37.89 334** P **P 12 05 31.9 +0.7**
baz=146
**N39A Derby Farms, D 38.12 336** P **P 12 05 34.1 +1.0**
baz=148
**AMTX Amarillo 38.41 321** P **P 12 05 36.5 +0.8**
baz=130
**M39A Webster 38.49 337** P **P 12 05 37.6 +1.4**
baz=149
**MSTX Muleshoe 38.54 319** P **P 12 05 36.9 0.0**
baz=128
**P34A Walt Farm, R 38.98 330** P **P 12 05 40.9 +0.5**
baz=141
**MNTX Cornudas Mount 39.03 314** P **P 12 05 41.6 +0.7**
baz=123,SNR=9.2
**MNTX Cornudas Mount 39.03 314** *e*P **P 12 05 41.9 +1.0**
comp=Z,5.5nm,0.8s
**O34A Beatrice 39.41 331** P **P 12 05 44.8 +0.9**
baz=141
**G39A Holcombe 41.44 341** P **P 12 06 01.4 +0.9**
baz=152
**ANMO Albuquerque 41.57 317** P **P 12 06 02.9 +1.0**
baz=125
**GO05 HualaæØ 41.60 179** *e*P **P 12 06 03.8 +1.9**
comp=Z,31nm,1.0s
**MHTCO State Highway 41.71 321** *e*P **P 12 06 04.4 +1.3**
comp=Z,4.3nm,0.8s
**LAZ Ladron 41.73 316** *e*P **P 12 06 03.9 +0.6**
**J33A Davis 42.01 334** P **P 12 06 05.3 +0.1**
baz=143
**ECSD EROS Data Cent 42.19 334** P **P 12 06 06.9 +0.3**
baz=144
**E39A Mellen 42.22 342** P **P 12 06 07.7 +0.9**
baz=154
**K31A O'Neill 42.28 332** P **P 12 06 08.0 +0.6**
baz=140
**J32A Parkston 42.45 333** P **P 12 06 08.5 -0.2**
baz=142,SNR=5.6
**G35A Watkins 42.56 338** P **P 12 06 09.8 +0.3**
baz=144
**SDCO Great Sand Dun 42.60 321** P **P 12 06 11.8 +1.4**
baz=128
**SDCO Great Sand Dun 42.60 321** *e*P **P 12 06 11.8 +1.4**
comp=Z,15nm,1.9s
**H32A Carlson Farm, 43.16 334** P **P 12 06 14.8 +0.4**
baz=143
**E36A McGregor 43.22 340** P **P 12 06 15.5 +0.6**
baz=150
**TUC Tucson 43.31 311** P **P 12 06 16.2 +0.3**
baz=118
**S22A 4UR Ranch, Cre 43.44 320** P **P 12 06 18.8 +1.7**
baz=127
**S22A 4UR Ranch, Cre 43.44 320** *e*P **P 12 06 18.9 +1.7**
comp=Z,8.3nm,1.4s
**D37A Cotton 43.50 341** P **P 12 06 17.9 +0.8**
baz=152
**H31A Wolsey 43.60 334** P **P 12 06 17.6 -0.3**
baz=142
**E35A Pequot Lakes 43.66 339** P **P 12 06 18.7 +0.3**
baz=149
**F33A 5 Mile Ranch, 43.78 337** P **P 12 06 19.8 +0.5**
baz=146
**SUSD Miller 43.78 333** P **P 12 06 19.5 +0.1**
baz=141
**EYMN Ely 43.91 342** P **P 12 06 21.0 +0.7**
baz=153
**ISCO Idaho Springs 43.96 323** P **P 12 06 22.3 +1.1**
baz=130
**MVCO Mesa Verde 44.21 318** P **P 12 06 23.6 +0.3**
baz=124
**F31A Hecla 44.59 335** P **P 12 06 25.6 -0.2**
baz=143
**D33A AnnSam, Waubun 44.69 338** P **P 12 06 26.7 +0.1**
baz=147,SNR=5.8
**214A Organ Pipe Nat 44.69 309** P **P 12 06 27.6 +0.7**
baz=116
**C34A RKJ Ranch, Bem 44.77 339** P **P 12 06 27.9 +0.7**
baz=149
**X16A Lo Mia Camp, P 44.79 313** *e*P **P 12 06 29.4 +1.6**
comp=Z,2.9nm,1.0s
**B35A Bob, Littlefor 44.98 341** P **P 12 06 30.1 +1.2**
baz=150
**WUAZ Wupatki 45.28 315** P **P 12 06 33.0 +1.4**
baz=120,SNR=6.6
**WUAZ Wupatki 45.28 315** *e*P **P 12 06 33.3 +1.7**
comp=Z,9.4nm,0.9s
**B34A Aery, Baudette 45.40 340** P **P 12 06 32.4 +0.2**
baz=149
**AGMN Agassiz Nation 45.66 339** P **P 12 06 35.2 +0.9**
baz=148
**Y14A Wickenburg 45.71 312** *e*P **P 12 06 36.1 +1.2**
comp=Z,19nm,0.7s
**C31A Landman Farms, 45.95 337** P **P 12 06 36.7 +0.2**
baz=145
**B32A Ashes, Strandq 45.99 338** P **P 12 06 37.1 +0.3**
baz=147
**A33A Warroad 46.04 340** P **P 12 06 37.7 +0.6**
baz=149
**U15A North Rim 46.38 315** *e*P **P 12 06 42.2 +1.9**
comp=Z,6.5nm,1.1s
**A32A Rocking H Ranc 46.41 339** P **P 12 06 40.4 +0.3**
baz=147
**B31A Greenbush Farm 46.43 338** P **P 12 06 40.8 +0.6**
baz=145
**MDND Maddock 46.74 336** P **P 12 06 43.6 +0.9**
baz=143
**ULM Lac du Bonnet 47.32 340** P **P 12 06 46.8 -0.4**
comp=Z,1.8nm,0.4s,baz=134,slow=6.5,SNR=11
**LCMT Little Creek M 47.33 315** *e*P **P 12 06 49.4 +1.8**
comp=Z,5.1nm,1.0s
**SWSC Sam W. Stewart 47.40 309** P **P 12 06 48.6 +0.6**
baz=114
**IRM Iron Mountain 47.40 311** P **P 12 06 49.1 +1.0**
baz=116
**BC3 Big Chuckawall 47.42 310** P **P 12 06 49.4 +1.1**
baz=115
**IKP In-Ko-Pah, Jac 47.52 309** P **P 12 06 50.3 +1.2**
baz=113
**MPU Maple Canyon 47.81 320** *e*P **P 12 06 52.3 +1.0**
comp=Z,5.2nm,1.2s
**MONP2 Monument Peak 47.86 309** P **P 12 06 51.9 +0.1**
baz=113
**BELC Belle Mtn. Jos 47.98 310** P **P 12 06 52.1 -0.5**
baz=115
**GMRC Granite Mounta 48.05 311** P **P 12 06 52.7 -0.5**
baz=116
**BW06 Boulder Array 48.13 324** P **P 12 06 54.4 +0.7**
baz=128
**BW06 Boulder Array 48.13 324** *e*P **P 12 06 54.3 +0.5**
comp=Z,13nm,1.9s
**PD31 Pinedale Array 48.13 324** *e*P **P 12 06 54.1 +0.3**
**PDAR Pinedale Array 48.13 324** P **P 12 06 54.0 +0.3**
comp=Z,1.0nm,0.5s,baz=120,slow=8.6,SNR=10
**PDAR Pinedale Array 48.13 324** *e*P **P 12 06 53.8 0.0**
**SCHQ Schefferville 48.15 5** P **P 12 06 54.1 +0.6**
comp=Z,12nm,0.6s,baz=202,slow=6.2,SNR=18
**TCUT Toone Canyon 48.28 321** *e*P **P 12 06 56.0 +1.1**
comp=Z,32nm,1.5s
**TUQ Turquoise Moun 48.53 312** P **P 12 06 57.7 +0.9**
baz=116
**DUG Dugway, Tooele 48.67 319** P **P 12 06 59.2 +1.3**
baz=122
**DUG Dugway, Tooele 48.67 319** *e*P **P 12 06 59.1 +1.3**
comp=Z,2.1nm,0.8s
**BBRC Big Bear Solar 48.78 310** P **P 12 06 59.8 +0.9**
baz=114
**LAO LASA Array 48.88 330** P **P 12 07 00.8 +1.5**
baz=134
**SHOC Shoshone, Teco 48.98 313** P **P 12 07 01.1 +1.0**
baz=116
**BGU Big Grassy Mou 49.20 320** *e*P **P 12 07 02.7 +0.8**
comp=Z,3.8nm,0.6s
**REDW Red Top Meadow 49.25 324** *e*P **P 12 07 03.0 +0.7**
comp=Z,3.7nm,0.6s
**TPNV Topopah Spring 49.43 314** P **P 12 07 05.4 +1.7**
baz=117
**TPNV Topopah Spring 49.43 314** *e*P **P 12 07 05.4 +1.7**
comp=Z,4.1nm,1.1s
**R11A Troy Canyon, C 49.60 316** P **P 12 07 05.8 +0.8**
baz=118
**FURC Furnace Creek, 49.66 313** P **P 12 07 06.5 +1.3**
baz=116
**EDW2 Edwards Air Fo 49.84 311** P **P 12 07 07.4 +0.7**
baz=114
**LRMC Laurel Mtn Rad 49.85 311** P **P 12 07 07.1 +0.3**
baz=114
**MPMC Manual Prospec 49.94 312** P **P 12 07 07.9 +0.2**
baz=115
**CWC Cottonwood Cre 50.54 312** P **P 12 07 13.0 +0.9**
baz=115
**SBC Santa Barbara 50.98 309** P **P 12 07 16.8 +1.6**
baz=112
**BOZ Bozeman (W) 51.03 326** P **P 12 07 16.6 +1.1**
baz=128
**VES Vestal, Richgr 51.04 311** P **P 12 07 17.3 +1.7**
baz=113
**NVAR Mina Array Bea 51.54 315** P **P 12 07 20.7 +1.1**
comp=Z,1.0nm,0.7s,baz=124,slow=7.2,SNR=12
**MFID Camas Ranch 52.28 321** *e*P **P 12 07 25.9 +1.0**
comp=Z,3.2nm,0.8s
**YERR Yerington 52.44 315** *e*P **P 12 07 27.5 +1.3**
comp=Z,7.4nm,1.2s
**MSO Missoula 53.05 326** P **P 12 07 32.6 +2.1**
baz=126
**NEW Newport 55.64 326** P **P 12 07 50.3 +1.2**
baz=123
**YKA Yellowknife Ar 63.30 340** P **P 12 08 41.2 0.0**
comp=Z,1.1nm,0.6s,baz=133,slow=6.6,SNR=66
YKA pP **PcP 12 09 19.1 +2.1**
comp=Z,0.6nm,0.6s,baz=131,slow=7.0,SNR=3.1
**DBIC Dimbokro 67.67 86** P **P 12 09 07.7 -2.5**
comp=Z,2.9nm,0.7s,baz=257,slow=6.9,SNR=3.2
**SUMG Summit 68.99 11** *i*P **P 12 09 18.3 +0.4**
comp=Z,11nm,0.6s
**TORD Torodi Ar. Bea 73.68 78** P **P 12 09 45.1 -1.5**
comp=Z,0.4nm,0.3s,baz=286,slow=6.1,SNR=8.0
**DAG Danmarks Havn 75.66 11** *i*P **P 12 09 55.7 -1.1**
comp=Z,1.8nm,0.8s
**ILAR Eielson Array 77.01 335** P **P 12 10 03.1 -1.5**
comp=Z,0.3nm,0.7s,baz=116,slow=4.1,SNR=3.1
**NOA NORSAR Array B 81.31 29** P **P 12 10 28.8 +0.6**
comp=Z,2.3nm,0.9s,baz=266,slow=5.4,SNR=2.6
**GERES GERESS Array B 82.79 42** P **P 12 10 35.5 -0.7**
comp=Z,0.6nm,0.6s,baz=321,slow=1.9,SNR=3.7
**ARCES ARCESS Array B 86.67 20** P **P 12 10 55.2 +0.1**
comp=Z,3.4nm,1.1s,baz=297,slow=7.9,SNR=4.4
**ZALV Zalesovo Beam 116.67 14** PKP **PKPdf 12 16 54.3 -0.7**
comp=Z,0.9nm,0.4s,baz=290,slow=2.8,SNR=3.7
**MKAR Makanchi Array 122.32 20** PKP **PKPdf 12 17 05.5 -0.7**
comp=Z,0.5nm,0.4s,baz=302,slow=2.3,SNR=16
**SONM Songino Array 125.60 0** PKP **PKPdf 12 17 13.1 +0.5**
comp=Z,0.6nm,0.4s,baz=314,slow=1.5,SNR=3.1
**KSH Kashi 125.74 29** *e*P **PKPdf 12 17 10.0 -3.1**
KSH pmax pmax
comp=Z,61nm,4.7s
**WMQ Urumqi 126.69 17** *e*P **PKPdf 12 17 15.0 +0.3**
WMQ LR LR
comp=N,51nm,18.9s
WMQ LR LR
comp=E,70nm,21.9s

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| WMQ | | | | LR | LR | | | |
| | comp=Z,76nm,18.9s | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **132.39** | **355** | *e*P | **PKPdf** | **12** | **17** | **24.0 -1.7** |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,15nm,0.5s | | | | | | | |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,140nm,5.5s | | | | | | | |
| **ASAR** | **Alice Springs** | **149.15** | **234** | PKPbc | **PKPbc** | **12** | **17** | **59.4 -0.9** |
| | comp=Z,1.8nm,0.7s,baz=124,slow=3.2,SNR=23 | | | | | | | |
| ASAR | | | | pPKPbc | **pPKPbc** | **12** | **18** | **40.3 +0.5** |
| | comp=Z,0.5nm,0.6s,baz=120,slow=4.0,SNR=2.4 | | | | | | | |
| **WRA** | **Warramunga Arr** | **150.38** | **241** | PKPbc | **PKPbc** | **12** | **18** | **02.6 -0.7** |
| | comp=Z,1.5nm,0.6s,baz=107,slow=2.7,SNR=16 | | | | | | | |
| WRA | | | | pPKPbc | **pPKPbc** | **12** | **18** | **44.2 +1.3** |
| | comp=Z,0.9nm,0.4s,baz=107,slow=2.6,SNR=2.9 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **153.69** | **17** | PKPbc | **PKPbc** | **12** | **18** | **10.9 +0.1** |
| | comp=Z,1.3nm,0.5s,baz=328,slow=3.4,SNR=5.3 | | | | | | | |

*CSEM **29** 12:08:32.2, 43.°16N×12.°88E, h21km, MD1.8/5*
**ROM 29 12:08:32.2±0.4, 43.°16N×12.°88E, h21km±5km, Md1.8/5, Ml1.2/3, Error ellipse: s-maj=3.9km s-min=2.2km az=66.0, Central Italy**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CESI** | **CESI - Serrava** | **0.15** | **174** | Pg | Pb | 12 08 37.2 | -1.0 |
| CESI | | | | Sg | Sb | 12 08 40.6 | -1.8 |
| | 17nm,0.4s | | | | | | |
| **CESI** | **CESI - Serrava** | **0.15** | **174** | Pg | Pb | 12 08 37.2 | -1.0 |
| CESI | | | | Sg | Sb | 12 08 40.6 | -1.8 |
| | 17nm,0.4s | | | | | | |
| **MURB** | **Monte Urbino** | **0.28** | **292** | Pg | Pb | 12 08 38.8 | 0.0 |
| MURB | | | | Sg | Sb | 12 08 43.2 | -0.1 |
| | 57nm,0.3s | | | | | | |
| **MURB** | **Monte Urbino** | **0.28** | **292** | Pg | Pb | 12 08 38.8 | 0.0 |
| MURB | | | | Sg | Sb | 12 08 43.2 | -0.1 |
| | 57nm,0.3s | | | | | | |
| **SSFR** | **Montelago di S** | **0.29** | **345** | Pg | Pb | 12 08 38.9 | 0.0 |
| SSFR | | | | Sg | Sb | 12 08 43.8 | +0.3 |
| | 23nm,0.2s | | | | | | |
| **SSFR** | **Montelago di S** | **0.29** | **345** | Pg | Pb | 12 08 38.9 | 0.0 |
| SSFR | | | | Sg | Sb | 12 08 43.8 | +0.3 |
| | 23nm,0.2s | | | | | | |
| **ATPC** | **Poggio Castell** | **0.45** | **316** | Pg | Pb | 12 08 41.5 | +0.1 |
| ATPC | | | | Sg | Sn | 12 08 49.4 | -1.5 |
| **ATPC** | **Poggio Castell** | **0.45** | **316** | Pg | Pb | 12 08 41.5 | +0.1 |
| ATPC | | | | Sg | Sn | 12 08 49.4 | -1.5 |
| **PIEI** | **Pieia** | **0.46** | **326** | Pg | Pb | 12 08 41.6 | +0.1 |
| PIEI | | | | Sg | Sb | 12 08 48.5 | +0.6 |
| **PIEI** | **Pieia** | **0.46** | **326** | Pg | Pb | 12 08 41.6 | +0.1 |
| PIEI | | | | Sg | Sb | 12 08 48.5 | +0.6 |

**BUC 29 12:11:34.7±0.8, 46.°35N×23.°16E, h5km, MD2.5/3, 10C-8D, Error ellipse: s-maj=7.4km s-min=5.9km az=51.0, Romania**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CJR** | **Cluj-Napoca** | **0.48** | **40** ⇓ | *i*P | Pg | 12 11 43.9 | 0.0 |
| **CJR** | **Cluj-Napoca** | **0.48** | **40** | S | Sb | 12 11 51.8 | -1.2 |
| **CJR** | **Cluj-Napoca** | **0.48** | **40** ⇓ | *i*P | Pg | 12 11 43.9 | 0.0 |
| CJR | | | | *i* S | Sb | 12 11 51.8 | -1.2 |
| **DRGR** | | **0.54** | **325** ⇑ | *i*P | Pg | 12 11 45.8 | +0.7 |
| **DRGR** | | **0.54** | **325** | S | Sb | 12 11 53.7 | -1.1 |
| **DRGR** | | **0.54** | **325** ⇑ | *i*P | Pg | 12 11 45.8 | +0.7 |
| DRGR | | | | *i* S | Sb | 12 11 53.7 | -1.1 |
| **LOT** | **Lotru** | **1.00** | **154** ⇑ | *i*P | Pb | 12 11 54.6 | +0.1 |
| **LOT** | **Lotru** | **1.00** | **154** ⇑ | *i*P | Pb | 12 11 54.6 | +0.1 |
| LOT | | | | *i* S | Sn | 12 12 09.2 | -0.8 |
| **SIRR** | **Siria** | **1.04** | **266** ⇑ | *i*P | Pg | 12 11 54.7 | +0.1 |
| **SIRR** | **Siria** | **1.04** | **266** ⇑ | *i*P | Pg | 12 11 54.7 | +0.1 |
| SIRR | | | | *i* S | Sb | 12 12 09.4 | +0.3 |
| **BZS** | **Buzias** | **1.30** | **236** ⇓ | *i*P | Pn | 12 11 59.5 | 0.0 |
| **BZS** | **Buzias** | **1.30** | **236** ⇓ | *i*P | Pn | 12 11 59.5 | 0.0 |
| BZS | | | | *i* S | Sn | 12 12 18.3 | +1.1 |
| **ARR** | **Arges** | **1.43** | **133** ⇑ | *i*P | Pg | 12 12 01.9 | -0.1 |
| **ARR** | **Arges** | **1.43** | **133** ⇑ | *i*P | Pg | 12 12 01.9 | -0.1 |
| ARR | | | | *i* S | Sg | 12 12 22.2 | +1.7 |
| **VOIR** | | **1.61** | **124** ⇓ | *i*P | Pb | 12 12 04.8 | -0.1 |
| **VOIR** | | **1.61** | **124** ⇓ | *i*P | Pb | 12 12 04.8 | -0.1 |
| VOIR | | | | *i* S | Sg | 12 12 26.9 | +0.6 |
| **MDVR** | **Moldovita** | **1.87** | **213** ⇓ | *i*P | Pb | 12 12 09.4 | +0.1 |
| **MDVR** | **Moldovita** | **1.87** | **213** ⇓ | *i*P | Pb | 12 12 09.4 | +0.1 |
| MDVR | | | | *i* S | Sb | 12 12 33.3 | +0.4 |
| **BURAR** | **Bucovina Array** | **1.90** | **47** ⇑ | *i*P | Pb | 12 12 09.7 | -0.1 |
| **BURAR** | **Bucovina Array** | **1.90** | **47** ⇑ | *i*P | Pb | 12 12 09.7 | -0.1 |
| BURAR | | | | *i* S | Sg | 12 12 35.7 | +0.1 |

*MOS **29** 12:13:59.6±1.7, 50.°03N×157.°19E, h72km, mb4.2/1, Error ellipse: s-maj=36.7km s-min=5.2km az=80.2*
**KRSC 29 12:13:59.6±2.4, 50.°03N×157.°19E, h72km±28km, ML4.1, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SKR** | **Severo-Kuril's** | **0.95** | **314** | PN | Pn | 12 14 17.4 | -0.1 |
| SKR | | | | S | Sn | 12 14 29.6 | -1.3 |
| **SKR** | **Severo-Kuril's** | **0.95** | **314** | *e*P | Pn | 12 14 17.4 | -0.1 |
| SKR | | | | *e*S | Sn | 12 14 29.6 | -1.3 |
| **PAU** | **Pauzhetka** | **1.46** | **351** | PN | Pn | 12 14 25.9 | +1.9 |
| PAU | | | | S | Sn | 12 14 43.9 | +1.4 |
| **PAU** | **Pauzhetka** | **1.46** | **351** | *i*P | Pn | 12 14 25.9 | +1.9 |
| PAU | | | | *i* S | Sn | 12 14 43.9 | +1.4 |
| **KDTR** | **Khodutka, Kamc** | **1.87** | **17** | *i*P | Pn | 12 14 32.5 | +3.1 |
| KDTR | | | | *i* S | Sn | 12 14 55.4 | +3.3 |
| **ASAK** | **Asacha** | **2.40** | **10** | PN | Pn | 12 14 39.8 | +3.1 |
| ASAK | | | | S | Sn | 12 15 09.2 | +4.1 |
| **ASAK** | **Asacha** | **2.40** | **10** | *e*P | Pn | 12 14 39.8 | +3.1 |
| ASAK | | | | *e*S | Sn | 12 15 09.2 | +4.1 |
| **MTVR** | **Mutnovka** | **2.53** | **14** | PN | Pn | 12 14 41.9 | +3.3 |
| MTVR | | | | S | Sn | 12 15 11.9 | +3.4 |
| **MTVR** | **Mutnovka** | **2.53** | **14** | *e*P | Pn | 12 14 41.9 | +3.3 |
| MTVR | | | | *e*S | Sn | 12 15 11.9 | +3.4 |
| **RUS** | **Russkaya** | **2.54** | **19** | PN | Pn | 12 14 41.1 | +2.5 |
| RUS | | | | S | Sn | 12 15 10.8 | +2.3 |
| **RUS** | **Russkaya** | **2.54** | **19** | *e*P | Pn | 12 14 41.1 | +2.5 |
| RUS | | | | *e*S | Sn | 12 15 10.8 | +2.3 |
| **KRMR** | **Karymshinskiy** | **2.86** | **11** | PN | Pn | 12 14 45.4 | +2.5 |
| KRMR | | | | S | Sn | 12 15 20.3 | +4.1 |
| **KRMR** | **Karymshinskiy** | **2.86** | **11** | *e*P | Pn | 12 14 45.4 | +2.5 |
| KRMR | | | | *e*S | Sn | 12 15 20.3 | +4.1 |
| **APC** | **Apacha** | **2.90** | **360** | PN | Pn | 12 14 44.7 | +1.3 |
| **APC** | **Apacha** | **2.90** | **360** | *e*P | Pn | 12 14 44.7 | +1.3 |
| **PET** | **Petropavlovsk** | **3.13** | **16** | PN | Pn | 12 14 49.2 | +2.7 |
| PET | | | | S | Sn | 12 15 25.9 | +3.1 |
| **PET** | **Petropavlovsk** | **3.13** | **16** | *e*P | Pn | 12 14 49.2 | +2.7 |
| PET | | | | *e*S | Sn | 12 15 25.9 | +3.1 |
| **DALK** | **Dalny** | **3.16** | **17** | PN | Pn | 12 14 50.0 | +3.1 |
| DALK | | | | S | Sn | 12 15 26.9 | +3.5 |
| **DALK** | **Dalny** | **3.16** | **17** | *e*P | Pn | 12 14 50.0 | +3.1 |
| DALK | | | | *e*S | Sn | 12 15 26.9 | +3.5 |
| **UGLR** | **Uglovaya** | **3.34** | **17** | PN | Pn | 12 14 53.0 | +3.5 |
| **UGLR** | **Uglovaya** | **3.34** | **17** | *e*P | Pn | 12 14 53.0 | +3.5 |
| **AVH** | **Avacha** | **3.38** | **16** | PN | Pn | 12 14 53.7 | +3.7 |
| **AVH** | **Avacha** | **3.38** | **16** | *e*P | Pn | 12 14 53.7 | +3.7 |
| **KOK** | **Koryaka** | **3.39** | **15** | PN | Pn | 12 14 53.8 | +3.7 |
| **KOK** | **Koryaka** | **3.39** | **15** | *e*P | Pn | 12 14 53.8 | +3.7 |
| **SMAR** | **Somma** | **3.39** | **17** | PN | Pn | 12 14 53.3 | +3.1 |
| **SMAR** | **Somma** | **3.39** | **17** | *e*P | Pn | 12 14 53.3 | +3.1 |
| **KRER** | **Koryakskii** | **3.42** | **16** | PN | Pn | 12 14 54.0 | +3.4 |
| **KRER** | **Koryakskii** | **3.42** | **16** | *e*P | Pn | 12 14 54.0 | +3.4 |
| **NLC** | **Nalytchevo** | **3.42** | **22** | PN | Pn | 12 14 52.4 | +2.0 |
| NLC | | | | S | Sn | 12 15 30.6 | +0.9 |
| **NLC** | **Nalytchevo** | **3.42** | **22** | *e*P | Pn | 12 14 52.4 | +2.0 |
| NLC | | | | *e*S | Sn | 12 15 30.6 | +0.9 |
| **SDLR** | **Sedlovina** | **3.42** | **17** | PN | Pn | 12 14 53.5 | +2.9 |
| **SDLR** | **Sedlovina** | **3.42** | **17** | *e*P | Pn | 12 14 53.5 | +2.9 |
| **KRX** | **Arik** | **3.45** | **15** | PN | Pn | 12 14 54.4 | +3.3 |
| **KRX** | **Arik** | **3.45** | **15** | *e*P | Pn | 12 14 54.4 | +3.3 |
| **SPN** | **Mys Shipunski** | **3.54** | **29** | PN | Pn | 12 14 55.7 | +3.6 |
| SPN | | | | S | Sn | 12 15 36.0 | +3.2 |
| **SPN** | **Mys Shipunski** | **3.54** | **29** | *e*P | Pn | 12 14 55.7 | +3.6 |
| SPN | | | | *e*S | Sn | 12 15 36.0 | +3.2 |
| **GNL** | **Ganaly** | **3.70** | **7** | PN | Pn | 12 14 56.5 | +2.1 |
| **GNL** | **Ganaly** | **3.70** | **7** | *e*P | Pn | 12 14 56.5 | +2.1 |
| **TUMR** | **Tumrok** | **5.56** | **18** | PN | Pn | 12 15 24.3 | +4.6 |
| **TUMR** | **Tumrok** | **5.56** | **18** | *e*P | Pn | 12 15 24.3 | +4.6 |
| **KBTR** | **Krutoberegovo** | **7.05** | **26** | PN | Pn | 12 15 42.3 | +2.3 |
| **KBTR** | **Krutoberegovo** | **7.05** | **26** | *e*P | Pn | 12 15 42.3 | +2.3 |
| **BKI** | **Bering** | **7.44** | **43** | PN | Pn | 12 15 49.0 | +3.7 |
| **BKI** | **Bering** | **7.44** | **43** | *e*P | Pn | 12 15 49.0 | +3.7 |
| BKI | | | | *e*S | Sn | 12 17 05.7 | -2.3 |

*NIED **29** 12:28:00, 39.°40N×143.°70E, h11km, Mw3.7 Best double couple: M0=4.72000×10^14 NP1:φ=202.00000°, δ=42.00000°, λ=92.00000°. NP2:φ=20.00000°, δ=48.00000°, λ=88.00000°.*
*IDC **29** 12:28:22.7±1.6, 39.°29N×143.°90E, h0km, mb3.6/5, mb1 3.7/8, mb1mx3.5/34, mbtmp3.6/8, ML3.3/3, Error ellipse: s-maj=32.7km s-min=27.0km az=95.0*
*ISCJB **29** 12:28:23.7±0.9, 39.°44N±0.°04×143.°72E±0.°08, h11km, mb3.5/5, Error ellipse: s-maj=10.1km s-min=4.1km az=30.8*
*JMA **29** 12:28:26.2±0.2, 39.°41N×143.°72E, h42km, M3.7*
**ISC 29 12:28:24.5±1.1, 39.°40N±0.°06×143.°78E±0.°09, h11km, n24, σ=1§30/33, mb3.6/5, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MIYJ** | **Miyakonagasawa** | **1.52** | **277** | P | Pn | **12 28 51.2** | **-0.5** |
| **JTH** | **Tanohata** | **1.57** | **291** | P | Pn | **12 28 51.7** | **-0.6** |
| **OFUJ** | **Ofunato** | **1.67** | **260** | P | Pn | **12 28 53.1** | **-0.5** |
| OFUJ | | | | *e*S | Sn | **12 29 12.5** | **-2.5** |
| **JOM** | **Ohasama** | **1.92** | **273** | P | Pn | **12 28 57.2** | **0.0** |
| **JANG** | **Nango** | **1.99** | **300** | P | Pn | **12 28 57.7** | **-0.5** |
| **JMK** | **Ichinoseki** | **2.04** | **258** | P | Pn | **12 28 58.6** | **-0.1** |
| JMK | | | | *e*S | Sn | **12 29 22.5** | **-1.6** |
| **JYK** | **Kaneyama** | **2.70** | **261** | P | Pn | **12 29 08.2** | **+0.3** |
| JYK | | | | *e*S | Sn | **12 29 39.5** | **-1.0** |
| **JOT** | **Ohata** | **2.87** | **314** | P | Pn | **12 29 10.4** | **+0.2** |
| **JNBK** | **Urakawa-nobuka** | **2.98** | **345** | P | Pn | **12 29 12.5** | **+0.8** |
| JNBK | | | | *e*S | Sn | **12 29 47.1** | **-0.3** |
| **JCH** | **Churui** | **3.23** | **355** | P | Pn | **12 29 14.8** | **-0.3** |
| JCH | | | | *e*S | Sn | **12 29 50.5** | **-3.0** |
| **JFT** | **Otama** | **3.29** | **236** | P | Pn | **12 29 16.0** | **0.0** |
| JFT | | | | *e*S | Sn | **12 29 52.6** | **-2.5** |
| **JAK** | **Akkeshi** | **3.66** | **11** | P | Pn | **12 29 20.3** | **-0.7** |
| JAK | | | | *e*S | Sn | **12 30 01.5** | **-2.7** |
| **JNS** | **Sasagawa** | **3.83** | **247** | P | Pn | **12 29 24.0** | **+0.6** |
| **JEW** | **Eniwo** | **3.86** | **334** | *e*S | Sn | **12 30 08.2** | **-1.0** |
| **JFR** | **Furan** | **3.87** | **347** | P | Pn | **12 29 23.7** | **-0.2** |
| **ASAJ** | **Asahikawa** | **4.80** | **350** | Pn | Pn | **12 29 37.8** | **+1.1** |
| | 2.2nm,0.3s,baz=185,slow=16,SNR=32 | | | | | | |
| ASAJ | | | | Sn | Sn | **12 30 32.2** | **+0.1** |
| | 1.1nm,0.3s,baz=145,slow=27,SNR=1.5 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **5.24** | **239** | Pn | Pn | **12 29 44.1** | **+1.3** |
| | 1.7nm,0.3s,baz=3.5,slow=24,SNR=20 | | | | | | |
| **MAT** | **Matsushiro** | **5.24** | **239** | P | Pn | **12 29 44.0** | **+1.2** |
| MAT | | | | *e*S | Sn | **12 30 42.4** | **-0.9** |
| **USRK** | **Ussuriysk Ar.** | **10.02** | **302** | Pn | Pn | **12 30 50.5** | **+2.1** |
| | 0.4nm,0.3s,baz=100,slow=14,SNR=4.1 | | | | | | |
| **SONM** | **Songino Array** | **28.12** | **300** | P | P | **12 34 17.4** | **+0.9** |
| | 0.4nm,0.4s,baz=89,slow=7.4,SNR=2.4 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.75** | **310** | P | P | **12 36 14.2** | **+0.8** |
| | 1.6nm,0.5s,baz=93,slow=8.3,SNR=7.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.48** | **301** | P | P | **12 36 36.4** | **+0.7** |
| | 1.0nm,0.8s,baz=82,slow=9.2,SNR=7.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **59.69** | **190** | P | P | **12 38 27.7** | **-1.3** |
| | 0.3nm,0.7s,baz=8.7,slow=6.9,SNR=1.7 | | | | | | |
| **YKA** | **Yellowknife Ar** | **60.83** | **31** | P | P | **12 38 37.2** | **+0.9** |
| | 0.1nm,0.6s,baz=303,slow=6.3,SNR=3.3 | | | | | | |

**SJA 29 12:39:58.8±0.5, 31.°49S×69.°03W, h98km±6km, ML2.5, MW3.6, San Juan Province**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RTLS** | **Leoncito** | **0.38** | **216** | *i*P | Pn | 12 40 15.3 | +1.3 |
| RTLS | | | | IAML | | 12 40 15.4 | |
| | comp=Z,127nm,0.1s | | | | | | |
| **RTLL** | **Cerro Villicun** | **0.51** | **71** | *i*P | Pn | 12 40 15.0 | +0.5 |
| RTLL | | | | *i* S | Sn | 12 40 27.4 | +1.2 |
| **RTCV** | **Cerro Valdivia** | **0.56** | **131** | *i*P | Pn | 12 40 15.7 | +0.8 |
| **AMOG** | **MOGNA** | **0.72** | **40** | *i*P | Pn | 12 40 16.9 | +0.6 |
| **AUSP** | **Uspallata** | **0.79** | **202** | *i*P | Pn | 12 40 18.5 | +1.3 |
| AUSP | | | | *i* S | Sn | 12 40 32.7 | +1.7 |
| **AGUA** | **GUANDACOL** | **2.05** | **13** | *i*P | Pn | 12 40 33.3 | +1.2 |

*ISCJB **29** 12:47:12.5±1.0, 7.°96N±0.°03×122.°66E±0.°03, h15km±7km, mb4.0/11, MS3.1/3, Error ellipse: s-maj=6.3km s-min=4.2km az=137.4*
*MAN **29** 12:47:13, 8.°04N×122.°73E, h5km, mb4.8, ML3.7, MS3.7*
*MAN INTENSITY III - IPIL ZAMBOANGA DEL NORTE; INTENSITY II - DIPOLOG CITY AND ZAMBOANGA CITY; PAGADIAN ZAMBOPANGA DEL SUR; INTENSITY I - SINDANAGN LABASON MANUKAN AND POLANGCO ZAMBOANGA DEL NORTE.*
*IDC **29** 12:47:21.6±2.8, 8.°06N×122.°96E, h84km±31km, mb3.7/11, mb1 3.9/12, mb1mx3.6/37, mbtmp4.1/12, MS3.1/3, Ms1 3.2/3, ms1mx2.7/42, Error ellipse: s-maj=30.2km s-min=14.6km az=62.0*
**ISC 29 12:47:13.2±1.4, 7.°98N±0.°03×122.°74E±0.°03, h10km±9km, n35, σ=1§67/51, mb4.0/11, MS3.1/3, 9C-1D, Mindanao**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PAGZ** | **Pagadian** | **0.65** | **102** | *e*P | Pg | **12 47 26.1** | **-0.4** |
| PAGZ | | | | *e*S | Sb | **12 47 34.9** | **-0.7** |
| **DCPH** | **Dipolog City** | **0.85** | **45** ⇑ | *e*P | Pg | **12 47 29.1** | **-0.5** |
| DCPH | | | | *e*S | Sg | **12 47 39.6** | **-1.1** |
| **ZCP** | **Zamboanga City** | **1.24** | **212** ⇑ | *i*P | Pn | **12 47 38.9** | **+2.4** |
| ZCP | | | | *e*S | Sn | **12 47 56.2** | **+3.1** |
| **SNPH** | **Sibulan** | **1.44** | **20** ⇑ | *i*P | Pn | **12 47 39.3** | **0.0** |
| SNPH | | | | *i* S | Sb | **12 47 57.7** | **-0.7** |
| **CTBH** | **Cotabato--PC H** | **1.67** | **117** | *e*P | Pb | **12 47 42.6** | **-1.4** |
| CTBH | | | | *e*S | Sn | **12 48 02.1** | **-1.9** |
| **TBP** | **Tagbilaran** | **2.03** | **33** | *e*P | Pg | **12 47 54.3** | **+2.2** |
| TBP | | | | *i* S | Sg | **12 48 19.8** | **+1.4** |
| **BUKP** | **Musuan** | **2.30** | **92** | *e*P | Pn | **12 47 52.5** | **+1.3** |
| BUKP | | | | *e*S | Sg | **12 48 24.6** | **-2.6** |
| **KCP** | **Kidapawan** | **2.52** | **112** ⇓ | *e*P | Pn | **12 47 54.9** | **+0.7** |
| **LLP** | **Lapu-Lapu** | **2.62** | **27** ⇑ | *e*P | Pn | **12 47 56.3** | **+0.8** |
| LLP | | | | *i* S | Sn | **12 48 27.5** | **+0.2** |
| **GUIM** | **Jordan** | **2.63** | **357** | *e*P | Pn | **12 47 56.5** | **+0.8** |
| GUIM | | | | *e*S | Sn | **12 48 30.6** | **+2.9** |
| **JAP** | **San Jose, Anti** | **2.86** | **344** ⇑ | *e*P | Pn | **12 47 59.3** | **+0.5** |
| JAP | | | | *e*S | Sg | 12 49 12.6 | +28 |
| **DMPH** | **Davao City--Mi** | **2.88** | **108** ⇑ | *e*P | Pg | **12 48 09.4** | **+0.9** |
| DMPH | | | | *e*S | Sb | **12 48 38.1** | **-2.0** |
| **DAV** | **Davao City (W)** | **2.96** | **108** | P | Pb | **12 48 04.1** | **-1.9** |
| | 69nm,0.3s,baz=296,slow=2.3,SNR=15 | | | | | | |
| DAV | | | | S | Sn | **12 48 37.0** | **+1.3** |
| | 81nm,0.3s,baz=79,slow=23,SNR=4.7 | | | | | | |
| **MSLP** | **Maasin** | **2.99** | **44** | *e*P | Pn | **12 48 02.1** | **+1.5** |
| MSLP | | | | *e*S | Sn | **12 48 39.5** | **+3.0** |
| **BUTP** | **Butuan** | **3.01** | **71** | *e*P | Pn | **12 48 03.0** | **+2.1** |
| **RCP** | **Roxas** | **3.55** | **0** ⇑ | *e*P | Pn | **12 48 10.2** | **+1.6** |
| RCP | | | | *e*S | Sn | **12 48 53.1** | **+2.6** |
| **OCLP** | **Ormoc** | **3.56** | **31** | *e*P | Pn | **12 48 09.0** | **+0.5** |
| OCLP | | | | *e*S | Sn | **12 48 50.2** | **-0.5** |
| **BIPH** | **Bislig** | **3.59** | **87** ⇑ | *e*P | Pb | **12 48 16.4** | **-0.4** |
| **PPR** | **Puerto Princes** | **4.35** | **294** ⇑ | *e*P | Pn | **12 48 18.6** | **-0.7** |
| PPR | | | | *e*S | Sn | **12 49 07.8** | **-2.2** |
| **OTRP** | **Odiongan** | **4.41** | **351** | *e*P | Pn | **12 48 21.4** | **+1.3** |
| OTRP | | | | *e*S | Sn | **12 49 12.3** | **+0.7** |
| **ENPP** | **El Nido** | **4.58** | **315** | *e*P | Pn | **12 48 23.4** | **+0.9** |
| ENPP | | | | *e*S | Sn | **12 49 12.6** | **-3.1** |
| **SJMP** | **San Jose** | **4.73** | **340** | *e*P | Pn | **12 48 25.3** | **+0.7** |
| SJMP | | | | *e*S | Sn | **12 49 18.1** | **-1.3** |
| **PSI** | **Prapat** | **24.26** | **259** | P | P | **12 52 33.5** | **+2.7** |
| | 5.5nm,0.6s,baz=111,slow=7.9,SNR=3.8 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **25.37** | **297** | P | P | **12 52 42.8** | **+2.1** |
| | 0.6nm,0.6s,baz=120,slow=9.1,SNR=5.1 | | | | | | |
| CMAR | | | | LR | LR | 13 02 53.4 | |
| | comp=Z,70nm,18.5s,baz=115,slow=36 | | | | | | |
| **KSRS** | **Korea Array** | **29.71** | **8** | LR | LR | 13 06 02.2 | |
| | comp=Z,28nm,19.9s,baz=195,slow=38 | | | | | | |
| **WRA** | **Warramunga Arr** | **30.01** | **158** | P | P | **12 53 22.1** | **-0.1** |
| | 1.9nm,0.9s,baz=333,slow=11,SNR=11 | | | | | | |
| **ASAR** | **Alice Springs** | **33.29** | **161** | P | P | **12 53 52.0** | **+0.9** |
| | 2.1nm,0.7s,baz=343,slow=7.2,SNR=32 | | | | | | |
| **SONM** | **Songino Array** | **42.07** | **344** | P | P | **12 55 05.4** | **+0.1** |
| | 1.8nm,0.8s,baz=162,slow=9.7,SNR=11 | | | | | | |
| **STKA** | **Stephens Creek** | **43.54** | **156** | P | P | **12 55 18.1** | **+0.9** |
| | 2.8nm,0.9s,baz=312,slow=7.7,SNR=4.2 | | | | | | |
| **TLY** | **Talaya** | **46.32** | **344** | LR | LR | 13 14 44.6 | |
| | comp=Z,23nm,21.8s,baz=177,slow=36 | | | | | | |
| **MKAR** | **Makanchi Array** | **51.82** | **325** | P | P | **12 56 22.3** | **+0.9** |
| | 1.4nm,0.7s,baz=133,slow=8.7,SNR=18 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **55.03** | **334** | P | P | **12 56 44.5** | **-0.3** |
| | 0.5nm,0.3s,baz=118,slow=8.6,SNR=4.8 | | | | | | |
| **BRTR** | **Keskin Array B** | **84.27** | **309** | P | P | **12 59 43.7** | **-1.9** |
| | 0.3nm,0.4s,baz=136,slow=54,SNR=2.7 | | | | | | |
| **ARCES** | **ARCESS Array B** | **85.11** | **340** | P | P | **12 59 47.6** | **-1.4** |
| | 3.4nm,1.1s,baz=90,slow=7.3,SNR=3.8 | | | | | | |
| **KMBO** | **Kilima Mbogo** | **85.69** | **268** | P | P | **12 59 51.3** | **-2.1** |
| | 1.0nm,0.3s,baz=318,slow=1.8,SNR=3.4 | | | | | | |

**IDC 29 13:01:25.8±1.8, 1.°77S×140.°36E, h0km, mb3.2/2, mb1 3.6/3, mb1mx3.2/33, mbtmp3.3/3, ML3.5/1, Error ellipse: s-maj=179.0km s-min=28.2km az=109.0, Irian Jaya region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **19.00** | **198** | P | Pn | 13 05 50.4 | +0.6 |
| | 0.1nm,0.3s,baz=17,slow=11,SNR=8.9 | | | | | | |
| **ASAR** | **Alice Springs** | **22.65** | **196** | P | P | 13 06 28.5 | -0.3 |
| | 0.6nm,0.7s,baz=25,slow=12,SNR=7.8 | | | | | | |
| **ILAR** | **Eielson Array** | **84.30** | **24** | P | P | 13 13 59.0 | -0.3 |
| | 0.2nm,0.9s,baz=254,slow=5.1,SNR=2.5 | | | | | | |

*ISCJB **29** 13:11:58.1±0.8, 46.°2N±0.°1×153.°0E±0.°2, h31km, mb3.5/7, Error ellipse: s-maj=23.1km s-min=13.4km az=44.4*
*IDC **29** 13:12:03.0±3.6, 46.°25N×152.°86E, h57km±32km, mb3.1/6, mb1 3.4/8, mb1mx3.2/32, mbtmp3.4/8, ML3.0/2, Error ellipse: s-maj=31.3km s-min=21.2km az=119.0*
**ISC 29 13:12:00.2±1.0, 46.°2N±0.°2×153.°0E±0.°2, h31km, n15, σ=1§38/9, mb3.5/7, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PETK** | **Petropavlovsk-** | **7.57** | **22** | P | Pn | **13 13 49.5** | **+1.2** |
| | 0.3nm,0.3s,baz=178,slow=12,SNR=2.1 | | | | | | |
| **ASAJ** | **Asahikawa** | **7.64** | **258** | P | Pn | **13 13 51.1** | **+1.8** |
| | 0.5nm,0.3s,baz=78,slow=11,SNR=1.9 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.75** | **152** | T | T | 13 49 33.0 | |
| | baz=340,slow=76,SNR=2.8 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.77** | **152** | T | T | 13 49 42.0 | |
| | baz=340,slow=76,SNR=3.5 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.77** | **152** | T | T | 13 49 46.4 | |
| | baz=340,slow=76,SNR=4.8 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.84** | **153** | T | T | 13 51 00.0 | |
| | baz=340,slow=76,SNR=6.1 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.84** | **153** | T | T | 13 50 56.0 | |
| | baz=340,slow=76,SNR=4.1 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.85** | **153** | T | T | 13 51 01.9 | |
| | baz=340,slow=76,SNR=4.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **47.13** | **298** | P | P | **13 20 28.2** | **-1.1** |
| | 0.2nm,0.4s,baz=65,slow=6.6,SNR=3.1 | | | | | | |
| **YKA** | **Yellowknife Ar** | **51.42** | **36** | P | P | **13 21 02.3** | **+0.6** |
| | 0.2nm,0.6s,baz=292,slow=6.9,SNR=3.2 | | | | | | |
| **FINES** | **FINESS Array B** | **64.52** | **335** | P | P | **13 22 31.5** | **-2.0** |
| | 8.3nm,1.2s,baz=45,slow=3.0,SNR=1.8 | | | | | | |
| **WRA** | **Warramunga Arr** | **67.95** | **199** | P | P | **13 22 55.0** | **-1.0** |
| | 0.6nm,1.0s,baz=23,slow=6.9,SNR=2.7 | | | | | | |
| **ASAR** | **Alice Springs** | **71.65** | **198** | P | P | **13 23 19.0** | **+0.3** |
| | 0.2nm,0.8s,baz=9.4,slow=6.0,SNR=4.0 | | | | | | |
| **AKASG** | **Malin Array Be** | **71.97** | **326** | P | P | **13 23 20.0** | **-0.3** |
| | 0.3nm,0.4s,baz=31,slow=6.1,SNR=3.2 | | | | | | |
| **TXAR** | **Lajitas Array** | **77.84** | **60** | P | P | **13 23 55.0** | **+0.2** |
| | 0.2nm,0.6s,baz=296,slow=2.8,SNR=3.4 | | | | | | |

*DDA **29** 13:17:00.5, 41.°01N×39.°74E, h7km, Md2.5*
*ISK **29** 13:17:00.5, 41.°02N×39.°82E, h9km, ML2.5*
*ISCJB **29** 13:17:01.4±0.8, 41.°00N±0.°05×39.°78E±0.°04, h6km±5km, Error ellipse: s-maj=8.3km s-min=5.5km az=175.2*
*CSEM **29** 13:17:01.0±0.3, 41.°02N×39.°78E, h2km, ML2.5, Error ellipse: s-maj=8.4km s-min=5.2km az=171.0*
**ISC 29 13:17:00.6±1.2, 41.°06N±0.°05×39.°78E±0.°03, h7km±9km, n25, σ=0§66/33, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KTUT** | **Trabzon** | **0.07** | **185** | *e*PG | **Pg** | **13 17 02.5** | **+0.1** |
| **KTUT** | **Trabzon** | **0.07** | **185**

*az=139.1*
*SKHL **29** 13:26:56.6±0.3,42°.22N×145°.12E,h41km±5km,mb4.3/3*
*JMA **29** 13:26:56.6,42°.38N×144°.88E,h35km±1km,M3.5*
*IDC **29** 13:27:05.5±3.9,42°.40N×142°.88E,h0km,mb3.4/2,*
*mb1 3.5/3,mb1mx3.2/31,mbtmp3.4/3,ML3.2/1,Error*
*ellipse: s-maj=71.2km s-min=22.4km az=107.0*

**ISC 29 13:26:53.0±2.0,42°.32N±0°.07×145°.00E±0°.05,h1km±12km, n26,σ1s32/31,5D,Hokkaido region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JAK** | **Akkeshi** | **0.71** | **342** | ∥P | **Pb** | **13 27 09.0** | **+0.7** |
| JAK | | | | eS | **Sb** | **13 27 18.6** | **0.0** |
| **JOB** | **Onbets** | **1.04** | **304** | ∥P | **Pb** | **13 27 13.7** | **-0.2** |
| **NEM2** | **Nemuro 2** | **1.18** | **27** | P | **Pb** | **13 27 16.6** | **+0.4** |
| NEM2 | | | | eS | **Sg** | **13 27 31.6** | **+0.7** |
| **JCH** | **Churui** | **1.25** | **284** | ∥P | **Pg** | **13 27 17.2** | **+0.2** |
| **MYR** | **Moyori** | **1.28** | **269** | *e*P | **Pn** | **13 27 17.9** | **-0.1** |
| **JNK** | **Nakash** | **1.28** | **351** | ∥P | **Pn** | **13 27 16.9** | **-1.2** |
| JNK | | | | eS | **Sg** | **13 27 32.3** | **-1.9** |
| **JAR** | **Ashorobuto** | **1.33** | **317** | ∥P | **Pn** | **13 27 17.4** | **-1.4** |
| **GLVR** | **Golovnino** | **1.47** | **15** | *i* P | **Pb** | **13 27 21.1** | **0.0** |
| GLVR | | | | eS | **Sn** | **13 27 39.7** | **-0.8** |
| **JRA** | **Rausu** | **1.62** | **3** | P | **Pn** | **13 27 22.4** | **-0.3** |
| **JNBK** | **Urakawa-nobuka** | **1.67** | **269** | P | **Pn** | **13 27 22.6** | **-0.8** |
| **GRPR** | **Tuman** | **1.76** | **18** | *e*P | **Pn** | **13 27 25.2** | **+0.5** |
| GRPR | | | | eS | **Sn** | **13 27 46.4** | **-1.4** |
| **YUK** | **Yuzh-Kuril'sk** | **1.82** | **20** | *i* P | **Pn** | **13 27 26.0** | **+0.4** |
| YUK | | | | AMB | AMB | 13 27 26.8 | |
| | 170nm,0.3s | | | | | | |
| YUK | | | | eS | **Sn** | **13 27 48.3** | **-1.0** |
| YUK | | | | A | A | 13 27 50.5 | |
| | 600nm,0.4s | | | | | | |
| YUK | | | | A | A | 13 27 50.5 | |
| | 270nm,0.4s | | | | | | |
| **LAGR** | **Lagunnoye** | **1.83** | **18** | *e*P | **Pn** | **13 27 26.5** | **+0.9** |
| LAGR | | | | eS | **Sn** | **13 27 48.7** | **-0.7** |
| **SHO** | **Shikotan** | **2.05** | **40** | *e*P | **Pn** | **13 27 28.5** | **-0.1** |
| SHO | | | | AMB | AMB | 13 27 29.7 | |
| | 22nm,0.2s | | | | | | |
| SHO | | | | eS | **Sn** | **13 27 52.6** | **-2.2** |
| SHO | | | | A | A | 13 27 58.7 | |
| | 32nm,0.3s | | | | | | |
| SHO | | | | A | A | 13 27 58.7 | |
| | 186nm,0.3s | | | | | | |
| **ASAJ** | **Asahikawa** | **2.51** | **316** | Pn | **Pn** | **13 27 35.8** | **+0.7** |
| | 20nm,0.3s,baz=175,slow=15,SNR=196 | | | | | | |
| ASAJ | | | | Pg | **Pb** | **13 27 37.9** | **-1.1** |
| | 20nm,0.3s,baz=140,slow=14,SNR=29 | | | | | | |
| ASAJ | | | | Sn | **Sn** | **13 28 05.8** | **-0.6** |
| | 4.6nm,0.3s,baz=278,slow=29,SNR=3.2 | | | | | | |
| ASAJ | | | | Lg | Lg | 13 28 08.7 | |
| | 10.0nm,0.3s,baz=314,slow=33,SNR=3.7 | | | | | | |
| **KUR** | **Kuril'sk** | **3.58** | **34** | *e*P | **Pn** | **13 27 51.4** | **+1.8** |
| KUR | | | | AMB | AMB | 13 27 53.3 | |
| | 16nm,0.3s | | | | | | |
| KUR | | | | eS | **Sn** | **13 28 33.0** | **+0.5** |
| KUR | | | | A | A | 13 28 39.7 | |
| | 36nm,0.3s | | | | | | |
| KUR | | | | A | A | 13 28 39.7 | |
| | 54nm,0.3s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **4.90** | **342** | *e*P | **Pn** | **13 28 11.9** | **+4.0** |
| **MJAR** | **Matsushiro Arr** | **7.80** | **225** | Pn | **Pn** | **13 28 47.6** | **-0.1** |
| | 0.5nm,0.3s,baz=31,slow=14,SNR=9.4 | | | | | | |
| **SONM** | **Songino Array** | **27.61** | **295** | P | **P** | **13 32 40.6** | **-1.3** |
| | 0.7nm,0.7s,baz=98,slow=9.6,SNR=4.0 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **29.15** | **134** | T | T | 14 04 11.0 | |
| | baz=326,slow=75,SNR=46 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **29.16** | **134** | T | T | 14 04 13.9 | |
| | baz=326,slow=75,SNR=46 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **29.16** | **134** | T | T | 14 04 14.4 | |
| | baz=326,slow=75,SNR=42 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **30.05** | **136** | T | T | 14 05 21.7 | |
| | baz=328,slow=76,SNR=60 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **30.06** | **136** | T | T | 14 05 20.6 | |
| | baz=328,slow=76,SNR=46 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **30.07** | **136** | T | T | 14 05 23.6 | |
| | baz=328,slow=76,SNR=43 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.86** | **298** | P | **P** | **13 35 02.7** | **+1.9** |
| | 0.2nm,0.6s,baz=85,slow=8.4,SNR=2.4 | | | | | | |

*ISCJB **29** 13:45:37.5±0.5,12°.70S±0°.07×76°.62W±0°.08,h65km, mb4.4/18,Error ellipse: s-maj=13.6km s-min=5.8km az=141.3*
*IDC **29** 13:45:38.5±2.4,12°.85S×76°.72W,h58km±17km,mb3.7/10, mb1 4.0/11,mb1mx3.8/30,mbtmp4.1/11,MS3.3/5, Ms1 3.4/5,ms1mx3.1/27,Error ellipse: s-maj=30.0km s-min=24.4km az=45.0*
*BJI **29** 13:45:38.1,12°.32S×77°.61W,h66km,mB5.2/4,Ms5.4/3, Ms7 5.2/2*
*NEIC **29** 13:45:41.0±0.0,12°.63S×76°.82W,h71km,mb4.4/8,After ARE.*
*NEIC Felt [III] at Calango, Chilca, Chosica and Mala; [II] at Lima and San Vicente de Canete. Also felt at Barranca and Santa Maria.*

**ISC 29 13:45:39.0±0.6,12°.74S±0°.08×76°.71W±0°.10,h65km,n47, σ2s22/52,mb4.5/18,Near coast of Peru**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **NNA** | **Nana** | **0.76** | **350** | P | **Pn** | **13 45 56.1** | **+1.8** |
| NNA | | | | S | **Sn** | **13 46 06.2** | **+0.6** |
| | 2µm,0.3s,baz=96,slow=21,SNR=61 | | | | | | |
| **NNA** | **Nana** | **0.76** | **350** | *e*Pn | **Pn** | **13 45 56.2** | **+1.8** |
| NNA | | | | eSn | **Sn** | **13 46 05.1** | **-0.5** |
| **ATAH** | **Atahualpa** | **5.81** | **343** | P | **Pn** | **13 47 04.6** | **+1.6** |
| | 9.3nm,0.3s,baz=161,slow=3.7,SNR=19 | | | | | | |
| ATAH | | | | S | **Sn** | **13 48 05.8** | **-2.7** |
| | 4.1nm,0.3s,baz=53,slow=21,SNR=3.0 | | | | | | |
| ATAH | | | | LR | LR | 13 49 57.2 | |
| | comp=Z,97nm,19.7s,baz=174,slow=44 | | | | | | |
| **LPAZ** | **La Paz** | **9.02** | **114** | P | **Pn** | **13 47 50.3** | **+3.2** |
| | 0.3nm,0.3s,baz=320,slow=14,SNR=12 | | | | | | |
| LPAZ | | | | LR | LR | 13 51 47.2 | |
| | comp=Z,32nm,18.2s,baz=306,slow=41 | | | | | | |
| **LPAZ** | **La Paz** | **9.02** | **114** | *e*Pn | **Pn** | **13 47 51.6** | **+4.4** |
| LPAZ | | | | eSn | **Sn** | **13 49 25.1** | **-2.5** |
| **MNMC** | **Minye Minye** | **9.33** | **134** | *e*Pn | **Pn** | **13 47 54.0** | **+2.9** |
| **PB11** | **IPOC Station P** | **9.72** | **137** | *e*Pn | **Pn** | **13 47 59.3** | **+3.0** |
| **PB01** | **IPOC Station P** | **10.76** | **141** | *e*Pn | **Pn** | **13 48 10.4** | **-0.1** |
| **OTAV** | **Otavalo** | **13.01** | **352** | *e*Pn | **Pn** | **13 48 42.5** | **+1.0** |
| **SAML** | **Samuel** | **13.80** | **76** | *e*Pn | **Pn** | **13 48 50.1** | **-1.6** |
| **HELC** | **Santa Helena** | **18.84** | **4** | *e*P | **P** | **13 49 54.3** | **+0.1** |
| | 13nm,0.6s | | | | | | |
| **RUSC** | **La Rusia** | **18.86** | **11** | *e*P | **P** | **13 49 54.4** | **-0.2** |
| | 17nm,1.1s | | | | | | |
| **PTGA** | **Pitinga** | **20.44** | **56** | P | **P** | **13 50 11.5** | **+0.3** |
| | 5.0nm,0.5s,baz=322,slow=23,SNR=7.7 | | | | | | |
| **PTGA** | **Pitinga** | **20.44** | **56** | *e*P | **P** | **13 50 10.6** | **-0.6** |
| | 20nm,1.4s | | | | | | |
| **SDV** | **Santo Domingo** | **22.32** | **16** | P | **P** | **13 50 31.6** | **0.0** |
| | 7.6nm,0.5s,baz=180,slow=16,SNR=6.9 | | | | | | |
| **SDV** | **Santo Domingo** | **22.32** | **16** | *e*P | **P** | **13 50 30.8** | **-0.8** |
| | 10.0nm,0.7s | | | | | | |
| **HDC** | **Heredia** | **23.76** | **342** | *e*P | **P** | **13 50 48.0** | **+2.2** |
| | 55nm,0.4s | | | | | | |
| **TXAR** | **Lajitas Array** | **49.26** | **329** | P | **P** | **13 54 22.6** | **+1.1** |
| | 0.7nm,0.6s,baz=148,slow=9.0,SNR=11 | | | | | | |
| **ABTX** | **Abilene, Hawle** | **50.16** | **335** | *e*P | **P** | **13 54 28.7** | **+0.6** |
| | 11nm,0.8s | | | | | | |
| **X37A** | **Clayton** | **50.30** | **340** | *e*P | **P** | **13 54 27.9** | **-1.2** |
| | 12nm,0.6s | | | | | | |
| **W37B** | **Quinton** | **50.82** | **340** | *e*P | **P** | **13 54 32.7** | **-0.3** |
| | 68nm,2.0s | | | | | | |
| **V36A** | **Jenks** | **51.58** | **340** | *e*P | **P** | **13 54 37.5** | **-1.1** |
| | 12nm,0.6s | | | | | | |
| **OK020** | **N3440 Road, Me** | **51.67** | **339** | *e*P | **P** | **13 54 37.7** | **-1.7** |
| | 13nm,0.9s | | | | | | |
| **MCWV** | **Mont Chateau** | **52.21** | **357** | *e*P | **P** | **13 54 41.2** | **-2.1** |
| | 48nm,1.5s | | | | | | |
| **ANMO** | **Albuquerque** | **55.18** | **330** | *e*P | **P** | **13 55 02.8** | **-2.6** |
| | 5.2nm,1.4s | | | | | | |
| **SDCO** | **Great Sand Dun** | **57.03** | **333** | *e*P | **P** | **13 55 19.2** | **+0.6** |
| | 8.2nm,1.5s | | | | | | |
| **N16A** | **Rees Ranch, Co** | **62.28** | **331** | *e*P | **P** | **13 55 53.8** | **-0.8** |
| **PDAR** | **Pinedale Array** | **62.91** | **333** | P | **P** | **13 55 59.5** | **+0.7** |
| | 0.7nm,1.0s,baz=164,slow=7.0,SNR=3.1 | | | | | | |
| **NVAR** | **Mina Array Bea** | **64.06** | **325** | P | **P** | **13 56 08.0** | **+1.5** |
| | 0.7nm,0.7s,baz=136,slow=7.1,SNR=7.3 | | | | | | |
| **ULM** | **Lac du Bonnet** | **64.94** | **347** | P | **P** | **13 56 10.9** | **-0.6** |
| | 5.6nm,0.8s,baz=140,slow=5.1,SNR=8.7 | | | | | | |
| **YKA** | **Yellowknife Ar** | **80.59** | **343** | P | **P** | **13 57 44.5** | **+0.4** |
| | 0.6nm,0.9s,baz=134,slow=5.4,SNR=11 | | | | | | |

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TOA0** | **Torodi Ar. Sit** | **81.86** | **75** | *e*P | **P** | **13 57 51.3** | **-0.6** |
| **TORD** | **Torodi Ar. Bea** | **81.86** | **75** | P | **P** | **13 57 53.2** | **+1.3** |
| | 1.7nm,0.8s,baz=256,slow=5.1,SNR=9.6 | | | | | | |
| TORD | | | | LR | LR | 14 31 30.0 | |
| | comp=Z,26nm,20.1s,baz=335,slow=34 | | | | | | |
| **VNDA** | **Vanda** | **84.08** | **191** | P | **P** | **13 58 01.5** | **-0.7** |
| | 0.8nm,0.4s,baz=86,slow=18,SNR=9.3 | | | | | | |
| **ILAR** | **Eielson Array** | **93.22** | **336** | P | **P** | **13 58 46.2** | **+0.3** |
| | 0.4nm,0.8s,baz=169,slow=4.5,SNR=5.2 | | | | | | |
| ILAR | | | | LR | LR | 14 44 37.8 | |
| | comp=Z,36nm,18.4s,baz=144,slow=38 | | | | | | |
| **KDAK** | **Kodiak Island** | **93.30** | **329** | LR | LR | 14 38 30.3 | |
| | comp=Z,73nm,19.0s,baz=307,slow=34 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **118.91** | **284** | T | T | 16 13 49.5 | |
| | baz=99,slow=74,SNR=5.2 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **118.92** | **284** | T | T | 16 13 49.0 | |
| | SNR=8.1 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **118.93** | **284** | T | T | 16 13 38.8 | |
| | baz=109,slow=74,SNR=5.0 | | | | | | |
| **CN2** | **Changchun** | **143.65** | **333** | *e*PKP | PKPab | 14 05 05.0 | +1.6 |
| **KSH** | **Kashi** | **144.04** | **37** | *e*PKP | PKPbc | 14 05 07.3 | +1.5 |
| KSH | | | | PP | **PP** | **14 08 26.3** | **+4.6** |
| KSH | | | | PKS | **PKSdf** | **14 08 41.5** | **-2.0** |
| KSH | | | | SKS | **SKSdf** | **14 12 05.3** | **-6.6** |
| KSH | | | | SKKS | **SKKSac** | **14 15 04.0** | **-5.3** |
| KSH | | | | SS | **SS** | **14 27 00.0** | **-1.1** |
| KSH | | | | AMB | AMB | | |
| | comp=Z,98nm,4.4s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,46nm,4.1s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,71nm,4.9s | | | | | | |
| **SONM** | **Songino Array** | **144.92** | **356** | PKPbc | PKPbc | 14 05 09.9 | +1.6 |
| | 4.3nm,0.6s,baz=328,slow=2.2,SNR=42 | | | | | | |
| **WMQ** | **Urumqi** | **146.24** | **21** | PKPbc | **PKPdf** | **14 05 11.0** | **-0.3** |
| **HHC** | **Hu-ho-hao-te** | **151.07** | **347** | *e*PKPbc | **PKPdf** | **14 05 16.5** | **-2.8** |
| **NJ2** | **Nanjing** | **156.05** | **326** | *e*PKP | **PKPdf** | **14 05 26.8** | **+0.3** |
| **LZH** | **Lanzhou** | **156.75** | **359** | *e*PKP | **PKPdf** | **14 05 25.5** | **-2.0** |
| LZH | | | | LR | LR | | |
| | comp=N,120nm,15.9s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=E,120nm,17.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,170nm,19.4s | | | | | | |
| **GYA** | **Guiyang** | **165.99** | **347** | *e*PKP | **PKPdf** | **14 05 37.5** | **+0.1** |
| GYA | | | | PKPab | **PKPab** | **14 06 39.8** | **+2.3** |
| GYA | | | | PKS | **PKSdf** | **14 09 08.3** | **-2.1** |
| GYA | | | | PP | **PP** | **14 10 27.5** | **+4.0** |
| GYA | | | | AMB | AMB | | |
| | comp=Z,110nm,8.0s | | | | | | |

*ISCJB **29** 13:58:53.0±0.5,31°.96S±0°.03×179°.1W±0°.1,h200km, mb4.2/23,Error ellipse: s-maj=12.7km s-min=4.1km az=6.4*
*NEIC **29** 13:58:56.4±0.9,32°.22S×179°.10W,h220km±9km,mb4.6/5, Error ellipse: s-maj=18.0km s-min=9.7km az=117.0*
*IDC **29** 13:58:56.8±1.9,31°.31S×179°.28W,h200km±15km, mb3.9/16,mb1 4.1/17,mb1mx3.9/37,mbtmp4.4/17,Error ellipse: s-maj=23.9km s-min=13.1km az=170.0*

**ISC 29 13:58:55.2±0.6,31°.92S±0°.06×179°.2W±0°.1,h200km,n137, σ2s02/141,mb4.2/22,Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RAO** | **Raoul Island** | **2.88** | **23** | S | Sn | 14 00 02.2 | -19 |
| | 1µm,0.3s,baz=67,slow=23,SNR=18 | | | | | | |
| **RAO** | **Raoul Island** | **2.88** | **23** | *e*Pn | Pn | 13 59 49.5 | +6.0 |
| **MXZ** | **Matakaoa Point** | **5.99** | **199** | *e*Pn | **Pn** | **14 00 21.9** | **-0.3** |
| **MXZ** | **Matakaoa Point** | **5.99** | **199** | PN | **Pn** | **14 00 21.7** | **-0.5** |
| **WMGZ** | **Waiomatatini S** | **6.20** | **198** | PN | **Pn** | **14 00 24.8** | **-0.1** |
| WMGZ | | | | SN | **Sn** | **14 01 38.9** | **+2.8** |
| **HAZ** | **Te Kaha** | **6.33** | **202** | PN | **Pn** | **14 00 26.4** | **-0.1** |
| **PKGZ** | **Pakihiroa** | **6.36** | **200** | PN | **Pn** | **14 00 25.4** | **-1.6** |
| PKGZ | | | | SN | **Sn** | **14 01 41.0** | **+1.1** |
| **RUGZ** | **Raukumara Rang** | **6.55** | **202** | PN | **Pn** | **14 00 29.3** | **-0.3** |
| **TWGZ** | **Tauwhareparae** | **6.66** | **200** | PN | **Pn** | **14 00 29.4** | **-1.5** |
| **CNGZ** | **Carnagh Station** | **6.88** | **197** | PN | **Pn** | **14 00 32.6** | **-1.2** |
| **MWZ** | **Matawai** | **6.94** | **202** | PN | **Pn** | **14 00 32.7** | **-1.9** |
| **TKGZ** | **Te Karaka** | **6.94** | **200** | PN | **Pn** | **14 00 32.0** | **-2.4** |
| **URZ** | **Urewera** | **7.01** | **205** | P | **Pn** | **14 00 34.2** | **-1.2** |
| | 2.3nm,0.3s,baz=269,slow=4.6,SNR=44 | | | | | | |
| URZ | | | | S | **Sn** | **14 01 55.8** | **+0.8** |
| | 18nm,0.3s,baz=280,slow=23,SNR=13 | | | | | | |
| **URZ** | **Urewera** | **7.01** | **205** | *e*Pn | **Pn** | **14 00 33.7** | **-1.7** |
| URZ | | | | S | **Sn** | **14 01 55.8** | **+0.8** |
| **URZ** | **Urewera** | **7.01** | **205** | PN | **Pn** | **14 00 34.2** | **-1.2** |
| **RIGZ** | **Rimuhau** | **7.21** | **199** | PN | **Pn** | **14 00 35.7** | **-2.4** |
| **MUGZ** | **Murupara** | **7.32** | **206** | PN | **Pn** | **14 00 38.1** | **-1.5** |
| **PRGZ** | **Paritu Road** | **7.38** | **198** | PN | **Pn** | **14 00 38.2** | **-2.1** |
| **SNGZ** | **Shannon Statio** | **7.41** | **201** | PN | **Pn** | **14 00 40.0** | **-0.6** |
| **PRRZ** | **Plateau Road** | **7.49** | **208** | PN | Pn | 14 00 45.2 | +3.5 |
| **KNZ** | **Kokohu** | **7.53** | **199** | PN | **Pn** | **14 00 38.8** | **-3.3** |
| **ALRZ** | **Allen Road** | **7.56** | **208** | PN | **Pn** | **14 00 42.4** | **-0.2** |
| **MHGZ** | **Mahia Peninsul** | **7.59** | **197** | *e*PN | **Pn** | **14 00 40.9** | **-2.1** |
| **WHHZ** | **Waihua** | **7.71** | **201** | PN | **Pn** | **14 00 47.1** | **+2.5** |
| **NMHZ** | **Naumai** | **7.86** | **203** | PN | **Pn** | **14 00 44.3** | **-2.3** |
| **ARHZ** | **Aropaoanui** | **7.95** | **202** | PN | **Pn** | **14 00 44.8** | **-2.9** |
| **BKZ** | **Black Stump Fm** | **8.03** | **205** | *e*Pn | **Pn** | **14 00 46.4** | **-2.4** |
| **BKZ** | **Black Stump Fm** | **8.03** | **205** | PN | **Pn** | **14 00 45.7** | **-3.1** |
| **HIZ** | **Hauiti** | **8.18** | **215** | *e*Pn | **Pn** | **14 00 52.6** | **+1.9** |
| **HIZ** | **Hauiti** | **8.18** | **215** | PN | **Pn** | **14 00 51.9** | **+1.2** |
| **MCHZ** | **McNeill Hill** | **8.21** | **203** | PN | **Pn** | **14 00 49.6** | **-1.5** |
| **KWHZ** | **Kaweka Forest** | **8.29** | **204** | PN | **Pn** | **14 00 49.0** | **-3.2** |
| **CKHZ** | **Cape Kidnapper** | **8.29** | **200** | PN | **Pn** | **14 00 51.8** | **-0.3** |
| **OTVZ** | **Otuvera** | **8.35** | **209** | PN | **Pn** | **14 00 50.7** | **-2.3** |
| **BHHZ** | **Black Hill Sta** | **8.48** | **206** | PN | **Pn** | **14 00 54.0** | **-0.5** |
| **KAHZ** | **Kahuranaki** | **8.48** | **201** | PN | **Pn** | **14 00 52.0** | **-2.5** |
| **KRHZ** | **Kereru** | **8.50** | **204** | PN | **Pn** | **14 00 52.1** | **-2.8** |
| **WNVZ** | **Wahianoa** | **8.52** | **208** | PN | **Pn** | **14 00 55.4** | **+0.2** |
| **MOVZ** | **Moawhango** | **8.52** | **207** | PN | **Pn** | **14 00 57.1** | **+1.9** |
| **PXZ** | **Pawanui** | **8.70** | **200** | PN | **Pn** | **14 00 57.0** | **-0.4** |
| **PNHZ** | **Pukenui** | **8.80** | **204** | PN | **Pn** | **14 00 56.6** | **-2.2** |
| **WPHZ** | **Waipukurau** | **8.86** | **202** | PN | **Pn** | **14 01 00.9** | **+1.4** |
| **PRHZ** | **Porangahau** | **8.98** | **201** | PN | **Pn** | **14 01 02.8** | **+1.7** |
| **TSZ** | **Takapari Road** | **9.02** | **204** | PN | **Pn** | **14 01 02.1** | **+0.6** |
| **WAZ** | **Wanganui** | **9.13** | **209** | PN | **Pn** | **14 01 04.9** | **+1.9** |
| **DVHZ** | **Dannevirke** | **9.16** | **203** | PN | **Pn** | **14 01 02.9** | **-0.5** |
| **ANWZ** | **Angora Road** | **9.21** | **201** | PN | **Pn** | **14 01 04.6** | **+0.6** |
| **POWZ** | **Post Office Ro** | **9.38** | **204** | PN | **Pn** | **14 01 06.0** | **-0.3** |
| **OHWZ** | **Ohakea** | **9.38** | **207** | PN | **Pn** | **14 01 06.5** | **+0.3** |
| **PRWZ** | **Pori Road** | **9.46** | **203** | PN | **Pn** | **14 01 06.4** | **-0.8** |
| **BFZ** | **Birch Farm** | **9.48** | **202** | *e*Pn | **Pn** | **14 01 03.1** | **-4.5** |
| **BFZ** | **Birch Farm** | **9.48** | **202** | PN | Pn | 14 01 02.5 | -5.1 |
| **TIWZ** | **Tintock** | **9.68** | **203** | PN | **Pn** | **14 01 06.3** | **-3.9** |
| **MRZ** | **Mangatainoka R** | **9.68** | **204** | PN | **Pn** | **14 01 06.3** | **-3.9** |
| **CPWZ** | **Castlepoint** | **9.70** | **201** | PN | **Pn** | **14 01 10.3** | **-0.1** |
| **HOWZ** | **Holdsworth Sta** | **9.92** | **204** | PN | **Pn** | **14 01 12.8** | **-0.5** |
| **OGWZ** | **Otaki Gorge** | **9.97** | **205** | PN | **Pn** | **14 01 09.6** | **-4.3** |
| **TMWZ** | **Te Maipa** | **9.98** | **202** | PN | **Pn** | **14 01 11.8** | **-2.3** |
| **KIW** | **Kapiti Island** | **10.10** | **206** | PN | **Pn** | **14 01 14.4** | **-1.2** |
| **MTW** | **Mount Morrison** | **10.15** | **203** | PN | **Pn** | **14 01 14.5** | **-1.8** |
| **CAW** | **Cannon Point** | **10.26** | **205** | PN | **Pn** | **14 01 14.5** | **-3.2** |
| **TRWZ** | **Traveller** | **10.31** | **202** | PN | **Pn** | **14 01 16.9** | **-1.4** |
| **PAWZ** | **Paruwai Farm** | **10.38** | **203** | PN | **Pn** | **14 01 18.3** | **-0.9** |
| **DUWZ** | **D'Urville Isla** | **10.45** | **210** | PN | **Pn** | **14 01 19.0** | **-1.1** |
| **MSWZ** | **Moikau Station** | **10.47** | **204** | PN | **Pn** | **14 01 19.2** | **-1.1** |
| **WEL** | **Wellington** | **10.52** | **206** | PN | **Pn** | **14 01 17.9** | **-3.1** |
| **SNZO** | **South Karori** | **10.57** | **206** | *e*Pn | **Pn** | **14 01 17.5** | **-4.1** |
| **BHW** | **Baring Head** | **10.59** | **205** | PN | **Pn** | **14 01 20.1** | **-1.8** |
| **PLWZ** | **Palliser** | **10.60** | **205** | PN | **Pn** | **14 01 20.9** | **-1.2** |
| **TCW** | **Tory Channel** | **10.65** | **208** | PN | **Pn** | **14 01 20.9** | **-1.7** |
| **TUWZ** | **Tuamarina** | **10.97** | **208** | PN | **Pn** | **14 01 25.1** | **-1.6** |
| **NNZ** | **Nelson** | **11.02** | **211** | PN | **Pn** | **14 01 26.0** | **-1.5** |
| **BSWZ** | **Blackbirch Sta** | **11.23** | **208** | PN | **Pn** | **14 01 29.0** | **-1.2** |
| **THZ** | **Tophouse** | **11.68** | **211** | *e*Pn | **Pn** | **14 01 32.5** | **-3.4** |
| **THZ** | **Tophouse** | **11.68** | **211** | PN | **Pn** | **14 01 34.3** | **-1.6** |
| **KHZ** | **Kahutara** | **11.96** | **207** | *e*Pn | **Pn** | **14 01 37.4** | **-2.1** |
| **KHZ** | **Kahutara** | **11.96** | **207** | PN | **Pn** | **14 01 35.2** | **-4.2** |
| **LTZ** | **Lake Taylor** | **12.78** | **210** | *e*Pn | **Pn** | **14 01 46.8** | **-3.1** |
| **LTZ** | **Lake Taylor** | **12.78** | **210** | PN | **Pn** | **14 01 48.7** | **-1.1** |
| **INZ** | **Inchbonnie** | **13.09** | **212** | PN | **Pn** | **14 01 52.0** | **-1.7** |
| **OXZ** | **Oxford** | **13.32** | **209** | *e*Pn | **Pn** | **14 01 54.2** | **-2.4** |
| **OXZ** | **Oxford** | **13.32** | **209** | PN | **Pn** | **14 01 54.5** | **-2.1** |
| **MQZ** | **McQueen's Vall** | **13.40** | **206** | *e*Pn | **Pn** | **14 01 54.6** | **-2.9** |
| **MQZ** | **McQueen's Vall** | **13.40** | **206** | PN | **Pn** | **14 01 54.7** | **-2.8** |
| **RPZ** | **Rata Peaks** | **14.05** | **210** | P | **Pn** | **14 02 03.9** | **-1.8** |
| | 1.2nm,0.3s,baz=226,slow=2.5,SNR=11 | | | | | | |
| RPZ | | | | S | **S** | **14 04 35.2** | **-6.8** |
| | 1.1nm,0.3s,baz=130,slow=19,SNR=7.5 | | | | | | |
| **FOZ** | **Fox Glacier** | **14.47** | **214** | *e*Pn | **Pn** | **14 02 07.6** | **-3.1** |

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ODZ** | **Otahua Downs** | **15.31** | **208** | *e*P | **P** | **14 02 21.4** | **+0.1** |
| | 54nm,1.5s | | | | | | |
| **DZM** | **Mont Dzumac** | **16.11** | **304** | P | **P** | **14 02 28.7** | **-1.7** |
| | 0.1nm,0.3s,baz=117,slow=19,SNR=4.6 | | | | | | |
| **AFI** | **Afiamalu** | **19.18** | **22** | P | P | 14 02 56.2 | -7.6 |
| | 3.0nm,0.3s,baz=262,slow=4.1,SNR=9.3 | | | | | | |
| **CTA** | **Charters Tower** | **33.07** | **282** | P | **P** | **14 05 12.9** | **+0.7** |
| | 10nm,0.6s,baz=106,slow=10.0,SNR=22 | | | | | | |
| **CTAO** | **Charters Tower** | **33.07** | **282** | *e*P | **P** | **14 05 13.8** | **+1.7** |
| | 12nm,0.7s | | | | | | |
| **STKA** | **Stephens Creek** | **33.16** | **259** | P | **P** | **14 05 15.7** | **+2.9** |
| | 3.6nm,0.7s,baz=99,slow=13,SNR=7.9 | | | | | | |
| **AS01** | **Alice Springs** | **41.99** | **269** | *e*P | **P** | **14 06 26.5** | **-0.4** |
| **AS31** | **Alice Springs** | **42.03** | **269** | *e*P | **P** | **14 06 26.8** | **-0.5** |
| | 2.1nm,0.8s | | | | | | |
| **ASAR** | **Alice Springs** | **42.03** | **269** | P | **P** | **14 06 27.9** | **+0.7** |
| | 4.8nm,0.6s,baz=105,slow=7.4,SNR=58 | | | | | | |
| ASAR | | | | pP | **pP** | **14 07 11.9** | **+2.0** |
| | 1.7nm,0.7s,baz=101,slow=7.2,SNR=2.3 | | | | | | |
| ASAR | | | | PcP | **PcP** | **14 08 18.7** | **+0.3** |
| | 0.7nm,0.5s,baz=112,slow=4.2,SNR=4.5 | | | | | | |
| ASAR | | | | ScP | **ScP** | **14 11 50.9** | **+1.2** |
| | 0.5nm,0.7s,baz=116,slow=4.1,SNR=5.0 | | | | | | |
| **WB2** | **Warramunga Arr** | **43.15** | **274** | *e*P | **P** | **14 06 36.4** | **+0.2** |
| | 16nm,0.6s | | | | | | |
| **WRAB** | **Tennant Creek** | **43.15** | **274** | *e*P | **P** | **14 06 35.8** | **-0.4** |
| | 13nm,0.6s | | | | | | |
| **WRA** | **Warramunga Arr** | **43.16** | **274** | P | **P** | **14 06 36.5** | **+0.2** |
| | 12nm,0.5s,baz=112,slow=7.9,SNR=134 | | | | | | |
| WRA | | | | pP | **pP** | **14 07 20.8** | **+1.6** |
| | 4.3nm,0.7s,baz=114,slow=7.8,SNR=2.7 | | | | | | |
| WRA | | | | ScP | **ScP** | **14 11 55.9** | **+1.6** |
| | 1.9nm,1.0s,baz=105,slow=3.8,SNR=5.8 | | | | | | |
| WRA | | | | S | **S** | **14 12 47.2** | **-0.5** |
| | 2.1nm,1.0s,baz=115,slow=14,SNR=5.0 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **51.35** | **272** | P | **P** | **14 07 40.2** | **+0.7** |
| | 3.6nm,0.6s,baz=123,slow=5.8,SNR=7.8 | | | | | | |
| **VNA3** | **Neumayer Olymp** | **76.86** | **177** | P | **P** | **14 10 28.8** | **+4.3** |
| **VNA2** | **Neumayer--Watz** | **77.28** | **177** | P | P | 14 10 31.5 | +4.6 |
| | baz=160,slow=4.7 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **78.92** | **326** | P | **P** | **14 10 34.5** | **-1.8** |
| | 3.6nm,1.0s,baz=161,slow=7.7,SNR=4.7 | | | | | | |
| **PLCA** | **Paso Flores** | **82.22** | **133** | P | P | 14 10 59.6 | +5.5 |
| | 0.6nm,0.4s,baz=292,slow=7.0,SNR=3.2 | | | | | | |
| **ASAJ** | **Asahikawa** | **83.32** | **333** | P | **P** | **14 10 58.4** | **-0.9** |
| | 3.5nm,0.5s,baz=99,slow=5.3,SNR=5.7 | | | | | | |
| **KSRS** | **Korea Array** | **84.85** | **320** | P | **P** | **14 11 07.0** | **-0.1** |
| | 1.6nm,0.7s,baz=142,slow=6.3,SNR=4.6 | | | | | | |
| **KSAR** | **Wonju Array Be** | **84.86** | **320** | P | **P** | **14 11 07.0** | **-0.2** |
| **NJ2** | **Nanjing** | **86.46** | **311** | *e*P | **P** | **14 11 14.0** | **-1.2** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,19nm,0.5s | | | | | | |
| **PETK** | **Petropavlovsk-** | **87.03** | **346** | P | **P** | **14 11 16.3** | **-1.2** |
| | comp=Z,4.3nm,0.6s,baz=103,slow=7.3,SNR=10.0 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 0.1nm,0.3s,baz=213,slow=18,SNR=1.7 | | | | | | | |
| **WRA** | **Warramunga Arr** | **23.73** | **119** | P | **P** | **14 05 52.6** | **-0.8** | |
| | 0.2nm,0.4s,baz=300,slow=11,SNR=9.7 | | | | | | | |
| **ASAR** | **Alice Springs** | **25.10** | **128** | P | **P** | **14 06 05.4** | **-0.6** | |
| | 0.6nm,0.5s,baz=304,slow=9.1,SNR=18 | | | | | | | |
| **MKAR** | **Makanchi Array** | **61.81** | **337** | P | **P** | **14 10 57.5** | **-2.4** | |
| | 0.4nm,0.5s,baz=152,slow=7.6,SNR=11 | | | | | | | |

**KRSC 29 14:14:14.6±0.7, 55.61N×162.01E, h84km±1.4km, ML3.6, Near east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KBTR** | **Krutoberegovo** | **0.75** | **37** | *e*P | Pn | 14 14 32.5 | +1.5 |
| KBTR | | | | *e*S | Sn | 14 14 45.9 | +2.6 |
| **KBG** | **Krutoberegovo** | **0.75** | **31** | *e*P | Pn | 14 14 32.3 | +1.3 |
| KBG | | | | *e*S | Sn | 14 14 45.7 | +2.4 |
| **ZLN** | **Zelenaya** | **0.79** | **301** | *e*P | Pn | 14 14 32.8 | +1.2 |
| ZLN | | | | *e*S | Sn | 14 14 45.7 | +1.5 |
| **CIRR** | **Tsirk** | **0.87** | **306** | *e*P | Pn | 14 14 33.7 | +1.2 |
| CIRR | | | | *e*S | Sn | 14 14 47.1 | +1.3 |
| **BZMR** | **Bezymyannaya** | **0.92** | **291** | *e*P | Pn | 14 14 33.9 | +0.9 |
| BZMR | | | | *e*S | Sn | 14 14 48.5 | +1.7 |
| **BZWR** | **Bezymyannyi-We** | **0.92** | **293** | *e*P | Pn | 14 14 34.1 | +1.0 |
| BZWR | | | | *e*S | Sn | 14 14 48.5 | +1.6 |
| **KIRR** | **Kirishev** | **1.00** | **291** | *e*P | Pn | 14 14 35.2 | +1.2 |
| KIRR | | | | *e*S | Sn | 14 14 49.6 | +1.1 |
| **TUMD** | **Tumrok D** | **1.01** | **247** | *e*P | Pn | 14 14 34.5 | +0.6 |
| TUMD | | | | *e*S | Sn | 14 14 48.2 | -0.2 |
| **KRSR** | **Krestovskiy** | **1.01** | **307** | *e*P | Pn | 14 14 35.0 | +0.9 |
| KRSR | | | | *e*S | Sn | 14 14 49.2 | +0.6 |
| **KMNR** | **Kamenistaya** | **1.01** | **279** | *e*P | Pn | 14 14 35.0 | +0.9 |
| KMNR | | | | *e*S | Sn | 14 14 50.1 | +1.5 |
| **SMKR** | **Semkarok** | **1.02** | **343** | *e*P | Pn | 14 14 35.8 | +1.7 |
| SMKR | | | | *e*S | Sn | 14 14 51.8 | +3.1 |
| **KLY** | **Klyuchi** | **1.04** | **313** | *e*P | Pn | 14 14 34.4 | +0.2 |
| KLY | | | | *e*S | Sn | 14 14 48.4 | -0.5 |
| KLY | | | | *e*S | Sn | 14 14 48.4 | -0.5 |
| **BDR** | **Baidarnaya** | **1.06** | **335** | *e*P | Pn | 14 14 36.5 | +1.9 |
| BDR | | | | *e*S | Sn | 14 14 52.9 | +3.4 |
| **KPT** | **Kopyto** | **1.07** | **290** | *e*P | Pn | 14 14 35.5 | +0.8 |
| KPT | | | | *e*S | Sn | 14 14 51.4 | +1.6 |
| **KZV** | **Kizimen** | **1.10** | **244** | *e*P | Pn | 14 14 35.8 | +0.7 |
| **TUMR** | **Tumrok** | **1.11** | **253** | *e*P | Pn | 14 14 36.6 | +1.4 |
| TUMR | | | | *e*S | Sn | 14 14 52.2 | +1.4 |
| **SRKR** | **Sorokina** | **1.14** | **336** | *e*P | Pn | 14 14 37.0 | +1.4 |
| SRKR | | | | *e*S | Sn | 14 14 54.0 | +2.6 |
| **KOZ** | **Kozyrevsk** | **1.28** | **291** | *e*P | Pn | 14 14 38.5 | +1.2 |
| KOZ | | | | *e*S | Sn | 14 14 56.2 | +1.8 |
| **ESO** | **Esso** | **1.90** | **281** | *e*P | Pn | 14 14 46.1 | +1.0 |
| **KII** | **Karymskiy** | **2.17** | **224** | *e*P | Pn | 14 14 50.9 | +2.1 |
| **BKI** | **Bering** | **2.30** | **99** | *e*P | Pn | 14 14 52.5 | +2.1 |
| BKI | | | | *e*S | Sn | 14 15 18.7 | +0.8 |
| **SPN** | **Mys Shipunski** | **2.78** | **206** | *e*P | Pn | 14 14 58.0 | +1.1 |
| SPN | | | | *e*S | Sn | 14 15 29.4 | 0.0 |
| **NLC** | **Nalytchevo** | **2.90** | **214** | *e*P | Pn | 14 15 00.3 | +1.8 |
| NLC | | | | *e*S | Sn | 14 15 34.1 | +1.7 |
| **SDLR** | **Sedlovina** | **2.97** | **219** | *e*P | Pn | 14 15 02.0 | +2.4 |
| **KRX** | **Arik** | **2.99** | **222** | *e*P | Pn | 14 15 03.2 | +3.3 |
| **KRER** | **Koryakskii** | **3.00** | **221** | *e*P | Pn | 14 15 02.7 | +2.7 |
| **SMAR** | **Somma** | **3.01** | **220** | *e*P | Pn | 14 15 02.7 | +2.5 |
| **AVH** | **Avacha** | **3.03** | **220** | *e*P | Pn | 14 15 03.2 | +2.8 |
| AVH | | | | *e*S | Sn | 14 15 39.3 | +3.6 |
| **UGLR** | **Uglovaya** | **3.04** | **219** | *e*P | Pn | 14 15 03.2 | +2.6 |
| **GNL** | **Ganaly** | **3.05** | **233** | *e*P | Pn | 14 15 03.1 | +2.5 |
| **DALK** | **Dalny** | **3.21** | **218** | *e*P | Pn | 14 15 04.9 | +2.1 |
| DALK | | | | *e*S | Sn | 14 15 41.7 | +1.7 |
| **PET** | **Petropavlovsk** | **3.25** | **219** | *e*P | Pn | 14 15 05.8 | +2.5 |
| PET | | | | *e*S | Sn | 14 15 43.8 | +2.8 |
| **KRMR** | **Karymshinskiy** | **3.60** | **221** | *e*P | Pn | 14 15 11.2 | +3.2 |
| KRMR | | | | *e*S | Sn | 14 15 53.0 | +3.6 |
| **OSSR** | **Ossora** | **3.69** | **8** | *e*P | Pn | 14 15 11.2 | +2.0 |
| OSSR | | | | *e*S | Sn | 14 15 51.9 | +0.4 |
| **RUS** | **Russkaya** | **3.79** | **214** | *e*P | Pn | 14 15 12.5 | +1.9 |
| RUS | | | | *e*S | Sn | 14 15 56.1 | +2.0 |
| **MTVR** | **Mutnovka** | **3.86** | **217** | P | Pn | 14 15 15.3 | +3.6 |
| **APC** | **Apacha** | **3.92** | **229** | *e*P | Pn | 14 15 15.7 | +3.4 |
| **ASAK** | **Asacha** | **4.04** | **219** | *e*P | Pn | 14 15 18.5 | +4.4 |
| **KDTR** | **Khodutka, Kamc** | **4.47** | **213** | *e*S | Sn | 14 16 14.4 | +3.9 |

*CSEM 29 14:16:03.3±0.6, 38.63N×43.46E, h25km±4km, ML1.9, Error ellipse: s-maj=13.6km s-min=7.0km az=143.0*
*ISK 29 14:16:03.2, 38.69N×43.39E, h21km, ML1.9*
*ISCJB 29 14:16:04.0±1.4, 38.65N±0.06×43.4E±0.1, h26km±9km, Error ellipse: s-maj=14.6km s-min=9.3km az=29.1*
*DDA 29 14:16:04.7, 38.71N×43.34E, h7km, ML2.8*
**ISC 29 14:16:02.9±1.4, 38.61N±0.07×43.46E±0.07, h30km±8km, n14, σ0.50/24, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.06** | **251** | *e*PG | **Pb** | **14 16 08.8** | **+0.6** |
| VANB | | | | *e*SG | **Sb** | **14 16 11.8** | **0.0** |
| **VANB** | **Van** | **0.06** | **251** | *e*Pg | **Pb** | **14 16 08.8** | **+0.6** |
| VANB | | | | *e*Sg | **Sb** | **14 16 11.8** | **0.0** |
| **TVAN** | **Van** | **0.10** | **206** | *i* P | **Pb** | **14 16 08.3** | **-0.2** |
| TVAN | | | | *i* S | **Sb** | **14 16 12.5** | **+0.2** |
| **TVAN** | **Van** | **0.10** | **206** | P | **Pb** | **14 16 08.3** | **-0.2** |
| TVAN | | | | S | **Sb** | **14 16 12.5** | **+0.2** |
| **VMUR** | **Van-Muradiye** | **0.39** | **13** | *i* P | **Pb** | **14 16 11.8** | **+0.1** |
| VMUR | | | | *i* S | **Sb** | **14 16 16.9** | **-0.8** |
| **VMUR** | **Van-Muradiye** | **0.39** | **13** | P | **Pb** | **14 16 11.9** | **+0.1** |
| VMUR | | | | S | **Sb** | **14 16 16.9** | **-0.8** |
| **CLDR** | **Caldiran** | **0.64** | **34** | *e*PG | **Pn** | **14 16 15.6** | **-0.6** |
| CLDR | | | | *e*SG | **Sb** | **14 16 25.2** | **+0.6** |
| **CLDR** | **Caldiran** | **0.64** | **34** | *i* P | **Pb** | **14 16 16.5** | **+0.7** |
| **CLDR** | **Caldiran** | **0.64** | **34** | *e*Pg | **Pn** | **14 16 15.6** | **-0.6** |
| **CLDR** | **Caldiran** | **0.64** | **34** | P | **Pb** | **14 16 16.5** | **+0.7** |
| CLDR | | | | *e*Sg | **Sb** | **14 16 25.2** | **+0.6** |
| **TUTA** | **Tutak** | **0.93** | **328** | *i* P | **Pn** | **14 16 20.4** | **+0.1** |
| **TUTA** | **Tutak** | **0.93** | **328** | P | **Pn** | **14 16 20.4** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **1.03** | **339** | *e*PG | **Pb** | **14 16 22.5** | **+0.2** |
| AGRB | | | | *e*SG | **Sn** | **14 16 34.9** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **1.03** | **339** | *e*Pg | **Pb** | **14 16 22.5** | **+0.2** |
| AGRB | | | | *e*Sg | **Sn** | **14 16 34.9** | **-0.1** |

*ISK 29 14:28:08.8, 38.69N×35.69E, h9km, ML2.0*
*ISCJB 29 14:28:09.6±0.6, 38.71N±0.04×35.69E±0.07, h6km, Error ellipse: s-maj=8.3km s-min=4.5km az=19.8*
*CSEM 29 14:28:09.8±0.2, 38.72N×35.70E, h10km, ML2.0, Error ellipse: s-maj=6.7km s-min=5.4km az=107.0*
*DDA 29 14:28:09.5, 38.67N×35.75E, h7km, ML2.6*
**ISC 29 14:28:09.5±0.9, 38.69N±0.03×35.70E±0.04, h6km, n20, σ0.52/25, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **BNN** | **Bunyan** | **0.20** | **36** | PG | **Pg** | **14 28 13.6** | **+0.2** |
| BNN | | | | *e*SG | **Sg** | **14 28 17.0** | **+0.9** |
| **BNN** | **Bunyan** | **0.20** | **36** | *i* Pg | **Pg** | **14 28 13.6** | **+0.2** |
| BNN | | | | *e*Sg | **Sg** | **14 28 17.0** | **+0.9** |
| **SARI** | **SarD1z-Kayseri** | **0.63** | **117** | *e*PG | **Pg** | **14 28 21.5** | **-0.2** |
| **AVNS** | **Nevsehir-Avano** | **0.67** | **280** | *i* P | **Pb** | **14 28 23.5** | **-0.2** |
| **AVNS** | **Nevsehir-Avano** | **0.67** | **280** | P | **Pb** | **14 28 23.5** | **-0.2** |
| **CUSAR** | **Sarkisla-SIVAS** | **0.84** | **30** | *i* P | **Pg** | **14 28 25.1** | **-0.5** |
| CUSAR | | | | *i* S | **Sb** | **14 28 38.5** | **+0.3** |
| **CUSAR** | **Sarkisla-SIVAS** | **0.84** | **30** | P | **Pg** | **14 28 25.1** | **-0.5** |
| CUSAR | | | | S | **Sb** | **14 28 38.5** | **+0.3** |
| **YOZ** | **Yozgat** | **0.99** | **343** | *e*PG | **Pg** | **14 28 28.2** | **-0.3** |
| **YOZ** | **Yozgat** | **0.99** | **343** | *e*Pg | **Pg** | **14 28 28.2** | **-0.3** |
| **KOZT** | **Kozan** | **1.22** | **175** | *e*PN | **Pg** | **14 28 32.4** | **-0.4** |
| **KOZT** | **Kozan** | **1.22** | **175** | *e*Pn | **Pg** | **14 28 32.4** | **-0.4** |
| **ANDN** | **Andirin** | **1.22** | **155** | *i* P | **Pn** | **14 28 34.0** | **+0.7** |
| **ANDN** | **Andirin** | **1.22** | **155** | P | **Pn** | **14 28 34.0** | **+0.7** |
| **AKO** | **Adana** | **1.25** | **189** | *i* P | **Pg** | **14 28 32.6** | **-0.8** |
| AKO | | | | *i* S | **Sn** | **14 28 50.9** | **+0.3** |
| **DARE** | **Darende-Malaty** | **1.41** | **94** | *e*PN | **Pn** | **14 28 35.4** | **-0.3** |
| **DARE** | **Darende-Malaty** | **1.41** | **94** | *e*Pn | **Pn** | **14 28 35.4** | **-0.3** |
| **CUKAN** | **kangal_SIVAS** | **1.51** | **65** | *i* P | **Pb** | **14 28 37.5** | **-0.5** |
| **CUKAN** | **kangal_SIVAS** | **1.51** | **65** | P | **Pb** | **14 28 37.5** | **-0.5** |
| **SVSK** | **Karacayir** | **1.58** | **39** | *e*PN | **Pn** | **14 28 37.6** | **-0.5** |
| **SVSK** | **Karacayir** | **1.58** | **39** | *e*Pn | **Pn** | **14 28 37.6** | **-0.5** |

*ISK 29 14:30:15.1, 38.75N×43.41E, h21km, ML2.0*
*ISCJB 29 14:30:16.7±1.2, 38.72N±0.05×43.56E±0.08, h21km±10km,*
*Error ellipse: s-maj=11.8km s-min=6.4km az=39.1*
*CSEM 29 14:30:16.7±0.4, 38.77N×43.48E, h10km, ML2.0, Error ellipse: s-maj=10.9km s-min=7.5km az=107.0*
*DDA 29 14:30:16.4, 38.70N×43.57E, h7km, ML2.6*
**ISC 29 14:30:16.7±1.2, 38.76N±0.03×43.47E±0.05, h14km±10km, n16, σ0.64/26, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.18** | **201** | *e*PG | **Pg** | **14 30 20.7** | **-0.3** |
| VANB | | | | *e*SG | **Sb** | **14 30 26.2** | **+0.9** |
| **VANB** | **Van** | **0.18** | **201** | *e*Pg | **Pg** | **14 30 20.7** | **-0.3** |
| VANB | | | | *e*Sg | **Sb** | **14 30 26.2** | **+0.9** |
| **TVAN** | **Van** | **0.24** | **192** | *i* P | **Pg** | **14 30 21.5** | **-0.6** |
| **TVAN** | **Van** | **0.24** | **192** | P | **Pg** | **14 30 21.5** | **-0.6** |
| **VMUR** | **Van-Muradiye** | **0.24** | **19** | *i* P | **Pg** | **14 30 22.4** | **+0.3** |
| VMUR | | | | *i* S | **Sb** | **14 30 27.7** | **+0.5** |
| **VMUR** | **Van-Muradiye** | **0.24** | **19** | P | **Pg** | **14 30 22.4** | **+0.3** |
| VMUR | | | | S | **Sb** | **14 30 27.7** | **+0.5** |
| **CLDR** | **Caldiran** | **0.52** | **42** | *e*PG | **Pg** | **14 30 26.6** | **-0.4** |
| CLDR | | | | *e*SG | **Sb** | **14 30 35.4** | **+0.2** |
| **CLDR** | **Caldiran** | **0.52** | **42** | *e*Pg | **Pg** | **14 30 26.6** | **-0.4** |
| CLDR | | | | *e*Sg | **Sb** | **14 30 35.4** | **+0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.58** | **275** | *i* P | **Pb** | **14 30 29.1** | **+0.2** |
| ADCV | | | | *i* S | **Sn** | **14 30 39.8** | **-0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.58** | **275** | P | **Pb** | **14 30 29.1** | **+0.2** |
| ADCV | | | | S | **Sn** | **14 30 39.8** | **-0.5** |
| **TUTA** | **Tutak** | **0.82** | **322** | *i* P | **Pg** | **14 30 32.6** | **-0.1** |
| **TUTA** | **Tutak** | **0.82** | **322** | P | **Pg** | **14 30 32.6** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **0.89** | **336** | *e*PG | **Pg** | **14 30 32.6** | **-1.5** |
| AGRB | | | | *e*SG | **Sb** | **14 30 46.1** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **0.89** | **336** | *e*Pg | **Pg** | **14 30 32.6** | **-1.5** |
| AGRB | | | | *e*Sg | **Sb** | **14 30 46.1** | **+0.1** |
| **EATA** | **Eleskirt** | **1.33** | **326** | *i* P | **Pg** | **14 30 43.0** | **+0.5** |
| **EATA** | **Eleskirt** | **1.33** | **326** | P | **Pg** | **14 30 43.0** | **+0.5** |

*CSEM 29 14:48:36.3, 39.99N×20.50E, h19km±2km, ML1.5/6*
**ATH 29 14:48:36.3, 39.99N×20.50E, h19km±2km, ML1.5/6, Error ellipse: s-maj=2.5km s-min=1.0km az=2.0, Greece-Albania border region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JAN** | **Janina** | **0.43** | **141** | P | Pg | 14 48 43.6 | -1.6 |
| JAN | | | | S | Sg | 14 48 50.4 | -0.8 |
| JAN | | | | AML | AML | 14 48 51.6 | |
| | comp=N,343μm,0.2s | | | | | | |
| JAN | | | | AML | AML | 14 48 52.4 | |
| | comp=E,287μm,0.2s | | | | | | |
| **JAN** | **Janina** | **0.43** | **141** | P | Pg | 14 48 43.5 | -1.7 |
| JAN | | | | S | Sg | 14 48 50.2 | -0.9 |
| JAN | | | | AML | AML | 14 48 51.7 | |
| | comp=N,343μm,0.2s | | | | | | |
| JAN | | | | AML | AML | 14 48 52.4 | |
| | comp=E,287μm,0.2s | | | | | | |
| **JAN** | **Janina** | **0.43** | **141** | P | Pg | 14 48 43.5 | -1.7 |
| JAN | | | | S | Sg | 14 48 50.2 | -0.9 |
| **SGD** | **Sagiada** | **0.43** | **209** | P | Pg | 14 48 44.9 | -0.3 |
| **SGD** | **Sagiada** | **0.43** | **209** | P | Pg | 14 48 44.7 | -0.6 |
| **SGD** | **Sagiada** | **0.43** | **209** | P | Pg | 14 48 44.7 | -0.5 |
| **PENT** | **Pentalofos** | **0.53** | **67** | P | Pg | 14 48 45.9 | -1.1 |
| PENT | | | | S | Sb | 14 48 54.5 | +0.2 |
| **PENT** | **Pentalofos** | **0.53** | **67** | P | Pg | 14 48 45.9 | -1.1 |
| PENT | | | | S | Sb | 14 48 54.5 | +0.2 |
| **NEST** | **Nestorio** | **0.59** | **45** | P | Pg | 14 48 48.3 | +0.1 |
| **NEST** | **Nestorio** | **0.59** | **45** | P | Pg | 14 48 48.5 | +0.3 |
| NEST | | | | S | Sg | 14 48 56.8 | +0.6 |
| NEST | | | | AML | AML | 14 49 01.9 | |
| | comp=N,41μm,0.3s | | | | | | |
| NEST | | | | AML | AML | 14 49 03.7 | |
| | comp=E,39μm,0.3s | | | | | | |
| **NEST** | **Nestorio** | **0.59** | **45** | P | Pg | 14 48 48.5 | +0.3 |
| NEST | | | | S | Sg | 14 48 56.8 | +0.6 |
| **KEK** | **Kerkira** | **0.61** | **243** | P | Pb | 14 48 48.1 | -0.2 |
| KEK | | | | S | Sn | 14 48 58.2 | -1.1 |
| KEK | | | | AML | AML | 14 49 02.4 | |
| | comp=E,76μm,0.6s | | | | | | |
| KEK | | | | AML | AML | 14 49 06.7 | |
| | comp=N,70μm,0.7s | | | | | | |
| **KEK** | **Kerkira** | **0.61** | **243** | P | Pb | 14 48 48.2 | -0.1 |
| KEK | | | | S | Sn | 14 48 58.5 | -0.9 |
| KEK | | | | AML | AML | 14 49 02.4 | |
| | comp=E,76μm,0.6s | | | | | | |
| KEK | | | | AML | AML | 14 49 06.7 | |
| | comp=N,70μm,0.7s | | | | | | |
| **KEK** | **Kerkira** | **0.61** | **243** | P | Pb | 14 48 48.2 | -0.2 |
| KEK | | | | S | Sn | 14 48 58.5 | -0.9 |
| **KPRO** | **Kipourio** | **0.66** | **93** | P | Pb | 14 48 48.1 | -1.2 |
| KPRO | | | | S | Sg | 14 48 58.2 | 0.0 |
| KPRO | | | | AML | AML | 14 48 59.2 | |
| | comp=E,147μm,0.4s | | | | | | |
| KPRO | | | | AML | AML | 14 48 59.8 | |
| | comp=N,63μm,0.5s | | | | | | |
| **KPRO** | **Kipourio** | **0.66** | **93** | P | Pb | 14 48 48.1 | -1.2 |
| KPRO | | | | S | Sg | 14 48 58.2 | -0.1 |
| **DSL** | **Palaion Diasel** | **0.97** | **152** | P | Pb | 14 48 53.1 | -1.6 |
| **DSL** | **Palaion Diasel** | **0.97** | **152** | P | Pg | 14 48 55.4 | +0.2 |
| DSL | | | | S | Sn | 14 49 09.0 | +0.6 |
| DSL | | | | AML | AML | 14 49 11.8 | |
| | comp=E,102μm,0.5s | | | | | | |
| DSL | | | | AML | AML | 14 49 12.7 | |
| | comp=N,88μm,0.4s | | | | | | |
| **DSL** | **Palaion Diasel** | **0.97** | **152** | P | Pg | 14 48 55.4 | +0.1 |
| DSL | | | | S | Sn | 14 49 09.0 | +0.6 |
| **FNA** | **Florina** | **1.03** | **40** | P | Pg | 14 48 56.5 | 0.0 |
| **FNA** | **Florina** | **1.03** | **40** | P | Pg | 14 48 56.4 | 0.0 |
| FNA | | | | S | Sg | 14 49 12.2 | +2.2 |
| **FNA** | **Florina** | **1.03** | **40** | P | Pg | 14 48 56.4 | 0.0 |
| FNA | | | | S | Sg | 14 49 12.2 | +2.2 |
| **LKD2** | **Lefkada island** | **1.21** | **174** | P | Pb | 14 48 58.9 | +0.2 |
| **LKD2** | **Lefkada island** | **1.21** | **174** | P | Pb | 14 48 58.7 | 0.0 |
| LKD2 | | | | S | Sg | 14 49 17.6 | +2.0 |
| LKD2 | | | | AML | AML | 14 49 19.9 | |
| | comp=N,41μm,0.3s | | | | | | |
| LKD2 | | | | AML | AML | 14 49 22.7 | |
| | comp=E,41μm,0.3s | | | | | | |
| **LKD2** | **Lefkada island** | **1.21** | **174** | P | Pb | 14 48 58.7 | 0.0 |
| LKD2 | | | | S | Sg | 14 49 17.6 | +2.0 |
| **THL** | **Klokotos Trika** | **1.24** | **110** | P | Pg | 14 49 00.6 | +0.3 |
| THL | | | | S | Sg | 14 49 18.4 | +1.9 |
| **THL** | **Klokotos Trika** | **1.24** | **110** | P | Pg | 14 49 00.6 | +0.3 |
| THL | | | | S | Sg | 14 49 18.4 | +1.9 |
| **PDO** | **Prodromos** | **1.49** | **159** | P | Pb | 14 49 03.6 | +0.2 |
| PDO | | | | S | Sg | 14 49 26.2 | +1.8 |
| **PDO** | **Prodromos** | **1.49** | **159** | P | Pb | 14 49 03.6 | +0.2 |
| PDO | | | | S | Sg | 14 49 26.2 | +1.7 |
| **LIT** | **Litokhoron** | **1.53** | **85** | P | Pb | 14 49 04.2 | +0.2 |
| **LIT** | **Litokhoron** | **1.53** | **85** | P | Pb | 14 49 04.2 | +0.1 |

**IDC 29 14:50:47.5±54.0, 16.85S×178.25W, h0km, mb4.2/3, mb1 4.3/3, mb1mx3.7/33, mbtmp4.2/3, Error ellipse: s-maj=992.0km s-min=150.5km az=78.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **STKA** | **Stephens Creek** | **39.28** | **240** | P | P | 14 58 18.5 | +0.3 |
| | 1.6nm,0.6s,baz=93,slow=9.8,SNR=7.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.98** | **258** | P | P | 14 59 04.7 | -0.3 |
| | 0.6nm,0.4s,baz=94,slow=7.5,SNR=24 | | | | | | |
| **ASAR** | **Alice Springs** | **45.23** | **253** | P | P | 14 59 06.7 | -0.3 |
| | 4.3nm,0.4s,baz=88,slow=8.6,SNR=128 | | | | | | |

**MEX 29 15:05:20.6±0.8, 16.82N×94.28W, h144km±17km, MD3.9, Oaxaca**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CMIG** | **Matias Romero** | **0.63** | **295** | *e*S | Sn | 15 05 55.8 | -2.4 |
| **TGIG** | | **1.11** | **92** | *e*P | Pn | 15 05 44.7 | -1.1 |
| TGIG | | | | *e*S | Sn | 15 06 03.0 | -2.1 |
| **HUIG** | **Huatulco** | **2.04** | **239** | *e*P | Pn | 15 05 54.5 | -1.4 |
| HUIG | | | | *i* S | Sn | 15 06 22.0 | -0.9 |
| **VHO** | **Vista Hermosa** | **2.36** | **276** | *e*P | Pn | 15 05 59.4 | -0.5 |
| VHO | | | | *e*S | Sn | 15 06 28.6 | -1.4 |
| **TPIG** | **Tehuac#an** | **3.34** | **299** | *e*P | Pn | 15 06 06.5 | -5.7 |
| TPIG | | | | *i* S | Sn | 15 06 49.8 | -2.4 |
| **PNIG** | **Pinotepa** | **3.71** | **264** | *e*P | Pn | 15 06 14.9 | -2.1 |
| PNIG | | | | *e*S | Sn | 15 07 00.3 | -0.3 |

*AZER 29 15:11:39.6±0.6, 38.89N×43.11E, h15km±7km, Error ellipse: s-maj=8.2km s-min=7.1km az=116.0*
*ISK 29 15:11:41.3, 38.95N×43.63E, h5km, ML3.8*
*DDA 29 15:11:42.1, 38.97N×43.63E, h6km, ML3.2*
*CSEM 29 15:11:43.4±0.1, 38.97N×43.60E, h5km, ML3.2, Error ellipse: s-maj=4.2km s-min=3.3km az=145.0*
**ISC 29 15:11:42.3±0.9, 38.97N±0.02×43.62E±0.01, h2km±7km, n99, σ1.83/144, 15C-11D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VMUR** | **Van-Muradiye** | **0.04** | **299** | *i* P | **Pg** | **15 11 42.9** | **-0.4** |
| VMUR | | | | *i* S | **Sg** | **15 11 45.8** | **+1.7** |
| **VMUR** | **Van-Muradiye** | **0.04** | **299** | P | **Pg** | **15 11 42.9** | **-0.4** |
| VMUR | | | | S | **Sg** | **15 11 45.8** | **+1.7** |
| **ERCV** | **ERCIS-VAN** | **0.23** | **283** | *e*PG | **Pg** | **15 11 46.2** | **-0.4** |
| ERCV | | | | *e*SG | **Sg** | **15 11 50.9** | **+1.3** |
| **ERCV** | **ERCIS-VAN** | **0.23** | **283** | *e*Pg | **Pg** | **15 11 46.2** | **-0.4** |
| ERCV | | | | *e*Sg | **Sg** | **15 11 50.9** | **+1.3** |
| **CLDR** | **Caldiran** | **0.29** | **53** | *e*PG | **Pg** | **15 11 47.9** | **0.0** |
| CLDR | | | | *e*SG | **Sb** | **15 11 53.4** | **-2.3** |
| **CLDR** | **Caldiran** | **0.29** | **53** | *i* P | **Pg** | **15 11 47.8** | **0.0** |
| CLDR | | | | *i* S | **Sb** | **15 11 55.1** | **-0.5** |
| **CLDR** | **Caldiran** | **0.29** | **53** | *e*Pg | **Pg** | **15 11 47.9** | **0.0** |
| CLDR | | | | *e*Sg | **Sb** | **15 11 53.4** | **-2.3** |
| CLDR | | | | S | **Sb** | **15 11 55.2** | **-0.5** |
| **VANB** | **Van** | **0.41** | **206** | *e*PG | **Pb** | **15 11 51.4** | **-1.0** |
| VANB | | | | *e*SG | **Sb** | **15 11 59.0** | **-0.1** |
| **VANB** | **Van** | **0.41** | **206** | *e*Pg | **Pb** | **15 11 51.4** | **-1.0** |
| VANB | | | | *e*Sg | **Sb** | **15 11 59.0** | **-0.1** |
| **TVAN** | **Van** | **0.47** | **201** | *i* P | **Pb** | **15 11 52.2** | **-1.1** |
| TVAN | | | | *i* S | **Sb** | **15 12 00.2** | **-0.6** |
| **TVAN** | **Van** | **0.47** | **201** | P | **Pb** | **15 11 52.2** | **-1.1** |
| TVAN | | | | S | **Sb** | **15 12 00.2** | **-0.6** |
| **DYDN** | **Diyadin** | **0.58** | **5** | *i* P | **Pg** | **15 11 53.3** | **0.0** |
| DYDN | | | | *i* S | **Sb** | **15 12 03.3** | **-0.6** |
| **DYDN** | **Diyadin** | **0.58** | **5** | P | **Pg** | **15 11 53.3** | **0.0** |
| DYDN | | | | S | **Sb** | **15 12 03.3** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.72** | **257** | *i* P | **Pb** | **15 11 55.9** | **-1.6** |
| ADCV | | | | *i* S | **Sb** | **15 12 08.3** | **+0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.72** | **257** | P | **Pb** | **15 11 55.9** | **-1.6** |
| ADCV | | | | S | **Sb** | **15 12 08.3** | **+0.4** |
| **TUTA** | **Tutak** | **0.76** | **305** | *i* P | **Pg** | **15 11 56.4** | **-0.5** |
| TUTA | | | | *i* S | **Sb** | **15 12 09.4** | **+0.1** |
| **TUTA** | **Tutak** | **0.76** | **305** | P | **Pg** | **15 11 56.4** | **-0.5** |
| TUTA | | | | S | **Sb** | **15 12 09.4** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **0.78** | **321** | *e*PG | **Pb** | **15 11 57.4** | **-1.2** |
| AGRB | | | | *e*SG | **Sb** | **15 12 09.5** | **-0.2** |
| **AGRB** | **Hanur-Agry** | **0.78** | **321** | *e*Pg | **Pb** | **15 11 57.4** | **-1.2** |
| AGRB | | | | *e*Sg | **Sb** | **15 12 09.5** | **-0.2** |
| **GEVA** | **Gevas** | **0.79** | **214** | *i* P | **Pg** | **15 11 56.7** | **-0.7** |
| **GEVA** | **Gevas** | **0.79** | **214** | P | **Pg** | **15 11 56.7** | **-0.7** |
| **TASB** | **TASBURUN-IGDIR** | **1.12** | **25** | *e*PN | **Pn** | **15 12 04.3** | **-0.7** |
| **TASB** | **TASBURUN-IGDIR** | **1.12** | **25** | *e*Pn | **Pn** | **15 12 04.3** | **-0.7** |
| **HYR** | **Heyderabad** | **1.21** | **51** | ⇓P | **Pn** | **15 12 06.6** | **+0.3** |
| | SNR=52 | | | | | | |
| HYR | | | | ⇓S | **Sn** | **15 12 27.7** | **+4.4** |
| **HYR** | **Heyderabad** | **1.21** | **51** | P | **Pn** | **15 12 06.6** | **+0.3** |
| | SNR=52 | | | | | | |
| **EKAR** | **Karacoban** | **1.24** | **284** | *i* P | **Pn** | **15 12 06.5** | **-0.4** |
| **EKAR** | **Karacoban** | **1.24** | **284** | P | **Pn** | **15 12 06.5** | **-0.4** |
| **EATA** | **Eleskirt** | **1.25** | **316** | *i* P | **Pn** | **15 12 06.3** | **-1.0** |
| **EATA** | **Eleskirt** | **1.25** | **316** | P | **Pn** | **15 12 06.3** | **-1.0** |
| **HAKT** | **HAKKARI** | **1.41** | **177** | *i* P | **Pg** | **15 12 08.5** | **-0.8** |
| **HAKT** | **HAKKARI** | **1.41** | **177** | P | **Pg** | **15 12 08.5** | **-0.8** |
| **DIGO** | **Kars** | **1.46** | **353** | *i* P | **Pg** | **15 12 10.4** | **+0.2** |
| **DIGO** | **Kars** | **1.46** | **353** | P | **Pg** | **15 12 10.4** | **+0.2** |
| **NAX** | **Nakhchivan** | **1.47** | **81** | ⇓P | **Pg** | **15 12 11.6** | **+1.1** |
| | SNR=9.3 | | | | | | |
| NAX | | | | ⇑S | **Sg** | **15 12 35.1** | **+5.5** |
| **NAX** | **Nakhchivan** | **1.47** | **81** | P | **Pg** | **15 12 11.6** | **+1.1** |
| | SNR=9.3 | | | | | | |
| **YOVA** | **Hakkari_Y`...kse** | **1.48** | **159** | *i* P | **Pg** | **15 12 10.6** | **+0.1** |
| **YOVA** | **Hakkari_Y`...kse** | **1.48** | **159** | P | **Pg** | **15 12 10.6** | **+0.1** |
| **SBZ** | **Shahbuz** | **1.56** | **73** | P | **Pg** | **15 12 12.4** | **+0.2** |
| | SNR=93 | | | | | | |
| SBZ | | | | ⇑S | **Sg** | **15 12 37.8** | **+5.4** |
| **SBZ** | **Shahbuz** | **1.56** | **73** | P | **Pg** | **15 12 12.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SEKA | | | | ⇓S | | **Sb** | **15 13 27.1** | **-2.0** |
| **SEKA** | **Sheki** | **3.54** | **50** | P | | **Pn** | **15 12 40.2** | **+1.9** |
| | SNR=4.4 | | | | | | | | |
| SEKA | | | | S | | **Sb** | **15 13 27.1** | **-2.0** |
| **LRK** | **Lerik** | **3.70** | **94** | ⇑P | | **Pn** | **15 12 41.6** | **+1.0** |
| | SNR=5.0 | | | | | | | | |
| LRK | | | | ⇓S | | **Sb** | **15 13 29.7** | **-4.1** |
| **LRK** | **Lerik** | **3.70** | **94** | P | | **Pn** | **15 12 41.6** | **+1.0** |
| | SNR=5.0 | | | | | | | | |
| LRK | | | | S | | **Sb** | **15 13 29.7** | **-4.1** |
| **GLBA** | **Clilabad** | **3.72** | **84** | ⇓P | | **Pn** | **15 12 42.1** | **+1.4** |
| GLBA | | | | ⇑S | | **Sb** | **15 13 30.6** | **-3.6** |
| **GLBA** | **Clilabad** | **3.72** | **84** | P | | **Pn** | **15 12 42.1** | **+1.4** |
| GLBA | | | | S | | **Sb** | **15 13 30.6** | **-3.6** |
| **QBL** | **Gabala** | **3.79** | **57** | ⇑P | | **Pn** | **15 12 43.0** | **+1.3** |
| | SNR=5.6 | | | | | | | | |
| QBL | | | | ⇓S | | **Sb** | **15 13 32.1** | **-4.3** |
| **QBL** | **Gabala** | **3.79** | **57** | P | | **Pn** | **15 12 43.0** | **+1.3** |
| | SNR=5.6 | | | | | | | | |
| QBL | | | | S | | **Sb** | **15 13 32.1** | **-4.3** |

*ATH* ***29*** *15:19:35.4,38°.34N×22°.03E,h14km±1km,ML4.0/13,Error ellipse: s-maj=1.0km s-min=0.6km az=351.0*

*ISCJB* ***29*** *15:19:35.6±0.2,38°.34N±0°.01×22°.04E±0°.01,h12km±1km, mb4.5/44,MS3.6/4,Error ellipse: s-maj=2.0km s-min=1.5km az=139.6*

*NEIC* ***29*** *15:19:35.8±0.0,38°.34N×22°.02E,h9km,mb4.7/28, ML4.0(THE),After THE.*

*THE* ***29*** *15:19:35.8,38°.34N×22°.02E,h9km,ML4.0/21,Error ellipse: s-maj=0.6km s-min=0.3km az=325.0*

*IDC* ***29*** *15:19:35.4±0.6,38°.41N×22°.16E,h0km,mb4.1/20, mb1 4.1/27,mb1mx4.0/58,mbtmp4.0/27,ML3.6/7,MS3.1/10, Ms1 3.1/10,ms1mx2.9/66,Error ellipse: s-maj=12.6km s-min=12.3km az=119.0*

*IASPEI* ***29*** *15:19:35.7±0.8,38°.34N±0°.01×22°.02E±0°.02,h9km±4km, mb4.5/44,MS3.4/4,Error ellipse: s-maj=2.2km s-min=2.0km az=67.7,GT5 selection from ISC bulletin GT5 identified by Bond˜jr and McLaughlin (2009) selection criteria Bond˜jr and McLaughlin, A new ground truth data set for seismic studies, Seism. Res. Let., 80, 465-472, 2009*

*PDG* ***29*** *15:19:36.1±0.7,38°.33N×22°.04E,h7km,ML4.0/13,Error ellipse: s-maj=0.6km s-min=0.8km az=0.0*

*CSEM* ***29*** *15:19:36.5±0.1,38°.30N×22°.03E,h10km,mb4.6/28,Error ellipse: s-maj=2.6km s-min=2.0km az=45.0*

*MOS* ***29*** *15:19:36.7±1.2,38°.35N×22°.07E,h27km,mb4.4/15,Error ellipse: s-maj=6.3km s-min=3.3km az=90.6*

**ISC 29 15:19:36.7±0.6, 38°.34N±0°.01×22°.03E±0°.01, h11km±3km, n628,σ1s42/712,mb4.5/44,MS3.4/4,27C-19D,Greece**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TRIZ** | **Trizonia** | **0.04** | **50** | P | **Pg** | **15 19 37.4** | **-1.3** |
| TRIZ | | | | S | **Sg** | **15 19 38.9** | **-1.3** |
| **TRIZ** | **Trizonia** | **0.04** | **50** | P | **Pg** | **15 19 37.4** | **-1.3** |
| TRIZ | | | | S | **Sg** | **15 19 38.9** | **-1.3** |
| **SERG** | **Sergoula** | **0.08** | **13** | P | **Pg** | **15 19 38.0** | **-1.2** |
| SERG | | | | S | **Sg** | **15 19 40.0** | **-0.9** |
| **SERG** | **Sergoula** | **0.08** | **13** | P | **Pg** | **15 19 38.0** | **-1.2** |
| SERG | | | | S | **Sg** | **15 19 40.0** | **-0.9** |
| **KALE** | **Kalithea** | **0.10** | **58** | P | **Pg** | **15 19 38.7** | **-0.7** |
| KALE | | | | S | **Sg** | **15 19 40.4** | **-1.0** |
| KALE | | | | AML | AML | 15 19 41.4 | |
| KALE | | | | AML | AML | 15 19 41.5 | |
| **KALE** | **Kalithea** | **0.10** | **58** | P | **Pg** | **15 19 38.7** | **-0.7** |
| KALE | | | | S | **Sg** | **15 19 40.4** | **-1.0** |
| **KALE** | **Kalithea** | **0.10** | **58** | *e*Pg | **Pg** | **15 19 38.5** | **-0.9** |
| **KALE** | **Kalithea** | **0.10** | **58** | P | **Pg** | **15 19 38.5** | **-0.9** |
| KALE | | | | S | **Sg** | **15 19 40.5** | **-1.0** |
| **LAKA** | **Lakka** | **0.11** | **204** | P | **Pg** | **15 19 38.4** | **-1.1** |
| LAKA | | | | S | **Sg** | **15 19 40.5** | **-1.1** |
| **LAKA** | **Lakka** | **0.11** | **204** | P | **Pg** | **15 19 38.4** | **-1.1** |
| **LAKA** | **Lakka** | **0.11** | **204** | *e*Pg | **Pg** | **15 19 40.3** | **+0.8** |
| **LAKA** | **Lakka** | **0.11** | **204** | *e*Pg | **Pg** | **15 19 40.3** | **+0.8** |
| **LAKA** | **Lakka** | **0.11** | **204** | P | **Pg** | **15 19 38.4** | **-1.1** |
| LAKA | | | | S | **Sg** | **15 19 40.3** | **+0.8** |
| **EFP** | **Efpalio** | **0.13** | **311** | P | **Pg** | **15 19 38.5** | **-1.3** |
| EFP | | | | S | **Sg** | **15 19 40.7** | **-1.4** |
| **EFP** | **Efpalio** | **0.13** | **311** | P | **Pg** | **15 19 38.6** | **-1.3** |
| EFP | | | | S | **Sg** | **15 19 40.7** | **-1.4** |
| **EFP** | **Efpalio** | **0.13** | **311** | P | **Pg** | **15 19 38.6** | **-1.3** |
| EFP | | | | S | **Sg** | **15 19 40.6** | **-1.5** |
| **VVK** | **Vomvokou** | **0.19** | **295** | P | **Pg** | **15 19 39.8** | **-1.1** |
| VVK | | | | S | **Sg** | **15 19 42.6** | **-1.2** |
| **UPR** | **University Cam** | **0.20** | **254** | P | **Pg** | **15 19 40.3** | **-0.7** |
| **UPR** | **University Cam** | **0.20** | **254** | P | **Pg** | **15 19 40.0** | **-1.0** |
| UPR | | | | S | **Sg** | **15 19 42.8** | **-1.1** |
| **UPR** | **University Cam** | **0.20** | **254** | P | **Pg** | **15 19 40.1** | **-1.0** |
| UPR | | | | S | **Sg** | **15 19 42.8** | **-1.1** |
| **ANX** | **Ano Chora** | **0.27** | **341** | P | **Pg** | **15 19 41.1** | **-1.2** |
| ANX | | | | S | **Sg** | **15 19 45.7** | **-0.3** |
| **KLV** | **Kalavryta, Ach** | **0.31** | **163** | P | **Pg** | **15 19 42.2** | **-0.8** |
| KLV | | | | S | **Sg** | **15 19 46.9** | **-0.3** |
| KLV | | | | AML | AML | 15 19 48.6 | |
| | comp=N,46290μm,0.4s | | | | | | |
| KLV | | | | AML | AML | 15 19 50.8 | |
| | comp=E,46847μm,0.6s | | | | | | |
| **KLV** | **Kalavryta, Ach** | **0.31** | **163** | *e*Pg | **Pg** | **15 19 41.9** | **-1.1** |
| **KLV** | **Kalavryta, Ach** | **0.31** | **163** | P | **Pg** | **15 19 42.2** | **-0.8** |
| KLV | | | | S | **Sg** | **15 19 46.8** | **-0.3** |
| **KLV** | **Kalavryta, Ach** | **0.31** | **163** | *e*Pg | **Pg** | **15 19 41.9** | **-1.1** |
| **KLV** | **Kalavryta, Ach** | **0.31** | **163** | P | **Pg** | **15 19 41.9** | **-1.1** |
| KLV | | | | S | **Sg** | **15 19 47.0** | **-0.1** |
| **DSF** | **Desfina** | **0.39** | **79** | P | **Pg** | **15 19 43.6** | **-0.9** |
| DSF | | | | S | **Sb** | **15 19 50.2** | **-1.7** |
| **DSF** | **Desfina** | **0.39** | **79** | *e*Pg | **Pg** | **15 19 43.6** | **-0.9** |
| **DSF** | **Desfina** | **0.39** | **79** | P | **Pg** | **15 19 43.6** | **-0.9** |
| **DRO** | **Drossia** | **0.46** | **214** | P | **Pg** | **15 19 44.7** | **-1.1** |
| **DRO** | **Drossia** | **0.46** | **214** | P | **Pg** | **15 19 44.7** | **-1.1** |
| DRO | | | | S | **Sg** | **15 19 52.3** | **+0.4** |
| **DRO** | **Drossia** | **0.46** | **214** | P | **Pg** | **15 19 44.6** | **-1.2** |
| **GUR** | **Goura** | **0.47** | **149** | P | **Pg** | **15 19 44.5** | **-1.4** |
| GUR | | | | S | **Sb** | **15 19 52.8** | **-1.4** |
| **GUR** | **Goura** | **0.47** | **149** | P | **Pg** | **15 19 44.6** | **-1.4** |
| GUR | | | | S | **Sg** | **15 19 51.9** | **-0.3** |
| **GUR** | **Goura** | **0.47** | **149** | *e*Pg | **Pg** | **15 19 44.6** | **-1.4** |
| **GUR** | **Goura** | **0.47** | **149** | P | **Pg** | **15 19 44.6** | **-1.4** |
| GUR | | | | S | **Sg** | **15 19 51.9** | **-0.3** |
| **PVO** | **Paravola** | **0.48** | **305** | P | **Pg** | **15 19 45.6** | **-0.6** |
| **PVO** | **Paravola** | **0.48** | **305** | P | **Pg** | **15 19 45.2** | **-1.0** |
| PVO | | | | S | **Sg** | **15 19 52.7** | **0.0** |
| **PVO** | **Paravola** | **0.48** | **305** | P | **Pg** | **15 19 45.2** | **-1.0** |
| PVO | | | | S | **Sg** | **15 19 52.7** | **0.0** |
| **RLS** | **Riolos of Patr** | **0.53** | **238** | P | **Pg** | **15 19 45.8** | **-1.2** |
| RLS | | | | S | **Sg** | **15 19 54.4** | **+0.4** |
| RLS | | | | AML | AML | 15 19 56.2 | |
| | comp=N,19781μm,0.5s | | | | | | |
| RLS | | | | AML | AML | 15 19 56.5 | |
| | comp=E,19174μm,0.4s | | | | | | |
| **RLS** | **Riolos of Patr** | **0.53** | **238** | P | **Pg** | **15 19 45.8** | **-1.2** |
| RLS | | | | S | **Sg** | **15 19 52.8** | **-1.2** |
| **RLS** | **Riolos of Patr** | **0.53** | **238** | P | **Pg** | **15 19 45.8** | **-1.2** |
| RLS | | | | S | **Sg** | **15 19 52.8** | **-1.2** |
| **RLS** | **Riolos of Patr** | **0.53** | **238** | P | **Pg** | **15 19 45.8** | **-1.2** |
| RLS | | | | S | **Sg** | **15 19 52.8** | **-1.2** |
| **AXS** | **Araxos** | **0.54** | **255** | P | **Pg** | **15 19 46.0** | **-1.2** |
| AXS | | | | S | **Sg** | **15 19 53.5** | **-0.8** |
| **AXS** | **Araxos** | **0.54** | **255** | P | **Pg** | **15 19 46.0** | **-1.2** |
| AXS | | | | S | **Sg** | **15 19 53.5** | **-0.8** |
| **THAL** | **Thalero** | **0.58** | **121** | P | **Pb** | **15 19 48.0** | **-1.0** |
| **THAL** | **Thalero** | **0.58** | **121** | P | **Pg** | **15 19 47.2** | **-0.8** |
| THAL | | | | S | **Sg** | **15 19 54.9** | **-0.7** |
| **THAL** | **Thalero** | **0.58** | **121** | P | **Pg** | **15 19 47.2** | **-0.8** |
| THAL | | | | S | **Sg** | **15 19 54.9** | **-0.7** |
| **EVR** | **Evrytania** | **0.60** | **343** | P | **Pg** | **15 19 47.3** | **-1.2** |
| EVR | | | | S | **Sg** | **15 19 56.3** | **-0.1** |
| EVR | | | | AML | AML | 15 19 59.3 | |
| | comp=N,30528μm,0.2s | | | | | | |
| EVR | | | | AML | AML | 15 19 59.9 | |
| | comp=E,32602μm,0.5s | | | | | | |
| **EVR** | **Evrytania** | **0.60** | **343** | P | **Pg** | **15 19 47.3** | **-1.2** |
| EVR | | | | S | **Sg** | **15 19 56.0** | **-0.4** |
| **EVR** | **Evrytania** | **0.60** | **343** | P | **Pg** | **15 19 47.0** | **-1.5** |
| EVR | | | | S | **Sg** | **15 19 56.0** | **-0.4** |
| **EVR** | **Evrytania** | **0.60** | **343** | P | **Pg** | **15 19 47.0** | **-1.5** |
| EVR | | | | S | **Sg** | **15 19 56.0** | **-0.4** |
| **AXAR** | **Agios Charalam** | **0.65** | **49** | P | **Pg** | **15 19 48.7** | **-0.6** |
| **AXAR** | **Agios Charalam** | **0.65** | **49** | P | **Pg** | **15 19 48.7** | **-0.6** |
| **PROD** | **Prodromos** | **0.69** | **96** | P | **Pg** | **15 19 49.6** | **-0.4** |
| **PROD** | **Prodromos** | **0.69** | **96** | P | **Pg** | **15 19 49.6** | **-0.4** |
| **PDO** | **Prodromos** | **0.72** | **291** | P | **Pg** | **15 19 48.8** | **-1.8** |
| PDO | | | | AML | AML | 15 20 03.6 | |
| | comp=N,48217μm,0.3s | | | | | | |
| PDO | | | | AML | AML | 15 20 04.9 | |
| | comp=E,32014μm,0.3s | | | | | | |
| **PDO** | **Prodromos** | **0.72** | **291** | P | **Pg** | **15 19 48.8** | **-1.8** |
| PDO | | | | S | **Sg** | **15 19 59.8** | **-0.2** |
| **PDO** | **Prodromos** | **0.72** | **291** | P | **Pg** | **15 19 48.5** | **-2.1** |
| PDO | | | | S | **Sg** | **15 19 59.8** | **-0.2** |
| **AGG** | **Agios Georgios** | **0.72** | **19** | *e*PG | **Pg** | **15 19 51.0** | **+0.3** |
| **AGG** | **Agios Georgios** | **0.72** | **19** | *e*P | **Pg** | **15 19 49.1** | **-1.6** |
| **AGG** | **Agios Georgios** | **0.72** | **19** | P | **Pg** | **15 19 48.4** | **-2.2** |
| AGG | | | | S | **Sg** | **15 19 58.4** | **-1.8** |
| **AGG** | **Agios Georgios** | **0.72** | **19** | P | **Pg** | **15 19 49.1** | **-1.6** |
| **AGG** | **Agios Georgios** | **0.72** | **19** | *e*Pg | **Pg** | **15 19 51.0** | **+0.3** |
| AGG | | | | S | **Sg** | **15 19 59.7** | **-0.4** |
| **AGG** | **Agios Georgios** | **0.72** | **19** | *e*Pg | **Pg** | **15 19 49.1** | **-1.6** |
| **AGG** | **Agios Georgios** | **0.72** | **19** | P | **Pg** | **15 19 49.1** | **-1.6** |
| AGG | | | | S | **Sg** | **15 19 59.7** | **-0.4** |
| **VTN** | **Vitineika** | **0.79** | **238** | P | **Pg** | **15 19 51.4** | **-0.6** |
| **VTN** | **Vitineika** | **0.79** | **238** | P | **Pg** | **15 19 51.4** | **-0.6** |
| **LOUT** | **Loutraki** | **0.82** | **115** | P | **Pg** | **15 19 52.0** | **-0.6** |
| **LOUT** | **Loutraki** | **0.82** | **115** | P | **Pg** | **15 19 52.0** | **-0.6** |
| LOUT | | | | S | **Sb** | **15 20 03.7** | **-0.4** |
| **LOUT** | **Loutraki** | **0.82** | **115** | P | **Pg** | **15 19 51.5** | **-1.0** |
| LOUT | | | | S | **Sb** | **15 20 03.7** | **-0.4** |
| **AMT** | **Artemida-Makis** | **0.85** | **198** | P | **Pg** | **15 19 52.0** | **-1.0** |
| **AMT** | **Artemida-Makis** | **0.85** | **198** | P | **Pg** | **15 19 52.0** | **-1.0** |
| AMT | | | | S | **Sg** | **15 20 04.2** | **+0.1** |
| **AMT** | **Artemida-Makis** | **0.85** | **198** | P | **Pg** | **15 19 51.2** | **-1.8** |
| AMT | | | | S | **Sg** | **15 20 04.2** | **+0.1** |
| **VIL2** | **Platees** | **0.98** | **97** | P | **Pn** | **15 19 56.2** | **-0.3** |
| VIL2 | | | | AML | AML | 15 20 18.6 | |
| | comp=N,48720μm,0.7s | | | | | | |
| VIL2 | | | | AML | AML | 15 20 19.0 | |
| | comp=E,22898μm,0.9s | | | | | | |
| **VLX** | **Vlachokerasia** | **1.01** | **164** | P | **Pg** | **15 19 54.0** | **-2.1** |
| VLX | | | | S | **Sg** | **15 20 08.5** | **-0.7** |
| VLX | | | | AML | AML | 15 20 10.8 | |
| | comp=N,44816μm,0.5s | | | | | | |
| VLX | | | | AML | AML | 15 20 12.4 | |
| | comp=E,44461μm,0.5s | | | | | | |
| **VLX** | **Vlachokerasia** | **1.01** | **164** | P | **Pg** | **15 19 54.0** | **-2.1** |
| VLX | | | | S | **Sg** | **15 20 08.5** | **-0.7** |
| **VILL** | **Villia** | **1.02** | **99** | P | **Pb** | **15 19 56.2** | **-0.3** |
| **SMIA** | **Simia** | **1.07** | **59** | P | **Pg** | **15 19 53.5** | **-3.8** |
| **DSL** | **Palaion Diasel** | **1.08** | **318** | P | **Pg** | **15 19 56.0** | **-1.5** |
| DSL | | | | S | **Sg** | **15 20 10.9** | **-0.7** |
| **DSL** | **Palaion Diasel** | **1.08** | **318** | *e*Pg | **Pg** | **15 19 56.0** | **-1.5** |
| **DSL** | **Palaion Diasel** | **1.08** | **318** | P | **Pg** | **15 19 56.0** | **-1.5** |
| DSL | | | | S | **Sg** | **15 20 10.9** | **-0.7** |
| **MES3** | **Kyparissia** | **1.13** | **195** | P | **Pg** | **15 19 57.6** | **-0.8** |
| **MES3** | **Kyparissia** | **1.13** | **195** | P | **Pg** | **15 19 57.6** | **-0.8** |
| **VLS** | **Valsamata** | **1.15** | **262** | P | **Pg** | **15 19 55.7** | **-3.1** |
| VLS | | | | AML | AML | 15 20 15.9 | |
| | comp=N,10950μm,0.2s | | | | | | |
| VLS | | | | AML | AML | 15 20 17.1 | |
| | comp=E,6266μm,0.2s | | | | | | |
| **VLS** | **Valsamata** | **1.15** | **262** | P | **Pg** | **15 19 55.7** | **-3.1** |
| **ITM** | **Ithomi** | **1.16** | **184** | P | **Pg** | **15 19 56.4** | **-2.6** |
| ITM | | | | S | **Sg** | **15 20 11.9** | **-2.2** |
| ITM | | | | AML | AML | 15 20 21.6 | |
| | comp=N,9934μm,0.4s | | | | | | |
| ITM | | | | AML | AML | 15 20 25.9 | |
| | comp=E,9671μm,0.9s | | | | | | |
| **ITM** | **Ithomi** | **1.16** | **184** | P | **Pg** | **15 19 56.7** | **-2.3** |
| ITM | | | | S | **Sb** | **15 20 14.4** | **+0.5** |
| **ITM** | **Ithomi** | **1.16** | **184** | P | **Pg** | **15 19 56.7** | **-2.3** |
| ITM | | | | S | **Sb** | **15 20 14.4** | **+0.5** |
| **LKD2** | **Lefkada island** | **1.17** | **293** | P | **Pg** | **15 19 57.5** | **-1.7** |
| **LKD2** | **Lefkada island** | **1.17** | **293** | P | **Pg** | **15 19 57.5** | **-1.7** |
| **LKD2** | **Lefkada island** | **1.17** | **293** | P | **Pg** | **15 19 57.3** | **-1.9** |
| **THL** | **Klokotos Trika** | **1.22** | **359** | P | **Pg** | **15 19 58.2** | **-2.0** |
| THL | | | | S | **Sg** | **15 20 14.6** | **-1.5** |
| THL | | | | AML | AML | 15 20 20.0 | |
| | comp=E,7855μm,0.5s | | | | | | |
| THL | | | | AML | AML | 15 20 22.0 | |
| | comp=N,4133μm,0.6s | | | | | | |
| **THL** | **Klokotos Trika** | **1.22** | **359** | P | **Pg** | **15 19 58.2** | **-2.0** |
| THL | | | | S | **Sg** | **15 20 14.6** | **-1.5** |
| **DID** | **Didima** | **1.26** | **131** | P | **Pg** | **15 19 59.2** | **-1.8** |
| **DID** | **Didima** | **1.26** | **131** | P | **Pg** | **15 19 59.2** | **-1.8** |
| DID | | | | S | **Sn** | **15 20 17.4** | **0.0** |
| **DID** | **Didima** | **1.26** | **131** | *e*Pn | **Pg** | **15 19 58.9** | **-2.1** |
| **DID** | **Didima** | **1.26** | **131** | P | **Pg** | **15 19 58.9** | **-2.1** |
| DID | | | | S | **Sn** | **15 20 17.4** | **0.0** |
| **FYTO** | **Fytoko, Volos** | **1.28** | **33** | P | **Pg** | **15 19 59.0** | **-2.3** |
| **FYTO** | **Fytoko, Volos** | **1.28** | **33** | P | **Pg** | **15 19 59.0** | **-2.3** |
| **KRND** | **KRANIDI** | **1.30** | **137** | P | **Pg** | **15 19 60.0** | **-1.7** |
| **KRND** | **KRANIDI** | **1.30** | **137** | P | **Pg** | **15 20 00.0** | **-1.7** |
| KRND | | | | S | **Sb** | **15 20 18.1** | **+0.2** |
| **KRND** | **KRANIDI** | **1.30** | **137** | P | **Pg** | **15 19 59.8** | **-1.9** |
| KRND | | | | S | **Sb** | **15 20 18.1** | **+0.2** |
| **LRSO** | **Larissa Observ** | **1.36** | **12** | P | **Pn** | **15 20 00.3** | **-1.4** |
| **LRSO** | **Larissa Observ** | **1.36** | **12** | P | **Pn** | **15 20 00.3** | **-1.4** |
| **ATH** | **Athens Observa** | **1.38** | **105** | P | **Pn** | **15 20 00.8** | **-1.1** |
| ATH | | | | AML | AML | 15 20 28.5 | |
| | comp=N,6294μm,0.6s | | | | | | |
| ATH | | | | AML | AML | 15 20 29.5 | |
| | comp=E,13690μm,0.8s | | | | | | |
| **ATH** | **Athens Observa** | **1.38** | **105** | P | **Pn** | **15 20 00.8** | **-1.1** |
| **ATHU** | **Athens Univers** | **1.43** | **105** | P | **Pn** | **15 20 02.0** | **-0.7** |
| **ATHU** | **Athens Univers** | **1.43** | **105** | P | **Pn** | **15 20 02.0** | **-0.7** |
| **PYL** | **PYLOS** | **1.46** | **189** | P | **Pn** | **15 20 01.4** | **-1.7** |
| **PYL** | **PYLOS** | **1.46** | **189** | P | **Pn** | **15 20 01.4** | **-1.7** |
| **PTL** | **Penteli** | **1.47** | **101** | P | **Pn** | **15 20 02.9** | **-0.4** |
| PTL | | | | AML | AML | 15 20 30.2 | |
| | comp=N,4100μm,0.7s | | | | | | |
| PTL | | | | AML | AML | 15 20 32.3 | |
| | comp=E,5365μm,0.6s | | | | | | |
| **PTL** | **Penteli** | **1.47** | **101** | P | **Pn** | **15 20 02.9** | **-0.4** |
| **EREA** | **Eretria** | **1.49** | **86** | P | **Pn** | **15 20 01.6** | **-2.0** |
| **EREA** | **Eretria** | **1.49** | **86** | P | **Pn** | **15 20 01.6** | **-2.0** |
| **MES2** | **Methoni** | **1.54** | **190** | P | **Pn** | **15 20 02.5** | **-1.6** |
| **MES2** | **Methoni** | **1.54** | **190** | P | **Pn** | **15 20 02.5** | **-1.6** |
| **DYR** | **Agios Nikonas** | **1.59** | **171** | P | **Pn** | **15 20 03.9** | **-1.0** |
| **DYR** | **Agios Nikonas** | **1.59** | **171** | P | **Pn** | **15 20 03.9** | **-1.0** |
| **JAN** | **Janina** | **1.61** | **325** | P | **Pb** | **15 20 07.1** | **+0.6** |
| **JAN** | **Janina** | **1.61** | **325** | P | **Pb** | **15 20 06.8** | **+0.3** |
| **JAN** | **Janina** | **1.61** | **325** | P | **Pb** | **15 20 06.8** | **+0.3** |
| **KPRO** | **Kipourio** | **1.69** | **342** | P | **Pb** | **15 20 08.0** | **0.0** |
| **KPRO** | **Kipourio** | **1.69** | **342** | P | **Pb** | **15 20 08.0** | **0.0** |
| **VLI** | **Velíai** | **1.77** | **156** | P | **Pn** | **15 20 06.4** | **-0.9** |
| VLI | | | | AML | AML | 15 20 37.4 | |
| | comp=E,10001μm,0.9s | | | | | | |
| VLI | | | | AML | AML | 15 20 37.8 | |
| | comp=N,7091μm,0.7s | | | | | | |
| **VLI** | **Velíai** | **1.77** | **156** | P | **Pn** | **15 20 06.4** | **-0.9** |
| **LIT** | **Litokhoron** | **1.79** | **11** | P | **Pn** | **15 20 06.1** | **-1.6** |
| **LIT** | **Litokhoron** | **1.79** | **11** | P | **Pn** | **15 20 06.1** | **-1.6** |
| **KZN** | **Kozani** | **1.98** | **354** | P | **Pn** | **15 20 11.7** | **+1.5** |
| **KZN** | **Kozani** | **1.98** | **354** | P | **Pn** | **15 20 10.0** | **-0.3** |
| **KZN** | **Kozani** | **1.98** | **354** | P | **Pn** | **15 20 10.0** | **-0.3** |
| **KEK** | **Kerkira** | **2.22** | **309** | P | **Pn** | **15 20 15.6** | **+2.1** |
| **KEK** | **Kerkira** | **2.22** | **309** | P | **Pn** | **15 20 15.6** | **+2.1** |
| **KYTH** | **Kithira** | **2.22** | **158** | P | **Pn** | **15 20 15.2** | **+1.6** |
| **THE** | **Thessaloniki** | **2.40** | **17** | P | **Pn** | **15 20 17.8** | **+1.8** |
| **THE** | **Thessaloniki** | **2.40** | **17** | P | **Pn** | **15 20 17.8** | **+1.8** |
| **MHLA** | **Plaka, Milos I** | **2.48** | **129** | P | **Pn** | **15 20 17.0** | **-0.1** |
| **MHLA** | **Plaka, Milos I** | **2.48** | **129** | P | **Pn** | **15 20 17.0** | **-0.1** |
| **FNA** | **Florina** | **2.49** | **348** | *e*PN | **Pn** | **15 20 18.9** | **+1.5** |
| **FNA** | **Florina** | **2.49** | **348** | P | **Pn** | **15 20 18.2** | **+0.8** |
| **FNA** | **Florina** | **2.49** | **348** | P | **Pn** | **15 20 18.2** | **+0.8** |
| **FNA** | **Florina** | **2.49** | **348** | *e*Pn | **Pn** | **15 20 18.9** | **+1.5** |
| **MHLO** | **Agia Marina, M** | **2.50** | **130** | P | **Pn** | **15 20 16.8** | **-0.6** |
| **MHLO** | **Agia Marina, M** | **2.50** | **130** | P | **Pn** | **15 20 16.8** | **-0.6** |
| **GRG** | **Griva** | **2.63** | **6** | P | **Pn** | **15 20 21.3** | **+2.1** |
| **GRG** | **Griva** | **2.63** | **6** | P | **Pn** | **15 20 21.3** | **+2.1** |
| **ANKY** | **Antikythira Is** | **2.67** | **157** | P | **Pn** | **15 20 19.8** | **+0.1** |
| **ANKY** | **Antikythira Is** | **2.67** | **157** | P | **Pn** | **15 20 19.8** | **+0.1** |
| **SOH** | **Sokhos** | **2.68** | **22** | P | **Pn** | **15 20 20.5** | **+0.6** |
| **SOH** | **Sokhos** | **2.68** | **22** | P | **Pn** | **15 20 20.5** | **+0.6** |
| **BIA** | **Bitola** | **2.73** | **349** | *e*Pn | **Pn** | **15 20 18.1** | **-2.5** |
| **KNT** | **Kendrikon** | **2.90** | **13** | *e*PN | **Pn** | **15 20 23.4** | **+0.5** |
| **KNT** | **Kendrikon** | **2.90** | **13** | P | **Pn** | **15 20 22.7** | **-0.1** |
| **KNT** | **Kendrikon** | **2.90** | **13** | P | **Pn** | **15 20 22.7** | **-0.1** |
| **KNT** | **Kendrikon** | **2.90** | **13** | *e*Pn | **Pn** | **15 20 23.4** | **+0.5** |
| **OHR** | **Ohrid** | **2.93** | **341** | *e*Pn | **Pn** | **15 20 26.0** | **+2.7** |
| **VAY** | **Valandovo** | **3.01** | **8** | P | **Pn** | **15 20 25.1** | **+0.8** |
| **VAY** | **Valandovo** | **3.01** | **8** | P | **Pn** | **15 20 25.1** | **+0.8** |
| **VAY** | **Valandovo** | **3.01** | **8** | *e*Pn | Pn | 15 20 19.7 | -4.6 |
| **SRS** | **Serrai** | **3.02** | **23** | P | **Pn** | **15 20 24.6** | **0.0** |
| **SRS** | **Serrai** | **3.02** | **23** | P | **Pn** | **15 20 24.6** | **0.0** |
| **APE** | **Apeiranthos** | **3.05** | **114** | *e*PN | **Pn** | **15 20 24.9** | **0.0** |
| **APE** | **Apeiranthos** | **3.05** | **114** | ⇓*i*P | **Pn** | **15 20 24.6** | **-0.4** |
| **APE** | **Apeiranthos** | **3.05** | **114** | S | **Sn** | **15 20 59.7** | **-1.8** |
| **APE** | **Apeiranthos** | **3.05** | **114** | *e*P | **Pn** | **15 20 25.3** | **+0.3** |
| **APE** | **Apeiranthos** | **3.05** | **114** | P | **Pn** | **15 20 25.3** | **+0.3** |
| **APE** | **Apeiranthos** | **3.05** | **114** | *e*Pn | **Pn** | **15 20 25.0** | **0.0** |
| **APE** | **Apeiranthos** | **3.05** | **114** | P | **Pn** | **15 20 25.3** | **+0.3** |
| **KRUS** | **Krusevo** | **3.08** | **349** | *e*Pn | **Pn** | **15 20 27.0** | **+1.4** |
| **CHOS** | **Chios island** | **3.16** | **88** | P | **Pn** | **15 20 25.7** | **-0.9** |
| **CHOS** | **Chios island** | **3.16** | **88** | P | **Pn** | **15 20 25.7** | **-0.9** |
| **IMMV** | **Iera Moni Meta** | **3.27** | **151** | P | **Pn** | **15 20 26.8** | **-1.2** |
| **IMMV** | **Iera Moni Meta** | **3.27** | **151** | P | **Pn** | **15 20 26.8** | **-1.2** |
| **SANT** | **Santorini** | **3.36** | **125** | *e*Pn | **Pn** | **15 20 30.0** | **+0.7** |
| **SANT** | **Santorini** | **3.36** | **125** | *e*Pn | **Pn** | **15 20 30.0** | **+0.7** |
| **VAM** | **Vamos** | **3.40** | **149** | P | **Pn** | **15 20 29.9** | **+0.1** |
| **VAM** | **Vamos** | **3.40** | **149** | P | **Pn** | **15 20 29.9** | **+0.1** |
| **TIR** | **Tirane** | **3.44** | **332** | *e*P | **Pn** | **15 20 32.3** | **+2.1** |
| **TIR** | **Tirane** | **3.44** | **332** | *e*P | **Pn** | **15 20 32.3** | **+2.1** |
| **TIR** | **Tirane** | **3.44** | **332** | *e*Pn | **Pn** | **15 20 32.3** | **+2.1** |
| **BOZC** | **Bozcaada** | **3.47** | **63** | *e*Pn | **Pn** | **15 20 29.9** | **-0.8** |
| **BOZC** | **Bozcaada** | **3.47** | **63** | *i* P | **Pn** | **15 20 30.7** | **0.0** |
| **BOZC** | **Bozcaada** | **3.47** | **63** | *e*Pn | **Pn** | **15 20 29.9** | **-0.8** |
| **MMB** | **Musomiste** | **3.50** | **21** | *e*P | **Pn** | **15 20 30.4** | **-0.7** |
| **ZEY** | **˜zmir** | **3.52** | **90** | *i* P | **Pn** | **15 20 31.3** | **-0.1** |
| **GADA** | **Gvkgeada** | **3.52** | **57** | *e*PN | **Pn** | **15 20 30.5** | **-0.9** |
| **GADA** | **Gvkgeada** | **3.52** | **57** | *e*Pn | **Pn** | **15 20 30.5** | **-0.9** |
| **URLA** | **Izmir** | **3.59** | **88** | *e*PN | **Pn** | **15 20 31.7** | **-0.6** |
| **URLA** | **Izmir** | **3.59** | **88** | *i* P | **Pn** | **15 20 32.9** | **+0.5** |
| **URLA** | **Izmir** | **3.59** | **88** | *e*Pn | **Pn** | **15 20 31.7** | **-0.6** |
| **URLA** | **Izmir** | **3.59** | **88** | P | **Pn** | **15 20 32.9** | **+0.5** |
| **KKB** | **Krupnik** | **3.61** | **13** | *e*P | **Pn** | **15 20 33.0** | **+0.3** |
| **EZN** | **Ezine** | **3.65** | **65** | *e*PN | **Pn** | **15 20 31.9** | **-1.2** |
| **EZN** | **Ezine** | **3.65** | **65** | *e*Pn | **Pn** | **15 20 32.0** | **-1.2** |
| **SKO** | **Skopje** | **3.66** | **353** | P | **Pn** | **15 20 36.2** | **+2.9** |
| **SKO** | **Skopje** | **3.66** | **353** | P | **Pn** | **15 20 36.2** | **+2.9** |
| **SKO** | **Skopje** | **3.66** | **353** | *e*Pn | **Pn** | **15 20 34.1** | **+0.8** |
| **BAYC** | **CANAKKALE_Bayr** | **3.78** | **67** | *i* P | **Pn** | **15 20 33.8** | **-1.2** |
| **BAYC** | **CANAKKALE_Bayr** | **3.78** | **67** | P | **Pn** | **15 20 33.8** | **-1.2** |
| **IDI** | **Anoyia** | **3.81** | **142** | Pn | **Pn** | **15 20 34.7** | **-0.8** |
| | comp=N,5.2nm,0.3s,baz=318,slow=14,SNR=44 | | | | | | |
| IDI | | | | Sn | **Sn** | **15 21 18.7** | **-1.6** |
| | comp=N,19nm,0.3s,baz=258,slow=17,SNR=6.4 | | | | | | |
| IDI | | | | LR | LR | 15 21 52.7 | |
| | comp=N,72nm,18.8s,baz=318,slow=36 | | | | | | |
| **IDI** | **Anoyia** | **3.81** | **142** | P | **Pn** | **15 20 32.6** | **-2.9** |
| **DGB** | **˜zmir** | **3.83** | **93** | *i* P | **Pn** |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **UPM** | **Unac-Piva** | **5.41** | **335** | *e*Pn | **Pn** | **15 20 58.8 +1.3** |
| UPM | | | | *e*Sn | **Sn** | **15 22 01.3 +1.4** |
| **UPM** | **Unac-Piva** | **5.41** | **335** | *e*Pn | **Pn** | **15 20 58.8 +1.3** |
| UPM | | | | *e*Sn | **Sn** | **15 22 01.3 +1.4** |
| **TURN** | **Turunc** | **5.42** | **104** | *e*PN | **Pn** | **15 20 54.6 -2.8** |
| **TURN** | **Turunc** | **5.42** | **104** | *i* P | **Pn** | **15 20 55.9 -1.6** |
| **TURN** | **Turunc** | **5.42** | **104** | P | **Pn** | **15 20 55.8 -1.6** |
| **TAVA** | **DENIZLI_Tavas** | **5.51** | **97** | *i* P | **Pn** | **15 21 01.0 +2.1** |
| **TAVA** | **DENIZLI_Tavas** | **5.51** | **97** | P | **Pn** | **15 21 01.0 +2.1** |
| **STON** | **Ston** | **5.60** | **325** | *e*Pn | **Pn** | **15 20 59.0 -1.0** |
| STON | | | | Sn | **Sn** | **15 22 02.8 -1.5** |
| **STON** | **Ston** | **5.60** | **325** | *e*Pn | **Pn** | **15 20 59.0 -1.0** |
| STON | | | | Sn | **Sn** | **15 22 02.8 -1.5** |
| **KHAL** | **Karahalli** | **5.86** | **87** | *i* P | **Pn** | **15 21 05.5 +1.8** |
| **KHAL** | **Karahalli** | **5.86** | **87** | P | **Pn** | **15 21 05.5 +1.8** |
| **BBLS** | **Lazići** | **5.87** | **341** | *e*Pn | **Pn** | **15 21 04.3 +0.6** |
| **GDZ** | **Gediz** | **5.87** | **80** | *i* P | **Pn** | **15 21 07.3 +3.4** |
| **DIVS** | **Divibare** | **5.96** | **346** | *e*Pn | **Pn** | **15 21 05.5 +0.6** |
| DIVS | | | | *e*Sn | **Sn** | **15 22 14.2 +1.0** |
| **DIVS** | **Divibare** | **5.96** | **346** | *e*Pn | **Pn** | **15 21 05.5 +0.6** |
| DIVS | | | | *e*Sn | **Sn** | **15 22 14.2 +1.0** |
| **GOLH** | **Golhisar** | **6.06** | **98** | *i* P | Pn | 15 21 11.5 +5.0 |
| **VAE** | **Valguarnera** | **6.09** | **264** | Pn | Pn | 15 21 11.5 +4.7 |
| | comp=N,2.8nm,0.3s,baz=36,slow=19,SNR=3.4 | | | | | |
| VAE | | | | Sn | **Sn** | **15 22 22.8 +6.3** |
| | comp=N,2.3nm,0.3s,baz=161,slow=14,SNR=2.9 | | | | | |
| **HAPS** | **Han Pijesak,Bl** | **6.19** | **339** | *e*Pn | **Pn** | **15 21 07.9 -0.3** |
| **MDVR** | **Moldovita** | **6.44** | **358** | ⇑*i*P | **Pn** | **15 21 13.4 +1.8** |
| **MDVR** | **Moldovita** | **6.44** | **358** | ⇑*i*P | **Pn** | **15 21 13.4 +1.8** |
| **TEKS** | **Tekeris** | **6.48** | **344** | *e*Pn | **Pn** | **15 21 12.7 +0.6** |
| **WDD** | **Wied Dalam** | **6.50** | **250** | *e*Pn | **Pn** | **15 21 10.7 -1.7** |
| **WDD** | **Wied Dalam** | **6.50** | **250** | *e*Pn | **Pn** | **15 21 10.7 -1.7** |
| **BOLV** | **Bolvadin** | **7.00** | **84** | *e*Pn | **Pn** | **15 21 18.6 -0.8** |
| **BOLV** | **Bolvadin** | **7.00** | **84** | *e*Pn | **Pn** | **15 21 18.6 -0.8** |
| **SULR** | | **7.08** | **25** | ⇑*i*P | **Pn** | **15 21 22.9 +2.6** |
| **SULR** | | **7.08** | **25** | ⇑*i*P | **Pn** | **15 21 22.9 +2.6** |
| **ARR** | **Arges** | **7.29** | **15** | ⇑*i*P | **Pn** | **15 21 25.0 +1.8** |
| **ARR** | **Arges** | **7.29** | **15** | ⇑*i*P | **Pn** | **15 21 25.0 +1.8** |
| **BLY** | **Banja Luka** | **7.36** | **332** | *e*Pn | **Pn** | **15 21 22.8 -1.4** |
| **BLY** | **Banja Luka** | **7.36** | **332** | *e*Pn | **Pn** | **15 21 22.8 -1.4** |
| **VOIR** | | **7.44** | **17** | ⇓*i*P | **Pn** | **15 21 26.7 +1.4** |
| **VOIR** | | **7.44** | **17** | P | **Pn** | **15 21 27.1 +1.8** |
| VOIR | | | | pmax | pmax | |
| | comp=Z,15nm,0.8s | | | | | |
| **VOIR** | | **7.44** | **17** | P | **Pn** | **15 21 27.1 +1.8** |
| | comp=Z,15nm,0.8s | | | | | |
| **ISR** | **Istrita** | **7.56** | **25** | ⇑*i*P | **Pn** | **15 21 29.0 +2.0** |
| **ISR** | **Istrita** | **7.56** | **25** | P | **Pn** | **15 21 29.0 +2.0** |
| **ISR** | **Istrita** | **7.56** | **25** | P | **Pn** | **15 21 29.0 +2.0** |
| **DEV** | **Deva** | **7.57** | **5** | ⇑*i*P | Pn | 15 21 37.3 +10 |
| **AQU** | **L'Aquila** | **7.71** | **304** | *e*P | **Pn** | **15 21 27.9 -1.2** |
| **AQU** | **L'Aquila** | **7.71** | **304** | *e*P | **Pn** | **15 21 27.9 -1.2** |
| **AQU** | **L'Aquila** | **7.71** | **304** | *e*Pn | **Pn** | **15 21 27.9 -1.2** |
| **MLR** | **Muntele Rosu** | **7.72** | **21** | Pn | **Pn** | **15 21 30.1 +0.9** |
| | comp=Z,0.1nm,0.3s,baz=195,slow=11,SNR=15 | | | | | |
| MLR | | | | LR | LR | 15 25 12.3 |
| | comp=Z,88nm,20.4s,baz=196,slow=44 | | | | | |
| **MLR** | **Muntele Rosu** | **7.72** | **21** | ⇑*i*P | **Pn** | **15 21 30.2 +1.0** |
| **MLR** | **Muntele Rosu** | **7.72** | **21** | *e*P | **Pn** | **15 21 29.8 +0.6** |
| **MLR** | **Muntele Rosu** | **7.72** | **21** | *e*P | **Pn** | **15 21 29.8 +0.6** |
| **MLR** | **Muntele Rosu** | **7.72** | **21** | *e*Pn | **Pn** | **15 21 29.8 +0.6** |
| **TIRR** | **Tirgusor** | **7.77** | **36** | ⇓*i*P | **Pn** | **15 21 30.2 +0.5** |
| **TIRR** | **Tirgusor** | **7.77** | **36** | *e*P | **Pn** | **15 21 28.9 -0.8** |
| **TIRR** | **Tirgusor** | **7.77** | **36** | *e*P | **Pn** | **15 21 28.9 -0.8** |
| **TIRR** | **Tirgusor** | **7.77** | **36** | *e*Pn | **Pn** | **15 21 28.9 -0.8** |
| **UDBI** | **Udbina** | **7.77** | **325** | *e*Pn | **Pn** | **15 21 30.7 +0.8** |
| **UDBI** | **Udbina** | **7.77** | **325** | *e*Pn | **Pn** | **15 21 30.6 +0.8** |
| **SIRR** | **Siria** | **7.93** | **358** | ⇑*i*P | **Pn** | **15 21 34.8 +2.9** |
| **DOPR** | **Dopca** | **8.02** | **17** | ⇑*i*P | **Pn** | **15 21 34.5 +1.3** |
| **DOPR** | **Dopca** | **8.02** | **17** | ⇑*i*P | **Pn** | **15 21 34.5 +1.3** |
| **CFR** | **Carcaliu** | **8.21** | **32** | ⇑*i*P | **Pn** | **15 21 37.3 +1.5** |
| **CFR** | **Carcaliu** | **8.21** | **32** | P | **Pn** | **15 21 37.3 +1.5** |
| **CFR** | **Carcaliu** | **8.21** | **32** | P | **Pn** | **15 21 37.3 +1.5** |
| **PLOR** | **Plostina** | **8.25** | **23** | ⇑*i*P | **Pn** | **15 21 38.3 +1.8** |
| **PLOR** | **Plostina** | **8.25** | **23** | P | **Pn** | **15 21 38.2 +1.8** |
| **PLOR** | **Plostina** | **8.25** | **23** | P | **Pn** | **15 21 38.2 +1.8** |
| **VRI** | **Vrincioaia** | **8.29** | **23** | ⇑*i*P | **Pn** | **15 21 38.1 +1.2** |
| **VRI** | **Vrincioaia** | **8.29** | **23** | P | **Pn** | **15 21 39.3 +2.4** |
| VRI | | | | pmax | pmax | |
| | comp=Z,227nm,0.9s | | | | | |
| **VRI** | **Vrincioaia** | **8.29** | **23** | P | **Pn** | **15 21 39.3 +2.4** |
| | comp=Z,227nm,0.9s | | | | | |
| **BR231** | **Keskin MP Arra** | **8.49** | **76** | *e*Pn | **Pn** | **15 21 38.7 -1.0** |
| **BR231** | **Keskin MP Arra** | **8.49** | **76** | *e*Pn | **Pn** | **15 21 38.7 -1.0** |
| **ANTO** | **Ankara** | **8.50** | **76** | *e*P | **Pn** | **15 21 40.2 +0.3** |
| **ANTO** | **Ankara** | **8.50** | **76** | *e*P | **Pn** | **15 21 40.2 +0.3** |
| **ANTO** | **Ankara** | **8.50** | **76** | *e*Pn | **Pn** | **15 21 40.1 +0.3** |
| **OZLJ** | **Ozalj** | **8.76** | **328** | *e*Pn | **Pn** | **15 21 43.3 -0.1** |
| **OZLJ** | **Ozalj** | **8.76** | **328** | *e*Pn | **Pn** | **15 21 43.1 -0.1** |
| **ARCR** | **ARCALIA** | **8.90** | **10** | ⇑*i*P | **Pn** | **15 21 47.8 +2.5** |
| **ARCR** | **ARCALIA** | **8.90** | **10** | ⇑*i*P | **Pn** | **15 21 47.8 +2.5** |
| **CRES** | **Cresnjev** | **8.93** | **329** | *e*Pn | **Pn** | **15 21 44.2 -1.5** |
| **BR101** | **Keskin Array S** | **9.14** | **78** | *e*Pn | **Pn** | **15 21 50.7 +2.0** |
| **BR101** | **Keskin Array S** | **9.14** | **78** | *e*Pn | **Pn** | **15 21 50.6 +2.0** |
| **BR131** | **Keskin Array S** | **9.14** | **78** | *e*Pn | **Pn** | **15 21 47.1 -1.6** |
| **BR131** | **Keskin Array S** | **9.14** | **78** | *e*Pn | **Pn** | **15 21 47.1 -1.6** |
| **BRTR** | **Keskin Array B** | **9.14** | **78** | Pn | **Pn** | **15 21 50.6 +2.0** |
| | comp=Z,0.6nm,0.3s,baz=259,slow=12,SNR=15 | | | | | |
| **BRTR** | **Keskin Array B** | **9.14** | **78** | *i* P | **Pn** | **15 21 51.2 +2.5** |
| BRTR | | | | pmax | pmax | |
| | comp=Z,2.0nm,0.4s | | | | | |
| **BRTR** | **Keskin Array B** | **9.14** | **78** | *i* P | **Pn** | **15 21 51.2 +2.5** |
| | comp=Z,2.0nm,0.4s | | | | | |
| **CEY** | **Cerknica** | **9.31** | **325** | *e*Pn | **Pn** | **15 21 49.8 -1.1** |
| **ILGA** | **Ilgaz** | **9.40** | **70** | *e*Pn | **Pn** | **15 21 52.2 -0.2** |
| **ILGA** | **Ilgaz** | **9.40** | **70** | *e*Pn | **Pn** | **15 21 52.2 -0.2** |
| **BURAR** | **Bucovina Array** | **9.56** | **13** | ⇑*i*P | **Pn** | **15 21 57.1 +2.7** |
| **BURAR** | **Bucovina Array** | **9.56** | **13** | P | **Pn** | **15 21 57.0 +2.7** |
| **BURAR** | **Bucovina Array** | **9.56** | **13** | ⇑*i*P | **Pn** | **15 21 57.1 +2.7** |
| **BUR04** | **Bucovina Ar. S** | **9.56** | **13** | *e*Pn | **Pn** | **15 21 51.6 -2.8** |
| **BUR08** | **Bucovina Ar. S** | **9.58** | **13** | *e*Pn | **Pn** | **15 21 52.6 -2.1** |
| **BUR08** | **Bucovina Ar. S** | **9.58** | **13** | *e*Pn | **Pn** | **15 21 52.6 -2.1** |
| **TRI** | **Trieste** | **9.59** | **323** | *e*P | **Pn** | **15 21 56.3 +1.6** |
| **TRI** | **Trieste** | **9.59** | **323** | *e*P | **Pn** | **15 21 56.3 +1.6** |
| **TRI** | **Trieste** | **9.59** | **323** | *e*Pn | **Pn** | **15 21 56.3 +1.6** |
| **PSZ** | **Piszkesteto** | **9.70** | **351** | *e*P | **Pn** | **15 21 55.9 -0.4** |
| **PSZ** | **Piszkesteto** | **9.70** | **351** | *e*P | **Pn** | **15 21 55.9 -0.4** |
| **PSZ** | **Piszkesteto** | **9.70** | **351** | *e*Pn | **Pn** | **15 21 55.9 -0.4** |
| **SOKA** | **Soboth** | **9.80** | **330** | *i* Pn | **Pn** | **15 21 57.0 -0.7** |
| | comp=Z,2.4nm,0.3s | | | | | |
| SOKA | | | | *i* Sn | **Sn** | **15 23 44.8 -3.0** |
| | comp=Z,1.7nm,0.6s | | | | | |
| **SOKA** | **Soboth** | **9.80** | **330** | Pn | **Pn** | **15 21 57.0 -0.7** |
| | comp=Z,2.4nm,0.3s | | | | | |
| **OBKA** | **Obir** | **9.86** | **328** | *i* Pn | **Pn** | **15 21 59.8 +1.3** |
| | comp=Z,2.5nm,0.4s | | | | | |
| **OBKA** | **Obir** | **9.86** | **328** | Pn | **Pn** | **15 21 59.8 +1.3** |
| | comp=Z,2.5nm,0.4s | | | | | |
| **ARSA** | **Arzberg** | **10.11** | **334** | *e*Pn | **Pn** | **15 22 02.0 +0.2** |
| | comp=Z,2.8nm,0.5s | | | | | |
| **ARSA** | **Arzberg** | **10.11** | **334** | Pn | **Pn** | **15 22 02.0 +0.2** |
| | comp=Z,2.8nm,0.5s | | | | | |
| **KECS** | **Kecovo** | **10.20** | **354** | *e*P | **Pn** | **15 22 06.3 +3.2** |
| **KECS** | **Kecovo** | **10.20** | **354** | *e*PN | **Pn** | **15 22 06.3 +3.2** |
| **VYHS** | **Vyhne** | **10.41** | **348** | *e*P | Pn | 15 22 11.9 +5.9 |
| VYHS | | | | *e* | | 15 24 01.6 |
| **VYHS** | **Vyhne** | **10.41** | **348** | *e*S | **Sn** | **15 24 01.6 -1.0** |
| **VYHS** | **Vyhne** | **10.41** | **348** | *e*PN | Pn | 15 22 11.8 +5.8 |
| VYHS | | | | *e*SN | **Sn** | **15 24 01.6 -1.0** |
| **KEST** | **Kesra** | **10.47** | **259** | LR | LR | 15 26 32.6 |
| | comp=Z,48nm,18.9s,baz=274,slow=39 | | | | | |
| **CONA** | **Conrad Observa** | **10.59** | **337** | *i* Pn | **Pn** | **15 22 09.9 +1.5** |
| | comp=Z,1.1nm,0.5s | | | | | |
| **CONA** | **Conrad Observa** | **10.59** | **337** | Pn | **Pn** | **15 22 09.9 +1.5** |
| | comp=Z,1.1nm,0.5s | | | | | |
| **MODS** | **Modra-Piesok** | **10.61** | **343** | *e*P | Pn | 15 22 20.5 +12 |
| **MODS** | **Modra-Piesok** | **10.61** | **343** | *e*PN | Pn | 15 22 20.5 +12 |
| **ABTA** | **Abfaltersbach** | **10.94** | **323** | *i* Pn | **Pn** | **15 22 13.4 +0.1** |
| | comp=Z,2.0nm,0.3s | | | | | |
| ABTA | | | | *e*Sn | **Sn** | **15 24 14.9 -0.8** |
| | comp=Z,7.8nm,0.8s | | | | | |
| **ABTA** | **Abfaltersbach** | **10.94** | **323** | Pn | **Pn** | **15 22 13.4 +0.1** |
| | comp=Z,2.0nm,0.3s | | | | | |
| ABTA | | | | Sn | **Sn** | **15 24 14.9 -0.8** |
| | comp=Z,7.8nm,0.8s | | | | | |
| **MOA** | **Molln** | **11.06** | **332** | *e*Pn | **Pn** | **15 22 16.3 +1.4** |
| | comp=Z,1.3nm,0.3s | | | | | |
| **MOA** | **Molln** | **11.06** | **332** | Pn | **Pn** | **15 22 16.3 +1.4** |
| | comp=Z,1.3nm,0.3s | | | | | |
| **VRAC** | **Vranov** | **11.64** | **342** | Pn | **Pn** | **15 22 22.7 -0.1** |
| | comp=Z,0.2nm,0.3s,baz=167,slow=9.9,SNR=3.2 | | | | | |
| VRAC | | | | LR | LR | 15 27 34.6 |
| | comp=Z,90nm,18.7s,baz=168,slow=41 | | | | | |
| **WTTA** | **Wattenberg** | **11.73** | **323** | *i* Pn | **Pn** | **15 22 24.3 +0.1** |
| | comp=Z,2.3nm,0.4s | | | | | |
| **WTTA** | **Wattenberg** | **11.73** | **323** | Pn | **Pn** | **15 22 24.3 +0.1** |
| | comp=Z,2.3nm,0.4s | | | | | |
| **WATA** | **Walderalm** | **11.81** | **323** | *i* Pn | **Pn** | **15 22 25.4 +0.1** |
| | comp=Z,3.5nm,0.4s | | | | | |
| **WATA** | **Walderalm** | **11.81** | **323** | Pn | **Pn** | **15 22 25.4 +0.1** |
| | comp=Z,3.5nm,0.4s | | | | | |
| **FUORN** | **Ofenpass-Fuorn** | **11.99** | **317** | *e*Pn | **Pn** | **15 22 27.6 -0.2** |
| **FUORN** | **Ofenpass-Fuorn** | **11.99** | **317** | *e*Pn | **Pn** | **15 22 27.6 -0.2** |
| **FETA** | **Feichten** | **12.01** | **320** | *i* Pn | **Pn** | **15 22 30.9 +2.9** |
| | comp=Z,0.7nm,0.3s | | | | | |
| **MOTA** | **Moosalm** | **12.04** | **322** | *i* Pn | **Pn** | **15 22 28.9 +0.5** |
| | comp=Z,3.1nm,0.6s | | | | | |
| **MOTA** | **Moosalm** | **12.04** | **322** | Pn | **Pn** | **15 22 28.9 +0.5** |
| | comp=Z,3.1nm,0.6s | | | | | |
| **MMAI** | **Mount Meron Ar** | **12.10** | **112** | Pn | **Pn** | **15 22 29.2 +0.1** |
| | comp=Z,1.1nm,0.3s,baz=297,slow=11,SNR=4.3 | | | | | |
| **GEA0** | **GERESS Array S** | **12.10** | **333** | *e*Pn | **Pn** | **15 22 30.4 +1.3** |
| **GEA0** | **GERESS Array S** | **12.10** | **333** | *e*Pn | **Pn** | **15 22 30.4 +1.3** |
| **GERES** | **GERESS Array B** | **12.11** | **333** | Pn | **Pn** | **15 22 31.3 +2.1** |
| | comp=Z,0.1nm,0.3s,baz=153,slow=16,SNR=4.0 | | | | | |
| GERES | | | | LR | LR | 15 28 11.3 |
| | comp=Z,254nm,20.9s,baz=150,slow=43 | | | | | |
| **DAVOX** | **Davos/Dischmat** | **12.29** | **317** | Pn | **Pn** | **15 22 33.9 +2.0** |
| | comp=Z,0.6nm,0.3s,baz=144,slow=19,SNR=3.3 | | | | | |
| DAVOX | | | | Sn | **Sn** | **15 24 48.2 -0.7** |
| | comp=Z,0.1nm,0.3s,baz=291,slow=22,SNR=3.2 | | | | | |
| DAVOX | | | | LR | LR | 15 29 38.5 |
| | comp=Z,58nm,21.0s,baz=217,slow=49 | | | | | |
| **KHC** | **Kasperske Hory** | **12.39** | **333** | *e*P | Pn | 15 22 38.5 +5.5 |
| **KHC** | **Kasperske Hory** | **12.39** | **333** | *e*P | Pn | 15 22 38.5 +5.5 |
| **TUE** | **Stuetta** | **12.40** | **315** | *e*Pn | **Pn** | **15 22 30.7 -2.6** |
| **DAVA** | **Damuels** | **12.62** | **319** | *e*Pn | **Pn** | **15 22 40.4 +4.1** |
| | comp=Z,0.6nm,0.1s | | | | | |
| **KIEV** | **Kiev** | **13.36** | **20** | *e*P | **Pn** | **15 22 49.0 +2.8** |
| **KIEV** | **Kiev** | **13.36** | **20** | *e*Pn | **Pn** | **15 22 48.1 +1.9** |
| **KIEV** | **Kiev** | **13.36** | **20** | *e*P | **Pn** | **15 22 49.0 +2.8** |
| **KIEV** | **Kiev** | **13.36** | **20** | *e*Pn | **Pn** | **15 22 48.1 +1.9** |
| **AKASG** | **Malin Array Be** | **13.37** | **20** | *i* P | Pn | 15 22 51.2 +4.8 |
| AKASG | | | | pmax | pmax | |
| | comp=Z,1.0nm,0.6s | | | | | |
| **AKBB** | **Malin Array Si** | **13.37** | **20** | *e*P | **Pn** | **15 22 47.6 +1.2** |
| **AKBB** | **Malin Array Si** | **13.37** | **20** | *e*P | **Pn** | **15 22 47.6 +1.2** |
| **AKBB** | **Malin Array Si** | **13.37** | **20** | *e*Pn | **Pn** | **15 22 47.6 +1.2** |
| **SENIN** | **Lac Senin/Sane** | **13.51** | **311** | *e*Pn | **Pn** | **15 22 49.8 +1.2** |
| **SENIN** | **Lac Senin/Sane** | **13.51** | **311** | *e*Pn | **Pn** | **15 22 49.8 +1.2** |
| **ASF** | **Jabal al Asfar** | **13.61** | **112** | Pn | **Pn** | **15 22 52.1 +2.3** |
| | comp=Z,0.3nm,0.3s,baz=216,slow=4.9,SNR=2.4 | | | | | |
| **EIL** | **Elat** | **13.76** | **125** | Pn | **Pn** | **15 22 54.0 +2.2** |
| | comp=Z,0.6nm,0.3s,baz=2.1,slow=17,SNR=3.2 | | | | | |
| **EIL** | **Elat** | **13.76** | **125** | *e*Pn | **Pn** | **15 22 54.0 +2.2** |
| **BFO** | **Black Forest** | **14.09** | **320** | *e*P | **Pn** | **15 22 55.1 -1.2** |
| **BFO** | **Black Forest** | **14.09** | **320** | *e*Pn | **Pn** | **15 22 55.1 -1.2** |
| **BFO** | **Black Forest** | **14.09** | **320** | *e*Pn | **Pn** | **15 22 55.1 -1.2** |
| **KOPT** | **Kop Dagi** | **14.42** | **78** | *e*Pn | **Pn** | **15 22 59.9 -1.2** |
| **KOPT** | **Kop Dagi** | **14.42** | **78** | *e*Pn | **Pn** | **15 22 59.9 -1.2** |
| **CLL** | **Collm** | **14.45** | **337** | *e*P | **Pn** | **15 23 02.2 +1.1** |
| **CLL** | **Collm** | **14.45** | **337** | *e*PP | **P** | **15 23 08.0 +0.1** |
| | comp=Z,13nm,1.2s | | | | | |
| **CLL** | **Collm** | **14.45** | **337** | *e*Pn | **Pn** | **15 23 02.2 +1.1** |
| **CLL** | **Collm** | **14.45** | **337** | *e*Pn | **Pn** | **15 23 02.2 +1.1** |
| **HAU** | **Haudompre** | **14.95** | **315** | *e*P | **Pn** | **15 23 10.6 +2.6** |
| HAU | | | | pmax | pmax | |
| | comp=Z,37nm,1.7s | | | | | |
| **SUW** | **Suwalki** | **15.70** | **3** | P | **P** | **15 23 22.7 +0.9** |
| SUW | | | | pmax | pmax | |
| | comp=Z,412nm,1.4s | | | | | |
| **SUW** | **Suwalki** | **15.70** | **3** | P | **P** | **15 23 22.7 +0.9** |
| | comp=Z,412nm,1.4s | | | | | |
| **SMF** | **Signal de Mont** | **15.75** | **308** | P | **P** | **15 23 22.6 +0.1** |
| SMF | | | | pmax | pmax | |
| | comp=Z,6.0nm,0.7s | | | | | |
| **SMF** | **Signal de Mont** | **15.75** | **308** | P | **P** | **15 23 22.6 +0.1** |
| | comp=Z,6.0nm,0.7s | | | | | |
| **WLF** | **Walferdange** | **16.05** | **320** | *e*P | **Pn** | **15 23 24.2 +1.9** |
| WLF | | | | pmax | pmax | |
| | comp=Z,37nm,1.5s | | | | | |
| **WLF** | **Walferdange** | **16.05** | **320** | *e*P | **Pn** | **15 23 24.2 +1.9** |
| | comp=Z,37nm,1.5s | | | | | |
| **WLF** | **Walferdange** | **16.05** | **320** | *e*Pn | **Pn** | **15 23 24.2 +1.9** |
| | comp=Z,37nm,1.5s | | | | | |
| **AVF** | **Avril sur Loir** | **16.12** | **308** | *e*P | **P** | **15 23 27.4 +0.9** |
| AVF | | | | pmax | pmax | |
| | comp=Z,19nm,1.2s | | | | | |
| **AVF** | **Avril sur Loir** | **16.12** | **308** | *e*P | **P** | **15 23 27.4 +0.9** |
| | comp=Z,19nm,1.2s | | | | | |
| **BGF** | **Bois d'Agland** | **16.34** | **306** | *e*P | **P** | **15 23 29.4 +0.4** |
| BGF | | | | pmax | pmax | |
| | comp=Z,25nm,1.0s | | | | | |
| **BGF** | **Bois d'Agland** | **16.34** | **306** | *e*P | **P** | **15 23 29.4 +0.4** |
| | comp=Z,25nm,1.0s | | | | | |
| **NEY** | **Neytrino** | **16.41** | **66** | *e*P | **P** | **15 23 29.3 -0.6** |
| NEY | | | | pmax | pmax | |
| | comp=Z,2.0nm,1.2s | | | | | |
| **NEY** | **Neytrino** | **16.41** | **66** | *e*P | **P** | **15 23 29.3 -0.6** |
| | comp=Z,2.0nm,1.2s | | | | | |
| **KIV** | **Kislovodsk** | **16.52** | **64** | *e*P | **P** | **15 23 31.8 +0.7** |
| KIV | | | | pmax | pmax | |
| | comp=Z,7.0nm,1.1s | | | | | |
| **KIV** | **Kislovodsk** | **16.52** | **64** | *e*Pn | **Pn** | **15 23 29.4 +0.9** |
| | comp=Z,7.1nm,1.0s | | | | | |
| **KIV** | **Kislovodsk** | **16.52** | **64** | *e*P | **P** | **15 23 31.8 +0.7** |
| | comp=Z,7.0nm,1.1s | | | | | |
| **KIV** | **Kislovodsk** | **16.52** | **64** | *e*Pn | **Pn** | **15 23 29.4 +0.9** |
| | comp=Z,7.1nm,1.0s | | | | | |
| **KBZ** | **Khabaz** | **16.62** | **64** | Pn | **P** | **15 23 35.4 +3.3** |
| | comp=Z,0.1nm,0.3s,baz=280,slow=6.4,SNR=6.2 | | | | | |
| **ZEI** | **Tsey** | **17.19** | **68** | *e*P | **P** | **15 23 44.0 +5.4** |
| ZEI | | | | pmax | pmax | |
| | comp=Z,10.0nm,0.9s | | | | | |
| **RGN** | **Rugen** | **17.27** | **343** | *e*Pn | **Pn** | **15 23 36.8 -0.8** |
| | comp=Z,135nm,0.8s | | | | | |
| **RGN** | **Rugen** | **17.27** | **343** | *e*Pn | **Pn** | **15 23 36.9 -0.8** |
| | comp=Z,135nm,0.8s | | | | | |
| **GNI** | **Garni** | **17.68** | **77** | P | **P** | **15 23 48.7 +4.7** |
| | comp=Z,0.5nm,0.3s,baz=179,slow=3.7,SNR=4.2 | | | | | |
| **GNI** | **Garni** | **17.68** | **77** | *e*P | **P** | **15 23 45.6 +1.6** |
| GNI | | | | pmax | pmax | |
| | comp=Z,14nm,0.9s | | | | | |
| **GNI** | **Garni** | **17.68** | **77** | *e*P | **P** | **15 23 45.6 +1.6** |
| | comp=Z,14nm,0.9s | | | | | |
| **CART** | **Cagena** | **18.18** | **275** | *e*Pn | **Pn** | **15 23 46.1 -3.0** |
| | comp=Z,42nm,1.4s | | | | | |
| **GRR** | **Gorron** | **19.37** | **309** | *e*P | **Pn** | **15 24 06.2 +2.7** |
| GRR | | | | pmax | pmax | |
| | comp=Z,39nm,1.5s | | | | | |
| **OBN** | **Obninsk** | **19.45** | **26** | LR | LR | 15 30 48.0 |
| | comp=Z,38nm,21.0s,baz=239,slow=35 | | | | | |
| **OBN** | **Obninsk** | **19.45** | **26** | *e*P | **Pn** | **15 24 05.4 +1.1** |
| OBN | | | | pmax | pmax | |
| | comp=Z,7.0nm,0.8s | | | | | |
| **OBN** | **Obninsk** | **19.45** | **26** | *e*P | **Pn** | **15 24 05.4 +1.1** |
| | comp=Z,7.0nm,0.8s | | | | | |
| **OBN** | **Obninsk** | **19.45** | **26** | *e*P | **P** | **15 23 59.5 -3.6** |
| | comp=Z,12nm,0.9s | | | | | |
| **ES19** | **SONSECA Array** | **20.18** | **282** | *e*P | **P** | **15 24 08.6 -2.8** |
| **ESDC** | **Sonseca Array** | **20.23** | **282** | P | **P** | **15 24 12.7 +0.8** |
| | comp=Z,4.5nm,0.7s,baz=77,slow=11,SNR=21 | | | | | |
| **ESLA** | **Sonseca Array** | **20.23** | **282** | *e*P | **P** | **15 24 12.6 +0.7** |
| | comp=Z,10.0nm,1.0s | | | | | |
| **ESLA** | **Sonseca Array** | **20.23** | **282** | *e*P | **P** | **15 24 12.6 +0.7** |
| | comp=Z,10.0nm,1.0s | | | | | |
| **VSU** | **Vasula** | **20.37** | **7** | *e*P | **P** | **15 24 14.6 +1.5** |
| VSU | | | | pmax | pmax | |
| | comp=Z,83nm,1.0s | | | | | |
| **VSU** | **Vasula** | **20.37** | **7** | *e*P | **P** | **15 24 14.6 +1.5** |
| | comp=Z,83nm,1.0s | | | | | |
| **PAB** | **San Pablo** | **20.54** | **282** | *e*P | **P** | **15 24 15.7 +0.5** |
| PAB | | | | pmax | pmax | |
| | comp=Z,13nm,1.0s | | | | | |
| **PAB** | **San Pablo** | **20.54** | **282** | *e*P | **P** | **15 24 15.7 +0.5** |
| | comp=Z,13nm,1.0s | | | | | |
| **PAB** | **San Pablo** | **20.54** | **282** | *e*P | **P** | **15 24 15.7 +0.5** |
| | comp=Z,13nm,1.0s | | | | | |
| **TAM** | **Tamanrasset** | **20.98** | **227** | *e*P | **P** | **15 24 22.0 +1.8** |
| TAM | | | | pmax | pmax | |
| | comp=Z,4.0nm,0.9s | | | | | |
| **TAM** | **Tamanrasset** | **20.98** | **227** | *e*P | **P** | **15 24 22.0 +1.8** |
| | comp=Z,3.7nm,0.9s | | | | | |
| **TAM** | **Tamanrasset** | **20.98** | **227** | *e*P | **P** | **15 24 22.0 +1.8** |
| | comp=Z,3.7nm,0.9s | | | | | |
| **CWF** | **Charnwood Fore** | **21.65** | **319** | *e*P | **P** | **15 24 27.6 +0.6** |
| | comp=Z,116nm,1.9s | | | | | |
| **CWF** | **Charnwood Fore** | **21.65** | **319** | *e*P | **P** | **15 24 27.6 +0.6** |
| | comp=Z,116nm,1.9s | | | | | |
| **DYA** | **Yadsworthy** | **22.02** | **312** | *e*P | **P** | **15 24 30.4 -0.6** |
| **DYA** | **Yadsworthy** | **22.02** | **312** | *e*P | **P** | **15 24 30.4 -0.6** |
| **MDT** | **Midelt** | **22.32** | **264** | P | **P** | **15 24 35.9 +1.3** |
| | comp=Z,1.7nm,0.8s,baz=61,slow=13,SNR=2.7 | | | | | |
| **FIA0** | **FINESS Array S** | **23.27** | **5** | *e*P | **P** | **15 24 42.8 -1.2** |
| **FIA0** | **FINESS Array S** | **23.27** | **5** | *e*P | **P** | **15 24 42.8 -1.2** |
| **FIA0** | **FINESS Array S** | **23.27** | **5** | *e*P | **P** | **15 24 42.8 -1.2** |
| **FINES** | **FINESS Array B** | **23.27** | **5** | P | **P** | **15 24 42.8 -1.2** |
| | comp=Z,2.5nm,0.7s,baz=177,slow=9.8,SNR=5.8 | | | | | |
| FINES | | | | LR | LR | 15 34 34.1 |
| | comp=Z,193nm,18.6s,baz=234,slow=39 | | | | | |
| **FIA1** | **FINESS Array S** | **23.27** | **5** | *e*P | **P** | **15 24 47.5 +3.5** |
| | comp=Z,113nm,1.8s | | | | | |
| **NC602** | **NORSAR Array S** | **23.37** | **347** | *e*P | **P** | **15 24 44.7 -0.4** |
| **NC602** | **NORSAR Array S** | **23.37** | **347** | *e*P | **P** | **15 24 44.7 -0.4** |
| **NAO01** | **NORSAR Array S** | **23.59** | **346** | *e*P | **P** | **15 24 47.5 +0.2** |
| **NAO01** | **NORSAR Array S** | **23.59** | **346** | *e*P | **P** | **15 24 47.5 +0.2** |
| **NC405** | **NORSAR Array S** | **23.69** | **347** | *e*P | **P** | **15 24 48.0 -0.3** |
| **NC405** | **NORSAR Array S** | **23.69** | **347** | *e*P | **P** | **15 24 48.0 -0.3** |
| **NB201** | **NORSAR Array S** | **23.71** | **347** | *e*P | **P** | **15 24 48.0 -0.5** |
| **NB201** | **NORSAR Array S** | **23.71** | **347** | *e*P | **P** | **15 24 48.0 -0.5** |
| **NB2** | **NORSAR Subarra** | **23.71** | **347** | P | **P** | **15 24 46.8 -1.7** |
| | comp=Z,19nm,1.2s,baz=159,slow=9.3 | | | | | |
| **NB2** | **NORSAR Subarra** | **23.71** | **347** | P | **P** | **15 24 46.8 -1.7** |
| | comp=Z,19nm,1.2s,SNR=6.7 | | | | | |
| **NB200** | **NORSAR Array S** | **23.71** | **347** | *e*P | **P** | **15 24 47.8 -0.7** |
| **NB200** | **NORSAR Array S** | **23.71** | **347** | *e*P | **P** | **15 24 47.8 -0.7** |
| **NOA** | **NORSAR Array B** | **23.71** | **347** | P | **P** | **15 24 47.8 -0.7** |
| | comp=Z,5.3nm,1.0s,baz=120,slow=14,SNR=6.5 | | | | | |
| NOA | | | | LR | LR | 15 36 14.4 |
| | comp=Z,95nm,18.8s,baz=145,slow=42 | | | | | |
| **NOA** | **NORSAR Array B** | **23.71** | **347** | P | **P** | **15 24 47.8 -0.7** |
| NOA | | | | pmax | pmax | |
| | comp=Z,1.0nm,0.4s | | | | | |
| NOA | | | | MLR | MLR | |
| | comp=Z,95nm,18.8s | | | | | |
| **NBO00** | **NORSAR Array S** | **23.78** | **346** | *e*P | **P** | **15 24 49.2 0.0** |
| **NBO00** | **NORSAR Array S** | **23.78** | **346** | *e*P | **P** | **15 24 49.2 0.0** |
| **NBO02** | **NORSAR Array S** | **23.79

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **ZALV** | **Zalesovo Beam** | **44.70** | **48** | *e*P | | **P** | **15 27 48.0** | **-1.5** |
| **ZALV** | **Zalesovo Beam** | **44.70** | **48** | *e*P | | **P** | **15 27 48.0** | **-1.5** |
| **ZALV** | **Zalesovo Beam** | **44.70** | **48** | *e*P | | **P** | **15 27 48.0** | **-1.5** |
| **LSZ** | **Lusaka** | **53.64** | **173** | *e*P | | **P** | **15 28 57.3** | **-1.2** |
| LSZ | | | | pmax | pmax | | | |
| | comp=Z,19nm,1.9s | | | | | | | |
| **LSZ** | **Lusaka** | **53.64** | **173** | *e*P | | **P** | **15 28 57.3** | **-1.2** |
| | comp=Z,19nm,1.9s | | | | | | | |
| **LSZ** | **Lusaka** | **53.64** | **173** | *e*P | | **P** | **15 28 57.3** | **-1.2** |
| | comp=Z,19nm,1.9s | | | | | | | |
| **SCHQ** | **Schefferville** | **59.15** | **318** | *e*P | | **P** | **15 29 36.6** | **-0.7** |
| | comp=Z,47nm,1.4s | | | | | | | |
| **SCHQ** | **Schefferville** | **59.15** | **318** | *e*P | | **P** | **15 29 36.6** | **-0.7** |
| | comp=Z,47nm,1.4s | | | | | | | |
| **SONA0** | **Songino Array** | **59.43** | **51** | *e*P | | **P** | **15 29 38.3** | **-1.2** |
| **SONA0** | **Songino Array** | **59.43** | **51** | *e*P | | **P** | **15 29 38.3** | **-1.2** |
| **SONA1** | **Songino Array** | **59.43** | **51** | *e*P | | **P** | **15 29 38.4** | **-1.1** |
| **SONA1** | **Songino Array** | **59.43** | **51** | *e*P | | **P** | **15 29 38.4** | **-1.1** |
| **SONM** | **Songino Array** | **59.43** | **51** | P | | **P** | **15 29 38.3** | **-1.2** |
| | comp=Z,1.4nm,0.7s,baz=282,slow=8.5,SNR=9.4 | | | | | | | |
| **ULN** | **Ulaanbaatar** | **59.82** | **51** | *e*P | | **P** | **15 29 41.3** | **-0.9** |
| ULN | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,1.0s | | | | | | | |
| **ULN** | **Ulaanbaatar** | **59.82** | **51** | *e*P | | **P** | **15 29 41.3** | **-0.9** |
| | comp=Z,2.6nm,1.0s | | | | | | | |
| **ULN** | **Ulaanbaatar** | **59.82** | **51** | *e*P | | **P** | **15 29 41.3** | **-0.9** |
| | comp=Z,2.6nm,1.0s | | | | | | | |
| **SHEL** | **Horse Pasture** | **59.97** | **211** | *e*P | | **P** | **15 29 42.8** | **-0.5** |
| **SHEL** | **Horse Pasture** | **59.97** | **211** | *e*P | | **P** | **15 29 42.8** | **-0.5** |
| | comp=Z,192nm,1.3s | | | | | | | |
| **SHEL** | **Horse Pasture** | **59.97** | **211** | *e*P | | **P** | **15 29 42.8** | **-0.5** |
| | comp=Z,192nm,1.3s | | | | | | | |
| **EMMW** | **East Machias** | **64.02** | **308** | *e*P | | **P** | **15 30 10.5** | **+0.2** |
| | comp=Z,89nm,1.3s | | | | | | | |
| **EMMW** | **East Machias** | **64.02** | **308** | *e*P | | **P** | **15 30 10.5** | **+0.2** |
| | comp=Z,89nm,1.3s | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **65.96** | **56** | *e*P | | **P** | **15 30 22.8** | **-0.3** |
| HHC | | | | S | | **S** | **15 39 07.5** | **-3.2** |
| HHC | | | | sS | | sS | 15 39 15.0 | -1.3 |
| HHC | | | | ScS | | **SKSac** | **15 40 14.5** | **-4.7** |
| **HHC** | **Hu-ho-hao-te** | **65.96** | **56** | SS | | SS | 15 43 23.5 | -1.6 |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,9.0nm,1.0s | | | | | | | |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,130nm,5.5s | | | | | | | |
| HHC | | | | LR | LR | | | |
| | comp=N,120nm,14.7s | | | | | | | |
| HHC | | | | LR | LR | | | |
| | comp=E,160nm,14.9s | | | | | | | |
| HHC | | | | LR | LR | | | |
| | comp=Z,68nm,15.3s | | | | | | | |
| **BOSA** | **Boshof** | **66.67** | **177** | P | | **P** | **15 30 28.9** | **+1.3** |
| | comp=Z,1.3nm,0.6s,baz=351,slow=11,SNR=3.5 | | | | | | | |
| **CM31** | **Chiang Mai Arr** | **68.69** | **83** | *e*P | | **P** | **15 30 40.1** | **-0.5** |
| **CM31** | **Chiang Mai Arr** | **68.69** | **83** | *e*P | | **P** | **15 30 40.1** | **-0.5** |
| **CMAR** | **Chiang Mai Arr** | **68.69** | **83** | P | | **P** | **15 30 38.9** | **-1.8** |
| | comp=Z,0.4nm,0.7s,baz=301,slow=6.2,SNR=6.1 | | | | | | | |
| **BILL** | **Bilibino** | **70.59** | **13** | *e*P | | P | 15 30 46.3 | -5.2 |
| BILL | | | | *e* | | | 15 31 08.0 | |
| BILL | | | | *e* | | | 15 33 28.5 | |
| BILL | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,1.1s | | | | | | | |
| **YKA** | **Yellowknife Ar** | **73.64** | **341** | P | | **P** | **15 31 09.5** | **-0.3** |
| | comp=Z,0.6nm,0.8s,baz=31,slow=5.0,SNR=12 | | | | | | | |
| **YKB5** | **Yellowknife Ar** | **73.64** | **341** | *e*P | | **P** | **15 31 09.2** | **-0.7** |
| **YKB5** | **Yellowknife Ar** | **73.64** | **341** | *e*P | | **P** | **15 31 09.2** | **-0.7** |
| **ULM** | **Lac du Bonnet** | **76.27** | **324** | P | | **P** | **15 31 25.4** | **+0.1** |
| | comp=Z,2.8nm,0.8s,baz=176,slow=3.9,SNR=5.2 | | | | | | | |
| **ULM** | **Lac du Bonnet** | **76.27** | **324** | P | | **P** | **15 31 25.4** | **+0.1** |
| ULM | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,0.9s | | | | | | | |
| **ULM** | **Lac du Bonnet** | **76.27** | **324** | P | | **P** | **15 31 25.4** | **+0.1** |
| | comp=Z,4.0nm,0.9s | | | | | | | |
| **ILAR** | **Eielson Array** | **76.86** | **355** | P | | **P** | **15 31 29.7** | **+1.3** |
| | comp=Z,0.5nm,0.8s,baz=349,slow=3.3,SNR=5.8 | | | | | | | |
| **ILB** | **Eielson Array** | **76.86** | **355** | *e*P | | **P** | **15 31 27.5** | **-0.8** |
| **ILB** | **Eielson Array** | **76.86** | **355** | *e*P | | **P** | **15 31 27.6** | **-0.8** |
| **KSAR** | **Wonju Array Be** | **78.29** | **51** | P | | **P** | **15 31 35.5** | **-1.3** |
| **KSAR** | **Wonju Array Be** | **78.29** | **51** | P | | **P** | **15 31 35.5** | **-1.3** |
| **KSAR** | **Wonju Array Be** | **78.29** | **51** | P | | **P** | **15 31 35.5** | **-1.3** |
| **KSRS** | **Korea Array** | **78.30** | **51** | P | | **P** | **15 31 35.5** | **-1.5** |
| | comp=Z,1.6nm,0.8s,baz=309,slow=5.5,SNR=4.2 | | | | | | | |
| **WR1** | **Warramunga Arr** | **119.36** | **93** | *e*PKPdf | | **PKPdf** | **15 38 27.9** | **+1.4** |
| **WRA** | **Warramunga Arr** | **119.36** | **93** | PKP | | **PKPdf** | **15 38 27.9** | **+1.3** |
| | comp=Z,0.3nm,0.7s,baz=321,slow=2.4,SNR=4.1 | | | | | | | |
| **ASAR** | **Alice Springs** | **121.01** | **97** | PKP | | **PKPdf** | **15 38 29.6** | **-0.1** |
| | comp=Z,0.4nm,0.8s,baz=322,slow=1.6,SNR=6.1 | | | | | | | |

*IDC **29** 15:24:09.0±1.4,0.°93N×123.°80E,h0km,mb3.8/5, mb1 4.0/6,mb1mx3.6/58,mbtmp3.8/6,ML4.0/1,MS2.9/1, Ms1 2.9/1,ms1mx2.4/41,Error ellipse: s-maj=91.4km s-min=19.5km az=59.0*

*NEIC **29** 15:24:25.2±1.6,0.°52N×123.°28E,h138km±15km,mb4.4/6, Error ellipse: s-maj=31.9km s-min=8.8km az=61.0*

*ISCJB **29** 15:24:26.3±0.5,0.°18N±0.°05×122.°65E±0.°05,h154km±4km, mb4.1/10,Error ellipse: s-maj=9.1km s-min=6.4km az=137.5*

*DJA **29** 15:24:28.2±0.5,0.°N±4.°×12.°3E±.°,h130km±6km,M3.9/7, mb3.8/1,MLv3.9/7*

**ISC 29 15:24:27.3±0.8,0.°18N±0.°05×122.°68E±0.°05,h146km±7km, n29,σ1°8.08/36,mb4.0/10,Minahassa Peninsula, Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MRSI** | **Marisa** | **0.80** | **292** | P | **Pn** | **15 24 49.7** | **-0.3** |
| MRSI | | | | S | **Sn** | **15 25 05.9** | **-1.4** |
| **LUWI** | **Luwuk** | **1.22** | **176** | P | **Pn** | **15 24 54.5** | **+0.8** |
| LUWI | | | | S | **Sn** | **15 25 14.0** | **+0.2** |
| **LUWI** | **Luwuk** | **1.22** | **176** | *e*Pn | **Pn** | **15 24 54.5** | **+0.8** |
| LUWI | | | | *e*Sn | **Sn** | **15 25 13.9** | **+0.1** |
| **KMSI** | **Cibinong** | **1.36** | **73** | P | **Pn** | **15 24 55.9** | **+0.9** |
| **APSI** | **Ampana** | **1.50** | **224** | P | **Pn** | **15 24 57.1** | **+0.6** |
| APSI | | | | S | **Sn** | **15 25 18.7** | **-0.1** |
| **MPSI** | **Mapaga** | **2.79** | **273** | P | **Pn** | **15 25 11.7** | **-0.1** |
| MPSI | | | | S | **Sn** | **15 25 45.0** | **-1.1** |
| **SANI** | **Sanana** | **3.98** | **124** | P | **Pn** | **15 25 28.0** | **+0.9** |
| **TTSI** | **Tana Toraja** | **4.30** | **222** | P | **Pn** | **15 25 32.6** | **+1.3** |
| TTSI | | | | S | **Sn** | **15 26 21.6** | **+0.4** |
| **LBMI** | **Labuha** | **4.89** | **100** | P | **Pn** | **15 25 40.3** | **+1.2** |
| **SPSI** | **Sidrap Palu** | **5.04** | **215** | P | **Pn** | **15 25 41.7** | **+0.5** |
| **MYLDM** | **Lahad Datu** | **6.49** | **320** | *e*Pn | **Pn** | **15 25 59.7** | **-0.8** |
| MYLDM | | | | *e*Sn | **Sn** | **15 27 14.2** | **+0.7** |
| **KKM** | **Kota Kinabalu** | **8.70** | **312** | *e*Pn | **Pn** | **15 26 33.3** | **+3.2** |
| **JAGI** | **Jajag, Banyuwa** | **12.09** | **224** | *e*Pn | **P** | **15 27 21.9** | **+0.4** |
| **TGY** | **Tagaytay City** | **13.94** | **353** | LR | LR | 15 32 45.2 | |
| | comp=Z,47nm,18.1s,baz=136,slow=39 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **18.40** | **171** | P | **Pn** | **15 28 31.6** | **-1.5** |
| | 0.4nm,0.3s,baz=11,slow=9.4,SNR=8.9 | | | | | | |
| **WRAB** | **Tennant Creek** | **23.03** | **151** | *e*P | **P** | **15 29 19.3** | **-0.5** |
| | 31nm,1.9s | | | | | | |
| **WR1** | **Warramunga Arr** | **23.03** | **151** | *e*P | **P** | **15 29 18.6** | **-1.2** |
| | 21nm,1.5s | | | | | | |
| **WRA** | **Warramunga Arr** | **23.03** | **151** | P | **P** | **15 29 18.6** | **-1.2** |
| | 1.8nm,0.7s,baz=332,slow=12,SNR=24 | | | | | | |
| **WB2** | **Warramunga Arr** | **23.04** | **151** | *e*P | **P** | **15 29 18.5** | **-1.4** |
| **COEN** | **Coen** | **24.68** | **126** | *e*P | **P** | **15 29 35.6** | **+0.7** |
| | 131nm,1.8s | | | | | | |
| **AS31** | **Alice Springs** | **26.09** | **156** | *e*P | **P** | **15 29 46.2** | **-1.4** |
| | 3.3nm,1.7s | | | | | | |
| **ASAR** | **Alice Springs** | **26.09** | **156** | P | **P** | **15 29 47.4** | **-0.2** |
| | 0.5nm,0.5s,baz=329,slow=9.7,SNR=14 | | | | | | |
| ASAR | | | | PcP | **PcP** | **15 33 10.5** | **-1.1** |
| | 0.3nm,0.3s,baz=348,slow=2.1,SNR=13 | | | | | | |
| **AS01** | **Alice Springs** | **26.11** | **156** | *e*P | **P** | **15 29 46.8** | **-0.9** |
| **CMAR** | **Chiang Mai Arr** | **29.56** | **309** | P | **P** | **15 30 19.8** | **+1.2** |
| | 0.6nm,0.7s,baz=130,slow=6.9,SNR=5.0 | | | | | | |
| **STKA** | **Stephens Creek** | **36.56** | **152** | P | **P** | **15 31 19.1** | **-0.1** |
| | 0.9nm,0.4s,baz=328,slow=9.4,SNR=3.8 | | | | | | |
| **STKA** | **Stephens Creek** | **36.56** | **152** | *e*P | **P** | **15 31 19.2** | **+0.1** |
| | 6.1nm,2.0s | | | | | | |
| **CAN** | **Canberra** | **43.01** | **148** | *e*P | **P** | **15 32 13.4** | **+1.0** |
| | 76nm,1.8s | | | | | | |
| **MK32** | **Makanchi Array** | **58.30** | **328** | *e*P | **P** | **15 34 05.8** | **-0.9** |
| **MKAR** | **Makanchi Array** | **58.30** | **328** | P | **P** | **15 34 05.8** | **-0.9** |
| | 1.7nm,0.7s,baz=119,slow=8.4,SNR=1.6 | | | | | | |

*IDC **29** 15:27:16.6±0.5,38.°45N×70.°72E,h0km,mb4.3/24, mb1 4.4/31,mb1mx4.2/66,mbtmp4.3/31,ML3.8/7,MS3.9/33, Ms1 3.9/33,ms1mx3.8/55,Error ellipse: s-maj=10.9km s-min=9.1km az=149.0*

*NNC **29** 15:27:16.8±1.5,38.°48N×70.°44E,h0km,mb5.0,mpv4.8, Error ellipse: s-maj=11.6km s-min=10.1km az=14.0*

*ISCJB **29** 15:27:16.9±0.1,38.°62N±0.°02×70.°74E±0.°03,h10km, mb4.6/100,MS3.9/33,Error ellipse: s-maj=3.0km s-min=2.5km az=137.0*

*BJI **29** 15:27:17.3,38.°69N×70.°54E,h16km,mb4.6/27,mB4.9/23, ML4.7/4,Ms4.5/21,Ms7 4.3/20*

*MOS **29** 15:27:22.6±1.2,38.°72N×70.°72E,h54km,mb4.7/45, MS4.1/11,Error ellipse: s-maj=5.9km s-min=4.3km az=84.2*

*NEIC **29** 15:27:23.1±0.6,38.°66N×70.°76E,h44km±6km,mb4.7/58, Error ellipse: s-maj=4.9km s-min=3.7km az=189.0*

**ISC 29 15:27:18.6±0.3,38.°69N±0.°03×70.°78E±0.°03,h10km,n307, σ2°30/316,mb4.7/100,MS3.9/33,22C-20D, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SFK** | **Sufi-Kurgan** | **2.50** | **57** | ⇑Pn | **Pb** | **15 28 04.0** | **+0.3** |
| | 480nm,0.6s | | | | | | |
| SFK | | | | ⇓Lg | Lg | 15 28 44.3 | |
| | 1μm,0.6s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **2.50** | **57** | PN | **Pb** | **15 28 04.0** | **+0.3** |
| SFK | | | | pmax | pmax | | |
| | comp=Z,480nm,0.6s | | | | | | |
| **MNAS** | **Manas** | **4.02** | **19** | ⇑Pn | **Pn** | **15 28 24.5** | **+4.2** |
| | comp=Z,92nm,0.5s | | | | | | |
| MNAS | | | | ⇓Sn | **Sb** | **15 29 18.5** | **+0.2** |
| | comp=Z,350nm,0.6s | | | | | | |
| **MNAS** | **Manas** | **4.02** | **19** | PN | **Pn** | **15 28 24.5** | **+4.2** |
| MNAS | | | | S | **Sb** | **15 29 18.5** | **+0.2** |
| MNAS | | | | pmax | pmax | | |
| | comp=Z,92nm,0.5s | | | | | | |
| MNAS | | | | smax | smax | | |
| | comp=N,360nm,0.6s | | | | | | |
| **AML** | **Almayashu** | **4.10** | **32** | P | **Pn** | **15 28 26.3** | **+4.6** |
| | SNR=41 | | | | | | |
| **KSH** | **Kashi** | **4.13** | **77** | Pn | **Pn** | **15 28 21.3** | **-0.5** |
| KSH | | | | Sg | **Sb** | **15 29 21.5** | **+0.1** |
| KSH | | | | smax | smax | | |
| | comp=N,2μm,1.1s | | | | | | |
| KSH | | | | smax | smax | | |
| | comp=N,1μm,0.8s | | | | | | |
| **KBL** | **Kabul** | **4.37** | **199** | *e*PN | **Pn** | **15 28 28.3** | **+3.1** |
| **KBL** | **Kabul** | **4.37** | **199** | *e*Pn | **Pn** | **15 28 28.3** | **+3.1** |
| KBL | | | | *e*Sn | **Sn** | **15 29 16.4** | **+0.2** |
| **KK31** | **Karatay Array** | **4.42** | **357** | ⇓Pn | **Pn** | **15 28 29.0** | **+3.3** |
| | comp=N,55nm,0.5s,baz=170,slow=12,SNR=872 | | | | | | |
| KK31 | | | | ⇑Sn | **Sn** | **15 29 22.9** | **+5.7** |
| | comp=N,87nm,0.5s | | | | | | |
| KK31 | | | | ⇓Lg | Lg | 15 29 40.2 | |
| | comp=N,778nm,1.1s,baz=177,slow=26,SNR=6.6 | | | | | | |
| **KK31** | **Karatay Array** | **4.42** | **357** | PN | **Pn** | **15 28 29.2** | **+3.5** |
| KK31 | | | | S | **Sn** | **15 29 22.9** | **+5.7** |
| KK31 | | | | pmax | pmax | | |
| | comp=Z,55nm,0.5s | | | | | | |
| KK31 | | | | smax | smax | | |
| | comp=N,87nm,0.5s | | | | | | |
| **KKAR** | **Karatay Array** | **4.42** | **357** | *e*PN | **Pn** | **15 28 29.0** | **+3.3** |
| KKAR | | | | *e* | | 15 29 19.3 | |
| **KKAR** | **Karatay Array** | **4.42** | **357** | *e*Pn | **Pn** | **15 28 29.0** | **+3.3** |
| KKAR | | | | *e*Sn | **Sn** | **15 29 19.3** | **+2.1** |
| **UCH** | **Uchtor** | **4.54** | **38** | P | **Pn** | **15 28 31.7** | **+3.9** |
| | SNR=82 | | | | | | |
| **EKS2** | **Erkin-Say** | **4.58** | **29** | P | **Pn** | **15 28 32.6** | **+4.5** |
| | SNR=105 | | | | | | |
| **KZA** | **Kyzart** | **4.81** | **44** | P | **Pn** | **15 28 35.8** | **+4.3** |
| | SNR=11 | | | | | | |
| **AAK** | **Ala-Archa** | **4.85** | **34** | Pn | Pn | 15 28 37.6 | +5.8 |
| | comp=N,20nm,0.3s,baz=197,slow=12,SNR=107 | | | | | | |
| AAK | | | | Pg | **Pg** | **15 28 53.5** | **+1.9** |
| | comp=N,15nm,0.3s,baz=207,slow=9.5,SNR=6.2 | | | | | | |
| AAK | | | | Sn | **Sb** | **15 29 37.8** | **-4.6** |
| | comp=N,9.1nm,0.3s,baz=76,slow=15,SNR=4.1 | | | | | | |
| AAK | | | | Lg | Lg | 15 29 53.7 | |
| | comp=N,12nm,0.3s,baz=340,slow=12,SNR=4.3 | | | | | | |
| **AAK** | **Ala-Archa** | **4.85** | **34** | ⇑Pn | **Pn** | **15 28 36.1** | **+4.3** |
| | comp=N,181nm,0.7s | | | | | | |
| AAK | | | | ⇓Sn | **Sb** | **15 29 37.1** | **-5.3** |
| | comp=N,465nm,1.0s | | | | | | |
| AAK | | | | ⇓Lg | Lg | 15 29 59.9 | |
| | comp=N,665nm,1.1s | | | | | | |
| **AAK** | **Ala-Archa** | **4.85** | **34** | *e*PN | **Pn** | **15 28 35.9** | **+4.1** |
| **AAK** | **Ala-Archa** | **4.85** | **34** | P | **Pn** | **15 28 36.2** | **+4.4** |
| | SNR=283 | | | | | | |
| **AAK** | **Ala-Archa** | **4.85** | **34** | *e*Pn | **Pn** | **15 28 36.0** | **+4.1** |
| AAK | | | | *e*Pg | **Pg** | **15 28 53.5** | **+1.9** |
| AAK | | | | *e*Sn | **Sn** | **15 29 30.6** | **+2.4** |
| AAK | | | | *e*Lg | Lg | 15 29 53.7 | |
| **CEP** | **Cherat** | **4.94** | **169** | P | **Pn** | **15 28 37.3** | **+4.3** |
| CEP | | | | S | **Sb** | **15 29 43.0** | **-1.8** |
| **FRU** | **Bishkek** | **5.07** | **34** | *e*PN | Pn | 15 28 40.0 | +5.4 |
| FRU | | | | *e*S | **Sb** | **15 29 46.0** | **-2.3** |
| FRU | | | | pmax | pmax | | |
| | comp=Z,450nm,1.6s | | | | | | |
| FRU | | | | smax | smax | | |
| | comp=E,2μm,1.8s | | | | | | |
| **KBK** | **Karagaybulak** | **5.08** | **37** | P | **Pn** | **15 28 39.4** | **+4.5** |
| | SNR=168 | | | | | | |
| **CHMS** | **Chumysh** | **5.26** | **34** | P | **Pn** | **15 28 41.2** | **+3.9** |
| | SNR=173 | | | | | | |
| **USP** | **Ospenovka** | **5.37** | **30** | P | **Pn** | **15 28 42.4** | **+3.5** |
| | SNR=55 | | | | | | |
| **CHCP** | **Chirah Chowk** | **5.41** | **157** | P | **Pn** | **15 28 43.8** | **+4.5** |
| **ULHL** | **Ulahol** | **5.48** | **48** | P | **Pn** | **15 28 44.5** | **+4.0** |
| | SNR=14 | | | | | | |
| **TKM2** | **Tokmak 2** | **5.59** | **39** | ⇑Pn | **Pn** | **15 28 46.1** | **+4.1** |
| | comp=E,102nm,0.6s | | | | | | |
| TKM2 | | | | ⇓Sn | **Sn** | **15 29 55.0** | **+8.6** |
| | comp=E,218nm,0.8s | | | | | | |
| TKM2 | | | | ⇓Lg | Lg | 15 30 23.4 | |
| | comp=E,226nm,0.9s | | | | | | |
| **TKM2** | **Tokmak 2** | **5.59** | **39** | PN | **Pn** | **15 28 46.2** | **+4.1** |
| TKM2 | | | | S | **Sn** | **15 29 55.1** | **+8.6** |
| TKM2 | | | | pmax | pmax | | |
| | comp=Z,102nm,0.6s | | | | | | |
| TKM2 | | | | smax | smax | | |
| | comp=N,218nm,0.8s | | | | | | |
| **TKM2** | **Tokmak 2** | **5.59** | **39** | P | **Pn** | **15 28 45.6** | **+3.6** |
| | SNR=77 | | | | | | |
| **THW** | **Thamme Wali** | **5.93** | **172** | P | Pn | 15 28 52.0 | +5.4 |
| **AAA** | **Alma-Ata** | **6.48** | **44** | *i* PN | **Pn** | **15 28 58.6** | **+4.5** |
| AAA | | | | MLR | MLR | | |
| | comp=Z,3μm,5.0s | | | | | | |
| **KNDC** | **Almaty** | **6.51** | **44** | ⇓Pn | Pn | 15 29 00.3 | +5.8 |
| KNDC | | | | ⇑Pg | **Pg** | **15 29 20.7** | **-2.6** |
| KNDC | | | | ⇑Lg | Lg | 15 30 53.0 | |
| **MDOK** | **Medeo** | **6.52** | **45** | Pn | **Pn** | **15 28 58.3** | **+3.6** |
| MDOK | | | | Pg | **Pg** | **15 29 21.1** | **-2.4** |
| MDOK | | | | Lg | Lg | 15 30 54.2 | |
| **SARP** | **Sargodha** | **6.92** | **167** | P | Pn | 15 29 06.3 | +6.1 |
| **THN** | **Thein Dam** | **7.42** | **146** | *e*P | **Pn** | **15 29 09.5** | **+2.5** |
| THN | | | | *ex* | x | 15 30 38.6 | |
| **DHRM** | **DHARAMSHALA** | **7.84** | **143** | *e*P | **Pn** | **15 29 15.7** | **+2.7** |
| DHRM | | | | *e*S | **Sn** | **15 30 40.1** | **-1.9** |
| **PDGK** | **Podgornoye** | **8.05** | **52** | ⇓Pn | **Pn** | **15 29 18.3** | **+2.5** |
| | comp=Z,18nm,1.1s | | | | | | |
| PDGK | | | | ⇑Pg | **Pg** | **15 29 50.4** | **-2.4** |
| | comp=Z,57nm,1.0s | | | | | | |
| PDGK | | | | ⇓Lg | Lg | 15 31 42.0 | |
| | comp=Z,118nm,1.0s | | | | | | |
| **PDGK** | **Podgornoye** | **8.05** | **52** | P | **Pn** | **15 29 18.3** | **+2.5** |
| PDGK | | | | pmax | pmax | | |
| | comp=Z,18nm,1.1s | | | | | | |
| **BHK** | **Bhakra** | **8.60** | **146** | *e*P | Pn | 15 29 40.3 | +17 |
| BHK | | | | *e*S | **Sn** | **15 31 04.6** | **+4.4** |
| **SDNR** | **Sundarnagar** | **8.78** | **143** | *e*P | **Pn** | **15 29 26.0** | **+0.3** |
| SDNR | | | | *ex* | x | 15 31 04.5 | |
| **SMLA** | **Simla** | **9.18** | **143** | *e*P | **Pn** | **15 29 32.4** | **+1.2** |
| SMLA | | | | *e*S | **Sn** | **15 31 12.0** | **-2.5** |
| **GEYT** | **Alibeck** | **9.98** | **270** | Pn | **Pn** | **15 29 39.8** | **-2.3** |
| | comp=Z,1.6nm,0.3s,baz=92,slow=9.3,SNR=14 | | | | | | |
| GEYT | | | | Sn | **Sn** | **15 31 27.8** | **-6.3** |
| | comp=Z,0.7nm,0.3s,baz=66,slow=14,SNR=3.0 | | | | | | |
| GEYT | | | | Lg | Lg | 15 32 43.0 | |
| | baz=62,slow=28,SNR=2.7 | | | | | | |
| **DDI** | **Dehra Dun** | **10.28** | **142** | *e*P | **Pn** | **15 29 48.2** | **+2.1** |
| DDI | | | | *e*S | **Sn** | **15 31 37.6** | **-3.9** |
| DDI | | | | AML | AML | 15 33 05.7 | |
| | comp=N,191nm,0.4s | | | | | | |
| DDI | | | | AML | AML | 15 33 05.7 | |
| | comp=E,239nm,0.2s | | | | | | |
| **NDI** | **New Delhi** | **11.32** | **150** | *e*P | **Pn** | **15 30 01.0** | **+0.5** |
| NDI | | | | *ex* | x | 15 32 04.0 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **MAKZ** | **Makanchi** | **11.55** | **42** | *e*P | | **Pn** | **15 30 07.0** | **+3.4** |
| **MAKZ** | **Makanchi** | **11.55** | **42** | *e*Pn | | **Pn** | **15 30 07.0** | **+3.4** |
| **MK01** | **Makanchi Array** | **11.70** | **43** | *e*Pn | | **Pn** | **15 30 07.9** | **+2.3** |
| **MK31** | **Makanchi Array** | **11.71** | **43** | ⇑Pn | | **Pn** | **15 30 08.7** | **+3.0** |
| | comp=E,16nm,0.7s,baz=236,slow=14,SNR=5.4 | | | | | | | |
| MK31 | | | | ⇑Lg | Lg | | 15 33 40.9 | |
| | comp=E,21nm,0.9s,baz=256,slow=24,SNR=4.0 | | | | | | | |
| **MK31** | **Makanchi Array** | **11.71** | **43** | *e*P | | **Pn** | **15 30 08.7** | **+3.0** |
| **MK31** | **Makanchi Array** | **11.71** | **43** | *e*Pn | | **Pn** | **15 30 08.7** | **+3.0** |
| **MK32** | **Makanchi Array** | **11.71** | **43** | *e*Pn | | **Pn** | **15 30 08.4** | **+2.8** |
| MK32 | | | | *e*Lg | Lg | | 15 33 27.6 | |
| MK32 | | | | *e* | | | 15 34 12.4 | |
| **MKAR** | **Makanchi Array** | **11.71** | **43** | Pn | | **Pn** | **15 30 08.5** | **+2.8** |
| | comp=E,1.1nm,0.3s,baz=232,slow=14,SNR=32 | | | | | | | |
| MKAR | | | | Lg | Lg | | 15 33 27.6 | |
| | comp=E,0.2nm,0.3s,baz=225,slow=22,SNR=3.2 | | | | | | | |
| MKAR | | | | LR | LR | | 15 34 12.4 | |
| | comp=E,293nm,18.9s,baz=232,slow=35 | | | | | | | |
| **MKAR** | **Makanchi Array** | **11.71** | **43** | *i* P | | **Pn** | **15 30 08.8** | **+3.1** |
| MKAR | | | | pmax | pmax | | | |
| | comp=Z,15nm,1.0s | | | | | | | |
| **AB31** | **Akbulak array** | **13.12** | **327** | ⇓Pn | | **Pn** | **15 30 23.2** | **-1.7** |
| | comp=Z,45nm,0.8s,baz=145,slow=12,SNR=419 | | | | | | | |
| AB31 | | | | ⇓Sn | | **Sn** | **15 32 51.3** | **+0.5** |
| | comp=Z,46nm,0.9s,baz=149,slow=23,SNR=4.3 | | | | | | | |
| AB31 | | | | ⇑Lg | Lg | | 15 34 16.6 | |
| | comp=Z,33nm,0.9s,baz=66,slow=7.7,SNR=3.5 | | | | | | | |
| **AB31** | **Akbulak array** | **13.12** | **327** | *e*P | | **Pn** | **15 30 24.1** | **-0.8** |
| AB31 | | | | *e* | | | 15 32 49.4 | |
| AB31 | | | | pmax | pmax | | | |
| | comp=Z,45nm,0.9s | | | | | | | |
| AB31 | | | | smax | smax | | | |
| | comp=N,46nm,1.0s | | | | | | | |
| **ABKAR** | **Akbulak array** | **13.12** | **327** | *e*Pn | | **Pn** | **15 30 22.4** | **-2.5** |
| **KURBB** | **Kurchatov Arra** | **13.14** | **22** | Pn | | **Pn** | **15 30 25.1** | **0.0** |
| | comp=N,0.2nm,0.3s,baz=217,slow=13,SNR=27 | | | | | | | |
| KURBB | | | | Sn | | **Sn** | **15 32 51.8** | **+0.5** |
| | comp=N,0.0nm,0.3s,baz=232,slow=22,SNR=5.1 | | | | | | | |
| KURBB | | | | Lg | Lg | | 15 34 09.7 | |
| | comp=N,0.1nm,0.3s,baz=206,slow=26,SNR=4.5 | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **13.14** | **22** | ⇓Pn | | **Pn** | **15 30 26.4** | **+1.2** |
| | comp=N,14nm,0.8s | | | | | | | |
| KURBB | | | | ⇑Lg | Lg | | 15 34 21.4 | |
| | comp=N,85nm,0.8s | | | | | | | |
| **KURK** | **Kurchatov** | **13.25** | **22** | *c*e P | | **Pn** | **15 30 27.5** | **+0.9** |
| KURK | | | | pmax | pmax | | | |
| | comp=Z,41nm,1.2s | | | | | | | |
| **KURK** | **Kurchatov** | **13.25** | **22** | *e*Pn | | **Pn** | **15 30 25.1** | **-1.5** |
| **BVA0** | **Borovoye Array** | **14.34** | **359** | ⇓Pn | | **Pn** | **15 30 41.7** | **+0.1** |
| | comp=Z,23nm,1.1s,baz=165,slow=11,SNR=48 | | | | | | | |
| BVA0 | | | | ⇓Lg | Lg | | 15 35 00.2 | |
| | comp=Z,80nm,1.5s,baz=175,slow=7.4,SNR=6.7 | | | | | | | |
| **BVA0** | **Borovoye Array** | **14.34** | **359** | P | | **Pn** | **15 30 41.7** | **+0.1** |
| BVA0 | | | | pmax | pmax | | | |
| | comp=Z,23nm,1.1s | | | | | | | |
| **BVAR** | **Borovoye Array** | **14.34** | **359** | Pn | | **Pn** | **15 30 42.0** | **+0.3** |
| | comp=Z,1.5nm,0.3s,baz=165,slow=12,SNR=23 | | | | | | | |
| BVAR | | | | Lg | Lg | | 15 34 53.1 | |
| | comp=Z,0.4nm,0.3s,baz=179,slow=22,SNR=3.5 | | | | | | | |
| BVAR | | | | LR | LR | | 15 36 28.2 | |
| | comp=Z,1μm,18.5s,baz=242,slow=38 | | | | | | | |
| **BVAR** | **Borovoye Array** | **14.34** | **359** | P | | **Pn** | **15 30 42.0** | **+0.3** |
| BVAR | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.3s | | | | | | | |
| BVAR | | | | MLR | MLR | | | |
| | comp=Z,1μm,18.5s | | | | | | | |
| **BRVK** | **Borovoye** | **14.38** | **359** | *c*e P | | **Pn** | **15 30 43.4** | **+1.3** |
| BRVK | | | | pmax | pmax | | | |
| | comp=Z,87nm,1.2s | | | | | | | |
| **BRVK** | **Borovoye** | **14.38** | **359** | *e*Pn | | **Pn** | **15 30 42.9** | **+0.8** |
| **AKTO** | **Aktyubinsk** | **14.83** | **327** | Pn | | **Pn** | **15 30 48.0** | **-0.3** |
| | comp=Z,0.9nm,0.3s,baz=135,slow=5.5,SNR=28 | | | | | | | |
| AKTO | | | | Sn | | **Sn** | **15 33 29.4** | **-3.1** |
| | comp=Z,0.6nm,0.3s,baz=340,slow=19,SNR=3.8 | | | | | | | |
| AKTO | | | | Lg | Lg | | 15 35 17.8 | |
| | comp=Z,0.1nm,0.3s,baz=84,slow=20,SNR=1.9 | | | | | | | |
| AKTO | | | | LR | LR | | 15 36 58.7 | |
| | comp=Z,538nm,20.4s,baz=145,slow=39 | | | | | | | |
| **AKTO** | **Aktyubinsk** | **14.83** | **327** | ⇓Sn | | **Sn** | **15 33 31.9** | **-0.6** |
| | comp=Z,57nm,1.1s | | | | | | | |
| AKTO | | | | ⇓Lg | Lg | | 15 35 10.6 | |
| | comp=Z,88nm,1.4s | | | | | | | |
| **AKTO** | **Aktyubinsk** | **14.83** | **327** | *i* P | | **Pn** | **15 30 47.6** | **-0.7** |
| AKTO | | | | pmax | pmax |

**GNI Garni 20.15 282** *e*P Pn 15 31 55.5 +0.6
comp=Z,35nm,1.0s
**POO Poona 20.26 172** *e*P **P** **15 31 53.3 -1.0**
**HVS Khovu-Aksy 20.36 45** *e*P **P** **15 31 54.6 -0.6**
HVS pmax pmax
comp=Z,24nm,1.0s
**ZEI Tsey 20.74 290** *e*P **P** **15 31 59.9 +0.4**
ZEI pmax pmax
comp=Z,33nm,0.6s
**NCK Nalchik 21.00 292** *e*P **P** **15 32 02.0 -0.1**
NCK pmax pmax
comp=Z,48nm,0.9s
**KBZ Khabaz 21.52 292** P **P** **15 32 06.8 -0.9**
comp=Z,4.5nm,0.8s,baz=106,slow=8.3,SNR=14
KBZ LR LR 15 42 11.5
comp=Z,437nm,19.3s,baz=88,slow=42
**GOF Gofitskoye 21.55 296** ⇑ *i*P **P** **15 32 09.1 +1.1**
GOF pmax pmax
comp=Z,78nm,0.9s
**NEY Neytrino 21.62 291** *e*P **P** **15 32 10.0 +1.0**
NEY pmax pmax
comp=Z,3.0nm,0.9s
**KVAR Kislovodsk Arr 21.68 293** LR LR 15 41 54.6
comp=Z,435nm,20.6s,baz=68,slow=40
**KIV Kislovodsk 21.69 293** *e*P **P** **15 32 11.4 +1.8**
KIV pmax pmax
comp=Z,27nm,1.0s
KIV MLR MLR
comp=Z,409nm,14.0s
**KIV Kislovodsk 21.69 293** *e*P **P** **15 32 08.1 -1.5**
comp=Z,26nm,0.7s
**SHL Shillong 22.09 120** *e*P **P** **15 32 13.8 -0.3**
**ARTV Artvin 22.22 286** *e*P **P** **15 32 16.3 +0.8**
comp=Z,20nm,1.2s
**HYB Hyderabad 22.26 160** *i*P **P** **15 32 18.0 +2.2**
**HYB Hyderabad 22.26 160** *e*P **P** **15 32 14.6 -1.2**
HYB AMB AMB 15 32 18.6
comp=Z,33nm,0.3s
**GTA Gaotai 22.53 79** ⇑P **P** **15 32 19.3 +0.6**
GTA pP sP 15 32 26.3 +3.5
GTA sP pP 15 32 31.0 +9.5
GTA pmax pmax
comp=Z,120nm,4.8s
GTA LR LR
comp=Z,440nm,18.5s
GTA LR LR
comp=Z,520nm,20.4s
GTA LR LR
comp=Z,570nm,19.2s
**KOPT Kop Dagi 23.40 283** *e*P **P** **15 32 31.6 +3.7**
comp=Z,9.9nm,0.8s
**MARD Mardin 23.63 276** *e*P **P** **15 32 31.6 +1.5**
comp=Z,8.6nm,0.8s
**VRH Novokhopyorsk 23.90 311** *e*P P 15 32 39.9 +7.6
VRH pmax pmax
comp=Z,40nm,1.2s
**BRDH Bariadhala 23.93 126** LR LR 15 44 26.8
comp=Z,687nm,18.1s,baz=320,slow=43
**MOY Mondy 24.74 49** *e*P **P** **15 32 42.3 +2.1**
MOY pmax pmax
comp=Z,14nm,1.5s
**VSR Storozhevoye 25.42 310** *e*P **P** **15 32 44.6 -1.6**
VSR pmax pmax
comp=Z,10.0nm,1.0s
**ANN Anapa 25.50 295** *e*P **P** **15 32 45.9 -1.0**
ANN *e**PP sP 15 33 02.7 +11
ANN *e*S **S** **15 37 04.9 -9.2**
ANN pmax pmax
comp=Z,33nm,1.0s
ANN MLR MLR
comp=E,654nm,14.0s
ANN MLR MLR
comp=Z,594nm,14.0s
**ZAK Zakamensk 25.74 52** *e*P **P** **15 32 50.9 +1.6**
ZAK pmax pmax
comp=Z,9.0nm,1.3s
**LPSR Galich'ya Gora 26.00 313** *e*P **P** **15 32 48.1 -3.4**
LPSR pmax pmax
comp=Z,7.0nm,0.7s
**RAYN Ar Rayn 26.28 242** *e*P **P** **15 32 53.9 -0.4**
comp=Z,8.0nm,0.8s
**TLY Talaya 26.31 50** LR LR 15 44 03.2
comp=Z,126nm,21.9s,baz=257,slow=38
**TLY Talaya 26.31 50** *e*P **P** **15 32 54.1 -0.2**
TLY pmax pmax
comp=Z,7.0nm,1.2s
**TLY Talaya 26.31 50** *e*P **P** **15 32 53.4 -1.0**
comp=Z,6.5nm,0.9s
**LZH Lanzhou 26.32 85** *e*P **P** **15 32 59.0 +4.2**
LZH pP sP 15 33 04.0 +4.9
LZH sP pP 15 33 07.5 +10
LZH pmax pmax
comp=Z,28nm,1.0s
LZH pmax pmax
comp=Z,130nm,4.0s
LZH LR LR
comp=Z,480nm,10.2s
LZH LR LR
comp=Z,700nm,11.0s
LZH LR LR
comp=Z,970nm,12.6s
**SONA0 Songino Array 27.30 59** *e*P **P** **15 33 04.0 +0.7**
**SONM Songino Array 27.30 59** P **P** **15 33 04.0 +0.7**
comp=Z,1.5nm,0.9s,baz=272,slow=10,SNR=10
SONM LR LR 15 44 40.7
comp=Z,439nm,21.7s,baz=250,slow=38
**SONA1 Songino Array 27.30 59** *e*P **P** **15 33 03.3 -0.1**
**ULN Ulaanbaatar 27.74 59** *i*P **P** **15 33 08.1 +0.7**
ULN pmax pmax
comp=Z,6.0nm,1.0s
**ULN Ulaanbaatar 27.74 59** *e*P **P** **15 33 07.9 +0.5**
comp=Z,10nm,1.4s
**OBN Obninsk 28.19 317** LR LR 15 46 14.6
comp=Z,268nm,18.2s,baz=106,slow=40
**OBN Obninsk 28.19 317** *e*P **P** **15 33 10.4 -0.7**
OBN *e* 15 34 04.5
OBN pmax pmax
comp=Z,13nm,1.2s
**BR101 Keskin Array S 28.67 284** *e*P **P** **15 33 15.0 -0.7**
**BR131 Keskin Array S 28.67 284** *e*P **P** **15 33 15.0 -0.7**
**BRTR Keskin Array B 28.67 284** P **P** **15 33 15.0 -0.7**
comp=Z,0.9nm,0.9s,baz=88,slow=6.5,SNR=2.8
**MMAI Mount Meron Ar 29.10 270** LR LR 15 45 36.3
comp=Z,50nm,20.9s,baz=55,slow=38
**ANTO Ankara 29.28 284** *e*P **P** **15 33 21.0 -0.1**
ANTO pmax pmax
comp=Z,8.0nm,0.8s
**ANTO Ankara 29.28 284** *e*P **P** **15 33 21.0 -0.1**
comp=Z,8.0nm,0.8s
**BR231 Keskin MP Arra 29.30 284** *e*P **P** **15 33 19.1 -2.2**
**EIL Elat 30.81 264** LR LR 15 48 06.3
comp=Z,208nm,21.8s,baz=64,slow=41
**XAN Xi'an 30.91 87** P **P** **15 33 38.0 +2.4**
XAN pmax pmax
comp=Z,6.0nm,0.9s
XAN pmax pmax
comp=Z,61nm,3.6s
**HHC Hu-ho-hao-te 31.23 73** *e*P **P** **15 33 40.0 +1.7**
HHC S **S** **15 38 44.0 -0.7**
HHC ScS **ScS** **15 44 12.3 -0.8**
HHC pmax pmax
comp=Z,13nm,1.0s
HHC pmax pmax
comp=Z,110nm,5.2s
HHC LR LR
comp=Z,330nm,11.8s
HHC LR LR
comp=Z,390nm,14.5s
HHC LR LR
comp=Z,400nm,12.3s
**CHTO Chiang Mai 31.45 121** *e*P **P** **15 33 40.4 +0.1**
CHTO pmax pmax
comp=Z,10.0nm,1.6s
**CHTO Chiang Mai 31.45 121** *e*P **P** **15 33 40.4 +0.1**
comp=Z,10nm,1.6s
**AKASG Malin Array Be 31.48 306** P **P** **15 33 40.2 0.0**
comp=Z,1.9nm,0.6s,baz=110,slow=8.4,SNR=8.5
AKASG LR LR 15 49 34.2
comp=Z,197nm,19.0s,baz=120,slow=42
**AKASG Malin Array Be 31.48 306** *ce*P **P** **15 33 42.7 +2.5**
AKASG pmax pmax
comp=Z,3.0nm,0.6s
**AKBB Malin Array Si 31.48 306** *e*P **P** **15 33 39.9 -0.4**
AKBB pmax pmax
comp=Z,8.0nm,0.8s
**AKBB Malin Array Si 31.48 306** *e*P **P** **15 33 39.9 -0.4**
comp=Z,7.7nm,0.8s
**KIEV Kiev 31.48 306** *e*P **P** **15 33 39.9 -0.4**
KIEV pmax pmax
comp=Z,8.0nm,0.8s
**KIEV Kiev 31.48 306** *e*P **P** **15 33 39.9 -0.4**
comp=Z,7.6nm,0.8s
**AK11 Malin Array Si 31.51 306** *e*P **P** **15 33 40.2 -0.4**
**CM31 Chiang Mai Arr 31.70 122** *e*P **P** **15 33 41.8 -0.7**
**CMAR Chiang Mai Arr 31.70 122** P **P** **15 33 42.1 -0.4**
comp=Z,0.9nm,0.9s,baz=311,slow=8.7,SNR=8.7
CMAR LR LR 15 49 25.4
comp=Z,105nm,21.4s,baz=330,slow=42
**CMAR Chiang Mai Arr 31.70 122** *ce*P **P** **15 33 44.4 +1.8**
CMAR pmax pmax
comp=Z,1.0nm,0.9s
**CM01 Chiang Mai Arr 31.74 122** *e*P **P** **15 33 42.5 -0.3**
**TIRR Tirgusor 31.94 294** *e*P **P** **15 33 46.1 +1.7**
TIRR pmax pmax
comp=Z,17nm,1.8s
**TIRR Tirgusor 31.94 294** *e*P **P** **15 33 46.1 +1.7**
comp=Z,17nm,1.8s
**MANT Manisa 32.79 283** *e*P **P** **15 33 51.6 -0.6**
comp=Z,24nm,1.2s
**ENH Enshi 32.80 93** *e*P **P** **15 33 53.4 +1.3**
comp=Z,28nm,1.0s
**DAMY Dhamar 33.44 231** *e*P **P** **15 33 58.0 -0.1**
comp=Z,64nm,1.9s
**MLR Muntele Rosu 33.60 296** P **P** **15 34 01.5 +2.3**
comp=Z,0.7nm,0.8s,baz=94,slow=17,SNR=2.5
**MLR Muntele Rosu 33.60 296** *e*P **P** **15 34 00.9 +1.7**
comp=Z,7.4nm,0.9s
**BOD Bodaibo 33.80 41** *e*P **P** **15 34 00.5 0.0**
BOD pmax pmax
comp=Z,17nm,1.3s
**BUR04 Bucovina Ar. S 33.99 300** *e*P **P** **15 34 02.6 +0.2**
**BUR08 Bucovina Ar. S 34.00 300** *e*P **P** **15 34 02.7 +0.2**
**KARP Karpathos 34.68 279** *e*P **P** **15 34 11.8 +3.4**
comp=Z,7.4nm,1.0s
**LVZ Lovozero 35.37 337** *e*P **P** **15 34 14.5 +0.4**
LVZ pmax pmax
comp=Z,113nm,1.5s
**LVZ Lovozero 35.37 337** *e*P **P** **15 34 14.4 +0.4**
comp=Z,113nm,1.5s
**FIA1 FINESS Array S 35.59 324** *e*P **P** **15 34 15.6 -0.3**
**FIA0 FINESS Array S 35.59 324** *e*P **P** **15 34 15.8 -0.1**
**FIA0 FINESS Array S 35.59 324** *e*P **P** **15 34 15.8 -0.1**
**FINES FINESS Array B 35.59 324** P **P** **15 34 15.8 -0.1**
comp=Z,5.4nm,0.7s,baz=121,slow=7.9,SNR=8.3
FINES LR LR 15 49 08.4
comp=Z,252nm,19.1s,baz=161,slow=37
**FINES FINESS Array B 35.59 324** *i*P **P** **15 34 16.0 +0.1**
FINES pmax pmax
comp=Z,5.0nm,0.7s
**KWP Kalwaria Pacla 35.61 304** *e*P **P** **15 34 16.5 +0.2**
KWP pmax pmax
comp=Z,350nm,1.7s
**KWP Kalwaria Pacla 35.61 304** *e*P **P** **15 34 16.5 +0.2**
comp=Z,350nm,1.7s
**VTS Vitosha 35.93 292** *e*P **P** **15 34 18.2 -1.1**
VTS pmax pmax
comp=Z,3.0nm,0.9s
**VTS Vitosha 35.93 292** *e*P **P** **15 34 18.2 -1.1**
comp=Z,3.2nm,0.9s
**HIA Hailar 36.20 57** *e*P **P** **15 34 22.0 +0.6**
HIA pmax pmax
comp=Z,3.0nm,1.0s
**WHN Wuhan 36.49 89** P **P** **15 34 27.5 +3.5**
WHN S **S** **15 40 13.3 +7.3**
WHN LR LR
comp=Z,1μm,15.1s
WHN LR LR
comp=Z,790nm,12.3s
WHN LR LR
comp=Z,950nm,15.1s
**OJC Ojcow 37.48 305** *e*P **P** **15 34 32.7 +0.5**
OJC pmax pmax
comp=Z,6.0nm,0.8s
**OJC Ojcow 37.48 305** *e*P **P** **15 34 32.7 +0.5**
comp=Z,6.0nm,0.8s
**DIVS Divibare 37.98 295** *e*P **P** **15 34 40.5 +3.9**
comp=Z,8.3nm,1.1s
**KEV Kevo 38.71 337** *e*P **P** **15 34 42.6 +0.3**
KEV pmax pmax
comp=Z,99nm,1.7s
**KEV Kevo 38.71 337** *e*P **P** **15 34 42.6 +0.3**
comp=Z,98nm,1.7s
**TTG Podgorica 38.83 292** *e*P **P** **15 34 44.3 +0.6**
TTG pmax pmax
comp=Z,23nm,1.6s
**TTG Podgorica 38.83 292** *e*P **P** **15 34 44.2 +0.6**
comp=Z,23nm,1.6s
**ARA0 ARCESS Array S 39.06 337** *e*P **P** **15 34 45.6 +0.3**
**ARCES ARCESS Array B 39.06 337** P **P** **15 34 45.6 +0.3**
comp=Z,3.1nm,0.7s,baz=104,slow=8.0,SNR=11
ARCES LR LR 15 52 08.0
comp=Z,980nm,19.6s,baz=120,slow=38
**DPC Dobruska-Polom 39.69 305** *e*P **P** **15 34 53.0 +2.1**
**DPC Dobruska-Polom 39.69 305** *e*P **P** **15 34 53.0 +2.1**
**UPC Upice 39.88 306** *e*P P 15 34 59.7 +7.3
**CONA Conrad Observa 40.25 302** *e*P **P** **15 34 57.9 +2.4**
comp=Z,1.3nm,0.5s
**SOKA Soboth 40.99 300** *i*P **P** **15 35 03.4 +1.7**
comp=Z,1.2nm,0.6s
**BRG Berggiesshubel 41.16 306** *e*P **P** **15 35 07.0 +4.1**
comp=Z,4.2nm,0.9s
**BRG Berggiesshubel 41.16 306** *e*P **P** **15 35 07.0 +4.1**
BRG pmax pmax
comp=Z,4.0nm,1.0s
**HFS Hagfors 41.25 320** P **P** **15 35 03.8 +0.2**
comp=Z,5.5nm,0.4s,baz=106,slow=11,SNR=32
**RGN Rugen 41.30 312** *e*P **P** **15 35 06.1 +2.1**
comp=Z,138nm,0.8s
**GERES GERESS Array B 41.55 303** P **P** **15 35 06.8 +0.4**
comp=Z,0.5nm,0.6s,baz=70,slow=12,SNR=3.0
GERES LR LR 15 55 57.5
comp=Z,147nm,18.9s,baz=88,slow=41
**GEA0 GERESS Array S 41.55 303** *e*P **P** **15 35 08.2 +1.9**
**KHC Kasperske Hory 41.59 304** *e*P **P** **15 35 07.2 +0.6**
**KHC Kasperske Hory 41.59 304** *e*P **P** **15 35 07.4 +0.8**
KHC pmax pmax
comp=Z,4.0nm,1.5s
**KHC Kasperske Hory 41.59 304** *e*P **P** **15 35 07.3 +0.8**
comp=Z,4.1nm,1.5s
**CLL Collm 41.71 307** *e*P P 15 35 03.0 -4.4
**CLL Collm 41.71 307** *e*P **P** **15 35 07.0 -0.4**
**CUC Castrocucco 41.95 290** *e*P **P** **15 35 09.7 0.0**
comp=Z,8.8nm,1.3s
**NC405 NORSAR Array S 42.30 322** *e*P **P** **15 35 10.8 -1.4**
**YAK Yakutsk 42.31 37** P **P** **15 35 13.0 +0.9**
comp=Z,5.2nm,0.4s,baz=261,slow=1.5,SNR=9.8
**YAK Yakutsk 42.31 37** *e*P **P** **15 35 12.1 0.0**
YAK *e**PP sP 15 35 26.6 +10
YAK *e* 15 36 52.5
YAK *e* 15 37 05.1
YAK *e*PPP PPP 15 37 21.7
YAK eS **S** **15 41 25.5 -7.2**
YAK eSS **SS** **15 44 31.9 -8.9**
YAK eSSS SSS 15 45 11.7
YAK pmax pmax
comp=Z,17nm,0.9s
YAK pmax pmax
comp=E,11nm,1.3s
YAK pmax pmax
comp=Z,89nm,4.3s
YAK pmax pmax
comp=N,130nm,4.2s
YAK pmax pmax
comp=E,103nm,4.0s
YAK smax smax
comp=N,43nm,3.0s
YAK smax smax
comp=E,73nm,3.2s
**YAK Yakutsk 42.31 37** *e*P **P** **15 35 11.4 -0.7**
comp=E,20nm,0.9s
**NC602 NORSAR Array S 42.36 321** *e*P **P** **15 35 12.0 -0.6**
**NC605 NORSAR Array S 42.43 321** *e*P **P** **15 35 13.2 0.0**
**NC303 NORSAR Array S 42.48 322** *e*P **P** **15 35 13.6 0.0**
**NB201 NORSAR Array S 42.51 322** *e*P **P** **15 35 13.5 -0.3**
**NB2 NORSAR Subarra 42.54 322** P **P** **15 35 13.7 -0.5**
comp=Z,12nm,1.0s,baz=93,slow=8.6
**NB200 NORSAR Array S 42.54 322** *e*P **P** **15 35 14.1 -0.1**
**NOA NORSAR Array B 42.54 322** P **P** **15 35 14.1 -0.1**
comp=Z,4.7nm,0.8s,baz=94,slow=8.1,SNR=9.0
NOA LR LR 15 55 08.8
comp=Z,238nm,18.7s,baz=100,slow=39
**NBO00 NORSAR Array S 42.76 322** *e*P **P** **15 35 16.1 +0.2**
**NC204 NORSAR Array S 42.78 322** *e*P **P** **15 35 16.0 -0.1**
**KULM Kulim 42.88 133** *e*P **P** **15 35 17.6 +0.3**
comp=Z,26nm,1.4s
**TIXI Tiksi 43.82 23** *i*P **P** **15 35 22.8 -1.5**
TIXI pmax pmax
comp=Z,16nm,1.0s
**TIXI Tiksi 43.82 23** *e*P **P** **15 35 24.4 +0.1**
comp=Z,13nm,0.8s
**PSI Prapat 43.99 137** *e*P **P** **15 35 25.4 -1.0**
PSI pmax pmax
comp=Z,22nm,1.6s
**PSI Prapat 43.99 137** *e*P **P** **15 35 25.4 -1.0**
comp=Z,22nm,1.6s
**KLR Kul'dur 44.03 56** P **P** **15 35 27.0 +0.8**
comp=Z,0.1nm,0.5s,baz=280,slow=6.1,SNR=4.0
**FUORN Ofenpass-Fuorn 44.23 301** *e*P **P** **15 35 28.7 +0.5**
comp=Z,9.1nm,1.3s
**KS01 Wonju Array Si 44.34 73** *e*P **P** **15 35 28.8 -0.1**
**DAVA Damuels 44.35 302** *e*P **P** **15 35 29.2 +0.1**
comp=Z,2.3nm,0.4s
**KSRS Korea Array 44.37 73** LR LR 15 55 13.7
comp=Z,177nm,19.6s,baz=296,slow=38
**GSI Gunungsitoli 44.56 140** *e*P **P** **15 35 31.7 +0.8**
comp=Z,72nm,1.8s
**TUE Stuetta 44.88 301** *e*P **P** **15 35 33.1 -0.3**
comp=Z,25nm,1.8s
**USRK Ussuriysk Ar. 45.29 63** LR LR 15 56 53.8
comp=Z,92nm,19.1s,baz=281,slow=39
**MSEY Mahe Island 45.41 202** *e*P **P** **15 35 38.4 +0.8**
MSEY pmax pmax
comp=Z,32nm,1.1s
**MSEY Mahe Island 45.41 202** *e*P **P** **15 35 38.4 +0.8**
comp=Z,32nm,1.1s
**SENIN Lac Senin/Sane 46.28 301** *e*P **P** **15 35 45.2 +0.7**
comp=Z,40nm,1.7s
**KBS Kingsbay 46.44 347** *e*P **P** **15 35 46.5 +1.5**
KBS pmax pmax
comp=Z,27nm,1.0s
**KBS Kingsbay 46.44 347** *e*P **P** **15 35 46.5 +1.5**
comp=Z,27nm,1.0s
**JNU Nakatsue 48.25 77** *e*P **P** **15 35 59.6 -0.1**
comp=Z,18nm,1.3s
**JOW Kunigami 49.06 86** *e*P **P** **15 36 05.8 -0.3**
comp=Z,215nm,1.9s
**KMBO Kilima Mbogo 50.20 226** LR LR 15 58 31.9
comp=Z,60nm,19.6s,baz=86,slow=38
**KMBO Kilima Mbogo 50.20 226** *e*P **P** **15 36 14.4 -0.6**
KMBO pmax pmax
comp=Z,25nm,1.9s
**KMBO Kilima Mbogo 50.20 226** *e*P **P** **15 36 14.4 -0.6**
comp=Z,25nm,1.9s
**EKA Eskdalemuir Ar 50.61 315** P **P** **15 36 16.8 -0.6**
comp=Z,2.4nm,0.9s,baz=92,slow=7.8,SNR=3.1
**INU Inuyama 51.95 72** *e*P **P** **15 36 26.9 -0.9**
comp=Z,64nm,0.6s
**MJB9 Matsu-Tunnel 52.34 70** *e*P **P** **15 36 29.9 -0.8**
comp=Z,112nm,0.8s
**MAJO Matsushiro 52.34 70** *e*P **P** **15 36 29.7 -1.0**
**MAJO Matsushiro 52.34 70** *e*P **P** **15 36 29.7 -1.0**
comp=Z,108nm,0.8s
**MJAR Matsushiro Arr 52.34 70** LR LR 16 00 20.9
comp=Z,48nm,20.8s,baz=305,slow=38
**DAG Danmarks Havn 52.59 343** *i*P **P** **15 36 32.2 +0.3**
DAG pmax pmax
comp=Z,9.0nm,0.9s
**DAG Danmarks Havn 52.59 343** *i*P **P** **15 36 32.2 +0.3**
comp=Z,8.6nm,0.9s
**SEY Seymchan 52.71 35** P **P** **15 36 34.4 +1.4**
comp=Z,1.6nm,0.7s,baz=254,slow=19,SNR=3.6
**MA2 Magadan 52.77 39** *e*P **P** **15 36 33.2 -0.3**
**ES19 SONSECA Array 56.25 297** *e*P **P** **15 36 58.4 -0.7**
**ESDC Sonseca Array 56.30 296** P **P** **15 37 01.0 +1.5**
comp=Z,1.3nm,0.5s,baz=57,slow=7.0,SNR=6.1
**BILL Bilibino 56.73 27** *i*P **P** **15 37 00.7 -1.4**
BILL *e* 15 39 10.4
BILL pmax pmax
comp=Z,8.0nm,1.2s
**PETK Petropavlovsk- 58.53 45** LR LR 16 03 41.7
comp=Z,88nm,18.9s,baz=298,slow=37
**SUMG Summit 58.94 341** *i*P **P** **15 37 19.8 +1.8**
**SUMG Summit 58.94 341** *i*P **P** **15 37 19.8 +1.8**
**SUMG Summit 58.94 341** *e*P **P** **15 37 18.9 +0.9**
comp=Z,23nm,1.1s
**TULEG Thule 62.26 350** *e*P **P** **15 37 40.3 +0.2**
comp=Z,10nm,1.1s
**TOA1 Torodi Ar. Sit 65.61 268** *e*P **P** **15 38 01.9 -1.2**
**TOA0 Torodi Ar. Sit 65.61 268** *e*P **P** **15 38 01.9 -1.2**
**TORD Torodi Ar. Bea 65.61 268** P **P** **15 38 01.9 -1.2**
comp=Z,1.7nm,0.7s,baz=51,slow=5.1,SNR=8.6
TORD LR LR 16 09 34.0
comp=Z,45nm,18.4s,baz=275,slow=39
**LSZ Lusaka 66.85 225** P **P** **15 38 11.8 +0.8**
comp=Z,1.6nm,0.4s,baz=51,slow=7.6,SNR=4.0
**COLD Coldfoot 69.92 16** *e*P **P** **15 38 31.1 +1.7**
comp=Z,8.8nm,0.9s
**IMAR Indian Mountai 70.15 18** *e*P **P** **15 38 31.0 +0.2**
**MATP Matopo 70.91 222** P **P** **15 38 35.9 -0.3**
comp=Z,4.9nm,0.8s,baz=25,slow=7.0,SNR=9.0
**MLY Manley 71.64 17** *e*P **P** **15 38 41.9 +1.9**
comp=Z,9.2nm,1.3s
**INK Inuvik 71.78 9** P **P** **15 38 41.2 +0.6**
comp=Z,5.6nm,0.7s,baz=4.7,slow=8.3,SNR=17
INK LR LR 16 12 53.9
comp=Z,113nm,21.7s,baz=117,slow=38
**INK Inuvik 71.78 9** *e*P **P** **15 38 41.9 +1.2**
INK pmax pmax
comp=Z,7.0nm,0.8s
**INK Inuvik 71.78 9** *e*P **P** **15 38 41.9 +1.2**
comp=Z,6.6nm,0.8s
**MDM Murphy Dome 72.27 16** *e*P **P** **15 38 45.4 +1.6**
comp=Z,7.8nm,1.2s
**COLA College 72.43 16** *e*P **P** **15 38 45.6 +1.0**
COLA pmax pmax
comp=Z,11nm,0.8s
**COLA College 72.43 16** *e*P **P** **15 38 45.6 +1.0**
comp=Z,12nm,0.8s
**IL1 Eielson Array 72.73 16** *e*P **P** **15 38 45.8 -0.6**
**ILAR Eielson Array 72.73 16** P **P** **15 38 46.9 +0.4**
comp=Z,3.2nm,0.9s,baz=322,slow=4.7,SNR=22
**ILB Eielson Array 72.73 16** *e*P **P** **15 38 46.9 +0.4**
**KTH Kantishna Hill 72.84 18** *e*P **P** **15 38 47.6 +0.3**
comp=Z,22nm,1.4s
**DBIC Dimbokro 74.65 266** LR LR 16 16 55.6
comp=Z,88nm,18.5s,baz=34,slow=40
**DAWY Dawson 74.84 13** *e*P **P** **15 38 59.9 +1.0**
comp=Z,8.9nm,1.1s
**HARP HAARP 75.18 16** *e*P **P** **15 39 01.0 +0.1**
comp=Z,55nm,1.3s
**LBTB Lobatse 76.19 222** P **P** **15 39 06.1 -1.0**
comp=Z,3.4nm,0.8s,baz=83,slow=5.4,SNR=4.7
**LBTB Lobatse 76.19 222** *e*P **P** **15 39 08.7 +1.6**
LBTB pmax pmax
comp=Z,38nm,2.0s
**LBTB Lobatse 76.19 222** *e*P **P** **15 39 08.7 +1.6**
comp=Z,38nm,2.0s
**FITZ Fitzroy Crossi 76.34 127** P **P** **15 39 05.4 -2.6**
comp=Z,8.2nm,1.1s,baz=325,slow=3.0,SNR=3.2
**YKW3 Yellowknife Ar 79.00 3** *e*P **P** **15 39 23.3 +1.0**
comp=Z,13nm,1.4s
**YKA Yellowknife Ar 79.07 3** P **P** **15 39 23.1 +0.4**
comp=Z,3.5nm,0.7s,baz=351,slow=5.4,SNR=37
YKA LR LR 16 17 04.3
comp=Z,17nm,20.6s,baz=0.0,slow=38
**YKB5 Yellowknife Ar 79.07 3** *e*P **P** **15 39 22.7 0.0**
**BOSA Boshof 79.31 220** LR LR 16 15 19.5
comp=Z,53nm,20.0s,baz=24,slow=36
**WR1 Warramunga Arr 83.30 122** *e*P **P** **15 39 45.0 -0.7**
comp=Z,57nm,2.0s
**WRA Warramunga Arr 83.30 122** P **P** **15 39 45.0 -0.7**
comp=Z,5.3nm,0.9s,baz=323,slow=4.9,SNR=20
**WRA Warramunga Arr 83.30 122** *i*P **P** **15 39 45.4 -0.3**
WRA pmax pmax
comp=Z,5.0nm,0.9s
**WRAB Tennant Creek 83.30 122** *e*P **P** **15 39 46.1 +0.3**
WRAB pmax pmax
comp=Z,69nm,1.9s
**WRAB Tennant Creek 83.30 122** *e*P **P** **15 39 46.1 +0.3**
comp=Z,69nm,1.9s
**AS31 Alice Springs 85.65 125** *e*P **P** **15 39 56.9 -0.7**
comp=Z,2.2nm,1.4s
**ASAR Alice Springs 85.65 125** P **P** **15 39 57.2 -0.4**
comp=Z,2.4nm,0.9s,baz=312,slow=4.9,SNR=16
**AS01 Alice Springs 85.68 125** *e*P **P** **15 39 56.9 -0.9**
**ULM Lac du Bonnet 90.66 351** LR LR 16 23 59.2
comp=Z,131nm,18.3s,baz=30,slow=37
**PD31 Pinedale Array 98.93 0** *e*P **P** **15 40 57.8 -1.7**
**PDAR Pinedale Array 98.93 0** LR LR 16 31 22.6

comp=Z,89nm,18.4s,baz=336,slow=39

*ISCJB **29** 15:35:47.5±0.4, 35°.28N±0'.03×140°.08E±0'.06, h69km±4km, mb3.5/8, Error ellipse: s-maj=8.4km s-min=5.3km az=160.6*
*JMA **29** 15:35:47.8±0.2, 35°.31N×140°.06E, h69km±2km, M2.9*
*IDC **29** 15:35:49.5±1.6, 35°.19N×139°.94E, h71km±14km, mb3.2/8, mb1 3.5/9, mb1mx3.3/54, mbtmp3.6/9, Error ellipse: s-maj=28.3km s-min=6.6km az=70.0*
**ISC 29 15:35:48.6±0.9, 35°.29N±0'.04×140°.07E±0'.05, h62km±7km, n26, σ0§65/28, mb3.6/8, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JCN** | **Nagara** | **0.17** | **39** | P | **Pn** | **15 35 58.7** | **+0.6** |
| **BSO4** | **Boso 4** | **0.37** | **144** | P | **Pn** | **15 35 59.7** | **+0.4** |
| **BSO3** | **Boso 3** | **0.60** | **143** | P | **Pn** | **15 36 01.6** | **+0.1** |
| **JIM2** | **Oshima 3** | **0.78** | **223** | P | **Pn** | **15 36 03.5** | **-0.4** |
| JIM2 | | | | S | **Sn** | **15 36 15.1** | **0.0** |
| **JOD2** | **Odawara 2** | **0.81** | **269** | P | **Pn** | **15 36 04.0** | **-0.3** |
| JOD2 | | | | S | **Sn** | **15 36 15.5** | **-0.3** |
| **JYT** | **Yasato** | **0.94** | **6** | P | **Pn** | **15 36 05.1** | **-0.9** |
| JYT | | | | *e*S | **Sn** | **15 36 17.9** | **-0.9** |
| **BSO1** | **Boso 1** | **0.98** | **130** | P | **Pn** | **15 36 05.4** | **-0.5** |
| **JRY** | **Ryogami san** | **1.20** | **308** | P | **Pn** | **15 36 09.4** | **+0.1** |
| JRY | | | | *e*S | **Sn** | **15 36 24.7** | **-0.1** |
| **JAG** | **Ashikaga** | **1.24** | **336** | P | **Pn** | **15 36 09.4** | **-0.5** |
| JAG | | | | S | **Sn** | **15 36 25.1** | **-0.7** |
| **MJAR** | **Matsushiro Arr** | **1.96** | **310** | P | **Pn** | **15 36 19.5** | **-0.1** |
| | 11nm,0.3s,baz=152,slow=14,SNR=141 | | | | | | |
| MJAR | | | | S | **Sn** | **15 36 43.7** | **+0.5** |
| | 11nm,0.3s,baz=141,slow=24,SNR=9.5 | | | | | | |
| MJAR | | | | LR | LR | 15 37 24.3 | |
| | comp=Z,69nm,21.6s,baz=75,slow=50 | | | | | | |
| **MAT** | **Matsushiro** | **1.96** | **310** | P | **Pn** | **15 36 20.0** | **+0.4** |
| MAT | | | | S | **Sn** | **15 36 43.3** | **+0.1** |
| **JHJ** | **Hachijo jima 2** | **2.18** | **186** | P | **Pn** | **15 36 23.0** | **+0.5** |
| | 44nm,0.3s,baz=284,slow=21,SNR=20 | | | | | | |
| JHJ | | | | S | **Sn** | **15 36 47.4** | **-0.9** |
| | 108nm,0.3s,baz=260,slow=21,SNR=5.4 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy 28.27** | **116** | | T | T | 16 11 19.7 | |
| | baz=309,slow=75,SNR=24 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy 28.28** | **116** | | T | T | 16 11 23.7 | |
| | baz=309,slow=75,SNR=24 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy 28.29** | **116** | | T | T | 16 11 22.8 | |
| | baz=309,slow=75,SNR=20 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy 28.91** | **118** | | T | T | 16 12 12.3 | |
| | baz=310,slow=76,SNR=12 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy 28.91** | **118** | | T | T | 16 11 47.9 | |
| | baz=310,slow=76,SNR=10 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy 28.92** | **118** | | T | T | 16 12 13.2 | |
| | baz=310,slow=76,SNR=9.5 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **42.31** | **314** | P | **P** | **15 43 36.2** | **+0.1** |
| | 0.4nm,0.3s,baz=97,slow=9.0,SNR=1.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.15** | **303** | P | **P** | **15 43 50.5** | **-0.5** |
| | 0.5nm,0.7s,baz=88,slow=9.9,SNR=5.5 | | | | | | |
| **KURBB** | **Kurchatov Array** | **46.24** | **309** | P | **P** | **15 44 07.7** | **+0.2** |
| | 0.7nm,0.6s,baz=83,slow=7.3,SNR=6.0 | | | | | | |
| **ILAR** | **Eielson Array** | **51.55** | **32** | P | **P** | **15 44 48.7** | **+0.8** |
| | 0.3nm,0.9s,baz=262,slow=6.3,SNR=2.4 | | | | | | |
| **WRA** | **Warramunga Arr** | **55.20** | **187** | P | **P** | **15 45 13.6** | **-1.5** |
| | 1.3nm,0.5s,baz=2.7,slow=7.4,SNR=36 | | | | | | |
| **ASAR** | **Alice Springs** | **58.92** | **187** | P | **P** | **15 45 40.5** | **-0.9** |
| | 0.4nm,0.7s,baz=20,slow=13,SNR=12 | | | | | | |
| **YKA** | **Yellowknife Ar** | **65.86** | **29** | P | **P** | **15 46 27.6** | **+0.4** |
| | 0.2nm,0.8s,baz=294,slow=6.2,SNR=2.6 | | | | | | |
| **TXAR** | **Lajitas Array** | **92.05** | **52** | P | **P** | **15 48 52.3** | **+1.0** |
| | 0.1nm,0.4s,baz=324,slow=4.5,SNR=1.6 | | | | | | |

*IDC **29** 15:43:58.3±4.6, 36°.31N×143°.44E, h0km, mb3.5/2, mb1 3.6/4, mb1mx3.3/41, mbtmp3.5/4, ML2.9/2, Error ellipse: s-maj=87.7km s-min=34.3km az=23.0*
*ISCJB **29** 15:44:01.2±1.0, 36°.41N±0'.06×143°.30E±0'.07, h33km, mb3.5/2, Error ellipse: s-maj=9.1km s-min=7.8km az=16.0*
*JMA **29** 15:44:02.4±0.2, 36°.52N×143°.21E, h35km, M2.9*
**ISC 29 15:44:02.4±1.6, 36°.45N±0'.07×143°.3E±0'.1, h35km, n14, σ0§84/21, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CHOJ** | **Chosi** | **2.14** | **250** | P | **Pn** | **15 44 36.1** | **+0.5** |
| **JFK** | **Kawauchi** | **2.17** | **296** | P | **Pn** | **15 44 35.8** | **-0.3** |
| JFK | | | | *e*S | **Sn** | **15 45 00.6** | **-1.3** |
| **JHO** | **Hitachi** | **2.23** | **275** | P | **Pn** | **15 44 36.7** | **-0.2** |
| JHO | | | | S | **Sn** | **15 45 02.1** | **-1.2** |
| **JFT** | **Otama** | **2.63** | **295** | P | **Pn** | **15 44 43.0** | **+0.7** |
| JFT | | | | *e*S | **Sn** | **15 45 12.1** | **-0.9** |
| **JMK** | **Ichinoseki** | **3.01** | **327** | P | **Pn** | **15 44 47.6** | **+0.1** |
| **JAG** | **Ashikaga** | **3.13** | **271** | P | **Pn** | **15 44 49.7** | **+0.4** |
| JAG | | | | S | **Sn** | **15 45 24.5** | **-0.9** |
| **JOM** | **Ohasama** | **3.42** | **332** | P | **Pn** | **15 44 53.6** | **+0.4** |
| **JRY** | **Ryogami san** | **3.61** | **264** | P | **Pn** | **15 44 56.2** | **+0.3** |
| JRY | | | | *e*S | **Sn** | **15 45 36.4** | **-0.9** |
| **JOD2** | **Odawara 2** | **3.65** | **252** | P | **Pn** | **15 44 57.1** | **+0.7** |
| JOD2 | | | | *e*S | **Sn** | **15 45 38.0** | **-0.2** |
| **JYN** | **Shimob** | **4.00** | **258** | *e*S | **Sn** | **15 45 47.0** | **0.0** |
| **MJAR** | **Matsushiro Arr** | **4.13** | **273** | Pn | **Pn** | **15 45 04.6** | **+1.5** |
| | 0.3nm,0.3s,baz=90,slow=15,SNR=5.6 | | | | | | |
| MJAR | | | | Sn | **Sn** | **15 45 51.7** | **+1.5** |
| | 0.4nm,0.3s,baz=106,slow=21,SNR=3.2 | | | | | | |
| **JHJ** | **Hachijo jima 2** | **4.43** | **222** | Pn | **Pn** | **15 45 06.3** | **-0.8** |
| | 3.1nm,0.3s,baz=77,slow=17,SNR=3.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **56.73** | **190** | P | **P** | **15 53 42.9** | **+0.2** |
| | 0.3nm,0.5s,baz=8.6,slow=7.4,SNR=6.9 | | | | | | |
| **ASAR** | **Alice Springs** | **60.45** | **190** | P | **P** | **15 54 08.8** | **+0.1** |
| | 0.2nm,0.5s,baz=1.3,slow=6.7,SNR=7.7 | | | | | | |

*IDC **29** 15:45:15.4±1.5, 43°.31S×172°.89E, h0km, mb3.9/2, mb1 4.1/3, mb1mx3.8/22, mbtmp3.9/3, ML3.7/1, MS3.8/3, Ms1 3.8/3, ms1mx3.0/28, Error ellipse: s-maj=44.3km s-min=16.0km az=157.0*
*ISCJB **29** 15:45:16.0±0.4, 43°.54S±0'.05×173°.01E±0'.06, h27km, mb4.1/3, MS3.7/3, Error ellipse: s-maj=9.1km s-min=3.0km az=142.4*
*WEL **29** 15:45:17.3±0.3, 43°.41S×172°.85E, h9km±1km, ML4.3/60, Mw4.1, Error ellipse: s-maj=2.3km s-min=1.0km az=90.0*
*WEL Felt in the Canterbury region, maximum reported intensity MM 5.*
*NEIC **29** 15:45:18.0±0.0, 43°.46S×172°.80E, h13km, ML4.4(WEL), After WEL.*
*NEIC Felt at Christchurch.*
**ISC 29 15:45:18.2±0.8, 43°.45S±0'.05×172°.94E±0'.05, h27km, n100, σ1§50/94, mb3.9/3, MS3.5/3, 1D, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.26** | **242** | P* | **Pb** | **15 45 22.3** | **-2.5** |
| **CRLZ** | **Canterbury Las** | **0.26** | **242** | PG | **Pb** | **15 45 22.3** | **-2.5** |
| CRLZ | | | | SG | **Sb** | **15 45 25.6** | **-3.6** |
| CRLZ | | | | AML | AML | 15 45 26.0 | |
| CRLZ | | | | AML | AML | 15 45 26.1 | |
| CRLZ | | | | AML | AML | 15 45 27.9 | |
| **MQZ** | **McQueen's Vall** | **0.33** | **219** | P* | **Pb** | **15 45 23.7** | **-2.0** |
| MQZ | | | | S* | **Sb** | **15 45 28.4** | **-2.5** |
| **MQZ** | **McQueen's Vall** | **0.33** | **219** | PG | **Pb** | **15 45 23.7** | **-2.0** |
| MQZ | | | | SG | **Sb** | **15 45 28.4** | **-2.5** |
| MQZ | | | | AML | AML | 15 45 28.8 | |
| **OXZ** | **Oxford** | **0.67** | **281** | P* | **Pb** | **15 45 28.9** | **-2.3** |
| **OXZ** | **Oxford** | **0.67** | **281** | ⇓P* | **Pb** | **15 45 28.9** | **-2.3** |
| OXZ | | | | AML | AML | 15 45 38.9 | |
| OXZ | | | | AML | AML | 15 45 38.9 | |
| OXZ | | | | AML | AML | 15 45 39.7 | |
| OXZ | | | | AML | AML | 15 45 39.7 | |
| **KHZ** | **Kahutara** | **1.13** | **23** | AML | AML | 15 46 04.0 | |
| KHZ | | | | AML | AML | 15 46 12.5 | |
| **INZ** | **Inchbonnie** | **1.31** | **303** | P* | **Pn** | **15 45 39.8** | **-0.9** |
| **RPZ** | **Rata Peaks** | **1.39** | **259** | Pg | **Pn** | **15 45 41.0** | **-0.9** |
| | 123nm,0.3s,baz=82,slow=3.3,SNR=70 | | | | | | |
| RPZ | | | | Lg | Lg | 15 46 00.3 | |
| | 340nm,0.3s,baz=8.3,slow=16,SNR=14 | | | | | | |
| RPZ | | | | LR | LR | 15 46 05.0 | |
| | comp=Z,434nm,18.8s,baz=104,slow=36 | | | | | | |
| **RPZ** | **Rata Peaks** | **1.39** | **259** | PN | **Pn** | **15 45 41.0** | **-0.9** |
| RPZ | | | | AML | AML | 15 46 05.8 | |
| RPZ | | | | AML | AML | 15 46 10.4 | |
| **WVZ** | **Waitaha Valley** | **1.65** | **283** | PN | **Pn** | **15 45 45.6** | **+0.2** |
| WVZ | | | | AML | AML | 15 46 14.9 | |
| WVZ | | | | AML | AML | 15 46 15.9 | |
| **THZ** | **Tophouse** | **1.69** | **359** | PN | **Pn** | **15 45 46.0** | **+0.1** |
| THZ | | | | AML | AML | 15 46 10.0 | |
| THZ | | | | AML | AML | 15 46 18.2 | |
| **BSWZ** | **Blackbirch Sta** | **1.87** | **22** | PN | **Pn** | **15 45 49.1** | **+0.7** |
| BSWZ | | | | AML | AML | 15 46 34.4 | |
| BSWZ | | | | AML | AML | 15 46 34.5 | |
| **DSZ** | **Denniston Nort** | **1.90** | **334** | PN | **Pn** | **15 45 48.7** | **-0.1** |
| DSZ | | | | AML | AML | 15 46 15.9 | |
| DSZ | | | | AML | AML | 15 46 15.9 | |
| DSZ | | | | AML | AML | 15 46 18.2 | |
| DSZ | | | | AML | AML | 15 46 20.7 | |
| **LBZ** | **Lake Benmore** | **2.19** | **244** | PN | **Pb** | **15 45 57.5** | **+0.3** |
| LBZ | | | | AML | AML | 15 46 32.3 | |
| LBZ | | | | AML | AML | 15 46 32.3 | |
| LBZ | | | | AML | AML | 15 46 32.8 | |
| LBZ | | | | AML | AML | 15 46 32.9 | |
| **NNZ** | **Nelson** | **2.26** | **9** | PN | **Pn** | **15 45 54.5** | **+0.8** |
| NNZ | | | | AML | AML | 15 46 23.0 | |
| NNZ | | | | AML | AML | 15 46 23.1 | |
| NNZ | | | | AML | AML | 15 46 41.6 | |
| NNZ | | | | AML | AML | 15 46 41.6 | |
| **FOZ** | **Fox Glacier** | **2.27** | **267** | PN | **Pn** | **15 45 54.5** | **+0.6** |
| FOZ | | | | AML | AML | 15 46 38.7 | |
| FOZ | | | | AML | AML | 15 46 38.7 | |
| FOZ | | | | AML | AML | 15 46 40.4 | |
| FOZ | | | | AML | AML | 15 46 40.4 | |
| **ODZ** | **Otahua Downs** | **2.29** | **225** | PN | **Pb** | **15 46 00.2** | **+1.5** |
| ODZ | | | | AML | AML | 15 46 34.7 | |
| ODZ | | | | AML | AML | 15 46 34.7 | |
| ODZ | | | | AML | AML | 15 46 35.5 | |
| ODZ | | | | AML | AML | 15 46 35.5 | |
| **TCW** | **Tory Channel** | **2.45** | **24** | Pn | **Pn** | **15 45 56.6** | **+0.2** |
| **TCW** | **Tory Channel** | **2.45** | **24** | PN | **Pn** | **15 45 56.6** | **+0.2** |
| TCW | | | | AML | AML | 15 46 38.8 | |
| TCW | | | | AML | AML | 15 46 43.8 | |
| **BHW** | **Baring Head** | **2.50** | **36** | PN | **Pn** | **15 45 57.0** | **0.0** |
| BHW | | | | AML | AML | 15 46 31.1 | |
| BHW | | | | AML | AML | 15 46 32.8 | |
| **SNZO** | **South Karori** | **2.51** | **32** | *e*Pn | **Pn** | **15 45 57.0** | **-0.2** |
| **PLWZ** | **Palliser** | **2.55** | **43** | PN | **Pn** | **15 45 57.4** | **-0.3** |
| PLWZ | | | | AML | AML | 15 46 29.2 | |
| PLWZ | | | | AML | AML | 15 46 43.9 | |
| **WEL** | **Wellington** | **2.56** | **33** | PN | **Pn** | **15 45 58.0** | **+0.1** |
| WEL | | | | AML | AML | 15 46 28.6 | |
| WEL | | | | AML | AML | 15 46 28.6 | |
| WEL | | | | AML | AML | 15 46 28.8 | |
| WEL | | | | AML | AML | 15 46 28.8 | |
| **QRZ** | **Quartz Range** | **2.64** | **353** | PN | **Pn** | **15 46 00.3** | **+1.3** |
| QRZ | | | | AML | AML | 15 46 34.6 | |
| QRZ | | | | AML | AML | 15 46 34.6 | |
| QRZ | | | | AML | AML | 15 46 46.7 | |
| QRZ | | | | AML | AML | 15 46 46.7 | |
| **MSWZ** | **Moikau Station** | **2.66** | **41** | PN | **Pn** | **15 45 59.0** | **-0.3** |
| MSWZ | | | | AML | AML | 15 46 31.7 | |
| MSWZ | | | | AML | AML | 15 46 32.5 | |
| **DUWZ** | **D'Urville Isla** | **2.75** | **16** | PN | **Pn** | **15 46 01.3** | **+0.8** |
| DUWZ | | | | AML | AML | 15 46 57.8 | |
| DUWZ | | | | AML | AML | 15 47 04.1 | |
| **PAWZ** | **Paruwai Farm** | **2.77** | **43** | PN | **Pn** | **15 46 00.4** | **-0.5** |
| PAWZ | | | | AML | AML | 15 46 33.6 | |
| PAWZ | | | | AML | AML | 15 47 22.6 | |
| **CAW** | **Cannon Point** | **2.83** | **35** | PN | **Pn** | **15 46 01.7** | **+0.1** |
| CAW | | | | AML | AML | 15 46 35.1 | |
| CAW | | | | AML | AML | 15 46 35.3 | |
| **TRWZ** | **Traveller** | **2.89** | **46** | Pn | **Pn** | **15 46 02.1** | **-0.4** |
| **TRWZ** | **Traveller** | **2.89** | **46** | PN | **Pn** | **15 46 02.1** | **-0.4** |
| TRWZ | | | | AML | AML | 15 46 38.0 | |
| TRWZ | | | | AML | AML | 15 47 08.8 | |
| **HHSZ** | **Highcliff Hill** | **2.95** | **214** | AML | AML | 15 47 01.7 | |
| HHSZ | | | | AML | AML | 15 47 08.0 | |
| **KIW** | **Kapiti Island** | **2.98** | **30** | PN | **Pn** | **15 46 04.2** | **+0.6** |
| KIW | | | | AML | AML | 15 46 39.2 | |
| KIW | | | | AML | AML | 15 46 41.7 | |
| **MTW** | **Mount Morrison** | **2.98** | **41** | PN | **Pn** | **15 46 03.1** | **-0.6** |
| MTW | | | | AML | AML | 15 46 38.5 | |
| MTW | | | | AML | AML | 15 46 38.5 | |
| **JCZ** | **Jackson Bay** | **3.07** | **257** | AML | AML | 15 47 01.2 | |
| JCZ | | | | AML | AML | 15 47 05.5 | |
| **OGWZ** | **Otaki Gorge** | **3.12** | **33** | PN | **Pn** | **15 46 05.5** | **0.0** |
| OGWZ | | | | AML | AML | 15 46 41.6 | |
| OGWZ | | | | AML | AML | 15 46 42.0 | |
| **WKZ** | **Wanaka** | **3.14** | **243** | AML | AML | 15 47 01.4 | |
| WKZ | | | | AML | AML | 15 47 01.5 | |
| WKZ | | | | AML | AML | 15 47 05.1 | |
| WKZ | | | | AML | AML | 15 47 05.1 | |
| **EAZ** | **Earnscleugh** | **3.15** | **234** | PN | **Pn** | **15 46 05.5** | **-0.5** |
| EAZ | | | | AML | AML | 15 47 05.4 | |
| EAZ | | | | AML | AML | 15 47 05.4 | |
| EAZ | | | | AML | AML | 15 47 08.3 | |
| EAZ | | | | AML | AML | 15 47 08.3 | |
| **HOWZ** | **Holdsworth Sta** | **3.19** | **38** | PN | **Pn** | **15 46 06.6** | **-0.1** |
| HOWZ | | | | AML | AML | 15 46 44.0 | |
| HOWZ | | | | AML | AML | 15 46 47.5 | |
| **TMWZ** | **Te Maipa** | **3.21** | **44** | Pn | **Pn** | **15 46 06.3** | **-0.5** |
| **TMWZ** | **Te Maipa** | **3.21** | **44** | PN | **Pn** | **15 46 06.4** | **-0.5** |
| TMWZ | | | | AML | AML | 15 46 46.6 | |
| TMWZ | | | | AML | AML | 15 47 52.1 | |
| **MRZ** | **Mangatainoka R** | **3.42** | **36** | PN | **Pn** | **15 46 09.0** | **-0.6** |
| MRZ | | | | AML | AML | 15 46 49.1 | |
| MRZ | | | | AML | AML | 15 46 53.9 | |
| **TUZ** | **Tuapeka** | **3.44** | **222** | PN | **Pn** | **15 46 10.1** | **+0.2** |
| TUZ | | | | AML | AML | 15 47 14.2 | |
| TUZ | | | | AML | AML | 15 47 14.2 | |
| TUZ | | | | AML | AML | 15 47 17.4 | |
| TUZ | | | | AML | AML | 15 47 17.4 | |
| **TIWZ** | **Tintock** | **3.46** | **40** | Pn | **Pn** | **15 46 09.7** | **-0.6** |
| **TIWZ** | **Tintock** | **3.46** | **40** | PN | **Pn** | **15 46 09.7** | **-0.6** |
| TIWZ | | | | AML | AML | 15 46 52.0 | |
| TIWZ | | | | AML | AML | 15 46 52.9 | |
| **PRWZ** | **Pori Road** | **3.67** | **39** | AML | AML | 15 46 57.5 | |
| PRWZ | | | | AML | AML | 15 47 00.6 | |
| **BFZ** | **Birch Farm** | **3.71** | **43** | PN | **Pn** | **15 46 13.0** | **-0.7** |
| BFZ | | | | AML | AML | 15 47 02.0 | |
| BFZ | | | | AML | AML | 15 47 02.0 | |
| BFZ | | | | AML | AML | 15 53 51.3 | |
| **POWZ** | **Post Office Ro** | **3.72** | **36** | Pn | **Pn** | **15 46 13.9** | **0.0** |
| **POWZ** | **Post Office Ro** | **3.72** | **36** | PN | **Pn** | **15 46 13.8** | **0.0** |
| POWZ | | | | AML | AML | 15 47 42.7 | |
| POWZ | | | | AML | AML | 15 48 05.5 | |
| **MLZ** | **Mavora Lakes** | **3.95** | **239** | AML | AML | 15 47 28.9 | |
| MLZ | | | | AML | AML | 15 47 31.1 | |
| **DVHZ** | **Dannevirke** | **3.97** | **39** | PN | **Pn** | **15 46 16.2** | **-1.1** |
| DVHZ | | | | AML | AML | 15 47 03.9 | |
| DVHZ | | | | AML | AML | 15 47 05.5 | |
| **ANWZ** | **Angora Road** | **3.99** | **43** | PN | **Pn** | **15 46 16.4** | **-1.2** |
| ANWZ | | | | AML | AML | 15 47 04.9 | |
| ANWZ | | | | AML | AML | 15 47 06.7 | |
| **WAZ** | **Wanganui** | **4.00** | **23** | PN | **Pn** | **15 46 19.2** | **+1.5** |
| WAZ | | | | AML | AML | 15 47 36.8 | |
| **TSZ** | **Takapari Road** | **4.08** | **35** | PN | **Pn** | **15 46 18.2** | **-0.5** |
| TSZ | | | | AML | AML | 15 47 44.3 | |
| TSZ | | | | AML | AML | 15 47 46.6 | |
| **SYZ** | **Scrubby Hill** | **4.09** | **220** | PN | **Pn** | **15 46 19.3** | **+0.4** |
| SYZ | | | | AML | AML | 15 47 36.3 | |
| SYZ | | | | AML | AML | 15 47 36.3 | |
| SYZ | | | | AML | AML | 15 47 47.2 | |
| SYZ | | | | AML | AML | 15 47 47.2 | |
| **LREZ** | **Lake Rotokare** | **4.14** | **16** | PN | **Pn** | **15 46 23.6** | **+4.1** |
| LREZ | | | | AML | AML | 15 47 18.6 | |
| LREZ | | | | AML | AML | 15 47 45.2 | |
| **PRHZ** | **Porangahau** | **4.22** | **42** | Pn | **Pn** | **15 46 19.4** | **-1.2** |
| **PNHZ** | **Pukenui** | **4.30** | **36** | Pn | **Pn** | **15 46 20.9** | **-0.9** |
| **PNHZ** | **Pukenui** | **4.30** | **36** | PN | **Pn** | **15 46 20.9** | **-0.9** |
| PNHZ | | | | AML | AML | 15 47 13.2 | |
| PNHZ | | | | AML | AML | 15 47 14.0 | |
| **WHZ** | **Wether Hill Ro** | **4.31** | **234** | PN | **Pn** | **15 46 20.3** | **-1.7** |
| WHZ | | | | AML | AML | 15 47 45.8 | |
| WHZ | | | | AML | AML | 15 47 49.1 | |
| **MTVZ** | **Mangateitei** | **4.49** | **26** | Pn | **Pn** | **15 46 26.9** | **+2.4** |
| **MTVZ** | **Mangateitei** | **4.49** | **26** | PN | **Pn** | **15 46 26.9** | **+2.4** |
| MTVZ | | | | AML | AML | 15 47 21.5 | |
| MTVZ | | | | AML | AML | 15 47 29.4 | |
| **VRZ** | **Vera Road** | **4.54** | **18** | PN | **Pn** | **15 46 27.0** | **+2.0** |
| VRZ | | | | AML | AML | 15 47 23.4 | |
| VRZ | | | | AML | AML | 15 47 24.8 | |
| **WNVZ** | **Wahianoa** | **4.58** | **27** | Pn | **Pn** | **15 46 27.4** | **+1.5** |
| **WNVZ** | **Wahianoa** | **4.58** | **27** | PN | **Pn** | **15 46 27.4** | **+1.5** |
| **KRHZ** | **Kereru** | **4.60** | **35** | PN | **Pn** | **15 46 26.3** | **+0.4** |
| KRHZ | | | | AML | AML | 15 47 19.7 | |
| KRHZ | | | | AML | AML | 15 47 20.2 | |
| **DCZ** | **Deep Cove** | **4.60** | **242** | AML | AML | 15 47 48.0 | |
| DCZ | | | | AML | AML | 15 47 50.4 | |
| **BHHZ** | **Black Hill Sta** | **4.61** | **32** | Pn | **Pn** | **15 46 26.2** | **+0.1** |
| **BHHZ** | **Black Hill Sta** | **4.61** | **32** | PN | **Pn** | **15 46 26.2** | **+0.1** |
| **WHVZ** | **Whangaehu Hut** | **4.62** | **26** | Pn | **Pn** | **15 46 28.1** | **+1.7** |
| **KAHZ** | **Kahuranaki** | **4.70** | **40** | PN | **Pn** | **15 46 26.3** | **-1.1** |
| KAHZ | | | | AML | AML | 15 47 25.4 | |
| **OTVZ** | **Oturere** | **4.75** | **27** | Pn | **Pn** | **15 46 29.2** | **+1.0** |
| **OTVZ** | **Oturere** | **4.75** | **27** | PN | **Pn** | **15 46 29.2** | **+1.0** |
| OTVZ | | | | AML | AML | 15 48 34.7 | |
| OTVZ | | | | AML | AML | 15 48 39.3 | |
| **KWHZ** | **Kaweka Forest** | **4.80** | **34** | PN | **Pn** | **15 46 28.5** | **-0.3** |
| KWHZ | | | | AML | AML | 15 47 24.8 | |
| KWHZ | | | | AML | AML | 15 47 26.4 | |
| **KRVZ** | **Karewarewa** | **4.81** | **26** | Pn | **Pn** | **15 46 29.9** | **+1.0** |
| **KRVZ** | **Karewarewa** | **4.81** | **26** | PN | **Pn** | **15 46 29.9** | **+1.0** |
| **APZ** | **The Paps** | **4.86** | **224** | PN | **Pn** | **15 46 29.1** | **-0.5** |
| APZ | | | | AML | AML | 15 48 06.0 | |
| APZ | | | | AML | AML | 15 48 14.1 | |
| **MCHZ** | **McNeill Hill** | **4.90** | **36** | Pn | **Pn** | **15 46 30.9** | **+0.8** |
| **MCHZ** | **McNeill Hill** | **4.90** | **36** | PN | **Pn** | **15 46 30.9** | **+0.8** |
| MCHZ | | | | AML | AML | 15 47 32.1 | |
| **BKZ** | **Black Stump Fm** | **5.05** | **33** | PN | **Pn** | **15 46 32.6** | **+0.4** |
| **HIZ** | **Hauiti** | **5.14** | **17** | PN | **Pn** | **15 46 34.1** | **+0.7** |
| HIZ | | | | AML | AML | 15 48 07.1 | |
| HIZ | | | | AML | AML | 15 48 29.8 | |
| **ARHZ** | **Aropaoanui** | **5.18** | **37** | PN | **Pn** | **15 46 33.7** | **-0.2** |
| ARHZ | | | | AML | AML | 15 47 35.7 | |
| ARHZ | | | | AML | AML | 15 47 36.9 | |
| **MRHZ** | **Matea Rd** | **5.31** | **31** | PN | **Pn** | **15 46 35.2** | **-0.4** |
| MRHZ | | | | AML | AML | 15 47 38.5 | |
| MRHZ | | | | AML | AML | 15 47 42.4 | |
| **SNGZ** | **Shannon Statio** | **5.73** | **37** | Pn | **Pn** | **15 46 40.8** | **-0.7** |
| **RIGZ** | **Rimuhau** | **5.98** | **39** | PN | **Pn** | **15 46 43.6** | **-1.4** |
| **URZ** | **Urewera** | **6.08** | **33** | Pn | **Pn** | **15 46 45.3** | **-0.9** |
| | 1.7nm,0.3s,baz=245,slow=4.4,SNR=15 | | | | | | |
| URZ | | | | Sn | **Sn** | **15 47 50.3** | **-4.5** |
| | 4.5nm,0.3s,baz=116,slow=20,SNR=11 | | | | | | |
| **URZ** | **Urewera** | **6.08** | **33** | PN | **Pn** | **15 46 44.5** | **-1.7** |
| **TKGZ** | **Te Karaka** | **6.24** | **38** | Pn | **Pn** | **15 46 45.3** | **-3.2** |
| **TKGZ** | **Te Karaka** | **6.24** | **38** | PN | **Pn** | **15 46 45.3** | **-3.2** |
| TKGZ | | | | AML | AML | 15 47 57.3 | |
| TKGZ | | | | AML | AML | 15 47 58.7 | |
| **ETZ** | **East Tamaki Re** | **6.67** | **14** | Pn | **Pn** | **15 46 55.2** | **+0.8** |
| **RVAZ** | **Riverhead Bore** | **6.79** | **11** | Pn | **Pn** | **15 46 57.2** | **+1.1** |
| **WMGZ** | **Waiomatatini S** | **7.00** | **38** | Pn | **Pn** | **15 46 56.9** | **-2.0** |
| **DZM** | **Mont Dzumac** | **22.00** | **344** | LR | LR | 15 57 38.2 | |
| | comp=Z,85nm,18.3s,baz=204,slow=34 | | | | | | |
| **ASAR** | **Alice Springs** | **37.61** | **289** | P | **P** | **15 52 30.7** | **+0.1** |
| | 1.0nm,0.7s,baz=129,slow=8.2,SNR=14 | | | | | | |
| **WRA** | **Warramunga Arr** | **39.84** | **294** | P | **P** | **15 52 50.3** | **+0.9** |
| | 1.4nm,0.6s,baz=134,slow=7.8,SNR=25 | | | | | | |
| **QSPA** | **South Pole Qui** | **46.67** | **180** | *e*P | **P** | **15 53 48.6** | **+4.5** |
| | 11nm,0.8s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **47.05** | **287** | LR | LR | 16 15 09.5 | |
| | comp=Z,47nm,20.0s,baz=306,slow=38 | | | | | | |
| **USHA** | **Ushuaia** | **69.08** | **147** | LR | LR | 16 18 27.8 | |
| | comp=Z,375nm,21.8s,baz=175,slow=29 | | | | | | |
| **YKA** | **Yellowknife Ar** | **120.34** | **31** | PKP | **PKPdf** | **16 04 06.9** | **+1.2** |
| | 0.3nm,0.8s,baz=231,slow=2.1,SNR=5.3 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **148.87** | **197** | PKPbc | **PKPbc** | **16 05 05.3** | **+1.7** |
| | 1.8nm,0.8s,baz=158,slow=1.8,SNR=11 | | | | | | |

*SJA **29** 15:50:22.0±1.0, 23°.93S×66°.84W, h220km±14km, ML2.6, MW2.7*
*ISCJB **29** 15:50:25.0±0.5, 23°.88S±0'.05×66°.87W±0'.05, h181km, Error ellipse: s-maj=8.3km s-min=4.3km az=33.4*
*GUC **29** 15:50:25.8±0.5, 23°.66S×67°.35W, h247km±18km, ML3.9*
**ISC 29 15:50:25.5±1.2, 23°.91S±0'.05×66°.87W±0'.04, h181km, n16, σ1§06/28, 5C-3D, Jujuy Province**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SLA** | **San Lorenzo** | **1.49** | **123** | *i* P | **Pn** | **15 50 58.4** | **+0.8** |
| SLA | | | | IAML | | 15 50 59.0 | |
| | comp=Z,46nm,0.7s | | | | | | |
| **HJA** | **Humahuaca** | **1.51** | **63** | *i* P | **Pn** | **15 50 58.3** | **+0.2** |
| HJA | | | | IAML | | 15 51 01.4 | |
| | comp=Z,8.4nm,0.3s | | | | | | |
| HJA | | | | *e*S | **Sn** | **15 51 26.4** | **+3.1** |
| **AZAP** | **Zapla** | **1.68** | **101** | *i* P | **Pn** | **15 50 59.3** | **-0.2** |
| AZAP | | | | IAML | | 15 51 00.4 | |
| | comp=Z,56nm,0.3s | | | | | | |
| AZAP | | | | *e*S | Sn | 15 51 41.1 | +15 |
| **FSA** | **Cafayete** | **2.34** | **160** | *i* P | **Pn** | **15 51 06.1** | **-0.5** |
| FSA | | | | IAML | | 15 51 07.2 | |
| | comp=Z,20nm,0.8s | | | | | | |
| FSA | | | | *i* S | **Sn** | **15 51 38.2** | **-0.4** |
| **ALOL** | **LOMAS DE OLMED** | **2.65** | **89** | *i* P | **Pn** | **15 51 08.9** | **-1.1** |
| **PB06** | **IPOC Station P** | **2.75** | **295** | ⇑*i* P | **Pn** | **15 51 12.4** | **+1.0** |
| PB06 | | | | *i* S | **Sn** | **15 51 47.8** | **+0.7** |
| PB06 | | | | IAML | | 15 51 50.0 | |
| | comp=N,139nm,0.1s | | | | | | |
| **PB09** | **IPOC Station P** | **3.03** | **313** | ⇑*i* P | **Pn** | **15 51 15.7** | **+0.9** |
| PB09 | | | | *i* S | **Sn** | **15 51 53.8** | **+0.7** |
| PB09 | | | | IAML | | 15 51 58.4 | |
| | comp=N,274nm,0.5s | | | | | | |
| **AHML** | **Horco Molle** | **3.19** | **154** | *i* P | **Pn** | **15 51 15.4** | **-1.0** |
| AHML | | | | IAML | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **JHJ** | **Hachijo jima 2** | **4.77** | **209** | Sn | **Sn** | **15 55 42.9** | **-3.7** |
| | 12nm,0.3s,baz=251,slow=22,SNR=1.9 | | | | | | |
| **ASAJ** | **Asahikawa** | **6.76** | **1** | Pn | **Pn** | **15 55 18.8** | **+0.3** |
| | 0.5nm,0.3s,baz=277,slow=16,SNR=5.3 | | | | | | |
| **SONM** | **Songino Array** | **28.33** | **303** | P | **P** | **15 59 33.4** | **0.0** |
| | 0.2nm,0.5s,baz=105,slow=7.6,SNR=2.0 | | | | | | |
| **AAK** | **Ala-Archa** | **51.10** | **298** | LR | LR | 16 24 27.0 | |
| | comp=Z,38nm,18.8s,baz=268,slow=36 | | | | | | |
| **WRA** | **Warramunga Arr** | **57.50** | **189** | P | **P** | **16 03 29.7** | **+1.0** |
| | 0.5nm,0.7s,baz=7.3,slow=7.0,SNR=5.0 | | | | | | |

*ISK **29** 16:02:56.7, 39˚.12N×29˚.11E, h4km, ML2.6*
*DDA **29** 16:02:56.7, 39˚.13N×29˚.07E, h7km, Ml3.0*
*ISCJB **29** 16:02:57.0±0.5, 39˚.13N±0˚.02×29˚.10E±0˚.03, h0km±5km, Error ellipse: s-maj=4.0km s-min=3.7km az=7.5*
*CSEM **29** 16:02:57.1±0.1, 39˚.12N×29˚.11E, h2km, ML2.6, Error ellipse: s-maj=3.9km s-min=3.2km az=96.0*

**ISC 29 16:02:57.2±1.0, 39˚.12N±0˚.02×29˚.12E±0˚.02, h9km±8km, n52, σ0s67/69, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **SIMA** | **Simav-Kutahya** | **0.11** | **254** | *e*PG | | **Pg** | **16 02 59.4** | **-0.4** |
| **SIMA** | **Simav-Kutahya** | **0.11** | **254** | *e*Pg | | **Pg** | **16 02 59.4** | **-0.4** |
| **GDZ** | **Gediz** | **0.28** | **95** | *i* P | | **Pg** | **16 03 03.4** | **+0.5** |
| GDZ | | | | *i* S | | **Sb** | **16 03 08.0** | **-1.4** |
| **GDZ** | **Gediz** | **0.28** | **95** | P | | **Pg** | **16 03 03.4** | **+0.5** |
| GDZ | | | | S | | **Sb** | **16 03 08.0** | **-1.4** |
| **DEMI** | **Demirci** | **0.32** | **257** | *i* P | | **Pg** | **16 03 03.6** | **+0.1** |
| DEMI | | | | *i* S | | **Sg** | **16 03 08.1** | **+0.2** |
| **DEMI** | **Demirci** | **0.32** | **257** | P | | **Pg** | **16 03 03.7** | **+0.1** |
| DEMI | | | | S | | **Sg** | **16 03 08.1** | **+0.2** |
| **TVSB** | **Tavsanli** | **0.43** | **38** | *e*PG | | **Pg** | **16 03 05.5** | **-0.1** |
| **TVSB** | **Tavsanli** | **0.43** | **38** | *e*Pg | | **Pg** | **16 03 05.5** | **-0.1** |
| **KULA** | **Kula-Manisa** | **0.70** | **211** | *e*PG | | **Pg** | **16 03 10.6** | **-0.1** |
| **KULA** | **Kula-Manisa** | **0.70** | **211** | *e*Pg | | **Pg** | **16 03 10.6** | **-0.1** |
| **MANT** | **Manisa** | **0.76** | **215** | *i* P | | **Pg** | **16 03 11.6** | **-0.3** |
| MANT | | | | *i* S | | **Sg** | **16 03 21.9** | **0.0** |
| **MANT** | **Manisa** | **0.76** | **215** | P | | **Pg** | **16 03 11.6** | **-0.3** |
| **KHAL** | **Karahalli** | **0.80** | **158** | *i* P | | **Pb** | **16 03 13.3** | **0.0** |
| KHAL | | | | *i* S | | **Sb** | **16 03 24.0** | **-0.3** |
| **KHAL** | **Karahalli** | **0.80** | **158** | P | | **Pb** | **16 03 13.3** | **0.0** |
| KHAL | | | | S | | **Sb** | **16 03 24.0** | **-0.3** |
| **ORLT** | **Orhaneli** | **0.95** | **350** | *e*PG | | **Pb** | **16 03 15.4** | **-0.4** |
| ORLT | | | | *e*SG | | **Sb** | **16 03 29.2** | **+0.7** |
| **ORLT** | **Orhaneli** | **0.95** | **350** | *e*Pg | | **Pb** | **16 03 15.4** | **-0.4** |
| ORLT | | | | *e*Sg | | **Sb** | **16 03 29.2** | **+0.7** |
| **AKHS** | **Akhisar** | **1.04** | **257** | *i* P | | **Pg** | **16 03 16.5** | **-0.7** |
| **AKHS** | **Akhisar** | **1.04** | **257** | P | | **Pg** | **16 03 16.5** | **-0.7** |
| **BALB** | **Balikesir** | **1.09** | **299** | *e*PN | | **Pn** | **16 03 18.8** | **+0.1** |
| **BALB** | **Balikesir** | **1.09** | **299** | *e*Pn | | **Pn** | **16 03 18.8** | **+0.1** |
| **KZIL** | **AFYON_Kizioren** | **1.17** | **137** | *i* P | | **Pg** | **16 03 17.6** | **-2.1** |
| KZIL | | | | *i* S | | **Sn** | **16 03 36.8** | **+0.8** |
| **KZIL** | **AFYON_Kizioren** | **1.17** | **137** | P | | **Pg** | **16 03 17.6** | **-2.1** |
| KZIL | | | | S | | **Sn** | **16 03 36.8** | **+0.8** |
| **CAVI** | **Cavuskoy** | **1.22** | **27** | *e*PN | | **Pn** | **16 03 20.8** | **+0.3** |
| CAVI | | | | *e*SN | | **Sn** | **16 03 38.1** | **+1.0** |
| **CAVI** | **Cavuskoy** | **1.22** | **27** | *e*Pn | | **Pn** | **16 03 20.8** | **+0.3** |
| CAVI | | | | *e*Sn | | **Sn** | **16 03 38.1** | **+1.0** |
| **SHUT** | **Suhut-Afyon** | **1.25** | **116** | *e*PN | | **Pn** | **16 03 21.5** | **+0.5** |
| **SHUT** | **Suhut-Afyon** | **1.25** | **116** | *e*Pn | | **Pn** | **16 03 21.5** | **+0.5** |
| **MDNY** | **Mudanya-Bursa** | **1.27** | **352** | *e*PN | | **Pn** | **16 03 21.1** | **0.0** |
| **MDNY** | **Mudanya-Bursa** | **1.27** | **352** | *e*Pn | | **Pn** | **16 03 21.1** | **0.0** |
| **BALY** | **Balya** | **1.32** | **299** | *i* P | | **Pg** | **16 03 21.0** | **-1.5** |
| BALY | | | | *i* S | | **Sb** | **16 03 39.1** | **-0.1** |
| **BALY** | **Balya** | **1.32** | **299** | P | | **Pg** | **16 03 21.0** | **-1.5** |
| BALY | | | | S | | **Sb** | **16 03 39.1** | **-0.1** |
| **ADVT** | **Abdulvahap** | **1.40** | **20** | *e*PN | | **Pn** | **16 03 23.1** | **+0.2** |
| **ADVT** | **Abdulvahap** | **1.40** | **20** | *e*Pn | | **Pn** | **16 03 23.1** | **+0.2** |
| **GONE** | **Gonen-Balikesi** | **1.45** | **310** | *e*PN | | **Pg** | **16 03 24.1** | **-0.8** |
| **GONE** | **Gonen-Balikesi** | **1.45** | **310** | *e*Pn | | **Pg** | **16 03 24.1** | **-0.8** |
| **ARMT** | **Armutlu** | **1.46** | **352** | *e*PN | | **Pb** | **16 03 24.4** | **-0.2** |
| **ARMT** | **Armutlu** | **1.46** | **352** | *e*Pn | | **Pb** | **16 03 24.4** | **-0.2** |
| **YLV** | **Yalova** | **1.46** | **8** | *e*PN | | **Pg** | **16 03 24.9** | **-0.3** |
| **YLV** | **Yalova** | **1.46** | **8** | *e*Pn | | **Pg** | **16 03 24.9** | **-0.3** |
| **EDC** | **Edincik** | **1.57** | **322** | *e*PN | | **Pb** | **16 03 26.1** | **-0.2** |
| **EDC** | **Edincik** | **1.57** | **322** | *e*Pn | | **Pb** | **16 03 26.1** | **-0.2** |
| **TAVA** | **DENIZLI_Tavas** | **1.65** | **186** | *i* P | | **Pb** | **16 03 27.8** | **-0.1** |
| **TAVA** | **DENIZLI_Tavas** | **1.65** | **186** | P | | **Pb** | **16 03 27.8** | **-0.1** |
| **GULT** | **Gulveren** | **1.70** | **39** | *e*PN | | **Pb** | **16 03 28.4** | **-0.3** |
| **GULT** | **Gulveren** | **1.70** | **39** | *e*Pn | | **Pb** | **16 03 28.4** | **-0.3** |
| **BUY** | **Buyukada** | **1.73** | **360** | *e*PN | | **Pb** | **16 03 28.6** | **-0.6** |
| **BUY** | **Buyukada** | **1.73** | **360** | *e*Pn | | **Pb** | **16 03 28.6** | **-0.6** |
| **AYDN** | **Tasoluk** | **1.75** | **214** | *i* P | | **Pg** | **16 03 30.7** | **0.0** |
| AYDN | | | | *i* S | | **Sg** | **16 03 53.8** | **+0.4** |
| **AYDN** | **Tasoluk** | **1.75** | **214** | P | | **Pg** | **16 03 30.7** | **0.0** |
| AYDN | | | | S | | **Sg** | **16 03 53.8** | **+0.4** |
| **HRT** | **Hereke** | **1.76** | **14** | *e*PN | | **Pn** | **16 03 28.4** | **+0.5** |
| **HRT** | **Hereke** | **1.76** | **14** | *e*Pn | | **Pn** | **16 03 28.4** | **+0.5** |
| **SBT2** | **Guzelce-Avcila** | **1.82** | **345** | *e*PN | | **Pb** | **16 03 30.0** | **-0.6** |
| **SBT2** | **Guzelce-Avcila** | **1.82** | **345** | *e*Pn | | **Pb** | **16 03 30.0** | **-0.6** |

*ISCJB **29** 16:08:42.1±0.3, 29˚.43S±0˚.04×176˚.36W±0˚.06, h21km, mb4.7/40, MS4.0/10, Error ellipse: s-maj=8.1km s-min=3.8km az=28.6*
*NEIC **29** 16:08:44.4±0.9, 29˚.35S×176˚.27W, h28km±6km, mb4.9/42, Error ellipse: s-maj=8.2km s-min=5.0km az=124.0*
*GCMT **29** 16:08:44.4±0.5, 29˚.04S×175˚.97W, h27km, MW4.9/57, Moment Tensor Solution. s26,c29; s57,c78; Duration: 0 Moment tensor: Scale 10^16 Nm; Mrr-3.20±.24; Mθθ0.74±.14; Mφφ2.46±.13; Mrθ0.57±.29; Mθφ0.76±.07; Mφr0.56±.18; Best double couple: M0 3.07500×10^16 NP1:φs206.00000°, δ52.00000°, λ-84.00000°. NP2: φs16.00000°, δ38.00000°, λ-98.00000°. Principal axes: T 2.8340, Plg7.0000°, Azm292.0000°; N 0.4870, Plg5.0000°, Azm22.0000°; P -3.3160, Plg82.0000°, Azm147.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*IDC **29** 16:08:48.4±2.6, 29˚.11S×176˚.37W, h55km±21km, mb4.2/15, mb1 4.4/15, mb1mx4.2/31, mbtmp4.4/15, MS3.9/13, Ms1 3.9/13, ms1mx3.7/25 Error ellipse: s-maj=21.2km s-min=18.3km az=179.0*

**ISC 29 16:08:43.9±0.4, 29˚.40S±0˚.06×176˚.29W±0˚.06, h21km, n126, σ1s71/121, mb4.8/40, MS4.0/10, 2C, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **RAO** | **Raoul Island** | **1.43** | **275** | P | | **Pb** | **16 09 11.3** | **+1.5** |
| | 508nm,0.3s,baz=79,slow=7.6,SNR=29 | | | | | | | |
| RAO | | | | S | | **Sb** | **16 09 27.9** | **+0.4** |
| | 1μm,0.3s,baz=238,slow=22,SNR=16 | | | | | | | |
| **MXZ** | **Matakaoa Point** | **9.31** | **208** | *e*Pn | | **Pn** | **16 10 57.2** | **+0.4** |
| MXZ | | | | *e*Sn | | **Sn** | **16 12 40.1** | **-0.7** |
| **WMGZ** | **Waiomatatini S** | **9.49** | **206** | PN | | **Pn** | **16 11 00.1** | **+0.8** |
| WMGZ | | | | SN | | **Sn** | **16 12 46.7** | **+1.4** |
| **PKGZ** | **Pakihiroa** | **9.68** | **208** | PN | | **Pn** | **16 10 59.3** | **-2.7** |
| **HAZ** | **Te Kaha** | **9.69** | **209** | PN | | **Pn** | **16 11 00.6** | **-1.4** |
| HAZ | | | | SN | | **Sn** | **16 12 51.3** | **+1.1** |
| **PUZ** | **Puketiti** | **9.77** | **206** | PN | | **Pn** | **16 11 00.3** | **-2.9** |
| **CNGZ** | **Carnagh Statio** | **10.15** | **205** | PN | | **Pn** | **16 11 05.7** | **-2.6** |
| **MWZ** | **Matawai** | **10.29** | **208** | PN | | **Pn** | **16 11 09.0** | **-1.3** |
| **OUZ** | **Omahuta** | **10.34** | **233** | *e*Pn | | Pn | 16 11 16.0 | +5.1 |
| **URZ** | **Urewera** | **10.40** | **210** | P | | **Pn** | **16 11 10.0** | **-1.8** |
| | 0.7nm,0.3s,baz=261,slow=5.3,SNR=8.3 | | | | | | | |
| URZ | | | | S | | **Sn** | **16 13 07.4** | **-0.3** |
| | 5.6nm,0.3s,baz=68,slow=23,SNR=11 | | | | | | | |
| **URZ** | **Urewera** | **10.40** | **210** | *e*Pn | | **Pn** | **16 11 10.0** | **-1.8** |
| URZ | | | | *e*Sn | | **Sn** | **16 13 03.3** | **-4.3** |
| URZ | | | | *e*Sn | | Sn | 16 13 07.4 | -0.3 |
| **URZ** | **Urewera** | **10.40** | **210** | PN | | **Pn** | **16 11 08.3** | **-3.4** |
| **RIGZ** | **Rimuhau** | **10.51** | **206** | PN | | **Pn** | **16 11 10.6** | **-2.7** |
| **SNGZ** | **Shannon Statio** | **10.74** | **208** | PN | | **Pn** | **16 11 13.9** | **-2.6** |
| **KNZ** | **Kokohu** | **10.82** | **206** | PN | | Pn | 16 11 13.5 | -4.0 |
| **BKZ** | **Black Stump Fm** | **11.42** | **210** | *e*Pn | | **Pn** | **16 11 24.4** | **-1.4** |
| BKZ | | | | *e*Sn | | **Sn** | **16 13 26.6** | **-6.2** |
| **BKZ** | **Black Stump Fm** | **11.42** | **210** | PN | | **Pn** | **16 11 22.4** | **-3.4** |
| **HIZ** | **Hauiti** | **11.69** | **217** | *e*Pn | | **Pn** | **16 11 31.9** | **+2.5** |
| **MSVF** | **Nonsavu** | **12.71** | **335** | *e*Pn | | **Pn** | **16 11 43.2** | **-0.4** |
| **BFZ** | **Birch Farm** | **12.81** | **206** | *e*Pn | | **Pn** | **16 11 43.0** | **-1.6** |
| **SNZO** | **South Karori** | **13.96** | **209** | *e*Pn | | **Pn** | **16 12 02.0** | **+1.5** |
| **THZ** | **Tophouse** | **15.13** | **213** | *e*Pn | | **Pn** | **16 12 16.9** | **+0.5** |
| | 42nm,0.9s | | | | | | | |
| THZ | | | | *e*Sn | | **Sn** | **16 14 55.4** | **-8.0** |
| **KHZ** | **Kahutara** | **15.37** | **210** | *e*Pn | | **Pn** | **16 12 18.7** | **-0.7** |
| | 55nm,0.7s | | | | | | | |
| KHZ | | | | *e*Sn | | Sn | 16 14 56.9 | -12 |
| **AFI** | **Afiamalu** | **15.97** | **16** | LR | | LR | 16 19 50.5 | |
| | comp=Z,63nm,20.2s,baz=176,slow=42 | | | | | | | |
| **LTZ** | **Lake Taylor** | **16.22** | **212** | *e*Pn | | **Pn** | **16 12 33.3** | **-0.2** |
| | 200nm,1.9s | | | | | | | |
| **CRLZ** | **Canterbury Las** | **16.70** | **209** | *e*Pn | | **Pn** | **16 12 37.7** | **+1.2** |
| | 935nm,1.9s | | | | | | | |
| **OXZ** | **Oxford** | **16.76** | **211** | *e*Pn | | **Pn** | **16 12 35.8** | **-1.4** |
| | 64nm,1.1s | | | | | | | |
| OXZ | | | | *e*Sn | | Sn | 16 15 27.8 | -15 |
| **MQZ** | **McQueen's Vall** | **16.80** | **209** | *e*Pn | | **Pn** | **16 12 36.5** | **-1.2** |
| | 306nm,1.7s | | | | | | | |
| **RAR** | **Rarotonga** | **17.00** | **65** | LR | | LR | 16 19 03.5 | |
| | comp=Z,577nm,18.5s,baz=254,slow=36 | | | | | | | |
| **DZM** | **Mont Dzumac** | **17.17** | **291** | P | | **P** | **16 12 46.2** | **+2.0** |
| | 0.2nm,0.3s,baz=100,slow=13,SNR=4.8 | | | | | | | |
| DZM | | | | LR | | LR | 16 17 00.5 | |
| | comp=Z,161nm,19.7s,baz=144,slow=29 | | | | | | | |
| **DZM** | **Mont Dzumac** | **17.17** | **291** | *e*P | | P | 16 13 02.1 | +18 |
| | 49nm,1.2s | | | | | | | |
| **DZM** | **Mont Dzumac** | **17.17** | **291** | *e*Pn | | **P** | **16 12 43.2** | **-1.0** |
| | 96nm,1.9s | | | | | | | |
| **RPZ** | **Rata Peaks** | **17.51** | **212** | P | | **Pn** | **16 12 46.3** | **-0.3** |
| | 1.2nm,0.3s,baz=276,slow=1.1,SNR=5.2 | | | | | | | |
| **RPZ** | **Rata Peaks** | **17.51** | **212** | *e*Pn | | **Pn** | **16 12 44.5** | **-2.2** |
| | 130nm,1.8s | | | | | | | |
| **FOZ** | **Fox Glacier** | **17.96** | **215** | *e*Pn | | **Pn** | **16 12 52.5** | **+0.3** |
| | 103nm,1.4s | | | | | | | |
| **LBZ** | **Lake Benmore** | **18.42** | **212** | *e*P | | **Pn** | **16 12 59.0** | **+1.1** |
| | 154nm,1.9s | | | | | | | |
| **ODZ** | **Otahua Downs** | **18.73** | **210** | *e*P | | **P** | **16 13 02.1** | **+1.1** |
| | 157nm,1.8s | | | | | | | |
| **WKZ** | **Wanaka** | **19.30** | **213** | *e*P | | **P** | **16 13 07.4** | **0.0** |
| | 138nm,1.6s | | | | | | | |
| **MLZ** | **Mavora Lakes** | **20.13** | **213** | *e*P | | **P** | **16 13 17.2** | **+0.7** |
| | 90nm,1.6s | | | | | | | |
| **WHZ** | **Wether Hill Ro** | **20.60** | **213** | *e*P | | **P** | **16 13 22.1** | **+0.6** |
| | 127nm,1.9s | | | | | | | |
| **DCZ** | **Deep Cove** | **20.68** | **215** | *e*P | | Pn | 16 13 24.6 | 0.0 |
| | 62nm,1.5s | | | | | | | |
| **PAE** | **Paea** | **27.06** | **70** | *e*T | | T | 16 40 11.5 | |
| | 6.1nm,0.3s | | | | | | | |
| **PPT2** | **Papeete2** | **27.10** | **70** | *e*LR | | LR | 16 20 45.1 | |
| | 224nm,21.0s | | | | | | | |
| **PPT2** | **Papeete2** | **27.10** | **70** | *e*T | | T | 16 40 15.0 | |
| | 5.2nm,0.3s | | | | | | | |
| **ARMA** | **Armidale** | **27.78** | **260** | *e*P | | **P** | **16 14 33.3** | **+1.7** |
| | 34nm,1.6s | | | | | | | |
| **EIDS** | **Eidsvold** | **29.20** | **270** | *e*P | | **P** | **16 14 44.0** | **-0.1** |
| | 10nm,0.9s | | | | | | | |
| **HNR** | **Honiara** | **29.83** | **307** | *e*P | | **P** | **16 14 49.7** | **0.0** |
| | 125nm,1.4s | | | | | | | |
| **VAH** | **Vaihoa** | **29.92** | **68** | *e*T | | T | 16 43 43.0 | |
| | 9.7nm,0.2s | | | | | | | |
| **CTA** | **Charters Tower** | **35.13** | **277** | P | | **P** | **16 15 36.7** | **+0.5** |
| | 4.3nm,0.6s,baz=111,slow=12,SNR=9.6 | | | | | | | |
| **CTAO** | **Charters Tower** | **35.13** | **277** | *e*P | | **P** | **16 15 35.1** | **-1.0** |
| | 60nm,1.8s | | | | | | | |
| **STKA** | **Stephens Creek** | **36.16** | **255** | P | | **P** | **16 15 45.7** | **+0.8** |
| | 5.9nm,0.6s,baz=100,slow=9.8,SNR=16 | | | | | | | |
| STKA | | | | LR | | LR | 16 30 10.4 | |
| | comp=Z,252nm,18.1s,baz=56,slow=35 | | | | | | | |
| **STKA** | **Stephens Creek** | **36.16** | **255** | *e*P | | **P** | **16 15 45.5** | **+0.6** |
| | 1.9nm,0.9s | | | | | | | |
| **RKT** | **Rikitea** | **37.43** | **90** | *e*LR | | LR | 16 25 39.5 | |
| | 233nm,21.0s | | | | | | | |
| **COEN** | **Coen** | **40.46** | **283** | *e*P | | **P** | **16 16 20.6** | **-0.6** |
| | 132nm,1.8s | | | | | | | |
| **BBOO** | **Buckleboo** | **40.68** | **253** | *e*P | | **P** | **16 16 23.1** | **+0.2** |
| | 16nm,0.8s | | | | | | | |
| **AS01** | **Alice Springs** | **44.62** | **265** | *e*P | | **P** | **16 16 54.7** | **-0.4** |
| **AS31** | **Alice Springs** | **44.66** | **265** | *e*P | | **P** | **16 16 54.6** | **-0.8** |
| | 2.2nm,0.9s | | | | | | | |
| **ASAR** | **Alice Springs** | **44.66** | **265** | P | | **P** | **16 16 54.8** | **-0.6** |
| | 3.5nm,0.6s,baz=104,slow=7.1,SNR=122 | | | | | | | |
| ASAR | | | | LR | | LR | 16 35 48.1 | |
| | comp=Z,374nm,18.6s,baz=110,slow=36 | | | | | | | |
| **WB2** | **Warramunga Arr** | **45.55** | **270** | *e*P | | **P** | **16 17 00.9** | **-1.5** |
| | 7.2nm,0.8s | | | | | | | |
| **WRAB** | **Tennant Creek** | **45.56** | **270** | *e*P | | **P** | **16 17 01.4** | **-1.1** |
| | 8.0nm,0.8s | | | | | | | |
| **WR1** | **Warramunga Arr** | **45.56** | **270** | *e*P | | **P** | **16 17 01.2** | **-1.3** |
| | 9.3nm,0.8s | | | | | | | |
| WRA | **Warramunga Arr** | **45.56** | **270** | P | | **P** | **16 17 01.2** | **-1.3** |
| | 5.4nm,0.6s,baz=108,slow=8.0,SNR=52 | | | | | | | |
| WRA | | | | LR | | LR | 16 36 01.4 | |
| | comp=Z,121nm,18.5s,baz=115,slow=36 | | | | | | | |
| **FORT** | **Forrest** | **47.75** | **254** | *e*P | | **P** | **16 17 18.9** | **-0.6** |
| | 172nm,0.8s | | | | | | | |
| **VNDA** | **Vanda** | **49.24** | **186** | P | | **P** | **16 17 34.1** | **+3.8** |
| | 2.6nm,1.0s,baz=356,slow=6.4,SNR=6.6 | | | | | | | |
| **VNDA** | **Vanda** | **49.24** | **186** | *e*P | | **P** | **16 17 33.2** | **+2.8** |
| | 7.4nm,1.3s | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **53.86** | **268** | P | | **P** | **16 18 05.7** | **0.0** |
| | 4.3nm,0.8s,baz=143,slow=8.3,SNR=7.6 | | | | | | | |
| FITZ | | | | LR | | LR | 16 39 08.3 | |
| | comp=Z,62nm,20.8s,slow=34 | | | | | | | |
| **GUMO** | **Guam** | **56.85** | **313** | LR | | LR | 16 41 01.4 | |
| | comp=Z,75nm,19.0s,baz=137,slow=34 | | | | | | | |
| **QSPA** | **South Pole Qui** | **60.71** | **180** | *e*P | | **P** | **16 18 55.9** | **+2.3** |
| | 11nm,0.9s | | | | | | | |
| **MAW** | **Mawson** | **73.76** | **200** | P | | **P** | **16 20 18.3** | **+2.3** |
| | 5.7nm,0.8s,baz=77,slow=6.0,SNR=6.3 | | | | | | | |
| **MAW** | **Mawson** | **73.76** | **200** | *e*P | | **P** | **16 20 18.4** | **+2.4** |
| | 2.6nm,1.1s | | | | | | | |
| **SYO** | **Syowa Base** | **78.42** | **192** | *e*P | | **P** | **16 20 42.3** | **-0.2** |
| **SYO** | **Syowa Base** | **78.42** | **192** | *e*pP | | pP | 16 20 48.7 | -0.7 |
| **SNAA** | **Sanae** | **79.11** | **178** | P | | **P** | **16 20 46.7** | **+0.3** |
| **VNA3** | **Neumayer Olymp** | **79.20** | **176** | P | | **P** | **16 20 47.2** | **+0.4** |
| **VNA2** | **Neumayer--Watz** | **79.65** | **176** | P | | **P** | **16 20 49.7** | **+0.5** |
| | baz=170,slow=4.9 | | | | | | | |
| **VNA1** | **Neumayer--Stat** | **79.87** | **176** | P | | **P** | **16 20 51.5** | **+1.0** |
| **PLCA** | **Paso Flores** | **82.09** | **132** | P | | **P** | **16 21 03.9** | **+0.9** |
| | 4.6nm,0.9s,baz=240,slow=3.3,SNR=6.5 | | | | | | | |
| PLCA | | | | LR | | LR | 16 50 45.7 | |
| | comp=Z,107nm,18.9s,baz=264,slow=31 | | | | | | | |
| **PLCA** | **Paso Flores** | **82.09** | **132** | *e*P | | **P** | **16 21 03.6** | **+0.6** |
| | 32nm,1.8s | | | | | | | |
| **KSRS** | **Korea Array** | **84.56** | **319** | LR | | LR | 16 57 43.4 | |
| | comp=Z,22nm,18.7s,baz=115,slow=35 | | | | | | | |
| **PETK** | **Petropavlovsk-** | **85.23** | **345** | P | | **P** | **16 21 17.8** | **-0.6** |
| | 3.7nm,0.8s,baz=108,slow=8.8,SNR=7.6 | | | | | | | |
| PETK | | | | LR | | LR | 16 55 21.5 | |
| | comp=Z,65nm,19.3s,baz=122,slow=33 | | | | | | | |
| **PEA1** | **Petropavlovsk-** | **85.23** | **345** | *e*P | | **P** | **16 21 17.8** | **-0.6** |
| **WAKR** | **Walker** | **85.89** | **41** | *e*P | | **P** | **16 21 22.1** | **-0.2** |
| | 11nm,1.3s | | | | | | | |
| **PNTR** | **Pine Nut** | **86.20** | **41** | *e*P | | **P** | **16 21 22.4** | **-1.4** |
| | 7.8nm,0.9s | | | | | | | |
| **LDFC** | **Landfair** | **86.23** | **46** | *e*P | | **P** | **16 21 24.6** | **+0.6** |
| | 24nm,1.5s | | | | | | | |
| **NV01** | **Mina Array Sit** | **86.50** | **42** | *e*P | | **P** | **16 21 24.6** | **-0.7** |
| **NVAR** | **Mina Array Bea** | **86.50** | **42** | P | | **P** | **16 21 25.0** | **-0.3** |
| | 1.6nm,0.7s,baz=222,slow=8.2,SNR=16 | | | | | | | |
| NVAR | | | | LR | | LR | 16 55 28.8 | |
| | comp=Z,190nm,18.5s,baz=256,slow=32 | | | | | | | |
| **NV11** | **Mina Array Sit** | **86.59** | **42** | *e*P | | **P** | **16 21 24.8** | **-0.9** |
| | 0.8nm,1.4s | | | | | | | |
| **KVN** | **Kaiserville** | **87.03** | **41** | *e*P | | **P** | **16 21 26.6** | **-1.3** |
| | 15nm,1.6s | | | | | | | |
| **TUC** | **Tucson** | **87.33** | **50** | *e*P | | **P** | **16 21 29.1** | **-0.2** |
| | 6.6nm,1.1s | | | | | | | |
| **U15A** | **North Rim** | **88.86** | **46** | *e*P | | **P** | **16 21 36.9** | **+0.1** |
| | 30nm,1.8s | | | | | | | |
| **MTPU** | **Mount Pierson** | **89.93** | **45** | *e*P | | **P** | **16 21 42.5** | **+0.7** |
| | 14nm,1.5s | | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **90.60** | **56** | *e*P | | **P** | **16 21 44.2** | **-0.7** |
| **LTX** | **Lajitas** | **90.60** | **56** | *e*P | | **P** | **16 21 44.8** | **-0.1** |
| **TXAR** | **Lajitas Array** | **90.60** | **56** | P | | **P** | **16 21 44.8** | **-0.1** |
| | 1.1nm,0.9s,baz=206,slow=5.4,SNR=8.2 | | | | | | | |
| **MNTX** | **Cornudas Mount** | **90.69** | **54** | *e*P | | **P** | **16 21 44.7** | **-0.4** |
| | 9.4nm,1.6s | | | | | | | |
| **G08A** | **Pilot Rock** | **90.77** | **36** | *e*P | | **P** | **16 21 44.3** | **-1.0** |
| | 10nm,1.0s | | | | | | | |
| **LNIG** | **Linares** | **91.36** | **62** | *e*P | | **P** | **16 21 47.4** | **-1.0** |
| | 7.1nm,1.2s | | | | | | | |
| **HVU** | **Hansel Valley** | **91.89** | **42** | *e*P | | **P** | **16 21 50.2** | **-0.5** |
| | 18nm,1.7s | | | | | | | |
| **MCMT** | **McKenzie Canyo** | **93.75** | **40** | *e*P | | **P** | **16 21 56.4** | **-2.9** |
| **PD31** | **Pinedale Array** | **94.39** | **43** | *e*P | | **P** | **16 22 00.7** | **-1.5** |
| **PDAR** | **Pinedale Array** | **94.39** | **43** | P | | **P** | **16 22 00.4** | **-1.9** |
| | 0.4nm,0.7s,baz=199,slow=4.1,SNR=5.1 | | | | | | | |
| **CM31** | **Chiang Mai Arr** | **94.48** | **289** | *e*P | | **P** | **16 22 02.5** | **-0.5** |
| **CMAR** | **Chiang Mai Arr** | **94.48** | **289** | P | | **P** | **16 22 03.8** | **+0.9** |
| | 0.3nm,0.4s,baz=131,slow=4.1,SNR=3.7 | | | | | | | |
| **BOZ** | **Bozeman (W)** | **94.91** | **40** | *e*P | | **P** | **16 22 03.6** | **-0.9** |
| | 14nm,1.7s | | | | | | | |
| **DOT** | **Dot Lake** | **96.18** | **14** | *e*P | | **P** | **16 22 10.5** | **+0.9** |
| | 42nm,0.8s | | | | | | | |
| **ILAR** | **Eielson Array** | **96.63** | **12** | P | | **P** | **16 22 09.7** | **-1.9** |
| | 1.0nm,0.7s,baz=222,slow=5.4,SNR=17 | | | | | | | |
| **ILB** | **Eielson Array** | **96.63** | **12** | *e*P | | **P** | **16 22 09.3** | **-2.3** |
| **LPAZ** | **La Paz** | **97.18** | **113** | P | | **P** | **16 22 16.7** | **+0.5** |
| | 1.2nm,0.7s,baz=192,slow=5.0,SNR=5.6 | | | | | | | |
| LPAZ | | | | LR | | LR | 16 59 22.2 | |
| | comp=Z,58nm,18.7s,baz=83,slow=31 | | | | | | | |
| **LPAZ** | **La Paz** | **97.18** | **113** | *e*P | | **P** | **16 22 15.8** | **-0.3** |
| **EGMT** | **Eagleton** | **97.39** | **38** | *e*pP | | pP | 16 22 24.1 | +1.5 |
| **MK32** | **Makanchi Array** | **118.27** | **310** | *e*PKPdf | | **PKPdf** | **16 27 27.6** | **-1.7** |
| **MKAR** | **Makanchi Array** | **118.27** | **310** | PKP | | **PKPdf** | **16 27 27.6** | **-1.7** |
| | 0.9nm,0.8s,baz=153,slow=1.3,SNR=3.4 | | | | | | | |
| **ARA0** | **ARCESS Array S** | **137.91** | **349** | *e*PKPdf | | **PKPdf** | **16 28 05.2** | **-0.8** |
| **ARCES** | **ARCESS Array B** | **137.91** | **349** | PKP | | **PKPdf** | **16 28 05.2** | **-0.8** |
| | 2.9nm,0.8s,baz=56,slow=1.6,SNR=5.2 | | | | | | | |
| **FIA0** | **FINESS Array S** | **144.69** | **342** | *e*PKPdf | | **PKPab** | **16 28 16.1** | **-0.9** |
| **FINES** | **FINESS Array B** | **144.69** | **342** | PKP | | **PKPab** | **16 28 16.1** | **-0.9** |
| | 5.1nm,0.6s,baz=70,slow=3.3,SNR=26 | | | | | | | |
| **KBZ** | **Khabaz** | **145.76** | **305** | PKPbc | | **PKPdf** | **16 28 21.5** | **+0.8** |
| | 1.3nm,0.7s,baz=109,slow=5.3,SNR=3.0 | | | | | | | |
| **NB2** | **NORSAR Subarra1** | **147.96** | **353** | PKP | | **PKPdf** | **16 28 25.7** | **+1.8** |
| | comp=Z,3.0nm,0.5s,baz=8.7,slow=2.3 | | | | | | | |
| **NB200** | **NORSAR Array S** | **147.96** | **353** | *e*PKPbc | | **PKPdf** | **16 28 25.8** | **+1.8** |
| **NOA** | **NORSAR Array B** | **147.96** | **353** | PKPbc | | **PKPdf** | **16 28 25.8** | **+1.8** |
| | comp=Z,4.1nm,0.5s,baz=13,slow=4.5,SNR=8.3 | | | | | | | |
| **AKASG** | **Malin Array Be** | **151.37** | **325** | PKPbc | | **PKPbc** | **16 28 34.6** | **-0.9** |
| | comp=Z,3.2nm,0.5s,baz=45,slow=2.9,SNR=21 | | | | | | | |
| **AKBB** | **Malin Array Si** | **151.37** | **325** | *e*PKPbc | | **PKPbc** | **16 28 34.7** | **-0.9** |
| **BR101** | **Keskin Array S** | **153.40** | **301** | *e*PKPbc | | **PKPbc** | **16 28 39.7** | **-1.1** |
| **BRTR** | **Keskin Array B** | **153.40** | **301** | PKPbc | | **PKPbc** | **16 28 39.7** | **-1.1** |
| | comp=Z,1.9nm,1.1s,baz=158,slow=4.0,SNR=6.0 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **163.72** | **173** | PKP | | **PKPdf** | **16 28 45.7** | **-0.3** |
| | comp=Z,1.2nm,0.8s,baz=235,slow=0.3,SNR=5.8 | | | | | | | |
| TORD | | | | PKPab | | **PKPab** | **16 29 37.8** | **+0.1** |
| | comp=Z,2.5nm,0.7s,baz=187,slow=3.9,SNR=12 | | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **163.73** | **173** | *e*PKPdf | | **PKPdf** | **16 28 45.7** | **-0.3** |
| TOA1 | | | | *e*PKPab | | **PKPab** | **16 29 37.8** | **0.0** |

*IDC **29** 16:09:52.6±3.0, 

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | SNR=9.2 | | | | | | | | |
| GDB | | | | | ⇑S | | **Sb** | 16 12 34.5 | **-0.7** |
| **GDB** | **GEDABAY** | **2.42** | **43** | P | | **Pn** | 16 12 00.9 | **-0.2** |
| | SNR=9.2 | | | | | | | | |
| GDB | | | | | S | | **Sb** | 16 12 34.5 | **-0.7** |
| **QZX** | **Qazax, Azerbai** | **2.50** | **33** | ⇑P | | **Pn** | 16 12 01.4 | **-0.6** |
| | SNR=3.6 | | | | | | | | |
| QZX | | | | | ⇓S | | **Sb** | 16 12 35.3 | **-1.9** |
| **QZX** | **Qazax, Azerbai** | **2.50** | **33** | P | | **Pn** | 16 12 01.4 | **-0.6** |
| | SNR=3.6 | | | | | | | | |
| QZX | | | | | S | | **Sb** | 16 12 35.3 | **-1.9** |
| **GANJ** | **Ganja** | **2.70** | **51** | ⇑P | | **Pn** | 16 12 04.8 | **0.0** |
| | SNR=3.0 | | | | | | | | |
| GANJ | | | | | ⇓S | | **Sb** | 16 12 41.4 | **-1.6** |
| **GANJ** | **Ganja** | **2.70** | **51** | P | | **Pn** | 16 12 04.8 | **0.0** |
| | SNR=3.0 | | | | | | | | |
| GANJ | | | | | S | | **Sb** | 16 12 41.4 | **-1.6** |

*ISCJB **29** 16:17:36.3±1.0, 3°.99N±0°.05×96°.25E±0°.08, h82km±9km, mb3.3/2, Error ellipse: s-maj=13.5km s-min=8.8km az=0.1*
*DJA **29** 16:17:38.3±0.5, 4°.N±2°×9°.6E±°, h48km±11km, M3.6/10, MLv3.6/10*
*IDC **29** 16:17:43.3±7.5, 2°.71N×96°.23E, h84km±60km, mb3.1/2, mb1 3.3/4, mb1mx3.0/40, mbtmp3.3/4, ML3.5/2, Error ellipse: s-maj=76.1km s-min=35.3km az=48.0*

**ISC 29 16:17:36.9±1.4, 4°.00N±0°.05×96°.24E±0°.09, h71km±12km, n11, σ1s2.7/15, Northern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **MLSI** | **Meulaboh, Aceh** | **0.32** | **32** | P | | **Pn** | **16 17 48.7** | **+0.4** |
| **TPTI** | | **1.19** | **128** | P | | **Pn** | **16 17 57.2** | **-0.7** |
| TPTI | | | | S | | **Sn** | **16 18 12.4** | **-1.2** |
| **LHMI** | **Lhok Sumawe** | **1.41** | **30** | P | | **Pn** | **16 18 01.5** | **+0.7** |
| LHMI | | | | S | | **Sn** | **16 18 19.0** | **+0.2** |
| **SNSI** | **Sinabang, Aceh** | **1.58** | **177** | P | | **Pn** | **16 18 04.1** | **+1.1** |
| SNSI | | | | S | | **Sn** | **16 18 23.0** | **+0.3** |
| **KCSI** | **Kotacane, Aceh** | **1.60** | **107** | P | | **Pn** | **16 18 03.7** | **+0.4** |
| KCSI | | | | S | | **Sn** | **16 18 22.5** | **-0.7** |
| **TSI** | **Tuntungan** | **2.37** | **102** | P | | **Pn** | **16 18 13.7** | **0.0** |
| **PSI** | **Prapat** | **2.93** | **114** | P | | **Pn** | **16 18 24.2** | **+2.8** |
| | 3.7nm,0.3s,baz=317,slow=9.0,SNR=7.1 | | | | | | | |
| PSI | | | | | S | | **Sn** | **16 18 57.4** | **+1.8** |
| | 7.5nm,0.3s,baz=268,slow=20,SNR=5.8 | | | | | | | |
| **GSI** | **Gunungsitoli** | **2.99** | **153** | P | | **Pn** | **16 18 22.6** | **+0.5** |
| **CMAR** | **Chiang Mai Arr** | **14.61** | **10** | P | | P | 16 21 22.1 | +17 |
| | 0.1nm,0.3s,baz=192,slow=11,SNR=4.4 | | | | | | | |
| **WRA** | **Warramunga Arr** | **44.35** | **124** | P | | **P** | **16 25 39.5** | **-1.1** |
| | 0.6nm,0.6s,baz=303,slow=9.2,SNR=17 | | | | | | | |
| **ASAR** | **Alice Springs** | **45.86** | **129** | P | | **P** | **16 25 51.7** | **-0.9** |
| | 0.3nm,0.8s,baz=299,slow=7.7,SNR=5.4 | | | | | | | |

**MEX 29 16:18:41.7±0.6, 19°.09N×104°.14W, h7km±6km, MD3.9, Near coast of Jalisco**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **R15V** | | **0.17** | **62** | *i* P | | Pg | 16 18 44.8 | -0.4 |
| R15V | | | | *e*S | | Sg | 16 18 47.9 | +0.3 |
| **EZ5V** | | **0.64** | **53** | *i* P | | Pg | 16 18 52.9 | -1.2 |
| EZ5V | | | | *i* S | | Sg | 16 19 02.4 | -0.2 |
| **CJM** | **Chamela** | **0.94** | **296** | *i* P | | Pg | 16 18 57.2 | -2.6 |
| CJM | | | | *i* S | | Sg | 16 19 09.9 | -2.2 |
| **MMIG** | **Aquila** | **1.10** | **136** | *e*P | | Pg | 16 18 59.6 | -3.1 |
| MMIG | | | | *e*S | | Sg | 16 19 14.1 | -2.9 |
| **ZIIG** | **Zihuatanejo** | **2.94** | **120** | *e*P | | Pn | 16 19 28.1 | -0.7 |
| **ARIG** | **Puente Sto Nin** | **3.69** | **102** | *e*P | | Pn | 16 19 42.6 | +3.4 |
| ARIG | | | | *e*S | | Sb | 16 20 34.4 | +2.3 |

*KRNET **29** 16:20:56.5±0.1, 38°.96N×73°.53E, mb3.5*
*NNC **29** 16:20:58.4±1.3, 39°.00N×73°.71E, h0km, mb3.8, mpv3.5, Error ellipse: s-maj=14.2km s-min=7.6km az=74.0*

**ISC 29 16:20:57.9±2.1, 39°.0N±0°.1×73°.50E±0°.05, h10km, n31, σ2s9.7/46, 29C-15D, Tajikistan-Xinjiang border region**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **SFK** | **Sufi-Kurgan** | **0.99** | **0** | ⇑*i*P | | **Pb** | **16 21 17.1** | **-0.2** |
| SFK | baz=359 | | | ⇑*i*S | | **Sn** | **16 21 32.8** | **+0.5** |
| **SFK** | **Sufi-Kurgan** | **0.99** | **0** | ⇑P | | **Pb** | **16 21 17.0** | **-0.3** |
| SFK | 66nm,0.4s | | | ⇑S | | **Sn** | **16 21 32.9** | **+0.5** |
| **TOKL** | **Toktogul** | **2.96** | **351** | ⇑*e*P | | **Pb** | **16 21 50.2** | **-0.5** |
| TOKL | 91nm,0.4s baz=351 | | | ⇑*e*S | | **Sb** | **16 22 29.3** | **+2.3** |
| **ARK** | **Arkit** | **3.02** | **338** | ⇓*e*P | | **Pb** | **16 21 50.4** | **-1.3** |
| ARK | baz=338 | | | ⇓*i*S | | **Sb** | **16 22 29.1** | **+0.5** |
| **NRN** | **Naryn** | **3.08** | **38** | ⇓*e*P | | **Pb** | **16 21 50.4** | **-2.5** |
| NRN | baz=37 | | | ⇓*i*S | | **Sb** | **16 22 32.3** | **+1.6** |
| **AML** | **Almayashu** | **3.11** | **3** | ⇑*i*P | | **Pb** | **16 21 50.2** | **-3.4** |
| AML | baz=2.0 | | | ⇑*i*S | | **Sb** | **16 22 29.4** | **-2.4** |
| **AML** | **Almayashu** | **3.11** | **3** | P | | **Pb** | **16 21 51.3** | **-2.2** |
| | SNR=14 | | | | | | | |
| **UCH** | **Uchtor** | **3.30** | **13** | ⇑*i*P | | **Pn** | **16 21 52.2** | **+2.2** |
| UCH | baz=13 | | | ⇑*i*S | | **Sb** | **16 22 34.0** | **-3.1** |
| **UCH** | **Uchtor** | **3.30** | **13** | P | | **Pb** | **16 21 54.1** | **-2.7** |
| | SNR=17 | | | | | | | |
| **KZA** | **Kyzart** | **3.34** | **23** | ⇑*i*P | | **Pn** | **16 21 53.2** | **+2.7** |
| KZA | baz=22 | | | ⇑*i*S | | **Sb** | **16 22 35.2** | **-2.9** |
| **KZA** | **Kyzart** | **3.34** | **23** | P | | **Pg** | **16 21 59.5** | **-2.3** |
| | SNR=8.3 | | | | | | | |
| **MNAS** | **Manas** | **3.55** | **348** | ⇑*i*P | | **Pn** | **16 21 55.5** | **+2.4** |
| MNAS | baz=348 | | | ⇑*i*S | | **Sn** | **16 22 39.2** | **+4.0** |
| **MNAS** | **Manas** | **3.55** | **348** | ⇓Pn | | **Pb** | **16 21 57.7** | **-3.1** |
| MNAS | 5.2nm,0.5s | | | ⇑Pg | | **Pg** | **16 22 04.4** | **-1.4** |
| MNAS | 13nm,0.6s | | | ⇓Lg | | Lg | 16 22 53.8 | |
| **EKS2** | **Erkin-Say** | **3.65** | **3** | ⇑*i*P | | **Pn** | **16 21 57.3** | **+2.8** |
| EKS2 | 17nm,0.5s baz=3.0 | | | ⇑*i*S | | **Sn** | **16 22 42.0** | **+4.4** |
| **EKS2** | **Erkin-Say** | **3.65** | **3** | P | | **Pb** | **16 21 59.5** | **-3.0** |
| | SNR=11 | | | | | | | |
| **AAK** | **Ala-Archa** | **3.69** | **11** | ⇓Pn | | **Pn** | **16 21 58.3** | **+3.2** |
| AAK | 8.1nm,0.4s 26nm,0.7s | | | ⇑Lg | | Lg | 16 22 55.3 | |
| **AAK** | **Ala-Archa** | **3.69** | **11** | P | | **Pb** | **16 21 59.6** | **-3.7** |
| | SNR=12 | | | | | | | |
| **KBK** | **Karagaybulak** | **3.80** | **16** | ⇑*i*P | | **Pn** | **16 21 59.2** | **+2.6** |
| KBK | baz=16 | | | ⇑*i*S | | **Sn** | **16 22 45.6** | **+4.2** |
| **KBK** | **Karagaybulak** | **3.80** | **16** | P | | **Pb** | **16 22 00.9** | **-4.2** |
| | SNR=6.4 | | | | | | | |
| **ULHL** | **Ulahol** | **3.84** | **32** | ⇑*i*P | | **Pn** | **16 21 59.7** | **+2.5** |
| ULHL | baz=31 | | | ⇑*i*S | | **Sn** | **16 22 46.3** | **+3.8** |
| **CHMS** | **Chumysh** | **4.09** | **13** | P | | **Pb** | **16 22 05.9** | **-4.0** |
| | SNR=6.6 | | | | | | | |
| **TKM2** | **Tokmak 2** | **4.21** | **21** | ⇓*i*P | | **Pn** | **16 22 05.3** | **+3.0** |
| TKM2 | baz=21 | | | ⇓*i*S | | **Sn** | **16 22 55.3** | **+3.7** |
| **TKM2** | **Tokmak 2** | **4.21** | **21** | ⇑Pg | | **Pb** | **16 22 13.7** | **+1.6** |
| TKM2 | 12nm,1.1s 26nm,1.2s | | | ⇓Lg | | Lg | 16 23 09.7 | |
| **USP** | **Ospenovka** | **4.31** | **10** | ⇑*i*P | | **Pn** | **16 22 06.2** | **+2.7** |
| USP | baz=9.0 | | | ⇑*i*S | | **Sn** | **16 22 57.7** | **+3.8** |
| **USP** | **Ospenovka** | **4.31** | **10** | P | | Pb | 16 22 08.3 | -5.5 |
| | SNR=5.5 | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **KK31** | **Karatay Array** | **4.67** | **332** | Pn | | **Pn** | 16 22 12.8 | +4.4 |
| | 2.1nm,0.5s,baz=141,slow=12,SNR=43 | | | | | | | | |
| KK31 | | | | Pg | | **Pg** | **16 22 26.3** | **-0.9** |
| | 3.3nm,0.4s,baz=153,slow=15,SNR=4.4 | | | | | | | | |
| KK31 | | | | ⇓Sn | | **Sn** | **16 23 08.6** | **+6.0** |
| | 10nm,0.8s,baz=164,slow=24,SNR=5.4 | | | | | | | | |
| KK31 | | | | ⇑Lg | | Lg | 16 23 29.7 | | |
| | 5.7nm,0.5s,baz=148,slow=15,SNR=3.7 | | | | | | | | |
| **MDOK** | **Medeo** | **4.93** | **32** | ⇓Pg | | **Pb** | **16 22 27.5** | **+3.1** |
| MDOK | | | | ⇑Lg | | Lg | 16 23 33.5 | | |
| **PDGK** | **Podgornoye** | **6.24** | **44** | ⇓Pn | | **Pn** | **16 22 32.0** | **+1.9** |
| | 0.4nm,0.5s | | | | | | | | |
| PDGK | 6.0nm,0.9s | | | ⇑Pg | | Pb | 16 22 51.1 | +4.3 | |
| PDGK | 19nm,1.0s | | | ⇓Lg | | Lg | 16 24 15.9 | | |
| **AB31** | **Akbulak array** | **14.10** | **321** | Pn | | **P** | **16 24 22.0** | **-3.3** |
| | 0.8nm,0.7s,baz=128,slow=12,SNR=3.9 | | | | | | | | |
| **BVA0** | **Borovoye Array** | **14.17** | **352** | ⇓Pn | | **P** | **16 24 22.0** | **-4.1** |
| | 2.5nm,1.0s,baz=162,slow=10,SNR=6.0 | | | | | | | | |
| **AKTO** | **Aktyubinsk** | **15.82** | **321** | ⇑Pn | | **P** | **16 24 46.0** | **+1.6** |
| | 2.9nm,1.1s | | | | | | | | |

*VIE **29** 16:46:41.1, 51°.95N×16°.57E, h0km, ML2.7/1, Suspected Mining induced.*
*ISCJB **29** 16:46:46.8±0.7, 51°.48N±0°.03×16°.13E±0°.03, h0km, Error ellipse: s-maj=4.7km s-min=2.8km az=11.6*
*CSEM **29** 16:46:48.0±0.4, 51°.52N×16°.09E, h2km, ML3.0/7, Error ellipse: s-maj=6.0km s-min=3.4km az=2.0*
*WAR **29** 16:46:48.6, 51°.55N×16°.13E, h1km, Mw2.3*
*PRU **29** 16:46:49.6, 51°.48N×16°.09E, h0km*

**ISC 29 16:46:48.4±1.1, 51°.54N±0°.05×16°.09E±0°.02, h0km, n41, σ0s6.5/78, Poland**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **KSP** | **Ksiaz** | **0.71** | **170** | *i* Pg | | **Pg** | **16 47 02.0** | **+0.1** |
| KSP | | | | *e*Sg | | **Sg** | **16 47 11.2** | **+0.1** |
| **KSP** | **Ksiaz** | **0.71** | **170** | *i* Pg | | **Pg** | **16 47 02.0** | **+0.1** |
| KSP | | | | *e*Sg | | **Sg** | **16 47 11.2** | **+0.1** |
| **KSP** | **Ksiaz** | **0.71** | **170** | *i* Pg | | **Pg** | **16 47 02.0** | **+0.1** |
| KSP | | | | *e*Sg | | **Sg** | **16 47 11.2** | **+0.1** |
| **UPC** | **Upice** | **1.03** | **183** | *e*PG | | **Pg** | **16 47 08.1** | **-0.1** |
| UPC | | | | *e*SG | | **Sg** | **16 47 22.3** | **+0.8** |
| | comp=Z,35nm,0.4s | | | | | | | |
| **UPC** | **Upice** | **1.03** | **183** | Pg | | **Pg** | **16 47 08.1** | **-0.1** |
| UPC | 35nm,0.4s | | | Sg | | **Sg** | **16 47 22.3** | **+0.8** |
| **DPC** | **Dobruska-Polom** | **1.20** | **173** | *e*PG | | **Pg** | **16 47 10.8** | **-0.5** |
| DPC | | | | *e*SG | | **Sg** | **16 47 26.6** | **-0.2** |
| | comp=Z,11nm,0.3s | | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.20** | **173** | Pg | | **Pg** | **16 47 10.8** | **-0.5** |
| DPC | 11nm,0.3s | | | Sg | | **Sg** | **16 47 26.6** | **-0.2** |
| **PVCC** | **Panska Ves** | **1.40** | **224** | *e*PG | | **Pn** | **16 47 14.7** | **-0.4** |
| PVCC | | | | *e*SG | | **Sn** | **16 47 34.8** | **+0.6** |
| | comp=Z,52nm,0.2s | | | | | | | |
| **PVCC** | **Panska Ves** | **1.40** | **224** | Pg | | **Pn** | **16 47 14.7** | **-0.4** |
| **BRG** | **Berggiesshubel** | **1.51** | **245** | PG | | **Pb** | **16 47 17.2** | **-0.1** |
| BRG | 56nm,0.4s | | | SG | | **Sn** | **16 47 38.1** | **+1.1** |
| **GOPC** | **GO Pecny, Ondr** | **1.82** | **208** | *e*PN | | **Pn** | **16 47 20.9** | **-0.2** |
| GOPC | | | | *e*PG | | **Pb** | **16 47 22.5** | **-0.2** |
| GOPC | | | | *e*SG | | **Sb** | **16 47 46.5** | **+0.4** |
| **GOPC** | **GO Pecny, Ondr** | **1.82** | **208** | Pn | | **Pn** | **16 47 20.9** | **-0.2** |
| **PRU** | **Pruhonice** | **1.84** | **213** | *e*PG | | **Pb** | **16 47 22.5** | **-0.4** |
| PRU | | | | *e*SG | | **Sb** | **16 47 46.6** | **+0.2** |
| | comp=Z,14nm,0.4s | | | | | | | |
| **PRU** | **Pruhonice** | **1.84** | **213** | Pg | | **Pb** | **16 47 22.5** | **-0.4** |
| PRU | 14nm,0.4s | | | Sg | | **Sb** | **16 47 46.6** | **+0.2** |
| **CLL** | **Collm** | **1.95** | **264** | *e*Pn | | **Pn** | **16 47 22.0** | **-0.7** |
| CLL | | | | *e*Pg | | **Pb** | **16 47 25.0** | **+0.2** |
| CLL | | | | *e*Sg | | **Sb** | **16 47 50.0** | **+0.4** |
| | comp=Z,13nm,0.6s | | | | | | | |
| **MORC** | **Moravsky Berou** | **1.99** | **152** | *e*Pn | | **Pn** | **16 47 22.1** | **-1.2** |
| MORC | | | | *e*Sg | | **Sb** | **16 47 51.1** | **+0.3** |
| **OKC** | **Ostrava-Krasne** | **2.15** | **142** | *e*PG | | **Pb** | **16 47 27.7** | **-0.4** |
| OKC | | | | *e*SG | | **Sb** | **16 47 54.5** | **-0.8** |
| **OKC** | **Ostrava-Krasne** | **2.15** | **142** | Pg | | **Pb** | **16 47 27.7** | **-0.4** |
| OKC | | | | Sg | | **Sb** | **16 47 54.5** | **-0.8** |
| **VRAC** | **Vranov** | **2.25** | **172** | *e*Pn | | **Pn** | **16 47 27.0** | **0.0** |
| VRAC | | | | *e*Sg | | **Sb** | **16 47 59.4** | **+1.0** |
| **NKC** | **Novy Kostel** | **2.65** | **242** | *e*PN | | **Pn** | **16 47 32.4** | **0.0** |
| NKC | | | | *e*PG | | **Pg** | **16 47 38.5** | **-0.7** |
| NKC | | | | *e*SG | | **Sg** | **16 48 13.4** | **-0.2** |
| | comp=Z,24nm,0.4s | | | | | | | |
| **NKC** | **Novy Kostel** | **2.65** | **242** | Pn | | **Pn** | **16 47 32.4** | **0.0** |
| **OJC** | **Ojcow** | **2.69** | **118** | *e*Pg | | **Pg** | **16 47 39.8** | **-0.2** |
| OJC | | | | *e*Sg | | **Sg** | **16 48 15.3** | **+0.5** |
| **OJC** | **Ojcow** | **2.69** | **118** | *e*Pg | | **Pg** | **16 47 39.8** | **-0.2** |
| OJC | | | | *e*Sg | | **Sg** | **16 48 15.3** | **+0.5** |
| **OJC** | **Ojcow** | **2.69** | **118** | *e*Pg | | **Pg** | **16 47 39.8** | **-0.2** |
| OJC | | | | *e*Sg | | **Sg** | **16 48 15.3** | **+0.5** |
| **KHC** | **Kasperske Hory** | **2.90** | **215** | *e*PN | | **Pn** | **16 47 35.0** | **-0.8** |
| KHC | | | | *e*PG | | **Pb** | **16 47 41.8** | **+0.8** |
| KHC | | | | *e*SG | | **Sg** | **16 48 20.3** | **-1.2** |
| **KHC** | **Kasperske Hory** | **2.90** | **215** | Pn | | **Pn** | **16 47 35.0** | **-0.8** |
| **KHC** | **Kasperske Hory** | **2.90** | **215** | Pg | | **Pb** | **16 47 41.8** | **+0.8** |
| KHC | | | | Sg | | **Sg** | **16 48 20.3** | **-1.2** |
| **SMOL** | **Smolenice** | **3.15** | **164** | *e*Pg | | **Pg** | **16 47 47.6** | **-1.1** |
| SMOL | | | | *e*Sg | | **Sb** | **16 48 24.7** | **+0.6** |
| **SMOL** | **Smolenice** | **3.15** | **164** | *e*PG | | **Pg** | **16 47 47.6** | **-1.1** |
| SMOL | | | | *e*SG | | **Sb** | **16 48 24.7** | **+0.6** |
| **MODS** | **Modra-Piesok** | **3.26** | **166** | *e*Pg | | **Pg** | **16 47 49.8** | **-1.0** |
| MODS | | | | *e*Sg | | **Sg** | **16 48 32.0** | **-1.0** |
| **MODS** | **Modra-Piesok** | **3.26** | **166** | *e*PG | | **Pg** | **16 47 49.8** | **-1.0** |
| MODS | | | | *e*SG | | **Sg** | **16 48 32.0** | **-1.0** |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **VYHS** | **Vyhne** | **3.52** | **149** | *e*Pg | | **Pg** | **16 47 55.0** | **-0.9** |
| **VYHS** | **Vyhne** | **3.52** | **149** | *e*PG | | **Pg** | **16 47 55.0** | **-0.9** |
| **CONA** | **Conrad Observa** | **3.62** | **182** | *e*Pn | | **Pn** | **16 47 46.3** | **+0.5** |
| | comp=Z,0.5nm,0.2s | | | | | | | |
| CONA | | | | *i* Sg | | **Sg** | **16 48 44.3** | **-0.2** |
| | comp=Z,7.0nm,0.5s | | | | | | | |
| **CONA** | **Conrad Observa** | **3.62** | **182** | Pn | | **Pn** | **16 47 46.3** | **+0.5** |
| | comp=Z,0.5nm,0.2s | | | | | | | |
| CONA | | | | Sg | | **Sg** | **16 48 44.3** | **-0.2** |
| | comp=Z,7.0nm,0.5s | | | | | | | |
| **MOA** | **Molln** | **3.88** | **199** | *e*Pn | | **Pn** | **16 47 49.3** | **0.0** |
| | comp=Z,2.2nm,0.3s | | | | | | | |
| MOA | | | | Sg | | **Sg** | **16 48 53.4** | **+0.5** |
| | comp=Z,6.0nm,0.6s | | | | | | | |
| **MOA** | **Molln** | **3.88** | **199** | Pn | | **Pn** | **16 47 49.3** | **0.0** |
| | comp=Z,2.2nm,0.3s | | | | | | | |
| MOA | | | | Sg | | **Sg** | **16 48 53.4** | **+0.5** |
| | comp=Z,6.0nm,0.6s | | | | | | | |
| **STHS** | **Stebnicka Huta** | **3.92** | **121** | *e*Pg | | **Pg** | **16 48 03.2** | **-0.2** |
| STHS | | | | *e*Sg | | **Sg** | **16 48 54.9** | **+0.8** |
| **STHS** | **Stebnicka Huta** | **3.92** | **121** | *e*PG | | **Pg** | **16 48 03.2** | **-0.2** |
| STHS | | | | *e*SG | | **Sg** | **16 48 54.9** | **+0.8** |
| **ARSA** | **Arzberg** | **4.31** | **185** | Sg | | **Sg** | **16 49 08.1** | **+1.4** |
| | comp=Z,3.8nm,0.5s | | | | | | | |
| **ARSA** | **Arzberg** | **4.31** | **185** | Sg | | **Sg** | **16 49 08.1** | **+1.4** |
| | comp=Z,3.8nm,0.5s | | | | | | | |

*CSEM **29** 16:50:51.7±0.4, 38°.66N×43°.62E, h30km, MD2.6, Error ellipse: s-maj=12.4km s-min=5.5km az=122.0*
*ISK **29** 16:50:51.6, 38°.65N×43°.61E, h30km, MD2.6*
*DDA **29** 16:50:53.1, 38°.74N×43°.53E, h7km, Ml2.8*

**ISC 29 16:50:52.0±1.1, 38°.69N±0°.04×43°.59E±0°.06, h28km±7km, n16, σ0s5.8/31, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.18** | **240** | *e*PG | | **Pn** | **16 50 58.3** | **-0.7** |
| VANB | | | | *e*SG | | **Sb** | **16 51 03.4** | **+1.3** |
| **VANB** | **Van** | **0.18** | **240** | *e*Pg | | **Pn** | **16 50 58.3** | **-0.7** |
| VANB | | | | *e*Sg | | **Sb** | **16 51 03.4** | **+1.3** |
| **TVAN** | **Van** | **0.21** | **223** | *i* P | | **Pb** | **16 50 58.2** | **-0.3** |
| TVAN | | | | *i* S | | **Sb** | **16 51 02.8** | **0.0** |
| **TVAN** | **Van** | **0.21** | **223** | P | | **Pb** | **16 50 58.2** | **-0.3** |
| TVAN | | | | S | | **Sb** | **16 51 02.8** | **0.0** |
| **VMUR** | **Van-Muradiye** | **0.30** | **357** | *i* P | | **Pb** | **16 50 58.7** | **-0.9** |
| VMUR | | | | *i* S | | **Sb** | **16 51 04.8** | **+0.1** |
| **VMUR** | **Van-Muradiye** | **0.30** | **357** | P | | **Pb** | **16 50 58.7** | **-0.9** |
| VMUR | | | | S | | **Sb** | **16 51 04.8** | **+0.1** |
| **CLDR** | **Caldiran** | **0.52** | **29** | *e*PG | | **Pn** | **16 51 03.3** | **-0.5** |
| CLDR | | | | *e*SG | | **Sn** | **16 51 12.1** | **+0.2** |
| **CLDR** | **Caldiran** | **0.52** | **29** | *i* P | | **Pb** | **16 51 03.1** | **+0.2** |
| CLDR | | | | *i* S | | **Sn** | **16 51 12.7** | **+0.8** |
| **CLDR** | **Caldiran** | **0.52** | **29** | P | | **Pb** | **16 51 03.1** | **+0.2** |
| **CLDR** | **Caldiran** | **0.52** | **29** | *e*Pg | | **Pn** | **16 51 03.3** | **-0.5** |
| CLDR | | | | *e*Sg | | **Sn** | **16 51 12.1** | **+0.2** |
| **GEVA** | **Gevas** | **0.56** | **228** | *i* P | | **Pn** | **16 51 03.8** | **-0.5** |
| GEVA | | | | *i* S | | **Sn** | **16 51 13.3** | **+0.6** |
| **GEVA** | **Gevas** | **0.56** | **228** | P | | **Pn** | **16 51 03.8** | **-0.5** |
| GEVA | | | | S | | **Sn** | **16 51 13.3** | **+0.6** |
| **TUTA** | **Tutak** | **0.94** | **320** | *i* P | | **Pn** | **16 51 09.5** | **-0.1** |
| TUTA | | | | *i* S | | **Sn** | **16 51 22.3** | **+0.2** |
| **TUTA** | **Tutak** | **0.94** | **320** | P | | **Pn** | **16 51 09.5** | **-0.1** |
| TUTA | | | | S | | **Sn** | **16 51 22.3** | **+0.2** |
| **AGRB** | **Hanur-Agry** | **1.00** | **333** | *e*PG | | **Pn** | **16 51 10.6** | **+0.2** |
| AGRB | | | | *e*SG | | **Sb** | **16 51 24.1** | **+0.2** |
| **AGRB** | **Hanur-Agry** | **1.00** | **333** | *e*Pg | | **Pn** | **16 51 10.6** | **+0.2** |
| AGRB | | | | *e*Sg | | **Sb** | **16 51 24.1** | **+0.2** |

*ISCJB **29** 17:21:31.3±0.5, 50°.16N±0°.04×19°.07E±0°.03, h0km, Error ellipse: s-maj=5.3km s-min=2.3km az=17.8*
*CSEM **29** 17:21:32.6±0.3, 50°.12N×19°.11E, h2km, ML2.9/6, Error ellipse: s-maj=8.2km s-min=3.9km az=13.0*
*PRU **29** 17:21:32.3, 50°.10N×19°.22E, h1km, Mw2.5*
*WAR **29** 17:21:33.3, 50°.10N×19°.22E, h1km, Mw2.5*

**ISC 29 17:21:32.6±0.8, 50°.06N±0°.03×19°.14E±0°.02, h0km, n37, σ0s8.0/64, Poland**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **OJC** | **Ojcow** | **0.45** | **70** | *e*Pg | | **Pg** | **17 21 40.7** | **-0.5** |
| OJC | | | | *e*Sg | | **Sg** | **17 21 46.5** | **-0.5** |
| **OJC** | **Ojcow** | **0.45** | **70** | *e*Pg | | **Pg** | **17 21 40.7** | **-0.5** |
| OJC | | | | *e*Sg | | **Sg** | **17 21 46.5** | **-0.5** |
| **OJC** | **Ojcow** | **0.45** | **70** | *e*Pg | | **Pg** | **17 21 40.7** | **-0.5** |
| OJC | | | | *e*Sg | | **Sg** | **17 21 46.5** | **-0.5** |
| **OKC** | **Ostrava-Krasne** | **0.68** | **251** | *e*PG | | **Pg** | **17 21 45.4** | **-0.2** |
| OKC | | | | *e*SG | | **Sb** | **17 21 56.1** | **-1.1** |
| | comp=Z,36nm,0.6s | | | | | | | |
| **OKC** | **Ostrava-Krasne** | **0.68** | **251** | Pg | | **Pg** | **17 21 45.4** | **-0.2** |
| OKC | 36nm,0.6s | | | Sg | | **Sb** | **17 21 56.1** | **-1.1** |
| **LANS** | **Liptovska Anna** | **0.94** | **167** | *e*Pg | | **Pb** | **17 21 51.8** | **+0.1** |
| LANS | | | | *e*Sg | | **Sb** | **17 22 05.3** | **+0.6** |
| **LANS** | **Liptovska Anna** | **0.94** | **167** | *e*PG | | **Pb** | **17 21 51.8** | **+0.1** |
| LANS | | | | *e*SG | | **Sb** | **17 22 05.3** | **+0.6** |
| **NIE** | **Niedzica** | **0.99** | **130** | *e*Pg | | **Pb** | **17 21 52.2** | **-0.4** |
| NIE | | | | *e*Sg | | **Sn** | **17 22 07.5** | **-1.0** |
| **NIE** | **Niedzica** | **0.99** | **130** | *e*Pg | | **Pb** | **17 21 52.2** | **-0.4** |
| NIE | | | | *e*Sg | | **Sn** | **17 22 07.5** | **-1.0** |
| **NIE** | **Niedzica** | **0.99** | **130** | *e*Pg | | **Pb** | **17 21 52.2** | **-0.4** |
| NIE | | | | *e*Sg | | **Sn** | **17 22 07.5** | **-1.0** |
| **MORC** | **Moravsky Berou** | **1.07** | **255** | *e*Pg | | **Pb** | **17 21 54.0** | **0.0** |
| MORC | | | | *e*Sg | | **Sb** | **17 22 08.5** | **-0.1** |
| **STHS** | **Stebnicka Huta** | **1.51** | **115** | *e*Pg | | **Pg** | **17 22 01.9** | **+0.4** |
| STHS | | | | *e*Sn | | **Sn** | **17 22 24.3** | **+3.0** |
| **STHS** | **Stebnicka Huta** | **1.51** | **115** | *e*PG | | **Pg** | **17 22 01.9** | **+0.4** |
| STHS | | | | *e*SN | | **Sn** | **17 22 24.3** | **+3.0** |
| STHS | | | | *e*LG | | Lg | 17 22 30.0 | |
| **KRLC** | **Kraliky** | **1.52** | **271** | *e*SG | | **Sg** | **17 22 21.2** | **-0.2** |
| | comp=Z,5.0nm,0.2s | | | | | | | |
| **KRLC** | **Kraliky** | **1.52** | **271** | Sg | | **Sg** | **17 22 21.2** | **-0.2** |
| | 5.0nm,0.2s | | | | | | | |
| **VYHS** | **Vyhne** | **1.58** | **187** | *e*Pg | | **Pn** | **17 22 01.9** | **0.0** |
| VYHS | | | | *e*Sn | | **Sb** | **17 22 23.1** | **-0.2** |
| **VYHS** | **Vyhne** | **1.58** | **187** | *e*PG | | **Pn** | **17 22 01.9** | **0.0** |
| VYHS | | | | *e*SN | | **Sb** | **17 22 23.1** | **-0.2** |
| VYHS | | | | *e*LG | | Lg | 17 22 25.2 | |
| **KECS** | **Kecovo** | **1.81** | **150** | *e*Pn | | **Pn** | **17 22 04.8** | **-0.2** |
| KECS | | | | *e*Sn | | **Sb** | **17 22 29.4** | **-0.4** |
| **KECS** | **Kecovo** | **1.81** | **150** | *e*PN | | **Pn** | **17 22 04.8** | **-0.2** |
| KECS | | | | *e*SN | | **Sb** | **17 22 29.4** | **-0.4** |
| KECS | | | | *e*LG | | Lg | 17 22 37.6 | |
| **VRAC** | **Vranov** | **1.82** | **246** | *e*Pn | | **Pb** | **17 22 06.8** | **+0.1** |
| VRAC | | | | *e*Sg | | **Sg** | **17 22 31.1** | **+0.1** |
| **DPC** | **Dobruska-Polom** | **1.83** | **280** | *e*PG | | **Pn** | **17 22 05.0** | **-0.4** |
| DPC | | | | *e*SG | | **Sn** | **17 22 29.4** | **+0.1** |
| | comp=Z,20nm,0.3s | | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.83** | **280** | Pg | | **Pn** | **17 22 05.0** | **-0.4** |
| DPC | 20nm,0.3s | | | Sg | | **Sn** | **17 22 29.4** | **+0.1** |
| **CRVS** | **Cervenica-Dubn** | **1.91** | **127** | *e*Pn | | **Pg** | **17 22 08.7** | **-0.4** |
| CRVS | | | | *e*Sn | | **Sg** | **17 22 34.0** | **+0.2** |
| **CRVS** | **Cervenica-Dubn** | **1.91** | **127** | *e*PN | | **Pg** | **17 22 08.7** | **-0.4** |
| CRVS | | | | *e*SN | | **Sg** | **17 22 34.0** | **+0.2** |
| **KSP** | **Ksiaz** | **1.98** | **294** | *e*Pg | | **Pg** | **17 22 10.4** | **-0.1** |
| KSP | | | | *e*Sg | | **Sg** | **17 22 36.3** | **+0.1** |
| **KSP** | **Ksiaz** | **1.98** | **294** | *e*Pg | | **Pg** | **17 22 10.4** | **-0.1** |
| KSP | | | | *e*Sg | | **Sg** | **17 22 36.3** | **+0.1** |
| **KSP** | **Ksiaz** | **1.98** | **294** | *e*Pg | | **Pg** | **17 22 10.4** | **-0.1** |
| KSP | | | | *e*Sg | | **Sg** | **17 22 36.3** | **+0.1** |
| **UPC** | **Upice** | **2.06** | **284** | *e*SG | | **Sb** | **17 22 37.5** | **+0

comp=Z,6.0nm,0.8s

*ISCJB **29** 18:01:52.4±0.5,67.°11N±0.°04×20.°9E±0.°1,h10km,Error ellipse: s-maj=5.9km s-min=4.9km az=159.2*
*UPP **29** 18:01:52.1±0.1,67.°07N×20.°88E,h0km,ML1.6*
*IDC **29** 18:01:56.7±3.1,67.°21N×21.°18E,h17km±25km,mb1 3.1/3, mb1mx2.9/37,mbtmp3.0/3,ML2.3/3,Error ellipse: s-maj=18.9km s-min=12.1km az=120.0*

**ISC 29 18:01:53.7**±0.9,**67°09N**±0°03×**20°91E**±0°04,**h10**km,**n15,** σ**2°16**/18,**Sweden**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DUNU** | **Dundret** | **0.14** | **285** | P | **Pg** | **18 01 54.9** | **-2.0** |
| DUNU | | | | S | **Sg** | **18 01 57.3** | **-1.7** |
| **MASU** | **Masugnsbyn** | **0.56** | **48** | P | **Pg** | **18 02 03.4** | **-1.2** |
| **ERTU** | **Ertsjaerv** | **0.74** | **136** | P | **Pg** | **18 02 06.0** | **-1.9** |
| **PAJU** | **Pajala** | **0.87** | **93** | P | **Pg** | **18 02 07.9** | **-2.5** |
| **RATU** | **Laukkuluspa** | **0.90** | **326** | P | **Pg** | **18 02 08.9** | **-2.0** |
| **KUA** | **Kurravaara** | **0.90** | **346** | P | **Pg** | **18 02 09.2** | **-1.8** |
| **HARU** | **Harads** | **0.93** | **178** | P | **Pg** | **18 02 09.2** | **-2.3** |
| **LANU** | **Lannavaara** | **1.05** | **23** | P | **Pg** | **18 02 11.7** | **-2.2** |
| **NIKU** | **Nikkaluokta** | **1.07** | **318** | P | **Pg** | **18 02 12.6** | **-1.5** |
| **KALU** | **Kalix** | **1.58** | **140** | P | **Pb** | **18 02 21.8** | **-1.1** |
| **SJUU** | **Sjulsmark** | **1.61** | **170** | P | **Pn** | **18 02 22.0** | **-0.1** |
| **LILU** | **Lilltraesk** | **1.86** | **194** | P | **Pn** | **18 02 25.6** | **+0.1** |
| **ARCES** | **ARCESS Array B** | **3.00** | **33** | Pn | **Pn** | **18 02 41.7** | **+0.5** |
| | 0.4nm,0.3s,baz=211,slow=14,SNR=29 | | | | | | |
| ARCES | | | | Lg | Lg | 18 03 25.6 | |
| | 0.9nm,0.3s,baz=221,slow=26,SNR=9.6 | | | | | | |
| **FINES** | **FINESS Array B** | **6.09** | **156** | Pn | **Pn** | **18 03 27.1** | **+3.5** |
| | 0.1nm,0.3s,baz=342,slow=12,SNR=6.7 | | | | | | |
| FINES | | | | Sn | **Sn** | **18 04 35.9** | **+2.5** |
| | 0.1nm,0.3s,baz=345,slow=22,SNR=5.4 | | | | | | |
| **NOA** | **NORSAR Array B** | **7.40** | **220** | Pn | **Pn** | **18 03 44.9** | **+3.2** |
| | 0.1nm,0.3s,baz=55,slow=13,SNR=2.5 | | | | | | |
| NOA | | | | Sn | **Sn** | **18 05 06.7** | **+1.1** |
| | 0.1nm,0.3s,baz=144,slow=11,SNR=3.0 | | | | | | |

*CSEM **29** 18:03:56.6,42.°85N×46.°33E,h11km,mb3.9*
**MOS 29 18:03:56.6**±1.8,**42.°85N×46.°33E,h11**km,**mb3.9**/1,**5C-8D, Error ellipse: s-maj=7.7km s-min=4.4km az=34.2, Eastern Caucasus**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DVE** | **Vedeno** | **0.18** | **305** | ⇓*i*PG | Pg | 18 03 59.8 | -0.9 |
| **DVE** | **Vedeno** | **0.18** | **305** | *i* Pg | Pg | 18 03 59.8 | -0.9 |
| **BTLR** | **Botlikh** | **0.20** | **203** | *e*Pg | Pg | 18 03 58.2 | -2.8 |
| BTLR | | | | pmax | pmax | | |
| | comp=Z,756nm,0.3s | | | | | | |
| **BTLR** | **Botlikh** | **0.20** | **203** | *e*Pg | Pg | 18 03 58.2 | -2.8 |
| | comp=Z,756nm,0.3s | | | | | | |
| **DLMR** | **Dylym** | **0.31** | **45** | ⇓*i*PG | Pb | 18 04 03.7 | -0.5 |
| DLMR | | | | *e*S | Sb | 18 04 10.5 | +1.3 |
| DLMR | | | | pmax | pmax | | |
| | comp=Z,160nm,0.2s | | | | | | |
| **DLMR** | **Dylym** | **0.31** | **45** | *i* Pg | Pb | 18 04 03.7 | -0.5 |
| | comp=Z,160nm,0.2s | | | | | | |
| DLMR | | | | *e*Sg | Sb | 18 04 10.5 | +1.3 |
| **UNCR** | **Uncukul** | **0.37** | **112** | ⇓*i*PG | Pg | 18 04 04.0 | +0.1 |
| UNCR | | | | *e*S | Sg | 18 04 09.5 | +0.7 |
| UNCR | | | | pmax | pmax | | |
| | comp=Z,684nm,0.3s | | | | | | |
| **UNCR** | **Uncukul** | **0.37** | **112** | *i* Pg | Pg | 18 04 04.0 | +0.1 |
| | comp=Z,684nm,0.3s | | | | | | |
| UNCR | | | | *e*Sg | Sg | 18 04 09.5 | +0.7 |
| **DBC** | **Dubki** | **0.40** | **65** | *e*PG | Pb | 18 04 05.3 | -0.5 |
| DBC | | | | *e*S | Sb | 18 04 11.3 | -0.7 |
| **DBC** | **Dubki** | **0.40** | **65** | *e*Pg | Pb | 18 04 05.3 | -0.5 |
| DBC | | | | *e*Sg | Sb | 18 04 11.3 | -0.7 |
| **XNZR** | **Khunzakh** | **0.41** | **138** | ⇓*i*PG | Pg | 18 04 04.5 | -0.3 |
| XNZR | | | | *e*S | Sg | 18 04 10.8 | +0.4 |
| **XNZR** | **Khunzakh** | **0.41** | **138** | *i* Pg | Pg | 18 04 04.5 | -0.3 |
| XNZR | | | | *e*Sg | Sg | 18 04 10.8 | +0.4 |
| **KRNR** | **Karanay** | **0.42** | **93** | *i* PG | Pg | 18 04 05.2 | +0.2 |
| KRNR | | | | *e*S | Sb | 18 04 12.5 | -0.1 |
| KRNR | | | | pmax | pmax | | |
| | comp=Z,243nm,0.3s | | | | | | |
| **KRNR** | **Karanay** | **0.42** | **93** | *i* Pg | Pg | 18 04 05.2 | +0.2 |
| | comp=Z,243nm,0.3s | | | | | | |
| KRNR | | | | *e*Sg | Sb | 18 04 12.5 | -0.1 |
| **GROC** | **Groznyy** | **0.53** | **312** | *e*PG | Pg | 18 04 07.2 | +0.3 |
| GROC | | | | *e*S | Sb | 18 04 16.4 | +0.9 |
| GROC | | | | pmax | pmax | | |
| | comp=Z,76nm,0.6s | | | | | | |
| GROC | | | | smax | smax | | |
| | comp=N,508nm,0.6s | | | | | | |
| GROC | | | | smax | smax | | |
| | comp=N,325nm,0.7s | | | | | | |
| **GROC** | **Groznyy** | **0.53** | **312** | *e*Pg | Pg | 18 04 07.2 | +0.3 |
| | comp=N,76nm,0.6s | | | | | | |
| GROC | | | | *e*Sg | Sb | 18 04 16.4 | +0.9 |
| | comp=N,325nm,0.7s | | | | | | |
| **ARKR** | **Arakani** | **0.55** | **117** | ⇓*i*PG | Pg | 18 04 07.2 | -0.1 |
| ARKR | | | | *e*S | Sb | 18 04 16.5 | +0.4 |
| ARKR | | | | pmax | pmax | | |
| | comp=Z,199nm,0.2s | | | | | | |
| **ARKR** | **Arakani** | **0.55** | **117** | *i* Pg | Pg | 18 04 07.2 | -0.1 |
| | comp=Z,199nm,0.2s | | | | | | |
| ARKR | | | | *e*Sg | Sb | 18 04 16.5 | +0.4 |
| **BUJR** | **Buynaksk** | **0.57** | **92** | *e*PG | Pb | 18 04 09.0 | +0.4 |
| BUJR | | | | *i* S | Sn | 18 04 19.0 | -1.1 |
| BUJR | | | | pmax | pmax | | |
| | comp=Z,206nm,0.3s | | | | | | |
| **BUJR** | **Buynaksk** | **0.57** | **92** | *e*Pg | Pb | 18 04 09.0 | +0.4 |
| | comp=Z,206nm,0.3s | | | | | | |
| BUJR | | | | *i* Sg | Sn | 18 04 19.0 | -1.1 |
| **GNBR** | **Gunib** | **0.66** | **135** | ⇑*i*PG | Pb | 18 04 09.8 | -0.3 |
| GNBR | | | | *i* S | Sb | 18 04 19.4 | +0.1 |
| GNBR | | | | pmax | pmax | | |
| | comp=Z,72nm,0.1s | | | | | | |
| **GNBR** | **Gunib** | **0.66** | **135** | *i* Pg | Pb | 18 04 09.8 | -0.3 |
| | comp=Z,72nm,0.1s | | | | | | |
| GNBR | | | | *i* Sg | Sb | 18 04 19.4 | +0.1 |
| **KMKR** | **Kumukh** | **0.92** | **142** | *e*PG | Pg | 18 04 14.0 | -0.3 |
| KMKR | | | | *e*S | Sg | 18 04 26.5 | +0.2 |
| KMKR | | | | pmax | pmax | | |
| | comp=Z,70nm,0.2s | | | | | | |
| **KMKR** | **Kumukh** | **0.92** | **142** | *e*Pg | Pg | 18 04 14.0 | -0.3 |
| | comp=Z,70nm,0.2s | | | | | | |
| KMKR | | | | *e*Sg | Sg | 18 04 26.5 | +0.2 |
| **KMGR** | **Komgaron** | **1.10** | **281** | ⇓*i*PG | Pn | 18 04 18.4 | +0.5 |
| KMGR | | | | *e*S | Sn | 18 04 33.0 | -0.1 |
| **KMGR** | **Komgaron** | **1.10** | **281** | *i* Pg | Pn | 18 04 18.4 | +0.5 |
| KMGR | | | | *e*Sg | Sn | 18 04 33.0 | -0.1 |
| **URKR** | **Urkarakh** | **1.18** | **125** | *i* PG | Pg | 18 04 20.0 | +0.7 |
| URKR | | | | *i* S | Sn | 18 04 37.0 | +1.7 |
| URKR | | | | pmax | pmax | | |
| | comp=Z,95nm,0.2s | | | | | | |
| **URKR** | **Urkarakh** | **1.18** | **125** | *i* Pg | Pg | 18 04 20.0 | +0.7 |
| | comp=Z,95nm,0.2s | | | | | | |
| URKR | | | | *i* Sg | Sn | 18 04 37.0 | +1.7 |
| **VLKR** | **Vladikavkaz** | **1.23** | **280** | *e*PG | Pg | 18 04 20.3 | +0.1 |
| VLKR | | | | *e*S | Sn | 18 04 39.0 | +2.6 |
| **VLKR** | **Vladikavkaz** | **1.23** | **280** | *e*Pg | Pg | 18 04 20.3 | +0.1 |
| VLKR | | | | *e*Sg | Sn | 18 04 39.0 | +2.6 |
| **TRKR** | **Terskaya** | **1.46** | **307** | *e*PG | Pg | 18 04 25.2 | +0.6 |
| TRKR | | | | *e*S | Sg | 18 04 44.8 | +1.3 |
| **TRKR** | **Terskaya** | **1.46** | **307** | *e*Pg | Pg | 18 04 25.2 | +0.6 |
| TRKR | | | | *e*Sg | Sg | 18 04 44.8 | +1.3 |
| **LACR** | **Lac** | **1.50** | **270** | ⇓*i*PG | Pn | 18 04 23.0 | -0.5 |
| LACR | | | | *e*S | Sb | 18 04 44.1 | +0.6 |
| **LACR** | **Lac** | **1.50** | **270** | *i* Pg | Pn | 18 04 23.0 | -0.5 |
| LACR | | | | *e*Sg | Sb | 18 04 44.1 | +0.6 |
| **ARNR** | **Ardon** | **1.54** | **283** | *e*PG | Pb | 18 04 25.3 | +0.2 |
| ARNR | | | | *e*S | Sg | 18 04 46.5 | +0.4 |
| **ARNR** | **Ardon** | **1.54** | **283** | *e*Pg | Pb | 18 04 25.3 | +0.2 |
| ARNR | | | | *e*Sg | Sg | 18 04 46.5 | +0.4 |
| **KORR** | **Kora** | **1.68** | **279** | *e*PN | Pb | 18 04 27.2 | -0.3 |
| KORR | | | | *e*S | Sb | 18 04 49.2 | +0.5 |
| **KORR** | **Kora** | **1.68** | **279** | *e*Pn | Pb | 18 04 27.2 | -0.3 |
| KORR | | | | *e*Sg | Sb | 18 04 49.2 | +0.5 |
| **DRN** | **Derbent** | **1.69** | **118** | *e*PN | Pg | 18 04 29.8 | +0.8 |
| DRN | | | | *e*S | Sg | 18 04 52.5 | +1.5 |
| **DRN** | **Derbent** | **1.69** | **118** | *e*Pn | Pg | 18 04 29.8 | +0.8 |
| DRN | | | | *e*Sg | Sg | 18 04 52.5 | +1.5 |
| **AKT** | **Akhty** | **1.72** | **142** | *e*PN | Pb | 18 04 28.1 | -0.2 |
| AKT | | | | *e*S | Sg | 18 04 54.7 | +2.8 |
| AKT | | | | pmax | pmax | | |
| | comp=Z,32nm,0.5s | | | | | | |
| **AKT** | **Akhty** | **1.72** | **142** | *e*Pn | Pb | 18 04 28.1 | -0.2 |
| | comp=Z,32nm,0.5s | | | | | | |
| AKT | | | | *e*Sg | Sg | 18 04 54.7 | +2.8 |
| **STDR** | **Stavd-Durt** | **1.74** | **288** | *e*PN | Pb | 18 04 29.1 | +0.5 |
| STDR | | | | *e*S | Sg | 18 04 51.9 | -0.6 |
| **STDR** | **Stavd-Durt** | **1.74** | **288** | *e*Pn | Pb | 18 04 29.1 | +0.5 |
| STDR | | | | *e*Sg | Sg | 18 04 51.9 | -0.6 |
| **PRTR** | **Priterechnaya** | **1.75** | **302** | ⇓*i*PN | Pb | 18 04 29.3 | +0.7 |
| PRTR | | | | *e*S | Sg | 18 04 53.4 | +0.7 |
| **PRTR** | **Priterechnaya** | **1.75** | **302** | *i* Pn | Pb | 18 04 29.3 | +0.7 |
| PRTR | | | | *e*Sg | Sg | 18 04 53.4 | +0.7 |
| **ZEI** | **Tsey** | **1.79** | **269** | *e*PN | Pn | 18 04 28.1 | +0.5 |
| ZEI | | | | *e*S | Sb | 18 04 52.4 | +0.6 |
| **ZEI** | **Tsey** | **1.79** | **269** | *e*Pn | Pn | 18 04 28.1 | +0.5 |
| ZEI | | | | *e*Sg | Sb | 18 04 52.6 | +0.6 |
| **KSMR** | **Kasumkent** | **1.83** | **133** | *e*PN | Pg | 18 04 33.6 | +2.0 |
| KSMR | | | | *i* S | Sg | 18 04 58.0 | +2.7 |
| **KSMR** | **Kasumkent** | **1.83** | **133** | *e*Pn | Pg | 18 04 33.6 | +2.0 |
| KSMR | | | | *i* Sg | Sg | 18 04 58.0 | +2.7 |
| **LSNR** | **Lesken** | **1.89** | **284** | *e*PN | Pb | 18 04 30.5 | -0.6 |
| LSNR | | | | *e*S | Sg | 18 04 56.7 | -0.5 |
| **LSNR** | **Lesken** | **1.89** | **284** | *e*Pn | Pb | 18 04 30.5 | -0.6 |
| LSNR | | | | *e*Sg | Sg | 18 04 56.7 | -0.5 |
| **DIGR** | **Digorskoe uzhe** | **2.02** | **272** | *e*PN | Pn | 18 04 32.0 | +1.2 |
| **DIGR** | **Digorskoe uzhe** | **2.02** | **272** | *e*Pn | Pn | 18 04 32.0 | +1.2 |
| **NCK** | **Nalchik** | **2.10** | **289** | *ce*PN | Pn | 18 04 32.4 | +0.6 |
| **NCK** | **Nalchik** | **2.10** | **289** | *e*Pn | Pn | 18 04 32.4 | +0.6 |
| **PYA1** | **Pyatigorsk** | **2.65** | **298** | *e*PN | Pn | 18 04 37.3 | -2.0 |
| PYA1 | | | | *e*S | Sn | 18 05 10.6 | -0.8 |
| **PYA1** | **Pyatigorsk** | **2.65** | **298** | *e*Pn | Pn | 18 04 37.3 | -2.0 |
| PYA1 | | | | *e*Sn | Sn | 18 05 10.6 | -0.8 |
| **NEY** | **Neytrino** | **2.67** | **280** | *i* PN | Pb | 18 04 42.5 | -2.1 |
| **NEY** | **Neytrino** | **2.67** | **280** | *i* Pn | Pb | 18 04 42.5 | -2.1 |
| **BEYR** | **Belyy Ugol+** | **2.81** | **296** | *e*PN | Pn | 18 04 42.5 | +1.0 |
| BEYR | | | | *e*S | Sn | 18 05 16.7 | +1.3 |
| **BEYR** | **Belyy Ugol+** | **2.81** | **296** | *e*Pn | Pn | 18 04 42.5 | +1.0 |
| BEYR | | | | *e*Sn | Sn | 18 05 16.7 | +1.3 |
| **SHA1** | **Shidzhatmaz** | **2.83** | **290** | *e*PN | Pn | 18 04 42.2 | +0.3 |
| SHA1 | | | | *e*S | Sn | 18 05 16.8 | +0.8 |
| **SHA1** | **Shidzhatmaz** | **2.83** | **290** | *e*Pn | Pn | 18 04 42.2 | +0.3 |
| SHA1 | | | | *e*Sn | Sn | 18 05 16.8 | +0.8 |
| **KIV** | **Kislovodsk** | **2.88** | **294** | ⇑*e*PN | Pn | 18 04 43.6 | +1.1 |
| KIV | | | | pmax | pmax | | |
| | comp=Z,27nm,0.6s | | | | | | |
| **KIV** | **Kislovodsk** | **2.88** | **294** | *e*Pn | Pn | 18 04 43.6 | +1.1 |
| | comp=Z,27nm,0.6s | | | | | | |
| **GNI** | **Garni** | **2.95** | **204** | *ce*PN | Pn | 18 04 45.8 | +2.2 |
| GNI | | | | pmax | pmax | | |
| | comp=Z,39nm,1.2s | | | | | | |
| **GNI** | **Garni** | **2.95** | **204** | *e*Pn | Pn | 18 04 45.8 | +2.2 |
| | comp=Z,39nm,1.2s | | | | | | |
| **GOF** | **Gofitskoye** | **3.24** | **314** | *e*PN | Pn | 18 04 49.1 | +1.7 |
| GOF | | | | *e*S | Sn | 18 05 28.7 | +2.8 |
| **GOF** | **Gofitskoye** | **3.24** | **314** | *e*Pn | Pn | 18 04 49.1 | +1.7 |
| GOF | | | | *e*Sn | Sn | 18 05 28.7 | +2.8 |
| **OBN** | **Obninsk** | **13.83** | **336** | *e*P | Pn | 18 07 13.5 | +1.2 |
| OBN | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.9s | | | | | | |
| **OBN** | **Obninsk** | **13.83** | **336** | *e*P | Pn | 18 07 13.5 | +1.2 |
| | comp=Z,3.0nm,0.9s | | | | | | |
| **BRVK** | **Borovoye** | **18.93** | **49** | ⇑*e*P | Pn | 18 08 19.8 | +1.9 |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,1.0nm,1.0s | | | | | | |
| **BRVK** | **Borovoye** | **18.93** | **49** | *e*P | Pn | 18 08 19.8 | +1.9 |
| | comp=Z,1.0nm,1.0s | | | | | | |
| **KURK** | **Kurchatov** | **23.32** | **59** | *e*P | P | 18 09 06.2 | +1.7 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,1.0nm,1.0s | | | | | | |
| **KURK** | **Kurchatov** | **23.32** | **59** | *e*P | P | 18 09 06.2 | +1.7 |
| | comp=Z,1.0nm,1.0s | | | | | | |

*ISCJB **29** 18:10:36.8±0.7,38.°71N±0.°02×43.°71E±0.°04,h0km±5km, Error ellipse: s-maj=5.8km s-min=3.5km az=11.5*
*DDA **29** 18:10:36.8,38.°71N×43.°68E,h7km,Ml2.9*
*ISK **29** 18:10:36.3,38.°72N×43.°65E,h5km,MD3.1*
*CSEM **29** 18:10:37.1±0.2,38.°71N×43.°67E,h2km,MD3.1,Error ellipse: s-maj=5.9km s-min=3.5km az=94.0*

**ISC 29 18:10:37.7**±0.9,**38.°70N**±0.°02×**43.°65E**±0.°03,**h11**km±8km, **n48,** σ**0°95**/73,**Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.23** | **242** | *e*PG | **Pg** | **18 10 42.5** | **-0.1** |
| **VANB** | **Van** | **0.23** | **242** | *e*Pg | **Pg** | **18 10 42.5** | **-0.1** |
| **TVAN** | **Van** | **0.26** | **228** | *i* P | **Pg** | **18 10 42.0** | **-1.1** |
| TVAN | | | | *i* S | **Sg** | **18 10 47.1** | **+0.3** |
| **TVAN** | **Van** | **0.26** | **228** | P | **Pg** | **18 10 42.0** | **-1.1** |
| TVAN | | | | S | **Sg** | **18 10 47.1** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.29** | **348** | *i* P | **Pg** | **18 10 42.6** | **-1.1** |
| VMUR | | | | *i* S | **Sb** | **18 10 49.2** | **-0.8** |
| **VMUR** | **Van-Muradiye** | **0.29** | **348** | P | **Pg** | **18 10 42.6** | **-1.1** |
| VMUR | | | | S | **Sb** | **18 10 49.2** | **-0.8** |
| **ERCV** | **ERCIS-VAN** | **0.40** | **322** | *e*PG | **Pg** | **18 10 45.3** | **-0.4** |
| **ERCV** | **ERCIS-VAN** | **0.40** | **322** | *e*Pg | **Pg** | **18 10 45.3** | **-0.4** |
| **CLDR** | **Caldiran** | **0.49** | **25** | *e*PG | **Pg** | **18 10 46.7** | **-0.6** |
| CLDR | | | | *e*SG | **Sg** | **18 10 54.4** | **+0.7** |
| **CLDR** | **Caldiran** | **0.49** | **25** | *i* P | **Pg** | **18 10 46.8** | **-0.4** |
| CLDR | | | | *i* S | **Sb** | **18 10 56.9** | **+1.3** |
| **CLDR** | **Caldiran** | **0.49** | **25** | *e*Pg | **Pg** | **18 10 46.7** | **-0.6** |
| CLDR | | | | *e*Sg | **Sg** | **18 10 54.4** | **+0.7** |
| CLDR | | | | S | **Sb** | **18 10 56.9** | **+1.3** |
| **GEVA** | **Gevas** | **0.61** | **230** | *i* P | **Pg** | **18 10 48.0** | **-1.5** |
| GEVA | | | | *i* S | **Sb** | **18 10 59.8** | **+0.8** |
| **GEVA** | **Gevas** | **0.61** | **230** | P | **Pg** | **18 10 48.0** | **-1.5** |
| GEVA | | | | S | **Sb** | **18 10 59.8** | **+0.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.73** | **278** | *i* P | **Pg** | **18 10 50.4** | **-1.5** |
| ADCV | | | | *i* S | **Sb** | **18 11 03.4** | **+0.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.73** | **278** | P | **Pg** | **18 10 50.4** | **-1.5** |
| ADCV | | | | S | **Sb** | **18 11 03.4** | **+0.8** |
| **DYDN** | **Diyadin** | **0.84** | **2** | *i* P | **Pg** | **18 10 53.0** | **-1.0** |
| **DYDN** | **Diyadin** | **0.84** | **2** | P | **Pg** | **18 10 53.0** | **-1.0** |
| **TUTA** | **Tutak** | **0.95** | **317** | *i* P | **Pg** | **18 10 54.2** | **-1.9** |
| TUTA | | | | *i* S | **Sb** | **18 11 08.8** | **-0.3** |
| **TUTA** | **Tutak** | **0.95** | **317** | P | **Pg** | **18 10 54.2** | **-1.9** |
| TUTA | | | | S | **Sb** | **18 11 08.8** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **1.01** | **330** | *e*PG | **Pg** | **18 10 56.3** | **-0.9** |
| AGRB | | | | *e*SG | **Sn** | **18 11 11.6** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **1.01** | **330** | *e*Pg | **Pg** | **18 10 56.3** | **-0.9** |
| AGRB | | | | *e*Sg | **Sn** | **18 11 11.6** | **-0.6** |
| **HAKT** | **HAKKARI** | **1.15** | **178** | *i* P | **Pb** | **18 10 58.3** | **-1.3** |
| HAKT | | | | *i* S | **Sg** | **18 11 14.9** | **+0.3** |
| **HAKT** | **HAKKARI** | **1.15** | **178** | P | **Pb** | **18 10 58.3** | **-1.3** |
| HAKT | | | | S | **Sg** | **18 11 14.9** | **+0.3** |
| **YOVA** | **Hakkari_Y˜…kse** | **1.22** | **155** | *i* P | **Pn** | **18 11 00.1** | **-0.8** |
| **YOVA** | **Hakkari_Y˜…kse** | **1.22** | **155** | P | **Pn** | **18 11 00.1** | **-0.8** |
| **TASB** | **TASBURUN-IGDIR** | **1.36** | **19** | *e*PN | **Pb** | **18 11 03.2** | **+0.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.36** | **19** | *e*Pn | **Pb** | **18 11 03.3** | **+0.2** |
| **CUKT** | **Cukurca** | **1.45** | **181** | *e*PN | **Pg** | **18 11 05.7** | **+0.1** |
| **CUKT** | **Cukurca** | **1.45** | **181** | *i* P | **Pb** | **18 11 05.1** | **+0.3** |
| **CUKT** | **Cukurca** | **1.45** | **181** | P | **Pb** | **18 11 05.1** | **+0.3** |
| **CUKT** | **Cukurca** | **1.45** | **181** | *e*Pn | **Pg** | **18 11 05.7** | **+0.1** |
| **EATA** | **Eleskirt** | **1.47** | **322** | *i* P | **Pn** | **18 11 04.1** | **-0.2** |
| EATA | | | | *i* S | **Sg** | **18 11 26.3** | **+1.4** |
| **EATA** | **Eleskirt** | **1.47** | **322** | P | **Pn** | **18 11 04.1** | **-0.2** |
| EATA | | | | S | **Sg** | **18 11 26.3** | **+1.4** |
| **SRTM** | **Siirt_Merkez** | **1.53** | **243** | *i* P | **Pb** | **18 11 28.6** | **-0.2** |
| SRTM | | | | *i* S | **Sg** | **18 11 28.6** | **+1.5** |
| **SRTM** | **Siirt_Merkez** | **1.53** | **243** | P | **Pb** | **18 11 06.0** | **-0.2** |
| SRTM | | | | S | **Sg** | **18 11 28.6** | **+1.5** |
| **SIRT** | **Sirnak** | **1.54** | **219** | *e*PN | **Pb** | **18 11 06.5** | **+0.3** |
| **SIRT** | **Sirnak** | **1.54** | **219** | *e*Pn | **Pb** | **18 11 06.5** | **+0.3** |
| **SIRN** | **S˜¨rnak** | **1.55** | **219** | *i* P | **Pb** | **18 11 06.6** | **+0.2** |
| SIRN | | | | *i* S | **Sg** | **18 11 29.5** | **+1.9** |
| **SIRN** | **S˜¨rnak** | **1.55** | **219** | P | **Pb** | **18 11 06.6** | **+0.2** |
| SIRN | | | | S | **Sg** | **18 11 29.5** | **+1.9** |
| **DIGO** | **Kars** | **1.72** | **353** | *i* P | **Pb** | **18 11 09.1** | **-0.4** |
| **DIGO** | **Kars** | **1.72** | **353** | P | **Pb** | **18 11 09.1** | **-0.4** |
| **KARS** | **Kars** | **1.97** | **347** | *e*PN | **Pn** | **18 11 11.9** | **+0.8** |
| **KARS** | **Kars** | **1.97** | **347** | *e*Pn | **Pn** | **18 11 11.9** | **+0.8** |
| **BTMN** | **Batman** | **2.04** | **247** | *i* P | **Pn** | **18 11 12.2** | **+0.2** |
| BTMN | | | | *i* S | **Sb** | **18 11 39.7** | **-0.5** |
| **SENK** | **Senkaya-Erzuru** | **2.11** | **332** | *e*PN | **Pn** | **18 11 14.0** | **+0.9** |
| **SENK** | **Senkaya-Erzuru** | **2.11** | **332** | *e*Pn | **Pn** | **18 11 14.0** | **+0.9** |
| **BNGB** | **Bing˜¶l** | **2.34** | **278** | *e*PN | **Pn** | **18 11 17.4** | **+1.3** |
| **BINT** | **Bingol** | **2.48** | **275** | *e*Pn | **Pn** | **18 11 17.4** | **-0.6** |

*ISCJB **29** 18:16:47.5±0.6,17.°67S±0.°05×69.°56W±0.°09,h165km±5km, mb3.8/4,Error ellipse: s-maj=15.8km s-min=5.8km az=26.6*
*GUC **29** 18:16:49.2±0.6,17.°91S×69.°81W,h173km±6km,ML3.4*
*SCB **29** 18:16:49.5±0.7,17.°68S×69.°17W,h126km±5km,Ml3.8/1, Error ellipse: s-maj=20.1km s-min=7.1km az=96.0*
*IDC **29** 18:16:52.2±3.2,17.°40S×69.°21W,h176km±17km,mb3.6/4, mb1 3.7/6,mb1mx3.3/33,mbtmp4.2/6,Error ellipse: s-maj=50.5km s-min=22.7km az=21.0*

**ISC 29 18:16:48.4**±0.8,**17.°68S**±0.°05×**69.°47W**±0.°08,**h155**km±7km, **n21,** σ**1°18**/30,**mb3.9**/4,**5C,Peru-Bolivia border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PB12** | **IPOC Station P** | **1.24** | **221** | ⇑*i*P | **Pn** | **18 17 15.7** | **-0.2** |
| PB12 | | | | *e*S | **Sn** | **18 17 35.9** | **-1.0** |
| **BBOD** | **La Paz, Gloria** | **1.33** | **39** | *e*Pn | **Pn** | **18 17 18.6** | **+1.3** |
| **BBOJ** | **La Paz, Jacaqu** | **1.41** | **60** | *e*Pn | **Pn** | **18 17 18.6** | **+0.6** |
| **MNMC** | **Minye Minye** | **1.45** | **185** | ⇑*i*P | **Pn** | **18 17 19.0** | **+0.8** |
| MNMC | | | | *e*S | **Sn** | **18 17 42.0** | **+0.9** |
| MNMC | | | | IAML | | 18 17 48.0 | |
| | comp=E,673nm,0.5s | | | | | | |
| **BBOE** | **La Paz, Chanca** | **1.66** | **59** | *e*Pn | **Pn** | **18 17 21.6** | **+0.9** |
| **LPAZ** | **La Paz** | **1.89** | **43** | P | **Pn** | **18 17 24.5** | **+1.3** |
| | comp=E,60nm,0.3s,baz=244,slow=5.7,SNR=943 | | | | | | |
| LPAZ | | | | S | **Sn** | **18 17 49.9** | **-0.1** |
| | comp=E,2.8nm,0.3s,baz=286,slow=22,SNR=2.8 | | | | | | |
| **LPAZ** | **La Paz** | **1.89** | **43** | *e*Pn | **Pn** | **18 17 24.5** | **+1.3** |
| LPAZ | | | | *e*Sn | **Sn** | **18 17 49.8** | **-0.1** |
| **BBOB** | **La Paz, Bander** | **2.00** | **40** | *e*Pn | **Pn** | **18 17 25.4** | **+1.1** |
| BBOB | | | | *e*Sn | **Sn** | **18 17 52.4** | **+0.5** |
| | comp=E,198nm,0.5s | | | | | | |
| **PSGC** | **Pisagua** | **2.01** | **198** | ⇑*i*P | **Pn** | **18 17 24.0** | **0.0** |
| PSGC | | | | *i* S | **Sn** | **18 17 49.8** | **-1.7** |
| PSGC | | | | IAML | | 18 17 50.2 | |
| | comp=N,280nm,0.6s | | | | | | |
| **PB11** | **IPOC Station P** | **2.08** | **185** | ⇑*i*P | **Pn** | **18 17 25.4** | **+0.4** |
| PB11 | | | | *e*S | **Sn** | **18 17 52.7** | **-0.4** |
| **PB08** | **IPOC Station P** | **2.47** | **173** | ⇑*i*P | **Pn** | **18 17 31.0** | **+1.2** |
| PB08 | | | | *e*S | **Sn** | **18 18 02.5** | **+0.8** |
| PB08 | | | | IAML | | 18 18 08.8 | |
| | comp=N,130nm,0.4s | | | | | | |
| **MOCB** | **Mochara** | **5.07** | **135** | *e*Pn | **Pn** | **18 18 06.0** | **+2.7** |
| **SIV** | **San Ignacio** | **8.22** | **79** | P | **Pn** | **18 18 44.7** | **-0.1** |
| | comp=N,2.3nm,0.3s,baz=264,slow=9.0,SNR=32 | | | | | | |
| SIV | | | | S | **Sn** | **18 20 13.6** | **-2.8** |
| | comp=N,0.4nm,0.3s,baz=354,slow=22,SNR=5.5 | | | | | | |
| **SIV** | **San Ignacio** | **8.22** | **79** | *e*P | **Pn** | **18 18 43.6** | **-1.2** |
| **PTGA** | **Pitinga** | **19.26** | **30** | P | **P** | **18 20 60.0** | **-1.2** |
| | comp=N,2.1nm,0.3s,baz=192,slow=20,SNR=16 | | | | | | |
| **DBIC** | **Dimbokro** | **68.22** | **75** | P | **P** | **18 27 32.5** | **-0.3** |
| | comp=N,6.0nm,0.9s,baz=210,slow=4.5,SNR=4.4 | | | | | | |
| **ULM** | **Lac du Bonnet** | **71.53** | **342** | P | **P** | **18 27 51.9** | **-0.3** |
| | comp=N,0.8nm,0.4s,baz=147,slow=9.1,SNR=4.5 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **76.61** | **71** | P | **P** | **18 28 22.0** | **-0.5** |
| | comp=N,1.1nm,0.4s,baz=257,slow=5.1,SNR=12 | | | | | | |
| **YKA** | **Yellowknife Ar** | **87.42** | **341** | P | **P** | **18 29 18.4** | **+0.6** |
| | comp=N,0.2nm,0.6s,baz=133,slow=5.1,SNR=6.1 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **138.69** | **23** | PKP | **PKPdf** | **18 35 57.0** | **+1.3** |
| | comp=N,0.6nm,0.6s,baz=349,slow=4.3,SNR=2.9 | | | | | | |
| **SONM** | **Songino Array** | **149.73** | **6** | PKPbc | **PKPbc** | **18 36 20.7** | **+0.6** |
| | comp=N,0.4nm,0.5s,baz=338,slow=3.1,SNR=3.3 | | | | | | |

**GUC 29 18:23:54.0**±0.7,**34.°78S×71.°86W,h46**km±2km,**ML3.8, 4C-2D,Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GO05** | **HualaæØ** | **0.23** | **194** | *e*P | Pn | 18 24 02.0 | -0.2 |
| GO05 | | | | *e*S | Sn | 18 24 08.0 | 0.0 |
| GO05 | | | | IAML | | 18 24

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| RND | **Reindeer** | **16.47** | **38** | *e*P | **P** | | **18 32 11.9** | **+2.0** |
| RND | | | | pmax | pmax | | | | |
| | comp=Z,8.0nm,1.0s | | | | | | | | |
| **RND** | **Reindeer** | **16.47** | **38** | *e*Pn | **P** | | **18 32 11.9** | **+2.0** |
| | comp=Z,8.2nm,1.0s | | | | | | | | |
| **IM3** | **Indian Mountai** | **16.58** | **26** | *e*Pn | **P** | | **18 32 12.3** | **+1.4** |
| **MCK** | **McKinley** | **16.62** | **37** | *e*P | **P** | | **18 32 13.3** | **+1.8** |
| MCK | | | | pmax | pmax | | | | |
| | comp=Z,14nm,1.2s | | | | | | | | |
| **MCK** | **McKinley** | **16.62** | **37** | *e*Pn | **P** | | **18 32 13.3** | **+1.8** |
| | comp=Z,14nm,1.2s | | | | | | | | |
| **KLU** | **Klutina** | **16.78** | **46** | *e*Pn | **Pn** | | **18 32 11.2** | **-0.7** |
| | comp=Z,7.7nm,0.6s | | | | | | | | |
| **MLY** | **Manley** | **16.79** | **31** | *e*Pn | **P** | | **18 32 14.3** | **+0.9** |
| | comp=Z,10nm,1.0s | | | | | | | | |
| **DHY** | **Denali Highway** | **16.87** | **40** | *e*Pn | **P** | | **18 32 19.5** | **+5.1** |
| | comp=Z,21nm,1.4s | | | | | | | | |
| **HARP** | **HAARP** | **17.48** | **43** | *e*Pn | **P** | | **18 32 22.7** | **+1.8** |
| | comp=Z,84nm,1.9s | | | | | | | | |
| **CCB** | **Clear Creek Bu** | **17.55** | **35** | *e*Pn | **Pn** | | **18 32 18.4** | **-2.8** |
| | comp=Z,15nm,1.5s | | | | | | | | |
| **MDM** | **Murphy Dome** | **17.58** | **34** | *e*Pn | **P** | | **18 32 23.0** | **+0.9** |
| | comp=Z,11nm,1.1s | | | | | | | | |
| **PAX** | **Paxson** | **17.59** | **42** | *e*P | **P** | | **18 32 23.8** | **+1.5** |
| PAX | | | | pmax | pmax | | | | |
| | comp=Z,13nm,1.5s | | | | | | | | |
| **PAX** | **Paxson** | **17.59** | **42** | *e*Pn | **P** | | **18 32 23.8** | **+1.5** |
| | comp=Z,13nm,1.5s | | | | | | | | |
| **HDA** | **Harding Lake** | **17.73** | **36** | *e*Pn | **Pn** | | **18 32 20.3** | **-3.1** |
| | comp=Z,30nm,1.8s | | | | | | | | |
| **IL1** | **Eielson Array** | **17.95** | **35** | *e*P | **Pn** | | **18 32 25.1** | **-0.9** |
| **ILAR** | **Eielson Array** | **17.95** | **35** | P | **Pn** | | **18 32 23.0** | **-3.1** |
| | comp=Z,0.8nm,0.3s,baz=225,slow=9.1,SNR=47 | | | | | | | | |
| **ILAR** | **Eielson Array** | **17.95** | **35** | P | **Pn** | | **18 32 23.0** | **-3.1** |
| ILAR | | | | pmax | pmax | | | | |
| | comp=Z,1.0nm,0.3s | | | | | | | | |
| **ILB** | **Eielson Array** | **17.95** | **35** | *e*P | **Pn** | | **18 32 23.9** | **-2.2** |
| **COLD** | **Coldfoot** | **18.46** | **27** | *e*P | **Pn** | | **18 32 37.0** | **+4.8** |
| | comp=Z,24nm,1.7s | | | | | | | | |
| **DOT** | **Dot Lake** | **18.46** | **40** | *e*P | **P** | | **18 32 31.4** | **-0.3** |
| | comp=Z,33nm,0.9s | | | | | | | | |
| **PEA1** | **Petropavlovsk-** | **18.68** | **285** | *e*P | **Pn** | | **18 32 34.6** | **-0.4** |
| PEA1 | | | | *e* | | | 18 38 54.2 | | |
| **PETK** | **Petropavlovsk-** | **18.68** | **285** | P | **Pn** | | **18 32 34.6** | **-0.4** |
| | comp=Z,0.6nm,0.3s,baz=85,slow=14,SNR=13 | | | | | | | | |
| PETK | | | | LR | LR | | 18 38 54.2 | | |
| | comp=Z,41nm,22.0s,baz=98,slow=34 | | | | | | | | |
| **PCA** | **Pinnacle** | **19.04** | **53** | *e*P | **Pn** | | **18 32 40.8** | **+1.4** |
| | comp=Z,64nm,1.2s | | | | | | | | |
| **BILL** | **Bilibino** | **19.28** | **334** | *e*P | **P** | | **18 32 40.4** | **-0.3** |
| BILL | | | | pmax | pmax | | | | |
| | comp=Z,25nm,1.3s | | | | | | | | |
| **FYU** | **Fort Yukon** | **19.53** | **32** | *e*P | **Pn** | | **18 32 45.6** | **+0.5** |
| | comp=Z,38nm,1.6s | | | | | | | | |
| **EGAK** | **Eagle** | **20.09** | **39** | *e*P | **P** | | **18 32 49.4** | **-0.2** |
| | comp=Z,8.6nm,0.5s | | | | | | | | |
| **HYT** | **Haines Junctio** | **20.51** | **51** | *e*P | Pn | | 18 32 55.5 | -1.3 |
| | comp=Z,25nm,0.5s | | | | | | | | |
| **DAWY** | **Dawson** | **20.53** | **42** | *e*P | **P** | | **18 32 54.9** | **+0.6** |
| | comp=Z,5.2nm,0.9s | | | | | | | | |
| **SKAG** | **Skagway** | **21.43** | **56** | *e*P | **P** | | **18 33 04.7** | **+0.8** |
| | comp=Z,104nm,1.8s | | | | | | | | |
| **WHY** | **Whitehorse** | **21.77** | **52** | *e*P | **P** | | **18 33 12.2** | **+4.5** |
| | comp=Z,24nm,1.4s | | | | | | | | |
| **SEY** | **Seymchan** | **21.92** | **314** | P | **P** | | **18 33 09.6** | **+0.4** |
| | comp=Z,3.4nm,0.7s,baz=90,slow=11,SNR=9.1 | | | | | | | | |
| **SEY** | **Seymchan** | **21.92** | **314** | *i* P | **P** | | **18 33 09.9** | **+0.8** |
| **MA2** | **Magadan** | **22.23** | **305** | P | **P** | | **18 33 12.1** | **-0.4** |
| | comp=Z,1.6nm,0.3s,baz=115,slow=19,SNR=2.7 | | | | | | | | |
| MA2 | | | | LR | LR | | 18 43 01.9 | | |
| | comp=Z,43nm,18.6s,baz=82,slow=40 | | | | | | | | |
| **DLBC** | **Dease Lake** | **24.16** | **58** | *e*P | **P** | | **18 33 34.2** | **+2.6** |
| | comp=Z,15nm,0.6s | | | | | | | | |
| **INK** | **Inuvik** | **24.32** | **34** | P | **P** | | **18 33 32.5** | **-0.4** |
| | comp=Z,7.3nm,0.4s,baz=244,slow=6.2,SNR=87 | | | | | | | | |
| INK | | | | PcP | **PcP** | | **18 37 11.3** | **+0.4** |
| | comp=Z,1.0nm,0.5s,baz=114,slow=1.1,SNR=4.2 | | | | | | | | |
| **INK** | **Inuvik** | **24.32** | **34** | *e*P | **P** | | **18 33 32.5** | **-0.4** |
| | comp=Z,28nm,1.3s | | | | | | | | |
| INK | | | | *e*PcP | **PcP** | | **18 37 11.3** | **+0.4** |
| **YKW3** | **Yellowknife Ar** | **31.41** | **48** | *e*P | **P** | | **18 34 36.2** | **0.0** |
| | comp=Z,4.3nm,0.9s | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **31.42** | **48** | P | **P** | | **18 34 36.3** | **0.0** |
| | comp=Z,1.9nm,0.4s,baz=273,slow=8.0,SNR=39 | | | | | | | | |
| YKA | | | | PcP | **PcP** | | **18 37 28.9** | **+0.6** |
| | comp=Z,0.3nm,0.5s,baz=284,slow=2.8,SNR=5.4 | | | | | | | | |
| YKA | | | | LR | LR | | 18 47 26.3 | | |
| | comp=Z,14nm,18.5s,baz=180,slow=36 | | | | | | | | |
| **YKB5** | **Yellowknife Ar** | **31.42** | **48** | *e*PcP | **PcP** | | **18 37 28.9** | **+0.5** |
| YKB5 | | | | *e* | | | 18 47 26.3 | | |
| **TIXI** | **Tiksi** | **32.32** | **329** | PcP | **PcP** | | **18 37 30.7** | **0.0** |
| | comp=Z,2.1nm,0.4s,baz=94,slow=4.8,SNR=5.8 | | | | | | | | |
| **YBH** | **Yreka Blue Hor** | **34.30** | **88** | P | **P** | | **18 35 02.9** | **+1.1** |
| | comp=Z,0.7nm,0.4s,baz=270,slow=4.0,SNR=2.5 | | | | | | | | |
| **NEW** | **Newport** | **34.35** | **74** | P | **P** | | **18 35 02.8** | **+0.7** |
| | comp=Z,3.5nm,0.5s,baz=307,slow=8.6,SNR=7.1 | | | | | | | | |
| **KLR** | **Kul'dur** | **35.31** | **289** | P | **P** | | **18 35 11.3** | **+1.0** |
| | comp=Z,0.1nm,0.7s,baz=52,slow=12,SNR=2.7 | | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **36.42** | **216** | T | T | | 19 13 54.4 | | |
| | baz=21,slow=76,SNR=50 | | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **36.43** | **216** | T | T | | 19 13 55.1 | | |
| | baz=21,slow=76,SNR=51 | | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **36.44** | **216** | T | T | | 19 13 50.6 | | |
| | baz=21,slow=76,SNR=43 | | | | | | | | |
| **RES** | **Resolute Bay** | **37.21** | **25** | LR | LR | | 18 55 17.3 | | |
| | comp=Z,59nm,19.5s,baz=273,slow=44 | | | | | | | | |
| **PAHR** | **Pah Rah Range** | **37.53** | **88** | *e*P | **P** | | **18 35 30.4** | **+0.9** |
| | comp=Z,10nm,1.4s | | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **37.62** | **215** | T | T | | 19 15 24.5 | | |
| | baz=17,slow=74 | | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **37.63** | **215** | T | T | | 19 15 27.6 | | |
| | baz=17 | | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **37.63** | **215** | T | T | | 19 15 25.6 | | |
| | baz=17,slow=74 | | | | | | | | |
| **PNTR** | **Pine Nut** | **37.77** | **89** | *e*P | **P** | | **18 35 29.7** | **-2.0** |
| | comp=Z,9.2nm,0.8s | | | | | | | | |
| **WAKR** | **Walker** | **38.23** | **90** | *e*P | **P** | | **18 35 35.9** | **+0.4** |
| | comp=Z,3.3nm,0.9s | | | | | | | | |
| **LRM** | **Limekiln Ridge** | **38.34** | **75** | *e*P | **P** | | **18 35 34.2** | **-2.2** |
| **MJAR** | **Matsushiro Arr** | **38.37** | **266** | P | **P** | | **18 35 37.1** | **+0.6** |
| | comp=Z,1.3nm,0.6s,baz=27,slow=5.9,SNR=5.5 | | | | | | | | |
| MJAR | | | | LR | LR | | 18 50 18.4 | | |
| | comp=Z,54nm,21.0s,baz=305,slow=34 | | | | | | | | |
| **NV01** | **Mina Array Sit** | **38.98** | **89** | *e*P | **P** | | **18 35 42.8** | **+1.0** |
| NV01 | | | | *e*PcP | **PcP** | | **18 37 51.1** | **-0.1** |
| **NVAR** | **Mina Array Bea** | **38.98** | **89** | P | **P** | | **18 35 42.5** | **+0.8** |
| | comp=Z,0.9nm,0.6s,baz=291,slow=9.7,SNR=7.9 | | | | | | | | |
| NVAR | | | | PcP | **PcP** | | **18 37 51.1** | **-0.1** |
| | comp=Z,0.5nm,0.5s,baz=306,slow=2.0,SNR=3.3 | | | | | | | | |
| **MDPB** | **Devils Postpil** | **38.99** | **91** | *e*P | **P** | | **18 35 41.9** | **-0.1** |
| | comp=Z,3.6nm,0.8s | | | | | | | | |
| **ELK** | **Elko** | **39.47** | **84** | P | **P** | | **18 35 47.3** | **+1.4** |
| | comp=Z,0.6nm,0.6s,baz=304,slow=6.7,SNR=6.3 | | | | | | | | |
| ELK | | | | PcP | **PcP** | | **18 37 53.0** | **+0.2** |
| | comp=Z,0.2nm,0.3s,baz=310,slow=16,SNR=2.2 | | | | | | | | |
| **YHH** | **Holmes Hill** | **39.84** | **76** | *e*P | **P** | | **18 35 49.0** | **0.0** |
| | comp=Z,7.4nm,1.3s | | | | | | | | |
| **FFC** | **Flin Flon** | **39.99** | **58** | *e*P | **P** | | **18 35 50.0** | **+0.2** |
| FFC | | | | pmax | pmax | | | | |
| | comp=Z,7.0nm,0.6s | | | | | | | | |
| **FFC** | **Flin Flon** | **39.99** | **58** | *e*P | **P** | | **18 35 50.0** | **+0.2** |
| | comp=Z,6.9nm,0.6s | | | | | | | | |
| **R11A** | **Troy Canyon, C** | **40.70** | **87** | *e*P | **P** | | **18 35 56.5** | **+0.5** |
| | comp=Z,4.7nm,1.4s | | | | | | | | |
| **DAC** | **Darwin (Calif)** | **40.77** | **91** | *e*P | **P** | | **18 35 57.3** | **+0.6** |
| DAC | | | | pmax | pmax | | | | |
| | comp=Z,3.0nm,0.9s | | | | | | | | |
| **DAC** | **Darwin (Calif)** | **40.77** | **91** | *e*P | **P** | | **18 35 57.3** | **+0.6** |
| | comp=Z,3.3nm,0.9s | | | | | | | | |
| **TPNV** | **Topopah Spring** | **41.17** | **89** | *e*P | **P** | | **18 36 00.8** | **+0.9** |
| TPNV | | | | pmax | pmax | | | | |
| | comp=Z,6.0nm,0.8s | | | | | | | | |
| **TPNV** | **Topopah Spring** | **41.17** | **89** | *e*P | **P** | | **18 36 00.8** | **+0.9** |
| | comp=Z,6.3nm,0.8s | | | | | | | | |
| **PD31** | **Pinedale Array** | **41.75** | **77** | *e*P | **P** | | **18 36 04.7** | **0.0** |
| **PDAR** | **Pinedale Array** | **41.75** | **77** | P | **P** | | **18 36 04.7** | **0.0** |
| | comp=Z,2.1nm,0.5s,baz=298,slow=3.8,SNR=6.7 | | | | | | | | |
| **PDAR** | **Pinedale Array** | **41.75** | **77** | *e*P | **P** | | **18 36 04.6** | **-0.1** |
| **CN2** | **Changchun** | **41.82** | **285** | *e*P | **P** | | **18 36 06.5** | **+1.6** |
| **U15A** | **North Rim** | **43.95** | **87** | *e*P | **P** | | **18 36 23.6** | **+1.0** |
| | comp=Z,4.9nm,1.1s | | | | | | | | |
| **KSRS** | **Korea Array** | **44.13** | **275** | P | **P** | | **18 36 24.2** | **+0.6** |
| | comp=Z,1.1nm,0.8s,baz=63,slow=7.4,SNR=3.4 | | | | | | | | |
| KSRS | | | | LR | LR | | 18 53 58.5 | | |
| | comp=Z,24nm,21.4s,baz=55,slow=35 | | | | | | | | |
| **KSAR** | **Wonju Array Be** | **44.16** | **275** | P | **P** | | **18 36 24.2** | **+0.3** |
| **KSAR** | **Wonju Array Be** | **44.16** | **275** | P | **P** | | **18 36 24.2** | **+0.3** |
| **JNU** | **Nakatsue** | **45.15** | **269** | P | **P** | | **18 36 32.7** | **+0.8** |
| | comp=Z,5.1nm,1.0s,baz=42,slow=4.6,SNR=3.0 | | | | | | | | |
| **ULM** | **Lac du Bonnet** | **45.45** | **61** | P | **P** | | **18 36 33.9** | **-0.1** |
| | comp=Z,1.7nm,0.3s,baz=314,slow=8.8,SNR=6.4 | | | | | | | | |
| **AGMN** | **Agassiz Nation** | **46.54** | **63** | *e*P | **P** | | **18 36 42.3** | **-0.2** |
| | comp=Z,15nm,1.0s | | | | | | | | |
| **BGNE** | **Belgrade** | **49.35** | **72** | *e*P | **P** | | **18 37 03.7** | **-0.8** |
| | comp=Z,31nm,0.8s | | | | | | | | |
| **SPA0** | **Spitsbergen Ar** | **49.93** | **358** | *e*P | **P** | | **18 37 07.7** | **-0.7** |
| **SPITS** | **Spitsbergen Ar** | **49.93** | **358** | P | **P** | | **18 37 07.7** | **-0.7** |
| | comp=Z,2.2nm,0.5s,baz=16,slow=6.9,SNR=12 | | | | | | | | |
| SPITS | | | | PcP | **PcP** | | **18 38 27.4** | **-0.4** |
| | comp=Z,7.5nm,1.0s,baz=359,slow=3.4,SNR=7.2 | | | | | | | | |
| **ULN** | **Ulaanbaatar** | **49.95** | **300** | *ce*P | **P** | | **18 37 08.3** | **-0.8** |
| ULN | | | | pmax | pmax | | | | |
| | comp=Z,3.0nm,0.8s | | | | | | | | |
| **DAG** | **Danmarks Havn** | **50.27** | **8** | *i* P | **P** | | **18 37 09.6** | **-1.3** |
| DAG | | | | pmax | pmax | | | | |
| | comp=Z,4.0nm,0.6s | | | | | | | | |
| **DAG** | **Danmarks Havn** | **50.27** | **8** | *i* P | **P** | | **18 37 09.6** | **-1.3** |
| | comp=Z,4.2nm,0.6s | | | | | | | | |
| **SONA0** | **Songino Array** | **50.32** | **300** | *e*P | **P** | | **18 37 11.7** | **-0.1** |
| SONA0 | | | | *e*PcP | **PcP** | | **18 38 29.9** | **0.0** |
| **SONM** | **Songino Array** | **50.32** | **300** | P | **P** | | **18 37 11.7** | **-0.1** |
| | comp=Z,1.4nm,0.8s,baz=55,slow=6.3,SNR=9.0 | | | | | | | | |
| SONM | | | | PcP | **PcP** | | **18 38 29.9** | **0.0** |
| | comp=Z,0.6nm,0.5s,baz=125,slow=2.0,SNR=4.4 | | | | | | | | |
| **SUMG** | **Summit** | **51.45** | **16** | *e*P | **P** | | **18 37 20.1** | **-0.2** |
| SUMG | | | | pmax | pmax | | | | |
| | comp=Z,9.0nm,0.9s | | | | | | | | |
| **SUMG** | **Summit** | **51.45** | **16** | *i* P | **P** | | **18 37 19.9** | **-0.4** |
| | comp=Z,7.4nm,0.9s | | | | | | | | |
| **SUMG** | **Summit** | **51.45** | **16** | *e*P | **P** | | **18 37 20.1** | **-0.2** |
| | comp=Z,8.8nm,0.9s | | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **51.80** | **290** | *e*P | **P** | | **18 37 26.0** | **+3.0** |
| HHC | | | | pmax | pmax | | | | |
| | comp=Z,14nm,0.6s | | | | | | | | |
| HHC | | | | pmax | pmax | | | | |
| | comp=Z,130nm,5.4s | | | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **54.07** | **87** | *e*P | **P** | | **18 37 39.0** | **-0.8** |
| **LTX** | **Lajitas** | **54.07** | **87** | *e*P | **P** | | **18 37 39.7** | **-0.1** |
| LTX | | | | *e* | | | 18 38 44.3 | | |
| **LTX** | **Lajitas** | **54.07** | **87** | *e*P | **P** | | **18 37 39.7** | **-0.1** |
| LTX | | | | *e*PcP | **PcP** | | **18 38 44.3** | **+0.2** |
| **TXAR** | **Lajitas Array** | **54.07** | **87** | P | **P** | | **18 37 39.7** | **-0.1** |
| | comp=Z,1.4nm,0.6s,baz=298,slow=5.4,SNR=19 | | | | | | | | |
| TXAR | | | | PcP | **PcP** | | **18 38 44.3** | **+0.2** |
| | comp=Z,0.5nm,0.4s,baz=226,slow=1.3,SNR=4.2 | | | | | | | | |
| **SCO** | **Scoresbysund** | **55.80** | **12** | *i* P | **P** | | **18 37 50.6** | **-1.0** |
| SCO | | | | pmax | pmax | | | | |
| | comp=Z,6.0nm,0.6s | | | | | | | | |
| **SCO** | **Scoresbysund** | **55.80** | **12** | *i* P | **P** | | **18 37 50.6** | **-1.0** |
| | comp=Z,5.5nm,0.6s | | | | | | | | |
| **SCHQ** | **Schefferville** | **56.55** | **42** | P | **P** | | **18 37 56.5** | **-0.7** |
| | comp=Z,8.8nm,0.9s,baz=325,slow=12,SNR=3.6 | | | | | | | | |
| **ZAA1** | **Zalesovo Array** | **56.75** | **317** | *e*P | **P** | | **18 37 59.9** | **+1.3** |
| ZAA1 | | | | *e*PcP | **PcP** | | **18 38 54.2** | **+0.3** |
| ZAA1 | | | | *e* | | | 19 04 04.8 | | |
| **ZALV** | **Zalesovo Beam** | **56.75** | **317** | P | **P** | | **18 37 59.9** | **+1.3** |
| | comp=Z,1.0nm,0.5s,baz=50,slow=8.2,SNR=6.2 | | | | | | | | |
| ZALV | | | | PcP | **PcP** | | **18 38 54.2** | **+0.3** |
| | comp=Z,1.0nm,0.6s,baz=32,slow=4.7,SNR=7.5 | | | | | | | | |
| ZALV | | | | LR | LR | | 19 04 04.8 | | |
| | comp=Z,48nm,18.1s,baz=62,slow=38 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **56.75** | **317** | *e*P | **P** | | **18 37 57.8** | **-0.8** |
| ZALV | | | | *e*PcP | **PcP** | | **18 38 54.1** | **+0.1** |
| **NVS** | **Novosibirsk** | **56.79** | **318** | *e*P | **P** | | **18 37 58.5** | **-0.4** |
| **USIN** | **University of** | **57.70** | **68** | *e*P | **P** | | **18 38 05.0** | **-0.5** |
| | comp=Z,46nm,0.8s | | | | | | | | |
| **ARA0** | **ARCESS Array S** | **58.07** | **353** | *e*P | **P** | | **18 38 06.3** | **-1.4** |
| ARA0 | | | | *e*PcP | **PcP** | | **18 38 58.2** | **-0.7** |
| **ARCES** | **ARCESS Array B** | **58.07** | **353** | P | **P** | | **18 38 06.3** | **-1.4** |
| | comp=Z,3.2nm,0.7s,baz=15,slow=6.9,SNR=11 | | | | | | | | |
| ARCES | | | | PcP | **PcP** | | **18 38 58.2** | **-0.7** |
| | comp=Z,4.2nm,1.0s,baz=20,slow=3.9,SNR=3.9 | | | | | | | | |
| **GTA** | **Gaotai** | **59.44** | **296** | *e*P | **P** | | **18 38 17.3** | **-0.5** |
| GTA | | | | pP | pP | | 18 38 21.3 | -11 | |
| GTA | | | | sP | sP | | 18 38 24.0 | -15 | |
| GTA | | | | pmax | pmax | | | | |
| | comp=Z,4.0nm,0.8s | | | | | | | | |
| **KURK** | **Kurchatov** | **61.71** | **317** | *ce*P | **P** | | **18 38 32.4** | **-0.5** |
| KURK | | | | pmax | pmax | | | | |
| | comp=Z,9.0nm,0.7s | | | | | | | | |
| **KURK** | **Kurchatov** | **61.71** | **317** | *e*P | **P** | | **18 38 32.7** | **-0.3** |
| | comp=Z,8.6nm,0.6s | | | | | | | | |
| KURK | | | | *e*PcP | **PcP** | | **18 39 13.8** | **0.0** |
| **KURBB** | **Kurchatov Arra** | **61.82** | **317** | P | **P** | | **18 38 33.4** | **-0.3** |
| | comp=Z,7.2nm,0.8s,baz=44,slow=7.0,SNR=25 | | | | | | | | |
| KURBB | | | | PcP | **PcP** | | **18 39 13.8** | **-0.4** |
| | comp=Z,1.1nm,0.4s,baz=46,slow=2.8,SNR=4.3 | | | | | | | | |
| **MK31** | **Makanchi Array** | **63.05** | **312** | *e*P | **P** | | **18 38 40.9** | **-1.1** |
| **MK31** | **Makanchi Array** | **63.05** | **312** | *e*P | **P** | | **18 38 40.9** | **-1.1** |
| **MK32** | **Makanchi Array** | **63.05** | **312** | *e*P | **P** | | **18 38 40.9** | **-1.1** |
| **MKAR** | **Makanchi Array** | **63.05** | **312** | P | **P** | | **18 38 40.9** | **-1.1** |
| | comp=Z,2.1nm,0.5s,baz=41,slow=6.5,SNR=61 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **63.05** | **312** | *e*P | **P** | | **18 38 40.9** | **-1.1** |
| | comp=Z,24nm,0.9s | | | | | | | | |
| **MK01** | **Makanchi Array** | **63.06** | **312** | *e*P | **P** | | **18 38 40.6** | **-1.5** |
| **IP07** | **Quail** | **63.13** | **62** | *e*P | **P** | | **18 38 43.0** | **+0.3** |
| **IP06** | **Yanceyville** | **63.15** | **62** | *e*P | **P** | | **18 38 42.6** | **-0.1** |
| | comp=Z,58nm,2.0s | | | | | | | | |
| **BVA0** | **Borovoye Array** | **63.17** | **323** | P | **P** | | **18 38 42.2** | **-0.5** |
| BVA0 | | | | pmax | pmax | | | | |
| | comp=Z,7.0nm,0.5s | | | | | | | | |
| **MAKZ** | **Makanchi** | **63.18** | **312** | *e*P | **P** | | **18 38 41.7** | **-1.1** |
| MAKZ | | | | pmax | pmax | | | | |
| | comp=Z,3.0nm,0.6s | | | | | | | | |
| **MAKZ** | **Makanchi** | **63.18** | **312** | *e*P | **P** | | **18 38 41.7** | **-1.1** |
| | comp=Z,2.7nm,0.6s | | | | | | | | |
| **BRVK** | **Borovoye** | **63.18** | **323** | *ce*P | **P** | | **18 38 42.3** | **-0.4** |
| BRVK | | | | pmax | pmax | | | | |
| | comp=Z,5.0nm,0.6s | | | | | | | | |
| **BRVK** | **Borovoye** | **63.18** | **323** | *e*P | **P** | | **18 38 42.1** | **-0.7** |
| | comp=Z,4.4nm,0.8s | | | | | | | | |
| **ARU** | **Arti** | **64.28** | **332** | P | **P** | | **18 38 49.1** | **-0.8** |
| | comp=Z,4.7nm,0.4s,baz=357,slow=3.7,SNR=12 | | | | | | | | |
| **ARU** | **Arti** | **64.28** | **332** | *e*P | **P** | | **18 38 49.0** | **-0.9** |
| | comp=Z,6.4nm,0.5s | | | | | | | | |
| **TLIG** | **Tlapa** | **65.87** | **92** | *e*P | **P** | | **18 39 02.0** | **+1.1** |
| | comp=Z,19nm,0.4s | | | | | | | | |
| **FIA0** | **FINESS Array S** | **65.97** | **351** | *e*P | **P** | | **18 38 59.2** | **-1.6** |
| FIA0 | | | | *e* | | | 18 39 29.7 | | |
| **FIA0** | **FINESS Array S** | **65.97** | **351** | *e*P | **P** | | **18 38 59.1** | **-1.6** |
| FIA0 | | | | *e*PcP | **PcP** | | **18 39 29.7** | **-1.3** |
| **FINES** | **FINESS Array B** | **65.97** | **351** | P | **P** | | **18 38 59.1** | **-1.6** |
| | comp=Z,2.1nm,0.7s,baz=17,slow=9.1,SNR=13 | | | | | | | | |
| FINES | | | | PcP | **PcP** | | **18 39 29.7** | **-1.3** |
| | comp=Z,5.5nm,0.9s,baz=27,slow=4.7,SNR=3.4 | | | | | | | | |
| **FINES** | **FINESS Array B** | **65.97** | **351** | P | **P** | | **18 38 59.2** | **-1.6** |
| FINES | | | | | | | 18 39 29.7 | | |
| FINES | | | | pmax | pmax | | | | |
| | comp=Z,3.0nm,0.6s | | | | | | | | |
| **PDGK** | **Podgornoye** | **66.97** | **311** | P | **P** | | **18 39 06.8** | **-0.8** |
| PDGK | | | | pmax | pmax | | | | |
| | comp=Z,5.0nm,0.7s | | | | | | | | |
| **NB2** | **NORSAR Subarra** | **67.22** | **359** | P | **P** | | **18 39 08.0** | **-0.7** |
| | comp=Z,1.3nm,0.6s,baz=4.0,slow=6.5 | | | | | | | | |
| **NB200** | **NORSAR Array S** | **67.22** | **359** | *e*P | **P** | | **18 39 08.1** | **-0.7** |
| **NOA** | **NORSAR Array B** | **67.22** | **359** | P | **P** | | **18 39 08.1** | **-0.7** |
| | comp=Z,1.7nm,0.6s,baz=2.7,slow=6.4,SNR=4.7 | | | | | | | | |
| **HFS** | **Hagfors** | **68.07** | **357** | P | **P** | | **18 39 12.9** | **-1.2** |
| | comp=Z,2.9nm,0.5s,baz=20,slow=4.6,SNR=13 | | | | | | | | |
| **AKTO** | **Aktyubinsk** | **69.60** | **329** | P | **P** | | **18 39 23.3** | **-0.5** |
| | comp=Z,8.4nm,0.6s,baz=51,slow=7.5,SNR=38 | | | | | | | | |
| **AAK** | **Ala-Archa** | **69.78** | **314** | *i* P | **P** | | **18 39 24.7** | **-0.5** |
| AAK | | | | pmax | pmax | | | | |
| | comp=Z,8.0nm,0.9s | | | | | | | | |
| **AAK** | **Ala-Archa** | **69.78** | **314** | *e*P | **P** | | **18 39 25.3** | **+0.1** |
| | comp=Z,6.8nm,0.8s | | | | | | | | |
| **AB31** | **Akbulak array** | **69.98** | **327** | P | **P** | | **18 39 24.9** | **-1.2** |
| AB31 | | | | pmax | pmax | | | | |
| | comp=Z,2.0nm,0.5s | | | | | | | | |
| **ABKAR** | **Akbulak array** | **69.98** | **327** | *e*P | **P** | | **18 39 25.5** | **-0.6** |
| | comp=Z,2.7nm,0.4s | | | | | | | | |
| **OBN** | **Obninsk** | **70.67** | **343** | *e*P | **P** | | **18 39 28.2** | **-2.0** |
| OBN | | | | pmax | pmax | | | | |
| | comp=Z,2.0nm,0.8s | | | | | | | | |
| **MNAS** | **Manas** | **70.77** | **315** | P | **P** | | **18 39 31.6** | **+0.3** |
| **KKAR** | **Karatay Array** | **71.12** | **317** | *e*P | **P** | | **18 39 32.8** | **-0.5** |
| KKAR | | | | pmax | pmax | | | | |
| | comp=Z,2.0nm,0.6s | | | | | | | | |
| **KKAR** | **Karatay Array** | **71.12** | **317** | *e*P | **P** | | **18 39 32.8** | **-0.5** |
| | comp=Z,2.2nm,0.6s | | | | | | | | |
| **LSA** | **Lhasa** | **71.39** | **294** | *e*P | **P** | | **18 39 36.0** | **+0.4** |
| LSA | | | | pmax | pmax | | | | |
| | comp=Z,7.0nm,0.8s | | | | | | | | |
| **LSA** | **Lhasa** | **71.39** | **294** | *e*P | **P** | | **18 39 36.0** | **+0.4** |
| | comp=Z,7.4nm,0.8s | | | | | | | | |
| **KSH** | **Kashi** | **71.60** | **311** | P | **P** | | **18 39 38.8** | **+2.5** |
| KSH | | | | pP | pP | | 18 39 46.8 | -4.5 | |
| KSH | | | | PcP | **sP** | | **18 39 57.5** | **+0.2** |
| KSH | | | | PP | **PP** | | **18 42 20.3** | **+5.2** |
| KSH | | | | S | **S** | | **18 48 55.3** | **+3.9** |
| KSH | | | | SKS | **SKSac** | | **18 49 35.3** | **+0.2** |
| **KSH** | **Kashi** | **71.60** | **311** | SS | SS | | 18 53 33.3 | +6.8 |
| KSH | | | | pmax | pmax | | | | |
| | comp=Z,7.0nm,0.6s | | | | | | | | |
| KSH | | | | pmax | pmax | | | | |
| | comp=Z,150nm,3.7s | | | | | | | | |
| KSH | | | | LR | LR | | | | |
| | comp=N,75nm,4.0s | | | | | | | | |
| KSH | | | | LR | LR | | | | |
| | comp=E,78nm,5.0s | | | | | | | | |
| KSH | | | | LR | LR | | | | |
| | comp=Z,140nm,4.3s | | | | | | | | |
| **SFK** | **Sufi-Kurgan** | **72.33** | **313** | P | **P** | | **18 39 40.5** | **-0.3** |
| SFK | | | | pmax | pmax | | | | |
| | comp=Z,4.0nm,0.9s | | | | | | | | |
| **EKA** | **Eskdalemuir Ar** | **72.53** | **7** | P | **P** | | **18 39 40.9** | **-0.5** |
| | comp=Z,0.8nm,0.4s,baz=357,slow=5.0,SNR=6.5 | | | | | | | | |
| **EKA** | **Eskdalemuir Ar** | **72.53** | **7** | P | **P** | | **18 39 40.9** | **-0.5** |
| EKA | | | | pmax | pmax | | | | |
| | comp=Z,3.0nm,0.7s | | | | | | | | |
| **TAPN** | **Taplejung** | **75.12** | **295** | *e*P | **P** | | **18 39 57.5** | **+0.1** |
| | comp=Z,19nm,0.8s | | | | | | | | |
| **CM31** | **Chiang Mai Arr** | **75.40** | **281** | *e*P | **P** | | **18 39 58.9** | **+0.2** |
| **CMAR** | **Chiang Mai Arr** | **75.40** | **281** | P | **P** | | **18 39 59.0** | **+0.3** |
| | comp=Z,1.9nm,0.6s,baz=26,slow=6.7,SNR=24 | | | | | | | | |
| **CM01** | **Chiang Mai Arr** | **75.42** | **281** | *e*P | **P** | | **18 39 58.6** | **-0.3** |
| **GUN** | **Gumba** | **75.70** | **297** | *e*P | **P** | | **18 40 00.7** | **-0.1** |
| | comp=Z,21nm,0.4s | | | | | | | | |
| **JIRN** | **Jiri** | **75.72** | **297** | *e*P | **P** | | **18 40 01.0** | **0.0** |
| **RAMN** | **Ramite** | **76.05** | **296** | *e*P | **P** | | **18 40 02.2** | **-0.5** |
| | comp=Z,38nm,0.9s | | | | | | | | |
| **AKASG** | **Malin Array Be** | **76.11** | **347** | P | **P** | | **18 40 00.3** | **-2.0** |
| | comp=Z,0.8nm,0.3s,baz=15,slow=5.6,SNR=5.8 | | | | | | | | |
| **KKN** | **Kakani** | **76.12** | **297** | *e*P | **P** | | **18 40 02.9** | **-0.1** |
| | comp=Z,5.9nm,0.4s | | | | | | | | |
| **PKI** | **Pulchoki** | **76.22** | **297** | *e*P | **P** | | **18 40 03.1** | **-0.7** |
| | comp=Z,20nm,1.0s | | | | | | | | |
| **DMN** | **Daman** | **76.36** | **297** | *e*P | **P** | | **18 40 04.3** | **-0.1** |
| **DPC** | **Dobruska-Polom** | **77.74** | **355** | *e*P | **P** | | **18 40 10.7** | **-0.8** |
| DPC | | | | *e*pP | **PcP** | | **18 40 21.0** | **-0.4** |
| **DPC** | **Dobruska-Polom** | **77.74** | **355** | *e*P | **P** | | **18 40 10.7** | **-0.8** |
| DPC | | | | *e* | | | 18 40 21.0 | | |
| **PRU** | **Pruhonice** | **78.19** | **356** | *e*P | **P** | | **18 40 14.1** | **+0.1** |
| **PRU** | **Pruhonice** | **78.19** | **356** | *e*P | **P** | | **18

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CODC | Agust`>n Codaz | 5.66 | 263 | *e*P | Pn | 19 12 42.6 | 0.0 |
| PAMC | Pamplona, Colo | 5.93 | 236 | *e*P | Pn | 19 12 48.9 | +2.3 |
| RUSC | La Rusia | 7.13 | 228 | *e*P | Pn | 19 13 02.6 | -0.5 |
| SJG | San Juan | 7.52 | 12 | Pn | Pn | 19 13 09.8 | +1.8 |
| | 2.3nm,0.3s,baz=331,slow=22,SNR=2.0 | | | | | | |
| SJG | | | | Sn | Sn | 19 14 29.1 | -4.4 |
| | 3.0nm,0.3s,baz=342,slow=20,SNR=1.5 | | | | | | |
| MOTC | Monteria, Cord | 8.04 | 257 | *e*P | Pn | 19 13 14.0 | -1.2 |
| CHIC | Chingaza | 8.47 | 225 | *e*P | Pn | 19 13 20.5 | -0.9 |
| PRAC | Prado | 9.92 | 226 | *e*P | Pn | 19 13 39.7 | -1.4 |
| PTGA | Pitinga | 13.75 | 145 | Pn | Pn | 19 14 31.9 | -1.6 |
| | 0.3nm,0.3s,baz=325,slow=23,SNR=1.3 | | | | | | |
| PTGA | | | | Lg | Lg | 19 18 17.5 | |
| | 1.2nm,0.3s,baz=232,slow=23,SNR=8.3 | | | | | | |
| TXAR | Lajitas Array | 38.28 | 304 | P | P | 19 18 41.2 | +1.9 |
| | 0.4nm,0.6s,baz=122,slow=8.6,SNR=6.1 | | | | | | |
| PDAR | Pinedale Array | 48.37 | 319 | P | P | 19 20 02.4 | +1.6 |
| | 0.4nm,0.6s,baz=116,slow=6.9,SNR=3.8 | | | | | | |
| PLCA | Paso Flores | 51.25 | 183 | P | P | 19 20 20.4 | -2.0 |
| | 0.7nm,0.5s,baz=10.0,slow=5.9,SNR=3.4 | | | | | | |
| YKA | Yellowknife Ar | 51.60 | 337 | P | P | 19 21 36.2 | +0.4 |
| | 0.4nm,0.6s,baz=115,slow=6.8,SNR=7.1 | | | | | | |
| INK | Inuvik | 71.26 | 339 | P | P | 19 22 38.3 | +0.7 |
| | 1.0nm,0.8s,baz=130,slow=3.7,SNR=3.5 | | | | | | |
| CMAR | Chiang Mai Arr | 148.18 | 24 | PKPbc | PKPbc | 19 31 05.9 | +0.3 |
| | 0.2nm,0.6s,baz=338,slow=1.0,SNR=2.8 | | | | | | |

*JMA **29** 19:12:49.6±0.1,31°.89N×141°.91E,h33km,M3.6*
*IDC **29** 19:12:49.0±1.0,31°.77N×141°.66E,h0km,mb3.6/6, mb1 3.7/8,mb1mx3.5/32,mbtmp3.5/8,ML3.1/2,Error ellipse: s-maj=30.2km s-min=17.1km az=70.0*
**ISC 29 19:12:52.7±1.0,31°.85N±0°.10×141°.5E±0°.1,h26km,n14, σ1s33/15,mb3.5/6,Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JHJ2 | Mitsune | 1.91 | 312 | P | Pb | 19 13 24.6 | -2.3 |
| JHJ2 | | | | *e*S | Sb | 19 13 50.3 | 0.0 |
| JHJ | Hachijo jima 2 | 1.94 | 311 | Pn | Pn | 19 13 24.6 | +0.7 |
| | 22nm,0.3s,baz=73,slow=21,SNR=7.5 | | | | | | |
| JHJ | | | | Sn | Sb | 19 13 50.6 | -0.5 |
| | 21nm,0.3s,baz=79,slow=23,SNR=1.8 | | | | | | |
| JOD2 | Odawara 2 | 3.97 | 330 | P | Pn | 19 13 52.9 | +1.1 |
| JRY | Ryogami san | 4.69 | 333 | P | Pn | 19 14 02.1 | +0.3 |
| CBIJ | Chichi jima | 4.77 | 173 | P | Pn | 19 14 01.7 | -1.2 |
| JCJ | Chichijima | 4.77 | 173 | Pn | Pn | 19 14 01.6 | -1.2 |
| JHO | Hitachi | 4.82 | 351 | P | Pn | 19 14 02.1 | -1.4 |
| MJAR | Matsushiro Arr | 5.43 | 331 | Pn | Pn | 19 14 11.6 | -0.3 |
| | 0.3nm,0.3s,baz=149,slow=13,SNR=4.1 | | | | | | |
| SONM | Songino Array | 31.02 | 311 | P | P | 19 19 11.0 | +2.7 |
| | 0.2nm,0.5s,baz=120,slow=11,SNR=3.4 | | | | | | |
| MKAR | Makanchi Array | 47.10 | 306 | P | P | 19 21 23.4 | +1.0 |
| | 0.4nm,0.7s,baz=96,slow=11,SNR=5.4 | | | | | | |
| WRA | Warrarunga Arr | 51.95 | 189 | P | P | 19 21 58.8 | -0.7 |
| | 0.8nm,0.6s,baz=6.5,slow=7.6,SNR=14 | | | | | | |
| ILAR | Eielson Array | 53.87 | 30 | P | P | 19 22 13.0 | -0.3 |
| | 0.3nm,0.7s,baz=254,slow=5.5,SNR=3.4 | | | | | | |
| ASAR | Alice Springs | 55.68 | 188 | P | P | 19 22 26.7 | -0.1 |
| | 0.4nm,0.8s,baz=20,slow=12,SNR=4.8 | | | | | | |
| ULM | Lac du Bonnet | 83.79 | 33 | P | P | 19 25 21.0 | +1.5 |
| | 1.1nm,0.6s,baz=195,slow=16,SNR=1.6 | | | | | | |

*ISCJB **29** 19:19:54.7±0.6,32°.19N±0°.03×115°.35W±0°.05,h7km±7km, Error ellipse: s-maj=7.9km s-min=4.4km az=159.7*
*NEIC **29** 19:19:56.1±0.0,32°.22N×115°.30W,h3km,MD2.9(ECX), ML2.8(PAS),After ECX.*
*MEX **29** 19:19:56.0±0.3,32°.34N×115°.10W,h28km±5km,MD3.6*
*ECX **29** 19:19:56.1±0.7,32°.21N×115°.30W,h6km,MD2.7,ML2.9*
**ISC 29 19:19:54.7±0.9,32°.19N±0°.04×115°.30W±0°.03,h15km±8km, n22,σ0s59/30,2D,California-Baja California border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CPBX | Cerro Prieto | 0.23 | 360 | *e*P | Pg | 19 19 59.8 | 0.0 |
| CPBX | | | | IAML | | 19 20 07.1 | |
| | comp=E,9μm,0.5s | | | | | | |
| CPBX | | | | ⇓*e* | | 19 20 07.1 | |
| CPBX | Cerro Prieto | 0.23 | 360 | *e*Pg | Pg | 19 19 59.8 | 0.0 |
| CPBX | | | | *e*Sg | Sg | 19 20 02.7 | -0.5 |
| MBIG | Mexicali | 0.23 | 22 | *e*P | Pg | 19 20 00.2 | +0.4 |
| MBIG | | | | *e*S | Sg | 19 20 03.1 | -0.2 |
| ECBX | El Chinero | 0.75 | 163 | *e*P | Pb | 19 20 09.7 | +0.3 |
| ECBX | | | | *i* S | Sb | 19 20 20.3 | +0.9 |
| RMX | La Rumorosa | 0.77 | 302 | *e*P | Pg | 19 20 09.3 | -0.5 |
| IKP | In-Ko-Pah, Jac | 0.82 | 304 | *e*P | Pb | 19 20 10.6 | -0.1 |
| SPIG | San Pedro Mart | 1.15 | 187 | *i* P | Pb | 19 20 16.4 | -0.1 |
| SPIG | | | | *e*S | Sn | 19 20 32.4 | +0.1 |
| SPIG | San Pedro Mart | 1.15 | 187 | *e*P | Pb | 19 20 16.3 | -0.2 |
| SPX | San Pedro Mart | 1.15 | 187 | *e*P | Pb | 19 20 16.4 | -0.1 |
| SPX | San Pedro Mart | 1.15 | 187 | *e*Pn | Pb | 19 20 16.4 | -0.1 |
| SPX | | | | *e*Sn | Sn | 19 20 32.4 | +0.1 |
| CBX | Cerro Bola | 1.16 | 276 | *e*P | Pb | 19 20 16.3 | -0.3 |
| CBX | | | | *e*S | Sn | 19 20 31.9 | -0.3 |
| CBX | Cerro Bola | 1.16 | 276 | ⇓*e* | Sg | 19 20 33.4 | +1.2 |
| CBX | | | | IAML | | 19 20 33.4 | |
| | comp=N,308nm,0.4s | | | | | | |
| CBX | Cerro Bola | 1.16 | 276 | *e*Pn | Pb | 19 20 16.3 | -0.3 |
| CBX | | | | *e*Sn | Sn | 19 20 31.9 | -0.3 |
| TJIG | Tijuana | 1.19 | 282 | *i* P | Pb | 19 20 16.4 | -0.6 |
| TJIG | | | | *i* S | Sg | 19 20 32.4 | -0.7 |
| ECNX | Esteban Cantu | 1.22 | 245 | *e*P | Pb | 19 20 17.5 | -0.1 |
| BAR | Barrett | 1.26 | 293 | *e*P | Pn | 19 20 17.5 | -0.2 |
| BAR | Barrett | 1.26 | 293 | *e*Pg | Pn | 19 20 17.6 | -0.2 |
| PBX | Punta Banda | 1.29 | 250 | *e*P | Pn | 19 20 18.3 | +0.1 |
| 113A | Mohawk Valley, | 1.42 | 66 | *e*Pn | Pn | 19 20 18.3 | -1.7 |
| Y12C | Blythe | 1.69 | 23 | *e*Pn | Pb | 19 20 26.1 | +0.6 |
| XPFO | Pæon Flat | 1.71 | 326 | *e*Pn | Pn | 19 20 25.1 | +0.9 |
| PFO | Pinyon Flats O | 1.72 | 326 | *e*Pn | Pn | 19 20 25.1 | +0.9 |

**MEX 29 19:23:48.4±0.5,15°.95N×96°.44W,h5km,MD3.7,Near coast of Oaxaca**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PANG | Puerto Angel | 0.28 | 186 | *e*P | Pg | 19 23 53.3 | -0.5 |
| PANG | | | | *e*S | Sg | 19 23 58.1 | +0.6 |
| HUIG | Huatulco | 0.37 | 119 | *e*P | Pg | 19 23 55.0 | -0.5 |
| HUIG | | | | *e*S | Sg | 19 24 00.6 | +0.3 |
| VHO | Vista Hermosa | 1.16 | 346 | *e*P | Pg | 19 24 07.7 | -2.9 |
| VHO | | | | *e*S | Sg | 19 24 22.6 | -3.1 |
| PNIG | Pinotepa | 1.68 | 286 | *e*S | Sn | 19 24 36.1 | -4.4 |
| TLIG | Tlapa | 2.59 | 309 | *e*P | Pb | 19 24 33.5 | -2.0 |
| TLIG | | | | *i* S | Sb | 19 25 09.2 | +1.4 |
| TPIG | Tehuac#an | 2.61 | 340 | *i* P | Pg | 19 24 49.5 | +11 |

*IDC **29** 19:30:24.7±4.4,25°.49N×96°.82E,h34km±40km,mb3.3/5, mb1 3.5/6,mb1mx3.1/64,mbtmp3.4/6,ML3.7/1,MS2.7/1, Ms1 2.9/1,ms1mx2.5/19,Error ellipse: s-maj=45.3km s-min=16.9km az=66.0*
**ISC 29 19:30:21.1±1.0,25°.6N±0°.1×96°.8E±0°.1,h10km,n16, σ2s00/14,mb3.7/5,Myanmar**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SHL | Shillong | 4.47 | 271 | *e*P | Pn | 19 31 33.0 | +3.9 |
| CMAR | Chiang Mai Arr | 7.38 | 164 | Pn | Pn | 19 32 08.8 | -0.2 |
| | 0.3nm,0.3s,baz=338,slow=13,SNR=8.2 | | | | | | |
| CMAR | | | | Pg | Pb | 19 32 38.5 | +9.2 |
| | 0.2nm,0.3s,baz=336,slow=14,SNR=9.9 | | | | | | |
| CMAR | | | | Lg | Lg | 19 34 16.9 | |
| | 0.1nm,0.3s,baz=339,slow=29,SNR=3.2 | | | | | | |
| CMAR | | | | LR | LR | 19 35 10.4 | |
| | comp=Z,62nm,21.9s,baz=340,slow=39 | | | | | | |
| TAPN | Taplejung | 8.36 | 284 | *e*P | Pn | 19 32 20.6 | -2.0 |
| | 12nm,0.3s | | | | | | |
| ODAN | Odare | 8.57 | 280 | *e*P | Pn | 19 32 24.1 | -1.4 |
| | 54nm,0.5s | | | | | | |
| RAMN | Ramite | 9.28 | 280 | *e*P | Pn | 19 32 33.6 | -1.7 |
| | 31nm,0.5s | | | | | | |
| JIRN | Jiri | 9.74 | 284 | *e*P | Pn | 19 32 39.9 | -1.8 |
| GUN | Gumba | 10.06 | 286 | *e*P | Pn | 19 32 44.4 | -1.6 |
| | 9.5nm,0.3s | | | | | | |
| PKI | Pulchoki | 10.41 | 283 | *e*P | Pn | 19 32 48.0 | -2.8 |
| | 8.6nm,0.6s | | | | | | |
| PKIN | Phulchoki | 10.42 | 283 | *e*P | Pn | 19 32 49.1 | -1.8 |
| | 10nm,0.4s | | | | | | |
| KKN | Kakani | 10.56 | 284 | *e*P | Pn | 19 32 50.5 | -2.2 |
| | 6.3nm,0.3s | | | | | | |
| DMN | Daman | 10.68 | 283 | *e*P | Pn | 19 32 51.9 | -2.6 |
| SONM | Songino Array | 23.43 | 16 | P | P | 19 35 31.4 | +0.9 |
| | 0.2nm,0.5s,baz=215,slow=10,SNR=2.9 | | | | | | |
| MKAR | Makanchi Array | 24.10 | 335 | P | P | 19 35 38.3 | +1.4 |
| | 1.0nm,0.6s,baz=145,slow=9.4,SNR=13 | | | | | | |
| KURBB | Kurchatov Arra | 28.67 | 335 | P | P | 19 36 19.4 | +1.5 |
| | 0.3nm,0.2s,baz=145,slow=8.8,SNR=1.6 | | | | | | |
| WRA | Warramunga Arr | 58.12 | 138 | P | P | 19 40 14.2 | -0.9 |
| | 0.8nm,1.1s,baz=326,slow=7.6,SNR=2.9 | | | | | | |
| ASAR | Alice Springs | 60.73 | 141 | P | P | 19 40 32.5 | -0.7 |
| | 0.3nm,0.5s,baz=321,slow=6.4,SNR=4.9 | | | | | | |

*ISCJB **29** 19:31:05.8±0.7,13°.26S±0°.06×167°.0E±0°.1,h250km, mb3.9/13,Error ellipse: s-maj=20.0km s-min=8.7km az=6.0*
*IDC **29** 19:31:05.6±2.4,13°.33S×167°.06E,h238km±24km, mb3.7/14,mb1 3.7/15,mb1mx3.6/43,mbtmp4.2/15,Error ellipse: s-maj=25.9km s-min=14.3km az=127.0*
**ISC 29 19:31:06.7±0.8,13°.35S±0°.08×167°.1E±0°.2,h250km,n18, σ0s93/20,mb4.0/14,Vanuatu Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| DZM | Mont Dzumac | 8.70 | 184 | P | Pn | 19 33 09.5 | +0.5 |
| | 0.8nm,0.3s,baz=52,slow=24,SNR=8.8 | | | | | | |
| DZM | | | | S | S | 19 34 47.7 | 0.0 |
| | 0.6nm,0.3s,baz=277,slow=15,SNR=3.7 | | | | | | |
| CTA | Charters Tower | 21.04 | 249 | P | P | 19 35 31.3 | -0.6 |
| | 3.2nm,0.6s,baz=81,slow=13,SNR=5.4 | | | | | | |
| STKA | Stephens Creek | 29.77 | 228 | P | P | 19 36 50.7 | +0.2 |
| | 6.5nm,0.6s,baz=50,slow=9.3,SNR=28 | | | | | | |
| WRA | Warramunga Arr | 32.02 | 254 | P | P | 19 37 09.0 | -1.3 |
| | 1.7nm,0.5s,baz=85,slow=9.1,SNR=15 | | | | | | |
| ASAR | Alice Springs | 33.02 | 247 | P | P | 19 37 17.9 | -1.1 |
| | 2.6nm,0.3s,baz=76,slow=9.2,SNR=89 | | | | | | |
| ASAR | | | | ScP | ScP | 19 43 19.2 | +2.4 |
| | 0.9nm,0.8s,baz=55,slow=3.3,SNR=6.8 | | | | | | |
| FITZ | Fitzroy Crossi | 40.12 | 258 | P | P | 19 38 18.3 | -0.5 |
| | 0.8nm,0.5s,baz=47,slow=5.0,SNR=5.6 | | | | | | |
| ASAJ | Asahikawa | 61.39 | 340 | P | P | 19 40 56.6 | +0.2 |
| | 4.4nm,0.5s,baz=182,slow=9.6,SNR=3.6 | | | | | | |
| PETK | Petropavlovsk- | 66.67 | 354 | P | P | 19 41 31.1 | +0.5 |
| | 2.4nm,0.6s,baz=146,slow=4.2,SNR=10 | | | | | | |
| KLR | Kul'dur | 69.68 | 336 | P | P | 19 41 49.9 | +0.7 |
| | 0.0nm,0.3s,baz=166,slow=8.3,SNR=2.7 | | | | | | |
| CMAR | Chiang Mai Arr | 74.23 | 294 | P | P | 19 42 17.9 | +0.9 |
| | 0.8nm,0.8s,baz=120,slow=4.5,SNR=7.7 | | | | | | |
| SEY | Seymchan | 76.89 | 353 | P | P | 19 42 31.2 | +0.2 |
| | 2.1nm,0.9s,baz=167,slow=5.2,SNR=5.1 | | | | | | |
| SONM | Songino Array | 81.29 | 324 | P | P | 19 42 55.9 | +0.6 |
| | 0.4nm,0.5s,baz=131,slow=4.5,SNR=7.3 | | | | | | |
| ILAR | Eielson Array | 85.27 | 18 | P | P | 19 43 13.9 | -1.1 |
| | 1.4nm,0.6s,baz=242,slow=5.0,SNR=28 | | | | | | |
| MKAR | Makanchi Array | 96.09 | 317 | P | P | 19 44 06.0 | 0.0 |
| | 0.8nm,0.6s,baz=91,slow=5.0,SNR=10.0 | | | | | | |
| ZALV | Zalesovo Beam | 96.18 | 324 | P | P | 19 44 05.5 | -0.7 |
| | 0.7nm,0.7s,baz=112,slow=7.0,SNR=2.8 | | | | | | |
| YKA | Yellowknife Ar | 96.40 | 27 | P | P | 19 44 05.8 | -1.1 |
| | 0.1nm,0.7s,baz=261,slow=4.4,SNR=2.6 | | | | | | |
| ARCES | ARCESS Array B | 118.88 | 346 | PKP | PKPdf | 19 49 24.5 | -0.3 |
| | 1.9nm,0.7s,baz=82,slow=1.8,SNR=4.0 | | | | | | |
| ESDC | Sonseca Array | 152.61 | 345 | PKPbc | PKPbc | 19 50 34.2 | +0.2 |
| | 0.3nm,0.6s,baz=29,slow=3.4,SNR=4.3 | | | | | | |

*NEIC **29** 19:31:09.1±0.0,41°.25S×173°.65E,h96km,ML4.2(WEL), After WEL.*
**WEL 29 19:31:08.8±0.2,41°.26S×173°.64E,h98km±1km,ML4.2/42, 10C-23D,Error ellipse: s-maj=1.3km s-min=1.1km az=0.0,MM 4.,South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| NNZ | Nelson | 0.20 | 283 | Pn | Pn | 19 31 22.6 | -0.2 |
| NNZ | | | | Sn | Sn | 19 31 31.9 | -1.3 |
| NNZ | Nelson | 0.20 | 283 | ⇓Pn | Pn | 19 31 22.6 | -0.2 |
| NNZ | | | | SN | Sn | 19 31 31.9 | -1.3 |
| TUWZ | Tuamarina | 0.28 | 126 | Pn | Pn | 19 31 23.1 | 0.0 |
| TUWZ | | | | Sn | Sn | 19 31 32.4 | -1.4 |
| TUWZ | Tuamarina | 0.28 | 126 | ⇑Pn | Pn | 19 31 23.1 | 0.0 |
| TUWZ | | | | SN | Sn | 19 31 32.4 | -1.4 |
| TUWZ | | | | AML | AML | 19 31 33.0 | |
| TCW | Tory Channel | 0.48 | 84 | Pn | Pn | 19 31 24.5 | +0.2 |
| TCW | Tory Channel | 0.48 | 84 | ⇓Pn | Pn | 19 31 24.5 | +0.2 |
| TCW | | | | AML | AML | 19 31 35.6 | |
| TCW | | | | AML | AML | 19 31 35.9 | |
| BSWZ | Blackbirch Sta | 0.49 | 159 | Pn | Pn | 19 31 24.3 | -0.1 |
| BSWZ | Blackbirch Sta | 0.49 | 159 | ⇑Pn | Pn | 19 31 24.3 | -0.1 |
| BSWZ | | | | AML | AML | 19 31 36.7 | |
| BSWZ | | | | AML | AML | 19 31 36.7 | |
| DUWZ | D'Urville Isla | 0.51 | 25 | Pn | Pn | 19 31 24.7 | +0.1 |
| DUWZ | D'Urville Isla | 0.51 | 25 | ⇓Pn | Pn | 19 31 24.7 | +0.1 |
| CMWZ | Cape Campbell | 0.65 | 139 | Pn | Pn | 19 31 26.1 | +0.4 |
| CMWZ | Cape Campbell | 0.65 | 139 | ⇑Pn | Pn | 19 31 26.1 | +0.4 |
| CMWZ | | | | AML | AML | 19 31 40.0 | |
| CMWZ | | | | AML | AML | 19 31 42.1 | |
| THZ | Tophouse | 0.74 | 228 | Pn | Pn | 19 31 26.4 | -0.2 |
| THZ | Tophouse | 0.74 | 228 | PN | Pn | 19 31 26.4 | -0.2 |
| WEL | Wellington | 0.85 | 92 | Pn | Pn | 19 31 27.5 | 0.0 |
| WEL | Wellington | 0.85 | 92 | ⇓Pn | Pn | 19 31 27.5 | 0.0 |
| WEL | | | | AML | AML | 19 31 40.9 | |
| WEL | | | | AML | AML | 19 31 41.0 | |
| WEL | | | | AML | AML | 19 31 41.6 | |
| WEL | | | | AML | AML | 19 31 41.7 | |
| BHW | Baring Head | 0.94 | 99 | Pn | Pn | 19 31 28.3 | -0.2 |
| BHW | Baring Head | 0.94 | 99 | ⇑Pn | Pn | 19 31 28.3 | -0.2 |
| BHW | | | | AML | AML | 19 31 42.0 | |
| BHW | | | | AML | AML | 19 31 42.8 | |
| QRZ | Quartz Range | 0.95 | 297 | Pn | Pn | 19 31 28.3 | -0.3 |
| QRZ | Quartz Range | 0.95 | 297 | ⇓Pn | Pn | 19 31 28.3 | -0.3 |
| KIW | Kapiti Island | 1.04 | 68 | Pn | Pn | 19 31 29.7 | +0.2 |
| KIW | Kapiti Island | 1.04 | 68 | ⇓Pn | Pn | 19 31 29.7 | +0.2 |
| KIW | | | | AML | AML | 19 31 46.1 | |
| KIW | | | | AML | AML | 19 31 46.5 | |
| CAW | Cannon Point | 1.09 | 82 | Pn | Pn | 19 31 29.9 | -0.2 |
| CAW | Cannon Point | 1.09 | 82 | ⇓Pn | Pn | 19 31 29.9 | -0.2 |
| CAW | | | | AML | AML | 19 31 46.9 | |
| CAW | | | | AML | AML | 19 31 47.4 | |
| KHZ | Kahutara | 1.16 | 184 | Pn | Pn | 19 31 30.9 | +0.1 |
| KHZ | Kahutara | 1.16 | 184 | ⇑Pn | Pn | 19 31 30.9 | +0.1 |
| KHZ | | | | AML | AML | 19 31 45.9 | |
| KHZ | | | | AML | AML | 19 31 45.9 | |
| KHZ | | | | AML | AML | 19 31 46.0 | |
| KHZ | | | | AML | AML | 19 31 46.0 | |
| MSWZ | Moikau Station | 1.22 | 98 | Pn | Pn | 19 31 31.3 | -0.3 |
| MSWZ | Moikau Station | 1.22 | 98 | PN | Pn | 19 31 31.3 | -0.4 |
| MSWZ | | | | AML | AML | 19 31 47.7 | |
| MSWZ | | | | AML | AML | 19 31 54.5 | |
| OGWZ | Otaki Gorge | 1.24 | 70 | Pn | Pn | 19 31 31.9 | 0.0 |
| OGWZ | Otaki Gorge | 1.24 | 70 | ⇓Pn | Pn | 19 31 31.9 | 0.0 |
| OGWZ | | | | AML | AML | 19 31 50.1 | |
| OGWZ | | | | AML | AML | 19 31 50.2 | |
| PLWZ | Palliser | 1.25 | 105 | Pn | Pn | 19 31 31.8 | -0.3 |
| PLWZ | Palliser | 1.25 | 105 | ⇑Pn | Pn | 19 31 31.8 | -0.3 |
| PLWZ | | | | AML | AML | 19 31 47.9 | |
| PLWZ | | | | AML | AML | 19 31 48.0 | |
| PAWZ | Paruwai Farm | 1.35 | 96 | Pn | Pn | 19 31 32.7 | -0.5 |
| PAWZ | Paruwai Farm | 1.35 | 96 | PN | Pn | 19 31 32.7 | -0.5 |
| PAWZ | | | | AML | AML | 19 31 51.5 | |
| PAWZ | | | | AML | AML | 19 31 51.7 | |
| MTW | Mount Morrison | 1.41 | 86 | PN | Pn | 19 31 33.3 | -0.5 |
| MTW | | | | AML | AML | 19 31 52.1 | |
| MTW | | | | AML | AML | 19 31 52.1 | |
| DSZ | Denniston Nort | 1.46 | 250 | Pn | Pn | 19 31 33.9 | -0.6 |
| DSZ | Denniston Nort | 1.46 | 250 | ⇓Pn | Pn | 19 31 33.9 | -0.6 |
| HOWZ | Holdsworth Sta | 1.46 | 76 | Pn | Pn | 19 31 34.1 | -0.5 |
| HOWZ | Holdsworth Sta | 1.46 | 76 | ⇓Pn | Pn | 19 31 34.1 | -0.5 |
| HOWZ | | | | AML | AML | 19 31 54.3 | |
| HOWZ | | | | AML | AML | 19 31 54.7 | |
| TRWZ | Traveller | 1.55 | 96 | Pn | Pn | 19 31 35.2 | -0.4 |
| TRWZ | Traveller | 1.55 | 96 | PN | Pn | 19 31 35.2 | -0.4 |
| TRWZ | | | | AML | AML | 19 31 54.7 | |
| TRWZ | | | | AML | AML | 19 31 54.7 | |
| MRZ | Mangatainoka R | 1.59 | 68 | Pn | Pn | 19 31 35.5 | -0.5 |
| MRZ | Mangatainoka R | 1.59 | 68 | PN | Pn | 19 31 35.5 | -0.5 |
| MRZ | | | | AML | AML | 19 31 57.7 | |
| MRZ | | | | AML | AML | 19 32 01.9 | |
| OHWZ | Ohakea | 1.65 | 51 | ⇑Pn | Pn | 19 31 37.4 | +0.5 |
| TMWZ | Te Maipa | 1.71 | 86 | Pn | Pn | 19 31 37.0 | -0.6 |
| TMWZ | Te Maipa | 1.71 | 86 | ⇓Pn | Pn | 19 31 37.0 | -0.6 |
| TMWZ | | | | AML | AML | 19 32 00.2 | |
| TMWZ | | | | AML | AML | 19 32 01.2 | |
| TIWZ | Tintock | 1.77 | 75 | PN | Pn | 19 31 37.7 | -0.7 |
| TIWZ | | | | AML | AML | 19 32 01.4 | |
| TIWZ | | | | AML | AML | 19 32 03.0 | |
| WAZ | Wanganui | 1.82 | 35 | Pn | Pn | 19 31 40.2 | +1.2 |
| WAZ | Wanganui | 1.82 | 35 | PN | Pn | 19 31 40.2 | +1.2 |
| LTZ | Lake Taylor | 1.83 | 213 | Pn | Pn | 19 31 38.4 | -0.8 |
| LTZ | Lake Taylor | 1.83 | 213 | PN | Pn | 19 31 38.4 | -0.8 |
| POWZ | Post Office Ro | 1.83 | 62 | Pn | Pn | 19 31 38.5 | -0.7 |
| POWZ | Post Office Ro | 1.83 | 62 | ⇓PN | Pn | 19 31 38.5 | -0.7 |
| POWZ | | | | AML | AML | 19 32 12.3 | |
| POWZ | | | | AML | AML | 19 32 25.6 | |
| NMEZ | Namu Road | 1.86 | 6 | Pn | Pn | 19 31 40.9 | +1.5 |
| NMEZ | Namu Road | 1.86 | 6 | PN | Pn | 19 31 40.9 | +1.5 |
| LREZ | Lake Rotokare | 1.89 | 18 | ⇑PN | Pn | 19 31 41.9 | +2.0 |
| PRWZ | Pori Road | 1.90 | 69 | Pn | Pn | 19 31 39.5 | -0.5 |
| PRWZ | Pori Road | 1.90 | 69 | PN | Pn | 19 31 39.5 | -0.5 |
| PRWZ | | | | AML | AML | 19 32 05.2 | |
| PRWZ | | | | AML | AML | 19 32 05.7 | |
| PREZ | Palmer Road | 1.96 | 12 | Pn | Pn | 19 31 42.4 | +1.6 |
| PREZ | Palmer Road | 1.96 | 12 | PN | Pn | 19 31 42.4 | +1.6 |
| CPWZ | Castlepoint | 1.97 | 81 | Pn | Pn | 19 31 40.7 | -0.2 |
| CPWZ | Castlepoint | 1.97 | 81 | PN | Pn | 19 31 40.7 | -0.2 |
| CPWZ | | | | AML | AML | 19 32 09.4 | |
| CPWZ | | | | AML | AML | 19 32 09.7 | |
| KHEZ | Kahui Hut | 1.99 | 8 | Pn | Pn | 19 31 42.7 | +1.4 |
| KHEZ | Kahui Hut | 1.99 | 8 | PN | Pn | 19 31 42.7 | +1.4 |
| NWEZ | Newall Road | 1.99 | 5 | Pn | Pn | 19 31 42.9 | +1.7 |
| NWEZ | Newall Road | 1.99 | 5 | PN | Pn | 19 31 42.9 | +1.7 |
| NEZ | North Egmont | 2.02 | 10 | Pn | Pn | 19 31 43.3 | +1.7 |
| NEZ | North Egmont | 2.02 | 10 | PN | Pn | 19 31 43.6 | +2.0 |
| BFZ | Birch Farm | 2.06 | 74 | Pn | Pn | 19 31 41.0 | -1.0 |
| BFZ | | | | AML | AML | 19 32 07.0 | |
| BFZ | | | | AML | AML | 19 32 07.0 | |
| BFZ | | | | AML | AML | 19 32 07.4 | |
| BFZ | | | | AML | AML | 19 32 08.2 | |
| PKE | Pukeiti | 2.08 | 7 | Pn | Pn | 19 31 44.1 | +1.7 |
| PKE | Pukeiti | 2.08 | 7 | PN | Pn | 19 31 44.1 | +1.7 |
| TSZ | Takapari Road | 2.14 | 57 | Pn | Pn | 19 31 42.4 | -0.8 |
| TSZ | Takapari Road | 2.14 | 57 | ⇓PN | Pn | 19 31 42.3 | -0.8 |
| TSZ | | | | AML | AML | 19 32 11.0 | |
| TSZ | | | | AML | AML | 19 32 12.5 | |
| DVHZ | Dannevirke | 2.15 | 64 | Pn | Pn | 19 31 42.1 | -1.1 |
| DVHZ | Dannevirke | 2.15 | 64 | ⇓PN | Pn | 19 31 42.1 | -1.1 |
| DVHZ | | | | AML | AML | 19 32 09.6 | |
| DVHZ | | | | AML | AML | 19 32 09.9 | |
| INZ | Inchbonnie | 2.19 | 227 | ⇓PN | Pn | 19 31 43.2 | -0.6 |
| VRZ | Vera Road | 2.30 | 22 | Pn | Pn | 19 31 46.5 | +1.2 |
| VRZ | Vera Road | 2.30 | 22 | ⇓PN | Pn | 19 31 46.5 | +1.3 |
| MTVZ | Mangateitei | 2.34 | 37 | Pn | Pn | 19 31 46.3 | +0.5 |
| MTVZ | Mangateitei | 2.34 | 37 | PN | Pn | 19 31 46.3 | +0.5 |
| PNHZ | Pukenui | 2.37 | 56 | Pn | Pn | 19 31 45.1 | -1.0 |
| PNHZ | | | | AML | AML | 19 32 17.2 | |
| PNHZ | | | | AML | AML | 19 32 17.8 | |
| OXZ | Oxford | 2.38 | 209 | Pn | Pn | 19 31 44.5 | -1.8 |
| OXZ | Oxford | 2.38 | 209 | ⇓PN | Pn | 19 31 44.5 | -1.8 |
| CRLZ | Canterbury Las | 2.43 | 198 | Pn | Pn | 19 31 45.4 | -1.5 |
| CRLZ | Canterbury Las | 2.43 | 198 | PN | Pn | 19 31 45.3 | -1.6 |
| WPHZ | Waipukurau | 2.44 | 62 | Pn | Pn | 19 31 46.0 | -1.1 |
| WPHZ | Waipukurau | 2.44 | 62 | PN | Pn | 19 31 46.0 | -1.1 |
| WPHZ | | | | AML | AML | 19 32 18.0 | |
| WPHZ | | | | AML | AML | 19 32 20.8 | |
| TRVZ | Turoa | 2.44 | 37 | Pn | Pn | 19 31 47.7 | +0.3 |
| TRVZ | Turoa | 2.44 | 37 | PN | Pn | 19 31 47.7 | +0.3 |
| WNVZ | Wahianoa | 2.44 | 38 | Pn | Pn | 19 31 47.6 | +0.3 |
| WNVZ | Wahianoa | 2.44 | 38 | PN | Pn | 19 31 47.6 | +0.3 |
| MOVZ | Moawhango | 2.46 | 42 | Pn | Pn | 19 31 47.1 | -0.3 |
| MOVZ | Moawhango | 2.46 | 42 | PN | Pn | 19 31 47.1 | -0.3 |
| DRZ | Dome Shelter | 2.47 | 37 | Pn | Pn | 19 31 48.5 | +0.7 |
| DRZ | Dome Shelter | 2.47 | 37 | PN | Pn | 19 31 48.5 | +0.7 |
| WHVZ | Whangaehu Hut | 2.48 | 38 | Pn | Pn | 19 31 48.2 | +0.4 |
| WHVZ | Whangaehu Hut | 2.48 | 38 | PN | Pn | 19 31 48.2 | +0.4 |
| FWVZ | Far West T-bar | 2.48 | 37 | Pn | Pn | 19 31 48.1 | +0.2 |
| FWVZ | Far West T-bar | 2.48 | 37 | PN | Pn | 19 31 48.1 | +0.2 |
| PRHZ | Porangahau | 2.48 | 67 | Pn | Pn | 19 31 46.4 | -1.3 |
| PRHZ | Porangahau | 2.48 | 67 | PN | Pn | 19 31 46.3 | -1.3 |
| PRHZ | | | | AML | AML | 19 32 19.3 | |
| PRHZ | | | | AML | AML | 19 32 19.6 | |
| TUVZ | Tukino | 2.52 | 38 | Pn | Pn | 19 31 48.8 | +0.5 |
| TUVZ | Tukino | 2.52 | 38 | ⇓PN | Pn | 19 31 48.8 | +0.5 |
| MQZ | McQueen's Vall | 2.55 | 196 | Pn | Pn | 19 31 46.5 | -2.0 |
| MQZ | McQueen's Vall | 2.55 | 196 | ⇑PN | Pn | 19 31 46.4 | -2.0 |
| BHHZ | Black Hill Sta | 2.56 | 47 | Pn | Pn | 19 31 48.3 | -0.5 |
| BHHZ | Black Hill Sta | 2.56 | 47 | PN | Pn | 19 31 48.3 | -0.5 |
| BHHZ | | | | AML | AML | 19 32 21.1 | |
| BHHZ

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **PRGZ** | **Paritu Road** | **4.01** | **56** | Pn | Pn | 19 32 05.5 | -2.6 |
| **PRGZ** | **Paritu Road** | **4.01** | **56** | PN | Pn | 19 32 05.5 | -2.6 |
| PRGZ | | | | AML | AML | 19 32 55.0 | |
| PRGZ | | | | AML | AML | 19 32 57.6 | |
| **URZ** | **Urewera** | **4.02** | **43** | Pn | Pn | 19 32 05.6 | -2.6 |
| **URZ** | **Urewera** | **4.02** | **43** | PN | Pn | 19 32 05.6 | -2.6 |
| URZ | | | | AML | AML | 19 32 52.3 | |
| URZ | | | | AML | AML | 19 32 53.7 | |
| **LBZ** | **Lake Benmore** | **4.03** | **218** | Pn | Pn | 19 32 05.7 | -2.6 |
| **LBZ** | **Lake Benmore** | **4.03** | **218** | PN | Pn | 19 32 05.7 | -2.6 |
| **RIGZ** | **Rimuhau** | **4.07** | **52** | PN | Pn | 19 32 06.4 | -2.5 |
| RIGZ | | | | AML | AML | 19 32 54.6 | |
| RIGZ | | | | AML | AML | 19 32 54.7 | |

*ISCJB **29** 19:40:16.6±0.2,51°.53N±0°.01×16°.13E±0°.02, h0km, mb3.3/4, Error ellipse: s-maj=2.1km s-min=1.9km az=19.9*
*CSEM **29** 19:40:18.8±0.2,51°.51N×16°.14E, h2km, ML3.7/14, Ms3.7, Error ellipse: s-maj=3.3km s-min=1.9km az=13.0*
*WAR **29** 19:40:19.6, 51°.51N×16°.12E, h1km, Mw3.0*
*BGR **29** 19:40:19.9±0.4, 51°.49N×16°.14E, h1km, ML3.4/16, Error ellipse: s-maj=4.4km s-min=2.2km az=17.0*
*IDC **29** 19:40:19.9±0.5, 51°.50N×16°.08E, h0km, mb3.4/4, mb1 3.6/12, mb1mx3.4/55, mbtmp3.5/12, ML3.1/8, MS3.0/1, Ms1 3.0/1, ms1mx2.2/41, Error ellipse: s-maj=9.3km s-min=5.4km az=106.0*
*VIE **29** 19:40:21.9±0.8, 51°.32N×16°.08E, h0km, mb2.9/13, ML3.1/11, Ms3.7/1, Error ellipse: s-maj=5.2km s-min=4.5km az=96.0, Suspected Mining induced.*
*UPP **29** 19:40:25.0±3.2, 51°.94N×15°.52E, h0km, ML2.1*

**ISC 29 19:40:17.8±0.5, 51°.57N±0°.02×16°.15E±0°.02, h0km, n129, σ1§19/223, mb3.4/4, 8C-5D, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KSP** | **Ksiaz** | **0.74** | **173** | *i* Pg | **Pg** | **19 40 32.3** | **+0.4** |
| KSP | | | | *e*Sg | **Sg** | **19 40 41.4** | **0.0** |
| **KSP** | **Ksiaz** | **0.74** | **173** | *e*Pg | **Pg** | **19 40 32.4** | **+0.4** |
| KSP | | | | *e*Sg | **Sg** | **19 40 41.6** | **+0.2** |
| **KSP** | **Ksiaz** | **0.74** | **173** | *i* Pg | **Pg** | **19 40 32.3** | **+0.4** |
| KSP | | | | *e*Sg | **Sg** | **19 40 41.4** | **0.0** |
| **KSP** | **Ksiaz** | **0.74** | **173** | *i* Pg | **Pg** | **19 40 32.3** | **+0.4** |
| KSP | | | | *e*Sg | **Sg** | **19 40 41.4** | **0.0** |
| **UPC** | **Upice** | **1.07** | **185** | *e*PG | **Pg** | **19 40 38.5** | **+0.2** |
| UPC | | | | *e*SG | **Sg** | **19 40 51.6** | **-0.6** |
| | comp=Z,225nm,0.5s | | | | | | |
| **UPC** | **Upice** | **1.07** | **185** | Pg | **Pg** | **19 40 38.5** | **+0.2** |
| UPC | | | | Sg | **Sg** | **19 40 51.6** | **-0.6** |
| | 225nm,0.5s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.23** | **175** | *e*PG | **Pg** | **19 40 41.1** | **-0.2** |
| DPC | | | | *e*SG | **Sg** | **19 40 56.4** | **-0.9** |
| | comp=Z,126nm,0.4s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.23** | **175** | *e*Pg | **Pg** | **19 40 41.2** | **-0.1** |
| DPC | | | | *e*Sg | **Sg** | **19 40 57.3** | **+0.1** |
| **DPC** | **Dobruska-Polom** | **1.23** | **175** | Pg | **Pg** | **19 40 41.2** | **-0.1** |
| DPC | | | | Sg | **Sg** | **19 40 57.3** | **+0.1** |
| **PVCC** | **Panska Ves** | **1.45** | **224** | *e*PG | **Pn** | **19 40 45.1** | **-0.1** |
| PVCC | | | | *e*SG | **Sb** | **19 41 04.7** | **+0.2** |
| | comp=Z,248nm,0.4s | | | | | | |
| **PVCC** | **Panska Ves** | **1.45** | **224** | Pg | **Pn** | **19 40 45.1** | **-0.1** |
| PVCC | | | | Sg | **Sb** | **19 41 04.7** | **+0.2** |
| | 248nm,0.4s | | | | | | |
| **KRLC** | **Kraliky** | **1.55** | **165** | *e*PG | **Pn** | **19 40 46.6** | **-0.1** |
| KRLC | | | | *e*SG | **Sn** | **19 41 07.1** | **-0.5** |
| **KRLC** | **Kraliky** | **1.55** | **165** | Pg | **Pn** | **19 40 46.6** | **-0.1** |
| KRLC | | | | Sg | **Sn** | **19 41 07.1** | **-0.5** |
| **BRG** | **Berggiesshubel** | **1.56** | **244** | PN | **Pn** | **19 40 46.4** | **-0.3** |
| BRG | | | | PG | **Pg** | **19 40 47.9** | **+0.4** |
| BRG | | | | SG | **Sg** | **19 41 08.4** | **+0.7** |
| | 231nm,0.4s | | | | | | |
| **BRG** | **Berggiesshubel** | **1.56** | **244** | *e*Pn | **Pn** | **19 40 46.4** | **-0.3** |
| BRG | | | | *e*Pg | **Pg** | **19 40 47.9** | **+0.4** |
| BRG | | | | *e*Sg | **Sg** | **19 41 08.4** | **+0.7** |
| **BRG** | **Berggiesshubel** | **1.56** | **244** | Pn | **Pn** | **19 40 46.4** | **-0.3** |
| **FBE** | **Freiberg** | **1.87** | **251** | *e*Pn | **Pn** | **19 40 51.4** | **+0.3** |
| FBE | | | | *e*Pg | **Pg** | **19 40 53.6** | **-0.1** |
| FBE | | | | *e*Sg | **Sg** | **19 41 18.5** | **+0.5** |
| **FBE** | **Freiberg** | **1.87** | **251** | Pn | **Pn** | **19 40 51.4** | **+0.3** |
| **GOPC** | **GO Pecny, Ondr** | **1.87** | **208** | *e*PN | **Pn** | **19 40 50.8** | **-0.3** |
| GOPC | | | | *e*PG | **Pb** | **19 40 52.9** | **0.0** |
| GOPC | | | | *e*SG | **Sb** | **19 41 16.6** | **-0.2** |
| | comp=Z,109nm,0.9s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **1.87** | **208** | Pn | **Pn** | **19 40 50.8** | **-0.3** |
| **PRU** | **Pruhonice** | **1.89** | **213** | *e*PN | **Pn** | **19 40 50.9** | **-0.4** |
| PRU | | | | *e*PG | **Pb** | **19 40 52.9** | **-0.2** |
| PRU | | | | *e*SG | **Sb** | **19 41 17.2** | **0.0** |
| | comp=Z,112nm,0.5s | | | | | | |
| **PRU** | **Pruhonice** | **1.89** | **213** | Pn | **Pn** | **19 40 50.9** | **-0.4** |
| **RAC** | **Raciborz** | **1.98** | **138** | *e*Pg | **Pg** | **19 40 56.5** | **+0.8** |
| RAC | | | | *e*Sg | **Sg** | **19 41 21.9** | **+0.6** |
| **CLL** | **Collm** | **1.99** | **264** | *e*Pn | **Pn** | **19 40 52.0** | **-0.6** |
| CLL | | | | *e*Pg | **Pg** | **19 40 56.0** | **+0.2** |
| CLL | | | | *i* | | 19 40 58.8 | |
| CLL | | | | *i* | | 19 40 59.7 | |
| CLL | | | | *e*Sg | **Sg** | **19 41 22.0** | **+0.4** |
| | comp=Z,186nm,0.7s | | | | | | |
| **CLL** | **Collm** | **1.99** | **264** | *e*Pn | **Pn** | **19 40 52.6** | **0.0** |
| CLL | | | | *e*Sg | **Sg** | **19 41 21.9** | **+0.3** |
| **CLL** | **Collm** | **1.99** | **264** | Pn | **Pn** | **19 40 52.6** | **0.0** |
| CLL | | | | Sg | **Sg** | **19 41 21.9** | **+0.3** |
| **MORC** | **Moravsky Berou** | **2.01** | **153** | ⇓*i* P | **Pn** | **19 40 53.0** | **+0.1** |
| **MORC** | **Moravsky Berou** | **2.01** | **153** | *e*Pn | **Pn** | **19 40 52.9** | **-0.1** |
| MORC | | | | *e*Sg | **Sb** | **19 41 21.0** | **+0.3** |
| **MORC** | **Moravsky Berou** | **2.01** | **153** | ⇓*i* P | **Pn** | **19 40 53.0** | **+0.1** |
| MORC | | | | Sg | **Sb** | **19 41 21.0** | **+0.3** |
| **OKC** | **Ostrava-Krasne** | **2.15** | **143** | *e*PN | **Pn** | **19 40 54.2** | **-0.7** |
| OKC | | | | *e*PG | **Pg** | **19 40 58.7** | **-0.3** |
| OKC | | | | *e*SG | **Sb** | **19 41 25.2** | **+0.4** |
| | comp=Z,102nm,0.6s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **2.15** | **143** | *e*Pn | **Pn** | **19 40 55.1** | **+0.2** |
| OKC | | | | *e*Pg | **Pg** | **19 40 59.0** | **0.0** |
| OKC | | | | *e*Sg | **Sb** | **19 41 25.6** | **+0.7** |
| **OKC** | **Ostrava-Krasne** | **2.15** | **143** | Pn | **Pn** | **19 40 55.1** | **+0.2** |
| **VRAC** | **Vranov** | **2.29** | **173** | Pn | **Pn** | **19 40 57.5** | **+0.7** |
| | comp=Z,2.9nm,0.3s,baz=335,slow=14,SNR=25 | | | | | | |
| VRAC | | | | Sn | **Sn** | **19 41 25.5** | **-0.1** |
| | comp=Z,2.6nm,0.3s,baz=58,slow=16,SNR=2.7 | | | | | | |
| VRAC | | | | Lg | Lg | 19 41 30.0 | |
| | comp=Z,10nm,0.3s,baz=40,slow=17,SNR=9.8 | | | | | | |
| **VRAC** | **Vranov** | **2.29** | **173** | ⇑*i* P | **Pn** | **19 40 57.1** | **+0.3** |
| **VRAC** | **Vranov** | **2.29** | **173** | ⇑*i* P | **Pn** | **19 40 57.1** | **+0.3** |
| VRAC | | | | *e*Sg | **Sb** | **19 41 29.7** | **+1.0** |
| **WERD** | **Werda** | **2.68** | **247** | *e*Pn | **Pn** | **19 41 02.6** | **+0.5** |
| WERD | | | | *e*Pg | **Pg** | **19 41 10.0** | **+0.9** |
| WERD | | | | *e*Sg | **Sg** | **19 41 42.2** | **-1.5** |
| **WERD** | **Werda** | **2.68** | **247** | Pn | **Pn** | **19 41 02.6** | **+0.5** |
| **WERD** | **Werda** | **2.68** | **247** | Pg | **Pg** | **19 41 10.0** | **+0.9** |
| WERD | | | | Sg | **Sg** | **19 41 42.2** | **-1.5** |
| **OJC** | **Ojcow** | **2.68** | **119** | *e*Pg | **Pg** | **19 41 09.3** | **+0.2** |
| OJC | | | | *e*Sg | **Sg** | **19 41 44.7** | **+0.9** |
| **OJC** | **Ojcow** | **2.68** | **119** | *e*Pg | **Pg** | **19 41 08.7** | **-0.4** |
| OJC | | | | *e*Sg | **Sg** | **19 41 44.7** | **+0.9** |
| **OJC** | **Ojcow** | **2.68** | **119** | *e*Pg | **Pg** | **19 41 09.3** | **+0.2** |
| OJC | | | | Sg | **Sg** | **19 41 44.7** | **+0.9** |
| **OJC** | **Ojcow** | **2.68** | **119** | *e*Pg | **Pg** | **19 41 09.3** | **+0.2** |
| OJC | | | | *e*Sg | **Sg** | **19 41 44.7** | **+0.9** |
| **NKC** | **Novy Kostel** | **2.70** | **242** | *e*PN | **Pn** | **19 41 02.9** | **+0.4** |
| NKC | | | | *e*PG | **Pg** | **19 41 09.8** | **+0.3** |
| NKC | | | | *e*SG | **Sg** | **19 41 45.5** | **+1.0** |
| | comp=Z,181nm,0.6s | | | | | | |
| **NKC** | **Novy Kostel** | **2.70** | **242** | Pn | **Pn** | **19 41 02.9** | **+0.4** |
| **KHC** | **Kasperske Hory** | **2.95** | **215** | *e*PN | **Pn** | **19 41 05.5** | **-0.4** |
| KHC | | | | *e*PG | **Pb** | **19 41 12.2** | **+1.0** |
| KHC | | | | *e*SN | **Sn** | **19 41 42.2** | **+0.2** |
| KHC | | | | *e*SG | **Sg** | **19 41 51.7** | **-0.7** |
| | comp=Z,39nm,0.5s | | | | | | |
| **KHC** | **Kasperske Hory** | **2.95** | **215** | Pn | **Pn** | **19 41 05.5** | **-0.4** |
| **MOX** | **Moxa** | **3.00** | **254** | *e*Pn | **Pn** | **19 41 07.7** | **+1.1** |
| MOX | | | | *e*Pg | **Pg** | **19 41 15.2** | **-0.1** |
| MOX | | | | *e*Sn | **Sn** | **19 41 39.6** | **-3.7** |
| MOX | | | | *e*Sg | **Sg** | **19 41 55.6** | **+1.4** |
| **MOX** | **Moxa** | **3.00** | **254** | Pn | **Pn** | **19 41 07.7** | **+1.1** |
| **MANZ** | **Manzenberg** | **3.02** | **240** | *e*Pn | **Pn** | **19 41 07.5** | **+0.7** |
| MANZ | | | | *e*Pg | **Pg** | **19 41 16.2** | **+0.6** |
| MANZ | | | | *e*Sg | **Sg** | **19 41 55.2** | **+0.6** |
| **MANZ** | **Manzenberg** | **3.02** | **240** | Pn | **Pn** | **19 41 07.5** | **+0.7** |
| **ROTZ** | **Rotzenmuhle** | **3.09** | **236** | *e*Pn | **Pn** | **19 41 08.2** | **+0.4** |
| ROTZ | | | | *e*Sg | **Sg** | **19 41 55.6** | **-1.4** |
| **ROTZ** | **Rotzenmuhle** | **3.09** | **236** | Pn | **Pn** | **19 41 08.2** | **+0.4** |
| ROTZ | | | | Sg | **Sg** | **19 41 55.6** | **-1.4** |
| **GEC2** | **GERESS Array S** | **3.15** | **211** | *e*Pn | **Pn** | **19 41 08.8** | **+0.1** |
| GEC2 | | | | *e*Sg | **Sg** | **19 41 56.7** | **-2.3** |
| **GEC2** | **GERESS Array S** | **3.15** | **211** | Pn | **Pn** | **19 41 08.8** | **+0.1** |
| GEC2 | | | | Sg | **Sg** | **19 41 56.7** | **-2.3** |
| **GERES** | **GERESS Array B** | **3.15** | **211** | Pn | **Pn** | **19 41 09.3** | **+0.5** |
| | comp=Z,3.1nm,0.3s,baz=33,slow=12,SNR=63 | | | | | | |
| GERES | | | | Pg | **Pg** | **19 41 17.2** | **-0.9** |
| | comp=Z,5.7nm,0.3s,baz=30,slow=16,SNR=32 | | | | | | |
| GERES | | | | Sn | **Sn** | **19 41 45.3** | **-1.8** |
| | comp=Z,3.6nm,0.3s,baz=18,slow=27,SNR=4.8 | | | | | | |
| GERES | | | | Lg | Lg | 19 41 56.9 | |
| | comp=Z,7.5nm,0.3s,baz=37,slow=27,SNR=8.5 | | | | | | |
| **SMOL** | **Smolenice** | **3.17** | **164** | *e*Pg | **Pg** | **19 41 18.2** | **-0.4** |
| SMOL | | | | *e*Sg | **Sg** | **19 42 00.3** | **+0.6** |
| **SMOL** | **Smolenice** | **3.17** | **164** | *e*PG | **Pg** | **19 41 18.2** | **-0.4** |
| SMOL | | | | *e*SG | **Sg** | **19 42 00.3** | **+0.6** |
| **WET** | **Wettzell** | **3.21** | **222** | *e*Pn | **Pn** | **19 41 09.7** | **+0.2** |
| **WET** | **Wettzell** | **3.21** | **222** | Pn | **Pn** | **19 41 09.6** | **+0.2** |
| **LANS** | **Liptovska Anna** | **3.23** | **137** | *e*Pg | **Pg** | **19 41 19.5** | **-0.1** |
| LANS | | | | *e*Sg | **Sb** | **19 41 58.2** | **+2.5** |
| **LANS** | **Liptovska Anna** | **3.23** | **137** | *e* | **Pn** | **19 41 10.1** | **+0.4** |
| **LANS** | **Liptovska Anna** | **3.23** | **137** | *e*PG | **Pg** | **19 41 19.5** | **-0.1** |
| LANS | | | | *e*SG | **Sb** | **19 41 58.2** | **+2.5** |
| **MODS** | **Modra-Piesok** | **3.29** | **167** | *e*Pg | **Pg** | **19 41 19.3** | **-1.5** |
| MODS | | | | *e*Sg | **Sg** | **19 41 58.3** | **+2.6** |
| **MODS** | **Modra-Piesok** | **3.29** | **167** | *e* | **Pn** | **19 41 11.2** | **+0.7** |
| **MODS** | **Modra-Piesok** | **3.29** | **167** | *e*PG | **Pg** | **19 41 19.2** | **-1.5** |
| MODS | | | | *e*SG | **Sg** | **19 42 01.4** | **-1.9** |
| **NIE** | **Niedzica** | **3.42** | **128** | *e*P | **Pg** | **19 41 22.9** | **-0.3** |
| NIE | | | | *e*S | **Sg** | **19 42 07.4** | **-0.1** |
| **NIE** | **Niedzica** | **3.42** | **128** | *e*P | **Pg** | **19 41 22.9** | **-0.3** |
| NIE | | | | *e*S | **Sg** | **19 42 07.4** | **-0.1** |
| **VYHS** | **Vyhne** | **3.54** | **150** | *e*Pg | **Pg** | **19 41 24.4** | **-1.1** |
| VYHS | | | | *e*Sg | **Sb** | **19 42 07.3** | **+2.6** |
| **VYHS** | **Vyhne** | **3.54** | **150** | *e*PG | **Pg** | **19 41 24.4** | **-1.1** |
| VYHS | | | | *e*SG | **Sb** | **19 42 07.3** | **+2.6** |
| VYHS | | | | *e*LG | Lg | 19 42 14.4 | |
| **CLZ** | **Clausthal** | **3.60** | **277** | *e*Pn | **Pn** | **19 41 16.4** | **+1.5** |
| CLZ | | | | *e*Sg | **Sg** | **19 42 15.1** | **+1.6** |
| **CLZ** | **Clausthal** | **3.60** | **277** | Pn | **Pn** | **19 41 16.4** | **+1.5** |
| CLZ | | | | Sg | **Sg** | **19 42 15.1** | **+1.6** |
| **BSD** | **Bornholm Skovb** | **3.62** | **349** | *i* P | **Pn** | **19 41 15.6** | **+0.5** |
| BSD | | | | *i* S | **Sn** | **19 41 56.1** | **-2.4** |
| **BSD** | **Bornholm Skovb** | **3.62** | **349** | *i* P | **Pn** | **19 41 15.7** | **+0.6** |
| | SNR=49 | | | | | | |
| BSD | | | | *i* S | **Sn** | **19 41 56.1** | **-2.4** |
| | SNR=49 | | | | | | |
| **CONA** | **Conrad Observa** | **3.66** | **183** | Pn | **Pn** | **19 41 16.1** | **+0.5** |
| | comp=Z,2.3nm,0.2s | | | | | | |
| CONA | | | | Sg | **Sg** | **19 42 14.3** | **-0.8** |
| | comp=Z,41nm,0.5s | | | | | | |
| **GRA1** | **Grafenberg Arr** | **3.66** | **241** | Pn | **Pn** | **19 41 16.6** | **+1.0** |
| GRA1 | | | | Sg | **Sg** | **19 42 14.9** | **-0.4** |
| **GRF** | **Grafenberg Arr** | **3.66** | **241** | *e*Pn | **Pn** | **19 41 16.6** | **+1.0** |
| GRF | | | | *e*Sg | **Sg** | **19 42 14.9** | **-0.4** |
| **SOP** | **Sopron** | **3.90** | **176** | *ex* | **Pn** | **19 41 19.2** | **+0.2** |
| **SOP** | **Sopron** | **3.90** | **176** | *e*P | **Pn** | **19 41 19.2** | **+0.2** |
| **STHS** | **Stebnicka Huta** | **3.91** | **122** | *e*Pg | **Pg** | **19 41 33.4** | **+0.8** |
| STHS | | | | *e*Sg | **Sg** | **19 42 22.7** | **-0.4** |
| **STHS** | **Stebnicka Huta** | **3.91** | **122** | *e* | **Pn** | **19 41 20.1** | **+1.1** |
| **STHS** | **Stebnicka Huta** | **3.91** | **122** | *e*PG | **Pg** | **19 41 33.4** | **+0.8** |
| STHS | | | | *e*SG | **Sg** | **19 42 22.7** | **-0.4** |
| STHS | | | | *e*LG | Lg | 19 42 32.9 | |
| **MOA** | **Molln** | **3.92** | **199** | Pn | **Pn** | **19 41 20.0** | **+0.7** |
| | comp=Z,3.9nm,0.3s | | | | | | |
| MOA | | | | Sg | **Sg** | **19 42 23.1** | **-0.7** |
| | comp=Z,13nm,0.3s | | | | | | |
| **KECS** | **Kecovo** | **4.17** | **136** | *e*Pg | **Pg** | **19 41 38.4** | **+0.8** |
| KECS | | | | *e*Sg | **Sg** | **19 42 29.6** | **-2.1** |
| **KECS** | **Kecovo** | **4.17** | **136** | *e* | **Pn** | **19 41 22.7** | **+0.1** |
| **KECS** | **Kecovo** | **4.17** | **136** | *e*PG | **Pg** | **19 41 38.4** | **+0.8** |
| KECS | | | | *e*SG | **Sg** | **19 42 29.6** | **-2.1** |
| KECS | | | | *e*LG | Lg | 19 42 38.7 | |
| **CRVS** | **Cervenica-Dubn** | **4.33** | **126** | *e*Pg | **Pg** | **19 41 40.4** | **-0.4** |
| CRVS | | | | *e*Sg | **Sg** | **19 42 36.2** | **-0.7** |
| **CRVS** | **Cervenica-Dubn** | **4.33** | **126** | *e* | **Pn** | **19 41 26.0** | **+1.1** |
| **CRVS** | **Cervenica-Dubn** | **4.33** | **126** | *e*PG | **Pg** | **19 41 40.4** | **-0.4** |
| CRVS | | | | *e*SG | **Sg** | **19 42 36.2** | **-0.7** |
| **ARSA** | **Arzberg** | **4.35** | **186** | Pn | **Pn** | **19 41 26.8** | **+1.7** |
| | comp=Z,2.7nm,0.3s | | | | | | |
| ARSA | | | | Sg | **Sg** | **19 42 36.4** | **-1.0** |
| **PSZ** | **Piszkesteto** | **4.39** | **145** | ⇓*i* P | **Pn** | **19 41 26.9** | **+1.2** |
| **PSZ** | **Piszkesteto** | **4.39** | **145** | *ex* | **Pn** | **19 41 26.8** | **+1.1** |
| **PSZ** | **Piszkesteto** | **4.39** | **145** | *e*P | **Pn** | **19 41 26.8** | **+1.1** |
| **BLEU** | **Blekinge** | **4.74** | **358** | P | **Pn** | **19 41 31.2** | **+0.8** |
| BLEU | | | | S | **Sn** | **19 42 23.4** | **-2.6** |
| **KBA** | **Koelnbreinsper** | **4.86** | **203** | Pn | **Pn** | **19 41 33.4** | **+1.1** |
| | comp=Z,8.0nm,0.5s | | | | | | |
| KBA | | | | Sg | **Sg** | **19 42 52.2** | **-1.6** |
| | comp=Z,18nm,0.6s | | | | | | |
| **BJUU** | **Bjuv** | **4.87** | **339** | P | **Pn** | **19 41 32.0** | **-0.3** |
| **SOKA** | **Soboth** | **4.96** | **189** | Pn | **Pn** | **19 41 35.2** | **+1.7** |
| | comp=Z,0.9nm,0.3s | | | | | | |
| SOKA | | | | Sg | **Sg** | **19 42 58.5** | **+1.6** |
| **DEL** | **Delary** | **5.09** | **346** | P | **Pn** | **19 41 35.2** | **0.0** |
| **OBKA** | **Obir** | **5.18** | **192** | Sg | **Sg** | **19 43 03.3** | **-0.7** |
| | comp=Z,20nm,0.5s | | | | | | |
| **MYKA** | **Terra Mystica** | **5.21** | **199** | Sg | **Sg** | **19 43 05.2** | **0.0** |
| | comp=Z,13nm,0.7s | | | | | | |
| **WTTA** | **Wattenberg** | **5.22** | **216** | Pn | **Pn** | **19 41 38.8** | **+1.5** |
| | comp=Z,3.2nm,0.3s | | | | | | |
| **ABTA** | **Abfaltersbach** | **5.39** | **208** | Pn | **Pn** | **19 41 40.7** | **+1.3** |
| | comp=Z,4.7nm,0.6s | | | | | | |
| ABTA | | | | Sg | **Sg** | **19 43 10.3** | **-0.4** |
| | comp=Z,15nm,0.7s | | | | | | |
| **VXJU** | **Vaexsjoe** | **5.41** | **353** | P | **Pn** | **19 41 40.4** | **+0.8** |
| **OSKU** | **Oskarshamn** | **5.63** | **360** | P | **Pn** | **19 41 44.4** | **+1.7** |
| **BYXU** | **Byxelkrok** | **5.75** | **5** | P | **Pn** | **19 41 45.9** | **+1.7** |
| **FETA** | **Feichten** | **5.77** | **220** | Pn | **Pn** | **19 41 45.2** | **+0.4** |
| | comp=Z,1.4nm,0.6s | | | | | | |
| FETA | | | | Sg | **Sg** | **19 43 25.6** | **+2.5** |
| | comp=Z,8.4nm,0.6s | | | | | | |
| **FABU** | **Falkenberg** | **5.80** | **341** | P | **Pn** | **19 41 45.4** | **+0.4** |
| **ASPU** | **Aespoe** | **5.86** | **2** | P | **Pn** | **19 41 47.3** | **+1.5** |
| **DAVA** | **Damuels** | **5.93** | **226** | Pn | **Pn** | **19 41 46.8** | **-0.1** |
| | comp=Z,1.2nm,0.3s | | | | | | |
| DAVA | | | | Sg | **Sg** | **19 43 28.7** | **+0.7** |
| | comp=Z,10.0nm,0.5s | | | | | | |
| **EKSU** | **Eksjoe** | **6.03** | **356** | P | **Pn** | **19 41 49.2** | **+1.0** |
| **DAVOX** | **Davos/Dischmat** | **6.32** | **223** | Pn | **Pn** | **19 41 53.5** | **+1.2** |
| | comp=Z,0.8nm,0.3s,baz=21,slow=15,SNR=7.0 | | | | | | |
| DAVOX | | | | Sn | **Sn** | **19 43 06.3** | **+1.1** |
| | comp=Z,0.3nm,0.3s,baz=354,slow=19,SNR=1.2 | | | | | | |
| DAVOX | | | | Lg | Lg | 19 43 39.8 | |
| | comp=Z,0.9nm,0.3s,baz=190,slow=22,SNR=2.7 | | | | | | |
| **SIRR** | **Siria** | **6.43** | **144** | ⇓*i* P | **Pn** | **19 41 54.5** | **+0.8** |
| **SIRR** | **Siria** | **6.43** | **144** | ⇓*i* P | **Pn** | **19 41 54.5** | **+0.8** |
| **DRGR** | | **6.43** | **136** | ⇑*i* P | **Pn** | **19 41 54.3** | **+0.5** |
| **DRGR** | | **6.43** | **136** | ⇑*i* P | **Pn** | **19 41 54.3** | **+0.5** |
| **BZS** | **Buzias** | **6.98** | **147** | ⇑*i* P | **Pn** | **19 42 02.8** | **+1.7** |
| **BZS** | **Buzias** | **6.98** | **147** | ⇑*i* P | **Pn** | **19 42 02.8** | **+1.7** |
| **BURAR** | **Bucovina Array** | **7.10** | **120** | ⇑*i* P | **Pn** | **19 42 04.1** | **+1.1** |
| **BURAR** | **Bucovina Array** | **7.10** | **120** | ⇑*i* P | **Pn** | **19 42 04.1** | **+1.1** |
| **AKASG** | **Malin Array Be** | **8.27** | **91** | Pn | **Pn** | **19 42 17.8** | **-1.1** |
| | comp=Z,1.0nm,0.3s,baz=280,slow=12,SNR=11 | | | | | | |
| AKASG | | | | Sn | **Sn** | **19 43 50.0** | **-3.0** |
| | comp=Z,0.8nm,0.3s,baz=266,slow=24,SNR=5.4 | | | | | | |
| AKASG | | | | Lg | Lg | 19 44 45.4 | |
| | comp=Z,0.6nm,0.3s,baz=210,slow=13,SNR=2.8 | | | | | | |
| **HFS** | **Hagfors** | **8.69** | **352** | Pn | **Pn** | **19 42 25.0** | **+0.4** |
| | comp=Z,0.1nm,0.3s,baz=175,slow=17,SNR=2.2 | | | | | | |
| HFS | | | | Sn | **Sn** | **19 44 01.1** | **-2.1** |
| | comp=Z,0.2nm,0.3s,baz=186,slow=20,SNR=1.8 | | | | | | |
| HFS | | | | Lg | Lg | 19 44 58.3 | |
| | comp=Z,0.1nm,0.3s,baz=173,slow=37,SNR=1.3 | | | | | | |
| **NOA** | **NORSAR Array B** | **9.87** | **346** | Pn | **Pn** | **19 42 41.0** | **+0.1** |
| | comp=Z,0.1nm,0.3s,baz=163,slow=12,SNR=2.7 | | | | | | |
| NOA | | | | Sn | **Sn** | **19 44 28.1** | **-4.2** |
| | comp=Z,0.1nm,0.3s,baz=225,slow=21,SNR=3.4 | | | | | | |
| **FINES** | **FINESS Array B** | **11.29** | **25** | Pn | **Pn** | **19 43 00.6** | **+0.3** |
| | comp=Z,0.2nm,0.3s,baz=212,slow=9.0,SNR=6.9 | | | | | | |
| FINES | | | | Sn | **Sn** | **19 44 59.2** | **-7.8** |
| | comp=Z,0.2nm,0.3s,baz=311,slow=35,SNR=1.6 | | | | | | |
| **EKA** | **Eskdalemuir Ar** | **12.10** | **296** | Pn | **Pn** | **19 43 09.6** | **-1.6** |
| | baz=107,slow=14,SNR=4.2 | | | | | | |
| **ARCES** | **ARCESS Array B** | **18.55** | **10** | Pn | **P** | **19 44 35.5** | **-0.2** |
| | comp=Z,0.2nm,0.3s,baz=186,slow=11,SNR=6.1 | | | | | | |
| **KVAR** | **Kislovodsk Arr** | **19.33** | **103** | LR | LR | 19 54 08.9 | |
| | comp=Z,41nm,18.0s,baz=216,slow=43 | | | | | | |
| **AAK** | **Ala-Archa** | **39.73** | **79** | P | **P** | **19 47 54.5** | **+2.5** |
| | comp=Z,0.6nm,0.5s,baz=270,slow=3.0,SNR=3.9 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **40.07** | **202** | P | **P** | **19 47 55.3** | **+0.5** |
| | comp=Z,1.0nm,1.1s,baz=17,slow=10,SNR=4.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **42.17** | **69** | P | **P** | **19 48 13.2** | **+1.3** |
| | comp=Z,0.2nm,0.7s,baz=302,slow=8.2,SNR=2.3 | | | | | | |
| **YKA** | **Yellowknife Ar** | **59.81** | **336** | P | **P** | **19 50 25.7** | **+1.5** |
| | comp=Z,0.2nm,0.6s,baz=27,slow=6.8,SNR=6.5 | | | | | | |

*ISK **29** 19:41:38.4, 37°.18N×37°.19E, h8km, MD2.8*
*ISCJB **29** 19:41:39.4±0.6, 37°.20N±0°.04×37°.19E±0°.04, h8km±5km, Error ellipse: s-maj=6.3km s-min=4.8km az=30.2*
*CSEM **29** 19:41:39.1±0.2, 37°.21N×37°.19E, h9km±2km, MD2.8, Error ellipse: s-maj=4.6km s-min=4.3km az=37.0*
*DDA **29** 19:41:39.0, 37°.23N×37°.22E, h7km, Ml2.6*

**ISC 29 19:41:38.9±0.9, 37°.19N±0°.03×37°.19E±0°.03, h7km±6km, n24, σ0§37/39, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GAZ** | **Gaziantep** | **0.03** | **127** | *e*PG | **Pg** | **19 41 40.2** | **-0.2** |
| **GAZ** | **Gaziantep** | **0.03** | **127** | *e*Pg | **Pg** | **19 41 40.2** | **-0.2** |
| **HCB** | **Kahramanmara˜** | **0.27** | **305** | *i* P | **Pg** | **19 41 43.9** | **-0.4** |
| **KMRS** | **Kahramanmaras** | **0.39** | **324** | *e*PG | **Pg** | **19 41 46.8** | **+0.3** |
| **KMRS** | **Kahramanmaras** | **0.39** | **324** | *e*Pg | **Pg** | **19 41 46.8** | **+0.3** |
| **KUZU** | **Kuzuini** | **0.42** | **192** | *i* P | **Pb** | **19 41 48.5** | **-0.2** |
| KUZU | | | | *i* S | **Sb** | **19 41 55.9** | **+0.6** |
| **KUZU** | **Kuzuini** | **0.42** | **192** | P | **Pb** | **19 41 48.5** | **-0.2** |
| KUZU | | | | S | **Sb** | **19 41 55.9** | **+0.6** |
| **ANDN** | **Andirin** | **0.78** | **301** | *i* P | **Pb** | **19 41 54.7** | **0.0** |
| ANDN | | | | *i* S | **Sn** | **19 42 07.5** | **-0.8** |
| **ANDN** | **Andirin** | **0.78** | **301** | P | **Pb** | **19 41 54.7** | **0.0** |
| ANDN | | | | S | **Sn** | **19 42 07.5** | **-0.8** |
| **KOZT** | **Kozan** | **1.12** | **286** | *e*PN | **Pg** | **19 42 00.3** | **-0.1** |
| KOZT | | | | *e*SN | **Sn** | **19 42 16.4** | **-0.3** |
| **KOZT** | **Kozan** | **1.12** | **286** | *e*Pn | **Pg** | **19 42 00.3** | **-0.1** |
| KOZT | | | | *e*Sn | **Sn** | **19 42 16.4** | **-0.3** |
| **SURC** | **SANLIURFA_SURC** | **1.18** | **105** | *i* P | **Pg** | **19 42 01.6** | **-0.1** |
| SURC | | | | *i* S | **Sb** | **19 42 17.1** | **-0.1** |
| **SURC** | **SANLIURFA_SURC** | **1.18** | **105** | P | **Pg** | **19 42 01.5** | **-0.1** |
| SURC | | | | S | **Sb** | **19 42 17.1** | **-0.1** |
| **AKCD** | **Akcadag** | **1.25** | **28** | *i* P | **Pb** | **19 42 02.4** | **-0.6** |
| AKCD | | | | *i* S | **Sn** | **19 42 19.8** | **-0.3** |
| **AKCD** | **Akcadag** | **1.25** | **28** | P | **Pb** | **19 42 02.3** | **-0.6** |
| AKCD | | | | S | **Sn** | **19 42 19.8** | **-0.3** |
| **URFA** | **Urfa** | **1.33** | **79** | *e*PN | **Pn** | **19 42 03.8** | **-0.1** |
| URFA | | | | *e*SN | **Sn** | **

MSVF **Nonsavu** 9.47 85 *e*P **Pn** **20 08 06.0 +2.1**
MSVF **Nonsavu** 9.47 85 *e*Pn **Pn** **20 08 06.0 +2.1**
HNR **Honiara** 12.21 318 *e*P **Pn** **20 08 43.0 +1.7**
HNR **Honiara** 12.21 318 Pn **Pn** **20 08 42.0 +0.6**
18nm,0.3s,baz=201,slow=2.0,SNR=8.7
HNR Sn **Sn** **20 10 53.1 -3.2**
16nm,0.3s,baz=30,slow=20,SNR=2.9
HNR LR LR 20 12 42.1
comp=Z,3μm,19.9s,baz=158,slow=34
**LHI** **Lord Howe Isla** 15.12 211 P **P** **20 09 24.6 -0.9**
baz=15,SNR=3.5
**RAO** **Raoul Island** 16.45 132 LR LR 20 14 47.3
comp=Z,2μm,18.7s,baz=307,slow=33
**OUZ** **Omahuta** 17.09 165 *e*Pn **P** **20 09 46.8 -0.6**
78nm,0.9s
**EIDS** **Eidsvold** 17.11 244 P **P** **20 09 49.1 +1.3**
baz=17,SNR=6.0
**EIDS** **Eidsvold** 17.11 244 *e*Pn **Pn** **20 09 46.9 +0.5**
110nm,1.3s
**ARMA** **Armidale** 18.95 229 P **Pn** **20 10 11.0 +2.1**
baz=19,SNR=7.7
**ARMA** **Armidale** 18.95 229 *e*P **Pn** **20 10 09.2 +0.3**
67nm,1.3s
**RMQ** **Roma** 19.46 243 P **Pn** **20 10 17.3 +2.4**
baz=20,SNR=109
**AFI** **Afiamalu** 19.86 79 P **P** **20 10 18.6 +0.5**
5.1nm,0.3s,baz=270,slow=11,SNR=5.9
AFI LR LR 20 16 32.4
comp=Z,2μm,20.8s,baz=220,slow=33
**AFI** **Afiamalu** 19.86 79 *e*P **P** **20 10 17.7 -0.4**
270nm,1.3s
**HIZ** **Hauiti** 20.53 165 *e*P Pn 20 10 27.3 -0.1
**CTA** **Charters Tower** 20.68 263 P Pn 20 10 29.3 -0.1
71nm,0.8s,baz=88,slow=12,SNR=65
CTA LR LR 20 18 11.3
comp=Z,4μm,18.5s,baz=81,slow=36
**CTAO** **Charters Tower** 20.68 263 *e*P Pn 20 10 29.9 +0.5
CTAO pmax pmax
comp=Z,99nm,0.8s
**CTAO** **Charters Tower** 20.68 263 *e*P Pn 20 10 29.9 +0.4
comp=Z,99nm,0.8s
**URZ** **Urewera** 20.94 160 P **P** **20 10 30.0 +0.5**
comp=Z,50nm,0.7s,baz=328,slow=7.8,SNR=16
**MGCD** **Mangrove Creek** 20.96 223 P Pn 20 10 32.9 +0.3
baz=21,SNR=13
**BKZ** **Black Stump Fm** 21.58 162 *e*P **P** **20 10 37.4 +0.9**
comp=Z,105nm,1.1s
**PMG** **Port Moresby** 22.35 292 P **P** **20 10 46.0 +1.1**
comp=Z,116nm,0.8s,baz=102,slow=10,SNR=24
**PMG** **Port Moresby** 22.35 292 *e*P **P** **20 10 46.3 +1.4**
PMG pmax pmax
comp=Z,458nm,0.9s
**PMG** **Port Moresby** 22.35 292 *e*P **P** **20 10 46.4 +1.5**
comp=Z,120nm,0.8s
**MTSU** **Mount Surprise** 22.61 268 P **P** **20 10 49.1 +1.5**
baz=23,SNR=42
**BFZ** **Birch Farm** 22.93 164 *e*P **P** **20 10 50.3 -0.5**
comp=Z,74nm,1.0s
**SNZO** **South Karori** 23.16 167 *e*P **P** **20 10 54.7 +1.6**
comp=Z,307nm,1.5s
**THZ** **Tophouse** 23.28 171 *e*P **P** **20 10 55.6 +1.3**
comp=Z,63nm,0.8s
**QLP** **Quilpie** 23.36 246 P **P** **20 10 56.6 +1.3**
baz=24,SNR=109
**YNG** **Young** 23.41 225 P **P** **20 10 57.6 +1.9**
baz=24,SNR=41
**CNB** **Canberra Magne** 23.42 221 P **P** **20 10 57.5 +1.7**
baz=24,SNR=53
**CAN** **Canberra** 23.65 222 *e*P **P** **20 10 59.4 +1.4**
CAN pmax pmax
comp=Z,237nm,1.2s
**CAN** **Canberra** 23.65 222 *e*P **P** **20 10 59.4 +1.4**
comp=Z,237nm,1.2s
**CMSA** **Cobar Meteorol** 23.91 234 P **P** **20 11 01.6 +1.1**
baz=24,SNR=164
**KHZ** **Kahutara** 24.02 170 *e*P **P** **20 11 01.4 +0.1**
comp=Z,236nm,1.6s
**LTZ** **Lake Taylor** 24.20 173 *e*P **P** **20 11 03.1 +0.1**
comp=Z,50nm,0.9s
**COEN** **Coen** 24.42 278 P **P** **20 11 06.0 +0.7**
baz=25,SNR=18
**COEN** **Coen** 24.42 278 *e*P **P** **20 11 05.7 +0.4**
comp=Z,51nm,0.8s
**MILA** **Mila** 24.68 219 P **P** **20 11 09.2 +1.6**
baz=25,SNR=6.2
**OXZ** **Oxford** 24.71 173 *e*P **P** **20 11 07.6 0.0**
comp=Z,348nm,1.9s
**FOZ** **Fox Glacier** 24.73 177 *e*P **P** **20 11 08.1 +0.3**
comp=Z,183nm,1.0s
**RPZ** **Rata Peaks** 25.00 175 P **P** **20 11 10.7 +0.5**
comp=Z,52nm,0.9s,baz=9.8,slow=3.0,SNR=12
**RPZ** **Rata Peaks** 25.00 175 *e*P **P** **20 11 10.3 +0.1**
comp=Z,92nm,1.1s
**LBZ** **Lake Benmore** 25.60 177 *e*P **P** **20 11 16.4 +0.7**
comp=Z,64nm,1.1s
**MANU** **Manus Island** 26.28 307 *e*P **P** **20 11 22.8 +0.7**
comp=Z,136nm,1.2s
**DCZ** **Deep Cove** 26.64 182 *e*P **P** **20 11 25.5 +0.5**
comp=Z,87nm,1.2s
**QIS** **Mount Isa** 26.92 261 P **P** **20 11 28.9 +0.9**
baz=27,SNR=9.9
**STKA** **Stephens Creek** 27.23 236 P **P** **20 11 31.1 +0.5**
comp=Z,81nm,1.0s,baz=67,slow=9.4,SNR=82
STKA PcP **PcP** **20 14 50.8 +0.7**
comp=Z,12nm,0.9s,baz=48,slow=3.0,SNR=3.9
STKA LR LR 20 21 50.6
comp=Z,2μm,21.1s,baz=59,slow=35
**STKA** **Stephens Creek** 27.23 236 P **P** **20 11 31.9 +1.3**
baz=27,SNR=75
**STKA** **Stephens Creek** 27.23 236 *e*P **P** **20 11 31.9 +1.3**
STKA 20 14 50.8
STKA pmax pmax
comp=Z,28nm,1.0s
**STKA** **Stephens Creek** 27.23 236 *e*P **P** **20 11 31.9 +1.3**
comp=Z,28nm,1.0s
STKA PcP **PcP** **20 14 50.8 +0.7**
**TOO** **Toolangi** 27.26 222 P **P** **20 11 31.6 +0.7**
baz=28,SNR=7.7
**TOO** **Toolangi** 27.26 222 P **P** **20 11 32.4 +1.6**
TOO pmax pmax
comp=Z,31nm,1.9s
**ARPS** **Mount Arapiles** 29.23 227 P **P** **20 11 49.6 +1.2**
baz=30,SNR=6.9
**MOO** **Moorlands** 29.54 212 P **P** **20 11 52.2 +1.2**
baz=30,SNR=3.9
**GENI** **Genyem** 31.75 297 P **P** **20 12 11.2 +0.4**
comp=Z,190nm,1.2s,comp=Z,3μm
**WB2** **Warramunga Arr** 31.87 262 *e*P **P** **20 12 10.3 -1.6**
WB2 *e*PcP **PcP** **20 15 02.6 +0.4**
**WRAB** **Tennant Creek** 31.87 262 *e*P **P** **20 12 11.5 -0.4**
WRAB pmax pmax
comp=Z,27nm,1.0s
**WRAB** **Tennant Creek** 31.87 262 *e*P **P** **20 12 11.5 -0.4**
comp=Z,27nm,1.0s
**WR1** **Warramunga Arr** 31.88 262 *e*P **P** **20 12 11.6 -0.4**
comp=Z,35nm,0.9s
WR1 *e*PcP **PcP** **20 15 02.2 0.0**
**WRA** **Warramunga Arr** 31.88 262 P **P** **20 12 11.6 -0.4**
comp=Z,19nm,0.8s,baz=96,slow=9.0,SNR=47
WRA PcP **PcP** **20 15 02.2 0.0**
comp=Z,8.3nm,0.9s,baz=95,slow=2.6,SNR=8.8
WRA LR LR 20 24 32.6
comp=Z,1μm,18.3s,baz=95,slow=35
**BBOO** **Buckleboo** 31.95 238 P **P** **20 12 13.2 +0.7**
baz=32,SNR=20
**BBOO** **Buckleboo** 31.95 238 *e*P **P** **20 12 12.7 +0.2**
comp=Z,88nm,1.0s
**AS01** **Alice Springs** 32.20 255 *e*P **P** **20 12 14.3 -0.5**
**AS31** **Alice Springs** 32.24 255 *e*P **P** **20 12 14.8 -0.3**
comp=Z,27nm,0.6s
**ASAR** **Alice Springs** 32.24 255 P **P** **20 12 14.8 -0.3**
comp=Z,88nm,0.8s,baz=82,slow=8.5,SNR=563
ASAR PcP **PcP** **20 15 03.1 0.0**
comp=Z,6.4nm,1.0s,baz=90,slow=3.2,SNR=5.4
ASAR LR LR 20 25 22.9
comp=Z,3μm,18.7s,baz=88,slow=36
**ASAR** **Alice Springs** 32.24 255 P **P** **20 12 14.8 -0.3**
ASAR 20 15 03.2
ASAR pmax pmax
comp=Z,90nm,0.8s
ASAR MLR MLR
comp=Z,3μm,18.7s
**MTN** **Manton Dam** 36.04 274 P **P** **20 12 48.8 +0.7**
baz=36,SNR=8.7
**MTN** **Manton Dam** 36.04 274 *e*P **P** **20 12 48.2 +0.1**
comp=Z,73nm,1.0s
**WRKA** **Warakurna** 37.39 253 P **P** **20 12 59.9 +0.3**
baz=38,SNR=16
**KNRA** **Kununurra** 37.69 268 P **P** **20 13 02.4 +0.3**
baz=38,SNR=21
**FORT** **Forrest** 38.12 244 P **P** **20 13 06.3 +0.7**
baz=38,SNR=9.5
**FORT** **Forrest** 38.12 244 *e*P **P** **20 13 05.8 +0.2**
comp=Z,684nm,0.7s
**FAKI** **Fak Fak** 38.48 290 P **P** **20 13 08.5 -0.4**
comp=Z,88nm,1.3s
**FAKI** **Fak Fak** 38.48 290 *e*P **P** **20 13 08.7 -0.2**
comp=Z,69nm,1.0s
**PPT2** **Papeete2** 40.12 95 *e*LR LR 20 24 29.6
comp=Z,3μm,27.8s,baz=252
**PPT** **Papeete** 40.13 95 P **P** **20 13 23.7 +1.1**
comp=Z,21nm,0.6s,baz=54,slow=2.6,SNR=4.1
PPT LR LR 20 26 09.5
comp=Z,386nm,20.0s,baz=228,slow=31
**FITZ** **Fitzroy Crossi** 40.26 264 P **P** **20 13 24.6 +1.0**
comp=Z,111nm,0.9s,baz=104,slow=8.6,SNR=63
**FITZ** **Fitzroy Crossi** 40.26 264 P **P** **20 13 24.6 +1.0**
baz=40,SNR=43
**SWI** **Sorong** 40.31 292 P **P** **20 13 24.3 +0.3**
comp=Z,101nm,1.0s
**AAI** **Ambon** 41.81 286 P **P** **20 13 36.7 +0.2**
comp=Z,33nm,1.4s
**NLAI** **Namlea** 42.99 286 P **P** **20 13 46.6 +0.6**
comp=Z,72nm,1.3s,comp=Z,1μm
**SOEI** **Soe** 43.36 276 P **P** **20 13 49.5 +0.3**
comp=Z,59nm,1.9s
**SOEI** **Soe** 43.36 276 *e*P **P** **20 13 50.0 +0.9**
comp=Z,124nm,1.2s
**KMBL** **Kambalda** 43.45 244 P **P** **20 13 49.6 0.0**
baz=44,SNR=7.9
**LBMI** **Labuha** 43.74 290 P **P** **20 13 52.6 +0.5**
comp=Z,57nm,1.2s,comp=Z,1μm
**SANI** **Sanna** 44.49 287 P **P** **20 13 58.5 +0.4**
comp=Z,92nm,1.3s,comp=Z,1μm
**MBWA** **Marble Bar** 45.43 259 *e*P **P** **20 14 06.0 +0.5**
comp=Z,142nm,1.2s
**MEEK** **Meekatharra** 46.13 251 P **P** **20 14 11.7 +0.7**
baz=46,SNR=13
**KLBR** **Kellerberrin** 46.98 244 P **P** **20 14 17.4 -0.2**
baz=47,SNR=5.2
**NWAO** **Narrogin (SRO)** 47.51 242 P **P** **20 14 21.6 -0.1**
comp=Z,49nm,0.9s,baz=326,slow=6.7,SNR=14
**NWAO** **Narrogin (SRO)** 47.51 242 P **P** **20 14 21.9 +0.2**
baz=48,SNR=7.0
NWAO P **P** **20 14 21.9 +0.2**
baz=48,SNR=7.0
**NWAO** **Narrogin (SRO)** 47.51 242 *e*P **P** **20 14 21.5 -0.2**
comp=Z,63nm,0.9s
**BLDU** **Ballidu** 47.83 245 P **P** **20 14 24.0 -0.3**
baz=48,SNR=8.7
**WBSI** **Waikabubak, Su** 47.99 274 P **P** **20 14 25.7 0.0**
comp=Z,82nm,0.9s,comp=Z,4μm
**MORW** **Morawa** 48.39 248 P **P** **20 14 28.9 +0.4**
baz=49,SNR=3.6
**APSI** **Ampana** 48.91 286 P **P** **20 14 33.1 +0.4**
comp=Z,72nm,1.3s,comp=Z,1μm
**PLAI** **Plampang** 49.75 274 P **P** **20 14 39.6 +0.4**
comp=Z,74nm,1.3s,comp=Z,1μm
**TTSI** **Tana Toraja** 49.76 282 P **P** **20 14 39.4 +0.2**
comp=Z,28nm,1.4s
**MPSI** **Mapaga** 51.01 286 P **P** **20 14 48.7 0.0**
comp=Z,47nm,1.3s,comp=Z,603nm
**TAOE** **Nuku Hiva Isla** 51.02 86 *e*LR LR 20 29 33.0
comp=Z,1μm,25.0s
**RKT** **Rikitea** 53.03 105 *e*LR LR 20 30 27.9
comp=Z,1μm,28.8s
**JAGI** **Jajag, Banyuwa** 53.28 273 P **P** **20 15 05.8 +0.2**
comp=Z,32nm,0.8s
**MYLDM** **Lad Datu** 54.38 291 *e*P **P** **20 15 14.3 +0.8**
comp=Z,62nm,1.3s
**KKM** **Kota Kinabalu** 56.79 291 *e*P **P** **20 15 30.9 -0.2**
comp=Z,172nm,1.8s
**TGY** **Tagaytay City** 56.83 302 P **P** **20 15 29.9 -1.2**
comp=Z,135nm,0.3s,baz=168,slow=8.6,SNR=4.5
**TGY** **Tagaytay City** 56.83 302 P **P** **20 15 30.0 -1.2**
**VNDA** **Vanda** 58.87 182 P **P** **20 15 44.1 -0.5**
comp=Z,7.5nm,1.0s,baz=358,slow=7.6,SNR=12
VNDA LR LR 20 37 27.1
comp=Z,326nm,21.8s,baz=9.0,slow=32
**VNDA** **Vanda** 58.87 182 *e*P **P** **20 15 44.3 -0.3**
**VNDA** **Vanda** 58.87 182 *e*P **P** **20 15 44.3 -0.3**
VNDA *e* 20 15 44.5
**SBA** **Scott Base** 59.13 180 *e*P **P** **20 15 47.4 +1.0**
SBA pmax pmax
comp=Z,93nm,1.2s
**SBA** **Scott Base** 59.13 180 *e*P **P** **20 15 47.4 +1.0**
comp=Z,93nm,1.2s
**KSM** **Kuching** 60.26 283 *e*P **P** **20 15 55.5 +0.4**
comp=Z,56nm,1.3s
**MJAR** **Mausuhiro** 61.85 333 P **P** **20 16 05.2 -0.3**
comp=Z,26nm,1.1s,baz=167,slow=7.0,SNR=32
MJAR LR LR 20 45 32.3
comp=Z,124nm,18.0s,baz=205,slow=39
**MAJO** **Matsushiro** 61.85 333 *e*P **P** **20 16 05.8 +0.3**
MAJO pmax pmax
comp=Z,77nm,1.3s
**MAJO** **Matsushiro** 61.85 333 *e*P **P** **20 16 05.8 +0.3**
comp=Z,77nm,1.3s
**MAT** **Matsushiro** 61.85 333 P **P** **20 16 05.3 -0.2**
**MJB9** **Matsu-Tunnel** 61.86 333 *e*P **P** **20 16 05.8 +0.3**
comp=Z,75nm,1.3s
**ASAJ** **Asahikawa** 66.80 340 P **P** **20 16 37.8 +0.1**
comp=Z,26nm,0.8s,baz=235,slow=13,SNR=9.3
**ASAJ** **Asahikawa** 66.80 340 *e*P **P** **20 16 37.8 +0.1**
comp=Z,44nm,1.1s
**SSE** **Sheshan** 67.02 317 P P 20 16 45.8 +6.5
SSE S **S** **20 25 32.3 +1.7**
SSE pmax pmax
comp=Z,27nm,0.9s
SSE pmax pmax
comp=Z,160nm,3.9s
**KSRS** **Korea Array** 67.53 326 P **P** **20 16 43.0 +0.6**
comp=Z,3.5nm,0.9s,baz=141,slow=6.2,SNR=7.1
**KSAR** **Wonju Array Be** 67.54 326 P **P** **20 16 43.1 +0.5**
**KSAR** **Wonju Array Be** 67.54 326 P **P** **20 16 43.0 +0.5**
**KS01** **Wonju Array Si** 67.56 326 *e*P **P** **20 16 43.3 +0.6**
**QIZ** **Qiongzhong** 68.44 300 P **P** **20 16 49.3 +0.7**
QIZ S **S** **20 25 48.3 +0.1**
QIZ SS **SS** **20 30 14.5 +1.8**
QIZ LR LR
comp=Z,270nm,3.9s
**NJ2** **Nanjing** 69.15 316 *e*P **P** **20 16 53.5 +0.8**
NJ2 pmax pmax
comp=Z,16nm,0.6s
**YSS** **Yuzh-Sakhalins** 69.30 342 ⇑ *i*P **P** **20 16 54.5 +1.2**
YSS pmax pmax
comp=Z,60nm,1.0s
YSS MLR MLR
comp=Z,500nm,17.0s
**YSS** **Yuzh-Sakhalins** 69.30 342 *e*P **P** **20 16 54.7 +1.4**
comp=Z,73nm,1.0s
**KULM** **Kulim** 70.61 283 *e*P **P** **20 17 02.1 0.0**
comp=Z,32nm,1.3s
**USRK** **Ussuriysk Ar.** 70.84 333 P **P** **20 17 03.5 +0.6**
comp=Z,17nm,1.0s,baz=119,slow=6.4,SNR=11
USRK LR LR 20 47 43.8
comp=Z,156nm,19.2s,baz=139,slow=36
**WHN** **Wuhan** 71.26 313 ⇑ *i*P **P** **20 17 07.0 +1.3**
WHN S **S** **20 26 21.3 +0.4**
WHN pmax pmax
comp=Z,530nm,2.5s
WHN pmax pmax
comp=Z,790nm,4.3s
WHN LR LR
comp=Z,900nm,21.8s
**QSPA** **South Pole Qui** 71.29 180 *e*P **P** **20 17 05.4 -0.1**
comp=Z,61nm,1.1s
**PSI** **Prapat** 71.32 280 *e*P **P** **20 17 05.6 -1.0**
PSI pmax pmax
comp=Z,56nm,1.2s
**PSI** **Prapat** 71.32 280 *e*P **P** **20 17 05.6 -1.0**
comp=Z,56nm,1.2s
**PET** **Petropavlovsk** 71.96 354 *e*P **P** **20 17 08.9 -0.5**
PET *e*S **S** **20 26 28.5 +0.6**
PET pmax pmax
comp=Z,45nm,1.4s
PET MLR MLR
comp=Z,600nm,16.0s
**GSI** **Gunungsitoli** 72.06 278 *e*P **P** **20 17 11.2 +0.2**
comp=Z,65nm,1.0s
**PEA0B** **Petropavlovsk-** 72.14 353 *e*P **P** **20 17 11.2 +0.7**
comp=Z,37nm,1.0s
**PETK** **Petropavlovsk-** 72.14 353 P **P** **20 17 10.5 0.0**
comp=Z,24nm,0.9s,baz=150,slow=7.5,SNR=19
PETK LR LR 20 43 41.0
comp=Z,439nm,20.8s,baz=150,slow=32
**PETK** **Petropavlovsk-** 72.14 353 *e*P **P** **20 17 11.0 +0.5**
**PETK** **Petropavlovsk-** 72.14 353 *e*P **P** **20 17 11.0 +0.5**
**PEA1** **Petropavlovsk-** 72.15 353 *e*P **P** **20 17 10.5 0.0**
**MDJ** **Mudanjiang** 72.22 332 P **P** **20 17 12.5 +1.4**
MDJ pP pP 20 17 23.5 +1.3
MDJ sP PcP 20 17 29.5 +0.3
MDJ pmax pmax
comp=Z,38nm,1.5s
MDJ LR LR
comp=Z,140nm,21.6s
MDJ LR LR
comp=Z,110nm,22.3s
**MDJ** **Mudanjiang** 72.22 332 *e*P **P** **20 17 12.5 +1.4**
comp=Z,94nm,1.4s
**SKNT** **Sakolnakorn** 72.39 295 P **P** **20 17 14.0 +1.2**
comp=Z,18nm,1.2s
**TYV** **Tymovskoe** 72.86 343 *e*P **P** **20 17 13.8 -1.0**
TYV *e*S **S** **20 26 36.4 -2.0**
TYV pmax pmax
comp=Z,22nm,1.5s
TYV smax smax
comp=E,8.0nm,2.1s
**TIA** **Tai'an** 72.90 319 P **P** **20 17 15.3 -0.1**
TIA pmax pmax
comp=E,12nm,1.5s
**KHON** **Khomkaen** 73.11 294 P **P** **20 17 19.2 +2.1**
comp=E,9.6nm,1.1s
**HABR** **Khabarovsk** 73.17 338 *e*P **P** **20 17 14.6 -2.1**
HABR *e*PP **pP** **20 17 25.3 -2.4**
HABR *e*SP **sP** **20 17 29.5 -2.3**
HABR *e* 20 19 57.6
HABR *e*PPP PPP 20 21 42.4
HABR *e*S **S** **20 26 39.6 -2.3**
HABR *e* 20 27 19.9
HABR *e*SS **SS** **20 31 22.1 -2.2**
HABR pmax pmax
comp=N,37nm,1.6s
HABR pmax pmax
comp=E,35nm,1.6s
HABR pmax pmax
comp=Z,29nm,1.6s
HABR MLR MLR
comp=Z,86nm,20.0s
**CN2** **Changchun** 73.52 329 ⇑ *i*P **P** **20 17 20.0 +1.1**
CN2 *e*pP pP 20 17 31.3 +1.3
CN2 pmax pmax
comp=Z,30nm,1.2s
**NAYO** **Nakonayok** 73.56 292 P **P** **20 17 23.1 +3.4**
comp=Z,11nm,1.5s,comp=Z,14μm
**NONG** **Nongkai** 73.59 296 P **P** **20 17 21.4 +1.5**
comp=Z,36nm,0.9s,comp=Z,3μm
**CHAI** **Chaiyaphum** 73.65 293 P **P** **20 17 22.1 +1.9**
comp=Z,3.7nm,0.9s
**PHET** **Kaeng Krachan** 74.49 290 P **P** **20 17 28.8 +3.6**
comp=Z,4.8nm,1.4s
**ENH** **Enshi** 74.57 310 *e*P **P** **20 17 25.9 +0.5**
comp=Z,53nm,1.2s
**GYA** **Guiyang** 74.70 305 ⇑ *i*P **P** **20 17 27.3 +1.0**
GYA pP sP 20 17 41.5 0.0
GYA PP **PP** **20 20 18.5 +4.6**
GYA S **S** **20 27 01.0 +0.6**
GYA sS sS 20 27 21.8 +3.1
GYA SKS **SKSac** **20 27 29.3 -3.2**
GYA pmax pmax
comp=Z,30nm,1.1s
GYA pmax pmax
comp=Z,140nm,5.8s
GYA LR LR
comp=Z,540nm,19.0s
GYA LR LR
comp=Z,530nm,20.2s
GYA LR LR
comp=Z,550nm,19.4s
**PBKT** **Sadao Pong** 74.82 294 P **P** **20 17 28.7 +1.7**
comp=Z,15nm,1.4s,comp=Z,2μm
**KLR** **Kul'dur** 75.02 336 *e*P **P** **20 17 28.8 +1.3**
**NKL** **Nikolayevsk** 75.45 343 *e*P **P** **20 17 31.5 +1.6**
NKL pmax pmax
comp=N,22nm,1.0s
NKL pmax pmax
comp=Z,60nm,1.0s
**SRDT** **SRDT** 75.52 291 P **P** **20 17 33.6 +2.5**
comp=Z,40nm,1.1s,comp=Z,993nm
**UTHA** **Uthaitani** 75.73 292 P **P** **20 17 34.1 +1.8**
comp=Z,4.8nm,1.3s,comp=Z,61nm
**BJT** **Baijiatuao** 75.91 321 *e*P **P** **20 17 34.4 +1.6**
BJT pmax pmax
comp=Z,21nm,1.0s
**BJT** **Baijiatuao** 75.91 321 *e*P **P** **20 17 34.4 +1.6**
comp=Z,22nm,1.0s
**BJI** **Beijing** 75.92 321 P **P** **20 17 34.0 +1.1**
BJI pmax pmax
comp=Z,17nm,1.1s
**NANT** **Nan** 76.00 296 P **P** **20 17 35.5 +1.7**
comp=Z,5.7nm,0.9s
**PHRA** **Phrae** 76.27 295 P **P** **20 17 37.6 +2.2**
comp=Z,11nm,1.3s
**XAN** **Xi'an** 77.03 313 P **P** **20 17 40.5 +1.1**
XAN pP sP 20 17 53.5 -1.1
XAN sP pP 20 17 58.5 +8.0
XAN PP **PP** **20 20 32.5 -0.9**
XAN S **S** **20 27 27.5 +1.9**
XAN pmax pmax
comp=Z,26nm,1.1s
XAN pmax pmax
comp=Z,160nm,5.1s
XAN LR LR
comp=Z,200nm,21.1s
XAN LR LR
comp=Z,230nm,18.8s
XAN LR LR
comp=Z,370nm,22.5s
**KMI** **Kunming** 77.14 302 P **P** **20 17 42.5 +2.1**
KMI pmax pmax
comp=Z,77nm,1.4s
**CM01** **Chiang Mai Arr** 77.33 295 *e*P **P** **20 17 42.9 +1.5**
**CM31** **Chiang Mai Arr** 77.36 295 *e*P **P** **20 17 43.0 +1.5**
CM31 *e*PKKPbc **PKKPbc** **20 36 46.8 -0.1**
**CMAR** **Chiang Mai Arr** 77.36 295 P **P** **20 17 43.2 +1.7**
comp=Z,13nm,1.0s,baz=130,slow=4.2,SNR=69
CMAR PKKPbc **PKKPbc** **20 36 46.8 -0.1**
comp=Z,0.8nm,0.8s,baz=287,slow=3.8,SNR=7.7
**CMAR** **Chiang Mai Arr** 77.36 295 *i* P **P** **20 17 43.2 +1.7**
CMAR pmax pmax
comp=Z,14nm,1.0s
**CMMT** **Chiang Mai** 77.51 295 P **P** **20 17 43.8 +1.5**
comp=Z,25nm,1.4s
**CHTO** **Chiang Mai** 77.51 295 P **P** **20 17 43.8 +1.4**
comp=Z,114nm,1.4s
**CHTO** **Chiang Mai** 77.51 295 *e*P **P** **20 17 43.6 +1.3**
CHTO pmax pmax
comp=Z,27nm,1.1s
**CHTO** **Chiang Mai** 77.51 295 *e*P **P** **20 17 43.6 +1.3**
comp=Z,27nm,1.1s
**MAW** **Mawson** 78.48 202 P **P** **20 17 46.5 -0.4**
comp=Z,20nm,1.1s,baz=101,slow=7.1,SNR=13
MAW LR LR 20 48 23.1
comp=Z,574nm,19.9s,baz=66,slow=33
**MAW** **Mawson** 78.48 202 P **P** **20 17 47.9 +1.1**
baz=78,SNR=9.7
**CD2** **Chengdu** 79.12 308 ⇓ *i*P **P** **20 17 52.5 +1.4**
CD2 pP sP 20 18 06.0 -0.3
CD2 sP pP 20 18 11.5 +9.2
CD2 PP **PP** **20 20 50.3 -0.7**
CD2 S **S** **20 27 50.0 +1.6**
CD2 sS SKKSac 20 28 05.5 -0.5
CD2 SS **SS** **20 32 53.8 -1.6**
CD2 pmax pmax
comp=Z,70nm,1.4s
CD2 pmax pmax
comp=Z,230nm,10.8s
CD2 LR LR
comp=Z,380nm,19.2s
CD2 LR LR
comp=Z,470nm,24.0s
CD2 LR LR
comp=Z,350nm,22.8s
**HHC** **Hu-ho-hao-te** 79.19 320 *e*P **P** **20 17 53.0 +1.7**
HHC PP **PP** **20 20 55.0 +3.6**
HHC S **S** **20 27 49.0 +0.2**
HHC SS **SS** **20 32 59.8 +3.7**
HHC pmax pmax
comp=Z,18nm,0.6s

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| HHC | | | | | | pmax | pmax | | | | |
| | comp=Z,100nm,5.4s | | | | | | | | | | |
| HHC | | | | | | LR | LR | | | | |
| | comp=Z,230nm,17.3s | | | | | | | | | | |
| HHC | | | | | | LR | LR | | | | |
| | comp=Z,190nm,21.0s | | | | | | | | | | |
| HHC | | | | | | LR | LR | | | | |
| | comp=Z,190nm,16.0s | | | | | | | | | | |
| **MA2** | **Magadan** | **79.34** | **351** | | | LR | LR | 20 47 44.5 | | | |
| | comp=Z,206nm,21.3s,baz=165,slow=32 | | | | | | | | | | |
| **MA2** | **Magadan** | **79.34** | **351** | *i* | P | | **P** | **20 17 50.1** | **-1.4** | | |
| **HIA** | **Hailar** | **80.18** | **330** | | *e*P | | **P** | **20 17 57.4** | **+1.0** | | |
| HIA | | | | | | pmax | pmax | | | | |
| | comp=Z,34nm,1.3s | | | | | | | | | | |
| **HIA** | **Hailar** | **80.18** | **330** | | *e*P | | **P** | **20 17 57.4** | **+1.0** | | |
| | comp=Z,34nm,1.3s | | | | | | | | | | |
| **LZH** | **Lanzhou** | **81.64** | **312** | | *e*P | | **P** | **20 18 06.5** | **+1.8** | | |
| LZH | | | | | pP | | sP | 20 18 19.3 | -0.6 | | |
| LZH | | | | | sP | | pP | 20 18 25.5 | +10 | | |
| LZH | | | | | PP | | **PP** | **20 21 15.0** | **+3.1** | | |
| LZH | | | | | *e*S | | **S** | **20 28 14.5** | **-0.3** | | |
| LZH | | | | | sS | | ScS | 20 28 36.0 | +4.2 | | |
| LZH | | | | | pmax | | pmax | | | | |
| | comp=Z,91nm,1.2s | | | | | | | | | | |
| LZH | | | | | pmax | | pmax | | | | |
| | comp=Z,270nm,4.1s | | | | | | | | | | |
| LZH | | | | | LR | | LR | | | | |
| | comp=Z,480nm,14.2s | | | | | | | | | | |
| LZH | | | | | LR | | LR | | | | |
| | comp=Z,500nm,15.0s | | | | | | | | | | |
| LZH | | | | | LR | | LR | | | | |
| | comp=Z,770nm,16.6s | | | | | | | | | | |
| **SEY** | **Seymchan** | **82.37** | **353** | | P | | **P** | **20 18 07.4** | **-0.2** | | |
| | comp=Z,18nm,0.9s,baz=156,slow=5.0,SNR=37 | | | | | | | | | | |
| **SEY** | **Seymchan** | **82.37** | **353** | *i* | P | | **P** | **20 18 07.2** | **-0.4** | | |
| **SYO** | **Syowa Base** | **85.09** | **196** | ⇑ | *i*P | | **P** | **20 18 20.0** | **-1.7** | | |
| **SYO** | **Syowa Base** | **85.09** | **196** | ⇓ | *e*pP | | pP | 20 18 36.0 | +3.1 | | |
| **ULN** | **Ulaanbaatar** | **85.87** | **324** | *d* | *i*P | | **P** | **20 18 26.8** | **+0.8** | | |
| ULN | | | | | pmax | | pmax | | | | |
| | comp=Z,74nm,1.7s | | | | | | | | | | |
| **ULN** | **Ulaanbaatar** | **85.87** | **324** | | *e*P | | **P** | **20 18 27.1** | **+1.1** | | |
| | comp=Z,52nm,1.2s | | | | | | | | | | |
| **GTA** | **Gaotai** | **86.05** | **314** | ⇓ | P | | **P** | **20 18 28.3** | **+1.2** | | |
| GTA | | | | | pP | | pP | 20 18 36.0 | -2.3 | | |
| GTA | | | | | sP | | sP | 20 18 39.5 | -2.9 | | |
| GTA | | | | | SKS | | **S** | **20 28 50.5** | **-8.4** | | |
| GTA | | | | | S | | **SKKSac** | **20 29 00.5** | **+2.5** | | |
| GTA | | | | | sS | | pS | 20 29 14.5 | +1.3 | | |
| GTA | | | | | pmax | | pmax | | | | |
| | comp=Z,35nm,1.2s | | | | | | | | | | |
| GTA | | | | | pmax | | pmax | | | | |
| | comp=Z,44nm,4.8s | | | | | | | | | | |
| GTA | | | | | LR | | LR | | | | |
| | comp=Z,170nm,19.0s | | | | | | | | | | |
| GTA | | | | | LR | | LR | | | | |
| | comp=Z,180nm,19.5s | | | | | | | | | | |
| GTA | | | | | LR | | LR | | | | |
| | comp=Z,200nm,20.4s | | | | | | | | | | |
| **JSFB** | **Stanford Teles** | **86.07** | **48** | | *e*P | | **P** | **20 18 25.1** | **-1.9** | | |
| **YAK** | **Yakutsk** | **86.11** | **343** | | P | | **P** | **20 18 26.8** | **+0.2** | | |
| | comp=Z,22nm,0.8s,baz=168,slow=1.1,SNR=4.7 | | | | | | | | | | |
| **YAK** | **Yakutsk** | **86.11** | **343** | | *e*P | | **P** | **20 18 25.2** | **-1.4** | | |
| YAK | | | | | *e**PP | | **sP** | **20 18 45.8** | **+3.9** | | |
| YAK | | | | | *e* | | 20 21 45.4 | | | | |
| YAK | | | | | *e*PPP | | PPP | 20 23 41.5 | | | |
| YAK | | | | | *e*S | | **SKSac** | **20 28 43.2** | **-6.3** | | |
| YAK | | | | | *e* | | 20 29 01.8 | | | | |
| YAK | | | | | *e*SS | | **SS** | **20 34 34.8** | **-2.9** | | |
| YAK | | | | | *e*SSS | | SSS | 20 38 03.0 | | | |
| YAK | | | | | pmax | | pmax | | | | |
| | comp=Z,49nm,1.0s | | | | | | | | | | |
| YAK | | | | | pmax | | pmax | | | | |
| | comp=N,11nm,1.4s | | | | | | | | | | |
| YAK | | | | | pmax | | pmax | | | | |
| | comp=E,5.0nm,1.2s | | | | | | | | | | |
| YAK | | | | | pmax | | pmax | | | | |
| | comp=Z,79nm,4.4s | | | | | | | | | | |
| YAK | | | | | pmax | | pmax | | | | |
| | comp=N,30nm,3.6s | | | | | | | | | | |
| YAK | | | | | pmax | | pmax | | | | |
| | comp=E,85nm,3.6s | | | | | | | | | | |
| YAK | | | | | smax | | smax | | | | |
| | comp=N,82nm,4.0s | | | | | | | | | | |
| YAK | | | | | smax | | smax | | | | |
| | comp=E,65nm,3.3s | | | | | | | | | | |
| **YAK** | **Yakutsk** | **86.11** | **343** | | *e*P | | **P** | **20 18 26.3** | **-0.3** | | |
| | comp=E,60nm,1.0s | | | | | | | | | | |
| **SHL** | **Shillong** | **86.21** | **298** | | *e*P | | P | 20 18 34.0 | +5.8 | | |
| **SONA0** | **Songino Array** | **86.22** | **324** | | *e*P | | **P** | **20 18 27.9** | **+0.2** | | |
| **SONM** | **Songino Array** | **86.22** | **324** | | P | | **P** | **20 18 27.9** | **+0.2** | | |
| | comp=E,20nm,1.1s,baz=146,slow=4.4,SNR=58 | | | | | | | | | | |
| SONM | | | | | LR | | LR | 20 56 08.0 | | | |
| | comp=E,52nm,20.4s,baz=132,slow=35 | | | | | | | | | | |
| **SONA1** | **Songino Array** | **86.22** | **324** | | *e*P | | **P** | **20 18 27.6** | **-0.1** | | |
| **SAO** | **San Andreas Ge** | **86.30** | **49** | | P | | **P** | **20 18 32.6** | **+4.4** | | |
| SAO | | | | | pmax | | pmax | | | | |
| | comp=Z,13nm,0.9s | | | | | | | | | | |
| **SAO** | **San Andreas Ge** | **86.30** | **49** | | *e*P | | **P** | **20 18 27.9** | **-0.3** | | |
| | comp=Z,13nm,0.9s | | | | | | | | | | |
| **KMRM** | **Mail Ridge** | **86.31** | **45** | | *e*P | | **P** | **20 18 28.4** | **+0.2** | | |
| | comp=Z,94nm,1.7s | | | | | | | | | | |
| **RDG13** | **Poverty Ridge** | **86.39** | **49** | | *e*P | | **P** | **20 18 29.1** | **+0.4** | | |
| | comp=Z,13nm,0.9s | | | | | | | | | | |
| **BILL** | **Bilibino** | **86.56** | **359** | *c* | *e*P | | **P** | **20 18 28.1** | **-0.6** | | |
| BILL | | | | *e* | | | | 20 18 36.9 | | | |
| BILL | | | | *e* | | | | 20 21 50.3 | | | |
| BILL | | | | | *e*S | | **SKSac** | **20 28 51.8** | **-0.3** | | |
| BILL | | | | | *e*SS | | **SS** | **20 34 45.1** | **+0.9** | | |
| BILL | | | | | pmax | | pmax | | | | |
| | comp=Z,74nm,1.7s | | | | | | | | | | |
| BILL | | | | | MLR | | MLR | | | | |
| | comp=Z,104nm,18.0s | | | | | | | | | | |
| **WDC** | **Whiskeytown Da** | **87.27** | **46** | | *e*P | | **P** | **20 18 32.9** | **+0.1** | | |
| WDC | | | | | pmax | | pmax | | | | |
| | comp=Z,38nm,1.5s | | | | | | | | | | |
| **WDC** | **Whiskeytown Da** | **87.27** | **46** | | *e*P | | **P** | **20 18 32.9** | **+0.1** | | |
| | comp=Z,38nm,1.5s | | | | | | | | | | |
| **N02D** | **Trinity Center** | **87.34** | **45** | | P | | **P** | **20 18 33.0** | **-0.3** | | |
| | baz=242 | | | | | | | | | | |
| **M02C** | **Callahan** | **87.43** | **45** | | P | | **P** | **20 18 33.6** | **-0.1** | | |
| | baz=242 | | | | | | | | | | |
| **ORV** | **Oroville** | **87.51** | **47** | | *e*P | | **P** | **20 18 34.0** | **0.0** | | |
| ORV | | | | | pmax | | pmax | | | | |
| | comp=Z,10.0nm,0.9s | | | | | | | | | | |
| **ORV** | **Oroville** | **87.51** | **47** | | *e*P | | **P** | **20 18 34.0** | **0.0** | | |
| | comp=Z,9.9nm,0.9s | | | | | | | | | | |
| **AFDM** | **Forest Hills D** | **87.61** | **48** | | *e*P | | **P** | **20 18 34.3** | **-0.3** | | |
| | comp=Z,16nm,0.9s | | | | | | | | | | |
| **CMB** | **Columbia Colle** | **87.62** | **49** | | *e*P | | **P** | **20 18 34.3** | **-0.3** | | |
| CMB | | | | | pmax | | pmax | | | | |
| | comp=Z,13nm,0.8s | | | | | | | | | | |
| **CMB** | **Columbia Colle** | **87.62** | **49** | | *e*P | | **P** | **20 18 34.3** | **-0.3** | | |
| | comp=Z,13nm,0.8s | | | | | | | | | | |
| **O03D** | **Paynes Creek** | **87.64** | **46** | | P | | **P** | **20 18 34.4** | **-0.4** | | |
| | baz=243 | | | | | | | | | | |
| **YBH** | **Yreka Blue Hor** | **87.69** | **44** | | *e*P | | **P** | **20 18 33.4** | **-1.5** | | |
| YBH | | | | | pmax | | pmax | | | | |
| | comp=Z,24nm,1.4s | | | | | | | | | | |
| **YBH** | **Yreka Blue Hor** | **87.69** | **44** | | *e*P | | **P** | **20 18 33.4** | **-1.5** | | |
| | comp=Z,24nm,1.4s | | | | | | | | | | |
| **MWC** | **Mount Wilson** | **87.71** | **53** | | *e*P | | **P** | **20 18 34.7** | **-0.6** | | |
| MWC | | | | | pmax | | pmax | | | | |
| | comp=Z,16nm,1.3s | | | | | | | | | | |
| **MWC** | **Mount Wilson** | **87.71** | **53** | | *e*P | | **P** | **20 18 34.7** | **-0.6** | | |
| | comp=Z,16nm,1.3s | | | | | | | | | | |
| **HUMO** | **Hull Mountain** | **87.93** | **44** | | *e*P | | **P** | **20 18 36.9** | **+0.9** | | |
| | comp=Z,39nm,1.5s | | | | | | | | | | |
| **BFSC** | **Mount Baldy Ra** | **88.02** | **53** | | P | | **P** | **20 18 36.1** | **-0.7** | | |
| | baz=246 | | | | | | | | | | |
| **EDW2** | **Edwards Air Fo** | **88.03** | **52** | | P | | **P** | **20 18 36.2** | **-0.4** | | |
| | baz=246 | | | | | | | | | | |
| **M04C** | **Macdoel** | **88.29** | **45** | | P | | **P** | **20 18 37.8** | **0.0** | | |
| | baz=243 | | | | | | | | | | |
| **MDPB** | **Devils Postpil** | **88.38** | **49** | | *e*P | | **P** | **20 18 38.6** | **0.0** | | |
| | comp=Z,10nm,1.1s | | | | | | | | | | |
| **LSA** | **Lhasa** | **88.40** | **302** | | *e*P | | **P** | **20 18 39.8** | **+0.7** | | |
| LSA | | | | | pmax | | pmax | | | | |
| | comp=Z,22nm,1.2s | | | | | | | | | | |
| **LSA** | **Lhasa** | **88.40** | **302** | | *e*P | | **P** | **20 18 39.8** | **+0.7** | | |
| | comp=Z,22nm,1.2s | | | | | | | | | | |
| **MONP2** | **Monument Peak** | **88.42** | **55** | | P | | **P** | **20 18 38.6** | **-0.2** | | |
| | baz=246 | | | | | | | | | | |
| **BEKR** | **Beckworth** | **88.44** | **47** | | *e*P | | **P** | **20 18 38.4** | **-0.2** | | |
| | comp=Z,11nm,0.8s | | | | | | | | | | |
| **BOD** | **Bodaibo** | **88.45** | **334** | | *e*P | | **P** | **20 18 37.4** | **-0.6** | | |
| BOD | | | | | pmax | | pmax | | | | |
| | comp=Z,69nm,1.8s | | | | | | | | | | |
| **WAKR** | **Walker** | **88.50** | **48** | | *e*P | | **P** | **20 18 39.0** | **0.0** | | |
| | comp=Z,9.8nm,1.0s | | | | | | | | | | |
| **LRMC** | **Laurel Mtn Rad** | **88.50** | **52** | | P | | **P** | **20 18 38.3** | **-0.7** | | |
| | baz=246 | | | | | | | | | | |
| **IKP** | **In-Ko-Pah, Jac** | **88.56** | **55** | | P | | **P** | **20 18 38.9** | **-0.4** | | |
| | baz=247 | | | | | | | | | | |
| **CWC** | **Cottonwood Cre** | **88.61** | **51** | | P | | **P** | **20 18 39.2** | **-0.3** | | |
| | baz=245 | | | | | | | | | | |
| **PNTR** | **Pine Nut** | **88.63** | **48** | | *e*P | | **P** | **20 18 39.5** | **-0.1** | | |
| | comp=Z,64nm,2.0s | | | | | | | | | | |
| **PFO** | **Pinyon Flats O** | **88.67** | **54** | | P | | **P** | **20 18 39.3** | **-0.6** | | |
| | baz=246 | | | | | | | | | | |
| **TPFO** | **Pinon Flats** | **88.68** | **54** | | P | | **P** | **20 18 39.3** | **-0.6** | | |
| | baz=246 | | | | | | | | | | |
| **YERR** | **Yerington** | **88.84** | **48** | | *e*P | | **P** | **20 18 40.9** | **+0.3** | | |
| | comp=Z,6.3nm,1.0s | | | | | | | | | | |
| **MPMC** | **Manual Prospec** | **88.88** | **51** | | P | | **P** | **20 18 40.7** | **-0.2** | | |
| | baz=246 | | | | | | | | | | |
| **DAC** | **Darwin (Calif)** | **88.90** | **51** | | *e*P | | **P** | **20 18 40.3** | **-0.7** | | |
| DAC | | | | | pmax | | pmax | | | | |
| | comp=Z,19nm,1.8s | | | | | | | | | | |
| **DAC** | **Darwin (Calif)** | **88.90** | **51** | | *e*P | | **P** | **20 18 40.3** | **-0.7** | | |
| | comp=Z,19nm,1.8s | | | | | | | | | | |
| **PAHR** | **Pah Rah Range** | **89.05** | **47** | | *e*P | | **P** | **20 18 41.4** | **-0.2** | | |
| | comp=Z,12nm,1.1s | | | | | | | | | | |
| **BELC** | **Belle Mtn. Jos** | **89.18** | **54** | | P | | **P** | **20 18 42.0** | **-0.2** | | |
| | baz=247 | | | | | | | | | | |
| **NVL** | **N'lazarevskaya** | **89.19** | **188** | | *e*P | | **P** | **20 18 41.5** | **0.0** | | |
| **RYN** | **Ryan** | **89.20** | **49** | | *e*P | | **P** | **20 18 41.5** | **-0.8** | | |
| | comp=Z,6.2nm,1.0s | | | | | | | | | | |
| **IM3** | **Indian Mountai** | **89.23** | **15** | | *e*P | | **P** | **20 18 42.3** | **+0.8** | | |
| **HEC** | **Hector,Ludlow** | **89.25** | **53** | | P | | **P** | **20 18 42.2** | **-0.3** | | |
| | baz=246 | | | | | | | | | | |
| **NV01** | **Mina Array Sit** | **89.27** | **49** | | *e*P | | **P** | **20 18 42.3** | **-0.4** | | |
| **NVAR** | **Mina Array Bea** | **89.27** | **49** | | P | | **P** | **20 18 42.1** | **-0.5** | | |
| | comp=Z,3.5nm,0.9s,baz=222,slow=8.7,SNR=16 | | | | | | | | | | |
| NVAR | | | | | | LR | LR | 20 50 30.7 | | | |
| | comp=Z,395nm,21.1s,baz=252,slow=30 | | | | | | | | | | |
| **ZAK** | **Zakamensk** | **89.31** | **325** | | *e*P | | **P** | **20 18 42.5** | **+0.1** | | |
| ZAK | | | | | pmax | | pmax | | | | |
| | comp=Z,15nm,1.4s | | | | | | | | | | |
| **GRAC** | **Grapevine Rang** | **89.36** | **50** | | P | | **P** | **20 18 42.5** | **-0.4** | | |
| | baz=246 | | | | | | | | | | |
| **MOD** | **Modoc Plateau** | **89.37** | **45** | | *e*P | | **P** | **20 18 43.1** | **+0.1** | | |
| | comp=Z,8.8nm,0.8s | | | | | | | | | | |
| **NV11** | **Mina Array Sit** | **89.38** | **49** | | *e*P | | **P** | **20 18 42.8** | **-0.3** | | |
| | comp=Z,0.7nm,1.2s | | | | | | | | | | |
| **H04A** | **Detroit Lake** | **89.39** | **42** | | *e*P | | **P** | **20 18 42.6** | **-0.2** | | |
| | comp=Z,87nm,1.8s | | | | | | | | | | |
| **BC3** | **Big Chuckawall** | **89.46** | **54** | | P | | **P** | **20 18 42.4** | **-1.1** | | |
| | baz=247 | | | | | | | | | | |
| **SNAA** | **Sanae** | **89.58** | **183** | | P | | **P** | **20 18 42.9** | **-0.5** | | |
| **SNAA** | **Sanae** | **89.58** | **183** | *d* | *i*P | | **P** | **20 18 42.3** | **-1.1** | | |
| **SNAA** | **Sanae** | **89.58** | **183** | | *e*P | | **P** | **20 18 42.8** | **-0.6** | | |
| | comp=Z,75nm,1.1s | | | | | | | | | | |
| **KVN** | **Kaiserville** | **89.67** | **48** | | *e*P | | **P** | **20 18 44.2** | **-0.3** | | |
| KVN | | | | | pmax | | pmax | | | | |
| | comp=Z,8.0nm,0.9s | | | | | | | | | | |
| **KVN** | **Kaiserville** | **89.67** | **48** | | *e*P | | **P** | **20 18 44.2** | **-0.3** | | |
| | comp=Z,7.6nm,0.9s | | | | | | | | | | |
| **GLA** | **Glamis** | **89.71** | **55** | | P | | **P** | **20 18 45.0** | **+0.3** | | |
| | baz=247 | | | | | | | | | | |
| **GLA** | **Glamis** | **89.71** | **55** | | *e*P | | **P** | **20 18 45.0** | **+0.3** | | |
| GLA | | | | | pmax | | pmax | | | | |
| | comp=Z,8.0nm,0.8s | | | | | | | | | | |
| **GLA** | **Glamis** | **89.71** | **55** | | *e*P | | **P** | **20 18 45.0** | **+0.3** | | |
| | comp=Z,7.8nm,0.8s | | | | | | | | | | |
| **SHOC** | **Shoshone, Teco** | **89.72** | **52** | | P | | **P** | **20 18 44.6** | **0.0** | | |
| | baz=246 | | | | | | | | | | |
| **GMRC** | **Granite Mounta** | **89.75** | **53** | | P | | **P** | **20 18 44.3** | **-0.6** | | |
| | baz=247 | | | | | | | | | | |
| **I05D** | **Terrebonne, OR** | **89.77** | **43** | | P | | **P** | **20 18 44.9** | **+0.3** | | |
| | baz=243 | | | | | | | | | | |
| **TLY** | **Talaya** | **89.78** | **326** | | *e*P | | **P** | **20 18 43.4** | **-1.1** | | |
| TLY | | | | | pmax | | pmax | | | | |
| | comp=Z,7.0nm,1.1s | | | | | | | | | | |
| **TUQ** | **Turquoise Moun** | **89.80** | **52** | | P | | **P** | **20 18 44.8** | **-0.4** | | |
| | baz=247 | | | | | | | | | | |
| **HDA** | **Harding Lake** | **89.80** | **18** | | *e*P | | **P** | **20 18 43.8** | **-0.4** | | |
| | comp=Z,8.3nm,1.0s | | | | | | | | | | |
| **IRM** | **Iron Mountain** | **89.89** | **54** | | P | | **P** | **20 18 45.2** | **-0.3** | | |
| | baz=247 | | | | | | | | | | |
| **IL1** | **Eielson Array** | **90.09** | **18** | | *e*P | | **P** | **20 18 43.4** | **-2.2** | | |
| **ILAR** | **Eielson Array** | **90.09** | **18** | | P | | **P** | **20 18 43.9** | **-1.7** | | |
| | comp=Z,2.0nm,0.7s,baz=235,slow=4.4,SNR=28 | | | | | | | | | | |
| ILAR | | | | | | PKiKP | **PKiKP** | **20 23 42.0** | **+0.7** | | |
| | comp=Z,0.7nm,1.1s,baz=222,slow=1.2,SNR=4.0 | | | | | | | | | | |
| ILAR | | | | | | LR | LR | 20 55 39.1 | | | |
| | comp=Z,391nm,19.3s,baz=222,slow=33 | | | | | | | | | | |
| **ILB** | **Eielson Array** | **90.09** | **18** | | *e*P | | **P** | **20 18 44.5** | **-1.1** | | |
| ILB | | | | | *e*PKiKP | | **PKiKP** | **20 23 42.0** | **+0.7** | | |
| **TPNV** | **Topopah Spring** | **90.16** | **51** | | P | | **P** | **20 18 46.2** | **-0.5** | | |
| | baz=246 | | | | | | | | | | |
| **TPNV** | **Topopah Spring** | **90.16** | **51** | | *e*P | | **P** | **20 18 46.6** | **-0.2** | | |
| TPNV | | | | | pmax | | pmax | | | | |
| | comp=Z,21nm,1.4s | | | | | | | | | | |
| **TPNV** | **Topopah Spring** | **90.16** | **51** | | *e*P | | **P** | **20 18 46.5** | **-0.2** | | |
| | comp=Z,21nm,1.4s | | | | | | | | | | |
| **VNA3** | **Neumayer Olymp** | **90.21** | **181** | | P | | **P** | **20 18 45.8** | **-0.5** | | |
| **LDFC** | **Landfair** | **90.28** | **53** | | *e*P | | **P** | **20 18 47.2** | **-0.1** | | |
| | comp=Z,11nm,0.8s | | | | | | | | | | |
| **SLBS** | **Sierra La Lagu** | **90.32** | **65** | | *e*P | | **P** | **20 18 48.4** | **+0.6** | | |
| | comp=Z,26nm,1.0s | | | | | | | | | | |
| **TAPN** | **Taplejung** | **90.34** | **299** | | *e*P | | **P** | **20 18 48.1** | **+0.1** | | |
| | comp=Z,42nm,1.3s | | | | | | | | | | |
| **ODAN** | **Odarve** | **90.44** | **298** | | *e*P | | **P** | **20 18 48.7** | **+0.3** | | |
| | comp=Z,63nm,1.3s | | | | | | | | | | |
| **VNA2** | **Neumayer--Watz** | **90.49** | **181** | | P | | **P** | **20 18 47.4** | **-0.2** | | |
| | baz=158,slow=4.8 | | | | | | | | | | |
| **WVOR** | **Wild Horse Val** | **90.72** | **45** | | *e*P | | **P** | **20 18 49.1** | **-0.1** | | |
| WVOR | | | | | pmax | | pmax | | | | |
| | comp=Z,12nm,0.9s | | | | | | | | | | |
| **WVOR** | **Wild Horse Val** | **90.72** | **45** | | *e*P | | **P** | **20 18 49.1** | **-0.1** | | |
| | comp=Z,12nm,0.9s | | | | | | | | | | |
| **PDMCI** | **Parker Dam,Lak** | **90.72** | **54** | | P | | **P** | **20 18 49.2** | **-0.1** | | |
| | baz=248 | | | | | | | | | | |
| **VNA1** | **Neumayer--Stat** | **90.79** | **181** | | P | | **P** | **20 18 48.5** | **-0.5** | | |
| **SHPR** | **Sheep Range** | **90.79** | **52** | | *e*P | | **P** | **20 18 49.7** | **0.0** | | |
| | comp=Z,33nm,2.0s | | | | | | | | | | |
| **I07A** | **Izee** | **90.84** | **43** | | *e*P | | **P** | **20 18 49.9** | **+0.1** | | |
| | comp=Z,19nm,0.9s | | | | | | | | | | |
| **BMN** | **Battle Mountai** | **90.86** | **47** | | *e*P | | **P** | **20 18 49.9** | **0.0** | | |
| BMN | | | | | pmax | | pmax | | | | |
| | comp=Z,9.0nm,0.8s | | | | | | | | | | |
| **BMN** | **Battle Mountai** | **90.86** | **47** | | *e*P | | **P** | **20 18 49.9** | **0.0** | | |
| | comp=Z,9.1nm,0.8s | | | | | | | | | | |
| **214A** | **Organ Pipe Nat** | **90.88** | **57** | | P | | **P** | **20 18 50.4** | **+0.3** | | |
| | baz=248 | | | | | | | | | | |
| **B05A** | **Bryant** | **91.08** | **39** | | P | | **P** | **20 18 51.1** | **+0.5** | | |
| | baz=243 | | | | | | | | | | |
| **COLD** | **Coldfoot** | **91.09** | **15** | | *e*P | | **P** | **20 18 50.1** | **-0.1** | | |
| | comp=Z,5.5nm,1.0s | | | | | | | | | | |
| **RAMN** | **Ramite** | **91.13** | **298** | | *e*P | | **P** | **20 18 51.8** | **+0.2** | | |
| | comp=Z,35nm,1.3s | | | | | | | | | | |
| **R11A** | **Troy Canyon, C** | **91.19** | **50** | | P | | **P** | **20 18 51.1** | **-0.5** | | |
| | baz=247 | | | | | | | | | | |
| **R11A** | **Troy Canyon, C** | **91.19** | **50** | | *e*P | | **P** | **20 18 51.3** | **-0.3** | | |
| | comp=Z,3.1nm,0.9s | | | | | | | | | | |
| **MOY** | **Mondy** | **91.20** | **325** | | *e*P | | **P** | **20 18 51.6** | **+0.4** | | |
| **J08A** | **Circle Bar Ran** | **91.21** | **44** | | *e*P | | **P** | **20 18 51.5** | **0.0** | | |
| | comp=Z,17nm,0.8s | | | | | | | | | | |
| **W13A** | **Hualapai Mount** | **91.21** | **53** | | *e*P | | **P** | **20 18 51.7** | **-0.1** | | |
| | comp=Z,5.7nm,0.9s | | | | | | | | | | |
| **LTY** | **Liberty** | **91.49** | **40** | | *e*P | | **P** | **20 18 51.9** | **-0.7** | | |
| | comp=Z,16nm,0.8s | | | | | | | | | | |
| **G08A** | **Pilot Rock** | **91.71** | **42** | | *e*P | | **P** | **20 18 53.5** | **-0.2** | | |
| | comp=Z,16nm,0.9s | | | | | | | | | | |
| **JIRN** | **Jiri** | **91.72** | **299** | | *e*P | | **P** | **20 18 54.7** | **+0.2** | | |
| **HAWA** | **Hanford** | **91.82** | **41** | | *e*P | | **P** | **20 18 53.9** | **-0.1** | | |
| | comp=Z,11nm,0.9s | | | | | | | | | | |
| **EGAK** | **Eagle** | **91.82** | **19** | | *e*P | | **P** | **20 18 52.8** | **-0.8** | | |
| | comp=Z,6.6nm,0.9s | | | | | | | | | | |
| **DAWY** | **Dawson** | **91.91** | **20** | | *e*P | | **P** | **20 18 53.7** | **-0.4** | | |
| | comp=Z,5.5nm,1.0s | | | | | | | | | | |
| **GUN** | **Gumba** | **92.06** | **299** | | *e*P | | **P** | **20 18 56.3** | **+0.2** | | |
| | comp=Z,42nm,1.2s | | | | | | | | | | |
| **E08A** | **Dider Farm, El** | **92.15** | **41** | | *e*P | | **P** | **20 18 58.9** | **+3.3** | | |
| | comp=Z,28nm,1.5s | | | | | | | | | | |
| **LLLB** | **Lillooet** | **92.28** | **37** | | *e*P | | **P** | **20 18 56.5** | **+0.3** | | |
| | comp=Z,24nm,1.4s | | | | | | | | | | |
| **PKI** | **Pulchoki** | **92.34** | **298** | | *e*P | | **P** | **20 18 57.2** | **-0.1** | | |
| | comp=Z,55nm,1.2s | | | | | | | | | | |
| **PKIN** | **Phulchoki** | **92.35** | **298** | | *e*P | | **P** | **20 18 57.6** | **+0.3** | | |
| | comp=Z,44nm,1.4s | | | | | | | | | | |
| **LCMT** | **Little Creek M** | **92.40** | **52** | | *e*P | | **P** | **20 18 57.0** | **-0.1** | | |
| | comp=Z,7.6nm,0.9s | | | | | | | | | | |
| **CCUT** | **Cedar City** | **92.51** | **51** | | *e*P | | **P** | **20 18 57.9** | **+0.1** | | |
| | comp=Z,20nm,1.8s | | | | | | | | | | |
| **KKN** | **Kakani** | **92.52** | **298** | | *e*P | | **P** | **20 18 58.2** | **+0.2** | | |
| | comp=Z,87nm,1.6s | | | | | | | | | | |
| **DMN** | **Daman** | **92.60** | **298** | | *e*P | | **P** | **20 18 58.8** | **+0.3** | | |
| | comp=Z,69nm,1.1s | | | | | | | | | | |
| **TUC** | **Tucson** | **92.61** | **57** | | P | | **P** | **20 18 57.7** | **-0.5** | | |
| | baz=249 | | | | | | | | | | |
| **TUC** | **Tucson** | **92.61** | **57** | | *e*P | | **P** | **20 18 58.4** | **+0.2** | | |
| TUC | | | | | pmax | | pmax | | | | |
| | comp=Z,8.0nm,1.2s | | | | | | | | | | |
| **TUC** | **Tucson** | **92.61** | **57** | | *e*P | | **P** | **20 18 58.4** | **+0.2** | | |
| | comp=Z,8.1nm,1.2s | | | | | | | | | | |
| **X16A** | **Lo Mia Camp, P** | **92.84** | **55** | | *e*P | | **P** | **20 18 59.5** | **+0.1** | | |
| | comp=Z,6.9nm,0.9s | | | | | | | | | | |
| **U15A** | **North Rim** | **92.91** | **53** | | *e*P | | **P** | **20 18 59.6** | **-0.1** | | |
| | comp=Z,9.4nm,0.8s | | | | | | | | | | |
| **MFID** | **Camas Ranch** | **93.00** | **45** | | *e*P | | **P** | **20 19 00.1** | **+0.3** | | |
| | comp=Z,4.8nm,0.9s | | | | | | | | | | |
| **319A** | **Douglas** | **93.50** | **58** | | *e*P | | **P** | **20 19 01.9** | **-0.4** | | |
| | comp=Z,8.0nm,0.8s | | | | | | | | | | |
| **KOLN** | **Koldanda** | **93.92** | **298** | | *e*P | | **P** | **20 19 03.8** | **-0.7** | | |
| | comp=Z,26nm,1.2s | | | | | | | | | | |
| **DANN** | **Dangsing** | **93.97** | **298** | | *e*P | | **P** | **20 19 04.5** | **-0.3** | | |
| **HLID** | **Hailey** | **94.01** | **45** | | P | | **P** | **20 19 04.2** | **-0.2** | | |
| | baz=248 | | | | | | | | | | |
| **HLID** | **Hailey** | **94.01** | **45** | | *e*P | | **P** | **20 19 04.2** | **-0.2** | | |
| | comp=Z,3.7nm,0.8s | | | | | | | | | | |
| **TIXI** | **Tiksi** | **94.07** | **348** | | P | | **P** | **20 19 02.3** | **-1.5** | | |
| | comp=Z,1.5nm,0.2s,baz=135,slow=10.0,SNR=2.7 | | | | | | | | | | |
| **TIXI** | **Tiksi** | **94.07** | **348** | *c* | *e*P | | **P** | **20 19 03.7** | **-0.1** | | |
| TIXI | | | | | pmax | | pmax | | | | |
| | comp=Z,3.0nm,0.8s | | | | | | | | | | |
| **PYUN** | **Piuthan** | **94.53** | **298** | | *e*P | | **P** | **20 19 06.7** | **-0.6** | | |
| | comp=Z,32nm,1.0s | | | | | | | | | | |
| **WMQ** | **Urumqi** | **96.13** | **314** | | P | | **P** | **20 19 14.5** | **+0.5** | | |
| WMQ | | | | | pP | | pP | 20 19 25.0 | -0.4 | | |
| WMQ | | | | | S | | **S** | **20 30 27.0** | **-3.7** | | |
| WMQ | | | | | SS | | **SS** | **20 36 59.5** | **-3.8** | | |
| WMQ | | | | | pmax | | pmax | | | | |
| | comp=Z,32nm,1.5s | | | | | | | | | | |
| WMQ | | | | | pmax | | pmax | | | | |
| | comp=Z,90nm,4.1s | | | | | | | | | | |
| WMQ | | | | | LR | | LR | | | | |
| | comp=Z,120nm,28.1s | | | | | | | | | | |
| WMQ | | | | | LR | | LR | | | | |
| | comp=Z,250nm,23.7s | | | | | | | | | | |
| WMQ | | | | | LR | | LR | | | | |
| | comp=Z,410nm,22.1s | | | | | | | | | | |
| **INK** | **Inuvik** | **96.43** | **19** | | P | | **P** | **20 19 13.3** | **-1.3** | | |
| | comp=Z,1.0nm,0.6s,baz=220,slow=5.5,SNR=4.4 | | | | | | | | | | |
| **BOZ** | **Bozeman (W)** | **96.59** | **44** | | *e*P | | **P** | **20 19 16.1** | **-0.1** | | |
| **BOZ** | **Bozeman (W)** | **96.59** | **44** | | *e*P | | **P** | **20 19 16.1** | **-0.1** | | |
| **ANMO** | **Albuquerque** | **96.89** | **56** | | P | | **P** | **20 19 18.4** | **+0.5** | | |
| | baz=252 | | | | | | | | | | |
| **ANMO** | **Albuquerque** | **96.89** | **56** | | *e*P | | **P** | **20 19 17.5** | **-0.4** | | |
| ANMO | | | | | pmax | | pmax | | | | |
| | comp=Z,1.0nm,1.0s | | | | | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **97.45** | **62** | | *e*P | | **P** | **20 19 20.0** | **-0.4** | | |
| **LTX** | **Lajitas** | **97.45** | **62** | | *e*P | | **P** | **20 19 19.9** | **-0.5** | | |
| **LTX** | **Lajitas** | **97.45** | **62** | | *e*P | | **P** | **20 19 19.9** | **-0.5** | | |
| LTX | | | | | *e*PKKPbc | | **PKKPbc** | **20 35 58.6** | **+0.4** | | |
| **TXAR** | **Lajitas Array** | **97.45** | **62** | | P | | **P** | **20 19 19.9** | **-0.5** | | |
| | comp=Z,2.0nm,1.0s,baz=219,slow=3.8,SNR=13 | | | | | | | | | | |
| TXAR | | | | | PKKP | | **PKKPbc** | **20 35 58.6** | **+0.4** | | |
| | comp=Z,0.7nm,0.9s,baz=64,slow=2.9,SNR=5.7 | | | | | | | | | | |
| TXAR | | | | | LR | | LR | 20 54 23.2 | | | |
| | comp=Z,396nm,21.6s,baz=0.0,slow=30 | | | | | | | | | | |
| **DGZ** | **Jazzator, Alta** | **98.27** | **320** | | *e*P | | **P** | **20 19 23.5** | **-0.2** | | |
| **PLCA** | **Paso Flores** | **99.57** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **NOA** | **NORSAR Array B** | **134.72 344** | PKP | **PKPdf** | **20 25 04.1** | **-0.2** |
| | comp=Z,4.6nm,1.1s,baz=38,slow=2.6,SNR=3.5 | | | | | |
| **BR101** | **Keskin Array S** | **135.70 308** | *e*PKPdf | **PKPdf** | **20 25 07.3** | **+0.3** |
| **BRTR** | **Keskin Array B** | **135.70 308** | PKP | **PKPdf** | **20 25 07.3** | **+0.3** |
| | comp=Z,1.1nm,0.9s,baz=85,slow=1.6,SNR=5.2 | | | | | |
| **VRI** | **Vrincioaia** | **138.27 319** | ⇓*i*P | **PKPdf** | **20 25 08.6** | **-2.7** |
| **VRI** | **Vrincioaia** | **138.27 319** | ⇓PKIKP | **PKPdf** | **20 25 08.6** | **-2.7** |
| **BURAR** | **Bucovina Array** | **138.32 322** | ⇑*i*P | **PKPdf** | **20 25 12.4** | **+0.9** |
| **BURAR** | **Bucovina Array** | **138.32 322** | ⇑PKIKP | **PKPdf** | **20 25 12.4** | **+0.9** |
| **BUR04** | **Bucovina Ar. S** | **138.32 322** | *e*PKPdf | **PKPdf** | **20 25 12.6** | **+1.1** |
| **MLR** | **Muntele Rosu** | **138.93 319** | ⇑P | **PKPdf** | **20 25 14.7** | **+2.0** |
| **MLR** | **Muntele Rosu** | **138.93 319** | ⇑PKIKP | **PKPdf** | **20 25 14.7** | **+2.0** |
| **DOPR** | **Dopca** | **139.04 320** | ⇑*i*P | **PKPdf** | **20 25 09.8** | **-3.0** |
| **SECR** | | **139.06 318** | ⇑*i*P | **PKPdf** | **20 25 11.7** | **-1.1** |
| **UZH** | **Uzhgorod** | **139.41 325** | *e*PKIKP | PKPdf | 20 25 21.7 | +8.4 |
| UZH | | | *e* | | 20 25 33.1 | |
| UZH | | | *e* | | 20 25 40.9 | |
| **VOIR** | | **139.51 319** | ⇑*i*P | PKPdf | 20 25 22.6 | +8.9 |
| **VOIR** | | **139.51 319** | ⇑PKIKP | PKPdf | 20 25 22.6 | +8.9 |
| **CRVS** | **Cervenica-Dubn** | **139.70 326** | *e*PKIKP | **PKPdf** | **20 25 13.1** | **-0.8** |
| **CRVS** | **Cervenica-Dubn** | **139.70 326** | *e*PKP | **PKPdf** | **20 25 13.0** | **-0.8** |
| CRVS | | | *e*PP | **SKPbc** | **20 28 50.2** | **+3.3** |
| **ARR** | **Arges** | **139.80 319** | ⇑*i*P | **PKPdf** | **20 25 09.8** | **-4.4** |
| **HUMR** | **Humele** | **139.98 318** | ⇑*i*P | **PKPdf** | **20 25 17.1** | **+2.6** |
| **DRGR** | | **140.21 322** | ⇑*i*P | PKPpre | 20 25 07.2 | |
| **DRGR** | | **140.21 322** | ⇑PKHKP | PKPpre | 20 25 07.2 | |
| **OKC** | **Ostrava-Krasne** | **140.80 329** | *e*PKS | | 20 28 52.4 | |
| **SIRR** | **Siria** | **141.10 322** | ⇑*i*P | **PKPdf** | **20 25 13.6** | **-2.9** |
| **MORC** | **Moravsky Berou** | **141.13 330** | ⇑*i*P | **PKPdf** | **20 25 16.7** | **+0.2** |
| **MORC** | **Moravsky Berou** | **141.13 330** | ⇑PKIKP | **PKPdf** | **20 25 16.7** | **+0.2** |
| **DPC** | **Dobruska-Polom** | **141.31 331** | *e*PKP | PKPpre | 20 25 10.1 | |
| DPC | | | *e*PKS | **PKSdf** | **20 28 54.0** | **+1.4** |
| **DPC** | **Dobruska-Polom** | **141.31 331** | *e*PKHKP | PKPpre | 20 25 10.1 | |
| **VYHS** | **Vyhne** | **141.33 327** | *e*PKHKP | PKPpre | 20 25 10.8 | |
| **VYHS** | **Vyhne** | **141.33 327** | *e*PKP | PKPpre | 20 25 10.8 | |
| **UPC** | **Upice** | **141.34 331** | *e*PKP | **PKPdf** | **20 25 13.5** | **-3.3** |
| UPC | | | *e*PKS | **PKSdf** | **20 28 53.8** | **+1.3** |
| **UPC** | **Upice** | **141.34 331** | *e*PKIKP | **PKPdf** | **20 25 13.5** | **-3.3** |
| **BZS** | **Buzias** | **141.49 322** | ⇑*i*P | **PKPdf** | **20 25 14.1** | **-3.1** |
| **BZS** | **Buzias** | **141.49 322** | ⇑PKIKP | **PKPdf** | **20 25 14.1** | **-3.1** |
| **MDVR** | **Moldovita** | **141.88 320** | ⇑*i*P | **PKPdf** | **20 25 17.2** | **-0.8** |
| **VRAC** | **Vranov** | **141.91 330** | ⇑*i*P | **PKPdf** | **20 25 14.3** | **-3.5** |
| **VRAC** | **Vranov** | **141.91 330** | ⇑PKIKP | **PKPdf** | **20 25 14.3** | **-3.5** |
| **PVCC** | **Panska Ves** | **141.97 333** | *e*PKS | **SKPbc** | **20 28 55.3** | **+2.6** |
| **BRG** | **Berggiesshubel** | **141.99 333** | *e*PKP | **PKPdf** | **20 25 16.1** | **-1.8** |
| | comp=Z,7.6nm,1.1s | | | | | |
| BRG | | | *e* | | 20 25 19.1 | |
| | comp=Z,31nm,1.9s | | | | | |
| BRG | | | *e* | | 20 28 54.5 | |
| | comp=Z,12nm,1.1s | | | | | |
| **BRG** | **Berggiesshubel** | **141.99 333** | *e*PKIKP | **PKPdf** | **20 25 16.1** | **-1.8** |
| BRG | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.1s | | | | | |
| **VTS** | **Vitosha** | **142.03 316** | ⇑*i*P | **PKPdf** | **20 25 14.1** | **-4.4** |
| **VTS** | **Vitosha** | **142.03 316** | ⇑PKIKP | **PKPdf** | **20 25 14.1** | **-4.4** |
| **CLL** | **Collm** | **142.05 335** | *e*PKIKP | **PKPdf** | **20 25 16.0** | **-2.0** |
| CLL | | | *e* | | 20 25 23.0 | |
| **CLL** | **Collm** | **142.05 335** | *e*PKPdf | **PKPdf** | **20 25 16.0** | **-2.0** |
| CLL | | | *e*(PKiKP) | | 20 25 23.0 | |
| CLL | | | *i* SKPbc | **SKiKP** | **20 28 54.2** | **-0.3** |
| | comp=Z,20nm,1.3s | | | | | |
| CLL | | | Lm | MLR | 21 31 00.0 | |
| | comp=Z,200nm,21.8s | | | | | |
| **MODS** | **Modra-Piesok** | **142.20 328** | *e*PKIKP | **PKPdf** | **20 25 14.9** | **-3.5** |
| **MODS** | **Modra-Piesok** | **142.20 328** | *e*PKP | **PKPdf** | **20 25 14.9** | **-3.5** |
| **GOPC** | **GO Pecny, Ondr** | **142.32 332** | *e*PKS | **SKPbc** | **20 28 56.2** | **+2.5** |
| **PRU** | **Pruhonice** | **142.38 332** | *e*PKP | **PKPdf** | **20 25 15.5** | **-3.1** |
| PRU | | | *e*PKS | **PKSdf** | **20 28 56.1** | **+1.9** |
| **PRU** | **Pruhonice** | **142.38 332** | *e*PKIKP | **PKPdf** | **20 25 15.5** | **-3.1** |
| **VAY** | **Valandovo** | **143.03 315** | *i* PKP | PKPbc | 20 25 16.4 | -0.5 |
| **CONA** | **Conrad Observa** | **143.20 329** | *i* PKPdf | PKPbc | 20 25 18.3 | +1.1 |
| | comp=Z,18nm,1.2s,SNR=6.7 | | | | | |
| **DIVS** | **Divibare** | **143.28 321** | *e*PKPdf | **PKPdf** | **20 25 19.2** | **-1.4** |
| **KHC** | **Kasperske Hory** | **143.43 332** | *e*PKP | PKPbc | 20 25 18.6 | +0.8 |
| KHC | | | *ex* | x | 20 25 23.5 | |
| KHC | | | *ex* | x | 20 25 28.5 | |
| KHC | | | *e*PKS | **PKSdf** | **20 28 58.7** | **+2.5** |
| **KHC** | **Kasperske Hory** | **143.43 332** | *e*PKIKP | PKPbc | 20 25 18.6 | +0.8 |
| KHC | | | *e* | | 20 25 28.5 | |
| **KHC** | **Kasperske Hory** | **143.43 332** | *e*PKPdf | PKPbc | 20 25 18.8 | +1.0 |
| **SKO** | **Skopje** | **143.47 317** | *i* PKP | PKPbc | 20 25 18.6 | +0.5 |
| **GEC2** | **GERESS Array S** | **143.58 331** | *e*PKIKP | PKPbc | 20 25 19.4 | +1.1 |
| **GEC2** | **GERESS Array S** | **143.58 331** | *e*PKPdf | PKPbc | 20 25 19.4 | +1.1 |
| **GERES** | **GERESS Array B** | **143.58 331** | PKP | PKPbc | 20 25 19.0 | +0.7 |
| | comp=Z,7.1nm,1.0s,baz=60,slow=3.2,SNR=16 | | | | | |
| GERES | | | SKPbc | **SKiKP** | **20 28 58.7** | **+0.8** |
| | comp=Z,2.9nm,0.9s,baz=42,slow=4.5,SNR=5.8 | | | | | |
| **GEA0** | **GERESS Array S** | **143.59 331** | *e*PKPdf | PKPbc | 20 25 18.9 | +0.6 |
| **LIT** | **Litokhoron** | **143.63 313** | P | PKPab | 20 25 17.3 | -0.5 |
| **SIVA** | **Sivas** | **143.75 304** | P | PKPbc | 20 25 19.8 | +0.7 |
| **ARSA** | **Arzberg** | **143.83 328** | *i* PKPdf | PKPbc | 20 25 19.6 | +0.5 |
| | comp=Z,21nm,1.2s,SNR=7.5 | | | | | |
| **KRUS** | **Krusevo** | **143.89 316** | *i* PKP | PKPbc | 20 25 19.4 | 0.0 |
| **KOGS** | **Kog** | **143.99 326** | *e*PKPbc | PKPab | 20 25 19.1 | +0.2 |
| **GRFO** | **Grafenberg** | **144.02 334** | *e*PKIKP | **PKPdf** | **20 25 20.8** | **-0.8** |
| **GRFO** | **Grafenberg** | **144.02 334** | *e*PKPdf | **PKPdf** | **20 25 20.8** | **-0.8** |
| **MOA** | **Molln** | **144.03 330** | *i* PKPdf | PKPbc | 20 25 20.5 | +0.9 |
| | comp=Z,24nm,1.1s,SNR=14 | | | | | |
| **VAM** | **Vamos** | **144.11 305** | P | PKPbc | 20 25 20.2 | 0.0 |
| **IMMV** | **Iera Moni Meta** | **144.26 305** | P | **PKPab** | **20 25 20.1** | **-0.2** |
| **PHP** | **Peshkopia** | **144.26 317** | P | **PKPab** | **20 25 20.1** | **-0.1** |
| **OHR** | **Ohrid** | **144.31 316** | *i* PKP | PKPbc | 20 25 21.0 | +0.3 |
| **THAL** | **Thalero** | **144.35 310** | P | **PKPab** | **20 25 19.6** | **-1.0** |
| **SOKA** | **Soboth** | **144.46 328** | *i* PKPdf | PKPbc | 20 25 21.5 | +0.4 |
| | comp=Z,54nm,1.4s,SNR=12 | | | | | |
| **BLY** | **Banja Luka** | **144.55 323** | *e*PKPdf | PKPbc | 20 25 21.8 | +0.5 |
| **KALE** | **Kalithea** | **144.59 311** | P | **PKPab** | **20 25 20.9** | **-0.6** |
| **GUR** | **Goura** | **144.62 310** | P | **PKPab** | **20 25 21.0** | **-0.7** |
| **PDG** | **Podgorica** | **144.64 319** | ⇑*i*P | PKPbc | 20 25 22.2 | +0.6 |
| **TTG** | **Podgorica** | **144.64 319** | *e*PKIKP | PKPbc | 20 25 21.7 | +0.1 |
| **TTG** | **Podgorica** | **144.64 319** | *e*PKPdf | PKPbc | 20 25 21.7 | +0.1 |
| **VLI** | **Veliai** | **144.64 308** | P | **PKPab** | **20 25 20.4** | **-1.3** |
| **ANKY** | **Antikythira Is** | **144.66 306** | P | PKPbc | 20 25 22.0 | +0.1 |
| **ANX** | **Ano Chora** | **144.66 311** | P | **PKPab** | **20 25 21.8** | **-0.1** |
| **KYTH** | **Kithira** | **144.72 307** | P | **PKPab** | **20 25 22.0** | **0.0** |
| **KLV** | **Kalavryta, Ach** | **144.72 310** | P | **PKPab** | **20 25 21.8** | **-0.2** |
| **LAKA** | **Lakka** | **144.77 311** | P | PKPbc | 20 25 22.5 | +0.2 |
| **TIR** | **Tirane** | **144.81 317** | ⇑*i*P | **PKPdf** | **20 25 23.1** | **-0.1** |
| **TIR** | **Tirane** | **144.81 317** | ⇑PKIKP | **PKPdf** | **20 25 23.1** | **-0.1** |
| **TIR** | **Tirane** | **144.81 317** | *e*PKPdf | **PKPdf** | **20 25 23.1** | **-0.1** |
| **VLX** | **Vlachokerasia** | **144.81 309** | P | **PKPab** | **20 25 22.2** | **-0.3** |
| **OBKA** | **Obir** | **144.82 328** | *i* PKPdf | **PKPdf** | **20 25 22.7** | **-0.5** |
| | comp=Z,29nm,1.1s,SNR=6.0 | | | | | |
| **SHEL** | **Horse Pasture** | **144.97 190** | *i* PKIKP | **PKPdf** | **20 25 26.3** | **+2.0** |
| **DSL** | **Palaion Diasel** | **145.02 312** | P | **PKPab** | **20 25 23.2** | **+0.1** |
| **KBA** | **Koelnbreinsper** | **145.02 329** | PKIKP | **PKPbc** | **20 25 22.9** | **-0.1** |
| **KBA** | **Koelnbreinsper** | **145.02 329** | *i* PKPdf | **PKPab** | **20 25 23.2** | **+0.2** |
| | comp=Z,49nm,1.2s,SNR=14 | | | | | |
| **DRO** | **Drossia** | **145.08 310** | P | **PKPdf** | **20 25 23.9** | **+0.1** |
| **CWF** | **Charnwood Fore** | **145.11 349** | *e*PKPbc | **PKPbc** | **20 25 22.6** | **-0.2** |
| **BEBN** | **Eben Emael** | **145.13 340** | PKP | **PKPab** | **20 25 23.0** | **0.0** |
| **LJU** | **Ljubljana** | **145.15 327** | *i* PKPbc | **PKPbc** | **20 25 23.1** | **-0.1** |
| **PDO** | **Prodromos** | **145.19 312** | P | **PKPdf** | **20 25 23.8** | **-0.1** |
| **MEM** | **Membach** | **145.19 340** | PKP | **PKPdf** | **20 25 23.4** | **-0.1** |
| **MYKA** | **Terra Mystica** | **145.19 329** | *i* PKPdf | **PKPdf** | **20 25 23.6** | **-0.1** |
| | comp=Z,55nm,1.5s,SNR=12 | | | | | |
| **ITM** | **Ithomi** | **145.22 309** | P | **PKPbc** | **20 25 23.5** | **-0.2** |
| **AMT** | **Artemida-Makis** | **145.25 310** | P | **PKPbc** | **20 25 23.6** | **-0.2** |
| **PYL** | **PYLOS** | **145.47 308** | P | **PKPdf** | **20 25 24.0** | **-0.5** |
| **VTN** | **Vitineika** | **145.47 310** | P | **PKPdf** | **20 25 22.6** | **-1.8** |
| **LKD2** | **Lefkada island** | **145.48 312** | P | **PKPdf** | **20 25 23.5** | **-0.9** |
| **STU** | **Stuttgart** | **145.56 335** | *e*PKIKP | **PKPbc** | **20 25 24.5** | **+0.1** |
| **STU** | **Stuttgart** | **145.56 335** | *e*PKPdf | **PKPbc** | **20 25 24.5** | **+0.1** |
| **BCLA** | **Clavier** | **145.58 340** | PKP | **PKPab** | **20 25 24.6** | **-0.1** |
| **KEK** | **Kerkira** | **145.65 314** | P | **PKPdf** | **20 25 24.4** | **-0.3** |
| **ABTA** | **Abfaltersbach** | **145.65 330** | *i* PKPab | **PKPdf** | **20 25 24.7** | **+0.1** |
| | comp=Z,73nm,1.0s,SNR=24 | | | | | |
| **WATA** | **Walderalm** | **145.66 331** | *i* PKPab | **PKPbc** | **20 25 25.1** | **+0.1** |
| | comp=Z,49nm,1.2s,SNR=19 | | | | | |
| **WTTA** | **Wattenberg** | **145.68 331** | *i* PKPab | **PKPab** | **20 25 25.4** | **0.0** |
| | comp=Z,34nm,1.0s,SNR=16 | | | | | |
| **SNF** | **Seneffe** | **145.81 342** | PKP | **PKPab** | **20 25 25.5** | **-0.1** |
| **MOTA** | **Moosalm** | **145.86 332** | *i* PKPab | **PKPab** | **20 25 25.9** | **-0.2** |
| | comp=Z,55nm,0.9s,SNR=27 | | | | | |
| **RETA** | **Reutte** | **145.91 332** | *i* PKPab | **PKPab** | **20 25 26.1** | **0.0** |
| | comp=Z,46nm,1.5s,SNR=11 | | | | | |
| **LANF** | **Langenberg** | **145.93 337** | PKP | **PKPab** | **20 25 26.7** | **+0.6** |
| **WLF** | **Walferdange** | **145.95 339** | PKP | **PKPab** | **20 25 26.6** | **+0.5** |
| WLF | | | APKP | pPKPbc | 20 25 37.3 | +0.2 |
| **WLF** | **Walferdange** | **145.95 339** | *e*PKP2 | **PKPab** | **20 25 26.6** | **+0.5** |
| **WLF** | **Walferdange** | **145.95 339** | *e*PKPdf | **PKPab** | **20 25 26.6** | **+0.5** |
| **RCBR** | **Riachuelo** | **145.96 134** | *e*PKPdf | **PKPdf** | **20 25 25.3** | **-0.7** |
| **DOU** | **Dourbes** | **146.08 341** | PKP | **PKPbc** | **20 25 25.8** | **-0.2** |
| **BFO** | **Black Forest** | **146.26 336** | *i* PKP2 | **PKPbc** | **20 25 27.0** | **+0.4** |
| **BFO** | **Black Forest** | **146.26 336** | *e*PKPdf | **PKPbc** | **20 25 26.7** | **+0.1** |
| **FETA** | **Feichten** | **146.28 332** | *i* PKPab | **PKPab** | **20 25 27.5** | **-0.1** |
| | comp=Z,37nm,0.9s,SNR=11 | | | | | |
| **DAVA** | **Damuels** | **146.45 333** | *i* PKPbc | **PKPdf** | **20 25 26.4** | **+0.4** |
| | comp=Z,36nm,1.0s,SNR=8.3 | | | | | |
| **FUORN** | **Ofenpass-Fuorn** | **146.79 332** | *e*PKPdf | **PKPdf** | **20 25 27.4** | **+0.7** |
| **ECH** | **Echery** | **146.81 337** | PKP | **PKPbc** | **20 25 28.1** | **-0.1** |
| **ECH** | **Echery** | **146.81 337** | *e*PKP2 | **PKPbc** | **20 25 27.5** | **-0.7** |
| **ECH** | **Echery** | **146.81 337** | *e*PKPdf | **PKPbc** | **20 25 27.5** | **-0.7** |
| **MOF** | **Molkenrain** | **147.12 336** | PKP | **PKPbc** | **20 25 29.4** | **+0.2** |
| **THEF** | **They Montfort** | **147.23 338** | PKP | **PKPbc** | **20 25 29.7** | **+0.3** |
| **TUE** | **Stuetta** | **147.31 332** | *e*PKPbc | **PKPbc** | **20 25 30.4** | **+0.5** |
| **TIP** | **Timpagrande** | **147.96 315** | *e*PKPbc | **PKPbc** | **20 25 31.3** | **-0.4** |
| **AQU** | **L'Aquila** | **148.19 323** | *e*PKP2 | **PKPbc** | **20 25 32.6** | **+0.4** |
| **AQU** | **L'Aquila** | **148.19 323** | *e*PKPbc | **PKPbc** | **20 25 32.6** | **+0.4** |
| **SENIN** | **Lac Senin/Sane** | **148.26 334** | *e*PKPbc | **PKPbc** | **20 25 32.8** | **+0.2** |
| **BNI** | **Bardonecchia** | **149.58 334** | *e*PKP2 | **PKPbc** | **20 25 36.5** | **+0.7** |
| **BNI** | **Bardonecchia** | **149.58 334** | *e*PKPbc | **PKPbc** | **20 25 36.5** | **+0.7** |
| **PLDF** | **La Plantade** | **150.00 338** | PKP | **PKPbc** | **20 25 37.3** | **+0.6** |
| **AGO** | **Saint Agoulin** | **150.10 339** | PKP | **PKPbc** | **20 25 37.5** | **+0.6** |
| **LUCF** | **Luceram** | **150.20 331** | PKP | **PKPbc** | **20 25 38.0** | **+0.7** |
| **SSB** | **Saint Sauveur** | **150.25 336** | PKP | **PKPbc** | **20 25 37.7** | **+0.4** |
| **SSB** | **Saint Sauveur** | **150.25 336** | *e*PKIKP | **PKPbc** | **20 25 37.0** | **-0.3** |
| **SSB** | **Saint Sauveur** | **150.25 336** | *e*PKPbc | **PKPbc** | **20 25 37.0** | **-0.3** |
| **REVF** | **Revere** | **150.31 331** | PKP | **PKPbc** | **20 25 37.5** | **0.0** |
| **PYM** | **Petit Puy Mans** | **150.40 339** | PKP | **PKPbc** | **20 25 38.7** | **+1.0** |
| **LBIL** | **Lubilhac** | **150.77 338** | PKP | **PKPbc** | **20 25 39.1** | **+0.5** |
| **PBRG** | **Braganca** | **156.62 350** | *e*PKPab | **PKPab** | **20 26 10.4** | **0.0** |
| **POLO** | **Lamas de Olo** | **157.20 352** | *e*PKPab | **PKPab** | **20 26 13.0** | **+0.1** |
| **MVO** | **Moncorvo** | **157.29 351** | *e*PKPab | **PKPab** | **20 26 13.4** | **+0.1** |
| **PVIS** | **Viseu** | **157.86 352** | *e*PKPab | **PKPab** | **20 26 15.7** | **0.0** |
| **ES19** | **SONSECA Array** | **158.03 343** | *e*PKPab | **PKPab** | **20 26 17.2** | **+0.7** |
| **ESDC** | **Sonseca Array** | **158.07 344** | PKPab | **PKPab** | **20 26 17.1** | **+0.4** |
| | comp=Z,0.7nm,0.5s,baz=24,slow=4.2,SNR=8.8 | | | | | |
| **MTE** | **Manteigas** | **158.12 351** | *e*PKPab | **PKPab** | **20 26 17.6** | **+0.7** |
| **PCAS** | **Casmilo, Conde** | **158.59 353** | *e*PKPab | **PKPab** | **20 26 18.3** | **-0.6** |
| **PMRV** | **Marv??o** | **159.05 350** | *e*PKPab | **PKPab** | **20 26 21.7** | **+0.8** |
| **PBEJ** | **Beja** | **160.49 351** | *e*PKPab | **PKPab** | **20 26 26.9** | **-0.3** |
| **PCVE** | **Castro Verde** | **160.91 351** | *e*PKPab | **PKPab** | **20 26 29.5** | **+0.5** |
| **PVAQ** | **Vaqueiros** | **161.08 350** | *e*PKPab | **PKPab** | **20 26 28.4** | **-1.3** |
| **TOA0** | **Torodi Ar. Sit** | **165.82 249** | *e*PKPdf | **PKPdf** | **20 25 51.2** | **-0.6** |
| TOA0 | | | *e*PKPdf | **PKPdf** | **20 25 51.8** | **-0.1** |
| TOA0 | | | *e*PKPab | **PKPab** | **20 26 51.8** | **+0.4** |
| **TORD** | **Torodi Ar. Bea** | **165.82 249** | PKP | **PKPdf** | **20 25 51.2** | **-0.6** |
| | comp=Z,3.9nm,1.0s,baz=333,slow=0.9,SNR=12 | | | | | |
| TORD | | | PKPab | **PKPab** | **20 26 51.4** | **0.0** |
| | comp=Z,9.3nm,1.1s,baz=107,slow=3.8,SNR=15 | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **165.83 249** | *e*PKPdf | **PKPdf** | **20 25 51.2** | **-0.6** |
| TOA1 | | | *e*PKPab | **PKPab** | **20 26 51.4** | **-0.1** |
| **DBIC** | **Dimbokro** | **166.18 210** | PKP | **PKPdf** | **20 25 51.6** | **-0.5** |
| | comp=Z,5.4nm,1.0s,baz=117,slow=4.5,SNR=2.6 | | | | | |
| **KOWA** | **Kowa** | **171.37 242** | *e*PKPab | **PKPab** | **20 27 16.3** | **+0.4** |

*IDC* ***29*** *20:06:29.4±3.1, 11.°18S×110.°81E, h0km, mb3.7/8, mb1 3.9/9, mb1mx3.7/43, mbtmp3.7/9, ML3.7/1, MS3.8/3, Ms1 3.8/3, ms1mx3.2/39, Error ellipse: s-maj=150.1km s-min=17.7km az=46.0*

*ISCJB* ***29*** *20:06:31.7±0.5, 11.°08S±0.°05×110.°74E±0.°04, h33km, mb4.0/12, MS4.0/2, Error ellipse: s-maj=7.5km s-min=4.6km az=37.7*

*DJA* ***29*** *20:06:33.4±0.6, 11.°5S±6.°×11.°1E±.°, h69km±40km, M4.7/18, mb4.8/13, mB5.0/3, MLv4.8/18, Mw(mB)4.4/3*

*NEIC* ***29*** *20:06:34.7±0.6, 11.°12S×110.°91E, h35km, mb4.9/4, Error ellipse: s-maj=15.4km s-min=6.3km az=46.0*

**ISC 29 20:06:34.1±0.9, 11.°11S±0.°09×110.°77E±0.°07, h35km, n45,** σ1°**36/46, mb3.8/12, South of Jawa**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **PCJI** | **Pacitan** | **2.92** | **8** | P | **Pn** | | **20 07 16.1** | **-2.0** |
| PCJI | | | | S | **Sn** | | **20 07 50.9** | **-1.2** |
| **UGM** | **Wanagama** | **3.19** | **356** | P | **Pn** | | **20 07 20.6** | **-1.2** |
| UGM | | | | S | **Sn** | | **20 07 57.2** | **-1.4** |
| **UGM** | **Wanagama** | **3.19** | **356** | *e*Pn | **Pn** | | **20 07 20.7** | **-1.0** |
| **SMRI** | **Semarang** | **4.05** | **355** | *e*Pn | **Pn** | | **20 07 34.4** | **+0.7** |
| **KPJI** | **Karang Pucung** | **4.17** | **334** | P | **Pn** | | **20 07 33.4** | **-1.8** |
| **JAGI** | **Jajag, Banyuwa** | **4.24** | **52** | P | **Pn** | | **20 07 35.7** | **-0.6** |
| **JAGI** | **Jajag, Banyuwa** | **4.24** | **52** | *e*Pn | **Pn** | | **20 07 35.9** | **-0.4** |
| **BLJI** | **Banyuglugur** | **4.35** | **40** | P | **Pn** | | **20 07 37.7** | **-0.1** |
| **TBJI** | **Tambak Boyo** | **4.40** | **14** | P | **Pn** | | **20 07 37.1** | **-1.3** |
| **CISI** | **Cisompet, Garu** | **4.58** | **320** | P | **Pn** | | **20 07 38.9** | **-2.0** |
| CISI | | | | S | **Sn** | | **20 08 30.9** | **-2.1** |
| **CISI** | **Cisompet, Garu** | **4.58** | **320** | *e*Pn | **Pn** | | **20 07 39.0** | **-2.0** |
| **UWJI** | **Ujung Watu** | **4.66** | **2** | P | **Pn** | | **20 07 40.8** | **-1.3** |
| **ABJI** | **Asem Bagus** | **4.75** | **46** | P | **Pn** | | **20 07 43.0** | **-0.2** |
| **DNP** | **Denpasar** | **5.00** | **61** | P | **Pn** | | **20 07 46.2** | **-0.5** |
| **CNJI** | **Cibinong** | **5.21** | **316** | P | **Pn** | | **20 07 47.5** | **-2.1** |
| | 84nm,0.6s,1μm1.0nm | | | | | | | |
| **SRBI** | **Singaraja** | **5.31** | **56** | P | **Pn** | | **20 07 51.0** | **0.0** |
| | 57nm,1.1s,1μm0.4nm | | | | | | | |
| **BWJI** | **Bawean** | **5.55** | **20** | P | **Pn** | | **20 07 53.3** | **-0.9** |
| **SKJI** | **Sukabumi** | **5.83** | **314** | P | **Pn** | | **20 07 56.1** | **-2.0** |
| **TNG** | **Tangerang** | **6.38** | **320** | P | **Pn** | | **20 08 03.9** | **-1.7** |
| **PLAI** | **Plampang** | **7.26** | **72** | P | **Pn** | | **20 08 17.0** | **-0.8** |
| | 59nm,0.8s,0.4nm | | | | | | | |
| **KASI** | **Kota Agung** | **8.32** | **311** | P | **Pn** | | **20 08 31.0** | **-1.4** |
| | 21nm,0.5s | | | | | | | |
| **PBKI** | **Pangkalan Bun** | **8.40** | **6** | P | **Pn** | | **20 08 31.6** | **-1.8** |
| **LWLI** | **Liwa** | **8.99** | **312** | P | **Pn** | | **20 08 39.6** | **-2.0** |
| | 29nm,0.8s | | | | | | | |
| **EDFI** | **Ende, Flores** | **11.01** | **79** | P | **Pn** | | **20 09 08.6** | **-0.7** |
| **SOEI** | **Soe** | **13.34** | **85** | *e*Pn | **Pn** | | **20 09 40.8** | **-0.5** |
| **FITZ** | **Fitzroy Crossi** | **15.97** | **118** | Pn | **Pn** | | **20 10 13.8** | **-2.4** |
| | 0.2nm,0.3s,baz=296,slow=12,SNR=13 | | | | | | | |
| FITZ | | | | Sn | Sn | | 20 12 56.7 | -16 |
| | 0.2nm,0.3s,baz=276,slow=18,SNR=2.5 | | | | | | | |
| FITZ | | | | LR | LR | | 20 15 38.5 | |
| | comp=Z,161nm,21.4s,baz=325,slow=34 | | | | | | | |
| **WRA** | **Warramunga Arr** | **24.32** | **114** | P | **P** | | **20 11 48.4** | **-0.4** |
| | 1.6nm,0.8s,baz=288,slow=11,SNR=13 | | | | | | | |
| **WR1** | **Warramunga Arr** | **24.32** | **114** | *e*P | **P** | | **20 11 48.4** | **-0.4** |
| | 35nm,0.9s | | | | | | | |
| **ASAR** | **Alice Springs** | **25.31** | **123** | P | **P** | | **20 11 57.9** | **+0.1** |
| | 2.4nm,0.8s,baz=299,slow=9.0,SNR=39 | | | | | | | |
| **AS31** | **Alice Springs** | **25.32** | **123** | *e*P | **P** | | **20 11 55.5** | **-2.2** |
| | 27nm,0.6s | | | | | | | |
| **AS01** | **Alice Springs** | **25.35** | **123** | *e*P | **P** | | **20 11 58.4** | **+0.3** |
| **CMAR** | **Chiang Mai Arr** | **31.61** | **338** | P | **P** | | **20 12 55.9** | **+2.0** |
| | 0.7nm,0.7s,baz=173,slow=8.5,SNR=7.8 | | | | | | | |
| **BRDH** | **Bariadhala** | **38.46** | **331** | LR | LR | | 20 31 56.1 | |
| | comp=Z,81nm,19.4s,baz=148,slow=40 | | | | | | | |
| **LSA** | **Lhasa** | **44.76** | **335** | *e*P | **P** | | **20 14 45.7** | **+0.8** |
| | 2.4nm,0.6s | | | | | | | |
| **SONA0** | **Songino Array** | **58.81** | **357** | *e*P | **P** | | **20 16 30.1** | **+1.1** |
| **SONM** | **Songino Array** | **58.81** | **357** | P | **P** | | **20 16 30.1** | **+1.1** |
| | 0.3nm,0.5s,baz=174,slow=8.1,SNR=3.6 | | | | | | | |
| **MK32** | **Makanchi Array** | **63.02** | **338** | *e*P | **P** | | **20 16 58.9** | **+1.3** |
| **MKAR** | **Makanchi Array** | **63.02** | **338** | P | **P** | | **20 16 58.9** | **+1.3** |
| | 0.3nm,0.5s,baz=138,slow=8.2,SNR=7.9 | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **67.59** | **338** | P | **P** | | **20 17 27.7** | **+0.7** |
| | 0.5nm,0.6s,baz=152,slow=6.1,SNR=6.2 | | | | | | | |
| **KURK** | **Kurchatov** | **67.64** | **339** | *e*P | **P** | | **20 17 27.7** | **+0.4** |
| **ZALV** | **Zalesovo Beam** | **68.45** | **344** | P | **P** | | **20 17 33.1** | **+0.7** |
| | 0.6nm,0.3s,baz=160,slow=5.0,SNR=4.2 | | | | | | | |
| **ZAA1** | **Zalesovo Array** | **68.46** | **344** | *e*P | **P** | | **20 17 33.1** | **+0.7** |
| **BVAR** | **Borovoye Array** | **72.60** | **336** | P | **P** | | **20 17 59.0** | **+1.3** |
| | 0.3nm,0.5s,baz=130,slow=8.1,SNR=3.4 | | | | | | | |
| **YAK** | **Yakutsk** | **74.40** | **9** | LR | LR | | 20 51 51.4 | |
| | comp=Z,217nm,21.8s,baz=94,slow=37 | | | | | | | |
| **ABKAR** | **Akbulak array** | **74.84** | **328** | *e*P | **P** | | **20 18 12.2** | **+1.3** |
| | 10nm,0.7s | | | | | | | |

*AZER* ***29*** *20:10:46.3±1.8, 38.°83N×42.°75E, h11km, Error ellipse: s-maj=16.0km s-min=11.6km az=28.0*

*DDA* ***29*** *20:10:48.8, 38.°75N×43.°25E, h7km, Ml3.6*

*ISK* ***29*** *20:10:48.7, 38.°73N×43.°34E, h2km, ML3.4*

*CSEM* ***29*** *20:10:49.5±0.1, 38.°75N×43.°29E, h2km, ML3.4, Error ellipse: s-maj=3.5km s-min=2.9km az=125.0*

*NSSC* ***29*** *20:10:51.8±0.8, 39.°23N×42.°40E, h113km±33km, ML2.8*

**ISC 29 20:10:49.6±0.9, 38.°74N±0.°01×43.°25E±0.°01, h10km±7km,**
**n99,** σ1°**74/163, 14C-8D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.18** | **142** | *e*PG | **Pg** | | **20 10 54.3** | **+0.8** |
| **VANB** | **Van** | **0.18** | **142** | *e*Pg | **Pg** | | **20 10 54.3** | **+0.8** |
| **TVAN** | **Van** | **0.24** | **149** | *i* P | **Pg** | | **20 10 54.2** | **-0.5** |
| TVAN | | | | | | *i* S | | **Sg** | **20 10 58.9** | **+0.8** |
| **TVAN** | **Van** | **0.24** | **149** | | P | | **Pg** | **20 10 54.2** | **-0.5** |
| TVAN | | | | | S | | **Sg** | **20 10 58.9** | **+0.8** |
| **ERCV** | **ERCIS-VAN** | **0.29** | **14** | *e*PG | | | **Pg** | **20 10 54.5** | **-1.1** |
| ERCV | | | | *e*SG | | | **Sg** | **20 11 00.2** | **+0.7** |
| **ERCV** | **ERCIS-VAN** | **0.29** | **14** | *e*Pg | | | **Sg** | **20 10 54.5** | **-1.1** |
| ERCV | | | | *e*Sg | | | **Sg** | **20 11 00.2** | **+0.7** |
| **VMUR** | **Van-Muradiye** | **0.36** | **45** | *i* P | | | **Sg** | **20 10 56.5** | **-0.3** |
| VMUR | | | | *i* S | | | **Sg** | **20 11 02.8** | **+1.2** |
| **VMUR** | **Van-Muradiye** | **0.36** | **45** | P | | | **Sg** | **20 10 56.5** | **-0.3** |

comp=Z,74nm,0.4s
**MNGR Mingechevir, A 3.59 54** ⇓P **Pn 20 11 45.6 +0.3**
MNGR ⇑S **Sn 20 12 31.9 +4.2**
**MNGR Mingechevir, A 3.59 54** P **Pn 20 11 45.6 +0.3**
MNGR S **Sn 20 12 31.9 +4.2**
**URFA Urfa 3.73 251** *e*PN **Pn 20 11 51.0 +3.7**
**ZRD Zardab 3.76 64** ⇑P **Pn 20 11 48.5 +0.9**
ZRD ⇓S **Sb 20 12 37.3 -4.4**
**ZRD Zardab 3.76 64** P **Pn 20 11 48.5 +0.9**
ZRD S **Sb 20 12 37.3 -4.4**
**ZKTA Zakatala 3.88 41** ⇑P **Pn 20 11 48.7 -0.7**
ZKTA ⇓S **Sn 20 12 37.5 +2.5**
**SEKA Sheki 3.91 50** ⇓P **Pn 20 11 50.5 +0.7**
SEKA ⇑S **Sn 20 12 40.8 +5.0**
**SEKA Sheki 3.91 50** P **Pn 20 11 50.5 +0.7**
SEKA S **Sn 20 12 40.8 +5.0**
**LRK Lerik 3.98 90** ⇓P **Pn 20 11 52.5 +1.6**
SNR=3.0
LRK ⇑S **Sb 20 12 44.5 -3.9**
**LRK Lerik 3.98 90** P **Pn 20 11 52.5 +1.6**
SNR=3.0
**KSRV Kasrt alli 4.44 231** *e*P Pb 20 12 03.3 -4.3
KSRV *e*S **Sn 20 12 54.7 +6.0**
KSRV AML AML 20 13 24.1
comp=Z,30nm,0.7s

**MEX 29 20:20:56.7**±0.3,**15°.91N**×**98°.86W,h13**km±25km,**MD3.9,**
**Off coast of Guerrero**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PNIG** | **Pinotepa** | **0.86** | **56** | *i* P | Pg | 20 21 10.6 | -2.7 |
| PNIG | | | | *e*S | Sg | 20 21 21.4 | -3.1 |
| **ACX** | **Acapulco** | **1.35** | **315** | *e*P | Pn | 20 21 15.8 | -5.5 |
| ACX | | | | *i* S | Sb | 20 21 30.8 | -8.3 |
| **CAIG** | **El Cayaco** | **1.76** | **310** | *e*P | Pn | 20 21 23.5 | -3.4 |
| CAIG | | | | *e*S | Sn | 20 21 44.5 | -4.6 |

*IDC **29** 20:29:19.8±1.1,18°.87S×168°.49E,h0km,mb4.3/10,*
*mb1 4.4/11,mb1mx4.1/41,mbtmp4.3/11,ML3.7/1,MS3.5/3,*
*Ms1 3.5/3,ms1mx3.1/33,Error ellipse: s-maj=34.6km*
*s-min=20.3km az=133.0*
*ISCJB **29** 20:29:24.9±0.9,18°.96S±0°.09×168°.3E±0°.2,h42km,*
*mb4.3/11,MS3.4/2,Error ellipse: s-maj=24.0km*
*s-min=9.0km az=23.3*
*NEIC **29** 20:29:26.0±0.6,18°.84S×168°.28E,h35km,mb4.9/3,Error*
*ellipse: s-maj=19.8km s-min=11.0km az=125.0*
**ISC 29 20:29:26.3**±0.9,**19°.05S**±0°.1×**168°.4E**±0°.2,**h42**km,**n28,**
σ1°**04/29,mb4.3/11,Vanuatu Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **3.58** | **210** | Pn | **Pn** | **20 30 20.0** | **+0.6** |
| | 6.4nm,0.3s,baz=69,slow=8.8,SNR=59 | | | | | | |
| DZM | | | | Sn | **Sn** | **20 30 59.0** | **-1.4** |
| | 21nm,0.3s,baz=152,slow=23,SNR=11 | | | | | | |
| **DZM** | **Mont Dzumac** | **3.58** | **210** | *e*Pn | **Pn** | **20 30 19.5** | **+0.2** |
| DZM | | | | Sn | **Sn** | **20 30 59.0** | **-1.4** |
| **AFI** | **Afiamalu** | **19.67** | **78** | LR | LR | 20 40 00.0 | |
| | comp=Z,179nm,18.6s,baz=233,slow=33 | | | | | | |
| **URZ** | **Urewera** | **20.66** | **160** | LR | LR | 20 40 58.9 | |
| | comp=Z,216nm,19.7s,baz=318,slow=34 | | | | | | |
| **CTA** | **Charters Tower** | **20.89** | **263** | P | **P** | **20 34 06.0** | **+0.8** |
| | 4.2nm,0.7s,baz=90,slow=9.3,SNR=6.0 | | | | | | |
| **STKA** | **Stephens Creek** | **27.31** | **237** | P | **P** | **20 35 08.2** | **+1.0** |
| | 3.8nm,0.7s,baz=75,slow=9.2,SNR=8.7 | | | | | | |
| **STKA** | **Stephens Creek** | **27.31** | **237** | *e*P | **P** | **20 35 08.9** | **+1.8** |
| | 2.9nm,1.4s | | | | | | |
| **RAR** | **Rarotonga** | **29.95** | **100** | LR | LR | 20 45 54.6 | |
| | comp=Z,53nm,19.8s,baz=276,slow=33 | | | | | | |
| **WR1** | **Warramunga Arr** | **32.09** | **263** | *e*P | **P** | **20 35 48.2** | **-1.5** |
| | 36nm,1.8s | | | | | | |
| **WRA** | **Warramunga Arr** | **32.09** | **263** | P | **P** | **20 35 48.2** | **-1.5** |
| | 0.8nm,0.5s,baz=93,slow=8.9,SNR=18 | | | | | | |
| **AS01** | **Alice Springs** | **32.37** | **256** | *e*P | **P** | **20 35 51.6** | **-0.5** |
| **AS31** | **Alice Springs** | **32.41** | **256** | *e*P | **P** | **20 35 52.1** | **-0.4** |
| | 3.8nm,0.4s | | | | | | |
| **ASAR** | **Alice Springs** | **32.42** | **256** | P | **P** | **20 35 52.0** | **-0.5** |
| | 5.0nm,0.4s,baz=82,slow=8.4,SNR=117 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **40.47** | **264** | P | **P** | **20 37 00.8** | **-0.4** |
| | 7.9nm,0.7s,baz=115,slow=7.3,SNR=18 | | | | | | |
| **PETK** | **Petropavlovsk-** | **72.38** | **353** | P | **P** | **20 40 47.4** | **-0.3** |
| | 3.6nm,0.9s,baz=124,slow=7.2,SNR=3.5 | | | | | | |
| **PEA1** | **Petropavlovsk-** | **72.39** | **353** | *e*P | **P** | **20 40 47.4** | **-0.3** |
| **CM01** | **Chiang Mai Arr** | **77.64** | **294** | *e*P | **P** | **20 41 19.5** | **+0.7** |
| **CMAR** | **Chiang Mai Arr** | **77.67** | **295** | P | **P** | **20 41 20.2** | **+1.2** |
| | 1.5nm,0.8s,baz=130,slow=4.2,SNR=11 | | | | | | |
| **SONA0** | **Songino Array** | **86.53** | **323** | *e*P | **P** | **20 42 04.6** | **-0.3** |
| **SONM** | **Songino Array** | **86.53** | **323** | P | **P** | **20 42 04.6** | **-0.3** |
| | 1.6nm,1.0s,baz=152,slow=5.8,SNR=7.5 | | | | | | |
| **SONA1** | **Songino Array** | **86.54** | **323** | *e*P | **P** | **20 42 05.3** | **+0.3** |
| **SNAA** | **Sanae** | **89.38** | **183** | P | **P** | **20 42 17.8** | **-0.3** |
| | 2.9nm,0.6s,baz=197,slow=5.4,SNR=8.1 | | | | | | |
| **SNAA** | **Sanae** | **89.38** | **183** | *e*P | **P** | **20 42 19.7** | **+1.5** |
| | 8.0nm,1.2s | | | | | | |
| **ILAR** | **Eielson Array** | **90.22** | **18** | P | **P** | **20 42 20.0** | **-2.0** |
| | 0.3nm,0.6s,baz=234,slow=5.3,SNR=7.5 | | | | | | |
| **ARA0** | **ARCESS Array S** | **124.61** | **345** | *e*PKPdf | **PKPdf** | **20 48 20.2** | **-0.3** |
| **ARCES** | **ARCESS Array B** | **124.61** | **345** | PKP | **PKPdf** | **20 48 20.2** | **-0.3** |
| | 6.3nm,0.9s,baz=31,slow=2.1,SNR=3.8 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **165.97** | **248** | PKP | **PKPdf** | **20 49 29.1** | **+1.5** |
| | 0.6nm,0.9s,baz=90,slow=0.3,SNR=2.8 | | | | | | |
| TORD | | | | PKPab | **PKPab** | **20 50 27.7** | **-0.1** |
| | 0.7nm,0.8s,baz=104,slow=4.0,SNR=4.1 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **165.97** | **248** | *e*PKPdf | **PKPdf** | **20 49 29.1** | **+1.5** |
| TOA1 | | | | *e*PKPab | **PKPab** | **20 50 27.7** | **-0.1** |

*SKHL **29** 20:29:33.8±0.0,44°.89N×150°.54E,h33km±1km,mb4.6/2*
*JMA **29** 20:29:34.1±0.5,44°.93N×150°.29E,h121km,M3.4*
**ISC 29 20:29:32.7**±4.2,**44.7N**±0°.1×**150°.6E**±0°.2,**h35**km,**n19,**
σ2°**01/29,East of Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KUR** | **Kuril'sk** | **2.03** | **287** | *e*P | **Pn** | **20 30 03.8** | **-0.6** |
| KUR | | | | AMB | AMB | 20 30 04.9 | |
| | 154nm,0.3s | | | | | | |
| KUR | | | | *i* S | **Sn** | **20 30 26.3** | **-2.2** |
| KUR | | | | A | A | 20 30 27.3 | |
| | 750nm,0.3s | | | | | | |
| KUR | | | | A | A | 20 30 27.3 | |
| | 270nm,0.3s | | | | | | |
| **SHO** | **Shikotan** | **2.84** | **255** | *e*P | **Pn** | **20 30 17.3** | **+1.8** |
| SHO | | | | *e*S | **Sn** | **20 30 50.0** | **+1.5** |
| SHO | | | | A | A | 20 30 51.5 | |
| | 126nm,0.2s | | | | | | |
| SHO | | | | A | A | 20 30 51.5 | |
| | 194nm,0.2s | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **3.47** | **261** | *e*P | **Pn** | **20 30 25.7** | **+1.5** |
| YUK | | | | AMB | AMB | 20 30 26.0 | |
| | 110nm,0.4s | | | | | | |
| YUK | | | | *e*S | **Sn** | **20 31 05.3** | **+1.2** |
| YUK | | | | A | A | 20 31 08.7 | |
| | 210nm,0.4s | | | | | | |
| YUK | | | | A | A | 20 31 08.7 | |
| | 98nm,0.4s | | | | | | |
| **LAGR** | **Lagunnoye** | **3.52** | **261** | *e*P | **Pn** | **20 30 27.4** | **+2.5** |
| LAGR | | | | *e*S | **Sn** | **20 31 06.4** | **+1.1** |
| **GRPR** | **Tuman** | **3.55** | **260** | *e*P | **Pn** | **20 30 27.3** | **+2.1** |
| GRPR | | | | *i* S | **Sn** | **20 31 06.3** | **+0.4** |
| **NEM2** | **Nemuro 2** | **3.76** | **251** | P | **Pn** | **20 30 29.6** | **+1.5** |
| NEM2 | | | | *e*S | **Sn** | **20 31 12.1** | **+1.0** |
| **GLVR** | **Golovnino** | **3.79** | **257** | *e*S | **Sn** | **20 31 15.6** | **+3.8** |
| **JNK** | **Nakash** | **4.39** | **258** | P | **Pn** | **20 30 38.1** | **+1.3** |
| **JAK** | **Akkeshi** | **4.61** | **251** | P | **Pn** | **20 30 40.7** | **+0.9** |
| JAK | | | | *e*S | **Sn** | **20 31 32.2** | **+0.2** |
| **JAR** | **Ashorobuto** | **5.13** | **257** | P | **Pn** | **20 30 48.3** | **+1.3** |
| **JOB** | **Onbets** | **5.22** | **252** | *e*S | **Sn** | **20 31 47.8** | **+0.6** |
| **JCH** | **Churui** | **5.66** | **251** | P | **Pn** | **20 30 54.9** | **+0.7** |
| JCH | | | | *e*S | **Sn** | **20 31 56.7** | **-1.2** |
| **JKK2** | **Kamakawa 2** | **5.71** | **265** | P | **Pn** | **20 30 55.0** | **0.0** |
| **YSS** | **Yuzh-Sakhalins** | **5.95** | **295** | *e*P | **Pn** | **20 30 58.9** | **+0.7** |
| **JNBK** | **Urakawa-nobuka** | **6.21** | **250** | P | **Pn** | **20 31 02.1** | **+0.3** |
| JNBK | | | | *e*S | **Sn** | **20 32 10.1** | **-1.4** |
| **JKB** | **Kayabe** | **7.53** | **252** | P | **Pn** | **20 31 19.5** | **-0.4** |
| JKB | | | | *e*S | **Sn** | **20 32 39.4** | **-4.7** |
| **JYM2** | **Yakumo 2** | **7.89** | **255** | P | **Pn** | **20 31 24.6** | **-0.3** |
| **JANG** | **Nango** | **7.98** | **241** | *e*S | **Sn** | **20 32 51.8** | **-3.4** |
| **JTM** | **Tenmabayashi** | **8.04** | **244** | *e*S | **Sn** | **20 32 52.2** | **-4.3** |

*ISCJB **29** 20:34:56.7±0.4,15°.60N±0°.03×93°.73W±0°.02,h99km±2km,*
*mb4.4/40,Error ellipse: s-maj=5.6km s-min=3.4km*
*az=178.9*
*NEIC **29** 20:34:59.2±0.0,15°.64N×93°.75W,h86km,mb4.6/54,*
*MD4.8(MEX),After MEX.*
*MEX **29** 20:34:59.2±1.0,15°.64N×93°.75W,h86km±10km,MD4.8*
*IDC **29** 20:34:59.0±0.7,15°.81N×93°.55W,h88km±5km,mb3.9/14,*
*mb1 4.1/15,mb1mx4.0/38,mbtmp4.2/15,MS3.9/2,*
*Ms1 3.9/2,ms1mx3.2/30,Error ellipse: s-maj=23.1km*
*s-min=8.4km az=50.0*
**ISC 29 20:34:58.4**±0.5,**15°.66N**±0°.05×**93°.73W**±0°.03,**h94**km±4km,
**h94**km:**pP-P,n361,**σ1°**17/385,mb4.4/40,Near coast of**
**Chiapas**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PCIG** | | **0.49** | **85** | *i* P | **Pn** | **20 35 12.2** | **-1.2** |
| PCIG | | | | *e*S | **Sn** | **20 35 23.1** | **-1.5** |
| **PCIG** | | **0.49** | **85** | *e*Sn | **Sn** | **20 35 23.1** | **-1.5** |
| **TGIG** | | **1.25** | **28** | *i* P | **Pn** | **20 35 21.0** | **-0.3** |
| TGIG | | | | *i* S | **Sn** | **20 35 37.5** | **-1.2** |
| **TGIG** | | **1.25** | **28** | *e*Sn | **Sn** | **20 35 37.5** | **-1.2** |
| **TGBT** | **Tuxtla Gutierr** | **1.26** | **29** | *e*P | **Pn** | **20 35 21.0** | **-0.5** |
| TGBT | | | | *e*S | **Sn** | **20 35 38.0** | **-0.8** |
| **CMIG** | **Matias Romero** | **1.80** | **322** | P | **Pn** | **20 35 28.5** | **+0.3** |
| | 74nm,0.3s,baz=150,slow=7.8,SNR=547 | | | | | | |
| CMIG | | | | LR | LR | 20 35 44.2 | |
| | comp=Z,49nm,19.6s,baz=187,slow=25 | | | | | | |
| CMIG | | | | S | **Sn** | **20 35 51.0** | **+0.1** |
| | 508nm,0.3s,baz=105,slow=20,SNR=34 | | | | | | |
| **HUIG** | **Huatulco** | **2.30** | **273** | *e*P | **Pn** | **20 35 32.5** | **-2.1** |
| HUIG | | | | *i* S | **Sn** | **20 35 57.5** | **-4.9** |
| **VHO** | **Vista Hermosa** | **3.21** | **296** | *e*P | **Pn** | **20 35 48.0** | **+1.0** |
| VHO | | | | *i* S | **Sn** | **20 36 22.9** | **-1.5** |
| **VHO** | **Vista Hermosa** | **3.21** | **296** | *e*Pn | **Pn** | **20 35 48.0** | **+1.0** |
| VHO | | | | *e*Sn | **Sn** | **20 36 22.9** | **-1.5** |
| **SCIG** | **Sabancuy** | **4.08** | **36** | *e*P | **Pn** | **20 35 58.2** | **-0.4** |
| SCIG | | | | *i* S | **Sn** | **20 36 45.7** | **+0.4** |
| **PNIG** | **Pinotepa** | **4.29** | **280** | *e*P | **Pn** | **20 36 00.6** | **-0.9** |
| PNIG | | | | *i* S | **Sn** | **20 36 48.9** | **-1.6** |
| **LVIG** | **Laguna Verde** | **4.78** | **328** | *e*P | **Pn** | **20 36 06.8** | **-1.3** |
| LVIG | | | | *i* S | **Sn** | **20 36 58.0** | **-4.4** |
| **LVIG** | **Laguna Verde** | **4.78** | **328** | *e*Pn | **Pn** | **20 36 06.8** | **-1.3** |
| **TLIG** | **Tlapa** | **5.01** | **293** | *e*P | **Pn** | **20 36 12.7** | **+1.3** |
| TLIG | | | | *i* S | **Sn** | **20 37 07.4** | **-0.6** |
| **TLIG** | **Tlapa** | **5.01** | **293** | *e*Pn | **Pn** | **20 36 12.6** | **+1.3** |
| TLIG | | | | *i* S | **Sn** | **20 37 07.4** | **-0.6** |
| **ACX** | **Acapulco** | **6.01** | **282** | *i* P | **Pn** | **20 36 25.0** | **+0.1** |
| ACX | | | | *i* S | **Sn** | **20 37 32.1** | **-0.2** |
| **ACX** | **Acapulco** | **6.01** | **282** | *e*Sn | **Sn** | **20 37 32.1** | **-0.2** |
| **YAIG** | **Yautepec** | **6.01** | **303** | *e*P | **Pn** | **20 36 27.8** | **+2.8** |
| YAIG | | | | *e*S | **Sn** | **20 37 31.9** | **-0.7** |
| **MEIG** | **Mezcala** | **6.08** | **293** | *e*P | **Pn** | **20 36 27.5** | **+1.7** |
| MEIG | | | | *i* S | **Sn** | **20 37 34.4** | **+0.3** |
| **MEIG** | **Mezcala** | **6.08** | **293** | *e*Sn | **Sn** | **20 37 34.4** | **+0.3** |
| **PLIG** | **Platanillo** | **6.16** | **297** | *e*P | **Pn** | **20 36 29.0** | **+2.1** |
| **CAIG** | **El Cayaco** | **6.43** | **283** | *e*P | **Pn** | **20 36 30.6** | **+0.1** |
| CAIG | | | | *e*S | **Sn** | **20 37 41.6** | **-0.9** |
| **CAIG** | **El Cayaco** | **6.43** | **283** | *e*Sn | **Sn** | **20 37 41.6** | **-0.9** |
| **TGUH** | **Tegucigalpa,Un** | **6.44** | **104** | *e*Pn | **Pn** | **20 36 30.7** | **0.0** |
| **MYIG** | **MÓrida** | **6.48** | **35** | *e*P | **Pn** | **20 36 32.7** | **+1.5** |
| MYIG | | | | *i* S | **Sn** | **20 37 39.9** | **-3.8** |
| **ARIG** | **Puente Sto Nin** | **6.85** | **293** | *e*P | **Pn** | **20 36 38.4** | **+2.1** |
| ARIG | | | | *e*S | **Sn** | **20 37 51.1** | **-1.7** |
| **MOIG** | **Morelia** | **8.16** | **300** | *e*Pn | **Pn** | **20 36 57.7** | **+3.4** |
| **833A** | **Chaparral WMA,** | **13.65** | **338** | P | **P** | **20 38 11.2** | **-2.4** |
| | baz=156 | | | | | | |
| **445A** | **Amite** | **15.31** | **11** | P | **Pn** | **20 38 30.4** | **+1.0** |
| | baz=192 | | | | | | |
| **446A** | **Poplarville** | **15.58** | **14** | P | **Pn** | **20 38 32.9** | **+0.2** |
| | baz=196 | | | | | | |
| **341A** | **Kurthwood** | **15.61** | **2** | P | **Pn** | **20 38 33.9** | **+0.9** |
| | baz=182 | | | | | | |
| **JCT** | **Junction City** | **15.77** | **340** | P | **P** | **20 38 38.0** | **+0.8** |
| | baz=158 | | | | | | |
| **JCT** | **Junction City** | **15.77** | **340** | *e*Pn | **P** | **20 38 37.1** | **0.0** |
| | 20nm,0.5s | | | | | | |
| JCT | | | | *e*Sn | **S** | **20 41 35.0** | **-3.1** |
| **345A** | **Thompson Farm,** | **15.94** | **12** | P | **P** | **20 38 38.4** | **-0.5** |
| | baz=193 | | | | | | |
| **344A** | **Westbrook Farm** | **15.95** | **9** | P | **P** | **20 38 39.3** | **+0.2** |
| | baz=191 | | | | | | |
| **NATX** | **Nacogdoches** | **16.05** | **357** | P | **P** | **20 38 40.5** | **+0.3** |
| | baz=177 | | | | | | |
| **448A** | **Bay Minette** | **16.12** | **18** | P | **P** | **20 38 41.1** | **+0.2** |
| | baz=201 | | | | | | |
| **243A** | **Waterproof** | **16.27** | **7** | P | **Pn** | **20 38 41.9** | **+0.6** |
| | baz=188 | | | | | | |
| **240A** | **Hunter Patters** | **16.30** | **360** | P | **P** | **20 38 43.6** | **+0.6** |
| | baz=180 | | | | | | |
| **241A** | **Mo Tay, Goldon** | **16.30** | **2** | P | **P** | **20 38 43.7** | **+0.7** |
| | baz=183 | | | | | | |
| **347A** | **Saraland** | **16.37** | **16** | P | **P** | **20 38 43.9** | **+0.2** |
| | baz=198 | | | | | | |
| **237A** | **Washetta, Mont** | **16.38** | **354** | P | **P** | **20 38 45.3** | **+1.6** |
| | baz=173 | | | | | | |
| **242A** | **Grayson** | **16.39** | **5** | P | **P** | **20 38 44.7** | **+0.7** |
| | baz=185 | | | | | | |
| **LTX** | **Lajitas** | **16.40** | **328** | *e*Pn | **Pn** | **20 38 43.4** | **+0.3** |
| **TX31** | **Lajitas Ar. Si** | **16.40** | **328** | *e*Pn | **P** | **20 38 45.3** | **+1.1** |
| **TXAR** | **Lajitas Array** | **16.40** | **328** | P | **Pn** | **20 38 43.4** | **+0.3** |
| | 0.1nm,0.3s,baz=147,slow=11,SNR=18 | | | | | | |
| **236A** | **Katherine and** | **16.46** | **352** | P | **P** | **20 38 46.6** | **+1.9** |
| | baz=171 | | | | | | |
| **348A** | **Jackson** | **16.55** | **18** | P | **P** | **20 38 46.0** | **+0.3** |
| | baz=200 | | | | | | |
| **BRAL** | **Brewton** | **16.60** | **20** | P | **P** | **20 38 46.3** | **0.0** |
| | baz=203 | | | | | | |
| **BRAL** | **Brewton** | **16.60** | **20** | *e*P | **P** | **20 38 47.2** | **+1.0** |
| | 90nm,0.8s | | | | | | |
| **WHTX** | **Lake Whitney,** | **16.61** | **349** | P | **P** | **20 38 46.7** | **+0.4** |
| | baz=168 | | | | | | |
| **WHTX** | **Lake Whitney,** | **16.61** | **349** | *e*Pn | **P** | **20 38 46.8** | **+0.4** |
| | 19nm,0.6s | | | | | | |
| WHTX | | | | *e*Sn | **Sn** | **20 41 46.9** | **-2.7** |
| **VBMS** | **Vicksburg** | **16.74** | **9** | P | **P** | **20 38 48.1** | **+0.3** |
| | baz=191 | | | | | | |
| **DWPF** | **Disney Wildern** | **16.82** | **41** | *e*Pn | **Pn** | **20 38 47.7** | **-0.4** |
| | 56nm,0.4s | | | | | | |
| **142A** | **Monroe** | **16.89** | **5** | P | **P** | **20 38 50.7** | **+1.2** |
| | baz=186 | | | | | | |
| **247A** | **Quitman** | **16.97** | **15** | P | **P** | **20 38 51.9** | **+1.5** |
| | baz=197 | | | | | | |
| **143A** | **Socs Landing,** | **17.09** | **7** | P | **P** | **20 38 53.2** | **+1.5** |
| | baz=188 | | | | | | |
| **145A** | **Houston Renfro** | **17.21** | **11** | P | **P** | **20 38 53.9** | **+0.8** |
| | baz=192 | | | | | | |
| **248A** | **Dixon Mills** | **17.24** | **17** | P | **P** | **20 38 54.3** | **+0.9** |
| | baz=200 | | | | | | |
| **146A** | **Union** | **17.42** | **13** | P | **Pn** | **20 38 56.7** | **+1.2** |
| | baz=195 | | | | | | |
| **Z39A** | **Irene McRaven,** | **17.51** | **359** | P | **P** | **20 38 56.4** | **+0.2** |
| | baz=179 | | | | | | |
| **Z42A** | **Norrel Spur, H** | **17.61** | **5** | P | **Pn** | **20 38 58.8** | **+1.2** |
| | baz=186 | | | | | | |
| **147A** | **Livingston** | **17.64** | **15** | P | **Pn** | **20 38 58.8** | **+0.7** |
| | baz=198 | | | | | | |
| **Z44A** | **Pea Ridge, Bel** | **17.79** | **9** | P | **Pn** | **20 39 00.7** | **+0.8** |
| | baz=190 | | | | | | |
| **Z46A** | **Louisville** | **17.98** | **13** | P | **Pn** | **20 39 03.3** | **+1.1** |
| | baz=195 | | | | | | |
| **Z45A** | **Winona** | **18.00** | **11** | P | **Pn** | **20 39 03.0** | **+0.5** |
| | baz=193 | | | | | | |
| **Z47A** | **Carrollton** | **18.19** | **15** | P | **Pn** | **20 39 06.1** | **+1.4** |
| | baz=198 | | | | | | |
| **GTBY** | **Guantanamo Bay** | **18.22** | **74** | *e*P | **P** | **20 39 03.3** | **-1.0** |
| | 84nm,0.8s | | | | | | |
| **TIGA** | **Tifton** | **18.23** | **29** | P | **Pn** | **20 39 04.8** | **-0.4** |
| | baz=213 | | | | | | |
| **TIGA** | **Tifton** | **18.23** | **29** | *e*P | **Pn** | **20 39 04.7** | **-0.4** |
| | 34nm,0.6s | | | | | | |
| **Y37A** | **Hugo** | **18.32** | **355** | P | **Pn** | **20 39 07.4** | **+1.2** |
| | baz=174 | | | | | | |
| **LRAL** | **Lakeview Retre** | **18.34** | **18** | P | **Pn** | **20 39 06.5** | **0.0** |
| | baz=201,SNR=5.2 | | | | | | |
| **LRAL** | **Lakeview Retre** | **18.34** | **18** | *e*P | **Pn** | **20 39 06.5** | **0.0** |
| | 9.4nm,0.7s | | | | | | |
| **Y35A** | **Marietta** | **18.41** | **351** | P | **Pn** | **20 39 08.0** | **+0.6** |
| | baz=170 | | | | | | |
| **Z48A** | **Northport** | **18.50** | **16** | P | **Pn** | **20 39 08.3** | **-0.1** |
| | baz=199 | | | | | | |
| **Y45A** | **Yeager Farm, C** | **18.51** | **11** | P | **Pn** | **20 39 09.3** | **+0.8** |
| | baz=193 | | | | | | |
| **Z49A** | **Columbiana** | **18.63** | **19** | P | **Pn** | **20 39 09.8** | **-0.2** |
| | baz=202,SNR=15 | | | | | | |
| **Y46A** | **Houston** | **18.66** | **13** | P | **Pn** | **20 39 10.7** | **+0.3** |
| | baz=195 | | | | | | |
| **X40A** | **Basin Creek Fa** | **18.76** | **2** | P | **Pn** | **20 39 11.6** | **0.0** |
| | baz=183 | | | | | | |
| **MIAR** | **Mount Ida** | **18.80** | **0** | P | **P** | **20 39 11.2** | **+0.7** |
| | baz=180,SNR=5.6 | | | | | | |
| **MIAR** | **Mount Ida** | **18.80** | **0** | *e*P | **P** | **20 39 11.1** | **+0.6** |
| | 23nm,0.7s | | | | | | |
| **X35A** | **Drake** | **18.88** | **352** | P | **Pn** | **20 39 12.9** | **-0.1** |
| | baz=170 | | | | | | |
| **X35A** | **Drake** | **18.88** | **352** | *e*P | **Pn** | **20 39 12.6** | **-0.4** |
| | 20nm,0.6s | | | | | | |
| **X37A** | **Clayton** | **18.90** | **356** | P | **Pn** | **20 39 13.3** | **0.0** |
| | baz=175 | | | | | | |
| **X37A** | **Clayton** | **18.90** | **356** | *e*P | **P** | **20 39 12.2** | **+0.6** |
| | 50nm,1.4s | | | | | | |
| **Y47A** | **UCPARC, Winfie** | **18.92** | **15** | P | **P** | **20 39 12.5** | **+0.7** |
| | baz=198,SNR=9.1 | | | | | | |
| **X38A** | **Whitesboro** | **18.95** | **357** | P | **Pn** | **20 39 13.6** | **-0.2** |
| | baz=177,SNR=5.5 | | | | | | |
| **Y48A** | **Jasper** | **19.11** | **17** | P | **P** | **20 39 14.6** | **+0.7** |
| | baz=200 | | | | | | |
| **OXF** | **Oxford** | **19.17** | **11** | P | **Pn** | **20 39 16.2** | **-0.1** |
| | baz=193 | | | | | | |
| **OXF** | **Oxford** | **19.17** | **11** | *e*P | **Pn** | **20 39 15.9** | **-0.4** |
| | 46nm,1.1s | | | | | | |
| **MNTX** | **Cornudas Mount** | **19.18** | **328** | P | **Pn** | **20 39 16.9** | **+0.3** |
| | baz=144 | | | | | | |
| **Y49A** | **Blount Mountai** | **19.28** | **19** | P | **P** | **20 39 16.8** | **+1.0** |
| | baz=202 | | | | | | |
| **W38A** | **Poteau** | **19.34** | **358** | P | **Pn** | **20 39 18.1** | **-0.2** |
| | baz=178 | | | | | | |
| **X46A** | **Booneville** | **19.37** | **13** | P | **P** | **20 39 17.6** | **+0.9** |
| | baz=195 | | | | | | |
| **W39A** | **Magazine** | **19.45** | **360** | P | **Pn** | **20 39 19.0** | **-0.6** |
| | baz=180 | | | | | | |
| **W37B** | **Quinton** | **19.45** | **356** | P | **Pn** | **20 39 19.0** | **-0.7** |
| | baz=175 | | | | | | |
| **W40A** | **Ferguson Farm,** | **19.46** | **2** | P | **P** | **20 39 18.3** | **+0.7** |
| | baz=182 | | | | | | |
| **W41B** | **Gary Mavity, V** | **19.47** | **4** | P | **P** | **20 39 18.0** | **+0.2** |
| | baz=184 | | | | | | |
| **X47A** | **Russelville** | **19.50** | **15** | P | **P** | **20 39 18.3** | **+0.2** |
| | baz=197 | | | | | | |
| **W36A** | **Wetumka** | **19.52** | **354** | P | **P** | **20 39 19.2** | **+0.9** |
| | baz=173 | | | | | | |
| **WMOK** | **Wichita Mounta** | **19.53** | **347** | P | **P** | **20 39 19.6** | **+1.2** |
| | baz=165 | | | | | | |
| **WMOK** | **Wichita Mounta** | **19.53** | **347** | *e*P | **P** | **20 39 19.4** | **+0.9** |
| | 19nm,1.4s | | | | | | |
| **W35A** | **Tecumseh** | **19.61** | **352** | P | **P** | **20 39 20.6** | **+1.3** |
| | baz=171 | | | | | | |
| **W35A** | **Tecumseh** | **19.61** | **352** | *e*P | **Pn** | **20 39 20.9** | **-0.6** |
| | 51nm,1.1s | | | | | | |
| **X48A** | **Hartselle** | **19.65** | **17** | P | **P** | **20 39 20.7** | **+1.0** |
| | baz=199,SNR=8.3 | | | | | | |
| **W45A** | **Hickory Valley** | **19.83** | **11** | P | **P** | **20 39 22.4** | **+0.7** |
| | baz=193 | | | | | | |
| **X49A** | **Woodville** | **19.91** | **18** | P | **P** | **20 39 22.8** | **+0.2** |
| | baz=201,SNR=10 | | | | | | |
| **GOGA** | **Godfrey** | **19.96** | **26** | *e*P | **P** | **20 39 23.0** | **-0.1** |
| | 24nm,0.8s | | | | | | |
| **OK022** | **N3560 Road, Pr** | **19.96** | **353** | *e*P | **P** | **20 39 23.6** | **+0.5** |
| | 46nm,0.8s | | | | | | |
| **MSTX** | **Muleshoe** | **19.97** | **338** | P | Pn | 20 39 25.2 | -0.7 |
| | baz=154 | | | | | | |
| **MSTX** | **Muleshoe** | **19.97** | **338** | *e*P | Pn | 20 39 25.2 | -0.7 |
| | 13nm,0.8s | | | | | | |
| **OK020** | **N3440 Road, Me** | **19.99** | **352** | *e*P | **P** | **20 39 23.4** | **-0.1** |
| | 41nm,0.8s | | | | | | |
| **OK021** | **N3530 Road, Sp** | **20.04** | **353** | *e*P | **P** | **20 39 24.6** | **+0.7** |
| | 46nm,0.8s | | | | | | |
| **V40A** | **Witts Springs** | **20.07** | **2** | P | **P** | **20 39 25.3** | **+1.0** |
| | baz=183 | | | | | | |
| **X50A** | **Fort Payne** | **20.08** | **20** | P | **P** | **20 39 24.4** | **0.0** |
| | baz=203,SNR=7.9 | | | | | | |
| **V41A** | **Mountainview** | **20.09** | **4** | P | **P** | **20 39 24.8** | **+0.3** |
| | baz=184 | | | | | | |
| **V39A** | **Pettigrew** | **20.09** | **0** | P | **P** | **20 39 25.2** | **+0.6** |
| | baz=180 | | | | | | |
| **V38A** | **Canehill** | **20.12** | **358** | P | **P** | **20 39 26.2** | **+1.3** |
| | baz=178 | | | | | | |
| **V36A** | **Jenks** | **20.14** | **355** | P | Pn | 20 39 26.5 | -1.1 |
| | baz=174 | | | | | | |
| **V42A** | **Cord** | **20.17** | **6** | P | **P** | **20 39 24.9** | **-0.4** |
| | baz=187 | | | | | | |
| **HELC** | **Santa Helena** | **20.18** | **116** | *e*P | **P** | **20 39 24.8** | **-1.2** |
| | 29nm,1.0s | | | | | | |
| **V37A** | **Hulbert** | **20.18** | **357** | P | **P** | **20 39 25.9** | **+0.5** |
| | baz=176 | | | | | | |
| **V35A** | **Meyer Ranch, C** | **20.21** | **353** | P | **P** | **20 39 27.2** | **+1.4** |
| | baz=171 | | | | | | |
| **V35A** | **Meyer Ranch, C** | **20.21** | **353** | *e*P | **P** | **20 39 26.1** | **+0.4** |
| | 38nm,0.6s | | | | | | |
| **TUL1** | **Leonard** | **20.25** | **355** | P | **P** | **20 39 27.3** | **+1.1** |
| | baz=174 | | | | | | |
| **AMTX** | **Amarillo** | **20.43** | **341** | P | **P** | **20 39 29.1** | **+0.8** |
| | baz=158 | | | | | | |
| **AMTX** | **Amarillo** | **20.43** | **341** | *e*P | **P** | **20 39 29.4** | **+1.1** |
| | 29nm,0.6s | | | | | | |
| **HHAR** | **Hobbs** | **20.54** | **360** | *e*P | **P** | **20 39 29.8** | **+0.5** |
| | 11nm,0.8s | | | | | | |
| **U40A** | **Yellville** | **20.62** | **2** | P | **P** | **20 39 30.2** | **-0.1** |
| | baz=182 | | | | | | |
| **U39A** | **Green Forest** | **20.64** | **1** | P | **P** | **20 39 31.1** | **+0.7** |
| | baz=181 | | | | | |

11nm,0.6s
U48A Cassie Pea, Po 21.73 16 P P 20 39 41.7 -0.3
baz=199
BNM Barren Site 21.77 330 eP P 20 39 44.6 +1.8
TKL Tuckaleechee C 21.81 22 P P 20 39 42.1 -0.9
3.2nm,0.5s,baz=192,slow=15,SNR=6.3
TKL Tuckaleechee C 21.81 22 eP P 20 39 42.6 -0.3
38nm,1.4s
S40A Lebanon 21.88 3 P P 20 39 43.4 -0.2
baz=183
S38A Stockton 21.88 360 P P 20 39 43.7 +0.1
baz=180,SNR=5.0
S41A Jillco Farms, 21.91 4 P P 20 39 44.3 +0.4
baz=185
T46A Princeton 21.91 13 P P 20 39 43.9 -0.1
baz=195
S39A Bolivar 21.94 1 P P 20 39 44.3 0.0
baz=181
PRAC Prado 22.01 121 eP P 20 39 45.7 +0.4
28nm,0.8s
S37A Fort Scott 22.03 358 P P 20 39 45.6 +0.3
baz=177
S36A Lake Cedric, C 22.04 356 P P 20 39 45.6 +0.3
baz=175,SNR=6.7
T47A Sharon Grove 22.04 14 P P 20 39 45.0 -0.3
baz=197
S35A Otter Creek Ra 22.05 355 P P 20 39 44.9 -0.6
baz=173
S43A Fulton Ridge, 22.06 8 P P 20 39 45.3 -0.2
baz=189
S42A Caledonia 22.17 6 P P 20 39 45.8 -0.9
baz=188
S44A Carbondale 22.30 9 P P 20 39 48.8 +0.8
baz=191
ANMO Albuquerque 22.34 332 P P 20 39 51.2 +2.4
1.7nm,0.7s,baz=349,slow=11,SNR=4.9
ANMO Albuquerque 22.34 332 P P 20 39 49.1 +0.3
baz=146
ANMO Albuquerque 22.34 332 eP P 20 39 51.1 +2.2
4.9nm,0.9s
KMSC Kings Mountain 22.35 28 P P 20 39 47.3 -1.4
baz=213
S45A Carrier Mills 22.39 11 P P 20 39 49.1 0.0
baz=193
CCM Cathedral Cave 22.41 5 P P 20 39 48.1 -1.1
baz=186
CCM Cathedral Cave 22.41 5 eP P 20 39 50.1 +0.9
32nm,0.7s
R38A Fenwick Farm, 22.44 360 P P 20 39 48.4 -1.1
baz=180
RUSC La Rusia 22.46 113 eP P 20 39 50.6 +0.1
26nm,1.8s
R39A Chumby, Stover 22.57 1 P P 20 39 48.6 -2.3
baz=182,SNR=7.5
R40A Maddies Statio 22.58 3 P P 20 39 49.9 -1.1
baz=184,SNR=5.5
R36A Gordon, Harris 22.63 356 P P 20 39 49.7 -1.8
baz=176
R41A Rosebud 22.64 5 P P 20 39 49.0 -2.6
baz=186,SNR=5.1
R42A Luebbering 22.68 6 P P 20 39 50.1 -1.9
baz=187,SNR=8.8
TUC Tucson 22.70 320 P P 20 39 52.4 0.0
baz=133
R34A Isabella, Hill 22.76 353 P P 20 39 52.1 -0.8
baz=171
R43A Red Bud 22.77 8 P P 20 39 52.5 -0.4
baz=190,SNR=6.9
R44A Waltonville 22.87 9 P P 20 39 53.0 -0.9
baz=192
S48A Wiedeman Farm, 22.93 16 P P 20 39 53.4 -1.1
baz=199
Q37A Longview Farm, 23.13 359 P P 20 39 55.7 -0.8
baz=178
Q35A Mercer Eighty, 23.20 355 P P 20 39 56.1 -1.0
baz=174
Q38A Cooks Store, C 23.21 0 P P 20 39 56.4 -0.8
baz=180
Q40A Laux Farm, Aux 23.29 3 P P 20 39 56.6 -1.3
baz=184
Q39A Willow Grove F 23.30 1 P P 20 39 57.5 -0.6
baz=182
Q41A Truxton 23.30 5 P P 20 39 56.5 -1.6
baz=186,SNR=11
Q42A Golden Eagle 23.33 6 P P 20 39 57.1 -1.2
baz=188
T25A Trinidad 23.40 338 P P 20 39 59.3 +0.1
baz=153
T25A Trinidad 23.40 338 eP P 20 39 58.2 -1.0
10nm,0.8s
R47A Wooly Knot Far 23.42 14 P P 20 39 58.7 -0.4
baz=198
HGTCO Madrid Canyon 23.46 338 eP P 20 40 00.3 +0.4
12nm,1.1s
MHTCO State Highway 23.49 338 eP P 20 40 02.1 +2.0
61nm,1.9s
OLIL Olney 23.51 11 eP P 20 40 00.2 +0.2
37nm,0.7s
SDV Santo Domingo 23.53 104 P P 20 39 59.9 -0.7
6.9nm,0.5s,baz=280,slow=14,SNR=5.0
SDV Santo Domingo 23.53 104 eP P 20 39 58.7 -2.0
12nm,0.8s
CBKS Cedar Bluff 23.66 348 P P 20 40 00.5 -0.8
baz=166
CBKS Cedar Bluff 23.66 348 eP P 20 40 01.3 -0.1
14nm,0.8s
P39B Salisbury 23.75 2 P P 20 40 00.4 -1.7
baz=182,SNR=6.3
214A Organ Pipe Nat 23.77 316 P P 20 40 01.5 -1.0
baz=129
X18A Snowflake 23.79 325 eP P 20 40 02.6 -0.1
5.7nm,0.9s
P40A Paris 23.82 3 P P 20 40 01.5 -1.2
baz=184,SNR=6.1
P37A Lathrop 23.84 359 P P 20 40 01.9 -1.0
baz=179
P35A Duane Minner, 23.86 356 P P 20 40 01.7 -1.4
baz=175,SNR=6.8
P38A Dawn 23.87 0 P P 20 40 02.1 -1.1
baz=180
P36A Good Intent, A 23.90 357 P P 20 40 02.6 -0.8
baz=177
P34A Walnut Farm, R 23.95 354 P P 20 40 02.4 -1.5
baz=173
P42A Winchester 24.02 6 P P 20 40 03.2 -1.2
baz=188
P41A Barry, Barry 24.04 5 P P 20 40 04.1 -0.5
baz=186,SNR=5.2
Q47A Bedord North L 24.05 14 P P 20 40 03.2 -1.6
baz=198
SDCO Great Sand Dun 24.34 337 P P 20 40 07.6 -0.1
baz=152
SDCO Great Sand Dun 24.34 337 eP P 20 40 08.7 +0.9
7.3nm,1.0s
P45A Graceland, Par 24.34 11 P P 20 40 06.7 -0.7
baz=194
O37A Wolven Farm, M 24.41 359 P P 20 40 07.6 -0.5
baz=179
O40A La Belle 24.42 3 P P 20 40 08.2 +0.1
baz=184
O41A Passleys Farm, 24.49 5 P P 20 40 08.1 -0.6
baz=187,SNR=5.9
O39A Kirksville 24.52 2 P P 20 40 09.5 +0.4
baz=183
P46A Rosedale 24.54 12 P P 20 40 08.8 -0.4
baz=195
KSCO Kaye Shedlock' 24.54 343 P P 20 40 09.8 +0.5
baz=159
X16A Lo Mia Camp, P 24.55 323 eP P 20 40 11.1 +1.4
8.1nm,0.9s
O34A Beatrice 24.57 355 P P 20 40 09.2 -0.3
baz=173
P47A Martinsville 24.62 14 P P 20 40 09.2 -0.7
baz=197
N37A Lee Faris, Mou 25.01 359 P P 20 40 13.1 -0.4
baz=179
N38A Joes South For 25.04 1 P P 20 40 13.6 -0.2
baz=181
O45A Potomac 25.05 11 P P 20 40 13.3 -0.5
baz=194
N41A Harden Midland 25.08 5 P P 20 40 14.0 -0.1
baz=187
HDIL Hopedale 25.10 8 P P 20 40 14.9 +0.6
baz=190
N39A Derby Farms, D 25.14 2 P P 20 40 15.3 +0.5
baz=183
N35A Tabor 25.16 357 P P 20 40 15.0 +0.1
baz=176
N42A Yates City 25.28 7 P P 20 40 16.1 +0.2
baz=188
N43A Stutzman Famil 25.49 8 P P 20 40 16.7 -1.2
baz=190,SNR=10
M37A Trindle Farm, 25.65 359 P P 20 40 19.2 -0.1
baz=179
M38A Pleasantville 25.67 1 P P 20 40 19.0 -0.4
baz=181,SNR=7.8
M36A Felix, Anita 25.72 358 P P 20 40 18.3 -1.6
baz=178
M40A Post Highland 25.72 4 P P 20 40 18.9 -1.0
baz=185
M35A Neola 25.77 357 P P 20 40 20.3 0.0
baz=176
M34A Aspy Farms, Fr 25.87 355 P P 20 40 21.0 -0.3
baz=174
M33A Taylor Creek F 25.99 354 P P 20 40 22.2 -0.2
baz=172
SCIA State Center 26.16 1 P P 20 40 24.0 +0.1
baz=181
OGNE Ogallala 26.20 346 P P 20 40 22.9 -1.5
baz=162
L34A Svendsen Farm, 26.31 356 P P 20 40 25.5 +0.2
baz=174
L36A Harm Buss Farm 26.36 358 P P 20 40 25.1 -0.6
baz=178
L37A Phoenix Point, 26.37 360 P P 20 40 24.9 -0.9
baz=180
SWSC Sam W. Stewart 26.38 315 P P 20 40 24.6 -1.3
baz=126
L38A Oak Wood Farm, 26.39 1 P P 20 40 25.0 -1.0
baz=182
L40A Anamosa 26.40 4 P P 20 40 25.4 -0.7
baz=186,SNR=5.6
L41A Preston 26.47 5 P P 20 40 27.1 +0.4
baz=187,SNR=5.1
L42A Oliver, Polo 26.48 7 P P 20 40 27.2 +0.4
baz=189
K36A Gilmore City 26.89 359 P P 20 40 29.5 -1.0
baz=178
K41A Shullsburg 27.01 6 P P 20 40 29.8 -1.7
baz=187
K40A Colesburg 27.04 4 P P 20 40 31.0 -0.8
baz=186
BELC Belle Mtn. Jos 27.13 316 P P 20 40 33.0 +0.1
baz=127
JFWS Jewell Farm 27.32 6 P P 20 40 34.0 -0.3
baz=187
O20A White River Ci 27.47 335 P P 20 40 36.0 0.0
baz=149
J36A Seneca 1, Swea 27.58 359 P P 20 40 35.4 -1.2
baz=179
J35A Milford 27.64 358 P P 20 40 35.9 -1.3
baz=177
ECSD EROS Data Cent 28.09 356 P P 20 40 40.4 -0.7
baz=174
ECSD EROS Data Cent 28.09 356 eP P 20 40 41.2 0.0
8.9nm,0.7s
I35A Creekview Farm 28.12 358 P P 20 40 40.7 -0.7
baz=178
I36A Fitzsimmons Fa 28.26 360 P P 20 40 42.1 -0.6
baz=180
I34A Hadley 28.34 357 P P 20 40 43.1 -0.3
baz=176
I33A Coleman 28.41 355 P P 20 40 43.6 -0.4
baz=174
H36A Jesseniand, He 28.82 360 P P 20 40 48.1 +0.4
baz=180
H32A Carlson Farm, 28.92 355 P P 20 40 47.9 -0.6
baz=173
H34A Spellman Lake, 28.96 357 P P 20 40 48.2 -0.7
baz=176
H33A Prehn Over Nor 29.04 356 P P 20 40 48.7 -0.9
baz=174
G38A Ridgeland 29.45 3 P P 20 40 52.3 -1.0
baz=184
G36A St. Michael 29.48 360 P P 20 40 52.8 -0.7
baz=180
SPMN Marine on St. 29.48 1 P P 20 40 52.7 -0.8
baz=182
G33A Ortonville 29.53 356 P P 20 40 52.9 -1.0
baz=175
DAC Darwin (Calif) 29.55 318 eP P 20 40 56.0 +1.5
15nm,1.8s
G39A Holcombe 29.61 4 P P 20 40 52.7 -1.9
baz=185
G32A Webster 29.67 355 P P 20 40 54.4 -0.8
baz=173
WOFM Oak Flat 29.84 316 ePcP PcP 20 43 56.8 -1.4
F34A Alexandria 30.07 358 P P 20 40 57.2 -1.4
baz=177
F36A Milaca 30.11 0 P P 20 40 58.2 -0.8
baz=180
F35A Swanville 30.11 359 P P 20 40 58.4 -0.7
baz=178
F33A 5 Mile Ranch, 30.16 356 P P 20 40 58.5 -1.0
baz=175
BW06 Boulder Array 30.23 336 P P 20 40 57.0 -3.4
baz=149
E36A McGregor 30.76 1 P P 20 41 03.9 -0.9
baz=181
E34A Wadena 30.78 358 P P 20 41 04.4 -0.5
baz=177
E33A Westby DABS, E 30.81 357 P P 20 41 04.0 -1.2
baz=176
E35A Pequot Lakes 30.81 359 P P 20 41 04.4 -0.7
baz=179,SNR=5.8
E40A Wakefield 30.85 5 P P 20 41 04.2 -1.4
baz=187
E31A Nome 31.00 354 P P 20 41 05.6 -1.2
baz=172
D35A Remer 31.33 360 P P 20 41 09.1 -0.6
baz=179
NV01 Mina Array Sit 31.34 321 eP P 20 41 12.0 +1.8
NVAR Mina Array Bea 31.34 321 P P 20 41 12.9 +2.7
1.6nm,0.7s,baz=137,slow=8.9,SNR=7.2
NVAR pP pP 20 41 32.9 +1.4
2.1nm,0.7s,baz=130,slow=8.7,SNR=6.9
D37A Cotton 31.42 2 P P 20 41 09.8 -0.8
baz=182
E45A Wooded Hills, 31.42 11 P P 20 41 08.9 -1.7
baz=196
D33A AnnSam, Waubun 31.43 357 P P 20 41 10.1 -0.6
baz=176
D31A Mcclaflin, Tow 31.47 355 P P 20 41 10.2 -0.8
baz=173
D32A Dogwood Acres, 31.50 356 P P 20 41 10.0 -1.3
baz=174
E44A Grand Marais A 31.54 10 P P 20 41 10.0 -1.7
baz=194
C35A Jirik Farms, M 31.95 360 P P 20 41 14.5 -0.7
baz=180
C36A Pine Crest Far 32.01 1 P P 20 41 15.4 -0.4
baz=182
C31A Landman Farms, 32.21 355 P P 20 41 16.1 -1.4
baz=173,SNR=12
MDND Maddock 32.46 353 P P 20 41 19.4 -0.3
baz=170
MDND Maddock 32.46 353 eP P 20 41 20.5 +0.8
39nm,0.8s
AGMN Agassiz Nation 32.59 357 P P 20 41 19.7 -1.1
baz=176
AGMN Agassiz Nation 32.59 357 eP P 20 41 19.8 -1.1
15nm,1.0s
B35A Bob, Littlefor 32.60 360 P P 20 41 19.6 -1.3
baz=180
B32A Ashes, Strandq 32.72 357 P P 20 41 20.5 -1.4
baz=175,SNR=6.1
B34A Aery, Baudette 32.74 359 P P 20 41 20.8 -1.3
baz=178
B31A Greenbush Farm 32.83 355 P P 20 41 21.9 -1.0
baz=173
A33A Warroad 33.21 358 P P 20 41 25.3 -0.9
baz=177
A32A Rocking H Ranc 33.24 357 P P 20 41 25.7 -0.8
baz=175
DGMT Dagmar 33.83 347 P P 20 41 32.4 +0.7
baz=162
ULM Lac du Bonnet 34.54 358 P P 20 41 35.7 -2.0
4.9nm,0.7s,baz=177,slow=9.1,SNR=11
ULM Lac du Bonnet 34.54 358 eP P 20 41 36.3 -1.4
45nm,1.9s
PTGA Pitinga 37.11 113 eP P 20 41 59.6 -0.6
9.3nm,0.7s
I03D Drain, OR 37.62 324 P P 20 42 03.8 -0.2
baz=129
SAML Samuel 38.90 127 eP P 20 42 13.9 -1.2
2.9nm,0.9s
FFC Flin Flon 39.50 352 eP P 20 42 20.1 +0.4
31nm,1.8s
LPAZ La Paz 40.57 140 P P 20 42 32.5 +2.8
0.9nm,0.5s,baz=306,slow=8.7,SNR=5.1
YKA Yellowknife Ar 49.04 347 P P 20 43 36.1 +0.5
5.9nm,0.6s,baz=152,slow=7.5,SNR=116
YKA pP pP 20 43 56.9 -1.2
2.3nm,0.7s,baz=149,slow=7.6,SNR=5.4
YKW3 Yellowknife Ar 49.10 347 eP P 20 43 36.6 +0.6
7.6nm,0.6s
CPUP Villa Florida 54.72 139 P P 20 44 19.8 +1.5
1.7nm,0.8s,baz=304,slow=8.9,SNR=4.4
CPUP Villa Florida 54.72 139 eP P 20 44 17.8 -0.5
16nm,1.9s
INK Inuvik 58.38 344 P P 20 44 43.9 +0.3
3.1nm,0.5s,baz=124,slow=5.7,SNR=18
INK pP pP 20 45 06.2 -0.5
8.7nm,0.9s,baz=126,slow=8.0,SNR=9.7
INK Inuvik 58.38 344 eP P 20 44 44.7 +1.1
INK epP pP 20 45 06.3 -0.5
PLCA Paso Flores 60.09 160 P P 20 44 56.7 +0.8
4.5nm,0.9s,baz=354,slow=8.4,SNR=6.9
PLCA pP pP 20 45 19.5 +0.3
3.8nm,1.0s,baz=7.4,slow=7.4,SNR=3.4
ILAR Eielson Array 60.66 337 P P 20 45 01.5 +2.1
0.3nm,0.4s,baz=129,slow=5.4,SNR=8.9
ILAR pP pP 20 45 22.4 -0.4
1.4nm,0.5s,baz=146,slow=5.3,SNR=9.3
ILB Eielson Array 60.66 337 eP P 20 45 00.5 +1.2
ILB epP pP 20 45 21.7 -1.1
TRF Thorofare Moun 61.43 335 eP P 20 45 05.5 +0.7
TRF epP pP 20 45 28.6 +0.4
MDT Midelt 80.95 58 LR LR 21 18 41.8
comp=Z,34nm,21.0s,slow=32
NB200 NORSAR Array S 83.48 28 eP P 20 47 16.5 +0.9
NOA NORSAR Array B 83.48 28 P P 20 47 16.5 +0.9
0.9nm,0.5s,baz=286,slow=6.5,SNR=3.1
ARA0 ARCESS Array S 85.08 18 eP P 20 47 23.5 0.0
ARCES ARCESS Array B 85.08 18 P P 20 47 23.5 0.0
4.8nm,0.7s,baz=293,slow=4.9,SNR=29
GERES GERESS Array B 89.38 39 LR LR 21 25 31.7
comp=Z,140nm,20.8s,baz=28,slow=34
FIA0 FINESS Array S 89.70 25 eP P 20 47 45.7 -0.1
FINES FINESS Array B 89.70 25 P P 20 47 45.7 -0.1
7.2nm,1.1s,baz=248,slow=2.1,SNR=5.9
MK32 Makanchi Array 117.73 3 ePKPdf PKPdf 20 53 34.3 +0.4
MKAR Makanchi Array 117.73 3 PKP PKPdf 20 53 34.3 +0.4
0.4nm,0.7s,baz=10,slow=1.4,SNR=4.2
HHC Hu-ho-hao-te 119.07 338 eP PKPdf 20 53 36.5 -0.3
HHC pmax pmax
comp=Z,9.0nm,0.5s
HHC pmax pmax
comp=Z,140nm,5.5s
WMQ Urumqi 120.79 359 eP PKPdf 20 53 39.5 -0.4
BOSA Boshof 122.56 114 PKP PKPdf 20 53 45.0 +1.3
comp=Z,1.9nm,0.7s,baz=0.0,slow=1.0,SNR=3.8
NJ2 Nanjing 123.20 327 eP PKPdf 20 53 44.8 0.0
NJ2 pmax pmax
comp=Z,14nm,0.6s
KSH Kashi 124.27 10 PKP PKPdf 20 53 47.3 +0.5
KSH sPKP 20 54 24.0
KSH PP PP 20 55 37.5 +5.9
KSH PKS PKSdf 20 57 22.0 -1.6
KSH SKS SKSdf 21 00 46.8 -3.8
KSH SKKS SKKSac 21 02 18.0 -4.9
KSH Kashi 124.27 10 SS SS 21 12 16.5 +1.4
KSH AMB AMB
comp=Z,150nm,5.1s
KSH LR LR
comp=N,38nm,4.0s
KSH LR LR
comp=E,31nm,3.6s
KSH LR LR
comp=Z,170nm,5.1s
STKA Stephens Creek 127.40 242 PKP PKPdf 20 53 53.3 +0.6
comp=Z,2.3nm,0.8s,baz=148,slow=4.7,SNR=4.9
WR1 Warramunga Arr 134.16 257 ePKPdf PKPdf 20 54 06.7 +0.8
WRA Warramunga Arr 134.16 257 PKP PKPdf 20 54 06.7 +0.8
comp=Z,1.0nm,0.7s,baz=6.0,slow=0.6,SNR=9.2
ASAR Alice Springs 134.62 252 PKP PKPdf 20 54 07.5 +0.8
comp=Z,0.2nm,0.5s,baz=78,slow=2.1,SNR=4.2
CMAR Chiang Mai Arr 143.87 339 PKP PKPbc 20 54 22.0 +0.5
comp=Z,0.5nm,0.7s,baz=328,slow=3.2,SNR=3.1
CMAR pPKP pPKPdf 20 54 48.7 -1.0
comp=Z,0.7nm,0.8s,baz=328,slow=1.5,SNR=2.8

---

*ISK* **29** *20:57:29.8, 38.71N×43.44E, h5km, MD2.7*
*CSEM* **29** *20:57:30.6±0.2, 38.69N×43.47E, h2km, MD2.7, Error ellipse: s-maj=7.6km s-min=4.4km az=107.0*
*DDA* **29** *20:57:30.1, 38.67N×43.50E, h7km, Ml2.5*
*ISCJB* **29** *20:57:31.0±0.5, 38.71N±0.03×43.43E±0.07, h7km±7km, Error ellipse: s-maj=9.0km s-min=4.7km az=9.7*
**ISC 29 20:57:30.3±1.1, 38.69N±0.03×43.47E±0.05, h14km±8km, n26, σ0.45/32, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VANB | Van | 0.11 | 215 | ePG | Pg | 20 57 34.2 | +0.5 |
| VANB | Van | 0.11 | 215 | ePg | Pg | 20 57 34.2 | +0.5 |
| TVAN | Van | 0.16 | 197 | i P | Pg | 20 57 34.1 | -0.3 |
| TVAN | | | | i S | Sb | 20 57 38.7 | +0.1 |
| TVAN | Van | 0.16 | 197 | P | Pg | 20 57 34.1 | -0.3 |
| TVAN | | | | S | Sb | 20 57 38.7 | +0.1 |
| VMUR | Van-Muradiye | 0.31 | 15 | i P | Pg | 20 57 36.9 | 0.0 |
| VMUR | Van-Muradiye | 0.31 | 15 | P | Pg | 20 57 36.9 | 0.0 |
| GEVA | Gevas | 0.49 | 221 | i P | Pg | 20 57 39.9 | -0.1 |
| GEVA | Gevas | 0.49 | 221 | P | Pg | 20 57 39.9 | -0.1 |
| CLDR | Caldiran | 0.57 | 37 | ePG | Pg | 20 57 42.0 | +0.4 |
| CLDR | | | | eSG | Sb | 20 57 51.0 | +0.5 |
| CLDR | Caldiran | 0.57 | 37 | i P | Pg | 20 57 41.7 | +0.1 |
| CLDR | Caldiran | 0.57 | 37 | P | Pg | 20 57 41.7 | +0.1 |
| CLDR | Caldiran | 0.57 | 37 | ePg | Pg | 20 57 42.0 | +0.4 |
| CLDR | | | | eSg | Sb | 20 57 51.0 | +0.5 |
| ADCV | BITLIS_Adilcev | 0.59 | 282 | i P | Pb | 20 57 42.5 | -0.1 |
| ADCV | BITLIS_Adilcev | 0.59 | 282 | P | Pb | 20 57 42.5 | -0.1 |
| TUTA | Tutak | 0.88 | 325 | i P | Pb | 20 57 47.3 | -0.2 |
| TUTA | Tutak | 0.88 | 325 | P | Pb | 20 57 47.3 | -0.2 |
| AGRB | Hanur-Agry | 0.96 | 338 | ePG | Pb | 20 57 48.5 | -0.4 |
| AGRB | | | | eSG | Sn | 20 58 02.9 | -0.3 |
| AGRB | Hanur-Agry | 0.96 | 338 | ePg | Pb | 20 57 48.5 | -0.4 |
| AGRB | | | | eSg | Sn | 20 58 02.9 | -0.3 |
| HAKT | HAKKARI | 1.14 | 170 | i P | Pb | 20 57 51.2 | -0.7 |
| HAKT | HAKKARI | 1.14 | 170 | P | Pb | 20 57 51.2 | -0.7 |
| TASB | TASBURUN-IGDIR | 1.43 | 24 | ePN | Pg | 20 57 57.9 | +0.2 |
| TASB | TASBURUN-IGDIR | 1.43 | 24 | ePn | Pg | 20 57 57.9 | +0.2 |
| SIRT | Sirnak | 1.44 | 215 | ePN | Pg | 20 57 58.4 | +0.5 |
| SIRT | Sirnak | 1.44 | 215 | ePn | Pg | 20 57 58.4 | +0.5 |
| CUKT | Cukurca | 1.44 | 176 | ePN | Pg | 20 57 58.9 | +0.9 |
| CUKT | Cukurca | 1.44 | 176 | ePn | Pg | 20 57 58.9 | +0.9 |

---

*ISCJB* **29** *21:03:29.2±1.2, 45.42N±0.08×107.02W±0.07, h0km, Error ellipse: s-maj=11.7km s-min=7.0km az=161.2*
*NEIC* **29** *21:03:31.3±1.2, 45.33N×107.06W, h0km, ML2.5, Error ellipse: s-maj=23.4km s-min=11.3km az=147.0, Suspected Mining explosion.*
*NEIC 59 km [37 miles] N of Sheridan.*
*IDC* **29** *21:03:31.2±1.2, 45.38N×107.41W, h0km, mb1 3.3/3, mb1mx3.1/63, mbtmp3.0/3, ML2.9/3, Error ellipse: s-maj=41.2km s-min=8.7km az=132.0*
**ISC 29 21:03:30.8±1.4, 45.4N±0.1×107.05W±0.06, h0km, n6, σ1.22/12, Montana**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RSSD | Black Hills | 2.50 | 120 | ePn | Pn | 21 04 12.9 | 0.0 |
| RSSD | | | | ePg | Pg | 21 04 18.8 | +0.2 |
| RSSD | | | | eSn | Sn | 21 04 43.7 | -0.4 |
| RSSD | | | | eSg | Sb | 21 04 48.5 | +0.5 |
| K22A | Casper | 2.77 | 172 | ePn | Pn | 21 04 15.4 | -1.1 |
| K22A | | | | eSn | Sn | 21 04 50.6 | -0.1 |
| PDAR | Pinedale Array 1.3nm,0.3s,baz=45,slow=18,SNR=16 | 3.19 | 215 | Pn | Pn | 21 04 23.9 | +1.5 |
| PDAR | 2.7nm,0.3s,baz=38,slow=31,SNR=11 | | | Lg | Lg | 21 05 05.5 | |
| BW06 | Boulder Array | 3.19 | 215 | ePn | Pn | 21 04 21.3 | -1.1 |
| BW06 | | | | Pg | Pg | 21 04 31.8 | -0.1 |
| BW06 | | | | eSn | Sn | 21 05 03.6 | +2.4 |
| ULM | Lac du Bonnet 0.4nm,0.3s,baz=235,slow=14,SNR=6.8 | 8.95 | 53 | Pn | Pn | 21 05 42.2 | +1.0 |
| ULM | 0.1nm,0.3s,baz=36,slow=17,SNR=2.0 | | | Lg | Lg | 21 08 13.7 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **NVAR** | **Mina Array Bea** | **10.89** | **234** | Pn | **Pn** | **21 06 06.9** | **-1.2** |
| | baz=44,slow=18,SNR=2.2 | | | | | | | | |
| NVAR | | | | Pg | | 21 06 50.4 | |
| | baz=55,slow=13,SNR=2.7 | | | | | | | | |

**MEX 29 21:08:53.1±1.0, 17°.13N×94°.58W, h173km±16km, MD3.8, Chiapas**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TGIG** | | **1.44** | **104** | *e*P | Pn | 21 09 23.4 | -0.5 |
| TGIG | | | | *i* S | Sn | 21 09 45.0 | -2.7 |
| **HUIG** | **Huatulco** | **2.00** | **228** | *e*P | Pn | 21 09 27.9 | -1.8 |
| HUIG | | | | *e*S | Sn | 21 09 56.4 | -1.7 |
| **VHO** | **Vista Hermosa** | **2.06** | **269** | *e*P | Pn | 21 09 29.9 | -0.7 |
| VHO | | | | *i* S | Sn | 21 09 57.5 | -2.1 |
| **PNIG** | **Pinotepa** | **3.48** | **258** | *e*P | Pn | 21 09 45.2 | -2.2 |
| PNIG | | | | *i* S | Sn | 21 10 26.1 | -3.7 |

*ISCJB **29** 21:10:21.3±1.3, 4°.1S±0°.1×142°.4E±0°.1, h105km, mb3.7/3, Error ellipse: s-maj=23.8km s-min=14.1km az=35.0*
*IDC **29** 21:10:29.4±3.1, 4°.47S×142°.64E, h170km±30km, mb3.3/3, mb1 3.5/5, mb1mx3.1/35, mbtmp3.9/5, MS2.9/1, Ms1 2.9/1, ms1mx2.5/17, Error ellipse: s-maj=40.1km s-min=14.9km az=115.0*

**ISC 29 21:10:23.6±1.3, 4°.3S±0°.1×142°.3E±0°.2, h105km, n7, σ2s 15/8, New Guinea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PMG** | **Port Moresby** | **7.04** | **137** | P | **Pn** | **21 12 04.9** | **+0.8** |
| | 1.4nm,0.3s,baz=326,slow=11,SNR=6.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **17.41** | **206** | P | **P** | **21 14 19.7** | **0.0** |
| | 1.0nm,0.3s,baz=24,slow=12,SNR=61 | | | | | | |
| WRA | | | | S | **Sn** | **21 17 33.5** | **-0.5** |
| | 0.1nm,0.3s,baz=23,slow=21,SNR=4.7 | | | | | | |
| **GUMO** | **Guam** | **17.91** | **8** | LR | LR | 21 21 45.7 | |
| | comp=Z,36nm,20.4s,baz=179,slow=37 | | | | | | |
| **ASAR** | **Alice Springs** | **20.93** | **202** | P | **P** | **21 14 58.7** | **+0.7** |
| | 1.2nm,0.5s,baz=33,slow=12,SNR=17 | | | | | | |
| ASAR | | | | S | **S** | **21 18 42.2** | **-3.3** |
| | 0.7nm,0.9s,baz=29,slow=19,SNR=3.3 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **21.32** | **229** | P | **P** | **21 15 04.5** | **+2.3** |
| | 3.2nm,0.9s,baz=52,slow=12,SNR=10 | | | | | | |
| **ILAR** | **Eielson Array** | **85.77** | **24** | P | **P** | **21 22 48.9** | **-1.9** |
| | 0.7nm,0.5s,baz=258,slow=4.3,SNR=9.3 | | | | | | |
| **DBIC** | **Dimbokro** | **147.21** | **276** | PKPbc | **PKPdf** | **21 29 54.8** | **+1.4** |
| | 1.6nm,0.5s,baz=127,slow=5.1,SNR=5.1 | | | | | | |

**IDC 29 21:17:40.2±3.2, 7°.72S×146°.57E, h0km, mb1 3.7/2, mb1mx3.3/29, mbtmp3.4/2, ML3.2/2, Error ellipse: s-maj=62.6km s-min=40.2km az=60.0, Eastern New Guinea region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PMG** | **Port Moresby** | **1.78** | **161** | Pn | Pn | 21 18 11.6 | -0.6 |
| | 1.6nm,0.3s,baz=322,slow=12,SNR=5.0 | | | | | | |
| PMG | | | | Sn | Sn | 21 18 31.6 | -4.0 |
| | 7.0nm,0.3s,baz=128,slow=22,SNR=9.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **16.98** | **223** | Pn | Pn | 21 21 40.2 | +0.9 |
| | 0.1nm,0.3s,baz=44,slow=11,SNR=3.1 | | | | | | |
| **ASAR** | **Alice Springs** | **19.98** | **216** | P | P | 21 22 14.2 | -0.1 |
| | 0.2nm,0.3s,baz=49,slow=9.7,SNR=15 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **145.06** | **282** | PKPbc | PKPbc | 21 37 19.5 | -0.6 |
| | 0.4nm,0.9s,baz=77,slow=3.8,SNR=3.5 | | | | | | |

*MOS **29** 21:18:29.4±0.9, 56°.28N×112°.87E, h10km, mb4.2/1, Error ellipse: s-maj=29.6km s-min=18.2km az=80.1*

**BYKL 29 21:18:29.2±0.2, 56°.27N×112°.84E, h23km±3km, 4C-5D, Lake Baykal region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SVKR** | **Severomuysk** | **0.43** | **111** | ⇑*i*Pg | Pb | 21 18 37.9 | -0.3 |
| SVKR | | | | *e*Sg | Sb | 21 18 44.0 | -0.3 |
| SVKR | | | | Pmax | | | |
| | 2μm,0.1s | | | | | | |
| SVKR | | | | Smax | | | |
| | 8μm,0.4s | | | | | | |
| **SVKR** | **Severomuysk** | **0.43** | **111** | *e*PG | Pb | 21 18 37.9 | -0.3 |
| SVKR | | | | *e* | | 21 18 43.5 | |
| SVKR | | | | pmax | pmax | | |
| | comp=Z,2μm,0.4s | | | | | | |
| SVKR | | | | smax | smax | | |
| | comp=E,7μm,0.4s | | | | | | |
| **YOA** | **Uoyan** | **0.64** | **258** | *e*Pg | Pb | 21 18 41.9 | +0.2 |
| YOA | | | | *e*Sg | Sb | 21 18 51.1 | +0.9 |
| YOA | | | | Pmax | | | |
| | comp=E,120nm,0.1s | | | | | | |
| YOA | | | | Smax | | | |
| | comp=E,1μm,0.3s | | | | | | |
| **YOA** | **Uoyan** | **0.64** | **258** | ⇓*i*PG | Pb | 21 18 41.9 | +0.2 |
| YOA | | | | *e* | | 21 18 51.6 | |
| YOA | | | | pmax | pmax | | |
| | comp=Z,144nm,0.3s | | | | | | |
| YOA | | | | smax | smax | | |
| | comp=E,1μm,0.3s | | | | | | |
| **UKT** | **Uakit** | **0.90** | **150** | ⇑*i*Pg | Pb | 21 18 45.8 | -0.4 |
| UKT | | | | *e*Sg | Sb | 21 18 57.8 | 0.0 |
| UKT | | | | *e*Sb | Sn | 21 19 01.8 | +3.0 |
| UKT | | | | Pmax | | | |
| | comp=E,130nm,0.4s | | | | | | |
| UKT | | | | Smax | | | |
| | comp=E,554nm,0.2s | | | | | | |
| **UKT** | **Uakit** | **0.90** | **150** | ⇑*i*PG | Pb | 21 18 45.8 | -0.4 |
| UKT | | | | *e* | | 21 18 57.9 | |
| UKT | | | | pmax | pmax | | |
| | comp=Z,147nm,0.5s | | | | | | |
| UKT | | | | smax | smax | | |
| | comp=E,539nm,0.3s | | | | | | |
| **KMO** | **Kumora** | **1.00** | **248** | *e*Pg | Pn | 21 18 47.9 | +0.1 |
| KMO | | | | *e*Sg | Sn | 21 19 01.1 | 0.0 |
| KMO | | | | Pmax | | | |
| | comp=E,41nm,0.2s | | | | | | |
| KMO | | | | Smax | | | |
| | comp=E,274nm,0.5s | | | | | | |
| **KMO** | **Kumora** | **1.00** | **248** | ⇓*i*Pg | Pn | 21 18 48.1 | +0.3 |
| KMO | | | | *e* | | 21 19 01.4 | |
| KMO | | | | pmax | pmax | | |
| | comp=Z,11nm,0.1s | | | | | | |
| KMO | | | | smax | smax | | |
| | comp=N,276nm,0.5s | | | | | | |
| **NLYR** | **Nelyaty** | **1.61** | **81** | ⇓*i*Pg | Pb | 21 18 57.9 | -0.3 |
| NLYR | | | | *e* | | 21 18 59.1 | |
| NLYR | | | | *e*Sg | Sb | 21 19 20.0 | +2.0 |
| NLYR | | | | max | | | |
| | comp=N,42nm,0.2s | | | | | | |
| NLYR | | | | Smax | | | |
| | comp=N,152nm,0.6s | | | | | | |
| **BOD** | **Bodaibo** | **1.68** | **22** | *e*Pg | Pb | 21 18 58.9 | -0.5 |
| BOD | | | | *e*Sg | Sb | 21 19 21.0 | +1.0 |
| BOD | | | | Pmax | | | |
| | comp=N,21nm,0.2s | | | | | | |
| BOD | | | | Smax | | | |
| | comp=N,698nm,0.3s | | | | | | |
| **BOD** | **Bodaibo** | **1.68** | **22** | *e*PN | Pb | 21 18 58.5 | -0.9 |
| BOD | | | | *e* | | 21 19 20.9 | |
| BOD | | | | pmax | pmax | | |
| | comp=Z,21nm,0.2s | | | | | | |
| BOD | | | | smax | smax | | |
| | comp=E,695nm,0.4s | | | | | | |
| **YLYR** | **Ulyunkhan** | **1.69** | **215** | ⇓*i*Pg | Pb | 21 18 59.2 | -0.4 |
| YLYR | | | | *e*Sg | Sb | 21 19 21.6 | +1.2 |
| YLYR | | | | Pmax | | | |
| | comp=E,32nm,0.2s | | | | | | |
| YLYR | | | | Smax | | | |
| | comp=E,233nm,0.2s | | | | | | |
| **YLYR** | **Ulyunkhan** | **1.69** | **215** | ⇓*i*PN | Pb | 21 18 59.2 | -0.4 |
| YLYR | | | | *e* | | 21 18 59.6 | |
| YLYR | | | | *e* | | 21 19 22.0 | |
| YLYR | | | | pmax | pmax | | |
| | comp=Z,32nm,0.2s | | | | | | |
| YLYR | | | | smax | smax | | |
| | comp=N,234nm,0.3s | | | | | | |
| **NIZ** | **Nizh Angarsk** | **1.92** | **256** | *e*Pg | Pb | 21 19 04.0 | +0.6 |
| NIZ | | | | *e*Sn | Sb | 21 19 25.7 | -1.2 |
| NIZ | | | | *e*Sg | Sn | 21 19 29.2 | +5.4 |
| NIZ | | | | Pmax | | | |
| | comp=N,15nm,0.3s | | | | | | |
| NIZ | | | | Smax | | | |
| | comp=N,122nm,0.3s | | | | | | |
| **CRS** | **Chara** | **3.07** | **76** | *e*Pn | Pn | 21 19 18.1 | +1.8 |
| CRS | | | | *e*Pg | Pb | 21 19 23.9 | +0.8 |
| CRS | | | | *e* | | 21 19 30.6 | |
| CRS | | | | *e*Sg | Sb | 21 20 04.6 | +4.5 |
| CRS | | | | Pmax | | | |
| | comp=N,6.0nm,0.2s | | | | | | |
| CRS | | | | Smax | | | |
| | comp=N,47nm,0.4s | | | | | | |
| **SYVR** | **Suvo** | **3.09** | **213** | *e*Pn | Pn | 21 19 17.7 | +1.2 |
| SYVR | | | | *e*Pg | Pb | 21 19 24.7 | +1.3 |
| SYVR | | | | *e*Sn | Sn | 21 19 53.6 | +0.9 |
| SYVR | | | | *e*Sg | Sb | 21 20 04.0 | +3.4 |
| SYVR | | | | Pmax | | | |
| | comp=N,5.0nm,0.3s | | | | | | |
| SYVR | | | | Smax | | | |
| | comp=N,49nm,0.3s | | | | | | |
| **MXMB** | **Maximikha** | **3.83** | **220** | *e*Pg | Pb | 21 19 38.0 | +1.9 |
| MXMB | | | | *e*Sg | Sb | 21 20 28.8 | +6.7 |
| **OGRR** | **Ongureny** | **4.01** | **231** | *e*Pn | Pn | 21 19 30.9 | +1.7 |
| OGRR | | | | *e* | | 21 19 35.8 | |
| OGRR | | | | *e*Pg | Pb | 21 19 41.3 | +2.2 |
| OGRR | | | | *e*Sn | Sn | 21 20 13.6 | -1.8 |
| OGRR | | | | *e*Sg | Sb | 21 20 32.4 | +5.3 |
| OGRR | | | | Pmax | | | |
| | comp=N,3.0nm,0.1s | | | | | | |
| OGRR | | | | Smax | | | |
| | comp=N,23nm,0.3s | | | | | | |
| **CIT** | **Chita** | **4.28** | **174** | *e*Sg | Sb | 21 20 42.0 | +7.1 |
| CIT | | | | Smax | | | |
| | comp=N,36nm,0.2s | | | | | | |
| **TUP** | **Tupik** | **4.46** | **112** | ⇑*i*Pn | Pn | 21 19 36.4 | +1.0 |
| TUP | | | | *e* | | 21 19 41.6 | |
| TUP | | | | *e*Pg | Pb | 21 19 49.3 | +2.5 |
| TUP | | | | *e*Sn | Sn | 21 20 25.2 | -1.4 |
| TUP | | | | *e*Sg | Sb | 21 20 47.0 | +6.9 |
| TUP | | | | Pmax | | | |
| | comp=N,7.0nm,0.3s | | | | | | |
| TUP | | | | Smax | | | |
| | comp=N,66nm,0.8s | | | | | | |
| **TRTB** | **Turuntaevo** | **5.07** | **219** | *e*Pn | Pn | 21 19 45.9 | +2.1 |
| TRTB | | | | *e*Pg | Pb | 21 20 00.0 | +2.8 |
| TRTB | | | | *e*Sn | Sn | 21 20 40.2 | -1.4 |
| TRTB | | | | *e*Sg | Sb | 21 21 06.5 | +8.9 |
| TRTB | | | | Pmax | | | |
| | comp=N,1.0nm,0.3s | | | | | | |
| TRTB | | | | Smax | | | |
| | comp=N,17nm,0.5s | | | | | | |
| **TRG** | **Tyrgan** | **5.16** | **230** | *e*Pg | Pb | 21 20 02.3 | +3.6 |
| TRG | | | | *e*Sn | Sn | 21 20 42.2 | -1.7 |
| TRG | | | | *e*Sg | Sb | 21 21 08.8 | +8.5 |
| TRG | | | | Pmax | | | |
| | comp=N,3.0nm,0.1s | | | | | | |
| TRG | | | | Smax | | | |
| | comp=N,15nm,0.4s | | | | | | |
| **UUDB** | **Ulan-Yde** | **5.36** | **217** | *e*Sg | Sb | 21 21 15.6 | +10 |
| UUDB | | | | Smax | | | |
| | comp=N,26nm,1.1s | | | | | | |
| **HRMR** | **Khuramsha** | **5.80** | **219** | *e*Pg | Pb | 21 20 13.1 | +3.5 |
| HRMR | | | | *e*Sg | Sb | 21 21 28.9 | +10 |
| HRMR | | | | Pmax | | | |
| | comp=N,4.0nm,0.4s | | | | | | |
| HRMR | | | | Smax | | | |
| | comp=N,40nm,0.7s | | | | | | |
| **KPC** | **Khapcheranga** | **6.58** | **183** | *e*Pn | Pn | 21 20 04.2 | -0.4 |
| KPC | | | | *e*Pg | Pb | 21 20 28.7 | +5.7 |
| KPC | | | | *e*Sn | Sn | 21 21 16.9 | -2.0 |
| KPC | | | | *e*Sg | Sb | 21 21 53.8 | +13 |
| KPC | | | | Pmax | | | |
| | comp=N,2.0nm,0.3s | | | | | | |
| KPC | | | | Smax | | | |
| | comp=N,29nm,1.0s | | | | | | |
| **ARS** | **Arshan** | **7.51** | **239** | *e*Sg | Sb | 21 22 21.9 | +14 |
| ARS | | | | Smax | | | |
| | comp=N,22nm,0.8s | | | | | | |
| **MOY** | **Mondy** | **8.37** | **242** | *e*Pn | Pn | 21 20 31.4 | +2.4 |
| MOY | | | | *e*Pg | Pb | 21 20 58.9 | +5.6 |
| MOY | | | | *e*Sg | Sb | 21 22 47.0 | +15 |
| MOY | | | | Pmax | | | |
| | comp=N,5.0nm,0.7s | | | | | | |
| MOY | | | | Smax | | | |
| | comp=N,13nm,1.2s | | | | | | |
| **ORL** | **Orlik** | **8.47** | **249** | *e*Sn | Sn | 21 22 02.6 | -2.7 |
| ORL | | | | *e*Sg | Sb | 21 22 50.6 | +15 |
| ORL | | | | Smax | | | |
| | comp=N,13nm,1.4s | | | | | | |

*NIED **29** 21:19:00, 30°.70N×139°.10E, h5km, Mw3.9 Best double couple: M0 8.23000×10^14 NP1:φs 66.00000°, δ 10.00000°, λ 5.00000°. NP2:φs 332.00000°, δ 89.00000°, λ 100.00000°.*
*ISCJB **29** 21:19:07.9±0.8, 30°.74N±0°.06×139°.18E±0°.09, h35km, mb3.7/2, Error ellipse: s-maj=12.9km s-min=5.4km az=150.4*
*JMA **29** 21:19:08.2±0.1, 30°.25N×138°.53E, h0km, mb3.7/2, mb1 3.8/4, mb1mx3.4/36, mbtmp3.6/4, ML3.0/2, Error ellipse: s-maj=52.5km s-min=27.2km az=65.0*
*IDC **29** 21:19:10.1±2.1, 30°.25N×138°.53E, h0km, mb3.7/2, mb1 3.8/4, mb1mx3.4/36, mbtmp3.6/4, ML3.0/2, Error ellipse: s-maj=52.5km s-min=27.2km az=65.0*

**ISC 29 21:19:10.3±1.3, 30°.76N±0°.07×139°.2E±0°.1, h35km, n18, σ0s 64/14, Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TK01** | **Tokai 1** | **3.30** | **336** | *e*S | **Sn** | **21 20 37.1** | **+0.1** |
| **TK02** | **Tokai 2** | **3.41** | **339** | *e*S | **Sn** | **21 20 39.4** | **-0.5** |
| **TTO1** | **TONANKAI O.B.S** | **3.52** | **325** | P | **Pn** | **21 20 01.8** | **-0.5** |
| TTO1 | | | | *e*S | **Sn** | **21 20 42.9** | **+0.3** |
| **JWZ** | **Kozaga** | **4.06** | **314** | P | **Pn** | **21 20 09.1** | **-0.8** |
| JWZ | | | | *e*S | **Sn** | **21 20 55.4** | **-0.8** |
| **JIE** | **Ise** | **4.20** | **330** | P | **Pn** | **21 20 11.4** | **-0.4** |
| JIE | | | | *e*S | **Sn** | **21 21 00.1** | **+0.5** |
| **JHMK** | **Hamakita** | **4.23** | **344** | *e*S | **Sn** | **21 21 00.6** | **+0.4** |
| **CBIJ** | **Chichi jima** | **4.48** | **144** | *e*S | **Sn** | **21 21 05.9** | **-0.7** |
| **MJAR** | **Matsushiro Arr** | **5.83** | **352** | Pn | Pn | 21 20 44.7 | +10 |
| | 0.4nm,0.3s,baz=176,slow=16,SNR=10 | | | | | | |
| **JTO** | **Tosashimizu** | **5.85** | **293** | P | **Pn** | **21 20 33.9** | **-0.6** |
| **JNU** | **Nakatsue** | **7.47** | **291** | Pn | **Pn** | **21 20 56.4** | **-0.4** |
| | 0.2nm,0.3s,baz=108,slow=6.4,SNR=2.8 | | | | | | |
| JNU | | | | Sn | **Sn** | **21 22 20.7** | **+0.4** |
| | 0.1nm,0.3s,baz=87,slow=19,SNR=2.4 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **27.27** | **107** | T | T | 21 53 13.5 | |
| | baz=300,slow=75,SNR=89 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **27.27** | **107** | T | T | 21 53 13.7 | |
| | baz=300,slow=75,SNR=51 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **27.28** | **107** | T | T | 21 53 14.7 | |
| | baz=300,slow=75,SNR=70 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **27.71** | **110** | T | T | 21 53 35.6 | |
| | baz=302,slow=75,SNR=25 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **27.72** | **110** | T | T | 21 53 56.3 | |
| | baz=302,slow=75,SNR=23 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **27.73** | **110** | T | T | 21 53 47.4 | |
| | baz=302,slow=75,SNR=16 | | | | | | |
| **MKAR** | **Makanchi Array** | **46.17** | **307** | P | P | 21 27 34.1 | +2.6 |
| | 0.4nm,0.7s,baz=97,slow=8.8,SNR=5.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **50.62** | **186** | P | **P** | **21 28 06.9** | **+1.0** |
| | 2.3nm,1.3s,baz=1.8,slow=7.6,SNR=5.0 | | | | | | |

*OBM **29** 21:33:56.9±0.1, 51°.80N×95°.76E, h2km, Ml4.0, Error ellipse: s-maj=2.4km s-min=1.1km az=163.0*
*IDC **29** 21:33:57.7±0.6, 51°.66N×96°.14E, h0km, mb3.9/15, mb1 4.0/19, mb1mx3.8/64, mbtmp3.8/19, ML3.2/4, MS3.0/2, Ms1 3.0/2, ms1mx2.6/52, Error ellipse: s-maj=16.7km s-min=8.7km az=1.0*
*NNC **29** 21:33:58.7±1.9, 51°.89N×96°.05E, h0km, mb4.0, mpv3.0, Error ellipse: s-maj=19.9km s-min=18.3km az=159.0*
*NEIC **29** 21:33:59.3±0.4, 51°.69N×96°.07E, h10km, mb4.0/4, Error ellipse: s-maj=11.0km s-min=5.7km az=185.0*
*MOS **29** 21:33:59.1±1.3, 51°.78N×95°.91E, h14km, mb4.2/14, Error ellipse: s-maj=9.3km s-min=6.7km az=5.3*
*ASRS **29** 21:34:00.4±0.8, 51°.79N×95°.85E, h15km, Ms3.7/3*

**ISC 29 21:33:59.8±0.4, 51°.79N±0°.04×95°.91E±0°.03, h10km, n95, σ2s 83/127, mb3.9/19, 8C-8D, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KZLR** | **Kyzyl** | **0.91** | **265** | *i* Pg | **Pg** | **21 34 16.1** | **-1.2** |
| KZLR | | | | *e*Sg | **Sg** | **21 34 28.2** | **-1.0** |
| **KZLR** | **Kyzyl** | **0.91** | **265** | *i* PG | **Pg** | **21 34 16.1** | **-1.2** |
| KZLR | | | | *e* | | 21 34 28.2 | |
| **HVS** | **Khovu-Aksy** | **1.53** | **245** | PG | **Pn** | **21 34 26.3** | **-1.0** |
| **HVS** | **Khovu-Aksy** | **1.53** | **245** | P | **Pn** | **21 34 26.3** | **-1.0** |
| **ORL** | **Orlik** | **2.52** | **71** | ⇑*i*PN | **Pn** | **21 34 42.5** | **+1.6** |
| ORL | | | | *e* | | 21 35 15.5 | |
| ORL | | | | pmax | pmax | | |
| | comp=Z,376nm,0.6s | | | | | | |
| ORL | | | | smax | smax | | |
| | comp=N,1μm,0.9s | | | | | | |
| **CERR** | **Cheremushki** | **2.96** | **293** | *i* Pn | **Pn** | **21 34 48.5** | **+1.8** |
| CERR | | | | *e*Pg | **Pb** | **21 34 53.2** | **+0.7** |
| CERR | | | | *e*Sn | **Sn** | **21 35 23.2** | **+0.9** |
| CERR | | | | *e*Sg | **Sg** | **21 35 31.5** | **-3.2** |
| **CERR** | **Cheremushki** | **2.96** | **293** | *i* PN | **Pn** | **21 34 48.6** | **+1.8** |
| CERR | | | | *e* | | 21 34 53.2 | |
| CERR | | | | *e* | | 21 35 23.3 | |
| CERR | | | | *e* | | 21 35 31.5 | |
| **HTG** | **Hatgal** | **3.00** | **115** | *e*Pn | **Pn** | **21 34 49.4** | **+1.9** |
| HTG | | | | *e*Sg | **Sb** | **21 35 30.4** | **+0.3** |
| **ULG** | **Ulaangom** | **3.05** | **235** | *e*Sg | **Sb** | **21 35 30.5** | **-1.1** |
| **MOY** | **Mondy** | **3.16** | **90** | *e*PN | **Pb** | **21 34 54.3** | **-1.9** |
| MOY | | | | *e* | | 21 35 36.2 | |
| MOY | | | | pmax | pmax | | |
| | comp=Z,189nm,0.8s | | | | | | |
| MOY | | | | smax | smax | | |
| | comp=N,1μm,1.0s | | | | | | |
| **ARS** | **Arshan** | **4.04** | **86** | *e*PN | **Pb** | **21 35 10.7** | **-0.4** |
| ARS | | | | *e* | | 21 36 02.3 | |
| ARS | | | | pmax | pmax | | |
| | comp=Z,234nm,0.8s | | | | | | |
| ARS | | | | smax | smax | | |
| | comp=E,2μm,0.9s | | | | | | |
| **HBD** | **Hovd** | **4.68** | **218** | *e*Sg | **Sb** | **21 36 21.0** | **+2.5** |
| **BYO** | **Bayan-Olgiy** | **4.75** | **236** | *e*Sg | **Sb** | **21 36 22.2** | **+1.7** |
| **TLY** | **Talaya** | **4.81** | **88** | Pg | **Pb** | **21 35 20.8** | **-3.4** |
| | comp=E,0.1nm,0.3s,baz=280,slow=14,SNR=19 | | | | | | |
| TLY | | | | Lg | Lg | 21 36 27.1 | |
| | comp=E,0.1nm,0.3s,baz=120,slow=16,SNR=7.2 | | | | | | |
| TLY | | | | LR | LR | 21 37 07.6 | |
| | comp=E,144nm,18.7s,baz=260,slow=41 | | | | | | |
| **TLY** | **Talaya** | **4.81** | **88** | *e*PN | **Pn** | **21 35 16.2** | **+3.9** |
| **TLY** | **Talaya** | **4.81** | **88** | *e*Pb | **Pb** | **21 35 21.2** | **-2.9** |
| **ZAK** | **Zakamensk** | **4.86** | **104** | *e*PN | **Pb** | **21 35 23.7** | **-1.3** |
| ZAK | | | | *e* | | 21 36 28.1 | |
| ZAK | | | | pmax | pmax | | |
| | comp=Z,59nm,0.8s | | | | | | |
| ZAK | | | | smax | smax | | |
| | comp=N,355nm,1.0s | | | | | | |
| **TASR** | **Tashtagol** | **5.03** | **284** | *e*Pn | **Pn** | **21 35 17.1** | **+1.8** |
| TASR | | | | *e*Pg | **Pb** | **21 35 30.3** | **+2.4** |
| TASR | | | | *e*Sg | **Sg** | **21 36 34.9** | **-6.2** |
| **TASR** | **Tashtagol** | **5.03** | **284** | *e*PN | **Pn** | **21 35 17.1** | **+1.8** |
| TASR | | | | *e* | | 21 35 30.3 | |
| TASR | | | | *e* | | 21 36 34.9 | |
| **IRK** | **Irkutsk** | **5.18** | **82** | *e*PN | **Pb** | **21 35 31.7** | **+1.2** |
| IRK | | | | *e* | | 21 36 35.2 | |
| IRK | | | | pmax | pmax | | |
| | comp=Z,82nm,0.6s | | | | | | |
| IRK | | | | smax | smax | | |
| | comp=N,1μm,1.0s | | | | | | |
| **ARTR** | **Artybash** | **5.36** | **273** | *e*Pn | **Pn** | **21 35 22.5** | **+2.7** |
| ARTR | | | | *e*Pg | **Pb** | **21 35 36.5** | **+3.1** |
| ARTR | | | | *e*Sn | **Sn** | **21 36 22.6** | **+1.1** |
| ARTR | | | | *e*Sg | **Sg** | **21 36 45.5** | **-6.2** |
| **ARTR** | **Artybash** | **5.36** | **273** | *e*PN | **Pn** | **21 35 22.5** | **+2.7** |
| ARTR | | | | *e* | | 21 35 36.5 | |
| ARTR | | | | *e* | | 21 36 22.6 | |
| ARTR | | | | *e* | | 21 36 45.5 | |
| **AKAR** | **Aktash** | **5.43** | **258** | *e*Pn | **Pn** | **21 35 22.0** | **+1.0** |
| AKAR | | | | *e*Pg | **Pg** | **21 35 39.9** | **-4.0** |
| AKAR | | | | *e*Sg | **Sg** | **21 36 47.3** | **-6.9** |
| **AKAR** | **Aktash** | **5.43** | **258** | *e*PN | **Pn** | **21 35 22.0** | **+1.0** |
| AKAR | | | | *e* | | 21 35 39.9 | |
| AKAR | | | | *e* | | 21 36 47.3 | |
| **TTS** | **Tsetserleg** | **5.62** | **138** | *e*Pn | **Pn** | **21 35 23.8** | **+0.3** |
| TTS | | | | *e*Sg | **Sb** | **21 36 51.4** | **+6.0** |
| | comp=N,453nm,0.5s | | | | | | |
| **BLGM** | **Bulgan** | **5.73** | **119** | *e*Pg | **Pb** | **21 35 41.6** | **+1.6** |
| BLGM | | | | *e*Sg | **Sg** | **21 36 59.8** | **-4.0** |
| **DGZ** | **Jazzator, Alta** | **5.78** | **252** | *e*PN | **Pn** | **21 35 27.3** | **+1.6** |
| **BRCR** | **Berchikul'** | **5.93** | **314** | *e*Pn | **Pn** | **21 35 27.5** | **-0.1** |
| BRCR | | | | *e*Pg | **Pb** | **21 35 47.8** | **+4.6** |
| BRCR | | | | *e*Sn | **Sn** | **21 36 36.3** | **+0.8** |
| BRCR | | | | *e*Sg | **Sg** | **21 37 04.4** | **-5.6** |
| **BRCR** | **Berchikul'** | **5.93** | **314** | *e*PN | **Pn** | **21 35 27.5** | **-0.1** |
| BRCR | | | | *e* | | 21 35 47.8 | |
| BRCR | | | | *e* | | 21 36 36.3 | |
| **ELT** | **Eltsovka** | **6.08** | **288** | *e*Pn | **Pn** | **21 35 30.5** | **+0.8** |
| ELT | | | | *e*Pg | **Pb** | **21 35 48.5** | **+2.6** |
| ELT | | | | *e*Sn | **Sn** | **21 36 40.9** | **+1.5** |
| ELT | | | | *e*Sg | **Sg** | **21 37 07.1** | **-7.9** |
| **ELT** | **Eltsovka** | **6.08** | **288** | *e*PN | **Pn** | **21 35 30.5** | **+0.8** |
| ELT | | | | *e* | | 21 35 48.5 | |
| ELT | | | | *e* | | 21 36 40.9 | |
| ELT | | | | *e* | | 21 37 07.1 | |
| **UKR** | **Ust'-Kan** | **7.03** | **267** | *e*Pn | **Pn** | **21 35 45.0** | **+2.2** |
| UKR | | | | *e*Pg | Pb | 21 36 06.9 | +4.9 |
| UKR | | | | *e*Sn | **Sn** | **21 37 01.2** | **-1.6** |
| UKR | | | | *e*Sg | **Sg** | **21 37 38.5** | **-6.8** |
| **UKR** | **Ust'-Kan** | **7.03** | **267** | *e*PN | **Pn** | **21 35 45.0** | **+2.2** |
| UKR | | | | *e* | | 21 36 06.9 | |
| **ZAA0** | **Zalesovo Array** | **7.05** | **292** | ⇑Pn | **Pn** | **21 35 45.1** | **+2.1** |
| | comp=N,0.4nm,0.6s | | | | | | |
| ZAA0 | | | | ⇑Pg | Pb | 21 36 08.4 | +6.1 |
| | comp=N,1.2nm,0.7s | | | | | | |
| ZAA0 | | | | ⇑Lg | Lg | 21 37 40.8 | |
| | comp=N,14nm,0.9s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **7.05** | **292** | Pn | **Pn** | **21 35 45.6** | **+2.6** |
| | comp=N,0.9nm,0.3s,baz=99,slow=12,SNR=12 | | | | | | |
| ZALV | | | | Sn | **Sn** | **21 37 05.2** | **+2.1** |
| | comp=N,1.3nm,0.3s,baz=106,slow=26,SNR=2.7 | | | | | | |
| ZALV | | | | Lg | Lg | 21 37 38.8 | |
| | comp=N,4.7nm,0.3s,baz=109,slow=25,SNR=11 | | | | | | |
| **OGRR** | **Ongureny** | **7.34** | **71** | *e*P | **Pn** | **21 35 47.5** | **+0.5** |
| OGRR | | | | pmax | pmax | | |
| | comp=Z,30nm,0.5s | | | | | | |
| **SONA2** | **Songino Array** | **7.85** | **116** | *e*Pg | **Pb** | **21 36 17.8** | **+1.9** |
| SONA2 | | | | *e*Sg | **Sg** | **21 38 04.7** | **-6.8** |
| | comp=Z,124nm,0.8s | | | | | | |
| **SONA3** | **Songino Array** | **7.85** | **116** | *e*Pg | **Pb** | **21 36 18.0** | **+1.9** |
| SONA3 | | | | *e*Sg | **Sg** | **21 38 05.2** | **-6.5** |
| | comp=Z,115nm,0.8s | | | | | | |
| **SONM** | **Songino Array** | **7.85** | **116** | Pn | **Pn** | **21 35 53.8** | **-0.4** |
| | comp=Z,0.1nm,0.3s,baz=300,slow=15,SNR=4.1 | | | | | | |
| SONM | | | | Pg | **Pb** | **21 36 18.0** | **+2.0** |
| | comp=Z,1.6nm,0.3s,baz=300,slow=17,SNR=44 | | | | | | |
| SONM | | | | Lg | Lg | 21 38 02.1 | |
| | comp=Z,2.8nm,0.3s,baz=303,slow=29,SNR=6.1 | | | | | | |
| SONM | | | | LR | LR | 21 38 58.6 | |
| | comp=Z,120nm,19.6s,baz=144,slow=39 | | | | | | |
| **SONA4** | **Songino Array** | **7.86** | **116** | *e*Pg | **Pb** | **21 36 18.1** | **+2.0** |
| SONA4 | | | | *e*Sg | **Sg** | **21 38 05.4** | **-6.4** |
| | comp=Z,85nm,0.6s | | | | | | |
| **ALFM** | | **7.98** | **114** | *e*Pg | **Pb** | **21 36 19.2** | **+0.9** |
| ALFM | | | | *e*Sg | **Sg** | **21 38 09.0** | **-6.9** |
| | comp=Z,151nm,0.7s | | | | | | |
| **NVS** | **Novosibirsk** | **8.18** | **297** | *e*Pn | Pn | **21 35 58.4** | **-0.1** |
| NVS | | | | *e*Pg | **Pb** | **21 36 25.7** | **+4.2** |
| NVS | | | | *e*Sn | **Sn** | **21 37 28.2** | **-2.7** |
| NVS | | | | *e*Sg | **Sg** | **21 38 16.3** | **-5.8** |
| **NVS** | **Novosibirsk** | **8.18** | **297** | *e*P | **Pn** | **21 35 58.4** | **-0.1** |
| NVS | | | | *e* | | 21 37 28.2 | |
| **ULN** | **Ul

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | comp=Z,2.9nm,0.8s | | | | | | | |
| MAKZ | | | | ⇓Pg | | | 21 37 10.2 | |
| | comp=Z,14nm,1.5s | | | | | | | |
| MAKZ | | | | ⇓Lg | Lg | | 21 39 31.6 | |
| | comp=Z,32nm,0.9s | | | | | | | |
| **MAKZ** | **Makanchi** | **10.37** | **247** | P | **Pn** | | **21 36 30.4** | **+1.8** |
| MAKZ | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,0.8s | | | | | | | |
| **KURK** | **Kurchatov** | **10.89** | **271** | ⇑Pn | **Pn** | | **21 36 36.5** | **+0.8** |
| | comp=Z,4.2nm,1.3s | | | | | | | |
| KURK | | | | ⇑Lg | Lg | | 21 39 47.1 | |
| | comp=Z,49nm,0.9s | | | | | | | |
| **KURK** | **Kurchatov** | **10.89** | **271** | *e*P | **Pn** | | **21 36 36.4** | **+0.8** |
| **KURK** | **Kurchatov** | **10.89** | **271** | Pn | **Pn** | | **21 36 38.2** | **+2.5** |
| **KURBB** | **Kurchatov Arra** | **10.97** | **271** | Pn | **Pn** | | **21 36 38.2** | **+1.5** |
| | comp=Z,0.1nm,0.3s,baz=74,slow=14,SNR=10 | | | | | | | |
| KURBB | | | | Lg | Lg | | 21 39 45.9 | |
| | comp=Z,0.2nm,0.3s,baz=83,slow=31,SNR=7.1 | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **10.97** | **271** | ⇓Pn | **Pn** | | **21 36 37.1** | **+0.4** |
| | comp=Z,2.0nm,0.5s | | | | | | | |
| KURBB | | | | ⇓Pg | | | 21 37 20.2 | |
| | comp=Z,4.8nm,0.8s | | | | | | | |
| KURBB | | | | ⇑Sn | **Sn** | | **21 38 44.8** | **+5.5** |
| | comp=Z,26nm,0.7s | | | | | | | |
| KURBB | | | | ⇓Lg | Lg | | 21 39 47.1 | |
| | comp=Z,117nm,1.2s | | | | | | | |
| **BOD** | **Bodaibo** | **12.04** | **53** | *e*P | **Pn** | | **21 36 52.0** | **+0.8** |
| **GTA** | **Gaotai** | **12.68** | **166** | *e*P | **Pn** | | **21 36 58.5** | **-1.8** |
| GTA | | | | pP | | | 21 37 02.0 | |
| GTA | | | | sP | | | 21 37 04.5 | |
| GTA | | | | S | **Sn** | | **21 39 25.8** | **+4.3** |
| GTA | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,1.4s | | | | | | | |
| GTA | | | | pmax | pmax | | | |
| | comp=Z,71nm,5.0s | | | | | | | |
| GTA | | | | LR | LR | | | |
| | comp=N,250nm,9.5s | | | | | | | |
| GTA | | | | LR | LR | | | |
| | comp=E,360nm,8.6s | | | | | | | |
| GTA | | | | LR | LR | | | |
| | comp=Z,290nm,10.0s | | | | | | | |
| **HIA** | **Hailar** | **15.35** | **90** | *e*P | **Pn** | | **21 37 38.5** | **+2.1** |
| HIA | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.9s | | | | | | | |
| **BVA0** | **Borovoye Array** | **15.60** | **285** | P | **P** | | **21 37 42.2** | **-1.6** |
| | comp=Z,4.5nm,1.1s,baz=79,slow=15,SNR=9.8 | | | | | | | |
| **BVA0** | **Borovoye Array** | **15.60** | **285** | P | **P** | | **21 37 42.2** | **-1.6** |
| BVA0 | | | | pmax | pmax | | | |
| | comp=Z,5.0nm,1.1s | | | | | | | |
| **BVAR** | **Borovoye Array** | **15.60** | **285** | Pn | **Pn** | | **21 37 39.5** | **-0.1** |
| | comp=Z,0.2nm,0.3s,baz=82,slow=11,SNR=12 | | | | | | | |
| **BRVK** | **Borovoye** | **15.66** | **285** | *e*P | **Pn** | | **21 37 39.8** | **-0.6** |
| BRVK | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.9s | | | | | | | |
| **BRVK** | **Borovoye** | **15.66** | **285** | *e*Pn | **Pn** | | **21 37 40.7** | **+0.3** |
| | comp=Z,6.7nm,0.6s | | | | | | | |
| **YAK** | **Yakutsk** | **20.84** | **47** | *e*P | Pn | | 21 38 44.8 | +1.0 |
| YAK | | | | pmax | pmax | | | |
| | comp=Z,13nm,0.9s | | | | | | | |
| YAK | | | | pmax | pmax | | | |
| | comp=E,7.0nm,1.2s | | | | | | | |
| **ARU** | **Arti** | **22.18** | **297** | P | **P** | | **21 38 57.5** | **+1.7** |
| | comp=E,4.6nm,0.8s,baz=97,slow=6.7,SNR=7.8 | | | | | | | |
| **ARU** | **Arti** | **22.18** | **297** | *d i*P | **P** | | **21 38 55.7** | **-0.1** |
| ARU | | | | S | **S** | | **21 43 01.6** | **+1.7** |
| ARU | | | | pmax | pmax | | | |
| | comp=Z,11nm,2.5s | | | | | | | |
| **ARU** | **Arti** | **22.18** | **297** | *e*P | **P** | | **21 38 57.7** | **+1.9** |
| | comp=Z,6.1nm,0.9s | | | | | | | |
| **AB31** | **Akbulak array** | **22.86** | **278** | ⇓P | **P** | | **21 39 03.3** | **+0.2** |
| | comp=Z,1.0nm,0.6s,baz=76,slow=9.7,SNR=4.8 | | | | | | | |
| **AB31** | **Akbulak array** | **22.86** | **278** | P | **P** | | **21 39 03.3** | **+0.2** |
| AB31 | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.6s | | | | | | | |
| **ABKAR** | **Akbulak array** | **22.86** | **278** | *e*P | **P** | | **21 39 03.3** | **+0.1** |
| | comp=Z,1.0nm,0.6s | | | | | | | |
| **AKTO** | **Aktyubinsk** | **23.66** | **282** | P | **P** | | **21 39 11.6** | **+0.5** |
| | comp=Z,4.4nm,0.6s,baz=79,slow=11,SNR=22 | | | | | | | |
| **TIXI** | **Tiksi** | **24.71** | **24** | P | **P** | | **21 39 20.5** | **-0.2** |
| | comp=Z,7.5nm,0.6s,baz=248,slow=7.5,SNR=14 | | | | | | | |
| **TIXI** | **Tiksi** | **24.71** | **24** | *e*P | **P** | | **21 39 20.5** | **-0.2** |
| TIXI | | | | pmax | pmax | | | |
| | comp=Z,9.0nm,0.9s | | | | | | | |
| **TIXI** | **Tiksi** | **24.71** | **24** | *e*P | **P** | | **21 39 20.9** | **+0.2** |
| | comp=Z,13nm,0.8s | | | | | | | |
| **OBN** | **Obninsk** | **34.57** | **299** | *e*P | **P** | | **21 40 51.5** | **+3.2** |
| OBN | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,1.5s | | | | | | | |
| **BILL** | **Bilibino** | **36.42** | **37** | *e*P | **P** | | **21 41 04.2** | **+0.2** |
| BILL | | | | *e* | | | 21 42 27.4 | |
| BILL | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,1.0s | | | | | | | |
| BILL | | | | MLR | MLR | | | |
| | comp=Z,52nm,15.0s | | | | | | | |
| **FINES** | **FINESS Array B** | **37.79** | **313** | P | **P** | | **21 41 16.3** | **+0.5** |
| | comp=Z,2.2nm,0.8s,baz=99,slow=6.0,SNR=5.3 | | | | | | | |
| **FINES** | **FINESS Array B** | **37.79** | **313** | *i* P | **P** | | **21 41 16.7** | **+0.9** |
| FINES | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,1.0s | | | | | | | |
| **AKASG** | **Malin Array Be** | **40.43** | **296** | P | **P** | | **21 41 38.2** | **+0.2** |
| | comp=Z,0.9nm,0.5s,baz=55,slow=9.0,SNR=4.2 | | | | | | | |
| **BRTR** | **Keskin Array B** | **43.80** | **279** | P | **P** | | **21 42 06.6** | **+0.8** |
| | comp=Z,1.7nm,0.8s,baz=90,slow=7.4,SNR=6.0 | | | | | | | |
| **BRTR** | **Keskin Array B** | **43.80** | **279** | *i* P | **P** | | **21 42 06.5** | **+0.7** |
| BRTR | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.7s | | | | | | | |
| **NB2** | **NORSAR Subarra** | **44.55** | **316** | P | **P** | | **21 42 16.2** | **+4.8** |
| | comp=Z,2.1nm,0.7s,baz=62,slow=7.9 | | | | | | | |
| **NOA** | **NORSAR Array B** | **44.55** | **316** | P | **P** | | **21 42 13.0** | **+1.6** |
| | comp=Z,1.1nm,0.6s,baz=61,slow=7.9,SNR=3.8 | | | | | | | |
| **ILAR** | **Eielson Array** | **54.09** | **28** | P | **P** | | **21 43 24.1** | **-0.1** |
| | comp=Z,0.5nm,0.8s,baz=318,slow=3.9,SNR=5.9 | | | | | | | |
| **INK** | **Inuvik** | **54.73** | **20** | P | **P** | | **21 43 28.4** | **-0.3** |
| | comp=Z,1.2nm,0.6s,baz=3.3,slow=5.1,SNR=5.2 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **63.53** | **15** | P | **P** | | **21 44 28.7** | **-1.0** |
| | comp=Z,0.3nm,0.8s,baz=336,slow=7.6,SNR=3.2 | | | | | | | |
| **ESDC** | **Sonseca Array** | **65.41** | **303** | P | **P** | | **21 44 42.3** | **-0.1** |
| | comp=Z,0.3nm,0.6s,baz=39,slow=6.0,SNR=2.9 | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **74.28** | **151** | P | **P** | | **21 45 35.0** | **-2.1** |
| | comp=Z,0.8nm,0.7s,baz=307,slow=7.0,SNR=3.1 | | | | | | | |
| **WRA** | **Warramunga Ar** | **78.93** | **143** | P | **P** | | **21 46 01.9** | **-1.5** |
| | comp=Z,1.1nm,0.8s,baz=342,slow=6.1,SNR=9.0 | | | | | | | |
| **ASAR** | **Alice Springs** | **82.19** | **145** | P | **P** | | **21 46 19.3** | **-1.5** |
| | comp=Z,1.2nm,0.7s,baz=334,slow=5.8,SNR=12 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **82.38** | **281** | P | **P** | | **21 46 21.8** | **-0.3** |
| | comp=Z,1.2nm,0.8s,baz=33,slow=5.6,SNR=6.4 | | | | | | | |

*CSEM* ***29*** *21:35:39.3±0.5, 50.25N×18.96E, h2km, Error ellipse: s-maj=11.1km s-min=5.6km az=2.0*

**PRU 29 21:35:40.0, 50.25N×18.95E, h0km, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID | | | Time | | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | | h m s | | ISC |
| **OJC** | **Ojcow** | **0.55** | **93** | *e*Pg | Pg | | 21 35 49.6 | | -0.9 |
| OJC | | | | *e*Sg | Sg | | 21 35 56.8 | | -0.7 |
| **OJC** | **Ojcow** | **0.55** | **93** | *e*Pg | Pg | | 21 35 49.6 | | -0.8 |
| OJC | | | | *e*Sg | Sg | | 21 35 56.8 | | -0.7 |
| **OKC** | **Ostrava-Krasne** | **0.66** | **232** | *e*PG | Pg | | 21 35 52.9 | | +0.2 |
| OKC | | | | *e*SG | Sg | | 21 36 02.1 | | +0.9 |
| **OKC** | **Ostrava-Krasne** | **0.66** | **232** | Pg | Pg | | 21 35 52.9 | | +0.2 |
| OKC | | | | Sg | Sg | | 21 36 02.1 | | +0.9 |
| **MORC** | **Moravsky Berou** | **1.02** | **243** | *e*Pg | Pg | | 21 35 59.4 | | -0.2 |
| MORC | | | | *e*Sg | Sg | | 21 36 13.5 | | +0.6 |
| **LANS** | **Liptovska Anna** | **1.15** | **163** | *e*Pg | Pg | | 21 36 01.6 | | -0.4 |
| LANS | | | | *e*Sg | Sg | | 21 36 16.5 | | -0.4 |
| **LANS** | **Liptovska Anna** | **1.15** | **163** | *e*PG | Pg | | 21 36 01.6 | | -0.4 |
| LANS | | | | *e*SG | Sg | | 21 36 16.5 | | -0.4 |
| **DPC** | **Dobruska-Polom** | **1.69** | **274** | *e*PG | Pn | | 21 36 10.5 | | -0.3 |
| DPC | | | | *e*SG | Sg | | 21 36 34.6 | | +0.4 |
| **DPC** | **Dobruska-Polom** | **1.69** | **274** | Pg | Pn | | 21 36 10.5 | | -0.3 |
| DPC | | | | Sg | Sg | | 21 36 34.6 | | +0.4 |
| **STHS** | **Stebnicka Huta** | **1.70** | **118** | *e*Sn | Sn | | 21 36 33.6 | | +0.1 |
| **STHS** | **Stebnicka Huta** | **1.70** | **118** | *e*SN | Sn | | 21 36 33.6 | | +0.1 |
| **VYHS** | **Vyhne** | **1.76** | **182** | *e*Pg | Pn | | 21 36 11.5 | | -0.2 |
| VYHS | | | | *e*Sn | Sn | | 21 36 32.6 | | -2.2 |
| **VYHS** | **Vyhne** | **1.76** | **182** | *e*PG | Pn | | 21 36 11.5 | | -0.2 |
| VYHS | | | | *e*SN | Sn | | 21 36 32.6 | | -2.2 |
| **VRAC** | **Vranov** | **1.79** | **239** | *e*Pn | Pb | | 21 36 13.0 | | -0.7 |
| VRAC | | | | *e*Sg | Sb | | 21 36 36.3 | | -0.5 |
| **KHC** | **Kasperske Hory** | **3.66** | **254** | *e*SG | Sg | | 21 37 34.6 | | -3.0 |
| **KHC** | **Kasperske Hory** | **3.66** | **254** | Sg | Sg | | 21 37 34.6 | | -3.0 |

*ISCJB* ***29*** *21:38:37.8±0.6, 5.8N±0.1×95.5E±0.1, h82km, mb3.6/10,*

*Error ellipse: s-maj=23.9km s-min=7.7km az=43.4*

*IDC* ***29*** *21:38:40.2±2.6, 5.61N×95.43E, h98km, 25km, mb3.3/10, mb1 3.5/12, mb1mx3.3/58, mbtmp3.7/12, Error ellipse: s-maj=43.8km s-min=15.3km az=48.0*

**ISC 29 21:38:39.3±0.7, 5.6N±0.1×95.3E±0.1, h82km, n13, σ1§44/18, mb3.7/10, Northern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID | | | Time | | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | | h m s | | ISC |
| **PSI** | **Prapat** | **4.55** | **128** | P | **Pn** | | **21 39 47.2** | | **+1.3** |
| | 3.7nm,0.3s,baz=322,slow=14,SNR=14 | | | | | | | | |
| PSI | | | | S | **Sn** | | **21 40 38.2** | | **+0.5** |
| | 1.4nm,0.3s,baz=346,slow=19,SNR=2.4 | | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **13.23** | **15** | P | **P** | | **21 41 53.6** | | **+2.8** |
| | 0.5nm,0.3s,baz=208,slow=11,SNR=35 | | | | | | | | |
| **PALK** | **Pallekele** | **14.63** | **277** | P | **Pn** | | **21 42 04.2** | | **+2.0** |
| | 0.3nm,0.3s,baz=115,slow=13,SNR=2.6 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **42.53** | **347** | P | **P** | | **21 46 26.2** | | **-0.6** |
| | 0.5nm,0.5s,baz=155,slow=8.6,SNR=9.9 | | | | | | | | |
| MKAR | | | | PcP | **PcP** | | **21 48 15.8** | | **-2.1** |
| | 0.2nm,0.5s,baz=128,slow=3.6,SNR=3.5 | | | | | | | | |
| **SONM** | **Songino Array** | **43.11** | **11** | P | **P** | | **21 46 31.1** | | **-0.4** |
| | 0.1nm,0.4s,baz=181,slow=7.2,SNR=2.4 | | | | | | | | |
| SONM | | | | PcP | **PcP** | | **21 48 19.3** | | **-0.7** |
| | 0.5nm,0.6s,baz=197,slow=3.7,SNR=6.9 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **46.01** | **125** | P | **P** | | **21 46 53.5** | | **-1.4** |
| | 0.2nm,0.3s,baz=306,slow=8.8,SNR=6.0 | | | | | | | | |
| WRA | | | | PcP | **PcP** | | **21 48 28.4** | | **-2.0** |
| | 0.3nm,0.8s,baz=310,slow=3.0,SNR=3.6 | | | | | | | | |
| **GEYT** | **Alibeck** | **46.66** | **319** | P | **P** | | **21 46 59.9** | | **+0.1** |
| | 0.5nm,0.4s,baz=161,slow=9.4,SNR=3.9 | | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **47.00** | **345** | P | **P** | | **21 47 02.1** | | **0.0** |
| | 0.6nm,0.5s,baz=161,slow=7.4,SNR=5.3 | | | | | | | | |
| **ASAR** | **Alice Springs** | **47.58** | **129** | P | **P** | | **21 47 06.5** | | **-0.7** |
| | 0.2nm,0.5s,baz=306,slow=7.8,SNR=2.4 | | | | | | | | |
| ASAR | | | | pP | **pP** | | **21 47 28.6** | | **+1.3** |
| | 0.6nm,0.7s,baz=296,slow=7.7,SNR=4.4 | | | | | | | | |
| **BVAR** | **Borovoye Array** | **51.48** | **341** | P | **P** | | **21 47 35.4** | | **-0.9** |
| | 0.4nm,0.5s,baz=157,slow=8.0,SNR=3.9 | | | | | | | | |
| **FINES** | **FINESS Array B** | **75.24** | **332** | P | **P** | | **21 50 11.7** | | **-1.3** |
| | 4.1nm,0.9s,baz=114,slow=6.2,SNR=4.2 | | | | | | | | |
| **ARCES** | **ARCESS Array B** | **77.77** | **340** | P | **P** | | **21 50 26.1** | | **-1.1** |
| | 4.7nm,1.1s,baz=97,slow=7.2,SNR=5.3 | | | | | | | | |
| **GERES** | **GERESS Array B** | **80.28** | **318** | P | **P** | | **21 50 41.3** | | **-0.1** |
| | 0.5nm,0.6s,baz=87,slow=5.7,SNR=4.3 | | | | | | | | |

*ISCJB* ***29*** *21:39:18.0±0.5, 30.12N±0.05×138.68E±0.09, h421km, mb2.9/8, Error ellipse: s-maj=10.6km s-min=6.7km az=179.8*

*JMA* ***29*** *21:39:18.1±0.2, 30.30N×139.35E, h469km, M3.6*

*IDC* ***29*** *21:39:19.2±1.0, 30.20N×138.82E, h424km±11km, mb2.8/8, mb1 2.8/13, mb1mx2.7/62, mbtmp3.5/13, Error ellipse: s-maj=20.3km s-min=14.0km az=85.0*

**ISC 29 21:39:19.0±0.8, 30.18N±0.07×138.9E±0.1, h421km, n22, σ1§84/26, mb3.0/8, Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | | Time | | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | | h m s | | ISC |
| **JHJ** | **Hachijo jima 2** | **3.03** | **15** | P | **P** | | **21 40 26.3** | | **+2.4** |
| | 31nm,0.3s,baz=168,slow=9.3,SNR=15 | | | | | | | | |
| JHJ | | | | S | **S** | | **21 41 16.7** | | **0.0** |
| | 12nm,0.3s,baz=60,slow=20,SNR=3.9 | | | | | | | | |
| **JHJ2** | **Mitsune** | **3.03** | **15** | P | **P** | | **21 40 26.4** | | **+2.5** |
| **CBIJ** | **Chichi jima** | **4.23** | **136** | P | **P** | | **21 40 35.3** | | **+0.9** |
| CBIJ | | | | *e*S | **S** | | **21 41 35.3** | | **-0.5** |
| **JIE** | **Ise** | **4.59** | **337** | P | **P** | | **21 40 41.1** | | **+3.4** |
| **BSO1** | **Boso 1** | **4.80** | **21** | P | **P** | | **21 40 41.4** | | **+2.2** |
| BSO1 | | | | S | **S** | | **21 41 45.9** | | **+1.1** |
| **BSO3** | **Boso 3** | **4.81** | **16** | *e*S | **S** | | **21 41 46.1** | | **+0.6** |
| **BSO4** | **Boso 4** | **4.96** | **14** | *e*S | **S** | | **21 41 48.1** | | **-0.3** |
| **JNY** | **Yasuok** | **5.24** | **351** | P | **P** | | **21 40 46.8** | | **+2.6** |
| **JHU** | **Hanno** | **5.67** | **3** | P | **P** | | **21 40 49.1** | | **+0.5** |
| JHU | | | | *e*S | **S** | | **21 41 58.3** | | **-3.7** |
| **MJAR** | **Matsushiro Arr** | **6.37** | **355** | P | **P** | | **21 40 56.5** | | **+0.5** |
| | 0.6nm,0.3s,baz=168,slow=12,SNR=6.3 | | | | | | | | |
| **JHO** | **Hitachi** | **6.57** | **12** | *e*S | **S** | | **21 42 14.8** | | **-4.7** |
| **KSRS** | **Korea Array** | **11.64** | **311** | P | **P** | | **21 41 54.6** | | **+0.5** |
| | 0.3nm,0.3s,baz=122,slow=11,SNR=4.7 | | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **15.03** | **341** | P | **P** | | **21 42 31.2** | | **+0.4** |
| | 0.2nm,0.3s,baz=159,slow=8.8,SNR=3.1 | | | | | | | | |
| **KLR** | **Kul'dur** | **19.79** | **346** | P | **P** | | **21 43 20.6** | | **+0.7** |
| | 0.0nm,0.3s,baz=152,slow=8.3,SNR=5.5 | | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **38.03** | **261** | P | **P** | | **21 45 59.2** | | **-0.4** |
| | 0.8nm,0.7s,baz=57,slow=6.3,SNR=6.4 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **46.29** | **307** | P | **P** | | **21 47 04.2** | | **-0.6** |
| | 0.5nm,0.7s,baz=87,slow=9.6,SNR=3.4 | | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **48.82** | **313** | P | **P** | | **21 47 23.1** | | **-0.7** |
| | 0.5nm,0.4s,baz=92,slow=7.9,SNR=10.0 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **50.02** | **186** | P | **P** | | **21 47 33.0** | | **-0.2** |
| | 0.5nm,0.6s,baz=5.2,slow=8.3,SNR=7.7 | | | | | | | | |
| **ASAR** | **Alice Springs** | **53.75** | **186** | P | **P** | | **21 48 00.3** | | **+0.1** |
| | 0.2nm,0.5s,baz=356,slow=6.0,SNR=6.4 | | | | | | | | |
| **BVAR** | **Borovoye Array** | **53.82** | **316** | P | **P** | | **21 47 59.2** | | **-1.1** |
| | 0.7nm,0.5s,baz=93,slow=7.5,SNR=5.9 | | | | | | | | |
| **ILAR** | **Eielson Array** | **56.45** | **30** | P | **P** | | **21 48 18.8** | | **+0.1** |
| | 0.2nm,0.5s,baz=262,slow=4.7,SNR=5.4 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **70.81** | **28** | P | **P** | | **21 49 51.0** | | **-0.2** |
| | 0.1nm,0.4s,baz=296,slow=6.8,SNR=3.8 | | | | | | | | |

*IDC* ***29*** *21:40:11.3±1.5, 44.31N×105.47W, h0km, mb1 3.3/3, mb1mx3.0/57, mbtmp3.1/3, ML3.0/3, Error ellipse: s-maj=44.4km s-min=8.4km az=144.0*

*NEIC* ***29*** *21:40:17.9±0.7, 43.96N×105.11W, h0km, ML3.2, Error ellipse: s-maj=12.7km s-min=7.8km az=153.0, Suspected Mining explosion.*

*NEIC 49 km [31 miles] SE of Gillette.*

**ISC 29 21:40:12.4±0.8, 44.30N±0.05×105.41W±0.04, h0km, n13, σ1§53/18, Wyoming**

| Code | Station Name | Δ° | AZ° | Phase ID | | | Time | | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | | h m s | | ISC |
| **RSSD** | **Black Hills** | **1.00** | **100** | *e*Pg | **Pn** | | **21 40 33.1** | | **-0.8** |
| RSSD | | | | *e*Sg | **Sn** | | **21 40 50.4** | | **+1.5** |
| **K22A** | **Casper** | **1.84** | **207** | *e*Pn | **Pg** | | **21 40 47.6** | | **0.0** |
| K22A | | | | *e*Sn | **Sb** | | **21 41 10.2** | | **-0.3** |
| **BW06** | **Boulder Array** | **3.38** | **244** | *e*Pn | **Pb** | | **21 41 12.9** | | **-0.4** |
| BW06 | | | | S | **Sb** | | **21 41 56.1** | | **+1.0** |
| **PDAR** | **Pinedale Array** | **3.38** | **244** | Pn | **Pn** | | **21 41 07.0** | | **+0.3** |
| | 0.7nm,0.3s,baz=68,slow=17,SNR=15 | | | | | | | | |
| PDAR | | | | Pg | **Pg** | | **21 41 16.0** | | **-1.2** |
| | 5.3nm,0.3s,baz=64,slow=19,SNR=33 | | | | | | | | |
| PDAR | | | | Lg | Lg | | 21 41 56.0 | | |
| | 4.0nm,0.3s,baz=62,slow=34,SNR=11 | | | | | | | | |
| **H17A** | **Grant Village** | **3.71** | **273** | *e*Pn | **Pb** | | **21 41 20.0** | | **+1.2** |
| H17A | | | | S | **Sg** | | **21 42 11.4** | | **0.0** |
| **DGMT** | **Dagmar** | **4.25** | **11** | *e*Pn | **Pb** | | **21 41 28.2** | | **+0.2** |
| DGMT | | | | *e*Sn | **Sb** | | **21 42 21.9** | | **+2.0** |
| **AHID** | **Auburn Hatcher** | **4.41** | **252** | Pn | **Pb** | | **21 41 29.2** | | **-1.6** |
| **BOZ** | **Bozeman (W)** | **4.60** | **289** | *e*Pn | **Pb** | | **21 41 32.5** | | **-1.6** |
| BOZ | | | | *e*Sn | **Sb** | | **21 42 32.1** | | **+2.0** |
| **O20A** | **White River Ci** | **4.66** | **208** | *e*Pn | **Pn** | | **21 41 27.2** | | **+3.0** |
| **I10CA** | **LAC DU BONNET** | **8.69** | **44** | *i* | | | 22 37 50.0 | | |
| | baz=223,slow=328,SNR=4.0 | | | | | | | | |
| **ULM** | **Lac du Bonnet** | **8.79** | **44** | Pn | **Pn** | | **21 42 18.4** | | **-2.2** |
| | 0.7nm,0.3s,baz=234,slow=13,SNR=6.4 | | | | | | | | |
| ULM | | | | Lg | Lg | | 21 44 42.0 | | |
| | 0.2nm,0.3s,baz=333,slow=19,SNR=4.1 | | | | | | | | |
| **NEW** | **Newport** | **9.03** | **300** | Lg | Lg | | 21 44 48.4 | | |
| | 0.1nm,0.3s,baz=72,slow=19,SNR=3.0 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **19.00** | **347** | P | **P** | | **21 44 34.1** | | **-1.1** |
| | 0.1nm,0.3s,baz=167,slow=12,SNR=4.7 | | | | | | | | |

*IDC* ***29*** *21:50:40.3±2.6, 36.23N×71.13E, h194km±23km, mb3.3/10, mb1 3.4/16, mb1mx3.2/51, mbtmp3.9/16, Error ellipse: s-maj=19.6km s-min=13.3km az=178.0*

*ISCJB* ***29*** *21:50:41.6±0.5, 36.42N±0.03×71.06E±0.06, h188km, mb3.5/9, Error ellipse: s-maj=6.5km s-min=4.4km az=157.3*

*NNC* ***29*** *21:50:48.6±3.5, 36.86N×71.11E, h219km±49km, mb2.8, mpv3.9, Error ellipse: s-maj=48.2km s-min=24.7km az=54.0*

**ISC 29 21:50:41.8±0.6, 36.46N±0.05×71.08E±0.06, h188km, n42, σ1§95/46, mb3.4/9, 4C-4D, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase ID | | | Time | | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | | h m s | | ISC |
| **CEP** | **Cherat** | **2.72** | **165** | ⇑P | Pn | | 21 51 33.2 | | +5.5 |
| CEP | | | | S | **Sn** | | **21 52 09.0** | | **+5.6** |
| **CHCP** | **Chirah Chowk** | **3.32** | **147** | P | Pn | | 21 51 39.6 | | +4.8 |
| **THW** | **Thamme Wali** | **3.70** | **171** | ⇑P | Pn | | 21 51 44.2 | | +4.7 |
| **SFK** | **Sufi-Kurgan** | **4.03** | **28** | ⇓P | **Pn** | | **21 51 46.9** | | **+3.2** |
| | 20nm,0.2s | | | | | | | | |
| SFK | | | | ⇓S | **Sn** | | **21 52 34.2** | | **+2.0** |
| | 103nm,0.4s | | | | | | | | |
| **SARP** | **Sargodha** | **4.72** | **163** | P | Pn | | 21 51 55.6 | | +3.3 |
| **THN** | **Thein Dam** | **5.55** | **135** | *e*P | **Pn** | | **21 52 05.0** | | **+2.0** |
| THN | | | | *e*S | **Sn** | | **21 53 07.0** | | **0.0** |
| **AML** | **Almayashu** | **6.01** | **19** | P | **Pn** | | **21 52 11.7** | | **+2.3** |
| | SNR=115 | | | | | | | | |
| **MNAS** | **Manas** | **6.12** | **10** | ⇓P | **Pn** | | **21 52 13.0** | | **+2.6** |
| | 14nm,0.4s | | | | | | | | |
| MNAS | | | | ⇓S | **Sn** | | **21 53 19.5** | | **-1.0** |
| | 50nm,0.6s | | | | | | | | |
| **UCH** | **Uchtor** | **6.34** | **24** | P | **Pn** | | **21 52 15.9** | | **+2.2** |
| | SNR=127 | | | | | | | | |
| **KZA** | **Kyzart** | **6.47** | **29** | P | **Pn** | | **21 52 16.8** | | **+1.4** |
| | SNR=19 | | | | | | | | |
| **EKS2** | **Erkin-Say** | **6.53** | **18** | P | **Pn** | | **21 52 18.2** | | **+2.4** |
| | SNR=38 | | | | | | | | |
| **KK31** | **Karatay Array** | **6.65** | **356** | ⇑P | **Pn** | | **21 52 19.8** | | **+2.6** |
| | 1.1nm,0.3s,baz=188,slow=20,SNR=36 | | | | | | | | |
| KK31 | | | | S | **Sn** | | **21 53 31.9** | | **-0.9** |
| | 12nm,0.5s,baz=166,slow=16,SNR=17 | | | | | | | | |
| **AAK** | **Ala-Archa** | **6.71** | **22** | P | **Pn** | | **21 52 20.8** | | **+2.7** |
| | 10nm,0.3s,baz=175,slow=6.0,SNR=179 | | | | | | | | |
| AAK | | | | S | **Sn** | | **21 53 35.1** | | **+0.6** |
| | 0.7nm,0.3s,baz=316,slow=22,SNR=17 | | | | | | | | |
| **AAK** | **Ala-Archa** | **6.71** | **22** | P | **Pn** | | **21 52 20.6** | | **+2.4** |
| | SNR=49 | | | | | | | | |
| **KBK** | **Karagaybulak** | **6.87** | **25** | P | **Pn** | | **21 52 22.9** | | **+2.5** |
| | SNR=37 | | | | | | | | |
| **ULHL** | **Ulahol** | **7.02** | **33** | P | **Pn** | | **21 52 23.9** | | **+1.5** |
| | SNR=33 | | | | | | | | |
| **CHMS** | **Chumysh** | **7.12** | **22** | P | **Pn** | | **21 52 25.4** | | **+2.0** |
| | SNR=12 | | | | | | | | |
| **USP** | **Ospenovka** | **7.29** | **20** | P | **Pn** | | **21 52 26.9** | | **+1.3** |
| | SNR=9.3 | | | | | | | | |
| **TKM2** | **Tokmak 2** | **7.33** | **27** | P | **Pn** | | **21 52 28.3** | | **+1.9** |
| | SNR=72 | | | | | | | | |
| **MDOK** | **Medeo** | **8.12** | **33** | P | **Pn** | | **21 52 38.0** | | **+1.3** |
| **KNDC** | **Almaty** | **8.12** | **32** | ⇑P | **Pn** | | **21 52 39.6** | | **+2.9** |
| | 2.8nm,0.8s | | | | | | | | |
| **GEYT** | **Alibeck** | **10.45** | **282** | P | **Pn** | | **21 53 08.4** | | **+1.5** |
| | 0.4nm,0.3s,baz=122,slow=11,SNR=8.0 | | | | | | | | |
| GEYT | | | | S | **Sn** | | **21 55 03.2** | | **-0.1** |
| | 0.2nm,0.3s,baz=93,slow=26,SNR=2.9 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **13.28** | **36** | P | **Pn** | | **21 53 42.5** | | **-0.6** |
| | 0.6nm,0.3s,baz=213,slow=14,SNR=37 | | | | | | | | |
| MKAR | | | | S | **S** | | **21 56 14.1** | | **+0.7** |
| | 0.0nm,0.3s,baz=218,slow=26,SNR=2.5 | | | | | | | | |
| **DMN** | **Daman** | **14.80** | **123** | *e*P | **P** | | **21 54 01.9** | | **-1.6** |
| **KKN** | **Kakani** | **14.80** | **122** | *e*P | **P** | | **21 54 01.9** | | **-1.6** |
| | 32nm,1.3s | | | | | | | | |
| **PKI** | **Pulchoki** | **15.03** | **122** | *e*P | **P** | | **21 54 05.4** | | **-0.7** |
| | 3.1nm,0.2s | | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **15.14** | **18** | P | **Pn** | | **21 54 05.5** | | **-0.5** |
| | 0.1nm,0.3s,baz=206,slow=12,SNR=8.5 | | | | | | | | |
| **JIRN** | **Jiri** | **15.51** | **120** | *e*P | **P** | | **21 54 11.0** | | **-0.5** |
| | 39nm,0.2s | | | | | | | | |
| **RAMN** | **Ramite** | **16.24** | **121** | *e*P | **Pn** | | **21 54 19.5** | | **-0.4** |
| | 8.5nm,0.6s | | | | | | | | |
| **BVAR** | **Borovoye Array** | **16.57** | **359** | P | **Pn** | | **21 54 23.5** | | **+0.2** |
| | 0.6nm,0.3s,baz=162,slow=9.2,SNR=14 | | | | | | | | |
| **TAPN** | **Taplejung** | **16.77** | **118** | *e*P | **Pn** | | **21 54 27.5** | | **+1.2** |
| | 3.1nm,0.4s | | | | | | | | |
| **AKTO** | **Aktyubinsk** | **16.84** | **330** | P | **Pn** | | **21 54 27.4** | | **+0.8** |
| | 1.8nm,0.3s,baz=138,slow=9.1,SNR=33 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **19.92** | **24** | P | **P** | | **21 54 58.5** | | **-0.4** |
| | 2.3nm,0

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | comp=Z,153nm,0.7s | | | | | | | | | |
| CTAO | **Charters Tower** | 17.63 | 209 | *e*P | | P | | 22 29 28.0 | +0.5 | |
| | comp=Z,153nm,0.7s | | | | | | | | | |
| KWAJ | **Kwajalein Atol** | 18.22 | 43 | *e*P | | P | | 22 29 32.6 | -0.4 | |
| KWAJ | | | | pmax | | pmax | | | | |
| | comp=Z,582nm,1.3s | | | | | | | | | |
| KWAJ | **Kwajalein Atol** | 18.22 | 43 | *e*P | | P | | 22 29 32.6 | -0.4 | |
| | comp=Z,582nm,1.3s | | | | | | | | | |
| DZM | **Mont Dzumac** | 20.39 | 149 | P | | P | | 22 29 53.7 | +0.8 | |
| | comp=Z,77nm,0.6s,baz=336,slow=5.5,SNR=154 | | | | | | | | | |
| DZM | | | | S | | S | | 22 33 08.9 | -0.5 | |
| | comp=Z,18nm,1.2s,baz=345,slow=20,SNR=2.0 | | | | | | | | | |
| DZM | | | | ScP | | ScP | | 22 36 34.4 | +3.0 | |
| | comp=Z,18nm,1.1s,baz=322,slow=2.1,SNR=4.6 | | | | | | | | | |
| DZM | **Mont Dzumac** | 20.39 | 149 | *e*P | | P | | 22 29 53.6 | +0.8 | |
| | comp=Z,378nm,1.4s | | | | | | | | | |
| DZM | **Mont Dzumac** | 20.39 | 149 | *e*P | | P | | 22 29 53.3 | +0.4 | |
| | comp=Z,100nm,0.8s | | | | | | | | | |
| DZM | | | | S | | S | | 22 33 08.9 | -0.5 | |
| DZM | | | | *e*PcP | | PcP | | 22 33 41.1 | -1.6 | |
| DZM | | | | ScP | | ScP | | 22 36 34.4 | +3.0 | |
| GUMO | **Guam** | 20.89 | 331 | P | | P | | 22 29 56.9 | -0.5 | |
| | comp=Z,353nm,0.4s,baz=155,slow=4.7,SNR=19 | | | | | | | | | |
| GUMO | **Guam** | 20.89 | 331 | *e*P | | P | | 22 29 57.2 | -0.2 | |
| GUMO | | | | pmax | | pmax | | | | |
| | comp=Z,2μm,1.1s | | | | | | | | | |
| GUMO | **Guam** | 20.89 | 331 | *e*P | | P | | 22 29 57.2 | -0.2 | |
| | comp=Z,2μm,1.1s | | | | | | | | | |
| EIDS | **Eidsvold** | 20.94 | 191 | P | | P | | 22 29 58.4 | +0.7 | |
| | baz=21,SNR=24 | | | | | | | | | |
| EIDS | **Eidsvold** | 20.94 | 191 | *e*P | | P | | 22 29 58.4 | +0.7 | |
| KMPI | **Kaimana, Papua** | 21.52 | 272 | P | | P | | 22 30 03.9 | +0.8 | |
| | comp=Z,220nm,0.6s | | | | | | | | | |
| QIS | **Mount Isa** | 21.91 | 223 | P | | P | | 22 30 07.2 | +0.6 | |
| | baz=22,SNR=139 | | | | | | | | | |
| RMQ | **Roma** | 22.54 | 195 | P | | P | | 22 30 12.8 | +0.7 | |
| | baz=23,SNR=26 | | | | | | | | | |
| FAKI | **Fak Fak** | 23.02 | 274 | P | | P | | 22 30 15.2 | -1.4 | |
| | comp=Z,42nm,0.6s | | | | | | | | | |
| FAKI | **Fak Fak** | 23.02 | 274 | *e*P | | P | | 22 30 15.7 | -0.9 | |
| | comp=Z,30nm,0.7s | | | | | | | | | |
| KDU | **Kakadu** | 23.86 | 249 | P | | P | | 22 30 23.3 | -0.8 | |
| | baz=24,SNR=8.6 | | | | | | | | | |
| SAUI | **Saumlaki** | 24.02 | 261 | *e*P | | P | | 22 30 24.3 | -1.2 | |
| FUNA | **Funafuti** | 24.08 | 100 | *e*P | | P | | 22 30 26.3 | +0.2 | |
| | comp=Z,302nm,1.8s | | | | | | | | | |
| QLP | **Quilpie** | 24.17 | 205 | P | | P | | 22 30 27.2 | +0.5 | |
| | baz=24,SNR=154 | | | | | | | | | |
| SWI | **Sorong** | 24.26 | 278 | P | | P | | 22 30 27.3 | -0.4 | |
| | comp=Z,50nm,0.7s,comp=Z,978nm | | | | | | | | | |
| SWI | **Sorong** | 24.26 | 278 | P | | P | | 22 30 28.0 | +0.3 | |
| SWI | | | | pmax | | pmax | | | | |
| | comp=Z,49nm,0.7s | | | | | | | | | |
| MTN | **Manton Dam** | 25.15 | 250 | P | | P | | 22 30 35.1 | -0.5 | |
| | baz=25,SNR=13 | | | | | | | | | |
| MTN | **Manton Dam** | 25.15 | 250 | *e*P | | P | | 22 30 34.9 | -0.7 | |
| | comp=Z,26nm,0.5s | | | | | | | | | |
| BNDI | **Bandanaira** | 25.27 | 269 | P | | P | | 22 30 36.2 | -0.4 | |
| | comp=Z,384nm,1.2s | | | | | | | | | |
| WRAB | **Tennant Creek** | 25.37 | 232 | *d i*P | | P | | 22 30 37.6 | +0.2 | |
| WRAB | | | | pmax | | pmax | | | | |
| | comp=Z,154nm,0.9s | | | | | | | | | |
| WRAB | **Tennant Creek** | 25.37 | 232 | *e*P | | P | | 22 30 37.8 | +0.4 | |
| | comp=Z,230nm,0.8s | | | | | | | | | |
| WB2 | **Warramunga Arr** | 25.37 | 232 | P | | P | | 22 30 37.7 | +0.2 | |
| | baz=26 | | | | | | | | | |
| WB2 | **Warramunga Arr** | 25.37 | 232 | *e*P | | P | | 22 30 37.6 | +0.2 | |
| WRA | **Warramunga Arr** | 25.38 | 232 | P | | P | | 22 30 37.8 | +0.2 | |
| | comp=Z,158nm,0.4s,baz=58,slow=9.3,SNR=1262 | | | | | | | | | |
| WRA | | | | PcP | | PcP | | 22 33 53.8 | +0.5 | |
| | comp=Z,14nm,0.5s,baz=51,slow=2.3,SNR=10 | | | | | | | | | |
| WRA | | | | S | | S | | 22 34 27.2 | -0.9 | |
| | comp=Z,15nm,0.8s,baz=47,slow=16,SNR=11 | | | | | | | | | |
| WRA | | | | ScP | | ScP | | 22 36 46.5 | +1.8 | |
| | comp=Z,18nm,1.0s,baz=54,slow=3.2,SNR=10 | | | | | | | | | |
| H11S3 | **WAKE ISLAND Hy** | 25.66 | 26 | P | | P | | 22 30 39.0 | -0.7 | |
| H11S2 | **WAKE ISLAND Hy** | 25.66 | 26 | P | | P | | 22 30 39.2 | -0.6 | |
| H11S1 | **WAKE ISLAND Hy** | 25.68 | 26 | P | | P | | 22 30 39.2 | -0.6 | |
| MSVF | **Nonsavu** | 25.80 | 122 | *e*P | | P | | 22 30 42.2 | +0.9 | |
| MSVF | | | | pmax | | pmax | | | | |
| | comp=Z,29nm,1.0s | | | | | | | | | |
| MSVF | **Nonsavu** | 25.80 | 122 | *e*P | | P | | 22 30 42.2 | +0.9 | |
| | comp=Z,29nm,1.0s | | | | | | | | | |
| ARMA | **Armidale** | 25.81 | 187 | P | | P | | 22 30 42.3 | +1.1 | |
| | baz=26,SNR=62 | | | | | | | | | |
| ARMA | **Armidale** | 25.81 | 187 | *e*P | | P | | 22 30 42.3 | +1.1 | |
| | comp=Z,68nm,0.8s | | | | | | | | | |
| H11N1 | **WAKE ISLAND Hy** | 26.83 | 25 | P | | P | | 22 30 49.4 | -0.6 | |
| | baz=220,slow=11,SNR=11 | | | | | | | | | |
| H11N3 | **WAKE ISLAND Hy** | 26.84 | 25 | P | | P | | 22 30 49.7 | -0.4 | |
| | baz=220,slow=11,SNR=4.9 | | | | | | | | | |
| H11N2 | **WAKE ISLAND Hy** | 26.84 | 25 | P | | P | | 22 30 49.7 | -0.4 | |
| | baz=220,slow=11,SNR=7.6 | | | | | | | | | |
| AAI | **Ambon** | 27.00 | 271 | P | | P | | 22 30 51.6 | -0.3 | |
| | comp=Z,112nm,0.9s | | | | | | | | | |
| AS01 | **Alice Springs** | 27.88 | 225 | *e*P | | P | | 22 30 59.5 | 0.0 | |
| AS31 | **Alice Springs** | 27.91 | 225 | *e*P | | P | | 22 30 59.4 | -0.5 | |
| | comp=Z,40nm,0.5s | | | | | | | | | |
| ASAR | **Alice Springs** | 27.92 | 225 | P | | P | | 22 30 59.5 | -0.3 | |
| | comp=Z,83nm,0.5s,baz=57,slow=8.9,SNR=1484 | | | | | | | | | |
| ASAR | | | | PcP | | PcP | | 22 33 59.9 | +0.4 | |
| | comp=Z,11nm,0.5s,baz=62,slow=3.7,SNR=8.3 | | | | | | | | | |
| ASAR | | | | S | | S | | 22 35 06.4 | -1.4 | |
| | comp=Z,9.1nm,0.6s,baz=58,slow=14,SNR=8.6 | | | | | | | | | |
| ASAR | | | | ScP | | ScP | | 22 36 54.6 | +2.4 | |
| | comp=Z,5.9nm,1.0s,baz=51,slow=3.0,SNR=6.7 | | | | | | | | | |
| LBMI | **Labuha** | 28.01 | 277 | P | | P | | 22 31 00.5 | -0.3 | |
| NLAI | **Namlea** | 28.12 | 272 | P | | P | | 22 31 02.5 | +0.8 | |
| | comp=Z,49nm,0.6s | | | | | | | | | |
| CMSA | **Cobar Meteorol** | 28.17 | 197 | P | | P | | 22 31 02.1 | +0.2 | |
| | baz=28,SNR=153 | | | | | | | | | |
| KNRA | **Kununurra** | 28.22 | 245 | P | | P | | 22 31 02.2 | -0.3 | |
| | baz=28,SNR=68 | | | | | | | | | |
| TNTI | **Ternate** | 28.38 | 280 | *e*P | | P | | 22 31 03.1 | -0.9 | |
| | comp=Z,34nm,0.9s | | | | | | | | | |
| MGCD | **Mangrove Creek** | 28.63 | 187 | P | | P | | 22 31 07.2 | +1.3 | |
| | baz=29,SNR=7.8 | | | | | | | | | |
| RIV | **Riverview** | 29.23 | 187 | P | | P | | 22 31 12.3 | +1.2 | |
| | baz=29,SNR=4.9 | | | | | | | | | |
| RIV | **Riverview** | 29.23 | 187 | P | | P | | 22 31 13.5 | +2.4 | |
| RIV | | | | pmax | | pmax | | | | |
| | comp=Z,311nm,1.0s | | | | | | | | | |
| STKA | **Stephens Creek** | 29.92 | 204 | P | | P | | 22 31 17.2 | +0.1 | |
| | comp=Z,71nm,0.4s,baz=14,slow=7.7,SNR=363 | | | | | | | | | |
| STKA | | | | PcP | | PcP | | 22 34 04.7 | +0.3 | |
| | comp=Z,14nm,0.8s,baz=82,slow=3.8,SNR=4.6 | | | | | | | | | |
| STKA | | | | S | | S | | 22 35 36.6 | -1.9 | |
| | comp=Z,21nm,1.1s,baz=38,slow=12,SNR=7.5 | | | | | | | | | |
| STKA | | | | ScP | | ScP | | 22 37 01.5 | +3.0 | |
| | comp=Z,27nm,1.0s,baz=27,slow=4.2,SNR=9.4 | | | | | | | | | |
| STKA | **Stephens Creek** | 29.92 | 204 | P | | P | | 22 31 17.2 | +0.1 | |
| | baz=30,SNR=353 | | | | | | | | | |
| STKA | **Stephens Creek** | 29.92 | 204 | *e*P | | P | | 22 31 17.3 | +0.1 | |
| STKA | | | | | | | | 22 34 04.7 | | |
| STKA | | | | *e*S | | S | | 22 35 37.8 | -0.7 | |
| STKA | | | | pmax | | pmax | | | | |
| | comp=Z,17nm,0.4s | | | | | | | | | |
| STKA | **Stephens Creek** | 29.92 | 204 | *e*P | | P | | 22 31 17.2 | +0.1 | |
| | comp=Z,17nm,0.4s | | | | | | | | | |
| STKA | | | | PcP | | PcP | | 22 34 04.7 | +0.3 | |
| STKA | | | | *e*S | | S | | 22 35 37.8 | -0.7 | |
| STKA | | | | ScP | | ScP | | 22 37 01.5 | +3.0 | |
| YNG | **Young** | 30.13 | 191 | P | | P | | 22 31 19.9 | +0.9 | |
| | baz=30,SNR=16 | | | | | | | | | |
| CNB | **Canberra Magne** | 30.95 | 189 | P | | P | | 22 31 27.4 | +1.3 | |
| | baz=31,SNR=40 | | | | | | | | | |
| CAN | **Canberra** | 31.01 | 190 | *e*P | | P | | 22 31 27.7 | +1.1 | |
| CAN | | | | pmax | | pmax | | | | |
| | comp=Z,83nm,1.0s | | | | | | | | | |
| CAN | **Canberra** | 31.01 | 190 | *e*P | | P | | 22 31 27.7 | +1.1 | |
| | comp=Z,83nm,1.0s | | | | | | | | | |
| SOEI | **Soe** | 31.13 | 259 | P | | P | | 22 31 27.8 | -0.2 | |
| SOEI | **Soe** | 31.13 | 259 | *e*P | | P | | 22 31 28.6 | +0.5 | |
| | comp=Z,92nm,0.8s | | | | | | | | | |
| KMSI | **Cibinong** | 31.68 | 279 | P | | P | | 22 31 35.5 | +3.0 | |
| FITZ | **Fitzroy Crossi** | 31.87 | 243 | P | | P | | 22 31 33.4 | -0.7 | |
| | comp=Z,130nm,0.4s,baz=55,slow=7.4,SNR=799 | | | | | | | | | |
| FITZ | | | | S | | S | | 22 36 03.5 | -5.3 | |
| | comp=Z,3.4nm,0.6s,baz=45,slow=20,SNR=11 | | | | | | | | | |
| FITZ | **Fitzroy Crossi** | 31.87 | 243 | P | | P | | 22 31 33.4 | -0.7 | |
| | baz=32,SNR=437 | | | | | | | | | |
| LUWI | **Luwuk** | 32.64 | 275 | *e*P | | P | | 22 31 41.3 | +0.6 | |
| | comp=Z,106nm,0.6s | | | | | | | | | |
| MILA | **Mila** | 32.68 | 189 | P | | P | | 22 31 42.7 | +1.8 | |
| | baz=33,SNR=20 | | | | | | | | | |
| WRKA | **Warakurna** | 32.84 | 229 | P | | P | | 22 31 41.5 | -0.9 | |
| | baz=33,SNR=92 | | | | | | | | | |
| MMRI | **Maumere** | 33.01 | 261 | P | | P | | 22 31 43.5 | -0.4 | |
| | comp=Z,225nm,0.5s | | | | | | | | | |
| MMRI | **Maumere** | 33.01 | 261 | *e*P | | P | | 22 31 42.8 | -1.1 | |
| | comp=Z,162nm,0.5s | | | | | | | | | |
| BBOO | **Buckleboo** | 33.22 | 210 | P | | P | | 22 31 45.5 | +0.1 | |
| | baz=33,SNR=446 | | | | | | | | | |
| BBOO | **Buckleboo** | 33.22 | 210 | *e*P | | P | | 22 31 45.4 | 0.0 | |
| | comp=Z,183nm,0.6s | | | | | | | | | |
| BBOO | | | | *e*S | | S | | 22 36 28.3 | -0.9 | |
| EDFI | **Ende, Flores** | 33.56 | 261 | P | | P | | 22 31 48.1 | -0.6 | |
| MRSI | **Marisa** | 33.67 | 278 | P | | P | | 22 31 49.6 | +0.1 | |
| TOO | **Toolangi** | 33.91 | 194 | P | | P | | 22 31 52.2 | +0.9 | |
| | baz=34,SNR=11 | | | | | | | | | |
| CBIJ | **Chichi jima** | 34.04 | 339 | *e*P | | P | | 22 31 49.6 | -2.8 | |
| | comp=Z,269nm,1.2s | | | | | | | | | |
| ARPS | **Mount Arapiles** | 34.21 | 199 | P | | P | | 22 31 54.5 | +0.8 | |
| | baz=34,SNR=43 | | | | | | | | | |
| BASI | **Baing, Sumba** | 34.80 | 259 | P | | P | | 22 31 58.2 | -0.8 | |
| KAPI | **Kappang** | 35.37 | 268 | *e*P | | P | | 22 32 03.6 | -0.1 | |
| | comp=Z,40nm,0.5s | | | | | | | | | |
| SPSI | **Sidrap Palu** | 35.39 | 270 | P | | P | | 22 32 02.3 | -1.6 | |
| MPSI | **Mapaga** | 35.67 | 277 | P | | P | | 22 32 05.3 | -1.0 | |
| WBSI | **Waikabubak, Su** | 35.90 | 260 | P | | P | | 22 32 07.4 | -0.8 | |
| FORT | **Forrest** | 36.44 | 221 | P | | P | | 22 32 12.6 | +0.1 | |
| | baz=37,SNR=376 | | | | | | | | | |
| FORT | **Forrest** | 36.44 | 221 | *e*P | | P | | 22 32 12.6 | +0.1 | |
| | comp=Z,4μm,0.6s | | | | | | | | | |
| PLAI | **Plampang** | 37.42 | 262 | P | | P | | 22 32 18.5 | -2.3 | |
| MBWA | **Marble Bar** | 38.15 | 241 | *e*P | | P | | 22 32 25.9 | -0.7 | |
| | comp=Z,102nm,0.6s | | | | | | | | | |
| MOO | **Moorlands** | 38.26 | 190 | P | | P | | 22 32 29.0 | +1.9 | |
| | baz=38,SNR=22 | | | | | | | | | |
| TAU | **Tasmania Unive** | 38.70 | 189 | *e*P | | P | | 22 32 32.3 | +1.7 | |
| TAU | | | | pmax | | pmax | | | | |
| | comp=Z,94nm,0.8s | | | | | | | | | |
| TAU | **Tasmania Unive** | 38.70 | 189 | *e*P | | P | | 22 32 32.3 | +1.7 | |
| | comp=Z,94nm,0.8s | | | | | | | | | |
| URZ | **Urewera** | 38.88 | 152 | P | | P | | 22 32 33.1 | +0.8 | |
| | comp=Z,13nm,0.3s,baz=254,slow=1.9,SNR=36 | | | | | | | | | |
| URZ | | | | PcP | | PcP | | 22 34 28.1 | -2.5 | |
| | comp=Z,9.9nm,0.8s,baz=323,slow=5.1,SNR=2.2 | | | | | | | | | |
| BKZ | **Black Stump Fm** | 39.34 | 154 | *e*P | | P | | 22 32 36.9 | +0.8 | |
| | comp=Z,35nm,0.7s | | | | | | | | | |
| BKZ | | | | *e*S | | S | | 22 38 00.7 | +0.1 | |
| THZ | **Tophouse** | 40.13 | 159 | *e*P | | P | | 22 32 43.1 | +0.7 | |
| | comp=Z,47nm,0.7s | | | | | | | | | |
| KKM | **Kota Kinabalu** | 40.41 | 285 | *e*P | | P | | 22 32 44.3 | -0.8 | |
| | comp=Z,30nm,0.6s | | | | | | | | | |
| MTKI | **Muara Teweh, K** | 40.47 | 274 | P | | P | | 22 32 47.2 | +1.7 | |
| BFZ | **Birch Farm** | 40.49 | 155 | *e*P | | P | | 22 32 46.0 | +0.9 | |
| | comp=Z,79nm,1.0s | | | | | | | | | |
| JOW | **Kunigami** | 40.79 | 322 | *e*P | | P | | 22 32 47.9 | +0.1 | |
| | comp=Z,91nm,0.6s | | | | | | | | | |
| JOHN | **Johnston Islan** | 40.81 | 58 | *e*P | | P | | 22 32 47.6 | -0.5 | |
| | comp=Z,466nm,1.2s | | | | | | | | | |
| LTZ | **Lake Taylor** | 40.82 | 161 | *e*P | | P | | 22 32 48.7 | +0.9 | |
| | comp=Z,177nm,1.4s | | | | | | | | | |
| JAGI | **Jajag, Banyuwa** | 40.98 | 263 | P | | P | | 22 32 48.4 | -1.2 | |
| JAGI | **Jajag, Banyuwa** | 40.98 | 263 | *e*P | | P | | 22 32 47.1 | -2.5 | |
| | comp=Z,54nm,0.6s | | | | | | | | | |
| KMBL | **Kambalda** | 41.05 | 226 | P | | P | | 22 32 49.5 | -0.4 | |
| | baz=41,SNR=68 | | | | | | | | | |
| MEEK | **Meekatharra** | 41.22 | 234 | P | | P | | 22 32 50.9 | -0.4 | |
| | baz=41,SNR=411 | | | | | | | | | |
| OXZ | **Oxford** | 41.24 | 161 | *e*P | | P | | 22 32 51.3 | +0.3 | |
| | comp=Z,64nm,0.9s | | | | | | | | | |
| RPZ | **Rata Peaks** | 41.28 | 163 | P | | P | | 22 32 52.0 | +0.6 | |
| | comp=Z,39nm,0.8s,baz=168,slow=2.5,SNR=25 | | | | | | | | | |
| RPZ | | | | pP | | pP | | 22 34 22.0 | -1.2 | |
| | comp=Z,20nm,0.9s,baz=350,slow=6.1,SNR=2.6 | | | | | | | | | |
| RPZ | **Rata Peaks** | 41.28 | 163 | *e*P | | P | | 22 32 51.9 | +0.5 | |
| | comp=Z,53nm,1.0s | | | | | | | | | |
| RPZ | | | | pP | | pP | | 22 34 22.0 | -1.2 | |
| BLJI | **Banyuglugur** | 41.51 | 264 | P | | P | | 22 32 52.9 | -0.8 | |
| | comp=Z,103nm,0.5s,comp=Z,2μm | | | | | | | | | |
| LBZ | **Lake Benmore** | 41.65 | 164 | *e*P | | P | | 22 32 55.4 | +1.0 | |
| | comp=Z,30nm,0.8s | | | | | | | | | |
| DCZ | **Deep Cove** | 41.91 | 167 | *e*P | | P | | 22 32 57.5 | +1.2 | |
| | comp=Z,44nm,1.0s | | | | | | | | | |
| MLZ | **Mavora Lakes** | 42.04 | 166 | *e*P | | P | | 22 32 58.3 | +0.9 | |
| | comp=Z,96nm,1.0s | | | | | | | | | |
| ODZ | **Otahua Downs** | 42.38 | 164 | *e*P | | P | | 22 33 00.7 | +0.6 | |
| | comp=Z,43nm,1.2s | | | | | | | | | |
| PYZ | **Puysegur Point** | 42.48 | 168 | *e*P | | P | | 22 33 01.0 | +0.1 | |
| | comp=Z,168nm,1.3s | | | | | | | | | |
| WHZ | **Wether Hill Ro** | 42.49 | 167 | *e*P | | P | | 22 33 01.6 | +0.6 | |
| | comp=Z,43nm,0.9s | | | | | | | | | |
| YOJ | **Yonaguni jima** | 42.72 | 314 | *e*P | | P | | 22 33 02.3 | -0.8 | |
| YOJ | | | | pmax | | pmax | | | | |
| | comp=Z,226nm,0.6s | | | | | | | | | |
| YOJ | **Yonaguni jima** | 42.72 | 314 | *e*P | | P | | 22 33 02.3 | -0.8 | |
| | comp=Z,226nm,0.6s | | | | | | | | | |
| PWJI | **Pagerwojo** | 43.29 | 263 | P | | P | | 22 33 06.7 | -1.1 | |
| INU | **Inuyama** | 43.37 | 338 | *e*P | | P | | 22 33 08.0 | 0.0 | |
| | comp=Z,229nm,1.0s | | | | | | | | | |
| GIRL | **Giralia** | 43.46 | 242 | P | | P | | 22 33 09.5 | +0.6 | |
| | baz=44,SNR=23 | | | | | | | | | |
| PBKI | **Pangkalan Bun** | 43.53 | 271 | P | | P | | 22 33 10.2 | +0.5 | |
| NACB | **Ninganchiao** | 43.57 | 313 | *e*P | | P | | 22 33 09.0 | -0.7 | |
| | comp=Z,138nm,0.5s | | | | | | | | | |
| PCJI | **Pacitan** | 43.92 | 263 | P | | P | | 22 33 11.7 | -0.9 | |
| MJAR | **Matsushiro Arr** | 44.02 | 340 | P | | P | | 22 33 12.2 | -0.8 | |
| | comp=Z,19nm,0.4s,baz=164,slow=6.4,SNR=179 | | | | | | | | | |
| MJAR | | | | PcP | | PcP | | 22 34 48.0 | +0.3 | |
| | comp=Z,3.6nm,0.8s,baz=156,slow=3.8,SNR=3.5 | | | | | | | | | |
| MAJO | **Matsushiro** | 44.02 | 340 | *c i*P | | P | | 22 33 12.0 | -1.1 | |
| MAJO | | | | pmax | | pmax | | | | |
| | comp=Z,46nm,0.8s | | | | | | | | | |
| MAJO | **Matsushiro** | 44.02 | 340 | *e*P | | P | | 22 33 12.3 | -0.7 | |
| | comp=Z,81nm,0.9s | | | | | | | | | |
| MAT | **Matsushiro** | 44.02 | 340 | P | | P | | 22 33 12.1 | -1.0 | |
| MJB9 | **Matsu-Tunnel** | 44.02 | 340 | *e*P | | P | | 22 33 12.4 | -0.7 | |
| | comp=Z,82nm,0.9s | | | | | | | | | |
| YHNB | **Yeheng** | 44.02 | 313 | *e*P | | P | | 22 33 13.2 | -0.2 | |
| | comp=Z,351nm,0.8s | | | | | | | | | |
| JNU | **Nakatsue** | 44.15 | 330 | P | | P | | 22 33 14.2 | +0.1 | |
| | comp=Z,63nm,0.8s,baz=51,slow=1.1,SNR=63 | | | | | | | | | |
| JNU | **Nakatsue** | 44.15 | 330 | *e*P | | P | | 22 33 14.2 | +0.1 | |
| | comp=Z,77nm,0.9s | | | | | | | | | |
| KLBR | **Kellerberrin** | 44.17 | 228 | P | | P | | 22 33 13.3 | -1.0 | |
| | baz=44,SNR=31 | | | | | | | | | |
| MORW | **Morawa** | 44.33 | 232 | P | | P | | 22 33 14.8 | -0.8 | |
| | baz=44,SNR=117 | | | | | | | | | |
| BLDU | **Ballidu** | 44.49 | 230 | P | | P | | 22 33 16.0 | -0.9 | |
| | baz=45,SNR=142 | | | | | | | | | |
| UGM | **Wanagama** | 44.56 | 264 | *e*P | | P | | 22 33 16.9 | -0.7 | |
| | comp=Z,766nm,1.7s | | | | | | | | | |
| SMRI | **Semarang** | 44.62 | 265 | *e*P | | P | | 22 33 18.1 | 0.0 | |
| | comp=Z,590nm,2.0s | | | | | | | | | |
| NWAO | **Narrogin (SRO)** | 45.22 | 227 | P | | P | | 22 33 21.7 | -0.8 | |
| | comp=Z,26nm,0.5s,baz=302,slow=7.3,SNR=50 | | | | | | | | | |
| NWAO | **Narrogin (SRO)** | 45.22 | 227 | P | | P | | 22 33 21.6 | -0.8 | |
| | baz=45,SNR=38 | | | | | | | | | |
| NWAO | | | | P | | P | | 22 33 21.6 | -0.8 | |
| | baz=45,SNR=38 | | | | | | | | | |
| NWAO | **Narrogin (SRO)** | 45.22 | 227 | *e*P | | P | | 22 33 21.9 | -0.5 | |
| NWAO | | | | pmax | | pmax | | | | |
| | comp=Z,34nm,0.6s | | | | | | | | | |
| NWAO | **Narrogin (SRO)** | 45.22 | 227 | *e*P | | P | | 22 33 21.9 | -0.5 | |
| | comp=Z,34nm,0.6s | | | | | | | | | |
| KSM | **Kuching** | 45.32 | 277 | *e*P | | P | | 22 33 23.6 | 0.0 | |
| | comp=Z,98nm,1.7s | | | | | | | | | |
| KPJI | **Karang Pucung** | 46.12 | 264 | P | | P | | 22 33 28.9 | -0.7 | |
| RKGY | **Rocky Gully** | 46.26 | 225 | P | | P | | 22 33 30.8 | +0.5 | |
| | baz=46,SNR=45 | | | | | | | | | |
| CISI | **Cisompet, Garu** | 47.23 | 264 | P | | P | | 22 33 36.7 | -1.4 | |
| | comp=Z,569nm,0.6s,comp=Z,6μm | | | | | | | | | |
| CISI | **Cisompet, Garu** | 47.23 | 264 | *e*P | | P | | 22 33 36.5 | -1.6 | |
| | comp=Z,389nm,0.6s | | | | | | | | | |
| TJN | **Taejon** | 48.48 | 330 | *c i*P | | P | | 22 33 47.1 | +0.1 | |
| KSRS | **Korea Array** | 49.05 | 331 | P | | P | | 22 33 51.6 | +0.4 | |
| | comp=Z,26nm,0.6s,baz=147,slow=7.9,SNR=59 | | | | | | | | | |
| KSRS | | | | ScP | | ScP | | 22 38 14.8 | +2.5 | |
| | comp=Z,3.6nm,0.9s,baz=132,slow=5.6,SNR=4.8 | | | | | | | | | |
| KS15 | **Wonju Array Si** | 49.06 | 331 | *e*P | | P | | 22 33 51.9 | +0.6 | |
| KSAR | **Wonju Array Be** | 49.06 | 331 | P | | P | | 22 33 51.6 | +0.3 | |
| KSAR | **Wonju Array Be** | 49.06 | 331 | P | | P | | 22 33 51.6 | +0.3 | |
| KSAR | | | | ScP | | ScP | | 22 38 14.8 | +2.4 | |
| KS01 | **Wonju Array Si** | 49.09 | 331 | *e*P | | P | | 22 33 51.1 | -0.3 | |
| INCN | **Inchon** | 49.71 | 330 | *e*P | | P | | 22 33 57.7 | +1.6 | |
| | comp=Z,153nm,1.1s | | | | | | | | | |
| ASAJ | **Asahikawa** | 49.91 | 348 | P | | P | | 22 33 58.2 | +0.8 | |
| | comp=Z,19nm,0.4s,baz=202,slow=10,SNR=11 | | | | | | | | | |
| ASAJ | **Asahikawa** | 49.91 | 348 | *e*P | | P | | 22 33 56.9 | -0.6 | |
| | comp=Z,24nm,0.6s | | | | | | | | | |
| NJ2 | **Nanjing** | 50.34 | 319 | *e*P | | P | | 22 34 02.0 | +1.2 | |
| NJ2 | | | | pmax | | pmax | | | | |
| | comp=Z,30nm,0.8s | | | | | | | | | |
| QIZ | **Qiongzhong** | 50.54 | 299 | P | | P | | 22 34 02.5 | 0.0 | |
| QIZ | | | | sP | | sP | | 22 36 33.8 | -1.3 | |
| QIZ | | | | S | | S | | 22 40 39.5 | +0.5 | |
| QIZ | | | | ScS | | ScS | | 22 42 59.5 | -0.2 | |
| QIZ | | | | sS | | sS | | 22 43 33.0 | -0.7 | |
| QIZ | | | | pmax | | pmax | | | | |
| | comp=Z,220nm,4.6s | | | | | | | | | |
| KASI | **Kota Agung** | 50.55 | 267 | P | | P | | 22 34 00.4 | -2.3 | |
| MYKOM | **Kota Tinggi** | 51.76 | 276 | *e*P | | P | | 22 34 10.4 | -1.1 | |
| | comp=Z,119nm,1.7s | | | | | | | | | |
| MSHR | **Mys Shultsa** | 51.89 | 337 | *e*P | | P | | 22 34 11.1 | -0.8 | |
| VLA | **Vladivostok** | 52.09 | 338 | *e*P | | P | | 22 34 13.7 | +0.4 | |
| VLA | | | | pmax | | pmax | | | | |
| | comp=Z,103nm,0.9s | | | | | | | | | |
| WHN | **Wuhan** | 52.50 | 315 | ⇑P | | P | | 22 34 16.8 | +0.3 | |
| WHN | | | | S | | S | | 22 41 07.0 | +2.1 | |
| WHN | | | | pmax | | pmax | | | | |
| | comp=Z,74nm,1.4s | | | | | | | | | |
| HON | **Honolulu** | 52.60 | 59 | *e*P | | P | | 22 34 16.6 | -0.8 | |
| HON | | | | pmax | | pmax | | | | |
| | comp=Z,342nm,1.3s | | | | | | | | | |
| HON | **Honolulu** | 52.60 | 59 | *e*P | | P | | 22 34 16.6 | -0.8 | |
| | comp=Z,342nm,1.3s | | | | | | | | | |
| YSS | **Yuzh-Sakhalins** | 52.61 | 349 | *i*P | | P | | 22 34 15.9 | -1.0 | |
| YSS | **Yuzh-Sakhalins** | 52.61 | 349 | *e*P | | P | | 22 34 15.9 | -1.0 | |
| | comp=Z,89nm,1.1s | | | | | | | | | |
| OPA | **Opana** | 52.74 | 58 | *e*P | | P | | 22 34 17.6 | -0.8 | |
| OPA | | | | pmax | | pmax | | | | |
| | comp=Z,99nm,1.0s | | | | | | | | | |
| OPA | **Opana** | 52.74 | 58 | *e*P | | P | | 22 34 17.6 | -0.8 | |
| | comp=Z,99nm,1.0s | | | | | | | | | |
| USRK | **Ussuriysk Ar.** | 52.98 | 339 | P | | P | | 22 34 20.2 | +0.5 | |
| | comp=Z,12nm,0.4s,baz=131,slow=4.7,SNR=39 | | | | | | | | | |
| DL2 | **Dalian** | 53.37 | 327 | P | | P | | 22 34 22.8 | +0.2 | |
| DL2 | | | | pmax | | pmax | | | | |
| | comp=Z,75nm,1.0s | | | | | | | | | |
| TIA | **Tai'an** | 54.11 | 322 | P | | P | | 22 34 27.5 | -0.4 | |
| MDJ | **Mudanjiang** | 54.22 | 338 | P | | P | | 22 34 28.8 | +0.3 | |
| MDJ | | | | pP | | pP | | 22 36 05.8 | -1.6 | |
| MDJ | | | | ScP | | ScP | | 22 38 35.0 | +0.3 | |
| MDJ | | | | S | | S | | 22 41 26.3 | -1.0 | |
| MDJ | | | | pmax | | pmax | | | | |
| | comp=Z,54nm,1.6s | | | | | | | | | |
| MDJ | | | | pmax | | pmax | | | | |
| | comp=Z,220nm,4.9s | | | | | | | | | |
| BKNI | **Bangkinang** | 54.38 | 274 | *e*P | | P | | 22 34 29.7 | -0.5 | |
| | comp=Z,67nm,0.5s | | | | | | | | | |
| IPM | **Ipoh** | 54.93 | 279 | *e*P | | P | | 22 34 33.1 | -1.0 | |
| IPM | | | | *e*PcP | | PcP | | 22 35 29.5 | +0.9 | |
| CN2 | **Changchun** | 55.25 | 334 | ⇑*i*P | | P | | 22 34 35.5 | -0.2 | |
| CN2 | | | | *e*pP | | pP | | 22 36 13.8 | -1.3 | |
| CN2 | | | | *e*S | | S | | 22 41 41.0 | +0.3 | |
| CN2 | | | | pmax | | pmax | | | | |
| | comp=Z,30nm,1.2s | | | | | | | | | |
| PPT2 | **Papeete2** | 55.43 | 108 | *e*P | | P | | 22 34 38.7 | +1.1 | |
| | comp=Z,72nm,1.2s | | | | | | | | | |
| TIAR | **Tiarei** | 55.65 | 108 | *e*P | | P | | 22 34 40.2 | +1.2 | |
| | comp=Z,23nm,0.8s | | | | | | | | | |
| HABR | **Khabarovsk** | 55.83 | 344 | *e*P | | P | | 22 34 37.5 | -2.1 | |
| HABR | | | | *e* | | | | 22 35 28.5 | | |
| HABR | | | | *e**PP | | pP | | 22 36 19.1 | -0.2 | |
| HABR | | | | *e* | | | | 22 36 49.8 | | |
| HABR | | | | *e*S | | S | | 22 41 45.6 | -2.4 | |
| HABR | | | | *e* | | | | 22 43 32.9 | | |
| HABR | | | | *e*SS | | SS | | 22 45 43.2 | -0.8 | |
| HABR | | | | pmax | | pmax | | | | |
| | comp=Z,83nm,1.0s | | | | | | | | | |
| HABR | | | | pmax | | pmax | | | | |
| | comp=E,19nm,1.0s | | | | | | | | | |
| HABR | | | | pmax | | pmax | | | | |
| | comp=N,29nm,0.5s | | | | | | | | | |
| HABR | | | | MLR | | MLR | | | | |
| | comp=Z,100nm,18.

comp=Z,10nm,0.6s,baz=117,slow=5.2,SNR=50
CMAR PKPPKP **P'P'df** **23 04 21.5 -5.7**
comp=Z,1.0nm,0.9s,baz=281,slow=3.3,SNR=5.0
CMAR PKP2bc 23 04 33.2
comp=Z,0.8nm,0.6s,baz=280,slow=4.6,SNR=4.3
**CMMT Chiang Mai 60.15 295** P **P** **22 35 12.8 +3.1**
comp=Z,5.2nm,0.7s
**CHTO Chiang Mai 60.16 295** P **P** **22 35 12.9 +3.2**
comp=Z,23nm,2.3s
**CHTO Chiang Mai 60.16 295** *eP* **P** **22 35 09.1 -0.6**
CHTO pmax pmax
comp=Z,4.0nm,0.6s
**CHTO Chiang Mai 60.16 295** *eP* **P** **22 35 09.1 -0.6**
comp=Z,3.8nm,0.6s
**HHC Hu-ho-hao-te 60.42 323** *eP* **P** **22 35 12.5 +1.4**
HHC pmax pmax
comp=Z,16nm,0.6s
**CD2 Chengdu 60.55 309**⇑ *i*P **P** **22 35 12.5 +0.4**
CD2 PcP **PcP** **22 35 49.0 -1.6**
CD2 pP pP 22 36 54.5 +0.5
CD2 PP **PP** **22 37 32.0 -1.7**
CD2 sP sP 22 37 43.3 -4.9
CD2 S **S** **22 42 47.3 -1.6**
CD2 ScS **ScS** **22 44 13.3 +1.1**
CD2 sS sS 22 45 46.8 -4.4
CD2 SS **SS** **22 46 58.8 +0.1**
CD2 pmax pmax
comp=Z,60nm,0.7s
**HIA Hailar 61.97 334** *eP* **P** **22 35 21.5 +0.4**
HIA pmax pmax
comp=Z,34nm,0.8s
**HIA Hailar 61.97 334** *eP* **P** **22 35 21.5 +0.4**
comp=Z,34nm,0.8s
**LZH Lanzhou 62.88 315** *eP* **P** **22 35 29.5 +2.1**
LZH pP pP 22 37 13.8 +3.4
LZH sP sP 22 38 02.0 -2.3
LZH S **S** **22 43 15.3 -2.4**
LZH sS sS 22 46 17.0 -4.7
LZH SS **SS** **22 47 35.0 0.0**
LZH pmax pmax
comp=Z,46nm,1.1s
LZH pmax pmax
comp=Z,170nm,4.9s
**MA2 Magadan 64.18 357** P **P** **22 35 34.7 -0.3**
comp=Z,24nm,0.9s
MA2 pP **pP** **22 37 18.5 0.0**
comp=Z,10nm,0.9s,baz=165,slow=8.3,SNR=3.5
**MA2 Magadan 64.18 357** *i* P **P** **22 35 33.0 -2.0**
**CLNS Chul'man 66.13 342** *eP* **P** **22 35 48.2 +0.8**
CLNS pmax pmax
comp=N,11nm,1.1s
CLNS pmax pmax
comp=Z,19nm,1.1s
CLNS pmax pmax
comp=E,7.0nm,1.1s
**ULN Ulaanbaatar 67.22 327***c i*P **P** **22 35 54.5 0.0**
ULN pmax pmax
comp=Z,44nm,1.1s
**ULN Ulaanbaatar 67.22 327** *eP* **P** **22 35 55.4 +0.8**
comp=Z,35nm,1.0s
ULN *ep*P **pP** **22 37 41.4 +2.1**
**GTA Gaotai 67.26 316**⇑⇑P **P** **22 35 55.5 +0.6**
GTA pP pP 22 37 41.5 +1.8
GTA sP sP 22 38 33.5 +0.4
GTA S **S** **22 44 12.3 +2.4**
GTA sS sS 22 47 18.0 +1.0
GTA SS **SS** **22 48 46.0 +3.6**
GTA pmax pmax
comp=Z,22nm,1.3s
GTA pmax pmax
comp=Z,120nm,6.2s
**SEY Seymchan 67.48 359** P **P** **22 35 55.6 0.0**
baz=166,slow=7.1
SEY pP **pP** **22 37 40.4 -0.1**
comp=Z,10nm,1.2s,baz=180,slow=5.1,SNR=4.9
**SEY Seymchan 67.48 359** *i* P **P** **22 35 55.0 -0.6**
**SONM Songino Array 67.56 327** P **P** **22 35 57.5 +0.9**
comp=Z,16nm,0.4s,baz=148,slow=5.7,SNR=336
SONM pP **pP** **22 37 42.8 +1.3**
comp=Z,8.5nm,1.1s,baz=145,slow=7.2,SNR=6.5
SONM PKP2bc 23 04 09.4
comp=Z,1.1nm,0.9s,baz=249,slow=2.7,SNR=5.4
**SONA1 Songino Array 67.57 327** *eP* **P** **22 35 56.6 0.0**
SONA1 *ep*P **pP** **22 37 43.5 +1.9**
**YAK Yakutsk 69.39 347** P **P** **22 36 07.5 +0.4**
comp=Z,12nm,0.3s,baz=39,slow=3.9,SNR=6.1
**YAK Yakutsk 69.39 347** *eP* **P** **22 36 07.2 +0.1**
YAK *e* 22 36 25.8
YAK *e**PP **pP** **22 37 55.5 +2.7**
YAK *e* 22 38 46.8
YAK *e*PPP PPP 22 40 37.4
YAK *e*S **S** **22 44 35.6 +2.2**
YAK *e* 22 45 13.0
YAK pmax pmax
comp=E,4.0nm,1.1s
YAK pmax pmax
comp=Z,14nm,1.0s
YAK pmax pmax
comp=N,5.0nm,1.0s
YAK pmax pmax
comp=Z,24nm,1.4s
YAK pmax pmax
comp=N,33nm,1.8s
YAK pmax pmax
comp=E,19nm,2.0s
YAK smax smax
comp=N,262nm,3.2s
YAK smax smax
comp=E,79nm,2.5s
**YAK Yakutsk 69.39 347** *eP* **P** **22 36 07.3 +0.2**
comp=E,14nm,0.4s
**RKT Rikitea 69.57 113** *eP* **P** **22 36 09.3 +0.2**
comp=E,132nm,1.1s
**LSA Lhasa 70.21 304** *eP* **P** **22 36 14.6 +1.2**
LSA pmax pmax
comp=Z,3.0nm,0.4s
**LSA Lhasa 70.21 304** *eP* **P** **22 36 14.6 +1.2**
comp=Z,2.8nm,0.4s
**BOD Bodaibo 70.59 338** *eP* **P** **22 36 13.2 -1.2**
BOD pmax pmax
comp=Z,21nm,1.2s
**ZAK Zakamensk 70.70 328** *eP* **P** **22 36 15.1 -0.3**
ZAK *e* 22 38 00.1
ZAK pmax pmax
comp=Z,16nm,1.1s
ZAK pmax pmax
comp=Z,18nm,1.3s
**TAPN Taplejung 72.45 300** *eP* **P** **22 36 27.1 +0.7**
comp=Z,14nm,0.4s
**ODAN Odare 72.61 300** *eP* **P** **22 36 28.0 +0.8**
comp=Z,29nm,0.6s
**MOY Mondy 72.61 328** *eP* **P** **22 36 26.9 +0.4**
MOY pmax pmax
comp=Z,19nm,1.1s
**GAMB Gambell 72.65 15** *eP* **P** **22 36 26.4 +0.1**
GAMB *ep*P **pP** **22 38 15.8 +2.6**
**VNDA Vanda 72.85 178** P **P** **22 36 28.2 +0.8**
comp=Z,35nm,0.8s,baz=334,slow=6.7,SNR=73
**VNDA Vanda 72.85 178** *eP* **P** **22 36 28.4 +1.1**
VNDA pmax pmax
comp=Z,71nm,1.1s
**VNDA Vanda 72.85 178** *eP* **P** **22 36 28.4 +1.1**
comp=Z,71nm,1.1s
**BILL Bilibino 72.99 4**⇑ *eP* **P** **22 36 27.9 -0.3**
BILL pmax pmax
comp=Z,49nm,1.3s
**RAMN Ramite 73.31 300** *eP* **P** **22 36 31.7 +0.4**
comp=Z,10.0nm,0.5s
**SBA Scott Base 73.36 177** *eP* **P** **22 36 32.4 +2.2**
SBA pmax pmax
comp=Z,106nm,1.1s
**SBA Scott Base 73.36 177** *eP* **P** **22 36 32.4 +2.2**
comp=Z,106nm,1.1s
**JIRN Jiri 73.84 300** *eP* **P** **22 36 35.1 +0.7**
**GUN Gumba 74.17 301** *eP* **P** **22 36 37.0 +0.7**
comp=Z,49nm,0.7s
**PKI Pulchoki 74.49 300** *eP* **P** **22 36 38.4 +0.3**
comp=Z,19nm,0.6s
**PKIN Phulchoki 74.50 300** *eP* **P** **22 36 38.8 +0.7**
comp=Z,18nm,0.6s
**KKN Kakani 74.65 300** *eP* **P** **22 36 39.3 +0.4**
comp=Z,32nm,0.5s
**DMN Daman 74.76 300** *eP* **P** **22 36 40.0 +0.5**
comp=Z,60nm,0.8s
**MIR Mirnyy 74.91 202** *i* P **P** **22 36 41.0 +1.9**
MIR pmax pmax
comp=Z,18nm,1.2s
**GKN Gorkha 75.26 300** *eP* **P** **22 36 43.0 +0.8**
**DANN Dangsing 76.09 301** *eP* **P** **22 36 46.9 -0.1**
**KOLN Koldanda 76.10 300** *eP* **P** **22 36 47.1 +0.2**
comp=Z,26nm,0.5s
**HVS Khovu-Aksy 76.35 325** *eP* **P** **22 36 48.2 +0.6**
HVS pmax pmax
comp=Z,12nm,0.9s
**CNPM China Poot 76.58 25** *eP* **P** **22 36 48.7 +0.1**
**PYUN Piuthan 76.70 300** *eP* **P** **22 36 50.2 0.0**
comp=Z,24nm,0.5s
**BRLK Bradley Lake 76.86 25** *eP* **P** **22 36 48.4 -1.8**
BRLK *ep*P **pP** **22 38 38.3 -0.4**
**WMQ Urumqi 77.33 317** P **P** **22 36 53.8 +0.6**
WMQ PcP **PcP** **22 37 01.0 -0.3**
WMQ pP pP 22 38 42.5 +0.7
WMQ sP sP 22 39 38.0 +3.8
WMQ S **S** **22 46 01.3 -0.7**
WMQ SS **SS** **22 51 16.5 +1.9**
WMQ pmax pmax
comp=Z,200nm,4.3s
**RC01 Rabbit Creek A 78.08 24** *eP* **P** **22 36 56.4 -0.3**
RC01 *ep*P **pP** **22 38 47.8 +2.2**
**TIXI Tiksi 78.14 352** *i* P **P** **22 36 55.5 -1.3**
TIXI pmax pmax
comp=Z,4.0nm,1.1s
**TIXI Tiksi 78.14 352** *eP* **P** **22 36 56.5 -0.3**
TIXI *ep*P **pP** **22 38 43.8 -1.9**
**PMR Palmer 78.60 24** *eP* **P** **22 36 58.9 -0.5**
PMR *e**PP **pP** **22 38 50.1 +1.6**
**PMR Palmer 78.60 24** *eP* **P** **22 36 58.9 -0.5**
PMR *ep*P **pP** **22 38 50.1 +1.6**
**KTH Kantishna Hill 79.01 22** *eP* **P** **22 37 00.8 -1.0**
KTH *ep*P **pP** **22 38 52.5 +1.6**
**SML Sawmill 79.04 24** *eP* **P** **22 37 01.7 -0.2**
SML *e**PP **pP** **22 38 50.5 -0.6**
**SML Sawmill 79.04 24** *eP* **P** **22 37 01.7 -0.2**
SML *ep*P **pP** **22 38 50.5 -0.6**
**TRF Thorofare Moun 79.19 22** *eP* **P** **22 37 01.7 -1.1**
**BPAW Bear Paw Mtn. 79.30 21** *eP* **P** **22 37 02.1 -1.2**
BPAW *ep*P **pP** **22 38 54.2 +1.7**
**SCM Sheep Creek Mo 79.46 24** *eP* **P** **22 37 04.4 +0.3**
SCM *e**PP **pP** **22 38 56.1 +2.6**
**SCM Sheep Creek Mo 79.46 24** *eP* **P** **22 37 04.4 +0.3**
SCM *ep*P **pP** **22 38 56.1 +2.6**
**IMAR Indian Mountai 79.49 19** *eP* **P** **22 37 04.0 -0.1**
IMAR *ep*P **pP** **22 38 52.5 -1.0**
**DGZ Jazzator, Alta 79.49 322***c i*P **P** **22 37 04.7 0.0**
DGZ pmax pmax
comp=Z,5.0nm,0.9s
**RND Reindeer 79.70 22** *eP* **P** **22 37 04.4 -1.0**
**RND Reindeer 79.70 22** *eP* **P** **22 37 04.4 -1.0**
**DIV Divide 79.74 25** *eP* **P** **22 37 05.9 +0.3**
**MCK McKinley 79.85 22** *eP* **P** **22 37 05.2 -0.9**
**MCK McKinley 79.85 22** *eP* **P** **22 37 05.2 -0.9**
**KLU Klutina 79.86 25** *eP* **P** **22 37 06.7 +0.5**
KLU *ep*P **pP** **22 38 56.0 +0.2**
**MLY Manley 79.93 20** *eP* **P** **22 37 06.1 -0.4**
MLY *ep*P **pP** **22 38 55.8 -0.3**
**DHY Denali Highway 80.09 23** *eP* **P** **22 37 07.1 -0.4**
DHY *ep*P **pP** **22 38 59.2 +2.1**
**CCB Clear Creek Bu 80.76 21** *eP* **P** **22 37 09.2 -1.5**
CCB *ep*P **pP** **22 38 59.2 -1.4**
**MDM Murphy Dome 80.77 21** *eP* **P** **22 37 09.9 -1.0**
MDM *ep*P **pP** **22 38 58.9 -1.9**
**PAX Paxson 80.78 23** *eP* **P** **22 37 10.8 -0.3**
PAX *e**PP **pP** **22 39 03.0 +2.1**
**PAX Paxson 80.78 23** *eP* **P** **22 37 10.8 -0.3**
PAX *ep*P **pP** **22 39 03.0 +2.1**
**COLA College 80.86 21** *eP* **P** **22 37 09.9 -1.4**
**COLA College 80.86 21** *eP* **P** **22 37 09.9 -1.4**
**HDA Harding Lake 80.95 22** *eP* **P** **22 37 10.6 -1.2**
**IL1 Eielson Array 81.16 22** *eP* **P** **22 37 11.0 -1.9**
**ILAR Eielson Array 81.16 22** P **P** **22 37 11.2 -1.7**
comp=Z,6.1nm,0.7s,baz=238,slow=5.2,SNR=77
ILAR pP **pP** **22 39 01.8 -1.1**
comp=Z,6.3nm,1.1s,baz=252,slow=5.3,SNR=5.4
ILAR PKPPKP **P'P'df** **23 03 50.7 +2.5**
comp=Z,1.0nm,1.0s,baz=45,slow=1.8,SNR=5.4
**ILB Eielson Array 81.16 22** *eP* **P** **22 37 11.2 -1.7**
ILB *ep*P **pP** **22 39 03.7 +0.9**
**COLD Coldfoot 81.37 19** *eP* **P** **22 37 14.2 +0.3**
COLD *ep*P **pP** **22 38 58.8 -5.2**
**MENT Mentasta 81.47 24** *eP* **P** **22 37 14.6 +0.1**
**DOT Dot Lake 81.67 23** *eP* **P** **22 37 15.3 -0.3**
**MK01 Makanchi Array 81.85 318** *eP* **P** **22 37 17.1 +0.2**
**MK31 Makanchi Array 81.86 318** *eP* **P** **22 37 17.2 +0.2**
**MK31 Makanchi Array 81.86 318** *eP* **P** **22 37 17.2 +0.2**
**MKAR Makanchi Array 81.86 318** P **P** **22 37 17.2 +0.3**
comp=Z,9.1nm,0.6s,baz=102,slow=5.8,SNR=108
MKAR pP **pP** **22 39 07.1 0.0**
comp=Z,7.9nm,0.9s,baz=103,slow=6.4,SNR=7.9
MKAR PKKPbc **PKKPbc** **22 55 42.1 -3.6**
comp=Z,1.7nm,0.9s,baz=272,slow=3.2,SNR=11
MKAR PKPPKP **P'P'df** **23 03 51.1 +3.0**
comp=Z,1.7nm,1.0s,baz=342,slow=2.8,SNR=8.1
**MAKZ Makanchi 82.08 318** *eP* **P** **22 37 18.3 +0.3**
**MAKZ Makanchi 82.08 318** *eP* **P** **22 37 18.3 +0.3**
**ZALV Zalesovo Beam 82.44 326** P **P** **22 37 18.9 -0.7**
comp=Z,6.9nm,0.5s,baz=117,slow=5.8,SNR=36
ZALV pP **pP** **22 39 10.9 +0.9**
comp=Z,6.4nm,0.9s,baz=106,slow=5.1,SNR=7.5
ZALV PKKPbc **PKKPbc** **22 55 42.2 -2.5**
comp=Z,0.9nm,0.4s,baz=306,slow=3.4,SNR=6.8
ZALV PKPPKP **P'P'df** **23 03 49.8 +3.3**
comp=Z,2.0nm,0.9s,baz=289,slow=5.5,SNR=6.1
**FYU Fort Yukon 82.67 20** *eP* **P** **22 37 20.9 +0.4**
**HYT Haines Junctio 83.23 27** *eP* **P** **22 37 24.6 +1.0**
**EGAK Eagle 83.32 23** *eP* **P** **22 37 23.8 0.0**
EGAK *ep*P **pP** **22 39 14.1 -0.4**
**NVS Novosibirsk 83.59 326** *i* P **P** **22 37 25.6 +0.2**
NVS *i* 22 39 14.6
NVS pmax pmax
comp=Z,7.0nm,0.9s
NVS pmax pmax
comp=N,10.0nm,0.4s
**DAWY Dawson 83.71 24** *eP* **P** **22 37 26.2 +0.4**
**KSH Kashi 84.73 310** P **P** **22 37 33.8 +2.2**
KSH pP pP 22 39 26.5 +3.8
KSH PP **PP** **22 41 01.0 +4.2**
KSH S **S** **22 47 10.8 -6.4**
KSH pmax pmax
comp=N,110nm,2.7s
**KURK Kurchatov 85.20 322** *i* P **P** **22 37 31.6 -1.8**
KURK pmax pmax
comp=Z,2.0nm,0.9s
**KURK Kurchatov 85.20 322** *eP* **P** **22 37 32.8 -0.6**
KURK pP **pP** **22 39 26.1 +1.4**
KURK PKKPbc **PKKPbc** **22 55 35.9 -2.2**
KURK P'P' 23 03 42.9
**KURBB Kurchatov Arra 85.24 322** pP **pP** **22 39 26.1 +1.2**
comp=Z,5.9nm,1.0s,baz=108,slow=4.1,SNR=8.7
KURBB PKKPbc **PKKPbc** **22 55 35.9 -2.1**
comp=Z,1.1nm,0.4s,baz=286,slow=2.9,SNR=9.5
KURBB PKPPKP **P'P'df** **23 03 42.9 +1.3**
comp=Z,0.6nm,0.3s,baz=284,slow=3.4,SNR=6.7
**QSPA South Pole Qui 85.26 180** *eP* **P** **22 37 34.0 +0.4**
comp=Z,682nm,1.1s
**AAK Ala-Archa 86.38 313** PKKPbc PKKPbc 22 55 34.0 -1.1
comp=Z,2.1nm,0.7s,baz=217,slow=5.1,SNR=9.8
AAK PKPPKP **P'P'df** **23 03 39.2 -1.2**
comp=Z,0.9nm,0.8s,baz=208,slow=4.7,SNR=3.5
**AAK Ala-Archa 86.38 313** *eP* **P** **22 37 38.9 -0.6**
AAK pmax pmax
comp=Z,6.0nm,1.0s
**AAK Ala-Archa 86.38 313** *eP* **P** **22 37 39.5 0.0**
AAK PKKPbc **PKKPbc** **22 55 34.0 -1.1**
AAK P'P' 23 03 39.2
**MAW Mawson 86.60 203** P **P** **22 37 39.9 +0.2**
comp=Z,30nm,0.9s,baz=71,slow=6.1,SNR=11
**JPC Peters Creek, 86.89 52** *eP* **P** **22 37 42.6 +0.8**
**M02C Callahan 87.01 48** P **P** **22 37 43.1 +0.7**
baz=261
**WDC Whiskeytown Da 87.12 49** *ep*P pP 22 39 37.8 +3.1
**INK Inuvik 87.50 21** PKKPbc PKKPbc 22 55 29.3 -4.0
comp=Z,5.3nm,1.0s,baz=78,slow=2.8,SNR=14
**INK Inuvik 87.50 21** *eP* **P** **22 37 43.4 -0.5**
**INK Inuvik 87.50 21** *eP* **P** **22 37 43.4 -0.5**
INK PKKPbc **PKKPdf** **22 55 29.3 +3.0**
**O03D Paynes Creek 87.64 49** P **P** **22 37 45.9 +0.5**
baz=262
**ORV Oroville 87.77 50** *ep*P pP 22 39 40.1 +2.1
**M04C Macdoel 87.82 48** P **P** **22 37 46.7 +0.4**
baz=262
**AFDM Forest Hills D 88.09 51** *ep*P pP 22 39 41.3 +1.7
**PAHR Pah Rah Range 89.41 50** *eP* **P** **22 37 54.6 +0.9**
**MDPB Devils Postpil 89.41 52** *eP* **P** **22 37 54.9 +0.9**
**YERR Yerington 89.44 51** *eP* **P** **22 37 54.8 +0.9**
**CIS Catalina Islan 89.50 57** P **P** **22 37 55.7 +1.5**
baz=264
**KBL Kabul 89.52 305** *eP* **P** **22 37 54.5 +0.1**
**KBL Kabul 89.52 305** *eP* **P** **22 37 54.5 +0.1**
**MWC Mount Wilson 89.88 56** *eP* **P** **22 37 58.0 +1.9**
MWC *e**PP **pP** **22 39 49.2 +0.5**
**MWC Mount Wilson 89.88 56** *eP* **P** **22 37 58.0 +1.9**
MWC *ep*P **pP** **22 39 49.2 +0.5**
**EDW2 Edwards Air Fo 90.00 55** P **P** **22 37 57.0 +0.5**
baz=264
**CWC Cottonwood Cre 90.08 54** P **P** **22 37 56.4 -0.5**
baz=264
**NV01 Mina Array Sit 90.11 52** *eP* **P** **22 37 57.5 +0.4**
**NVAR Mina Array Bea 90.11 52** P **P** **22 37 57.6 +0.5**
comp=Z,7.0nm,0.9s,baz=254,slow=6.5,SNR=38
NVAR pP **pP** **22 39 50.6 +0.9**
comp=Z,2.3nm,0.8s,baz=251,slow=5.6,SNR=6.5
**BFSC Mount Baldy Ra 90.21 56** P **P** **22 37 58.0 +0.4**
baz=265
**NV11 Mina Array Sit 90.22 52** *eP* **P** **22 37 58.0 +0.5**
**LRMC Laurel Mtn Rad 90.31 55** P **P** **22 37 57.8 -0.1**
baz=265
**KVN Kaiserville 90.33 51** *eP* **P** **22 37 58.5 +0.4**
**KVN Kaiserville 90.33 51** *eP* **P** **22 37 58.5 +0.4**
**G08A Pilot Rock 90.34 45** *ep*P pP 22 39 52.8 +2.2
**DAC Darwin (Calif) 90.46 54** *eP* **P** **22 37 59.4 +0.7**
**DAC Darwin (Calif) 90.46 54** *eP* **P** **22 37 59.4 +0.7**
**MPMC Manual Prospec 90.52 54** P **P** **22 37 59.8 +0.8**
baz=265
**BVAR Borovoye Array 90.63 323** PKKPbc PKKPbc 22 55 24.0 -1.1
comp=Z,1.0nm,0.7s,baz=250,slow=4.3,SNR=5.4
**BRVK Borovoye 90.70 323** *i* P **P** **22 37 57.7 -1.5**
BRVK pmax pmax
comp=Z,6.0nm,0.9s
**BRVK Borovoye 90.70 323** *eP* **P** **22 37 58.8 -0.3**
**BAR Barrett 90.89 57** *eP* **P** **22 38 02.1 +1.5**
**E09A Wood Farm, Sta 91.04 44** *eP* **P** **22 38 00.7 -0.2**
**FURC Furnace Creek, 91.06 54** P **P** **22 38 02.1 +0.9**
baz=265
**MONP2 Monument Peak 91.12 57** P **P** **22 38 02.6 +0.8**
baz=265
**BMN Battle Mountai 91.13 50** *eP* **P** **22 38 02.5 +0.8**
**BMN Battle Mountai 91.13 50** *eP* **P** **22 38 02.5 +0.8**
**PFO Pinyon Flats O 91.15 57** P **P** **22 38 02.8 +0.9**
baz=265
**PFO Pinyon Flats O 91.15 57** *eP* **P** **22 38 02.8 +0.9**
**PFO Pinyon Flats O 91.15 57** *eP* **P** **22 38 02.8 +0.9**
**XPFO Piæon Flat 91.15 57** *eP* **P** **22 38 02.8 +0.9**
**TPFO Pinon Flats 91.15 57** P **P** **22 38 02.8 +0.9**
baz=265
**HEC Hector,Ludlow 91.35 55** P **P** **22 38 03.0 +0.3**
baz=265
**IKP In-Ko-Pah, Jac 91.36 58** P **P** **22 38 02.3 -0.5**
baz=265
**BMO Blue Mountains 91.47 45** *eP* **P** **22 38 02.7 -0.3**
**BMO Blue Mountains 91.47 45** *eP* **P** **22 38 02.7 -0.3**
**BELC Belle Mtn. Jos 91.56 56** P **P** **22 38 04.0 +0.2**
baz=266
**TPNV Topopah Spring 91.59 53** P **P** **22 38 04.5 +0.6**
baz=265
**TPNV Topopah Spring 91.59 53** *eP* **P** **22 38 04.9 +1.0**
**TPNV Topopah Spring 91.59 53** *eP* **P** **22 38 04.8 +1.0**
**F10A Beach Ranch, E 91.62 44** *eP* **P** **22 38 03.0 -0.7**
**SWSC Sam W. Stewart 91.64 57** P **P** **22 38 04.7 +0.7**
baz=266
**TUQ Turquoise Moun 91.74 55** P **P** **22 38 05.3 +0.8**
baz=266
**NEW Newport 91.89 42** P **P** **22 38 04.7 -0.2**
baz=265
**GMRC Granite Mounta 91.90 55** P **P** **22 38 04.8 -0.6**
baz=266
**BC3 Big Chuckawall 91.99 57** P **P** **22 38 06.9 +1.2**
baz=266
**R11A Troy Canyon, C 92.23 52** P **P** **22 38 07.4 +0.6**
baz=266
**R11A Troy Canyon, C 92.23 52** *eP* **P** **22 38 07.6 +0.7**
**IRM Iron Mountain 92.28 56** P **P** **22 38 07.8 +0.9**
baz=266
**LDFC Landfair 92.37 55** *eP* **P** **22 38 08.8 +1.3**
**SHPR Sheep Range 92.43 54** *eP* **P** **22 38 09.1 +1.3**
**GLA Glamis 92.47 57** P **P** **22 38 10.0 +2.2**
baz=266
**GLA Glamis 92.47 57** *eP* **P** **22 38 10.1 +2.2**
**GLA Glamis 92.47 57** *eP* **P** **22 38 10.1 +2.3**
**PDMCI Parker Dam,Lak 93.12 56** P **P** **22 38 11.5 +0.7**
baz=266
**HLID Hailey 93.45 47** P **P** **22 38 12.1 -0.2**
baz=267
**CCUT Cedar City 93.93 53** *eP* **P** **22 38 15.9 +1.2**
**FSU Fish Springs 94.02 51** *eP* **P** **22 38 19.1 +4.2**
**YKA Yellowknife Ar 94.20 28** P **P** **22 38 14.6 -0.4**
comp=Z,3.3nm,0.7s,baz=267,slow=4.6,SNR=63
YKA pP **pP** **22 40 07.9 0.0**
comp=Z,2.0nm,1.0s,baz=270,slow=4.8,SNR=5.9
YKA PKiKP **PKiKP** **22 42 54.9 -0.5**
comp=Z,0.3nm,0.5s,baz=271,slow=1.4,SNR=6.5
YKA PKKPbc **PKKPdf** **22 55 12.6 -1.8**
comp=Z,0.9nm,0.5s,baz=83,slow=2.6,SNR=37
**SYO Syowa Base 94.56 199**⇑ *e*P **P** **22 38 15.0 -1.6**
**SYO Syowa Base 94.56 199**⇓ *i*PcP **PcP** **22 38 17.0 +0.3**
**HVU Hansel Valley 94.57 49** *eP* **P** **22 38 17.8 +0.4**
**HVU Hansel Valley 94.57 49** *eP* **P** **22 38 17.8 +0.4**
**MLI Malad Range 95.06 48** *eP* **P** **22 38 22.1 +2.4**
**SGU Sterling 95.35 51** *eP* **P** **22 38 22.7 +1.6**
**SNO Snow College 95.43 51** *eP* **P** **22 38 20.5 -1.0**
**TMUT Trail Mountain 95.69 51** *eP* **P** **22 38 23.2 +0.4**
**P17A Butcher Ranch, 96.05 51** *eP* **P** **22 38 24.1 -0.1**
**SRU San Rafael Swe 96.22 51** *eP* **P** **22 38 25.4 +0.4**
**SRU San Rafael Swe 96.22 51** *eP* **P** **22 38 25.4 +0.4**
**P18A Preston Nutter 96.44 51** *eP* **P** **22 38 27.3 +1.2**
**PDAR Pinedale Array 96.98 48** P **P** **22 38 27.1 -1.2**
comp=Z,1.2nm,0.7s,baz=246,slow=1.6,SNR=13
PDAR pP **pP** **22 40 21.7 +0.1**
comp=Z,0.3nm,0.6s,baz=246,slow=3.8,SNR=1.8
**PDAR Pinedale Array 96.98 48** *eP* **P** **22 38 26.6 -1.7**
PDAR pP **pP** **22 40 21.7 +0.1**
**PV10 Paradox Valley 97.37 52** *eP* **P** **22 38 31.1 +0.9**
**ARU Arti 97.60 326** PKKPbc PKKPbc 22 55 04.8 -2.1
comp=Z,1.8nm,0.4s,baz=196,slow=1.4,SNR=6.5
**GEYT Alibeck 98.50 308** P Pdif 22 38 34.9 -0.1
comp=Z,1.0nm,0.7s,baz=7.6,slow=4.5,SNR=4.5
**TXAR Lajitas Array 101.94 61** P **Pdif** **22 38 51.6 +1.0**
comp=Z,0.3nm,0.9s,baz=280,slow=5.2,SNR=3.2
TXAR PKKPbc **PKKPbc** **22 54 54.9 +1.1**
comp=Z,0.5nm,0.7s,baz=115,slow=3.6,SNR=5.9
**SNAA Sanae 102.44 187** P **Pdif** **22 38 52.5 +0.7**
**SNAA Sanae 102.44 187** P **Pdif** **22 38 52.1 +0.2**
comp=Z,0.7nm,0.4s,baz=178,slow=15,SNR=7.7
**VNA3 Neumayer Olymp 103.55 185** P **Pdif** **22 38 55.8 -0.9**
**SPITS Spitsbergen Ar 103.56 352** PKKPbc PKKPbc 22 54 46.7 -3.9
comp=Z,17nm,1.1s,baz=199,slow=2.6,SNR=6.6
**VNA2 Neumayer--Watz 103.64 186** P **Pdif** **22 38 55.1 -2.0**
baz=165,slow=4.8
**ARCES ARCESS Array B 107.48 344** PKiKP **PKiKP** **22 43 18.8 -0.4**
comp=Z,2.8nm,0.8s,baz=70,slow=1.8,SNR=9.2
ARCES PKKPbc **PKKPbc** **22 54 33.3 -5.3**
comp=Z,1.6nm,0.6s,baz=225,slow=2.2,SNR=8.7
**FINES FINESS Array B 111.96 336** PKiKP **PKiKP** **22 43 27.0 -0.8**
comp=Z,7.0nm,1.0s,baz=79,slow=3.0,SNR=5.2
FINES PKKPbc **PKKPbc** **22 54 20.9 -3.1**
comp=Z,6.7nm,1.0s,baz=188,slow=3.1,SNR=15
**AKASG Malin Array Be 115.83 325** PKP **PKPdf** **22 43 34.7 -0.9**
comp=Z,3.5nm,0.7s,baz=59,slow=2.7,SNR=11
AKASG SKP 22 46 22.3
comp=Z,0.9nm,0.7s,baz=64,slow=2.3,SNR=6.1
AKASG PKKPbc **PKKPbc** **22 54 08.4 -2.3**
comp=Z,0.4nm,0.3s,baz=258,slow=4.2,SNR=5.7
AKASG PKKPab **PKKPab** **22 54 15.4 -0.5**
comp=Z,0.3nm,0.3s,baz=247,slow=5.5,SNR=5.6
**KIEV Kiev 115.84 325** *i* PKiKP **PKPdf** **22 43 33.1 -2.5**
**BRTR Keskin Array B 117.05 312** PKP **PKPdf** **22 43 38.0 -0.6**
comp=Z,3.1nm,1.0s,baz=80,slow=1.5,SNR=8.1
BRTR SKP 22 46 25.8
comp=Z,2.7nm,1.0s,baz=80,slow=1.8,SNR=6.3
BRTR PKKPbc **PKKPbc** **22 54 06.3 -0.1**
comp=Z,1.3nm,0.8s,baz=202,slow=6.1,SNR=7.7
BRTR PKKPab **PKKPab** **22 54 11.3 +0.5**
comp=Z,0.8nm,0.8s,baz=244,slow=5.1,SNR=3.7
**SORM Soroca 117.47 323**⇓ *i*P **PKPdf** **22 43 38.8 -0.1**
**SORM Soroca 117.47 323**⇓⇓PKiKP **PKPdf** **22 43 38.9 0.0**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **NB2** | **NORSAR Subarra** | **117.63** | **341** | PKPdf | **PKPdf** | **22 43 38.4** | **-0.5** |
| | comp=Z,1.4nm,0.6s,baz=40,slow=2.0 | | | | | | |
| **NOA** | **NORSAR Array B** | **117.63** | **341** | PKP | **PKPdf** | **22 43 38.2** | **-0.7** |
| | comp=Z,2.0nm,0.8s,baz=48,slow=1.9,SNR=3.8 | | | | | | |
| NOA | | | | SKP | | 22 46 28.9 | |
| | comp=Z,2.0nm,1.0s,baz=237,slow=20,SNR=2.8 | | | | | | |
| **PLCA** | **Paso Flores** | **118.36** | **142** | PKP | **PKPdf** | **22 43 41.3** | **+0.3** |
| | comp=Z,3.7nm,0.4s,baz=265,slow=1.7,SNR=27 | | | | | | |
| **CFR** | **Carcaliu** | **118.88** | **320** | *i* P | **PKPdf** | **22 43 42.3** | **+0.6** |
| **CFR** | **Carcaliu** | **118.88** | **320** | ⇓PKIKP | **PKPdf** | **22 43 42.3** | **+0.6** |
| **HARR** | **Harsova** | **119.21** | **319** | *i* P | **PKPdf** | **22 43 45.7** | **+3.4** |
| **HARR** | **Harsova** | **119.21** | **319** | ⇓PKIKP | **PKPdf** | **22 43 45.7** | **+3.4** |
| **BURAR** | **Bucovina Array** | **119.58** | **323** | *i* P | **PKPdf** | **22 43 44.2** | **+1.1** |
| **BURAR** | **Bucovina Array** | **119.58** | **323** | ⇓PKIKP | **PKPdf** | **22 43 44.2** | **+1.1** |
| **KMSC** | **Kings Mountain** | **119.77** | **52** | *e*PKPdf | **PKPdf** | **22 43 43.4** | **-0.3** |
| **MLR** | **Muntele Rosu** | **120.13** | **321** | PKKPbc | PKKPbc | 22 53 54.1 | -1.5 |
| | comp=Z,0.5nm,0.5s,baz=219,slow=2.6,SNR=13 | | | | | | |
| **MLR** | **Muntele Rosu** | **120.13** | **321** | ⇓*i* P | **PKPdf** | **22 43 44.5** | **+0.2** |
| **MLR** | **Muntele Rosu** | **120.13** | **321** | ⇓PKIKP | **PKPdf** | **22 43 44.5** | **+0.2** |
| **DOPR** | **Dopca** | **120.26** | **322** | ⇓*i* P | **PKPdf** | **22 43 45.6** | **+1.2** |
| **ARR** | **Arges** | **121.01** | **321** | ⇓*i* P | **PKPdf** | **22 43 47.4** | **+1.5** |
| **CRVS** | **Cervenica-Dubn** | **121.08** | **326** | *e*PKIKP | **PKPdf** | **22 43 46.0** | **+0.1** |
| **CRVS** | **Cervenica-Dubn** | **121.08** | **326** | *e*PKP | **PKPdf** | **22 43 46.0** | **+0.1** |
| **HUMR** | **Humele** | **121.18** | **320** | ⇓*i* P | **PKPdf** | **22 43 46.5** | **+0.4** |
| **LOT** | **Lotru** | **121.50** | **322** | ⇓*i* P | **PKPdf** | **22 43 47.0** | **+0.1** |
| **BOSA** | **Boshof** | **121.63** | **232** | PKP | **PKPdf** | **22 43 47.7** | **0.0** |
| | comp=Z,6.0nm,0.4s,baz=138,slow=1.1,SNR=39 | | | | | | |
| **SIRR** | **Siria** | **122.37** | **323** | ⇓*i* P | **PKPdf** | **22 43 49.2** | **+0.8** |
| **MORC** | **Moravsky Berou** | **122.68** | **329** | ⇓*i* P | **PKPdf** | **22 43 50.1** | **+1.2** |
| **MORC** | **Moravsky Berou** | **122.68** | **329** | ⇓PKIKP | **PKPdf** | **22 43 50.1** | **+1.2** |
| **BZS** | **Buzias** | **122.73** | **323** | ⇓*i* P | **PKPdf** | **22 43 49.0** | **-0.1** |
| **BZS** | **Buzias** | **122.73** | **323** | ⇓PKIKP | **PKPdf** | **22 43 49.0** | **-0.1** |
| **MDVR** | **Moldovita** | **123.10** | **322** | ⇓*i* P | **PKPdf** | **22 43 50.5** | **+0.6** |
| **SUR** | **Sutherland** | **123.17** | **226** | PKP | **PKPdf** | **22 43 51.5** | **+0.9** |
| | comp=Z,0.8nm,0.8s,baz=135,slow=4.3,SNR=16 | | | | | | |
| **VTS** | **Vitosha** | **123.22** | **319** | ⇓*i* P | **PKPdf** | **22 43 50.9** | **+0.6** |
| **VTS** | **Vitosha** | **123.22** | **319** | ⇓PKIKP | **PKPdf** | **22 43 50.9** | **+0.6** |
| **VRAC** | **Vranov** | **123.46** | **329** | ⇑*i* P | **PKPdf** | **22 43 51.4** | **+1.0** |
| **VRAC** | **Vranov** | **123.46** | **329** | ⇑PKIKP | **PKPdf** | **22 43 51.4** | **+1.0** |
| **MODS** | **Modra-Piesok** | **123.67** | **328** | *e*PKIKP | **PKPdf** | **22 43 50.5** | **-0.3** |
| **MODS** | **Modra-Piesok** | **123.67** | **328** | *e*PKP | **PKPdf** | **22 43 50.5** | **-0.3** |
| **BRG** | **Berggiesshubel** | **123.77** | **332** | *e*PKP | **PKPdf** | **22 43 51.0** | **+0.1** |
| | comp=Z,11nm,1.0s | | | | | | |
| **BRG** | **Berggiesshubel** | **123.77** | **332** | *e*PKIKP | **PKPdf** | **22 43 51.0** | **+0.1** |
| BRG | | | | pmax | pmax | | |
| | comp=Z,11nm,1.0s | | | | | | |
| **CLL** | **Collm** | **123.92** | **332** | *e*PKIKP | **PKPdf** | **22 43 51.0** | **-0.2** |
| CLL | | | | pmax | pmax | | |
| | comp=Z,13nm,1.2s | | | | | | |
| **CLL** | **Collm** | **123.92** | **332** | *e*PKPdf | **PKPdf** | **22 43 51.0** | **-0.2** |
| | comp=Z,13nm,1.2s | | | | | | |
| **CONA** | **Conrad Observa** | **124.69** | **328** | *i* PKiKP | **PKiKP** | **22 43 53.7** | **+0.5** |
| | comp=Z,1.2nm,0.3s | | | | | | |
| **IDI** | **Anoyia** | **125.09** | **310** | PKKPbc | PKKPbc | 22 53 36.1 | -0.4 |
| | comp=Z,3.7nm,0.4s,baz=203,slow=5.7,SNR=12 | | | | | | |
| **ATAH** | **Atahualpa** | **125.19** | **102** | PKP | **PKPdf** | **22 43 55.6** | **+0.4** |
| | comp=Z,17nm,0.9s,baz=225,slow=1.4,SNR=10 | | | | | | |
| **GERES** | **GERESS Array B** | **125.22** | **330** | PKP | **PKPdf** | **22 43 54.2** | **+0.3** |
| | comp=Z,3.3nm,0.7s,baz=59,slow=1.9,SNR=15 | | | | | | |
| GERES | | | | pPKP | **pPKPdf** | **22 45 53.2** | **-0.5** |
| | comp=Z,1.7nm,0.9s,baz=13,slow=2.1,SNR=5.2 | | | | | | |
| GERES | | | | PKKPbc | **PKKPab** | **22 53 35.1** | **+0.1** |
| | comp=Z,0.6nm,0.6s,baz=202,slow=2.9,SNR=5.3 | | | | | | |
| **ARSA** | **Arzberg** | **125.29** | **327** | *i* PKiKP | **PKiKP** | **22 43 54.4** | **-0.1** |
| | comp=Z,1.2nm,0.7s | | | | | | |
| **MOA** | **Molln** | **125.58** | **329** | *i* PKiKP | **PKiKP** | **22 43 54.9** | **-0.1** |
| | comp=Z,2.1nm,0.7s | | | | | | |
| **PDG** | **Podgorica** | **125.84** | **321** | ⇓*i* P | **PKPdf** | **22 43 55.6** | **+0.5** |
| **SOKA** | **Soboth** | **125.90** | **327** | *i* PKiKP | **PKiKP** | **22 43 55.6** | **-0.2** |
| | comp=Z,2.9nm,0.7s | | | | | | |
| **GRGC** | **Isla de Gorgon** | **126.69** | **90** | *e*P | PKPdf | 22 44 08.0 | +10 |
| **ABTA** | **Abfaltersbach** | **127.20** | **328** | *i* PKiKP | **PKPdf** | **22 43 57.7** | **0.0** |
| | comp=Z,5.4nm,0.9s | | | | | | |
| **MOTA** | **Moosalm** | **127.52** | **330** | *i* PKiKP | **PKiKP** | **22 43 58.8** | **-0.2** |
| | comp=Z,3.4nm,0.7s | | | | | | |
| **FETA** | **Feichten** | **127.93** | **330** | *i* PKiKP | **PKiKP** | **22 44 00.2** | **+0.3** |
| | comp=Z,4.0nm,0.8s | | | | | | |
| **POPC** | **Popayan, Colom** | **128.14** | **90** | *e*P | **PKPdf** | **22 43 58.4** | **-2.2** |
| **DAVA** | **Damuels** | **128.17** | **331** | *i* PKiKP | **PKiKP** | **22 44 00.4** | **0.0** |
| | comp=Z,1.4nm,0.4s | | | | | | |
| **YOTC** | **Yotoco, Valle** | **128.56** | **89** | *e*P | **PKPdf** | **22 44 00.4** | **-0.9** |
| **BETC** | **Betania** | **129.38** | **90** | *e*P | **PKPdf** | **22 44 04.0** | **+1.2** |
| **HELC** | **Santa Helena** | **129.44** | **86** | *e*P | **PKPdf** | **22 44 05.1** | **+1.8** |
| **GUYC** | **Guyana, Colomb** | **129.56** | **87** | *e*P | **PKPdf** | **22 44 04.0** | **+0.3** |
| **ZARC** | **Zaragoza, Cauc** | **130.12** | **84** | *e*P | **PKPdf** | **22 44 03.2** | **-0.9** |
| **CHIC** | **Chingaza** | **131.19** | **88** | *e*P | **PKPdf** | **22 44 02.6** | **-4.1** |
| **RUSC** | **La Rusia** | **131.87** | **86** | *e*P | **PKPdf** | **22 44 06.2** | **-1.8** |
| **LPAZ** | **La Paz** | **132.30** | **117** | PKhKP | PKPpre | 22 43 58.0 | |
| | comp=Z,1.3nm,0.4s,baz=240,slow=7.0,SNR=5.7 | | | | | | |
| LPAZ | | | | PKP | **PKPdf** | **22 44 09.4** | **+0.5** |
| | comp=Z,9.3nm,0.6s,baz=271,slow=3.6,SNR=24 | | | | | | |
| LPAZ | | | | pPKP | pPKPdf | 22 46 09.6 | +0.8 |
| | comp=Z,3.7nm,1.1s,baz=220,slow=3.9,SNR=3.0 | | | | | | |
| LPAZ | | | | SKPbc | **SKPab** | **22 46 49.9** | **-0.2** |
| | comp=Z,5.9nm,0.7s,baz=251,slow=1.9,SNR=9.6 | | | | | | |
| **SDV** | **Santo Domingo** | **134.27** | **82** | PKhKP | PKPpre | 22 43 59.8 | |
| | comp=Z,3.0nm,0.6s,baz=270,slow=20,SNR=5.3 | | | | | | |
| SDV | | | | PKP | **PKPdf** | **22 44 12.5** | **+0.3** |
| | comp=Z,33nm,0.7s,baz=251,slow=3.2,SNR=34 | | | | | | |
| SDV | | | | pPKP | pPKPdf | 22 46 13.8 | +1.8 |
| | comp=Z,4.4nm,0.9s,baz=295,slow=2.3,SNR=4.3 | | | | | | |
| SDV | | | | SKPbc | **SKPbc** | **22 46 55.9** | **+1.6** |
| | comp=Z,9.4nm,1.0s,baz=270,slow=4.9,SNR=6.9 | | | | | | |
| **SDV** | **Santo Domingo** | **134.27** | **82** | *e*P | **PKPdf** | **22 44 11.1** | **-1.0** |
| **CPUP** | **Villa Florida** | **135.87** | **136** | PKhKP | PKPpre | 22 44 00.1 | |
| | comp=Z,2.0nm,0.7s,baz=258,slow=10,SNR=5.6 | | | | | | |
| CPUP | | | | PKP | **PKPdf** | **22 44 14.8** | **+0.2** |
| | comp=Z,9.1nm,1.0s,baz=264,slow=2.0,SNR=12 | | | | | | |
| CPUP | | | | SKPbc | **SKPbc** | **22 46 57.9** | **-0.9** |
| | comp=Z,4.0nm,0.9s,baz=232,slow=3.9,SNR=3.8 | | | | | | |
| **SJG** | **San Juan** | **137.41** | **68** | SKPbc | **SKPbc** | **22 47 03.8** | **+0.4** |
| | comp=Z,17nm,0.9s,baz=270,slow=1.0,SNR=2.9 | | | | | | |
| **SIV** | **San Ignacio** | **138.59** | **121** | PKhKP | PKPpre | 22 44 10.4 | |
| | comp=Z,3.3nm,0.7s,baz=263,slow=8.2,SNR=5.3 | | | | | | |
| SIV | | | | PKP | **PKPdf** | **22 44 20.1** | **+0.2** |
| | comp=Z,8.1nm,0.8s,baz=264,slow=1.6,SNR=9.8 | | | | | | |
| SIV | | | | SKPbc | **SKPbc** | **22 47 07.0** | **+0.1** |
| | comp=Z,10nm,0.5s,baz=256,slow=4.1,SNR=20 | | | | | | |
| **ESDC** | **Sonseca Array** | **140.44** | **335** | PKhKP | PKPpre | 22 44 12.7 | |
| | comp=Z,0.3nm,0.6s,baz=19,slow=3.3,SNR=3.1 | | | | | | |
| ESDC | | | | PKP | **PKPdf** | **22 44 23.5** | **+0.8** |
| | comp=Z,0.5nm,0.7s,baz=19,slow=2.3,SNR=4.5 | | | | | | |
| ESDC | | | | SKPbc | **SKPbc** | **22 47 12.0** | **+0.7** |
| | comp=Z,1.0nm,0.8s,baz=10,slow=1.1,SNR=5.8 | | | | | | |
| **PCBR** | **Castelo Branco** | **141.70** | **338** | *e*PKPdf | **PKPdf** | **22 44 25.6** | **+0.8** |
| **PCAS** | **Casmilo, Conde** | **141.87** | **340** | *e*PKPdf | **PKPdf** | **22 44 25.1** | **0.0** |
| **PBAR** | **Barrancos** | **142.98** | **337** | *e*PKPdf | **PKPdf** | **22 44 27.4** | **+0.3** |
| **EVO** | **Evora** | **143.04** | **338** | *e*PKPdf | **PKPdf** | **22 44 26.6** | **-0.6** |
| **PBEJ** | **Beja** | **143.43** | **337** | *e*PKPdf | **PKPdf** | **22 44 27.4** | **-0.5** |
| **PNCL** | **Nicolau / Gran** | **143.60** | **338** | *e*PKPdf | **PKPdf** | **22 44 27.6** | **-0.6** |
| **MESJ** | **Messejana** | **143.73** | **338** | *e*P | PKPbc | 22 44 27.4 | +0.2 |
| **MESJ** | **Messejana** | **143.73** | **338** | *e*PKPdf | **PKPdf** | **22 44 28.0** | **-0.4** |
| **PCVE** | **Castro Verde** | **143.84** | **337** | *e*PKPdf | **PKPdf** | **22 44 28.4** | **-0.2** |
| **PVAQ** | **Vaqueiros** | **143.91** | **337** | *e*PKPdf | **PKPdf** | **22 44 28.8** | **0.0** |
| **PTGA** | **Pitinga** | **144.41** | **98** | PKP | PKPbc | 22 44 29.4 | -0.7 |
| | comp=Z,149nm,0.9s,baz=265,slow=3.7,SNR=155 | | | | | | |
| **PFVI** | **Vila Bisbo** | **144.58** | **338** | *e*PKPdf | **PKPab** | **22 44 31.1** | **+0.7** |
| **TAM** | **Tamanrasset** | **145.66** | **304** | *e*PKP2 | **PKPbc** | **22 44 33.4** | **-0.4** |
| **TAM** | **Tamanrasset** | **145.66** | **304** | *e*PKPbc | **PKPbc** | **22 44 33.4** | **-0.4** |
| **MDT** | **Midelt** | **146.29** | **329** | pPKPbc | pPKPbc | 22 46 32.9 | -0.3 |
| | comp=Z,16nm,1.1s,baz=48,slow=3.3,SNR=6.3 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **152.59** | **290** | PKP | **PKPdf** | **22 44 42.9** | **-0.5** |
| | comp=Z,4.6nm,1.1s,baz=94,slow=1.0,SNR=15 | | | | | | |
| TORD | | | | PKPbc | **PKPbc** | **22 44 50.6** | **-0.2** |
| | comp=Z,8.0nm,0.4s,baz=52,slow=2.1,SNR=117 | | | | | | |
| TORD | | | | PKPab | **PKPab** | **22 45 03.8** | **0.0** |
| | comp=Z,5.8nm,0.8s,baz=76,slow=3.0,SNR=8.3 | | | | | | |
| TORD | | | | pPKPbc | **pPKPbc** | **22 46 51.3** | **+1.2** |
| | comp=Z,5.2nm,0.9s,baz=58,slow=2.4,SNR=8.7 | | | | | | |
| **KIC** | **Kosan Boka** | **160.02** | **276** | *e*P | PKPab | 22 45 26.7 | -9.3 |
| | comp=Z,16nm,0.6s | | | | | | |
| **DBIC** | **Dimbokro** | **160.11** | **277** | PKP | **PKPdf** | **22 44 53.1** | **+0.1** |
| | comp=Z,2.3nm,0.8s,baz=163,slow=3.1,SNR=4.5 | | | | | | |
| DBIC | | | | PKPab | **PKPab** | **22 45 35.4** | **-1.0** |
| | comp=Z,4.4nm,0.5s,baz=62,slow=4.4,SNR=9.2 | | | | | | |
| **TIC** | **Toumodi** | **160.27** | **277** | *e*P | PKPab | 22 45 28.3 | -8.9 |
| **LIC** | **Lamto** | **160.31** | **275** | *e*P | PKPab | 22 45 28.3 | -9.0 |
| | comp=Z,45nm,1.5s | | | | | | |
| **RCBR** | **Riachuelo** | **164.72** | **133** | PKPab | **PKPab** | **22 45 56.1** | **-0.5** |
| | comp=Z,11nm,0.9s,baz=202,slow=2.5,SNR=3.0 | | | | | | |

*NIED* ***29*** *22:36:00, 37.00N×137.90E, h240km, Mw3.9 Best double couple: M0 9.35000×10^14 NP1: ϕs176.00000°, δ45.00000°, λ-69.00000°. NP2: ϕs328.00000°, δ48.00000°, λ-110.00000°.*

*ISCJB* ***29*** *22:36:30.3±0.3, 37.03N±0.05×137.86E±0.06, h217km±3km, mb3.6/17, Error ellipse: s-maj=8.1km s-min=7.1km az=38.2*

*JMA* ***29*** *22:36:31.2±0.2, 37.02N×137.87E, h215km±2km, M3.9 Broadband fault plane solution: P waves. NP1: ϕs166.00000°, δ49.00000°, λ-79.00000°. NP2: ϕs329.00000°, δ43.00000°, λ-103.00000°. Principal axes: T Plg3.0000°, Azm248.0000°; N Plg9.0000°, Azm338.0000°; P Plg81.0000°, Azm140.0000°;*

*IDC* ***29*** *22:36:31.1±0.4, 37.05N×137.75E, h207km±4km, mb3.5/17, mb1 3.6/20, mb1mx3.5/56, mbtmp4.0/20 Error ellipse: s-maj=13.5km s-min=9.7km az=85.0*

**ISC 29 22:36:31.3±0.6, 37.05N±0.06×137.84E±0.06, h212km±5km, n41, σ0s59/53, mb3.8/17, 2C-4D, Near west coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | | |
| **JJN** | **Nakama** | **0.26** | **77** | ⇓P | | **Pn** | **22 36 59.9** | **+0.8** |
| **JSZ** | **Suzu** | **0.55** | **317** | ⇓P | | **Pn** | **22 37 00.1** | **+0.2** |
| **MAT** | **Matsushiro** | **0.58** | **150** | P | | **Pn** | **22 37 00.1** | **-0.1** |
| MAT | | | | S | | **S** | **22 37 22.5** | **0.0** |
| **MAT** | **Matsushiro** | **0.58** | **150** | P | | **Pn** | **22 37 00.2** | **0.0** |
| MAT | | | | S | | **S** | **22 37 22.5** | **0.0** |
| **MJAR** | **Matsushiro Arr** | **0.58** | **150** | P | | **Pn** | **22 37 00.4** | **+0.2** |
| | 162nm,0.3s,baz=321,slow=5.6,SNR=1074 | | | | | | | |
| MJAR | | | | S | | **S** | **22 37 22.6** | **0.0** |
| | baz=314,slow=13,SNR=5.8 | | | | | | | |
| **JTT** | **Ttatey** | **0.60** | **223** | P | | **Pn** | **22 37 00.4** | **+0.2** |
| **JSD** | **Sado** | **1.04** | **18** | ⇓P | | **Pn** | **22 37 02.8** | **+0.3** |
| **JRY** | **Ryogami san** | **1.33** | **140** | P | | **Pn** | **22 37 04.3** | **-0.5** |
| JRY | | | | *e*S | | **S** | **22 37 30.5** | **-0.1** |
| **JNS** | **Sasagawa** | **1.41** | **56** | P | | **Pn** | **22 37 05.5** | **+0.3** |
| JNS | | | | *e*S | | **S** | **22 37 31.6** | **+0.2** |
| **JAG** | **Ashikaga** | **1.44** | **115** | P | | **Pn** | **22 37 05.2** | **-0.3** |
| JAG | | | | *e*S | | **S** | **22 37 31.5** | **-0.4** |
| **JKG** | **Kaga** | **1.44** | **238** | P | | **Pn** | **22 37 06.0** | **+0.5** |
| JKG | | | | S | | **S** | **22 37 32.3** | **+0.5** |
| **JYN** | **Shimob** | **1.65** | **160** | ⇓P | | **Pn** | **22 37 07.1** | **-0.4** |
| JYN | | | | S | | **S** | **22 37 35.0** | **-0.3** |
| **JFT** | **Otama** | **2.04** | **76** | ⇑P | | **Pn** | **22 37 11.6** | **+0.5** |
| JFT | | | | *e*S | | **S** | **22 37 42.1** | **+0.2** |
| **JOD2** | **Odawara 2** | **2.04** | **150** | ⇑P | | **Pn** | **22 37 11.1** | **-0.1** |
| JOD2 | | | | S | | **S** | **22 37 41.6** | **-0.3** |
| **JWT** | **Wachi** | **2.65** | **229** | P | | **Pn** | **22 37 17.7** | **+0.1** |
| **JYK** | **Kaneyama** | **2.73** | **46** | P | | **Pn** | **22 37 19.0** | **+0.6** |
| **JNU** | **Nakatsue** | **6.92** | **238** | P | | **Pn** | **22 38 10.9** | **+0.3** |
| | 2.5nm,0.3s,baz=65,slow=10,SNR=16 | | | | | | | |
| **KSRS** | **Korea Array** | **7.92** | **276** | P | | **Pn** | **22 38 23.2** | **-0.3** |
| | 0.3nm,0.3s,baz=85,slow=13,SNR=6.1 | | | | | | | |
| **ASAJ** | **Asahikawa** | **7.93** | **26** | P | | **Pn** | **22 38 21.4** | **-2.2** |
| | 3.9nm,0.3s,baz=226,slow=12,SNR=8.9 | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **8.42** | **330** | P | | **Pn** | **22 38 30.3** | **+0.5** |
| | 0.1nm,0.3s,baz=128,slow=11,SNR=5.0 | | | | | | | |
| **KLR** | **Kul'dur** | **12.96** | **342** | P | | **Pn** | **22 39 27.4** | **-0.3** |
| | 0.0nm,0.3s,baz=143,slow=12,SNR=8.0 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **39.80** | **312** | PcP | | **PcP** | **22 45 45.0** | **-0.2** |
| | 1.7nm,0.5s,baz=94,slow=3.4,SNR=7.4 | | | | | | | |
| **MKAR** | **Makanchi Array** | **41.68** | **302** | P | | **P** | **22 43 58.5** | **-0.6** |
| | 0.3nm,0.6s,baz=80,slow=9.3,SNR=3.8 | | | | | | | |
| MKAR | | | | PcP | | **PcP** | **22 45 51.3** | **-0.3** |
| | 0.3nm,0.5s,baz=81,slow=3.2,SNR=3.1 | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **43.74** | **308** | P | | **P** | **22 44 14.8** | **-0.7** |
| | 1.1nm,0.3s,baz=84,slow=7.8,SNR=8.1 | | | | | | | |
| **ILAR** | **Eielson Array** | **51.01** | **32** | P | | **P** | **22 45 12.1** | **+0.8** |
| | 0.6nm,0.6s,baz=267,slow=4.9,SNR=11 | | | | | | | |
| **INK** | **Inuvik** | **55.67** | **27** | P | | **P** | **22 45 45.6** | **+0.5** |
| | 0.8nm,0.4s,baz=291,slow=6.8,SNR=7.7 | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **56.05** | **194** | P | | **P** | **22 45 48.8** | **+0.5** |
| | 4.5nm,1.1s,baz=1.3,slow=8.4,SNR=4.9 | | | | | | | |
| **WRA** | **Warramunga Arr** | **56.78** | **184** | P | | **P** | **22 45 53.2** | **-0.2** |
| | 2.7nm,0.8s,baz=0.5,slow=7.5,SNR=23 | | | | | | | |
| WRA | | | | PcP | | **PcP** | **22 46 46.3** | **-0.4** |
| | 0.6nm,0.6s,baz=359,slow=4.7,SNR=4.5 | | | | | | | |
| **ASAR** | **Alice Springs** | **60.50** | **184** | P | | **P** | **22 46 19.3** | **+0.2** |
| | 1.0nm,0.8s,baz=14,slow=13,SNR=14 | | | | | | | |
| **GEYT** | **Alibeck** | **61.31** | **298** | P | | **P** | **22 46 24.9** | **+0.3** |
| | 0.9nm,0.8s,baz=29,slow=6.6,SNR=3.0 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **62.96** | **339** | P | | **P** | **22 46 34.9** | **0.0** |
| | 2.2nm,0.7s,baz=46,slow=8.7,SNR=4.4 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **65.21** | **29** | P | | **P** | **22 46 49.8** | **+0.2** |
| | 0.3nm,0.5s,baz=304,slow=5.8,SNR=10 | | | | | | | |
| **FINES** | **FINESS Array B** | **67.45** | **331** | P | | **P** | **22 47 03.5** | **-0.3** |
| | 2.6nm,0.7s,baz=83,slow=6.9,SNR=7.9 | | | | | | | |
| **STKA** | **Stephens Creek** | **68.66** | **177** | P | | **P** | **22 47 12.1** | **+0.5** |
| | 0.9nm,0.5s,baz=298,slow=9.6,SNR=3.9 | | | | | | | |
| **AKASG** | **Malin Array Be** | **72.51** | **321** | P | | **P** | **22 47 34.3** | **-0.5** |
| | 1.4nm,0.6s,baz=49,slow=6.1,SNR=7.5 | | | | | | | |
| **NB2** | **NORSAR Subarra** | **73.04** | **336** | P | | **P** | **22 47 36.9** | **-0.9** |
| | comp=Z,8.8nm,0.8s,baz=40,slow=6.2 | | | | | | | |
| **NOA** | **NORSAR Array B** | **73.04** | **336** | P | | **P** | **22 47 36.5** | **-1.2** |
| | comp=Z,3.3nm,0.9s,baz=41,slow=5.9,SNR=5.3 | | | | | | | |
| **BRTR** | **Keskin Array B** | **76.68** | **310** | P | | **P** | **22 47 59.6** | **+0.5** |
| | comp=Z,0.8nm,0.7s,baz=66,slow=3.6,SNR=4.0 | | | | | | | |
| **NVAR** | **Mina Array Bea** | **77.24** | **51** | P | | **P** | **22 48 04.0** | **+1.6** |
| | comp=Z,0.5nm,0.5s,baz=283,slow=6.3,SNR=4.7 | | | | | | | |
| **GERES** | **GERESS Array B** | **81.16** | **326** | P | | **P** | **22 48 23.3** | **+0.1** |
| | comp=Z,0.6nm,0.4s,baz=44,slow=5.8,SNR=7.5 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **115.24** | **312** | PKP | | **PKPdf** | **22 54 47.2** | **-0.9** |
| | comp=Z,0.4nm,0.9s,baz=47,slow=1.1,SNR=3.7 | | | | | | | |

**PRU 29 22:42:55.5, 49.89N×18.58E, h0km, 1D, Czech and Slovak Republics**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | | |
| **OKC** | **Ostrava-Krasne** | **0.28** | **260** | ⇓*i* PG | | Pg | 22 43 01.3 | +0.4 |
| OKC | | | | *e*SG | | Sg | 22 43 04.2 | -0.4 |
| **DPC** | **Dobruska-Polom** | **1.52** | **288** | *e*PG | | Pn | 22 43 23.4 | -0.7 |
| DPC | | | | *e*SG | | Sg | 22 43 44.3 | -0.2 |

*ISCJB* ***29*** *23:01:40.4±0.6, 40.21N±0.02×25.51E±0.03, h3km±5km, Error ellipse: s-maj=4.0km s-min=3.3km az=162.6*

*CSEM* ***29*** *23:01:40.7±0.2, 40.22N×25.50E, h8km, ML1.6, Error ellipse: s-maj=5.0km s-min=4.2km az=80.0*

*ATH* ***29*** *23:01:40.4, 40.22N×25.49E, h22km±2km, ML1.6/7, Error ellipse: s-maj=2.5km s-min=0.9km az=331.0*

*DDA* ***29*** *23:01:41.0, 40.22N×25.60E, h6km, Md2.8*

**ISC 29 23:01:40.7±0.9, 40.21N±0.02×25.50E±0.02, h10km±8km, n28, σ0s68/56, Aegean Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | | |
| **SMTH** | **Samothraki Isl** | **0.26** | **6** | P | | **Pg** | **23 01 45.6** | **-0.4** |
| SMTH | | | | S | | **Sg** | **23 01 50.5** | **+0.9** |
| SMTH | | | | AML | AML | | 23 01 53.5 | |
| | comp=E,166μm,0.1s | | | | | | | |
| SMTH | | | | AML | AML | | 23 01 55.3 | |
| | comp=N,196μm,0.1s | | | | | | | |
| **SMTH** | **Samothraki Isl** | **0.26** | **6** | P | | **Pg** | **23 01 45.6** | **-0.4** |
| SMTH | | | | S | | **Sg** | **23 01 50.5** | **+0.9** |
| **LIA** | **Limnos Island** | **0.40** | **218** | P | | **Pg** | **23 01 48.8** | **+0.3** |
| LIA | | | | S | | **Sg** | **23 01 53.9** | **+0.2** |
| LIA | | | | AML | AML | | 23 01 55.0 | |
| | comp=E,358μm,0.3s | | | | | | | |
| LIA | | | | AML | AML | | 23 01 55.1 | |
| | comp=N,241μm,0.2s | | | | | | | |
| **LIA** | **Limnos Island** | **0.40** | **218** | P | | **Pg** | **23 01 48.8** | **+0.3** |
| LIA | | | | S | | **Sg** | **23 01 53.9** | **+0.2** |
| **BOZC** | **Bozcaada** | **0.56** | **131** | *i* P | | **Pg** | **23 01 51.5** | **-0.2** |
| BOZC | | | | *i* S | | **Sg** | **23 01 59.1** | **0.0** |
| **ALN** | **Alexandroupoli** | **0.80** | **31** | P | | **Pg** | **23 01 56.1** | **-0.1** |
| ALN | | | | S | | **Sg** | **23 02 06.6** | **-0.1** |
| ALN | | | | AML | AML | | 23 02 08.7 | |
| | comp=N,69μm,0.3s | | | | | | | |
| ALN | | | | AML | AML | | 23 02 08.8 | |
| | comp=E,53μm,0.2s | | | | | | | |
| **ALN** | **Alexandroupoli** | **0.80** | **31** | P | | **Pg** | **23 01 56.1** | **-0.1** |
| ALN | | | | S | | **Sg** | **23 02 06.6** | **-0.1** |
| **BAYC** | **CANAKKALE_Bayr** | **0.93** | **120** | *i* P | | **Pg** | **23 01 58.3** | **-0.4** |
| BAYC | | | | *i* S | | **Sg** | **23 02 11.0** | **+0.2** |
| **BAYC** | **CANAKKALE_Bayr** | **0.93** | **120** | P | | **Pg** | **23 01 58.3** | **-0.4** |
| BAYC | | | | S | | **Sg** | **23 02 11.0** | **+0.2** |
| **RDO** | **Rodhopi** | **0.93** | **2** | P | | **Pg** | **23 01 58.5** | **-0.2** |
| RDO | | | | S | | **Sb** | **23 02 12.0** | **+0.5** |
| RDO | | | | AML | AML | | 23 02 13.7 | |
| | comp=N,42μm,0.2s | | | | | | | |
| RDO | | | | AML | AML | | 23 02 16.5 | |
| | comp=E,52μm,0.3s | | | | | | | |
| **RDO** | **Rodhopi** | **0.93** | **2** | P | | **Pg** | **23 01 58.5** | **-0.2** |
| RDO | | | | S | | **Sb** | **23 02 12.0** | **+0.5** |
| **SIGR** | **SIGRI** | **1.04** | **164** | P | | **Pb** | **23 02 00.9** | **+0.2** |
| SIGR | | | | S | | **Sn** | **23 02 16.2** | **+0.4** |
| SIGR | | | | AML | AML | | 23 02 16.9 | |
| | comp=N,55μm,0.8s | | | | | | | |
| SIGR | | | | AML | AML | | 23 02 18.4 | |
| | comp=E,36μm,0.5s | | | | | | | |
| **SIGR** | **SIGRI** | **1.04** | **164** | P | | **Pb** | **23 02 00.9** | **+0.2** |
| SIGR | | | | S | | **Sn** | **23 02 16.2** | **+0.4** |
| **KAVA** | **Kavala** | **1.08** | **317** | P | | **Pn** | **23 02 02.7** | **+0.7** |
| KAVA | | | | S | | **Sg** | **23 02 15.3** | **-0.3** |
| **KAVA** | **Kavala** | **1.08** | **317** | P | | **Pn** | **23 02 02.7** | **+0.7** |
| KAVA | | | | S | | **Sg** | **23 02 15.3** | **-0.3** |
| **KESN** | **Edirne-Kesan** | **1.09** | **55** | *i* P | | **Pg** | **23 02 01.8** | **+0.1** |
| KESN | | | | *i* S | | **Sg** | **23 02 15.3** | **-0.6** |
| **KESN** | **Edirne-Kesan** | **1.09** | **55** | P | | **Pg** | **23 02 01.8** | **+0.1** |
| KESN | | | | S | | **Sg** | **23 02 15.3** | **-0.6** |
| **PRK** | **Paraskevi** | **1.14** | **148** | P | | **Pg** | **23 02 02.4** | **-0.1** |
| PRK | | | | S | | **Sg** | **23 02 17.3** | **+0.1** |
| PRK | | | | AML | AML | | 23 02 18.9 | |
| | comp=N,80μm,0.3s | | | | | | | |
| PRK | | | | AML | AML | | 23 02 19.0 | |
| | comp=E,95μm,0.6s | | | | | | | |
| **PRK** | **Paraskevi** | **1.14** | **148** | P | | **Pg** | **23 02 02.4** | **-0.1** |
| PRK | | | | S | | **Sg** | **23 02 17.3** | **+0.1** |
| **OUR** | **Ouranopolis** | **1.17** | **277** | P | | **Pg** | **23 02 01.2** | **-1.9** |
| OUR | | | | S | | **Sn** | **23 02 19.7** | **+0.7** |
| **OUR** | **Ouranopolis** | **1.17** | **277** | P | | **Pg** | **23 02 01.2** | **-1.9** |
| OUR | | | | S | | **Sn** | **23 02 19.7** | **+0.7** |
| **SART** | **Tekirdag** | **1.37** | **69** | *i* P | | **Pn** | **23 02 04.3** | **-1.7** |
| SART | | | | *i* S | | **Sg** | **23 02 25.0** | **+0.2** |
| **SART** | **Tekirdag** | **1.37** | **69** | P | | **Pn** | **23 02 04.3** | **-1.7** |
| SART | | | | S | | **Sg** | **23 02

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **JOT** | **Ohata** | **4.67** | **326** | P | | **Pn** | **23 42 39.1** | **+1.9** |
| JOT | | | | *e*S | | **Sn** | **23 43 27.9** | **-2.2** |
| **JRY** | **Ryogami san** | **4.79** | **253** | P | | **Pn** | **23 42 39.0** | **+0.2** |
| JRY | | | | *e*S | | **Sn** | **23 43 30.2** | **-2.9** |
| **JOD2** | **Odawara 2** | **4.96** | **244** | P | | **Pn** | **23 42 42.5** | **+1.2** |
| JOD2 | | | | *e*S | | **Sn** | **23 43 34.1** | **-3.4** |
| **JCH** | **Churui** | **5.12** | **350** | P | | **Pn** | **23 42 43.6** | **+0.3** |
| JCH | | | | *e*S | | **Sn** | **23 43 38.9** | **-2.3** |
| **MJAR** | **Matsushiro Arr** | **5.17** | **260** | Pn | | **Pn** | **23 42 45.5** | **+1.5** |
| | 1.1nm,0.3s,baz=90,slow=15,SNR=12 | | | | | | | |
| MJAR | | | | Sn | | **Sn** | **23 43 42.5** | **0.0** |
| | 0.5nm,0.3s,baz=112,slow=27,SNR=3.2 | | | | | | | |
| **WRA** | **Warramunga Arr** | **58.01** | **191** | P | | **P** | **23 51 19.2** | **+0.8** |
| | 0.9nm,0.6s,baz=9.9,slow=7.0,SNR=6.0 | | | | | | | |
| **ASAR** | **Alice Springs** | **61.73** | **191** | P | | **P** | **23 51 44.0** | **-0.1** |
| | 0.1nm,0.4s,baz=14,slow=7.8,SNR=3.2 | | | | | | | |

*CRAAG **29** 23:49:36.9, 35˚.81N×0˚.51E, Ml3.1*
*CSEM **29** 23:49:39.1±0.4, 35˚.80N×0˚.36E, h5km, mb3.6, Error ellipse: s-maj=15.7km s-min=6.5km az=27.0*
*MDD **29** 23:49:39.8±0.7, 35˚.80N×0˚.37E, h0km, mb3.6/3, Error ellipse: s-maj=13.1km s-min=5.8km az=32.0, PRXIMO SOLUCIN POBRE*

**ISC 29 23:49:36.8±1.0, 36˚.06N±0˚.08×0˚.52E±0˚.06, h14km, n18, σ1§67/26, Northern Algeria**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **EANR** | **'Ain N'Sour** | **0.48** | **103** | P | | **Pn** | **23 49 50.8** | **+1.5** |
| **EANR** | **'Ain N'Sour** | **0.48** | **103** | P | | **Pn** | **23 49 50.8** | **+1.5** |
| **EANR** | **'Ain N'Sour** | **0.48** | **103** | P | | **Pn** | **23 49 50.8** | **+1.5** |
| **OJGS** | **Djebel Guires** | **0.58** | **161** | P | | **Pg** | **23 49 47.7** | **-0.5** |
| **OJGS** | **Djebel Guires** | **0.58** | **161** | P | | **Pg** | **23 49 47.7** | **-0.5** |
| **OJGS** | **Djebel Guires** | **0.58** | **161** | P | | **Pg** | **23 49 47.7** | **-0.5** |
| **ENIJ** | **Nijar** | **2.38** | **293** | S | | **Sn** | **23 50 45.3** | **+0.9** |
| | 2.7nm,0.3s,SNR=4.0 | | | | | | | |
| **ENIJ** | **Nijar** | **2.38** | **293** | S | | **Sn** | **23 50 45.3** | **+0.9** |
| | 2.7nm,0.3s,SNR=4.0 | | | | | | | |
| **EBER** | **Berja** | **2.88** | **288** | P | | **Pn** | **23 50 24.8** | **+2.5** |
| | 1.7nm,0.2s,SNR=5.4 | | | | | | | |
| EBER | | | | S | | **Sn** | **23 50 58.7** | **+1.9** |
| | 0.4nm,0.2s,SNR=8.6 | | | | | | | |
| **EBER** | **Berja** | **2.88** | **288** | P | | **Pn** | **23 50 24.8** | **+2.5** |
| | 1.7nm,0.2s,SNR=5.4 | | | | | | | |
| EBER | | | | S | | **Sn** | **23 50 58.7** | **+1.9** |
| | 0.4nm,0.2s,SNR=8.6 | | | | | | | |
| **ETOB** | **Tobarra** | **3.06** | **328** | P | | **Pb** | **23 50 30.2** | **-0.9** |
| | 0.4nm,0.1s,SNR=7.0 | | | | | | | |
| ETOB | | | | S | | **Sb** | **23 51 08.2** | **-0.2** |
| | 1.9nm,0.3s,SNR=7.9 | | | | | | | |
| **ETOB** | **Tobarra** | **3.06** | **328** | P | | **Pb** | **23 50 30.2** | **-0.9** |
| | 0.4nm,0.1s,SNR=7.0 | | | | | | | |
| ETOB | | | | S | | **Sb** | **23 51 08.2** | **-0.2** |
| | 1.9nm,0.3s,SNR=7.9 | | | | | | | |
| **SESP** | **Santiago Espad** | **3.20** | **311** | P | | **Pb** | **23 50 32.4** | **-1.1** |
| | 2.9nm,0.1s,SNR=7.9 | | | | | | | |
| SESP | | | | S | | **Sb** | **23 51 10.5** | **-2.0** |
| | 15nm,0.4s,SNR=7.9 | | | | | | | |
| **SESP** | **Santiago Espad** | **3.20** | **311** | P | | **Pb** | **23 50 32.4** | **-1.1** |
| | 2.9nm,0.1s,SNR=7.9 | | | | | | | |
| SESP | | | | S | | **Sb** | **23 51 10.5** | **-2.0** |
| | 15nm,0.4s,SNR=7.9 | | | | | | | |
| **EQES** | **Quesada** | **3.37** | **302** | P | | **Pb** | **23 50 34.4** | **-1.9** |
| | 0.7nm,0.1s,SNR=11 | | | | | | | |
| EQES | | | | S | | **Sb** | **23 51 14.9** | **-2.2** |
| | 0.4nm,0.1s,SNR=7.9 | | | | | | | |
| **EQES** | **Quesada** | **3.37** | **302** | P | | **Pb** | **23 50 34.4** | **-1.9** |
| | 0.7nm,0.1s,SNR=11 | | | | | | | |
| EQES | | | | S | | **Sb** | **23 51 14.9** | **-2.2** |
| | 0.4nm,0.1s,SNR=7.9 | | | | | | | |
| **ELGU** | **Los Guajares,** | **3.44** | **285** | P | | **Pn** | **23 50 31.9** | **+1.9** |
| | 0.4nm,0.2s,SNR=7.9 | | | | | | | |
| **ELGU** | **Los Guajares,** | **3.44** | **285** | P | | **Pn** | **23 50 31.9** | **+1.9** |
| | 0.4nm,0.2s,SNR=7.9 | | | | | | | |

*IDC **30** 00:13:53.8±1.1, 7˚.87N×127˚.26E, h0km, mb3.4/4, mb1 3.6/4, mb1mx3.3/54, mbtmp3.4/4, Error ellipse: s-maj=41.9km s-min=22.9km az=66.0*
*ISCJB **30** 00:13:55.6±1.7, 7˚.71N±0˚.07×127˚.28E±0˚.08, h18km±11km, mb3.4/4, Error ellipse: s-maj=13.7km s-min=10.2km az=142.4*
*MAN **30** 00:14:01, 7˚.62N×126˚.77E, h5km, mb4.2, ML3.0, MS2.8*

**ISC 30 00:13:57.7±1.3, 7˚.69N±0˚.06×127˚.1E±0˚.1, h22km±8km, n10, σ1§73/18, mb3.5/4, 2C, Philippine Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **BIPH** | **Bislig** | **0.88** | **304** | ⇑*i*P | | **Pn** | **00 14 16.7** | **+2.0** |
| BIPH | | | | *i* S | | **Sn** | **00 14 25.4** | **-1.3** |
| **MATI** | **Mati** | **1.11** | **228** | *e*P | | **Pb** | **00 14 17.9** | **-0.4** |
| MATI | | | | *e*S | | **Sb** | **00 14 29.5** | **-2.8** |
| **DAV** | **Davao City (W)** | **1.62** | **248** | Pn | | **Pb** | **00 14 27.3** | **+0.4** |
| | 115nm,0.3s,baz=81,slow=19,SNR=4.7 | | | | | | | |
| DAV | | | | Sn | | **Sb** | **00 14 47.9** | **+0.9** |
| | 84nm,0.3s,baz=42,slow=20,SNR=6.9 | | | | | | | |
| **DMPH** | **Davao City--Mi** | **1.69** | **249** | ⇑*e*P | | Pb | 00 14 33.5 | +5.5 |
| DMPH | | | | *e*S | | **Sb** | **00 14 52.7** | **+3.9** |
| **BUTP** | **Butuan** | **1.94** | **311** | *e*P | | **Pb** | **00 14 32.7** | **+0.4** |
| BUTP | | | | *e*S | | **Sb** | **00 14 55.8** | **-0.2** |
| **BUKP** | **Musuan** | **2.02** | **275** | *e*P | | **Pb** | **00 14 31.2** | **-2.6** |
| BUKP | | | | *e*S | | **Sn** | **00 14 54.9** | **-0.3** |
| **WRA** | **Warramunga Arr** | **28.37** | **166** | P | | **P** | **00 19 50.8** | **+0.3** |
| | 0.2nm,0.4s,baz=345,slow=10,SNR=4.4 | | | | | | | |
| WRA | | | | PcP | | **PcP** | **00 23 03.2** | **+0.2** |
| | 0.7nm,1.1s,baz=342,slow=2.7,SNR=3.1 | | | | | | | |
| **ASAR** | **Alice Springs** | **31.87** | **168** | P | | **P** | **00 20 22.2** | **+0.8** |
| | 0.2nm,0.3s,baz=342,slow=7.2,SNR=6.9 | | | | | | | |
| ASAR | | | | PcP | | **PcP** | **00 23 12.1** | **+0.1** |
| | 0.5nm,0.5s,baz=347,slow=2.7,SNR=7.8 | | | | | | | |
| **MKAR** | **Makanchi Array** | **54.57** | **324** | P | | **P** | **00 23 22.6** | **-1.7** |
| | 0.2nm,0.5s,baz=130,slow=6.2,SNR=4.1 | | | | | | | |
| MKAR | | | | PcP | | **PcP** | **00 24 26.3** | **-1.1** |
| | 0.2nm,0.6s,baz=108,slow=4.7,SNR=2.4 | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **58.65** | **326** | P | | **P** | **00 23 53.5** | **+0.3** |
| | 0.2nm,0.3s,baz=123,slow=6.8,SNR=2.4 | | | | | | | |

*ISCJB **30** 00:17:07.2±1.9, 36˚.35N±0˚.04×142˚.1E±0˚.2, h26km, mb3.3/2, Error ellipse: s-maj=22.8km s-min=6.4km az=179.9*
*JMA **30** 00:17:07.1±0.2, 36˚.36N×142˚.22E, h51km, M2.7*
*IDC **30** 00:17:26.2±11.0, 35˚.96N×140˚.38E, h99km±59km, mb3.0/2, mb1 3.2/2, mb1mx2.8/55, mbtmp3.3/2, Error ellipse: s-maj=194.8km s-min=33.7km az=65.0*

**ISC 30 00:17:10.7±1.5, 36˚.38N±0˚.05×142˚.0E±0˚.1, h26km, n13, σ1§84/15, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **JHO** | **Hitachi** | **1.16** | **282** | P | | **Pn** | **00 17 29.9** | **-1.4** |
| **ONAJ** | **Iwakimizuishiy** | **1.19** | **307** | P | | **Pn** | **00 17 30.1** | **-1.7** |
| **JFK** | **Kawauchi** | **1.32** | **318** | P | | **Pn** | **00 17 31.5** | **-2.1** |
| JFK | | | | *e*S | | **Sn** | **00 17 50.1** | **-0.3** |
| **JFT** | **Otama** | **1.74** | **311** | P | | **Pn** | **00 17 38.8** | **-0.5** |
| **JMM** | **Marumori** | **1.76** | **328** | P | | **Pn** | **00 17 37.4** | **-2.1** |
| **BSO1** | **Boso 1** | **1.91** | **206** | P | | **Pn** | **00 17 38.6** | **-2.5** |
| BSO1 | | | | *e*S | | **Sn** | **00 18 02.4** | **-1.6** |
| **BSO3** | **Boso 3** | **1.98** | **218** | P | | **Pn** | **00 17 40.5** | **-1.8** |
| **JAG** | **Ashikaga** | **2.04** | **272** | P | | **Pn** | **00 17 42.6** | **-0.8** |
| **JRY** | **Ryogami san** | **2.52** | **263** | P | | **Pn** | **00 17 49.2** | **-0.8** |
| **JMK** | **Ichinoseki** | **2.63** | **347** | *e*S | | **Sn** | **00 18 21.1** | **-1.6** |
| **MJAR** | **Matsushiro Arr** | **3.05** | **274** | P | | **Pn** | **00 17 56.3** | **-1.0** |
| | 1.0nm,0.3s,baz=107,slow=8.3,SNR=10 | | | | | | | |
| **MKAR** | **Makanchi Array** | **44.85** | **303** | P | | **P** | **00 25 23.5** | **+0.8** |
| | 0.3nm,0.6s,baz=86,slow=9.8,SNR=4.3 | | | | | | | |
| **WRA** | **Warramunga Arr** | **56.48** | **189** | P | | **P** | **00 26 53.6** | **+3.0** |
| | 0.3nm,0.8s,baz=3.7,slow=7.0,SNR=3.6 | | | | | | | |

*ISN **30** 00:19:23.8±0.3, 38˚.43N×42˚.67E, h1km±12km, ML3.7*
*DDA **30** 00:19:30.4, 38˚.05N×42˚.61E, h5km, Ml3.8*
*ISK **30** 00:19:30.4, 38˚.00N×42˚.66E, h5km, ML3.6*
*CSEM **30** 00:19:31.9±0.2, 37˚.98N×42˚.62E, h2km, ML3.8, Error ellipse: s-maj=4.7km s-min=3.9km az=161.0*
*NSSC **30** 00:19:31.1±0.6, 38˚.53N×42˚.45E, h31km±638km, ML3.5*
*IDC **30** 00:19:31.6±1.0, 37˚.84N×42˚.77E, h0km, mb3.6/9, mb1 3.6/19, mb1mx3.5/46, mbtmp3.5/19, ML3.1/8, MS3.0/5, Ms1 3.0/5, ms1mx2.6/42, Error ellipse: s-maj=18.5km s-min=12.2km az=155.0*

*AZER **30** 00:19:31.9±1.5, 37˚.56N×42˚.57E, h12km, Error ellipse: s-maj=11.9km s-min=5.3km az=30.0*

**ISC 30 00:19:30.6±0.8, 38˚.01N±0˚.02×42˚.63E±0˚.01, h4km±6km, n145, σ2§13/196, mb3.7/9, 14C-15D, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **GEVA** | **Gevas** | **0.45** | **48** | *i* P | | **Pg** | **00 19 39.5** | **+0.1** |
| GEVA | | | | *i* S | | **Sb** | **00 19 47.3** | **-1.2** |
| **GEVA** | **Gevas** | **0.45** | **48** | P | | **Pg** | **00 19 39.5** | **+0.1** |
| GEVA | | | | S | | **Sb** | **00 19 47.3** | **-1.2** |
| **SIRT** | **Sirnak** | **0.53** | **197** | *e*PG | | **Pb** | **00 19 41.8** | **-0.7** |
| SIRT | | | | *e*SG | | **Sb** | **00 19 50.5** | **0.0** |
| **SIRT** | **Sirnak** | **0.53** | **197** | *e*Pg | | **Pb** | **00 19 41.8** | **-0.7** |
| SIRT | | | | *e*Sg | | **Sb** | **00 19 50.5** | **0.0** |
| **SIRN** | **S¨–rnak** | **0.54** | **199** | *i* P | | **Pb** | **00 19 42.2** | **-0.5** |
| SIRN | | | | *i* S | | **Sb** | **00 19 51.1** | **+0.3** |
| **SIRN** | **S¨–rnak** | **0.54** | **199** | P | | **Pb** | **00 19 42.2** | **-0.5** |
| **SRTM** | **Siirt_Merkez** | **0.56** | **269** | *i* P | | **Pg** | **00 19 41.8** | **+0.4** |
| SRTM | | | | *i* S | | **Sb** | **00 19 50.9** | **-0.6** |
| **SRTM** | **Siirt_Merkez** | **0.56** | **269** | P | | **Pg** | **00 19 41.8** | **+0.4** |
| SRTM | | | | S | | **Sb** | **00 19 50.9** | **-0.6** |
| **TVAN** | **Van** | **0.80** | **49** | *i* P | | **Pg** | **00 19 45.9** | **-0.1** |
| TVAN | | | | *i* S | | **Sn** | **00 20 01.1** | **-0.3** |
| **TVAN** | **Van** | **0.80** | **49** | P | | **Pg** | **00 19 45.9** | **-0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.80** | **5** | *i* P | | **Pg** | **00 19 46.0** | **-0.1** |
| ADCV | | | | *i* S | | **Sg** | **00 19 57.0** | **+0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.80** | **5** | P | | **Pg** | **00 19 46.0** | **-0.1** |
| ADCV | | | | S | | **Sg** | **00 19 57.0** | **+0.5** |
| **VANB** | **Van** | **0.84** | **45** | *e*PG | | **Pg** | **00 19 46.0** | **-0.7** |
| **VANB** | **Van** | **0.84** | **45** | *e*Pg | | **Pg** | **00 19 46.0** | **-0.7** |
| **HAKT** | **HAKKARI** | **0.96** | **117** | *i* P | | **Pn** | **00 19 50.4** | **-0.7** |
| HAKT | | | | *i* S | | **Sn** | **00 20 06.0** | **+0.6** |
| **HAKT** | **HAKKARI** | **0.96** | **117** | P | | **Pn** | **00 19 50.4** | **-0.7** |
| **CUKT** | **Cukurca** | **1.08** | **134** | *e*PG | | **Pn** | **00 19 51.9** | **-0.8** |
| **CUKT** | **Cukurca** | **1.08** | **134** | *i* P | | **Pn** | **00 19 51.8** | **-0.9** |
| CUKT | | | | *i* S | | **Sn** | **00 20 11.6** | **+3.4** |
| **CUKT** | **Cukurca** | **1.08** | **134** | *e*Pg | | **Pn** | **00 19 51.9** | **-0.8** |
| **BTMN** | **Batman** | **1.08** | **264** | *i* P | | **Pn** | **00 19 52.2** | **-0.5** |
| BTMN | | | | *i* S | | **Sn** | **00 20 09.3** | **+1.1** |
| **BTMN** | **Batman** | **1.08** | **264** | P | | **Pn** | **00 19 52.2** | **-0.5** |
| BTMN | | | | S | | **Sn** | **00 20 09.3** | **+1.1** |
| **ERCV** | **ERCIS-VAN** | **1.15** | **28** | *e*PN | | **Pn** | **00 19 53.7** | **0.0** |
| ERCV | | | | *e*SN | | **Sn** | **00 20 10.6** | **+0.6** |
| **ERCV** | **ERCIS-VAN** | **1.15** | **28** | *e*Pn | | **Pn** | **00 19 53.7** | **0.0** |
| ERCV | | | | *e*Sn | | **Sn** | **00 20 10.6** | **+0.6** |
| **VMUR** | **Van-Muradiye** | **1.23** | **37** | *i* P | | **Pb** | **00 19 53.4** | **-1.1** |
| VMUR | | | | *i* S | | **Sn** | **00 20 14.5** | **+2.6** |
| **EKAR** | **Karacoban** | **1.32** | **341** | *i* P | | **Pb** | **00 19 55.9** | **-0.3** |
| **EKAR** | **Karacoban** | **1.32** | **341** | P | | **Pb** | **00 19 55.9** | **-0.3** |
| **YOVA** | **Hakkari_Y¨…kse** | **1.38** | **107** | *i* P | | **Pg** | **00 19 57.8** | **+0.8** |
| YOVA | | | | *i* S | | **Sg** | **00 20 19.3** | **+4.4** |
| **YOVA** | **Hakkari_Y¨…kse** | **1.38** | **107** | P | | **Pg** | **00 19 57.8** | **+0.8** |
| **TUTA** | **Tutak** | **1.40** | **6** | *i* P | | **Pn** | **00 19 56.3** | **-0.9** |
| TUTA | | | | *i* S | | **Sg** | **00 20 21.3** | **+5.6** |
| **BNGL** | **BINGOL** | **1.50** | **310** | *i* P | | **Pb** | **00 19 58.9** | **-0.2** |
| BNGL | | | | *i* S | | **Sg** | **00 20 23.7** | **+4.9** |
| **AGRB** | **Hanur-Agry** | **1.59** | **10** | *e*PN | | **Pg** | **00 20 00.8** | **-0.3** |
| AGRB | | | | *e*SN | | **Sg** | **00 20 23.3** | **+1.5** |
| **AGRB** | **Hanur-Agry** | **1.59** | **10** | *e*Pn | | **Pg** | **00 20 00.8** | **-0.3** |
| AGRB | | | | *e*Sn | | **Sg** | **00 20 23.3** | **+1.5** |
| **MARD** | **Mardin** | **1.63** | **245** | *i* P | | **Pb** | **00 20 00.9** | **-0.4** |
| MARD | | | | *i* S | | **Sg** | **00 20 23.9** | **+1.0** |
| **DYDN** | **Diyadin** | **1.74** | **28** | *i* P | | **Pg** | **00 20 04.2** | **+0.1** |
| **DYDN** | **Diyadin** | **1.74** | **28** | P | | **Pg** | **00 20 04.2** | **+0.1** |
| **HANI** | **Diyarbakir_Han** | **1.81** | **284** | *i* P | | **Pn** | **00 20 02.3** | **-0.3** |
| HANI | | | | *i* S | | **Sg** | **00 20 28.0** | **-0.7** |
| **HANI** | **Diyarbakir_Han** | **1.81** | **284** | P | | **Pn** | **00 20 02.3** | **-0.3** |
| HANI | | | | S | | **Sg** | **00 20 28.0** | **-0.7** |
| **MAZI** | **Mazidag** | **1.82** | **253** | *e*PN | | **Pb** | **00 20 04.3** | **-0.2** |
| MAZI | | | | *e*SN | | **Sg** | **00 20 28.9** | **-0.1** |
| **MAZI** | **Mazidag** | **1.82** | **253** | *e*Pn | | **Pb** | **00 20 04.3** | **-0.2** |
| MAZI | | | | *e*Sn | | **Sg** | **00 20 28.9** | **-0.1** |
| **BNGB** | **Bing˜¶l** | **1.82** | **303** | *e*PN | | **Pb** | **00 20 04.7** | **+0.1** |
| BNGB | | | | *e*SN | | **Sg** | **00 20 28.9** | **-0.2** |
| **EATA** | **Eleskirt** | **1.86** | **357** | *i* P | | **Pb** | **00 20 05.2** | **-0.1** |
| EATA | | | | *i* S | | **Sg** | **00 20 31.1** | **+0.8** |
| **EATA** | **Eleskirt** | **1.86** | **357** | P | | **Pb** | **00 20 05.2** | **-0.1** |
| EATA | | | | S | | **Sg** | **00 20 31.1** | **+0.8** |
| **BINT** | **Bingol** | **1.90** | **298** | *e*Pn | | **Pb** | **00 20 04.7** | **-1.1** |
| BINT | | | | *e*Sn | | **Sb** | **00 20 28.9** | **-1.0** |
| **DIY** | **Diyarbakir** | **1.91** | **267** | *e*Pn | | **Pb** | **00 20 05.9** | **-0.1** |
| **KBSD** | **Kabsdagh** | **1.94** | **240** | *e*P | | **Pb** | **00 20 05.5** | **-1.1** |
| KBSD | | | | *e*S | | **Sb** | **00 20 29.8** | **-1.4** |
| KBSD | | | | AML | | AML | 00 20 41.0 | |
| | comp=Z,392nm,0.5s | | | | | | | |
| **DYBB** | **Diyarbakir** | **1.97** | **269** | *e*PN | | **Pb** | **00 20 05.9** | **-1.3** |
| **DIYA** | **Diyarbakir** | **1.99** | **268** | *i* P | | **Pn** | **00 20 05.2** | **+0.1** |
| DIYA | | | | *i* S | | **Sn** | **00 20 30.4** | **-0.1** |
| **DIYA** | **Diyarbakir** | **1.99** | **268** | P | | **Pn** | **00 20 05.2** | **+0.1** |
| DIYA | | | | S | | **Sn** | **00 20 30.4** | **-0.1** |
| **ECAT** | **Cat-ERZURUM** | **2.06** | **321** | *i* P | | **Pb** | **00 20 08.2** | **-0.5** |
| ECAT | | | | *i* S | | **Sg** | **00 20 36.3** | **-0.4** |
| **ECAT** | **Cat-ERZURUM** | **2.06** | **321** | P | | **Pb** | **00 20 08.2** | **-0.5** |
| ECAT | | | | S | | **Sg** | **00 20 36.3** | **-0.4** |
| **HOMI** | **Horasan** | **2.11** | **345** | *i* P | | **Pb** | **00 20 10.1** | **+0.4** |
| **ERZM** | **Erzurum** | **2.14** | **333** | *i* P | | **Pg** | **00 20 11.7** | **+0.1** |
| **ERZM** | **Erzurum** | **2.14** | **333** | P | | **Pg** | **00 20 11.7** | **+0.1** |
| **YEDI** | **Yedisu-Bingol** | **2.17** | **312** | *e*PN | | **Pb** | **00 20 09.3** | **-1.3** |
| **YEDI** | **Yedisu-Bingol** | **2.17** | **312** | *e*Pn | | **Pb** | **00 20 09.3** | **-1.3** |
| **TASB** | **TASBURUN-IGDIR** | **2.34** | **32** | *e*PN | | **Pb** | **00 20 11.9** | **-1.4** |
| **TASB** | **TASBURUN-IGDIR** | **2.34** | **32** | *e*Pn | | **Pb** | **00 20 12.0** | **-1.4** |
| **HYR** | **Heyderabad** | **2.43** | **45** | ⇑P | | **Pg** | **00 20 16.7** | **-0.6** |
| | SNR=15 | | | | | | | |
| HYR | | | | ⇓S | | **Sg** | **00 20 51.3** | **+2.5** |
| **HYR** | **Heyderabad** | **2.43** | **45** | P | | **Pg** | **00 20 16.7** | **-0.6** |
| | SNR=15 | | | | | | | |
| **DIGO** | **Kars** | **2.47** | **13** | *i* P | | **Pg** | **00 20 17.3** | **-0.7** |
| **NAX** | **Nakhchivan** | **2.53** | **62** | ⇓P | | **Pb** | **00 20 16.2** | **-0.4** |
| | SNR=21 | | | | | | | |
| NAX | | | | ⇑S | | **Sg** | **00 20 52.0** | **+0.2** |
| **NAX** | **Nakhchivan** | **2.53** | **62** | P | | **Pb** | **00 20 16.2** | **-0.4** |
| | SNR=21 | | | | | | | |
| **SENK** | **Senkaya-Erzuru** | **2.56** | **355** | *e*PN | | **Pb** | **00 20 15.4** | **-1.9** |
| **SENK** | **Senkaya-Erzuru** | **2.56** | **355** | *e*Pn | | **Pb** | **00 20 15.4** | **-1.9** |
| **SFNV** | **Sufian** | **2.56** | **233** | *e*P | | **Pb** | **00 20 14.8** | **-2.4** |
| SFNV | | | | *e*S | | **Sn** | **00 20 45.8** | **+1.2** |
| SFNV | | | | AML | | AML | 00 21 01.2 | |
| | comp=Z,459nm,0.5s | | | | | | | |
| **KARS** | **Kars** | **2.64** | **7** | *e*PN | | **Pb** | **00 20 15.9** | **-2.7** |
| **KARS** | **Kars** | **2.64** | **7** | *e*Pn | | **Pb** | **00 20 15.9** | **-2.7** |
| **SVRC** | **Sivrice-ELAZID** | **2.65** | **279** | *e*PN | | **Pn** | **00 20 15.9** | **+1.7** |
| **SVRC** | **Sivrice-ELAZID** | **2.65** | **279** | *e*Pn | | **Pn** | **00 20 15.9** | **+1.7** |
| **SBZ** | **Shahbuz** | **2.67** | **58** | ⇓P | | **Pb** | **00 20 18.3** | **-0.8** |
| | SNR=15 | | | | | | | |
| SBZ | | | | ⇑S | | **Sg** | **00 20 56.2** | **-0.3** |
| **SBZ** | **Shahbuz** | **2.67** | **58** | P | | **Pb** | **00 20 18.3** | **-0.8** |
| | SNR=15 | | | | | | | |
| **MZRK** | **Al-Mazaregh** | **2.69** | **217** | *e*P | | **Pb** | **00 20 17.9** | **-1.5** |
| MZRK | | | | *e*S | | **Sb** | **00 20 51.6** | **-1.1** |
| MZRK | | | | AML | | AML | 00 21 13.3 | |
| | comp=Z,573nm,0.5s | | | | | | | |
| **PTK** | **Pertek** | **2.69** | **290** | *e*PN | | **Pb** | **00 20 17.0** | **-2.5** |
| **PTK** | **Pertek** | **2.69** | **290** | *e*Pn | | **Pb** | **00 20 17.0** | **-2.5** |
| **GNI** | **Garni** | **2.70** | **37** | Pn | | **Pb** | **00 20 19.1** | **-0.5** |
| | comp=Z,1.3nm,0.3s,baz=228,slow=17,SNR=18 | | | | | | | |
| **ERZN** | **Erzincan** | **2.77** | **306** | *e*PN | | **Pb** | **00 20 18.1** | **-2.7** |
| **EAK** | **Akyaka** | **2.78** | **15** | *i* P | | **Pg** | **00 20 25.0** | **+1.1** |
| **ORD** | **Ordubad** | **2.79** | **70** | P | | **Pb** | **00 20 19.9** | **-1.2** |
| | SNR=18 | | | | | | | |
| ORD | | | | S | | **Sb** | **00 20 55.7** | **0.0** |
| **DDEM** | **Demirkent** | **2.96** | **347** | *i* P | | **Pb** | **00 20 21.4** | **-2.6** |
| **DDEM** | **Demirkent** | **2.96** | **347** | P | | **Pb** | **00 20 21.4** | **-2.6** |
| **BAYT** | **Ayd¨–ntepe-Bay** | **3.07** | **322** | *e*PN | | **Pn** | **00 20 22.3** | **+2.2** |
| **BAYT** | **Ayd¨–ntepe-Bay** | **3.07** | **322** | *e*Pn | | **Pn** | **00 20 22.3** | **+2.2** |
| **URFA** | **Urfa** | **3.08** | **261** | *e*PN | | **Pn** | **00 20 21.8** | **+1.7** |
| **URFA** | **Urfa** | **3.08** | **261** | *e*Pn | | **Pn** | **00 20 21.8** | **+1.7** |
| **EZC** | **Erzincan** | **3.10** | **305** | *e*Pn | | **Pn** | **00 20 18.1** | **-2.3** |
| **MALT** | **Malatya** | **3.33** | **277** | *e*PN | | **Pb** | **00 20 26.5** | **-3.8** |
| **MALT** | **Malatya** | **3.33** | **277** | *e*Pn | | **Pb** | **00 20 26.5** | **-3.8** |
| **ILIC** | **ilic-Erzincan** | **3.49** | **296** | *e*PN | | **Pn** | **00 20 28.4** | **+2.6** |
| **ILIC** | **ilic-Erzincan** | **3.49** | **296** | *e*Pn | | **Pn** | **00 20 28.4** | **+2.6** |
| **KSRV** | **Kasrt alli** | **3.61** | **235** | *e*P | | **Pb** | **00 20 34.8** | **-0.2** |
| KSRV | | | | *e*S | | **Sb** | **00 21 21.6** | **+2.4** |
| KSRV | | | | AML | | AML | 00 21 30.6 | |
| | comp=Z,192nm,0.7s | | | | | | | |
| **GDB** | **GEDABAY** | **3.63** | **41** | ⇑P | | **Pb** | **00 20 33.4** | **-2.1** |
| | SNR=5.4 | | | | | | | |
| GDB | | | | ⇑S | | **Sb** | **00 21 21.4** | **+1.5** |
| **GDB** | **GEDABAY** | **3.63** | **41** | P | | **Pb** | **00 20 33.4** | **-2.1** |
| | SNR=5.4 | | | | | | | |
| **QZX** | **Qazax, Azerbai** | **3.71** | **34** | ⇓P | | **Pb** | **00 20 34.5** | **-2.2** |
| | SNR=2.8 | | | | | | | |
| QZX | | | | ⇓S | | **Sb** | **00 21 23.5** | **+1.4** |
| **QZX** | **Qazax, Azerbai** | **3.71** | **34** | P | | **Pb** | **00 20 34.5** | **-2.2** |
| | SNR=2.8 | | | | | | | |
| **GANJ** | **Ganja** | **3.89** | **46** | ⇑P | | **Pb** | **00 20 36.5** | **-3.3** |
| | SNR=11 | | | | | | | |
| GANJ | | | | ⇓S | | **Sb** | **00 21 27.1** | **-0.2** |
| **GANJ** | **Ganja** | **3.89** | **46** | P | | **Pb** | **00 20 36.5** | **-3.3** |
| | SNR=11 | | | | | | | |
| **SLMH** | **Al Salmeh** | **4.17** | **246** | *e*P | | **Pn** | **00 20 36.5** | **+1.5** |
| SLMH | | | | AML | | AML | 00 21 56.3 | |
| | comp=E,294nm,0.7s | | | | | | | |
| SLMH | | | | AML | | AML | 00 22 07.1 | |
| | comp=N,169nm,0.6s | | | | | | | |
| **BRDA** | **Brd** | **4.19** | **56** | ⇓P | | Pb | 00 20 39.8 | -5.1 |
| BRDA | | | | ⇓S | | **Sb** | **00 21 33.0** | **-2.9** |
| **BRDA** | **Brd** | **4.19** | **56** | P | | Pb | 00 20 39.8 | -5.1 |
| **MNGR** | **Mingechevir, A** | **4.42** | **50** | ⇑P | | Pb | 00 20 43.4 | -5.4 |
| MNGR | | | | ⇑S | | **Sb** | **00 21 39.4** | **-3.0** |
| **MNGR** | **Mingechevir, A** | **4.42** | **50** | P | | Pb | 00 20 43.4 | -5.4 |
| **LRK** | **Lerik** | **4.53** | **80** | ⇑P | | **Pn** | **00 20 42.2** | **+2.0** |
| | SNR=3.9 | | | | | | | |
| LRK | | | | ⇓S | | **Sn** | **00 21 37.3** | **+3.9** |
| **LRK** | **Lerik** | **4.53** | **80** | P | | **Pn** | **00 20 42.2** | **+2.0** |
| | SNR=3.9 | | | | | | | |
| LRK | | | | S | | **Sn** | **00 21 37.3** | **+3.9** |
| **ZRD** | **Zardab** | **4.54** | **58** | ⇑P | | Pn | 00 20 44.3 | +4.3 |
| ZRD | | | | ⇑S | | **Sb** | **00 21 41.1** | **-4.6** |
| **ZRD** | **Zardab** | **4.54** | **58** | P | | Pn | 00 20 44.3 | +4.3 |
| **GLBA** | **Clilabad** | **4.68** | **73** | ⇑P | | **Pn** | **00 20 44.9** | **+2.9** |
| | SNR=2.8 | | | | | | | |
| GLBA | | | | ⇑S | | **Sb** | **00 21 42.2** | **-7.6** |
| **GLBA** | **Clilabad** | **4.68** | **73** | P | | **Pn** | **00 20 44.9** | **+2.9** |
| | SNR=2.8 | | | | | | | |
| GLBA | | | | S | | **Sb** | **00 21 42.2** | **-7.6** |
| **ASTR** | **Astara** | **4.88** | **82** | ⇑P | | **Pn** | **00 20 46.7** | **+2.0** |
| | SNR=3.1 | | | | | | | |
| ASTR | | | | ⇓S | | **Sn** | **00 21 45.5** | **+3.9** |
| **ASTR** | **Astara** | **4.88** | **82** | P | | **Pn** | **00 20 46.7** | **+2.0** |
| | SNR=3.1 | | | | | | | |
| ASTR | | | | S | | **Sn** | **00 21 45.5** | **+3.9** |
| **LKRN** | **Lenkeran, Azer** | **4.88** | **80** | ⇓S | | **Sn** | **00 21 45.9** | **+4.2** |
| **LKRN** | **Lenkeran, Azer** | **4.88** | **80** | S | | **Sn** | **00 21 45.9** | **+4.2** |
| **DRWC** | **Darouich** | **4.95** | **256** | *e*P | | **Pn** | **00 20 48.1** | **+2.2** |
| DRWC | | | | *e*S | | **Sg** | **00 22 11.1** | **+1.4** |
| DRWC | | | | AML | | AML | 00 22 26.7 | |
| | comp=N,76nm,0.7s | | | | | | | |
| DRWC | | | | AML | | AML | 00 22 33.0 | |
| | comp=E,88nm,0.6s | | | | | | | |
| **RTB** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **45.75** | **258** | P | **P** | **00 28 51.6** | **+0.6** |
| | 0.6nm,0.3s,baz=92,slow=7.2,SNR=17 | | | | | | |
| WRA | | | | PcP | **PcP** | **00 30 21.4** | **-0.9** |
| | 0.4nm,0.5s,baz=89,slow=3.6,SNR=5.0 | | | | | | |
| **ASAR** | **Alice Springs** | **46.03** | **253** | P | **P** | **00 28 53.1** | **0.0** |
| | 3.2nm,0.5s,baz=87,slow=8.2,SNR=56 | | | | | | |
| ASAR | | | | PcP | **PcP** | **00 30 22.1** | **-1.1** |
| | 0.5nm,0.6s,baz=94,slow=4.7,SNR=4.1 | | | | | | |
| **PETK** | **Petropavlovsk-** | **72.36** | **345** | P | **P** | **00 31 52.1** | **+0.9** |
| | 2.5nm,0.8s,baz=145,slow=5.3,SNR=2.6 | | | | | | |
| **NVAR** | **Mina Array Bea** | **77.71** | **44** | P | **P** | **00 32 22.1** | **-0.1** |
| | 0.9nm,0.7s,baz=224,slow=8.9,SNR=10 | | | | | | |
| **ILAR** | **Eielson Array** | **84.16** | **13** | P | **P** | **00 32 54.1** | **-1.0** |
| | 1.6nm,0.5s,baz=224,slow=5.2,SNR=42 | | | | | | |
| **TXAR** | **Lajitas Array** | **84.45** | **57** | P | **P** | **00 32 57.9** | **+0.4** |
| | 1.4nm,0.8s,baz=220,slow=6.0,SNR=16 | | | | | | |
| **PDAR** | **Pinedale Array** | **85.64** | **43** | P | **P** | **00 33 02.5** | **-0.7** |
| | 0.3nm,0.5s,baz=222,slow=3.6,SNR=3.3 | | | | | | |
| **YKA** | **Yellowknife Ar** | **92.55** | **24** | P | **P** | **00 33 33.8** | **-1.0** |
| | 0.5nm,0.6s,baz=242,slow=4.4,SNR=19 | | | | | | |
| **MKAR** | **Makanchi Array** | **108.61** | **314** | PKiKP | **PKiKP** | **00 38 48.2** | **-2.4** |
| | 0.2nm,0.4s,baz=82,slow=1.4,SNR=8.2 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **111.24** | **318** | PKiKP | **PKiKP** | **00 38 53.5** | **-1.9** |
| | 0.3nm,0.3s,baz=74,slow=1.6,SNR=5.4 | | | | | | |
| **BVAR** | **Borovoye Array** | **116.12** | **321** | PKP | **PKPdf** | **00 39 03.1** | **-1.6** |
| | 0.7nm,0.6s,baz=117,slow=0.8,SNR=6.4 | | | | | | |
| **ARCES** | **ARCESS Array B** | **124.89** | **350** | PKP | **PKPdf** | **00 39 19.8** | **-1.3** |
| | 4.2nm,1.0s,baz=63,slow=0.6,SNR=15 | | | | | | |
| **FINES** | **FINESS Array B** | **131.88** | **345** | PKP | **PKPdf** | **00 39 34.1** | **-0.5** |
| | 4.6nm,1.0s,baz=202,slow=2.1,SNR=4.0 | | | | | | |
| **NOA** | **NORSAR Array B** | **134.89** | **354** | PKP | **PKPdf** | **00 39 39.5** | **-0.8** |
| | 0.6nm,0.7s,baz=105,slow=17,SNR=2.8 | | | | | | |
| **UPC** | **Upice** | **144.18** | **345** | *e*P | **PKPab** | **00 39 56.0** | **-0.3** |
| **BRTR** | **Keskin Array B** | **144.21** | **317** | PKP | **PKPab** | **00 39 57.0** | **0.0** |
| | 1.8nm,0.5s,baz=86,slow=2.3,SNR=18 | | | | | | |
| **OKC** | **Ostrava-Krasne** | **144.22** | **343** | *e*P | **PKPab** | **00 39 56.0** | **-0.4** |
| **DPC** | **Dobruska-Polom** | **144.25** | **345** | *e*P | **PKPab** | **00 39 56.6** | **0.0** |
| **PRU** | **Pruhonice** | **145.01** | **346** | *e*P | **PKPdf** | **00 39 58.5** | **-0.4** |
| **GOPC** | **GO Pecny, Ondr** | **145.02** | **346** | *e*P | **PKPdf** | **00 39 58.9** | **0.0** |
| **MMAI** | **Mount Meron Ar** | **145.93** | **305** | PKPbc | **PKPdf** | **00 40 02.6** | **+1.6** |
| | 3.6nm,0.4s,baz=78,slow=6.0,SNR=17 | | | | | | |
| **KHC** | **Kasperske Hory** | **146.03** | **347** | *e*P | **PKPdf** | **00 40 01.1** | **+0.4** |
| **GERES** | **GERESS Array B** | **146.27** | **347** | PKPbc | **PKPdf** | **00 40 02.4** | **+1.2** |
| | 0.8nm,0.5s,baz=4.2,slow=4.0,SNR=5.5 | | | | | | |
| **CONA** | **Conrad Observa** | **146.59** | **344** | *e*PKPab | **PKPdf** | **00 40 03.8** | **+2.0** |
| | 0.9nm,0.4s | | | | | | |
| **MOA** | **Molln** | **147.08** | **345** | *i* PKiKP | **PKPdf** | **00 40 05.4** | **+3.0** |
| | 0.2nm,0.2s | | | | | | |
| **ARSA** | **Arzberg** | **147.30** | **343** | *e*PKiKP | **PKPdf** | **00 40 05.4** | **+2.5** |
| | 0.5nm,0.3s | | | | | | |
| **KBA** | **Koelnbreinsper** | **148.02** | **346** | *i* PKPbc | **PKPdf** | **00 40 06.8** | **+2.5** |
| | 1.1nm,0.4s | | | | | | |
| **WATA** | **Walderalm** | **148.16** | **348** | *i* PKPbc | **PKPdf** | **00 40 06.6** | **+2.2** |
| | 0.7nm,0.3s | | | | | | |
| **MOTA** | **Moosalm** | **148.24** | **349** | *i* PKPbc | **PKPdf** | **00 40 07.3** | **+2.7** |
| | 0.5nm,0.3s | | | | | | |
| **ABTA** | **Abfaltersbach** | **148.52** | **347** | *i* PKPbc | **PKPdf** | **00 40 07.7** | **+2.7** |
| | 2.5nm,0.5s | | | | | | |
| **DAVOX** | **Davos/Dischmat** | **149.00** | **350** | PKPbc | **PKPdf** | **00 40 09.9** | **+4.0** |
| | 4.7nm,0.5s,baz=342,slow=3.2,SNR=17 | | | | | | |
| **IDI** | **Anoyia** | **152.45** | **318** | PKPbc | **PKPbc** | **00 40 18.7** | **+0.1** |
| | 5.2nm,1.0s,baz=342,slow=6.2,SNR=5.4 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **176.77** | **167** | PKP | **PKPdf** | **00 40 30.2** | **-2.4** |
| | 0.4nm,0.8s,baz=270,slow=2.0,SNR=2.6 | | | | | | |
| TORD | | | | PKPab | **PKPab** | **00 42 15.1** | **-1.9** |
| | 0.6nm,1.0s,baz=172,slow=2.9,SNR=2.8 | | | | | | |

*CSEM **30** 00:22:01.7±0.2,44°.18N×17°.91E,h2km,ML2.4,Error ellipse: s-maj=4.6km s-min=3.2km az=57.0*
*BEO **30** 00:22:02.8±0.4,44°.13N×17°.88E,h4km±2km,M2.5/7*
**ISC 30 00:22:02.0±1.1,44°.17N±0°.02×17°.90E±0°.02,h2km±10km, n50,σ1°09/77,8C-3D,Northwestern Balkan Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DOB** | **Doboj** | **0.59** | **14** | *e*Pg | **Pg** | **00 22 11.9** | **-1.4** |
| DOB | | | | *e*Sg | **Sg** | **00 22 20.1** | **-0.8** |
| **HAPS** | **Han Pijesak,BI** | **0.76** | **96** | *e*Pg | **Pg** | **00 22 15.8** | **-0.9** |
| HAPS | | | | *e*Sg | **Sg** | **00 22 27.3** | **+0.7** |
| **HAPS** | **Han Pijesak,BI** | **0.76** | **96** | ⇑*i*Pg | **Pg** | **00 22 15.3** | **-1.4** |
| HAPS | | | | *e*Sg | **Sg** | **00 22 26.5** | **-0.1** |
| **BLY** | **Banja Luka** | **0.78** | **319** | *e*Pg | **Pg** | **00 22 16.9** | **0.0** |
| BLY | | | | *e*Sg | **Sb** | **00 22 29.9** | **+0.7** |
| **BLY** | **Banja Luka** | **0.78** | **319** | *e*Pg | **Pg** | **00 22 16.1** | **-0.8** |
| BLY | | | | *e*Sg | **Sg** | **00 22 26.5** | **-0.4** |
| **BBLS** | **Lazić** | **1.13** | **105** | *e*Pg | **Pg** | **00 22 23.3** | **-0.4** |
| **BBLS** | **Lazić** | **1.13** | **105** | ⇑*i*Pg | **Pg** | **00 22 22.9** | **-0.8** |
| BBLS | | | | *e*Sg | **Sg** | **00 22 38.4** | **+0.1** |
| **UPM** | **Unac-Piva** | **1.21** | **142** | *e*Pg | **Pg** | **00 22 24.0** | **-1.2** |
| UPM | | | | *e*Sg | **Sb** | **00 22 41.3** | **-0.5** |
| **TEKS** | **Tekeris** | **1.23** | **71** | *e*Pg | **Pg** | **00 22 25.9** | **+0.3** |
| TEKS | | | | *e*Sg | **Sn** | **00 22 43.7** | **+0.2** |
| **TEKS** | **Tekeris** | **1.23** | **71** | *e*Pg | **Pg** | **00 22 23.8** | **-1.8** |
| TEKS | | | | *e*Sg | **Sg** | **00 22 41.2** | **-0.4** |
| **STN** | **Ston** | **1.30** | **186** | *e*Pn | **Pg** | **00 22 26.5** | **-0.4** |
| STON | | | | Sn | **Sg** | **00 22 43.6** | **-0.2** |
| **BRY** | **Bratogost** | **1.35** | **159** | ⇓*i*Pg | **Pg** | **00 22 26.7** | **-1.1** |
| BRY | | | | *e*Sg | **Sb** | **00 22 45.9** | **+0.2** |
| **TREB** | **Trebinje** | **1.48** | **167** | *e*Pn | **Pn** | **00 22 29.7** | **0.0** |
| TREB | | | | *e*Sn | **Sg** | **00 22 50.4** | **+0.7** |
| **TREB** | **Trebinje** | **1.48** | **167** | *e*Pn | **Pn** | **00 22 29.7** | **0.0** |
| TREB | | | | *e*Sg | **Sg** | **00 22 50.6** | **+0.9** |
| **DIVS** | **Divibare** | **1.51** | **92** | *e*Pg | **Pn** | **00 22 30.0** | **-0.1** |
| DIVS | | | | *e*Sg | **Sg** | **00 22 51.2** | **+0.7** |
| **DIVS** | **Divibare** | **1.51** | **92** | *e*Pg | **Pn** | **00 22 29.2** | **-0.9** |
| DIVS | | | | *e*Sg | **Sg** | **00 22 50.7** | **+0.2** |
| **UDBI** | **Udbina** | **1.57** | **284** | *e*Pn | **Pn** | **00 22 30.6** | **-0.3** |
| UDBI | | | | Sn | **Sg** | **00 22 55.8** | **+3.3** |
| **FGSL** | **Fruska Gora** | **1.69** | **53** | *e*Pn | **Pn** | **00 22 32.5** | **0.0** |
| FGSL | | | | *e*Sn | **Sg** | **00 22 56.5** | **+0.2** |
| **FRGS** | **Fruska Gora** | **1.69** | **53** | *e*Pn | **Pn** | **00 22 32.5** | **0.0** |
| FRGS | | | | *e*Sn | **Sg** | **00 22 56.5** | **+0.2** |
| **IVAS** | **Ivanjica** | **1.73** | **109** | *e*Pn | **Pn** | **00 22 32.8** | **-0.4** |
| IVAS | | | | *e*Sn | **Sn** | **00 22 56.0** | **+0.1** |
| **IVAS** | **Ivanjica** | **1.73** | **109** | *e*Pn | **Pn** | **00 22 32.8** | **-0.4** |
| IVAS | | | | *e*Sn | **Sn** | **00 22 56.0** | **+0.1** |
| **SJES** | **Sjenica** | **1.76** | **120** | *e*Pn | **Pn** | **00 22 34.1** | **+0.6** |
| SJES | | | | *e*Sn | **Sn** | **00 22 57.0** | **+0.5** |
| **HCY** | **Herceg Novi** | **1.77** | **166** | *e*Pn | **Pn** | **00 22 34.0** | **+0.4** |
| HCY | | | | *e*Sn | **Sb** | **00 22 57.4** | **-0.4** |
| **PDG** | **Podgorica** | **2.00** | **150** | *e*Pg | **Pb** | **00 22 38.4** | **-0.6** |
| **PDG** | **Podgorica** | **2.00** | **150** | ⇑*i*P | **Pb** | **00 22 38.2** | **-0.8** |
| **PDG** | **Podgorica** | **2.00** | **150** | S | **Sg** | **00 23 09.0** | **+2.8** |
| **PDG** | **Podgorica** | **2.00** | **150** | *e*Pn | **Pn** | **00 22 37.1** | **+0.4** |
| **PDG** | **Podgorica** | **2.00** | **150** | *e*Pg | **Pb** | **00 22 38.4** | **-0.6** |
| PDG | | | | *e*Sn | **Sn** | **00 23 02.7** | **+0.4** |
| **GRUS** | **Gruza** | **2.05** | **97** | *e*Pg | **Pb** | **00 22 40.5** | **+0.5** |
| **GRUS** | **Gruza** | **2.05** | **97** | *e*Pg | **Pb** | **00 22 40.5** | **+0.5** |
| **DRME** | **Dracevica, Mon** | **2.19** | **154** | *e*Pn | **Pn** | **00 22 40.5** | **+1.1** |
| DRME | | | | *e*Sn | **Sn** | **00 23 08.0** | **+1.0** |
| **CRES** | **Cresnjev** | **2.40** | **315** | *e*Pn | **Pn** | **00 22 42.2** | **-0.1** |
| CRES | | | | *e*Sn | **Sn** | **00 23 11.6** | **-0.6** |
| **BEHE** | **Becsehely** | **2.44** | **341** | *e*Pn | **Pn** | **00 22 42.8** | **0.0** |
| BEHE | | | | *e*Sn | **Sn** | **00 23 12.3** | **-0.8** |
| **BANR** | **Banloc** | **2.61** | **61** | ⇑*i*P | **Pg** | **00 22 54.4** | **+2.4** |
| **MDVR** | **Moldovita** | **2.80** | **76** | S | **Sg** | **00 23 35.3** | **+3.3** |
| **CEY** | **Cerknica** | **2.92** | **304** | *e*Pn | **Pn** | **00 22 48.9** | **-0.6** |
| **BZS** | **Buzias** | **3.02** | **60** | *e*Pn | **Pn** | **00 22 52.4** | **+1.6** |
| **BZS** | **Buzias** | **3.02** | **60** | ⇑*i*P | **Pb** | **00 22 57.6** | **+1.2** |
| **BZS** | **Buzias** | **3.02** | **60** | *e*Pn | **Pn** | **00 22 52.4** | **+1.6** |
| **ZAGS** | **Zajecar** | **3.15** | **95** | *e*Pn | **Pn** | **00 22 53.1** | **+0.5** |
| **ZAGS** | **Zajecar** | **3.15** | **95** | *e*Pn | **Pn** | **00 22 53.1** | **+0.5** |
| **BARS** | **Barje** | **3.15** | **114** | *e*Pn | **Pn** | **00 22 52.5** | **-0.2** |
| **BARS** | **Barje** | **3.15** | **114** | *e*Pn | **Pn** | **00 22 52.5** | **-0.2** |
| **TIR** | **Tirane** | **3.17** | **152** | ⇓*i*P | **Pg** | **00 23 01.6** | **-1.1** |
| **HERR** | **Herculane** | **3.31** | **76** | ⇑*i*P | **Pg** | **00 23 04.7** | **-0.8** |
| **VTS** | **Vitosha** | **4.18** | **110** | ⇓*i*P | **Pg** | **00 23 19.5** | **-2.6** |
| **DRGR** | | **4.29** | **51** | ⇑*i*P | **Pb** | **00 23 18.5** | **+0.4** |
| **VYHS** | **Vyhne** | **4.38** | **8** | *e*PN | **Pn** | **00 23 08.8** | **-0.7** |
| VYHS | | | | *e*SN | **Sn** | **00 23 58.1** | **-2.9** |
| **ARR** | **Arges** | **4.95** | **74** | ⇑*i*P | **Pn** | **00 23 16.9** | **-0.4** |
| **KHC** | **Kasperske Hory** | **5.79** | **331** | *e*P | **Pn** | **00 23 29.5** | **+0.6** |

*ISN **30** 00:35:37.4±0.9,39°.20N×43°.90E,h0km±47km,ML4.2*
*IDC **30** 00:35:45.9±0.7,38°.60N×43°.61E,h0km,mb3.9/17, mb1 3.9/26,mb1mx3.8/50,mbtmp3.7/26,ML2.9/9,MS3.0/7, Ms1 3.0/7,ms1mx2.7/38,Error ellipse: s-maj=11.8km s-min=8.9km az=145.0*
*MOS **30** 00:35:46.0±1.2,38°.56N×43°.69E,h9km,mb4.3/21,Error ellipse: s-maj=6.2km s-min=5.4km az=98.9*

*AZER **30** 00:35:46.8±0.4,38°.46N×43°.79E,h3km±9km,Error ellipse: s-maj=10.4km s-min=2.6km az=59.0*
*DDA **30** 00:35:46.8,38°.73N×43°.65E,h19km,Ml4.2*
*ISK **30** 00:35:47.7,38°.73N×43°.59E,h5km,ML3.8*
*NEIC **30** 00:35:47.7±0.0,38°.72N×43°.60E,h5km,mb4.3/26, ML4.0(ISK),After ISK.*
*NEIC Felt at Yerevan, Armenia.*
*CSEM **30** 00:35:47.1±0.1,38°.55N×43°.76E,h2km,mb4.5/17,Error ellipse: s-maj=3.2km s-min=2.2km az=163.0*
**ISC 30 00:35:47.8±0.6,38°.68N±0°.01×43°.66E±0°.02,h9km±3km, n372,σ1°80/472,mb4.3/36,MS3.1/3,55C-49D,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.23** | **249** | *e*PG | **Pb** | **00 35 53.7** | **+1.3** |
| **VANB** | **Van** | **0.23** | **249** | *e*Pg | **Pb** | **00 35 53.7** | **+1.3** |
| **TVAN** | **Van** | **0.25** | **233** | ⇓*i*P | **Pg** | **00 35 53.1** | **+0.2** |
| TVAN | | | | *i* S | **Sg** | **00 35 58.5** | **+2.3** |
| **TVAN** | **Van** | **0.25** | **233** | *i* P | **Pg** | **00 35 53.1** | **+0.2** |
| TVAN | | | | S | **Sg** | **00 35 58.5** | **+2.3** |
| **TVAN** | **Van** | **0.25** | **233** | *i* P | **Pg** | **00 35 53.0** | **+0.2** |
| TVAN | | | | *i* S | **Sg** | **00 35 58.5** | **+2.3** |
| **VMUR** | **Van-Muradiye** | **0.32** | **348** | ⇓*i*P | **Pg** | **00 35 52.6** | **-1.6** |
| VMUR | | | | *i* S | **Sg** | **00 35 58.1** | **-0.4** |
| **VMUR** | **Van-Muradiye** | **0.32** | **348** | *i* P | **Pg** | **00 35 52.6** | **-1.6** |
| VMUR | | | | *i* S | **Sg** | **00 35 58.1** | **-0.4** |
| **ERCV** | **ERCIS-VAN** | **0.42** | **324** | *e*PG | **Pg** | **00 35 55.0** | **-1.1** |
| **CLDR** | **Caldiran** | **0.51** | **23** | ⇓*i*P | **Pg** | **00 35 56.4** | **-1.3** |
| CLDR | | | | *i* S | **Sg** | **00 36 04.5** | **+0.1** |
| **CLDR** | **Caldiran** | **0.51** | **23** | P | **Pg** | **00 35 56.4** | **-1.3** |
| CLDR | | | | S | **Sg** | **00 36 04.5** | **+0.1** |
| **GEVA** | **Gevas** | **0.60** | **232** | ⇓*i*P | **Pg** | **00 35 58.5** | **-0.8** |
| GEVA | | | | *i* S | **Sb** | **00 36 09.1** | **0.0** |
| **GEVA** | **Gevas** | **0.60** | **232** | P | **Pg** | **00 35 58.5** | **-0.8** |
| GEVA | | | | S | **Sb** | **00 36 09.1** | **0.0** |
| **GEVA** | **Gevas** | **0.60** | **232** | *i* P | **Pg** | **00 35 58.5** | **-0.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.74** | **280** | ⇑*i*P | **Pg** | **00 36 00.6** | **-1.5** |
| ADCV | | | | *i* S | **Sg** | **00 36 12.2** | **+0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.74** | **280** | P | **Pg** | **00 36 00.6** | **-1.5** |
| ADCV | | | | S | **Sg** | **00 36 12.2** | **+0.4** |
| **DYDN** | **Diyadin** | **0.87** | **2** | ⇓*i*P | **Pg** | **00 36 02.1** | **-2.4** |
| DYDN | | | | *i* S | **Sg** | **00 36 15.1** | **-0.7** |
| **TUTA** | **Tutak** | **0.98** | **318** | ⇓*i*P | **Pg** | **00 36 03.7** | **-3.0** |
| TUTA | | | | *i* S | **Sg** | **00 36 17.1** | **-2.3** |
| **AGRB** | **Hanur-Agry** | **1.04** | **330** | *e*PG | **Pg** | **00 36 06.5** | **-1.3** |
| **HAKT** | **HAKKARI** | **1.12** | **178** | ⇓*i*P | **Pg** | **00 36 08.5** | **-0.8** |
| HAKT | | | | *i* S | **Sn** | **00 36 26.9** | **+1.3** |
| **HAKT** | **HAKKARI** | **1.12** | **178** | P | **Pg** | **00 36 08.5** | **-0.8** |
| **YOVA** | **Hakkari_Y`...kse** | **1.20** | **155** | ⇓*i*P | **Pb** | **00 36 10.4** | **-0.4** |
| YOVA | | | | *i* S | **Sn** | **00 36 31.5** | **+4.0** |
| **EKAR** | **Karacoban** | **1.37** | **295** | ⇓*i*P | **Pn** | **00 36 11.7** | **-1.7** |
| EKAR | | | | *i* S | **Sg** | **00 36 35.7** | **+3.8** |
| **EKAR** | **Karacoban** | **1.37** | **295** | P | **Pn** | **00 36 11.7** | **-1.7** |
| EKAR | | | | S | **Sg** | **00 36 35.7** | **+3.8** |
| **TASB** | **TASBURUN-IGDIR** | **1.38** | **19** | *e*PN | **Pg** | **00 36 14.5** | **+0.2** |
| TASB | | | | *e*SN | **Sg** | **00 36 34.3** | **+2.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.38** | **19** | *e*Pn | **Pg** | **00 36 14.5** | **+0.2** |
| TASB | | | | *e*Sn | **Sg** | **00 36 34.3** | **+2.1** |
| **HYR** | **Heyderabad** SNR=209 | **1.39** | **41** | ⇑P | **Pg** | **00 36 14.8** | **+0.2** |
| HYR | | | | ⇑S | **Sg** | **00 36 35.9** | **+3.2** |
| **HYR** | **Heyderabad** SNR=209 | **1.39** | **41** | P | **Pg** | **00 36 14.8** | **+0.2** |
| HYR | | | | S | **Sg** | **00 36 35.9** | **+3.2** |
| **CUKT** | **Cukurca** | **1.43** | **182** | *e*PN | **Pg** | **00 36 16.8** | **+1.6** |
| **CUKT** | **Cukurca** | **1.43** | **182** | ⇓*i*P | **Pn** | **00 36 14.2** | **+0.1** |
| CUKT | | | | *i* S | **Sg** | **00 36 37.9** | **+4.2** |
| **CUKT** | **Cukurca** | **1.43** | **182** | P | **Pn** | **00 36 14.2** | **+0.1** |
| **EATA** | **Eleskirt** | **1.49** | **323** | ⇓*i*P | **Pn** | **00 36 12.9** | **-2.2** |
| EATA | | | | *i* S | **Sn** | **00 36 35.0** | **+0.1** |
| **NAX** | **Nakhchivan** SNR=111 | **1.52** | **70** | ⇓P | **Pn** | **00 36 14.8** | **-0.4** |
| NAX | | | | ⇓S | **Sb** | **00 36 35.9** | **+0.3** |
| **NAX** | **Nakhchivan** | **1.52** | **70** | P | **Pn** | **00 36 14.8** | **-0.4** |
| **NAX** | **Nakhchivan** SNR=111 | **1.52** | **70** | P | **Pn** | **00 36 14.8** | **-0.4** |
| NAX | | | | S | **Sb** | **00 36 35.9** | **+0.3** |
| **SIRT** | **Sirnak** | **1.52** | **220** | *e*PN | **Pg** | **00 36 17.2** | **+0.3** |
| SIRT | | | | *e*SN | **Sg** | **00 36 38.5** | **+1.9** |
| **SRTM** | **Siirt_Merkez** | **1.53** | **244** | ⇑*i*P | **Pn** | **00 36 15.7** | **+0.3** |
| SRTM | | | | *i* S | **Sg** | **00 36 36.6** | **-0.3** |
| **SRTM** | **Siirt_Merkez** | **1.53** | **244** | P | **Pn** | **00 36 15.7** | **+0.3** |
| SRTM | | | | S | **Sg** | **00 36 36.6** | **-0.3** |
| **SIRN** | **S¨¬rnak** | **1.54** | **220** | ⇑*i*P | **Pb** | **00 36 16.6** | **+0.1** |
| SIRN | | | | *i* S | **Sg** | **00 36 40.0** | **+2.8** |
| **SIRN** | **S¨¬rnak** | **1.54** | **220** | P | **Pb** | **00 36 16.6** | **+0.1** |
| **SBZ** | **Shahbuz** SNR=673 | **1.64** | **63** | ⇑P | **Pn** | **00 36 16.9** | **-0.1** |
| SBZ | | | | ⇓S | **Sb** | **00 36 39.7** | **+0.5** |
| **SBZ** | **Shahbuz** SNR=673 | **1.64** | **63** | P | **Pn** | **00 36 16.9** | **-0.1** |
| SBZ | | | | S | **Sb** | **00 36 39.7** | **+0.5** |
| **GNI** | **Garni** 49nm,0.3s,baz=278,slow=3.0,SNR=132 | **1.69** | **29** | Pn | **Pn** | **00 36 18.4** | **+0.6** |
| GNI | | | | Sn | **Sg** | **00 36 45.9** | **+3.6** |
| | 85nm,0.3s,baz=143,slow=20,SNR=8.4 | | | | | | |
| GNI | | | | LR | LR | 00 37 02.9 | |
| | comp=Z,348nm,20.6s,baz=218,slow=43 | | | | | | |
| **GNI** | **Garni** | **1.69** | **29** | *d*iP | **Pn** | **00 36 18.1** | **+0.3** |
| GNI | | | | pmax | pmax | | |
| | comp=Z,1μm,1.0s | | | | | | |
| **DIGO** | **Kars** | **1.75** | **353** | ⇓*i*P | **Pn** | **00 36 18.4** | **-0.2** |
| DIGO | | | | *i* S | **Sn** | **00 36 37.5** | **-3.7** |
| **DIGO** | **Kars** | **1.75** | **353** | P | **Pn** | **00 36 18.4** | **-0.2** |
| **ORD** | **Ordubad** SNR=332 | **1.84** | **81** | P | **Pn** | **00 36 18.6** | **-1.1** |
| ORD | | | | S | **Sn** | **00 36 42.6** | **-0.6** |
| **HOMI** | **Horasan** | **1.93** | **316** | ⇓*i*P | **Pn** | **00 36 20.9** | **-0.1** |
| HOMI | | | | *i* S | **Sb** | **00 36 47.5** | **-0.1** |
| **BNGL** | **BINGOL** | **1.98** | **279** | ⇑*i*P | **Pn** | **00 36 21.3** | **-0.4** |
| BNGL | | | | *i* S | **Sg** | **00 36 51.2** | **-0.2** |
| **KARS** | **Kars** | **2.00** | **347** | *e*PN | **Pn** | **00 36 22.4** | **+0.5** |
| **EAK** | **Akyaka** | **2.01** | **359** | *i* P | **Pb** | **00 36 23.6** | **-1.0** |
| EAK | | | | *i* S | **Sg** | **00 36 57.6** | **+5.3** |
| **EAK** | **Akyaka** | **2.01** | **359** | P | **Pb** | **00 36 23.6** | **-1.0** |
| EAK | | | | S | **Sg** | **00 36 57.6** | **+5.3** |
| **BTMN** | **Batman** | **2.04** | **248** | *i* P | **Pn** | **00 36 22.4** | **0.0** |
| BTMN | | | | *i* S | **Sb** | **00 36 50.3** | **-0.2** |
| **BTMN** | **Batman** | **2.04** | **248** | P | **Pn** | **00 36 22.4** | **0.0** |
| BTMN | | | | S | **Sb** | **00 36 50.3** | **-0.2** |
| **SENK** | **Senkaya-Erzuru** | **2.14** | **332** | *e*PN | **Pn** | **00 36 24.8** | **+0.9** |
| **SENK** | **Senkaya-Erzuru** | **2.14** | **332** | *e*Pn | **Pn** | **00 36 24.8** | **+0.9** |
| **ERZM** | **Erzurum** | **2.16** | **305** | *i* P | **Pn** | **00 36 23.8** | **-0.5** |
| ERZM | | | | *i* S | **Sb** | **00 36 54.8** | **+0.5** |
| **ERZM** | **Erzurum** | **2.16** | **305** | P | **Pn** | **00 36 23.8** | **-0.5** |
| ERZM | | | | S | **Sb** | **00 36 54.8** | **+0.5** |
| **ECAT** | **Cat-ERZURUM** | **2.28** | **295** | *i* P | **Pn** | **00 36 27.4** | **+1.5** |
| ECAT | | | | *i* S | **Sb** | **00 36 58.7** | **+0.9** |
| **ECAT** | **Cat-ERZURUM** | **2.28** | **295** | P | **Pn** | **00 36 27.4** | **+1.5** |
| ECAT | | | | S | **Sb** | **00 36 58.7** | **+0.9** |
| **MSL** | **Mosul** SNR=3.0 | **2.31** | **191** | *e*Pn | **Pn** | **00 36 25.0** | **-1.1** |
| **BNGB** | **Bing¶ll** | **2.35** | **279** | *e*PN | **Pn** | **00 36 28.3** | **+1.6** |
| **BINT** | **Bingol** | **2.48** | **276** | P | **Pn** | **00 36 28.3** | **-0.3** |
| **BINT** | **Bingol** | **2.48** | **276** | *e*Pn | **Pn** | **00 36 28.3** | **-0.3** |
| **YEDI** | **Yedisu-Bingol** | **2.54** | **288** | *e*PN | **Pn** | **00 36 31.3** | **+1.9** |
| **YEDI** | **Yedisu-Bingol** | **2.54** | **288** | *e*Pn | **Pn** | **00 36 31.3** | **+1.9** |
| **GDB** | **GEDABAY** SNR=10 | **2.60** | **38** | ⇓P | **Pn** | **00 36 31.7** | **+1.4** |
| GDB | | | | ⇑S | **Sb** | **00 37 06.2** | **-0.8** |
| **GDB** | **GEDABAY** SNR=10 | **2.60** | **38** | P | **Pn** | **00 36 31.7** | **+1.4** |
| GDB | | | | S | **Sb** | **00 37 06.2** | **-0.8** |
| **MARD** | **Mardin** | **2.65** | **240** | *e*Pn | **Pn** | **00 36 31.0** | **+0.1** |
| **MARD** | **Mardin** | **2.65** | **240** | *e*Pn | **Pn** | **00 36 31.0** | **+0.1** |
| **DDEM** | **Demirkent** | **2.66** | **327** | *e*P | **Pn** | **00 36 32.3** | **+1.3** |
| DDEM | | | | *i* S | **Sb** | **00 37 09.6** | **+1.2** |
| **DDEM** | **Demirkent** | **2.66** | **327** | P | **Pn** | **00 36 32.3** | **+1.3** |
| DDEM | | | | S | **Sb** | **00 37 09.6** | **+1.2** |
| **QZX** | **Qazax, Azerbai** SNR=52 | **2.72** | **28** | ⇓P | **Pn** | **00 36 33.4** | **+1.7** |
| QZX | | | | ⇑S | **Sb** | **00 37 09.3** | **-0.8** |
| **QZX** | **Qazax, Azerbai** SNR=52 | **2.72** | **28** | P | **Pn** | **00 36 33.4** | **+1.7** |
| QZX | | | | S | **Sb** | **00 37 09.3** | **-0.8** |
| **AKH** | **Akhalkalaki** | **2.73** | **357** | *e*PN | **Pn** | **00 36 33.9** | **+1.8** |
| **AKH** | **Akhalkalaki** | **2.73** | **357** | *e*Pn | **Pn** | **00 36 33.9** | **+1.8** |
| **DAGI** | **Agillar** | **2.75** | **331** | *i* P | **Pn** | **00 36 32.7** | **+0.4** |
| DAGI | | | | *i* S | **Sg** | **00 37 13.8** | **-2.2** |
| **KOPT** | **Kop Dagi** | **2.79** | **300** | *i* P | **Pb** | **00 36 37.2** | **-0.8** |
| KOPT | | | | *i* S | **Sg** | **00 37 18.6** | **+1.0** |
| **KOPT** | **Kop Dagi** | **2.79** | **300** | *e*Pn | **Pb** | **00 36 37.0** | **-1.1** |
| **KOPT** | **Kop Dagi** | **2.79** | **300** | *e*Pn | **Pb** | **00 36 37.0** | **-1.1** |
| **DIY** | **Diyarbakir** | **2.81** | **255** | *e*Pn | **Pb** | **00 36 35.9** | **-2.4** |
| **MAZI** | **Mazidag** | **2.81** | **245** | *e*PN | **Pb** | **00 36 35.9** | **-2.4** |
| **ARTV** | **Artvin** | **2.84** | **333** | *i* P | **Pb** | **00 36 38.2** | **-0.6** |
| ARTV | | | | *i* S | **Sb** | **00 37 15.5** | **+1.8** |
| **ARTV** | **Artvin** | **2.84** | **333** | *e*Pn | **Pb** | **00 36 37.1** | **-1.7** |
| **ARTV** | **Artvin** | **2.84** | **333** | P | **Pb** | **00 36 38.2** | **-0.6** |
| ARTV | | | | S | **Sb** | **00 37 15.5** | **+1.8** |
| **ARTV** | **Artvin** | **2.84** | **333** | *e*Pn | **Pb** | **00 36 37.1** | **-1.7** |
| **GANJ** | **Ganja** SNR=20 | **2.84** | **45** | ⇑P | **Pn** | **00 36 34.5** | **+1.0** |
| GANJ | | | | ⇑S | **Sb** | **00 37 11.3** | **-2.5** |
| **GANJ** | **Ganja** | **2.84** | **45** | P | **Pn** | **00 36 34.5** | **+1.0** |
| **GANJ** | **Ganja** SNR=20 | **2.84** | **45** | P | **Pn** | **00 36 34.5** | **+1.0** |
| GANJ | | | | S | **Sb** | **00 37 11.3** | **-2.5** |
| **DYBB** | **Diyarbakir** | **2.86** | **256** | *e*PN | **Pn** | **00 36 35.9** | **+2.2** |
| **EPOS** | **Posof** | **2.91** | **346** | *i* P | **Pb** | **00 36 40.0** | **0.0** |
| EPOS | | | | *i* S | **Sg** | **00 37 25.0** | **+3.7** |
| **EPOS** | **Posof** | **2.91** | **346** | P | **Pb** | **00 36 40.0** | **0.0** |
| **KBSD** | **Kabsdagh** | **2.98** | **237** | *e*P | **Pn** | **00 36 35.6** | **+0.3** |
| KBSD | | | | *e*S | **Sn** | **00 37 12.2** | **+1.0** |
| KBSD | | | | AML | AML | 00 37 36.8 | |
| | comp=Z,203nm,0.6s | | | | | | |
| **BRDA** | **Brd** SNR=3.2 | **3.15** | **59** | ⇑P | **Pn** | **00 36 37.8** | **+0.2** |
| BRDA | | | | ⇑S | **Sn** | **00 37 17.2** | **+1.8** |
| **BRDA** | **Brd** SNR=3.2 | **3.15** | **59** | P | **Pn** | **00 36 37.8** | **+0.2** |
| BRDA | | | | S | **Sn** | **00 37 17.2** | **+1.8** |
| **TBLG** | **Delisi** | **3.16** | **15** | *e*PN | **Pn** | **00 36 39.8** | **+2.0** |
| **TBLG** | **Delisi** | **3.16** | **15** | *e*Pn | **Pn** | **00 36 39.8** | **+2.0** |
| **TBLG** | **Delisi** | **3.16** | **15**

**ATGJ Altiaghaj 4.62 60** P **Pn** **00 36 57.8 -0.1**
ATGJ S **Sn** **00 37 53.2 +1.5**
**NEY Neytrino 4.62 351** *eP* **Pn** **00 36 57.3 -0.7**
**NEY Neytrino 4.62 351** *eP* **Pn** **00 36 57.3 -0.7**
**KSRV Kasrt alli 4.66 234** *eP* **Pn** **00 36 59.8 +1.4**
KSRV *eS* **Sn** **00 37 54.7 +2.2**
KSRV AML AML 00 38 44.0
comp=Z,69nm,0.7s
**SIZA Siyzn 4.69 58** ⇓P **Pn** **00 36 58.9 0.0**
SIZA ⇑S **Sn** **00 37 55.3 +1.8**
**SIZA Siyzn 4.69 58** P **Pn** **00 36 58.9 0.0**
SIZA S **Sn** **00 37 55.3 +1.8**
**GROC Groznyy 4.80 19** *eP* **Pb** **00 37 11.6 -0.5**
GROC pmax pmax
comp=Z,72nm,1.1s
**NCK Nalchik 4.81 359** *eP* **Pn** **00 36 58.4 -2.1**
**GOBA Gobu 5.00 68** ⇓P **Pn** **00 37 02.6 -0.5**
GOBA ⇑S **Sn** **00 38 01.8 +0.8**
**GOBA Gobu 5.00 68** P **Pn** **00 37 02.6 -0.5**
GOBA S **Sn** **00 38 01.8 +0.8**
**KBZ Khabaz 5.08 354** Pn **Pn** **00 37 07.3 +3.1**
comp=Z,0.1nm,0.3s,baz=197,slow=14,SNR=2.2
KBZ Lg Lg 00 38 29.7
baz=90,slow=8.1,SNR=1.9
**NDR Nardaran 5.24 67** ⇓P **Pn** **00 37 06.0 -0.4**
NDR ⇑S **Sn** **00 38 07.8 +0.9**
**NDR Nardaran 5.24 67** P **Pn** **00 37 06.0 -0.4**
NDR S **Sn** **00 38 07.8 +0.9**
**GALA Gala 5.31 69** ⇑P **Pn** **00 37 06.8 -0.5**
GALA ⇑S **Sn** **00 38 09.3 +0.7**
**GALA Gala 5.31 69** P **Pn** **00 37 06.8 -0.5**
GALA S **Sn** **00 38 09.3 +0.7**
**KVAR Kislovodsk Arr 5.32 352** Pn **Pn** **00 37 10.7 +3.0**
baz=339,slow=3.1,SNR=2.5
**KIV Kislovodsk 5.32 352**⇑ *eP* **Pn** **00 37 05.3 -2.3**
KIV *eS* **Sn** **00 38 09.8 +0.7**
KIV pmax pmax
comp=Z,3.0nm,0.8s
**KIV Kislovodsk 5.32 352** *ePn* **Pn** **00 37 11.3 +3.7**
**KIV Kislovodsk 5.32 352** *ePg* **Pb** **00 37 25.1 +4.0**
**KIV Kislovodsk 5.32 352** *ePn* **Pn** **00 37 11.3 +3.7**
KIV *ePg* **Pb** **00 37 25.1 +4.0**
**BHD Baghdad 5.43 174** *ePn* **Pn** **00 37 08.0 -0.9**
SNR=3.0
**TOKA Tokat 5.79 289** *ePn* **Pn** **00 37 15.4 +1.4**
**TOKA Tokat 5.79 289** *ePn* **Pn** **00 37 15.3 +1.4**
**DRWC Darouich 5.92 252** *eP* **Pg** **00 37 39.9 -1.1**
DRWC *eS* **Sb** **00 38 41.4 -0.7**
DRWC AML AML 00 39 14.7
comp=E,36nm,0.7s
DRWC AML AML 00 39 15.1
comp=N,30nm,0.7s
**RTB Rutbah 6.26 207** *ePn* **Pn** **00 37 20.0 -0.4**
SNR=3.0
**BTCH Batrach 6.31 248** *eP* **Pb** **00 37 39.1 +1.2**
BTCH *eS* **Sn** **00 38 39.4 +6.0**
BTCH AML AML 00 39 14.6
comp=E,39nm,0.6s
BTCH AML AML 00 39 27.9
comp=N,85nm,0.7s
**ARNB Al Arnab 6.74 248** *eP* Pn 00 37 34.3 +7.2
ARNB *eS* Sn 00 38 31.2 -13
ARNB AML AML 00 39 33.5
comp=E,34nm,0.6s
ARNB AML AML 00 39 38.3
comp=N,19nm,0.6s
**MARH Ras Al Marh 7.42 233** *eP* Pb 00 37 48.0 -8.9
MARH *eS* **Sn** **00 38 55.3 -5.8**
MARH AML AML 00 39 47.0
comp=E,17nm,0.7s
MARH AML AML 00 40 02.5
comp=N,12nm,0.6s
**BRTR Keskin Array B 7.85 281** Pn **Pn** **00 37 44.5 +2.2**
comp=N,0.1nm,0.3s,baz=106,slow=13,SNR=4.7
**TOTH TOTAH 7.90 230** *eP* Pn 00 37 52.1 +9.1
TOTH *eS* Sn 00 39 02.2 -10
TOTH AML AML 00 39 46.4
comp=E,9.2nm,0.7s
TOTH AML AML 00 40 02.2
comp=Z,11nm,0.7s
TOTH AML AML 00 40 46.4
comp=N,12nm,0.7s
**BRBR Barbar 8.16 232** *eP* **Pn** **00 37 48.0 +1.4**
BRBR *eS* Sn 00 38 52.8 -26
BRBR AML AML 00 40 16.2
comp=E,8.8nm,0.7s
BRBR AML AML 00 40 47.1
comp=N,12nm,0.7s
**SALA Sala 8.19 226** *eP* Pb 00 37 59.6 -10
SALA *eS* **Sn** **00 39 14.3 -5.7**
SALA AML AML 00 40 32.8
comp=N,10nm,0.7s
SALA AML AML 00 40 40.3
comp=E,1.3nm,0.7s
**ANTO Ankara 8.51 281** *eP* **Pn** **00 37 53.3 +1.9**
**ANTO Ankara 8.51 281** *eP* **Pn** **00 37 53.3 +1.9**
**ANTO Ankara 8.51 281** *ePn* **Pn** **00 37 53.3 +1.9**
**ASF Jabal al Asfar 8.52 222** Pn **Pn** **00 37 50.3 -1.2**
comp=E,0.4nm,0.3s,baz=59,slow=8.6,SNR=4.1
ASF Lg Lg 00 40 18.2
comp=E,0.1nm,0.3s,baz=34,slow=22,SNR=2.8
**TCHB Talchebab 8.66 229** *eP* **Pn** **00 37 53.8 +0.4**
TCHB *eS* Sn 00 39 04.4 -27
TCHB AML AML 00 40 41.8
comp=N,19nm,0.7s
TCHB AML AML 00 40 44.5
comp=E,13nm,0.7s
**MMAI Mount Meron Ar 8.76 232** Pn **Pn** **00 37 52.3 -2.5**
comp=E,0.2nm,0.3s,baz=75,slow=17,SNR=3.6
MMAI LR LR 00 41 25.2
comp=E,56nm,18.4s,baz=85,slow=39
**GEYT Alibeck 11.39 89** Pn **Pn** **00 38 26.5 -4.3**
comp=E,0.1nm,0.3s,baz=261,slow=16,SNR=2.9
GEYT LR LR 00 43 01.6
comp=E,50nm,18.6s,baz=210,slow=38
**EIL Elat 11.51 221** LR LR 00 43 35.5
comp=E,44nm,20.1s,baz=341,slow=41
**MANT Manisa 11.82 274** *ePn* **Pn** **00 38 38.0 +1.1**
**MANT Manisa 11.82 274** *ePn* **Pn** **00 38 38.0 +1.1**
**CFR Carcaliu 13.25 304**⇑ *iP* P 00 39 20.9 +15
**SORM Soroca 14.58 315**⇑ *iP* **P** **00 39 24.7 +4.0**
**SORM Soroca 14.58 315** ⇑P **P** **00 39 24.7 +4.0**
**SORM Soroca 14.58 315** P **P** **00 39 24.7 +4.0**
**TESR Tescani 14.75 308**⇑ *iP* P 00 39 29.2 +6.5
**MLR Muntele Rosu 14.80 303** Pn **Pn** **00 39 18.4 +1.1**
comp=E,0.0nm,0.3s,baz=270,slow=23,SNR=3.0
**MLR Muntele Rosu 14.80 303**⇑ *iP* **P** **00 39 25.9 +2.6**
**MLR Muntele Rosu 14.80 303** *ePn* **P** **00 39 20.9 -2.5**
**MLR Muntele Rosu 14.80 303**⇑ *iP* **P** **00 39 25.9 +2.6**
**MLR Muntele Rosu 14.80 303** *ePn* **P** **00 39 20.9 -2.5**
**HUMR Humele 15.13 299**⇑ *iP* **P** **00 39 28.3 +1.3**
**HUMR Humele 15.13 299**⇑ *iP* **P** **00 39 28.3 +1.3**
**RAYN Ar Rayn 15.19 174** *ePn* **Pn** **00 39 20.3 -2.3**
**RAYN Ar Rayn 15.19 174** *ePn* **Pn** **00 39 20.3 -2.3**
**VOIR 15.37 302**⇓ *iP* **P** **00 39 30.6 +1.0**
**VOIR 15.37 302** ⇓P **P** **00 39 30.6 +1.0**
**VOIR 15.37 302** P **P** **00 39 30.6 +1.0**
**IDI Anoyia 15.38 263** LR LR 00 45 57.0
comp=E,49nm,19.3s,baz=130,slow=40
**AKTO Aktyubinsk 15.55 36** Pn **Pn** **00 39 24.6 -2.6**
comp=E,0.1nm,0.3s,baz=97,slow=22,SNR=3.6
**ARR Arges 15.62 301**⇓ *iP* **P** **00 39 34.0 +1.5**
**ARR Arges 15.62 301**⇓ *iP* **P** **00 39 34.0 +1.5**
**ABKAR Akbulak array 15.75 43** *ePn* **Pn** **00 39 31.0 +1.2**
comp=E,16nm,0.8s
**ABKAR Akbulak array 15.75 43** *ePn* **Pn** **00 39 31.0 +1.2**
comp=E,16nm,0.8s
**AKASG Malin Array Be 15.77 324** Pn **Pn** **00 39 29.3 -0.8**
comp=E,0.3nm,0.3s,baz=133,slow=12,SNR=10
**AKBB Malin Array Si 15.77 324** *eP* **P** **00 39 33.1 -0.9**
AKBB pmax pmax
comp=Z,16nm,1.6s
**AKBB Malin Array Si 15.77 324** *ePn* **P** **00 39 33.1 -0.9**
comp=Z,16nm,1.6s
**AKBB Malin Array Si 15.77 324** *ePn* **P** **00 39 33.1 -0.9**
comp=Z,16nm,1.6s
**KIEV Kiev 15.77 324** *eP* **Pn** **00 39 29.1 -1.0**
**KIEV Kiev 15.77 324** *ePn* **P** **00 39 33.4 -0.6**
comp=Z,6.8nm,1.1s
**KIEV Kiev 15.77 324** *ePn* **P** **00 39 33.4 -0.6**
comp=Z,6.9nm,1.1s
**AK11 Malin Array Si 15.78 324** *ePn* **P** **00 39 33.2 -0.9**
**AK11 Malin Array Si 15.78 324** *ePn* **P** **00 39 33.2 -0.9**
**VTS Vitosha 16.00 291**⇓ *iP* **Pn** **00 39 33.9 +0.6**
**VTS Vitosha 16.00 291**⇑ *iP* **P** **00 39 35.1 -1.7**
**VTS Vitosha 16.00 291** ⇓P **Pn** **00 39 33.9 +0.6**
**VTS Vitosha 16.00 291** *ePn* **P** **00 39 35.3 -1.5**
comp=Z,3.3nm,0.9s
**VTS Vitosha 16.00 291** *ePn* **P** **00 39 35.3 -1.5**
comp=Z,3.3nm,0.9s
**BURAR Bucovina Array 16.12 310**⇓ *iP* **P** **00 39 43.6 +5.6**
**BURAR Bucovina Array 16.12 310** ⇓P **P** **00 39 43.6 +5.6**
**BUR04 Bucovina Ar. S 16.13 310** *ePn* **P** **00 39 37.7 -0.4**
**BUR04 Bucovina Ar. S 16.13 310** *ePn* **P** **00 39 37.7 -0.4**
**BUR08 Bucovina Ar. S 16.14 310** *ePn* **P** **00 39 38.1 -0.2**
**BUR08 Bucovina Ar. S 16.14 310** *ePn* **P** **00 39 38.1 -0.2**
**LOT Lotru 16.23 301**⇑ *iP* **P** **00 39 41.9 +2.7**
**LOT Lotru 16.23 301**⇑ *iP* **P** **00 39 41.9 +2.7**
**OBN Obninsk 17.13 346** LR LR 00 46 14.2
comp=Z,60nm,19.1s,baz=268,slow=37
**OBN Obninsk 17.13 346**⇑ *eP* **Pn** **00 39 46.1 -1.1**
OBN *iS* **Sn** **00 42 51.3 -6.3**
OBN pmax pmax
comp=Z,13nm,1.0s
OBN MLR MLR
comp=Z,82nm,14.0s
**OBN Obninsk 17.13 346** *ePn* **P** **00 39 49.7 +0.8**
comp=Z,12nm,1.0s
**OBN Obninsk 17.13 346** *ePn* **P** **00 39 49.7 +0.8**
comp=Z,12nm,1.0s
**UOSS Minazif 17.33 139** *ePn* **Pn** **00 39 46.9 -3.1**
comp=Z,20nm,1.3s
**UOSS Minazif 17.33 139** *ePn* **Pn** **00 39 46.9 -3.1**
comp=Z,20nm,1.3s
**DRGR 17.36 305**⇑ *iP* P 00 39 59.3 +7.6
**DRGR 17.36 305** ⇑P P 00 39 59.3 +7.6
**MDVR Moldovita 17.46 297**⇓ *iP* **P** **00 39 53.8 +1.0**
**MDVR Moldovita 17.46 297**⇓ *iP* **P** **00 39 53.8 +1.0**
**TIR Tirane 18.41 286** *eP* **Pn** **00 40 05.2 +2.0**
TIR pmax pmax
comp=Z,14nm,1.2s
**TIR Tirane 18.41 286** *eP* **Pn** **00 40 05.2 +2.0**
comp=Z,14nm,1.2s
**TIR Tirane 18.41 286** *eP* **Pn** **00 40 05.2 +2.0**
comp=Z,14nm,1.2s
**KWP Kalwaria Pacla 18.53 313** P **Pn** **00 40 07.0 +2.3**
KWP pmax pmax
comp=Z,146nm,1.1s
**KWP Kalwaria Pacla 18.53 313** P **Pn** **00 40 07.0 +2.3**
comp=Z,146nm,1.1s
**CRVS Cervenica-Dubn 18.94 310** *eP* **Pn** **00 40 11.6 +1.9**
**CRVS Cervenica-Dubn 18.94 310** *eP* **Pn** **00 40 11.6 +1.9**
**CRVS Cervenica-Dubn 18.94 310** *eP* **Pn** **00 40 11.6 +1.9**
**PSZ Piszkesteto 19.54 306** *eP* **Pn** **00 40 18.1 +1.1**
PSZ pmax pmax
comp=Z,11nm,1.1s
**PSZ Piszkesteto 19.54 306** *eP* **Pn** **00 40 18.1 +1.1**
comp=Z,10nm,1.1s
**PSZ Piszkesteto 19.54 306** *eP* **Pn** **00 40 18.1 +1.1**
comp=Z,10nm,1.1s
**WSAR Wadi Sarin 20.00 136** Pn **P** **00 40 21.5 +0.8**
comp=Z,0.1nm,0.3s,baz=359,slow=4.8,SNR=2.6
**ARU Arti 20.33 24** P **P** **00 40 23.8 -0.3**
comp=Z,2.8nm,0.6s,baz=242,slow=5.9,SNR=7.2
ARU LR LR 00 51 33.0
comp=Z,44nm,20.1s,baz=234,slow=46
**ARU Arti 20.33 24***d* *iP* **P** **00 40 24.4 +0.3**
ARU S Sn 00 44 14.4 -0.6
ARU SS **SnSn** **00 44 31.6 +2.1**
ARU pmax pmax
comp=Z,9.0nm,1.0s
**ARU Arti 20.33 24** *eP* **P** **00 40 24.7 +0.6**
comp=Z,10.0nm,1.1s
**ARU Arti 20.33 24** *eP* **P** **00 40 24.7 +0.6**
comp=Z,10.0nm,1.1s
**VYHS Vyhne 20.40 307** *eP* Pn 00 40 28.3 +1.2
VYHS pmax pmax
comp=Z,56nm,3.1s
**VYHS Vyhne 20.40 307** *eP* Pn 00 40 28.3 +1.2
comp=Z,56nm,3.1s
**VYHS Vyhne 20.40 307** *eP* Pn 00 40 28.3 +1.2
**BLY Banja Luka 20.62 296** *eP* Pn 00 40 29.2 -0.5
comp=Z,24nm,1.4s
**BLY Banja Luka 20.62 296** *eP* Pn 00 40 29.2 -0.5
comp=Z,24nm,1.4s
**KKAR Karatay Array 20.74 69** *eP* **P** **00 40 29.4 +0.7**
KKAR pmax pmax
comp=Z,24nm,0.7s
**KKAR Karatay Array 20.74 69** *eP* **P** **00 40 29.4 +0.7**
comp=Z,24nm,0.7s
**KKAR Karatay Array 20.74 69** *eP* **P** **00 40 29.4 +0.7**
comp=Z,24nm,0.7s
**SUW Suwalki 20.74 324** P Pn 00 40 32.1 +1.1
SUW pmax pmax
comp=Z,56nm,1.0s
**SUW Suwalki 20.74 324** P Pn 00 40 32.1 +1.1
comp=Z,56nm,1.0s
**KBL Kabul 20.77 94** *eP* **P** **00 40 27.9 -1.4**
KBL pmax pmax
comp=Z,3.0nm,0.7s
**KBL Kabul 20.77 94** *eP* **P** **00 40 27.9 -1.4**
comp=Z,3.1nm,0.7s
**KBL Kabul 20.77 94** *eP* **P** **00 40 27.9 -1.4**
comp=Z,3.1nm,0.7s
**VRAC Vranov 22.07 308** P **P** **00 40 43.6 +0.7**
comp=Z,3.5nm,0.9s,baz=107,slow=11,SNR=4.6
**KLMR Klimovskoe 22.35 355** *eP* **P** **00 40 47.8 +2.0**
KLMR pmax pmax
comp=Z,28nm,1.2s
**KLMR Klimovskoe 22.35 355** *eP* **P** **00 40 47.8 +2.0**
comp=Z,28nm,1.2s
**DPC Dobruska-Polom 22.58 310** *eP* **P** **00 40 48.9 +0.4**
**DPC Dobruska-Polom 22.58 310** *eP* **P** **00 40 48.9 +0.4**
**DPC Dobruska-Polom 22.58 310** *eP* **P** **00 40 48.9 +0.4**
**BRVK Borovoye 23.28 43** *eP* **P** **00 40 56.5 +0.8**
BRVK pmax pmax
comp=Z,2.0nm,1.0s
**BRVK Borovoye 23.28 43** *eP* **P** **00 40 56.9 +1.2**
comp=Z,7.1nm,1.4s
**BRVK Borovoye 23.28 43** *eP* **P** **00 40 56.9 +1.2**
comp=Z,7.1nm,1.4s
**BVAR Bovoye Array 23.32 43** P **P** **00 40 56.3 +0.1**
comp=Z,1.1nm,0.7s,baz=233,slow=11,SNR=8.6
**AAK Ala-Archa 23.66 71** P **P** **00 40 59.8 +0.1**
comp=Z,0.6nm,0.6s,baz=212,slow=21,SNR=2.5
**AAK Ala-Archa 23.66 71** *eP* **P** **00 41 01.0 +1.3**
AAK pmax pmax
comp=Z,2.0nm,1.2s
**GEA0 GERESS Array S 23.76 305** *eP* **P** **00 41 02.3 +1.7**
**GEA0 GERESS Array S 23.76 305** *eP* **P** **00 41 02.3 +1.7**
**GERES GERESS Array B 23.76 305** P **P** **00 40 59.8 -0.8**
comp=Z,0.4nm,0.6s,baz=100,slow=10.0,SNR=3.5
**KHC Kasperske Hory 23.91 306** *eP* **P** **00 40 57.0 -4.9**
KHC *ep*P **pP** **00 41 02.5 -2.0**
**KHC Kasperske Hory 23.91 306** *eP* **P** **00 40 57.0 -4.9**
KHC *e* 00 41 02.5
**CLL Collm 24.89 310** *eP* **P** **00 41 11.0 +0.2**
CLL *e* 00 41 15.0
CLL pmax pmax
comp=Z,7.0nm,1.0s
**CLL Collm 24.89 310** *eP* **P** **00 41 11.0 +0.2**
comp=Z,7.0nm,1.0s
CLL *e*(sP) **sP** **00 41 15.0 +0.6**
**CLL Collm 24.89 310** *eP* **P** **00 41 13.1 +2.3**
comp=Z,9.4nm,1.2s
**CLL Collm 24.89 310** *eP* **P** **00 41 13.1 +2.3**
comp=Z,9.4nm,1.2s
**FINES FINESS Array B 25.26 340** P **P** **00 41 14.0 -0.1**
comp=Z,3.5nm,0.9s,baz=166,slow=12,SNR=3.6
**FINES FINESS Array B 25.26 340** P **P** **00 41 14.0 -0.1**
FINES pmax pmax
comp=Z,4.0nm,0.9s
**FINES FINESS Array B 25.26 340** P **P** **00 41 14.0 -0.1**
**RGN Rugen 25.92 318** *eP* **P** **00 41 22.3 +2.2**
comp=Z,245nm,1.3s
**RGN Rugen 25.92 318** *eP* **P** **00 41 22.3 +2.2**
comp=Z,245nm,1.3s
**DAVOX Davos/Dischmat 25.94 299** P **P** **00 41 19.9 -0.8**
comp=Z,1.4nm,0.7s,baz=77,slow=14,SNR=2.9
**TUE Stuetta 26.28 298** *eP* **P** **00 41 25.3 +1.6**
comp=Z,12nm,1.4s
**TUE Stuetta 26.28 298** *eP* **P** **00 41 25.3 +1.6**
comp=Z,12nm,1.4s
**VSL Villasalto 26.53 283** *eP* **P** **00 41 26.9 +1.1**
comp=Z,35nm,1.2s
**VSL Villasalto 26.53 283** *eP* **P** **00 41 26.9 +1.1**
comp=Z,35nm,1.2s
**STU Stuttgart 26.66 303** *eP* **P** **00 41 29.0 +2.1**
STU pmax pmax
comp=Z,28nm,1.6s
**STU Stuttgart 26.66 303** *eP* **P** **00 41 29.0 +2.1**
comp=Z,28nm,1.6s
**ATD Arta Tunnel 27.04 182** *eP* **P** **00 41 27.9 -2.7**
comp=Z,14nm,1.2s
**ATD Arta Tunnel 27.04 182** *eP* **P** **00 41 27.9 -2.7**
comp=Z,14nm,1.2s
**KURBB Kurchatov Arra 27.27 53** P **P** **00 41 33.6 +1.3**
comp=Z,2.4nm,0.6s,baz=264,slow=9.2,SNR=15
**KURK Kurchatov 27.35 52** *eP* **P** **00 41 34.0 +1.0**
KURK pmax pmax
comp=Z,5.0nm,1.1s
**KURK Kurchatov 27.35 52** *eP* **P** **00 41 34.0 +1.0**
comp=Z,5.5nm,1.1s
**KURK Kurchatov 27.35 52** *eP* **P** **00 41 34.0 +1.0**
comp=Z,5.5nm,1.1s
**HFS Hagfors 28.57 328** P **P** **00 41 43.9 0.0**
comp=Z,7.8nm,0.9s,baz=147,slow=11,SNR=3.2
**MK31 Makanchi Array 29.27 61** *eP* **P** **00 41 50.2 -0.1**
**MK31 Makanchi Array 29.27 61** *eP* **P** **00 41 50.2 -0.1**
**MK31 Makanchi Array 29.27 61** *eP* **P** **00 41 50.2 -0.1**
**MKAR Makanchi Array 29.27 61** P **P** **00 41 50.8 +0.5**
comp=Z,0.5nm,0.7s,baz=278,slow=5.8,SNR=9.5
**MKAR Makanchi Array 29.27 61** *eP* **P** **00 41 50.4 +0.1**
MKAR pmax pmax
comp=Z,6.0nm,0.7s
**MKAR Makanchi Array 29.27 61** *eP* **P** **00 41 50.4 +0.1**
comp=Z,5.9nm,0.7s
**MKAR Makanchi Array 29.27 61** *eP* **P** **00 41 50.4 +0.1**
comp=Z,5.9nm,0.7s
**MK01 Makanchi Array 29.28 61** *eP* **P** **00 41 51.0 +0.6**
**MK01 Makanchi Array 29.28 61** *eP* **P** **00 41 51.0 +0.6**
**NOA NORSAR Array B 30.10 329** LR LR 00 56 57.6
comp=Z,40nm,18.1s,baz=235,slow=42
**ZAA0 Zalesovo Array 31.75 48** *eP* **P** **00 42 12.3 +0.2**
comp=Z,8.9nm,1.8s
**ZAA0 Zalesovo Array 31.75 48** *eP* **P** **00 42 12.3 +0.2**
comp=Z,8.9nm,1.8s
**ZALV Zalesovo Beam 31.75 48** P **P** **00 42 12.2 +0.1**
comp=Z,0.9nm,0.5s,baz=256,slow=9.5,SNR=5.0
**ZALV Zalesovo Beam 31.75 48** *eP* **P** **00 42 11.6 -0.4**
**ZALV Zalesovo Beam 31.75 48** *eP* **P** **00 42 11.6 -0.4**
**DGZ Jazzator, Alta 32.83 56** *eP* **P** **00 42 22.9 +1.2**
DGZ pmax pmax
comp=Z,2.0nm,0.9s
**WMQ Urumqi 33.20 67** P **P** **00 42 26.3 +1.3**
WMQ pP sP 00 42 30.5 +1.8
WMQ sP pP 00 42 36.0 +8.4
WMQ pmax pmax
comp=Z,9.0nm,0.7s
WMQ pmax pmax
comp=Z,190nm,4.3s
WMQ LR LR
comp=N,60nm,17.3s
WMQ LR LR
comp=E,76nm,15.9s
WMQ LR LR
comp=Z,45nm,25.1s
**CWF Charnwood Fore 33.81 309** *eP* **P** **00 42 31.8 +1.7**
comp=Z,106nm,1.7s
**CWF Charnwood Fore 33.81 309** *eP* **P** **00 42 31.8 +1.7**
comp=Z,106nm,1.7s
**CART Cartagena 34.88 282** *eP* **P** **00 42 40.9 +1.4**
comp=Z,26nm,1.4s
**CART Cartagena 34.88 282** *eP* **P** **00 42 40.9 +1.4**
comp=Z,26nm,1.4s
**EKA Eskdalemuir Ar 35.23 314** P **P** **00 42 41.4 -1.0**
comp=Z,1.2nm,0.7s,baz=105,slow=8.2,SNR=2.7
**TAM Tamanrasset 36.11 255** *eP* **P** **00 42 51.2 +0.8**
TAM pmax pmax
comp=Z,8.0nm,1.8s
**TAM Tamanrasset 36.11 255** *eP* **P** **00 42 51.2 +0.8**
comp=Z,8.3nm,1.8s
**TAM Tamanrasset 36.11 255** *eP* **P** **00 42 51.2 +0.8**
comp=Z,8.3nm,1.8s
**ESDC Sonseca Array 36.59 287** P **P** **00 42 51.9 -2.4**
comp=Z,1.0nm,0.7s,baz=66,slow=8.9,SNR=6.6
**MTE Manteigas 39.08 289** *eP* **P** **00 43 17.2 +1.9**
comp=Z,31nm,1.3s
**MTE Manteigas 39.08 289** *eP* **P** **00 43 17.2 +1.9**
comp=Z,31nm,1.3s
**SFS San Fernando 39.19 283** P **P** **00 43 17.7 +1.5**
SFS pmax pmax
comp=Z,81nm,1.0s
**TOA0 Torodi Ar. Sit 44.96 247** *eP* **P** **00 44 01.9 -1.6**
**TOA0 Torodi Ar. Sit 44.96 247** *eP* **P** **00 44 01.9 -1.6**
**TORD Torodi Ar. Bea 44.96 247** P **P** **00 44 02.1 -1.3**
comp=Z,1.6nm,1.0s,baz=64,slow=7.8,SNR=8.8
**ULN Ulaanbaatar 45.88 57** *eP* **P** **00 44 11.2 +0.6**
ULN pmax pmax
comp=Z,6.0nm,1.5s
**ULN Ulaanbaatar 45.88 57** *eP* **P** **00 44 11.2 +0.6**
comp=Z,6.4nm,1.5s
**ULN Ulaanbaatar 45.88 57** *eP* **P** **00 44 11.2 +0.6**
comp=Z,6.4nm,1.5s
**HHC Hu-ho-hao-te 51.03 65** *eP* **P** **00 44 52.0 +1.6**
HHC pmax pmax
comp=Z,19nm,0.7s
HHC pmax pmax
comp=Z,120nm,6.8s
**CMAR Chiang Mai Arr 51.76 97** P **P** **00 44 56.2 +0.3**
comp=Z,1.2nm,0.4s,baz=292,slow=4.8,SNR=4.7
**TIXI Tiksi 52.34 23** *eP* **P** **00 44 59.5 0.0**
TIXI pmax pmax
comp=Z,1.0nm,1.0s
**TIXI Tiksi 52.34 23** *eP* **P** **00 45 00.8 +1.3**
comp=Z,8.0nm,1.4s
**TIXI Tiksi 52.34 23** *eP* **P** **00 45 00.8 +1.3**
comp=Z,8.0nm,1.4s
**HIA Hailar 53.59 52** *eP* **P** **00 45 09.4 +0.3**
HIA pmax pmax
comp=Z,2.0nm,0.9s
**BOSA Boshof 69.12 197** P **P** **00 46 53.5 -0.9**
comp=Z,1.6nm,0.7s,baz=8.5,slow=7.9,SNR=6.4
**YKA Yellowknife Ar 77.66 350** P **P** **00 47 43.2 -1.1**
comp=Z,0.5nm,0.9s,baz=17,slow=6.0,SNR=7.8
**YKA Yellowknife Ar 77.66 350** *iP* **P** **00 47 42.9 -1.4**
YKA pmax pmax
comp=Z,1.0nm,0.9s

---

*CSEM **30** 00:36:13.6, 36°.29N×36°.62E, h7km, MD2.4*
*DDA **30** 00:36:13.6, 36°.29N×36°.62E, h7km, Md2.4*
**NSSC 30 00:36:13.8±0.7, 36°.24N×36°.72E, h14km±3km, ML1.9,**
**Jordan-Syria region**

| Code | Station Name | Δ° | AZ° | Phase ID | | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | | |
| **BTCH** | **Batrach** | **0.29** | **226** | *eP* | | Pg | 00 36 19.7 | -0.2 |
| BTCH | | | | *eS* | | Sg | 00 36 24.7 | +0.5 |
| BTCH | | | | AML | AML | | 00 36 24.9 | |
| | comp=E,165nm,0.2s | | | | | | | |
| BTCH | | | | AML | AML | | 00 36 30.6 | |
| | comp=N,143nm,0.4s | | | | | | | |
| **DRWC** | **Darouich** | **0.38** | **354** | *eP* | | Pg | 00 36 21.5 | 0.0 |
| DRWC | | | | *eS* | | Sg | 00 36 27.2 | +0.4 |
| DRWC | | | | AML | AML | | 00 36 27.8 | |
| | comp=N,147nm,0.4s | | | | | | | |
| DRWC | | | | AML | AML | | 00 36 28.1 | |
| | comp=E,118nm,0.2s | | | | | | | |
| **YAYL** | **Yayladag** | **0.54** | **247** | *i* P | | Pg | 00 36 22.8 | -1.6 |
| YAYL | | | | *i* S | | Sg | 00 36 31.0 | -0.6 |
| **YAYL** | **Yayladag** | **0.54** | **247** | P | | Pg | 00 36 22.8 | -1.6 |
| YAYL | | | | S | | Sg | 00 36 31.0 | -0.6 |
| **KUZU** | **Kuzuini** | **0.60** | **28** | *i* P | | Pg | 00 36 25.2 | -0.4 |
| KUZU | | | | *i* S | | Sb | 00 36 34.5 | 0.0 |
| **KUZU** | **Kuzuini** | **0.60** | **28** | P | | Pg | 00 36 25.2 | -0.4 |
| KUZU | | | | S | | Sb | 00 36 34.5 | 0.0 |
| **ARNB** | **Al Arnab** | **0.71** | **238** | *eP* | | Pg | 00 36 27.9 | +0.1 |
| ARNB | | | | *eS* | | Sg | 00 36 37.1 | -0.1 |
| ARNB | | | | AML | AML | | 00 36 39.5 | |
| | comp=E,42nm,0.2s | | | | | | | |
| ARNB | | | | AML | AML | | 00 36 40.2 | |
| | comp=N,27nm,0.2s | | | | | | | |
| **KAMA** | **Osmaniye** | **0.94** | **358** | *i* P | | Pb | 00 36 31.5 | -0.4 |
| KAMA | | | | *i* S | | Sg | 00 36 44.5 | +0.1 |
| **SLMH** | **Al Salmeh** | **0.98** | **91** | *eP* | | Pb | 00 36 31.6 | -0.9 |
| SLMH | | | | *eS* | | Sb | 00 36 44.8 | -0.5 |
| SLMH | | | | AML | AML | | 00 36 46.3 | |
| | comp=E,70nm,0.4s | | | | | | | |
| SLMH | | | | AML | AML | | 00 36 48.0 | |
| | comp=N,53nm,0.7s | | | | | | | |
| **HCB** | **Kahramanmara** | **1.11** | **8** | *i* P | | Pb | 00 36 34.3 | -0.5 |
| HCB | | | | *i* S | | Sb | 00 36 49.4 | +0.3 |
| **ANDN** | **Andirin** | **1.37** | **347** | *i* P | | Pn | 00 36 37.6 | -1.0 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| ANDN | | | | *i* S | Sn | 00 36 56.2 | -0.4 | |
| **ANDN** | **Andirin** | **1.37** | **347** | P | Pn | 00 36 37.6 | -1.0 | |
| ANDN | | | | S | Sn | 00 36 56.2 | -0.3 | |

**IDC 30 00:45:30.2±12.0, 24°97S×176°76W, h0km, mb3.6/3, mb1 3.9/3, mb1mx3.5/25, mbtmp3.6/3, MS3.9/1, Ms1 3.9/1, ms1mx2.7/16, Error ellipse: s-maj=523.4km s-min=41.3km az=148.0, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **4.38** | **193** | LR | LR | 00 48 02.1 | |
| | comp=Z,2μm,21.4s,baz=296,slow=35 | | | | | | |
| **ASAR** | **Alice Springs** | **44.78** | **261** | P | P | 00 53 45.6 | -0.4 |
| | 0.2nm,0.5s,baz=100,slow=6.6,SNR=3.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **45.28** | **266** | P | P | 00 53 50.1 | +0.2 |
| | 0.8nm,0.8s,baz=104,slow=8.6,SNR=4.8 | | | | | | |
| **ILAR** | **Eielson Array** | **92.41** | **12** | P | P | 00 58 42.2 | -0.1 |
| | 0.5nm,1.0s,baz=217,slow=4.4,SNR=3.4 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **142.03** | **150** | T | T | 03 42 53.9 | |
| | baz=196 | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **142.03** | **150** | T | T | 03 43 04.3 | |
| | baz=196 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **142.05** | **150** | T | T | 03 42 57.6 | |
| | baz=196 | | | | | | |
| **H10N3** | **ASCENSION HYDR** | **143.09** | **150** | T | T | 03 44 23.5 | |
| | baz=212 | | | | | | |
| **H10N1** | **ASCENSION HYDR** | **143.09** | **150** | T | T | 03 44 16.6 | |
| | baz=212 | | | | | | |
| **H10N2** | **ASCENSION HYDR** | **143.10** | **150** | T | T | 03 44 31.8 | |
| | baz=212 | | | | | | |

**IDC 30 00:47:24.6±1.2, 18°24N×119°58E, h0km, mb3.5/4, mb1 3.8/4, mb1mx3.3/34, mbtmp3.5/4, Error ellipse: s-maj=85.0km s-min=24.2km az=69.0, Philippine Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **40.61** | **158** | P | P | 00 55 06.0 | -0.4 |
| | 0.6nm,0.7s,baz=338,slow=8.9,SNR=4.5 | | | | | | |
| **ASAR** | **Alice Springs** | **43.93** | **161** | P | P | 00 55 33.8 | +0.3 |
| | 0.6nm,0.9s,baz=344,slow=7.1,SNR=5.8 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **45.87** | **324** | P | P | 00 55 48.5 | -0.1 |
| | 0.4nm,0.7s,baz=118,slow=8.3,SNR=3.1 | | | | | | |
| **YKA** | **Yellowknife Ar** | **89.01** | **22** | P | P | 01 00 21.2 | -0.1 |
| | 0.3nm,0.7s,baz=311,slow=4.2,SNR=9.5 | | | | | | |

*ISCJB **30** 01:24:08.8±0.7, 51°49N±0°.03×16°.10E±0°.03, h0km, Error ellipse: s-maj=4.6km s-min=2.7km az=14.4*
*CSEM **30** 01:24:10.2±0.4, 51°.52N×16°.07E, h2km, ML3.0/9, Error ellipse: s-maj=5.9km s-min=3.5km az=3.0*
*PRU **30** 01:24:11.1, 51°.52N×16°.05E, h0km*
*VIE **30** 01:24:12.6±0.8, 51°.37N×15°.97E, h0km, mb2.5/5, ML2.3/6, Error ellipse: s-maj=6.7km s-min=4.8km az=29.0, Suspected Mining induced.*

**ISC 30 01:24:10.1±1.1, 51°.55N±0°.05×16°.07E±0°.02, h0km, n41, σ0s68/78, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KSP** | **Ksiaz** | **0.72** | **169** | *i* Pg | **Pg** | **01 24 24.5** | **+0.6** |
| KSP | | | | *e* | | 01 24 26.9 | |
| KSP | | | | *e*Sg | **Sg** | **01 24 33.7** | **+0.5** |
| **KSP** | **Ksiaz** | **0.72** | **169** | *i* Pg | **Pg** | **01 24 24.5** | **+0.6** |
| KSP | | | | *e*Sg | **Sg** | **01 24 33.7** | **+0.5** |
| **KSP** | **Ksiaz** | **0.72** | **169** | *i* Pg | **Pg** | **01 24 24.5** | **+0.6** |
| KSP | | | | *e* | | 01 24 26.9 | |
| KSP | | | | *e*Sg | **Sg** | **01 24 33.7** | **+0.5** |
| **UPC** | **Upice** | **1.04** | **182** | *e*PG | **Pg** | **01 24 30.4** | **+0.3** |
| UPC | | | | *e*SG | **Sb** | **01 24 44.2** | **-1.0** |
| | comp=Z,33nm,0.3s | | | | | | |
| **UPC** | **Upice** | **1.04** | **182** | Pg | **Pg** | **01 24 30.4** | **+0.3** |
| UPC | | | | Sg | **Sb** | **01 24 44.2** | **-1.0** |
| | 33nm,0.3s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.21** | **172** | *e*PG | **Pg** | **01 24 33.2** | **-0.1** |
| DPC | | | | *e*SG | **Sg** | **01 24 48.8** | **-0.1** |
| | comp=Z,10nm,0.3s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.21** | **172** | Pg | **Pg** | **01 24 33.2** | **-0.1** |
| DPC | | | | Sg | **Sg** | **01 24 48.8** | **-0.1** |
| | 10nm,0.3s | | | | | | |
| **PVCC** | **Panska Ves** | **1.39** | **223** | *e*PG | **Pb** | **01 24 36.8** | **-0.2** |
| PVCC | | | | *e*SG | **Sn** | **01 24 55.8** | **-0.1** |
| | comp=Z,35nm,0.2s | | | | | | |
| **PVCC** | **Panska Ves** | **1.39** | **223** | Pg | **Pb** | **01 24 36.8** | **-0.2** |
| PVCC | | | | Sg | **Sn** | **01 24 55.8** | **-0.1** |
| | 35nm,0.2s | | | | | | |
| **BRG** | **Berggiesshubel** | **1.50** | **244** | PG | **Pg** | **01 24 39.3** | **+0.5** |
| BRG | | | | SG | **Sn** | **01 24 59.5** | **+1.0** |
| | 23nm,0.4s | | | | | | |
| **KRLC** | **Kraliky** | **1.54** | **163** | *e*PG | **Pn** | **01 24 39.0** | **+0.1** |
| KRLC | | | | *e*SG | **Sb** | **01 24 59.5** | **-0.1** |
| **KRLC** | **Kraliky** | **1.54** | **163** | Pg | **Pn** | **01 24 39.0** | **+0.1** |
| KRLC | | | | Sg | **Sb** | **01 24 59.5** | **-0.1** |
| **GOPC** | **GO Pecny, Ondr** | **1.83** | **207** | *e*PG | **Pn** | **01 24 43.3** | **+0.5** |
| GOPC | | | | *e*SG | **Sb** | **01 25 07.2** | **-0.7** |
| **GOPC** | **GO Pecny, Ondr** | **1.83** | **207** | Pg | **Pn** | **01 24 43.3** | **+0.5** |
| GOPC | | | | Sg | **Sb** | **01 25 07.2** | **-0.7** |
| **PRU** | **Pruhonice** | **1.84** | **212** | *e*PN | **Pn** | **01 24 42.5** | **-0.4** |
| PRU | | | | *e*PG | **Pb** | **01 24 44.6** | **0.0** |
| PRU | | | | *e*SG | **Sb** | **01 25 07.9** | **-0.2** |
| | comp=Z,8.4nm,0.4s | | | | | | |
| **PRU** | **Pruhonice** | **1.84** | **212** | Pn | **Pn** | **01 24 42.5** | **-0.4** |
| **PRU** | **Pruhonice** | **1.84** | **212** | Pg | **Pb** | **01 24 44.6** | **0.0** |
| PRU | | | | Sg | **Sb** | **01 25 07.9** | **-0.2** |
| | 8.4nm,0.4s | | | | | | |
| **CLL** | **Collm** | **1.94** | **264** | *e*Pn | **Pn** | **01 24 43.0** | **-1.2** |
| CLL | | | | *e*Pg | **Pb** | **01 24 46.0** | **-0.2** |
| CLL | | | | *i* | | 01 24 50.8 | |
| CLL | | | | *e*Sg | **Sg** | **01 25 13.0** | **+0.7** |
| | comp=Z,7.0nm,0.5s | | | | | | |
| **MORC** | **Moravsky Berou** | **2.01** | **152** | *e*Pn | **Pn** | **01 24 44.7** | **-0.5** |
| MORC | | | | *e*Sg | **Sb** | **01 25 12.8** | **-0.2** |
| **OKC** | **Ostrava-Krasne** | **2.16** | **142** | *e*PG | **Pb** | **01 24 50.1** | **0.0** |
| OKC | | | | *e*SG | **Sb** | **01 25 17.7** | **+0.3** |
| | comp=Z,19nm,0.7s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **2.16** | **142** | Pg | **Pb** | **01 24 50.1** | **0.0** |
| OKC | | | | Sg | **Sb** | **01 25 17.7** | **+0.3** |
| | comp=Z,19nm,0.7s | | | | | | |
| **VRAC** | **Vranov** | **2.27** | **171** | *e*Pn | **Pn** | **01 24 49.1** | **+0.3** |
| VRAC | | | | *e*Sg | **Sg** | **01 25 21.8** | **-1.1** |
| **NKC** | **Novy Kostel** | **2.65** | **242** | *e*PN | **Pn** | **01 24 54.6** | **+0.6** |
| NKC | | | | *e*PG | **Pg** | **01 25 00.2** | **-0.6** |
| NKC | | | | *e*SG | **Sg** | **01 25 35.3** | **+0.3** |
| | comp=Z,14nm,0.3s | | | | | | |
| **NKC** | **Novy Kostel** | **2.65** | **242** | Pn | **Pn** | **01 24 54.6** | **+0.6** |
| **OJC** | **Ojcow** | **2.71** | **118** | *e*Pg | **Pg** | **01 25 01.5** | **-0.5** |
| OJC | | | | *e*Sg | **Sg** | **01 25 37.4** | **+0.3** |
| **OJC** | **Ojcow** | **2.71** | **118** | *e*Pg | **Pg** | **01 25 01.5** | **-0.5** |
| OJC | | | | *e*Sg | **Sg** | **01 25 37.4** | **+0.3** |
| **OJC** | **Ojcow** | **2.71** | **118** | *e*Pg | **Pg** | **01 25 01.5** | **-0.5** |
| OJC | | | | *e*Sg | **Sg** | **01 25 37.4** | **+0.3** |
| **KHC** | **Kasperske Hory** | **2.90** | **214** | *e*PN | **Pn** | **01 24 57.3** | **-0.2** |
| KHC | | | | *e*PG | **Pb** | **01 25 03.5** | **+0.8** |
| KHC | | | | *e*SG | **Sg** | **01 25 43.3** | **+0.1** |
| **KHC** | **Kasperske Hory** | **2.90** | **214** | Pn | **Pn** | **01 24 57.3** | **-0.2** |
| **KHC** | **Kasperske Hory** | **2.90** | **214** | Pg | **Pb** | **01 25 03.5** | **+0.8** |
| KHC | | | | Sg | **Sg** | **01 25 43.3** | **+0.1** |
| **MODS** | **Modra-Piesok** | **3.27** | **166** | *e*Sg | **Sg** | **01 25 55.4** | **+0.2** |
| **MODS** | **Modra-Piesok** | **3.27** | **166** | *e*SG | **Sg** | **01 25 55.4** | **+0.2** |
| **VYHS** | **Vyhne** | **3.54** | **149** | *e*Sg | **Sg** | **01 26 02.0** | **-1.7** |
| **VYHS** | **Vyhne** | **3.54** | **149** | *e*SG | **Sg** | **01 26 02.0** | **-1.7** |
| VYHS | | | | *e* | | 01 29 17.1 | |
| **CONA** | **Conrad Observa** | **3.63** | **182** | Pn | **Pn** | **01 25 07.3** | **-0.3** |
| | comp=Z,0.9nm,0.4s | | | | | | |
| **CONA** | **Conrad Observa** | **3.63** | **182** | Pg | **Pg** | **01 25 18.7** | **-0.9** |
| | comp=Z,1.2nm,0.3s | | | | | | |
| CONA | | | | Sg | **Sg** | **01 26 05.5** | **-1.0** |
| | comp=Z,4.6nm,0.5s | | | | | | |
| **MOA** | **Molln** | **3.88** | **198** | Pn | **Pn** | **01 25 11.6** | **+0.6** |
| | comp=Z,1.5nm,0.3s | | | | | | |
| MOA | | | | Sg | **Sg** | **01 26 15.1** | **+0.3** |
| | comp=Z,3.2nm,0.5s | | | | | | |
| **STHS** | **Stebnicka Huta** | **3.93** | **121** | *e*Pg | **Pg** | **01 25 25.5** | **+0.1** |
| STHS | | | | *e*Sg | **Sg** | **01 26 17.3** | **+1.0** |
| **STHS** | **Stebnicka Huta** | **3.93** | **121** | *e*PG | **Pg** | **01 25 25.5** | **+0.1** |
| STHS | | | | *e*SG | **Sg** | **01 26 17.3** | **+1.0** |
| STHS | | | | *e*LG | Lg | 01 26 24.9 | |
| **ARSA** | **Arzberg** | **4.32** | **185** | Pg | **Pg** | **01 25 32.0** | **-0.8** |
| | comp=Z,0.7nm,0.4s | | | | | | |
| ARSA | | | | Sg | **Sg** | **01 26 31.5** | **+2.8** |
| | comp=Z,5.7nm,0.6s | | | | | | |
| **KBA** | **Koelnbreinsper** | **4.82** | **203** | Pn | **Pn** | **01 25 24.6** | **+0.6** |
| | comp=Z,0.9nm,0.3s | | | | | | |
| KBA | | | | Sg | **Sg** | **01 26 44.1** | **-0.6** |
| | comp=Z,3.0nm,0.5s | | | | | | |

*ISCJB **30** 01:28:20.0±0.7, 51°.48N±0°.03×16°.10E±0°.03, h0km, Error ellipse: s-maj=4.8km s-min=2.7km az=16.9*
*CSEM **30** 01:28:21.1±0.4, 51°.52N×16°.07E, h2km, ML3.0/9, Error ellipse: s-maj=5.9km s-min=3.5km az=9.0*
*VIE **30** 01:28:24.2±1.0, 51°.33N×15°.93E, h0km, mb2.3/2, ML2.4/5, Error ellipse: s-maj=9.4km s-min=5.5km az=31.0, Suspected Mining induced.*

**ISC 30 01:28:21.6±1.1, 51°.53N±0°.05×16°.04E±0°.02, h0km, n40, σ0s63/74, 1D, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KSP** | **Ksiaz** | **0.70** | **167** | *i* Pg | **Pg** | **01 28 35.4** | **+0.4** |
| KSP | | | | *e* | | 01 28 37.7 | |
| KSP | | | | *e*Sg | **Sg** | **01 28 44.6** | **+0.5** |
| **KSP** | **Ksiaz** | **0.70** | **167** | ⇓*i* Pg | **Pg** | **01 28 35.4** | **+0.4** |
| KSP | | | | *e*Sg | **Sg** | **01 28 44.6** | **+0.5** |
| **KSP** | **Ksiaz** | **0.70** | **167** | *i* Pg | **Pg** | **01 28 35.4** | **+0.4** |
| KSP | | | | *e* | | 01 28 37.7 | |
| KSP | | | | *e*Sg | **Sg** | **01 28 44.6** | **+0.5** |
| **UPC** | **Upice** | **1.02** | **181** | *e*PG | **Pg** | **01 28 41.3** | **+0.2** |
| UPC | | | | *e*SG | **Sg** | **01 28 54.9** | **+0.6** |
| | comp=Z,27nm,0.4s | | | | | | |
| **UPC** | **Upice** | **1.02** | **181** | Pg | **Pg** | **01 28 41.3** | **+0.2** |
| UPC | | | | Sg | **Sg** | **01 28 54.9** | **+0.6** |
| | 27nm,0.4s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.19** | **171** | *e*PG | **Pg** | **01 28 44.2** | **-0.2** |
| DPC | | | | *e*SG | **Sg** | **01 28 59.6** | **-0.2** |
| | comp=Z,13nm,0.3s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.19** | **171** | Pg | **Pg** | **01 28 44.2** | **-0.2** |
| DPC | | | | Sg | **Sg** | **01 28 59.6** | **-0.2** |
| | 13nm,0.3s | | | | | | |
| **PVCC** | **Panska Ves** | **1.36** | **224** | *e*PG | **Pn** | **01 28 47.7** | **-0.1** |
| PVCC | | | | *e*SG | **Sn** | **01 29 06.9** | **+0.3** |
| | comp=Z,71nm,0.2s | | | | | | |
| **PVCC** | **Panska Ves** | **1.36** | **224** | Pg | **Pn** | **01 28 47.7** | **-0.1** |
| PVCC | | | | Sg | **Sn** | **01 29 06.9** | **+0.3** |
| | 71nm,0.2s | | | | | | |
| **BRG** | **Berggiesshubel** | **1.47** | **244** | PG | **Pb** | **01 28 50.2** | **+0.4** |
| BRG | | | | SG | **Sn** | **01 29 10.3** | **+1.0** |
| | 32nm,0.4s | | | | | | |
| **KRLC** | **Kraliky** | **1.53** | **162** | *e*PG | **Pn** | **01 28 50.0** | **-0.1** |
| KRLC | | | | *e*SG | **Sg** | **01 29 10.3** | **-0.3** |
| **KRLC** | **Kraliky** | **1.53** | **162** | Pg | **Pn** | **01 28 50.0** | **-0.1** |
| KRLC | | | | Sg | **Sg** | **01 29 10.3** | **-0.3** |
| **GOPC** | **GO Pecny, Ondr** | **1.80** | **207** | *e*PN | **Pn** | **01 28 53.7** | **-0.2** |
| GOPC | | | | *e*PG | **Pb** | **01 28 55.0** | **-0.4** |
| GOPC | | | | *e*SG | **Sb** | **01 29 18.4** | **-0.1** |
| **GOPC** | **GO Pecny, Ondr** | **1.80** | **207** | Pn | **Pn** | **01 28 53.7** | **-0.2** |
| **PRU** | **Pruhonice** | **1.81** | **212** | *e*PN | **Pn** | **01 28 53.4** | **-0.6** |
| PRU | | | | *e*PG | **Pb** | **01 28 55.4** | **-0.1** |
| PRU | | | | *e*SG | **Sg** | **01 29 19.5** | **-0.2** |
| | comp=Z,11nm,0.3s | | | | | | |
| **PRU** | **Pruhonice** | **1.81** | **212** | Pn | **Pn** | **01 28 53.4** | **-0.6** |
| **CLL** | **Collm** | **1.92** | **265** | *i* Pn | **Pn** | **01 28 54.5** | **-0.9** |
| CLL | | | | *e*Pg | **Pb** | **01 28 57.0** | **-0.3** |
| CLL | | | | *e* | | 01 29 02.0 | |
| CLL | | | | *i* Sg | **Sg** | **01 29 23.7** | **+0.7** |
| | comp=Z,9.0nm,0.5s | | | | | | |
| **MORC** | **Moravsky Berou** | **2.00** | **151** | *e*Pn | **Pn** | **01 28 55.6** | **-1.0** |
| MORC | | | | *e*Sg | **Sb** | **01 29 23.7** | **-0.4** |
| **OKC** | **Ostrava-Krasne** | **2.16** | **141** | *e*PG | **Pb** | **01 29 01.9** | **+0.5** |
| OKC | | | | *e*SG | **Sb** | **01 29 28.7** | **0.0** |
| | comp=Z,26nm,0.7s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **2.16** | **141** | Pg | **Pb** | **01 29 01.9** | **+0.5** |
| OKC | | | | Sg | **Sb** | **01 29 28.7** | **0.0** |
| | comp=Z,26nm,0.7s | | | | | | |
| **VRAC** | **Vranov** | **2.25** | **171** | *e*Sg | **Sg** | **01 29 32.5** | **-1.2** |
| **NKC** | **Novy Kostel** | **2.62** | **242** | *e*PN | **Pn** | **01 29 05.5** | **+0.4** |
| NKC | | | | *e*PG | **Pg** | **01 29 11.4** | **-0.3** |
| NKC | | | | *e*SG | **Sg** | **01 29 46.6** | **+1.0** |
| | comp=Z,14nm,0.3s | | | | | | |
| **NKC** | **Novy Kostel** | **2.62** | **242** | Pn | **Pn** | **01 29 05.5** | **+0.4** |
| **OJC** | **Ojcow** | **2.72** | **117** | *e*Pg | **Pb** | **01 29 11.8** | **+0.8** |
| OJC | | | | *e*Sg | **Sg** | **01 29 47.5** | **-1.2** |
| **OJC** | **Ojcow** | **2.72** | **117** | *e*Pg | **Pb** | **01 29 11.8** | **+0.8** |
| OJC | | | | *e*Sg | **Sg** | **01 29 47.5** | **-1.2** |
| **OJC** | **Ojcow** | **2.72** | **117** | *e*Pg | **Pb** | **01 29 11.8** | **+0.8** |
| OJC | | | | *e*Sg | **Sg** | **01 29 47.5** | **-1.2** |
| **KHC** | **Kasperske Hory** | **2.87** | **214** | *e*PN | **Pn** | **01 29 08.4** | **-0.2** |
| KHC | | | | *e*PG | **Pb** | **01 29 14.5** | **+0.8** |
| KHC | | | | *e*SN | **Sn** | **01 29 43.5** | **-0.3** |
| KHC | | | | *e*SG | **Sg** | **01 29 53.0** | **-0.7** |
| **KHC** | **Kasperske Hory** | **2.87** | **214** | Pn | **Pn** | **01 29 08.4** | **-0.2** |
| **SMOL** | **Smolenice** | **3.15** | **163** | *e*Sg | **Sg** | **01 30 03.4** | **+0.8** |
| **SMOL** | **Smolenice** | **3.15** | **163** | *e*SG | **Sg** | **01 30 03.4** | **+0.8** |
| **MODS** | **Modra-Piesok** | **3.26** | **165** | *e*Sg | **Sg** | **01 30 06.0** | **-0.1** |
| **MODS** | **Modra-Piesok** | **3.26** | **165** | *e*SG | **Sg** | **01 30 06.0** | **-0.1** |
| **VYHS** | **Vyhne** | **3.53** | **148** | *e*Pg | **Pg** | **01 29 29.0** | **-0.2** |
| VYHS | | | | *e*Sg | **Sg** | **01 30 14.9** | **0.0** |
| **VYHS** | **Vyhne** | **3.53** | **148** | *e*PG | **Pg** | **01 29 29.0** | **-0.2** |
| VYHS | | | | *e*SG | **Sg** | **01 30 14.9** | **0.0** |
| **CONA** | **Conrad Observa** | **3.60** | **182** | Pn | **Pn** | **01 29 19.4** | **+0.7** |
| | comp=Z,0.4nm,0.2s | | | | | | |
| **CONA** | **Conrad Observa** | **3.60** | **182** | Pg | **Pg** | **01 29 29.1** | **-1.5** |
| | comp=Z,1.7nm,0.3s | | | | | | |
| CONA | | | | Sg | **Sg** | **01 30 15.4** | **-1.9** |
| | comp=Z,3.7nm,0.3s | | | | | | |
| **MOA** | **Molln** | **3.86** | **198** | Pn | **Pn** | **01 29 22.6** | **+0.5** |
| | comp=Z,1.6nm,0.3s | | | | | | |
| MOA | | | | Sg | **Sg** | **01 30 25.6** | **+0.2** |
| | comp=Z,2.5nm,0.3s | | | | | | |
| **STHS** | **Stebnicka Huta** | **3.94** | **120** | *e*Sg | **Sg** | **01 30 28.5** | **+0.5** |
| **STHS** | **Stebnicka Huta** | **3.94** | **120** | *e*SG | **Sg** | **01 30 28.5** | **+0.5** |
| STHS | | | | *e*LG | Lg | 01 30 52.5 | |
| **ARSA** | **Arzberg** | **4.29** | **185** | Pg | **Pg** | **01 29 42.9** | **-0.9** |
| | comp=Z,1.4nm,0.4s | | | | | | |
| ARSA | | | | Sg | **Sg** | **01 30 39.2** | **-0.2** |
| | comp=Z,5.8nm,0.8s | | | | | | |

*ISCJB **30** 01:41:40.5±0.7, 31°.47S±0°.03×69°.35W±0°.05, h121km±6km, Error ellipse: s-maj=7.4km s-min=5.1km az=22.4*
*GUC **30** 01:41:40.8±0.5, 31°.47S×69°.58W, h147km±43km, ML3.4*
*SJA **30** 01:41:41.1±1.1, 31°.43S×69°.44W, h104km±9km, ML3.1, MW3.3*

**ISC 30 01:41:41.5±1.4, 31°.44S±0°.04×69°.33W±0°.04, h115km±9km, n20, σ1s46/34, 2D, San Juan Province**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RTLS** | **Leoncito** | **0.36** | **176** | *e*P | **Pn** | **01 41 58.1** | **-0.4** |
| RTLS | | | | *e*S | **Sn** | **01 42 10.5** | **-0.8** |
| RTLS | | | | IAML | | 01 42 11.4 | |
| | comp=Z,532nm,0.1s | | | | | | |
| **SJA** | **San Juan** | **0.66** | **98** | *e*P | **Pn** | **01 42 00.5** | **+0.4** |
| SJA | | | | *e*S | **Sn** | **01 42 15.4** | **+1.3** |
| **RTLL** | **Cerro Villicun** | **0.74** | **82** | ⇓*e*P | **Pn** | **01 42 00.6** | **-0.1** |
| RTLL | | | | *e*S | **Sn** | **01 42 15.1** | **-0.2** |
| **AUSP** | **Uspallata** | **0.78** | **184** | *e*P | **Pn** | **01 42 00.9** | **-0.5** |
| AUSP | | | | ⇓*e*S | **Sn** | **01 42 15.6** | **-0.9** |
| **RTCV** | **Cerro Valdivia** | **0.79** | **122** | *e*P | **Pn** | **01 42 01.3** | **+0.1** |
| RTCV | | | | *e*S | **Sn** | **01 42 16.0** | **-0.1** |
| **AMOG** | **MOGNA** | **0.87** | **55** | *e*P | **Pn** | **01 42 02.4** | **+0.4** |
| AMOG | | | | *e*S | **Sn** | **01 42 17.1** | **-0.3** |
| **TLL** | **Tololo Astrono** | **1.79** | **315** | *e*P | **Pn** | **01 42 12.2** | **-0.2** |
| TLL | | | | *e*S | **Sn** | **01 42 35.9** | **0.0** |
| TLL | | | | IAML | | 01 42 38.3 | |
| | comp=N,218nm,0.6s | | | | | | |
| **ACAN** | **Cantantal** | **2.00** | **115** | *e*P | **Pn** | **01 42 14.8** | **+0.1** |
| **FCH** | **Farellones** | **2.05** | **203** | *e*P | **Pn** | **01 42 15.6** | **-0.1** |
| **PEL** | **Peldehue** | **2.05** | **214** | *e*P | **Pn** | **01 42 14.1** | **-1.3** |
| PEL | | | | *e*S | **Sn** | **01 42 40.1** | **-1.3** |
| PEL | | | | IAML | | 01 42 40.8 | |
| | comp=N,297nm,0.4s | | | | | | |
| **AGUA** | **GUANDACOL** | **2.08** | **21** | *e*P | **Pn** | **01 42 17.1** | **+1.3** |
| AGUA | | | | *e*S | **Sn** | **01 42 44.7** | **+2.7** |
| **ROC1** | **El Roble** | **2.10** | **223** | *e*P | Pn | 01 42 21.9 | +5.7 |
| ROC1 | | | | *e*S | **Sn** | **01 42 47.4** | **+4.7** |
| **CLCH** | **Cerro Calan** | **2.20** | **207** | *e*P | **Pn** | **01 42 16.6** | **-0.7** |
| CLCH | | | | *e*S | **Sn** | **01 42 43.4** | **-1.5** |
| CLCH | | | | IAML | | 01 42 45.4 | |
| | comp=E,296nm,0.6s | | | | | | |
| **LMEL** | **Las Melosas** | **2.51** | **197** | *e*P | **Pn** | **01 42 20.9** | **-0.5** |
| LMEL | | | | *e*S | **Sn** | **01 42 55.9** | **+3.8** |
| LMEL | | | | IAML | | 01 42 58.0 | |
| | comp=N,143nm,0.2s | | | | | | |
| **LCO** | **Las Campanas** | **2.70** | **333** | *e*P | **Pn** | **01 42 23.8** | **-0.2** |
| LCO | | | | *e*S | **Sn** | **01 42 55.5** | **-1.0** |
| **LCO** | **Las Campanas** | **2.70** | **333** | *e*P | **Pn** | **01 42 23.7** | **-0.2** |
| LCO | | | | *e*S | **Sn** | **01 42 55.9** | **-0.6** |
| LCO | | | | IAML | | 01 42 57.5 | |
| | comp=E,156nm,0.3s | | | | | | |
| **VCA** | **Vinchina** | **2.86** | **20** | *e*P | **Pn** | **01 42 27.1** | **+1.0** |
| VCA | | | | IAML | | 01 43 05.3 | |
| | comp=Z,64nm,0.6s | | | | | | |
| **MRA** | **San Martin** | **3.22** | **109** | *e*P | **Pn** | **01 42 30.3** | **-0.3** |
| **CYA** | **Choya** | **4.28** | **47** | *e*P | **Pn** | **01 42 43.8** | **-0.9** |
| CYA | | | | *e*S | **Sn** | **01 43 31.3** | **-2.4** |
| **FSA** | **Cafayete** | **6.07** | **30** | *e*P | **Pn** | **01 43 08.7** | **-0.3** |

*BJI **30** 01:44:56.8, 1°.38N×127°.84E, h90km, mb4.7/22, mB5.0/14, Ms4.9/5, Ms7 4.6/6*
*ISCJB **30** 01:45:02.6±0.5, 1°.88N±0°.03×127°.44E±0°.04, h105km±5km, mb4.6/58, Error ellipse: s-maj=6.9km s-min=4.4km az=155.9*
*NEIC **30** 01:45:02.3±0.5, 1°.91N×127°.56E, h88km±5km, mb4.7/37, Error ellipse: s-maj=5.2km s-min=3.1km az=68.0*
*DJA **30** 01:45:03.5±1.2, 2°N±3°×12°7E±°, h29km±13km, M4.8/11, mb4.8/6, mB5.2/5, MLv4.9/11, Mw(mB)4.6/5*
*IDC **30** 01:45:04.5±0.8, 1°.88N×127°.50E, h102km±6km, mb3.8/13, mb1 4.0/14, mb1mx3.8/33, mbtmp4.2/14, MS2.7/1, Ms1 2.7/1, ms1mx2.4/23, Error ellipse: s-maj=24.9km s-min=8.0km az=77.0*

**ISC 30 01:45:04.2±0.5, 1°.88N±0°.04×127°.42E±0°.05, h103km±4km, h103km:pP-P, n107, σ1s40/128, mb4.7/58, 1C, Halmahera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TNTI** | **Ternate** | **1.10** | **183** | *e*Pn | **Pn** | **01 45 24.6** | **-1.4** |
| TNTI | | | | *e*Sn | **Sn** | **01 45 41.7** | **-0.7** |
| **LBMI** | **Labuha** | **2.50** | **178** | P | **Pn** | **01 45 44.0** | **+0.5** |
| LBMI | | | | S | **Sn** | **01 46 16.7** | **+3.2** |
| **SGSI** | **Sangihe** | **2.61** | **314** | P | **Pn** | **01 45 41.3** | **-3.6** |
| SGSI | | | | S | **Sn** | **01 46 10.6** | **-5.5** |
| **KMSI** | **Cibinong** | **3.67** | **249** | P | **Pn** | **01 45 57.8** | **-1.3** |
| **SANI** | **Sanana** | **4.16** | **200** | P | **Pn** | **01 46 04.9** | **-0.7** |
| **NLAI** | **Namlea** | **5.09** | **184** | P | **Pn** | **01 46 18.7** | **+0.4** |
| | 85nm,0.6s,9μm | | | | | | |
| **MSAI** | **Masohi** | **5.40** | **164** | P | **Pn** | **01 46 24.6** | **+2.1** |
| **DAV** | **Davao City (W)** | **5.47** | **340** | P | **Pn** | **01 46 25.9** | **+2.4** |
| | 52nm,0.3s,baz=76,slow=12,SNR=2.5 | | | | | | |
| DAV | | | | S | **Sn** | **01 47 26.5** | **+1.3** |
| | 107nm,0.3s,baz=202,slow=14,SNR=4.6 | | | | | | |
| **LUWI** | **Luwuk** | **5.48** | **238** | P | **Pn** | **01 46 23.3** | **-0.2** |
| | 37nm,0.5s,2μm | | | | | | |
| **LUWI** | **Luwuk** | **5.48** | **238** | *e*Pn | **Pn** | **01 46 22.9** | **-0.5** |
| **MRSI** | **Marisa** | **5.65** | **256** | P | **Pn** | **01 46 24.4** | **-1.4** |
| **APSI** | **Ampana** | **6.40** | **244** | P | **Pn** | **01 46 35.1** | **-0.9** |
| | 54nm,0.5s,2μm | | | | | | |
| APSI | | | | S | **Sn** | **01 47 46.2** | **-1.5** |
| | 54nm,0.5s,2μm | | | | | | |
| **FAKI** | **Fak Fak** | **6.78** | **135** | P | **Pn** | **01 46 43.1** | **+1.9** |
| | 29nm,1.0s | | | | | | |
| **FAKI** | **Fak Fak** | **6.78** | **135** | *e*Pn | **Pn** | **01 46 42.6** | **+1.3** |
| **BNDI** | **Bandanaira** | **6.83** | **159** | P | **Pn** | **01 46 43.5** | **+1.7** |
| **MPSI** | **Mapaga** | **7.67** | **259** | P | **Pn** | **01 46 52.5** | **-0.8** |
| **MYLDM** | **Lahad Datu** | **9.49** | **290** | *e*Pn | **Pn** | **01 47 18.2** | **+0.2** |
| **KAPI** | **Kappang** | **10.27** | **228** | *e*Pn | **Pn** | **01 47 27.8** | **-0.9** |
| **MMRI** | **Maumere** | **11.65** | **206** | *e*Pn | **Pn** | **01 47 47.4** | **0.0** |
| **KKM** | **Kota Kinabalu** | **11.92** | **291** | *e*Pn | **Pn** | **01 47 51.2** | **+0.3** |
| **SOEI** | **Soe** | **11.97** | **195** | *e*Pn | **Pn** | **01 47 47.6** | **-4.1** |
| **MTN** | **Manton Dam** | **15.08** | **166** | *e*Pn | **Pn** | **01 48 30.6** | **-1.4** |
| | 14nm,0.8s | | | | | | |
| **JAGI** | **Jajag, Banyuwa** | **16.75** | **232** | *e*Pn | **P** | **01 48 53.8** | **+0.5** |
| | 63nm,1.4s | | | | | | |
| **KSM** | **Kuching** | **17.11** | **269** | *e*Pn | **P** | **01 48 57.4** | **+0.2** |
| | 60nm,1.6s | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **19.93** | **185** | P | **P** | **01 49 28.0** | **0.0** |
| | 1.5nm,0.3s,baz=6.2,slow=11,SNR=54 | | | | | | |
| **CISI** | **Cisompet, Garu** | **21.69** | **244** | *e*P | **P** | **01 49 47.7** | **+0.7** |
| | 28nm,0.8s | | | | | | |
| **YULB** | **Yu-li** | **22.20** | **345** | *e*P | **P** | **01 49 52.0** | **-0.3** |
| | 34nm,1.2s | | | | | | |
| **TPUB** | **Ta-pu** | **22.29** | **343** | *e*P | **P** | **01 49 52.0** | **-1.2** |
| | 65nm,1.1s | | | | | | |
| **PMG** | **Port Moresby** | **22.64** | **120** | *e*P | **P** | **01 49 55.0** | **-1.9** |
| | 30nm,1.1s | | | | | | |
| **WRAB** | **Tennant Cre

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **STKA** | **Stephens Creek** | **36.16** | **159** | P | | **P** | **01 51 57.3** | **+0.5** |
| | 19nm,0.5s,baz=343,slow=8.1,SNR=60 | | | | | | | |
| **STKA** | **Stephens Creek** | **36.16** | **159** | *e*P | | **P** | **01 51 56.9** | **0.0** |
| | 4.1nm,0.9s | | | | | | | |
| **CD2** | **Chengdu** | **36.54** | **325** | *e*P | | **P** | **01 52 02.3** | **+2.2** |
| CD2 | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.8s | | | | | | | |
| **BJI** | **Beijing** | **39.34** | **346** | P | | **P** | **01 52 25.5** | **+2.1** |
| BJI | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.9s | | | | | | | |
| BJI | | | | pmax | pmax | | | |
| | comp=Z,91nm,3.9s | | | | | | | |
| **LZH** | **Lanzhou** | **40.44** | **330** | *e*P | | **P** | **01 52 33.5** | **+0.6** |
| LZH | | | | pP | pP | 01 52 54.0 | | -2.6 |
| LZH | | | | sP | sP | 01 53 07.5 | | -0.8 |
| LZH | | | | pmax | pmax | | | |
| | comp=Z,17nm,0.8s | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **41.36** | **342** | *e*P | | **P** | **01 52 41.0** | **+0.7** |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,19nm,1.1s | | | | | | | |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,80nm,7.2s | | | | | | | |
| **CAN** | **Canberra** | **42.16** | **153** | *e*P | | **P** | **01 52 45.0** | **-1.8** |
| | 5.0nm,0.6s | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **42.34** | **5** | P | | **P** | **01 52 47.2** | **-0.8** |
| | 2.1nm,0.8s,baz=167,slow=8.4,SNR=2.7 | | | | | | | |
| **GTA** | **Gaotai** | **45.03** | **330** | ⇑P | | **P** | **01 53 10.5** | **+0.6** |
| GTA | | | | pP | pP | 01 53 30.0 | | -4.0 |
| GTA | | | | sP | sP | 01 53 42.5 | | -3.1 |
| GTA | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,1.4s | | | | | | | |
| **TARA** | **Tarawa** | **45.49** | **90** | *e*P | | **P** | **01 53 11.6** | **-2.2** |
| | 108nm,1.0s | | | | | | | |
| **TAPN** | **Taplejung** | **45.67** | **307** | *e*P | | **P** | **01 53 15.0** | **-0.3** |
| | 7.2nm,0.5s | | | | | | | |
| **ODAN** | **Odare** | **45.71** | **307** | *e*P | | **P** | **01 53 15.1** | **-0.5** |
| **RAMN** | **Ramite** | **46.38** | **306** | *e*P | | **P** | **01 53 20.7** | **-0.2** |
| | 14nm,0.7s | | | | | | | |
| **JIRN** | **Jiri** | **47.02** | **307** | *e*P | | **P** | **01 53 25.5** | **-0.5** |
| | 72nm,0.5s | | | | | | | |
| **KLR** | **Kul'dur** | **47.32** | **4** | P | | **P** | **01 53 27.7** | **+0.2** |
| | 0.1nm,0.9s,baz=199,slow=19,SNR=3.5 | | | | | | | |
| **GUN** | **Gumba** | **47.38** | **307** | *e*P | | **P** | **01 53 28.3** | **-0.4** |
| **KKN** | **Kakani** | **47.80** | **307** | *e*P | | **P** | **01 53 31.1** | **-0.8** |
| **DMN** | **Daman** | **47.87** | **306** | *e*P | | **P** | **01 53 32.6** | **+0.2** |
| **ULN** | **Ulaanbaatar** | **49.08** | **342** | *e*P | | **P** | **01 53 41.2** | **0.0** |
| | 3.7nm,0.8s | | | | | | | |
| **KOLN** | **Koldanda** | **49.15** | **306** | *e*P | | **P** | **01 53 41.9** | **-0.3** |
| | 14nm,0.6s | | | | | | | |
| **DANN** | **Dangsing** | **49.26** | **307** | *e*P | | **P** | **01 53 43.3** | **+0.2** |
| **SONM** | **Songino Array** | **49.26** | **341** | P | | **P** | **01 53 43.2** | **+0.6** |
| | 1.3nm,0.6s,baz=154,slow=7.8,SNR=9.6 | | | | | | | |
| SONM | | | | pP | | **pP** | **01 54 08.1** | **+1.0** |
| | 2.0nm,0.8s,baz=157,slow=8.5,SNR=5.1 | | | | | | | |
| **SONA1** | **Songino Array** | **49.27** | **341** | *e*P | | **P** | **01 53 42.8** | **+0.2** |
| **PYUN** | **Piuthan** | **49.77** | **306** | *e*P | | **P** | **01 53 47.0** | **0.0** |
| | 12nm,0.5s | | | | | | | |
| **FUNA** | **Funafuti** | **52.64** | **102** | *e*P | | **P** | **01 54 05.4** | **-2.9** |
| | 247nm,1.5s | | | | | | | |
| **WMQ** | **Urumqi** | **54.63** | **325** | P | | **P** | **01 54 23.5** | **+1.1** |
| WMQ | | | | pP | pP | 01 54 46.5 | | -0.8 |
| WMQ | | | | sP | sP | 01 54 55.5 | | -3.2 |
| WMQ | | | | pmax | pmax | | | |
| | comp=Z,22nm,1.1s | | | | | | | |
| WMQ | | | | pmax | pmax | | | |
| | comp=Z,300nm,5.7s | | | | | | | |
| **MK01** | **Makanchi Array** | **59.44** | **326** | *e*P | | **P** | **01 54 56.8** | **+0.5** |
| **MK31** | **Makanchi Array** | **59.46** | **326** | *e*P | | **P** | **01 54 56.9** | **+0.4** |
| **MKAR** | **Makanchi Array** | **59.46** | **326** | P | | **P** | **01 54 57.0** | **+0.6** |
| | 2.6nm,0.4s,baz=119,slow=8.0,SNR=80 | | | | | | | |
| MKAR | | | | pP | | **pP** | **01 55 21.1** | **-0.6** |
| | 1.1nm,0.6s,baz=120,slow=8.7,SNR=2.2 | | | | | | | |
| **MKAR** | **Makanchi Array** | **59.46** | **326** | *e*P | | **P** | **01 54 56.9** | **+0.4** |
| | 22nm,0.5s | | | | | | | |
| MKAR | | | | pP | | **pP** | **01 55 21.1** | **-0.6** |
| **MAKZ** | **Makanchi** | **59.65** | **325** | *e*P | | **P** | **01 54 58.2** | **+0.5** |
| | 9.5nm,1.6s | | | | | | | |
| **KSH** | **Kashi** | **59.84** | **316** | P | | **P** | **01 55 01.0** | **+1.7** |
| KSH | | | | pP | pP | 01 55 22.8 | | -1.7 |
| KSH | | | | PcP | **PcP** | **01 55 45.0** | | **+0.2** |
| KSH | | | | PP | **PP** | **01 57 17.0** | | **+4.5** |
| KSH | | | | S | **S** | **02 03 03.5** | | **+0.4** |
| KSH | | | | ScS | **ScS** | **02 04 36.5** | | **-3.8** |
| KSH | | | | SS | **SS** | **02 07 04.5** | | **+3.5** |
| KSH | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.3s | | | | | | | |
| KSH | | | | pmax | pmax | | | |
| | comp=Z,120nm,4.2s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=N,160nm,4.7s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=E,120nm,5.7s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=Z,140nm,5.2s | | | | | | | |
| **AAK** | **Ala-Archa** | **62.19** | **318** | *e*P | | **P** | **01 55 15.6** | **+0.5** |
| | 0.8nm,0.5s | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **62.54** | **333** | P | | **P** | **01 55 17.3** | **+0.3** |
| | 0.7nm,0.4s,baz=137,slow=5.3,SNR=3.4 | | | | | | | |
| **KBL** | **Kabul** | **63.19** | **308** | *e*P | | **P** | **01 55 22.7** | **+0.7** |
| | 4.4nm,0.8s | | | | | | | |
| **KURK** | **Kurchatov** | **63.66** | **328** | *e*P | | **P** | **01 55 24.8** | **+0.2** |
| **KKAR** | **Karatay Array** | **65.05** | **317** | *e*P | | **P** | **01 55 34.9** | **+1.1** |
| | 0.7nm,0.3s | | | | | | | |
| **BRVK** | **Borovoye** | **69.31** | **327** | *e*P | | **P** | **01 55 60.0** | **-0.5** |
| | 9.2nm,0.8s | | | | | | | |
| **GEYT** | **Alibeck** | **72.59** | **309** | P | | **P** | **01 56 23.0** | **+2.3** |
| | 0.9nm,0.6s,baz=85,slow=3.0,SNR=3.0 | | | | | | | |
| **ABKAR** | **Akbulak array** | **74.01** | **321** | *e*P | | **P** | **01 56 28.4** | **-0.3** |
| | 13nm,0.6s | | | | | | | |
| **VNDA** | **Vanda** | **81.51** | **173** | P | | **P** | **01 57 10.4** | **+0.6** |
| | 1.1nm,0.5s,baz=312,slow=8.4,SNR=6.1 | | | | | | | |
| **RAYN** | **Ar Rayn** | **81.84** | **293** | *e*P | | **P** | **01 57 13.1** | **+0.4** |
| | 2.7nm,0.8s | | | | | | | |
| **GNI** | **Garni** | **83.19** | **310** | *e*P | | **P** | **01 57 19.4** | **-0.1** |
| | 15nm,0.7s | | | | | | | |
| **ILAR** | **Eielson Array** | **86.47** | **25** | P | | **P** | **01 57 36.6** | **+1.4** |
| | 0.3nm,0.9s,baz=258,slow=4.2,SNR=3.5 | | | | | | | |
| **TXAR** | **Lajitas Array** | **122.16** | **53** | PKP | | **PKPdf** | **02 03 48.8** | **+1.0** |
| | 0.2nm,0.6s,baz=262,slow=1.4,SNR=2.8 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **124.13** | **287** | PKP | | **PKPdf** | **02 03 52.1** | **+0.3** |
| | 0.4nm,0.4s,baz=44,slow=2.0,SNR=10.0 | | | | | | | |

*ISK **30** 02:06:02.8, 39˚.07N×40˚.46E, h5km, MD2.5*
*ISCJB **30** 02:06:03.9±0.5, 39˚.07N±0˚.03×40˚.43E±0˚.04, h3km±10km, Error ellipse: s-maj=5.4km s-min=4.5km az=148.1*
*CSEM **30** 02:06:03.8±0.3, 39˚.06N×40˚.43E, h8km, MD2.5, Error ellipse: s-maj=6.4km s-min=4.9km az=123.0*
*DDA **30** 02:06:03.7, 39˚.10N×40˚.41E, h7km, Md2.6*
**ISC 30 02:06:03.8±1.1, 39˚.07N±0˚.03×40˚.43E±0˚.03, h5km±13km, n17, σ0s47/30, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **BINT** | **Bingol** | **0.20** | **167** | *e*Pg | | **Pg** | | **02 06 07.0** | **-0.8** |
| **BNGB** | **Bing¯¶l** | **0.21** | **112** | *e*PG | | **Pg** | | **02 06 07.0** | **-0.9** |
| **YEDI** | **Yedisu-Bingol** | **0.38** | **14** | *e*PG | | **Pg** | | **02 06 11.0** | **-0.2** |
| YEDI | | | | *e*SG | | **Sg** | | **02 06 16.4** | **+0.2** |
| **YEDI** | **Yedisu-Bingol** | **0.38** | **14** | *e*Pg | | **Pg** | | **02 06 11.0** | **-0.2** |
| YEDI | | | | *e*Sg | | **Sg** | | **02 06 16.4** | **+0.2** |
| **BNGL** | **BINGOL** | **0.57** | **102** | *i* P | | **Pg** | | **02 06 14.7** | **-0.2** |
| BNGL | | | | *i* S | | **Sb** | | **02 06 24.8** | **-0.2** |
| **HANI** | **Diyarbakir_Han** | **0.66** | **182** | *i* P | | **Pg** | | **02 06 16.8** | **+0.4** |
| HANI | | | | *i* S | | **Sb** | | **02 06 27.1** | **-0.1** |
| **HANI** | **Diyarbakir_Han** | **0.66** | **182** | P | | **Pg** | | **02 06 16.8** | **+0.4** |
| HANI | | | | S | | **Sb** | | **02 06 27.1** | **-0.1** |
| **ECAT** | **Cat-ERZURUM** | **0.68** | **38** | *i* P | | **Pb** | | **02 06 18.4** | **+0.1** |
| ECAT | | | | *i* S | | **Sg** | | **02 06 26.8** | **+1.0** |
| **ECAT** | **Cat-ERZURUM** | **0.68** | **38** | P | | **Pb** | | **02 06 18.4** | **+0.1** |
| ECAT | | | | S | | **Sg** | | **02 06 26.8** | **+1.0** |
| **TNCL** | **Tunceli-Merkez** | **0.69** | **274** | *i* P | | **Pg** | | **02 06 16.9** | **-0.2** |
| TNCL | | | | *i* S | | **Sb** | | **02 06 27.6** | **-0.7** |
| **TNCL** | **Tunceli-Merkez** | **0.69** | **274** | P | | **Pg** | | **02 06 16.9** | **-0.2** |
| TNCL | | | | S | | **Sb** | | **02 06 27.6** | **-0.7** |
| **PTK** | **Pertek** | **0.83** | **258** | *e*PG | | **Pg** | | **02 06 19.4** | **-0.3** |
| PTK | | | | *e*SG | | **Sb** | | **02 06 32.1** | **-0.2** |
| **PTK** | **Pertek** | **0.83** | **258** | *e*Pg | | **Pg** | | **02 06 19.4** | **-0.3** |
| PTK | | | | *e*Sg | | **Sb** | | **02 06 32.1** | **-0.2** |
| **SVRC** | **Sivrice-ELAZID** | **1.12** | **232** | *e*PN | | **Pg** | | **02 06 25.3** | **0.0** |
| **SVRC** | **Sivrice-ELAZID** | **1.12** | **232** | *e*Pn | | **Pg** | | **02 06 25.3** | **0.0** |
| **KEMA** | **Kemaliye** | **1.52** | **278** | *i* P | | **Pn** | | **02 06 31.7** | **0.0** |
| KEMA | | | | *i* S | | **Sg** | | **02 06 53.0** | **+0.4** |
| **KEMA** | **Kemaliye** | **1.52** | **278** | P | | **Pn** | | **02 06 31.7** | **0.0** |
| KEMA | | | | S | | **Sg** | | **02 06 53.0** | **+0.4** |

*ISK **30** 02:49:34.3, 38˚.79N×43˚.75E, h5km, MD2.6*
*ISCJB **30** 02:49:36.7±0.7, 38˚.76N±0˚.02×43˚.66E±0˚.05, h5km±5km, Error ellipse: s-maj=6.6km s-min=4.1km az=0.2*
*CSEM **30** 02:49:36.3±0.3, 38˚.75N×43˚.67E, h5km, MD2.7, Error ellipse: s-maj=6.5km s-min=4.0km az=81.0*
*DDA **30** 02:49:36.4, 38˚.72N×43˚.65E, h7km, Md2.7*
**ISC 30 02:49:37.4±0.9, 38˚.76N±0˚.02×43˚.61E±0˚.03, h16km±7km, n32, σ1s16/54, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.23** | **353** | *i* P | | **Pg** | | **02 49 42.1** | **-0.6** |
| VMUR | | | | *i* S | | **Sb** | | **02 49 47.5** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.23** | **353** | P | | **Pg** | | **02 49 42.1** | **-0.6** |
| VMUR | | | | S | | **Sb** | | **02 49 47.5** | **+0.3** |
| **VANB** | **Van** | **0.24** | **226** | *e*PG | | **Pg** | | **02 49 42.9** | **+0.1** |
| **VANB** | **Van** | **0.24** | **226** | *e*Pg | | **Pg** | | **02 49 42.9** | **+0.1** |
| **TVAN** | **Van** | **0.28** | **214** | *i* P | | **Pg** | | **02 49 42.3** | **-1.3** |
| TVAN | | | | *i* S | | **Sg** | | **02 49 47.4** | **-0.5** |
| **TVAN** | **Van** | **0.28** | **214** | P | | **Pg** | | **02 49 42.3** | **-1.3** |
| TVAN | | | | S | | **Sg** | | **02 49 47.4** | **-0.5** |
| **ERCV** | **ERCIS-VAN** | **0.33** | **321** | *e*PG | | **Pg** | | **02 49 43.2** | **-1.2** |
| **ERCV** | **ERCIS-VAN** | **0.33** | **321** | *e*Pg | | **Pg** | | **02 49 43.2** | **-1.2** |
| **CLDR** | **Caldiran** | **0.45** | **32** | *i* P | | **Pg** | | **02 49 46.1** | **-0.4** |
| CLDR | | | | *i* S | | **Sn** | | **02 49 55.4** | **-1.8** |
| **CLDR** | **Caldiran** | **0.45** | **32** | P | | **Pg** | | **02 49 46.1** | **-0.4** |
| CLDR | | | | S | | **Sn** | | **02 49 55.4** | **-1.8** |
| **GEVA** | **Gevas** | **0.62** | **224** | *i* P | | **Pg** | | **02 49 47.9** | **-1.8** |
| GEVA | | | | *i* S | | **Sb** | | **02 49 58.7** | **+0.2** |
| **GEVA** | **Gevas** | **0.62** | **224** | P | | **Pg** | | **02 49 47.9** | **-1.8** |
| GEVA | | | | S | | **Sb** | | **02 49 58.7** | **+0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.69** | **274** | *i* P | | **Pg** | | **02 49 50.2** | **-0.8** |
| ADCV | | | | *i* S | | **Sg** | | **02 50 00.6** | **+0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.69** | **274** | P | | **Pg** | | **02 49 50.2** | **-0.8** |
| ADCV | | | | S | | **Sg** | | **02 50 00.6** | **+0.4** |
| **TUTA** | **Tutak** | **0.89** | **316** | *i* P | | **Pg** | | **02 49 53.4** | **-1.3** |
| TUTA | | | | *i* S | | **Sb** | | **02 50 06.9** | **+0.6** |
| **TUTA** | **Tutak** | **0.89** | **316** | P | | **Pg** | | **02 49 53.4** | **-1.3** |
| TUTA | | | | S | | **Sb** | | **02 50 06.9** | **+0.6** |
| **AGRB** | **Hanur-Agry** | **0.94** | **330** | *e*PG | | **Pg** | | **02 49 54.2** | **-1.5** |
| AGRB | | | | *e*SG | | **Sn** | | **02 50 09.2** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **0.94** | **330** | *e*Pg | | **Pg** | | **02 49 54.2** | **-1.5** |
| AGRB | | | | *e*Sg | | **Sn** | | **02 50 09.2** | **-0.1** |
| **HAKT** | **HAKKARI** | **1.21** | **176** | *i* P | | **Pn** | | **02 49 58.2** | **-1.6** |
| HAKT | | | | *i* S | | **Sn** | | **02 50 17.5** | **+1.6** |
| **HAKT** | **HAKKARI** | **1.21** | **176** | P | | **Pn** | | **02 49 58.2** | **-1.6** |
| HAKT | | | | S | | **Sn** | | **02 50 17.5** | **+1.6** |
| **YOVA** | **Hakkari_Y¨…kse** | **1.29** | **155** | *i* P | | **Pn** | | **02 50 00.2** | **-0.7** |
| YOVA | | | | *i* S | | **Sg** | | **02 50 21.5** | **+2.3** |
| **YOVA** | **Hakkari_Y¨…kse** | **1.29** | **155** | P | | **Pn** | | **02 50 00.2** | **-0.7** |
| YOVA | | | | S | | **Sg** | | **02 50 21.5** | **+2.3** |
| **EKAR** | **Karacoban** | **1.30** | **293** | *i* P | | **Pb** | | **02 50 01.9** | **+0.3** |
| EKAR | | | | *i* S | | **Sg** | | **02 50 21.8** | **+2.3** |
| **EKAR** | **Karacoban** | **1.30** | **293** | P | | **Pb** | | **02 50 01.9** | **+0.3** |
| EKAR | | | | S | | **Sg** | | **02 50 21.8** | **+2.3** |
| **CUKT** | **Cukurca** | **1.51** | **180** | *e*PN | | **Pn** | | **02 50 04.1** | **+0.2** |
| **CUKT** | **Cukurca** | **1.51** | **180** | *e*Pn | | **Pn** | | **02 50 04.1** | **+0.2** |
| **SRTM** | **Siirt_Merkez** | **1.53** | **240** | *i* P | | **Pn** | | **02 50 04.9** | **+0.8** |
| SRTM | | | | *i* S | | **Sg** | | **02 50 26.2** | **-0.7** |
| **SRTM** | **Siirt_Merkez** | **1.53** | **240** | P | | **Pn** | | **02 50 04.9** | **+0.8** |
| SRTM | | | | S | | **Sg** | | **02 50 26.2** | **-0.7** |
| **SIRT** | **Sirnak** | **1.56** | **217** | *e*PN | | **Pb** | | **02 50 06.0** | **+0.1** |
| **SIRT** | **Sirnak** | **1.56** | **217** | *e*Pn | | **Pb** | | **02 50 06.0** | **+0.1** |
| **SENK** | **Senkaya-Erzuru** | **2.04** | **332** | *e*PN | | **Pn** | | **02 50 11.6** | **+0.4** |
| **SENK** | **Senkaya-Erzuru** | **2.04** | **332** | *e*Pn | | **Pn** | | **02 50 11.6** | **+0.4** |

*TEH **30** 02:54:55.5, 32˚.49N×47˚.67E, h30km, ML2.6*
*ISN **30** 02:54:55.4±1.7, 32˚.65N×47˚.50E, h15km, ML2.6*
**CSEM 30 02:54:48.6±0.7, 31˚.99N×47˚.36E, h20km, ML2.6, Error ellipse: s-maj=22.9km s-min=9.6km az=32.0, Iran-Iraq border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **AHWZ** | **Ahwaz** | **1.27** | **121** | *e*Pn | | Pn | | 02 55 10.0 | -1.3 |
| **AHWZ** | **Ahwaz** | **1.27** | **121** | *e*Pn | | Pn | | 02 55 10.0 | -1.3 |
| **IKFM** | **Kafar-mosalman** | **1.59** | **15** | *e*Pg | | Pn | | 02 55 10.2 | -5.4 |
| **IKFM** | **Kafar-mosalman** | **1.59** | **15** | *e*Pg | | Pn | | 02 55 10.2 | -5.4 |
| **IKOM** | **Komasi** | **2.19** | **3** | *e*Pn | | Pn | | 02 55 23.0 | -1.0 |
| IKOM | | | | *e*Sg | | Sn | | 02 55 49.0 | -1.6 |
| **IKOM** | **Komasi** | **2.19** | **3** | *e*Pn | | Pn | | 02 55 23.0 | -1.0 |
| IKOM | | | | *e*Sg | | Sn | | 02 55 49.0 | -1.6 |
| **IGHG** | **Ghaleghazi** | **2.43** | **344** | *e*Pn | | Pn | | 02 55 28.3 | +0.9 |
| IGHG | | | | *e*Sg | | Sb | | 02 56 00.2 | -1.2 |
| IGHG | | | | *e*AMB | | AMB | | 02 56 13.9 | |
| | comp=Z,598nm,0.3s | | | | | | | | |
| **IGHG** | **Ghaleghazi** | **2.43** | **344** | *e*Pn | | Pn | | 02 55 28.3 | +0.9 |
| IGHG | | | | *e*Sg | | Sb | | 02 56 00.2 | -1.2 |
| **IVIS** | **Veis** | **2.57** | **351** | *e*Pn | | Pn | | 02 55 29.0 | -0.2 |
| IVIS | | | | *e*AMB | | AMB | | 02 56 04.2 | |
| | comp=Z,288nm,0.2s | | | | | | | | |
| **IVIS** | **Veis** | **2.57** | **351** | *e*Pn | | Pn | | 02 55 29.0 | -0.2 |
| **IPIR** | **Pirpir** | **3.07** | **76** | *e*Pn | | Pn | | 02 55 38.0 | +1.7 |
| IPIR | | | | *e*AMB | | AMB | | 02 56 20.3 | |
| | comp=Z,168nm,0.2s | | | | | | | | |
| **IPIR** | **Pirpir** | **3.07** | **76** | *e*Pn | | Pn | | 02 55 38.0 | +1.7 |
| **IKLH** | **Kolahrood** | **3.80** | **68** | *e*Pn | | Pn | | 02 55 46.2 | 0.0 |
| IKLH | | | | *e*AMB | | AMB | | 02 56 43.0 | |
| | comp=Z,107nm,0.2s | | | | | | | | |
| **IKLH** | **Kolahrood** | **3.80** | **68** | *e*Pn | | Pn | | 02 55 46.2 | 0.0 |
| **QAM** | **Ghamsar** | **3.86** | **62** | *e*Pn | | Pn | | 02 55 46.6 | -0.5 |
| QAM | | | | *e*AMB | | AMB | | 02 56 37.0 | |
| | comp=Z,232nm,0.2s | | | | | | | | |
| **IGAR** | **Gharneh** | **3.99** | **83** | *e*Pn | | Pn | | 02 55 49.8 | +0.9 |
| **IRAM** | **Ramesheh** | **4.28** | **91** | *e*Pn | | Pn | | 02 55 57.2 | +4.4 |
| IRAM | | | | *e*AMB | | AMB | | 02 56 48.6 | |
| | comp=Z,59nm,0.2s | | | | | | | | |
| **IRAM** | **Ramesheh** | **4.28** | **91** | *e*Pn | | Pn | | 02 55 57.2 | +4.4 |
| **IZEF** | **Zefreh** | **4.30** | **76** | *e*Pn | | Pn | | 02 55 53.9 | +0.8 |
| IZEF | | | | *e*AMB | | AMB | | 02 55 56.6 | |
| | comp=Z,60nm,0.1s | | | | | | | | |
| **IZEF** | **Zefreh** | **4.30** | **76** | *e*Pn | | Pn | | 02 55 53.9 | +0.8 |

**IDC 30 02:59:19.4±5.7, 39˚.40N×110˚.84E, h0km, mb3.4/2, mb1 3.7/3, mb1mx3.3/44, mbtmp3.5/3, ML2.7/1, Error ellipse: s-maj=117.5km s-min=25.7km az=84.0, Western Nei Mongol**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **SONM** | **Songino Array** | **9.03** | **341** | Pn | | Pn | | 03 01 30.9 | -0.1 |
| | 0.1nm,0.3s,baz=157,slow=14,SNR=16 | | | | | | | | |
| SONM | | | | Lg | | Lg | | 03 04 07.8 | |
| | 0.1nm,0.3s,baz=157,slow=25,SNR=5.4 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **22.04** | **299** | P | | P | | 03 04 15.1 | -0.4 |
| | 0.8nm,0.8s,baz=99,slow=12,SNR=10.0 | | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **23.28** | **210** | P | | P | | 03 04 28.9 | +0.2 |
| | 1.0nm,0.4s,baz=14,slow=9.4,SNR=5.4 | | | | | | | | |

**IDC 30 03:03:08.0±2.0, 4˚.75S×154˚.40E, h0km, mb3.7/4, mb1 3.9/5, mb1mx3.5/49, mbtmp3.7/5, ML3.9/1, Error ellipse: s-maj=98.8km s-min=27.1km az=127.0, Bougainville-Solomon Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **CTA** | **Charters Tower** | **17.19** | **207** | P | | P | Pn | 03 07 10.0 | +0.3 |
| | 0.2nm,0.3s,baz=23,slow=7.7,SNR=2.4 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **24.69** | **231** | P | | P | P | 03 08 31.6 | +0.6 |
| | 1.1nm,1.0s,baz=56,slow=11,SNR=20 | | | | | | | | |
| **ASAR** | **Alice Springs** | **27.28** | **224** | P | | P | P | 03 08 53.5 | -1.0 |
| | 0.3nm,0.3s,baz=58,slow=9.3,SNR=7.4 | | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **31.09** | **242** | P | | P | P | 03 09 28.6 | +0.3 |
| | 0.8nm,0.3s,baz=56,slow=7.1,SNR=10 | | | | | | | | |
| **ILAR** | **Eielson Array** | **81.52** | **22** | P | | P | P | 03 15 27.0 | -0.1 |
| | 0.3nm,1.0s,baz=238,slow=5.8,SNR=5.5 | | | | | | | | |

*OBM **30** 03:12:53.9±0.2, 51˚.80N×95˚.78E, h2km, Ml4.1/1, Error ellipse: s-maj=2.5km s-min=1.9km az=168.0*
*IDC **30** 03:12:53.9±0.5, 51˚.82N×96˚.03E, h0km, mb3.8/14, mb1 3.9/20, mb1mx3.8/51, mbtmp3.8/20, ML2.9/7, MS3.1/8, Ms1 3.1/8, ms1mx2.9/43, Error ellipse: s-maj=16.5km s-min=6.5km az=2.0*
*ASRS **30** 03:12:56.0±0.8, 51˚.87N×95˚.83E, h15km, Ms3.4/3*
*NEIC **30** 03:12:55.0±0.3, 51˚.80N×95˚.99E, h10km, mb4.2/10, Error ellipse: s-maj=9.1km s-min=5.3km az=177.0*
*MOS **30** 03:12:56.6±2.4, 52˚.08N×95˚.49E, h5km, mb4.3/11, Error ellipse: s-maj=9.5km s-min=6.8km az=5.2*
*BJI **30** 03:13:00.3, 52˚.00N×95˚.36E, h50km, mb4.2/3, mB4.3/3, ML4.2/1, Ms4.0/3, Ms7 3.7/3*
**ISC 30 03:12:56.8±0.4, 51˚.97N±0˚.04×95˚.94E±0˚.03, h10km, n87, σ2s42/105, mb4.0/20, MS3.0/5, 1C-1D, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **KZLR** | **Kyzyl** | **0.96** | **255** | *i* Pg | | Pg | | 03 13 12.0 | -3.2 |
| KZLR | | | | *e*Pg | | Pn | | 03 13 23.9 | +7.5 |
| **KZLR** | **Kyzyl** | **0.96** | **255** | *i* PG | | Pg | | 03 13 12.0 | -3.2 |
| KZLR | | | | *e* | | | | 03 13 23.9 | |
| **HVS** | **Khovu-Aksy** | **1.62** | **240** | PG | | **Pn** | | **03 13 22.5** | **-3.1** |
| **HVS** | **Khovu-Aksy** | **1.62** | **240** | P | | **Pn** | | **03 13 22.5** | **-3.1** |
| **ORL** | **Orlik** | **2.45** | **75** | ⇓*i* PN | | **Pn** | | **03 13 37.8** | **+0.9** |
| ORL | | | | *e* | | | | 03 14 10.6 | |
| ORL | | | | pmax | pmax | | | | |
| | comp=Z,363nm,0.3s | | | | | | | | |
| ORL | | | | smax | smax | | | | |
| | comp=N,1μm,0.6s | | | | | | | | |
| **CERR** | **Cheremushki** | **2.91** | **290** | *i* Pn | | **Pn** | | **03 13 43.5** | **+0.4** |
| CERR | | | | *e*Pg | | **Pb** | | **03 13 47.9** | **-0.8** |
| CERR | | | | *e*Sg | | **Sb** | | **03 14 25.9** | **+1.6** |
| **CERR** | **Cheremushki** | **2.91** | **290** | *i* PN | | **Pn** | | **03 13 43.5** | **+0.4** |
| CERR | | | | *e* | | | | 03 13 47.9 | |
| CERR | | | | *e* | | | | 03 14 25.9 | |
| **HTG** | **Hatgal** | **3.06** | **118** | *e*Pg | | **Pn** | | **03 13 48.6** | **+3.2** |
| HTG | | | | *e*Sg | | **Sb** | | **03 14 28.0** | **-0.9** |
| **MOY** | **Mondy** | **3.15** | **93** | *e*PN | | **Pn** | | **03 13 49.8** | **+3.2** |
| MOY | | | | *e* | | | | 03 14 31.8 | |
| MOY | | | | pmax | pmax | | | | |
| | comp=Z,201nm,0.5s | | | | | | | | |
| MOY | | | | smax | smax | | | | |
| | comp=N,1μm,1.0s | | | | | | | | |
| **ULG** | **Ulaangom** | **3.17** | **232** | *e*Pg | | **Pn** | | **03 13 48.5** | **+1.7** |
| ULG | | | | *e*Sg | | **Sn** | | **03 14 26.7** | **+2.0** |
| **TSC** | **Tosontsengel** | **3.53** | **154** | *e*Sg | | **Sb** | | **03 14 42.2** | **-0.1** |
| | comp=N,616nm,0.3s | | | | | | | | |
| **ARS** | **Arshan** | **4.01** | **88** | *e*PN | | **Pb** | | **03 14 06.2** | **-1.4** |
| ARS | | | | *e* | | | | 03 14 58.3 | |
| ARS | | | | pmax | pmax | | | | |
| | comp=Z,485nm,0.9s | | | | | | | | |
| ARS | | | | smax | smax | | | | |
| | comp=E,2μm,0.9s | | | | | | | | |
| **TLY** | **Talaya** | **4.79** | **90** | Pn | | **Pn** | | **03 14 08.4** | **-0.6** |
| | comp=E,0.0nm,0.3s,baz=351,slow=13,SNR=2.3 | | | | | | | | |
| TLY | | | | Pg | | Pb | | 03 14 17.7 | -3.1 |
| | comp=E,0.3nm,0.3s,baz=283,slow=14,SNR=41 | | | | | | | | |
| TLY | | | | Sn | | **Sn** | | **03 15 03.7** | **-0.8** |
| | comp=E,0.1nm,0.3s,baz=220,slow=16,SNR=3.0 | | | | | | | | |
| TLY | | | | Lg | Lg | | | 03 15 21.2 | |
| | comp=E,0.4nm,0.3s,baz=44,slow=13,SNR=13 | | | | | | | | |
| TLY | | | | LR | LR | | | 03 16 09.1 | |
| | comp=E,168nm,21.4s,baz=236,slow=41 | | | | | | | | |
| **TLY** | **Talaya** | **4.79** | **90** | *e*PN | | **Pb** | | **03 14 19.0** | **-1.8** |
| TLY | | | | *e* | | | | 03 15 21.0 | |
| TLY | | | | pmax | pmax | | | | |
| | comp=Z,48nm,0.4s | | | | | | | | |
| **TLY** | **Talaya** | **4.79** | **90** | *e*Pn | | **Pn** | | **03 14 07.0** | **-2.0** |
| TLY | | | | *e*Pb | | **Pb** | | **03 14 18.6** | **-2.2** |
| TLY | | | | *e*Pg | | Pg | | 03 14 23.6 | -4.9 |
| TLY | | | | Lg | | Lg | | 03 15 21.2 | |
| TLY | | | | *e*Sg | | **Sb** | | **03 15 22.2** | **+3.7** |
| **HBD** | **Hovd** | **4.83** | **217** | *e*Sg | | **Sb** | | **03 15 19.2** | **-0.6** |
| **BYO** | **Bayan-Olgiy** | **4.86** | **234** | *e*Sg | | **Sb** | | **03 15 19.8** | **-0.9** |
| | comp=Z,599nm,0.5s | | | | | | | | |
| **ZAK** | **Zakamensk** | **4.88** | **106** | *e*PN | | **Pb** | | **03 14 19.9** | **-2.6** |
| ZAK | | | | *e* | | | | 03 15 23.9 | |
| ZAK | | | | pmax | pmax | | | | |
| | comp=Z,83nm,0.5s | | | | | | | | |
| ZAK | | | | smax | smax | | | | |
| | comp=N,742nm,1.1s | | | | | | | | |
| **TASR** | **Tashtagol** | **5.00** | **282** | *e*Pn | | **Pn** | | **03 14 12.0** | **+0.1** |
| TASR | | | | *e*

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NVS | | | | *e*Sg | Sg | 03 17 10.3 | -6.8 | |
| **NVS** | **Novosibirsk** | **8.12 296** | | *e*P | **Pn** | **03 14 58.1** | **+3.5** | |
| **ULN** | **Ulaanbaatar** | **8.26 115** | | *i* P | **Pn** | **03 15 01.1** | **+4.3** | |
| ULN | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.9s | | | | | | | |
| **NIZ** | **Nizh Angarsk** | **8.89 59** | | *e*P | **Pn** | **03 15 05.3** | **0.0** | |
| NIZ | | | | pmax | pmax | | | |
| | comp=Z,23nm,0.6s | | | | | | | |
| **MKAR** | **Makanchi Array** | **10.29 245** | | Pn | **Pn** | **03 15 23.0** | **-1.4** | |
| | comp=Z,0.3nm,0.3s,baz=44,slow=12,SNR=12 | | | | | | | |
| MKAR | | | | Pg | | 03 16 00.8 | | |
| | comp=Z,0.7nm,0.3s,baz=50,slow=14,SNR=5.0 | | | | | | | |
| MKAR | | | | Lg | Lg | 03 18 16.9 | | |
| | comp=Z,1.1nm,0.3s,baz=58,slow=32,SNR=6.1 | | | | | | | |
| **MKAR** | **Makanchi Array** | **10.29 245** | | P | **Pn** | **03 15 23.0** | **-1.4** | |
| MKAR | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.3s | | | | | | | |
| **KURK** | **Kurchatov** | **10.91 270** | | *i* P | **Pn** | **03 15 33.1** | **+0.3** | |
| KURK | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,0.8s | | | | | | | |
| **KURK** | **Kurchatov** | **10.91 270** | | Pn | **Pn** | **03 15 33.4** | **+0.6** | |
| KURK | | | | Sn | **Sn** | **03 17 34.3** | **-0.5** | |
| KURK | | | | Lg | Lg | 03 18 39.7 | | |
| **KURBB** | **Kurchatov Arra** | **10.98 270** | | Pn | **Pn** | **03 15 33.4** | **-0.5** | |
| | comp=Z,0.1nm,0.3s,baz=74,slow=14,SNR=16 | | | | | | | |
| KURBB | | | | Sn | **Sn** | **03 17 34.3** | **-2.4** | |
| | comp=Z,0.1nm,0.3s,baz=62,slow=14,SNR=4.0 | | | | | | | |
| KURBB | | | | Lg | Lg | 03 18 39.7 | | |
| | comp=Z,0.1nm,0.3s,baz=75,slow=34,SNR=6.2 | | | | | | | |
| **GTA** | **Gaotai** | **12.84 166** | | *e*P | Pn | 03 16 04.3 | +4.8 | |
| GTA | | | | pP | | 03 16 09.0 | | |
| GTA | | | | S | **Sn** | **03 18 29.5** | **+7.0** | |
| GTA | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,1.3s | | | | | | | |
| GTA | | | | pmax | pmax | | | |
| | comp=Z,44nm,5.0s | | | | | | | |
| GTA | | | | LR | LR | | | |
| | comp=Z,220nm,10.0s | | | | | | | |
| GTA | | | | LR | LR | | | |
| | comp=Z,320nm,8.8s | | | | | | | |
| GTA | | | | LR | LR | | | |
| | comp=Z,280nm,11.2s | | | | | | | |
| **HIA** | **Hailar** | **15.33 91** | | *i* P | **P** | **03 16 42.5** | **+4.6** | |
| HIA | | | | pmax | pmax | | | |
| | comp=Z,9.0nm,1.5s | | | | | | | |
| **BVAR** | **Borovoye Array** | **15.57 284** | | Pn | **Pn** | **03 16 34.9** | **-1.4** | |
| | comp=Z,0.4nm,0.3s,baz=89,slow=13,SNR=6.9 | | | | | | | |
| BVAR | | | | Lg | Lg | 03 21 13.4 | | |
| | baz=78,slow=22,SNR=2.1 | | | | | | | |
| **BRVK** | **Borovoye** | **15.63 284** | | *i* P | **Pn** | **03 16 39.6** | **+2.6** | |
| BRVK | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.8s | | | | | | | |
| **BRVK** | **Borovoye** | **15.63 284** | | *e*Pn | **Pn** | **03 16 35.4** | **-1.6** | |
| | comp=Z,9.8nm,0.6s | | | | | | | |
| **AAK** | **Ala-Archa** | **17.22 246** | | P | **Pn** | **03 16 55.7** | **-1.8** | |
| | comp=Z,0.1nm,0.3s,baz=92,slow=11,SNR=2.6 | | | | | | | |
| AAK | | | | Lg | Lg | 03 22 00.3 | | |
| | comp=Z,0.1nm,0.3s,baz=217,slow=14,SNR=3.7 | | | | | | | |
| AAK | | | | LR | LR | 03 23 48.9 | | |
| | comp=Z,49nm,18.8s,baz=46,slow=38 | | | | | | | |
| **AAK** | **Ala-Archa** | **17.22 246** | | *e*Pn | **Pn** | **03 16 54.4** | **-3.1** | |
| | comp=Z,4.6nm,1.3s | | | | | | | |
| AAK | | | | Lg | Lg | 03 22 00.3 | | |
| **KKAR** | **Karatay Array** | **19.24 253** | | *e*P | **P** | **03 17 18.2** | **-2.9** | |
| KKAR | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.6s | | | | | | | |
| **KKAR** | **Karatay Array** | **19.24 253** | | *e*P | **P** | **03 17 18.1** | **-2.9** | |
| | comp=Z,1.1nm,0.6s | | | | | | | |
| **ARU** | **Arti** | **22.12 296** | | P | **P** | **03 17 51.9** | **-0.3** | |
| | comp=Z,2.0nm,0.4s,baz=92,slow=13,SNR=4.4 | | | | | | | |
| ARU | | | | LR | LR | 03 27 47.2 | | |
| | comp=Z,45nm,20.7s,baz=230,slow=40 | | | | | | | |
| **ARU** | **Arti** | **22.12 296** | *c* | *i*P | **P** | **03 17 51.8** | **-0.3** | |
| ARU | | | | | | 03 18 11.9 | | |
| ARU | | | | S | **S** | **03 21 55.1** | **-0.6** | |
| ARU | | | | pmax | pmax | | | |
| | comp=Z,16nm,2.5s | | | | | | | |
| **ARU** | **Arti** | **22.12 296** | | *e*P | **P** | **03 17 50.7** | **-1.5** | |
| | comp=Z,3.6nm,0.6s | | | | | | | |
| **ABKAR** | **Akbulak array** | **22.86 278** | | *e*P | **P** | **03 17 57.6** | **-2.4** | |
| | comp=Z,5.9nm,1.0s | | | | | | | |
| **AKTO** | **Aktyubinsk** | **23.64 281** | | P | **P** | **03 18 07.1** | **-0.8** | |
| | comp=Z,6.9nm,0.7s,baz=83,slow=8.5,SNR=19 | | | | | | | |
| **TIXI** | **Tiksi** | **24.54 24** | | *e*P | **P** | **03 18 15.2** | **-0.9** | |
| TIXI | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.7s | | | | | | | |
| **TIXI** | **Tiksi** | **24.54 24** | | *e*P | **P** | **03 18 15.2** | **-0.9** | |
| | comp=Z,9.8nm,0.7s | | | | | | | |
| **KSRS** | **Korea Array** | **26.70 110** | | LR | LR | 03 29 52.5 | | |
| | comp=Z,27nm,21.4s,baz=325,slow=38 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **33.52 175** | | LR | LR | 03 32 38.0 | | |
| | comp=Z,25nm,13.3s,baz=15,slow=36 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **36.07 326** | | P | **P** | **03 19 57.5** | **-0.6** | |
| | comp=Z,2.9nm,0.9s,baz=78,slow=9.3,SNR=7.1 | | | | | | | |
| **FINES** | **FINESS Array B** | **37.69 312** | | P | **P** | **03 20 11.3** | **-0.5** | |
| | comp=Z,1.4nm,0.5s,baz=78,slow=9.1,SNR=12 | | | | | | | |
| **AKASG** | **Malin Array Be** | **40.37 296** | | P | **P** | **03 20 33.5** | **-0.9** | |
| | comp=Z,0.2nm,0.3s,baz=56,slow=9.1,SNR=3.3 | | | | | | | |
| **BRTR** | **Keskin Array B** | **43.79 279** | | P | **P** | **03 21 02.5** | **-0.1** | |
| | comp=Z,1.9nm,0.7s,baz=76,slow=6.2,SNR=12 | | | | | | | |
| **NB2** | **NORSAR Subarra** | **44.44 316** | | P | **P** | **03 21 06.4** | **-1.1** | |
| | comp=Z,1.6nm,0.5s,baz=61,slow=8.6 | | | | | | | |
| **NOA** | **NORSAR Array B** | **44.44 316** | | P | **P** | **03 21 06.3** | **-1.1** | |
| | comp=Z,2.2nm,0.6s,baz=61,slow=8.1,SNR=5.9 | | | | | | | |
| NOA | | | | LR | LR | 03 41 30.6 | | |
| | comp=Z,46nm,20.6s,baz=345,slow=38 | | | | | | | |
| **RAYN** | **Ar Rayn** | **47.66 253** | | *e*P | **P** | **03 21 31.1** | **-2.2** | |
| | comp=Z,4.4nm,0.9s | | | | | | | |
| **CLL** | **Collm** | **48.75 304** | | *e*P | **P** | **03 21 40.0** | **-1.3** | |
| **CLL** | **Collm** | **48.75 304** | | *e*P | **P** | **03 21 40.0** | **-1.3** | |
| **ILAR** | **Eielson Array** | **53.93 28** | | P | **P** | **03 22 19.1** | **-0.9** | |
| | comp=Z,0.5nm,0.9s,baz=326,slow=3.7,SNR=6.1 | | | | | | | |
| **INK** | **Inuvik** | **54.56 20** | | P | **P** | **03 22 23.7** | **-0.8** | |
| | comp=Z,1.1nm,0.7s,baz=342,slow=10,SNR=9.9 | | | | | | | |
| **BNI** | **Bardonecchia** | **55.95 301** | | *e*P | **P** | **03 22 34.8** | **-0.3** | |
| BNI | | | | pmax | pmax | | | |
| | comp=Z,11nm,1.1s | | | | | | | |
| **BNI** | **Bardonecchia** | **55.95 301** | | *e*P | **P** | **03 22 34.8** | **-0.3** | |
| | comp=Z,11nm,1.1s | | | | | | | |
| **YKA** | **Yellowknife Ar** | **63.36 15** | | P | **P** | **03 23 24.5** | **-1.1** | |
| | comp=Z,0.2nm,0.7s,baz=338,slow=6.9,SNR=3.8 | | | | | | | |
| **ESDC** | **Sonseca Array** | **65.32 303** | | P | **P** | **03 23 38.2** | **-0.7** | |
| | comp=Z,0.5nm,0.6s,baz=38,slow=6.7,SNR=5.2 | | | | | | | |
| **TAM** | **Tamanrasset** | **72.63 285** | | *e*P | **P** | **03 24 24.0** | **-0.7** | |
| TAM | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.7s | | | | | | | |
| **TAM** | **Tamanrasset** | **72.63 285** | | *e*P | **P** | **03 24 24.0** | **-0.7** | |
| | comp=Z,0.9nm,0.7s | | | | | | | |
| **WRA** | **Warramunga Arr** | **79.06 143** | | P | **P** | **03 24 57.9** | **-3.2** | |
| | comp=Z,0.7nm,0.8s,baz=344,slow=6.1,SNR=3.7 | | | | | | | |
| **WRA** | **Warramunga Arr** | **79.06 143** | | *i* P | **P** | **03 25 03.7** | **+2.6** | |
| WRA | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,1.2s | | | | | | | |
| **ASAR** | **Alice Springs** | **82.32 145** | | P | **P** | **03 25 15.6** | **-2.9** | |
| | comp=Z,0.7nm,0.8s,baz=331,slow=6.1,SNR=6.2 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **82.36 281** | | P | **P** | **03 25 16.9** | **-2.1** | |
| | comp=Z,1.1nm,0.7s,baz=32,slow=4.5,SNR=11 | | | | | | | |
| **DUG** | **Dugway, Tooele** | **84.86 22** | | *e*P | **P** | **03 25 30.1** | **-1.6** | |
| DUG | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.8s | | | | | | | |
| **DUG** | **Dugway, Tooele** | **84.86 22** | | *e*P | **P** | **03 25 30.1** | **-1.6** | |
| | comp=Z,1.6nm,0.8s | | | | | | | |
| **DZM** | **Mont Dzumac** | **95.86 118** | | LR | LR | 04 07 49.9 | | |
| | comp=Z,124nm,21.9s,baz=226,slow=34 | | | | | | | |
| **CPUP** | **Villa Florida** | **147.40 311** | | PKPbc | **PKPdf** | **03 32 40.2** | **+2.1** | |
| | comp=Z,0.6nm,0.6s,baz=34,slow=3.6,SNR=2.9 | | | | | | | |

**JMA 30 03:23:20.5, 38.72N×142.01E, h58km±1km, M3.6, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OFUJ** | **Ofunato** | **0.45** | **324** | P | Pn | 03 23 31.9 | +0.1 |
| OFUJ | | | | S | Sn | 03 23 40.1 | +0.2 |
| **JIO** | **Ouri** | **0.58** | **243** | P | Pn | 03 23 33.2 | 0.0 |
| JIO | | | | S | Sn | 03 23 42.0 | -0.4 |
| **JMK** | **Ichinoseki** | **0.66** | **291** | P | Pn | 03 23 34.2 | +0.1 |
| JMK | | | | S | Sn | 03 23 44.1 | +0.1 |
| **JOM** | **Ohasama** | **0.94** | **324** | P | Pn | 03 23 37.8 | +0.2 |
| JOM | | | | *e*S | Sn | 03 23 50.5 | +0.2 |
| **JOU** | **Okura** | **1.11** | **252** | P | Pn | 03 23 40.0 | 0.0 |
| **JRG** | **Rokugo** | **1.27** | **303** | P | Pn | 03 23 42.2 | +0.2 |
| JRG | | | | *e*S | Sn | 03 23 58.2 | +0.1 |
| **JMM** | **Marumori** | **1.28** | **229** | P | Pn | 03 23 42.0 | -0.2 |
| JMM | | | | *e*S | Sn | 03 23 57.8 | -0.6 |
| **JYK** | **Kaneyama** | **1.30** | **279** | P | Pn | 03 23 42.8 | +0.3 |
| JYK | | | | *e*S | Sn | 03 23 59.2 | +0.2 |
| **JYS** | **Shirataka** | **1.61** | **253** | P | Pn | 03 23 47.0 | +0.4 |
| JYS | | | | *e*S | Sn | 03 24 06.8 | +0.6 |
| **JFK** | **Kawauchi** | **1.62** | **214** | P | Pn | 03 23 46.8 | 0.0 |
| JFK | | | | *e*S | Sn | 03 24 06.0 | -0.7 |

**IDC 30 03:26:38.6±4.8, 18.71S×169.26E, h0km, mb3.8/3, mb1 3.9/4, mb1mx3.7/24, mbtmp3.7/4, ML3.1/1, MS3.8/4, Ms1 3.8/4, ms1mx3.1/33, Error ellipse: s-maj=118.5km s-min=39.8km az=119.0, Vanuatu Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **4.26** | **218** | Pn | Pn | 03 27 43.0 | -1.8 |
| | 1.1nm,0.3s,baz=30,slow=20,SNR=27 | | | | | | |
| DZM | | | | Sn | Sn | 03 28 31.0 | -4.4 |
| | 3.1nm,0.3s,baz=99,slow=19,SNR=2.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **32.94** | **262** | P | P | 03 33 15.3 | +0.1 |
| | 0.6nm,1.0s,baz=84,slow=9.8,SNR=3.7 | | | | | | |
| **ASAR** | **Alice Springs** | **33.27** | **255** | P | P | 03 33 18.5 | +0.4 |
| | 1.3nm,0.6s,baz=84,slow=8.9,SNR=27 | | | | | | |
| ASAR | | | | LR | LR | 03 46 22.2 | |
| | comp=Z,57nm,19.3s,baz=83,slow=36 | | | | | | |
| **ASAJ** | **Asahikawa** | **67.11** | **339** | LR | LR | 04 02 21.0 | |
| | comp=Z,38nm,20.8s,baz=324,slow=32 | | | | | | |
| **MA2** | **Magadan** | **79.45** | **351** | LR | LR | 04 11 14.7 | |
| | comp=Z,234nm,20.2s,baz=348,slow=34 | | | | | | |
| **SONM** | **Songino Array** | **86.81** | **323** | P | P | 03 39 24.8 | -0.1 |
| | 0.4nm,0.5s,baz=131,slow=6.5,SNR=3.7 | | | | | | |
| **NEW** | **Newport** | **93.36** | **40** | LR | LR | 04 12 37.0 | |
| | comp=Z,77nm,20.0s,baz=338,slow=30 | | | | | | |

*IDC **30** 03:46:08.3±1.7, 20.89S×178.51W, h443km±19km, mb3.4/9, mb1 3.7/12, mb1mx3.4/28, mbtmp4.3/12, Error ellipse: s-maj=22.5km s-min=11.9km az=139.0*
*ISCJB **30** 03:46:12.2±0.4, 21.14S±0.09×178.61W±0.08, h500km, mb4.2/34, Error ellipse: s-maj=11.9km s-min=9.3km az=150.3*
*NEIC **30** 03:46:13.4±1.2, 21.01S×178.75W, h504km±10km, mb4.4/24, Error ellipse: s-maj=25.1km s-min=11.3km az=152.0*

**ISC 30 03:46:12.7±0.5, 21.1S±0.1×178.6W±0.1, h500km, n102, σ1.9 69/105, mb4.3/33, 5C-12D, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MSVF** | **Nonsavu** | **4.63** | **316** | *e*P | **P** | **03 47 35.9** | **-0.8** |
| MSVF | | | | *e*S | **S** | **03 48 45.8** | **+0.9** |
| **AFI** | **Afiamalu** | **9.64** | **43** | P | P | 03 48 19.6 | -6.8 |
| | 1.6nm,0.3s,baz=209,slow=10,SNR=1.9 | | | | | | |
| AFI | | | | S | S | 03 50 03.7 | -13 |
| | 1.4nm,0.3s,baz=306,slow=19,SNR=2.4 | | | | | | |
| **URZ** | **Urewera** | **17.51** | **191** | P | **P** | **03 49 46.5** | **-1.9** |
| | 2.4nm,0.3s,baz=270,slow=1.6,SNR=5.8 | | | | | | |
| **RAR** | **Rarotonga** | **17.52** | **94** | P | **P** | **03 49 47.9** | **-0.9** |
| | 3.9nm,0.3s,baz=328,slow=18,SNR=3.6 | | | | | | |
| **RPZ** | **Rata Peaks** | **24.16** | **199** | P | **P** | **03 50 49.8** | **+1.2** |
| | 4.1nm,0.4s,baz=33,slow=16,SNR=3.2 | | | | | | |
| **CAN** | **Canberra** | **31.75** | **236** | *e*P | **P** | **03 51 54.6** | **-0.5** |
| | 30nm,1.5s | | | | | | |
| **ASAR** | **Alice Springs** | **43.88** | **257** | P | **P** | **03 53 35.0** | **+0.4** |
| | 0.8nm,0.9s,baz=87,slow=8.8,SNR=6.2 | | | | | | |
| ASAR | | | | PcP | **PcP** | **03 55 11.5** | **+1.5** |
| | 1.5nm,0.6s,baz=104,slow=4.1,SNR=15 | | | | | | |
| ASAR | | | | ScP | **ScP** | **03 58 20.0** | **+6.1** |
| | 0.8nm,0.8s,baz=102,slow=4.6,SNR=6.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.00** | **263** | P | **P** | **03 53 35.8** | **+0.3** |
| | 0.2nm,0.3s,baz=96,slow=7.7,SNR=9.3 | | | | | | |
| WRA | | | | PcP | **PcP** | **03 55 12.2** | **+1.7** |
| | 1.6nm,1.0s,baz=83,slow=3.8,SNR=5.2 | | | | | | |
| **MDPB** | **Devils Postpil** | **80.85** | **44** | *e*P | **P** | **03 57 35.4** | **+0.9** |
| | 6.1nm,1.1s | | | | | | |
| **WAKR** | **Walker** | **81.13** | **43** | *e*P | **P** | **03 57 37.1** | **+1.3** |
| | 8.6nm,1.2s | | | | | | |
| **PNTR** | **Pine Nut** | **81.37** | **42** | *e*P | **P** | **03 57 38.2** | **+1.2** |
| | 9.2nm,0.9s | | | | | | |
| **NV01** | **Mina Array Sit** | **81.81** | **44** | *e*P | **P** | **03 57 39.7** | **+0.3** |
| **NVAR** | **Mina Array Bea** | **81.81** | **44** | P | **P** | **03 57 39.9** | **+0.6** |
| | 2.8nm,0.8s,baz=221,slow=9.1,SNR=14 | | | | | | |
| **KVN** | **Kaiserville** | **82.30** | **43** | *e*P | **P** | **03 57 42.5** | **+0.7** |
| | 8.3nm,1.3s | | | | | | |
| **TPNV** | **Topopah Spring** | **82.33** | **46** | *e*P | **P** | **03 57 42.8** | **+0.8** |
| | 5.0nm,1.0s | | | | | | |
| **Y14A** | **Wickenburg** | **82.97** | **50** | *e*P | **P** | **03 57 46.2** | **+1.1** |
| | 10nm,0.8s | | | | | | |
| **LCMT** | **Little Creek M** | **84.39** | **47** | *e*P | **P** | **03 57 53.2** | **+0.9** |
| | 11nm,1.9s | | | | | | |
| **U15A** | **North Rim** | **84.75** | **48** | *e*P | **P** | **03 57 55.2** | **+1.1** |
| | 3.7nm,0.8s | | | | | | |
| **BJT** | **Baijiatuau** | **85.94** | **316** | *e*P | **P** | **03 57 58.8** | **-0.7** |
| | 17nm,0.4s | | | | | | |
| **F10A** | **Beach Ranch, E** | **86.79** | **38** | *e*P | **P** | **03 58 04.0** | **+0.5** |
| | 9.4nm,0.8s | | | | | | |
| **HLID** | **Hailey** | **87.11** | **41** | *e*P | **P** | **03 58 06.4** | **+1.2** |
| | 4.3nm,1.3s | | | | | | |
| **TRF** | **Trafalgare Moun** | **87.14** | **12** | *e*P | **P** | **03 58 03.9** | **-0.8** |
| | 9.1nm,0.7s | | | | | | |
| **RND** | **Reindeer** | **87.39** | **13** | *e*P | **P** | **03 58 06.2** | **+0.3** |
| | 14nm,0.8s | | | | | | |
| **MNTX** | **Cornudas Mount** | **87.52** | **55** | *e*P | **P** | **03 58 08.2** | **+1.0** |
| | 3.1nm,0.9s | | | | | | |
| **MCK** | **McKinley** | **87.66** | **13** | *e*P | **P** | **03 58 07.1** | **0.0** |
| | 7.3nm,0.8s | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **87.81** | **58** | *e*P | **P** | **03 58 09.8** | **+1.1** |
| **TXAR** | **Lajitas Array** | **87.81** | **58** | P | **P** | **03 58 09.8** | **+1.1** |
| | 2.2nm,0.9s,baz=215,slow=5.8,SNR=18 | | | | | | |
| **MLY** | **Manley** | **88.48** | **11** | *e*P | **P** | **03 58 10.5** | **-0.4** |
| | 3.7nm,0.7s | | | | | | |
| **CCB** | **Clear Creek Bu** | **88.71** | **13** | *e*P | **P** | **03 58 11.5** | **-0.3** |
| | 6.9nm,0.7s | | | | | | |
| **MCMT** | **McKenzie Canyo** | **88.74** | **40** | *e*P | **P** | **03 58 13.6** | **+0.8** |
| **IMAR** | **Indian Mountai** | **88.83** | **10** | *e*P | **P** | **03 58 12.4** | **0.0** |
| **MDM** | **Murphy Dome** | **88.90** | **12** | *e*P | **P** | **03 58 12.5** | **-0.3** |
| | 7.7nm,0.9s | | | | | | |
| **COLA** | **College** | **88.90** | **13** | *e*P | **P** | **03 58 12.2** | **-0.5** |
| **IL1** | **Eielson Array** | **89.01** | **13** | *e*P | **P** | **03 58 12.6** | **-0.6** |
| **ILAR** | **Eielson Array** | **89.01** | **13** | P | **P** | **03 58 12.8** | **-0.5** |
| | 2.4nm,0.7s,baz=223,slow=5.6,SNR=39 | | | | | | |
| **ILB** | **Eielson Array** | **89.01** | **13** | *e*P | **P** | **03 58 13.1** | **-0.2** |
| **REDW** | **Red Top Meadow** | **89.22** | **42** | *e*P | **P** | **03 58 16.0** | **+0.9** |
| | 23nm,1.9s | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **89.39** | **315** | *e*P | **P** | **03 58 16.0** | **+0.2** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,11nm,0.9s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,120nm,8.6s | | | | | | |
| **PD31** | **Pinedale Array** | **89.75** | **43** | *e*P | **P** | **03 58 17.8** | **+0.2** |
| **PDAR** | **Pinedale Array** | **89.75** | **43** | P | **P** | **03 58 17.2** | **-0.3** |
| | comp=Z,1.9nm,0.7s,baz=208,slow=2.4,SNR=16 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **89.82** | **290** | P | **P** | **03 58 19.8** | **+1.6** |
| | comp=Z,0.4nm,0.3s,baz=116,slow=3.0,SNR=4.5 | | | | | | |
| **DAWY** | **Dawson** | **90.17** | **16** | *e*P | **P** | **03 58 19.3** | **+0.6** |
| | comp=Z,8.6nm,1.0s | | | | | | |
| **EGAK** | **Eagle** | **90.31** | **15** | *e*P | **P** | **03 58 20.0** | **+0.7** |
| | comp=Z,7.2nm,0.9s | | | | | | |
| **COLD** | **Coldfoot** | **90.56** | **11** | *e*P | **P** | **03 58 21.4** | **+1.0** |
| | comp=Z,4.8nm,1.1s | | | | | | |
| **PHWY** | **Pilot Hill** | **91.76** | **46** | *e*P | **P** | **03 58 24.7** | **-2.3** |
| | comp=Z,19nm,0.7s | | | | | | |
| **YKA** | **Yellowknife Ar** | **97.27** | **25** | P | Pdif | 03 58 50.7 | -0.3 |
| | comp=Z,0.5nm,0.9s,baz=245,slow=4.4,SNR=5.3 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **110.63** | **321** | PKiKP | **PKiKP** | **04 03 47.6** | **-0.2** |
| | comp=Z,0.5nm,0.3s,baz=132,slow=2.1,SNR=2.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **111.22** | **313** | PKiKP | **PKiKP** | **04 03 49.0** | **-0.2** |
| | comp=Z,0.6nm,0.7s,baz=66,slow=3.3,SNR=3.8 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **114.12** | **317** | PKP | **PKiKP** | **04 03 54.5** | **-0.1** |
| | comp=Z,0.6nm,0.7s,baz=118,slow=2.0,SNR=4.1 | | | | | | |
| **KSH** | **Kashi** | **114.80** | **305** | PKP | PKPdf | 04 03 53.5 | -2.9 |
| KSH | | | | PP | **PP** | **04 05 06.5** | **+2.4** |
| KSH | | | | sPKP | | 04 06 52.3 | |
| KSH | | | | PKS | **PKSdf** | **04 07 28.3** | **-4.9** |
| KSH | | | | SKS | **SKSdf** | **04 10 14.3** | **-6.7** |
| KSH | | | | SKKS | **SKKSac** | **04 11 03.0** | **-10** |
| **KSH** | **Kashi** | **114.80** | **305** | SS | SS | 04 20 17.3 | -3.7 |
| KSH | | | | AMB | AMB | | |
| | comp=Z,92nm,2.4s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,23nm,3.6s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,18nm,2.8s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,120nm,4.6s | | | | | | |
| **BVAR** | **Borovoye Array** | **119.19** | **320** | PKP | **PKPdf** | **04 04 04.0** | **-0.3** |
| | comp=Z,1.6nm,0.5s,baz=100,slow=2.4,SNR=8.4 | | | | | | |
| **ARU** | **Arti** | **125.39** | **325** | **PKPdf** | | **04 04 16.8** | **+0.7** |
| | comp=Z,1.5nm,0.4s,baz=244,slow=4.9,SNR=5.6 | | | | | | |
| **ARU** | **Arti** | **125.39** | **325** | *e*PKPdf | **PKPdf** | **04 04 15.6** | **-0.4** |
| **ABKAR** | **Akbulak array** | **126.16** | **316** | *e*PKPdf | **PKPdf** | **04 04 18.2** | **+0.5** |
| **AKTO** | **Aktyubinsk** | **127.16** | **318** | PKP | **PKPdf** | **04 04 20.8** | **+1.2** |
| | comp=Z,1.4nm,0.7s,baz=101,slow=3.9,SNR=6.4 | | | | | | |
| **ARCES** | **ARCESS Array B** | **129.41** | **349** | PKP | **PKPdf** | **04 04 23.1** | **-0.3** |
| | comp=Z,1.5nm,0.6s,baz=356,slow=3.6,SNR=7.7 | | | | | | |
| **NOA** | **NORSAR Array B** | **139.50** | **353** | PKP | **PKPdf** | **04 04 41.8** | **-0.7** |
| | comp=Z,1.3nm,0.8s,baz=16,slow=3.8,SNR=4.0 | | | | | | |
| **AKASG** | **Malin Array Be** | **143.27** | **330** | PKhKP | PKPpre | 04 04 47.7 | |
| | comp=Z,5.4nm,0.5s,baz=42,slow=4.4,SNR=36 | | | | | | |
| **KIEV** | **Kiev** | **143.28** | **330** | *e*PKPdf | PKPbc | 04 04 47.6 | -0.1 |
| **AK11** | **Malin Array Si** | **143.31** | **330** | *e*PKPdf | PKPbc | 04 04 47.9 | +0.1 |
| **SORM** | **Soroca** | **145.43** | **328** | *i* P | **PKPbc** | **04 04 54.9** | **+0.5** |
| **BRTR** | **Keskin Array B** | **146.84** | **311** | PKPbc | **PKPbc** | **04 04 59.7** | **+0.8** |
| | comp=Z,2.3nm,0.7s,baz=136,slow=4.6,SNR=14 | | | | | | |
| **BUR04** | **Bucovina Ar. S** | **147.31** | **330** | *e*PKPbc | **PKPbc** | **04 05 01.0** | **+1.2** |
| **BURAR** | **Bucovina Array** | **147.31** | **330** | *i* P | **PKPab** | **04 05 01.9** | **-1.4** |
| **BR231** | **Keskin MP Arra** | **147.40** | **312** | *e*PKPbc | **PKPbc** | **04 05 00.2** | **0.0** |
| **CFR** | **Carcaliu** | **147.46** | **324** | *i* P | **PKPbc** | **04 05 01.5** | **+1.4** |
| **VRI** | **Vrincioaia** | **147.77** | **326** | *i* P | **PKPbc** | **04 05 02.3** | **+1.4** |
| **PLOR** | **Plostina** | **147.82** | **326** | *i* P | **PKPbc** | **04 05 01.7** | **+0.6** |
| **DOPR** | **Dopca** | **148.39** | **327** | *i* P | **PKPbc** | **04 05 04.0** | **+1.5** |
| **MLR** | **Muntele Rosu** | **148.43** | **326** | PKPbc | **PKPbc** | **04 05 03.4** | **+0.6** |
| | baz=315,slow=4.3 | | | | | | |
| **MLR** | **Muntele Rosu** | **148.43** | **326** | *i* P | **PKPbc** | **04 05 03.5** | **+0.8** |
| **CLL** | **Collm** | **148.52** | **346** | *i* PKPbc | **PKPbc** | **04 05 03.4** | **+0.8** |
| | comp=Z,12nm,0.8s | | | | | | |
| CLL | | | | *i* PKPab | **PKPab** | **04 05 08.5** | **+0.6** |
| | comp=Z,5.0nm,0.9s | | | | | | |
| **CLL** | **Collm** | **148.52** | **346** | *e*PKPbc | **PKPbc** | **04 05 03.1** | **+0.5** |
| **EIL** | **Elat** | **148.63** | **293** | PKPbc | **PKPbc** | **04 05 05.3** | **+1.8** |
| **MORC** | **Moravsky Berou** | **148.66** | **340** | *i* P | **PKPbc** | **04 05 03.9** | **+0.8** |
| **MORC** | **Moravsky Berou** | **148.66** | **340** | *e*PKPbc | **PKPbc** | **04 05 03.1** | **+0.1** |
| **KECS** | **Kecovo** | **148.69** | **335** | *e*PKP | **PKPbc** | **04 05 04.8** | **+1.7** |
| KECS | | | | *e* | | 04 05 09.5 | |
| **BRG** | **Berggiesshubel** | **148.70** | **345** | *e*PKP | **PKPbc** | **04 05 03.9** | **+0.9** |
| | comp=Z,3.5nm,0.7s | | | | | | |
| **CSS** | **Mathiatis** | **148.79** | **303** | *e*PKPbc | **PKPbc** | **04 05 03.3** | **-0.5** |
| CSS | | | | *e*PKPab | **PKPab** | **04 05 09.0** | **-0.7** |
| **VOIR** | | **148.93** | **327** | *i* P | **PKPbc** | **04 05 05.0** | **+1.1** |
| **DRGR** | | **149.08** | **331** | *i* P | **PKPbc** | **04 05 04.9** | **+0.7** |
| **ARR** | **Arges** | **149.19** | **327** | *i* P | **PKPbc** | **04 05 06.4** | **+1.9** |
| **VYHS** | **Vyhne** | **149.31** | **337** | *e*PKP | **PKPbc** | **04 05 05.9** | **+1.3** |
| VYHS | | | | *e* | | 04 05 12.9 | |
| **HUMR** | **Humele** | **149.59** | **326** | *i* P | **PKPbc** | **04 05 06.1** | **+0.7** |
| **SIRR** | **Siria** | **149.95** | **331** | *i* P | **PKPbc** | **04 05 07.1** | **+0.9** |
| **MODS** | **Modra-Piesok** | **149.96** | **339** | *e*PKP | **PKPbc** | **04 05 06.8** | **+0.6** |
| **KHC** | **Kasperske Hory** | **150.39** | **344** | *e*PKP | **PKPbc** | **04 05 08.0** | **+0.8** |
| **BZS** | **Buzias** | **150.46** | **331** | *i* P | **PKPbc** | **04 05 08.1** | **+0.7** |
| **GERES** | **GERESS Array B** | **150.62** | **343** | PKPbc | **PKPbc** | **04 05 08.0** | **+0.2** |
| | comp=Z,2.6nm,0.8s,baz=27,slow=3.3,SNR=11 | | | | | | |
| **GEA0** | **GERESS Array S** | **150.63** | **343** | *e*PKPbc | **PKPbc** | **04 05 08.3** | **+0.5** |
| **CONA** | **Conrad Observa** | **150.81** | **340** | *e*PKiKP | **PKiKP** | **04 05 09.0** | **+0.2** |
| | comp=Z,5.5nm,1.1s | | | | | | |
| **MDVR** | **Moldovita** | **151.05** | **329** | *i* P | **PKPbc** | **04 05 09.6** | **+0.7** |
| **MOA** | **Molln** | **151.37** | **342** | *e*PKPdf | **PKPdf** | **04 05 02.9** | **0.0** |
| | comp=Z,10nm,1.4s | | | | | | |
| **VTS** | **Vitosha** | **151.84** | **325** | *i* P | **PKPbc** | **04 05 11.5** | **+0.6** |
| **VTS** | **Vitosha** | **151.84** | **325** | *e*PKPbc | **PKPbc** | **04 05 11.1** | **+0.2** |
| **SOKA** | **Soboth** | **152.18** | **340** | *e*PKPbc | **PKPbc** | **04 

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| KURBB | **Kurchatov Arra** 1.0nm,0.4s | **6.50** | **237** | ⇓Pn | | Pn | | 05 00 05.7 | +1.3 |
| KURBB | 3.1nm,0.7s | | | ⇑Sn | | Sn | | 05 01 19.5 | +0.3 |
| KURBB | 5.8nm,0.9s | | | ⇑Lg | | Lg | | 05 01 58.8 | |
| **MK31** | **Makanchi Array** 0.1nm,0.4s,baz=30,slow=14,SNR=13 | **8.26** | **204** | Pn | | Pn | | 05 00 31.9 | +3.3 |
| MK31 | 1.1nm,0.9s | | | ⇓Sn | | Sn | | 05 02 01.7 | -1.0 |
| MK31 | 3.1nm,1.0s,baz=16,slow=32,SNR=3.6 | | | ⇓Lg | | Lg | | 05 02 50.5 | |
| **MKAR** | **Makanchi Array** 0.2nm,0.3s,baz=25,slow=16,SNR=10 | **8.26** | **204** | Pn | | Pn | | 05 00 30.3 | +1.6 |
| MKAR | 0.0nm,0.3s,baz=40,slow=36,SNR=3.1 | | | Lg | | Lg | | 05 02 51.2 | |

*CSEM **30** 04:59:12.2±0.3, 38°.92N×43°.69E, h2km, ML3.0, Error ellipse: s-maj=7.3km s-min=4.9km az=129.0*
*ISK **30** 04:59:13.0, 39°.00N×43°.64E, h5km, ML2.9*
*DDA **30** 04:59:26.1, 38°.96N×43°.67E, h4km, Ml3.0*

**ISC 30 04:59:13.3±1.0, 38°.98N±0°.02×43°.65E±0°.03, h3km±7km, n36, σ1°07/53, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VMUR** | **Van-Muradiye** | **0.06** | **281** | *i* P | **Pg** | **04 59 13.7** | **-1.0** |
| VMUR | | | | *i* S | **Sg** | **04 59 16.9** | **+1.1** |
| **VMUR** | **Van-Muradiye** | **0.06** | **281** | P | **Pg** | **04 59 13.7** | **-1.0** |
| VMUR | | | | S | **Sg** | **04 59 16.9** | **+1.1** |
| **ERCV** | **ERCIS-VAN** | **0.25** | **280** | *e*PG | **Pg** | **04 59 18.5** | **+0.5** |
| ERCV | | | | *e*SG | **Sg** | **04 59 23.4** | **+2.1** |
| **ERCV** | **ERCIS-VAN** | **0.25** | **280** | *e*Pg | **Pg** | **04 59 18.5** | **+0.5** |
| ERCV | | | | *e*Sg | **Sg** | **04 59 23.4** | **+2.1** |
| **CLDR** | **Caldiran** | **0.27** | **51** | *e*PG | **Pg** | **04 59 18.8** | **+0.3** |
| **CLDR** | **Caldiran** | **0.27** | **51** | *i* P | **Pg** | **04 59 17.8** | **-0.7** |
| CLDR | | | | *i* S | **Sb** | **04 59 24.0** | **-1.9** |
| **CLDR** | **Caldiran** | **0.27** | **51** | P | **Pg** | **04 59 17.8** | **-0.7** |
| **CLDR** | **Caldiran** | **0.27** | **51** | *e*Pg | **Pg** | **04 59 18.8** | **+0.3** |
| CLDR | | | | S | **Sb** | **04 59 24.0** | **-1.9** |
| **VANB** | **Van** | **0.43** | **208** | *e*PG | **Pb** | **04 59 23.6** | **0.0** |
| **VANB** | **Van** | **0.43** | **208** | *e*Pg | **Pb** | **04 59 23.6** | **0.0** |
| **TVAN** | **Van** | **0.49** | **203** | *i* P | **Pg** | **04 59 21.9** | **-0.7** |
| TVAN | | | | *i* S | **Sb** | **04 59 33.5** | **+1.3** |
| **TVAN** | **Van** | **0.49** | **203** | P | **Pg** | **04 59 21.9** | **-0.7** |
| **DYDN** | **Diyadin** | **0.57** | **3** | *i* P | **Pg** | **04 59 22.9** | **-1.2** |
| DYDN | | | | *i* S | **Sb** | **04 59 33.7** | **-0.8** |
| **DYDN** | **Diyadin** | **0.57** | **3** | P | **Pg** | **04 59 23.0** | **-1.2** |
| DYDN | | | | S | **Sb** | **04 59 33.7** | **-0.8** |
| **ADCV** | **BITLIS_Adilcev** | **0.74** | **257** | *i* P | **Pg** | **04 59 26.2** | **-1.3** |
| ADCV | | | | *i* S | **Sb** | **04 59 38.3** | **-1.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.74** | **257** | P | **Pg** | **04 59 26.2** | **-1.3** |
| ADCV | | | | S | **Sb** | **04 59 38.3** | **-1.2** |
| **TUTA** | **Tutak** | **0.78** | **303** | *i* P | **Pg** | **04 59 27.4** | **-0.8** |
| TUTA | | | | *i* S | **Sb** | **04 59 39.9** | **-0.6** |
| **TUTA** | **Tutak** | **0.78** | **303** | P | **Pg** | **04 59 27.4** | **-0.8** |
| TUTA | | | | S | **Sb** | **04 59 39.9** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **0.79** | **320** | *e*PG | **Pg** | **04 59 28.7** | **+0.4** |
| **AGRB** | **Hanur-Agry** | **0.79** | **320** | *e*Pg | **Pg** | **04 59 28.7** | **+0.4** |
| **GEVA** | **Gevas** | **0.81** | **215** | *i* P | **Pg** | **04 59 26.8** | **-2.0** |
| GEVA | | | | *i* S | **Sg** | **04 59 39.8** | **+0.5** |
| **GEVA** | **Gevas** | **0.81** | **215** | P | **Pg** | **04 59 26.8** | **-2.0** |
| GEVA | | | | S | **Sg** | **04 59 39.8** | **+0.5** |
| **TASB** | **TASBURUN-IGDIR** | **1.10** | **24** | *e*PN | **Pb** | **04 59 34.9** | **-0.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.10** | **24** | *e*Pn | **Pb** | **04 59 34.9** | **-0.1** |
| **EATA** | **Eleskirt** | **1.26** | **315** | *i* P | **Pg** | **04 59 36.1** | **-1.2** |
| EATA | | | | *i* S | **Sn** | **04 59 57.0** | **+1.4** |
| **EATA** | **Eleskirt** | **1.26** | **315** | P | **Pg** | **04 59 36.2** | **-1.2** |
| EATA | | | | S | **Sn** | **04 59 57.0** | **+1.4** |
| **KARS** | **Kars** | **1.71** | **345** | *e*PN | **Pn** | **04 59 44.5** | **+0.5** |
| **KARS** | **Kars** | **1.71** | **345** | *e*Pn | **Pn** | **04 59 44.5** | **+0.5** |
| **CUKT** | **Cukurca** | **1.73** | **181** | *e*PN | **Pg** | **04 59 46.1** | **-0.2** |
| **CUKT** | **Cukurca** | **1.73** | **181** | *e*Pn | **Pg** | **04 59 46.1** | **-0.2** |
| **SIRT** | **Sirnak** | **1.75** | **213** | *e*PN | **Pb** | **04 59 46.4** | **+0.3** |
| **SIRT** | **Sirnak** | **1.75** | **213** | *e*Pn | **Pb** | **04 59 46.4** | **+0.3** |
| **SENK** | **Senkaya-Erzuru** | **1.87** | **328** | *e*PN | **Pb** | **04 59 47.5** | **-0.7** |
| **SENK** | **Senkaya-Erzuru** | **1.87** | **328** | *e*Pn | **Pb** | **04 59 47.5** | **-0.7** |
| **BNGB** | **Bing¨ll** | **2.31** | **271** | *e*PN | **Pb** | **04 59 54.2** | **-1.5** |
| **BINT** | **Bingol** | **2.47** | **269** | *e*Pn | **Pn** | **04 59 54.2** | **-0.2** |

*NIED **30** 04:59:00, 42°.20N×143°.10E, h50km, Mw4.0 Best double couple: M0 1.05000×10^15 NP1:φs328.00000°, δ32.00000°, λ-67.00000°. NP2:φs122.00000°, δ61.00000°, λ-104.00000°.*
*ISCJB **30** 04:59:52.5±0.4, 42°.07N±0°.04×143°.26E±0°.07, h68km±3km, mb4.1/40, Error ellipse: s-maj=9.2km s-min=5.1km az=23.5*
*NEIC **30** 04:59:53.3±0.7, 42°.02N×143°.43E, h72km±6km, mb4.3/16, Error ellipse: s-maj=11.2km s-min=8.6km az=105.0*
*JMA **30** 04:59:54.7±0.1, 42°.17N×143°.14E, h50km±1km, M4.0*
*JMA Felt I J1*
*IDC **30** 04:59:56.0±1.7, 42°.19N×143°.06E, h72km±13km, mb3.7/21, mb1 3.8/23, mb1mx3.8/43, mbtmp4.0/23, MS2.7/5. Ms1 2.7/5, ms1mx2.6/42, Error ellipse: s-maj=14.5km s-min=11.8km az=123.0*

**ISC 30 04:59:53.1±0.7, 42°.09N±0°.05×143°.38E±0°.07, h56km±5km, n77, σ1°63/80, mb4.2/40, 3C-2D, Hokkaido region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ERM** | **Erimo** | **0.18** | **247** | *e*Pn | **Pn** | **05 00 03.0** | **+1.0** |
| ERM | | | | *e*Sn | **Sn** | **05 00 10.4** | **+2.6** |
| **JEM** | **Erimo** | **0.18** | **247** | ⇓P | **Pn** | **05 00 02.8** | **+0.8** |
| **JNBK** | **Urakawa-nobuka** | **0.50** | **293** | ⇓P | **Pn** | **05 00 03.9** | **-0.9** |
| **JCH** | **Churui** | **0.53** | **359** | ⇑P | **Pn** | **05 00 05.6** | **+0.5** |
| JCH | | | | *e*S | **Sn** | **05 00 14.3** | **+0.5** |
| **JOB** | **Onbets** | **0.89** | **22** | ⇑P | **Pn** | **05 00 11.6** | **+2.1** |
| **JBT2** | **Biratori 2** | **1.02** | **313** | P | **Pn** | **05 00 10.6** | **-0.7** |
| **JFR** | **Furan** | **1.22** | **332** | P | **Pn** | **05 00 12.8** | **-1.2** |
| **JAR** | **Ashorobuto** | **1.25** | **13** | ⇑P | **Pn** | **05 00 15.3** | **+1.0** |
| JAR | | | | *e*S | **Sn** | **05 00 31.0** | **+0.9** |
| **ASAJ** | **Asahikawa** 82nm,0.3s,baz=200,slow=13,SNR=120 | **2.11** | **345** | P | **Pn** | **05 00 27.0** | **+1.0** |
| ASAJ | 28nm,0.3s,baz=146,slow=20,SNR=7.8 | | | S | **Sn** | **05 00 51.5** | **+0.4** |
| **ASAJ** | **Asahikawa** | **2.11** | **345** | *e*Pn | **Pn** | **05 00 26.9** | **+0.9** |
| **MJB9** | **Matsu-Tunnel** | **5.83** | **218** | *e*Pn | **Pn** | **05 01 31.4** | **+0.7** |
| **MJAR** | **Matsushiro Arr** 1.6nm,0.3s,baz=29,slow=13,SNR=25 | **6.83** | **218** | P | **Pn** | **05 01 30.8** | **+0.1** |
| MJAR | comp=Z,132nm,19.6s,baz=25,slow=40 | | | LR | LR | 05 04 24.4 | |
| **MAJO** | **Matsushiro** | **6.83** | **218** | *e*Pn | **Pn** | **05 01 30.6** | **-0.1** |
| **MAT** | **Matsushiro** | **6.83** | **218** | P | **Pn** | **05 01 30.7** | **0.0** |
| MAT | | | | *e*S | **Sn** | **05 02 45.8** | **-1.3** |
| **INU** | **Inuyama** | **8.36** | **219** | *e*Pn | **Pn** | **05 01 53.6** | **+2.0** |
| **USRK** | **Ussuriysk Ar.** comp=Z,68nm,20.7s,baz=142,slow=37 | **8.59** | **288** | LR | LR | 05 05 07.5 | |
| **KLR** | **Kul'dur** 0.0nm,0.3s,baz=130,slow=12,SNR=5.8 | **10.82** | **315** | P | **Pn** | **05 02 26.1** | **+0.9** |
| KLR | comp=Z,5.2nm,21.1s,baz=114,slow=36 | | | LR | LR | 05 06 20.8 | |
| **KSRS** | **Korea Array** 0.3nm,0.3s,baz=65,slow=13,SNR=4.4 | **12.75** | **254** | P | **Pn** | **05 02 53.4** | **+1.8** |
| KSRS | comp=Z,36nm,20.7s,baz=80,slow=35 | | | LR | LR | 05 07 19.9 | |
| **BJI** | **Beijing** | **20.58** | **273** | P | **P** | **05 04 28.0** | **+0.8** |
| BJI | comp=Z,9.0nm,1.9s | | | pmax | pmax | | |
| BJI | comp=Z,120nm,3.1s | | | pmax | pmax | | |
| **SEY** | **Seymchan** comp=Z,2.6nm,0.3s,baz=186,slow=11,SNR=9.9 | **21.55** | **11** | P | **P** | **05 04 35.5** | **-1.9** |
| **HHC** | **Hu-ho-hao-te** | **23.80** | **278** | *e*P | **P** | **05 04 59.5** | **-1.3** |
| HHC | comp=Z,12nm,0.9s | | | pmax | pmax | | |
| HHC | comp=Z,140nm,7.4s | | | pmax | pmax | | |
| **ULN** | **Ulaanbaatar** comp=Z,1.2nm,0.5s | **26.17** | **295** | *e*P | **P** | **05 05 21.2** | **-1.0** |
| **SONA1** | **Songino Array** | **26.60** | **295** | *e*P | **P** | **05 05 25.6** | **-0.6** |
| **SONM** | **Songino Array** comp=Z,1.8nm,0.8s,baz=85,slow=9.4,SNR=9.3 | **26.61** | **295** | P | **P** | **05 05 25.5** | **-0.7** |
| **TLY** | **Talaya** comp=Z,6.1nm,0.8s | **28.48** | **303** | *e*P | **P** | **05 05 38.8** | **-4.0** |
| **H11N2** | **WAKE ISLAND Hy** baz=323,slow=75,SNR=82 | **29.88** | **131** | T | T | 05 37 25.1 | |
| **H11N1** | **WAKE ISLAND Hy** baz=323,slow=75,SNR=91 | **29.89** | **131** | T | T | 05 37 28.8 | |
| **H11N3** | **WAKE ISLAND Hy** | **29.90** | **131** | T | T | 05 37 29.4 | |
| **H11S1** | **WAKE ISLAND Hy** baz=325,slow=76,SNR=77 | **30.76** | **133** | T | T | 05 38 28.7 | |
| **H11S3** | **WAKE ISLAND Hy** baz=325,slow=76,SNR=98 | **30.76** | **133** | T | T | 05 38 30.1 | |
| **H11S2** | **WAKE ISLAND Hy** baz=325,slow=76,SNR=61 | **30.77** | **133** | T | T | 05 38 35.2 | |
| **PATS** | **Pohnpei** comp=Z,233nm,1.4s | **37.52** | **155** | *e*P | **P** | **05 06 59.5** | **-2.1** |
| **ZAA0** | **Zalesovo Array** comp=Z,4.7nm,0.8s | **39.81** | **308** | *e*P | **P** | **05 07 18.9** | **-1.6** |
| **ZALV** | **Zalesovo Beam** comp=Z,5.2nm,0.7s,baz=88,slow=7.6,SNR=18 | **39.81** | **308** | P | **P** | **05 07 19.9** | **-0.7** |
| **ZALV** | **Zalesovo Beam** comp=Z,2.1nm,0.7s,baz=82,slow=10.0,SNR=20 | **39.81** | **308** | *e*P | **P** | **05 07 19.7** | **-0.9** |
| ZALV | | | | *e*PcP | **PcP** | **05 09 24.5** | **-1.0** |
| **WMQ** | **Urumqi** | **40.14** | **292** | P | **P** | **05 07 23.8** | **+0.4** |
| **IMAR** | **Indian Mountai** | **41.57** | **33** | *e*P | **P** | **05 07 35.8** | **+1.0** |
| **MK01** | **Makanchi Array** | **42.91** | **298** | *e*P | **P** | **05 07 45.0** | **-1.0** |
| **MK31** | **Makanchi Array** | **42.91** | **298** | *e*P | **P** | **05 07 45.5** | **-0.6** |
| **MKAR** | **Makanchi Array** comp=Z,2.1nm,0.7s,baz=82,slow=10.0,SNR=20 | **42.91** | **298** | *e*P | **P** | **05 07 45.2** | **-0.8** |
| **MKAR** | **Makanchi Array** comp=Z,15nm,0.6s | **42.91** | **298** | *e*P | **P** | **05 07 45.5** | **-0.6** |
| **MAKZ** | **Makanchi** comp=Z,3.2nm,0.9s | **43.11** | **298** | *e*P | **P** | **05 07 47.2** | **-0.4** |
| **MCK** | **McKinley** comp=Z,5.4nm,1.0s | **43.64** | **37** | *e*P | **P** | **05 07 50.1** | **-1.5** |
| **KURK** | **Kurchatov** comp=Z,3.3nm,0.7s | **44.17** | **304** | *e*P | **P** | **05 07 55.2** | **-0.9** |
| **KURBB** | **Kurchatov Arra** comp=Z,3.8nm,0.6s,baz=75,slow=8.9,SNR=13 | **44.25** | **304** | P | **P** | **05 07 56.0** | **-0.7** |
| **CMAR** | **Chiang Mai Arr** comp=Z,16nm,18.6s,baz=20,slow=38 | **44.38** | **252** | LR | LR | 05 27 57.5 | |
| **ILAR** | **Eielson Array** comp=Z,0.9nm,0.9s,baz=252,slow=5.3,SNR=11 | **44.45** | **35** | P | **P** | **05 07 59.2** | **+1.1** |
| **DOT** | **Dot Lake** comp=Z,3.4nm,0.6s | **45.80** | **36** | *e*P | **P** | **05 08 07.7** | **-1.2** |
| **BVAR** | **Borovoye Array** comp=Z,1.8nm,0.5s,baz=73,slow=9.2,SNR=16 | **48.42** | **309** | P | **P** | **05 08 29.0** | **-0.4** |
| BVAR | comp=Z,1.0nm,0.7s,baz=83,slow=4.6,SNR=4.0 | | | PcP | **PcP** | **05 09 55.7** | **+0.8** |
| **BRVK** | **Borovoye** comp=Z,4.0nm,0.5s | **48.47** | **310** | *e*P | **P** | **05 08 28.6** | **-1.2** |
| **INK** | **Inuvik** comp=Z,0.7nm,0.4s,baz=316,slow=4.1,SNR=9.6 | **49.22** | **29** | P | **P** | **05 08 36.4** | **+1.1** |
| **AAK** | **Ala-Archa** comp=Z,1.2nm,0.3s,baz=62,slow=4.8,SNR=5.4 | **49.57** | **295** | P | **P** | **05 08 38.0** | **-0.5** |
| **AAK** | **Ala-Archa** comp=Z,1.6nm,0.5s | **49.57** | **295** | *e*P | **P** | **05 08 37.1** | **-1.4** |
| **KSH** | **Kashi** | **49.88** | **291** | P | **P** | **05 08 44.5** | **+3.6** |
| KSH | | | | pP | sP | 05 09 01.5 | -0.7 |
| KSH | | | | PcP | **PcP** | **05 10 03.3** | **+2.7** |
| KSH | | | | PP | **PP** | **05 10 41.3** | **+5.5** |
| KSH | | | | S | **S** | **05 15 50.3** | **+3.5** |
| KSH | | | | ScS | **ScS** | **05 18 26.5** | **-0.7** |
| **KSH** | **Kashi** comp=Z,2.0nm,0.8s | **49.88** | **291** | SS | **SS** | **05 19 21.0** | **+1.3** |
| KSH | | | | pmax | pmax | | |
| KSH | comp=Z,84nm,4.2s | | | pmax | pmax | | |
| KSH | comp=N,100nm,4.9s | | | LR | LR | | |
| KSH | comp=E,110nm,6.0s | | | LR | LR | | |
| KSH | comp=Z,100nm,4.5s | | | LR | LR | | |
| **PMG** | **Port Moresby** comp=Z,17nm,0.9s | **51.35** | **175** | *e*P | **P** | **05 08 48.2** | **-3.8** |
| **KKAR** | **Karatay Array** comp=Z,2.0nm,0.6s | **52.03** | **297** | *e*P | **P** | **05 08 56.2** | **-0.7** |
| **KULM** | **Kulim** comp=Z,23nm,1.3s | **52.72** | **238** | *e*P | P | 05 08 57.7 | -4.5 |
| **ARU** | **Arti** comp=Z,3.5nm,0.6s,baz=80,slow=6.0,SNR=7.8 | **53.66** | **317** | P | **P** | **05 09 07.5** | **-1.1** |
| **ARU** | **Arti** comp=Z,5.1nm,0.8s | **53.66** | **317** | *e*P | **P** | **05 09 08.3** | **-0.3** |
| **ABKAR** | **Akbulak array** comp=Z,3.1nm,0.5s | **55.93** | **308** | *e*P | **P** | **05 09 24.1** | **-1.1** |
| **AKTO** | **Aktyubinsk** comp=Z,1.6nm,0.6s,baz=73,slow=12,SNR=6.8 | **56.51** | **310** | P | **P** | **05 09 28.4** | **-0.9** |
| **YKA** | **Yellowknife Ar** comp=Z,0.2nm,0.5s,baz=308,slow=6.5,SNR=10 | **58.70** | **32** | P | **P** | **05 09 45.7** | **+1.2** |
| **WRA** | **Warramunga Arr** comp=Z,0.6nm,0.7s,baz=6.8,slow=6.9,SNR=5.2 | **62.28** | **190** | P | **P** | **05 10 09.8** | **+0.5** |
| **GEYT** | **Alibeck** comp=Z,2.9nm,0.6s,baz=0.0,slow=3.3,SNR=6.5 | **62.78** | **298** | P | **P** | **05 10 12.0** | **-0.7** |
| **FINES** | **FINESS Array B** comp=Z,4.1nm,0.6s,baz=59,slow=5.9,SNR=19 | **65.07** | **332** | P | **P** | **05 10 26.4** | **-0.7** |
| **SUMG** | **Summit** comp=Z,1.8nm,0.5s | **65.63** | **1** | *e*P | **P** | **05 10 30.5** | **-0.7** |
| **ASAR** | **Alice Springs** comp=Z,0.2nm,0.6s,baz=8.9,slow=7.8,SNR=3.3 | **66.00** | **190** | P | **P** | **05 10 36.2** | **+2.6** |
| **MOD** | **Modoc Plateau** comp=Z,2.6nm,0.9s | **67.47** | **53** | *e*P | **P** | **05 10 41.4** | **-1.7** |
| **NOA** | **NORSAR Array B** comp=Z,1.6nm,0.8s,baz=36,slow=6.3,SNR=3.6 | **70.11** | **337** | P | **P** | **05 10 58.7** | **-0.4** |
| **NVAR** | **Mina Array Bea** comp=Z,0.8nm,0.7s,baz=289,slow=6.3,SNR=7.8 | **70.81** | **55** | P | **P** | **05 11 06.7** | **+2.7** |
| **AKASG** | **Malin Array Be** comp=Z,1.2nm,0.5s,baz=42,slow=6.0,SNR=9.8 | **71.24** | **322** | P | **P** | **05 11 05.3** | **-0.7** |
| **PDAR** | **Pinedale Array** comp=Z,0.4nm,0.6s,baz=263,slow=0.9,SNR=5.1 | **73.09** | **47** | P | **P** | **05 11 19.4** | **+1.9** |
| **BRTR** | **Keskin Array B** comp=Z,1.0nm,0.7s,baz=72,slow=4.3,SNR=5.6 | **76.63** | **312** | P | **P** | **05 11 38.0** | **+0.1** |
| **CLL** | **Collm** | **77.46** | **331** | *e*P | **P** | **05 11 42.0** | **-0.2** |
| CLL | | | | *e*pP | **sP** | **05 12 01.0** | **-3.2** |
| **RAYN** | **Ar Rayn** comp=Z,1.4nm,0.7s | **80.13** | **293** | *e*P | **P** | **05 11 56.7** | **-0.7** |
| **TXAR** | **Lajitas Array** comp=Z,0.6nm,0.7s,baz=301,slow=3.3,SNR=9.8 | **85.88** | **54** | P | **P** | **05 12 29.4** | **+2.4** |

*CSEM **30** 05:03:58.4±1.0, 51°.57N×16°.10E, h1km, Error ellipse: s-maj=15.5km s-min=9.0km az=9.0*
*PRU **30** 05:03:59.9, 51°.54N×16°.11E, h0km*

**WAR 30 05:04:00.3, 51°.53N×16°.13E, h1km, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KSP** | **Ksiaz** | **0.69** | **172** | *e*Pg | Pg | 05 04 13.3 | -0.2 |
| KSP | | | | *e*Sg | Sg | 05 04 22.5 | +0.1 |
| **KSP** | **Ksiaz** | **0.69** | **172** | *e*Pg | Pg | 05 04 13.3 | -0.2 |
| KSP | | | | *e*Sg | Sg | 05 04 22.5 | 0.0 |
| **KSP** | **Ksiaz** | **0.69** | **172** | *e*Pg | Pg | 05 04 13.3 | -0.2 |
| KSP | | | | *e*Sg | Sg | 05 04 22.5 | 0.0 |
| **UPC** | **Upice** | **1.02** | **184** | *e*PG | Pg | 05 04 19.4 | -0.5 |
| UPC | | | | *e*SG | Sg | 05 04 33.3 | +0.2 |
| **UPC** | **Upice** | **1.02** | **184** | Pg | Pg | 05 04 19.4 | -0.5 |
| UPC | | | | Sg | Sg | 05 04 33.3 | +0.2 |
| **DPC** | **Dobruska-Polom** | **1.18** | **174** | *e*PG | Pg | 05 04 22.2 | -0.8 |
| DPC | | | | *e*SG | Sg | 05 04 37.1 | -1.2 |
| **DPC** | **Dobruska-Polom** | **1.18** | **174** | Pg | Pg | 05 04 22.2 | -0.8 |
| DPC | | | | Sg | Sg | 05 04 37.1 | -1.2 |
| **PVCC** | **Panska Ves** | **1.41** | **225** | *e*PG | Pn | 05 04 26.8 | -0.2 |
| PVCC | comp=Z,6.8nm,0.2s | | | *e*SG | Sg | 05 04 44.8 | -0.6 |
| **PVCC** | **Panska Ves** 6.8nm,0.2s | **1.41** | **225** | Pg | Pn | 05 04 26.8 | -0.2 |
| PVCC | | | | Sg | Sg | 05 04 44.8 | -0.6 |
| **KRLC** | **Kraliky** | **1.51** | **164** | *e*PG | Pn | 05 04 28.1 | -0.4 |
| **KRLC** | **Kraliky** | **1.51** | **164** | Pg | Pn | 05 04 28.1 | -0.4 |
| **BRG** | **Berggiesshuber** 3.5nm,0.2s | **1.53** | **245** | PG | Pb | 05 04 29.1 | -0.3 |
| BRG | | | | SG | Sg | 05 04 49.5 | +0.2 |
| **GOPC** | **GO Pecny, Ondr** | **1.83** | **208** | *e*PG | Pb | 05 04 34.1 | -0.4 |
| **GOPC** | **GO Pecny, Ondr** | **1.83** | **208** | Pg | Pb | 05 04 34.1 | -0.4 |
| **PRU** | **Pruhonice** | **1.84** | **214** | *e*SG | Sg | 05 04 59.0 | -0.4 |
| **PRU** | **Pruhonice** | **1.84** | **214** | Sg | Sg | 05 04 59.0 | -0.4 |
| **KHC** | **Kasperske Hory** | **2.90** | **215** | *e*PG | Pb | 05 04 53.1 | +0.2 |
| KHC | | | | *e*SG | Sg | 05 05 32.5 | -1.0 |
| **KHC** | **Kasperske Hory** | **2.90** | **215** | Pg | Pb | 05 04 53.1 | +0.2 |
| KHC | | | | Sg | Sg | 05 05 32.5 | -1.0 |

*IDC **30** 05:07:24.7±1.3, 0°.96N×79°.21W, h0km, mb3.6/4, mb1 3.9/4, mb1mx3.5/21, mbtmp3.6/4, Error ellipse: s-maj=57.8km s-min=27.7km az=60.0*
*ISCJB **30** 05:07:27.0±1.1, 0°.68N±0°.10×79°.8W±0°.1, h23km, mb3.5/3, Error ellipse: s-maj=17.5km s-min=13.2km az=29.2*

**ISC 30 05:07:28.1±1.2, 0°.7N±0°.1×79°.8W±0°.2, h23km, n11, σ1°72/10, mb3.6/3, Near coast of Ecuador**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **OTAV** | **Otavalo** | **1.38** | **109** | *e*P | **Pn** | **05 07 52.0** | **-0.4** |
| **TUMC** | **Tumaco** | **1.54** | **42** | *e*P | **Pn** | **05 07 53.3** | **-0.9** |
| **POPC** | **Popayan, Colom** | **3.59** | **59** | *e*P | **Pn** | **05 08 22.6** | **-0.1** |
| **FLOC** | **Florencia** | **4.21** | **78** | *e*P | **Pn** | **05 08 32.7** | **+1.8** |
| **PRAC** | **Prado** | **5.73** | **58** | *e*P | **Pn** | **05 08 53.6** | **+1.7** |
| **HELC** | **Santa Helena** | **6.91** | **38** | *e*P | Pn | 05 09 15.3 | +6.9 |
| **CHIC** | **Chingaza** | **7.19** | **57** | *e*P | **Pn** | **05 09 13.3** | **+1.1** |
| **LPAZ** | **La Paz** 1.0nm,0.7s,baz=332,slow=12,SNR=3.9 | **20.40** | **146** | P | **P** | **05 12 05.0** | **+0.7** |
| **PLCA** | **Paso Flores** 4.0nm,1.2s,baz=2.4,slow=7.7,SNR=3.3 | **42.06** | **170** | P | **P** | **05 15 18.8** | **+0.5** |
| **NVAR** | **Mina Array Bea** 0.1nm,0.3s,baz=128,slow=5.9,SNR=3.4 | **51.57** | **321** | P | **P** | **05 16 34.2** | **+1.3** |
| **TORD** | **Torodi Ar. Bea** 0.3nm,0.5s,baz=275,slow=6.0,SNR=5.9 | **81.53** | **77** | P | **P** | **05 19 41.4** | **-3.2** |

*NNC **30** 05:34:19.8±7.5, 52°.72N×88°.37E, h0km, mb3.4, mpv3.0, Error ellipse: s-maj=52.5km s-min=43.8km az=56.0*

**IDC 30 05:34:20.3±3.3, 54°.51N×86°.91E, h0km, mb1 3.0/2, mb1mx2.8/41, mbtmp3.0/2, ML2.8/2, 5C-4D, Error ellipse: s-maj=31.3km s-min=19.1km az=48.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **I46RU** | **ZALESOVO INFRA** baz=67,slow=337,SNR=0.9 | **1.35** | **246** | *i* | | 05 43 50.0 | |
| **ZALV** | **Zalesovo Beam** 1.4nm,0.3s,baz=65,slow=16,SNR=11 | **1.35** | **246** | Pg | Pg | 05 34 44.2 | -1.9 |
| ZALV | 1.7nm,0.3s,baz=62,slow=24,SNR=5.0 | | | Lg | Lg | 05 35 03.4 | |
| **KURK** | **Kurchatov** 2.2nm,1.1s | **6.32** | **236** | ⇓Pn | Pn | 05 35 56.4 | +1.8 |
| KURK | 0.8nm,0.6s | | | ⇓Sn | Sn | 05 37 07.8 | +0.5 |
| KURK | 2.3nm,0.9s | | | ⇑Lg | Lg | 05 37 48.1 | |
| **KURBB** | **Kurchatov Arra** 0.2nm,0.3s,baz=53,slow=13,SNR=7.1 | **6.42** | **236** | Pn | Pn | 05 35 56.7 | +0.7 |
| **KURBB** | **Kurchatov Arra** 1.9nm,0.6s | **6.42** | **236** | ⇑Pn | Pn | 05 35 56.9 | +1.0 |
| KURBB | 2.5nm,0.6s | | | ⇑Sn | Sn | 05 37 11.4 | +1.5 |
| KURBB | 3.2nm,0.8s | | | ⇑Lg | Lg | 05 37 49.7 | |
| **MK31** | **Makanchi Array** 0.1nm,0.4s,baz=28,slow=14,SNR=12 | **8.26** | **203** | ⇓Pg | Pn | 05 36 23.5 | +2.2 |
| MK31 | 0.3nm,0.6s | | | ⇓Sn | Sn | 05 37 29.5 | -26 |
| MK31 | 0.6nm,0.6s,baz=106,slow=30,SNR=3.1 | | | ⇑Lg | Lg | 05 38 07.0 | |
| **MKAR** | **Makanchi Array** 0.2nm,0.3s,baz=20,slow=15,SNR=10.0 | **8.26** | **203** | Pn | Pn | 05 36 22.6 | +1.3 |

*ISCJB **30** 05:42:58.5±1.5, 24°.9S±0°.5×179°.9W±0°.2, h505km, mb3.9/5, Error ellipse: s-maj=70.9km s-min=23.3km az=166.6*
*IDC **30** 05:42:59.7±3.0, 24°.00S×179°.81E, h499km±25km, mb3.4/5, mb1 3.7/5, mb1mx3.1/29, mbtmp4.3/5, Error ellipse: s-maj=90.7km s-min=24.5km az=157.0*

**ISC 30 05:42:59.5±1.4, 24°.8S±0°.5×179°.9W±0°.2, h505km, n8, σ1°20/10, mb3.9/5, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DZM** | **Mont Dzumac** 0.5nm,0.3s,baz=209,slow=13,SNR=8.0 | **12.83** | **279** | P | **P** | **05 45 47.9** | **+0.8** |
| **STKA** | **Stephens Creek** 1.8nm,0.5s,baz=94,slow=8.7,SNR=14 | **34.51** | **249** | P | **P** | **05 49 05.8** | **+0.7** |
| **ASAR** | **Alice Springs** 2.6nm,0.6s,baz=94,slow=7.1,SNR=41 | **42.01** | **262** | P | **P** | **05 50 05.4** | **-0.9** |
| ASAR | 0.6nm,0.9s,baz=95,slow=4.9,SNR=4.7 | | | ScP | **ScP** | **05 54 52.0** | **-0.1** |
| **WRA** | **Warramunga Arr** 5.2nm,0.4s,baz=97,slow=8.4,SNR=145 | **42.46** | **267** | P | **P** | **05 50 08.2** | **-1.7** |
| WRA | 0.9nm,0.9s,baz=83,slow=4.0,SNR=5.7 | | | ScP | **ScP** | **05 54 54.0** | **+0.1** |
| **CMAR** | **Chiang Mai Arr** 0.6nm,0.4s,baz=119,slow=4.1,SNR=4.3 | **89.92** | **290** | P | **P** | **05 55 04.8** | **-0.1** |
| **TXAR** | **Lajitas Array** 0.4nm,0.7s,baz=217,slow=6.7,SNR=6.3 | **90.79** | **58** | P | **P** | **05 55 08.9** | **+0.1** |
| **AKASG** | **Malin Array Be** 0.6nm,0.5s,baz=49,slow=4.4,SNR=6.5 | **145.74** | **327** | PKP | **PKPdf** | **06 01 38.4** | **-1.5** |
| **BRTR** | **Keskin Array B** 0.6nm,0.9s,baz=44,slow=6.6,SNR=3.4 | **148.17** | **306** | PKPbc | **PKPdf** | **06 01 46.2** | **+1.7** |

*IDC **30** 06:04:22.3±8.8, 36°.23N×71°.00E, h179km±75km, mb3.1/2, mb1 3.1/5, mb1mx2.7/36, mbtmp3.6/5, MS2.8/1, Ms1 2.8/1, ms1mx2.3/17, Error ellipse: s-maj=96.0km s-min=25.6km az=168.0*
*ISCJB **30** 06:04:24.5±1.4, 36°.60N±0°.09×70°.9E±0°.2, h200km, mb3.2/2, Error ellipse: s-maj=19.0km s-min=12.0km az=21.6*

**ISC 30 06:04:25.9±1.6, 36°.6N±0°.1×71°.0E±0°.1, h200km, n8, σ1°44/10, 1C-3D, Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MNAS** | **Manas** 3.4nm,0.7s | **5.

*ISK **30** 06:09:32.3,38°.72N×43°.21E,h18km,MD2.5*
*ISCJB **30** 06:09:33.6±0.6,38°.72N±0°.03×43°.21E±0°.05,h24km±8km, Error ellipse: s-maj=6.6km s-min=4.7km az=155.0*
*DDA **30** 06:09:33.2,38°.76N×43°.21E,h7km,MI2.6*

**ISC 30 06:09:33.5±0.9, 38°.73N±0°.02×43°.21E±0°.03, h14km±7km, n22,σ0°88/43, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.20** | **134** | *e*PG | **Pb** | **06 09 38.7** | **-0.3** |
| VANB | | | | *e*SG | **Sb** | **06 09 43.2** | **+0.5** |
| **VANB** | **Van** | **0.20** | **134** | *e*Pg | **Pb** | **06 09 38.7** | **-0.3** |
| VANB | | | | *e*Sg | **Sb** | **06 09 43.2** | **+0.5** |
| **TVAN** | **Van** | **0.26** | **143** | *i* P | **Pg** | **06 09 38.5** | **-0.6** |
| TVAN | | | | *i* S | **Sg** | **06 09 43.3** | **+0.4** |
| **TVAN** | **Van** | **0.26** | **143** | P | **Pg** | **06 09 38.5** | **-0.6** |
| TVAN | | | | S | **Sg** | **06 09 43.3** | **+0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.39** | **281** | *i* P | **Pg** | **06 09 40.7** | **-0.6** |
| ADCV | | | | *i* S | **Sb** | **06 09 47.7** | **-0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.39** | **281** | P | **Pg** | **06 09 40.7** | **-0.6** |
| ADCV | | | | S | **Sb** | **06 09 47.7** | **-0.4** |
| **GEVA** | **Gevas** | **0.44** | **196** | *i* P | **Pg** | **06 09 41.1** | **-1.1** |
| GEVA | | | | *i* S | **Sb** | **06 09 50.1** | **+0.5** |
| **GEVA** | **Gevas** | **0.44** | **196** | P | **Pg** | **06 09 41.1** | **-1.1** |
| GEVA | | | | S | **Sb** | **06 09 50.1** | **+0.5** |
| **CLDR** | **Caldiran** | **0.69** | **53** | *e*PG | **Pg** | **06 09 46.3** | **-0.6** |
| CLDR | | | | *e*SG | **Sb** | **06 09 56.6** | **-0.3** |
| **CLDR** | **Caldiran** | **0.69** | **53** | *i* P | **Pg** | **06 09 46.6** | **-0.3** |
| CLDR | | | | *i* S | **Sb** | **06 09 57.1** | **+0.2** |
| **CLDR** | **Caldiran** | **0.69** | **53** | *e*Pg | **Pg** | **06 09 46.3** | **-0.6** |
| **CLDR** | **Caldiran** | **0.69** | **53** | P | **Pg** | **06 09 46.6** | **-0.3** |
| CLDR | | | | *e*Sg | **Sb** | **06 09 56.6** | **-0.3** |
| CLDR | | | | S | **Sb** | **06 09 57.1** | **+0.2** |
| **TUTA** | **Tutak** | **0.73** | **335** | *i* P | **Pg** | **06 09 47.0** | **-0.8** |
| TUTA | | | | *i* S | **Sg** | **06 09 57.0** | **-0.5** |
| **TUTA** | **Tutak** | **0.73** | **335** | P | **Pg** | **06 09 47.0** | **-0.8** |
| TUTA | | | | S | **Sg** | **06 09 57.0** | **-0.5** |
| **AGRB** | **Hanur-Agry** | **0.86** | **349** | *e*PG | **Pg** | **06 09 49.5** | **-0.6** |
| AGRB | | | | *e*SG | **Sb** | **06 10 02.2** | **+0.4** |
| **AGRB** | **Hanur-Agry** | **0.86** | **349** | *e*Pg | **Pg** | **06 09 49.5** | **-0.6** |
| AGRB | | | | *e*Sg | **Sb** | **06 10 02.2** | **+0.4** |
| **EKAR** | **Karacoban** | **1.03** | **301** | *i* P | **Pg** | **06 09 53.1** | **-0.3** |
| EKAR | | | | *i* S | **Sn** | **06 10 11.7** | **+3.4** |
| **EKAR** | **Karacoban** | **1.03** | **301** | P | **Pg** | **06 09 53.2** | **-0.3** |
| **HAKT** | **HAKKARI** | **1.24** | **161** | *i* P | **Pn** | **06 09 55.2** | **-1.4** |
| HAKT | | | | *i* S | **Sg** | **06 10 14.7** | **+1.2** |
| **HAKT** | **HAKKARI** | **1.24** | **161** | P | **Pn** | **06 09 55.2** | **-1.4** |
| HAKT | | | | S | **Sg** | **06 10 14.7** | **+1.2** |
| **EATA** | **Eleskirt** | **1.26** | **334** | *i* P | **Pn** | **06 09 56.5** | **-0.5** |
| EATA | | | | *i* S | **Sg** | **06 10 14.7** | **+0.6** |
| **EATA** | **Eleskirt** | **1.26** | **334** | P | **Pn** | **06 09 56.5** | **-0.5** |
| EATA | | | | S | **Sg** | **06 10 14.7** | **+0.6** |

*IDC **30** 06:14:14.3±7.4,27°.61N×87°.73E,h0km,mb4.1/3, mb1 4.0/4,mb1mx3.4/41,mbtmp3.8/4,ML3.3/1,Error ellipse: s-maj=143.2km s-min=53.9km az=172.0*
*DMN **30** 06:14:26.8,28°.25N×87°.76E,h92km,M1 4.2*

**ISC 30 06:14:25.8±1.9, 28°.51N±0°.06×87°.75E±0°.07, h32km±14km, n20,σ1°33/34, mb4.3/3, Xizang**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TAPN** | **Taplejung** | **1.16** | **182** | Pg | **Pn** | **06 14 47.3** | **+1.2** |
| TAPN | | | | Sg | **Sb** | **06 15 02.2** | **0.0** |
| **JIRN** | **Jiri** | **1.62** | **239** | Pg | **Pn** | **06 14 54.8** | **+2.3** |
| **ODAN** | **Odare** | **1.68** | **191** | Pg | **Pn** | **06 14 53.7** | **+0.6** |
| ODAN | | | | Sg | **Sn** | **06 15 12.5** | **-1.2** |
| **GUN** | **Gumba** | **1.75** | **251** | Pg | **Pb** | **06 14 57.0** | **-0.6** |
| GUN | | | | Sg | **Sb** | **06 15 18.6** | **-0.7** |
| **RAMN** | **Ramite** | **1.86** | **213** | Pg | **Pn** | **06 14 56.1** | **+0.4** |
| RAMN | | | | Sg | **Sn** | **06 15 17.1** | **-1.1** |
| **PKI** | **Pulchoki** | **2.27** | **246** | Pg | **Pn** | **06 15 03.4** | **+2.0** |
| PKI | | | | Sn | **Sn** | **06 15 29.7** | **+1.2** |
| **KKN** | **Kakani** | **2.30** | **252** | Pn | **Pn** | **06 15 03.9** | **+2.2** |
| KKN | | | | Sn | **Sn** | **06 15 29.9** | **+0.9** |
| **DMN** | **Daman** | **2.50** | **250** | Pg | **Pn** | **06 15 06.6** | **+2.0** |
| DMN | | | | Sn | **Sn** | **06 15 35.1** | **+1.0** |
| **GKN** | **Gorkha** | **2.79** | **260** | Pn | **Pn** | **06 15 09.9** | **+1.5** |
| **KOLN** | **Koldanda** | **3.74** | **260** | Pn | **Pn** | **06 15 22.1** | **+0.6** |
| KOLN | | | | Sn | **Sn** | **06 16 03.2** | **-1.3** |
| **PYUN** | **Piuthan** | **4.22** | **266** | Pn | **Pn** | **06 15 28.6** | **+0.5** |
| PYUN | | | | Sn | **Sn** | **06 16 15.7** | **-0.7** |
| **HARN** | **Harre** | **5.35** | **270** | Pn | **Pn** | **06 15 44.4** | **+0.8** |
| HARN | | | | Sn | **Sn** | **06 16 42.8** | **-1.5** |
| **PUSN** | **Pusma** | **5.70** | **275** | Pn | **Pn** | **06 15 49.2** | **+0.7** |
| PUSN | | | | Sn | **Sn** | **06 16 51.5** | **-1.4** |
| **BADN** | **Badegauja** | **5.79** | **274** | Pn | **Pn** | **06 15 50.3** | **+0.6** |
| BADN | | | | Sn | **Sn** | **06 16 53.3** | **-1.8** |
| **BAYN** | **Bayana** | **5.82** | **281** | Pn | **Pn** | **06 15 51.4** | **+1.2** |
| BAYN | | | | Sn | **Sn** | **06 16 55.0** | **-1.0** |
| **GJRN** | **Ganjari** | **6.21** | **281** | Pn | **Pn** | **06 15 57.0** | **+1.3** |
| GJRN | | | | Sn | **Sn** | **06 17 04.1** | **-1.7** |
| **MKAR** | **Makanchi Array** 0.1nm,0.3s,baz=180,slow=9.2,SNR=4.0 | **18.75** | **348** | P | **Pn** | **06 18 44.3** | **+1.7** |
| **SONM** | **Songino Array** 0.5nm,0.3s,baz=219,slow=11,SNR=6.8 | **24.12** | **32** | P | **P** | **06 19 38.9** | **+0.2** |
| **FINES** | **FINESS Array B** 5.3nm,1.0s,baz=105,slow=8.8,SNR=5.9 | **51.90** | **327** | P | **P** | **06 23 30.0** | **-1.0** |
| **ARCES** | **ARCESS Array B** 2.5nm,0.8s,baz=103,slow=7.2,SNR=3.9 | **53.94** | **337** | P | **P** | **06 23 45.1** | **-0.9** |

**DBN 30 06:20:12.7, 53°.35N×6°.66E, h3km, MI2.2, The Netherlands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SPY4** | **Spijk (Roodesc** baz=229 | **0.10** | **53** | *e*Pg | Pg | 06 20 15.3 | +0.8 |
| SPY4 | | | | *e*Sg | Sg | 06 20 18.1 | +2.2 |
| **ENM4** | **Eenrum** baz=115 | **0.12** | **297** | *e*Pg | Pg | 06 20 15.9 | +0.9 |
| ENM4 | | | | *e*Sg | Sg | 06 20 18.6 | +2.0 |
| **WDB4** | **Woudbloem 4** baz=346 | **0.15** | **162** | *e*Pg | Pg | 06 20 16.3 | +0.7 |
| WDB4 | | | | *e*Sg | Sg | 06 20 20.1 | +2.5 |
| **ZLV4** | **Zuidlaardervee** baz=350 | **0.27** | **167** | *e*Pg | Pg | 06 20 18.8 | +1.0 |
| ZLV4 | | | | *e*Sg | Sb | 06 20 24.5 | -0.6 |
| **SUH4** | **Surhuizum** baz=63 | **0.30** | **242** | *e*Pg | Pb | 06 20 20.0 | -0.7 |
| SUH4 | | | | *e*Sg | Sb | 06 20 25.8 | -0.3 |
| **FSW4** | **Finsterwolde 4** baz=298 | **0.31** | **116** | *e*Pg | Pg | 06 20 19.7 | +1.1 |
| FSW4 | | | | *e*Sg | Sb | 06 20 25.6 | -0.7 |
| **HWF4** | **Haulerwijk** baz=35 | **0.34** | **213** | *e*Pg | Pb | 06 20 20.3 | -1.0 |
| HWF4 | | | | *e*Sg | Sb | 06 20 26.9 | -0.1 |
| **NIW4** | **Wetzens (Niawi** baz=90 | **0.37** | **271** | *e*Pg | Pb | 06 20 21.5 | -0.4 |
| NIW4 | | | | *e*Sg | Sb | 06 20 28.7 | +0.8 |
| **ENV4** | **Elp / Enerveen** baz=3.2 | **0.46** | **182** | *e*Pg | Pb | 06 20 22.7 | -0.7 |
| **VLW3** | **Vlagtwedde** | **0.47** | **145** | *e*Pg | Pb | 06 20 22.8 | -0.7 |
| **VBG4** | **Venebrugge (Br** baz=0.3 | **0.81** | **179** | *e*Pg | Pb | 06 20 30.0 | +0.7 |

*NEIC **30** 06:26:04.0±0.0,60°.56N×137°.27W,h1km,ML3.2(OTT), After OTT.*
*NEIC Felt at Haines Junction.*
*PGC **30** 06:26:05.4±0.0,60°.56N×137°.27W,h1km,ML3.2/9*
*PGC 25km southeast of Haines Jct., Yt.Southern Yukon Territory, Canada Lightly felt at Haines Junction, Yt.*
*IDC **30** 06:26:06.0±1.4,60°.62N×137°.37W,h0km,mb3.0/1, mb1 3.4/5,mb1mx3.2/41,mbtmp3.1/5,ML2.8/4,Error ellipse: s-maj=20.7km s-min=14.5km az=24.0*

**ISC 30 06:26:03.6±1.1, 60°.58N±0°.02×137°.16W±0°.02, h3km±9km, n77,σ1°83/124, Southern Yukon Territory**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **HYT** | **Haines Junctio** | **0.30** | **325** | P | **Pg** | **06 26 10.2** | **+0.9** |
| HYT | | | | S | **Sg** | **06 26 14.0** | **+0.8** |
| **HYT** | **Haines Junctio** | **0.30** | **325** | P | **Pg** | **06 26 10.1** | **+0.7** |
| HYT | | | | S | **Sg** | **06 26 13.9** | **+0.8** |
| **YUK7** | **Dusty Glacier** | **0.49** | **264** | P | **Pg** | **06 26 13.2** | **+0.2** |
| YUK7 | | | | S | **Sg** | **06 26 18.9** | **-0.3** |
| **YUK7** | **Dusty Glacier** | **0.49** | **264** | P | **Pg** | **06 26 13.2** | **+0.2** |
| YUK7 | | | | S | **Sg** | **06 26 18.9** | **-0.3** |
| **WHY** | **Whitehorse** | **1.13** | **85** | P | **Pn** | **06 26 26.7** | **+0.3** |
| WHY | | | | S | **Sn** | **06 26 42.5** | **0.0** |
| **WHY** | **Whitehorse** | **1.13** | **85** | P | **Pn** | **06 26 26.6** | **+0.3** |
| **PLBC** | **Pleasant Camp** | **1.20** | **160** | P | **Pn** | **06 26 26.3** | **-0.9** |
| PLBC | | | | S | **Sn** | **06 26 43.5** | **-0.5** |
| **PLBC** | **Pleasant Camp** | **1.20** | **160** | P | **Pg** | **06 26 27.3** | **+0.8** |
| PLBC | | | | S | **Sn** | **06 26 44.1** | **+0.1** |
| **BCPM** | **Bancas Point** | **1.39** | **244** | P | **Pn** | **06 26 29.6** | **-0.3** |
| **PNL** | **Peninsula** | **1.45** | **232** | Pn | **Pn** | **06 26 30.6** | **-0.2** |
| PNL | | | | Sg | **Sn** | **06 26 48.9** | **-1.4** |
| **PNL** | **Peninsula** | **1.45** | **232** | P | **Pn** | **06 26 30.4** | **-0.3** |
| PNL | | | | S | **Sb** | **06 26 49.5** | **-0.6** |
| **SKAG** | **Skagway** | **1.45** | **140** | P | **Pb** | **06 26 31.7** | **+0.5** |
| SKAG | | | | S | **Sg** | **06 26 51.1** | **+0.9** |
| **PCA** | **Pinnacle** | **1.62** | **254** | Pn | **Pb** | **06 26 33.5** | **-0.6** |
| PCA | | | | Sg | **Sb** | **06 26 54.1** | **-0.8** |
| **PCA** | **Pinnacle** | **1.62** | **254** | P | **Pb** | **06 26 33.2** | **-0.9** |
| **SAMH** | **Samovar Hills** | **1.86** | **257** | P | **Pn** | **06 26 36.8** | **+0.4** |
| SAMH | | | | S | **Sg** | **06 27 02.4** | **-0.7** |
| **YUK3** | **Moose Creek** | **2.00** | **308** | Pn | **Pn** | **06 26 38.0** | **-0.4** |
| YUK3 | | | | Pg | **Pg** | **06 26 42.2** | **+0.4** |
| YUK3 | | | | Sg | **Sb** | **06 27 06.1** | **0.0** |
| **YUK3** | **Moose Creek** | **2.00** | **308** | P | **Pn** | **06 26 38.3** | **-0.2** |
| **CHX** | **Chaix Hills** | **2.04** | **257** | P | **Pb** | **06 26 39.8** | **-1.5** |
| **RKAV** | **Rock Avalanche** | **2.10** | **264** | P | **Pn** | **06 26 40.2** | **+0.5** |
| **YUK2** | **White River** | **2.15** | **306** | Pn | **Pn** | **06 26 40.3** | **-0.2** |
| YUK2 | | | | Sg | **Sg** | **06 27 12.5** | **-0.2** |
| **YUK2** | **White River** | **2.15** | **306** | P | **Pn** | **06 26 40.5** | **-0.1** |
| **YUK1** | **Sand Pete Hill** | **2.26** | **316** | Pn | **Pn** | **06 26 42.0** | **-0.1** |
| YUK1 | | | | Sg | **Sb** | **06 27 13.8** | **+0.2** |
| **YUK1** | **Sand Pete Hill** | **2.26** | **316** | P | **Pn** | **06 26 42.2** | **+0.1** |
| **BESE** | **Bessie Mountai** | **2.33** | **149** | Pn | **Pb** | **06 26 45.8** | **-0.4** |
| BESE | | | | Sg | **Sg** | **06 27 18.3** | **+0.1** |
| **BESE** | **Bessie Mountai** | **2.33** | **149** | *e*Pn | **Pb** | **06 26 46.3** | **0.0** |
| BESE | | | | *e*Sn | **Sg** | **06 27 18.1** | **-0.1** |
| **MESA** | **MESA** | **2.41** | **262** | P | **Pn** | **06 26 44.8** | **+0.7** |
| **BVCY** | **Beaver Creek** | **2.56** | **318** | Pn | **Pn** | **06 26 46.5** | **+0.5** |
| BVCY | | | | Pg | **Pg** | **06 26 51.4** | **-1.1** |
| BVCY | | | | Sg | **Sg** | **06 27 23.8** | **-1.8** |
| **BVCY** | **Beaver Creek** | **2.56** | **318** | P | **Pn** | **06 26 46.7** | **+0.7** |
| **ISLE** | **Juniper Island** | **2.56** | **273** | P | **Pn** | **06 26 46.4** | **+0.4** |
| **JIS** | **Juneau Island** | **2.71** | **147** | P | **Pn** | **06 26 49.5** | **+1.4** |
| **WAX** | **Waxell Ridge** | **2.82** | **270** | P | **Pn** | **06 26 50.4** | **+0.8** |
| **GRIN** | **Grindle Hills** | **3.07** | **267** | P | **Pn** | **06 26 54.0** | **+1.0** |
| **DAWY** | **Dawson** | **3.65** | **344** | Pn | **Pn** | **06 27 01.8** | **+0.9** |
| DAWY | | | | Pg | **Pg** | **06 27 12.2** | **-1.2** |
| DAWY | | | | Sg | **Sg** | **06 27 58.8** | **-1.8** |
| **DAWY** | **Dawson** | **3.65** | **344** | P | **Pn** | **06 27 01.9** | **+0.9** |
| **BMRM** | **Bremner River** | **3.67** | **279** | P | **Pn** | **06 27 01.9** | **+0.6** |
| **RAGM** | **Ragged Mountai** | **3.73** | **270** | *e*Pn | **Pn** | **06 27 03.2** | **+1.1** |
| RAGM | | | | *e*Pg | **Pb** | **06 27 10.6** | **+0.6** |
| **MENT** | **Mentasta** | **3.91** | **310** | *e*Pg | **Pg** | **06 27 17.7** | **-0.8** |
| MENT | | | | *e*Sg | **Sg** | **06 28 09.0** | **-0.1** |
| **DLBC** | **Dease Lake** | **4.22** | **118** | Pn | **Pn** | **06 27 09.7** | **+0.8** |
| DLBC | | | | Pg | **Pg** | **06 27 25.0** | **+0.5** |
| DLBC | | | | Sg | **Sg** | **06 28 17.6** | **-1.5** |
| **DLBC** | **Dease Lake** | **4.22** | **118** | *e*Pn | **Pn** | **06 27 10.2** | **+1.3** |
| DLBC | | | | *e*Pg | **Pg** | **06 27 25.6** | **+1.2** |
| DLBC | | | | *e*Sg | **Sg** | **06 28 20.4** | **+1.3** |
| **EYAK** | **Cordova Ski Ar** | **4.24** | **273** | *e*Pn | **Pn** | **06 27 11.5** | **+2.5** |
| EYAK | | | | *e*Pg | **Pb** | **06 27 21.6** | **+2.8** |
| **KLU** | **Klutina** | **4.36** | **286** | P | **Pn** | **06 27 11.8** | **+1.1** |
| **DOT** | **Dot Lake** | **4.47** | **316** | Pn | **Pn** | **06 27 14.2** | **+2.0** |
| DOT | | | | Pg | **Pg** | **06 27 27.6** | **-1.5** |
| DOT | | | | Sg | **Sg** | **06 28 24.4** | **-2.5** |
| **DOT** | **Dot Lake** | **4.47** | **316** | *e*Pn | **Pn** | **06 27 14.8** | **+2.5** |
| DOT | | | | *e*Sg | **Sg** | **06 28 27.1** | **+0.2** |
| **FID** | **Port Fidalgo** | **4.59** | **276** | *e*Pn | **Pn** | **06 27 17.2** | **+3.4** |
| FID | | | | *e*Pg | **Pb** | **06 27 26.5** | **+1.8** |
| FID | | | | *e*Sg | **Sg** | **06 28 26.5** | **-4.3** |
| **EGAK** | **Eagle** | **4.59** | **338** | P | **Pn** | **06 27 14.1** | **+0.2** |
| **PAX** | **Paxson** | **4.62** | **305** | Pn | **Pn** | **06 27 16.1** | **+1.8** |
| PAX | | | | Pg | **Pg** | **06 27 32.0** | **+0.1** |
| PAX | | | | Sg | **Sg** | **06 28 32.1** | **+0.5** |
| **PAX** | **Paxson** | **4.62** | **305** | *e*Pn | **Pn** | **06 27 16.2** | **+1.9** |
| PAX | | | | *e*Pg | **Pg** | **06 27 32.4** | **+0.5** |
| **SCM** | **Sheep Creek Mo** | **5.08** | **289** | *e*Pg | **Pb** | **06 27 33.5** | **+0.5** |
| **DHY** | **Denali Highway** | **5.45** | **302** | *e*Pn | **Pn** | **06 27 29.8** | **+4.0** |
| DHY | | | | *e*Pg | **Pb** | **06 27 42.9** | **+3.5** |
| **IL1** | **Eielson Array** | **6.14** | **317** | *e*Pn | Pn | 06 27 39.4 | +4.3 |
| IL1 | | | | *e*Pg | **Pg** | **06 28 01.5** | **+0.5** |
| IL1 | | | | *e*Sg | **Sg** | **06 29 17.7** | **-2.8** |
| **ILAR** | **Eielson Array** 0.2nm,0.3s,baz=129,slow=12,SNR=9.4 | **6.14** | **317** | Pn | **Pn** | **06 27 36.3** | **+1.2** |
| ILAR | 1.1nm,0.3s,baz=116,slow=28,SNR=4.6 | | | Lg | Lg | 06 29 15.7 | |
| **ILB** | **Eielson Array** | **6.14** | **317** | P | **Pn** | **06 27 35.9** | **+0.8** |
| **RC01** | **Rabbit Creek A** | **6.17** | **280** | *e*Pn | **Pn** | **06 27 38.3** | **+2.7** |
| RC01 | | | | *e*Lg | Lg | 06 29 34.0 | |
| **MCK** | **McKinley** | **6.36** | **305** | *e*Pg | **Pg** | **06 28 05.9** | **+0.7** |
| **CCB** | **Clear Creek Bu** | **6.38** | **314** | *e*Pn | **Pn** | **06 27 42.4** | **+4.0** |
| CCB | | | | *e*Pg | **Pg** | **06 28 06.4** | **+0.8** |
| CCB | | | | *e*Sg | **Sg** | **06 29 27.3** | **-0.9** |
| **COLA** | **College** 2.0nm,0.6s | **6.53** | **316** | *e*Pn | **Pn** | **06 27 37.6** | **-2.8** |
| **MDM** | **Murphy Dome** | **6.71** | **316** | *e*Pn | **Pn** | **06 27 45.5** | **+2.5** |
| **TRF** | **Thorofare Moun** | **6.81** | **301** | *e*Pn | **Pn** | **06 27 47.4** | **+2.9** |
| **FYU** | **Fort Yukon** | **7.00** | **333** | *e*Pn | **Pn** | **06 27 50.4** | **+3.5** |
| **KTH** | **Kantishna Hill** | **7.12** | **301** | *e*Pn | **Pn** | **06 27 50.5** | **+1.9** |
| **BPAW** | **Bear Paw Mtn.** | **7.33** | **305** | *e*Pn | **Pn** | **06 27 54.3** | **+2.8** |
| **FNBB** | **Fort Nelson** | **7.35** | **97** | Pn | **Pn** | **06 27 54.0** | **+2.2** |
| FNBB | | | | Sn | **Sn** | **06 29 16.8** | **+1.1** |
| FNBB | | | | Sg | **Sg** | **06 29 54.5** | **-4.8** |
| **PPLA** | **Purkeypile** | **7.50** | **295** | *e*Pn | **Pn** | **06 27 56.6** | **+2.7** |
| **BM3** | **Burnt Mountain** | **7.60** | **338** | P | **Pn** | **06 27 56.2** | **+1.1** |
| **INK** | **Inuvik** 0.1nm,0.3s,baz=209,slow=16,SNR=12 | **7.91** | **10** | Pn | **Pn** | **06 28 02.2** | **+2.8** |
| INK | 0.5nm,0.3s,baz=96,slow=18,SNR=6.2 | | | Lg | Lg | 06 30 13.4 | |
| **INK** | **Inuvik** | **7.91** | **10** | Pn | **Pn** | **06 28 00.3** | **+1.0** |
| INK | | | | Sg | **Sg** | **06 30 13.3** | **-4.6** |
| **INK** | **Inuvik** | **7.91** | **10** | *e*Pn | **Pn** | **06 28 01.7** | **+2.3** |
| **KDAK** | **Kodiak Island** 0.5nm,0.3s,baz=56,slow=11,SNR=8.0 | **8.40** | **257** | Pn | **Pn** | **06 28 06.3** | **+0.2** |
| **COLD** | **Coldfoot** | **8.78** | **325** | Pn | **Pn** | **06 28 12.1** | **+0.8** |
| COLD | | | | Sn | **Sn** | **06 29 47.4** | **-3.4** |
| COLD | | | | Sg | **Sg** | **06 30 38.1** | **-7.1** |
| **COLD** | **Coldfoot** | **8.78** | **325** | *e*Pn | **Pn** | **06 28 12.7** | **+1.3** |
| **IMAR** | **Indian Mountai** | **9.21** | **313** | *e*Pn | **Pn** | **06 28 20.1** | **+2.9** |
| **TTA** | **Tatalina** | **9.23** | **293** | *e*Pn | **Pn** | **06 28 19.4** | **+1.7** |
| **YKW3** | **Yellowknife Ar** | **10.91** | **70** | Pn | **Pn** | **06 28 42.3** | **+1.9** |
| YKW3 | | | | Sg | | 06 31 47.7 | |
| **YKA** | **Yellowknife Ar** 0.1nm,0.3s,baz=268,slow=13,SNR=7.1 | **10.91** | **70** | Pn | **Pn** | **06 28 41.9** | **+1.4** |
| **YKW1** | **Yellowknife Ar** | **10.96** | **70** | Pn | **Pn** | **06 28 44.0** | **+2.9** |
| YKW1 | | | | Sg | | 06 31 46.3 | |
| **KUKN** | **Kugluktuk,NWT** | **11.98** | **43** | Pn | **Pn** | **06 28 54.8** | **-0.2** |
| KUKN | | | | Sn | **Sn** | **06 31 05.6** | **-3.4** |
| **NVAR** | **Mina Array Bea** 0.1nm,0.3s,baz=5.2,slow=4.9,SNR=3.9 | **25.15** | **143** | P | **P** | **06 31 32.5** | **+2.5** |

*CRAAG **30** 06:28:57.7,35°.90N×0°.71W,MI3.2*
*CSEM **30** 06:29:01.3±0.3,35°.71N×0°.78W,h40km,mb3.7,Error ellipse: s-maj=11.0km s-min=6.7km az=52.0*
*MDD **30** 06:29:01.5±1.1,35°.69N×0°.71W,h49km±24km,mb3.7/4, Error ellipse: s-maj=12.1km s-min=8.7km az=35.0, PRXIMO*

**ISC 30 06:28:57.6±1.4, 35°.95N±0°.04×0°.58W±0°.06, h17km±12km, n31,σ1°44/49, Northern Algeria**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OTSS** | **Djebel Tessala** | **0.69** | **195** | P | **Pg** | **06 29 11.4** | **+0.3** |
| **OTSS** | **Djebel Tessala** | **0.69** | **195** | P | **Pg** | **06 29 11.4** | **+0.3** |
| **OTSS** | **Djebel Tessala** | **0.69** | **195** | P | **Pg** | **06 29 11.4** | **+0.3** |
| **ODJA** | **Bouhanifia** | **0.71** | **150** | P | **Pn** | **06 29 13.3** | **+0.4** |
| **ODJA** | **Bouhanifia** | **0.71** | **150** | P | **Pn** | **06 29 13.3** | **+0.4** |
| **ODJA** | **Bouhanifia** | **0.71** | **150** | P | **Pn** | **06 29 13.3** | **+0.4** |
| **OLHC** | **Oulhaca** | **0.98** | **225** | P | **Pn** | **06 29 18.0** | **+1.4** |
| **OLHC** | **Oulhaca** | **0.98** | **225** | P | **Pn** | **06 29 18.0** | **+1.4** |
| **OLHC** | **Oulhaca** | **0.98** | **225** | P | **Pn** | **06 29 18.0** | **+1.4** |
| **ENIJ** | **Nijar** 1.4nm,0.1s,SNR=7.9 | **1.66** | **308** | P | **Pb** | **06 29 28.2** | **+0.4** |
| ENIJ | 9.6nm,0.1s,SNR=7.9 | | | S | **Sn** | **06 29 48.3** | **+1.3** |
| **ENIJ** | **Nijar** 1.4nm,0.1s,SNR=7.9 | **1.66** | **308** | P | **Pb** | **06 29 28.2** | **+0.4** |
| ENIJ | 9.6nm,0.1s,SNR=7.9 | | | S | **Sn** | **06 29 48.3** | **+1.3** |
| **EMUR** | **La Murta** 0.3nm,0.1s,SNR=7.9 | **1.96** | **345** | P | **Pg** | **06 29 34.4** | **-1.0** |
| EMUR | 4.7nm,0.3s,SNR=7.9 | | | S | **Sb** | **06 29 58.0** | **+0.9** |
| **EMUR** | **La Murta** 0.3nm,0.1s,SNR=7.9 | **1.96** | **345** | P | **Pg** | **06 29 34.4** | **-1.0** |
| EMUR | 4.7nm,0.3s,SNR=7.9 | | | S | **Sb** | **06 29 58.0** | **+0.9** |
| **EALB** | **Alboran** 1.9nm,0.1s,SNR=7.9 | **1.99** | **271** | P | **Pn** | **06 29 30.2** | **-0.3** |
| EALB | 6.7nm,0.2s,SNR=7.9 | | | S | **Sn** | **06 29 53.8** | **-1.2** |
| **EALB** | **Alboran** 1.9nm,0.1s,SNR=7.9 | **1.99** | **271** | P | **Pn** | **06 29 30.2** | **-0.3** |
| EALB | 6.7nm,0.2s,SNR=7.9 | | | S | **Sn** | **06 29 53.8** | **-1.2** |
| **EBER** | **Berja** 0.8nm,0.2s | **2.09** | **298** | P | **Pn** | **06 29 33.8** | **+1.8** |
| EBER | 3.3nm,0.2s,SNR=6.1 | | | S | **Sn** | **06 29 58.0** | **+0.2** |
| **EBER** | **Berja** 0.8nm,0.2s | **2.09** | **298** | P | **Pn** | **06 29 33.8** | **+1.8** |
| EBER | 3.3nm,0.2s,SNR=6.1 | | | S | **Sn** | **06 29 58.0** | **+0.2** |
| **ELGU** | **Los Guajares,** 0.3nm,0.1s,SNR=7.9 | **2.62** | **291** | P | **Pn** | **06 29 40.8** | **+1.5** |
| ELGU | 3.2nm,0.2s,SNR=7.9 | | | S | **Sn** | **06 30 10.5** | **-0.3** |
| **ELGU** | **Los Guajares,** 0.3nm,0.1s,SNR=7.9 | **2.62** | **291** | P | **Pn** | **06 29 40.8** | **+1.5** |
| ELGU | 3.2nm,0.2s,SNR=7.9 | | | S | **Sn** | **06 30 10.5** | **-0.3** |
| **SESP** | **Santiago Espad** 1.3nm,0.1s,SNR=7.9 | **2.68** | **325** | P | **Pb** | **06 29 45.3** | **+0.1** |
| SESP | 3.1nm,0.1s,SNR=7.9 | | | S | **Sb** | **06 30 16.9** | **-1.0** |
| **SESP** | **Santiago Espad** 1.3nm,0.1s,SNR=7.9 | **2.68** | **325** | P | **Pb** | **06 29 45.3** | **+0.1** |
| SESP | 3.1nm,0.1s,SNR=7.9 | | | S | **Sb** | **06 30 16.9** | **-1.0** |
| **EQES** | **Quesada** 0.3nm,0.1s,SNR=13 | **2.73** | **314** | P | **Pb** | **06 29 45.7** | **-0.3** |
| EQES | 2.1nm,0.2s | | | S | **Sn** | **06 30 16.3** | **+3.0** |
| **EQES** | **Quesada** 0.3nm,0.1s,SNR=13 | **2.73** | **314** | P | **Pb** | **06 29 45.7** | **-0.3** |
| EQES | 2.1nm,0.2s | | | S | **Sn** | **06 30 16.3** | **+3.0** |
| **ETOB** | **Tobarra** 0.3nm,0.1s,SNR=6.6 | **2.80** | **344** | P | **Pb** | **06 29 46.8** | **-0.4** |
| ETOB | 1.4nm,0.2s,SNR=6.3 | | | S | **Sb** | **06 30 18.8** | **-2.5** |
| **ETOB** | **Tobarra** 0.3nm,0.1s,SNR=6.6 | **2.80** | **344** | P | **Pb** | **06 29 46.8** | **-0.4** |
| ETOB | 1.4nm,0.2s,SNR=6.3 | | | S | **Sb** | **06 30 18.8** | **-2.5** |
| **EMIJ** | **Mijas** 0.5nm,0.1s,SNR=7.9 | **3.45** | **282** | S | **Sn** | **06 30 27.6** | **-3.4** |
| **EMIJ** | **Mijas** 0.5nm,0.1s,SNR=7.9 | **3.45** | **282** | S | **Sn** | **06 30 27.6** | **-3.4** |
| **EADA** | **Adamuz** 0.6nm,0.2s,SNR=7.9 | **3.89** | **306** | S | **Sn** | **06 30 42.6** | **+0.6** |
| **EADA** | **Adamuz** 0.6nm,0.2s,SNR=7.9 | **3.89** | **306** | S | **Sn** | **06 30 42.6** | **+0.6** |
| **ECAB** | **El Cabril** 6.4nm,0.7s,SNR=4.0 | **4.42** | **300** | P | **Pn** | **06 30 05.5** | **+1.6** |
| ECAB | 0.4nm,0.2s,SNR=7.9 | | | S | **Sn** | **06 30 53.7** | **-1.2** |
| **ECAB** | **El Cabril** 6.4nm,0.7s,SNR=4.0 | **4.42** | **300** | P | **Pn** | **06 30 05.5** | **+1.6** |
| ECAB | 0.4nm,0.2s,SNR=7.9 | | | S | **Sn** | **06 30 53.7** | **-1.2** |

*ISCJB **30** 06:39:18.3±0.4,49°.87N±0°.03×18°.44E±0°.03,h0km,Error ellipse: s-maj=4.8km s-min=2.4km az=9.6*
*IPEC **30** 06:39:19.4±0.2,49°.83N×18°.56E,h0km±3km,ML1.6/3, Error ellipse: s-maj=2.1km s-min=1.1km az=161.0*
*CSEM **30** 06:39:19.4±0.2,49°.86N×18°.44E,h2km,ML2.5/8,Error ellipse: s-maj=6.1km s-min=2.9km az=8.0*
*VIE **30** 06:39:20.6±1.3,49°.66N×18°.45E,h0km,mb1.8/1,ML2.2/4, Error ellipse: s-maj=11.4km s-min=6.6km az=41.0, Suspected Mining explosion.*
*PRU **30** 06:39:20.1,49°.89N×18°.45E,h0km*

**ISC 30 06:39:18.9±0.8, 49°.85N±0°.03×18°.46E±0°.02, h0km, n32, σ0°83/58, 3C, Czech and Slovak Republics**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s |

**IDC 30 06:44:21.3±1.5, 23°36N×143°63E, h0km, mb3.4/3, mb1 3.6/3, mb1mx3.2/38, mbtmp3.4/3, MS3.6/1, Ms1 3.5/1, ms1mx2.4/24, Error ellipse: s-maj=55.1km s-min=33.8km az=94.0, Volcano Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **43.98** | **193** | P | | P | 06 52 30.5 | 0.0 |
| | 0.4nm,0.8s,baz=17,slow=9.1,SNR=4.6 | | | | | | | |
| **MKAR** | **Makanchi Array** | **53.89** | **312** | P | | P | 06 53 46.1 | -0.4 |
| | 0.3nm,0.6s,baz=86,slow=8.6,SNR=3.1 | | | | | | | |
| **STKA** | **Stephens Creek** | **54.96** | **182** | LR | | LR | 07 19 09.2 | |
| | comp=Z,52nm,18.0s,baz=170,slow=38 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **74.80** | **28** | P | | P | 06 56 03.4 | +0.3 |
| | 0.2nm,0.7s,baz=291,slow=5.8,SNR=5.0 | | | | | | | |

**DJA 30 06:54:37.2±0.7, 0°N±6°×12°3E±°, h117km±12km, M3.6/5, MLv3.6/5, Minahassa Peninsula, Sulawesi**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **LUWI** | **Luwuk** | **1.18** | **207** | P | | Pn | 06 55 01.8 | +1.0 |
| LUWI | | | | S | | Sn | 06 55 19.9 | +1.2 |
| **MRSI** | **Marisa** | **1.45** | **289** | P | | Pn | 06 55 04.2 | +0.4 |
| MRSI | | | | S | | Sn | 06 55 24.5 | +0.5 |
| **APSI** | **Ampana** | **1.90** | **241** | P | | Pn | 06 55 09.5 | +0.3 |
| APSI | | | | S | | Sn | 06 55 32.8 | -0.9 |
| **SANI** | **Sanana** | **3.37** | **127** | P | | Pn | 06 55 27.7 | -0.6 |
| SANI | | | | S | | Sn | 06 56 04.4 | -3.4 |
| **MPSI** | **Mapaga** | **3.43** | **275** | P | | Pn | 06 55 29.7 | +0.6 |
| **LBMI** | **Labuha** | **4.24** | **99** | S | | Sn | 06 56 28.9 | +0.3 |

*IDC **30** 07:13:01.2±0.8, 1°.94S×78°.74W, h112km±7km, mb3.6/12, mb1 3.8/17, mb1mx3.7/37, mbtmp4.1/17, Error ellipse: s-maj=25.7km s-min=11.9km az=50.0*
*ISCJB **30** 07:13:02.2±0.3, 1°.96S±0°.04×78°.74W±0°.05, h141km, mb4.3/53, Error ellipse: s-maj=6.6km s-min=5.4km az=158.7*
*NEIC **30** 07:13:02.4±0.8, 1°.96S×78°.72W, h128km±7km, mb4.6/49, Error ellipse: s-maj=10.0km s-min=6.0km az=67.0*
*NEIC Felt at Daule.*

**ISC 30 07:13:03.3±0.4, 2°.08S±0°.05×78°.82W±0°.07, h141km, n100, σ2.9 10/107, mb4.6/53, Ecuador**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **OTAV** | **Otavalo** | **2.33** | **9** | *e*P | | **Pn** | **07 13 39.5** | **-3.0** |
| **OTAV** | **Otavalo** | **2.33** | **9** | *e*Pn | | **Pn** | **07 13 39.1** | **-3.3** |
| OTAV | | | | *e*Sn | | **Sn** | **07 14 11.9** | **-0.6** |
| **TUMC** | **Tumaco** | **3.88** | **1** | *e*P | | **Pn** | **07 13 58.4** | **-3.4** |
| **TUMC** | **Tumaco** | **3.88** | **1** | *e*Pn | | **Pn** | **07 13 58.4** | **-3.4** |
| **CRUC** | **La Cruz** | **4.08** | **27** | *e*P | | **Pn** | **07 14 03.5** | **-1.2** |
| **FLOC** | **Florencia** | **4.83** | **41** | *e*P | | **Pn** | **07 14 11.4** | **-2.9** |
| **ATAH** | **Atahualpa** | **5.04** | **175** | P | | **Pn** | **07 14 16.6** | **-0.9** |
| | 25nm,0.3s,baz=5.5,slow=8.9,SNR=149 | | | | | | | |
| **MALC** | **Bahia Malaga** | **6.23** | **14** | *e*P | | **Pn** | **07 14 29.9** | **-3.2** |
| **YOTC** | **Yotoco, Valle** | **6.51** | **22** | *e*P | | Pn | 07 14 31.2 | -5.8 |
| **MAPC** | **Malpelo** | **6.66** | **335** | *e*P | | **Pn** | **07 14 35.2** | **-3.5** |
| **PRAC** | **Prado** | **6.97** | **34** | *e*P | | **Pn** | **07 14 40.3** | **-2.8** |
| **PRAC** | **Prado** | **6.97** | **34** | *e*Pn | | **Pn** | **07 14 39.7** | **-3.4** |
| **SJAC** | **San Juan de Ar** | **7.21** | **42** | *e*P | | **Pn** | **07 14 43.5** | **-2.9** |
| **PLMC** | **San Jos¨ del** | **7.39** | **20** | *e*P | | Pn | 07 14 42.5 | -6.2 |
| **GUIC** | **San Jose del G** | **7.71** | **53** | *e*P | | **Pn** | **07 14 51.9** | **-1.1** |
| **VLC** | **Villavicencio,** | **8.01** | **40** | *e*P | | **Pn** | **07 14 56.6** | **-0.4** |
| **SOLC** | **Bahia Solano** | **8.37** | **10** | *e*P | | **Pn** | **07 14 58.8** | **-3.0** |
| **CHIC** | **Chingaza** | **8.38** | **37** | *e*P | | **Pn** | **07 15 00.6** | **-1.7** |
| **DBBC** | **Dabeiba** | **9.41** | **16** | *e*P | | **Pn** | **07 15 13.2** | **-2.5** |
| **RUSC** | **La Rusia** | **9.78** | **36** | *e*P | | **Pn** | **07 15 20.9** | **-0.1** |
| **RUSC** | **La Rusia** | **9.78** | **36** | *e*Pn | | **Pn** | **07 15 19.1** | **-1.9** |
| **NNA** | **Nana** | **10.03** | **169** | P | | **Pn** | **07 15 22.2** | **-1.9** |
| | 12nm,0.3s,baz=337,slow=14,SNR=18 | | | | | | | |
| **NNA** | **Nana** | **10.03** | **169** | *e*Pn | | **Pn** | **07 15 22.4** | **-1.6** |
| NNA | | | | *e*Sn | | **Sn** | **07 17 10.1** | **-5.0** |
| **ZARC** | **Zaragoza, Cauc** | **10.30** | **23** | *e*P | | Pn | 07 15 20.9 | -6.7 |
| **PAYG** | **Puerto Ayora** | **11.55** | **277** | *e*Pn | | **Pn** | **07 15 46.2** | **+2.1** |
| **SDV** | **Santo Domingo** | **13.61** | **37** | P | | **Pn** | **07 16 08.8** | **-2.1** |
| | 0.7nm,0.3s,baz=301,slow=7.5,SNR=6.0 | | | | | | | |
| **SDV** | **Santo Domingo** | **13.61** | **37** | *e*P | | **Pn** | **07 16 08.3** | **-2.7** |
| **SAML** | **Samuel** | **16.99** | **114** | *e*P | | **P** | **07 16 50.4** | **-1.8** |
| | 7.2nm,0.5s | | | | | | | |
| **LPAZ** | **La Paz** | **17.61** | **144** | P | | **Pn** | **07 17 01.2** | **+0.5** |
| | 0.3nm,0.3s,baz=326,slow=11,SNR=9.9 | | | | | | | |
| **LPAZ** | **La Paz** | **17.61** | **144** | *e*P | | **Pn** | **07 17 01.2** | **+0.5** |
| | 5.7nm,0.9s | | | | | | | |
| **PTGA** | **Pitinga** | **18.90** | **86** | P | | **Pn** | **07 17 13.9** | **-1.4** |
| | 0.8nm,0.3s,baz=275,slow=14,SNR=4.6 | | | | | | | |
| **PTGA** | **Pitinga** | **18.90** | **86** | *e*P | | **P** | **07 17 12.9** | **-0.3** |
| | 6.9nm,0.7s | | | | | | | |
| **MNMC** | **Minye Minye** | **19.20** | **153** | *e*P | | **P** | **07 17 18.6** | **+1.9** |
| | 7.6nm,0.8s | | | | | | | |
| **PB11** | **IPOC Station P** | **19.72** | **154** | *e*P | | **P** | **07 17 24.1** | **+1.9** |
| | 8.1nm,0.7s | | | | | | | |
| **MTDJ** | **Mount Denham** | **20.22** | **4** | *e*P | | Pn | 07 17 28.8 | -2.2 |
| | 118nm,1.4s | | | | | | | |
| **SIV** | **San Ignacio** | **22.29** | **129** | P | | **P** | **07 17 51.0** | **+1.6** |
| | 1.9nm,0.4s,baz=312,slow=13,SNR=9.5 | | | | | | | |
| **CMIG** | **Matias Romero** | **24.78** | **321** | *e*P | | **P** | **07 18 12.7** | **+0.4** |
| | 6.8nm,0.9s,baz=108,slow=6.1,SNR=5.8 | | | | | | | |
| **LNIG** | **Linares** | **33.47** | **325** | *e*P | | **P** | **07 19 29.8** | **+0.6** |
| | 2.7nm,0.6s | | | | | | | |
| **GOGA** | **Godfrey** | **35.57** | **353** | *e*P | | **P** | **07 19 46.8** | **-0.4** |
| | 25nm,1.8s | | | | | | | |
| **LRAL** | **Lakeview Retre** | **35.77** | **348** | *e*P | | **P** | **07 19 48.4** | **-0.5** |
| | 14nm,1.5s | | | | | | | |
| **BG3** | **Lake Jocassee** | **37.08** | **354** | *e*P | | **P** | **07 20 00.1** | **+0.1** |
| **CPCT** | **Cooper Cave** | **37.72** | **352** | *e*P | | **P** | **07 20 05.0** | **-0.3** |
| | 12nm,1.4s | | | | | | | |
| **TKL** | **Tuckaleechee C** | **37.83** | **353** | *e*P | | **P** | **07 20 05.4** | **-0.9** |
| | 57nm,2.0s | | | | | | | |
| **WVT** | **Waverly** | **38.93** | **348** | *e*P | | **P** | **07 20 13.8** | **-1.7** |
| | 20nm,1.6s | | | | | | | |
| **MIAR** | **Mount Ida** | **38.98** | **340** | *e*P | | **P** | **07 20 14.6** | **-1.3** |
| | 14nm,1.6s | | | | | | | |
| **X301** | **Greenbrier Sit** | **39.24** | **342** | *e*P | | **P** | **07 20 17.6** | **-0.5** |
| | 15nm,1.5s | | | | | | | |
| **WHAR** | **Wooly Hollow** | **39.26** | **342** | *e*P | | **P** | **07 20 17.6** | **-0.6** |
| | 31nm,1.8s | | | | | | | |
| **TXAR** | **Lajitas Array** | **39.26** | **325** | P | | **P** | **07 20 19.2** | **+0.8** |
| | 0.4nm,0.7s,baz=148,slow=9.6,SNR=5.4 | | | | | | | |
| TXAR | | | | PcP | | **PcP** | **07 22 26.2** | **+1.5** |
| | 0.3nm,0.7s,baz=148,slow=7.1,SNR=3.4 | | | | | | | |
| **SPRD** | **Spring Road, M** | **39.91** | **1** | *e*P | | **P** | **07 20 24.2** | **+0.6** |
| | 22nm,1.5s | | | | | | | |
| **PBMO** | **Poplar Bluff** | **40.14** | **345** | *e*P | | **P** | **07 20 24.1** | **-1.4** |
| | 3.2nm,0.6s | | | | | | | |
| **HHAR** | **Hobbs** | **40.69** | **341** | *e*P | | **P** | **07 20 29.2** | **-0.8** |
| | 27nm,2.0s | | | | | | | |
| **OK020** | **N3440 Road, Me** | **41.06** | **337** | *e*P | | **P** | **07 20 32.9** | **-0.1** |
| | 12nm,0.8s | | | | | | | |
| **V35A** | **Meyer Ranch, C** | **41.24** | **338** | *e*P | | **P** | **07 20 34.4** | **-0.2** |
| | 15nm,1.0s | | | | | | | |
| **CCM** | **Cathedral Cave** | **41.56** | **345** | *e*P | | **P** | **07 20 35.9** | **-1.2** |
| | 24nm,1.6s | | | | | | | |
| **MNTX** | **Cornudas Mount** | **42.01** | **325** | *e*P | | **P** | **07 20 41.3** | **+0.4** |
| | 9.9nm,1.9s | | | | | | | |
| **SSPA** | **Standing Stone** | **42.52** | **1** | *e*P | | **P** | **07 20 45.3** | **+0.4** |
| | 52nm,1.9s | | | | | | | |
| **HDIL** | **Hopedale** | **43.50** | **348** | *e*P | | **P** | **07 20 50.9** | **-1.8** |
| | 87nm,1.9s | | | | | | | |
| **KSU1** | **Kansas State U** | **44.13** | **340** | *e*P | | **P** | **07 20 57.9** | **+0.1** |
| | 8.0nm,0.6s | | | | | | | |
| **ANMO** | **Albuquerque** | **45.03** | **327** | P | | **P** | **07 21 06.3** | **+1.0** |
| | 2.3nm,0.7s,baz=331,slow=9.6,SNR=14 | | | | | | | |
| ANMO | | | | pP | | **pP** | **07 21 32.6** | **-4.5** |
| | 1.7nm,0.7s,baz=330,slow=10,SNR=4.5 | | | | | | | |
| **ANMO** | **Albuquerque** | **45.03** | **327** | *e*P | | **P** | **07 21 06.3** | **+1.0** |
| | 2.8nm,0.8s | | | | | | | |
| ANMO | | | | *e*pP | | **pP** | **07 21 32.6** | **-4.5** |
| **JFWS** | **Jewell Farm** | **45.96** | **348** | *e*P | | **P** | **07 21 10.3** | **-1.9** |
| | 64nm,1.9s | | | | | | | |
| **PLVO** | **Plevna** | **46.94** | **2** | *e*P | | **P** | **07 21 19.2** | **-0.6** |
| | 83nm,1.8s | | | | | | | |
| **ECSD** | **EROS Data Cent** | **48.33** | **343** | *e*P | | **P** | **07 21 29.4** | **-1.1** |
| | 12nm,1.8s | | | | | | | |
| **EYMN** | **Ely** | **51.04** | **349** | *e*P | | **P** | **07 21 49.4** | **-1.6** |
| | 23nm,1.4s | | | | | | | |
| **RSSD** | **Black Hills** | **51.24** | **337** | *e*P | | **P** | **07 21 54.4** | **+1.6** |
| | 4.7nm,0.6s | | | | | | | |
| **TCUT** | **Toone Canyon** | **52.23** | **329** | *e*P | | **P** | **07 22 01.5** | **+1.2** |
| | 6.8nm,0.7s | | | | | | | |
| **AGMN** | **Agassiz Nation** | **52.33** | **346** | *e*P | | **P** | **07 22 00.0** | **-0.5** |
| | 45nm,1.9s | | | | | | | |
| **DAC** | **Darwin (Calif)** | **52.53** | **320** | *e*P | | **P** | **07 21 59.9** | **-2.6** |
| | 17nm,2.0s | | | | | | | |
| **PDAR** | **Pinedale Array** | **52.55** | **332** | P | | **P** | **07 22 02.4** | **-0.2** |
| | 0.5nm,0.6s,baz=117,slow=8.5,SNR=5.4 | | | | | | | |
| **SPUT** | **South Promonto** | **52.91** | **328** | *e*P | | **P** | **07 22 06.2** | **+1.0** |
| | 4.3nm,1.1s | | | | | | | |
| **ULM** | **Lac du Bonnet** | **54.15** | **347** | P | | **P** | **07 22 12.5** | **-1.3** |
| | 3.2nm,0.5s,baz=146,slow=9.9,SNR=9.3 | | | | | | | |
| **ULM** | **Lac du Bonnet** | **54.15** | **347** | *e*P | | **P** | **07 22 12.3** | **-1.4** |
| | 32nm,1.8s | | | | | | | |
| **NV11** | **Mina Array Sit** | **54.22** | **322** | *e*P | | **P** | **07 22 15.7** | **+1.0** |
| | 1.2nm,2.0s | | | | | | | |
| **NVAR** | **Mina Array Bea** | **54.31** | **322** | P | | **P** | **07 22 16.7** | **+1.3** |
| | 0.7nm,0.7s,baz=127,slow=7.3,SNR=6.2 | | | | | | | |
| **HLID** | **Hailey** | **55.53** | **329** | *e*P | | **P** | **07 22 25.1** | **+1.0** |
| | 16nm,2.0s | | | | | | | |
| **BOZ** | **Bozeman (W)** | **55.67** | **333** | *e*P | | **P** | **07 22 23.3** | **-1.7** |
| | 8.3nm,0.8s | | | | | | | |
| **WDC** | **Whiskeytown Da** | **58.22** | **322** | *e*P | | **P** | **07 22 41.7** | **-1.2** |
| | 34nm,1.8s | | | | | | | |
| **JTMT** | **Jette** | **58.49** | **333** | *e*P | | **P** | **07 22 45.9** | **+1.1** |
| | 9.7nm,1.7s | | | | | | | |
| **I07A** | **Izee** | **58.59** | **327** | *e*P | | **P** | **07 22 47.3** | **+1.7** |
| | 38nm,2.0s | | | | | | | |
| **F10A** | **Beach Ranch, E** | **58.65** | **330** | *e*P | | **P** | **07 22 46.9** | **+1.0** |
| | 15nm,1.7s | | | | | | | |
| **YKA** | **Yellowknife Ar** | **69.85** | **343** | P | | **P** | **07 23 57.8** | **-0.6** |
| | 0.4nm,0.5s,baz=140,slow=5.9,SNR=13 | | | | | | | |
| YKA | | | | pP | | **PcP** | **07 24 25.9** | **+5.9** |
| | 0.2nm,0.5s,baz=141,slow=6.0,SNR=3.1 | | | | | | | |
| **DBIC** | **Dimbokro** | **74.33** | **83** | P | | **P** | **07 24 26.7** | **+0.6** |
| | 2.5nm,0.5s,baz=257,slow=6.1,SNR=5.0 | | | | | | | |
| **INK** | **Inuvik** | **79.56** | **342** | P | | **P** | **07 24 55.1** | **+0.8** |
| | 1.0nm,0.5s,baz=132,slow=4.2,SNR=8.5 | | | | | | | |
| INK | | | | pP | | **pP** | **07 25 23.4** | **-6.0** |
| | 3.0nm,1.1s,baz=152,slow=2.7,SNR=4.3 | | | | | | | |
| **INK** | **Inuvik** | **79.56** | **342** | *e*P | | **P** | **07 24 55.0** | **+0.8** |
| | 7.8nm,1.4s | | | | | | | |
| **EGAK** | **Eagle** | **80.43** | **337** | *e*P | | **P** | **07 24 59.7** | **+0.7** |
| | 26nm,1.8s | | | | | | | |
| **TOA0** | **Torodi Ar. Sit** | **81.24** | **76** | *e*P | | **P** | **07 25 04.4** | **0.0** |
| | 15nm,1.8s | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **81.24** | **76** | P | | **P** | **07 25 04.3** | **-0.1** |
| | 0.5nm,0.4s,baz=278,slow=5.3,SNR=11 | | | | | | | |
| **ILAR** | **Eielson Array** | **82.68** | **336** | P | | **P** | **07 25 10.8** | **-0.1** |
| | 0.6nm,0.7s,baz=125,slow=3.6,SNR=7.7 | | | | | | | |
| ILAR | | | | PP | | **PP** | **07 28 23.2** | **+0.6** |
| | 0.4nm,0.9s,baz=110,slow=9.0,SNR=4.5 | | | | | | | |
| **ILB** | **Eielson Array** | **82.68** | **336** | *e*P | | **P** | **07 25 10.8** | **-0.1** |
| **MDM** | **Murphy Dome** | **83.28** | **336** | *e*P | | **P** | **07 25 14.2** | **+0.2** |
| | 24nm,1.9s | | | | | | | |
| **SNAA** | **Sanae** | **83.64** | **162** | *e*P | | **P** | **07 25 17.0** | **+1.2** |
| | 11nm,1.6s | | | | | | | |
| **BPAW** | **Bear Paw Mtn.** | **84.15** | **335** | *e*P | | **P** | **07 25 18.7** | **+0.3** |
| | 20nm,1.8s | | | | | | | |
| **PPLA** | **Purkeypile** | **84.32** | **334** | *e*P | | **P** | **07 25 19.8** | **+0.3** |
| | 48nm,1.8s | | | | | | | |
| **IMAR** | **Indian Mountai** | **85.79** | **337** | *e*P | | **P** | **07 25 26.4** | **-0.1** |
| **KSH** | **Kashi** | **136.24** | **28** | *e*PKP | | **PKPdf** | **07 32 11.8** | **+3.1** |
| KSH | | | | sPKP | | | 07 32 48.5 | |
| KSH | | | | PP | | **PP** | **07 34 55.5** | **+5.9** |
| KSH | | | | PKS | | **PKSdf** | **07 35 46.5** | **+1.4** |
| KSH | | | | SKS | | **SKSdf** | **07 39 10.3** | **+3.4** |
| KSH | | | | SKKS | | **SKKSac** | **07 41 35.0** | **+3.2** |
| **KSH** | **Kashi** | **136.24** | **28** | SS | | SS | 07 52 44.0 | +5.2 |
| KSH | | | | AMB | | AMB | | |
| | comp=Z,61nm,3.7s | | | | | | | |
| KSH | | | | LR | | LR | | |
| | comp=N,37nm,3.7s | | | | | | | |
| KSH | | | | LR | | LR | | |
| | comp=E,43nm,3.9s | | | | | | | |
| KSH | | | | LR | | LR | | |
| | comp=Z,140nm,5.6s | | | | | | | |
| **WMQ** | **Urumqi** | **136.75** | **14** | *e*P | | **PKPdf** | **07 32 09.0** | **-0.4** |
| WMQ | | | | pmax | | pmax | | |
| | comp=Z,320nm,5.1s | | | | | | | |
| WMQ | | | | LR | | LR | | |
| | comp=N,44nm,19.3s | | | | | | | |
| WMQ | | | | LR | | LR | | |
| | comp=E,99nm,17.9s | | | | | | | |
| WMQ | | | | LR | | LR | | |
| | comp=Z,67nm,13.7s | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **140.28** | **348** | *e*P | | **PKPdf** | **07 32 11.3** | **-4.8** |
| **NJ2** | **Nanjing** | **145.85** | **333** | *e*P | | **PKPdf** | **07 32 25.8** | **-0.2** |
| NJ2 | | | | pmax | | pmax | | |
| | comp=Z,15nm,0.7s | | | | | | | |
| **SAUI** | **Saumlaki** | **148.34** | **251** | *e*PKPbc | | **PKPbc** | **07 32 35.2** | **+1.0** |

*OBM **30** 07:14:36.1±0.1, 51°.83N×95°.81E, h2km, Ml3.6/1, Error ellipse: s-maj=2.6km s-min=2.3km az=56.0*
*IDC **30** 07:14:37.8±1.0, 51°.63N×96°.08E, h0km, mb3.5/1, mb1 3.4/5, mb1mx3.1/52, mbtmp3.4/5, ML3.1/4, Error ellipse: s-maj=34.9km s-min=10.5km az=179.0*
*MOS **30** 07:14:40.5±3.5, 51°.90N×95°.54E, h10km, mb4.1/1, Error ellipse: s-maj=18.0km s-min=10.6km az=4.0*

**ISC 30 07:14:37.7±0.7, 51°.81N±0°.06×95°.81E±0°.03, h10km, n27, σ2.9 61/26, 4C-2D, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **HVS** | **Khovu-Aksy** | **1.48** | **244** | *d*iPG | | **Pb** | **07 15 04.0** | **-1.4** |
| **ORL** | **Orlik** | **2.57** | **72** | *e*PN | | **Pb** | **07 15 20.0** | **-3.9** |
| ORL | | | | pmax | pmax | | | |
| | comp=Z,92nm,0.4s | | | | | | | |
| **ULG** | **Ulaangom** | **3.01** | **234** | *e*Pg | | **Pb** | **07 15 30.3** | **-1.2** |
| ULG | | | | *e*Sg | | **Sb** | **07 16 09.1** | **+0.8** |
| **HTG** | **Hatgal** | **3.06** | **114** | *e*Pg | | **Pb** | **07 15 30.3** | **-2.0** |
| HTG | | | | *e*Sg | | **Sb** | **07 16 10.6** | **+0.9** |
| **MOY** | **Mondy** | **3.22** | **90** | *i*PN | | **Pb** | **07 15 32.3** | **-2.8** |
| MOY | | | | *e* | | | 07 16 13.9 | |
| MOY | | | | pmax | pmax | | | |
| | comp=Z,69nm,0.6s | | | | | | | |
| MOY | | | | smax | smax | | | |
| | comp=N,430nm,0.8s | | | | | | | |
| **TSC** | **Tosontsengel** | **3.42** | **152** | *e*Pn | | **Pn** | **07 15 33.4** | **+2.2** |
| TSC | | | | *e*Sg | | **Sg** | **07 16 25.5** | **-2.0** |
| **ARS** | **Arshan** | **4.10** | **86** | *e*PN | | **Pb** | **07 15 48.9** | **-1.0** |
| ARS | | | | *e* | | | 07 16 40.4 | |
| ARS | | | | pmax | pmax | | | |
| | comp=Z,64nm,0.6s | | | | | | | |
| ARS | | | | smax | smax | | | |
| | comp=E,829nm,0.8s | | | | | | | |
| **BYO** | **Bayan-Olgiy** | **4.71** | **235** | *e*Pn | | **Pn** | **07 15 50.6** | **+1.7** |
| BYO | | | | *e*Sg | | **Sg** | **07 17 02.0** | **-6.8** |
| **TLY** | **Talaya** | **4.87** | **88** | Pg | | **Pb** | **07 16 01.1** | **-2.0** |
| | comp=E,0.0nm,0.3s,baz=299,slow=10,SNR=3.7 | | | | | | | |
| TLY | | | | Lg | | Lg | 07 17 04.2 | |
| | comp=E,0.1nm,0.3s,baz=24,slow=14,SNR=11 | | | | | | | |
| **TLY** | **Talaya** | **4.87** | **88** | *e*PN | | **Pb** | **07 16 01.4** | **-1.6** |
| TLY | | | | *e* | | | 07 17 04.1 | |
| TLY | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.7s | | | | | | | |
| **ZAK** | **Zakamensk** | **4.92** | **104** | *e*PN | | **Pb** | **07 16 02.3** | **-1.6** |
| ZAK | | | | pmax | pmax | | | |
| | comp=Z,44nm,0.8s | | | | | | | |
| **IRK** | **Irkutsk** | **5.24** | **82** | *e*PN | | **Pb** | **07 16 06.2** | **-3.2** |
| IRK | | | | *e* | | | 07 17 12.8 | |
| IRK | | | | pmax | pmax | | | |
| | comp=Z,190nm,0.1s | | | | | | | |
| IRK | | | | smax | smax | | | |
| | comp=N,296nm,0.9s | | | | | | | |
| **BLGM** | **Bulgan** | **5.79** | **118** | *e*Sg | | **Sg** | **07 17 41.1** | **-2.5** |
| **ZALV** | **Zalesovo Beam** | **6.99** | **292** | Pn | | **Pn** | **07 16 22.3** | **+2.2** |
| | comp=N,1.1nm,0.3s,baz=110,slow=14,SNR=9.8 | | | | | | | |
| ZALV | | | | Lg | | Lg | 07 18 14.2 | |
| | comp=N,2.6nm,0.3s,baz=120,slow=26,SNR=7.1 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **6.99** | **292** | *i* PN | | **Pn** | **07 16 23.1** | **+3.0** |
| ZALV | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.4s | | | | | | | |
| **SONM** | **Songino Array** | **7.91** | **116** | Pg | | **Pb** | **07 16 56.5** | **+1.6** |
| | comp=Z,1.0nm,0.3s,baz=304,slow=19,SNR=14 | | | | | | | |
| SONM | | | | Lg | | Lg | 07 18 43.7 | |
| | comp=Z,1.5nm,0.3s,baz=304,slow=27,SNR=12 | | | | | | | |
| **NVS** | **Novosibirsk** | **8.12** | **297** | *e*P | | Pb | 07 16 45.8 | -13 |
| **ULN** | **Ulaanbaatar** | **8.27** | **114** | *i*eP | | Pn | 07 16 46.4 | +8.7 |
| **MKAR** | **Makanchi Array** | **10.15** | **246** | Pn | | **Pn** | **07 17 06.0** | **+2.6** |
| | comp=Z,0.1nm,0.3s,baz=50,slow=17,SNR=6.9 | | | | | | | |
| MKAR | | | | Lg | | Lg | 07 19 59.9 | |
| | comp=Z,0.4nm,0.3s,baz=67,slow=25,SNR=7.0 | | | | | | | |
| **MKAR** | **Makanchi Array** | **10.15** | **246** | *i* P | | Pn | 07 17 07.6 | +4.1 |
| **KURK** | **Kurchatov** | **10.83** | **271** | *i*eP | | Pn | 07 17 17.0 | +4.3 |
| KURK | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,1.6s | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **10.91** | **271** | Pn | | Pn | 07 17 17.3 | +3.5 |
| | comp=Z,0.1nm,0.3s,baz=72,slow=15,SNR=6.0 | | | | | | | |
| KURBB | | | | Lg | | Lg | 07 20 23.8 | |
| | baz=76,slow=32,SNR=4.6 | | | | | | | |
| **BVAR** | **Borovoye Array** | **15.54** | **285** | Pn | | **P** | **07 18 18.2** | **-2.8** |
| | comp=Z,0.2nm,0.3s,baz=72,slow=9.3,SNR=3.6 | | | | | | | |
| **BRVK** | **Borovoye** | **15.60** | **285** | *i*eP | | **P** | **07 18 20.5** | **-1.2** |
| BRVK | | | | pmax | pmax | | | |
| | comp=Z,8.0nm,2.4s | | | | | | | |
| **TIXI** | **Tiksi** | **24.72** | **24** | *i*eP | | **P** | **07 19 58.0** | **-0.6** |
| TIXI | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,0.8s | | | | | | | |
| **AKASG** | **Malin Array Be** | **40.37** | **296** | *i* P | | **P** | **07 22 14.8** | **-0.5** |
| **TORD** | **Torodi Ar. Bea** | **82.31** | **281** | P | | **P** | **07 27 02.5** | **+2.9** |
| | comp=Z,0.2nm,0.6s,baz=28,slow=3.4,SNR=2.5 | | | | | | | |

*BEO **30** 07:30:48.1±0.5, 44°.98N×23°.56E, h0km, M2.9/1*
*ISCJB **30** 07:30:49.0±0.6, 44°.99N±0°.02×23°.50E±0°.02, h8km±4km, Error ellipse: s-maj=3.0km s-min=2.8km az=162.0*
*CSEM **30** 07:30:49.4±0.1, 45°.00N×23°.51E, h8km, MD3.2, Error ellipse: s-maj=2.7km s-min=2.0km az=155.0*
*SIGU **30** 07:30:50.1±0.1, 45°.06N±0°.01×23°.55E±0°.01, h7km, mb2.6/3*
*BUC **30** 07:30:50.1±0.6, 45°.07N×23°.56E, h13km±5km, MD3.2/4, Error ellipse: s-maj=5.0km s-min=4.3km az=343.0*
*SOF **30** 07:30:50.2, 44°.93N×23°.70E, h15km, MD2.6*

**ISC 30 07:30:49.0±1.2, 44°.98N±0°.02×23°.54E±0°.02, h3km±10km, n115, σ0.8 81/167, 36C-27D, Romania**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SRE** | **Strehaia** | **0.39** | **217** | *i* S | | **Sb** | **07 31 07.1** | **+2.1** |
| SRE | | | | ↓*i*P | | **Pb** | **07 31 00.5** | **+2.0** |
| **LOT** | **Lotru** | **0.50** | **19** | ↓*i*P | | **Pg** | **07 30 58.8** | **+0.3** |
| **LOT** | **Lotru** | **0.50** | **19** | ↓*i*P | | **Pg** | **07 30 58.8** | **+0.3** |
| LOT | | | | *i* S | | **Sg** | **07 31 05.0** | **0.0** |
| **LOT** | **Lotru** | **0.50** | **19** | ↓*i*P | | **Pg** | **07 30 58.8** | **+0.3** |
| LOT | | | | *i* S | | **Sg** | **07 31 05.0** | **0.0** |
| **ARR** | **Arges** | **0.87** | **63** | ↓*i*P | | **Pg** | **07 31 05.6** | **0.0** |
| **ARR** | **Arges** | **0.87** | **63** | ↓*i*P | | **Pg** | **07 31 05.6** | **0.0** |
| ARR | | | | *i* S | | **Sb** | **07 31 18.2** | **-0.5** |
| **ARR** | **Arges** | **0.87** | **63** | ↓*i*P | | **Pg** | **07 31 05.6** | **0.0** |
| ARR | | | | *i* S | | **Sb** | **07 31 18.2** | **-0.5** |
| **DEV** | **Deva** | **1.01** | **334** | ↑*i*P | | **Pg** | **07 31 08.1** | **-0.2** |
| **DEV** | **Deva** | **1.01** | **334** | ↑*i*P | | **Pg** | **07 31 08.1** | **-0.2** |
| DEV | | | | *i* S | | **Sg** | **07 31 20.7** | **-0.7** |
| **DEV** | **Deva** | **1.01** | **334** | ↑*i*P | | **Pg** | **07 31 08.1** | **-0.2** |
| DEV | | | | *i* S | | **Sg** | **07 31 20.7** | **-0.7** |
| **MTUR** | **Matau** | **1.11** | **77** | ↑*i*P | | **Pg** | **07 31 11.2** | **+0.4** |
| **MTUR** | **Matau** | **1.11** | **77** | ↑*i*P | | **Pb** | **07 31 11.2** | **+0.4** |
| **MTUR** | **Matau** | **1.11** | **77** | ↑*i*P | | **Pb** | **07 31 11.2** | **+0.4** |
| **HUMR** | **Humele** | **1.12** | **113** | ↓*i*P | | **Pn** | **07 31 12.0** | **+0.5** |
| **HUMR** | **Humele** | **1.12** | **113** | ↓*i*P | | **Pn** | **07 31 12.0** | **+0.5** |
| HUMR | | | | *i* S | | **Sn** | **07 31 27.0** | **-0.4** |
| **HUMR** | **Humele** | **1.12** | **113** | ↓*i*P | | **Pn** | **07 31 12.0** | **+0.5** |
| HUMR | | | | *i* S | | **Sn** | **07 31 27.0** | **-0.4** |
| **VOIR** | | **1.16** | **66** | ↓*i*P | | **Pg** | **07 31 11.1** | **-0.2** |
| **VOIR** | | **1.16** | **66** | ↓*i*P | | **Pg** | **07 31 11.1** | **-0.2** |
| VOIR | | | | *i* S | | **Sb** | **07 31 27.6** | **+0.3** |
| **VOIR** | | **1.16** | **66** | ↓*i*P | | **Pg** | **07 31 11.1** | **-0.2** |
| VOIR | | | | *i* S | | **Sb** | **07 31 27.6** | **+0.3** |
| **MDVR** | **Moldovita** | **1.31** | **262** | ↑*i*P | | **Pn** | **07 31 14.9** | **+0.7** |
| **MDVR** | **Moldovita** | **1.31** | **262** | ↑*i*P | | **Pn** | **07 31 14.9** | **+0.7** |
| MDVR | | | | *i* S | | **Sn** | **07 31 33.1** | **+0.9** |
| **MDVR** | **Moldovita** | **1.31** | **262** | ↑*i*P | | **Pn** | **07 31 14.9** | **+0.7** |
| MDVR | | | | *i* S | | **Sn** | **07 31 33.1** | **+0.9** |
| **KUBS** | **Kucevo** | **1.44** | **248** | *e*Pn | | **Pn** | **07 31 14.9** | **-1.0** |
| KUBS | | | | *e*Sg | | **Sn** | **07 31 34.2** | **-1.2** |
| **KUBS** | **Kucevo** | **1.44** | **248** | *e*Pn | | **Pn** | **07 31 14.9** | **-1.0** |
| KUBS | | | | *e*Sg | | **Sn** | **07 31 34.2** | **-1.2** |
| **ZAGS** | **Zajecar** | **1.49** | **219** | *e*Pn | | **Pn** | **07 31 15.3** | **-1.3

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| BURAR | | | | *i* S | | **Sn** | 07 32 09.2 | -1.8 | | |
| **RAKU** | **Rahkiv** | **3.08** | **8** | *e*Pn | | **Pn** | 07 31 39.3 | +0.8 | | |
| RAKU | | | | *i* Sn | | **Sn** | 07 32 16.3 | +0.5 | | |
| RAKU | | | | Snm | | | 07 32 22.7 | | | |
| **SJES** | **Sjenica** | **3.09** | **237** | *e*Pn | | **Pn** | 07 31 39.3 | +0.7 | | |
| **TRSU** | **Trosnyk** | **3.14** | **353** | *e*Sn | | **Sn** | 07 32 17.5 | +0.2 | | |
| **BBLS** | **Lazići** | **3.16** | **251** | *e*Pn | | **Pn** | 07 31 39.0 | -0.6 | | |
| **BBLS** | **Lazići** | **3.16** | **251** | *e*Pn | | **Pn** | 07 31 39.0 | -0.6 | | |
| **KORU** | **Korolevo** | **3.19** | **355** | *e*Pn | | **Pn** | 07 31 41.1 | +1.1 | | |
| KORU | | | | *i* Sn | | **Sn** | 07 32 19.1 | +0.6 | | |
| KORU | | | | Snm | | | 07 32 19.9 | | | |
| **CFR** | **Carcaliu** | **3.27** | **85** | ⇓*i*P | | **Pn** | 07 31 40.7 | -0.2 | | |
| **CFR** | **Carcaliu** | **3.27** | **85** | ⇓*i*P | | **Pn** | 07 31 40.7 | -0.2 | | |
| CFR | | | | *i* S | | **Sn** | 07 32 18.0 | -2.2 | | |
| **CFR** | **Carcaliu** | **3.27** | **85** | ⇓*i*P | | **Pn** | 07 31 40.7 | -0.2 | | |
| **NSLU** | **Nyzhne Selyshc** | **3.28** | **11** | *i* Pn | | **Pn** | 07 31 41.3 | +0.1 | | |
| NSLU | | | | Pnm | | | 07 31 41.7 | | | |
| NSLU | | | | *i* Sn | | **Sn** | 07 32 19.7 | -1.0 | | |
| NSLU | | | | Snm | | | 07 32 21.3 | | | |
| **PRD** | **Provadia** | **3.30** | **121** | *i* P | | **Pn** | 07 31 41.3 | -0.2 | | |
| **BERU** | **Beregovo** | **3.31** | **350** | *i* Pn | | **Pn** | 07 31 43.1 | +1.5 | | |
| BERU | | | | *i* Sn | | **Sn** | 07 32 22.1 | +0.6 | | |
| **BRIU** | **Brid** | **3.38** | **354** | *i* Pn | | **Pn** | 07 31 43.9 | +1.4 | | |
| BRIU | | | | Pnm | | | 07 31 44.5 | | | |
| BRIU | | | | *i* Sn | | **Sn** | 07 32 23.5 | +0.4 | | |
| BRIU | | | | Snm | | | 07 32 30.7 | | | |
| **KSV** | **Kosov** | **3.50** | **17** | *e*Sn | | **Sn** | 07 32 26.8 | +0.7 | | |
| **TIRR** | **Tirgusor** | **3.52** | **97** | ⇑*i*P | | **Pn** | 07 31 45.0 | +0.6 | | |
| **TIRR** | **Tirgusor** | **3.52** | **97** | ⇑*i*P | | **Pn** | 07 31 45.0 | +0.6 | | |
| **TIRR** | **Tirgusor** | **3.52** | **97** | ⇑*i*P | | **Pn** | 07 31 45.0 | +0.6 | | |
| **MUKU** | **Mukachevo** | **3.53** | **351** | *e*Pn | | **Pn** | 07 31 45.9 | +1.4 | | |
| MUKU | | | | *e*Sn | | **Sn** | 07 32 27.5 | +0.8 | | |
| **MEZ** | **Mezhgor'ye** | **3.54** | **360** | *e*Pn | | **Pn** | 07 31 46.1 | +1.4 | | |
| MEZ | | | | *e*Sn | | **Sn** | 07 32 27.3 | +0.3 | | |
| **ONO** | **Onokovtsy** | **3.78** | **348** | *i* Pn | | **Pn** | 07 31 49.3 | +1.3 | | |
| ONO | | | | *i* Sn | | **Sn** | 07 32 34.1 | +1.2 | | |
| **KECS** | **Kecovo** | **4.09** | **330** | *e*Pn | | **Pn** | 07 31 51.7 | -0.6 | | |
| **KECS** | **Kecovo** | **4.09** | **330** | *e*PN | | **Pn** | 07 31 51.7 | -0.6 | | |
| **STZU** | **Stuzhytsa** | **4.09** | **352** | *i* Pn | | **Pn** | 07 31 54.1 | +1.8 | | |
| STZU | | | | *i* Sn | | **Sn** | 07 32 41.5 | +0.9 | | |
| **CRVS** | **Cervenica-Dubn** | **4.17** | **341** | *e*Sg | | **Sg** | 07 33 01.8 | -1.2 | | |
| **CRVS** | **Cervenica-Dubn** | **4.17** | **341** | *e*SG | | **Sg** | 07 33 01.8 | -1.2 | | |
| **NDNU** | **Novodnistrovsk** | **4.47** | **35** | *i* Sn | | **Sn** | 07 32 51.9 | +1.8 | | |
| **VYHS** | **Vyhne** | **4.78** | **319** | *e*Pn | | **Pn** | 07 32 01.5 | -0.2 | | |
| **VYHS** | **Vyhne** | **4.78** | **319** | *e*PN | | **Pn** | 07 32 01.5 | -0.2 | | |

**IDC 30 07:52:29.7±20.0, 2.77S×101.78E, h168km±187km, mb3.0/3, mb1 3.0/3, mb1mx2.7/49, mbtmp3.4/3, Error ellipse: s-maj=150.1km s-min=24.3km az=59.0, Southern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ASAR** | **Alice Springs** | **37.37** | **127** | P | P | 07 59 26.3 | -0.1 |
| | 0.1nm,0.4s,baz=304,slow=8.4,SNR=3.7 | | | | | | |
| **SONM** | **Songino Array** | **50.55** | **4** | P | P | 08 01 11.0 | -0.1 |
| | 0.7nm,0.6s,baz=188,slow=8.9,SNR=6.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **52.26** | **343** | P | P | 08 01 23.6 | -0.1 |
| | 0.3nm,0.4s,baz=161,slow=8.6,SNR=7.1 | | | | | | |
| **TXAR** | **Lajitas Array** | **144.19** | **40** | PKP | PKPdf | 08 11 45.8 | -0.6 |
| | 0.1nm,0.3s,baz=359,slow=1.5,SNR=4.1 | | | | | | |

*ISCJB **30** 07:58:54.5±0.6, 13°.31N±0°.10×57°.67E±0°.09, h10km, mb4.1/12, MS3.1/9, Error ellipse: s-maj=14.4km s-min=12.5km az=38.0*
*NEIC **30** 07:58:54.9±0.6, 13°.33N×57°.42E, h10km, mb4.5/5, Error ellipse: s-maj=14.2km s-min=11.5km az=60.0*
*CSEM **30** 07:58:54.9, 13°.33N×57°.42E, h10km, mb4.5/5*
*IDC **30** 07:58:54.4±1.1, 13°.21N×57°.68E, h0km, mb4.0/8, mb1 4.1/8, mb1mx3.6/52, mbtmp4.0/8, MS3.2/9, Ms1 3.3/9, ms1mx3.0/49, Error ellipse: s-maj=35.9km s-min=22.8km az=132.0*

**ISC 30 07:58:56.5±0.7, 13°.5N±0°.1×57°.5E±0°.1, h10km, n59, σ1§59/47, mb4.1/12, MS3.2/9, 5C-1D, Owen Fracture Zone region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **UOSS** | **Minazif** | **11.46** | **354** | *e*Pn | **Pn** | 08 01 40.0 | -0.4 |
| **UOSS** | **Minazif** | **11.46** | **354** | *e*Pn | **Pn** | 08 01 40.0 | -0.4 |
| **RAYN** | **Ar Rayn** | **15.15** | **313** | *e*Pn | **Pn** | 08 02 28.5 | -2.2 |
| | 9.2nm,0.9s | | | | | | |
| **RAYN** | **Ar Rayn** | **15.15** | **313** | *e*Pn | **Pn** | 08 02 28.5 | -2.2 |
| | 9.2nm,0.9s | | | | | | |
| **PALK** | **Pallekele** | **23.60** | **103** | LR | LR | 08 11 26.0 | |
| | comp=Z,49nm,21.8s,baz=296,slow=32 | | | | | | |
| **H08N2** | **Diego Garcia H** | **23.80** | **145** | T | T | 08 29 23.0 | |
| | baz=326,slow=76,SNR=46 | | | | | | |
| **H08N3** | **Diego Garcia H** | **23.81** | **145** | T | T | 08 29 25.3 | |
| | baz=326,slow=76,SNR=47 | | | | | | |
| **H08N1** | **Diego Garcia H** | **23.82** | **145** | T | T | 08 29 33.5 | |
| | baz=326,slow=76,SNR=53 | | | | | | |
| **GEYT** | **Alibeck** | **24.34** | **1** | LR | LR | 08 13 58.2 | |
| | comp=Z,53nm,21.2s,baz=290,slow=37 | | | | | | |
| **KMBO** | **Kilima Mbogo** | **24.81** | **236** | P | **P** | 08 04 19.0 | -0.3 |
| | 13nm,1.0s,baz=48,slow=13,SNR=12 | | | | | | |
| KMBO | | | | LR | LR | 08 13 28.5 | |
| | comp=Z,90nm,19.8s,baz=87,slow=35 | | | | | | |
| **KMBO** | **Kilima Mbogo** | **24.81** | **236** | *e*P | **P** | 08 04 18.2 | -1.1 |
| **KMBO** | **Kilima Mbogo** | **24.81** | **236** | *e*P | **P** | 08 04 18.2 | -1.1 |
| **MMAI** | **Mount Meron Ar** | **28.02** | **318** | LR | LR | 08 16 38.0 | |
| | comp=Z,58nm,19.1s,baz=40,slow=38 | | | | | | |
| **AAK** | **Ala-Archa** | **32.53** | **24** | LR | LR | 08 18 60.0 | |
| | comp=Z,70nm,19.0s,baz=206,slow=37 | | | | | | |
| **BRTR** | **Keskin Array B** | **33.54** | **326** | LR | LR | 08 21 08.4 | |
| | comp=Z,54nm,18.9s,baz=116,slow=39 | | | | | | |
| **AKTO** | **Aktyubinsk** | **36.84** | **1** | LR | LR | 08 21 10.7 | |
| | comp=Z,37nm,19.3s,baz=169,slow=36 | | | | | | |
| **MK32** | **Makanchi Array** | **39.16** | **27** | *e*P | **P** | 08 06 25.5 | +1.0 |
| **MK32** | **Makanchi Array** | **39.16** | **27** | *e*P | **P** | 08 06 25.5 | +1.0 |
| **MKAR** | **Makanchi Array** | **39.16** | **27** | P | **P** | 08 06 25.5 | +1.0 |
| | 0.6nm,0.9s,baz=203,slow=7.0,SNR=3.3 | | | | | | |
| MKAR | | | | LR | LR | 08 24 13.3 | |
| | comp=Z,38nm,20.2s,baz=231,slow=39 | | | | | | |
| **CM31** | **Chiang Mai Arr** | **40.05** | **77** | *e*P | **P** | 08 06 32.8 | +0.6 |
| **CM31** | **Chiang Mai Arr** | **40.05** | **77** | *e*P | **P** | 08 06 32.8 | +0.6 |
| **CMAR** | **Chiang Mai Arr** | **40.05** | **77** | P | **P** | 08 06 32.8 | +0.6 |
| | 2.6nm,0.9s,baz=275,slow=8.8,SNR=14 | | | | | | |
| CMAR | | | | LR | LR | 08 22 58.7 | |
| | comp=Z,15nm,18.6s,baz=216,slow=36 | | | | | | |
| **CM01** | **Chiang Mai Arr** | **40.06** | **77** | *e*P | **P** | 08 06 32.3 | -0.1 |
| **CM01** | **Chiang Mai Arr** | **40.06** | **77** | *e*P | **P** | 08 06 32.3 | -0.1 |
| **VRI** | **Vrincioaia** | **41.44** | **327** | ⇑*i*P | P | 08 06 52.1 | +8.7 |
| **MLR** | **Muntele Rosu** | **41.61** | **326** | ⇑*i*P | **P** | 08 06 49.2 | +4.2 |
| **VOIR** | | **42.07** | **326** | ⇑*i*P | **P** | 08 06 50.2 | +1.6 |
| **DOPR** | **Dopca** | **42.22** | **326** | ⇓*i*P | **P** | 08 06 51.3 | +1.5 |
| **ARR** | **Arges** | **42.25** | **325** | ⇑*i*P | **P** | 08 06 52.2 | +2.1 |
| **ZAA0** | **Zalesovo Array** | **45.73** | **22** | *e*P | **P** | 08 07 17.1 | -0.7 |
| | 6.6nm,1.5s | | | | | | |
| **ZAA0** | **Zalesovo Array** | **45.73** | **22** | *e*P | **P** | 08 07 17.1 | -0.7 |
| | 6.6nm,1.5s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **45.73** | **22** | P | **P** | 08 07 17.6 | -0.1 |
| | 0.6nm,0.4s,baz=210,slow=8.2,SNR=4.5 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **45.73** | **22** | *e*P | **P** | 08 07 17.5 | -0.3 |
| **ZALV** | **Zalesovo Beam** | **45.73** | **22** | *e*P | **P** | 08 07 17.4 | -0.3 |
| **ZAA1** | **Zalesovo Array** | **45.73** | **22** | *e*P | **P** | 08 07 17.6 | -0.2 |
| **ZAA1** | **Zalesovo Array** | **45.73** | **22** | *e*P | **P** | 08 07 17.6 | -0.2 |
| **SONA0** | **Songino Array** | **52.95** | **39** | *e*P | **P** | 08 08 14.3 | +1.0 |
| **SONA0** | **Songino Array** | **52.95** | **39** | *e*P | **P** | 08 08 14.3 | +1.0 |
| **SONM** | **Songino Array** | **52.95** | **39** | P | **P** | 08 08 14.3 | +1.0 |
| | 0.5nm,0.9s,baz=224,slow=6.0,SNR=3.3 | | | | | | |
| **KS15** | **Wonju Array Si** | **66.37** | **55** | *e*P | **P** | 08 09 44.5 | -1.4 |
| **KS15** | **Wonju Array Si** | **66.37** | **55** | *e*P | **P** | 08 09 44.5 | -1.4 |
| **KSAR** | **Wonju Array Be** | **66.37** | **55** | P | **P** | 08 09 44.8 | -1.0 |
| **KSAR** | **Wonju Array Be** | **66.37** | **55** | P | **P** | 08 09 44.9 | -1.0 |
| **KSRS** | **Korea Array** | **66.40** | **55** | P | **P** | 08 09 44.9 | -1.2 |
| | 2.0nm,0.8s,baz=270,slow=7.9,SNR=5.7 | | | | | | |
| **WR1** | **Warramunga Arr** | **82.51** | **113** | *e*P | **P** | 08 11 17.7 | -2.4 |
| | 32nm,1.8s | | | | | | |
| **WR1** | **Warramunga Arr** | **82.51** | **113** | *e*P | **P** | 08 11 17.7 | -2.4 |
| | 32nm,1.8s | | | | | | |
| **WRA** | **Warramunga Arr** | **82.51** | **113** | P | **P** | 08 11 17.7 | -2.4 |
| | 0.7nm,0.7s,baz=302,slow=4.2,SNR=9.0 | | | | | | |
| **WB2** | **Warramunga Arr** | **82.52** | **113** | *e*P | **P** | 08 11 20.0 | -0.1 |
| | 41nm,1.9s | | | | | | |
| **WB2** | **Warramunga Arr** | **82.52** | **113** | *e*P | **P** | 08 11 20.0 | -0.1 |
| | 41nm,1.9s | | | | | | |
| **ASAR** | **Alice Springs** | **83.24** | **116** | P | **P** | 08 11 21.4 | -2.5 |
| | 1.7nm,0.8s,baz=291,slow=5.0,SNR=17 | | | | | | |
| **AS31** | **Alice Springs** | **83.24** | **116** | *e*P | **P** | 08 11 21.4 | -2.5 |
| | 0.8nm,0.8s | | | | | | |
| **AS31** | **Alice Springs** | **83.24** | **116** | ⇑*e*P | **P** | 08 11 21.4 | -2.5 |
| | 0.8nm,0.8s | | | | | | |
| **SYO** | **Syowa Base** | **83.27** | **186** | ⇑*e*P | **P** | 08 11 26.0 | +3.1 |
| **AS01** | **Alice Springs** | **83.28** | **116** | *e*P | **P** | 08 11 21.8 | -2.2 |
| **AS01** | **Alice Springs** | **83.28** | **116** | *e*P | **P** | 08 11 21.8 | -2.2 |
| **WDC** | **Whiskeytown Da** | **126.20** | **0** | *e*PKIKP | **PKPdf** | 08 17 59.2 | -0.6 |
| **WDC** | **Whiskeytown Da** | **126.20** | **0** | *e*PKPdf | **PKPdf** | 08 17 59.1 | -0.6 |
| **RAR** | **Rarotonga** | **143.64** | **107** | *e*PKIKP | PKPbc | 08 18 29.2 | -0.8 |
| **RAR** | **Rarotonga** | **143.64** | **107** | *e*PKPdf | PKPbc | 08 18 29.2 | -0.8 |

*IDC **30** 08:05:35.9±0.6, 50°.99N×178°.23E, h0km, mb4.3/31, mb1 4.4/34, mb1mx4.3/48, mbtmp4.3/34, ML4.8/2, MS3.6/7, Ms1 3.6/7, ms1mx3.1/60, Error ellipse: s-maj=18.8km s-min=11.0km az=172.0*
*ISCJB **30** 08:05:40.3±0.2, 51°.08N±0°.05×178°.13E±0°.03, h33km, mb4.6/156, MS3.8/8, Error ellipse: s-maj=6.6km s-min=2.7km az=0.5*
*MOS **30** 08:05:40.7±1.0, 51°.08N×178°.13E, h38km, mb4.7/55, Error ellipse: s-maj=7.8km s-min=6.1km az=100.6*
*BJI **30** 08:05:40.9, 51°.20N×178°.20E, h45km, mb4.6/26, mB4.9/19, Ms4.7/8, Ms7 4.4/8*
*NEIC **30** 08:05:42.8±0.5, 51°.12N×178°.15E, h39km±3km, mb4.7/107, Error ellipse: s-maj=6.3km s-min=2.6km az=183.0*

**ISC 30 08:05:41.9±0.5, 51.09N±0°.08×178.13E±0°.03, h33km, n307, σ1§24/316, mb4.7/157, MS3.8/8, 19C-7D, Rat Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **GALAA** | **Gareloi Lava P** | **2.06** | **70** | P | **Pn** | 08 06 15.4 | +1.3 |
| **TASE** | **Tanaga Southea** | **2.52** | **71** | P | **Pn** | 08 06 20.6 | +0.1 |
| **TAFP** | **Tanaga Falls P** | **2.57** | **70** | P | **Pn** | 08 06 21.7 | +0.5 |
| TAFP | | | | S | **Sb** | 08 06 59.0 | +0.7 |
| **TAPA** | **Tanaga Point A** | **2.65** | **72** | P | **Pn** | 08 06 22.2 | -0.1 |
| **SMY** | **Shemya** | **2.99** | **305** | P | **Pn** | 08 06 27.0 | +0.1 |
| SMY | | | | S | **Sb** | 08 07 07.1 | -3.3 |
| **SMY** | **Shemya** | **2.99** | **305** | P | **Pn** | 08 06 27.0 | +0.1 |
| SMY | | | | S | **Sb** | 08 07 07.1 | -3.3 |
| **KIKV** | **Kanaga Island** | **3.05** | **73** | P | **Pn** | 08 06 27.9 | +0.2 |
| **ADAG** | **Mount Adagdak** | **3.41** | **73** | P | **Pn** | 08 06 32.6 | -0.2 |
| **GSTD** | **Great Sitkin T** | **3.71** | **73** | P | **Pn** | 08 06 36.5 | -0.3 |
| GSTD | | | | S | **Sb** | 08 07 26.6 | -4.6 |
| **KOWE** | **Korovin West** | **4.91** | **72** | P | **Pn** | 08 06 52.6 | -0.8 |
| **ATKA** | **Atka Island** | **4.91** | **74** | P | **Pn** | 08 06 52.4 | -1.0 |
| ATKA | | | | S | **Sn** | 08 07 53.9 | +5.0 |
| **KOKL** | **Mount Kliuchef** | **4.93** | **72** | P | **Pn** | 08 06 53.0 | -0.7 |
| **NIKH** | **Nikolski High** | **8.25** | **72** | P | **Pn** | 08 07 39.6 | +0.4 |
| **SPIA** | **Saint Paul Isl** | **9.15** | **44** | *e*Pn | Pn | 08 07 56.5 | +5.1 |
| **MREP** | **Makushin Rep't** | **9.63** | **68** | P | **Pn** | 08 07 58.4 | +0.2 |
| **UNV** | **Unalaska Valle** | **9.78** | **68** | *e*Pn | **Pn** | 08 08 01.0 | +0.9 |
| **PET** | **Petropavlovsk** | **12.14** | **287** | *e*P | **Pn** | 08 08 33.9 | +1.5 |
| PET | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.7s | | | | | | |
| **PET** | **Petropavlovsk** | **12.14** | **287** | *e*Pn | **Pn** | 08 08 35.0 | +2.6 |
| **PEA0B** | **Petropavlovsk-** | **12.72** | **287** | *e*Pn | **Pn** | 08 08 41.7 | +1.4 |
| **PETK** | **Petropavlovsk-** | **12.72** | **287** | Pn | **Pn** | 08 08 39.4 | -0.9 |
| | comp=Z,0.6nm,0.3s,baz=85,slow=18,SNR=14 | | | | | | |
| PETK | | | | LR | LR | 08 15 09.5 | |
| | comp=Z,116nm,18.1s,baz=87,slow=45 | | | | | | |
| **PETK** | **Petropavlovsk-** | **12.72** | **287** | *e*Pn | **Pn** | 08 08 41.6 | +1.3 |
| **SKR** | **Severo-Kuril's** | **13.89** | **277** | *e*P | **Pn** | 08 08 59.3 | +3.0 |
| SKR | | | | pmax | pmax | | |
| | comp=Z,35nm,0.8s | | | | | | |
| SKR | | | | pmax | pmax | | |
| | comp=Z,300nm,2.5s | | | | | | |
| SKR | | | | MLR | MLR | | |
| | comp=Z,300nm,13.0s | | | | | | |
| **MA2** | **Magadan** | **17.62** | **309** | P | **P** | 08 09 45.8 | +0.5 |
| | comp=Z,0.4nm,0.3s,baz=101,slow=9.1,SNR=7.7 | | | | | | |
| **MA2** | **Magadan** | **17.62** | **309** | ⇓*e*P | **P** | 08 09 46.4 | +1.1 |
| **OHAK** | **Old Harbor** | **17.75** | **59** | *e*Pn | **Pn** | 08 09 44.5 | -1.6 |
| | comp=Z,156nm,1.9s | | | | | | |
| **BILL** | **Bilibino** | **17.97** | **345** | ⇑*i*P | **P** | 08 09 49.1 | 0.0 |
| BILL | | | | *e*S | **Sn** | 08 13 06.3 | -1.7 |
| BILL | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.8s | | | | | | |
| BILL | | | | MLR | MLR | | |
| | comp=Z,166nm,17.0s | | | | | | |
| **KDAK** | **Kodiak Island** | **18.20** | **57** | P | **Pn** | 08 09 47.9 | -3.8 |
| | comp=Z,1.6nm,0.3s,baz=206,slow=3.8,SNR=28 | | | | | | |
| **KDAK** | **Kodiak Island** | **18.20** | **57** | *i* P | **Pn** | 08 09 50.1 | -1.6 |
| **KDAK** | **Kodiak Island** | **18.20** | **57** | *e*P | **Pn** | 08 09 49.8 | -1.9 |
| | comp=Z,203nm,1.8s | | | | | | |
| **SEY** | **Seymchan** | **18.20** | **321** | P | **P** | 08 09 54.2 | +2.5 |
| | comp=Z,0.2nm,0.3s,baz=81,slow=20,SNR=5.6 | | | | | | |
| **SEY** | **Seymchan** | **18.20** | **321** | *i* P | **P** | 08 09 53.4 | +1.7 |
| **TTA** | **Tatalina** | **18.25** | **40** | *e*P | **Pn** | 08 09 53.2 | +0.8 |
| **TTA** | **Tatalina** | **18.25** | **40** | *e*P | **Pn** | 08 09 53.2 | +0.8 |
| **CNPM** | **China Peak** | **19.22** | **52** | *e*P | **P** | 08 10 02.1 | -0.9 |
| | comp=Z,204nm,1.9s | | | | | | |
| **SPU** | **Mount Spurr** | **19.27** | **47** | *e*P | **Pn** | 08 10 04.0 | -0.7 |
| **BRLK** | **Bradley Lake** | **19.45** | **51** | *e*P | **P** | 08 10 05.3 | -0.1 |
| | comp=Z,53nm,1.4s | | | | | | |
| **PPLA** | **Purkeypile** | **19.82** | **42** | *e*P | **Pn** | 08 10 11.0 | -0.3 |
| | comp=Z,22nm,0.9s | | | | | | |
| **RC01** | **Rabbit Creek A** | **20.32** | **48** | *e*P | **P** | 08 10 15.2 | +0.3 |
| | comp=Z,53nm,1.7s | | | | | | |
| **KTH** | **Kantishna Hill** | **20.60** | **41** | *e*P | **P** | 08 10 18.4 | +0.5 |
| | comp=Z,28nm,0.8s | | | | | | |
| **IMAR** | **Indian Mountai** | **20.66** | **33** | *e*P | **P** | 08 10 18.7 | +0.2 |
| **BPAW** | **Bear Paw Mtn.** | **20.79** | **39** | *e*P | **P** | 08 10 20.7 | +0.7 |
| | comp=Z,49nm,1.8s | | | | | | |
| **TRF** | **Thorofare Mou** | **20.82** | **41** | *e*P | **P** | 08 10 20.5 | 0.0 |
| | comp=Z,16nm,0.8s | | | | | | |
| **KUR** | **Kuril'sk** | **20.92** | **266** | ⇑*e*P | Pn | 08 10 23.4 | -0.7 |
| **SML** | **Sawmill** | **21.16** | **47** | *e*P | **P** | 08 10 24.2 | +0.2 |
| SML | | | | pmax | pmax | | |
| | comp=Z,85nm,1.9s | | | | | | |
| **SML** | **Sawmill** | **21.16** | **47** | *e*P | **P** | 08 10 24.2 | +0.2 |
| | comp=Z,85nm,1.9s | | | | | | |
| **MLY** | **Manley** | **21.29** | **37** | *e*P | **P** | 08 10 25.5 | +0.2 |
| | comp=Z,9.5nm,1.1s | | | | | | |
| **RND** | **Reindeer** | **21.41** | **42** | *e*P | **P** | 08 10 26.4 | -0.3 |
| RND | | | | pmax | pmax | | |
| | comp=Z,71nm,2.0s | | | | | | |
| **RND** | **Reindeer** | **21.41** | **42** | *e*P | **P** | 08 10 26.4 | -0.3 |
| | comp=Z,71nm,2.0s | | | | | | |
| **MCK** | **McKinley** | **21.49** | **41** | *e*P | **P** | 08 10 27.1 | -0.4 |
| MCK | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.9s | | | | | | |
| **MCK** | **McKinley** | **21.49** | **41** | *e*P | **P** | 08 10 27.1 | -0.4 |
| | comp=Z,9.2nm,0.9s | | | | | | |
| **GLI** | **Glacier Island** | **21.53** | **49** | *e*P | **P** | 08 10 27.4 | -0.5 |
| | comp=Z,83nm,1.7s | | | | | | |
| **SCM** | **Sheep Creek Mo** | **21.63** | **47** | *e*P | **P** | 08 10 28.6 | -0.5 |
| SCM | | | | pmax | pmax | | |
| | comp=Z,104nm,1.7s | | | | | | |
| **SCM** | **Sheep Creek Mo** | **21.63** | **47** | *e*P | **P** | 08 10 28.6 | -0.5 |
| | comp=Z,104nm,1.7s | | | | | | |
| **FID** | **Port Fidalgo** | **21.80** | **50** | *e*P | **P** | 08 10 30.2 | -0.6 |
| | comp=Z,29nm,1.0s | | | | | | |
| **DHY** | **Denali Highway** | **21.94** | **44** | *e*P | **P** | 08 10 32.0 | -0.5 |
| | comp=Z,56nm,1.6s | | | | | | |
| **KLU** | **Klutina** | **22.21** | **48** | *e*P | **P** | 08 10 35.8 | +0.6 |
| | comp=Z,12nm,1.0s | | | | | | |
| **MDM** | **Murphy Dome** | **22.23** | **39** | *e*P | **P** | 08 10 35.0 | -0.3 |
| | comp=Z,11nm,1.0s | | | | | | |
| **CCB** | **Clear Creek Bu** | **22.28** | **40** | *e*P | **P** | 08 10 34.2 | -1.6 |
| | comp=Z,12nm,1.3s | | | | | | |
| **COLA** | **College** | **22.34** | **39** | *e*P | **P** | 08 10 36.6 | 0.0 |
| COLA | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| **COLA** | **College** | **22.34** | **39** | *e*P | **P** | 08 10 36.6 | 0.0 |
| | comp=Z,9.7nm,0.8s | | | | | | |
| **COLD** | **Coldfoot** | **22.52** | **32** | *e*P | **P** | 08 10 39.2 | +0.7 |
| | comp=Z,15nm,1.6s | | | | | | |
| **HDA** | **Harding Lake** | **22.54** | **40** | *e*P | **P** | 08 10 38.6 | -0.2 |
| | comp=Z,30nm,1.6s | | | | | | |
| **IL1** | **Eielson Array** | **22.69** | **40** | *e*P | **P** | 08 10 40.0 | -0.3 |
| **ILAR** | **Eielson Array** | **22.69** | **40** | P | **P** | 08 10 37.6 | -2.7 |
| | comp=Z,2.8nm,0.7s,baz=247,slow=8.3,SNR=41 | | | | | | |
| **ILB** | **Eielson Array** | **22.69** | **40** | *e*P | **P** | 08 10 39.0 | -1.3 |
| **BMRM** | **Bremner River** | **22.74** | **50** | *e*P | **P** | 08 10 40.3 | -0.6 |
| | comp=Z,35nm,1.3s | | | | | | |
| **PAX** | **Paxson** | **22.75** | **45** | *e*P | **P** | 08 10 41.0 | 0.0 |
| PAX | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.8s | | | | | | |
| **PAX** | **Paxson** | **22.75** | **45** | *e*P | **P** | 08 10 41.0 | 0.0 |
| | comp=Z,10nm,0.8s | | | | | | |
| **NKL** | **Nikolayevsk** | **22.92** | **290** | *e*P | **P** | 08 10 43.0 | +0.3 |
| **YSS** | **Yuzh-Sakhalins** | **23.41** | **274** | ⇑*e*P | **P** | 08 10 47.8 | 0.0 |
| YSS | | | | pmax | pmax | | |
| | comp=Z,47nm,1.3s | | | | | | |
| **MENT** | **Mentasta** | **23.52** | **45** | *e*P | **P** | 08 10 48.9 | +0.2 |
| | comp=Z,8.6nm,0.8s | | | | | | |
| **DOT** | **Dot Lake** | **23.54** | **43** | *e*P | **P** | 08 10 47.1 | -1.7 |
| | comp=Z,21nm,0.8s | | | | | | |
| **FYU** | **Fort Yukon** | **23.99** | **36** | *e*P | **P** | 08 10 52.9 | -0.1 |
| | comp=Z,16nm,0.9s | | | | | | |
| **ASAJ** | **Asahikawa** | **24.77** | **268** | P | **P** | 08 11 00.3 | -0.1 |
| | comp=Z,11nm,0.8s,baz=347,slow=8.6,SNR=5.2 | | | | | | |
| **ASAJ** | **Asahikawa** | **24.77** | **268** | *e*P | **P** | 08 11 01.8 | +1.4 |
| | comp=Z,21nm,1.0s | | | | | | |
| **EGAK** | **Eagle** | **25.04** | **41** | *e*P | **P** | 08 11 02.0 | -0.6 |
| | comp=Z,17nm,0.9s | | | | | | |
| **DAWY** | **Dawson** | **25.64** | **43** | *e*P | **P** | 08 11 09.0 | +0.8 |
| | comp=Z,10nm,0.8s | | | | | | |
| **HYT** | **Haines Junctio** | **26.18** | **51** | *e*P | **P** | 08 11 14.3 | +1.2 |
| | comp=Z,22nm,1.5s | | | | | | |
| **YAK** | **Yakutsk** | **28.16** | **312** | P | **P** | 08 11 29.8 | -0.9 |
| | comp=Z,6.6nm,0.3s,baz=55,slow=0.8,SNR=5.1 | | | | | | |
| **YAK** | **Yakutsk** | **28.16** | **312** | *e*P | **P** | 08 11 29.3 | -1.4 |
| YAK | | | | pmax | pmax | | |
| | comp=Z,17nm,1.4s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,10.0nm,1.4s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,2.0nm,1.0s | | | | | | |
| **INK** | **Inuvik** | **28.81** | **35** | P | **P** | 08 11 34.8 | -1.7 |
| | comp=N,0.7nm,0.4s,baz=253,slow=6.8,SNR=9.7 | | | | | | |
| **INK** | **Inuvik** | **28.81** | **35** | *e*P | **P** | 08 11 35.9 | -0.5 |
| INK | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.1s | | | | | | |
| **INK** | **Inuvik** | **28.81** | **35** | *e*P | **P** | 08 11 35.9 | -0.5 |
| | comp=Z,5.5nm,1.1s | | | | | | |
| **KLR** | **Kul'dur** | **29.39** | **285** | P | **P** | 08 11 41.8 | 0.0 |
| | comp=Z,1.0nm,0.8s,baz=69,slow=8.0,SNR=34 | | | | | | |
| **KLR** | **Kul'dur** | **29.39** | **285** | ⇓*i*P | **P** | 08 11 41.0 | -0.8 |
| **TIXI** | **Tiksi** | **29.95** | **331** | P | **P** | 08 11 46.6 | 0.0 |
| | comp=Z,2.0nm,0.5s,baz=297,slow=2.3,SNR=4.0 | | | | | | |
| TIXI | | | | PcP | **PcP** | 08 14 47.9 | -0.2 |
| | comp=Z,1.3nm,0.3s,baz=195,slow=2.6,SNR=3.6 | | | | | | |
| **TIXI** | **Tiksi** | **29.95** | **331** | ⇓*e*P | **P** | 08 11 47.8 | +1.3 |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.5s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **31.41** | **276** | P | **P** | 08 11 58.5 | -1.2 |
| | comp=Z,1.0nm,0.5s,baz=82,slow=10,SNR=2.7 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **32.52** | **200** | T | T | 08 46 16.9 | |
| | baz=11,slow=76,SNR=6.8 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **32.53** | **200** | T | T | 08 46 24.1 | |
| | baz=11,slow=76,SNR=4.2 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **32.54** | **200** | T | T | 08 46 17.7 | |
| | baz=11,slow=76,SNR=4.6 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **33.75** | **200** | T | T | 08 47 55.3 | |
| | baz=18 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **33.76** | **200** | T | T | 08 47 58.4 | |
| | baz=18 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **33.76** | **200** | T | T | 08 48 00.9 | |
| | baz=18 | | | | | | |
| **BOD** | **Bodaibo** | **36.60** | **306** | *e*P | **P** | 08 12 43.5 | -1.0 |
| BOD | | | | pmax | pmax | | |
| | comp=Z,11nm,0.7s | | | | | | |
| **YKW3** | **Yellowknife Ar** | **36.81** | **45** | *e*P | **P** | 08 12 45.2 | -1.0 |
| | comp=Z,21nm,1.8s | | | | | | |
| **YKA** | **Yellowknife Ar** | **36.83** | **46** | P | **P** | 08 12 45.4 | -0.9 |
| | comp=Z,1.0nm,0.5s,baz=284,slow=7.6,SNR=50 | | | | | | |
| YKA |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| HVU | **Hansel Valley** | **46.89** | **73** | *e*P | | **P** | | **08 14 09.5** | **+0.4** |
| HVU | | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,0.8s | | | | | | | | |
| **HVU** | **Hansel Valley** | **46.89** | **73** | *e*P | | **P** | | **08 14 09.4** | **+0.4** |
| | comp=Z,4.3nm,0.8s | | | | | | | | |
| **MOOW** | **Moose Ponds** | **46.96** | **70** | *e*P | | **P** | | **08 14 10.2** | **+0.6** |
| | comp=Z,17nm,2.0s | | | | | | | | |
| **TPAW** | **Teton Pass** | **46.98** | **70** | *e*P | | **P** | | **08 14 10.7** | **+0.8** |
| | comp=Z,3.1nm,0.8s | | | | | | | | |
| **R11A** | **Troy Canyon, C** | **47.24** | **79** | *e*P | | **P** | | **08 14 12.7** | **+0.9** |
| | comp=Z,3.6nm,1.1s | | | | | | | | |
| **SPUT** | **South Promonto** | **47.37** | **73** | *e*P | | **P** | | **08 14 13.5** | **+0.8** |
| | comp=Z,15nm,1.8s | | | | | | | | |
| **TPNV** | **Topopah Spring** | **47.70** | **81** | *e*P | | **P** | | **08 14 15.5** | **+0.1** |
| TPNV | | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,0.9s | | | | | | | | |
| **TPNV** | **Topopah Spring** | **47.70** | **81** | *e*P | | **P** | | **08 14 15.5** | **+0.1** |
| | comp=Z,5.7nm,0.9s | | | | | | | | |
| **CTU** | **Camp Tracy** | **48.16** | **74** | *e*P | | **P** | | **08 14 19.5** | **+0.6** |
| | comp=Z,8.5nm,1.3s | | | | | | | | |
| **BW06** | **Boulder Array** | **48.23** | **70** | *e*P | | **P** | | **08 14 19.2** | **-0.3** |
| | comp=Z,7.1nm,0.8s | | | | | | | | |
| **PD31** | **Pinedale Array** | **48.23** | **70** | *e*P | | **P** | | **08 14 19.2** | **-0.3** |
| **PDAR** | **Pinedale Array** | **48.23** | **70** | P | | **P** | | **08 14 18.9** | **-0.6** |
| | comp=Z,4.7nm,0.8s,baz=297,slow=3.5,SNR=46 | | | | | | | | |
| PDAR | | | | | LR | LR | | 08 33 01.1 | |
| | comp=Z,71nm,18.1s,baz=278,slow=34 | | | | | | | | |
| **JLU** | **Jordanelle** | **48.40** | **74** | *e*P | | **P** | | **08 14 21.2** | **+0.4** |
| | comp=Z,5.4nm,1.1s | | | | | | | | |
| **NLU** | **North Lily Min** | **48.41** | **75** | *e*P | | **P** | | **08 14 21.6** | **+0.7** |
| | comp=Z,12nm,1.6s | | | | | | | | |
| **MPU** | **Maple Canyon** | **48.64** | **74** | *e*P | | **P** | | **08 14 22.7** | **+0.1** |
| | comp=Z,3.6nm,0.9s | | | | | | | | |
| **TCRU** | **Three Creeks R** | **49.01** | **76** | *e*P | | **P** | | **08 14 26.2** | **+0.7** |
| | comp=Z,25nm,1.9s | | | | | | | | |
| **CCUT** | **Cedar City** | **49.11** | **78** | *e*P | | **P** | | **08 14 26.8** | **+0.4** |
| | comp=Z,2.2nm,1.2s | | | | | | | | |
| **MSU** | **Marysvale** | **49.24** | **76** | *e*P | | **P** | | **08 14 28.6** | **+1.3** |
| **MSU** | **Marysvale** | **49.24** | **76** | *e*P | | **P** | | **08 14 28.6** | **+1.3** |
| **TMUT** | **Trail Mountain** | **49.34** | **75** | *e*P | | **P** | | **08 14 29.2** | **+1.1** |
| | comp=Z,7.2nm,0.9s | | | | | | | | |
| **LCMT** | **Little Creek M** | **49.53** | **78** | *e*P | | **P** | | **08 14 30.1** | **+0.7** |
| | comp=Z,3.7nm,1.0s | | | | | | | | |
| **Q16A** | **Castle Valley** | **49.60** | **75** | *e*P | | **P** | | **08 14 30.8** | **+0.8** |
| | comp=Z,31nm,2.0s | | | | | | | | |
| **P18A** | **Preston Nutter** | **49.72** | **74** | *e*P | | **P** | | **08 14 31.9** | **+0.8** |
| | comp=Z,12nm,1.4s | | | | | | | | |
| **SRU** | **San Rafael Swe** | **49.88** | **75** | *e*P | | **P** | | **08 14 32.6** | **+0.5** |
| SRU | | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,0.8s | | | | | | | | |
| **SRU** | **San Rafael Swe** | **49.88** | **75** | *e*P | | **P** | | **08 14 32.6** | **+0.5** |
| | comp=Z,5.9nm,0.8s | | | | | | | | |
| **U15A** | **North Rim** | **50.49** | **78** | *e*P | | **P** | | **08 14 37.2** | **+0.3** |
| | comp=Z,13nm,1.6s | | | | | | | | |
| **SPA0** | **Spitsbergen Ar** | **50.52** | **355** | *e*P | | **P** | | **08 14 36.4** | **+0.1** |
| **O20A** | **White River Ci** | **50.62** | **72** | *e*P | | **P** | | **08 14 37.4** | **-0.3** |
| | comp=Z,17nm,1.5s | | | | | | | | |
| **PV09** | **Paradox Valley** | **51.10** | **74** | *e*P | | **P** | | **08 14 42.0** | **+0.5** |
| **PV10** | **Paradox Valley** | **51.24** | **74** | *e*P | | **P** | | **08 14 43.3** | **+0.8** |
| **ULM** | **Lac du Bonnet** | **51.45** | **55** | LR | | LR | | 08 38 23.8 | |
| | comp=Z,103nm,18.4s,baz=268,slow=38 | | | | | | | | |
| **PV01** | **Paradox Valley** | **51.68** | **74** | *e*P | | **P** | | **08 14 45.7** | **0.0** |
| **S22A** | **4UR Ranch, Cre** | **52.98** | **74** | *e*P | | **P** | | **08 14 56.3** | **+0.8** |
| | comp=Z,19nm,1.8s | | | | | | | | |
| **NVS** | **Novosibirsk** | **52.99** | **314** | *e*P | | **P** | | **08 14 54.9** | **0.0** |
| **LZH** | **Lanzhou** | **53.60** | **284** | *e*P | | **P** | | **08 15 01.0** | **+1.1** |
| LZH | | | | pP | | sP | | 08 15 15.5 | +1.8 |
| LZH | | | | sP | | pP | | 08 15 23.3 | +13 |
| LZH | | | | pmax | | pmax | | | |
| | comp=Z,13nm,0.7s | | | | | | | | |
| **SDCO** | **Great Sand Dun** | **53.78** | **73** | *e*P | | **P** | | **08 15 02.4** | **+1.0** |
| | comp=Z,4.7nm,1.2s | | | | | | | | |
| **GTA** | **Gaotai** | **53.87** | **290** | ⇑P | | **P** | | **08 15 01.5** | **-0.2** |
| GTA | | | | pP | | pP | | 08 15 11.8 | +0.1 |
| GTA | | | | sP | | sP | | 08 15 15.5 | -0.1 |
| GTA | | | | S | | **S** | | **08 22 32.3** | **-2.2** |
| GTA | | | | sS | | sS | | 08 22 48.8 | -2.1 |
| GTA | | | | SS | | **SKiKP** | | **08 26 11.5** | **-0.6** |
| GTA | | | | pmax | | pmax | | | |
| | comp=Z,4.0nm,1.1s | | | | | | | | |
| GTA | | | | pmax | | pmax | | | |
| | comp=Z,74nm,5.0s | | | | | | | | |
| GTA | | | | LR | | LR | | | |
| | comp=Z,100nm,18.3s | | | | | | | | |
| GTA | | | | LR | | LR | | | |
| | comp=Z,92nm,18.8s | | | | | | | | |
| GTA | | | | LR | | LR | | | |
| | comp=Z,130nm,17.6s | | | | | | | | |
| **DGZ** | **Jazzator, Alta** | **54.18** | **307** | ⇑*e*P | | **P** | | **08 15 03.8** | **-0.1** |
| DGZ | | | | pmax | | pmax | | | |
| | comp=Z,3.0nm,0.8s | | | | | | | | |
| **MHTCO** | **State Highway** | **54.67** | **73** | *e*P | | **P** | | **08 15 08.4** | **+0.6** |
| | comp=Z,5.3nm,0.8s | | | | | | | | |
| **LAZ** | **Ladron** | **54.99** | **77** | *e*P | | **P** | | **08 15 11.2** | **+1.1** |
| **ANMO** | **Albuquerque** | **55.04** | **76** | ⇑*e*P | | **P** | | **08 15 10.7** | **+0.3** |
| ANMO | | | | pmax | | pmax | | | |
| | comp=Z,4.0nm,1.7s | | | | | | | | |
| **CD2** | **Chengdu** | **57.13** | **280** | *e*P | | **P** | | **08 15 26.0** | **+0.8** |
| CD2 | | | | pmax | | pmax | | | |
| | comp=Z,20nm,0.6s | | | | | | | | |
| **KURK** | **Kurchatov** | **57.80** | **312** | ⇓*e*P | | **P** | | **08 15 28.3** | **-1.3** |
| KURK | | | | pmax | | pmax | | | |
| | comp=Z,6.0nm,0.5s | | | | | | | | |
| **KURK** | **Kurchatov** | **57.80** | **312** | P | | **P** | | **08 15 28.9** | **-0.7** |
| **WMQ** | **Urumqi** | **57.86** | **301** | P | | **P** | | **08 15 31.5** | **+1.3** |
| WMQ | | | | pP | | sP | | 08 15 44.3 | +0.2 |
| WMQ | | | | sP | | pP | | 08 15 50.5 | +10 |
| WMQ | | | | pmax | | pmax | | | |
| | comp=Z,14nm,0.7s | | | | | | | | |
| WMQ | | | | pmax | | pmax | | | |
| | comp=Z,390nm,6.5s | | | | | | | | |
| WMQ | | | | LR | | LR | | | |
| | comp=Z,160nm,22.5s | | | | | | | | |
| WMQ | | | | LR | | LR | | | |
| | comp=Z,150nm,18.7s | | | | | | | | |
| WMQ | | | | LR | | LR | | | |
| | comp=Z,110nm,17.3s | | | | | | | | |
| **MNTX** | **Cornudas Mount** | **57.90** | **78** | *e*P | | **P** | | **08 15 31.1** | **+0.5** |
| | comp=Z,4.8nm,1.0s | | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **57.91** | **312** | P | | **P** | | **08 15 28.9** | **-1.4** |
| | comp=Z,4.1nm,0.5s,baz=46,slow=6.8,SNR=12 | | | | | | | | |
| **ARCES** | **ARCESS Array B** | **58.03** | **349** | P | | **P** | | **08 15 30.2** | **-0.7** |
| | comp=Z,4.1nm,0.8s,baz=36,slow=7.1,SNR=8.2 | | | | | | | | |
| **ARCES** | **ARCESS Array B** | **58.03** | **349** | *e*P | | **P** | | **08 15 31.0** | **+0.1** |
| **MKAR** | **Makanchi Array** | **58.68** | **307** | P | | **P** | | **08 15 34.9** | **-1.0** |
| | comp=Z,1.8nm,0.7s,baz=66,slow=9.6,SNR=5.8 | | | | | | | | |
| MKAR | | | | LR | | LR | | 08 42 39.4 | |
| | comp=Z,54nm,19.0s,baz=38,slow=38 | | | | | | | | |
| **MK01** | **Makanchi Array** | **58.69** | **307** | *e*P | | **P** | | **08 15 35.6** | **-0.3** |
| **BVAR** | **Borovoye Array** | **59.84** | **318** | P | | **P** | | **08 15 43.8** | **+0.1** |
| | comp=Z,6.5nm,0.5s,baz=52,slow=6.9,SNR=38 | | | | | | | | |
| **BRVK** | **Borovoye** | **59.86** | **318** | *e*P | | **P** | | **08 15 44.0** | **+0.1** |
| BRVK | | | | pmax | | pmax | | | |
| | comp=Z,8.0nm,0.6s | | | | | | | | |
| **BRVK** | **Borovoye** | **59.86** | **318** | *e*P | | **P** | | **08 15 44.0** | **+0.1** |
| | comp=Z,7.9nm,0.6s | | | | | | | | |
| **OK020** | **N3440 Road, Me** | **60.40** | **69** | *e*P | | **P** | | **08 15 48.8** | **+1.0** |
| | comp=Z,43nm,2.0s | | | | | | | | |
| **OK022** | **N3560 Road, Pr** | **60.53** | **69** | *e*P | | **P** | | **08 15 48.5** | **-0.2** |
| | comp=Z,50nm,1.9s | | | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **60.61** | **79** | *e*P | | **P** | | **08 15 49.1** | **-0.3** |
| **TXAR** | **Lajitas Array** | **60.61** | **79** | P | | **P** | | **08 15 49.0** | **-0.4** |
| | comp=Z,1.1nm,0.7s,baz=306,slow=5.1,SNR=14 | | | | | | | | |
| **W35A** | **Tecumseh** | **60.67** | **69** | *e*P | | **P** | | **08 15 49.6** | **-0.1** |
| | comp=Z,11nm,0.8s | | | | | | | | |
| **TMCR** | **Tamitsa** | **60.95** | **341** | *e*P | | **P** | | **08 15 50.4** | **-0.7** |
| TMCR | | | | pmax | | pmax | | | |
| | comp=Z,28nm,1.0s | | | | | | | | |
| **X35A** | **Drake** | **61.13** | **70** | *e*P | | **P** | | **08 15 52.9** | **+0.1** |
| | comp=Z,37nm,1.8s | | | | | | | | |
| **SCHQ** | **Schefferville** | **61.41** | **37** | *e*P | | **P** | | **08 15 53.5** | **-0.9** |
| | comp=Z,86nm,1.7s | | | | | | | | |
| **W37B** | **Quinton** | **61.53** | **69** | *e*P | | **P** | | **08 15 55.8** | **+0.3** |
| | comp=Z,30nm,1.4s | | | | | | | | |
| **HHAR** | **Hobbs** | **61.60** | **67** | *e*P | | **P** | | **08 15 54.9** | **-1.1** |
| | comp=Z,27nm,1.9s | | | | | | | | |
| **ARU** | **Arti** | **61.81** | **327** | P | | **P** | | **08 15 57.0** | **-0.1** |
| | comp=Z,3.6nm,0.5s,baz=63,slow=3.5,SNR=5.6 | | | | | | | | |
| **ARU** | **Arti** | **61.81** | **327** | *c i*P | | **P** | | **08 15 57.5** | **+0.4** |
| ARU | | | | *PP | | **sP** | | **08 16 13.8** | **+2.8** |
| ARU | | | | | | | | 08 16 35.4 | |
| ARU | | | | S | | **S** | | **08 24 18.5** | **+0.8** |
| ARU | | | | SS | | **SS** | | **08 28 18.6** | **-0.3** |
| ARU | | | | pmax | | pmax | | | |
| | comp=Z,6.0nm,1.0s | | | | | | | | |
| **ARU** | **Arti** | **61.81** | **327** | *e*P | | **P** | | **08 15 57.1** | **+0.1** |
| | comp=Z,16nm,1.5s | | | | | | | | |
| **CCM** | **Cathedral Cave** | **61.91** | **63** | *e*P | | **P** | | **08 15 57.1** | **-0.9** |
| CCM | | | | pmax | | pmax | | | |
| | comp=Z,49nm,1.8s | | | | | | | | |
| **CCM** | **Cathedral Cave** | **61.91** | **63** | *e*P | | **P** | | **08 15 57.0** | **-0.9** |
| | comp=Z,49nm,1.8s | | | | | | | | |
| **VLDQ** | **Val d'Or** | **61.92** | **47** | *e*P | | **P** | | **08 15 55.0** | **-2.9** |
| | comp=Z,54nm,1.9s | | | | | | | | |
| **FVM** | **French Village** | **62.42** | **63** | *e*P | | **P** | | **08 16 02.3** | **+0.9** |
| FVM | | | | pmax | | pmax | | | |
| | comp=Z,4.0nm,0.6s | | | | | | | | |
| **FVM** | **French Village** | **62.42** | **63** | *e*P | | **P** | | **08 16 02.3** | **+0.9** |
| | comp=Z,4.1nm,0.6s | | | | | | | | |
| **WHTX** | **Lake Whitney,** | **62.53** | **72** | *e*P | | **P** | | **08 16 02.4** | **+0.2** |
| | comp=Z,6.8nm,0.8s | | | | | | | | |
| **W40A** | **Ferguson Farm,** | **62.87** | **67** | *e*P | | **P** | | **08 16 04.4** | **-0.1** |
| | comp=Z,22nm,0.8s | | | | | | | | |
| **MIAR** | **Mount Ida** | **63.03** | **68** | *e*P | | **P** | | **08 16 05.7** | **+0.2** |
| MIAR | | | | pmax | | pmax | | | |
| | comp=Z,13nm,1.0s | | | | | | | | |
| **MIAR** | **Mount Ida** | **63.03** | **68** | *e*P | | **P** | | **08 16 05.7** | **+0.2** |
| | comp=Z,13nm,1.0s | | | | | | | | |
| **X301** | **Greenbrier Sit** | **63.23** | **66** | *e*P | | **P** | | **08 16 06.2** | **-0.7** |
| | comp=Z,11nm,1.1s | | | | | | | | |
| **WHAR** | **Wooly Hollow** | **63.25** | **66** | *e*P | | **P** | | **08 16 06.4** | **-0.6** |
| | comp=Z,29nm,1.7s | | | | | | | | |
| **PBMO** | **Poplar Bluff** | **63.27** | **64** | *e*P | | **P** | | **08 16 06.2** | **-0.8** |
| | comp=Z,6.1nm,0.8s | | | | | | | | |
| **KLMR** | **Klimovskoe** | **63.58** | **339** | *e*P | | **P** | | **08 16 07.8** | **-0.9** |
| KLMR | | | | pmax | | pmax | | | |
| | comp=Z,13nm,1.2s | | | | | | | | |
| **WLAR** | **White Oak Lake** | **63.91** | **68** | *e*P | | **P** | | **08 16 11.8** | **+0.5** |
| | comp=Z,21nm,0.8s | | | | | | | | |
| **HKT** | **Hockley** | **64.96** | **73** | ⇓*i*P | | **P** | | **08 16 18.0** | **-0.2** |
| HKT | | | | pmax | | pmax | | | |
| | comp=Z,127nm,3.4s | | | | | | | | |
| **WVT** | **Waverly** | **65.19** | **63** | *e*P | | **P** | | **08 16 19.4** | **-0.3** |
| WVT | | | | pmax | | pmax | | | |
| | comp=Z,12nm,1.5s | | | | | | | | |
| **WVT** | **Waverly** | **65.19** | **63** | *e*P | | **P** | | **08 16 19.4** | **-0.3** |
| | comp=Z,12nm,1.5s | | | | | | | | |
| **OXF** | **Oxford** | **65.46** | **65** | *e*P | | **P** | | **08 16 21.1** | **-0.4** |
| OXF | | | | pmax | | pmax | | | |
| | comp=Z,35nm,1.3s | | | | | | | | |
| **OXF** | **Oxford** | **65.46** | **65** | *e*P | | **P** | | **08 16 21.1** | **-0.4** |
| | comp=Z,34nm,1.3s | | | | | | | | |
| **AAK** | **Ala-Archa** | **65.54** | **308** | P | | **P** | | **08 16 22.0** | **-0.1** |
| | comp=Z,2.5nm,0.7s,baz=117,slow=3.3,SNR=9.6 | | | | | | | | |
| AAK | | | | LR | | LR | | 08 47 08.1 | |
| | comp=Z,22nm,18.9s,baz=21,slow=38 | | | | | | | | |
| **AAK** | **Ala-Archa** | **65.54** | **308** | *c i*P | | **P** | | **08 16 22.2** | **+0.1** |
| AAK | | | | pmax | | pmax | | | |
| | comp=Z,15nm,1.2s | | | | | | | | |
| **AAK** | **Ala-Archa** | **65.54** | **308** | *e*P | | **P** | | **08 16 22.4** | **+0.4** |
| | comp=Z,3.6nm,0.8s | | | | | | | | |
| **FIA1** | **FINESS Array S** | **65.61** | **346** | *e*P | | **P** | | **08 16 21.6** | **-0.4** |
| **FINES** | **FINESS Array B** | **65.62** | **346** | P | | **P** | | **08 16 21.4** | **-0.7** |
| | comp=Z,3.5nm,0.5s,baz=28,slow=6.9,SNR=26 | | | | | | | | |
| **MNAS** | **Manas** | **66.64** | **309** | P | | **P** | | **08 16 29.7** | **+0.6** |
| MNAS | | | | pmax | | pmax | | | |
| | comp=Z,4.0nm,0.9s | | | | | | | | |
| **AKTO** | **Aktyubinsk** | **66.78** | **323** | P | | **P** | | **08 16 30.1** | **+0.4** |
| | comp=Z,8.4nm,0.8s,baz=58,slow=6.7,SNR=30 | | | | | | | | |
| AKTO | | | | LR | | LR | | 08 48 47.0 | |
| | comp=Z,81nm,18.4s,baz=26,slow=39 | | | | | | | | |
| **ABKAR** | **Akbulak array** | **66.98** | **321** | *e*P | | **P** | | **08 16 31.2** | **+0.3** |
| | comp=Z,27nm,0.4s | | | | | | | | |
| **KSH** | **Kashi** | **67.10** | **305** | P | | **P** | | **08 16 36.0** | **+3.9** |
| KSH | | | | pP | | sP | | 08 16 52.8 | +6.7 |
| KSH | | | | PcP | | **PcP** | | **08 17 03.0** | **+2.9** |
| KSH | | | | PP | | **PP** | | **08 19 06.0** | **+6.4** |
| KSH | | | | S | | **S** | | **08 25 24.3** | **+0.5** |
| KSH | | | | ScS | | **SKSac** | | **08 26 25.3** | **-1.5** |
| KSH | | | | SS | | **SS** | | **08 29 46.3** | **+4.0** |
| KSH | | | | pmax | | pmax | | | |
| | comp=Z,5.0nm,0.5s | | | | | | | | |
| KSH | | | | LR | | LR | | | |
| | comp=Z,110nm,4.6s | | | | | | | | |
| KSH | | | | LR | | LR | | | |
| | comp=Z,110nm,5.1s | | | | | | | | |
| KSH | | | | LR | | LR | | | |
| | comp=Z,180nm,5.1s | | | | | | | | |
| **KKAR** | **Karatay Array** | **67.13** | **311** | *e*P | | **P** | | **08 16 32.1** | **0.0** |
| KKAR | | | | pmax | | pmax | | | |
| | comp=Z,32nm,0.7s | | | | | | | | |
| **KKAR** | **Karatay Array** | **67.13** | **311** | *e*P | | **P** | | **08 16 32.1** | **0.0** |
| | comp=Z,32nm,0.7s | | | | | | | | |
| **NC204** | **NORSAR Array S** | **67.53** | **353** | *e*P | | **P** | | **08 16 34.5** | **+0.1** |
| **NC303** | **NORSAR Array S** | **67.54** | **353** | *e*P | | **P** | | **08 16 34.7** | **+0.4** |
| **NC405** | **NORSAR Array S** | **67.62** | **353** | *e*P | | **P** | | **08 16 34.8** | **-0.1** |
| **NB201** | **NORSAR Array S** | **67.72** | **353** | *e*P | | **P** | | **08 16 35.4** | **-0.1** |
| **NB2** | **NORSAR Subarra** | **67.73** | **353** | P | | **P** | | **08 16 35.3** | **-0.3** |
| | comp=Z,2.2nm,0.5s,baz=7.4,slow=6.2 | | | | | | | | |
| **NB2** | **NORSAR Subarra** | **67.73** | **353** | P | | **P** | | **08 16 35.3** | **-0.3** |
| NB2 | | | | pmax | | pmax | | | |
| | comp=Z,2.0nm,0.5s | | | | | | | | |
| **NOA** | **NORSAR Array B** | **67.73** | **353** | P | | **P** | | **08 16 35.4** | **-0.3** |
| | comp=Z,3.2nm,0.7s,baz=358,slow=5.0,SNR=15 | | | | | | | | |
| **SFK** | **Sufi-Kurgan** | **68.00** | **307** | P | | **P** | | **08 16 37.6** | **-0.2** |
| SFK | | | | pmax | | pmax | | | |
| | comp=Z,2.0nm,0.9s | | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **69.11** | **274** | P | | **P** | | **08 16 44.3** | **-0.5** |
| | comp=Z,1.9nm,0.7s,baz=23,slow=6.8,SNR=13 | | | | | | | | |
| **OBN** | **Obninsk** | **69.43** | **338** | P | | **P** | | **08 16 46.0** | **-0.2** |
| | comp=Z,13nm,0.4s,baz=39,slow=6.5,SNR=3.3 | | | | | | | | |
| **OBN** | **Obninsk** | **69.43** | **338** | ⇓*e*P | | **P** | | **08 16 46.5** | **+0.3** |
| OBN | | | | *e* | | | | 08 19 24.2 | |
| OBN | | | | *e*SS | | SS | | 08 30 14.8 | -2.2 |
| OBN | | | | pmax | | pmax | | | |
| | comp=Z,11nm,0.6s | | | | | | | | |
| **GOGA** | **Godfrey** | **69.62** | **62** | *e*P | | **P** | | **08 16 46.9** | **-0.9** |
| GOGA | | | | pmax | | pmax | | | |
| | comp=Z,20nm,1.5s | | | | | | | | |
| **GOGA** | **Godfrey** | **69.62** | **62** | *e*P | | **P** | | **08 16 46.9** | **-0.9** |
| | comp=Z,20nm,1.5s | | | | | | | | |
| **KBL** | **Kabul** | **74.47** | **306** | *e*P | | **P** | | **08 17 16.5** | **-0.5** |
| KBL | | | | pmax | | pmax | | | |
| | comp=Z,7.0nm,0.8s | | | | | | | | |
| **KBL** | **Kabul** | **74.47** | **306** | *e*P | | **P** | | **08 17 16.5** | **-0.5** |
| | comp=Z,7.4nm,0.8s | | | | | | | | |
| **AKASG** | **Malin Array Be** | **75.20** | **340** | P | | **P** | | **08 17 20.5** | **-0.2** |
| | comp=Z,1.7nm,0.4s,baz=25,slow=6.0,SNR=14 | | | | | | | | |
| **AKBB** | **Malin Array Si** | **75.20** | **340** | *e*P | | **P** | | **08 17 20.8** | **+0.1** |
| AKBB | | | | pmax | | pmax | | | |
| | comp=Z,10.0nm,1.1s | | | | | | | | |
| **AKBB** | **Malin Array Si** | **75.20** | **340** | *e*P | | **P** | | **08 17 20.8** | **+0.1** |
| | comp=Z,10nm,1.1s | | | | | | | | |
| **KIEV** | **Kiev** | **75.21** | **340** | *e*P | | **P** | | **08 17 20.8** | **+0.1** |
| KIEV | | | | pmax | | pmax | | | |
| | comp=Z,10.0nm,1.1s | | | | | | | | |
| **KIEV** | **Kiev** | **75.21** | **340** | *e*P | | **P** | | **08 17 20.8** | **+0.1** |
| | comp=Z,9.7nm,1.1s | | | | | | | | |
| **AK11** | **Malin Array Si** | **75.23** | **340** | *e*P | | **P** | | **08 17 20.7** | **-0.2** |
| **GEYT** | **Alibeck** | **76.96** | **315** | P | | **P** | | **08 17 31.3** | **+0.2** |
| | comp=Z,1.7nm,0.6s,baz=134,slow=4.3,SNR=3.7 | | | | | | | | |
| **KWP** | **Kalwaria Pacla** | **77.49** | **344** | P | | **P** | | **08 17 34.9** | **+1.2** |
| KWP | | | | pmax | | pmax | | | |
| | comp=Z,238nm,1.0s | | | | | | | | |
| **KIV** | **Kislovodsk** | **77.75** | **329** | ⇑*e*P | | **P** | | **08 17 35.4** | **0.0** |
| KIV | | | | *e* | | | | 08 20 31.3 | |
| KIV | | | | *e*S | | **PnS** | | **08 28 16.3** | **+8.6** |
| KIV | | | | pmax | | pmax | | | |
| | comp=Z,15nm,1.7s | | | | | | | | |
| **DPC** | **Dobruska-Polom** | **77.76** | **348** | *e*P | | **P** | | **08 17 35.5** | **+0.2** |
| **DPC** | **Dobruska-Polom** | **77.76** | **348** | *e*P | | **P** | | **08 17 35.5** | **+0.2** |
| **KBZ** | **Khabaz** | **77.88** | **329** | P | | **P** | | **08 17 35.6** | **-0.4** |
| | comp=Z,3.6nm,0.8s,baz=142,slow=1.8,SNR=3.6 | | | | | | | | |
| **STHS** | **Stebnicka Huta** | **77.95** | **345** | *e*P | | **P** | | **08 17 37.4** | **+1.1** |
| STHS | | | | pmax | | pmax | | | |
| | comp=Z,5.0nm,1.1s | | | | | | | | |
| **STHS** | **Stebnicka Huta** | **77.95** | **345** | *e*P | | **P** | | **08 17 37.4** | **+1.1** |
| **NEY** | **Neytrino** | **78.37** | **328** | ⇑*e*P | | **P** | | **08 17 38.5** | **-0.4** |
| NEY | | | | pmax | | pmax | | | |
| | comp=Z,2.0nm,1.0s | | | | | | | | |
| **ZEI** | **Tsey** | **78.38** | **327** | *e*P | | **P** | | **08 17 37.9** | **-1.2** |
| ZEI | | | | pmax | | pmax | | | |
| | comp=Z,14nm,0.8s | | | | | | | | |
| **LANS** | **Liptovska Anna** | **78.49** | **346** | *e*P | | **P** | | **08 17 41.0** | **+1.7** |
| **LANS** | **Liptovska Anna** | **78.49** | **346** | *e*P | | **P** | | **08 17 41.0** | **+1.7** |
| **BUR08** | **Bucovina Ar. S** | **78.93** | **342** | *e*P | | **P** | | **08 17 42.8** | **+0.9** |
| **BUR04** | **Bucovina Ar. S** | **78.96** | **342** | *e*P | | **P** | | **08 17 42.7** | **+0.7** |
| **BURAR** | **Bucovina Array** | **78.96** | **342** | ⇑*i*P | | **P** | | **08 17 42.4** | **+0.4** |
| **KECS** | **Kecovo** | **78.97** | **345** | *e*P | | **P** | | **08 17 42.6** | **+0.6** |
| KECS | | | | pmax | | pmax | | | |
| | comp=Z,3.0nm,1.0s | | | | | | | | |
| **KECS** | **Kecovo** | **78.97** | **345** | *e*P | | **P** | | **08 17 42.6** | **+0.6** |
| **VYHS** | **Vyhne** | **79.22** | **346** | *e*P | | **P** | | **08 17 43.9** | **+0.6** |
| **VYHS** | **Vyhne** | **79.22** | **346** | *e*P | | **P** | | **08 17 43.9** | **+0.6** |
| **KHC** | **Kasperske Hory** | **79.29** | **350** | *e*P | | **P** | | **08 17 44.4** | **+0.7** |
| **KHC** | **Kasperske Hory** | **79.29** | **350** | *e*P | | **P** | | **08 17 44.4** | **+0.7** |
| **GERES** | **GERESS Array B** | **79.56** | **350** | P | | **P** | | **08 17 45.2** | **-0.1** |
| | comp=Z,0.6nm,0.7s,baz=19,slow=6.2,SNR=2.7 | | | | | | | | |
| **PSZ** | **Piszkesteto** | **79.62** | **345** | ⇑*i*P | | **P** | | **08 17 47.3** | **+1.7** |
| **ARCR** | **ARCALIA** | **79.64** | **342** | ⇑*i*P | | **P** | | **08 17 47.3** | **+1.7** |
| **GNI** | **Garni** | **80.43** | **326** | ⇓*e*P | | **P** | | **08 17 50.5** | **+0.3** |
| GNI | | | | pmax | | pmax | | | |
| | comp=Z,33nm,1.5s | | | | | | | | |
| **WRA** | **Warramunga Arr** | **80.49** | **221** | P | | **P** | | **08 17 48.0** | **-2.3** |
| | comp=Z,0.4nm,0.5s,baz=31,slow=5.8,SNR=6.1 | | | | | | | | |
| **MLR** | **Muntele Rosu** | **80.84** | **341** | ⇑*i*P | | **P** | | **08 17 54.0** | **+1.7** |
| **MLR** | **Muntele Rosu** | **80.84** | **341** | *e*P | | **P** | | **08 17 52.4** | **+0.1** |
| MLR | | | | pmax | | pmax | | | |
| | comp=Z,36nm,2.0s | | | | | | | | |
| **MLR** | **Muntele Rosu** | **80.84** | **341** | *e*P | | **P** | | **08 17 52.4** | **+0.1** |
| | comp=Z,36nm,2.0s | | | | | | | | |
| **VOIR** | | **81.08** | **341** | ⇑*i*P | | **P** | | **08 17 54.7** | **+1.2** |
| **KBA** | **Koelnbreinsper** | **81.34** | **350** | *e*P | | **P** | | **08 17 55.6** | **+0.6** |
| | comp=Z,6.5nm,0.6s | | | | | | | | |
| **WTTA** | **Wattenberg** | **81.34** | **351** | P | | **P** | | **08 17 55.0** | **+0.1** |
| | comp=Z,5.0nm,0.7s | | | | | | | | |
| **SOKA** | **Soboth** | **81.53** | **348** | *e*P | | **P** | | **08 17 56.5** | **+0.6** |
| | comp=Z,9.8nm,1.1s | | | | | | | | |
| **BZS** | **Buzias** | **81.56** | **344** | ⇑*i*P | | **P** | | **08 17 53.9** | **-2.0** |
| **FETA** | **Feichten** | **81.67** | **351** | *e*P | | **P** | | **08 17 57.4** | **+0.7** |
| | comp=Z,3.8nm,0.9s | | | | | | | | |
| **OBKA** | **Obir** | **81.76** | **349** | *e*PcP | | **P** | | **08 17 58.3** | **+1.2** |
| | comp=Z,9.0nm,0.8s | | | | | | | | |
| **ABTA** | **Abfaltersbach** | **81.76** | **350** | *e*P | | **P** | | **08 17 57.7** | **+0.6** |
| | comp=Z,3.1nm,0.9s | | | | | | | | |
| **MDVR** | **Moldovita** | **82.35** | **343** | ⇑*i*P | | **P** | | **08 18 00.9** | **+0.7** |
| **AS01** | **Alice Springs** | **83.97** | **220** | *e*P | | **P** | | **08 18 07.2** | **-1.4** |
| **ASAR** | **Alice Springs** | **83.99** | **220** | P | | **P** | | **08 18 06.8** | **-1.9** |
| | comp=Z,0.3nm,0.6s,baz=22,slow=5.0,SNR=6.4 | | | | | | | | |
| **BR131** | **Keskin Array S** | **84.37** | **333** | *e*P | | **P** | | **08 18 11.4** | **+0.6** |
| **BRTR** | **Keskin Array B** | **84.37** | **333** | P | | **P** | | **08 18 11.2** | **+0.4** |
| | comp=Z,2.8nm,0.7s,baz=51,slow=3.0,SNR=14 | | | | | | | | |
| **BR231** | **Keskin MP Arra** | **84.51** | **334** | *e*P | | **P** | | **08 18 11.7** | **+0.3** |
| **TORD** | **Torodi Ar. Bea** | **115.97** | **356** | PKP | | **PKPdf** | | **08 24 19.4** | **-2.0** |
| | comp=Z,4.4nm,0.8s,baz=20,slow=3.8,SNR=2.1 | | | | | | | | |
| **PLCA** | **Paso Flores** | **132.74** | **105** | PKP | | **PKPdf** | | **08 24 51.7** | **-1.1** |
| | comp=Z,0.8nm,0.7s,baz=334,slow=4.2,SNR=3.6 | | | | | | | | |
| **BOSA** | **Boshof** | **149.68** | **307** | PKPbc | | **PKPbc** | | **08 25 27.9** | **-0.2** |
| | comp=Z,1.5nm,0.4s,baz=11,slow=1.4,SNR=5.6 | | | | | | | | |
| **BOSA** | **Boshof** | **149.68** | **307** | *e*PKPbc | | **PKPbc** | | **08 25 27.4** | **-0.6** |

*NNC **30** 08:12:03.3±3.3, 53.51N×87.49E, h0km, mb3.6, mpv3.3,*
*Error ellipse: s-maj=32.1km s-min=21.4km az=176.0*

**IDC 30 08:12:01.3±2.9, 53.54N×87.83E, h0km, mb1 3.5/3, mb1mx3.1/44, mbtmp3.5/3, ML3.4/3, 5C-4D, Error ellipse: s-maj=29.7km s-min=15.4km az=54.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **ZALV** | **Zalesovo Beam** | **1.83** | **284** | Pg | | Pn | 08 12 33.2 | -0.9 |
| | 7.1nm,0.3s,baz=100,slow=18,SNR=40 | | | | | | | |
| ZALV | | | | Lg | | Lg | 08 12 59.3 | |
| | 13nm,0.3s,baz=98,slow=27,SNR=21 | | | | | | | |
| **KURK** | **Kurchatov** | **6.34** | **247** | ⇓Pn | | Pn | 08 13 35.1 | -0.8 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **TUTA** | **Tutak** | **1.12 319** | *i* P | **Pn** | **08 21 24.6** | **-0.1** |
| **TUTA** | **Tutak** | **1.12 319** | P | **Pn** | **08 21 24.5** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **1.18 330** | *e*PN | **Pg** | **08 21 24.8** | **-0.5** |
| AGRB | | | *e*SN | **Sb** | **08 21 41.0** | **+0.4** |
| **AGRB** | **Hanur-Agry** | **1.18 330** | *e*Pn | **Pg** | **08 21 24.8** | **-0.5** |
| AGRB | | | *e*Sn | **Sb** | **08 21 41.0** | **+0.4** |
| **SIRT** | **Sirnak** | **1.48 225** | *e*PN | **Pg** | **08 21 31.0** | **-0.1** |
| **SIRT** | **Sirnak** | **1.48 225** | *e*Pn | **Pg** | **08 21 31.0** | **-0.1** |

*IDC **30** 08:25:10.6±1.0, 62.°60N×23.°10E, h0km, mb1 3.1/2, mb1mx2.9/42, mbtmp3.0/2, ML2.4/2, Error ellipse: s-maj=14.7km s-min=10.2km az=54.0*
*ISCJB **30** 08:25:11.8±0.4, 62.°73N±0.°03×23.°53E±0.°07, h0km, Error ellipse: s-maj=5.4km s-min=3.4km az=45.0*
*CSEM **30** 08:25:13.6, 62.°77N×23.°56E, h0km, ML1.5, Mining explosion.*
*HEL **30** 08:25:13.6±0.1, 62.°77N×23.°56E, h0km, ML1.5, Explosion*
*UPP **30** 08:25:16.8±1.2, 63.°01N×23.°50E, h0km, ML1.6*

**ISC 30 08:25:11.9**±0.8, **62.°75N**±0.°02×**23.°53E**±0.°03, **h0km, n29, σ0§67/43, Finland**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VAF** | **Ylistaro** | **0.49** | **307** | Pg | **Pb** | **08 25 22.4** | **-0.8** |
| VAF | | | | Sg | **Sg** | **08 25 28.5** | **+1.1** |
| **VAF** | **Ylistaro** baz=127 | **0.49** | **307** | PG | **Pb** | **08 25 22.4** | **-0.8** |
| VAF | | | | SG | **Sg** | **08 25 28.5** | **+1.1** |
| **KEF** | **Keuruu** | **0.86** | **133** | Pg | **Pg** | **08 25 28.5** | **+0.3** |
| **KEF** | **Keuruu** baz=317 | **0.86** | **133** | PG | **Pg** | **08 25 28.6** | **+0.3** |
| **SUF** | **Sumiainen** | **1.21** | **90** | Pg | **Pg** | **08 25 34.9** | **-0.1** |
| **SUF** | **Sumiainen** baz=275 | **1.21** | **90** | PG | **Pg** | **08 25 35.0** | **-0.1** |
| **KAF** | **Kangasniemi** | **1.45** | **115** | Pg | **Pn** | **08 25 39.4** | **+0.2** |
| KAF | | | | Sb | **Sb** | **08 25 58.5** | **0.0** |
| **KAF** | **Kangasniemi** baz=294 | **1.45** | **115** | PG | **Pn** | **08 25 39.4** | **+0.2** |
| KAF | comp=Z,3.8nm,0.2s | | | MSG | | 08 25 56.9 | |
| KAF | | | | SB | **Sb** | **08 25 58.5** | **0.0** |
| **OUF** | **Merijarvi** | **1.71** | **18** | Pg | **Pb** | **08 25 44.2** | **+0.2** |
| OUF | | | | Sn | **Sg** | **08 26 06.6** | **0.0** |
| **OUF** | **Merijarvi** | **1.71** | **18** | PG | **Pb** | **08 25 44.2** | **+0.2** |
| OUF | | | | SN | **Sg** | **08 26 06.6** | **0.0** |
| **UMAU** | **Umeaa** | **1.71** | **313** | Pg | **Pg** | **08 25 44.6** | **0.0** |
| UMAU | | | | Sn | **Sg** | **08 26 07.2** | **+0.4** |
| **UMAU** | **Umeaa** | **1.71** | **313** | P | **Pg** | **08 25 45.0** | **+0.3** |
| UMAU | | | | S | **Sg** | **08 26 07.4** | **+0.6** |
| **UMAU** | **Umeaa** baz=129 | **1.71** | **313** | PG | **Pg** | **08 25 44.7** | **0.0** |
| UMAU | | | | SN | **Sg** | **08 26 07.2** | **+0.4** |
| **FIA0** | **FINESS Array S** | **1.78** | **136** | Sn | **Sg** | **08 26 08.8** | **-0.2** |
| **FIA0** | **FINESS Array S** | **1.78** | **136** | SN | **Sg** | **08 26 08.8** | **-0.2** |
| **FINES** | **FINESS Array B** comp=Z,0.5nm,0.3s,baz=320,slow=15,SNR=20 | **1.78** | **136** | Pn | **Pb** | **08 25 45.5** | **+0.2** |
| FINES | comp=Z,1.3nm,0.3s,baz=326,slow=27,SNR=16 | | | Sn | **Sg** | **08 26 09.2** | **+0.3** |
| **RAF** | **Rauma** | **1.93** | **206** | Pg | **Pg** | **08 25 48.9** | **+0.2** |
| RAF | | | | Sg | **Sg** | **08 26 13.8** | **+0.1** |
| **RAF** | **Rauma** baz=23 | **1.93** | **206** | PG | **Pg** | **08 25 48.9** | **+0.2** |
| RAF | comp=Z,1.9nm,0.2s | | | MSG | | 08 26 11.7 | |
| RAF | | | | SG | **Sg** | **08 26 13.8** | **+0.1** |
| **HUSU** | **Husum** | **2.05** | **289** | P | **Pg** | **08 25 51.4** | **+0.3** |
| **BURU** | **Burvik** | **2.07** | **333** | Pg | **Pb** | **08 25 50.3** | **0.0** |
| BURU | | | | Sg | **Sb** | **08 26 17.0** | **+0.5** |
| **BURU** | **Burvik** | **2.07** | **333** | P | **Pb** | **08 25 49.7** | **-0.6** |
| **BURU** | **Burvik** | **2.07** | **333** | PG | **Pb** | **08 25 50.3** | **0.0** |
| BURU | | | | SG | **Sb** | **08 26 17.0** | **+0.5** |
| **PVF** | **Pernaja** comp=Z,1.7nm,0.2s | **2.48** | **152** | MSG | | 08 26 26.9 | |
| PVF | | | | SG | **Sb** | **08 26 29.5** | **+1.2** |
| **SVAU** | **Svanoeiden** | **2.48** | **316** | P | **Pb** | **08 25 56.8** | **-0.5** |
| **BREU** | **Bredtraesk** | **2.51** | **299** | P | **Pb** | **08 25 57.7** | **0.0** |
| **HEMU** | **Hemsoen** | **2.53** | **271** | Pb | **Pb** | **08 25 57.0** | **-1.1** |
| **HEMU** | **Hemsoen** | **2.53** | **271** | PB | **Pb** | **08 25 57.0** | **-1.1** |
| **NOA** | **NORSAR Array B** comp=Z,0.1nm,0.3s,baz=67,slow=13,SNR=2.3 | **6.07** | **259** | Pn | Pn | 08 26 36.6 | -6.2 |
| **ARCES** | **ARCESS Array B** comp=Z,0.1nm,0.3s,baz=182,slow=14,SNR=5.5 | **6.86** | **6** | Pn | **Pn** | **08 26 54.5** | **+0.9** |
| ARCES | comp=Z,0.1nm,0.3s,baz=191,slow=24,SNR=3.4 | | | Sn | **Sn** | **08 28 09.5** | **-2.7** |

**WEL 30 08:39:23.3**±0.1, **43.°49S×172.°72E, h9km, ML3.6**/20, **1C-1D, Error ellipse: s-maj=1.6km s-min=0.8km az=90.0, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MQZ** | **McQueen's Vall** | **0.22** | **192** | ⇑P | Pg | 08 39 27.9 | +0.2 |
| MQZ | | | | SG | Sg | 08 39 31.4 | +0.6 |
| MQZ | | | | AML | AML | 08 39 31.5 | |
| **OXZ** | **Oxford** | **0.52** | **288** | ⇓P* | Pg | 08 39 33.4 | +0.1 |
| OXZ | | | | S* | Sg | 08 39 41.0 | +0.8 |
| OXZ | | | | AML | AML | 08 39 41.8 | |
| OXZ | | | | AML | AML | 08 39 41.8 | |
| OXZ | | | | AML | AML | 08 39 43.3 | |
| **LTZ** | **Lake Taylor** | **0.78** | **335** | P* | Pg | 08 39 38.4 | +0.1 |
| LTZ | | | | *e*S* | Sb | 08 39 49.1 | -0.6 |
| **RPZ** | **Rata Peaks** | **1.23** | **259** | P* | Pn | 08 39 45.2 | -1.4 |
| RPZ | | | | AML | AML | 08 40 05.5 | |
| RPZ | | | | AML | AML | 08 40 08.8 | |
| **KHZ** | **Kahutara** | **1.23** | **30** | AML | AML | 08 40 13.5 | |
| KHZ | | | | AML | AML | 08 40 13.5 | |
| KHZ | | | | AML | AML | 08 40 15.7 | |
| KHZ | | | | AML | AML | 08 40 15.7 | |
| **WVZ** | **Waitaha Valley** | **1.50** | **285** | AML | AML | 08 40 13.9 | |
| WVZ | | | | AML | AML | 08 40 17.7 | |
| **THZ** | **Tophouse** | **1.73** | **5** | AML | AML | 08 40 19.0 | |
| THZ | | | | AML | AML | 08 40 28.8 | |
| **DSZ** | **Denniston Nort** | **1.87** | **339** | AML | AML | 08 40 30.2 | |
| DSZ | | | | AML | AML | 08 40 30.2 | |
| DSZ | | | | AML | AML | 08 40 35.4 | |
| **LBZ** | **Lake Benmore** | **2.04** | **243** | AML | AML | 08 40 34.2 | |
| LBZ | | | | AML | AML | 08 40 34.5 | |
| **FOZ** | **Fox Glacier** | **2.11** | **268** | AML | AML | 08 40 26.6 | |
| FOZ | | | | AML | AML | 08 40 28.3 | |
| **ODZ** | **Otahua Downs** | **2.15** | **223** | AML | AML | 08 40 32.8 | |
| ODZ | | | | AML | AML | 08 40 36.9 | |
| ODZ | | | | AML | AML | 08 40 39.7 | |
| ODZ | | | | AML | AML | 08 40 46.5 | |
| **NNZ** | **Nelson** | **2.33** | **12** | AML | AML | 08 41 08.7 | |
| **QRZ** | **Quartz Range** | **2.67** | **357** | AML | AML | 08 40 55.8 | |
| QRZ | | | | AML | AML | 08 41 14.8 | |
| **JCZ** | **Jackson Bay** | **2.91** | **257** | AML | AML | 08 42 40.3 | |
| JCZ | | | | AML | AML | 08 43 01.9 | |
| **CAW** | **Cannon Point** | **2.95** | **37** | AML | AML | 08 40 46.6 | |
| CAW | | | | AML | AML | 08 40 46.8 | |
| **WKZ** | **Wanaka** | **2.98** | **242** | AML | AML | 08 41 04.8 | |
| WKZ | | | | AML | AML | 08 41 05.1 | |
| **EAZ** | **Earnscleugh** | **3.00** | **233** | AML | AML | 08 41 02.7 | |
| EAZ | | | | AML | AML | 08 41 04.0 | |
| **TUZ** | **Tuapeka** | **3.30** | **221** | AML | AML | 08 41 17.3 | |
| TUZ | | | | AML | AML | 08 41 20.3 | |
| **MRZ** | **Mangatainoka R** | **3.54** | **38** | AML | AML | 08 40 59.2 | |
| MRZ | | | | AML | AML | 08 40 59.6 | |
| **OTVZ** | **Oturere** | **4.86** | **28** | AML | AML | 08 41 54.7 | |
| OTVZ | | | | AML | AML | 08 41 55.4 | |

**IDC 30 08:43:49.7**±2.6, **53.°80N×86.°93E, h0km, mb1 2.9**/2, **mb1mx2.7**/53, **mbtmp2.9**/2, **ML2.8**/2, **Error ellipse: s-maj=24.5km s-min=15.0km az=62.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **I46RU** | **ZALESOVO INFRA** baz=97,slow=342,SNR=7.4 | **1.26** | **278** | *i* | | 08 53 14.4 | |
| **ZALV** | **Zalesovo Beam** 3.5nm,0.3s,baz=96,slow=15,SNR=23 | **1.26** | **278** | Pg | Pg | 08 44 13.0 | -0.8 |
| ZALV | 1.6nm,0.3s,baz=97,slow=24,SNR=6.9 | | | Lg | Lg | 08 44 30.3 | |
| **KURBB** | **Kurchatov Arra** 0.1nm,0.3s,baz=56,slow=13,SNR=4.6 | **6.06** | **242** | Pn | Pn | 08 45 21.5 | +1.0 |
| KURBB | 0.0nm,0.3s,baz=63,slow=34,SNR=3.1 | | | Lg | Lg | 08 47 01.6 | |
| **MKAR** | **Makanchi Array** | **7.61** | **205** | Pn | Pn | 08 45 43.0 | +1.2 |

0.3nm,0.3s,baz=26,slow=14,SNR=20

*ISCJB **30** 08:46:39.5±0.3, 5.°79S±0.°05×152.°09E±0.°06, h36km, mb4.7/64, MS4.9/3, Error ellipse: s-maj=9.2km s-min=5.1km az=35.7*
*NEIC **30** 08:46:42.0±1.0, 5.°70S×151.°97E, h44km±9km, mb4.9/41, Error ellipse: s-maj=9.6km s-min=5.2km az=119.0*
*BJI **30** 08:46:42.2, 5.°80S×152.°10E, h56km, mb4.7/17, mB5.0/10, Ms5.1/8, Ms7 4.8/8*
*IDC **30** 08:46:43.2±4.1, 5.°71S×151.°95E, h61km±37km, mb4.1/15, mb1 4.3/16, mb1mx4.0/44, mbtmp4.4/16, ML2.6/1, MS3.2/2, Ms1 3.2/2, ms1mx3.0/31, Error ellipse: s-maj=21.4km s-min=18.0km az=70.0*

**ISC 30 08:46:41.0**±0.5, **5.°83S**±0.°05×**152.°19E**±0.°08, **h36km, n83, σ1§83/90, mb4.8**/63, **MS4.9**/3, **New Britain region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **RABL** | **Rabaul** | **1.63** | **359** | *e*Pn | **Pn** | **08 47 05.4** | **-1.7** |
| RABL | | | | *e*Sn | **Sn** | **08 47 31.7** | **+4.8** |
| **MANU** | **Manus Island** | **6.11** | **308** | *e*Pn | **Pn** | **08 48 10.9** | **+2.1** |
| **PMG** | **Port Moresby** 11nm,0.3s,baz=45,slow=9.0,SNR=37 | **6.12** | **234** | P | **Pn** | **08 48 09.8** | **+0.8** |
| PMG | 10.0nm,0.3s,baz=71,slow=18,SNR=6.2 | | | S | **Sn** | **08 49 18.6** | **+0.7** |
| PMG | comp=Z,169nm,19.6s,baz=86,slow=34 | | | LR | LR | 08 50 07.8 | |
| **HNR** | **Honiara** comp=Z,209nm,21.8s,baz=272,slow=35 | **8.48** | **115** | LR | LR | 08 51 46.5 | |
| **EIDS** | **Eidsvold** 47nm,1.5s | **19.46** | **183** | *e*P | **Pn** | **08 51 06.8** | **+0.6** |
| **DZM** | **Mont Dzumac** 9.0nm,1.1s,baz=339,slow=14,SNR=3.9 | **21.23** | **141** | P | **P** | **08 51 27.0** | **+3.0** |
| **MTN** | **Manton Dam** 69nm,1.5s | **21.91** | **250** | *e*P | **P** | **08 51 32.7** | **+1.4** |
| **WRAB** | **Tennant Creek** 14nm,0.8s | **22.30** | **229** | *e*P | **P** | **08 51 34.7** | **-0.9** |
| **WB2** | **Warramunga Arr** 14nm,0.7s | **22.31** | **229** | *e*P | **P** | **08 51 34.7** | **-0.9** |
| **WRA** | **Warramunga Arr** 6.7nm,0.7s,baz=53,slow=9.8,SNR=48 | **22.32** | **229** | P | **P** | **08 51 34.5** | **-1.2** |
| **AS01** | **Alice Springs** | **24.95** | **223** | *e*P | **P** | **08 52 01.3** | **0.0** |
| **AS31** | **Alice Springs** 6.7nm,0.6s | **24.99** | **223** | *e*P | **P** | **08 52 01.1** | **-0.5** |
| **ASAR** | **Alice Springs** 27nm,0.9s,baz=56,slow=9.0,SNR=153 | **24.99** | **223** | P | **P** | **08 52 00.8** | **-0.8** |
| **STKA** | **Stephens Creek** 2.5nm,0.6s,baz=32,slow=11,SNR=9.7 | **27.75** | **200** | P | **P** | **08 52 26.1** | **-0.3** |
| **STKA** | **Stephens Creek** 3.3nm,1.6s | **27.75** | **200** | *e*P | **P** | **08 52 26.4** | **0.0** |
| **BBOO** | **Buckleboo** 5.7nm,1.0s | **30.77** | **207** | *e*P | **P** | **08 52 53.0** | **-0.2** |
| **FORT** | **Forrest** 176nm,1.1s | **33.61** | **219** | *e*P | **P** | **08 53 17.2** | **-1.0** |
| **NJ2** | **Nanjing** | **49.27** | **322** | *e*P | **P** | **08 55 25.5** | **-0.8** |
| NJ2 | comp=Z,11nm,0.6s | | | pmax | pmax | | |
| **BJI** | **Beijing** | **56.42** | **327** | P | **P** | **08 56 19.0** | **0.0** |
| BJI | comp=Z,6.0nm,1.9s | | | pmax | pmax | | |
| **KMI** | **Kunming** | **57.06** | **305** | P | **P** | **08 56 25.5** | **+1.3** |
| KMI | | | | pP | sP | 08 56 40.3 | +1.0 |
| KMI | | | | sP | pP | 08 56 45.5 | +10 |
| KMI | | | | PP | **PP** | **08 58 34.0** | **+2.7** |
| KMI | | | | S | **S** | **09 04 13.5** | **-3.5** |
| KMI | | | | sS | sS | 09 04 39.0 | +4.0 |
| KMI | | | | SS | **SS** | **09 07 59.0** | **-7.4** |
| KMI | comp=Z,6.0nm,0.6s | | | pmax | pmax | | |
| KMI | comp=Z,99nm,4.2s | | | pmax | pmax | | |
| KMI | comp=N,2μm,19.2s | | | LR | LR | | |
| KMI | comp=E,770nm,19.4s | | | LR | LR | | |
| KMI | comp=Z,2μm,20.2s | | | LR | LR | | |
| **KLR** | **Kul'dur** 0.2nm,0.8s,baz=192,slow=9.3,SNR=3.5 | **57.66** | **344** | P | **P** | **08 56 25.0** | **-2.6** |
| **CM01** | **Chiang Mai Arr** | **57.74** | **296** | *e*P | **P** | **08 56 27.3** | **-1.5** |
| **CMAR** | **Chiang Mai Arr** 0.9nm,0.3s,baz=114,slow=5.6,SNR=8.3 | **57.77** | **296** | P | **P** | **08 56 27.2** | **-1.8** |
| **CD2** | **Chengdu** | **58.95** | **311** | *e*P | **P** | **08 56 38.5** | **+1.4** |
| CD2 | comp=Z,10.0nm,0.6s | | | pmax | pmax | | |
| **HHC** | **Hu-ho-hao-te** | **59.53** | **325** | *e*P | **P** | **08 56 43.5** | **+2.5** |
| HHC | | | | S | **S** | **09 04 48.8** | **+0.4** |
| HHC | comp=Z,8.0nm,0.9s | | | pmax | pmax | | |
| HHC | comp=Z,87nm,9.9s | | | pmax | pmax | | |
| HHC | comp=N,610nm,19.2s | | | LR | LR | | |
| HHC | comp=E,410nm,18.3s | | | LR | LR | | |
| HHC | comp=Z,680nm,18.5s | | | LR | LR | | |
| **LZH** | **Lanzhou** | **61.55** | **316** | *e*P | **P** | **08 56 58.0** | **+3.1** |
| LZH | | | | pP | sP | 08 57 14.3 | +4.2 |
| LZH | | | | sP | pP | 08 57 21.0 | +15 |
| LZH | comp=Z,15nm,1.0s | | | pmax | pmax | | |
| **GTA** | **Gaotai** | **66.00** | **318** | *e*P | **P** | **08 57 25.5** | **+1.3** |
| GTA | | | | pP | sP | 08 57 41.8 | +2.4 |
| GTA | | | | sP | PcP | 08 57 49.0 | -5.7 |
| GTA | comp=Z,3.0nm,1.7s | | | pmax | pmax | | |
| **ULN** | **Ulaanbaatar** 4.4nm,0.9s | **66.55** | **329** | *e*P | **P** | **08 57 26.5** | **-1.0** |
| **SONM** | **Songino Array** 3.6nm,0.9s,baz=141,slow=5.3,SNR=14 | **66.87** | **328** | P | **P** | **08 57 28.3** | **-1.3** |
| **SONA1** | **Songino Array** | **66.87** | **328** | *e*P | **P** | **08 57 28.3** | **-1.3** |
| **VNDA** | **Vanda** 2.0nm,0.9s,baz=304,slow=4.5,SNR=4.9 | **71.83** | **178** | P | **P** | **08 57 59.1** | **-0.5** |
| **WMQ** | **Urumqi** | **76.09** | **318** | P | **P** | **08 58 24.5** | **-0.7** |
| WMQ | | | | pP | PcP | 08 58 38.8 | +1.5 |
| WMQ | | | | sP | sP | 08 58 44.5 | +4.0 |
| WMQ | comp=Z,11nm,0.7s | | | pmax | pmax | | |
| WMQ | comp=Z,110nm,4.7s | | | pmax | pmax | | |
| WMQ | comp=N,760nm,29.5s | | | LR | LR | | |
| WMQ | comp=E,280nm,22.1s | | | LR | LR | | |
| WMQ | comp=Z,700nm,29.5s | | | LR | LR | | |
| **OHAK** | **Old Harbor** 35nm,1.2s | **76.73** | **27** | *e*P | **P** | **08 58 28.9** | **+0.5** |
| **CNPM** | **China Poot** 54nm,0.7s | **78.90** | **26** | *e*P | **P** | **08 58 41.0** | **+0.6** |
| **TTA** | **Tatalina** 12nm,1.3s | **78.94** | **21** | *e*P | **P** | **08 58 41.0** | **+0.3** |
| **BRLK** | **Bradley Lake** 23nm,0.8s | **79.18** | **26** | *e*P | **P** | **08 58 42.5** | **+0.5** |
| **PPLA** | **Purkeypile** 50nm,1.7s | **80.35** | **23** | *e*P | **P** | **08 58 47.9** | **-0.5** |
| **RC01** | **Rabbit Creek A** 29nm,1.2s | **80.36** | **25** | *e*P | **P** | **08 58 48.4** | **+0.1** |
| **MK01** | **Makanchi Array** | **80.69** | **319** | *e*P | **P** | **08 58 49.8** | **-0.6** |
| **MKAR** | **Makanchi Array** 0.6nm,0.5s,baz=97,slow=7.6,SNR=7.7 | **80.70** | **319** | P | **P** | **08 58 48.5** | **-2.0** |
| **PMR** | **Palmer** 14nm,1.1s | **80.87** | **24** | *e*P | **P** | **08 58 50.8** | **-0.2** |
| **KTH** | **Kantishna Hill** 6.5nm,0.8s | **81.19** | **22** | *e*P | **P** | **08 58 52.2** | **-0.7** |
| **SML** | **Sawmill** 26nm,1.0s | **81.30** | **24** | *e*P | **P** | **08 58 53.3** | **-0.1** |
| **GLI** | **Glacier Island** 15nm,0.9s | **81.37** | **26** | *e*P | **P** | **08 58 54.1** | **+0.3** |
| **TRF** | **Thorofare Moun** 7.3nm,1.0s | **81.38** | **23** | *e*P | **P** | **08 58 53.2** | **-0.8** |
| **BPAW** | **Bear Paw Mtn.** 6.6nm,1.1s | **81.46** | **22** | *e*P | **P** | **08 58 53.6** | **-0.6** |
| **IMAR** | **Indian Mountai** | **81.55** | **20** | *e*P | **P** | **08 58 54.7** | **+0.1** |
| **ZALV** | **Zalesovo Beam** 1.4nm,0.5s,baz=116,slow=7.2,SNR=3.6 | **81.67** | **327** | P | **P** | **08 58 53.4** | **-2.1** |
| **SCM** | **Sheep Creek Mo** 22nm,1.0s | **81.73** | **25** | *e*P | **P** | **08 58 55.9** | **+0.2** |
| **RND** | **Reindeer** 15nm,1.0s | **81.90** | **23** | *e*P | **P** | **08 58 56.1** | **-0.5** |
| **MCK** | **McKinley** 22nm,1.0s | **82.04** | **23** | *e*P | **P** | **08 58 56.7** | **-0.5** |
| **MLY** | **Manley** | **82.05** | **21** | *e*P | **P** | **08 58 57.4** | **0.0** |
| | 16nm,1.2s | | | | | | |
| **KLU** | **Klutina** 25nm,1.0s | **82.16** | **25** | *e*P | **P** | **08 58 58.7** | **+0.7** |
| **DHY** | **Denali Highway** 11nm,1.0s | **82.32** | **24** | *e*P | **P** | **08 58 59.4** | **+0.5** |
| **MDM** | **Murphy Dome** 6.5nm,1.3s | **82.93** | **22** | *e*P | **P** | **08 59 02.2** | **+0.3** |
| **CCB** | **Clear Creek Bu** 7.3nm,0.9s | **82.93** | **22** | *e*P | **P** | **08 59 00.9** | **-1.0** |
| **COLA** | **College** 10nm,0.8s | **83.02** | **22** | *e*P | **P** | **08 59 01.5** | **-0.8** |
| **KSH** | **Kashi** | **83.14** | **311** | *e*P | **P** | **08 59 07.3** | **+3.6** |
| KSH | | | | pP | sP | 08 59 23.5 | +4.4 |
| KSH | | | | PP | **PP** | **09 02 21.0** | **+5.7** |
| KSH | | | | SKS | **S** | **09 09 19.3** | **-2.1** |
| KSH | | | | S | **SKSac** | **09 09 21.3** | **-2.0** |
| KSH | | | | SS | **SS** | **09 14 51.3** | **+5.0** |
| KSH | comp=Z,1.0nm,0.7s | | | pmax | pmax | | |
| KSH | comp=Z,47nm,4.6s | | | pmax | pmax | | |
| KSH | comp=N,130nm,7.9s | | | LR | LR | | |
| KSH | comp=E,130nm,6.2s | | | LR | LR | | |
| KSH | comp=Z,120nm,4.6s | | | LR | LR | | |
| **IL1** | **Eielson Array** | **83.33** | **22** | *e*P | **P** | **08 59 02.6** | **-1.3** |
| **ILAR** | **Eielson Array** 5.3nm,0.8s,baz=254,slow=5.1,SNR=53 | **83.33** | **22** | P | **P** | **08 59 02.5** | **-1.5** |
| **ILB** | **Eielson Array** | **83.33** | **22** | *e*P | **P** | **08 59 02.8** | **-1.2** |
| **COLD** | **Coldfoot** 2.6nm,0.9s | **83.42** | **19** | *e*P | **P** | **08 59 05.0** | **+0.7** |
| **MENT** | **Mentasta** 12nm,1.1s | **83.73** | **24** | *e*P | **P** | **08 59 06.6** | **+0.5** |
| **DOT** | **Dot Lake** 39nm,0.9s | **83.91** | **24** | *e*P | **P** | **08 59 07.2** | **+0.3** |
| **KURK** | **Kurchatov** 9.9nm,1.5s | **84.20** | **322** | *e*P | **P** | **08 59 06.7** | **-2.0** |
| **KURBB** | **Kurchatov Arra** 2.0nm,0.9s,baz=109,slow=4.1,SNR=9.8 | **84.23** | **322** | P | **P** | **08 59 06.4** | **-2.4** |
| **FYU** | **Fort Yukon** 39nm,1.8s | **84.79** | **21** | *e*P | **P** | **08 59 11.9** | **+0.6** |
| **AAK** | **Ala-Archa** 2.6nm,0.9s | **84.93** | **314** | *e*P | **P** | **08 59 12.6** | **-0.1** |
| **EGAK** | **Eagle** 12nm,1.0s | **85.54** | **23** | *e*P | **P** | **08 59 15.8** | **+0.7** |
| **HYT** | **Haines Junctio** 19nm,1.1s | **85.62** | **28** | *e*P | **P** | **08 59 17.3** | **+1.5** |
| **DAWY** | **Dawson** 13nm,1.4s | **85.97** | **24** | *e*P | **P** | **08 59 18.2** | **+0.9** |
| **WHY** | **Whitehorse** 14nm,1.0s | **86.79** | **28** | *e*P | **P** | **08 59 22.8** | **+1.3** |
| **INK** | **Inuvik** 5.2nm,1.0s,baz=234,slow=7.7,SNR=11 | **89.63** | **21** | P | **P** | **08 59 34.2** | **-0.4** |
| **INK** | **Inuvik** 5.5nm,1.0s | **89.63** | **21** | *e*P | **P** | **08 59 34.5** | **-0.2** |
| **BVAR** | **Borovoye Array** 2.7nm,0.8s,baz=118,slow=5.7,SNR=9.7 | **89.70** | **323** | P | **P** | **08 59 32.0** | **-3.3** |
| **NVAR** | **Mina Array Bea** 0.3nm,0.6s,baz=291,slow=7.6,SNR=2.6 | **93.19** | **52** | P | **P** | **08 59 52.0** | **-0.3** |
| **YKA** | **Yellowknife Ar** 1.7nm,1.0s,baz=272,slow=4.8,SNR=14 | **96.61** | **28** | P | **P** | **09 00 07.2** | **+0.2** |
| **TMUT** | **Trail Mountain** 6.5nm,0.8s | **98.76** | **51** | *e*P | Pdif | 09 00 19.7 | +2.0 |
| **PDAR** | **Pinedale Array** 0.2nm,0.6s,baz=299,slow=4.0,SNR=2.7 | **99.98** | **48** | P | **Pdif** | **09 00 24.2** | **+1.3** |
| **NC602** | **NORSAR Array S** | **117.77** | **339** | *e*PKPdf | **PKPdf** | **09 05 23.6** | **+0.4** |
| **MDT** | **Midelt** baz=95,slow=5.4 | **145.53** | **324** | PKPbc | **PKPdf** | **09 06 15.2** | **-1.0** |
| **TORD** | **Torodi Ar. Bea** 3.5nm,0.8s,baz=70,slow=2.4,SNR=15 | **150.03** | **286** | PKPbc | **PKPbc** | **09 06 27.7** | **-1.2** |
| **KOWA** | **Kowa** | **155.07** | **292** | *e*PKPbc | PKPbc | 09 06 40.7 | |

*TIR **30** 08:47:40.5±2.3, 40.°63N×19.°90E, h2km±10km, ML3.3*
*ISCJB **30** 08:47:43.0±1.1, 40.°71N±0.°05×19.°80E±0.°09, h6km±13km, Error ellipse: s-maj=12.0km s-min=6.7km az=23.4*
*CSEM **30** 08:47:44.2±0.7, 40.°65N×19.°89E, h2km, ML3.3, Error ellipse: s-maj=23.8km s-min=12.9km az=74.0*

**ISC 30 08:47:42.9**±1.6, **40.°62N**±0.°05×**19.°80E**±0.°05, **h15**km±12km, **n14, σ1§63/20, Albania**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TIR** | **Tirane** | **0.73** | **4** | *i* PG | **Pb** | **08 47 56.4** | **-1.0** |
| **TIR** | **Tirane** SNR=90 | **0.73** | **4** | *i* Pg | **Pb** | **08 47 56.4** | **-1.0** |
| **KBN** | **Korca** | **0.75** | **89** | *i* PG | **Pb** | **08 47 57.0** | **-0.8** |
| **KBN** | **Korca** SNR=91 | **0.75** | **89** | *i* Pg | **Pb** | **08 47 57.0** | **-0.8** |
| **SRN** | **Sarande** | **0.75** | **168** | *i* PG | **Pn** | **08 47 59.1** | **+0.1** |
| SRN | | | | *i* SG | **Sn** | **08 48 12.4** | **+2.2** |
| **SRN** | **Sarande** SNR=90 | **0.75** | **168** | *i* Pg | **Pn** | **08 47 59.1** | **+0.1** |
| **OHR** | **Ohrid** | **0.91** | **57** | *i* Pg | **Pg** | **08 47 58.4** | **-2.1** |
| OHR | | | | *i* Sg | **Sb** | **08 48 11.8** | **-0.5** |
| **KRUS** | **Krusevo** | **1.33** | **55** | *i* Pn | **Pn** | **08 48 06.4** | **-0.7** |
| KRUS | | | | *i* Sg | **Sg** | **08 48 27.0** | **+1.1** |
| **PUK** | **Puka** | **1.43** | **3** | *i* PN | **Pg** | **08 48 10.0** | **-0.3** |
| PUK | | | | *i* SN | **Sg** | **08 48 33.3** | **+4.4** |
| **PUK** | **Puka** SNR=40 | **1.43** | **3** | *i* Pn | **Pg** | **08 48 10.0** | **-0.3** |
| **TREB** | **Trebinje** | **2.36** | **333** | *e*Pn | **Pb** | **08 48 24.1** | **-1.1** |
| **STON** | **Ston** | **2.74** | **326** | *e*Pn | **Pn** | **08 48 25.1** | **-1.3** |
| STON | | | | Sn | **Sn** | **08 48 59.6** | **+0.3** |
| **STON** | **Ston** | **2.74** | **326** | *e*Pn | **Pn** | **08 48 25.1** | **-1.3** |
| STON | | | | Sn | **Sn** | **08 48 59.6** | **+0.3** |
| **BOVS** | **Bovan** | **3.33** | **25** | *e*Pn | **Pn** | **08 48 36.4** | **+1.9** |

**MEX 30 08:48:48.9**±1.1, **16.°99N×100.°27W, h2km, MD3.6, Near coast of Guerrero**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CAIG** | **El Cayaco** | **0.06** | **358** | *i* P | Pg | 08 48 49.9 | -0.3 |
| CAIG | | | | *e*S | Sg | 08 48 51.1 | +0.2 |
| **ACP2** | **Acapulco** | **0.38** | **107** | *e*P | Pg | 08 48 55.3 | -0.9 |
| ACP2 | | | | *e*S | Sg | 08 49 00.8 | -0.3 |
| **ACX** | **Acapulco** | **0.41** | **107** | *e*P | Pb | 08 48 58.9 | +0.1 |
| ACX | | | | *i* S | Sb | 08 49 04.1 | -1.4 |
| **MEIG** | **Mezcala** | **1.12** | **33** | *e*P | Pg | 08 49 07.7 | -2.6 |
| MEIG | | | | *e*S | Sg | 08 49 22.0 | -2.9 |
| **ARIG** | **Puente Sto Nin** | **1.29** | **357** | *e*P | Pg | 08 49 10.0 | -3.6 |
| ARIG | | | | *e*S | Sg | 08 49 26.7 | -3.6 |
| **PLIG** | **Platanillo** | **1.57** | **27** | *i* P | Pn | 08 49 17.1 | -0.9 |
| PLIG | | | | *e*S | Sn | 08 49 35.8 | -3.2 |
| **TLIG** | **Tlapa** | **1.72** | **70** | *e*P | Pn | 08 49 17.8 | -2.2 |
| TLIG | | | | *e*S | Sn | 08 49 40.8 | -1.9 |

*IDC **30** 08:49:06.8±3.3, 43.°74N×150.°63E, h0km, mb3.5/6, mb1 3.7/7, mb1mx3.5/46, mbtmp3.6/7, ML3.4/1, Error ellipse: s-maj=104.6km s-min=22.0km az=174.0*
*ISCJB **30** 08:49:10.1±1.2, 43.°4N±0.°2×150.°32E±0.°09, h42km, mb3.5/6, Error ellipse: s-maj=34.9km s-min=6.6km az=167.9*

**ISC 30 08:49:10.9**±1.5, **43.°4N**±0.°3×**150.°45E**±0.°09, **h42km, n24, σ1§10/23, mb3.5/6, East of Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **NEM2** | **Nemuro 2** | **3.43** | **272** | P | **Pn** | **08 50 01.2** | **-0.6** |
| NEM2 | | | | *e*S | **Sn** | **08 50 39.7** | **-1.4** |
| **JRA** | **Rausu** | **3.91** | **280** | P | **Pn** | **08 

baz=335,slow=76,SNR=5.5
**H11N3 WAKE ISLAND Hy 27.32 144** T T 09 23 37.6
baz=335,slow=76,SNR=5.2
**H11S1 WAKE ISLAND Hy 28.32 146** T T 09 24 58.9
baz=336,slow=76,SNR=4.6
**H11S3 WAKE ISLAND Hy 28.32 146** T T 09 24 58.4
baz=336,slow=76,SNR=4.0
**H11S2 WAKE ISLAND Hy 28.33 146** T T 09 24 60.0
baz=336,slow=76,SNR=4.1
**SONM Songino Array 30.83 294** P **P** **08 55 24.4 +1.6**
0.6nm,0.6s,baz=84,slow=7.4,SNR=4.8
**ILAR Eielson Array 40.40 36** P **P** **08 56 42.8 -1.6**
0.3nm,0.9s,baz=275,slow=9.2,SNR=4.0
**MKAR Makanchi Array 46.88 299** P **P** **08 57 37.5 +0.7**
0.8nm,0.7s,baz=77,slow=7.8,SNR=8.2
**KURBB Kurchatov Arra 47.81 305** P **P** **08 57 44.8 +0.9**
0.9nm,0.6s,baz=70,slow=8.2,SNR=4.9
**YKA Yellowknife Ar 54.79 34** P **P** **08 58 35.2 -0.7**
0.3nm,0.6s,baz=298,slow=7.0,SNR=5.8
**TXAR Lajitas Array 80.85 58** P **P** **09 01 21.0 +0.5**
0.2nm,0.6s,baz=317,slow=3.7,SNR=3.2

---

*BJI **30** 08:51:56.8,5˚.90S×104˚.30E,h67km,mb5.3/66,mB5.2/52, Ms4.8/55,Ms7 4.6/52*
*IDC **30** 08:51:58.2±1.2,5˚.83S×104˚.42E,h54km±9km,mb4.9/35, mb1 4.9/36,mb1mx4.9/43,mbtmp5.2/36,MS4.1/30, Ms1 4.1/30,ms1mx4.0/48,Error ellipse: s-maj=12.5km s-min=8.1km az=55.0*
*MOS **30** 08:51:58.0±1.0,5˚.85S×104˚.33E,h75km,mb5.6/80,Error ellipse: s-maj=9.5km s-min=5.8km az=99.7*
*DJA **30** 08:51:58.2±0.3,6˚S±2˚×10˚4E±˚,h61km±3km,M5.2/47, mb5.3/47,mB5.6/34,MLv5.5/22,Mw(mB)5.1/34,Mwp5.7/1*
*ISCJB **30** 08:51:59.0±0.3,5˚.82S±0.03×104˚.39E±0.02,h73km±2km, mb5.4/190,Error ellipse: s-maj=5.2km s-min=2.7km az=42.2*
*NEIC **30** 08:51:59.1±0.6,5˚.84S×104˚.34E,h59km±4km,mb5.4/85, MW5.3,Error ellipse: s-maj=6.2km s-min=3.3km az=224.0, Moment Tensor Solution. s8 Moment tensor: Scale 10$^{17}$ Nm; Mrr1.20; Mθθ-0.15; Mφφ-1.05; Mrθ0.05; Mθφ0.32; Mφr0.02; Best double couple: M0 1.20000×10$^{17}$ NP1: φs160.00000°,δ45.00000°,λ87.00000°. NP2: φs345.00000°,δ45.00000°,λ93.00000°. Principal axes: T 1.2000, Plg88.0000°, Azm337.0000°; N -0.0500, Plg2.0000°, Azm162.0000°; P -1.1500, Plg0.0000°, Azm72.0000°;*
*NEIC Felt [II] at Bandarlampung, Kotabumi and Liwa.*
*GCMT **30** 08:51:59.1±0.2,6˚.25S×104˚.27E,h55km±1km,MW5.2/85, Moment Tensor Solution. s85,c121; s85,c140; Duration: 1s0 Moment tensor: Scale 10$^{16}$Nm; Mrr6.18±.17; Mθθ-5.79±.14; Mφφ-0.39±.17; Mrθ3.33±.12; Mθφ2.67±.11; Mφr-1.37±.12; Best double couple: M0 7.46000×10$^{16}$ NP1:φ112.00000°,δ59.00000°, λ90.00000°. NP2:φs292.00000°,δ31.00000°,λ90.00000°. Principal axes: T 7.1070, Plg76.0000°, Azm22.0000°; N 0.7060, Plg0.0000°, Azm292.0000°; P -7.8140, Plg14.0000°, Azm202.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
**ISC 30 08:51:58.7±0.3,5˚.87S±0.03×104˚.27E±0.04,h61km±2km, h61km:pP-P,n1064,σ1s39/1148,mb5.4/193,72C-22D, Southern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KASI** | **Kota Agung** | **0.41** | **33** | P | **Pn** | **08 52 09.7** | **-0.2** |
| KASI | | | | Pg | **Pn** | **08 52 10.7** | **+0.8** |
| KASI | | | | S | **Sn** | **08 52 19.0** | **+1.1** |
| KASI | | | | Sg | **Sn** | **08 52 19.1** | **+1.1** |
| **LWLI** | **Liwa** | **0.88** | **346** | P | **Pn** | **08 52 17.5** | **+2.2** |
| LWLI | | | | S | **Sn** | **08 52 32.1** | **+4.6** |
| **BLSI** | **Bandar Lampung** | **1.09** | **63** | P | **Pn** | **08 52 19.0** | **+1.0** |
| **KLI** | **Kotabumi** | **1.16** | **30** | P | **Pn** | **08 52 21.4** | **+2.5** |
| **KLI** | **Kotabumi** | **1.16** | **30** | P | **Pn** | **08 52 21.1** | **+2.2** |
| **SBJI** | **Serang** | **1.87** | **98** | P | **Pn** | **08 52 27.7** | **-0.6** |
| **TNG** | **Tangerang** | **2.38** | **97** | P | **Pn** | **08 52 37.4** | **+2.1** |
| **SKJI** | **Sukabumi** | **2.54** | **116** | P | **Pn** | **08 52 37.8** | **+0.3** |
| **PMBI** | **Palembang** | **2.97** | **10** | P | **Pn** | **08 52 47.2** | **+3.8** |
| **CNJI** | **Cibinong** | **3.18** | **117** | P | **Pn** | **08 52 44.6** | **-1.6** |
| **MASI** | **Maura Aman, Be** | **3.38** | **323** | P | **Pn** | **08 52 52.7** | **+3.6** |
| **CISI** | **Cisompet, Garu** | **3.90** | **116** | P | **Pn** | **08 52 55.5** | **-0.7** |
| CISI | | | | S | **Sn** | **08 53 40.9** | **+0.2** |
| **CISI** | **Cisompet, Garu** | **3.90** | **116** | *e*Pn | **Pn** | **08 52 55.7** | **-0.4** |
| **JCJI** | **Jatiwangi** | **4.02** | **99** | P | **Pn** | **08 52 59.7** | **+1.9** |
| **PPBI** | **Pangkal Pinang** | **4.13** | **27** | P | **Pn** | **08 53 02.4** | **+3.1** |
| **KPJI** | **Karang Pucung** | **4.85** | **108** | P | **Pn** | **08 53 10.8** | **+1.6** |
| **PPSI** | **Pulau Pagai** 2µm,0.6s,22µm47nm | **5.25** | **306** | P | **Pn** | **08 53 16.0** | **+1.3** |
| **DSRI** | **Dabo** | **5.37** | **3** | P | **Pn** | **08 53 20.0** | **+3.8** |
| **SDSI** | **Sungai Dareh** | **5.67** | **330** | P | **Pn** | **08 53 20.9** | **+0.5** |
| **PDSI** | **Padang** | **6.22** | **322** | P | **Pn** | **08 53 28.6** | **+0.6** |
| PDSI | | | | S | **Sn** | **08 54 42.0** | **+4.2** |
| **SMRI** | **Semarang** 354nm,1.7s,6µm2.3nm | **6.24** | **101** | P | **Pn** | **08 53 29.7** | **+1.5** |
| **SMRI** | **Semarang** | **6.24** | **101** | *e*Pn | **Pn** | **08 53 29.3** | **+1.1** |
| **UGM** | **Wanagama** | **6.53** | **108** | P | **Pn** | **08 53 33.2** | **+1.0** |
| **UGM** | **Wanagama** | **6.53** | **108** | *e*Pn | **Pn** | **08 53 33.5** | **+1.3** |
| **UWJI** | **Ujung Watu** | **6.66** | **95** | P | **Pn** | **08 53 36.4** | **+2.4** |
| **TPRI** | **Tanjung Pinang** | **6.75** | **2** | P | **Pn** | **08 53 39.6** | **+4.4** |
| **SISI** | **Saibi** 473nm,0.8s,7µm3.8nm | **6.86** | **311** | P | **Pn** | **08 53 37.2** | **+0.4** |
| **BKNI** | **Bangkinang** | **6.95** | **332** | P | **Pn** | **08 53 40.6** | **+2.6** |
| **BKNI** | **Bangkinang** | **6.95** | **332** | *e*Pn | **Pn** | **08 53 39.0** | **+1.0** |
| **PCJI** | **Pacitan** | **7.23** | **109** | P | **Pn** | **08 53 42.3** | **+0.5** |
| **MYKOM** | **Kota Tinggi** | **7.62** | **357** | *e*Pn | **Pn** | **08 53 51.4** | **+4.3** |
| **PWJI** | **Pagerwojo** | **7.78** | **106** | P | **Pn** | **08 53 50.8** | **+1.5** |
| **PBKI** | **Pangkalan Bun** | **8.02** | **67** | P | **Pn** | **08 53 57.2** | **+4.6** |
| **PBSI** | **Pulau Batu** | **8.32** | **314** | P | **Pn** | **08 53 56.7** | **0.0** |
| **STKI** | **Sintang** | **9.30** | **51** | P | **Pn** | **08 54 14.4** | **+4.2** |
| **BLJI** | **Banyuglugur** | **9.44** | **102** | P | **Pn** | **08 54 14.6** | **+2.5** |
| **KSM** | **Kuching** | **9.46** | **40** | *e*Pn | **Pn** | **08 54 14.4** | **+2.0** |
| **COCO** | **West Island** | **9.66** | **229** | *i* P | **Pn** | **08 54 12.9** | **-2.1** |
| **COCO** | **West Island** | **9.66** | **229** | *e*Pn | **Pn** | **08 54 12.3** | **-2.7** |
| **KMMI** | **Kalianget** | **9.71** | **97** | P | **Pn** | **08 54 16.5** | **+0.8** |
| **GSI** | **Gunungsitoli** | **9.77** | **317** | P | **Pn** | **08 54 14.7** | **-1.9** |
| **GSI** | **Gunungsitoli** | **9.77** | **317** | *e*Pn | **Pn** | **08 54 15.0** | **-1.6** |
| **ABJI** | **Asem Bagus** | **10.08** | **101** | P | **Pn** | **08 54 23.8** | **+3.1** |
| **PSI** | **Prapat** 4.4nm,0.3s,baz=183,slow=3.5,SNR=9.3 | **10.14** | **328** | P | **Pn** | **08 54 20.0** | **-1.6** |
| PSI | | | | LR | LR | 08 59 08.1 | |
| | comp=Z,2µm,19.3s,baz=140,slow=43 | | | | | | |
| **PSI** | **Prapat** | **10.14** | **328** | *e*P | **Pn** | **08 54 21.1** | **-0.6** |
| **PSI** | **Prapat** | **10.14** | **328** | *e*Pn | **Pn** | **08 54 21.1** | **-0.6** |
| **JAGI** | **Jajag, Banyuwa** | **10.14** | **105** | P | **Pn** | **08 54 21.2** | **-0.4** |
| **JAGI** | **Jajag, Banyuwa** | **10.14** | **105** | *e*Pn | **Pn** | **08 54 21.2** | **-0.4** |
| **IPM** | **Ipoh** | **10.78** | **342** | *e*Pn | **Pn** | **08 54 32.0** | **+1.6** |
| **SRBI** | **Singaraja** | **11.08** | **102** | P | **Pn** | **08 54 34.6** | **+0.1** |
| **DNP** | **Denpasar** | **11.20** | **105** | P | **Pn** | **08 54 34.9** | **-1.2** |
| **DNP** | **Denpasar** | **11.20** | **105** | P | **Pn** | **08 54 36.1** | **0.0** |
| DNP | | | | pmax | pmax | | |
| | comp=Z,815nm,0.7s | | | | | | |
| **KCSI** | **Kotacane, Aceh** | **11.37** | **325** | P | **Pn** | **08 54 35.5** | **-2.9** |
| **SBUM** | **Sibu** | **11.46** | **44** | *e*Pn | **Pn** | **08 54 42.8** | **+3.1** |
| **TPTI** | | **11.51** | **322** | P | **Pn** | **08 54 38.3** | **-2.0** |
| **KULM** | **Kulim** | **11.66** | **342** | *e*Pn | **Pn** | **08 54 43.9** | **+1.5** |
| **MTKI** | **Muara Teweh, K** | **11.68** | **66** | P | Pn | 08 54 47.7 | +5.0 |
| **MLSI** | **Meulaboh, Aceh** | **12.77** | **322** | P | **Pn** | **08 54 53.7** | **-3.9** |
| **BKB** | **Balikpapan** | **13.40** | **70** | P | **Pn** | **08 55 09.6** | **+3.4** |
| **SKLT** | **Songkhla** | **13.46** | **344** | P | **P** | **08 55 14.8** | **+0.6** |
| **PLAI** | **Plampang** | **13.71** | **103** | P | **Pn** | **08 55 07.2** | **-3.1** |
| **KAPI** | **Kappang** comp=Z,25nm,0.8s | **15.44** | **88** | *e*Pn | **Pn** | **08 55 32.9** | **0.0** |
| **WBSI** | **Waikabubak, Su** | **15.44** | **105** | P | **P** | **08 55 37.2** | **+0.9** |
| **SPSI** | **Sidrap Palu** | **15.56** | **84** | P | **P** | **08 55 39.8** | **+2.2** |
| **TTSI** | **Tana Toraja** | **15.75** | **80** | P | **P** | **08 55 42.0** | **+2.3** |
| **BSSI** | **Bau Bau, Buton** | **16.13** | **92** | P | **P** | **08 55 43.4** | **-0.6** |
| **BASI** | **Baing, Sumba** comp=Z,567nm,1.1s,comp=Z,8µm | **16.71** | **106** | P | **P** | **08 55 52.4** | **+2.0** |
| **MPSI** | **Mapaga** | **16.78** | **69** | P | **P** | **08 55 51.2** | **+0.1** |
| **EDFI** | **Ende, Flores** | **17.51** | **100** | P | **Pn** | **08 55 56.1** | **-2.9** |
| **MYLDM** | **Lahad Datu** comp=Z,121nm,0.7s | **17.95** | **53** | *e*Pn | **Pn** | **08 56 07.8** | **+3.6** |
| **APSI** | **Ampana** | **18.03** | **75** | P | **Pn** | **08 56 07.0** | **+1.8** |
| **MMRI** | **Maumere** | **18.03** | **100** | P | **P** | **08 56 04.8** | **-0.2** |
| **MMRI** | **Maumere** comp=Z,233nm,1.0s | **18.03** | **100** | *e*Pn | **P** | **08 56 03.9** | **-1.1** |
| **MRSI** | **Marisa** | **18.73** | **71** | P | **Pn** | **08 56 14.3** | **+0.6** |
| **LUWI** | **Luwuk** | **19.07** | **76** | P | **Pn** | **08 56 18.5** | **+0.7** |
| **LUWI** | **Luwuk** | **19.07** | **76** | *e*P | **Pn** | **08 56 17.6** | **-0.1** |
| | comp=Z,660nm,1.5s | | | | | | |
| **PHET** | **Kaeng Krachan** comp=Z,17nm,0.8s,comp=Z,194nm | **19.22** | **346** | P | **Pn** | **08 56 20.4** | **+0.9** |
| **GIRL** | **Giralia** baz=19,SNR=13 | **19.25** | **151** | P | **P** | **08 56 18.6** | **+0.4** |
| **SRAK** | **Srakaew** comp=Z,141nm,0.8s,comp=Z,1µm | **19.88** | **354** | P | **P** | **08 56 24.5** | **-0.6** |
| **SOEI** | **Soe** | **20.18** | **102** | P | **P** | **08 56 29.4** | **+0.8** |
| **SOEI** | **Soe** comp=Z,496nm,0.9s | **20.18** | **102** | *e*P | **P** | **08 56 26.9** | **-1.7** |
| **NAYO** | **Nakonayok** comp=Z,59nm,1.0s,comp=Z,1µm | **20.27** | **352** | P | **P** | **08 56 29.2** | **-0.2** |
| **SRDT** | **SRDT** comp=Z,34nm,0.9s,comp=Z,2µm | **20.73** | **346** | P | Pn | 08 56 37.7 | +0.4 |
| **MBWA** | **Marble Bar** comp=Z,34nm,0.8s | **21.34** | **137** | *e*P | **P** | **08 56 40.5** | **-0.4** |
| **CHAI** | **Chaiyaphum** comp=Z,20nm,1.3s,comp=Z,233nm | **21.75** | **354** | P | **P** | **08 56 46.8** | **+1.5** |
| **UTHA** | **Uthaitani** comp=Z,17nm,0.7s,comp=Z,152nm | **21.82** | **347** | P | **P** | **08 56 46.8** | **+0.8** |
| **SANI** | **Sanana** | **21.99** | **81** | P | **P** | **08 56 49.6** | **+1.6** |
| **KHON** | **Khomkaen** comp=Z,30nm,1.0s | **22.11** | **356** | P | **P** | **08 56 50.1** | **+0.9** |
| **PBKT** | **Sadao Pong** comp=Z,36nm,1.2s,comp=Z,995nm | **22.54** | **352** | P | **P** | **08 56 53.1** | **-0.6** |
| **NLAI** | **Namlea** comp=Z,47nm,0.9s | **22.91** | **84** | P | **P** | **08 56 59.2** | **+1.5** |
| **LBMI** | **Labuha** | **23.76** | **78** | P | **P** | **08 57 06.9** | **+1.1** |
| **NONG** | **Nongkai** comp=Z,53nm,1.0s,comp=Z,3µm | **23.81** | **357** | P | **P** | **08 57 06.5** | **+0.4** |
| **TNTI** | **Ternate** comp=Z,136nm,0.7s | **23.99** | **75** | *e*P | **P** | **08 57 09.1** | **+1.2** |
| **PHRA** | **Phrae** comp=Z,19nm,1.2s,comp=Z,51µm | **24.54** | **351** | P | **P** | **08 57 12.2** | **-0.6** |
| **CM01** | **Chiang Mai Arr** | **24.70** | **348** | *e*P | **P** | **08 57 14.4** | **+0.1** |
| **CM31** | **Chiang Mai Arr** | **24.74** | **348** | *e*P | **P** | **08 57 14.3** | **-0.3** |
| **CMAR** | **Chiang Mai Arr** comp=Z,53nm,0.7s,baz=180,slow=9.2,SNR=76 | **24.74** | **348** | P | **P** | **08 57 13.7** | **-1.0** |
| CMAR | | | | PcP | **PcP** | **09 00 52.2** | **+1.8** |
| | comp=Z,11nm,1.1s,baz=192,slow=3.7,SNR=5.8 | | | | | | |
| CMAR | | | | ScP | **ScP** | **09 04 25.4** | **+1.1** |
| | comp=Z,1.8nm,0.5s,baz=207,slow=3.7,SNR=10 | | | | | | |
| CMAR | | | | LR | LR | 09 07 42.0 | |
| | comp=Z,1µm,20.5s,baz=166,slow=38 | | | | | | |
| **DAV** | **Davao City (W)** comp=Z,215nm,0.4s,baz=310,slow=2.1,SNR=8.2 | **24.85** | **59** | P | **P** | **08 57 17.2** | **+1.5** |
| **DAV** | **Davao City (W)** SNR=7.6 | **24.85** | **59** | P | **P** | **08 57 19.2** | **+3.5** |
| **DAV** | **Davao City (W)** SNR=7.6 | **24.85** | **59** | P | **P** | **08 57 19.2** | **+3.5** |
| **CHTO** | **Chiang Mai** comp=Z,160nm,1.0s | **25.09** | **348** | P | **P** | **08 57 16.7** | **-1.1** |
| **CHTO** | **Chiang Mai** | **25.09** | **348** | *e*P | **P** | **08 57 17.6** | **-0.2** |
| CHTO | | | | pmax | pmax | | |
| | comp=Z,25nm,0.8s | | | | | | |
| **CHTO** | **Chiang Mai** comp=Z,25nm,0.8s | **25.09** | **348** | *e*P | **P** | **08 57 17.6** | **-0.2** |
| **CHTO** | **Chiang Mai** SNR=7.2 | **25.09** | **348** | P | **P** | **08 57 17.3** | **-0.5** |
| **CHTO** | **Chiang Mai** SNR=7.2 | **25.09** | **348** | P | **P** | **08 57 17.3** | **-0.5** |
| **QIZ** | **Qiongzhong** | **25.35** | **12** | P | **P** | **08 57 19.8** | **-0.3** |
| QIZ | | | | S | **S** | **09 01 47.8** | **+5.5** |
| QIZ | | | | pmax | pmax | | |
| | comp=Z,280nm,9.1s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=Z,1µm,18.1s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=Z,2µm,18.0s | | | | | | |
| **KNRA** | **Kununurra** baz=26,SNR=50 | **25.93** | **114** | P | **P** | **08 57 23.8** | **-1.6** |
| **MTN** | **Manton Dam** baz=27,SNR=8.6 | **27.38** | **107** | P | **P** | **08 57 36.7** | **-1.8** |
| **MTN** | **Manton Dam** comp=Z,49nm,0.5s | **27.38** | **107** | *e*P | **P** | **08 57 37.0** | **-1.6** |
| **SWI** | **Sorong** | **27.39** | **81** | P | **P** | **08 57 44.9** | **+6.2** |
| **FAKI** | **Fak Fak** comp=Z,118nm,1.4s | **28.05** | **85** | *e*P | **P** | **08 57 45.1** | **+0.5** |
| **KDU** | **Kakadu** baz=28,SNR=11 | **28.62** | **106** | P | **P** | **08 57 48.0** | **-1.7** |
| **WRKA** | **Warakurna** baz=30,SNR=12 | **29.89** | **132** | P | **P** | **08 58 00.6** | **-0.3** |
| **KMBL** | **Kambalda** baz=30,SNR=14 | **30.26** | **149** | P | **P** | **08 58 03.8** | **-0.2** |
| **H01W3** | **Cape Leeuwin H** baz=342,slow=76,SNR=136 | **30.27** | **164** | T | T | 09 29 59.7 | |
| **H01W2** | **Cape Leeuwin H** baz=342,slow=76,SNR=139 | **30.29** | **164** | T | T | 09 30 02.1 | |
| **H01W1** | **Cape Leeuwin H** baz=342,slow=76,SNR=100 | **30.29** | **164** | T | T | 09 29 57.0 | |
| **KMI** | **Kunming** | **30.84** | **357** | P | **P** | **08 58 12.8** | **+3.4** |
| KMI | | | | pP | sP | 08 58 28.5 | -3.1 |
| KMI | | | | sP | pP | 08 58 36.3 | +12 |
| KMI | | | | PP | **PP** | **08 59 17.3** | **-2.8** |
| KMI | | | | S | **S** | **09 03 11.5** | **+2.3** |
| KMI | | | | sS | sS | 09 03 35.0 | +0.2 |
| KMI | | | | pmax | pmax | | |
| | comp=Z,23nm,1.1s | | | | | | |
| KMI | | | | pmax | pmax | | |
| | comp=Z,190nm,4.4s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,2µm,19.2s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,770nm,19.4s | | | | | | |
| KMI | | | | LR | LR | | |
| | comp=Z,2µm,20.2s | | | | | | |
| **H08S2** | **Diego Garcia H** baz=89,slow=76,SNR=76 | **31.60** | **265** | T | T | 09 31 48.4 | |
| **H08S3** | **Diego Garcia H** baz=89,slow=76,SNR=48 | **31.61** | **265** | T | T | 09 31 45.2 | |
| **H08S1** | **Diego Carcia H** baz=89,slow=76,SNR=60 | **31.62** | **265** | T | T | 09 31 51.4 | |
| **GYA** | **Guiyang** | **32.22** | **4** | P | **P** | **08 58 21.3** | **-0.1** |
| GYA | | | | pP | sP | 08 58 41.0 | -2.6 |
| GYA | | | | sP | pP | 08 58 47.8 | +11 |
| GYA | | | | PP | **PP** | **08 59 34.5** | **-0.8** |
| GYA | | | | PcP | **PcP** | **09 01 11.0** | **+2.1** |
| GYA | | | | S | **S** | **09 03 33.5** | **+3.0** |
| GYA | | | | sS | sS | 09 04 01.3 | +5.2 |
| GYA | | | | ScP | **ScP** | **09 04 48.5** | **+1.0** |
| GYA | | | | pmax | pmax | | |
| | comp=Z,20nm,0.9s | | | | | | |
| GYA | | | | pmax | pmax | | |
| | comp=Z,140nm,5.3s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,740nm,17.0s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,630nm,17.2s | | | | | | |
| GYA | | | | LR | LR | | |
| | comp=Z,650nm,17.4s | | | | | | |
| **WRA** | **Warramunga Arr** comp=Z,15nm,0.7s,baz=290,slow=9.9,SNR=81 | **32.39** | **118** | P | **P** | **08 58 21.5** | **-1.4** |
| WRA | | | | PcP | **PcP** | **09 01 09.6** | **+0.1** |
| | comp=Z,10.0nm,0.5s,baz=303,slow=2.0,SNR=14 | | | | | | |
| WRA | | | | S | **S** | **09 03 31.8** | **-1.4** |
| | comp=Z,4.9nm,1.1s,baz=290,slow=16,SNR=4.7 | | | | | | |
| WRA | | | | ScP | **ScP** | **09 04 49.0** | **+0.7** |
| | comp=Z,2.6nm,1.0s,baz=289,slow=3.5,SNR=5.1 | | | | | | |
| WRA | | | | LR | LR | 09 13 43.7 | |
| | comp=Z,344nm,19.9s,baz=290,slow=40 | | | | | | |
| WRA | | | | P3KPbc | | 09 29 51.4 | |
| | comp=Z,0.9nm,0.6s,baz=105,slow=4.2,SNR=17 | | | | | | |
| **WRA** | **Warramunga Arr** | **32.39** | **118** | P | **P** | **08 58 21.5** | **-1.4** |
| WRA | | | | | | 09 01 09.6 | |
| WRA | | | | S | **S** | **09 03 31.8** | **-1.4** |
| WRA | | | | pmax | pmax | | |
| | comp=Z,14nm,0.7s | | | | | | |
| WRA | | | | smax | smax | | |
| | comp=N,5.0nm,1.1s | | | | | | |
| WRA | | | | MLR | MLR | | |
| | comp=Z,344nm,19.9s | | | | | | |
| **WRAB** | **Tennant Creek** | **32.40** | **118** | *c i* P | **P** | **08 58 22.0** | **-1.0** |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,86nm,1.2s | | | | | | |
| **WRAB** | **Tennant Creek** comp=Z,23nm,0.6s | **32.40** | **118** | *e*P | **P** | **08 58 21.5** | **-1.4** |
| **WB2** | **Warramunga Arr** comp=Z,25nm,0.9s | **32.40** | **118** | *e*P | **P** | **08 58 21.6** | **-1.4** |
| WB2 | | | | *e*PcP | **PcP** | **09 01 09.7** | **+0.2** |
| **FORT** | **Forrest** baz=34,SNR=15 | **33.36** | **141** | P | **P** | **08 58 30.9** | **-0.3** |
| **FORT** | **Forrest** comp=Z,219nm,0.7s | **33.36** | **141** | *e*P | **P** | **08 58 31.2** | **0.0** |
| **AS31** | **Alice Springs** comp=Z,10nm,0.9s | **33.55** | **125** | *e*P | **P** | **08 58 32.4** | **-0.6** |
| **ASAR** | **Alice Springs** comp=Z,25nm,0.8s,baz=299,slow=7.7,SNR=136 | **33.55** | **125** | P | **P** | **08 58 32.3** | **-0.7** |
| ASAR | | | | PcP | **PcP** | **09 01 13.1** | **+0.4** |
| | comp=Z,14nm,0.7s,baz=305,slow=2.4,SNR=17 | | | | | | |
| ASAR | | | | S | **S** | **09 03 48.4** | **-2.8** |
| | comp=Z,8.4nm,1.0s,baz=295,slow=16,SNR=16 | | | | | | |
| ASAR | | | | ScP | **ScP** | **09 04 52.3** | **+0.1** |
| | comp=Z,3.0nm,1.0s,baz=304,slow=2.9,SNR=5.6 | | | | | | |
| ASAR | | | | LR | LR | 09 13 44.8 | |
| | comp=Z,533nm,19.7s,baz=298,slow=39 | | | | | | |
| ASAR | | | | P3KPbc | | 09 29 44.4 | |
| | comp=Z,0.6nm,0.6s,baz=121,slow=3.9,SNR=9.8 | | | | | | |
| **AS01** | **Alice Springs** | **33.59** | **125** | *e*P | **P** | **08 58 32.5** | **-0.9** |
| **NACB** | **Ninganchiao** comp=Z,62nm,1.3s | **34.31** | **29** | *e*P | **P** | **08 58 40.7** | **+1.2** |
| **YOJ** | **Yonaguni jima** | **35.25** | **30** | *e*P | **P** | **08 58 46.8** | **-0.8** |
| YOJ | | | | pmax | pmax | | |
| | comp=Z,526nm,1.7s | | | | | | |
| **YOJ** | **Yonaguni jima** comp=Z,526nm,1.7s | **35.25** | **30** | *e*P | **P** | **08 58 46.8** | **-0.8** |
| **ENH** | **Enshi** comp=Z,32nm,0.8s | **36.28** | **8** | *e*P | **P** | **08 58 56.9** | **+0.5** |
| **ODAN** | **Odare** | **36.41** | **334** | *e*P | **P** | **08 58 57.5** | **-0.3** |
| **CD2** | **Chengdu** | **36.58** | **359** | ⇑*i* P | **P** | **08 58 58.3** | **-0.6** |
| CD2 | | | | pP | pP | 08 59 13.5 | -0.7 |
| CD2 | | | | sP | sP | 08 59 22.5 | +1.2 |
| CD2 | | | | PP | **PnPn** | **09 00 28.8** | **+5.2** |
| CD2 | | | | PcP | **PcP** | **09 01 16.3** | **-5.0** |
| CD2 | | | | S | **S** | **09 04 34.5** | **-2.9** |
| CD2 | | | | ScS | **ScS** | **09 09 07.5** | **-2.1** |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,60nm,0.9s | | | | | | |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,200nm,6.6s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,1µm,15.2s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,900nm,15.2s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,1µm,19.0s | | | | | | |
| **TAPN** | **Taplejung** comp=Z,260nm,1.0s | **36.71** | **335** | *e*P | **P** | **08 59 00.3** | **-0.1** |
| **RAMN** | **Ramite** comp=Z,32nm,0.4s | **36.84** | **333** | *e*P | **P** | **08 59 01.5** | **0.0** |
| **QIS** | **Mount Isa** baz=37,SNR=14 | **37.25** | **116** | P | **P** | **08 59 03.4** | **-1.4** |
| **LSA** | **Lhasa** | **37.55** | **341** | *e*P | **P** | **08 59 07.9** | **+0.2** |
| LSA | | | | pmax | pmax | | |
| | comp=Z,35nm,0.7s | | | | | | |
| **LSA** | **Lhasa** comp=Z,35nm,0.7s | **37.55** | **341** | *e*P | **P** | **08 59 07.9** | **+0.2** |
| **JIRN** | **Jiri** | **37.64** | **333** | *e*P | **P** | **08 59 08.0** | **-0.4** |
| **PKI** | **Pulchoki** | **37.92** | **332** | *e*P | **P** | **08 59 09.9** | **-0.8** |
| **GUN** | **Gumba** comp=Z,201nm,0.8s | **37.99** | **333** | *e*P | **P** | **08 59 11.0** | **-0.3** |
| **DMN** | **Daman** comp=Z,133nm,1.0s | **38.09** | **332** | *e*P | **P** | **08 59 11.8** | **-0.3** |
| **KKN** | **Kakani** comp=Z,131nm,0.9s | **38.16** | **332** | *e*P | **P** | **08 59 12.1** | **-0.5** |
| **GKN** | **Gorkha** | **38.65** | **332** | *e*P | **P** | **08 59 16.4** | **-0.2** |
| **KOLN** | **Koldanda** comp=Z,157nm,0.7s | **38.95** | **330** | *e*P | **P** | **08 59 19.1** | **-0.1** |
| **COEN** | **Coen** baz=39,SNR=34 | **39.11** | **105** | P | **P** | **08 59 19.0** | **-1.5** |
| **COEN** | **Coen** comp=Z,43nm,0.6s | **39.11** | **105** | *e*P | **P** | **08 59 19.3** | **-1.2** |
| **DANN** | **Dangsing** comp=Z,11nm,0.8s | **39.35** | **331** | *e*P | **P** | **08 59 22.8** | **+0.1** |
| **PYUN** | **Piuthan** | **39.53** | **330** | *e*P | **P** | **08 59 23.8** | **-0.2** |
| **BBOO** | **Buckleboo** baz=40,SNR=8.6 | **39.92** | **136** | P | **P** | **08 59 26.1** | **-0.9** |
| **BBOO** | **Buckleboo** comp=Z,24nm,1.0s | **39.92** | **136** | *e*P | **P** | **08 59 26.6** | **-0.5** |
| **XAN** | **Xi'an** | **39.94** | **6** | P | **P** | **08 59 25.8** | **-1.3** |
| XAN | | | | pP | pP | 08 59 41.3 | -1.2 |
| XAN | | | | sP | sP | 08 59 48.5 | -1.1 |
| XAN | | | | pmax | pmax | | |
| | comp=Z,48nm,0.8s | | | | | | |
| XAN | | | | pmax | pmax | | |
| | comp=Z,64nm,4.9s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,350nm,19.9s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,520nm,18.3s | | | | | | |
| XAN | | | | LR | LR | | |
| | comp=Z,860nm,19.9s | | | | | | |
| **NJ2** | **Nanjing** | **40.19** | **19** | *e*P | **P** | **08 59 29.0** | **-0.2** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,15nm,0.6s | | | | | | |
| **MTSU** | **Mount Surprise** baz=41,SNR=49 | **40.92** | **111** | P | **P** | **08 59 34.9** | **-0.6** |
| **LZH** | **Lanzhou** | **41.74** | **359** | *e*P | **P** | **08 59 42.3** | **+0.2** |
| LZH | | | | pP | pP | 08 59 57.5 | -0.1 |
| LZH | | | | sP | sP | 09 00 04.3 | -0.3 |
| LZH | | | | PcP | **PcP** | **09 01 39.0** | **+1.4** |
| LZH | | | | *e*S | S | 09 05 44.0 | -11 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,35nm,1.0s | | | | | | |
| LZH | | | | pmax | pmax | | |
| | comp=Z,190nm,4.4s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,650nm,14.8s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,440nm,13.0s | | | | | | |
| LZH | | | | LR | LR | | |
| | comp=Z,710nm,15.2s | | | | | | |
| **PMG** | **Port Moresby** comp=Z,37nm,0.7s,baz=178,slow=3.9,SNR=11 | **42.63** | **97** | P | **P** | **08 59 48.8** | **-0.7** |
| **PMG** | **Port Moresby** | **42.63** | **97** | *d i* P | **P** | **08 59 48.6** | **-0.9** |
| PMG | | | | pmax | pmax | | |
| | comp=Z,498nm,1.7s | | | | | | |
| **PMG** | **Port Moresby** comp=Z,62nm,1.0s | **42.63** | **97** | *e*P | **P** | **08 59 48.8** | **-0.7** |
| **CTAO** | **Charters Tower** | **43.13** | **113** | *e*P | **P** | **08 59 54.2** | **+0.6** |
| CTAO | | | | pmax | pmax | | |
| | comp=Z,36nm,1.1s | | | | | | |
| **CTAO** | **Charters Tower** comp=Z,36nm,1.1s | **43.13** | **113** | *e*P | **P** | **08 59 54.2** | **+0.6** |
| **MANU** | **Manus Island** comp=Z,57nm,0.8s | **43.15** | **87** | *e*P | **P** | **08 59 52.2** | **-1.5** |
| **QLP** | **Quilpie** baz=43,SNR=8.8 | **43.28** | **123** | P | **P** | **08 59 54.8** | **+0.2** |
| **STKA** | **Stephens Creek** comp=Z,54nm,0.7s,baz=306,slow=7.9,SNR=155 | **43.41** | **131** | P | **P** | **08 59 55.5** | **-0.1** |
| STKA | | | | LR | LR | 09 18 54.3 | |
| |

comp=Z,34nm,0.7s
**HHC Hu-ho-hao-te 46.97 8** *e*P **P 09 00 25.0 +1.3**
HHC S **S 09 07 12.5 +1.7**
HHC sS sS 09 07 34.3 -3.1
HHC pmax pmax
comp=Z,30nm,0.7s
HHC pmax pmax
comp=Z,96nm,7.7s
HHC LR LR
comp=Z,550nm,18.5s
HHC LR LR
comp=Z,380nm,16.0s
HHC LR LR
comp=Z,620nm,18.5s
**BJI Beijing 46.98 13** P **P 09 00 24.0 +0.3**
BJI pP **pP 09 00 39.0 -0.4**
BJI PcP **PcP 09 01 56.5 +1.3**
BJI S **S 09 07 16.0 +5.3**
BJI sS **sS 09 07 42.5 +5.2**
BJI pmax pmax
comp=Z,42nm,0.7s
BJI pmax pmax
comp=Z,160nm,4.2s
BJI LR LR
comp=Z,560nm,26.2s
BJI LR LR
comp=Z,300nm,20.0s
BJI LR LR
comp=Z,810nm,27.2s
**RMQ Roma 47.07 121** P **P 09 00 24.0 -0.7**
baz=47,SNR=6.6
**TJN Taejon 47.27 26**⇑ *e*P **P 09 00 25.7 -0.3**
**KS15 Wonju Array Si 48.40 25** *e*P **P 09 00 36.8 +2.1**
**KSAR Wonju Array Be 48.40 25** P **P 09 00 35.7 +1.0**
KSAR 09 02 00.3
**KSAR Wonju Array Be 48.40 25** P **P 09 00 35.6 +1.0**
KSAR PcP **PcP 09 02 00.3 -0.1**
**KSRS Korea Array 48.42 25** P **P 09 00 35.6 +0.8**
comp=Z,22nm,0.6s,baz=221,slow=7.4,SNR=113
KSRS PcP **PcP 09 02 00.3 -0.1**
comp=Z,4.4nm,0.8s,baz=214,slow=4.7,SNR=5.8
KSRS LR LR 09 22 51.5
comp=Z,119nm,18.2s,baz=238,slow=38
**KS01 Wonju Array Si 48.43 25** *e*P **P 09 00 36.8 +1.8**
KS01 *e*PcP **PcP 09 02 00.7 +0.2**
**EIDS Eidsvold 48.76 119** P **P 09 00 37.6 -0.2**
baz=49,SNR=9.5
**EIDS Eidsvold 48.76 119** *e*P **P 09 00 37.5 -0.2**
comp=Z,82nm,1.8s
**TOO Toolangi 48.98 136** P **P 09 00 41.1 +1.8**
baz=49,SNR=6.0
**YNG Young 49.59 131** P **P 09 00 44.6 +0.6**
baz=50,SNR=9.4
**CAN Canberra 50.47 132** P **P 09 00 52.1 +1.4**
baz=50
**CAN Canberra 50.47 132** *e*P **P 09 00 51.1 +0.4**
CAN pmax pmax
comp=Z,26nm,1.0s
**CAN Canberra 50.47 132** *e*P **P 09 00 51.1 +0.4**
comp=Z,26nm,1.0s
**SNY Shenyang 50.64 19** ⇓P **P 09 00 51.5 -0.2**
SNY pmax pmax
comp=Z,13nm,0.9s
SNY LR LR
comp=Z,300nm,20.6s
SNY LR LR
comp=Z,290nm,19.9s
SNY LR LR
comp=Z,610nm,21.0s
**MGCD Mangrove Creek 51.25 128** P **P 09 00 57.1 +0.6**
baz=51,SNR=6.6
**INU Inuyama 51.28 35** *e*P **P 09 00 55.9 -0.7**
comp=Z,26nm,0.8s
**WMQ Urumqi 51.68 345** P **P 09 00 59.5 -0.1**
WMQ pP pP 09 01 15.0 -0.5
WMQ sP sP 09 01 24.0 +1.5
WMQ S **S 09 08 17.0 +0.4**
WMQ SS **SS 09 11 52.0 -1.9**
WMQ pmax pmax
comp=Z,130nm,0.9s
WMQ pmax pmax
comp=Z,490nm,3.8s
WMQ LR LR
comp=Z,750nm,27.3s
WMQ LR LR
comp=Z,280nm,23.3s
WMQ LR LR
comp=Z,680nm,27.3s
**KBL Kabul 52.16 323** *e*P **P 09 01 04.2 +0.7**
KBL pmax pmax
comp=Z,48nm,0.9s
**KBL Kabul 52.16 323** *e*P **P 09 01 04.2 +0.7**
comp=Z,48nm,0.9s
**KSH Kashi 52.18 332** P **P 09 01 02.3 -1.2**
KSH pP pP 09 01 18.3 -1.1
KSH PcP **PcP 09 02 12.3 -2.2**
KSH PP **PP 09 03 03.0 +0.5**
KSH S **S 09 08 18.5 -5.2**
KSH ScS **ScS 09 10 41.0 -7.2**
KSH SS **SS 09 11 55.8 -6.3**
KSH pmax pmax
comp=Z,85nm,0.7s
KSH LR LR
comp=Z,130nm,5.9s
KSH LR LR
comp=Z,160nm,6.5s
KSH LR LR
comp=Z,170nm,5.8s
**MAJO Matsushiro 52.81 34** *e*P **P 09 01 06.4 -1.6**
MAJO pmax pmax
comp=Z,35nm,1.0s
**MAJO Matsushiro 52.81 34** *e*P **P 09 01 06.4 -1.6**
comp=Z,35nm,1.0s
**MAT Matsushiro 52.81 34** P **P 09 01 06.1 -1.9**
MAT eS **S 09 08 28.4 -3.8**
**MJAR Matsushiro Arr 52.81 34** P **P 09 01 06.7 -1.3**
comp=Z,14nm,0.4s,baz=202,slow=8.9,SNR=66
MJAR PcP **PcP 09 02 17.5 +0.8**
comp=Z,3.9nm,0.9s,baz=208,slow=4.6,SNR=4.1
MJAR LR LR 09 25 28.4
comp=Z,83nm,18.9s,baz=220,slow=38
**MJB9 Matsu-Tunnel 52.81 34** *e*P **P 09 01 06.7 -1.4**
comp=Z,40nm,1.0s
**CN2 Changchun 53.02 19** *e*P **P 09 01 08.5 -0.9**
CN2 *es*P sP 09 01 31.3 -1.0
CN2 *e*S **S 09 08 33.3 -1.4**
CN2 pmax pmax
comp=Z,70nm,1.0s
CN2 pmax pmax
comp=Z,200nm,3.0s
CN2 LR LR
comp=Z,400nm,18.0s
CN2 LR LR
comp=Z,400nm,18.0s
CN2 LR LR
comp=Z,500nm,19.0s
**SONM Songino Array 53.51 2** P **P 09 01 13.5 +0.4**
comp=Z,33nm,0.8s,baz=181,slow=8.5,SNR=109
SONM PcP **PcP 09 02 19.9 +0.7**
comp=Z,15nm,0.9s,baz=182,slow=3.2,SNR=7.1
SONM ScP **ScP 09 06 12.0 0.0**
comp=Z,1.6nm,0.8s,baz=178,slow=4.5,SNR=5.5
SONM LR LR 09 25 46.4
comp=Z,399nm,20.9s,baz=180,slow=38
**SONA1 Songino Array 53.52 2** *e*P **P 09 01 13.7 +0.5**
**ULN Ulaanbaatar 53.56 2***c i*P **P 09 01 13.8 +0.3**
ULN pmax pmax
comp=Z,43nm,1.7s
**ULN Ulaanbaatar 53.56 2** *e*P **P 09 01 14.0 +0.5**
comp=Z,20nm,0.9s
**ULN Ulaanbaatar 53.56 2** P **P 09 01 14.5 +1.0**
SNR=8.7
**ULN Ulaanbaatar 53.56 2** P **P 09 01 14.5 +1.0**
SNR=8.7
**SHLS Shalkode 53.73 338** *i*P **P 09 01 11.1 -3.7**
SHLS comp=Z,1μm,1.1s *e*S **S 09 08 42.3 -2.5**
**SFK Sufi-Kurgan 53.74 331** P **P 09 01 15.4 +0.3**
SFK pmax pmax
comp=Z,186nm,0.8s
**PDGK Podgornoye 53.87 338** P **P 09 01 15.6 -0.2**
PDGK pmax pmax
comp=Z,95nm,0.9s
**UZB Uzynbulak 53.89 337** *i*P **P 09 01 13.8 -2.2**
comp=Z,759nm,1.2s
UZB *i*S **S 09 08 45.9 -1.1**

**SATY Saty 54.06 337** *i*P **P 09 01 15.2 -2.0**
comp=Z,1μm,1.2s
**ZHN Zhinishke 54.14 337** *i*P **P 09 01 15.5 -2.3**
comp=Z,417nm,1.1s
**ULHL Ulahol 54.27 335** P **P 09 01 19.3 +0.4**
SNR=6.0
**KZA Kyzart 54.57 334** P **P 09 01 22.0 +0.8**
SNR=79
**MDOK Medeo 54.69 336** *i*P **P 09 01 19.5 -2.3**
comp=Z,437nm,1.7s
MDOK *e*S **S 09 08 56.4 -1.2**
MDOK LRM MLR 09 27 56.4
comp=Z,54nm,19.4s
**VLA Vladivostok 54.81 25***ce*P **P 09 01 22.8 +0.3**
VLA pmax pmax
comp=Z,66nm,0.9s
**UCH Uchtor 55.01 333** P **P 09 01 24.4 -0.2**
SNR=53
**TKM2 Tokmak 2 55.10 335** P **P 09 01 24.6 -0.3**
SNR=125
**KBK Karagaybulak 55.16 334** P **P 09 01 25.8 +0.5**
SNR=65
**MDJ Mudanjiang 55.17 22** P **P 09 01 24.5 -0.6**
MDJ pP pP 09 01 40.3 -0.9
MDJ sP sP 09 01 48.0 -0.1
MDJ PcP **PcP 09 02 20.3 -5.2**
MDJ PP **PP 09 03 27.0 -2.2**
MDJ ScP **ScP 09 06 14.0 -5.2**
MDJ PcS **PcS 09 06 21.5 -3.9**
MDJ S **S 09 09 06.0 +2.2**
MDJ ScS **ScS 09 11 08.0 -0.8**
MDJ pmax pmax
comp=Z,26nm,1.3s
MDJ pmax pmax
comp=Z,100nm,5.0s
MDJ LR LR
comp=Z,190nm,26.4s
MDJ LR LR
comp=Z,110nm,24.0s
MDJ LR LR
comp=Z,170nm,26.4s
**MDJ Mudanjiang 55.17 22** *e*P **P 09 01 25.4 +0.3**
comp=Z,23nm,0.8s
**BMNS Besmoynak 55.22 335** *i*P **P 09 01 23.4 -2.2**
comp=Z,604nm,1.1s
BMNS *e*S **S 09 09 03.8 -0.9**
**AML Almayashu 55.31 333** P **P 09 01 26.5 -0.1**
SNR=7.8
**AAK Ala-Archa 55.35 334** LR LR 09 28 05.3
comp=Z,107nm,21.0s,baz=132,slow=39
**AAK Ala-Archa 55.35 334***c i*P **P 09 01 26.6 0.0**
AAK pmax pmax
comp=Z,40nm,1.0s
**AAK Ala-Archa 55.35 334** P **P 09 01 26.8 +0.2**
SNR=31
**AAK Ala-Archa 55.35 334** *e*P **P 09 01 26.8 +0.2**
comp=Z,31nm,0.9s
**AAK Ala-Archa 55.35 334** P **P 09 01 27.1 +0.5**
SNR=14
**AAK Ala-Archa 55.35 334** P **P 09 01 27.1 +0.5**
SNR=14
**FRU Bishkek 55.45 334**⇑ *e*P **P 09 01 28.0 +0.8**
FRU *e* 09 01 54.0
FRU *e* 09 02 28.0
FRU pmax pmax
comp=Z,140nm,2.0s
**CHMS Chumysh 55.52 334** P **P 09 01 27.4 -0.3**
SNR=22
**KUU Kurty 55.58 336** *i*P **P 09 01 26.0 -2.1**
KUU comp=Z,932nm,1.0s LRM MLR 09 27 43.2
comp=Z,36nm,16.7s
**EKS2 Erkin-Say 55.69 333** P **P 09 01 29.2 +0.3**
SNR=135
**TDK Taldyqorghan 55.70 338** *i*P **P 09 01 27.2 -1.8**
comp=Z,738nm,1.0s
TDK *e*S **S 09 09 10.5 -0.5**
**USRK Ussuriysk Ar. 55.75 24** P **P 09 01 29.4 +0.2**
comp=Z,59nm,0.6s,baz=215,slow=6.1,SNR=120
**USP Ospenovka 55.85 334** P **P 09 01 29.8 -0.2**
SNR=38
**UOSS Minazif 55.88 305** *e*P **P 09 01 31.8 +1.2**
comp=Z,64nm,1.3s
**HATD Hatta, Dubai 55.89 305** *i*P **P 09 01 31.8 +1.1**
SNR=9.8
**MK01 Makanchi Array 55.92 342** *e*P **P 09 01 29.9 -0.6**
**MK31 Makanchi Array 55.95 342** *e*P **P 09 01 30.3 -0.3**
MK31 pmax pmax
comp=Z,8.0nm,0.5s
**MK31 Makanchi Array 55.95 342** *e*P **P 09 01 30.3 -0.3**
**MKAR Makanchi Array 55.95 342** P **P 09 01 30.0 -0.6**
comp=Z,22nm,0.5s,baz=151,slow=8.5,SNR=201
MKAR LR LR 09 30 32.8
comp=Z,74nm,18.5s,baz=148,slow=41
MKAR PKP2bc 09 31 38.2
comp=Z,0.4nm,0.9s,baz=262,slow=7.2,SNR=3.5
**MKAR Makanchi Array 55.95 342** *e*P **P 09 01 30.3 -0.3**
MKAR pmax pmax
comp=Z,162nm,0.6s
**MKAR Makanchi Array 55.95 342** *e*P **P 09 01 30.3 -0.3**
comp=Z,162nm,0.6s
MKAR ⇑*e* 09 31 38.2
**ZAK Zakamensk 56.03 359** *e*P **P 09 01 29.5 -1.8**
ZAK *e* 09 02 26.8
ZAK pmax pmax
comp=Z,13nm,1.2s
ZAK pmax pmax
comp=Z,11nm,1.3s
**MAKZ Makanchi 56.06 342** *e*P **P 09 01 30.9 -0.5**
MAKZ pmax pmax
comp=Z,29nm,1.1s
**MAKZ Makanchi 56.06 342** *e*P **P 09 01 30.9 -0.5**
comp=Z,29nm,1.1s
**NAZ Nazwa, Dubai 56.34 305** *i*P **P 09 01 35.4 +1.6**
SNR=24
**HIA Hailar 56.55 12** *e*P **P 09 01 34.5 -0.3**
HIA pmax pmax
comp=Z,53nm,1.4s
**HIA Hailar 56.55 12** *e*P **P 09 01 34.5 -0.3**
comp=Z,53nm,1.4s
**DZA Taraz 57.00 332** *i*P **P 09 01 36.6 -1.6**
comp=Z,789nm,1.0s
DZA *e*S **S 09 09 27.9 -0.3**
**IUG Iuzhnay 57.07 330** *i*P **P 09 01 37.0 -1.8**
comp=Z,599nm,1.0s
IUG *e*S **S 09 09 28.7 -0.6**
**DGZ Jazzator, Alta 57.25 347***c i*P **P 09 01 40.0 0.0**
DGZ pmax pmax
comp=Z,24nm,0.6s
**TLY Talaya 57.33 360** P **P 09 01 41.5 +1.2**
comp=Z,8.7nm,0.6s,baz=223,slow=4.6,SNR=18
**TLY Talaya 57.33 360***c i*P **P 09 01 40.9 +0.6**
TLY *e*S S 09 09 49.8 +18
TLY pmax pmax
comp=Z,23nm,0.9s
TLY MLR MLR
comp=Z,323nm,15.0s
**TLY Talaya 57.33 360** *e*P **P 09 01 40.2 -0.2**
comp=Z,56nm,1.5s
**TLY Talaya 57.33 360** P **P 09 01 41.5 +1.2**
SNR=8.8
**TLY Talaya 57.33 360** P **P 09 01 41.5 +1.2**
SNR=8.8
**MOY Mondy 57.38 358** *e*P **P 09 01 41.4 +0.6**
MOY pmax pmax
comp=Z,44nm,1.9s
**CHM Chimkent 57.41 330** *i*P **P 09 01 40.0 -1.1**
comp=Z,889nm,1.1s
CHM *e*S **S 09 09 34.0 +0.4**
**BTLS Baital 57.47 335** *i*P **P 09 01 38.7 -2.7**
comp=Z,322nm,1.0s
**HVS Khovu-Aksy 57.51 352**⇓ *e*P **P 09 01 41.7 0.0**
HVS pmax pmax
comp=Z,45nm,1.7s
**KK31 Karatay Array 57.55 331** *i*P **P 09 01 41.4 -0.7**
KK31 pmax pmax
comp=Z,10.0nm,0.7s
**KKAR Karatay Array 57.55 331** *e*P **P 09 01 41.3 -0.8**
KKAR pmax pmax
comp=Z,118nm,0.6s
**KKAR Karatay Array 57.55 331** *e*P **P 09 01 41.3 -0.8**
comp=Z,118nm,0.6s
**BRLS Borolday 57.82 331** *i*P **P 09 01 41.5 -2.5**
comp=Z,35nm,1.1s
BRLS *e*S **S 09 09 37.1 -1.9**
**ERM Erimo 59.38 33***de*P **P 09 01 53.9 -0.9**
ERM pmax pmax
comp=Z,44nm,1.2s
**ERM Erimo 59.38 33** *e*P **P 09 01 54.9 +0.1**
comp=Z,59nm,1.1s
**SEM Semipalatinsk 59.78 342** *i*P **P 09 01 55.5 -2.1**
comp=Z,604nm,1.2s
**KLR Kul'dur 59.88 20** P **P 09 01 57.6 -0.5**
comp=Z,5.5nm,0.7s,baz=234,slow=5.2,SNR=200
KLR LR LR 09 29 00.8
comp=Z,30nm,19.9s,baz=218,slow=37
**KLR Kul'dur 59.88 20***c i*P **P 09 01 57.3 -0.8**
**HABR Khabarovsk 60.47 23** *e*P **P 09 01 59.2 -2.9**
HABR *e**PP **pP 09 02 15.5 -2.9**
HABR *e**SP **sP 09 02 22.4 -2.8**
HABR *e* 09 02 43.4
HABR *e* 09 04 12.9
HABR *e*S **S 09 10 10.5 -2.3**
HABR *e* 09 10 29.5
HABR *e**SS **sS 09 10 38.3 -2.1**
HABR *e* 09 11 44.4
HABR *e*SS **SS 09 14 10.7 -1.3**
HABR pmax pmax
comp=E,32nm,1.1s
HABR pmax pmax
comp=N,9.0nm,1.1s
HABR pmax pmax
comp=Z,62nm,1.1s
HABR MLR MLR
comp=Z,89nm,21.0s
**KURBB Kurchatov Arra 60.50 341** P **P 09 02 01.8 -0.4**
comp=Z,33nm,0.8s,baz=159,slow=6.2,SNR=82
KURBB PcP **PcP 09 02 46.1 -0.3**
comp=Z,6.8nm,0.6s,baz=154,slow=3.6,SNR=9.4
**KURK Kurchatov 60.55 342***c i*P **P 09 02 01.9 -0.7**
KURK pmax pmax
comp=Z,283nm,1.2s
**KURK Kurchatov 60.55 342** *e*P **P 09 02 03.0 +0.4**
comp=Z,71nm,0.9s
KURK PcP **PcP 09 02 46.1 -0.5**
**ASAJ Asahikawa 60.55 31** P **P 09 02 02.9 +0.1**
comp=Z,36nm,0.6s,baz=246,slow=9.8,SNR=36
**ASAJ Asahikawa 60.55 31** *e*P **P 09 02 02.4 -0.3**
comp=Z,42nm,0.7s
**GEYT Alibeck 61.14 319** P **P 09 02 07.4 +0.5**
comp=Z,26nm,0.6s,baz=150,slow=6.2,SNR=62
GEYT LR LR 09 30 21.9
comp=Z,196nm,21.9s,baz=145,slow=38
**ZAA0 Zalesovo Array 61.80 347** *e*P **P 09 02 10.2 -0.8**
comp=Z,84nm,1.1s
**ZALV Zalesovo Beam 61.80 347** P **P 09 02 10.2 -0.9**
comp=Z,28nm,0.5s,baz=153,slow=4.8,SNR=122
ZALV S **S 09 10 28.4 -1.3**
comp=Z,2.5nm,0.9s,baz=152,slow=16,SNR=4.7
ZALV LR LR 09 31 13.5
comp=Z,386nm,21.7s,baz=120,slow=38
**ZALV Zalesovo Beam 61.80 347** *e*P **P 09 02 10.5 -0.5**
ZALV S **S 09 10 28.4 -1.3**
**ZALV Zalesovo Beam 61.80 347** *e*P **P 09 02 10.5 -0.5**
ZALV S **S 09 10 28.4 -1.3**
**DZM Mont Dzumac 62.05 112** *e*P **P 09 02 12.3 -1.2**
comp=Z,58nm,1.5s
**DZM Mont Dzumac 62.05 112** *e*LR LR 09 20 55.0
comp=Z,522nm,24.9s
**DZM Mont Dzumac 62.05 112** *e*P **P 09 02 13.4 0.0**
comp=Z,76nm,1.7s
**YUK Yuzh-Kuril'sk 62.21 33**⇓ *e*P **P 09 02 14.7 +0.8**
**YSS Yuzh-Sakhalins 62.65 29** *i*P **P 09 02 16.3 -0.5**
YSS pmax pmax
comp=Z,174nm,1.3s
**YSS Yuzh-Sakhalins 62.65 29** *e*P **P 09 02 17.0 +0.1**
comp=Z,122nm,0.8s
**NVS Novosibirsk 62.99 347**⇑ *i*P **P 09 02 18.5 -0.4**
NVS *i*S **S 09 10 44.0 -0.5**
NVS pmax pmax
comp=Z,26nm,1.1s
NVS pmax pmax
comp=N,6.0nm,0.4s
NVS pmax pmax
comp=E,7.0nm,0.5s
NVS smax smax
comp=N,2.0nm,0.5s
NVS smax smax
comp=E,10.0nm,0.9s
**BOD Bodaibo 63.97 6** *e*P **P 09 02 24.5 -0.8**
BOD pmax pmax
comp=Z,56nm,1.5s
**RAYN Ar Rayn 64.33 299** *e*P **P 09 02 29.7 +1.2**
comp=Z,96nm,1.5s
**CLNS Chul'man 64.73 12** *e*P **P 09 02 28.6 -1.8**
CLNS pmax pmax
comp=Z,36nm,1.1s
CLNS pmax pmax
comp=N,19nm,1.1s
CLNS pmax pmax
comp=E,18nm,1.1s
**BVAR Borovoye Array 65.30 338** P **P 09 02 33.6 -0.5**
comp=E,42nm,0.6s,baz=144,slow=9.0,SNR=164
BVAR LR LR 09 34 12.3
comp=E,202nm,19.5s,baz=82,slow=39
**BRVK Borovoye 65.36 338***c i*P **P 09 02 34.0 -0.5**
BRVK pmax pmax
comp=Z,188nm,1.2s
**BRVK Borovoye 65.36 338** *e*P **P 09 02 34.2 -0.3**
comp=Z,44nm,0.6s
**BRVK Borovoye 65.36 338** P **P 09 02 34.4 -0.2**
SNR=13
**BRVK Borovoye 65.36 338** P **P 09 02 34.4 -0.2**
SNR=13
**TYV Tymovskoe 65.45 26** *e*P **P 09 02 35.3 +0.2**
TYV pmax pmax
comp=Z,18nm,1.2s
**NKL Nikolayevsk 66.35 23** *e*P **P 09 02 40.8 -0.1**
NKL pmax pmax
comp=N,43nm,1.0s
NKL pmax pmax
comp=E,20nm,1.0s
NKL pmax pmax
comp=Z,110nm,1.0s
**KMBO Kilima Mbogo 67.03 271** P **P 09 02 48.2 +1.9**
comp=Z,2.3nm,0.6s,baz=55,slow=5.3,SNR=5.6
KMBO LR LR 09 27 09.4
comp=Z,230nm,21.4s,baz=95,slow=31
**KMBO Kilima Mbogo 67.03 271** *e*P **P 09 02 48.3 +2.0**
KMBO pmax pmax
comp=Z,10.0nm,1.5s
**KMBO Kilima Mbogo 67.03 271** *e*P **P 09 02 48.3 +2.0**
comp=Z,10nm,1.5s
**AB31 Akbulak array 67.08 330** *i*P **P 09 02 45.4 -0.2**
AB31 pmax pmax
comp=Z,89nm,0.8s
**ABKAR Akbulak array 67.08 330** *e*P **P 09 02 45.5 -0.1**
comp=Z,822nm,0.8s
**MAW Mawson 67.68 196** P **P 09 02 49.4 +0.4**
comp=Z,3.5nm,0.7s,baz=33,slow=4.5,SNR=7.6
MAW LR LR 09 26 13.3
comp=Z,487nm,21.6s,baz=56,slow=30
**MAW Mawson 67.68 196** *e*P **P 09 02 50.1 +1.0**
MAW pmax pmax
comp=Z,3.0nm,1.0s
**MAW Mawson 67.68 196** *e*P **P 09 02 50.1 +1.0**
comp=Z,3.4nm,1.0s
**WKZ Wanaka 68.07 136** *e*P **P 09 02 52.9 +0.8**
comp=Z,153nm,1.6s
**AKTO Aktyubinsk 68.79 330** P **P 09 02 56.1 -0.3**
comp=Z,44nm,1.1s,baz=130,slow=6.7,SNR=53
AKTO LR LR 09 36 31.0
comp=Z,58nm,20.9s,baz=139,slow=39
**RPZ Rata Peaks 69.25 135** LR LR 09 30 48.3
comp=Z,376nm,19.7s,baz=287,slow=34
**RPZ Rata Peaks 69.25 135** *e*P **P 09 02 59.5 +0.1**
comp=Z,123nm,1.8s
**OXZ Oxford 69.87 134** *e*P **P 09 03 03.1 -0.2**
comp=Z,137nm,1.9s
**THZ Tophouse 70.21 132** *e*P **P 09 03 05.4 0.0**
comp=Z,158nm,1.8s
**YAK Yakutsk 70.49 12** P **P 09 03 05.8 -0.7**
comp=Z,130nm,0.6s,baz=313,slow=1.1,SNR=47
**YAK Yakutsk 70.49 12***c i*P **P 09 03 05.2 -1.3**
YAK *e* 09 03 22.0
YAK *e* 09 05 40.3
YAK *e*PPP PPP 09 07 26.2
YAK *e*S **S 09 12 12.3 -2.5**
YAK pmax pmax
comp=Z,125nm,0.8s
YAK pmax pmax
comp=N,39nm,1.3s

YAK pmax pmax
comp=E,37nm,1.5s
YAK pmax pmax
comp=Z,5.0nm,0.4s
YAK pmax pmax
comp=N,10.0nm,1.0s
YAK pmax pmax
comp=E,31nm,1.8s
YAK smax smax
comp=N,25nm,2.6s
YAK smax smax
comp=E,77nm,3.5s
YAK MLR MLR
comp=Z,368nm,29.0s
YAK MLR MLR
comp=N,1µm,22.0s
YAK MLR MLR
comp=E,130nm,20.0s
**YAK Yakutsk 70.49 12** *eP* **P 09 03 05.8 -0.7**
comp=E,177nm,0.7s
**GNI Garni 71.25 316** P **P 09 03 12.9 +1.0**
**GNI Garni 71.25 316***c iP* **P 09 03 12.8 +1.0**
GNI pmax pmax
comp=Z,144nm,1.7s
**GNI Garni 71.25 316** *eP* **P 09 03 12.2 +0.3**
comp=Z,19nm,0.7s
**SKR Severo-Kuril's 71.79 32** *eP* **P 09 03 14.0 -0.6**
**GROC Groznyy 71.88 319** *eP* **P 09 03 13.3 -2.0**
GROC *e**PP **pP 09 03 28.2 -3.8**
GROC *e**SP **PcP 09 03 32.2 -1.6**
GROC *e* 09 05 54.5
GROC *e*S **S 09 12 29.1 -2.5**
GROC pmax pmax
comp=Z,129nm,1.4s
**SVE Sverdlovsk 71.89 336***d iP* **P 09 03 15.6 +0.5**
SVE pmax pmax
comp=Z,178nm,1.2s
**ARU Arti 72.46 335***c iP* **P 09 03 18.5 0.0**
ARU *PP **pP 09 03 35.3 +0.1**
ARU 09 05 53.8
ARU PPP PPP 09 07 42.2
ARU S **S 09 12 40.4 +2.7**
ARU SS **SS 09 17 10.7 -6.9**
ARU pmax pmax
comp=Z,197nm,1.7s
**ARU Arti 72.46 335** *eP* **P 09 03 19.3 +0.8**
comp=Z,90nm,0.9s
**BFZ Birch Farm 72.54 131** *eP* **P 09 03 20.1 +0.7**
comp=Z,467nm,2.0s
**BKZ Black Stump Fm 72.54 129** *eP* **P 09 03 19.0 -0.6**
comp=Z,47nm,1.1s
**URZ Urewera 72.92 128** LR LR 09 38 36.5
comp=Z,231nm,18.1s,baz=295,slow=38
**ZEI Tsey 72.95 318** *eP* **P 09 03 22.4 +0.4**
ZEI pmax pmax
comp=Z,62nm,0.6s
**NCK Nalchik 73.45 319**⇑*iP* **P 09 03 26.6 +1.9**
NCK pmax pmax
comp=Z,31nm,0.3s
**NEY Neytrino 73.92 318***d iP* **P 09 03 29.6 +1.9**
NEY pmax pmax
comp=Z,5.0nm,0.9s
**PEA0B Petropavlovsk- 73.96 30** *eP* **P 09 03 26.8 -0.7**
comp=Z,34nm,0.9s
**PETK Petropavlovsk- 73.96 30** P **P 09 03 26.6 -0.9**
comp=Z,18nm,0.8s,baz=248,slow=1.0,SNR=26
PETK LR LR 09 36 48.7
comp=Z,72nm,21.5s,baz=236,slow=36
**PETK Petropavlovsk- 73.96 30** *eP* **P 09 03 26.8 -0.7**
**PETK Petropavlovsk- 73.96 30** *eP* **P 09 03 26.8 -0.7**
**KBZ Khabaz 74.01 319** P **P 09 03 28.6 +0.7**
comp=Z,30nm,0.9s,baz=129,slow=4.6,SNR=29
**KIV Kislovodsk 74.24 319** P **P 09 03 30.1 +0.7**
**KIV Kislovodsk 74.24 319***c iP* **P 09 03 30.1 +0.7**
KIV *e* 09 06 11.8
KIV *i* S **S 09 12 57.8 -0.9**
KIV pmax pmax
comp=Z,45nm,1.2s
KIV MLR MLR
comp=Z,46nm,15.0s
**KIV Kislovodsk 74.24 319** *eP* **P 09 03 30.6 +1.1**
comp=Z,23nm,0.8s
**KIV Kislovodsk 74.24 319** P **P 09 03 30.9 +1.4**
SNR=5.1
**KIV Kislovodsk 74.24 319** P **P 09 03 30.9 +1.4**
SNR=5.1
**PET Petropavlovsk 74.40 31** *eP* **P 09 03 29.2 -0.8**
PET *e*S **S 09 13 02.0 +2.2**
PET pmax pmax
comp=Z,100nm,10.0s
PET pmax pmax
comp=Z,88nm,0.6s
PET MLR MLR
comp=Z,200nm,16.0s
**PET Petropavlovsk 74.40 31** *eP* **P 09 03 29.6 -0.4**
comp=Z,81nm,0.7s
**GOF Gofitskoye 74.47 320**⇑*eP* **P 09 03 31.5 +0.9**
GOF pmax pmax
comp=Z,38nm,0.9s
**MA2 Magadan 74.87 22** P **P 09 03 32.7 +0.1**
comp=Z,24nm,0.6s,baz=209,slow=5.6,SNR=21
MA2 LR LR 09 35 39.4
comp=Z,72nm,22.0s,baz=237,slow=35
**LSZ Lusaka 75.08 256** *eP* **P 09 03 35.4 +0.5**
LSZ pmax pmax
comp=Z,20nm,1.2s
**LSZ Lusaka 75.08 256** *eP* **P 09 03 35.4 +0.5**
comp=Z,20nm,1.2s
**SYO Syowa Base 75.63 200**‖*eP* **P 09 03 39.0 +2.2**
**SYO Syowa Base 75.63 200**⇑*ePcP* **PcP 09 03 52.2 +2.8**
**SYO Syowa Base 75.63 200**⇑*epP* pP 09 03 57.2 +3.5
**SOC Sochi 76.07 317** *eP* **P 09 03 39.1 -0.7**
SOC *e**SP **sP 09 04 04.3 +0.9**
SOC *e*S **S 09 13 21.6 +2.9**
SOC *e**SS **pS 09 13 40.7 +1.3**
SOC *e*SSS SSS 09 21 27.1
SOC pmax pmax
comp=Z,48nm,0.9s
SOC MLR MLR
comp=Z,272nm,21.0s
**LBTB Lobatse 77.29 246** LR LR 09 31 56.3
comp=Z,243nm,21.8s,baz=98,slow=31
**VNDA Vanda 77.57 169** P **P 09 03 47.6 0.0**
comp=Z,7.6nm,1.0s,baz=292,slow=6.4,SNR=14
VNDA LR LR 09 33 11.4
comp=Z,180nm,20.8s,baz=322,slow=32
**VNDA Vanda 77.57 169** *eP* **P 09 03 48.0 +0.3**
VNDA pmax pmax
comp=Z,15nm,1.3s
**VNDA Vanda 77.57 169** *eP* **P 09 03 48.0 +0.3**
comp=Z,15nm,1.3s
**BOSA Boshof 77.58 242** P **P 09 03 49.7 +0.8**
comp=Z,3.0nm,0.7s,baz=94,slow=4.3,SNR=7.2
BOSA LR LR 09 31 52.3
comp=Z,178nm,19.4s,baz=48,slow=31
**BOSA Boshof 77.58 242** *eP* **P 09 03 49.9 +1.0**
BOSA pmax pmax
comp=Z,8.0nm,0.8s
**BOSA Boshof 77.58 242** *eP* **P 09 03 49.9 +1.0**
comp=Z,8.2nm,0.8s
**SEY Seymchan 77.67 20** P **P 09 03 48.2 -0.2**
comp=Z,15nm,0.9s,baz=228,slow=5.3,SNR=39
**SEY Seymchan 77.67 20**⇑*iP* **P 09 03 48.0 -0.4**
**VRH Novokhopyorsk 77.91 325** *eP* **P 09 03 50.1 +0.2**
VRH *e*S **S 09 13 37.9 -0.5**
VRH pmax pmax
comp=Z,50nm,0.6s
VRH smax smax
comp=N,70nm,1.7s
**CSS Mathiatis 77.94 307** *eP* **P 09 03 52.2 +1.6**
comp=N,19nm,0.9s
**SBA Scott Base 78.66 169** *eP* **P 09 03 55.7 +2.0**
SBA pmax pmax
comp=Z,14nm,0.9s
**SBA Scott Base 78.66 169** *eP* **P 09 03 55.7 +2.0**
comp=Z,14nm,0.9s
**TIXI Tiksi 79.04 8** P **P 09 03 55.1 -0.7**
comp=Z,23nm,0.8s,baz=166,slow=4.0,SNR=36
**TIXI Tiksi 79.04 8***c iP* **P 09 03 54.2 -1.6**
TIXI pmax pmax
comp=Z,53nm,1.3s
**TIXI Tiksi 79.04 8** *eP* **P 09 03 55.1 -0.7**
comp=Z,26nm,0.7s
**BR131 Keskin Array S 79.06 312** *eP* **P 09 03 57.0 +0.2**
**BRTR Keskin Array B 79.06 312** P **P 09 03 57.0 +0.2**
comp=Z,25nm,0.8s,baz=133,slow=6.9,SNR=88
BRTR LR LR 09 40 20.7
comp=Z,98nm,21.8s,baz=100,slow=37
**BRTR Keskin Array B 79.06 312** P **P 09 03 57.0 +0.2**
BRTR pmax pmax
comp=Z,25nm,0.9s
BRTR MLR MLR
comp=Z,98nm,21.8s
**VSR Storozhevoye 79.38 325** *eP* **P 09 03 57.7 -0.3**
VSR *eS* **S 09 13 50.2 -3.9**
VSR pmax pmax
comp=Z,40nm,0.6s
VSR smax smax
comp=N,250nm,3.0s
**ANTO Ankara 79.73 312** *eP* **P 09 04 01.1 +0.7**
ANTO pmax pmax
comp=Z,51nm,1.2s
**ANTO Ankara 79.73 312** *eP* **P 09 04 01.1 +0.7**
comp=Z,52nm,1.2s
**ANTO Ankara 79.73 312** P **P 09 04 01.4 +1.0**
SNR=6.6
**ANTO Ankara 79.73 312** P **P 09 04 01.4 +1.0**
SNR=6.6
**BR231 Keskin MP Arra 79.73 312** *eP* **P 09 04 01.6 +1.1**
**LPSR Galich'ya Gora 80.06 326** *eP* **P 09 04 02.1 +0.4**
LPSR pmax pmax
comp=Z,30nm,0.9s
**SIM Simferopol' 80.31 317** *eP* **P 09 04 03.8 +0.5**
**BOLV Bolvadin 80.79 311** *eP* **P 09 04 07.5 +1.3**
comp=Z,93nm,1.3s
**SUR Sutherland 81.37 238** LR LR 09 35 07.5
comp=Z,20nm,18.9s,baz=110,slow=32
**MOS Moscow 82.00 328** *eP* **P 09 04 12.0 +0.1**
MOS *e* 09 04 26.8
MOS pmax pmax
comp=Z,69nm,1.5s
**OBN Obninsk 82.32 328***c iP* **P 09 04 14.4 +0.8**
OBN *e* 09 07 19.7
OBN *eS* S 09 14 13.2 -11
OBN pmax pmax
comp=Z,164nm,2.5s
OBN MLR MLR
comp=Z,157nm,18.0s
**OBN Obninsk 82.32 328** *eP* **P 09 04 14.3 +0.7**
comp=Z,56nm,0.9s
**MANT Manisa 82.55 310** *eP* **P 09 04 16.3 +0.7**
comp=Z,287nm,1.5s
**AFI Afiamalu 82.76 103** LR LR 09 41 59.9
comp=Z,52nm,19.4s,baz=266,slow=36
**ISK Istanbul-Kandi 82.79 313** P **P 09 04 18.1 +1.7**
ISK pmax pmax
comp=Z,130nm,1.1s
**KARP Karpathos 82.98 307** *eP* **P 09 04 19.3 +1.7**
comp=Z,66nm,1.1s
**KARP Karpathos 82.98 307** P **P 09 04 18.9 +1.3**
**KLMR Klimovskoe 83.16 334** *eP* **P 09 04 14.8 -3.1**
KLMR pmax pmax
comp=Z,80nm,1.3s
**TLCR 83.98 317**⇑*iP* **P 09 04 24.7 +2.2**
**TLCR 83.98 317** ⇑P **P 09 04 24.7 +2.2**
**PSN Preselentsi 84.05 315** *eP* **P 09 04 23.6 +0.7**
**TIRR Tirgusor 84.08 316**⇑*iP* **P 09 04 24.8 +1.8**
**TIRR Tirgusor 84.08 316** ⇑P **P 09 04 24.8 +1.8**
**TIRR Tirgusor 84.08 316** *eP* **P 09 04 24.0 +1.0**
comp=Z,32nm,1.0s
**CHOS Chios island 84.44 309** P **P 09 04 26.3 +1.2**
**CFR Carcaliu 84.45 316**⇑*iP* **P 09 04 24.5 -0.3**
**CFR Carcaliu 84.45 316** ⇑P **P 09 04 24.5 -0.3**
**SANT Santorini 84.50 307** *eP* **P 09 04 26.2 +0.8**
comp=Z,161nm,1.4s
**APE Apeiranthos 84.58 308**⇑*iP* **P 09 04 27.0 +1.2**
**APE Apeiranthos 84.58 308***c iP* **P 09 04 26.1 +0.3**
APE pmax pmax
comp=Z,35nm,1.0s
**IDI Anoyia 84.75 306** P **P 09 04 27.8 +1.1**
**JMB Yambol 84.92 313** *eP* **P 09 04 28.9 +1.6**
**ALN Alexandroupoli 84.97 312** P **P 09 04 29.0 +1.4**
ALN pmax pmax
comp=Z,28nm,1.2s
**SORM Soroca 85.03 319**⇑*iP* **P 09 04 28.8 +1.1**
**SORM Soroca 85.03 319** ⇑P **P 09 04 28.8 +1.1**
**AKASG Malin Array Be 85.14 322** P **P 09 04 28.7 +0.5**
comp=Z,7.3nm,0.6s,baz=82,slow=5.0,SNR=35
**AKBB Malin Array Si 85.14 322** *eP* **P 09 04 28.7 +0.5**
AKBB pmax pmax
comp=Z,22nm,0.8s
**AKBB Malin Array Si 85.14 322** *eP* **P 09 04 28.7 +0.5**
comp=Z,22nm,0.8s
**KIEV Kiev 85.14 322** *eP* **P 09 04 28.4 +0.2**
KIEV pmax pmax
comp=Z,22nm,0.8s
**KIEV Kiev 85.14 322** *eP* **P 09 04 28.4 +0.2**
comp=Z,22nm,0.8s
**AK11 Malin Array Si 85.16 322** *eP* **P 09 04 28.1 -0.2**
**TMCR Tamitsa 85.16 336** *eP* **P 09 04 28.2 +0.2**
TMCR pmax pmax
comp=Z,73nm,0.9s
**BILL Bilibino 85.33 19***c iP* **P 09 04 27.8 -0.9**
BILL *e* 09 07 49.8
BILL pmax pmax
comp=Z,34nm,1.7s
BILL MLR MLR
comp=Z,186nm,19.0s
**IMMV Iera Moni Meta 85.51 306** P **P 09 04 31.9 +1.5**
**SZH Strazhica 85.56 314** *eP* **P 09 04 31.3 +0.8**
**VRI Vrincioaia 85.57 317**⇑*iP* **P 09 04 33.0 +2.6**
**VRI Vrincioaia 85.57 317** ⇑P **P 09 04 33.1 +2.6**
**PLOR Plostina 85.62 317**⇑*iP* **P 09 04 33.2 +2.4**
**PLOR Plostina 85.62 317** ⇑P **P 09 04 33.2 +2.4**
**TESR Tescani 85.77 317**⇑*iP* **P 09 04 32.7 +1.3**
**MLR Muntele Rosu 86.02 316**⇑*iP* **P 09 04 35.2 +2.3**
**MLR Muntele Rosu 86.02 316** ⇑P **P 09 04 35.2 +2.3**
**MLR Muntele Rosu 86.02 316** *eP* **P 09 04 34.3 +1.4**
comp=Z,176nm,1.3s
**RZN Rozhen 86.12 312** *eP* **P 09 04 34.6 +1.1**
**PAIG Paliouri 86.56 311** P **P 09 04 36.6 +1.2**
PAIG pmax pmax
comp=Z,43nm,1.4s
**VOIR 86.63 316**‖*iP* **P 09 04 37.1 +1.3**
**VOIR 86.63 316** ‖P **P 09 04 37.1 +1.3**
**SRS Serrai 86.84 312** P **P 09 04 37.1 +0.3**
**ARR Arges 86.90 316**‖*iP* **P 09 04 38.5 +1.4**
**SOH Sokhos 86.96 311** P **P 09 04 38.5 +1.0**
SOH pmax pmax
comp=Z,17nm,1.3s
**BURAR Bucovina Array 86.96 318**⇑*iP* **P 09 04 39.4 +2.0**
**BURAR Bucovina Array 86.96 318** ⇑P **P 09 04 39.4 +2.0**
**BUR04 Bucovina Ar. S 86.97 318** *eP* **P 09 04 39.1 +1.7**
**BUR08 Bucovina Ar. S 86.98 318** *eP* **P 09 04 39.4 +1.9**
**GUR Goura 87.24 308** P **P 09 04 39.1 +0.1**
**KNT Kendrikon 87.36 312** P **P 09 04 39.5 +0.1**
**VTS Vitosha 87.39 313**⇑*iP* **P 09 04 40.5 +0.9**
**VTS Vitosha 87.39 313** *eP* **P 09 04 40.5 +0.9**
VTS pmax pmax
comp=Z,37nm,1.0s
**VTS Vitosha 87.39 313** *eP* **P 09 04 40.8 +1.2**
**VTS Vitosha 87.39 313** *eP* **P 09 04 40.5 +0.9**
comp=Z,37nm,1.0s
**VTS Vitosha 87.39 313** P **P 09 04 40.2 +0.6**
**KLV Kalavryta, Ach 87.40 308** P **P 09 04 40.0 +0.3**
**ARCR ARCALIA 87.43 318**⇑*iP* **P 09 04 42.3 +2.7**
**ITM Ithomi 87.44 308** P **P 09 04 40.5 +0.7**
**KALE Kalithea 87.47 309** P **P 09 04 40.3 +0.3**
**LIT Litokhoron 87.48 311** P **P 09 04 40.8 +0.8**
**LOT Lotru 87.51 316**⇑*iP* **P 09 04 41.8 +1.7**
**SERG Sergoula 87.54 309** P **P 09 04 40.6 +0.3**
**NACGM Naroch 87.62 326** *eP* **P 09 04 41.0 +0.8**
NACGM PM 09 04 42.0
comp=Z,0.7nm,0.8s
**VAY Valandovo 87.63 312**⇑*iP* **P 09 04 40.9 +0.3**
**ANX Ano Chora 87.67 309** P **P 09 04 41.3 +0.3**
**IDID Didziasalis 87.74 326** *eP* **P 09 04 42.0 +1.2**
IDID IAmb IAmb 09 04 43.4
comp=Z,33nm,0.8s
**CJR Cluj-Napoca 87.87 317**⇑*iP* **P 09 04 44.7 +3.0**
**CJR Cluj-Napoca 87.87 317** ⇑P **P 09 04 44.7 +3.0**
**LVZ Lovozero 87.88 339** *eP* **P 09 04 41.4 +0.1**
**LVZ Lovozero 87.88 339** *eP* **P 09 04 41.4 +0.1**
comp=Z,620nm,0.9s
**IIGN Ignalina 88.04 326** *eP* **P 09 04 43.4 +1.2**
IIGN IAmb IAmb 09 04 44.8
comp=Z,37nm,0.7s
**BMR Baia Mare 88.12 318**⇑*iP* **P 09 04 44.9 +2.1**
**BMR Baia Mare 88.12 318** ⇑P **P 09 04 44.9 +2.1**
**VTN Vitineika 88.14 308** P **P 09 04 38.6 -4.5**
**ISAL Salakas 88.14 326** *eP* **P 09 04 43.9 +1.2**
ISAL IAmb IAmb 09 04 45.1
comp=Z,23nm,0.8s
**LVV L'vov 88.18 320** *eP* **P 09 04 44.0 +1.0**
**DEV Deva 88.19 316**⇑*iP* **P 09 04 46.1 +2.9**
**DEV Deva 88.19 316** ⇑P **P 09 04 46.1 +2.9**
**APA Apatity 88.21 339**⇑*iP* **P 09 04 41.7 -1.1**
APA pmax pmax
comp=Z,13nm,1.1s
APA MLR MLR
comp=Z,600nm,24.0s
**PDO Prodromos 88.24 309** P **P 09 04 44.8 +1.2**
**DSL Palaion Diasel 88.39 309** P **P 09 04 44.9 +0.6**
**FNA Florina 88.44 311** P **P 09 04 45.1 +0.6**
FNA pmax pmax
comp=Z,22nm,1.3s
**DRGR 88.48 317**‖*iP* **P 09 04 46.4 +1.8**
**DRGR 88.48 317** ‖P **P 09 04 46.4 +1.8**
**VSU Vasula 88.49 329***d iP* **P 09 04 45.3 +1.1**
VSU pmax pmax
comp=Z,106nm,1.0s
**BIA Bitola 88.51 311** *eP* **P 09 04 46.9 +2.0**
**SKO Skopje 88.58 312** P **P 09 04 47.2 +2.1**
SKO pmax pmax
comp=Z,2.0nm,1.2s
**SKO Skopje 88.58 312** *iP* **P 09 04 45.5 +0.4**
**NEST Nestorio 88.62 311** P **P 09 04 45.3 -0.2**
**JAN Janina 88.66 310** P **P 09 04 47.9 +2.3**
**MDVR Moldovita 88.83 315**⇑*iP* **P 09 04 47.4 +1.1**
**TRPA Tarpa 88.83 318**‖*eP* **P 09 04 47.8 +1.7**
**OHR Ohrid 88.92 311** P **P 09 04 47.5 +0.7**
OHR pmax pmax
comp=Z,72nm,1.1s
**OHR Ohrid 88.92 311**⇑*iP* **P 09 04 46.8 0.0**
**KWP Kalwaria Pacla 88.99 320** *eP* **P 09 04 48.7 +1.8**
**KWP Kalwaria Pacla 88.99 320** *eP* **P 09 04 48.7 +1.8**
**BZS Buzias 89.03 316**‖*iP* **P 09 04 48.8 +1.6**
**BZS Buzias 89.03 316** ‖P **P 09 04 48.8 +1.6**
**UZH Uzhgorod 89.08 319** *eP* **P 09 04 47.9 +0.6**
UZH *e* 09 08 17.9
**SIRR Siria 89.11 317**⇑*iP* **P 09 04 49.6 +2.1**
**PHP Peshkopia 89.27 312** P **P 09 04 48.5 +0.1**
**MSF Maaselka 89.35 337** P **P 09 04 48.8 +0.6**
MSF pmax pmax
comp=Z,41nm,0.9s
**KEK Kerkira 89.47 310** P **P 09 04 50.4 +1.0**
**SUW Suwalki 89.49 324** *eP* **P 09 04 50.0 +0.9**
**SUW Suwalki 89.49 324** *eP* **P 09 04 50.0 +0.9**
**FIA1 FINESS Array S 89.50 332** *eP* **P 09 04 49.4 +0.4**
**FINES FINESS Array B 89.50 332** P **P 09 04 50.0 +1.1**
comp=Z,17nm,0.6s,baz=112,slow=5.9,SNR=36
FINES LR LR 09 50 25.3
comp=Z,145nm,18.1s,baz=90,slow=39
**CRVS Cervenica-Dubn 89.67 319** *eP* **P 09 04 51.0 +0.9**
CRVS *e* 09 05 04.9
CRVS *e* 09 08 22.3
**CRVS Cervenica-Dubn 89.67 319** *eP* **P 09 04 51.0 +0.9**
CRVS *e* 09 05 04.9
CRVS *e*PP **PP 09 08 22.2 -0.6**
**PVY Plav 89.75 313**⇑*iP* **P 09 04 51.4 +0.6**
**SUF Sumiainen 89.76 333** P **P 09 04 51.4 +1.2**
SUF pmax pmax
comp=Z,48nm,1.6s
**SNAA Sanae 89.78 198**‖*eP* **P 09 04 53.4 +3.1**
**IVA Berane 89.84 313** *eP* **P 09 04 51.7 +0.6**
**STHS Stebnicka Huta 89.89 320** *eP* **P 09 04 53.3 +2.2**
STHS *e* 09 05 07.2
STHS pmax pmax
comp=Z,18nm,0.8s
**STHS Stebnicka Huta 89.89 320** *eP* **P 09 04 53.3 +2.2**
STHS *e* 09 05 07.2
**KOME Kolasin 90.11 313**⇑*iP* **P 09 04 52.7 +0.3**
**KECS Kecovo 90.24 319** *eP* **P 09 04 54.2 +1.4**
KECS *e* 09 05 07.3
KECS pmax pmax
comp=Z,8.0nm,1.1s
**KECS Kecovo 90.24 319** *eP* **P 09 04 54.2 +1.4**
KECS *e* 09 05 07.3
**PDG Podgorica 90.25 312**⇑*iP* **P 09 04 54.7 +1.8**
**TTG Podgorica 90.25 312**⇑*iP* **P 09 04 53.9 +1.0**
**DRME Dracevica, Mon 90.27 312**⇑*iP* **P 09 04 54.3 +1.3**
**PLE Pljevlja 90.27 313**⇑*iP* **P 09 04 54.0 +0.8**
**OUL Oulu 90.41 335** P **P 09 04 52.8 -0.3**
OUL pmax pmax
comp=Z,39nm,1.1s
**NKY Niksic 90.49 313**⇑*iP* **P 09 04 54.5 +0.3**
**NIE Niedzica 90.50 319** *eP* **P 09 04 55.4 +1.4**
NIE *e* 09 08 30.6
**NIE Niedzica 90.50 319** *eP* **P 09 04 55.4 +1.4**
NIE *e* 09 08 30.6
**CEME Cevo 90.51 313**⇑*iP* **P 09 04 54.5 +0.3**
**NKME Niksic 90.51 313**⇑*iP* **P 09 04 54.6 +0.4**
**BEL Belsk 90.55 322** P **P 09 04 57.0 +2.9**
BEL pmax pmax
comp=Z,96nm,1.1s
**PSZ Piszkesteto 90.55 318**‖*iP* **P 09 04 55.6 +1.3**
**PSZ Piszkesteto 90.55 318** *eP* **P 09 04 55.7 +1.4**
PSZ pmax pmax
comp=Z,19nm,1.0s
**PSZ Piszkesteto 90.55 318**‖*eP* **P 09 04 55.7 +1.4**
**PSZ Piszkesteto 90.55 318** *eP* **P 09 04 55.7 +1.4**
comp=Z,19nm,1.0s
**UPM Unac-Piva 90.61 313**⇑*iP* **P 09 04 55.4 +0.6**
**HCY Herceg Novi 90.81 312**⇑*iP* **P 09 04 56.6 +1.1**
**BRY Bratogost 90.83 313**⇑*iP* **P 09 04 56.6 +0.8**
**OJC Ojcow 90.94 320** *eP* **P 09 04 57.5 +1.5**
**OJC Ojcow 90.94 320** *eP* **P 09 04 57.5 +1.5**
**OJC Ojcow 90.94 320** *eP* **P 09 04 56.2 +0.2**
comp=Z,25nm,1.3s
**VYHS Vyhne 91.33 318** *eP* **P 09 04 59.1 +1.3**
VYHS pmax pmax
comp=Z,15nm,1.7s
**VYHS Vyhne 91.33 318** *eP* **P 09 04 59.1 +1.3**
VYHS *e*PP **PP 09 08 36.9 +0.9**
**VNA2 Neumayer--Watz 91.42 198** P **P 09 04 55.5 -2.3**
baz=112,slow=4.5
**ARCES ARCESS Array B 91.55 340** P **P 09 04 58.8 +0.4**
comp=Z,9.8nm,0.7s,baz=101,slow=5.4,SNR=34
ARCES LR LR 09 50 44.1
comp=Z,102nm,19.7s,baz=94,slow=38
**CSKK Cs˙‡kako 91.58 317**‖*eP* **P 09 05 00.5 +1.5**
**VNA1 Neumayer--Stat 91.79 198** P **P 09 05 00.7 +1.2**
**OKC Ostrava-Krasne 91.94 320** *eP* **P 09 05 02.3 +1.7**
**OKC Ostrava-Krasne 91.94 320** *eP* **P 09 05 02.3 +1.7**
**VNA3 Neumayer Olymp 91.97 197** P **P 09 05 01.7 +1.2**
**MORC Moravsky Berou 92.33 320** *eP* **P 09 05 04.0 +1.5**
MORC pmax pmax
comp=Z,55nm,1.0s
**MORC Moravsky Berou 92.33 320** *eP* **P 09 05 04.0 +1.5**
comp=Z,55nm,1.0s
**MODS Modra-Piesok 92.35 318** *eP* **P 09 05 03.4 +0.8**
**MODS Modra-Piesok 92.35 318** *eP* **P 09 05 03.4 +0.8**
**BEHE Becsehely 92.49 316**‖*eP* **P 09 05 05.3 +2.1**
**GAMB Gambell 92.58 26** *eP* **P 09 05 04.0 +0.8**
comp=Z,30nm,1.1s
**KOGS Kog 92.85 316** *iPKPdf* **P 09 05 05.9 +1.0**
**DPC Dobruska-Polom 93.17 320** *eP* **P 09 05 08.1 +1.8**
DPC *epP* **pP 09 05 22.2 -1.4**
**DPC Dobruska-Polom 93.17 320** *eP* **P 09 05 08.1 +1.8**
DPC *e* 09 05 22.2
**GOLS Golise 93.24 316** *ePKPdf* **P 09 05 07.8 +1.1**
**PRU Pruhonice 94.28 320** *eP* **P 09 05 12.8 +1.4**
**PRU Pruhonice 94.28 320** *eP* **P 09 05 12.8 +1.4**
**BRG Berggiesshubel 94.72 321** *eP* **P 09 05 14.3 +0.9**
comp=Z,11nm,1.1s
BRG PP **PP 09 09 02.0 -0.4**
comp=Z,11nm,1.6s
**BRG Berggiesshubel 94.72 321** *eP* **P 09 05 14.3 +0.9**
BRG 09 09 02.0
BRG pmax pmax
comp=Z,11nm,1.1s
BRG pmax pmax
comp=Z,11nm,1.6s
**GEA0 GERESS Array S 94.75 318** *eP* **P 09 05 14.1 +0.4**
**GEC2 GERESS Array S 94.75 318** *eP* **P 09 05 14.9 +1.2**
GEC2 pmax pmax
comp=Z,35nm,1.6s
**GEC2 GERESS Array S 94.75 318** *eP* **P 09 05 14.9 +1.2**
comp=Z,35nm,1.6s
**GERES GERESS Array B 94.75 318** P **P 09 05 14.9 +1.2**
comp=Z,3.9nm,1.0s,baz=101,slow=2.9,SNR=9.8
GERES PP **PP 09 09 03.1 +0.2**
comp=Z,1.9nm,0.9s,baz=30,slow=6.2,SNR=5.2

GERES GERESS Array B 94.75 318 P P 09 05 14.9 +1.2
GERES 09 09 03.1
GERES pmax pmax
comp=Z,9.0nm,1.2s
GERES pmax pmax
comp=Z,2.0nm,0.9s
KHC Kasperske Hory 94.85 319 eP P 09 05 14.9 +0.8
KHC epP sP 09 05 34.7 -3.3
KHC Kasperske Hory 94.85 319 eP P 09 05 14.9 +0.8
KHC e 09 05 34.7
WET Wettzell 95.31 319 P P 09 05 15.0 -1.2
WET pmax pmax
comp=Z,15nm,1.2s
NB2 NORSAR Subarra 96.58 331 P P 09 05 21.8 +0.1
comp=Z,1.3nm,0.6s,baz=92,slow=5.3
NOA NORSAR Array B 96.58 331 P P 09 05 21.9 +0.1
comp=Z,1.7nm,0.7s,baz=90,slow=4.4,SNR=4.1
NOA PP PP 09 09 16.1 -0.5
comp=Z,3.1nm,0.9s,baz=95,slow=7.3,SNR=4.5
NOA LR LR 09 54 46.3
comp=Z,141nm,18.4s,baz=105,slow=39
IMAR Indian Mountai 100.21 24 ePdif Pdif 09 05 38.2 +0.4
DAG Danmarks Havn 102.91 349 i P Pdif 09 05 48.7 -0.9
DAG pmax pmax
comp=Z,4.0nm,0.6s
DAG Danmarks Havn 102.91 349 i P Pdif 09 05 48.7 -0.9
comp=Z,4.4nm,0.6s
ILAR Eielson Array 103.27 25 Pdiff Pdif 09 05 50.1 -1.3
comp=Z,0.4nm,0.6s,baz=277,slow=3.3,SNR=9.7
ILAR PP PP 09 09 55.5 -12
comp=Z,0.5nm,0.8s,baz=291,slow=7.6,SNR=5.0
ILAR PKiKP PKiKP 09 10 10.4 0.0
comp=Z,0.5nm,0.5s,baz=265,slow=2.9,SNR=9.1
ILAR PKKPbc PKKPdf 09 21 60.0 +3.2
comp=Z,0.3nm,0.7s,baz=133,slow=1.7,SNR=4.7
PPT2 Papeete2 103.50 110 eLR LR 09 40 11.7
comp=Z,173nm,24.5s
TORD Torodi Ar. Bea 103.53 282 PP PP 09 10 11.6 +1.0
comp=Z,0.6nm,0.8s,baz=95,slow=4.1,SNR=3.5
TORD PKKPbc PKKPbc 09 21 46.0 -0.5
comp=Z,0.4nm,0.8s,baz=300,slow=3.4,SNR=4.1
INK Inuvik 106.95 19 Pdiff Pdif 09 06 06.9 -0.8
comp=Z,1.0nm,1.0s,baz=250,slow=2.2,SNR=3.3
INK PKiKP PKiKP 09 10 17.5 +0.4
comp=Z,1.9nm,0.9s,baz=301,slow=2.3,SNR=8.9
SHEL Horse Pasture 107.44 251 i P Pdif 09 06 29.3 +18
ESDC Sonseca Array 107.75 310 PP PP 09 10 41.6 +0.5
comp=Z,0.8nm,0.6s,baz=77,slow=7.2,SNR=6.5
RES Resolute Bay 110.35 5 PKiKP PKiKP 09 10 23.6 +0.3
comp=Z,2.1nm,0.9s,baz=259,slow=4.2,SNR=5.1
YKW3 Yellowknife Ar 116.67 19 ePKPdf PKPdf 09 10 36.0 +0.3
YKA Yellowknife Ar 116.72 19 PKP PKPdf 09 10 35.2 -0.5
comp=Z,2.6nm,0.8s,baz=314,slow=1.7,SNR=62
YKA PP PP 09 11 42.1 -1.9
comp=Z,0.9nm,1.0s,baz=325,slow=6.9,SNR=4.2
YKA PKKPbc PKKPab 09 21 06.5 -0.7
comp=Z,0.6nm,1.0s,baz=120,slow=3.6,SNR=6.4
B05A Bryant 122.30 35 P PKPdf 09 10 47.6 +0.7
baz=302
LTY Liberty 123.65 35 ePKPdf PKPdf 09 10 50.1 +0.4
B08A Colville Reser 123.79 34 ePKPdf PKPdf 09 10 50.1 +0.2
I03D Drain, OR 123.80 40 P PKPdf 09 10 51.1 +1.1
baz=298
I04A Tendick Farm, 124.36 40 P PKPdf 09 10 52.2 +1.1
baz=299
HUMO Hull Mountain 124.56 41 ePKPdf PKPdf 09 10 52.4 +0.8
C09A Chrisman Ranch 124.69 34 ePKPdf PKPdf 09 10 52.2 +0.6
D08A Wollman Farm, 124.75 35 ePKPdf PKPdf 09 10 52.7 +1.0
I05D Terrebonne, OR 124.76 39 P PKPdf 09 10 53.5 +1.5
baz=300
HAWA Hanford 124.77 36 ePKPdf PKPdf 09 10 53.3 +1.5
NEW Newport 125.05 33 P PKPdf 09 10 53.1 +0.7
baz=307
NEW Newport 125.05 33 ePKIKP PKPdf 09 10 52.9 +0.6
NEW Newport 125.05 33 ePKPdf PKPdf 09 10 52.9 +0.6
M02C Callahan 125.19 42 P PKPdf 09 10 54.0 +1.2
baz=297
N02D Trinity Center 125.47 43 P PKPdf 09 10 54.7 +1.3
baz=297
E09A Wood Farm, Sta 125.50 35 ePKPdf PKPdf 09 10 53.9 +0.7
F10A Beach Ranch, E 126.33 35 ePKPdf PKPdf 09 10 56.0 +1.0
O03D Paynes Creek 126.39 43 P PKPdf 09 10 55.5 +0.3
baz=297
MOD Modoc Plateau 126.63 41 ePKPdf PKPdf 09 10 57.5 +1.8
JTMT Jette 126.87 32 ePKPdf PKPdf 09 10 56.3 +0.3
FFC Flin Flon 126.90 19 ePKIKP PKPdf 09 10 55.9 +0.3
FFC Flin Flon 126.90 19 ePKPdf PKPdf 09 10 55.9 +0.3
BMO Blue Mountains 126.93 36 ePKIKP PKPdf 09 10 56.8 +0.7
BMO Blue Mountains 126.93 36 ePKPdf PKPdf 09 10 56.8 +0.7
ORV Oroville 126.94 44 ePKIKP PKPdf 09 10 56.7 +0.5
ORV Oroville 126.94 44 ePKPdf PKPdf 09 10 56.7 +0.5
J08A Circle Bar Ran 127.04 38 ePKPdf PKPdf 09 10 58.2 +1.9
WVOR Wild Horse Val 127.43 39 ePKIKP PKPdf 09 10 58.6 +1.4
WVOR Wild Horse Val 127.43 39 ePKPdf PKPdf 09 10 58.6 +1.4
BEKR Beckworth 127.57 43 ePKPdf PKPdf 09 10 56.5 -1.1
AFDM Forest Hills D 127.58 44 ePKPdf PKPdf 09 10 58.3 +0.8
MSO Missoula 127.63 32 P PKPdf 09 10 57.8 +0.4
baz=309
MSO Missoula 127.63 32 ePKPdf PKPdf 09 10 57.9 +0.4
PAHR Pah Rah Range 128.31 43 ePKPdf PKPdf 09 11 00.2 +1.2
CMB Columbia Colle 128.40 45 ePKIKP PKPdf 09 10 59.1 0.0
CMB Columbia Colle 128.40 45 ePKPdf PKPdf 09 10 59.1 0.0
PNTR Pine Nut 128.46 44 ePKPdf PKPdf 09 11 00.9 +1.5
MFID Camas Ranch 128.62 37 ePKPdf PKPdf 09 11 00.7 +1.3
YERR Yerington 128.75 43 ePKPdf PKPdf 09 11 01.2 +1.3
HRY Holter Researc 128.82 31 ePKPdf PKPdf 09 11 01.1 +1.4
EGMT Eagleton 128.96 29 P PKPdf 09 11 00.7 +0.8
baz=314
EGMT Eagleton 128.96 29 ePKPdf PKPdf 09 11 00.8 +0.9
LRM Limekiln Ridge 129.07 33 ePKPdf PKPdf 09 11 01.6 +1.2
DLMT Dillon 129.28 33 ePKPdf PKPdf 09 11 02.1 +1.4
HLID Hailey 129.37 36 P PKPdf 09 11 02.4 +1.5
baz=306
HLID Hailey 129.37 36 ePKPdf PKPdf 09 11 02.5 +1.7
MCMT McKenzie Canyo 129.49 34 ePKPdf PKPdf 09 11 02.5 +1.3
KVN Kaiserville 129.50 43 ePKIKP PKPdf 09 11 02.6 +1.3
KVN Kaiserville 129.50 43 ePKPdf PKPdf 09 11 02.6 +1.3
MDPB Devils Postpil 129.50 45 ePKPdf PKPdf 09 11 03.6 +2.2
BOZ Bozeman (W) 129.65 32 P PKPdf 09 11 02.7 +1.4
baz=311
NV01 Mina Array Sit 129.66 44 ePKPdf PKPdf 09 11 02.5 +0.9
NVAR Mina Array Bea 129.66 44 PKhKP PKPpre 09 10 53.1
comp=Z,0.2nm,0.6s,baz=232,slow=4.1,SNR=4.1
NVAR PKP PKiKP 09 11 03.2 +0.8
comp=Z,2.1nm,0.6s,baz=309,slow=2.0,SNR=21
NVAR SKPbc SKPbc 09 14 20.2 +1.5
comp=Z,1.8nm,1.0s,baz=284,slow=4.9,SNR=4.5
NV11 Mina Array Sit 129.76 44 ePKPdf PKPdf 09 11 03.4 +1.6
YHB Horse Butte 130.44 33 ePKPdf PKPdf 09 11 04.8 +1.8
GCMT Greycliff 130.55 31 ePKPdf PKPdf 09 11 04.6 +1.6
YHH Holmes Hill 130.60 33 ePKPdf PKPdf 09 11 05.2 +1.8
YMR Madison River 130.62 33 ePKPdf PKPdf 09 11 05.9 +2.6
FXWY Fox Creek 131.25 34 ePKPdf PKPdf 09 11 06.6 +2.0
MOOW Moose Ponds 131.34 34 ePKPdf PKPdf 09 11 06.9 +2.2
MPMC Manual Prospec 131.37 46 P PKPdf 09 11 06.5 +1.6
baz=298
TPAW Teton Pass 131.39 34 ePKPdf PKPdf 09 11 06.1 +1.2
HVU Hansel Valley 131.40 37 ePKIKP PKPdf 09 11 06.0 +1.2
HVU Hansel Valley 131.40 37 ePKPdf PKPdf 09 11 06.0 +1.2
LRMC Laurel Mtn Rad 131.50 47 P PKPdf 09 11 06.9 +1.8
baz=298
SNOW Snow King Moun 131.52 34 ePKPdf PKPdf 09 11 06.5 +1.5
REDW Red Top Meadow 131.53 34 ePKPdf PKPdf 09 11 06.3 +1.3
EDW2 Edwards Air Fo 131.54 48 P PKPdf 09 11 07.2 +2.1
baz=297
R11A Troy Canyon, C 131.55 42 P PKPdf 09 11 06.8 +1.6
baz=302
R11A Troy Canyon, C 131.55 42 ePKPdf PKPdf 09 11 06.8 +1.6
LAO LASA Array 131.59 28 P PKPdf 09 11 06.6 +1.7
baz=318
LAO LASA Array 131.59 28 ePKPdf PKPdf 09 11 06.4 +1.5
FURC Furnace Creek, 131.62 45 P PKPdf 09 11 06.9 +1.8
baz=299
BGU Big Grassy Mou 131.76 38 ePKPdf PKPdf 09 11 07.4 +1.9
TPNV Topopah Spring 131.81 44 P PKPdf 09 11 06.8 +1.1
baz=300
TPNV Topopah Spring 131.81 44 ePKIKP PKPdf 09 11 06.3 +0.6
TPNV Topopah Spring 131.81 44 ePKPdf PKPdf 09 11 06.3 +0.6
SPUT South Promonto 131.88 37 ePKPdf PKPdf 09 11 07.3 +1.6
SHOC Shoshone, Teco 132.31 46 P PKPdf 09 11 08.4 +1.9
baz=299
DUG Dugway, Tooele 132.32 39 P PKPdf 09 11 08.5 +2.0
baz=306
DUG Dugway, Tooele 132.32 39 ePKIKP PKPdf 09 11 08.3 +1.8
DUG Dugway, Tooele 132.32 39 ePKPdf PKPdf 09 11 08.3 +1.8
TCUT Toone Canyon 132.62 37 ePKPdf PKPdf 09 11 07.8 +0.6
BW06 Boulder Array 132.63 34 P PKPdf 09 11 07.9 +0.7
baz=311
BW06 Boulder Array 132.63 34 ePKPdf PKPdf 09 11 08.2 +1.0
PD31 Pinedale Array 132.63 34 ePKPdf PKPdf 09 11 07.5 +0.4
PDAR Pinedale Array 132.63 34 PKP PKPdf 09 11 07.3 +0.1
comp=Z,2.5nm,0.5s,baz=161,slow=1.7,SNR=28
PDAR SKPbc SKPab 09 14 31.1 +0.4
comp=Z,4.9nm,1.0s,baz=325,slow=1.8,SNR=13
ULM Lac du Bonnet 132.65 17 PKP PKPdf 09 11 07.8 +1.1
comp=Z,15nm,0.8s,baz=314,slow=2.9,SNR=23
ULM SKPbc SKPbc 09 14 28.6 -0.1
comp=Z,12nm,1.1s,baz=355,slow=5.8,SNR=7.1
ULM Lac du Bonnet 132.65 17 ePKPdf PKPdf 09 11 07.2 +0.5
ULM SKPbc SKPbc 09 14 28.6 -0.1
CTU Camp Tracy 132.67 37 ePKPdf PKPdf 09 11 07.9 +0.6
TUQ Turquoise Moun 132.78 46 P PKPdf 09 11 09.6 +2.0
baz=299
JLU Jordanelle 132.91 37 ePKPdf PKPdf 09 11 07.9 +0.1
NLU North Lily Min 132.92 38 ePKPdf PKPdf 09 11 08.2 +0.4
PFO Pinyon Flats O 133.25 48 P PKPdf 09 11 10.0 +1.5
baz=297
TPFO Pinon Flats 133.25 48 P PKPdf 09 11 10.1 +1.6
baz=297
GMRC Granite Mounta 133.28 47 P PKPdf 09 11 10.4 +1.9
baz=299
PLCA Paso Flores 133.38 185 PKP PKPdf 09 11 10.0 +1.5
comp=Z,2.0nm,1.0s,baz=124,slow=1.2,SNR=6.7
PLCA SKPbc SKPbc 09 14 32.2 +0.4
comp=Z,1.5nm,0.9s,baz=180,slow=11,SNR=4.2
BELC Belle Mtn. Jos 133.41 48 P PKPdf 09 11 10.2 +1.4
baz=298
MDND Maddock 133.46 22 P PKPdf 09 11 09.5 +1.2
baz=326
MDND Maddock 133.46 22 ePKPdf PKPdf 09 11 09.5 +1.2
SZCU Shurtz Canyon 133.62 42 ePKPdf PKPdf 09 11 11.5 +2.3
A32A Rocking H Ranc 133.63 19 P PKPdf 09 11 08.8 +0.3
baz=331
MSU Marysvale 133.69 40 ePKIKP PKPdf 09 11 11.8 +2.5
MSU Marysvale 133.69 40 ePKPdf PKPdf 09 11 11.8 +2.5
LCMT Little Creek M 133.83 43 ePKPdf PKPdf 09 11 11.8 +2.3
IKP In-Ko-Pah, Jac 133.94 49 P PKPdf 09 11 11.0 +1.3
baz=297
IRM Iron Mountain 133.96 47 P PKPdf 09 11 11.1 +1.5
baz=299
A33A Warroad 133.96 18 P PKPdf 09 11 09.5 +0.4
baz=332
MTPU Mount Pierson 133.96 41 ePKPdf PKPdf 09 11 12.5 +2.5
P17A Butcher Ranch, 134.03 38 ePKPdf PKPdf 09 11 11.1 +1.3
B32A Ashes, Strandq 134.07 19 P PKPdf 09 11 09.5 +0.1
baz=330
Q16A Castle Valley 134.09 39 ePKPdf PKPdf 09 11 12.3 +2.3
C31A Landman Farms, 134.19 21 P PKPdf 09 11 09.9 +0.2
baz=329
P18A Preston Nutter 134.24 38 ePKPdf PKPdf 09 11 12.5 +2.1
K22A Casper 134.35 32 P PKPdf 09 11 10.6 +0.3
baz=315
K22A Casper 134.35 32 ePKPdf PKPdf 09 11 10.7 +0.3
AGMN Agassiz Nation 134.38 19 P PKPdf 09 11 10.8 +0.8
baz=331
SRU San Rafael Swe 134.38 38 ePKIKP PKPdf 09 11 13.1 +2.6
SRU San Rafael Swe 134.38 38 ePKPdf PKPdf 09 11 13.1 +2.6
W13A Hualapai Mount 134.40 45 ePKPdf PKPdf 09 11 12.6 +1.8
B33A Robert and Kas 134.49 19 P PKPdf 09 11 11.0 +0.8
baz=332
RSSD Black Hills 134.53 29 P PKPdf 09 11 10.8 +0.1
baz=319
RSSD Black Hills 134.53 29 ePKIKP PKPdf 09 11 10.8 +0.1
RSSD Black Hills 134.53 29 ePKPdf PKPdf 09 11 10.8 +0.1
B34A Aery, Baudette 134.59 18 P PKPdf 09 11 10.6 +0.3
baz=333
D31A Mcclaflin, Tow 134.82 21 P PKPdf 09 11 11.2 +0.4
baz=328
O20A White River Ci 135.11 36 P PKPdf 09 11 12.8 +0.9
baz=311
O20A White River Ci 135.11 36 ePKPdf PKPdf 09 11 13.2 +1.3
E31A Nome 135.18 22 P PKPdf 09 11 12.6 +1.1
baz=328
C34A RKJ Ranch, Bem 135.25 18 P PKPdf 09 11 12.3 +0.7
baz=332
D33A AnnSam, Waubun 135.40 20 P PKPdf 09 11 12.9 +0.9
baz=331
PV09 Paradox Valley 135.62 38 ePKPdf PKPdf 09 11 16.2 +3.2
D34A Park Rapids 135.66 19 P PKPdf 09 11 13.6 +1.2
baz=332
PV10 Paradox Valley 135.75 38 ePKPdf PKPdf 09 11 15.1 +1.9
C36A Pine Crest Far 135.77 17 P PKPdf 09 11 13.4 +0.8
baz=335
E33A Westby DABS, E 135.90 20 P PKPdf 09 11 14.0 +1.1
baz=330
PV05 Paradox Valley 135.90 39 ePKPdf PKPdf 09 11 15.2 +1.7
WUAZ Wupatki 135.91 43 P PKPdf 09 11 14.4 +0.9
baz=304
WUAZ Wupatki 135.91 43 ePKPdf PKPdf 09 11 15.2 +1.8
EYMN Ely 135.96 15 P PKPdf 09 11 13.5 +0.5
baz=337
C37A Embarrass 135.98 16 P PKPdf 09 11 13.6 +0.6
baz=336
D35A Remer 136.02 18 P PKPdf 09 11 14.0 +0.9
baz=333
PV01 Paradox Valley 136.19 38 eP PKPdf 09 11 14.6 +0.6
D36A Goodland 136.20 17 P PKPdf 09 11 13.3 -0.2
baz=334
F33A 5 Mile Ranch, 136.37 21 P PKPdf 09 11 14.8 +1.1
baz=330
C39A Grand Marais 136.43 14 P PKPdf 09 11 14.8 +1.0
baz=339
D37A Cotton 136.43 17 P PKPdf 09 11 13.8 -0.1
baz=336
E36A McGregor 136.77 18 P PKPdf 09 11 15.1 +0.6
baz=334
MVCO Mesa Verde 136.81 39 P PKPdf 09 11 16.8 +1.6
baz=308
F35A Swanville 136.94 19 P PKPdf 09 11 15.6 +0.8
baz=332
W18A Petrified Fore 137.25 42 P PKPdf 09 11 17.3 +1.4
baz=305
W18A Petrified Fore 137.25 42 ePKPdf PKPdf 09 11 17.9 +2.0
F36A Milaca 137.28 18 P PKPdf 09 11 16.1 +0.6
baz=333
S22A 4UR Ranch, Cre 137.50 37 ePKPdf PKPdf 09 11 17.8 +1.3
G35A Watkins 137.53 20 P PKPdf 09 11 18.0 +2.0
baz=330
H34A Spellman Lake, 137.57 21 P PKPdf 09 11 17.8 +1.8
baz=330
J32A Parkston 137.87 24 P PKPdf 09 11 16.8 +0.2
baz=326
H35A Sunnyside Ranc 137.87 20 P PKPdf 09 11 17.2 +0.7
baz=331
E41A Kenton 137.97 14 P PKPdf 09 11 16.8 +0.1
baz=340
F39A Loretta 137.99 16 P PKPdf 09 11 16.9 +0.1
baz=337
ECSD EROS Data Cent 138.05 23 P PKPdf 09 11 17.4 +0.4
baz=328
ECSD EROS Data Cent 138.05 23 ePKPdf PKPdf 09 11 17.7 +0.7
I34A Hadley 138.08 22 P PKPdf 09 11 17.3 +0.3
baz=329
K31A O'Neill 138.10 26 P PKPdf 09 11 17.9 +0.8
baz=324
F40A Park Falls 138.20 15 P PKPdf 09 11 17.0 -0.2
baz=338
SDCO Great Sand Dun 138.29 36 P PKPdf 09 11 19.2 +1.3
baz=312
SDCO Great Sand Dun 138.29 36 ePKPdf PKPdf 09 11 17.6 -0.3
H36A Jessenland, He 138.29 20 P PKPdf 09 11 18.3 +1.0
baz=332
K32A Verdigre 138.40 25 P PKPdf 09 11 18.1 +0.5
baz=326
G38A Ridgeland 138.41 17 P PKPdf 09 11 17.7 +0.2
baz=335
G39A Holcombe 138.50 16 P PKPdf 09 11 18.0 +0.3
baz=336
F41A Three Lakes 138.62 14 P PKPdf 09 11 18.7 +0.7
baz=340
J34A George 138.69 22 P PKPdf 09 11 18.8 +0.7
baz=329
G40A Rib Lake 138.78 16 P PKPdf 09 11 18.9 +0.6
baz=338
I37A Lemond, Waseca 138.96 19 P PKPdf 09 11 18.1 -0.5
baz=333
H39A Augusta 139.02 17 P PKPdf 09 11 19.1 +0.4
baz=336
L33A Hoskins 139.10 25 P PKPdf 09 11 19.0 0.0
baz=326
K34A Le Mars 139.14 23 P PKPdf 09 11 18.8 -0.2
baz=328
J36A Seneca 1, Swea 139.24 21 P PKPdf 09 11 19.5 +0.3
baz=331
G42A Mountain 139.25 14 P PKPdf 09 11 19.3 +0.2
baz=340
I38A Scanlan Farm, 139.28 18 P PKPdf 09 11 19.2 0.0
baz=334
H40A Chili 139.33 16 P PKPdf 09 11 19.1 -0.1
baz=337
T25A Trinidad 139.34 36 P PKPdf 09 11 21.0 +1.2
baz=313
T25A Trinidad 139.34 36 ePKPdf PKPdf 09 11 21.0 +1.2
BGNE Belgrade 139.35 26 P PKPdf 09 11 19.8 +0.3
baz=324
BGNE Belgrade 139.35 26 ePKPdf PKPdf 09 11 20.0 +0.6
G43A Wallace 139.41 13 P PKPdf 09 11 21.0 +1.7
baz=342
K35A Storm Lake 139.44 22 P PKPdf 09 11 20.8 +1.3
baz=329
I39A Houston 139.70 18 P PKPdf 09 11 19.6 -0.4
baz=335
L35A Bielow Farm, R 139.84 23 P PKPdf 09 11 19.5 -0.8
baz=328
K37A Belmond 139.98 21 P PKPdf 09 11 19.2 -1.3
baz=332
SCIA State Center 140.89 21 ePKPdf PKPdf 09 11 22.8 +0.6
MNTX Cornudas Mount 142.19 43 ePKPpre PKPpre 09 11 21.4
AMTX Amarillo 142.49 36 ePKPdf PKPdf 09 11 26.5 +1.1
SLBS Sierra La Lagu 142.63 58 ePKPdf PKPdf 09 11 23.4 -2.5
CPUP Villa Florida 143.35 208 PKP PKPbc 09 11 25.1 +0.9
comp=Z,1.0nm,0.6s,baz=164,slow=6.9,SNR=3.4
CPUP Villa Florida 143.35 208 ePKPdf PKPbc 09 11 25.4 +1.2
QUA2 Belchertown 143.62 356 ePKPpre PKPpre 09 11 24.9
S37A Fort Scott 143.81 26 P PKPab 09 11 24.6 +0.1
baz=327
R38A Fenwick Farm, 143.84 25 P PKPab 09 11 24.0 -0.6
baz=328
Q40A Laux Farm, Aux 143.86 22 P PKPab 09 11 24.5 -0.1
baz=332
T36A Boggs Farm, Ca 143.91 28 P PKPbc 09 11 25.3 -0.3
baz=324
BRYW Bryant College 143.91 355 ePKPpre PKPpre 09 11 25.7
U35A Pawnee 144.06 30 P PKPbc 09 11 26.0 0.0
baz=323
U35A Pawnee 144.06 30 ePKPdf PKPbc 09 11 26.0 0.0
R39A Chumby, Stover 144.09 24 P PKPab 09 11 25.7 +0.2
baz=330
O45A Potomac 144.12 16 P PKPbc 09 11 26.7 +0.7
baz=339
P43A Skaggs, Pawnee 144.15 18 P PKPbc 09 11 26.1 -0.1
baz=336
ALLY Alegheny Colle 144.16 6 ePKPdf PKPbc 09 11 26.2 +0.1
SFIN Lafayette 144.16 15 P PKPab 09 11 25.8 +0.1
baz=340
SFIN Lafayette 144.16 15 ePKPdf PKPab 09 11 25.9 +0.1
Q41A Truxton 144.20 21 P PKPab 09 11 25.8 -0.2
baz=333
WMOK Wichita Mounta 144.25 33 ePKIKP PKPab 09 11 26.3 0.0
WMOK Wichita Mounta 144.25 33 ePKPdf PKPab 09 11 26.3 0.0
T37A Cheneyville 18 144.30 27 P PKPab 09 11 26.1 -0.3
baz=326
S38A Stockton 144.31 25 P PKPab 09 11 25.8 -0.6
baz=328
M54A Oil Creek Stat 144.34 5 P PKPab 09 11 26.2 -0.2
baz=353
R40A Maddies Statio 144.41 23 P PKPab 09 11 26.4 -0.3
baz=331
V35A Meyer Ranch, C 144.48 30 P PKPab 09 11 27.0 -0.1
baz=322
V35A Meyer Ranch, C 144.48 30 ePKPdf PKPab 09 11 27.1 0.0
Q42A Golden Eagle 144.48 20 P PKPab 09 11 26.4 -0.6
baz=334
S39A Bolivar 144.50 24 P PKPab 09 11 26.8 -0.3
baz=329
U36A Oologah 144.52 28 P PKPbc 09 11 27.4 0.0
baz=324
O47A Sheridan 144.52 14 P PKPab 09 11 27.1 +0.1
baz=342
P44A Sand Creek, Wi 144.59 17 P PKPab 09 11 27.3 0.0
baz=336
OK020 N3440 Road, Me 144.64 31 ePKPdf PKPbc 09 11 27.8 -0.1
T38A Diamond 144.65 26 P PKPab 09 11 27.0 -0.6
baz=327
OK021 N3530 Road, Sp 144.67 30 ePKPdf PKPbc 09 11 27.9 -0.1
R41A Rosebud 144.73 22 P PKPab 09 11 27.2 -0.7
baz=332
Q43A New Douglas 144.74 19 P PKPab 09 11 28.0 +0.1
baz=335
OK022 N3560 Road, Pr 144.75 30 ePKPdf PKPbc 09 11 28.3 +0.1
TX31 Lajitas Ar. Si 144.78 45 ePKPdf PKPdf 09 11 29.4 -0.1
TX31 ePKPdf PKPbc 09 11 29.6 +1.0
TXAR Lajitas Array 144.78 45 PKP PKPdf 09 11 29.2 -0.3
comp=Z,48nm,0.7s,baz=281,slow=1.4,SNR=452
P45A Graceland, Par 144.78 16 P PKPab 09 11 27.7 -0.4
baz=339
U37A Salina 144.80 28 P PKPab 09 11 27.8 -0.4
baz=325
P46A Rosedale 144.84 15 P PKPab 09 11 28.2 -0.1
baz=340
N54A Moraine State 144.85 6 P PKPab 09 11 27.5 -0.8
baz=352
TUL1 Leonard 144.88 29 P PKPab 09 11 27.9 -0.6
baz=324
TUL1 Leonard 144.88 29 ePKPdf PKPab 09 11 28.4 -0.1
V36A Jenks 144.91 29 P PKPab 09 11 28.2 -0.5
baz=323
V36A Jenks 144.91 29 ePKPdf PKPab 09 11 28.5 -0.1
S40A Lebanon 144.91 24 P PKPab 09 11 27.5 -1.1
baz=330
ODNJ Ogdensburg 144.93 359 ePKPbc PKPdf 09 11 29.5 +0.1
W35A Tecumseh 144.94 31 P PKPab 09 11 27.2 -1.6
baz=321
W35A Tecumseh 144.94 31 ePKPdf PKPbc 09 11 28.9 0.0
R42A Luebbering 144.96 21 P PKPab 09 11 27.6 -1.1
baz=333
PAL Palisades 144.98 358 ePKIKP PKPab 09 11 28.7 0.0
PAL Palisades 144.98 358 ePKPbc PKPbc 09 11 28.7 0.0
LCO Las Campanas 144.98 188 ePKPbc PKPdf 09 11 30.4 +0.3
Q44A Meyer Farm, Va 144.99 18 P PKPab 09 11 27.8 -1.0
baz=336
CCM Cathedral Cave 145.00 22 P PKPab 09 11 27.9 -1.0
baz=332
CCM Cathedral Cave 145.00 22 ePKIKP PKPab 09 11 28.4 -0.5
CCM Cathedral Cave 145.00 22 ePKPbc PKPab 09 11 28.4 -0.5
T39A Clever 145.05 25 P PKPbc 09 11 28.4 -0.7
baz=328
U38A Gravette 145.10 27 P PKPbc 09 11 28.7 -0.6
baz=326
N59A State Game Lan 145.11 0 P PKPbc 09 11 28.5 -0.7
baz=360
CPNY Central Park 145.20 358 ePKPbc PKPab 09 11 29.5 0.0
P47A Martinsville 145.21 14 P PKPbc 09 11 28.8 -0.8
baz=341
V37A Hulbert 145.21 28 P PKPbc 09 11 28.8 -0.8
baz=325
S41A Jillco Farms, 145.22 23 P PKPbc 09 11 28.9 -0.7
baz=331
Q45A Warren Harvey, 145.25 17 P PKPbc 09 11 29.3 -0.3
baz=338
R43A Red Bud 145.26 20 P PKPbc 09 11 29.0 -0.8
baz=335
W36A Wetumka 145.28 30 P PKPbc 09 11 29.5 -0.4
baz=322
W36A Wetumka 145.28 30 ePKPbc PKPbc 09 11 29.9 0.0
ABTX Abilene, Hawle 145.28 37 P PKPdf 09 11 30.3 0.0
baz=315
ABTX Abilene, Hawle 145.28 37 ePKPbc PKPdf 09 11 30.8 +0.5
T40A Mansfield 145.29 24 P PKPbc 09 11 29.1 -0.8
baz=330
BRNJ Basking Ridge 145.32 358 ePKPbc PKPdf 09 11 30.2 +0.2
SSPA Standing Stone 145.33 3 ePKPbc PKPbc 09 11 29.8 -0.1
FVM French Village 145.35 21 ePKIKP PKPbc 09 11 29.5 -0.6
FVM French Village 145.35 21 ePKPbc PKPbc 09 11 29.5 -0.6
Q46A CEJHS Indians, 145.36 16 P PKPdf 09 11 30.1 0.0
baz=339
S42A Caledonia 145.41 21 P PKPbc 09 11 29.4 -0.8
baz=333
OLIL Olney 145.42 17 ePKPbc PKPbc 09 11 30.1 -0.1
LUPA Lehigh Univers 145.42 360 ePKPdf PKPbc 09 11 30.2 0.0
HHAR Hobbs 145.43 26 ePKPbc PKPbc 09 11 29.6 -0.7
BLO Bloomington 145.44 15 ePKIKP PKPdf 09 11 30.1 -0.2
BLO Bloomington 145.44 15 ePKPdf PKPdf 09 11 30.1 -0.2
X35A Drake 145.47 32 P PKPdf 09 11 30.0 -0.5
baz=321
X35A Drake 145.47 32 ePKPdf PKPdf 09 11 30.5 0.0

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| U39A | Green Forest baz=328 | 145.55 | 26 | P | PKPdf | 09 11 30.1 | -0.5 |
| R44A | Waltonville baz=336 | 145.56 | 19 | P | PKPdf | 09 11 30.2 | -0.3 |
| V38A | Canehill baz=326 | 145.57 | 27 | P | PKPdf | 09 11 30.4 | -0.2 |
| O56A | Blue Knob Stat baz=355 | 145.66 | 4 | P | PKPdf | 09 11 30.6 | 0.0 |
| X36A | Centrahoma baz=322 | 145.66 | 31 | P | PKPdf | 09 11 30.9 | +0.1 |
| W37B | Quinton baz=324 | 145.67 | 29 | P | PKPdf | 09 11 30.7 | -0.1 |
| W37B | Quinton | 145.67 | 29 | *e*PKPdf | PKPbc | 09 11 31.1 | 0.0 |
| T41A | Mountain View baz=331 | 145.69 | 23 | P | PKPdf | 09 11 30.6 | -0.2 |
| Q47A | Bedord North L baz=341 | 145.69 | 15 | P | PKPdf | 09 11 30.5 | -0.2 |
| R45A | Skylar, Fairfi baz=337 | 145.77 | 18 | P | PKPdf | 09 11 31.0 | +0.2 |
| Y35A | Marietta baz=320 | 145.82 | 33 | P | PKPbc | 09 11 31.5 | -0.2 |
| U40A | Yellville baz=329 | 145.84 | 25 | P | PKPdf | 09 11 31.0 | -0.1 |
| S43A | Fulton Ridge, baz=334 | 145.84 | 21 | P | PKPdf | 09 11 30.5 | -0.5 |
| V39A | Pettigrew baz=327 | 145.93 | 26 | P | PKPdf | 09 11 31.1 | -0.2 |
| T42A | Van Buren baz=332 | 145.96 | 22 | P | PKPdf | 09 11 31.4 | +0.2 |
| SIUC | Southern Illin | 146.01 | 19 | *e*PKPdf | PKPbc | 09 11 32.1 | 0.0 |
| S44A | Carbondale baz=335 | 146.01 | 19 | P | PKPdf | 09 11 31.4 | +0.2 |
| MVL | Millersville | 146.02 | 1 | *e*PKPdf | PKPbc | 09 11 32.3 | +0.3 |
| R46A | Gibon Southern baz=339 | 146.07 | 17 | P | PKPbc | 09 11 32.4 | +0.1 |
| PSUB | Penn St. - Bra | 146.09 | 360 | *e*PKPdf | PKPbc | 09 11 32.1 | -0.1 |
| X37A | Clayton baz=323 | 146.14 | 30 | P | PKPbc | 09 11 32.2 | -0.4 |
| X37A | Clayton | 146.14 | 30 | *e*PKPdf | PKPbc | 09 11 32.3 | -0.3 |
| MCWV | Mont Chateau | 146.16 | 6 | *e*PKPdf | PKPbc | 09 11 32.7 | +0.2 |
| W38A | Poteau baz=325 | 146.17 | 28 | P | PKPbc | 09 11 32.5 | -0.2 |
| T43A | Greenville baz=333 | 146.21 | 21 | P | PKPdf | 09 11 31.8 | +0.1 |
| Y36A | Durant baz=321 | 146.22 | 32 | P | PKPdf | 09 11 32.2 | +0.5 |
| U41A | Viola baz=330 | 146.23 | 24 | P | PKPdf | 09 11 32.2 | +0.5 |
| S45A | Carrier Mills baz=336 | 146.25 | 19 | P | PKPbc | 09 11 32.4 | -0.4 |
| USIN | University of | 146.26 | 17 | *e*PKPdf | PKPbc | 09 11 32.4 | -0.4 |
| R47A | Wooly Knot Far baz=340 | 146.27 | 15 | P | PKPbc | 09 11 32.4 | -0.5 |
| V40A | Witts Springs baz=328 | 146.32 | 26 | P | PKPdf | 09 11 31.9 | -0.1 |
| R48A | Northridge Ran baz=342 | 146.34 | 14 | P | PKPdf | 09 11 32.4 | +0.6 |
| X38A | Whitesboro baz=324 | 146.34 | 29 | P | PKPbc | 09 11 32.8 | -0.4 |
| WCI | Wyandotte Cave baz=341 | 146.39 | 15 | P | PKPdf | 09 11 32.6 | +0.7 |
| WCI | Wyandotte Cave | 146.39 | 15 | *e*PKP2 | PKPbc | 09 11 33.2 | 0.0 |
| WCI | Wyandotte Cave | 146.39 | 15 | *e*PKPdf | PKPbc | 09 11 33.2 | 0.0 |
| W39A | Magazine baz=326 | 146.40 | 27 | P | PKPdf | 09 11 32.7 | +0.7 |
| PBMO | Poplar Bluff | 146.43 | 22 | *e*PKPdf | PKPbc | 09 11 32.7 | -0.7 |
| U42A | Revenden baz=331 | 146.50 | 23 | P | PKPbc | 09 11 33.0 | -0.6 |
| Y37A | Hugo baz=322 | 146.50 | 31 | P | PKPdf | 09 11 32.5 | +0.3 |
| S46A | Don Dixon Farm baz=338 | 146.50 | 17 | P | PKPdf | 09 11 32.6 | +0.5 |
| SDMD | Soldier's Deli | 146.60 | 2 | *e*PKPdf | PKPbc | 09 11 33.4 | -0.4 |
| V41A | Mountainview baz=329 | 146.62 | 25 | P | PKPdf | 09 11 32.9 | +0.5 |
| Z36A | Blue Ridge baz=320 | 146.63 | 33 | P | PKPdf | 09 11 33.2 | +0.7 |
| JCT | Junction City baz=312 | 146.66 | 40 | P | PKPbc | 09 11 33.9 | -0.4 |
| JCT | Junction City | 146.66 | 40 | *e*PKP2 | PKPbc | 09 11 34.3 | 0.0 |
| JCT | Junction City | 146.66 | 40 | *e*PKPdf | PKPbc | 09 11 34.3 | 0.0 |
| W40A | Ferguson Farm, baz=327 | 146.73 | 26 | P | PKPdf | 09 11 32.9 | +0.3 |
| W40A | Ferguson Farm, | 146.73 | 26 | *e*PKPbc | PKPbc | 09 11 34.7 | +0.4 |
| PARMO | Parma | 146.77 | 21 | *e*PKPdf | PKPbc | 09 11 34.3 | -0.1 |
| U43A | Rector baz=333 | 146.80 | 22 | P | PKPbc | 09 11 33.6 | -0.9 |
| X39A | Fountain Ranch baz=325 | 146.81 | 28 | P | PKPbc | 09 11 33.8 | -0.8 |
| V42A | Cord baz=331 | 146.91 | 24 | P | PKPdf | 09 11 33.5 | +0.7 |
| X301 | Greenbrier Sit | 146.98 | 26 | *e*PKPdf | PKPbc | 09 11 34.6 | -0.3 |
| WHAR | Wooly Hollow | 146.99 | 25 | *e*PKPdf | PKPbc | 09 11 34.7 | -0.3 |
| Y38A | Idabel baz=324 | 146.99 | 30 | P | PKPdf | 09 11 33.7 | +0.6 |
| S48A | Wiedeman Farm, baz=341 | 146.99 | 15 | P | PKPdf | 09 11 33.6 | +0.6 |
| PVMO | Portageville | 147.01 | 21 | *e*PKPdf | PKPdf | 09 11 33.7 | +0.7 |
| WHTX | Lake Whitney, baz=318 | 147.02 | 35 | P | PKPdf | 09 11 34.1 | +0.9 |
| WHTX | Lake Whitney, | 147.02 | 35 | *e*PKPdf | PKPdf | 09 11 33.5 | +0.3 |
| WHTX | | | | *e*PKPbc | PKPab | 09 11 36.5 | -0.3 |
| MIAR | Mount Ida baz=326 | 147.04 | 28 | P | PKPbc | 09 11 34.4 | -0.8 |
| MIAR | Mount Ida | 147.04 | 28 | *e*PKP2 | PKPbc | 09 11 34.9 | -0.3 |
| MIAR | Mount Ida | 147.04 | 28 | *e*PKPdf | PKPbc | 09 11 34.9 | -0.3 |
| T46A | Princeton baz=337 | 147.04 | 18 | P | PKPbc | 09 11 34.6 | -0.6 |
| W41B | Gary Mavity, V baz=329 | 147.10 | 25 | P | PKPdf | 09 11 33.4 | +0.2 |
| Z37A | Pogue Cattle C baz=322 | 147.11 | 32 | P | PKPdf | 09 11 34.3 | +1.0 |
| 136A | Ennis baz=319 | 147.18 | 34 | P | PKPbc | 09 11 34.6 | -1.1 |
| U44B | Burton Farm, H baz=334 | 147.20 | 21 | P | PKPdf | 09 11 34.4 | +1.1 |
| GLAT | Glass | 147.29 | 21 | *e*PKPbc | PKPbc | 09 11 35.7 | -0.1 |
| Y39A | Lockesburg baz=325 | 147.29 | 29 | P | PKPbc | 09 11 34.9 | -1.0 |
| GNAR | Gosnell | 147.30 | 22 | *e*PKPbc | PKPab | 09 11 37.1 | -0.6 |
| W42A | Bald Knob baz=330 | 147.32 | 24 | P | PKPbc | 09 11 35.2 | -0.7 |
| T47A | Sharon Grove baz=339 | 147.33 | 17 | P | PKPdf | 09 11 34.7 | +1.2 |
| UTMT | University of | 147.37 | 20 | *e*PKPdf | PKPbc | 09 11 36.3 | +0.3 |
| U45A | Rockin P Farm, baz=335 | 147.40 | 20 | P | PKPbc | 09 11 35.2 | -0.9 |
| UALR | University of | 147.40 | 26 | *e*PKPbc | PKPbc | 09 11 36.6 | +0.4 |
| T48A | Bowling Green baz=340 | 147.42 | 16 | P | PKPbc | 09 11 34.9 | -1.2 |
| HBAR | Harrisburg | 147.42 | 23 | *e*PKPbc | PKPbc | 09 11 36.8 | +0.6 |
| X40A | Basin Creek Fa baz=327 | 147.42 | 27 | P | PKPdf | 09 11 34.9 | +1.1 |
| 137A | Heron Place, G baz=321 | 147.51 | 33 | P | PKPbc | 09 11 35.4 | -1.2 |
| 236A | Katherine and baz=319 | 147.54 | 34 | P | PKPdf | 09 11 35.3 | +1.3 |
| U46A | Springville baz=336 | 147.58 | 19 | P | PKPbc | 09 11 35.5 | -1.2 |
| HALT | Halls | 147.59 | 21 | *e*PKPbc | PKPbc | 09 11 36.7 | +0.1 |
| CBN | Corbin Frederi | 147.78 | 2 | *e*PKPbc | PKPbc | 09 11 37.4 | +0.3 |
| U47A | Clarksville baz=338 | 147.78 | 18 | P | PKPdf | 09 11 35.2 | +0.9 |
| 138A | Matatall Enter baz=322 | 147.81 | 32 | P | PKPbc | 09 11 35.9 | -1.4 |
| SPFD | Spotsylvania F | 147.84 | 3 | *e*PKPbc | PKPbc | 09 11 37.6 | +0.3 |
| PTRD | Partlow Road | 147.85 | 3 | *e*PKPbc | PKPbc | 09 11 37.7 | +0.4 |
| IP04 | Greensprings | 147.86 | 4 | *e*PKPbc | PKPbc | 09 11 37.7 | +0.4 |
| V45A | Humboldt baz=335 | 147.88 | 20 | P | PKPdf | 09 11 36.0 | +1.5 |
| X42A | Stuttgart baz=329 | 147.90 | 25 | P | PKPbc | 09 11 36.7 | -0.8 |
| CVRD | Centerville Ro | 147.90 | 3 | *e*PKPbc | PKPbc | 09 11 37.6 | +0.2 |
| WVT | Waverly baz=337 | 147.90 | 19 | P | PKPbc | 09 11 36.8 | -0.7 |
| WVT | Waverly | 147.90 | 19 | *e*PKP2 | PKPbc | 09 11 37.6 | +0.1 |
| WVT | Waverly | 147.90 | 19 | *e*PKPbc | PKPbc | 09 11 37.6 | +0.1 |
| IP03 | Louisa | 147.93 | 3 | *e*PKPbc | PKPbc | 09 11 37.3 | -0.3 |
| 237A | Washetta, Mont baz=320 | 147.94 | 33 | P | PKPbc | 09 11 37.3 | -0.4 |
| SPRD | Spring Road, M | 147.94 | 3 | *e*PKPbc | PKPbc | 09 11 37.3 | -0.2 |
| U48A | Cassie Pea, Po baz=339 | 147.94 | 17 | P | PKPbc | 09 11 36.9 | -0.7 |
| WLAR | White Oak Lake | 147.96 | 28 | *e*PKPbc | PKPbc | 09 11 38.4 | +0.7 |
| IP01 | Cuckoo | 148.00 | 3 | *e*PKPbc | PKPbc | 09 11 37.8 | +0.1 |
| IP06 | Yanceyville | 148.02 | 3 | *e*PKPbc | PKPbc | 09 11 37.4 | -0.4 |
| IP07 | Quail | 148.03 | 3 | *e*PKPbc | PKPbc | 09 11 37.9 | +0.1 |
| Y41A | Eaglette Beard baz=327 | 148.03 | 27 | P | PKPbc | 09 11 37.4 | -0.5 |
| IP05 | Hopewell Churc | 148.14 | 3 | *e*PKPbc | PKPbc | 09 11 38.0 | -0.1 |
| 139A | Bunkhouse Ranc baz=323 | 148.16 | 31 | P | PKPbc | 09 11 38.3 | +0.1 |
| Z40A | Long Farm, Mag baz=325 | 148.18 | 29 | P | PKPbc | 09 11 37.5 | -0.8 |
| X43A | Marvell baz=330 | 148.24 | 24 | P | PKPbc | 09 11 37.7 | -0.7 |
| JSRW | J. Sargeant Re | 148.26 | 3 | *e*PKPdf | PKPdf | 09 11 36.0 | +0.9 |
| JSRW | | | | *e*PKPbc | PKPbc | 09 11 39.1 | +0.7 |
| W45A | Hickory Valley baz=334 | 148.32 | 21 | P | PKPbc | 09 11 37.8 | -0.9 |
| 833A | Chaparral WMA, baz=310 | 148.35 | 42 | P | PKPbc | 09 11 37.5 | -1.4 |
| CCAR | Cane Creek | 148.38 | 26 | *e*PKPbc | PKPbc | 09 11 38.3 | -0.5 |
| Y42A | Garnett, Star baz=328 | 148.44 | 26 | P | PKPbc | 09 11 38.2 | -0.8 |
| Z41A | Richland Creek baz=326 | 148.46 | 28 | P | PKPbc | 09 11 38.3 | -0.7 |
| BLA | Blacksburg | 148.51 | 7 | *e*PKP2 | PKPbc | 09 11 39.2 | 0.0 |
| BLA | Blacksburg | 148.51 | 7 | *e*PKPbc | PKPbc | 09 11 39.2 | 0.0 |
| V48A | Smith Brothers baz=338 | 148.57 | 17 | P | PKPbc | 09 11 38.4 | -0.9 |
| 140A | Cam and Jess, baz=324 | 148.60 | 30 | P | PKPbc | 09 11 38.9 | -0.5 |
| NATX | Nacogdoches baz=322 | 148.74 | 32 | P | PKPbc | 09 11 38.4 | -1.5 |
| NATX | Nacogdoches | 148.74 | 32 | *e*PKPdf | PKPdf | 09 11 37.8 | +1.8 |
| NATX | | | | *e*PKPbc | PKiKP | 09 11 40.8 | -0.5 |
| Y43A | Makayla and Ka baz=330 | 148.74 | 25 | P | PKPbc | 09 11 39.0 | -0.7 |
| OXF | Oxford baz=333 | 148.82 | 22 | P | PKPbc | 09 11 39.1 | -0.8 |
| OXF | Oxford | 148.82 | 22 | *e*PKP2 | PKPbc | 09 11 39.8 | -0.1 |
| OXF | Oxford | 148.82 | 22 | *e*PKPbc | PKPbc | 09 11 39.8 | -0.1 |
| Z42A | Norrel Spur, H baz=328 | 148.84 | 27 | P | PKPbc | 09 11 39.7 | -0.3 |
| PLAL | Pickwick Lake | 148.87 | 20 | *e*PKPbc | PKPbc | 09 11 39.4 | -0.6 |
| X45A | UM Field Stati baz=333 | 148.90 | 22 | P | PKPbc | 09 11 39.3 | -0.9 |
| 141A | Papa Simpson, baz=325 | 148.95 | 29 | P | PKPbc | 09 11 39.5 | -0.9 |
| 240A | Hunter Patters baz=323 | 148.99 | 31 | P | PKPbc | 09 11 40.5 | +0.1 |
| Y44A | Strider, Charl baz=331 | 148.99 | 24 | P | PKPbc | 09 11 40.2 | -0.2 |
| X46A | Booneville baz=334 | 149.08 | 21 | P | PKPbc | 09 11 40.1 | -0.5 |
| ZAIG | Zacatecas | 149.14 | 54 | *e*PKPbc | PKPbc | 09 11 42.2 | +0.8 |
| SWET | Sewanee | 149.32 | 17 | *e*PKPbc | PKPbc | 09 11 40.9 | -0.4 |
| Y45A | Yeager Farm, C baz=332 | 149.34 | 23 | P | PKPbc | 09 11 41.1 | -0.2 |
| X47A | Russelville baz=336 | 149.37 | 20 | P | PKPbc | 09 11 40.3 | -1.1 |
| 241A | Mo Tay, Goldon baz=325 | 149.42 | 30 | P | PKPbc | 09 11 41.8 | +0.3 |
| TKL | Tuckaleechee C | 149.45 | 13 | *e*PKP2 | PKPbc | 09 11 41.5 | 0.0 |
| TKL | Tuckaleechee C | 149.45 | 13 | *e*PKPbc | PKPbc | 09 11 41.5 | 0.0 |
| 142A | Monroe baz=327 | 149.45 | 28 | P | PKPbc | 09 11 42.1 | +0.5 |
| HKT | Hockley | 149.46 | 36 | *e*PKP2 | PKPbc | 09 11 42.9 | +1.3 |
| HKT | Hockley | 149.46 | 36 | *e*PKPbc | PKPbc | 09 11 42.9 | +1.3 |
| CPCT | Cooper Cave | 149.47 | 14 | *e*PKPdf | PKPdf | 09 11 38.0 | +0.9 |
| CPCT | | | | *e*PKPbc | PKPbc | 09 11 41.6 | 0.0 |
| Z44A | Pea Ridge, Bel baz=330 | 149.50 | 25 | P | PKPbc | 09 11 41.0 | -0.7 |
| Y46A | Houston baz=334 | 149.58 | 22 | P | PKPbc | 09 11 41.2 | -0.7 |
| X48A | Hartselle baz=337 | 149.69 | 19 | P | PKPbc | 09 11 41.0 | -1.1 |
| Z45A | Winona baz=332 | 149.72 | 24 | P | PKPbc | 09 11 41.7 | -0.6 |
| 242A | Grayson baz=326 | 149.76 | 28 | P | PKPbc | 09 11 41.2 | -1.2 |
| 341A | Kurthwood baz=324 | 149.85 | 31 | P | PKPbc | 09 11 42.5 | -0.1 |
| X49A | Woodville baz=339 | 149.86 | 18 | P | PKPbc | 09 11 42.0 | -0.6 |
| Y47A | UCPARC, Winfie baz=335 | 149.93 | 20 | P | PKPbc | 09 11 41.6 | -1.2 |
| 144A | Alexander Plac baz=330 | 150.06 | 25 | P | PKPbc | 09 11 42.9 | -0.2 |
| X50A | Fort Payne baz=340 | 150.11 | 17 | P | PKPbc | 09 11 42.3 | -0.9 |
| Y48A | Jasper baz=337 | 150.15 | 19 | P | PKPbc | 09 11 42.1 | -1.2 |
| Z46A | Louisville baz=333 | 150.16 | 23 | P | PKPbc | 09 11 43.2 | -0.1 |
| 342A | Flagon Creek P baz=325 | 150.24 | 29 | P | PKPbc | 09 11 44.1 | +0.5 |
| BG3 | Lake Jocassee | 150.27 | 12 | *e*PKPbc | PKPbc | 09 11 43.6 | +0.1 |
| 145A | Houston Renfro baz=330 | 150.29 | 25 | P | PKPbc | 09 11 44.1 | +0.4 |
| 441A | DeRidder baz=323 | 150.31 | 31 | P | PKPbc | 09 11 45.0 | +1.3 |
| PB10 | IPOC Station P | 150.36 | 190 | *e*PKPbc | PKPbc | 09 11 45.3 | +1.3 |
| VBMS | Vicksburg baz=329 | 150.37 | 26 | P | PKPbc | 09 11 43.9 | +0.1 |
| VBMS | Vicksburg | 150.37 | 26 | *e*PKPdf | PKPdf | 09 11 40.0 | +1.5 |
| VBMS | | | | *e*PKPbc | PKiKP | 09 11 44.6 | 0.0 |
| LNIG | Linares | 150.41 | 48 | *e*PKPdf | PKPdf | 09 11 39.2 | +0.3 |
| LNIG | | | | *e*PKPbc | PKPbc | 09 11 44.1 | -0.1 |
| KMSC | Kings Mountain baz=349 | 150.42 | 9 | P | PKPbc | 09 11 43.2 | -0.6 |
| KMSC | Kings Mountain | 150.42 | 9 | *e*PKPbc | PKPbc | 09 11 43.6 | -0.2 |
| Y49A | Blount Mountai baz=338 | 150.44 | 18 | P | PKPbc | 09 11 43.5 | -0.5 |
| 244A | Avery, Jackson baz=329 | 150.45 | 26 | P | PKPbc | 09 11 43.8 | -0.2 |
| Z47A | Carrollton baz=334 | 150.49 | 21 | P | PKPbc | 09 11 43.5 | -0.5 |
| Z48A | Northport baz=336 | 150.51 | 20 | P | PKPbc | 09 11 43.3 | -0.8 |
| 146A | Union baz=332 | 150.61 | 23 | P | PKPbc | 09 11 44.6 | +0.2 |
| 245A | Little AP, Sta baz=330 | 150.80 | 25 | P | PKPbc | 09 11 45.1 | +0.2 |
| 541A | Lake Charles baz=322 | 150.85 | 32 | P | PKPbc | 09 11 46.9 | +1.8 |
| 147A | Livingston baz=334 | 150.88 | 22 | P | PKPbc | 09 11 45.2 | +0.2 |
| 344A | Westbrook Farm baz=328 | 150.93 | 27 | P | PKPbc | 09 11 45.1 | 0.0 |
| LRAL | Lakeview Retre baz=336 | 151.01 | 20 | P | PKPbc | 09 11 44.8 | -0.5 |
| Z49A | Columbiana baz=337 | 151.02 | 19 | P | PKPbc | 09 11 44.7 | -0.7 |
| 542A | Morse baz=323 | 151.14 | 31 | P | PKPbc | 09 11 46.7 | +1.0 |
| HODGE | Hodges | 151.14 | 11 | *e*PKPdf | PKPdf | 09 11 40.8 | +1.1 |
| HODGE | | | | *e*PKPbc | PKPbc | 09 11 45.8 | +0.2 |
| JSC | Jenkinsville | 151.27 | 10 | *e*PKIKP | PKPdf | 09 11 41.2 | +1.3 |
| JSC | Jenkinsville | 151.27 | 10 | *e*PKPdf | PKPdf | 09 11 41.2 | +1.3 |
| JSC | | | | *e*PKPbc | PKPbc | 09 11 46.0 | +0.1 |
| 247A | Quitman baz=332 | 151.30 | 23 | P | PKPbc | 09 11 46.3 | +0.3 |
| 345A | Thompson Farm, baz=329 | 151.36 | 26 | P | PKPbc | 09 11 46.7 | +0.5 |
| 346A | Big Creek Wild baz=330 | 151.54 | 25 | P | PKPbc | 09 11 47.2 | +0.6 |
| 248A | Dixon Mills baz=334 | 151.60 | 22 | P | PKPbc | 09 11 46.9 | +0.2 |
| GOGA | Godfrey | 151.67 | 14 | *e*PKIKP | PKPdf | 09 11 42.0 | +1.5 |
| GOGA | | | | *e* | | 09 11 55.7 | |
| GOGA | Godfrey | 151.67 | 14 | *e*PKPdf | PKPdf | 09 11 42.0 | +1.5 |
| GOGA | | | | *e*PKPbc | PKiKP | 09 11 47.2 | 0.0 |
| GOGA | | | | *e*PKPab | PKPab | 09 11 55.7 | +0.1 |
| BBSR | BB Station | 151.69 | 340 | *e*PKPbc | PKPbc | 09 11 47.6 | +0.7 |
| 445A | Amite baz=328 | 151.72 | 27 | P | PKPbc | 09 11 47.6 | +0.6 |
| 347A | Saraland baz=332 | 151.91 | 24 | P | PKPbc | 09 11 48.1 | +0.7 |
| 446A | Poplarville baz=330 | 152.10 | 26 | P | PKPbc | 09 11 48.0 | +0.1 |
| 348A | Jackson baz=333 | 152.15 | 23 | P | PKPbc | 09 11 48.6 | +0.6 |
| 447A | Lucedale baz=331 | 152.39 | 25 | P | PKPbc | 09 11 48.9 | +0.3 |
| PB01 | IPOC Station P | 152.56 | 193 | *e*PKPbc | PKPbc | 09 11 50.7 | +1.3 |
| BRAL | Brewton baz=335 | 152.68 | 22 | P | PKPbc | 09 11 50.0 | +0.9 |
| BRAL | Brewton | 152.68 | 22 | *e*PKPbc | PKPbc | 09 11 50.6 | +1.5 |
| CSU | Charleston Sou | 152.72 | 8 | *e*PKPbc | PKPbc | 09 11 50.5 | +1.3 |
| RGRS | Roger Stewart | 152.78 | 8 | *e*PKPbc | PKPbc | 09 11 49.9 | +0.6 |
| TIGA | Tifton baz=342 | 153.52 | 15 | P | PKPbc | 09 11 51.2 | +0.2 |
| TIGA | Tifton | 153.52 | 15 | *e*PKPdf | PKPdf | 09 11 42.4 | -0.9 |
| TIGA | | | | *e*PKPbc | PKiKP | 09 11 51.9 | +0.8 |
| TIGA | | | | *e*PKPab | PKPab | 09 12 04.8 | +1.4 |
| PB11 | IPOC Station P | 153.84 | 193 | *e*PKPbc | PKPbc | 09 11 53.3 | +1.1 |
| MNMC | Minye Minye | 154.43 | 194 | *e*PKPbc | PKPbc | 09 11 55.1 | +1.5 |
| MNMC | | | | *e*PKPab | PKPab | 09 12 11.0 | +3.1 |
| LPAZ | La Paz comp=Z,2.7nm,1.0s,baz=102,slow=1,2,SNR=6.9 | 156.73 | 199 | PKP | PKPdf | 09 11 50.0 | +1.2 |
| LPAZ | | | | PKPab | PKPab | 09 12 19.7 | +1.6 |
| | comp=Z,2.1nm,0.9s,baz=115,slow=7.5,SNR=3.7 | | | | | | |
| OTAV | Otavalo | 173.78 | 154 | *e*PKPdf | PKPdf | 09 12 03.9 | +0.9 |
| SDV | Santo Domingo | 174.13 | 301 | *e*PKPab | PKPab | 09 13 35.1 | +0.7 |
| RUSC | La Rusia | 177.37 | 271 | *e*PKPdf | PKPdf | 09 12 03.7 | -0.3 |

**IDC 30 09:12:29.3±3.1, 53.31N×89.35E, h0km, mb1 2.8/3, mb1mx2.7/53, mbtmp2.8/3, ML2.2/3, Error ellipse: s-maj=28.5km s-min=20.8km az=88.0, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| I46RU | ZALESOVO INFRA baz=97,slow=342,SNR=1.7 | 2.77 | 285 | *i* | | 09 32 10.0 | |
| ZALV | Zalesovo Beam 1.1nm,0.3s,baz=101,slow=15,SNR=17 | 2.77 | 285 | Pn | Pn | 09 13 16.0 | +1.0 |
| ZALV | | | | Sn | Sn | 09 13 51.0 | +2.0 |
| | 2.5nm,0.3s,baz=104,slow=24,SNR=21 | | | | | | |
| KURBB | Kurchatov Arra 0.0nm,0.3s,baz=63,slow=14,SNR=3.7 | 7.20 | 252 | Pn | Pn | 09 14 15.7 | -0.1 |
| KURBB | | | | Sn | Sn | 09 15 37.2 | -1.0 |
| | 0.0nm,0.3s,baz=66,slow=24,SNR=4.3 | | | | | | |
| KURBB | | | | Lg | Lg | 09 16 15.1 | |
| | 0.0nm,0.3s,baz=68,slow=37,SNR=4.1 | | | | | | |
| MKAR | Makanchi Array 0.1nm,0.3s,baz=35,slow=12,SNR=7.6 | 7.94 | 218 | Pn | Pn | 09 14 27.1 | +1.1 |
| MKAR | | | | Sn | Sn | 09 15 57.0 | +0.5 |
| | 0.1nm,0.3s,baz=36,slow=27,SNR=4.9 | | | | | | |
| MKAR | | | | Lg | Lg | 09 16 39.0 | |
| | 0.0nm,0.3s,baz=35,slow=28,SNR=3.8 | | | | | | |

*JMA 30 09:13:40.4±0.2, 38.55N×144.48E, h34km, M3.8*
*IDC 30 09:13:42.4±9.6, 37.47N×144.57E, h0km, mb3.5/2, mb1 3.7/3, mb1mx3.3/52, mbtmp3.4/3, ML3.1/1, MS3.4/2, Ms1 3.4/2, ms1mx2.7/49, Error ellipse: s-maj=202.2km s-min=38.9km az=15.0*
**ISC 30 09:13:40.7±2.0, 38.49N±0.09×144.6E±0.1, h35km, n20, σ1§11/18, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| OFUJ | Ofunato | 2.38 | 285 | P | Pn | 09 14 17.0 | -0.3 |
| OFUJ | | | | *e*S | Sn | 09 14 43.8 | -1.4 |
| MIYJ | Miyakonagasawa | 2.44 | 297 | P | Pn | 09 14 17.3 | -0.7 |
| MIYJ | | | | *e*S | Sn | 09 14 44.8 | -1.8 |
| JMK | Ichinoseki | 2.70 | 281 | P | Pn | 09 14 21.8 | +0.2 |
| JMK | | | | *e*S | Sn | 09 14 53.0 | -0.1 |
| JOM | Ohasama | 2.78 | 292 | P | Pn | 09 14 22.6 | -0.1 |
| JOM | | | | *e*S | Sn | 09 14 53.8 | -1.1 |
| JANG | Nango | 3.06 | 309 | *e*S | Sn | 09 14 59.5 | -2.4 |
| JYK | Kaneyama | 3.36 | 279 | P | Pn | 09 14 31.6 | +0.9 |
| JYK | | | | *e*S | Sn | 09 15 09.8 | +0.4 |
| JFT | Otama | 3.52 | 255 | P | Pn | 09 14 34.1 | +1.2 |
| JFT | | | | S | Sn | 09 15 13.7 | +0.4 |
| JOT | Ohata | 3.99 | 318 | P | Pn | 09 14 40.3 | +1.0 |
| JOT | | | | *e*S | Sn | 09 15 21.0 | -3.8 |
| JCH | Churui | 4.23 | 347 | P | Pn | 09 14 40.1 | -2.6 |
| JCH | | | | *e*S | Sn | 09 15 25.5 | -5.4 |
| JKB | Kayabe | 4.37 | 322 | *e*S | Sn | 09 15 31.7 | -2.5 |
| BSO1 | Boso 1 | 4.82 | 219 | P | Pn | 09 14 50.2 | -0.1 |
| NEM2 | Nemuro 2 | 4.95 | 10 | P | Pn | 09 14 48.0 | -4.5 |
| NEM2 | | | | S | Sn | 09 15 40.0 | -8.4 |
| JRY | Ryogami san | 5.19 | 243 | P | Pn | 09 14 56.2 | +0.4 |
| JRY | | | | *e*S | Sn | 09 15 52.1 | -2.3 |
| MJAR | Matsushiro Arr 0.7nm,0.3s,baz=75,slow=14,SNR=7.5 | 5.46 | 251 | Pn | Pn | 09 15 00.8 | +1.2 |
| MJAR | | | | Sn | Sn | 09 16 02.4 | +1.3 |
| | 0.8nm,0.3s,baz=237,slow=25,SNR=5.1 | | | | | | |
| JOD2 | Odawara 2 | 5.48 | 236 | *e*S | Sn | 09 15 59.7 | -1.9 |
| JTKR | Abashiri--Toko | 5.51 | 355 | P | Pn | 09 14 57.9 | -2.2 |
| JTKR | | | | *e*S | Sn | 09 15 55.4 | -6.8 |
| PMG | Port Moresby comp=Z,35nm,21.9s,baz=356,slow=32 | 47.70 | 177 | LR | LR | 09 39 02.3 | |
| WRA | Warramunga Arr 0.6nm,0.7s,baz=13,slow=7.5,SNR=7.0 | 59.91 | 191 | P | P | 09 23 36.3 | 0.0 |
| ASAR | Alice Springs 0.3nm,0.7s,baz=7.5,slow=7.9,SNR=4.1 | 62.64 | 191 | P | P | 09 24 01.8 | +0.3 |
| GNI | Garni comp=Z,32nm,18.6s,baz=11,slow=38 | 72.85 | 308 | LR | LR | 09 59 39.1 | |

*OBM 30 09:17:38.5±0.2, 51.78N×96.00E, h2km, Ml3.6/1, Error ellipse: s-maj=3.4km s-min=2.3km az=42.0*
*IDC 30 09:17:40.0±1.3, 51.73N×96.13E, h0km, mb3.9/4, mb1 3.7/8, mb1mx3.4/54, mbtmp3.7/8, ML2.9/4, Error ellipse: s-maj=26.9km s-min=15.5km az=170.0*
*MOS 30 09:17:41.5±1.7, 51.92N×95.86E, h10km, mb4.1/4, Error ellipse: s-maj=18.0km s-min=10.6km az=161.0*
*NEIC 30 09:17:42.0±0.6, 51.77N×95.94E, h10km, mb4.3/1, Error ellipse: s-maj=15.1km s-min=7.7km az=178.0*
**ISC 30 09:17:43.4±0.6, 51.88N±0.06×95.85E±0.04, h10km, n50, σ1§61/50, mb3.9/5, 6C, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| HVS | Khovu-Aksy | 1.54 | 242 | *c i* | PN | 09 18 07.5 | -3.5 |
| HVS | Khovu-Aksy | 1.54 | 242 | *i* | P | 09 18 07.6 | -3.4 |
| ORL | Orlik | 2.52 | 73 | *e* | PN | 09 18 23.3 | -1.3 |
| ORL | | | | *e* | | 09 18 56.8 | |
| ORL | | | | pmax | pmax | | |
| | comp=Z,82nm,0.6s | | | | | | |
| ORL | | | | smax | smax | | |
| | comp=N,184nm,1.1s | | | | | | |
| HTG | Hatgal | 3.07 | 116 | *e* | Pg | 09 18 31.8 | -0.3 |
| HTG | | | | *e* | Sg | 09 19 11.5 | +2.6 |
| ULG | Ulaangom | 3.08 | 233 | *e* | Pn | 09 18 30.6 | -1.5 |
| ULG | | | | *e* | Sg | 09 19 12.3 | +3.3 |
| MOY | Mondy | 3.20 | 92 | *e* | PN | 09 18 35.6 | +1.7 |
| MOY | | | | *e* | | 09 19 16.7 | |
| MOY | | | | pmax | pmax | | |
| | comp=Z,74nm,0.6s | | | | | | |
| MOY | | | | smax | smax | | |
| | comp=N,198nm,0.8s | | | | | | |
| TSC | Tosontsengel | 3.47 | 153 | *e* | Pn | 09 18 34.8 | -2.8 |
| TSC | | | | *e* | Sg | 09 19 25.5 | -1.9 |
| | comp=N,208nm,0.4s | | | | | | |
| ARS | Arshan | 4.07 | 87 | *e* | PN | 09 18 45.8 | 0.0 |
| ARS | | | | *e* | | 09 18 53.8 | |
| ARS | | | | *e* | | 09 19 45.8 | |
| ARS | | | | pmax | pmax | | |
| | comp=Z,43nm,0.4s | | | | | | |
| ARS | | | | smax | smax | | |
| | comp=E,426nm,0.7s | | | | | | |
| BYO | Bayan-Olgiy | 4.77 | 234 | *e* | Pn | 09 18 53.8 | -1.7 |
| BYO | | | | *e* | Sg | 09 20 04.8 | +0.1 |
| TLY | Talaya comp=E,0.0nm,0.3s,baz=279,slow=12,SNR=9.3 | 4.84 | 89 | Pg | Pb | 09 19 05.7 | -2.6 |
| TLY | | | | Lg | Lg | 09 20 06.7 | |
| | comp=E,0.1nm,0.3s,baz=13,slow=14,SNR=8.7 | | | | | | |
| TLY | Talaya | 4.84 | 89 | *e* | PN | 09 19 06.7 | -1.6 |
| TLY | | | | *e* | | 09 20 06.6 | |
| TLY | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.6s | | | | | | |
| TLY | Talaya | 4.84 | 89 | *e* | Pn | 09 18 55.5 | -0.9 |
| TLY | | | | *e* | Pg | 09 19 05

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | comp=N,117nm,0.5s | | | | | | | |
| **BLGM** | **Bulgan** | **5.81** | **119** | *e*Sg | | **Sb** | **09 20 39.7** | **+5.2** |
| **ZAA0** | **Zalesovo Array** | **6.99** | **292** | *e*Pn | | **Pn** | **09 19 25.9** | **+0.2** |
| **ZALV** | **Zalesovo Beam** | **6.99** | **292** | Pn | | **Pn** | **09 19 26.9** | **+1.2** |
| | comp=N,0.4nm,0.3s,baz=104,slow=12,SNR=12 | | | | | | | |
| ZALV | | | | Lg | | Lg | 09 21 20.4 | |
| | comp=N,1.9nm,0.3s,baz=114,slow=27,SNR=8.6 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **6.99** | **292** | *e*PN | | **Pn** | **09 19 25.8** | **+0.1** |
| ZALV | | | | *e* | | | 09 19 46.5 | |
| ZALV | | | | *e* | | | 09 21 10.0 | |
| **ZALV** | **Zalesovo Beam** | **6.99** | **292** | *e*Pn | | **Pn** | **09 19 25.8** | **+0.1** |
| ZALV | | | | *e*Pg | | **Pb** | **09 19 46.5** | **+1.7** |
| ZALV | | | | *e*Sg | | **Sb** | **09 21 10.0** | **+1.8** |
| **ZAA1** | **Zalesovo Array** | **6.99** | **292** | *e*Pn | | **Pn** | **09 19 26.9** | **+1.2** |
| ZAA1 | | | | *e*Lg | | Lg | 09 21 20.4 | |
| **OGRR** | **Ongureny** | **7.34** | **71** | *e*P | | **Pn** | **09 19 29.9** | **-0.7** |
| OGRR | | | | pmax | | pmax | | |
| | comp=Z,4.0nm,0.4s | | | | | | | |
| **SONA0** | **Songino Array** | **7.92** | **117** | *e*Pg | | **Pb** | **09 20 00.1** | **-0.8** |
| SONA0 | | | | *e*Lg | | Lg | 09 21 46.3 | |
| **SONM** | **Songino Array** | **7.92** | **117** | Pg | | **Pb** | **09 20 00.1** | **-0.8** |
| | comp=Z,0.5nm,0.3s,baz=298,slow=16,SNR=14 | | | | | | | |
| SONM | | | | Lg | | Lg | 09 21 46.3 | |
| | comp=Z,0.9nm,0.3s,baz=298,slow=31,SNR=10 | | | | | | | |
| **ULN** | **Ulaanbaatar** | **8.28** | **115** | *e*P | | Pn | 09 19 40.5 | -3.1 |
| **ULN** | **Ulaanbaatar** | **8.28** | **115** | *e*Pn | | Pn | 09 19 40.5 | -3.1 |
| ULN | | | | *e*Lg | | Lg | 09 21 55.9 | |
| **NIZ** | **Nizh Angarsk** | **8.98** | **59** | *e*P | | **Pn** | **09 19 51.6** | **-1.5** |
| NIZ | | | | pmax | | pmax | | |
| | comp=Z,5.0nm,0.6s | | | | | | | |
| **MK31** | **Makanchi Array** | **10.21** | **245** | *e*P | | **Pn** | **09 20 09.0** | **-0.9** |
| **MK31** | **Makanchi Array** | **10.21** | **245** | *e*Pn | | **Pn** | **09 20 09.0** | **-0.9** |
| **MK32** | **Makanchi Array** | **10.21** | **245** | *e*Pn | | **Pn** | **09 20 09.8** | **-0.2** |
| MK32 | | | | *e*Lg | | Lg | 09 23 07.3 | |
| **MKAR** | **Makanchi Array** | **10.21** | **245** | Pn | | **Pn** | **09 20 09.8** | **-0.2** |
| | comp=Z,0.1nm,0.3s,baz=61,slow=16,SNR=11 | | | | | | | |
| MKAR | | | | Lg | | Lg | 09 23 07.3 | |
| | comp=Z,0.3nm,0.3s,baz=60,slow=30,SNR=4.6 | | | | | | | |
| **MKAR** | **Makanchi Array** | **10.21** | **245** | *ce*P | | Pn | 09 20 17.1 | +7.2 |
| **MKAR** | **Makanchi Array** | **10.21** | **245** | *e*Pn | | **Pn** | **09 20 08.9** | **-1.0** |
| **KURK** | **Kurchatov** | **10.86** | **271** | *e*P | | **Pn** | **09 20 20.3** | **+1.6** |
| **KURK** | **Kurchatov** | **10.86** | **271** | *e*Pn | | **Pn** | **09 20 20.3** | **+1.6** |
| KURK | | | | *e*Lg | | Lg | 09 23 32.7 | |
| **KURBB** | **Kurchatov Arra** | **10.93** | **270** | Pn | | **Pn** | **09 20 20.3** | **+0.5** |
| | comp=Z,0.1nm,0.3s,baz=74,slow=14,SNR=5.5 | | | | | | | |
| KURBB | | | | Lg | | Lg | 09 23 32.7 | |
| | comp=Z,0.1nm,0.3s,baz=76,slow=32,SNR=6.8 | | | | | | | |
| **BVAR** | **Borovoye Array** | **15.54** | **284** | Pn | | **Pn** | **09 21 20.4** | **-2.1** |
| | comp=Z,0.2nm,0.3s,baz=85,slow=15,SNR=8.1 | | | | | | | |
| **BRVK** | **Borovoye** | **15.60** | **284** | *i*P | | **Pn** | **09 21 25.7** | **+2.5** |
| BRVK | | | | pmax | | pmax | | |
| | comp=Z,17nm,2.5s | | | | | | | |
| **YAK** | **Yakutsk** | **20.80** | **48** | *e*P | | **P** | **09 22 25.6** | **+1.1** |
| YAK | | | | pmax | | pmax | | |
| | comp=Z,10.0nm,0.9s | | | | | | | |
| **ARU** | **Arti** | **22.11** | **297** | *c i*P | | **P** | **09 22 38.6** | **-0.1** |
| ARU | | | | | | | 09 22 59.2 | |
| ARU | | | | SS | | Sn | 09 27 14.4 | +21 |
| ARU | | | | pmax | | pmax | | |
| | comp=Z,17nm,2.5s | | | | | | | |
| **AKTO** | **Aktyubinsk** | **23.60** | **282** | P | | **P** | **09 22 52.4** | **-1.8** |
| | comp=Z,2.3nm,0.6s,baz=84,slow=9.8,SNR=8.9 | | | | | | | |
| **TIXI** | **Tiksi** | **24.64** | **24** | P | | **P** | **09 23 02.8** | **-0.8** |
| | comp=Z,2.1nm,0.4s,baz=243,slow=5.3,SNR=8.0 | | | | | | | |
| **TIXI** | **Tiksi** | **24.64** | **24** | *e*P | | **P** | **09 23 03.0** | **-0.7** |
| TIXI | | | | pmax | | pmax | | |
| | comp=Z,10.0nm,1.3s | | | | | | | |
| **TIXI** | **Tiksi** | **24.64** | **24** | *e*P | | **P** | **09 23 03.0** | **-0.7** |
| | comp=Z,9.9nm,1.3s | | | | | | | |
| **BR101** | **Keskin Array S** | **43.75** | **279** | *e*P | | **P** | **09 25 48.0** | **-1.0** |
| **BRTR** | **Keskin Array B** | **43.75** | **279** | P | | **P** | **09 25 48.0** | **-1.0** |
| | comp=Z,0.6nm,0.6s,baz=42,slow=4.5,SNR=4.4 | | | | | | | |
| **BRTR** | **Keskin Array B** | **43.75** | **279** | *e*P | | **P** | **09 25 49.5** | **+0.5** |
| BRTR | | | | pmax | | pmax | | |
| | comp=Z,1.0nm,0.6s | | | | | | | |
| **CLL** | **Collm** | **48.75** | **304** | *e*P | | **P** | **09 26 28.0** | **0.0** |
| **TOA1** | **Torodi Ar. Sit** | **82.32** | **281** | *e*P | | **P** | **09 30 03.6** | **-1.8** |
| **TORD** | **Torodi Ar. Bea** | **82.32** | **281** | P | | **P** | **09 30 03.6** | **-1.8** |
| | comp=Z,0.4nm,0.6s,baz=41,slow=4.9,SNR=3.6 | | | | | | | |

*ISCJB* ***30*** *09:22:14.4±0.7, 14°.33S±0°.03×75°.25W±0°.05, h54km±6km, mb4.9/158, MS3.8/11, Error ellipse: s-maj=8.8km s-min=4.2km az=152.6*

*MOS* ***30*** *09:22:14.5±1.0, 14°.25S×75°.35W, h44km, mb5.1/33, Error ellipse: s-maj=19.6km s-min=6.5km az=117.8*

*BJI* ***30*** *09:22:15.7, 13°.86S×76°.11W, h48km, mB5.5/9, Ms5.6/7, Ms7 5.2/5*

*NEIC* ***30*** *09:22:16.2±0.1, 14°.42S×75°.48W, mb5.0/152, Error ellipse: s-maj=5.8km s-min=2.8km az=53.0*

*NEIC Felt [III] at Ica and [II] at Nazca and Palpa. Also felt at Mala and San Luis.*

*IDC* ***30*** *09:22:16.1±0.4, 14°.46S×75°.63W, h48km±3km, mb4.3/17, mb1 4.5/20, mb1mx4.4/34, mbtmp4.5/20, MS3.8/12, Ms1 3.7/12, ms1mx3.6/25, Error ellipse: s-maj=18.6km s-min=8.6km az=65.0*

**ISC 30 09:22:15.7±0.3, 14°.52S±0°.05×75°.43W±0°.06, h45km±2km, h46km; pP-P, n678, σ1s 32/721, mb5.0/157, MS3.8/12, 7C-7D, Near coast of Peru**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | | h m s | ISC |
| **NNA** | **Nana** | **2.87** | **331** | P | | **Pn** | **09 22 57.0** | **-2.0** |
| | 76nm,0.3s,baz=166,slow=9.9,SNR=114 | | | | | | | |
| NNA | | | | S | | **Sn** | **09 23 29.9** | **-2.4** |
| | 282nm,0.3s,baz=256,slow=15,SNR=5.9 | | | | | | | |
| **NNA** | **Nana** | **2.87** | **331** | *i* P | | **Pn** | **09 22 57.2** | **-1.8** |
| **NNA** | **Nana** | **2.87** | **331** | *e*Pn | | **Pn** | **09 22 56.7** | **-2.3** |
| NNA | | | | *e*Sn | | **Sn** | **09 23 26.4** | **-5.9** |
| **MNMC** | **Minye Minye** | **7.23** | **130** | *e*Pn | | **Pn** | **09 24 00.3** | **+1.2** |
| MNMC | | | | *e*Sn | | **Sn** | **09 25 18.8** | **-1.3** |
| **LPAZ** | **La Paz** | **7.26** | **105** | P | | Pn | 09 24 07.4 | +7.6 |
| | baz=287,slow=9.6,SNR=2.2 | | | | | | | |
| LPAZ | | | | LR | | LR | 09 27 16.0 | |
| | comp=Z,415nm,21.9s,baz=263,slow=40 | | | | | | | |
| **LPAZ** | **La Paz** | **7.26** | **105** | *e*P | | **Pn** | **09 24 00.0** | **+0.2** |
| **LPAZ** | **La Paz** | **7.26** | **105** | *e*Pn | | **Pn** | **09 23 60.0** | **+0.2** |
| **PB11** | **IPOC Station P** | **7.59** | **134** | *e*Pn | | **Pn** | **09 24 04.9** | **+0.9** |
| PB11 | | | | *e*Sn | | **Sn** | **09 25 27.1** | **-1.8** |
| **ATAH** | **Atahualpa** | **7.89** | **338** | P | | **Pn** | **09 24 07.9** | **-0.5** |
| | 1.4nm,0.3s,baz=178,slow=5.7,SNR=5.6 | | | | | | | |
| ATAH | | | | S | | **Sn** | **09 25 38.2** | **+1.6** |
| | 0.4nm,0.3s,baz=355,slow=19,SNR=2.3 | | | | | | | |
| **PB01** | **IPOC Station P** | **8.61** | **140** | *e*Pn | | **Pn** | **09 24 19.7** | **+1.8** |
| PB01 | | | | *e*Sn | | **Sn** | **09 25 50.0** | **-3.7** |
| **PB04** | **IPOC Station P** | **9.25** | **148** | *e*Pn | | **Pn** | **09 24 26.4** | **-0.3** |
| PB04 | | | | *e*Sn | | **Sn** | **09 26 03.9** | **-5.6** |
| **PB10** | **IPOC Station P** | **10.06** | **153** | *e*Pn | | **Pn** | **09 24 38.2** | **+0.5** |
| PB10 | | | | *e*Sn | | **Sn** | **09 26 23.4** | **-5.9** |
| **SAML** | **Samuel** | **13.21** | **67** | *e*Pn | | **Pn** | **09 25 19.9** | **-0.8** |
| SAML | | | | *e*Sn | | **Sn** | **09 27 39.1** | **-7.1** |
| **SIV** | **San Ignacio** | **13.93** | **98** | P | | **Pn** | **09 25 33.8** | **+3.1** |
| | 0.5nm,0.3s,baz=270,slow=13,SNR=3.9 | | | | | | | |
| SIV | | | | LR | | LR | 09 31 37.4 | |
| | comp=Z,816nm,20.4s,baz=290,slow=40 | | | | | | | |
| **OTAV** | **Otavalo** | **14.96** | **348** | *e*P | | **P** | **09 25 48.6** | **-1.0** |
| **OTAV** | **Otavalo** | **14.96** | **348** | *e*Pn | | **Pn** | **09 25 42.3** | **-2.5** |
| **LCO** | **Las Campanas** | **15.07** | **164** | *e*Pn | | **Pn** | **09 25 47.7** | **+1.7** |
| | 29nm,1.1s | | | | | | | |
| LCO | | | | *e*Sn | | **Sn** | **09 28 24.4** | **-7.6** |
| **FLOC** | **Florencia** | **16.00** | **359** | *e*P | | **Pn** | **09 25 55.5** | **-2.2** |
| **CRUC** | **La Cruz** | **16.05** | **354** | *e*P | | **P** | **09 26 04.7** | **+3.1** |
| **SJAC** | **San Juan de Ar** | **17.74** | **5** | *e*P | | **Pn** | **09 26 19.3** | **-0.3** |
| **PRAC** | **Prado** | **18.12** | **2** | *e*P | | **Pn** | **09 26 30.2** | **+6.0** |
| **YOTC** | **Yotoco, Valle** | **18.40** | **357** | *e*P | | **Pn** | **09 26 30.9** | **+3.2** |
| **VILC** | **Villavicencio,** | **18.59** | **5** | *e*P | | **Pn** | **09 26 32.0** | **+2.1** |
| **TOLC** | **Tolima** | **18.98** | **0** | *e*P | | **Pn** | **09 26 37.3** | **+2.4** |
| **CHIC** | **Chingaza** | **19.10** | **5** | *e*P | | **Pn** | **09 26 38.6** | **+2.2** |
| **PLMC** | **San Jos¨ del** | **19.32** | **357** | *e*P | | **P** | **09 26 37.1** | **-0.1** |
| **GUYC** | **Guyana, Colomb** | **19.61** | **0** | *e*P | | **Pn** | **09 26 43.4** | **+0.8** |
| **PAYG** | **Puerto Ayora** | **20.12** | **312** | *e*P | | **P** | **09 26 46.1** | **+0.1** |
| | 45nm,1.4s | | | | | | | |
| **RUSC** | **La Rusia** | **20.41** | **7** | *e*P | | Pn | 09 26 51.8 | -0.3 |
| **RUSC** | **La Rusia** | **20.41** | **7** | *e*P | | **P** | **09 26 48.3** | **-1.3** |
| | 23nm,0.8s | | | | | | | |
| **PTGA** | **Pitinga** | **20.53** | **49** | P | | Pn | 09 26 52.4 | -0.6 |
| | 24nm,0.8s,baz=215,slow=11,SNR=30 | | | | | | | |
| PTGA | | | | LR | | LR | 09 35 54.7 | |
| | comp=Z,129nm,19.8s,baz=230,slow=40 | | | | | | | |
| **PTGA** | **Pitinga** | **20.53** | **49** | *e*P | | **P** | **09 26 51.6** | **+1.2** |
| | 40nm,0.9s | | | | | | | |
| **HELC** | **Santa Helena** | **20.57** | **360** | *e*P | | Pn | 09 26 54.3 | +0.5 |
| **HELC** | **Santa Helena** | **20.57** | **360** | *e*P | | **P** | **09 26 51.4** | **+0.1** |
| | 59nm,0.8s | | | | | | | |
| **CPUP** | **Villa Florida** | **20.61** | **128** | P | | Pn | 09 26 53.5 | -0.3 |
| | 11nm,1.0s,baz=303,slow=11,SNR=19 | | | | | | | |
| CPUP | | | | LR | | LR | 09 35 42.2 | |
| | comp=Z,123nm,21.9s,baz=294,slow=39 | | | | | | | |
| **CPUP** | **Villa Florida** | **20.61** | **128** | *e*P | | Pn | 09 26 53.1 | -0.7 |
| CPUP | | | | pmax | | pmax | | |
| | comp=Z,15nm,1.1s | | | | | | | |
| **CPUP** | **Villa Florida** | **20.61** | **128** | *e*P | | Pn | 09 26 53.1 | -0.7 |
| | comp=Z,15nm,1.1s | | | | | | | |
| **BARC** | **Barichara** | **21.09** | **6** | *e*P | | **P** | **09 26 58.3** | **+1.6** |
| **DBBC** | **Dabeiba** | **21.41** | **358** | *e*P | | **P** | **09 27 00.7** | **+0.7** |
| **BRRC** | **Barranca, Sant** | **21.55** | **5** | *e*P | | **P** | **09 27 03.1** | **+1.7** |
| **ZARC** | **Zaragoza, Cauc** | **21.87** | **2** | *e*P | | **P** | **09 27 04.9** | **0.0** |
| **PAMC** | **Pamplona, Colo** | **21.88** | **7** | *e*P | | **P** | **09 27 07.5** | **+2.0** |
| **OCAC** | **Ocana** | **22.71** | **5** | *e*P | | **P** | **09 27 14.0** | **+0.1** |
| **MOTC** | **Monteria, Cord** | **23.15** | **359** | *e*P | | **P** | **09 27 18.4** | **+0.2** |
| **SDV** | **Santo Domingo** | **23.73** | **12** | P | | **P** | **09 27 25.2** | **+1.1** |
| | comp=Z,15nm,0.7s,baz=181,slow=14,SNR=18 | | | | | | | |
| SDV | | | | LR | | LR | 09 37 49.0 | |
| | comp=Z,318nm,18.5s,baz=196,slow=39 | | | | | | | |
| **SDV** | **Santo Domingo** | **23.73** | **12** | *e*P | | **P** | **09 27 25.0** | **+1.0** |
| | comp=Z,52nm,0.9s | | | | | | | |
| **BCIP** | **Isla Barro Col** | **23.93** | **349** | *e*P | | **P** | **09 27 24.6** | **-1.1** |
| | comp=Z,174nm,1.8s | | | | | | | |
| **CODC** | **Agust¨n Codaz** | **24.37** | **5** | *e*P | | **P** | **09 27 29.8** | **0.0** |
| **HDC** | **Heredia** | **25.84** | **340** | *e*P | | **P** | **09 27 42.4** | **-0.8** |
| | comp=Z,63nm,1.0s | | | | | | | |
| **JTS** | **JuntasAbangare** | **26.39** | **339** | *i*P | | **P** | **09 27 48.9** | **+0.8** |
| **PLCA** | **Paso Flores** | **26.46** | **172** | P | | **P** | **09 27 48.6** | **0.0** |
| | comp=Z,3.0nm,0.8s,baz=10,slow=9.5,SNR=9.3 | | | | | | | |
| PLCA | | | | PcP | | **PcP** | **09 31 13.7** | **+0.8** |
| | comp=Z,2.6nm,0.8s,baz=344,slow=3.4,SNR=3.7 | | | | | | | |
| PLCA | | | | LR | | LR | 09 36 23.1 | |
| | comp=Z,71nm,21.9s,baz=336,slow=32 | | | | | | | |
| **PLCA** | **Paso Flores** | **26.46** | **172** | *e*P | | **P** | **09 27 49.7** | **+1.1** |
| PLCA | | | | pmax | | pmax | | |
| | comp=Z,26nm,1.4s | | | | | | | |
| **PLCA** | **Paso Flores** | **26.46** | **172** | *e*P | | **P** | **09 27 49.7** | **+1.1** |
| | comp=Z,26nm,1.4s | | | | | | | |
| **PCRV** | **Puerto La Cruz** | **26.77** | **24** | LR | | LR | 09 39 20.3 | |
| | comp=Z,299nm,19.6s,baz=222,slow=38 | | | | | | | |
| **USHA** | **Ushuaia** | **40.59** | **174** | P | | **P** | **09 29 51.4** | **+0.6** |
| | comp=Z,65nm,1.0s,baz=315,slow=2.9,SNR=3.7 | | | | | | | |
| **LNIG** | **Linares** | **45.66** | **329** | *e*P | | **P** | **09 30 30.9** | **-1.2** |
| | comp=Z,4.6nm,0.8s | | | | | | | |
| **347A** | **Saraland** | **47.36** | **345** | P | | **P** | **09 30 44.9** | **-0.4** |
| | baz=163 | | | | | | | |
| **248A** | **Dixon Mills** | **47.82** | **346** | P | | **P** | **09 30 48.5** | **-0.3** |
| | baz=164 | | | | | | | |
| 248A | | | | S | | **S** | **09 37 44.4** | **+1.8** |
| | baz=164 | | | | | | | |
| **247A** | **Quitman** | **48.00** | **345** | P | | **P** | **09 30 49.9** | **-0.3** |
| | baz=163 | | | | | | | |
| **344A** | **Westbrook Farm** | **48.01** | **342** | P | | **P** | **09 30 51.2** | **+0.9** |
| | baz=160 | | | | | | | |
| **441A** | **DeRidder** | **48.14** | **339** | P | | **P** | **09 30 52.2** | **+0.9** |
| | baz=157 | | | | | | | |
| **GOGA** | **Godfrey** | **48.27** | **351** | *e*P | | **P** | **09 30 51.3** | **-1.0** |
| GOGA | | | | pmax | | pmax | | |
| | comp=Z,11nm,1.0s | | | | | | | |
| **GOGA** | **Godfrey** | **48.27** | **351** | *e*P | | **P** | **09 30 51.3** | **-1.0** |
| | comp=Z,11nm,1.0s | | | | | | | |
| **HKT** | **Hockley** | **48.39** | **336** | *i*P | | **P** | **09 30 53.7** | **+0.5** |
| HKT | | | | pmax | | pmax | | |
| | comp=Z,53nm,2.0s | | | | | | | |
| **342A** | **Flagon Creek P** | **48.43** | **341** | P | | **P** | **09 30 53.7** | **+0.2** |
| | baz=158 | | | | | | | |
| **833A** | **Chaparral WMA,** | **48.50** | **331** | P | | **P** | **09 30 54.3** | **+0.2** |
| | baz=148 | | | | | | | |
| **147A** | **Livingston** | **48.51** | **346** | P | | **P** | **09 30 54.9** | **+0.8** |
| | baz=163 | | | | | | | |
| **244A** | **Avery, Jackson** | **48.55** | **343** | P | | **P** | **09 30 54.6** | **+0.1** |
| | baz=160 | | | | | | | |
| **LRAL** | **Lakeview Retre** | **48.56** | **347** | P | | **P** | **09 30 53.8** | **-0.8** |
| | baz=165 | | | | | | | |
| **LRAL** | **Lakeview Retre** | **48.56** | **347** | *e*P | | **P** | **09 30 53.9** | **-0.6** |
| | comp=Z,8.3nm,0.9s | | | | | | | |
| **Z49A** | **Columbiana** | **48.61** | **348** | P | | **P** | **09 30 54.1** | **-0.9** |
| | baz=166 | | | | | | | |
| **146A** | **Union** | **48.67** | **345** | P | | **P** | **09 30 55.5** | **+0.1** |
| | baz=162 | | | | | | | |
| **VBMS** | **Vicksburg** | **48.67** | **343** | P | | **P** | **09 30 56.1** | **+0.8** |
| | baz=160 | | | | | | | |
| **341A** | **Kurthwood** | **48.67** | **340** | P | | **P** | **09 30 55.4** | **0.0** |
| | baz=157 | | | | | | | |
| **145A** | **Houston Renfro** | **48.87** | **344** | P | | **P** | **09 30 57.3** | **+0.4** |
| | baz=161 | | | | | | | |
| **Z47A** | **Carrollton** | **48.96** | **346** | P | | **P** | **09 30 57.1** | **-0.5** |
| | baz=164,SNR=5.0 | | | | | | | |
| **Z48A** | **Northport** | **49.01** | **347** | P | | **P** | **09 30 56.9** | **-1.1** |
| | baz=164,SNR=6.6 | | | | | | | |
| **Z46A** | **Louisville** | **49.17** | **345** | P | | **P** | **09 30 59.3** | **+0.1** |
| | baz=163 | | | | | | | |
| **Y49A** | **Blount Mountai** | **49.23** | **348** | P | | **P** | **09 30 58.6** | **-1.1** |
| | baz=166 | | | | | | | |
| **Y48A** | **Jasper** | **49.44** | **347** | P | | **P** | **09 31 00.1** | **-1.2** |
| | baz=165 | | | | | | | |
| **Z45A** | **Winona** | **49.53** | **344** | P | | **P** | **09 31 02.3** | **+0.4** |
| | baz=162 | | | | | | | |
| **Y47A** | **UCPARC, Winfie** | **49.58** | **346** | P | | **P** | **09 31 01.3** | **-1.1** |
| | baz=164,SNR=6.1 | | | | | | | |
| **X50A** | **Fort Payne** | **49.66** | **349** | P | | **P** | **09 31 01.8** | **-1.2** |
| | baz=167,SNR=6.8 | | | | | | | |
| **KMSC** | **Kings Mountain** | **49.70** | **354** | P | | **P** | **09 31 03.0** | **-0.3** |
| | baz=173,SNR=7.2 | | | | | | | |
| **KMSC** | **Kings Mountain** | **49.70** | **354** | *e*P | | **P** | **09 31 01.8** | **-1.5** |
| | comp=Z,20nm,0.8s | | | | | | | |
| **Y46A** | **Houston** | **49.80** | **345** | P | | **P** | **09 31 03.1** | **-0.9** |
| | baz=163 | | | | | | | |
| **435B** | **Jarrell** | **49.83** | **335** | P | | **P** | **09 31 03.8** | **-0.5** |
| | baz=152 | | | | | | | |
| **X49A** | **Woodville** | **49.85** | **348** | P | | **P** | **09 31 03.3** | **-1.1** |
| | baz=166 | | | | | | | |
| **X48A** | **Hartselle** | **49.94** | **347** | P | | **P** | **09 31 03.9** | **-1.1** |
| | baz=165 | | | | | | | |
| **Y45A** | **Yeager Farm, C** | **49.96** | **345** | P | | **P** | **09 31 04.9** | **-0.3** |
| | baz=162 | | | | | | | |
| **X47A** | **Russelville** | **50.17** | **347** | P | | **P** | **09 31 05.4** | **-1.4** |
| | baz=164 | | | | | | | |
| **237A** | **Washetta, Mont** | **50.21** | **337** | P | | **P** | **09 31 06.8** | **-0.3** |
| | baz=154 | | | | | | | |
| **Z41A** | **Richland Creek** | **50.32** | **341** | P | | **P** | **09 31 08.1** | **+0.2** |
| | baz=158 | | | | | | | |
| **X45A** | **UM Field Stati** | **50.45** | **345** | P | | **P** | **09 31 09.1** | **+0.2** |
| | baz=162 | | | | | | | |
| **SWET** | **Sewanee** | **50.45** | **349** | *e*P | | **P** | **09 31 06.4** | **-2.6** |
| | comp=Z,14nm,0.8s | | | | | | | |
| **236A** | **Katherine and** | **50.48** | **337** | P | | **P** | **09 31 09.1** | **-0.1** |
| | baz=153 | | | | | | | |
| **Z40A** | **Long Farm, Mag** | **50.51** | **340** | P | | **P** | **09 31 09.1** | **-0.3** |
| | baz=157 | | | | | | | |
| **JCT** | **Junction City** | **50.52** | **333** | P | | **P** | **09 31 09.2** | **-0.3** |
| | baz=149 | | | | | | | |
| **OXF** | **Oxford** | **50.54** | **345** | P | | **P** | **09 31 08.5** | **-1.1** |
| | baz=162 | | | | | | | |
| **OXF** | **Oxford** | **50.54** | **345** | *e*P | | **P** | **09 31 08.5** | **-1.1** |
| OXF | | | | pmax | | pmax | | |
| | comp=Z,50nm,1.3s | | | | | | | |
| **OXF** | **Oxford** | **50.54** | **345** | *e*P | | **P** | **09 31 08.5** | **-1.1** |
| | comp=Z,50nm,1.3s | | | | | | | |
| **Y42A** | **Garnett, Star** | **50.55** | **342** | P | | **P** | **09 31 09.8** | **+0.1** |
| | baz=159 | | | | | | | |
| **WLAR** | **White Oak Lake** | **50.81** | **341** | *e*P | | **P** | **09 31 10.7** | **-1.0** |
| | comp=Z,74nm,1.3s | | | | | | | |
| **WHTX** | **Lake Whitney,** | **50.84** | **336** | P | | **P** | **09 31 11.4** | **-0.5** |
| | baz=152,SNR=5.2 | | | | | | | |
| **WHTX** | **Lake Whitney,** | **50.84** | **336** | *e*P | | **P** | **09 31 10.7** | **-1.2** |
| | comp=Z,14nm,0.9s | | | | | | | |
| **Y41A** | **Eaglette Beard** | **50.84** | **342** | P | | **P** | **09 31 12.1** | **+0.2** |
| | baz=158 | | | | | | | |
| **136A** | **Ennis** | **50.90** | **337** | P | | **P** | **09 31 12.0** | **-0.3** |
| | baz=153 | | | | | | | |
| **V48A** | **Smith Brothers** | **51.13** | **348** | P | | **P** | **09 31 12.7** | **-1.4** |
| | baz=166,SNR=6.4 | | | | | | | |
| **LPIG** | **La Paz** | **51.32** | **318** | LR | | LR | 09 49 30.2 | |
| | comp=Z,80nm,18.8s,baz=152,slow=32 | | | | | | | |
| **LTX** | **Lajitas** | **51.42** | **328** | *e*P | | **P** | **09 31 15.5** | **-1.0** |
| LTX | | | | *e**PP | | **pP** | **09 31 29.0** | **-0.2** |
| LTX | | | | *e**SP | | **sP** | **09 31 34.8** | **+0.4** |
| **LTX** | **Lajitas** | **51.42** | **328** | *e*P | | **P** | **09 31 15.5** | **-1.0** |
| LTX | | | | epP | | **pP** | **09 31 29.0** | **-0.2** |
| LTX | | | | esP | | **sP** | **09 31 34.8** | **+0.4** |
| **TXAR** | **Lajitas Array** | **51.42** | **328** | P | | **P** | **09 31 15.5** | **-1.0** |
| | comp=Z,2.4nm,0.6s,baz=150,slow=8.7,SNR=44 | | | | | | | |
| TXAR | | | | pP | | **pP** | **09 31 29.0** | **-0.2** |
| | comp=Z,2.9nm,0.8s,baz=154,slow=8.4,SNR=9.8 | | | | | | | |
| TXAR | | | | sP | | **sP** | **09 31 34.8** | **+0.4** |
| | comp=Z,6.8nm,0.9s,baz=149,slow=7.6,SNR=10 | | | | | | | |
| **TXAR** | **Lajitas Array** | **51.42** | **328** | P | | **P** | **09 31 15.5** | **-1.0** |
| **TX31** | **Lajitas Ar. Si** | **51.42** | **328** | *e*P | | **P** | **09 31 15.6** | **-0.9** |
| **Z36A** | **Blue Ridge** | **51.58** | **337** | P | | **P** | **09 31 17.4** | **0.0** |
| | baz=154 | | | | | | | |
| **V45A** | **Humboldt** | **51.60** | **346** | P | | **P** | **09 31 15.9** | **-1.6** |
| | baz=163 | | | | | | | |
| **WVT** | **Waverly** | **51.72** | **347** | P | | **P** | **09 31 16.6** | **-1.8** |
| | baz=165 | | | | | | | |
| **WVT** | **Waverly** | **51.72** | **347** | *e*P | | **P** | **09 31 16.1** | **-2.3** |
| WVT | | | | pmax | | pmax | | |
| | comp=Z,23nm,1.5s | | | | | | | |
| **WVT** | **Waverly** | **51.72** | **347** | *e*P | | **P** | **09 31 16.1** | **-2.3** |
| | comp=Z,22nm,1.5s | | | | | | | |
| **MIAR** | **Mount Ida** | **51.75** | **341** | P | | **P** | **09 31 17.9** | **-0.7** |
| | baz=158 | | | | | | | |
| **MIAR** | **Mount Ida** | **51.75** | **341** | *e*P | | **P** | **09 31 18.0** | **-0.7** |
| MIAR | | | | pmax | | pmax | | |
| | comp=Z,36nm,1.8s | | | | | | | |
| **MIAR** | **Mount Ida** | **51.75** | **341** | *e*P | | **P** | **09 31 18.0** | **-0.7** |
| | comp=Z,36nm,1.8s | | | | | | | |
| **U48A** | **Cassie Pea, Po** | **51.83** | **349** | P | | **P** | **09 31 18.7** | **-0.5** |
| | baz=166 | | | | | | | |
| **X39A** | **Fountain Ranch** | **51.89** | **340** | P | | **P** | **09 31 19.0** | **-0.8** |
| | baz=157 | | | | | | | |
| **U47A** | **Clarksville** | **51.91** | **348** | P | | **P** | **09 31 18.7** | **-1.1** |
| | baz=165 | | | | | | | |
| **Y37A** | **Hugo** | **51.92** | **339** | P | | **P** | **09 31 19.9** | **0.0** |
| | baz=155,SNR=11 | | | | | | | |
| **W41B** | **Gary Mavity, V** | **51.93** | **342** | P | | **P** | **09 31 19.5** | **-0.5** |
| | baz=159 | | | | | | | |
| **WHAR** | **Wooly Hollow** | **52.05** | **342** | *e*P | | **P** | **09 31 19.9** | **-1.0** |
| | comp=Z,35nm,1.6s | | | | | | | |
| **Y36A** | **Durant** | **52.09** | **338** | P | | **P** | **09 31 20.5** | **-0.7** |
| | baz=154 | | | | | | | |
| **IP05** | **Hopewell Churc** | **52.11** | **358** | *e*P | | **P** | **09 31 21.2** | **-0.1** |
| | comp=Z,43nm,1.7s | | | | | | | |
| **W40A** | **Ferguson Farm,** | **52.19** | **342** | P | | **P** | **09 31 21.3** | **-0.7** |
| | baz=158 | | | | | | | |
| **IP07** | **Quail** | **52.21** | **357** | *e*P | | **P** | **09 31 22.2** | **+0.1** |
| | comp=Z,24nm,0.9s | | | | | | | |
| **IP06** | **Yanceyville** | **52.23** | **357** | *e*P | | **P** | **09 31 21.9** | **-0.3** |
| | comp=Z,21nm,0.8s | | | | | | | |
| **IP01** | **Cuckoo** | **52.25** | **358** | *e*P | | **P** | **09 31 22.3** | **0.0** |
| | comp=Z,20nm,1.0s | | | | | | | |
| **X38A** | **Whitesboro** | **52.27** | **340** | P | | **P** | **09 31 22.2** | **-0.4** |
| | baz=156 | | | | | | | |
| **ABTX** | **Abilene, Hawle** | **52.29** | **334** | P | | **P** | **09 31 22.1** | **-0.7** |
| | baz=150 | | | | | | | |
| **ABTX** | **Abilene, Hawle** | **52.29** | **334** | *e*P | | **P** | **09 31 21.7** | **-1.0** |
| | comp=Z,19nm,0.8s | | | | | | | |
| **SPRD** | **Spring Road, M** | **52.31** | **358** | *e*P | | **P** | **09 31 22.6** | **-0.2** |
| | comp=Z,19nm,0.8s | | | | | | | |
| **IP03** | **Louisa** | **52.31** | **357** | *e*P | | **P** | **09 31 22.9** | **0.0** |
| | comp=Z,16nm,0.9s | | | | | | | |
| **CVRD** | **Centerville Ro** | **52.35** | **358** | *e*P | | **P** | **09 31 23.3** | **+0.2** |
| | comp=Z,18nm,0.9s | | | | | | | |
| **Y35A** | **Marietta** | **52.37** | **337** | P | | **P** | **09 31 23.5** | **+0.1** |
| | baz=153,SNR=5.3 | | | | | | | |
| **T48A** | **Bowling Green** | **52.38** | **349** | P | | **P** | **09 31 21.9** | **-1.4** |
| | baz=167 | | | | | | | |
| **X37A** | **Clayton** | **52.39** | **339** | P | | **P** | **09 31 23.2** | **-0.2** |
| | baz=156,SNR=6.1 | | | | | | | |
| **X37A** | **Clayton** | **52.39** | **339** | *e*P | | **P** | **09 31 22.9** | **-0.5** |
| | comp=Z,121nm,1.9s | | | | | | | |
| **T47A** | **Sharon Grove** | **52.40** | **348** | P | | **P** | **09 31 22.0** | **-1.4** |
| | baz=166 | | | | | | | |
| **PTRD** | **Partlow Road** | **52.40** | **358** | *e*P | | **P** | **09 31 23.3** | **-0.1** |
| | comp=Z,12nm,0.6s | | | | | | | |
| **W39A** | **Magazine** | **52.42** | **341** | P | | **P** | **09 31 23.4** | **-0.2** |
| | baz=158 | | | | | | | |
| **V41A** | **Mountainview** | **52.47** | **343** | P | | **P** | **09 31 23.1** | **-1.0** |
| | baz=160 | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| S41A | Jillco Farms, baz=160,SNR=10 | 54.05 | 344 | P | | P | 09 31 | 34.4 | -1.2 |
| FVM | French Village | 54.09 | 345 | eP | | P | 09 31 | 35.0 | -0.9 |
| FVM | comp=Z,10.0nm,0.7s | | | pmax | | pmax | | | |
| FVM | French Village comp=Z,9.6nm,0.7s | 54.09 | 345 | eP | | P | 09 31 | 35.0 | -0.9 |
| Q47A | Bedord North L baz=167,SNR=7.7 | 54.16 | 349 | P | | P | 09 31 | 34.7 | -1.6 |
| MNTX | Cornudas Mount baz=144 | 54.20 | 328 | P | | P | 09 31 | 35.3 | -1.5 |
| MNTX | Cornudas Mount comp=Z,9.4nm,1.4s | 54.20 | 328 | eP | | P | 09 31 | 35.4 | -1.5 |
| R43A | Red Bud baz=163 | 54.25 | 346 | P | | P | 09 31 | 35.6 | -1.4 |
| S40A | Lebanon baz=160,SNR=6.7 | 54.27 | 343 | P | | P | 09 31 | 35.8 | -1.4 |
| T38A | Diamond baz=157,SNR=7.1 | 54.27 | 341 | P | | P | 09 31 | 36.0 | -1.3 |
| OLIL | Olney comp=Z,30nm,0.8s | 54.28 | 348 | eP | | P | 09 31 | 35.7 | -1.5 |
| CCM | Cathedral Cave baz=161 | 54.36 | 345 | P | | P | 09 31 | 36.4 | -1.5 |
| CCM | Cathedral Cave | 54.36 | 345 | eP | | P | 09 31 | 36.2 | -1.6 |
| CCM | comp=Z,9.0nm,1.0s | | | pmax | | pmax | | | |
| CCM | Cathedral Cave comp=Z,8.9nm,1.0s | 54.36 | 345 | eP | | P | 09 31 | 36.2 | -1.6 |
| BLO | Bloomington | 54.41 | 349 | eP | | P | 09 31 | 36.6 | -1.6 |
| BLO | comp=Z,12nm,0.6s | | | pmax | | pmax | | | |
| BLO | Bloomington comp=Z,12nm,0.6s | 54.41 | 349 | eP | | P | 09 31 | 36.6 | -1.6 |
| Q45A | Warren Harvey, baz=165,SNR=9.3 | 54.45 | 348 | P | | P | 09 31 | 36.9 | -1.6 |
| R42A | Luebbering baz=162 | 54.46 | 345 | P | | P | 09 31 | 37.2 | -1.4 |
| U35A | Pawnee baz=154,SNR=7.1 | 54.47 | 339 | P | | P | 09 31 | 37.6 | -1.2 |
| U35A | Pawnee comp=Z,59nm,1.5s | 54.47 | 339 | eP | | P | 09 31 | 37.5 | -1.2 |
| T37A | Cheneyville 18 baz=157,SNR=5.8 | 54.55 | 341 | P | | P | 09 31 | 38.1 | -1.2 |
| O56A | Blue Knob Stat baz=176 | 54.58 | 357 | P | | P | 09 31 | 39.0 | -0.5 |
| S39A | Bolivar baz=159,SNR=8.6 | 54.59 | 343 | P | | P | 09 31 | 38.4 | -1.2 |
| R41A | Rosebud baz=161,SNR=7.0 | 54.62 | 345 | P | | P | 09 31 | 38.2 | -1.6 |
| Q44A | Meyer Farm, Va baz=164,SNR=8.8 | 54.64 | 347 | P | | P | 09 31 | 38.3 | -1.5 |
| P47A | Martinsville baz=167 | 54.67 | 350 | P | | P | 09 31 | 38.7 | -1.3 |
| S38A | Stockton baz=158 | 54.70 | 342 | P | | P | 09 31 | 39.1 | -1.3 |
| T36A | Boggs Farm, Ca baz=156 | 54.80 | 340 | P | | P | 09 31 | 40.4 | -0.7 |
| MSTX | Muleshoe baz=147 | 54.80 | 332 | P | | P | 09 31 | 39.8 | -1.5 |
| Q43A | New Douglas baz=163 | 54.83 | 346 | P | | P | 09 31 | 39.9 | -1.4 |
| R40A | Maddies Statio baz=160,SNR=8.3 | 54.85 | 344 | P | | P | 09 31 | 40.0 | -1.5 |
| T35A | Sooner Cattle baz=155,SNR=7.1 | 54.88 | 339 | P | | P | 09 31 | 40.6 | -1.1 |
| P46A | Rosedale baz=166 | 54.96 | 349 | P | | P | 09 31 | 40.6 | -1.6 |
| P45A | Graceland, Par baz=166,SNR=7.4 | 54.98 | 348 | P | | P | 09 31 | 40.8 | -1.5 |
| Q42A | Golden Eagle baz=162,SNR=8.3 | 54.99 | 346 | P | | P | 09 31 | 41.1 | -1.3 |
| R39A | Chumby, Stover baz=159 | 55.09 | 343 | P | | P | 09 31 | 41.8 | -1.3 |
| P44A | Sand Creek, Wi baz=164 | 55.10 | 348 | P | | P | 09 31 | 41.6 | -1.5 |
| S37A | Fort Scott baz=157,SNR=7.1 | 55.10 | 341 | P | | P | 09 31 | 42.0 | -1.2 |
| N59A | State Game Lan baz=180 | 55.15 | 360 | P | | P | 09 31 | 43.6 | 0.0 |
| Q41A | Truxton baz=161 | 55.21 | 345 | P | | P | 09 31 | 42.7 | -1.2 |
| T34A | McClaskey Farm baz=154,SNR=6.4 | 55.21 | 339 | P | | P | 09 31 | 43.1 | -1.0 |
| R38A | Fenwick Farm, baz=158,SNR=5.6 | 55.22 | 342 | P | | P | 09 31 | 42.6 | -1.5 |
| U32A | Winter Ranch, baz=152 | 55.30 | 337 | P | | P | 09 31 | 43.5 | -1.2 |
| S36A | Lake Cedric, C baz=156,SNR=5.9 | 55.31 | 341 | P | | P | 09 31 | 43.5 | -1.2 |
| N54A | Moraine State baz=175 | 55.36 | 356 | P | | P | 09 31 | 44.1 | -1.0 |
| O47A | Sheridan baz=167 | 55.38 | 350 | P | | P | 09 31 | 43.8 | -1.4 |
| P43A | Skaggs, Pawnee baz=163 | 55.46 | 347 | P | | P | 09 31 | 44.1 | -1.6 |
| Q40A | Laux Farm, Aux baz=160 | 55.46 | 344 | P | | P | 09 31 | 44.3 | -1.5 |
| S35A | Otter Creek Ra baz=155 | 55.51 | 340 | P | | P | 09 31 | 45.1 | -1.1 |
| P42A | Winchester baz=162 | 55.59 | 346 | P | | P | 09 31 | 45.1 | -1.6 |
| O45A | Potomac baz=166,SNR=5.1 | 55.67 | 349 | P | | P | 09 31 | 45.2 | -2.1 |
| SFIN | Lafayette baz=166 | 55.68 | 349 | P | | P | 09 31 | 45.4 | -2.0 |
| Q39A | Willow Grove F baz=159,SNR=8.3 | 55.75 | 344 | P | | P | 09 31 | 46.8 | -1.1 |
| R36A | Gordon, Harris baz=156 | 55.83 | 341 | P | | P | 09 31 | 47.2 | -1.3 |
| P41A | Barry, Barry baz=162 | 55.85 | 345 | P | | P | 09 31 | 46.9 | -1.6 |
| Q38A | Cooks Store, C baz=159,SNR=18 | 55.85 | 343 | P | | P | 09 31 | 47.4 | -1.2 |
| M54A | Oil Creek Stat baz=175 | 55.88 | 356 | P | | P | 09 31 | 47.5 | -1.3 |
| P40A | Paris baz=161 | 55.96 | 345 | P | | P | 09 31 | 47.6 | -1.7 |
| Q37A | Longview Farm, baz=158 | 56.02 | 342 | P | | P | 09 31 | 48.6 | -1.2 |
| 319A | Douglas | 56.02 | 325 | eP | | P | 09 31 | 49.9 | -0.2 |
| 319A | | | | epP | | pP | 09 32 | 03.6 | +0.6 |
| O43A | Sugar Creek Fa baz=164 | 56.03 | 347 | P | | P | 09 31 | 49.0 | -0.9 |
| R35A | Emporia Munici baz=156 | 56.05 | 340 | P | | P | 09 31 | 49.5 | -0.5 |
| 121A | Cookes Peak, D baz=142 | 56.10 | 327 | P | | P | 09 31 | 49.9 | -0.9 |
| P39B | Salisbury baz=160,SNR=12 | 56.10 | 344 | P | | P | 09 31 | 49.1 | -1.3 |
| O42A | Bath baz=163,SNR=5.5 | 56.11 | 347 | P | | P | 09 31 | 48.8 | -1.6 |
| N46A | Monticello baz=167 | 56.12 | 350 | P | | P | 09 31 | 48.5 | -2.0 |
| O41A | Passleys Farm, baz=162 | 56.22 | 346 | P | | P | 09 31 | 49.6 | -1.6 |
| N44A | Piper City baz=165 | 56.28 | 348 | P | | P | 09 31 | 49.0 | -2.6 |
| HDIL | Hopedale baz=164 | 56.28 | 347 | P | | P | 09 31 | 49.6 | -2.1 |
| R34A | Isabella, Hill baz=154,SNR=6.1 | 56.38 | 339 | P | | P | 09 31 | 51.6 | -0.9 |
| P38A | Dawn baz=159,SNR=6.4 | 56.45 | 343 | P | | P | 09 31 | 51.4 | -1.4 |
| O40A | La Belle baz=161 | 56.47 | 345 | P | | P | 09 31 | 51.3 | -1.6 |
| Q35A | Mercer Eighty, baz=156 | 56.49 | 341 | P | | P | 09 31 | 52.4 | -0.8 |
| M46A | Old House Fiel baz=167 | 56.55 | 350 | P | | P | 09 31 | 51.9 | -1.6 |
| N43A | Stutzman Famil baz=164 | 56.63 | 348 | P | | P | 09 31 | 52.5 | -1.6 |
| P37A | Lathrop baz=158 | 56.64 | 343 | P | | P | 09 31 | 53.1 | -1.1 |
| N42A | Yates City baz=163 | 56.71 | 347 | P | | P | 09 31 | 52.6 | -2.1 |
| O39A | Kirksville baz=160,SNR=5.4 | 56.77 | 344 | P | | P | 09 31 | 53.7 | -1.4 |
| Q34A | Chapman baz=155 | 56.84 | 340 | P | | P | 09 31 | 54.4 | -1.3 |
| O38A | Galt baz=159 | 56.89 | 344 | P | | P | 09 31 | 54.8 | -1.2 |
| KSU1 | Kansas State U baz=155 | 56.89 | 340 | P | | P | 09 31 | 54.6 | -1.4 |
| KSU1 | Kansas State U comp=Z,23nm,1.3s | 56.89 | 340 | eP | | P | 09 31 | 54.5 | -1.6 |
| LPM | Los Pinos Moun | 56.91 | 329 | eP | | P | 09 31 | 56.1 | -0.4 |
| P36A | Good Intent, A baz=157 | 56.93 | 342 | P | | P | 09 31 | 54.9 | -1.4 |
| M43A | Waltham Townsh baz=164 | 57.06 | 348 | P | | P | 09 31 | 55.2 | -2.0 |
| P35A | Duane Minner, baz=156 | 57.09 | 341 | P | | P | 09 31 | 56.0 | -1.5 |
| O37A | Wolven Farm, M baz=158 | 57.12 | 343 | P | | P | 09 31 | 56.6 | -1.1 |
| LAZ | Ladron | 57.24 | 329 | eP | | P | 09 31 | 58.6 | -0.2 |
| ANMO | Albuquerque baz=144 | 57.34 | 330 | P | | P | 09 31 | 58.7 | -0.7 |
| ANMO | Albuquerque | 57.34 | 330 | iP | | P | 09 31 | 59.1 | -0.4 |
| ANMO | comp=Z,10.0nm,1.3s | | | pmax | | pmax | | | |
| ANMO | Albuquerque comp=Z,8.8nm,1.2s | 57.34 | 330 | eP | | P | 09 31 | 58.8 | -0.7 |
| M41A | Milan baz=163 | 57.34 | 347 | P | | P | 09 31 | 57.4 | -1.7 |
| N39A | Derby Farms, D baz=160 | 57.34 | 345 | P | | P | 09 31 | 57.5 | -1.6 |
| P34A | Walnut Farm, R baz=155,SNR=6.5 | 57.37 | 340 | P | | P | 09 31 | 58.0 | -1.4 |
| N38A | Joes South For baz=160,SNR=6.4 | 57.45 | 344 | P | | P | 09 31 | 58.5 | -1.4 |
| TUC | Tucson baz=138 | 57.56 | 325 | P | | P | 09 32 | 00.1 | -0.9 |
| TUC | Tucson | 57.56 | 325 | eP | | P | 09 32 | 00.4 | -0.6 |
| TUC | | | | e*PP | | pP | 09 32 | 14.0 | +0.1 |
| TUC | comp=Z,6.0nm,1.1s | | | pmax | | pmax | | | |
| TUC | Tucson comp=Z,6.2nm,1.1s | 57.56 | 325 | eP | | P | 09 32 | 00.4 | -0.6 |
| TUC | | | | epP | | pP | 09 32 | 14.0 | +0.1 |
| M40A | Post Highland baz=162 | 57.60 | 346 | P | | P | 09 31 | 59.0 | -2.0 |
| N37A | Lee Faris, Mou baz=158 | 57.69 | 343 | P | | P | 09 32 | 00.4 | -1.2 |
| CBKS | Cedar Bluff baz=152 | 57.72 | 338 | P | | P | 09 32 | 01.3 | -0.6 |
| CBKS | Cedar Bluff | 57.72 | 338 | eP | | P | 09 32 | 01.5 | -0.5 |
| CBKS | comp=Z,30nm,1.0s | | | pmax | | pmax | | | |
| CBKS | Cedar Bluff comp=Z,30nm,1.0s | 57.72 | 338 | eP | | P | 09 32 | 01.4 | -0.5 |
| L43A | Garden Prairie baz=165 | 57.74 | 348 | P | | P | 09 32 | 00.2 | -1.7 |
| O34A | Beatrice baz=156,SNR=7.0 | 57.90 | 341 | P | | P | 09 32 | 01.4 | -1.8 |
| N36A | Muff Farm, Cla baz=158 | 57.95 | 343 | P | | P | 09 32 | 02.4 | -1.1 |
| L41A | Preston baz=163 | 58.00 | 347 | P | | P | 09 32 | 01.7 | -2.0 |
| M38A | Pleasantville baz=160 | 58.03 | 344 | P | | P | 09 32 | 02.6 | -1.4 |
| O33A | Hebron baz=155,SNR=5.1 | 58.09 | 340 | P | | P | 09 32 | 03.2 | -1.3 |
| L40A | Anamosa baz=162 | 58.15 | 346 | P | | P | 09 32 | 03.2 | -1.6 |
| K43A | Bungton baz=165 | 58.16 | 349 | P | | P | 09 32 | 03.1 | -1.8 |
| T25A | Trinidad baz=147,SNR=5.2 | 58.18 | 333 | P | | P | 09 32 | 04.9 | -0.5 |
| T25A | Trinidad comp=Z,19nm,1.4s | 58.18 | 333 | eP | | P | 09 32 | 04.7 | -0.7 |
| N35A | Tabor baz=157 | 58.20 | 342 | P | | P | 09 32 | 03.9 | -1.3 |
| M37A | Trindle Farm, baz=159,SNR=11 | 58.24 | 344 | P | | P | 09 32 | 04.3 | -1.2 |
| K42A | Prairie Point, baz=164 | 58.43 | 348 | P | | P | 09 32 | 05.0 | -1.8 |
| N34A | Lincoln baz=156,SNR=5.1 | 58.44 | 341 | P | | P | 09 32 | 05.3 | -1.6 |
| K41A | Shullsburg baz=163 | 58.46 | 347 | P | | P | 09 32 | 04.7 | -2.3 |
| 214A | Organ Pipe Nat baz=136,SNR=6.3 | 58.47 | 323 | P | | P | 09 32 | 07.3 | 0.0 |
| SCIA | State Center baz=160 | 58.49 | 344 | P | | P | 09 32 | 05.8 | -1.4 |
| M36A | Felix, Anita baz=158 | 58.50 | 343 | P | | P | 09 32 | 06.1 | -1.2 |
| L38A | Oak Wood Farm, baz=160 | 58.65 | 345 | P | | P | 09 32 | 06.5 | -1.8 |
| K40A | Colesburg baz=162 | 58.74 | 346 | P | | P | 09 32 | 07.2 | -1.7 |
| JFWS | Jewell Farm baz=163 | 58.75 | 347 | P | | P | 09 32 | 08.4 | -0.6 |
| M35A | Neda baz=157 | 58.77 | 342 | P | | P | 09 32 | 07.7 | -1.5 |
| J43A | Natural Harves baz=165,SNR=5.2 | 58.83 | 349 | P | | P | 09 32 | 07.7 | -1.8 |
| L37A | Phoenix Point, baz=159 | 58.84 | 344 | P | | P | 09 32 | 08.5 | -1.1 |
| K39A | Oelwein baz=161 | 58.91 | 346 | P | | P | 09 32 | 08.8 | -1.4 |
| KSCO | Kaye Shedlock' baz=149 | 59.01 | 335 | P | | P | 09 32 | 10.6 | -0.4 |
| KSCO | Kaye Shedlock' comp=Z,33nm,1.4s | 59.01 | 335 | eP | | P | 09 32 | 10.8 | -0.3 |
| L36A | Harm Buss Farm baz=158,SNR=5.7 | 59.06 | 343 | P | | P | 09 32 | 10.0 | -1.2 |
| M34A | Aspy Farms, Fr baz=156 | 59.07 | 342 | P | | P | 09 32 | 09.9 | -1.4 |
| K38A | Parkersburg baz=160 | 59.07 | 345 | P | | P | 09 32 | 09.7 | -1.5 |
| FRNY | Flat Rock comp=Z,25nm,0.9s | 59.09 | 2 | eP | | P | 09 32 | 11.3 | +0.1 |
| W18A | Petrified Fore baz=141 | 59.12 | 327 | P | | P | 09 32 | 11.9 | -0.1 |
| J41A | Loganville baz=164 | 59.13 | 348 | P | | P | 09 32 | 10.2 | -1.4 |
| SDCO | Great Sand Dun baz=146,SNR=20 | 59.17 | 332 | P | | P | 09 32 | 11.7 | -0.7 |
| SDCO | Great Sand Dun comp=Z,13nm,0.9s | 59.17 | 332 | eP | | P | 09 32 | 11.4 | -0.9 |
| J40A | Soldiers Grove baz=163 | 59.31 | 347 | P | | P | 09 32 | 11.3 | -1.6 |
| L35A | Bielow Farm, R baz=157 | 59.32 | 343 | P | | P | 09 32 | 11.6 | -1.4 |
| M33A | Taylor Creek F baz=155 | 59.32 | 341 | P | | P | 09 32 | 11.6 | -1.4 |
| K37A | Belmond baz=160 | 59.41 | 344 | P | | P | 09 32 | 12.1 | -1.4 |
| I42A | Draeger Farm, baz=165 | 59.42 | 349 | P | | P | 09 32 | 12.3 | -1.3 |
| L34A | Svendsen Farm, baz=156,SNR=5.3 | 59.43 | 342 | P | | P | 09 32 | 12.4 | -1.4 |
| J39A | Decorah baz=162 | 59.47 | 346 | P | | P | 09 32 | 12.2 | -1.8 |
| BGNE | Belgrade baz=154 | 59.48 | 340 | P | | P | 09 32 | 13.1 | -0.9 |
| BGNE | Belgrade comp=Z,42nm,0.8s | 59.48 | 340 | eP | | P | 09 32 | 13.2 | -0.9 |
| K36A | Gilmore City baz=159,SNR=12 | 59.50 | 344 | P | | P | 09 32 | 12.9 | -1.3 |
| X16A | Lo Mia Camp, P comp=Z,8.3nm,1.0s | 59.50 | 326 | eP | | P | 09 32 | 14.5 | -0.1 |
| X16A | | | | epP | | pP | 09 32 | 28.2 | +0.6 |
| I41A | Arkdale baz=164 | 59.77 | 348 | P | | P | 09 32 | 14.6 | -1.4 |
| S22A | 4UR Ranch, Cre baz=144,SNR=9.0 | 59.77 | 331 | P | | P | 09 32 | 16.5 | -0.1 |
| S22A | 4UR Ranch, Cre comp=Z,12nm,1.3s | 59.77 | 331 | eP | | P | 09 32 | 16.2 | -0.4 |
| K35A | Storm Lake baz=158,SNR=5.7 | 59.79 | 343 | P | | P | 09 32 | 15.1 | -1.1 |
| L33A | Hoskins baz=156 | 59.89 | 341 | P | | P | 09 32 | 15.7 | -1.2 |
| J37A | Redenius Farm, baz=160 | 59.89 | 345 | P | | P | 09 32 | 15.3 | -1.6 |
| I39A | Houston baz=162,SNR=5.2 | 59.92 | 347 | P | | P | 09 32 | 15.5 | -1.6 |
| H42A | Shiocton baz=165 | 59.94 | 349 | P | | P | 09 32 | 15.7 | -1.4 |
| K34A | Le Mars baz=157 | 60.01 | 343 | P | | P | 09 32 | 16.4 | -1.3 |
| Q24A | Divide baz=146,SNR=6.0 | 60.02 | 334 | P | | P | 09 32 | 17.9 | -0.4 |
| Q24A | Divide comp=Z,14nm,1.0s | 60.02 | 334 | eP | | P | 09 32 | 17.9 | -0.4 |
| Y14A | Wickenburg comp=Z,33nm,1.1s | 60.02 | 324 | eP | | P | 09 32 | 18.0 | 0.0 |
| Y14A | | | | epP | | pP | 09 32 | 31.6 | +0.6 |
| J36A | Seneca 1, Swea baz=159,SNR=12 | 60.12 | 344 | P | | P | 09 32 | 16.8 | -1.6 |
| MVCO | Mesa Verde baz=143,SNR=8.8 | 60.13 | 330 | P | | P | 09 32 | 18.5 | -0.5 |
| MVCO | Mesa Verde comp=Z,6.6nm,0.8s | 60.13 | 330 | eP | | P | 09 32 | 18.2 | -0.8 |
| I38A | Scanlan Farm, baz=161 | 60.28 | 346 | P | | P | 09 32 | 18.1 | -1.5 |
| WUAZ | Wupatki baz=139,SNR=11 | 60.29 | 327 | P | | P | 09 32 | 20.2 | +0.2 |
| WUAZ | Wupatki comp=Z,20nm,1.2s | 60.29 | 327 | eP | | P | 09 32 | 19.9 | -0.1 |
| WUAZ | | | | epP | | pP | 09 32 | 33.4 | +0.4 |
| J35A | Milford baz=158,SNR=5.7 | 60.38 | 344 | P | | P | 09 32 | 18.8 | -1.4 |
| H40A | Chili baz=163 | 60.41 | 348 | P | | P | 09 32 | 19.0 | -1.4 |
| I37A | Lemond, Waseca baz=160 | 60.52 | 345 | P | | P | 09 32 | 19.5 | -1.6 |
| J34A | George baz=157 | 60.52 | 343 | P | | P | 09 32 | 20.0 | -1.2 |
| K32A | Verdigre baz=155 | 60.55 | 341 | P | | P | 09 32 | 20.0 | -1.5 |
| H39A | Augusta baz=162 | 60.65 | 347 | P | | P | 09 32 | 20.7 | -1.4 |
| I36A | Fitzsimmons Fa baz=159 | 60.67 | 345 | P | | P | 09 32 | 20.8 | -1.4 |
| Y12C | Blythe baz=136,SNR=6.7 | 60.76 | 323 | P | | P | 09 32 | 23.2 | +0.2 |
| Y12C | Blythe comp=Z,11nm,1.0s | 60.76 | 323 | eP | | P | 09 32 | 23.0 | 0.0 |
| Y12C | | | | epP | | pP | 09 32 | 36.6 | +0.7 |
| K31A | O'Neill baz=154,SNR=9.4 | 60.77 | 340 | P | | P | 09 32 | 22.2 | -0.7 |
| I35A | Creekview Farm baz=158,SNR=10 | 60.78 | 344 | P | | P | 09 32 | 22.1 | -0.8 |
| J33A | Davis baz=156,SNR=10 | 60.84 | 342 | P | | P | 09 32 | 22.0 | -1.4 |
| H38A | Maiden Rock baz=161 | 60.87 | 346 | P | | P | 09 32 | 22.3 | -1.3 |
| PV01 | Paradox Valley | 60.90 | 330 | eP | | P | 09 32 | 23.4 | -0.8 |
| ISCO | Idaho Springs baz=146,SNR=5.3 | 60.91 | 334 | P | | P | 09 32 | 23.9 | -0.4 |
| ISCO | Idaho Springs | 60.91 | 334 | eP | | P | 09 32 | 23.8 | -0.5 |
| ISCO | comp=Z,7.0nm,0.8s | | | pmax | | pmax | | | |
| ISCO | Idaho Springs comp=Z,6.6nm,0.8s | 60.91 | 334 | eP | | P | 09 32 | 23.8 | -0.5 |
| PDMCI | Parker Dam,Lak baz=136 | 60.93 | 324 | P | | P | 09 32 | 24.1 | -0.1 |
| H37A | Dierke Farm, C baz=161 | 60.93 | 346 | P | | P | 09 32 | 22.9 | -1.1 |
| SMCO | Snowmass comp=Z,9.6nm,0.8s | 61.00 | 332 | eP | | P | 09 32 | 24.9 | -0.2 |
| ECSD | EROS Data Cent baz=156,SNR=13 | 61.12 | 343 | P | | P | 09 32 | 24.0 | -1.3 |
| ECSD | EROS Data Cent comp=Z,14nm,0.9s | 61.12 | 343 | eP | | P | 09 32 | 23.8 | -1.5 |
| H36A | Jessenland, He baz=160,SNR=9.2 | 61.17 | 345 | P | | P | 09 32 | 24.3 | -1.3 |
| I34A | Hadley baz=157,SNR=5.8 | 61.19 | 343 | P | | P | 09 32 | 24.5 | -1.2 |
| G39A | Holcombe baz=163 | 61.21 | 347 | P | | P | 09 32 | 24.6 | -1.3 |
| E45A | Wooded Hills, baz=169 | 61.22 | 352 | P | | P | 09 32 | 24.6 | -1.3 |
| BC3 | Big Chuckawall baz=135,SNR=6.2 | 61.24 | 322 | P | | P | 09 32 | 25.9 | -0.5 |
| G38A | Ridgeland baz=162,SNR=5.9 | 61.24 | 347 | P | | P | 09 32 | 25.0 | -1.1 |
| PV10 | Paradox Valley | 61.32 | 330 | eP | | P | 09 32 | 26.1 | -0.9 |
| W13A | Hualapai Mount comp=Z,10.0nm,1.4s | 61.36 | 324 | eP | | P | 09 32 | 27.6 | +0.2 |
| J31A | Geddes baz=154 | 61.36 | 341 | P | | P | 09 32 | 26.8 | -0.2 |
| IRM | Iron Mountain baz=135,SNR=15 | 61.41 | 323 | P | | P | 09 32 | 27.3 | -0.1 |
| I33A | Coleman baz=156,SNR=7.9 | 61.46 | 343 | P | | P | 09 32 | 26.4 | -1.1 |
| U15A | North Rim comp=Z,6.3nm,0.9s | 61.47 | 327 | eP | | P | 09 32 | 27.6 | -0.5 |
| SPMN | Marine on St. baz=161,SNR=11 | 61.51 | 346 | P | | P | 09 32 | 26.9 | -1.0 |
| SPMN | Marine on St. comp=Z,28nm,0.9s | 61.51 | 346 | eP | | P | 09 32 | 26.3 | -1.6 |
| H35A | Sunnyside Ranc baz=159,SNR=18 | 61.52 | 344 | P | | P | 09 32 | 26.5 | -1.4 |
| H34A | Spellman Lake, baz=158,SNR=14 | 61.74 | 344 | P | | P | 09 32 | 28.3 | -1.1 |
| G36A | St. Michael baz=160 | 61.75 | 345 | P | | P | 09 32 | 28.4 | -1.1 |
| F39A | Loretta baz=163 | 61.76 | 348 | P | | P | 09 32 | 28.0 | -1.5 |
| TPFO | Pinon Flats baz=134,SNR=5.1 | 61.80 | 322 | P | | P | 09 32 | 29.9 | -0.3 |
| BELC | Belle Mtn. Jos baz=134,SNR=5.3 | 61.80 | 322 | P | | P | 09 32 | 30.1 | -0.1 |
| XPFO | Piæon Flat comp=Z,11nm,1.0s | 61.80 | 322 | eP | | P | 09 32 | 30.4 | +0.1 |
| PFO | Pinyon Flats O baz=134,SNR=5.3 | 61.81 | 322 | P | | P | 09 32 | 30.4 | +0.1 |
| PFO | Pinyon Flats O | 61.81 | 322 | eP | | P | 09 32 | 30.4 | +0.1 |
| PFO | comp=Z,11nm,1.0s | | | pmax | | pmax | | | |
| PFO | Pinyon Flats O comp=Z,11nm,1.0s | 61.81 | 322 | eP | | P | 09 32 | 30.4 | +0.1 |
| G35A | Watkins baz=159,SNR=6.9 | 61.92 | 345 | P | | P | 09 32 | 29.5 | -1.1 |
| F37A | Hinrichs Farm, baz=161 | 61.94 | 346 | P | | P | 09 32 | 30.1 | -0.6 |
| N23A | Red Feather La baz=146 | 61.96 | 334 | P | | P | 09 32 | 30.9 | -0.4 |
| N23A | Red Feather La comp=Z,9.7nm,1.2s | 61.96 | 334 | eP | | P | 09 32 | 30.6 | -0.7 |
| F38A | Pierce - Schro baz=162 | 62.00 | 347 | P | | P | 09 32 | 30.0 | -1.1 |
| H33A | Prehn Over Nor baz=157,SNR=11 | 62.02 | 343 | P | | P | 09 32 | 30.2 | -1.1 |
| E40A | Wakefield baz=164 | 62.06 | 349 | P | | P | 09 32 | 30.3 | -1.2 |
| H32A | Carlson Farm, baz=156,SNR=9.7 | 62.06 | 342 | P | | P | 09 32 | 30.4 | -1.2 |
| E39A | Mellen baz=164 | 62.13 | 348 | P | | P | 09 32 | 30.8 | -1.2 |
| GMRC | Granite Mounta baz=135 | 62.15 | 323 | P | | P | 09 32 | 32.7 | +0.1 |
| G34A | Benson baz=158 | 62.24 | 344 | P | | P | 09 32 | 31.5 | -1.2 |
| F36A | Milaca baz=160,SNR=7.5 | 62.28 | 346 | P | | P | 09 32 | 32.0 | -1.0 |
| O20A | White River Ci baz=144,SNR=10 | 62.35 | 332 | P | | P | 09 32 | 33.2 | -0.6 |
| O20A | White River Ci comp=Z,14nm,0.8s | 62.35 | 332 | eP | | P | 09 32 | 33.6 | -0.2 |
| G33A | Ortonville baz=157,SNR=8.0 | 62.41 | 343 | P | | P | 09 32 | 32.5 | -1.4 |
| LCMT | Little Creek M comp=Z,5.7nm,0.9s | 62.41 | 326 | eP | | P | 09 32 | 34.2 | 0.0 |
| BBRC | Big Bear Solar baz=134 | 62.53 | 322 | P | | P | 09 32 | 35.3 | 0.0 |
| F35A | Swanville baz=159,SNR=7.5 | 62.53 | 345 | P | | P | 09 32 | 33.8 | -0.9 |
| HEC | Hector,Ludlow baz=134 | 62.58 | 323 | P | | P | 09 32 | 35.4 | 0.0 |
| SRU | San Rafael Swe | 62.61 | 330 | eP | | P | 09 32 | 35.4 | -0.2 |
| SRU | comp=Z,12nm,0.9s | | | pmax | | pmax | | | |
| SRU | San Rafael Swe comp=Z,12nm,0.9s | 62.61 | 330 | eP | | P | 09 32 | 35.4 | -0.2 |
| MTPU | Mount Pierson comp=Z,3.9nm,1.0s | 62.62 | 328 | eP | | P | 09 32 | 35.2 | -0.8 |
| F34A | Alexandria baz=158,SNR=7.1 | 62.65 | 345 | P | | P | 09 32 | 34.5 | -1.0 |
| SZCU | Shurtz Canyon comp=Z,16nm,1.5s | 62.76 | 327 | eP | | P | 09 32 | 36.2 | -0.5 |
| TUQ | Turquoise Moun baz=135 | 62.76 | 323 | P | | P | 09 32 | 36.5 | -0.1 |
| Q16A | Castle Valley comp=Z,9.0nm,1.0s | 62.78 | 329 | eP | | P | 09 32 | 36.5 | -0.3 |
| E36A | McGregor baz=161,SNR=8.5 | 62.84 | 346 | P | | P | 09 32 | 35.9 | -0.8 |
| CCUT | Cedar City comp=Z,11nm,1.0s | 62.87 | 327 | eP | | P | 09 32 | 37.8 | +0.3 |
| BFSC | Mount Baldy Ra baz=133 | 62.96 | 321 | P | | P | 09 32 | 37.9 | 0.0 |
| F33A | 5 Mile Ranch, baz=157,SNR=13 | 62.97 | 344 | P | | P | 09 32 | 36.5 | -1.1 |
| MSU | Marysvale | 62.98 | 328 | eP | | P | 09 32 | 37.8 | -0.3 |
| MSU | Marysvale | 62.98 | 328 | eP | | P | 09 32 | 37.8 | -0.3 |
| P17A | Butcher Ranch, comp=Z,19nm,1.0s | 63.00 | 330 | eP | | P | 09 32 | 37.6 | -0.5 |
| SHPR | Sheep Range comp=Z,7.5nm,0.9s | 63.09 | 325 | eP | | P | 09 32 | 38.8 | 0.0 |
| TMUT | Trail Mountain comp=Z,7.2nm,1.0s | 63.09 | 329 | eP | | P | 09 32 | 38.5 | -0.4 |
| E35A | Pequot Lakes | 63.15 | 345 | P | | P | 09 32 | 37.9 | -0.8 |

baz=159,SNR=16
**MWC Mount Wilson 63.19 321** *e*P P 09 32 39.7 +0.1
MWC pmax pmax
comp=Z,16nm,1.3s
**MWC Mount Wilson 63.19 321** *e*P P 09 32 39.7 +0.1
comp=Z,16nm,1.3s
**F32A Veblen 63.22 343** P P 09 32 38.2 -1.0
baz=156,SNR=5.1
**D37A Cotton 63.26 347** P P 09 32 38.5 -1.0
baz=162
**SHOC Shoshone, Teco 63.29 324** P P 09 32 40.1 +0.1
baz=135
**E34A Wadena 63.30 345** P P 09 32 39.1 -0.7
baz=159,SNR=12
**D36A Goodland 63.44 347** P P 09 32 39.6 -1.1
baz=161
**E33A Westby DABS, E 63.50 344** P P 09 32 39.9 -1.2
baz=158,SNR=9.8
**F31A Hecla 63.54 342** P P 09 32 40.4 -0.9
baz=155,SNR=7.7
**C38A Sawbill Land. 63.55 348** P P 09 32 40.1 -1.3
baz=163
**D35A Remer 63.55 346** P P 09 32 40.5 -0.9
baz=160
**EDW2 Edwards Air Fo 63.60 322** P P 09 32 42.1 0.0
baz=133
**K22A Casper 63.66 335** P P 09 32 42.1 -0.4
baz=146,SNR=5.4
**K22A Casper 63.66 335** *e*P P 09 32 42.1 -0.4
comp=Z,15nm,0.8s
**C37A Embarrass 63.75 347** P P 09 32 41.8 -1.0
baz=162
**EYMN Ely 63.81 348** P P 09 32 42.1 -1.1
baz=163
**LRMC Laurel Mtn Rad 63.82 322** P P 09 32 43.2 -0.5
baz=134
**D34A Park Rapids 63.83 345** P P 09 32 42.3 -1.1
baz=159,SNR=6.8
**MPU Maple Canyon 63.85 330** *e*P P 09 32 43.4 -0.5
comp=Z,12nm,1.0s
**PSUT Pine Spring 63.86 327** *e*P P 09 32 44.0 +0.1
comp=Z,8.3nm,0.7s
**E32A Braaten, Kindr 63.87 344** P P 09 32 42.5 -1.0
baz=157
**C36A Pine Crest Far 63.92 347** P P 09 32 42.9 -0.9
baz=161,SNR=6.4
**RSSD Black Hills 63.92 337** P P 09 32 43.7 -0.6
baz=149
**RSSD Black Hills 63.92 337** *e*P P 09 32 43.7 -0.6
RSSD pmax pmax
comp=Z,7.0nm,1.1s
**RSSD Black Hills 63.92 337** *e*P P 09 32 43.7 -0.6
comp=Z,6.5nm,1.1s
**TPNV Topopah Spring 64.02 324** P P 09 32 45.4 +0.4
baz=135,SNR=7.6
**TPNV Topopah Spring 64.02 324** *e*P P 09 32 45.1 +0.1
TPNV pmax pmax
comp=Z,8.0nm,0.9s
**TPNV Topopah Spring 64.02 324** *e*P P 09 32 45.1 +0.1
comp=Z,8.0nm,0.9s
**NLU North Lily Min 64.03 329** *e*P P 09 32 45.0 0.0
comp=Z,13nm,1.2s
**FURC Furnace Creek, 64.03 324** P P 09 32 44.9 +0.1
baz=135,SNR=12
**D33A AnnSam, Waubun 64.05 345** P P 09 32 43.8 -1.0
baz=158,SNR=5.3
**E31A Nome 64.07 343** P P 09 32 44.0 -0.8
baz=156
**MPMC Manual Prospec 64.11 323** P P 09 32 45.1 -0.5
baz=134,SNR=6.3
**C35A Jirik Farms, M 64.12 346** P P 09 32 44.2 -1.0
baz=160
**JLU Jordanelle 64.22 330** *e*P P 09 32 46.2 -0.1
comp=Z,16nm,0.9s
**C34A RKJ Ranch, Bem 64.29 346** P P 09 32 45.2 -1.1
baz=159,SNR=12
**DAC Darwin (Calif) 64.32 323** *e*P P 09 32 46.8 -0.2
DAC *e**PP pP 09 32 59.9 -0.1
DAC pmax pmax
comp=Z,6.0nm,1.0s
**DAC Darwin (Calif) 64.32 323** *e*P P 09 32 46.8 -0.2
comp=Z,5.7nm,1.0s
DAC *e*pP pP 09 32 59.9 -0.1
**D32A Dogwood Acres, 64.35 344** P P 09 32 45.9 -0.8
baz=157,SNR=15
**CTU Camp Tracy 64.43 330** *e*P P 09 32 47.3 -0.3
comp=Z,8.2nm,0.8s
CTU *e*pP pP 09 33 01.2 +0.6
**D31A Mcclaflin, Tow 64.47 343** P P 09 32 46.3 -1.1
baz=156,SNR=8.9
**DUG Dugway, Tooele 64.58 329** P P 09 32 48.5 -0.1
baz=140,SNR=40
**DUG Dugway, Tooele 64.58 329** *e*P P 09 32 48.4 -0.1
DUG pmax pmax
comp=Z,23nm,0.8s
**DUG Dugway, Tooele 64.58 329** *e*P P 09 32 48.4 -0.1
comp=Z,23nm,0.8s
**TCUT Toone Canyon 64.60 331** *e*P P 09 32 48.7 0.0
comp=Z,20nm,0.9s
**C33A Trail 64.61 345** P P 09 32 47.4 -0.9
baz=158,SNR=5.4
**R11A Troy Canyon, C 64.65 326** P P 09 32 49.2 +0.1
baz=136,SNR=11
**R11A Troy Canyon, C 64.65 326** *e*P P 09 32 49.2 +0.1
comp=Z,6.1nm,0.9s
**B35A Bob, Littlefor 64.68 347** P P 09 32 47.6 -1.2
baz=160
**GRAC Grapevine Rang 64.69 324** P P 09 32 49.4 +0.2
baz=134
**PKM Mcpherson Peak 64.71 321** P P 09 32 49.5 -0.1
baz=132
**CWC Cottonwood Cre 64.72 323** P P 09 32 48.9 -0.6
baz=134
**VES Vestal, Richgr 64.91 322** P P 09 32 50.7 +0.1
baz=132
**B34A Aery, Baudette 65.01 346** P P 09 32 49.9 -1.1
baz=160,SNR=7.6
**B33A Robert and Kas 65.04 345** P P 09 32 50.3 -0.9
baz=158,SNR=5.1
**BW06 Boulder Array 65.05 333** P P 09 32 50.6 -1.1
baz=143,SNR=6.6
**BW06 Boulder Array 65.05 333** *e*P P 09 32 50.6 -1.1
comp=Z,8.2nm,1.2s
**PD31 Pinedale Array 65.05 333** *e*P P 09 32 50.8 -0.8
PD31 *e*pP pP 09 33 06.0 +1.3
**PDAR Pinedale Array 65.05 333** P P 09 32 50.5 -1.1
comp=Z,4.5nm,1.0s,baz=137,slow=5.9,SNR=22
PDAR sP sP 09 33 10.1 +0.1
comp=Z,2.1nm,1.0s,baz=169,slow=8.8,SNR=3.6
**PDAR Pinedale Array 65.05 333** *e*P P 09 32 50.1 -1.5
**SMMC Simmler 65.11 321** P P 09 32 51.5 -0.4
baz=132
**AGMN Agassiz Nation 65.13 345** P P 09 32 50.8 -0.9
baz=158,SNR=10
**AGMN Agassiz Nation 65.13 345** *e*P P 09 32 50.5 -1.2
comp=Z,23nm,0.8s
**C31A Landman Farms, 65.15 344** P P 09 32 51.1 -0.8
baz=156,SNR=17
**BGU Big Grassy Mou 65.24 329** *e*P P 09 32 51.6 -1.2
comp=Z,7.1nm,0.9s
**SPUT South Promonto 65.25 330** *e*P P 09 32 52.0 -0.9
comp=Z,14nm,1.2s
**RCTC Rector, Farmer 65.31 322** P P 09 32 51.7 -1.5
baz=132
**B32A Ashes, Strandq 65.39 345** P P 09 32 52.4 -1.0
baz=158,SNR=11
**A33A Warroad 65.61 346** P P 09 32 53.8 -1.0
baz=159,SNR=9.6
**B31A Greenbush Farm 65.71 344** P P 09 32 54.5 -1.0
baz=156,SNR=7.2
**MDND Maddock 65.73 342** P P 09 32 55.2 -0.5
baz=154,SNR=9.3
**MDND Maddock 65.73 342** *e*P P 09 32 55.0 -0.6
comp=Z,66nm,0.8s
**AHID Auburn Hatcher 65.74 332** *e*P P 09 32 55.5 -0.6
comp=Z,12nm,1.0s
**HVU Hansel Valley 65.76 330** *e*P P 09 32 55.6 -0.6
HVU pmax pmax
comp=Z,17nm,0.9s
**HVU Hansel Valley 65.76 330** *e*P P 09 32 55.5 -0.6
comp=Z,17nm,0.9s
**A32A Rocking H Ranc 65.86 345** P P 09 32 55.6 -0.9
baz=158
**REDW Red Top Meadow 66.10 332** *e*P P 09 32 57.9 -0.5
comp=Z,23nm,1.4s
**MDPB Devils Postpil 66.11 323** *e*P P 09 32 58.5 -0.2
comp=Z,8.3nm,0.9s
**SNOW Snow King Moun 66.13 333** *e*P P 09 32 58.3 -0.3
comp=Z,5.8nm,0.8s
**NV11 Mina Array Sit 66.14 324** *e*P P 09 32 58.5 -0.1
comp=Z,0.4nm,1.1s
**NV01 Mina Array Sit 66.22 324** *e*P P 09 32 58.8 -0.5
NV01 *e*pP pP 09 33 12.8 +0.4
**NVAR Mina Array Bea 66.22 324** P P 09 32 59.4 +0.1
comp=Z,3.3nm,0.8s,baz=142,slow=7.0,SNR=27
NVAR pP pP 09 33 12.8 +0.5
comp=Z,2.1nm,0.8s,baz=142,slow=6.8,SNR=7.9
NVAR sP sP 09 33 17.6 +0.1
comp=Z,2.2nm,0.8s,baz=142,slow=6.4,SNR=5.6
NVAR LR LR 09 58 30.2
comp=Z,109nm,18.7s,baz=274,slow=33
**TPAW Teton Pass 66.24 332** *e*P P 09 32 59.0 -0.3
comp=Z,4.5nm,0.8s
**MOOW Moose Ponds 66.36 333** *e*P P 09 32 59.5 -0.6
comp=Z,8.8nm,1.1s
**FXWY Fox Creek 66.39 333** *e*P P 09 32 59.9 -0.4
comp=Z,8.4nm,0.9s
**KVN Kaiserville 66.54 325** *e*P P 09 33 01.0 -0.2
KVN pmax pmax
comp=Z,4.0nm,1.1s
**KVN Kaiserville 66.54 325** *e*P P 09 33 01.0 -0.2
comp=Z,4.1nm,1.1s
**IMW Indian Meadow 66.56 333** *e*P P 09 33 01.3 -0.2
comp=Z,9.1nm,0.8s
**H17A Grant Village 66.79 333** P P 09 33 01.8 -1.0
baz=143
**RLMT Red Lodge 66.82 335** P P 09 33 02.6 -0.4
baz=144,SNR=5.4
**RLMT Red Lodge 66.82 335** *e*P P 09 33 02.6 -0.4
comp=Z,12nm,0.9s
**WAKR Walker 66.92 324** *e*P P 09 33 04.3 +0.6
comp=Z,7.1nm,1.0s
**LAO LASA Array 66.92 337** P P 09 33 02.7 -0.7
baz=148,SNR=5.3
**LAO LASA Array 66.92 337** *e*P P 09 33 02.9 -0.5
comp=Z,23nm,1.2s
**ULM Lac du Bonnet 66.95 346** P P 09 33 01.8 -1.5
comp=Z,14nm,0.7s,baz=156,slow=6.4,SNR=24
ULM pP pP 09 33 15.7 -0.8
comp=Z,2.4nm,0.8s,baz=321,slow=11,SNR=2.2
ULM sP sP 09 33 21.8 +0.1
comp=Z,5.2nm,0.7s,baz=142,slow=9.8,SNR=4.2
**ULM Lac du Bonnet 66.95 346** *e*P P 09 33 01.8 -1.5
ULM pmax pmax
comp=Z,20nm,0.9s
**ULM Lac du Bonnet 66.95 346** *e*P P 09 33 01.8 -1.5
comp=Z,20nm,0.9s
**YMR Madison River 67.18 333** *e*P P 09 33 03.7 -1.6
comp=Z,11nm,0.8s
**YHH Holmes Hill 67.22 333** *e*P P 09 33 05.9 +0.3
comp=Z,7.5nm,0.8s
**YHB Horse Butte 67.35 333** *e*P P 09 33 06.4 +0.1
comp=Z,16nm,0.8s
**PNTR Pine Nut 67.41 324** *e*P P 09 33 06.9 +0.1
comp=Z,11nm,0.8s
**PAHR Pah Rah Range 67.71 325** *e*P P 09 33 08.9 +0.3
comp=Z,16nm,0.9s
**DGMT Dagmar 67.72 340** P P 09 33 07.9 -0.5
baz=150
**HLID Hailey 67.90 330** P P 09 33 09.7 -0.1
baz=139,SNR=15
**HLID Hailey 67.90 330** *e*P P 09 33 09.6 -0.1
comp=Z,7.1nm,0.6s
**AFDM Forest Hills D 68.10 323** *e*P P 09 33 10.8 -0.1
AFDM *e*pP pP 09 33 24.1 0.0
**MCMT McKenzie Canyo 68.14 332** *e*P P 09 33 11.2 -0.1
**BOZ Bozeman (W) 68.20 333** P P 09 33 11.4 -0.2
baz=142
**BOZ Bozeman (W) 68.20 333** *e*P P 09 33 11.2 -0.4
BOZ pmax pmax
comp=Z,10.0nm,1.0s
**BOZ Bozeman (W) 68.20 333** *e*P P 09 33 11.2 -0.4
comp=Z,10nm,1.0s
**DLMT Dillon 68.44 333** *e*P P 09 33 13.0 -0.1
comp=Z,8.8nm,1.0s
**MFID Camas Ranch 68.48 329** *e*P P 09 33 13.4 0.0
comp=Z,21nm,0.8s
**VNA3 Neumayer Olymp 68.63 162** P P 09 33 14.6 +0.8
**ORV Oroville 68.81 323** *e*P P 09 33 15.5 +0.2
ORV pmax pmax
comp=Z,20nm,0.9s
**ORV Oroville 68.81 323** *e*P P 09 33 15.5 +0.2
comp=Z,20nm,0.9s
**VNA1 Neumayer--Stat 68.89 161** P P 09 33 17.4 +2.1
**VNA2 Neumayer--Watz 69.25 161** P P 09 33 18.8 +1.2
baz=292,slow=7.3
**EGMT Eagleton 69.37 336** P P 09 33 18.4 -0.4
baz=144
**EGMT Eagleton 69.37 336** *e*P P 09 33 18.3 -0.5
comp=Z,12nm,1.1s
**SCHQ Schefferville 69.46 5** P P 09 33 17.7 -1.3
comp=Z,11nm,0.9s,baz=161,slow=5.2,SNR=5.4
**SCHQ Schefferville 69.46 5** *e*P P 09 33 18.0 -1.0
comp=Z,162nm,1.9s
**O03D Paynes Creek 69.47 324** P P 09 33 18.9 -0.7
baz=132
**MSO Missoula 70.17 333** P P 09 33 24.0 +0.3
baz=140,SNR=7.7
**MSO Missoula 70.17 333** *e*P P 09 33 24.0 +0.3
comp=Z,13nm,1.0s
**BMO Blue Mountains 70.25 330** *e*P P 09 33 23.7 -0.6
BMO pmax pmax
comp=Z,5.0nm,0.8s
**BMO Blue Mountains 70.25 330** *e*P P 09 33 23.7 -0.6
comp=Z,4.7nm,0.8s
**N02D Trinity Center 70.44 324** P P 09 33 24.5 -0.9
baz=131
**M04C Macdoel 70.48 325** P P 09 33 25.1 -0.6
baz=132
**M02C Callahan 70.80 324** P P 09 33 26.9 -0.7
baz=131
**SNAA Sanae 70.85 161** P P 09 33 28.4 +0.9
**SNAA Sanae 70.85 161** *e*P P 09 33 28.4 +0.9
SNAA pmax pmax
comp=Z,22nm,1.0s
**SNAA Sanae 70.85 161** *e*P P 09 33 28.4 +0.9
comp=Z,22nm,1.0s
**JTMT Jette 71.02 333** *e*P P 09 33 29.0 +0.1
comp=Z,7.7nm,0.8s
**F10A Beach Ranch, E 71.03 331** *e*P P 09 33 27.2 -1.7
comp=Z,8.6nm,0.7s
**G08A Pilot Rock 71.38 329** *e*P P 09 33 30.9 -0.2
comp=Z,6.1nm,0.8s
**E09A Wood Farm, Sta 71.86 330** *e*P P 09 33 33.5 -0.3
comp=Z,9.3nm,0.9s
**WALA Waterton Lakes 71.88 334** *e*P P 09 33 33.4 -0.6
comp=Z,10nm,0.6s
**I05D Terrebonne, OR 71.94 327** P P 09 33 34.8 +0.4
baz=133
**E08A Dider Farm, El 72.29 330** *e*P P 09 33 36.1 -0.2
comp=Z,47nm,1.9s
**FFC Flin Flon 72.56 344** *i* P P 09 33 37.4 -0.4
**NEW Newport 72.67 332** P P 09 33 38.6 -0.1
baz=138,SNR=5.1
**NEW Newport 72.67 332** *e*P P 09 33 38.4 -0.3
NEW pmax pmax
comp=Z,14nm,1.2s
**NEW Newport 72.67 332** *e*P P 09 33 38.4 -0.3
comp=Z,14nm,1.2s
**DBIC Dimbokro 73.07 78** P P 09 33 42.6 +0.9
comp=Z,3.0nm,0.7s,baz=238,slow=3.8,SNR=3.4
**DBIC Dimbokro 73.07 78** *e*P P 09 33 41.8 +0.1
DBIC pmax pmax
comp=Z,33nm,1.6s
**DBIC Dimbokro 73.07 78** *e*P P 09 33 41.8 +0.1
comp=Z,33nm,1.6s
**B08A Colville Reser 73.75 331** *e*P P 09 33 44.6 -0.5
comp=Z,9.6nm,0.9s
**B05A Bryant 75.00 330** P P 09 33 51.6 -0.6
baz=133
**NVL N'lazarevskaya 75.50 160** *e*P pP 09 34 08.9 +0.7
**QSPA South Pole Qui 75.63 180** *e*P P 09 33 56.9 +1.0
QSPA *e*pP pP 09 34 10.7 +1.5
**KOWA Kowa 76.29 71** *e*P P 09 34 01.5 +1.2
comp=Z,9.6nm,0.8s
**TOA1 Torodi Ar. Sit 81.15 74** *e*P P 09 34 28.1 +1.0
TOA1 *e*pP pP 09 34 43.0 +2.5
**TOA0 Torodi Ar. Sit 81.15 74** *e*P P 09 34 28.1 +1.0
**TORD Torodi Ar. Bea 81.15 74** P P 09 34 28.1 +1.0
comp=Z,16nm,0.8s,baz=258,slow=5.0,SNR=69
TORD pP pP 09 34 43.0 +2.5
comp=Z,3.5nm,0.6s,baz=268,slow=4.2,SNR=3.4
**VNDA Vanda 82.57 191** P P 09 34 34.6 +1.1
comp=Z,1.3nm,0.9s,baz=136,slow=6.1,SNR=3.6
VNDA pP pP 09 34 48.0 +1.0
comp=Z,4.3nm,1.0s,baz=156,slow=4.0,SNR=6.4
VNDA LR LR 10 06 26.5
comp=Z,62nm,18.1s,baz=51,slow=32
**YKA Yellowknife Ar 82.65 343** P P 09 34 32.8 -1.1
comp=Z,4.4nm,0.7s,baz=140,slow=5.8,SNR=84
YKA pP pP 09 34 47.2 -0.1
comp=Z,1.4nm,0.6s,baz=143,slow=6.0,SNR=5.4
**YKW3 Yellowknife Ar 82.70 343** *e*P P 09 34 33.2 -0.9
comp=Z,8.6nm,0.8s
**SYO Syowa Base 85.14 161**⇑ *e*P P 09 34 45.2 -1.4
**DLBC Dease Lake 85.22 335** *e*P P 09 34 43.9 -3.3
comp=Z,19nm,0.8s
**ESDC Sonseca Array 85.46 47** P P 09 34 50.0 +1.1
comp=Z,0.5nm,0.5s,baz=253,slow=4.5,SNR=4.6
**ES19 SONSECA Array 85.52 47** *e*P P 09 34 50.1 +1.0
**KIP Kipapa 88.51 292**‖ *e*P P 09 35 05.0 +1.1
**SUMG Summit 90.25 10** *e*P P 09 35 12.1 +0.6
SUMG pmax pmax
comp=Z,9.0nm,1.0s
**SUMG Summit 90.25 10** *i* P P 09 35 11.6 +0.1
comp=Z,14nm,1.1s
**SUMG Summit 90.25 10** *e*P P 09 35 12.1 +0.6
comp=Z,8.7nm,1.0s
**DAWY Dawson 92.11 337** *e*P P 09 35 19.2 -0.6
comp=Z,5.9nm,0.9s
**BOSA Boshof 92.25 120** LR LR 10 14 26.6
comp=Z,30nm,19.3s,baz=217,slow=34
**INK Inuvik 92.34 342** *e*P P 09 35 20.2 -0.5
INK pmax pmax
comp=Z,7.0nm,1.0s
**INK Inuvik 92.34 342** *e*P P 09 35 20.2 -0.5
comp=Z,6.8nm,1.0s
**MAW Mawson 92.69 165** P P 09 35 23.3 +0.8
comp=Z,4.7nm,0.8s,baz=245,slow=9.0,SNR=4.6
MAW LR LR 10 13 47.1
comp=Z,65nm,21.9s,baz=238,slow=33
**MAW Mawson 92.69 165** *e*P P 09 35 23.3 +0.8
MAW pmax pmax
comp=Z,2.0nm,0.6s
**MAW Mawson 92.69 165** *e*P P 09 35 23.3 +0.8
comp=Z,1.9nm,0.6s
**EGAK Eagle 93.12 337** *e*P P 09 35 23.5 -0.9
comp=Z,31nm,1.8s
**KLU Klutina 93.63 333** *e*P P 09 35 25.7 -1.3
comp=Z,9.3nm,0.9s
**DOT Dot Lake 93.75 335** *e*P P 09 35 27.0 -0.4
comp=Z,13nm,1.0s
**PAX Paxson 94.04 335** *e*P P 09 35 27.7 -1.1
PAX pmax pmax
comp=Z,10.0nm,1.2s
**PAX Paxson 94.04 335** *e*P P 09 35 27.7 -1.1
comp=Z,10nm,1.2s
**IL1 Eielson Array 95.34 336** *e*P P 09 35 33.0 -1.6
**ILAR Eielson Array 95.34 336** P P 09 35 33.3 -1.3
comp=Z,1.4nm,0.8s,baz=155,slow=3.3,SNR=18
ILAR pP pP 09 35 47.5 -0.8
comp=Z,0.5nm,0.8s,baz=71,slow=3.8,SNR=3.8
ILAR sP sP 09 35 53.2 -0.1
comp=Z,0.9nm,0.9s,baz=133,slow=3.2,SNR=4.0
ILAR PP PP 09 39 23.8 -1.8
comp=Z,0.5nm,1.0s,baz=96,slow=5.0,SNR=4.4
**ILB Eielson Array 95.34 336** *e*P P 09 35 33.4 -1.3
ILB *e*PP PP 09 39 23.8 -1.8
**FYU Fort Yukon 95.43 338** *e*P P 09 35 33.8 -1.1
comp=Z,53nm,2.0s
**CCB Clear Creek Bu 95.66 336** *e*P P 09 35 35.0 -1.0
comp=Z,3.0nm,0.9s
**MDM Murphy Dome 95.94 336** *e*P P 09 35 35.7 -1.7
comp=Z,11nm,0.9s
**GERES GERESS Array B 100.21 42** P Pdif 09 35 58.0 +0.9
comp=Z,0.6nm,0.6s,baz=268,slow=6.7,SNR=3.8
**AKASG Malin Array Be 110.37 41** *i* PKIKP **PKiKP 09 40 40.9 -1.9**
**NEY Neytrino 120.26 48** ‖ *i* PKIKP **PKPdf 09 41 04.6 +2.3**
**H11N3 WAKE ISLAND Hyl 20.47 285** T T 11 52 16.0
baz=96,slow=74,SNR=21
**H11N2 WAKE ISLAND Hyl 20.48 285** T T 11 52 17.1
baz=96,slow=74,SNR=26
**H11N1 WAKE ISLAND Hyl 20.49 284** T T 11 52 14.4
baz=96,slow=74,SNR=16
**H11S2 WAKE ISLAND Hyl 20.54 283** T T 11 52 25.8
baz=104,slow=73,SNR=16
**H11S1 WAKE ISLAND Hyl 20.54 283** T T 11 52 20.8
baz=104,slow=73,SNR=8.8
**H11S3 WAKE ISLAND Hyl 20.55 283** T T 11 52 32.3
baz=104,slow=73,SNR=7.3
**ARU Arti 125.51 29** *i* PKIKP **PKPdf 09 41 12.0 +0.3**
ARU 09 43 03.1
ARU 09 48 18.8
ARU SS SS 09 59 56.2 -2.0
**YAK Yakutsk 129.28 345**⇑ *e*PKIKP **PKPdf 09 41 18.8 +0.1**
**ABKAR Akbulak array 129.78 37** *e*PKPdf **PKPdf 09 41 21.0 +1.0**
**PMG Port Moresby 131.54 243**⇑ *i*PKIKP **PKPdf 09 41 25.8 +1.4**
**AS01 Alice Springs 132.40 218** *e*PKPdf **PKPdf 09 41 25.0 -0.9**
AS01 *ep*PKPdf **pPKPdf 09 41 39.6 -0.4**
**ASAR Alice Springs 132.43 217** PKP **PKPdf 09 41 25.6 -0.4**
comp=Z,2.1nm,0.8s,baz=124,slow=2.1,SNR=20
ASAR pPKP **pPKPdf 09 41 40.1 +0.1**
comp=Z,5.4nm,1.1s,baz=136,slow=2.4,SNR=11
**BRVK Borovoye 132.97 28**‖ *e*PKIKP **PKPdf 09 41 26.8 +0.8**
**WB2 Warramunga Arr 134.94 221** *e*PKPdf **PKPdf 09 41 29.8 -0.9**
WB2 *ep*PKPdf **pPKPdf 09 41 45.1 +0.3**
**WR1 Warramunga Arr 134.94 221** *e*PKPdf **PKPdf 09 41 30.3 -0.4**
WR1 *ep*PKPdf **pPKPdf 09 41 44.9 +0.1**
**WRA Warramunga Arr 134.94 221** PKP **PKPdf 09 41 30.3 -0.4**
comp=Z,4.4nm,0.8s,baz=136,slow=1.9,SNR=32
WRA pPKP **pPKPdf 09 41 44.9 +0.1**
comp=Z,4.3nm,0.8s,baz=138,slow=1.7,SNR=12
**WRAB Tennant Creek 134.94 221**‖ *i* PKIKP **PKPdf 09 41 30.5 -0.2**
**ZAA1 Zalesovo Array 137.70 17** *e*PKPdf **PKPdf 09 41 35.2 +0.4**
ZAA1 *ep*PKPdf **pPKPdf 09 41 49.2 +0.4**
**ZAA0 Zalesovo Array 137.71 17** *e*PKPdf **PKPdf 09 41 35.1 +0.4**
**ZALV Zalesovo Beam 137.71 17** PKP **PKPdf 09 41 35.2 +0.4**
comp=Z,8.6nm,0.9s,baz=288,slow=2.9,SNR=24
ZALV pPKP **pPKPdf 09 41 49.2 +0.4**
comp=Z,2.9nm,0.8s,baz=270,slow=3.0,SNR=3.0
**ZALV Zalesovo Beam 137.71 17** *e*PKIKP **PKPdf 09 41 34.9 +0.1**
**ZALV Zalesovo Beam 137.71 17** *e*PKPdf **PKPdf 09 41 34.9 +0.1**
**KURK Kurchatov 138.24 25***c* *i*PKIKP **PKPdf 09 41 36.2 +0.4**
**KURK Kurchatov 138.24 25** *e*PKPdf **PKPdf 09 41 36.6 +0.8**
**KLR Kul'dur 138.84 333**⇑ *e*PKIKP **PKPdf 09 41 36.6 -0.4**
**AAK Ala-Archa 141.87 37**‖ *e*PKIKP **PKPdf 09 41 44.0 +1.1**
**DGZ Jazzator, Alta 142.22 18**‖ *e*PKIKP **PKPdf 09 41 40.8 -2.5**
**MK32 Makanchi Array 142.82 26** *e*PKPdf **PKPdf 09 41 42.8 -1.5**
**MKAR Makanchi Array 142.82 26** PKP **PKPdf 09 41 42.8 -1.5**
comp=Z,2.3nm,0.8s,baz=343,slow=1.4,SNR=15
**MJAR Matsushiro Arr 142.84 312** PKhKP PKPpre 09 41 38.7
comp=Z,1.1nm,0.8s,baz=88,slow=3.3,SNR=4.1
**ZAK Zakamensk 144.22 1** *e*PKHKP PKPpre 09 41 42.3
ZAK pmax pmax
comp=Z,6.0nm,1.3s
**KSH Kashi 144.65 40** PKP **PKPdf 09 41 50.5 +2.6**
KSH pPKP pPKPdf 09 42 01.5 -0.5
KSH sPKP 09 42 04.8
KSH PP **PP 09 45 11.8 +7.4**
KSH PKS **PKSdf 09 45 24.8 +1.3**
KSH AMB AMB
comp=Z,160nm,5.0s
KSH LR LR
comp=Z,100nm,4.9s
KSH LR LR
comp=Z,170nm,5.8s
KSH LR LR
comp=Z,180nm,5.5s
**CN2 Changchun 145.79 333** *e*PKP **PKPdf 09 41 45.3 -4.2**
CN2 *ep*PKP pPKPdf 09 42 02.8 -0.8
**ULN Ulaanbaatar 146.69 357** *e*PKP2 **PKPdf 09 41 51.7 +0.6**
**ULN Ulaanbaatar 146.69 357** *e*PKPdf **PKPdf 09 41 51.7 +0.6**
**SONA1 Songino Array 146.73 358** *e*PKPbc **PKPbc 09 41 52.9 0.0**
**SONA0 Songino Array 146.75 358** *e*PKPdf **PKPbc 09 41 53.1 +0.2**
SONA0 *ep*PKPdf pPKPbc 09 42 06.3 -0.5
**SONM Songino Array 146.75 358** PKPbc **PKPbc 09 41 53.1 +0.2**
comp=Z,8.4nm,0.7s,baz=315,slow=1.6,SNR=34
SONM pPKPbc pPKPbc 09 42 06.3 -0.5
comp=Z,4.4nm,0.8s,baz=312,slow=1.9,SNR=7.2
**WMQ Urumqi 147.43 23** *e*PKPbc **PKPdf 09 41 51.5 -0.9**
WMQ LR LR
comp=Z,61nm,14.3s
WMQ LR LR
comp=Z,94nm,20.7s
**THN Thein Dam 148.24 51** *e*P **PKPbc 09 41 56.5 -0.8**
**KSRS Korea Array 149.14 322** PKP **PKPdf 09 41 55.6 +0.3**
comp=Z,3.7nm,0.9s,baz=16,slow=3.1,SNR=4.7
KSRS PKPbc **PKPbc 09 41 59.1 -0.3**
comp=Z,4.0nm,0.9s,baz=347,slow=2.0,SNR=10
KSRS pPKPbc **pPKPbc 09 42 13.2 -0.3**

comp=Z,7.0nm,0.9s,baz=16,slow=1.9,SNR=9.6
**KS15 Wonju Array Si 149.17 322** *e*PKPdf **PKPdf 09 41 54.4 -0.9**
KS15 *e*PKPbc **PKPbc 09 41 58.9 -0.6**
**HHC Hu-ho-hao-te 153.06 348** *e*PKPbc **PKPdf 09 42 02.3 +0.9**
**GTA Gaotai 154.85 9** *e*PKPbc **PKPbc 09 42 05.3 -7.3**
GTA PKPab **PKPab 09 42 31.5 +3.7**
**NJ2 Nanjing 158.21 326** *e*PKP **PKPdf 09 42 09.3 +1.0**
**LZH Lanzhou 158.51 2** *e*PKP **PKPdf 09 42 06.5 -2.3**
LZH pPKP pPKPdf 09 42 21.3 -1.6
LZH sPKP 09 42 28.0
LZH LR LR
comp=Z,120nm,16.0s
LZH LR LR
comp=Z,130nm,17.2s
LZH LR LR
comp=Z,160nm,19.8s
**GYA Guiyang 167.96 351** *e*PKP **PKPdf 09 42 17.0 -1.0**
GYA PKPab **PKPab 09 43 26.3 +1.1**
GYA PKS **PKSdf 09 45 48.5 -2.3**
GYA PP **PP 09 47 15.8 +3.3**
GYA AMB AMB
comp=Z,120nm,8.3s
**KMI Kunming 169.31 9** PKP **PKPdf 09 42 17.8 -1.3**
**CMAR Chiang Mai Arr 173.33 53** PKP **PKPdf 09 42 21.1 +0.2**
comp=Z,0.9nm,0.7s,baz=290,slow=1.8,SNR=5.7
CMAR pPKP **pPKPdf 09 42 35.6 +0.5**
comp=Z,0.5nm,0.4s,baz=236,slow=1.0,SNR=2.8
**CM01 Chiang Mai Arr 173.37 53** *e*PKPdf **PKPdf 09 42 21.0 0.0**

---

*IDC **30** 09:24:47.2±0.6, 14°.24S×63°.28E, h0km, mb4.0/14, mb1 4.2/15, mb1mx3.9/48, mbtmp4.0/15, ML3.6/1, MS3.6/6, Ms1 3.6/6, ms1mx3.1/46, Error ellipse: s-maj=20.6km s-min=17.0km az=72.0*
*NEIC **30** 09:24:48.3±0.3, 14°.36S×63°.14E, h10km, mb4.8/5, Error ellipse: s-maj=12.7km s-min=8.8km az=128.0*
**ISC 30 09:24:48.5±0.5, 14°.38S±0°.08×62°.92E±0°.09, h10km, n37, σ1§63/40, mb4.1/18, MS3.6/5, 1D, South Indian Ocean**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **MRIV** | **Mauritius Mete** | **7.84** | **221** | Pn | | **Pn** | **09 26 42.4** | **-0.3** |
| MRIV | | | | Sn | | **Sn** | **09 28 08.3** | **-3.2** |
| **RER** | **Riviere de l'E** | **9.60** | **224** | Pn | | **Pn** | **09 27 06.3** | **-0.5** |
| **H08N3** | **Diego Garcia H** | **11.26** | **46** | T | | T | 09 39 14.6 | |
| | baz=223,slow=76,SNR=11 | | | | | | | |
| **H08N1** | **Diego Carcia H** | **11.27** | **46** | T | | T | 09 39 19.1 | |
| | baz=223,slow=76,SNR=12 | | | | | | | |
| **H08N2** | **Diego Garcia H** | **11.28** | **46** | T | | T | 09 39 17.9 | |
| | baz=223,slow=76,SNR=11 | | | | | | | |
| **OPO** | **Ambohidratompo** | **15.65** | **252** | Pn | | **P** | **09 28 34.9** | **+1.3** |
| | 0.2nm,0.3s,baz=73,slow=19,SNR=3.0 | | | | | | | |
| OPO | | | | LR | | LR | 09 33 18.2 | |
| | comp=Z,132nm,20.4s,baz=72,slow=32 | | | | | | | |
| **ABPO** | **Ambohimpanom** | **15.72** | **251** | *e*Pn | | **P** | **09 28 34.4** | **0.0** |
| | 27nm,0.8s | | | | | | | |
| ABPO | | | | *e*Sn | | **Sn** | **09 31 19.0** | **-5.8** |
| **KMBO** | **Kilima Mbogo** | **28.59** | **295** | LR | | LR | 09 39 38.1 | |
| | comp=Z,122nm,21.6s,baz=90,slow=31 | | | | | | | |
| **BOSA** | **Boshof** | **37.62** | **242** | P | | **P** | **09 32 07.1** | **+3.2** |
| | 1.4nm,0.7s,baz=68,slow=5.3,SNR=4.3 | | | | | | | |
| BOSA | | | | LR | | LR | 09 44 47.1 | |
| | comp=Z,64nm,20.2s,baz=34,slow=32 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **48.22** | **48** | P | | **P** | **09 33 28.1** | **-1.6** |
| | 0.3nm,0.4s,baz=241,slow=8.4,SNR=4.1 | | | | | | | |
| **MAW** | **Mawson** | **53.18** | **180** | P | | **P** | **09 34 07.5** | **+1.1** |
| | 8.3nm,1.0s,baz=7.6,slow=12,SNR=4.9 | | | | | | | |
| **SYO** | **Syowa Base** | **56.58** | **190** | *e*P | | **P** | **09 34 32.2** | **+1.3** |
| **BRTR** | **Keskin Array B** | **60.34** | **334** | P | | **P** | **09 34 58.9** | **+1.1** |
| | 0.7nm,0.8s,baz=173,slow=12,SNR=4.4 | | | | | | | |
| **MKAR** | **Makanchi Array** | **63.33** | **15** | P | | **P** | **09 35 16.7** | **-1.0** |
| | 0.7nm,0.8s,baz=189,slow=8.5,SNR=2.2 | | | | | | | |
| **ABKAR** | **Akbulak array** | **63.41** | **358** | *e*P | | **P** | **09 35 17.5** | **-0.5** |
| | 3.4nm,1.0s | | | | | | | |
| **ASAR** | **Alice Springs** | **67.17** | **110** | P | | **P** | **09 35 41.5** | **-1.8** |
| | 3.5nm,0.8s,baz=270,slow=5.8,SNR=34 | | | | | | | |
| ASAR | | | | LR | | LR | 10 00 46.4 | |
| | comp=Z,126nm,20.8s,baz=298,slow=32 | | | | | | | |
| **BVAR** | **Borovoye Array** | **67.44** | **5** | P | | **P** | **09 35 43.1** | **-1.0** |
| | 0.9nm,0.9s,baz=160,slow=4.7,SNR=5.3 | | | | | | | |
| **WRA** | **Warramunga Arr** | **68.03** | **106** | P | | **P** | **09 35 47.6** | **-1.1** |
| | 7.3nm,0.9s,baz=270,slow=5.5,SNR=67 | | | | | | | |
| WRA | | | | LR | | LR | 10 00 22.9 | |
| | comp=Z,44nm,21.6s,baz=250,slow=32 | | | | | | | |
| **WRAB** | **Tennant Creek** | **68.04** | **106** | *e*P | | **P** | **09 35 47.5** | **-1.2** |
| | 11nm,0.9s | | | | | | | |
| **BBOO** | **Buckleboo** | **68.30** | **120** | *e*P | | **P** | **09 35 48.6** | **-1.6** |
| | 10.0nm,1.1s | | | | | | | |
| **SNAA** | **Sanae** | **68.90** | **198** | P | | **P** | **09 35 54.9** | **+1.7** |
| **VNA2** | **Neumayer--Watz** | **70.10** | **199** | P | | **P** | **09 36 02.3** | **+1.8** |
| | baz=55,slow=6.1 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **70.58** | **14** | P | | **P** | **09 36 01.8** | **-1.8** |
| | 0.9nm,0.7s,baz=204,slow=2.6,SNR=5.2 | | | | | | | |
| **VNA3** | **Neumayer Olymp** | **70.89** | **199** | P | | **P** | **09 36 07.3** | **+1.8** |
| **AKASG** | **Malin Array Be** | **71.20** | **338** | P | | **P** | **09 36 07.2** | **-0.2** |
| | 1.6nm,0.8s,baz=142,slow=5.4,SNR=9.4 | | | | | | | |
| **STKA** | **Stephens Creek** | **73.05** | **119** | LR | | LR | 10 04 47.6 | |
| | comp=Z,38nm,20.1s,baz=32,slow=33 | | | | | | | |
| **SONM** | **Songino Array** | **73.06** | **29** | P | | **P** | **09 36 17.0** | **-1.9** |
| | 2.2nm,1.0s,baz=216,slow=5.7,SNR=9.6 | | | | | | | |
| **QSPA** | **South Pole Qui** | **75.70** | **180** | *e*P | | **P** | **09 36 35.0** | **+0.9** |
| | 51nm,1.1s | | | | | | | |
| **GERES** | **GERESS Array B** | **76.53** | **329** | P | | **P** | **09 36 39.0** | **+0.1** |
| | 0.6nm,0.7s,baz=157,slow=3.8,SNR=3.7 | | | | | | | |
| **VNDA** | **Vanda** | **77.99** | **167** | P | | **P** | **09 36 46.9** | **+0.3** |
| | 0.7nm,0.6s,baz=283,slow=6.5,SNR=3.7 | | | | | | | |
| **ESDC** | **Sonseca Array** | **82.14** | **314** | P | | **P** | **09 37 11.1** | **+1.4** |
| | 0.5nm,0.6s,baz=102,slow=5.4,SNR=3.7 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **131.92** | **358** | PKP | | **PKPdf** | **09 44 01.7** | **0.0** |
| | 0.3nm,0.7s,baz=345,slow=2.3,SNR=8.8 | | | | | | | |
| **HLID** | **Hailey** | **150.83** | **356** | *e*PKPdf | | **PKPdf** | **09 44 35.2** | **-0.9** |
| HLID | | | | *e*PKPbc | | **PKiKP** | **09 44 42.8** | **+0.5** |
| HLID | | | | *e*PKPab | | **PKPab** | **09 44 48.2** | **-0.5** |
| **PDAR** | **Pinedale Array** | **150.98** | **349** | PKPbc | | **PKPbc** | **09 44 42.4** | **+0.3** |
| | 3.1nm,0.7s,baz=73,slow=2.2,SNR=26 | | | | | | | |
| PDAR | | | | PKPab | | **PKPab** | **09 44 50.2** | **+0.8** |
| | 1.5nm,0.7s,baz=54,slow=2.2,SNR=5.1 | | | | | | | |
| **TUL1** | **Leonard** | **151.30** | **322** | *e*PKPdf | | **PKPdf** | **09 44 37.4** | **+0.6** |
| TUL1 | | | | *e*PKPbc | | **PKiKP** | **09 44 43.5** | **+0.2** |
| TUL1 | | | | *e*PKPab | | **PKPab** | **09 44 51.3** | **+0.6** |
| **NVAR** | **Mina Array Bea** | **156.02** | **2** | PKPbc | | PKPbc | 09 44 54.3 | |
| | 0.4nm,0.6s,baz=357,slow=1.9,SNR=6.3 | | | | | | | |
| NVAR | | | | PKPab | | **PKPab** | **09 45 10.8** | **0.0** |
| | 0.4nm,0.7s,baz=20,slow=5.9,SNR=2.5 | | | | | | | |
| **TXAR** | **Lajitas Array** | **160.62** | **322** | PKP | | **PKPdf** | **09 44 50.8** | **+1.3** |
| | 0.9nm,1.1s,baz=116,slow=2.9,SNR=4.6 | | | | | | | |
| TXAR | | | | PKPab | | **PKPab** | **09 45 31.9** | **+1.0** |
| | 0.4nm,0.8s,baz=76,slow=4.0,SNR=4.4 | | | | | | | |

---

*ISCJB **30** 09:25:32.3±0.5, 17°.67S±0°.06×168°.42E±0°.05, h93km, mb4.4/14, Error ellipse: s-maj=8.3km s-min=6.8km az=7.7*
*NEIC **30** 09:25:36.8±1.1, 17°.73S×168°.45E, h119km±10km, mb4.6/5, Error ellipse: s-maj=12.9km s-min=9.1km az=180.0*
*IDC **30** 09:25:36.8±2.9, 17°.78S×168°.39E, h117km±25km, mb3.9/8, mb1 4.1/10, mb1mx3.7/35, mbtmp4.4/10, Error ellipse: s-maj=22.5km s-min=16.8km az=7.0*
**ISC 30 09:25:34.3±0.5, 17.71S±0°.07×168.44E±0°.06, h93km, n30, σ1§53/35, mb4.2/13, 1C, Vanuatu Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **DZM** | **Mont Dzumac** | **4.73** | **203** | P | | **Pn** | **09 26 44.4** | **+1.0** |
| | 27nm,0.3s,baz=115,slow=23,SNR=159 | | | | | | | |
| DZM | | | | S | | **Sn** | **09 27 37.2** | **+0.1** |
| | 36nm,0.3s,baz=314,slow=22,SNR=13 | | | | | | | |
| **DZM** | **Mont Dzumac** | **4.73** | **203** | *e*Pn | | **Pn** | **09 26 44.1** | **+0.7** |
| DZM | | | | *e*Sn | | **Sn** | **09 27 37.5** | **+0.4** |
| **MSVF** | **Nonsavu** | **9.16** | **92** | *e*Pn | | **Pn** | **09 27 46.0** | **+2.4** |
| | 127nm,1.5s | | | | | | | |
| MSVF | | | | *e*Sn | | **Sn** | **09 29 24.3** | **-0.8** |
| **HNR** | **Honiara** | **11.65** | **314** | P | | **Pn** | **09 28 20.5** | **+3.0** |
| | 14nm,0.3s,baz=157,slow=4.4,SNR=6.9 | | | | | | | |
| **HNR** | **Honiara** | **11.65** | **314** | *e*Pn | | **Pn** | **09 28 19.9** | **+2.4** |
| HNR | | | | *e*Sn | | **Sn** | **09 30 24.4** | **-1.3** |
| **CTA** | **Charters Tower** | **21.12** | **260** | P | | **P** | **09 30 13.4** | **+1.7** |
| | 5.4nm,0.7s,baz=101,slow=12,SNR=7.3 | | | | | | | |
| **CTAO** | **Charters Tower** | **21.12** | **260** | *e*P | | **P** | **09 30 14.8** | **+3.0** |
| **URZ** | **Urewera** | **21.84** | **161** | P | | **P** | **09 30 20.8** | **+1.7** |
| | 6.7nm,0.6s,baz=162,slow=1.4,SNR=5.5 | | | | | | | |
| **STKA** | **Stephens Creek** | **28.06** | **235** | P | | **P** | **09 31 17.1** | **+0.1** |
| | 4.7nm,0.7s,baz=62,slow=8.5,SNR=12 | | | | | | | |
| **RAR** | **Rarotonga** | **30.15** | **102** | P | | **P** | **09 31 36.8** | **+1.2** |
| | 64nm,0.6s,baz=114,slow=4.7,SNR=5.8 | | | | | | | |
| **WRAB** | **Tennant Creek** | **32.31** | **261** | *e*P | | **P** | **09 31 53.6** | **-1.1** |
| | 1.5nm,0.5s | | | | | | | |
| **WRA** | **Warramunga Arr** | **32.32** | **261** | P | | **P** | **09 31 53.8** | **-1.0** |
| | 1.2nm,0.7s,baz=101,slow=7.0,SNR=18 | | | | | | | |
| **BBOO** | **Buckleboo** | **32.76** | **236** | *e*P | | **P** | **09 31 58.1** | **-0.4** |
| | 3.7nm,0.6s | | | | | | | |
| **ASAR** | **Alice Springs** | **32.79** | **254** | P | | **P** | **09 31 58.5** | **-0.4** |
| | 14nm,0.4s,baz=82,slow=8.8,SNR=277 | | | | | | | |
| **MBWA** | **Marble Bar** | **45.93** | **257** | *e*P | | **P** | **09 33 47.6** | **-0.5** |
| **KAPI** | **Kappang** | **49.22** | **279** | *e*P | | **P** | **09 34 14.2** | **+0.5** |
| | 10nm,0.9s | | | | | | | |
| **SBA** | **Scott Base** | **60.18** | **180** | *e*P | | **P** | **09 35 32.6** | **+0.7** |
| | 4.0nm,0.7s | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **77.19** | **294** | P | | **P** | **09 37 18.9** | **+0.4** |
| | 0.5nm,0.4s,baz=127,slow=5.4,SNR=4.5 | | | | | | | |
| **SYO** | **Syowa Base** | **86.19** | **196** | *e*P | | **P** | **09 38 02.8** | **-2.1** |
| **NVAR** | **Mina Array Bea** | **88.36** | **49** | P | | **P** | **09 38 15.2** | **-1.0** |
| | 0.2nm,0.5s,baz=227,slow=9.1,SNR=3.5 | | | | | | | |
| **SNAA** | **Sanae** | **90.65** | **183** | P | | **P** | **09 38 24.0** | **-2.1** |
| **SNAA** | **Sanae** | **90.65** | **183** | *e*P | | **P** | **09 38 24.1** | **-2.0** |
| | 106nm,0.4s | | | | | | | |
| **VNA3** | **Neumayer Olymp** | **91.27** | **181** | P | | **P** | **09 38 27.1** | **-1.8** |
| **VNA2** | **Neumayer--Watz** | **91.55** | **181** | P | | **P** | **09 38 28.6** | **-1.7** |
| | baz=171,slow=3.4 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **99.66** | **27** | P | | **Pdif** | **09 39 06.2** | **-0.8** |
| | 0.2nm,0.5s,baz=256,slow=4.7,SNR=5.5 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **123.40** | **345** | PKP | | **PKPdf** | **09 44 18.5** | **-1.4** |
| | 2.3nm,0.7s,baz=76,slow=2.4,SNR=13 | | | | | | | |
| **FINES** | **FINESS Array B** | **128.89** | **338** | PKP | | **PKPdf** | **09 44 29.8** | **-0.8** |
| | 6.0nm,1.1s,baz=149,slow=3.2,SNR=3.3 | | | | | | | |
| **AKASG** | **Malin Array Be** | **133.81** | **325** | PKP | | **PKPdf** | **09 44 38.7** | **-1.5** |
| | 0.2nm,0.3s,baz=64,slow=2.0,SNR=3.3 | | | | | | | |
| **BRTR** | **Keskin Array B** | **135.27** | **309** | PKP | | **PKPdf** | **09 44 43.3** | **-0.3** |
| | 0.6nm,0.5s,baz=91,slow=3.1,SNR=2.6 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **166.44** | **252** | PKP | | **PKPdf** | **09 45 27.7** | **-2.0** |
| | 0.6nm,0.8s,baz=301,slow=0.8,SNR=2.9 | | | | | | | |
| TORD | | | | PKPab | | **PKPab** | **09 46 31.1** | **-0.8** |
| | 0.6nm,0.8s,baz=112,slow=3.6,SNR=3.4 | | | | | | | |

---

*SOME **30** 09:32:25.8, 44°.27N×83°.55E, h5km*
*NNC **30** 09:32:27.6±1.9, 44°.28N×83°.41E, h0km, mb2.8, mpv2.5, Error ellipse: s-maj=17.1km s-min=5.2km az=115.0*
**ISC 30 09:32:27.9±3.7, 44°.0N±0°.1×84°.1E±0°.2, h20km, n8, σ2§55/13, 5C-1D, Northern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **KTMS** | **Ketmen** | **2.79** | **261** | *e*P | | **Pn** | **09 33 11.6** | **0.0** |
| | 5.5nm,0.2s | | | | | | | |
| KTMS | | | | *e*S | | **Sn** | **09 33 44.6** | **-0.2** |
| | 15nm,0.2s | | | | | | | |
| **MK31** | **Makanchi Array** | **3.11** | **336** | ⇓Pg | | **Pn** | **09 33 15.9** | **0.0** |
| | 0.6nm,0.3s,baz=159,slow=16,SNR=44 | | | | | | | |
| MK31 | | | | ⇑Lg | | Lg | 09 33 50.8 | |
| | 1.8nm,0.3s,baz=158,slow=27,SNR=13 | | | | | | | |
| **DJR** | **Jarkent** | **3.15** | **278** | *e*P | | **Pn** | **09 33 16.2** | **-0.2** |
| | 8.6nm,0.3s | | | | | | | |
| DJR | | | | *e*S | | **Sn** | **09 33 53.0** | **-0.5** |
| | 9.3nm,0.3s | | | | | | | |
| **MAKZ** | **Makanchi** | **3.23** | **333** | ⇑Pg | | **Pn** | **09 33 17.4** | **0.0** |
| | 1.1nm,0.5s | | | | | | | |
| MAKZ | | | | ⇑Lg | | Lg | 09 33 53.8 | |
| | 1.5nm,0.4s | | | | | | | |
| **PDGK** | **Podgornoye** | **3.43** | **261** | ⇑Pg | | **Pn** | **09 33 21.9** | **+1.5** |
| | 1.1nm,0.5s | | | | | | | |
| PDGK | | | | ⇑Lg | | Lg | 09 34 03.0 | |
| | 5.3nm,0.5s | | | | | | | |
| **SHLS** | **Shalkode** | **3.49** | **258** | *e*P | | **Pn** | **09 33 18.4** | **-2.8** |
| | 5.4nm,0.3s | | | | | | | |
| SHLS | | | | *e*S | | **Sn** | **09 33 56.5** | **-5.5** |
| | 14nm,0.5s | | | | | | | |
| **KAPS** | **Kapalarasan** | **3.66** | **293** | *e*P | | **Pn** | **09 33 24.2** | **+0.8** |
| | 0.8nm,0.3s | | | | | | | |
| KAPS | | | | *e*S | | **Sn** | **09 34 06.2** | **+0.2** |
| | 1.9nm,0.4s | | | | | | | |
| **UZB** | **Uzynbulak** | **3.81** | **259** | *e*P | | **Pn** | **09 33 28.2** | **+2.7** |
| | 0.5nm,0.1s | | | | | | | |
| UZB | | | | *e*S | | **Sn** | **09 34 13.9** | **+4.1** |
| | 1.3nm,0.3s | | | | | | | |

---

*NIED **30** 09:34:00, 38°.70N×141°.70E, h71km, Mw4.1 Best double couple: M0 1.58000×10^15 NP1:ϕs56.00000°, δ38.00000°, λ148.00000°. NP2:ϕs173.00000°, δ71.00000°, λ56.00000°.*
*MOS **30** 09:34:48.7±0.8, 38°.96N×141°.67E, h61km, mb4.4/20, Error ellipse: s-maj=10.1km s-min=6.3km az=90.6*
*ISCJB **30** 09:34:48.2±0.4, 38°.74N±0°.03×141°.84E±0°.05, h70km±2km, mb4.3/41, Error ellipse: s-maj=6.4km s-min=3.5km az=29.8*
*IDC **30** 09:34:49.4±1.9, 38°.83N×141°.71E, h56km±17km, mb3.9/15, mb1 4.1/20, mb1mx3.9/49, mbtmp4.2/20, ML4.2/3, MS2.7/4, Ms1 2.7/4, ms1mx2.6/42, Error ellipse: s-maj=18.5km s-min=13.3km az=134.0*
*JMA **30** 09:34:50.0, 38°.71N×141°.71E, h69km±1km, M4.1*
*JMA Felt III J1.*
*NEIC **30** 09:34:50.1±0.6, 38°.81N×141°.74E, h66km±6km, mb4.7/10, Error ellipse: s-maj=9.3km s-min=5.9km az=138.0*
*NEIC Recorded [3 JMA] in Iwate and Miyagi.*
**ISC 30 09:34:49.3±0.7, 38°.77N±0°.04×141°.83E±0°.05, h63km±5km, n129, σ1§57/152, mb4.4/41, 8C-7D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **OFUJ** | **Ofunato** | **0.33** | **338** | P | | **Pn** | **09 35 01.6** | **+1.6** |
| OFUJ | | | | S | | **Sn** | **09 35 09.8** | **+2.0** |
| **JIO** | **Ouri** | **0.49** | **230** | P | | **Pn** | **09 35 01.7** | **+0.2** |
| JIO | | | | S | | **Sn** | **09 35 10.0** | **-0.3** |
| **JMK** | **Ichinoseki** | **0.51** | **291** | P | | **Pn** | **09 35 02.3** | **+0.7** |
| JMK | | | | S | | **Sn** | **09 35 11.3** | **+0.7** |
| **JOM** | **Ohasama** | **0.81** | **329** | P | | **Pn** | **09 35 06.3** | **+1.1** |
| JOM | | | | S | | **Sn** | **09 35 18.4** | **+1.6** |
| **JOU** | **Okura** | **1.00** | **246** | P | | **Pn** | **09 35 07.2** | **-0.3** |
| JOU | | | | *e*S | | **Sn** | **09 35 20.1** | **-0.9** |
| **JRG** | **Rokugo** | **1.12** | **304** | P | | **Pn** | **09 35 09.5** | **+0.5** |
| JRG | | | | *e*S | | **Sn** | **09 35 24.2** | **+0.5** |
| **JYK** | **Kaneyama** | **1.16** | **278** | P | | **Pn** | **09 35 09.5** | **0.0** |
| JYK | | | | S | | **Sn** | **09 35 24.5** | **-0.1** |
| **JMM** | **Marumori** | **1.22** | **222** | P | | **Pn** | **09 35 09.5** | **-0.8** |
| JMM | | | | *e*S | | **Sn** | **09 35 24.1** | **-1.9** |
| **JYS** | **Shirataka** | **1.49** | **249** | P | | **Pn** | **09 35 13.7** | **-0.3** |
| **JFK** | **Kawauchi** | **1.59** | **209** | P | | **Pn** | **09 35 15.0** | **-0.4** |
| JFK | | | | S | | **Sn** | **09 35 33.6** | **-1.4** |
| **JYA** | **Atsumi** | **1.67** | **264** | P | | **Pn** | **09 35 16.1** | **-0.2** |
| **JFT** | **Otama** | **1.72** | **224** | P | | **Pn** | **09 35 16.8** | **-0.3** |
| JFT | | | | S | | **Sn** | **09 35 36.9** | **-1.1** |
| **ERM** | **Erimo** | **3.39** | **17** | *e*i P | | **Pn** | **09 35 40.6** | **+0.8** |
| **ERM** | **Erimo** | **3.39** | **17** | *e*Pn | | **Pn** | **09 35 40.5** | **+0.8** |
| ERM | | | | *e*Sn | | **Sn** | **09 36 17.3** | **-1.5** |
| **MAJO** | **Matsushiro** | **3.63** | **233** | *d* iP | | **Pn** | **09 35 44.2** | **+1.0** |
| **MAJO** | **Matsushiro** | **3.63** | **233** | *e*Pn | | **Pn** | **09 35 44.1** | **+0.9** |
| MAJO | | | | *e*Sn | | **Sn** | **09 36 25.1** | **+0.2** |
| **MAT** | **Matsushiro** | **3.63** | **233** | P | | **Pn** | **09 35 44.5** | **+1.3** |
| MAT | | | | *e*S | | **Sn** | **09 36 25.6** | **+0.8** |
| **MJAR** | **Matsushiro Ar** | **3.63** | **233** | P | | **Pn** | **09 35 43.6** | **+0.4** |
| | 0.5nm,0.3s,baz=216,slow=6.7,SNR=14 | | | | | | | |
| **MJAR** | **Matsushiro Ar** | **3.63** | **233** | P | | **Pn** | **09 35 43.6** | **+0.4** |
| **MJB9** | **Matsu-Tunnel** | **3.63** | **233** | *e*Pn | | **Pn** | **09 35 44.2** | **+1.0** |
| **INU** | **Inuyama** | **5.15** | **230** | *e*Pn | | **Pn** | **09 36 04.6** | **+0.8** |
| INU | | | | *e*Sn | | **Sn** | **09 37 02.3** | **+0.5** |
| **ASAJ** | **Asahikawa** | **5.37** | **6** | P | | **Pn** | **09 36 07.5** | **+0.6** |
| | 16nm,0.3s,baz=219,slow=9.4,SNR=97 | | | | | | | |
| ASAJ | | | | S | | **Sn** | **09 37 06.7** | **-0.6** |
| | 5.0nm,0.3s,baz=301,slow=33,SNR=3.5 | | | | | | | |
| **ASAJ** | **Asahikawa** | **5.37** | **6** | *e*Pn | | **Pn** | **09 36 07.1** | **+0.3** |
| ASAJ | | | | *e*Sn | | **Sn** | **09 37 04.6** | **-2.7** |
| **JHJ** | **Hachijo jima 2** | **5.88** | **197** | P | | **Pn** | **09 36 12.5** | **-1.3** |
| | 24nm,0.3s,baz=326,slow=22,SNR=10 | | | | | | | |
| JHJ | | | | S | | **Sn** | **09 37 15.8** | **-4.0** |
| | 63nm,0.3s,baz=224,slow=22,SNR=8.0 | | | | | | | |
| **JHJ2** | **Mitsune** | **5.88** | **197** | *e*Pn | | **Pn** | **09 36 12.5** | **-1.4** |
| JHJ2 | | | | *e*Sn | | **Sn** | **09 37 18.4** | **-1.4** |
| **YUK** | **Yuzh-Kuril'sk** | **6.07** | **29** | *e*P | | **Pn** | **09 36 15.9** | **-0.5** |
| YUK | | | | *e*S | | **Sn** | **09 37 20.7** | **-3.7** |
| YUK | | | | pmax | pmax | | | |
| | comp=N,81nm,0.2s | | | | | | | |
| YUK | | | | pmax | pmax | | | |
| | comp=E,31nm,0.2s | | | | | | | |
| YUK | | | | pmax | pmax | | | |
| | comp=Z,135nm,0.2s | | | | | | | |
| YUK | | | | smax | smax | | | |
| | comp=N,538nm,0.4s | | | | | | | |
| YUK | | | | smax | smax | | | |
| | comp=E,650nm,0.4s | | | | | | | |
| **SHO** | **Shikotan** | **6.33** | **35** | *e*P | | **Pn** | **09 36 18.7** | **-1.3** |
| SHO | | | | *e*S | | **Sn** | **09 37 25.2** | **-5.6** |
| SHO | | | | smax | smax | | | |
| | comp=E,648nm,0.4s | | | | | | | |
| SHO | | | | smax | smax | | | |
| | comp=N,415nm,0.2s | | | | | | | |
| **KUR** | **Kuril'sk** | **7.86** | **33** | *e*P | | **Pn** | **09 36 41.3** | **+0.4** |
| KUR | | | | *e*S | | **Sn** | **09 38 05.7** | **-2.7** |
| KUR | | | | smax | smax | | | |
| | comp=N,174nm,0.3s | | | | | | | |
| KUR | | | | smax | smax | | | |
| | comp=E,152nm,0.3s | | | | | | | |
| **MSHR** | **Mys Shultsa** | **8.96** | **299** | *e*P | | **Pn** | **09 36 56.5** | **+0.6** |
| **USRK** | **Ussuriysk Ar.** | **9.16** | **309** | P | | **Pn** | **09 36 59.9** | **+1.3** |
| | comp=E,1.7nm,0.3s,baz=112,slow=14,SNR=19 | | | | | | | |
| USRK | | | | LR | | LR | 09 40 29.8 | |
| | comp=E,76nm,19.4s,baz=118,slow=38 | | | | | | | |
| **JNU** | **Nakatsue** | **10.51** | **241** | P | | **Pn** | **09 37 16.8** | **-0.4** |
| | comp=E,0.5nm,0.3s,baz=28,slow=2.8,SNR=5.7 | | | | | | | |
| **HABR** | **Khabarovsk** | **10.86** | **335** | *e*P | | **Pn** | **09 37 18.6** | **-3.3** |
| HABR | | | | *e*S | | **Sn** | **09 39 16.2** | **-5.5** |
| HABR | | | | pmax | pmax | | | |
| | comp=Z,14nm,1.0s | | | | | | | |
| HABR | | | | pmax | pmax | | | |
| | comp=N,8.0nm,0.7s | | | | | | | |
| HABR | | | | pmax | pmax | | | |
| | comp=E,8.0nm,0.7s | | | | | | | |
| HABR | | | | pmax | pmax | | | |
| | comp=Z,11nm,0.7s | | | | | | | |
| **KSRS** | **Korea Array** | **11.04** | **267** | P | | **Pn** | **09 37 27.6** | **+3.3** |
| | comp=Z,1.4nm,0.3s,baz=74,slow=14,SNR=30 | | | | | | | |
| KSRS | | | | LR | | LR | 09 41 21.9 | |
| | comp=Z,32nm,18.4s,baz=55,slow=36 | | | | | | | |
| **KS01** | **Wonju Array Si** | **11.05** | **268** | *e*Pn | | **Pn** | **09 37 24.5** | **-0.1** |
| KS01 | | | | *e*Sn | | **Sn** | **09 39 22.5** | **-4.1** |
| **KS15** | **Wonju Array Si** | **11.07** | **267** | *e*Pn | | **Pn** | **09 37 27.4** | **+2.6** |
| **KLR** | **Kul'dur** | **12.71** | **329** | P | | **Pn** | **09 37 50.8** | **+3.7** |
| | comp=Z,0.1nm,0.3s,baz=142,slow=14,SNR=4.2 | | | | | | | |
| KLR | | | | LR | | LR | 09 42 37.5 | |
| | comp=Z,8.5nm,19.7s,baz=192,slow=37 | | | | | | | |
| **CN2** | **Changchun** | **13.30** | **297** | *e*P | | Pn | 09 37 50.3 | -4.8 |
| **JOW** | **Kunigami** | **16.46** | **228** | *e*Pn | | **Pn** | **09 38 35.9** | **-0.3** |
| | comp=Z,107nm,1.4s | | | | | | | |
| **PETK** | **Petropavlovsk-** | **18.03** | **32** | P | | **P** | **09 38 54.0** | **-1.0** |
| | comp=Z,0.2nm,0.3s,baz=197,slow=6.1,SNR=4.5 | | | | | | | |
| PETK | | | | LR | | LR | 09 46 04.1 | |
| | comp=Z,77nm,18.6s,baz=225,slow=37 | | | | | | | |
| **PETK** | **Petropavlovsk-** | **18.03** | **32** | P | | **P** | **09 38 54.0** | **-1.0** |
| **PEA1** | **Petropavlovsk-** | **18.04** | **32** | *e*P | | **P** | **09 38 54.0** | **-1.1** |
| **BJI** | **Beijing** | **19.85** | **282** | P | | **P** | **09 39 12.8** | **-2.2** |
| BJI | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.5s | | | | | | | |
| BJI | | | | pmax | pmax | | | |
| | comp=Z,76nm,5.2s | | | | | | | |
| **NJ2** | **Nanjing** | **19.86** | **257** | *e*P | | **P** | **09 39 14.8** | **-0.4** |
| NJ2 | | | | pmax | pmax | | | |
| | comp=Z,8.0nm,0.8s | | | | | | | |
| **MA2** | **Magadan** | **21.59** | **12** | P | | **P** | **09 39 33.0** | **-0.5** |
| | comp=Z,10nm,0.6s,baz=202,slow=8.3,SNR=11 | | | | | | | |
| **MA2** | **Magadan** | **21.59** | **12** | ⇑*i*P | | **P** | **09 39 34.1** | **+0.6** |
| **HHC** | **Hu-ho-hao-te** | **23.29** | **285** | *e*P | | **P** | **09 39 50.3** | **-1.4** |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,18nm,1.0s | | | | | | | |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,100nm,6.5s | | | | | | | |
| **YAK** | **Yakutsk** | **24.45** | **346** | ⇑*i*P | | **P** | **09 40 00.5** | **-1.4** |
| YAK | | | | pmax | pmax | | | |
| | comp=Z,8.0nm,0.6s | | | | | | | |
| **SEY** | **Seymchan** | **25.02** | **11** | P | | **P** | **09 40 07.7** | **+0.6** |
| | comp=Z,6.8nm,0.8s,baz=193,slow=6.3,SNR=14 | | | | | | | |
| **SEY** | **Seymchan** | **25.02** | **11** | ⇓*e*P | | **P** | **09 40 09.3** | **+2.2** |
| **BOD** | **Bodaibo** | **26.26** | **326** | *e*P | | **P** | **09 40 17.8** | **-0.5** |
| BOD | | | | pmax | pmax | | | |
| | comp=Z,5.0nm,1.7s | | | | | | | |
| **SONA0** | **Songino Array** | **27.13** | **301** | *e*P | | **P** | **09 40 26.4** | **-0.1** |
| **SONM** | **Songino Array** | **27.13** | **301** | P | | **P** | **09 40 26.4** | **-0.1** |
| | comp=Z,0.9nm,0.5s,baz=94,slow=8.3,SNR=5.3 | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.80** | **124** | T | | T | 10 11 05.4 | |
| | baz=316,slow=76,SNR=76 | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **ILAR** | **Eielson Array** | **47.86** | **33** | P | | **P** | | **09 43 21.6** | **+1.2** |
| | comp=Z,1.9nm,0.7s,baz=268,slow=6.0,SNR=25 | | | | | | | | |
| **ILB** | **Eielson Array** | **47.86** | **33** | *e*P | | **P** | | **09 43 21.1** | **+0.6** |
| **KKN** | **Kakani** | **47.86** | **274** | *e*P | | **P** | | **09 43 21.9** | **+0.7** |
| **GKN** | **Gorkha** | **48.26** | **275** | *e*P | | **P** | | **09 43 24.0** | **-0.2** |
| **DANN** | **Dangsing** | **48.78** | **276** | *e*P | | **P** | | **09 43 28.4** | **0.0** |
| **KOLN** | **Koldanda** | **49.17** | **275** | *e*P | | **P** | | **09 43 31.0** | **-0.3** |
| | comp=Z,5.5nm,0.3s | | | | | | | | |
| **PYUN** | **Piuthan** | **49.49** | **276** | *e*P | | **P** | | **09 43 33.3** | **-0.4** |
| | comp=Z,14nm,0.5s | | | | | | | | |
| **BRVK** | **Borovoye** | **49.71** | **311**↑ | *e*P | | **P** | | **09 43 34.7** | **-0.1** |
| BRVK | | | | pmax | pmax | | | | |
| | comp=Z,5.0nm,1.8s | | | | | | | | |
| **AAK** | **Ala-Archa** | **49.97** | **297**↑ | *i*P | | **P** | | **09 43 36.8** | **-0.3** |
| AAK | | | | pmax | pmax | | | | |
| | comp=Z,3.0nm,0.9s | | | | | | | | |
| **KSH** | **Kashi** | **50.02** | **293** | *e*P | | **P** | | **09 43 41.3** | **+3.8** |
| KSH | | | | pP | sP | | | 09 43 58.8 | -2.2 |
| KSH | | | | PcP | **PcP** | | | **09 45 00.3** | **+3.7** |
| KSH | | | | PP | **PP** | | | **09 45 38.5** | **+5.8** |
| KSH | | | | S | **S** | | | **09 50 44.3** | **+0.6** |
| KSH | | | | ScS | **ScS** | | | **09 53 22.5** | **-0.5** |
| **KSH** | **Kashi** | **50.02** | **293** | SS | **SS** | | | **09 54 15.3** | **-1.8** |
| KSH | | | | pmax | pmax | | | | |
| | comp=Z,2.0nm,0.6s | | | | | | | | |
| KSH | | | | pmax | pmax | | | | |
| | comp=Z,77nm,4.2s | | | | | | | | |
| KSH | | | | LR | LR | | | | |
| | comp=N,120nm,5.2s | | | | | | | | |
| KSH | | | | LR | LR | | | | |
| | comp=E,150nm,5.8s | | | | | | | | |
| KSH | | | | LR | LR | | | | |
| | comp=Z,150nm,5.8s | | | | | | | | |
| **KKAR** | **Karatay Array** | **52.55** | **299** | *e*P | | **P** | | **09 43 55.8** | **-0.5** |
| **KKAR** | **Karatay Array** | **52.55** | **299** | *e*P | | **P** | | **09 43 55.8** | **-0.5** |
| **ARU** | **Arti** | **55.29** | **318** | *d i*P | | **P** | | **09 44 15.6** | **-0.3** |
| ARU | | | | *PP | | **pP** | | **09 44 31.3** | **-1.2** |
| ARU | | | | S | | **S** | | **09 51 53.6** | **-1.2** |
| ARU | | | | SS | | **SS** | | **09 55 35.2** | **-4.1** |
| ARU | | | | pmax | pmax | | | | |
| | comp=Z,10.0nm,2.5s | | | | | | | | |
| **ABKAR** | **Akbulak array** | **57.08** | **309** | *e*P | | **P** | | **09 44 28.1** | **-0.8** |
| | comp=Z,26nm,0.5s | | | | | | | | |
| **AKTO** | **Aktyubinsk** | **57.77** | **311** | P | | **P** | | **09 44 34.3** | **+0.6** |
| | comp=Z,1.6nm,0.5s,baz=66,slow=11,SNR=4.2 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **62.14** | **31** | P | | **P** | | **09 45 04.4** | **+1.0** |
| | comp=Z,1.2nm,0.6s,baz=302,slow=6.7,SNR=26 | | | | | | | | |
| **ARA0** | **ARCESS Array S** | **62.49** | **339** | *e*P | | **P** | | **09 45 05.5** | **-0.1** |
| **ARCES** | **ARCESS Array B** | **62.49** | **339** | P | | **P** | | **09 45 05.5** | **-0.1** |
| | comp=Z,3.0nm,0.9s,baz=54,slow=6.8,SNR=3.9 | | | | | | | | |
| **OBN** | **Obninsk** | **66.91** | **323**↑ | *e*P | | **P** | | **09 45 34.7** | **+0.1** |
| OBN | | | | *e* | | | | 09 47 57.8 | |
| OBN | | | | *e*S | | S | | 09 54 39.8 | +17 |
| OBN | | | | pmax | pmax | | | | |
| | comp=Z,5.0nm,1.0s | | | | | | | | |
| OBN | | | | MLR | MLR | | | | |
| | comp=Z,50nm,12.0s | | | | | | | | |
| **FIA0** | **FINESS Array S** | **67.43** | **332** | *e*P | | **P** | | **09 45 37.2** | **-0.6** |
| **FIA0** | **FINESS Array S** | **67.43** | **332** | *e*P | | **P** | | **09 45 37.2** | **-0.6** |
| **FINES** | **FINESS Array B** | **67.43** | **332** | P | | **P** | | **09 45 37.2** | **-0.6** |
| | comp=Z,5.0nm,1.0s,baz=34,slow=14,SNR=5.0 | | | | | | | | |
| **FINES** | **FINESS Array B** | **67.43** | **332** | *e*P | | **P** | | **09 45 39.3** | **+1.5** |
| FINES | | | | pmax | pmax | | | | |
| | comp=Z,5.0nm,1.0s | | | | | | | | |
| **NB200** | **NORSAR Array S** | **72.71** | **337** | *e*P | | **P** | | **09 46 10.3** | **+0.1** |
| **NOA** | **NORSAR Array B** | **72.71** | **337** | P | | **P** | | **09 46 10.3** | **+0.1** |
| | comp=Z,0.8nm,0.6s,baz=37,slow=6.0,SNR=3.3 | | | | | | | | |
| **EGMT** | **Eagleton** | **72.75** | **42** | *e*P | | **P** | | **09 46 12.1** | **+1.3** |
| | comp=Z,5.4nm,0.7s | | | | | | | | |
| **AKASG** | **Malin Array Be** | **73.13** | **322** | P | | **P** | | **09 46 12.2** | **-0.6** |
| | comp=Z,0.6nm,0.4s,baz=43,slow=6.1,SNR=4.6 | | | | | | | | |
| **AKBB** | **Malin Array Si** | **73.13** | **322** | *e*P | | **P** | | **09 46 13.0** | **+0.2** |
| AKBB | | | | pmax | pmax | | | | |
| | comp=Z,22nm,1.6s | | | | | | | | |
| **AKBB** | **Malin Array Si** | **73.13** | **322** | *e*P | | **P** | | **09 46 13.0** | **+0.2** |
| | comp=Z,22nm,1.6s | | | | | | | | |
| **KIEV** | **Kiev** | **73.14** | **322** | *i* P | | **P** | | **09 46 12.4** | **-0.4** |
| KIEV | | | | pmax | pmax | | | | |
| | comp=Z,14nm,2.3s | | | | | | | | |
| **KVN** | **Kaiserville** | **73.45** | **53** | *e*P | | **P** | | **09 46 16.2** | **+1.1** |
| KVN | | | | pmax | pmax | | | | |
| | comp=Z,5.0nm,0.8s | | | | | | | | |
| **KVN** | **Kaiserville** | **73.45** | **53** | *e*P | | **P** | | **09 46 16.2** | **+1.1** |
| | comp=Z,5.0nm,0.8s | | | | | | | | |
| **NV01** | **Mina Array Sit** | **73.69** | **54** | *e*P | | **P** | | **09 46 17.9** | **+1.2** |
| **NVAR** | **Mina Array Bea** | **73.69** | **54** | P | | **P** | | **09 46 18.5** | **+1.9** |
| | comp=Z,1.1nm,0.8s,baz=284,slow=4.9,SNR=7.6 | | | | | | | | |
| **PD31** | **Pinedale Array** | **76.22** | **46** | *e*P | | **P** | | **09 46 32.4** | **+1.2** |
| **PDAR** | **Pinedale Array** | **76.22** | **46** | P | | **P** | | **09 46 32.1** | **+0.9** |
| | comp=Z,1.7nm,0.6s,baz=285,slow=1.2,SNR=14 | | | | | | | | |
| **PDAR** | **Pinedale Array** | **76.22** | **46** | *e*P | | **P** | | **09 46 32.4** | **+1.2** |
| **MPU** | **Maple Canyon** | **76.79** | **49** | *e*P | | **P** | | **09 46 36.0** | **+1.6** |
| | comp=Z,3.2nm,0.7s | | | | | | | | |
| **PV10** | **Paradox Valley** | **79.38** | **49** | *e*P | | **P** | | **09 46 51.0** | **+2.2** |
| **LTX** | **Lajitas** | **88.80** | **53** | *e*P | | **P** | | **09 47 37.5** | **+0.9** |
| **LTX** | **Lajitas** | **88.80** | **53** | *e*P | | **P** | | **09 47 37.5** | **+0.9** |
| **TXAR** | **Lajitas Array** | **88.80** | **53** | P | | **P** | | **09 47 37.5** | **+0.8** |
| | comp=Z,0.6nm,0.6s,baz=297,slow=3.3,SNR=9.8 | | | | | | | | |
| **LPAZ** | **La Paz** | **145.51** | **58** | PKPbc | | **PKPab** | | **09 54 22.0** | **+0.1** |
| | comp=Z,2.7nm,0.7s,baz=356,slow=4.2,SNR=14 | | | | | | | | |
| **LPAZ** | **La Paz** | **145.51** | **58** | PKP2 | | **PKPab** | | **09 54 22.0** | **+0.1** |
| LPAZ | | | | pmax | pmax | | | | |
| | comp=Z,3.0nm,0.7s | | | | | | | | |

*IDC **30** 09:36:28.5±1.1,26.6°60S×178.1°13W,h214km±11km, mb4.4/19,mb1 4.5/20,mb1mx4.4/33,mbtmp4.9/20,Error ellipse: s-maj=16.1km s-min=12.8km az=180.0*

*MOS **30** 09:36:28.2±1.0,26.5°58S×178.1°05W,h223km,mb4.9/21, Error ellipse: s-maj=15.9km s-min=10.1km az=98.7*

*ISCJB **30** 09:36:29.8±0.2,27.0°02S±0.0°03×178.1°15W±0.0°05,h250km, mb4.7/101,Error ellipse: s-maj=6.4km s-min=3.3km az=25.1*

*NEIC **30** 09:36:29.3±0.8,26.5°53S×178.1°07W,h222km±7km,mb4.8/70, Error ellipse: s-maj=8.4km s-min=6.6km az=163.0*

*GCMT **30** 09:36:29.3±0.4,26.6°62S×177.9°2W,h227km±3km, MW5.2/68,Moment Tensor Solution. s28,c29; s68,c85; Duration: 0 Moment tensor: Scale 10^16^Nm; Mrr-1.77±.30; Mθθ-4.92±.24; Mφφ6.69±.23; Mrθ-2.82±.25; Mθφ0.46±.21; Mφr-1.59±.26; Best double couple: Mo6.82400×10^16^ NP1:φs43.00000°,δ77.00000°,λ-31.00000°. NP2: φs141.00000°,δ60.00000°,λ-165.00000°. Principal axes: T 7.0600, Plg12.0000°, Azm95.0000°; N -0.4720, Plg57.0000°, Azm203.0000°; P -6.5880, Plg31.0000°, Azm358.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

**ISC 30 09:36:31.0±0.3,26.76S±0.05×177.96W±0.07,h250km, n358,σ1s73/354,mb4.8/101,28C-16D,South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **2.48** | **179** | P | | **Pn** | **09 37 15.3** | **-2.7** |
| | 2μm,0.3s,baz=74,slow=3.0,SNR=51 | | | | | | | |
| RAO | | | | S | | **S** | **09 37 51.6** | **-3.6** |
| | 2μm,0.3s,baz=94,slow=22,SNR=9.7 | | | | | | | |
| **RAO** | **Raoul Island** | **2.48** | **179** | *e*P | | **Pn** | **09 37 15.2** | **-2.8** |
| RAO | | | | *e*S | | **S** | **09 37 52.6** | **-2.7** |
| **RAO** | **Raoul Island** | **2.48** | **179** | *e*Pn | | **Pn** | **09 37 15.2** | **-2.8** |
| RAO | | | | *e*S | | **S** | **09 37 52.5** | **-2.7** |
| **MSVF** | **Nonsavu** | **9.71** | **337** | *e*P | | **Pn** | **09 38 42.9** | **-3.2** |
| **MSVF** | **Nonsavu** | **9.71** | **337** | *e*Pn | | **Pn** | **09 38 42.9** | **-3.2** |
| **OUZ** | **Omahuta** | **11.11** | **219** | *e*Pn | | **P** | **09 39 05.8** | **-1.8** |
| **HAZ** | **Te Kaha** | **11.54** | **197** | PN | | Pn | 09 39 01.0 | -7.7 |
| HAZ | | | | SN | | S | 09 41 09.8 | -7.7 |
| **PUZ** | **Puketiti** | **11.72** | **195** | *e*PN | | Pn | 09 39 02.0 | -9.0 |
| PUZ | | | | *e*SN | | S | 09 41 06.5 | -15 |
| **TWGZ** | **Tauwhareparae** | **11.89** | **196** | *e*PN | | Pn | 09 39 04.8 | -8.3 |
| TWGZ | | | | *e*SN | | S | 09 41 13.5 | -12 |
| **MWZ** | **Matawai** | **12.15** | **197** | PN | | Pn | 09 39 07.5 | -8.9 |
| MWZ | | | | *e*SN | | S | 09 41 19.2 | -13 |
| **TKGZ** | **Te Karaka** | **12.17** | **196** | PN | | Pn | 09 39 07.1 | -9.4 |
| TKGZ | | | | *e*SN | | S | 09 41 20.5 | -12 |
| **URZ** | **Urewera** | **12.20** | **199** | P | | Pn | 09 39 10.1 | -6.8 |
| | 4.8nm,0.3s,baz=255,slow=2.0,SNR=27 | | | | | | | |
| URZ | | | | S | | S | 09 41 21.1 | -12 |
| | 9.5nm,0.3s,baz=200,slow=23,SNR=10.0 | | | | | | | |
| **URZ** | **Urewera** | **12.20** | **199** | *e*PN | | Pn | 09 39 07.9 | -9.0 |
| URZ | | | | *e*SN | | S | 09 41 20.5 | -12 |
| **RIGZ** | **Rimuhau** | **12.44** | **196** | PN | | Pn | 09 39 10.2 | -10 |
| **MRHZ** | **Matea Rd** | **12.93** | **200** | *e*PN | | Pn | 09 39 19.6 | -6.5 |
| **PXZ** | **Pawanui** | **13.92** | **197** | *e*PN | | Pn | 09 39 29.0 | -9.0 |
| PXZ | | | | *e*SN | | S | 09 41 54.8 | -17 |
| **AFI** | **Afiamalu** | **14.03** | **26** | P | | Pn | 09 39 28.8 | -11 |
| | 37nm,0.3s,baz=243,slow=2.5,SNR=33 | | | | | | | |
| AFI | | | | S | | S | 09 41 50.6 | -25 |
| | 31nm,0.3s,baz=224,slow=23,SNR=8.3 | | | | | | | |
| **AFI** | **Afiamalu** | **14.03** | **26** | *e*P | | Pn | 09 39 29.1 | -11 |
| **AFI** | **Afiamalu** | **14.03** | **26** | *e*Pn | | Pn | 09 39 29.1 | -11 |
| **BFZ** | **Birch Farm** | **14.69** | **198** | *e*PN | | P | 09 39 38.3 | -9.0 |
| BFZ | | | | *e*SN | | S | 09 42 11.8 | -18 |
| **MRZ** | **Mangatainoka R** | **14.87** | **199** | *e*PN | | P | 09 39 38.4 | -11 |
| MRZ | | | | *e*SN | | S | 09 42 14.2 | -19 |
| **DZM** | **Mont Dzumac** | **14.95** | **285** | P | | **Pn** | **09 39 51.5** | **+0.7** |
| | 2.9nm,0.3s,baz=110,slow=13,SNR=64 | | | | | | | |
| **DZM** | **Mont Dzumac** | **14.95** | **285** | *e*Pn | | **Pn** | **09 39 49.7** | **-1.1** |
| **NNZ** | **Nelson** | **16.10** | **204** | *e*PN | | **P** | **09 39 56.4** | **-6.3** |
| NNZ | | | | *e*SN | | S | 09 42 47.1 | -12 |
| **THZ** | **Tophouse** | **16.75** | **204** | *e*SN | | S | 09 43 01.9 | -10 |
| **KHZ** | **Kahutara** | **17.10** | **202** | *e*P | | **P** | **09 40 09.3** | **-4.4** |
| | 62nm,1.3s | | | | | | | |
| **KHZ** | **Kahutara** | **17.10** | **202** | *e*PN | | **P** | **09 40 08.6** | **-5.1** |
| KHZ | | | | *e*SN | | S | 09 43 07.8 | -11 |
| **RAR** | **Rarotonga** | **17.51** | **75** | P | | **Pn** | **09 40 20.0** | **-0.9** |
| | 5.5nm,0.3s,baz=234,slow=9.2,SNR=7.1 | | | | | | | |
| **LTZ** | **Lake Taylor** | **17.86** | **204** | *e*SN | | S | 09 43 24.1 | -10 |
| **FUNA** | **Funafuti** | **18.33** | **351** | *e*P | | **P** | **09 40 22.8** | **-4.5** |
| | 136nm,0.9s | | | | | | | |
| **RPZ** | **Rata Peaks** | **19.12** | **205** | P | | **Pn** | **09 40 39.7** | **+0.1** |
| | 0.9nm,0.3s,baz=283,slow=1.5,SNR=4.0 | | | | | | | |
| RPZ | | | | S | | **S** | **09 43 54.5** | **-4.1** |
| | 3.1nm,0.3s,baz=42,slow=22,SNR=6.2 | | | | | | | |
| **KNTN** | **Kanton** | **24.59** | **15** | *e*P | | **P** | **09 41 26.0** | **-2.6** |
| | 232nm,0.7s | | | | | | | |
| **HNR** | **Honiara** | **27.09** | **305** | P | | **P** | **09 41 49.8** | **-1.2** |
| | 83nm,0.7s,baz=10,slow=5.8,SNR=4.6 | | | | | | | |
| **HNR** | **Honiara** | **27.09** | **305** | *e*P | | **P** | **09 41 49.8** | **-1.2** |
| HNR | | | | pmax | pmax | | | |
| | comp=Z,434nm,1.6s | | | | | | | |
| **HNR** | **Honiara** | **27.09** | **305** | *e*P | | **P** | **09 41 49.8** | **-1.2** |
| | comp=Z,434nm,1.6s | | | | | | | |
| **PPT** | **Papeete** | **27.78** | **77** | *e*P | | **P** | **09 41 52.8** | **-4.4** |
| **PPT** | **Papeete** | **27.78** | **77** | *e*P | | **P** | **09 41 52.8** | **-4.4** |
| **CTA** | **Charters Tower** | **33.42** | **274** | P | | **P** | **09 42 48.2** | **+1.6** |
| | comp=Z,7.1nm,0.6s,baz=97,slow=11,SNR=18 | | | | | | | |
| **STKA** | **Stephens Creek** | **35.49** | **252** | P | | P | 09 43 07.2 | +3.1 |
| | comp=Z,1.0nm,0.5s,baz=100,slow=12,SNR=4.4 | | | | | | | |
| STKA | | | | PcP | | **PcP** | **09 45 27.9** | **+0.3** |
| | comp=Z,1.9nm,0.7s,baz=24,slow=6.3,SNR=3.0 | | | | | | | |
| **AS01** | **Alice Springs** | **43.42** | **263** | *e*P | | **P** | **09 44 09.0** | **-0.6** |
| **AS31** | **Alice Springs** | **43.46** | **263** | *e*P | | **P** | **09 44 09.4** | **-0.5** |
| | comp=Z,1.7nm,0.7s | | | | | | | |
| **ASAR** | **Alice Springs** | **43.46** | **263** | P | | **P** | **09 44 09.5** | **-0.4** |
| | comp=Z,5.4nm,0.9s,baz=97,slow=6.8,SNR=50 | | | | | | | |
| **WB2** | **Warramunga Arr** | **44.10** | **268** | *e*P | | **P** | **09 44 14.3** | **-0.8** |
| **WRAB** | **Tennant Creek** | **44.11** | **268**↑ | *e*P | | **P** | **09 44 14.7** | **-0.4** |
| WRAB | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,0.7s | | | | | | | |
| **WR1** | **Warramunga Arr** | **44.12** | **268** | *e*P | | **P** | **09 44 13.9** | **-1.2** |
| | comp=Z,23nm,1.4s | | | | | | | |
| **WRA** | **Warramunga Arr** | **44.12** | **268** | P | | **P** | **09 44 13.9** | **-1.2** |
| | comp=Z,5.2nm,0.7s,baz=105,slow=7.8,SNR=19 | | | | | | | |
| **HPAH** | **Hawaii Prepara** | **51.28** | **27** | *e*P | | **P** | **09 45 07.9** | **-2.0** |
| | comp=Z,108nm,0.8s | | | | | | | |
| **KIP** | **Kipapa** | **51.65** | **24**↓ | *i*P | | **P** | **09 45 13.1** | **+0.6** |
| KIP | | | | pmax | pmax | | | |
| | comp=Z,2μm,2.5s | | | | | | | |
| **QSPA** | **South Pole Qui** | **63.34** | **180** | *e*P | | **P** | **09 46 36.9** | **+3.4** |
| | comp=Z,9.5nm,0.9s | | | | | | | |
| **KSM** | **Kuching** | **74.41** | **280** | *e*P | | **P** | **09 47 42.9** | **+0.7** |
| | comp=Z,14nm,0.9s | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **75.29** | **325** | P | | **P** | **09 47 46.0** | **-0.7** |
| | comp=Z,38nm,0.8s,baz=158,slow=5.8,SNR=100 | | | | | | | |
| **MAJO** | **Matsushiro** | **75.29** | **325** | *d i*P | | **P** | **09 47 46.1** | **-0.6** |
| MAJO | | | | pmax | pmax | | | |
| | comp=Z,52nm,0.8s | | | | | | | |
| **MAJO** | **Matsushiro** | **75.29** | **325** | *e*P | | **P** | **09 47 46.2** | **-0.5** |
| | comp=Z,45nm,0.8s | | | | | | | |
| **MAT** | **Matsushiro** | **75.29** | **325** | P | | **P** | **09 47 46.1** | **-0.6** |
| **MJB9** | **Matsu-Tunnel** | **75.29** | **325** | *e*P | | **P** | **09 47 46.2** | **-0.5** |
| | comp=Z,47nm,0.8s | | | | | | | |
| **JNU** | **Nakatsue** | **76.88** | **318** | P | | **P** | **09 47 55.5** | **-0.3** |
| | comp=Z,10.0nm,0.7s,baz=181,slow=1.8,SNR=9.7 | | | | | | | |
| **JNU** | **Nakatsue** | **76.88** | **318** | *e*P | | **P** | **09 47 55.4** | **-0.3** |
| | comp=Z,19nm,1.0s | | | | | | | |
| **ERM** | **Erimo** | **77.29** | **331**↓ | *e*P | | **P** | **09 47 59.2** | **+1.5** |
| ERM | | | | pmax | pmax | | | |
| | comp=Z,34nm,1.3s | | | | | | | |
| **ATKA** | **Atka Island** | **78.69** | **2** | *e*P | | **P** | **09 48 04.9** | **-0.2** |
| | comp=Z,61nm,1.0s | | | | | | | |
| **ASAJ** | **Asahikawa** | **79.24** | **332** | P | | P | 09 48 10.2 | +1.9 |
| | comp=Z,34nm,0.8s,baz=270,slow=7.2,SNR=13 | | | | | | | |
| **ASAJ** | **Asahikawa** | **79.24** | **332** | *e*P | | **P** | **09 48 09.8** | **+1.4** |
| | comp=Z,37nm,0.9s | | | | | | | |
| **SYO** | **Syowa Base** | **80.66** | **193**↓ | *e*P | | P | **09 48 16.4** | **+0.8** |
| **SYO** | **Syowa Base** | **80.66** | **193**↓ | *e*pP | | pP | 09 49 10.6 | -4.3 |
| **TJN** | **Taejon** | **81.21** | **318** | *c i*P | | **P** | **09 48 19.8** | **+0.8** |
| **YSS** | **Yuzh-Sakhalins** | **81.50** | **334** | *i*P | | **P** | **09 48 21.6** | **+1.4** |
| YSS | | | | pmax | pmax | | | |
| | comp=Z,70nm,0.9s | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **81.50** | **334** | *e*P | | **P** | **09 48 21.7** | **+1.4** |
| | comp=Z,76nm,0.9s | | | | | | | |
| **KSRS** | **Korea Array** | **81.61** | **319** | P | | **P** | **09 48 21.9** | **+0.8** |
| | comp=Z,14nm,0.7s,baz=134,slow=6.0,SNR=59 | | | | | | | |
| **KS15** | **Wonju Array Si** | **81.63** | **319** | *e*P | | **P** | **09 48 22.1** | **+1.0** |
| **KS01** | **Wonju Array Si** | **81.64** | **319** | *e*P | | **P** | **09 48 21.6** | **+0.4** |
| **SNAA** | **Sanae** | **81.78** | **178** | *e*P | | **P** | **09 48 23.4** | **+1.8** |
| **VNA3** | **Neumayer Olymp** | **81.92** | **176** | P | | **P** | **09 48 24.5** | **+2.2** |
| **PET** | **Petropavlovsk** | **82.02** | **346** | *e*P | | **P** | **09 48 20.6** | **-2.2** |
| PET | | | | pmax | pmax | | | |
| | comp=Z,32nm,1.3s | | | | | | | |
| **PEA0B** | **Petropavlovsk-** | **82.31** | **345** | *e*P | | **P** | **09 48 24.1** | **-0.2** |
| | comp=Z,42nm,1.0s | | | | | | | |
| **PETK** | **Petropavlovsk-** | **82.31** | **345** | P | | **P** | **09 48 24.4** | **0.0** |
| | comp=Z,25nm,0.8s,baz=122,slow=7.3,SNR=32 | | | | | | | |
| **PEA1** | **Petropavlovsk-** | **82.31** | **345** | *e*P | | **P** | **09 48 24.4** | **0.0** |
| **VNA2** | **Neumayer--Watz** | **82.36** | **177** | P | | **P** | **09 48 27.2** | **+2.6** |
| | baz=177,slow=3.4 | | | | | | | |
| **VNA1** | **Neumayer--Stat** | **82.59** | **177** | P | | **P** | **09 48 28.1** | **+2.4** |
| **MURC** | **Murrieta** | **83.23** | **47** | P | | **P** | **09 48 31.5** | **+1.9** |
| | baz=232 | | | | | | | |
| **BFSC** | **Mount Baldy Ra** | **83.33** | **46** | P | | **P** | **09 48 31.8** | **+1.6** |
| | baz=232 | | | | | | | |
| **NADM** | **Allendale** | **83.38** | **41** | *e*P | | **P** | **09 48 28.7** | **-1.4** |
| **MSHR** | **Mys Shultsa** | **83.41** | **325**↑ | *e*P | | **P** | **09 48 30.8** | **+0.6** |
| **VES** | **Vestal, Richgr** | **83.43** | **44** | P | | **P** | **09 48 31.4** | **+0.9** |
| | baz=230 | | | | | | | |
| **EDW2** | **Edwards Air Fo** | **83.51** | **46** | P | | **P** | **09 48 33.0** | **+1.9** |
| | baz=231,SNR=5.9 | | | | | | | |
| **RCTC** | **Rector, Farmer** | **83.62** | **44** | P | | **P** | **09 48 33.3** | **+1.9** |
| | baz=230 | | | | | | | |
| **PFO** | **Pinyon Flats O** | **83.72** | **48** | P | | **P** | **09 48 33.8** | **+1.6** |
| | baz=232 | | | | | | | |
| **TPFO** | **Pinon Flats** | **83.72** | **48** | P | | **P** | **09 48 34.2** | **+2.0** |
| | baz=232 | | | | | | | |
| **NJ2** | **Nanjing** | **83.92** | **310** | *e*P | | **P** | **09 48 34.0** | **+1.0** |
| NJ2 | | | | pmax | pmax | | | |
| | comp=Z,12nm,0.6s | | | | | | | |
| **CMB** | **Columbia Colle** | **84.04** | **42** | *e*P | | **P** | **09 48 35.2** | **+1.6** |
| CMB | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.9s | | | | | | | |
| **CMB** | **Columbia Colle** | **84.04** | **42** | *e*P | | **P** | **09 48 35.2** | **+1.6** |
| | comp=Z,9.7nm,0.9s | | | | | | | |
| **LRMC** | **Laurel Mtn Rad** | **84.08** | **45** | P | | **P** | **09 48 35.8** | **+1.8** |
| | baz=231 | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **84.16** | **326** | P | | **P** | **09 48 35.2** | **+1.2** |
| | comp=Z,21nm,0.9s,baz=130,slow=3.1,SNR=16 | | | | | | | |
| **BELC** | **Belle Mtn. Jos** | **84.27** | **47** | P | | **P** | **09 48 36.9** | **+2.0** |
| | baz=233,SNR=8.0 | | | | | | | |
| **AFDM** | **Forest Hills D** | **84.29** | **41** | *e*P | | **P** | **09 48 36.1** | **+1.3** |
| | comp=Z,9.8nm,1.1s | | | | | | | |
| **ORV** | **Oroville** | **84.38** | **40** | *e*P | | **P** | **09 48 36.7** | **+1.5** |
| ORV | | | | pmax | pmax | | | |
| | comp=Z,13nm,1.3s | | | | | | | |
| **ORV** | **Oroville** | **84.38** | **40** | *e*P | | **P** | **09 48 36.7** | **+1.5** |
| | comp=Z,13nm,1.3s | | | | | | | |
| **BC3** | **Big Chuckawall** | **84.42** | **48** | P | | **P** | **09 48 37.3** | **+1.6** |
| | baz=233 | | | | | | | |
| **CWC** | **Cottonwood Cre** | **84.44** | **44** | P | | **P** | **09 48 37.6** | **+1.9** |
| | baz=231 | | | | | | | |
| **WDC** | **Whiskeytown Da** | **84.47** | **39** | *e*P | | **P** | **09 48 37.6** | **+2.0** |
| WDC | | | | pmax | pmax | | | |
| | comp=Z,23nm,1.1s | | | | | | | |
| **WDC** | **Whiskeytown Da** | **84.47** | **39** | *e*P | | **P** | **09 48 37.6** | **+2.0** |
| | comp=Z,23nm,1.1s | | | | | | | |
| **HEC** | **Hector,Ludlow** | **84.55** | **47** | P | | **P** | **09 48 38.3** | **+2.0** |
| | baz=232,SNR=6.1 | | | | | | | |
| **MPMC** | **Manual Prospec** | **84.57** | **45** | P | | **P** | **09 48 38.1** | **+1.6** |
| | baz=232,SNR=5.0 | | | | | | | |
| **MDPB** | **Devils Postpil** | **84.57** | **43** | *e*P | | **P** | **09 48 37.6** | **+1.1** |
| | comp=Z,8.2nm,1.0s | | | | | | | |
| **N02D** | **Trinity Center** | **84.64** | **39** | P | | **P** | **09 48 38.5** | **+1.9** |
| | baz=228 | | | | | | | |
| **O03D** | **Paynes Creek** | **84.70** | **40** | P | | **P** | **09 48 38.7** | **+1.8** |
| | baz=228 | | | | | | | |
| **MLAC** | **Mammoth, Mammo** | **84.72** | **43** | P | | **P** | **09 48 39.2** | **+1.9** |
| | baz=230 | | | | | | | |
| **M02C** | **Callahan** | **84.84** | **38** | P | | **P** | **09 48 39.6** | **+2.0** |
| | baz=228,SNR=5.4 | | | | | | | |
| **KTRM** | **Thompson Ridge** | **84.91** | **38** | *e*P | | **P** | **09 48 39.0** | **+1.1** |
| **WAKR** | **Walker** | **84.91** | **42** | *e*P | | **P** | **09 48 39.9** | **+1.8** |
| | comp=Z,11nm,1.0s | | | | | | | |
| **IRM** | **Iron Mountain** | **84.92** | **48** | P | | **P** | **09 48 40.1** | **+2.0** |
| | baz=233,SNR=5.7 | | | | | | | |
| **PLCA** | **Paso Flores** | **84.96** | **133** | P | | **P** | **09 48 41.6** | **+3.2** |
| | comp=Z,6.6nm,1.1s,baz=246,slow=6.6,SNR=7.0 | | | | | | | |
| **PLCA** | **Paso Flores** | **84.96** | **133** | *e*P | | **P** | **09 48 40.0** | **+1.6** |
| PLCA | | | | pmax | pmax | | | |
| | comp=Z,35nm,1.8s | | | | | | | |
| **PLCA** | **Paso Flores** | **84.96** | **133** | *e*P | | **P** | **09 48 40.0** | **+1.6** |
| | comp=Z,35nm,1.8s | | | | | | | |
| **GMRC** | **Granite Mounta** | **84.96** | **47** | P | | **P** | **09 48 40.2** | **+1.8** |
| | baz=233 | | | | | | | |
| **Y12C** | **Blythe** | **85.09** | **48** | P | | **P** | **09 48 40.7** | **+1.8** |
| | baz=234 | | | | | | | |
| **Y12C** | **Blythe** | **85.09** | **48** | *e*P | | **P** | **09 48 41.2** | **+2.3** |
| | comp=Z,7.3nm,0.8s | | | | | | | |
| **YBH** | **Yreka Blue Hor** | **85.15** | **38** | P | | **P** | **09 48 40.9** | **+1.8** |
| | comp=Z,4.5nm,0.9s,baz=126,slow=12,SNR=4.5 | | | | | | | |
| **YBH** | **Yreka Blue Hor** | **85.15** | **38** | *e*P | | **P** | **09 48 38.4** | **-0.7** |
| YBH | | | | pmax | pmax | | | |
| | comp=Z,8.0nm,0.9s | | | | | | | |
| **YBH** | **Yreka Blue Hor** | **85.15** | **38** | *e*P | | **P** | **09 48 38.4** | **-0.7** |
| | comp=Z,7.6nm,0.9s | | | | | | | |
| **TUQ** | **Turquoise Moun** | **85.19** | **46** | P | | **P** | **09 48 41.0** | **+1.6** |
| | baz=232,SNR=5.5 | | | | | | | |
| **PNTR** | **Pine Nut** | **85.19** | **42** | *e*P | | **P** | **09 48 41.1** | **+1.6** |
| | comp=Z,14nm,0.9s | | | | | | | |
| **FURC** | **Furnace Creek,** | **85.22** | **45** | P | | **P** | **09 48 41.3** | **+1.9** |
| | baz=232 | | | | | | | |
| **GRAC** | **Grapevine Rang** | **85.23** | **44** | P | | **P** | **09 48 41.6** | **+2.1** |
| | baz=232,SNR=7.9 | | | | | | | |
| **SHOC** | **Shoshone, Teco** | **85.24** | **46** | P | | **P** | **09 48 41.6** | **+2.0** |
| | baz=232 | | | | | | | |
| **LDFC** | **Landfair** | **85.50** | **47** | *e*P | | **P** | **09 48 42.4** | **+1.4** |
| | comp=Z,15nm,0.9s | | | | | | | |
| **NV01** | **Mina Array Sit** | **85.55** | **43** | *e*P | | **P** | **09 48 42.5** | **+1.2** |
| **NVAR** | **Mina Array Bea** | **85.55** | **43** | P | | **P** | **09 48 42.8** | **+1.4** |
| | comp=Z,4.0nm,0.8s,baz=223,slow=8.5,SNR=33 | | | | | | | |
| **NV11** | **Mina Array Sit** | **85.64** | **43** | *e*P | | **P** | **09 48 42.7** | **+1.0** |
| | comp=Z,0.7nm,1.1s | | | | | | | |
| **MDJ** | **Mudanjiang** | **85.66** | **325** | P | | **P** | **09 48 42.8** | **+1.4** |
| MDJ | | | | pP | pP | | 09 49 35.8 | -5.6 |
| MDJ | | | | sP | sP | | 09 49 59.5 | -8.1 |
| MDJ | | | | PP | **PP** | | **09 51 59.5** | **-5.1** |
| **MDJ** | **Mudanjiang** | **85.66** | **325** | S | **S** | | **09 58 56.0** | **+4.1** |
| **MDJ** | **Mudanjiang** | **85.66** | **325** | sS | sS | | 10 00 31.0 | -6.4 |
| **MDJ** | **Mudanjiang** | **85.66** | **325** | SS | SS | | 10 04 35.0 | -0.2 |
| MDJ | | | | pmax | pmax | | | |
| | comp=Z,33nm,1.1s | | | | | | | |
| MDJ | | | | pmax | pmax | | | |
| | comp=Z,55nm,3.7s | | | | | | | |
| **MDJ** | **Mudanjiang** | **85.66** | **325** | *e*P | | **P

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **E09A** | **Wood Farm, Sta** | **90.77** | **37** | *e*P | | **P** | **09 49 05.2** | **-0.4** |
| | comp=Z,14nm,1.0s | | | | | | | | |
| **SPUT** | **South Promonto** | **90.88** | **43** | *e*P | | **P** | **09 49 07.9** | **+1.5** |
| | comp=Z,7.8nm,1.1s | | | | | | | | |
| **F10A** | **Beach Ranch, E** | **90.92** | **37** | *e*P | | **P** | **09 49 07.4** | **+1.0** |
| | comp=Z,12nm,0.8s | | | | | | | | |
| **HVU** | **Hansel Valley** | **90.95** | **43** | *e*P | | **P** | **09 49 08.6** | **+1.9** |
| HVU | | | | | pmax | pmax | | | |
| | comp=Z,16nm,1.4s | | | | | | | | |
| **HVU** | **Hansel Valley** | **90.95** | **43** | *e*P | | **P** | **09 49 08.6** | **+1.9** |
| | comp=Z,16nm,1.4s | | | | | | | | |
| **HLID** | **Hailey** | **91.03** | **41** | P | | **P** | **09 49 08.8** | **+1.7** |
| | baz=233 | | | | | | | | |
| **HLID** | **Hailey** | **91.03** | **41** | *e*P | | **P** | **09 49 08.8** | **+1.7** |
| | comp=Z,11nm,1.2s | | | | | | | | |
| **PMR** | **Palmer** | **91.07** | **13** | *e*P | | **P** | **09 49 07.0** | **+0.5** |
| PMR | | | | | pmax | pmax | | | |
| | comp=Z,17nm,1.2s | | | | | | | | |
| **PMR** | **Palmer** | **91.07** | **13** | *e*P | | **P** | **09 49 07.0** | **+0.5** |
| | comp=Z,17nm,1.2s | | | | | | | | |
| **ANMO** | **Albuquerque** | **91.28** | **51** | P | | **P** | **09 49 09.9** | **+1.5** |
| | baz=238 | | | | | | | | |
| **ANMO** | **Albuquerque** | **91.28** | **51** | ⇑ *i*P | | **P** | **09 49 10.6** | **+2.2** |
| ANMO | | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,0.9s | | | | | | | | |
| **ANMO** | **Albuquerque** | **91.28** | **51** | *e*P | | **P** | **09 49 10.5** | **+2.0** |
| | comp=Z,10nm,1.8s | | | | | | | | |
| **DIV** | **Divide** | **91.39** | **15** | *e*P | | **P** | **09 49 08.7** | **+0.6** |
| | comp=Z,16nm,1.0s | | | | | | | | |
| **XAN** | **Xi'an** | **91.94** | **307** | P | | **P** | **09 49 12.5** | **+1.2** |
| XAN | | | | | pmax | pmax | | | |
| | comp=Z,14nm,0.9s | | | | | | | | |
| XAN | | | | | pmax | pmax | | | |
| | comp=Z,32nm,3.9s | | | | | | | | |
| **CM01** | **Chiang Mai Arr** | **92.20** | **289** | *e*P | | **P** | **09 49 14.4** | **+1.6** |
| **KMI** | **Kunming** | **92.21** | **297** | P | | **P** | **09 49 15.0** | **+2.0** |
| KMI | | | | | pmax | pmax | | | |
| | comp=Z,17nm,0.6s | | | | | | | | |
| KMI | | | | | pmax | pmax | | | |
| | comp=Z,160nm,4.2s | | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **92.23** | **289** | P | | **P** | **09 49 14.8** | **+1.8** |
| | comp=Z,2.6nm,0.8s,baz=146,slow=3.8,SNR=14 | | | | | | | | |
| **CHTO** | **Chiang Mai** | **92.39** | **290** | *e*P | | **P** | **09 49 15.9** | **+2.2** |
| CHTO | | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,1.1s | | | | | | | | |
| **CHTO** | **Chiang Mai** | **92.39** | **290** | *e*P | | **P** | **09 49 15.9** | **+2.2** |
| | comp=Z,10nm,1.1s | | | | | | | | |
| **SEY** | **Seymchan** | **92.45** | **347** | P | | **P** | **09 49 13.0** | **+0.1** |
| | comp=Z,12nm,0.9s,baz=145,slow=5.3,SNR=28 | | | | | | | | |
| **S22A** | **4UR Ranch, Cre** | **92.51** | **49** | P | | **P** | **09 49 15.5** | **+1.3** |
| | baz=238 | | | | | | | | |
| **KTH** | **Kantishna Hill** | **92.51** | **12** | *e*P | | **P** | **09 49 12.9** | **-0.4** |
| | comp=Z,9.8nm,0.8s | | | | | | | | |
| **AHID** | **Auburn Hatcher** | **92.53** | **43** | *e*P | | **P** | **09 49 16.4** | **+2.4** |
| | comp=Z,7.1nm,0.9s | | | | | | | | |
| **TRF** | **Thorofare Moun** | **92.53** | **12** | *e*P | | **P** | **09 49 13.5** | **0.0** |
| | comp=Z,18nm,0.7s | | | | | | | | |
| **RND** | **Reindeer** | **92.77** | **13** | *e*P | | **P** | **09 49 14.0** | **-0.5** |
| RND | | | | | pmax | pmax | | | |
| | comp=Z,14nm,1.0s | | | | | | | | |
| **RND** | **Reindeer** | **92.77** | **13** | *e*P | | **P** | **09 49 14.0** | **-0.5** |
| | comp=Z,14nm,1.0s | | | | | | | | |
| **REDW** | **Red Top Meadow** | **93.02** | **42** | *e*P | | **P** | **09 49 17.6** | **+1.3** |
| | comp=Z,24nm,2.0s | | | | | | | | |
| **MCK** | **McKinley** | **93.05** | **12** | *e*P | | **P** | **09 49 15.7** | **0.0** |
| MCK | | | | | pmax | pmax | | | |
| | comp=Z,15nm,1.2s | | | | | | | | |
| **MCK** | **McKinley** | **93.05** | **12** | *e*P | | **P** | **09 49 15.7** | **0.0** |
| | comp=Z,15nm,1.2s | | | | | | | | |
| **FXWY** | **Fox Creek** | **93.07** | **42** | *e*P | | **P** | **09 49 18.9** | **+2.3** |
| | comp=Z,3.0nm,1.0s | | | | | | | | |
| **SNOW** | **Snow King Moun** | **93.14** | **42** | *e*P | | **P** | **09 49 18.7** | **+1.8** |
| | comp=Z,7.8nm,1.5s | | | | | | | | |
| **DLMT** | **Dillon** | **93.14** | **40** | *e*P | | **P** | **09 49 17.9** | **+1.1** |
| | comp=Z,19nm,1.8s | | | | | | | | |
| **MENT** | **Mentasta** | **93.45** | **15** | *e*P | | **P** | **09 49 18.6** | **+1.1** |
| | comp=Z,14nm,1.2s | | | | | | | | |
| **BW06** | **Boulder Array** | **93.47** | **43** | P | | **P** | **09 49 19.2** | **+0.8** |
| | baz=236 | | | | | | | | |
| **PD31** | **Pinedale Array** | **93.47** | **43** | *e*P | | **P** | **09 49 19.9** | **+1.4** |
| **PDAR** | **Pinedale Array** | **93.47** | **43** | P | | **P** | **09 49 19.4** | **+0.9** |
| | comp=Z,2.4nm,0.8s,baz=211,slow=2.8,SNR=15 | | | | | | | | |
| **PDAR** | **Pinedale Array** | **93.47** | **43** | *e*P | | **P** | **09 49 18.6** | **+0.2** |
| **HHC** | **Hu-ho-hao-te** | **93.73** | **314** | *e*P | | P | 09 49 21.8 | +2.3 |
| HHC | | | | | pmax | pmax | | | |
| | comp=Z,14nm,1.0s | | | | | | | | |
| HHC | | | | | pmax | pmax | | | |
| | comp=Z,88nm,9.9s | | | | | | | | |
| **DOT** | **Dot Lake** | **93.99** | **14** | *e*P | | **P** | **09 49 20.7** | **+0.7** |
| | comp=Z,19nm,0.9s | | | | | | | | |
| **CCB** | **Clear Creek Bu** | **94.09** | **13** | *e*P | | **P** | **09 49 20.3** | **-0.1** |
| | comp=Z,4.9nm,0.7s | | | | | | | | |
| **CD2** | **Chengdu** | **94.18** | **302** | P | | **P** | **09 49 23.5** | **+1.8** |
| CD2 | | | | pP | | pP | 09 50 16.5 | -5.9 |
| CD2 | | | | sP | | sP | 09 50 24.0 | -24 |
| **CD2** | **Chengdu** | **94.18** | **302** | SKS | | **SKSac** | **09 59 34.3** | **+1.8** |
| **CD2** | **Chengdu** | **94.18** | **302** | S | | **S** | **10 00 11.0** | **+0.2** |
| **CD2** | **Chengdu** | **94.18** | **302** | SS | | SS | 10 06 31.5 | -7.2 |
| CD2 | | | | | pmax | pmax | | | |
| | comp=Z,30nm,1.0s | | | | | | | | |
| CD2 | | | | | pmax | pmax | | | |
| | comp=Z,120nm,6.6s | | | | | | | | |
| **COLA** | **College** | **94.28** | **12** | *e*P | | **P** | **09 49 20.9** | **-0.3** |
| COLA | | | | | pmax | pmax | | | |
| | comp=Z,44nm,1.8s | | | | | | | | |
| **COLA** | **College** | **94.28** | **12** | *e*P | | **P** | **09 49 20.9** | **-0.3** |
| | comp=Z,44nm,1.8s | | | | | | | | |
| **MDM** | **Murphy Dome** | **94.29** | **12** | *e*P | | **P** | **09 49 21.1** | **-0.3** |
| | comp=Z,6.6nm,1.1s | | | | | | | | |
| **IM3** | **Indian Mountai** | **94.29** | **10** | *e*P | | **P** | **09 49 21.4** | **+0.1** |
| **IL1** | **Eielson Array** | **94.38** | **13** | *e*P | | **P** | **09 49 20.1** | **-1.6** |
| **ILAR** | **Eielson Array** | **94.38** | **13** | P | | **P** | **09 49 21.5** | **-0.2** |
| | comp=Z,2.6nm,0.8s,baz=222,slow=5.3,SNR=28 | | | | | | | | |
| ILAR | | | | | PP | | **PP** | **09 53 07.4** | **-5.7** |
| | comp=Z,1.1nm,0.9s,baz=215,slow=8.4,SNR=4.6 | | | | | | | | |
| **ILB** | **Eielson Array** | **94.38** | **13** | *e*P | | **P** | **09 49 21.1** | **-0.6** |
| **BILL** | **Bilibino** | **95.24** | **354** | ⫴ *e*P | | **P** | **09 49 25.8** | **+0.2** |
| BILL | | | | *e*PP | | **pP** | **09 50 23.2** | **-3.1** |
| BILL | | | | | pmax | pmax | | | |
| | comp=Z,8.0nm,1.3s | | | | | | | | |
| **ULN** | **Ulaanbaatar** | **100.09** | **319** | ⇑ *e*P | | **Pdif** | **09 49 50.4** | **+2.4** |
| ULN | | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.7s | | | | | | | | |
| **INK** | **Inuvik** | **100.28** | **15** | P | | **Pdif** | **09 49 48.1** | **0.0** |
| | comp=Z,1.0nm,0.8s,baz=212,slow=4.7,SNR=5.5 | | | | | | | | |
| **INK** | **Inuvik** | **100.28** | **15** | *e*P | | **Pdif** | **09 49 47.6** | **-0.5** |
| **INK** | **Inuvik** | **100.28** | **15** | *e*Pdif | | **Pdif** | **09 49 47.5** | **-0.5** |
| **SONA0** | **Songino Array** | **100.46** | **318** | *e*Pdif | | **Pdif** | **09 49 50.2** | **+0.6** |
| **SONM** | **Songino Array** | **100.46** | **318** | P | | **Pdif** | **09 49 50.2** | **+0.6** |
| | comp=Z,0.9nm,1.0s,baz=133,slow=6.1,SNR=3.3 | | | | | | | | |
| **GTA** | **Gaotai** | **100.92** | **309** | *e*P | | **Pdif** | **09 49 53.0** | **+1.1** |
| GTA | | | | pP | | pPdif | 09 50 48.0 | -4.8 |
| GTA | | | | sP | | sPdif | 09 51 11.5 | -7.3 |
| GTA | | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,1.0s | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **102.15** | **25** | P | | **Pdif** | **09 49 57.1** | **+0.5** |
| | comp=Z,0.3nm,0.8s,baz=236,slow=4.1,SNR=6.0 | | | | | | | | |
| **WMQ** | **Urumqi** | **110.98** | **309** | *e*P | | **PKiKP** | **09 54 35.3** | **+0.8** |
| WMQ | | | | | pmax | pmax | | | |
| | comp=Z,190nm,4.9s | | | | | | | | |
| WMQ | | | | | LR | LR | | | |
| | comp=N,80nm,16.7s | | | | | | | | |
| WMQ | | | | | LR | LR | | | |
| | comp=E,51nm,23.9s | | | | | | | | |
| WMQ | | | | | LR | LR | | | |
| | comp=Z,93nm,16.7s | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **115.32** | **320** | PKP | | **PKPdf** | **09 54 42.3** | **0.0** |
| | comp=Z,1.3nm,0.7s,baz=105,slow=1.7,SNR=4.3 | | | | | | | | |
| **ZAA1** | **Zalesovo Array** | **115.32** | **320** | *e*PKPdf | | **PKPdf** | **09 54 42.3** | **0.0** |
| **MK32** | **Makanchi Array** | **115.43** | **311** | *e*PKPdf | | **PKPdf** | **09 54 42.8** | **-0.1** |
| **MKAR** | **Makanchi Array** | **115.43** | **311** | PKP | | **PKPdf** | **09 54 42.8** | **-0.1** |
| | comp=Z,1.7nm,0.8s,baz=72,slow=4.0,SNR=14 | | | | | | | | |
| **KSH** | **Kashi** | **118.37** | **302** | *e*P | | **PKPdf** | **09 54 50.8** | **+1.9** |
| KSH | | | | | pmax | pmax | | | |
| | comp=Z,87nm,5.4s | | | | | | | | |
| **KURK** | **Kurchatov** | **118.53** | **315** | *e*PKiKP | | **PKPdf** | **09 54 48.8** | **+0.2** |
| **KURK** | **Kurchatov** | **118.53** | **315** | *e*PKPdf | | **PKPdf** | **09 54 48.8** | **+0.2** |
| **KURBB** | **Kurchatov Arra** | **118.57** | **315** | PKP | | **PKPdf** | **09 54 48.8** | **+0.1** |
| | comp=Z,2.8nm,0.8s,baz=98,slow=2.0,SNR=26 | | | | | | | | |
| **AAK** | **Ala-Archa** | **120.08** | **306** | ⇑ *i*PKiKP | | **PKPdf** | **09 54 53.6** | **+1.5** |
| **BVAR** | **Borovoye Array** | **123.79** | **318** | PKP | | **PKPdf** | **09 54 59.2** | **+0.5** |
| | comp=Z,3.2nm,0.8s,baz=102,slow=2.1,SNR=17 | | | | | | | | |
| **BRVK** | **Borovoye** | **123.86** | **318** | *c i*PKiKP | | **PKPdf** | **09 54 59.3** | **+0.5** |
| **ARU** | **Arti** | **130.27** | **323** | PKP | | **PKPdf** | **09 55 11.9** | **+1.0** |
| | comp=Z,2.4nm,0.3s,baz=83,slow=1.7,SNR=7.8 | | | | | | | | |
| **ARU** | **Arti** | **130.27** | **323** | *i* PKiKP | | **PKPdf** | **09 55 12.0** | **+1.1** |
| ARU | | | | | | | 09 57 25.4 | | |
| **AKTO** | **Aktyubinsk** | **131.62** | **315** | PKP | | **PKPdf** | **09 55 14.2** | **+0.5** |
| | comp=Z,2.7nm,0.7s,baz=66,slow=3.1,SNR=7.3 | | | | | | | | |
| **GEYT** | **Alibeck** | **131.97** | **298** | PKP | | **PKPdf** | **09 55 17.1** | **+2.3** |
| | comp=Z,1.0nm,0.4s,baz=248,slow=4.0,SNR=4.8 | | | | | | | | |
| **ARA0** | **ARCESS Array S** | **135.04** | **349** | *e*PKPdf | | **PKPdf** | **09 55 20.9** | **+1.3** |
| **ARCES** | **ARCESS Array B** | **135.04** | **349** | PKP | | **PKPdf** | **09 55 20.9** | **+1.3** |
| | comp=Z,2.2nm,0.7s,baz=352,slow=2.7,SNR=5.6 | | | | | | | | |
| ARCES | | | | | SKPbc | | **SKiKP** | **09 58 30.4** | **-2.6** |
| | comp=Z,6.7nm,0.9s,baz=56,slow=3.1,SNR=5.6 | | | | | | | | |
| **FIA0** | **FINESS Array S** | **141.73** | **342** | *e*PKHKP | | PKPpre | 09 55 26.8 | | |
| **FIA0** | **FINESS Array S** | **141.73** | **342** | *e*PKPpre | | PKPpre | 09 55 26.8 | | |
| **FINES** | **FINESS Array B** | **141.73** | **342** | PKhKP | | PKPpre | 09 55 26.8 | | |
| | comp=Z,5.9nm,0.7s,baz=46,slow=4.0,SNR=18 | | | | | | | | |
| **OBN** | **Obninsk** | **142.16** | **328** | ⫴ *e*PKiKP | | **PKPdf** | **09 55 34.8** | **+1.9** |
| OBN | | | | *e* | | | 09 56 30.7 | | |
| OBN | | | | *e* | | | 09 58 38.6 | | |
| OBN | | | | | pmax | pmax | | | |
| | comp=Z,41nm,2.4s | | | | | | | | |
| **KBZ** | **Khabaz** | **143.01** | **308** | PKP | | **PKPdf** | **09 55 34.1** | **-0.7** |
| | comp=Z,2.0nm,0.8s,baz=21,slow=1.7,SNR=3.8 | | | | | | | | |
| **NEY** | **Neytrino** | **143.24** | **307** | ⫴ *i*PKiKP | | **PKPdf** | **09 55 37.0** | **+1.5** |
| **VSU** | **Vasula** | **143.90** | **338** | ⫴ *e*PKiKP | | **PKPdf** | **09 55 35.5** | **-0.4** |
| **NB2** | **NORSAR Subarra** | **145.16** | **352** | PKP | | **PKPab** | **09 55 38.5** | **-0.1** |
| | comp=Z,43nm,0.9s,baz=12,slow=4.1 | | | | | | | | |
| **NB2** | **NORSAR Subarra** | **145.16** | **352** | PKP | | **PKPab** | **09 55 38.5** | **-0.1** |
| | baz=12,slow=4.1 | | | | | | | | |
| **NB200** | **NORSAR Array S** | **145.16** | **352** | *e*PKPbc | | **PKPab** | **09 55 38.6** | **-0.1** |
| **NOA** | **NORSAR Array B** | **145.16** | **352** | PKP | | **PKPab** | **09 55 38.6** | **-0.1** |
| | comp=Z,32nm,0.9s,baz=15,slow=2.5,SNR=40 | | | | | | | | |
| **HFS** | **Hagfors** | **145.69** | **350** | PKPbc | | **PKPab** | **09 55 39.9** | **-0.7** |
| | comp=Z,13nm,0.6s,baz=52,slow=2.4,SNR=50 | | | | | | | | |
| **IDID** | **Didziasalis** | **146.28** | **335** | *e*P | | **PKPab** | **09 55 41.8** | **-1.2** |
| IDID | | | | IAmb | | IAmb | 09 55 43.2 | | |
| | comp=Z,14nm,1.0s | | | | | | | | |
| **ISAL** | **Salakas** | **146.32** | **335** | *e*P | | **PKPab** | **09 55 41.9** | **-1.3** |
| ISAL | | | | IAmb | | IAmb | 09 55 43.5 | | |
| | comp=Z,12nm,0.8s | | | | | | | | |
| **IIGN** | **Ignalina** | **146.46** | **335** | *e*P | | **PKPab** | **09 55 42.1** | **-1.6** |
| IIGN | | | | IAmb | | IAmb | 09 55 43.9 | | |
| | comp=Z,18nm,0.9s | | | | | | | | |
| **NACGM** | **Naroch** | **146.57** | **334** | *e* | | **PKPab** | **09 55 42.0** | **-2.2** |
| **AKASG** | **Malin Array Be** | **148.36** | **326** | PKPbc | | **PKPab** | **09 55 47.5** | **-3.9** |
| | comp=Z,17nm,0.8s,baz=45,slow=4.2,SNR=54 | | | | | | | | |
| **AKBB** | **Malin Array Si** | **148.36** | **326** | *e*PKP2 | | **PKPab** | **09 55 47.7** | **-3.8** |
| **AKBB** | **Malin Array Si** | **148.36** | **326** | *e*PKPbc | | **PKPab** | **09 55 47.7** | **-3.8** |
| **KIEV** | **Kiev** | **148.38** | **326** | *d i*PKP2 | | **PKPab** | **09 55 47.3** | **-4.2** |
| **ASF** | **Jabal al Asfar** | **149.26** | **288** | PKPbc | | **PKPab** | **09 55 51.7** | **-4.2** |
| | comp=Z,3.8nm,0.6s,baz=47,slow=2.1,SNR=7.8 | | | | | | | | |
| **SORM** | **Soroca** | **150.39** | **323** | ⫴ *i*P | | **PKPbc** | **09 55 53.0** | **+0.5** |
| **MMAI** | **Mount Meron Ar** | **150.49** | **290** | PKPbc | | **PKPab** | **09 55 55.5** | **-5.5** |
| | comp=Z,6.7nm,0.4s,baz=67,slow=2.2,SNR=5.9 | | | | | | | | |
| **BR101** | **Keskin Array S** | **150.74** | **304** | *e*PKPbc | | **PKPbc** | **09 55 54.5** | **+0.6** |
| BR101 | | | | *e*PKPab | | **PKPab** | **09 56 02.3** | **+0.4** |
| **BRTR** | **Keskin Array B** | **150.74** | **304** | PKPbc | | **PKPbc** | **09 55 54.5** | **+0.6** |
| | comp=Z,4.6nm,0.8s,baz=148,slow=4.4,SNR=17 | | | | | | | | |
| BRTR | | | | | PKPab | **PKPab** | **09 56 02.3** | **+0.4** |
| | comp=Z,8.8nm,0.8s,baz=96,slow=3.6,SNR=21 | | | | | | | | |
| **EIL** | **Elat** | **150.91** | **283** | PKPbc | | **PKPbc** | **09 55 55.7** | **+1.3** |
| | comp=Z,12nm,0.8s,baz=338,slow=4.7,SNR=12 | | | | | | | | |
| **EKA** | **Eskdalemuir Ar** | **151.20** | **6** | PKPbc | | **PKPbc** | **09 55 54.5** | **+0.3** |
| | comp=Z,1.9nm,0.6s,baz=334,slow=1.5,SNR=9.5 | | | | | | | | |
| EKA | | | | | PKPab | **PKPab** | **09 56 03.1** | **+0.2** |
| | comp=Z,4.8nm,0.7s,baz=338,slow=2.8,SNR=11 | | | | | | | | |
| **KWP** | **Kalwaria Pacla** | **152.15** | **331** | *e*PKP | | **PKPbc** | **09 55 58.0** | **+1.4** |
| **KWP** | **Kalwaria Pacla** | **152.15** | **331** | *e*PKiKP | | **PKPbc** | **09 55 58.0** | **+1.4** |
| **CFR** | **Carcaliu** | **152.19** | **318** | ⫴ *i*P | | **PKPbc** | **09 55 57.8** | **+1.1** |
| **TESR** | **Tescani** | **152.29** | **322** | ⫴ *i*P | | **PKPab** | **09 56 08.6** | **+0.7** |
| **BURAR** | **Bucovina Array** | **152.36** | **325** | ⫴ *i*P | | **PKPbc** | **09 55 58.7** | **+1.5** |
| **TIRR** | **Tirgusor** | **152.40** | **317** | ⫴ *i*P | | **PKPbc** | **09 55 58.5** | **+1.3** |
| **PETR** | **Petresti** | **152.42** | **320** | ⫴ *i*P | | **PKPab** | **09 56 11.4** | **+2.9** |
| **HARR** | **Harsova** | **152.57** | **317** | ⫴ *i*P | | **PKPab** | **09 56 13.1** | **+3.9** |
| **VRI** | **Vrincioaia** | **152.62** | **321** | ⫴ *i*P | | **PKPbc** | **09 55 58.9** | **+1.2** |
| **PLOR** | **Plostina** | **152.68** | **321** | ⫴ *i*P | | **PKPab** | **09 56 10.8** | **+1.2** |
| **OJC** | **Ojcow** | **152.90** | **335** | *e*PKP | | **PKPbc** | **09 55 59.5** | **+1.4** |
| **OJC** | **Ojcow** | **152.90** | **335** | *e*PKiKP | | **PKPbc** | **09 55 59.5** | **+1.3** |
| **STHS** | **Stebnicka Huta** | **152.94** | **332** | *e*PKiKP | | **PKPbc** | **09 55 59.9** | **+1.6** |
| **STHS** | **Stebnicka Huta** | **152.94** | **332** | *e*PKP | | **PKPbc** | **09 55 59.9** | **+1.6** |
| STHS | | | | *e* | | | 09 56 12.2 | | |
| **CRVS** | **Cervenica-Dubn** | **153.24** | **331** | *e*PKP2 | | **PKPab** | **09 56 12.5** | **+0.6** |
| **CRVS** | **Cervenica-Dubn** | **153.24** | **331** | *e*PKP | | **PKPab** | **09 56 12.5** | **+0.6** |
| **MLR** | **Muntele Rosu** | **153.29** | **321** | PKPbc | | **PKPbc** | **09 56 00.2** | **+0.9** |
| | comp=Z,0.3nm,0.5s,baz=80,slow=3.8,SNR=3.0 | | | | | | | | |
| MLR | | | | | PKPab | **PKPab** | **09 56 12.9** | **+0.5** |
| | comp=Z,1.0nm,0.9s,baz=356,slow=8.3,SNR=5.5 | | | | | | | | |
| **MLR** | **Muntele Rosu** | **153.29** | **321** | ⫴ *i*P | | **PKPab** | **09 56 13.8** | **+1.4** |
| **MLR** | **Muntele Rosu** | **153.29** | **321** | *e*PKiKP | | **PKPdf** | **09 55 51.4** | **-0.3** |
| MLR | | | | *e* | | | 09 56 11.5 | | |
| **MLR** | **Muntele Rosu** | **153.29** | **321** | *e*PKPdf | | **PKPdf** | **09 55 51.4** | **-0.3** |
| MLR | | | | *e*PKPbc | | **PKPbc** | **09 56 00.2** | **+0.9** |
| MLR | | | | *e*PKPab | | **PKPab** | **09 56 11.5** | **-0.8** |
| **DOPR** | **Dopca** | **153.31** | **322** | ⫴ *i*P | | **PKPab** | **09 56 13.4** | **+1.1** |
| **NIE** | **Niedzica** | **153.34** | **333** | *e*PKP | | **PKPbc** | **09 56 00.9** | **+1.7** |
| **NIE** | **Niedzica** | **153.34** | **333** | *e*PKiKP | | **PKPbc** | **09 56 00.9** | **+1.7** |
| **VOIR** | | **153.82** | **321** | ⫴ *i*P | | **PKPab** | **09 56 14.0** | **-0.6** |
| **OKC** | **Ostrava-Krasne** | **153.83** | **336** | *e*PKPAB | | **PKPab** | **09 56 15.3** | **+1.0** |
| **OKC** | **Ostrava-Krasne** | **153.83** | **336** | *e*PKP2 | | **PKPab** | **09 56 15.3** | **+1.0** |
| **KECS** | **Kecovo** | **153.98** | **331** | *e*PKP2 | | **PKPab** | **09 56 15.2** | **+0.2** |
| **KECS** | **Kecovo** | **153.98** | **331** | *e*PKP | | **PKPab** | **09 56 15.2** | **+0.2** |
| **UPC** | **Upice** | **153.98** | **339** | *e*PKPAB | | **PKPab** | **09 56 16.2** | **+1.3** |
| **UPC** | **Upice** | **153.98** | **339** | *e*PKP2 | | **PKPab** | **09 56 16.2** | **+1.3** |
| **DPC** | **Dobruska-Polom** | **154.02** | **339** | *e*PKPAB | | **PKPab** | **09 56 16.2** | **+1.0** |
| **DPC** | **Dobruska-Polom** | **154.02** | **339** | *e*PKP2 | | **PKPab** | **09 56 16.2** | **+1.0** |
| **MORC** | **Moravsky Berou** | **154.10** | **337** | ⫴ *i*P | | **PKPab** | **09 56 16.4** | **+0.9** |
| **ARR** | **Arges** | **154.10** | **322** | ⫴ *i*P | | **PKPbc** | **09 56 02.8** | **+1.8** |
| **CLL** | **Collm** | **154.11** | **344** | *i* PKiKP | | **PKPbc** | **09 56 01.7** | **+1.0** |
| CLL | | | | *i* | | | 09 56 15.3 | | |
| CLL | | | | | pmax | pmax | | | |
| | comp=Z,9.0nm,0.8s | | | | | | | | |
| CLL | | | | | pmax | pmax | | | |
| | comp=Z,13nm,1.0s | | | | | | | | |
| **CLL** | **Collm** | **154.11** | **344** | *i* PKPbc | | **PKPbc** | **09 56 01.7** | **+1.0** |
| | comp=Z,9.0nm,0.8s | | | | | | | | |
| CLL | | | | *i* PKiKP | | **PKiKP** | **09 56 03.4** | **+2.6** |
| | comp=Z,6.0nm,0.8s | | | | | | | | |
| CLL | | | | *i* PKPab | | **PKPab** | **09 56 15.3** | **-0.1** |
| | comp=Z,13nm,1.0s | | | | | | | | |
| CLL | | | | *ep*PKPbc | | **pPKPbc** | **09 57 03.0** | **-1.2** |
| **DRGR** | | **154.18** | **326** | ⫴ *i*P | | **PKPab** | **09 56 16.5** | **+0.5** |
| **BRG** | **Berggiesshubel** | **154.26** | **342** | PKP | | **PKPbc** | **09 56 02.2** | **+1.1** |
| | comp=Z,4.9nm,0.8s | | | | | | | | |
| BRG | | | | *i* | | | 09 56 16.4 | | |
| | comp=Z,15nm,1.2s | | | | | | | | |
| **BRG** | **Berggiesshubel** | **154.26** | **342** | PKiKP | | **PKPbc** | **09 56 02.2** | **+1.1** |
| BRG | | | | *i* | | | 09 56 16.4 | | |
| BRG | | | | | pmax | pmax | | | |
| | comp=Z,5.0nm,0.8s | | | | | | | | |
| BRG | | | | | pmax | pmax | | | |
| | comp=Z,15nm,1.2s | | | | | | | | |
| **LOT** | **Lotru** | **154.52** | **323** | ⫴ *i*P | | **PKPab** | **09 56 12.3** | **-5.3** |
| **VYHS** | **Vyhne** | **154.66** | **333** | *e*PKP2 | | **PKPab** | **09 56 18.8** | **+0.9** |
| **VYHS** | **Vyhne** | **154.66** | **333** | *e*PKP | | **PKPab** | **09 56 18.8** | **+0.9** |
| **PSZ** | **Piszkesteto** | **154.67** | **331** | ⫴ *i*P | | **PKPab** | **09 56 19.5** | **+1.4** |
| **VRAC** | **Vranov** | **154.82** | **337** | PKPab | | **PKPab** | **09 56 19.6** | **+1.0** |
| | comp=Z,9.3nm,0.9s,baz=29,slow=4.4,SNR=10 | | | | | | | | |
| **VRAC** | **Vranov** | **154.82** | **337** | ⫴ *i*P | | **PKPab** | **09 56 19.6** | **+1.0** |
| **GOPC** | **GO Pecny, Ondr** | **154.88** | **340** | *e*PKPAB | | **PKPab** | **09 56 19.2** | **+0.4** |
| **GOPC** | **GO Pecny, Ondr** | **154.88** | **340** | *e*PKP2 | | **PKPab** | **09 56 19.2** | **+0.4** |
| **PRU** | **Pruhonice** | **154.89** | **341** | *e*PKPAB | | **PKPab** | **09 56 19.7** | **+0.9** |
| **PRU** | **Pruhonice** | **154.89** | **341** | *e*PKP2 | | **PKPab** | **09 56 19.7** | **+0.9** |
| **NKC** | **Novy Kostel** | **155.23** | **344** | *e*PKPAB | | **PKPab** | **09 56 21.2** | **+0.9** |
| **NKC** | **Novy Kostel** | **155.23** | **344** | *e*PKP2 | | **PKPab** | **09 56 21.2** | **+0.9** |
| **MODS** | **Modra-Piesok** | **155.36** | **335** | *e*PKP2 | | **PKPab** | **09 56 20.9** | **0.0** |
| **MODS** | **Modra-Piesok** | **155.36** | **335** | *e*PKP | | **PKPab** | **09 56 20.9** | **0.0** |
| **KHC** | **Kasperske Hory** | **155.94** | **341** | *e*PKPAB | | **PKPab** | **09 56 24.2** | **+0.8** |
| **KHC** | **Kasperske Hory** | **155.94** | **341** | *e*PKP2 | | **PKPab** | **09 56 24.2** | **+0.8** |
| **MDVR** | **Moldovita** | **156.06** | **324** | ⫴ *i*P | | **PKPab** | **09 56 24.1** | **0.0** |
| **GERES** | **GERESS Array B** | **156.16** | **341** | PKPbc | | PKPdf | 09 56 06.3 | +11 |
| | comp=Z,0.6nm,0.6s,baz=223,slow=3.3,SNR=3.4 | | | | | | | | |
| GERES | | | | | PKPab | **PKPab** | **09 56 24.8** | **+0.4** |
| | comp=Z,2.9nm,1.0s,baz=354,slow=2.7,SNR=7.7 | | | | | | | | |
| **CONA** | **Conrad Observa** | **156.25** | **336** | *e*PKPab | | **PKPab** | **09 56 26.0** | **+1.2** |
| | comp=Z,14nm,0.9s | | | | | | | | |
| **VTS** | **Vitosha** | **156.59** | **318** | ⇑ *i*P | | **PKPab** | **09 56 27.9** | **+1.3** |
| **MOA** | **Molln** | **156.87** | **339** | *e*PKPab | | **PKPab** | **09 56 28.5** | **+1.1** |
| | comp=Z,10nm,1.1s | | | | | | | | |
| **ARSA** | **Arzberg** | **156.95** | **336** | *e*PKPab | | **PKPab** | **09 56 27.5** | **-0.3** |
| | comp=Z,4.6nm,0.8s | | | | | | | | |
| **SOKA** | **Soboth** | **157.61** | **336** | *e*PKPab | | **PKPab** | **09 56 31.2** | **+0.4** |
| | comp=Z,14nm,1.3s | | | | | | | | |
| **OBKA** | **Obir** | **157.93** | **337** | *e*PKPab | | **PKPab** | **09 56 32.0** | **-0.2** |
| | comp=Z,6.6nm,0.9s | | | | | | | | |
| **WATA** | **Walderalm** | **158.13** | **342** | *e*PKPab | | **PKPab** | **09 56 33.1** | **+0.1** |
| | comp=Z,10nm,1.0s | | | | | | | | |
| **MYKA** | **Terra Mystica** | **158.14** | **338** | *e*PKPab | | **PKPab** | **09 56 33.0** | **-0.1** |
| | comp=Z,9.8nm,1.1s | | | | | | | | |
| **WTTA** | **Wattenberg** | **158.18** | **342** | *e*PKPab | | **PKPab** | **09 56 33.9** | **+0.6** |
| | comp=Z,6.5nm,0.9s | | | | | | | | |
| **RETA** | **Reutte** | **158.20** | **344** | *e*PKPab | | **PKPab** | **09 56 33.6** | **+0.3** |
| | comp=Z,10nm,1.1s | | | | | | | | |
| **MOTA** | **Moosalm** | **158.25** | **343** | *e*PKPab | | **PKPab** | **09 56 34.0** | **+0.5** |
| | comp=Z,7.6nm,0.9s | | | | | | | | |
| **ABTA** | **Abfaltersbach** | **158.39** | **340** | *e*PKPab | | **PKPab** | **09 56 34.0** | **-0.1** |
| | comp=Z,7.9nm,1.1s | | | | | | | | |
| **DAVA** | **Damuels** | **158.60** | **345** | *e*PKPab | | **PKPab** | **09 56 35.4** | **+0.3** |
| | comp=Z,12nm,0.8s | | | | | | | | |
| **FETA** | **Feichten** | **158.64** | **344** | *e*PKPab | | **PKPab** | **09 56 35.8** | **+0.5** |
| | comp=Z,8.4nm,1.3s | | | | | | | | |
| **PDG** | **Podgorica** | **158.96** | **322** | ⇑ *i*P | | **PKPab** | **09 56 37.1** | **+0.5** |
| **DAVOX** | **Davos/Dischmat** | **159.07** | **345** | PKPab | | **PKPab** | **09 56 37.4** | **+0.2** |
| | comp=Z,7.4nm,0.8s,baz=12,slow=3.2,SNR=12 | | | | | | | | |
| **ESDC** | **Sonseca Array** | **166.18** | **20** | PKPab | | **PKPab** | **09 57 08.5** | **+0.1** |
| | comp=Z,2.2nm,0.9s,baz=320,slow=3.6,SNR=9.2 | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **166.46** | **179** | PKP | | **PKPdf** | **09 56 08.1** | **+1.0** |
| | comp=Z,1.7nm,1.0s,baz=302,slow=1.2,SNR=

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **YEDI** | **Yedisu-Bingol** | **0.18** | **61** | *e*PG | **Pg** | **10 16 14.9** | **-0.5** |
| YEDI | | | | *e*SG | **Sg** | **10 16 18.3** | **+0.2** |
| **YEDI** | **Yedisu-Bingol** | **0.18** | **61** | *e*Pg | **Pg** | **10 16 14.9** | **-0.5** |
| YEDI | | | | *e*Sg | **Sg** | **10 16 18.3** | **+0.2** |
| **BNGB** | **Bing¨¶l** | **0.45** | **143** | *e*PG | **Pg** | **10 16 20.0** | **-0.2** |
| BNGB | | | | *e*SG | **Sb** | **10 16 27.7** | **-0.6** |
| **BINT** | **Bingol** | **0.49** | **166** | *e*Pg | **Pg** | **10 16 20.0** | **-0.9** |
| BINT | | | | *e*Sg | **Sg** | **10 16 27.7** | **+0.3** |
| **ERZN** | **Erzincan** | **0.53** | **297** | *e*PG | **Pg** | **10 16 22.4** | **+0.5** |
| **ECAT** | **Cat-ERZURUM** | **0.55** | **62** | *i* P | **Pg** | **10 16 22.4** | **+0.2** |
| ECAT | | | | *i* S | **Sg** | **10 16 30.3** | **+0.7** |
| **ECAT** | **Cat-ERZURUM** | **0.55** | **62** | P | **Pg** | **10 16 22.4** | **+0.2** |
| ECAT | | | | S | **Sg** | **10 16 30.3** | **+0.7** |
| **TNCL** | **Tunceli-Merkez** | **0.66** | **250** | *i* P | **Pg** | **10 16 24.7** | **+0.4** |
| TNCL | | | | *i* S | **Sn** | **10 16 37.1** | **-0.5** |
| **TNCL** | **Tunceli-Merkez** | **0.66** | **250** | P | **Pg** | **10 16 24.7** | **+0.4** |
| TNCL | | | | S | **Sn** | **10 16 37.1** | **-0.5** |
| **KOPT** | **Kop Dagi** | **0.68** | **10** | *i* P | **Pg** | **10 16 24.7** | **+0.1** |
| KOPT | | | | *i* S | **Sn** | **10 16 37.1** | **-1.2** |
| **KOPT** | **Kop Dagi** | **0.68** | **10** | P | **Pg** | **10 16 24.7** | **+0.1** |
| KOPT | | | | S | **Sn** | **10 16 37.1** | **-1.2** |
| **BNGL** | **BINGOL** | **0.74** | **122** | *i* P | **Pg** | **10 16 25.8** | **0.0** |
| BNGL | | | | *i* S | **Sn** | **10 16 40.5** | **+0.7** |
| **PTK** | **Pertek** | **0.87** | **239** | *e*PG | **Pg** | **10 16 28.4** | **+0.2** |
| **PTK** | **Pertek** | **0.87** | **239** | *e*Pg | **Pg** | **10 16 28.4** | **+0.2** |
| **ERZM** | **Erzurum** | **0.97** | **55** | *i* P | **Pn** | **10 16 31.6** | **+0.2** |
| **ERZM** | **Erzurum** | **0.97** | **55** | P | **Pn** | **10 16 31.6** | **+0.2** |
| **BAYT** | **Ayd¨¬ntepe-Bay** | **1.05** | **352** | *e*PG | **Pn** | **10 16 32.4** | **-0.1** |
| **BAYT** | **Ayd¨¬ntepe-Bay** | **1.05** | **352** | *e*Pg | **Pn** | **10 16 32.4** | **-0.1** |
| **EKAR** | **Karacoban** | **1.34** | **93** | *i* P | **Pg** | **10 16 38.2** | **+1.0** |
| **EKAR** | **Karacoban** | **1.34** | **93** | P | **Pg** | **10 16 38.2** | **+1.0** |
| **ILIC** | **ilic-Erzincan** | **1.38** | **275** | *e*PN | **Pb** | **10 16 37.4** | **0.0** |
| **ILIC** | **ilic-Erzincan** | **1.38** | **275** | *e*Pn | **Pb** | **10 16 37.4** | **0.0** |
| **HOMI** | **Horasan** | **1.39** | **60** | *i* P | **Pn** | **10 16 37.1** | **-0.1** |

**MAN 30 10:25:18, 11˚92N×121˚54E, h17km, mb4.4, ML3.2, MS3.0, Panay**

**IDC 30 10:28:33.7±6.2, 20˚34S×179˚17W, h617km±66km, mb2.8/5, mb1 3.2/5, mb1mx2.9/29, mbtmp3.7/5, Error ellipse: s-maj=119.1km s-min=26.5km az=151.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ASAR** | **Alice Springs** | **43.49** | **257** | P | P | 10 35 44.5 | -0.1 |
| ASAR | 0.8nm,0.5s,baz=87,slow=8.7,SNR=24 | | | PcP | PcP | 10 37 18.4 | 0.0 |
| | 0.2nm,0.6s,baz=106,slow=4.3,SNR=5.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.54** | **262** | P | P | 10 35 44.9 | -0.1 |
| | 0.5nm,0.3s,baz=96,slow=7.0,SNR=43 | | | | | | |
| **NVAR** | **Mina Array Bea** | **81.67** | **44** | P | P | 10 39 49.4 | +0.2 |
| | 0.4nm,0.6s,baz=218,slow=8.8,SNR=4.8 | | | | | | |
| **ILAR** | **Eielson Array** | **88.41** | **13** | P | P | 10 40 20.5 | -0.3 |
| | 0.3nm,0.5s,baz=214,slow=5.4,SNR=8.4 | | | | | | |
| **PDAR** | **Pinedale Array** | **89.60** | **44** | P | P | 10 40 27.4 | +0.2 |
| | 0.2nm,0.5s,baz=212,slow=3.2,SNR=3.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **110.30** | **314** | PKiKP | PKiKP | 10 45 57.0 | +0.2 |
| | 0.1nm,0.4s,baz=66,slow=3.6,SNR=3.3 | | | | | | |
| **AKASG** | **Malin Array Be** | **142.34** | **330** | PKP | PKPdf | 10 46 54.4 | -2.6 |
| | 0.7nm,0.3s,baz=44,slow=4.2,SNR=8.0 | | | | | | |
| **BRTR** | **Keskin Array B** | **145.92** | **312** | PKPbc | PKPbc | 10 47 05.8 | 0.0 |
| | 0.5nm,0.6s,baz=128,slow=3.2,SNR=2.6 | | | | | | |

**NNC 30 10:56:52.0±4.4, 38˚47N×70˚23E, h0km, mb3.8, mpv3.4, 3C-4D, Error ellipse: s-maj=33.1km s-min=19.4km az=39.0, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SFK** | **Sufi-Kurgan** | **2.97** | **58** | ⇓Pn | Pn | 10 57 40.4 | -0.3 |
| SFK | 13nm,0.4s | | | ⇓Sn | Sn | 10 58 18.8 | +1.7 |
| | 28nm,0.4s | | | | | | |
| **MNAS** | **Manas** | **4.37** | **23** | ⇓Pn | Pn | 10 57 59.5 | -0.3 |
| MNAS | 2.5nm,0.4s | | | ⇓Sn | Sn | 10 58 51.7 | +0.2 |
| | 7.0nm,0.5s | | | | | | |
| **KK31** | **Karatay Array** | **4.63** | **3** | ⇑Pn | Pn | 10 58 03.1 | -0.2 |
| | 1.1nm,0.3s,baz=176,slow=12,SNR=5.4 | | | | | | |
| KK31 | 2.3nm,0.5s | | | ⇑Sn | Sn | 10 59 00.4 | +2.7 |
| KK31 | | | | ⇑Lg | Lg | 10 59 13.7 | |
| | 2.3nm,0.5s,baz=178,slow=29,SNR=4.8 | | | | | | |

**IDC 30 11:00:12.4±7.9, 49˚26N×33˚68E, h0km, Error ellipse: s-maj=57.4km s-min=55.9km az=9.0, Ukraine-Moldova-Southwestern Russia region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **AKASG** | **Malin Array Be** | **3.22** | **298** | Pg | Pb | 11 01 09.6 | -0.8 |
| AKASG | 0.6nm,0.3s,baz=114,slow=16,SNR=4.0 | | | Lg | Lg | 11 01 53.5 | |
| | 1.1nm,0.3s,baz=116,slow=29,SNR=3.4 | | | | | | |
| **I43RU** | **DUBNA INFRASON** | **7.77** | **15** | *i* | | 11 48 10.0 | |
| | baz=191,slow=316,SNR=0.7 | | | | | | |
| **I31KZ** | **AKTYUBINSK INF** | **15.74** | **77** | *i* | | 12 34 14.4 | |
| | baz=278,slow=304,SNR=0.3 | | | | | | |

*ISK **30** 11:21:51.4, 38˚67N×43˚56E, h10km, MD2.6*
*ISCJB **30** 11:21:52.2±0.7, 38˚69N±0˚03×43˚60E±0˚06, h13km±4km, Error ellipse: s-maj=7.5km s-min=4.5km az=15.4*
*CSEM **30** 11:21:52.0±0.3, 38˚67N×43˚55E, h10km, MD2.6, Error ellipse: s-maj=6.8km s-min=4.7km az=103.0*
*DDA **30** 11:21:52.4, 38˚68N×43˚53E, h7km, Ml2.8*
**ISC 30 11:21:52.7±0.9, 38˚70N±0˚02×43˚53E±0˚03, h12km±6km, n28, σ1§72/50, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.15** | **227** | *e*PG | **Pg** | **11 21 56.0** | **-0.3** |
| VANB | | | | *e*SG | **Sg** | **11 21 59.4** | **+0.6** |
| **VANB** | **Van** | **0.15** | **227** | *e*Pg | **Pg** | **11 21 56.0** | **-0.3** |
| VANB | | | | *e*Sg | **Sg** | **11 21 59.4** | **+0.6** |
| **TVAN** | **Van** | **0.19** | **209** | *i* P | **Pg** | **11 21 55.9** | **-1.1** |
| TVAN | | | | *i* S | **Sg** | **11 22 01.7** | **+1.7** |
| **TVAN** | **Van** | **0.19** | **209** | P | **Pg** | **11 21 55.9** | **-1.1** |
| TVAN | | | | S | **Sg** | **11 22 01.7** | **+1.7** |
| **VMUR** | **Van-Muradiye** | **0.29** | **7** | *i* P | **Pg** | **11 21 58.8** | **-0.1** |
| VMUR | | | | *i* S | **Sb** | **11 22 06.7** | **+1.6** |
| **VMUR** | **Van-Muradiye** | **0.29** | **7** | P | **Pg** | **11 21 58.8** | **-0.1** |
| VMUR | | | | S | **Sb** | **11 22 06.7** | **+1.6** |
| **GEVA** | **Gevas** | **0.53** | **224** | *i* P | **Pg** | **11 22 02.8** | **-0.3** |
| GEVA | | | | *i* S | **Sn** | **11 22 13.8** | **-1.5** |
| **GEVA** | **Gevas** | **0.53** | **224** | P | **Pg** | **11 22 02.8** | **-0.3** |
| GEVA | | | | S | **Sn** | **11 22 13.8** | **-1.5** |
| **CLDR** | **Caldiran** | **0.54** | **34** | *e*PG | **Pg** | **11 22 02.6** | **-0.7** |
| CLDR | | | | *e*SG | **Sg** | **11 22 10.8** | **+0.2** |
| **CLDR** | **Caldiran** | **0.54** | **34** | *i* P | **Pb** | **11 22 03.4** | **-0.9** |
| CLDR | | | | *i* S | **Sn** | **11 22 15.8** | **+0.1** |
| **CLDR** | **Caldiran** | **0.54** | **34** | *e*Pg | **Pg** | **11 22 02.6** | **-0.7** |
| **CLDR** | **Caldiran** | **0.54** | **34** | P | **Pb** | **11 22 03.4** | **-0.9** |
| CLDR | | | | *e*Sg | **Sg** | **11 22 10.8** | **+0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.64** | **280** | *i* P | **Pg** | **11 22 02.8** | **-2.4** |
| ADCV | | | | *i* S | **Sb** | **11 22 14.4** | **-0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.64** | **280** | P | **Pg** | **11 22 02.8** | **-2.4** |
| ADCV | | | | S | **Sb** | **11 22 14.4** | **-0.5** |
| **TUTA** | **Tutak** | **0.90** | **322** | *i* P | **Pg** | **11 22 09.5** | **-0.6** |
| TUTA | | | | *i* S | **Sb** | **11 22 23.5** | **+1.1** |
| **TUTA** | **Tutak** | **0.90** | **322** | P | **Pg** | **11 22 09.5** | **-0.6** |
| TUTA | | | | S | **Sb** | **11 22 23.5** | **+1.1** |
| **AGRB** | **Hanur-Agry** | **0.97** | **335** | *e*PG | **Pg** | **11 22 11.2** | **-0.3** |
| AGRB | | | | *e*SG | **Sn** | **11 22 25.8** | **-0.5** |
| **AGRB** | **Hanur-Agry** | **0.97** | **335** | *e*Pg | **Pg** | **11 22 11.2** | **-0.3** |
| AGRB | | | | *e*Sg | **Sn** | **11 22 25.8** | **-0.5** |
| **HAKT** | **HAKKARI** | **1.15** | **173** | *i* P | **Pn** | **11 22 14.4** | **-0.4** |
| HAKT | | | | *i* S | **Sn** | **11 22 33.9** | **+3.3** |
| **HAKT** | **HAKKARI** | **1.15** | **173** | P | **Pn** | **11 22 14.4** | **-0.4** |
| **EKAR** | **Karacoban** | **1.27** | **297** | *i* P | **Pg** | **11 22 17.0** | **-0.1** |
| EKAR | | | | *i* S | **Sn** | **11 22 39.1** | **+5.4** |
| **EKAR** | **Karacoban** | **1.27** | **297** | P | **Pg** | **11 22 17.0** | **-0.1** |
| EKAR | | | | S | **Sn** | **11 22 39.1** | **+5.4** |
| **EATA** | **Eleskirt** | **1.41** | **326** | *i* P | **Pn** | **11 22 15.7** | **-2.9** |
| EATA | | | | *i* S | **Sg** | **11 22 40.4** | **+2.1** |
| **EATA** | **Eleskirt** | **1.41** | **326** | P | **Pn** | **11 22 15.7** | **-2.9** |
| EATA | | | | S | **Sg** | **11 22 40.4** | **+2.1** |
| **CUKT** | **Cukurca** | **1.45** | **177** | *e*PN | **Pn** | **11 22 17.9** | **-1.0** |
| **CUKT** | **Cukurca** | **1.45** | **177** | *e*Pn | **Pn** | **11 22 17.9** | **-1.0** |
| **SIRT** | **Sirnak** | **1.47** | **216** | *e*PN | **Pn** | **11 22 18.6** | **-0.6** |
| **SIRT** | **Sirnak** | **1.47** | **216** | *e*Pn | **Pn** | **11 22 18.6** | **-0.6** |

**IDC 30 11:28:52.8±2.5, 20˚04S×170˚33E, h0km, mb3.3/3, mb1 3.6/4, mb1mx3.5/22, mbtmp3.3/4, ML3.1/1, Error ellipse: s-maj=131.6km s-min=28.4km az=152.0, Vanuatu Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DZM** | **Mont Dzumac** | **4.16** | **240** | Pn | Pn | 11 29 58.4 | +0.8 |
| DZM | 1.2nm,0.3s,baz=56,slow=16,SNR=66 | | | Sn | Sn | 11 30 49.1 | +2.1 |
| | 2.5nm,0.3s,baz=127,slow=24,SNR=10 | | | | | | |
| **WRA** | **Warramunga Arr** | **33.78** | **264** | P | P | 11 35 37.1 | +0.4 |
| | 0.5nm,0.8s,baz=98,slow=8.6,SNR=7.6 | | | | | | |
| **ASAR** | **Alice Springs** | **33.95** | **257** | P | P | 11 35 36.9 | -1.2 |
| | 0.1nm,0.5s,baz=80,slow=8.2,SNR=5.5 | | | | | | |
| **NVAR** | **Mina Array Bea** | **88.56** | **48** | P | P | 11 41 48.1 | +0.2 |
| | 0.3nm,0.7s,baz=218,slow=9.3,SNR=3.8 | | | | | | |

**IDC 30 12:04:15.6±7.7, 7˚15S×133˚15E, h195km±85km, mb2.7/1, mb1 2.5/3, mb1mx2.5/33, mbtmp3.0/3, Error ellipse: s-maj=133.6km s-min=38.3km az=80.0, Aru Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **12.77** | **175** | P | Pn | 12 07 08.7 | -1.7 |
| | 0.1nm,0.3s,baz=351,slow=13,SNR=8.5 | | | | | | |
| WRA | 0.1nm,0.3s,baz=357,slow=22,SNR=4.6 | | | S | S | 12 09 35.0 | +1.2 |
| **ASAR** | **Alice Springs** | **16.43** | **178** | P | Pn | 12 07 56.4 | +0.8 |
| | 0.0nm,0.3s,baz=359,slow=9.2,SNR=5.3 | | | | | | |
| ASAR | 0.0nm,0.3s,baz=360,slow=30,SNR=3.4 | | | S | S | 12 10 56.1 | -0.7 |
| **MKAR** | **Makanchi Array** | **70.09** | **325** | P | P | 12 15 06.8 | +0.1 |
| | 0.2nm,0.6s,baz=123,slow=6.8,SNR=3.8 | | | | | | |

*ISK **30** 12:14:45.3, 38˚73N×43˚18E, h5km, MD2.4*
*CSEM **30** 12:14:47.2±0.2, 38˚75N×43˚22E, h8km, MD2.4, Error ellipse: s-maj=5.3km s-min=4.5km az=83.0*
*DDA **30** 12:14:47.4, 38˚75N×43˚24E, h7km, Ml2.8*
**ISC 30 12:14:47.8±0.9, 38˚76N±0˚03×43˚24E±0˚03, h11km±8km, n22, σ1§06/39, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.20** | **144** | *e*PG | **Pg** | **12 14 52.3** | **+0.2** |
| VANB | | | | *e*SG | **Sg** | **12 14 57.3** | **+2.2** |
| **VANB** | **Van** | **0.20** | **144** | *e*Pg | **Pg** | **12 14 52.3** | **+0.2** |
| **TVAN** | **Van** | **0.26** | **150** | *i* P | **Pg** | **12 14 52.3** | **-1.0** |
| TVAN | | | | *i* S | **Sg** | **12 14 57.1** | **+0.2** |
| **TVAN** | **Van** | **0.26** | **150** | P | **Pg** | **12 14 52.3** | **-1.0** |
| TVAN | | | | S | **Sg** | **12 14 57.1** | **+0.2** |
| **VMUR** | **Van-Muradiye** | **0.35** | **48** | *i* P | **Pb** | **12 14 55.4** | **-0.9** |
| VMUR | | | | *i* S | **Sb** | **12 15 01.8** | **-0.1** |
| **VMUR** | **Van-Muradiye** | **0.35** | **48** | P | **Pb** | **12 14 55.3** | **-0.9** |
| VMUR | | | | S | **Sb** | **12 15 01.8** | **-0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.41** | **278** | *i* P | **Pg** | **12 14 55.5** | **-0.4** |
| ADCV | | | | *i* S | **Sg** | **12 15 01.3** | **0.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.41** | **278** | P | **Pg** | **12 14 55.5** | **-0.4** |
| ADCV | | | | S | **Sg** | **12 15 01.3** | **0.0** |
| **GEVA** | **Gevas** | **0.46** | **198** | *i* P | **Pg** | **12 14 55.0** | **-1.9** |
| GEVA | | | | *i* S | **Sg** | **12 15 03.0** | **-0.1** |
| **GEVA** | **Gevas** | **0.46** | **198** | P | **Pg** | **12 14 55.0** | **-1.9** |
| GEVA | | | | S | **Sg** | **12 15 03.0** | **-0.1** |
| **CLDR** | **Caldiran** | **0.66** | **54** | *e*PG | **Pg** | **12 14 59.2** | **-1.4** |
| CLDR | | | | *e*SG | **Sb** | **12 15 11.4** | **+0.7** |
| **CLDR** | **Caldiran** | **0.66** | **54** | *i* P | **Pg** | **12 14 59.8** | **-0.8** |
| CLDR | | | | *i* S | **Sb** | **12 15 11.2** | **+0.5** |
| **CLDR** | **Caldiran** | **0.66** | **54** | *e*Pg | **Pg** | **12 14 59.2** | **-1.4** |
| **CLDR** | **Caldiran** | **0.66** | **54** | P | **Pg** | **12 14 59.8** | **-0.8** |
| CLDR | | | | S | **Sb** | **12 15 11.2** | **+0.5** |
| **TUTA** | **Tutak** | **0.73** | **333** | *i* P | **Pg** | **12 15 01.1** | **-0.8** |
| **TUTA** | **Tutak** | **0.73** | **333** | P | **Pg** | **12 15 01.1** | **-0.8** |
| **AGRB** | **Hanur-Agry** | **0.84** | **347** | *e*PG | **Pg** | **12 15 03.0** | **-1.1** |
| AGRB | | | | *e*SG | **Sb** | **12 15 15.8** | **-0.2** |
| **AGRB** | **Hanur-Agry** | **0.84** | **347** | *e*Pg | **Pg** | **12 15 03.0** | **-1.1** |
| AGRB | | | | *e*Sg | **Sb** | **12 15 15.8** | **-0.2** |
| **EKAR** | **Karacoban** | **1.04** | **299** | *i* P | **Pb** | **12 15 07.7** | **-0.4** |
| EKAR | | | | *i* S | **Sn** | **12 15 26.8** | **+3.4** |
| **EKAR** | **Karacoban** | **1.04** | **299** | P | **Pb** | **12 15 07.7** | **-0.4** |
| **HAKT** | **HAKKARI** | **1.25** | **163** | *i* P | **Pn** | **12 15 11.6** | **+0.1** |
| HAKT | | | | *i* S | **Sn** | **12 15 29.3** | **+0.8** |
| **HAKT** | **HAKKARI** | **1.25** | **163** | P | **Pn** | **12 15 11.6** | **+0.1** |
| HAKT | | | | S | **Sn** | **12 15 29.3** | **+0.8** |

**MAN 30 12:16:28, 11˚44N×121˚20E, h32km, mb4.3, ML3.2, MS3.0, Panay**

*ISCJB **30** 12:17:42.3±0.4, 58˚37S±0˚07×149˚1W±0˚1, h10km, mb4.9/18, MS4.8/21, Error ellipse: s-maj=11.4km s-min=10.3km az=140.8*
*IDC **30** 12:17:43.1±0.6, 58˚38S×149˚08W, h0km, mb4.6/9, mb1 4.7/9, mb1mx4.5/19, mbtmp4.6/9, MS4.8/19, Ms1 4.8/19, ms1mx4.7/24, Error ellipse: s-maj=22.9km s-min=17.5km az=2.0*
*NEIC **30** 12:17:44.8±0.4, 58˚36S×149˚05W, h10km, mb5.0/12, Error ellipse: s-maj=14.4km s-min=11.0km az=193.0*
*GCMT **30** 12:17:44.8±0.1, 58˚69S×149˚27W, h14km±1km, MW5.3/103, Moment Tensor Solution. s67,c110; s103,c168; Duration: 1§1 Moment tensor: Scale 10¹⁷ Nm; Mrr-0.04±.02; Mθθ-0.84±.02; Mϕϕ0.87±.02; Mrθ0.35±.05; Mθϕ0.42±.02; Mϕr0.02±.03; Best double couple: M₀1.01500×10¹⁷ NP1:ϕ₁237.00000°, δ81.00000°, λ-17.00000°. NP2:ϕ₂330.00000°, δ73.00000°, λ-171.00000°. Principal axes: T 0.9800, Plg6.0000°, Azm284.0000°; N 0.0690, Plg71.0000°, Azm31.0000°; P -1.0500, Plg19.0000°, Azm192.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
**ISC 30 12:17:44.8±0.5, 58˚39S±0˚09×149˚0W±0˚1, h10km, n77, σ1§32/50, mb4.9/18, MS4.8/21, 1C, Pacific-Antarctic Ridge**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VNDA** | **Vanda** | **25.21** | **203** | P | P | **12 23 10.6** | **+0.5** |
| VNDA | 11nm,1.1s,baz=66,slow=9.3,SNR=15 | | | LR | LR | 12 30 24.2 | |
| | comp=Z,2µm,21.3s,baz=112,slow=30 | | | | | | |
| **VNDA** | **Vanda** | **25.21** | **203** | *e*P | P | **12 23 09.2** | **-0.9** |
| **RPZ** | **Rata Peaks** | **28.56** | **283** | LR | LR | 12 32 36.0 | |
| | comp=Z,4µm,19.2s,baz=134,slow=31 | | | | | | |
| **WKZ** | **Wanaka** | **28.84** | **280** | *e*P | P | **12 23 42.2** | **-0.8** |
| | 42nm,1.3s | | | | | | |
| **URZ** | **Urewera** | **29.71** | **298** | LR | LR | 12 32 53.5 | |
| | comp=Z,3µm,21.5s,baz=144,slow=31 | | | | | | |
| **QSPA** | **South Pole Qui** | **31.75** | **180** | *e*P | P | **12 24 08.2** | **-0.5** |
| | 38nm,1.1s | | | | | | |
| **RKT** | **Rikitea** | **36.66** | **22** | *e*LR | LR | 12 34 29.8 | |
| | 4µm,27.0s | | | | | | |
| **RKT** | **Rikitea** | **36.66** | **22** | *e*T | T | 13 03 39.0 | |
| | 3.2nm,0.2s | | | | | | |
| **RAR** | **Rarotonga** | **37.95** | **344** | P | P | **12 25 02.4** | **+0.2** |
| | 22nm,0.4s,baz=139,slow=20,SNR=3.1 | | | | | | |
| RAR | comp=Z,3µm,19.6s,baz=144,slow=30 | | | LR | LR | 12 36 58.3 | |
| **RAR** | **Rarotonga** | **37.95** | **344** | *e*P | P | **12 25 01.6** | **-0.6** |
| | 830nm,1.9s | | | | | | |
| **TVO** | **Taravao** | **40.55** | **360** | *e*T | T | 13 08 31.3 | |
| | 4.1nm,0.3s | | | | | | |
| **PPT2** | **Papeete2** | **40.74** | **359** | *e*S | S | **12 31 34.6** | **-1.5** |
| | 298nm,26.5s | | | | | | |
| PPT2 | 2µm,25.0s | | | *e*LR | LR | 12 36 29.4 | |
| **PPT** | **Papeete** | **40.76** | **359** | LR | LR | 12 39 02.6 | |
| | comp=Z,631nm,18.1s,baz=180,slow=31 | | | | | | |
| **VAH** | **Vaihoa** | **43.09** | **2** | *e*T | T | 13 11 41.7 | |
| | 22nm,0.2s | | | | | | |
| **VNA3** | **Neumayer Olymp** | **47.54** | **163** | P | P | 12 26 14.9 | -4.7 |
| **SNAA** | **Sanae** | **48.09** | **166** | P | P | **12 26 21.9** | **-2.0** |
| **SNAA** | **Sanae** | **48.09** | **166** | *e*P | P | **12 26 23.7** | **-0.2** |
| | 32nm,1.6s | | | | | | |
| **VNA2** | **Neumayer--Watz** | **48.16** | **164** | P | P | **12 26 23.9** | **-0.5** |
| | baz=203,slow=5.2 | | | | | | |
| **DZM** | **Mont Dzumac** | **48.25** | **299** | LR | LR | 12 43 12.6 | |
| | comp=Z,1µm,20.0s,baz=173,slow=32 | | | | | | |
| **DZM** | **Mont Dzumac** | **48.25** | **299** | *e*LQ | LQ | 12 38 02.5 | |
| | 1µm,27.9s | | | | | | |
| DZM | 2µm,21.9s | | | *e*LR | LR | 12 40 03.7 | |
| **VNA1** | **Neumayer--Stat** | **48.28** | **164** | P | P | **12 26 24.6** | **-0.7** |
| **TAOE** | **Nuku Hiva Isla** | **49.89** | **12** | *e*S | S | **12 33 46.6** | **-1.8** |
| | 371nm,26.8s | | | | | | |
| TAOE | 2µm,27.3s | | | *e*LR | LR | 12 40 42.3 | |
| **PLCA** | **Paso Flores** | **50.77** | **106** | P | P | **12 26 45.0** | **+0.2** |
| | 6.9nm,1.1s,baz=247,slow=11,SNR=6.0 | | | | | | |
| PLCA | comp=Z,1µm,20.1s,baz=227,slow=30 | | | LR | LR | 12 42 52.8 | |
| **PLCA** | **Paso Flores** | **50.77** | **106** | *e*P | P | **12 26 44.3** | **-0.5** |
| | 31nm,1.6s | | | | | | |
| **MAW** | **Mawson** | **52.13** | **195** | P | P | **12 26 54.8** | **+0.3** |
| | 8.8nm,1.0s,baz=50,slow=14,SNR=18 | | | | | | |
| MAW | comp=Z,1µm,20.9s,baz=168,slow=33 | | | LR | LR | 12 46 27.0 | |
| **MAW** | **Mawson** | **52.13** | **195** | *e*P | P | **12 26 54.7** | **+0.2** |
| | 2.6nm,1.0s | | | | | | |
| **SYO** | **Syowa Base** | **52.75** | **184** | *e*P | P | 12 26 54.0 | -5.0 |
| **STKA** | **Stephens Creek** | **52.80** | **268** | P | P | **12 27 00.4** | **+0.5** |
| | 7.6nm,0.7s,baz=126,slow=6.9,SNR=23 | | | | | | |
| STKA | comp=Z,1µm,18.3s,baz=141,slow=32 | | | LR | LR | 12 46 04.1 | |
| **STKA** | **Stephens Creek** | **52.80** | **268** | *e*P | P | **12 27 00.2** | **+0.3** |
| | 3.0nm,0.8s | | | | | | |
| **BBOO** | **Buckleboo** | **54.97** | **263** | *e*P | P | **12 27 15.4** | **-0.4** |
| | 20nm,0.9s | | | | | | |
| **CTA** | **Charters Tower** | **59.88** | **281** | LR | LR | 12 51 49.7 | |
| | comp=Z,652nm,18.8s,baz=138,slow=34 | | | | | | |
| **FORT** | **Forrest** | **60.73** | **258** | *e*P | P | **12 27 55.3** | **-1.0** |
| | 232nm,0.8s | | | | | | |
| **AS01** | **Alice Springs** | **63.40** | **268** | *e*P | P | **12 28 13.3** | **-1.0** |
| **AS31** | **Alice Springs** | **63.42** | **268** | *e*P | P | **12 28 13.7** | **-0.7** |
| | 3.5nm,0.8s | | | | | | |
| **ASAR** | **Alice Springs** | **63.42** | **268** | P | P | **12 28 13.7** | **-0.8** |
| | 5.2nm,0.8s,baz=137,slow=6.2,SNR=66 | | | | | | |
| ASAR | comp=Z,973nm,18.8s,baz=149,slow=33 | | | LR | LR | 12 52 53.3 | |
| **H01W1** | **Cape Leeuwin H** | **64.36** | **245** | T | T | 13 38 37.4 | |
| | baz=144,slow=76,SNR=21 | | | | | | |
| **H01W2** | **Cape Leeuwin H** | **64.36** | **245** | T | T | 13 38 37.8 | |
| | baz=144,slow=76,SNR=18 | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **64.37** | **245** | T | T | 13 38 38.6 | |
| | baz=144,slow=76,SNR=11 | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **64.46** | **248** | LR | LR | 12 50 33.5 | |
| | comp=Z,524nm,18.4s,slow=31 | | | | | | |
| **WR1** | **Warramunga Arr** | **66.24** | **270** | *e*P | P | **12 28 31.7** | **-1.1** |
| | 12nm,1.0s | | | | | | |
| **WRA** | **Warramunga Arr** | **66.24** | **270** | P | P | **12 28 31.7** | **-1.1** |
| | 4.5nm,0.8s,baz=153,slow=5.5,SNR=17 | | | | | | |
| WRA | comp=Z,841nm,19.9s,baz=145,slow=33 | | | LR | LR | 12 54 16.5 | |
| **WRAB** | **Tennant Creek** | **66.25** | **270** | *e*P | P | **12 28 32.1** | **-0.7** |
| | 9.9nm,0.9s | | | | | | |
| **MNMC** | **Minye Minye** | **68.40** | **92** | *e*P | P | **12 28 46.9** | **0.0** |
| | 24nm,1.4s | | | | | | |
| **PMG** | **Port Moresby** | **68.44** | **288** | LR | LR | 12 53 35.6 | |
| | comp=Z,945nm,21.5s,baz=168,slow=32 | | | | | | |
| **CPUP** | **Villa Florida** | **68.84** | **106** | P | P | **12 28 49.0** | **-0.2** |
| | 4.3nm,1.0s,baz=223,slow=6.2,SNR=6.1 | | | | | | |
| CPUP | comp=Z,843nm,20.7s,baz=213,slow=32 | | | LR | LR | 12 54 12.9 | |
| **CPUP** | **Villa Florida** | **68.84** | **106** | *e*P | P | **12 28 49.0** | **-0.2** |
| | 15nm,1.4s | | | | | | |
| **LPAZ** | **La Paz** | **71.53** | **91** | P | P | **12 29 06.3** | **-0.2** |
| | 3.1nm,1.1s,baz=201,slow=4.2,SNR=7.6 | | | | | | |
| LPAZ | comp=Z,316nm,20.8s,baz=173,slow=30 | | | LR | LR | 12 53 08.7 | |
| **LPAZ** | **La Paz** | **71.53** | **91** | *e*P | P | **12 29 05.3** | **-1.2** |
| **BOSA** | **Boshof** | **93.20** | **175** | LR | LR | 13 08 48.0 | |
| | comp=Z,550nm,20.6s,baz=218,slow=33 | | | | | | |
| **TXAR** | **Lajitas Array** | **95.24** | **39** | LR | LR | 13 06 23.4 | |
| | comp=Z,231nm,18.5s,baz=0.0,slow=31 | | | | | | |
| **NV01** | **Mina Array Sit** | **99.83** | **24** | *e*Pdif | **Pdif** | **12 31 26.2** | **-2.7** |
| **NVAR** | **Mina Array Bea** | **99.83** | **24** | LR | LR | 13 06 42.2 | |
| | comp=Z,333nm,20.1s,baz=222,slow=29 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **103.44** | **133** | T | T | 14 27 46.1 | |
| | baz=204,slow=75,SNR=247 | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **103.44** | **133** | T | T | 14 27 54.5 | |
| | baz=204,slow=75,SNR=262 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **103.46** | **133** | T | T | 14 27 47.4 | |
| | baz=204,slow=75,SNR=213 | | | | | | |
| **H10N3** | **ASCENSION HYDR** | **104.52** | **133** | T | T | 14 29 11.7 | |
| | baz=203,slow=74,SNR=243 | | | | | | |
| **H10N1** | **ASCENSION HYDR** | **104.53** | **133** | T | T | 14 29 12.0 | |
| | baz=203,slow=74,SNR=194 | | | | | | |
| **H10N2** | **ASCENSION HYDR** | **104.54** | **133** | T | T | 14 29 13.0 | |
| | baz=203,slow=74,SNR=232 | | | | | | |
| **QIZ** | **Qiongzhong** | **111.81** | **271** | Pdif | **Pdif** | **12 32 22.8** | **+0.4** |
| **QIZ** | **Qiongzhong** | **111.81** | **271** | SS | SS | 12 52 41.5 | +2.7 |
| QIZ | comp=Z,200nm,24.0s | | | LR | LR | | |
| **NJ2** | **Nanjing** | **117.73** | **287** | *e*P | **PKPdf** | **12 36 30.8** | **+0.3** |
| NJ2 | comp=Z,12nm,0.7s | | | pmax | pmax | | |
| **ILAR** | **Eielson Array** | **122.85**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LIT | | | | S | Sb | 12 19 43.6 | -0.8 | |
| **LIT** | **Litokhoron** | **0.56** | **125** | P | Pg | 12 19 34.6 | +0.2 | |
| LIT | | | | S | Sb | 12 19 43.6 | -0.8 | |
| **KPRO** | **Kipourio** | **0.62** | **221** | P | Pg | 12 19 35.8 | +0.3 | |
| **KPRO** | **Kipourio** | **0.62** | **221** | P | Pg | 12 19 35.0 | -0.5 | |
| **KPRO** | **Kipourio** | **0.62** | **221** | P | Pg | 12 19 35.7 | +0.1 | |
| **KPRO** | **Kipourio** | **0.62** | **221** | P | Pg | 12 19 35.7 | +0.1 | |
| **PENT** | **Pentalofos** | **0.62** | **249** | P | Pg | 12 19 35.9 | +0.2 | |
| **PENT** | **Pentalofos** | **0.62** | **249** | P | Pg | 12 19 35.6 | 0.0 | |
| **PENT** | **Pentalofos** | **0.62** | **249** | P | Pg | 12 19 35.6 | 0.0 | |
| **PENT** | **Pentalofos** | **0.62** | **249** | P | Pg | 12 19 35.6 | 0.0 | |
| **NEST** | **Nestorio** | **0.65** | **270** | P | Pg | 12 19 35.8 | -0.3 | |
| **NEST** | **Nestorio** | **0.65** | **270** | P | Pb | 12 19 37.4 | -0.3 | |
| **NEST** | **Nestorio** | **0.65** | **270** | P | Pg | 12 19 36.5 | +0.4 | |
| **NEST** | **Nestorio** | **0.65** | **270** | P | Pg | 12 19 36.5 | +0.4 | |
| **GRG** | **Griva** | **0.66** | **36** | P | Pg | 12 19 35.6 | -0.9 | |
| **GRG** | **Griva** | **0.66** | **36** | P | Pg | 12 19 36.7 | +0.2 | |
| **GRG** | **Griva** | **0.66** | **36** | P | Pg | 12 19 36.7 | +0.2 | |
| **THL** | **Klokotos Trika** | **0.86** | **174** | P | Pg | 12 19 40.2 | 0.0 | |
| **THL** | **Klokotos Trika** | **0.86** | **174** | P | Pg | 12 19 40.3 | +0.1 | |
| **THL** | **Klokotos Trika** | **0.86** | **174** | P | Pg | 12 19 40.3 | +0.1 | |
| **THL** | **Klokotos Trika** | **0.86** | **174** | P | Pg | 12 19 39.8 | -0.4 | |
| **HORT** | **Hortiatis** | **0.94** | **79** | P | Pg | 12 19 41.4 | -0.3 | |
| **HORT** | **Hortiatis** | **0.94** | **79** | P | Pb | 12 19 42.6 | 0.0 | |
| **HORT** | **Hortiatis** | **0.94** | **79** | P | Pb | 12 19 42.2 | -0.4 | |
| **HORT** | **Hortiatis** | **0.94** | **79** | P | Pb | 12 19 42.2 | -0.4 | |
| **KNT** | **Kendrikon** | **1.06** | **45** | P | Pb | 12 19 44.9 | +0.1 | |
| **KNT** | **Kendrikon** | **1.06** | **45** | P | Pg | 12 19 43.9 | -0.3 | |
| **KNT** | **Kendrikon** | **1.06** | **45** | P | Pg | 12 19 43.9 | -0.3 | |
| **KRUS** | **Krusevo** | **1.07** | **333** | *e*Pn | Pg | 12 19 43.6 | -0.7 | |
| **OHR** | **Ohrid** | **1.08** | **310** | *e*Pn | Pg | 12 19 41.3 | -3.2 | |
| **SOH** | **Sokhos** | **1.18** | **70** | P | Pg | 12 19 46.6 | +0.2 | |
| **SOH** | **Sokhos** | **1.18** | **70** | P | Pg | 12 19 46.6 | +0.2 | |
| **DSL** | **Palaion Diasel** | **1.42** | **206** | P | Pn | 12 19 50.2 | -0.3 | |
| **XOR** | **Xorichti** | **1.45** | **136** | P | Pb | 12 19 51.4 | +0.1 | |
| **EVR** | **Evrytania** | **1.50** | **183** | P | Pn | 12 19 51.5 | -0.1 | |

*KRSC **30** 12:23:12.1±1.0,54.87N×162.39E,h60km±25km,ML5.0*
*MOS **30** 12:23:14.7±1.0,54.95N×162.07E,h61km,mb4.4/23,Error ellipse: s-maj=6.7km s-min=3.9km az=79.3*
*ISCJB **30** 12:23:15.5±0.3,54.93N±0.02×162.09E±0.04,h62km±3km, mb4.4/57,Error ellipse: s-maj=4.8km s-min=2.4km az=30.3*
*IDC **30** 12:23:16.1±2.5,55.04N×161.93E,h47km±25km,mb3.8/24, mb1 4.1/27,mb1mx4.0/39,mbtmp4.1/27,ML4.0/3,MS3.7/21, Ms1 3.7/21,ms1mx3.5/55,Error ellipse: s-maj=15.8km s-min=10.5km az=152.0*
*NEIC **30** 12:23:17.3±0.6,54.94N×161.94E,h63km±6km,mb4.7/22, Error ellipse: s-maj=7.5km s-min=4.5km az=159.0*
**ISC 30 12:23:15.9±0.8,54.89N±0.03×162.22E±0.03,h56km±8km, n232,σ1§65/294,mb4.4/57,MS3.9/22,9C-11D,Near east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **TUMD** | **Tumrok D** | **1.09** | **287** | *e*P | | | **Pn** | **12 23 33.0** | **-2.0** |
| TUMD | | | | *e*S | | | **Sn** | **12 23 47.5** | **-1.7** |
| **KZV** | **Kizimen** | **1.13** | **282** | PN | | | **Pn** | **12 23 33.7** | **-2.0** |
| KZV | | | | S | | | **Sn** | **12 23 48.5** | **-1.8** |
| **KZV** | **Kizimen** | **1.13** | **282** | *e*P | | | **Pn** | **12 23 33.7** | **-2.0** |
| KZV | | | | *e*S | | | **Sn** | **12 23 48.5** | **-1.8** |
| **TUMR** | **Tumrok** | **1.25** | **289** | PN | | | **Pn** | **12 23 36.0** | **-1.3** |
| TUMR | | | | S | | | **Sn** | **12 23 53.5** | **+0.3** |
| **TUMR** | **Tumrok** | **1.25** | **289** | *e*P | | | **Pn** | **12 23 36.0** | **-1.3** |
| TUMR | | | | *e*S | | | **Sn** | **12 23 53.5** | **+0.3** |
| **KBTR** | **Krutoberegovo** | **1.36** | **14** | PN | | | **Pn** | **12 23 36.5** | **-2.1** |
| KBTR | | | | S | | | **Sn** | **12 23 54.7** | **-0.9** |
| **KBTR** | **Krutoberegovo** | **1.36** | **14** | *e*P | | | **Pn** | **12 23 36.5** | **-2.1** |
| KBTR | | | | *e*S | | | **Sn** | **12 23 54.7** | **-0.9** |
| **ZLN** | **Zelenaya** | **1.39** | **325** | PN | | | **Pn** | **12 23 38.1** | **-0.9** |
| **ZLN** | **Zelenaya** | **1.39** | **325** | *e*P | | | **Pn** | **12 23 38.1** | **-0.9** |
| **KBG** | **Krutoberegovo** | **1.39** | **11** | PN | | | **Pn** | **12 23 38.1** | **-0.9** |
| KBG | | | | S | | | **Sn** | **12 23 56.8** | **+0.5** |
| **KBG** | **Krutoberegovo** | **1.39** | **11** | *e*P | | | **Pn** | **12 23 38.1** | **-0.9** |
| KBG | | | | *e*S | | | **Sn** | **12 23 56.8** | **+0.5** |
| **KMNR** | **Kamenistaya** | **1.43** | **308** | PN | | | **Pn** | **12 23 38.4** | **-1.2** |
| KMNR | | | | S | | | **Sn** | **12 23 58.7** | **+1.4** |
| **KMNR** | **Kamenistaya** | **1.43** | **308** | *i* P | | | **Pn** | **12 23 38.4** | **-1.2** |
| KMNR | | | | *e*S | | | **Sn** | **12 23 58.7** | **+1.4** |
| **BZMR** | **Bezymyannaya** | **1.44** | **317** | PN | | | **Pn** | **12 23 38.5** | **-1.3** |
| BZMR | | | | S | | | **Sn** | **12 23 58.4** | **+0.8** |
| **BZMR** | **Bezymyannaya** | **1.44** | **317** | *e*P | | | **Pn** | **12 23 38.5** | **-1.3** |
| BZMR | | | | *e*S | | | **Sn** | **12 23 58.4** | **+0.8** |
| **BZWR** | **Bezymyannyi-We** | **1.46** | **318** | PN | | | **Pn** | **12 23 39.1** | **-0.9** |
| **BZWR** | **Bezymyannyi-We** | **1.46** | **318** | *e*P | | | **Pn** | **12 23 39.1** | **-0.9** |
| **CIRR** | **Tsirk** | **1.48** | **326** | PN | | | **Pn** | **12 23 39.5** | **-0.9** |
| **CIRR** | **Tsirk** | **1.48** | **326** | *e*P | | | **Pn** | **12 23 39.5** | **-0.9** |
| **KIRR** | **Kirishev** | **1.51** | **316** | PN | | | **Pn** | **12 23 40.2** | **-0.5** |
| **KIRR** | **Kirishev** | **1.51** | **316** | *e*P | | | **Pn** | **12 23 40.2** | **-0.5** |
| KIRR | | | | *e*S | | | **Sn** | **12 24 01.1** | **+1.7** |
| **KPT** | **Kopyto** | **1.57** | **314** | PN | | | **Pn** | **12 23 40.7** | **-0.8** |
| KPT | | | | S | | | **Sn** | **12 24 01.7** | **+1.0** |
| **KPT** | **Kopyto** | **1.57** | **314** | *e*P | | | **Pn** | **12 23 40.7** | **-0.8** |
| KPT | | | | *e*S | | | **Sn** | **12 24 01.7** | **+1.0** |
| **KRSR** | **Krestovskiy** | **1.63** | **325** | PN | | | **Pn** | **12 23 41.0** | **-1.3** |
| KRSR | | | | S | | | **Sn** | **12 24 02.9** | **+0.7** |
| **KRSR** | **Krestovskiy** | **1.63** | **325** | *e*P | | | **Pn** | **12 23 41.0** | **-1.3** |
| KRSR | | | | *e*S | | | **Sn** | **12 24 02.9** | **+0.7** |
| **KLY** | **Klyuchi** | **1.68** | **329** | PN | | | **Pn** | **12 23 40.7** | **-2.2** |
| **KLY** | **Klyuchi** | **1.68** | **329** | *e*P | | | **Pn** | **12 23 40.7** | **-2.2** |
| **SMKR** | **Semkarok** | **1.75** | **346** | PN | | | **Pn** | **12 23 42.6** | **-1.3** |
| SMKR | | | | S | | | **Sn** | **12 24 05.9** | **+0.8** |
| **SMKR** | **Semkarok** | **1.75** | **346** | *e*P | | | **Pn** | **12 23 42.6** | **-1.3** |
| SMKR | | | | *e*S | | | **Sn** | **12 24 05.9** | **+0.8** |
| **BDR** | **Baidarnaya** | **1.77** | **342** | PN | | | **Pn** | **12 23 43.5** | **-0.8** |
| **BDR** | **Baidarnaya** | **1.77** | **342** | *e*P | | | **Pn** | **12 23 43.5** | **-0.8** |
| **KOZ** | **Kozyrevsk** | **1.77** | **312** | PN | | | **Pn** | **12 23 43.5** | **-0.7** |
| **KOZ** | **Kozyrevsk** | **1.77** | **312** | *e*P | | | **Pn** | **12 23 43.5** | **-0.7** |
| KOZ | | | | *e*S | | | **Sn** | **12 24 07.5** | **+1.8** |
| **KII** | **Karymskiy** | **1.83** | **243** | PN | | | **Pn** | **12 23 44.2** | **-0.9** |
| KII | | | | S | | | **Sn** | **12 24 08.3** | **+1.2** |
| **KII** | **Karymskiy** | **1.83** | **243** | *e*P | | | **Pn** | **12 23 44.2** | **-0.9** |
| KII | | | | *e*S | | | **Sn** | **12 24 08.3** | **+1.2** |
| **SRKR** | **Sorokina** | **1.86** | **342** | PN | | | **Pn** | **12 23 44.4** | **-1.1** |
| **SRKR** | **Sorokina** | **1.86** | **342** | *e*P | | | **Pn** | **12 23 44.4** | **-1.1** |
| **BKI** | **Bering** | **2.18** | **80** | PN | | | **Pn** | **12 23 47.4** | **-2.3** |
| BKI | | | | S | | | **Sn** | **12 24 12.0** | **-3.5** |
| **BKI** | **Bering** | **2.18** | **80** | *e*P | | | **Pn** | **12 23 47.4** | **-2.3** |
| BKI | | | | *e*S | | | **Sn** | **12 24 12.0** | **-3.5** |
| **SPN** | **Mys Shipunski** | **2.22** | **217** | PN | | | **Pn** | **12 23 47.5** | **-2.7** |
| SPN | | | | S | | | **Sn** | **12 24 12.3** | **-4.1** |
| **SPN** | **Mys Shipunski** | **2.22** | **217** | *e*P | | | **Pn** | **12 23 47.5** | **-2.7** |
| SPN | | | | *e*S | | | **Sn** | **12 24 12.3** | **-4.1** |
| **ESO** | **Esso** | **2.26** | **299** | PN | | | **Pn** | **12 23 50.2** | **-0.6** |
| **ESO** | **Esso** | **2.26** | **299** | *e*P | | | **Pn** | **12 23 50.2** | **-0.6** |
| **NLC** | **Nalytchevo** | **2.42** | **226** | PN | | | **Pn** | **12 23 51.3** | **-1.7** |
| NLC | | | | S | | | **Sn** | **12 24 21.2** | **-0.2** |
| **NLC** | **Nalytchevo** | **2.42** | **226** | *e*P | | | **Pn** | **12 23 51.3** | **-1.7** |
| NLC | | | | *e*S | | | **Sn** | **12 24 21.2** | **-0.2** |
| **SDLR** | **Sedlovina** | **2.55** | **232** | PN | | | **Pn** | **12 23 54.5** | **-0.3** |
| SDLR | | | | S | | | **Sn** | **12 24 25.8** | **+1.1** |
| **SDLR** | **Sedlovina** | **2.55** | **232** | *i* P | | | **Pn** | **12 23 54.5** | **-0.3** |
| SDLR | | | | *e*S | | | **Sn** | **12 24 25.8** | **+1.1** |
| **KRER** | **Koryakskii** | **2.59** | **233** | PN | | | **Pn** | **12 23 55.9** | **+0.4** |
| KRER | | | | S | | | **Sn** | **12 24 27.4** | **+1.5** |
| **KRER** | **Koryakskii** | **2.59** | **233** | *e*P | | | **Pn** | **12 23 55.9** | **+0.4** |
| KRER | | | | *e*S | | | **Sn** | **12 24 27.4** | **+1.5** |
| **SMAR** | **Somma** | **2.59** | **232** | PN | | | **Pn** | **12 23 55.3** | **-0.3** |
| SMAR | | | | S | | | **Sn** | **12 24 27.2** | **+1.2** |
| **SMAR** | **Somma** | **2.59** | **232** | *i* P | | | **Pn** | **12 23 55.3** | **-0.3** |
| SMAR | | | | S | | | **Sn** | **12 24 27.2** | **+1.2** |
| **KRX** | **Arik** | **2.60** | **235** | PN | | | **Pn** | **12 23 56.0** | **+0.3** |
| KRX | | | | S | | | **Sn** | **12 24 28.3** | **+2.2** |
| **KRX** | **Arik** | **2.60** | **235** | *i* P | | | **Pn** | **12 23 56.0** | **+0.3** |
| KRX | | | | *e*S | | | **Sn** | **12 24 28.3** | **+2.2** |
| **UGLR** | **Uglovaya** | **2.62** | **231** | PN | | | **Pn** | **12 23 55.7** | **-0.1** |
| UGLR | | | | S | | | **Sn** | **12 24 28.3** | **+1.9** |
| **UGLR** | **Uglovaya** | **2.62** | **231** | *e*P | | | **Pn** | **12 23 55.7** | **-0.1** |
| UGLR | | | | *e*S | | | **Sn** | **12 24 28.3** | **+1.9** |
| **AVH** | **Avacha** | **2.62** | **233** | PN | | | **Pn** | **12 23 55.8** | **0.0** |
| AVH | | | | S | | | **Sn** | **12 24 28.8** | **+2.3** |
| **AVH** | **Avacha** | **2.62** | **233** | *i* P | | | **Pn** | **12 23 55.8** | **0.0** |
| AVH | | | | *e*P | | | **Pn** | **12 23 56.3** | **+0.5** |
| AVH | | | | *e*S | | | **Sn** | **12 24 28.8** | **+2.3** |
| **KOK** | **Koryaka** | **2.65** | **234** | PN | | | **Pn** | **12 23 56.6** | **+0.3** |
| **KOK** | **Koryaka** | **2.65** | **234** | *e*P | | | **Pn** | **12 23 56.6** | **+0.3** |
| **DALK** | **Dalny** | **2.77** | **229** | PN | | | **Pn** | **12 23 57.1** | **-0.7** |
| DALK | | | | S | | | **Sn** | **12 24 30.3** | **+0.3** |
| **DALK** | **Dalny** | **2.77** | **229** | *e*P | | | **Pn** | **12 23 57.1** | **-0.7** |
| DALK | | | | *e*S | | | **Sn** | **12 24 30.3** | **+0.3** |
| **GNL** | **Ganaly** | **2.78** | **246** | PN | | | **Pn** | **12 23 58.0** | **0.0** |
| **GNL** | **Ganaly** | **2.78** | **246** | *i* P | | | **Pn** | **12 23 58.0** | **0.0** |
| **PET** | **Petropavlovsk** | **2.82** | **230** | *i* PN | | | **Pn** | **12 23 57.9** | **-0.5** |
| PET | | | | | pmax | pmax | | | |
| | comp=Z,1μm,1.0s | | | | | | | | |
| **PET** | **Petropavlovsk** | **2.82** | **230** | *e*Pn | | | **Pn** | **12 23 58.0** | **-0.5** |
| PET | | | | *e*Sn | | | **Sn** | **12 24 29.2** | **-1.9** |
| **PET** | **Petropavlovsk** | **2.82** | **230** | *e*P | | | **Pn** | **12 23 58.3** | **-0.2** |
| PET | | | | *e*S | | | **Sn** | **12 24 30.8** | **-0.4** |
| **KRMR** | **Karymshinskiy** | **3.18** | **231** | PN | | | **Pn** | **12 24 03.7** | **+0.3** |
| KRMR | | | | S | | | **Sn** | **12 24 41.1** | **+1.0** |
| **KRMR** | **Karymshinskiy** | **3.18** | **231** | *e*P | | | **Pn** | **12 24 03.7** | **+0.3** |
| KRMR | | | | *e*S | | | **Sn** | **12 24 41.1** | **+1.0** |
| **PEA1** | **Petropavlovsk-** | **3.21** | **238** | *e*Pn | | | **Pn** | **12 24 03.7** | **-0.1** |
| PEA1 | | | | *e*Sn | | | **Sn** | **12 24 44.5** | **+3.7** |
| **PEA0B** | **Petropavlovsk-** | **3.21** | **238** | *e*Pn | | | **Pn** | **12 24 03.6** | **-0.2** |
| PEA0B | | | | *e*Sn | | | **Sn** | **12 24 38.2** | **-2.6** |
| **PETK** | **Petropavlovsk-** | **3.21** | **238** | P | | | **Pn** | **12 24 03.7** | **-0.2** |
| | comp=Z,30nm,0.3s,baz=68,slow=18,SNR=182 | | | | | | | | |
| PETK | | | | | S | | **Sn** | **12 24 44.5** | **+3.7** |
| | comp=Z,33nm,0.3s,baz=86,slow=19,SNR=11 | | | | | | | | |
| PETK | | | | | LR | | LR | 12 25 33.0 | |
| | comp=Z,1μm,18.5s,baz=63,slow=43 | | | | | | | | |
| **PETK** | **Petropavlovsk-** | **3.21** | **238** | *e*Pn | | | **Pn** | **12 24 02.8** | **-1.1** |
| PETK | | | | *e*Sn | | | **Sn** | **12 24 36.0** | **-4.9** |
| **RUS** | **Russkaya** | **3.31** | **223** | PN | | | **Pn** | **12 24 04.5** | **-0.6** |
| RUS | | | | S | | | **Sn** | **12 24 43.5** | **+0.4** |
| **RUS** | **Russkaya** | **3.31** | **223** | *e*P | | | **Pn** | **12 24 04.5** | **-0.6** |
| RUS | | | | *e*S | | | **Sn** | **12 24 43.5** | **+0.4** |
| **GRL** | **Gorelyy** | **3.40** | **228** | PN | | | **Pn** | **12 24 07.9** | **+1.3** |
| GRL | | | | S | | | **Sn** | **12 24 47.9** | **+2.2** |
| **GRL** | **Gorelyy** | **3.40** | **228** | *e*P | | | **Pn** | **12 24 07.9** | **+1.3** |
| GRL | | | | *e*S | | | **Sn** | **12 24 47.9** | **+2.2** |
| **MTVR** | **Mutnovka** | **3.40** | **226** | PN | | | **Pn** | **12 24 06.8** | **+0.2** |
| MTVR | | | | S | | | **Sn** | **12 24 47.9** | **+2.1** |
| **MTVR** | **Mutnovka** | **3.40** | **226** | *e*P | | | **Pn** | **12 24 06.8** | **+0.2** |
| MTVR | | | | *e*S | | | **Sn** | **12 24 47.9** | **+2.1** |
| **APC** | **Apacha** | **3.58** | **239** | PN | | | **Pn** | **12 24 09.7** | **+0.8** |
| **APC** | **Apacha** | **3.58** | **239** | *e*P | | | **Pn** | **12 24 09.7** | **+0.8** |
| **ASAK** | **Asacha** | **3.60** | **227** | PN | | | **Pn** | **12 24 10.0** | **+0.8** |
| ASAK | | | | S | | | **Sn** | **12 24 51.4** | **+1.0** |
| **ASAK** | **Asacha** | **3.60** | **227** | *i* P | | | **Pn** | **12 24 10.0** | **+0.8** |
| ASAK | | | | *e*S | | | **Sn** | **12 24 51.4** | **+1.0** |
| **KDTR** | **Khodutka, Kamc** | **3.96** | **220** | *e*P | | | **Pn** | **12 24 13.8** | **-0.3** |
| KDTR | | | | *e*S | | | **Sn** | **12 24 58.7** | **-0.6** |
| **OSSR** | **Ossora** | **4.39** | **6** | PN | | | **Pn** | **12 24 19.1** | **-0.8** |
| OSSR | | | | S | | | **Sn** | **12 25 07.9** | **-1.8** |
| **OSSR** | **Ossora** | **4.39** | **6** | *e*P | | | **Pn** | **12 24 19.1** | **-0.8** |
| OSSR | | | | *e*S | | | **Sn** | **12 25 07.9** | **-1.8** |
| **PAU** | **Pauzhetka** | **4.73** | **226** | PN | | | **Pn** | **12 24 25.8** | **+1.2** |
| **PAU** | **Pauzhetka** | **4.73** | **226** | *e*P | | | **Pn** | **12 24 25.8** | **+1.2** |
| **SKR** | **Severo-Kuril's** | **5.61** | **224** | *e*PN | | | **Pn** | **12 24 37.2** | **+0.5** |
| SKR | | | | *e*S | | | **Sn** | **12 25 39.1** | **-0.6** |
| SKR | | | | | pmax | pmax | | | |
| | comp=Z,108nm,0.7s | | | | | | | | |
| SKR | | | | | smax | smax | | | |
| | comp=E,339nm,0.6s | | | | | | | | |
| SKR | | | | | smax | smax | | | |
| | comp=N,836nm,0.7s | | | | | | | | |
| SKR | | | | | MLR | MLR | | | |
| | comp=Z,300nm,15.0s | | | | | | | | |
| **SKR** | **Severo-Kuril's** | **5.61** | **224** | *e*P | | | **Pn** | **12 24 37.0** | **+0.3** |
| SKR | | | | *e*S | | | **Sn** | **12 25 39.3** | **-0.4** |
| **TILK** | **Tilichiki** | **5.95** | **19** | PN | | | **Pn** | **12 24 41.4** | **+0.1** |
| **TILK** | **Tilichiki** | **5.95** | **19** | *e*P | | | **Pn** | **12 24 41.4** | **+0.1** |
| **SMY** | **Shemya** | **7.36** | **102** | *e*PN | | | **Pn** | **12 25 03.7** | **+3.1** |
| **SMY** | **Shemya** | **7.36** | **102** | *e*Pn | | | **Pn** | **12 25 03.7** | **+3.1** |
| **MA2** | **Magadan** | **7.78** | **312** | P | | | **Pn** | **12 25 07.2** | **+0.9** |
| | comp=Z,0.2nm,0.3s,baz=126,slow=9.5,SNR=4.3 | | | | | | | | |
| **MA2** | **Magadan** | **7.78** | **312** | *e*PN | | | **Pn** | **12 25 05.5** | **-0.9** |
| **SEY** | **Seymchan** | **9.52** | **332** | P | | | **Pn** | **12 25 31.0** | **+0.9** |
| | comp=Z,0.2nm,0.3s,baz=143,slow=20,SNR=1.8 | | | | | | | | |
| **SEY** | **Seymchan** | **9.52** | **332** | *e*PN | | | **Pn** | **12 25 31.0** | **+0.9** |
| **NKL** | **Nikolayevsk** | **12.78** | **271** | *e*PN | | | **Pn** | **12 26 17.5** | **+2.9** |
| NKL | | | | | MLR | MLR | | | |
| | comp=Z,1μm,14.0s | | | | | | | | |
| **BILL** | **Bilibino** | **13.33** | **7** | *e*PN | | | **Pn** | **12 26 24.6** | **+2.6** |
| BILL | | | | *e*S | | | **Sn** | **12 28 51.5** | **+3.2** |
| BILL | | | | | pmax | pmax | | | |
| | comp=Z,8.0nm,1.3s | | | | | | | | |
| BILL | | | | | MLR | MLR | | | |
| | comp=Z,75nm,14.0s | | | | | | | | |
| **UGL** | **Uglegorsk** | **13.69** | **253** | *e*P | | | **Pn** | **12 26 24.0** | **-3.1** |
| UGL | | | | *e*S | | | **Sn** | **12 28 53.1** | **-4.2** |
| **YUK** | **Yuzh-Kuril'sk** | **15.16** | **231** | *e*P | | | **Pn** | **12 26 44.5** | **-1.9** |
| **GAMB** | **Gambell** | **15.89** | **46** | *e*Pn | | | **P** | **12 26 57.8** | **-0.5** |
| | comp=Z,7.4nm,0.9s | | | | | | | | |
| **ASAJ** | **Asahikawa** | **16.63** | **238** | P | | | **Pn** | **12 27 05.6** | **+0.5** |
| | comp=Z,1.1nm,0.3s,baz=76,slow=13,SNR=9.5 | | | | | | | | |
| **ASAJ** | **Asahikawa** | **16.63** | **238** | *e*Pn | | | **Pn** | **12 27 05.6** | **+0.5** |
| | comp=Z,40nm,1.3s | | | | | | | | |
| **NIKH** | **Nikolski High** | **17.09** | **85** | *e*Pn | | | **P** | **12 27 12.1** | **+0.4** |
| | comp=Z,108nm,1.1s | | | | | | | | |
| **HABR** | **Khabarovsk** | **17.96** | **260** | *e*P | | | **P** | **12 27 18.1** | **-3.2** |
| HABR | | | | *e*S | | | **Sn** | **12 30 36.3** | **-4.3** |
| HABR | | | | | pmax | pmax | | | |
| | comp=Z,65nm,2.2s | | | | | | | | |
| HABR | | | | | MLR | MLR | | | |
| | comp=Z,152nm,13.0s | | | | | | | | |
| **ERM** | **Erimo** | **17.97** | **232** | *e*P | | | **P** | **12 27 19.5** | **-2.0** |
| **YAK** | **Yakutsk** | **18.30** | **306** | P | | | **P** | **12 27 24.0** | **-0.9** |
| | comp=Z,0.0nm,0.3s,baz=152,slow=1.2,SNR=8.9 | | | | | | | | |
| YAK | | | | | S | | **Sn** | **12 30 49.3** | **+0.7** |
| | comp=Z,0.0nm,0.3s,baz=290,slow=3.5,SNR=2.9 | | | | | | | | |
| **YAK** | **Yakutsk** | **18.30** | **306** | *e*P | | | **P** | **12 27 23.3** | **-1.6** |
| YAK | | | | *e*S | | | **Sn** | **12 30 46.6** | **-2.0** |
| YAK | | | | | pmax | pmax | | | |
| | comp=Z,12nm,0.9s | | | | | | | | |
| YAK | | | | | pmax | pmax | | | |
| | comp=N,1.0nm,1.1s | | | | | | | | |
| YAK | | | | | pmax | pmax | | | |
| | comp=E,5.0nm,1.3s | | | | | | | | |
| YAK | | | | | smax | smax | | | |
| | comp=N,42nm,3.0s | | | | | | | | |
| YAK | | | | | smax | smax | | | |
| | comp=E,27nm,2.5s | | | | | | | | |
| YAK | | | | | MLR | MLR | | | |
| | comp=Z,220nm,13.0s | | | | | | | | |
| YAK | | | | | MLR | MLR | | | |
| | comp=E,169nm,17.0s | | | | | | | | |
| YAK | | | | | MLR | MLR | | | |
| | comp=N,330nm,18.0s | | | | | | | | |
| **KLR** | **Kul'dur** | **19.47** | **266** | P | | | **Pn** | **12 27 39.5** | **-0.1** |
| | comp=N,0.0nm,0.3s,baz=62,slow=9.7,SNR=12 | | | | | | | | |
| KLR | | | | | LR | LR | | 12 35 54.2 | |
| | comp=N,21nm,18.2s,baz=64,slow=39 | | | | | | | | |
| **KLR** | **Kul'dur** | **19.47** | **266** | *e*P | | | **Pn** | **12 27 38.8** | **-0.8** |
| **TIXI** | **Tiksi** | **22.02** | **332** | P | | | **P** | **12 28 04.0** | **-1.1** |
| | comp=N,4.5nm,0.6s,baz=125,slow=12,SNR=16 | | | | | | | | |
| TIXI | | | | | LR | LR | | 12 37 25.1 | |
| | comp=N,167nm,18.5s,baz=105,slow=39 | | | | | | | | |
| **TIXI** | **Tiksi** | **22.02** | **332** | *i* P | | | **P** | **12 28 04.2** | **-0.9** |
| TIXI | | | | | pmax | pmax | | | |
| | comp=Z,12nm,1.2s | | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **22.17** | **254** | P | | | **P** | **12 28 10.1** | **+3.1** |
| | comp=Z,2.0nm,0.7s,baz=78,slow=13,SNR=4.8 | | | | | | | | |
| USRK | | | | | LR | LR | | 12 37 26.9 | |
| | comp=Z,140nm,20.4s,baz=59,slow=39 | | | | | | | | |
| **IM3** | **Indian Mountai** | **23.83** | **45** | *e*P | | | **P** | **12 28 23.7** | **+0.3** |
| **RSO** | **Redoubt South** | **24.31** | **58** | *e*P | | | **P** | **12 28 29.9** | **+1.8** |
| **PPLA** | **Purkeypile** | **24.39** | **52** | *e*P | | | **P** | **12 28 30.3** | **+1.5** |
| | comp=Z,49nm,1.4s | | | | | | | | |
| **SPU** | **Mount Spurr** | **24.57** | **57** | *e*P | | | **P** | **12 28 32.2** | **+1.9** |
| **MJA0** | **Matsu Arr-Jizo** | **24.63** | **232** | *e*P | | | **P** | **12 28 31.9** | **+0.9** |
| MJA0 | | | | | pmax | pmax | | | |
| | comp=Z,8.0nm,0.9s | | | | | | | | |
| **MJB9** | **Matsu-Tunnel** | **24.65** | **232** | *e*P | | | **P** | **12 28 32.0** | **+0.9** |
| | comp=Z,20nm,0.9s | | | | | | | | |
| **MAJO** | **Matsushiro** | **24.65** | **232** | *e*P | | | **P** | **12 28 31.4** | **+0.2** |
| MAJO | | | | | pmax | pmax | | | |
| | comp=Z,27nm,1.0s | | | | | | | | |
| **MAJO** | **Matsushiro** | **24.65** | **232** | *e*P | | | **P** | **12 28 32.2** | **+1.0** |
| | comp=Z,19nm,0.9s | | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **24.65** | **232** | P | | | **P** | **12 28 31.9** | **+0.7** |
| | comp=Z,5.4nm,0.7s,baz=30,slow=8.3,SNR=15 | | | | | | | | |
| MJAR | | | | | LR | LR | | 12 37 56.5 | |
| | comp=Z,103nm,21.6s,baz=330,slow=36 | | | | | | | | |
| **KDAK** | **Kodiak Island** | **24.86** | **65** | P | | | **P** | **12 28 33.0** | **+0.2** |
| | comp=Z,7.7nm,0.8s,baz=304,slow=18,SNR=2.6 | | | | | | | | |
| **KDAK** | **Kodiak Island** | **24.86** | **65** | *e*P | | | **P** | **12 28 32.7** | **-0.1** |
| KDAK | | | | | pmax | pmax | | | |
| | comp=Z,207nm,1.8s | | | | | | | | |
| **KDAK** | **Kodiak Island** | **24.86** | **65** | *e*P | | | **P** | **12 28 32.7** | **-0.1** |
| | comp=Z,207nm,1.8s | | | | | | | | |
| **BPAW** | **Bear Paw Mtn.** | **24.90** | **49** | *e*P | | | **P** | **12 28 35.3** | **+2.0** |
| | comp=Z,6.6nm,0.9s | | | | | | | | |
| **HOM** | **Homer** | **24.98** | **60** | *e*P | | | **P** | **12 28 36.5** | **+2.6** |
| | comp=Z,818nm,1.4s | | | | | | | | |
| **MLY** | **Manley** | **25.02** | **47** | *e*P | | | **P** | **12 28 35.5** | **+1.2** |
| | comp=Z,6.3nm,1.0s | | | | | | | | |
| **TRF** | **Thorofare Moun** | **25.23** | **51** | *e*P | | | **P** | **12 28 38.8** | **+2.4** |
| | comp=Z,12nm,1.0s | | | | | | | | |
| **BRLK** | **Bradley Lake** | **25.34** | **60** | *e*P | | | **P** | **12 28 38.6** | **+1.4** |
| | comp=Z,90nm,1.6s | | | | | | | | |
| **COLD** | **Coldfoot** | **25.37** | **42** | *e*P | | | **P** | **12 28 38.5** | **+1.1** |
| | comp=Z,9.2nm,0.9s | | | | | | | | |
| **BOD** | **Bodaibo** | **26.42** | **296** | *e*P | | | **P** | **12 28 43.2** | **-3.8** |
| BOD | | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,1.6s | | | | | | | | |
| **ILAR** | **Eielson Array** | **26.66** | **48** | P | | | **P** | **12 28 49.0** | **-0.1** |
| | comp=Z,0.9nm,0.9s,baz=263,slow=8.0,SNR=9.9 | | | | | | | | |
| **ILAR** | **Eielson Array** | **26.66** | **48** | *e*P | | | **P** | **12 28 49.3** | **+0.2** |
| ILAR | | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.8s | | | | | | | | |
| **JHJ2** | **Mitsune** | **26.87** | **225** | *e*P | | | **P** | **12 28 50.2** | **-1.0** |
| | comp=Z,246nm,1.2s | | | | | | | | |
| **KSRS** | **Korea Array** | **29.06** | **247** | P | | | **P** | **12 29 10.6** | **-0.1** |
| | comp=Z,0.9nm,0.8s,baz=24,slow=8.7,SNR=4.0 | | | | | | | | |
| KSRS | | | | | LR | LR | | 12 40 15.8 | |
| | comp=Z,102nm,20.8s,baz=50,slow=35 | | | | | | | | |
| **KS15** | **Wonju Array Si** | **29.09** | **247** | *e*P | | | **P** | **12 29 08.4** | **-2.7** |
| **INK** | **Inuvik** | **31.68** | **40** | P | | | **P** | **12 29 34.6** | **+1.2** |
| | comp=Z,0.8nm,0.6s,baz=285,slow=7.1,SNR=3.0 | | | | | | | | |
| **BJI** | **Beijing** | **33.81** | **263** | P | | | **P** | **12 29 51.8** | **-0.6** |
| BJI | | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,0.8s | | | | | | | | |
| BJI | | | | | LR | LR | | | |
| | comp=N,140nm,19.0s | | | | | | | | |
| BJI | | | | | LR | LR | | | |
| | comp=E,260nm,16.0s | | | | | | | | |
| BJI | | | | | LR | LR | | | |
| | comp=Z,190nm,16.8s | | | | | | | | |
| **SONA0** | **Songino Array** | **34.73** | **282** | *e*P | | | **P** | **12 29 60.0** | **-0.5** |
| SONA0 | | | | *e*PcP | | | **PcP** | **12 32 33.7** | **+0.7** |
| **SONM** | **Songino Array** | **34.73** | **282** | P | | | **P** | **12 29 60.0** | **-0.5** |
| | comp=Z,0.6nm,0.6s,baz=55,slow=8.5,SNR=5.6 | | | | | | | | |
| SONM | | | | | PcP | | **PcP**

**NB2 NORSAR Subarra 62.15 345 P P 12 33 28.5 -2.3**
comp=Z,2.8nm,1.0s,baz=21,slow=6.9
**NB200 NORSAR Array S 62.15 345** *eP* **P 12 33 31.0 +0.3**
**NOA NORSAR Array B 62.15 345** P **P 12 33 31.0 +0.3**
comp=Z,0.8nm,0.6s,baz=21,slow=6.6,SNR=4.0
**GEYT Alibeck 67.15 304** LR LR 13 06 18.4
comp=Z,107nm,19.2s,baz=265,slow=39
**AKASG Malin Array Be 67.70 330** P **P 12 34 05.9 -0.9**
comp=Z,2.1nm,0.4s,baz=29,slow=6.4,SNR=5.2
AKASG LR LR 13 05 45.8
comp=Z,71nm,18.3s,baz=340,slow=38
**AKASG Malin Array Be 67.70 330** *eP* **P 12 34 07.9 +1.0**
AKASG pmax pmax
comp=Z,1.0nm,0.3s
**AKBB Malin Array Si 67.70 330** *eP* **P 12 34 05.9 -0.9**
AKBB pmax pmax
comp=Z,5.0nm,0.7s
**AKBB Malin Array Si 67.70 330** *eP* **P 12 34 05.9 -0.9**
comp=Z,4.7nm,0.7s
**KIEV Kiev 67.71 330**⇓ *eP* **P 12 34 06.2 -0.7**
KIEV pmax pmax
comp=Z,5.0nm,0.8s
**TX31 Lajitas Ar. Si 68.80 69** *eP* **P 12 34 15.9 +1.7**
**LTX Lajitas 68.80 69** *eP* **P 12 34 16.1 +1.9**
**LTX Lajitas 68.80 69** *eP* **P 12 34 16.1 +1.9**
**TXAR Lajitas Array 68.80 69** P **P 12 34 16.1 +1.8**
comp=Z,1.3nm,0.7s,baz=294,slow=4.9,SNR=21
**KVAR Kislovodsk Arr 68.96 318** LR LR 13 07 37.2
comp=Z,82nm,20.3s,slow=39
**KIV Kislovodsk 68.97 318**⇓ *eP* **P 12 34 12.3 -2.7**
KIV *e* 12 36 47.9
KIV pmax pmax
comp=Z,11nm,1.1s
KIV MLR MLR
comp=Z,84nm,20.0s
**KBZ Khabaz 69.07 317** P **P 12 34 15.7 +0.2**
comp=Z,3.4nm,0.8s,baz=65,slow=11,SNR=5.2
KBZ LR LR 13 07 43.0
comp=Z,109nm,20.6s,baz=35,slow=39
**CLL Collm 71.10 340** *i* P **P 12 34 26.7 -1.1**
CLL pmax pmax
comp=Z,9.0nm,1.1s
**CLL Collm 71.10 340** *i* P **P 12 34 26.7 -1.1**
comp=Z,9.0nm,1.1s
CLL LmV 13 46 00.0
comp=Z,300nm,20.7s
**GNI Garni 71.34 314** LR LR 13 11 21.2
comp=Z,84nm,18.5s,baz=32,slow=41
**BUR08 Bucovina Ar. S 71.61 331** *eP* **P 12 34 30.9 -0.2**
**BUR04 Bucovina Ar. S 71.62 331** *eP* **P 12 34 31.0 -0.2**
**BURAR Bucovina Array 71.63 331**⇑ P **P 12 34 31.2 0.0**
**VRAC Vranov 72.24 337** LR LR 13 10 03.9
comp=Z,18nm,18.8s,baz=16,slow=39
**VRI Vrincioaia 72.78 329**⇑ *iP* P 12 34 48.1 +10
**DRGR 73.07 332** *iP* **P 12 34 39.1 -0.7**
**GERES GERESS Array B 73.30 339** P **P 12 34 41.4 +0.2**
comp=Z,1.1nm,0.6s,baz=27,slow=6.1,SNR=6.9
GERES LR LR 13 10 34.8
comp=Z,68nm,18.5s,baz=282,slow=39
**GERES GERESS Array B 73.30 339** *eP* **P 12 34 40.2 -1.0**
GERES pmax pmax
comp=Z,1.0nm,0.6s
**MLR Muntele Rosu 73.35 330** LR LR 13 10 14.7
comp=Z,23nm,18.1s,baz=350,slow=38
**MLR Muntele Rosu 73.35 330**⇑ *iP* **P 12 34 42.5 +0.9**
**VOIR 73.66 330**⇑ *iP* **P 12 34 44.4 +1.1**
**BZS Buzias 74.45 332**⇑ *iP* **P 12 34 46.9 -0.9**
**BR101 Keskin Array S 76.01 322** *eP* **P 12 34 57.2 +0.2**
**BR131 Keskin Array S 76.01 322** *eP* **P 12 34 57.2 +0.2**
**BRTR Keskin Array B 76.01 322** P **P 12 34 57.2 +0.2**
comp=Z,1.8nm,0.7s,baz=65,slow=3.4,SNR=8.1
BRTR LR LR 13 10 25.0
comp=Z,30nm,20.7s,baz=60,slow=37
**BR231 Keskin MP Arra 76.21 322** *eP* **P 12 34 57.8 -0.4**
**WR1 Warramunga Arr 78.25 207** *eP* **P 12 35 10.4 +1.0**
comp=Z,21nm,1.6s
**WRA Warramunga Arr 78.25 207** P **P 12 35 10.4 +1.0**
comp=Z,1.2nm,0.8s,baz=22,slow=6.0,SNR=5.8
**WRA Warramunga Arr 78.25 207** *eP* **P 12 35 10.9 +1.4**
WRA pmax pmax
comp=Z,1.0nm,0.8s
**AS01 Alice Springs 81.91 206** *eP* **P 12 35 30.4 +1.3**
**ASAR Alice Springs 81.92 206** P **P 12 35 30.8 +1.5**
comp=Z,1.6nm,0.8s,baz=14,slow=5.4,SNR=18
**ASAR Alice Springs 81.92 206** *eP* **P 12 35 30.9 +1.7**
ASAR pmax pmax
comp=Z,1.0nm,0.8s
**IDI Anoyia 83.00 326** LR LR 13 15 52.9
comp=Z,43nm,18.9s,baz=25,slow=38
**ES19 SONSECA Array 85.03 349** *eP* **P 12 35 45.6 +0.4**
**ESDC Sonseca Array 85.06 349** P **P 12 35 45.9 +0.5**
comp=Z,2.6nm,0.7s,baz=2.9,slow=4.6,SNR=15
**RAYN Ar Rayn 85.09 305** *eP* **P 12 35 45.0 -0.8**
comp=Z,4.3nm,0.8s

*KRSC **30** 12:28:23.0±1.1, 54.85N×162.39E, h54km±26km, ML4.5*
*ISCJB **30** 12:28:25.0±0.4, 54.87N±0.02×162.35E±0.05, h52km±4km, mb3.7/19, MS3.4/1, Error ellipse: s-maj=5.0km s-min=2.5km az=24.9*
*MOS **30** 12:28:24.9±0.6, 54.90N×162.28E, h50km, mb4.0/7, Error ellipse: s-maj=7.7km s-min=4.4km az=80.6*
*IDC **30** 12:28:29.0±2.2, 55.03N×161.99E, h66km±21km, mb3.4/18, mb1 3.7/20, mb1mx3.6/47, mbtmpb3.8/20, MS3.2/2, Ms1 3.2/2, ms1mx2.6/40, Error ellipse: s-maj=18.2km s-min=12.6km az=143.0*
**ISC 30 12:28:25.6±1.1, 54°87N±0°02×162°31E±0°03, h41km±11km, n121, σ1§45/185, mb3.7/19, 3C, Near east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **TUMD** | **Tumrok D** | **1.15** | **288** | *eP* | | **Pn** | **12 28 44.0** | **-1.2** |
| TUMD | | | | *eS* | | **Sn** | **12 28 59.2** | **-0.6** |
| **KZV** | **Kizimen** | **1.19** | **283** | PN | | **Pn** | **12 28 44.8** | **-1.0** |
| KZV | | | | S | | **Sn** | **12 28 59.9** | **-1.0** |
| **KZV** | **Kizimen** | **1.19** | **283** | *i* P | | **Pn** | **12 28 44.8** | **-1.0** |
| KZV | | | | *eS* | | **Sn** | **12 28 59.9** | **-1.0** |
| **TUMR** | **Tumrok** | **1.31** | **289** | PN | | **Pn** | **12 28 46.9** | **-0.6** |
| TUMR | | | | S | | **Sn** | **12 29 04.1** | **+0.2** |
| **TUMR** | **Tumrok** | **1.31** | **289** | *i* P | | **Pn** | **12 28 46.9** | **-0.6** |
| TUMR | | | | S | | **Sn** | **12 29 04.1** | **+0.2** |
| **KBTR** | **Krutoberegovo** | **1.37** | **12** | PN | | **Pn** | **12 28 47.2** | **-1.0** |
| KBTR | | | | S | | **Sn** | **12 29 06.5** | **+1.3** |
| **KBTR** | **Krutoberegovo** | **1.37** | **12** | *i* P | | **Pn** | **12 28 47.2** | **-1.0** |
| KBTR | | | | *eS* | | **Sn** | **12 29 06.5** | **+1.3** |
| **KBG** | **Krutoberegovo** | **1.41** | **9** | PN | | **Pn** | **12 28 48.3** | **-0.4** |
| KBG | | | | S | | **Sn** | **12 29 08.1** | **+2.1** |
| **KBG** | **Krutoberegovo** | **1.41** | **9** | *eP* | | **Pn** | **12 28 48.3** | **-0.4** |
| KBG | | | | *eS* | | **Sn** | **12 29 08.1** | **+2.1** |
| **ZLN** | **Zelenaya** | **1.44** | **324** | PN | | **Pn** | **12 28 49.1** | **-0.1** |
| ZLN | | | | S | | **Sn** | **12 29 08.2** | **+1.3** |
| **ZLN** | **Zelenaya** | **1.44** | **324** | *eP* | | **Pn** | **12 28 49.1** | **-0.1** |
| ZLN | | | | *eS* | | **Sn** | **12 29 08.2** | **+1.3** |
| **KMNR** | **Kamenistaya** | **1.48** | **308** | PN | | **Pn** | **12 28 49.4** | **-0.4** |
| KMNR | | | | S | | **Sn** | **12 29 09.2** | **+1.2** |
| **KMNR** | **Kamenistaya** | **1.48** | **308** | *i* P | | **Pn** | **12 28 49.4** | **-0.4** |
| KMNR | | | | *eS* | | **Sn** | **12 29 09.2** | **+1.2** |
| **BZMR** | **Bezymyannaya** | **1.49** | **317** | PN | | **Pn** | **12 28 49.5** | **-0.5** |
| BZMR | | | | S | | **Sn** | **12 29 09.1** | **+0.8** |
| **BZMR** | **Bezymyannaya** | **1.49** | **317** | *eP* | | **Pn** | **12 28 49.5** | **-0.5** |
| BZMR | | | | *eS* | | **Sn** | **12 29 09.1** | **+0.8** |
| **BZWR** | **Bezymyannyi-We** | **1.51** | **317** | PN | | **Pn** | **12 28 50.0** | **-0.2** |
| **BZWR** | **Bezymyannyi-We** | **1.51** | **317** | *eP* | | **Pn** | **12 28 50.0** | **-0.2** |
| **CIRR** | **Tsirk** | **1.54** | **325** | PN | | **Pn** | **12 28 50.4** | **-0.2** |
| CIRR | | | | S | | **Sn** | **12 29 11.3** | **+1.9** |
| **CIRR** | **Tsirk** | **1.54** | **325** | *eP* | | **Pn** | **12 28 50.4** | **-0.2** |
| CIRR | | | | *eS* | | **Sn** | **12 29 11.3** | **+1.9** |
| **KIRR** | **Kirishev** | **1.56** | **315** | PN | | **Pn** | **12 28 51.2** | **+0.2** |
| **KIRR** | **Kirishev** | **1.56** | **315** | *eP* | | **Pn** | **12 28 51.2** | **+0.2** |
| **KPT** | **Kopyto** | **1.62** | **314** | PN | | **Pn** | **12 28 51.6** | **-0.1** |
| **KPT** | **Kopyto** | **1.62** | **314** | *eP* | | **Pn** | **12 28 51.6** | **-0.1** |
| **KRSR** | **Krestovskiy** | **1.68** | **324** | PN | | **Pn** | **12 28 51.9** | **-0.6** |
| KRSR | | | | S | | **Sn** | **12 29 15.3** | **+2.5** |
| **KRSR** | **Krestovskiy** | **1.68** | **324** | *eP* | | **Pn** | **12 28 51.9** | **-0.6** |
| KRSR | | | | *eS* | | **Sn** | **12 29 15.3** | **+2.5** |
| **KLY** | **Klyuchi** | **1.73** | **328** | PN | | **Pn** | **12 28 51.5** | **-1.6** |
| KLY | | | | S | | **Sn** | **12 29 13.3** | **-0.6** |
| **KLY** | **Klyuchi** | **1.73** | **328** | *eP* | | **Pn** | **12 28 51.5** | **-1.6** |
| KLY | | | | *eS* | | **Sn** | **12 29 13.3** | **-0.6** |
| **SMKR** | **Semkarok** | **1.78** | **345** | PN | | **Pn** | **12 28 53.7** | **-0.2** |
| SMKR | | | | S | | **Sn** | **12 29 17.3** | **+1.9** |
| **SMKR** | **Semkarok** | **1.78** | **345** | *eP* | | **Pn** | **12 28 53.7** | **-0.2** |
| SMKR | | | | *eS* | | **Sn** | **12 29 17.3** | **+1.9** |
| **BDR** | **Baidarnaya** | **1.81** | **340** | PN | | **Pn** | **12 28 54.3** | **-0.1** |
| BDR | | | | S | | **Sn** | **12 29 17.9** | **+1.7** |
| **BDR** | **Baidarnaya** | **1.81** | **340** | *eP* | | **Pn** | **12 28 54.3** | **-0.1** |
| BDR | | | | S | | **Sn** | **12 29 17.9** | **+1.7** |
| **KOZ** | **Kozyrevsk** | **1.83** | **312** | PN | | **Pn** | **12 28 54.7** | **+0.2** |
| KOZ | | | | S | | **Sn** | **12 29 18.5** | **+2.0** |
| **KOZ** | **Kozyrevsk** | **1.83** | **312** | *eP* | | **Pn** | **12 28 54.7** | **+0.2** |
| KOZ | | | | *eS* | | **Sn** | **12 29 18.5** | **+2.0** |
| **KII** | **Karymskiy** | **1.87** | **245** | PN | | **Pn** | **12 28 55.0** | **-0.1** |
| KII | | | | S | | **Sn** | **12 29 18.9** | **+1.4** |
| **KII** | **Karymskiy** | **1.87** | **245** | *eP* | | **Pn** | **12 28 55.0** | **-0.1** |
| KII | | | | *eS* | | **Sn** | **12 29 18.9** | **+1.4** |
| **SRKR** | **Sorokina** | **1.90** | **341** | PN | | **Pn** | **12 28 55.5** | **-0.1** |
| SRKR | | | | S | | **Sn** | **12 29 20.0** | **+1.7** |
| **SRKR** | **Sorokina** | **1.90** | **341** | *eP* | | **Pn** | **12 28 55.5** | **-0.1** |
| SRKR | | | | S | | **Sn** | **12 29 20.0** | **+1.7** |
| **BKI** | **Bering** | **2.13** | **79** | PN | | **Pn** | **12 28 58.5** | **-0.1** |
| BKI | | | | S | | **Sn** | **12 29 23.5** | **-0.3** |
| **BKI** | **Bering** | **2.13** | **79** | *eP* | | **Pn** | **12 28 58.5** | **-0.1** |
| BKI | | | | *eS* | | **Sn** | **12 29 23.5** | **-0.3** |
| **SPN** | **Mys Shipunski** | **2.23** | **218** | PN | | **Pn** | **12 28 58.5** | **-1.5** |
| SPN | | | | S | | **Sn** | **12 29 23.2** | **-3.0** |
| **SPN** | **Mys Shipunski** | **2.23** | **218** | *eP* | | **Pn** | **12 28 58.5** | **-1.5** |
| SPN | | | | *eS* | | **Sn** | **12 29 23.2** | **-3.0** |
| **ESO** | **Esso** | **2.32** | **299** | PN | | **Pn** | **12 29 01.1** | **-0.1** |
| ESO | | | | S | | **Sn** | **12 29 28.2** | **-0.2** |
| **ESO** | **Esso** | **2.32** | **299** | *eP* | | **Pn** | **12 29 01.1** | **-0.1** |
| ESO | | | | *eS* | | **Sn** | **12 29 28.2** | **-0.2** |
| **NLC** | **Nalytchevo** | **2.44** | **227** | PN | | **Pn** | **12 29 02.4** | **-0.4** |
| NLC | | | | S | | **Sn** | **12 29 31.8** | **+0.4** |
| **NLC** | **Nalytchevo** | **2.44** | **227** | *eP* | | **Pn** | **12 29 02.4** | **-0.4** |
| NLC | | | | *eS* | | **Sn** | **12 29 31.8** | **+0.4** |
| **SDLR** | **Sedlovina** | **2.57** | **233** | PN | | **Pn** | **12 29 05.6** | **+0.8** |
| SDLR | | | | S | | **Sn** | **12 29 36.8** | **+1.9** |
| **SDLR** | **Sedlovina** | **2.57** | **233** | *i* P | | **Pn** | **12 29 05.6** | **+0.8** |
| SDLR | | | | *eS* | | **Sn** | **12 29 36.8** | **+1.9** |
| **KRER** | **Koryakskii** | **2.62** | **235** | PN | | **Pn** | **12 29 06.5** | **+1.0** |
| KRER | | | | S | | **Sn** | **12 29 38.9** | **+2.8** |
| **KRER** | **Koryakskii** | **2.62** | **235** | *eP* | | **Pn** | **12 29 06.5** | **+1.0** |
| KRER | | | | *eS* | | **Sn** | **12 29 38.9** | **+2.8** |
| **SMAR** | **Somma** | **2.62** | **234** | PN | | **Pn** | **12 29 06.4** | **+0.9** |
| SMAR | | | | S | | **Sn** | **12 29 37.6** | **+1.4** |
| **SMAR** | **Somma** | **2.62** | **234** | *i* P | | **Pn** | **12 29 06.4** | **+0.9** |
| SMAR | | | | *eS* | | **Sn** | **12 29 37.6** | **+1.4** |
| **KRX** | **Arik** | **2.63** | **236** | PN | | **Pn** | **12 29 06.4** | **+0.7** |
| KRX | | | | S | | **Sn** | **12 29 39.4** | **+3.0** |
| **KRX** | **Arik** | **2.63** | **236** | *eP* | | **Pn** | **12 29 06.4** | **+0.7** |
| KRX | | | | *eS* | | **Sn** | **12 29 39.4** | **+3.0** |
| **UGLR** | **Uglovaya** | **2.65** | **232** | PN | | **Pn** | **12 29 06.7** | **+0.9** |
| UGLR | | | | S | | **Sn** | **12 29 39.6** | **+3.0** |
| **UGLR** | **Uglovaya** | **2.65** | **232** | *eP* | | **Pn** | **12 29 06.7** | **+0.9** |
| UGLR | | | | *eS* | | **Sn** | **12 29 39.6** | **+3.0** |
| **AVH** | **Avacha** | **2.65** | **234** | PN | | **Pn** | **12 29 07.0** | **+1.2** |
| AVH | | | | S | | **Sn** | **12 29 39.9** | **+3.2** |
| **AVH** | **Avacha** | **2.65** | **234** | *i* P | | **Pn** | **12 29 07.0** | **+1.2** |
| AVH | | | | *eS* | | **Sn** | **12 29 39.9** | **+3.2** |
| **KOK** | **Koryaka** | **2.68** | **235** | PN | | **Pn** | **12 29 07.6** | **+1.3** |
| **KOK** | **Koryaka** | **2.68** | **235** | *eP* | | **Pn** | **12 29 07.6** | **+1.3** |
| **DALK** | **Dalny** | **2.79** | **230** | PN | | **Pn** | **12 29 08.1** | **+0.4** |
| DALK | | | | S | | **Sn** | **12 29 41.3** | **+1.2** |
| **DALK** | **Dalny** | **2.79** | **230** | *eP* | | **Pn** | **12 29 08.1** | **+0.4** |
| DALK | | | | *eS* | | **Sn** | **12 29 41.3** | **+1.2** |
| **GNL** | **Ganaly** | **2.82** | **247** | PN | | **Pn** | **12 29 09.0** | **+0.8** |
| **GNL** | **Ganaly** | **2.82** | **247** | *i* P | | **Pn** | **12 29 09.0** | **+0.8** |
| **PET** | **Petropavlovsk** | **2.84** | **231** | ⇑*i*PN | | **Pn** | **12 29 09.1** | **+0.7** |
| PET | | | | *eS* | | **Sn** | **12 29 42.7** | **+1.3** |
| PET | | | | pmax | pmax | | | |
| | comp=Z,200nm,0.5s | | | | | | | |
| PET | | | | pmax | pmax | | | |
| | comp=Z,287nm,0.5s | | | | | | | |
| PET | | | | smax | smax | | | |
| | comp=N,667nm,0.6s | | | | | | | |
| PET | | | | smax | smax | | | |
| | comp=E,707nm,0.4s | | | | | | | |
| PET | | | | smax | smax | | | |
| | comp=E,600nm,0.6s | | | | | | | |
| PET | | | | MLR | MLR | | | |
| | comp=Z,500nm,5.0s | | | | | | | |
| **PET** | **Petropavlovsk** | **2.84** | **231** | *i* P | | **Pn** | **12 29 09.4** | **+1.0** |
| PET | | | | *eS* | | **Sn** | **12 29 41.8** | **+0.4** |
| **KRMR** | **Karymshinskiy** | **3.21** | **232** | PN | | **Pn** | **12 29 15.0** | **+1.6** |
| KRMR | | | | S | | **Sn** | **12 29 53.0** | **+2.6** |
| **KRMR** | **Karymshinskiy** | **3.21** | **232** | *eP* | | **Pn** | **12 29 15.0** | **+1.6** |
| KRMR | | | | *eS* | | **Sn** | **12 29 53.0** | **+2.6** |
| **PETK** | **Petropavlovsk-** | **3.25** | **239** | P | | **Pn** | **12 29 14.6** | **+0.7** |
| | comp=Z,10nm,0.3s,baz=91,slow=21,SNR=19 | | | | | | | |
| PETK | | | | S | | **Sn** | **12 29 54.6** | **+3.3** |
| | comp=Z,5.5nm,0.3s,baz=81,slow=28,SNR=11 | | | | | | | |
| **RUS** | **Russkaya** | **3.33** | **224** | PN | | **Pn** | **12 29 15.4** | **+0.4** |
| RUS | | | | S | | **Sn** | **12 29 53.0** | **-0.2** |
| **RUS** | **Russkaya** | **3.33** | **224** | *i* P | | **Pn** | **12 29 15.4** | **+0.4** |
| RUS | | | | *eS* | | **Sn** | **12 29 53.0** | **-0.2** |
| **MTVR** | **Mutnovka** | **3.43** | **227** | PN | | **Pn** | **12 29 17.5** | **+1.0** |
| MTVR | | | | S | | **Sn** | **12 29 58.4** | **+2.5** |
| **MTVR** | **Mutnovka** | **3.43** | **227** | *eP* | | **Pn** | **12 29 17.5** | **+1.0** |
| MTVR | | | | *eS* | | **Sn** | **12 29 58.4** | **+2.5** |
| **APC** | **Apacha** | **3.62** | **240** | PN | | **Pn** | **12 29 20.6** | **+1.6** |
| APC | | | | S | | **Sn** | **12 30 02.7** | **+2.3** |
| **APC** | **Apacha** | **3.62** | **240** | *eP* | | **Pn** | **12 29 20.6** | **+1.6** |
| APC | | | | *eS* | | **Sn** | **12 30 02.7** | **+2.3** |
| **ASAK** | **Asacha** | **3.62** | **228** | PN | | **Pn** | **12 29 20.7** | **+1.6** |
| ASAK | | | | S | | **Sn** | **12 30 03.9** | **+3.3** |
| **ASAK** | **Asacha** | **3.62** | **228** | *eP* | | **Pn** | **12 29 20.7** | **+1.6** |
| ASAK | | | | *eS* | | **Sn** | **12 30 03.9** | **+3.3** |
| **KDTR** | **Khodutka, Kamc** | **3.98** | **221** | *eP* | | **Pn** | **12 29 24.7** | **+0.7** |
| KDTR | | | | *eS* | | **Sn** | **12 30 10.2** | **+0.9** |
| **OSSR** | **Ossora** | **4.41** | **5** | PN | | **Pn** | **12 29 30.4** | **+0.5** |
| OSSR | | | | S | | **Sn** | **12 30 19.4** | **-0.5** |
| **OSSR** | **Ossora** | **4.41** | **5** | *eP* | | **Pn** | **12 29 30.4** | **+0.5** |
| OSSR | | | | *eS* | | **Sn** | **12 30 19.4** | **-0.5** |
| **PALN** | **Palana** | **4.42** | **344** | PN | | **Pn** | **12 29 32.7** | **+2.7** |
| **PALN** | **Palana** | **4.42** | **344** | *eP* | | **Pn** | **12 29 32.7** | **+2.7** |
| **PAU** | **Pauzhetka** | **4.75** | **226** | PN | | **Pn** | **12 29 36.0** | **+1.5** |
| **PAU** | **Pauzhetka** | **4.75** | **226** | *eP* | | **Pn** | **12 29 36.0** | **+1.5** |
| **SKR** | **Severo-Kuril's** | **5.63** | **224** | *eP*N | | **Pn** | **12 29 43.7** | **-2.9** |
| **SKR** | **Severo-Kuril's** | **5.63** | **224** | *eP* | | **Pn** | **12 29 47.9** | **+1.3** |
| SKR | | | | *eS* | | **Sn** | **12 30 50.6** | **+0.7** |
| **MA2** | **Magadan** | **7.84** | **312** | LR | | LR | 12 33 41.4 | |
| | comp=Z,125nm,19.4s,baz=139,slow=41 | | | | | | | |
| **ASAJ** | **Asahikawa** | **16.66** | **238** | P | | **P** | **12 32 17.0** | **-0.7** |
| | comp=Z,0.5nm,0.3s,baz=29,slow=13,SNR=4.5 | | | | | | | |
| **ERM** | **Erimo** | **18.00** | **232**⇑ | *eP* | | **Pn** | **12 32 29.8** | **-2.6** |
| **KLR** | **Kul'dur** | **19.52** | **266** | P | | **Pn** | **12 32 50.7** | **0.0** |
| | comp=Z,0.0nm,0.3s,baz=88,slow=11,SNR=6.5 | | | | | | | |
| **TIXI** | **Tiksi** | **22.06** | **332** | P | | **P** | **12 33 15.5** | **-0.8** |
| | comp=Z,1.9nm,0.4s,baz=126,slow=12,SNR=5.2 | | | | | | | |
| **TIXI** | **Tiksi** | **22.06** | **332**⇑ | *eP* | | **P** | **12 33 15.6** | **-0.8** |
| TIXI | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.8s | | | | | | | |
| **MJA0** | **Matsu Arr-Jizo** | **24.66** | **232** | *eP* | | **P** | **12 33 41.2** | **-1.0** |
| MJA0 | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.9s | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **24.68** | **232** | P | | **P** | **12 33 41.7** | **-0.7** |
| | comp=Z,2.4nm,0.9s,baz=34,slow=8.8,SNR=7.5 | | | | | | | |
| **ILAR** | **Eielson Array** | **26.64** | **48** | P | | **P** | **12 34 00.4** | **+0.6** |
| | comp=Z,0.2nm,0.5s,baz=258,slow=7.6,SNR=4.0 | | | | | | | |
| **SONM** | **Songino Array** | **34.79** | **282** | P | | **P** | **12 35 10.9** | **-1.1** |
| | comp=Z,0.2nm,0.6s,baz=50,slow=8.5,SNR=2.6 | | | | | | | |
| SONM | | | | PcP | | **PcP** | **12 37 44.9** | **+0.4** |
| | comp=Z,0.1nm,0.4s,baz=92,slow=3.1,SNR=4.6 | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **35.25** | **173** | T | | T | 13 12 37.5 | |
| | baz=359 | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **35.27** | **172** | T | | T | 13 12 37.5 | |
| | baz=359,slow=74 | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **35.27** | **173** | T | | T | 13 12 36.7 | |
| | baz=359,slow=74 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **40.97** | **45** | P | | **P** | **12 36 04.8** | **+1.1** |
| | comp=Z,0.4nm,0.8s,baz=299,slow=8.1,SNR=6.4 | | | | | | | |
| **MKAR** | **Makanchi Array** | **48.57** | **296** | P | | **P** | **12 37 02.3** | **-2.2** |
| | comp=Z,0.2nm,0.4s,baz=48,slow=6.1,SNR=6.1 | | | | | | | |
| **MKAR** | **Makanchi Array** | **48.57** | **296** | *eP* | | **P** | **12 37 02.6** | **-1.9** |
| **ARCES** | **ARCESS Array B** | **52.00** | **342** | P | | **P** | **12 37 30.0** | **-0.1** |
| | comp=Z,7.0nm,1.1s,baz=18,slow=10,SNR=2.4 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **52.00** | **342** | P | | **P** | **12 37 30.0** | **-0.1** |
| ARCES | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,1.1s | | | | | | | |
| **SUMG** | **Summit** | **52.03** | **8** | *eP* | | P | 12 37 36.6 | +5.9 |
| SUMG | | | | pmax | pmax | | | |
| | comp=Z,23nm,1.1s | | | | | | | |
| **SUMG** | **Summit** | **52.03** | **8** | *i* P | | P | 12 37 36.6 | +5.9 |
| | comp=Z,23nm,1.1s | | | | | | | |
| **NVAR** | **Mina Array Bea** | **53.93** | **73** | P | | **P** | **12 37 46.4** | **+1.5** |
| | comp=Z,0.3nm,0.7s,baz=298,slow=8.1,SNR=3.5 | | | | | | | |
| **PDAR** | **Pinedale Array** | **55.53** | **63** | P | | **P** | **12 37 58.8** | **+2.3** |
| | comp=Z,0.4nm,0.8s,baz=317,slow=4.9,SNR=2.9 | | | | | | | |
| **FINES** | **FINESS Array B** | **59.00** | **337** | P | | **P** | **12 38 18.9** | **-1.5** |
| | comp=Z,2.4nm,0.8s,baz=80,slow=4.5,SNR=10 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **59.82** | **259** | P | | **P** | **12 38 26.4** | **-0.2** |
| | comp=Z,0.6nm,0.7s,baz=26,slow=5.5,SNR=4.6 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **59.82** | **259** | *eP* | | **P** | **12 38 26.0** | **-0.6** |
| CMAR | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.7s | | | | | | | |
| **AKASG** | **Malin Array Be** | **67.75** | **330** | P | | **P** | **12 39 17.1** | **-1.3** |
| | comp=Z,0.9nm,0.4s,baz=28,slow=6.9,SNR=4.2 | | | | | | | |
| **TXAR** | **Lajitas Array** | **68.76** | **69** | P | | **P** | **12 39 26.7** | **+1.5** |
| | comp=Z,0.2nm,0.5s,baz=296,slow=4.5,SNR=5.0 | | | | | | | |
| **TXAR** | **Lajitas Array** | **68.76** | **69** | *eP* | | **P** | **12 39 26.9** | **+1.8** |
| **GERES** | **GERESS Array B** | **73.34** | **339** | P | | **P** | **12 39 52.6** | **0.0** |
| | comp=Z,0.3nm,0.4s,baz=28,slow=4.4,SNR=3.9 | | | | | | | |
| **BRTR** | **Keskin Array B** | **76.06** | **322** | P | | **P** | **12 40 07.2** | **-1.4** |
| | comp=Z,0.7nm,0.4s,baz=5.7,slow=4.4,SNR=4.0 | | | | | | | |
| **BRTR** | **Keskin Array B** | **76.06** | **322** | *eP* | | **P** | **12 40 07.6** | **-1.0** |
| BRTR | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,0.4s | | | | | | | |
| **WRA** | **Warramunga Arr** | **78.25** | **207** | P | | **P** | **12 40 21.2** | **+0.5** |
| | comp=Z,0.9nm,1.2s,baz=16,slow=5.8,SNR=4.7 | | | | | | | |
| **WRA** | **Warramunga Arr** | **78.25** | **207** | *i* P | | **P** | **12 40 21.7** | **+1.0** |
| WRA | | | | pmax | pmax | | | |
| | comp=Z,1.0nm,1.2s | | | | | | | |
| **MMAI** | **Mount Meron Ar** | **81.32** | **317** | LR | | LR | 13 22 07.5 | |
| | comp=Z,17nm,20.2s,baz=0.0,slow=40 | | | | | | | |
| **ASAR** | **Alice Springs** | **81.93** | **206** | P | | **P** | **12 40 41.8** | **+1.3** |
| | comp=Z,0.8nm,0.8s,baz=13,slow=4.8,SNR=12 | | | | | | | |
| **ESDC** | **Sonseca Array** | **85.10** | **349** | P | | **P** | **12 40 57.3** | **+0.5** |
| | comp=Z,0.9nm,0.6s,baz=5.7,slow=6.3,SNR=6.4 | | | | | | | |

*IDC **30** 12:35:14.7±0.8, 51.00N×178.17E, h0km, mb3.8/19, mb1 4.1/21, mb1mx4.0/52, mbtmpb3.9/21, ML3.3/2, MS3.1/2, Ms1 3.1/2, ms1mx2.7/41, Error ellipse: s-maj=24.1km s-min=12.5km az=166.0*
*NEIC **30** 12:35:16.6±2.0, 50.92N×178.14E, h12km±12km, mb4.6/23, Error ellipse: s-maj=11.6km s-min=3.9km az=179.0*
*ISCJB **30** 12:35:17.9±0.4, 50.95N±0.07×178.18E±0.04, h33km, mb4.2/51, Error ellipse: s-maj=9.8km s-min=3.6km az=174.1*
*MOS **30** 12:35:17.7±0.9, 50.98N×178.19E, h31km, mb4.6/20, Error ellipse: s-maj=12.6km s-min=8.8km az=102.3*
**ISC 30 12:35:19.7±0.5, 50.94N±0.09×178.18E±0.04, h33km, n126, σ1§36/130, mb4.3/51, 11C-7D, Rat Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **GAEA** | **Gareloi East** | **2.10** | **65** | *e*Pn | | **Pn** | **12 35 52.4** | **-0.2** |
| **TASE** | **Tanaga Southea** | **2.53** | **68** | *e*Pn | | **Pn** | **12 35 57.0** | **-1.5** |
| **TAFL** | **Tanaga Flats** | **2.59** | **70** | *e*Pn | | **Pn** | **12 35 58.3** | **-1.0** |
| **TAPA** | **Tanaga Point A** | **2.66** | **69** | *e*Pn | | **Pn** | **12 35 59.2** | **-1.0** |
| **SMY** | **Shemya** | **3.10** | **307** | *eP* | | **Pn** | **12 36 06.2** | **0.0** |
| SMY | | | | *e* | | | 12 36 47.5 | |
| **SMY** | **Shemya** | **3.10** | **307** | *e*Pn | | **Pn** | **12 36 06.2** | **0.0** |
| SMY | | | | *e*Sn | | **Sb** | **12 36 47.5** | **-3.9** |
| **ADAG** | **Mount Adagdak** | **3.42** | **70** | *e*Pn | | **Pn** | **12 36 09.2** | **-1.5** |
| **ATKA** | **Atka Island** | **4.92** | **72** | *e*Pn | | **Pn** | **12 36 31.2** | **0.0** |
| ATKA | | | | *e*Sn | | **Sn** | **12 37 29.7** | **+2.8** |
| **KOWE** | **Korovin West** | **4.92** | **70** | *e*Pn | | **Pn** | **12 36 30.5** | **-0.8** |
| **KOFP** | **Korovin Flat P** | **5.00** | **72** | *e*Pn | | **Pn** | **12 36 31.6** | **-0.7** |
| **UNV** | **Unalaska Valle** | **9.80** | **67** | *e*Pn | | **Pn** | **12 37 36.6** | **-1.5** |
| **AKUT** | **Akutan** | **10.29** | **66** | *e*Pn | | **Pn** | **12 37 43.7** | **-1.0** |
| **PEA0B** | **Petropavlovsk-** | **12.79** | **288** | *e*Pn | | **Pn** | **12 38 15.7** | **-3.4** |
| **PETK** | **Petropavlovsk-** | **12.79** | **288** | Pn | | **Pn** | **12 38 19.5** | **+0.4** |
| | 0.2nm,0.3s,baz=90,slow=15,SNR=8.3 | | | | | | | |
| PETK | | | | LR | | LR | 12 44 48.7 | |
| | comp=Z,56nm,18.4s,baz=72,slow=45 | | | | | | | |
| **PETK** | **Petropavlovsk-** | **12.79** | **288** | *e*Pn | | **Pn** | **12 38 18.9** | **-0.1** |
| **PEA1** | **Petropavlovsk-** | **12.79** | **288** | *e*

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **BOZ** | **Bozeman (W)** | **45.41** | **68** | *e*P | **P** | **12 43 35.3 +0.2** |
| BOZ | | | | *e*S | **S** | **12 50 10.7 -3.3** |
| BOZ | | | | pmax | pmax | |
| | comp=Z,4.0nm,0.6s | | | | | |
| **BOZ** | **Bozeman (W)** | **45.41** | **68** | *e*P | **P** | **12 43 35.3 +0.2** |
| | comp=Z,3.9nm,0.6s | | | | | |
| BOZ | | | | *e*S | **S** | **12 50 10.7 -3.3** |
| **NVAR** | **Mina Array Bea** | **45.50** | **80** | P | **P** | **12 43 36.9 +0.9** |
| | comp=Z,0.7nm,0.6s,baz=286,slow=7.2,SNR=5.6 | | | | | |
| **HHC** | **Hu-ho-hao-te** | **45.97** | **284** | *e*P | **P** | **12 43 38.5 -1.0** |
| HHC | | | | pmax | pmax | |
| | comp=Z,4.0nm,0.9s | | | | | |
| HHC | | | | pmax | pmax | |
| | comp=Z,100nm,7.4s | | | | | |
| **YHB** | **Horse Butte** | **46.14** | **69** | *e*P | **P** | **12 43 41.0 +0.1** |
| | comp=Z,5.5nm,0.8s | | | | | |
| **YHH** | **Holmes Hill** | **46.32** | **69** | *e*P | **P** | **12 43 42.9 +0.4** |
| | comp=Z,3.3nm,0.8s | | | | | |
| **NJ2** | **Nanjing** | **46.92** | **270** | *e*P | **P** | **12 43 45.5 -1.4** |
| NJ2 | | | | pmax | pmax | |
| | comp=Z,12nm,0.5s | | | | | |
| **DUG** | **Dugway, Tooele** | **47.82** | **75** | *e*P | **P** | **12 43 54.3 +0.3** |
| DUG | | | | pmax | pmax | |
| | comp=Z,4.0nm,0.9s | | | | | |
| **DUG** | **Dugway, Tooele** | **47.82** | **75** | *e*P | **P** | **12 43 54.3 +0.3** |
| | comp=Z,3.7nm,0.9s | | | | | |
| **BW06** | **Boulder Array** | **48.25** | **70** | *e*P | **P** | **12 43 57.8 +0.4** |
| | comp=Z,8.2nm,1.8s | | | | | |
| **PD31** | **Pinedale Array** | **48.25** | **70** | *e*P | **P** | **12 43 57.8 +0.4** |
| **PDAR** | **Pinedale Array** | **48.25** | **70** | P | **P** | **12 43 57.5 +0.1** |
| | comp=Z,2.7nm,0.8s,baz=299,slow=3.4,SNR=26 | | | | | |
| **TMUT** | **Trail Mountain** | **49.35** | **75** | *e*P | **P** | **12 44 07.7 +1.7** |
| | comp=Z,6.9nm,0.9s | | | | | |
| **PV10** | **Paradox Valley** | **51.24** | **74** | *e*P | **P** | **12 44 21.0 +0.7** |
| **ZAA1** | **Zalesovo Array** | **52.93** | **312** | *e*P | **P** | **12 44 30.8 -1.4** |
| **ZALV** | **Zalesovo Beam** | **52.94** | **312** | P | **P** | **12 44 30.8 -1.5** |
| | comp=Z,0.4nm,0.4s,baz=40,slow=7.6,SNR=3.4 | | | | | |
| **GTA** | **Gaotai** | **53.95** | **290** | *e*P | **P** | **12 44 40.8 +0.7** |
| GTA | | | | pP | pP | 12 44 50.5 +0.4 |
| GTA | | | | sP | sP | 12 44 54.5 +0.5 |
| GTA | | | | pmax | pmax | |
| | comp=Z,3.0nm,0.9s | | | | | |
| **DGZ** | **Jazzator, Alta** | **54.30** | **307**⇓ | *e*P | **P** | **12 44 43.1 +0.6** |
| DGZ | | | | pmax | pmax | |
| | comp=Z,1.0nm,1.1s | | | | | |
| **T25A** | **Trinidad** | **54.85** | **73** | *e*P | **P** | **12 44 46.6 -0.2** |
| | comp=Z,6.3nm,1.1s | | | | | |
| **ANMO** | **Albuquerque** | **55.05** | **76**⇑ | *e*P | **P** | **12 44 49.5 +1.3** |
| ANMO | | | | pmax | pmax | |
| | comp=Z,1.0nm,1.0s | | | | | |
| **KURK** | **Kurchatov** | **57.93** | **312**⇑ | *e*P | **P** | **12 45 08.0 -0.2** |
| KURK | | | | pmax | pmax | |
| | comp=Z,4.0nm,0.8s | | | | | |
| **KURK** | **Kurchatov** | **57.93** | **312** | *e*P | **P** | **12 45 07.2 -1.0** |
| | comp=Z,6.3nm,1.1s | | | | | |
| **MK32** | **Makanchi Array** | **58.80** | **307** | *e*P | **P** | **12 45 13.5 -0.9** |
| **MKAR** | **Makanchi Array** | **58.80** | **307** | P | **P** | **12 45 13.5 -0.9** |
| | comp=Z,0.7nm,0.7s,baz=56,slow=7.4,SNR=8.3 | | | | | |
| **MKAR** | **Makanchi Array** | **58.80** | **307** | *i* P | **P** | **12 45 13.8 -0.6** |
| MKAR | | | | pmax | pmax | |
| | comp=Z,1.0nm,0.7s | | | | | |
| **MK01** | **Makanchi Array** | **58.81** | **307** | *e*P | **P** | **12 45 13.6 -0.9** |
| **BRVK** | **Borovoye** | **59.99** | **318** | *ce*P | **P** | **12 45 22.7 +0.2** |
| BRVK | | | | pmax | pmax | |
| | comp=Z,3.0nm,0.6s | | | | | |
| **BRVK** | **Borovoye** | **59.99** | **318** | *e*P | **P** | **12 45 21.7 -0.8** |
| | comp=Z,3.2nm,0.6s | | | | | |
| **LTX** | **Lajitas** | **60.60** | **79** | *e*P | **P** | **12 45 27.8 +0.6** |
| **LTX** | **Lajitas** | **60.60** | **79** | *e*P | **P** | **12 45 27.8 +0.6** |
| **TXAR** | **Lajitas Array** | **60.60** | **79** | P | **P** | **12 45 27.8 +0.6** |
| | comp=Z,0.7nm,0.8s,baz=300,slow=4.5,SNR=7.3 | | | | | |
| **SCHQ** | **Schefferville** | **61.51** | **37** | P | **P** | |
| | comp=Z,6.3nm,1.0s,baz=321,slow=6.5,SNR=2.7 | | | | | **12 45 31.7 -1.1** |
| **SCHQ** | **Schefferville** | **61.51** | **37** | *e*P | **P** | **12 45 31.7 -1.1** |
| | comp=Z,161nm,1.9s | | | | | |
| **QIZ** | **Qiongzhong** | **61.84** | **266** | P | **P** | **12 45 34.3 -1.2** |
| QIZ | | | | sP | **sP** | **12 45 48.5 -1.0** |
| QIZ | | | | S | **S** | **12 53 56.8 0.0** |
| QIZ | | | | pmax | pmax | |
| | comp=Z,300nm,3.9s | | | | | |
| QIZ | | | | LR | LR | |
| | comp=Z,350nm,4.8s | | | | | |
| **ARU** | **Arti** | **61.95** | **327** | *d i*P | **P** | **12 45 36.2 +0.5** |
| ARU | | | | | | 12 47 49.8 |
| ARU | | | | S | **S** | **12 53 58.5 +1.3** |
| ARU | | | | SS | **SS** | **12 57 59.5 +0.6** |
| ARU | | | | pmax | pmax | |
| | comp=Z,9.0nm,2.5s | | | | | |
| **AAK** | **Ala-Archa** | **65.66** | **308**⇑ | *e*P | **P** | **12 46 00.8 +0.2** |
| AAK | | | | pmax | pmax | |
| | comp=Z,4.0nm,1.5s | | | | | |
| **FIA0** | **FINESS Array S** | **65.76** | **346** | *e*P | **P** | **12 46 00.3 -0.4** |
| **FIA0** | **FINESS Array S** | **65.76** | **346** | *e*P | **P** | **12 46 00.3 -0.4** |
| **FINES** | **FINESS Array B** | **65.76** | **346** | P | **P** | **12 46 00.3 -0.4** |
| | comp=Z,1.9nm,0.5s,baz=30,slow=8.4,SNR=12 | | | | | |
| **FINES** | **FINESS Array B** | **65.76** | **346** | *i* P | **P** | **12 46 00.4 -0.3** |
| FINES | | | | pmax | pmax | |
| | comp=Z,2.0nm,0.5s | | | | | |
| **ABKAR** | **Akbulak array** | **67.11** | **321** | *e*P | **P** | **12 46 09.8 +0.2** |
| | comp=Z,21nm,1.0s | | | | | |
| **KSH** | **Kashi** | **67.21** | **305** | P | **P** | **12 46 14.0 +3.5** |
| KSH | | | | pP | sP | 12 46 24.0 -0.6 |
| KSH | | | | PcP | **PcP** | **12 46 42.3 +4.0** |
| KSH | | | | PP | **PP** | **12 48 45.0 +6.6** |
| KSH | | | | S | **S** | **12 55 06.0 +3.1** |
| KSH | | | | ScS | **ScS** | **12 56 06.3 +0.5** |
| **KSH** | **Kashi** | **67.21** | **305** | SS | SS | 12 59 28.3 +6.6 |
| KSH | | | | pmax | pmax | |
| | comp=Z,4.0nm,0.6s | | | | | |
| KSH | | | | pmax | pmax | |
| | comp=Z,67nm,3.9s | | | | | |
| KSH | | | | LR | LR | |
| | comp=N,100nm,5.3s | | | | | |
| KSH | | | | LR | LR | |
| | comp=E,90nm,4.2s | | | | | |
| KSH | | | | LR | LR | |
| | comp=Z,140nm,5.9s | | | | | |
| **KKAR** | **Karatay Array** | **67.25** | **311** | *e*P | **P** | **12 46 11.0 +0.4** |
| **KKAR** | **Karatay Array** | **67.25** | **311** | *e*P | **P** | **12 46 11.0 +0.4** |
| **NB2** | **NORSAR Subarra** | **67.88** | **353** | P | **P** | **12 46 14.0 -0.3** |
| | comp=Z,0.8nm,0.5s,baz=9.2,slow=6.5 | | | | | |
| **NB200** | **NORSAR Array S** | **67.88** | **353** | *e*P | **P** | **12 46 14.3 0.0** |
| **NOA** | **NORSAR Array B** | **67.88** | **353** | P | **P** | **12 46 14.3 0.0** |
| | comp=Z,1.4nm,0.7s,baz=8.8,slow=6.3,SNR=4.4 | | | | | |
| **CMAR** | **Chiang Mai Arr** | **69.16** | **274** | P | **P** | **12 46 22.7 -0.1** |
| | comp=Z,1.1nm,0.9s,baz=29,slow=7.5,SNR=7.0 | | | | | |
| **CMAR** | **Chiang Mai Arr** | **69.16** | **274** | *i* P | **P** | **12 46 23.1 +0.3** |
| CMAR | | | | pmax | pmax | |
| | comp=Z,1.0nm,0.9s | | | | | |
| **AKASG** | **Malin Array Be** | **75.35** | **340** | P | **P** | **12 46 59.3 0.0** |
| | comp=Z,2.1nm,0.6s,baz=24,slow=6.2,SNR=7.4 | | | | | |
| **AKASG** | **Malin Array Be** | **75.35** | **340** | *i* P | **P** | **12 46 58.7 -0.6** |
| AKASG | | | | pmax | pmax | |
| | comp=Z,2.0nm,0.6s | | | | | |
| **KIEV** | **Kiev** | **75.36** | **340**⇓ | *i* P | **P** | **12 46 59.4 +0.1** |
| KIEV | | | | pmax | pmax | |
| | comp=Z,3.0nm,0.8s | | | | | |
| **BUR04** | **Bucovina Ar. S** | **79.10** | **342** | *e*P | **P** | **12 47 20.7 +0.1** |
| **BURAR** | **Bucovina Array** | **79.11** | **342**⇓ | *i* P | **P** | **12 47 21.5 +0.9** |
| **DRGR** | | **80.37** | **343**⇑ | *i* P | **P** | **12 47 28.2 +0.8** |
| **WR1** | **Warramunga Arr** | **80.40** | **221** | *e*P | **P** | **12 47 27.1 -0.6** |
| | comp=Z,27nm,1.8s | | | | | |
| **WRA** | **Warramunga Arr** | **80.40** | **221** | P | **P** | **12 47 27.1 -0.6** |
| | comp=Z,0.6nm,1.0s,baz=30,slow=5.5,SNR=3.3 | | | | | |
| **MLR** | **Muntele Rosu** | **80.99** | **341**⇑ | *i* P | **P** | **12 47 32.5 +1.7** |
| **SIRR** | **Siria** | **81.07** | **344**⇑ | *i* P | **P** | **12 47 32.8 +1.7** |
| **VOIR** | | **81.22** | **341**⇓ | *i* P | **P** | **12 47 32.5 +0.5** |
| **ASAR** | **Alice Springs** | **83.90** | **220** | P | **P** | **12 47 45.8 -0.2** |
| | comp=Z,0.3nm,0.8s,baz=28,slow=5.7,SNR=4.2 | | | | | |
| **BR101** | **Keskin Array S** | **84.52** | **333** | *e*P | **P** | **12 47 49.5 +0.3** |
| **BRTR** | **Keskin Array B** | **84.52** | **333** | P | **P** | **12 47 49.5 +0.3** |
| | comp=Z,1.1nm,0.7s,baz=46,slow=4.3,SNR=5.1 | | | | | |
| **BRTR** | **Keskin Array B** | **84.52** | **333** | *i* P | **P** | **12 47 50.0 +0.7** |
| BRTR | | | | pmax | pmax | |
| | comp=Z,1.0nm,0.7s | | | | | |

*NNC **30** 12:45:29.4±2.7,38.64N×70.31E,h0km,mb3.7,mpv3.3, Error ellipse: s-maj=21.0km s-min=13.9km az=24.0*

**ISC 30 12:45:29.4±2.5,38.4N±0.2×70.17E±0.09,h27km,n10, σ0s95/14,6C-3D,Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SFK** | **Sufi-Kurgan** | **3.04** | **57** | ⇑P | **Pn** | **12 46 15.7** | **-0.3** |
| | 4.2nm,0.4s | | | | | | |
| SFK | | | | ⇑S | **Sn** | **12 46 52.7** | **+1.1** |
| | 18nm,0.3s | | | | | | |
| **MNAS** | **Manas** | **4.44** | **23** | ⇑Pn | **Pn** | **12 46 34.3** | **-0.8** |
| | 3.6nm,0.3s | | | | | | |
| MNAS | | | | ⇑Sn | **Sn** | **12 47 25.0** | **-0.9** |
| | 4.9nm,0.4s | | | | | | |
| MNAS | | | | ⇓Lg | Lg | 12 47 44.5 | |
| | 13nm,0.9s | | | | | | |
| **AML** | **Almayashu** | **4.58** | **35** | P | **Pn** | **12 46 36.6** | **-0.7** |
| | SNR=11 | | | | | | |
| **KK31** | **Karatay Array** | **4.69** | **3** | Pn | **Pn** | **12 46 37.8** | **-0.6** |
| | 1.3nm,0.3s,baz=177,slow=12,SNR=48 | | | | | | |
| KK31 | | | | ⇑Sn | **Sn** | **12 47 32.8** | **+0.9** |
| | 4.3nm,0.5s | | | | | | |
| KK31 | | | | ⇓Lg | Lg | 12 47 46.0 | |
| | 4.1nm,0.5s,baz=176,slow=27,SNR=7.3 | | | | | | |
| **UCH** | **Uchtor** | **5.05** | **40** | P | **Pn** | **12 46 43.8** | **0.0** |
| | SNR=5.3 | | | | | | |
| **KBK** | **Karagaybulak** | **5.58** | **39** | P | **Pn** | **12 46 51.5** | **+0.6** |
| | SNR=14 | | | | | | |
| **USP** | **Ospenovka** | **5.85** | **33** | P | **Pn** | **12 46 52.8** | **-1.6** |
| | SNR=12 | | | | | | |
| **TKM2** | **Tokmak 2** | **6.10** | **41** | P | **Pn** | **12 46 57.2** | **-0.8** |
| | SNR=5.5 | | | | | | |
| **AB31** | **Akbulak array** | **13.09** | **329** | P | **Pn** | **12 48 33.0** | **-0.5** |
| | 0.4nm,0.5s,baz=148,slow=12,SNR=17 | | | | | | |
| AB31 | | | | ⇑S | **Sn** | **12 50 59.4** | **+1.2** |
| | 2.4nm,0.9s,baz=142,slow=23,SNR=4.0 | | | | | | |
| **AKTO** | **Aktyubinsk** | **14.80** | **328** | ⇓P | **P** | **12 49 02.8** | **+0.4** |
| | 0.8nm,0.6s | | | | | | |

*ISCJB **30** 12:51:13.6±0.4,41.39N±0.03×35.88E±0.04,h0km, Error ellipse: s-maj=4.8km s-min=3.1km az=39.1*
*CSEM **30** 12:51:13.8±0.2,41.37N×35.88E,h1km,Ml2.6, Error ellipse: s-maj=6.3km s-min=4.0km az=39.0, Suspected Mining explosion.*
*DDA **30** 12:51:13.8,41.36N×35.83E,h7km,Ml2.6, Suspected Mining explosion.*
*ISK **30** 12:51:13.0,41.42N×35.95E,h14km,MD2.7,ML2.4*

**ISC 30 12:51:13.1±0.8,41.41N±0.03×35.86E±0.02,h0km,n30, σ1s17/48,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SAMS** | **Samsun-Alacam** | **0.25** | **100** | *i* P | **Pb** | **12 51 20.0** | **+2.2** |
| SAMS | | | | *i* S | **Sb** | **12 51 24.8** | **+3.8** |
| **SAMS** | **Samsun-Alacam** | **0.25** | **100** | P | **Pb** | **12 51 20.0** | **+2.2** |
| SAMS | | | | S | **Sb** | **12 51 24.8** | **+3.8** |
| **HAVZ** | **Havza** | **0.35** | **198** | *i* P | **Pg** | **12 51 19.9** | **+0.2** |
| HAVZ | | | | *i* S | **Sg** | **12 51 24.6** | **+0.3** |
| **HAVZ** | **Havza** | **0.35** | **198** | P | **Pg** | **12 51 19.9** | **+0.2** |
| HAVZ | | | | S | **Sg** | **12 51 24.5** | **+0.3** |
| **KVT** | **Kavak** | **0.35** | **157** | *e*PG | **Pg** | **12 51 20.4** | **+0.6** |
| KVT | | | | *e*SG | **Sg** | **12 51 26.4** | **+2.0** |
| **KVT** | **Kavak** | **0.35** | **157** | *e*Pg | **Pg** | **12 51 20.4** | **+0.6** |
| KVT | | | | *e*Sg | **Sg** | **12 51 26.4** | **+2.0** |
| **DIKM** | **Dikmen** | **0.52** | **298** | *e*PG | **Pb** | **12 51 24.7** | **-0.3** |
| DIKM | | | | *e*SG | **Sb** | **12 51 32.8** | **-0.3** |
| **DIKM** | **Dikmen** | **0.52** | **298** | *e*Pg | **Pb** | **12 51 24.7** | **-0.3** |
| DIKM | | | | *e*Sg | **Sb** | **12 51 32.8** | **-0.3** |
| **SNOP** | **Sinop** | **0.79** | **322** | *e*PG | **Pb** | **12 51 29.3** | **-0.3** |
| **SNOP** | **Sinop** | **0.79** | **322** | *e*Pg | **Pb** | **12 51 29.3** | **-0.3** |
| **SINO** | **SINOP_Merkez** | **0.79** | **321** | *i* P | **Pb** | **12 51 30.0** | **+0.4** |
| SINO | | | | *i* S | **Sb** | **12 51 40.0** | **-0.9** |
| **SINO** | **SINOP_Merkez** | **0.79** | **321** | P | **Pb** | **12 51 30.0** | **+0.4** |
| SINO | | | | S | **Sb** | **12 51 40.0** | **-0.9** |
| **ERBA** | **Erbaa** | **0.99** | **137** | *i* P | **Pg** | **12 51 32.5** | **+0.5** |
| ERBA | | | | *i* S | **Sg** | **12 51 45.2** | **+0.4** |
| **ERBA** | **Erbaa** | **0.99** | **137** | P | **Pg** | **12 51 32.5** | **+0.5** |
| ERBA | | | | S | **Sg** | **12 51 45.2** | **+0.4** |
| **COAL** | **Corum-Alaca** | **1.33** | **210** | *i* P | **Pg** | **12 51 38.6** | **+0.2** |
| COAL | | | | *i* S | **Sb** | **12 51 56.6** | **+0.1** |
| **COAL** | **Corum-Alaca** | **1.33** | **210** | P | **Pg** | **12 51 38.7** | **+0.2** |
| COAL | | | | S | **Sb** | **12 51 56.6** | **+0.1** |
| **BZK** | **Bozkurt** | **1.50** | **292** | *e*PN | **Pn** | **12 51 41.2** | **0.0** |
| **BZK** | **Bozkurt** | **1.50** | **292** | *e*Pn | **Pn** | **12 51 41.2** | **0.0** |
| **ORDU** | **Ordu-Boztepe** | **1.56** | **105** | *i* P | **Pn** | **12 51 42.4** | **+0.3** |
| ORDU | | | | *i* S | **Sg** | **12 52 04.1** | **+0.9** |
| **ORDU** | **Ordu-Boztepe** | **1.56** | **105** | P | **Pn** | **12 51 42.4** | **+0.3** |
| ORDU | | | | S | **Sg** | **12 52 04.1** | **+0.9** |
| **ILGA** | **Ilgaz** | **1.66** | **258** | *i* P | **Pg** | **12 51 45.3** | **+0.5** |
| **ILGA** | **Ilgaz** | **1.66** | **258** | P | **Pg** | **12 51 45.3** | **+0.5** |
| **SVSK** | **Karacayir** | **1.72** | **149** | *e*PN | **Pn** | **12 51 42.8** | **-1.4** |
| **SVSK** | **Karacayir** | **1.72** | **149** | *e*Pn | **Pn** | **12 51 42.8** | **-1.4** |
| **YOZ** | **Yozgat** | **1.81** | **193** | *e*PN | **Pn** | **12 51 44.9** | **-0.7** |
| **YOZ** | **Yozgat** | **1.81** | **193** | *e*Pn | **Pn** | **12 51 44.9** | **-0.7** |
| **GRSN** | **GIRESUNGRSN** | **1.88** | **104** | *i* P | **Pn** | **12 51 46.5** | **0.0** |
| GRSN | | | | *i* S | **Sn** | **12 52 10.8** | **-0.1** |
| **GRSN** | **GIRESUNGRSN** | **1.88** | **104** | P | **Pn** | **12 51 46.5** | **0.0** |
| GRSN | | | | S | **Sn** | **12 52 10.8** | **-0.1** |
| **ESPY** | **Espiye-Giresun** | **2.22** | **102** | *e*PN | **Pn** | **12 51 49.7** | **-1.4** |
| **ESPY** | **Espiye-Giresun** | **2.22** | **102** | *e*Pn | **Pn** | **12 51 49.7** | **-1.4** |

*ISCJB **30** 12:59:52.1±0.6,32.2N±0.02×115.27W±0.03,h10km±4km, Error ellipse: s-maj=4.6km s-min=3.4km az=152.0*
*ECX **30** 12:59:53.5±0.6,32.2N×115.27W,h7km, MD2.8, ML3.0*
*NEIC **30** 12:59:53.5±0.0,32.2N×115.27W,h7km, ML2.8(PAS), ML3.0(ECX), After ECX.*
*MEX **30** 12:59:54.2±0.4,32.31N×115.12W,h15km±6km, MD3.8*

**ISC 30 12:59:51.4±1.1,32.26N±0.02×115.27W±0.03, h16km±10km,n34,σ0s61/55,1C-1D,California-Baja California border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CPBX** | **Cerro Prieto** | **0.16** | **351** | *e*P | **Pb** | **12 59 57.1** | **+1.0** |
| CPBX | | | | *e*S | **Sb** | **13 00 00.8** | **+1.5** |
| CPBX | | | | IAML | | 13 00 02.1 | |
| | comp=N,15μm,0.1s | | | | | | |
| **CPBX** | **Cerro Prieto** | **0.16** | **351** | *e*P | **Pb** | **12 59 57.1** | **+1.0** |
| CPBX | | | | *e*S | **Sb** | **12 59 60.0** | **+0.7** |
| **MBIG** | **Mexicali** | **0.16** | **23** | *e*P | **Pb** | **12 59 57.3** | **+1.2** |
| MBIG | | | | *e*S | **Sb** | **12 59 59.5** | **+0.2** |
| **MBIG** | **Mexicali** | **0.16** | **23** | *e*P | **Pb** | **12 59 57.2** | **+1.1** |
| **EMSC** | **East Mesa** | **0.54** | **27** | *e*P | **Pn** | **13 00 04.1** | **-0.4** |
| **YMD** | **Yuma Desert** | **0.68** | **64** | *e*P | **Pn** | **13 00 05.8** | **-0.7** |
| **RMX** | **La Rumorosa** | **0.76** | **297** | *e*P | **Pb** | **13 00 06.8** | **+0.4** |
| RMX | | | | *e*S | **Sb** | **13 00 17.4** | **+0.8** |
| RMX | | | | IAML | | 13 00 18.8 | |
| | comp=E,340nm,0.2s | | | | | | |
| RMX | | | | ⇓*e* | | 13 00 18.8 | |
| **ECBX** | **El Chinero** | **0.81** | **166** | *e*P | **Pg** | **13 00 07.0** | **-0.1** |
| ECBX | | | | *i* S | **Sg** | **13 00 17.6** | **-0.1** |
| **IKP** | **In-Ko-Pah, Jac** | **0.81** | **299** | P | **Pn** | **13 00 08.0** | **-0.2** |
| | baz=123,SNR=38 | | | | | | |
| IKP | | | | S | **Sn** | **13 00 19.1** | **-0.9** |
| | baz=123 | | | | | | |
| **IKP** | **In-Ko-Pah, Jac** | **0.81** | **299** | *e*P | **Pn** | **13 00 08.1** | **-0.2** |
| **SWSC** | **Sam W. Stewart** | **0.82** | **327** | P | **Pn** | **13 00 08.2** | **-0.1** |
| | baz=149,SNR=17 | | | | | | |
| SWSC | | | | S | **Sn** | **13 00 20.2** | **+0.1** |
| | baz=149 | | | | | | |
| **GLA** | **Glamis** | **0.88** | **25** | P | **Pn** | **13 00 08.8** | **-0.4** |
| | baz=203,SNR=21 | | | | | | |
| GLA | | | | S | **Sn** | **13 00 21.5** | **-0.2** |
| | baz=203 | | | | | | |
| **MONP2** | **Monument Peak** | **1.16** | **303** | P | **Pn** | **13 00 13.2** | **0.0** |
| | baz=126,SNR=52 | | | | | | |
| MONP2 | | | | S | **Sg** | **13 00 29.0** | **-0.1** |
| | baz=126 | | | | | | |
| **CBX** | **Cerro Bola** | **1.18** | **273** | *e*P | **Pg** | **13 00 14.3** | **+0.1** |
| CBX | | | | *i* S | **Sg** | **13 00 30.5** | **+0.9** |
| **CBX** | **Cerro Bola** | **1.18** | **273** | *e*P | **Pg** | **13 00 14.2** | **0.0** |
| **CBX** | **Cerro Bola** | **1.18** | **273** | *e*P | **Pg** | **13 00 14.3** | **+0.1** |
| CBX | | | | *i* S | **Sg** | **13 00 30.5** | **+0.9** |
| **TJIG** | **Tijuana** | **1.20** | **279** | *e*P | **Pg** | **13 00 14.2** | **-0.3** |
| TJIG | | | | *e*S | **Sg** | **13 00 29.9** | **-0.3** |
| **TJIG** | **Tijuana** | **1.20** | **279**⇑ | *e*P | **Pg** | **13 00 14.3** | **-0.3** |
| **SPIG** | **San Pedro Mart** | **1.22** | **188** | *e*P | **Pn** | **13 00 14.1** | **0.0** |
| SPIG | | | | *e*S | **Sb** | **13 00 29.8** | **-0.2** |
| **SPIG** | **San Pedro Mart** | **1.22** | **188** | *e*P | **Pn** | **13 00 14.1** | **0.0** |
| SPIG | | | | *e*S | **Sb** | **13 00 29.8** | **-0.2** |
| **SPX** | **San Pedro Mart** | **1.22** | **188** | *e*P | **Pn** | **13 00 14.2** | **0.0** |
| **SPX** | **San Pedro Mart** | **1.22** | **188** | *e*P | **Pn** | **13 00 14.1** | **0.0** |
| SPX | | | | *e*S | **Sg** | **13 00 31.3** | **+0.3** |
| **BAR** | **Barrett** | **1.25** | **290** | *e*P | **Pg** | **13 00 15.4** | **-0.3** |
| **ECNX** | **Esteban Cantu** | **1.27** | **242** | *i* P | **Pb** | **13 00 15.3** | **+0.2** |
| **PBX** | **Punta Banda** | **1.34** | **248** | *e*P | **Pb** | **13 00 16.2** | **0.0** |
| **BC3** | **Big Chuckawall** | **1.40** | **354** | P | **Pb** | **13 00 16.7** | **-0.6** |
| | baz=174,SNR=28 | | | | | | |
| **109C** | **Camp Elliot, M** | **1.67** | **293** | Pb | **Pb** | **13 00 21.9** | **+0.1** |
| | baz=114,SNR=6.6 | | | | | | |
| 109C | | | | Sb | **Sg** | **13 00 44.5** | **-0.7** |
| | baz=114 | | | | | | |
| **PFO** | **Pinyon Flats O** | **1.68** | **324** | P | **Pn** | **13 00 20.6** | **+0.3** |
| | baz=144 | | | | | | |
| PFO | | | | Sb | **Sg** | **13 00 45.5** | **-0.1** |
| | baz=144 | | | | | | |
| **PFO** | **Pinyon Flats O** | **1.68** | **324** | *e*Pn | **Pn** | **13 00 20.3** | **0.0** |
| PFO | | | | *e*Sn | **Sg** | **13 00 45.9** | **+0.4** |
| **IRM** | **Iron Mountain** | **1.90** | **3** | Pb | **Pb** | **13 00 25.6** | **-0.1** |
| | baz=183,SNR=23 | | | | | | |
| **MURC** | **Murrieta** | **2.10** | **310** | Pb | **Pb** | **13 00 29.5** | **+0.3** |
| | baz=130,SNR=8.8 | | | | | | |
| MURC | | | | Sb | **Sg** | **13 00 58.7** | **-0.3** |
| | baz=130 | | | | | | |
| **214A** | **Organ Pipe Nat** | **2.11** | **98** | P | **Pn** | **13 00 25.6** | **-0.6** |
| | baz=277,SNR=5.5 | | | | | | |
| **214A** | **Organ Pipe Nat** | **2.11** | **98** | *e*Pn | **Pn** | **13 00 25.7** | **-0.5** |
| 214A | | | | *e*Sn | **Sb** | **13 00 56.6** | **+1.3** |
| **BBRC** | **Big Bear Solar** | **2.43** | **326** | Pb | **Pg** | **13 00 36.3** | **-1.8** |
| | baz=146 | | | | | | |
| BBRC | | | | Sb | **Sg** | **13 01 09.6** | **0.0** |
| | baz=146 | | | | | | |

*ISK **30** 13:06:40.5,41.05N×36.13E,h5km,MD2.6*
*ISCJB **30** 13:06:41.9±0.5,41.03N±0.03×36.07E±0.05,h0km, Error ellipse: s-maj=5.8km s-min=3.6km az=149.2*
*CSEM **30** 13:06:41.6±0.2,41.02N×36.04E,h1km,MD2.6, Error ellipse: s-maj=7.2km s-min=4.8km az=61.0, Suspected Mining explosion.*
*DDA **30** 13:06:41.5,41.01N×36.06E,h7km,Ml2.7, Suspected Mining explosion.*

**ISC 30 13:06:41.0±0.9,41.06N±0.04×36.14E±0.04,h0km,n18, σ0s54/29,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KVT** | **Kavak** | **0.07** | **289** | *e*PG | **Pg** | **13 06 42.1** | **-0.2** |
| KVT | | | | *e*SG | **Sg** | **13 06 43.5** | **+0.2** |
| **KVT** | **Kavak** | **0.07** | **289** | *e*Pg | **Pg** | **13 06 42.1** | **-0.2** |
| KVT | | | | *e*Sg | **Sg** | **13 06 43.5** | **+0.2** |
| **SAMS** | **Samsun-Alacam** | **0.30** | **7** | *i* P | **Pb** | **13 06 48.8** | **-0.5** |
| SAMS | | | | *i* S | **Sb** | **13 06 54.8** | **-0.1** |
| **SAMS** | **Samsun-Alacam** | **0.30** | **7** | P | **Pb** | **13 06 48.8** | **-0.5** |
| SAMS | | | | S | **Sb** | **13 06 54.8** | **-0.1** |
| **HAVZ** | **Havza** | **0.32** | **273** | *i* P | **Pg** | **13 06 46.6** | **-0.5** |
| HAVZ | | | | *i* S | **Sg** | **13 06 51.8** | **+0.7** |
| **HAVZ** | **Havza** | **0.32** | **273** | P | **Pg** | **13 06 46.6** | **-0.5** |
| HAVZ | | | | S | **Sg** | **13 06 51.8** | **+0.7** |
| **ERBA** | **Erbaa** | **0.60** | **128** | *i* P | **Pg** | **13 06 53.7** | **-0.7** |
| ERBA | | | | *i* S | **Sb** | **13 07 03.6** | **+0.1** |
| **ERBA** | **Erbaa** | **0.60** | **128** | P | **Pb** | **13 06 53.7** | **-0.7** |
| ERBA | | | | S | **Sb** | **13 07 03.6** | **+0.1** |
| **DIKM** | **Dikmen** | **0.89** | **312** | *e*PG | **Pg** | **13 06 58.4** | **+0.4** |
| DIKM | | | | *e*SG | **Sb** | **13 07 12.2** | **+0.5** |
| **DIKM** | **Dikmen** | **0.89** | **312** | *e*Pg | **Pg** | **13 06 58.4** | **+0.4** |
| **SNOP** | **Sinop** | **1.19** | **324** | *e*PN | **Pb** | **13 07 04.1** | **-0.3** |
| **SNOP** | **Sinop** | **1.19** | **324** | *e*Pn | **Pb** | **13 07 04.1** | **-0.3** |
| **SVSK** | **Karacayir** | **1.32** | **150** | *e*PN | **Pn** | **13 07 07.1** | **+0.5** |
| **SVSK** | **Karacayir** | **1.32** | **150** | *e*Pn | **Pn** | **13 07 07.1** | **+0.5** |
| **YOZ** | **Yozgat** | **1.55** | **204** | *e*PN | **Pn** | **13 07 09.8** | **-0.2** |
| **YOZ** | **Yozgat** | **1.55** | **204** | *e*Pn | **Pn** | **13 07 09.8** | **-0.2** |
| **CUSAR** | **Sarkisla-SIVAS** | **1.64** | **177** | *i* P | **Pn** | **13 07 10.7** | **-0.5** |
| CUSAR | | | | *i* S | **Sg** | **13 07 34.8** | **+1.1** |
| **CUSAR** | **Sarkisla-SIVAS** | **1.64** | **177** | P | **Pn** | **13 07 10.7** | **-0.5** |
| CUSAR | | | | S | **Sg** | **13 07 34.8** | **+1.1** |

*ISK **30** 13:07:05.6,38.77N×43.22E,h18km,ML2.4*
*DDA **30** 13:07:06.6,38.78N×43.23E,h7km,Ml3.1*
*CSEM **30** 13:07:06.6±0.2,38.79N×43.25E,h15km,ML2.4, Error ellipse: s-maj=5.1km s-min=4.0km az=89.0*
*ISCJB **30** 13:07:07.0±0.4,38.80N±0.02×43.23E±0.04,h13km±4km, Error ellipse: s-maj=5.4km s-min=3.7km az=3.6*

**ISC 30 13:07:07.1±0.9,38.78N±0.02×43.24E±0.02,h16km±7km, n27,σ0s96/47,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.22** | **146** | *e*PG | **Pb** | **13 07 12.5** | **-0.2** |
| VANB | | | | *e*SG | **Sg** | **13 07 17.3** | **+1.6** |
| **VANB** | **Van** | **0.22** | **146** | *e*Pg | **Pb** | **13 07 12.5** | **-0.2** |
| VANB | | | | *e*Sg | **Sg** | **13 07 17.3** | **+1.6** |
| **ERCV** | **ERCIS-VAN** | **0.26** | **18** | *e*PG | **Pg** | **13 07 12.3** | **-0.6** |
| **ERCV** | **ERCIS-VAN** | **0.26** | **18** | *e*Pg | **Pg** | **13 07 12.3** | **-0.6** |
| **TVAN** | **Van** | **0.28** | **152** | *i* P | **Pg** | **13 07 12.5** | **-0.8** |
| TVAN | | | | *i* S | **Sg** | **13 07 17.7

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| LMEL | | | | | IAML | | | 13 08 55.7 | |
| | comp=E,103nm,0.1s | | | | | | | | |
| **AAGR** | **Agrelo** | **2.31** | **117** | *eP* | | **Pb** | | **13 08 33.0** | **-2.0** |
| **ACCO** | **Cerro Coronel** | **2.39** | **53** | *eP* | | **Pb** | | **13 08 33.0** | **-3.5** |
| ACCO | | | | *eS* | | **Sb** | | **13 09 08.3** | **+2.7** |
| **AROD** | **Rodeo** | **2.43** | **40** | *eP* | | **Pn** | | **13 08 32.7** | **+0.6** |
| AROD | | | | *eS* | | **Sb** | | **13 09 08.1** | **+1.1** |
| **RTLL** | **Cerro Villicun** | **2.49** | **74** | *eP* | | **Pb** | | **13 08 36.9** | **-1.2** |
| RTLL | | | | | IAML | | | 13 09 19.7 | |
| | comp=Z,25nm,0.5s | | | | | | | | |
| **AMOG** | **MOGNA** | **2.62** | **66** | *eP* | | **Pn** | | **13 08 36.0** | **+1.5** |
| AMOG | | | | *eS* | | **Sb** | | **13 09 15.8** | **+3.7** |
| **VCA** | **Vinchina** | **4.24** | **39** | *eP* | | Pn | | 13 09 00.1 | +3.3 |

*IDC **30** 13:17:54.8±0.5, 12°.69N×143°.74E, h0km, mb4.0/19, mb1 4.2/19, mb1mx4.1/46, mbtmp4.0/19, MS3.7/12, Ms1 3.7/12, ms1mx3.5/42, Error ellipse: s-maj=16.8km s-min=11.8km az=88.0*
*NEIC **30** 13:17:56.4±0.3, 12°.58N×143°.82E, h10km, mb4.8/14, Error ellipse: s-maj=10.5km s-min=6.7km az=96.0*
*ISCJB **30** 13:17:57.3±0.3, 12°.53N±0°.04×143°.78E±0°.05, h27km, mb4.3/43, MS3.8/15, Error ellipse: s-maj=7.8km s-min=5.8km az=17.0*
**ISC 30 13:17:59.0±0.5, 12°.59N±0°.07×143°.86E±0°.07, h27km, n72, σ1§50/64, mb4.5/43, MS3.8/15, 1C, South of Mariana Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GUMO** | **Guam** | **1.40** | **44** | Pn | **Pn** | **13 18 22.6** | **-0.1** |
| | 308nm,0.3s,baz=208,slow=4.5,SNR=102 | | | | | | |
| GUMO | | | | Sn | **Sn** | **13 18 41.9** | **+1.5** |
| | 322nm,0.3s,baz=21,slow=23,SNR=27 | | | | | | |
| **GUMO** | **Guam** | **1.40** | **44** | *e*Pn | **Pn** | **13 18 22.5** | **-0.2** |
| GUMO | | | | *e*Sn | **Sn** | **13 18 41.2** | **+0.9** |
| **ANA2** | **Anatahan** | **4.14** | **25** | *e*Pn | Pn | 13 18 57.1 | -3.4 |
| **DAV** | **Davao City (W)** | **18.83** | **255** | LR | LR | 13 28 58.9 | |
| | comp=Z,250nm,20.1s,baz=52,slow=35 | | | | | | |
| **JOW** | **Kunigami** | **20.37** | **316** | *eP* | **P** | **13 22 34.2** | **+0.5** |
| | 428nm,2.0s | | | | | | |
| **JHJ2** | **Mitsune** | **20.76** | **350** | *eP* | **P** | **13 22 39.7** | **+1.9** |
| | 510nm,1.4s | | | | | | |
| **PMG** | **Port Moresby** | **22.09** | **171** | LR | LR | 13 31 12.7 | |
| | comp=Z,115nm,20.1s,baz=356,slow=36 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **22.75** | **72** | T | T | 13 46 50.4 | |
| | baz=258,slow=75,SNR=47 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **22.76** | **72** | T | T | 13 46 45.8 | |
| | baz=258,slow=75,SNR=33 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **22.77** | **72** | T | T | 13 46 47.4 | |
| | baz=258,slow=75,SNR=30 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **23.21** | **69** | T | T | 13 47 17.8 | |
| | baz=255,slow=75,SNR=44 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **23.22** | **69** | T | T | 13 47 22.9 | |
| | baz=255,slow=75,SNR=93 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **23.23** | **69** | T | T | 13 47 16.4 | |
| | baz=255,slow=75,SNR=43 | | | | | | |
| **JNU** | **Nakatsue** | **23.64** | **332** | P | **P** | **13 23 07.4** | **-0.8** |
| | 10nm,0.8s,baz=77,slow=1.4,SNR=6.8 | | | | | | |
| **JNU** | **Nakatsue** | **23.64** | **332** | *eP* | **P** | **13 23 07.6** | **-0.6** |
| | 23nm,1.0s | | | | | | |
| **SAUI** | **Saumlaki** | **23.95** | **212** | *eP* | **P** | **13 23 11.1** | **-0.1** |
| | 112nm,1.0s | | | | | | |
| **YULB** | **Yu-li** | **23.97** | **300** | *eP* | **P** | **13 23 10.9** | **-0.5** |
| | 88nm,1.7s | | | | | | |
| **MJAR** | **Matsushiro Arr** | **24.39** | **349** | P | **P** | **13 23 13.8** | **-1.4** |
| | 5.5nm,1.1s,baz=173,slow=11,SNR=4.1 | | | | | | |
| MJAR | | | | LR | LR | 13 32 24.3 | |
| | comp=Z,174nm,19.6s,baz=145,slow=36 | | | | | | |
| **MAJO** | **Matsushiro** | **24.39** | **349** | *eP* | **P** | **13 23 16.7** | **+1.5** |
| | 13nm,0.9s | | | | | | |
| **MJB9** | **Matsu-Tunnel** | **24.39** | **349** | *eP* | **P** | **13 23 16.4** | **+1.2** |
| | 14nm,1.0s | | | | | | |
| **LUWI** | **Luwuk** | **24.93** | **239** | *eP* | **P** | **13 23 17.6** | **-2.7** |
| | 100nm,1.0s | | | | | | |
| **KSRS** | **Korea Array** | **28.58** | **333** | P | **P** | **13 23 53.2** | **+0.4** |
| | 1.6nm,0.7s,baz=140,slow=8.9,SNR=6.4 | | | | | | |
| **KSAR** | **Wonju Array Be** | **28.58** | **333** | P | **P** | **13 23 53.2** | **+0.3** |
| **NJ2** | **Nanjing** | **30.04** | **314** | *eP* | **P** | **13 24 07.8** | **+1.9** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,12nm,0.5s | | | | | | |
| **MMRI** | **Maumere** | **30.11** | **227** | *eP* | **P** | **13 24 05.3** | **-1.3** |
| | comp=Z,26nm,0.9s | | | | | | |
| **QIZ** | **Qiongzhong** | **33.31** | **285** | P | **P** | **13 24 37.0** | **+2.1** |
| QIZ | | | | S | **S** | **13 29 55.8** | **+1.7** |
| QIZ | | | | sS | sS | 13 30 17.3 | +10 |
| QIZ | | | | pmax | pmax | | |
| | comp=Z,26nm,1.5s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=E,440nm,4.4s | | | | | | |
| QIZ | | | | LR | LR | | |
| | comp=Z,390nm,3.9s | | | | | | |
| **WRAB** | **Tennant Creek** | **33.65** | **196** | *eP* | **P** | **13 24 36.6** | **-1.1** |
| | comp=Z,7.1nm,0.9s | | | | | | |
| **WB2** | **Warramunga Arr** | **33.66** | **196** | *eP* | **P** | **13 24 36.8** | **-1.0** |
| | comp=Z,40nm,1.9s | | | | | | |
| **WRA** | **Warramunga Arr** | **33.66** | **196** | P | **P** | **13 24 37.4** | **-0.4** |
| | comp=Z,3.9nm,0.6s,baz=20,slow=9.7,SNR=41 | | | | | | |
| WRA | | | | LR | LR | 13 38 53.0 | |
| | comp=Z,160nm,19.8s,baz=350,slow=37 | | | | | | |
| **BJI** | **Beijing** | **36.64** | **323** | P | **P** | **13 25 00.5** | **-2.7** |
| BJI | | | | pmax | pmax | | |
| | comp=Z,11nm,1.1s | | | | | | |
| BJI | | | | pmax | pmax | | |
| | comp=Z,120nm,5.3s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=N,300nm,21.3s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=E,220nm,22.1s | | | | | | |
| BJI | | | | LR | LR | | |
| | comp=Z,200nm,35.0s | | | | | | |
| **AS01** | **Alice Springs** | **37.31** | **195** | *eP* | **P** | **13 25 08.7** | **-0.5** |
| **AS31** | **Alice Springs** | **37.32** | **195** | *eP* | **P** | **13 25 08.1** | **-1.2** |
| | comp=Z,1.0nm,0.6s | | | | | | |
| **ASAR** | **Alice Springs** | **37.33** | **195** | P | **P** | **13 25 09.4** | **+0.1** |
| | comp=Z,0.8nm,0.6s,baz=19,slow=11,SNR=31 | | | | | | |
| ASAR | | | | LR | LR | 13 40 21.5 | |
| | comp=Z,185nm,20.2s,baz=24,slow=36 | | | | | | |
| **KLR** | **Kul'dur** | **37.88** | **347** | P | **P** | **13 25 14.0** | **+0.3** |
| | comp=Z,0.1nm,0.7s,baz=152,slow=18,SNR=3.3 | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **39.91** | **321** | *eP* | **P** | **13 25 33.0** | **+2.1** |
| HHC | | | | S | **S** | **13 31 37.8** | **+3.4** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.0s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,75nm,5.5s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=N,200nm,14.8s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=E,220nm,13.6s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,210nm,14.8s | | | | | | |
| **DZM** | **Mont Dzumac** | **40.95** | **147** | P | **P** | **13 25 41.8** | **+2.1** |
| | comp=Z,5.1nm,1.1s,baz=323,slow=18,SNR=2.9 | | | | | | |
| **CD2** | **Chengdu** | **41.19** | **303** | *eP* | **P** | **13 25 41.0** | **-0.7** |
| CD2 | | | | pP | pP | 13 25 47.5 | -2.3 |
| CD2 | | | | sP | sP | 13 25 49.0 | -4.1 |
| CD2 | | | | S | **S** | **13 31 55.3** | **+1.5** |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,20nm,1.1s | | | | | | |
| **PETK** | **Petropavlovsk-** | **41.90** | **12** | LR | LR | 13 42 03.1 | |
| | comp=Z,143nm,20.3s,baz=199,slow=35 | | | | | | |
| **LZH** | **Lanzhou** | **42.90** | **310** | *eP* | **P** | **13 25 58.8** | **+3.2** |
| LZH | | | | pP | pP | 13 26 05.0 | +1.2 |
| LZH | | | | sP | sP | 13 26 09.5 | +2.4 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,18nm,1.1s | | | | | | |
| **CM01** | **Chiang Mai Arr** | **43.57** | **284** | *eP* | **P** | **13 25 59.3** | **-1.8** |
| **CMAR** | **Chiang Mai Arr** | **43.59** | **284** | P | **P** | **13 25 59.9** | **-1.4** |
| | comp=Z,1.6nm,0.8s,baz=87,slow=6.2,SNR=13 | | | | | | |
| CMAR | | | | LR | LR | 13 43 01.9 | |
| | comp=Z,73nm,19.3s,baz=98,slow=35 | | | | | | |
| **STKA** | **Stephens Creek** | **44.26** | **183** | P | **P** | **13 26 06.2** | **-0.2** |
| | comp=Z,4.3nm,1.0s,baz=9.3,slow=5.3,SNR=5.7 | | | | | | |
| **ULN** | **Ulaanbaatar** | **46.65** | **326** | *eP* | **P** | **13 26 25.6** | **+0.2** |
| | comp=Z,7.4nm,1.3s | | | | | | |
| **SONM** | **Songino Array** | **46.99** | **326** | P | **P** | **13 26 26.9** | **-1.1** |
| | comp=Z,0.9nm,0.6s,baz=137,slow=8.7,SNR=7.0 | | | | | | |
| **SONA1** | **Songino Array** | **47.00** | **326** | *eP* | **P** | **13 26 28.2** | **+0.2** |
| **GTA** | **Gaotai** | **47.12** | **313** | ⇑P | **P** | **13 26 28.8** | **-0.3** |
| GTA | | | | pP | pP | 13 26 36.3 | -1.0 |
| GTA | | | | sP | sP | 13 26 39.5 | -1.1 |
| GTA | | | | S | **S** | **13 33 20.8** | **+0.8** |
| GTA | | | | sS | sS | 13 33 33.5 | 0.0 |
| **GTA** | **Gaotai** | **47.12** | **313** | SS | SS | 13 36 42.0 | -5.3 |
| GTA | | | | pmax | pmax | | |
| | comp=Z,4.0nm,1.0s | | | | | | |
| GTA | | | | pmax | pmax | | |
| | comp=Z,130nm,5.7s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=N,140nm,17.8s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=E,140nm,16.2s | | | | | | |
| GTA | | | | LR | LR | | |
| | comp=Z,180nm,19.0s | | | | | | |
| **SEY** | **Seymchan** | **50.64** | **5** | P | **P** | **13 26 54.7** | **-0.8** |
| | comp=Z,0.9nm,0.6s,baz=155,slow=19,SNR=2.9 | | | | | | |
| **WMQ** | **Urumqi** | **57.12** | **314** | P | **P** | **13 27 45.5** | **+2.1** |
| WMQ | | | | pP | pP | 13 27 51.0 | -0.8 |
| WMQ | | | | sP | sP | 13 27 54.8 | -0.2 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,14nm,0.7s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,220nm,4.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,200nm,23.1s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,180nm,17.7s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,170nm,19.1s | | | | | | |
| **TIXI** | **Tiksi** | **59.73** | **355** | P | **P** | **13 27 59.0** | **-2.0** |
| | comp=Z,0.8nm,0.3s,baz=116,slow=12,SNR=2.2 | | | | | | |
| **RPZ** | **Rata Peaks** | **61.28** | **158** | P | **P** | **13 28 14.1** | **+2.1** |
| | comp=Z,5.6nm,0.8s,baz=323,slow=10,SNR=1.9 | | | | | | |
| **MK01** | **Makanchi Array** | **61.52** | **317** | *eP* | **P** | **13 28 14.1** | **+0.4** |
| **MK31** | **Makanchi Array** | **61.53** | **317** | *eP* | **P** | **13 28 14.3** | **+0.5** |
| **MKAR** | **Makanchi Array** | **61.53** | **317** | P | **P** | **13 28 12.3** | **-1.5** |
| | comp=Z,0.5nm,0.5s,baz=90,slow=8.3,SNR=6.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **61.53** | **317** | *eP* | **P** | **13 28 14.5** | **+0.6** |
| | comp=Z,11nm,0.8s | | | | | | |
| **MAKZ** | **Makanchi** | **61.75** | **317** | *eP* | **P** | **13 28 15.8** | **+0.6** |
| | comp=Z,3.0nm,0.8s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **61.87** | **325** | P | **P** | **13 28 13.8** | **-2.0** |
| | comp=Z,0.4nm,0.3s,baz=98,slow=8.9,SNR=3.4 | | | | | | |
| **KURK** | **Kurchatov** | **64.72** | **320** | *eP* | **P** | **13 28 35.2** | **+0.4** |
| | comp=Z,7.8nm,0.9s | | | | | | |
| **KSH** | **Kashi** | **65.07** | **308** | *eP* | **P** | **13 28 42.0** | **+4.5** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,150nm,4.9s | | | | | | |
| **KDAK** | **Kodiak Island** | **65.43** | **32** | LR | LR | 13 52 28.7 | |
| | comp=Z,61nm,20.7s,baz=298,slow=32 | | | | | | |
| **ILAR** | **Eielson Array** | **69.89** | **25** | P | **P** | **13 29 05.8** | **-1.5** |
| | comp=Z,0.4nm,0.8s,baz=248,slow=5.7,SNR=5.1 | | | | | | |
| ILAR | | | | LR | LR | 13 58 50.8 | |
| | comp=Z,68nm,19.8s,baz=286,slow=35 | | | | | | |
| **INK** | **Inuvik** | **75.66** | **22** | P | **P** | **13 29 39.5** | **-2.0** |
| | comp=Z,1.5nm,1.0s,baz=248,slow=16,SNR=3.9 | | | | | | |
| **GEYT** | **Alibeck** | **79.06** | **307** | P | **P** | **13 30 00.1** | **-1.1** |
| | comp=Z,0.5nm,0.4s,baz=69,slow=7.9,SNR=2.5 | | | | | | |
| **YKA** | **Yellowknife Ar** | **84.19** | **27** | P | **P** | **13 30 27.4** | **-0.4** |
| | comp=Z,0.3nm,0.4s,baz=286,slow=5.0,SNR=7.5 | | | | | | |
| YKA | | | | LR | LR | 14 07 19.5 | |
| | comp=Z,14nm,19.7s,baz=0.0,slow=35 | | | | | | |
| **NV01** | **Mina Array Sit** | **88.31** | **51** | *eP* | **P** | **13 30 48.9** | **+0.1** |
| **NVAR** | **Mina Array Bea** | **88.31** | **51** | P | **P** | **13 30 48.9** | **0.0** |
| | comp=Z,2.2nm,0.9s,baz=263,slow=6.8,SNR=12 | | | | | | |
| **NV11** | **Mina Array Sit** | **88.42** | **51** | *eP* | **P** | **13 30 50.1** | **+0.8** |
| | comp=Z,0.3nm,1.0s | | | | | | |
| **MFID** | **Camas Ranch** | **88.80** | **46** | *eP* | **P** | **13 30 51.8** | **+0.9** |
| | comp=Z,6.6nm,1.1s | | | | | | |
| **TPNV** | **Topopah Spring** | **90.27** | **52** | *eP* | **P** | **13 30 58.9** | **+0.9** |
| | comp=Z,3.7nm,0.8s | | | | | | |
| **PDAR** | **Pinedale Array** | **93.36** | **45** | LR | LR | 14 10 47.1 | |
| | comp=Z,53nm,18.7s,baz=346,slow=34 | | | | | | |
| **MAW** | **Mawson** | **98.13** | **202** | LR | LR | 14 12 51.9 | |
| | comp=Z,33nm,19.3s,baz=56,slow=34 | | | | | | |
| **LPAZ** | **La Paz** | **148.82** | **101** | PKPbc | **PKPbc** | **13 37 45.8** | **-0.1** |
| | comp=Z,1.5nm,0.8s,baz=249,slow=5.7,SNR=4.8 | | | | | | |

*SOME **30** 13:19:34.2, 48°.65N×77°.40E, h10km*
*NNC **30** 13:19:36.4±3.8, 48°.62N×77°.83E, h0km, mb3.3, mpv2.8, Error ellipse: s-maj=49.4km s-min=15.4km az=74.0, Suspected Mining explosion.*
*ISCJB **30** 13:19:39.9±1.3, 48°.81N±0°.04×77°.7E±0°.2, h0km, Error ellipse: s-maj=22.7km s-min=5.7km az=6.4*
**ISC 30 13:19:33.2±1.7, 48°.71N±0°.04×77°.4E±0°.2, h0km, n6, σ1§15/11, 4C, Eastern Kazakhstan**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **KURBB** | **Kurchatov Arra** | **2.05** | **20** | ⇑Pn | **Pb** | **13 20 11.2** | **-0.1** |
| | 7.8nm,0.5s | | | | | | |
| KURBB | | | | ⇑Sn | **Sg** | **13 20 39.0** | **0.0** |
| | 21nm,0.6s | | | | | | |
| **KURK** | **Kurchatov** | **2.16** | **21** | ⇑Pn | **Pg** | **13 20 14.1** | **-0.4** |
| | 4.4nm,0.4s | | | | | | |
| KURK | | | | ⇑Sn | **Sg** | **13 20 43.2** | **+0.7** |
| | 6.6nm,0.4s | | | | | | |
| **SEM** | **Semipalatinsk** | **2.51** | **46** | *eP* | **Pb** | **13 20 19.2** | **0.0** |
| | 10nm,0.3s | | | | | | |
| SEM | | | | *eS* | **Sb** | **13 20 49.6** | **-1.1** |
| | 16nm,0.4s | | | | | | |
| **KAPS** | **Kapalarasan** | **3.67** | **158** | *eP* | **Pb** | **13 20 39.5** | **+0.6** |
| | 0.8nm,0.3s | | | | | | |
| KAPS | | | | *eS* | **Sb** | **13 21 24.4** | **+0.4** |
| | 6.2nm,0.5s | | | | | | |
| **MK31** | **Makanchi Array** | **3.80** | **118** | Pn | **Pn** | **13 20 33.9** | **+0.9** |
| | 0.7nm,0.6s,baz=302,slow=11,SNR=12 | | | | | | |
| MK31 | | | | Lg | Lg | 13 21 26.1 | |
| | 2.2nm,0.5s,baz=304,slow=27,SNR=13 | | | | | | |
| **ARXS** | **Arharly** | **4.50** | **176** | *eP* | **Pb** | **13 20 53.9** | **+0.8** |
| | 2.1nm,0.7s | | | | | | |
| ARXS | | | | *eS* | **Sg** | **13 21 55.2** | **-2.6** |
| | 19nm,0.6s | | | | | | |

*KRNET **30** 13:28:40.6±0.1, 41°.17N×71°.34E, h13km, mb2.2*
*SOME **30** 13:28:41.0, 41°.12N×71°.38E, h0km*
*NNC **30** 13:28:44.2±2.6, 41°.20N×71°.70E, h0km, mb2.7, mpv2.2, Error ellipse: s-maj=27.1km s-min=15.6km az=65.0*
**ISC 30 13:28:40.6±1.4, 41°.15N±0°.04×71°.37E±0°.04, h2km±12km, n15, σ1§30/30, 12C-14D, Kyrgyzstan**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ARK** | **Arkit** | **0.79** | **34** | ⇓*iP* | **Pg** | **13 28 55.9** | **+0.1** |
| | baz=38 | | | | | | |
| ARK | | | | ⇓*iS* | **Sg** | **13 29 07.0** | **+1.0** |
| | baz=38 | | | | | | |
| **ARSB** | **Arslanbob** | **1.23** | **81** | ⇑*iP* | **Pg** | **13 29 04.5** | **+0.4** |
| | baz=82 | | | | | | |
| ARSB | | | | ⇑*iS* | **Sn** | **13 29 22.1** | **-0.2** |
| | baz=82 | | | | | | |
| **TOKL** | **Toktogul** | **1.38** | **54** | ⇑*eP* | **Pg** | **13 29 07.3** | **+0.3** |
| | baz=56 | | | | | | |
| TOKL | | | | ⇑*eS* | **Sg** | **13 29 26.8** | **+1.9** |
| | baz=56 | | | | | | |
| **IUG** | **Iuzhnay** | **1.42** | **315** | *eP* | **Pg** | **13 29 07.7** | **-0.2** |
| | 7.2nm,0.4s | | | | | | |
| IUG | | | | *eS* | **Sg** | **13 29 27.1** | **+0.9** |
| | 39nm,0.6s | | | | | | |
| **MNAS** | **Manas** | **1.58** | **32** | ⇓*iP* | **Pb** | **13 29 10.6** | **-0.2** |
| | baz=33 | | | | | | |
| MNAS | | | | ⇓*iS* | **Sg** | **13 29 32.1** | **+0.5** |
| | baz=33 | | | | | | |
| **MNAS** | **Manas** | **1.58** | **32** | ⇓P | **Pb** | **13 29 10.7** | **-0.2** |
| | 0.2nm,0.2s | | | | | | |
| MNAS | | | | ⇑S | **Sg** | **13 29 32.0** | **+0.4** |
| | 1.4nm,0.2s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **1.98** | **124** | ⇓*iP* | **Pb** | **13 29 17.2** | **-0.3** |
| | baz=124 | | | | | | |
| SFK | | | | ⇓*iS* | **Sg** | **13 29 44.0** | **-0.2** |
| | baz=124 | | | | | | |
| **SFK** | **Sufi-Kurgan** | **1.98** | **124** | ⇑Pn | **Pn** | **13 29 16.0** | **+0.6** |
| | 1.4nm,0.5s | | | | | | |
| SFK | | | | ⇓Sn | **Sb** | **13 29 42.2** | **-0.5** |
| | 4.8nm,0.3s | | | | | | |
| **AML** | **Almayashu** | **2.00** | **60** | ⇓*eP* | **Pb** | **13 29 17.6** | **-0.4** |
| | baz=61 | | | | | | |
| AML | | | | ⇓*eS* | **Sb** | **13 29 43.8** | **+0.3** |
| | baz=61 | | | | | | |
| **KK31** | **Karatay Array** | **2.06** | **342** | ⇑Pn | **Pg** | **13 29 19.5** | **-0.7** |
| | 1.0nm,0.3s,baz=152,slow=16 | | | | | | |
| KK31 | | | | ⇑Sn | **Sg** | **13 29 47.6** | **+0.8** |
| | 9.4nm,0.6s,baz=149,slow=25 | | | | | | |
| **MRKS** | **Merke** | **2.11** | **40** | *eP* | **Pg** | **13 29 20.7** | **-0.5** |
| | 4.6nm,0.2s | | | | | | |
| MRKS | | | | *eS* | **Sg** | **13 29 49.3** | **+0.8** |
| | 5.8nm,0.3s | | | | | | |
| **EKS2** | **Erkin-Say** | **2.35** | **49** | ⇓*eP* | **Pb** | **13 29 22.0** | **-1.8** |
| | baz=50 | | | | | | |
| EKS2 | | | | ⇓*iS* | **Sb** | **13 29 51.6** | **-1.7** |
| | baz=50 | | | | | | |
| **UCH** | **Uchtor** | **2.59** | **64** | ⇑*eP* | **Pb** | **13 29 25.6** | **-2.5** |
| | baz=65 | | | | | | |
| UCH | | | | ⇑*eS* | **Sb** | **13 29 57.7** | **-2.8** |
| | baz=65 | | | | | | |
| **AAK** | **Ala-Archa** | **2.77** | **56** | ⇓*iP* | **Pb** | **13 29 28.1** | **-2.8** |
| | baz=57 | | | | | | |
| AAK | | | | ⇓*iS* | **Sn** | **13 30 01.7** | **+1.4** |
| | baz=57 | | | | | | |
| **KZA** | **Kyzart** | **3.05** | **71** | ⇑*iP* | **Pn** | **13 29 32.0** | **+1.6** |
| | baz=72 | | | | | | |
| KZA | | | | ⇑*iS* | **Sn** | **13 30 09.0** | **+1.3** |
| | baz=72 | | | | | | |

*NEIC **30** 13:31:49.5±0.0, 38°.21S×176°.17E, h159km, MG4.4(WEL), After WEL.*
**WEL 30 13:31:49.6±0.2, 38°.25S×176°.16E, h159km±2km, ML4.4/55, 54C-8D, Error ellipse: s-maj=1.0km s-min=0.9km az=90.0, North Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **HSRZ** | **Hossack Road** | **0.09** | **132** | PN | Pn | 13 32 11.0 | +0.2 |
| **GRRZ** | **Galatos Road** | **0.11** | **202** | PN | Pn | 13 32 11.0 | +0.2 |
| GRRZ | | | | *e*SN | Sn | 13 32 27.2 | 0.0 |
| **HRRZ** | **Handcock Road** | **0.17** | **145** | Pn | Pn | 13 32 11.1 | +0.2 |
| **HRRZ** | **Handcock Road** | **0.17** | **145** | ⇑PN | Pn | 13 32 11.1 | +0.2 |
| **OMRZ** | **Omania** | **0.22** | **49** | Pn | Pn | 13 32 10.7 | -0.4 |
| **OMRZ** | **Omania** | **0.22** | **49** | PN | Pn | 13 32 10.7 | -0.4 |
| **WPRZ** | **Whakapapatarin** | **0.27** | **180** | Pn | Pn | 13 32 11.3 | +0.2 |
| **WPRZ** | **Whakapapatarin** | **0.27** | **180** | ⇑PN | Pn | 13 32 11.3 | +0.2 |
| **RRRZ** | **Republican Roa** | **0.29** | **108** | Pn | Pn | 13 32 10.9 | -0.3 |
| RRRZ | | | | | Sn | 13 32 27.6 | 0.0 |
| **RRRZ** | **Republican Roa** | **0.29** | **108** | PN | Pn | 13 32 10.9 | -0.3 |
| RRRZ | | | | | SN | 13 32 27.6 | 0.0 |
| **PRRZ** | **Plateau Road** | **0.31** | **144** | Pn | Pn | 13 32 11.0 | -0.1 |
| PRRZ | | | | | Sn | 13 32 27.5 | -0.3 |
| **PRRZ** | **Plateau Road** | **0.31** | **144** | PN | Pn | 13 32 11.0 | -0.2 |
| PRRZ | | | | | SN | 13 32 27.5 | -0.3 |
| **ALRZ** | **Allen Road** | **0.34** | **155** | Pn | Pn | 13 32 11.3 | 0.0 |
| **ALRZ** | **Allen Road** | **0.34** | **155** | ⇓PN | Pn | 13 32 11.3 | 0.0 |
| **KUTZ** | **Kaahu Road** | **0.36** | **228** | Pn | Pn | 13 32 11.5 | +0.2 |
| **KUTZ** | **Kaahu Road** | **0.36** | **228** | PN | Pn | 13 32 11.5 | +0.2 |
| **KMRZ** | **Kaimai** | **0.44** | **337** | PN | Pn | 13 32 11.9 | +0.2 |
| **TLZ** | **Tolley Road** | **0.50** | **261** | Pn | Pn | 13 32 12.0 | +0.1 |
| **TLZ** | **Tolley Road** | **0.50** | **261** | PN | Pn | 13 32 12.0 | +0.1 |
| **OPRZ** | **Ohinepanea** | **0.51** | **38** | Pn | Pn | 13 32 11.5 | -0.5 |
| **OPRZ** | **Ohinepanea** | **0.51** | **38** | PN | Pn | 13 32 11.5 | -0.5 |
| **TGRZ** | **Tauranga** | **0.53** | **9** | Pn | Pn | 13 32 12.1 | 0.0 |
| **TGRZ** | **Tauranga** | **0.53** | **9** | ⇓PN | Pn | 13 32 12.1 | 0.0 |
| **MUGZ** | **Murupara** | **0.53** | **115** | ⇑PN | Pn | 13 32 11.8 | -0.3 |
| **WATZ** | **Wairara** | **0.57** | **216** | Pn | Pn | 13 32 12.4 | +0.1 |
| **WATZ** | **Wairara** | **0.57** | **216** | ⇑PN | Pn | 13 32 12.4 | +0.1 |
| **MRHZ** | **Matea Rd** | **0.61** | **161** | ⇑PN | Pn | 13 32 12.4 | -0.1 |
| MRHZ | | | | | AML | 13 32 30.7 | |
| MRHZ | | | | | AML | 13 32 30.8 | |
| **HATZ** | **Hinemaiaia** | **0.64** | **185** | Pn | Pn | 13 32 12.5 | -0.2 |
| **HATZ** | **Hinemaiaia** | **0.64** | **185** | PN | Pn | 13 32 12.5 | -0.2 |
| **RATZ** | **Rangitukua** | **0.69** | **206** | Pn | Pn | 13 32 12.9 | -0.1 |
| **RATZ** | **Rangitukua** | **0.69** | **206** | ⇑PN | Pn | 13 32 12.9 | -0.1 |
| **TOZ** | **Tahuroa Road** | **0.73** | **315** | Pn | Pn | 13 32 13.4 | +0.2 |
| **TOZ** | **Tahuroa Road** | **0.73** | **315** | ⇑PN | Pn | 13 32 13.4 | +0.2 |
| **RTZ** | **Ruatahuna** | **0.74** | **120** | PN | Pn | 13 32 13.2 | -0.1 |
| **RITZ** | **Rihia Road** | **0.76** | **198** | Pn | Pn | 13 32 13.7 | +0.3 |
| **RITZ** | **Rihia Road** | **0.76** | **198** | PN | Pn | 13 32 13.7 | +0.3 |
| **MTHZ** | **Maungataniwha** | **0.80** | **139** | ⇑PN | Pn | 13 32 13.8 | +0.1 |
| **KATZ** | **Kakaramea** | **0.81** | **207** | Pn | Pn | 13 32 13.8 | -0.1 |
| **KATZ** | **Kakaramea** | **0.81** | **207** | PN | Pn | 13 32 13.8 | -0.1 |
| **KRVZ** | **Karewarewa** | **0.94** | **206** | Pn | Pn | 13 32 14.6 | -0.2 |
| **KRVZ** | **Karewarewa** | **0.94** | **206** | ⇑PN | Pn | 13 32 14.6 | -0.2 |
| **BKZ** | **Black Stump Fm** | **0.95** | **164** | Pn | Pn | 13 32 14.7 | -0.2 |
| **BKZ** | **Black Stump Fm** | **0.95** | **164** | ⇑PN | Pn | 13 32 14.7 | -0.2 |
| BKZ | | | | | SN | 13 32 32.9 | -1.4 |
| BKZ | | | | | AML | 13 32 34.8 | |
| **WTVZ** | **West Tongariro** | **0.97** | **207** | Pn | Pn | 13 32 14.9 | -0.1 |
| **WTVZ** | **West Tongariro** | **0.97** | **207** | PN | Pn | 13 32 14.9 | -0.1 |
| **NMHZ** | **Naumai** | **0.98** | **149** | Pn | Pn | 13 32 15.9 | +0.8 |
| **NMHZ** | **Naumai** | **0.98** | **149** | ⇑PN | Pn | 13 32 15.9 | +0.8 |
| NMHZ | | | | | AML | 13 32 36.9 | |
| NMHZ | | | | | AML | 13 32 37.0 | |
| **OTVZ** | **Oturere** | **0.99** | **203** | Pn | Pn | 13 32 15.2 | 0.0 |
| **OTVZ** | **Oturere** | **0.99** | **203** | PN | Pn | 13 32 15.2 | 0.0 |
| **TWVZ** | **Taurewa** | **0.99** | **214** | Pn | Pn | 13 32 15.2 | -0.1 |
| **TWVZ** | **Taurewa** | **0.99** | **214** | ⇑PN | Pn | 13 32 15.1 | -0.1 |
| **RAGZ** | **Rawiri** | **1.02** | **104** | Pn | Pn | 13 32 15.6 | +0.2 |
| **RAGZ** | **Rawiri** | **1.02** | **104** | ⇓PN | Pn | 13 32 15.5 | +0.2 |
| RAGZ | | | | | AML | 13 32 36.9 | |
| RAGZ | | | | | AML | 13 32 37.2 | |
| **NGZ** | **Ngauruhoe** | **1.02** | **205** | Pn | Pn | 13 32 15.6 | +0.1 |
| **NGZ** | **Ngauruhoe** | **1.02** | **205** | PN | Pn | 13 32 15.6 | +0.1 |
| **HIZ** | **Hauiti** | **1.06** | **255** | Pn | Pn | 13 32 15.7 | 0.0 |
| **HIZ** | **Hauiti** | **1.06** | **255** | ⇑PN | Pn | 13 32 15.7 | 0.0 |
| **SNGZ** | **Shannon Statio** | **1.07** | **120** | Pn | Pn | 13 32 16.1 | +0.4 |
| **SNGZ** | **Shannon Statio** | **1.07** | **120** | ⇑PN | Pn | 13 32 16.1 | +0.4 |
| SNGZ | | | | | AML | 13 32 37.2 | |
| SNGZ | | | | | AML | 13 32 40.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| TWGZ | Tauwhareparae | 1.44 | 88 | PN | Pn | 13 32 19.3 | +0.2 | |
| TWGZ | | | | AML | AML | 13 32 45.5 | | |
| TWGZ | | | | AML | AML | 13 32 47.4 | | |
| PRGZ | Paritu Road | 1.51 | 117 | Pn | Pn | 13 32 19.8 | 0.0 | |
| PRGZ | Paritu Road | 1.51 | 117 | ⇑PN | Pn | 13 32 19.8 | 0.0 | |
| PRGZ | | | | AML | AML | 13 32 46.4 | | |
| PRGZ | | | | AML | AML | 13 32 48.9 | | |
| KUZ | Kuaotunu | 1.54 | 347 | Pn | Pn | 13 32 20.1 | -0.1 | |
| KUZ | Kuaotunu | 1.54 | 347 | ⇑PN | Pn | 13 32 20.1 | -0.1 | |
| PKGZ | Pakihiroa | 1.56 | 77 | PN | Pn | 13 32 20.3 | -0.1 | |
| PKGZ | | | | AML | AML | 13 32 43.9 | | |
| PKGZ | | | | AML | AML | 13 32 45.1 | | |
| CKHZ | Cape Kidnapper | 1.58 | 153 | Pn | Pn | 13 32 20.8 | +0.3 | |
| CKHZ | Cape Kidnapper | 1.58 | 153 | ⇑PN | Pn | 13 32 20.8 | +0.3 | |
| CKHZ | | | | AML | AML | 13 32 46.1 | | |
| CKHZ | | | | AML | AML | 13 32 46.3 | | |
| ETAZ | East Tamaki Re | 1.62 | 323 | Pn | Pn | 13 32 21.0 | -0.1 | |
| ETAZ | East Tamaki Re | 1.62 | 323 | ⇓PN | Pn | 13 32 21.0 | -0.1 | |
| CNGZ | Carnagh Statio | 1.63 | 99 | Pn | Pn | 13 32 21.5 | +0.5 | |
| CNGZ | Carnagh Statio | 1.63 | 99 | PN | Pn | 13 32 21.5 | +0.5 | |
| CNGZ | | | | AML | AML | 13 32 47.8 | | |
| CNGZ | | | | AML | AML | 13 32 48.8 | | |
| MHGZ | Mahia Peninsul | 1.64 | 124 | Pn | Pn | 13 32 21.5 | +0.3 | |
| MHGZ | Mahia Peninsul | 1.64 | 124 | ⇑PN | Pn | 13 32 21.5 | +0.3 | |
| MHGZ | | | | AML | AML | 13 32 51.2 | | |
| MHGZ | | | | AML | AML | 13 32 54.0 | | |
| KAHZ | Kahuranaki | 1.64 | 160 | Pn | Pn | 13 32 21.4 | +0.1 | |
| KAHZ | Kahuranaki | 1.64 | 160 | ⇑PN | Pn | 13 32 21.4 | +0.1 | |
| KAHZ | | | | AML | AML | 13 32 22.9 | | |
| KAHZ | | | | AML | AML | 13 32 23.4 | | |
| MHEZ | Mangahewa | 1.66 | 240 | ⇓PN | Pn | 13 32 22.0 | +0.7 | |
| PNHZ | Pukenui | 1.66 | 179 | Pn | Pn | 13 32 20.8 | -0.6 | |
| PNHZ | Pukenui | 1.66 | 179 | ⇑PN | Pn | 13 32 20.8 | -0.6 | |
| PNHZ | | | | AML | AML | 13 32 46.7 | | |
| PNHZ | | | | AML | AML | 13 32 49.6 | | |
| PUZ | Puketiti | 1.66 | 84 | Pn | Pn | 13 32 21.0 | -0.5 | |
| PUZ | Puketiti | 1.66 | 84 | PN | Pn | 13 32 21.0 | -0.5 | |
| PUZ | | | | AML | AML | 13 32 46.8 | | |
| PUZ | | | | AML | AML | 13 32 47.3 | | |
| AWAZ | Awhitu Peninsu | 1.69 | 314 | ⇓PN | Pn | 13 32 21.7 | -0.1 | |
| WAZ | Wanganui | 1.76 | 211 | Pn | Pn | 13 32 22.1 | -0.4 | |
| WAZ | Wanganui | 1.76 | 211 | ⇑PN | Pn | 13 32 22.1 | -0.4 | |
| TSZ | Takapari Road | 1.81 | 185 | PN | Pn | 13 32 22.4 | -0.7 | |
| TSZ | | | | AML | AML | 13 32 48.8 | | |
| TSZ | | | | AML | AML | 13 32 49.1 | | |
| WPHZ | Waipukurau | 1.82 | 173 | Pn | Pn | 13 32 22.7 | -0.5 | |
| WPHZ | Waipukurau | 1.82 | 173 | ⇑PN | Pn | 13 32 22.7 | -0.5 | |
| WPHZ | | | | AML | AML | 13 32 54.1 | | |
| WPHZ | | | | AML | AML | 13 32 57.7 | | |
| LREZ | Lake Rotokare | 1.83 | 228 | ⇑PN | Pn | 13 32 23.4 | +0.2 | |
| MXZ | Matakaoa Point | 1.83 | 69 | Pn | Pn | 13 32 23.3 | 0.0 | |
| MXZ | Matakaoa Point | 1.83 | 69 | PN | Pn | 13 32 23.3 | 0.0 | |
| MXZ | | | | AML | AML | 13 32 51.6 | | |
| MXZ | | | | AML | AML | 13 32 55.8 | | |
| WMGZ | Waiomatatini S | 1.83 | 77 | Pn | Pn | 13 32 23.1 | -0.2 | |
| WMGZ | Waiomatatini S | 1.83 | 77 | PN | Pn | 13 32 23.1 | -0.2 | |
| WMGZ | | | | AML | AML | 13 32 48.5 | | |
| WMGZ | | | | AML | AML | 13 32 49.0 | | |
| PXZ | Pawanui | 1.86 | 163 | PN | Pn | 13 32 23.2 | -0.4 | |
| PXZ | | | | AML | AML | 13 32 50.8 | | |
| PXZ | | | | AML | AML | 13 32 51.4 | | |
| PREZ | Palmer Road | 1.91 | 235 | Pn | Pn | 13 32 24.4 | +0.2 | |
| PREZ | Palmer Road | 1.91 | 235 | PN | Pn | 13 32 24.3 | +0.2 | |
| NEZ | North Egmont | 1.91 | 237 | Pn | Pn | 13 32 24.6 | +0.3 | |
| NEZ | North Egmont | 1.91 | 237 | ⇓PN | Pn | 13 32 24.6 | +0.3 | |
| PKE | Pukeiti | 1.94 | 240 | Pn | Pn | 13 32 24.4 | -0.2 | |
| PKE | Pukeiti | 1.94 | 240 | PN | Pn | 13 32 24.4 | -0.2 | |
| KHEZ | Kahui Hut | 1.97 | 238 | Pn | Pn | 13 32 25.2 | +0.2 | |
| KHEZ | Kahui Hut | 1.97 | 238 | PN | Pn | 13 32 25.2 | +0.2 | |
| DVHZ | Dannevirke | 2.04 | 180 | Pn | Pn | 13 32 24.6 | -1.1 | |
| DVHZ | Dannevirke | 2.04 | 180 | ⇑PN | Pn | 13 32 24.6 | -1.1 | |
| DVHZ | | | | AML | AML | 13 32 51.5 | | |
| DVHZ | | | | AML | AML | 13 32 53.1 | | |
| PRHZ | Porangahau | 2.05 | 170 | Pn | Pn | 13 32 25.1 | -0.6 | |
| PRHZ | Porangahau | 2.05 | 170 | ⇑PN | Pn | 13 32 25.1 | -0.6 | |
| PRHZ | | | | AML | AML | 13 32 25.9 | | |
| PRHZ | | | | AML | AML | 13 32 55.1 | | |
| OHWZ | Ohakea | 2.06 | 198 | PN | Pn | 13 32 25.4 | -0.5 | |
| POWZ | Post Office Ro | 2.16 | 188 | Pn | Pn | 13 32 25.8 | -1.2 | |
| POWZ | Post Office Ro | 2.16 | 188 | ⇑PN | Pn | 13 32 25.8 | -1.2 | |
| POWZ | | | | AML | AML | 13 32 27.5 | | |
| POWZ | | | | AML | AML | 13 32 29.7 | | |
| ANWZ | Angora Road | 2.22 | 174 | ⇑PN | Pn | 13 32 26.9 | -0.7 | |
| ANWZ | | | | AML | AML | 13 32 55.4 | | |
| ANWZ | | | | AML | AML | 13 32 57.3 | | |
| PRWZ | Pori Road | 2.31 | 184 | Pn | Pn | 13 32 27.6 | -1.1 | |
| PRWZ | Pori Road | 2.31 | 184 | ⇑PN | Pn | 13 32 27.6 | -1.1 | |
| PRWZ | | | | AML | AML | 13 32 56.7 | | |
| PRWZ | | | | AML | AML | 13 32 57.7 | | |
| BFZ | Birch Farm | 2.43 | 178 | ⇑PN | Pn | 13 32 28.8 | -1.4 | |
| BFZ | | | | AML | AML | 13 33 00.2 | | |
| BFZ | | | | AML | AML | 13 33 01.1 | | |
| MRZ | Mangatainoka R | 2.45 | 190 | ⇑PN | Pn | 13 32 28.8 | -1.6 | |
| MRZ | | | | SN | Sn | 13 32 58.2 | -3.9 | |
| MRZ | | | | AML | AML | 13 33 00.9 | | |
| TIWZ | Tintock | 2.53 | 185 | Pn | Pn | 13 32 29.9 | -1.6 | |
| TIWZ | Tintock | 2.53 | 185 | ⇑PN | Pn | 13 32 29.8 | -1.6 | |
| TIWZ | | | | AML | AML | 13 33 03.2 | | |
| TIWZ | | | | AML | AML | 13 33 03.4 | | |
| CPWZ | Castlepoint | 2.66 | 179 | ⇑PN | Pn | 13 32 31.8 | -1.1 | |
| CPWZ | | | | AML | AML | 13 32 33.1 | | |
| CPWZ | | | | AML | AML | 13 33 06.3 | | |
| OGWZ | Otaki Gorge | 2.67 | 196 | Pn | Pn | 13 32 31.4 | -1.8 | |
| OGWZ | Otaki Gorge | 2.67 | 196 | ⇑PN | Pn | 13 32 31.4 | -1.8 | |
| OGWZ | | | | AML | AML | 13 33 05.4 | | |
| OGWZ | | | | AML | AML | 13 33 07.9 | | |
| HOWZ | Holdsworth Sta | 2.69 | 190 | Pn | Pn | 13 32 31.3 | -2.1 | |
| HOWZ | Holdsworth Sta | 2.69 | 190 | ⇑PN | Pn | 13 32 31.3 | -2.1 | |
| HOWZ | | | | AML | AML | 13 33 04.8 | | |
| HOWZ | | | | AML | AML | 13 33 05.5 | | |
| KIWZ | Kapiti Island | 2.78 | 200 | Pn | Pn | 13 32 32.2 | -2.3 | |
| KIWZ | Kapiti Island | 2.78 | 200 | PN | Pn | 13 32 32.2 | -2.3 | |
| KIWZ | | | | AML | AML | 13 33 07.4 | | |
| KIWZ | | | | AML | AML | 13 33 09.7 | | |
| TMWZ | Te Maipa | 2.86 | 184 | Pn | Pn | 13 32 33.4 | -2.1 | |
| TMWZ | Te Maipa | 2.86 | 184 | ⇑PN | Pn | 13 32 33.3 | -2.1 | |
| TMWZ | | | | AML | AML | 13 33 08.2 | | |
| TMWZ | | | | AML | AML | 13 33 09.7 | | |
| MTWZ | Mount Morrison | 2.95 | 190 | Pn | Pn | 13 32 34.1 | -2.5 | |
| MTWZ | Mount Morrison | 2.95 | 190 | ⇑PN | Pn | 13 32 34.1 | -2.5 | |
| MTWZ | | | | AML | AML | 13 33 04.9 | | |
| MTWZ | | | | AML | AML | 13 33 09.8 | | |
| CAWZ | Cannon Point | 2.97 | 196 | Pn | Pn | 13 32 34.5 | -2.4 | |
| CAWZ | Cannon Point | 2.97 | 196 | ⇑PN | Pn | 13 32 34.5 | -2.4 | |
| CAWZ | | | | AML | AML | 13 32 35.3 | | |
| CAWZ | | | | AML | AML | 13 33 11.0 | | |
| DUWZ | D'Urville Isla | 3.08 | 214 | Pn | Pn | 13 32 35.6 | -2.6 | |
| DUWZ | D'Urville Isla | 3.08 | 214 | PN | Pn | 13 32 35.6 | -2.6 | |
| TRWZ | Traveller | 3.16 | 186 | Pn | Pn | 13 32 36.7 | -2.5 | |
| TRWZ | Traveller | 3.16 | 186 | ⇑PN | Pn | 13 32 36.7 | -2.5 | |
| TRWZ | | | | AML | AML | 13 33 15.0 | | |
| TRWZ | | | | AML | AML | 13 33 15.8 | | |
| PAWZ | Paruwai Farm | 3.18 | 190 | Pn | Pn | 13 32 36.8 | -2.7 | |
| PAWZ | Paruwai Farm | 3.18 | 190 | ⇑PN | Pn | 13 32 36.8 | -2.7 | |
| PAWZ | | | | AML | AML | 13 33 14.7 | | |
| PAWZ | | | | AML | AML | 13 33 16.7 | | |
| WELZ | Wellington | 3.21 | 199 | Pn | Pn | 13 32 37.2 | -2.7 | |
| WELZ | Wellington | 3.21 | 199 | PN | Pn | 13 32 37.2 | -2.7 | |
| WELZ | | | | AML | AML | 13 33 16.9 | | |
| WELZ | | | | AML | AML | 13 33 17.0 | | |
| MSWZ | Moikau Station | 3.24 | 192 | Pn | Pn | 13 32 37.4 | -2.8 | |
| MSWZ | Moikau Station | 3.24 | 192 | ⇑PN | Pn | 13 32 37.4 | -2.8 | |
| MSWZ | | | | AML | AML | 13 32 38.3 | | |
| MSWZ | | | | AML | AML | 13 33 16.8 | | |
| TCWZ | Tory Channel | 3.29 | 206 | Pn | Pn | 13 32 38.3 | -2.6 | |
| TCWZ | Tory Channel | 3.29 | 206 | PN | Pn | 13 32 38.3 | -2.6 | |
| TCWZ | | | | AML | AML | 13 33 17.7 | | |
| TCWZ | | | | AML | AML | 13 33 17.9 | | |
| BHWZ | Baring Head | 3.31 | 197 | Pn | Pn | 13 32 38.2 | -2.9 | |
| BHWZ | Baring Head | 3.31 | 197 | PN | Pn | 13 32 38.2 | -2.9 | |
| BHWZ | | | | AML | AML | 13 33 18.2 | | |
| BHWZ | | | | AML | AML | 13 33 18.3 | | |
| PLWZ | Palliser | 3.39 | 192 | Pn | Pn | 13 32 39.1 | -3.0 | |
| PLWZ | Palliser | 3.39 | 192 | ⇑PN | Pn | 13 32 39.1 | -3.0 | |
| PLWZ | | | | AML | AML | 13 33 20.5 | | |
| PLWZ | | | | AML | AML | 13 33 20.8 | | |
| TUWZ | Tuamarina | 3.60 | 208 | Pn | Pn | 13 32 41.6 | -3.3 | |
| TUWZ | Tuamarina | 3.60 | 208 | PN | Pn | 13 32 41.6 | -3.3 | |
| TUWZ | | | | AML | AML | 13 33 24.2 | | |
| TUWZ | | | | AML | AML | 13 33 26.0 | | |
| NNZ | Nelson | 3.66 | 215 | PN | Pn | 13 32 42.3 | -3.2 | |
| QRZ | Quartz Range | 3.81 | 226 | Pn | Pn | 13 32 43.8 | -3.7 | |
| BSWZ | Blackbirch Sta | 3.88 | 206 | Pn | Pn | 13 32 45.2 | -3.2 | |
| BSWZ | Blackbirch Sta | 3.88 | 206 | PN | Pn | 13 32 45.2 | -3.2 | |
| BSWZ | | | | AML | AML | 13 33 00.3 | | |
| THZ | Tophouse | 4.31 | 214 | Pn | Pn | 13 32 50.5 | -3.5 | |
| THZ | Tophouse | 4.31 | 214 | PN | Pn | 13 32 50.5 | -3.5 | |
| KHZ | Kahutara | 4.62 | 205 | PN | Pn | 13 32 54.4 | -3.6 | |
| KHZ | | | | AML | AML | 13 33 46.9 | | |
| KHZ | | | | AML | AML | 13 33 48.1 | | |
| KHZ | | | | AML | AML | 13 33 48.1 | | |
| KHZ | | | | AML | AML | 13 33 49.3 | | |
| DSZ | Denniston Nort | 4.83 | 222 | Pn | Pn | 13 32 56.2 | -4.7 | |
| CRLZ | Canterbury Las | 5.95 | 206 | ePN | Pn | 13 33 10.7 | -5.0 | |
| OXZ | Oxford | 5.96 | 210 | ePN | Pn | 13 33 09.7 | -5.9 | |
| MQZ | McQueen's Vall | 6.06 | 205 | PN | Pn | 13 33 11.5 | -5.5 | |
| ARMA | Armidale | 21.67 | 284 | P | P | 13 36 28.7 | +0.9 | |
| | 4.2nm,0.9s | | | | | | | |
| EIDS | Eidsvold | 24.79 | 294 | eP | P | 13 36 57.4 | +0.5 | |
| | 3.1nm,0.8s | | | | | | | |

**IDC 30 13:43:08.0±5.5, 9.76S×110.99E, h0km, mb3.2/3, mb1 3.3/3, mb1mx3.1/36, mbtmp3.2/3, Error ellipse: s-maj=205.1km s-min=30.8km az=56.0, South of Jawa**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 24.70 | 117 | P | P | 13 48 30.8 | -0.4 |
| | 0.4nm,1.0s,baz=287,slow=11,SNR=4.4 | | | | | | |
| ASAR | Alice Springs | 25.88 | 125 | P | P | 13 48 42.2 | +0.3 |
| | 0.2nm,0.6s,baz=304,slow=8.2,SNR=5.4 | | | | | | |
| SONM | Songino Array | 57.49 | 356 | P | P | 13 52 59.0 | 0.0 |
| | 0.6nm,1.0s,baz=163,slow=5.6,SNR=4.3 | | | | | | |

*ISCJB **30** 14:44:35.8±1.5, 27.83S±0.06×69.17W±0.07, h120km±14km, Error ellipse: s-maj=11.9km s-min=8.2km az=44.3*
*GUC **30** 14:44:35.4±0.4, 27.74S×69.21W, h132km±4km, ML3.1*
*SJA **30** 14:44:37.3±0.4, 27.90S×68.95W, h121km±58km, ML3.0, MW3.0*

**ISC 30 14:44:34.7±2.7, 27.73S±0.10×69.15W±0.06, h128km±22km, n12, σ1°53/21, 2C-1D, Northern Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| GO03 | Copiap | 0.97 | 278 | ⇑iP | Pn | 14 44 57.8 | +0.5 |
| GO03 | | | | i S | Sn | 14 45 13.8 | -0.5 |
| GO03 | | | | IAML | | 14 45 15.3 | |
| | comp=E,417nm,0.1s | | | | | | |
| CPCH | Copiapo | 1.13 | 289 | eP | Pn | 14 44 59.2 | +0.4 |
| CPCH | | | | i S | Sn | 14 45 16.3 | -0.7 |
| VCA | Vinchina | 1.30 | 141 | eP | Pn | 14 45 01.9 | +1.2 |
| VCA | | | | i S | Sn | 14 45 21.1 | +0.6 |
| LCO | Las Campanas | 1.87 | 227 | ⇓iP | Pn | 14 45 07.8 | +0.5 |
| LCO | | | | i S | Sn | 14 45 31.6 | -0.6 |
| TLL | Tololo Astrono | 2.83 | 210 | ⇑iP | Pn | 14 45 19.7 | +0.4 |
| TLL | | | | eS | Sn | 14 45 52.6 | -1.1 |
| TLL | | | | IAML | | 14 45 56.7 | |
| | comp=E,47nm,0.5s | | | | | | |
| CYA | Choya | 3.04 | 104 | eS | Sn | 14 45 56.0 | -2.2 |
| AMOG | MOGNA | 3.25 | 170 | eS | Sn | 14 46 01.3 | -1.9 |
| RTLL | Cerro Villicun | 3.64 | 171 | eP | Pn | 14 45 30.6 | +0.9 |
| RTLL | | | | eS | Sn | 14 46 10.0 | -2.2 |
| RTLL | | | | IAML | | 14 46 12.6 | |
| | comp=Z,37nm,0.4s | | | | | | |
| RTLL | Cerro Villicun | 3.64 | 171 | eP | Pn | 14 45 30.6 | +0.9 |
| RTLL | | | | i S | Sn | 14 46 10.3 | -1.9 |
| RTLS | Leoncito | 4.06 | 182 | eP | Pn | 14 45 38.6 | +3.1 |
| RTLS | | | | eS | Sn | 14 46 21.7 | -0.9 |
| RTLS | | | | IAML | | 14 46 25.0 | |
| | comp=Z,16nm,0.4s | | | | | | |
| RTCV | Cerro Valdivia | 4.16 | 173 | eP | Pn | 14 45 37.6 | +1.1 |
| RTCV | | | | eS | Sn | 14 46 22.6 | -1.9 |
| AUSP | Uspallata | 4.49 | 183 | eS | Sn | 14 46 32.5 | -0.3 |

*TEH **30** 14:48:01.1, 32.97N×60.21E, h8km, ML3.6*
*CSEM **30** 14:48:03.9±0.3, 33.03N×60.13E, h2km, ML3.6, Error ellipse: s-maj=9.9km s-min=4.4km az=109.0*
*ISCJB **30** 14:48:04.3±0.6, 33.05N±0.03×60.06E±0.06, h13km, Error ellipse: s-maj=7.6km s-min=3.9km az=18.1*

**ISC 30 14:48:03.7±1.2, 33.03N±0.04×60.14E±0.07, h13km, n42, σ1°78/45, Northern and central Iran**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| IDAH | Dahanechah | 0.37 | 219 | eSg | Sg | 14 48 15.7 | -0.5 |
| IDAH | | | | ePg | Pg | 14 48 09.8 | -1.4 |
| IDAH | | | | eAMB | AMB | 14 48 18.2 | |
| | comp=Z,2μm,0.1s | | | | | | |
| SHRT | Shahrakht | 0.63 | 11 | ePg | Pg | 14 48 14.8 | -1.2 |
| SHRT | | | | eSg | Sg | 14 48 23.2 | -1.2 |
| IKOO | Kooshah | 1.13 | 238 | ePg | Pb | 14 48 24.4 | -0.9 |
| IKOO | | | | eAMB | AMB | 14 48 29.1 | |
| | comp=Z,15μm,0.1s | | | | | | |
| IKOO | Kooshah | 1.13 | 238 | ePg | Pb | 14 48 24.4 | -0.9 |
| ITEG | Tejag | 1.18 | 264 | ePg | Pn | 14 48 25.8 | -0.3 |
| ITEG | | | | eAMB | AMB | 14 48 51.3 | |
| | comp=Z,15μm,0.2s | | | | | | |
| ITEG | Tejag | 1.18 | 264 | ePg | Pn | 14 48 25.8 | -0.3 |
| TABS | Tabas | 2.61 | 285 | ePn | Pn | 14 48 48.3 | +2.7 |
| TABS | | | | eSg | Sg | 14 49 27.3 | -0.2 |
| IMOG | Moghan | 3.15 | 348 | ePn | Pn | 14 48 55.3 | +2.1 |
| IMOG | | | | eAMB | AMB | 14 49 57.3 | |
| | comp=Z,2μm,0.4s | | | | | | |
| IMOG | Moghan | 3.15 | 348 | ePn | Pn | 14 48 55.3 | +2.1 |
| IMYA | Miami | 3.31 | 359 | ePn | Pn | 14 48 56.5 | +1.2 |
| IMYA | | | | eAMB | AMB | 14 49 59.9 | |
| | comp=Z,2μm,0.3s | | | | | | |
| IMYA | Miami | 3.31 | 359 | ePn | Pn | 14 48 56.5 | +1.2 |
| ISRO | Mashad | 3.32 | 351 | ePn | Pn | 14 48 56.9 | +1.5 |
| ISRO | | | | eAMB | AMB | 14 49 58.5 | |
| | comp=Z,3μm,0.6s | | | | | | |
| ISRO | Mashad | 3.32 | 351 | ePn | Pn | 14 48 56.9 | +1.5 |
| ZHSF | Zahedan | 3.45 | 171 | ePn | Pn | 14 48 59.7 | +2.5 |
| IPAY | Payeh | 3.54 | 345 | ePn | Pn | 14 49 00.5 | +1.9 |
| IPAY | | | | eAMB | AMB | 14 49 02.3 | |
| | comp=Z,2μm,0.1s | | | | | | |
| IPAY | Payeh | 3.54 | 345 | ePn | Pn | 14 49 00.5 | +1.9 |
| IAKL | Akhelmad | 3.75 | 343 | eAMB | AMB | 14 49 05.2 | |
| | comp=Z,1μm,0.2s | | | | | | |
| IAKL | | | | ePn | Pn | 14 49 03.8 | +2.4 |
| CHMN | Cheshme madani | 3.86 | 216 | ePn | Pn | 14 49 03.8 | +0.7 |
| CHMN | Cheshme madani | 3.86 | 216 | ePn | Pn | 14 49 03.8 | +0.7 |
| IKRD | Kardeh | 3.97 | 341 | ePn | Pn | 14 49 04.1 | -0.4 |
| IKRD | | | | eAMB | AMB | 14 50 10.0 | |
| | comp=Z,1μm,0.4s | | | | | | |
| IKRD | Kardeh | 3.97 | 341 | ePn | Pn | 14 49 04.1 | -0.4 |
| KHGB | Koh Gabri | 4.09 | 231 | ePn | Pn | 14 49 08.2 | +2.0 |
| KHGB | Koh Gabri | 4.09 | 231 | ePn | Pn | 14 49 08.2 | +2.0 |
| IBAF | Bafgh | 4.13 | 251 | ePn | Pn | 14 49 08.1 | +1.5 |
| IBAF | | | | eAMB | AMB | 14 50 20.2 | |
| | comp=Z,1μm,0.5s | | | | | | |
| IBAF | Bafgh | 4.13 | 251 | ePn | Pn | 14 49 08.1 | +1.5 |
| TVBK | TV Kerman | 4.19 | 225 | ePn | Pn | 14 49 09.7 | +2.2 |
| TVBK | TV Kerman | 4.19 | 225 | ePn | Pn | 14 49 09.7 | +2.2 |
| KRBR | Kerman | 4.19 | 224 | ePn | Pn | 14 49 10.6 | +3.0 |
| ISFR | Sfrayin | 4.39 | 337 | ePn | Pn | 14 49 12.1 | +1.9 |
| ISFR | | | | eAMB | AMB | 14 50 56.5 | |
| | comp=Z,517nm,0.4s | | | | | | |
| ISFR | Sfrayin | 4.39 | 337 | ePn | Pn | 14 49 12.1 | +1.9 |
| NGRK | Negar Kerman | 4.46 | 222 | ePn | Pn | 14 49 13.4 | +2.1 |
| NGRK | Negar Kerman | 4.46 | 222 | ePn | Pn | 14 49 13.4 | +2.1 |
| SHRO | Shahrood | 4.52 | 312 | ePn | Pn | 14 49 13.8 | +1.9 |
| IEMG | Emamgholi | 4.55 | 345 | ePn | Pn | 14 49 14.5 | +2.1 |
| IEMG | | | | eAMB | AMB | 14 49 19.4 | |
| | comp=Z,432nm,0.1s | | | | | | |
| IEMG | Emamgholi | 4.55 | 345 | ePn | Pn | 14 49 14.5 | +2.1 |
| ISHM | Shahmirzad | 6.30 | 298 | ePn | Pn | 14 49 38.5 | +1.9 |
| ISHM | | | | eAMB | AMB | 14 49 40.2 | |
| | comp=Z,189nm,0.1s | | | | | | |
| IFIR | Firoozkooh | 6.65 | 295 | ePn | Pn | 14 49 42.3 | +1.0 |
| IFIR | | | | eAMB | AMB | 14 49 46.6 | |
| | comp=Z,116nm,0.1s | | | | | | |
| IFIR | Firoozkooh | 6.65 | 295 | ePn | Pn | 14 49 42.3 | +1.0 |
| IDMV | Damavand | 7.18 | 293 | ePn | Pn | 14 49 50.0 | +1.4 |
| IDMV | | | | eAMB | AMB | 14 50 03.1 | |
| | comp=Z,101nm,0.1s | | | | | | |
| IDMV | Damavand | 7.18 | 293 | ePn | Pn | 14 49 50.0 | +1.4 |
| IKLH | Kolahrood | 7.19 | 275 | ePn | Pn | 14 49 51.3 | +2.6 |
| IKLH | | | | eAMB | AMB | 14 50 05.9 | |
| | comp=Z,71nm,0.1s | | | | | | |
| IKLH | Kolahrood | 7.19 | 275 | ePn | Pn | 14 49 51.3 | +2.6 |

*NEIC **30** 15:01:32.4±0.0, 37.50S×179.88W, h61km, mb4.2/1, ML4.0(WEL), After WEL.*

**WEL 30 15:01:33.2±0.4, 37.47S×179.97W, h33km, ML3.9/15, 1C, Error ellipse: s-maj=6.8km s-min=4.8km az=0.0, East of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WMGZ | Waiomatatini S | 1.33 | 254 | PN | Pn | 15 01 54.7 | -0.8 |
| WMGZ | | | | eSN | Sn | 15 02 11.1 | -1.0 |
| WMGZ | | | | AML | AML | 15 02 15.0 | |
| PUZ | Puketiti | 1.53 | 246 | PN | Pn | 15 01 57.7 | -0.5 |
| PUZ | | | | eSN | Sn | 15 02 16.1 | -0.9 |
| PUZ | | | | AML | AML | 15 02 16.7 | |
| PKGZ | Pakihiroa | 1.61 | 254 | ePN | Pn | 15 01 58.8 | -0.6 |
| PKGZ | | | | AML | AML | 15 02 19.0 | |
| PKGZ | | | | AML | AML | 15 02 19.8 | |
| CNGZ | Carnagh Statio | 1.76 | 234 | Pn | Pn | 15 02 01.0 | -0.4 |
| CNGZ | Carnagh Statio | 1.76 | 234 | PN | Pn | 15 02 01.0 | -0.4 |
| CNGZ | | | | AML | AML | 15 02 27.0 | |
| TWGZ | Tauwhareparae | 1.77 | 246 | Pn | Pn | 15 02 01.4 | -0.3 |
| TWGZ | | | | SN | Sn | 15 02 22.5 | -0.5 |
| TWGZ | Tauwhareparae | 1.77 | 246 | PN | Pn | 15 02 01.3 | -0.3 |
| TWGZ | | | | SN | Sn | 15 02 22.5 | -0.5 |
| TWGZ | | | | AML | AML | 15 02 23.9 | |
| HAZ | Te Kaha | 1.81 | 260 | PN | Pn | 15 02 01.8 | -0.2 |
| HAZ | | | | AML | AML | 15 02 26.1 | |
| HAZ | | | | AML | AML | 15 02 27.9 | |
| RUGZ | Raukumara Rang | 1.93 | 255 | PN | Pn | 15 02 03.7 | -0.2 |
| TKGZ | Te Karaka | 1.98 | 240 | Pn | Pn | 15 02 03.8 | -0.6 |
| TKGZ | | | | Sn | Sn | 15 02 28.1 | +0.1 |
| TKGZ | Te Karaka | 1.98 | 240 | PN | Pn | 15 02 03.8 | -0.6 |
| TKGZ | | | | eSN | Sn | 15 02 28.0 | 0.0 |
| TKGZ | | | | AML | AML | 15 02 29.1 | |
| MWZ | Matawai | 2.16 | 246 | Pn | Pn | 15 02 06.1 | -0.8 |
| MWZ | Matawai | 2.16 | 246 | PN | Pn | 15 02 06.1 | -0.8 |
| MWZ | | | | AML | AML | 15 02 32.2 | |
| MWZ | | | | AML | AML | 15 02 32.5 | |
| RIGZ | Rimuhau | 2.18 | 235 | PN | Pn | 15 02 06.8 | -0.4 |
| RIGZ | | | | AML | AML | 15 02 34.5 | |
| RIGZ | | | | AML | AML | 15 02 35.1 | |
| MHGZ | Mahia Peninsul | 2.37 | 224 | Pn | Pn | 15 02 09.3 | -0.5 |
| MHGZ | Mahia Peninsul | 2.37 | 224 | PN | Pn | 15 02 09.3 | -0.5 |
| KNZ | Kokohu | 2.42 | 229 | Pn | Pn | 15 02 09.5 | -1.0 |
| KNZ | Kokohu | 2.42 | 229 | ⇑PN | Pn | 15 02 09.5 | -1.0 |
| SNGZ | Shannon Statio | 2.50 | 238 | Pn | Pn | 15 02 11.2 | -0.3 |
| SNGZ | Shannon Statio | 2.50 | 238 | PN | Pn | 15 02 11.2 | -0.3 |
| SNGZ | | | | AML | AML | 15 02 43.7 | |
| SNGZ | | | | AML | AML | 15 02 47.1 | |
| WHHZ | Waihua | 2.73 | 233 | PN | Pn | 15 02 14.3 | -0.3 |
| WHHZ | | | | AML | AML | 15 02 50.4 | |
| WHHZ | | | | AML | AML | 15 02 52.5 | |
| MTHZ | Maungataniwha | 2.87 | 240 | PN | Pn | 15 02 16.4 | -0.3 |
| ARHZ | Aropaoanui | 2.98 | 232 | PN | Pn | 15 02 18.0 | -0.2 |
| NMHZ | Naumai | 3.02 | 236 | Pn | Pn | 15 02 18.4 | -0.3 |
| NMHZ | Naumai | 3.02 | 236 | ePN | Pn | 15 02 18.4 | -0.4 |
| NMHZ | | | | AML | AML | 15 02 56.9 | |
| NMHZ | | | | AML | AML | 15 03 02.6 | |
| BKZ | Black Stump Fm | 3.26 | 238 | Pn | Pn | 15 02 21.3 | -0.7 |
| BKZ | Black Stump Fm | 3.26 | 238 | PN | Pn | 15 02 21.3 | -0.7 |
| BKZ | | | | AML | AML | 15 02 59.2 | |
| BKZ | | | | AML | AML | 15 02 59.3 | |
| MCHZ | McNeill Hill | 3.28 | 232 | Pn | Pn | 15 02 21.5 | -0.8 |
| MCHZ | McNeill Hill | 3.28 | 232 | PN | Pn | 15 02 21.5 | -0.8 |
| MCHZ | | | | AML | AML | 15 03 02.7 | |
| MCHZ | | | | AML | AML | 15 03 03.0 | |
| KAHZ | Kahuranaki | 3.39 | 226 | Pn | Pn | 15 02 23.0 | -0.9 |
| KAHZ | Kahuranaki | 3.39 | 226 | PN | Pn | 15 02 23.0 | -0.9 |
| KWHZ | Kaweka Forest | 3.44 | 234 | ePN | Pn | 15 02 23.5 | -1.0 |
| KWHZ | | | | AML | AML | 15 02 27.4 | |
| BHHZ | Black Hill Sta | 3.71 | 236 | Pn | Pn | 15 02 27.4 | -0.9 |
| BHHZ | Black Hill Sta | 3.71 | 236 | PN | Pn | 15 02 27.4 | -0.9 |

*IDC **30** 15:04:18.4±1.5, 1.91N×127.08E, h0km, mb3.8/7, mb1 3.9/7, mb1mx3.6/38, mbtmp3.8/7, Error ellipse: s-maj=201.1km s-min=16.2km az=67.0*
*ISCJB **30** 15:04:28.8±0.6, 1.90N±0.04×127.26E±0.05, h100km, mb3.7/8, Error ellipse: s-maj=7.0km s-min=6.2km az=156.0*
*DJA **30** 15:04:31.5±0.5, 2°N±3'×12°7E±', h102km±7km, M4.3/6, mB5.0/1, mb4.3/6, MLv4.2/6, Mw(mB)4.3/1*

**ISC 30 15:04:30.7±0.9, 1.90N±0.06×127.16E±0.07, h100km, n19, σ2°19/27, mb3.8/8, Halmahera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SGSI | Sangihe | 2.41 | 317 | P | Pn | 15 05 09.9 | +1.3 |
| SGSI | | | | S | Sn | 15 05 37.4 | -0.3 |
| LBMI | Labuha | 2.55 | 172 | P | Pn | 15 05 13.5 | +3.0 |
| LBMI | | | | S | Sn | 15 05 47.7 | +6.7 |
| KMSI | Cibinong | 3.44 | 248 | P | Pn | 15 05 24.3 | +1.9 |
| KMSI | | | | S | Sn | 15 06 05.3 | +2.9 |
| SANI | Sanana | 4.10 | 197 | P | Pn | 15 05 31.1 | -0.1 |
| SANI | | | | S | Sn | 15 06 13.8 | -4.4 |
| NLAI | Namlea | 5.11 | 181 | P | Pn | 15 05 45.6 | +0.7 |
| NLAI | | | | S | Sn | 15 06 41

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ADCV | | | | *i* S | | **Sb** | **15 10 30.2** | **-0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.58** | **306** | P | | **Pb** | **15 10 21.0** | **-0.8** |
| **CLDR** | **Caldiran** | **0.81** | **34** | *e*PG | | **Pb** | **15 10 25.6** | **-0.2** |
| CLDR | | | | *e*SG | | **Sb** | **15 10 38.3** | **+1.2** |
| **CLDR** | **Caldiran** | **0.81** | **34** | *e*Pg | | **Pb** | **15 10 25.6** | **-0.2** |
| CLDR | | | | *e*Sg | | **Sb** | **15 10 38.3** | **+1.2** |
| **HAKT** | **HAKKARI** | **0.96** | **162** | *i* P | | **Pg** | **15 10 26.7** | **-0.7** |
| HAKT | | | | *i* S | | **Sn** | **15 10 42.1** | **-1.2** |
| **HAKT** | **HAKKARI** | **0.96** | **162** | P | | **Pg** | **15 10 26.7** | **-0.7** |
| HAKT | | | | S | | **Sn** | **15 10 42.1** | **-1.2** |
| **TUTA** | **Tutak** | **1.02** | **337** | *i* P | | **Pg** | **15 10 28.0** | **-0.6** |
| TUTA | | | | *i* S | | **Sb** | **15 10 43.4** | **+0.5** |
| **TUTA** | **Tutak** | **1.02** | **337** | P | | **Pg** | **15 10 28.0** | **-0.6** |
| TUTA | | | | S | | **Sb** | **15 10 43.4** | **+0.5** |
| **AGRB** | **Hanur-Agry** | **1.14** | **347** | *e*PN | | **Pn** | **15 10 31.4** | **-0.3** |
| AGRB | | | | *e*SN | | **Sn** | **15 10 47.7** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **1.14** | **347** | *e*Pn | | **Pn** | **15 10 31.4** | **-0.3** |
| AGRB | | | | *e*Sn | | **Sn** | **15 10 47.7** | **-0.1** |
| **CUKT** | **Cukurca** | **1.24** | **170** | *e*PN | | **Pn** | **15 10 33.3** | **+0.3** |
| **CUKT** | **Cukurca** | **1.24** | **170** | *e*Pn | | **Pn** | **15 10 33.3** | **+0.3** |
| **EKAR** | **Karacoban** | **1.26** | **309** | *i* P | | **Pg** | **15 10 31.6** | **-1.7** |
| EKAR | | | | *i* S | | **Sn** | **15 10 54.4** | **+3.4** |
| **EKAR** | **Karacoban** | **1.26** | **309** | P | | **Pg** | **15 10 31.6** | **-1.7** |

*IDC **30** 15:13:54.3±1.1,26.61N×93.01E,h0km,mb3.4/5, mb1 3.6/6,mb1mx3.2/41,mbtmp3.4/6,ML3.9/2,Error ellipse: s-maj=57.0km s-min=19.3km az=65.0*
*ISCJB **30** 15:13:59.5±0.4,26.46N±0.04×92.73E±0.03,h59km±5km, mb3.5/5,Error ellipse: s-maj=7.0km s-min=3.9km az=158.7*
*NDI **30** 15:14:00.7±1.9,26.39N×92.77E,h36km±4km,ML3.6*
**ISC 30 15:14:00.2±0.9,26.44N±0.05×92.74E±0.03,h45km±8km, n19,σ1.108/31,mb3.4/5,Northeastern India**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TEZP** | **TEZPUR** | **0.18** | **15** | *i* P | **Pn** | **15 14 08.1** | **+0.1** |
| TEZP | | | | *e*S | **Sn** | **15 14 13.0** | **-0.3** |
| TEZP | | | | AML | AML | 15 14 13.3 | |
| | comp=E,7μm,0.1s | | | | | | |
| TEZP | | | | AML | AML | 15 14 13.4 | |
| | comp=N,8μm,0.1s | | | | | | |
| **GUWA** | **GUWAHATI** | **0.98** | **256** | *e*P | **Pn** | **15 14 18.1** | **+0.6** |
| GUWA | | | | *e*S | **Sn** | **15 14 31.0** | **+0.7** |
| **ITAN** | **ITANAGAR** | **1.12** | **51** | *e*P | **Pn** | **15 14 20.8** | **+1.3** |
| ITAN | | | | *e*S | **Sn** | **15 14 35.4** | **+1.5** |
| ITAN | | | | AML | AML | 15 14 36.7 | |
| | comp=E,5μm,0.3s | | | | | | |
| ITAN | | | | AML | AML | 15 14 36.9 | |
| | comp=N,2μm,0.3s | | | | | | |
| **SHL** | **Shillong** | **1.16** | **222** | *e*P | **Pn** | **15 14 21.3** | **+1.0** |
| SHL | | | | *e*S | **Sn** | **15 14 35.7** | **+0.6** |
| SHL | | | | AML | AML | 15 14 36.0 | |
| | comp=N,938nm,0.1s | | | | | | |
| SHL | | | | AML | AML | 15 14 36.2 | |
| | comp=E,1μm,0.2s | | | | | | |
| SHL | | | | *e*SG | | 15 14 38.0 | |
| **JORH** | **JORHAT** | **1.38** | **77** | *e*S | **Sn** | **15 14 41.1** | **+0.9** |
| **ZIRO** | **ZIRO** | **1.47** | **42** | *e*P | **Pn** | **15 14 25.0** | **+0.6** |
| ZIRO | | | | *e*S | **Sn** | **15 14 42.9** | **+0.4** |
| ZIRO | | | | AML | AML | 15 14 46.3 | |
| | comp=N,3μm,0.1s | | | | | | |
| ZIRO | | | | AML | AML | 15 14 46.4 | |
| | comp=E,2μm,0.2s | | | | | | |
| **MOKO** | **MOKOCHONG** | **1.59** | **94** | *e*P | **Pn** | **15 14 26.7** | **+0.6** |
| MOKO | | | | *e*S | **Sn** | **15 14 44.9** | **-0.7** |
| MOKO | | | | AML | AML | 15 14 46.6 | |
| | comp=E,449nm,0.2s | | | | | | |
| MOKO | | | | AML | AML | 15 14 46.8 | |
| | comp=N,642nm,0.4s | | | | | | |
| **IMP** | **Imphal** | **1.93** | **146** | *e*P | **Pn** | **15 14 31.7** | **+1.0** |
| IMP | | | | *e*S | **Sn** | **15 14 51.3** | **-2.6** |
| IMP | | | | AML | AML | 15 14 57.0 | |
| | comp=N,143nm,0.4s | | | | | | |
| IMP | | | | AML | AML | 15 14 57.5 | |
| | comp=E,66nm,0.2s | | | | | | |
| **TURI** | **Tura** | **2.34** | **248** | *e*P | **Pn** | **15 14 37.9** | **+1.6** |
| TURI | | | | *e*S | **Sn** | **15 15 04.7** | **+0.8** |
| TURI | | | | AML | AML | 15 15 06.2 | |
| | comp=N,1μm,0.1s | | | | | | |
| TURI | | | | AML | AML | 15 15 06.4 | |
| | comp=E,1μm,0.2s | | | | | | |
| **DHUB** | **DHUBRI** | **2.50** | **261** | *e*P | **Pn** | **15 14 37.5** | **-0.9** |
| DHUB | | | | *e*S | **Sn** | **15 15 06.7** | **-1.1** |
| DHUB | | | | AML | AML | 15 15 08.8 | |
| | comp=N,286nm,0.1s | | | | | | |
| DHUB | | | | AML | AML | 15 15 09.0 | |
| | comp=E,241nm,0.1s | | | | | | |
| **LKP** | **Lekhapani** | **2.91** | **71** | *e*P | **Pn** | **15 14 45.1** | **+1.0** |
| LKP | | | | *e*S | **Sn** | **15 15 16.9** | **-0.9** |
| LKP | | | | AML | AML | 15 15 19.9 | |
| | comp=N,260nm,0.2s | | | | | | |
| LKP | | | | AML | AML | 15 15 20.0 | |
| | comp=E,205nm,0.2s | | | | | | |
| **GTK** | **Tadong** | **3.80** | **284** | *e*P | **Pn** | **15 14 57.0** | **+0.5** |
| GTK | | | | *e*S | **Sn** | **15 15 39.1** | **-0.9** |
| **BRDH** | **Bariadhala** | **3.88** | **195** | Pn | **Pn** | **15 14 58.3** | **+1.0** |
| | comp=E,24nm,0.3s,baz=288,slow=19,SNR=3.0 | | | | | | |
| BRDH | | | | Sn | **Sn** | **15 15 43.3** | **+1.7** |
| | comp=E,68nm,0.3s,baz=259,slow=22,SNR=5.7 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **9.79** | **143** | Pn | **Pn** | **15 16 17.2** | **-1.4** |
| | comp=E,0.1nm,0.3s,baz=311,slow=15,SNR=1.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **21.94** | **341** | P | **P** | **15 18 49.6** | **-0.3** |
| | comp=E,0.6nm,0.4s,baz=143,slow=13,SNR=12 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **26.49** | **339** | P | **P** | **15 19 31.9** | **-1.3** |
| | comp=E,0.2nm,0.4s,baz=142,slow=11,SNR=1.7 | | | | | | |
| **FINES** | **FINESS Array B** | **56.01** | **328** | P | **P** | **15 23 34.0** | **-0.1** |
| | comp=E,1.1nm,0.5s,baz=105,slow=8.8,SNR=5.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **61.27** | **135** | P | **P** | **15 24 11.2** | **0.0** |
| | comp=E,0.3nm,1.0s,baz=326,slow=6.9,SNR=1.8 | | | | | | |
| **ASAR** | **Alice Springs** | **63.76** | **138** | P | **P** | **15 24 28.1** | **+0.3** |
| | comp=E,0.3nm,0.9s,baz=324,slow=6.1,SNR=2.1 | | | | | | |

*TIR **30** 15:30:07.7±1.0,42.08N×20.21E,h3km±3km,ML2.5*
*CSEM **30** 15:30:09.8±0.2,42.10N×20.13E,h2km, ML2.5,Error ellipse: s-maj=4.1km s-min=3.4km az=156.0*
*SKO **30** 15:30:10.7,42.11N×20.15E,h19km, M1.9,ML2.3*
*PDG **30** 15:30:10.2±0.2,42.13N×20.10E,h10km,ML2.5/11,Error ellipse: s-maj=0.3km s-min=0.4km az=0.0*
*BEO **30** 15:30:11.1±0.3,42.09N×20.14E,h0km, M2.0/7*
**ISC 30 15:30:10.2±0.9,42.10N±0.02×20.14E±0.02,h8km±7km, n69,σ0.988/119,21C-5D,Northwestern Balkan Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PUK** | **Puka** | **0.19** | **254** | *i* PG | **Pg** | **15 30 13.9** | **-0.2** |
| PUK | | | | *i* SG | **Sg** | **15 30 17.6** | **+0.8** |
| **PUK** | **Puka** | **0.19** | **254** | *i* Pg | **Pg** | **15 30 13.9** | **-0.2** |
| | SNR=95 | | | | | | |
| PUK | | | | *i* Sg | **Sg** | **15 30 17.6** | **+0.8** |
| | SNR=95 | | | | | | |
| **BCI** | **Bajram Curri** | **0.28** | **349** | *i* PG | **Pg** | **15 30 15.1** | **-0.6** |
| BCI | | | | *i* SG | **Sg** | **15 30 20.3** | **+0.9** |
| **BCI** | **Bajram Curri** | **0.28** | **349** | *i* Pg | **Pg** | **15 30 15.1** | **-0.6** |
| | SNR=93 | | | | | | |
| BCI | | | | *i* Sg | **Sg** | **15 30 20.3** | **+0.9** |
| | SNR=93 | | | | | | |
| **PHP** | **Peshkopia** | **0.47** | **151** | *i* PG | **Pg** | **15 30 18.2** | **-1.1** |
| PHP | | | | *i* SG | **Sg** | **15 30 26.2** | **+0.7** |
| **PHP** | **Peshkopia** | **0.47** | **151** | *i* Pg | **Pg** | **15 30 18.2** | **-1.1** |
| | SNR=93 | | | | | | |
| **ZATK** | **Zatriq** | **0.50** | **45** | P | **Pg** | **15 30 19.3** | **-0.7** |
| **PVY** | **Plav** | **0.52** | **345** | ⇑*i* Pg | **Pg** | **15 30 19.4** | **-0.8** |
| PVY | | | | *e*Sg | **Sg** | **15 30 26.9** | **-0.1** |
| **PVY** | **Plav** | **0.52** | **345** | ⇑*i* Pg | **Pg** | **15 30 19.4** | **-0.8** |
| PVY | | | | *e*Sg | **Sg** | **15 30 26.9** | **-0.1** |
| **PEJK** | **Peje** | **0.56** | **11** | P | **Pg** | **15 30 20.6** | **-0.4** |
| PEJK | | | | S | **Sb** | **15 30 31.2** | **+0.9** |
| **ULC** | **Ulcinj** | **0.68** | **259** | ⇑*i* Pg | **Pg** | **15 30 22.6** | **-0.7** |
| ULC | | | | *e*Sg | **Sg** | **15 30 32.9** | **+0.8** |
| **ULC** | **Ulcinj** | **0.68** | **259** | ⇑*i* Pg | **Pg** | **15 30 22.6** | **-0.7** |
| **ULC** | **Ulcinj** | **0.68** | **259** | P | **Pg** | **15 30 23.1** | **-0.2** |
| ULC | | | | *e*Sg | **Sg** | **15 30 32.9** | **+0.8** |
| **DRME** | **Dracevica, Mon** | **0.71** | **278** | ⇑*i* Pg | **Pg** | **15 30 22.9** | **-1.1** |
| DRME | | | | *e*Sg | **Sg** | **15 30 33.5** | **+0.2** |
| **DRME** | **Dracevica, Mon** | **0.71** | **278** | ⇑*i* Pg | **Pg** | **15 30 22.9** | **-1.1** |
| DRME | | | | *e*Sg | **Sb** | **15 30 34.6** | **-0.2** |
| **PDG** | **Podgorica** | **0.74** | **297** | *e*Pg | **Pg** | **15 30 23.3** | **-1.1** |
| **PDG** | **Podgorica** | **0.74** | **297** | *e*Pg | **Pg** | **15 30 23.3** | **-1.1** |
| PDG | | | | *e*Sg | **Sb** | **15 30 34.8** | **-0.6** |
| **TTG** | **Podgorica** | **0.74** | **297** | ⇓*i* Pg | **Pg** | **15 30 23.2** | **-1.1** |
| TTG | | | | *e*Sg | **Sg** | **15 30 33.7** | **-0.2** |
| **TIR** | **Tirane** | **0.78** | **195** | *e*Pn | **Pb** | **15 30 26.2** | **+0.3** |
| TIR | | | | *e*Sn | **Sb** | **15 30 37.3** | **+0.8** |
| **TIR** | **Tirane** | **0.78** | **195** | *e*Pn | **Pb** | **15 30 26.2** | **+0.3** |
| TIR | | | | *e*Sn | **Sb** | **15 30 37.3** | **+0.8** |
| **BEY** | **Berane** | **0.80** | **347** | ⇑*i* Pg | **Pg** | **15 30 24.2** | **-1.3** |
| **BEY** | **Berane** | **0.80** | **347** | P | **Pg** | **15 30 25.3** | **-0.2** |
| BEY | | | | *e*Sg | **Sg** | **15 30 36.1** | **+0.2** |
| **IVA** | **Berane** | **0.80** | **347** | ⇑*i* Pg | **Pg** | **15 30 24.2** | **-1.3** |
| IVA | | | | *e*Sg | **Sg** | **15 30 36.1** | **+0.2** |
| **KOME** | **Kolasin** | **0.88** | **329** | ⇑*i* Pg | **Pg** | **15 30 26.0** | **-1.2** |
| KOME | | | | *e*Sg | **Sg** | **15 30 38.7** | **0.0** |
| **KOME** | **Kolasin** | **0.88** | **329** | ⇑*i* Pg | **Pg** | **15 30 26.0** | **-1.2** |
| KOME | | | | *e*Sg | **Sg** | **15 30 38.7** | **0.0** |
| **BUM** | **Brajici-Budva** | **0.95** | **283** | ⇑*i* Pg | **Pg** | **15 30 27.5** | **-0.9** |
| BUM | | | | *e*Sg | **Sb** | **15 30 41.4** | **-0.2** |
| **BUM** | **Brajici-Budva** | **0.95** | **283** | ⇑*i* Pg | **Pg** | **15 30 27.5** | **-0.9** |
| BUM | | | | *e*Sg | **Sb** | **15 30 41.4** | **-0.2** |
| **SMRK** | **Smrekonice** | **0.98** | **37** | P | **Pg** | **15 30 29.1** | **+0.2** |
| **SKO** | **Skopje** | **0.98** | **97** | *e*Pg | **Pg** | **15 30 27.5** | **-1.5** |
| SKO | | | | *i* Sg | **Sb** | **15 30 42.5** | **+0.2** |
| **CEME** | **Cevo** | **1.01** | **297** | ⇑*i* Pg | **Pg** | **15 30 27.9** | **-1.7** |
| CEME | | | | *e*Sg | **Sg** | **15 30 43.0** | **+0.2** |
| **CEME** | **Cevo** | **1.01** | **297** | ⇑*i* Pg | **Pg** | **15 30 27.9** | **-1.7** |
| CEME | | | | *e*Sg | **Sg** | **15 30 43.0** | **+0.2** |
| **OHR** | **Ohrid** | **1.10** | **153** | *i* Pg | **Pg** | **15 30 29.8** | **-1.5** |
| OHR | | | | *i* Sg | **Sb** | **15 30 46.9** | **+0.9** |
| OHR | | | | *e*Lg | Lg | 15 30 49.1 | |
| | comp=E,44nm,0.5s | | | | | | |
| OHR | | | | *e*Lg | Lg | 15 30 49.2 | |
| | comp=N,35nm,0.4s | | | | | | |
| **KRUS** | **Krusevo** | **1.10** | **131** | *e*Pg | **Pg** | **15 30 29.8** | **-1.6** |
| KRUS | | | | *i* Sg | **Sg** | **15 30 46.1** | **+0.4** |
| **NKME** | **Niksic** | **1.10** | **308** | ⇑*i* Pg | **Pg** | **15 30 29.6** | **-1.8** |
| NKME | | | | *e*Sg | **Sb** | **15 30 46.6** | **+0.5** |
| **NKME** | **Niksic** | **1.10** | **308** | ⇑*i* Pg | **Pg** | **15 30 29.6** | **-1.8** |
| NKME | | | | *e*Sg | **Sb** | **15 30 46.6** | **+0.5** |
| **NKY** | **Niksic** | **1.11** | **311** | ⇑*i* Pg | **Pg** | **15 30 29.7** | **-1.8** |
| NKY | | | | *e*Sg | **Sb** | **15 30 46.5** | **+0.2** |
| **NKY** | **Niksic** | **1.11** | **311** | ⇑*i* Pg | **Pg** | **15 30 29.7** | **-1.8** |
| NKY | | | | *e*Sg | **Sb** | **15 30 46.5** | **+0.2** |
| **SJES** | **Sjenica** | **1.17** | **354** | *e*Pg | **Pg** | **15 30 31.6** | **-1.1** |
| SJES | | | | *e*Sg | **Sn** | **15 30 49.3** | **+0.2** |
| **HCY** | **Herceg Novi** | **1.27** | **287** | ⇓*i* Pg | **Pn** | **15 30 32.8** | **-1.4** |
| HCY | | | | *e*Sg | **Sn** | **15 30 52.2** | **+0.8** |
| **HCY** | **Herceg Novi** | **1.27** | **287** | ⇑*i* Pg | **Pn** | **15 30 32.9** | **-1.3** |
| HCY | | | | *e*Sg | **Sn** | **15 30 51.8** | **+0.4** |
| **SELS** | **Selova** | **1.33** | **32** | *e*Pn | **Pg** | **15 30 36.0** | **+0.2** |
| **SELS** | **Selova** | **1.33** | **32** | *e*Pn | **Pg** | **15 30 36.0** | **+0.2** |
| **PLE** | **Pljevlja** | **1.35** | **336** | ⇓*i* Pg | **Pn** | **15 30 34.3** | **-1.1** |
| PLE | | | | *e*Sg | **Sn** | **15 30 54.9** | **+1.3** |
| **PLE** | **Pljevlja** | **1.35** | **336** | ⇓*i* Pg | **Pn** | **15 30 34.3** | **-1.1** |
| PLE | | | | *e*Sg | **Sn** | **15 30 54.9** | **+1.3** |
| **BRY** | **Bratogost** | **1.43** | **305** | ⇑*i* Pg | **Pn** | **15 30 35.9** | **-0.6** |
| BRY | | | | *e*Sg | **Sg** | **15 30 57.8** | **+1.6** |
| **BRY** | **Bratogost** | **1.43** | **305** | ⇑*i* Pg | **Pn** | **15 30 35.9** | **-0.6** |
| BRY | | | | *e*Sg | **Sg** | **15 30 57.3** | **+1.1** |
| **UPM** | **Unac-Piva** | **1.43** | **321** | ⇓*i* Pg | **Pn** | **15 30 35.9** | **-0.7** |
| UPM | | | | *e*Sg | **Sg** | **15 30 57.7** | **+1.4** |
| **UPM** | **Unac-Piva** | **1.43** | **321** | *e*Pg | **Pn** | **15 30 36.4** | **-0.2** |
| **UPM** | **Unac-Piva** | **1.43** | **321** | P | **Pg** | **15 30 37.5** | **-0.2** |
| UPM | | | | *e*Sg | **Sg** | **15 30 57.7** | **+1.4** |
| **BARS** | **Barje** | **1.43** | **59** | *e*Pg | **Pn** | **15 30 36.1** | **-0.4** |
| BARS | | | | *e*Sg | **Sn** | **15 30 56.2** | **+0.7** |
| **BARS** | **Barje** | **1.43** | **59** | *e*Pg | **Pn** | **15 30 36.1** | **-0.4** |
| BARS | | | | *e*Sg | **Sn** | **15 30 56.2** | **+0.7** |
| **TREB** | **Trebinje** | **1.46** | **296** | *e*Pn | **Pb** | **15 30 37.5** | **-0.1** |
| **TREB** | **Trebinje** | **1.46** | **296** | *e*Pn | **Pn** | **15 30 36.5** | **-0.3** |
| **TREB** | **Trebinje** | **1.46** | **296** | *e*Pn | **Pb** | **15 30 37.5** | **-0.1** |
| TREB | | | | *e*Sg | **Sg** | **15 30 58.5** | **+1.3** |
| **IVAS** | **Ivanjica** | **1.48** | **0** | *e*Pg | **Pn** | **15 30 37.4** | **+0.3** |
| IVAS | | | | *e*Sg | **Sg** | **15 30 57.5** | **-0.3** |
| **IVAS** | **Ivanjica** | **1.48** | **0** | *e*Pg | **Pn** | **15 30 37.4** | **+0.3** |
| IVAS | | | | *e*Sg | **Sg** | **15 30 57.5** | **-0.3** |
| **GRUS** | **Gruza** | **1.84** | **13** | *e*Pn | **Pb** | **15 30 44.7** | **+0.6** |
| **GRUS** | **Gruza** | **1.84** | **13** | *e*Pn | **Pb** | **15 30 44.7** | **+0.6** |
| **BBLS** | **Lazići** | **1.85** | **343** | *e*Pn | **Pb** | **15 30 44.1** | **-0.1** |
| **BBLS** | **Lazići** | **1.85** | **343** | *e*Pn | **Pn** | **15 30 42.4** | **+0.2** |
| BBLS | | | | *e*Sn | **Sb** | **15 31 07.2** | **-0.3** |
| **STON** | **Ston** | **1.96** | **294** | *e*Pn | **Pn** | **15 30 44.9** | **+1.2** |
| STON | | | | Sn | **Sg** | **15 31 12.4** | **-0.8** |
| **STON** | **Ston** | **1.96** | **294** | *e*Pn | **Sg** | **15 30 44.9** | **+1.2** |
| STON | | | | Sn | **Sg** | **15 31 12.4** | **-0.8** |
| **DIVS** | **Divibare** | **2.00** | **357** | *e*Pn | **Pb** | **15 30 46.1** | **-0.8** |
| **DIVS** | **Divibare** | **2.00** | **357** | *e*Pn | **Pn** | **15 30 44.3** | **-0.1** |
| DIVS | | | | *e*Sn | **Sn** | **15 31 10.5** | **+0.8** |
| **HAPS** | **Han Pijesak,BI** | **2.17** | **337** | *e*Pn | **Pn** | **15 30 46.9** | **+0.2** |
| HAPS | | | | *e*Sn | **Sn** | **15 31 14.9** | **+1.1** |
| **ZAPS** | **Zavoj** | **2.18** | **57** | *e*Pn | **Pb** | **15 30 49.5** | **-0.4** |
| **ZAPS** | **Zavoj** | **2.18** | **57** | *e*Pn | **Pb** | **15 30 49.5** | **-0.4** |
| **ZAGS** | **Zajecar** | **2.30** | **41** | *e*Pn | **Pb** | **15 30 51.2** | **-0.7** |
| **ZAGS** | **Zajecar** | **2.30** | **41** | *e*Pn | **Pb** | **15 30 51.2** | **-0.7** |

*ISCJB **30** 15:34:30.0±0.3,32.22N±0.02×115.25W±0.02,h24km±3km, mb3.0/2,MS3.5/4,Error ellipse: s-maj=3.5km s-min=2.8km az=179.0*
*NEIC **30** 15:34:31.1±0.0,32.21N×115.27W,h14km,ML4.3(ECX), ML4.3(PAS),After ECX.*
*NEIC Felt at Ensenada, Mexicali and Primo Tapia. Felt [III] at Lakeside, California. Also felt at Bonita, Calexico, Campo, Chula Vista, El Cajon, El Centro, Hemet, San Diego, Santee and Spring Valley. Felt at Somerton, Arizona.*
*ECX **30** 15:34:31.2±0.6,32.20N×115.27W,h8km,MD4.1,ML4.3, Fault plane solution: NP1:φs123.23000°,δ75.52000°, λ-26.57000°.*
*MEX **30** 15:34:31.3±0.7,32.33N×115.09W,h30km±6km,MD4.0*
*IDC **30** 15:34:35.3±1.9,32.31N×114.70W,h0km, mb3.2/2, mb1 3.7/7,mb1mx3.6/37,mbtmp3.4/7,ML3.9/5,MS3.5/9, Ms1 3.5/9,ms1mx3.3/18,Error ellipse: s-maj=36.2km s-min=12.2km az=47.0*
**ISC 30 15:34:30.5±0.9,32.18N±0.02×115.30W±0.02,h20km±3km, n96,σ1.950/114,MS3.5/4,9C-7D,California-Baja California border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CPBX** | **Cerro Prieto** | **0.23** | **359** | ⇓*e*P | **Pb** | **15 34 35.4** | **-0.5** |
| CPBX | | | | *e*S | **Sb** | **15 34 38.9** | **-0.7** |
| **CPBX** | **Cerro Prieto** | **0.23** | **359** | *e*P | **Pb** | **15 34 35.5** | **-0.5** |
| CPBX | | | | *e*S | **Sg** | **15 34 39.7** | **-0.4** |
| **MBIG** | **Mexicali** | **0.24** | **21** | *e*P | **Pg** | **15 34 35.7** | **-0.5** |
| MBIG | | | | *e*S | **Sb** | **15 34 38.1** | **-1.7** |
| **MBIG** | **Mexicali** | **0.24** | **21** | *e*P | **Pg** | **15 34 35.8** | **-0.5** |
| **EMSC** | **East Mesa** | **0.61** | **25** | ⇓*i* P | **Pb** | **15 34 41.6** | **-0.9** |
| **DREC** | **Desert Rsrch C** | **0.63** | **349** | ⇓*i* P | **Pg** | **15 34 42.7** | **-0.4** |
| **ERPC** | **Ernies Place** | **0.64** | **331** | ⇓*i* P | **Pg** | **15 34 42.9** | **-0.4** |
| **WESC** | **Westside Schoo** | **0.68** | **328** | *e*P | **Pb** | **15 34 43.1** | **-0.7** |
| **COA** | **Coachella** | **0.69** | **12** | *i* P | **Pb** | **15 34 42.8** | **-1.2** |
| **ECBX** | **El Chinero** | **0.74** | **163** | ⇓*e*P | **Pb** | **15 34 44.4** | **-0.3** |
| **YMD** | **Yuma Desert** | **0.74** | **60** | ⇑*i* P | **Pb** | **15 34 43.3** | **-1.4** |
| **COK** | **Cook Ranch** | **0.76** | **332** | *e*P | **Pb** | **15 34 44.5** | **-0.5** |
| **RMX** | **La Rumorosa** | **0.78** | **303** | ⇑*e*P | **Pb** | **15 34 44.9** | **-0.6** |
| RMX | | | | *e*S | **Sg** | **15 34 55.5** | **-0.9** |
| RMX | | | | ⇑*e* | | 15 34 57.0 | |
| RMX | | | | AML | AML | 15 34 57.0 | |
| | comp=N,11μm,0.3s | | | | | | |
| **IKP** | **In-Ko-Pah, Jac** | **0.83** | **304** | P | **Pb** | **15 34 45.8** | **-0.6** |
| | baz=126,SNR=810 | | | | | | |
| IKP | | | | S | **Sg** | **15 34 57.3** | **-0.6** |
| | baz=126 | | | | | | |
| **IKP** | **In-Ko-Pah, Jac** | **0.83** | **304** | ⇑*i* P | **Pb** | **15 34 45.8** | **-0.6** |
| **SWSC** | **Sam W. Stewart** | **0.87** | **331** | P | **Pb** | **15 34 45.5** | **-1.5** |
| | baz=152,SNR=378 | | | | | | |
| **GLA** | **Glamis** | **0.95** | **24** | P | **Pb** | **15 34 46.3** | **-2.2** |
| | baz=204,SNR=758 | | | | | | |
| GLA | | | | S | **Sb** | **15 34 58.2** | **-2.5** |
| | baz=204 | | | | | | |
| **GLA** | **Glamis** | **0.95** | **24** | *e*Pg | **Pb** | **15 34 46.2** | **-2.2** |
| GLA | | | | *e*Sn | **Sb** | **15 34 58.4** | **-2.3** |
| **SPIG** | **San Pedro Mart** | **1.14** | **187** | *e*P | **Pb** | **15 34 51.7** | **-0.1** |
| SPIG | | | | *i* S | **Sg** | **15 35 08.1** | **+0.3** |
| **SPX** | **San Pedro Mart** | **1.14** | **187** | ⇓*e*P | **Pb** | **15 34 51.7** | **-0.1** |
| **SPX** | **San Pedro Mart** | **1.14** | **187** | *e*P | **Pb** | **15 34 51.8** | **-0.1** |
| SPX | | | | *e*S | **Sn** | **15 35 06.6** | **-0.4** |
| **CBX** | **Cerro Bola** | **1.17** | **277** | *e*P | **Pb** | **15 34 51.8** | **-0.3** |
| **CBX** | **Cerro Bola** | **1.17** | **277** | ⇑*e*P | **Pb** | **15 34 51.7** | **-0.4** |
| CBX | | | | ⇓*e* | | 15 35 09.7 | |
| CBX | | | | IAML | | 15 35 09.7 | |
| | comp=N,10μm,0.5s | | | | | | |
| **CBX** | **Cerro Bola** | **1.17** | **277** | *e*P | **Pb** | **15 34 51.8** | **-0.3** |
| **MONP2** | **Monument Peak** | **1.19** | **307** | P | **Pn** | **15 34 50.9** | **-1.4** |
| | baz=128 | | | | | | |
| MONP2 | | | | S | **Sb** | **15 35 07.1** | **-0.4** |
| | baz=128 | | | | | | |
| **TJIG** | **Tijuana** | **1.19** | **283** | *e*P | **Pb** | **15 34 51.8** | **-0.7** |
| TJIG | | | | *i* S | **Sg** | **15 35 07.9** | **-1.4** |
| **TJIG** | **Tijuana** | **1.19** | **283** | ⇑*e*P | **Pb** | **15 34 51.8** | **-0.7** |
| **ECNX** | **Esteban Cantu** | **1.22** | **245** | ⇑*e*P | **Pg** | **15 34 52.9** | **-1.3** |
| ECNX | | | | ⇑*e*P | **Pg** | **15 34 52.9** | **-1.3** |
| **BAR** | **Barrett** | **1.26** | **294** | *e*Pn | **Pg** | **15 34 54.3** | **-0.7** |
| BAR | | | | *e*Sn | **Sg** | **15 35 10.3** | **-1.3** |
| **PBX** | **Punta Banda** | **1.29** | **251** | ⇑*e*P | **Pb** | **15 34 53.6** | **-0.5** |
| **113A** | **Mohawk Valley,** | **1.42** | **65** | *e*Pn | **Pn** | **15 34 53.7** | **-1.5** |
| 113A | | | | *e*Sn | **Sn** | **15 35 11.4** | **-2.0** |
| **BC3** | **Big Chuckawall** | **1.48** | **355** | P | **Pn** | **15 34 54.3** | **-1.8** |
| | baz=175,SNR=297 | | | | | | |
| **109C** | **Camp Elliot, M** | **1.68** | **295** | P | **Pn** | **15 34 58.6** | **-0.3** |
| | baz=116,SNR=124 | | | | | | |
| 109C | | | | Sb | **Sg** | **15 35 22.7** | **-2.2** |
| | baz=116 | | | | | | |
| **Y12C** | **Blythe** | **1.69** | **22** | P | **Pn** | **15 34 57.1** | **-1.9** |
| | baz=202,SNR=113 | | | | | | |
| **Y12C** | **Blythe** | **1.69** | **22** | *e*Pn | **Pb** | **15 35 00.6** | **-0.5** |
| Y12C | | | | *e*Sn | **Sn** | **15 35 20.9** | **+0.7** |
| **TPFO** | **Pinon Flats** | **1.72** | **326** | P | **Pn** | **15 34 58.0** | **-1.5** |
| | baz=146,SNR=88 | | | | | | |
| TPFO | | | | Sb | **Sb** | **15 35 22.9** | **0.0** |
| | baz=146 | | | | | | |
| **XPFO** | **Piæon Flat** | **1.73** | **326** | *e*Pn | **Pn** | **15 34 58.2** | **-1.4** |
| **PFO** | **Pinyon Flats O** | **1.73** | **326** | P | **Pn** | **15 34 58.1** | **-1.6** |
| | baz=146,SNR=86 | | | | | | |
| **PFO** | **Pinyon Flats O** | **1.73** | **326** | *e*Pn | **Pn** | **15 34 58.0** | **-1.6** |
| PFO | | | | Sn | **Sn** | **15 35 17.9** | **-3.3** |
| **BELC** | **Belle Mtn. Jos** | **1.91** | **342** | P | **Pn** | **15 35 00.4** | **-1.7** |
| | baz=162,SNR=48 | | | | | | |
| **IRM** | **Iron Mountain** | **1.97** | **4** | P | **Pn** | **15 35 01.6** | **-1.3** |
| | baz=184,SNR=100 | | | | | | |
| **214A** | **Organ Pipe Nat** | **2.12** | **95** | P | **Pn** | **15 35 03.2** | **-1.8** |
| | baz=276,SNR=92 | | | | | | |
| **214A** | **Organ Pipe Nat** | **2.12** | **95** | *e*Pn | **Pn** | **15 35 03.3** | **-1.7** |
| **MURC** | **Murrieta** | **2.13** | **312** | P | **Pn** | **15 35 04.1** | **-1.0** |
| | baz=132 | | | | | | |
| **PDMCI** | **Parker Dam,Lak** | **2.33** | **24** | P | **Pn** | **15 35 06.3** | **-1.4** |
| | baz=204 | | | | | | |
| PDMCI | | | | Sb | **Sb** | **15 35 39.3** | **-0.8** |
| | baz=204 | | | | | | |
| **BBRC** | **Big Bear Solar** | **2.48** | **327** | Pb | **Pb** | **15 35 13.4** | **-1.2** |
| | baz=147 | | | | | | |
| **Y14A** | **Wickenburg** | **2.60** | **47** | *e*Pn | **Pn** | **15 35 11.1** | **-0.5** |
| Y14A | | | | *e*Sn | **Sn** | **15 35 42.1** | **-0.6** |
| **GMRC** | **Granite Mounta** | **2.61** | **353** | P | **Pn** | **15 35 10.5** | **-1.3** |
| | baz=173 | | | | | | |
| **SCI2** | **San Clemente I** | **2.86** | **287** | P | **Pn** | **15 35 14.5** | **-0.5** |
| | baz=106 | | | | | | |
| **CIS** | **Catalina Islan** | **2.89** | **296** | P | **Pn** | **15 35 15.6** | **+0.1** |
| | baz=115 | | | | | | |
| **LDFC** | **Landfair** | **2.89** | **3** | *e*Pn | **Pn** | **15 35 16.1** | **+0.5** |
| **MWC** | **Mount Wilson** | **3.08** | **312** | *e*Pn | **Pn** | **15 35 18.8** | **+0.5** |
| MWC | | | | *e*Sn | **Sn** | **15 35 56.1** | **+1.4** |
| **PASC** | **Pasadena Art C** | **3.13** | **310** | *e*Pn | **Pn** | **15 35 16.3** | **-2.5** |
| **W13A** | **Hualapai Mount** | **3.14** | **22** | *e*Pn | **Pn** | **15 35 18.5** | **-0.6** |
| **OSI** | **Osito Audit: C** | **

*s-min=5.1km az=16.7*
*NEIC **30** 15:42:47.5±1.9,29.°13S×176.°32W,h56$^{km}$±15$^{km}$,mb4.0/1, Error ellipse: s-maj=18.6km s-min=14.6km az=173.0*
*IDC **30** 15:42:49.5±2.1,29.°15S×176.°35W,h75$^{km}$±17$^{km}$,mb4.0/11, mb1 4.2/11,mb1mx3.9/32,mbtmp4.2/11,MS3.8/7, Ms1 3.8/7,ms1mx3.4/27,Error ellipse: s-maj=22.8km s-min=20.0km az=170.0*

**ISC 30 15:42:44.5±0.5,29.57S±0.07°×176.11W±0.07,h36$^{km}$,n49, σ2$^{s}$08/46,mb4.2/13,MS3.8/7,1C,Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **1.61** | **281** | P | | | **Pn** | **15 43 11.0** | **+0.7** |
| | 648nm,0.3s,baz=95,slow=9.6,SNR=30 | | | | | | | | |
| RAO | | | | S | | | **Sn** | **15 43 31.0** | **+1.1** |
| | 807nm,0.3s,baz=90,slow=20,SNR=9.6 | | | | | | | | |
| **HAZ** | **Te Kaha** | **9.62** | **210** | *e*P | | | **Pn** | **15 45 00.5** | **+0.2** |
| HAZ | | | | *e*S | | | **Sn** | **15 46 51.4** | **+4.3** |
| **PUZ** | **Puketiti** | **9.69** | **207** | *e*S | | | **Sn** | **15 46 47.5** | **-1.4** |
| **MWZ** | **Matawai** | **10.21** | **209** | *e*P | | | **Pn** | **15 45 07.6** | **-0.9** |
| MWZ | | | | SN | | | **Sn** | **15 47 03.1** | **+1.4** |
| **URZ** | **Urewera** | **10.33** | **211** | P | | | **Pn** | **15 45 08.6** | **-1.6** |
| | 0.6nm,0.3s,baz=66,slow=12,SNR=2.9 | | | | | | | | |
| URZ | | | | S | | | **Sn** | **15 47 06.6** | **+2.0** |
| | 8.9nm,0.3s,baz=142,slow=18,SNR=14 | | | | | | | | |
| **KNZ** | **Kokohu** | **10.74** | **207** | *e*PN | | | **Pn** | **15 45 13.2** | **-2.5** |
| KNZ | | | | *e*SN | | | **Sn** | **15 47 12.1** | **-2.4** |
| **BKZ** | **Black Stump Fm** | **11.35** | **211** | *e*PN | | | **Pn** | **15 45 21.8** | **-2.3** |
| BKZ | | | | *e*SN | | | **Sn** | **15 47 27.7** | **-2.1** |
| **PXZ** | **Pawanui** | **11.92** | **207** | *e*SN | | | **Sn** | **15 47 40.3** | **-3.2** |
| **BFZ** | **Birch Farm** | **12.72** | **207** | *e*SN | | | **Sn** | **15 48 00.0** | **-3.1** |
| **MRZ** | **Mangatainoka R** | **12.98** | **209** | *e*SN | | | **Sn** | **15 48 04.6** | **-4.9** |
| **DZM** | **Mont Dzumac** | **17.38** | **291** | *e*P | | | **Pn** | **15 46 44.5** | **+0.2** |
| | 60nm,1.3s | | | | | | | | |
| DZM | | | | *e*LR | | | LR | 15 51 20.8 | |
| | 390nm,22.1s | | | | | | | | |
| **RPZ** | **Rata Peaks** | **17.45** | **213** | P | | | **Pn** | **15 46 42.9** | **-2.0** |
| | 0.5nm,0.3s,baz=360,slow=18,SNR=3.0 | | | | | | | | |
| RPZ | | | | S | | | Sn | 15 49 46.0 | -12 |
| | 1.6nm,0.3s,baz=98,slow=20,SNR=9.9 | | | | | | | | |
| **PPT2** | **Papeete2** | **27.01** | **70** | *e*S | | | **S** | **15 52 54.2** | **-4.5** |
| | 133nm,29.8s | | | | | | | | |
| PPT2 | | | | *e*LR | | | LR | 15 54 47.4 | |
| | 220nm,25.5s | | | | | | | | |
| **PPT** | **Papeete** | **27.02** | **70** | LR | | | LR | 15 57 43.8 | |
| | comp=Z,195nm,18.1s,baz=350,slow=33 | | | | | | | | |
| **HNR** | **Honiara** | **30.06** | **307** | LR | | | LR | 15 59 27.7 | |
| | comp=Z,52nm,20.7s,baz=141,slow=34 | | | | | | | | |
| **STKA** | **Stephens Creek** | **36.27** | **255** | P | | | **P** | **15 49 44.7** | **+0.3** |
| | 3.3nm,1.0s,baz=97,slow=12,SNR=5.9 | | | | | | | | |
| STKA | | | | LR | | | LR | 16 04 19.6 | |
| | comp=Z,165nm,18.2s,baz=41,slow=36 | | | | | | | | |
| **ASAR** | **Alice Springs** | **44.80** | **265** | P | | | **P** | **15 50 54.0** | **-1.1** |
| | 2.7nm,0.8s,baz=105,slow=7.4,SNR=44 | | | | | | | | |
| ASAR | | | | LR | | | LR | 16 09 47.8 | |
| | comp=Z,208nm,18.9s,baz=107,slow=36 | | | | | | | | |
| **WRAB** | **Tennant Creek** | **45.71** | **270** | *e*P | | | **P** | **15 51 02.2** | **-0.1** |
| | 1.4nm,0.6s | | | | | | | | |
| **WRA** | **Warramunga Arr** | **45.72** | **270** | P | | | **P** | **15 51 00.8** | **-1.6** |
| | 3.6nm,0.6s,baz=108,slow=7.9,SNR=32 | | | | | | | | |
| WRA | | | | LR | | | LR | 16 09 42.8 | |
| | comp=Z,73nm,18.7s,baz=115,slow=36 | | | | | | | | |
| **VNDA** | **Vanda** | **49.09** | **186** | P | | | P | 15 51 31.8 | +4.0 |
| | 2.4nm,1.1s,baz=1.9,slow=8.1,SNR=3.1 | | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **54.01** | **268** | LR | | | LR | 16 15 16.5 | |
| | comp=Z,78nm,18.1s,baz=268,slow=36 | | | | | | | | |
| **SYO** | **Syowa Base** | **78.28** | **192** | *e*P | | | P | 15 54 45.0 | +4.7 |
| **SNAA** | **Sanae** | **78.93** | **178** | P | | | **P** | **15 54 46.5** | **+2.6** |
| **VNA3** | **Neumayer Olymp** | **79.01** | **176** | P | | | **P** | **15 54 46.7** | **+2.4** |
| **VNA2** | **Neumayer--Watz** | **79.47** | **176** | P | | | **P** | **15 54 49.6** | **+2.9** |
| | baz=169,slow=5.2 | | | | | | | | |
| **VNA1** | **Neumayer--Stat** | **79.69** | **176** | P | | | **P** | **15 54 49.1** | **+1.2** |
| **PLCA** | **Paso Flores** | **81.86** | **132** | P | | | **P** | **15 55 02.9** | **+2.6** |
| | 3.6nm,0.8s,baz=280,slow=6.2,SNR=8.4 | | | | | | | | |
| **PETK** | **Petropavlovsk-** | **85.43** | **345** | P | | | **P** | **15 55 16.5** | **-1.4** |
| | 1.9nm,0.8s,baz=108,slow=12,SNR=4.6 | | | | | | | | |
| **NVAR** | **Mina Array Bea** | **86.52** | **42** | P | | | **P** | **15 55 23.0** | **-0.9** |
| | 2.9nm,0.9s,baz=224,slow=8.1,SNR=9.6 | | | | | | | | |
| NVAR | | | | LR | | | LR | 16 29 26.7 | |
| | comp=Z,118nm,18.3s,baz=238,slow=32 | | | | | | | | |
| **TXAR** | **Lajitas Array** | **90.56** | **56** | P | | | **P** | **15 55 43.3** | **+0.2** |
| | 1.5nm,1.0s,baz=209,slow=6.7,SNR=8.3 | | | | | | | | |
| **PDAR** | **Pinedale Array** | **94.41** | **43** | P | | | **P** | **15 56 00.3** | **-0.4** |
| | 0.5nm,0.8s,baz=211,slow=5.1,SNR=3.4 | | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **94.68** | **288** | P | | | **P** | **15 56 03.7** | **+1.4** |
| | 0.4nm,0.8s,baz=90,slow=2.7,SNR=3.5 | | | | | | | | |
| **ILAR** | **Eielson Array** | **96.76** | **12** | P | | | **P** | **15 56 09.0** | **-1.6** |
| | 0.4nm,0.7s,baz=219,slow=6.5,SNR=6.5 | | | | | | | | |
| **LPAZ** | **La Paz** | **96.97** | **113** | P | | | **P** | **15 56 16.1** | **+2.4** |
| | 1.7nm,0.7s,baz=194,slow=2.9,SNR=6.3 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **118.49** | **310** | PKP | | | **PKPdf** | **16 01 26.8** | **-1.3** |
| | 0.4nm,0.6s,baz=162,slow=0.8,SNR=5.3 | | | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **137.74** | **152** | T | | | T | 18 37 48.2 | |
| | baz=200 | | | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **137.74** | **152** | T | | | T | 18 37 21.0 | |
| | baz=200 | | | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **137.75** | **152** | T | | | T | 18 37 27.7 | |
| | baz=200 | | | | | | | | |
| **ARCES** | **ARCESS Array B** | **138.11** | **349** | PKP | | | **PKPdf** | **16 02 05.4** | **+0.8** |
| | 2.3nm,0.8s,baz=21,slow=5.3,SNR=4.4 | | | | | | | | |
| **H10N3** | **ASCENSION HYDR** | **138.81** | **152** | T | | | T | 18 38 51.3 | |
| | baz=207 | | | | | | | | |
| **H10N1** | **ASCENSION HYDR** | **138.81** | **152** | T | | | T | 18 38 35.8 | |
| | baz=207 | | | | | | | | |
| **H10N2** | **ASCENSION HYDR** | **138.83** | **152** | T | | | T | 18 38 37.8 | |
| | baz=207 | | | | | | | | |
| **FINES** | **FINESS Array B** | **144.90** | **342** | PKP | | | **PKPbc** | **16 02 14.2** | **-2.1** |
| | 3.4nm,0.8s,baz=56,slow=3.5,SNR=9.3 | | | | | | | | |
| **NB2** | **NORSAR Subarra** | **148.15** | **353** | PKP | | | **PKPbc** | **16 02 24.9** | **-0.9** |
| | comp=Z,2.4nm,0.7s,baz=9.8,slow=2.9 | | | | | | | | |
| **NOA** | **NORSAR Array B** | **148.15** | **353** | PKPbc | | | **PKPbc** | **16 02 24.3** | **-1.5** |
| | comp=Z,6.0nm,0.9s,baz=14,slow=4.4,SNR=7.9 | | | | | | | | |
| **AKASG** | **Malin Array Be** | **151.59** | **325** | PKPbc | | | **PKPbc** | **16 02 33.8** | **-0.7** |
| | comp=Z,3.6nm,0.8s,baz=44,slow=2.5,SNR=15 | | | | | | | | |
| **BRTR** | **Keskin Array B** | **153.62** | **301** | PKPbc | | | **PKPbc** | **16 02 39.3** | **-0.3** |
| | comp=Z,0.4nm,0.7s,baz=101,slow=5.2,SNR=4.0 | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **163.53** | **172** | PKP | | | **PKPdf** | **16 02 45.1** | **+1.0** |
| | comp=Z,0.6nm,0.6s,baz=3.9,slow=1.9,SNR=4.3 | | | | | | | | |
| TORD | | | | PKPab | | | **PKPab** | **16 03 37.1** | **+1.8** |
| | comp=Z,2.2nm,0.8s,baz=188,slow=4.2,SNR=9.0 | | | | | | | | |
| **ESDC** | **Sonseca Array** | **168.03** | **31** | PKP | | | **PKPdf** | **16 02 48.9** | **+1.8** |
| | comp=Z,0.1nm,0.3s,baz=343,slow=3.6,SNR=5.1 | | | | | | | | |
| ESDC | | | | PKPab | | | **PKPab** | **16 03 53.8** | **-1.0** |
| | comp=Z,0.1nm,0.3s,baz=328,slow=4.6,SNR=4.6 | | | | | | | | |

*ISCJB **30** 15:46:25.0±0.5, 16.°82N±0.°05×95.°35W±0.°05,h100$^{km}$, Error ellipse: s-maj=7.9km s-min=5.5km az=139.8*
*NEIC **30** 15:46:26.8±0.8,16.°91N×95.°37W,h91$^{km}$, MD4.2(MEX), After MEX.*
*MEX **30** 15:46:26.8±0.8, 16.°91N×95.°36W,h90$^{km}$±33$^{km}$, MD4.2*

**ISC 30 15:46:25.8±0.9,16.79N±0.09°×95.34W±0.06°,h100$^{km}$,n53, σ1$^{s}$28/50,Oaxaca**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **HUIG** | **Huatulco** | **1.26** | **216** | *i* P | | | **Pn** | **15 46 48.9** | **-0.4** |
| HUIG | | | | *e*S | | | **Sn** | **15 47 07.3** | **+0.4** |
| **HUIG** | **Huatulco** | **1.26** | **216** | *i* P | | | **Pn** | **15 46 48.9** | **-0.4** |
| HUIG | | | | *e*S | | | **Sn** | **15 47 07.3** | **+0.4** |
| **TGIG** | | **2.12** | **90** | *e*P | | | **Pn** | **15 46 60.0** | **-0.1** |
| TGIG | | | | *e*S | | | **Sn** | **15 47 25.8** | **-0.5** |
| **TGIG** | | **2.12** | **90** | *e*P | | | **Pn** | **15 46 60.0** | **-0.1** |
| TGIG | | | | *e*S | | | **Sn** | **15 47 25.8** | **-0.5** |
| **PNIG** | **Pinotepa** | **2.70** | **262** | *e*P | | | **Pn** | **15 47 07.8** | **+0.1** |
| PNIG | | | | *e*S | | | **Sn** | **15 47 38.9** | **-1.0** |
| **PNIG** | **Pinotepa** | **2.70** | **262** | *e*P | | | **Pn** | **15 47 07.8** | **+0.1** |
| PNIG | | | | *e*S | | | **Sn** | **15 47 38.9** | **-1.0** |
| **WHTX** | **Lake Whitney,** | **15.26** | **353** | P | | | **P** | **15 50 00.0** | **+1.6** |
| | baz=172 | | | | | | | | |
| **Z38A** | **Mt. Pleasant** | **16.40** | **1** | P | | | **P** | **15 50 13.4** | **+2.3** |
| | baz=181 | | | | | | | | |
| **X39A** | **Fountain Ranch** | **17.68** | **3** | P | | | **Pn** | **15 50 28.6** | **+3.0** |
| | baz=184 | | | | | | | | |
| **X37A** | **Clayton** | **17.72** | **360** | P | | | **Pn** | **15 50 27.1** | **+0.9** |
| | baz=180 | | | | | | | | |
| **X36A** | **Centrahoma** | **17.73** | **357** | P | | | **Pn** | **15 50 26.8** | **+0.5** |
| | baz=177 | | | | | | | | |
| **MIAR** | **Mount Ida** | **17.75** | **5** | P | | | **Pn** | **15 50 27.0** | **+0.4** |
| | baz=186 | | | | | | | | |
| **X38A** | **Whitesboro** | **17.81** | **1** | P | | | **Pn** | **15 50 28.4** | **+1.1** |
| | baz=182,SNR=5.2 | | | | | | | | |
| **LRAL** | **Lakeview Retre** | **17.84** | **23** | P | | | **Pn** | **15 50 28.2** | **+0.6** |
| | baz=207 | | | | | | | | |
| **Y46A** | **Houston** | **17.99** | **18** | P | | | **Pn** | **15 50 29.7** | **+0.3** |
| | baz=201 | | | | | | | | |
| **W38A** | **Poteau** | **18.22** | **2** | P | | | **Pn** | **15 50 32.3** | **+0.2** |
| | baz=183 | | | | | | | | |
| **W37B** | **Quinton** | **18.27** | **360** | P | | | **Pn** | **15 50 33.3** | **+0.5** |
| | baz=180,SNR=5.6 | | | | | | | | |
| **W36A** | **Wetumka** | **18.29** | **358** | P | | | **Pn** | **15 50 33.8** | **+0.8** |
| | baz=177 | | | | | | | | |
| **W35A** | **Tecumseh** | **18.34** | **356** | P | | | **Pn** | **15 50 34.1** | **+0.5** |
| | baz=175 | | | | | | | | |
| **W39A** | **Magazine** | **18.38** | **4** | P | | | **Pn** | **15 50 34.2** | **+0.1** |
| | baz=185,SNR=5.0 | | | | | | | | |
| **V36A** | **Jenks** | **18.93** | **358** | P | | | **Pn** | **15 50 39.3** | **-1.3** |
| | baz=178,SNR=5.1 | | | | | | | | |
| **V35A** | **Meyer Ranch, C** | **18.94** | **356** | P | | | **Pn** | **15 50 39.8** | **-1.0** |
| | baz=176 | | | | | | | | |
| **V38A** | **Canehill** | **19.01** | **2** | P | | | **Pn** | **15 50 40.5** | **-1.1** |
| | baz=183,SNR=8.9 | | | | | | | | |
| **V37A** | **Hulbert** | **19.02** | **0** | P | | | **Pn** | **15 50 40.3** | **-1.3** |
| | baz=181,SNR=7.9 | | | | | | | | |
| **V39A** | **Pettigrew** | **19.03** | **4** | P | | | **Pn** | **15 50 41.2** | **-0.7** |
| | baz=185,SNR=6.0 | | | | | | | | |
| **TUL1** | **Leonard** | **19.05** | **359** | P | | | **Pn** | **15 50 40.8** | **-1.1** |
| | baz=179 | | | | | | | | |
| **V40A** | **Witts Springs** | **19.07** | **6** | P | | | **Pn** | **15 50 41.8** | **-0.5** |
| | baz=188 | | | | | | | | |
| **V41A** | **Mountainview** | **19.13** | **8** | P | | | **Pn** | **15 50 41.7** | **-1.3** |
| | baz=189 | | | | | | | | |
| **V42A** | **Cord** | **19.26** | **10** | P | | | **Pn** | **15 50 42.9** | **-1.6** |
| | baz=192,SNR=14 | | | | | | | | |
| **U39A** | **Green Forest** | **19.58** | **4** | P | | | **Pn** | **15 50 47.1** | **-1.2** |
| | baz=185 | | | | | | | | |
| **U38A** | **Gravette** | **19.59** | **2** | P | | | **Pn** | **15 50 46.5** | **-1.8** |
| | baz=183 | | | | | | | | |
| **U40A** | **Yellville** | **19.61** | **6** | P | | | **Pn** | **15 50 47.4** | **-1.2** |
| | baz=187,SNR=8.0 | | | | | | | | |
| **U41A** | **Viola** | **19.71** | **8** | P | | | **Pn** | **15 50 48.2** | **-1.5** |
| | baz=190 | | | | | | | | |
| **U42A** | **Revenden** | **19.82** | **10** | P | | | **Pn** | **15 50 48.6** | **-2.4** |
| | baz=192,SNR=10 | | | | | | | | |
| **U43A** | **Rector** | **19.99** | **12** | P | | | **Pn** | **15 50 50.7** | **-2.2** |
| | baz=194,SNR=7.8 | | | | | | | | |
| **T35A** | **Sooner Cattle** | **20.07** | **357** | P | | | **Pn** | **15 50 51.7** | **-2.3** |
| | baz=177,SNR=5.7 | | | | | | | | |
| **T38A** | **Diamond** | **20.19** | **2** | P | | | **Pn** | **15 50 53.5** | **-1.8** |
| | baz=183,SNR=5.5 | | | | | | | | |
| **T36A** | **Boggs Farm, Ca** | **20.20** | **359** | P | | | **Pn** | **15 50 53.1** | **-2.2** |
| | baz=179 | | | | | | | | |
| **T34A** | **McClaskey Farm** | **20.22** | **356** | P | | | Pn | 15 50 53.4 | -2.3 |
| | baz=175 | | | | | | | | |
| **T37A** | **Cheneyville 18** | **20.26** | **1** | P | | | Pn | 15 50 53.5 | -2.6 |
| | baz=181,SNR=6.0 | | | | | | | | |
| **T41A** | **Mountain View** | **20.42** | **8** | P | | | Pn | 15 50 55.7 | -2.3 |
| | baz=190 | | | | | | | | |
| **T40A** | **Mansfield** | **20.43** | **6** | P | | | Pn | 15 50 56.4 | -1.8 |
| | baz=188 | | | | | | | | |
| **T42A** | **Van Buren** | **20.51** | **10** | P | | | **P** | **15 50 53.6** | **-2.4** |
| | baz=192 | | | | | | | | |
| **T43A** | **Greenville** | **20.70** | **11** | P | | | Pn | 15 50 58.3 | -3.0 |
| | baz=194 | | | | | | | | |
| **S38A** | **Stockton** | **20.80** | **3** | P | | | Pn | 15 51 00.2 | -2.2 |
| | baz=184 | | | | | | | | |
| **S35A** | **Otter Creek Ra** | **20.83** | **358** | P | | | Pn | 15 51 00.3 | -2.5 |
| | baz=177 | | | | | | | | |
| **S40A** | **Lebanon** | **20.88** | **6** | P | | | Pn | 15 51 00.4 | -2.9 |
| | baz=188 | | | | | | | | |
| **S39A** | **Bolivar** | **20.89** | **4** | P | | | Pn | 15 51 00.9 | -2.6 |
| | baz=186 | | | | | | | | |
| **R38A** | **Fenwick Farm,** | **21.35** | **3** | P | | | **P** | **15 51 05.4** | **+0.4** |
| | baz=184 | | | | | | | | |
| **T47A** | **Sharon Grove** | **21.40** | **18** | P | | | **P** | **15 51 06.0** | **+0.5** |
| | baz=202 | | | | | | | | |
| **R39A** | **Chumby, Stover** | **21.54** | **5** | P | | | **P** | **15 51 08.1** | **+1.1** |
| | baz=186 | | | | | | | | |
| **R40A** | **Maddies Statio** | **21.59** | **7** | P | | | **P** | **15 51 08.7** | **+1.2** |
| | baz=188 | | | | | | | | |
| **214A** | **Organ Pipe Nat** | **21.89** | **317** | Pn | | | **P** | **15 51 11.3** | **+0.5** |
| | 248nm,0.6s | | | | | | | | |

*ECX **30** 15:50:13.7±0.4,32.°18N×115.°24W,h6$^{km}$, MD3.0,ML3.2*
*NEIC **30** 15:50:13.8±0.0,32.°19N×115.°25W,h6$^{km}$,ML3.1(PAS), ML3.3(ECX),After ECX.*
*MEX **30** 15:50:14.0±0.4,32.°31N×115.°05W,h22$^{km}$±7$^{km}$, MD3.8*

**ISC 30 15:50:12.7±1.1,32.17N±0.02°×115.26W±0.03°,h3$^{km}$±10$^{km}$, n42,σ1$^{s}$15/63,3C-2D,California-Baja California border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **MBIG** | **Mexicali** | **0.24** | **13** | *e*P | | | **Pg** | **15 50 17.9** | **+0.5** |
| MBIG | | | | *e*S | | | **Sg** | **15 50 20.3** | **-0.3** |
| **MBIG** | **Mexicali** | **0.24** | **13** | *e*P | | | **Pg** | **15 50 18.0** | **+0.5** |
| **CPBX** | **Cerro Prieto** | **0.25** | **352** | *e*P | | | **Pg** | **15 50 17.9** | **+0.4** |
| **CPBX** | **Cerro Prieto** | **0.25** | **352** | *e*P | | | **Pg** | **15 50 18.0** | **+0.4** |
| CPBX | | | | *e*S | | | **Sg** | **15 50 20.6** | **-0.2** |
| **EMSC** | **East Mesa** | **0.61** | **23** | ⇑*i*P | | | **Pg** | **15 50 24.5** | **0.0** |
| **SGL** | **Mount Signal** | **0.62** | **321** | ⇓*i*P | | | **Pg** | **15 50 24.6** | **+0.1** |
| **YMD** | **Yuma Desert** | **0.72** | **58** | ⇑*i*P | | | **Pg** | **15 50 25.8** | **-0.7** |
| **ECBX** | **El Chinero** | **0.72** | **165** | *e*P | | | **Pg** | **15 50 26.5** | **-0.1** |
| **COK** | **Cook Ranch** | **0.78** | **330** | ⇓*i*P | | | **Pg** | **15 50 27.6** | **-0.2** |
| **RMX** | **La Rumorosa** | **0.81** | **302** | *e*P | | | **Pg** | **15 50 27.6** | **-0.7** |
| RMX | | | | *e*S | | | **Sg** | **15 50 38.5** | **-0.4** |
| **IKP** | **In-Ko-Pah, Jac** | **0.86** | **304** | P | | | **Pg** | **15 50 29.6** | **+0.3** |
| | baz=122 | | | | | | | | |
| IKP | | | | S | | | **Sg** | **15 50 41.0** | **+0.6** |
| | baz=122 | | | | | | | | |
| **SWSC** | **Sam W. Stewart** | **0.89** | **330** | P | | | **Pg** | **15 50 29.4** | **-0.5** |
| | baz=148,SNR=45 | | | | | | | | |
| SWSC | | | | S | | | **Sg** | **15 50 41.4** | **-0.1** |
| | baz=148 | | | | | | | | |
| **GLA** | **Glamis** | **0.95** | **23** | P | | | **Pg** | **15 50 30.4** | **-0.6** |
| | baz=202 | | | | | | | | |
| GLA | | | | S | | | **Sg** | **15 50 41.6** | **-1.8** |
| | baz=202 | | | | | | | | |
| **SPIG** | **San Pedro Mart** | **1.14** | **189** | *e*P | | | **Pg** | **15 50 34.0** | **-0.5** |
| SPIG | | | | *e*S | | | **Sg** | **15 50 50.1** | **+0.9** |
| **SPIG** | **San Pedro Mart** | **1.14** | **189** | *e*P | | | **Pg** | **15 50 34.0** | **-0.5** |
| SPIG | | | | *e*S | | | **Sg** | **15 50 50.1** | **+0.9** |
| **SPX** | **San Pedro Mart** | **1.14** | **189** | *e*P | | | **Pg** | **15 50 34.0** | **-0.5** |
| **SPX** | **San Pedro Mart** | **1.14** | **189** | *e*P | | | **Pg** | **15 50 33.9** | **-0.7** |
| SPX | | | | *e*S | | | **Sg** | **15 50 50.1** | **+0.9** |
| **CBX** | **Cerro Bola** | **1.19** | **277** | *e*P | | | **Pg** | **15 50 34.7** | **-0.9** |
| CBX | | | | *e*S | | | **Sg** | **15 50 51.4** | **+0.2** |
| **CBX** | **Cerro Bola** | **1.19** | **277** | *e*P | | | **Pg** | **15 50 34.7** | **-0.9** |
| CBX | | | | IAML | | | | 15 50 52.8 | |
| | comp=N,766nm,0.3s | | | | | | | | |
| CBX | | | | ⇑*e* | | | | 15 50 52.8 | |
| **CBX** | **Cerro Bola** | **1.19** | **277** | *e*P | | | **Pg** | **15 50 34.7** | **-0.9** |
| CBX | | | | *e*S | | | **Sg** | **15 50 51.4** | **+0.2** |
| **MONP2** | **Monument Peak** | **1.21** | **307** | P | | | **Pg** | **15 50 35.6** | **-0.4** |
| | baz=125,SNR=77 | | | | | | | | |
| MONP2 | | | | S | | | **Sg** | **15 50 51.4** | **-0.4** |
| | baz=125 | | | | | | | | |
| **TJIG** | **Tijuana** | **1.22** | **283** | *e*P | | | **Pg** | **15 50 35.0** | **-1.2** |
| TJIG | | | | *e*S | | | **Sg** | **15 50 51.3** | **-0.8** |
| **TJIG** | **Tijuana** | **1.22** | **283** | *e*P | | | **Pg** | **15 50 34.9** | **-1.3** |
| **ECNX** | **Esteban Cantu** | **1.25** | **246** | *e*P | | | **Pg** | **15 50 35.5** | **-1.1** |
| **BAR** | **Barrett** | **1.29** | **293** | *e*P | | | **Pn** | **15 50 36.3** | **-1.5** |
| **PBX** | **Punta Banda** | **1.31** | **251** | *e*P | | | **Pn** | **15 50 36.5** | **-1.5** |
| **BC3** | **Big Chuckawall** | **1.49** | **354** | P | | | **Pn** | **15 50 37.5** | **-3.1** |
| | baz=173,SNR=78 | | | | | | | | |
| **SDRC** | **San Diego Road** | **1.53** | **292** | *e*P | | | **Pn** | **15 50 40.4** | **-0.5** |
| **Y12C** | **Blythe** | **1.69** | **21** | P | | | **Pn** | **15 50 43.0** | **-0.2** |
| | baz=201,SNR=22 | | | | | | | | |
| Y12C | | | | S | | | **Sb** | **15 51 06.0** | **-0.3** |
| | baz=201 | | | | | | | | |
| **109C** | **Camp Elliot, M** | **1.71** | **295** | P | | | **Pn** | **15 50 44.5** | **+1.0** |
| | baz=114,SNR=9.2 | | | | | | | | |
| 109C | | | | S | | | **Sn** | **15 51 06.1** | **+0.2** |
| | baz=114 | | | | | | | | |
| **TPFO** | **Pinon Flats** | **1.75** | **325** | P | | | **Pn** | **15 50 41.5** | **-2.6** |
| | baz=144,SNR=18 | | | | | | | | |
| TPFO | | | | S | | | **Sn** | **15 51 07.4** | **+0.5** |
| | baz=144 | | | | | | | | |
| **PFO** | **Pinyon Flats O** | **1.75** | **325** | P | | | **Pn** | **15 50 42.6** | **-1.6** |
| | baz=144,SNR=25 | | | | | | | | |
| PFO | | | | S | | | **Sn** | **15 51 07.6** | **+0.5** |
| | baz=144 | | | | | | | | |
| **PFO** | **Pinyon Flats O** | **1.75** | **325** | *e*Pn | | | **Pn** | **15 50 41.4** | **-2.8** |
| PFO | | | | *e*Sn | | | **Sn** | **15 51 04.1** | **-3.0** |
| **BELC** | **Belle Mtn. Jos** | **1.93** | **342** | P | | | **Pn** | **15 50 45.3** | **-1.3** |
| | baz=161,SNR=28 | | | | | | | | |
| **IRM** | **Iron Mountain** | **1.98** | **3** | P | | | **Pn** | **15 50 47.0** | **-0.3** |
| | baz=182,SNR=54 | | | | | | | | |
| **MURC** | **Murrieta** | **2.16** | **312** | Pb | | | **Pb** | **15 50 53.1** | **+0.6** |
| | baz=130,SNR=9.7 | | | | | | | | |
| **PDMCI** | **Parker Dam,Lak** | **2.33** | **24** | Pb | | | **Pb** | **15 50 55.2** | **-0.2** |
| | baz=204 | | | | | | | | |
| PDMCI | | | | S | | | **Sn** | **15 51 22.2** | **+1.2** |
| | baz=204 | | | | | | | | |
| **BBRC** | **Big Bear Solar** | **2.50** | **327** | Pb | | | **Pb** | **15 50 59.0** | **+0.5** |
| | baz=146 | | | | | | | | |
| BBRC | | | | Sb | | | **Sb** | **15 51 31.5** | **+1.6** |
| | baz=146 | | | | | | | | |
| **GMRC** | **Granite Mounta** | **2.63** | **353** | P | | | Pn | **15 50 56.3** | **+0.1** |
| | baz=172 | | | | | | | | |
| **BFSC** | **Mount Baldy Ra** | **2.88** | **316** | P | | | P | **15 50 59.7** | **0.0** |
| | baz=135 | | | | | | | | |
| **CIS** | **Catalina Islan** | **2.92** | **296** | P | | | Pn | **15 51 00.5** | **+0.3** |
| | baz=114 | | | | | | | | |
| **EDW2** | **Edwards Air Fo** | **3.54** | **321** | Pb | | | **Pb** | **15 51 17.4** | **+1.4** |
| | baz=139 | | | | | | | | |
| EDW2 | | | | Sb | | | **Sb** | **15 52 02.5** | **+3.1** |
| | baz=139 | | | | | | | | |

*ISN **30** 15:53:01.1±0.8,39.°16N×43.°56E,h17$^{km}$±59$^{km}$,ML3.4*
*AZER **30** 15:53:01.5±1.5,38.°59N×43.°01E,h5$^{km}$, Error ellipse: s-maj=12.3km s-min=11.0km az=85.0*
*ISK **30** 15:53:05.1,38.°65N×43.°70E,h5$^{km}$,ML3.3*
*DDA **30** 15:53:05.7,38.°68N×43.°64E,h5$^{km}$,Md3.3*
*CSEM **30** 15:53:07.2±0.1,38.°66N×43.°62E,h5$^{km}$,MD3.3,Error ellipse: s-maj=3.8km s-min=3.1km az=121.0*

**ISC 30 15:53:07.3±1.0,38.67N±0.02°×43.61E±0.02°,h7$^{km}$±8$^{km}$, n112,σ1$^{s}$58/151,15C-15D,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.19** | **247** | *e*PG | | | **Pg** | **15 53 11.2** | **+0.1** |
| **VANB** | **Van** | **0.19** | **247** | *e*Pg | | | **Pg** | **15 53 11.2** | **+0.1** |
| **TVAN** | **Van** | **0.21** | **229** | *i* P | | | **Pg** | **15 53 11.3** | **-0.3** |
| TVAN | | | | *i* S | | | **Sg** | **15 53 15.6** | **+1.2** |
| **TVAN** | **Van** | **0.21** | **229** | P | | | **Pg** | **15 53 11.3** | **-0.3** |
| TVAN | | | | S | | | **Sg** | **15 53 15.6** | **+1.2** |
| **VMUR** | **Van-Muradiye** | **0.32** | **355** | *i* P | | | **Pg** | **15 53 12.0** | **-1.7** |
| VMUR | | | | *i* S | | | **Sg** | **15 53 19.1** | **+1.0** |
| **VMUR** | **Van-Muradiye** | **0.32** | **355** | P | | | **Pg** | **15 53 12.0** | **-1.7** |
| VMUR | | | | S | | | **Sg** | **15 53 19.1** | **+1.0** |
| **CLDR** | **Caldiran** | **0.53** | **27** | *e*PG | | | **Pg** | **15 53 15.8** | **-1.8** |
| CLDR | | | | *e*SG | | | **Sg** | **15 53 25.4** | **+0.7** |
| **CLDR** | **Caldiran** | **0.53** | **27** | *i* P | | | **Pg** | **15 53 16.3** | **-1.3** |
| CLDR | | | | *i* S | | | **Sg** | **15 53 25.2** | **+0.5** |
| **CLDR** | **Caldiran** | **0.53** | **27** | *e*Pg | | | **Pg** | **15 53 15.9** | **-1.8** |
| **CLDR** | **Caldiran** | **0.53** | **27** | P | | | **Pg** | **15 53 16.3** | **-1.3** |
| CLDR | | | | S | | | **Sg** | **15 53 25.2** | **+0.5** |
| **GEVA** | **Gevas** | **0.56** | **231** | *i* P | | | **Pg** | **15 53 17.4** | **-0.7** |
| GEVA | | | | *i* S | | | **Sb** | **15 53 27.3** | **-0.5** |
| **GEVA** | **Gevas** | **0.56** | **231** | P | | | **Pg** | **15 53 17.4** | **-0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.71** | **282** | *i* P | | | **Pg** | **15 53 20.1** | **-0.8** |
| ADCV | | | | *i* S | | | **Sb** | **15 53 31.4** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.71** | **282** | P | | | **Pg** | **15 53 20.1** | **-0.8** |
| ADCV | | | | S | | | **Sb** | **15 53 31.5** | **-0.6** |
| **DYDN** | **Diyadin** | **0.88** | **4** | *i* P | | | **Pg** | **15 53 21.5** | **-2.7** |
| **AGRB** | **Hanur-Agry** | **1.03** | **332** | *e*PG | | | **Pg** | **15 53 26.1** | **-0.9** |
| AGRB | | | | *e*SG | | | **Sn** | **15 53 42.9** | **-0.2** |
| **AGRB** | **Hanur-Agry** | **1.03** | **332** | *e*Pg | | | **Pg** | **15 53 26.1** | **-0.9** |
| AGRB | | | | *e*Sg | | | **Sn** | **15 53 42.9** | **-0.2** |
| **HAKT** | **HAKKARI** | **1.11** | **176** | *i* P | | | **Pg** | **15 53 26.4** | **-2.2** |
| **HAKT** | **HAKKARI** | **1.11** | **176** | P | | | **Pg** | **15 53 26.4** | **-2.2** |
| **YOVA** | **

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **MNGR** | **Mingechevir, A** | **3.41** | **51** | ⇑P | | **Pn** | **15 54 01.1** | **+0.2** |
| MNGR | | | | ⇓S | | **Sb** | **15 54 47.4** | **-2.2** |
| **MNGR** | **Mingechevir, A** | **3.41** | **51** | P | | **Pn** | **15 54 01.1** | **+0.2** |
| MNGR | | | | S | | **Sb** | **15 54 47.4** | **-2.2** |
| **EZC** | **Erzincan** | **3.48** | **289** | *e*Pn | | **Pn** | **15 53 59.2** | **-2.8** |
| **ZRD** | **Zardab** | **3.54** | **62** | ⇑P | | **Pn** | **15 54 03.4** | **+0.7** |
| ZRD | | | | ⇑S | | **Sb** | **15 54 51.4** | **-2.1** |
| **ZRD** | **Zardab** | **3.54** | **62** | P | | **Pn** | **15 54 03.4** | **+0.7** |
| **LRK** | **Lerik** | **3.70** | **89** | ⇑P | | **Pn** | **15 54 05.8** | **+0.6** |
| LRK | | | | ⇑S | | **Sb** | **15 54 55.8** | **-2.6** |
| **LRK** | **Lerik** | **3.70** | **89** | P | | **Pn** | **15 54 05.8** | **+0.6** |
| **SEKA** | **Sheki** | **3.75** | **46** | ⇓P | | **Pn** | **15 54 06.4** | **+0.7** |
| SEKA | | | | ⇓S | | **Sb** | **15 54 56.9** | **-2.7** |
| **SEKA** | **Sheki** | **3.75** | **46** | P | | **Pn** | **15 54 06.4** | **+0.7** |
| **ZKTA** | **Zakatala** | **3.76** | **37** | ⇓P | | **Pn** | **15 54 05.2** | **-0.6** |
| ZKTA | | | | ⇑S | | **Sn** | **15 54 54.8** | **+4.5** |
| **QBL** | **Gabala** | **3.97** | **54** | ⇑P | | **Pn** | **15 54 09.0** | **+0.3** |
| QBL | | | | ⇑S | | **Sb** | **15 55 01.4** | **-4.6** |
| **QBL** | **Gabala** | **3.97** | **54** | P | | **Pn** | **15 54 09.0** | **+0.3** |
| QBL | | | | S | | **Sb** | **15 55 01.4** | **-4.6** |
| **LKRN** | **Lenkeran, Azer** | **4.05** | **88** | ⇑P | | **Pn** | **15 54 10.5** | **+0.9** |
| LKRN | | | | ⇓S | | **Sb** | **15 55 04.2** | **-3.8** |
| **LKRN** | **Lenkeran, Azer** | **4.05** | **88** | P | | **Pn** | **15 54 10.5** | **+0.9** |
| **ASTR** | **Astara** | **4.06** | **90** | ⇑P | | **Pn** | **15 54 10.6** | **+0.7** |
| **ASTR** | **Astara** | **4.06** | **90** | P | | **Pn** | **15 54 10.6** | **+0.7** |
| **XNQ** | **Khinaliq** | **4.29** | **53** | ⇑P | | **Pn** | **15 54 13.5** | **+0.2** |
| **XNQ** | **Khinaliq** | **4.29** | **53** | P | | **Pn** | **15 54 13.5** | **+0.2** |
| **PQL** | **Pirkuli** | **4.39** | **60** | ⇓P | | **Pn** | **15 54 14.9** | **+0.4** |
| **PQL** | **Pirkuli** | **4.39** | **60** | P | | **Pn** | **15 54 14.9** | **+0.4** |
| **SIZA** | **Siyzn** | **4.73** | **58** | ⇓P | | **Pn** | **15 54 19.3** | **+0.2** |
| **SIZA** | **Siyzn** | **4.73** | **58** | P | | **Pn** | **15 54 19.3** | **+0.2** |
| **BHD** | **Baghdad** | **5.42** | **173** | *e*Pn | | **Pn** | **15 54 29.6** | **+1.0** |
| | SNR=52 | | | | | | | |
| BHD | | | | *e*Sn | | **Sn** | **15 55 31.0** | **-0.2** |
| | SNR=5.0 | | | | | | | |
| **RTB** | **Rutbah** | **6.23** | **206** | *e*Pn | | **Pn** | **15 54 39.9** | **+0.1** |
| | SNR=52 | | | | | | | |
| RTB | | | | *e*Sn | | **Sn** | **15 55 49.1** | **-2.2** |
| | SNR=52 | | | | | | | |
| **NSR** | **Nassriya** | **7.92** | **164** | *e*Pn | | **Pn** | **15 55 04.4** | **+1.6** |
| | SNR=52 | | | | | | | |
| NSR | | | | *e*Sn | | **Sn** | **15 56 30.5** | **-2.2** |
| | SNR=52 | | | | | | | |

*NIED **30** 15:54:00.39˝.60N×143˚.60E, h26km, Mw3.8 Best double couple: M₀5.74000×10¹⁴ NP1:φ₀206.00000°, δ37.00000°, λ94.00000°. NP2:φ₀21.00000°, δ53.00000°, λ87.00000°.*
*ISCJB **30** 15:54:18.4±0.6, 39˚.59N±0˚.05×143˚.58E±0˚.06, h11km, mb3.6/13, Error ellipse: s-maj=7.6km s-min=5.4km az=44.7*
*JMA **30** 15:54:18.6±0.2, 39˚.58N×143˚.63E, h22km, M3.9*
*IDC **30** 15:54:19.0±1.0, 39˚.66N×143˚.37E, h0km, mb3.7/13, mb1 3.7/17, mb1mx3.6/45, mbtmp3.6/17, ML2.9/4, MS2.7/2, Ms1 2.7/2, ms1mx2.4/35, Error ellipse: s-maj=24.2km s-min=17.5km az=115.0*

**ISC 30 15:54:20.7±0.8, 39˚.70N±0˚.05×143˚.38E±0˚.07, h11km, n37, σ1§18/35, mb3.8/13, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JTH** | **Tanohata** | **1.19** | **282** | P | **Pg** | **15 54 43.6** | **0.0** |
| JTH | | | | *e*S | **Sn** | **15 55 01.9** | **+2.4** |
| **MIYJ** | **Miyakonagasawa** | **1.21** | **265** | P | **Pn** | **15 54 43.2** | **-0.4** |
| MIYJ | | | | S | **Sn** | **15 55 00.4** | **+0.4** |
| **OFUJ** | **Ofunato** | **1.46** | **246** | P | **Pn** | **15 54 46.2** | **-0.8** |
| **JANG** | **Nango** | **1.58** | **296** | P | **Pn** | **15 54 48.7** | **0.0** |
| **JOM** | **Ohasama** | **1.63** | **263** | P | **Pn** | **15 54 49.6** | **+0.3** |
| **JMK** | **Ichinoseki** | **1.83** | **247** | P | **Pn** | **15 54 51.6** | **-0.5** |
| **JIO** | **Ouri** | **2.01** | **233** | P | **Pn** | **15 54 53.2** | **-1.3** |
| **JTM** | **Tenmabayashi** | **2.08** | **302** | P | **Pn** | **15 54 56.5** | **+1.0** |
| **JAH** | **Hinai** | **2.17** | **284** | P | **Pn** | **15 54 57.6** | **+0.9** |
| **JOT** | **Ohata** | **2.45** | **314** | P | **Pb** | **15 55 02.9** | **-1.8** |
| **JYK** | **Kaneyama** | **2.47** | **253** | P | **Pn** | **15 55 01.3** | **+0.4** |
| **JOU** | **Okura** | **2.50** | **239** | P | **Pn** | **15 55 00.7** | **-0.6** |
| **JNBK** | **Urakawa-nobuka** | **2.62** | **350** | *e*S | **Sn** | **15 55 36.0** | **+1.1** |
| **ASAJ** | **Asahikawa** | **4.46** | **353** | Pn | **Pn** | **15 55 30.1** | **+1.9** |
| | 1.0nm,0.3s,baz=189,slow=20,SNR=6.8 | | | | | | |
| ASAJ | | | | Sn | **Sn** | **15 56 17.2** | **-2.8** |
| | 1.4nm,0.3s,baz=288,slow=20,SNR=2.1 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **5.15** | **234** | Pn | **Pn** | **15 55 38.5** | **+0.7** |
| | 1.0nm,0.3s,baz=37,slow=12,SNR=39 | | | | | | |
| MJAR | | | | LR | LR | 15 57 50.1 | |
| | comp=Z,62nm,21.9s,baz=60,slow=41 | | | | | | |
| **MAT** | **Matsushiro** | **5.15** | **234** | P | **Pn** | **15 55 38.2** | **+0.4** |
| MAT | | | | *e*S | **Sn** | **15 56 40.2** | **+3.0** |
| **USRK** | **Ussuriysk Ar.** | **9.60** | **302** | Pn | **Pn** | **15 56 37.3** | **-1.5** |
| | 0.1nm,0.3s,baz=108,slow=18,SNR=2.6 | | | | | | |
| USRK | | | | LR | LR | 16 00 16.0 | |
| | comp=Z,75nm,19.6s,baz=166,slow=37 | | | | | | |
| **KSRS** | **Korea Array** | **12.30** | **264** | Pn | **Pn** | **15 57 16.4** | **+0.6** |
| | 0.1nm,0.3s,baz=68,slow=16,SNR=2.6 | | | | | | |
| **YAK** | **Yakutsk** | **23.87** | **344** | P | **P** | **15 59 33.3** | **-0.6** |
| | 2.2nm,0.4s,baz=165,slow=2.3,SNR=2.9 | | | | | | |
| **SEY** | **Seymchan** | **23.89** | **10** | P | **P** | **15 59 34.7** | **+0.6** |
| | 2.1nm,0.7s,baz=191,slow=7.3,SNR=7.0 | | | | | | |
| **SONM** | **Songino Array** | **27.71** | **299** | P | **P** | **16 00 09.2** | **+0.2** |
| | 1.6nm,0.8s,baz=106,slow=11,SNR=6.6 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.37** | **128** | T | T | 16 30 37.3 | |
| | baz=318,slow=75 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.38** | **128** | T | T | 16 30 31.7 | |
| | baz=318,slow=75 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.38** | **128** | T | T | 16 30 34.7 | |
| | baz=318,slow=75 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.18** | **130** | T | T | 16 31 48.9 | |
| | baz=312 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.19** | **130** | T | T | 16 31 46.2 | |
| | baz=312 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.20** | **130** | T | T | 16 31 54.2 | |
| | baz=312 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.32** | **310** | P | **P** | **16 02 06.6** | **+0.5** |
| | 0.7nm,0.4s,baz=74,slow=7.9,SNR=3.7 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **43.69** | **254** | P | **P** | **16 02 25.8** | **0.0** |
| | 0.4nm,0.8s,baz=39,slow=6.0,SNR=4.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.07** | **300** | P | **P** | **16 02 28.6** | **+0.1** |
| | 1.1nm,0.7s,baz=79,slow=9.3,SNR=9.9 | | | | | | |
| **ILAR** | **Eielson Array** | **46.42** | **34** | P | **P** | **16 02 47.9** | **+0.9** |
| | 0.3nm,0.8s,baz=262,slow=6.3,SNR=3.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **59.92** | **190** | P | **P** | **16 04 25.9** | **-0.9** |
| | 0.5nm,1.0s,baz=8.0,slow=6.7,SNR=3.1 | | | | | | |
| **YKA** | **Yellowknife Ar** | **60.73** | **31** | P | **P** | **16 04 32.0** | **+0.1** |
| | 0.2nm,0.8s,baz=303,slow=6.6,SNR=3.8 | | | | | | |
| **ASAR** | **Alice Springs** | **63.65** | **190** | P | **P** | **16 04 51.9** | **0.0** |
| | 0.3nm,0.9s,baz=16,slow=7.0,SNR=3.1 | | | | | | |
| **FINES** | **FINESS Array B** | **67.18** | **332** | P | **P** | **16 05 14.0** | **-0.3** |
| | 1.3nm,0.7s,baz=45,slow=20,SNR=3.1 | | | | | | |
| **NOA** | **NORSAR Array B** | **72.32** | **338** | P | **P** | **16 05 47.1** | **+1.1** |
| | 1.1nm,0.9s,baz=86,slow=12,SNR=3.3 | | | | | | |
| **AKASG** | **Malin Array Be** | **73.13** | **323** | P | **P** | **16 05 50.1** | **-0.9** |
| | 0.4nm,0.5s,baz=48,slow=6.0,SNR=2.2 | | | | | | |

*ISCJB **30** 15:55:55.0±0.4, 32˚.25N±0˚.03×115˚.24W±0˚.04, h23km±5km, Error ellipse: s-maj=5.7km s-min=4.5km az=148.8*
*NEIC **30** 15:55:54.9±0.0, 32˚.19N×115˚.27W, h10km, ML2.8(PAS), After PAS.*
*ECX **30** 15:55:55.9±0.5, 32˚.22N×115˚.28W, h5km, MD2.6, ML2.8*
*MEX **30** 15:55:55.9±0.6, 32˚.39N×115˚.08W, h30km±7km, MD3.8*

**ISC 30 15:55:54.5±1.0, 32˚.26N±0˚.03×115˚.23W±0˚.03, h26km±7km, n25, σ0§61/35, 2C-3D, California-Baja California border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MBIG** | **Mexicali** | **0.15** | **10** | *e*P | **Pb** | **15 55 59.9** | **0.0** |
| **MBIG** | **Mexicali** | **0.15** | **10** | *e*P | **Pb** | **15 55 59.8** | **0.0** |
| **CPBX** | **Cerro Prieto** | **0.17** | **339** | *e*P | **Pb** | **15 55 59.5** | **-0.5** |
| CPBX | | | | IAML | | 15 56 05.2 | |
| | comp=N,7μm,0.1s | | | | | | |
| **CPBX** | **Cerro Prieto** | **0.17** | **339** | *e*P | **Pb** | **15 55 59.5** | **-0.5** |
| CPBX | | | | *e*S | **Sb** | **15 56 03.5** | **-0.3** |
| **EMSC** | **East Mesa** | **0.52** | **23** | ⇓*i*P | **Pn** | **15 56 06.5** | **+0.2** |
| **SGL** | **Mount Signal** | **0.57** | **313** | ⇓*i*P | **Pb** | **15 56 06.0** | **0.0** |
| **ERPC** | **Ernies Place** | **0.61** | **323** | *e*P | **Pn** | **15 56 07.5** | **0.0** |
| **YMD** | **Yuma Desert** | **0.65** | **63** | *e*P | **Pn** | **15 56 08.3** | **+0.3** |
| **RMX** | **La Rumorosa** | **0.80** | **296** | *e*P | **Pb** | **15 56 09.2** | **-0.7** |
| RMX | | | | IAML | | 15 56 21.3 | |
| | comp=E,548nm,0.1s | | | | | | |
| RMX | | | | ⇑*e* | | 15 56 21.3 | |
| RMX | | | | ⇓*e* | | 15 56 21.4 | |
| RMX | | | | IAML | | 15 56 21.4 | |
| | comp=N,358nm,0.1s | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **ECBX** | **El Chinero** | **0.80** | **169** | *e*P | | **Pb** | **15 56 09.1** | **-0.6** |
| ECBX | | | | *i* S | | **Sb** | **15 56 20.0** | **-0.2** |
| **IKP** | **In-Ko-Pah, Jac** | **0.84** | **298** | *e*P | | **Pn** | **15 56 10.5** | **-0.2** |
| **CBX** | **Cerro Bola** | **1.22** | **273** | *e*P | | **Pb** | **15 56 16.7** | **-0.2** |
| CBX | | | | *e*S | | **Sb** | **15 56 32.8** | **+0.5** |
| **CBX** | **Cerro Bola** | **1.22** | **273** | *e*P | | **Pb** | **15 56 16.6** | **-0.3** |
| CBX | | | | ⇑*e* | | | 15 56 34.0 | |
| CBX | | | | IAML | | | 15 56 34.0 | |
| | comp=N,211nm,0.5s | | | | | | | |
| CBX | | | | IAML | | | 15 56 34.5 | |
| | comp=E,187nm,0.3s | | | | | | | |
| CBX | | | | *e* | | | 15 56 34.5 | |
| **CBX** | **Cerro Bola** | **1.22** | **273** | *e*P | | **Pb** | **15 56 16.7** | **-0.2** |
| CBX | | | | *e*S | | **Sb** | **15 56 32.8** | **+0.5** |
| **SPIG** | **San Pedro Mart** | **1.22** | **190** | *e*P | | **Pb** | **15 56 17.5** | **+0.3** |
| SPIG | | | | *e*S | | **Sb** | **15 56 33.1** | **+0.4** |
| **SPIG** | **San Pedro Mart** | **1.22** | **190** | *e*P | | **Pb** | **15 56 17.5** | **+0.3** |
| SPIG | | | | *e*S | | **Sb** | **15 56 33.1** | **+0.4** |
| **SPX** | **San Pedro Mart** | **1.22** | **189** | *e*P | | **Pb** | **15 56 16.5** | **-0.7** |
| **SPX** | **San Pedro Mart** | **1.22** | **189** | *e*P | | **Pb** | **15 56 17.5** | **+0.3** |
| SPX | | | | *e*S | | **Sb** | **15 56 33.7** | **+1.0** |
| **TJIG** | **Tijuana** | **1.24** | **279** | *e*P | | **Pb** | **15 56 16.3** | **-0.9** |
| TJIG | | | | *e*S | | **Sb** | **15 56 32.6** | **-0.1** |
| **TJIG** | **Tijuana** | **1.24** | **279** | *e*P | | **Pb** | **15 56 16.6** | **-0.6** |
| **BAR** | **Barrett** | **1.29** | **289** | *e*P | | **Pb** | **15 56 17.8** | **-0.3** |
| **ECNX** | **Esteban Cantu** | **1.31** | **243** | *e*P | | **Pb** | **15 56 17.5** | **-1.0** |
| **PBX** | **Punta Banda** | **1.37** | **248** | *e*P | | **Pb** | **15 56 18.4** | **-1.1** |
| **PFO** | **Pinyon Flats O** | **1.70** | **323** | *e*Pn | | **Pb** | **15 56 47.2** | **-0.1** |
| PFO | | | | *e*Sn | | **Sb** | **15 56 47.2** | **+1.0** |
| **214A** | **Organ Pipe Nat** | **2.07** | **98** | *e*Pn | | **Pb** | **15 56 30.0** | **-1.5** |
| 214A | | | | *e*Sn | | **Sn** | **15 56 53.3** | **+0.6** |

*MAN **30** 16:02:12.6˝.77N×127˚.32E, h8km*
*IDC **30** 16:02:13.5±1.1, 7˚.18N×127˚.23E, h0km, mb3.5/5, mb1 3.7/5, mb1mx3.4/30, mbtmp3.5/5, MS2.7/1, Ms1 2.7/1, ms1mx2.3/26, Error ellipse: s-maj=26.1km s-min=21.2km az=50.0*
*ISCJB **30** 16:02:14.6±2.5, 6˚.83N±0˚.08×127˚.20E±0˚.08, h2km±17km, mb3.5/5, Error ellipse: s-maj=17.2km s-min=9.0km az=136.2*

**ISC 30 16:02:16.7±1.7, 6˚.99N±0˚.07×127˚.11E±0˚.07, h18km±8km, n11, σ1§35/16, mb3.6/5, 1C, Philippine Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MATI** | **Mati** | **0.85** | **267** | *e*P | **Pb** | **16 02 32.5** | **-0.5** |
| MATI | | | | *e*S | **Sb** | **16 02 41.9** | **-2.2** |
| **BIPH** | **Bislig** | **1.40** | **328** | ⇑*e*P | **Pg** | **16 02 43.5** | **-0.2** |
| BIPH | | | | *i* S | **Sn** | **16 02 58.5** | **-0.9** |
| **DAV** | **Davao City (W)** | **1.52** | **273** | Pn | **Pb** | **16 02 45.1** | **+0.6** |
| | 66nm,0.3s,baz=38,slow=2.9,SNR=9.1 | | | | | | |
| DAV | | | | Sn | **Sg** | **16 03 05.8** | **-0.2** |
| | 57nm,0.3s,baz=276,slow=20,SNR=9.7 | | | | | | |
| DAV | | | | LR | LR | 16 03 20.9 | |
| | comp=Z,217nm,18.7s,baz=327,slow=41 | | | | | | |
| **BUKP** | **Musuan** | **2.22** | **294** | *e*P | **Pn** | **16 02 54.2** | **+1.6** |
| BUKP | | | | *e*S | **Sb** | **16 03 25.3** | **+1.9** |
| **BUTP** | **Butuan** | **2.46** | **323** | *e*P | **Pb** | **16 03 00.0** | **-0.4** |
| BUTP | | | | *e*S | **Sb** | **16 03 32.0** | **+1.6** |
| **GUMO** | **Guam** | **18.65** | **68** | LR | LR | 16 12 24.1 | |
| | comp=Z,27nm,21.0s,baz=146,slow=33 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **24.98** | **183** | P | **P** | **16 07 39.8** | **+0.4** |
| | 2.8nm,0.9s,baz=12,slow=19,SNR=2.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **27.69** | **165** | P | **P** | **16 08 05.2** | **+1.2** |
| | 0.2nm,0.3s,baz=344,slow=10,SNR=2.1 | | | | | | |
| **ASAR** | **Alice Springs** | **31.18** | **168** | P | **P** | **16 08 36.2** | **+1.2** |
| | 0.2nm,0.7s,baz=342,slow=7.5,SNR=9.6 | | | | | | |
| ASAR | | | | PcP | **PcP** | **16 11 30.1** | **+0.2** |
| | 0.3nm,0.5s,baz=349,slow=2.4,SNR=7.7 | | | | | | |
| **MKAR** | **Makanchi Array** | **55.14** | **324** | P | **P** | **16 11 46.4** | **-1.7** |
| | 0.4nm,0.6s,baz=117,slow=5.8,SNR=6.4 | | | | | | |
| **ILAR** | **Eielson Array** | **82.02** | **26** | P | **P** | **16 14 34.5** | **-1.1** |
| | 0.6nm,0.9s,baz=246,slow=5.3,SNR=6.8 | | | | | | |

*DDA **30** 16:06:16.4, 39˚.94N×27˚.19E, h13km, Md2.9*
*ISCJB **30** 16:06:17.0±0.6, 39˚.93N±0˚.04×27˚.18E±0˚.04, h10km±7km, Error ellipse: s-maj=6.8km s-min=5.7km az=14.4*
*CSEM **30** 16:06:17.4±0.2, 39˚.94N×27˚.18E, h10km, MD2.5, Error ellipse: s-maj=4.6km s-min=3.5km az=41.0*
*ISK **30** 16:06:18.3, 39˚.99N×27˚.26E, h12km, MD2.5*

**ISC 30 16:06:17.2±1.0, 39˚.94N±0˚.03×27˚.18E±0˚.03, h10km±13km, n22, σ0§32/32, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BALY** | **Balya** | **0.39** | **120** | *i* P | **Pg** | **16 06 25.0** | **0.0** |
| BALY | | | | *i* S | **Sg** | **16 06 29.8** | **-0.4** |
| **BALY** | **Balya** | **0.39** | **120** | P | **Pg** | **16 06 25.0** | **0.0** |
| BALY | | | | S | **Sg** | **16 06 29.8** | **-0.4** |
| **GONE** | **Gonen-Balikesi** | **0.41** | **74** | *e*PG | **Pg** | **16 06 25.3** | **0.0** |
| **GONE** | **Gonen-Balikesi** | **0.41** | **74** | *e*Pg | **Pg** | **16 06 25.3** | **0.0** |
| **KRBG** | **Karabiga-Canak** | **0.47** | **11** | *e*PG | **Pg** | **16 06 26.2** | **-0.1** |
| KRBG | | | | *e*SG | **Sg** | **16 06 33.2** | **+0.7** |
| **KRBG** | **Karabiga-Canak** | **0.47** | **11** | *e*Pg | **Pg** | **16 06 26.3** | **-0.1** |
| KRBG | | | | *e*Sg | **Sg** | **16 06 33.2** | **+0.7** |
| **BAYC** | **CANAKKALE_Bayr** | **0.52** | **248** | *i* P | **Pg** | **16 06 27.5** | **+0.1** |
| BAYC | | | | *i* S | **Sg** | **16 06 34.4** | **+0.1** |
| **BAYC** | **CANAKKALE_Bayr** | **0.52** | **248** | P | **Pg** | **16 06 27.5** | **+0.1** |
| BAYC | | | | S | **Sg** | **16 06 34.4** | **+0.1** |
| **BALB** | **Balikesir** | **0.62** | **118** | *e*PG | **Pb** | **16 06 30.0** | **-0.1** |
| **BALB** | **Balikesir** | **0.62** | **118** | *e*Pg | **Pb** | **16 06 30.0** | **-0.1** |
| **RKY** | **Sarkoy-Tekirda** | **0.75** | **0** | *e*PG | **Pg** | **16 06 31.9** | **+0.2** |
| **RKY** | **Sarkoy-Tekirda** | **0.75** | **0** | *e*Pg | **Pg** | **16 06 32.0** | **+0.2** |
| **SART** | **Tekirdag** | **0.75** | **0** | *i* P | **Pg** | **16 06 31.8** | **0.0** |
| SART | | | | *i* S | **Sg** | **16 06 41.7** | **+0.1** |
| **SART** | **Tekirdag** | **0.75** | **0** | P | **Pg** | **16 06 31.8** | **0.0** |
| SART | | | | S | **Sg** | **16 06 41.7** | **+0.1** |
| **ERIK** | **Erikli-Kesan** | **0.89** | **326** | *e*PG | **Pn** | **16 06 36.1** | **+0.3** |
| **ERIK** | **Erikli-Kesan** | **0.89** | **326** | *e*Pg | **Pn** | **16 06 36.1** | **+0.3** |
| **KCTX** | **Karacabey (Bur** | **0.96** | **70** | *e*PG | **Pb** | **16 06 36.1** | **0.0** |
| **KCTX** | **Karacabey (Bur** | **0.96** | **70** | *e*Pg | **Pb** | **16 06 36.1** | **0.0** |
| **KESN** | **Edirne-Kesan** | **0.97** | **337** | *i* P | **Pg** | **16 06 35.3** | **-0.6** |
| KESN | | | | *i* S | **Sg** | **16 06 48.1** | **-0.4** |
| **KESN** | **Edirne-Kesan** | **0.97** | **337** | P | **Pg** | **16 06 35.3** | **-0.6** |
| KESN | | | | S | **Sg** | **16 06 48.1** | **-0.4** |
| **ARMT** | **Armutlu** | **1.44** | **63** | *e*PN | **Pb** | **16 06 43.8** | **-0.3** |
| **ARMT** | **Armutlu** | **1.44** | **63** | *e*Pn | **Pb** | **16 06 43.8** | **-0.3** |

*ISCJB **30** 16:11:30.1±0.5, 8˚.07S±0˚.05×74˚.45W±0˚.05, h151km, mb3.5/6, Error ellipse: s-maj=7.9km s-min=6.1km az=29.5*
*IDC **30** 16:11:30.5±0.8, 8˚.02S×74˚.35W, h144km±9km, mb3.4/6, mb1 3.6/11, mb1mx3.4/31, mbtmp3.9/11, Error ellipse: s-maj=24.2km s-min=15.6km az=55.0*

**ISC 30 16:11:30.9±0.6, 8˚.08S±0˚.07×74˚.43W±0˚.07, h151km, n18, σ1§40/25, mb3.5/6, Peru-Brazil border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ATAH** | **Atahualpa** | **4.04** | **283** | P | **Pn** | **16 12 32.0** | **-0.1** |
| | 15nm,0.3s,baz=45,slow=5.2,SNR=79 | | | | | | |
| ATAH | | | | S | **Sn** | **16 13 18.3** | **-1.4** |
| | 78nm,0.3s,baz=246,slow=20,SNR=27 | | | | | | |
| **NNA** | **Nana** | **4.55** | **211** | P | **Pn** | **16 12 40.0** | **+1.5** |
| | 5.6nm,0.3s,baz=80,slow=9.1,SNR=8.3 | | | | | | |
| NNA | | | | S | **Sn** | **16 13 30.5** | **-0.7** |
| | 42nm,0.3s,baz=138,slow=22,SNR=26 | | | | | | |
| **LPAZ** | **La Paz** | **10.22** | **144** | P | **Pn** | **16 13 54.8** | **+0.4** |
| | 0.3nm,0.3s,baz=321,slow=11,SNR=8.2 | | | | | | |
| LPAZ | | | | S | **Sn** | **16 15 44.8** | **-3.0** |
| | baz=142,slow=19,SNR=2.0 | | | | | | |
| **SIV** | **San Ignacio** | **15.24** | **122** | P | **Pn** | **16 14 58.5** | **+0.2** |
| | 0.4nm,0.3s,baz=267,slow=3.5,SNR=6.3 | | | | | | |
| SIV | | | | S | **Sn** | **16 17 45.3** | **-2.6** |
| | 0.3nm,0.3s,baz=13,slow=5.7,SNR=4.4 | | | | | | |
| **PTGA** | **Pitinga** | **16.15** | **64** | P | **P** | **16 15 11.1** | **+1.2** |
| | 1.9nm,0.3s,baz=323,slow=23,SNR=11 | | | | | | |
| **SDV** | **Santo Domingo** | **17.27** | **13** | P | **Pn** | **16 15 23.4** | **+0.2** |
| | 0.5nm,0.3s,baz=194,slow=12,SNR=3.3 | | | | | | |
| **CPUP** | **Villa Florida** | **24.36** | **140** | P | **P** | **16 16 35.3** | **+0.3** |
| | 2.8nm,0.7s,baz=327,slow=9.0,SNR=11 | | | | | | |
| **TXAR** | **Lajitas Array** | **46.65** | **324** | P | **P** | **16 19 45.0** | **+0.5** |
| | 0.4nm,0.9s,baz=138,slow=8.2,SNR=3.6 | | | | | | |
| TXAR | | | | pP | **pP** | **16 20 17.5** | **-1.0** |
| | 0.2nm,0.5s,baz=141,slow=5.8,SNR=2.1 | | | | | | |
| **DBIC** | **Dimbokro** | **70.90** | **80** | P | **P** | **16 22 32.0** | **-0.2** |
| | 2.4nm,0.4s,baz=245,slow=5.8,SNR=6.8 | | | | | | |
| **VNA3** | **Neumayer Olymp** | **74.41** | **162** | P | **P** | **16 22 53.0** | **+1.1** |
| **VNA2** | **Neumayer--Watz** | **75.00** | **162** | P | **P** | **16 22 57.0** | **+1.7** |
| | baz=294,slow=5.9 | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **SNAA** | **Sanae** | **76.62** | **162** | P | | **P** | **16 23 05.9** | **+1.4** |
| **YKA** | **Yellowknife Ar** | **76.84** | **342** | P | | **P** | **16 23 05.5** | **-0.2** |
| | 0.2nm,0.6s,baz=141,slow=7.2,SNR=4.5 | | | | | | | |
| YKA | | | | pP | | **pP** | **16 23 42.1** | **-0.9** |
| | 0.4nm,0.9s,baz=133,slow=6.3,SNR=3.4 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **78.47** | **75** | P | | **P** | **16 23 15.2** | **-0.7** |
| | 2.4nm,0.7s,baz=291,slow=5.7,SNR=12 | | | | | | | |
| **ESDC** | **Sonseca Array** | **80.40** | **48** | P | | **P** | **16 23 27.0** | **+1.1** |
| | 0.2nm,0.4s,baz=284,slow=7.3,SNR=3.0 | | | | | | | |
| **MKAR** | **Makanchi Array** | **136.58** | **23** | PKP | | **PKPdf** | **16 30 35.4** | **+0.1** |
| | 0.2nm,0.8s,baz=342,slow=3.3,SNR=2.8 | | | | | | | |
| **ASAR** | **Alice Springs** | **138.03** | **221** | PKP | | **PKPdf** | **16 30 39.2** | **+0.5** |
| | 0.3nm,0.8s,baz=114,slow=1.9,SNR=5.3 | | | | | | | |
| **WRA** | **Warramunga Arr** | **140.29** | **225** | PKP | | **PKPdf** | **16 30 43.6** | **+0.7** |
| | 0.5nm,0.6s,baz=122,slow=2.0,SNR=8.6 | | | | | | | |
| WRA | | | | pPKP | | **pPKPdf** | **16 31 19.7** | **-3.2** |
| | 0.5nm,0.8s,baz=123,slow=1.8,SNR=2.1 | | | | | | | |

*ISCJB **30** 16:32:44.3±0.6, 32˚.24N±0˚.03×115˚.26W±0˚.03, h13km±4km, Error ellipse: s-maj=5.4km s-min=4.2km az=139.7*
*ECX **30** 16:32:45.3±0.4, 32˚.22N×115˚.27W, h6km, MD2.7, ML2.9*
*MEX **30** 16:32:45.5±0.4, 32˚.34N×115˚.09W, h22km±6km, MD3.8*
*NEIC **30** 16:32:45.2±0.0, 32˚.22N×115˚.25W, h4km, ML2.6(PAS), ML3.1(ECX), After ECX.*

**ISC 30 16:32:43.0±1.1, 32˚.24N±0˚.03×115˚.25W±0˚.04, h18km±12km, n26, σ0§76/38, 4C-3D, California-Baja California border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **MBIG** | **Mexicali** | **0.17** | **16** | *e*P | **Pb** | **16 32 48.8** | **+1.2** |
| MBIG | | | | *i* S | **Sb** | **16 32 51.2** | **+0.6** |
| **MBIG** | **Mexicali** | **0.17** | **16** | *e*P | **Pb** | **16 32 49.1** | **+1.5** |
| **CPBX** | **Cerro Prieto** | **0.18** | **347** | *e*P | **Pb** | **16 32 49.0** | **+1.2** |
| CPBX | | | | ⇓*e* | | 16 32 53.9 | |
| CPBX | | | | IAML | | 16 32 53.9 | |
| | comp=N,7μm,0.2s | | | | | | |
| **CPBX** | **Cerro Prieto** | **0.18** | **347** | *e*P | **Pb** | **16 32 48.9** | **+1.2** |
| CPBX | | | | *i* S | **Sb** | **16 32 51.9** | **+0.9** |
| **EMSC** | **East Mesa** | **0.55** | **25** | ⇓*i*P | **Pn** | **16 32 55.9** | **0.0** |
| **SGL** | **Mount Signal** | **0.57** | **316** | ⇑*i*P | **Pn** | **16 32 55.5** | **-0.7** |
| **COA** | **Coachella** | **0.63** | **10** | ⇓*i*P | **Pn** | **16 32 57.0** | **-0.1** |
| **YMD** | **Yuma Desert** | **0.68** | **62** | ⇑*i*P | **Pn** | **16 32 57.6** | **-0.1** |
| **RMX** | **La Rumorosa** | **0.79** | **298** | ⇑*i*P | **Pn** | **16 32 59.5** | **+0.2** |
| RMX | | | | *e*S | **Sn** | **16 33 09.7** | **-1.0** |
| **ECBX** | **El Chinero** | **0.79** | **167** | *e*P | **Pn** | **16 32 58.5** | **-0.7** |
| ECBX | | | | *i* S | **Sb** | **16 33 09.2** | **+0.8** |
| ECBX | | | | IAML | | 16 33 11.0 | |
| | comp=N,424nm,0.5s | | | | | | |
| ECBX | | | | *e* | | 16 33 11.0 | |
| **IKP** | **In-Ko-Pah, Jac** | **0.83** | **300** | ⇑*i*P | **Pn** | **16 32 59.9** | **0.0** |
| **CBX** | **Cerro Bola** | **1.20** | **274** | *e*P | **Pg** | **16 33 05.9** | **-0.3** |
| CBX | | | | *e*S | **Sg** | **16 33 21.9** | **0.0** |
| **CBX** | **Cerro Bola** | **1.20** | **274** | *e*P | **Pg** | **16 33 05.9** | **-0.3** |
| **CBX** | **Cerro Bola** | **1.20** | **274** | *e*P | **Pg** | **16 33 05.9** | **-0.3** |
| CBX | | | | *e*S | **Sg** | **16 33 21.9** | **0.0** |
| **SPIG** | **San Pedro Mart** | **1.21** | **189** | *e*

15nm,0.9s,baz=146,slow=8.9,SNR=8.3
CPUP PcP **PcP** 16 43 52.1 +0.6
4.8nm,0.5s,baz=108,slow=3.3,SNR=8.3
CPUP ScP **ScP** 16 47 25.7 -2.7
5.5nm,0.9s,baz=177,slow=4.2,SNR=7.6
CPUP LR LR 16 58 44.8
comp=Z,26nm,18.4s,baz=166,slow=39
**CPUP Villa Florida 36.95 312** *e*P **P** 16 41 32.5 0.0
CPUP *e*pP **pP** 16 41 55.9 -0.7
CPUP *e*PcP **PcP** 16 43 52.5 +0.9
CPUP ScP **ScP** 16 47 25.7 -2.7
**PEL Peldehue 37.68 289** *e*P **P** 16 41 38.6 -0.1
PEL pmax pmax
comp=Z,119nm,1.9s
**PEL Peldehue 37.68 289** *e*P **P** 16 41 38.6 -0.1
comp=Z,119nm,1.9s
**ROC1 El Roble 37.98 289** *e*P P 16 41 49.2 +7.7
comp=Z,21nm,0.8s
**MAW Mawson 39.96 143** P **P** 16 41 58.4 +1.2
comp=Z,26nm,0.4s,baz=230,slow=8.1,SNR=92
MAW ScP **ScP** 16 47 38.4 -0.8
comp=Z,5.5nm,0.9s,baz=279,slow=4.8,SNR=4.7
MAW LR LR 16 55 50.1
comp=Z,61nm,21.9s,baz=288,slow=32
**MAW Mawson 39.96 143** *e*P **P** 16 41 58.1 +0.8
comp=Z,9.4nm,0.6s
MAW ScP **ScP** 16 47 38.4 -0.8
**SUR Sutherland 40.76 75** P **P** 16 42 05.0 +0.5
comp=Z,0.7nm,0.8s,baz=199,slow=10.0,SNR=12
SUR LR LR 16 55 51.9
comp=Z,11nm,19.8s,baz=190,slow=31
**SUR Sutherland 40.76 75** *e*P **P** 16 42 04.5 -0.1
comp=Z,123nm,2.0s
**LCO Las Campanas 40.97 293** *e*P **P** 16 42 06.6 +0.3
comp=Z,17nm,1.1s
**PB10 IPOC Station P 45.43 298** *e*P **P** 16 42 42.6 +0.7
comp=Z,24nm,1.2s
**SBA Scott Base 45.80 184** *e*P **P** 16 42 46.6 +2.4
SBA pmax pmax
comp=Z,60nm,0.9s
**SBA Scott Base 45.80 184** *e*P **P** 16 42 46.6 +2.4
comp=Z,60nm,0.9s
**BOSA Boshof 46.09 76** P **P** 16 42 46.7 -0.6
comp=Z,7.2nm,0.6s,baz=214,slow=6.4,SNR=25
BOSA LR LR 16 59 16.2
comp=Z,228nm,18.8s,baz=214,slow=32
**BOSA Boshof 46.09 76** *e*P **P** 16 42 46.6 -0.6
comp=Z,31nm,1.4s
**PB04 IPOC Station P 46.23 299** *e*P **P** 16 42 47.6 -0.8
PB04 *e*pP **pP** 16 43 12.8 -0.4
**VNDA Vanda 46.30 183** P **P** 16 42 50.1 +2.0
comp=Z,31nm,0.5s,baz=187,slow=6.6,SNR=93
VNDA LR LR 17 00 46.2
comp=Z,51nm,21.0s,baz=294,slow=34
**VNDA Vanda 46.30 183** *e*P **P** 16 42 49.9 +1.8
comp=Z,41nm,0.7s
**PB01 IPOC Station P 47.01 301** *e*P **P** 16 42 55.5 +1.1
comp=Z,46nm,0.9s
PB01 *e*pP **pP** 16 43 19.8 +0.5
**SIV San Ignacio 47.73 314** P **P** 16 43 00.3 +0.3
comp=Z,5.3nm,0.6s,baz=162,slow=6.4,SNR=9.7
SIV PcP **PcP** 16 44 28.4 +0.8
comp=Z,8.1nm,0.8s,baz=143,slow=4.9,SNR=6.1
SIV ScP **ScP** 16 48 10.4 -1.3
comp=Z,9.1nm,0.9s,baz=160,slow=4.9,SNR=8.5
**CRZF Crozet Islands 47.75 113** *e*P **P** 16 42 59.7 -0.1
comp=Z,31nm,1.0s
**PB11 IPOC Station P 48.19 302** *e*P **P** 16 43 04.2 +0.6
comp=Z,39nm,0.9s
PB11 *e*PcP **PcP** 16 44 29.8 +0.5
**H10S2 ASCENSION HYDR 48.28 17** T T 17 35 20.8
baz=188,slow=74
**H10S3 ASCENSION HYDR 48.28 17** T T 17 35 26.7
baz=188
**H10S1 ASCENSION HYDR 48.30 17** T T 17 35 21.0
baz=188,slow=74
**MNMC Minye Minye 48.70 302** *e*P **P** 16 43 09.0 +1.3
comp=Z,65nm,0.8s
MNMC *e*PcP **PcP** 16 44 32.4 +1.1
**LBTB Lobatse 49.14 73** P **P** 16 43 10.3 -0.4
comp=Z,24nm,0.7s,baz=215,slow=8.6,SNR=58
**LBTB Lobatse 49.14 73** *e*P **P** 16 43 10.4 -0.4
LBTB pmax pmax
comp=Z,28nm,0.7s
**LBTB Lobatse 49.14 73** *e*P **P** 16 43 10.4 -0.4
comp=Z,28nm,0.7s
**H10N1 ASCENSION HYDR 49.40 17** T T 17 36 43.3
baz=195
**H10N3 ASCENSION HYDR 49.40 17** T T 17 36 42.5
baz=195,slow=74
**H10N2 ASCENSION HYDR 49.41 17** T T 17 36 51.2
baz=195,slow=74
**LPAZ La Paz 50.49 306** P **P** 16 43 23.2 +1.5
comp=Z,22nm,0.6s,baz=144,slow=5.4,SNR=104
LPAZ ScP **ScP** 16 48 22.2 -1.9
comp=Z,2.5nm,0.7s,baz=132,slow=5.2,SNR=4.9
LPAZ S **S** 16 50 29.0 +1.0
comp=Z,1.7nm,0.6s,baz=163,slow=11,SNR=7.9
LPAZ LR LR 17 04 04.3
comp=Z,29nm,21.5s,baz=170,slow=35
**SAML Samuel 54.96 315** *e*P **P** 16 43 54.5 +0.6
comp=Z,9.8nm,1.1s
**NNA Nana 58.34 299** LR LR 17 07 22.2
comp=Z,48nm,20.8s,baz=136,slow=34
**NNA Nana 58.34 299** *i* P **P** 16 44 19.3 +1.5
**NNA Nana 58.34 299** *e*P **P** 16 44 18.6 +0.7
NNA *e*pP **pP** 16 44 45.0 +1.3
**LSZ Lusaka 58.52 69** *e*P **P** 16 44 18.9 -0.3
LSZ pmax pmax
comp=Z,34nm,0.9s
**LSZ Lusaka 58.52 69** *e*P **P** 16 44 18.9 -0.3
comp=Z,34nm,0.9s
**PTGA Pitinga 61.36 322** *e*P **P** 16 44 38.2 -0.2
comp=Z,26nm,1.6s
**LIC Lamto 64.97 25** *e*P **P** 16 45 02.3 +0.1
comp=Z,76nm,0.7s
**KIC Kosan Boka P 65.17 25** *e*P **P** 16 45 03.5 0.0
comp=Z,38nm,0.8s
**TIC Toumodi 65.38 24** *e*P **P** 16 45 04.9 0.0
**DBIC Dimbokro 65.44 25** P **P** 16 45 05.3 +0.1
comp=Z,15nm,0.6s,baz=171,slow=7.0,SNR=24
DBIC LR LR 17 07 39.6
comp=Z,79nm,21.2s,baz=179,slow=30
**DBIC Dimbokro 65.44 25** *e*P **P** 16 45 05.2 0.0
comp=Z,17nm,0.8s
**ABPO Ambohimpanom 65.81 88** *e*P **P** 16 45 07.2 -0.7
ABPO pmax pmax
comp=Z,31nm,1.6s
**ABPO Ambohimpanom 65.81 88** *e*P **P** 16 45 07.2 -0.7
comp=Z,31nm,1.6s
**OTAV Otavalo 69.77 304** *e*P **P** 16 45 34.9 +1.9
**OTAV Otavalo 69.77 304** *e*P **P** 16 45 34.2 +1.2
comp=Z,88nm,1.5s
**BETC Betania 70.57 308** *e*P **P** 16 45 37.6 +0.1
**SACV Santiago Islan 71.09 4** *e*P **P** 16 45 39.0 -1.5
comp=Z,110nm,1.1s
**VILC Villavicencio, 71.10 310** *e*P **P** 16 45 38.9 -1.8
**PRAC Prado 71.25 309** *e*P **P** 16 45 40.9 -0.7
**PRAC Prado 71.25 309** *e*P **P** 16 45 41.9 +0.3
comp=Z,39nm,0.6s
**CHIC Chingaza 71.58 310** *e*P **P** 16 45 43.6 -0.4
**YOTC Yotoco, Valle 72.13 308** *e*P **P** 16 45 44.2 -2.7
**RUSC La Rusia 72.44 312** *e*P **P** 16 45 46.9 -2.3
**RUSC La Rusia 72.44 312** *e*P **P** 16 45 48.9 -0.3
comp=Z,6.3nm,0.9s
RUSC *e*pP **pP** 16 46 14.4 -1.6
**GUYC Guyana, Colomb 72.82 309** *e*P **P** 16 45 50.9 -0.6
**BARC Barichara 73.12 312** *e*P **P** 16 45 50.2 -2.7
**KOWA Kowa 73.20 24** *e*P **P** 16 45 53.4 +0.4
KOWA *e*pP **pP** 16 46 18.7 -1.1
**TOA0 Torodi Ar. Sit 73.32 30** *e*P **P** 16 45 53.7 -0.1
comp=Z,26nm,0.7s
TOA0 *e*pP **pP** 16 46 19.7 -0.9
**TORD Torodi Ar. Bea 73.32 30** P **P** 16 45 54.1 +0.4
comp=Z,20nm,0.5s,baz=200,slow=6.6,SNR=145
TORD pP **pP** 16 46 19.5 -1.0
comp=Z,27nm,0.7s,baz=198,slow=6.7,SNR=11
TORD LR LR 17 12 56.9
comp=Z,47nm,19.5s,baz=330,slow=32
**PAMC Pamplona, Colo 73.59 313** *e*P **P** 16 45 54.9 -1.1
**PTBC PUERTO BERRIO, 73.60 311** *e*P **P** 16 45 51.5 -3.9
**HELC Santa Helena 73.75 309** *e*P **P** 16 45 52.2 -4.5
**HELC Santa Helena 73.75 309** *e*P **P** 16 45 55.5 -1.2
comp=Z,18nm,0.7s
**SDV Santo Domingo 74.17 315** *e*P **P** 16 45 58.9 -0.1
**SDV Santo Domingo 74.17 315** *e*P **P** 16 45 59.6 +0.7
comp=Z,25nm,0.8s
SDV *e*pP **pP** 16 46 25.1 -0.8
**ZARC Zaragoza, Cauc 74.63 311** *e*P **P** 16 45 58.9 -2.6
**PAYG Puerto Ayora 74.78 293** *e*P **P** 16 46 03.3 +1.0
comp=Z,86nm,1.6s
**KMBO Kilima Mbogo 75.19 69** LR LR 17 17 38.3
comp=Z,46nm,18.5s,baz=87,slow=34
**MOTC Monteria, Cord 76.13 310** *e*P **P** 16 46 09.5 -0.5
**WHZ Wether Hill Ro 77.35 191** *e*P **P** 16 46 17.3 +0.8
WHZ *e*PcP **P** 16 46 17.6 +1.1
**MLZ Mavora Lakes 77.85 191** *e*P **P** 16 46 20.8 +1.4
MLZ *e*PcP **P** 16 46 21.3 +1.9
**DCZ Deep Cove 77.86 190** *e*P **P** 16 46 21.5 +2.1
DCZ *e*PcP **P** 16 46 22.0 +2.7
**ODZ Otahua Downs 77.88 193** *e*P **P** 16 46 21.4 +1.9
comp=Z,24nm,1.0s
**GDHS Morne Mazeau, 77.89 326** *e*P **P** 16 46 21.0 +1.2
GDHS *e*pP **pP** 16 46 47.0 +0.1
**WKZ Wanaka 78.29 192** *e*P **P** 16 46 22.8 +1.0
WKZ *e*PcP **P** 16 46 23.7 +1.9
**LBZ Lake Benmore 78.58 193** *e*P **P** 16 46 25.4 +2.0
comp=Z,70nm,1.7s
**MQZ McQueen's Vall 78.93 195** *e*P **P** 16 46 26.2 +0.9
comp=Z,71nm,0.3s
**RPZ Rata Peaks 79.14 193** P **P** 16 46 27.0 +0.6
comp=Z,36nm,0.8s,baz=223,slow=3.8,SNR=13
**RPZ Rata Peaks 79.14 193** *e*P **P** 16 46 27.4 +1.0
comp=Z,36nm,0.8s
**ANWB Willy Bob 79.21 327** *e*P **P** 16 46 25.9 -1.0
comp=Z,130nm,1.0s
**LTZ Lake Taylor 79.89 194** *e*P **P** 16 46 31.6 +1.1
comp=Z,65nm,1.0s
**THZ Tophouse 80.80 195** *e*P **P** 16 46 37.0 +1.6
**TAU Tasmania Unive 81.03 176** *e*P **P** 16 46 37.2 +0.6
**TAU Tasmania Unive 81.03 176** *e*P **P** 16 46 37.2 +0.6
**JTS JuntasAbangare 81.62 303** *i* P **P** 16 46 41.4 +1.4
**TAM Tamanrasset 83.56 30** *e*P **P** 16 46 52.2 +2.2
**TAM Tamanrasset 83.56 30** *e*P **P** 16 46 52.2 +2.2
**NWAO Narrogin (SRO) 86.11 151** P **P** 16 47 02.7 0.0
comp=Z,7.9nm,0.6s,baz=56,slow=3.8,SNR=11
**CAN Canberra 88.66 177** *e*P **P** 16 47 16.3 +1.3
**CAN Canberra 88.66 177** *e*P **P** 16 47 16.3 +1.3
**BBOO Buckleboo 90.09 166** *e*P **P** 16 47 22.0 +0.3
**FORT Forrest 90.74 159** *e*P **P** 16 47 25.7 +1.0
**STKA Stephens Creek 91.64 171** P **P** 16 47 29.4 +0.5
comp=Z,12nm,0.6s,baz=154,slow=5.6,SNR=36
STKA PP **PP** 16 51 07.2 -0.4
comp=Z,3.2nm,0.8s,baz=170,slow=5.6,SNR=5.2
**KEST Kesra 96.84 29** LR LR 17 26 31.2
comp=Z,132nm,20.1s,baz=334,slow=32
**ESDC Sonseca Array 97.66 18** P Pdif 16 47 57.0 +1.1
comp=Z,0.2nm,0.3s,baz=189,slow=7.9,SNR=4.7
**ASAR Alice Springs 98.74 163** P Pdif 16 48 01.3 -0.1
comp=Z,15nm,0.9s,baz=189,slow=3.8,SNR=64
ASAR PP **PP** 16 51 59.5 -3.3
comp=Z,3.3nm,0.7s,baz=188,slow=7.1,SNR=13
ASAR PKiKP **PKiKP** 16 52 32.1 +0.1
comp=Z,0.5nm,0.4s,baz=181,slow=1.1,SNR=4.8
ASAR S **SKSac** 16 58 24.8 -4.9
comp=Z,0.6nm,0.9s,baz=167,slow=6.3,SNR=4.3
ASAR PKKPbc **PKKPbc** 17 04 25.2 -0.9
comp=Z,0.5nm,0.5s,baz=344,slow=12,SNR=14
**AS31 Alice Springs 98.74 163** *e*P Pdif 16 48 01.3 -0.1
**WRA Warramunga Arr 102.46 162** P **Pdif** 16 48 18.1 +0.2
comp=Z,1.1nm,0.5s,baz=195,slow=4.2,SNR=9.4
WRA PP **PP** 16 52 25.5 -5.4
comp=Z,1.7nm,0.7s,baz=187,slow=5.9,SNR=5.3
WRA PKKPbc **PKKPbc** 17 04 17.8 +2.3
comp=Z,0.8nm,0.4s,baz=356,slow=2.9,SNR=21
**WRAB Tennant Creek 102.47 162** ‖ *i*P **Pdif** 16 48 19.4 +1.4
WRAB pmax pmax
comp=Z,8.0nm,1.0s
**TXAR Lajitas Array 106.87 298** PKiKP **PKiKP** 16 52 47.4 +0.8
comp=Z,0.3nm,0.8s,baz=160,slow=4.0,SNR=4.1
**GERES GERESS Array B 110.22 27** PKiKP **PKiKP** 16 52 51.9 -0.3
comp=Z,0.4nm,0.7s,baz=218,slow=6.2,SNR=3.2
GERES PP **PP** 16 53 32.1 +3.1
comp=Z,0.7nm,0.9s,baz=189,slow=5.6,SNR=3.8
**KIEV Kiev 116.44 36** ‖ *i*PKIKP **PKPdf** 16 53 02.8 -1.1
**AKASG Malin Array Be 116.45 36** PKP **PKPdf** 16 53 03.1 -0.7
comp=Z,0.4nm,0.4s,baz=249,slow=1.6,SNR=4.1
**AKASG Malin Array Be 116.45 36** *i* PKIKP **PKPdf** 16 53 05.1 +1.2
**VSR Storozhevoye 120.38 42** ‖ *e*PKIKP **PKPdf** 16 53 11.5 +0.1
**ULM Lac du Bonnet 120.41 316** PKP **PKPdf** 16 53 10.6 -0.9
comp=Z,3.3nm,0.5s,baz=111,slow=1.3,SNR=10
**PDAR Pinedale Array 120.44 302** PKP **PKPdf** 16 53 11.5 -0.7
comp=Z,1.0nm,0.4s,baz=112,slow=4.6,SNR=20
**NB2 NORSAR Subarra 120.88 21** PKPdf **PKPdf** 16 53 12.0 -0.2
comp=Z,2.0nm,0.9s,baz=202,slow=1.9
**NOA NORSAR Array B 120.88 21** PKP **PKPdf** 16 53 12.3 +0.1
comp=Z,2.1nm,0.8s,baz=159,slow=3.1,SNR=6.7
NOA PKKPbc **PKKPbc** 17 03 17.5 +1.5
comp=Z,0.5nm,0.6s,baz=10,slow=2.5,SNR=5.6
**NVAR Mina Array Bea 121.46 293** PKP **PKPdf** 16 53 15.1 +0.8
comp=Z,3nm,0.7s,baz=149,slow=3.1,SNR=17
**OBN Obninsk 122.59 38** ‖ *e*PKIKP **PKPdf** 16 53 15.0 -0.5
OBN *e* 16 53 45.9
OBN *e* 17 00 06.2
OBN pmax pmax
comp=Z,6.0nm,0.6s
**KOLN Koldanda 124.12 90** *e*P **PKPdf** 16 53 18.0 -1.7
comp=Z,7.9nm,0.5s
**FINES FINESS Array B 124.65 28** PKP **PKPdf** 16 53 19.2 -0.1
comp=Z,7.8nm,0.5s,baz=156,slow=1.9,SNR=86
**PKI Pulchoki 124.97 92** *e*P **PKPdf** 16 53 20.6 -0.9
comp=Z,6.7nm,0.5s
**CMAR Chiang Mai Arr 125.02 111** PKP **PKPdf** 16 53 21.4 0.0
comp=Z,2.7nm,0.8s,baz=232,slow=3.9,SNR=21
CMAR pPKP **pPKPdf** 16 53 48.9 -1.5
comp=Z,1.8nm,0.8s,baz=232,slow=3.5,SNR=4.0
**KKN Kakani 125.07 92** *e*P **PKPdf** 16 53 19.6 -1.9
comp=Z,10nm,0.7s
**RAMN Ramite 125.15 93** *e*P **PKPdf** 16 53 22.0 +0.3
comp=Z,18nm,0.5s
**JIRN Jiri 125.47 93** *e*P **PKPdf** 16 53 21.7 -0.8
comp=Z,136nm,0.5s
**ODAN Odare 125.52 94** *e*P **PKPdf** 16 53 22.6 +0.2
comp=Z,11nm,0.6s
**TAPN Taplejung 126.08 94** *e*P **PKPdf** 16 53 23.7 +0.1
comp=Z,5.4nm,0.6s
**YBH Yreka Blue Hor 126.17 293** PKP **PKPdf** 16 53 23.5 +0.5
comp=Z,2.8nm,0.7s,baz=54,slow=8.8,SNR=4.3
**AKTO Aktyubinsk 127.54 53** PKP **PKPdf** 16 53 25.1 -0.1
comp=Z,4.5nm,0.9s,baz=162,slow=4.1,SNR=8.3
**KLMR Klimovskoe 128.08 35** *e*PKIKP PKPpre 16 53 18.3
KLMR pmax pmax
comp=Z,18nm,1.3s
**KSH Kashi 128.69 75** *e*PKP **PKPdf** 16 53 30.3 +2.3
KSH sPKP 16 54 07.5
KSH PP **PP** 16 55 40.5 +4.4
KSH PKS **PKSdf** 16 57 05.5 +1.0
KSH SKS **SKSdf** 17 00 30.8 +1.2
KSH SKKS **SKKSac** 17 02 22.0 0.0
KSH AMB AMB
comp=Z,200nm,4.7s
KSH LR LR
comp=Z,66nm,3.7s
KSH LR LR
comp=Z,55nm,3.3s
KSH LR LR
comp=Z,160nm,5.0s
**AAK Ala-Archa 130.12 71** PKP **PKPdf** 16 53 30.8 +0.2
comp=Z,2.0nm,0.6s,baz=180,slow=4.3,SNR=5.4
AAK SKPbc **SKPab** 16 56 41.2 -2.2
comp=Z,3.6nm,0.8s,baz=220,slow=6.6,SNR=6.9
**AAK Ala-Archa 130.12 71** ‖ *e*PKIKP **PKPdf** 16 53 30.3 -0.3
**ARCES ARCESS Array B 131.22 22** PKP **PKPdf** 16 53 31.4 -0.2
comp=Z,4.1nm,0.5s,baz=194,slow=1.7,SNR=36
ARCES SKPbc **SKPbc** 16 56 42.8 -3.7
comp=Z,6.8nm,0.8s,baz=209,slow=2.2,SNR=8.8
**ARU Arti 131.92 48** PKP **PKPdf** 16 53 33.2 -0.1
comp=Z,2.5nm,0.5s,baz=212,slow=3.9,SNR=8.5
ARU pPKP **pPKPdf** 16 54 00.9 -1.3
comp=Z,1.6nm,0.5s,baz=72,slow=6.5,SNR=1.9
ARU SKPbc **SKPbc** 16 56 47.6 -1.8
comp=Z,4.4nm,0.9s,baz=259,slow=3.8,SNR=4.3
**ARU Arti 131.92 48** *i* PKIKP **PKPdf** 16 53 33.7 +0.4
ARU 16 55 53.7
**KMI Kunming 132.49 110** PKP **PKPdf** 16 53 35.5 -0.2
**BRVK Borovoye 134.94 58** ‖ *i*PKIKP **PKPdf** 16 53 39.8 +0.7
**BVAR Borovoye Array 134.97 58** PKP **PKPdf** 16 53 39.7 +0.5
comp=Z,1.1nm,0.4s,baz=178,slow=1.8,SNR=9.1
BVAR pPKP **pPKPdf** 16 54 07.5 -0.6
comp=Z,1.9nm,0.7s,baz=90,slow=1.5,SNR=2.5
BVAR SKPbc **SKPbc** 16 56 58.5 -1.3
comp=Z,3.1nm,0.8s,baz=198,slow=1.4,SNR=7.7
**GYA Guiyang 135.61 113** *e*Pdif **Pdif** 16 50 45.0 -0.2
GYA PKP **PKPdf** 16 53 41.3 -0.1
GYA sPKP 16 54 22.8
GYA PP **PP** 16 56 24.5 +4.3
GYA AMB AMB
comp=Z,130nm,7.9s
**YKA Yellowknife Ar 136.34 318** PKhKP PKPpre 16 53 28.0
comp=Z,0.4nm,0.6s,baz=110,slow=3.6,SNR=5.4
YKA PKP **PKPdf** 16 53 41.0 -0.4
comp=Z,4.3nm,0.5s,baz=127,slow=2.3,SNR=68
YKA PP **PP** 16 56 22.7 -1.8
comp=Z,0.6nm,0.7s,baz=120,slow=6.9,SNR=6.6
YKA SKPbc **SKPbc** 16 57 01.0 -2.6
comp=Z,5.1nm,0.8s,baz=126,slow=2.3,SNR=28
YKA PKKP **PKKPdf** 17 03 18.9 -1.1
comp=Z,0.1nm,0.5s,baz=327,slow=2.2,SNR=4.2
YKA SKKPbc **SKKPbc** 17 06 03.6 +2.6
comp=Z,0.1nm,0.6s,baz=306,slow=3.6,SNR=7.2
**SPITS Spitsbergen Ar 136.85 12** PKP **PKPdf** 16 53 42.9 +0.9
comp=Z,16nm,1.0s,baz=272,slow=11,SNR=3.9
**MKAR Makanchi Array 137.03 72** PKhKP PKPpre 16 53 34.0
comp=Z,0.5nm,0.7s,baz=233,slow=5.1,SNR=6.1
MKAR PKP **PKPdf** 16 53 42.9 -0.4
comp=Z,0.5nm,0.3s,baz=234,slow=2.6,SNR=10
MKAR SKPbc **SKPbc** 16 57 03.6 -2.6
comp=Z,1.3nm,0.7s,baz=245,slow=3.0,SNR=7.5
MKAR SKPab **SKiKP** 16 57 11.8 +0.7
comp=Z,1.4nm,0.9s,baz=274,slow=3.5,SNR=4.8
**KURBB Kurchatov Arra 137.47 65** PKhKP PKPpre 16 53 37.0
comp=Z,0.9nm,0.5s,baz=236,slow=3.8,SNR=4.0
KURBB PKP **PKPdf** 16 53 41.8 -2.1
comp=Z,1.5nm,0.7s,baz=238,slow=3.4,SNR=13
KURBB SKPbc **SKPbc** 16 57 05.7 -1.7
comp=Z,2.6nm,0.8s,baz=234,slow=3.2,SNR=13
KURBB SKPab **SKiKP** 16 57 12.9 +1.1
comp=Z,0.5nm,0.7s,baz=241,slow=3.3,SNR=5.0
KURBB SKKPbc **SKKPbc** 17 05 53.1 -2.7
comp=Z,0.6nm,0.7s,baz=61,slow=3.5,SNR=4.3
**KURK Kurchatov 137.57 65** ‖ *e*PKIKP **PKPdf** 16 53 42.2 -1.9
**KURK Kurchatov 137.57 65** PKPpre PKPpre 16 53 37.0
KURK PKP **PKPdf** 16 53 41.8 -2.2
KURK SKPbc **SKPbc** 16 57 05.7 -2.0
KURK SKPab **SKiKP** 16 57 12.9 +0.9
KURK SKKPbc **SKKPbc** 17 05 53.1 -2.3
**WMQ Urumqi 138.01 79** *e*PKP **PKPdf** 16 53 46.0 +0.8
WMQ LR LR
comp=Z,72nm,21.7s
WMQ LR LR
comp=Z,130nm,17.9s
WMQ LR LR
comp=Z,69nm,15.9s
**RES Resolute Bay 138.09 338** SKKPbc SKKPbc 17 05 53.0 -1.9
comp=Z,1.6nm,0.8s,baz=301,slow=3.7,SNR=4.5
**LZH Lanzhou 141.61 101** *e*PKP **PKPdf** 16 53 54.3 +2.1
LZH sPKP 16 54 32.0
LZH LR LR
comp=Z,110nm,14.3s
LZH LR LR
comp=Z,120nm,16.1s
LZH LR LR
comp=Z,150nm,18.7s
**GTA Gaotai 141.76 93** *e*PKP **PKPdf** 16 53 55.8 +3.5
GTA sPKP 16 54 33.5
GTA PP PP 16 57 06.8 +8.4
**NVS Novosibirsk 142.22 62** *e*PKIKP **PKPdf** 16 53 49.4 -3.0
**ZALV Zalesovo Beam 142.54 64** PKhKP PKPpre 16 53 48.9
comp=Z,1.8nm,0.4s,baz=240,slow=4.7,SNR=8.3
ZALV PKP **PKPdf** 16 53 53.6 +0.6
comp=Z,8.3nm,0.5s,baz=240,slow=3.9,SNR=24
ZALV SKPbc **SKPbc** 16 57 18.1 -2.8
comp=Z,1.7nm,0.7s,baz=209,slow=2.7,SNR=4.7
**HVS Khovu-Aksy 145.65 73** ‖ *e*PKP2 **PKPab** 16 54 00.0 +0.3
**INK Inuvik 145.98 320** PKPbc **PKPdf** 16 53 58.7 +0.2
comp=Z,25nm,0.5s,baz=86,slow=2.5,SNR=100
INK pPKPbc **pPKPdf** 16 54 26.4 -1.1
comp=Z,7.7nm,0.5s,baz=197,slow=0.3,SNR=2.7
INK SKPbc **SKPbc** 16 57 27.1 -1.4
comp=Z,11nm,0.8s,baz=76,slow=2.1,SNR=10
**NJ2 Nanjing 146.24 122** *e*PKPbc **PKPbc** 16 54 01.0 -0.4
**TIA Tai'an 148.74 115** PKPbc **PKPbc** 16 54 08.3 +0.2
**HHC Hu-ho-hao-te 149.24 103** *e*PKPbc **PKPbc** 16 54 07.0 -2.4
**MOY Mondy 149.84 77** *e*PKP2 **PKPbc** 16 54 11.9 +1.4
**ILAR Eielson Array 150.26 311** PKP **PKPdf** 16 54 03.3 -2.4
comp=Z,1.1nm,0.8s,baz=322,slow=0.6,SNR=16
ILAR PKPbc **PKPbc** 16 54 10.9 0.0
comp=Z,44nm,1.1s,baz=126,slow=1.2,SNR=170
ILAR pPKPbc **pPKPbc** 16 54 38.9 -0.8
comp=Z,8.8nm,0.8s,baz=111,slow=1.5,SNR=2.6
**ZAK Zakamensk 150.45 80** *e*PKIKP **PKPdf** 16 54 05.6 -0.9
ZAK pmax pmax
comp=Z,8.0nm,1.3s
**SONM Songino Array 150.80 87** PKP **PKPdf** 16 54 06.9 -0.4
comp=Z,0.9nm,0.9s,baz=193,slow=2.9,SNR=5.1
SONM PKPbc **PKPbc** 16 54 12.8 -0.2
comp=Z,9.8nm,0.6s,baz=217,slow=3.9,SNR=104
SONM pPKPbc **pPKPbc** 16 54 40.0 -1.8
comp=Z,5.7nm,0.7s,baz=217,slow=3.1,SNR=4.5
**KDAK Kodiak Island 150.89 296** PKPbc **PKPbc** 16 54 13.3 +0.8
comp=Z,40nm,0.5s,baz=93,slow=1.7,SNR=73
**BJI Beijing 151.13 109** PKPbc **PKPbc** 16 54 12.8 -0.9
BJI pPKP **pPKPbc** 16 54 40.3 -2.3
**ULN Ulaanbaatar 151.18 88** ‖ *i*PKIKP **PKPbc** 16 54 12.6 -1.2
**TLY Talaya 151.29 78** PKPbc **PKPbc** 16 54 13.6 -0.2
comp=Z,3.1nm,0.4s,baz=303,slow=7.0,SNR=3.7
**KSAR Wonju Array Be 154.84 128** PKP2 **PKPab** 16 54 38.3 +0.6
**KSAR Wonju Array Be 154.84 128** PKPab **PKPab** 16 54 38.3 +0.6
**KSRS Korea Array 154.87 128** PKPab **PKPab** 16 54 38.3 +0.5
comp=Z,2.7nm,0.9s,baz=222,slow=3.0,SNR=5.5
**MJAR Matsushiro Ant 157.92 148** PKPab **PKPab** 16 54 51.1 +0.2
comp=Z,1.4nm,0.6s,baz=174,slow=4.5,SNR=5.3
**USRK Ussuriysk Ar. 162.12 124** PKPab **PKPab** 16 55 08.3 -0.7
comp=Z,1.4nm,0.6s,baz=212,slow=2.9,SNR=6.5
**KLR Kul'dur 165.50 110** ‖ *e*PKIKP **PKPdf** 16 54 25.0 +0.3
**BILL Bilibino 166.70 337** ‖ *e*PKIKP PKPpre 16 54 20.9
BILL *e* 16 54 57.5
BILL *e*SS SS 17 19 59.0 +8.1
BILL pmax pmax
comp=Z,2.0nm,0.9s
**YAK Yakutsk 166.93 55** ↑ *e*PKIKP **PKPdf** 16 54 23.8 -1.5
**SEY Seymchan 173.37 1** PKPab **PKPab** 16 55 59.6 +1.4
comp=Z,0.6nm,0.4s,baz=82,slow=12,SNR=3.9
**SEY Seymchan 173.37 1** ‖ *i*PKIKP PKPpre 16 54 23.7
**PETK Petropavlovsk- 175.67 224** PKP **PKPdf** 16 54 28.2 -1.8
comp=Z,3.3nm,0.8s,baz=76,slow=6.3,SNR=4.6

**KRSC 30 16:53:59.6±1.6, 53°80N×162°66E, h60km±32km, ML3.9,**
**Off east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **SPN** | **Mys Shipunski** | **1.72** | **247** | *e*P | | Pn | 16 54 29.6 | +2.4 |
| SPN | | | | *e*S | | Sn | 16 54 49.0 | +0.8 |
| **KZV** | **Kizimen** | **1.91** | **315** | *e*P | | Pn | 16 54 32.1 | +2.2 |
| KZV | | | | *e*S | | Sn | 16 54 54.1 | +1.1 |
| **KII** | **Karymskiy** | **1.91** | **279** | *e*P | | Pn | 16 54 32.2 | +2.3 |
| KII | | | | *e*S | | Sn | 16 54 53.4 | +0.5 |
| **TUMD** | **Tumrok D** | **1.93** | **318** | *e*P | | Pn | 16 54 31.7 | +1.6 |
| TUMD | | | | *e*S | | Sn | 16 54 54.2 | +0.9 |
| **NLC** | **Nalytchevo** | **2.08** | **254** | *e*P | | Pn | 16 54 34.8 | +2.8 |
| NLC | | | | *e*S | | Sn | 16 54 58.4 | +1.7 |
| **TUMR** | **Tumrok** | **2.09** | **317** | *e*P | | Pn | 16 54 34.7 | +2.4 |
| TUMR | | | | *e*S | | Sn | 16 54 58.2 | +0.9 |
| **SDLR** | **Sedlovina** | **2.31** | **259** | *e*P | | Pn | 16 54 38.5 | +3.2 |
| SDLR | | | | *e*S | | Sn | 16 55 05.5 | +2.8 |
| **SMAR** | **Somma** | **2.36** | **259** | *e*P | | Pn | 16 54 38.9 | +2.8 |
| SMAR | | | | *e*S | | Sn | 16 55 06.5 | +2.4 |
| **UGLR** | **Uglovaya** | **2.36** | **257** | *e*P | | Pn | 16 54 39.3 | +3.2 |
| UGLR | | | | *e*S | | Sn | 16 55 07.3 | +3.4 |
| **KRER** | **Koryakskii** | **2.38** | **260** | *e*P | | Pn | 16 54 39.8 | +3.4 |
| KRER | | | | *e*S | | Sn | 16 55 07.6 | +3.0 |
| **BKI** | **Bering** | **2.40** | **53** | *e*P | | Pn | 16 54 38.5 | +2.2 |
| BKI | | | | *e*S | | Sn | 16 55 04.4 | -0.1 |
| **AVH** | **Avacha** | **2.40** | **259** | *e*P | | Pn | 16 54 40.1 | +3.6 |
| AVH | | | | *e*S | | Sn | 16 55 08.3 | +3.5 |
| **KMNR** | **Kamenistaya** | **2.41** | **325** | *e*P | | Pn | 16 54 39.8 | +3.1 |
| KMNR | | | | *e*S | | Sn | 16 55 08.4 | +3.2 |
| **KBTR** | **Krutoberegovo** | **2.42** | **2** | *e*P | | Pn | 16 54 38.6 | +1.9 |
| KBTR | | | | *e*S | | Sn | 16 55 05.8 | +0.6 |
| **KRX** | **Arik** | **2.43** | **261** | *e*P | | Pn | 16 54 40.1 | +3.1 |
| KRX | | | | *e*S | | Sn | 16 55 08.5 | +2.9 |
| **KOK** | **Koryaka** | **2.45** | **260** | *e*P | | Pn | 16 54 40.8 | +3.6 |
| KOK | | | | *e*S | | Sn | 16 55 08.7 | +2.6 |
| **DALK** | **Dalny** | **2.46** | **253** | *e*P | | Pn | 16 54 40.3 | +3.1 |
| DALK | | | | *e*S | | Sn | 16 55 07.9 | +1.8 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **KBG** | **Krutoberegovo** | **2.47** | **1** | *eP* | Pn | 16 54 39.8 | +2.5 | | |
| KBG | | | | *eS* | Sn | 16 55 07.5 | +1.3 | | |
| **ZLN** | **Zelenaya** | **2.47** | **335** | *eP* | Pn | 16 54 41.0 | +3.5 | | |
| ZLN | | | | *eS* | Sn | 16 55 10.7 | +4.1 | | |
| **BZMR** | **Bezymyannaya** | **2.48** | **331** | *eP* | Pn | 16 54 41.4 | +3.7 | | |
| **BZWR** | **Bezymyannyi-We** | **2.51** | **331** | *eP* | Pn | 16 54 41.3 | +3.2 | | |
| **PET** | **Petropavlovsk** | **2.52** | **254** | *eP* | Pn | 16 54 41.7 | +3.7 | | |
| PET | | | | *eS* | Sn | 16 55 10.0 | +2.5 | | |
| **CIRR** | **Tsirk** | **2.57** | **335** | *eP* | Pn | 16 54 42.8 | +3.9 | | |
| **KPT** | **Kopyto** | **2.59** | **328** | *eP* | Pn | 16 54 42.4 | +3.3 | | |
| **KRSR** | **Krestovskiy** | **2.71** | **334** | *eP* | Pn | 16 54 43.6 | +2.8 | | |
| **KLY** | **Klyuchi** | **2.77** | **336** | *eP* | Sn | 16 54 44.1 | +2.6 | | |
| KLY | | | | *eS* | Sn | 16 55 15.6 | +1.8 | | |
| **KOZ** | **Kozyrevsk** | **2.78** | **326** | *eP* | Pn | 16 54 45.6 | +4.0 | | |
| KOZ | | | | *eS* | Sn | 16 55 18.0 | +4.0 | | |
| **GNL** | **Ganaly** | **2.80** | **270** | *eP* | Pn | 16 54 46.0 | +4.0 | | |
| **RUS** | **Russkaya** | **2.84** | **243** | *eP* | Pn | 16 54 45.8 | +3.3 | | |
| RUS | | | | *eS* | Sn | 16 55 17.2 | +1.7 | | |
| **SMKR** | **Semkarok** | **2.88** | **347** | *eP* | Pn | 16 54 47.0 | +4.0 | | |
| SMKR | | | | *eS* | Sn | 16 55 19.8 | +3.4 | | |
| **KRMR** | **Karymshinskiy** | **2.88** | **252** | *eP* | Pn | 16 54 46.6 | +3.6 | | |
| KRMR | | | | *eS* | Sn | 16 55 19.3 | +2.9 | | |
| **BDR** | **Baidarnaya** | **2.90** | **344** | *eP* | Pn | 16 54 46.8 | +3.4 | | |
| **SRKR** | **Sorokina** | **2.99** | **344** | *eP* | Pn | 16 54 47.7 | +3.1 | | |
| SRKR | | | | *eS* | Sn | 16 55 22.4 | +3.2 | | |
| **MTVR** | **Mutnovka** | **3.00** | **246** | *eP* | Pn | 16 54 48.6 | +3.9 | | |
| MTVR | | | | *eS* | Sn | 16 55 22.2 | +2.7 | | |
| **ESO** | **Esso** | **3.13** | **315** | *eP* | Pn | 16 54 49.4 | +3.0 | | |
| ESO | | | | *eS* | Sn | 16 55 24.4 | +1.9 | | |
| **ASAK** | **Asacha** | **3.20** | **246** | *eP* | Pn | 16 54 51.8 | +4.4 | | |
| ASAK | | | | *eS* | Sn | 16 55 27.3 | +3.0 | | |
| **APC** | **Apacha** | **3.41** | **257** | *eP* | Pn | 16 54 55.1 | +4.9 | | |
| APC | | | | *eS* | Sn | 16 55 35.0 | +5.7 | | |
| **KDTR** | **Khodutka, Kamc** | **3.42** | **236** | *eP* | Pn | 16 54 53.2 | +2.9 | | |
| KDTR | | | | *eS* | Sn | 16 55 29.9 | +0.3 | | |
| **SKR** | **Severo-Kuril's** | **5.08** | **235** | *eP* | Pn | 16 55 15.5 | +2.4 | | |
| SKR | | | | *eS* | Sn | 16 56 09.5 | -0.9 | | |

*NIED* ***30*** *17:07:00,30˚.90N×138˚.70E,h400km,Mw5.0 Best double couple: M0 3.68000×10^16 NP1:φs102.00000°, δ32.00000°,λ-161.00000°. NP2:φs355.00000°, δ80.00000°,λ-60.00000°.*

*BJI* ***30*** *17:07:20.8,30˚.83N×138˚.25E,h390km,mb5.3/76, mB4.8/42*

*MOS* ***30*** *17:07:22.4±0.8,30˚.85N×138˚.27E,h408km,mb5.2/103, Error ellipse: s-maj=7.0km s-min=4.1km az=107.1*

*JMA* ***30*** *17:07:22.0±0.3,30˚.92N×138˚.68E,h433km±3km,M5.1*

*JMA Felt I J1.*

*ISCJB* ***30*** *17:07:23.2±0.2,30˚.80N±0˚.02×138˚.28E±0˚.02, h417km±1km,mb5.0/346,Error ellipse: s-maj=3.4km s-min=2.1km az=151.4*

*GCMT* ***30*** *17:07:23.4±0.7,30˚.87N×138˚.44E,h414km±4km, MW5.2/41,Moment Tensor Solution. s41,c55; Duration: 1!0 Moment tensor: Scale 10^16Nm; Mrr=0.97±.33; Mθθ-0.11±.46; Mφφ 1.08±.47; Mrθ-0.46±.66; Mrφ-2.51±.45; Mθφ-7.85±.50; Best double couple: Mo8.31800×10^16 NP1:φs2.00000°,δ87.00000°,λ-72.00000°. NP2: φs102.00000°,δ18.00000°,λ-169.00000°. Principal axes: T 8.2800, Plg39.0000°, Azm76.0000°; N 0.0750, Plg18.0000°, Azm181.0000°; P -8.3560, Plg46.0000°, Azm290.0000°; nsta1 refers to body waves, cutoff=40s.*

*IDC* ***30*** *17:07:23.9±0.4,30˚.84N×138˚.31E,h411km±4km,mb4.5/32, mb1 4.6/38,mb1mx4.5/46,mbtmp5.3/38 Error ellipse: s-maj=7.6km s-min=6.0km az=97.0*

*NEIC* ***30*** *17:07:23.4±0.1,30˚.80N×138˚.25E,mb5.0/228,Error ellipse: s-maj=2.8km s-min=1.9km az=155.0*

**ISC 30 17:07:22.9±0.3,30˚.82N±0˚.03×138˚.39E±0˚.03,h406km±2km, h406km:pP-P,n1100,σ1§39/1321,mb5.0/360,53C-55D, Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | Op | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **JHCJ** | **Hachijojimakas** | **2.55** | **28** | ⇓P | | **P** | | **17 08 23.7** | **+0.7** |
| JHCJ | | | | | *eS* | **S** | | **17 09 10.7** | **-1.0** |
| **JHJ** | **Hachijo jima 2** | **2.58** | **27** | P | | **P** | | **17 08 23.9** | **+0.7** |
| | 228nm,0.3s,baz=148,slow=23,SNR=95 | | | | | | | | |
| JHJ | | | | S | | **S** | | **17 09 10.0** | **-2.2** |
| | 962nm,0.3s,baz=94,slow=22,SNR=7.9 | | | | | | | | |
| **JHJ2** | **Mitsune** | **2.59** | **28** | ⇓P | | **P** | | **17 08 23.9** | **+0.6** |
| **JHJ2** | **Mitsune** | **2.59** | **28** | *e*P | | **P** | | **17 08 23.8** | **+0.6** |
| JHJ2 | | | | | *eS* | **S** | | **17 09 05.3** | **-7.0** |
| **TTO1** | **TONANKAI O.B.S** | **3.11** | **334** | P | | **P** | | **17 08 29.4** | **+2.4** |
| **TTO2** | **TONANKAI O.B.S** | **3.13** | **339** | ⇑P | | **P** | | **17 08 29.8** | **+2.7** |
| **TK02** | **Tokai 2** | **3.17** | **350** | P | | **P** | | **17 08 29.9** | **+2.4** |
| **JWZ** | **Kozaga** | **3.53** | **321** | ⇑P | | **P** | | **17 08 32.6** | **+1.7** |
| JWZ | | | | S | | **S** | | **17 09 27.0** | **+0.7** |
| **JIE** | **Ise** | **3.84** | **339** | P | | **P** | | **17 08 35.6** | **+2.0** |
| JIE | | | | *eS* | | **S** | | **17 09 32.6** | **+1.3** |
| **JKN2** | **Miekihoku** | **3.85** | **333** | ⇑P | | **P** | | **17 08 35.4** | **+1.7** |
| JKN2 | | | | S | | **S** | | **17 09 32.3** | **+0.8** |
| **JAA** | **Atsumi** | **3.95** | **345** | ⇑P | | **P** | | **17 08 36.7** | **+2.1** |
| JAA | | | | S | | **S** | | **17 09 34.2** | **+1.1** |
| **JWM** | **Minabe** | **3.97** | **320** | ⇑P | | **P** | | **17 08 36.7** | **+1.9** |
| **JHMK** | **Hamakita** | **4.03** | **353** | P | | **P** | | **17 08 36.7** | **+1.5** |
| **HMMJ** | **Hamamatsu 2** | **4.07** | **352** | P | | **P** | | **17 08 37.4** | **+1.7** |
| HMMJ | | | | S | | **S** | | **17 09 35.5** | **+0.3** |
| **JWY** | **Kouya** | **4.14** | **326** | ⇑P | | **P** | | **17 08 38.7** | **+2.2** |
| **TSUJ** | **Tsu 2** | **4.22** | **337** | ⇑P | | **P** | | **17 08 39.2** | **+2.0** |
| TSUJ | | | | S | | **S** | | **17 09 39.5** | **+1.6** |
| **BSO3** | **Boso 3** | **4.36** | **24** | P | | **P** | | **17 08 37.3** | **-0.9** |
| BSO3 | | | | S | | **S** | | **17 09 37.1** | **-2.7** |
| **BSO1** | **Boso 1** | **4.41** | **29** | P | | **P** | | **17 08 37.9** | **-0.4** |
| BSO1 | | | | S | | **S** | | **17 09 37.4** | **-2.7** |
| **MRT2** | **Murotomisaki 2** | **4.42** | **307** | ⇑P | | **P** | | **17 08 41.2** | **+2.0** |
| **JHE** | **Heguri** | **4.46** | **330** | ⇑P | | **P** | | **17 08 41.4** | **+1.9** |
| **JAI** | **Aioi** | **4.46** | **313** | P | | **P** | | **17 08 41.5** | **+1.9** |
| **BSO4** | **Boso 4** | **4.47** | **21** | P | | **P** | | **17 08 39.0** | **-0.5** |
| BSO4 | | | | S | | **S** | | **17 09 40.2** | **-2.0** |
| **JOD2** | **Odawara 2** | **4.47** | **7** | P | | **P** | | **17 08 39.5** | **-0.2** |
| **JAO** | **Obara** | **4.54** | **348** | ⇑P | | **P** | | **17 08 42.2** | **+1.9** |
| JAO | | | | S | | **S** | | **17 09 44.8** | **+1.1** |
| **JNY** | **Yasuok** | **4.55** | **355** | P | | **P** | | **17 08 42.0** | **+1.5** |
| JNY | | | | *eS* | | **S** | | **17 09 44.6** | **+0.7** |
| **JEG** | **Eigenji** | **4.62** | **339** | P | | **P** | | **17 08 43.4** | **+2.2** |
| JEG | | | | *eS* | | **S** | | **17 09 46.9** | **+1.8** |
| **JAJ2** | **Tsuna** | **4.66** | **321** | ⇑P | | **P** | | **17 08 43.2** | **+1.8** |
| **INU** | **Inuyama** | **4.67** | **346** | *e*P | | **P** | | **17 08 43.5** | **+1.9** |
| INU | | | | *eS* | | **S** | | **17 09 46.3** | **+0.5** |
| **JYN** | **Shimob** | **4.67** | **2** | ⇓P | | **P** | | **17 08 42.7** | **+1.0** |
| **JMN** | **Monobe** | **4.80** | **308** | P | | **P** | | **17 08 45.1** | **+2.1** |
| **JMIK** | **Miki** | **4.87** | **326** | ⇑P | | **P** | | **17 08 45.4** | **+1.8** |
| **CBIJ** | **Chichi jima** | **4.98** | **137** | P | | **P** | | **17 08 42.7** | **-2.2** |
| CBIJ | | | | S | | **S** | | **17 09 47.6** | **-4.2** |
| **CBIJ** | **Chichi jima** | **4.98** | **137** | *e*P | | **P** | | **17 08 42.9** | **-1.9** |
| CBIJ | | | | *eS* | | **S** | | **17 09 47.2** | **-4.6** |
| **JHU** | **Hanno** | **5.08** | **8** | P | | **P** | | **17 08 45.0** | **-0.7** |
| JHU | | | | S | | **S** | | **17 09 47.5** | **-6.0** |
| **JWT** | **Wachi** | **5.11** | **331** | P | | **P** | | **17 08 47.9** | **+1.8** |
| **JKS** | **Kasai** | **5.12** | **325** | P | | **P** | | **17 08 47.7** | **+1.6** |
| **JKU** | **Kubokawa** | **5.16** | **300** | ⇑P | | **P** | | **17 08 48.6** | **+2.0** |
| **JTO** | **Tosashimizu** | **5.17** | **295** | ⇑P | | **P** | | **17 08 48.6** | **+1.9** |
| JTO | | | | S | | **S** | | **17 09 55.5** | **+0.1** |
| **JRY** | **Ryogami san** | **5.21** | **5** | ⇑P | | **P** | | **17 08 47.1** | **+0.1** |
| JRY | | | | *eS* | | **S** | | **17 09 51.9** | **-4.0** |
| **JET** | **Tanbara** | **5.40** | **305** | P | | **P** | | **17 08 51.3** | **+2.2** |
| **JAD** | **Aida** | **5.43** | **320** | P | | **P** | | **17 08 51.2** | **+1.8** |
| **UWA2** | **Uwa jima 2** | **5.45** | **298** | P | | **P** | | **17 08 51.8** | **+2.2** |
| **JNG** | **Nsakai** | **5.58** | **358** | P | | **P** | | **17 08 51.4** | **+0.4** |
| **JYT** | **Yasato** | **5.61** | **15** | P | | **P** | | **17 08 49.2** | **-1.9** |
| JYT | | | | S | | **S** | | **17 09 57.1** | **-6.4** |
| **JAG** | **Ashikaga** | **5.67** | **9** | ⇑P | | **P** | | **17 08 50.3** | **-1.5** |
| **JNA** | **Nagahama** | **5.71** | **300** | P | | **P** | | **17 08 54.7** | **+2.4** |
| **MJAR** | **Matsushiro Arr** | **5.71** | **359** | P | | **P** | | **17 08 52.0** | **-0.3** |
| | 24nm,0.3s,baz=174,slow=11,SNR=425 | | | | | | | | |
| MJAR | | | | S | | **S** | | **17 10 05.0** | **-0.7** |
| | 14nm,0.3s,baz=29,slow=31,SNR=6.9 | | | | | | | | |
| **MAJO** | **Matsushiro** | **5.71** | **359** | *c* iP | | **P** | | **17 08 52.2** | **-0.1** |
| **MAJO** | **Matsushiro** | **5.71** | **359** | *e*P | | **P** | | **17 08 52.4** | **0.0** |
| MAJO | | | | *eS* | | **S** | | **17 10 03.3** | **-2.4** |
| **MAT** | **Matsushiro** | **5.71** | **359** | P | | **P** | | **17 08 52.4** | **+0.1** |
| MAT | | | | S | | **S** | | **17 10 03.8** | **-1.9** |
| **MAT** | **Matsushiro** | **5.71** | **359** | P | | **P** | | **17 08 52.3** | **0.0** |
| **MJB9** | **Matsu-Tunnel** | **5.72** | **358** | *e*P | | **P** | | **17 08 52.4** | **0.0** |
| MJB9 | | | | *eS* | | **S** | | **17 10 03.0** | **-2.8** |
| **JHM** | **Kurahashi** | **5.96** | **305** | P | | **P** | | **17 08 57.2** | **+2.2** |
| **JTSN** | **Tsuno** | **6.05** | **285** | S | | **S** | | **17 10 14.4** | **+2.0** |
| **JHO** | **Hitachi** | **6.06** | **17** | P | | **P** | | **17 08 54.4** | **-1.6** |
| **JUS** | **Usuki** | **6.07** | **293** | P | | **P** | | **17 08 58.9** | **+2.7** |
| **JHS** | **Saijyo** | **6.09** | **315** | P | | **P** | | **17 08 58.4** | **+2.0** |
| JHS | | | | S | | **S** | | **17 10 14.5** | **+1.4** |
| **JNAR** | **Kushima--Naru** | **6.14** | **278** | P | | **P** | | **17 08 59.9** | **+2.9** |
| **JKIT** | **Kitakata** | **6.18** | **289** | P | | **P** | | **17 09 00.2** | **+2.8** |
| **JHT** | **Toyohira** | **6.33** | **309** | P | | **P** | | **17 09 00.4** | **+1.4** |
| **JTZ** | **Takazaki** | **6.34** | **282** | P | | **P** | | **17 09 01.9** | **+2.8** |
| **JTN** | **Tanegashima 3** | **6.38** | **270** | P | | **P** | | **17 09 01.8** | **+2.2** |
| JTN | | | | S | | **S** | | **17 10 20.8** | **+1.8** |
| **JKD** | **Kudamatsu** | **6.39** | **302** | P | | **P** | | **17 09 01.9** | **+2.3** |
| JKD | | | | S | | **S** | | **17 10 20.5** | **+1.5** |
| **JTSR** | **Tashiro 2** | **6.42** | **275** | P | | **P** | | **17 09 02.7** | **+2.6** |
| JTSR | | | | S | | **S** | | **17 10 21.7** | **+1.8** |
| **JKI** | **Kunimi** | **6.43** | **298** | P | | **P** | | **17 09 02.4** | **+2.4** |
| **JGT2** | **ShimaneMisato** | **6.51** | **312** | P | | **P** | | **17 09 02.8** | **+1.1** |
| **JIU2** | **Izumi 2** | **6.68** | **287** | P | | **P** | | **17 09 05.7** | **+2.0** |
| JIU2 | | | | S | | **S** | | **17 10 27.5** | **+2.4** |
| **JNU** | **Nakatsue** | **6.79** | **292** | P | | **P** | | **17 09 06.3** | **+1.5** |
| | 7.7nm,0.3s,baz=240,slow=2.0,SNR=46 | | | | | | | | |
| JNU | | | | S | | **S** | | **17 10 30.4** | **+3.3** |
| | 2.5nm,0.3s,baz=331,slow=14,SNR=12 | | | | | | | | |
| **JNU** | **Nakatsue** | **6.79** | **292** | *e*P | | **P** | | **17 09 05.9** | **+1.1** |
| JNU | | | | *eS* | | **S** | | **17 10 29.8** | **+2.6** |
| **JZO** | **Okuchi** | **6.79** | **283** | P | | **P** | | **17 09 06.5** | **+1.6** |
| JZO | | | | S | | **S** | | **17 10 29.2** | **+2.0** |
| **JSU** | **Suzuyama** | **6.84** | **278** | P | | **P** | | **17 09 06.9** | **+1.5** |
| **JFK** | **Kawauchi** | **6.85** | **17** | P | | **P** | | **17 09 03.6** | **-1.9** |
| **JFA** | **Akaike** | **7.05** | **296** | P | | **P** | | **17 09 08.9** | **+1.2** |
| JFA | | | | S | | **S** | | **17 10 33.0** | **+0.5** |
| **JTY** | **Toyota** | **7.08** | **301** | P | | **P** | | **17 09 09.2** | **+1.2** |
| JTY | | | | S | | **S** | | **17 10 34.1** | **+1.1** |
| **JHD** | **Hondo** | **7.23** | **285** | P | | **P** | | **17 09 11.3** | **+1.6** |
| JHD | | | | S | | **S** | | **17 10 38.0** | **+1.8** |
| **JFI** | **Itaya** | **7.27** | **293** | P | | **P** | | **17 09 11.4** | **+1.2** |
| **JSJ** | **Shimokoshiki** | **7.48** | **279** | P | | **P** | | **17 09 13.5** | **+1.0** |
| JSJ | | | | S | | **S** | | **17 10 42.4** | **+1.0** |
| **JUR** | **Ureshino** | **7.52** | **290** | P | | **P** | | **17 09 14.6** | **+1.6** |
| **NGSJ** | **Nagasakinomoza** | **7.54** | **286** | P | | **P** | | **17 09 14.6** | **+1.5** |
| **JII** | **Iki** | **7.91** | **294** | P | | **P** | | **17 09 18.5** | **+1.3** |
| **JAM** | **Amami Oshima** | **8.01** | **255** | P | | **P** | | **17 09 19.0** | **+0.6** |
| **JFU** | **Fukue jima 2** | **8.41** | **285** | P | | **P** | | **17 09 24.5** | **+1.7** |
| **JAMN** | **Amaminishikomi** | **8.43** | **255** | P | | **P** | | **17 09 23.7** | **+0.7** |
| JAMN | | | | S | | **S** | | **17 11 01.3** | **+0.1** |
| **JTU** | **Tsushima** | **8.43** | **298** | P | | **P** | | **17 09 24.3** | **+1.4** |
| JTU | | | | S | | **S** | | **17 11 02.0** | **+0.8** |
| **JMK** | **Ichinoseki** | **8.44** | **15** | P | | **P** | | **17 09 22.1** | **-0.9** |
| JMK | | | | *eS* | | **S** | | **17 10 56.0** | **-5.3** |
| **JOW** | **Kunigami** | **9.72** | **248** | *e*P | | **P** | | **17 09 39.5** | **+2.2** |
| **TJN** | **Taejon** | **10.74** | **304** | *d* iP | | **P** | | **17 09 49.1** | **+0.7** |
| **KSRS** | **Korea Array** | **10.91** | **310** | P | | **P** | | **17 09 51.4** | **+1.1** |
| | 4.6nm,0.3s,baz=119,slow=11,SNR=299 | | | | | | | | |
| KSRS | | | | S | | **S** | | **17 11 53.8** | **+1.8** |
| | baz=107,slow=21,SNR=3.1 | | | | | | | | |
| KSRS | | | | ScP | | **ScP** | | **17 18 03.9** | **-0.1** |
| | 0.1nm,0.3s,baz=166,slow=0.2,SNR=11 | | | | | | | | |
| **KS15** | **Wonju Array Si** | **10.93** | **310** | *e*P | | **P** | | **17 09 51.1** | **+0.5** |
| **KSAR** | **Wonju Array Be** | **10.93** | **310** | P | | **P** | | **17 09 51.4** | **+0.9** |
| KSAR | | | | S | | **S** | | **17 11 53.8** | **+1.4** |
| **KSAR** | **Wonju Array Be** | **10.93** | **310** | P | | **P** | | **17 09 51.4** | **+0.9** |
| KSAR | | | | S | | **S** | | **17 11 53.8** | **+1.4** |
| KSAR | | | | ScP | | **ScP** | | **17 18 03.9** | **-0.1** |
| **KS01** | **Wonju Array Si** | **10.94** | **310** | *e*P | | **P** | | **17 09 50.4** | **-0.3** |
| **INCN** | **Inchon** | **11.79** | **307** | *e*P | | **P** | | **17 10 00.5** | **+0.4** |
| **INCN** | **Inchon** | **11.79** | **307** | Pn | | **P** | | **17 10 01.0** | **+0.9** |
| SNR=5.6 | | | | | | | | | |
| **INCN** | **Inchon** | **11.79** | **307** | P | | **P** | | **17 10 01.0** | **+0.9** |
| SNR=5.6 | | | | | | | | | |
| **ERM** | **Erimo** | **11.81** | **18** | *de*P | | **P** | | **17 10 01.5** | **+1.3** |
| ERM | | | | pmax | pmax | | | | |
| | comp=Z,372nm,1.0s | | | | | | | | |
| **ERM** | **Erimo** | **11.81** | **18** | *e*P | | **P** | | **17 10 01.6** | **+1.3** |
| ERM | | | | *eS* | | **S** | | **17 12 04.8** | **-5.4** |
| **MSHR** | **Mys Shultsa** | **13.09** | **336** | *de*P | | **P** | | **17 10 13.9** | **-0.3** |
| **VLA** | **Vladivostok** | **13.33** | **339** | *d* iP | | **P** | | **17 10 16.4** | **-0.5** |
| **ASAJ** | **Asahikawa** | **13.69** | **13** | P | | **P** | | **17 10 22.1** | **+1.3** |
| | comp=Z,4.7nm,0.3s,baz=232,slow=9.7,SNR=42 | | | | | | | | |
| ASAJ | | | | S | | **S** | | **17 12 48.3** | **+0.4** |
| | comp=Z,1.2nm,0.3s,baz=29,slow=19,SNR=3.1 | | | | | | | | |
| **ASAJ** | **Asahikawa** | **13.69** | **13** | *e*P | | **P** | | **17 10 21.8** | **+1.0** |
| ASAJ | | | | *eS* | | **S** | | **17 12 48.9** | **+1.0** |
| **USRK** | **Ussuriysk Ar.** | **14.29** | **341** | P | | **P** | | **17 10 27.4** | **+0.1** |
| | comp=Z,5.5nm,0.3s,baz=155,slow=10,SNR=149 | | | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **14.46** | **22** | *e*P | | **P** | | **17 10 30.8** | **+1.7** |
| YUK | | | | pmax | pmax | | | | |
| | comp=Z,765nm,0.5s | | | | | | | | |
| YUK | | | | pmax | pmax | | | | |
| | comp=E,68nm,0.2s | | | | | | | | |
| YUK | | | | pmax | pmax | | | | |
| | comp=N,193nm,0.6s | | | | | | | | |
| **YOJ** | **Yonaguni jima** | **15.02** | **249** | *e*P | | **P** | | **17 10 35.3** | **-0.2** |
| YOJ | | | | pmax | pmax | | | | |
| | comp=Z,432nm,0.9s | | | | | | | | |
| **YOJ** | **Yonaguni jima** | **15.02** | **249** | *e*P | | **P** | | **17 10 35.3** | **-0.2** |
| | comp=Z,432nm,0.9s | | | | | | | | |
| **MDJ** | **Mudanjiang** | **15.42** | **336** | P | | **P** | | **17 10 39.0** | **-0.6** |
| MDJ | | | | S | | **S** | | **17 13 19.8** | **-2.5** |
| MDJ | | | | PcP | | **PcP** | | **17 15 20.0** | **+3.9** |
| MDJ | | | | ScP | | **ScP** | | **17 18 17.3** | **+6.2** |
| MDJ | | | | PcS | | **PcS** | | **17 18 54.8** | **+3.2** |
| MDJ | | | | ScS | | **ScS** | | **17 21 54.5** | **+4.9** |
| MDJ | | | | pmax | pmax | | | | |
| | comp=Z,51nm,0.8s | | | | | | | | |
| **MDJ** | **Mudanjiang** | **15.42** | **336** | *e*P | | **P** | | **17 10 39.4** | **-0.1** |
| | comp=Z,62nm,0.8s | | | | | | | | |
| **SARN** | **Sarigan** | **15.59** | **153** | *e*P | | **P** | | **17 10 38.2** | **-3.5** |
| **DL2** | **Dalian** | **15.94** | **305** | P | | **P** | | **17 10 44.5** | **-0.7** |
| DL2 | | | | S | | **S** | | **17 13 30.3** | **-2.2** |
| DL2 | | | | pmax | pmax | | | | |
| | comp=Z,160nm,0.8s | | | | | | | | |
| DL2 | | | | pmax | pmax | | | | |
| | comp=Z,270nm,4.1s | | | | | | | | |
| **TATO** | **Taipei** | **16.03** | **253** | *e*P | | **P** | | **17 10 45.5** | **-0.8** |
| | comp=Z,242nm,1.0s | | | | | | | | |
| **KUR** | **Kuril'sk** | **16.20** | **25** | *e*P | | **P** | | **17 10 49.5** | **+1.7** |
| KUR | | | | pmax | pmax | | | | |
| | comp=Z,140nm,0.7s | | | | | | | | |
| KUR | | | | pmax | pmax | | | | |
| | comp=N,22nm,0.6s | | | | | | | | |
| KUR | | | | pmax | pmax | | | | |
| | comp=E,32nm,0.6s | | | | | | | | |
| **SNY** | **Shenyang** | **16.20** | **317** | ⇓P | | **P** | | **17 10 47.8** | **-0.2** |
| SNY | | | | S | | **S** | | **17 13 43.8** | **+6.2** |
| SNY | | | | pmax | pmax | | | | |
| | comp=E,190nm,0.7s | | | | | | | | |
| SNY | | | | LR | LR | | | | |
| | comp=E,280nm,9.3s | | | | | | | | |
| SNY | | | | LR | LR | | | | |
| | comp=E,290nm,7.5s | | | | | | | | |
| SNY | | | | LR | LR | | | | |
| | comp=E,270nm,9.3s | | | | | | | | |
| **YHNB** | **Yeheng** | **16.25** | **252** | *e*P | | **P** | | **17 10 47.5** | **-1.3** |
| | comp=E,143nm,0.9s | | | | | | | | |
| **NACB** | **Ninganchiao** | **16.30** | **250** | *e*P | | **P** | | **17 10 47.0** | **-2.2** |
| | comp=E,96nm,0.6s | | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **16.46** | **11** | ⇑P | | **P** | | **17 10 51.9** | **+1.2** |
| YSS | | | | *eS* | | **S** | | **17 13 43.1** | **+0.5** |
| YSS | | | | pmax | pmax | | | | |
| | comp=E,210nm,0.8s | | | | | | | | |
| YSS | | | | smax | smax | | | | |
| | comp=N,90nm,1.4s | | | | | | | | |
| YSS | | | | smax | smax | | | | |
| | comp=E,70nm,1.4s | | | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **16.46** | **11** | *e*P | | **P** | | **17 10 52.1** | **+1.4** |
| | comp=E,195nm,0.8s | | | | | | | | |
| **CN2** | **Changchun** | **16.53** | **325** | *e*P | | **P** | | **17 10 50.8** | **-0.6** |
| CN2 | | | | *eS* | | **S** | | **17 13 40.8** | **-3.1** |
| CN2 | | | | PcS | | **PcS** | | **17 18 52.3** | **-1.5** |
| **NJ2** | **Nanjing** | **16.72** | **279** | *e*P | | **P** | | **17 10 52.5** | **-1.2** |
| NJ2 | | | | pmax | pmax | | | | |
| | comp=E,180nm,0.8s | | | | | | | | |
| **YULB** | **Yu-li** | **16.91** | **248** | *e*P | | **P** | | **17 10 53.9** | **-1.9** |
| | comp=E,104nm,0.8s | | | | | | | | |
| **SSLB** | **Suanglung** | **17.00** | **250** | *e*P | | **P** | | **17 10 56.2** | **-0.5** |
| | comp=E,265nm,1.0s | | | | | | | | |
| SSLB | | | | *eS* | | **S** | | **17 13 50.4** | **-3.2** |
| **TWG** | **Pinlang** | **17.38** | **247** | *e*P | | **P** | | **17 10 59.7** | **-1.0** |
| | comp=E,429nm,0.6s | | | | | | | | |
| **TPUB** | **Ta-pu** | **17.49** | **249** | *e*P | | **P** | | **17 11 01.4** | **-0.5** |
| | comp=E,102nm,0.7s | | | | | | | | |
| **HABR** | **Khabarovsk** | **17.82** | **353** | *de*P | | **P** | | **17 11 04.0** | **-1.0** |
| HABR | | | | *eS* | | **S** | | **17 14 07.9** | **-0.9** |
| HABR | | | | pmax | pmax | | | | |
| | comp=E,8.0nm,0.7s | | | | | | | | |
| HABR | | | | pmax | pmax | | | | |
| | comp=N,12nm,0.7s | | | | | | | | |
| HABR | | | | pmax | pmax | | | | |
| | comp=Z,28nm,0.7s | | | | | | | | |
| **QZH** | **Quanzhou** | **18.45** | **256** | *e*P | | **P** | | **17 11 10.3** | **-1.7** |
| QZH | | | | S | | **S** | | **17 14 22.0** | **+1.3** |
| **TIA** | **Tai'an** | **18.52** | **293** | P | | **P** | | **17 11 10.5** | **-2.2** |
| TIA | | | | pmax | pmax | | | | |
| | comp=Z,110nm,0.9s | | | | | | | | |
| **KLR** | **Kul'dur** | **19.07** | **347** | P | | **P** | | **17 11 17.1** | **-0.9** |
| | comp=Z,0.3nm,0.3s,baz=149,slow=9.6,SNR=95 | | | | | | | | |
| KLR | | | | S | | **S** | | **17 14 32.7** | **+2.0** |
| | baz=50,slow=19,SNR=13 | | | | | | | | |
| KLR | | | | ScP | | **ScP** | | **17 18 18.0** | **-0.6** |
| | comp=Z,0.0nm,0.3s,baz=223,slow=2.7,SNR=7.5 | | | | | | | | |
| **KLR** | **Kul'dur** | **19.07** | **347** | *d* iP | | **P** | | **17 11 16.9** | **-1.1** |
| **BJT** | **Baijiatuau** | **20.26** | **303** | *e*P | | **P** | | **17 11 28.2** | **-1.1** |
| BJT | | | | pmax | pmax | | | | |
| | comp=Z,183nm,1.3s | | | | | | | | |
| **BJT** | **Baijiatuau** | **20.26** | **303** | *e*P | | **P** | | **17 11 28.2** | **-1.1** |
| | comp=Z,183nm,1.3s | | | | | | | | |
| **BJI** | **Beijing** | **20.27** | **303** | P | | **P** | | **17 11 27.0** | **-2.3** |
| BJI | | | | sP | | **sP** | | **17 13 17.5** | **-2.8** |
| BJI | | | | S | | **S** | | **17 14 48.5** | **-1.9** |
| BJI | | | | PcP | | **PcP** | | **17 15 25.5** | **+1.1** |
| BJI | | | | ScP | | **ScP** | | **17 18 21.3** | **-0.3** |
| BJI | | | | PcS | | **PcS** | | **17 19 01.3** | **-0.9** |
| BJI | | | | ScS | | **ScS** | | **17 22 04.5** | **-0.3** |
| BJI | | | | pmax | pmax | | | | |
| | comp=Z,110nm,1.4s | | | | | | | | |
| **TYV** | **Tymovskoe** | **20.28** | **8** | *e*P | | **P** | | **17 11 30.4** | **+1.1** |
| TYV | | | | pmax | pmax | | | | |
| | comp=Z,92nm,0.7s | | | | | | | | |
| **WHN** | **Wuhan** | **20.67** | **275** | ⇓P | | **P** | | **17 11 32.8** | **-0.3** |
| WHN | | | | S | | **S** | | **17 15 01.8** | **+4.6** |
| WHN | | | | pmax | pmax | | | | |
| | comp=Z,220nm,0.9s | | | | | | | | |
| WHN | | | | LR | LR | | | | |
| | comp=Z,1μm,4.3s | | | | | | | | |
| WHN | | | | LR | LR | | | | |
| | comp=Z,780nm,8.4s | | | | | | | | |
| WHN | | | | LR | LR | | | | |
| | comp=Z,750nm,11.7s | | | | | | | | |
| **NKL** | **Nikolayevsk** | **22.38** | **4** | *e*P | | **P** | | **17 11 49.5** | **+1.2** |
| NKL | | | | pmax | pmax | | | | |
| | comp=N,40nm,0.9s | | | | | | | | |
| NKL | | | | pmax | pmax | | | | |
| | comp=Z,90nm,0.9s | | | | | | | | |
| **TGY** | **Tagaytay City** | **23.11** | **228** | P | | **P** | | **17 11 57.7** | **+2.2** |
| | comp=Z,226nm,0.3s,baz=52,slow=3.8,SNR=7.9 | | | | | | | | |
| **HIA** | **Hailar** | **23.20** | **328** | *e*P | | **P** | | **17 11 55.7** | **-0.2** |
| HIA | | | | pmax | pmax | | | | |
| | comp=Z,126nm,0.9s | | | | | | | | |
| **HIA** | **Hailar** | **23.20** | **328** | *e*P | | **P** | | **17 11 55.7** | **-0.2** |
| | comp=Z,126nm,0.9s | | | | | | | | |
| **SKR** | **Severo-Kuril's** | **23.85** | **29** | *e*P | | **P** | | **17 12 01.1** | **-0.5** |
| SKR | | | | pmax | pmax | | | | |
| | comp=Z,132nm,1.1s | | | | | | | | |
| SKR | | | | pmax | pmax | | | | |
| | comp=Z,200nm,2.9s | | | | | | | | |
| SKR | | | | pmax | pmax | | | | |
| | comp=Z,200nm,4.5s | | | | | | | | |
| SKR | | | | MLR | MLR | | | | |
| | comp=Z,200nm,17.0s | | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **23.86** | **302** | *e*P | | **P** | | **17 12 01.5** | **-0.5** |
| HHC | | | | sP | | sP | | 17 13 58.0 | -1.5 |
| HHC | | | | S | | **S** | | **17 15 46.8** | **-1.2** |
| HHC | | | | pmax | pmax | | | | |
| | comp=Z,210nm,0.9s | | | | | | | | |
| HHC | | | | pmax | pmax | | | | |
| | comp=Z,160nm,8.6s | | | | | | | | |
| **ENH** | **Enshi** | **24.87** | **276** | *e*P | | **P** | | **17 12 09.8** | **-1.3** |
| | comp=Z,102nm,0.7s | | | | | | | | |
| **BTO** | **Baotou** | **24.93** | **301** | *e*P | | **P** | | **17 12 10.8** | **-0.

YAK comp=Z,14nm,0.4s,baz=14,slow=1.8,SNR=37 S **S** **17 17 47.1 -3.1**
YAK comp=Z,4.4nm,0.4s,baz=289,slow=22,SNR=24 ScP **ScP** **17 18 54.1 -0.8**
**YAK** **Yakutsk** **31.74 352** comp=Z,17nm,0.7s,baz=347,slow=1.9,SNR=6.4 *e*P **P** **17 13 09.8 -1.1**
YAK *e* 17 14 22.3
YAK *e* 17 15 58.1
YAK *e*S **S** **17 17 47.0 -3.2**
YAK *e*SS **SS** **17 20 26.8 -0.9**
YAK *e* 17 22 50.1
YAK pmax pmax
YAK comp=Z,63nm,1.1s pmax pmax
YAK comp=N,19nm,1.4s smax smax
YAK comp=N,414nm,2.7s smax smax
YAK comp=E,242nm,2.0s
**YAK** **Yakutsk** **31.74 352** comp=E,57nm,0.9s *e*P **P** **17 13 10.4 -0.5**
YAK *e*pP **pP** **17 14 21.1 -4.0**
YAK S **S** **17 17 47.1 -3.1**
YAK ScP **ScP** **17 18 54.1 -0.8**
**BOD** **Bodaibo** **31.80 335** *e*P **P** **17 13 11.1 -0.4**
BOD pmax pmax
comp=Z,66nm,1.2s
**KMI** **Kunming** **31.90 269** P **P** **17 13 13.0 -0.1**
KMI pmax pmax
comp=Z,32nm,1.1s
KMI pmax pmax
comp=Z,200nm,4.8s
**SWI** **Sorong** **32.23 193** pP pP 17 14 30.7 +0.6
**KKM** **Kota Kinabalu** **32.26 225** *e*P **P** **17 13 16.6 +0.5**
comp=Z,90nm,1.7s
**GTA** **Gaotai** **32.50 296** ⇓P **P** **17 13 17.5 -0.5**
GTA pP pP 17 14 33.3 +0.9
GTA sP sP 17 15 13.5 -6.0
GTA PcP **PcP** **17 15 54.5 +0.9**
GTA S **S** **17 18 05.5 +2.6**
GTA ScP **ScP** **17 18 58.5 +0.3**
GTA sS sS 17 20 15.3 -4.3
GTA SS **SS** **17 20 40.5 -3.5**
GTA ScS **ScS** **17 22 56.0 -2.8**
GTA pmax pmax
comp=Z,140nm,0.9s
GTA pmax pmax
comp=Z,360nm,6.2s
GTA LR LR
comp=Z,130nm,14.5s
GTA LR LR
comp=Z,140nm,16.6s
GTA LR LR
comp=Z,130nm,15.7s
**ZAK** **Zakamensk** **32.63 317** *e*P **P** **17 13 18.0 -0.9**
ZAK pmax pmax
comp=Z,65nm,1.1s
**IRK** **Irkutsk** **32.87 321** *e*P **P** **17 13 20.7 -0.1**
IRK pmax pmax
comp=Z,65nm,1.1s
**LBMI** **Labuha** **32.95 200** P **P** **17 13 20.0 -1.9**
**TLY** **Talaya** **32.96 319** P **P** **17 13 22.3 +0.6**
comp=Z,35nm,0.7s,baz=135,slow=5.2,SNR=35
TLY ScP **ScP** **17 18 58.3 -1.1**
comp=Z,3.8nm,0.8s,baz=170,slow=7.6,SNR=3.0
**TLY** **Talaya** **32.96 319** ⇓*i*P **P** **17 13 22.2 +0.6**
TLY pmax pmax
comp=Z,51nm,0.9s
**TLY** **Talaya** **32.96 319** *e*P **P** **17 13 21.9 +0.3**
comp=Z,46nm,0.8s
**TLY** **Talaya** **32.96 319** P **P** **17 13 22.7 +1.0**
SNR=8.9
**TLY** **Talaya** **32.96 319** P **P** **17 13 22.7 +1.0**
SNR=8.9
**SEY** **Seymchan** **33.37 12** P **P** **17 13 25.9 +1.0**
comp=Z,23nm,0.8s,baz=202,slow=6.5,SNR=63
SEY ScP **ScP** **17 18 60.0 -0.5**
comp=Z,3.7nm,0.8s,baz=294,slow=2.8,SNR=5.4
**SMY** **Shemya** **33.95 39** *e*P **P** **17 13 30.6 +0.6**
SMY pmax pmax
comp=Z,491nm,1.5s
**SMY** **Shemya** **33.95 39** *e*P **P** **17 13 30.6 +0.6**
comp=Z,491nm,1.5s
**MRSI** **Marisa** **33.97 210** P **P** **17 13 30.3 -0.3**
**MRSI** **Marisa** **33.97 210** P **P** **17 13 30.4 -0.2**
**FAKI** **Fak Fak** **34.05 191** *e*P **P** **17 13 31.2 -0.1**
comp=Z,65nm,1.3s
**SKNT** **Sakolnakorn** **34.19 254** P **P** **17 13 32.9 +0.4**
comp=Z,42nm,1.0s
**NONG** **Nongkai** **34.36 257** P **P** **17 13 34.2 +0.3**
comp=Z,84nm,0.8s
**SANI** **Sanana** **34.75 202** P **P** **17 13 36.0 -1.2**
**SANI** **Sanana** **34.75 202** P **P** **17 13 36.2 -1.0**
**LUWI** **Luwuk** **34.99 208** P **P** **17 13 38.8 -0.5**
**LUWI** **Luwuk** **34.99 208** *e*P **P** **17 13 37.5 -1.8**
comp=Z,47nm,1.2s
**MPSI** **Mapaga** **35.03 214** P **P** **17 13 38.5 -1.1**
**MPSI** **Mapaga** **35.03 214** P **P** **17 13 38.5 -1.1**
**MSAI** **Masohi** **35.15 197** P **P** **17 13 39.0 -1.6**
**APSI** **Ampana** **35.34 210** P **P** **17 13 41.8 -0.4**
comp=Z,96nm,0.9s,comp=Z,1μm
**APSI** **Ampana** **35.34 210** P **P** **17 13 42.0 -0.2**
**KHON** **Khomkaen** **35.47 254** P **P** **17 13 43.5 +0.2**
comp=Z,23nm,0.9s
**KHON** **Khomkaen** **35.47 254** P **ScP** **17 19 11.1 +2.2**
**CHAI** **Chaiyaphum** **36.38 254** comp=Z,36nm,0.8s,comp=Z,314nm P **P** **17 13 50.5 -0.5**
**CHAI** **Chaiyaphum** **36.38 254** comp=Z,0.0nmcomp=Z,8.3nm,0.9s P **ScP** **17 19 13.5 +1.2**
**PHRA** **Phrae** **36.61 259** comp=Z,9.4nm,2.2s,comp=Z,35μm P **P** **17 13 52.8 0.0**
**PBKT** **Sadao Pong** **36.90 256** comp=Z,83nm,1.1s,comp=Z,765nm P **P** **17 13 55.0 -0.2**
**PBKT** **Sadao Pong** **36.90 256** comp=Z,0.1nmcomp=Z,934nmcomp=Z,28nm,1.1s P **S** **17 19 15.2 +5.5**
**LKP** **Lekhapani** **37.19 276** *e*P **P** **17 13 57.7 +0.2**
**RABL** **Rabaul** **37.21 157** *e*P **P** **17 13 58.5 +0.7**
RABL *e*pP **pP** **17 15 13.6 -0.4**
**SRAK** **Srakaew** **37.32 252** P **P** **17 13 55.2 -3.6**
**CMMT** **Chiang Mai** **37.56 261** comp=Z,106nm,1.0s,comp=Z,793nm P **P** **17 14 00.2 -0.5**
**CMMT** **Chiang Mai** **37.56 261** P **S** **17 19 17.7 -2.0**
**CHTO** **Chiang Mai** **37.56 261** comp=Z,476nm,1.1s,comp=Z,4μm P **P** **17 14 00.2 -0.5**
**CHTO** **Chiang Mai** **37.56 261** comp=Z,0.2nmcomp=Z,49nm,1.2s P **S** **17 19 17.8 -1.9**
**CHTO** **Chiang Mai** **37.56 261** *e*P **P** **17 14 00.7 0.0**
CHTO *e*S **S** **17 19 17.6 -2.1**
CHTO pmax pmax
comp=Z,86nm,0.8s
**CHTO** **Chiang Mai** **37.56 261** comp=Z,86nm,0.8s *e*P **P** **17 14 00.7 0.0**
CHTO *e*S **S** **17 19 17.6 -2.1**
**CHTO** **Chiang Mai** SNR=22 **37.56 261** P **P** **17 14 00.4 -0.4**
**CHTO** **Chiang Mai** SNR=22 **37.56 261** P **P** **17 14 00.4 -0.4**
**CM31** **Chiang Mai Arr** **37.72 260** *e*P **P** **17 14 01.9 -0.2**
CM31 *e*pP **pP** **17 15 19.5 +1.1**
CM31 *e*sP **PcP** **17 16 09.3 +0.1**
CM31 *e*S **S** **17 19 18.6 -3.5**
**CMAR** **Chiang Mai Arr** **37.72 260** comp=Z,23nm,0.7s,baz=52,slow=7.1,SNR=295 P **P** **17 14 02.0 0.0**
CMAR pP **pP** **17 15 19.1 +0.7**
comp=Z,1.3nm,0.7s,baz=63,slow=8.2,SNR=1.5
CMAR PcP **PcP** **17 16 09.3 +0.1**
comp=Z,1.9nm,0.5s,baz=39,slow=2.0,SNR=6.6
CMAR ScP **ScP** **17 19 18.2 +0.8**
comp=Z,9.5nm,1.0s,baz=32,slow=3.2,SNR=25
**CM01** **Chiang Mai Arr** **37.72 260** *e*P **P** **17 14 02.2 +0.1**
CM01 *e*S **S** **17 19 17.0 -5.1**
**NAYO** **Nakonayok** **37.75 253** comp=Z,36nm,1.1s P **P** **17 14 02.7 +0.4**
**MOKO** **MOKOCHONG** **38.61 275** *e*P **P** **17 14 08.4 -1.0**
**HVS** **Khovu-Aksy** **38.63 315** *ce*P **P** **17 14 10.0 +0.8**
HVS pmax pmax
comp=Z,187nm,0.8s
**UTHA** **Uthaitani** **38.67 256** comp=Z,15nm,0.9s,comp=Z,147nm P **P** **17 14 10.1 +0.3**
**ZIRO** **ZIRO** **38.84 277** *e*P **P** **17 14 11.2 -0.2**
**SAUI** **Saumlaki** **39.17 191** P **P** **17 14 11.5 -2.4**
**SAUI** **Saumlaki** **39.17 191** *e*P **P** **17 14 11.8 -2.0**
comp=Z,53nm,0.7s
**KSM** **Kuching** **39.48 228** comp=Z,69nm,1.1s *e*P **P** **17 14 17.1 +0.6**

**SRDT** **SRDT** **39.55 254** P **P** **17 14 17.5 +0.5**
comp=Z,80nm,1.4s
**IMP** **Imphal** **39.56 273** *e*P **P** **17 14 14.4 -2.8**
**PHET** **Kaeng Krachan** **39.89 252** comp=Z,23nm,0.9s,comp=Z,188nm P **P** **17 14 20.5 +0.7**
**TEZP** **TEZPUR** **39.99 276** *e*P **P** **17 14 19.9 -0.7**
**ATKA** **Atka Island** **40.53 44** *e*P **P** **17 14 25.1 +0.6**
comp=Z,138nm,0.9s
**LSA** **Lhasa** **40.58 281** *e*P **P** **17 14 26.1 +0.2**
LSA pmax pmax
comp=Z,19nm,0.8s
**LSA** **Lhasa** **40.58 281** *e*P **P** **17 14 26.1 +0.2**
comp=Z,19nm,0.8s
**BILL** **Bilibino** **40.68 16** *c i*P **P** **17 14 26.4 +0.9**
BILL *e**PP **pP** **17 15 45.3 +2.2**
BILL *e* 17 16 09.4
BILL *e*S **S** **17 20 06.8 +2.3**
BILL pmax pmax
comp=Z,188nm,0.8s
**GUWA** **GUWAHATI** **41.07 276** *e*P **P** **17 14 28.4 -0.8**
GUWA AMB AMB 17 14 29.5
comp=Z,37nm,0.7s
**TIXI** **Tiksi** **41.22 355** P **P** **17 14 29.7 0.0**
comp=Z,5.6nm,0.6s,baz=143,slow=5.5,SNR=12
**TIXI** **Tiksi** **41.22 355**⇑ *e*P **P** **17 14 30.0 +0.3**
TIXI pmax pmax
comp=Z,10.0nm,0.9s
**WMQ** **Urumqi** **41.74 303** P **P** **17 14 34.5 0.0**
WMQ pP pP 17 15 52.5 0.0
WMQ PP **PcP** **17 16 22.0 0.0**
WMQ sP sP 17 16 34.3 -4.4
WMQ pmax pmax
comp=Z,290nm,1.3s
WMQ pmax pmax
comp=Z,26nm,3.6s
WMQ LR LR
comp=Z,130nm,14.9s
WMQ LR LR
comp=Z,92nm,16.7s
WMQ LR LR
comp=Z,99nm,16.7s
**MMRI** **Maumere** **42.18 204** P **P** **17 14 36.2 -1.9**
**MMRI** **Maumere** **42.18 204** P **P** **17 14 37.9 -0.2**
**BELO** **BELONIA** **42.24 272** *e*P **P** **17 14 39.8 +1.2**
**BRDH** **Bariadhala** **42.28 271** comp=Z,234nm,0.7s,baz=301,slow=7.3,SNR=12 P **P** **17 14 39.6 +0.7**
**DGZ** **Jazzator, Alta** **42.31 311** *d i*P **P** **17 14 39.5 +0.5**
DGZ pmax pmax
comp=Z,114nm,0.8s
**TURI** **Tura** **42.43 275** *e*P **P** **17 14 40.1 -0.1**
**SKLT** **Songkhla** **42.44 244** comp=Z,112nm,0.9s P **P** **17 14 41.2 +0.9**
**SOEI** **Soe** **42.56 201** P **P** **17 14 40.7 -0.6**
**SOEI** **Soe** **42.56 201** P **P** **17 14 40.7 -0.6**
**DHUB** **DHUBRI** **42.57 276** *e*P **P** **17 14 40.2 -1.0**
**SURT** **Suratani** **42.79 248** comp=Z,30nm,1.2s,comp=Z,347nm P **P** **17 14 43.5 +0.4**
**GTK** **Tadong** **43.38 278** *e*P **P** **17 14 46.9 -0.8**
GTK AMB AMB 17 14 48.3
comp=Z,118nm,0.8s
**KULM** **Kulim** **43.60 242** comp=Z,52nm,0.8s *e*P **P** **17 14 50.0 +0.6**
**PKDT** **Phuket** **43.79 247** comp=Z,41nm,0.9s P **P** **17 14 51.4 +0.5**
**IPM** **Ipoh** **43.84 241** comp=Z,69nm,1.0s *e*P **P** **17 14 51.1 -0.3**
IPM *e*PcP **PcP** **17 16 30.0 +0.6**
**NIKH** **Nikolski High** **43.88 44** comp=Z,339nm,0.7s *e*P **P** **17 14 51.1 0.0**
NIKH *e*PcP **PcP** **17 16 29.7 +0.9**
**PLAI** **Plampang** **44.10 210** P **P** **17 14 51.9 -1.4**
**PLAI** **Plampang** **44.10 210** P **P** **17 14 52.0 -1.4**
**TAPN** **Taplejung** **44.12 279** comp=Z,34nm,0.5s *e*P **P** **17 14 53.6 -0.2**
**KMMI** **Kalianget** **44.33 216** P **P** **17 14 54.2 -0.9**
**KMMI** **Kalianget** **44.33 216** P **P** **17 14 54.2 -0.9**
**ZAA0** **Zalesovo Array** **44.51 317** comp=Z,59nm,0.6s *e*P **P** **17 14 55.7 -0.3**
ZAA0 *e*PcP **PcP** **17 16 30.8 -0.3**
**ZALV** **Zalesovo Beam** **44.51 317** comp=Z,62nm,0.5s,baz=98,slow=7.4,SNR=237 P **P** **17 14 55.2 -0.8**
ZALV PcP **PcP** **17 16 31.0 0.0**
comp=Z,23nm,0.7s,baz=91,slow=3.1,SNR=9.7
ZALV ScP **ScP** **17 19 42.5 -1.2**
comp=Z,2.7nm,0.5s,baz=123,slow=3.7,SNR=4.9
**ZAA1** **Zalesovo Array** **44.51 317** *e*P **P** **17 14 55.2 -0.8**
ZAA1 *e*PcP **PcP** **17 16 31.0 -0.1**
ZAA1 *e*ScP **ScP** **17 19 42.5 -1.2**
**ODAN** **Odare** **44.54 278** comp=Z,105nm,0.7s *e*P **P** **17 14 56.8 -0.2**
**SRBI** **Singaraja** **44.61 214** P **P** **17 14 57.3 0.0**
**RAMN** **Ramite** **45.19 279** comp=Z,312nm,0.9s *e*P **P** **17 15 01.8 -0.2**
**JIRN** **Jiri** **45.33 280** *e*P **P** **17 15 03.6 +0.4**
**GAMB** **Gambell** **45.35 29** comp=Z,30nm,0.7s *e*P **P** **17 15 03.5 +1.2**
**UNV** **Unalaska Valle** **45.39 43** comp=Z,43nm,0.9s *e*P **P** **17 15 02.2 -0.6**
UNV *e*PcP **PcP** **17 16 34.8 +0.7**
**GUN** **Gumba** **45.52 280** comp=Z,343nm,0.7s *e*P **P** **17 15 04.9 +0.2**
**MK01** **Makanchi Array** **45.56 307** *e*P **P** **17 15 04.2 -0.1**
**NVS** **Novosibirsk** **45.56 318** NVS pmax pmax
comp=Z,68nm,0.9s
NVS pmax pmax
comp=N,25nm,1.2s
NVS pmax pmax
comp=E,69nm,1.2s
**MK31** **Makanchi Array** **45.57 307** *i* P **P** **17 15 04.2 -0.2**
MK31 pmax pmax
comp=Z,51nm,0.5s
**MK31** **Makanchi Array** **45.57 307** *e*P **P** **17 15 04.4 0.0**
**MK32** **Makanchi Array** **45.57 307** *e*P **P** **17 15 04.3 -0.1**
MK32 *e*PcP **PcP** **17 16 35.1 +0.1**
MK32 *e*ScP **ScP** **17 19 47.8 -0.5**
MK32 *e*S **S** **17 21 14.0 -1.5**
**MKAR** **Makanchi Array** **45.57 307** comp=Z,94nm,0.7s,baz=92,slow=9.8,SNR=998 P **P** **17 15 04.3 -0.1**
MKAR PcP **PcP** **17 16 35.1 +0.1**
comp=Z,7.8nm,0.5s,baz=74,slow=4.4,SNR=5.8
MKAR ScP **ScP** **17 19 47.8 -0.5**
comp=Z,3.2nm,0.6s,baz=77,slow=4.7,SNR=5.5
MKAR S **S** **17 21 14.0 -1.5**
comp=Z,3.1nm,0.9s,baz=93,slow=23,SNR=5.4
**MKAR** **Makanchi Array** **45.57 307** *e*P **P** **17 15 04.4 -0.1**
MKAR 17 16 35.1
MKAR S **S** **17 21 14.0 -1.5**
MKAR pmax pmax
comp=Z,665nm,0.8s
**MKAR** **Makanchi Array** **45.57 307** comp=Z,665nm,0.8s *e*P **P** **17 15 04.3 -0.1**
MKAR PcP **PcP** **17 16 35.1 +0.1**
MKAR ScP **ScP** **17 19 47.8 -0.5**
MKAR S **S** **17 21 14.0 -1.5**
**MAKZ** **Makanchi** **45.78 307** MAKZ pmax pmax
comp=Z,80nm,0.6s
**MAKZ** **Makanchi** **45.78 307** comp=Z,80nm,0.6s *e*P **P** **17 15 06.1 0.0**
**PKI** **Pulchoki** **46.01 280** comp=Z,96nm,0.8s *e*P **P** **17 15 08.0 -0.5**
**PKIN** **Phulchoki** **46.02 280** comp=Z,80nm,0.7s *e*P **P** **17 15 08.3 -0.2**
**KKN** **Kakani** **46.06 280** comp=Z,193nm,0.9s *e*P **P** **17 15 08.4 -0.3**
**DMN** **Daman** **46.26 280** comp=Z,106nm,0.7s *e*P **P** **17 15 10.1 -0.2**
**PWJI** **Pagerwojo** **46.27 218** comp=Z,86nm,0.8s P **P** **17 15 09.0 -1.1**
**LHMI** **Lhok Sumawe** **46.50 245** P **P** **17 15 11.7 -0.2**
**LHMI** **Lhok Sumawe** **46.50 245** comp=Z,196nm,1.0s *e*P **P** **17 15 13.0 +1.1**
**PSI** **Prapat** **46.52 241** PSI pmax pmax
comp=Z,36nm,0.9s
**PSI** **Prapat** **46.52 241** comp=Z,36nm,0.9s *e*P **P** **17 15 12.5 +0.2**
**GKN** **Gorkha** **46.54 281** *e*P **P** **17 15 12.1 -0.2**
**BKNI** **Bangkinang** **46.62 237** P **P** **17 15 12.2 -0.7**
**BKNI** **Bangkinang** **46.62 237** comp=Z,123nm,1.1s *e*P **P** **17 15 12.4 -0.5**
**PCJI** **Pacitan** **46.75 218** P **P** **17 15 10.9 -2.9**
**BOK** **Bokaro** **46.83 275** *e*P **P** **17 15 14.2 -0.2**
**UGM** **Wanagama** **46.87 219** P **P** **17 15 12.3 -2.4**

**KCSI** **Kotacane, Aceh** **46.93 243** P **P** **17 15 13.5 -1.7**
**KCSI** **Kotacane, Aceh** **46.93 243** P **P** **17 15 13.5 -1.7**
**DANN** **Dangsing** **47.18 282** *e*P **P** **17 15 17.7 +0.3**
**KPJI** **Karang Pucung** **47.28 222** P **P** **17 15 17.3 -0.5**
**KOLN** **Koldanda** **47.48 281** comp=Z,384nm,0.8s *e*P **P** **17 15 19.7 +0.1**
**MLSI** **Meulaboh, Aceh** **47.51 245** comp=Z,98nm,0.8s P **P** **17 15 18.4 -1.3**
**MLSI** **Meulaboh, Aceh** **47.51 245** P **P** **17 15 18.2 -1.5**
**PDGK** **Podgornoye** **47.72 302** PDGK pmax pmax
comp=Z,261nm,0.9s
**KLI** **Kotabumi** **47.80 228** comp=Z,119nm,1.0s P **P** **17 15 21.4 -0.4**
**PDSI** **Padang** **47.90 236** P **P** **17 15 21.3 -1.3**
**PYUN** **Piuthan** **47.90 281** comp=Z,569nm,0.6s *e*P **P** **17 15 23.0 +0.3**
**BLSI** **Bandar Lampung** **47.94 227** P **P** **17 15 21.8 -1.1**
**KURK** **Kurchatov** **48.02 312** KURK pmax pmax
comp=Z,212nm,1.0s
**KURK** **Kurchatov** **48.02 312** comp=Z,199nm,1.0s *e*P **P** **17 15 22.6 -0.5**
**KURK** **Kurchatov** SNR=55 **48.02 312** P **P** **17 15 22.8 -0.3**
**KURK** **Kurchatov** SNR=55 **48.02 312** P **P** **17 15 22.8 -0.3**
**KURBB** **Kurchatov Arra** **48.08 312** comp=Z,114nm,0.6s,baz=91,slow=7.9,SNR=1418 P **P** **17 15 22.9 -0.5**
**MASI** **Maura Aman, Be** **48.25 232** P **P** **17 15 25.5 +0.2**
**LWLI** **Liwa** **48.43 229** P **P** **17 15 25.6 -1.1**
**GSI** **Gunungsitoli** **48.51 241** comp=Z,288nm,1.1s P **P** **17 15 26.3 -0.9**
**GSI** **Gunungsitoli** **48.51 241** comp=Z,221nm,1.0s *e*P **P** **17 15 26.9 -0.3**
GSI *e*PcP **pP** **17 16 47.1 -1.0**
**SDPT** **Sand Point** **49.03 41** comp=Z,85nm,0.7s *e*P **P** **17 15 30.4 -0.1**
**SISI** **Saibi** **49.17 237** P **P** **17 15 31.0 -1.1**
**PPSI** **Pulau Pagai** **49.52 235** P **P** **17 15 34.0 -0.7**
**ULHL** **Ulahol** SNR=24 **50.22 301** P **P** **17 15 40.3 +0.4**
**CHGN** **Chignik** **50.25 40** comp=Z,86nm,1.3s *e*P **P** **17 15 39.3 -0.2**
**TKM2** **Tokmak 2** SNR=13 **50.59 302** P **P** **17 15 43.1 +0.5**
**WRAB** **Tennant Creek** **50.60 185** WRAB pmax pmax
comp=Z,10.0nm,0.8s
**WRAB** **Tennant Creek** **50.60 185** comp=Z,14nm,0.8s *e*P **P** **17 15 42.5 -0.1**
**WB2** **Warramunga Arr** **50.62 185** comp=Z,17nm,0.8s *e*P **P** **17 15 42.7 0.0**
**WR1** **Warramunga Arr** **50.62 185** *e*P **P** **17 15 42.7 0.0**
WR1 *e*pP **pP** **17 17 04.7 +0.1**
WR1 *e*PP **PP** **17 17 39.4 -4.4**
WR1 *e*ScP **ScP** **17 20 09.7 -0.3**
WR1 *e*S **S** **17 22 22.7 -3.2**
**WRA** **Warramunga Arr** **50.62 185** comp=Z,7.6nm,0.6s,baz=0.2,slow=7.6,SNR=312 P **P** **17 15 42.7 0.0**
WRA pP **pP** **17 17 04.7 +0.1**
comp=Z,5.8nm,1.1s,baz=4.0,slow=7.9,SNR=2.1
WRA PP **PP** **17 17 39.4 -4.4**
comp=Z,11nm,0.8s,baz=12,slow=8.2,SNR=8.0
WRA ScP **ScP** **17 20 09.7 -0.3**
comp=Z,2.7nm,0.7s,baz=359,slow=4.5,SNR=5.7
WRA S **S** **17 22 22.7 -3.2**
comp=Z,0.8nm,0.9s,baz=1.9,slow=12,SNR=5.2
**KSH** **Kashi** **50.86 298** P **P** **17 15 48.0 +3.4**
KSH PcP **PcP** **17 16 57.3 +2.8**
KSH pP pP 17 17 09.0 +2.6
KSH PP **sP** **17 17 52.3 +0.9**
KSH S **S** **17 22 34.5 +5.2**
KSH ScS **ScS** **17 24 52.3 +0.6**
KSH SS **SS** **17 26 16.3 +6.4**
KSH pmax pmax
comp=Z,140nm,0.7s
KSH LR LR
comp=Z,110nm,4.7s
KSH LR LR
comp=Z,110nm,4.8s
KSH LR LR
comp=Z,260nm,5.3s
**KZA** **Kyzart** SNR=34 **50.97 301** P **P** **17 15 46.8 +1.1**
**KBK** **Karagaybulak** SNR=16 **51.11 302** P **P** **17 15 46.7 +0.3**
**CHMS** **Chumysh** SNR=42 **51.20 302** P **P** **17 15 46.9 +0.1**
**USP** **Ospenovka** SNR=50 **51.34 303** P **P** **17 15 47.9 0.0**
**AAK** **Ala-Archa** **51.44 302** AAK pmax pmax
comp=Z,73nm,0.6s *c i*P **P** **17 15 47.9 -0.9**
**AAK** **Ala-Archa** SNR=14 **51.44 302** P **P** **17 15 48.8 0.0**
**AAK** **Ala-Archa** **51.44 302** comp=Z,88nm,0.6s *e*P **P** **17 15 48.8 0.0**
**AAK** **Ala-Archa** SNR=6.9 **51.44 302** P **P** **17 15 49.1 +0.3**
**AAK** **Ala-Archa** SNR=6.9 **51.44 302** P **P** **17 15 49.1 +0.3**
**UCH** **Uchtor** SNR=60 **51.49 302** P **P** **17 15 50.2 +0.7**
**SMLA** **Simla** **51.88 287** *e*P **P** **17 15 51.4 -0.5**
**SDNR** **Sundarnagar** **51.93 288** *e*P **P** **17 15 52.0 -0.4**
SDNR *e*P **P** **17 15 52.0 -0.4**
**EKS2** **Erkin-Say** SNR=7.6 **51.96 302** P **P** **17 15 52.5 0.0**
**AML** **Almayashu** SNR=84 **52.11 302** P **P** **17 15 54.7 +0.8**
**BHK** **Bhakra** **52.41 288** *e*P **P** **17 15 53.5 -2.3**
BHK *e*P **P** **17 15 53.5 -2.3**
**SFK** **Sufi-Kurgan** **52.64 299** SFK pmax pmax
comp=Z,155nm,0.6s P **P** **17 15 57.8 +0.2**
**THN** **Thein Dam** **52.70 289** *e*P **P** **17 15 55.8 -2.0**
**MNAS** **Manas** **52.91 302** MNAS pmax pmax
comp=Z,41nm,0.7s P **P** **17 15 59.6 +0.1**
**OHAK** **Old Harbor** **53.09 39** comp=Z,69nm,0.8s *e*P **P** **17 16 00.7 +0.5**
**BRVK** **Borovoye** **53.13 316** BRVK *e* 17 17 02.6
BRVK pmax pmax
comp=Z,151nm,0.8s *e*P **P** **17 16 00.4 -0.2**
**BRVK** **Borovoye** **53.13 316** comp=Z,151nm,0.8s *e*P **P** **17 16 00.4 -0.2**
BRVK *e*PcP **PcP** **17 17 02.6 0.0**
**BRVK** **Borovoye** SNR=45 **53.13 316** P **P** **17 15 59.8 -0.8**
**BRVK** **Borovoye** SNR=45 **53.13 316** P **P** **17 15 59.8 -0.8**
**RSO** **Redoubt South** **53.38 35** RSO *e*PcP **PcP** **17 16 04.0 +1.5** **17 17 01.3 -2.5**
**KDAK** **Kodiak Island** **53.46 39** comp=Z,116nm,0.7s,baz=264,slow=4.4,SNR=56 P **P** **17 16 03.6 +0.8**
**KDAK** **Kodiak Island** **53.46 39** comp=Z,130nm,0.8s *i* P **P** **17 16 03.3 +0.4**
**KDAK** **Kodiak Island** **53.46 39** comp=Z,130nm,0.8s *e*P **P** **17 16 03.5 +0.6**
**SPU** **Mount Spurr** **53.74 34** *e*P **P** **17 16 06.6 +1.7**
**CNPM** **China Poot** **54.14 36** comp=Z,115nm,0.9s *e*P **P** **17 16 07.8 0.0**
CNPM *e*PcP **PcP** **17 17 06.5 +0.1**
**KK31** **Karatay Array** **54.24 303** KK31 pmax pmax
comp=Z,134nm,0.6s P **P** **17 16 08.7 -0.1**
**KKAR** **Karatay Array** **54.24 303** KKAR pmax pmax
comp=Z,2μm,0.6s *e*P **P** **17 16 08.7 -0.1**
**KKAR** **Karatay Array** **54.24 303** comp=Z,2μm,0.6s *e*P **P** **17 16 08.7 -0.1**
**BHPL** **Bhopal** **54.26 278** *e*P **P** **17 16 08.4 -0.8**
**BRLK** **Bradley Lake** **54.31 36** comp=Z,194nm,0.8s *e*P **P** **17 16 10.1 +1.0**
**AS01** **Alice Springs** **54.34 185** *e*P **P** **17 16 09.5 -0.1**
**AS31** **Alice Springs** **54.34 185** comp=Z,3.6nm,0.6s *e*P **P** **17 16 09.5 -0.1**
AS31 *e*PP PP 17 18 08.6 -8.5
**ASAR** **Alice Springs** **54.34 185** comp=Z,5.8nm,0.7s,baz=359,slow=5.1,SNR=134 P **P** **17 16 09.8 +0.2**
ASAR PP PP 17 18 08.6 -8.5
comp=Z,2.0nm,0.8s,baz=12,slow=9.0,SNR=4.7
ASAR ScP **ScP** **17 20 25.9 -0.2**
comp=Z,1.3nm,0.7s,baz=8.5,slow=5.4,SNR=5.7
ASAR S **S** **17 23 15.6 -0.2**

comp=Z,0.7nm,0.7s,baz=18,slow=21,SNR=4.8
**RND Reindeer 55.25 32** *e*P **P** **17 16 16.3 +0.7**
RND pmax pmax
comp=Z,124nm,0.8s
**RND Reindeer 55.25 32** *e*P **P** **17 16 16.3 +0.7**
comp=Z,124nm,0.8s
**SML Sawmill 55.52 33** *e*P **P** **17 16 18.2 +0.7**
SML pmax pmax
comp=Z,138nm,1.0s
**SML Sawmill 55.52 33** *e*P **P** **17 16 18.2 +0.7**
comp=Z,138nm,1.0s
**HYB Hyderabad 55.64 271** *i*P **P** **17 16 20.0 +0.9**
**COLA College 55.69 30** *e*P **P** **17 16 20.5 +1.9**
COLA pmax pmax
comp=Z,42nm,0.6s
**COLA College 55.69 30** *e*P **P** **17 16 20.5 +1.9**
comp=Z,42nm,0.6s
**DHY Denali Highway 55.93 32** *e*P **P** **17 16 20.6 +0.1**
comp=Z,17nm,0.6s
**ILAR Eielson Array 56.10 30** P **P** **17 16 21.8 +0.3**
comp=Z,15nm,0.8s,baz=292,slow=5.9,SNR=17
ILAR ScP **ScP** **17 20 33.0 -0.4**
comp=Z,0.4nm,0.7s,baz=308,slow=4.4,SNR=3.4
**ILB Eielson Array 56.10 30** *e*P **P** **17 16 21.3 -0.2**
**GLI Glacier Island 56.16 35** *e*P **P** **17 16 23.0 +1.0**
comp=Z,226nm,0.7s
**FID Port Fidalgo 56.47 35** *e*P **P** **17 16 24.9 +0.8**
comp=Z,149nm,0.7s
**KLU Klutina 56.68 34** *e*P **P** **17 16 27.0 +1.3**
comp=Z,126nm,1.1s
**FYU Fort Yukon 56.75 28** *e*P **P** **17 16 28.2 +2.2**
comp=Z,81nm,1.2s
**DIV Divide 56.78 34** *e*P **P** **17 16 28.0 +1.6**
comp=Z,110nm,0.8s
**PAX Paxson 56.80 32** *e*P **P** **17 16 27.7 +1.2**
PAX pmax pmax
comp=Z,52nm,0.9s
**PAX Paxson 56.80 32** *e*P **P** **17 16 27.7 +1.2**
comp=Z,52nm,0.9s
**EYAK Cordova Ski Ar 56.84 35** *e*P **P** **17 16 28.1 +1.5**
comp=Z,77nm,0.9s
**BMRM Bremner River 57.36 34** *e*P **P** **17 16 32.1 +1.8**
comp=Z,257nm,0.8s
**KBL Kabul 57.44 294** *e*P **P** **17 16 31.3 -0.3**
KBL pmax pmax
comp=Z,83nm,0.8s
**KBL Kabul 57.44 294** *e*P **P** **17 16 31.3 -0.3**
comp=Z,83nm,0.8s
**SVE Sverdlovsk 58.26 321** *c i*P **P** **17 16 36.5 0.0**
SVE pmax pmax
comp=Z,92nm,0.7s
**PALK Pallekele 58.65 259** P **P** **17 16 40.1 +0.2**
comp=Z,29nm,0.7s,baz=117,slow=2.9,SNR=25
**PALK Pallekele 58.65 259** *i*P **P** **17 16 39.9 +0.1**
SNR=7.1
**PALK Pallekele 58.65 259** *i*P **P** **17 16 40.7 +0.8**
**PALK Pallekele 58.65 259** *e*P **P** **17 16 39.8 -0.1**
comp=Z,37nm,0.8s
**DZM Mont Dzumac 59.08 149** *e*P **P** **17 16 44.7 +2.1**
comp=Z,38nm,1.2s
**POO Poona 59.21 274** ⇓*i*P **P** **17 16 43.0 -0.6**
comp=Z,250nm,1.0s
**ARU Arti 59.45 321** *i*P **P** **17 16 44.3 -0.3**
ARU pmax pmax
comp=Z,118nm,0.6s
**ARU Arti 59.45 321** *e*P **P** **17 16 44.2 -0.4**
comp=Z,146nm,0.6s
**PCA Pinnacle 59.61 35** *e*P **P** **17 16 46.9 +1.2**
comp=Z,62nm,0.9s
**AB31 Akbulak array 60.13 312** P **P** **17 16 48.9 -0.4**
AB31 pmax pmax
comp=Z,84nm,0.6s
**ABKAR Akbulak array 60.13 312** *e*P **P** **17 16 49.0 -0.3**
comp=Z,1µm,0.6s
**HYT Haines Junctio 60.81 34** *e*P **P** **17 16 55.5 +1.7**
comp=Z,36nm,0.9s
**INK Inuvik 61.06 25** P **P** **17 16 55.9 +0.7**
comp=Z,20nm,0.7s,baz=280,slow=5.4,SNR=78
**INK Inuvik 61.06 25** *e*P **P** **17 16 55.6 +0.5**
comp=Z,33nm,1.0s
**WHY Whitehorse 62.11 34** *e*P **P** **17 17 03.6 +1.3**
comp=Z,37nm,0.8s
WHY *e*PcP **PcP** **17 17 40.3 +2.0**
**SKAG Skagway 62.18 35** *e*P **P** **17 17 04.5 +1.8**
comp=Z,34nm,0.9s
**STKA Stephens Creek 62.42 177** P **P** **17 17 05.1 +0.6**
comp=Z,1.1nm,0.4s,baz=325,slow=12,SNR=8.3
**STKA Stephens Creek 62.42 177** *e*P **P** **17 17 04.2 -0.4**
comp=Z,3.6nm,1.5s
**BESE Bessie Mountai 62.63 36** *e*P **P** **17 17 06.8 +1.0**
comp=Z,42nm,0.8s
**GEYT Alibeck 64.73 300** P **P** **17 17 19.8 +0.2**
comp=Z,52nm,0.8s,baz=54,slow=3.8,SNR=99
**DLBC Dease Lake 65.10 35** *e*P **P** **17 17 23.2 +1.5**
comp=Z,36nm,1.0s
**NWAO Narrogin (SRO) 66.48 199** P **P** **17 17 30.6 +0.2**
comp=Z,17nm,0.6s,baz=250,slow=6.0,SNR=19
**LVZ Lovozero 66.77 336** ⇓*e*P **P** **17 17 32.6 +0.7**
LVZ pmax pmax
comp=Z,51nm,1.3s
**TMCR Tamitsa 67.02 332** *e*P **P** **17 17 33.3 -0.1**
TMCR pmax pmax
comp=Z,63nm,0.9s
**APA Apatity 67.34 336** ⇓*i*P **P** **17 17 34.5 -0.9**
APA *i* 17 18 02.4
APA pmax pmax
comp=Z,47nm,0.8s
**KLMR Klimovskoe 67.70 328** *e*P **P** **17 17 34.1 -3.6**
KLMR *e**PP **pP** **17 19 00.7 -4.6**
KLMR *e* 17 20 08.3
KLMR pmax pmax
comp=Z,60nm,0.9s
**KEV Kevo 68.37 340** *e*P **P** **17 17 41.7 0.0**
KEV pmax pmax
comp=Z,42nm,0.9s
**KEV Kevo 68.37 340** *e*P **P** **17 17 41.7 0.0**
comp=Z,42nm,0.9s
**ARA0 ARCESS Array S 68.93 340** *e*P **P** **17 17 45.7 +0.5**
**ARCES ARCESS Array B 68.93 340** P **P** **17 17 45.7 +0.5**
comp=Z,25nm,0.7s,baz=66,slow=8.6,SNR=67
**ARCES ARCESS Array B 68.93 340** *e*P **P** **17 17 45.8 +0.6**
ARCES *e* 17 18 12.3
**ARCES ARCESS Array B 68.93 340** *e*P **P** **17 17 45.8 +0.6**
ARCES *e*PcP **PcP** **17 18 12.3 +6.0**
**ARE0 ARCESS Array S 68.93 340** *e*P **P** **17 17 45.8 +0.6**
comp=Z,33nm,0.8s
ARE0 *e*PcP **PcP** **17 18 12.3 +6.0**
**BIDO Bidbid 70.38 286** P **P** **17 17 56.0 +1.3**
SNR=5.9
**BIDO Bidbid 70.38 286** P **P** **17 17 56.0 +1.3**
SNR=5.9
**YKW3 Yellowknife Ar 70.41 28** *e*P **P** **17 17 54.4 +0.3**
comp=Z,18nm,1.0s
**YKA Yellowknife Ar 70.45 28** P **P** **17 17 54.7 +0.3**
comp=Z,17nm,0.8s,baz=297,slow=6.1,SNR=208
YKA pP **pP** **17 19 25.5 +2.7**
comp=Z,2.3nm,1.0s,baz=295,slow=6.1,SNR=3.7
**VRH Novokhopyorsk 70.53 318** *e*P **P** **17 17 54.2 -0.9**
VRH pmax pmax
comp=Z,150nm,0.7s
**MOS Moscow 70.76 324** *e*P **P** **17 17 55.5 -0.9**
MOS *e* 17 18 17.9
MOS *e**PP **pP** **17 19 24.9 0.0**
MOS *e* 17 20 37.5
MOS *e*S **S** **17 26 33.7 -3.5**
MOS pmax pmax
comp=Z,100nm,1.1s
MOS pmax pmax
comp=Z,136nm,1.0s
**BANOM Banah 70.84 289** *i*P **P** **17 17 57.8 +0.3**
SNR=15
**UOSS Minazif 71.34 288** *e*P **P** **17 17 60.0 -0.4**
comp=Z,42nm,0.8s
**GROC Groznyy 71.38 310** *e*P **P** **17 17 59.5 -0.8**
GROC *e* 17 18 17.1
GROC *e**PP **pP** **17 19 27.4 -1.6**
GROC *e**SP **sP** **17 20 09.7 -2.5**
GROC *e*S **S** **17 26 43.9 -0.9**
GROC pmax pmax
comp=Z,84nm,0.8s
**HATD Hatta, Dubai 71.45 288** *i*P **P** **17 18 01.0 0.0**
SNR=34
**LPSR Galich'ya Gora 71.48 321** *e*P **P** **17 18 00.4 -0.3**
LPSR pmax pmax
comp=Z,100nm,0.8s
**BSY Bisya 71.48 286** P **P** **17 18 03.0 +1.7**
SNR=7.7
**BSY Bisya 71.48 286** P **P** **17 18 03.0 +1.7**
SNR=7.7
**TULEG Thule 71.56 6** *e*P **P** **17 18 01.2 +0.4**
comp=Z,21nm,0.9s
**ASHO Ashiyiah 71.57 288** *i*P **P** **17 18 01.8 0.0**
SNR=22
**ASHO Ashiyiah 71.57 288** P **P** **17 18 02.7 +0.9**
SNR=7.2
**ASHO Ashiyiah 71.57 288** P **P** **17 18 02.7 +0.9**
SNR=7.2
**OBN Obninsk 71.58 324** P **P** **17 18 01.0 -0.2**
comp=Z,78nm,0.8s,baz=358,slow=1.8,SNR=20
**OBN Obninsk 71.58 324** *c e*P **P** **17 18 00.7 -0.5**
OBN *e**PP **pP** **17 19 31.7 +1.7**
OBN *e* 17 20 42.5
OBN pmax pmax
comp=Z,107nm,0.9s
**OBN Obninsk 71.58 324** *e*P **P** **17 18 01.5 +0.3**
comp=Z,95nm,0.9s
**DAG Danmarks Havn 71.72 355** *i*P **P** **17 18 02.6 +0.9**
DAG pmax pmax
comp=Z,12nm,0.9s
**DAG Danmarks Havn 71.72 355** *i*P **P** **17 18 02.6 +0.9**
comp=Z,12nm,0.9s
**NAZ Nazwa, Dubai 71.76 289** *i*P **P** **17 18 02.6 -0.3**
SNR=9.0
**ARQ Araqi 71.78 287** P **P** **17 18 04.0 +0.9**
SNR=18
**ARQ Araqi 71.78 287** P **P** **17 18 04.0 +0.9**
SNR=18
**VSR Storozhevoye 71.97 319** *e*P **P** **17 18 03.1 -0.5**
VSR pmax pmax
comp=Z,210nm,0.9s
**PUL Pulkovo 72.27 330** ⇓*i*P **P** **17 18 05.9 +0.7**
PUL pmax pmax
comp=Z,82nm,1.0s
**GOF Gofitskoye 72.38 312** ⇑*e*P **P** **17 18 06.3 +0.2**
GOF pmax pmax
comp=Z,159nm,0.8s
**LLLB Lillooet 72.53 41** *e*P **P** **17 18 08.0 +1.0**
comp=Z,21nm,0.9s
**NCK Nalchik 72.71 311** ⇑*i*P **P** **17 18 08.3 +0.2**
NCK pmax pmax
comp=Z,75nm,0.8s
**ZEI Tsey 72.82 310** *e*P **P** **17 18 06.3 -2.7**
ZEI pmax pmax
comp=Z,163nm,0.7s
**KBZ Khabaz 73.06 311** P **P** **17 18 10.4 +0.4**
comp=Z,148nm,0.8s,baz=88,slow=4.0,SNR=273
**KIV Kislovodsk 73.09 311** *i*P **P** **17 18 10.9 +0.5**
SNR=25
**KIV Kislovodsk 73.09 311** *d i*P **P** **17 18 10.6 +0.2**
KIV *e**PP **pP** **17 19 39.9 +0.3**
KIV *e* 17 20 57.7
KIV pmax pmax
comp=Z,180nm,0.8s
**KIV Kislovodsk 73.09 311** *e*P **P** **17 18 11.5 +1.1**
comp=Z,156nm,0.8s
**KIV Kislovodsk 73.09 311** P **P** **17 18 11.5 +1.1**
SNR=16
**KIV Kislovodsk 73.09 311** P **P** **17 18 11.5 +1.1**
SNR=16
**FIA1 FINESS Array S 73.14 332** *e*P **P** **17 18 10.0 -0.2**
**FIA0 FINESS Array S 73.14 332** *e*P **P** **17 18 10.1 -0.1**
FIA0 *e* 17 20 56.8
**FIA0 FINESS Array S 73.14 332** *e*P **P** **17 18 10.1 -0.1**
FIA0 *e*PP **PP** **17 20 56.8 -2.3**
**FINES FINESS Array B 73.14 332** P **P** **17 18 10.1 -0.1**
comp=Z,41nm,0.5s,baz=62,slow=5.7,SNR=491
FINES PP **PP** **17 20 56.8 -2.3**
comp=Z,3.7nm,0.7s,baz=90,slow=8.8,SNR=2.9
**NEY Neytrino 73.39 311** ⇑*e*P **P** **17 18 12.9 +0.7**
NEY pmax pmax
comp=Z,13nm,0.8s
**GNI Garni 73.42 307** *i*P **P** **17 18 13.2 +0.8**
SNR=18
**GNI Garni 73.42 307** *d i*P **P** **17 18 13.2 +0.8**
GNI pmax pmax
comp=Z,267nm,1.0s
**GNI Garni 73.42 307** *e*P **P** **17 18 13.3 +0.8**
comp=Z,76nm,0.8s
**GNI Garni 73.42 307** P **P** **17 18 13.7 +1.2**
SNR=8.0
**GNI Garni 73.42 307** P **P** **17 18 13.7 +1.2**
SNR=8.0
**B05A Bryant 73.49 43** P **P** **17 18 13.6 +1.1**
baz=298
**AKH Akhalkalaki 73.70 309** ⇑*i*P **P** **17 18 14.2 +0.1**
**AKH Akhalkalaki 73.70 309** P **P** **17 18 14.1 0.0**
**KULLO Kullorsuaq 74.37 4** *i*P **P** **17 18 16.9 -0.1**
KULLO pmax pmax
comp=Z,20nm,0.8s
**KULLO Kullorsuaq 74.37 4** *i*P **P** **17 18 16.9 -0.1**
comp=Z,20nm,0.8s
**VSU Vasula 74.53 330** *d i*P **P** **17 18 18.1 -0.1**
VSU pmax pmax
comp=Z,137nm,0.7s
**ARTV Artvin 74.85 309** *e*P **P** **17 18 21.4 +0.7**
comp=Z,28nm,0.7s
**I03D Drain, OR 74.86 48** P **P** **17 18 21.0 +0.7**
baz=298
**B08A Colville Reser 75.06 42** *e*P **P** **17 18 22.5 +1.0**
comp=Z,28nm,1.0s
**H04A Detroit Lake 75.12 47** *e*P **P** **17 18 23.8 +1.9**
comp=Z,32nm,1.0s
**SOC Sochi 75.17 312** *e*P **P** **17 18 21.4 -0.8**
SOC *e**PP **pP** **17 19 48.7 -3.3**
SOC *e**SP **sP** **17 20 38.1 +3.2**
SOC *e* 17 21 12.5
SOC *e*PPP PPP 17 23 03.8
SOC *e*S **S** **17 27 23.9 -3.0**
SOC *e*SS **SS** **17 32 22.7 -2.9**
SOC *e*SSS SSS 17 35 53.4
SOC pmax pmax
comp=Z,95nm,0.6s
**G05D Wamic, OR 75.40 46** P **P** **17 18 23.9 +0.4**
baz=299
**I04A Tendick Farm, 75.41 48** P **P** **17 18 24.3 +0.8**
baz=299,SNR=7.1
**I05D Terrebonne, OR 75.82 47** P **P** **17 18 26.8 +0.9**
baz=299
**J04D Umpqua Nationa 75.87 48** P **P** **17 18 27.4 +1.1**
baz=299,SNR=5.7
**HAWA Hanford 75.92 44** *e*P **P** **17 18 27.7 +1.4**
comp=Z,28nm,1.1s
**F07A Phinny Hill Vi 75.93 45** *e*P **P** **17 18 27.8 +1.5**
comp=Z,28nm,0.8s
**D08A Wollman Farm, 75.95 43** *e*P **P** **17 18 27.7 +1.2**
comp=Z,38nm,0.8s
**C09A Chrisman Ranch 75.95 43** *e*P **P** **17 18 27.4 +0.9**
comp=Z,39nm,0.7s
**E08A Dider Farm, El 76.15 44** *e*P **P** **17 18 29.1 +1.5**
comp=Z,30nm,0.7s
**YBH Yreka Blue Hor 76.21 50** *e*P **P** **17 18 29.9 +1.8**
YBH pmax pmax
comp=Z,17nm,1.0s
**YBH Yreka Blue Hor 76.21 50** *e*P **P** **17 18 29.9 +1.8**
comp=Z,17nm,1.0s
**M02C Callahan 76.28 50** P **P** **17 18 29.3 +0.8**
baz=299
**IDID Didziasalis 76.30 327** *e*P **P** **17 18 28.4 +0.2**
IDID IAmb IAmb 17 18 29.6
comp=Z,38nm,0.8s
**KOPT Kop Dagi 76.36 308** *e*P **P** **17 18 29.3 0.0**
comp=Z,71nm,1.2s
**NEW Newport 76.38 42** P **P** **17 18 29.6 +0.7**
baz=301
**NEW Newport 76.38 42** *e*P **P** **17 18 30.1 +1.2**
NEW pmax pmax
comp=Z,29nm,0.8s
**NEW Newport 76.38 42** *e*P **P** **17 18 30.1 +1.2**
comp=Z,29nm,0.8s
**K04D Chiloquin, OR 76.39 48** P **P** **17 18 30.3 +1.1**
baz=299
**J05D Fort Rock, OR 76.40 48** P **P** **17 18 30.7 +1.4**
baz=300
**ISAL Salakas 76.44 327** *e*P **P** **17 18 29.2 +0.2**
ISAL IAmb IAmb 17 18 30.4
comp=Z,36nm,0.6s
**NACGM Naroch 76.52 326** *e*P **P** **17 18 29.0 -0.4**
NACGM PM 17 18 30.0
comp=Z,0.8nm,0.8s
**IIGN Ignalina 76.53 327** *e*P **P** **17 18 29.6 +0.1**
IIGN IAmb IAmb 17 18 30.8
comp=Z,29nm,0.6s
**N02D Trinity Center 76.58 50** P **P** **17 18 31.6 +1.4**
baz=299,SNR=6.4
**E09A Wood Farm, Sta 76.68 44** *e*P **P** **17 18 32.1 +1.6**
comp=Z,30nm,0.8s
E09A *e*S **S** **17 27 43.0 -0.1**
**M04C Macdoel 76.75 49** P **P** **17 18 32.1 +0.9**
baz=300,SNR=12
**G08A Pilot Rock 76.82 45** *e*P **P** **17 18 32.9 +1.4**
comp=Z,9.6nm,0.8s
**SUMG Summit 76.86 359** *i*P **P** **17 18 32.7 +1.2**
SUMG pmax pmax
comp=Z,19nm,1.0s
**SUMG Summit 76.86 359** *i*P **P** **17 18 32.7 +1.2**
comp=Z,19nm,1.0s
**SUMG Summit 76.86 359** *e*P **P** **17 18 32.8 +1.2**
comp=Z,16nm,0.9s
**WDC Whiskeytown Da 76.88 51** *e*P **P** **17 18 32.9 +1.2**
WDC pmax pmax
comp=Z,21nm,1.3s
**WDC Whiskeytown Da 76.88 51** *e*P **P** **17 18 32.9 +1.2**
comp=Z,21nm,1.3s
**I07A Izee 77.09 46** *e*P **P** **17 18 34.5 +1.5**
comp=Z,15nm,1.0s
**MARD Mardin 77.48 306** *e*P **P** **17 18 35.5 +0.2**
comp=Z,116nm,0.8s
**F10A Beach Ranch, E 77.51 44** *e*P **P** **17 18 36.8 +1.6**
comp=Z,12nm,0.6s
**O03D Paynes Creek 77.51 51** P **P** **17 18 34.5 -0.9**
baz=300
**AKASG Malin Array Be 77.66 322** P **P** **17 18 35.4 -0.4**
comp=Z,50nm,0.6s,baz=51,slow=5.9,SNR=231
AKASG PP **PP** **17 21 36.1 -0.9**
comp=Z,5.6nm,0.8s,baz=51,slow=8.9,SNR=6.7
**AKBB Malin Array Si 77.66 322** *e*P **P** **17 18 35.4 -0.4**
AKBB pmax pmax
comp=Z,69nm,0.8s
**AKBB Malin Array Si 77.66 322** *e*P **P** **17 18 35.4 -0.4**
comp=Z,69nm,0.8s
**KIEV Kiev 77.67 322** *e*P **P** **17 18 35.3 -0.6**
KIEV pmax pmax
comp=Z,68nm,0.8s
**KIEV Kiev 77.67 322** *e*P **P** **17 18 35.2 -0.6**
comp=Z,68nm,0.8s
**AK11 Malin Array Si 77.70 322** *e*P **P** **17 18 35.6 -0.4**
**WALA Waterton Lakes 77.77 40** *e*P **P** **17 18 37.9 +1.3**
comp=Z,39nm,0.7s
**SIM Simferopol' 77.98 315** *e*P **P** **17 18 37.8 +0.1**
**SCO Scoresbysund 78.01 353** *e*P **P** **17 18 37.0 -0.3**
**SCO Scoresbysund 78.01 353** *i*P **P** **17 18 37.0 -0.3**
**BMO Blue Mountains 78.05 45** *e*P **P** **17 18 39.4 +1.2**
BMO pmax pmax
comp=Z,24nm,0.8s
**BMO Blue Mountains 78.05 45** *e*P **P** **17 18 39.4 +1.2**
comp=Z,24nm,0.8s
**ORV Oroville 78.08 51** *e*P **P** **17 18 39.3 +0.9**
ORV pmax pmax
comp=Z,40nm,1.4s
**ORV Oroville 78.08 51** *e*P **P** **17 18 39.3 +0.9**
comp=Z,40nm,1.4s
**J08A Circle Bar Ran 78.11 47** *e*P **P** **17 18 40.3 +1.8**
comp=Z,35nm,0.6s
**JTMT Jette 78.28 41** *e*P **P** **17 18 40.7 +1.3**
comp=Z,29nm,0.9s
**WVOR Wild Horse Val 78.48 47** *e*P **P** **17 18 41.7 +1.1**
WVOR pmax pmax
comp=Z,15nm,0.6s
**WVOR Wild Horse Val 78.48 47** *e*P **P** **17 18 41.7 +1.1**
comp=Z,16nm,0.6s
**NC405 NORSAR Array S 78.69 337** *e*P **P** **17 18 41.2 0.0**
**NC303 NORSAR Array S 78.73 337** *e*P **P** **17 18 41.7 +0.3**
**AFDM Forest Hills D 78.74 51** *e*P **P** **17 18 42.0 0.0**
comp=Z,18nm,1.3s
**SUW Suwalki 78.74 327** *e*P **P** **17 18 41.4 -0.2**
**SUW Suwalki 78.74 327** *e*P **P** **17 18 41.4 -0.2**
**NB201 NORSAR Array S 78.88 337** *e*P **P** **17 18 42.2 0.0**
**TOKA Tokat 78.89 310** *e*P **P** **17 18 42.3 -0.4**
comp=Z,43nm,0.8s
**NC204 NORSAR Array S 78.90 337** *e*P **P** **17 18 42.4 0.0**
**NB2 NORSAR Subarra 78.92 337** P **P** **17 18 41.8 -0.7**
comp=Z,39nm,1.1s,baz=43,slow=5.3
**NB2 NORSAR Subarra 78.92 337** P **P** **17 18 41.8 -0.7**
NB2 pmax pmax
comp=Z,33nm,1.1s
**NB2 NORSAR Subarra 78.92 337** P **P** **17 18 41.8 -0.7**
baz=43,slow=5.3
**NB200 NORSAR Array S 78.92 337** *e*P **P** **17 18 42.1 -0.4**
NB200 *e*PP **PP** **17 21 44.4 -2.8**
**NOA NORSAR Array B 78.92 337** P **P** **17 18 42.1 -0.4**
comp=Z,16nm,0.8s,baz=45,slow=5.3,SNR=38
NOA PP **PP** **17 21 44.4 -2.8**
comp=Z,5.7nm,1.0s,baz=44,slow=7.9,SNR=5.5
**MSO Missoula 78.97 42** P **P** **17 18 43.7 +0.5**
baz=304,SNR=8.7
**MSO Missoula 78.97 42** *e*P **P** **17 18 43.5 +0.3**
comp=Z,9.9nm,0.8s
**RDG13 Poverty Ridge 78.98 53** *e*P **P** **17 18 43.7 +0.3**
comp=Z,95nm,1.8s
**NBO02 NORSAR Array S 79.03 337** *e*P **P** **17 18 42.7 -0.3**
**PAHR Pah Rah Range 79.41 50** *e*P **P** **17 18 46.6 +0.9**
comp=Z,16nm,0.8s
**SAO San Andreas Ge 79.52 53** *e*P **P** **17 18 47.1 +0.9**
SAO pmax pmax
comp=Z,36nm,1.4s
**SAO San Andreas Ge 79.52 53** *e*P **P** **17 18 47.1 +0.9**
comp=Z,36nm,1.4s
**SORM Soroca 79.57 320** ⇓*i*P **P** **17 18 44.9 -1.3**
**PNTR Pine Nut 79.58 51** *e*P **P** **17 18 48.0 +1.2**
comp=Z,18nm,0.7s
**CMB Columbia Colle 79.60 52** *e*P **P** **17 18 47.4 +0.8**
CMB pmax pmax
comp=Z,29nm,1.1s
**CMB Columbia Colle 79.60 52** *e*P **P** **17 18 47.4 +0.8**
comp=Z,29nm,1.1s
**MFID Camas Ranch 79.71 45** *e*P **P** **17 18 48.4 +1.2**
comp=Z,23nm,0.8s
**KLNR Kaliningrad 79.74 329** ⇓*e*P **P** **17 18 46.2 -0.7**
KLNR pmax pmax
comp=Z,97nm,1.0s
**WAKR Walker 80.00 51** *e*P **P** **17 18 50.1 +1.2**
comp=Z,12nm,0.6s
**MILM Milestii Mici 80.01 319** ⇑*i*P **P** **17 18 47.6 -0.9**
**HRY Holter Researc 80.24 41** *e*P **P** **17 18 51.3 +1.3**
**ILGA Ilgaz 80.29 312** *e*P **P** **17 18 51.5 +1.1**
comp=Z,69nm,0.8s
**FFC Flin Flon 80.30 31** *e*P **P** **17 18 50.5 +0.6**
FFC pmax pmax
comp=Z,19nm,0.9s
**FFC Flin Flon 80.30 31** *e*P **P** **17 18 50.5 +0.6**
comp=Z,19nm,0.9s
**LRM Limekiln Ridge 80.39 42** *e*P **P** **17 18 52.1 +1.2**
**BMN Battle Mountai 80.44 49** *e*P **P** **17 18 52.5 +1.4**
BMN pmax pmax
comp=Z,13nm,0.8s
**BMN Battle Mountai 80.44 49** *e*P **P** **17 18 52.5 +1.4**
comp=Z,13nm,0.8s
**KONO Kongsberg 80.48 336** ⇓*e*P **P** **17 18 51.2 +0.5**
**HLID Hailey 80.49 45** P **P** **17 18 52.6 +1.2**
baz=304,SNR=35
**HLID Hailey 80.49 45** *e*P **P** **17 18 52.8 +1.4**
comp=Z,20nm,0.8s
**IAS Iasi 80.55 320** P **P** **17 18 51.6 +0.3**
**DLMT Dillon 80.57 43** *e*P **P** **17 18 52.8 +1.1**
comp=Z,38nm,0.7s
**KVN Kaiserville 80.60 50** P **P** **17 18 53.2 +1.2**
KVN pmax pmax
comp=Z,36nm,1.3s
**KVN Kaiserville 80.60 50** *e*P **P** **17 18 53.2 +1.2**
comp=Z,36nm,1.3s
**EGMT Eagleton 80.63 39** P **P** **17 18 52.8 +0.9**
baz=306,SNR=18
**EGMT Eagleton 80.63 39** *e*P **P** **17 18 52.6 +0.7**
comp=Z,52nm,0.8s
**RAYN Ar Rayn 80.65 292** *e*P **P** **17 18 52.5 +0.1**
comp=Z,108nm,1.0s
**LCCM Lewis and Clar 80.71 42** *e*P **P** **17 18 53.6 +1.2**
**MCMT McKenzie Canyo 80.72 43** *e*P **P** **17 18 53.5 +0.8**
**NV01 Mina Array Sit 80.79 51** *e*P **P** **17 18 54.0 +0.9**
NV01 *e*PP **PP** **17 22 04.8 +1.3**
**NVAR Mina Array Bea 80.79 51** P **P** **17 18 54.4 +1.2**
comp=Z,9.0nm,0.7s,baz=297,slow=5.9,SNR=49
NVAR pP **pP** **17 20 25.9 +1.5**
comp=Z,1.5nm,0.7s,baz=290,slow=5.4,SNR=3.5
NVAR PP **PP** **17 22 04.7 +1.2**
comp=Z,2.9nm,1.1s,baz=295,slow=7.9,SNR=4.2
**LVV L'vov 80.88 323** *e*P **P** **17 18 53.0 0.0**
**PAGB Antelope Grade 80.88 54** *e*P **P** **17 18 55.1 +1.7**

comp=Z,39nm,0.9s
**NV11 Mina Array Sit** 80.89 51 *e*P P 17 18 55.0 +1.4
comp=Z,0.7nm,0.9s
**BOZ Bozeman (W)** 80.99 42 *e*P P 17 18 55.2 +1.3
BOZ pmax pmax
comp=Z,29nm,0.7s
**BOZ Bozeman (W)** 80.99 42 *e*P P 17 18 55.2 +1.3
comp=Z,29nm,0.7s
**TLCR** 80.99 318⇑*i*P P 17 18 53.0 -0.7
**BR101 Keskin Array S** 81.05 311 *e*P P 17 18 54.3 0.0
BR101 *e*pP pP 17 20 25.8 +0.1
BR101 *e*PP PP 17 22 02.1 -3.3
**BR131 Keskin Array S** 81.05 311 *e*P P 17 18 54.4 0.0
**BRTR Keskin Array B** 81.05 311 P P 17 18 54.3 0.0
comp=Z,41nm,0.9s,baz=101,slow=3.6,SNR=176
BRTR pP pP 17 20 25.8 +0.1
comp=Z,1.7nm,0.9s,baz=131,slow=4.4,SNR=1.9
BRTR PP PP 17 22 02.2 -3.3
comp=Z,2.2nm,0.8s,baz=79,slow=6.8,SNR=3.3
**BEL Belsk** 81.23 326 *e*P P 17 18 55.3 +0.5
**BEL Belsk** 81.23 326 *e*P P 17 18 55.3 +0.5
**CFR Carcaliu** 81.39 318⇓*i*P P 17 18 54.8 -1.0
**CFR Carcaliu** 81.39 318 P P 17 18 54.8 -1.0
**TESR Tescani** 81.46 320⇑*i*P P 17 18 55.7 -0.4
**ANTO Ankara** 81.52 311 *e*P P 17 18 56.4 -0.3
ANTO pmax pmax
comp=Z,66nm,0.8s
**ANTO Ankara** 81.52 311 *e*P P 17 18 56.4 -0.3
comp=Z,66nm,0.8s
**ANTO Ankara** 81.52 311 PcP P 17 18 57.7 +1.0
SNR=9.3
**ANTO Ankara** 81.52 311 P P 17 18 57.7 +1.0
SNR=9.3
**BR231 Keskin MP Arra** 81.55 311 *e*P P 17 18 55.2 -1.6
BR231 *e*pP pP 17 20 32.5 +4.2
**QLMT Earthquake Lak** 81.55 42 *e*P P 17 18 57.8 +0.9
**BUR08 Bucovina Ar. S** 81.58 321 *e*P P 17 18 57.3 +0.5
**BURAR Bucovina Array** 81.59 321⇑*i*P P 17 18 56.1 -0.8
**BURAR Bucovina Array** 81.59 321 P P 17 18 56.1 -0.8
**BUR04 Bucovina Ar. S** 81.59 321 *e*P P 17 18 57.3 +0.4
**PETR Petresti** 81.59 319⇑*i*P P 17 18 56.3 -0.5
**PKM Mcpherson Peak** 81.62 54 P P 17 18 57.7 +0.3
baz=302,SNR=6.7
**VES Vestal, Richgr** 81.63 53 P P 17 18 57.5 +0.3
baz=302,SNR=7.2
**TIRR Tirgusor** 81.65 317⇑*i*P P 17 18 55.8 -1.3
**TIRR Tirgusor** 81.65 317 *e*P P 17 18 57.3 +0.2
TIRR pmax pmax
comp=Z,33nm,1.0s
**TIRR Tirgusor** 81.65 317 *e*P P 17 18 57.3 +0.2
comp=Z,33nm,1.0s
**ODBI Odobesti** 81.67 319⇑*i*P P 17 18 56.4 -0.8
**KWP Kalwaria Pacla** 81.67 324 *e*P P 17 18 57.7 +0.5
**KWP Kalwaria Pacla** 81.67 324 *e*P P 17 18 57.7 +0.5
**KWP Kalwaria Pacla** 81.67 324 *e*P P 17 18 57.8 +0.5
comp=Z,1µm,1.1s
**BSD Bornholm Skovb** 81.69 331 *i*P P 17 18 56.9 -0.2
BSD pmax pmax
comp=Z,51nm,1.0s
**BSD Bornholm Skovb** 81.69 331 *i*P P 17 18 56.9 -0.2
comp=Z,51nm,1.0s
**YHB Horse Butte** 81.73 42 *e*P P 17 18 59.4 +1.6
comp=Z,42nm,0.8s
**VRI Vrincioaia** 81.79 319⇓*i*P P 17 18 56.6 -1.3
**VRI Vrincioaia** 81.79 319 P P 17 18 56.5 -1.3
**PLOR Plostina** 81.85 319⇑*i*P P 17 18 57.3 -0.9
**PLOR Plostina** 81.85 319 P P 17 18 57.2 -0.9
**YHH Holmes Hill** 81.91 42 *e*P P 17 19 00.2 +1.3
comp=Z,10nm,0.9s
**YMR Madison River** 81.91 42 *e*P P 17 19 00.1 +1.3
comp=Z,34nm,0.7s
**GKP Gorka Klasztor** 81.94 329 *e*P P 17 18 58.2 -0.2
**GKP Gorka Klasztor** 81.94 329 *e*P P 17 18 58.2 -0.2
**GRER** 81.94 318⇑*i*P P 17 18 57.9 -0.7
**GCMT Greycliff** 82.00 41 *e*P P 17 19 00.6 +1.5
**CWC Cottonwood Cre** 82.00 52 P P 17 18 59.7 +0.4
baz=302
**YNR Norris Junctio** 82.05 42 *e*P P 17 19 00.4 +0.8
comp=Z,33nm,1.1s
**YFT Old Faithful** 82.11 43 *e*P P 17 19 02.0 +2.1
comp=Z,26nm,1.0s
**ISA Isabella, Lake** 82.15 53 P P 17 18 60.0 0.0
baz=302,SNR=6.2
**ISA Isabella, Lake** 82.15 53 *e*P P 17 18 59.8 -0.2
ISA pmax pmax
comp=Z,20nm,1.3s
**ISA Isabella, Lake** 82.15 53 *e*P P 17 18 59.8 -0.2
comp=Z,20nm,1.3s
**ICOR Ion Corvin** 82.20 317⇑*i*P P 17 18 59.3 -0.7
**PGOR Pogoanele** 82.21 318⇓*i*P P 17 18 59.3 -0.7
**YPP Pitchstone Pla** 82.24 43 *e*P P 17 19 02.7 +2.2
comp=Z,11nm,0.7s
**H17A Grant Village** 82.30 42 P P 17 19 03.6 +2.8
baz=306,SNR=32
**H17A Grant Village** 82.30 42 *e*P P 17 19 03.8 +3.0
comp=Z,50nm,0.9s
**COP Copenhagen** 82.30 332 *e*P P 17 19 00.1 -0.1
**COP Copenhagen** 82.30 332 *i*P P 17 19 00.1 -0.1
**DAC Darwin (Calif)** 82.42 52 *e*P P 17 19 00.1 -1.4
DAC pmax pmax
comp=Z,33nm,1.4s
**DAC Darwin (Calif)** 82.42 52 *e*P P 17 19 00.1 -1.4
comp=Z,33nm,1.4s
**MLR Muntele Rosu** 82.46 319⇑*i*P P 17 19 00.8 -0.6
**MLR Muntele Rosu** 82.46 319 *e*P P 17 19 01.7 +0.2
MLR pmax pmax
comp=Z,23nm,0.7s
**MLR Muntele Rosu** 82.46 319 *e*P P 17 19 01.7 +0.2
comp=Z,22nm,0.7s
**BMR Baia Mare** 82.48 322⇑*i*P P 17 19 00.5 -0.8
**FXWY Fox Creek** 82.48 43 *e*P P 17 19 03.1 +1.3
comp=Z,31nm,1.4s
**DOPR Dopca** 82.48 320⇓*i*P P 17 19 00.7 -0.7
**HVU Hansel Valley** 82.50 46 *e*P P 17 19 03.4 +1.7
HVU pmax pmax
comp=Z,33nm,0.8s
**HVU Hansel Valley** 82.50 46 *e*P P 17 19 03.4 +1.7
comp=Z,32nm,0.8s
**UZH Uzhgorod** 82.51 323⇓*i*P P 17 19 01.5 +0.1
UZH *e* 17 20 30.9
**OSI Osito Audit: C** 82.53 54 *e*P P 17 19 03.0 +1.1
comp=Z,49nm,1.3s
**STHS Stebnicka Huta** 82.55 324 *e*P P 17 19 02.0 +0.3
STHS pmax pmax
comp=Z,14nm,0.7s
**STHS Stebnicka Huta** 82.55 324 *e*P P 17 19 02.0 +0.3
**BLG Laguna Peak, P** 82.56 55 P P 17 19 03.1 +1.0
baz=302
**MOOW Moose Ponds** 82.58 43 *e*P P 17 19 03.5 +1.3
comp=Z,9.3nm,0.8s
**TPAW Teton Pass** 82.61 43 *e*P P 17 19 02.9 +0.5
comp=Z,14nm,0.8s
**MPMC Manual Prospec** 82.61 52 P P 17 19 03.1 +0.6
baz=303,SNR=23
**RLMT Red Lodge** 82.62 41 P P 17 19 03.4 +1.0
baz=307,SNR=10
**RLMT Red Lodge** 82.62 41 *e*P P 17 19 03.2 +0.8
comp=Z,19nm,0.8s
**R11A Troy Canyon, C** 82.63 50 P P 17 19 03.6 +1.0
baz=304,SNR=38
**R11A Troy Canyon, C** 82.63 50 *e*P P 17 19 03.4 +0.8
comp=Z,19nm,0.8s
**TRPA Tarpa** 82.70 323⇓*ex* P 17 19 02.8 +0.4
**SNOW Snow King Moun** 82.74 43 *e*P P 17 19 04.8 +1.8
comp=Z,13nm,0.8s
**REDW Red Top Meadow** 82.74 43 *e*P P 17 19 04.7 +1.6
comp=Z,19nm,1.3s
**OJC Ojcow** 82.75 325 *e*P P 17 19 02.7 0.0
**OJC Ojcow** 82.75 325 *e*P P 17 19 03.1 +0.4
OJC pmax pmax
comp=Z,36nm,1.1s
**OJC Ojcow** 82.75 325 *e*P P 17 19 03.0 +0.4
comp=Z,36nm,1.1s
**CRVS Cervenica-Dubn** 82.77 324 *e*P P 17 19 03.2 +0.4
**CRVS Cervenica-Dubn** 82.77 324 *e*P P 17 19 03.2 +0.4
**LRMC Laurel Mtn Rad** 82.79 53 P P 17 19 03.9 +0.6
baz=303,SNR=15
**FURC Furnace Creek,** 82.81 52 P P 17 19 04.5 +1.3
baz=303,SNR=14
**BGU Big Grassy Mou** 82.82 46 *e*P P 17 19 04.8 +1.4
comp=Z,18nm,0.9s
**EDW2 Edwards Air Fo** 82.89 54 P P 17 19 04.7 +0.9
baz=303,SNR=18
**AHID Auburn Hatcher** 82.94 44 *e*P P 17 19 05.4 +1.3
comp=Z,10nm,0.7s
**TPNV Topopah Spring** 82.96 51 P P 17 19 05.2 +1.0
baz=304,SNR=31
**TPNV Topopah Spring** 82.96 51 *e*P P 17 19 05.2 +1.0
TPNV pmax pmax
comp=Z,39nm,0.8s
**TPNV Topopah Spring** 82.96 51 *e*P P 17 19 05.2 +1.0
comp=Z,39nm,0.8s
**SPUT South Promonto** 82.97 46 *e*P P 17 19 05.8 +1.6
comp=Z,14nm,0.8s
**PRD Provadia** 82.97 317 *i*P P 17 19 04.6 +0.7
**MUD Monsted U'grnd** 82.99 334 *i*P P 17 19 01.0 -2.7
MUD pmax pmax
comp=Z,36nm,1.0s
**MUD Monsted U'grnd** 82.99 334 *i*P P 17 19 01.0 -2.7
comp=Z,36nm,1.0s
**VOIR** 82.99 319⇓*i*P P 17 19 03.5 -0.6
**VOIR** 82.99 319 P P 17 19 03.5 -0.6
**DECC Green Verdugo** 83.00 54 P P 17 19 05.5 +1.2
baz=303
**CJR Cluj-Napoca** 83.01 321⇓*i*P P 17 19 03.2 -0.9
**CJR Cluj-Napoca** 83.01 321 P P 17 19 03.1 -1.0
**NIE Niedzica** 83.02 325 *e*P P 17 19 04.6 +0.5
**NIE Niedzica** 83.02 325 *e*P P 17 19 04.6 +0.5
**MWC Mount Wilson** 83.20 54 *e*P P 17 19 06.8 +1.3
MWC pmax pmax
comp=Z,41nm,1.1s
**MWC Mount Wilson** 83.20 54 *e*P P 17 19 06.8 +1.3
comp=Z,41nm,1.1s
**ARR Arges** 83.27 319⇑*i*P P 17 19 05.0 -0.5
**DGMT Dagmar** 83.29 37 P P 17 19 06.2 +0.7
baz=310
**BOLV Bolvidin** 83.35 311 *e*P P 17 19 06.6 +0.5
comp=Z,89nm,0.6s
**LAO LASA Array** 83.35 39 P P 17 19 06.9 +1.1
baz=309,SNR=14
**LAO LASA Array** 83.35 39 *e*P P 17 19 06.2 +0.3
comp=Z,41nm,1.0s
**DUG Dugway, Tooele** 83.38 47 P P 17 19 07.3 +1.1
baz=305,SNR=44
**DUG Dugway, Tooele** 83.38 47 *e*P P 17 19 07.7 +1.5
DUG pmax pmax
comp=Z,43nm,0.8s
**DUG Dugway, Tooele** 83.38 47 *e*P P 17 19 07.7 +1.5
comp=Z,43nm,0.8s
**CIS Catalina Islan** 83.39 55 P P 17 19 06.9 +0.6
baz=303,SNR=7.0
**DRGR** 83.44 321⇑*i*P P 17 19 05.5 -0.8
**BFSC Mount Baldy Ra** 83.47 54 P P 17 19 07.0 +0.2
baz=303,SNR=13
**KECS Kecovo** 83.53 324 *e*P P 17 19 06.6 0.0
KECS pmax pmax
comp=Z,6.0nm,1.0s
**KECS Kecovo** 83.53 324 *e*P P 17 19 06.6 0.0
**RRX Edison Barstow** 83.59 53 P P 17 19 07.6 +0.3
baz=303
**LANS Liptovska Anna** 83.61 325 *e*P P 17 19 07.8 +0.7
**LANS Liptovska Anna** 83.61 325 *e*P P 17 19 07.8 +0.7
**PSUT Pine Spring** 83.66 49 *e*P P 17 19 09.0 +1.2
comp=Z,25nm,0.8s
**LOT Lotru** 83.70 320⇓*i*P P 17 19 06.4 -1.3
**TCUT Toone Canyon** 83.72 46 *e*P P 17 19 09.6 +1.5
comp=Z,59nm,0.7s
**CTU Camp Tracy** 83.75 46 *e*P P 17 19 09.6 +1.4
comp=Z,32nm,0.7s
**SZH Strazhica** 83.80 317 *i*P P 17 19 08.0 -0.1
**OKC Ostrava-Krasne** 83.81 326⇓*e*P P 17 19 08.0 0.0
**OKC Ostrava-Krasne** 83.81 326⇓*e*P P 17 19 08.0 0.0
**MAMC Mammari** 83.81 307 P P 17 19 08.2 -0.1
**CSS Mathiatis** 83.85 307 *e*P P 17 19 08.2 -0.3
comp=Z,18nm,0.8s
**CSS Mathiatis** 83.85 307 P P 17 19 08.4 -0.1
**BW06 Boulder Array** 83.86 43 P P 17 19 08.9 +0.2
baz=307,SNR=12
**BW06 Boulder Array** 83.86 43 *e*P P 17 19 09.2 +0.5
comp=Z,8.5nm,0.7s
**PD31 Pinedale Array** 83.86 43 *e*P P 17 19 09.3 +0.6
**PDAR Pinedale Array** 83.86 43 P P 17 19 09.2 +0.6
comp=Z,6.0nm,0.7s,baz=279,slow=1.4,SNR=50
**PDAR Pinedale Array** 83.86 43 *e*P P 17 19 09.0 +0.3
**SHPR Sheep Range** 83.94 51 *e*P P 17 19 10.4 +1.2
comp=Z,22nm,0.9s
**BBRC Big Bear Solar** 83.97 54 P P 17 19 10.4 +0.9
baz=303
**NLU North Lily Min** 83.98 47 *e*P P 17 19 10.6 +1.3
comp=Z,28nm,0.8s
**JLU Jordanelle** 83.99 46 *e*P P 17 19 10.4 +1.0
comp=Z,24nm,0.7s
**KSP Ksiaz** 84.01 327 *e*P P 17 19 09.0 0.0
**KSP Ksiaz** 84.01 327⇓*e*P P 17 19 09.0 0.0
**TUQ Turquoise Moun** 84.01 52 P P 17 19 10.2 +0.7
baz=304,SNR=30
**HEC Hector,Ludlow** 84.07 53 P P 17 19 10.8 +1.1
baz=304,SNR=12
**MORC Moravsky Berou** 84.14 326⇑*i*P P 17 19 08.8 -0.9
**MORC Moravsky Berou** 84.14 326 *e*P P 17 19 09.7 0.0
MORC pmax pmax
comp=Z,113nm,1.4s
**MORC Moravsky Berou** 84.14 326 *e*P P 17 19 09.7 0.0
comp=Z,113nm,1.4s
**MURC Murrieta** 84.14 54 P P 17 19 11.1 +1.0
baz=303,SNR=5.5
**PSZ Piszkesteto** 84.20 324⇑*i*P P 17 19 08.3 -1.8
**PSZ Piszkesteto** 84.20 324 *e*P P 17 19 10.4 +0.3
PSZ *e*PP pP 17 20 47.7 +5.5
PSZ pmax pmax
comp=Z,21nm,1.1s
**PSZ Piszkesteto** 84.20 324⇑*ex* P 17 19 10.5 +0.3
**PSZ Piszkesteto** 84.20 324 *e*P P 17 19 10.4 +0.3
comp=Z,21nm,1.1s
PSZ *e*pP pP 17 20 47.6 +5.5
**MPU Maple Canyon** 84.22 47 *e*P P 17 19 11.8 +1.2
comp=Z,34nm,0.8s
**ALFC Alefka** 84.24 308 P P 17 19 09.6 -0.9
**KRLC Kraliky** 84.30 327⇓*e*P P 17 19 10.5 0.0
**KRLC Kraliky** 84.30 327 *e*P P 17 19 10.5 0.0
**DPC Dobruska-Polom** 84.33 327⇓*i*P P 17 19 10.9 +0.2
DPC *ex* x 17 20 48.2
**DPC Dobruska-Polom** 84.33 327⇓*i*P P 17 19 10.9 +0.2
DPC *e* 17 20 48.2
**SIRR Siria** 84.34 321⇑*i*P P 17 19 09.2 -1.5
**VYHS Vyhne** 84.36 324 *e*P P 17 19 11.0 +0.2
VYHS pmax pmax
comp=Z,20nm,1.5s
**VYHS Vyhne** 84.36 324 *e*P P 17 19 11.0 +0.2
VYHS *e*PP PP 17 22 29.6 -2.1
**UPC Upice** 84.37 327⇓*i*P P 17 19 10.8 0.0
**UPC Upice** 84.37 327⇓*i*P P 17 19 10.8 0.0
**AKMC Akamas** 84.50 308 P P 17 19 10.4 -1.3
**CCUT Cedar City** 84.53 49 *e*P P 17 19 13.5 +1.4
comp=Z,8.2nm,0.7s
**GMRC Granite Mounta** 84.56 53 P P 17 19 13.1 +0.9
baz=304,SNR=23
**109C Camp Elliot, M** 84.60 55 P P 17 19 13.2 +0.9
baz=303
**PFO Pinyon Flats O** 84.65 54 P P 17 19 13.8 +1.1
baz=304,SNR=36
**PFO Pinyon Flats O** 84.65 54 *e*P P 17 19 13.6 +0.9
PFO pmax pmax
comp=Z,52nm,0.9s
**PFO Pinyon Flats O** 84.65 54 *e*P P 17 19 13.6 +0.9
comp=Z,52nm,0.9s
**XPFO Pizeon Flat** 84.66 54 *e*P P 17 19 13.6 +0.9
comp=Z,55nm,0.9s
**TPFO Pinon Flats** 84.66 54 P P 17 19 13.4 +0.7
baz=304,SNR=37
**SZCU Shurtz Canyon** 84.69 49 *e*P P 17 19 14.1 +1.2
comp=Z,12nm,1.2s
**MSU Marysvale** 84.75 48 *e*P P 17 19 15.0 +1.8
**MSU Marysvale** 84.75 48 *e*P P 17 19 15.0 +1.8
**BELC Belle Mtn. Jos** 84.76 53 P P 17 19 13.8 +0.5
baz=304,SNR=24
**LDFC Landfair** 84.77 52 *e*P P 17 19 14.2 +1.0
comp=Z,39nm,0.9s
**BZS Buzias** 84.77 321⇓*i*P P 17 19 11.0 -1.9
**TMUT Trail Mountain** 84.90 47 *e*P P 17 19 15.6 +1.5
comp=Z,9.9nm,1.0s
**VRAC Vranov** 84.91 326⇑*i*P P 17 19 11.6 -1.9
**VRAC Vranov** 84.91 326 P P 17 19 16.0 +2.5
**LCMT Little Creek M** 84.92 50 *e*P P 17 19 15.6 +1.6
comp=Z,22nm,0.8s
**MPEP Malo Peshtene** 85.01 318 *i*P P 17 19 14.0 -0.1
**BAR Barrett** 85.02 55 *e*P P 17 19 14.8 +0.4
comp=Z,22nm,0.9s
**MTPU Mount Pierson** 85.02 48 *e*P P 17 19 16.2 +1.5
comp=Z,22nm,0.8s
**MANT Manisa** 85.02 312 *e*P P 17 19 13.9 -0.6
comp=Z,112nm,1.5s
**PVCC Panska Ves** 85.02 328⇓*e*P P 17 19 14.3 +0.3
**PVCC Panska Ves** 85.02 328 *e*P P 17 19 14.3 +0.3
**SMOL Smolenice** 85.04 325 P P 17 19 15.1 +0.9
**BRG Berggiesshubel** 85.06 328 *i*P P 17 19 13.9 -0.3
comp=Z,19nm,0.9s
BRG pP pP 17 20 39.1 -7.4
comp=Z,3.7nm,0.9s
BRG PP PP 17 22 38.5 +1.2
comp=Z,70nm,2.6s
**BRG Berggiesshubel** 85.06 328 *i*P P 17 19 13.9 -0.3
BRG 17 22 38.5
BRG pmax pmax
comp=Z,19nm,0.9s
BRG pmax pmax
comp=Z,70nm,2.7s
**MONP2 Monument Peak** 85.07 55 P P 17 19 15.8 +1.0
baz=304,SNR=17
**KDZ Kurdzhali** 85.08 316 *i*P P 17 19 14.8 +0.3
**P17A Butcher Ranch,** 85.09 47 *e*P P 17 19 15.4 +0.6
comp=Z,40nm,0.8s
**Q16A Castle Valley** 85.15 47 *e*P P 17 19 15.8 +0.7
comp=Z,15nm,0.8s
**CLL Collm** 85.18 329⇓*i*P P 17 19 14.0 -0.7
CLL *e**PP pP 17 20 46.0 -1.1
CLL pmax pmax
comp=Z,27nm,1.1s
**CLL Collm** 85.18 329⇓*i*P P 17 19 14.0 -0.7
comp=Z,27nm,1.1s
CLL *e*pP pP 17 20 46.0 -1.1
CLL *i* 17 20 52.0
CLL *e*PP PP 17 22 36.0 -2.2
**CLL Collm** 85.18 329 *e*P P 17 19 13.8 -0.9
comp=Z,28nm,1.1s
**MODS Modra-Piesok** 85.21 325 *e*P P 17 19 14.4 -0.6
**MODS Modra-Piesok** 85.21 325 *e*P P 17 19 14.3 -0.7
**IRM Iron Mountain** 85.26 53 P P 17 19 16.3 +0.8
baz=304,SNR=17
**P18A Preston Nutter** 85.31 46 *e*P P 17 19 17.3 +1.2
comp=Z,20nm,0.8s
**BC3 Big Chuckawall** 85.33 53 P P 17 19 16.9 +1.0
baz=304,SNR=17
**GOPC GO Pecny, Ondr** 85.35 327⇓*e*P P 17 19 15.2 -0.4
GOPC *ex* x 17 20 53.2
**GOPC GO Pecny, Ondr** 85.35 327 *e*P P 17 19 15.2 -0.4
GOPC *e* 17 20 53.2
**PRU Pruhonice** 85.41 327⇓*e*P P 17 19 15.7 -0.2
PRU *ex* x 17 20 53.6
**PRU Pruhonice** 85.41 327 *e*P P 17 19 15.7 -0.2
PRU *e* 17 20 53.6
**IKP In-Ko-Pah, Jac** 85.43 55 P P 17 19 17.4 +0.9
baz=304,SNR=11
**SRU San Rafael Swe** 85.44 47 *e*P P 17 19 17.5 +0.9
SRU pmax pmax
comp=Z,26nm,0.8s
**SRU San Rafael Swe** 85.44 47 *e*P P 17 19 17.4 +0.9
comp=Z,26nm,0.8s
**SWSC Sam W. Stewart** 85.48 54 P P 17 19 17.1 +0.5
baz=304,SNR=5.2
**W13A Hualapai Mount** 85.58 52 *e*P P 17 19 18.4 +1.0
comp=Z,12nm,1.0s
**K22A Casper** 85.70 42 P P 17 19 18.6 +0.9
baz=309,SNR=6.1
**K22A Casper** 85.70 42 *e*P P 17 19 18.4 +0.7
comp=Z,17nm,0.9s
**VTS Vitosha** 85.79 318⇑*i*P P 17 19 17.2 -0.9
**VTS Vitosha** 85.79 318 *e*P P 17 19 17.9 -0.2
VTS *e**PP pP 17 20 51.0 +0.4
VTS pmax pmax
comp=Z,14nm,0.9s
**VTS Vitosha** 85.79 318 *i*P P 17 19 17.7 -0.4
**VTS Vitosha** 85.79 318 *e*P P 17 19 17.9 -0.2
comp=Z,14nm,0.9s
VTS *e*pP pP 17 20 51.0 +0.4
**PDMCI Parker Dam,Lak** 85.86 52 P P 17 19 19.3 +0.9
baz=305,SNR=12
**U15A North Rim** 85.88 50 *e*P P 17 19 20.0 +1.2
comp=Z,12nm,0.8s
**Y12C Blythe** 85.91 53 P P 17 19 19.6 +0.9
baz=305
**Y12C Blythe** 85.91 53 *e*P P 17 19 19.9 +1.3
comp=Z,15nm,0.9s
**MDND Maddock** 86.01 35 P P 17 19 19.3 +0.4
baz=313
**MDND Maddock** 86.01 35 *e*P P 17 19 19.9 +1.0
comp=Z,47nm,0.9s
**DAMY Dhamar** 86.02 284 *e*P P 17 19 20.7 +0.8
comp=Z,32nm,1.0s
**ULM Lac du Bonnet** 86.09 31 P P 17 19 18.9 -0.2
comp=Z,6.5nm,0.8s,baz=276,slow=3.5,SNR=11
**ULM Lac du Bonnet** 86.09 31 *e*P P 17 19 19.2 0.0
ULM pmax pmax
comp=Z,36nm,1.5s
**ULM Lac du Bonnet** 86.09 31 *e*P P 17 19 19.2 0.0
comp=Z,36nm,1.5s
**GLA Glamis** 86.10 54 P P 17 19 20.8 +1.1
baz=304,SNR=6.9
**GLA Glamis** 86.10 54 *e*P P 17 19 20.7 +1.1
GLA pmax pmax
comp=Z,30nm,1.3s
**GLA Glamis** 86.10 54 *e*P P 17 19 20.7 +1.1
comp=Z,30nm,1.3s
**MMB Musomiste** 86.11 317 *i*P P 17 19 18.7 -0.8
**RSSD Black Hills** 86.17 40 P P 17 19 20.4 +0.4
baz=310
**RSSD Black Hills** 86.17 40 *e*P P 17 19 20.6 +0.6
RSSD pmax pmax
comp=Z,15nm,0.8s
**RSSD Black Hills** 86.17 40 *e*P P 17 19 20.6 +0.6
comp=Z,15nm,0.8s
**NKC Novy Kostel** 86.19 329⇓*e*P P 17 19 19.3 -0.4
**NKC Novy Kostel** 86.19 329 *e*P P 17 19 19.3 -0.4
**CONA Conrad Observa** 86.21 325 *i*PcP P 17 19 19.8 -0.2
comp=Z,14nm,1.4s,SNR=5.3
**O20A White River Ci** 86.23 45 P P 17 19 21.0 +0.6
baz=308,SNR=6.5
**O20A White River Ci** 86.23 45 *e*P P 17 19 20.6 +0.2
comp=Z,24nm,1.1s
**KKB Krupnik** 86.32 317 *i*P P 17 19 19.7 -0.8
**KHC Kasperske Hory** 86.46 327⇓*e*P P 17 19 20.2 -0.8
KHC *ex* x 17 20 58.7
KHC *e*PP PP 17 22 48.0 -0.6
**KHC Kasperske Hory** 86.46 327 *e*P P 17 19 20.9 -0.1
KHC pmax pmax
comp=Z,4.0nm,0.9s
**KHC Kasperske Hory** 86.46 327 *e*P P 17 19 20.9 -0.1
comp=Z,3.7nm,0.9s
**SRS Serrai** 86.49 317 P P 17 19 20.8 -0.5
**B31A Greenbush Farm** 86.56 34 P P 17 19 22.2 +0.7
baz=314
**GEC2 GERESS Array S** 86.61 327 *e*P P 17 19 21.0 -0.9
GEC2 pmax pmax
comp=Z,9.0nm,1.0s
**GEC2 GERESS Array S** 86.61 327 *e*P P 17 19 21.0 -0.8
comp=Z,9.2nm,1.0s
**GERES GERESS Array B** 86.61 327 P P 17 19 20.9 -0.9
comp=Z,3.9nm,0.6s,baz=40,slow=5.4,SNR=35
GERES pP pP 17 20 58.6 +4.1
comp=Z,1.8nm,0.9s,baz=69,slow=3.3,SNR=4.1
GERES PP PP 17 22 49.7 -0.1
comp=Z,1.5nm,0.7s,baz=70,slow=5.8,SNR=4.2
**GEA0 GERESS Array S** 86.61 327 *e*P P 17 19 20.8 -1.0
GEA0 *e*pP pP 17 20 59.4 +4.8
**DIVS Divibare** 86.64 321 *e*P P 17 19 21.1 -1.0
comp=Z,15nm,1.0s
**PV09 Paradox Valley** 86.68 47 *e*P P 17 19 23.8 +1.1
PV09 *e*pP pP 17 20 56.7 +1.3
**A32A Rocking H Ranc** 86.75 33 P P 17 19 22.6 +0.2
baz=315
**PV10 Paradox Valley** 86.81 47 *e*P P 17 19 24.5 +1.2
PV10 *e*pP pP 17 20 58.3 +2.3
**ARSA Arzberg** 86.84 325 *i*P P 17 19 22.5 -0.4
comp=Z,9.0nm,1.3s
**Y14A Wickenburg** 86.84 52 *e*P P 17 19 24.6 +1.4
comp=Z,34nm,0.8s
**KAC Achnashellach** 86.86 341 *e*P P 17 19 22.9 +0.2
**PV05 Paradox Valley** 86.95 47 *e*P P 17 19 25.1 +1.2
**C31A Landman Farms,** 86.96 34 P P 17 19 23.8 +0.4
baz=314,SNR=7.1
**WUAZ Wupatki** 87.02 50 P P 17 19 24.6 +0.5
baz=306,SNR=8.6
**WUAZ Wupatki** 87.02 50 *e*P P 17 19 25.2 +1.1
comp=Z,12nm,1.0s
WUAZ *e*pP pP 17 20 58.8 +1.8
**MOA Molln** 87.04 326 *e*PcP P 17 19 23.7 -0.1

comp=Z,7,3nm,1.1s
**B32A Ashes, Strandq** 87.10 33 P P 17 19 24.1 +0.1
baz=315,SNR=5.8
**N23A Red Feather La** 87.14 43 P P 17 19 26.3 +1.6
baz=309,SNR=8.8
**N23A Red Feather La** 87.14 43 *e*P P 17 19 26.5 +1.7
comp=Z,26nm,1.0s
**KSB Sheil Bridge** 87.14 341 *e*P P 17 19 24.4 +0.4
**PHWY Pilot Hill** 87.17 43 *e*P P 17 19 25.9 +1.0
comp=Z,17nm,0.9s
**A33A Warroad** 87.25 32 P P 17 19 24.6 -0.1
baz=316,SNR=5.2
**PV01 Paradox Valley** 87.25 47 *e*P P 17 19 26.1 +0.9
**SOKA Soboth** 87.48 325 *i* P P 17 19 25.2 -0.8
comp=Z,15nm,1.0s,SNR=7.0
**D31A Mcclaflin, Tow** 87.48 35 P P 17 19 26.3 +0.4
baz=314,SNR=6.7
**AGMN Agassiz Nation** 87.49 33 P P 17 19 25.9 +0.1
baz=316
**AGMN Agassiz Nation** 87.49 33 *e*P P 17 19 25.7 -0.1
comp=Z,9.7nm,0.9s
**X16A Lo Mia Camp, P** 87.62 51 *e*P P 17 19 27.3 +0.3
comp=Z,6.5nm,0.9s
**B33A Robert and Kas** 87.64 33 P P 17 19 27.2 +0.6
baz=316
**GOLS Golise** 87.65 324 *i* P P 17 19 25.7 -1.0
**E31A Nome** 87.75 35 P P 17 19 27.7 +0.6
baz=314
**D32A Dogwood Acres,** 87.77 34 P P 17 19 27.6 +0.4
baz=315
**OBKA Obir** 87.84 325 *e*P P 17 19 27.0 -0.7
comp=Z,7.6nm,1.0s
**MVCO Mesa Verde** 87.86 47 P P 17 19 28.3 +0.2
baz=308
**MVCO Mesa Verde** 87.86 47 *e*P P 17 19 28.8 +0.6
comp=Z,12nm,1.4s
**B34A Aery, Baudette** 87.91 32 P P 17 19 27.9 +0.1
baz=317,SNR=6.3
**C33A Trail** 87.92 33 P P 17 19 28.1 +0.2
baz=316
**ISCO Idaho Springs** 88.02 44 P P 17 19 29.3 +0.4
baz=310
**ISCO Idaho Springs** 88.02 44 *e*P P 17 19 29.9 +0.9
ISCO pmax pmax
comp=Z,8.0nm,1.0s
**ISCO Idaho Springs** 88.02 44 *e*P P 17 19 29.9 +0.9
comp=Z,8.0nm,1.0s
**F31A Hecla** 88.05 36 P P 17 19 29.0 +0.4
baz=314
**214A Organ Pipe Nat** 88.12 54 P P 17 19 29.7 +0.5
baz=306,SNR=5.3
**PDG Podgorica** 88.14 320⇑ *i*P P 17 19 27.0 -2.0
**TTG Podgorica** 88.14 320 *e*P P 17 19 28.6 -0.4
TTG pmax pmax
comp=Z,16nm,1.0s
**TTG Podgorica** 88.14 320 *e*P P 17 19 28.6 -0.4
comp=Z,16nm,1.0s
**LJU Ljubljana** 88.17 325 *i* P P 17 19 28.1 -1.0
**MYKA Terra Mystica** 88.20 325 *i* P P 17 19 28.0 -1.3
comp=Z,5.5nm,0.6s
**D33A AnnSam, Waubun** 88.33 34 P P 17 19 30.1 +0.3
baz=316,SNR=6.8
**C34A RKJ Ranch, Bem** 88.40 33 P P 17 19 30.1 -0.1
baz=316
**B35A Bob, Littlefor** 88.43 32 P P 17 19 30.3 +0.1
baz=317,SNR=5.9
**JAVS Javornik** 88.51 325 *i* P P 17 19 29.3 -1.5
**S22A 4UR Ranch, Cre** 88.58 46 P P 17 19 32.1 +0.6
baz=309
**S22A 4UR Ranch, Cre** 88.58 46 *e*P P 17 19 32.5 +0.9
comp=Z,8.5nm,0.9s
**ABTA Abfaltersbach** 88.66 326 *i* P P 17 19 29.8 -1.7
comp=Z,20nm,1.0s,SNR=7.0
**WATA Walderalm** 88.68 327 *e*P P 17 19 30.6 -1.1
comp=Z,5.2nm,0.6s
**E33A Westby DABS, E** 88.70 34 P P 17 19 32.1 +0.5
baz=316,SNR=10
**WTTA Wattenberg** 88.70 327 *i* P P 17 19 30.9 -1.0
comp=Z,4.4nm,0.7s
**C35A Jirik Farms, M** 88.80 32 P P 17 19 32.1 +0.1
baz=317,SNR=6.8
**Q24A Divide** 88.83 44 P P 17 19 33.2 +0.5
baz=310
**Q24A Divide** 88.83 44 *e*P P 17 19 33.6 +0.9
comp=Z,6.9nm,0.9s
**G32A Webster** 88.85 36 P P 17 19 32.9 +0.6
baz=315
**MOTA Moosalm** 88.89 327 *i* PcP P 17 19 31.9 -0.8
comp=Z,6.2nm,0.7s
**RETA Reutte** 88.95 328 *i* PcP P 17 19 32.5 -0.3
comp=Z,8.8nm,0.7s
**F33A 5 Mile Ranch,** 89.04 35 P P 17 19 33.6 +0.5
baz=316,SNR=14
**E34A Wadena** 89.10 34 P P 17 19 34.1 +0.6
baz=316
**LHO Holmfirth** 89.18 338 *e*P P 17 19 33.7 0.0
**D35A Remer** 89.21 33 P P 17 19 34.1 +0.1
baz=317
**LBWR Ladybower, Pea** 89.26 337 *e*P P 17 19 34.0 0.0
LBWR IAmb IAmb 17 19 35.1
comp=Z,42nm,1.1s
**C36A Pine Crest Far** 89.27 32 P P 17 19 34.6 +0.4
baz=318,SNR=5.5
**TUC Tucson** 89.30 52 P P 17 19 35.3 +0.5
baz=307
**TUC Tucson** 89.30 52 *e*P P 17 19 36.0 +1.2
TUC pmax pmax
comp=Z,16nm,1.8s
**TUC Tucson** 89.30 52 *e*P P 17 19 36.0 +1.2
comp=Z,16nm,1.8s
**FETA Feichten** 89.31 327 *i* PcP P 17 19 33.8 -0.8
comp=Z,18nm,0.9s,SNR=7.3
**SDCO Great Sand Dun** 89.39 45 P P 17 19 36.1 +0.7
baz=310,SNR=19
**SDCO Great Sand Dun** 89.39 45 *e*P P 17 19 36.3 +1.0
comp=Z,12nm,0.8s
**H32A Carlson Farm,** 89.41 36 P P 17 19 35.2 +0.2
baz=315,SNR=6.0
**BFO Black Forest** 89.42 329 *i* P P 17 19 34.6 -0.3
**BFO Black Forest** 89.42 329 *e*P P 17 19 34.1 -0.8
comp=Z,17nm,0.9s
**G33A Ortonville** 89.42 35 P P 17 19 35.6 +0.6
baz=316
**E35A Pequot Lakes** 89.43 33 P P 17 19 35.4 +0.5
baz=317
**DAVA Damuels** 89.50 328 *i* PcP P 17 19 34.9 -0.6
comp=Z,22nm,0.8s,SNR=6.5
**D36A Goodland** 89.55 32 P P 17 19 35.8 +0.2
baz=318
**F34A Alexandria** 89.57 34 P P 17 19 36.1 +0.5
baz=316
**C37A Embarrass** 89.59 31 P P 17 19 36.2 +0.5
baz=318,SNR=5.5
**H33A Prehn Over Nor** 89.64 36 P P 17 19 36.7 +0.7
baz=315,SNR=11
**CWF Charnwood Fore** 89.67 337 *e*P P 17 19 35.6 -0.4
CWF IAmb IAmb 17 19 36.6
comp=Z,17nm,0.9s
**EYMN Ely** 89.73 31 P P 17 19 37.0 +0.5
baz=319,SNR=5.6
**EYMN Ely** 89.73 31 *e*P P 17 19 36.9 +0.5
comp=Z,41nm,1.4s
**G34A Benson** 89.79 35 P P 17 19 37.0 +0.4
baz=316
**CDF Champ du Feu** 89.82 330 *e*P P 17 19 35.8 -1.1
CDF pmax pmax
comp=Z,21nm,1.1s
**FUORN Ofenpass-Fuorn** 89.82 327 *e*P P 17 19 36.7 -0.5
comp=Z,51nm,1.0s
**F35A Swanville** 89.86 34 P P 17 19 37.8 +0.8
baz=317
**GMM Mts of Mourne** 89.87 340 *e*P P 17 19 36.7 -0.1
**J32A Parkston** 89.99 37 P P 17 19 37.4 -0.2
baz=314
**E36A McGregor** 90.00 33 P P 17 19 37.2 -0.5
baz=318
**C38A Sawbill Land.** 90.00 31 P P 17 19 37.5 -0.1
baz=319,SNR=5.1
**ECH Echery** 90.02 330 *e*P P 17 19 37.0 -0.7
ECH pmax pmax
comp=Z,16nm,1.1s
**ECH Echery** 90.02 330 *e*P P 17 19 37.0 -0.7
comp=Z,16nm,1.1s
**I33A Coleman** 90.06 36 P P 17 19 38.2 +0.2
baz=315
**H34A Spellman Lake,** 90.13 35 P P 17 19 38.6 +0.3
baz=316
**FOEL Foel Wylfa** 90.17 338 *e*P P 17 19 38.3 0.0
FOEL IAmb IAmb 17 19 39.0
comp=Z,63nm,1.2s
**MHTCO State Highway** 90.28 45 *e*P P 17 19 40.7 +1.3
comp=Z,18nm,0.4s
**TUE Stuetta** 90.35 328 *e*P P 17 19 39.1 -0.5
comp=Z,15nm,1.0s
**F36A Milaca** 90.36 33 P P 17 19 39.1 -0.2
baz=318
**ECSD EROS Data Cent** 90.37 36 P P 17 19 39.8 +0.3
baz=315,SNR=6.8
**ECSD EROS Data Cent** 90.37 36 *e*P P 17 19 39.5 0.0
comp=Z,15nm,1.1s
**HLM1 Long Mynd** 90.38 338 *e*P P 17 19 39.0 -0.3
**T25A Trinidad** 90.45 45 P P 17 19 40.9 +0.7
baz=310,SNR=12
**T25A Trinidad** 90.45 45 *e*P P 17 19 41.0 +0.7
comp=Z,16nm,0.8s
**HINF Hinteralfeld** 90.45 330 *e*P P 17 19 38.3 -1.5
HINF pmax pmax
comp=Z,17nm,1.1s
**LAZ Ladron** 90.46 49 *e*P P 17 19 41.5 +1.2
**J33A Davis** 90.49 37 P P 17 19 40.4 +0.4
baz=315
**HAU Haudompre** 90.53 330 *e*P P 17 19 38.7 -1.4
HAU pmax pmax
comp=Z,8.0nm,1.0s
**ANMO Albuquerque** 90.56 48 P P 17 19 41.9 +1.2
baz=309
**ANMO Albuquerque** 90.56 48⇓ *i*P P 17 19 42.3 +1.6
ANMO pmax pmax
comp=Z,19nm,0.8s
**ANMO Albuquerque** 90.56 48 *e*P P 17 19 41.9 +1.2
comp=Z,18nm,0.8s
**H35A Sunnyside Ranc** 90.58 35 P P 17 19 41.3 +1.0
baz=317
**E38A The Farm, Brul** 90.72 32 P P 17 19 40.9 0.0
baz=319,SNR=5.9
**STRD Stroud** 90.77 337 *e*P P 17 19 40.9 -0.2
**LPM Los Pinos Moun** 90.84 49 *e*P P 17 19 43.3 +1.2
**MCH1 Michaelchurch** 90.86 337 *e*P P 17 19 41.4 -0.1
MCH1 IAmb IAmb 17 19 41.9
comp=Z,20nm,0.7s
**319A Douglas** 90.89 52 *e*P P 17 19 43.5 +1.3
comp=Z,26nm,0.9s
**MONM Monmouth** 90.93 337 *e*P P 17 19 41.5 -0.3
MONM IAmb IAmb 17 19 42.5
comp=Z,23nm,0.8s
**BNM Barren Site** 90.94 49 *e*P P 17 19 43.9 +1.3
**F38A Pierce - Schro** 91.05 32 P P 17 19 43.5 +1.0
baz=319,SNR=5.8
**HGH Gray Hill** 91.10 337 *e*P P 17 19 42.0 -0.6
**H36A Jessenland, He** 91.11 34 P P 17 19 44.2 +1.4
baz=317
**I35A Creekview Farm** 91.11 35 P P 17 19 43.5 +0.6
baz=316
**HSIG** 91.14 55 *e*P P 17 19 44.5 +1.3
comp=Z,19nm,0.8s
**L33A Hoskins** 91.14 38 P P 17 19 44.0 +1.0
baz=315
**SPMN Marine on St.** 91.17 33 P P 17 19 43.6 +0.5
baz=318
**SPMN Marine on St.** 91.17 33 *e*P P 17 19 43.6 +0.5
comp=Z,8.2nm,0.8s
**121A Cookes Peak, D** 91.19 51 P P 17 19 44.8 +1.1
baz=308
**BGNE Belgrade** 91.20 39 P P 17 19 44.1 +0.7
baz=314
**E39A Mellen** 91.34 31 P P 17 19 44.1 +0.3
baz=320
**SENIN Lac Senin/Sane** 91.37 329 *e*P P 17 19 43.4 -0.8
comp=Z,29nm,1.4s
**K34A Le Mars** 91.39 37 P P 17 19 44.3 +0.2
baz=316
**F39A Loretta** 91.53 32 P P 17 19 44.2 -0.5
baz=319
**E40A Wakefield** 91.58 31 P P 17 19 44.4 -0.5
baz=320,SNR=5.3
**H37A Dierke Farm, C** 91.59 34 P P 17 19 44.5 -0.6
baz=318
**G38A Ridgeland** 91.66 33 P P 17 19 45.6 +0.3
baz=319
**CABF La Chapelle** 91.72 329 *e*P P 17 19 44.5 -1.2
CABF pmax pmax
comp=Z,19nm,1.1s
**L34A Svendsen Farm,** 91.75 38 P P 17 19 46.1 +0.3
baz=316
**I37A Lemond, Waseca** 91.78 35 P P 17 19 46.6 +0.7
baz=318
**K35A Storm Lake** 91.80 36 P P 17 19 45.8 -0.2
baz=316
**J36A Seneca 1, Swea** 91.81 36 P P 17 19 46.7 +0.6
baz=317,SNR=7.7
**H38A Maiden Rock** 91.83 34 P P 17 19 47.1 +1.0
baz=318
**F40A Park Falls** 91.89 32 P P 17 19 47.0 +0.6
baz=320
**G39A Holcombe** 91.89 33 P P 17 19 47.0 +0.7
baz=319
**E41A Kenton** 91.98 31 P P 17 19 47.3 +0.5
baz=321
**J37A Redenius Farm,** 92.22 35 P P 17 19 48.3 +0.4
baz=318
**K36A Gilmore City** 92.26 36 P P 17 19 48.3 +0.2
baz=317
**LPL La Plagne** 92.27 328 *e*P P 17 19 47.2 -1.2
LPL pmax pmax
comp=Z,9.0nm,0.7s
**I38A Scanlan Farm,** 92.28 34 P P 17 19 48.6 +0.4
baz=318
**LPG La Plagne** 92.28 328 *e*P P 17 19 47.3 -1.2
LPG pmax pmax
comp=Z,8.0nm,0.6s
**H39A Augusta** 92.29 33 P P 17 19 48.2 -0.1
baz=319
**G40A Rib Lake** 92.35 32 P P 17 19 48.9 +0.4
baz=320
**E42A Champion** 92.46 30 P P 17 19 49.7 +0.7
baz=322
**SSF Saint Saulge** 92.47 331 *e*P P 17 19 47.9 -1.1
SSF pmax pmax
comp=Z,12nm,0.9s
**K37A Belmond** 92.58 36 P P 17 19 50.3 +0.7
baz=317,SNR=8.8
**SMF Signal de Mont** 92.66 331 *e*P P 17 19 48.7 -1.2
SMF pmax pmax
comp=Z,9.0nm,0.7s
**FLN La Foliniere** 92.67 334 *e*P P 17 19 49.1 -0.8
FLN pmax pmax
comp=Z,29nm,1.3s
**LDF La Druitiere** 92.68 334 *e*P P 17 19 48.7 -1.2
LDF pmax pmax
comp=Z,6.0nm,0.6s
**J38A Wedel Dairy, R** 92.74 35 P P 17 19 50.2 -0.1
baz=318
**AVF Avril sur Loir** 92.75 331 *e*P P 17 19 49.2 -1.1
AVF pmax pmax
comp=Z,27nm,1.0s
**H40A Chili** 92.75 33 P P 17 19 51.1 +0.7
baz=320
**I39A Houston** 92.80 34 P P 17 19 50.7 +0.1
baz=319
**O34A Beatrice** 92.85 39 P P 17 19 50.8 -0.1
baz=315
**M36A Felix, Anita** 92.94 37 P P 17 19 51.5 +0.1
baz=317
**L37A Phoenix Point,** 92.99 36 P P 17 19 51.5 0.0
baz=317
**H41A Junction City** 93.09 32 P P 17 19 51.7 -0.3
baz=320
**J39A Decorah** 93.10 34 P P 17 19 51.7 -0.3
baz=319
**ORIF Oris-en-Rattie** 93.11 328 *e*P P 17 19 50.7 -1.4
ORIF pmax pmax
comp=Z,24nm,1.3s
**GRR Gorron** 93.12 334 *e*P P 17 19 51.1 -0.9
GRR pmax pmax
comp=Z,75nm,1.6s
**P34A Walnut Farm, R** 93.22 39 P P 17 19 52.4 -0.3
baz=315
**F43A Flat Rock, Esc** 93.25 30 P P 17 19 52.9 +0.3
baz=322
**MNTX Cornudas Mount** 93.30 50 P P 17 19 53.2 +0.1
baz=310
**MNTX Cornudas Mount** 93.30 50 *e*P P 17 19 54.0 +0.8
comp=Z,9.6nm,0.9s
**L38A Oak Wood Farm,** 93.38 36 P P 17 19 53.5 +0.2
baz=318
**I41A Arkdale** 93.42 33 P P 17 19 53.3 -0.2
baz=320
**F44A Big Bay de Noc** 93.46 30 P P 17 19 53.1 -0.5
baz=323
**K39A Oelwein** 93.49 35 P P 17 19 53.8 0.0
baz=319
**AMTX Amarillo** 93.59 46 P P 17 19 54.8 +0.3
baz=312
**AMTX Amarillo** 93.59 46 *e*P P 17 19 55.4 +0.9
comp=Z,14nm,0.7s
**Q34A Chapman** 93.60 40 P P 17 19 54.9 +0.5
baz=315
**TCF Toulx Ste Croi** 93.62 331 *e*P P 17 19 53.4 -1.0
TCF pmax pmax
comp=Z,22nm,1.2s
**KSU1 Kansas State U** 93.66 40 P P 17 19 54.8 +0.1
baz=315
**KSU1 Kansas State U** 93.66 40 *e*P P 17 19 55.1 +0.5
comp=Z,33nm,0.9s
**P35A Duane Minner,** 93.68 39 P P 17 19 54.2 -0.5
baz=316
**VIVF Saint-Julien-l** 93.70 329 *e*P P 17 19 53.5 -1.3
VIVF pmax pmax
comp=Z,83nm,2.2s
**N37A Lee Faris, Mou** 93.75 37 P P 17 19 55.9 +0.8
baz=317
**M38A Pleasantville** 93.79 36 P P 17 19 55.6 +0.4
baz=318
**K40A Colesburg** 93.86 34 P P 17 19 55.6 +0.2
baz=319
**L39A Vinton** 93.87 35 P P 17 19 55.5 0.0
baz=319
**R34A Isabella, Hill** 93.87 41 P P 17 19 56.4 +0.7
baz=315
**J41A Loganville** 93.89 33 P P 17 19 56.0 +0.4
baz=320
**P36A Good Intent, A** 94.05 39 P P 17 19 56.4 0.0
baz=316
**Q35A Mercer Eighty,** 94.14 40 P P 17 19 56.8 -0.1
baz=316
**M39A Webster** 94.26 36 P P 17 19 57.5 +0.1
baz=318
**L40A Anamosa** 94.29 35 P P 17 19 57.4 -0.1
baz=319
**MFF Saint Martin d** 94.32 333 *e*P P 17 19 57.2 -0.3
MFF pmax pmax
comp=Z,51nm,1.5s
**K41A Shullsburg** 94.33 34 P P 17 19 57.7 +0.1
baz=320
**R35A Emporia Munici** 94.44 40 P P 17 19 58.2 0.0
baz=316
**P37A Lathrop** 94.53 38 P P 17 19 58.7 +0.1
baz=317
**N39A Derby Farms, D** 94.54 36 P P 17 19 58.4 -0.2
baz=318
**L41A Preston** 94.64 34 P P 17 19 58.4 -0.6
baz=320
**M40A Post Highland** 94.64 35 P P 17 19 58.5 -0.6
baz=319
**K42A Prairie Point,** 94.65 33 P P 17 19 58.5 -0.5
baz=320
**R36A Gordon, Harris** 94.82 40 P P 17 20 00.0 +0.1
baz=316
**P38A Dawn** 94.93 38 P P 17 20 00.1 -0.3
baz=317
**N40A Mertquake, Sal** 95.00 36 P P 17 20 00.7 0.0
baz=319
**S36A Lake Cedric, C** 95.20 40 P P 17 20 00.5 -1.2
baz=316
**T35A Sooner Cattle** 95.25 41 P P 17 20 01.4 -0.6
baz=315
**LFF La Frestale** 95.32 331 *e*P P 17 20 02.7 +0.6
LFF pmax pmax
comp=Z,126nm,2.0s
**Q38A Cooks Store, C** 95.37 38 P P 17 20 01.6 -0.9
baz=317
**WMOK Wichita Mounta** 95.45 44 P P 17 20 01.9 -1.0
baz=314
**T36A Boggs Farm, Ca** 95.51 41 P P 17 20 02.8 -0.3
baz=316
**S37A Fort Scott** 95.59 40 P P 17 20 02.9 -0.5
baz=316,SNR=5.7
**L44A Lake County Fo** 95.78 33 P P 17 20 03.9 -0.3
baz=322
**R38A Fenwick Farm,** 95.78 39 P P 17 20 03.6 -0.8
baz=317
**TX31 Lajitas Ar. Si** 95.94 51 *e*P P 17 20 06.2 +0.8
TX31 *e*pP **pP** 17 21 40.3 +1.2
TX31 *e*pP **pP** 17 21 40.9 +1.8
**LTX Lajitas** 95.94 51 *e*P P 17 20 06.4 +1.0
LTX *e**PP **pP** 17 21 41.1 +2.0
LTX *e* 17 24 02.6
**LTX Lajitas** 95.94 51 *e*P P 17 20 06.4 +1.0
LTX *e*pP **pP** 17 21 41.1 +2.0
LTX *e*PP **PP** 17 24 02.6 -0.8
**TXAR Lajitas Array** 95.94 51 P P 17 20 06.4 +1.0
comp=Z,4.7nm,0.6s,baz=301,slow=3.0,SNR=54
TXAR pP **pP** 17 21 41.1 +2.0
comp=Z,4.1nm,0.8s,baz=291,slow=3.8,SNR=14
TXAR PP **PP** 17 24 02.6 -0.8
comp=Z,1.6nm,0.9s,baz=297,slow=5.5,SNR=6.0
**R39A Chumby, Stover** 96.16 38 P P 17 20 05.1 -0.9
baz=318
**S38A Stockton** 96.19 39 P P 17 20 05.1 -1.1
baz=317
**S39A Bolivar** 96.46 39 P P 17 20 07.0 -0.4
baz=317
**R40A Maddies Statio** 96.58 38 P P 17 20 07.6 -0.3
baz=318
**T39A Clever** 96.92 39 P P 17 20 08.9 -0.5
baz=317
**S40A Lebanon** 96.97 38 P P 17 20 09.1 -0.6
baz=318
**R41A Rosebud** 97.04 37 P P 17 20 09.0 -1.0
baz=319
**T40A Mansfield** 97.29 39 P P 17 20 10.1 -1.0
baz=318
**CCM Cathedral Cave** 97.29 37 P P 17 20 09.8 -1.3
baz=319
**CCM Cathedral Cave** 97.29 37 *e*P P 17 20 10.9 -0.2
CCM pmax pmax
comp=Z,55nm,2.0s
**CCM Cathedral Cave** 97.29 37 *e*P P 17 20 10.9 -0.2
comp=Z,55nm,2.0s
**U39A Green Forest** 97.33 40 P P 17 20 10.0 -1.3
baz=317
**W38A Poteau** 97.70 41 P P 17 20 12.0 -1.0
baz=316
**T41A Mountain View** 97.78 38 P P 17 20 12.4 -0.9
baz=318
**V41A Mountainview** 98.50 39 P Pdif 17 20 15.4 -1.2
baz=318
**WVT Waverly** 100.53 36 *e*P **Pdif** **17 20 24.4 -1.1**
**WVT Waverly** 100.53 36 *e*Pdif **Pdif** **17 20 24.4 -1.1**
**ESDC Sonseca Array** 101.63 331 PP PP 17 24 46.4 +0.9
comp=Z,37nm,1.0s,baz=38,slow=7.5,SNR=6.1
**TOA1 Torodi Ar. Sit** 119.65 310 *e*PKPdf **PKPdf** **17 25 25.2 -0.9**
TOA1 *e*PP PP 17 26 44.2 -10
TOA1 *e*SKPdf **SKPdf** **17 28 21.8 -0.5**
**TORD Torodi Ar. Bea** 119.65 310 PKP **PKPdf** **17 25 25.2 -0.9**
comp=Z,1.0nm,0.6s,baz=15,slow=1.2,SNR=9.4
TORD PP PP 17 26 44.2 -10
comp=Z,2.0nm,0.8s,baz=24,slow=6.7,SNR=3.7
TORD SKP 17 28 21.8
comp=Z,1.0nm,0.8s,baz=33,slow=1.5,SNR=4.6
**BOSA Boshof** 122.69 254 PKP **PKPdf** **17 25 32.1 +0.4**
comp=Z,2.6nm,0.6s,baz=123,slow=2.5,SNR=8.9
**DBIC Dimbokro** 128.75 310 PKP **PKPdf** **17 25 42.8 -0.8**
comp=Z,1.8nm,0.6s,baz=7.9,slow=4.8,SNR=3.9
**PTBC PUERTO BERRIO** 131.34 46 *e*P **SKPbc** **17 28 33.9 -1.1**
**SDV Santo Domingo** 131.69 40 *e*PKPdf **PKPdf** **17 25 49.4 0.0**
**BARC Barichara** 132.07 44 *e*P **SKPbc** **17 28 37.1 -0.7**
**YOTC Yotoco, Valle** 132.08 50 *e*P **SKPbc** **17 28 37.4 -0.3**
**RUSC La Rusia** 132.68 45 *e*P **SKPbc** **17 28 39.0 -1.3**
**CHIC Chingaza** 133.27 47 *e*P **SKPbc** **17 28 40.6 -1.5**
**SNAA Sanae** 134.09 196 P **SKPbc** **17 28 42.4 -0.1**
**VNA2 Neumayer--Watz** 135.67 195 P **SKPbc** **17 28 46.7 -0.6**
baz=123,slow=2.8
**VNA3 Neumayer Olymp** 135.93 194 P **SKPbc** **17 28 47.7 -0.4**
**VNA1 Neumayer--Stat** 136.06 195 P **SKPbc** **17 28 47.2 -1.3**
**PTGA Pitinga** 145.38 34 *e*PKPdf **PKPbc** **17 26 14.9 0.0**
**SAML Samuel** 150.37 47 *e*PKPbc **PKPbc** **17 26 28.1 +0.2**
**LPAZ La Paz** 151.81 65 PKP **PKPdf** **17 26 25.4 +0.3**
comp=Z,0.8nm,0.6s,baz=47,slow=0.8,SNR=4.6
LPAZ PKPbc **PKiKP** **17 26 33.2 +1.1**
comp=Z,11nm,0.7s,baz=347,slow=1.9,SNR=39
LPAZ PKPab **PKPab** **17 26 42.9 +0.3**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | comp=Z,2.4nm,0.4s,baz=357,slow=7.4,SNR=7.3 | | | | | | | | |
| LPAZ | | | | | pPKPbc | **pPKPbc** | **17 28 11.7** | **+1.4** | |
| | comp=Z,7.3nm,0.9s,baz=7.5,slow=5.5,SNR=6.4 | | | | | | | | |
| **LPAZ** | **La Paz** | **151.81** | **65** | *e*PKIKP | **PKPdf** | **17 26 24.4** | **-0.6** | | |
| LPAZ | | | | *e* | | 17 26 25.6 | | | |
| LPAZ | | | | *e* | | 17 26 42.6 | | | |
| LPAZ | | | | *e* | | 17 28 04.9 | | | |
| **LPAZ** | **La Paz** | **151.81** | **65** | *e*PKPdf | **PKPdf** | **17 26 24.4** | **-0.6** | | |
| LPAZ | | | | *e*PKPbc | **PKPbc** | **17 26 25.6** | **-6.2** | | |
| LPAZ | | | | *e*PKiKP | **PKiKP** | **17 26 32.5** | **+0.4** | | |
| LPAZ | | | | *e*PKPab | **PKPab** | **17 26 42.6** | **0.0** | | |
| LPAZ | | | | *ep*PKPdf | **pPKPdf** | **17 28 04.9** | **+0.6** | | |
| LPAZ | | | | *e* | | 17 28 12.5 | | | |
| LPAZ | | | | *ep*PKPab | **pPKPbc** | **17 28 13.3** | **+3.0** | | |
| **MNMC** | **Minye Minye** | **152.17** | **72** | *e*PKPbc | **PKPbc** | **17 26 32.2** | **0.0** | | |
| MNMC | | | | *e*PKPab | **PKPab** | **17 26 44.7** | **+1.1** | | |
| **PB11** | **IPOC Station P** | **152.43** | **73** | *e*PKPdf | **PKPdf** | **17 26 27.0** | **+1.7** | | |
| PB11 | | | | *e*PKPbc | **PKiKP** | **17 26 33.3** | **+0.6** | | |
| **PB01** | **IPOC Station P** | **153.17** | **75** | *e*PKPbc | **PKPbc** | **17 26 34.4** | **+0.4** | | |
| PB01 | | | | *e*PKPab | **PKPab** | **17 26 48.7** | **+1.0** | | |
| **PLCA** | **Paso Flores** | **154.62** | **121** | PKPbc | **PKPbc** | **17 26 37.4** | **+0.8** | | |
| | comp=Z,1.4nm,0.9s,baz=346,slow=11,SNR=3.6 | | | | | | | | |
| PLCA | | | | PKPab | **PKPab** | **17 26 55.7** | **+2.3** | | |
| | comp=Z,8.2nm,0.8s,baz=262,slow=2.8,SNR=15 | | | | | | | | |
| **PLCA** | **Paso Flores** | **154.62** | **121** | *e*PKIKP | **PKPdf** | **17 26 27.9** | **+0.2** | | |
| **PLCA** | **Paso Flores** | **154.62** | **121** | *e*PKPdf | **PKPdf** | **17 26 27.9** | **+0.2** | | |
| PLCA | | | | *e*PKPbc | **PKPbc** | **17 26 37.0** | **+0.4** | | |
| PLCA | | | | *e*PKPab | **PKPab** | **17 26 54.9** | **+1.5** | | |
| **CPUP** | **Villa Florida** | **165.49** | **76** | PKP | **PKPdf** | **17 26 39.9** | **-0.1** | | |
| | comp=Z,3.5nm,1.1s,baz=39,slow=3.3,SNR=4.1 | | | | | | | | |
| CPUP | | | | PKPab | **PKPab** | **17 27 40.1** | **-1.0** | | |
| | comp=Z,1.9nm,0.9s,baz=334,slow=3.9,SNR=5.8 | | | | | | | | |
| **CPUP** | **Villa Florida** | **165.49** | **76** | *e*PKIKP | **PKPdf** | **17 26 39.9** | **-0.1** | | |
| CPUP | | | | *e* | | 17 27 39.5 | | | |
| **CPUP** | **Villa Florida** | **165.49** | **76** | *e*PKPdf | **PKPdf** | **17 26 39.9** | **-0.1** | | |
| CPUP | | | | *e*PKPab | **PKPab** | **17 27 39.5** | **-1.6** | | |

*TIR **30** 17:12:17.0±6.4,40.°50N×19.°99E,h13km±999km, ML2.9*
*ATH **30** 17:12:22.1,40.°62N×19.°97E,h7km±2km, ML2.3/2, Error ellipse: s-maj=3.2km s-min=1.2km az=168.0*
*THE **30** 17:12:22.8,40.°56N×20.°00E,h0km±2km, ML2.3/3, Error ellipse: s-maj=2.1km s-min=0.6km az=248.0*
*CSEM **30** 17:12:22.8±0.1,40.°54N×19.°99E,h2km, ML2.3, Error ellipse: s-maj=3.5km s-min=2.4km az=61.0*
*PDG **30** 17:12:23.0±0.3,40.°55N×19.°99E,h12km, ML2.6/9, Error ellipse: s-maj=0.5km s-min=0.8km az=0.0*

**ISC 30 17:12:22.8±1.1, 40.°56N±0.°02×19.°99E±0.°02, h5km±9km, n102, σ0.°95/160, 6C-14D, Albania**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **KBN** | **Korca** | **0.61** | **83** | *i* PG | | **Pg** | **17 12 33.8** | **-0.8** |
| KBN | | | | *i* SG | | **Sb** | **17 12 44.5** | **-0.5** |
| **KBN** | **Korca** | **0.61** | **83** | *i* Pg | | **Pg** | **17 12 33.8** | **-0.8** |
| | SNR=91 | | | | | | | |
| KBN | | | | S | | **Sg** | **17 12 43.3** | **+0.7** |
| KBN | | | | *i* Sg | | **Sb** | **17 12 44.5** | **-0.5** |
| | SNR=91 | | | | | | | |
| **KBN** | **Korca** | **0.61** | **83** | P | | **Pg** | **17 12 33.6** | **-1.0** |
| KBN | | | | S | | **Sg** | **17 12 43.3** | **+0.7** |
| **SRN** | **Sarande** | **0.67** | **179** | *i* PG | | **Pg** | **17 12 35.7** | **-0.1** |
| SRN | | | | *i* SG | | **Sb** | **17 12 46.2** | **-0.4** |
| **SRN** | **Sarande** | **0.67** | **179** | *i* Pg | | **Pg** | **17 12 35.7** | **-0.1** |
| | SNR=90 | | | | | | | |
| SRN | | | | *i* Sg | | **Sb** | **17 12 46.2** | **-0.4** |
| | SNR=90 | | | | | | | |
| **TIR** | **Tirane** | **0.80** | **353** | *i* PG | | **Pg** | **17 12 38.0** | **-0.1** |
| TIR | | | | *i* SG | | **Sn** | **17 12 52.3** | **-0.6** |
| **TIR** | **Tirane** | **0.80** | **353** | *i* Pg | | **Pg** | **17 12 38.0** | **-0.1** |
| | SNR=90 | | | | | | | |
| TIR | | | | S | | **Sb** | **17 12 50.1** | **-0.1** |
| TIR | | | | *i* Sg | | **Sn** | **17 12 52.3** | **-0.6** |
| | SNR=90 | | | | | | | |
| **TIR** | **Tirane** | **0.80** | **353** | P | | **Pg** | **17 12 37.9** | **-0.2** |
| TIR | | | | S | | **Sb** | **17 12 50.1** | **-0.1** |
| **NEST** | **Nestorio** | **0.82** | **99** | P | | **Pg** | **17 12 38.9** | **+0.3** |
| NEST | | | | S | | **Sb** | **17 12 50.1** | **-0.9** |
| **NEST** | **Nestorio** | **0.82** | **99** | P | | **Pg** | **17 12 38.3** | **-0.3** |
| NEST | | | | S | | **Sb** | **17 12 50.1** | **-0.9** |
| **NEST** | **Nestorio** | **0.82** | **99** | P | | **Pg** | **17 12 38.3** | **-0.3** |
| **OHR** | **Ohrid** | **0.83** | **48** | *i* Pg | | **Pg** | **17 12 38.0** | **-0.7** |
| OHR | | | | *i* Sg | | **Sb** | **17 12 51.6** | **+0.3** |
| **KEK** | **Kerkira** | **0.85** | **190** | P | | **Pg** | **17 12 38.1** | **-1.1** |
| KEK | | | | S | | **Sb** | **17 12 51.8** | **0.0** |
| KEK | | | | AML | | AML | 17 12 56.6 | |
| | comp=N,408μm,0.3s | | | | | | | |
| KEK | | | | AML | | AML | 17 12 57.9 | |
| | comp=E,449μm,0.2s | | | | | | | |
| **KEK** | **Kerkira** | **0.85** | **190** | P | | **Pg** | **17 12 38.1** | **-1.1** |
| KEK | | | | S | | **Sb** | **17 12 51.8** | **0.0** |
| **KEK** | **Kerkira** | **0.85** | **190** | P | | **Pg** | **17 12 38.5** | **-0.7** |
| KEK | | | | S | | **Sb** | **17 12 51.9** | **0.0** |
| **PENT** | **Pentalofos** | **0.95** | **112** | P | | **Pg** | **17 12 41.2** | **+0.1** |
| **PENT** | **Pentalofos** | **0.95** | **112** | P | | **Pg** | **17 12 40.9** | **-0.2** |
| **PENT** | **Pentalofos** | **0.95** | **112** | P | | **Pg** | **17 12 40.9** | **-0.2** |
| **SGD** | **Sagiada** | **0.96** | **168** | P | | **Pb** | **17 12 41.5** | **-0.3** |
| **SGD** | **Sagiada** | **0.96** | **168** | P | | **Pg** | **17 12 41.3** | **+0.1** |
| **SGD** | **Sagiada** | **0.96** | **168** | P | | **Pg** | **17 12 41.3** | **+0.1** |
| **FNA** | **Florina** | **1.08** | **77** | P | | **Pg** | **17 12 41.6** | **-1.9** |
| **FNA** | **Florina** | **1.08** | **77** | P | | **Pg** | **17 12 42.1** | **-1.5** |
| FNA | | | | S | | **Sb** | **17 12 58.2** | **-0.3** |
| **FNA** | **Florina** | **1.08** | **77** | P | | **Pg** | **17 12 42.1** | **-1.5** |
| FNA | | | | S | | **Sb** | **17 12 58.2** | **-0.3** |
| **JAN** | **Janina** | **1.12** | **143** | P | | **Pg** | **17 12 42.7** | **-1.5** |
| **JAN** | **Janina** | **1.12** | **143** | P | | **Pg** | **17 12 43.3** | **-0.9** |
| **JAN** | **Janina** | **1.12** | **143** | P | | **Pg** | **17 12 43.3** | **-0.9** |
| **BIA** | **Bitola** | **1.12** | **65** | P | | **Pg** | **17 12 43.4** | **-0.8** |
| BIA | | | | S | | **Sn** | **17 13 00.3** | **-0.6** |
| **BIA** | **Bitola** | **1.12** | **65** | *i* Pg | | **Pg** | **17 12 43.4** | **-0.8** |
| BIA | | | | S | | **Sn** | **17 13 00.3** | **-0.6** |
| **BIA** | **Bitola** | **1.12** | **65** | *i* Pg | | **Pg** | **17 12 43.6** | **-0.7** |
| BIA | | | | *i* Sg | | **Sn** | **17 13 00.6** | **-0.3** |
| **PHP** | **Peshkopia** | **1.18** | **17** | *i* PG | | **Pg** | **17 12 45.4** | **-0.1** |
| PHP | | | | *i* SG | | **Sn** | **17 13 05.5** | **+3.0** |
| **PHP** | **Peshkopia** | **1.18** | **17** | P | | **Pg** | **17 12 44.4** | **-1.1** |
| **PHP** | **Peshkopia** | **1.18** | **17** | *i* Pg | | **Pg** | **17 12 45.4** | **-0.1** |
| | SNR=90 | | | | | | | |
| PHP | | | | S | | **Sn** | **17 13 02.0** | **-0.5** |
| PHP | | | | *i* Sg | | **Sn** | **17 13 05.4** | **+3.0** |
| | SNR=90 | | | | | | | |
| **PHP** | **Peshkopia** | **1.18** | **17** | P | | **Pg** | **17 12 44.4** | **-1.1** |
| PHP | | | | S | | **Sn** | **17 13 02.0** | **-0.5** |
| **KPRO** | **Kipourio** | **1.21** | **119** | P | | **Pg** | **17 12 45.9** | **-0.2** |
| **KPRO** | **Kipourio** | **1.21** | **119** | P | | **Pg** | **17 12 45.7** | **-0.4** |
| **KPRO** | **Kipourio** | **1.21** | **119** | P | | **Pg** | **17 12 45.7** | **-0.4** |
| **KRUS** | **Krusevo** | **1.25** | **49** | *i* Pg | | **Pn** | **17 12 45.8** | **-1.2** |
| KRUS | | | | *i* Sg | | **Sn** | **17 13 06.6** | **+2.2** |
| **SCTE** | **Santa Cesarea** | **1.26** | **248** | P | | **Pn** | **17 12 46.6** | **-0.4** |
| SCTE | | | | S | | **Sb** | **17 13 03.6** | **+0.2** |
| SCTE | | | | AML | | AML | 17 13 06.5 | |
| | comp=E,160μm,0.3s | | | | | | | |
| SCTE | | | | AML | | AML | 17 13 07.9 | |
| | comp=N,156μm,0.3s | | | | | | | |
| **SCTE** | **Santa Cesarea** | **1.26** | **248** | P | | **Pn** | **17 12 46.6** | **-0.4** |
| SCTE | | | | S | | **Sb** | **17 13 03.6** | **+0.2** |
| **KZN** | **Kozani** | **1.39** | **100** | P | | **Pn** | **17 12 48.4** | **-0.4** |
| **KZN** | **Kozani** | **1.39** | **100** | P | | **Pn** | **17 12 48.4** | **-0.4** |
| KZN | | | | S | | **Sg** | **17 13 08.7** | **+1.4** |
| **KZN** | **Kozani** | **1.39** | **100** | P | | **Pn** | **17 12 48.3** | **-0.5** |
| KZN | | | | S | | **Sg** | **17 13 08.7** | **+1.4** |
| **PUK** | **Puka** | **1.49** | **357** | *i* PG | | **Pg** | **17 12 51.3** | **-0.1** |
| **PUK** | **Puka** | **1.49** | **357** | *i* Pg | | **Pg** | **17 12 51.3** | **-0.1** |
| | SNR=90 | | | | | | | |
| **ULC** | **Ulcinj** | **1.51** | **339** | ↓*i* Pg | | **Pn** | **17 12 50.6** | **0.0** |
| ULC | | | | *e*Sg | | **Sg** | **17 13 12.6** | **+1.1** |
| **ULC** | **Ulcinj** | **1.51** | **339** | ↓*i* Pg | | **Pn** | **17 12 50.6** | **0.0** |
| ULC | | | | *e*Sg | | **Sg** | **17 13 12.6** | **+1.1** |
| **DSL** | **Palaion Diasel** | **1.66** | **149** | P | | **Pg** | **17 12 56.1** | **+1.5** |
| **DSL** | **Palaion Diasel** | **1.66** | **149** | P | | **Pg** | **17 12 56.1** | **+1.5** |
| **DRME** | **Dracevica, Mon** | **1.74** | **340** | ↑*i* Pn | | **Pn** | **17 12 53.7** | **+0.1** |
| DRME | | | | *e*Sn | | **Sg** | **17 13 19.1** | **+0.4** |
| **DRME** | **Dracevica, Mon** | **1.74** | **340** | ↑*i* Pn | | **Pn** | **17 12 53.7** | **+0.1** |
| DRME | | | | *e*Sn | | **Sg** | **17 13 19.1** | **+0.4** |
| **SKO** | **Skopje** | **1.79** | **37** | P | | **Pn** | **17 12 54.3** | **0.0** |
| **SKO** | **Skopje** | **1.79** | **37** | P | | **Pn** | **17 12 54.3** | **0.0** |
| **SKO** | **Skopje** | **1.79** | **37** | *i* Pn | | **Pb** | **17 12 56.0** | **-0.1** |
| **LKD2** | **Lefkada island** | **1.84** | **163** | P | | **Pg** | **17 12 58.0** | **-0.1** |
| **LKD2** | **Lefkada island** | **1.84** | **163** | P | | **Pn** | **17 12 55.5** | **+0.5** |
| **LKD2** | **Lefkada island** | **1.84** | **163** | P | | **Pn** | **17 12 55.5** | **+0.5** |
| **THL** | **Klokotos Trika** | **1.84** | **122** | P | | **Pb** | **17 12 56.2** | **-0.8** |
| **THL** | **Klokotos Trika** | **1.84** | **122** | P | | **Pb** | **17 12 56.2** | **-0.8** |
| **GRG** | **Griva** | **1.88** | **77** | P | | **Pb** | **17 12 56.6** | **-1.0** |
| **GRG** | **Griva** | **1.88** | **77** | P | | **Pn** | **17 12 55.8** | **+0.2** |
| **GRG** | **Griva** | **1.88** | **77** | P | | **Pn** | **17 12 55.8** | **+0.2** |
| **BUM** | **Brajici-Budva** | **1.93** | **335** | ↓*i* Pn | | **Pn** | **17 12 56.5** | **+0.2** |
| BUM | | | | *e*Sn | | **Sb** | **17 13 22.8** | **0.0** |
| **BUM** | **Brajici-Budva** | **1.93** | **335** | ↓*i* Pn | | **Pn** | **17 12 56.5** | **+0.2** |
| BUM | | | | *e*Sn | | **Sb** | **17 13 22.8** | **0.0** |
| **PDG** | **Podgorica** | **1.95** | **344** | ↓*i* Pn | | **Pn** | **17 12 57.5** | **+1.0** |
| PDG | | | | *e*Sn | | **Sb** | **17 13 23.9** | **+0.5** |
| **TTG** | **Podgorica** | **1.95** | **344** | ↓*i* Pn | | **Pn** | **17 12 57.5** | **+1.0** |
| TTG | | | | *e*Sn | | **Sb** | **17 13 23.9** | **+0.5** |
| **LIT** | **Litokhoron** | **1.97** | **103** | P | | **Pb** | **17 12 58.5** | **-0.6** |
| **LIT** | **Litokhoron** | **1.97** | **103** | P | | **Pb** | **17 12 58.5** | **-0.6** |
| **PVY** | **Plav** | **2.04** | **359** | ↓*i* Pn | | **Pn** | **17 12 58.9** | **+1.0** |
| PVY | | | | *e*Sn | | **Sb** | **17 13 26.2** | **+0.2** |
| **PVY** | **Plav** | **2.04** | **359** | ↓*i* Pn | | **Pn** | **17 12 58.9** | **+1.0** |
| PVY | | | | *e*Sn | | **Sb** | **17 13 26.2** | **+0.2** |
| **CEME** | **Cevo** | **2.15** | **338** | ↑*i* Pn | | **Pn** | **17 12 59.6** | **+0.3** |
| CEME | | | | *e*Sn | | **Sb** | **17 13 28.9** | **-0.2** |
| **CEME** | **Cevo** | **2.15** | **338** | ↑*i* Pn | | **Pn** | **17 12 59.6** | **+0.3** |
| CEME | | | | *e*Sn | | **Sb** | **17 13 28.9** | **-0.2** |
| **HCY** | **Herceg Novi** | **2.20** | **330** | ↓*i* Pn | | **Pn** | **17 13 00.4** | **+0.5** |
| HCY | | | | *e*Sn | | **Sb** | **17 13 30.0** | **-0.5** |
| **HCY** | **Herceg Novi** | **2.20** | **330** | ↓*i* Pn | | **Pn** | **17 13 00.4** | **+0.5** |
| HCY | | | | *e*Sn | | **Sb** | **17 13 30.0** | **-0.5** |
| **KNT** | **Kendrikon** | **2.29** | **74** | P | | **Pn** | **17 13 01.7** | **+0.5** |
| **KNT** | **Kendrikon** | **2.29** | **74** | P | | **Pn** | **17 13 01.7** | **+0.5** |
| **BEY** | **Berane** | **2.32** | **358** | ↓*i* Pn | | **Pn** | **17 13 02.4** | **+0.8** |
| BEY | | | | *e*Sn | | **Sb** | **17 13 32.4** | **-1.6** |
| **IVA** | **Berane** | **2.32** | **358** | ↓*i* Pn | | **Pn** | **17 13 02.4** | **+0.8** |
| IVA | | | | *e*Sn | | **Sb** | **17 13 32.4** | **-1.6** |
| **KOME** | **Kolasin** | **2.32** | **351** | *e*Pn | | **Pn** | **17 13 02.3** | **+0.6** |
| KOME | | | | *e*Sn | | **Sb** | **17 13 33.0** | **-1.1** |
| **KOME** | **Kolasin** | **2.32** | **351** | *e*Pn | | **Pn** | **17 13 02.3** | **+0.6** |
| KOME | | | | *e*Sn | | **Sb** | **17 13 33.0** | **-1.1** |
| **NKME** | **Niksic** | **2.34** | **341** | ↓*i* Pn | | **Pn** | **17 13 02.6** | **+0.6** |
| NKME | | | | *e*Sn | | **Sb** | **17 13 33.3** | **-1.4** |
| **NKME** | **Niksic** | **2.34** | **341** | ↓*i* Pn | | **Pn** | **17 13 02.6** | **+0.6** |
| NKME | | | | *e*Sn | | **Sb** | **17 13 33.3** | **-1.4** |
| **HORT** | **Hortiatis** | **2.37** | **88** | P | | **Pn** | **17 13 03.1** | **+0.7** |
| **HORT** | **Hortiatis** | **2.37** | **88** | P | | **Pn** | **17 13 03.1** | **+0.7** |
| **VLS** | **Valsamata** | **2.42** | **169** | P | | **Pn** | **17 13 00.6** | **-2.4** |
| **VLS** | **Valsamata** | **2.42** | **169** | P | | **Pn** | **17 13 02.7** | **-0.3** |
| **VLS** | **Valsamata** | **2.42** | **169** | P | | **Pn** | **17 13 02.7** | **-0.3** |
| **BRY** | **Bratogost** | **2.58** | **336** | ↑*i* Pn | | **Pn** | **17 13 06.3** | **+0.9** |
| BRY | | | | *e*Sn | | **Sn** | **17 13 38.8** | **+1.6** |
| **BRY** | **Bratogost** | **2.58** | **336** | ↑*i* Pn | | **Pn** | **17 13 06.3** | **+0.9** |
| BRY | | | | *e*Sn | | **Sn** | **17 13 38.8** | **+1.6** |
| **SJES** | **Sjenica** | **2.70** | **360** | *e*Pn | | **Pn** | **17 13 09.1** | **+2.1** |
| **KALE** | **Kalithea** | **2.73** | **142** | P | | **Pn** | **17 13 09.1** | **+1.8** |
| **KALE** | **Kalithea** | **2.73** | **142** | P | | **Pn** | **17 13 09.1** | **+1.8** |
| **UPM** | **Unac-Piva** | **2.77** | **343** | *e*Pn | | **Pn** | **17 13 08.8** | **+0.9** |
| UPM | | | | *e*Sn | | **Sn** | **17 13 43.4** | **+1.6** |
| **UPM** | **Unac-Piva** | **2.77** | **343** | *e*Pn | | **Pn** | **17 13 08.8** | **+0.9** |
| UPM | | | | *e*Sn | | **Sn** | **17 13 43.4** | **+1.6** |
| **STON** | **Ston** | **2.88** | **324** | *e*Pn | | **Pn** | **17 13 07.5** | **-1.8** |
| STON | | | | Sn | | **Sn** | **17 13 42.9** | **-1.4** |
| **STON** | **Ston** | **2.88** | **324** | *e*Pn | | **Pn** | **17 13 07.4** | **-1.8** |
| STON | | | | Sn | | **Sn** | **17 13 42.8** | **-1.4** |
| **BOVS** | **Bovan** | **3.33** | **22** | *e*Pn | | **Pn** | **17 13 16.2** | **+0.7** |
| **DIVS** | **Divibare** | **3.54** | **0** | *e*Pn | | **Pn** | **17 13 20.9** | **+2.4** |
| **ZAGS** | **Zajecar** | **3.66** | **26** | *e*Pn | | **Pn** | **17 13 20.4** | **+0.4** |
| **KUBS** | **Kucevo** | **4.05** | **17** | *e*Pn | | **Pn** | **17 13 25.2** | **-0.2** |
| **UDBI** | **Udbina** | **5.05** | **323** | *e*Pn | | **Pn** | **17 13 39.4** | **+0.2** |
| UDBI | | | | Sn | | **Sn** | **17 14 36.7** | **-1.2** |
| **UDBI** | **Udbina** | **5.05** | **323** | *e*Pn | | **Pn** | **17 13 39.3** | **+0.2** |
| UDBI | | | | Sn | | **Sn** | **17 14 36.6** | **-1.2** |

**GUC 30 17:15:05.5±0.6, 22.°17S×68.°77W, h124km±5km, ML3.6, 2C-4D, Northern Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **PB09** | **IPOC Station P** | **0.58** | **310** | ↑*i* P | | Pn | 17 15 25.5 | +0.9 |
| PB09 | | | | *i* S | | Sn | 17 15 40.0 | +1.0 |
| PB09 | | | | IAML | | | 17 15 40.4 | |
| | comp=N,3μm,0.7s | | | | | | | |
| **PB06** | **IPOC Station P** | **0.92** | **234** | ↑*i* P | | Pn | 17 15 27.5 | +0.3 |
| PB06 | | | | *i* S | | Sn | 17 15 44.3 | +0.6 |
| **PB07** | **IPOC Station P** | **1.13** | **293** | *e*P | | Pn | 17 15 30.0 | +0.7 |
| PB07 | | | | *i* S | | Sn | 17 15 48.6 | +1.1 |
| PB07 | | | | IAML | | | 17 15 48.9 | |
| | comp=N,2μm,0.3s | | | | | | | |
| **PB04** | **IPOC Station P** | **1.29** | **263** | *e*P | | Pn | 17 15 31.7 | +0.7 |
| PB04 | | | | *i* S | | Sn | 17 15 51.6 | +1.2 |
| **PB01** | **IPOC Station P** | **1.31** | **329** | ↓*i* P | | Pn | 17 15 31.6 | +0.5 |
| PB01 | | | | *i* S | | Sn | 17 15 51.6 | +1.0 |
| PB01 | | | | IAML | | | 17 15 52.9 | |
| | comp=E,510nm,0.1s | | | | | | | |
| **PB02** | **IPOC Station P** | **1.35** | **309** | ↓*i* P | | Pn | 17 15 32.5 | +0.8 |
| PB02 | | | | *i* S | | Sn | 17 15 52.5 | +1.0 |
| PB02 | | | | IAML | | | 17 15 53.5 | |
| | comp=E,1μm,0.3s | | | | | | | |
| **PB08** | **IPOC Station P** | **2.05** | **350** | ↓*i* P | | Pn | 17 15 41.2 | +1.0 |
| PB08 | | | | *i* S | | Sn | 17 16 08.3 | +1.6 |
| **PB11** | **IPOC Station P** | **2.54** | **341** | *e*P | | Pn | 17 15 46.0 | -0.2 |
| PB11 | | | | *i* S | | Sn | 17 16 17.4 | +0.1 |
| **MNMC** | **Minye Minye** | **3.12** | **345** | ↓*i* P | | Pn | 17 15 53.8 | -0.1 |

*ISCJB **30** 17:17:39.3±1.4,38.°73N±0.°05×142.°26E±0.°08, h28km±6km, mb3.3/3, Error ellipse: s-maj=11.6km s-min=7.5km az=24.1*
*JMA **30** 17:17:40.2±0.1,38.°75N×142.°23E, h33km±1km, M3.7*
*JMA Felt I J1.*
*IDC **30** 17:17:43.7±1.8,39.°25N×141.°06E, h0km, mb3.3/3, mb1 3.4/5, mb1mx3.2/47, mbtmp3.3/5, ML2.6/2, Error ellipse: s-maj=53.7km s-min=28.2km az=92.0*

**ISC 30 17:17:40.7±2.1, 38.°77N±0.°05×142.°13E±0.°10, h28km±13km, n20, σ0.°72/20, mb3.4/3, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **OFUJ** | **Ofunato** | **0.47** | **310** | P | | **Pn** | **17 17 51.4** | **-0.3** |
| OFUJ | | | | S | | **Sn** | **17 17 58.8** | **-0.4** |
| **JIO** | **Ouri** | **0.69** | **243** | P | | **Pb** | **17 17 54.2** | **0.0** |
| JIO | | | | S | | **Sb** | **17 18 03.6** | **+0.1** |
| **JMK** | **Ichinoseki** | **0.74** | **284** | P | | **Pn** | **17 17 55.4** | **+0.1** |
| JMK | | | | *e*S | | **Sn** | **17 18 06.0** | **+0.4** |
| **JOM** | **Ohasama** | **0.96** | **317** | P | | **Pn** | **17 17 58.6** | **+0.2** |
| JOM | | | | S | | **Sn** | **17 18 11.6** | **+0.5** |
| **JTH** | **Tanohata** | **1.18** | **350** | P | | **Pn** | **17 18 01.3** | **-0.1** |
| **JOU** | **Okura** | **1.22** | **251** | P | | **Pb** | **17 18 02.5** | **-0.7** |
| JOU | | | | S | | **Sn** | **17 18 18.6** | **+1.0** |
| **JRG** | **Rokugo** | **1.32** | **298** | P | | **Pb** | **17 18 04.4** | **-0.5** |
| JRG | | | | S | | **Sb** | **17 18 20.4** | **+1.0** |
| **JMM** | **Marumori** | **1.39** | **230** | P | | **Pn** | **17 18 03.7** | **-0.6** |
| JMM | | | | *e*S | | **Sn** | **17 18 21.5** | **-0.3** |
| **JYK** | **Kaneyama** | **1.39** | **276** | P | | **Pb** | **17 18 05.3** | **-0.8** |
| JYK | | | | *e*S | | **Sb** | **17 18 23.7** | **+0.2** |
| **MJAR** | **Matsushiro Arr** | **3.83** | **236** | Pn | | **Pn** | **17 18 39.4** | **+1.5** |
| | 0.5nm,0.3s,baz=38,slow=8.1,SNR=9.0 | | | | | | | |
| **ASAJ** | **Asahikawa** | **5.35** | **4** | Pn | | **Pn** | **17 18 59.7** | **+1.0** |
| | 0.2nm,0.3s,baz=177,slow=18,SNR=2.4 | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy 28.61** | **124** | | T | | T | 17 53 51.3 | |
| | baz=317,slow=76,SNR=47 | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy 28.61** | **125** | | T | | T | 17 53 57.8 | |
| | baz=317,slow=76,SNR=7.6 | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy 28.62** | **124** | | T | | T | 17 53 54.1 | |
| | baz=317,slow=76,SNR=33 | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy 29.38** | **126** | | T | | T | 17 54 49.1 | |
| | baz=318,slow=76,SNR=21 | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy 29.38** | **127** | | T | | T | 17 54 55.1 | |
| | baz=318,slow=76,SNR=26 | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy 29.40** | **126** | | T | | T | 17 54 56.2 | |
| | baz=318,slow=76,SNR=24 | | | | | | | |
| **MKAR** | **Makanchi Array** | **43.70** | **301** | P | | **P** | **17 25 42.6** | **-0.7** |
| | 0.3nm,0.7s,baz=88,slow=9.5,SNR=2.4 | | | | | | | |
| **WRA** | **Warramunga Arr** | **58.86** | **189** | P | | P | 17 27 45.7 | +8.7 |
| | 0.4nm,0.9s,baz=6.1,slow=6.6,SNR=2.2 | | | | | | | |
| **ASAR** | **Alice Springs** | **62.59** | **189** | P | | P | 17 28 12.9 | +11 |
| | 0.2nm,0.7s,baz=358,slow=6.5,SNR=1.7 | | | | | | | |

*ISK **30** 17:25:24.4,38.°75N×43.°50E, h5km, ML2.7*
*DDA **30** 17:25:24.8,38.°72N×43.°64E, h7km, Md2.8*
*ISCJB **30** 17:25:25.7±0.5,38.°74N±0.°02×43.°60E±0.°04, h9km±4km, Error ellipse: s-maj=5.6km s-min=3.5km az=17.9*
*CSEM **30** 17:25:25.2±0.2,38.°74N×43.°60E, h8km, ML2.7, Error ellipse: s-maj=5.6km s-min=3.6km az=105.0*

**ISC 30 17:25:24.5±1.1, 38.°71N±0.°02×43.°64E±0.°03, h7km±10km, n44, σ1.°07/68, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **VANB** | **Van** | **0.23** | **240** | *e*PG | | **Pg** | **17 25 30.6** | **+1.6** |
| **VANB** | **Van** | **0.23** | **240** | *e*Pg | | **Pg** | **17 25 30.6** | **+1.6** |
| **TVAN** | **Van** | **0.26** | **225** | *i* P | | **Pb** | **17 25 30.6** | **-0.9** |
| TVAN | | | | *i* S | | **Sb** | **17 25 35.5** | **-0.8** |
| **TVAN** | **Van** | **0.26** | **225** | P | | **Pb** | **17 25 30.6** | **-0.9** |
| TVAN | | | | S | | **Sb** | **17 25 35.5** | **-0.8** |
| **VMUR** | **Van-Muradiye** | **0.28** | **349** | *i* P | | **Pg** | **17 25 30.5** | **+0.4** |
| VMUR | | | | *i* S | | **Sb** | **17 25 36.0** | **-1.0** |
| **VMUR** | **Van-Muradiye** | **0.28** | **349** | P | | **Pg** | **17 25 30.5** | **+0.4** |
| VMUR | | | | S | | **Sb** | **17 25 36.0** | **-1.0** |
| **CLDR** | **Caldiran** | **0.48** | **27** | *e*PG | | **Pb** | **17 25 34.9** | **-0.5** |
| CLDR | | | | *e*SG | | **Sb** | **17 25 44.1** | **+1.3** |
| **CLDR** | **Caldiran** | **0.48** | **27** | *i* P | | **Pb** | **17 25 34.7** | **-0.7** |
| CLDR | | | | *i* S | | **Sb** | **17 25 42.9** | **+0.1** |
| **CLDR** | **Caldiran** | **0.48** | **27** | P | | **Pb** | **17 25 34.7** | **-0.7** |
| **CLDR** | **Caldiran** | **0.48** | **27** | *e*Pg | | **Pb** | **17 25 34.9** | **-0.5** |
| CLDR | | | | S | | **Sb** | **17 25 42.9** | **+0.1** |
| **GEVA** | **Gevas** | **0.60** | **229** | *i* P | | **Pb** | **17 25 36.6** | **-0.9** |
| GEVA | | | | *i* S | | **Sb** | **17 25 46.5** | **+0.3** |
| **GEVA** | **Gevas** | **0.60** | **229** | P | | **Pb** | **17 25 36.6** | **-0.9** |
| GEVA | | | | S | | **Sb** | **17 25 46.5** | **+0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.72** | **278** | *i* P | | **Pb** | **17 25 38.7** | **-0.8** |
| ADCV | | | | *i* S | | **Sb** | **17 25 49.4** | **-0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.72** | **278** | P | | **Pb** | **17 25 38.7** | **-0.8** |
| ADCV | | | | S | | **Sb** | **17 25 49.3** | **-0.3** |
| **DYDN** | **Diyadin** | **0.83** | **3** | *i* P | | **Pg** | **17 25 40.2** | **-0.3** |
| DYDN | | | | *i* S | | **Sb** | **17 25 52.3** | **-0.6** |
| **DYDN** | **Diyadin** | **0.83** | **3** | P | | **Pg** | **17 25 40.2** | **-0.3** |
| DYDN | | | | S | | **Sb** | **17 25 52.3** | **-0.6** |
| **TUTA** | **Tutak** | **0.94** | **317** | *i* P | | **Pg** | **17 25 41.7** | **-0.9** |
| TUTA | | | | *i* S | | **Sg** | **17 25 54.7** | **-0.2** |
| **TUTA** | **Tutak** | **0.94** | **317** | P | | **Pg** | **17 25 41.7** | **-0.9** |
| TUTA | | | | S | | **Sg** | **17 25 54.7** | **-0.2** |
| **AGRB** | **Hanur-Agry** | **1.00** | **330** | *e*PG | | **Pg** | **17 25 43.2** | **-0.5** |
| **AGRB** | **Hanur-Agry** | **1.00** | **330** | *e*Pg | | **Pg** | **17 25 43.2** | **-0.5** |
| **HAKT** | **HAKKARI** | **1.15** | **177** | *i* Pn | | **Pn** | **17 25 46.7** | **-0.5** |
| HAKT | | | | *i* S | | **Sg** | **17 25 59.0** | **-2.5** |
| **HAKT** | **HAKKARI** | **1.15** | **177** | P | | **Pn** | **17 25 46.7** | **-0.5** |
| HAKT | | | | S | | **Sg** | **17 25 59.0** | **-2.5**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| LTZ | **Lake Taylor** | **12.71** | **214** | *e*Pn | | **Pn** | **17 32 54.4** | **-1.4** |
| LTZ | | | | *e*Sn | | Sn | 17 35 01.8 | -15 |
| **CRLZ** | **Canterbury Las** | **13.17** | **211** | *e*Pn | | **Pn** | **17 33 02.2** | **+0.2** |
| CRLZ | | | | *e*Sn | | Sn | 17 35 16.6 | -11 |
| **OXZ** | **Oxford** | **13.23** | **213** | *e*Pn | | **Pn** | **17 32 60.0** | **-3.0** |
| OXZ | | | | *e*Sn | | Sn | 17 35 12.7 | -17 |
| **OXZ** | **Oxford** | **13.23** | **213** | *e*SN | | Sn | 17 35 16.4 | -13 |
| **MQZ** | **McQueen's Vall** | **13.27** | **210** | *e*Pn | | **Pn** | **17 32 59.6** | **-3.6** |
| MQZ | | | | *e*Sn | | Sn | 17 35 17.1 | -13 |
| **MQZ** | **McQueen's Vall** | **13.27** | **210** | *e*SN | | Sn | 17 35 16.5 | -14 |
| **RPZ** | **Rata Peaks** | **13.99** | **214** | Pn | | **Pn** | **17 33 09.5** | **-3.8** |
| | 1.2nm,0.3s,baz=47,slow=3.9,SNR=6.6 | | | | | | | |
| RPZ | | | | Sn | | Sn | 17 35 35.8 | -12 |
| | 2.5nm,0.3s,baz=13,slow=15,SNR=9.1 | | | | | | | |
| **RPZ** | **Rata Peaks** | **13.99** | **214** | *e*Pn | | **Pn** | **17 33 09.5** | **-3.8** |
| RPZ | | | | *e*Sn | | Sn | 17 35 33.8 | -14 |
| **FOZ** | **Fox Glacier** | **14.47** | **217** | *e*Pn | | **Pn** | **17 33 17.3** | **-2.4** |
| **LBZ** | **Lake Benmore** | **14.91** | **214** | *e*Pn | | **Pn** | **17 33 24.2** | **-1.5** |
| **MSVF** | **Nonsavu** | **15.13** | **346** | *e*P | | **Pn** | **17 33 29.8** | **+0.9** |
| MSVF | | | | pmax | pmax | | | |
| | comp=Z,18nm,1.0s | | | | | | | |
| **MSVF** | **Nonsavu** | **15.13** | **346** | *e*Pn | | **Pn** | **17 33 29.8** | **+0.9** |
| | comp=Z,18nm,1.0s | | | | | | | |
| **ODZ** | **Otahua Downs** | **15.20** | **212** | *e*Pn | | **Pn** | **17 33 28.2** | **-1.4** |
| | comp=Z,51nm,1.4s | | | | | | | |
| **WKZ** | **Wanaka** | **15.80** | **215** | *e*Pn | | **Pn** | **17 33 33.9** | **-3.5** |
| | comp=Z,213nm,1.9s | | | | | | | |
| **MLZ** | **Mavora Lakes** | **16.63** | **216** | *e*Pn | | **Pn** | **17 33 46.9** | **-1.1** |
| | comp=Z,33nm,1.3s | | | | | | | |
| **WHZ** | **Wether Hill Ro** | **17.09** | **215** | *e*Pn | | **Pn** | **17 33 53.1** | **-0.7** |
| | comp=Z,102nm,1.7s | | | | | | | |
| **DZM** | **Mont Dzumac** | **17.16** | **304** | P | | **P** | **17 33 59.9** | **+3.4** |
| | comp=Z,0.2nm,0.3s,baz=103,slow=15,SNR=7.4 | | | | | | | |
| DZM | | | | LR | | LR | 17 39 26.5 | |
| | comp=Z,3µm,18.3s,baz=172,slow=34 | | | | | | | |
| **DZM** | **Mont Dzumac** | **17.16** | **304** | *e*P | | **Pn** | **17 33 55.7** | **+0.7** |
| | comp=Z,99nm,1.1s | | | | | | | |
| DZM | | | | *e*LR | | LR | 17 37 52.3 | |
| | comp=Z,2µm,22.6s | | | | | | | |
| **DZM** | **Mont Dzumac** | **17.16** | **304** | *e*Pn | | **Pn** | **17 33 51.6** | **-3.4** |
| | comp=Z,80nm,1.4s | | | | | | | |
| **DCZ** | **Deep Cove** | **17.18** | **217** | *e*Pn | | **Pn** | **17 33 53.7** | **-1.2** |
| | comp=Z,32nm,1.3s | | | | | | | |
| **PYZ** | **Puysegur Point** | **17.90** | **216** | *e*Pn | | **Pn** | **17 34 01.0** | **-2.9** |
| | comp=Z,281nm,1.8s | | | | | | | |
| **AFI** | **Afiamalu** | **19.45** | **19** | P | | **P** | **17 34 20.9** | **-0.8** |
| | comp=Z,1.3nm,0.3s,baz=211,slow=19,SNR=2.3 | | | | | | | |
| **AFI** | **Afiamalu** | **19.45** | **19** | *e*P | | **P** | **17 34 21.3** | **-0.4** |
| AFI | | | | pmax | pmax | | | |
| | comp=Z,150nm,1.4s | | | | | | | |
| **AFI** | **Afiamalu** | **19.45** | **19** | *e*P | | **P** | **17 34 21.3** | **-0.4** |
| | comp=Z,150nm,1.4s | | | | | | | |
| **RAR** | **Rarotonga** | **19.89** | **60** | LR | | LR | 17 43 02.4 | |
| | comp=Z,508nm,18.1s,baz=223,slow=40 | | | | | | | |
| **MGCD** | **Mangrove Creek** | **25.75** | **260** | P | | **P** | **17 35 30.4** | **+4.9** |
| | baz=27,SNR=5.6 | | | | | | | |
| **ARMA** | **Armidale** | **25.79** | **267** | *e*P | | **P** | **17 35 26.1** | **0.0** |
| | comp=Z,24nm,1.1s | | | | | | | |
| **EIDS** | **Eidsvold** | **27.76** | **277** | P | | **P** | **17 35 46.0** | **+2.3** |
| | baz=29,SNR=5.8 | | | | | | | |
| **EIDS** | **Eidsvold** | **27.76** | **277** | *e*P | | **P** | **17 35 45.4** | **+1.7** |
| | comp=Z,18nm,0.9s | | | | | | | |
| **TAU** | **Tasmania Unive** | **29.00** | **239** | *e*P | | **P** | **17 35 57.3** | **+2.8** |
| TAU | | | | pmax | pmax | | | |
| | comp=Z,116nm,1.8s | | | | | | | |
| **TAU** | **Tasmania Unive** | **29.00** | **239** | *e*P | | **P** | **17 35 57.3** | **+2.8** |
| | comp=Z,116nm,1.8s | | | | | | | |
| **RMQ** | **Roma** | **29.31** | **273** | P | | **P** | **17 36 01.1** | **+3.6** |
| | baz=30,SNR=9.0 | | | | | | | |
| **PAE** | **Paea** | **29.72** | **67** | *e*T | | T | 18 06 50.3 | |
| | comp=Z,2.1nm,0.2s | | | | | | | |
| **PPT2** | **Papeete2** | **29.77** | **67** | *e*LR | | LR | 17 43 35.3 | |
| | comp=Z,674nm,25.0s | | | | | | | |
| **PPTF** | **Pamatai, Papee** | **29.77** | **67** | *e*P | | **P** | **17 36 01.4** | **-0.3** |
| | comp=Z,473nm,1.6s | | | | | | | |
| **PPT** | **Papeete** | **29.78** | **67** | P | | **P** | **17 36 01.6** | **-0.1** |
| | comp=Z,41nm,0.9s,baz=225,slow=8.6,SNR=3.0 | | | | | | | |
| PPT | | | | LR | | LR | 17 47 57.6 | |
| | comp=Z,411nm,18.1s,baz=202,slow=36 | | | | | | | |
| **CMSA** | **Cobar Meteorol** | **30.55** | **262** | P | | **P** | **17 36 11.0** | **+2.7** |
| | baz=31,SNR=28 | | | | | | | |
| **HNR** | **Honiara** | **30.62** | **314** | LR | | LR | 17 47 20.4 | |
| | comp=Z,529nm,18.5s,baz=162,slow=34 | | | | | | | |
| **HNR** | **Honiara** | **30.62** | **314** | *e*P | | **P** | **17 36 08.4** | **-0.7** |
| HNR | | | | pmax | pmax | | | |
| | comp=Z,230nm,1.2s | | | | | | | |
| **HNR** | **Honiara** | **30.62** | **314** | *e*P | | **P** | **17 36 08.4** | **-0.7** |
| | comp=Z,230nm,1.2s | | | | | | | |
| **VAH** | **Vaihoa** | **32.66** | **65** | *e*T | | T | 18 10 27.9 | |
| | comp=Z,7.6nm,0.2s | | | | | | | |
| **ARPS** | **Mount Arapiles** | **32.98** | **251** | P | | **P** | **17 36 31.6** | **+1.8** |
| | baz=34,SNR=5.1 | | | | | | | |
| **QLP** | **Quilpie** | **33.10** | **270** | P | | **P** | **17 36 33.2** | **+2.3** |
| | baz=34,SNR=8.8 | | | | | | | |
| **STKA** | **Stephens Creek** | **33.90** | **260** | P | | **P** | **17 36 38.5** | **+0.8** |
| | comp=Z,3.9nm,1.0s,baz=98,slow=9.1,SNR=7.0 | | | | | | | |
| STKA | | | | LR | | LR | 17 49 41.9 | |
| | comp=Z,877nm,18.1s,baz=76,slow=35 | | | | | | | |
| **STKA** | **Stephens Creek** | **33.90** | **260** | P | | **P** | **17 36 40.0** | **+2.3** |
| | baz=35,SNR=4.8 | | | | | | | |
| **STKA** | **Stephens Creek** | **33.90** | **260** | P | | **P** | **17 36 38.6** | **+0.8** |
| STKA | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,0.5s | | | | | | | |
| STKA | | | | MLR | | MLR | | |
| | comp=Z,877nm,18.1s | | | | | | | |
| **STKA** | **Stephens Creek** | **33.90** | **260** | *e*P | | **P** | **17 36 37.9** | **+0.1** |
| | comp=Z,5.3nm,1.6s | | | | | | | |
| **CTA** | **Charters Tower** | **34.04** | **282** | P | | **P** | **17 36 41.2** | **+2.1** |
| | comp=Z,9.5nm,0.6s,baz=118,slow=10,SNR=14 | | | | | | | |
| **CTA** | **Charters Tower** | **34.04** | **282** | P | | **P** | **17 36 41.2** | **+2.1** |
| CTA | | | | pmax | pmax | | | |
| | comp=Z,12nm,0.8s | | | | | | | |
| **CTAO** | **Charters Tower** | **34.04** | **282** | *e*P | | **P** | **17 36 40.0** | **+0.9** |
| CTAO | | | | pmax | pmax | | | |
| | comp=Z,35nm,1.3s | | | | | | | |
| **CTAO** | **Charters Tower** | **34.04** | **282** | *e*P | | **P** | **17 36 40.0** | **+0.9** |
| | comp=Z,35nm,1.3s | | | | | | | |
| **MTSU** | **Mount Surprise** | **36.59** | **284** | P | | **P** | **17 37 02.8** | **+1.6** |
| | baz=38,SNR=11 | | | | | | | |
| **BBOO** | **Buckleboo** | **38.28** | **257** | P | | **P** | **17 37 16.2** | **+0.9** |
| | baz=39,SNR=6.0 | | | | | | | |
| **BBOO** | **Buckleboo** | **38.28** | **257** | *e*P | | **P** | **17 37 15.5** | **+0.2** |
| | comp=Z,16nm,1.2s | | | | | | | |
| **RKT** | **Rikitea** | **39.13** | **87** | *e*LR | | LR | 17 48 07.9 | |
| | comp=Z,745nm,29.0s | | | | | | | |
| **RABL** | **Rabaul** | **39.56** | **309** | *e*P | | **P** | **17 37 24.6** | **-1.5** |
| | comp=Z,40nm,0.6s | | | | | | | |
| **COEN** | **Coen** | **39.75** | **289** | *e*P | | **P** | **17 37 28.6** | **+0.9** |
| | comp=Z,40nm,1.1s | | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **42.33** | **65** | *e*LR | | LR | 17 49 27.2 | |
| | comp=Z,343nm,23.1s | | | | | | | |
| **AS01** | **Alice Springs** | **42.84** | **269** | *e*P | | **P** | **17 37 52.4** | **-0.8** |
| **AS31** | **Alice Springs** | **42.88** | **269** | *e*P | | **P** | **17 37 53.4** | **-0.1** |
| | comp=Z,3.9nm,0.6s | | | | | | | |
| AS31 | | | | *e*S | | **S** | **17 44 17.4** | **+0.1** |
| **ASAR** | **Alice Springs** | **42.88** | **269** | P | | **P** | **17 37 53.5** | **0.0** |
| | comp=Z,8.3nm,0.6s,baz=110,slow=7.3,SNR=77 | | | | | | | |
| ASAR | | | | S | | **S** | **17 44 17.4** | **+0.1** |
| | comp=Z,0.4nm,0.8s,baz=114,slow=16,SNR=2.9 | | | | | | | |
| ASAR | | | | LR | | LR | 17 55 31.2 | |
| | comp=Z,402nm,19.0s,baz=119,slow=36 | | | | | | | |
| **WB2** | **Warramunga Arr** | **44.05** | **274** | *e*P | | **P** | **17 38 03.0** | **+0.1** |
| **WRAB** | **Tennant Creek** | **44.05** | **274** | *c i*P | | **P** | **17 38 03.2** | **+0.3** |
| WRAB | | | | pmax | pmax | | | |
| | comp=Z,18nm,0.8s | | | | | | | |
| **WRAB** | **Tennant Creek** | **44.05** | **274** | *e*P | | **P** | **17 38 02.8** | **-0.1** |
| | comp=Z,30nm,0.9s | | | | | | | |
| **WR1** | **Warramunga Arr** | **44.06** | **274** | *e*P | | **P** | **17 38 02.5** | **-0.4** |
| | comp=Z,25nm,0.8s | | | | | | | |
| WR1 | | | | *e*S | | **S** | **17 44 33.8** | **-0.8** |
| **WRA** | **Warramunga Arr** | **44.06** | **274** | P | | **P** | **17 38 02.5** | **-0.4** |
| | comp=Z,20nm,0.8s,baz=114,slow=7.9,SNR=123 | | | | | | | |
| WRA | | | | S | | **S** | **17 44 33.8** | **-0.8** |
| | comp=Z,1.0nm,0.8s,baz=112,slow=14,SNR=3.6 | | | | | | | |
| WRA | | | | LR | | LR | 17 55 41.4 | |
| | comp=Z,430nm,18.3s,baz=110,slow=35 | | | | | | | |
| **FORT** | **Forrest** | **45.38** | **257** | *e*P | | **P** | **17 38 12.1** | **-1.3** |
| | comp=Z,276nm,0.8s | | | | | | | |
| **VNDA** | **Vanda** | **45.96** | **186** | LR | | LR | 17 54 24.6 | |
| | comp=Z,181nm,19.3s,baz=18,slow=32 | | | | | | | |
| **VNDA** | **Vanda** | **45.96** | **186** | *e*P | | P | 17 38 12.4 | -4.9 |
| **VNDA** | **Vanda** | **45.96** | **186** | *e*P | | P | 17 38 12.4 | -4.9 |
| VNDA | | | | *es*P | | P | 17 38 12.6 | -4.7 |
| **WRKA** | **Warakurna** | **47.09** | **265** | P | | **P** | **17 38 26.1** | **-0.8** |
| | baz=48,SNR=43 | | | | | | | |
| **KDU** | **Kakadu** | **49.16** | **282** | P | | **P** | **17 38 44.4** | **+1.4** |
| | baz=50 | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **MTN** | **Manton Dam** | **50.19** | **281** | P | | **P** | **17 38 51.5** | **+0.7** |
| | baz=51,SNR=7.8 | | | | | | | |
| **MTN** | **Manton Dam** | **50.19** | **281** | *e*P | | **P** | **17 38 49.9** | **-0.9** |
| | comp=Z,51nm,1.4s | | | | | | | |
| **KNRA** | **Kununurra** | **50.74** | **276** | P | | **P** | **17 38 55.3** | **+0.3** |
| | baz=52,SNR=4.9 | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **52.23** | **272** | P | | **P** | **17 39 06.9** | **+0.9** |
| | baz=53 | | | | | | | |
| **MEEK** | **Meekatharra** | **54.58** | **259** | P | | **P** | **17 39 23.0** | **-0.3** |
| | baz=55,SNR=3.3 | | | | | | | |
| **FAKI** | **Fak Fak** | **54.95** | **292** | *e*P | | **P** | **17 39 28.5** | **+2.4** |
| | comp=Z,55nm,1.1s | | | | | | | |
| **MORW** | **Morawa** | **55.79** | **255** | P | | **P** | **17 39 32.0** | **-0.1** |
| | baz=57,SNR=3.3 | | | | | | | |
| **MBWA** | **Marble Bar** | **55.86** | **265** | *e*P | | **P** | **17 39 31.6** | **-1.0** |
| | comp=Z,61nm,1.5s | | | | | | | |
| **SOEI** | **Soe** | **57.53** | **280** | *e*P | | **P** | **17 39 46.1** | **+1.4** |
| | comp=Z,40nm,1.0s | | | | | | | |
| **QSPA** | **South Pole Qui** | **57.58** | **180** | *e*P | | **P** | **17 39 47.4** | **+3.1** |
| | comp=Z,29nm,0.9s | | | | | | | |
| **GUMO** | **Guam** | **57.90** | **316** | LR | | LR | 18 04 48.4 | |
| | comp=Z,116nm,18.6s,baz=125,slow=36 | | | | | | | |
| **MMRI** | **Maumere** | **59.81** | **279** | *e*P | | **P** | **17 40 00.1** | **-0.3** |
| | comp=Z,38nm,1.0s | | | | | | | |
| **SYO** | **Syowa Base** | **75.00** | **193** | *e*P | | **P** | **17 41 35.8** | **+0.1** |
| **SYO** | **Syowa Base** | **75.00** | **193** | *es*P | | sP | 17 41 51.0 | +6.4 |
| **SNAA** | **Sanae** | **76.03** | **178** | P | | **P** | **17 41 42.8** | **+1.1** |
| **SNAA** | **Sanae** | **76.03** | **178** | *e*P | | **P** | **17 41 43.9** | **+2.2** |
| **SNAA** | **Sanae** | **76.03** | **178** | *e*P | | **P** | **17 41 42.5** | **+0.8** |
| | comp=Z,15nm,1.1s | | | | | | | |
| **VNA3** | **Neumayer Olymp** | **76.19** | **176** | P | | **P** | **17 41 44.2** | **+1.7** |
| **VNA2** | **Neumayer--Watz** | **76.62** | **177** | P | | **P** | **17 41 46.9** | **+1.9** |
| | baz=172,slow=4.3 | | | | | | | |
| **VNA1** | **Neumayer--Stat** | **76.85** | **177** | P | | **P** | **17 41 48.1** | **+1.9** |
| **PLCA** | **Paso Flores** | **81.17** | **133** | P | | **P** | **17 42 12.2** | **+1.6** |
| | comp=Z,5.7nm,1.2s,baz=256,slow=9.7,SNR=3.3 | | | | | | | |
| **PLCA** | **Paso Flores** | **81.17** | **133** | *e*P | | **P** | **17 42 13.5** | **+2.9** |
| **PLCA** | **Paso Flores** | **81.17** | **133** | *e*P | | **P** | **17 42 12.4** | **+1.8** |
| | comp=Z,37nm,2.0s | | | | | | | |
| **QIZ** | **Qiongzhong** | **85.77** | **296** | P | | **P** | **17 42 38.8** | **+4.5** |
| QIZ | | | | S | | **S** | **17 53 12.3** | **+6.0** |
| **KSRS** | **Korea Array** | **85.87** | **320** | P | | **P** | **17 42 35.9** | **+1.6** |
| | comp=Z,1.0nm,0.8s,baz=150,slow=5.8,SNR=4.8 | | | | | | | |
| **KSAR** | **Wonju Array Be** | **85.88** | **320** | P | | **P** | **17 42 35.9** | **+1.5** |
| **KSAR** | **Wonju Array Be** | **85.88** | **320** | P | | **P** | **17 42 35.9** | **+1.5** |
| **NJ2** | **Nanjing** | **87.51** | **311** | *e*P | | **P** | **17 42 45.3** | **+2.8** |
| NJ2 | | | | pmax | pmax | | | |
| | comp=Z,15nm,0.6s | | | | | | | |
| **PETK** | **Petropavlovsk-** | **87.84** | **346** | P | | **P** | **17 42 45.0** | **+1.4** |
| | comp=Z,5.6nm,1.0s,baz=142,slow=5.6,SNR=4.8 | | | | | | | |
| PETK | | | | LR | | LR | 18 19 17.7 | |
| | comp=Z,83nm,18.7s,baz=144,slow=34 | | | | | | | |
| **PEA1** | **Petropavlovsk-** | **87.84** | **346** | *e*P | | **P** | **17 42 45.0** | **+1.4** |
| **USRK** | **Ussuriysk Ar.** | **88.85** | **327** | P | | **P** | **17 42 49.6** | **+1.1** |
| | comp=Z,2.6nm,0.9s,baz=119,slow=12,SNR=3.5 | | | | | | | |
| USRK | | | | LR | | LR | 18 20 45.7 | |
| | comp=Z,101nm,18.7s,baz=140,slow=34 | | | | | | | |
| **NV01** | **Mina Array Sit** | **89.91** | **43** | *e*P | | **P** | **17 42 52.1** | **-2.0** |
| **NVAR** | **Mina Array Bea** | **89.91** | **43** | P | | **P** | **17 42 55.2** | **+1.1** |
| | comp=Z,0.2nm,0.5s,baz=232,slow=7.3,SNR=4.2 | | | | | | | |
| **TUC** | **Tucson** | **90.57** | **51** | *e*P | | **P** | **17 42 56.1** | **-1.0** |
| TUC | | | | pmax | pmax | | | |
| | comp=Z,21nm,1.9s | | | | | | | |
| **TUC** | **Tucson** | **90.57** | **51** | *e*P | | **P** | **17 42 56.1** | **-1.0** |
| | comp=Z,21nm,1.9s | | | | | | | |
| **CN2** | **Changchun** | **91.75** | **323** | *e*P | | **P** | **17 43 02.0** | **-0.1** |
| CN2 | | | | *e*S | | **S** | **17 54 00.8** | **-0.8** |
| CN2 | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.9s | | | | | | | |
| CN2 | | | | pmax | pmax | | | |
| | comp=Z,200nm,5.0s | | | | | | | |
| **GYA** | **Guiyang** | **92.47** | **300** | *e*P | | **P** | **17 43 07.8** | **+1.7** |
| GYA | | | | PP | | **PP** | **17 46 51.5** | **+3.8** |
| GYA | | | | SKS | | **SKSac** | **17 53 40.0** | **+1.3** |
| GYA | | | | S | | **S** | **17 54 10.3** | **+1.1** |
| GYA | | | | pmax | pmax | | | |
| | comp=Z,20nm,1.0s | | | | | | | |
| GYA | | | | pmax | pmax | | | |
| | comp=Z,120nm,5.4s | | | | | | | |
| **KLR** | **Kul'dur** | **92.80** | **330** | *i*P | | **P** | **17 43 07.6** | **+0.8** |
| **TXAR** | **Lajitas Array** | **93.67** | **57** | LR | | LR | 18 18 42.0 | |
| | comp=Z,107nm,18.3s,baz=0.0,slow=31 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **93.95** | **289** | PKP | | PP | 17 47 01.6 | +2.4 |
| | comp=Z,0.5nm,0.9s,baz=157,slow=7.5,SNR=3.8 | | | | | | | |
| **BJI** | **Beijing** | **94.33** | **315** | P | | **P** | **17 43 14.8** | **+0.7** |
| BJI | | | | pmax | pmax | | | |
| | comp=Z,5.0nm,2.0s | | | | | | | |
| **KMI** | **Kunming** | **94.64** | **297** | P | | **P** | **17 43 17.8** | **+1.6** |
| KMI | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,0.5s | | | | | | | |
| KMI | | | | pmax | pmax | | | |
| | comp=Z,170nm,5.2s | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **97.60** | **314** | *e*P | | Pdif | 17 43 29.5 | +0.3 |
| HHC | | | | S | | **S** | **17 54 49.3** | **-3.9** |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,17nm,1.0s | | | | | | | |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,99nm,8.6s | | | | | | | |
| HHC | | | | LR | LR | | | |
| | comp=Z,140nm,11.1s | | | | | | | |
| HHC | | | | LR | LR | | | |
| | comp=Z,200nm,13.6s | | | | | | | |
| HHC | | | | LR | LR | | | |
| | comp=Z,60nm,12.3s | | | | | | | |
| **K22A** | **Casper** | **99.52** | **45** | *e*P | | **Pdif** | **17 43 36.9** | **-0.9** |
| | comp=Z,31nm,1.5s | | | | | | | |
| **YKA** | **Yellowknife Ar** | **107.44** | **26** | PKKPbc | | PKKPbc | 17 59 37.5 | 0.0 |
| | comp=Z,0.1nm,0.5s,baz=46,slow=2.6,SNR=4.0 | | | | | | | |
| **WMQ** | **Urumqi** | **114.41** | **308** | *e*PKP | | PKPdf | 17 48 34.3 | -0.1 |
| WMQ | | | | LR | LR | | | |
| | comp=Z,80nm,13.7s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=Z,72nm,14.5s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=Z,120nm,18.1s | | | | | | | |
| **MK01** | **Makanchi Array** | **119.00** | **309** | *e*PKPdf | | **PKPdf** | **17 48 42.6** | **-0.5** |
| **MK31** | **Makanchi Array** | **119.01** | **309** | *e*PKIKP | | **PKPdf** | **17 48 43.3** | **+0.2** |
| **MK31** | **Makanchi Array** | **119.01** | **309** | *e*PKPdf | | **PKPdf** | **17 48 43.3** | **+0.2** |
| **MK32** | **Makanchi Array** | **119.01** | **309** | *e*PKPdf | | **PKPdf** | **17 48 43.3** | **+0.2** |
| **MKAR** | **Makanchi Array** | **119.01** | **309** | PKP | | **PKPdf** | **17 48 43.3** | **+0.2** |
| | comp=Z,1.9nm,0.8s,baz=81,slow=1.9,SNR=17 | | | | | | | |
| **MKAR** | **Makanchi Array** | **119.01** | **309** | *e*PKPdf | | **PKPdf** | **17 48 43.2** | **+0.1** |
| **MAKZ** | **Makanchi** | **119.22** | **309** | *e*PKIKP | | **PKPdf** | **17 48 43.3** | **-0.3** |
| **MAKZ** | **Makanchi** | **119.22** | **309** | *e*PKPdf | | **PKPdf** | **17 48 43.3** | **-0.3** |
| **ZALV** | **Zalesovo Beam** | **119.51** | **319** | PKP | | **PKPdf** | **17 48 43.3** | **-0.5** |
| | comp=Z,0.4nm,0.3s,baz=180,slow=1.5,SNR=3.9 | | | | | | | |
| **ZAA1** | **Zalesovo Array** | **119.51** | **318** | *e*PKPdf | | **PKPdf** | **17 48 43.3** | **-0.5** |
| **KSH** | **Kashi** | **121.17** | **300** | *e*PKP | | **PKPdf** | **17 48 44.5** | **-3.2** |
| KSH | | | | PP | | **PP** | **17 50 20.5** | **+2.0** |
| KSH | | | | PKS | | **PKSdf** | **17 52 20.5** | **-3.9** |
| KSH | | | | SKS | | **SKSdf** | **17 55 51.5** | **-7.2** |
| KSH | | | | AMB | AMB | | | |
| | comp=Z,130nm,4.2s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=Z,95nm,5.4s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=Z,110nm,4.9s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=Z,190nm,5.1s | | | | | | | |
| **KURK** | **Kurchatov** | **122.39** | **313** | *i*PKIKP | | **PKPdf** | **17 48 50.1** | **+0.7** |
| **KURK** | **Kurchatov** | **122.39** | **313** | *e*PKPdf | | **PKPdf** | **17 48 49.3** | **-0.2** |
| **AAK** | **Ala-Archa** | **123.15** | **303** | *e*PKIKP | | **PKPdf** | **17 48 52.5** | **+1.1** |
| **KKAR** | **Karatay Array** | **126.10** | **302** | *e*PKIKP | | **PKPdf** | **17 48 57.4** | **+0.5** |
| **KKAR** | **Karatay Array** | **126.10** | **302** | *e*PKPdf | | **PKPdf** | **17 48 57.4** | **+0.5** |
| **BRVK** | **Borovoye** | **127.87** | **315** | *i*PKIKP | | **PKPdf** | **17 49 00.8** | **+0.9** |
| **BRVK** | **Borovoye** | **127.87** | **315** | *e*PKPdf | | **PKPdf** | **17 49 00.5** | **+0.6** |
| **ARU** | **Arti** | **134.62** | **319** | PKP | | **PKPdf** | **17 49 13.1** | **+0.6** |
| | comp=Z,1.1nm,0.3s,baz=247,slow=2.4,SNR=5.8 | | | | | | | |
| **ARU** | **Arti** | **134.62** | **319** | *i*PKIKP | | **PKPdf** | **17 49 14.0** | **+1.5** |
| ARU | | | | | | | 17 51 46.3 | |
| **ARU** | **Arti** | **134.62** | **319** | *e*PKPdf | | **PKPdf** | **17 49 12.6** | **0.0** |
| **AKTO** | **Aktyubinsk** | **135.40** | **311** | PKP | | **PKPdf** | **17 49 15.1** | **+0.8** |
| | comp=Z,2.6nm,0.8s,baz=313,slow=1.4,SNR=12 | | | | | | | |
| **ARA0** | **ARCESS Array S** | **140.64** | **347** | *e*PKPpre | | PKPpre | 17 49 18.0 | |
| ARA0 | | | | *e*PKPdf | | **PKPdf** | **17 49 22.6** | **-0.7** |
| **ARCES** | **ARCESS Array B** | **140.64** | **347** | PKhKP | | PKPpre | 17 49 18.0 | |
| | comp=Z,2.0nm,0.8s,baz=53,slow=9.4,SNR=5.3 | | | | | | | |
| ARCES | | | | PKP | | **PKPdf** | **17 49 22.6** | **-0.7** |
| | comp=Z,2.1nm,0.8s,baz=80,slow=2.3,SNR=8.6 | | | | | | | |
| **KLMR** | **Klimovskoe** | **142.55** | **330** | *e*PKIKP | | **PKPdf** | **17 49 27.8** | **+0.9** |
| KLMR | | | | pmax | pmax | | | |
| | comp=Z,20nm,1.5s | | | | | | | |
| **VRH** | **Novokhopyorsk** | **145.46** | **315** | *e*PKIKP | | **PKPab** | **17 49 32.7** | **+0.1** |
| VRH | | | | pmax | pmax | | | |
| | comp=Z,9.0nm,0.4s | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **ZEI** | **Tsey** | **145.46** | **300** | *i* PKP2 | | **PKPdf** | **17 49 32.5** | **-0.4** |
| ZEI | | | | pmax | pmax | | | |
| | comp=Z,15nm,0.7s | | | | | | | |
| **NCK** | **Nalchik** | **145.64** | **301** | *i*PKIKP | | **PKPab** | **17 49 34.7** | **+1.1** |
| **AKH** | **Akhalkalaki** | **145.82** | **297** | *i*P | | **PKPab** | **17 49 35.0** | **+0.5** |
| **MOS** | **Moscow** | **145.98** | **324** | *e*PKIKP | | **PKPbc** | **17 49 33.3** | **-0.5** |
| MOS | | | | pmax | pmax | | | |
| | comp=Z,50nm,0.9s | | | | | | | |
| **KBZ** | **Khabaz** | **146.12** | **301** | PKPbc | | **PKPab** | **17 49 35.3** | **0.0** |
| | comp=Z,5.6nm,0.9s,baz=86,slow=5.3,SNR=6.4 | | | | | | | |
| **KVAR** | **Kislovodsk Arr** | **146.25** | **302** | PKPbc | | **PKPbc** | **17 49 35.4** | **+0.2** |
| | comp=Z,5.7nm,0.8s,baz=326,slow=3.6,SNR=2.6 | | | | | | | |
| **KIV** | **Kislovodsk** | **146.26** | **302** | *i*PKP2 | | **PKPab** | **17 49 38.4** | **+2.4** |
| KIV | | | | *e* | | | 17 53 03.8 | |
| KIV | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,1.0s | | | | | | | |
| **NEY** | **Neytrino** | **146.29** | **300** | *i*PKP2 | | **PKPab** | **17 49 37.6** | **+1.3** |
| **LPSR** | **Galich'ya Gora** | **146.62** | **318** | *e*PKIKP | | **PKPbc** | **17 49 35.1** | **-0.7** |
| LPSR | | | | pmax | pmax | | | |
| | comp=Z,30nm,0.8s | | | | | | | |
| **OBN** | **Obninsk** | **146.81** | **323** | PKPbc | | **PKPab** | **17 49 36.8** | **-0.7** |
| | comp=Z,7.0nm,0.4s,baz=28,slow=2.0,SNR=6.9 | | | | | | | |
| **OBN** | **Obninsk** | **146.81** | **323** | *e*PKP2 | | **PKPbc** | **17 49 36.6** | **+0.3** |
| OBN | | | | *e* | | | 17 52 59.3 | |
| OBN | | | | *e* | | | 17 56 32.3 | |
| OBN | | | | *e*SS | | SS | 18 12 32.9 | +34 |
| OBN | | | | pmax | pmax | | | |
| | comp=Z,76nm,1.8s | | | | | | | |
| OBN | | | | MLR | MLR | | | |
| | comp=Z,101nm,16.0s | | | | | | | |
| **OBN** | **Obninsk** | **146.81** | **323** | *e*PKPbc | | **PKPbc** | **17 49 36.2** | **0.0** |
| **VSR** | **Storozhevoye** | **146.98** | **316** | *e*PKIKP | | **PKPbc** | **17 49 36.0** | **-0.9** |
| VSR | | | | pmax | pmax | | | |
| | comp=Z,30nm,1.3s | | | | | | | |
| **FIA1** | **FINESS Array S** | **147.08** | **339** | *e*PKPbc | | **PKPbc** | **17 49 36.4** | **-0.5** |
| FIA1 | | | | *e*PKPdf | | **PKPab** | **17 49 37.0** | **-1.4** |
| **FIA0** | **FINESS Array S** | **147.08** | **339** | *e*PKP2 | | **PKPbc** | **17 49 36.7** | **-0.2** |
| **FIA0** | **FINESS Array S** | **147.08** | **339** | *e*PKPbc | | **PKPbc** | **17 49 36.7** | **-0.2** |
| **FINES** | **FINESS Array B** | **147.08** | **339** | PKPbc | | **PKPbc** | **17 49 36.7** | **-0.2** |
| | comp=Z,17nm,0.7s,baz=37,slow=3.6,SNR=70 | | | | | | | |
| **VSU** | **Vasula** | **149.09** | **334** | *e*PKIKP | | **PKPdf** | **17 49 39.0** | **+0.9** |
| **ASF** | **Jabal al Asfar** | **150.44** | **279** | PKPbc | | **PKPbc** | **17 49 47.4** | **+0.8** |
| | comp=Z,5.4nm,0.8s,baz=350,slow=0.7,SNR=8.9 | | | | | | | |
| **NC303** | **NORSAR Array S** | **150.63** | **351** | *e*PKPdf | | **PKPdf** | **17 49 42.9** | **+2.4** |
| NC303 | | | | *e*PKPbc | | **PKPbc** | **17 49 47.2** | **+1.3** |
| **NB2** | **NORSAR Subarra** | **150.83** | **351** | PKP | | **PKPbc** | **17 49 47.1** | **+0.6** |
| | comp=Z,15nm,1.1s,baz=20,slow=3.0 | | | | | | | |
| **NB200** | **NORSAR Array S** | **150.83** | **351** | *e*PKPbc | | **PKPbc** | **17 49 46.3** | **-0.2** |
| NB200 | | | | *e*PKPab | | **PKPab** | **17 49 54.1** | **+0.4** |
| **NOA** | **NORSAR Array B** | **150.83** | **351** | PKPbc | | **PKPbc** | **17 49 46.3** | **-0.2** |
| | comp=Z,5.7nm,0.9s,baz=15,slow=3.7,SNR=9.1 | | | | | | | |
| NOA | | | | PKPab | | **PKPab** | **17 49 54.1** | **+0.4** |
| | comp=Z,5.7nm,0.9s,baz=19,slow=2.8,SNR=10 | | | | | | | |
| **IDID** | **Didziasalis** | **151.29** | **330** | *e*P | | **PKPbc** | **17 49 48.1** | **+0.5** |
| IDID | | | | IAmb | IAmb | | 17 49 50.3 | |
| | comp=Z,13nm,1.0s | | | | | | | |
| **HFS**

**IDC 30 17:35:06.9±3.2, 31°58S×178°63W, h0km, mb3.7/2, mb1 3.9/2, mb1mx3.6/20, mbtmp3.7/2, Error ellipse: s-maj=163.5km s-min=43.4km az=162.0, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ASAR** | **Alice Springs** | **42.52 269** | | P | P | 17 43 04.3 | 0.0 |
| | 0.2nm,0.3s,baz=109,slow=7.8,SNR=5.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.61 274** | | P | P | 17 43 13.2 | 0.0 |
| | 0.3nm,0.3s,baz=114,slow=8.1,SNR=9.5 | | | | | | |
| **FINES** | **FINESS Array B** | **146.06 339** | | PKPbc | PKPdf | 17 54 46.9 | -0.3 |
| | 2.0nm,0.6s,baz=62,slow=4.5,SNR=6.2 | | | | | | |
| **NOA** | **NORSAR Array B** | **149.83 350** | | PKPbc | PKPbc | 17 54 58.8 | +0.5 |
| | 0.3nm,0.7s,baz=3.1,slow=4.1,SNR=2.6 | | | | | | |
| **MMAI** | **Mount Meron Ar** | **151.26 282** | | PKPbc | PKPbc | 17 55 01.1 | -1.5 |
| | 0.5nm,0.5s,baz=79,slow=7.5,SNR=1.9 | | | | | | |

*ISCJB **30** 17:38:54.7±0.7, 51°.46N±0°.03×16°.05E±0°.03, h0km, Error ellipse: s-maj=5.0km s-min=2.8km az=13.7*
*CSEM **30** 17:38:55.8±0.3, 51°.50N×16°.02E, h2km, ML3.0/11, Error ellipse: s-maj=5.6km s-min=3.3km az=6.0*
*PRU **30** 17:38:56.4, 51°.51N×16°.03E, h0km*
*VIE **30** 17:38:59.1±0.8, 51°.25N×16°.17E, h0km, mb2.2/4, ML2.4/5, Error ellipse: s-maj=6.3km s-min=6.0km az=39.0, Suspected Mining induced.*

**ISC 30 17:38:55.6±1.1, 51°.52N±0°.05×16°.03E±0°.02, h0km, n37, σ0s60/68, Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KSP** | **Ksiaz** | **0.70 166** | | *e*Pg | **Pg** | **17 39 09.2** | **+0.2** |
| KSP | | | | *e*Sg | **Sg** | **17 39 18.8** | **+0.7** |
| **KSP** | **Ksiaz** | **0.70 166** | | *e*Pg | **Pg** | **17 39 09.2** | **+0.2** |
| KSP | | | | *e*Sg | **Sg** | **17 39 18.8** | **+0.7** |
| **KSP** | **Ksiaz** | **0.70 166** | | *e*Pg | **Pg** | **17 39 09.2** | **+0.2** |
| KSP | | | | *e*Sg | **Sg** | **17 39 18.8** | **+0.7** |
| **UPC** | **Upice** | **1.02 181** | | *e*PG | **Pg** | **17 39 15.4** | **+0.3** |
| UPC | | | | *e*SG | **Sg** | **17 39 28.8** | **+0.5** |
| | comp=Z,46nm,0.3s | | | | | | |
| **UPC** | **Upice** | **1.02 181** | | Pg | **Pg** | **17 39 15.4** | **+0.3** |
| UPC | | | | Sg | **Sg** | **17 39 28.8** | **+0.5** |
| | 46nm,0.3s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.19 171** | | *e*PG | **Pg** | **17 39 18.2** | **-0.2** |
| DPC | | | | *e*SG | **Sg** | **17 39 33.6** | **-0.2** |
| | comp=Z,16nm,0.2s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.19 171** | | Pg | **Pg** | **17 39 18.2** | **-0.2** |
| DPC | | | | Sg | **Sg** | **17 39 33.6** | **-0.2** |
| | 16nm,0.2s | | | | | | |
| **PVCC** | **Panska Ves** | **1.36 223** | | *e*PG | **Pb** | **17 39 22.0** | **+0.1** |
| PVCC | | | | *e*SG | **Sn** | **17 39 40.7** | **+0.2** |
| | comp=Z,111nm,0.4s | | | | | | |
| **PVCC** | **Panska Ves** | **1.36 223** | | Pg | **Pb** | **17 39 22.0** | **+0.1** |
| PVCC | | | | Sg | **Sn** | **17 39 40.7** | **+0.2** |
| | 111nm,0.4s | | | | | | |
| **BRG** | **Berggiesshubel** | **1.47 244** | | PG | **Pb** | **17 39 24.0** | **+0.3** |
| BRG | | | | SG | **Sn** | **17 39 44.0** | **+0.8** |
| | 31nm,0.5s | | | | | | |
| **KRLC** | **Kraliky** | **1.53 161** | | *e*PG | **Pn** | **17 39 24.3** | **+0.1** |
| KRLC | | | | *e*SG | **Sn** | **17 39 44.9** | **+0.1** |
| | comp=Z,3.0nm,0.2s | | | | | | |
| **KRLC** | **Kraliky** | **1.53 161** | | Pg | **Pn** | **17 39 24.3** | **+0.1** |
| KRLC | | | | Sg | **Sn** | **17 39 44.9** | **+0.1** |
| | 3.0nm,0.2s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **1.79 207** | | *e*Pg | **Pb** | **17 39 28.9** | **-0.5** |
| GOPC | | | | *e*SG | **Sb** | **17 39 52.4** | **0.0** |
| **GOPC** | **GO Pecny, Ondr** | **1.79 207** | | Pg | **Pb** | **17 39 28.9** | **-0.5** |
| GOPC | | | | Sg | **Sb** | **17 39 52.4** | **0.0** |
| **PRU** | **Pruhonice** | **1.81 212** | | *e*PN | **Pn** | **17 39 27.6** | **-0.4** |
| PRU | | | | *e*PG | **Pb** | **17 39 29.4** | **-0.1** |
| PRU | | | | *e*SG | **Sg** | **17 39 53.3** | **-0.3** |
| | comp=Z,15nm,0.2s | | | | | | |
| **PRU** | **Pruhonice** | **1.81 212** | | Pn | **Pn** | **17 39 27.6** | **-0.4** |
| **CLL** | **Collm** | **1.91 265** | | *e*Pg | **Pb** | **17 39 31.0** | **-0.3** |
| CLL | | | | *e* | | 17 39 36.0 | |
| CLL | | | | *e*Sg | **Sg** | **17 39 57.0** | **+0.1** |
| | comp=Z,12nm,0.6s | | | | | | |
| **MORC** | **Moravsky Berou** | **2.00 151** | | *e*Pn | **Pn** | **17 39 29.9** | **-0.8** |
| MORC | | | | *e*Sg | **Sb** | **17 39 58.0** | **-0.2** |
| **OKC** | **Ostrava-Krasne** | **2.16 141** | | *e*SG | **Sb** | **17 40 03.4** | **+0.5** |
| | comp=Z,7.2nm,0.3s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **2.16 141** | | Sg | **Sb** | **17 40 03.4** | **+0.5** |
| | comp=Z,7.2nm,0.3s | | | | | | |
| **VRAC** | **Vranov** | **2.25 171** | | *e*Pn | **Pn** | **17 39 34.0** | **-0.1** |
| VRAC | | | | *e*Sg | **Sg** | **17 40 07.0** | **-0.8** |
| **NKC** | **Novy Kostel** | **2.61 242** | | *e*PN | **Pn** | **17 39 39.4** | **+0.3** |
| NKC | | | | *e*PG | **Pg** | **17 39 45.2** | **-0.4** |
| NKC | | | | *e*SG | **Sg** | **17 40 20.5** | **+1.0** |
| | comp=Z,19nm,0.3s | | | | | | |
| **NKC** | **Novy Kostel** | **2.61 242** | | Pn | **Pn** | **17 39 39.4** | **+0.3** |
| **OJC** | **Ojcow** | **2.72 117** | | *e*Pg | **Pg** | **17 39 47.3** | **-0.4** |
| OJC | | | | *e*Sg | **Sg** | **17 40 22.8** | **-0.2** |
| **OJC** | **Ojcow** | **2.72 117** | | *e*Pg | **Pg** | **17 39 47.3** | **-0.4** |
| OJC | | | | *e*Sg | **Sg** | **17 40 22.8** | **-0.2** |
| **OJC** | **Ojcow** | **2.72 117** | | *e*Pg | **Pg** | **17 39 47.3** | **-0.4** |
| OJC | | | | *e*Sg | **Sg** | **17 40 22.8** | **-0.2** |
| **KHC** | **Kasperske Hory** | **2.87 214** | | *e*PN | **Pn** | **17 39 42.4** | **-0.2** |
| KHC | | | | *e*PG | **Pb** | **17 39 48.6** | **+1.0** |
| KHC | | | | *e*SN | **Sn** | **17 40 16.1** | **-1.7** |
| KHC | | | | *e*SG | **Sg** | **17 40 26.3** | **-1.3** |
| | comp=Z,7.1nm,0.4s | | | | | | |
| **KHC** | **Kasperske Hory** | **2.87 214** | | Pn | **Pn** | **17 39 42.4** | **-0.2** |
| **MODS** | **Modra-Piesok** | **3.25 165** | | *e*Sg | **Sg** | **17 40 40.7** | **+0.6** |
| **MODS** | **Modra-Piesok** | **3.25 165** | | *e*SG | **Sg** | **17 40 40.7** | **+0.6** |
| **VYHS** | **Vyhne** | **3.53 148** | | *e*Pn | **Pn** | **17 39 50.9** | **-0.8** |
| **VYHS** | **Vyhne** | **3.53 148** | | *e*PN | **Pn** | **17 39 50.9** | **-0.8** |
| VYHS | | | | *e*PG | **Pg** | **17 40 04.2** | **+0.9** |
| VYHS | | | | *e*SG | **Sg** | **17 40 48.0** | **-1.0** |
| **CONA** | **Conrad Observa** | **3.60 182** | | Pn | **Pn** | **17 39 53.6** | **+0.9** |
| | comp=Z,0.2nm,0.1s | | | | | | |
| CONA | | | | Sg | **Sg** | **17 40 49.6** | **-1.7** |
| | comp=Z,4.0nm,0.3s | | | | | | |
| **MOA** | **Molln** | **3.85 198** | | Pn | **Pn** | **17 39 56.6** | **+0.5** |
| | comp=Z,0.9nm,0.2s | | | | | | |
| MOA | | | | Sg | **Sg** | **17 40 58.7** | **-0.6** |
| | comp=Z,1.2nm,0.1s | | | | | | |
| **STHS** | **Stebnicka Huta** | **3.94 120** | | *e*Sg | **Sg** | **17 41 03.1** | **+0.9** |
| **STHS** | **Stebnicka Huta** | **3.94 120** | | *e*SG | **Sg** | **17 41 03.1** | **+0.9** |
| STHS | | | | *e*LG | Lg | 17 41 11.7 | |
| **ARSA** | **Arzberg** | **4.29 185** | | Sg | **Sg** | **17 41 13.1** | **-0.3** |
| | comp=Z,1.9nm,0.4s | | | | | | |

**IDC 30 17:40:19.1±4.3, 30°26S×179°00W, h0km, mb3.6/2, mb1 3.9/2, mb1mx3.5/24, mbtmp3.6/2, Error ellipse: s-maj=201.0km s-min=68.3km az=166.0, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ASAR** | **Alice Springs** | **42.25 267** | | P | P | 17 48 13.7 | -0.7 |
| | 0.2nm,0.3s,baz=107,slow=7.5,SNR=13 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.23 273** | | P | P | 17 48 22.7 | +0.4 |
| | 0.4nm,0.3s,baz=112,slow=8.1,SNR=24 | | | | | | |
| **FINES** | **FINESS Array B** | **144.72 339** | | PKP | PKPdf | 17 59 56.6 | -0.5 |
| | 1.0nm,0.5s,baz=42,slow=3.1,SNR=10.0 | | | | | | |

*NIED **30** 17:52:00, 38°.40N×142°.20E, h32km, Mw3.7 Best double couple: M0 3.84000×10^14 NP1:φ=56.00000°, δ30.00000°, λ-89.00000°. NP2:φ=235.00000°, δ60.00000°, λ-91.00000°.*
*IDC **30** 17:52:19.2±0.8, 38°.36N×142°.25E, h0km, mb3.6/12, mb1 3.8/16, mb1mx3.6/58, mbtmp3.6/16, ML3.6/3, Error ellipse: s-maj=21.4km s-min=15.2km az=99.0*
*ISCJB **30** 17:52:21.0±1.0, 38°.36N±0°.03×142°.24E±0°.05, h24km±6km, mb3.6/12, Error ellipse: s-maj=7.5km s-min=5.4km az=24.2*
*JMA **30** 17:52:22.7±0.1, 38°.43N×142°.17E, h30km±1km, M3.9 JMA Felt II J1.*

**ISC 30 17:52:20.5±2.0, 38°.36N±0°.04×142°.20E±0°.06, h9km±12km, n32, σ1s27/38, mb3.5/12, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JIO** | **Ouri** | **0.68 278** | | P | **Pn** | **17 52 35.3** | **-1.0** |
| JIO | | | | S | **Sb** | **17 52 43.7** | **-0.2** |
| **OFUJ** | **Ofunato** | **0.83 330** | | P | **Pb** | **17 52 37.0** | **-0.1** |
| OFUJ | | | | S | **Sg** | **17 52 47.0** | **-0.3** |
| **JMK** | **Ichinoseki** | **0.97 308** | | P | **Pg** | **17 52 39.4** | **+0.3** |
| JMK | | | | *e*S | **Sb** | **17 52 51.6** | **-0.8** |
| **JOU** | **Okura** | **1.21 271** | | P | **Pb** | **17 52 43.6** | **0.0** |
| JOU | | | | S | **Sb** | **17 52 59.2** | **-0.1** |
| **JMM** | **Marumori** | **1.22 246** | | P | **Pn** | **17 52 43.2** | **-0.5** |
| JMM | | | | S | **Sb** | **17 52 58.3** | **-1.2** |
| **JOM** | **Ohasama** | **1.32 328** | | P | **Pn** | **17 52 44.6** | **-0.5** |
| JOM | | | | S | **Sb** | **17 53 00.8** | **-1.6** |
| **JFK** | **Kawauchi** | **1.45 227** | | P | **Pn** | **17 52 46.6** | **-0.3** |
| JFK | | | | S | **Sn** | **17 53 03.5** | **-2.5** |
| **JYK** | **Kaneyama** | **1.55 292** | | P | **Pn** | **17 52 48.5** | **+0.3** |
| JYK | | | | *e*S | **Sn** | **17 53 07.3** | **-1.1** |
| **JRG** | **Rokugo** | **1.60 311** | | P | **Pb** | **17 52 49.3** | **-1.0** |
| JRG | | | | S | **Sb** | **17 53 10.0** | **-0.6** |
| **MJAR** | **Matsushiro Arr** | **3.66 241** | | Pn | **Pn** | **17 53 19.3** | **+2.0** |
| | 1.2nm,0.3s,baz=84,slow=27,SNR=30 | | | | | | |
| **MAT** | **Matsushiro** | **3.66 241** | | P | **Pn** | **17 53 18.9** | **+1.5** |
| MAT | | | | *e*S | **Sn** | **17 54 04.5** | **+3.8** |
| **JHJ** | **Hachijo jima 2** | **5.59 201** | | Pn | **Pn** | **17 53 43.2** | **-0.6** |
| | 11nm,0.3s,baz=47,slow=7.3,SNR=3.5 | | | | | | |
| JHJ | | | | Sn | **Sn** | **17 54 45.2** | **-3.0** |
| | 13nm,0.3s,baz=68,slow=19,SNR=2.3 | | | | | | |
| **ASAJ** | **Asahikawa** | **5.76 3** | | Pn | **Pn** | **17 53 47.5** | **+1.4** |
| | 1.9nm,0.3s,baz=194,slow=17,SNR=22 | | | | | | |
| ASAJ | | | | Sn | **Sn** | **17 54 52.5** | **+0.2** |
| | 0.7nm,0.3s,baz=307,slow=20,SNR=2.4 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **9.64 310** | | Pn | **Pn** | **17 54 41.0** | **+1.6** |
| | 0.1nm,0.3s,baz=117,slow=14,SNR=4.8 | | | | | | |
| **SEY** | **Seymchan** | **25.37 11** | | P | **P** | **17 57 46.5** | **-1.2** |
| | 0.8nm,0.4s,baz=215,slow=13,SNR=3.7 | | | | | | |
| **SONM** | **Songino Array** | **27.59 302** | | P | **P** | **17 58 09.2** | **+1.1** |
| | 0.4nm,0.8s,baz=101,slow=7.5,SNR=2.8 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.33 124** | | T | T | 18 28 29.4 | |
| | baz=316,slow=76,SNR=364 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.34 124** | | T | T | 18 28 43.9 | |
| | baz=316,slow=76,SNR=434 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.35 124** | | T | T | 18 28 30.7 | |
| | baz=316,slow=76,SNR=370 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.09 126** | | T | T | 18 29 28.9 | |
| | baz=318,slow=76,SNR=118 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.10 126** | | T | T | 18 29 27.2 | |
| | baz=318,slow=76,SNR=128 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.11 126** | | T | T | 18 29 47.2 | |
| | baz=318,slow=76,SNR=83 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.49 311** | | P | **P** | **18 00 07.3** | **-0.3** |
| | 0.5nm,0.3s,baz=98,slow=7.4,SNR=3.3 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.96 301** | | P | **P** | **18 00 27.2** | **-0.6** |
| | 0.3nm,0.7s,baz=94,slow=5.8,SNR=4.8 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **45.69 307** | | P | **P** | **18 00 41.2** | **-0.3** |
| | 1.4nm,0.5s,baz=82,slow=8.1,SNR=18 | | | | | | |
| **ILAR** | **Eielson Array** | **48.04 33** | | P | **P** | **18 00 59.4** | **-0.3** |
| | 0.2nm,0.7s,baz=239,slow=7.0,SNR=3.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **58.46 189** | | P | **P** | **18 02 16.6** | **-0.2** |
| | 1.5nm,0.4s,baz=6.7,slow=7.0,SNR=49 | | | | | | |
| **ASAR** | **Alice Springs** | **62.19 189** | | P | **P** | **18 02 42.5** | **+0.1** |
| | 1.4nm,0.7s,baz=10,slow=5.8,SNR=25 | | | | | | |
| **YKA** | **Yellowknife Ar** | **62.35 31** | | P | **P** | **18 02 43.7** | **+0.8** |
| | 0.1nm,0.3s,baz=264,slow=6.0,SNR=3.6 | | | | | | |
| **AKASG** | **Malin Array Be** | **73.63 322** | | P | **P** | **18 03 54.6** | **+0.6** |
| | 0.2nm,0.4s,baz=41,slow=5.1,SNR=2.9 | | | | | | |
| **PDAR** | **Pinedale Array** | **76.29 46** | | P | **P** | **18 04 10.3** | **+0.3** |
| | 0.2nm,0.6s,baz=45,slow=1.4,SNR=2.8 | | | | | | |
| **TXAR** | **Lajitas Array** | **88.82 53** | | P | **P** | **18 05 15.7** | **+0.5** |
| | 0.1nm,0.5s,baz=319,slow=32,SNR=2.6 | | | | | | |

*ISCJB **30** 18:13:03.9±0.8, 27°.43S±0°.04×70°.25W±0°.07, h110km±7km, Error ellipse: s-maj=9.9km s-min=6.8km az=0.1*
*GUC **30** 18:13:04.0±0.5, 27°.42S×70°.24W, h110km±2km, ML4.0*
*SJA **30** 18:13:05.4±0.9, 27°.55S×70°.19W, h23km±12km, ML3.5, MW3.4*

**ISC 30 18:13:04.7±1.6, 27°.43S±0°.04×70°.26W±0°.06, h105km±10km, n19, σ0s87/30, 4C-1D, Near coast of northern Chile**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CPCH** | **Copiapo** | **0.11 313** | | *i*P | **Pn** | **18 13 18.6** | **-0.6** |
| CPCH | | | | *i* S | **Sn** | **18 13 29.3** | **-0.9** |
| **GO03** | **Copiap** | **0.16 171** | | *e*P | **Pn** | **18 13 19.2** | **-0.3** |
| GO03 | | | | *i* S | **Sn** | **18 13 29.9** | **-0.7** |
| GO03 | | | | IAML | | 18 13 30.4 | |
| | comp=E,16μm,0.3s | | | | | | |
| **CDCH** | **Caldera** | **0.61 306** | | *e*P | **Pn** | **18 13 23.1** | **+1.3** |
| CDCH | | | | *e*S | **Sn** | **18 13 36.0** | **+1.4** |
| **VACH** | **Vallenar** | **1.22 201** | | *e*P | **Pn** | **18 13 27.8** | **-0.2** |
| VACH | | | | *i* S | **Sn** | **18 13 45.6** | **+0.1** |
| **LCO** | **Las Campanas** | **1.62 194** | | *e*P | **Pn** | **18 13 33.2** | **+0.3** |
| LCO | | | | *e*S | **Sn** | **18 13 54.7** | **+0.3** |
| **LCO** | **Las Campanas** | **1.62 194** | | *i*P | **Pn** | **18 13 33.0** | **0.0** |
| LCO | | | | *e*S | **Sn** | **18 13 54.0** | **-0.4** |
| LCO | | | | IAML | | 18 13 56.2 | |
| | comp=E,1μm,0.2s | | | | | | |
| **VCA** | **Vinchina** | **2.24 126** | | *e*P | **Pn** | **18 13 42.3** | **+1.7** |
| VCA | | | | *e*S | **Sn** | **18 14 08.4** | **+0.2** |
| VCA | | | | IAML | | 18 14 14.8 | |
| | comp=Z,304nm,0.2s | | | | | | |
| **VCA** | **Vinchina** | **2.24 126** | | *e*P | **Pn** | **18 13 41.9** | **+1.2** |
| VCA | | | | *i* S | **Sn** | **18 14 08.7** | **+0.6** |
| **AGUA** | **GUANDACOL** | **2.58 143** | | *e*P | **Pn** | **18 13 46.5** | **+1.4** |
| AGUA | | | | *e*S | **Sn** | **18 14 17.2** | **+1.2** |
| **TLL** | **Tololo Astrono** | **2.77 190** | | *i*P | **Pn** | **18 13 47.4** | **-0.3** |
| TLL | | | | *i* S | **Sn** | **18 14 20.3** | **-0.4** |
| TLL | | | | IAML | | 18 14 24.1 | |
| | comp=N,383nm,0.7s | | | | | | |
| **PB14** | **IPOC Station P** | **2.80 357** | | *e*P | **Pn** | **18 13 48.1** | **0.0** |
| **PB14** | **IPOC Station P** | **2.80 357** | | *i*P | **Pn** | **18 13 48.2** | **0.0** |
| **CYA** | **Choya** | **4.07 105** | | *e*P | **Pn** | **18 14 03.9** | **-1.1** |
| **RTLL** | **Cerro Villicun** | **4.19 159** | | *e*P | **Pn** | **18 14 06.4** | **-0.1** |
| RTLL | | | | *e*S | **Sn** | **18 14 52.6** | **-1.8** |
| **RTLS** | **Leoncito** | **4.43 169** | | *e*P | **Pn** | **18 14 10.8** | **+0.7** |
| **AHML** | **Horco Molle** | **4.44 83** | | *e*P | **Pn** | **18 14 09.8** | **-0.1** |
| **RTCV** | **Cerro Valdivia** | **4.66 162** | | *e*P | **Pn** | **18 14 13.1** | **+0.2** |
| **ACAN** | **Cantantal** | **5.52 152** | | *e*P | **Pn** | **18 14 23.9** | **-0.5** |
| **AZAP** | **Zapla** | **5.67 57** | | *e*P | **Pn** | **18 14 26.3** | **-0.4** |

*ISK **30** 18:17:26.9, 38°.88N×43°.51E, h5km, ML2.0*
*DDA **30** 18:17:27.8, 38°.91N×43°.50E, h19km, Md2.6*
*ISCJB **30** 18:17:28.6±0.7, 38°.89N±0°.03×43°.52E±0°.06, h13km±5km, Error ellipse: s-maj=8.5km s-min=4.9km az=21.7*
*CSEM **30** 18:17:28.3±0.2, 38°.90N×43°.51E, h10km, MD2.6, Error ellipse: s-maj=4.8km s-min=4.1km az=120.0*

**ISC 30 18:17:28.4±0.9, 38°.89N±0°.03×43°.52E±0°.03, h13km±6km, n19, σ0s65/35, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.10 25** | | *i* P | **Pg** | **18 17 31.4** | **-0.3** |
| VMUR | | | | *i* S | **Sg** | **18 17 34.5** | **+0.5** |
| **VMUR** | **Van-Muradiye** | **0.10 25** | | P | **Pg** | **18 17 31.4** | **-0.3** |
| VMUR | | | | S | **Sg** | **18 17 34.5** | **+0.5** |
| **VANB** | **Van** | **0.32 198** | | *e*PG | **Pb** | **18 17 35.5** | **-0.4** |
| **VANB** | **Van** | **0.32 198** | | *e*Pg | **Pb** | **18 17 35.5** | **-0.4** |
| **TVAN** | **Van** | **0.38 193** | | *i* P | **Pg** | **18 17 35.4** | **-0.6** |
| TVAN | | | | *i* S | **Sb** | **18 17 43.0** | **+0.2** |
| **TVAN** | **Van** | **0.38 193** | | P | **Pg** | **18 17 35.4** | **-0.6** |
| TVAN | | | | S | **Sb** | **18 17 43.0** | **+0.2** |
| **CLDR** | **Caldiran** | **0.40 51** | | *e*PG | **Pg** | **18 17 35.9** | **-0.5** |
| CLDR | | | | *e*SG | **Sb** | **18 17 43.4** | **-0.1** |
| **CLDR** | **Caldiran** | **0.40 51** | | *i* P | **Pg** | **18 17 36.0** | **-0.5** |
| CLDR | | | | *i* S | **Sb** | **18 17 42.9** | **-0.7** |
| **CLDR** | **Caldiran** | **0.40 51** | | P | **Pg** | **18 17 36.0** | **-0.5** |
| CLDR | | | | S | **Sb** | **18 17 42.8** | **-0.1** |
| CLDR | | | | *e*Sg | **Sb** | **18 17 43.4** | **-0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.62 262** | | *i* P | **Pg** | **18 17 40.2** | **-0.4** |
| ADCV | | | | *i* S | **Sb** | **18 17 49.3** | **-0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.62 262** | | P | **Pg** | **18 17 40.2** | **-0.4** |
| ADCV | | | | S | **Sb** | **18 17 49.3** | **-0.7** |
| **DYDN** | **Diyadin** | **0.66 12** | | *i* S | **Sb** | **18 17 51.0** | **-0.1** |
| **DYDN** | **Diyadin** | **0.66 12** | | S | **Sb** | **18 17 51.0** | **-0.1** |
| **TUTA** | **Tutak** | **0.74 313** | | *i* P | **Pg** | **18 17 42.1** | **-0.8** |
| TUTA | | | | *i* S | **Sb** | **18 17 52.6** | **-0.9** |
| **TUTA** | **Tutak** | **0.74 313** | | P | **Pg** | **18 17 42.1** | **-0.8** |
| TUTA | | | | S | **Sb** | **18 17 52.6** | **-0.9** |
| **AGRB** | **Hanur-Agry** | **0.79 329** | | *e*PG | **Pb** | **18 17 43.5** | **-0.6** |
| AGRB | | | | *e*SG | **Sb** | **18 17 55.8** | **+1.0** |
| **AGRB** | **Hanur-Agry** | **0.79 329** | | *e*Pg | **Pb** | **18 17 43.5** | **-0.6** |
| AGRB | | | | *e*Sg | **Sb** | **18 17 55.8** | **+1.0** |
| **EKAR** | **Karacoban** | **1.19 288** | | *i* P | **Pn** | **18 17 51.5** | **+0.6** |
| EKAR | | | | *i* S | **Sn** | **18 18 07.9** | **+0.9** |
| **EKAR** | **Karacoban** | **1.19 288** | | P | **Pn** | **18 17 51.5** | **+0.6** |
| EKAR | | | | S | **Sn** | **18 18 07.9** | **+0.9** |

**MEX 30 18:36:51.3±0.4, 14°.54N×92°.86W, h52km±55km, MD3.7, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PCIG** | | **1.20 343** | | *e*P | Pn | 18 37 10.6 | -1.3 |
| PCIG | | | | *i* S | Sn | 18 37 24.9 | -2.2 |
| **TGIG** | | **2.23 354** | | *e*P | Pn | 18 37 24.2 | -1.8 |
| TGIG | | | | *e*S | Sn | 18 37 50.5 | -1.9 |

*BJI **30** 18:49:53.4, 19°.69S×168°.41E, h17km, mb4.8/20, mB5.2/15, Ms5.0/4, Ms7 4.8/7*
*IDC **30** 18:49:55.1±0.9, 19°.54S×167°.81E, h0km, mb4.1/11, mb1 4.3/12, mb1mx4.2/28, mbtmp4.2/12, ML4.8/1, MS3.3/5, Ms1 3.2/5, ms1mx2.9/25, Error ellipse: s-maj=34.1km s-min=16.8km az=134.0*
*ISCJB **30** 18:49:58.4±0.3, 19°.46S±0°.04×167°.65E±0°.06, h26km, mb4.7/40, MS3.5/4, Error ellipse: s-maj=8.3km s-min=6.0km az=20.5*
*NEIC **30** 18:50:00.6±0.3, 19°.41S×167°.73E, h35km, mb4.9/25, Error ellipse: s-maj=8.4km s-min=6.8km az=143.0*

**ISC 30 18:49:59.1±0.5, 19°.50S±0°.07×167°.82E±0°.08, h26km, n79, σ1s35/82, mb4.9/39, MS3.4/4, Vanuatu Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DZM** | **Mont Dzumac** | **2.86 207** | | Pn | **Pn** | **18 50 43.1** | **-0.1** |
| | 136nm,0.3s,baz=161,slow=17,SNR=792 | | | | | | |
| DZM | | | | Sn | **Sn** | **18 51 16.3** | **-0.6** |
| | 108nm,0.3s,baz=148,slow=22,SNR=20 | | | | | | |
| DZM | | | | LR | LR | 18 51 23.9 | |
| | comp=Z,261nm,21.7s,baz=12,slow=32 | | | | | | |
| **DZM** | **Mont Dzumac** | **2.86 207** | | *e*Pn | **Pn** | **18 50 43.1** | **-0.1** |
| DZM | | | | *e*Sn | **Sn** | **18 51 15.5** | **-1.4** |
| **MSVF** | **Nonsavu** | **9.86 81** | | *e*Pn | **Pn** | **18 52 18.4** | **-0.9** |
| **HNR** | **Honiara** | **12.58 322** | | LR | LR | 18 56 40.3 | |
| | comp=Z,68nm,19.8s,baz=168,slow=32 | | | | | | |
| **OUZ** | **Omahuta** | **16.47 163** | | *e*Pn | **P** | **18 53 50.6** | **-0.3** |
| | 112nm,1.6s | | | | | | |
| **ARMA** | **Armidale** | **18.24 230** | | *e*P | **Pn** | **18 54 10.4** | **-0.2** |
| | 38nm,1.6s | | | | | | |
| **CTA** | **Charters Tower** | **20.30 265** | | P | **P** | **18 54 34.4** | **+1.2** |
| | 9.0nm,0.9s,baz=94,slow=13,SNR=3.8 | | | | | | |
| **CTAO** | **Charters Tower** | **20.30 265** | | *e*P | Pn | 18 54 34.8 | -0.5 |
| | 25nm,0.8s | | | | | | |
| **AFI** | **Afiamalu** | **20.31 77** | | LR | LR | 19 01 10.0 | |
| | comp=Z,94nm,21.1s,baz=280,slow=33 | | | | | | |
| **BKZ** | **Black Stump Fm** | **20.98 161** | | *e*P | **P** | **18 54 42.0** | **+1.6** |
| | 58nm,2.0s | | | | | | |
| **BFZ** | **Birch Farm** | **22.31 163** | | *e*P | **P** | **18 54 55.9** | **+1.2** |
| | 308nm,1.7s | | | | | | |
| **OXZ** | **Oxford** | **24.02 172** | | *e*P | **P** | **18 55 14.1** | **+2.3** |
| | 56nm,1.7s | | | | | | |
| **FOZ** | **Fox Glacier** | **24.02 176** | | *e*P | **P** | **18 55 14.3** | **+2.6** |
| | 199nm,1.7s | | | | | | |
| **COEN** | **Coen** | **24.23 279** | | *e*P | **P** | **18 55 12.6** | **-1.5** |
| | 104nm,1.8s | | | | | | |
| **RPZ** | **Rata Peaks** | **24.29 174** | | *e*P | **P** | **18 55 17.1** | **+2.7** |
| | 72nm,1.6s | | | | | | |
| **STKA** | **Stephens Creek** | **26.57 237** | | P | **P** | **18 55 34.8** | **-0.5** |
| | 1.3nm,0.7s,baz=312,slow=14,SNR=4.3 | | | | | | |
| STKA | | | | LR | LR | 19 04 48.4 | |
| | comp=Z,94nm,21.3s,baz=29,slow=34 | | | | | | |
| **STKA** | **Stephens Creek** | **26.57 237** | | *e*P | **P** | **18 55 36.0** | **+0.7** |
| | 1.5nm,0.8s | | | | | | |
| **BBOO** | **Buckleboo** | **31.31 239** | | *e*P | **P** | **18 56 19.0** | **+1.7** |
| | 21nm,1.6s | | | | | | |
| **WB2** | **Warramunga Arr** | **31.48 263** | | *e*P | **P** | **18 56 17.4** | **-1.6** |
| **WRAB** | **Tennant Creek** | **31.48 263** | | *e*P | **P** | **18 56 17.9** | **-1.1** |
| | 14nm,1.4s | | | | | | |
| **WR1** | **Warramunga Arr** | **31.49 263** | | *e*P | **P** | **18 56 17.4** | **-1.7** |
| | 37nm,1.8s | | | | | | |
| WR1 | | | | *e*PcP | **PcP** | **18 59 11.8** | **-0.1** |
| **WRA** | **Warramunga Arr** | **31.49 263** | | P | **P** | **18 56 17.4** | **-1.7** |
| | 0.6nm,0.9s,baz=85,slow=8.4,SNR=10.0 | | | | | | |
| WRA | | | | PcP | **PcP** | **18 59 11.8** | **-0.1** |
| | 0.5nm,0.7s,baz=89,slow=2.8,SNR=4.9 | | | | | | |
| **AS01** | **Alice Springs** | **31.72 256** | | *e*P | **P** | **18 56 20.9** | **-0.2** |
| **AS31** | **Alice Springs** | **31.76 256** | | *e*P | **P** | **18 56 21.9** | **+0.4** |
| | 2.7nm,0.8s | | | | | | |
| **ASAR** | **Alice Springs** | **31.76 256** | | P | **P** | **18 56 20.8** | **-0.7** |
| | 2.2nm,0.7s,baz=84,slow=8.3,SNR=42 | | | | | | |
| ASAR | | | | LR | LR | 19 08 50.4 | |
| | comp=Z,87nm,18.5s,baz=94,slow=36 | | | | | | |
| **MTN** | **Manton Dam** | **35.80 275** | | *e*P | **P** | **18 56 57.6** | **+1.0** |
| | 38nm,1.5s | | | | | | |
| **FORT** | **Forrest** | **37.52 245** | | *e*P | **P** | **18 57 11.0** | **-0.1** |
| | 122nm,0.8s | | | | | | |
| **MBWA** | **Marble Bar** | **44.99 259** | | *e*P | **P** | **18 58 09.5** | **-3.1** |
| | 38nm,1.4s | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| WMQ | | | | sP | sP | 19 03 38.0 | +0.4 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,11nm,0.7s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,250nm,4.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=N,58nm,15.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,66nm,14.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,48nm,15.9s | | | | | | |
| **LNIG** | **Linares** | **100.34** | **67** | *e*Pdif | **Pdif** | **19 03 42.7** | **-1.3** |
| **MK32** | **Makanchi Array** | **100.99** | **316** | *e*Pdif | **Pdif** | **19 03 45.3** | **-1.1** |
| **MKAR** | **Makanchi Array** | **100.99** | **316** | P | **Pdif** | **19 03 45.3** | **-1.1** |
| | 0.3nm,0.8s,baz=79,slow=3.1,SNR=2.6 | | | | | | |
| **YKA** | **Yellowknife Ar** | **101.52** | **28** | P | **Pdif** | **19 03 48.7** | **+0.5** |
| | 0.4nm,0.7s,baz=252,slow=4.6,SNR=10 | | | | | | |
| **ARA0** | **ARCESS Array S** | **124.98** | **345** | *e*PKPdf | **PKPdf** | **19 08 56.2** | **-0.1** |
| **ARCES** | **ARCESS Array B** | **124.98** | **345** | PKP | **PKPdf** | **19 08 56.2** | **-0.1** |
| | 2.0nm,0.8s,baz=64,slow=2.8,SNR=5.8 | | | | | | |
| **GERES** | **GERESS Array B** | **144.08** | **331** | PKP | **PKPdf** | **19 09 31.9** | **-0.6** |
| | 0.7nm,0.7s,baz=263,slow=3.5,SNR=4.8 | | | | | | |
| **ARSA** | **Arzberg** | **144.28** | **327** | *e*PKPdf | PKPdf | 19 09 42.5 | +10 |
| | 3.9nm,1.6s | | | | | | |
| **ABTA** | **Abfaltersbach** | **146.13** | **329** | *i* PKPab | **PKPdf** | **19 09 36.9** | **+0.7** |
| | 7.1nm,1.3s | | | | | | |
| **MOTA** | **Moosalm** | **146.37** | **331** | *i* PKPab | **PKPbc** | **19 09 37.9** | **0.0** |
| | 7.3nm,1.0s | | | | | | |
| **WLF** | **Walferdange** | **146.52** | **338** | PKP | **PKPab** | **19 09 39.2** | **+0.2** |
| **WLF** | **Walferdange** | **146.52** | **338** | *e*PKPdf | **PKPbc** | **19 09 38.7** | **+0.7** |
| **DOU** | **Dourbes** | **146.68** | **340** | PKP | **PKPbc** | **19 09 38.8** | **+0.4** |
| **BFO** | **Black Forest** | **146.80** | **335** | *e*PKPdf | **PKPdf** | **19 09 36.2** | **-0.9** |
| **DAVA** | **Damuels** | **146.96** | **332** | *i* PKPab | **PKPbc** | **19 09 39.8** | **+0.3** |
| | 8.5nm,1.2s | | | | | | |
| **FUORN** | **Ofenpass-Fuorn** | **147.29** | **331** | *e*PKPdf | **PKPbc** | **19 09 40.4** | **-0.3** |
| **DAVOX** | **Davos/Dischmat** | **147.34** | **331** | PKPbc | **PKPbc** | **19 09 40.2** | **-0.5** |
| | 4.2nm,0.6s,baz=342,slow=2.1,SNR=11 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **165.26** | **247** | PKPab | **PKPab** | **19 10 58.9** | **-0.7** |
| | 0.2nm,0.4s,baz=107,slow=2.4,SNR=4.1 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **165.27** | **247** | *e*PKPab | **PKPab** | **19 10 58.9** | **-0.7** |

*IDC* ***30*** *19:02:20.5±1.9,8.°92N×77.°90W, h0km, mb3.4/3, mb1 4.0/5, mb1mx3.6/31, mbtmp3.7/5, ML3.5/2, Error ellipse: s-maj=58.6km s-min=28.3km az=18.0*

*ISCJB* ***30*** *19:02:25.1±0.6,9.°11N±0.°06×77.°74W±0.°04, h33km, mb3.3/3, Error ellipse: s-maj=8.5km s-min=5.0km az=23.7*

*RSNC* ***30*** *19:02:28.2±0.8,9.°03N×77.°78W, h40km±999km, ML3.3*

**ISC 30 19:02:26.6±0.8,9.°07N±0.°07×77.°78W±0.°05,h35km,n16, σ0s88/21,mb3.5/3,1D,Near north coast of Colombia**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **BCIP** | **Isla Barro Col** | **2.04** | **273** | *e*P | **Pn** | **19 02 59.7** | **+1.4** |
| BCIP | | | | *e*S | **Sn** | **19 03 23.2** | **+0.6** |
| BCIP | | | | *i* | | 19 03 29.6 | |
| | comp=Z,273nm,0.5s | | | | | | |
| **MOTC** | **Monteria, Cord** | **2.11** | **98** | *e*P | **Pn** | **19 03 00.2** | **+0.9** |
| MOTC | | | | *e*S | **Sn** | **19 03 25.3** | **+0.9** |
| MOTC | | | | *i* | | 19 03 27.5 | |
| | comp=Z,193nm,0.3s | | | | | | |
| **DBBC** | **Dabeiba** | **2.56** | **143** | *e*P | **Pn** | **19 03 07.2** | **+1.5** |
| **SOLC** | **Bahia Solano** | **2.85** | **173** | *e*P | **Pn** | **19 03 09.0** | **-0.6** |
| **ZARC** | **Zaragoza, Cauc** | **3.29** | **118** | *e*P | **Pn** | **19 03 16.0** | **+0.4** |
| ZARC | | | | *i* | | 19 03 54.2 | |
| | comp=Z,175nm,0.2s | | | | | | |
| **HELC** | **Santa Helena** | **3.63** | **142** | *e*P | **Pn** | **19 03 21.1** | **+0.5** |
| HELC | | | | *e*S | **Sn** | **19 04 02.7** | **+0.3** |
| **PTBC** | **PUERTO BERRIO,** | **4.14** | **127** | *e*P | **Pn** | **19 03 27.1** | **-0.3** |
| PTBC | | | | *e*S | **Sn** | **19 04 14.1** | **-0.5** |
| PTBC | | | | *i* | | 19 04 16.0 | |
| | comp=Z,23nm,0.2s | | | | | | |
| **CODC** | **Agust^n Codaz** | **4.36** | **78** | ‖*i*P | **Pn** | **19 03 31.9** | **+1.6** |
| **GUYC** | **Guyana, Colomb** | **4.50** | **148** | *e*S | **Sn** | **19 04 24.5** | **+0.5** |
| **YOTC** | **Yotoco, Valle** | **5.25** | **164** | *e*P | **Pn** | **19 03 43.2** | **+0.5** |
| **SDV** | **Santo Domingo** | **7.06** | **91** | Pn | **Pn** | **19 04 08.0** | **+0.3** |
| | comp=Z,1.9nm,0.3s,baz=296,slow=9.7,SNR=19 | | | | | | |
| SDV | | | | Sn | **Sn** | **19 05 25.2** | **-1.6** |
| | comp=Z,11nm,0.3s,baz=37,slow=15,SNR=14 | | | | | | |
| **PCRV** | **Puerto La Cruz** | **13.00** | **84** | Pn | **Pn** | **19 05 28.9** | **-0.2** |
| | comp=Z,1.2nm,0.3s,baz=280,slow=1.2,SNR=6.8 | | | | | | |
| **TXAR** | **Lajitas Array** | **31.55** | **313** | P | **P** | **19 08 46.0** | **+0.1** |
| | comp=Z,0.1nm,0.4s,baz=146,slow=9.8,SNR=3.3 | | | | | | |
| **YKA** | **Yellowknife Ar** | **59.62** | **341** | P | **P** | **19 12 26.2** | **-0.5** |
| | comp=Z,0.3nm,0.5s,baz=131,slow=7.4,SNR=10 | | | | | | |
| **ILAR** | **Eielson Array** | **73.00** | **335** | P | **P** | **19 13 52.1** | **-0.3** |
| | comp=Z,0.3nm,0.6s,baz=100,slow=5.1,SNR=4.1 | | | | | | |
| **ASAR** | **Alice Springs** | **146.42** | **241** | PKPbc | **PKPdf** | **19 22 02.8** | **-0.8** |
| | comp=Z,0.2nm,0.6s,baz=126,slow=3.8,SNR=4.6 | | | | | | |

*NIED* ***30*** *19:11:00,38.°90N×141.°90E, h56km, Mw4.0 Best double couple: M0 1.12000×10^15 NP1:φ=194.00000°, δ21.00000°, λ84.00000°. NP2:φ=20.00000°, δ69.00000°, λ92.00000°.*

*ISCJB* ***30*** *19:11:31.3±0.4,38.°89N±0.°04×142.°09E±0.°05, h51km, mb4.3/34, MS3.4/1, Error ellipse: s-maj=6.6km s-min=5.1km az=42.7*

*JMA* ***30*** *19:11:33.6±0.1,38.°92N×141.°94E, h50km±1km, M3.8*

*JMA Felt II J1.*

*MOS* ***30*** *19:11:33.3±1.0,38.°86N×142.°08E, h73km, mb4.5/15, Error ellipse: s-maj=11.0km s-min=7.9km az=85.7*

*NEIC* ***30*** *19:11:34.9±0.8,38.°90N×142.°00E, h72km±7km, mb4.7/13, Error ellipse: s-maj=11.7km s-min=7.4km az=120.0*

*IDC* ***30*** *19:11:36.7±2.2,38.°90N×141.°90E, h83km±19km, mb3.7/18, mb1 3.8/22, mb1mx3.7/42, mbtmp4.0/22, MS2.4/3, Ms1 2.4/3, ms1mx2.4/46, Error ellipse: s-maj=18.7km s-min=13.1km az=107.0*

**ISC 30 19:11:32.9±0.6,38.°85N±0.°05×141.°97E±0.°06,h51km,n99, σ2s00/99,mb4.3/34,5C-4D,Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **OFUJ** | **Ofunato** | **0.33** | **315** | P | **Pn** | **19 11 42.5** | **+0.1** |
| OFUJ | | | | S | **Sn** | **19 11 48.7** | **-0.5** |
| **JMK** | **Ichinoseki** | **0.59** | **281** | P | **Pn** | **19 11 45.5** | **+0.2** |
| JMK | | | | S | **Sn** | **19 11 54.0** | **-0.3** |
| **JIO** | **Ouri** | **0.62** | **231** | P | **Pn** | **19 11 46.4** | **+0.7** |
| JIO | | | | S | **Sn** | **19 11 55.2** | **+0.3** |
| **JOM** | **Ohasama** | **0.82** | **320** | P | **Pn** | **19 11 48.0** | **-0.2** |
| JOM | | | | *e*S | **Sn** | **19 11 58.5** | **-1.0** |
| **ERM** | **Erimo** | **3.29** | **16** | *e*P | **Pn** | **19 12 22.8** | **+0.8** |
| **ERM** | **Erimo** | **3.29** | **16** | *e*Pn | **Pn** | **19 12 22.8** | **+0.8** |
| **MJA0** | **Matsu Arr-Jizo** | **3.74** | **233** | *e*P | **Pn** | **19 12 30.9** | **+2.7** |
| MJA0 | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.3s | | | | | | |
| **MAJO** | **Matsushiro** | **3.77** | **234** | *d i*P | **Pn** | **19 12 33.1** | **+4.6** |
| **MAJO** | **Matsushiro** | **3.77** | **234** | *e*Pn | **Pn** | **19 12 30.9** | **+2.4** |
| **MJAR** | **Matsushiro Arr** | **3.77** | **234** | P | **Pn** | **19 12 30.9** | **+2.5** |
| | comp=Z,5.5nm,0.3s,baz=36,slow=12,SNR=32 | | | | | | |
| MJAR | | | | LR | LR | 19 14 09.7 | |
| | comp=Z,101nm,18.8s,baz=65,slow=41 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **3.77** | **234** | P | **Pn** | **19 12 30.9** | **+2.4** |
| MJAR | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.3s | | | | | | |
| **MJB9** | **Matsu-Tunnel** | **3.77** | **234** | *e*Pn | **Pn** | **19 12 30.9** | **+2.4** |
| **INU** | **Inuyama** | **5.28** | **230** | *e*Pn | **Pn** | **19 12 52.5** | **+3.3** |
| **ASAJ** | **Asahikawa** | **5.29** | **5** | P | **Pn** | **19 12 52.2** | **+2.9** |
| | comp=Z,2.9nm,0.3s,baz=172,slow=14,SNR=4.6 | | | | | | |
| ASAJ | | | | S | **Sn** | **19 13 54.6** | **+5.7** |
| | comp=Z,1.3nm,0.3s,baz=269,slow=11,SNR=3.8 | | | | | | |
| **ASAJ** | **Asahikawa** | **5.29** | **5** | P | **Pn** | **19 12 52.2** | **+2.9** |
| ASAJ | | | | S | **Sn** | **19 13 54.6** | **+5.7** |
| ASAJ | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.3s | | | | | | |
| ASAJ | | | | smax | smax | | |
| | comp=N,1.0nm,0.3s | | | | | | |
| **ASAJ** | **Asahikawa** | **5.29** | **5** | *e*Pn | **Pn** | **19 12 50.0** | **+0.7** |
| **KUR** | **Kuril'sk** | **7.74** | **33** | *e*P | **Pn** | **19 13 22.6** | **-0.3** |
| KUR | | | | *e*S | **Sn** | **19 14 44.1** | **-5.1** |
| KUR | | | | smax | smax | | |
| | comp=N,74nm,0.5s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,48nm,0.5s | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **9.20** | **309** | P | **Pn** | **19 13 46.2** | **+3.3** |
| | comp=E,1.2nm,0.3s,baz=118,slow=14,SNR=20 | | | | | | |
| **KSRS** | **Korea Array** | **11.15** | **267** | P | Pn | 19 14 14.3 | +4.8 |
| | comp=E,0.3nm,0.3s,baz=82,slow=14,SNR=6.4 | | | | | | |
| KSRS | | | | LR | LR | 19 18 06.2 | |
| | comp=E,47nm,19.3s,baz=38,slow=35 | | | | | | |
| **KSRS** | **Korea Array** | **11.15** | **267** | P | Pn | 19 14 14.4 | +4.8 |
| **KS01** | **Wonju Array Si** | **11.17** | **267** | *e*Pn | **Pn** | **19 14 11.3** | **+1.5** |
| **KS15** | **Wonju Array Si** | **11.18** | **267** | *e*Pn | Pn | 19 14 14.6 | +4.6 |
| **KLR** | **Kul'dur** | **12.71** | **328** | LR | LR | 19 19 20.6 | |
| | comp=E,4.0nm,18.3s,baz=136,slow=37 | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **23.38** | **285** | *e*P | **P** | **19 16 37.3** | **+0.2** |
| HHC | | | | S | **S** | **19 20 41.5** | **-4.8** |
| HHC | | | | sS | Sn | 19 21 05.5 | -2.9 |
| HHC | | | | SS | **SnSn** | **19 21 31.8** | **+6.7** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,22nm,1.0s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,88nm,5.6s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=N,120nm,15.1s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=E,78nm,13.9s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,76nm,14.7s | | | | | | |
| **YAK** | **Yakutsk** | **24.41** | **346** | P | **P** | **19 16 45.2** | **-1.1** |
| | comp=Z,2.6nm,0.3s,baz=336,slow=0.7,SNR=5.2 | | | | | | |
| **YAK** | **Yakutsk** | **24.41** | **346** | ‖*i*P | **P** | **19 16 45.3** | **-0.9** |
| YAK | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.9s | | | | | | |
| **YAK** | **Yakutsk** | **24.41** | **346** | *e*P | **P** | **19 16 45.1** | **-1.1** |
| | comp=Z,9.5nm,0.7s | | | | | | |
| **SEY** | **Seymchan** | **24.93** | **11** | P | **P** | **19 16 52.0** | **+1.0** |
| | comp=Z,1.6nm,0.8s,baz=203,slow=4.9,SNR=5.4 | | | | | | |
| **SEY** | **Seymchan** | **24.93** | **11** | P | **P** | **19 16 52.0** | **+1.0** |
| SEY | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.8s | | | | | | |
| **SONA1** | **Songino Array** | **27.18** | **301** | *e*P | **P** | **19 17 11.5** | **-0.2** |
| **SONM** | **Songino Array** | **27.18** | **301** | P | **P** | **19 17 11.7** | **0.0** |
| | comp=Z,0.6nm,0.5s,baz=109,slow=11,SNR=8.9 | | | | | | |
| **SONM** | **Songino Array** | **27.18** | **301** | P | **P** | **19 17 11.7** | **0.0** |
| SONM | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.5s | | | | | | |
| **ENH** | **Enshi** | **27.97** | **262** | *e*P | **P** | **19 17 16.6** | **-2.1** |
| | comp=Z,7.8nm,0.6s | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.75** | **124** | T | T | 19 47 49.1 | |
| | baz=317,slow=75,SNR=226 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.76** | **124** | T | T | 19 47 52.6 | |
| | baz=317,slow=75,SNR=414 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.77** | **124** | T | T | 19 47 53.2 | |
| | baz=317,slow=75,SNR=327 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.52** | **126** | T | T | 19 48 51.5 | |
| | baz=318,slow=76,SNR=90 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.53** | **126** | T | T | 19 48 50.5 | |
| | baz=318,slow=76,SNR=138 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.54** | **126** | T | T | 19 48 60.0 | |
| | baz=318,slow=76,SNR=110 | | | | | | |
| **DGZ** | **Jazzator, Alta** | **39.71** | **304** | *c i*P | **P** | **19 19 01.1** | **+0.8** |
| DGZ | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.7s | | | | | | |
| **ZAA0** | **Zalesovo Array** | **41.04** | **311** | *e*P | **P** | **19 19 11.0** | **0.0** |
| | comp=Z,4.4nm,0.8s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.04** | **311** | P | **P** | **19 19 10.9** | **-0.1** |
| | comp=Z,4.0nm,0.6s,baz=87,slow=7.5,SNR=19 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.04** | **311** | *e*P | **P** | **19 19 10.9** | **-0.1** |
| **CMAR** | **Chiang Mai Arr** | **42.40** | **254** | P | **P** | **19 19 23.1** | **+0.5** |
| | comp=Z,0.5nm,0.6s,baz=46,slow=6.2,SNR=7.1 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **42.40** | **254** | P | **P** | **19 19 23.1** | **+0.5** |
| CMAR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.6s | | | | | | |
| **MK01** | **Makanchi Array** | **43.55** | **301** | *e*P | **P** | **19 19 31.5** | **-0.1** |
| **MK31** | **Makanchi Array** | **43.55** | **301** | *e*P | **P** | **19 19 31.7** | **+0.1** |
| **MK31** | **Makanchi Array** | **43.55** | **301** | *e*Pn | **P** | **19 19 31.7** | **+0.1** |
| **MKAR** | **Makanchi Array** | **43.55** | **301** | P | **P** | **19 19 31.6** | **0.0** |
| | comp=Z,5.4nm,0.7s,baz=86,slow=9.8,SNR=58 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.55** | **301** | *e*P | **P** | **19 19 31.7** | **+0.1** |
| MKAR | | | | pmax | pmax | | |
| | comp=Z,48nm,0.9s | | | | | | |
| **MKAR** | **Makanchi Array** | **43.55** | **301** | *e*P | **P** | **19 19 31.7** | **0.0** |
| | comp=Z,48nm,0.9s | | | | | | |
| **MAKZ** | **Makanchi** | **43.76** | **301** | *e*P | **P** | **19 19 33.4** | **+0.1** |
| MAKZ | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.8s | | | | | | |
| **MAKZ** | **Makanchi** | **43.76** | **301** | *e*P | **P** | **19 19 33.4** | **+0.1** |
| | comp=Z,5.3nm,0.8s | | | | | | |
| **IMAR** | **Indian Mountai** | **44.88** | **32** | *e*P | **P** | **19 19 41.9** | **0.0** |
| **KURK** | **Kurchatov** | **45.18** | **307** | ‖*i*P | **P** | **19 19 43.9** | **-0.6** |
| KURK | | | | pmax | pmax | | |
| | comp=Z,12nm,1.1s | | | | | | |
| **KURK** | **Kurchatov** | **45.18** | **307** | *e*P | **P** | **19 19 44.4** | **-0.1** |
| | comp=Z,8.0nm,0.8s | | | | | | |
| **SAUI** | **Saumlaki** | **47.63** | **194** | *e*P | P | 19 20 09.7 | +5.7 |
| | comp=Z,157nm,0.5s | | | | | | |
| **ILAR** | **Eielson Array** | **47.74** | **33** | P | **P** | **19 20 04.4** | **+0.1** |
| | comp=Z,0.5nm,0.7s,baz=266,slow=6.3,SNR=8.5 | | | | | | |
| **ILAR** | **Eielson Array** | **47.74** | **33** | *e*P | **P** | **19 20 05.3** | **+1.0** |
| ILAR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.6s | | | | | | |
| **BRVK** | **Borovoye** | **49.75** | **311** | ‖*e*P | **P** | **19 20 20.0** | **+0.1** |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.2s | | | | | | |
| **BRVK** | **Borovoye** | **49.75** | **311** | *e*P | **P** | **19 20 19.5** | **-0.4** |
| | comp=Z,4.8nm,1.1s | | | | | | |
| **AAK** | **Ala-Archa** | **50.03** | **297** | ‖*e*P | **P** | **19 20 22.1** | **-0.4** |
| AAK | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.5s | | | | | | |
| **AAK** | **Ala-Archa** | **50.03** | **297** | *e*P | **P** | **19 20 22.3** | **-0.1** |
| | comp=Z,31nm,1.9s | | | | | | |
| **KSH** | **Kashi** | **50.09** | **293** | *e*P | **P** | **19 20 27.3** | **+4.4** |
| KSH | | | | LR | LR | | |
| | comp=Z,94nm,3.4s | | | | | | |
| **INK** | **Inuvik** | **52.58** | **28** | P | **P** | **19 20 42.0** | **+1.2** |
| | comp=Z,0.7nm,0.7s,baz=306,slow=8.5,SNR=4.1 | | | | | | |
| **INK** | **Inuvik** | **52.58** | **28** | *e*P | **P** | **19 20 42.5** | **+1.6** |
| INK | | | | pmax | pmax | | |
| | comp=Z,12nm,1.7s | | | | | | |
| **INK** | **Inuvik** | **52.58** | **28** | *e*P | **P** | **19 20 42.5** | **+1.6** |
| | comp=Z,12nm,1.7s | | | | | | |
| **ARU** | **Arti** | **55.30** | **318** | *c i*P | **P** | **19 21 00.5** | **-0.4** |
| ARU | | | | | | 19 23 01.7 | |
| ARU | | | | S | **S** | **19 28 36.3** | **-4.7** |
| ARU | | | | SS | **SS** | **19 32 17.9** | **-7.4** |
| ARU | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.0s | | | | | | |
| **ARU** | **Arti** | **55.30** | **318** | *e*P | **P** | **19 20 59.9** | **-1.1** |
| | comp=Z,6.6nm,0.9s | | | | | | |
| **ABKAR** | **Akbulak array** | **57.12** | **309** | *e*P | **P** | **19 21 13.5** | **-0.5** |
| | comp=Z,46nm,0.6s | | | | | | |
| **WB2** | **Warramunga Arr** | **58.91** | **188** | *e*P | **P** | **19 21 26.6** | **-0.2** |
| **WRA** | **Warramunga Arr** | **58.91** | **188** | P | **P** | **19 21 27.2** | **+0.4** |
| | comp=Z,1.3nm,0.5s,baz=5.7,slow=8.8,SNR=37 | | | | | | |
| **WRA** | **Warramunga Arr** | **58.91** | **188** | P | **P** | **19 21 27.2** | **+0.4** |
| WRA | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.5s | | | | | | |
| **YKA** | **Yellowknife Ar** | **62.03** | **31** | P | **P** | **19 21 47.9** | **+0.3** |
| | comp=Z,0.1nm,0.5s,baz=301,slow=6.1,SNR=4.1 | | | | | | |
| **YKA** | **Yellowknife Ar** | **62.03** | **31** | *e*P | **P** | **19 21 47.8** | **+0.3** |
| **AS01** | **Alice Springs** | **62.63** | **188** | *e*P | **P** | **19 21 53.3** | **+1.2** |
| **ASAR** | **Alice Springs** | **62.64** | **188** | P | **P** | **19 21 52.8** | **+0.7** |
| | comp=Z,0.5nm,0.7s,baz=359,slow=4.9,SNR=9.1 | | | | | | |
| **ASAR** | **Alice Springs** | **62.64** | **188** | *e*P | **P** | **19 21 52.7** | **+0.6** |
| ASAR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.6s | | | | | | |
| **GEYT** | **Alibeck** | **63.35** | **298** | P | **P** | **19 21 56.9** | **0.0** |
| | comp=Z,1.8nm,0.7s,baz=69,slow=5.4,SNR=5.8 | | | | | | |
| **MSVF** | **Nonsavu** | **65.64** | **142** | *e*P | **P** | **19 22 10.8** | **-1.2** |
| MSVF | | | | pmax | pmax | | |
| | comp=Z,48nm,1.8s | | | | | | |
| **MSVF** | **Nonsavu** | **65.64** | **142** | *e*P | **P** | **19 22 10.8** | **-1.2** |
| | comp=Z,48nm,1.8s | | | | | | |
| **FIA1** | **FINESS Array S** | **67.42** | **332** | *e*P | **P** | **19 22 22.3** | **-0.3** |
| | comp=Z,126nm,1.9s | | | | | | |
| **FINES** | **FINESS Array B** | **67.42** | **332** | P | **P** | **19 22 22.3** | **-0.3** |
| | comp=Z,2.9nm,0.7s,baz=34,slow=11,SNR=14 | | | | | | |
| **FINES** | **FINESS Array B** | **67.42** | **332** | P | **P** | **19 22 22.3** | **-0.3** |
| FINES | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.7s | | | | | | |
| **KIV** | **Kislovodsk** | **70.06** | **311** | ‖*e*P | **P** | **19 22 40.5** | **+1.0** |
| KIV | | | | *e**PP | PcP | 19 23 09.9 | +8.5 |
| KIV | | | | *e* | | 19 25 14.3 | |
| KIV | | | | *e*S | **S** | **19 31 44.9** | **-1.5** |
| KIV | | | | pmax | pmax | | |
| | comp=Z,16nm,1.3s | | | | | | |
| **KBZ** | **Khabaz** | **70.06** | **310** | P | **P** | **19 22 39.2** | **-0.2** |
| | comp=Z,1.5nm,0.7s,baz=88,slow=8.4,SNR=4.7 | | | | | | |
| **KBZ** | **Khabaz** | **70.06** | **310** | P | **P** | **19 22 39.2** | **-0.2** |
| KBZ | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.7s | | | | | | |
| **NOA** | **NORSAR Array B** | **72.69** | **337** | P | **P** | **19 22 54.1** | **-0.9** |
| | comp=Z,1.7nm,0.8s,baz=37,slow=6.0,SNR=3.8 | | | | | | |
| **NOA** | **NORSAR Array B** | **72.69** | **337** | *e*P | **P** | **19 22 55.8** | **+0.8** |
| NOA | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.9s | | | | | | |
| **AKASG** | **Malin Array Be** | **73.14** | **322** | P | **P** | **19 22 56.9** | **-0.9** |
| | comp=Z,1.7nm,0.5s,baz=46,slow=6.3,SNR=8.8 | | | | | | |
| **AKASG** | **Malin Array Be** | **73.14** | **322** | *e*P | **P** | **19 22 56.8** | **-0.9** |
| AKASG | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.4s | | | | | | |
| **KIEV** | **Kiev** | **73.15** | **322** | ‖*e*P | **P** | **19 22 58.0** | **+0.2** |
| KIEV | | | | pmax | pmax | | |
| | comp=Z,11nm,2.3s | | | | | | |
| **BRTR** | **Keskin Array B** | **77.98** | **312** | P | **P** | **19 23 26.3** | **+0.4** |
| | comp=Z,0.6nm,0.4s,baz=120,slow=3.3,SNR=9.5 | | | | | | |
| **BRTR** | **Keskin Array B** | **77.98** | **312** | P | **P** | **19 23 26.3** | **+0.4** |
| BRTR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.4s | | | | | | |
| **CLL** | **Collm** | **79.75** | **330** | *i* P | **P** | **19 23 35.3** | **+0.1** |
| CLL | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.1s | | | | | | |
| **CLL** | **Collm** | **79.75** | **330** | *i* P | **P** | **19 23 35.3** | **+0.1** |
| | comp=Z,6.0nm,1.1s | | | | | | |
| **GERES** | **GERESS Array B** | **81.40** | **328** | P | **P** | **19 23 44.3** | **+0.1** |
| | comp=Z,0.4nm,0.4s,baz=38,slow=8.9,SNR=6.0 | | | | | | |
| **GERES** | **GERESS Array B** | **81.40** | **328** | P | **P** | **19 23 44.3** | **+0.1** |
| **H06E1** | **SOCORRO T-PHAS** | **91.02** | **65** | T | T | 21 06 09.9 | |
| | SNR=12 | | | | | | |

**IDC 30 19:18:54.2±1.9,6.°46S×129.°16E, h0km, mb3.9/1, mb1 3.7/3, mb1mx3.4/27, mbtmp3.6/3, ML3.5/2, Error ellipse: s-maj=112.4km s-min=30.1km az=68.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **14.32** | **160** | Pn | Pn | 19 22 19.6 | +1.2 |
| | 0.3nm,0.3s,baz=339,slow=13,SNR=12 | | | | | | |
| WRA | | | | Sn | Sn | 19 24 42.7 | -15 |
| | 0.2nm,0.3s,baz=328,slow=25,SNR=3.2 | | | | | | |
| **ASAR** | **Alice Springs** | **17.71** | **166** | P | Pn | 19 23 01.7 | -0.8 |
| | 0.2nm,0.3s,baz=342,slow=10,SNR=16 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.32** | **327** | P | P | 19 29 51.1 | 0.0 |
| | 0.4nm,0.4s,baz=128,slow=7.0,SNR=14 | | | | | | |

*ISN* ***30*** *19:37:19.4±1.4,36.°40N×45.°24E, h1km±10km, ML2.6*

*CSEM* ***30*** *19:37:19.3±0.2,36.°16N×45.°63E, h2km, ML2.6, Error ellipse: s-maj=4.8km s-min=4.4km az=60.0*

**TEH 30 19:37:20.3,36.°26N×45.°83E,h6km,ML2.6,Iran-Iraq border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **IVIS** | **Veis** | **1.92** | **154** | *e*Pn | Pn | 19 37 53.4 | -0.2 |
| IVIS | | | | *e*Sg | Sb | 19 38 20.7 | +0.7 |
| IVIS | | | | *e*AMB | AMB | 19 38 23.6 | |
| | comp=Z,306nm,0.1s | | | | | | |
| **IVIS** | **Veis** | **1.92** | **154** | *e*Pn | Pn | 19 37 53.4 | -0.2 |
| IVIS | | | | *e*Sg | Sb | 19 38 20.7 | +0.7 |
| **ITBZ** | **Tabriz** | **1.99** | **7** | *e*Pn | Pn | 19 37 55.2 | +0.6 |
| ITBZ | | | | *e*Sg | Sb | 19 38 21.8 | -0.3 |
| ITBZ | | | | *e*AMB | AMB | 19 38 27.0 | |
| | comp=Z,234nm,0.1s | | | | | | |
| **ITBZ** | **Tabriz** | **1.99** | **7** | *e*Pn | Pn | 19 37 55.2 | +0.6 |
| **IGHG** | **Ghaleghazi** | **2.02** | **162** | *e*AMB | AMB | 19 37 58.8 | |
| | comp=Z,837nm,0.1s | | | | | | |
| IGHG | | | | *e*Sg | Sb | 19 38 22.7 | -0.3 |
| **ISHB** | **Shabestar** | **2.03** | **355** | *e*Pn | Pn | 19 37 55.1 | -0.2 |
| ISHB | | | | *e*AMB | AMB | 19 38 29.7 | |
| | comp=Z,526nm,0.1s | | | | | | |
| **IMRD** | **Marand** | **2.45** | **358** | *e*AMB | AMB | 19 38 15.1 | |
| | comp=Z,290nm,0.1s | | | | | | |
| IMRD | | | | *e*Pn | Pn | 19 38 02.8 | +1.8 |

*IDC* ***30*** *19:37:09.6±2.3,4.°21N×126.°56E, h0km, mb3.3/3, mb1 3.5/3, mb1mx3.3/37, mbtmp3.3/3, MS2.6/1, Ms1 2.8/1, ms1mx2.3/21, Error ellipse: s-maj=201.5km s-min=25.5km az=66.0*

*ISCJB* ***30*** *19:37:21.8±0.6,3.°45N±0.°04×125.°09E±0.°09, h100km, mb3.2/3, Error ellipse: s-maj=12.6km s-min=5.5km az=167.6*

*DJA* ***30*** *19:37:22.3±0.8,3.°N±5.°×12.°5E±5.°, h143km±7km, M4.2/7, mB5.2/2, mb4.1/4, MLv4.3/7, Mw(mB)4.6/2*

**ISC 30 19:37:23.6±0.9,3.°45N±0.°06×125.°2E±0.°1,h100km,n14, σ1s83/16,mb3.4/3,Talaud Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SGSI** | **Sangihe** | **0.39** | **53** | P | Pn | 19 37 44.4 | +5.7 |
| SGSI | | | | S | Sn | 19 37 59.5 | +10 |
| **BUKP** | **Musuan** | **4.41** | **358** | *e*P | **Pn** | **19 38 26.6** | **-1.8** |
| BUKP | | | | *e*S | **Sn** | **19 39 19.0** | **+0.4** |
| **LBMI** | **Labuha** | **4.66** | **151** | P | **Pn** | **19 38 33.0** | **+1.3** |
| LBMI | | | | S | **Sn** | **19 39 25.2** | **+0.6** |
| **LUWI** | **Luwuk** | **5.08** | **209** | P | **Pn**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **QLMT** | **Earthquake Lak** | **3.13** | **270** | *e*Pn | **Pb** | **19 52 14.9** | **+0.4** |
| **FXWY** | **Fox Creek** | **3.15** | **247** | *e*Pn | **Pn** | **19 52 11.3** | **+2.4** |
| **REDW** | **Red Top Meadow** | **3.17** | **242** | *e*Pn | **Pb** | **19 52 13.5** | **-1.6** |
| **TPAW** | **Teton Pass** | **3.17** | **244** | *e*Pn | **Pb** | **19 52 14.0** | **-1.2** |
| **RWWY** | **Rawlins** | **3.24** | **182** | *e*Pn | **Pb** | **19 52 14.4** | **-2.0** |
| **BOZ** | **Bozeman (W)** | **3.32** | **283** | *e*Pn | **Pn** | **19 52 11.3** | **+0.1** |
| **EGMT** | **Eagleton** | **3.63** | **330** | *e*Pn | **Pn** | **19 52 14.3** | **-1.0** |
| **AHID** | **Auburn Hatcher** | **3.66** | **235** | *e*Pn | **Pb** | **19 52 22.3** | **-1.1** |
| **PHWY** | **Pilot Hill** | **3.80** | **162** | *e*Pn | **Pn** | **19 52 18.7** | **+0.8** |
| **HRY** | **Holter Researc** | **3.81** | **300** | *e*Pn | **Pn** | **19 52 20.8** | **+3.0** |
| **LRM** | **Limekiln Ridge** | **3.93** | **285** | *e*Pn | **Pn** | **19 52 19.9** | **+0.3** |
| **N23A** | **Red Feather La** | **4.11** | **168** | *e*Pn | **Pn** | **19 52 24.1** | **+2.0** |
| **MCMT** | **McKenzie Canyo** | **4.14** | **271** | *e*Pn | **Pn** | **19 52 24.7** | **+2.2** |
| **MSO** | **Missoula** | **5.19** | **294** | *e*Pn | **Pn** | **19 52 37.0** | **+0.1** |
| **ISCO** | **Idaho Springs** | **5.23** | **168** | *e*Pn | **Pn** | **19 52 39.7** | **+2.2** |
| **ULM** | **Lac du Bonnet** | **9.22** | **51** | Pn | Pn | 19 53 28.9 | -3.1 |
| | 0.5nm,0.3s,baz=232,slow=13,SNR=3.6 | | | | | | |
| **YKA** | **Yellowknife Ar** | **18.14** | **349** | P | **P** | **19 55 33.2** | **+1.9** |
| | 0.0nm,0.3s,baz=162,slow=12,SNR=3.0 | | | | | | |

**IDC 30 19:57:24.1±2.7, 25°28'S×137°30'E, h0km, mb1 2.5/3, mb1mx2.5/24, mbtmp2.4/3, ML2.3/3, Error ellipse: s-maj=26.7km s-min=19.4km az=53.0, Northern Territory**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ASAR** | **Alice Springs** | **3.49** | **297** | Pn | Pn | 19 58 18.4 | -1.4 |
| | 0.1nm,0.3s,baz=116,slow=14,SNR=4.9 | | | | | | |
| ASAR | | | | Pg | Pg | 19 58 28.9 | -2.1 |
| | 0.4nm,0.3s,baz=118,slow=16,SNR=15 | | | | | | |
| ASAR | | | | Sn | Sn | 19 59 00.9 | -0.9 |
| | 0.3nm,0.3s,baz=122,slow=24,SNR=6.7 | | | | | | |
| ASAR | | | | Lg | Lg | 19 59 12.8 | |
| | 0.5nm,0.3s,baz=113,slow=28,SNR=5.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **5.98** | **332** | Pn | Pn | 19 58 55.6 | +1.7 |
| | 0.1nm,0.3s,baz=146,slow=12,SNR=5.0 | | | | | | |
| WRA | | | | Sn | Sn | 20 00 04.9 | +1.7 |
| | 0.1nm,0.3s,baz=151,slow=25,SNR=4.7 | | | | | | |
| WRA | | | | Lg | Lg | 20 00 36.1 | |
| | 0.2nm,0.3s,baz=154,slow=31,SNR=6.0 | | | | | | |
| **STKA** | **Stephens Creek** | **7.58** | **151** | Pn | Pn | 19 59 15.3 | -0.5 |
| | 0.1nm,0.3s,baz=313,slow=18,SNR=2.1 | | | | | | |
| STKA | | | | Sn | Sn | 20 00 35.5 | -6.9 |
| | 0.1nm,0.3s,baz=293,slow=15,SNR=2.6 | | | | | | |

*ISK **30** 20:00:45.0, 38°.76N×43°.58E, h5km, ML2.7*
*CSEM **30** 20:00:45.8±0.2, 38°.74N×43°.63E, h2km, ML2.7, Error ellipse: s-maj=5.8km s-min=3.5km az=96.0*
*DDA **30** 20:00:45.4, 38°.74N×43.62E, h19km, Md2.8*
*ISCJB **30** 20:00:46.5±0.5, 38°.75N±0°.02×43°.63E±0°.04, h11km±3km, Error ellipse: s-maj=5.1km s-min=3.1km az=10.7*

**ISC 30 20:00:46.3±0.9, 38°.74N±0°.02×43°.62E±0°.02, h18km±4km, n50, σ1§07/77, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.23** | **232** | *e*PG | **Pg** | **20 00 51.9** | **+0.2** |
| VANB | | | | *e*SG | **Sg** | **20 00 57.0** | **+1.6** |
| **VANB** | **Van** | **0.23** | **232** | *e*Pg | **Pg** | **20 00 51.9** | **+0.2** |
| **VMUR** | **Van-Muradiye** | **0.26** | **352** | *i* P | **Pg** | **20 00 51.4** | **-0.9** |
| VMUR | | | | *i* S | **Sg** | **20 00 56.2** | **-0.2** |
| **VMUR** | **Van-Muradiye** | **0.26** | **352** | P | **Pg** | **20 00 51.4** | **-0.9** |
| VMUR | | | | S | **Sg** | **20 00 56.2** | **-0.2** |
| **TVAN** | **Van** | **0.26** | **219** | *i* P | **Pb** | **20 00 51.8** | **-0.8** |
| TVAN | | | | *i* S | **Sb** | **20 00 56.7** | **0.0** |
| **TVAN** | **Van** | **0.26** | **219** | P | **Pb** | **20 00 51.8** | **-0.8** |
| TVAN | | | | S | **Sb** | **20 00 56.7** | **0.0** |
| **ERCV** | **ERCIS-VAN** | **0.36** | **323** | *e*PG | **Pg** | **20 00 52.6** | **-1.3** |
| **ERCV** | **ERCIS-VAN** | **0.36** | **323** | *e*Pg | **Pg** | **20 00 52.6** | **-1.3** |
| **CLDR** | **Caldiran** | **0.47** | **30** | *e*PG | **Pg** | **20 00 55.2** | **-0.7** |
| CLDR | | | | *e*SG | **Sb** | **20 01 02.9** | **-0.1** |
| **CLDR** | **Caldiran** | **0.47** | **30** | *i* P | **Pg** | **20 00 55.2** | **-0.7** |
| CLDR | | | | *i* S | **Sb** | **20 01 02.7** | **-0.3** |
| **CLDR** | **Caldiran** | **0.47** | **30** | P | **Pg** | **20 00 55.2** | **-0.7** |
| CLDR | | | | S | **Sb** | **20 01 02.7** | **-0.3** |
| **GEVA** | **Gevas** | **0.61** | **226** | *i* P | **Pg** | **20 00 57.0** | **-1.4** |
| GEVA | | | | *i* S | **Sb** | **20 01 07.2** | **+0.4** |
| **GEVA** | **Gevas** | **0.61** | **226** | P | **Pg** | **20 00 57.0** | **-1.4** |
| GEVA | | | | S | **Sb** | **20 01 07.2** | **+0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.70** | **276** | *i* P | **Pg** | **20 00 59.2** | **-0.9** |
| ADCV | | | | *i* S | **Sb** | **20 01 09.6** | **+0.1** |
| **ADCV** | **BITLIS_Adilcev** | **0.70** | **276** | P | **Pg** | **20 00 59.2** | **-0.9** |
| ADCV | | | | S | **Sb** | **20 01 09.6** | **+0.1** |
| **DYDN** | **Diyadin** | **0.81** | **4** | *i* P | **Pg** | **20 01 00.9** | **-1.3** |
| DYDN | | | | *i* S | **Sg** | **20 01 11.8** | **-1.2** |
| **DYDN** | **Diyadin** | **0.81** | **4** | P | **Pg** | **20 01 00.9** | **-1.3** |
| DYDN | | | | S | **Sg** | **20 01 11.8** | **-1.2** |
| **TUTA** | **Tutak** | **0.91** | **317** | *i* P | **Pg** | **20 01 02.6** | **-1.5** |
| TUTA | | | | *i* S | **Sb** | **20 01 15.8** | **+0.1** |
| **TUTA** | **Tutak** | **0.91** | **317** | P | **Pg** | **20 01 02.6** | **-1.5** |
| TUTA | | | | S | **Sb** | **20 01 15.8** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **0.97** | **330** | *e*PG | **Pg** | **20 01 03.7** | **-1.5** |
| **AGRB** | **Hanur-Agry** | **0.97** | **330** | *e*Pg | **Pg** | **20 01 03.7** | **-1.5** |
| **HAKT** | **HAKKARI** | **1.18** | **176** | *i* P | **Pg** | **20 01 07.3** | **-1.8** |
| HAKT | | | | *i* S | **Sg** | **20 01 23.3** | **-1.3** |
| **HAKT** | **HAKKARI** | **1.18** | **176** | P | **Pg** | **20 01 07.3** | **-1.8** |
| HAKT | | | | S | **Sg** | **20 01 23.3** | **-1.3** |
| **YOVA** | **Hakkari_Y˜…kse** | **1.26** | **155** | *i* P | **Pg** | **20 01 09.5** | **-1.2** |
| YOVA | | | | *i* S | **Sn** | **20 01 27.5** | **+1.6** |
| **YOVA** | **Hakkari_Y˜…kse** | **1.26** | **155** | P | **Pg** | **20 01 09.5** | **-1.2** |
| YOVA | | | | S | **Sn** | **20 01 27.5** | **+1.6** |
| **TASB** | **TASBURUN-IGDIR** | **1.34** | **21** | *e*PN | **Pg** | **20 01 11.8** | **-0.4** |
| **TASB** | **TASBURUN-IGDIR** | **1.34** | **21** | *e*Pn | **Pg** | **20 01 11.8** | **-0.4** |
| **EATA** | **Eleskirt** | **1.42** | **323** | *i* P | **Pn** | **20 01 12.3** | **+0.7** |
| EATA | | | | *i* S | **Sn** | **20 01 31.9** | **+1.8** |
| **EATA** | **Eleskirt** | **1.42** | **323** | P | **Pn** | **20 01 12.3** | **+0.7** |
| **CUKT** | **Cukurca** | **1.48** | **180** | *e*PN | **Pg** | **20 01 14.5** | **-0.5** |
| **CUKT** | **Cukurca** | **1.48** | **180** | *i* P | **Pg** | **20 01 14.3** | **-0.6** |
| **CUKT** | **Cukurca** | **1.48** | **180** | P | **Pg** | **20 01 14.3** | **-0.6** |
| **SRTM** | **Siirt_Merkez** | **1.52** | **241** | *i* P | **Pg** | **20 01 14.5** | **-1.2** |
| SRTM | | | | *i* S | **Sg** | **20 01 34.8** | **-0.8** |
| **SRTM** | **Siirt_Merkez** | **1.52** | **241** | P | **Pg** | **20 01 14.5** | **-1.2** |
| SRTM | | | | S | **Sg** | **20 01 34.8** | **-0.8** |
| **SIRT** | **Sirnak** | **1.54** | **217** | *e*PN | **Pg** | **20 01 14.9** | **-1.2** |
| **SIRT** | **Sirnak** | **1.54** | **217** | *e*Pn | **Pg** | **20 01 14.9** | **-1.2** |
| **SIRN** | **S˜–rnak** | **1.56** | **218** | *i* P | **Pn** | **20 01 13.8** | **+0.5** |
| SIRN | | | | *i* S | **Sg** | **20 01 37.4** | **+0.7** |
| **SIRN** | **S˜–rnak** | **1.56** | **218** | P | **Pn** | **20 01 13.8** | **+0.5** |
| SIRN | | | | S | **Sg** | **20 01 37.4** | **+0.7** |
| **DIGO** | **Kars** | **1.69** | **354** | *i* P | **Pb** | **20 01 17.0** | **0.0** |
| **DIGO** | **Kars** | **1.69** | **354** | P | **Pb** | **20 01 17.0** | **0.0** |
| **HOMI** | **Horasan** | **1.86** | **315** | *i* P | **Pg** | **20 01 20.8** | **-1.4** |
| HOMI | | | | *i* S | **Sg** | **20 01 46.8** | **+0.4** |
| **BNGL** | **BINGOL** | **1.94** | **277** | *i* S | **Sn** | **20 01 44.0** | **+1.4** |
| **BTMN** | **Batman** | **2.03** | **246** | *i* P | **Pb** | **20 01 21.8** | **-0.9** |
| BTMN | | | | *i* S | **Sn** | **20 01 45.5** | **+0.8** |
| **BTMN** | **Batman** | **2.03** | **246** | P | **Pb** | **20 01 21.8** | **-0.9** |
| **SENK** | **Senkaya-Erzuru** | **2.07** | **332** | *e*PN | **Pn** | **20 01 21.8** | **+1.4** |
| **SENK** | **Senkaya-Erzuru** | **2.07** | **332** | *e*Pn | **Pn** | **20 01 21.8** | **+1.4** |
| **ERZM** | **Erzurum** | **2.10** | **305** | *i* P | **Pg** | **20 01 25.1** | **-1.6** |
| **ERZM** | **Erzurum** | **2.10** | **305** | P | **Pg** | **20 01 25.1** | **-1.6** |
| **BNGB** | **Bing˜¶l** | **2.31** | **277** | *e*PN | **Pn** | **20 01 25.5** | **+2.0** |
| **BINT** | **Bingol** | **2.45** | **274** | *e*Pn | **Pn** | **20 01 25.5** | **0.0** |

**IDC 30 20:19:08.4±5.7, 30°.60S×178°.98W, h0km, mb3.2/2, mb1 3.5/2, mb1mx3.2/29, mbtmp3.2/2, Error ellipse: s-maj=219.2km s-min=59.5km az=155.0, Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ASAR** | **Alice Springs** | **42.26** | **268** | P | P | 20 27 03.0 | -0.8 |
| | 0.1nm,0.3s,baz=101,slow=7.7,SNR=3.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.26** | **273** | P | P | 20 27 12.3 | +0.3 |
| | 0.3nm,0.5s,baz=113,slow=8.0,SNR=13 | | | | | | |
| **FINES** | **FINESS Array B** | **145.04** | **339** | PKPbc | PKPbc | 20 38 45.7 | -0.7 |
| | 4.1nm,1.0s,baz=55,slow=5.3,SNR=4.3 | | | | | | |

*IDC **30** 20:27:41.6±17.0, 23°.22S×179°.59E, h244km±168km, mb3.5/4, mb1 3.8/5, mb1mx3.3/28, mbtmp4.2/5, Error ellipse: s-maj=106.9km s-min=28.4km az=4.0*
*ISCJB **30** 20:28:06.1±1.4, 24°.6S±0°.2×179°.4E±0°.2, h531km, mb3.7/4, Error ellipse: s-maj=30.9km s-min=26.4km az=165.4*

**ISC 30 20:28:06.5±1.3, 24°.6S±0°.2×179°.5E±0°.2, h531km, n6, σ1§03/6, mb3.7/4, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **URZ** | **Urewera** | **13.78** | **188** | P | **P** | **20 31 03.0** | **-0.4** |
| | 1.8nm,0.3s,baz=102,slow=5.9,SNR=4.9 | | | | | | |
| **STKA** | **Stephens Creek** | **34.05** | **249** | P | **P** | **20 34 07.6** | **+1.0** |
| | 1.3nm,0.5s,baz=104,slow=10,SNR=11 | | | | | | |
| **ASAR** | **Alice Springs** | **41.48** | **261** | P | **P** | **20 35 07.4** | **0.0** |
| | 2.4nm,0.9s,baz=96,slow=7.0,SNR=24 | | | | | | |
| **WRA** | **Warramunga Arr** | **41.91** | **267** | P | **P** | **20 35 10.2** | **-0.6** |
| | 2.1nm,0.5s,baz=97,slow=8.3,SNR=45 | | | | | | |
| **TXAR** | **Lajitas Array** | **91.18** | **58** | P | **P** | **20 40 15.7** | **+0.5** |
| | 0.4nm,0.7s,baz=218,slow=6.1,SNR=6.5 | | | | | | |
| **BRTR** | **Keskin Array B** | **147.62** | **306** | PKPbc | **PKPab** | **20 46 54.5** | **-1.2** |
| | 0.6nm,0.7s,baz=51,slow=4.3,SNR=2.9 | | | | | | |

**IDC 30 20:48:22.6±57.0, 16°.24S×176°.64W, h0km, mb3.9/3, mb1 4.1/3, mb1mx3.6/37, mbtmp3.9/3, Error ellipse: s-maj=1061.0km s-min=156.2km az=78.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **STKA** | **Stephens Creek** | **40.92** | **240** | P | P | 20 56 07.3 | +0.4 |
| | 0.7nm,0.3s,baz=81,slow=9.4,SNR=10.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **46.62** | **258** | P | P | 20 56 52.3 | -0.7 |
| | 0.2nm,0.2s,baz=94,slow=8.1,SNR=13 | | | | | | |
| **ASAR** | **Alice Springs** | **46.89** | **253** | P | P | 20 56 55.0 | -0.1 |
| | 3.2nm,0.5s,baz=89,slow=7.9,SNR=95 | | | | | | |

*DDA **30** 20:50:39.5, 40°.75N×27°.37E, h25km, Md3.0*
*ISK **30** 20:50:39.9, 40°.74N×27°.41E, h13km, ML2.7*
*ISCJB **30** 20:50:40.1±0.3, 40°.76N±0°.02×27°.42E±0°.02, h10km±2km, Error ellipse: s-maj=3.4km s-min=2.3km az=161.8*
*CSEM **30** 20:50:40.3±0.1, 40°.75N×27°.41E, h10km, MD3.0, Error ellipse: s-maj=2.3km s-min=1.6km az=159.0*
*ATH **30** 20:50:40.3, 40°.74N×27°.38E, h27km±1km, ML2.4/3, Error ellipse: s-maj=5.1km s-min=2.0km az=31.0*
*THE **30** 20:50:41.6, 40°.78N×27°.32E, h6km±1km, ML2.4/5, Error ellipse: s-maj=2.7km s-min=1.2km az=35.0*

**ISC 30 20:50:40.4±0.8, 40°.75N±0°.02×27°.39E±0°.01, h16km±5km, n93, σ0§60/137, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SART** | **Tekirdag** | **0.17** | **248** | *i* P | **Pg** | **20 50 44.5** | **-0.3** |
| SART | | | | *i* S | **Sg** | **20 50 47.4** | **-0.3** |
| **SART** | **Tekirdag** | **0.17** | **248** | P | **Pg** | **20 50 44.5** | **-0.3** |
| SART | | | | S | **Sg** | **20 50 47.4** | **-0.3** |
| **RKY** | **Sarkoy-Tekirda** | **0.17** | **248** | *e*PG | **Pg** | **20 50 44.4** | **-0.4** |
| RKY | | | | *e*SG | **Sg** | **20 50 47.5** | **-0.3** |
| **RKY** | **Sarkoy-Tekirda** | **0.17** | **248** | *e*Pg | **Pg** | **20 50 44.4** | **-0.4** |
| RKY | | | | *e*Sg | **Sg** | **20 50 47.5** | **-0.3** |
| **TKR** | **Tekirdag** | **0.26** | **25** | *e*PG | **Pg** | **20 50 46.3** | **+0.1** |
| TKR | | | | *e*SG | **Sg** | **20 50 50.5** | **+0.5** |
| **TKR** | **Tekirdag** | **0.26** | **25** | *e*Pg | **Pg** | **20 50 46.3** | **+0.1** |
| TKR | | | | *e*Sg | **Sg** | **20 50 50.5** | **+0.5** |
| **KRBG** | **Karabiga-Canak** | **0.37** | **191** | *e*PG | **Pg** | **20 50 47.7** | **-0.3** |
| KRBG | | | | *e*SG | **Sg** | **20 50 53.0** | **-0.1** |
| **KRBG** | **Karabiga-Canak** | **0.37** | **191** | *e*Pg | **Pg** | **20 50 47.7** | **-0.3** |
| KRBG | | | | *e*Sg | **Sg** | **20 50 53.0** | **-0.1** |
| **SBT3** | **Marmara-Eregli** | **0.46** | **73** | *e*PG | **Pb** | **20 50 50.3** | **+0.2** |
| **SBT3** | **Marmara-Eregli** | **0.46** | **73** | *e*Pg | **Pb** | **20 50 50.3** | **+0.2** |
| **KNL** | **Bal˜–kesir** | **0.49** | **168** | *i* P | **Pg** | **20 50 50.2** | **0.0** |
| KNL | | | | *i* S | **Sg** | **20 50 57.0** | **+0.1** |
| **EDC** | **Edincik** | **0.54** | **138** | *e*PG | **Pg** | **20 50 50.7** | **-0.5** |
| **EDC** | **Edincik** | **0.54** | **138** | *e*Pg | **Pg** | **20 50 50.7** | **-0.5** |
| **KESN** | **Edirne-Kesan** | **0.55** | **278** | *i* P | **Pg** | **20 50 51.2** | **-0.2** |
| KESN | | | | *i* S | **Sg** | **20 50 57.8** | **-0.9** |
| **KESN** | **Edirne-Kesan** | **0.55** | **278** | P | **Pg** | **20 50 51.2** | **-0.2** |
| KESN | | | | S | **Sg** | **20 50 57.8** | **-0.9** |
| **LPK** | **Lapseki** | **0.61** | **232** | *e*PG | **Pg** | **20 50 52.4** | **-0.1** |
| **LPK** | **Lapseki** | **0.61** | **232** | *e*Pg | **Pg** | **20 50 52.4** | **-0.1** |
| **ERIK** | **Erikli-Kesan** | **0.67** | **263** | *e*PG | **Pb** | **20 50 53.5** | **-0.2** |
| **ERIK** | **Erikli-Kesan** | **0.67** | **263** | *e*Pg | **Pb** | **20 50 53.5** | **-0.2** |
| **SLVT** | **Silivri** | **0.78** | **52** | *e*PG | **Pg** | **20 50 55.7** | **0.0** |
| **SLVT** | **Silivri** | **0.78** | **52** | *e*Pg | **Pg** | **20 50 55.7** | **0.0** |
| SLVT | | | | S | **Sg** | **20 51 02.8** | **-3.2** |
| **GELI** | **Tayfur-Gelibol** | **0.78** | **243** | *e*PG | **Pg** | **20 50 55.3** | **-0.4** |
| **GELI** | **Tayfur-Gelibol** | **0.78** | **243** | *e*Pg | **Pg** | **20 50 55.3** | **-0.4** |
| **SBT2** | **Guzelce-Avcila** | **0.86** | **81** | *e*PG | **Pg** | **20 50 56.8** | **-0.3** |
| **ELBA** | **Catalca** | **0.88** | **63** | *i* P | **Pg** | **20 50 56.9** | **-0.6** |
| ELBA | | | | *i* S | **Sg** | **20 51 08.6** | **-0.5** |
| **ELBA** | **Catalca** | **0.88** | **63** | P | **Pg** | **20 50 56.9** | **-0.6** |
| ELBA | | | | S | **Sg** | **20 51 08.6** | **-0.5** |
| **PHSR** | **Pinarhisar** | **0.88** | **6** | *e*PG | **Pn** | **20 50 58.2** | **0.0** |
| **PHSR** | **Pinarhisar** | **0.88** | **6** | *e*Pg | **Pn** | **20 50 58.2** | **0.0** |
| **KCTX** | **Karacabey (Bur** | **0.88** | **125** | *e*PG | **Pg** | **20 50 56.4** | **-1.2** |
| **KCTX** | **Karacabey (Bur** | **0.88** | **123** | *e*Pg | **Pg** | **20 50 56.4** | **-1.2** |
| **ENEZ** | **Enez** | **0.94** | **269** | *e*PG | **Pg** | **20 50 58.4** | **-0.2** |
| **ENEZ** | **Enez** | **0.94** | **269** | *e*Pg | **Pg** | **20 50 58.4** | **-0.2** |
| ENEZ | | | | S | **Sb** | **20 51 11.4** | **+0.8** |
| **ENEZ** | **Enez** | **0.94** | **269** | P | **Pb** | **20 50 58.3** | **-0.1** |
| ENEZ | | | | S | **Sb** | **20 51 11.4** | **+0.8** |
| **CTKS** | **Kestanelik-??a** | **0.97** | **60** | *e*PG | **Pb** | **20 50 58.5** | **-0.4** |
| **CTKS** | **Kestanelik-??a** | **0.97** | **60** | *e*Pg | **Pb** | **20 50 58.5** | **-0.4** |
| **CTYL** | **Yalikoy Yolu** | **0.99** | **43** | *e*PG | **Pb** | **20 50 59.3** | **+0.1** |
| **CTYL** | **Yalikoy Yolu** | **0.99** | **43** | *e*Pg | **Pb** | **20 50 59.3** | **+0.1** |
| **BALY** | **Balya** | **1.03** | **170** | *i* P | **Pb** | **20 50 59.4** | **-0.5** |
| BALY | | | | *i* S | **Sb** | **20 51 13.2** | **+0.1** |
| **BALY** | **Balya** | **1.03** | **170** | P | **Pb** | **20 50 59.4** | **-0.5** |
| BALY | | | | S | **Sb** | **20 51 13.2** | **+0.1** |
| **ALN** | **Alexandroupoli** | **1.03** | **278** | P | **Pb** | **20 50 60.0** | **+0.1** |
| ALN | | | | S | **Sn** | **20 51 14.6** | **+0.2** |
| ALN | | | | AML | AML | 20 51 17.5 | |
| | comp=E,256μm,0.5s | | | | | | |
| ALN | | | | AML | AML | 20 51 17.8 | |
| | comp=N,172μm,0.4s | | | | | | |
| **ALN** | **Alexandroupoli** | **1.03** | **278** | P | **Pb** | **20 51 00.0** | **+0.1** |
| ALN | | | | S | **Sg** | **20 51 13.8** | **-0.1** |
| **ALN** | **Alexandroupoli** | **1.03** | **278** | P | **Pb** | **20 50 59.8** | **-0.1** |
| ALN | | | | S | **Sg** | **20 51 13.8** | **-0.1** |
| **ARMT** | **Armutlu** | **1.14** | **99** | *e*PN | **Pb** | **20 51 01.4** | **-0.3** |
| **ARMT** | **Armutlu** | **1.14** | **99** | *e*Pn | **Pb** | **20 51 01.4** | **-0.3** |
| **BALB** | **Balikesir** | **1.17** | **161** | *e*PN | **Pb** | **20 51 02.5** | **+0.2** |
| **BALB** | **Balikesir** | **1.17** | **161** | *e*Pn | **Pb** | **20 51 02.5** | **+0.2** |
| **EDRB** | **Edirne** | **1.20** | **336** | *e*PN | **Pb** | **20 51 03.0** | **+0.3** |
| **EDRB** | **Edirne** | **1.20** | **336** | *e*Pn | **Pb** | **20 51 03.0** | **+0.3** |
| **BAYC** | **CANAKKALE_Bayr** | **1.20** | **213** | *i* P | **Pn** | **20 51 02.5** | **-0.1** |
| BAYC | | | | *i* S | **Sb** | **20 51 18.0** | **-0.1** |
| **BAYC** | **CANAKKALE_Bayr** | **1.20** | **213** | P | **Pn** | **20 51 02.5** | **-0.1** |
| BAYC | | | | S | **Sb** | **20 51 18.0** | **-0.1** |
| **MDNY** | **Mudanya-Bursa** | **1.20** | **108** | *e*PN | **Pn** | **20 51 02.7** | **+0.2** |
| **MDNY** | **Mudanya-Bursa** | **1.20** | **108** | *e*Pn | **Pn** | **20 51 02.7** | **+0.2** |
| **EZN** | **Ezine** | **1.23** | **222** | P | **Pn** | **20 51 03.0** | **0.0** |
| **EZN** | **Ezine** | **1.23** | **222** | P | **Pn** | **20 51 03.0** | **0.0** |
| **GADA** | **Gvkgeada** | **1.27** | **244** | *e*PN | **Pb** | **20 51 04.0** | **+0.1** |
| **GADA** | **Gvkgeada** | **1.27** | **244** | P | **Pb** | **20 51 04.0** | **+0.1** |
| GADA | | | | S | **Sg** | **20 51 21.6** | **+0.2** |
| **GADA** | **Gvkgeada** | **1.27** | **244** | P | **Pb** | **20 51 04.0** | **+0.1** |
| GADA | | | | S | **Sg** | **20 51 21.6** | **+0.2** |
| **ISK** | **Istanbul-Kandi** | **1.30** | **76** | *e*PN | **Pn** | **20 51 04.0** | **0.0** |
| **ISK** | **Istanbul-Kandi** | **1.30** | **76** | *e*Pn | **Pn** | **20 51 04.0** | **0.0** |
| **BUY** | **Buyukada** | **1.31** | **85** | *e*PN | **Pn** | **20 51 03.8** | **-0.3** |
| **BUY** | **Buyukada** | **1.31** | **85** | *e*Pn | **Pn** | **20 51 03.8** | **-0.3** |
| **KLYT** | **Kilyos** | **1.35** | **68** | *e*PN | **Pn** | **20 51 04.3** | **-0.3** |
| **KLYT** | **Kilyos** | **1.35** | **68** | *e*Pn | **Pn** | **20 51 04.3** | **-0.3** |
| **BOZC** | **Bozcaada** | **1.37** | **229** | *e*PN | **Pb** | **20 51 05.8** | **+0.1** |
| **BOZC** | **Bozcaada** | **1.37** | **229** | *i* P | **Pb** | **20 51 05.8** | **+0.1** |
| BOZC | | | | *i* S | **Sb** | **20 51 23.3** | **+0.3** |
| **BOZC** | **Bozcaada** | **1.37** | **229** | *e*Pn | **Pb** | **20 51 05.4** | **-0.3** |
| **SMTH** | **Samothraki Isl** | **1.44** | **259** | P | **Pn** | **20 51 06.1** | **+0.2** |
| SMTH | | | | S | **Sg** | **20 51 26.1** | **-0.9** |
| SMTH | | | | AML | AML | 20 51 28.5 | |
| | comp=E,199μm,0.3s | | | | | | |
| SMTH | | | | AML | AML | 20 51 28.5 | |
| | comp=N,313μm,0.5s | | | | | | |
| **SMTH** | **Samothraki Isl** | **1.44** | **259** | P | **Pn** | **20 51 06.2** | **+0.2** |
| SMTH | | | | S | **Sg** | **20 51 25.9** | **-1.1** |
| **SMTH** | **Samothraki Isl** | **1.44** | **259** | P | **Pn** | **20 51 06.2** | **+0.2** |
| SMTH | | | | S | **Sg** | **20 51 25.9** | **-1.1** |
| **RDO** | **Rodhopi** | **1.46** | **286** | P | **Pb** | **20 51 07.2** | **+0.1** |
| RDO | | | | S | **Sb** | **20 51 26.2** | **+0.7** |
| RDO | | | | AML | AML | 20 51 27.9 | |
| | comp=N,269μm,0.3s | | | | | | |
| RDO | | | | AML | AML | 20 51 28.3 | |
| | comp=E,319μm,0.2s | | | | | | |
| **RDO** | **Rodhopi** | **1.46** | **286** | P | **Pb** | **20 51 06.8** | **-0.4** |
| RDO | | | | S | **Sb** | **20 51 25.8** | **+0.3** |
| **RDO** | **Rodhopi** | **1.46** | **286** | P | **Pb** | **20 51 06.8** | **-0.4** |
| RDO | | | | S | **Sb** | **20 51 25.8** | **+0.3** |
| **IGD** | **Bursa** | **1.46** | **109** | *i* P | **Pg** | **20 51 08.9** | **+0.3** |
| IGD | | | | *i* S | **Sb** | **20 51 25.9** | **+0.3** |
| **YLV** | **Yalova** | **1.52** | **96** | *e*PN | **Pn** | **20 51 07.8** | **+0.8** |
| **YLV** | **Yalova** | **1.52** | **96** | *e*Pn | **Pn** | **20 51 07.8** | **+0.8** |
| **PRK** | **Paraskevi** | **1.73** | **210** | P | **Pb** | **20 51 11.8** | **-0.1** |
| **PRK** | **Paraskevi** | **1.73** | **210** | P | **Pb** | **20 51 11.7** | **-0.1** |
| PRK | | | | S | **Sg** | **20 51 34.9** | **-1.3** |
| **PRK** | **Paraskevi** | **1.73** | **210** | P | **Pb** | **20 51 11.7** | **-0.1** |
| PRK | | | | S | **Sg** | **20 51 34.9** | **-1.3** |
| **LIA** | **Limnos Island** | **1.89** | **244** | P | **Pn** | **20 51 12.3** | **+0.2** |
| **LIA** | **Limnos Island** | **1.89** | **244** | P | **Pn** | **20 51 12.3** | **+0.2** |
| **AKHS** | **Akhisar** | **1.90** | **170** | *i* P | **Pb** | **20 51 15.7** | **+0.9** |
| AKHS | | | | *i* S | **Sn** | **20 51 36.5** | **+0.7** |
| **SIGR** | **SIGRI** | **1.94** | **218** | P | **Pb** | **20 51 14.8** | **-0.6** |
| SIGR | | | | S | **Sb** | **20 51 38.7** | **-0.6** |
| **SIGR** | **SIGRI** | **1.94** | **218** | P | **Pb** | **20 51 14.8** | **-0.6** |
| SIGR | | | | S | **Sb** | **20 51 38.7** | **-0.6** |
| **DEMI** | **Demirci** | **1.99** | **149** | *i* P | **Pn** | **20 51 14.2** | **+0.7** |
| DEMI | | | | *i* S | **Sn** | **20 51 39.7** | **+1.6** |
| **DEMI** | **Demirci** | **1.99** | **149** | P | **Pn** | **20 51 14.2** | **+0.7** |
| DEMI | | | | S | **Sn** | **20 51 39.7** | **+1.6** |
| **TVSB** | **Tavsanli** | **2.05** | **129** | *e*PN | **Pn** | **20 51 15.0** | **+0.6** |
| **TVSB** | **Tavsanli** | **2.05** | **129** | *e*Pn | **Pn** | **20 51 15.0** | **+0.6** |
| **KAND** | **Kocaeli-Kandir** | **2.15** | **80** | *i* P | **Pn** | **20 51 16.2** | **+0.6** |
| KAND | | | | *i* S | **Sn** | **20 51 41.6** | **-0.3** |
| **KAND** | **Kocaeli-Kandir** | **2.15** | **80** | P | **Pn** | **20 51 16.2** | **+0.6** |
| KAND | | | | S | **Sn** | **20 51 41.6** | **-0.3** |
| **GEYV** | **SAKARYA_Geyve** | **2.23** | **96** | *i* S | **Sg** | **20 51 51.5** | **-0.6** |
| **GDZ** | **Gediz** | **2.31** | **135** | *i* P | **Pn** | **20 51 18.9** | **+0.9** |
| GDZ | | | | *i* S | **Sn** | **20 51 45.9** | **-0.3** |
| **GDZ** | **Gediz** | **2.31** | **135** | P | **Pn** | **20 51 18.9** | **+0.9** |
| GDZ | | | | S | **Sn** | **20 51 45.9** | **-0.3** |
| **MANT** | **Manisa** | **2.43** | **158** | *i* S | **Sb** | **20 51 55.6** | **+1.9** |

*IDC **30** 20:51:31.4±3.1, 17°.76N×105°.89W, h0km, mb3.6/4, mb1 3.9/6, mb1mx3.7/41, mbtmp3.7/6, ML3.7/2, MS3.3/3, Ms1 3.3/3, ms1mx3.0/30, Error ellipse: s-maj=78.1km s-min=25.5km az=40.0*
*ISCJB **30** 20:51:35.7±0.7, 17°.85N±0°.07×105°.78W±0°.03, h33km, mb4.2/39, MS3.1/2, Error ellipse: s-maj=10.2km s-min=3.6km az=16.1*
*NEIC **30** 20:51:36.9±0.9, 17°.81N×105°.81W, h32km±4km, mb4.2/80, MD4.2(MEX), Error ellipse: s-maj=10.6km s-min=4.2km az=196.0*
*MEX **30** 20:51:38.2±0.5, 18°.24N×105°.85W, h20km±90km, MD4.2*

**ISC 30 20:51:38.4±1.0, 18°.01N±0°.09×105°.72W±0°.07, h35km, n237, σ1§18/228, mb4.3/36,

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| W35A | Tecumseh<br>28nm,1.4s | 18.80 | 23 | *e*P | P | 20 55 55.4 | +0.4 |
| GMRC | Granite Mounta<br>baz=150 | 18.91 | 334 | P | P | 20 55 56.8 | +0.5 |
| X37A | Clayton<br>baz=212 | 18.92 | 27 | P | P | 20 55 57.4 | +1.2 |
| X37A | Clayton<br>30nm,1.3s | 18.92 | 27 | *e*P | Pn | 20 55 58.3 | +1.3 |
| LDFC | Landfair<br>77nm,1.9s | 18.95 | 336 | *e*P | Pn | 20 55 59.0 | +1.5 |
| W36A | Wetumka<br>58nm,1.9s | 19.04 | 24 | *e*P | P | 20 55 58.9 | +1.3 |
| T25A | Trinidad<br>baz=184 | 19.10 | 3 | P | P | 20 55 59.3 | +0.9 |
| T25A | Trinidad<br>22nm,1.8s | 19.10 | 3 | *e*P | P | 20 55 56.0 | -2.4 |
| OK020 | N3440 Road, Me<br>32nm,1.7s | 19.15 | 22 | *e*P | P | 20 55 59.6 | +0.9 |
| OK022 | N3560 Road, Pr<br>43nm,1.8s | 19.23 | 23 | *e*P | P | 20 56 00.2 | +0.6 |
| X38A | Whitesboro<br>baz=213 | 19.23 | 28 | P | Pn | 20 56 01.4 | +0.6 |
| U15A | North Rim<br>18nm,1.7s | 19.25 | 344 | *e*P | Pn | 20 56 02.4 | +1.1 |
| OK021 | N3530 Road, Sp<br>70nm,1.9s | 19.26 | 23 | *e*P | P | 20 56 00.6 | +0.6 |
| MVCO | Mesa Verde<br>33nm,2.0s | 19.29 | 353 | *e*P | P | 20 56 01.3 | +0.8 |
| V35A | Meyer Ranch, C<br>12nm,0.9s | 19.36 | 22 | *e*P | P | 20 56 01.3 | +0.2 |
| W37B | Quinton<br>baz=211 | 19.36 | 26 | P | P | 20 56 02.5 | +1.4 |
| W37B | Quinton<br>16nm,1.0s | 19.36 | 26 | *e*P | Pn | 20 56 02.7 | +0.3 |
| X39A | Fountain Ranch<br>baz=215 | 19.43 | 30 | P | Pn | 20 56 03.8 | +0.6 |
| MWC | Mount Wilson<br>8.3nm,1.1s | 19.56 | 328 | *e*P | P | 20 56 01.8 | -1.6 |
| PASC | Pasadena Art C<br>17nm,1.1s | 19.58 | 328 | *e*P | P | 20 56 03.4 | -0.1 |
| SDCO | Great Sand Dun<br>3.5nm,1.1s | 19.67 | 1 | *e*P | Pn | 20 56 08.1 | +1.8 |
| S22A | 4UR Ranch, Cre<br>4.6nm,1.8s | 19.69 | 357 | *e*P | Pn | 20 56 09.4 | +2.8 |
| W38A | Poteau<br>baz=213 | 19.70 | 28 | P | Pn | 20 56 06.6 | +0.2 |
| MIAR | Mount Ida<br>baz=216 | 19.72 | 31 | P | P | 20 56 06.2 | +1.2 |
| MIAR | Mount Ida<br>25nm,1.6s | 19.72 | 31 | *e*P | Pn | 20 56 07.4 | +0.8 |
| V36A | Jenks<br>baz=208 | 19.72 | 24 | P | P | 20 56 06.4 | +1.4 |
| V36A | Jenks<br>27nm,1.1s | 19.72 | 24 | *e*P | P | 20 56 05.3 | +0.3 |
| TUL1 | Leonard<br>baz=209 | 19.89 | 24 | P | P | 20 56 08.3 | +1.5 |
| TUL1 | Leonard<br>99nm,1.9s | 19.89 | 24 | *e*P | P | 20 56 07.8 | +1.0 |
| U35A | Pawnee<br>baz=206,SNR=6.1 | 19.95 | 22 | P | P | 20 56 09.0 | +1.6 |
| U35A | Pawnee<br>24nm,0.9s | 19.95 | 22 | *e*P | P | 20 56 08.6 | +1.2 |
| LCMT | Little Creek M | 20.06 | 342 | *e*P | Pn | 20 56 10.6 | -0.2 |
| V37A | Hulbert<br>baz=210 | 20.12 | 26 | P | P | 20 56 10.6 | +1.3 |
| W39A | Magazine<br>baz=215 | 20.15 | 29 | P | P | 20 56 10.9 | +1.3 |
| SHPR | Sheep Range<br>4.9nm,1.1s | 20.23 | 338 | *e*P | P | 20 56 11.9 | +1.2 |
| T34A | McClaskey Farm<br>baz=204 | 20.38 | 20 | P | P | 20 56 13.9 | +1.7 |
| V38A | Canehill<br>baz=212 | 20.42 | 27 | P | P | 20 56 13.7 | +1.2 |
| W40A | Ferguson Farm,<br>baz=216 | 20.48 | 31 | P | P | 20 56 14.6 | +1.4 |
| W40A | Ferguson Farm,<br>45nm,1.5s | 20.48 | 31 | *e*P | P | 20 56 14.7 | +1.4 |
| T35A | Sooner Cattle<br>baz=206,SNR=5.8 | 20.51 | 21 | P | P | 20 56 14.8 | +1.2 |
| SZCU | Shurtz Canyon<br>6.9nm,1.3s | 20.56 | 343 | *e*P | P | 20 56 14.7 | +0.3 |
| U37A | Salina<br>baz=210,SNR=6.1 | 20.59 | 25 | P | P | 20 56 15.6 | +1.2 |
| CCUT | Cedar City<br>14nm,1.7s | 20.60 | 343 | *e*P | P | 20 56 13.8 | -0.9 |
| V39A | Pettigrew<br>baz=214 | 20.74 | 29 | P | P | 20 56 17.2 | +1.1 |
| MTPU | Mount Pierson<br>6.1nm,1.1s | 20.75 | 345 | *e*P | P | 20 56 18.5 | +2.0 |
| MPMC | Manual Prospec<br>baz=147 | 20.78 | 332 | P | P | 20 56 16.6 | -0.1 |
| X301 | Greenbrier Sit<br>26nm,1.7s | 20.85 | 32 | *e*P | P | 20 56 18.0 | +0.7 |
| FURC | Furnace Creek,<br>baz=150 | 20.86 | 334 | P | P | 20 56 17.6 | +0.3 |
| T36A | Boggs Farm, Ca<br>baz=207 | 20.87 | 23 | P | P | 20 56 18.8 | +1.4 |
| W41B | Gary Mavity, V<br>baz=218 | 20.88 | 32 | P | P | 20 56 18.8 | +1.2 |
| ISA | Isabella, Lake<br>baz=144 | 20.91 | 330 | P | P | 20 56 19.2 | +1.2 |
| ISA | Isabella, Lake<br>13nm,1.4s | 20.91 | 330 | *e*P | P | 20 56 19.0 | +1.0 |
| U38A | Gravette<br>baz=211 | 20.92 | 26 | P | P | 20 56 19.1 | +1.2 |
| HHAR | Hobbs<br>13nm,0.9s | 20.98 | 27 | *e*P | P | 20 56 19.4 | +0.8 |
| DAC | Darwin (Calif)<br>10nm,1.4s | 21.01 | 332 | *e*P | P | 20 56 19.8 | +0.6 |
| TPNV | Topopah Spring<br>baz=152 | 21.03 | 336 | P | P | 20 56 19.4 | +0.1 |
| TPNV | Topopah Spring<br>4.6nm,1.0s | 21.03 | 336 | *e*P | P | 20 56 18.8 | -0.5 |
| V40A | Witts Springs<br>baz=216,SNR=6.3 | 21.09 | 30 | P | P | 20 56 21.3 | +1.4 |
| MSU | Marysvale | 21.20 | 346 | *e*P | P | 20 56 23.2 | +2.0 |
| U39A | Green Forest<br>baz=214 | 21.26 | 28 | P | P | 20 56 22.7 | +1.0 |
| S35A | Otter Creek Ra<br>baz=205 | 21.27 | 21 | P | P | 20 56 22.9 | +1.1 |
| T37A | Cheneyville 18<br>baz=209,SNR=5.4 | 21.29 | 24 | P | P | 20 56 23.2 | +1.3 |
| VES | Vestal, Richgr<br>baz=143 | 21.35 | 329 | P | P | 20 56 22.7 | +0.1 |
| CWC | Cottonwood Cre<br>baz=147 | 21.36 | 332 | P | P | 20 56 22.8 | -0.1 |
| CBKS | Cedar Bluff<br>baz=196 | 21.38 | 13 | P | P | 20 56 24.0 | +1.0 |
| CBKS | Cedar Bluff<br>16nm,0.9s | 21.38 | 13 | *e*P | P | 20 56 23.2 | +0.3 |
| V41A | Mountainview<br>baz=218 | 21.41 | 32 | P | P | 20 56 24.4 | +1.2 |
| 147A | Livingston<br>baz=231 | 21.45 | 44 | P | P | 20 56 24.5 | +0.8 |
| T38A | Diamond<br>baz=211 | 21.46 | 26 | P | P | 20 56 25.5 | +1.7 |
| U40A | Yellville<br>baz=215 | 21.53 | 29 | P | P | 20 56 25.6 | +1.0 |
| R34A | Isabella, Hill<br>baz=202 | 21.54 | 18 | P | P | 20 56 25.9 | +1.3 |
| S36A | Lake Cedric, C<br>baz=207 | 21.56 | 22 | P | P | 20 56 26.0 | +1.1 |
| TMUT | Trail Mountain<br>11nm,1.5s | 21.75 | 348 | *e*P | P | 20 56 28.1 | +0.9 |
| T39A | Clever<br>baz=213 | 21.84 | 27 | P | P | 20 56 29.0 | +1.1 |
| PAGB | Antelope Grade<br>25nm,1.4s | 21.86 | 327 | *e*P | P | 20 56 26.4 | -1.7 |
| Y46A | Houston<br>baz=228 | 21.86 | 40 | P | P | 20 56 28.8 | +0.8 |
| S37A | Fort Scott<br>baz=209 | 21.88 | 24 | P | P | 20 56 29.5 | +1.3 |
| P18A | Preston Nutter<br>12nm,1.5s | 21.90 | 351 | *e*P | P | 20 56 28.0 | -0.8 |
| Z47A | Carrollton<br>baz=230 | 21.91 | 43 | P | P | 20 56 29.4 | +0.7 |
| OXF | Oxford<br>37nm,1.3s | 21.95 | 38 | *e*P | P | 20 56 28.2 | -0.8 |
| HBAR | Harrisburg<br>141nm,1.2s | 22.00 | 34 | *e*P | P | 20 56 30.0 | +0.4 |
| R11A | Troy Canyon, C<br>baz=155 | 22.03 | 339 | P | P | 20 56 30.0 | -0.1 |
| R11A | Troy Canyon, C<br>15nm,1.9s | 22.03 | 339 | *e*P | P | 20 56 29.6 | -0.4 |
| R36A | Gordon, Harris<br>baz=206 | 22.13 | 22 | P | P | 20 56 32.1 | +1.2 |
| S38A | Stockton<br>baz=211,SNR=5.3 | 22.13 | 26 | P | P | 20 56 32.0 | +1.0 |
| Q34A | Chapman<br>baz=203 | 22.20 | 18 | P | P | 20 56 33.3 | +1.6 |
| U42A | Revenden<br>baz=219 | 22.31 | 32 | P | P | 20 56 33.7 | +0.8 |
| T40A | Mansfield<br>baz=215,SNR=8.3 | 22.33 | 29 | P | P | 20 56 34.3 | +1.2 |
| Z48A | Northport<br>baz=231 | 22.36 | 43 | P | P | 20 56 34.5 | +1.1 |
| S39A | Bolivar<br>baz=212 | 22.43 | 27 | P | P | 20 56 35.2 | +1.0 |
| Q35A | Mercer Eighty,<br>baz=205 | 22.43 | 20 | P | P | 20 56 35.3 | +1.1 |
| KSU1 | Kansas State U<br>baz=203 | 22.47 | 19 | P | P | 20 56 36.0 | +1.5 |
| KSU1 | Kansas State U | 22.47 | 19 | *e*P | P | 20 56 35.5 | +0.9 |
| Y47A | UCPARC, Winfie<br>baz=229 | 22.50 | 42 | P | P | 20 56 35.8 | +0.8 |
| LRAL | Lakeview Retre<br>baz=233 | 22.52 | 45 | P | P | 20 56 35.8 | +0.7 |
| LRAL | Lakeview Retre<br>11nm,1.2s | 22.52 | 45 | *e*P | P | 20 56 34.5 | -0.6 |
| T41A | Mountain View<br>baz=216 | 22.60 | 30 | P | P | 20 56 37.2 | +1.2 |
| R38A | Fenwick Farm,<br>baz=210 | 22.61 | 25 | P | P | 20 56 37.6 | +1.5 |
| S40A | Lebanon<br>baz=214 | 22.71 | 28 | P | P | 20 56 38.0 | +0.8 |
| MDPB | Devils Postpil<br>19nm,1.1s | 22.80 | 332 | *e*P | P | 20 56 37.2 | -1.2 |
| P34A | Walnut Farm, R<br>baz=202 | 22.81 | 18 | P | P | 20 56 39.7 | +1.4 |
| Z49A | Columbiana<br>baz=233 | 22.93 | 45 | P | P | 20 56 40.3 | +0.8 |
| DUG | Dugway, Tooele<br>baz=163 | 22.95 | 346 | P | P | 20 56 40.5 | +0.8 |
| DUG | Dugway, Tooele<br>6.8nm,1.3s | 22.95 | 346 | *e*P | P | 20 56 40.9 | +1.1 |
| P35A | Duane Minner,<br>baz=204 | 23.04 | 19 | P | P | 20 56 41.7 | +1.1 |
| S41A | Jillco Farms,<br>baz=216 | 23.04 | 29 | P | P | 20 56 41.8 | +1.2 |
| PBMO | Poplar Bluff<br>12nm,0.8s | 23.05 | 33 | *e*P | P | 20 56 41.7 | +1.0 |
| NV01 | Mina Array Sit | 23.13 | 334 | *e*P | P | 20 56 42.5 | +0.8 |
| PHWY | Pilot Hill<br>16nm,0.8s | 23.22 | 1 | *e*P | P | 20 56 43.3 | +0.6 |
| T43A | Greenville<br>baz=220 | 23.36 | 32 | P | P | 20 56 45.1 | +1.4 |
| X48A | Hartselle<br>baz=230 | 23.36 | 42 | P | P | 20 56 44.5 | +0.7 |
| R40A | Maddies Statio<br>baz=214 | 23.38 | 27 | P | P | 20 56 45.1 | +1.2 |
| Q38A | Cooks Store, C<br>baz=210 | 23.39 | 24 | P | P | 20 56 44.9 | +0.8 |
| Y49A | Blount Mountai<br>baz=232 | 23.40 | 44 | P | P | 20 56 44.8 | +0.5 |
| RWWY | Rawlins<br>8.8nm,0.9s | 23.64 | 357 | *e*P | P | 20 56 46.3 | -0.4 |
| S42A | Caledonia<br>baz=218 | 23.64 | 31 | P | P | 20 56 47.2 | +0.7 |
| CCM | Cathedral Cave<br>baz=216 | 23.66 | 29 | P | P | 20 56 47.6 | +1.0 |
| CCM | Cathedral Cave<br>28nm,1.2s | 23.66 | 29 | *e*P | P | 20 56 47.1 | +0.5 |
| P37A | Lathrop<br>baz=208 | 23.66 | 22 | P | P | 20 56 47.8 | +1.1 |
| WAKR | Walker<br>9.9nm,1.3s | 23.68 | 332 | *e*P | P | 20 56 46.0 | -1.0 |
| BGU | Big Grassy Mou<br>9.3nm,1.7s | 23.69 | 346 | *e*P | P | 20 56 48.1 | +0.9 |
| CMB | Columbia Colle<br>8.7nm,1.6s | 23.73 | 330 | *e*P | P | 20 56 47.0 | -0.4 |
| R41A | Rosebud<br>baz=216,SNR=7.1 | 23.79 | 29 | P | P | 20 56 48.9 | +1.0 |
| X49A | Woodville<br>baz=231 | 23.86 | 43 | P | P | 20 56 49.1 | +0.5 |
| FVM | French Village<br>53nm,1.9s | 23.99 | 31 | *e*P | P | 20 56 49.2 | -0.5 |
| P38A | Dawn<br>baz=210 | 24.00 | 24 | P | P | 20 56 50.9 | +1.1 |
| WVT | Waverly<br>baz=226 | 24.01 | 38 | P | P | 20 56 50.7 | +0.7 |
| WVT | Waverly<br>8.1nm,1.2s | 24.01 | 38 | *e*P | P | 20 56 50.2 | +0.2 |
| Q40A | Laux Farm, Aux<br>baz=213 | 24.05 | 27 | P | P | 20 56 51.3 | +1.0 |
| P39B | Salisbury<br>baz=211 | 24.18 | 25 | P | P | 20 56 52.4 | +0.9 |
| X50A | Fort Payne<br>baz=232 | 24.27 | 44 | P | P | 20 56 52.8 | +0.3 |
| V48A | Smith Brothers<br>baz=228 | 24.34 | 40 | P | P | 20 56 53.7 | +0.6 |
| Q41A | Truxton<br>baz=215 | 24.39 | 28 | P | P | 20 56 54.2 | +0.8 |
| BMN | Battle Mountai<br>12nm,1.4s | 24.45 | 338 | *e*P | P | 20 56 54.4 | +0.2 |
| P40A | Paris<br>baz=213 | 24.51 | 26 | P | P | 20 56 55.4 | +0.8 |
| U47A | Clarksville<br>baz=226 | 24.54 | 38 | P | P | 20 56 55.4 | +0.7 |
| SWET | Sewwee<br>12nm,1.1s | 24.56 | 42 | *e*P | P | 20 56 55.5 | +0.5 |
| T46A | Princeton<br>baz=224 | 24.61 | 36 | P | P | 20 56 56.3 | +0.8 |
| S45A | Carrier Mills<br>baz=222 | 24.70 | 34 | P | P | 20 56 57.0 | +0.8 |
| R44A | Waltonville<br>baz=220 | 24.86 | 32 | P | P | 20 56 58.6 | +0.9 |
| T47A | Sharon Grove<br>baz=226 | 25.02 | 37 | P | P | 20 56 59.8 | +0.6 |
| U48A | Cassie Pea, Po<br>baz=227 | 25.02 | 39 | P | P | 20 56 59.9 | +0.6 |
| P41A | Barry, Barry<br>baz=214 | 25.05 | 27 | P | P | 20 57 00.2 | +0.8 |
| O40A | La Belle<br>baz=212,SNR=5.4 | 25.08 | 26 | P | P | 20 57 00.4 | +0.7 |
| N38A | Joes South For<br>baz=209 | 25.13 | 23 | P | P | 20 57 01.0 | +0.9 |
| GOGA | Godfrey<br>29nm,0.9s | 25.17 | 48 | *e*P | P | 20 57 02.0 | +1.5 |
| P42A | Winchester<br>baz=216 | 25.30 | 29 | P | P | 20 57 02.6 | +0.9 |
| R45A | Skylar, Fairfi<br>baz=222 | 25.31 | 33 | P | P | 20 57 02.4 | +0.6 |
| Q44A | Meyer Farm, Va<br>baz=219 | 25.40 | 32 | P | P | 20 57 03.4 | +0.8 |
| ORV | Oroville<br>5.4nm,1.0s | 25.46 | 331 | *e*P | P | 20 57 04.0 | +0.9 |
| N39A | Derby Farms, D<br>baz=210 | 25.48 | 24 | P | P | 20 57 04.2 | +0.9 |
| O41A | Passleys Farm,<br>baz=214 | 25.50 | 27 | P | P | 20 57 04.2 | +0.8 |
| T48A | Bowling Green<br>baz=227 | 25.52 | 38 | P | P | 20 57 04.4 | +0.8 |
| CPCT | Cooper Cave<br>14nm,1.3s | 25.61 | 43 | *e*P | P | 20 57 03.6 | -0.9 |
| M38A | Pleasantville<br>baz=208 | 25.69 | 22 | P | P | 20 57 06.2 | +1.0 |
| TPAW | Teton Pass<br>23nm,1.8s | 25.79 | 351 | *e*P | P | 20 57 07.4 | +1.0 |
| Q45A | Warren Harvey,<br>baz=221 | 25.83 | 33 | P | P | 20 57 07.4 | +1.0 |
| L37A | Phoenix Point,<br>baz=207 | 26.12 | 21 | P | P | 20 57 10.1 | +1.0 |
| TKL | Tuckaleechee C<br>comp=Z,42nm,20.9s,baz=286,slow=40 | 26.22 | 44 | LR | LR | 21 09 05.3 | |
| HODGE | Hodges<br>16nm,1.3s | 26.45 | 48 | *e*P | P | 20 57 13.5 | +1.3 |
| JSC | Jenkinsville<br>19nm,1.5s | 27.19 | 49 | *e*P | P | 20 57 15.6 | -3.2 |
| L41A | Preston<br>baz=213 | 27.28 | 25 | P | P | 20 57 20.2 | +0.7 |
| MCMT | McKenzie Canyo | 27.40 | 349 | *e*P | P | 20 57 19.1 | -1.8 |
| SFIN | Lafayette<br>57nm,1.8s | 27.48 | 32 | *e*P | P | 20 57 22.4 | +1.0 |
| KHMM | Horse Mountain | 27.56 | 330 | *e*PcP | PcP | 21 00 38.7 | -0.9 |
| YBH | Yreka Blue Hor<br>comp=Z,63nm,18.6s,baz=189,slow=36 | 27.76 | 332 | LR | LR | 21 08 20.6 | |
| KTRM | Thompson Ridge | 28.20 | 331 | *e*pP | pP | 20 57 36.3 | -1.6 |
| GULW | Guler Mountain | 30.80 | 338 | *e*pP | pP | 20 58 00.3 | -0.7 |
| SPFD | Spotsylvania F<br>9.4nm,0.6s | 31.76 | 45 | *e*P | P | 20 58 00.2 | +0.9 |
| OTAV | Otavalo<br>12nm,1.5s | 32.10 | 120 | *e*P | P | 20 58 03.5 | +0.4 |
| SDV | Santo Domingo<br>3.3nm,0.8s,baz=294,slow=12,SNR=3.0 | 35.25 | 100 | P | P | 20 58 29.5 | -0.7 |
| YKA | Yellowknife Ar<br>0.1nm,0.7s,baz=164,slow=7.6,SNR=3.5 | 44.88 | 354 | P | P | 20 59 48.2 | -0.9 |
| INK | Inuvik<br>1.7nm,1.0s,baz=131,slow=4.5,SNR=3.9 | 53.26 | 348 | P | P | 21 00 53.2 | 0.0 |
| ILAR | Eielson Array<br>0.5nm,0.9s,baz=157,slow=7.4,SNR=5.0 | 54.23 | 340 | P | P | 21 01 00.1 | -0.4 |

**NNC 30 20:57:33.0±5.7, 38.37N×72.67E, h0km, mb3.7, mpv3.3, 2C-4D, Error ellipse: s-maj=46.8km s-min=40.4km az=137.0, Tajikistan**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| SFK | Sufi-Kurgan<br>23nm,0.3s | 1.76 | 21 | ⇓Pn | | Pn | 20 58 04.7 | -0.3 |
| SFK | <br>26nm,0.5s | | | ⇓Sn | | Sg | 20 58 30.0 | +0.4 |
| MNAS | Manas<br>3.9nm,0.5s | 4.11 | 358 | ⇑Pn | | Pn | 20 58 36.7 | -0.5 |
| MNAS | <br>11nm,0.5s | | | ⇓Sn | | Sn | 20 59 25.6 | -0.5 |
| KK31 | Karatay Array<br>0.4nm,0.2s,baz=137,slow=13,SNR=14 | 5.00 | 342 | ⇓Pn | | Pn | 20 58 51.0 | +1.7 |
| KK31 | <br>1.8nm,0.3s,baz=164,slow=26,SNR=11 | | | ⇑Sn | | Sn | 20 59 51.0 | +3.2 |

*ISCJB **30** 21:14:08.1±0.6, 36.09N±0.04×139.67E±0.07, h98km±4km, mb3.5/5, Error ellipse: s-maj=9.2km s-min=7.0km az=5.8*
*JMA **30** 21:14:09.9±0.1, 36.11N×139.68E, h84km±1km, M3.2 Broadband fault plane solution: P waves. NP1: ϕs3.00000°, δ52.00000°, λ84.00000°. NP2:ϕs193.00000°, δ38.00000°, λ98.00000°. Principal axes: T Plg81.0000°, Azm243.0000°; N Plg5.0000°, Azm6.0000°; P Plg7.0000°, Azm97.0000°;*
*JMA Felt I J1.*
*IDC **30** 21:14:10.7±4.2, 36.00N×139.43E, h102km±18km, mb3.2/5, mb1 3.4/6, mb1mx3.1/39, mbtmp3.6/6, MS2.9/1, Ms1 2.9/1, ms1mx2.1/17 Error ellipse: s-maj=99.2km s-min=15.2km az=61.0*

**ISC 30 21:14:09.1±0.9, 36.11N±0.05×139.65E±0.06, h91km±7km, n17, σ0s71/25, mb3.7/5, 5C-2D, Eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| JAG | Ashikaga | 0.36 | 333 | ⇑P | | Pn | 21 14 23.1 | +0.2 |
| JAG | | | | S | | Sn | 21 14 33.1 | -0.1 |
| JYT | Yasato | 0.46 | 74 | ⇑P | | Pn | 21 14 23.7 | +0.2 |
| JYT | | | | S | | Sn | 21 14 33.9 | -0.4 |
| JRY | Ryogami san | 0.61 | 262 | ⇓P | | Pn | 21 14 25.5 | +0.6 |
| JKT | Katashina | 0.74 | 334 | ⇑P | | Pn | 21 14 26.5 | +0.4 |
| JKT | | | | S | | Sn | 21 14 39.0 | +0.2 |
| JOD2 | Odawara 2 | 0.96 | 209 | ⇑P | | Pn | 21 14 28.5 | +0.1 |
| JOD2 | | | | S | | Sn | 21 14 42.3 | -0.5 |
| JYN | Shimob | 1.09 | 236 | ⇓P | | Pn | 21 14 30.5 | +0.6 |
| JYN | | | | S | | Sn | 21 14 45.9 | +0.4 |
| MJAR | Matsushiro Arr<br>39nm,0.3s,baz=110,slow=7.8,SNR=705 | 1.24 | 291 | P | | Pn | 21 14 31.8 | +0.1 |
| MJAR | <br>19nm,0.3s,baz=99,slow=22,SNR=17 | | | S | | Sn | 21 14 48.8 | 0.0 |
| MAT | Matsushiro | 1.25 | 291 | P | | Pn | 21 14 32.1 | +0.4 |
| MAT | | | | S | | Sn | 21 14 49.0 | +0.2 |
| JHK | Hiroka | 1.25 | 336 | P | | Pn | 21 14 32.5 | +0.7 |
| JHK | | | | S | | Sn | 21 14 49.8 | +1.0 |
| JFY | Yanaizu | 1.30 | 2 | ⇑P | | Pn | 21 14 33.1 | +0.7 |
| JFY | | | | S | | Sn | 21 14 50.6 | +0.6 |
| JHJ | Hachijo jima 2<br>44nm,0.3s,baz=318,slow=22,SNR=5.8 | 2.98 | 178 | P | | Pn | 21 14 56.4 | +2.1 |
| MA2 | Magadan<br>comp=Z,29nm,18.9s,baz=19,slow=41 | 24.57 | 14 | LR | | LR | 21 30 57.1 | |
| SONM | Songino Array<br>0.2nm,0.7s,baz=105,slow=10,SNR=2.9 | 27.15 | 306 | P | | P | 21 19 44.1 | +0.2 |
| ZALV | Zalesovo Beam<br>0.7nm,0.5s,baz=90,slow=8.6,SNR=3.3 | 41.50 | 313 | P | | P | 21 21 46.7 | -0.4 |
| MKAR | Makanchi Array<br>0.3nm,0.6s,baz=78,slow=11,SNR=4.2 | 43.42 | 303 | P | | P | 21 22 02.6 | -0.1 |
| WRA | Warramunga Arr<br>0.6nm,0.3s,baz=1.7,slow=7.6,SNR=28 | 55.97 | 186 | P | | P | 21 23 37.5 | -0.5 |
| ASAR | Alice Springs<br>0.2nm,0.3s,baz=2.9,slow=7.6,SNR=6.1 | 59.70 | 186 | P | | P | 21 24 02.8 | -1.4 |

**MAN 30 21:21:55, 13.46N×120.80E, h48km, mb4.0, ML2.8, MS2.5, Mindoro**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| PGP | Puerto Galera | 0.16 | 74 | *e*P | | Pn | 21 22 04.1 | +1.2 |
| PGP | | | | *e*S | | Sn | 21 22 11.0 | +2.5 |
| LUBP | Lubang | 0.60 | 297 | *e*P | | Pn | 21 22 08.7 | +1.3 |
| LUBP | | | | *e*S | | Sn | 21 22 21.0 | +4.7 |
| BOAC | Boac | 1.02 | 90 | *e*P | | Pn | 21 22 14.7 | +1.7 |
| BOAC | | | | *e*S | | Sn | 21 22 32.6 | +6.4 |
| SJMP | San Jose | 1.04 | 162 | *e*P | | Pn | 21 22 15.0 | +1.8 |
| SJMP | | | | *e*S | | Sn | 21 22 32.7 | +6.0 |
| BUSP | Coron | 1.56 | 202 | *e*P | | Pn | 21 22 20.1 | -0.3 |
| BUSP | | | | *e*S | | Sn | 21 22 41.1 | +1.7 |
| OTRP | Odiongan | 1.62 | 132 | *e*P | | Pn | 21 22 21.8 | +0.7 |
| OTRP | | | | *e*S | | Sn | 21 22 44.7 | +3.8 |

**IDC 30 21:24:35.8±4.1, 18.60S×176.95W, h0km, mb4.0/5, mb1 4.3/5, mb1mx3.8/30, mbtmp4.0/5, Error ellipse: s-maj=173.0km s-min=32.7km az=140.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| STKA | Stephens Creek<br>1.0nm,0.5s,baz=90,slow=10.0,SNR=4.9 | 39.52 | 242 | P | | P | 21 32 09.0 | +0.5 |
| WRA | Warramunga Arr<br>0.6nm,0.3s,baz=97,slow=7.0,SNR=57 | 45.88 | 260 | P | | P | 21 32 59.6 | -0.7 |
| ASAR | Alice Springs<br>5.4nm,0.5s,baz=91,slow=8.5,SNR=150 | 45.94 | 255 | P | | P | 21 33 00.9 | +0.1 |
| FITZ | Fitzroy Crossi<br>1.2nm,0.4s,baz=90,slow=7.1 | 54.28 | 261 | P | | P | 21 34 03.9 | -0.3 |
| ILAR | Eielson Array<br>0.2nm,0.4s,baz=217,slow=5.0,SNR=8.0 | 86.25 | 12 | P | | P | 21 37 18.9 | 0.0 |

**NNC 30 21:28:14.8±4.2, 36.85N×70.54E, h151km±110km, mb2.7, mpv3.6, 3C-4D, Error ellipse: s-maj=67.6km s-min=31.8km az=71.0, Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| SFK | Sufi-Kurgan<br>5.5nm,0.3s | 3.92 | 35 | ⇑P | | Pn | 21 29 13.6 | -0.7 |
| SFK | <br>9.5nm,0.3s | | | ⇓S | | Sn | 21 30 01.6 | +1.2 |
| MNAS | Manas<br>3.1nm,0.4s | 5.83 | 14 | ⇓P | | Pn | 21 29 39.4 | +0.1 |
| MNAS | <br>19nm,0.5s | | | ⇓S | | Sn | 21 30 45.5 | 0.0 |
| KK31 | Karatay Array<br>0.9nm,0.2s,baz=183,slow=12,SNR=38 | 6.25 | 360 | ⇑P | | Pn | 21 29 45.3 | +0.6 |
| KK31 | <br>3.4nm,0.3s,baz=186,slow=22,SNR=11 | | | ⇓S | | Sn | 21 30 55.4 | +0.3 |
| AB31 | Akbulak array<br>0.1nm,0.3s,baz=0.0,slow=0.1,SNR=9.9 | 14.60 | 331 | P | | P | 21 31 37.0 | +0.8 |
| AKTO | Aktyubinsk<br>2.3nm,0.8s | 16.29 | 330 | ⇑P | | Pn | 21 31 53.1 | -1.7 |

**IDC 30 21:34:42.2±1.2, 4.69N×126.31E, h0km, mb3.6/5, mb1 3.8/5, mb1mx3.4/44, mbtmp3.6/5, MS2.7/1, Ms1 2.7/1, ms1mx2.3/42, Error ellipse: s-maj=142.8km s-min=18.8km az=68.0, Talaud Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| DAV | Davao City (W)<br>comp=Z,135nm,19.3s,baz=194,slow=48 | 2.48 | 343 | LR | | LR | 21 36 40.7 | |
| WRA | Warramunga Arr<br>1.4nm,0.8s,baz=344,slow=10.0,SNR=14 | 25.72 | 162 | P | | P | 21 40 14.4 | -0.1 |
| ASAR | Alice Springs<br>0.2nm,0.7s,baz=352,slow=8.1,SNR=4.8 | 29.14 | 166 | P | | P | 21 40 45.6 | +0.4 |
| STKA | Stephens Creek<br>1.3nm,0.4s,baz=344,slow=9.0,SNR=4.8 | 39.17 | 159 | P | | P | 21 42 11.6 | -0.4 |
| SONM | Songino Array<br>0.4nm,0.6s,baz=162,slow=9.9,SNR=3.4 | 46.26 | 341 | P | | P | 21 43 10.6 | +1.0 |
| MKAR | Makanchi Array<br>0.4nm,0.5s,baz=121,slow=7.3,SNR=12 | 56.54 | 325 | P | | P | 21 44 25.5 | -1.1 |

*IDC **30** 21:37:44.4±0.6,32°.25S×178°.28W,h0km,mb4.5/11, mb1 4.7/13,mb1mx4.4/37,mbtmp4.5/13,ML4.9/2,MS4.4/18, Ms1 4.4/18,ms1mx4.2/36,Error ellipse: s-maj=22.1km s-min=19.9km az=131.0*

*ISCJB **30** 21:37:47.9±0.5,32°.61S±0°.04×178°.4W±0°.1,h33km, mb4.9/18,MS4.5/19,Error ellipse: s-maj=13.2km s-min=4.8km az=15.5*

*MOS **30** 21:37:49.9±1.1,32°.11S×178°.46W,h33km,mb5.1/6,Error ellipse: s-maj=15.4km s-min=12.8km az=100.8*

*NEIC **30** 21:37:49.6±0.4,32°.38S×178°.33W,h35km,mb4.7/8,Error ellipse: s-maj=11.7km s-min=8.0km az=110.0*

*GCMT **30** 21:37:49.6±0.2,32°.39S×178°.05W,h19km,MW5.2/88, Moment Tensor Solution. s62,c85; s88,c132; Duration: 0 Moment tensor: Scale $10^{16}$Nm; $M_rr$4.80±.20; $M_{\theta\theta}$-0.21±.14; $M_{\phi\phi}$-4.59±.14; $M_{r\theta}$1.11±.33; $M_{\theta\phi}$-0.58±.10; $M_{\phi r}$4.73±.33; Best double couple: $M_0$6.78200×$10^{16}$ NP1:ϕs11.00000°,δ68.00000°,λ93.00000°. NP2: ϕs184.00000°,δ22.00000°,λ83.00000°. Principal axes: T 6.8620, Plg67.0000°, Azm287.0000°; N -0.1590, Plg3.0000°, Azm190.0000°; P -6.7020, Plg23.0000°, Azm99.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

**ISC 30 21:37:49.2±0.5,32°.40S±0°.06×178°.6W±0°.1,h33km,n146, σ1=90/118,mb4.7/17,MS4.5/19,18C-8D,South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | | h m s | ISC |
| **RAO** | **Raoul Island** | **3.18** | **10** | | **Pn** | **21 38 34.3** | **-2.6** |
| | 205nm,0.3s,baz=140,slow=17,SNR=6.0 | | | | | | |
| RAO | | | | Sn | **Sn** | **21 39 10.9** | **-2.9** |
| | 601nm,0.3s,baz=57,slow=21,SNR=6.2 | | | | | | |
| **WMGZ** | **Waiomatatini S** | **5.95** | **204** | *e*Pn | **Pn** | **21 39 14.1** | **-0.8** |
| WMGZ | | | | *e*Sn | **Sn** | **21 40 23.0** | **+1.0** |
| **HAZ** | **Te Kaha** | **6.13** | **208** | *e*Pn | **Pn** | **21 39 17.2** | **-0.2** |
| HAZ | | | | *e*Sn | **Sn** | **21 40 28.7** | **+2.4** |
| **PKGZ** | **Pakihiroa** | **6.13** | **206** | *e*Pn | **Pn** | **21 39 16.0** | **-1.5** |
| **PUZ** | **Puketiti** | **6.23** | **204** | *e*Pn | **Pn** | **21 39 17.2** | **-1.7** |
| PUZ | | | | *e*Sn | **Sn** | **21 40 28.3** | **-0.6** |
| **MWZ** | **Matawai** | **6.73** | **207** | *e*Pn | **Pn** | **21 39 23.4** | **-2.3** |
| MWZ | | | | *e*Sn | **Sn** | **21 40 41.3** | **+0.1** |
| **URZ** | **Urewera** | **6.84** | **210** | Pn | **Pn** | **21 39 28.1** | **+1.0** |
| | 18nm,0.3s,baz=258,slow=1.5,SNR=32 | | | | | | |
| URZ | | | | Sn | **Sn** | **21 40 44.1** | **+0.4** |
| | 16nm,0.3s,baz=91,slow=20,SNR=10 | | | | | | |
| **RIGZ** | **Rimuhau** | **6.97** | **204** | *e*PN | **Pn** | **21 39 27.1** | **-1.9** |
| **OUZ** | **Omahuta** | **7.11** | **245** | *e*PN | Pb | 21 39 38.3 | -14 |
| **SNGZ** | **Shannon Statio** | **7.19** | **207** | *e*PN | **Pn** | **21 39 30.3** | **-1.7** |
| **KNZ** | **Kokohu** | **7.29** | **204** | *e*PN | **Pn** | **21 39 29.5** | **-3.8** |
| **ARHZ** | **Aropaoanui** | **7.74** | **207** | *e*PN | **Pn** | **21 39 37.5** | **-2.0** |
| **KWHZ** | **Kaweka Forest** | **8.11** | **209** | *e*PN | **Pn** | **21 39 42.2** | **-2.4** |
| **PXZ** | **Pawanui** | **8.47** | **205** | *e*SN | **Sn** | **21 41 18.9** | **-5.0** |
| **TSZ** | **Takapari Road** | **8.83** | **209** | *e*PN | **Pn** | **21 39 50.9** | **-3.6** |
| TSZ | | | | *e*SN | **Sn** | **21 41 29.2** | **-3.7** |
| **BFZ** | **Birch Farm** | **9.26** | **205** | *e*PN | **Pn** | **21 39 56.6** | **-3.8** |
| BFZ | | | | *e*SN | **Sn** | **21 41 38.6** | **-4.8** |
| **MRZ** | **Mangatainoka R** | **9.50** | **208** | *e*PN | **Pn** | **21 39 59.5** | **-4.1** |
| MRZ | | | | *e*SN | **Sn** | **21 41 42.4** | **-6.7** |
| **NNZ** | **Nelson** | **10.91** | **214** | *e*SN | **Sn** | **21 42 18.6** | **-5.3** |
| **CTZ** | **Chatham Island** | **11.42** | **173** | *e*SN | Sn | 21 42 20.0 | -16 |
| **RPZ** | **Rata Peaks** | **13.94** | **213** | Pn | **Pn** | **21 41 01.9** | **-2.4** |
| | 1.5nm,0.3s,baz=327,slow=0.9,SNR=4.0 | | | | | | |
| RPZ | | | | Sn | Sn | 21 43 27.1 | -11 |
| | 1.4nm,0.3s,baz=103,slow=11,SNR=5.6 | | | | | | |
| **MSVF** | **Nonsavu** | **14.92** | **347** | *e*P | **P** | **21 41 21.9** | **-1.2** |
| **MSVF** | **Nonsavu** | **14.92** | **347** | *e*Pn | **P** | **21 41 18.6** | **-4.5** |
| | 76nm,1.6s | | | | | | |
| MSVF | | | | *e* | | 21 41 37.9 | |
| **DZM** | **Mont Dzumac** | **16.82** | **304** | Pn | P | 21 41 49.4 | +5.2 |
| | 0.5nm,0.3s,baz=130,slow=18,SNR=12 | | | | | | |
| **DZM** | **Mont Dzumac** | **16.82** | **304** | *e*P | P | 21 41 50.5 | +6.3 |
| | 90nm,1.2s | | | | | | |
| DZM | | | | *e*LR | LR | 21 45 35.4 | |
| | 4μm,22.9s | | | | | | |
| **DZM** | **Mont Dzumac** | **16.82** | **304** | *e*Pn | **P** | **21 41 45.4** | **+1.2** |
| | 67nm,1.4s | | | | | | |
| **AFI** | **Afiamalu** | **19.42** | **20** | P | **P** | **21 42 11.2** | **-1.6** |
| AFI | | | | pmax | pmax | | |
| | comp=Z,1.1nm,0.6s | | | | | | |
| **AFI** | **Afiamalu** | **19.42** | **20** | P | **P** | **21 42 11.2** | **-1.6** |
| | comp=Z,1.1nm,0.6s | | | | | | |
| **EIDS** | **Eidsvold** | **27.43** | **277** | P | **P** | **21 43 34.1** | **+2.1** |
| | comp=Z,5.7nm,0.6s | | | | | | |
| **PAE** | **Paea** | **29.96** | **68** | *e*T | T | 22 14 34.9 | |
| | comp=Z,2.7nm,0.3s | | | | | | |
| **PPT2** | **Papeete2** | **30.00** | **68** | *e*LR | LR | 21 51 37.9 | |
| | comp=Z,1μm,25.0s | | | | | | |
| **HNR** | **Honiara** | **30.29** | **314** | LR | LR | 21 55 01.8 | |
| | comp=Z,680nm,19.1s,baz=154,slow=34 | | | | | | |
| **VAH** | **Vaihoa** | **32.89** | **66** | *e*T | T | 22 18 14.1 | |
| | comp=Z,9.1nm,0.3s | | | | | | |
| **STKA** | **Stephens Creek** | **33.61** | **260** | P | P | 21 44 29.0 | +2.5 |
| | comp=Z,3.4nm,0.7s,baz=97,slow=9.7,SNR=9.1 | | | | | | |
| STKA | | | | PcP | **PcP** | **21 47 07.4** | **+1.1** |
| | comp=Z,2.4nm,0.8s,baz=153,slow=2.3,SNR=3.0 | | | | | | |
| STKA | | | | LR | LR | 21 57 32.5 | |
| | comp=Z,1μm,18.1s,baz=92,slow=35 | | | | | | |
| **STKA** | **Stephens Creek** | **33.61** | **260** | *e*P | P | 21 44 31.3 | +4.8 |
| **CTA** | **Charters Tower** | **33.70** | **283** | P | P | 21 44 29.8 | +2.3 |
| | comp=Z,5.5nm,0.4s,baz=109,slow=11,SNR=21 | | | | | | |
| CTA | | | | LR | LR | 21 57 36.7 | |
| | comp=Z,909nm,18.1s,baz=128,slow=35 | | | | | | |
| **CTAO** | **Charters Tower** | **33.70** | **283** | *e*P | P | 21 44 30.6 | +3.1 |
| CTAO | | | | pmax | pmax | | |
| | comp=Z,89nm,0.8s | | | | | | |
| **CTAO** | **Charters Tower** | **33.70** | **283** | *e*P | P | 21 44 30.6 | +3.1 |
| | comp=Z,89nm,0.8s | | | | | | |
| **RKT** | **Rikitea** | **39.44** | **88** | *e*LR | LR | 21 55 57.7 | |
| | comp=Z,1μm,30.2s | | | | | | |
| **TAOE** | **Nuku Hiva Isla** | **42.55** | **65** | *e*LR | LR | 21 57 28.8 | |
| | comp=Z,645nm,24.2s | | | | | | |
| **ASAR** | **Alice Springs** | **42.56** | **269** | P | P | 21 45 44.2 | +2.1 |
| | comp=Z,9.7nm,0.7s,baz=105,slow=7.0,SNR=105 | | | | | | |
| ASAR | | | | LR | LR | 22 03 21.7 | |
| | comp=Z,662nm,18.7s,baz=113,slow=36 | | | | | | |
| **WRAB** | **Tennant Creek** | **43.73** | **275** | *c iP* | P | 21 45 53.4 | +1.9 |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,51nm,2.5s | | | | | | |
| **WRAB** | **Tennant Creek** | **43.73** | **275** | *e*P | P | 21 45 53.8 | +2.3 |
| | comp=Z,2.4nm,0.3s | | | | | | |
| **WRA** | **Warramunga Arr** | **43.73** | **275** | P | **P** | **21 45 53.0** | **+1.4** |
| | comp=Z,14nm,0.6s,baz=112,slow=8.0,SNR=129 | | | | | | |
| WRA | | | | LR | LR | 22 03 32.4 | |
| | comp=Z,633nm,18.3s,baz=115,slow=35 | | | | | | |
| **FORT** | **Forrest** | **45.10** | **257** | *e*P | **P** | **21 46 04.1** | **+1.7** |
| | comp=Z,346nm,0.6s | | | | | | |
| **VNDA** | **Vanda** | **46.07** | **186** | LR | LR | 22 01 55.3 | |
| | comp=Z,315nm,20.7s,baz=3.0,slow=31 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **51.91** | **272** | P | **P** | **21 46 56.0** | **+1.1** |
| | comp=Z,5.0nm,0.8s,baz=158,slow=8.8,SNR=13 | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **53.27** | **251** | LR | LR | 22 09 36.6 | |
| | comp=Z,329nm,18.0s,baz=302,slow=36 | | | | | | |
| **QSPA** | **South Pole Qui** | **57.72** | **180** | *e*P | **P** | **21 47 38.2** | **+1.7** |
| | comp=Z,64nm,0.9s | | | | | | |
| **MAW** | **Mawson** | **70.28** | **201** | P | P | 21 49 01.7 | +3.0 |
| | comp=Z,2.4nm,0.9s,baz=150,slow=8.1,SNR=3.1 | | | | | | |
| MAW | | | | LR | LR | 22 18 31.4 | |
| | comp=Z,360nm,20.3s,baz=92,slow=35 | | | | | | |
| **SYO** | **Syowa Base** | **75.07** | **193** | *e*P | **P** | **21 49 25.0** | **-2.2** |
| **SYO** | **Syowa Base** | **75.07** | **193** | *e*pP | pP | 21 49 37.5 | 0.0 |
| **SNAA** | **Sanae** | **76.18** | **179** | P | **P** | **21 49 33.2** | **-0.4** |
| **SNAA** | **Sanae** | **76.18** | **179** | *e*P | **P** | **21 49 33.8** | **+0.2** |
| **SNAA** | **Sanae** | **76.18** | **179** | *e*P | **P** | **21 49 34.2** | **+0.5** |
| | comp=Z,2μm,1.5s | | | | | | |
| **VNA3** | **Neumayer Olymp** | **76.35** | **176** | P | **P** | **21 49 34.8** | **+0.2** |
| **VNA2** | **Neumayer--Watz** | **76.78** | **177** | P | **P** | **21 49 37.6** | **+0.7** |
| | baz=172,slow=4.6 | | | | | | |
| **VNA1** | **Neumayer--Stat** | **77.01** | **177** | P | **P** | **21 49 38.8** | **+0.6** |
| **MJAR** | **Matsushiro Arr** | **79.61** | **326** | LR | LR | 22 21 02.1 | |
| | comp=Z,111nm,21.2s,baz=170,slow=33 | | | | | | |
| **MAJO** | **Matsushiro** | **79.61** | **326** | *e*P | P | 21 49 56.9 | +3.9 |
| MAJO | | | | pmax | pmax | | |
| | comp=Z,20nm,1.3s | | | | | | |
| **PLCA** | **Paso Flores** | **81.50** | **133** | P | **P** | **21 50 02.9** | **-0.5** |
| | comp=Z,4.5nm,1.1s,baz=268,slow=3.2,SNR=4.4 | | | | | | |
| PLCA | | | | LR | LR | 22 20 53.0 | |
| | comp=Z,204nm,18.2s,baz=284,slow=32 | | | | | | |
| **PLCA** | **Paso Flores** | **81.50** | **133** | *e*P | **P** | **21 50 05.6** | **+2.2** |
| **KSRS** | **Korea Array** | **85.56** | **320** | P | **P** | **21 50 24.6** | **+0.7** |
| | comp=Z,1.2nm,0.8s,baz=135,slow=3.8,SNR=5.4 | | | | | | |
| **KSAR** | **Wonju Array Be** | **85.57** | **320** | P | **P** | **21 50 24.6** | **+0.6** |
| **KSAR** | **Wonju Array Be** | **85.57** | **320** | P | **P** | **21 50 24.6** | **+0.6** |
| **YSS** | **Yuzh-Sakhalins** | **86.33** | **335** | *e*P | **P** | **21 50 28.5** | **+1.0** |
| YSS | | | | pmax | pmax | | |
| | comp=Z,30nm,2.1s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **86.33** | **335** | *e*P | **P** | **21 50 28.2** | **+0.8** |
| | comp=Z,2.2nm,0.3s | | | | | | |
| **PETK** | **Petropavlovsk-** | **87.62** | **346** | P | **P** | **21 50 33.4** | **-0.3** |
| | comp=Z,3.5nm,0.6s,baz=101,slow=7.7,SNR=4.2 | | | | | | |
| PETK | | | | LR | LR | 22 24 04.9 | |
| | comp=Z,145nm,20.7s,baz=159,slow=32 | | | | | | |
| **PFO** | **Pinyon Flats O** | **87.91** | **48** | *i* P | P | 21 50 39.7 | +4.1 |
| **USRK** | **Ussuriysk Ar.** | **88.56** | **327** | P | **P** | **21 50 37.7** | **-0.6** |
| | comp=Z,1.8nm,0.8s,baz=130,slow=10,SNR=4.1 | | | | | | |
| USRK | | | | LR | LR | 22 28 36.0 | |
| | comp=Z,154nm,18.1s,baz=139,slow=34 | | | | | | |
| **NVAR** | **Mina Array Bea** | **90.02** | **43** | LR | LR | 22 26 45.3 | |
| | comp=Z,430nm,18.2s,baz=264,slow=33 | | | | | | |
| **TXAR** | **Lajitas Array** | **93.86** | **58** | LR | LR | 22 28 11.2 | |
| | comp=Z,237nm,18.2s,baz=0.0,slow=32 | | | | | | |
| **NEW** | **Newport** | **97.26** | **36** | *e*P | Pdif | 21 51 18.1 | -0.4 |
| NEW | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.6s | | | | | | |
| **NEW** | **Newport** | **97.26** | **36** | *e*P | Pdif | 21 51 18.1 | -0.4 |
| | comp=Z,1.7nm,0.6s | | | | | | |
| **LPAZ** | **La Paz** | **97.76** | **115** | LR | LR | 22 31 18.6 | |
| | comp=Z,67nm,18.2s,baz=240,slow=33 | | | | | | |
| **SEY** | **Seymchan** | **97.81** | **347** | LR | LR | 22 31 40.0 | |
| | comp=Z,224nm,21.1s,baz=152,slow=33 | | | | | | |
| **SEY** | **Seymchan** | **97.81** | **347** | *e*P | Pdif | 21 51 21.5 | +1.0 |
| **PDAR** | **Pinedale Array** | **97.90** | **44** | LR | LR | 22 29 15.7 | |
| | comp=Z,291nm,19.4s,baz=241,slow=32 | | | | | | |
| **HIA** | **Hailar** | **98.06** | **324** | *i* P | Pdif | 21 51 25.2 | +3.2 |
| **CPUP** | **Villa Florida** | **99.11** | **129** | LR | LR | 22 29 59.3 | |
| | comp=Z,82nm,19.9s,baz=226,slow=32 | | | | | | |
| **ILAR** | **Eielson Array** | **99.97** | **13** | P | **Pdif** | **21 51 30.7** | **+0.6** |
| | comp=Z,0.3nm,0.9s,baz=232,slow=4.5,SNR=2.7 | | | | | | |
| **DGZ** | **Jazzator, Alta** | **116.35** | **314** | *i* PKIKP | **PKPdf** | **21 56 31.2** | **+2.1** |
| **MKAR** | **Makanchi Array** | **118.68** | **309** | PKP | **PKPdf** | **21 56 33.3** | **-0.2** |
| | comp=Z,1.4nm,0.7s,baz=191,slow=1.3,SNR=14 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **119.19** | **318** | PKP | **PKPdf** | **21 56 34.2** | **0.0** |
| | comp=Z,0.8nm,0.5s,baz=61,slow=3.7,SNR=4.3 | | | | | | |
| **KURK** | **Kurchatov** | **122.07** | **313** | *i,e*PKIKP | **PKPdf** | **21 56 40.1** | **+0.3** |
| **KURK** | **Kurchatov** | **122.07** | **313** | PKP | **PKPdf** | **21 56 39.7** | **-0.2** |
| KURK | | | | *e*PKPdf | **PKiKP** | **21 56 39.9** | **-0.1** |
| **KURBB** | **Kurchatov Arra** | **122.10** | **313** | PKP | **PKPdf** | **21 56 39.7** | **-0.2** |
| | comp=Z,3.2nm,0.7s,baz=106,slow=1.9,SNR=4.1 | | | | | | |
| **AAK** | **Ala-Archa** | **122.81** | **303** | PKP | **PKPdf** | **21 56 41.5** | **-0.2** |
| | comp=Z,0.9nm,0.6s,baz=207,slow=4.5,SNR=3.6 | | | | | | |
| **KKAR** | **Karatay Array** | **125.76** | **303** | *e*PKIKP | **PKPdf** | **21 56 48.2** | **+1.0** |
| **KKAR** | **Karatay Array** | **125.76** | **303** | *e*PKPdf | **PKPdf** | **21 56 48.1** | **+1.0** |
| **BVAR** | **Borovoye Array** | **127.48** | **315** | PKP | **PKPdf** | **21 56 51.1** | **+0.9** |
| | comp=Z,2.2nm,0.5s,baz=160,slow=1.2,SNR=20 | | | | | | |
| **BRVK** | **Borovoye** | **127.55** | **315** | *e*PKIKP | **PKPdf** | **21 56 50.2** | **-0.1** |
| **GEYT** | **Alibeck** | **133.94** | **293** | PKP | **PKPdf** | **21 57 05.0** | **+2.1** |
| | comp=Z,1.4nm,0.8s,baz=98,slow=4.5,SNR=4.3 | | | | | | |
| **ARU** | **Arti** | **134.31** | **319** | *i* PKIKP | **PKPdf** | **21 57 04.3** | **+1.3** |
| ARU | | | | | | 21 59 36.5 | |
| ARU | | | | SS | SS | 22 17 19.5 | -3.4 |
| **ARCES** | **ARCESS Array B** | **140.43** | **347** | PKhKP | PKPpre | 21 57 09.3 | |
| | comp=Z,2.3nm,0.6s,baz=55,slow=2.2,SNR=12 | | | | | | |
| **KLMR** | **Klimovskoe** | **142.27** | **330** | *e*PKIKP | **PKPdf** | **21 57 16.2** | **-1.2** |
| KLMR | | | | pmax | pmax | | |
| | comp=Z,17nm,1.5s | | | | | | |
| **ZEI** | **Tsey** | **145.12** | **300** | *i* PKP2 | **PKPdf** | **21 57 23.1** | **-0.2** |
| ZEI | | | | pmax | pmax | | |
| | comp=Z,18nm,0.8s | | | | | | |
| **VRH** | **Novokhopyorsk** | **145.13** | **315** | *e*PKIKP | **PKPdf** | **21 57 23.0** | **+0.3** |
| VRH | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.7s | | | | | | |
| **NCK** | **Nalchik** | **145.30** | **301** | *i* PKIKP | **PKPdf** | **21 57 24.8** | **+1.5** |
| **AKH** | **Akhalkalaki** | **145.47** | **297** | *i* P | **PKPab** | **21 57 25.7** | **+1.4** |
| **MOS** | **Moscow** | **145.68** | **324** | *e*PKHKP | PKPpre | 21 57 20.9 | |
| MOS | | | | pmax | pmax | | |
| | comp=Z,67nm,1.3s | | | | | | |
| MOS | | | | pmax | pmax | | |
| | comp=Z,200nm,1.9s | | | | | | |
| **KBZ** | **Khabaz** | **145.78** | **301** | PKPbc | **PKPab** | **21 57 25.6** | **+0.5** |
| | comp=Z,4.7nm,0.8s,baz=133,slow=7.0,SNR=10 | | | | | | |
| **KIV** | **Kislovodsk** | **145.91** | **302** | *i,e*PKIKP | **PKPab** | **21 57 25.4** | **-0.3** |
| KIV | | | | *e* | | 22 00 47.2 | |
| KIV | | | | pmax | pmax | | |
| | comp=Z,14nm,1.0s | | | | | | |
| **KIV** | **Kislovodsk** | **145.91** | **302** | *e*PKPdf | **PKPab** | **21 57 25.5** | **-0.2** |
| **NEY** | **Neytrino** | **145.95** | **301** | *i* PKP2 | **PKPab** | **21 57 27.6** | **+1.6** |
| **LPSR** | **Galich'ya Gora** | **146.30** | **318** | *e*PKP2 | **PKPab** | **21 57 26.0** | **-0.7** |
| LPSR | | | | pmax | pmax | | |
| | comp=Z,20nm,0.7s | | | | | | |
| **OBN** | **Obninsk** | **146.50** | **323** | *d iP*KIKP | **PKPab** | **21 57 26.0** | **-1.4** |
| OBN | | | | *e* | | 22 00 51.1 | |
| OBN | | | | pmax | pmax | | |
| | comp=Z,86nm,1.6s | | | | | | |
| OBN | | | | MLR | MLR | | |
| | comp=Z,218nm,20.0s | | | | | | |
| **OBN** | **Obninsk** | **146.50** | **323** | *e*PKPbc | **PKPab** | **21 57 27.1** | **-0.3** |
| **PUL** | **Pulkovo** | **146.59** | **334** | *e*PKP2 | **PKPab** | **21 57 26.7** | **-0.9** |
| **VSR** | **Storozhevoye** | **146.66** | **316** | *e*PKIKP | **PKPab** | **21 57 26.7** | **-1.5** |
| VSR | | | | pmax | pmax | | |
| | comp=Z,20nm,1.1s | | | | | | |
| **FINES** | **FINESS Array B** | **146.84** | **339** | PKPbc | **PKPab** | **21 57 27.1** | **-1.5** |
| | comp=Z,24nm,0.7s,baz=46,slow=3.5,SNR=167 | | | | | | |
| **VSU** | **Vasula** | **148.83** | **334** | *i* PKP2 | **PKPab** | **21 57 33.0** | **-3.6** |
| **NB2** | **NORSAR Subarra** | **150.64** | **350** | PKP | **PKPbc** | **21 57 37.0** | **-0.1** |
| | comp=Z,4.8nm,0.7s,baz=16,slow=4.3 | | | | | | |
| **NOA** | **NORSAR Array B** | **150.64** | **350** | PKPbc | **PKPbc** | **21 57 37.4** | **+0.3** |
| | comp=Z,2.9nm,0.5s,baz=14,slow=4.1,SNR=17 | | | | | | |
| **IDID** | **Didziasalis** | **151.01** | **330** | *e*P | **PKPbc** | **21 57 37.7** | **-0.3** |
| IDID | | | | IAmb | IAmb | 21 57 39.3 | |
| | comp=Z,4.8nm,0.6s | | | | | | |
| **MICGM** | **Minsk** | **151.03** | **328** | *e* | **PKPbc** | **21 57 38.0** | **-0.1** |
| **MNK** | **Minsk** | **151.03** | **328** | *e*PKIKP | **PKPbc** | **21 57 38.0** | **-0.1** |
| **ISAL** | **Salakas** | **151.10** | **331** | *e*P | **PKPbc** | **21 57 38.6** | **+0.3** |
| ISAL | | | | IAmb | IAmb | 21 57 41.0 | |
| | comp=Z,7.2nm,0.8s | | | | | | |
| **IIGN** | **Ignalina** | **151.21** | **330** | *e*P | **PKPbc** | **21 57 38.8** | **+0.3** |
| IIGN | | | | IAmb | IAmb | 21 57 39.8 | |
| | comp=Z,9.9nm,0.9s | | | | | | |
| **NACGM** | **Naroch** | **151.26** | **329** | *e* | **PKPbc** | **21 57 38.0** | **-0.6** |
| **AKASG** | **Malin Array Be** | **152.56** | **320** | PKPbc | **PKPbc** | **21 57 42.3** | **+0.6** |
| | comp=Z,2.0nm,0.5s,baz=54,slow=2.7,SNR=18 | | | | | | |
| **KIEV** | **Kiev** | **152.57** | **320** | *i* PKIKP | **PKPbc** | **21 57 41.7** | **0.0** |
| **BRTR** | **Keskin Array B** | **153.06** | **295** | PKPbc | **PKPbc** | **21 57 43.8** | **+0.3** |
| | comp=Z,2.9nm,0.6s,baz=133,slow=4.2,SNR=18 | | | | | | |
| **LIC** | **Lamto** | **153.27** | **166** | *e*PKIKP | **PKPbc** | **21 57 47.0** | **+2.6** |
| | comp=Z,52nm,1.4s | | | | | | |
| **KIC** | **Kosan Boka** | **153.46** | **166** | *e*PKIKP | **PKPbc** | **21 57 47.1** | **+2.2** |
| | comp=Z,56nm,1.5s | | | | | | |
| **TIC** | **Toumodi** | **153.68** | **165** | *e*PKIKP | **PKPbc** | **21 57 47.4** | **+2.0** |
| **SORM** | **Soroca** | **154.32** | **316** | *i* P | **PKPbc** | **21 57 46.3** | **+0.7** |
| **VRI** | **Vrincioaia** | **156.34** | **312** | *i* P | PKPab | 21 57 53.2 | -15 |
| **PLOR** | **Plostina** | **156.39** | **312** | *i* P | PKPab | 21 57 54.4 | -14 |
| **DOPR** | **Dopca** | **157.12** | **313** | *i* P | **PKPab** | **21 58 07.4** | **-4.6** |
| **VOIR** | | **157.58** | **312** | *i* P | PKPdf | 21 57 54.4 | +13 |
| **ARR** | **Arges** | **157.87** | **313** | *i* P | **PKPab** | **21 58 19.1** | **+3.8** |
| **DRGR** | | **158.29** | **318** | *i* P | **PKPab** | **21 58 16.3** | **-0.7** |
| **VYHS** | **Vyhne** | **159.25** | **326** | *e*PKP2 | **PKPab** | **21 58 22.1** | **+1.1** |
| **VYHS** | **Vyhne** | **159.25** | **326** | *e*PKP | **PKPab** | **21 58 22.1** | **+1.1** |
| **CLL** | **Collm** | **159.28** | **339** | *e*PKP2 | **PKPab** | **21 58 21.0** | **0.0** |
| **CLL** | **Collm** | **159.28** | **339** | *e*PKPab | **PKPab** | **21 58 21.0** | **0.0** |
| **BRG** | **Berggiesshubel** | **159.36** | **337** | *e*PKP | **PKPab** | **21 58 21.9** | **+0.5** |
| | comp=Z,13nm,1.4s | | | | | | |
| **BRG** | **Berggiesshubel** | **159.36** | **337** | *e*PKP2 | **PKPab** | **21 58 21.9** | **+0.5** |
| BRG | | | | pmax | pmax | | |
| | comp=Z,13nm,1.4s | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **160.84** | **181** | PKP | **PKPdf** | **21 57 48.1** | **+1.7** |
| | comp=Z,1.0nm,1.0s,baz=160,slow=4.1,SNR=4.7 | | | | | | |
| TORD | | | | PKPab | **PKPab** | **21 58 28.8** | **+0.2** |
| | comp=Z,2.7nm,0.6s,baz=174,slow=3.6,SNR=12 | | | | | | |
| **KHC** | **Kasperske Hory** | **160.96** | **335** | *e*PKPAB | **PKPab** | **21 58 29.0** | **+0.5** |
| **KHC** | **Kasperske Hory** | **160.96** | **335** | *e*PKP2 | **PKPab** | **21 58 29.0** | **+0.5** |
| **CONA** | **Conrad Observa** | **161.02** | **329** | *i* PKPab | **PKPab** | **21 58 29.9** | **+1.0** |
| | comp=Z,2.6nm,0.7s | | | | | | |
| **GERES** | **GERESS Array B** | **161.16** | **334** | PKPab | **PKPab** | **21 58 29.6** | **+0.1** |
| | comp=Z,0.7nm,0.7s,baz=64,slow=6.1,SNR=4.7 | | | | | | |
| **WATA** | **Walderalm** | **163.20** | **336** | *i* PKPab | **PKPab** | **21 58 39.9** | **+1.4** |
| | comp=Z,1.5nm,0.5s | | | | | | |
| **RETA** | **Reutte** | **163.34** | **337** | *i* PKPab | **PKPab** | **21 58 39.8** | **+0.9** |
| | comp=Z,3.5nm,0.8s | | | | | | |
| **DAVA** | **Damuels** | **163.79** | **339** | *e*PKPab | **PKPab** | **21 58 41.9** | **+0.8** |
| | comp=Z,7.7nm,1.1s | | | | | | |

*IDC **30** 21:43:14.4±0.7,32°.34S×178°.21W,h0km,mb4.5/9, mb1 4.7/11,mb1mx4.4/35,mbtmp4.6/11,ML4.8/2,Error ellipse: s-maj=21.6km s-min=19.0km az=104.0*

*BJI **30** 21:43:17.1,32°.35S×178°.06W,h25km,mb5.2/14, mB5.6/13,Ms5.1/8,Ms7 4.7/10*

*ISCJB **30** 21:43:18.4±0.4,32°.76S±0°.03×178°.32W±0°.08,h33km, mb5.0/27,MS4.7/4,Error ellipse: s-maj=9.3km s-min=4.3km az=9.5*

*NEIC **30** 21:43:19.7±0.5,32°.57S×178°.39W,h35km,mb5.1/10, Error ellipse: s-maj=13.7km s-min=7.2km az=108.0*

*MOS **30** 21:43:19.5±1.1,32°.29S×178°.44W,h33km,mb5.1/5,Error ellipse: s-maj=16.0km s-min=11.8km az=106.2*

*GCMT **30** 21:43:19.7±0.3,32°.39S×177°.95W,h25km,MW5.1/85, Moment Tensor Solution. s51,c66; s85,c117; Duration: 0 Moment tensor: Scale $10^{16}$Nm; $M_rr$5.21±.27; $M_{\theta\theta}$-0.95±.17; $M_{\phi\phi}$-4.26±.17; $M_{r\theta}$0.34±.40; $M_{\theta\phi}$-0.92±.11; $M_{\phi r}$4.11±.30; Best double couple: $M_0$6.36600×$10^{16}$ NP1:ϕs9.00000°,δ65.00000°,λ86.00000°. NP2: ϕs199.00000°,δ25.00000°,λ99.00000°. Principal axes: T 6.7450, Plg70.0000°, Azm270.0000°; N -0.7600, Plg4.0000°, Azm10.0000°; P -5.9860, Plg20.0000°, Azm102.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

**ISC 30 21:43:17.3±0.4,32°.54S±0°.05×178°.15W±0°.07,h20km, n193,σ1=84/207,mb5.2/27,MS4.6/4,12C-13D,South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | | h m s | ISC |
| **RAO** | **Raoul Island** | **3.29** | **4** | Pn | **Pn** | **21 44 04.1** | **-3.5** |
| | 168nm,0.3s,baz=253,slow=23,SNR=4.1 | | | | | | |
| RAO | | | | Sn | **Sn** | **21 44 44.5** | **-1.6** |
| | 411nm,0.3s,baz=253,slow=19,SNR=5.8 | | | | | | |
| **RAO** | **Raoul Island** | **3.29** | **4** | *e*P | **Pn** | **21 44 05.3** | **-2.3** |
| RAO | | | | | | 21 44 44.5 | |
| **RAO** | **Raoul Island** | **3.29** | **4** | *e*Pn | **Pn** | **21 44 05.3** | **-2.3** |
| RAO | | | | *e*Sn | **Sn** | **21 44 44.5** | **-1.6** |
| **MXZ** | **Matakaoa Point** | **5.79** | **209** | *e*Pn | **Pn** | **21 44 42.5** | **+0.5** |
| **WMGZ** | **Waiomatatini S** | **5.97** | **207** | *e*Pn | **Pn** | **21 44 43.9** | **-0.6** |
| **PKGZ** | **Pakihiroa** | **6.16** | **209** | *e*PN | **Pn** | **21 44 46.4** | **-0.8** |
| **HAZ** | **Te Kaha** | **6.18** | **211** | *e*PN | **Pn** | **21 44 46.6** | **-0.7** |
| **PUZ** | **Puketiti** | **6.25** | **207** | *e*PN | **Pn** | **21 44 47.3** | **-1.0** |
| PUZ | | | | *e*SN | **Sn** | **21 46 01.0** | **+1.8** |
| **MWZ** | **Matawai** | **6.77** | **210** | *e*PN | **Pn** | **21 44 53.8** | **-1.7** |
| **URZ** | **Urewera** | **6.89** | **213** | Pn | **Pn** | **21 44 57.5** | **+0.3** |
| | 12nm,0.3s,baz=16,slow=0.5,SNR=14 | | | | | | |
| URZ | | | | Sn | **Sn** | **21 46 14.4** | **-0.5** |
| | 13nm,0.3s,baz=105,slow=16,SNR=7.7 | | | | | | |
| **URZ** | **Urewera** | **6.89** | **213** | *e*Pn | **Pn** | **21 44 56.7** | **-0.4** |
| URZ | | | | *e*Sn | **Sn** | **21 46 14.4** | **-0.5** |
| **RIGZ** | **Rimuhau** | **6.99** | **207** | *e*PN | **Pn** | **21 44 57.1** | **-1.5** |
| **SNGZ** | **Shannon Statio** | **7.23** | **209** | *e*PN | **Pn** | **21 45 00.5** | **-1.3** |
| **KNZ** | **Kokohu** | **7.30** | **206** | *e*PN | **Pn** | **21 44 60.0** | **-2.7** |
| KNZ | | | | *e*SN | **Sn** | **21 46 23.3** | **-1.7** |
| **MHGZ** | **Mahia Peninsul** | **7.33** | **205** | *e*PN | **Pn** | **21 45 00.5** | **-2.7** |
| **OUZ** | **Omahuta** | **7.36** | **246** | *e*Pn | Pn | 21 45 08.7 | +5.1 |
| **MTHZ** | **Maungataniwha** | **7.50** | **211** | *e*PN | **Pn** | **21 45 05.0** | **-0.5** |
| **WHHZ** | **Waihua** | **7.52** | **209**

comp=Z,61nm,1.3s
KMBL Kambalda 50.29 254 P P 21 52 11.2 -1.3
baz=51,SNR=6.5
KNRA Kununurra 50.77 276 P P 21 52 15.8 -0.5
baz=52,SNR=5.1
FITZ Fitzroy Crossi 52.26 272 P P 21 52 26.8 -0.6
comp=Z,4.6nm,0.6s,baz=46,slow=5.4,SNR=11
FITZ Fitzroy Crossi 52.26 272 P P 21 52 27.0 -0.4
baz=54
KLBR Kellerberrin 53.56 253 P P 21 52 36.4 -0.4
baz=55,SNR=8.0
MEEK Meekatharra 54.61 259 P P 21 52 43.2 -1.4
baz=56,SNR=3.6
MORW Morawa 55.82 255 P P 21 52 52.5 -0.8
baz=57,SNR=5.3
SOEI Soe 57.56 280 eP P 21 53 05.5 -0.5
comp=Z,60nm,1.1s
QSPA South Pole Qui 57.58 180 eP P 21 53 07.0 +1.6
MAW Mawson 70.27 201 P P 21 54 30.6 +2.0
comp=Z,1.8nm,0.8s,baz=124,slow=11,SNR=2.2
SYO Syowa Base 75.01 193⇑ iP P 21 54 57.0 +0.2
SYO Syowa Base 75.01 193⇑ ipP pP 21 55 06.8 +3.5
SYO Syowa Base 75.01 193⇑ esP sP 21 55 10.0 +4.3
SNAA Sanae 76.03 178 P P 21 55 04.5 +1.8
SNAA Sanae 76.03 178⇓ eP P 21 55 04.9 +2.2
SNAA Sanae 76.03 178 eP P 21 55 03.9 +1.1
comp=Z,29nm,1.1s
VNA3 Neumayer Olymp 76.18 176 P P 21 55 05.1 +1.6
VNA2 Neumayer--Watz 76.61 177 P P 21 55 07.9 +1.9
baz=175,slow=4.6
NVL N'lazarevskaya 76.74 183 eP P 21 55 08.6 +2.0
VNA1 Neumayer--Stat 76.85 177 P P 21 55 09.5 +2.3
PLCA Paso Flores 81.15 133 P P 21 55 33.2 +1.7
comp=Z,1.3nm,0.9s,baz=258,slow=5.0,SNR=4.0
QIZ Qiongzhong 85.79 296 P P 21 55 57.0 +1.5
QIZ S S 22 06 26.5 -1.2
QIZ sS sS 22 06 44.0 +5.3
QIZ SS SS 22 12 05.8 +0.5
KSRS Korea Array 85.89 320 P P 21 55 54.9 -0.6
comp=Z,1.0nm,0.9s,baz=134,slow=7.1,SNR=3.0
KSAR Wonju Array Be 85.91 320 P P 21 55 54.9 -0.7
KSAR Wonju Array Be 85.91 320 P P 21 55 54.9 -0.7
SKR Severo-Kuril's 85.93 344 eP P 21 55 54.3 -1.0
SKR ePPP PPP 21 59 18.2
SKR eS S 22 06 23.9 -3.6
SKR pmax pmax
comp=Z,100nm,7.9s
SKR pmax pmax
comp=Z,200nm,9.7s
SKR MLR MLR
comp=Z,200nm,15.0s
NJ2 Nanjing 87.54 311 eP P 21 56 04.0 +0.3
NJ2 pmax pmax
comp=Z,14nm,0.7s
PETK Petropavlovsk- 87.85 346 P P 21 56 04.6 -0.1
comp=Z,5.7nm,0.7s,baz=104,slow=6.3,SNR=8.6
PETK Petropavlovsk- 87.85 346 eP P 21 56 04.8 +0.1
PETK Petropavlovsk- 87.85 346 eP P 21 56 04.8 +0.1
CN2 Changchun 91.77 323 eP P 21 56 22.8 -0.5
CN2 esP sP 21 56 37.5 +5.2
CN2 SKS SKSac 22 06 51.5 -3.2
CN2 eS S 22 07 19.8 -3.1
CN2 pmax pmax
comp=Z,10.0nm,0.8s
CN2 pmax pmax
comp=Z,200nm,6.0s
CN2 LR LR
comp=Z,200nm,22.0s
CN2 LR LR
comp=Z,200nm,22.0s
CN2 LR LR
comp=Z,200nm,23.0s
WVOR Wild Horse Val 92.44 40 eP P 21 56 29.5 +2.9
WVOR Wild Horse Val 92.44 40 eP P 21 56 29.5 +2.9
comp=Z,143nm,0.5s
GYA Guiyang 92.50 300 eP P 21 56 28.5 +1.2
GYA pP sP 21 56 39.5 +3.2
GYA PP PP 22 00 12.0 +3.0
GYA SKS SKSac 22 06 57.5 -2.4
GYA S S 22 07 27.3 -3.2
GYA pmax pmax
comp=Z,20nm,1.0s
GYA pmax pmax
comp=Z,120nm,6.4s
KLR Kul'dur 92.81 330 P P 21 56 27.1 -0.9
comp=Z,0.1nm,0.5s,baz=169,slow=3.2,SNR=4.3
KLR Kul'dur 92.81 330⇓ eP P 21 56 27.6 -0.4
BJI Beijing 94.35 315 P P 21 56 34.8 -0.5
BJI PP PP 22 00 22.8 -0.3
BJI S S 22 07 48.0 +2.1
BJI SS SS 22 14 09.0 +0.3
BJI pmax pmax
comp=Z,4.0nm,1.2s
BJI LR LR
comp=Z,190nm,19.6s
BJI LR LR
comp=Z,220nm,19.1s
BJI LR LR
comp=Z,200nm,24.2s
KMI Kunming 94.67 297 P P 21 56 38.0 +0.6
KMI pmax pmax
comp=Z,7.0nm,0.5s
KMI pmax pmax
comp=Z,82nm,4.2s
HHC Hu-ho-hao-te 97.62 314 eP Pdif 21 56 52.0 +1.6
HHC pmax pmax
comp=Z,8.0nm,1.0s
HHC pmax pmax
comp=Z,110nm,8.6s
SEY Seymchan 98.03 347⇑ eP Pdif 21 56 52.7 +1.2
HKT Hockley 99.67 61⇑ eP Pdif 21 57 01.1 +1.6
HKT pmax pmax
comp=Z,77nm,2.8s
LZH Lanzhou 99.89 306 eP Pdif 21 57 02.5 +1.8
LZH pP sP 21 57 11.5 +1.7
LZH sP pP 21 57 16.3 +8.9
LZH pmax pmax
comp=Z,17nm,1.0s
WMQ Urumqi 114.43 308 ePKP PKPdf 22 01 55.3 -0.2
WMQ LR LR
comp=Z,160nm,21.1s
WMQ LR LR
comp=Z,160nm,21.1s
WMQ LR LR
comp=Z,110nm,19.5s
DGZ Jazzator, Alta 116.70 314⇑ iPKIKP PKPdf 22 02 00.0 +0.2
MKAR Makanchi Array 119.03 309 PKP PKPdf 22 02 03.8 -0.5
comp=Z,2.1nm,0.8s,baz=82,slow=1.4,SNR=15
ZALV Zalesovo Beam 119.53 318 PKP PKPdf 22 02 04.1 -0.8
comp=Z,0.7nm,0.6s,baz=48,slow=2.2,SNR=5.0
KSH Kashi 121.20 300 ePKP PKPdf 22 02 10.0 +1.2
KSH sPKP 22 02 24.0
KSH PP PP 22 03 46.0 +6.3
KSH PKS PKSdf 22 05 45.0 -0.5
KSH SKS SKSdf 22 09 17.0 -2.8
KSH SKKS SKKSac 22 10 34.0 -3.8
KSH SS SS 22 20 15.0 +2.4
KSH LR LR
comp=Z,140nm,5.6s
KURK Kurchatov 122.42 313c iPKIKP PKPdf 22 02 09.5 -1.1
KURK Kurchatov 122.42 313 ePKPdf PKPdf 22 02 09.4 -1.2
AAK Ala-Archa 123.17 303⇓ ePKIKP PKPdf 22 02 12.3 -0.2
BRVK Borovoye 127.89 315⇓ iPKIKP PKPdf 22 02 20.0 -1.0
ARU Arti 134.64 319 iPKIKP PKPdf 22 02 33.5 -0.1
ARU 22 05 03.6
ARCES ARCESS Array B 140.65 347 PKhKP PKPpre 22 02 38.5
comp=Z,1.1nm,0.6s,baz=49,slow=2.0,SNR=12
KLMR Klimovskoe 142.57 331 ePKHKP PKPpre 22 02 41.9
KLMR pmax pmax
comp=Z,14nm,1.5s
VRH Novokhopyorsk 145.48 315 ePKIKP PKPab 22 02 54.3 +0.6
VRH pmax pmax
comp=Z,8.0nm,0.6s
ZEI Tsey 145.49 300 iPKIKP PKPdf 22 02 53.4 -0.6
ZEI pmax pmax
comp=Z,23nm,0.8s
NCK Nalchik 145.67 301⇓ ePKIKP PKPbc 22 02 54.3 -0.1
AKH Akhalkalaki 145.84 297⇓ iPKIKP PKPab 22 02 55.7 0.0
GOF Gofitskoye 145.91 304⇑ ePKP2 PKPbc 22 02 54.8 -0.3
GOF pmax pmax
comp=Z,39nm,1.0s
MOS Moscow 146.00 324 ePKIKP PKPdf 22 02 53.8 -0.3
MOS pmax pmax
comp=Z,78nm,1.4s
KBZ Khabaz 146.15 301 PKPbc PKPbc 22 02 55.2 -0.6
comp=Z,5.7nm,0.9s,baz=153,slow=8.3,SNR=6.0
KIV Kislovodsk 146.28 302⇑ ePKP2 PKPab 22 02 56.9 -0.2
KIV e 22 06 20.2
KIV pmax pmax
comp=Z,21nm,1.5s
NEY Neytrino 146.32 300⇓ ePKP2 PKPab 22 02 57.6 +0.2
LPSR Galich'ya Gora 146.64 318 ePKP2 PKPbc 22 02 56.1 -0.9
LPSR pmax pmax
comp=Z,40nm,1.0s
OBN Obninsk 146.83 323 dePKP2 PKPbc 22 02 56.9 -0.5
OBN e 22 06 18.2
OBN e 22 10 03.2
OBN eSS SS 22 25 19.9 -0.1
OBN pmax pmax
comp=Z,99nm,1.7s
VSR Storozhevoye 147.00 316 ePKP2 PKPbc 22 02 57.1 -0.9
VSR pmax pmax
comp=Z,40nm,1.2s
FIA1 FINESS Array S 147.09 339 ePKPdf PKPbc 22 02 57.2 -0.7
FIA1 ePKPdf PKPab 22 02 57.8 -1.8
FINES FINESS Array B 147.10 339 PKPbc PKPbc 22 02 57.6 -0.4
comp=Z,13nm,0.5s,baz=46,slow=4.1,SNR=129
VSU Vasula 149.11 334 diPKIKP PKPbc 22 03 02.4 -1.0
NB2 NORSAR Subarra 150.84 351 PKP PKPbc 22 03 06.9 -0.7
comp=Z,1.7nm,0.5s,baz=12,slow=2.5
NOA NORSAR Array B 150.84 351 PKPbc PKPbc 22 03 07.5 -0.1
comp=Z,4.4nm,0.7s,baz=14,slow=4.1,SNR=14
IDID Didziasalis 151.31 330 eP PKPbc 22 03 08.1 -0.7
IDID IAmb IAmb 22 03 10.5
comp=Z,20nm,1.2s
MICGM Minsk 151.34 328 e PKPbc 22 03 09.0 +0.1
MNK Minsk 151.34 328 ePKIKP PKPbc 22 03 09.0 +0.1
ISAL Salakas 151.39 331 eP PKPbc 22 03 08.3 -0.7
ISAL IAmb IAmb 22 03 10.7
comp=Z,16nm,1.0s
IIGN Ignalina 151.50 330 eP PKPbc 22 03 08.8 -0.4
IIGN IAmb IAmb 22 03 11.1
comp=Z,17nm,1.1s
NACGM Naroch 151.57 329 e PKPbc 22 03 09.0 -0.4
AKASG Malin Array Be 152.89 320 PKPbc PKPbc 22 03 12.5 0.0
comp=Z,15nm,1.1s,baz=52,slow=2.7,SNR=28
AKBB Malin Array Si 152.89 320 ePKIKP PKPbc 22 03 12.6 +0.1
AKBB Malin Array Si 152.89 320 ePKPbc PKPbc 22 03 12.6 +0.1
KIEV Kiev 152.90 320⇓ iPKIKP PKPbc 22 03 11.7 -0.8
KIEV Kiev 152.90 320 ePKPbc PKPbc 22 03 12.6 0.0
AK11 Malin Array Si 152.93 320 ePKPbc PKPbc 22 03 12.5 -0.1
LIC Lamto 153.04 165 eP PKPbc 22 03 12.5 -1.5
comp=Z,43nm,1.1s
KIC Kosan Boka 153.24 165 eP PKPbc 22 03 15.4 +1.0
comp=Z,51nm,1.2s
BR131 Keskin Array S 153.44 295 ePKPbc PKPbc 22 03 13.8 -0.5
BRTR Keskin Array B 153.44 295 PKPbc PKPbc 22 03 14.2 -0.2
comp=Z,2.0nm,0.5s,baz=140,slow=4.2,SNR=15
TIC Toumodi 153.45 165 eP PKPbc 22 03 15.0 +0.1
DBIC Dimbokro 153.51 165 PKPbc PKPbc 22 03 15.8 +0.7
comp=Z,5.0nm,1.1s,baz=180,slow=7.1,SNR=4.2
SUW Suwalki 153.70 331 PKIKP PKPbc 22 03 14.4 +0.2
BR231 Keskin MP Arra 154.09 295 ePKPbc PKPbc 22 03 14.5 -1.2
SORM Soroca 154.66 316⇓ iP PKPbc 22 03 15.8 -0.6
TESR Tescani 156.45 314⇓ iP PKPab 22 03 24.7 -14
BURAR Bucovina Array 156.75 317⇓ iP PKPdf 22 03 23.3 +12
BUR04 Bucovina Ar. S 156.75 317 ePKPab PKPab 22 03 39.4 -1.0
DRGR 158.63 318⇓ iP PKPab 22 03 47.7 -0.8
DPC Dobruska-Polom 159.23 333 ePKPAB PKPab 22 03 50.2 -0.7
DPC Dobruska-Polom 159.23 333 ePKP2 PKPab 22 03 50.2 -0.7
CLL Collm 159.54 340 iPKP2 PKPab 22 03 50.4 -1.7
CLL pmax pmax
comp=Z,8.0nm,1.3s
CLL Collm 159.54 340 iPKPab PKPab 22 03 50.4 -1.7
comp=Z,8.0nm,1.3s
CLL epPKPab sPKPab 22 04 02.0 +0.8
VYHS Vyhne 159.56 326 ePKP2 PKPab 22 03 51.7 -0.7
VYHS Vyhne 159.56 326 ePKP PKPab 22 03 51.7 -0.7
BRG Berggiesshubel 159.63 338 ePKP PKPab 22 03 51.9 -0.6
comp=Z,18nm,1.6s
BRG Berggiesshubel 159.63 338 ePKP2 PKPab 22 03 51.9 -0.6
BRG pmax pmax
comp=Z,18nm,1.6s
PVCC Panska Ves 159.71 336 ePKPAB PKPab 22 03 52.9 0.0
PVCC Panska Ves 159.71 336 ePKP2 PKPab 22 03 52.9 0.0
PRU Pruhonice 160.18 335 ePKPAB PKPab 22 03 54.8 -0.2
PRU Pruhonice 160.18 335 ePKP2 PKPab 22 03 54.8 -0.2
MDVR Moldavita 160.31 314⇓ iP PKPab 22 03 55.2 -0.7
TOA0 Torodi Ar. Sit 160.70 180 ePKPab PKPab 22 03 59.2 +1.2
TORD Torodi Ar. Bea 160.70 180 PKP PKPdf 22 03 17.4 +1.0
comp=Z,1.3nm,1.1s,baz=220,slow=1.1,SNR=3.3
TORD PKPab PKPab 22 03 58.9 +0.9
comp=Z,5.0nm,0.8s,baz=184,slow=3.7,SNR=13
KHC Kasperske Hory 161.24 335 ePKPAB PKPab 22 03 59.0 -0.7
KHC Kasperske Hory 161.24 335 ePKP2 PKPab 22 03 59.0 -0.7
GERES GERESS Array B 161.44 335 PKPab PKPab 22 04 00.3 -0.3
comp=Z,0.7nm,0.8s,baz=43,slow=2.7,SNR=5.1

*IDC **30** 21:59:44.5±1.8, 32°.39S×178°.25W, h0km, mb3.9/2, mb1 4.1/3, mb1mx3.7/33, mbtmp4.0/3, ML3.8/1, Error ellipse: s-maj=42.5km s-min=35.0km az=110.0*
*ISCJB **30** 21:59:46.2±1.0, 32°.6S±0°.1×178°.2W±0°.2, h20km, mb4.4/6, Error ellipse: s-maj=28.1km s-min=9.4km az=26.8*
*NEIC **30** 21:59:49.8±0.7, 32°.58S×178°.18W, h35km, mb4.3/3, Error ellipse: s-maj=23.0km s-min=11.9km az=116.0*
**ISC 30 21:59:47.5±1.1, 32°.4S±0°.1×178°.2W±0°.2, h20km, n11, σ0s92/12, mb4.2/6, South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| RAO | Raoul Island | 3.15 | 5 | Pn | Pn | 22 00 41.4 | -1.3 |
| URZ | Urewera | 6.99 | 212 | Pn | Pn | 22 01 29.0 | +0.3 |
| | 1.6nm,0.3s,baz=225,slow=18,SNR=3.4 | | | | | | |
| URZ | | | | Sn | Sn | 22 02 46.5 | -1.1 |
| | 1.8nm,0.3s,baz=95,slow=11,SNR=3.6 | | | | | | |
| FUNA | Funafuti | 23.88 | 354 | P | P | 22 05 01.5 | +1.7 |
| ASAR | Alice Springs | 42.87 | 269 | P | P | 22 07 44.5 | -0.2 |
| | 0.8nm,0.6s,baz=108,slow=7.7,SNR=14 | | | | | | |
| WRAB | Tennant Creek | 44.03 | 274 | P | P | 22 07 54.8 | +0.7 |
| | 0.9nm,0.3s | | | | | | |
| WRA | Warramunga Arr | 44.04 | 274 | P | P | 22 07 53.8 | -0.3 |
| | 0.9nm,0.4s,baz=114,slow=7.9,SNR=21 | | | | | | |
| CMB | Columbia Colle | 88.36 | 42 | eP | P | 22 12 38.0 | +0.1 |
| | 0.6nm,0.3s | | | | | | |
| MDJ | Mudanjiang | 90.17 | 326 | P | P | 22 12 46.9 | +0.8 |
| | 1.0nm,0.4s | | | | | | |
| PV10 | Paradox Valley | 95.35 | 48 | eP | P | 22 13 10.4 | -0.1 |
| | 29nm,0.4s | | | | | | |
| FINES | FINESS Array B | 146.95 | 339 | PKPbc | PKPbc | 22 19 27.4 | -0.4 |
| | 3.0nm,0.7s,baz=42,slow=3.6,SNR=18 | | | | | | |
| TORD | Torodi Ar. Bea | 160.84 | 180 | PKPab | PKPab | 22 20 28.7 | -0.2 |
| | 0.3nm,0.7s,baz=159,slow=4.2,SNR=3.4 | | | | | | |

*CSEM **30** 22:02:50.8, 45°.96N×15°.54E, h0km, ML0.2*
**LJU 30 22:02:50.8, 45°.96N×15°.54E, h6km, ML0.2, Northwestern Balkan Peninsula**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| CESS | Cesta pri Krsk | 0.06 | 289 | iPg | Pg | 22 02 52.4 | 0.0 |
| CESS | | | | iSg | Sg | 22 02 53.7 | +0.1 |
| | comp=Z,11nm,0.1s | | | | | | |
| CESS | Cesta pri Krsk | 0.06 | 289 | Pg | Pg | 22 02 52.4 | 0.0 |
| CESS | | | | iSg | Sg | 22 02 53.7 | +0.2 |
| | comp=Z,11nm,0.1s | | | | | | |
| GOLS | Golise | 0.08 | 47 | iPg | Pg | 22 02 52.8 | 0.0 |
| GOLS | | | | iSg | Sg | 22 02 54.3 | +0.1 |
| | comp=Z,13nm,0.1s | | | | | | |
| GOLS | Golise | 0.08 | 47 | iPg | Pg | 22 02 52.8 | 0.0 |
| GOLS | | | | iSg | Sg | 22 02 54.3 | +0.1 |
| | comp=Z,13nm,0.1s | | | | | | |
| GCIS | Gornji Cirnik | 0.11 | 145 | iPg | Pg | 22 02 53.3 | +0.1 |
| GCIS | | | | iSg | Sg | 22 02 55.1 | +0.4 |
| | comp=Z,1.0nm,0.1s | | | | | | |
| GCIS | Gornji Cirnik | 0.11 | 145 | iPg | Pg | 22 02 53.3 | +0.2 |
| GCIS | | | | iSg | Sg | 22 02 55.1 | +0.4 |
| | comp=Z,1.0nm,0.1s | | | | | | |
| CRES | Cresnjev | 0.14 | 204 | iPg | Pg | 22 02 53.8 | +0.1 |
| | comp=Z,2.0nm,0.1s | | | | | | |
| CRES | Cresnjev | 0.14 | 204 | iPg | Pg | 22 02 53.8 | +0.1 |
| | comp=Z,2.0nm,0.1s | | | | | | |
| LEGS | Legarje | 0.15 | 268 | iPg | Pg | 22 02 54.3 | +0.3 |
| LEGS | | | | iSg | Sg | 22 02 56.4 | +0.3 |
| LEGS | Legarje | 0.15 | 268 | iPg | Pg | 22 02 54.3 | +0.3 |
| LEGS | | | | iSg | Sg | 22 02 56.4 | +0.3 |
| DOBS | Dobrina | 0.20 | 346 | iPg | Pg | 22 02 54.9 | +0.1 |
| DOBS | | | | iSg | Sg | 22 02 58.0 | +0.4 |
| DOBS | Dobrina | 0.20 | 346 | iPg | Pg | 22 02 54.9 | +0.1 |
| DOBS | | | | iSg | Sg | 22 02 58.0 | +0.5 |

*GUC **30** 22:13:07.3±0.8, 34°.66S×72°.08W, h20km±5km, ML3.7*
*SJA **30** 22:13:08.2±0.9, 34°.80S×72°.05W, h40km, ML3.4, MW3.5*
**ISC 30 22:13:08.0±1.1, 34°.71S±0°.03×71°.99W±0°.05, h11km±9km, n18, σ1s67/32, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| GO05 | HualaæØ | 0.31 | 171 | eP | Pg | 22 13 14.8 | +0.5 |
| GO05 | | | | eS | Sb | 22 13 20.7 | +0.1 |
| CHPI | Pichilemu | 0.32 | 358 | eP | Pg | 22 13 13.0 | -1.3 |
| CHPI | | | | eS | Sg | 22 13 17.1 | -1.5 |
| NICH | Los Niches | 0.69 | 116 | eP | Pg | 22 13 20.3 | -1.1 |
| NICH | | | | iS | Sg | 22 13 30.0 | -0.5 |
| RCDM | Rinconada Maip | 1.56 | 39 | eP | Pn | 22 13 33.4 | -2.4 |
| RCDM | | | | eS | Sn | 22 13 53.4 | -2.6 |
| COCH | Cobquecura | 1.56 | 204 | eP | Pg | 22 13 38.2 | +0.1 |
| COCH | | | | eS | Sg | 22 13 59.0 | +0.6 |
| ANTU | Antumapu | 1.60 | 45 | eP | Pn | 22 13 34.0 | -2.2 |
| ANTU | | | | IAML | | 22 14 01.2 | |
| | comp=E,2µm,0.5s | | | | | | |
| CLCH | Cerro Calan | 1.78 | 43 | eP | Pn | 22 13 37.1 | -1.7 |
| CLCH | | | | iS | Sn | 22 13 59.7 | -1.7 |
| CLCH | | | | IAML | | 22 14 04.5 | |
| | comp=E,1µm,1.0s | | | | | | |
| CCHI | Chillan | 1.89 | 182 | eP | Pg | 22 13 44.0 | -0.4 |
| CCHI | | | | eS | Sg | 22 14 10.5 | +1.6 |
| PEL | Peldehue | 1.90 | 35 | eP | Pn | 22 13 38.7 | -1.7 |
| PEL | | | | eS | Sn | 22 14 03.1 | -1.2 |
| PEL | | | | IAML | | 22 14 09.8 | |
| | comp=N,725nm,0.4s | | | | | | |
| ROC1 | El Roble | 1.91 | 25 | eP | Pg | 22 13 47.0 | +2.5 |
| ROC1 | | | | eS | Sg | 22 14 12.5 | +3.2 |
| ROCH | El Roble | 1.91 | 25 | eP | Pg | 22 13 45.9 | +1.2 |
| ROCH | | | | eS | Sg | 22 14 10.6 | +1.1 |
| ROCH | | | | IAML | | 22 14 17.3 | |
| | comp=E,1µm,0.6s | | | | | | |
| FCH | Farellones | 1.97 | 46 | eP | Pn | 22 13 40.5 | -1.1 |
| FCH | | | | eS | Sn | 22 14 06.3 | -0.2 |
| FCH | | | | IAML | | 22 14 08.5 | |
| | comp=N,675nm,0.7s | | | | | | |
| AUSP | Uspallata | 3.29 | 42 | eP | Pn | 22 14 02.1 | +2.3 |
| AUSP | | | | eS | Sn | 22 14 39.5 | +0.4 |
| RTLS | Leoncito | 3.67 | 39 | eP | Pn | 22 14 07.6 | +2.6 |
| RTLS | | | | eS | Sb | 22 14 58.0 | +0.2 |
| RTLS | | | | IAML | | 22 15 06.0 | |
| | comp=Z,73nm,0.5s | | | | | | |
| RTLL | Cerro Villicun | 4.48 | 42 | eP | Pn | 22 14 17.1 | +1.2 |
| RTLL | | | | IAML | | 22 14 24.8 | |
| | comp=Z,31nm,0.5s | | | | | | |
| ACAN | Cantantal | 4.69 | 60 | eP | Pn | 22 14 21.2 | +2.4 |
| ACAN | | | | eS | Sb | 22 15 25.4 | -1.3 |
| AMOG | MOGNA | 4.77 | 39 | eP | Pn | 22 14 20.8 | +0.8 |
| AGUA | GUANDACOL | 5.99 | 31 | eP | Pn | 22 14 36.6 | -0.1 |

*IDC **30** 22:16:16.4±1.0, 55°.55S×26°.72W, h0km, mb3.8/3, mb1 4.0/3, mb1mx3.7/20, mbtmp3.8/3, Error ellipse: s-maj=46.1km s-min=33.2km az=87.0*
*ISCJB **30** 22:16:20.6±1.0, 55°.6S±0°.1×26°.7W±0°.5, h38km, mb3.8/3, Error ellipse: s-maj=41.7km s-min=15.4km az=158.8*
**ISC 30 22:16:21.9±0.9, 55°.6S±0°.2×26°.7W±0°.3, h38km, n10, σ0s65/10, mb3.9/3, South Sandwich Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| VNA3 | Neumayer Olymp | 17.36 | 161 | P | Pn | 22 20 21.2 | +0.2 |
| VNA2 | Neumayer--Watz | 17.55 | 159 | P | Pn | 22 20 23.1 | 0.0 |
| | baz=315,slow=15 | | | | | | |
| SNAA | Sanae | 19.08 | 157 | P | Pn | 22 20 41.5 | -0.4 |
| VNDA | Vanda | 47.06 | 183 | P | P | 22 24 49.5 | +0.5 |
| | 0.8nm,0.6s,baz=195,slow=7.6,SNR=5.4 | | | | | | |
| LPAZ | La Paz | 50.31 | 304 | P | P | 22 25 15.7 | +0.3 |
| | 0.8nm,0.5s,baz=193,slow=11,SNR=3.8 | | | | | | |
| TORD | Torodi Ar. Bea | 72.51 | 29 | P | P | 22 27 45.2 | +0.6 |
| | 0.4nm,0.6s,baz=197,slow=6.9,SNR=7.8 | | | | | | |
| YKA | Yellowknife Ar | 135.98 | 318 | PKP | PKPdf | 22 35 35.9 | -1.3 |
| | 0.1nm,0.4s,baz=120,slow=2.3,SNR=4.3 | | | | | | |
| INK | Inuvik | 145.59 | 321 | PKPbc | PKPdf | 22 35 54.5 | +0.2 |
| | 1.9nm,0.7s,baz=55,slow=2.9,SNR=11 | | | | | | |
| ILAR | Eielson Array | 149.98 | 312 | PKPbc | PKPbc | 22 36 06.1 | -0.5 |
| | 1.6nm,0.8s,baz=130,slow=1.9,SNR=13 | | | | | | |
| SONM | Songino Array | 150.44 | 85 | PKPbc | PKPbc | 22 36 08.1 | -0.4 |
| | 0.2nm,0.5s,baz=227,slow=4.7,SNR=4.3 | | | | | | |

*ISCJB **30** 22:22:33.2±0.5, 30°.97N±0°.04×140°.89E±0°.09, h110km, mb3.9/16, Error ellipse: s-maj=10.9km s-min=4.9km az=172.6*
*IDC **30** 22:22:34.4±0.7, 30°.81N×140°.36E, h94km±5km, mb3.7/16, mb1 3.8/20, mb1mx3.7/48, mbtmp3.9/20, Error ellipse: s-maj=19.2km s-min=8.4km az=78.0*
*JMA **30** 22:22:35.2±0.2, 31°.10N×140°.87E, h127km±2km, MS3.9*
**ISC 30 22:22:35.7±0.6, 30°.95N±0°.06×140°.71E±0°.09, h110km, n51, σ1s45/56, mb3.9/16, Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| JHCJ | Hachijojimakas | 2.25 | 340 | S | Sn | 22 23 39.1 | -0.6 |
| JHJ2 | Mitsune | 2.29 | 341 | S | Sn | 22 23 39.9 | -0.5 |
| JHJ | Hachijo jima 2 | 2.30 | 340 | P | Pn | 22 23 11.9 | -0.6 |
| | 24nm,0.3s,baz=60,slow=20,SNR=4.0 | | | | | | |
| JHJ | | | | S | Sn | 22 23 38.3 | -2.5 |
| | 118nm,0.3s,baz=90,slow=22,SNR=9.7 | | | | | | |
| JKO | Kozu shima | 3.49 | 338 | P | Pn | 22 23 28.2 | 0.0 |
| BSO1 | Boso 1 | 3.70 | 3 | P | Pn | 22 23 29.5 | -1.0 |
| BSO3 | Boso 3 | 3.85 | 358 | P | Pn | 22 23 31.5 | -1.2 |
| BSO3 | | | | S | Sn | 22 24 15.3 | -1.6 |
| BSO4 | Boso 4 | 4.04 | 356 | P | Pn | 22 23 34.6 | -0.8 |
| BSO4 | | | | eS | Sn | 22 24 20.9 | -0.9 |
| CBIJ | Chichi jima | 4.05 | 161 | P | Pn | 22 23 31.0 | -4.7 |
| TTO1 | TONANKAI O.B.S | 4.26 | 310 | P | Pn | 22 23 39.3 | +1.1 |
| JOD2 | Odawara 2 | 4.51 | 343 | P | Pn | 22 23 41.5 | -0.4 |
| JHMK | Hamakita | 4.59 | 328 | P | Pn | 22 23 43.1 | +0.3 |
| JIE | Ise | 4.81 | 317 | P | Pn | 22 23 47.1 | +1.2 |
| JWZ | Kozaga | 4.95 | 303 | P | Pn | 22 23 48.0 | +0.2 |
| JKN2 | Miekihoku | 4.98 | 312 | P | Pn | 22 23 49.1 | +1.0 |
| JHU | Hanno | 5.03 | 347 | P | Pn | 22 23 48.0 | -0.9 |
| JRY | Ryogami san | 5.28 | 344 | P | Pn | 22 23 52.1 | -0.1 |
| JRY | | | | eS | Sn | 22 24 50.9 | -0.9 |
| JYT | Yasato | 5.28 | 355 | P | Pn | 22 23 51.0 | -1.2 |
| JYT | | | | S | Sn | 22 24 49.5 | -2.4 |
| JHO | Hitachi | 5.65 | 359 | P | Pn | 22 23 55.1 | -2.1 |
| MJAR | Matsushiro Arr | 5.95 | 340 | P | Pn | 22 24 00.7 | -0.7 |
| | 2.3nm,0.3s,baz=121,slow=20,SNR=25 | | | | | | |
| MJAR | | | | S | Sn | 22 25 07.9 | -0.3 |
| | 1.0nm,0.3s,baz=146,slow=13,SNR=4.6 | | | | | | |
| MAT | Matsushiro | 5.96 | 340 | P | Pn | 22 24 01.2 | -0.2 |
| MAT | | | | eS | Sn | 22 25 08.0 | -0.3 |
| JFK | Kawauchi | 6.40 | 1 | P | Pn | 22 24 04.4 | -3.1 |
| JFK | | | | S | Sn | 22 25 13.3 | -5.8 |
| JMK | Ichinoseki | 8.00 | 3 | P | Pn | 22 24 26.4 | -2.6 |
| JNU | Nakatsue | 8.62 | 287 | P | Pn | 22 24 38.5 | +0.9 |
| | 1.1nm,0.3s,baz=106,slow=3.4,SNR=14 | | | | | | |
| KSRS | Korea Array | 12.41 | 305 | P | Pn | 22 25 27.1 | -1.3 |
| | 0.2nm,0.3s,baz=118,slow=1.5,SNR=2.9 | | | | | | |
| USRK | Ussuriysk Ar. | 14.91 | 335 | P | Pn | 22 26 01.5 | +0.8 |
| | 0.2nm,0.3s,baz=138,slow=12,SNR=3.3 | | | | | | |
| KLR | Kul'dur | 19.48 | 342 | P | P | 22 26 54.5 | +0.7 |
| | 0.1nm,0.3s,baz=142,slow=9.4,SNR=17 | | | | | | |
| H11N2 | WAKE ISLAND Hy 26.10 | 109 | | T | T | 22 55 51.4 | |
| | baz=300,slow=75,SNR=16 | | | | | | |
| H11N1 | WAKE ISLAND Hy 26.11 | 109 | | T | T | 22 55 51.7 | |
| | baz=300,slow=75,SNR=7.2 | | | | | | |
| H11N3 | WAKE ISLAND Hy 26.12 | 109 | | T | T | 22 55 52.7 | |
| | baz=300,slow=75,SNR=10 | | | | | | |
| H11S3 | WAKE ISLAND Hy 26.58 | 112 | | T | T | 22 56 60.0 | |
| | baz=304,slow=75,SNR=21 | | | | | | |
| H11S1 | WAKE ISLAND Hy 26.58 | 112 | | T | T | 22 57 00.1 | |
| | baz=304,slow=75,SNR=25 | | | | | | |
| H11S2 | WAKE ISLAND Hy 26.60 | 112 | | T | T | 22 57 00.8 | |
| | baz=304,slow=75,SNR=19 | | | | | | |
| SONM | Songino Array | 31.10 | 313 | P | P | 22 28 43.0 | -0.7 |
| | 0.5nm,0.4s,baz=113,slow=7.4,SNR=9.6 | | | | | | |
| TIXI | Tiksi | 41.26 | 354 | P | P | 22 30 10.3 | +0.8 |
| | 0.9nm,0.4s,baz=109,slow=7.0,SNR=3.4 | | | | | | |
| ZALV | Zalesovo Beam | 45.77 | 317 | P | P | 22 30 45.3 | -0.6 |
| | 0.4nm,0.3s,baz=79,slow=8.2,SNR=2.7 | | | | | | |
| MKAR | Makanchi Array | 47.08 | 307 | P | P | 22 30 55.7 | -0.6 |
| | 0.7nm,0.6s,baz=89,slow=10,SNR=9.5 | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MKAR | | | | pP | | **pP** | **22 31 17.9** | **-4.2** |
| | 0.4nm,0.5s,baz=95,slow=11,SNR=3.1 | | | | | | | |
| MKAR | | | | ScP | | **ScP** | **22 36 11.2** | **+0.9** |
| | 0.3nm,0.7s,baz=63,slow=4.9,SNR=5.1 | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **50.88** | **199** | P | | **P** | **22 31 23.4** | **-2.0** |
| | baz=349,slow=5.2 | | | | | | | |
| **WRA** | **Warramunga Arr** | **50.97** | **188** | P | | **P** | **22 31 23.9** | **-2.3** |
| | 1.4nm,0.3s,baz=4.9,slow=7.6,SNR=72 | | | | | | | |
| WRA | | | | PcP | | **PcP** | **22 32 41.9** | **+1.0** |
| | 0.7nm,0.5s,baz=0.5,slow=4.1,SNR=7.3 | | | | | | | |
| **ASAR** | **Alice Springs** | **54.70** | **188** | P | | **P** | **22 31 51.4** | **-2.1** |
| | 1.1nm,0.4s,baz=3.0,slow=6.2,SNR=31 | | | | | | | |
| **ILAR** | **Eielson Array** | **54.99** | **30** | P | | **P** | **22 31 57.6** | **+2.5** |
| | 0.6nm,1.0s,baz=263,slow=7.5,SNR=4.7 | | | | | | | |
| ILAR | | | | pP | | **pP** | **22 32 21.2** | **-0.4** |
| | 0.6nm,0.8s,baz=287,slow=6.4,SNR=4.1 | | | | | | | |
| **STKA** | **Stephens Creek** | **62.49** | **179** | P | | **P** | **22 32 46.2** | **-1.1** |
| | 0.5nm,0.4s,baz=280,slow=5.4,SNR=3.0 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **69.38** | **29** | P | | **P** | **22 33 33.5** | **+2.3** |
| | 0.2nm,0.7s,baz=292,slow=6.0,SNR=3.9 | | | | | | | |
| YKA | | | | pP | | **pP** | **22 33 58.4** | **-0.3** |
| | 0.2nm,0.6s,baz=297,slow=5.8,SNR=4.2 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **69.49** | **340** | P | | **P** | **22 33 32.8** | **+0.9** |
| | 2.2nm,0.8s,baz=66,slow=7.3,SNR=5.8 | | | | | | | |
| ARCES | | | | pP | | **PcP** | **22 33 57.2** | **+2.9** |
| | 2.2nm,0.8s,baz=83,slow=9.9,SNR=1.4 | | | | | | | |
| **FINES** | **FINESS Array B** | **73.94** | **333** | P | | **P** | **22 33 59.5** | **+1.0** |
| | 2.0nm,0.8s,baz=65,slow=3.4,SNR=10 | | | | | | | |
| **KBZ** | **Khabaz** | **74.47** | **312** | P | | **P** | **22 34 02.3** | **+0.4** |
| | 3.5nm,0.8s,baz=55,slow=2.6,SNR=6.2 | | | | | | | |
| **AKASG** | **Malin Array Be** | **78.77** | **323** | P | | **P** | **22 34 26.5** | **+0.5** |
| | 1.7nm,0.4s,baz=50,slow=5.3,SNR=17 | | | | | | | |
| **NB2** | **NORSAR Subarra** | **79.57** | **338** | P | | pP | 22 34 56.2 | -2.1 |
| | comp=Z,1.5nm,0.7s,baz=43,slow=5.9 | | | | | | | |
| **NOA** | **NORSAR Array B** | **79.57** | **338** | P | | **P** | **22 34 31.4** | **+1.2** |
| | comp=Z,0.8nm,0.7s,baz=18,slow=5.1,SNR=2.8 | | | | | | | |
| NOA | | | | pP | | **pP** | **22 34 55.3** | **-3.0** |
| | comp=Z,0.9nm,0.5s,baz=45,slow=5.5,SNR=2.1 | | | | | | | |
| **BRTR** | **Keskin Array B** | **82.46** | **312** | P | | **P** | **22 34 46.9** | **+0.8** |
| | comp=Z,1.9nm,0.8s,baz=96,slow=3.4,SNR=11 | | | | | | | |
| **TXAR** | **Lajitas Array** | **94.30** | **52** | P | | **P** | **22 35 44.9** | **+1.8** |
| | comp=Z,0.8nm,0.7s,baz=289,slow=2.8,SNR=11 | | | | | | | |
| TXAR | | | | pP | | **pP** | **22 36 10.1** | **-1.8** |
| | comp=Z,0.3nm,0.7s,baz=308,slow=2.7,SNR=3.0 | | | | | | | |
| **LPAZ** | **La Paz** | **149.93** | **68** | PKPbc | | **PKPbc** | **22 42 15.7** | **+1.3** |
| | comp=Z,0.7nm,0.5s,baz=261,slow=2.5,SNR=5.2 | | | | | | | |

*NEIC **30** 22:30:18.6±2.2, 32.43S×177.23W, h25km±16km, mb4.8/17, Error ellipse: s-maj=9.3km s-min=6.5km az=110.0*
*ISCJB **30** 22:30:19.0±0.5, 32.59S±0.04×177.41W±0.09, h33km, mb5.2/30, MS4.0/15, Error ellipse: s-maj=11.3km s-min=4.2km az=17.7*
*IDC **30** 22:30:21.4±0.8, 32.33S×178.16W, h0km, mb4.6/8, mb1 4.7/10, mb1mx4.4/31, mbtmp4.7/10, ML4.7/2, MS3.9/16, Ms1 3.9/16, ms1mx3.7/33, Error ellipse: s-maj=24.7km s-min=21.7km az=110.0*
*MOS **30** 22:30:27.0±1.2, 32.11S×178.44W, h33km, mb5.3/5, Error ellipse: s-maj=16.2km s-min=12.5km az=111.9*

**ISC 30 22:30:22.4±0.5, 32.44S±0.05×177.85W±0.09, h20km, n156, σ2.9 17/142, mb5.2/30, MS4.0/15, 12C-10D, South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **RAO** | **Raoul Island** | **3.18** | **359** | Pn | **Pn** | **22 31 11.0** | **-0.2** |
| | 228nm,0.3s,baz=212,slow=23,SNR=4.1 | | | | | | |
| RAO | | | | Sn | **Sn** | **22 31 49.1** | **+0.5** |
| | 384nm,0.3s,baz=259,slow=19,SNR=4.5 | | | | | | |
| RAO | | | | LR | LR | 22 32 11.6 | |
| | comp=Z,2μm,19.9s,baz=144,slow=36 | | | | | | |
| **RAO** | **Raoul Island** | **3.18** | **359** | *e*Pn | **Pn** | **22 31 07.5** | **-3.8** |
| RAO | | | | *e*Sn | **Sn** | **22 31 44.8** | **-3.8** |
| RAO | | | | *e*Sb | **Sb** | **22 31 52.6** | **-3.9** |
| **MXZ** | **Matakaoa Point** | **6.00** | **211** | *e*Pn | **Pn** | **22 31 50.2** | **+0.1** |
| **WMGZ** | **Waiomatatini S** | **6.18** | **209** | *e*Pn | **Pn** | **22 31 52.4** | **-0.1** |
| **HAZ** | **Te Kaha** | **6.40** | **213** | *e*Pn | **Pn** | **22 31 54.6** | **-0.9** |
| HAZ | | | | *e*Sn | **Sn** | **22 33 08.4** | **+0.5** |
| **PUZ** | **Puketiti** | **6.46** | **208** | *e*Pn | **Pn** | **22 31 54.7** | **-1.7** |
| **MWZ** | **Matawai** | **6.99** | **211** | *e*Pn | **Pn** | **22 32 01.4** | **-2.2** |
| MWZ | | | | *e*Sn | **Sn** | **22 33 20.2** | **-2.3** |
| **URZ** | **Urewera** | **7.12** | **214** | Pn | **Pn** | **22 32 05.3** | **-0.1** |
| | 6.3nm,0.3s,baz=64,slow=2.0,SNR=16 | | | | | | |
| URZ | | | | Sn | **Sn** | **22 33 22.8** | **-2.8** |
| | 6.9nm,0.3s,baz=127,slow=15,SNR=5.1 | | | | | | |
| **URZ** | **Urewera** | **7.12** | **214** | *e*Pn | **Pn** | **22 32 05.6** | **+0.3** |
| URZ | | | | Sn | **Sn** | **22 33 22.8** | **-2.8** |
| **RIGZ** | **Rimuhau** | **7.20** | **209** | *e*Pn | **Pn** | **22 32 05.2** | **-1.4** |
| RIGZ | | | | *e*Sn | **Sn** | **22 33 25.2** | **-2.6** |
| **SNGZ** | **Shannon Statio** | **7.44** | **210** | *e*Pn | **Pn** | **22 32 08.4** | **-1.4** |
| **KNZ** | **Kokohu** | **7.51** | **208** | *e*Pn | **Pn** | **22 32 07.2** | **-3.5** |
| KNZ | | | | *e*Sn | **Sn** | **22 33 30.5** | **-4.7** |
| **OUZ** | **Omahuta** | **7.64** | **246** | *e*Pn | **Pn** | **22 32 15.8** | **+3.3** |
| **NMHZ** | **Naumai** | **7.93** | **212** | *e*PN | **Pn** | **22 32 16.1** | **-0.6** |
| **BKZ** | **Black Stump Fm** | **8.13** | **213** | *e*Pn | **Pn** | **22 32 19.7** | **+0.4** |
| **MCHZ** | **McNeill Hill** | **8.27** | **211** | *e*PN | **Pn** | **22 32 20.1** | **-1.0** |
| **MRZ** | **Mangatainoka R** | **9.76** | **211** | *e*SN | **Sn** | **22 34 21.7** | **-8.8** |
| **OXZ** | **Oxford** | **13.47** | **213** | *e*Pn | **Pn** | **22 33 31.6** | **-0.8** |
| **RPZ** | **Rata Peaks** | **14.23** | **215** | Pn | Pn | 22 33 37.6 | -5.2 |
| | 0.9nm,0.3s,baz=355,slow=3.2,SNR=5.9 | | | | | | |
| RPZ | | | | Sn | Sn | 22 36 04.3 | -16 |
| | 0.7nm,0.3s,baz=66,slow=16,SNR=3.8 | | | | | | |
| **RPZ** | **Rata Peaks** | **14.23** | **215** | *e*Pn | **Pn** | **22 33 43.1** | **+0.3** |
| RPZ | | | | Sn | Sn | 22 36 04.3 | -16 |
| **MSVF** | **Nonsavu** | **15.11** | **345** | *e*P | **Pn** | **22 33 53.3** | **-1.5** |
| **MSVF** | **Nonsavu** | **15.11** | **345** | *e*Pn | **Pn** | **22 33 52.3** | **-2.5** |
| | 12nm,0.9s | | | | | | |
| **ODZ** | **Otahua Downs** | **15.44** | **212** | *e*Pn | **Pn** | **22 33 57.8** | **-1.1** |
| | 90nm,2.0s | | | | | | |
| **WHZ** | **Wether Hill Ro** | **17.33** | **215** | *e*Pn | **Pn** | **22 34 22.2** | **-0.9** |
| | 73nm,1.5s | | | | | | |
| **DZM** | **Mont Dzumac** | **17.35** | **303** | P | **P** | **22 34 26.8** | **+2.0** |
| | 0.5nm,0.3s,baz=134,slow=13,SNR=13 | | | | | | |
| DZM | | | | LR | LR | 22 40 02.4 | |
| | comp=Z,1μm,18.0s,baz=183,slow=34 | | | | | | |
| **DZM** | **Mont Dzumac** | **17.35** | **303** | *e*P | **P** | **22 34 27.2** | **+2.4** |
| | 38nm,1.1s | | | | | | |
| DZM | | | | *e*LR | LR | 22 38 08.0 | |
| | 905nm,22.5s | | | | | | |
| **DZM** | **Mont Dzumac** | **17.35** | **303** | *e*Pn | **P** | **22 34 25.2** | **+0.4** |
| | 14nm,0.8s | | | | | | |
| **DCZ** | **Deep Cove** | **17.43** | **217** | *e*Pn | **Pn** | **22 34 23.5** | **-0.8** |
| | 74nm,1.6s | | | | | | |
| **FUNA** | **Funafuti** | **23.95** | **353** | *e*P | **P** | **22 35 31.4** | **-4.0** |
| | 299nm,1.6s | | | | | | |
| **EIDS** | **Eidsvold** | **28.03** | **277** | *e*P | **P** | **22 36 12.1** | **-0.2** |
| | 18nm,0.8s | | | | | | |
| **PAE** | **Paea** | **29.42** | **67** | *e*T | T | 23 07 15.4 | |
| | 2.1nm,0.3s | | | | | | |
| **PPT2** | **Papeete2** | **29.46** | **67** | *e*LR | LR | 22 43 57.3 | |
| | 440nm,28.0s | | | | | | |
| **PPT** | **Papeete** | **29.48** | **67** | LR | LR | 22 48 42.8 | |
| | comp=Z,136nm,18.5s,baz=196,slow=37 | | | | | | |
| **HNR** | **Honiara** | **30.76** | **313** | LR | LR | 22 47 56.9 | |
| | comp=Z,230nm,18.1s,baz=146,slow=35 | | | | | | |
| **VAH** | **Vaihoa** | **32.36** | **65** | *e*T | T | 23 10 52.0 | |
| | 8.1nm,0.3s | | | | | | |
| **STKA** | **Stephens Creek** | **34.20** | **260** | P | **P** | **22 37 07.6** | **+1.0** |
| | 3.0nm,0.7s,baz=97,slow=9.9,SNR=8.4 | | | | | | |
| STKA | | | | LR | LR | 22 50 01.3 | |
| | comp=Z,308nm,18.4s,baz=36,slow=35 | | | | | | |
| **STKA** | **Stephens Creek** | **34.20** | **260** | *e*P | **P** | **22 37 08.1** | **+1.5** |
| **STKA** | **Stephens Creek** | **34.20** | **260** | *e*P | **P** | **22 37 08.1** | **+1.5** |
| | 1.0nm,0.8s | | | | | | |
| **CTA** | **Charters Tower** | **34.30** | **282** | P | **P** | **22 37 07.3** | **-0.3** |
| | 14nm,0.6s,baz=112,slow=11,SNR=22 | | | | | | |
| **CTAO** | **Charters Tower** | **34.30** | **282** | *e*P | **P** | **22 37 08.5** | **+0.9** |
| CTAO | | | | pmax | pmax | | |
| | comp=Z,19nm,0.6s | | | | | | |
| **CTAO** | **Charters Tower** | **34.30** | **282** | *e*P | **P** | **22 37 08.5** | **+0.9** |
| | comp=Z,19nm,0.6s | | | | | | |
| **TARA** | **Tarawa** | **34.73** | **344** | *e*P | **P** | **22 37 07.3** | **-4.0** |
| | comp=Z,292nm,1.7s | | | | | | |
| **BBOO** | **Buckleboo** | **38.58** | **257** | *e*P | **P** | **22 37 43.6** | **-0.4** |
| | comp=Z,29nm,1.6s | | | | | | |
| **XMAS** | **Kiritimati** | **39.37** | **33** | *e*P | P | 22 37 43.3 | -7.4 |
| | comp=Z,351nm,1.5s | | | | | | |
| **PMG** | **Port Moresby** | **39.63** | **297** | P | **P** | **22 37 53.2** | **+0.3** |
| | comp=Z,8.4nm,0.4s,baz=231,slow=6.5,SNR=4.9 | | | | | | |
| PMG | | | | LR | LR | 22 52 33.1 | |
| | comp=Z,110nm,18.9s,baz=137,slow=34 | | | | | | |
| **PMG** | **Port Moresby** | **39.63** | **297** | *i*eP | **P** | **22 37 54.0** | **+1.1** |
| PMG | | | | pmax | pmax | | |
| | comp=Z,33nm,0.6s | | | | | | |
| **PMG** | **Port Moresby** | **39.63** | **297** | *e*P | **P** | **22 37 51.8** | **-1.1** |
| | comp=Z,44nm,1.1s | | | | | | |
| **COEN** | **Coen** | **39.99** | **288** | *e*P | **P** | **22 37 55.5** | **-0.4** |
| | comp=Z,6.0nm,0.6s | | | | | | |
| **PTCN** | **Pitcairn Islan** | **42.22** | **93** | *e*P | P | 22 38 04.8 | -9.5 |
| | comp=Z,434nm,1.2s | | | | | | |
| **AS01** | **Alice Springs** | **43.13** | **269** | *e*P | **P** | **22 38 21.0** | **-0.7** |
| **AS31** | **Alice Springs** | **43.17** | **269** | *e*P | **P** | **22 38 21.8** | **-0.2** |
| | comp=Z,5.8nm,0.8s | | | | | | |
| **ASAR** | **Alice Springs** | **43.17** | **269** | P | **P** | **22 38 21.5** | **-0.5** |
| | comp=Z,12nm,0.6s,baz=106,slow=7.6,SNR=156 | | | | | | |
| ASAR | | | | LR | LR | 22 55 58.6 | |
| | comp=Z,209nm,18.4s,baz=108,slow=36 | | | | | | |
| **WB2** | **Warramunga Arr** | **44.33** | **274** | *e*P | **P** | **22 38 31.2** | **-0.1** |
| | comp=Z,72nm,1.1s | | | | | | |
| **WRAB** | **Tennant Creek** | **44.33** | **274** | *i*eP | **P** | **22 38 30.7** | **-0.7** |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,12nm,0.6s | | | | | | |
| **WRAB** | **Tennant Creek** | **44.33** | **274** | *e*P | **P** | **22 38 30.6** | **-0.8** |
| | comp=Z,9.5nm,0.6s | | | | | | |
| **WRA** | **Warramunga Arr** | **44.34** | **274** | P | **P** | **22 38 30.7** | **-0.7** |
| | comp=Z,20nm,0.6s,baz=114,slow=7.8,SNR=141 | | | | | | |
| WRA | | | | LR | LR | 22 55 21.1 | |
| | comp=Z,165nm,20.4s,baz=115,slow=34 | | | | | | |
| **MANU** | **Manus Island** | **44.53** | **306** | *e*P | **P** | **22 38 31.6** | **-1.4** |
| | comp=Z,150nm,1.7s | | | | | | |
| **FORT** | **Forrest** | **45.68** | **257** | *e*P | **P** | **22 38 41.3** | **-0.7** |
| | comp=Z,576nm,0.6s | | | | | | |
| **SBA** | **Scott Base** | **46.02** | **184** | *e*P | **P** | **22 38 39.9** | **-4.1** |
| SBA | | | | pmax | pmax | | |
| | comp=Z,30nm,1.4s | | | | | | |
| **SBA** | **Scott Base** | **46.02** | **184** | *e*P | **P** | **22 38 39.9** | **-4.1** |
| | comp=Z,30nm,1.4s | | | | | | |
| **JOHN** | **Johnston Islan** | **49.54** | **10** | *e*P | P | 22 39 05.8 | -6.0 |
| | comp=Z,802nm,1.6s | | | | | | |
| **MTN** | **Manton Dam** | **50.45** | **281** | *e*P | **P** | **22 39 17.9** | **-1.2** |
| | comp=Z,25nm,0.8s | | | | | | |
| **KIP** | **Kipapa** | **56.82** | **22** | *i*eP | **P** | **22 40 07.4** | **+1.9** |
| **MAW** | **Mawson** | **70.45** | **201** | P | **P** | **22 41 36.7** | **+1.9** |
| | comp=Z,1.9nm,0.9s,baz=108,slow=13,SNR=2.8 | | | | | | |
| MAW | | | | LR | LR | 23 12 09.4 | |
| | comp=Z,95nm,18.4s,baz=57,slow=36 | | | | | | |
| **SYO** | **Syowa Base** | **75.16** | **193** | *i*pP | **P** | **22 42 04.0** | **+1.2** |
| **SNAA** | **Sanae** | **76.12** | **178** | P | **P** | **22 42 11.4** | **+3.0** |
| **SNAA** | **Sanae** | **76.12** | **178** | *e*P | **P** | **22 42 07.7** | **-0.7** |
| **SNAA** | **Sanae** | **76.12** | **178** | *e*P | **P** | **22 42 07.7** | **-0.7** |
| | comp=Z,763nm,1.0s | | | | | | |
| **VNA3** | **Neumayer Olymp** | **76.27** | **176** | P | **P** | **22 42 12.3** | **+3.2** |
| **VNA2** | **Neumayer--Watz** | **76.70** | **177** | P | **P** | **22 42 15.1** | **+3.5** |
| | baz=172,slow=4.1 | | | | | | |
| **VNA1** | **Neumayer--Stat** | **76.93** | **176** | P | **P** | **22 42 16.5** | **+3.6** |
| **PLCA** | **Paso Flores** | **81.03** | **133** | LR | LR | 23 12 51.7 | |
| | comp=Z,42nm,19.3s,baz=206,slow=31 | | | | | | |
| **KSRS** | **Korea Array** | **85.98** | **320** | P | **P** | **22 43 01.6** | **+0.5** |
| | comp=Z,0.4nm,0.4s,baz=115,slow=6.4,SNR=4.0 | | | | | | |
| **KSRS** | **Korea Array** | **85.98** | **320** | P | **P** | **22 43 01.6** | **+0.5** |
| KSRS | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.7s | | | | | | |
| **KSAR** | **Wonju Array Be** | **85.99** | **320** | P | **P** | **22 43 01.6** | **+0.4** |
| **KSAR** | **Wonju Array Be** | **85.99** | **320** | P | **P** | **22 43 01.6** | **+0.4** |
| **PKLM** | **Kerr Lake** | **86.64** | **43** | *e*P | **P** | **22 43 01.6** | **-2.9** |
| **LRV** | **Little Rabbit** | **86.70** | **43** | *e*P | P | 22 42 59.0 | -5.8 |
| **SKG** | **Skaggs Springs** | **87.21** | **40** | *e*P | P | 22 42 58.8 | -8.4 |
| **NJ2** | **Nanjing** | **87.67** | **311** | *e*P | **P** | **22 43 05.8** | **-3.7** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.6s | | | | | | |
| **PETK** | **Petropavlovsk-** | **87.81** | **346** | P | **P** | **22 43 11.0** | **+1.3** |
| | comp=Z,3.7nm,0.7s,baz=122,slow=5.9,SNR=6.2 | | | | | | |
| **PETK** | **Petropavlovsk-** | **87.81** | **346** | *e*P | **P** | **22 43 13.5** | **+3.8** |
| PETK | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.7s | | | | | | |
| **GLA** | **Glamis** | **88.14** | **48** | *e*P | P | 22 43 05.3 | -6.5 |
| GLA | | | | pmax | pmax | | |
| | comp=Z,8.0nm,0.9s | | | | | | |
| **GLA** | **Glamis** | **88.14** | **48** | *e*P | P | 22 43 05.2 | -6.6 |
| | comp=Z,8.3nm,0.9s | | | | | | |
| **NVAR** | **Mina Array Bea** | **89.65** | **43** | LR | LR | 23 19 31.2 | |
| | comp=Z,77nm,18.1s,baz=260,slow=33 | | | | | | |
| **CHGN** | **Chignik** | **89.93** | **11** | *e*P | P | 22 43 14.2 | -5.3 |
| | comp=Z,210nm,1.5s | | | | | | |
| **KLR** | **Kul'dur** | **92.86** | **330** | *i*eP | **P** | **22 43 34.7** | **+1.4** |
| **FSU** | **Fish Springs** | **93.36** | **44** | *e*P | **P** | **22 43 33.3** | **-2.8** |
| **TXAR** | **Lajitas Array** | **93.38** | **57** | LR | LR | 23 21 31.5 | |
| | comp=Z,50nm,18.1s,baz=0.0,slow=33 | | | | | | |
| **BJI** | **Beijing** | **94.46** | **315** | P | **P** | **22 43 40.3** | **-0.6** |
| BJI | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.5s | | | | | | |
| **MA2** | **Magadan** | **95.29** | **345** | LR | LR | 23 25 46.1 | |
| | comp=Z,45nm,18.5s,baz=190,slow=35 | | | | | | |
| **LPAZ** | **La Paz** | **97.19** | **114** | LR | LR | 23 18 19.7 | |
| | comp=Z,30nm,20.3s,baz=273,slow=30 | | | | | | |
| **PDAR** | **Pinedale Array** | **97.52** | **44** | LR | LR | 23 21 12.3 | |
| | comp=Z,72nm,18.9s,baz=294,slow=31 | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **97.74** | **314** | *e*P | **P** | **22 43 54.5** | **-1.5** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,12nm,0.7s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,140nm,9.9s | | | | | | |
| **SEY** | **Seymchan** | **97.99** | **347** | *i*eP | Pdif | 22 43 58.1 | +1.7 |
| **N23A** | **Red Feather La** | **98.57** | **47** | *e*P | P | 22 43 52.1 | -7.8 |
| | comp=Z,9.7nm,0.8s | | | | | | |
| **CPUP** | **Villa Florida** | **98.62** | **129** | LR | LR | 23 26 11.3 | |
| | comp=Z,43nm,18.9s,baz=246,slow=34 | | | | | | |
| **WMQ** | **Urumqi** | **114.58** | **307** | PKP | PKPdf | 22 48 56.8 | -4.2 |
| WMQ | | | | LR | LR | | |
| | comp=N,64nm,17.3s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=E,40nm,16.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,75nm,20.3s | | | | | | |
| **DGZ** | **Jazzator, Alta** | **116.82** | **314** | *i*PKIKP | **PKPdf** | **22 49 06.9** | **+1.7** |
| **MKAR** | **Makanchi Array** | **119.17** | **309** | PKP | **PKPdf** | **22 49 10.7** | **+1.0** |
| | comp=Z,1.7nm,0.8s,baz=88,slow=0.9,SNR=14 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **119.63** | **318** | PKP | **PKPdf** | **22 49 11.4** | **+1.1** |
| | comp=Z,0.4nm,0.3s,baz=174,slow=2.6,SNR=2.7 | | | | | | |
| **KSH** | **Kashi** | **121.37** | **300** | *e*PKP | **PKPdf** | **22 49 13.0** | **-1.3** |
| KSH | | | | PP | **PP** | **22 50 52.0** | **+5.9** |
| KSH | | | | PKS | **PKSdf** | **22 52 48.0** | **-3.0** |
| KSH | | | | SKS | **SKSdf** | **22 56 20.5** | **-4.8** |
| KSH | | | | SKKS | **SKKSac** | **22 57 40.3** | **-3.8** |
| **KSH** | **Kashi** | **121.37** | **300** | SS | SS | 23 07 27.5 | +7.6 |
| KSH | | | | AMB | AMB | | |
| | comp=Z,140nm,4.5s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=N,59nm,3.6s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=E,50nm,3.4s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,140nm,6.4s | | | | | | |
| **KURK** | **Kurchatov** | **122.54** | **313** | *c i*PKIKP | **PKPdf** | **22 49 16.8** | **+0.9** |
| **AAK** | **Ala-Archa** | **123.34** | **303** | *i*ePKIKP | **PKPdf** | **22 49 19.4** | **+1.4** |
| **BRVK** | **Borovoye** | **128.01** | **315** | *i*ePKIKP | **PKPdf** | **22 49 27.7** | **+1.3** |
| **GEYT** | **Alibeck** | **134.51** | **293** | PKP | **PKPdf** | **22 49 40.6** | **+1.3** |
| | comp=Z,1.1nm,0.8s,baz=204,slow=3.3,SNR=4.4 | | | | | | |
| **ARU** | **Arti** | **134.73** | **319** | *i*PKIKP | **PKPdf** | **22 49 41.1** | **+2.1** |
| ARU | | | | | | 22 52 13.7 | |
| ARU | | | | SS | SS | 23 09 58.6 | -5.7 |
| **ARCES** | **ARCESS Array B** | **140.60** | **347** | PKhKP | PKPpre | 22 49 45.5 | |
| | comp=Z,1.6nm,0.6s,baz=40,slow=3.2,SNR=8.5 | | | | | | |
| **GNI** | **Garni** | **145.09** | **295** | *i*ePKIKP | **PKPdf** | **22 50 01.6** | **+3.1** |
| **VRH** | **Novokhopyorsk** | **145.59** | **315** | *e*PKIKP | **PKPab** | **22 50 00.2** | **+0.9** |
| VRH | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.6s | | | | | | |
| **ZEI** | **Tsey** | **145.66** | **300** | *i*PKIKP | **PKPab** | **22 50 01.0** | **+0.9** |
| ZEI | | | | pmax | pmax | | |
| | comp=Z,15nm,0.6s | | | | | | |
| **NCK** | **Nalchik** | **145.84** | **301** | *i*PKIKP | **PKPab** | **22 50 01.7** | **+1.2** |
| **KBZ** | **Khabaz** | **146.32** | **301** | PKPbc | **PKPab** | **22 50 03.3** | **+1.0** |
| | comp=Z,3.3nm,0.7s,baz=134,slow=6.1,SNR=9.0 | | | | | | |
| **KIV** | **Kislovodsk** | **146.45** | **302** | *i*ePKP2 | **PKPab** | **22 50 03.7** | **+0.8** |
| KIV | | | | *e* | | 22 53 22.8 | |
| KIV | | | | pmax | pmax | | |
| | comp=Z,17nm,2.1s | | | | | | |
| **NEY** | **Neytrino** | **146.49** | **301** | *i*PKP2 | **PKPab** | **22 50 04.4** | **+1.2** |
| **LPSR** | **Galich'ya Gora** | **146.74** | **318** | *e*PKP2 | **PKPab** | **22 50 03.8** | **+0.2** |
| LPSR | | | | pmax | pmax | | |
| | comp=Z,20nm,0.5s | | | | | | |
| **OBN** | **Obninsk** | **146.90** | **324** | *i*ePKP2 | **PKPab** | **22 50 04.0** | **-0.1** |
| OBN | | | | *e* | | 22 53 30.5 | |
| OBN | | | | *e*SS | SS | 23 12 14.9 | -11 |
| OBN | | | | pmax | pmax | | |
| | comp=Z,20nm,0.8s | | | | | | |
| **FINES** | **FINESS Array B** | **147.10** | **339** | PKPbc | **PKPab** | **22 50 04.6** | **-0.1** |
| | comp=Z,22nm,0.6s,baz=50,slow=3.8,SNR=166 | | | | | | |
| **VSR** | **Storozhevoye** | **147.11** | **316** | *e*PKIKP | **PKPbc** | **22 50 04.0** | **+0.5** |
| VSR | | | | pmax | pmax | | |
| | comp=Z,20nm,1.1s | | | | | | |
| **VSU** | **Vasula** | **149.13** | **335** | *i*ePKIKP | **PKPdf** | **22 50 06.2** | **+1.8** |
| **NC303** | **NORSAR Array S** | **150.58** | **351** | *e*PKPab | **PKPbc** | **22 50 13.8** | **+1.7** |
| **NB2** | **NORSAR Subarra** | **150.78** | **351** | PKP | **PKPbc** | **22 50 14.4** | **+1.8** |
| | comp=Z,3.0nm,0.5s,baz=16,slow=4.1 | | | | | | |
| **NOA** | **NORSAR Array B** | **150.78** | **351** | PKPbc | **PKPbc** | **22 50 14.4** | **+1.8** |
| | comp=Z,3.3nm,0.5s,baz=14,slow=4.1,SNR=14 | | | | | | |
| **IDID** | **Didziasalis** | **151.35** | **330** | *e*P | **PKPbc** | **22 50 15.8** | **+1.8** |
| IDID | | | | IAmb | IAmb | 22 50 17.5 | |
| | comp=Z,9.2nm,1.1s | | | | | | |
| **ISAL** | **Salakas** | **151.43** | **331** | *e*P | **PKPbc** | **22 50 16.2** | **+2.0** |
| ISAL | | | | IAmb | IAmb | 22 50 17.6 | |
| | comp=Z,9.9nm,1.0s | | | | | | |
| **IIGN** | **Ignalina** | **151.54** | **331** | *e*P | **PKPbc** | **22 50 16.4** | **+2.0** |
| IIGN | | | | IAmb | IAmb | 22 50 18.0 | |
| | comp=Z,9.0nm,1.0s | | | | | | |
| **NACGM** | **Naroch** | **151.61** | **330** | *e* | **PKPbc** | **22 50 16.0** | **+1.4** |
| **AKASG** | **Malin Array Be** | **152.97** | **320** | PKPbc | **PKPbc** | **22 50 19.3** | **+1.5** |
| | comp=Z,3.8nm,0.7s,baz=55,slow=2.6,SNR=16 | | | | | | |
| **KIEV** | **Kiev** | **152.99** | **320** | *i*ePKIKP | **PKPbc** | **22 50 19.2** | **+1.3** |
| **DBIC** | **Dimbokro** | **153.54** | **164** | PKPbc | **PKPbc** | **22 50 24.6** | **+4.3** |
| | comp=Z,2.8nm,0.8s,baz=169,slow=5.4,SNR=3.8 | | | | | | |
| **BRTR** | **Keskin Array B** | **153.63** | **295** | PKPbc | **PKPbc** | **22 50 21.1** | **+1.2** |
| | comp=Z,2.7nm,0.6s,baz=128,slow=4.2,SNR=21 | | | | | | |
| **TESR** | **Tescani** | **156.56** | **314** | *i*P | **PKPab** | **22 50 47.0** | **+2.3** |
| **VRI** | **Vrincioaia** | **156.81** | **312** | *i*P | **PKPab** | **22 50 47.7** | **+1.9** |
| **PLOR** | **Plostina** | **156.87** | **312** | *i*P | **PKPab** | **22 50 48.6** | **+2.5** |
| **ARR** | **Arges** | **158.35** | **313** | *i*P | PKPab | 22 50 41.2 | -11 |
| **UPC** | **Upice** | **159.24** | **334** | *e*PKPAB | **PKPab** | **22 50 57.5** | **+1.5** |
| **UPC** | **Upice** | **159.24** | **334** | *e*PKP2 | **PKPab** | **22 50 57.5** | **+1.5** |
| **DPC** | **Dobruska-Polom** | **159.25** | **334** | *e*PKPAB | **PKPab** | **22 50 57.5** | **+1.3** |
| **DPC** | **Dobruska-Polom** | **159.25** | **334** | *e*PKP2 | **PKPab** | **22 50 57.5** | **+1.3** |
| **CLL** | **Collm** | **159.53** | **340** | *i*PKP2 | **PKPab** | **22 50 58.5** | **+1.3** |
| CLL | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.7s | | | | | | |
| **CLL** | **Collm** | **159.53** | **340** | *e*PKPab | **PKPab** | **22 50 53.0** | **-4.2** |
| CLL | | | | *i* PKPab(2) | | 22 50 58.5 | |
| | comp=Z,6.0nm,0.7s | | | | | | |
| **VYHS** | **Vyhne** | **159.62** | **327** | *e*PKP2 | **PKPab** | **22 50 58.1** | **+0.3** |
| **VYHS** | **Vyhne** | **159.62** | **327** | *e*PKP | **PKPab** | **22 50 58.1** | **+0.3** |
| **BRG** | **Berggiesshubel** | **159.63** | **338** | *e*P | **PKPab** | **22 50 59.2** | **+1.5** |
| | comp=Z,4.6nm,0.8s | | | | | | |
| **BRG** | **Berggiesshubel** | **159.63** | **338** | *e*PKP2 | **PKPab** | **22 50 59.2** | **+1.5** |
| BRG | | | | pmax | pmax | | |
| | comp=Z,5.0nm,0.8s | | | | | | |
| **PVCC** | **Panska Ves** | **159.72** | **337** | *e*PKPAB | **PKPab** | **22 50 59.7** | **+1.6** |
| **PVCC** | **Panska Ves** | **159.72** | **337** | *e*PKP2 | **PKPab** | **22 50 59.7** | **+1.6** |
| **GOPC** | **GO Pecny, Ondr** | **160.17** | **335** | *e*PKPAB | **PKPab** | **22 51 01.4** | **+1.3** |
| **GOPC** | **GO Pecny, Ondr** | **160.17** | **335** | *e*PKP2 | **PKPab** | **22 51 01.4** | **+1.3** |
| **PRU** | **Pruhonice** | **160.19** | **336** | *e*PKPAB | **PKPab** | **22 51 01.8** | **+1.6** |
| **PRU** | **Pruhonice** | **160.19** | **336** | *e*PKP2 | **PKPab** | **22 51 01.8** | **+1.6** |
| **MDVR** | **Moldovita** | **160.43** | **315** | *i*P | **PKPab** | **22 51 02.4** | **+0.9** |
| **TORD** | **Torodi Ar. Bea** | **160.79** | **179** | PKPab | **PKPab** | **22 51 06.4** | **+2.8** |
| | comp=Z,3.1nm,0.6s,baz=175,slow=3.6,SNR=18 | | | | | | |
| **KHC** | **Kasperske Hory** | **161.25** | **336** | *e*PKPAB | **PKPab** | **22 51 06.1** | **+1.2**

TXAR **Lajitas Array** 152.98 256 PKPbc **PKPbc** 23 27 09.2 +0.5
0.8nm,0.8s,baz=128,slow=5.8,SNR=8.6
YKA **Yellowknife Ar** 154.66 339 PKPab **PKPab** 23 27 25.4 -0.6
0.1nm,0.6s,baz=35,slow=4.1,SNR=3.3

---

*NIED* ***30*** *23:11:00.3, 36.80N× 140.60E, h5km, Mw4.3 Best double couple: M0 3.24000×10^15 NP1:φs359.00000°, δ19.00000°, λ-117.00000°. NP2:φs208.00000°, δ73.00000°, λ-81.00000°.*

*IDC* ***30*** *23:11:02.9±0.5, 36.81N× 140.63E, h0km, mb4.4/26, mb1 4.5/31, mb1mx4.5/51, mbtmp4.4/31, ML3.8/4, MS3.4/7, Ms1 3.4/7, ms1mx3.0/49, Error ellipse: s-maj=12.5km s-min=10.0km az=143.0*

*ISCJB* ***30*** *23:11:04.1±0.5, 36.85N±0.02×140.56E±0.03, h10km±3km, mb4.6/113, MS3.6/12, Error ellipse: s-maj=4.0km s-min=3.1km az=136.1*

*BJI* ***30*** *23:11:04.4, 36.77N× 140.49E, h13km, mb4.5/37, mB5.0/25, Ms4.2/21, Ms7 3.8/17*

*JMA* ***30*** *23:11:04.6, 36.86N× 140.57E, h8km±1km, M4.5 Broadband fault plane solution: P waves. NP1: φs203.00000°, δ70.00000°, λ-84.00000°. NP2:φs6.00000°, δ20.00000°, λ-106.00000°. Principal axes: T Plg25.0000°, Azm288.0000°; N Plg6.0000°, Azm21.0000°; P Plg64.0000°, Azm122.0000°;*

*JMA Felt III J1.*

*MOS* ***30*** *23:11:06.9±1.0, 37.09N× 140.47E, h24km, mb4.8/40 Error ellipse: s-maj=7.8km s-min=6.0km az=100.2*

*NEIC* ***30*** *23:11:07.2±1.5, 36.75N× 140.53E, h24km±10km, mb4.7/64, Error ellipse: s-maj=5.4km s-min=4.4km az=132.0*

*NEIC Felt at Narita, Sagamihara and Saitama. Recorded [3 JMA] in Fukushima and Ibaraki.*

**ISC 30 23:11:05.9±0.5, 36°83N±0°03×140°66E±0°04, h17km±2km, n250, σ1s56/278, mb4.7/113, MS3.7/13, 15C-14D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JHO** | **Hitachi** | **0.23** | **197** | ⇑P | **Pg** | **23 11 09.5** | **-1.7** |
| JHO | | | | S | **Sg** | **23 11 13.0** | **-1.7** |
| **ONAJ** | **Iwakimizuishiy** | **0.29** | **23** | ⇑P | **Pg** | **23 11 10.6** | **-1.7** |
| **JFK** | **Kawauchi** | **0.56** | **18** | ⇑P | **Pg** | **23 11 15.1** | **-2.0** |
| JFK | | | | S | **Sg** | **23 11 23.1** | **-1.6** |
| **JSB** | **Shiboa** | **0.60** | **283** | ⇑P | **Pg** | **23 11 15.6** | **-2.3** |
| JSB | | | | S | **Sg** | **23 11 23.5** | **-2.4** |
| **JYT** | **Yasato** | **0.71** | **212** | ⇑P | **Pg** | **23 11 17.7** | **-2.1** |
| JYT | | | | S | **Sg** | **23 11 27.0** | **-2.1** |
| **JFT** | **Otama** | **0.73** | **340** | P | **Pb** | **23 11 17.7** | **-2.6** |
| JFT | | | | S | **Sg** | **23 11 27.0** | **-2.9** |
| **MJAR** | **Matsushiro Arr** | **1.99** | **262** | Pn | **Pn** | **23 11 37.7** | **-1.1** |
| | 283nm,0.3s,baz=83,slow=16,SNR=3055 | | | | | | |
| MJAR | | | | Lg | Lg | 23 12 03.9 | |
| | 380nm,0.3s,baz=78,slow=26,SNR=18 | | | | | | |
| MJAR | | | | LR | LR | 23 12 32.2 | |
| | comp=Z,466nm,18.8s,baz=100,slow=46 | | | | | | |
| **MAJO** | **Matsushiro** | **1.99** | **262** | *c iP* | **Pn** | **23 11 38.2** | **-0.6** |
| **MAJO** | **Matsushiro** | **1.99** | **262** | *e*Pn | **Pn** | **23 11 38.3** | **-0.6** |
| **MAT** | **Matsushiro** | **1.99** | **262** | P | **Pn** | **23 11 37.9** | **-0.9** |
| MAT | | | | S | **Sn** | **23 12 03.6** | **+0.2** |
| **MJB9** | **Matsu-Tunnel** | **1.99** | **263** | *e*Pn | **Pn** | **23 11 38.3** | **-0.6** |
| **INU** | **Inuyama** | **3.30** | **244** | *e*Pn | **Pn** | **23 11 57.2** | **+0.4** |
| **JHJ** | **Hachijo jima 2** | **3.77** | **191** | Pn | **Pn** | **23 12 03.1** | **-0.2** |
| | 45nm,0.3s,baz=127,slow=22,SNR=14 | | | | | | |
| JHJ | | | | Sn | **Sn** | **23 12 48.5** | **+1.2** |
| | 91nm,0.3s,baz=45,slow=20,SNR=3.3 | | | | | | |
| **JHJ2** | **Mitsune** | **3.77** | **191** | *e*Pn | **Pn** | **23 12 03.3** | **0.0** |
| **ERM** | **Erimo** | **5.53** | **20** | ⇓*e*P | **Pn** | **23 12 26.6** | **-0.8** |
| **ERM** | **Erimo** | **5.53** | **20** | *e*Pn | **Pn** | **23 12 28.2** | **+0.8** |
| **ASAJ** | **Asahikawa** | **7.43** | **11** | Pn | **Pn** | **23 12 53.3** | **-0.2** |
| | 3.8nm,0.3s,baz=215,slow=13,SNR=12 | | | | | | |
| **ASAJ** | **Asahikawa** | **7.43** | **11** | *e*Pn | **Pn** | **23 12 55.1** | **+1.6** |
| **JNU** | **Nakatsue** | **8.83** | **248** | Pn | **Pn** | **23 13 13.6** | **+0.7** |
| | 0.2nm,0.3s,baz=22,slow=11,SNR=3.8 | | | | | | |
| **JNU** | **Nakatsue** | **8.83** | **248** | *e*Pn | **Pn** | **23 13 12.1** | **-0.8** |
| **CBIJ** | **Chichi jima** | **9.79** | **172** | *e*Pn | **Pn** | **23 13 22.4** | **-3.7** |
| **USRK** | **Ussuriysk Ar.** | **9.88** | **321** | Pn | **Pn** | **23 13 28.2** | **+1.0** |
| | 0.3nm,0.3s,baz=138,slow=11,SNR=20 | | | | | | |
| USRK | | | | LR | LR | 23 17 09.3 | |
| | comp=Z,180nm,18.9s,baz=133,slow=37 | | | | | | |
| **KUR** | **Kuril'sk** | **10.00** | **31** | P | **Pn** | **23 13 29.8** | **+1.0** |
| KUR | | | | S | **Sn** | **23 15 16.5** | **-4.1** |
| **KSRS** | **Korea Array** | **10.19** | **277** | Pn | **Pn** | **23 13 32.5** | **+1.1** |
| | 0.7nm,0.3s,baz=95,slow=13,SNR=16 | | | | | | |
| KSRS | | | | LR | LR | 23 17 21.8 | |
| | comp=Z,137nm,20.3s,baz=82,slow=37 | | | | | | |
| **KS01** | **Wonju Array Si** | **10.21** | **277** | *e*Pn | **Pn** | **23 13 31.7** | **0.0** |
| **KS15** | **Wonju Array Si** | **10.22** | **277** | *e*Pn | **Pn** | **23 13 31.7** | **-0.1** |
| **KSAR** | **Wonju Array Be** | **10.22** | **277** | P | **Pn** | **23 13 32.5** | **+0.7** |
| **KSAR** | **Wonju Array Be** | **10.22** | **277** | Pn | **Pn** | **23 13 32.5** | **+0.7** |
| **YSS** | **Yuzh-Sakhalins** | **10.23** | **8** | *e*P | **Pn** | **23 13 29.0** | **-3.0** |
| YSS | | | | pmax | pmax | | |
| | comp=Z,20nm,0.4s | | | | | | |
| **MDJ** | **Mudanjiang** | **11.43** | **316** | *e*Pn | **Pn** | **23 13 51.0** | **+2.6** |
| | comp=Z,14nm,0.9s | | | | | | |
| **KLR** | **Kul'dur** | **13.98** | **335** | Pn | **Pn** | **23 14 24.4** | **+1.2** |
| | comp=Z,0.0nm,0.3s,baz=137,slow=11,SNR=5.6 | | | | | | |
| KLR | | | | LR | LR | 23 19 29.2 | |
| | comp=Z,9.2nm,21.8s,baz=146,slow=36 | | | | | | |
| **KLR** | **Kul'dur** | **13.98** | **335** | ⇓*e*P | **Pn** | **23 14 23.1** | **-0.1** |
| **DL2** | **Dalian** | **15.17** | **284** | *e*P | **Pn** | **23 14 35.5** | **-3.9** |
| DL2 | | | | S | **Sn** | **23 17 27.5** | **+0.5** |
| DL2 | | | | pmax | pmax | | |
| | comp=Z,120nm,3.8s | | | | | | |
| DL2 | | | | LR | LR | | |
| | comp=Z,250nm,16.6s | | | | | | |
| DL2 | | | | LR | LR | | |
| | comp=Z,270nm,13.9s | | | | | | |
| DL2 | | | | LR | LR | | |
| | comp=Z,350nm,13.8s | | | | | | |
| **NJ2** | **Nanjing** | **18.59** | **262** | *e*P | **P** | **23 15 21.8** | **-0.5** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,13nm,1.0s | | | | | | |
| **BJI** | **Beijing** | **19.43** | **287** | P | **P** | **23 15 31.3** | **-0.1** |
| BJI | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.1s | | | | | | |
| **PETK** | **Petropavlovsk-** | **20.17** | **31** | P | **P** | **23 15 40.0** | **+0.5** |
| | comp=Z,6.9nm,0.9s,baz=198,slow=11,SNR=6.7 | | | | | | |
| PETK | | | | LR | LR | 23 24 04.6 | |
| | comp=Z,50nm,18.0s,baz=196,slow=39 | | | | | | |
| **PETK** | **Petropavlovsk-** | **20.17** | **31** | *e*P | Pn | 23 15 41.6 | +0.3 |
| **PETK** | **Petropavlovsk-** | **20.17** | **31** | *e*P | Pn | 23 15 41.6 | +0.3 |
| **HHC** | **Hu-ho-hao-te** | **22.96** | **289** | *e*P | **P** | **23 16 10.5** | **+0.9** |
| HHC | | | | S | **S** | **23 20 15.0** | **-4.2** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,13nm,1.0s | | | | | | |
| HHC | | | | pmax | pmax | | |
| | comp=Z,120nm,8.6s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,110nm,8.6s | | | | | | |
| HHC | | | | LR | LR | | |
| | comp=Z,120nm,12.3s | | | | | | |
| **MA2** | **Magadan** | **23.68** | **13** | P | **P** | **23 16 15.7** | **-0.8** |
| | comp=Z,11nm,0.8s,baz=195,slow=10,SNR=8.5 | | | | | | |
| **MA2** | **Magadan** | **23.68** | **13** | ⇓*i*P | **P** | **23 16 15.8** | **-0.7** |
| **YAK** | **Yakutsk** | **26.14** | **348** | P | **P** | **23 16 38.1** | **-0.8** |
| | comp=Z,12nm,0.5s,baz=174,slow=2.3,SNR=6.5 | | | | | | |
| **YAK** | **Yakutsk** | **26.14** | **348** | *e*P | **P** | **23 16 37.3** | **-1.6** |
| YAK | | | | *e**PP | **pP** | **23 16 42.3** | **-1.6** |
| YAK | | | | *e* | | 23 17 14.9 | |
| YAK | | | | *e*S | **S** | **23 21 08.9** | **-0.7** |
| YAK | | | | *e**SS | **sS** | **23 21 24.9** | **+7.0** |
| YAK | | | | *e*SS | **SnSn** | **23 22 10.5** | **+2.3** |
| YAK | | | | *e* | | 23 27 29.9 | |
| YAK | | | | pmax | pmax | | |
| | comp=Z,22nm,0.9s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,6.0nm,1.0s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,4.0nm,1.1s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=Z,155nm,3.8s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=N,73nm,4.0s | | | | | | |
| YAK | | | | pmax | pmax | | |
| | comp=E,71nm,3.8s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=E,88nm,4.1s | | | | | | |
| YAK | | | | smax | smax | | |
| | comp=N,51nm,3.7s | | | | | | |
| YAK | | | | MLR | MLR | | |
| | comp=Z,105nm,21.0s | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **YAK** | **Yakutsk** | **26.14** | **348** | *e*P | **P** | **23 16 39.2** | **+0.3** |
| | comp=Z,23nm,0.9s | | | | | | |
| **ENH** | **Enshi** | **26.71** | **265** | *e*P | **P** | **23 16 43.6** | **-0.9** |
| | comp=Z,10nm,0.6s | | | | | | |
| **ULN** | **Ulaanbaatar** | **26.97** | **305** | ⇓*e*P | **P** | **23 16 46.4** | **-0.4** |
| ULN | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.0s | | | | | | |
| **ULN** | **Ulaanbaatar** | **26.97** | **305** | *e*P | **P** | **23 16 47.2** | **+0.4** |
| | comp=Z,2.2nm,0.6s | | | | | | |
| **SEY** | **Seymchan** | **27.11** | **12** | P | **P** | **23 16 46.7** | **-1.0** |
| | comp=Z,3.5nm,0.6s,baz=205,slow=7.0,SNR=11 | | | | | | |
| **SEY** | **Seymchan** | **27.11** | **12** | ⇑*e*P | **P** | **23 16 49.7** | **+2.0** |
| **BOD** | **Bodaibo** | **27.38** | **329** | *e*P | **P** | **23 16 49.0** | **-1.2** |
| BOD | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.7s | | | | | | |
| **SONA1** | **Songino Array** | **27.39** | **305** | *e*P | **P** | **23 16 49.5** | **-1.1** |
| **SONM** | **Songino Array** | **27.40** | **304** | P | **P** | **23 16 48.7** | **-1.9** |
| | comp=Z,6.3nm,0.8s,baz=107,slow=7.7,SNR=38 | | | | | | |
| SONM | | | | PcP | **PcP** | **23 20 09.2** | **+0.1** |
| | comp=Z,0.4nm,0.5s,baz=108,slow=3.3,SNR=3.8 | | | | | | |
| SONM | | | | LR | LR | 23 27 33.6 | |
| | comp=Z,66nm,21.4s,baz=27,slow=36 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.57** | **119** | T | T | 23 46 46.2 | |
| | baz=312,slow=75,SNR=1415 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.58** | **119** | T | T | 23 46 46.5 | |
| | baz=312,slow=75,SNR=1958 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.59** | **119** | T | T | 23 46 47.3 | |
| | baz=312,slow=75,SNR=1279 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.27** | **122** | T | T | 23 47 37.6 | |
| | baz=314,slow=76,SNR=3732 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.27** | **122** | T | T | 23 47 37.7 | |
| | baz=314,slow=76,SNR=2078 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.28** | **122** | T | T | 23 47 39.4 | |
| | baz=314,slow=76,SNR=2076 | | | | | | |
| **LZH** | **Lanzhou** | **29.50** | **280** | *e*P | **P** | **23 17 11.3** | **+1.8** |
| LZH | | | | pP | sP | 23 17 16.5 | -0.1 |
| LZH | | | | sP | pP | 23 17 19.5 | +5.0 |
| LZH | | | | pmax | pmax | | |
| | comp=Z,15nm,1.1s | | | | | | |
| **CD2** | **Chengdu** | **31.07** | **270** | *e*P | **P** | **23 17 24.5** | **+1.3** |
| CD2 | | | | sP | sP | 23 17 33.3 | +3.0 |
| CD2 | | | | S | **S** | **23 22 26.3** | **-1.6** |
| CD2 | | | | SS | **SnSn** | **23 24 07.8** | **-1.3** |
| CD2 | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.6s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,330nm,9.6s | | | | | | |
| CD2 | | | | LR | LR | | |
| | comp=Z,260nm,13.2s | | | | | | |
| **QIZ** | **Qiongzhong** | **32.29** | **245** | P | **P** | **23 17 34.8** | **+0.8** |
| QIZ | | | | S | **S** | **23 22 47.5** | **+0.4** |
| QIZ | | | | pmax | pmax | | |
| | comp=Z,26nm,1.8s | | | | | | |
| **KMI** | **Kunming** | **34.33** | **261** | P | **P** | **23 17 52.5** | **+0.4** |
| KMI | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.8s | | | | | | |
| KMI | | | | pmax | pmax | | |
| | comp=Z,160nm,5.1s | | | | | | |
| **BILL** | **Bilibino** | **34.39** | **17** | ⇓*e*P | **P** | **23 17 50.8** | **-1.1** |
| BILL | | | | *e* | | 23 19 03.7 | |
| BILL | | | | *e*S | **S** | **23 23 10.8** | **-7.9** |
| BILL | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.0s | | | | | | |
| BILL | | | | MLR | MLR | | |
| | comp=Z,90nm,17.0s | | | | | | |
| **TIXI** | **Tiksi** | **35.42** | **354** | P | **P** | **23 17 59.4** | **-1.2** |
| | comp=Z,1.6nm,0.3s,baz=170,slow=0.5,SNR=6.6 | | | | | | |
| **TIXI** | **Tiksi** | **35.42** | **354** | ⇑*e*P | **P** | **23 18 00.0** | **-0.6** |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.8s | | | | | | |
| TIXI | | | | MLR | MLR | | |
| | comp=Z,68nm,17.0s | | | | | | |
| **DGZ** | **Jazzator, Alta** | **40.02** | **306** | *c iP* | **P** | **23 18 40.0** | **0.0** |
| DGZ | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.6s | | | | | | |
| **WMQ** | **Urumqi** | **40.39** | **297** | P | **P** | **23 18 45.3** | **+2.2** |
| WMQ | | | | pP | sP | 23 18 50.5 | +0.3 |
| WMQ | | | | sP | pP | 23 18 54.5 | +6.3 |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,14nm,0.7s | | | | | | |
| WMQ | | | | pmax | pmax | | |
| | comp=Z,230nm,5.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,99nm,17.9s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,110nm,19.5s | | | | | | |
| WMQ | | | | LR | LR | | |
| | comp=Z,110nm,21.3s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **40.86** | **255** | P | **P** | **23 18 47.1** | **0.0** |
| | comp=Z,0.6nm,0.6s,baz=54,slow=6.7,SNR=11 | | | | | | |
| CMAR | | | | PcP | **PcP** | **23 20 47.9** | **+0.1** |
| | comp=Z,0.7nm,0.8s,baz=349,slow=1.8,SNR=6.1 | | | | | | |
| CMAR | | | | LR | LR | 23 36 22.4 | |
| | comp=Z,26nm,19.2s,baz=75,slow=37 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **40.86** | **255** | *c e*P | **P** | **23 18 48.9** | **+1.8** |
| CMAR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.6s | | | | | | |
| **CM01** | **Chiang Mai Arr** | **40.87** | **255** | *e*P | **P** | **23 18 47.7** | **+0.6** |
| **ZAA0** | **Zalesovo Array** | **41.60** | **313** | *e*P | **P** | **23 18 53.4** | **+0.6** |
| | comp=Z,4.7nm,0.7s | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.60** | **313** | P | **P** | **23 18 51.8** | **-1.0** |
| | comp=Z,4.8nm,0.5s,baz=93,slow=8.6,SNR=18 | | | | | | |
| ZALV | | | | PcP | **PcP** | **23 20 48.6** | **-1.0** |
| | comp=Z,2.0nm,0.5s,baz=96,slow=2.9,SNR=5.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.60** | **313** | *e*P | **P** | **23 18 51.6** | **-1.2** |
| ZALV | | | | *e*PcP | **PcP** | **23 20 50.2** | **+0.6** |
| **MK01** | **Makanchi Array** | **43.71** | **302** | *e*P | **P** | **23 19 09.3** | **-0.7** |
| **MK31** | **Makanchi Array** | **43.71** | **302** | *e*P | **P** | **23 19 09.1** | **-1.0** |
| **MK31** | **Makanchi Array** | **43.71** | **302** | *e*P | **P** | **23 19 09.1** | **-1.0** |
| **MKAR** | **Makanchi Array** | **43.71** | **302** | P | **P** | **23 19 09.2** | **-0.8** |
| | comp=Z,0.9nm,0.5s,baz=83,slow=9.4,SNR=20 | | | | | | |
| MKAR | | | | PcP | **PcP** | **23 20 55.8** | **-1.0** |
| | comp=Z,0.9nm,0.7s,baz=102,slow=4.1,SNR=2.9 | | | | | | |
| MKAR | | | | ScP | **ScP** | **23 24 51.5** | **+3.8** |
| | comp=Z,0.1nm,0.4s,baz=136,slow=5.2,SNR=4.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.71** | **302** | P | **P** | **23 19 09.3** | **-0.8** |
| MKAR | | | | | | 23 20 55.8 | |
| MKAR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.5s | | | | | | |
| MKAR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.7s | | | | | | |
| **MKAR** | **Makanchi Array** | **43.71** | **302** | *e*P | **P** | **23 19 09.1** | **-1.0** |
| | comp=Z,11nm,0.6s | | | | | | |
| MKAR | | | | PcP | **PcP** | **23 20 55.8** | **-1.0** |
| MKAR | | | | ScP | **ScP** | **23 24 51.5** | **+3.8** |
| **MAKZ** | **Makanchi** | **43.92** | **302** | *e*P | **P** | **23 19 11.6** | **-0.2** |
| MAKZ | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.8s | | | | | | |
| **MAKZ** | **Makanchi** | **43.92** | **302** | *e*P | **P** | **23 19 11.6** | **-0.2** |
| | comp=Z,2.2nm,0.8s | | | | | | |
| **TAPN** | **Taplejung** | **45.35** | **274** | *e*P | **P** | **23 19 24.7** | **+1.0** |
| **KURK** | **Kurchatov** | **45.58** | **308** | ⇓*e*P | **P** | **23 19 22.9** | **-2.0** |
| KURK | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.9s | | | | | | |
| **KURK** | **Kurchatov** | **45.58** | **308** | *e*P | **P** | **23 19 23.3** | **-1.6** |
| | comp=Z,16nm,1.0s | | | | | | |
| **RAMN** | **Ramite** | **46.41** | **274** | *e*P | **P** | **23 19 31.9** | **-0.2** |
| | comp=Z,17nm,0.8s | | | | | | |
| **JIRN** | **Jiri** | **46.43** | **275** | *e*P | **P** | **23 19 33.6** | **+1.3** |
| **GUN** | **Gumba** | **46.57** | **275** | *e*P | **P** | **23 19 33.7** | **+0.3** |
| | comp=Z,6.2nm,0.4s | | | | | | |
| **PKI** | **Pulchoki** | **47.09** | **275** | *e*P | **P** | **23 19 37.6** | **+0.1** |
| **KKN** | **Kakani** | **47.10** | **276** | *e*P | **P** | **23 19 38.5** | **+1.1** |
| | comp=Z,11nm,0.7s | | | | | | |
| **IMAR** | **Indian Mountai** | **47.13** | **31** | *e*P | **P** | **23 19 37.2** | **+0.3** |
| IMAR | | | | *e*PcP | **PcP** | **23 21 12.0** | **+3.7** |
| **RSO** | **Redoubt South** | **47.44** | **38** | *e*P | **P** | **23 19 42.5** | **+2.9** |
| **KOLN** | **Koldanda** | **48.45** | **276** | *e*P | **P** | **23 19 47.3** | **-0.6** |
| **PYUN** | **Piuthan** | **48.79** | **277** | *e*P | **P** | **23 19 50.2** | **-0.3** |
| **SOEI** | **Soe** | **48.83** | **202** | *e*P | **P** | **23 19 49.3** | **-1.4** |
| | comp=Z,32nm,0.9s | | | | | | |
| **MDM** | **Murphy Dome** | **49.41** | **32** | *e*P | **P** | **23 19 55.5** | **+1.0** |
| | comp=Z,9.8nm,1.2s | | | | | | |
| **KSH** | **Kashi** | **49.93** | **294** | P | P | 23 20 04.0 | +5.0 |
| KSH | | | | pP | sP | 23 20 09.8 | +3.6 |
| KSH | | | | PcP | **PcP** | **23 21 23.0** | **+3.9** |
| KSH | | | | PP | **PP** | **23 21 59.8** | **+6.1** |
| KSH | | | | S | **S** | **23 27 12.5** | **+3.8** |
| KSH | | | | ScS | **ScS** | **23 29 50.3** | **+0.4** |
| KSH | | | | SS | **SS** | **23 30 43.3** | **+2.0** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,4.0nm,0.7s | | | | | | |
| KSH | | | | pmax | pmax | | |
| | comp=Z,140nm,4.6s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,130nm,4.5s | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| KSH | | | | LR | LR | | |
| | comp=Z,100nm,5.1s | | | | | | |
| KSH | | | | LR | LR | | |
| | comp=Z,120nm,5.6s | | | | | | |
| **HDA** | **Harding Lake** | **49.98** | **33** | *e*P | **P** | **23 19 59.7** | **+0.9** |
| | comp=Z,13nm,1.3s | | | | | | |
| HDA | | | | *e*S | **S** | **23 27 08.6** | **+0.1** |
| **IL1** | **Eielson Array** | **49.99** | **32** | *e*P | **P** | **23 19 57.7** | **-1.2** |
| **ILAR** | **Eielson Array** | **49.99** | **32** | P | **P** | **23 19 58.7** | **-0.2** |
| | comp=Z,2.2nm,0.8s,baz=270,slow=5.9,SNR=22 | | | | | | |
| **ILB** | **Eielson Array** | **49.99** | **32** | *e*P | **P** | **23 19 59.1** | **+0.2** |
| **AAK** | **Ala-Archa** | **50.05** | **298** | ⇑*e*P | **P** | **23 19 58.1** | **-1.8** |
| AAK | | | | pmax | pmax | | |
| | comp=Z,5.0nm,1.4s | | | | | | |
| **BRVK** | **Borovoye** | **50.31** | **312** | *d iP* | **P** | **23 20 02.4** | **+0.9** |
| BRVK | | | | pmax | pmax | | |
| | comp=Z,10.0nm,0.6s | | | | | | |
| **BRVK** | **Borovoye** | **50.31** | **312** | *e*P | **P** | **23 20 03.0** | **+1.5** |
| | comp=Z,4.9nm,0.8s | | | | | | |
| **MNAS** | **Manas** | **51.50** | **299** | P | **P** | **23 20 13.1** | **+2.3** |
| MNAS | | | | pmax | pmax | | |
| | comp=Z,7.0nm,0.8s | | | | | | |
| **SFK** | **Sufi-Kurgan** | **51.57** | **295** | P | **P** | **23 20 12.8** | **+1.3** |
| SFK | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.2s | | | | | | |
| **KKAR** | **Karatay Array** | **52.70** | **300** | *e*P | **P** | **23 20 20.4** | **+0.9** |
| KKAR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.4s | | | | | | |
| **KKAR** | **Karatay Array** | **52.70** | **300** | *e*P | **P** | **23 20 20.4** | **+0.9** |
| | comp=Z,1.1nm,0.4s | | | | | | |
| **INK** | **Inuvik** | **54.84** | **27** | P | **P** | **23 20 34.6** | **-0.2** |
| | comp=Z,3.5nm,0.9s,baz=285,slow=9.7,SNR=8.6 | | | | | | |
| **INK** | **Inuvik** | **54.84** | **27** | *e*P | **P** | **23 20 35.5** | **+0.7** |
| INK | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.3s | | | | | | |
| **INK** | **Inuvik** | **54.84** | **27** | *e*P | **P** | **23 20 35.5** | **+0.7** |
| | comp=Z,8.5nm,1.3s | | | | | | |
| **ARU** | **Arti** | **56.11** | **318** | *c iP* | **P** | **23 20 43.4** | **-0.7** |
| ARU | | | | | | 23 22 46.3 | |
| ARU | | | | S | **S** | **23 28 33.4** | **+1.3** |
| ARU | | | | SS | **SS** | **23 32 18.8** | **+0.9** |
| ARU | | | | pmax | pmax | | |
| | comp=Z,12nm,0.7s | | | | | | |
| **ARU** | **Arti** | **56.11** | **318** | *e*P | **P** | **23 20 43.3** | **-0.8** |
| | comp=Z,16nm,1.0s | | | | | | |
| **WRAB** | **Tennant Creek** | **56.77** | **187** | ⇓*e*P | **P** | **23 20 47.9** | **-1.3** |
| WRAB | | | | pmax | pmax | | |
| | comp=Z,91nm,2.5s | | | | | | |
| **WRAB** | **Tennant Creek** | **56.77** | **187** | *e*P | **P** | **23 20 47.8** | **-1.3** |
| | comp=Z,11nm,0.8s | | | | | | |
| **WB2** | **Warramunga Arr** | **56.78** | **187** | *e*P | **P** | **23 20 48.2** | **-1.0** |
| | comp=Z,12nm,0.8s | | | | | | |
| **WRA** | **Warramunga Arr** | **56.78** | **187** | P | **P** | **23 20 47.9** | **-1.4** |
| | comp=Z,9.1nm,0.5s,baz=5.1,slow=7.4,SNR=83 | | | | | | |
| **KBL** | **Kabul** | **56.92** | **291** | *e*P | **P** | **23 20 49.6** | **-0.9** |
| KBL | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.1s | | | | | | |
| **KBL** | **Kabul** | **56.92** | **291** | *e*P | **P** | **23 20 49.6** | **-0.9** |
| | comp=Z,6.0nm,1.1s | | | | | | |
| **ABKAR** | **Akbulak array** | **57.60** | **310** | *e*P | **P** | **23 20 53.2** | **-1.6** |
| | comp=Z,69nm,0.6s | | | | | | |
| **AS01** | **Alice Springs** | **60.50** | **187** | *e*P | **P** | **23 21 14.0** | **-1.1** |
| **ASAR** | **Alice Springs** | **60.51** | **187** | P | **P** | **23 21 14.3** | **-0.8** |
| | comp=Z,4.9nm,0.8s,baz=10.0,slow=6.7,SNR=44 | | | | | | |
| **GEYT** | **Alibeck** | **63.40** | **299** | P | **P** | **23 21 34.4** | **-0.3** |
| | comp=Z,2.8nm,0.9s,baz=349,slow=3.0,SNR=7.8 | | | | | | |
| GEYT | | | | LR | LR | 23 51 43.0 | |
| | comp=Z,88nm,18.6s,baz=275,slow=38 | | | | | | |
| **KLMR** | **Klimovskoe** | **63.60** | **328** | *e*P | **P** | **23 21 35.0** | **-0.5** |
| KLMR | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.9s | | | | | | |
| **ARCES** | **ARCESS Array B** | **63.97** | **339** | P | **P** | **23 21 38.0** | **+0.1** |
| | comp=Z,3.6nm,0.7s,baz=62,slow=8.6,SNR=11 | | | | | | |
| **ARCES** | **ARCESS Array B** | **63.97** | **339** | P | **P** | **23 21 38.0** | **+0.1** |
| **YKA** | **Yellowknife Ar** | **64.29** | **30** | P | **P** | **23 21 39.6** | **-0.4** |
| | comp=Z,1.8nm,0.8s,baz=302,slow=6.5,SNR=20 | | | | | | |
| **DAG** | **Danmarks Havn** | **65.92** | **355** | *i* P | **P** | **23 21 50.8** | **+0.4** |
| DAG | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.8s | | | | | | |
| **DAG** | **Danmarks Havn** | **65.92** | **355** | *i* P | **P** | **23 21 50.8** | **+0.4** |
| | comp=Z,6.1nm,0.8s | | | | | | |
| **VRH** | **Novokhopyorsk** | **67.32** | **318** | *e*P | **P** | **23 21 59.1** | **-0.6** |
| VRH | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.6s | | | | | | |
| **OBN** | **Obninsk** | **67.89** | **323** | ⇓*e*P | **P** | **23 22 02.5** | **-0.7** |
| OBN | | | | *e* | | 23 24 30.5 | |
| OBN | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.7s | | | | | | |
| OBN | | | | MLR | MLR | | |
| | comp=Z,62nm,11.0s | | | | | | |
| **LPSR** | **Galich'ya Gora** | **68.07** | **320** | *e*P | **P** | **23 22 03.6** | **-0.8** |
| LPSR | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.7s | | | | | | |
| **FORT** | **Forrest** | **68.28** | **192** | *e*P | **P** | **23 22 05.6** | **-0.2** |
| | comp=Z,251nm,0.6s | | | | | | |
| **STKA** | **Stephens Creek** | **68.36** | **179** | P | **P** | **23 22 05.3** | **-1.0** |
| | comp=Z,3.2nm,0.6s,baz=335,slow=7.3,SNR=9.6 | | | | | | |
| **STKA** | **Stephens Creek** | **68.36** | **179** | *e*P | **P** | **23 22 06.2** | **-0.1** |
| STKA | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.7s | | | | | | |
| **STKA** | **Stephens Creek** | **68.36** | **179** | *e*P | **P** | **23 22 06.2** | **-0.1** |
| | comp=Z,0.8nm,0.7s | | | | | | |
| **VSR** | **Storozhevoye** | **68.68** | **319** | *e*P | **P** | **23 22 07.8** | **-0.5** |
| VSR | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.1s | | | | | | |
| **FINES** | **FINESS Array B** | **68.71** | **332** | P | **P** | **23 22 09.0** | **+0.7** |
| | comp=Z,5.4nm,0.8s,baz=43,slow=7.9,SNR=19 | | | | | | |
| **BBOO** | **Buckleboo** | **69.42** | **184** | *e*P | **P** | **23 22 11.9** | **-1.0** |
| | comp=Z,8.2nm,1.0s | | | | | | |
| **NCK** | **Nalchik** | **70.27** | **310** | ⇓*e*P | **P** | **23 22 18.9** | **+0.6** |
| NCK | | | | pmax | pmax | | |
| | comp=Z,20nm,1.3s | | | | | | |
| **VSU** | **Vasula** | **70.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| LRM | Limekiln Ridge | 74.72 | 44 | *e*P | P | 23 22 46.7 | +1.6 |
| DLMT | Dillon | 74.91 | 44 | *e*P | P | 23 22 47.2 | +1.1 |
| | comp=Z,7.4nm,1.0s | | | | | | |
| BOZ | Bozeman (W) | 75.31 | 44 | *e*P | P | 23 22 49.3 | +1.0 |
| BOZ | | | | pmax | pmax | | |
| | comp=Z,25nm,1.9s | | | | | | |
| BOZ | Bozeman (W) | 75.31 | 44 | *e*P | P | 23 22 49.3 | +1.0 |
| | comp=Z,25nm,1.9s | | | | | | |
| NV01 | Mina Array Sit | 75.59 | 53 | *e*P | P | 23 22 51.2 | +1.0 |
| NVAR | Mina Array Bea | 75.59 | 53 | P | P | 23 22 50.9 | +0.7 |
| | comp=Z,5.4nm,0.7s,baz=291,slow=6.1,SNR=23 | | | | | | |
| H17A | Grant Village | 76.64 | 44 | *e*P | P | 23 22 59.1 | +3.0 |
| | comp=Z,9.2nm,1.0s | | | | | | |
| MOOW | Moose Ponds | 76.95 | 45 | *e*P | P | 23 23 00.0 | +2.2 |
| | comp=Z,8.3nm,1.8s | | | | | | |
| HVU | Hansel Valley | 76.99 | 47 | *e*P | P | 23 22 59.8 | +1.8 |
| HVU | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.0s | | | | | | |
| HVU | Hansel Valley | 76.99 | 47 | *e*P | P | 23 22 59.8 | +1.8 |
| | comp=Z,5.8nm,1.0s | | | | | | |
| REDW | Red Top Meadow | 77.13 | 45 | *e*P | P | 23 23 00.8 | +2.0 |
| | comp=Z,11nm,1.4s | | | | | | |
| DAC | Darwin (Calif) | 77.32 | 54 | *e*P | P | 23 23 00.0 | +0.1 |
| DAC | | | | pmax | pmax | | |
| | comp=Z,3.0nm,0.7s | | | | | | |
| DAC | Darwin (Calif) | 77.32 | 54 | *e*P | P | 23 23 00.0 | +0.1 |
| | comp=Z,3.0nm,0.7s | | | | | | |
| R11A | Troy Canyon, C | 77.36 | 52 | *e*P | P | 23 23 01.2 | +1.0 |
| | comp=Z,7.1nm,0.9s | | | | | | |
| TPNV | Topopah Spring | 77.78 | 53 | *e*P | P | 23 23 03.7 | +1.2 |
| TPNV | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.8s | | | | | | |
| TPNV | Topopah Spring | 77.78 | 53 | *e*P | P | 23 23 03.7 | +1.2 |
| | comp=Z,9.2nm,0.8s | | | | | | |
| DUG | Dugway, Tooele | 77.95 | 49 | *e*P | P | 23 23 04.4 | +1.0 |
| DUG | | | | pmax | pmax | | |
| | comp=Z,11nm,1.3s | | | | | | |
| DUG | Dugway, Tooele | 77.95 | 49 | *e*P | P | 23 23 04.4 | +1.0 |
| | comp=Z,11nm,1.3s | | | | | | |
| BUR08 | Bucovina Ar. S | 78.08 | 321 | *e*P | P | 23 23 06.3 | +2.4 |
| BUR04 | Bucovina Ar. S | 78.09 | 321 | *e*P | P | 23 23 03.5 | -0.5 |
| BURAR | Bucovina Array | 78.09 | 321 | ⇓*i*P | P | 23 23 03.5 | -0.5 |
| TESR | Tescani | 78.10 | 320 | ⇓*i*P | P | 23 23 03.0 | -0.9 |
| PD31 | Pinedale Array | 78.24 | 45 | *e*P | P | 23 23 06.0 | +0.9 |
| PDAR | Pinedale Array | 78.24 | 45 | P | P | 23 23 05.0 | -0.1 |
| | comp=Z,1.7nm,0.7s,baz=263,slow=1.5,SNR=7.9 | | | | | | |
| PDAR | Pinedale Array | 78.24 | 45 | *e*P | P | 23 23 05.1 | +0.1 |
| BRTR | Keskin Array B | 78.53 | 311 | P | P | 23 23 07.0 | +0.4 |
| | comp=Z,1.2nm,0.8s,baz=95,slow=1.8,SNR=6.7 | | | | | | |
| BRTR | Keskin Array B | 78.53 | 311 | *i* P | P | 23 23 08.3 | +1.7 |
| BRTR | | | | pmax | pmax | | |
| | comp=Z,1.0nm,0.8s | | | | | | |
| NLU | North Lily Min | 78.54 | 48 | *e*P | P | 23 23 08.4 | +1.7 |
| | comp=Z,5.5nm,0.9s | | | | | | |
| SHPR | Sheep Range | 78.75 | 53 | *e*P | P | 23 23 09.4 | +1.5 |
| | comp=Z,5.9nm,0.8s | | | | | | |
| MPU | Maple Canyon | 78.77 | 48 | *e*P | P | 23 23 09.4 | +1.4 |
| | comp=Z,9.7nm,1.2s | | | | | | |
| STHS | Stebnicka Huta | 78.77 | 325 | *e*P | P | 23 23 07.6 | 0.0 |
| STHS | Stebnicka Huta | 78.77 | 325 | *e*P | P | 23 23 07.6 | 0.0 |
| BR231 | Keskin MP Arra | 78.97 | 312 | *e*P | P | 23 23 08.1 | -0.9 |
| CCUT | Cedar City | 79.24 | 51 | *e*P | P | 23 23 12.1 | +1.4 |
| | comp=Z,4.1nm,0.8s | | | | | | |
| MSU | Marysvale | 79.38 | 50 | *e*P | P | 23 23 13.1 | +1.7 |
| MSU | Marysvale | 79.38 | 50 | *e*P | P | 23 23 13.1 | +1.7 |
| P17A | Butcher Ranch, | 79.64 | 48 | *e*P | P | 23 23 14.6 | +1.9 |
| | comp=Z,30nm,1.5s | | | | | | |
| LCMT | Little Creek M | 79.65 | 51 | *e*P | P | 23 23 14.3 | +1.6 |
| | comp=Z,8.9nm,1.0s | | | | | | |
| PFO | Pinyon Flats O | 79.66 | 56 | *e*P | P | 23 23 13.7 | +0.8 |
| PFO | | | | pmax | pmax | | |
| | comp=Z,10.0nm,1.1s | | | | | | |
| PFO | Pinyon Flats O | 79.66 | 56 | *e*P | P | 23 23 13.7 | +0.8 |
| | comp=Z,9.9nm,1.1s | | | | | | |
| XPFO | Piæon Flat | 79.66 | 56 | *e*P | P | 23 23 13.7 | +0.9 |
| | comp=Z,10nm,1.1s | | | | | | |
| MTPU | Mount Pierson | 79.67 | 50 | *e*P | P | 23 23 15.0 | +1.9 |
| | comp=Z,7.6nm,0.8s | | | | | | |
| P18A | Preston Nutter | 79.84 | 48 | *e*P | P | 23 23 16.3 | +2.4 |
| | comp=Z,7.4nm,0.9s | | | | | | |
| ARR | Arges | 79.91 | 320 | ⇓*i*P | P | 23 23 14.4 | +0.5 |
| SRU | San Rafael Swe | 80.00 | 48 | *e*P | P | 23 23 15.8 | +1.1 |
| SRU | | | | pmax | pmax | | |
| | comp=Z,9.0nm,0.7s | | | | | | |
| SRU | San Rafael Swe | 80.00 | 48 | *e*P | P | 23 23 15.8 | +1.1 |
| | comp=Z,9.3nm,0.7s | | | | | | |
| BAR | Barrett | 80.08 | 57 | *e*P | P | 23 23 16.0 | +0.9 |
| | comp=Z,8.3nm,0.9s | | | | | | |
| DPC | Dobruska-Polom | 80.30 | 328 | *e*P | P | 23 23 17.4 | +1.5 |
| DPC | | | | *e*pP | PcP | 23 23 22.7 | -0.4 |
| DPC | Dobruska-Polom | 80.30 | 328 | *e*P | P | 23 23 17.4 | +1.5 |
| DPC | | | | *e* | | 23 23 22.7 | |
| W13A | Hualapai Mount | 80.43 | 53 | *e*P | P | 23 23 18.2 | +1.1 |
| | comp=Z,8.4nm,1.4s | | | | | | |
| VYHS | Vyhne | 80.54 | 325 | *e*P | P | 23 23 18.0 | +0.8 |
| VYHS | Vyhne | 80.54 | 325 | *e*P | P | 23 23 18.0 | +0.8 |
| CLL | Collm | 80.97 | 330 | *e*P | P | 23 23 21.0 | +1.6 |
| CLL | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.3s | | | | | | |
| CLL | Collm | 80.97 | 330 | *e*P | P | 23 23 21.0 | +1.6 |
| | comp=Z,8.0nm,1.3s | | | | | | |
| CLL | | | | *e*pP | sP | 23 23 27.0 | +0.2 |
| GLA | Glamis | 81.08 | 55 | *e*P | P | 23 23 21.6 | +1.2 |
| GLA | | | | pmax | pmax | | |
| | comp=Z,6.0nm,0.7s | | | | | | |
| GLA | Glamis | 81.08 | 55 | *e*P | P | 23 23 21.6 | +1.2 |
| | comp=Z,6.0nm,0.7s | | | | | | |
| PV09 | Paradox Valley | 81.23 | 48 | *e*P | P | 23 23 23.1 | +1.7 |
| PRU | Pruhonice | 81.33 | 328 | *e*P | P | 23 23 21.3 | -0.1 |
| PRU | Pruhonice | 81.33 | 328 | *e*P | P | 23 23 21.3 | -0.1 |
| PV10 | Paradox Valley | 81.36 | 48 | *e*P | P | 23 23 23.7 | +1.6 |
| PV05 | Paradox Valley | 81.52 | 48 | *e*P | P | 23 23 24.3 | +1.4 |
| Y14A | Wickenburg | 81.72 | 54 | *e*P | P | 23 23 24.6 | +0.8 |
| | comp=Z,24nm,0.9s | | | | | | |
| WUAZ | Wupatki | 81.76 | 52 | *e*P | P | 23 23 25.3 | +1.2 |
| | comp=Z,9.4nm,0.9s | | | | | | |
| PV01 | Paradox Valley | 81.80 | 48 | *e*P | P | 23 23 25.6 | +1.2 |
| SMCO | Snowmass | 82.06 | 47 | *e*P | P | 23 23 30.7 | +4.8 |
| | comp=Z,3.3nm,0.8s | | | | | | |
| KHC | Kasperske Hory | 82.39 | 328 | *e*P | P | 23 23 26.6 | -0.4 |
| KHC | | | | *e*pP | pP | 23 23 32.6 | +0.1 |
| KHC | Kasperske Hory | 82.39 | 328 | *e*P | P | 23 23 26.6 | -0.4 |
| KHC | | | | *e* | | 23 23 32.6 | |
| X16A | Lo Mia Camp, P | 82.42 | 53 | *e*P | P | 23 23 29.1 | +1.4 |
| | comp=Z,4.8nm,1.0s | | | | | | |
| MVCO | Mesa Verde | 82.45 | 49 | *e*P | P | 23 23 29.0 | +1.2 |
| | comp=Z,6.1nm,0.8s | | | | | | |
| GERES | GERESS Array B | 82.56 | 328 | P | P | 23 23 26.7 | -1.3 |
| | comp=Z,0.9nm,0.5s,baz=35,slow=7.2,SNR=11 | | | | | | |
| S22A | 4UR Ranch, Cre | 83.09 | 48 | *e*P | P | 23 23 32.8 | +1.5 |
| | comp=Z,5.0nm,1.0s | | | | | | |
| SDCO | Great Sand Dun | 83.87 | 47 | *e*P | P | 23 23 36.4 | +1.1 |
| | comp=Z,2.2nm,1.0s | | | | | | |
| TUC | Tucson | 84.19 | 54 | *e*P | P | 23 23 37.8 | +1.1 |
| TUC | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.3s | | | | | | |
| TUC | Tucson | 84.19 | 54 | *e*P | P | 23 23 37.8 | +1.1 |
| | comp=Z,9.0nm,1.3s | | | | | | |
| T25A | Trinidad | 84.92 | 47 | *e*P | P | 23 23 41.8 | +1.3 |
| | comp=Z,6.1nm,0.8s | | | | | | |
| ANMO | Albuquerque | 85.18 | 49 | *e*P | P | 23 23 43.0 | +1.2 |
| ANMO | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.2s | | | | | | |
| ANMO | Albuquerque | 85.18 | 49 | *e*P | P | 23 23 43.0 | +1.2 |
| | comp=Z,9.2nm,1.2s | | | | | | |
| 319A | Douglas | 85.77 | 54 | *e*P | P | 23 23 45.8 | +1.1 |
| | comp=Z,8.2nm,0.9s | | | | | | |
| U35A | Pawnee | 89.81 | 43 | *e*P | P | 23 24 04.0 | +0.2 |
| | comp=Z,92nm,1.3s | | | | | | |
| WMOK | Wichita Mounta | 89.85 | 45 | *e*P | P | 23 24 04.2 | +0.1 |
| WMOK | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.1s | | | | | | |
| WMOK | Wichita Mounta | 89.85 | 45 | *e*P | P | 23 24 04.2 | +0.1 |
| | comp=Z,6.0nm,1.1s | | | | | | |
| OK020 | N3440 Road, Me | 90.34 | 43 | *e*P | P | 23 24 07.6 | +1.3 |
| | comp=Z,85nm,1.6s | | | | | | |
| TX31 | Lajitas Ar. Si | 90.72 | 52 | *e*P | P | 23 24 08.8 | +0.5 |
| TXAR | Lajitas Array | 90.72 | 52 | P | P | 23 24 08.9 | +0.6 |
| | comp=Z,2.8nm,0.6s,baz=299,slow=3.2,SNR=38 | | | | | | |
| ABTX | Abilene, Hawle | 90.87 | 47 | *e*P | P | 23 24 10.0 | +1.1 |
| | comp=Z,5.4nm,0.8s | | | | | | |
| VAE | Valguarnera | 90.90 | 320 | LR | LR | 00 10 42.5 | |
| | comp=Z,58nm,18.0s,baz=172,slow=39 | | | | | | |
| WHTX | Lake Whitney, | 92.61 | 46 | *e*P | P | 23 24 17.9 | +1.1 |
| | comp=Z,6.5nm,0.8s | | | | | | |
| LPAZ | La Paz | 147.32 | 59 | PKPbc | PKPbc | 23 30 49.5 | -0.3 |
| | comp=Z,6.4nm,0.6s,baz=346,slow=1.1,SNR=8.7 | | | | | | |
| SIV | San Ignacio | 151.68 | 49 | PKPbc | PKPbc | 23 30 59.8 | -0.2 |
| | comp=Z,4.4nm,0.7s,baz=312,slow=1.4,SNR=6.3 | | | | | | |

**MAN 30 23:20:14.1, 13.40N×120.70E, h9km, mb4.0, ML2.8, MS2.4, Mindoro**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| PGP | Puerto Galera | 0.27 | 67 | *e*P | Pg | 23 20 12.5 | -6.9 |
| PGP | | | | *e*S | Sg | 23 20 17.6 | -5.4 |
| LUBP | Lubang | 0.55 | 307 | *e*P | Pb | 23 20 25.4 | -0.4 |
| LUBP | | | | *e*S | Sn | 23 20 38.3 | +0.9 |
| TGY | Tagaytay City | 0.74 | 18 | *e*S | Sg | 23 20 37.5 | -0.3 |
| SJMP | San Jose | 1.02 | 156 | *e*P | Pn | 23 20 34.2 | -0.2 |
| SJMP | | | | *e*S | Sn | 23 20 53.2 | +4.3 |
| BOAC | Boac | 1.12 | 87 | *e*P | Pg | 23 20 33.7 | -1.8 |
| BOAC | | | | *e*S | Sn | 23 20 52.2 | +0.9 |
| BUSP | Coron | 1.47 | 199 | *e*P | Pn | 23 20 38.8 | -1.9 |
| BUSP | | | | *e*S | Sg | 23 21 01.4 | 0.0 |
| OTRP | Odiongan | 1.65 | 128 | *e*P | Pn | 23 20 41.1 | -2.1 |
| OTRP | | | | *e*S | Sb | 23 21 05.8 | +0.2 |

*ROM **30** 23:21:26.5±0.2, 44.43N×7.31E, h15km±4km, Md2.0/9, Ml2.1/2, Error ellipse: s-maj=4.0km s-min=1.9km az=66.0*
*ISCJB **30** 23:21:26.5±0.3, 44.41N±0.02×7.23E±0.03, h13km±2km, Error ellipse: s-maj=3.6km s-min=2.5km az=152.3*
*IASPEI **30** 23:21:26.8±0.8, 44.43N±0.02×7.30E±0.02, h17km±4km, Error ellipse: s-maj=3.7km s-min=2.4km az=66.9, GT5 selection from ISC bulletin GT5 identified by Bond˜jr and McLaughlin (2009) selection criteria Bond˜jr and McLaughlin, A new ground truth data set for seismic studies, Seism. Res. Let., 80, 465-472, 2009*
*CSEM **30** 23:21:26.7±0.1, 44.42N×7.26E, h12km, ML2.6/11, Error ellipse: s-maj=2.2km s-min=1.6km az=68.0*
*LDG **30** 23:21:27.3±0.1, 44.41N×7.27E, h3km, Md2.4/2, Ml2.6/11, Error ellipse: s-maj=1.6km s-min=1.1km az=56.0*
*GEN **30** 23:21:27.2, 44.42N×7.28E, h13km, ML2.1*

**ISC 30 23:21:26.8±0.8, 44.43N±0.02×7.30E±0.02, h17km±4km, n46, σ0.968/81, Northern Italy**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| DOI | San Damiano | 0.09 | 333 | Pg | Pg | 23 21 30.4 | 0.0 |
| DOI | | | | Sg | Sg | 23 21 32.5 | -0.3 |
| DOI | San Damiano | 0.09 | 333 | Pg | Pg | 23 21 30.4 | 0.0 |
| DOI | | | | Sg | Sg | 23 21 32.5 | -0.3 |
| PZZ | Stroppo | 0.15 | 301 | Pg | Pg | 23 21 31.1 | -0.1 |
| PZZ | | | | Sg | Sg | 23 21 33.6 | -0.6 |
| PZZ | Stroppo | 0.15 | 301 | P | Pg | 23 21 31.0 | -0.1 |
| PZZ | | | | S | Sg | 23 21 33.5 | -0.6 |
| STV | Sant Anna di V | 0.18 | 175 | Pg | Pg | 23 21 31.5 | 0.0 |
| STV | | | | Sg | Sg | 23 21 34.2 | -0.4 |
| STV | Sant Anna di V | 0.18 | 175 | Pg | Pg | 23 21 31.5 | 0.0 |
| STV | | | | S | Sg | 23 21 34.2 | -0.4 |
| ENR | Entracque | 0.22 | 157 | Pg | Pg | 23 21 32.0 | 0.0 |
| ENR | | | | Sg | Sg | 23 21 35.3 | -0.3 |
| ENR | Entracque | 0.22 | 157 | Pg | Pg | 23 21 32.0 | 0.0 |
| ENR | | | | Sg | Sg | 23 21 35.3 | -0.3 |
| BHB | Bricherasio | 0.42 | 356 | Pg | Pg | 23 21 34.8 | -0.5 |
| BHB | | | | Sg | Sg | 23 21 39.9 | -1.2 |
| BHB | Bricherasio | 0.42 | 356 | Pg | Pg | 23 21 34.8 | -0.5 |
| BHB | | | | Sg | Sg | 23 21 39.9 | -1.2 |
| MBDF | Montbardon | 0.48 | 309 | *e*Pg | Pg | 23 21 36.4 | -0.2 |
| | SNR=1.0 | | | | | | |
| MBDF | | | | *e*Sg | Sg | 23 21 42.9 | -0.3 |
| | 106nm,0.2s,SNR=1.0 | | | | | | |
| MBDF | Montbardon | 0.48 | 309 | *e*Pg | Pg | 23 21 36.4 | -0.2 |
| | SNR=1.0 | | | | | | |
| MBDF | | | | *e*Sg | Sg | 23 21 42.9 | -0.3 |
| | 53nm,0.2s,SNR=1.0 | | | | | | |
| SBF | Sospel | 0.57 | 170 | *e*Pg | Pg | 23 21 38.1 | -0.1 |
| | SNR=1.0 | | | | | | |
| SBF | | | | *e*Sg | Sg | 23 21 45.4 | -0.5 |
| | 28nm,0.2s,SNR=1.0 | | | | | | |
| SBF | Sospel | 0.57 | 170 | *e*Pg | Pg | 23 21 38.1 | -0.1 |
| | SNR=1.0 | | | | | | |
| SBF | | | | *e*Sg | Sg | 23 21 45.4 | -0.5 |
| | 14nm,0.2s,SNR=1.0 | | | | | | |
| RRL | Rocca Remolon | 0.61 | 324 | Pg | Pg | 23 21 38.7 | -0.3 |
| RRL | | | | Sg | Sg | 23 21 46.8 | -0.5 |
| RRL | Rocca Remolon | 0.61 | 324 | Pg | Pg | 23 21 38.7 | -0.3 |
| RRL | | | | S | Sg | 23 21 46.8 | -0.5 |
| NEGI | Seborga | 0.65 | 153 | P | Pg | 23 21 39.4 | -0.2 |
| NEGI | | | | S | Sg | 23 21 47.8 | -0.4 |
| IMI | Imperia | 0.67 | 140 | P | Pg | 23 21 39.7 | -0.3 |
| IMI | | | | S | Sg | 23 21 48.6 | -0.3 |
| RSP | Reno Superiore | 0.72 | 358 | Pg | Pg | 23 21 39.6 | -1.4 |
| RSP | Reno Superiore | 0.72 | 358 | Pg | Pg | 23 21 39.6 | -1.4 |
| FINB | Finale Ligure | 0.78 | 108 | Pg | Pb | 23 21 42.1 | +0.3 |
| | 1µm,3.5s | | | | | | |
| FINB | Finale Ligure | 0.78 | 108 | Pg | Pb | 23 21 42.1 | +0.3 |
| | 1µm,3.5s | | | | | | |
| ROTM | Rocchetta Tana | 0.86 | 60 | P | Pn | 23 21 44.6 | +0.5 |
| ROTM | | | | S | Sn | 23 21 57.0 | +0.7 |
| PCP | Piancastagn | 0.90 | 82 | P | Pb | 23 21 44.2 | +0.3 |
| PCP | | | | S | Sg | 23 21 56.5 | +0.4 |
| FRF | La Foret Royal | 0.99 | 209 | *e*Pg | Pb | 23 21 45.3 | -0.1 |
| | SNR=1.0 | | | | | | |
| FRF | La Foret Royal | 0.99 | 209 | *e*Pn | Pg | 23 21 46.1 | +0.2 |
| | SNR=1.0 | | | | | | |
| FRF | | | | *e*Sg | Sb | 23 21 57.9 | -0.2 |
| | 46nm,0.2s,SNR=1.0 | | | | | | |
| FRF | La Foret Royal | 0.99 | 209 | *e*Pg | Pb | 23 21 45.3 | -0.1 |
| | SNR=1.0 | | | | | | |
| FRF | La Foret Royal | 0.99 | 209 | *e*Pn | Pg | 23 21 46.1 | +0.2 |
| | SNR=1.0 | | | | | | |
| FRF | | | | *e*Sg | Sb | 23 21 57.9 | -0.2 |
| | 23nm,0.2s,SNR=1.0 | | | | | | |
| LSD | Lago del Serru | 1.04 | 353 | Pg | Pb | 23 21 46.2 | -0.3 |
| | 30nm,0.2s | | | | | | |
| LSD | Lago del Serru | 1.04 | 353 | Pg | Pb | 23 21 46.2 | -0.3 |
| | 30nm,0.2s | | | | | | |
| ORIF | Oris-en-Rattie | 1.13 | 296 | *e*Pg | Pn | 23 21 48.1 | +0.2 |
| ORIF | | | | *e*Sg | Sb | 23 22 02.6 | +0.3 |
| | 15nm,0.3s | | | | | | |
| LPG | La Plagne | 1.14 | 340 | *e*Pn | Pb | 23 21 48.2 | 0.0 |
| | SNR=1.0 | | | | | | |
| LPG | | | | *e*Sg | Sn | 23 22 03.9 | +0.3 |
| | 13nm,0.2s | | | | | | |
| LPL | La Plagne | 1.16 | 340 | *e*Pn | Pn | 23 21 48.5 | 0.0 |
| | SNR=1.0 | | | | | | |
| LPL | | | | *e*Sg | Sg | 23 22 04.5 | -0.1 |
| | 24nm,0.3s | | | | | | |
| LMR | La Mourre | 1.23 | 208 | *e*Pn | Pn | 23 21 49.5 | +0.3 |
| | SNR=1.0 | | | | | | |
| LMR | La Mourre | 1.23 | 208 | *e*Pg | Pb | 23 21 49.8 | +0.2 |
| LMR | | | | *e*Sn | Sb | 23 22 05.4 | +0.2 |
| | 54nm,0.2s,SNR=1.0 | | | | | | |
| LMR | La Mourre | 1.23 | 208 | *e*Pn | Pn | 23 21 49.5 | +0.3 |
| | SNR=1.0 | | | | | | |
| LMR | La Mourre | 1.23 | 208 | *e*Pg | Pb | 23 21 49.8 | +0.2 |
| LMR | | | | *e*Sn | Sb | 23 22 05.4 | +0.2 |
| | 27nm,0.2s,SNR=1.0 | | | | | | |
| SMRF | Simiane la Rot | 1.32 | 251 | *e*Pg | Pg | 23 21 52.0 | -0.3 |
| | SNR=1.0 | | | | | | |
| SMRF | | | | *e*Sg | Sb | 23 22 08.4 | +0.6 |
| | 27nm,0.4s,SNR=1.0 | | | | | | |
| SMRF | Simiane la Rot | 1.32 | 251 | *e*Pg | Pg | 23 21 52.0 | -0.3 |
| | SNR=1.0 | | | | | | |
| SMRF | | | | *e*Sg | Sb | 23 22 08.4 | +0.6 |
| | 13nm,0.4s,SNR=1.0 | | | | | | |
| VIVF | Saint-Julien-l | 1.93 | 284 | *e*P | Pb | 23 22 00.7 | -0.7 |
| | SNR=1.0 | | | | | | |
| VIVF | | | | *e*Sn | Sn | 23 22 22.3 | -0.3 |
| | 2.9nm,0.3s,SNR=1.0 | | | | | | |
| VIVF | | | | *e*Sg | Sg | 23 22 27.4 | -1.4 |
| | 2.1nm,0.3s | | | | | | |
| PGF | Pioggiola | 2.25 | 146 | *e*Pn | Pn | 23 22 03.3 | 0.0 |
| | SNR=1.0 | | | | | | |
| PGF | | | | *e*Sn | Sn | 23 22 28.7 | -1.9 |
| | 2.7nm,0.2s,SNR=1.0 | | | | | | |
| PGF | Pioggiola | 2.25 | 146 | *e*Pn | Pn | 23 22 03.3 | 0.0 |
| | SNR=1.0 | | | | | | |
| PGF | | | | *e*Sn | Sn | 23 22 28.7 | -1.9 |
| | 1.4nm,0.2s,SNR=1.0 | | | | | | |
| CABF | La Chapelle | 2.34 | 339 | *e*Pn | Pn | 23 22 06.0 | +1.4 |
| | SNR=1.0 | | | | | | |
| CABF | | | | *e*Sn | Sn | 23 22 34.6 | +1.6 |
| | 7.0nm,0.7s,SNR=1.0 | | | | | | |
| CABF | La Chapelle | 2.34 | 339 | *e*Pn | Pn | 23 22 06.0 | +1.4 |
| | SNR=1.0 | | | | | | |
| CABF | | | | *e*Sn | Sn | 23 22 34.6 | +1.6 |
| | 3.5nm,0.7s,SNR=1.0 | | | | | | |
| SMF | Signal de Mont | 3.29 | 314 | *e*Pn | Pn | 23 22 18.8 | +1.3 |
| | SNR=1.0 | | | | | | |
| AVF | Avril sur Loir | 3.64 | 312 | *e*Pn | Pn | 23 22 23.5 | +1.2 |
| | SNR=1.0 | | | | | | |

**IDC 30 23:26:22.9±3.0, 32.60S×178.22W, h0km, mb3.7/2, mb1 3.9/3, mb1mx3.6/32, mbtmp3.8/3, ML3.7/1, Error ellipse: s-maj=69.7km s-min=36.1km az=117.0, South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| URZ | Urewera | 6.81 | 213 | Pn | Pn | 23 28 04.3 | +0.2 |
| | 1.4nm,0.3s,baz=17,slow=8.5,SNR=3.2 | | | | | | |
| URZ | | | | Sn | Sn | 23 29 23.1 | +0.8 |
| | 1.6nm,0.3s,baz=158,slow=21,SNR=5.6 | | | | | | |
| ASAR | Alice Springs | 42.85 | 269 | P | P | 23 34 23.2 | +0.2 |
| | 0.5nm,0.6s,baz=109,slow=7.8,SNR=10 | | | | | | |
| WRA | Warramunga Arr | 44.04 | 275 | P | P | 23 34 31.9 | -0.7 |
| | 0.3nm,0.4s,baz=116,slow=6.6,SNR=15 | | | | | | |
| FINES | FINESS Array B | 147.13 | 339 | PKPbc | PKPbc | 23 46 06.6 | -0.5 |
| | 3.4nm,0.9s,baz=57,slow=5.1,SNR=7.5 | | | | | | |

*IDC **30** 23:30:16.1±1.5, 18.77S×168.21E, h0km, mb4.0/6, mb1 4.1/7, mb1mx3.8/40, mbtmp3.9/7, ML3.4/1, MS3.2/6, Ms1 3.1/6, ms1mx2.9/27, Error ellipse: s-maj=43.5km s-min=25.8km az=121.0*
*ISCJB **30** 23:30:17.8±0.7, 18.81S±0.09×168.2E±0.1, h20km, mb3.9/7, MS3.1/4, Error ellipse: s-maj=16.1km s-min=11.3km az=26.9*
*NEIC **30** 23:30:21.3±0.6, 18.90S×168.23E, h35km, mb4.4/1, Error ellipse: s-maj=14.2km s-min=12.5km az=201.0*

**ISC 30 23:30:19.2±0.9, 18.8S±0.1×168.3E±0.1, h20km, n15, σ0.962/14, mb3.8/7, MS3.1/4, Vanuatu Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| DZM | Mont Dzumac | 3.65 | 207 | Pn | Pn | 23 31 14.1 | -0.6 |
| | 2.8nm,0.3s,baz=49,slow=11,SNR=95 | | | | | | |
| DZM | | | | Sn | Sn | 23 31 57.8 | +0.6 |
| | 7.8nm,0.3s,baz=135,slow=23,SNR=12 | | | | | | |
| DZM | | | | LR | LR | 23 32 01.3 | |
| | comp=Z,142nm,18.1s,baz=71,slow=29 | | | | | | |
| DZM | Mont Dzumac | 3.65 | 207 | Pn | Pn | 23 31 14.1 | -0.6 |
| DZM | | | | *e*Pg | Pb | 23 31 27.9 | +4.8 |
| DZM | | | | *e*Sn | Sn | 23 31 57.9 | +0.6 |
| RAO | Raoul Island | 16.34 | 132 | Pn | Pn | 23 34 07.5 | 0.0 |
| AFI | Afiamalu | 19.77 | 79 | LR | LR | 23 40 46.0 | |
| | comp=Z,72nm,21.3s,baz=310,slow=32 | | | | | | |
| RPZ | Rata Peaks | 24.93 | 175 | LR | LR | 23 43 44.4 | |
| | comp=Z,59nm,20.8s,baz=346,slow=32 | | | | | | |
| STKA | Stephens Creek | 27.28 | 236 | P | P | 23 36 02.9 | +0.4 |
| | 1.1nm,0.8s,baz=72,slow=9.6,SNR=3.9 | | | | | | |
| STKA | | | | LR | LR | 23 45 21.4 | |
| | comp=Z,52nm,20.4s,baz=29,slow=33 | | | | | | |
| WRA | Warramunga Arr | 31.98 | 262 | P | P | 23 36 43.9 | -0.3 |
| | 0.6nm,0.9s,baz=85,slow=8.7,SNR=6.1 | | | | | | |
| ASAR | Alice Springs | 32.32 | 255 | P | P | 23 36 46.8 | -0.5 |
| | 2.2nm,0.5s,baz=82,slow=8.6,SNR=44 | | | | | | |
| ASAR | | | | LR | LR | 23 49 53.3 | |
| | comp=Z,76nm,19.1s,baz=113,slow=36 | | | | | | |
| KSRS | Korea Array | 67.64 | 326 | LR | LR | 00 07 58.5 | |
| | comp=Z,9.4nm,20.9s,baz=180,slow=34 | | | | | | |
| QSPA | South Pole Qui | 71.23 | 180 | P | P | 23 41 36.1 | -0.7 |
| | 2.8nm,0.8s | | | | | | |
| SONM | Songino Array | 86.33 | 323 | P | P | 23 43 00.4 | +0.5 |
| | 0.6nm,0.8s,baz=123,slow=5.5,SNR=3.7 | | | | | | |
| SNAA | Sanae | 89.53 | 183 | P | P | 23 43 15.0 | +0.1 |
| | 1.9nm,1.0s,baz=159,slow=8.6,SNR=5.2 | | | | | | |
| ILAR | Eielson Array | 90.12 | 18 | P | P | 23 43 17.3 | -0.1 |
| | 0.1nm,0.6s,baz=232,slow=4.4,SNR=4.4 | | | | | | |
| VNA3 | Neumayer Olymp | 90.16 | 181 | P | P | 23 43 18.4 | +0.7 |
| VNA2 | Neumayer-Watz | 90.44 | 181 | P | P | 23 43 20.0 | +0.9 |
| | baz=164,slow=3.3 | | | | | | |

**IDC 30 23:34:46.0±6.6, 5.84S×151.46E, h51km±54km, mb3.5/3, mb1 3.9/4, mb1mx3.2/44, mbtmp3.9/4, ML2.2/1, Error ellipse: s-maj=108.4km s-min=33.0km az=128.0, New Britain region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| PMG | Port Moresby | 5.54 | 230 | P | Pn | 23 36 07.6 | +1.6 |
| | 4.8nm,0.3s,baz=45,slow=11,SNR=6.6 | | | | | | |
| PMG | | | | S | Sn | 23 37 08.3 | -0.1 |
| | 4.0nm,0.3s,baz=112,slow=19,SNR=4.2 | | | | | | |
| WRA | Warramunga Arr | 21.76 | 228 | P | P | 23 39 32.8 | -0.7 |
| | 1.0nm,0.4s,baz=53,slow=9.8,SNR=16 | | | | | | |
| ASAR | Alice Springs | 24.49 | 222 | P | P | 23 40 01.1 | +0.5 |
| | 2.1nm,0.8s,baz=57,slow=9.1,SNR=18 | | | | | | |
| ILAR | Eielson Array | 83.62 | 22 | P | P | 23 47 08.1 | -0.6 |
| | 0.6nm,0.6s,baz=238,slow=5.3,SNR=11 | | | | | | |
| TORD | Torodi Ar. Bea | 149.34 | 286 | PKPbc | PKPbc | 23 54 30.4 | +0.1 |
| | 0.8nm,0.4s,baz=75,slow=2.0,SNR=8.0 | | | | | | |

*IDC **30** 23:38:28.8±1.4, 20.09N×122.12E, h0km, mb3.5/5, mb1 3.6/6, mb1mx3.3/52, mbtmp3.5/6, ML3.6/1, Error ellipse: s-maj=67.0km s-min=23.1km az=68.0*
*ISCJB **30** 23:38:31.0±1.2, 20.1N±0.1×122.1E±0.3, h27km, mb3.3/5, Error ellipse: s-maj=38.0km s-min=20.0km az=168.3*

**ISC 30 23:38:32.7±1.3, 20.1N±0.2×122.1E±0.3, h27km, n6, σ0.981/6, mb3.4/5, Philippine Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| KSRS | Korea Array | 18.02 | 15 | P | Pn | 23 42 41.6 | +0.5 |
| | 0.2nm,0.3s,baz=206,slow=11,SNR=4.7 | | | | | | |
| SONM | Songino Array | 30.46 | 339 | P | P | 23 44 42.8 | -0.6 |
| | 0.3nm,0.8s,baz=152,slow=8.3,SNR=4.4 | | | | | | |
| WRA | Warramunga Arr | 41.55 | 163 | P | P | 23 46 18.2 | 0.0 |
| | 0.3nm,0.8

**ASAR Alice Springs 41.86 268** P **P** **23 47 39.5 +0.3**
0.2nm,0.4s,baz=97,slow=7.1,SNR=4.1
ASAR ScP **ScP** **23 52 44.6 -2.7**
0.5nm,0.9s,baz=126,slow=4.7,SNR=4.7
**WRA Warramunga Arr 42.87 273** P **P** **23 47 47.2 +0.1**
1.1nm,0.8s,baz=111,slow=7.9,SNR=20
**MKAR Makanchi Array 116.92 310** PKP **PKPdf** **23 58 24.4 -1.4**
0.2nm,0.6s,baz=121,slow=1.7,SNR=3.5
**KURBB Kurchatov Arra 120.30 314** PKP **PKPdf** **23 58 30.9 -1.2**
0.5nm,0.6s,baz=102,slow=1.7,SNR=6.2
**FINES FINESS Array B 144.85 339** PKP **PKPdf** **23 59 16.9 -0.6**
9.2nm,0.7s,baz=52,slow=3.5,SNR=54
**NB2 NORSAR Subarra 148.70 350** PKP **PKPbc** **23 59 27.7 -0.5**
comp=Z,1.0nm,0.6s,baz=18,slow=2.6
**NOA NORSAR Array B 148.70 350** PKPbc **PKPbc** **23 59 28.0 -0.2**
comp=Z,1.8nm,0.7s,baz=16,slow=4.2,SNR=6.0
**HFS Hagfors 149.13 347** PKPbc **PKPbc** **23 59 28.5 -0.7**
comp=Z,0.7nm,0.4s,baz=48,slow=2.1,SNR=5.8
**MMAI Mount Meron Ar 150.36 284** PKPbc **PKPbc** **23 59 33.8 +0.6**
comp=Z,1.8nm,0.7s,baz=59,slow=6.9,SNR=3.4
**AKASG Malin Array Be 150.66 322** PKPbc **PKPbc** **23 59 33.1 -0.1**
comp=Z,1.9nm,0.6s,baz=53,slow=2.6,SNR=9.3
**BRTR Keskin Array B 151.58 298** PKPbc **PKPbc** **23 59 35.6 -0.3**
comp=Z,0.6nm,0.6s,baz=146,slow=5.5,SNR=4.9

---

*IDC **30** 23:54:03.9±1.0,0.°34N×127.°22E,h0km,mb3.7/7, mb1 3.8/7,mb1mx3.6/41,mbtmp3.7/7,Error ellipse: s-maj=51.3km s-min=19.0km az=77.0*
*ISCJB **30** 23:54:06.7±0.8,0.°4N±0.°1×127.°2E±0.°3,h33km,mb3.7/7, Error ellipse: s-maj=47.8km s-min=15.3km az=166.7*
**ISC 30 23:54:09.0±1.1,0.°3N±0.°2×127.°3E±0.°4,h35km,n7,σ0s57/7, mb3.6/7,Halmahera**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **WRA** | **Warramunga Arr** | **21.30** | **161** | P | | **P** | **23 58 52.7** | **-0.1** |
| | 1.3nm,0.4s,baz=340,slow=11,SNR=39 | | | | | | | |
| **ASAR** | **Alice Springs** | **24.70** | **165** | P | | **P** | **23 59 27.1** | **+0.1** |
| | 0.8nm,0.7s,baz=349,slow=13,SNR=12 | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **37.44** | **15** | P | | **P** | **00 01 18.3** | **-0.7** |
| | 0.3nm,0.4s,baz=199,slow=10.0,SNR=3.1 | | | | | | | |
| **SONM** | **Songino Array** | **50.68** | **342** | P | | **P** | **00 03 05.3** | **+0.2** |
| | 0.3nm,0.5s,baz=158,slow=9.4,SNR=3.6 | | | | | | | |
| **PETK** | **Petropavlovsk-** | **58.38** | **21** | P | | **P** | **00 04 01.5** | **+0.7** |
| | 2.2nm,0.8s,baz=182,slow=4.1,SNR=5.9 | | | | | | | |
| **MKAR** | **Makanchi Array** | **60.65** | **326** | P | | **P** | **00 04 16.9** | **+0.2** |
| | 0.4nm,0.3s,baz=115,slow=7.5,SNR=7.6 | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **64.89** | **328** | P | | **P** | **00 04 44.2** | **-0.5** |
| | 0.2nm,0.3s,baz=130,slow=6.4,SNR=5.0 | | | | | | | |

---

*ISCJB **30** 23:58:16.0±0.3,50.°59N±0.°04×51.°90E±0.°05,h33km, mb3.8/10,Error ellipse: s-maj=6.3km s-min=3.8km az=151.0*
*IDC **30** 23:58:15.2±0.5,50.°69N×51.°65E,h0km,mb3.7/11, mb1 3.8/20,mb1mx3.7/45,mbtmp3.7/20,ML3.3/9,MS3.0/1, Ms1 3.0/1,ms1mx2.2/52,Error ellipse: s-maj=13.1km s-min=7.6km az=153.0*
*MOS **30** 23:58:17.1±1.4,50.°71N×51.°63E,h26km,mb4.3/7,Error ellipse: s-maj=10.8km s-min=8.1km az=159.0*
*CSEM **30** 23:58:18.8±0.2,50.°80N×51.°67E,h30km,mb3.9/8,Error ellipse: s-maj=11.8km s-min=6.6km az=163.0*
*NNC **30** 23:58:33.4±3.7,49.°80N×53.°60E,h55km±99km,mb3.9, Error ellipse: s-maj=126.7km s-min=25.5km az=156.0*
**ISC 30 23:58:17.4±0.5,50.°63N±0.°05×51.°95E±0.°03,h35km,n91, σ2s68/96,mb3.8/10,13C-22D,Western Kazakhstan**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **AKTK** | **Aktyubinsk** | **3.88** | **90** | P | | **Pn** | **23 59 18.2** | **+3.7** |
| | 1.0nm,0.3s | | | | | | | |
| **AKTO** | **Aktyubinsk** | **3.88** | **90** | Pn | | **Pn** | **23 59 18.2** | **+3.7** |
| | 0.7nm,0.3s,baz=279,slow=13,SNR=16 | | | | | | | |
| AKTO | | | | Sn | | **Sn** | **00 00 05.1** | **+6.3** |
| | 3.8nm,0.3s,baz=263,slow=23,SNR=12 | | | | | | | |
| **VRH** | **Novokhopyorsk** | **6.49** | **279** | *e*P | | **Pn** | **23 59 50.4** | **0.0** |
| VRH | | | | pmax | | pmax | | |
| | comp=Z,3.0nm,0.9s | | | | | | | |
| **VRH** | **Novokhopyorsk** | **6.49** | **279** | *e*P | | **Pn** | **23 59 50.4** | **0.0** |
| | comp=Z,3.0nm,0.9s | | | | | | | |
| **ARU** | **Arti** | **7.02** | **32** | Pn | | **Pn** | **23 59 60.0** | **+2.3** |
| | comp=Z,0.0nm,0.3s,baz=222,slow=8.6,SNR=8.9 | | | | | | | |
| ARU | | | | Lg | | Lg | 00 01 54.6 | |
| | comp=Z,0.1nm,0.3s,baz=104,slow=23,SNR=9.4 | | | | | | | |
| ARU | | | | LR | | LR | 00 02 51.5 | |
| | comp=Z,102nm,18.9s,baz=157,slow=39 | | | | | | | |
| **ARU** | **Arti** | **7.02** | **32** | *e*P | | **Pn** | **23 59 59.1** | **+1.5** |
| ARU | | | | S | | **Sn** | **00 01 18.6** | **+2.5** |
| **ARU** | **Arti** | **7.02** | **32** | *e*P | | **Pn** | **23 59 59.1** | **+1.5** |
| **SVE** | **Sverdlovsk** | **8.07** | **36** | *e*P | | Pn | 00 00 19.3 | +7.3 |
| SVE | | | | *e* | | | 00 01 44.4 | |
| **SVE** | **Sverdlovsk** | **8.07** | **36** | *e*S | | **Sn** | **00 01 44.4** | **+2.6** |
| **VSR** | **Storozhevoye** | **8.10** | **279** | *e*P | | **Pn** | **00 00 13.2** | **+0.8** |
| VSR | | | | pmax | | pmax | | |
| | comp=Z,6.0nm,0.5s | | | | | | | |
| **VSR** | **Storozhevoye** | **8.10** | **279** | *e*P | | **Pn** | **00 00 13.2** | **+0.8** |
| | comp=Z,6.0nm,0.5s | | | | | | | |
| **KVAR** | **Kislovodsk Arr** | **9.16** | **227** | Pn | | **Pn** | **00 00 25.5** | **-1.6** |
| | baz=175,slow=0.3,SNR=10 | | | | | | | |
| KVAR | | | | Sn | | **Sn** | **00 02 02.6** | **-6.4** |
| | baz=352,slow=19,SNR=5.4 | | | | | | | |
| **KIV** | **Kislovodsk** | **9.17** | **227** | ↑*e*P | | **Pn** | **00 00 30.2** | **+3.0** |
| KIV | | | | *e*S | | **Sn** | **00 02 09.5** | **+0.4** |
| KIV | | | | pmax | | pmax | | |
| | comp=Z,7.0nm,0.6s | | | | | | | |
| **KIV** | **Kislovodsk** | **9.17** | **227** | *e*P | | **Pn** | **00 00 30.2** | **+3.0** |
| | comp=Z,7.0nm,0.6s | | | | | | | |
| KIV | | | | *e*S | | **Sn** | **00 02 09.5** | **+0.4** |
| **KBZ** | **Khabaz** | **9.24** | **225** | Pn | | **Pn** | **00 00 26.1** | **-2.0** |
| | comp=Z,1.7nm,0.3s,baz=23,slow=5.9,SNR=37 | | | | | | | |
| KBZ | | | | Sn | | **Sn** | **00 02 04.7** | **-6.1** |
| | comp=Z,2.0nm,0.3s,baz=301,slow=19,SNR=5.9 | | | | | | | |
| **ZEI** | **Tsey** | **9.59** | **218** | *e*P | | **Pn** | **00 00 29.8** | **-3.2** |
| ZEI | | | | pmax | | pmax | | |
| | comp=Z,13nm,0.6s | | | | | | | |
| **NEY** | **Neytrino** | **9.70** | **224** | ↓*i*P | | **Pn** | **00 00 36.8** | **+2.2** |
| NEY | | | | pmax | | pmax | | |
| | comp=Z,2.0nm,0.8s | | | | | | | |
| **NEY** | **Neytrino** | **9.70** | **224** | *i* P | | **Pn** | **00 00 36.8** | **+2.2** |
| | comp=Z,2.0nm,0.8s | | | | | | | |
| **BRVK** | **Borovoye** | **11.60** | **71** | ↓Pn | | Pn | 00 01 06.8 | +6.4 |
| | comp=Z,3.0nm,0.6s | | | | | | | |
| BRVK | | | | ↑Sn | | **Sn** | **00 03 08.9** | **+0.4** |
| | comp=Z,5.5nm,0.7s | | | | | | | |
| **BRVK** | **Borovoye** | **11.60** | **71** | ↓*e*P | | **Pn** | **00 01 04.4** | **+4.1** |
| BRVK | | | | pmax | | pmax | | |
| | comp=Z,4.0nm,0.9s | | | | | | | |
| **BRVK** | **Borovoye** | **11.60** | **71** | *e*P | | **Pn** | **00 01 04.4** | **+4.1** |
| | comp=Z,4.0nm,0.9s | | | | | | | |
| **BVA0** | **Borovoye Array** | **11.66** | **71** | ↑Pn | | Pn | 00 01 07.3 | +6.1 |
| | comp=Z,3.6nm,0.7s,baz=276,slow=12,SNR=7.8 | | | | | | | |
| BVA0 | | | | ↓Sn | | **Sn** | **00 03 07.9** | **-2.1** |
| | comp=Z,6.7nm,0.7s,baz=269,slow=24,SNR=8.6 | | | | | | | |
| **BVA0** | **Borovoye Array** | **11.66** | **71** | Pn | | Pn | 00 01 07.3 | +6.1 |
| | comp=Z,3.6nm,0.7s,SNR=7.8 | | | | | | | |
| BVA0 | | | | Sn | | **Sn** | **00 03 07.9** | **-2.1** |
| | comp=Z,6.7nm,0.7s,SNR=8.6 | | | | | | | |
| **BVAR** | **Borovoye Array** | **11.66** | **71** | Pn | | **Pn** | **00 01 02.3** | **+1.1** |
| | comp=Z,0.7nm,0.3s,baz=274,slow=13,SNR=11 | | | | | | | |
| BVAR | | | | Sn | | **Sn** | **00 03 09.0** | **-1.0** |
| | comp=Z,2.0nm,0.3s,baz=267,slow=24,SNR=10 | | | | | | | |
| **KLMR** | **Klimovskoe** | **12.38** | **331** | *e*P | | **Pn** | **00 01 07.8** | **-3.2** |
| KLMR | | | | *e* | | | 00 03 19.3 | |
| KLMR | | | | pmax | | pmax | | |
| | comp=Z,12nm,1.4s | | | | | | | |
| **KLMR** | **Klimovskoe** | **12.38** | **331** | *e*P | | **Pn** | **00 01 07.8** | **-3.2** |
| | comp=Z,12nm,1.4s | | | | | | | |
| **GEYT** | **Alibeck** | **13.43** | **159** | Pn | | **Pn** | **00 01 23.9** | **-1.6** |
| | comp=Z,0.1nm,0.3s,baz=337,slow=14,SNR=4.1 | | | | | | | |
| GEYT | | | | Sn | | **Sn** | **00 03 52.6** | **-0.9** |
| | comp=Z,0.2nm,0.3s,baz=192,slow=32,SNR=3.7 | | | | | | | |
| **AKASG** | **Malin Array Be** | **14.40** | **279** | Pn | | Pn | 00 01 32.8 | -5.8 |
| | comp=Z,0.4nm,0.3s,baz=68,slow=12,SNR=3.3 | | | | | | | |
| **AKASG** | **Malin Array Be** | **14.40** | **279** | *e*P | | **Pn** | **00 01 38.0** | **-0.6** |
| AKASG | | | | pmax | | pmax | | |
| | comp=Z,1.0nm,0.3s | | | | | | | |
| **KIEV** | **Kiev** | **14.41** | **279** | ↓*e*P | | **Pn** | **00 01 39.0** | **+0.3** |
| KIEV | | | | pmax | | pmax | | |
| | comp=Z,4.0nm,1.1s | | | | | | | |
| **VSU** | **Vasula** | **16.52** | **308** | ↑*i*P | | **P** | **00 02 06.9** | **-1.5** |
| VSU | | | | pmax | | pmax | | |
| | comp=Z,124nm,2.0s | | | | | | | |
| **VSU** | **Vasula** | **16.52** | **308** | *i* P | | **P** | **00 02 06.9** | **-1.5** |
| | comp=Z,124nm,2.0s | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **16.84** | **80** | Pn | | **Pn** | **00 02 10.8** | **+0.5** |
| | comp=Z,0.0nm,0.3s,baz=283,slow=13,SNR=4.4 | | | | | | | |
| KURBB | | | | Sn | | **Sn** | **00 05 15.8** | **-0.3** |
| | comp=Z,0.1nm,0.3s,baz=291,slow=24,SNR=4.8 | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **16.84** | **80** | ↓Pn | | **P** | **00 02 14.1** | **+2.1** |
| | comp=Z,2.8nm,0.8s | | | | | | | |
| KURBB | | | | ↑Sn | | **Sn** | **00 05 10.0** | **-6.1** |
| | comp=Z,3.6nm,0.7s | | | | | | | |
| **BRTR** | **Keskin Array B** | **16.84** | **237** | Pn | | **Pn** | **00 02 09.4** | **-1.1** |
| | comp=Z,0.1nm,0.3s,baz=64,slow=11,SNR=7.3 | | | | | | | |
| **BRTR** | **Keskin Array B** | **16.84** | **237** | *e*P | | **P** | **00 02 13.4** | **+1.1** |
| **BRTR** | **Keskin Array B** | **16.84** | **237** | *e*P | | **P** | **00 02 13.4** | **+1.1** |
| **KURK** | **Kurchatov** | **16.88** | **79** | ↑Pn | | **P** | **00 02 14.8** | **+2.3** |
| | comp=Z,2.3nm,0.9s | | | | | | | |
| KURK | | | | ↑Sn | | **Sn** | **00 05 12.5** | **-4.6** |
| | comp=Z,1.8nm,0.8s | | | | | | | |
| **KURK** | **Kurchatov** | **16.88** | **79** | ↓*e*P | | **P** | **00 02 17.7** | **+5.2** |
| KURK | | | | pmax | | pmax | | |
| | comp=Z,4.0nm,1.1s | | | | | | | |
| **KURK** | **Kurchatov** | **16.88** | **79** | Pn | | **P** | **00 02 14.8** | **+2.3** |
| | comp=Z,2.3nm,0.9s | | | | | | | |
| KURK | | | | Sn | | **Sn** | **00 05 12.5** | **-4.6** |
| | comp=Z,1.8nm,0.8s | | | | | | | |
| **KURK** | **Kurchatov** | **16.88** | **79** | *e*P | | **P** | **00 02 17.7** | **+5.2** |
| | comp=Z,4.0nm,1.1s | | | | | | | |
| **TESR** | **Tescani** | **17.21** | **266** | ↓*i*P | | **P** | **00 02 16.5** | **+0.3** |
| **VRI** | **Vrincioaia** | **17.42** | **264** | ↓*i*P | | **P** | **00 02 22.7** | **+4.2** |
| **VRI** | **Vrincioaia** | **17.42** | **264** | ↓P | | **P** | **00 02 22.7** | **+4.2** |
| **VRI** | **Vrincioaia** | **17.42** | **264** | P | | **P** | **00 02 22.7** | **+4.2** |
| **PLOR** | **Plostina** | **17.48** | **264** | ↓*i*P | | **P** | **00 02 23.6** | **+4.4** |
| **PLOR** | **Plostina** | **17.48** | **264** | ↓P | | **P** | **00 02 23.6** | **+4.4** |
| **BURAR** | **Bucovina Array** | **17.72** | **271** | ↓*i*P | | **Pn** | **00 02 20.6** | **-0.7** |
| **BURAR** | **Bucovina Array** | **17.72** | **271** | ↓P | | **Pn** | **00 02 20.6** | **-0.7** |
| **FINES** | **FINESS Array B** | **17.92** | **317** | Pn | | **Pn** | **00 02 18.9** | **-4.7** |
| | comp=Z,0.2nm,0.3s,baz=120,slow=13,SNR=8.8 | | | | | | | |
| **MLR** | **Muntele Rosu** | **18.08** | **264** | ↑*i*P | | **P** | **00 02 26.4** | **+0.5** |
| **MLR** | **Muntele Rosu** | **18.08** | **264** | ↑P | | **P** | **00 02 26.4** | **+0.5** |
| **MLR** | **Muntele Rosu** | **18.08** | **264** | P | | **P** | **00 02 26.4** | **+0.5** |
| **ARCR** | **ARCALIA** | **18.45** | **270** | ↓*i*P | | **P** | **00 02 28.0** | **-1.9** |
| **VOIR** | | **18.67** | **264** | ↑*i*P | | **P** | **00 02 30.4** | **-1.9** |
| **VOIR** | | **18.67** | **264** | ↑P | | **P** | **00 02 30.4** | **-1.9** |
| **VOIR** | | **18.67** | **264** | P | | **P** | **00 02 30.4** | **-1.9** |
| **CJR** | **Cluj-Napoca** | **19.07** | **269** | ↓*i*P | | **Pn** | **00 02 38.3** | **+0.6** |
| **CJR** | **Cluj-Napoca** | **19.07** | **269** | ↓P | | **Pn** | **00 02 38.3** | **+0.6** |
| **CJR** | **Cluj-Napoca** | **19.07** | **269** | P | | **Pn** | **00 02 38.3** | **+0.6** |
| **DRGR** | | **19.61** | **270** | ↓*i*P | | **P** | **00 02 42.8** | **+0.2** |
| **DRGR** | | **19.61** | **270** | ↓P | | **P** | **00 02 42.8** | **+0.2** |
| **DRGR** | | **19.61** | **270** | P | | **P** | **00 02 42.8** | **+0.2** |
| **STHS** | **Stebnicka Huta** | **19.70** | **278** | *e*P | | **Pn** | **00 02 48.7** | **+3.6** |
| **ZALV** | **Zalesovo Beam** | **20.28** | **68** | P | | **P** | **00 02 52.1** | **+2.4** |
| | comp=Z,1.8nm,0.5s,baz=272,slow=9.9,SNR=6.7 | | | | | | | |
| ZALV | | | | S | | **S** | **00 06 32.7** | **-2.3** |
| | comp=Z,1.4nm,0.7s,baz=277,slow=25,SNR=3.5 | | | | | | | |
| **MKAR** | **Makanchi Array** | **20.31** | **89** | P | | Pn | 00 02 53.4 | +1.0 |
| | comp=Z,0.9nm,0.8s,baz=282,slow=9.1,SNR=9.0 | | | | | | | |
| **MKAR** | **Makanchi Array** | **20.31** | **89** | *e*P | | Pn | 00 02 54.8 | +2.4 |
| MKAR | | | | pmax | | pmax | | |
| | comp=Z,1.0nm,0.8s | | | | | | | |
| **MKAR** | **Makanchi Array** | **20.31** | **89** | *e*P | | Pn | 00 02 54.8 | +2.4 |
| | comp=Z,1.0nm,0.8s | | | | | | | |
| **BZS** | **Buzias** | **20.77** | **268** | ↑*i*P | | Pn | 00 02 57.5 | -0.2 |
| **BZS** | **Buzias** | **20.77** | **268** | ↑P | | Pn | 00 02 57.5 | -0.2 |
| **BZS** | **Buzias** | **20.77** | **268** | P | | Pn | 00 02 57.5 | -0.2 |
| **VYHS** | **Vyhne** | **21.48** | **277** | *e*P | | **P** | **00 03 04.0** | **+1.2** |
| **VYHS** | **Vyhne** | **21.48** | **277** | *e*P | | **P** | **00 03 04.0** | **+1.2** |
| **ASF** | **Jabal al Asfar** | **21.54** | **217** | P | | **P** | **00 03 04.3** | **+0.7** |
| | comp=Z,2.4nm,0.7s,baz=83,slow=8.2,SNR=4.2 | | | | | | | |
| **MORC** | **Moravsky Berou** | **21.93** | **281** | ↓*i*P | | **P** | **00 03 08.0** | **+0.4** |
| **MORC** | **Moravsky Berou** | **21.93** | **281** | ↓P | | **P** | **00 03 08.0** | **+0.4** |
| **MORC** | **Moravsky Berou** | **21.93** | **281** | P | | **P** | **00 03 08.0** | **+0.4** |
| **DGZ** | **Jazzator, Alta** | **22.62** | **78** | ↓*i*P | | **P** | **00 03 20.5** | **+5.3** |
| DGZ | | | | pmax | | pmax | | |
| | comp=Z,2.0nm,0.9s | | | | | | | |
| **DGZ** | **Jazzator, Alta** | **22.62** | **78** | *i* P | | **P** | **00 03 20.5** | **+5.3** |
| | comp=Z,2.0nm,0.9s | | | | | | | |
| **ARCES** | **ARCESS Array B** | **22.74** | **336** | P | | **P** | **00 03 15.8** | **-0.2** |
| | comp=Z,2.0nm,0.6s,baz=139,slow=9.9,SNR=16 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **22.74** | **336** | *e*P | | **P** | **00 03 16.9** | **+0.8** |
| ARCES | | | | pmax | | pmax | | |
| | comp=Z,2.0nm,0.6s | | | | | | | |
| **ARCES** | **ARCESS Array B** | **22.74** | **336** | *e*P | | **P** | **00 03 16.9** | **+0.8** |
| | comp=Z,2.0nm,0.6s | | | | | | | |
| **HFS** | **Hagfors** | **23.40** | **309** | P | | **P** | **00 03 22.3** | **-0.4** |
| | comp=Z,2.4nm,0.6s,baz=106,slow=10,SNR=10 | | | | | | | |
| **EIL** | **Elat** | **24.52** | **218** | P | | **P** | **00 03 35.4** | **+1.9** |
| | comp=Z,2.1nm,0.5s,baz=10,slow=8.2,SNR=4.5 | | | | | | | |
| **GERES** | **GERESS Array B** | **24.60** | **281** | P | | **P** | **00 03 34.4** | **+0.2** |
| | comp=Z,0.3nm,0.4s,baz=80,slow=8.1,SNR=3.5 | | | | | | | |
| **NB2** | **NORSAR Subarra** | **24.72** | **311** | P | | **P** | **00 03 33.9** | **-1.2** |
| | comp=Z,2.9nm,0.8s,baz=97,slow=11 | | | | | | | |
| **NB2** | **NORSAR Subarra** | **24.72** | **311** | P | | **P** | **00 03 33.9** | **-1.2** |
| | comp=Z,2.9nm,0.8s,SNR=6.7 | | | | | | | |
| **NOA** | **NORSAR Array B** | **24.72** | **311** | P | | **P** | **00 03 34.7** | **-0.4** |
| | comp=Z,1.7nm,0.6s,baz=96,slow=9.6,SNR=6.5 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **55.18** | **246** | P | | **P** | **00 07 47.4** | **+0.8** |
| | comp=Z,0.9nm,0.5s,baz=36,slow=7.5,SNR=17 | | | | | | | |
| **DBIC** | **Dimbokro** | **64.19** | **247** | P | | **P** | **00 08 48.9** | **+0.3** |
| | comp=Z,1.7nm,0.6s,baz=36,slow=7.1,SNR=4.0 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **66.72** | **353** | P | | **P** | **00 09 06.5** | **+2.2** |
| | comp=Z,0.5nm,0.6s,baz=5.2,slow=6.6,SNR=22 | | | | | | | |

---

*IDC **31** 00:19:15.7±0.7,56.°73S×142.°48W,h0km,mb4.2/5, mb1 4.3/5,mb1mx4.0/31,mbtmp4.2/5,MS4.8/22, Ms1 4.8/22,ms1mx4.8/26,Error ellipse: s-maj=42.1km s-min=21.8km az=1.0*
*ISCJB **31** 00:19:16.7±0.5,57.°08S±0.°07×142.°5W±0.°2,h10km, mb4.7/15,MS5.1/128,Error ellipse: s-maj=14.5km s-min=9.8km az=5.1*
*GCMT **31** 00:19:18.1±0.1,56.°78S×142.°35W,h21km,MW5.7/134, Moment Tensor Solution. s124,c226; s134,c361; Duration: 1s7 Moment tensor: Scale 10^17^Nm; Mrr-0.38±.04; Mθθ3.62±.04; Mϕϕ-3.24±.04; Mrθ-0.50±.08; Mθϕ2.52±.04; Mϕr-0.35±.08; Best double couple: M0 4.29500×10^17^ NP1:ϕs207.00000°, δ87.00000°, λ173.00000°. NP2:ϕs297.00000°, δ83.00000°, λ3.00000°. Principal axes: T 4.5150, Plg7.0000°, Azm162.0000°; N -0.4440, Plg83.0000°, Azm5.0000°; P -4.0750, Plg3.0000°, Azm252.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*
*NEIC **31** 00:19:18.0±0.0,58.°52S×141.°21W,h25km,Moment Tensor Solution. s18 Moment tensor: Scale 10^17^Nm; Mrr0.48; Mθθ1.99; Mϕϕ-2.47; Mrθ-1.35; Mθϕ2.57; Mϕr-1.35; Best double couple: M0 3.90000×10^17^ NP1:ϕs198.00000°, δ79.00000°, λ153.00000°. NP2:ϕs294.00000°, δ64.00000°, λ13.00000°. Principal axes: T 4.0700, Plg26.0000°, Azm152.0000°; N -0.3100, Plg61.0000°, Azm356.0000°; P -3.7600, Plg10.0000°, Azm248.0000°.*
*NEIC **31** 00:19:18.1±0.5,56.°96S×142.°46W,h10km,mb5.3/8, MS5.2/109,MW5.7 Error ellipse: s-maj=18.4km s-min=14.2km az=177.0*
**ISC 31 00:19:18.6±0.5,57.°05S±0.°08×142.°38W±0.°09,h10km, n189,σ1s57/41,mb4.6/15,MS5.2/129,1C-1D, Pacific-Antarctic Ridge**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | | h m s | ISC |
| **SBA** | **Scott Base** | **26.93** | **201** | P | | **P** | **00 25 00.8** | **+1.4** |
| | 1.6nm,0.8s | | | | | | | |
| SBA | | | | LR | | LR | | |
| | comp=Z,4μm,21.0s | | | | | | | |
| **VNDA** | **Vanda** | **27.83** | **203** | LR | | LR | 00 32 50.0 | |
| | comp=Z,2μm,21.5s,baz=76,slow=29 | | | | | | | |
| **SNZO** | **South Karori** | **31.54** | **281** | PFAKE | | | 00 25 50.0 | +9.4 |
| SNZO | | | | LR | | LR | | |
| | comp=Z,6μm,20.0s | | | | | | | |
| **QSPA** | **South Pole Qui** | **33.10** | **180** | *e*P | | **P** | **00 25 54.7** | **+0.4** |
| | comp=Z,67nm,1.0s | | | | | | | |
| QSPA | | | | LR | | LR | | |
| | comp=Z,4μm,22.0s | | | | | | | |
| **PTCN** | **Pitcairn Islan** | **33.16** | **21** | PFAKE | | | 00 26 10.0 | +15 |
| PTCN | | | | LR | | LR | | |
| | comp=Z,4μm,21.0s | | | | | | | |
| **RKT** | **Rikitea** | **34.33** | **12** | *e*S | | **S** | **00 31 33.6** | **+1.3** |
| | comp=Z,514nm,24.2s | | | | | | | |
| RKT | | | | *e*LQ | | LQ | 00 33 28.2 | |
| | comp=Z,5μm,31.0s | | | | | | | |
| RKT | | | | *e*LR | | LR | 00 34 51.9 | |
| | comp=Z,8μm,29.5s,baz=188 | | | | | | | |
| **RKT** | **Rikitea** | **34.33** | **12** | *e*T | | T | 01 01 12.7 | |
| | comp=Z,28nm,0.3s | | | | | | | |
| **PMSA** | **Palmer Station** | **36.48** | **135** | P | | **P** | **00 26 24.5** | **+1.2** |
| | comp=Z,1.1nm,0.4s | | | | | | | |
| PMSA | | | | LR | | LR | | |
| | comp=Z,3μm,21.0s | | | | | | | |
| **RAO** | **Raoul Island** | **37.27** | **303** | LR | | LR | 00 37 45.7 | |
| | comp=Z,719nm,21.6s,baz=159,slow=30 | | | | | | | |
| **RAO** | **Raoul Island** | **37.27** | **303** | PFAKE | | | 00 26 40.0 | +10 |
| RAO | | | | LR | | LR | | |
| | comp=Z,3μm,22.0s | | | | | | | |
| **RAR** | **Rarotonga** | **38.02** | **333** | PFAKE | | | 00 26 50.0 | +13 |
| RAR | | | | LR | | LR | | |
| | comp=Z,9μm,21.0s | | | | | | | |
| **TVO** | **Taravao** | **39.54** | **350** | *e*T | | T | 01 07 33.0 | |
| | comp=Z,4.8nm,0.2s | | | | | | | |
| **PAE** | **Paea** | **39.70** | **349** | *e*T | | T | 01 07 44.5 | |
| | comp=Z,7.9nm,0.2s | | | | | | | |
| **PPT2** | **Papeete2** | **39.77** | **349** | *e*S | | **S** | **00 32 53.4** | **-2.0** |
| | comp=Z,1μm,25.8s | | | | | | | |
| PPT2 | | | | *e*LR | | LR | 00 37 11.0 | |
| | comp=Z,13μm,27.8s,baz=175 | | | | | | | |
| **PPT2** | **Papeete2** | **39.77** | **349** | *e*T | | T | 01 07 50.4 | |
| | comp=Z,20nm,0.3s | | | | | | | |
| **TIAR** | **Tiarei** | **39.77** | **350** | *e*T | | T | 01 07 50.5 | |
| | comp=Z,7.1nm,0.3s | | | | | | | |
| **PPT** | **Papeete** | **39.79** | **349** | LR | | LR | 00 38 57.7 | |
| | comp=Z,3μm,18.7s,baz=172,slow=30 | | | | | | | |
| **VAH** | **Vaihoa** | **41.93** | **352** | *e*T | | T | 01 10 33.1 | |
| | comp=Z,144nm,0.3s | | | | | | | |
| **PMOR** | **Pomariorio Ree** | **42.18** | **352** | *e*T | | T | 01 10 52.0 | |
| | comp=Z,13nm,0.3s | | | | | | | |
| **TAU** | **Tasmania Unive** | **45.29** | **257** | PFAKE | | | 00 27 50.0 | +14 |
| TAU | | | | LR | | LR | | |
| | comp=Z,3μm,21.0s | | | | | | | |
| **EFI** | **East Falkland** | **46.45** | **121** | P | | **P** | **00 27 45.8** | **+0.7** |
| | comp=Z,24nm,1.0s | | | | | | | |
| EFI | | | | LR | | LR | | |
| | comp=Z,1μm,21.0s | | | | | | | |
| **PLCA** | **Paso Flores** | **47.63** | **102** | P | | **P** | **00 27 53.4** | **-1.3** |
| | comp=Z,2.5nm,0.9s,baz=230,slow=7.9,SNR=3.0 | | | | | | | |
| **VNA3** | **Neumayer Olymp** | **47.73** | **161** | P | | **P** | **00 27 54.2** | **-0.8** |
| **TAOE** | **Nuku Hiva Isla** | **48.11** | **3** | *e*S | | **S** | **00 34 57.2** | **0.0** |
| | comp=Z,1μm,25.1s | | | | | | | |
| TAOE | | | | *e*LQ | | LQ | 00 38 57.0 | |
| | comp=Z,5μm,28.5s | | | | | | | |
| TAOE | | | | *e*LR | | LR | 00 41 12.8 | |
| | comp=Z,7μm,27.7s,baz=198 | | | | | | | |
| **VNA2** | **Neumayer--Watz** | **48.40** | **162** | P | | **P** | **00 27 59.2** | **-0.8** |
| | baz=211,slow=7.2 | | | | | | | |
| **SNAA** | **Sanae** | **48.48** | **164** | P | | **P** | **00 28 00.2** | **-0.5** |
| **SNAA** | **Sanae** | **48.48** | **164** | *e*P | | **P** | **00 27 59.1** | **-1.7** |
| **VNA1** | **Neumayer--Stat** | **48.48** | **161** | P | | **P** | **00 28 00.2** | **-0.4** |
| **AFI** | **Afiamalu** | **48.52** | **320** | PFAKE | | | 00 28 10.0 | +8.4 |
| AFI | | | | LR | | LR | | |
| | comp=Z,5μm,22.0s | | | | | | | |
| **MSVF** | **Nonsavu** | **49.08** | **307** | PFAKE | | | 00 28 20.0 | +14 |
| MSVF | | | | LR | | LR | | |
| | comp=Z,3μm,22.0s | | | | | | | |
| **CAN** | **Canberra** | **49.84** | **265** | PFAKE | | | 00 28 20.0 | +8.4 |
| CAN | | | | LR | | LR | | |
| | comp=Z,2μm,19.0s | | | | | | | |
| **DZM** | **Mont Dzumac** | **50.90** | **291** | LR | | LR | 00 46 33.3 | |
| | comp=Z,2μm,18.3s,baz=188,slow=32 | | | | | | | |
| **DZM** | **Mont Dzumac** | **50.90** | **291** | *e*S | | **S** | **00 35 40.2** | **+4.0** |
| | comp=Z,337nm,26.6s | | | | | | | |
| DZM | | | | *e*LQ | | LQ | 00 40 46.5 | |
| | comp=Z,8μm,26.4s | | | | | | | |
| DZM | | | | *e*LR | | LR | 00 42 53.8 | |
| | comp=Z,4μm,24.9s | | | | | | | |
| **HOPE** | **Hope Point** | **53.80** | **136** | PFAKE | | | 00 28 50.0 | +9.3 |
| HOPE | | | | LR | | LR | | |
| | comp=Z,2μm,21.0s | | | | | | | |
| **TRQA** | **Tornquist** | **54.12** | **106** | *e*P | | **P** | **00 28 44.0** | **+0.6** |
| | comp=Z,7.0nm,1.0s | | | | | | | |
| TRQA | | | | LR | | LR | | |
| | comp=Z,755nm,21.0s | | | | | | | |
| **SYO** | **Syowa Base** | **54.23** | **181** | ↓*e*P | | **P** | **00 28 41.6** | **-2.1** |
| **SYO** | **Syowa Base** | **54.23** | **181** | ↑*e*PcP | | **PcP** | **00 29 46.0** | **-1.9** |
| **MAW** | **Mawson** | **54.25** | **192** | P | | **P** | **00 28 45.1** | **+1.2** |
| | comp=Z,4.5nm,0.9s,baz=161,slow=9.2,SNR=6.2 | | | | | | | |
| MAW | | | | LR | | LR | 00 49 05.9 | |
| | comp=Z,2μm,21.7s,baz=156,slow=33 | | | | | | | |
| **LCO** | **Las Campanas** | **56.32** | **92** | PFAKE | | | 00 29 10.0 | +10 |
| LCO | | | | LR | | LR | | |
| | comp

KAPI LR LR
comp=Z,1μm,20.0s
**PCRV Puerto La Cruz 91.88 74** LR LR 01 07 51.6
comp=Z,1μm,21.9s,slow=32
**TXAR Lajitas Array 92.06 33** LR LR 01 04 05.7
comp=Z,329nm,21.4s,baz=0,slow=29
**MTDJ Mount Denham 92.27 59** PFAKE 00 32 40.0 +11
MTDJ LR LR
comp=Z,363nm,20.0s
**PFO Pinyon Flats O 92.94 21** PFAKE 00 32 40.0 +8.5
PFO LR LR
comp=Z,2μm,20.0s
**TUC Tucson 92.95 26** PFAKE 00 32 40.0 +8.5
TUC LR LR
comp=Z,1μm,22.0s
**MNTX Cornudas Mount 93.78 31** PFAKE 00 32 50.0 +15
MNTX LR LR
comp=Z,2μm,22.0s
**RCBR Riachuelo 94.00 107** PFAKE 00 32 50.0 +13
RCBR LR LR
comp=Z,577nm,22.0s
**BOSA Boshof 94.03 169** LR LR 01 13 45.9
comp=Z,743nm,18.3s,baz=188,slow=35
**JCT Junction City 94.32 36** PFAKE 00 32 50.0 +12
JCT LR LR
comp=Z,577nm,20.0s
**GTBY Guantanamo Bay 94.88 61** PFAKE 00 32 50.0 +9.4
GTBY LR LR
comp=Z,715nm,21.0s
**WUAZ Wupatki 95.87 25** PFAKE 00 33 00.0 +15
WUAZ LR LR
comp=Z,1μm,21.0s
**SDDR Presa de Saban 95.93 64** PFAKE 00 33 00.0 +15
SDDR LR LR
comp=Z,412nm,20.0s
**ANMO Albuquerque 96.55 29** PFAKE 00 33 00.0 +12
ANMO LR LR
comp=Z,1μm,20.0s
**DAV Davao City (W) 96.99 272** PFAKE 00 33 00.0 +10
DAV LR LR
comp=Z,269nm,21.0s
**NVAR Mina Array Bea 97.27 19** LR LR 01 06 31.8
comp=Z,1μm,20.9s,baz=204,slow=29
**FDF Fort de France 97.53 75** PFAKE 00 33 00.0 +7.2
FDF LR LR
comp=Z,727nm,20.0s
**SJG San Juan 97.77 69** LR LR 01 09 33.4
comp=Z,148nm,18.7s,baz=224,slow=31
**MVCO Mesa Verde 98.17 27** PFAKE 00 33 10.0 +15
MVCO LR LR
comp=Z,788nm,19.0s
**SHEL Horse Pasture 98.82 138** PFAKE 00 33 10.0 +11
SHEL LR LR
comp=Z,388nm,20.0s
**SDCO Great Sand Dun 99.44 29** PFAKE 00 33 10.0 +8.9
SDCO LR LR
comp=Z,1μm,21.0s
**ANWB Willy Bob 99.64 73** PFAKE 00 33 10.0 +7.9
ANWB LR LR
comp=Z,421nm,19.0s
**YBH Yreka Blue Hor 99.80 15** LR LR 01 07 51.9
comp=Z,1μm,19.5s,baz=142,slow=29
**DUG Dugway, Tooele 100.04 23** PFAKE 00 33 10.0 +6.5
DUG LR LR
comp=Z,976nm,20.0s
**KSM Kuching 100.60 256** PFAKE 00 33 20.0 +13
KSM LR LR
comp=Z,506nm,20.0s
**WVOR Wild Horse Val 101.11 18** PFAKE 00 33 20.0 +12
WVOR LR LR
comp=Z,930nm,21.0s
**KKM Kota Kinabalu 101.25 264** PFAKE 00 33 20.0 +10
KKM LR LR
comp=Z,476nm,20.0s
**ISCO Idaho Springs 101.35 28** PFAKE 00 33 20.0 +10
ISCO LR LR
comp=Z,947nm,19.0s
**H10S3 ASCENSION HYDR 101.58 127** T T 02 27 49.0
baz=207,slow=75,SNR=22
**H10S2 ASCENSION HYDR 101.59 127** T T 02 27 58.6
baz=207,slow=75,SNR=22
**H10S1 ASCENSION HYDR 101.60 127** T T 02 27 50.4
baz=207,slow=75,SNR=13
**CBKS Cedar Bluff 102.05 33** PFAKE 00 33 20.0 +7.6
CBKS LR LR
comp=Z,724nm,22.0s
**ASCN Ascension 102.63 127** PFAKE 00 33 30.0 +14
ASCN LR LR
comp=Z,690nm,19.0s
**H10N3 ASCENSION HYDR 102.65 127** T T 02 29 19.6
baz=207,slow=75,SNR=13
**H10N1 ASCENSION HYDR 102.65 127** T T 02 29 12.6
baz=207,slow=75,SNR=13
**H10N2 ASCENSION HYDR 102.66 127** T T 02 29 15.3
baz=207,slow=75,SNR=19
**AHID Auburn Hatcher 102.87 23** PFAKE 00 33 30.0 +14
AHID LR LR
comp=Z,946nm,19.0s
**HLID Hailey 102.96 20** PFAKE 00 33 30.0 +14
HLID LR LR
comp=Z,2μm,20.0s
**BW06 Boulder Array 103.21 24** PFAKE 00 33 30.0 +12
BW06 LR LR
comp=Z,1μm,20.0s
**OGNE Ogallala 103.37 30** PFAKE 00 33 30.0 +12
OGNE LR LR
comp=Z,1μm,20.0s
**BMO Blue Mountains 103.69 18** PFAKE 00 33 30.0 +10
BMO LR LR
comp=Z,980nm,20.0s
**ABPO Ambohimpanom 103.80 189** PFAKE 00 33 30.0 +9.0
ABPO LR LR
comp=Z,677nm,20.0s
**LKWY Lake 104.74 23** PFAKE 00 33 40.0 +16
LKWY LR LR
comp=Z,1μm,20.0s
**HAWA Hanford 104.83 16** PFAKE 00 33 40.0 +16
HAWA LR LR
comp=Z,1μm,20.0s
**BOZ Bozeman (W) 105.47 22** PFAKE 00 37 50.0
BOZ LR LR
comp=Z,774nm,19.0s
**NEW Newport 107.03 17** PFAKE 00 37 50.0
NEW LR LR
comp=Z,829nm,22.0s
**ECSD EROS Data Cent 107.50 33** PFAKE 00 38 00.0
ECSD LR LR
comp=Z,1μm,20.0s
**LSZ Lusaka 107.52 170** PFAKE 00 38 00.0
LSZ LR LR
comp=Z,1μm,19.0s
**LAO LASA Array 107.68 25** PFAKE 00 38 00.0
LAO LR LR
comp=Z,1μm,21.0s
**EGMT Eagleton 108.17 22** PFAKE 00 38 00.0
EGMT LR LR
comp=Z,309nm,20.0s
**KULM Kulim 108.87 250** PFAKE 00 38 00.0
KULM LR LR
comp=Z,440nm,20.0s
**DGMT Dagmar 109.83 26** PFAKE 00 38 00.0
DGMT LR LR
comp=Z,803nm,19.0s
**BBSR BB Station 110.34 62** PFAKE 00 38 00.0
BBSR LR LR
comp=Z,301nm,19.0s
**YHNB Yeheng 113.68 279** PFAKE 00 38 10.0
YHNB LR LR
comp=Z,610nm,21.0s
**MAJO Matsushiro 114.56 300** PFAKE 00 38 10.0 +12
MAJO LR LR
comp=Z,393nm,21.0s
**KDAK Kodiak Island 114.78 354** PFAKE 00 38 10.0 +12
KDAK LR LR
comp=Z,1μm,22.0s
**QIZ Qiongzhong 115.42 266** PFAKE 00 38 10.0 +10
QIZ LR LR
comp=Z,541nm,20.0s
**FFC Flin Flon 116.16 25** PFAKE 00 38 10.0 +9.4
FFC LR LR
comp=Z,665nm,19.0s
**ERM Erimo 116.70 307** PFAKE 00 38 10.0 +8.0
ERM LR LR
comp=Z,982nm,20.0s
**MSEY Mahe Island 116.78 200** *e*PKPdf **PKPdf 00 38 03.5 +0.2**
MSEY LR LR
comp=Z,934nm,21.0s
**PET Petropavlovsk 119.82 323** PFAKE 00 38 20.0 +12
PET LR LR
comp=Z,1μm,20.0s
**YSS Yuzh-Sakhalins 120.82 310** PFAKE 00 38 20.0 +10
YSS LR LR
comp=Z,223nm,19.0s
**CMAR Chiang Mai Arr 120.83 256** PKP **PKPdf 00 38 09.5 -1.3**
comp=Z,0.3nm,0.5s,baz=210,slow=2.9,SNR=2.9
**INCN Inchon 120.99 292** PFAKE 00 38 20.0 +9.5
INCN LR LR
comp=Z,354nm,21.0s
**CHTO Chiang Mai 121.12 256** *e*PKPdf **PKPdf 00 38 11.8 +0.5**
CHTO LR LR
comp=Z,431nm,22.0s
**YKA Yellowknife Ar 121.15 15** PKKPbc PKKPbc 00 48 09.7 -2.2
comp=Z,0.2nm,0.7s,baz=13,slow=4.3,SNR=5.8
**EGAK Eagle 121.51 1** PFAKE 00 38 20.0 +9.4
EGAK LR LR
comp=Z,1μm,19.0s
**ILAR Eielson Array 121.55 358** PKP **PKPdf 00 38 10.6 -0.1**
comp=Z,2.1nm,1.0s,baz=201,slow=2.2,SNR=5.5
**COLA College 121.67 357** PFAKE 00 38 20.0 +9.2
COLA LR LR
comp=Z,1μm,19.0s
**KMBO Kilima Mbogo 122.00 180** PFAKE 00 38 20.0 +6.4
KMBO LR LR
comp=Z,1μm,22.0s
**ENH Enshi 124.55 273** PFAKE 00 38 30.0 +12
ENH LR LR
comp=Z,108nm,22.0s
**MDJ Mudanjiang 124.94 299** PFAKE 00 38 30.0 +12
MDJ LR LR
comp=Z,491nm,22.0s
**BJT Baijiatuau 128.29 286** PFAKE 00 38 40.0 +16
BJT LR LR
comp=Z,518nm,21.0s
**HIA Hailar 132.99 297** PFAKE 00 38 40.0 +7.0
HIA LR LR
comp=Z,474nm,22.0s
**LSA Lhasa 134.06 257** PFAKE 00 38 50.0 +14
LSA LR LR
comp=Z,315nm,21.0s
**YAK Yakutsk 136.83 316** PFAKE 00 38 50.0 +10
YAK LR LR
comp=Z,501nm,21.0s
**ULN Ulaanbaatar 138.45 288** PFAKE 00 38 50.0 +6.6
ULN LR LR
comp=Z,281nm,22.0s
**TAM Tamanrasset 138.57 132** PFAKE 00 39 00.0 +16
TAM LR LR
comp=Z,354nm,19.0s
**SONM Songino Array 138.78 288** PKhKP PKPpre 00 38 38.0
comp=Z,0.2nm,0.3s,baz=70,slow=1.7,SNR=3.6
**RTC Rabat Centre 142.19 108** PFAKE 00 39 00.0 +10
RTC LR LR
comp=Z,1μm,20.0s
**TIXI Tiksi 142.24 329** PFAKE 00 39 00.0 +11
TIXI LR LR
comp=Z,434nm,20.0s
**TLY Talaya 142.52 291** PFAKE 00 39 00.0 +10
TLY LR LR
comp=Z,290nm,21.0s
**RAYN Ar Rayn 146.01 193** PFAKE 00 39 10.0 +11
RAYN LR LR
comp=Z,583nm,22.0s
**PAB San Pablo 147.70 105** PFAKE 00 39 10.0 +5.0
PAB LR LR
comp=Z,463nm,19.0s
**ESDC Sonseca Array 148.00 105** PKPbc **PKPdf 00 39 00.1 -0.2**
comp=Z,1.3nm,0.7s,baz=262,slow=1.7,SNR=7.2
**MKAR Makanchi Array 151.10 269** PKPbc **PKPbc 00 39 08.0 -2.9**
comp=Z,3.1nm,0.7s,baz=246,slow=2.0,SNR=10
**AAK Ala-Archa 152.59 254** PKPbc **PKPbc 00 39 14.2 -0.3**
comp=Z,1.0nm,0.7s,baz=315,slow=1.4,SNR=3.1
**AAK Ala-Archa 152.59 254** PKPbc **PKPbc 00 39 14.2 -0.3**
AAK LR LR
comp=Z,301nm,21.0s
**ZALV Zalesovo Beam 153.50 284** PKPbc **PKPbc 00 39 15.8 -0.1**
comp=Z,0.4nm,0.3s,baz=27,slow=1.9,SNR=2.5
ZALV PKPab **PKPab 00 39 26.6 -1.9**
comp=Z,1.4nm,0.6s,baz=135,slow=2.2,SNR=5.2
**CLTB Caltabellotta 154.68 130** PFAKE 00 39 20.0 +0.9
CLTB LR LR
comp=Z,418nm,19.0s
**KURK Kurchatov 155.32 273** *e*PKP **PKPdf 00 39 15.4 +4.6**
KURK PKPbc PKPbc 00 39 20.8
KURK LR LR
comp=Z,546nm,20.0s
**KURBB Kurchatov Arra 155.32 272** PKPbc PKPdf 00 39 20.8 +10
comp=Z,0.6nm,0.8s,baz=109,slow=2.0,SNR=3.3
**SSB Saint Sauveur 156.40 106** PFAKE 00 39 20.0 +7.4
SSB LR LR
comp=Z,621nm,19.0s
**KBS Kingsbay 156.48 12** PFAKE 00 39 20.0 +8.3
KBS LR LR
comp=Z,583nm,20.0s
**BNI Bardonecchia 157.37 109** PFAKE 00 39 20.0 +6.0
BNI LR LR
comp=Z,462nm,19.0s
**TIP Timpagrande 157.49 134** PFAKE 00 39 20.0 +5.8
TIP LR LR
comp=Z,614nm,21.0s
**CSS Mathiatis 157.71 171** PFAKE 00 39 30.0 +15
CSS LR LR
comp=Z,108nm,21.0s
**SANT Santorini 157.76 153** PFAKE 00 39 30.0 +15
SANT LR LR
comp=Z,455nm,22.0s
**CUC Castrocucco 157.81 131** PFAKE 00 39 30.0 +15
CUC LR LR
comp=Z,388nm,20.0s
**VLC Villacollemand 158.61 115** PFAKE 00 39 30.0 +15
VLC LR LR
comp=Z,550nm,21.0s
**AQU L'Aquila 158.68 123** PFAKE 00 39 30.0 +14
AQU LR LR
comp=Z,701nm,19.0s
**ECH Echery 159.66 103** PFAKE 00 39 30.0 +14
ECH LR LR
comp=Z,377nm,22.0s
**TUE Stuetta 159.70 109** PFAKE 00 39 30.0 +13
TUE LR LR
comp=Z,628nm,21.0s
**WLF Walferdange 159.96 98** PFAKE 00 39 30.0 +13
WLF LR LR
comp=Z,497nm,21.0s
**BFO Black Forest 160.35 104** PFAKE 00 39 30.0 +13
BFO LR LR
comp=Z,438nm,22.0s
**TIR Tirane 160.56 136** PFAKE 00 39 30.0 +12
TIR LR LR
comp=Z,674nm,21.0s
**BVAR Borovoye Array 160.91 272** PKPab **PKPab 00 39 58.1 -2.4**
comp=Z,1.8nm,0.8s,baz=90,slow=1.5,SNR=4.5
**BRVK Borovoye 160.98 272** *e*PKPdf **PKPdf 00 39 18.5 +0.8**
BRVK LR LR
comp=Z,324nm,20.0s
**GNI Garni 162.46 198** PFAKE 00 39 30.0 +10
GNI LR LR
comp=Z,673nm,20.0s
**BRTR Keskin Array B 162.47 170** PKPab **PKPab 00 40 09.1 +1.4**
comp=Z,1.5nm,1.0s,baz=180,slow=5.6,SNR=4.6
**ANTO Ankara 162.52 168** PFAKE 00 39 30.0 +10
ANTO LR LR
comp=Z,442nm,21.0s
**CLL Collm 164.53 101** *e*PSKS 00 54 36.0
CLL *e*SS SS 01 04 30.0 -5.4
CLL *e*SSS SSS 01 11 00.0
CLL LmV 01 59 00.0
comp=Z,500nm,20.5s
**PSZ Piszkesteto 165.89 123** PFAKE 00 39 30.0 +7.4
PSZ LR LR
comp=Z,496nm,20.0s
**AKTO Aktyubinsk 166.26 250** PKPab **PKPab 00 40 23.7 -0.4**
comp=Z,1.1nm,0.4s,baz=131,slow=4.3,SNR=4.5
**KEV Kevo 166.43 16** PFAKE 00 39 30.0 +7.8
KEV LR LR
comp=Z,652nm,20.0s
**KIV Kislovodsk 166.50 196** PFAKE 00 39 30.0 +6.7
KIV LR LR
comp=Z,440nm,21.0s
**ARU Arti 168.49 276** PFAKE 00 39 30.0 +5.9
ARU LR LR
comp=Z,603nm,22.0s
**LVZ Lovozero 169.03 6** PFAKE 00 39 30.0 +5.8
LVZ LR LR
comp=Z,746nm,20.0s
**KIEV Kiev 171.93 139** PFAKE 00 39 40.0 +14
KIEV LR LR
comp=Z,822nm,21.0s
**OBN Obninsk 177.97 163** PFAKE 00 39 40.0 +12
OBN LR LR
comp=Z,1μm,20.0s

*IDC **31** 00:24:22.6±0.6,5°.46S×141°.54E,h0km,mb4.1/11, mb1 4.3/15,mb1mx4.2/31,mbtmp4.2/15,ML4.3/3,MS3.4/5, Ms1 3.4/5,ms1mx3.2/37,Error ellipse: s-maj=26.4km s-min=13.5km az=80.0*
*ISCJB **31** 00:24:24.1±1.5,5°.44S±0°.03×141°.54E±0°.04,h27km±10km, mb4.9/54,MS3.9/4,Error ellipse: s-maj=6.1km s-min=5.0km az=169.0*
*BJI **31** 00:24:24.1,5°.95S×141°.41E,h38km,mb4.4/24,mB5.0/19, Ms4.8/14,Ms7 4.4/14*
*NEIC **31** 00:24:26.3±0.8,5°.37S×141°.54E,h31km±5km,mb5.0/34, Error ellipse: s-maj=5.5km s-min=4.4km az=76.0*
**ISC 31 00:24:27.1±0.4,5°.52S±0°.05×141°.56E±0°.05,h39km±3km, h39km:pP-P,n122,σ1°66/136,mb4.9/54,MS4.0/4,1C,New Guinea**

| Code | Station Name | Δ° | AZ° | Phase | ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **MANU** | **Manus Island** | **6.74** | **59** | *e*Pn | **Pn** | **Pn** | **00 26 04.5** | **+0.9** |
| **PMG** | **Port Moresby** | **6.76** | **125** | Pn | **Pn** | **Pn** | **00 26 03.7** | **-0.2** |
| | 3.9nm,0.3s,baz=326,slow=7.0,SNR=12 | | | | | | | |
| PMG | | | | Sn | **Sn** | **Sn** | **00 27 18.6** | **-1.1** |
| | 7.3nm,0.3s,baz=324,slow=19,SNR=2.6 | | | | | | | |
| PMG | | | | LR | LR | LR | 00 29 03.4 | |
| | comp=Z,239nm,20.4s,baz=340,slow=41 | | | | | | | |
| **PMG** | **Port Moresby** | **6.76** | **125** | *e*Pn | **Pn** | **Pn** | **00 26 05.6** | **+1.6** |
| PMG | | | | Sn | **Sn** | **Sn** | **00 27 18.6** | **-1.1** |
| **COEN** | **Coen** | **8.54** | **169** | *e*Pn | **Pn** | **Pn** | **00 26 30.6** | **+2.3** |
| **FAKI** | **Fak Fak** | **9.64** | **285** | *e*Pn | **Pn** | **Pn** | **00 26 43.9** | **+0.6** |
| **SAUI** | **Saumlaki** | **10.48** | **256** | *e*Pn | **Pn** | **Pn** | **00 26 54.7** | **-0.2** |
| **MTN** | **Manton Dam** | **12.60** | **234** | *e*Pn | **Pn** | **Pn** | **00 27 24.1** | **+0.1** |
| **CTA** | **Charters Tower** | **15.19** | **163** | Pn | **P** | **P** | **00 28 02.1** | **-1.3** |
| | 0.2nm,0.3s,baz=333,slow=16,SNR=3.6 | | | | | | | |
| CTA | | | | LR | LR | LR | 00 34 26.7 | |
| | comp=Z,480nm,21.6s,baz=295,slow=40 | | | | | | | |
| **CTAO** | **Charters Tower** | **15.19** | **163** | *e*Pn | **Pn** | **Pn** | **00 28 00.7** | **+1.7** |
| | 94nm,1.8s | | | | | | | |
| **TNTI** | **Ternate** | **15.49** | **293** | *e*Pn | **Pn** | **Pn** | **00 28 02.8** | **-0.1** |
| | 108nm,1.4s | | | | | | | |
| **WRAB** | **Tennant Creek** | **15.96** | **205** | *e*Pn | **Pn** | **Pn** | **00 28 07.8** | **-1.1** |
| | 160nm,1.6s | | | | | | | |
| **WB2** | **Warramunga Arr** | **15.96** | **205** | *e*Pn | **Pn** | **Pn** | **00 28 09.3** | **+0.4** |
| | 41nm,0.8s | | | | | | | |
| **WRA** | **Warramunga Arr** | **15.97** | **205** | Pn | **Pn** | **Pn** | **00 28 07.6** | **-1.4** |
| | 1.0nm,0.3s,baz=28,slow=13,SNR=82 | | | | | | | |
| WRA | | | | Sn | **Sn** | **Sn** | **00 31 02.5** | **-2.6** |
| | 2.3nm,0.3s,baz=22,slow=22,SNR=4.4 | | | | | | | |
| **SOEI** | **Soe** | **17.64** | **255** | *e*Pn | **P** | **P** | **00 28 30.6** | **-0.3** |
| | 78nm,0.7s | | | | | | | |
| **HNR** | **Honiara** | **18.64** | **103** | LR | LR | LR | 00 35 32.6 | |
| | comp=Z,140nm,21.0s,baz=274,slow=36 | | | | | | | |
| **GUMO** | **Guam** | **19.26** | **10** | LR | LR | LR | 00 35 31.8 | |
| | comp=Z,94nm,18.3s,baz=156,slow=35 | | | | | | | |
| **AS01** | **Alice Springs** | **19.48** | **201** | *e*P | **Pn** | **Pn** | **00 28 53.7** | **+1.4** |
| **AS31** | **Alice Springs** | **19.49** | **201** | *e*P | **Pn** | **Pn** | **00 28 54.1** | **+1.6** |
| | 15nm,0.6s | | | | | | | |
| **ASAR** | **Alice Springs** | **19.50** | **201** | P | **Pn** | **Pn** | **00 28 54.0** | **+1.4** |
| | 2.8nm,0.3s,baz=30,slow=9.7,SNR=400 | | | | | | | |
| ASAR | | | | S | **S** | **S** | **00 32 23.8** | **-5.6** |
| | 0.7nm,0.3s,baz=22,slow=28,SNR=3.4 | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **19.96** | **230** | P | **Pn** | **Pn** | **00 28 58.0** | **0.0** |
| | 0.5nm,0.3s,baz=52,slow=11,SNR=17 | | | | | | | |
| FITZ | | | | S | **S** | **S** | **00 32 35.3** | **-3.4** |
| | 1.3nm,0.3s,baz=99,slow=15,SNR=4.0 | | | | | | | |
| **DAV** | **Davao City (W)** | **20.26** | **308** | LR | LR | LR | 00 38 50.1 | |
| | comp=Z,49nm,18.2s,baz=160,slow=43 | | | | | | | |
| **EIDS** | **Eidsvold** | **21.75** | **156** | *e*P | **P** | **P** | **00 29 17.7** | **+2.3** |
| | 28nm,0.8s | | | | | | | |
| **SARN** | **Sarigan** | **22.46** | **11** | *e*P | **P** | **P** | **00 29 20.9** | **-2.2** |
| **MYLDM** | **Lahad Datu** | **25.36** | **294** | *e*P | **P** | **P** | **00 29 49.9** | **-0.9** |
| | 26nm,0.9s | | | | | | | |
| **STKA** | **Stephens Creek** | **26.23** | **180** | P | **P** | **P** | **00 30 00.6** | **+2.1** |
| | 3.7nm,0.7s,baz=358,slow=9.5,SNR=11 | | | | | | | |
| **STKA** | **Stephens Creek** | **26.23** | **180** | *e*P | **P** | **P** | **00 30 00.6** | **+2.1** |
| | 2.1nm,0.8s | | | | | | | |
| **MBWA** | **Marble Bar** | **26.26** | **232** | *e*P | **P** | **P** | **00 30 00.8** | **+1.9** |
| | 58nm,1.8s | | | | | | | |
| **BBOO** | **Buckleboo** | **27.64** | **190** | *e*P | **P** | **P** | **00 30 12.8** | **+1.7** |
| | 51nm,1.9s | | | | | | | |
| **KKM** | **Kota Kinabalu** | **27.79** | **294** | *e*P | **P** | **P** | **00 30 11.7** | **-1.1** |
| | 33nm,1.2s | | | | | | | |
| **DZM** | **Mont Dzumac** | **29.16** | **127** | *e*P | **P** | **P** | **00 30 27.0** | **+2.0** |
| | 17nm,1.5s | | | | | | | |
| **CAN** | **Canberra** | **30.45** | **168** | *e*P | **P** | **P** | **00 30 37.2** | **+1.1** |
| | 34nm,1.5s | | | | | | | |
| **TARA** | **Tarawa** | **32.06** | **79** | *e*P | **P** | **P** | **00 30 50.7** | **+0.1** |
| | 202nm,1.5s | | | | | | | |
| **CBIJ** | **Chichi jima** | **32.42** | **1** | *e*P | **P** | **P** | **00 30 52.3** | **-1.3** |
| | 146nm,0.9s | | | | | | | |
| **CISI** | **Cisompet, Garu** | **33.58** | **265** | *e*P | **P** | **P** | **00 31 03.5** | **-0.5** |
| | 125nm,1.5s | | | | | | | |
| **YULB** | **Yu-li** | **34.89** | **326** | *e*P | **P** | **P** | **00 31 13.5** | **-1.5** |
| | 28nm,1.1s | | | | | | | |
| **NACB** | **Ninganchiao** | **35.35** | **327** | *e*P | **P** | **P** | **00 31 17.4** | **-1.7** |
| | 36nm,1.1s | | | | | | | |
| **SSLB** | **Suanglung** | **35.39** | **326** | *e*P | **P** | **P** | **00 31 17.9** | **-1.5** |
| | 33nm,1.2s | | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **35.46** | **217** | *e*P | **P** | **P** | **00 31 21.4** | **+1.5** |
| **TATO** | **Taipei** | **36.05** | **328** | *e*P | **P** | **P** | **00 31 24.2** | **-0.8** |
| | 845nm,2.0s | | | | | | | |
| **FUNA** | **Funafuti** | **37.46** | **97** | *e*P | **P** | **P** | **00 31 37.0** | **-0.3** |
| | 340nm,1.8s | | | | | | | |
| **MSVF** | **Nonsavu** | **37.66** | **112** | *e*P | **P** | **P** | **00 31 38.5** | **-0.5** |
| | 35nm,1.6s | | | | | | | |
| **JHJ2** | **Mitsune** | **38.45** | **358** | *e*P | **P** | **P** | **00 31 44.2** | **-1.0** |
| | 318nm,1.0s | | | | | | | |
| **QIZ** | **Qiongzhong** | **39.63** | **309** | P | **P** | **P** | **00 31 57.0** | **+1.6** |
| QIZ | | | | S | **S** | **S** | **00 37 56.8** | **+0.6** |
| QIZ | | | | LR | LR | LR | | |
| | comp=Z,150nm,27.2s | | | | | | | |
| **MAJO** | **Matsushiro** | **41.95** | **356** | *e*P | **P** | **P** | **00 32 13.8** | **-0.5** |
| | 60nm,1.8s | | | | | | | |
| **MJB9** | **Matsu-Tunnel** | **41.96** | **356** | *e*P | **P** | **P** | **00 32 13.4** | **-0.9** |
| | 61nm,1.8s | | | | | | | |
| **NJ2** | **Nanjing** | **43.17** | **331** | *e*P | **P** | **P** | **00 32 22.5** | **-1.7** |
| NJ2 | | | | pmax | pmax | pmax | | |
| | comp=Z,18nm,0.6s | | | | | | | |
| **PSI** | **Prapat** | **43.38** | **280** | *e*P | **P** | **P** | **00 32 24.8** | **-1.6** |
| | 11nm,1.1s | | | | | | | |
| **WHN** | **Wuhan** | **44.32** | **326** | P | **P** | **P** | **00 32 35.0** | **+1.6** |
| **GSI** | **Gunungsitoli** | **44.45** | **277** | *e*P | **P** | **P** | **00 32 34.2** | **-0.6** |
| | 14nm,1.1s | | | | | | | |
| **KS15** | **Wonju Array Si** | **44.60** | **344** | *e*P | **P** | **P** | **00 32 33.9** | **-1.6** |
| **KSAR** | **Wonju Array Be** | **44.60** | **344** | P | **P** | **P** | **00 32 37.5** | **+1.9** |
| **KSRS** | **Korea Array** | **44.60** | **345** | P | **P** | **P** | **00 32 37.4** | **+1.9** |
| | 0.4nm,0.4s,baz=155,slow=8.9,SNR=2.9 | | | | | | | |
| **DCZ** | **Deep Cove** | **45.60** | **155** | *e*P | **P** | **P** | **00 32 43.9** | **+0.5** |
| | 101nm,1.8s | | | | | | | |
| **MLZ** | **Mavora Lakes** | **45.94** | **154** | *e*P | **P** | **P** | **00 32 47.5** | **+1.3** |
| | 156nm,1.9s | | | | | | | |
| **LTZ** | **Lake Taylor** | **46.00** | **148** | *e*P | **P** | **P** | **00 32 48.1** | **+1.4** |
| | 172nm,1.9s | | | | | | | |
| **BKZ** | **Black Stump Fm** | **46.02** | **142** | *e*P | **P** | **P** | **00 32 47.7** | **+0.7** |
| | 184nm,1.9s | | | | | | | |
| **RPZ** | **Rata Peaks** | **46.05** | **150** | P | **P** | **P** | **00 32 48.6** | **+1.5** |
| | 13nm,0.9s,baz=297,slow=2.3,SNR=4.7 | | | | | | | |
| **LBZ** | **Lake Benmore** | **46.13** | **152** | *e*P | **P** | **P** | **00 32 48.8** | **+1.1** |
| | 33nm,1.1s | | | | | | | |
| **WHZ** | **Wether Hill Ro** | **46.28** | **155** | *e*P | **P** | **P** | **00 32 49.7** | **+0.8** |
| | 126nm,2.0s | | | | | | | |
| **SNZO** | **South Karori** | **46.32** | **145** | *e*P | **P** | **P** | **00 32 50.6** | **+1.4** |
| | 166nm,1.3s | | | | | | | |
| **CM01** | **Chiang Mai Arr** | **48.27** | **301** | *e*P | **P** | **P** | **00 33 03.6** | **-1.1** |
| CM01 | | | | *e*pP | **pP** | **P** | **00 33 16.3** | **+0.4** |
| **CMAR** | **Chiang Mai Arr** | **48.30** | **301** | P | **P** | **P** | **00 33 04.8** | **-0.1** |
| | 1.1nm,0.7s,baz=114,slow=6.6,SNR=9.1 | | | | | | | |
| **KMI** | **Kunming** | **48.49** | **311** | P | **P** | **P** | **00 33 08.0** | **+1.4** |
| KMI | | | | pmax | pmax | pmax | | |
| | comp=Z,8.0nm,0.5s | | | | | | | |
| KMI | | | | pmax | pmax | pmax | | |
| | comp=Z,100nm,4.6s | | | | | | | |
| KMI | | | | LR | LR | LR | | |
| | comp=N,220nm,4.4s | | | | | | | |
| KMI | | | | LR | LR | LR | | |
| | comp=E,200nm,4.3s | | | | | | | |
| KMI | | | | LR | LR | LR | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | comp=Z,140nm,4.5s | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **50.23** | **351** | P | | **P** | **00 33 21.6** | **+2.3** |
| | 1.5nm,0.7s,baz=152,slow=6.5,SNR=2.5 | | | | | | | |
| **JOHN** | **Johnston Islan** | **53.16** | **64** | *e*P | | **P** | **00 33 41.2** | **-0.4** |
| | 872nm,1.8s | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **53.72** | **332** | *e*P | | **P** | **00 33 46.8** | **+1.3** |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,8.0nm,1.2s | | | | | | | |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,110nm,4.8s | | | | | | | |
| **LZH** | **Lanzhou** | **54.42** | **322** | *e*P | | **P** | **00 33 51.5** | **+0.8** |
| LZH | | | | pP | pP | | 00 34 03.3 | +1.1 |
| LZH | | | | sP | sP | | 00 34 08.5 | +1.8 |
| LZH | | | | pmax | pmax | | | |
| | comp=Z,13nm,1.0s | | | | | | | |
| **KLR** | **Kul'dur** | **55.19** | **352** | P | | **P** | **00 33 57.6** | **+1.8** |
| | 0.1nm,0.5s,baz=188,slow=8.7,SNR=2.6 | | | | | | | |
| **GTA** | **Gaotai** | **59.00** | **323** | *e*P | | **P** | **00 34 23.5** | **+0.3** |
| GTA | | | | pP | pP | | 00 34 33.0 | -1.7 |
| GTA | | | | sP | sP | | 00 34 37.5 | -1.7 |
| GTA | | | | S | **S** | | **00 42 27.0** | **-0.3** |
| GTA | | | | sS | sS | | 00 42 43.8 | -2.5 |
| GTA | | | | SS | **SS** | | **00 46 23.3** | **+1.5** |
| GTA | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,0.8s | | | | | | | |
| GTA | | | | pmax | pmax | | | |
| | comp=Z,98nm,6.9s | | | | | | | |
| GTA | | | | LR | LR | | | |
| | comp=N,170nm,20.4s | | | | | | | |
| GTA | | | | LR | LR | | | |
| | comp=E,200nm,18.3s | | | | | | | |
| GTA | | | | LR | LR | | | |
| | comp=Z,240nm,19.5s | | | | | | | |
| **PETK** | **Petropavlovsk-** | **59.98** | **11** | P | | **P** | **00 34 30.1** | **+0.6** |
| | 3.3nm,1.0s,baz=322,slow=9.1,SNR=2.8 | | | | | | | |
| **TAPN** | **Taplejung** | **61.40** | **305** | *e*P | | **P** | **00 34 40.3** | **+0.2** |
| **SONM** | **Songino Array** | **61.46** | **334** | P | | **P** | **00 34 39.5** | **-0.4** |
| | 0.5nm,0.5s,baz=154,slow=7.5,SNR=7.1 | | | | | | | |
| **ODAN** | **Odare** | **61.47** | **304** | *e*P | | **P** | **00 34 41.0** | **+0.5** |
| **SONA1** | **Songino Array** | **61.47** | **334** | *e*P | | **P** | **00 34 40.1** | **+0.2** |
| SONA1 | | | | epP | | **pP** | **00 34 49.6** | **-1.9** |
| **RAMN** | **Ramite** | **62.15** | **304** | *e*P | | **P** | **00 34 45.5** | **+0.4** |
| **JIRN** | **Jiri** | **62.76** | **305** | *e*P | | **P** | **00 34 49.7** | **+0.4** |
| **GUN** | **Gumba** | **63.11** | **305** | *e*P | | **P** | **00 34 52.1** | **+0.5** |
| **PKI** | **Pulchoki** | **63.37** | **304** | *e*P | | **P** | **00 34 53.2** | **-0.1** |
| **PKIN** | **Phulchoki** | **63.38** | **304** | *e*P | | **P** | **00 34 53.0** | **-0.3** |
| **KKN** | **Kakani** | **63.56** | **305** | *e*P | | **P** | **00 34 54.7** | **+0.3** |
| **KOLN** | **Koldanda** | **64.93** | **304** | *e*P | | **P** | **00 35 03.9** | **+0.5** |
| **DANN** | **Dangsing** | **65.01** | **305** | *e*P | | **P** | **00 35 03.7** | **-0.3** |
| **PYUN** | **Piuthan** | **65.55** | **304** | *e*P | | **P** | **00 35 07.6** | **+0.2** |
| **WMQ** | **Urumqi** | **68.96** | **321** | P | | **P** | **00 35 28.5** | **0.0** |
| WMQ | | | | pP | pP | | 00 35 38.8 | -1.4 |
| WMQ | | | | sP | sP | | 00 35 46.8 | +2.1 |
| WMQ | | | | pmax | pmax | | | |
| | comp=Z,22nm,1.1s | | | | | | | |
| WMQ | | | | pmax | pmax | | | |
| | comp=Z,220nm,4.3s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=N,250nm,21.9s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=E,390nm,25.9s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=Z,230nm,26.5s | | | | | | | |
| **VNDA** | **Vanda** | **72.77** | **175** | P | | **P** | **00 35 52.0** | **+1.0** |
| | 0.8nm,0.7s,baz=341,slow=7.8,SNR=4.1 | | | | | | | |
| **MK01** | **Makanchi Array** | **73.72** | **322** | *e*P | | **P** | **00 35 56.9** | **-0.3** |
| **MK31** | **Makanchi Array** | **73.72** | **322** | *e*P | | **P** | **00 35 57.5** | **+0.2** |
| **MKAR** | **Makanchi Array** | **73.73** | **322** | P | | **P** | **00 35 57.4** | **+0.2** |
| | 1.7nm,0.7s,baz=112,slow=7.3,SNR=17 | | | | | | | |
| **MKAR** | **Makanchi Array** | **73.73** | **322** | *e*P | | **P** | **00 35 57.5** | **+0.2** |
| | 29nm,1.1s | | | | | | | |
| **KSH** | **Kashi** | **75.06** | **313** | P | | **P** | **00 36 07.8** | **+2.5** |
| KSH | | | | pP | PcP | | 00 36 18.5 | -0.3 |
| KSH | | | | PcP | **sP** | | **00 36 22.0** | **+0.5** |
| KSH | | | | PP | **PP** | | **00 38 59.0** | **+5.3** |
| KSH | | | | S | **S** | | **00 45 42.5** | **+1.6** |
| KSH | | | | ScS | **ScS** | | **00 46 14.5** | **-0.5** |
| KSH | | | | SS | **SS** | | **00 50 34.5** | **+3.9** |
| KSH | | | | pmax | pmax | | | |
| | comp=Z,5.0nm,0.7s | | | | | | | |
| KSH | | | | pmax | pmax | | | |
| | comp=Z,140nm,5.0s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=N,170nm,5.3s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=E,140nm,5.6s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=Z,77nm,6.5s | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **75.78** | **329** | P | | **P** | **00 36 09.0** | **+0.1** |
| | 0.5nm,0.4s,baz=114,slow=6.8,SNR=3.3 | | | | | | | |
| **KURK** | **Kurchatov** | **77.63** | **325** | P | | **P** | **00 36 21.4** | **+2.0** |
| **KURBB** | **Kurchatov Arra** | **77.64** | **324** | P | | **P** | **00 36 21.4** | **+1.9** |
| | baz=109,slow=4.6 | | | | | | | |
| **KBL** | **Kabul** | **78.87** | **307** | *e*P | | **P** | **00 36 26.6** | **-0.3** |
| KBL | | | | epP | | **pP** | **00 36 38.0** | **-0.8** |
| **QSPA** | **South Pole Qui** | **84.45** | **180** | *e*P | | **P** | **00 36 56.2** | **+0.6** |
| | 25nm,1.8s | | | | | | | |
| **MLY** | **Manley** | **85.76** | **23** | *e*P | | **P** | **00 37 01.5** | **-0.6** |
| | 8.3nm,1.0s | | | | | | | |
| **DHY** | **Denali Highway** | **86.44** | **26** | *e*P | | **P** | **00 37 04.4** | **-1.2** |
| | 7.4nm,0.8s | | | | | | | |
| **CCB** | **Clear Creek Bu** | **86.79** | **24** | *e*P | | **P** | **00 37 04.6** | **-2.4** |
| | 7.7nm,0.8s | | | | | | | |
| **COLD** | **Coldfoot** | **86.81** | **21** | *e*P | | **P** | **00 37 06.9** | **-0.2** |
| COLD | | | | epP | | **pP** | **00 37 17.3** | **-1.8** |
| **IL1** | **Eielson Array** | **87.21** | **24** | *e*P | | **P** | **00 37 06.5** | **-2.6** |
| **ILAR** | **Eielson Array** | **87.21** | **24** | P | | **P** | **00 37 06.3** | **-2.8** |
| | 1.0nm,0.6s,baz=260,slow=4.5,SNR=30 | | | | | | | |
| **ILB** | **Eielson Array** | **87.21** | **24** | *e*P | | **P** | **00 37 06.5** | **-2.5** |
| **GEYT** | **Allbeck** | **88.20** | **308** | P | | **P** | **00 37 17.2** | **+2.8** |
| | 0.9nm,0.8s,baz=95,slow=16,SNR=3.0 | | | | | | | |
| **FYU** | **Fort Yukon** | **88.42** | **23** | *e*pP | | pP | 00 37 23.5 | -3.3 |
| **ABKAR** | **Akbulak array** | **88.68** | **320** | *e*P | | **P** | **00 37 14.9** | **-1.5** |
| | 14nm,0.7s | | | | | | | |
| **SYO** | **Syowa Base** | **89.16** | **201**⇑ | *e*P | | **P** | **00 37 15.2** | **-3.1** |
| **EGAK** | **Eagle** | **89.56** | **25** | *e*P | | **P** | **00 37 20.2** | **0.0** |
| EGAK | | | | epP | | **pP** | **00 37 29.5** | **-2.8** |
| **YKA** | **Yellowknife Ar** | **101.25** | **27** | P | | **Pdif** | **00 38 14.7** | **+1.2** |
| | 0.1nm,0.7s,baz=282,slow=5.1,SNR=2.8 | | | | | | | |
| YKA | | | | PP | | **PP** | **00 42 24.6** | **+1.9** |
| | 0.2nm,0.9s,baz=293,slow=8.0,SNR=3.0 | | | | | | | |
| **CLL** | **Collm** | **117.63** | **326** | *e*PKiKP | | **PKPdf** | **00 43 04.0** | **-5.0** |
| CLL | | | | ePP | | **PP** | **00 44 18.0** | **-3.6** |
| **PLCA** | **Paso Flores** | **125.36** | **150** | PKP | | **PKPdf** | **00 43 24.9** | **+0.6** |
| | 1.0nm,0.6s,baz=226,slow=1.7,SNR=4.6 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **139.72** | **284** | PKP | | **PKPdf** | **00 43 51.8** | **-0.1** |
| | 0.8nm,0.9s,baz=70,slow=2.7,SNR=3.5 | | | | | | | |
| **CPUP** | **Villa Florida** | **143.43** | **151** | PKP | | **PKPdf** | **00 43 59.3** | **+1.0** |
| | 2.0nm,0.9s,baz=225,slow=4.3,SNR=4.1 | | | | | | | |
| **ZARC** | **Zaragoza, Cauc** | **143.77** | **85** | *e*P | | PKPab | 00 43 55.0 | -1.1 |
| **PTBC** | **PUERTO BERRIO** | **144.17** | **86** | *e*P | | **PKPab** | **00 43 55.8** | **-1.9** |
| **CHIC** | **Chingaza** | **144.84** | **90** | *e*P | | **PKPab** | **00 43 58.9** | **-1.7** |
| **KOWA** | **Kowa** | **144.99** | **287** | *e*PKPdf | | PKPbc | 00 44 00.4 | -0.2 |
| **BARC** | **Barichara** | **145.44** | **86** | *e*P | | **PKPdf** | **00 44 00.5** | **-1.9** |
| **RUSC** | **La Rusia** | **145.53** | **88** | *e*P | | **PKPdf** | **00 44 00.2** | **-2.7** |
| **RUSC** | **La Rusia** | **145.53** | **88** | *e*PKPdf | | **PKPdf** | **00 44 01.8** | **-1.1** |
| **PAMC** | **Pamplona, Colo** | **145.91** | **85** | *e*P | | **PKPdf** | **00 44 02.5** | **-1.0** |
| **DBIC** | **Dimbokro** | **146.59** | **274** | PKPbc | | **PKPbc** | **00 44 05.5** | **-0.1** |
| | 3.5nm,0.6s,baz=47,slow=3.3,SNR=10 | | | | | | | |
| **DBIC** | **Dimbokro** | **146.59** | **274** | *e*PKPdf | | **PKPdf** | **00 44 04.1** | **0.0** |

*ISCJB **31** 00:25:35.6±0.6,20.3S±0.1×178.8W±0.2, h602km, mb3.7/10, Error ellipse: s-maj=21.9km s-min=16.6km az=157.5*
*IDC **31** 00:25:37.0±5.4,20.14S×178.75W, h600km±66km, mb3.3/10, mb1 3.5/11, mb1mx3.3/35, mbtmp4.2/11, Error ellipse: s-maj=33.5km s-min=18.4km az=65.0*

**ISC 31 00:25:37.0±0.7,20.2S±0.2×178.7W±0.1, h602km, n16, σ0s90/15, mb3.8/10, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DZM** | **Mont Dzumac** | **14.01** | **260** | P | **P** | **00 28 37.1** | **+1.1** |
| | 0.7nm,0.3s,baz=80,slow=19,SNR=12 | | | | | | |
| **CTA** | **Charters Tower** | **32.89** | **264** | P | **P** | **00 31 22.6** | **-0.7** |
| | 4.0nm,0.5s,baz=78,slow=9.3,SNR=4.6 | | | | | | |
| **VNDA** | **Vanda** | **58.14** | **185** | P | **P** | **00 34 34.2** | **+0.4** |
| | 0.9nm,0.5s,baz=2.6,slow=5.3,SNR=11 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **69.61** | **324** | P | **P** | **00 35 46.0** | **-1.0** |
| | 1.4nm,0.5s,baz=157,slow=6.0,SNR=7.8 | | | | | | |
| **PETK** | **Petropavlovsk-** | **75.83** | **346** | P | **P** | **00 36 21.7** | **-0.6** |
| | 3.8nm,0.7s,baz=119,slow=9.2,SNR=6.7 | | | | | | |
| **KSRS** | **Korea Array** | **76.26** | **319** | P | **P** | **00 36 25.1** | **+0.2** |
| | 0.9nm,0.6s,baz=136,slow=5.4,SNR=3.6 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **78.37** | **326** | P | **P** | **00 36 36.1** | **-0.1** |
| | 2.4nm,0.6s,baz=112,slow=6.6,SNR=4.1 | | | | | | |
| **TXAR** | **Lajitas Array** | **87.43** | **58** | P | **P** | **00 37 22.6** | **+0.7** |
| | 1.8nm,0.9s,baz=215,slow=5.8,SNR=19 | | | | | | |
| **VNA3** | **Neumayer Olymp** | **88.47** | **176** | P | **P** | **00 37 24.3** | **-1.6** |
| **VNA2** | **Neumayer--Watz** | **88.90** | **177** | P | **P** | **00 37 26.7** | **-1.2** |
| | baz=186,slow=3.6 | | | | | | |
| **VNA1** | **Neumayer--Stat** | **89.13** | **177** | P | **P** | **00 37 27.8** | **-1.1** |
| **PDAR** | **Pinedale Array** | **89.19** | **43** | P | **P** | **00 37 30.1** | **+0.2** |
| | 0.5nm,0.6s,baz=204,slow=3.3,SNR=4.1 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **89.42** | **290** | P | **P** | **00 37 32.0** | **+0.7** |
| | 0.5nm,0.5s,baz=133,slow=4.0,SNR=3.3 | | | | | | |
| **PLCA** | **Paso Flores** | **89.93** | **134** | P | **P** | **00 37 34.0** | **+0.6** |
| | 1.0nm,0.5s,baz=264,slow=7.2,SNR=3.5 | | | | | | |
| **AKASG** | **Malin Array Be** | **142.46** | **331** | PKhKP | PKPpre | 00 43 57.2 | |
| | 1.9nm,0.5s,baz=44,slow=4.6,SNR=9.9 | | | | | | |
| **BRTR** | **Keskin Array B** | **146.18** | **312** | PKPbc | **PKPbc** | **00 44 11.0** | **-0.3** |
| | 0.7nm,1.0s,baz=62,slow=3.4,SNR=3.0 | | | | | | |

*DDA **31** 00:32:10.6,39.12N×28.14E,h7km,Md2.6*
*ISK **31** 00:32:10.5,39.07N×28.11E,h6km,MD2.5*
*ISCJB **31** 00:32:11.1±0.5,39.07N±0.03×28.14E±0.04,h10km±5km, Error ellipse: s-maj=5.7km s-min=3.9km az=38.1*
*CSEM **31** 00:32:11.1±0.1,39.07N×28.13E,h10km,MD2.6, Error ellipse: s-maj=3.6km s-min=2.3km az=45.0*

**ISC 31 00:32:10.7±1.0,39.07N±0.02×28.12E±0.03,h13km±11km, n28,σ0s33/44, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **AKHS** | **Akhisar** | **0.30** | **231** | *i* P | **Pb** | **00 32 18.0** | **-0.1** |
| AKHS | | | | *i* S | **Sb** | **00 32 22.6** | **-0.4** |
| **AKHS** | **Akhisar** | **0.30** | **231** | P | **Pg** | **00 32 18.0** | **-0.1** |
| AKHS | | | | S | **Sb** | **00 32 22.6** | **-0.4** |
| **DEMI** | **Demirci** | **0.47** | **93** | *i* P | **Pg** | **00 32 20.2** | **+0.2** |
| DEMI | | | | *i* S | **Sg** | **00 32 26.1** | **-0.2** |
| **DEMI** | **Demirci** | **0.47** | **93** | P | **Pg** | **00 32 20.2** | **+0.2** |
| DEMI | | | | S | **Sg** | **00 32 26.1** | **-0.2** |
| **BALB** | **Balikesir** | **0.59** | **342** | *e*PG | **Pb** | **00 32 23.0** | **0.0** |
| BALB | | | | *e*SG | **Sb** | **00 32 31.4** | **0.0** |
| **BALB** | **Balikesir** | **0.59** | **342** | *e*Pg | **Pb** | **00 32 23.0** | **0.0** |
| BALB | | | | *e*Sg | **Sb** | **00 32 31.4** | **0.0** |
| **SIMA** | **Simav-Kutahya** | **0.67** | **89** | *e*PG | **Pb** | **00 32 24.1** | **-0.3** |
| **SIMA** | **Simav-Kutahya** | **0.67** | **89** | *e*Pg | **Pb** | **00 32 24.1** | **-0.3** |
| **MANT** | **Manisa** | **0.68** | **149** | *i* P | **Pb** | **00 32 24.7** | **+0.2** |
| MANT | | | | *i* S | **Sg** | **00 32 32.9** | **0.0** |
| **MANT** | **Manisa** | **0.68** | **149** | P | **Pb** | **00 32 24.7** | **+0.2** |
| MANT | | | | S | **Sg** | **00 32 32.9** | **0.0** |
| **KULA** | **Kula-Manisa** | **0.70** | **142** | *e*PG | **Pb** | **00 32 25.1** | **+0.2** |
| KULA | | | | *e*SG | **Sg** | **00 32 34.0** | **+0.4** |
| **KULA** | **Kula-Manisa** | **0.70** | **142** | *e*Pg | **Pb** | **00 32 25.1** | **+0.2** |
| KULA | | | | *e*Sg | **Sg** | **00 32 34.1** | **+0.4** |
| **BALY** | **Balya** | **0.77** | **330** | *i* P | **Pg** | **00 32 25.7** | **0.0** |
| BALY | | | | *i* S | **Sg** | **00 32 35.9** | **+0.1** |
| **BALY** | **Balya** | **0.77** | **330** | P | **Pg** | **00 32 25.7** | **0.0** |
| BALY | | | | S | **Sg** | **00 32 35.9** | **+0.1** |
| **GDZ** | **Gediz** | **1.06** | **89** | *i* P | **Pg** | **00 32 31.0** | **-0.3** |
| GDZ | | | | *i* S | **Sg** | **00 32 44.8** | **-0.3** |
| **GDZ** | **Gediz** | **1.06** | **89** | P | **Pg** | **00 32 31.0** | **-0.3** |
| GDZ | | | | S | **Sg** | **00 32 44.8** | **-0.3** |
| **TVSB** | **Tavsanli** | **1.11** | **70** | *e*PN | **Pn** | **00 32 32.4** | **+0.3** |
| **TVSB** | **Tavsanli** | **1.11** | **70** | *e*Pn | **Pn** | **00 32 32.4** | **+0.3** |
| **KCTX** | **Karacabey (Bur** | **1.21** | **9** | *e*PN | **Pb** | **00 32 33.8** | **+0.4** |
| **KCTX** | **Karacabey (Bur** | **1.21** | **9** | *e*Pn | **Pb** | **00 32 33.8** | **+0.4** |
| **EDC** | **Edincik** | **1.29** | **351** | *e*PN | **Pg** | **00 32 35.5** | **0.0** |
| **EDC** | **Edincik** | **1.29** | **351** | *e*Pn | **Pg** | **00 32 35.5** | **0.0** |
| **BAYC** | **CANAKKALE_Bayr** | **1.39** | **299** | *i* P | **Pn** | **00 32 35.4** | **-0.5** |
| BAYC | | | | *i* S | **Sb** | **00 32 55.0** | **+0.8** |
| **BAYC** | **CANAKKALE_Bayr** | **1.39** | **299** | P | **Pn** | **00 32 35.3** | **-0.5** |
| BAYC | | | | S | **Sb** | **00 32 55.0** | **+0.8** |
| **MDNY** | **Mudanya-Bursa** | **1.42** | **24** | *e*PN | **Pg** | **00 32 37.6** | **-0.4** |
| **MDNY** | **Mudanya-Bursa** | **1.42** | **24** | *e*Pn | **Pg** | **00 32 37.7** | **-0.4** |
| **ARMT** | **Armutlu** | **1.60** | **21** | *e*PN | **Pb** | **00 32 40.2** | **+0.1** |
| **ARMT** | **Armutlu** | **1.60** | **21** | *e*Pn | **Pb** | **00 32 40.2** | **+0.1** |

**MEX 31 00:34:08.1±0.8,32.23N×115.11W,h20km±39km, MD3.5, California-Baja California border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **MBIG** | **Mexicali** | **0.19** | **337** | *e*P | Pb | 00 34 12.0 | -1.1 |
| MBIG | | | | *e*S | Sb | 00 34 14.6 | -2.0 |
| **SPIG** | **San Pedro Mart** | **1.22** | **194** | *e*P | Pn | 00 34 26.3 | -4.0 |
| SPIG | | | | *e*S | Sb | 00 34 42.4 | -3.6 |
| **CBX** | **Cerro Bola** | **1.32** | **274** | *e*P | Pn | 00 34 28.6 | -2.9 |
| CBX | | | | *e*S | Sn | 00 34 44.1 | -4.5 |
| **TJIG** | **Tijuana** | **1.34** | **279** | *e*P | Pn | 00 34 28.1 | -3.6 |
| TJIG | | | | *e*S | Sn | 00 34 44.1 | -4.8 |

*ISCJB **31** 00:44:45.2±0.5,43.55S±0.03×172.89E±0.03, h13km±3km, mb4.8/23, MS4.9/5, Error ellipse: s-maj=5.5km s-min=2.5km az=136.9*
*IDC **31** 00:44:45.7±0.8,43.34S×172.79E, h0km, mb4.1/5, mb1 4.3/6, mb1mx4.1/26, mbtmp4.2/6, ML4.4/1, MS3.7/1, Ms1 3.7/1, ms1mx3.2/19, Error ellipse: s-maj=27.6km s-min=14.0km az=156.0*
*WEL **31** 00:44:47.6±0.1,43.52S×172.77E, h9km, ML4.9/83, Mw4.5, Error ellipse: s-maj=1.2km s-min=0.6km az=90.0, 6.*
*WEL Felt between West Coast, Otago and Canterbury, maximum reported intensity MM.*
*NEIC **31** 00:44:47.4±0.0, 43.52S×172.78E, h10km, mb5.0/10, ML4.8(WEL), After WEL.*
*NEIC Felt [V] at Kaiapoi and [IV] at Christchurch and Rangiora. Also felt at Greymouth, Rolleston, Sefton and Waikuku.*
*BJI **31** 00:44:48.0, 42.75S×173.10E, h12km, mb5.3/15, mB5.8/15, Ms5.2/7, Ms7 4.9/11*

**ISC 31 00:44:46.7±0.9,43.50S±0.03×172.84E±0.03, h8km±5km, n227,σ1s26/247, mb5.0/23, MS4.8/5, 7C-3D, South Island**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CRLZ** | **Canterbury Las** | **0.17** | **246** | *e*Pg | **Pg** | **00 44 50.7** | **+0.4** |
| CRLZ | | | | *e*Sg | **Sg** | **00 44 53.2** | **+0.5** |
| **CRLZ** | **Canterbury Las** | **0.17** | **246** | PG | **Pg** | **00 44 50.6** | **+0.4** |
| CRLZ | | | | SG | **Sg** | **00 44 52.8** | **+0.1** |
| CRLZ | | | | AML | AML | 00 44 53.3 | |
| CRLZ | | | | AML | AML | 00 44 53.8 | |
| CRLZ | | | | AML | AML | 00 44 53.8 | |
| **MQZ** | **McQueen's Vall** | **0.24** | **214** | *e*Pg | **Pg** | **00 44 51.8** | **+0.3** |
| MQZ | | | | *e* | | 00 44 52.1 | |
| MQZ | | | | *e*Sg | **Sg** | **00 44 55.5** | **+0.6** |
| **MQZ** | **McQueen's Vall** | **0.24** | **214** | PG | **Pg** | **00 44 52.0** | **+0.4** |
| MQZ | | | | SG | **Sg** | **00 44 55.3** | **+0.5** |
| MQZ | | | | AML | AML | 00 44 55.6 | |
| **OXZ** | **Oxford** | **0.61** | **287** | *e*Pg | **Pg** | **00 44 58.5** | **+0.1** |
| OXZ | | | | *e*Sg | **Sg** | **00 45 06.7** | **+0.3** |
| **OXZ** | **Oxford** | **0.61** | **287** | P* | **Pg** | **00 44 58.4** | **-0.1** |
| OXZ | | | | AML | AML | 00 45 08.2 | |
| OXZ | | | | AML | AML | 00 45 08.2 | |
| OXZ | | | | AML | AML | 00 45 10.3 | |
| OXZ | | | | AML | AML | 00 45 10.3 | |
| **LTZ** | **Lake Taylor** | **0.83** | **330** | *e*Pn | **Pb** | **00 45 03.3** | **-0.1** |
| LTZ | | | | *e*Sn | **Sb** | **00 45 15.0** | **+0.2** |
| **LTZ** | **Lake Taylor** | **0.83** | **330** | ⇑P* | **Pb** | **00 45 03.3** | **-0.1** |
| **KHZ** | **Kahutara** | **1.20** | **25** | *e*Pg | **Pg** | **00 45 09.2** | **-0.6** |
| KHZ | | | | *e*Sn | **Sb** | **00 45 25.5** | **+0.2** |
| **KHZ** | **Kahutara** | **1.20** | **25** | P* | **Pg** | **00 45 09.4** | **-0.3** |
| KHZ | | | | AML | AML | 00 45 34.5 | |
| KHZ | | | | AML | AML | 00 45 34.5 | |
| KHZ | | | | AML | AML | 00 45 35.1 | |
| KHZ | | | | AML | AML | 00 45 35.1 | |
| **RPZ** | **Rata Peaks** | **1.31** | **260** | Pg | **Pn** | **00 45 09.8** | **-1.6** |
| | 339nm,0.3s,baz=147,slow=2.4,SNR=1064 | | | | | | |
| RPZ | | | | Lg | Lg | 00 45 28.5 | |
| | 3µm,0.3s,baz=7.0,slow=19,SNR=33 | | | | | | |
| **RPZ** | **Rata Peaks** | **1.31** | **260** | Pg | **Pn** | **00 45 09.8** | **-1.6** |
| RPZ | | | | *e*Pn | **Pb** | **00 45 10.0** | **-1.7** |
| **RPZ** | **Rata Peaks** | **1.31** | **260** | P* | **Pn** | **00 45 09.6** | **-1.8** |
| RPZ | | | | AML | AML | 00 45 28.8 | |
| RPZ | | | | AML | AML | 00 45 30.9 | |
| **WVZ** | **Waitaha Valley** | **1.59** | **285** | Pn | **Pn** | **00 45 14.1** | **-1.1** |
| **WVZ** | **Waitaha Valley** | **1.59** | **285** | PN | **Pn** | **00 45 14.1** | **-1.1** |
| WVZ | | | | AML | AML | 00 45 42.9 | |
| WVZ | | | | AML | AML | 00 45 45.8 | |
| **THZ** | **Tophouse** | **1.74** | **2** | *e*Pn | **Pn** | **00 45 16.7** | **-0.5** |
| **THZ** | **Tophouse** | **1.74** | **2** | PN | **Pn** | **00 45 16.3** | **-1.0** |
| THZ | | | | AML | AML | 00 45 42.9 | |
| THZ | | | | AML | AML | 00 45 52.8 | |
| **DSZ** | **Denniston Nort** | **1.92** | **336** | Pn | **Pn** | **00 45 18.7** | **-0.9** |
| **DSZ** | **Denniston Nort** | **1.92** | **336** | PN | **Pn** | **00 45 18.7** | **-0.9** |
| DSZ | | | | AML | AML | 00 45 57.7 | |
| DSZ | | | | AML | AML | 00 45 59.9 | |
| DSZ | | | | AML | AML | 00 45 59.9 | |
| DSZ | | | | AML | AML | 00 45 59.9 | |
| **BSWZ** | **Blackbirch Sta** | **1.94** | **23** | Pn | **Pn** | **00 45 19.8** | **-0.2** |
| **BSWZ** | **Blackbirch Sta** | **1.94** | **23** | ⇓PN | **Pn** | **00 45 19.8** | **-0.2** |
| BSWZ | | | | AML | AML | 00 46 03.5 | |
| BSWZ | | | | AML | AML | 00 46 07.7 | |
| **LBZ** | **Lake Benmore** | **2.11** | **244** | *e*Pn | **Pn** | **00 45 21.5** | **-0.9** |
| **LBZ** | **Lake Benmore** | **2.11** | **244** | PN | **Pn** | **00 45 21.1** | **-1.2** |
| LBZ | | | | AML | AML | 00 45 59.7 | |
| LBZ | | | | AML | AML | 00 45 59.8 | |
| LBZ | | | | AML | AML | 00 46 00.4 | |
| LBZ | | | | AML | AML | 00 46 00.4 | |
| **FOZ** | **Fox Glacier** | **2.20** | **268** | *e*Pn | **Pn** | **00 45 24.0** | **+0.5** |
| **FOZ** | **Fox Glacier** | **2.20** | **268** | ⇑PN | **Pn** | **00 45 23.6** | **+0.1** |
| FOZ | | | | AML | AML | 00 46 05.3 | |
| FOZ | | | | AML | AML | 00 46 05.3 | |
| FOZ | | | | AML | AML | 00 46 07.2 | |
| FOZ | | | | AML | AML | 00 46 07.2 | |
| **ODZ** | **Otahua Downs** | **2.21** | **225** | *e*Pn | **Pn** | **00 45 22.3** | **-1.3** |
| **ODZ** | **Otahua Downs** | **2.21** | **225** | PN | **Pn** | **00 45 22.3** | **-1.3** |
| ODZ | | | | AML | AML | 00 46 01.9 | |
| ODZ | | | | AML | AML | 00 46 01.9 | |
| ODZ | | | | AML | AML | 00 46 05.3 | |
| ODZ | | | | AML | AML | 00 46 05.3 | |
| **TUWZ** | **Tuamarina** | **2.23** | **22** | Pn | **Pn** | **00 45 23.2** | **-0.7** |
| **TUWZ** | **Tuamarina** | **2.23** | **22** | PN | **Pn** | **00 45 23.2** | **-0.7** |
| TUWZ | | | | AML | AML | 00 46 14.7 | |
| TUWZ | | | | AML | AML | 00 46 17.9 | |
| **NNZ** | **Nelson** | **2.32** | **10** | Pn | **Pn** | **00 45 25.0** | **-0.2** |
| **NNZ** | **Nelson** | **2.32** | **10** | ⇑PN | **Pn** | **00 45 25.0** | **-0.2** |
| NNZ | | | | AML | AML | 00 45 54.6 | |
| NNZ | | | | AML | AML | 00 45 54.7 | |
| NNZ | | | | AML | AML | 00 46 18.2 | |
| NNZ | | | | AML | AML | 00 46 18.2 | |
| **TCW** | **Tory Channel** | **2.53** | **25** | Pn | **Pn** | **00 45 26.9** | **-1.1** |
| **TCW** | **Tory Channel** | **2.53** | **25** | PN | **Pn** | **00 45 26.9** | **-1.1** |
| TCW | | | | AML | AML | 00 45 59.1 | |
| TCW | | | | AML | AML | 00 46 02.7 | |
| **BHW** | **Baring Head** | **2.58** | **36** | Pn | **Pn** | **00 45 27.9** | **-0.7** |
| **BHW** | **Baring Head** | **2.58** | **36** | PN | **Pn** | **00 45 27.9** | **-0.7** |
| BHW | | | | AML | AML | 00 46 28.0 | |
| BHW | | | | AML | AML | 00 46 32.0 | |
| **SNZO** | **South Karori** | **2.59** | **33** | *e*Pn | **Pn** | **00 45 28.2** | **-0.7** |
| **PLWZ** | **Palliser** | **2.63** | **44** | Pn | **Pn** | **00 45 28.5** | **-1.0** |
| **PLWZ** | **Palliser** | **2.63** | **44** | PN | **Pn** | **00 45 28.5** | **-1.0** |
| PLWZ | | | | AML | AML | 00 46 29.4 | |
| PLWZ | | | | AML | AML | 00 46 47.6 | |
| **WEL** | **Wellington** | **2.64** | **33** | Pn | **Pn** | **00 45 28.8** | **-0.7** |
| **WEL** | **Wellington** | **2.64** | **33** | PN | **Pn** | **00 45 28.8** | **-0.7** |
| WEL | | | | AML | AML | 00 46 03.0 | |
| WEL | | | | AML | AML | 00 46 03.0 | |
| WEL | | | | AML | AML | 00 46 08.1 | |
| WEL | | | | AML | AML | 00 46 08.1 | |
| **QRZ** | **Quartz Range** | **2.69** | **355** | Pn | **Pn** | **00 45 29.5** | **-0.7** |
| **QRZ** | **Quartz Range** | **2.69** | **355** | ⇓PN | **Pn** | **00 45 29.5** | **-0.7** |
| QRZ | | | | AML | AML | 00 45 42.3 | |
| QRZ | | | | AML | AML | 00 45 42.3 | |
| QRZ | | | | AML | AML | 00 46 21.1 | |
| QRZ | | | | AML | AML | 00 46 21.1 | |
| **MSWZ** | **Moikau Station** | **2.74** | **41** | Pn | **Pn** | **00 45 29.7** | **-1.3** |
| **MSWZ** | **Moikau Station** | **2.74** | **41** | PN | **Pn** | **00 45 29.7** | **-1.3** |
| MSWZ | | | | AML | AML | 00 46 09.5 | |
| MSWZ | | | | AML | AML | 00 46 10.4 | |
| **DUWZ** | **D'Urville Isla** | **2.82** | **17** | Pn | **Pn** | **00 45 31.6** | **-0.4** |
| **DUWZ** | **D'Urville Isla** | **2.82** | **17** | PN | **Pn** | **00 45 31.6** | **-0.4** |
| DUWZ | | | | AML | AML | 00 46 27.3 | |
| DUWZ | | | | AML | AML | 00 46 30.2 | |
| **PAWZ** | **Paruwai Farm** | **2.86** | **43** | Pn | **Pn** | **00 45 31.4** | **-1.2** |
| **PAWZ** | **Paruwai Farm** | **2.86** | **43** | PN | **Pn** | **00 45 31.4** | **-1.2** |
| PAWZ | | | | AML | AML | 00 46 12.7 | |
| PAWZ | | | | AML | AML | 00 46 60.0 | |
| **HHSZ** | **Highcliff Hill** | **2.87** | **213** | Pn | **Pn** | **00 45 31.2** | **-1.5** |
| **HHSZ** | **Highcliff Hill** | **2.87

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SYZ | | | | AML | AML | 00 47 05.8 | | |
| **DVHZ** | **Dannevirke** | **4.05** | **39** | Pn | **Pn** | **00 45 47.3** | **-1.7** | |
| **DVHZ** | **Dannevirke** | **4.05** | **39** | PN | **Pn** | **00 45 47.3** | **-1.7** | |
| DVHZ | | | | AML | AML | 00 46 46.6 | | |
| DVHZ | | | | AML | AML | 00 46 54.3 | | |
| **WAZ** | **Wanganui** | **4.08** | **24** | Pn | **Pn** | **00 45 50.2** | **+0.8** | |
| **WAZ** | **Wanganui** | **4.08** | **24** | PN | **Pn** | **00 45 50.2** | **+0.8** | |
| WAZ | | | | AML | AML | 00 47 13.7 | | |
| WAZ | | | | AML | AML | 00 47 20.8 | | |
| **TSZ** | **Takapari Road** | **4.16** | **35** | Pn | **Pn** | **00 45 49.0** | **-1.5** | |
| **TSZ** | **Takapari Road** | **4.16** | **35** | PN | **Pn** | **00 45 49.0** | **-1.5** | |
| TSZ | | | | AML | AML | 00 46 42.6 | | |
| TSZ | | | | AML | AML | 00 47 23.6 | | |
| **WHZ** | **Wether Hill Ro** | **4.23** | **234** | *e*Pn | **Pn** | **00 45 49.2** | **-2.2** | |
| **WHZ** | **Wether Hill Ro** | **4.23** | **234** | PN | **Pn** | **00 45 49.0** | **-2.4** | |
| WHZ | | | | AML | AML | 00 47 05.6 | | |
| WHZ | | | | AML | AML | 00 47 12.0 | | |
| **PREZ** | **Palmer Road** | **4.27** | **14** | Pn | **Pn** | **00 45 53.5** | **+1.4** | |
| **PREZ** | **Palmer Road** | **4.27** | **14** | PN | **Pn** | **00 45 53.5** | **+1.4** | |
| PREZ | | | | AML | AML | 00 46 44.9 | | |
| PREZ | | | | AML | AML | 00 46 45.2 | | |
| **NWEZ** | **Newall Road** | **4.29** | **11** | Pn | **Pn** | **00 45 53.7** | **+1.4** | |
| **NWEZ** | **Newall Road** | **4.29** | **11** | PN | **Pn** | **00 45 53.7** | **+1.4** | |
| **KHEZ** | **Kahui Hut** | **4.30** | **12** | Pn | **Pn** | **00 45 53.5** | **+1.1** | |
| **KHEZ** | **Kahui Hut** | **4.30** | **12** | PN | **Pn** | **00 45 53.5** | **+1.1** | |
| **PRHZ** | **Porangahau** | **4.30** | **42** | Pn | **Pn** | **00 45 52.3** | **-0.1** | |
| **PRHZ** | **Porangahau** | **4.30** | **42** | PN | **Pn** | **00 45 52.2** | **-0.2** | |
| PRHZ | | | | AML | AML | 00 46 48.1 | | |
| PRHZ | | | | AML | AML | 00 46 51.3 | | |
| **NEZ** | **North Egmont** | **4.33** | **13** | Pn | **Pn** | **00 45 54.0** | **+1.0** | |
| **NEZ** | **North Egmont** | **4.33** | **13** | PN | **Pn** | **00 45 54.0** | **+1.0** | |
| **WPHZ** | **Waipukurau** | **4.36** | **39** | Pn | **Pn** | **00 45 54.1** | **+0.8** | |
| **WPHZ** | **Waipukurau** | **4.36** | **39** | PN | **Pn** | **00 45 54.1** | **+0.8** | |
| WPHZ | | | | AML | AML | 00 46 48.1 | | |
| WPHZ | | | | AML | AML | 00 46 52.3 | | |
| **PNHZ** | **Pukenui** | **4.38** | **36** | Pn | **Pn** | **00 45 52.9** | **-0.7** | |
| **PNHZ** | **Pukenui** | **4.38** | **36** | PN | **Pn** | **00 45 52.9** | **-0.7** | |
| PNHZ | | | | AML | AML | 00 46 50.9 | | |
| PNHZ | | | | AML | AML | 00 47 34.8 | | |
| **PKE** | **Pukeiti** | **4.39** | **12** | Pn | **Pn** | **00 45 54.5** | **+0.8** | |
| **PKE** | **Pukeiti** | **4.39** | **12** | PN | **Pn** | **00 45 54.5** | **+0.8** | |
| PKE | | | | AML | AML | 00 46 48.4 | | |
| PKE | | | | AML | AML | 00 46 49.5 | | |
| **DREZ** | **Durham Road** | **4.43** | **14** | PN | **Pn** | **00 45 55.2** | **+1.0** | |
| **DCZ** | **Deep Cove** | **4.52** | **242** | *e*Pn | **Pn** | **00 45 53.9** | **-1.4** | |
| **DCZ** | **Deep Cove** | **4.52** | **242** | ⇑PN | **Pn** | **00 45 53.4** | **-2.0** | |
| DCZ | | | | AML | AML | 00 47 25.7 | | |
| DCZ | | | | AML | AML | 00 47 25.7 | | |
| DCZ | | | | AML | AML | 00 47 27.3 | | |
| DCZ | | | | AML | AML | 00 47 27.3 | | |
| **MHEZ** | **Mangahewa** | **4.56** | **15** | PN | **Pn** | **00 45 57.2** | **+1.2** | |
| **MTVZ** | **Mangateitei** | **4.56** | **27** | Pn | **Pn** | **00 45 57.7** | **+1.6** | |
| **MTVZ** | **Mangateitei** | **4.56** | **27** | PN | **Pn** | **00 45 57.7** | **+1.6** | |
| MTVZ | | | | AML | AML | 00 47 15.6 | | |
| MTVZ | | | | AML | AML | 00 47 32.6 | | |
| **PXZ** | **Pawanui** | **4.59** | **42** | Pn | **Pn** | **00 45 54.4** | **-2.0** | |
| **PXZ** | **Pawanui** | **4.59** | **42** | PN | **Pn** | **00 45 54.4** | **-2.0** | |
| PXZ | | | | AML | AML | 00 47 01.4 | | |
| PXZ | | | | AML | AML | 00 47 53.5 | | |
| **VRZ** | **Vera Road** | **4.61** | **19** | Pn | **Pn** | **00 45 57.2** | **+0.6** | |
| **VRZ** | **Vera Road** | **4.61** | **19** | PN | **Pn** | **00 45 57.2** | **+0.6** | |
| VRZ | | | | AML | AML | 00 46 57.5 | | |
| VRZ | | | | AML | AML | 00 46 59.1 | | |
| **PKVZ** | **Pokaka** | **4.61** | **25** | Pn | **Pn** | **00 45 56.9** | **+0.1** | |
| **PKVZ** | **Pokaka** | **4.61** | **25** | PN | **Pn** | **00 45 56.9** | **+0.1** | |
| PKVZ | | | | AML | AML | 00 47 47.7 | | |
| PKVZ | | | | AML | AML | 00 47 52.8 | | |
| **MOVZ** | **Moawhango** | **4.64** | **29** | Pn | **Pn** | **00 45 56.6** | **-0.6** | |
| **MOVZ** | **Moawhango** | **4.64** | **29** | PN | **Pn** | **00 45 56.6** | **-0.6** | |
| MOVZ | | | | AML | AML | 00 47 04.0 | | |
| MOVZ | | | | AML | AML | 00 47 58.1 | | |
| **WNVZ** | **Wahianoa** | **4.66** | **27** | Pn | **Pn** | **00 45 57.3** | **-0.2** | |
| **WNVZ** | **Wahianoa** | **4.66** | **27** | PN | **Pn** | **00 45 57.3** | **-0.2** | |
| **TRVZ** | **Turoa** | **4.67** | **27** | Pn | **Pn** | **00 45 58.4** | **+0.8** | |
| **TRVZ** | **Turoa** | **4.67** | **27** | PN | **Pn** | **00 45 58.4** | **+0.8** | |
| TRVZ | | | | AML | AML | 00 46 56.1 | | |
| TRVZ | | | | AML | AML | 00 47 00.9 | | |
| **KRHZ** | **Kereru** | **4.68** | **36** | PN | **Pn** | **00 45 56.0** | **-1.6** | |
| KRHZ | | | | AML | AML | 00 46 55.9 | | |
| KRHZ | | | | AML | AML | 00 47 14.2 | | |
| **BHHZ** | **Black Hill Sta** | **4.68** | **32** | Pn | **Pn** | **00 45 56.8** | **-0.9** | |
| **BHHZ** | **Black Hill Sta** | **4.68** | **32** | PN | **Pn** | **00 45 56.8** | **-0.9** | |
| BHHZ | | | | AML | AML | 00 46 59.8 | | |
| BHHZ | | | | AML | AML | 00 47 37.5 | | |
| **TUVZ** | **Tukino** | **4.73** | **28** | Pn | **Pn** | **00 45 58.9** | **+0.5** | |
| **TUVZ** | **Tukino** | **4.73** | **28** | ⇓PN | **Pn** | **00 45 58.9** | **+0.5** | |
| TUVZ | | | | AML | AML | 00 47 06.2 | | |
| TUVZ | | | | AML | AML | 00 47 51.4 | | |
| **APZ** | **The Paps** | **4.78** | **224** | Pn | **Pn** | **00 45 57.2** | **-1.8** | |
| **APZ** | **The Paps** | **4.78** | **224** | PN | **Pn** | **00 45 57.2** | **-1.8** | |
| APZ | | | | AML | AML | 00 47 25.8 | | |
| APZ | | | | AML | AML | 00 47 31.3 | | |
| **KAHZ** | **Kahuranaki** | **4.78** | **41** | Pn | **Pn** | **00 45 58.1** | **-0.9** | |
| **KAHZ** | **Kahuranaki** | **4.78** | **41** | PN | **Pn** | **00 45 58.1** | **-0.9** | |
| KAHZ | | | | AML | AML | 00 46 57.3 | | |
| KAHZ | | | | AML | AML | 00 46 59.2 | | |
| **NGZ** | **Ngauruhoe** | **4.80** | **27** | Pn | **Pn** | **00 45 59.6** | **+0.3** | |
| **NGZ** | **Ngauruhoe** | **4.80** | **27** | PN | **Pn** | **00 45 59.6** | **+0.3** | |
| NGZ | | | | AML | AML | 00 47 04.5 | | |
| NGZ | | | | AML | AML | 00 48 07.7 | | |
| **OTVZ** | **Oturere** | **4.83** | **27** | Pn | **Pn** | **00 45 59.3** | **-0.5** | |
| **OTVZ** | **Oturere** | **4.83** | **27** | PN | **Pn** | **00 45 59.3** | **-0.5** | |
| OTVZ | | | | AML | AML | 00 47 04.3 | | |
| OTVZ | | | | AML | AML | 00 47 49.1 | | |
| **TWVZ** | **Taurewa** | **4.84** | **25** | Pn | **Pn** | **00 45 59.9** | **-0.1** | |
| **TWVZ** | **Taurewa** | **4.84** | **25** | PN | **Pn** | **00 45 59.9** | **-0.1** | |
| TWVZ | | | | AML | AML | 00 47 46.0 | | |
| TWVZ | | | | AML | AML | 00 47 47.0 | | |
| **WTVZ** | **West Tongariro** | **4.85** | **26** | Pn | **Pn** | **00 45 60.0** | **-0.1** | |
| **WTVZ** | **West Tongariro** | **4.85** | **26** | PN | **Pn** | **00 45 60.0** | **-0.1** | |
| WTVZ | | | | AML | AML | 00 46 32.2 | | |
| WTVZ | | | | AML | AML | 00 47 49.9 | | |
| **KRVZ** | **Karewarewa** | **4.88** | **27** | Pn | **Pn** | **00 46 00.9** | **+0.4** | |
| **KRVZ** | **Karewarewa** | **4.88** | **27** | PN | **Pn** | **00 46 00.9** | **+0.4** | |
| KRVZ | | | | AML | AML | 00 46 30.0 | | |
| KRVZ | | | | AML | AML | 00 46 58.1 | | |
| **KWHZ** | **Kaweka Forest** | **4.88** | **35** | PN | **Pn** | **00 45 59.8** | **-0.7** | |
| KWHZ | | | | AML | AML | 00 47 23.6 | | |
| KWHZ | | | | AML | AML | 00 47 36.8 | | |
| **MCHZ** | **McNeill Hill** | **4.98** | **37** | Pn | **Pn** | **00 46 01.4** | **-0.4** | |
| **MCHZ** | **McNeill Hill** | **4.98** | **37** | PN | **Pn** | **00 46 01.4** | **-0.4** | |
| MCHZ | | | | AML | AML | 00 47 12.8 | | |
| MCHZ | | | | AML | AML | 00 48 30.9 | | |
| **KATZ** | **Kakaramea** | **5.01** | **26** | Pn | **Pn** | **00 46 02.8** | **+0.5** | |
| **KATZ** | **Kakaramea** | **5.01** | **26** | PN | **Pn** | **00 46 02.8** | **+0.5** | |
| KATZ | | | | AML | AML | 00 47 40.2 | | |
| KATZ | | | | AML | AML | 00 47 40.2 | | |
| **RITZ** | **Rihia Road** | **5.06** | **28** | Pn | **Pn** | **00 46 02.0** | **-0.9** | |
| **RITZ** | **Rihia Road** | **5.06** | **28** | PN | **Pn** | **00 46 02.0** | **-0.9** | |
| RITZ | | | | AML | AML | 00 47 04.4 | | |
| RITZ | | | | AML | AML | 00 47 06.9 | | |
| **PYZ** | **Puysegur Point** | **5.13** | **237** | *e*Pn | **Pn** | **00 46 02.8** | **-1.0** | |
| **PYZ** | **Puysegur Point** | **5.13** | **237** | PN | **Pn** | **00 46 01.4** | **-2.3** | |
| PYZ | | | | AML | AML | 00 47 40.4 | | |
| PYZ | | | | AML | AML | 00 47 49.9 | | |
| **BKZ** | **Black Stump Fm** | **5.13** | **34** | *e*Pn | **Pn** | **00 46 05.9** | **+2.1** | |
| **BKZ** | **Black Stump Fm** | **5.13** | **34** | PN | **Pn** | **00 46 02.8** | **-1.1** | |
| BKZ | | | | AML | AML | 00 47 21.3 | | |
| BKZ | | | | AML | AML | 00 48 09.2 | | |
| **RATZ** | **Rangitukua** | **5.13** | **27** | Pn | **Pn** | **00 46 04.6** | **+0.7** | |
| **RATZ** | **Rangitukua** | **5.13** | **27** | PN | **Pn** | **00 46 04.6** | **+0.7** | |
| RATZ | | | | AML | AML | 00 47 58.3 | | |
| RATZ | | | | AML | AML | 00 48 07.7 | | |
| **HIZ** | **Hauiti** | **5.21** | **18** | *e*Pn | **Pn** | **00 46 05.3** | **+0.4** | |
| **HIZ** | **Hauiti** | **5.21** | **18** | ⇑PN | **Pn** | **00 46 04.7** | **-0.2** | |
| HIZ | | | | AML | AML | 00 47 41.1 | | |
| HIZ | | | | AML | AML | 00 47 52.9 | | |
| **ARHZ** | **Aropaoanui** | **5.26** | **38** | PN | **Pn** | **00 46 04.7** | **-0.9** | |
| ARHZ | | | | AML | AML | 00 47 10.9 | | |
| ARHZ | | | | AML | AML | 00 47 11.3 | | |
| **NMHZ** | **Naumai** | **5.32** | **35** | Pn | **Pn** | **00 46 05.5** | **-1.0** | |
| **NMHZ** | **Naumai** | **5.32** | **35** | PN | **Pn** | **00 46 05.5** | **-1.0** | |
| NMHZ | | | | AML | AML | 00 47 15.1 | | |
| NMHZ | | | | AML | AML | 00 47 31.4 | | |
| **MTHZ** | **Maungataniwha** | **5.54** | **34** | PN | **Pn** | **00 46 08.3** | **-1.2** | |
| **TLZ** | **Tolley Road** | **5.56** | **22** | Pn | **Pn** | **00 46 09.2** | **-0.5** | |
| **TLZ** | **Tolley Road** | **5.56** | **22** | PN | **Pn** | **00 46 09.2** | **-0.5** | |
| TLZ | | | | AML | AML | 00 47 15.7 | | |
| TLZ | | | | AML | AML | 00 47 18.0 | | |
| **MHGZ** | **Mahia Peninsul** | **5.78** | **43** | Pn | **Pn** | **00 46 12.0** | **-0.7** | |
| **SNGZ** | **Shannon Statio** | **5.81** | **37** | Pn | **Pn** | **00 46 12.1** | **-1.1** | |
| **SNGZ** | **Shannon Statio** | **5.81** | **37** | PN | **Pn** | **00 46 12.1** | **-1.1** | |
| SNGZ | | | | AML | AML | 00 47 21.3 | | |
| SNGZ | | | | AML | AML | 00 47 33.9 | | |
| **RIGZ** | **Rimuhau** | **6.06** | **39** | PN | **Pn** | **00 46 14.6** | **-2.1** | |
| RIGZ | | | | AML | AML | 00 47 32.1 | | |
| RIGZ | | | | AML | AML | 00 47 34.4 | | |
| **TOZ** | **Tahuroa Road** | **6.11** | **20** | Pn | **Pn** | **00 46 16.3** | **-0.9** | |
| **TOZ** | **Tahuroa Road** | **6.11** | **20** | PN | **Pn** | **00 46 16.3** | **-0.9** | |
| TOZ | | | | AML | AML | 00 47 33.4 | | |
| TOZ | | | | AML | AML | 00 48 19.9 | | |
| **URZ** | **Urewera** | **6.16** | **33** | Pn | **Pn** | **00 46 15.8** | **-2.1** | |
| | 9.5nm,0.3s,baz=226,slow=7.5,SNR=20 | | | | | | | |
| URZ | | | | Sn | **Sn** | **00 47 24.6** | **-3.8** | |
| | 18nm,0.3s,baz=93,slow=19,SNR=4.8 | | | | | | | |
| URZ | | | | LR | LR | 00 49 09.9 | | |
| | comp=Z,669nm,18.6s,baz=236,slow=44 | | | | | | | |
| **URZ** | **Urewera** | **6.16** | **33** | *e*Pn | **Pn** | **00 46 18.3** | **+0.4** | |
| URZ | | | | Sn | **Sn** | **00 47 24.6** | **-3.8** | |
| **MWZ** | **Matawai** | **6.26** | **36** | Pn | **Pn** | **00 46 16.8** | **-2.6** | |
| **MWZ** | **Matawai** | **6.26** | **36** | PN | **Pn** | **00 46 16.8** | **-2.6** | |
| MWZ | | | | AML | AML | 00 47 31.7 | | |
| MWZ | | | | AML | AML | 00 47 42.6 | | |
| **AWAZ** | **Awhitu Peninsu** | **6.58** | **13** | PN | **Pn** | **00 46 23.6** | **0.0** | |
| **RUGZ** | **Raukumara Rang** | **6.64** | **35** | PN | **Pn** | **00 46 23.8** | **-0.9** | |
| **ETAZ** | **East Tamaki Re** | **6.73** | **14** | Pn | **Pn** | **00 46 25.8** | **0.0** | |
| **ETAZ** | **East Tamaki Re** | **6.73** | **14** | PN | **Pn** | **00 46 25.8** | **0.0** | |
| **HAZ** | **Te Kaha** | **6.86** | **35** | PN | **Pn** | **00 46 25.0** | **-2.6** | |
| HAZ | | | | AML | AML | 00 47 55.0 | | |
| HAZ | | | | AML | AML | 00 48 00.2 | | |
| **PKGZ** | **Pakihiroa** | **6.88** | **37** | PN | **Pn** | **00 46 26.2** | **-1.6** | |
| PKGZ | | | | AML | AML | 00 47 44.9 | | |
| PKGZ | | | | AML | AML | 00 47 45.6 | | |
| **MXZ** | **Matakaoa Point** | **7.25** | **37** | *e*Pn | **Pn** | **00 46 33.4** | **+0.5** | |
| **CTZ** | **Chatham Island** | **7.65** | **95** | Pn | **Pn** | **00 46 37.1** | **-1.3** | |
| **CTZ** | **Chatham Island** | **7.65** | **95** | PN | **Pn** | **00 46 37.1** | **-1.3** | |
| **DZM** | **Mont Dzumac** | **22.02** | **344** | P | **P** | **00 49 40.6** | **-1.0** | |
| | 3.5nm,0.8s,baz=177,slow=17,SNR=3.1 | | | | | | | |
| **STKA** | **Stephens Creek** | **27.16** | **285** | P | **P** | **00 50 29.6** | **-0.8** | |
| | 1.1nm,0.6s,baz=119,slow=10,SNR=4.6 | | | | | | | |
| **CTAO** | **Charters Tower** | **32.24** | **308** | *e*P | **P** | **00 51 14.5** | **-1.1** | |
| | 59nm,1.6s | | | | | | | |
| **VNDA** | **Vanda** | **34.42** | **184** | *e*P | **P** | **00 51 33.1** | **-0.9** | |
| | 14nm,1.9s | | | | | | | |
| **FORT** | **Forrest** | **37.46** | **275** | *e*P | **P** | **00 51 59.3** | **-1.3** | |
| | 256nm,1.3s | | | | | | | |
| **AS01** | **Alice Springs** | **37.53** | **289** | *e*P | **P** | **00 52 00.8** | **-0.5** | |
| **AS31** | **Alice Springs** | **37.56** | **289** | *e*P | **P** | **00 52 00.8** | **-0.7** | |
| | 1.2nm,0.9s | | | | | | | |
| **ASAR** | **Alice Springs** | **37.56** | **289** | P | **P** | **00 52 00.8** | **-0.7** | |
| | 2.3nm,0.8s,baz=131,slow=8.8,SNR=35 | | | | | | | |
| **WB2** | **Warramunga Arr** | **39.79** | **294** | *e*P | **P** | **00 52 20.1** | **-0.2** | |
| | 25nm,1.5s | | | | | | | |
| **WRA** | **Warramunga Arr** | **39.80** | **294** | P | **P** | **00 52 19.9** | **-0.5** | |
| | 3.2nm,0.7s,baz=133,slow=7.9,SNR=71 | | | | | | | |
| **WRAB** | **Tennant Creek** | **39.80** | **294** | *e*P | **P** | **00 52 19.8** | **-0.6** | |
| | 6.6nm,0.8s | | | | | | | |
| **PMG** | **Port Moresby** | **40.67** | **319** | *e*P | **P** | **00 52 26.7** | **-0.9** | |
| | 166nm,1.9s | | | | | | | |
| **QSPA** | **South Pole Qui** | **46.62** | **180** | *e*P | **P** | **00 53 16.3** | **+1.1** | |
| | 22nm,0.9s | | | | | | | |
| **MTN** | **Manton Dam** | **47.05** | **298** | *e*P | **P** | **00 53 18.0** | **-0.9** | |
| | 40nm,1.7s | | | | | | | |
| **MBWA** | **Marble Bar** | **49.17** | **279** | *e*P | **P** | **00 53 35.7** | **+0.5** | |
| | 59nm,1.6s | | | | | | | |
| **SOEI** | **Soe** | **53.84** | **294** | *e*P | **P** | **00 54 10.1** | **-0.3** | |
| | 14nm,0.7s | | | | | | | |
| **FAKI** | **Fak Fak** | **54.09** | **307** | *e*P | **P** | **00 54 11.4** | **-0.7** | |
| **MAW** | **Mawson** | **57.43** | **205** | P | **P** | **00 54 36.8** | **+1.5** | |
| | 4.1nm,0.9s,baz=133,slow=11,SNR=4.2 | | | | | | | |
| **SYO** | **Syowa Base** | **62.60** | **197** | ⇑*e*P | **P** | **00 55 10.0** | **-0.8** | |
| **SNAA** | **Sanae** | **65.09** | **182** | P | **P** | **00 55 27.4** | **+0.1** | |
| **SNAA** | **Sanae** | **65.09** | **182** | *e*P | **P** | **00 55 27.3** | **0.0** | |
| | 5.5nm,1.2s | | | | | | | |
| **VNA3** | **Neumayer Olymp** | **65.55** | **179** | P | **P** | **00 55 30.8** | **+0.6** | |
| **VNA2** | **Neumayer--Watz** | **65.88** | **180** | P | **P** | **00 55 33.7** | **+1.4** | |
| | baz=179,slow=5.5 | | | | | | | |
| **VNA1** | **Neumayer--Stat** | **66.16** | **180** | P | **P** | **00 55 35.5** | **+1.5** | |
| **QIZ** | **Qiongzhong** | **84.82** | **302** | P | **P** | **00 57 22.5** | **+0.7** | |
| QIZ | | | | S | **S** | **01 07 54.5** | **+4.2** | |
| QIZ | | | | SS | **SS** | **01 13 18.0** | **-5.1** | |
| QIZ | | | | pmax | pmax | | | |
| | comp=Z,16nm,1.5s | | | | | | | |
| QIZ | | | | LR | LR | | | |
| | comp=Z,410nm,23.2s | | | | | | | |
| **SSE** | **Sheshan** | **88.01** | **318** | P | **P** | **00 57 36.8** | **-0.4** | |
| SSE | | | | S | **S** | **01 08 19.0** | **-1.8** | |
| SSE | | | | pmax | pmax | | | |
| | comp=Z,36nm,0.7s | | | | | | | |
| SSE | | | | pmax | pmax | | | |
| | comp=Z,85nm,4.0s | | | | | | | |
| SSE | | | | LR | LR | | | |
| | comp=N,230nm,22.6s | | | | | | | |
| SSE | | | | LR | LR | | | |
| | comp=E,170nm,22.9s | | | | | | | |
| SSE | | | | LR | LR | | | |
| | comp=Z,280nm,25.0s | | | | | | | |
| **NJ2** | **Nanjing** | **89.94** | **317** | *e*P | **P** | **00 57 47.3** | **+1.1** | |
| NJ2 | | | | pmax | pmax | | | |
| | comp=Z,17nm,0.7s | | | | | | | |
| **GYA** | **Guiyang** | **92.32** | **305** | P | **P** | **00 57 59.3** | **+1.7** | |
| GYA | | | | PP | **PP** | **01 01 43.5** | **+4.8** | |
| GYA | | | | SKS | **SKSac** | **01 08 31.0** | **-0.3** | |
| GYA | | | | S | **S** | **01 09 01.8** | **+0.6** | |
| GYA | | | | pmax | pmax | | | |
| | comp=Z,20nm,1.0s | | | | | | | |
| GYA | | | | pmax | pmax | | | |
| | comp=Z,130nm,5.4s | | | | | | | |
| **KMI** | **Kunming** | **93.73** | **301** | P | **P** | **00 58 06.3** | **+2.0** | |
| KMI | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,0.5s | | | | | | | |
| KMI | | | | pmax | pmax | | | |
| | comp=Z,110nm,4.0s | | | | | | | |
| KMI | | | | LR | LR | | | |
| | comp=Z,200nm,11.2s | | | | | | | |
| **MDJ** | **Mudanjiang** | **95.83** | **331** | P | **P** | **00 58 14.5** | **+1.4** | |
| MDJ | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,0.8s | | | | | | | |
| MDJ | | | | pmax | pmax | | | |
| | comp=Z,190nm,4.7s | | | | | | | |
| MDJ | | | | LR | LR | | | |
| | comp=N,240nm,14.2s | | | | | | | |
| MDJ | | | | LR | LR | | | |
| | comp=E,300nm,14.2s | | | | | | | |
| MDJ | | | | LR | LR | | | |
| | comp=Z,460nm,14.2s | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **100.47** | **317** | *e*P | **Pdif** | **00 58 35.3** | **+1.1** | |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,15nm,1.3s | | | | | | | |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,120nm,5.1s | | | | | | | |
| **LZH** | **Lanzhou** | **101.01** | **310** | *e*P | **Pdif** | **00 58 37.5** | **+0.7** | |
| LZH | | | | pP | | 00 58 42.3 | | |
| LZH | | | | sP | sPdif | 00 58 44.5 | +4.1 | |
| LZH | | | | pmax | pmax | | | |
| | comp=Z,17nm,1.0s | | | | | | | |
| LZH | | | | pmax | pmax | | | |
| | comp=Z,120nm,4.8s | | | | | | | |
| **WMQ** | **Urumqi** | **115.39** | **307** | *e*PKP | **PKPdf** | **01 03 28.3** | **-0.2** | |
| WMQ | | | | LR | LR | | | |
| | comp=N,480nm,23.9s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=E,490nm,24.5s | | | | | | | |
| WMQ | | | | LR | LR | | | |
| | comp=Z,560nm,24.5s | | | | | | | |
| **KSH** | **Kashi** | **120.14** | **297** | PKP | **PKPdf** | **01 03 40.5** | **+2.6** | |
| KSH | | | | PP | PP | 01 05 11.5 | +7.9 | |
| KSH | | | | PKS | **PKSdf** | **01 07 17.0** | **+2.4** | |
| KSH | | | | SKS | **SKSdf** | **01 10 52.0** | **+1.9** | |
| KSH | | | | SKKS | **SKKSac** | **01 12 03.8** | **+0.6** | |
| KSH | | | | AMB | AMB | | | |
| | comp=Z,80nm,4.0s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=N,74nm,4.4s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=E,51nm,3.4s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=Z,190nm,5.5s | | | | | | | |
| **MKAR** | **Makanchi Array** | **120.21** | **307** | PKP | **PKPdf** | **01 03 37.2** | **-0.4** | |
| | 0.8nm,0.8s,baz=210,slow=2.7,SNR=12 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **120.41** | **31** | PKP | **PKPdf** | **01 03 37.1** | **-0.4** | |
| | 0.2nm,0.5s,baz=239,slow=1.7,SNR=12 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **122.58** | **315** | PKP | **PKPdf** | **01 03 42.5** | **+0.6** | |
| | 0.4nm,0.4s,baz=144,slow=2.7,SNR=3.5 | | | | | | | |
| **BVAR** | **Borovoye Array** | **129.90** | **310** | PKP | **PKPdf** | **01 03 56.8** | **+0.8** | |
| | 0.8nm,0.7s,baz=132,slow=2.1,SNR=3.9 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **148.81** | **197** | PKPbc | **PKPbc** | **01 04 35.1** | **0.0** | |
| | 4.4nm,1.0s,baz=165,slow=2.4,SNR=10 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **149.04** | **338** | PKPbc | **PKPbc** | **01 04 33.9** | **-0.3** | |
| | 4.1nm,1.0s,baz=62,slow=5.6,SNR=11 | | | | | | | |
| **BRTR** | **Keskin Array B** | **149.48** | **277** | PKPbc | **PKPbc** | **01 04 36.0** | **-0.4** | |
| | 2.0nm,0.7s,baz=146,slow=4.4,SNR=15 | | | | | | | |
| **FINES** | **FINESS Array B** | **153.38** | **324** | PKPbc | **PKPbc** | **01 04 44.0** | **-0.4** | |
| | 2.8nm,0.8s,baz=90,slow=3.8,SNR=7.7 | | | | | | | |
| FINES | | | | PKPab | **PKPab** | **01 04 55.2** | **-1.4** | |
| | 3.3nm,0.9s,baz=85,slow=6.3,SNR=4.7 | | | | | | | |

*CSEM **31** 00:51:32.8±0.2,38.77N×43.19E,h10km,MD2.6, Error ellipse: s-maj=4.2km s-min=3.6km az=94.0*
*DDA **31** 00:51:32.7,38.75N×43.19E,h13km, Md2.6*
*ISK **31** 00:51:32.2,38.77N×43.21E,h7km,MD2.6*
*ISCJB **31** 00:51:33.1±0.4,38.77N±0.02×43.18E±0.04,h11km±4km, Error ellipse: s-maj=4.6km s-min=4.0km az=5.8*

**ISC 31 00:51:33.4±0.9,38.75N±0.02×43.19E±0.02,h17km±7km, n29,σ1.903/47,Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VANB** | **Van** | **0.22** | **135** | *e*PG | **Pg** | **00 51 38.6** | **-0.1** |
| VANB | | | | *e*SG | **Sg** | **00 51 43.6** | **+1.4** |
| **VANB** | **Van** | **0.22** | **135** | *e*Pg | **Pg** | **00 51 38.6** | **-0.1** |
| VANB | | | | *e*Sg | **Sg** | **00 51 43.6** | **+1.4** |
| **TVAN** | **Van** | **0.28** | **142** | *i* P | **Pg** | **00 51 38.7** | **-1.0** |
| TVAN | | | | *i* S | **Sb** | **00 51 43.8** | **-0.9** |
| **TVAN** | **Van** | **0.28** | **142** | P | **Pg** | **00 51 38.7** | **-1.0** |
| TVAN | | | | S | **Sb** | **00 51 43.8** | **-0.9** |
| **ADCV** | **BITLIS_Adilcev** | **0.37** | **279** | *i* P | **Pg** | **00 51 40.4** | **-0.7** |
| ADCV | | | | *i* S | **Sg** | **00 51 46.1** | **-0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.37** | **279** | P | **Pg** | **00 51 40.4** | **-0.7** |
| ADCV | | | | S | **Sg** | **00 51 46.1** | **-0.2** |
| **VMUR** | **Van-Muradiye** | **0.38** | **52** | *i* P | **Pg** | **00 51 40.4** | **-1.0** |
| VMUR | | | | *i* S | **Sb** | **00 51 47.2** | **-0.4** |
| **VMUR** | **Van-Muradiye** | **0.38** | **52** | P | **Pg** | **00 51 40.4** | **-1.0** |
| VMUR | | | | S | **Sb** | **00 51 47.2** | **-0.4** |
| **GEVA** | **Gevas** | **0.45** | **193** | *i* P | **Pg** | **00 51 40.9** | **-1.7** |
| GEVA | | | | *i* S | **Sg** | **00 51 48.5** | **-0.3** |
| **GEVA** | **Gevas** | **0.45** | **193** | P | **Pg** | **00 51 40.9** | **-1.7** |
| GEVA | | | | S | **Sg** | **00 51 48.5** | **-0.3** |
| **CLDR** | **Caldiran** | **0.69** | **55** | *e*PG | **Pg** | **00 51 45.6** | **-1.4** |
| **CLDR** | **Caldiran** | **0.69** | **55** | *i* P | **Pg** | **00 51 45.6** | **-1.4** |
| CLDR | | | | *i* S | **Sb** | **00 51 56.0** | **-0.5** |
| **CLDR** | **Caldiran** | **0.69** | **55** | P | **Pg** | **00 51 45.6** | **-1.4** |
| CLDR | | | | S | **Sb** | **00 51 56.0** | **-0.5** |
| **TUTA** | **Tutak** | **0.71** | **336** | *i* P | **Pg** | **00 51 46.2** | **-1.2** |
| TUTA | | | | *i* S | **Sb** | **00 51 56.3** | **-0.8** |
| **TUTA** | **Tutak** | **0.71** | **336** | P | **Pg** | **00 51 46.2** | **-1.2** |
| **AGRB** | **Hanur-Agry** | **0.84** | **350** | *e*PG | **Pg** | **00 51 48.5** | **-1.3** |
| AGRB | | | | *e*SG | **Sb** | **00 52 00.3** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **0.84** | **350** | *e*Pg | **Pg** | **00 51 48.5** | **-1.3** |
| AGRB | | | | *e*Sg | **Sb** | **00 52 00.3** | **-0.3** |
| **EKAR** | **Karacoban** | **1.01** | **300** | *i* P | **Pn** | **00 51 53.1** | **+0.5** |
| EKAR | | | | *i* S | **Sn** | **00 52 10.4** | **+3.5** |
| **EKAR** | **Karacoban** | **1.01** | **300** | P | **Pn** | **00 51 53.5** | **+0.5** |
| **SRTM** | **Siirt_Merkez** | **1.25** | **233** | *i* P | **Pg** | **00 51 56.9** | **-0.7** |
| SRTM | | | | *i* S | **Sg** | **00 52 13.3** | **-0.6** |
| **SRTM** | **Siirt_Merkez** | **1.25** | **233** | P | **Pg** | **00 51 56.9** | **-0.7** |
| SRTM | | | | S | **Sg** | **00 52 13.3** | **-0.6** |
| **HAKT** | **HAKKARI** | **1.26** | **161** | *i* P | **Pn** | **00 51 55.9** | **-0.5** |
| **HAKT** | **HAKKARI** | **1.26** | **161** | P | **Pn** | **00 51 55.9** | **-0.5** |
| **SIRT** | **Sirnak** | **1.38** | **206** | *e*PN | **Pb** | **00 51 59.0** | **+0.2** |
| **SIRT** | **Sirnak** | **1.38** | **206** | *e*Pn | **Pb** | **00 51 59.0** | **+0.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.48** | **33** | *e*PN | **Pn** | **00 51 59.5** | **+0.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.48** | **33** | *e*Pn | **Pn** | **00 51 59.5** | **+0.2** |
| **CUKT** | **Cukurca** | **1.54** | **167** | *e*PN | **Pn** | **00 52 00.9** | **+0

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **PB11** | **IPOC Station P** | **22.82** | **161** | *eP* | | **P** | **00 58 49.1** | **-2.1** |
| | comp=Z,16nm,1.2s | | | | | | | | |
| **SIV** | **San Ignacio** | **24.01** | **138** | P | | **P** | **00 59 01.6** | **-0.6** |
| | comp=Z,1.0nm,0.6s,baz=336,slow=9.2,SNR=3.5 | | | | | | | | |
| **PB10** | **IPOC Station P** | **26.12** | **166** | *eP* | | **P** | **00 59 19.1** | **-2.1** |
| | comp=Z,24nm,1.2s | | | | | | | | |
| **ZAIG** | **Zacatecas** | **32.05** | **312** | *eP* | | **P** | **01 00 15.8** | **+1.6** |
| | comp=Z,11nm,1.8s | | | | | | | | |
| **KVTX** | **Kingsville** | **32.18** | **324** | *eP* | | **P** | **01 00 15.5** | **+0.6** |
| | comp=Z,27nm,0.6s | | | | | | | | |
| **LRAL** | **Lakeview Retre** | **32.27** | **345** | *eP* | | **P** | **01 00 17.3** | **+1.6** |
| | comp=Z,3.7nm,0.6s | | | | | | | | |
| **HODGE** | **Hodges** | **32.49** | **353** | *eP* | | **P** | **01 00 18.4** | **+0.8** |
| | comp=Z,7.1nm,1.1s | | | | | | | | |
| **HKT** | **Hockley** | **32.94** | **330** | *eP* | | **P** | **01 00 22.4** | **+0.9** |
| | comp=Z,10nm,1.8s | | | | | | | | |
| **KMSC** | **Kings Mountain** | **33.29** | **354** | *eP* | | **P** | **01 00 25.8** | **+1.2** |
| | comp=Z,16nm,1.6s | | | | | | | | |
| **BG3** | **Lake Jocassee** | **33.34** | **352** | *eP* | | **P** | **01 00 25.2** | **+0.3** |
| | comp=Z,37nm,2.0s | | | | | | | | |
| **NATX** | **Nacogdoches** | **33.88** | **333** | *eP* | | **P** | **01 00 30.3** | **+0.6** |
| | comp=Z,9.6nm,0.6s | | | | | | | | |
| **CPCT** | **Cooper Cave** | **34.04** | **350** | *eP* | | **P** | **01 00 31.7** | **+0.6** |
| | comp=Z,28nm,2.0s | | | | | | | | |
| **SWET** | **Sewanee** | **34.09** | **348** | *eP* | | **P** | **01 00 32.8** | **+1.2** |
| | comp=Z,24nm,2.0s | | | | | | | | |
| **TKL** | **Tuckaleechee C** | **34.12** | **351** | *eP* | | **P** | **01 00 33.5** | **+1.8** |
| | comp=Z,33nm,1.8s | | | | | | | | |
| **WLAR** | **White Oak Lake** | **34.88** | **337** | *eP* | | **P** | **01 00 39.5** | **+1.1** |
| | comp=Z,31nm,1.4s | | | | | | | | |
| **WVT** | **Waverly** | **35.41** | **345** | *eP* | | **P** | **01 00 43.1** | **+0.2** |
| | comp=Z,21nm,1.7s | | | | | | | | |
| **PEL** | **Peldehue** | **35.42** | **170** | *eP* | | P | 01 00 39.0 | -4.0 |
| | comp=Z,55nm,1.6s | | | | | | | | |
| **JCT** | **Junction City** | **35.48** | **325** | *eP* | | **P** | **01 00 45.6** | **+2.0** |
| | comp=Z,4.1nm,1.0s | | | | | | | | |
| **UALR** | **University of** | **35.56** | **339** | *eP* | | **P** | **01 00 44.5** | **+0.4** |
| | comp=Z,13nm,1.3s | | | | | | | | |
| **IP05** | **Hopewell Churc** | **35.77** | **360** | *eP* | | **P** | **01 00 46.3** | **+0.4** |
| | comp=Z,30nm,1.5s | | | | | | | | |
| **MIAR** | **Mount Ida** | **35.82** | **337** | *eP* | | **P** | **01 00 47.5** | **+1.1** |
| | comp=Z,16nm,1.6s | | | | | | | | |
| **IP07** | **Quail** | **35.86** | **359** | *eP* | | **P** | **01 00 47.2** | **+0.6** |
| | comp=Z,32nm,1.7s | | | | | | | | |
| **IP06** | **Yanceyville** | **35.88** | **359** | *eP* | | **P** | **01 00 47.0** | **+0.2** |
| | comp=Z,24nm,1.9s | | | | | | | | |
| **IP01** | **Cuckoo** | **35.90** | **359** | *eP* | | **P** | **01 00 47.0** | **0.0** |
| | comp=Z,34nm,1.9s | | | | | | | | |
| **IP03** | **Louisa** | **35.96** | **359** | *eP* | | **P** | **01 00 49.3** | **+1.7** |
| | comp=Z,29nm,1.8s | | | | | | | | |
| **SPRD** | **Spring Road, M** | **35.97** | **359** | *eP* | | **P** | **01 00 48.0** | **+0.4** |
| | comp=Z,16nm,1.5s | | | | | | | | |
| **X301** | **Greenbrier Sit** | **35.99** | **339** | *eP* | | **P** | **01 00 48.9** | **+1.1** |
| | comp=Z,19nm,1.7s | | | | | | | | |
| **IP04** | **Greensprings** | **36.04** | **359** | *eP* | | **P** | **01 00 48.6** | **+0.4** |
| | comp=Z,6.0nm,1.0s | | | | | | | | |
| **PBMO** | **Poplar Bluff** | **36.74** | **342** | *eP* | | **P** | **01 00 54.5** | **+0.3** |
| | comp=Z,52nm,1.8s | | | | | | | | |
| **TXAR** | **Lajitas Array** | **37.00** | **320** | P | | **P** | **01 00 58.0** | **+1.3** |
| | comp=Z,0.6nm,0.7s,baz=148,slow=7.6,SNR=8.2 | | | | | | | | |
| TXAR | | | | PcP | | **PcP** | **01 03 18.1** | **+1.9** |
| | comp=Z,0.5nm,0.7s,baz=147,slow=5.1,SNR=6.8 | | | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **37.00** | **320** | *eP* | | **P** | **01 00 57.7** | **+1.0** |
| **WCI** | **Wyandotte Cave** | **37.07** | **348** | *eP* | | **P** | **01 00 57.9** | **+0.9** |
| | comp=Z,44nm,1.9s | | | | | | | | |
| **X35A** | **Drake** | **37.14** | **333** | *eP* | | **P** | **01 00 59.3** | **+1.7** |
| | comp=Z,26nm,1.8s | | | | | | | | |
| **SIUC** | **Southern Illin** | **37.27** | **344** | *eP* | | **P** | **01 01 00.3** | **+1.6** |
| | comp=Z,19nm,1.5s | | | | | | | | |
| **W36A** | **Wetumka** | **37.43** | **334** | *eP* | | **P** | **01 01 01.4** | **+1.3** |
| | comp=Z,25nm,1.9s | | | | | | | | |
| **HHAR** | **Hobbs** | **37.49** | **338** | *eP* | | **P** | **01 01 01.9** | **+1.3** |
| | comp=Z,17nm,1.8s | | | | | | | | |
| **MCWV** | **Mont Chateau** | **37.66** | **357** | *eP* | | **P** | **01 01 01.5** | **-0.4** |
| | comp=Z,70nm,2.0s | | | | | | | | |
| **V36A** | **Jenks** | **37.86** | **335** | *eP* | | **P** | **01 01 04.9** | **+1.2** |
| | comp=Z,15nm,1.3s | | | | | | | | |
| **FVM** | **French Village** | **37.86** | **343** | *eP* | | **P** | **01 01 04.2** | **+0.5** |
| | comp=Z,37nm,2.0s | | | | | | | | |
| **TUL1** | **Leonard** | **37.90** | **335** | *eP* | | **P** | **01 01 04.7** | **+0.7** |
| | comp=Z,3.7nm,0.8s | | | | | | | | |
| **OLIL** | **Olney** | **37.95** | **346** | *eP* | | **P** | **01 01 04.4** | **0.0** |
| | comp=Z,52nm,1.7s | | | | | | | | |
| **BLO** | **Bloomington** | **38.03** | **348** | *eP* | | **P** | **01 01 06.0** | **+1.0** |
| | comp=Z,44nm,1.6s | | | | | | | | |
| **OK021** | **N3530 Road, Sp** | **38.03** | **334** | *eP* | | **P** | **01 01 05.7** | **+0.5** |
| | comp=Z,26nm,1.8s | | | | | | | | |
| **OK020** | **N3440 Road, Me** | **38.05** | **334** | *eP* | | **P** | **01 01 06.1** | **+0.8** |
| | comp=Z,47nm,1.8s | | | | | | | | |
| **CCM** | **Cathedral Cave** | **38.17** | **342** | *eP* | | **P** | **01 01 07.3** | **+1.1** |
| | comp=Z,32nm,2.0s | | | | | | | | |
| **V35A** | **Meyer Ranch, C** | **38.22** | **334** | *eP* | | **P** | **01 01 06.6** | **-0.2** |
| | comp=Z,50nm,1.9s | | | | | | | | |
| **LUPA** | **Lehigh Univers** | **38.58** | **2** | *eP* | | **P** | **01 01 09.9** | **+0.3** |
| | comp=Z,1.9nm,1.5s | | | | | | | | |
| **U35A** | **Pawnee** | **38.69** | **335** | *eP* | | **P** | **01 01 11.1** | **+0.5** |
| | comp=Z,29nm,1.7s | | | | | | | | |
| **CPNY** | **Central Park** | **38.85** | **4** | *eP* | | **P** | **01 01 13.2** | **+1.3** |
| | comp=Z,12nm,0.8s | | | | | | | | |
| **KSPA** | **Keystone Colle** | **39.52** | **2** | *eP* | | **P** | **01 01 18.5** | **+1.0** |
| | comp=Z,2.6nm,0.9s | | | | | | | | |
| **MNTX** | **Cornudas Mount** | **39.69** | **321** | *eP* | | **P** | **01 01 19.8** | **+0.7** |
| | comp=Z,1.0nm,0.6s | | | | | | | | |
| **MSTX** | **Muleshoe** | **39.76** | **326** | *eP* | | **P** | **01 01 20.8** | **+1.1** |
| | comp=Z,24nm,1.8s | | | | | | | | |
| **AMTX** | **Amarillo** | **39.85** | **328** | *eP* | | **P** | **01 01 22.1** | **+1.6** |
| | comp=Z,11nm,1.3s | | | | | | | | |
| **HDIL** | **Hopedale** | **39.97** | **346** | *eP* | | **P** | **01 01 21.4** | **+0.1** |
| | comp=Z,75nm,1.9s | | | | | | | | |
| **SCIA** | **State Center** | **42.30** | **342** | *eP* | | **P** | **01 01 39.7** | **-0.6** |
| | comp=Z,6.8nm,0.7s | | | | | | | | |
| **LENM** | **Lemitar** | **42.34** | **323** | *eP* | | **P** | **01 01 41.5** | **+0.4** |
| **VT1** | **Waterbury** | **42.47** | **5** | *eP* | | **P** | **01 01 41.5** | **-0.2** |
| | comp=Z,52nm,1.6s | | | | | | | | |
| **ANMO** | **Albuquerque** | **42.57** | **324** | *eP* | | **P** | **01 01 44.3** | **+1.4** |
| | comp=Z,3.6nm,0.6s | | | | | | | | |
| **LAZ** | **Ladron** | **42.60** | **323** | *eP* | | **P** | **01 01 42.8** | **-0.4** |
| **SADO** | **Sadowa** | **42.73** | **358** | *eP* | | **P** | **01 01 44.1** | **+0.3** |
| | comp=Z,63nm,1.8s | | | | | | | | |
| **PLCA** | **Paso Flores** | **42.88** | **172** | *eP* | | **P** | **01 01 42.4** | **-2.7** |
| | comp=Z,22nm,1.8s | | | | | | | | |
| **WVL** | **Waterville** | **43.05** | **8** | *eP* | | **P** | **01 01 46.5** | **+0.2** |
| | comp=Z,58nm,1.5s | | | | | | | | |
| **GLMI** | **Grayling** | **43.23** | **353** | *eP* | | **P** | **01 01 48.4** | **+0.6** |
| | comp=Z,24nm,0.9s | | | | | | | | |
| **BGNE** | **Belgrade** | **43.56** | **337** | *eP* | | **P** | **01 01 50.9** | **+0.3** |
| | comp=Z,66nm,1.9s | | | | | | | | |
| **TUC** | **Tucson** | **43.60** | **318** | *eP* | | **P** | **01 01 51.6** | **+0.5** |
| | comp=Z,8.6nm,1.9s | | | | | | | | |
| **SDCO** | **Great Sand Dun** | **44.03** | **328** | *eP* | | **P** | **01 01 55.5** | **+0.7** |
| **X18A** | **Snowflake** | **44.43** | **321** | *eP* | | **P** | **01 01 57.5** | **-0.3** |
| | comp=Z,2.9nm,1.1s | | | | | | | | |
| **OGNE** | **Ogallala** | **44.80** | **333** | *eP* | | **P** | **01 02 00.5** | **-0.1** |
| | comp=Z,6.1nm,0.6s | | | | | | | | |
| **SPMN** | **Marine on St.** | **45.24** | **345** | *eP* | | **P** | **01 02 04.4** | **+0.6** |
| | comp=Z,36nm,1.8s | | | | | | | | |
| **X16A** | **Lo Mia Camp, P** | **45.32** | **319** | *eP* | | **P** | **01 02 05.1** | **+0.2** |
| | comp=Z,3.9nm,1.4s | | | | | | | | |
| **MVCO** | **Mesa Verde** | **45.33** | **325** | *eP* | | **P** | **01 02 05.5** | **+0.4** |
| | comp=Z,14nm,1.8s | | | | | | | | |
| **ISCO** | **Idaho Springs** | **45.62** | **329** | *eP* | | **P** | **01 02 08.2** | **+0.8** |
| | comp=Z,0.9nm,0.7s | | | | | | | | |
| **113A** | **Mohawk Valley,** | **45.91** | **316** | *eP* | | **P** | **01 02 09.6** | **+0.2** |
| | comp=Z,9.8nm,1.6s | | | | | | | | |
| **PV01** | **Paradox Valley** | **46.01** | **325** | *eP* | | **P** | **01 02 10.6** | **+0.3** |
| **Y14A** | **Wickenburg** | **46.06** | **318** | *eP* | | **P** | **01 02 11.6** | **+1.0** |
| | comp=Z,9.3nm,1.0s | | | | | | | | |
| **PV05** | **Paradox Valley** | **46.27** | **325** | *eP* | | **P** | **01 02 13.7** | **+1.3** |
| **PV10** | **Paradox Valley** | **46.44** | **325** | *eP* | | **P** | **01 02 13.7** | **-0.1** |
| **PHWY** | **Pilot Hill** | **46.68** | **331** | *eP* | | **P** | **01 02 16.1** | **+0.5** |
| | comp=Z,3.8nm,0.9s | | | | | | | | |
| **W13A** | **Hualapai Mount** | **47.33** | **318** | *eP* | | **P** | **01 02 21.5** | **+0.8** |
| | comp=Z,5.1nm,1.4s | | | | | | | | |
| **EYMN** | **Ely** | **47.47** | **347** | *eP* | | **P** | **01 02 21.6** | **+0.3** |
| | comp=Z,39nm,1.7s | | | | | | | | |
| **RWWY** | **Rawlins** | **47.83** | **330** | *eP* | | **P** | **01 02 24.9** | **+0.3** |
| | comp=Z,12nm,0.8s | | | | | | | | |
| **P18A** | **Preston Nutter** | **47.98** | **326** | *eP* | | **P** | **01 02 26.4** | **+0.6** |
| | comp=Z,10nm,1.8s | | | | | | | | |
| **MTPU** | **Mount Pierson** | **48.06** | **323** | *eP* | | **P** | **01 02 27.4** | **+0.9** |
| | comp=Z,4.9nm,0.9s | | | | | | | | |
| **RSSD** | **Black Hills** | **48.23** | **334** | *eP* | | **P** | **01 02 27.7** | **+0.2** |
| | comp=Z,5.0nm,0.6s | | | | | | | | |
| **PDAR** | **Pinedale Array** | **49.81** | **329** | P | | **P** | **01 02 40.4** | **+0.8** |
| | comp=Z,0.2nm,0.5s,baz=122,slow=9.7,SNR=2.9 | | | | | | | | |
| **SPUT** | **South Promonto** | **50.35** | **326** | *eP* | | **P** | **01 02 46.5** | **+2.8** |
| | comp=Z,3.4nm,0.8s | | | | | | | | |
| **ULM** | **Lac du Bonnet** | **50.68** | **345** | P | | **P** | **01 02 45.2** | **-0.5** |
| | comp=Z,2.4nm,0.6s,baz=154,slow=7.0,SNR=7.8 | | | | | | | | |
| ULM | | | | PcP | | **PcP** | **01 04 02.5** | **+0.6** |
| | comp=Z,1.2nm,0.6s,baz=160,slow=1.9,SNR=6.3 | | | | | | | | |
| **HVU** | **Hansel Valley** | **50.85** | **326** | *eP* | | **P** | **01 02 45.6** | **-1.8** |
| | comp=Z,9.2nm,1.7s | | | | | | | | |
| **GCMT** | **Greycliff** | **52.06** | **332** | *eP* | | **P** | **01 02 57.6** | **+1.3** |
| **NVAR** | **Mina Array Bea** | **52.15** | **319** | P | | **P** | **01 02 59.7** | **+2.5** |
| | comp=Z,1.1nm,0.6s,baz=122,slow=6.5,SNR=3.2 | | | | | | | | |
| NVAR | | | | PcP | | **PcP** | **01 04 09.6** | **+1.5** |
| | comp=Z,1.0nm,0.6s,baz=138,slow=4.2,SNR=3.2 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **66.51** | **342** | P | | **P** | **01 04 35.6** | **+0.2** |
| | comp=Z,0.7nm,0.6s,baz=138,slow=6.1,SNR=26 | | | | | | | | |
| **ESDC** | **Sonseca Array** | **76.08** | **50** | P | | **P** | **01 05 33.8** | **0.0** |
| | comp=Z,0.1nm,0.4s,baz=254,slow=6.0,SNR=4.7 | | | | | | | | |
| **INK** | **Inuvik** | **76.26** | **341** | P | | **P** | **01 05 34.8** | **+0.7** |
| | comp=Z,10.0nm,1.4s,baz=125,slow=4.7,SNR=4.1 | | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **78.97** | **77** | P | | **P** | **01 05 50.3** | **+0.1** |
| | comp=Z,0.6nm,0.4s,baz=283,slow=6.2,SNR=3.1 | | | | | | | | |
| **ILAR** | **Eielson Array** | **79.64** | **336** | P | | **P** | **01 05 53.7** | **+0.8** |
| | comp=Z,0.5nm,0.5s,baz=95,slow=4.6,SNR=13 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **122.43** | **12** | PKP | | **PKPdf** | **01 12 40.6** | **+0.2** |
| | comp=Z,0.7nm,0.4s,baz=251,slow=2.1,SNR=4.6 | | | | | | | | |
| **GEYT** | **Alibeck** | **122.96** | **41** | PKP | | **PKPdf** | **01 12 43.0** | **+1.0** |
| | comp=Z,0.5nm,0.4s,baz=272,slow=4.2,SNR=3.7 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **128.34** | **18** | PKP | | **PKPdf** | **01 12 52.7** | **+0.6** |
| | comp=Z,1.0nm,0.7s,baz=305,slow=2.7,SNR=11 | | | | | | | | |
| **SONM** | **Songino Array** | **130.37** | **357** | PKP | | **PKPdf** | **01 12 56.7** | **+0.6** |
| | comp=Z,0.7nm,0.8s,baz=60,slow=0.4,SNR=5.0 | | | | | | | | |
| **KSH** | **Kashi** | **132.10** | **28** | *e*PKP | | **PKPdf** | **01 12 58.3** | **-1.3** |
| KSH | | | | sPKP | | | 01 13 36.3 | | |
| KSH | | | | PP | | **PP** | **01 15 25.3** | **+4.2** |
| KSH | | | | PKS | | **PKSdf** | **01 16 33.3** | **-2.9** |
| KSH | | | | SKS | | **SKSdf** | **01 19 58.5** | **-5.4** |
| KSH | | | | SKKS | | **SKKSac** | **01 22 05.3** | **-5.4** |
| KSH | | | | SS | | **SS** | **01 32 51.5** | **-0.1** |
| KSH | | | | AMB | | AMB | | | |
| | comp=Z,110nm,4.5s | | | | | | | | |
| KSH | | | | LR | | LR | | | |
| | comp=Z,20nm,3.1s | | | | | | | | |
| KSH | | | | LR | | LR | | | |
| | comp=Z,24nm,3.7s | | | | | | | | |
| KSH | | | | LR | | LR | | | |
| | comp=Z,220nm,4.3s | | | | | | | | |
| **WMQ** | **Urumqi** | **132.58** | **15** | *e*PKP | | **PKPdf** | **01 12 58.5** | **-1.8** |
| **HHC** | **Hu-ho-hao-te** | **136.69** | **350** | *e*PKP | | **PKPdf** | **01 13 07.0** | **-1.1** |
| **ASAR** | **Alice Springs** | **142.74** | **232** | PKhKP | | PKPpre | 01 13 16.1 | | |
| | comp=Z,3.7nm,0.4s,baz=120,slow=3.8,SNR=63 | | | | | | | | |
| ASAR | | | | PKP | | **PKPdf** | **01 13 21.0** | **+1.5** |
| | comp=Z,0.8nm,0.6s,baz=123,slow=2.9,SNR=5.5 | | | | | | | | |
| **NJ2** | **Nanjing** | **142.89** | **337** | *e*PKP | | **PKPdf** | **01 13 18.8** | **-0.7** |
| **WRA** | **Warramunga Arr** | **144.16** | **238** | PKhKP | | PKPpre | 01 13 20.6 | | |
| | comp=Z,5.2nm,0.6s,baz=110,slow=3.1,SNR=56 | | | | | | | | |
| WRA | | | | PKP | | **PKiKP** | **01 13 25.1** | **-0.5** |
| | comp=Z,1.5nm,0.9s,baz=118,slow=2.3,SNR=4.7 | | | | | | | | |
| **PYUN** | **Piuthan** | **144.74** | **31** | *eP* | | **PKPdf** | **01 13 23.1** | **0.0** |
| **DANN** | **Dangsing** | **144.92** | **30** | *eP* | | **PKPdf** | **01 13 24.2** | **+0.7** |
| **KOLN** | **Koldanda** | **145.31** | **30** | *eP* | | **PKPdf** | **01 13 24.7** | **+0.6** |
| | comp=Z,9.7nm,0.8s | | | | | | | | |
| **GKN** | **Gorkha** | **145.63** | **29** | *eP* | | **PKPab** | **01 13 26.3** | **+1.0** |
| **KKN** | **Kakani** | **146.12** | **28** | *eP* | | **PKPab** | **01 13 27.2** | **0.0** |
| **DMN** | **Daman** | **146.19** | **29** | *eP* | | **PKPab** | **01 13 27.8** | **+0.3** |
| | comp=Z,9.0nm,0.4s | | | | | | | | |
| **GUN** | **Gumba** | **146.30** | **27** | *eP* | | **PKPab** | **01 13 28.5** | **+0.5** |
| **PKIN** | **Phulchoki** | **146.36** | **28** | *eP* | | **PKPab** | **01 13 28.0** | **-0.2** |
| **PKI** | **Pulchoki** | **146.37** | **28** | *eP* | | **PKPab** | **01 13 28.2** | **-0.1** |
| **RAMN** | **Ramite** | **147.45** | **27** | *eP* | | **PKPbc** | **01 13 30.2** | **-0.2** |
| | comp=Z,5.3nm,0.5s | | | | | | | | |
| **TAPN** | **Taplejung** | **147.59** | **25** | *eP* | | **PKPbc** | **01 13 31.7** | **+0.9** |
| **ODAN** | **Odare** | **147.88** | **26** | *eP* | | **PKPbc** | **01 13 31.5** | **0.0** |
| **CMAR** | **Chiang Mai Arr** | **159.47** | **10** | PKPab | | **PKPab** | **01 14 22.6** | **-0.1** |
| | comp=Z,1.1nm,0.7s,baz=331,slow=6.0,SNR=7.0 | | | | | | | | |

**IDC 31 01:04:30.7±27.0, 20°.01S×175°.21W, h0km, mb4.0/4, mb1 4.2/4, mb1mx3.7/32, mbtmp4.0/4, Error ellipse: s-maj=498.3km s-min=142.6km az=75.0, Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **CTA** | **Charters Tower** | **36.15** | **263** | P | | P | P | 01 11 36.0 | +0.9 |
| | 4.2nm,0.7s,baz=90,slow=11,SNR=6.8 | | | | | | | | |
| **STKA** | **Stephens Creek** | **36.36** | **244** | P | | P | P | 01 12 09.9 | -0.5 |
| | 0.6nm,0.5s,baz=98,slow=15,SNR=2.3 | | | | | | | | |
| **ASAR** | **Alice Springs** | **47.18** | **256** | P | | P | P | 01 13 05.2 | -0.3 |
| | 2.0nm,0.8s,baz=99,slow=7.8,SNR=24 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **47.27** | **261** | P | | P | P | 01 13 05.7 | -0.4 |
| | 0.8nm,0.3s,baz=96,slow=7.7,SNR=35 | | | | | | | | |

**IDC 31 01:25:08.2±1.7, 3°.54S×143°.31E, h0km, mb3.5/3, mb1 3.9/4, mb1mx3.4/44, mbtmp3.7/4, ML4.0/1, Error ellipse: s-maj=113.4km s-min=26.7km az=120.0, Near north coast of New Guinea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **18.50** | **208** | P | | P | P | 01 29 24.5 | -1.6 |
| | 0.5nm,0.3s,baz=25,slow=12,SNR=30 | | | | | | | | |
| WRA | | | | S | | S | Sn | 01 32 42.8 | -11 |
| | 0.0nm,0.3s,baz=27,slow=23,SNR=3.3 | | | | | | | | |
| **ASAR** | **Alice Springs** | **21.97** | **204** | P | | P | P | 01 30 03.5 | -0.4 |
| | 0.6nm,0.6s,baz=26,slow=11,SNR=7.6 | | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **22.56** | **229** | P | | P | P | 01 30 11.6 | +1.4 |
| | 2.0nm,0.8s,baz=36,slow=8.7,SNR=5.9 | | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **32.73** | **44** | T | | T | T | 02 06 54.1 | |
| | baz=230,slow=76,SNR=32 | | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **32.75** | **44** | T | | T | T | 02 06 55.3 | |
| | baz=230,slow=76,SNR=36 | | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **32.75** | **44** | T | | T | T | 02 06 55.4 | |
| | baz=230,slow=76,SNR=22 | | | | | | | | |
| **ILAR** | **Eielson Array** | **84.71** | **24** | P | | P | P | 01 37 43.7 | -0.1 |
| | 0.7nm,0.8s,baz=262,slow=4.5,SNR=7.7 | | | | | | | | |

*LJU **31** 01:33:02.8, 45°.66N×14°.30E, h19km, ML1.9*
*CSEM **31** 01:33:03.5±0.1, 45°.67N×14°.29E, h10km, ML2.7/23, Error ellipse: s-maj=2.2km s-min=1.4km az=20.0*
*VIE **31** 01:33:03.8±0.4, 45°.68N×14°.29E, h11km±2km, mb1.8/3, ML2.2/6, Error ellipse: s-maj=3.8km s-min=1.9km az=3.0*
*ROM **31** 01:33:03.2±0.7, 45°.64N×14°.33E, h10km, Md2.6/7, Ml2. 1/9, Error ellipse: s-maj=12.7km s-min=7.6km az=45.0*

**ISC 31 01:33:03.8±0.8, 45°.68N±0°.02×14°.30E±0°.01, h13km±5km, n93, σ0°56/146, 8C-1D, Northwestern Balkan Peninsula**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **CEY** | **Cerknica** | **0.11** | **55** | ⇑*i* | Pg | **Pb** | **01 33 07.0** | **-0.7** |
| CEY | | | | *i* | Sg | **Sg** | **01 33 09.7** | **+0.5** |
| | comp=Z,126nm,0.0s | | | | | | | | |
| **CEY** | **Cerknica** | **0.11** | **55** | ⇑*i* | Pg | **Pb** | **01 33 07.1** | **-0.7** |
| CEY | | | | *i* | Sg | **Sg** | **01 33 09.7** | **+0.5** |
| | comp=Z,126nm,0.0s | | | | | | | | |
| **KNDS** | **Knezji Dol** | **0.16** | **159** | ⇑*i* | Pg | **Pg** | **01 33 07.3** | **-0.4** |
| KNDS | | | | *i* | Sg | **Sg** | **01 33 10.4** | **0.0** |
| | comp=Z,200nm,0.1s | | | | | | | | |
| **KNDS** | **Knezji Dol** | **0.16** | **159** | ⇑*i* | Pg | **Pg** | **01 33 07.3** | **-0.4** |
| KNDS | | | | *i* | Sg | **Sg** | **01 33 10.4** | **0.0** |
| | comp=Z,200nm,0.1s | | | | | | | | |
| **SKDS** | **Skadanscina** | **0.24** | **237** | *i* | Pg | **Pg** | **01 33 08.3** | **-0.6** |
| SKDS | | | | *i* | Sg | **Sg** | **01 33 12.1** | **-0.3** |
| | comp=Z,86nm,0.0s | | | | | | | | |
| **SKDS** | **Skadanscina** | **0.24** | **237** | *i* | Pg | **Pg** | **01 33 08.3** | **-0.6** |
| SKDS | | | | *i* | Sg | **Sg** | **01 33 12.1** | **-0.3** |
| | comp=Z,86nm,0.0s | | | | | | | | |
| **JAVS** | **Javornik** | **0.27** | **323** | ⇑*i* | Pg | **Pg** | **01 33 09.2** | **-0.3** |
| JAVS | | | | *i* | Sg | **Sg** | **01 33 14.0** | **+0.5** |
| | comp=Z,48nm,0.1s | | | | | | | | |
| **JAVS** | **Javornik** | **0.27** | **323** | ⇑*i* | Pg | **Pg** | **01 33 09.2** | **-0.3** |
| JAVS | | | | *i* | Sg | **Sg** | **01 33 14.0** | **+0.5** |
| | comp=Z,48nm,0.1s | | | | | | | | |
| **GBAS** | **Gorenja Brezov** | **0.28** | **21** | *i* | Pg | **Pg** | **01 33 09.6** | **0.0** |
| GBAS | | | | *e*Sg | | **Sb** | **01 33 14.3** | **-1.0** |
| | comp=Z,14nm,0.0s | | | | | | | | |
| **GBAS** | **Gorenja Brezov** | **0.28** | **21** | *i* | Pg | **Pg** | **01 33 09.6** | **0.0** |
| GBAS | | | | *e*Sg | | **Sb** | **01 33 14.3** | **-1.0** |
| | comp=Z,14nm,0.0s | | | | | | | | |
| **TRI** | **Trieste** | **0.38** | **275** | ⇑*e*Pg | | **Pg** | **01 33 10.7** | **-0.7** |
| TRI | | | | *e*Sg | | **Sg** | **01 33 16.9** | **+0.4** |
| **GBRS** | **Gornja Briga** | **0.39** | **112** | *i* | Pg | **Pg** | **01 33 11.2** | **-0.4** |
| GBRS | | | | *i* | Sg | **Sb** | **01 33 17.3** | **-1.1** |
| | comp=Z,38nm,0.1s | | | | | | | | |
| **VISS** | **Visnje** | **0.40** | **71** | *i* | Pg | **Pg** | **01 33 11.5** | **-0.3** |
| VISS | | | | *i* | Sg | **Sg** | **01 33 17.5** | **+0.4** |
| | comp=Z,69nm,0.1s | | | | | | | | |
| **VISS** | **Visnje** | **0.40** | **71** | *i* | Pg | **Pg** | **01 33 11.5** | **-0.3** |
| | comp=Z,69nm,0.1s | | | | | | | | |
| VISS | | | | *i* | Sg | **Sg** | **01 33 17.5** | **+0.4** |
| | comp=Z,69nm,0.1s | | | | | | | | |
| **LJU** | **Ljubljana** | **0.40** | **23** | *i* | Pg | **Pb** | **01 33 12.1** | **-0.6** |
| | comp=Z,15nm,0.1s | | | | | | | | |
| **LJU** | **Ljubljana** | **0.40** | **23** | *i* | Pg | **Pb** | **01 33 12.1** | **-0.6** |
| | comp=Z,15nm,0.1s | | | | | | | | |
| **CRNS** | **Crni Vrh** | **0.41** | **356** | *i* | Pg | **Pg** | **01 33 11.6** | **-0.3** |
| CRNS | | | | *i* | Sg | **Sb** | **01 33 18.2** | **-0.7** |
| | comp=Z,46nm,0.2s | | | | | | | | |
| **CRNS** | **Crni Vrh** | **0.41** | **356** | *i* | Pg | **Pg** | **01 33 11.6** | **-0.3** |
| CRNS | | | | *i* | Sg | **Sb** | **01 33 18.2** | **-0.7** |
| | comp=Z,46nm,0.2s | | | | | | | | |
| **VOJS** | **Vojsko** | **0.46** | **321** | *i* | Pg | **Pg** | **01 33 12.3** | **-0.6** |
| VOJS | | | | *i* | Sg | **Sg** | **01 33 19.7** | **+0.6** |
| | comp=Z,31nm,0.1s | | | | | | | | |
| **VOJS** | **Vojsko** | **0.46** | **321** | *i* | Pg | **Pg** | **01 33 12.3** | **-0.6** |
| VOJS | | | | *i* | Sg | **Sg** | **01 33 19.7** | **+0.6** |
| | comp=Z,31nm,0.1s | | | | | | | | |
| **VNDS** | **Vrh nad Dolski** | **0.51** | **33** | *i* | Pg | **Pg** | **01 33 13.9** | **+0.1** |
| | comp=Z,5.0nm,0.2s | | | | | | | | |
| **VNDS** | **Vrh nad Dolski** | **0.51** | **33** | *i* | Pg | **Pg** | **01 33 13.9** | **+0.1** |
| | comp=Z,5.0nm,0.2s | | | | | | | | |
| **SABO** | **M.te Sabotino** | **0.58** | **302** | Pg | | **Pg** | **01 33 14.1** | **-1.0** |
| SABO | | | | Sg | | **Sg** | **01 33 22.7** | **0.0** |
| | comp=Z,67nm,0.8s | | | | | | | | |
| **SABO** | **M.te Sabotino** | **0.58** | **302** | ⇓*e*Pg | | **Pg** | **01 33 14.3** | **-0.8** |
| SABO | | | | *e*Sg | | **Sg** | **01 33 22.9** | **+0.1** |
| **SABO** | **M.te Sabotino** | **0.58** | **302** | Pg | | **Pg** | **01 33 14.1** | **-1.0** |
| SABO | | | | Sg | | **Sg** | **01 33 22.7** | **0.0** |
| | comp=Z,67nm,0.8s | | | | | | | | |
| **PDKS** | **Podkum** | **0.62** | **51** | *i* | Pg | **Pg** | **01 33 16.0** | **+0.1** |
| PDKS | | | | *i* | Sg | **Sb** | **01 33 24.6** | **-0.6** |
| **PDKS** | **Podkum** | **0.62** | **51** | *i* | Pg | **Pg** | **01 33 16.0** | **+0.1** |
| PDKS | | | | *i* | Sg | **Sb** | **01 33 24.6** | **-0.6** |
| **MOZS** | **Mozjanca** | **0.63** | **9** | *i* | Pg | **Pb** | **01 33 16.2** | **-0.4** |
| | comp=Z,9.0nm,0.1s | | | | | | | | |
| **MOZS** | **Mozjanca** | **0.63** | **9** | *i* | Pg | **Pb** | **01 33 16.2** | **-0.4** |
| | comp=Z,9.0nm,0.1s | | | | | | | | |
| **GORS** | **Gorjuse** | **0.68** | **342** | *i* | Pg | **Pg** | **01 33 16.9** | **-0.1** |
| GORS | | | | *i* | Sg | **Sb** | **01 33 27.3** | **+0.5** |
| | comp=Z,16nm,0.1s | | | | | | | | |
| **GORS** | **Gorjuse** | **0.68** | **342** | *i* | Pg | **Pg** | **01 33 16.9** | **-0.1** |
| GORS | | | | *i* | Sg | **Sb** | **01 33 27.3** | **+0.5** |
| | comp=Z,16nm,0.1s | | | | | | | | |
| **DRE** | **Drenchia** | **0.68** | **318** | *e*Pg | | **Pg** | **01 33 16.4** | **-0.6** |
| DRE | | | | *e*Sg | | **Sb** | **01 33 26.4** | **-0.4** |
| **CADS** | **Cadrg** | **0.68** | **325** | *e*Pg | | **Pg** | **01 33 16.1** | **-0.9** |
| CADS | | | | *e*Sg | | **S

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | comp=Z,1.0nm,0.2s,SNR=19 | | | | | | | |
| **ABTA** | **Abfaltersbach** | **1.64** | **311** | Pg | | **Pg** | **01 33 34.9** | **-0.4** |
| | comp=Z,3.5nm,0.1s | | | | | | | |
| ABTA | | | | Sg | | **Sg** | **01 33 57.2** | **+0.6** |
| | comp=Z,7.1nm,0.2s,SNR=7.8 | | | | | | | |
| **ARSA** | **Arzberg** | **1.79** | **28** | Pg | | **Pg** | **01 33 37.3** | **-0.8** |
| | comp=Z,0.6nm,0.2s | | | | | | | |
| **RISI** | **Rein** | **2.00** | **310** | Pg | | **Pn** | **01 33 38.6** | **+1.2** |
| | comp=Z,24nm,0.4s | | | | | | | |
| **RISI** | **Rein** | **2.00** | **310** | Pg | | **Pn** | **01 33 38.6** | **+1.2** |
| | comp=Z,24nm,0.4s | | | | | | | |
| **STON** | **Ston** | **3.72** | **138** | Sn | | **Sn** | **01 34 46.6** | **+2.1** |
| **STON** | **Ston** | **3.72** | **138** | Sn | | **Sn** | **01 34 46.5** | **+2.1** |

*ISK **31** 01:43:06.6, 38˚.73N×43˚.19E, h6km, MD2.7*
*ISCJB **31** 01:43:07.7±0.5, 38˚.75N±0˚.03×43˚.21E±0˚.04, h12km±4km, Error ellipse: s-maj=5.1km s-min=4.1km az=164.6*
*CSEM **31** 01:43:07.2±0.2, 38˚.74N×43˚.19E, h10km, MD2.7, Error ellipse: s-maj=5.4km s-min=3.6km az=80.0*
*DDA **31** 01:43:07.1, 38˚.74N×43˚.21E, h7km, Ml2.6*
**ISC 31 01:43:07.7**±1.0, **38˚.75N**±0˚.02×**43˚.22E**±0˚.03, **h14**km±8km, **n23**, σ0**s59**/39, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.20** | **139** | *e*PG | **Pg** | **01 43 12.6** | **+0.3** |
| VANB | | | | *e*SG | **Sb** | **01 43 17.0** | **+0.1** |
| **VANB** | **Van** | **0.20** | **139** | *e*Pg | **Pg** | **01 43 12.6** | **+0.3** |
| VANB | | | | *e*Sg | **Sb** | **01 43 17.0** | **+0.1** |
| **TVAN** | **Van** | **0.26** | **146** | *i* P | **Pg** | **01 43 12.4** | **-1.0** |
| TVAN | | | | *i* S | **Sg** | **01 43 17.0** | **-0.2** |
| **TVAN** | **Van** | **0.26** | **146** | P | **Pg** | **01 43 12.4** | **-1.0** |
| TVAN | | | | S | **Sg** | **01 43 17.0** | **-0.2** |
| **ERCV** | **ERCIS-VAN** | **0.29** | **18** | *e*PG | **Pg** | **01 43 13.3** | **-0.5** |
| **ERCV** | **ERCIS-VAN** | **0.29** | **18** | *e*Pg | **Pg** | **01 43 13.3** | **-0.5** |
| **VMUR** | **Van-Muradiye** | **0.36** | **48** | *i* P | **Pg** | **01 43 14.9** | **-0.2** |
| VMUR | | | | *i* S | **Sb** | **01 43 22.0** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **0.36** | **48** | P | **Pg** | **01 43 14.9** | **-0.2** |
| VMUR | | | | S | **Sb** | **01 43 22.0** | **+0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.39** | **279** | *i* P | **Pg** | **01 43 15.7** | **0.0** |
| ADCV | | | | *i* S | **Sb** | **01 43 22.8** | **+0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.39** | **279** | P | **Pg** | **01 43 15.6** | **0.0** |
| **GEVA** | **Gevas** | **0.45** | **196** | *i* P | **Pg** | **01 43 15.9** | **-0.8** |
| **GEVA** | **Gevas** | **0.45** | **196** | P | **Pg** | **01 43 15.9** | **-0.8** |
| **CLDR** | **Caldiran** | **0.67** | **54** | *e*PG | **Pg** | **01 43 20.3** | **-0.5** |
| CLDR | | | | *e*SG | **Sb** | **01 43 31.0** | **+0.4** |
| **CLDR** | **Caldiran** | **0.67** | **54** | *i* P | **Pg** | **01 43 20.1** | **-0.7** |
| CLDR | | | | *i* S | **Sg** | **01 43 30.3** | **+0.5** |
| **CLDR** | **Caldiran** | **0.67** | **54** | *e*Pg | **Pg** | **01 43 20.3** | **-0.5** |
| CLDR | | | | *e*Sg | **Sb** | **01 43 31.0** | **+0.4** |
| **TUTA** | **Tutak** | **0.73** | **334** | *i* P | **Pg** | **01 43 21.2** | **-0.7** |
| TUTA | | | | *i* S | **Sg** | **01 43 31.6** | **+0.1** |
| **TUTA** | **Tutak** | **0.73** | **334** | P | **Pg** | **01 43 21.2** | **-0.7** |
| TUTA | | | | S | **Sg** | **01 43 31.6** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **0.85** | **348** | *e*PG | **Pg** | **01 43 23.8** | **-0.3** |
| AGRB | | | | *e*SG | **Sb** | **01 43 36.0** | **+0.4** |
| **AGRB** | **Hanur-Agry** | **0.85** | **348** | *e*Pg | **Pg** | **01 43 23.8** | **-0.3** |
| AGRB | | | | *e*Sg | **Sb** | **01 43 36.0** | **+0.4** |
| **HAKT** | **HAKKARI** | **1.25** | **162** | *i* P | **Pn** | **01 43 30.3** | **-0.7** |
| HAKT | | | | *i* S | **Sg** | **01 43 49.4** | **+1.4** |
| **HAKT** | **HAKKARI** | **1.25** | **162** | P | **Pn** | **01 43 30.3** | **-0.7** |
| HAKT | | | | S | **Sg** | **01 43 49.4** | **+1.4** |
| **CUKT** | **Cukurca** | **1.53** | **168** | *e*PN | **Pn** | **01 43 35.0** | **+0.3** |
| **CUKT** | **Cukurca** | **1.53** | **168** | *e*Pn | **Pn** | **01 43 35.0** | **+0.3** |

*ISN **31** 01:49:35.6±0.3, 33˚.28N×46˚.13E, h0km, ML2.7*
**CSEM 31 01:49:34.2**±0.2, **33˚.21N**×**45˚.92E**, **h5**km, **ML2.7**, **Error ellipse: s-maj=5.6km s-min=4.2km az=142.0**, **Iran-Iraq border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **IGHG** | **Ghaleghazi** | **1.24** | **25** | *e*Pg | Pn | 01 49 59.3 | +0.8 |
| IGHG | | | | *e*Sg | Sb | 01 50 15.0 | +0.3 |
| **IVIS** | **Veis** | **1.53** | **30** | *e*Pg | Pg | 01 50 04.0 | +0.5 |
| IVIS | | | | *e*Sg | Sg | 01 50 23.5 | +0.2 |
| **IKOM** | **Komasi** | **1.64** | **53** | *e*Pg | Pb | 01 50 05.0 | 0.0 |
| **IPIR** | **Pirpir** | **4.21** | **96** | *e*Pn | Pn | 01 50 39.8 | +0.5 |
| **IKLH** | **Kolahrood** | **4.74** | **87** | *e*Pn | Pn | 01 50 47.3 | +0.7 |
| **IDMV** | **Damavand** | **5.58** | **63** | *e*Pn | Pn | 01 50 57.5 | -0.6 |
| **IRAM** | **Rameshe**h | **5.63** | **103** | *e*Pn | Pn | 01 50 59.1 | +0.3 |
| **IFIR** | **Firoozkooh** | **6.14** | **65** | *e*Pn | Pn | 01 51 05.3 | -0.6 |

*ISCJB **31** 01:51:00.9±0.3, 6˚.81N±0˚.03×73˚.10W±0˚.03, h164km±3km, mb3.6/10, Error ellipse: s-maj=6.1km s-min=4.6km az=39.4*
*IDC **31** 01:51:02.4±2.6, 6˚.74N×72˚.93W, h168km±20km, mb3.4/10, mb1 3.7/14, mb1mx3.4/28, mbtmp4.0/14, MS3.8/1, Ms1 3.7/1, ms1mx2.8/16, Error ellipse: s-maj=26.8km s-min=15.3km az=29.0*
*RSNC **31** 01:51:03.0±0.8, 6˚.79N×73˚.14W, h152km±4km, ML4.0*
**ISC 31 01:51:01.5**±0.6, **6˚.80N**±0˚.04×**73˚.09W**±0˚.04, **h159**km±5km, **n39**, σ0**s70**/55, **mb3.6**/10, **1C-1D**, **Northern Colombia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BARC** | **Barichara** | **0.23** | **203** | *i* P | **Pn** | **01 51 23.4** | **+0.1** |
| BARC | | | | *e*S | **Sn** | **01 51 38.9** | **-0.9** |
| BARC | | | | *i* | | 01 51 40.5 | |
| | comp=Z,3μm,0.3s | | | | | | |
| **PAMC** | **Pamplona, Colo** | **0.66** | **36** | *e*P | **Pn** | **01 51 26.1** | **+0.8** |
| PAMC | | | | *e*S | **Sn** | **01 51 43.5** | **0.0** |
| PAMC | | | | *i* | | 01 51 45.5 | |
| | comp=Z,926nm,0.6s | | | | | | |
| **BRRC** | **Barranca, Sant** | **0.68** | **296** | *i* P | **Pn** | **01 51 25.3** | **+0.5** |
| BRRC | | | | *e*S | **Sn** | **01 51 42.7** | **+0.1** |
| BRRC | | | | *i* | | 01 51 45.4 | |
| | comp=Z,1μm,0.3s | | | | | | |
| **RUSC** | **La Rusia** | **0.90** | **179** | *i* P | **Pn** | **01 51 27.1** | **+0.2** |
| RUSC | | | | *e*S | **Sn** | **01 51 46.2** | **-0.3** |
| RUSC | | | | *i* | | 01 51 47.8 | |
| | comp=Z,1μm,0.5s | | | | | | |
| **PTBC** | **PUERTO BERRIO,** | **1.38** | **259** | *e*P | **Pn** | **01 51 30.1** | **-0.4** |
| **OCAC** | **Ocana** | **1.45** | **351** | *e*P | **Pn** | **01 51 32.0** | **+0.6** |
| OCAC | | | | *e*S | **Sn** | **01 51 54.9** | **+0.6** |
| **YOPC** | **Yopal, Colombi** | **1.59** | **155** | *e*P | **Pn** | **01 51 33.8** | **+1.0** |
| YOPC | | | | *e*S | **Sn** | **01 51 57.6** | **+0.8** |
| YOPC | | | | *i* | | 01 51 58.6 | |
| | comp=Z,530nm,0.3s | | | | | | |
| **ZARC** | **Zaragoza, Cauc** | **1.88** | **292** | *e*P | **Pn** | **01 51 36.1** | **+0.2** |
| ZARC | | | | *e*S | **Sn** | **01 52 01.3** | **-1.0** |
| ZARC | | | | *i* | | 01 52 07.1 | |
| | comp=Z,1μm,0.4s | | | | | | |
| **NORC** | **Norcasia** | **2.15** | **235** | *e*P | **Pn** | **01 51 38.7** | **-0.3** |
| NORC | | | | *e*S | **Sn** | **01 52 06.9** | **-1.0** |
| **CHIC** | **Chingaza** | **2.25** | **196** | *e*P | **Pn** | **01 51 41.1** | **+0.6** |
| CHIC | | | | *e*S | **Sn** | **01 52 10.6** | **0.0** |
| CHIC | | | | *i* | | 01 52 16.7 | |
| | comp=Z,586nm,0.4s | | | | | | |
| **HELC** | **Santa Helena** | **2.49** | **256** | *e*P | **Pn** | **01 51 44.4** | **+1.0** |
| HELC | | | | *i* | | 01 52 22.4 | |
| | comp=Z,665nm,0.5s | | | | | | |
| **VILC** | **Villavicencio,** | **2.74** | **193** | *e*P | **Pn** | **01 51 46.4** | **+0.2** |
| VILC | | | | *e*S | **Sn** | **01 52 20.8** | **0.0** |
| VILC | | | | *i* | | 01 52 27.7 | |
| | comp=Z,340nm,0.4s | | | | | | |
| **GUYC** | **Guyana, Colomb** | **2.77** | **236** | *e*P | **Pn** | **01 51 47.5** | **+0.6** |
| GUYC | | | | *i* | | 01 52 28.6 | |
| | comp=Z,868nm,0.3s | | | | | | |
| **DBBC** | **Dabeiba** | **3.10** | **274** | *e*P | **Pn** | **01 51 50.6** | **0.0** |
| DBBC | | | | *e*S | **Sn** | **01 52 28.3** | **-0.3** |
| **TOLC** | **Tolima** | **3.12** | **225** | *e*P | **Pn** | **01 51 51.7** | **+0.5** |
| **CODC** | **Agust˜n Codaz** | **3.13** | **354** | *e*P | **Pn** | **01 51 51.1** | **+0.2** |
| CODC | | | | *i* | | 01 52 36.4 | |
| | comp=Z,344nm,0.4s | | | | | | |
| **SDV** | **Santo Domingo** | **3.20** | **49** | P | **Pn** | **01 51 52.7** | **+0.7** |
| | comp=Z,39nm,0.3s,baz=229,slow=10.0,SNR=86 | | | | | | |
| SDV | | | | S | **Sn** | **01 52 30.9** | **-0.1** |
| | comp=Z,82nm,0.3s,baz=246,slow=21,SNR=34 | | | | | | |
| **SDV** | **Santo Domingo** | **3.20** | **49** | *e*P | **Pn** | **01 51 52.6** | **+0.7** |
| SDV | | | | *i* | | 01 52 31.9 | |
| | comp=Z,235nm,0.3s | | | | | | |
| **PRAC** | **Prado** | **3.55** | **210** | *e*P | **Pn** | **01 51 56.5** | **+0.2** |
| PRAC | | | | *e*S | **Sn** | **01 52 38.8** | **-0.1** |
| **PLMC** | **San Jos˜ del** | **3.69** | **239** | *e*P | **Pn** | **01 51 58.8** | **+0.7** |
| **YOTC** | **Yotoco, Valle** | **4.28** | **229** | *e*P | **Pn** | **01 52 05.8** | **-0.1** |
| YOTC | | | | *i* | | 01 52 09.2 | |
| | comp=Z,93nm,0.7s | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **PCRV** | **Puerto La Cruz** | **9.01** | **68** | P | | **Pn** | **01 53 08.4** | **-0.1** |
| | comp=Z,0.5nm,0.3s,baz=203,slow=13,SNR=5.4 | | | | | | | |
| PCRV | | | | S | | **Sn** | **01 54 48.5** | **-0.3** |
| | comp=Z,1.4nm,0.3s,baz=54,slow=19,SNR=5.0 | | | | | | | |
| **SJG** | **San Juan** | **13.12** | **30** | P | | **Pn** | **01 54 01.3** | **-0.7** |
| | comp=Z,1.5nm,0.3s,baz=198,slow=20,SNR=4.6 | | | | | | | |
| **PTGA** | **Pitinga** | **15.09** | **119** | P | | **Pn** | **01 54 26.3** | **-0.5** |
| | comp=Z,0.1nm,0.3s,baz=311,slow=19,SNR=2.2 | | | | | | | |
| **TXAR** | **Lajitas Array** | **36.49** | **312** | P | | **P** | **01 57 52.6** | **+0.8** |
| | comp=Z,0.9nm,0.6s,baz=126,slow=9.2,SNR=18 | | | | | | | |
| **ULM** | **Lac du Bonnet** | **47.31** | **340** | P | | **P** | **01 59 18.8** | **-0.3** |
| | comp=Z,1.1nm,0.4s,baz=148,slow=7.8,SNR=5.7 | | | | | | | |
| **PDAR** | **Pinedale Array** | **48.11** | **324** | P | | **P** | **01 59 26.3** | **+0.6** |
| | comp=Z,0.3nm,0.5s,baz=131,slow=9.0,SNR=4.7 | | | | | | | |
| **SCHQ** | **Schefferville** | **48.16** | **5** | P | | **P** | **01 59 26.2** | **+0.6** |
| | comp=Z,4.6nm,0.5s,baz=190,slow=7.3,SNR=12 | | | | | | | |
| SCHQ | | | | LR | | LR | 02 18 44.8 | |
| | comp=Z,103nm,21.6s,baz=356,slow=34 | | | | | | | |
| **NVAR** | **Mina Array Bea** | **51.52** | **315** | P | | **P** | **01 59 52.7** | **+1.3** |
| | comp=Z,0.7nm,0.7s,baz=139,slow=8.4,SNR=3.1 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **63.29** | **340** | P | | **P** | **02 01 13.3** | **+0.2** |
| | comp=Z,0.3nm,0.5s,baz=135,slow=6.6,SNR=19 | | | | | | | |
| **DBIC** | **Dimbokro** | **67.71** | **86** | P | | **P** | **02 01 41.2** | **-1.2** |
| | comp=Z,3.1nm,1.0s,baz=259,slow=8.5,SNR=4.3 | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **73.72** | **78** | P | | **P** | **02 02 17.1** | **-1.6** |
| | comp=Z,0.2nm,0.3s,baz=282,slow=6.6,SNR=4.2 | | | | | | | |
| **ILAR** | **Eielson Array** | **76.99** | **335** | P | | **P** | **02 02 38.8** | **+2.3** |
| | comp=Z,0.2nm,0.8s,baz=94,slow=8.5,SNR=2.9 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **86.68** | **20** | P | | **P** | **02 03 26.8** | **-0.2** |
| | comp=Z,4.9nm,1.1s,baz=282,slow=4.5,SNR=4.3 | | | | | | | |
| **MKAR** | **Makanchi Array** | **122.33** | **20** | PKP | | **PKPdf** | **02 09 37.4** | **-0.6** |
| | comp=Z,0.2nm,0.4s,baz=321,slow=1.9,SNR=9.1 | | | | | | | |
| **SONM** | **Songino Array** | **125.60** | **0** | PKP | | **PKPdf** | **02 09 44.2** | **-0.2** |
| | comp=Z,0.2nm,0.5s,baz=5.7,slow=1.3,SNR=2.9 | | | | | | | |
| **ASAR** | **Alice Springs** | **149.12** | **234** | PKPbc | | **PKPbc** | **02 10 31.3** | **-0.7** |
| | comp=Z,0.4nm,0.6s,baz=119,slow=3.9,SNR=7.2 | | | | | | | |
| ASAR | | | | pPKPbc | | **pPKPbc** | **02 11 13.6** | **-0.1** |
| | comp=Z,0.2nm,0.4s,baz=114,slow=3.4,SNR=3.6 | | | | | | | |
| **WRA** | **Warramunga Arr** | **150.35** | **241** | PKPbc | | **PKPbc** | **02 10 34.6** | **-0.5** |
| | comp=Z,0.3nm,0.3s,baz=108,slow=2.8,SNR=17 | | | | | | | |
| WRA | | | | pPKPbc | | **pPKPbc** | **02 11 16.8** | **0.0** |
| | comp=Z,0.3nm,0.4s,baz=106,slow=2.7,SNR=6.4 | | | | | | | |
| **CMAR** | **Chiang Mai Ar** | **153.70** | **17** | PKPbc | | **PKPbc** | **02 10 42.4** | **-0.3** |
| | comp=Z,0.5nm,0.4s,baz=320,slow=2.6,SNR=3.3 | | | | | | | |

*CSEM **31** 01:51:54.6±0.2, 38˚.57N×43˚.10E, h2km, MD3.0, Error ellipse: s-maj=4.0km s-min=3.7km az=111.0*
*DDA **31** 01:51:54.2, 38˚.56N×43˚.06E, h7km, Ml2.8*
**ISK 31 01:51:53.6, 38˚.59N×43˚.09E, h5**km, **MD3.0**, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.23** | **88** | *e*PG | Pg | 01 51 60.0 | +1.8 |
| VANB | | | | *e*SG | Sg | 01 52 04.7 | +3.4 |
| **VANB** | **Van** | **0.23** | **88** | *e*Pg | Pg | 01 52 00.0 | +1.8 |
| **TVAN** | **Van** | **0.25** | **103** | *i* P | Pb | 01 51 60.0 | -0.8 |
| TVAN | | | | *i* S | Sb | 01 52 04.6 | -0.9 |
| **TVAN** | **Van** | **0.25** | **103** | P | Pb | 01 52 00.0 | -0.8 |
| **TVAN** | **Van** | **0.25** | **103** | S | Sb | 01 52 04.6 | -1.0 |
| **GEVA** | **Gevas** | **0.28** | **186** | *i* P | Pg | 01 51 59.4 | +0.4 |
| GEVA | | | | *i* S | Sg | 01 52 04.1 | +1.4 |
| **GEVA** | **Gevas** | **0.28** | **186** | P | Pg | 01 51 59.4 | +0.4 |
| **GEVA** | **Gevas** | **0.28** | **186** | S | Sg | 01 52 04.1 | +1.4 |
| **ADCV** | **BITLIS_Adilcev** | **0.36** | **308** | *i* P | Pg | 01 52 01.6 | +0.9 |
| ADCV | | | | *i* S | Sb | 01 52 08.0 | -0.7 |
| **ADCV** | **BITLIS_Adilcev** | **0.36** | **308** | P | Pg | 01 52 01.6 | +0.9 |
| ADCV | | | | S | Sb | 01 52 08.0 | -0.8 |
| **VMUR** | **Van-Muradiye** | **0.55** | **43** | *i* P | Pb | 01 52 05.8 | 0.0 |
| VMUR | | | | *i* S | Sb | 01 52 14.6 | +0.4 |
| **VMUR** | **Van-Muradiye** | **0.55** | **43** | P | Pb | 01 52 05.8 | 0.0 |
| **VMUR** | **Van-Muradiye** | **0.55** | **43** | S | Sb | 01 52 14.6 | +0.5 |
| **TUTA** | **Tutak** | **0.84** | **345** | *i* P | Pg | 01 52 10.2 | +0.4 |
| TUTA | | | | *i* S | Sb | 01 52 23.0 | +0.4 |
| **TUTA** | **Tutak** | **0.84** | **345** | P | Pg | 01 52 10.2 | +0.4 |
| TUTA | | | | S | Sb | 01 52 23.0 | +0.4 |
| **CLDR** | **Caldiran** | **0.85** | **49** | *e*PG | Pb | 01 52 11.0 | 0.0 |
| **CLDR** | **Caldiran** | **0.85** | **49** | *i* P | Pb | 01 52 11.2 | +0.2 |
| CLDR | | | | *i* S | Sn | 01 52 24.4 | -1.0 |
| **CLDR** | **Caldiran** | **0.85** | **49** | P | Pb | 01 52 11.2 | +0.2 |
| CLDR | | | | S | Sn | 01 52 24.5 | -0.9 |
| **AGRB** | **Hanur-Agry** | **0.99** | **355** | *e*PG | Pb | 01 52 13.1 | -0.3 |
| **AGRB** | **Hanur-Agry** | **0.99** | **355** | *e*Pg | Pb | 01 52 13.1 | -0.3 |
| **EKAR** | **Karacoban** | **1.04** | **310** | *i* P | Pb | 01 52 14.1 | -0.2 |
| **EKAR** | **Karacoban** | **1.04** | **310** | P | Pb | 01 52 14.1 | -0.2 |
| **SRTM** | **Siirt_Merkez** | **1.10** | **238** | *i* P | Pn | 01 52 15.5 | -0.2 |
| SRTM | | | | *i* S | Sn | 01 52 30.8 | -0.6 |
| **SRTM** | **Siirt_Merkez** | **1.10** | **238** | P | Pn | 01 52 15.5 | -0.2 |
| SRTM | | | | S | Sn | 01 52 30.8 | -0.5 |
| **HAKT** | **HAKKARI** | **1.14** | **155** | *i* P | Pg | 01 52 15.0 | -0.4 |
| **HAKT** | **HAKKARI** | **1.14** | **155** | P | Pg | 01 52 15.0 | -0.4 |
| **SIRT** | **Sirnak** | **1.20** | **206** | *e*PN | Pn | 01 52 17.4 | +0.2 |
| **SIRT** | **Sirnak** | **1.20** | **206** | *e*Pn | Pn | 01 52 17.4 | +0.3 |
| **SIRN** | **S¨¨rnak** | **1.21** | **206** | *i* P | Pn | 01 52 17.3 | 0.0 |
| **SIRN** | **S¨¨rnak** | **1.21** | **206** | P | Pn | 01 52 17.3 | 0.0 |
| **YOVA** | **Hakkari_Y¨¨kse** | **1.37** | **136** | *i* P | Pb | 01 52 19.9 | 0.0 |
| **YOVA** | **Hakkari_Y¨¨kse** | **1.37** | **136** | P | Pb | 01 52 19.9 | 0.0 |
| **CUKT** | **Cukurca** | **1.40** | **163** | *e*PN | Pg | 01 52 21.1 | +0.7 |
| **CUKT** | **Cukurca** | **1.40** | **163** | *i* P | Pg | 01 52 21.9 | +1.5 |
| **CUKT** | **Cukurca** | **1.40** | **163** | *e*Pn | Pg | 01 52 21.1 | +0.7 |
| **CUKT** | **Cukurca** | **1.40** | **163** | P | Pg | 01 52 21.9 | +1.5 |
| **BNGL** | **BINGOL** | **1.56** | **284** | *i* P | Pb | 01 52 23.3 | +0.1 |
| BNGL | | | | *i* S | Sg | 01 52 44.3 | +0.5 |
| **BTMN** | **Batman** | **1.59** | **245** | *i* P | Pb | 01 52 23.3 | -0.3 |
| BTMN | | | | *i* S | Sg | 01 52 45.1 | +0.3 |
| **BTMN** | **Batman** | **1.59** | **245** | P | Pb | 01 52 23.3 | -0.3 |
| BTMN | | | | S | Sg | 01 52 45.1 | +0.3 |
| **TASB** | **TASBURUN-IGDIR** | **1.65** | **32** | *e*PN | Pg | 01 52 25.4 | +0.1 |
| **TASB** | **TASBURUN-IGDIR** | **1.65** | **32** | *e*Pn | Pg | 01 52 25.4 | +0.1 |
| **ERZM** | **Erzurum** | **1.88** | **315** | *i* P | Pb | 01 52 29.0 | +0.4 |
| **ERZM** | **Erzurum** | **1.88** | **315** | P | Pb | 01 52 29.0 | +0.4 |
| **BNGB** | **Bing¨¶l** | **1.93** | **283** | *e*PN | Pb | 01 52 29.1 | -0.2 |
| **ECAT** | **Cat-ERZURUM** | **1.94** | **302** | *i* S | Sg | 01 52 57.2 | +1.4 |
| **ECAT** | **Cat-ERZURUM** | **1.94** | **302** | S | Sg | 01 52 57.2 | +1.3 |
| **KARS** | **Kars** | **2.04** | **360** | *e*PN | Pb | 01 52 30.8 | -0.4 |
| **KARS** | **Kars** | **2.04** | **360** | *e*Pn | Pb | 01 52 30.8 | -0.4 |
| **SENK** | **Senkaya-Erzuru** | **2.05** | **344** | *e*PN | Pb | 01 52 30.9 | -0.6 |
| **SENK** | **Senkaya-Erzuru** | **2.05** | **344** | *e*Pn | Pb | 01 52 30.9 | -0.6 |
| **BINT** | **Bingol** | **2.06** | **279** | *e*Pn | Pn | 01 52 29.1 | +0.1 |
| **HANI** | **Diyarbakir_Han** | **2.12** | **266** | *i* P | Pb | 01 52 32.2 | -0.4 |
| HANI | | | | *i* S | Sg | 01 53 00.9 | -0.9 |
| **HANI** | **Diyarbakir_Han** | **2.12** | **266** | P | Pb | 01 52 32.2 | -0.4 |
| HANI | | | | S | Sg | 01 53 00.9 | -0.8 |
| **YEDI** | **Yedisu-Bingol** | **2.16** | **294** | *e*PN | Pb | 01 52 31.9 | -1.3 |
| **YEDI** | **Yedisu-Bingol** | **2.16** | **294** | *e*Pn | Pb | 01 52 32.0 | -1.3 |
| **DIY** | **Diyarbakir** | **2.36** | **254** | *e*Pn | Pb | 01 52 36.1 | -0.6 |
| **MAZI** | **Mazidag** | **2.37** | **243** | *e*PN | Pn | 01 52 34.7 | +1.4 |
| **MAZI** | **Mazidag** | **2.37** | **243** | *e*Pn | Pn | 01 52 34.7 | +1.4 |
| **DYBB** | **Diyarbakir** | **2.41** | **256** | *e*PN | Pb | 01 52 36.0 | -1.4 |
| **PTK** | **Pertek** | **2.91** | **277** | *e*PN | Pn | 01 52 43.3 | +2.5 |
| **PTK** | **Pertek** | **2.91** | **277** | *e*Pn | Pn | 01 52 43.3 | +2.5 |
| **SVRC** | **Sivrice-ELAZID** | **2.98** | **267** | *e*PN | Pn | 01 52 43.9 | +2.2 |
| **SVRC** | **Sivrice-ELAZID** | **2.98** | **267** | *e*Pn | Pn | 01 52 43.9 | +2.2 |

**IDC 31 01:56:07.1**±2.8, **1˚.45S**×**134˚.20E**, **h0**km, **mb3.0**/2, **mb1 3.4**/4, **mb1mx3.2**/30, **mbtmp3.2**/4, **ML3.2**/2, **Error ellipse: s-maj=99.6km s-min=29.0km az=80.0**, **Irian Jaya region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **18.38** | **180** | P | Pn | 02 00 23.5 | -0.1 |
| | 0.1nm,0.3s,baz=359,slow=11,SNR=11 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **18.56** | **206** | P | Pn | 02 00 25.8 | 0.0 |
| | 0.0nm,0.3s,baz=22,slow=11,SNR=2.3 | | | | | | |
| **ASAR** | **Alice Springs** | **22.09** | **181** | P | P | 02 01 03.8 | -0.2 |
| | 0.2nm,0.6s,baz=10,slow=13,SNR=4.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **66.08** | **324** | P | P | 02 06 56.0 | 0.0 |
| | 0.3nm,0.9s,baz=116,slow=6.6,SNR=3.1 | | | | | | |

*CSEM **31** 02:17:46.2±0.2, 38˚.77N×43˚.26E, h10km, MD2.4, Error ellipse: s-maj=4.9km s-min=4.0km az=69.0*
*DDA **31** 02:17:46.1, 38˚.78N×43˚.29E, h7km, Ml2.6*
*ISK **31** 02:17:46.1, 38˚.74N×43˚.26E, h6km, MD2.4*
**ISC 31 02:17:46.7**±0.9, **38˚.78N**±0˚.02×**43˚.24E**±0˚.03, **h15**km±7km, **n22**, σ0**s91**/39, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.21** | **148** | *e*PG | **Pg** | **02 17 51.6** | **0.0** |
| VANB | | | | *e*SG | **Sg** | **02 17 56.0** | **+1.1** |
| **TVAN** | **Van** | **0.28** | **153** | *i* P | **Pg** | **02 17 51.6** | **-1.1** |
| TVAN | | | | *i* S | **Sg** | **02 17 56.3** | **-0.5** |
| **TVAN** | **Van** | **0.28** | **153** | P | **Pg** | **02 17 51.6** | **-1.1** |
| TVAN | | | | S | **Sg** | **02 17 56.3** | **-0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.41** | **275** | *i* P | **Pg** | **02 17 54.4** | **-0.5** |
| ADCV | | | | *i* S | **Sg** | **02 18 01.3** | **+0.7** |
| **ADCV** | **BITLIS_Adilcev** | **0.41** | **275** | P | **Pg** | **02 17 54.4** | **-0.5** |
| ADCV | | | | S | **Sg** | **02 18 01.3** | **+0.7** |
| **GEVA** | **Gevas** | **0.48** | **197** | *i* P | **Pg** | **02 17 54.5** | **-1.9** |
| GEVA | | | | *i* S | **Sg** | **02 18 02.6** | **-0.3** |
| **GEVA** | **Gevas** | **0.48** | **197** | P | **Pg** | **02 17 54.5** | **-1.9** |
| GEVA | | | | S | **Sg** | **02 18 02.6** | **-0.3** |
| **CLDR** | **Caldiran** | **0.64** | **55** | *e*PG | **Pg** | **02 17 58.5** | **-0.8** |
| CLDR | | | | *e*SG | **Sb** | **02 18 08.7** | **0.0** |
| **CLDR** | **Caldiran** | **0.64** | **55** | *i* P | **Pg** | **02 17 58.2** | **-1.1** |
| CLDR | | | | *i* S | **Sb** | **02 18 08.1** | **-0.6** |
| **CLDR** | **Caldiran** | **0.64** | **55** | P | **Pg** | **02 17 58.2** | **-1.1** |
| **CLDR** | **Caldiran** | **0.64** | **55** | *e*Pg | **Pg** | **02 17 58.5** | **-0.8** |
| CLDR | | | | S | **Sb** | **02 18 08.1** | **-0.6** |
| **TUTA** | **Tutak** | **0.71** | **332** | *i* P | **Pg** | **02 17 59.7** | **-0.9** |
| TUTA | | | | *i* S | **Sg** | **02 18 09.6** | **-0.4** |
| **TUTA** | **Tutak** | **0.71** | **332** | P | **Pg** | **02 17 59.7** | **-0.9** |
| TUTA | | | | S | **Sg** | **02 18 09.6** | **-0.4** |
| **AGRB** | **Hanur-Agry** | **0.82** | **346** | *e*PG | **Pb** | **02 18 03.1** | **+0.2** |
| **AGRB** | **Hanur-Agry** | **0.82** | **346** | *e*Pg | **Pb** | **02 18 03.1** | **+0.2** |
| **EKAR** | **Karacoban** | **1.04** | **298** | *i* P | **Pn** | **02 18 07.2** | **+0.2** |
| EKAR | | | | *i* S | **Sn** | **02 18 22.1** | **+0.7** |
| **EKAR** | **Karacoban** | **1.04** | **298** | P | **Pn** | **02 18 07.2** | **+0.2** |
| EKAR | | | | S | **Sn** | **02 18 22.1** | **+0.7** |
| **HAKT** | **HAKKARI** | **1.27** | **163** | *i* P | **Pg** | **02 18 09.4** | **-1.3** |
| HAKT | | | | *i* S | **Sn** | **02 18 28.4** | **+1.3** |
| **HAKT** | **HAKKARI** | **1.27** | **163** | P | **Pg** | **02 18 09.9** | **-1.3** |
| HAKT | | | | S | **Sn** | **02 18 28.4** | **+1.3** |
| **CUKT** | **Cukurca** | **1.55** | **169** | *e*PN | **Pn** | **02 18 14.5** | **+0.5** |
| **CUKT** | **Cukurca** | **1.55** | **169** | *e*Pn | **Pn** | **02 18 14.5** | **+0.5** |

*ISCJB **31** 02:34:29.8±1.0, 67˚.72N±0˚.04×33˚.8E±0˚.1, h0km, Error ellipse: s-maj=8.0km s-min=5.2km az=3.8*
*KOLA **31** 02:34:32.6, 67˚.68N×33˚.77E, h0km*
*HEL **31** 02:34:32.4±0.4, 67˚.69N×33˚.71E, h0km, ML2.5, Explosion*
*NAO **31** 02:34:33.2±1.1, 67˚.67N×33˚.66E, ML2.7*
*UPP **31** 02:34:33.4±2.8, 67˚.74N×33˚.57E, h0km, ML1.9*
*CSEM **31** 02:34:33.7±0.7, 67˚.68N×33˚.32E, h2km, ML2.7, Error ellipse: s-maj=13.0km s-min=7.8km az=65.0, Mining explosion.*
*IDC **31** 02:34:34.4±2.1, 67˚.74N×33˚.63E, h0km, mb1 3.4/5, mb1mx3.0/51, mbtmp3.4/5, ML2.9/5, Error ellipse: s-maj=23.8km s-min=9.1km az=72.0*
**ISC 31 02:34:29.5**±1.3, **67˚.60N**±0˚.04×**34˚.05E**±0˚.07, **h0**km, **n55**, σ1**s65**/86, **Baltic States-Belarus-Northwestern Russia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | 

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| ERTU | | | | S | Sn | 02 36 36.5 | -1.5 | |
| **ERTU** | **Ertsjaerv** | **4.76** | **263** | PN | Pn | 02 35 43.1 | +0.8 | |
| ERTU | | | | SN | Sn | 02 36 36.5 | -1.5 | |
| **KUA** | **Kurravaara** | **5.22** | **280** | P | Pn | 02 35 49.1 | +0.4 | |
| **DUNU** | **Dundret** | **5.23** | **271** | P | Pn | 02 35 49.8 | +0.9 | |
| **FIA0** | **FINESS Array S** baz=22,slow=14 | **7.06** | **213** | Pn | Pn | 02 36 16.0 | +2.1 | |
| FIA0 | | | | Sn | Sn | 02 37 31.8 | -3.0 | |
| | baz=27,slow=18 | | | | | | | |
| FIA0 | | | | Lg | Lg | 02 38 06.5 | | |
| | baz=30,slow=28 | | | | | | | |
| **FIA0** | **FINESS Array S** baz=22,slow=14 | **7.06** | **213** | Pn | Pn | 02 36 16.0 | +2.1 | |
| FIA0 | | | | Sn | Sn | 02 37 31.8 | -3.0 | |
| | baz=27,slow=18 | | | | | | | |
| FIA0 | | | | Lg | Lg | 02 38 06.5 | | |
| | baz=30,slow=28 | | | | | | | |
| **FIA0** | **FINESS Array S** SNR=0.5 | **7.06** | **213** | Pn | Pn | 02 36 16.0 | +2.1 | |
| **FINES** | **FINESS Array B** comp=Z,0.1nm,0.3s,baz=34,slow=12,SNR=6.4 | **7.06** | **213** | Pn | Pn | 02 36 16.1 | +2.1 | |
| FINES | | | | Sn | Sn | 02 37 35.9 | +1.1 | |
| | comp=Z,0.3nm,0.3s,baz=26,slow=20,SNR=3.9 | | | | | | | |
| FINES | | | | Lg | Lg | 02 38 09.0 | | |
| | comp=Z,1.4nm,0.3s,baz=28,slow=27,SNR=13 | | | | | | | |
| **HFS** | **Hagfors** baz=9.5,slow=12 | **11.63** | **240** | Pn | Pn | 02 37 15.9 | -0.5 | |
| **HFS** | **Hagfors** comp=Z,0.1nm,0.3s,baz=48,slow=16,SNR=3.0 | **11.63** | **240** | Pn | Pn | 02 37 16.7 | +0.3 | |
| HFS | | | | Sn | Sn | 02 39 20.9 | -5.9 | |
| | comp=Z,0.1nm,0.3s,baz=48,slow=22,SNR=3.6 | | | | | | | |
| **HFS** | **Hagfors** baz=9.5,slow=12 | **11.63** | **240** | Pn | Pn | 02 37 15.9 | -0.5 | |
| **HFS** | **Hagfors** | **11.63** | **240** | Pn | Pn | 02 37 15.9 | -0.5 | |
| **SPA0** | **Spitsbergen Ar** baz=144,slow=10 | **11.74** | **342** | Pn | Pn | 02 37 15.8 | -2.1 | |
| **SPA0** | **Spitsbergen Ar** baz=144,slow=10 | **11.74** | **342** | Pn | Pn | 02 37 15.8 | -2.1 | |
| **SPITS** | **Spitsbergen Ar** baz=139,slow=13,SNR=15 | **11.74** | **342** | Pn | Pn | 02 37 14.6 | -3.4 | |
| SPITS | | | | Sn | Sn | 02 39 19.9 | -10 | |
| | baz=138,slow=28,SNR=2.5 | | | | | | | |
| **NOA** | **NORSAR Array B** comp=Z,0.1nm,0.3s,baz=32,slow=14,SNR=2.6 | **11.82** | **247** | Pn | Pn | 02 37 19.1 | 0.0 | |
| **AKASG** | **Malin Array Be** comp=Z,0.2nm,0.3s,baz=8.9,slow=13,SNR=3.4 | **17.12** | **190** | Pn | Pn | 02 38 29.9 | +0.2 | |

*NNC* ***31*** *02:51:39.9±1.7, 44°.47N×80°.62E, h6km±12km, mb2.6, mpv2.2, Error ellipse: s-maj=19.4km s-min=4.0km az=122.0*

*SOME* ***31*** *02:51:39.4, 44°.57N×80°.53E, h20km*

**ISC 31 02:51:36.1±1.3, 44°.61N±0°.03×80°.56E±0°.04, h5km±13km, n12, σ0s81/24, 5C-5D, Kazakhstan-Xinjiang border region**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res |
|---|---|---|---|---|---|---|---|---|
| **DJR** | **Jarkent** 35nm,0.5s | **0.61** | **244** | ⇓*i*P | | **Pb** | **02 51 50.0** | **+0.5** |
| DJR | | | | ⇓*i*S | | **Sb** | **02 51 58.2** | **-0.3** |
| | 32nm,0.3s | | | | | | | |
| **KAPS** | **Kapalarasan** 4.0nm,0.2s | **1.09** | **309** | ⇑*i*P | | **Pn** | **02 51 59.0** | **+0.9** |
| KAPS | | | | ⇑*i*S | | **Sb** | **02 52 12.6** | **+0.5** |
| | 28nm,0.2s | | | | | | | |
| **KTMS** | **Ketmen** 11nm,0.2s | **1.17** | **187** | *e*P | | **Pn** | **02 51 60.0** | **+0.6** |
| KTMS | | | | *e*S | | **Sb** | **02 52 14.6** | **+0.1** |
| | 21nm,0.1s | | | | | | | |
| **PDGK** | **Podgornoye** 1.3nm,0.3s | **1.49** | **211** | ⇑P | | **Pg** | **02 52 05.6** | **+0.8** |
| PDGK | | | | ⇓S | | **Sg** | **02 52 24.6** | **+0.5** |
| | 15nm,0.4s | | | | | | | |
| **SHLS** | **Shalkode** 10nm,0.2s | **1.65** | **209** | *e*P | | **Pb** | **02 52 06.6** | **-0.6** |
| SHLS | | | | *e*S | | **Sn** | **02 52 25.8** | **-1.9** |
| | 35nm,0.4s | | | | | | | |
| **UZB** | **Uzynbulak** 3.2nm,0.1s | **1.83** | **218** | *e*P | | **Pg** | **02 52 11.6** | **+0.3** |
| UZB | | | | *e*S | | **Sg** | **02 52 34.6** | **-0.4** |
| | 30nm,0.2s | | | | | | | |
| **ARXS** | **Arharly** 13nm,0.2s | **2.00** | **260** | *e*P | | **Pg** | **02 52 14.5** | **+0.1** |
| ARXS | | | | *e*S | | **Sb** | **02 52 39.4** | **+1.2** |
| | 42nm,0.2s | | | | | | | |
| **KURS** | **Kuram** | **2.05** | **238** | *e*P | | **Pg** | **02 52 15.9** | **+0.4** |
| KURS | | | | *e*S | | **Sg** | **02 52 41.7** | **-0.4** |
| **MAKZ** | **Makanchi** 0.5nm,0.5s | **2.41** | **24** | ⇑Pn | | **Pg** | **02 52 21.7** | **-0.7** |
| MAKZ | | | | ⇑Sn | | **Sg** | **02 52 53.4** | **-0.2** |
| | 3.1nm,0.5s | | | | | | | |
| **MK31** | **Makanchi Array** 0.5nm,0.5s,baz=205,slow=16,SNR=35 | **2.50** | **28** | ⇓Pn | | **Pb** | **02 52 22.3** | **+0.7** |
| MK31 | | | | ⇓Sn | | **Sg** | **02 52 55.6** | **-0.8** |
| | 1.8nm,0.4s,baz=209,slow=22,SNR=23 | | | | | | | |
| **CHKK** | **Chushkaly** 7.3nm,0.2s | **2.67** | **255** | *e*P | | **Pg** | **02 52 26.9** | **-0.5** |
| CHKK | | | | *e*S | | **Sg** | **02 53 00.6** | **-1.5** |
| | 38nm,0.3s | | | | | | | |
| **KOTS** | **Kotyrbulak** | **2.84** | **242** | *e*P | | **Pg** | **02 52 30.5** | **-0.1** |
| KOTS | | | | *e*S | | **Sg** | **02 53 06.7** | **-0.8** |

*SJA* ***31*** *03:00:10.2±1.0, 30°.20S×71°.81W, h10km, ML3.3, MW3.3*

*GUC* ***31*** *03:00:10.8±0.5, 30°.38S×69°.91W, h14km±11km, ML3.1*

**ISC 31 03:00:11.7±2.0, 30°.15S±0°.05×71°.78W±0°.09, h12km±14km, n13, σ1s70/20, 1C, Near coast of central Chile**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res |
|---|---|---|---|---|---|---|---|---|
| **TLL** | **Tololo Astrono** | **0.85** | **92** | *e*P | | **Pb** | **03 00 27.4** | **-1.2** |
| TLL | | | | *i*S | | **Sb** | **03 00 39.7** | **-0.3** |
| TLL | | | | IAML | | | 03 00 45.5 | |
| | comp=N,1μm,0.5s | | | | | | | |
| **LCO** | **Las Campanas** | **1.47** | **40** | *e*P | | **Pg** | **03 00 39.2** | **-0.8** |
| LCO | | | | *e*S | | **Sg** | **03 01 00.8** | **+1.6** |
| **LCO** | **Las Campanas** | **1.47** | **40** | ⇑*e*P | | **Pg** | **03 00 39.1** | **-0.8** |
| LCO | | | | *e*S | | **Sg** | **03 01 01.4** | **+2.2** |
| LCO | | | | IAML | | | 03 01 05.6 | |
| | comp=E,263nm,0.2s | | | | | | | |
| **VACH** | **Vallenar** | **1.80** | **30** | *e*P | | **Pg** | **03 00 45.4** | **-1.0** |
| **RTLS** | **Leoncito** | **2.70** | **128** | *e*P | | **Pn** | **03 00 55.8** | **+0.5** |
| RTLS | | | | IAML | | | 03 01 35.0 | |
| | comp=Z,62nm,0.5s | | | | | | | |
| **GO03** | **Copiap** | **2.88** | **28** | *e*P | | **Pn** | **03 00 58.0** | **+0.4** |
| GO03 | | | | *i*S | | **Sn** | **03 01 33.5** | **+1.2** |
| **ROCH** | **El Roble** | **2.89** | **167** | *e*P | | **Pn** | **03 00 59.2** | **+1.3** |
| ROCH | | | | *i*S | | **Sb** | **03 01 40.2** | **+1.2** |
| ROCH | | | | IAML | | | 03 01 48.0 | |
| | comp=E,157nm,0.7s | | | | | | | |
| **ROC1** | **El Roble** | **2.90** | **167** | *e*P | | **Pn** | **03 00 59.1** | **+1.1** |
| **AUSP** | **Uspallata** | **2.92** | **136** | *e*P | | **Pn** | **03 00 57.7** | **-0.6** |
| AUSP | | | | *e*S | | **Sb** | **03 01 36.6** | **-3.0** |
| **AGUA** | **GUANDACOL** | **2.93** | **78** | *e*P | | **Pb** | **03 01 03.3** | **-0.8** |
| AGUA | | | | *e*S | | **Sg** | **03 01 48.8** | **+2.7** |
| **AMOG** | **MOGNA** | **2.95** | **106** | *e*P | | **Pn** | **03 01 00.1** | **+1.6** |
| **VCA** | **Vinchina** | **3.42** | **67** | *e*P | | **Pb** | **03 01 09.8** | **-2.7** |
| VCA | | | | IAML | | | 03 01 16.3 | |
| | comp=Z,123nm,0.7s | | | | | | | |
| **ACAN** | **Cantantal** | **4.47** | **120** | *e*P | | **Pn** | **03 01 20.7** | **+1.3** |

*CSEM* ***31*** *03:02:44.1±0.9, 67°.65N×33°.96E, h2km, ML2.7, Error ellipse: s-maj=18.1km s-min=9.3km az=108.0, Mining explosion.*

*NAO* ***31*** *03:02:44.5±1.4, 67°.50N×33°.90E, ML2.7*

*HEL* ***31*** *03:02:45.7±0.5, 67°.73N×33°.90E, h0km, ML2.0, Explosion*

**ISC 31 03:02:40.9±1.6, 67°.52N±0°.04×34°.26E±0°.09, h0km, n34, σ1s66/54, Baltic States-Belarus-Northwestern Russia**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res |
|---|---|---|---|---|---|---|---|---|
| **APZ9** | **Apatity** | **0.33** | **278** | Pg | | **Pb** | **03 02 49.6** | **-0.1** |
| APZ9 | | | | Lg | | Lg | 03 02 51.9 | |
| **APZ9** | **Apatity** | **0.33** | **278** | Pg | | **Pb** | **03 02 49.6** | **-0.1** |
| APZ9 | | | | Lg | | Lg | 03 02 51.9 | |
| **APZ9** | **Apatity** | **0.33** | **278** | Pg | | **Pb** | **03 02 49.6** | **-0.1** |
| APZ9 | | | | Lg | | Lg | 03 02 51.8 | |
| **APA0** | **Apatity Array** baz=107,slow=16 | **0.49** | **280** | Pg | | **Pg** | **03 02 51.8** | **+1.5** |
| APA0 | | | | Lg | | Lg | 03 02 56.5 | |
| APA0 | | | | Rg | | Rg | 03 02 58.2 | |
| | baz=73,slow=37 | | | | | | | |
| **APA0** | **Apatity Array** SNR=492 | **0.49** | **280** | Pg | | **Pg** | **03 02 51.8** | **+1.5** |
| APA0 | | | | Lg | | Lg | 03 02 56.5 | |
| **VRF** | **Varrio** | **1.79** | **279** | Pg | | **Pb** | **03 03 14.7** | **+0.1** |
| VRF | | | | Sn | | Sn | **03 03 35.4** | **-1.1** |
| **VRF** | **Varrio** | **1.79** | **279** | PG | | **Pb** | **03 03 14.7** | **+0.1** |
| VRF | | | | MSG | | | 03 03 34.7 | |
| | comp=Z,21nm,0.2s | | | | | | | |
| VRF | | | | SN | | Sn | **03 03 35.4** | **-1.1** |
| **KU6** | **Riekki** | **2.29** | **231** | PN | | **Pg** | **03 03 24.6** | **-0.2** |
| KU6 | | | | MSG | | | 03 03 54.6 | |
| | comp=Z,5.1nm,0.2s | | | | | | | |
| KU6 | | | | SB | | **Sg** | **03 03 55.8** | **+1.3** |
| **MSF** | **Maaselka** | **2.63** | **234** | Pb | | **Pg** | **03 03 30.9** | **-0.3** |
| MSF | | | | Sb | | **Sg** | **03 04 04.9** | **-0.4** |
| **MSF** | **Maaselka** | **2.63** | **234** | PB | | **Pg** | **03 03 31.0** | **-0.3** |
| MSF | | | | SB | | **Sg** | **03 04 04.9** | **-0.4** |
| **SGF** | **Sodankyl** | **2.98** | **272** | Pn | | **Pn** | **03 03 31.9** | **+2.6** |
| **SGF** | **Sodankyl** | **2.98** | **272** | PN | | **Pn** | **03 03 32.0** | **+2.6** |
| SGF | | | | SG | | **Sb** | **03 04 11.4** | **-0.2** |
| **ARA0** | **ARCESS Array S** baz=122,slow=14 | **3.80** | **306** | Pn | | **Pn** | **03 03 42.2** | **+1.6** |
| ARA0 | | | | Sn | | **Sn** | **03 04 24.1** | **-1.8** |
| | baz=125,slow=28 | | | | | | | |
| ARA0 | | | | Lg | | Lg | 03 04 34.7 | |
| | baz=114,slow=37 | | | | | | | |
| **ARA0** | **ARCESS Array S** baz=122,slow=14 | **3.80** | **306** | Pn | | **Pn** | **03 03 42.2** | **+1.6** |
| ARA0 | | | | Sn | | **Sn** | **03 04 24.1** | **-1.8** |
| | baz=125,slow=28 | | | | | | | |
| ARA0 | | | | Lg | | Lg | 03 04 34.7 | |
| | baz=114,slow=37 | | | | | | | |
| **ARA0** | **ARCESS Array S** SNR=306 | **3.80** | **306** | Pn | | **Pn** | **03 03 42.2** | **+1.6** |
| ARA0 | | | | Sn | | **Sn** | **03 04 24.1** | **-1.8** |
| | SNR=0.6 | | | | | | | |
| ARA0 | | | | Lg | | Lg | 03 04 34.7 | |
| | SNR=5.3 | | | | | | | |
| **ARE0** | **ARCESS Array S** | **3.80** | **306** | Pn | | **Pn** | **03 03 41.8** | **+1.2** |
| ARE0 | | | | Sn | | **Sn** | **03 04 24.4** | **-1.5** |
| **ARE0** | **ARCESS Array S** | **3.80** | **306** | PN | | **Pn** | **03 03 41.8** | **+1.2** |
| ARE0 | | | | SN | | **Sn** | **03 04 24.4** | **-1.5** |
| **HEF** | **Hetta** | **4.09** | **287** | Pn | | **Pn** | **03 03 46.5** | **+1.9** |
| HEF | | | | Sn | | **Sn** | **03 04 32.6** | **-0.6** |
| **HEF** | **Hetta** baz=92 | **4.09** | **287** | PN | | **Pn** | **03 03 46.5** | **+1.9** |
| HEF | | | | SN | | **Sn** | **03 04 32.6** | **-0.6** |
| **OUL** | **Oulu** | **4.17** | **238** | Pg | | **Pg** | **03 04 00.9** | **+0.2** |
| **OUL** | **Oulu** | **4.17** | **238** | PG | | **Pg** | **03 04 00.9** | **+0.2** |
| **TOF** | **Tornio** | **4.19** | **254** | Pn | | **Pn** | **03 03 50.1** | **+4.2** |
| TOF | | | | Sg | | **Sg** | **03 04 53.1** | **-2.2** |
| **TOF** | **Tornio** | **4.19** | **254** | PN | | **Pn** | **03 03 50.2** | **+4.2** |
| TOF | | | | SG | | **Sg** | **03 04 53.1** | **-2.2** |
| **KALU** | **Kalix** | **4.64** | **254** | PG | | **Pg** | **03 04 07.0** | **-2.7** |
| KALU | | | | SN | | **Sn** | **03 04 47.1** | **+0.5** |
| **LANU** | **Lannavaara** | **4.69** | **282** | Pn | | **Pn** | **03 03 54.3** | **+1.5** |
| LANU | | | | Sn | | **Sn** | **03 04 47.0** | **-0.8** |
| **LANU** | **Lannavaara** | **4.69** | **282** | PN | | **Pn** | **03 03 54.4** | **+1.5** |
| LANU | | | | SN | | **Sn** | **03 04 47.0** | **-0.8** |
| **ERTU** | **Ertsjaerv** | **4.83** | **264** | Pn | | **Pn** | **03 03 56.6** | **+1.9** |
| ERTU | | | | Sn | | **Sn** | **03 04 51.3** | **+0.1** |
| **ERTU** | **Ertsjaerv** | **4.83** | **264** | PN | | **Pn** | **03 03 56.6** | **+1.9** |
| ERTU | | | | SN | | **Sn** | **03 04 51.3** | **+0.1** |
| **FIA0** | **FINESS Array S** baz=45,slow=18 | **7.05** | **214** | Sn | | **Sn** | **03 05 43.0** | **-2.9** |
| FIA0 | | | | Lg | | Lg | 03 06 18.8 | |
| | baz=13,slow=28 | | | | | | | |
| **FIA0** | **FINESS Array S** baz=45,slow=18 | **7.05** | **214** | Sn | | **Sn** | **03 05 43.0** | **-2.9** |
| FIA0 | | | | Lg | | Lg | 03 06 18.8 | |
| | baz=13,slow=28 | | | | | | | |
| **SPA0** | **Spitsbergen Ar** baz=148,slow=6.9 | **11.84** | **342** | Pn | | **Pn** | **03 05 30.1** | **-0.6** |
| **SPA0** | **Spitsbergen Ar** baz=148,slow=6.9 | **11.84** | **342** | Pn | | **Pn** | **03 05 30.1** | **-0.6** |
| **SPA0** | **Spitsbergen Ar** SNR=6.4 | **11.84** | **342** | Pn | | **Pn** | **03 05 30.1** | **-0.6** |

*ISCJB* ***31*** *03:25:52.7±0.6, 6°.87N±0°.04×73°.13W±0°.05, h156km±5km, mb3.2/3, Error ellipse: s-maj=9.0km s-min=6.0km az=35.6*

*RSNC* ***31*** *03:25:54.5±0.8, 6°.82N×73°.14W, h148km±5km, ML3.1*

*IDC* ***31*** *03:25:56.9±3.7, 7°.10N×72°.85W, h188km±41km, mb2.9/3, mb1 3.3/4, mb1mx3.0/30, mbtmp3.5/4, Error ellipse: s-maj=58.6km s-min=20.3km az=75.0*

**ISC 31 03:25:53.5±0.9, 6°.85N±0°.05×73°.13W±0°.05, h152km±6km, n22, σ0s87/32, mb3.4/3, Northern Colombia**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res |
|---|---|---|---|---|---|---|---|---|
| **BARC** | **Barichara** | **0.26** | **192** | *i*P | | **Pn** | **03 26 14.4** | **-0.1** |
| BARC | | | | *i* | | | 03 26 14.9 | |
| | comp=Z,206nm,0.3s | | | | | | | |
| BARC | | | | *e*S | | **Sn** | **03 26 29.6** | **-0.9** |
| **BRRC** | **Barranca, Sant** | **0.63** | **294** | *e*P | | **Pn** | **03 26 16.1** | **+0.3** |
| BRRC | | | | *e*S | | **Sn** | **03 26 33.2** | **+0.3** |
| BRRC | | | | *i* | | | 03 26 35.0 | |
| | comp=Z,223nm,0.1s | | | | | | | |
| **PAMC** | **Pamplona, Colo** | **0.65** | **41** | *e*P | | **Pn** | **03 26 17.3** | **+0.7** |
| PAMC | | | | *e*S | | **Sn** | **03 26 34.2** | **+0.1** |
| PAMC | | | | *i* | | | 03 26 36.1 | |
| | comp=Z,212nm,0.5s | | | | | | | |
| **RUSC** | **La Rusia** | **0.95** | **177** | *e*P | | **Pn** | **03 26 18.4** | **-0.2** |
| RUSC | | | | *e*S | | **Sn** | **03 26 37.2** | **-0.7** |
| RUSC | | | | *i* | | | 03 26 39.0 | |
| | comp=Z,119nm,0.4s | | | | | | | |
| **PTBC** | **PUERTO BERRIO,** | **1.35** | **257** | *e*P | | **Pn** | **03 26 20.9** | **-0.8** |
| **YOPC** | **Yopal, Colombi** | **1.64** | **155** | *e*P | | **Pn** | **03 26 25.4** | **+0.5** |
| YOPC | | | | *i* | | | 03 26 52.7 | |
| | comp=Z,60nm,0.3s | | | | | | | |
| **ZARC** | **Zaragoza, Cauc** | **1.83** | **291** | *e*P | | **Pn** | **03 26 27.1** | **+0.3** |
| ZARC | | | | *e*S | | **Sn** | **03 26 52.4** | **-0.1** |
| ZARC | | | | *i* | | | 03 26 59.1 | |
| | comp=Z,186nm,0.3s | | | | | | | |
| **NORC** | **Norcasia** | **2.15** | **234** | *e*P | | **Pn** | **03 26 30.9** | **+0.3** |
| NORC | | | | *e*S | | **Sn** | **03 26 58.8** | **-0.3** |
| **CHIC** | **Chingaza** | **2.28** | **195** | *e*P | | **Pn** | **03 26 32.8** | **+0.3** |
| CHIC | | | | *e*S | | **Sn** | **03 27 02.1** | **-0.5** |
| CHIC | | | | *i* | | | 03 27 06.6 | |
| | comp=Z,84nm,0.7s | | | | | | | |
| **HELC** | **Santa Helena** | **2.47** | **255** | *e*P | | **Pn** | **03 26 34.4** | **-0.4** |
| HELC | | | | *i* | | | 03 27 13.8 | |
| | comp=Z,114nm,0.5s | | | | | | | |
| **GUYC** | **Guyana, Colomb** | **2.77** | **234** | *e*P | | **Pn** | **03 26 39.4** | **+0.9** |
| GUYC | | | | *i* | | | 03 27 24.6 | |
| | comp=Z,91nm,0.5s | | | | | | | |
| **VILC** | **Villavicencio,** | **2.77** | **192** | *e*P | | **Pn** | **03 26 37.8** | **-0.5** |
| VILC | | | | *e*S | | **Sn** | **03 27 12.5** | **-0.4** |
| VILC | | | | *i* | | | 03 27 22.2 | |
| | comp=Z,73nm,0.4s | | | | | | | |
| **TOLC** | **Tolima** | **3.13** | **224** | *e*P | | **Pn** | **03 26 43.2** | **+0.3** |
| TOLC | | | | *e*S | | **Sn** | **03 27 21.6** | **+0.4** |
| **SDV** | **Santo Domingo** comp=Z,15nm,0.3s,baz=244,slow=6.0,SNR=42 | **3.20** | **50** | P | | **Pn** | **03 26 44.0** | **+0.3** |
| SDV | | | | S | | **Sn** | **03 27 20.9** | **-1.5** |
| | comp=Z,16nm,0.3s,baz=258,slow=19,SNR=25 | | | | | | | |
| **PRAC** | **Prado** | **3.57** | **209** | *e*P | | **Pn** | **03 26 47.8** | **-0.6** |
| **PLMC** | **San Jos͡ del** | **3.68** | **239** | *e*P | | **Pn** | **03 26 50.1** | **+0.4** |
| **YOTC** | **Yotoco, Valle** | **4.28** | **229** | *e*P | | **Pn** | **03 26 57.2** | **-0.4** |
| YOTC | | | | *i* | | | 03 27 02.0 | |
| | comp=Z,10nm,0.3s | | | | | | | |
| **LPAZ** | **La Paz** comp=Z,1.0nm,0.5s,baz=315,slow=5.7,SNR=6.6 | **23.51** | **168** | P | | **P** | **03 30 53.5** | **+3.0** |
| **TXAR** | **Lajitas Array** comp=Z,0.1nm,0.7s,baz=134,slow=8.9,SNR=3.6 | **36.44** | **312** | P | | **P** | **03 32 44.2** | **+0.3** |
| **YKA** | **Yellowknife Ar** comp=Z,0.3nm,0.6s,baz=135,slow=6.6,SNR=13 | **63.24** | **340** | P | | **P** | **03 36 04.8** | **-0.6** |
| **ASAR** | **Alice Springs** comp=Z,0.5nm,1.1s,baz=100,slow=3.6,SNR=4.3 | **149.12** | **234** | PKPbc | | **PKPbc** | **03 45 23.3** | **-1.4** |
| **WRA** | **Warramunga Arr** comp=Z,0.2nm,0.4s,baz=109,slow=2.4,SNR=9.7 | **150.34** | **241** | PKPbc | | **PKPbc** | **03 45 26.4** | **-1.4** |

*SOME* ***31*** *03:43:44.2, 42°.98N×72°.82E, h15km*

*KRNET* ***31*** *03:43:44.5±0.1, 42°.90N×72°.82E, h21km, mb2.2*

*KNET* ***31*** *03:43:45.6±0.8, 43°.06N×72°.96E, h0km, ml1.6, Error ellipse: s-maj=4.4km s-min=2.7km az=121.0*

**ISC 31 03:43:44.2±1.2, 42°.94N±0°.04×72°.80E±0°.02, h11km±9km, n26, σ0s76/50, 27C-7D, Kyrgyzstan**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res |
|---|---|---|---|---|---|---|---|---|
| **MRKS** | **Merke** 8.7nm,0.1s | **0.37** | **122** | *e*P | | **Pg** | **03 43 51.9** | **+0.4** |
| MRKS | | | | *e*S | | **Sg** | **03 43 57.2** | **+0.8** |
| | 44nm,0.1s | | | | | | | |
| **MNAS** | **Manas** baz=210 | **0.50** | **206** | ⇑*i*P | | **Pg** | **03 43 53.8** | **-0.2** |
| MNAS | | | | ⇑*i*S | | **Sg** | **03 44 00.7** | **0.0** |
| | baz=210 | | | | | | | |
| **MNAS** | **Manas** 3.6nm,0.3s | **0.50** | **206** | ⇓P | | **Pg** | **03 43 53.5** | **-0.5** |
| MNAS | | | | ⇓S | | **Sg** | **03 44 00.3** | **-0.4** |
| | 3.4nm,0.3s | | | | | | | |
| **EKS2** | **Erkin-Say** baz=107 | **0.77** | **111** | ⇑*i*P | | **Pg** | **03 43 59.1** | **+0.1** |
| EKS2 | | | | ⇑*i*S | | **Sg** | **03 44 09.4** | **+0.3** |
| | baz=107 | | | | | | | |
| **EKS2** | **Erkin-Say** 2.7nm,0.1s,SNR=20 | **0.77** | **111** | P | | **Pg** | **03 43 59.6** | **+0.6** |
| EKS2 | | | | ⇑S | | **Sb** | **03 44 10.5** | **+0.4** |
| | 7.1nm,0.1s | | | | | | | |
| **TOKL** | **Toktogul** baz=178 | **1.00** | **177** | ⇑*i*P | | **Pb** | **03 44 03.0** | **-0.5** |
| TOKL | | | | ⇑*i*S | | **Sb** | **03 44 15.8** | **-0.9** |
| | baz=178 | | | | | | | |
| **AML** | **Almayashu** baz=140 | **1.04** | **141** | ⇑*i*P | | **Pb** | **03 44 03.7** | **-0.7** |
| AML | | | | ⇑*i*S | | **Sb** | **03 44 17.8** | **-0.4** |
| | baz=140 | | | | | | | |
| **AAK** | **Ala-Archa** baz=102 | **1.28** | **103** | ⇑*i*P | | **Pn** | **03 44 08.0** | **-0.1** |
| AAK | | | | ⇑*i*S | | **Sn** | **03 44 25.1** | **-0.2** |
| | baz=102 | | | | | | | |
| **AAK** | **Ala-Archa** 1.4nm,0.2s,SNR=13 | **1.28** | **103** | P | | **Pb** | **03 44 08.5** | **+0.1** |
| AAK | | | | ⇑S | | **Sg** | **03 44 25.9** | **+0.5** |
| | 6.3nm,0.2s | | | | | | | |
| **USP** | **Ospenovka** 2.4nm,0.1s,SNR=27 | **1.28** | **75** | P | | **Pn** | **03 44 07.7** | **-0.4** |
| USP | | | | ⇑S | | **Sn** | **03 44 24.7** | **-0.5** |
| | 5.2nm,0.1s | | | | | | | |
| **ARK** | **Arkit** baz=210 | **1.30** | **209** | ⇑*i*P | | **Pn** | **03 44 08.8** | **+0.5** |
| ARK | | | | ⇑*i*S | | **Sn** | **03 44 26.0** | **+0.3** |
| | baz=210 | | | | | | | |
| **CHMS** | **Chumysh** baz=85 | **1.43** | **87** | ⇑*i*P | | **Pb** | **03 44 10.6** | **-0.2** |
| CHMS | | | | ⇑*i*S | | **Sg** | **03 44 29.5** | **-0.7** |
| | baz=85 | | | | | | | |
| **CHMS** | **Chumysh** 1.2nm,0.1s,SNR=6.8 | **1.43** | **87** | P | | **Pb** | **03 44 10.3** | **-0.6** |
| **UCH** | **Uchtor** baz=118 | **1.45** | **119** | ⇓*i*P | | **Pb** | **03 44 11.4** | **0.0** |
| UCH | | | | ⇓*i*S | | **Sb** | **03 44 30.6** | **+0.6** |
| | baz=118 | | | | | | | |
| **UCH** | **Uchtor** 1.1nm,0.1s,SNR=5.4 | **1.45** | **119** | ⇓P | | **Pg** | **03 44 13.5** | **+1.5** |
| **KBK** | **Karagaybulak** baz=98 | **1.60** | **99** | ⇓*i*P | | **Pb** | **03 44 14.0** | **+0.1** |
| KBK | | | | ⇓*i*S | | **Sg** | **03 44 35.4** | **-0.3** |
| | baz=98 | | | | | | | |
| **ARSB** | **Arslanbob** baz=176 | **1.62** | **175** | ⇑*e*P | | **Pn** | **03 44 13.5** | **+0.7** |
| ARSB | | | | ⇑*i*S | | **Sn** | **03 44 34.2** | **+0.5** |
| | baz=176 | | | | | | | |
| **KK31** | **Karatay Array** 1.7nm,0.3s,baz=94,slow=14,SNR=62 | **1.69** | **276** | ⇑P | | **Pb** | **03 44 14.8** | **-0.4** |
| KK31 | | | | ⇑S | | **Sn** | **03 44 35.8** | **+0.5** |
| | 2.9nm,0.3s,baz=93,slow=30,SNR=19 | | | | | | | |
| **KZA** | **Kyzart** baz=114 | **2.00** | **115** | ⇑*i*P | | **Pb** | **03 44 20.0** | **-0.8** |
| KZA | | | | ⇑*i*S | | **Sb** | **03 44 45.2** | **-0.7** |
| | baz=114 | | | | | | | |
| **TKM2** | **Tokmak 2** baz=88 | **2.05** | **90** | ⇑*i*P | | **Pb** | **03 44 20.4** | **-1.1** |
| TKM2 | | | | ⇑*i*S | | **Sb** | **03 44 47.9** | **+0.8** |
| | baz=88 | | | | | | | |
| **BMNS** | **Besmoynak** 4.8nm,0.2s | **2.11** | **84** | *e*P | | **Pb** | **03 44 22.4** | **0.0** |
| BMNS | | | | *e*S | | **Sg** | **03 44 50.4** | **-1.5** |
| | 38nm,0.3s | | | | | | | |
| **DGS** | **Degeres** 7.6nm,0.5s | **2.19** | **81** | *e*P | | **Pb** | **03 44 24.1** | **+0.2** |
| DGS | | | | *e*S | | **Sg** | **03 44 52.7** | **-2.0** |
| | 14nm,0.6s | | | | | | | |
| **IUG** | **Iuzhnay** 15nm,0.2s | **2.20** | **250** | *e*P | | **Pb** | **03 44 24.6** | **+0.6** |
| IUG | | | | *e*S | | **Sg** | **03 44 54.1** | **-0.6** |
| | 17nm,0.3s | | | | | | | |
| **KST** | **Kastek** 0.8nm,0.3s | **2.32** | **86** | *e*P | | **Pb** | **03 44 25.9** | **-0.2** |
| KST | | | | *e*S | | **Sb** | **03 44 56.4** | **+1.6** |
| | 4.7nm,0.4s | | | | | | | |
| **ULHL** | **Ulahol** baz=104 | **2.63** | **104** | ⇑*i*P | | **Pb** | **03 44 30.5** | **-0.9** |
| ULHL | | | | ⇑*i*S | | **Sb** | **03 45 02.6** | **-1.2** |
| | baz=104 | | | | | | | |
| **KUU** | **Kurty** 1.9nm,0.3s | **2.75** | **68** | *e*P | | **Pb** | **03 44 32.6** | **-0.6** |
| KUU | | | | *e*S | | **Sb** | **03 45 08.1** | **+1.2** |
| | 8.7nm,0.5s | | | | | | | |

*CSEM* ***31*** *03:50:06.9±0.4, 38°.53N×43°.15E, h2km, ML2.2, Error ellipse: s-maj=8.5km s-min=5.2km az=87.0*

*ISK* ***31*** *03:50:06.2, 38°.54N×43°.18E, h5km, MD2.6*

*DDA* ***31*** *03:50:09.1, 38°.48N×43°.39E, h11km, Ml2.2*

**ISC 31 03:50:06.8±2.1, 38°.52N±0°.05×43°.16E±0°.09, h4km±13km, n15, σ0s59/23, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res |
|---|---|---|---|---|---|---|---|---|
| **TVAN** | **Van** | **0.20** | **87** | *i*P | | **Pg** | **03 50 10.3** | **-0.4** |
| TVAN | | | | *i*S | | **Sg** | **03 50 13.9** | **+0.6** |
| **TVAN** | **Van** | **0.20** | **87** | P | | **Pg** | **03 50 10.3** | **-0.4** |
| TVAN | | | | S | | **Sg** | **03 50 13.9** | **+0.6** |
| **VANB** | **Van** | **0.20** | **67** | *e*PG | | **Pg** | **03 50 10.6** | **-0.1** |
| VANB | | | | *e*SG | | **Sg** | **03 50 14.0** | **+0.7** |
| **VANB** | **Van** | **0.20** | **67** | *e*Pg | | **Pg** | **03 50 10.6** | **-0.1** |
| VANB | | | | *e*Sg | | **Sg** | **03 50 14.0** | **+0.7** |
| **VMUR** | **Van-Muradiye** | **0.57** | **34** | *i*P | | **Pg** | **03 50 18.1** | **+0.3** |
| VMUR | | | | *i*S | | **Sb** | **03 50 28.5** | **+0.5** |
| **VMUR** | **Van-Muradiye** | **0.57** | **34** | P | | **Pg** | **03 50 18.1** | **+0.3** |
| **CLDR** | **Caldiran** | **0.86** | **43** | *e*PG | | **Pg** | **03 50 23.2** | **-0.1** |
| **CLDR** | **Caldiran** | **0.86** | **43** | *i*P | | **Pg** | **03 50 23.4** | **+0.1** |
| CLDR | | | | *i*S | | **Sb** | **03 50 36.1** | **-0.3** |
| **CLDR** | **Caldiran** | **0.86** | **43** | P | | **Pg** | **03 50 23.4** | **+0.1** |
| CLDR | | | | S |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **AGRB** | **Hanur-Agry** | **0.90** | **318** | *e*Pg | **Pb** | **03 54 30.1** | **-0.3** |
| AGRB | | | | *e*Sg | **Sn** | **03 54 43.9** | **-0.2** |
| **TASB** | **TASBURUN-IGDIR** | **1.13** | **18** | *e*PN | **Pn** | **03 54 34.9** | **+0.6** |
| **TASB** | **TASBURUN-IGDIR** | **1.13** | **18** | *e*Pn | **Pn** | **03 54 34.9** | **+0.6** |
| **HAKT** | **HAKKARI** | **1.35** | **182** | *i* P | **Pn** | **03 54 36.5** | **-0.9** |
| **HAKT** | **HAKKARI** | **1.35** | **182** | P | **Pn** | **03 54 36.5** | **-0.9** |
| **CUKT** | **Cukurca** | **1.66** | **185** | *e*PN | **Pb** | **03 54 43.2** | **-0.1** |
| **CUKT** | **Cukurca** | **1.66** | **185** | *e*Pn | **Pb** | **03 54 43.2** | **-0.1** |

*IDC* ***31*** *03:56:55.6±0.7, 5.°92S×127.°23E, h0km, mb4.3/12, mb1 4.5/14, mb1mx4.3/33, mbtmp4.4/14, ML4.5/2, MS3.6/16, Ms1 3.6/16, ms1mx3.4/50, Error ellipse: s-maj=27.0km s-min=14.1km az=72.0*

*ISCJB* ***31*** *03:56:58.0±0.3, 6.°03S±0.°03×127.°50E±0.°04, h35km, mb4.5/29, MS3.7/17, Error ellipse: s-maj=5.9km s-min=4.4km az=151.7*

*GCMT* ***31*** *03:57:01.4±0.3, 5.°80S×127.°39E, h25km±1km, MW5.0/72, Moment Tensor Solution. s26,c30; s72,c101; Duration: 0 Moment tensor: Scale 10^16 Nm; Mrr=0.32±.16; Mθθ=2.36±.11; Mφφ=2.68±.13; Mrθ=0.14±.26; Mrφ=1.67±.11; Mθφ=1.54±.30; Best double couple: Mo=3.32800×10^16 NP1:φs=331.00000°, δ81.00000°, λ160.00000°. NP2: φs=64.00000°, δ70.00000°, λ9.00000°. Principal axes: T 3.7500, Plg20.0000°, Azm286.0000°; N -0.8430, Plg68.0000°, Azm129.0000°; P -2.9060, Plg8.0000°, Azm19.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC* ***31*** *03:57:01.4±0.8, 5.°97S×127.°42E, h45km±9km, mb4.6/23 Error ellipse: s-maj=8.4km s-min=5.8km az=51.0*

**ISC 31 03:57:00.4±0.4, 6.°05S±0.°05×127.°48E±0.°05, h35km, n75, σ2§10/72, mb4.5/29, MS3.7/17, 2C, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SAUI** | **Saumlaki** | **4.26** | **117** | *e*Pn | **Pn** | **03 58 06.2** | **+3.4** |
| **SOEI** | **Soe** | **4.87** | **221** | *e*Pn | **Pn** | **03 58 14.8** | **+3.5** |
| **FAKI** | **Fak Fak** | **5.68** | **57** | *e*Pn | **Pn** | **03 58 22.0** | **-0.4** |
| FAKI | | | | *e*Sn | **Sn** | **03 59 25.1** | **-1.4** |
| **MMRI** | **Maumere** | **5.80** | **243** | *e*Pn | Pn | 03 58 31.9 | +7.9 |
| **LUWI** | **Luwuk** | **6.84** | **316** | *e*Pn | **Pn** | **03 58 36.5** | **-1.7** |
| **MTN** | **Manton Dam** | **7.66** | **152** | *e*Pn | **Pn** | **03 58 52.2** | **+2.7** |
| **KAPI** | **Kappang** 135nm,1.0s | **7.76** | **277** | *e*Pn | **Pn** | **03 58 51.7** | **+0.8** |
| KAPI | | | | *e*Sn | **Sn** | **04 00 17.9** | **+0.3** |
| **FITZ** | **Fitzroy Crossi** 1.8nm,0.3s,baz=21,slow=10,SNR=37 | **12.12** | **188** | Pn | **Pn** | **03 59 50.0** | **-0.6** |
| FITZ | | | | Sn | **Sn** | **04 02 01.4** | **-3.2** |
| **WRAB** | **Tennant Creek** 50nm,0.9s | **15.34** | **155** | *e*Pn | **Pn** | **04 00 32.0** | **-2.4** |
| WRAB | | | | *e*Sn | **Sn** | **04 03 16.0** | **-7.2** |
| **WRA** | **Warramunga Arr** 2.0nm,0.3s,baz=334,slow=13,SNR=85 | **15.34** | **155** | Pn | **Pn** | **04 00 32.4** | **-2.1** |
| WRA | | | | Sn | Sn | 04 03 13.6 | -10 |
| **WB2** | **Warramunga Arr** 0.5nm,0.3s,baz=334,slow=21,SNR=8.1 | **15.35** | **155** | *e*Pn | **Pn** | **04 00 32.1** | **-2.4** |
| **MBWA** | **Marble Bar** 32nm,0.9s | **16.79** | **206** | *e*Pn | **Pn** | **04 00 52.2** | **-0.7** |
| **SMRI** | **Semarang** 221nm,1.7s | **16.95** | **266** | *e*Pn | **Pn** | **04 00 54.6** | **-0.5** |
| **COEN** | **Coen** 158nm,1.4s | **17.34** | **118** | *e*Pn | **Pn** | **04 00 59.7** | **-0.1** |
| **SBUM** | **Sibu** 27nm,1.2s | **17.42** | **299** | *e*Pn | **P** | **04 01 02.7** | **+0.9** |
| **AS31** | **Alice Springs** 11nm,0.6s | **18.58** | **161** | *e*P | **P** | **04 01 15.9** | **+1.3** |
| **ASAR** | **Alice Springs** 2.1nm,0.3s,baz=333,slow=9.2,SNR=80 | **18.58** | **161** | P | **P** | **04 01 15.4** | **+0.8** |
| ASAR | | | | S | **Sn** | **04 04 34.3** | **-7.5** |
| ASAR | 0.3nm,0.3s,baz=319,slow=21,SNR=4.1 | | | LR | LR | 04 09 42.0 | |
| **AS01** | comp=Z,204nm,20.0s,baz=342,slow=41 **Alice Springs** | **18.59** | **161** | *e*P | **P** | **04 01 14.5** | **-0.3** |
| **KSM** | **Kuching** 94nm,1.9s | **18.70** | **293** | *e*P | **Pn** | **04 01 17.0** | **+0.4** |
| **PMG** | **Port Moresby** 116nm,1.0s,baz=311,slow=8.2,SNR=8.8 | **19.79** | **101** | P | **Pn** | **04 01 31.8** | **+2.2** |
| PMG | | | | LR | LR | 04 11 04.2 | |
| **PMG** | comp=Z,211nm,20.3s,baz=288,slow=42 **Port Moresby** 158nm,1.1s | **19.79** | **101** | *e*P | **Pn** | **04 01 31.0** | **+1.4** |
| **CTA** | **Charters Tower** 11nm,0.9s,baz=320,slow=13,SNR=5.8 | **22.97** | **129** | P | **P** | **04 02 04.8** | **+2.8** |
| **CTAO** | **Charters Tower** 37nm,1.1s | **22.97** | **129** | *e*P | **P** | **04 02 05.0** | **+2.9** |
| **FORT** | **Forrest** | **24.61** | **179** | *e*P | **P** | **04 02 17.1** | **-0.4** |
| **BBOO** | **Buckleboo** 43nm,1.4s | **27.80** | **164** | *e*P | **P** | **04 02 48.1** | **+1.8** |
| **NWAO** | **Narrogin (SRO)** 14nm,1.0s,baz=81,slow=8.7,SNR=3.2 | **28.39** | **198** | P | **P** | **04 02 52.2** | **+0.6** |
| NWAO | | | | LR | LR | 04 15 32.5 | |
| **STKA** | comp=Z,110nm,18.1s,baz=287,slow=39 **Stephens Creek** 5.1nm,0.8s,baz=334,slow=9.6,SNR=9.4 | **28.89** | **155** | P | **P** | **04 02 58.3** | **+2.2** |
| **STKA** | **Stephens Creek** 1.6nm,0.9s | **28.89** | **155** | *e*P | **P** | **04 02 58.7** | **+2.6** |
| **PSI** | **Prapat** comp=Z,407nm,19.0s,baz=130,slow=40 | **29.84** | **286** | LR | LR | 04 16 24.1 | |
| **QIZ** | **Qiongzhong** | **30.38** | **325** | P | **P** | **04 03 09.8** | **+0.5** |
| QIZ | | | | pP | **sP** | **04 03 26.8** | **+3.2** |
| QIZ | | | | S | **S** | **04 08 08.0** | **+0.2** |
| QIZ | | | | SS | **SS** | **04 10 14.0** | **-4.2** |
| QIZ | comp=Z,31nm,1.4s | | | pmax | pmax | | |
| QIZ | comp=Z,120nm,33.7s | | | LR | LR | | |
| **HNR** | **Honiara** comp=Z,84nm,18.4s,baz=196,slow=40 | **32.34** | **98** | LR | LR | 04 18 26.3 | |
| **CAN** | **Canberra** comp=Z,19nm,1.2s | **35.24** | **149** | *e*P | **P** | **04 03 51.0** | **-0.7** |
| **CMAR** | **Chiang Mai Arr** comp=Z,0.5nm,0.4s,baz=135,slow=7.1,SNR=5.9 | **37.21** | **311** | P | **P** | **04 04 08.3** | **-0.4** |
| CMAR | | | | LR | LR | 04 20 01.0 | |
| **CHTO** | comp=Z,172nm,21.9s,baz=131,slow=38 **Chiang Mai** comp=Z,3.3nm,0.9s | **37.43** | **312** | *e*P | **P** | **04 04 09.9** | **-0.7** |
| **NJ2** | **Nanjing** | **38.77** | **348** | *e*P | **P** | **04 04 21.5** | **-0.1** |
| NJ2 | comp=Z,16nm,0.7s | | | pmax | pmax | | |
| **DZM** | **Mont Dzumac** comp=Z,105nm,18.8s,baz=217,slow=37 | **40.86** | **117** | LR | LR | 04 22 11.3 | |
| **KSAR** | **Wonju Array Be** | **43.27** | **0** | P | **P** | **04 04 58.4** | **-0.2** |
| **KSRS** | **Korea Array** comp=Z,6.7nm,1.0s,baz=178,slow=11,SNR=18 | **43.28** | **1** | P | **P** | **04 04 58.4** | **-0.3** |
| KSRS | | | | LR | LR | 04 21 33.3 | |
| **KS01** | comp=Z,35nm,21.9s,baz=181,slow=34 **Wonju Array Si** | **43.30** | **0** | *e*P | **P** | **04 04 58.3** | **-0.5** |
| **MJAR** | **Matsushiro Arr** comp=Z,3.6nm,1.0s,baz=192,slow=10,SNR=8.5 | **43.54** | **13** | P | **P** | **04 04 59.2** | **-1.7** |
| **MAJO** | **Matsushiro** comp=Z,6.6nm,0.9s | **43.54** | **13** | *e*P | **P** | **04 04 58.9** | **-1.9** |
| **HHC** | **Hu-ho-hao-te** | **48.90** | **344** | *e*P | **P** | **04 05 44.8** | **+1.7** |
| HHC | | | | sP | sP | 04 06 11.5 | +14 |
| HHC | | | | S | **S** | **04 12 44.0** | **-0.6** |
| HHC | comp=Z,15nm,1.2s | | | pmax | pmax | | |
| HHC | comp=Z,130nm,5.1s | | | pmax | pmax | | |
| HHC | comp=N,150nm,13.7s | | | LR | LR | | |
| HHC | comp=E,140nm,14.9s | | | LR | LR | | |
| HHC | comp=Z,110nm,14.9s | | | LR | LR | | |
| **USRK** | **Ussuriysk Ar.** comp=Z,47nm,21.5s,baz=193,slow=35 | **50.18** | **4** | LR | LR | 04 26 08.5 | |
| **GTA** | **Gaotai** | **51.96** | **333** | P | **P** | **04 06 05.8** | **-0.4** |
| GTA | | | | pP | pP | 04 06 17.8 | +1.0 |
| GTA | | | | sP | sP | 04 06 21.3 | +0.4 |
| GTA | comp=Z,6.0nm,1.0s | | | pmax | pmax | | |
| **RPZ** | **Rata Peaks** comp=Z,165nm,21.1s,baz=301,slow=34 | **53.53** | **142** | LR | LR | 04 27 40.4 | |
| **URZ** | **Urewera** comp=Z,84nm,20.1s,baz=314,slow=35 | **55.14** | **133** | LR | LR | 04 29 12.2 | |
| **ULN** | **Ulaanbaatar** comp=Z,5.1nm,1.1s | **56.62** | **344** | *e*P | **P** | **04 06 39.2** | **-0.9** |
| **SONM** | **Songino Array** comp=Z,3.5nm,0.9s,baz=159,slow=7.5,SNR=22 | **56.78** | **343** | P | **P** | **04 06 40.0** | **-1.1** |
| SONM | | | | PcP | **PcP** | **04 07 33.3** | **-3.4** |
| **SONA1** | comp=Z,1.1nm,0.7s,baz=135,slow=4.0,SNR=3.6 **Songino Array** | **56.79** | **343** | *e*P | **P** | **04 06 40.4** | **-0.8** |
| **WMQ** | **Urumqi** | **61.25** | **328** | P | **P** | **04 07 12.5** | **+0.3** |
| WMQ | | | | pP | sP | 04 07 31.5 | +4.5 |
| WMQ | | | | sP | PcP | 04 07 40.0 | -15 |
| WMQ | comp=Z,25nm,0.7s | | | pmax | pmax | | |
| WMQ | comp=Z,440nm,5.1s | | | pmax | pmax | | |
| WMQ | comp=N,250nm,18.9s | | | LR | LR | | |
| WMQ | comp=E,160nm,23.1s | | | LR | LR | | |
| WMQ | comp=Z,130nm,19.7s | | | LR | LR | | |
| **PETK** | **Petropavlovsk-** comp=Z,1.8nm,0.7s,baz=223,slow=3.5,SNR=3.6 | **64.24** | **20** | P | **P** | **04 07 32.0** | **+0.2** |
| **KSH** | **Kashi** | **65.64** | **318** | SS | SS | 04 20 25.8 | -14 |
| KSH | comp=Z,23nm,1.8s | | | pmax | pmax | | |
| KSH | comp=Z,95nm,5.3s | | | pmax | pmax | | |
| KSH | comp=N,110nm,5.1s | | | LR | LR | | |
| KSH | comp=E,96nm,4.8s | | | LR | LR | | |
| KSH | comp=Z,230nm,5.6s | | | LR | LR | | |
| **MK01** | **Makanchi Array** | **66.05** | **328** | *e*P | **P** | **04 07 42.4** | **-1.3** |
| **MK31** | **Makanchi Array** | **66.07** | **328** | *e*P | **P** | **04 07 43.6** | **-0.3** |
| **MKAR** | **Makanchi Array** comp=Z,1.0nm,1.0s,baz=139,slow=7.9,SNR=5.6 | **66.07** | **328** | P | **P** | **04 07 42.4** | **-1.5** |
| **MKAR** | **Makanchi Array** comp=Z,13nm,1.1s | **66.07** | **328** | *e*P | **P** | **04 07 43.6** | **-0.3** |
| **MAKZ** | **Makanchi** comp=Z,7.9nm,1.4s | **66.25** | **328** | *e*P | **P** | **04 07 43.7** | **-1.3** |
| **YAK** | **Yakutsk** comp=Z,29nm,0.8s | **67.90** | **1** | *e*P | **P** | **04 07 54.7** | **-0.4** |
| **AAK** | **Ala-Archa** comp=Z,6.8nm,1.3s | **68.21** | **321** | *e*P | **P** | **04 07 57.0** | **-0.7** |
| **ZAA0** | **Zalesovo Array** comp=Z,9.3nm,1.5s | **69.64** | **335** | *e*P | **P** | **04 08 04.3** | **-1.8** |
| **ZALV** | **Zalesovo Beam** comp=Z,0.3nm,0.3s,baz=96,slow=4.5,SNR=5.4 | **69.64** | **335** | P | **P** | **04 08 04.6** | **-1.5** |
| **ZALV** | **Zalesovo Beam** | **69.64** | **335** | *e*P | **P** | **04 08 04.8** | **-1.3** |
| **KURK** | **Kurchatov** | **70.42** | **329** | *e*P | **P** | **04 08 09.4** | **-1.5** |
| **MAW** | **Mawson** comp=Z,105nm,18.8s,baz=59,slow=35 | **74.92** | **201** | LR | LR | 04 40 08.9 | |
| **BRVK** | **Borovoye** comp=Z,5.7nm,1.0s | **76.01** | **328** | *e*P | **P** | **04 08 43.1** | **-0.8** |
| **ABKAR** | **Akbulak array** comp=Z,0.8nm,0.6s | **80.21** | **322** | *e*P | **P** | **04 09 07.0** | **-0.3** |
| **ARU** | **Arti** comp=Z,5.2nm,1.0s | **83.58** | **329** | *e*P | **P** | **04 09 24.7** | **-0.2** |
| **SYO** | **Syowa Base** | **83.64** | **201§** | *e*P | **P** | **04 09 27.0** | **+2.0** |
| **SYO** | **Syowa Base** | **83.64** | **201§** | *e*PcP | **PcP** | **04 09 31.5** | **+2.4** |
| **KMBO** | **Kilima Mbogo** comp=Z,36nm,20.2s,baz=88,slow=33 | **90.10** | **269** | LR | LR | 04 46 23.8 | |
| **KBZ** | **Khabaz** comp=Z,16nm,18.4s,baz=62,slow=40 | **90.23** | **314** | LR | LR | 04 57 10.1 | |
| **ILAR** | **Eielson Array** comp=Z,0.6nm,1.0s,baz=280,slow=5.2,SNR=4.0 | **93.56** | **25** | P | **P** | **04 10 13.9** | **+1.3** |
| **MMAI** | **Mount Meron Ar** comp=Z,9.2nm,20.2s,baz=50,slow=39 | **94.99** | **303** | LR | LR | 04 58 34.7 | |
| **BRTR** | **Keskin Array B** comp=Z,11nm,18.8s,baz=95,slow=40 | **96.77** | **309** | LR | LR | 05 01 07.6 | |
| **CPUP** | **Villa Florida** comp=Z,3.1nm,1.0s,baz=180,slow=2.0,SNR=4.6 | **147.48** | **172** | PKPbc | **PKPab** | **04 16 46.3** | **+2.8** |

*BJI* ***31*** *04:05:40.7, 1.°12S×127.°28E, h12km, mb4.6/42, mB5.0/32, Ms4.5/15, Ms7 4.2/15*

*IDC* ***31*** *04:05:40.8±0.5, 1.°07S×126.°97E, h0km, mb4.4/24, mb1 4.5/25, mb1mx4.4/48, mbtmp4.4/25, MS3.5/8, Ms1 3.5/8, ms1mx3.2/52, Error ellipse: s-maj=20.2km s-min=11.1km az=71.0*

*ISCJB* ***31*** *04:05:43.9±0.2, 1.°14S±0.°03×126.°94E±0.°04, h34km, mb4.6/57, MS3.9/10, Error ellipse: s-maj=5.8km s-min=4.0km az=159.9*

*NEIC* ***31*** *04:05:43.6±2.1, 1.°11S×126.°88E, h18km±13km, mb4.7/29, Error ellipse: s-maj=5.7km s-min=3.7km az=61.0*

**ISC 31 04:05:46.1±0.3, 1.°17S±0.°04×126.°93E±0.°05, h34km, n110, σ1§89/116, mb4.7/57, MS3.8/10, 1C-1D, Southern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **TNTI** | **Ternate** | **1.98** | **13** | *e*Pn | **Pn** | **04 06 15.0** | **-2.3** |
| TNTI | | | | *e*Sn | **Sn** | **04 06 37.2** | **-3.8** |
| **LUWI** | **Luwuk** | **4.16** | **272** | *e*Pn | **Pn** | **04 06 45.5** | **-1.7** |
| LUWI | | | | *e*Sn | **Sn** | **04 07 30.3** | **-4.4** |
| **FAKI** | **Fak Fak** | **5.59** | **108** | *e*Pn | **Pn** | **04 07 07.5** | **+0.6** |
| FAKI | | | | *e*Sn | **Sn** | **04 08 08.1** | **-2.0** |
| **KAPI** | **Kappang** 66nm,0.7s | **8.12** | **242** | *e*Pn | **Pn** | **04 07 42.7** | **+1.0** |
| KAPI | | | | *e*Sn | **Sn** | **04 09 09.6** | **-2.8** |
| **DAV** | **Davao City (W)** comp=Z,145nm,19.9s,baz=144,slow=34 | **8.30** | **351** | LR | LR | 04 10 22.0 | |
| **SOEI** | **Soe** | **8.93** | **197** | *e*Pn | **Pn** | **04 07 51.2** | **-1.7** |
| **MYLDM** | **Lahad Datu** | **10.52** | **307** | *e*Pn | **Pn** | **04 08 17.0** | **+2.4** |
| **MTN** | **Manton Dam** | **12.32** | **160** | *e*Pn | **Pn** | **04 08 39.9** | **+0.7** |
| **KKM** | **Kota Kinabalu** | **12.88** | **304** | *e*Pn | **Pn** | **04 08 44.7** | **-2.3** |
| **JAGI** | **Jajag, Banyuwa** 39nm,1.0s | **14.64** | **240** | *e*Pn | **Pn** | **04 09 09.8** | **-1.3** |
| **TGY** | **Tagaytay City** comp=Z,89nm,19.9s,baz=122,slow=36 | **16.30** | **339** | LR | LR | 04 15 26.7 | |
| **KSM** | **Kuching** 30nm,1.1s | **16.83** | **279** | *e*Pn | **Pn** | **04 09 37.8** | **-1.5** |
| **FITZ** | **Fitzroy Crossi** baz=15,slow=11,SNR=21 | **16.87** | **184** | Pn | **Pn** | **04 09 39.2** | **-0.6** |
| **WRAB** | **Tennant Creek** 48nm,1.1s | **20.01** | **159** | *e*P | **P** | **04 10 15.3** | **-0.8** |
| **WRA** | **Warramunga Arr** 24nm,0.8s,baz=337,slow=11,SNR=53 | **20.01** | **159** | P | **P** | **04 10 15.3** | **-0.9** |
| **WB2** | **Warramunga Arr** 34nm,0.8s | **20.02** | **159** | *e*P | **P** | **04 10 15.3** | **-0.9** |
| **COEN** | **Coen** 126nm,0.9s | **20.48** | **129** | *e*P | **P** | **04 10 22.6** | **+1.3** |
| **MBWA** | **Marble Bar** 25nm,0.9s | **21.07** | **199** | *e*P | **P** | **04 10 27.9** | **+0.4** |
| **PMG** | **Port Moresby** 38nm,0.8s,baz=292,slow=7.1,SNR=5.9 | **21.72** | **113** | P | **P** | **04 10 33.6** | **-1.1** |
| **PMG** | **Port Moresby** 95nm,1.4s | **21.72** | **113** | *e*P | **P** | **04 10 36.8** | **+2.1** |
| **GUMO** | **Guam** comp=Z,110nm,21.9s,baz=220,slow=34 | **23.05** | **50** | LR | LR | 04 18 29.7 | |
| **AS31** | **Alice Springs** 10nm,0.8s | **23.36** | **164** | *e*P | **P** | **04 10 51.1** | **-0.7** |
| **ASAR** | **Alice Springs** 34nm,0.8s,baz=343,slow=10,SNR=150 | **23.36** | **164** | P | **P** | **04 10 51.3** | **-0.5** |
| ASAR | 0.6nm,0.7s,baz=351,slow=3.2,SNR=5.4 | | | ScP | **ScP** | **04 18 15.7** | **+1.7** |
| **AS01** | **Alice Springs** | **23.37** | **164** | *e*P | **P** | **04 10 50.9** | **-1.0** |
| **TPUB** | **Ta-pu** 44nm,1.1s | **25.09** | **346** | *e*P | **P** | **04 11 07.0** | **-0.8** |
| **QIZ** | **Qiongzhong** | **26.17** | **321** | P | **P** | **04 11 18.0** | **+0.4** |
| QIZ | | | | S | **S** | **04 15 48.0** | **+0.5** |
| QIZ | comp=Z,30nm,2.4s | | | pmax | pmax | | |
| **IPM** | **Ipoh** 13nm,0.7s | **26.48** | **282** | *e*P | **P** | **04 11 18.9** | **-1.7** |
| **CTA** | **Charters Tower** 15nm,0.9s,baz=316,slow=14,SNR=7.5 | **26.66** | **136** | P | **P** | **04 11 23.1** | **+1.0** |
| **CTAO** | **Charters Tower** 46nm,1.4s | **26.66** | **136** | *e*P | **P** | **04 11 23.5** | **+1.4** |
| **KULM** | **Kulim** 17nm,1.1s | **27.02** | **284** | *e*P | **P** | **04 11 24.7** | **-0.7** |
| **JOW** | **Kunigami** 62nm,1.1s | **27.87** | **3** | *e*P | **P** | **04 11 32.0** | **-0.9** |
| **PSI** | **Prapat** 7.3nm,0.7s,baz=94,slow=3.2,SNR=7.1 | **28.27** | **278** | P | **P** | **04 11 36.1** | **-0.7** |
| **PSI** | **Prapat** 8.8nm,0.8s | **28.27** | **278** | *e*P | **P** | **04 11 35.9** | **-0.9** |
| **FORT** | **Forrest** | **29.46** | **178** | *e*P | **P** | **04 11 47.2** | **+0.2** |
| **BBOO** | **Buckleboo** 17nm,0.9s | **32.62** | **166** | *e*P | **P** | **04 12 15.4** | **+0.6** |
| **STKA** | **Stephens Creek** 34nm,0.8s,baz=330,slow=8.9,SNR=47 | **33.53** | **157** | P | **P** | **04 12 23.6** | **+0.8** |
| STKA | comp=Z,162nm,20.1s,baz=343,slow=36 | | | LR | LR | 04 25 41.2 | |
| **STKA** | **Stephens Creek** 9.3nm,0.8s | **33.53** | **157** | *e*P | **P** | **04 12 24.0** | **+1.2** |
| **CMAR** | **Chiang Mai Arr** 0.3nm,0.3s,baz=110,slow=8.0,SNR=3.7 | **33.73** | **307** | P | **P** | **04 12 24.8** | **+0.1** |
| CMAR | 0.7nm,0.6s,baz=155,slow=1.6,SNR=3.4 | | | PcP | **PcP** | **04 15 05.1** | **+1.1** |
| CMAR | | | | ScP | **ScP** | **04 18 48.6** | **+2.3** |
| **WHN** | **Wuhan** 0.9nm,0.7s,baz=158,slow=2.4,SNR=7.3 | **33.74** | **340** | ||P | P | 04 12 33.8 | +9.2 |
| **NJ2** | **Nanjing** | **33.92** | **348** | *e*P | **P** | **04 12 26.3** | **+0.2** |
| NJ2 | comp=Z,14nm,0.9s | | | pmax | pmax | | |
| **CHTO** | **Chiang Mai** 3.3nm,0.7s | **33.92** | **307** | *e*P | **P** | **04 12 25.4** | **-1.0** |
| **KMI** | **Kunming** | **35.10** | **320** | P | **P** | **04 12 38.3** | **+1.6** |
| KMI | comp=Z,13nm,0.5s | | | pmax | pmax | | |
| KMI | comp=Z,71nm,3.7s | | | pmax | pmax | | |
| **ENH** | **Enshi** 19nm,1.0s | **35.42** | **333** | *e*P | **P** | **04 12 37.6** | **-1.5** |
| **KS15** | **Wonju Array Si** | **38.43** | **1** | *e*P | **P** | **04 13 04.5** | **-0.1** |
| **KSAR** | **Wonju Array Be** | **38.43** | **1** | P | **P** | **04 13 03.3** | **-1.3** |
| **KSRS** | **Korea Array** 4.4nm,0.7s,baz=178,slow=9.9,SNR=17 | **38.45** | **1** | P | **P** | **04 13 03.3** | **-1.4** |
| **KS01** | **Wonju Array Si** | **38.47** | **1** | *e*P | **P** | **04 13 03.9** | **-1.0** |
| **CD2** | **Chengdu** | **38.78** | **327** | *e*P | **P** | **04 13 09.5** | **+1.8** |
| CD2 | comp=Z,10.0nm,0.9s | | | pmax | pmax | | |
| **XAN** | **Xi'an** | **38.90** | **336** | P | **P** | **04 13 08.5** | **-0.2** |
| XAN | | | | pP | pP | 04 13 14.5 | -4.2 |
| XAN | comp=Z,14nm,0.8s | | | pmax | pmax | | |
| **MAJO** | **Matsushiro** 9.9nm,0.7s | **38.96** | **15** | *e*P | **P** | **04 13 08.0** | **-1.1** |
| **MAT** | **Matsushiro** | **38.96** | **15** | P | **P** | **04 13 08.2** | **-0.9** |
| **MJAR** | **Matsushiro Arr** 1.5nm,0.4s,baz=186,slow=9.0,SNR=13 | **38.96** | **15** | P | **P** | **04 13 07.0** | **-2.1** |
| **CAN** | **Canberra** 12nm,0.8s | **39.70** | **151** | *e*P | **P** | **04 13 17.3** | **+1.9** |
| **LZH** | **Lanzhou** | **42.86** | **332** | *e*P | **P** | **04 13 43.0** | **+1.6** |
| LZH | | | | pP | pP | 04 13 49.5 | -2.0 |
| LZH | | | | sP | sP | 04 13 52.0 | -3.5 |
| LZH | | | | *e*S | **S** | **04 20 06.5** | **+2.6** |
| LZH | | | | sS | pS | 04 20 17.0 | +1.5 |
| LZH | comp=Z,70nm,1.5s | | | pmax | pmax | | |
| LZH | comp=Z,150nm,5.2s | | | pmax | pmax | | |
| LZH | comp=N,390nm,12.2s | | | LR | LR | | |
| LZH | comp=E,420nm,12.0s | | | LR | LR | | |
| LZH | comp=Z,580nm,14.6s | | | LR | LR | | |
| **DZM** | **Mont Dzumac** 8.9nm,1.0s | **43.69** | **121** | *e*P | **P** | **04 13 49.1** | **+0.8** |
| **HHC** | **Hu-ho-hao-te** | **44.10** | **343** | *e*P | **P** | **04 13 54.0** | **+2.7** |
| HHC | | | | S | **S** | **04 20 27.3** | **+5.4** |
| HHC | | | | sS | sS | 04 20 37.8 | -0.7 |
| HHC | comp=Z,19nm,1.4s | | | pmax | pmax | | |
| HHC | comp=Z,100nm,4.8s | | | pmax | pmax | | |
| HHC | comp=N,160nm,13.6s | | | LR | LR | | |
| HHC | comp=E,140nm,12.3s | | | LR | LR | | |
| HHC | comp=Z,92nm,12.3s | | | LR | LR | | |
| **USRK** | **Ussuriysk Ar.** 3.9nm,0.8s,baz=187,slow=7.1,SNR=7.1 | **45.40** | **5** | P | **P** | **04 14 00.1** | **-1.4** |
| **MDJ** | **Mudanjiang** 11nm,0.8s | **45.65** | **3** | *e*P | **P** | **04 14 02.0** | **-1.4** |
| **GTA** | **Gaotai** | **47.43** | **331** | P | **P** | **04 14 18.8** | **+1.2** |
| GTA | | | | pP | pP | 04 14 23.8 | -4.0 |
| GTA | | | | sP | sP | 04 14 26.0 | -5.8 |
| GTA | | | | S | **S** | **04 21 14.5** | **+4.6** |
| GTA | | | | SS | **SS** | **04 24 37.5** | **-0.5** |
| GTA | comp=Z,8.0nm,1.4s | | | pmax | pmax | | |
| GTA | comp=Z,85nm,5.2s | | | pmax | pmax | | |
| GTA | comp=N,76nm,18.5s | | | LR | LR | | |
| GTA | comp=E,160nm,18.1s | | | LR | LR | | |
| GTA | comp=Z,110nm,19.0s | | | LR | LR | | |
| **RAMN** | **Ramite** | **47.84** | **309** | *e*P | **P** | **04 14 21.7** | **+0.5** |
| **JIRN** | **Jiri** | **48.51** | **309** | *e*P | **P** | **04 14 26.8** | **+0.3** |
| **GUN** | **Gumba** | **48.87** | **310** | *e*P | **P** | **04 14 30.5** | **+1.3** |
| **KLR** | **Kul'dur** 0.3nm,0.8s,baz=238,slow=6.1,SNR=8.5 | **50.38** | **4** | P | **P** | **04 14 38.3** | **-1.6** |
| **KOLN** | **Koldanda** | **50.58** | **308** | *e*P | **P** | **04 14 41.4** | **-0.7** |
| **DANN** | **Dangsing** | **50.72** | **309** | *e*P | **P** | **04 14 43.0** | **-0.3** |
| **HYB** | **Hyderabad** | **51.10** | **294** | *i* P | **P** | **04 14 46.0** | **0.0** |
| **PYUN** | **Piuthan** | **51.21** | **308** | *e*P | **P** | **04 14 46.7** | **-0.1** |
| **ULN** | **Ulaanbaatar** 11nm,0.9s | **51.83** | **343** | *e*P | **P** | **04 14 49.8** | **-1.3** |
| **SONM** | **Songino Array** 1.7nm,0.8s,baz=151,slow=9.3,SNR=13 | **51.99** | **343** | P | **P** | **04 14 51.0** | **-1.2** |
| **SONA1** | **Songino Array** | **52.00** | **343** | *e*P | **P** | **04 14 52.4** | **+0.1** |
| **TLY** | **Talaya** comp=Z,45nm,18.8s,baz=136,slow=38 | **56.23** | **343** | LR | LR | 04 41 18.7 | |
| **WMQ** | **Urumqi** | **56.87** | **327** | P | **P** | **04 15 28.5** | **+0.8** |
| WMQ | | | | pP | pP | 04 15 35.5 | -2.6 |
| WMQ | | | | sP | sP | 04 15 40.5 | -1.6 |
| WMQ | comp=Z,40nm,1.1s | | | pmax | pmax | | |
| WMQ | comp=Z,350nm,4.9s | | | pmax | pmax | | |
| WMQ | comp=N,170nm,22.7s | | | LR | LR | | |
| WMQ | comp=E,180nm,26.3s | | | LR | LR | | |
| WMQ | comp=Z,220nm,22.7s | | | LR | LR | | |
| **URZ** | **Urewera** comp=Z,54nm,19.8s,baz=314,slow=37 | **58.90** | **135** | LR | LR | 04 41 39.0 | |
| **PETK** | **Petropavlovsk-** 2.2nm,0.6s,baz=171,slow=4.8,SNR=11 | **59.89** | **21** | P | **P** | **04 15 47.5** | **-1.0** |
| **PETK** | **Petropavlovsk-** | **59.89** | **21** | *e*P | **P** | **04 15 49.0** | **+0.5** |
| **MK01** | **Makanchi Array** | **61.69** | **327** | *e*P | **P** | **04 15 59.6** | **-1.3** |
| **KSH** | **Kashi** | **61.69** | **317** | P | **P** | **04 16 07.8** | **+6.6** |
| KSH | | | | pP | pP | 04 16 13.5 | +1.9 |
| KSH | | | | PP | PP | 04 18 25.3 | +8.0 |
| KSH | | | | S | **S** | **04 24 29.8** | **+8.0** |
| KSH | | | | ScS | **ScS** | **04 25 55.5** | **+4.8** |
| KSH | | | | SS | **SS** | **04 28 32.3** | **+8.4** |
| KSH | comp=Z,8.0nm,0.9s | | | pmax | pmax | | |
| KSH | comp=Z,140nm,5.3s | | | pmax | pmax | | |
| KSH | comp=N,130nm,4.4s | | | LR | LR | | |
| KSH | comp=E,110nm,4.4s | | | LR | LR | | |
| KSH | comp=Z,100nm,5.6s | | | LR | LR | | |
| **MK31** | **Makanchi Array** | **61.71** | **327** | *e*P | **P** | **04 16 00.1** | **-1.0** |
| **MKAR** | **Makanchi Array** 2.2nm,0.5s,baz=117,slow=7.9,SNR=19 | **61.71** | **327** | P | **P** | **04 15 60.0** | **-1.0** |
| **MKAR** | **Makanchi Array** 53nm,0.8s | **61.71** | **327** | *e*P | **P** | **04 16 00.1** | **-1.0** |
| **MAKZ** | **Makanchi** 7.4nm,0.9s | **61.89** | **327** | *e*P | **P** | **04 16 03.3** | **+1.1** |
| **AFI** | **Afiamalu** comp=Z,69nm,18.5s,baz=229,slow=36 | **61.89** | **105** | LR | LR | 04 43 11.2 | |
| **YAK** | **Yakutsk** 24nm,0.7s,baz=360,slow=2.1,SNR=4.1 | **63.07** | **1** | P | **P** | **04 16 09.1** | **-0.7** |
| **YAK** | **Yakutsk** 41nm,0.6s | **63.07** | **1** | *e*P | **P** | **04 16 08.9** | **-0.9** |
| **MA2** | **Magadan** 3.6nm,0.6s,baz=149,slow=6.7,SNR=4.4 | **63.39** | **13** | P | **P** | **04 16 10.9** | **-1.1** |
| **AAK** | **Ala-Archa** 8.7nm,1.1s | **64.15** | **319** | *e*P | **P** | **04 16 17.4** | **-0.1** |
| **ZAA0** | **Zalesovo Array** 21nm,1.9s | **65.04** | **334** | *e*P | **P** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **GEYT** | **Alibeck** | **74.14** | **310** | P | **P** | **04 17 19.2** | **-0.3** |
| | 0.8nm,0.5s,baz=71,slow=6.2,SNR=2.6 | | | | | | |
| **ABKAR** | **Akbulak array** | **76.07** | **322** | *e*P | **P** | **04 17 28.7** | **-1.6** |
| | 25nm,0.9s | | | | | | |
| **VNDA** | **Vanda** | **78.57** | **173** | P | **P** | **04 17 44.5** | **+0.8** |
| | 1.6nm,0.8s,baz=322,slow=6.8,SNR=3.9 | | | | | | |
| **ARU** | **Arti** | **79.17** | **328** | LR | LR | 04 53 56.1 | |
| | comp=Z,36nm,20.3s,baz=138,slow=37 | | | | | | |
| **ARU** | **Arti** | **79.17** | **328** | *e*P | **P** | **04 17 46.7** | **-0.7** |
| | 1.8nm,0.4s | | | | | | |
| **RAYN** | **Ar Rayn** | **82.60** | **294** | *e*P | **P** | **04 18 05.3** | **-1.3** |
| | 6.5nm,1.0s | | | | | | |
| **SYO** | **Syowa Base** | **87.95** | **201⇑** | *e*X | **P** | **04 18 30.2** | **-2.0** |
| **QSPA** | **South Pole Qui** | **88.77** | **180** | *e*P | **P** | **04 18 36.0** | **-0.3** |
| **ILAR** | **Eielson Array** | **89.42** | **25** | P | **P** | **04 18 37.9** | **-1.4** |
| | 0.5nm,1.0s,baz=256,slow=3.6,SNR=4.3 | | | | | | |
| **BRTR** | **Keskin Array B** | **93.28** | **310** | P | **P** | **04 18 57.6** | **-0.4** |
| | 0.5nm,0.9s,baz=159,slow=4.5,SNR=2.8 | | | | | | |
| **ARCES** | **ARCESS Array B** | **95.09** | **340** | P | **P** | **04 19 05.2** | **-0.1** |
| | 3.9nm,0.9s,baz=67,slow=6.9,SNR=3.4 | | | | | | |
| **FINES** | **FINESS Array B** | **96.22** | **332** | P | **P** | **04 19 09.7** | **-0.9** |
| | 3.0nm,1.1s,baz=358,slow=7.2,SNR=2.7 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **124.50** | **285** | PKP | **PKPdf** | **04 24 43.1** | **+0.1** |
| | 0.7nm,0.7s,baz=77,slow=1.2,SNR=4.4 | | | | | | |
| **LCO** | **Las Campanas** | **145.56** | **152** | *e*PKPbc | **PKPbc** | **04 25 22.1** | **0.0** |
| **CPUP** | **Villa Florida** | **152.35** | **172** | PKPbc | **PKPbc** | **04 25 40.0** | **+0.6** |
| | 0.6nm,0.5s,baz=175,slow=1.9,SNR=2.6 | | | | | | |

*ISCJB* ***31*** *04:12:35.9±1.2,39.°07N±0.°04×142.°3E±0.°1, h47km±9km, mb3.7/5, Error ellipse: s-maj=15.8km s-min=5.7km az=16.3*
*JMA* ***31*** *04:12:35.8±0.1,39.°10N×142.°37E, h35km±1km, M3.7*
*JMA Felt I J1.*
*IDC* ***31*** *04:12:39.6±2.6,39.°05N×142.°30E, h67km±26km, mb3.4/5, mb1 3.4/7, mb1mx3.1/52, mbtmp3.6/7, Error ellipse: s-maj=36.6km s-min=16.4km az=90.0*
**ISC 31 04:12:36.5±1.7, 39.°07N±0.°04×142.°23E±0.°08, h30km±11km, n20, σ1°35/27, mb3.5/5, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **OFUJ** | **Ofunato** | **0.44** | **271** | P | **Pn** | **04 12 46.9** | **+0.1** |
| OFUJ | | | | S | **Sn** | **04 12 54.6** | **+0.9** |
| **MIYJ** | **Miyakonagasawa** | **0.60** | **328** | P | **Pb** | **04 12 48.1** | **-0.4** |
| MIYJ | | | | S | **Sb** | **04 12 56.6** | **-0.1** |
| **JMK** | **Ichinoseki** | **0.80** | **262** | P | **Pb** | **04 12 52.3** | **+0.4** |
| JMK | | | | S | **Sn** | **04 13 04.1** | **+1.5** |
| **JOM** | **Ohasama** | **0.83** | **299** | P | **Pb** | **04 12 52.5** | **0.0** |
| JOM | | | | S | **Sn** | **04 13 04.7** | **+1.3** |
| **JTH** | **Tanohata** | **0.91** | **342** | P | **Pn** | **04 12 52.3** | **-1.0** |
| JTH | | | | *e*S | **Sn** | **04 13 04.2** | **-1.2** |
| **JIO** | **Ouri** | **0.93** | **228** | P | **Pn** | **04 12 53.4** | **-0.6** |
| JIO | | | | *e*S | **Sn** | **04 13 05.6** | **-0.2** |
| **JKZ** | **Kuzumaki** | **1.15** | **323** | P | **Pn** | **04 12 56.8** | **+0.2** |
| JKZ | | | | S | **Sn** | **04 13 11.9** | **+0.6** |
| **JRG** | **Rokugo** | **1.28** | **285** | P | **Pb** | **04 12 59.5** | **-0.5** |
| **JANG** | **Nango** | **1.41** | **337** | P | **Pn** | **04 12 59.9** | **-0.3** |
| JANG | | | | S | **Sn** | **04 13 17.9** | **+0.2** |
| **JOU** | **Okura** | **1.42** | **241** | P | **Pb** | **04 13 01.4** | **-0.9** |
| JOU | | | | *e*S | **Sb** | **04 13 19.8** | **-0.2** |
| **MJAR** | **Matsushiro Arr** | **4.07** | **233** | P | **Pn** | **04 13 39.7** | **+2.9** |
| | 0.8nm,0.3s,baz=42,slow=10,SNR=10 | | | | | | |
| **ASAJ** | **Asahikawa** | **5.05** | **3** | P | **Pn** | **04 13 52.6** | **+2.6** |
| | 0.6nm,0.3s,baz=210,slow=12,SNR=4.4 | | | | | | |
| ASAJ | | | | S | **Sn** | **04 14 51.0** | **+3.7** |
| | 0.8nm,0.3s,baz=143,slow=20,SNR=2.1 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.71** | **125** | T | T | 04 48 55.0 | |
| | baz=318,slow=76,SNR=36 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.72** | **125** | T | T | 04 48 54.1 | |
| | baz=318,slow=76,SNR=45 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.73** | **125** | T | T | 04 48 56.4 | |
| | baz=318,slow=76,SNR=34 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.05** | **311** | P | **P** | **04 20 16.7** | **-0.2** |
| | 0.5nm,0.5s,baz=78,slow=9.1,SNR=2.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.61** | **300** | P | **P** | **04 20 37.1** | **-0.8** |
| | 0.6nm,0.6s,baz=83,slow=9.9,SNR=4.2 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **45.28** | **307** | P | **P** | **04 20 50.8** | **-0.4** |
| | 2.0nm,0.2s,baz=82,slow=8.1,SNR=5.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **59.17** | **189** | P | **P** | **04 22 33.4** | **-1.2** |
| | 0.2nm,0.6s,baz=6.4,slow=7.0,SNR=3.8 | | | | | | |
| **ASAR** | **Alice Springs** | **62.90** | **189** | P | **P** | **04 22 58.5** | **-1.3** |
| | 0.4nm,0.9s,baz=12,slow=5.1,SNR=2.7 | | | | | | |

*IDC* ***31*** *04:17:35.8±1.7,54.°00N×163.°31W, h0km, mb3.3/4, mb1 3.5/6, mb1mx3.3/55, mbtmp3.3/6, ML2.7/2, Error ellipse: s-maj=39.4km s-min=21.3km az=170.0*
*ISCJB* ***31*** *04:17:37.7±0.6,53.°94N±0.°05×163.°07W±0.°06, h25km, mb3.3/4, Error ellipse: s-maj=7.0km s-min=4.4km az=161.4*
*NEIC* ***31*** *04:17:39.6±0.0,54.°05N×163.°19W, h41km, ML3.0(AEIC), After AEIC.*
**ISC 31 04:17:38.8±0.9, 54.°00N±0.°07×163.°18W±0.°04, h25km, n38, σ0°97/36, mb3.5/4, Unimak Island region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **BRPK** | **Brown Peak** | **0.73** | **333** | P | **Pn** | **04 17 53.0** | **-0.5** |
| **ISLZ** | **Isanotski Laza** | **0.79** | **337** | P | **Pn** | **04 17 53.8** | **-0.6** |
| **SSLS** | **Shishaldin Sou** | **0.86** | **326** | P | **Pn** | **04 17 55.3** | **-0.1** |
| SSLS | | | | S | **Sn** | **04 18 07.7** | **+0.5** |
| **FALS** | **False Pass** | **0.87** | **351** | P | **Pn** | **04 17 54.7** | **-0.7** |
| FALS | | | | S | **Sn** | **04 18 08.1** | **+0.8** |
| **SSLN** | **Shishaldin Nor** | **0.94** | **330** | P | **Pn** | **04 17 56.7** | **+0.2** |
| **SSLW** | **Shishaldin Wes** | **0.95** | **325** | P | **Pn** | **04 17 56.5** | **0.0** |
| **WESN** | **West Dahl Nort** | **1.00** | **305** | P | **Pb** | **04 17 57.8** | **+0.3** |
| **WESP** | **Westdahl Peak** | **1.03** | **299** | P | **Pb** | **04 17 57.9** | **-0.1** |
| WESP | | | | S | **Sn** | **04 18 12.7** | **+1.3** |
| **WTUG** | **Tugumak** | **1.10** | **321** | P | **Pb** | **04 17 58.2** | **-0.9** |
| **DRIA** | **Deer Island** | **1.11** | **29** | P | **Pn** | **04 17 57.9** | **-0.8** |
| **BALA** | **Baldy Mountain** | **1.22** | **11** | P | **Pb** | **04 18 00.5** | **-0.6** |
| **DT1** | **Dutton Round H** | **1.23** | **25** | P | **Pn** | **04 17 59.7** | **-0.7** |
| **DOL** | **Dolgoi Island** | **1.38** | **33** | P | **Pn** | **04 18 01.7** | **-0.8** |
| **AKSA** | **Akutan Strait** | **1.49** | **276** | P | **Pb** | **04 18 04.2** | **-1.5** |
| **HAG** | **Hague Volcano** | **1.52** | **29** | P | **Pn** | **04 18 04.5** | **+0.2** |
| **AKUT** | **Akutan** | **1.53** | **276** | P | **Pb** | **04 18 05.6** | **-0.8** |
| **PS4A** | **Pavlof South-4** | **1.55** | **29** | P | **Pn** | **04 18 05.0** | **+0.2** |
| **PVV** | **Pavlof Volcano** | **1.60** | **30** | P | **Pn** | **04 18 05.5** | **+0.1** |
| **AKLV** | **Akutan Long Va** | **1.64** | **277** | P | **Pb** | **04 18 07.1** | **-1.3** |
| **AKMO** | **Akutan Morgan** | **1.67** | **274** | P | **Pb** | **04 18 07.5** | **-1.3** |
| **UNV** | **Unalaska Valle** | **1.97** | **267** | P | **Pn** | **04 18 10.9** | **+0.4** |
| **MTBL** | **Makushin Table** | **2.07** | **271** | P | **Pb** | **04 18 12.6** | **-3.0** |
| **SDPT** | **Sand Point** | **2.07** | **48** | P | **Pn** | **04 18 11.8** | **-0.1** |
| SDPT | | | | S | **Sn** | **04 18 37.2** | **+0.3** |
| **MSW** | **Makushin Switc** | **2.13** | **269** | P | **Pn** | **04 18 13.2** | **+0.5** |
| **MGOD** | **Makushin Gods** | **2.19** | **266** | P | **Pn** | **04 18 13.9** | **+0.3** |
| **MSOM** | **Makushin Julie** | **2.24** | **267** | P | **Pn** | **04 18 14.4** | **+0.3** |
| **KDAK** | **Kodiak Island** | **7.06** | **53** | Pn | **Pn** | **04 19 20.5** | **+0.1** |
| | 0.4nm,0.3s,baz=268,slow=14,SNR=7.4 | | | | | | |
| **ILAR** | **Eielson Array** | **13.56** | **31** | Pn | **Pn** | **04 20 47.4** | **-1.9** |
| | 0.0nm,0.3s,baz=224,slow=15,SNR=2.8 | | | | | | |
| **PETK** | **Petropavlovsk-** | **23.06** | **284** | P | **P** | **04 22 41.8** | **-0.3** |
| | 0.9nm,0.5s,baz=76,slow=14,SNR=8.3 | | | | | | |
| **YKA** | **Yellowknife Ar** | **26.34** | **52** | P | **P** | **04 23 13.4** | **+1.2** |
| | 0.3nm,0.5s,baz=270,slow=9.0,SNR=10 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **41.16** | **226** | T | T | 05 09 25.4 | |
| | baz=26,slow=76,SNR=48 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **41.17** | **226** | T | T | 05 09 25.9 | |
| | baz=26,slow=76,SNR=49 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **41.18** | **226** | T | T | 05 09 26.8 | |
| | baz=26,slow=76,SNR=50 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **42.33** | **225** | T | T | 05 10 53.3 | |
| | baz=26,slow=76,SNR=84 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **42.35** | **225** | T | T | 05 10 54.4 | |
| | baz=26,slow=76,SNR=62 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **42.35** | **225** | T | T | 05 10 54.6 | |
| | baz=26,slow=76,SNR=39 | | | | | | |
| **TXAR** | **Lajitas Array** | **49.09** | **95** | P | **P** | **04 26 25.4** | **+1.5** |
| | 0.3nm,0.8s,baz=324,slow=6.9,SNR=3.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **65.29** | **317** | P | **P** | **04 28 18.7** | **+0.6** |
| | 0.3nm,0.7s,baz=33,slow=5.8,SNR=4.1 | | | | | | |

*DDA* ***31*** *04:26:55.1,39.°61N×38.°79E, h7km, Md2.7*
*ISCJB* ***31*** *04:26:56.7±0.5,39.°62N±0.°03×38.°68E±0.°03, h5km±5km, Error ellipse: s-maj=4.8km s-min=4.1km az=23.1*
*CSEM* ***31*** *04:26:56.3±0.2,39.°60N×38.°69E, h5km, MD2.7, Error ellipse: s-maj=5.5km s-min=4.6km az=39.0*
*ISK* ***31*** *04:26:56.4,39.°60N×38.°65E, h11km, MD2.7*

**ISC 31 04:26:56.5±0.9, 39.°60N±0.°02×38.°72E±0.°02, h10km±7km, n33, σ0°76/48, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ILIC** | **ilic-Erzincan** | **0.19** | **218** | *e*PG | **Pg** | **04 26 59.6** | **-0.9** |
| ILIC | | | | *e*SG | **Sg** | **04 27 03.5** | **+0.2** |
| **ILIC** | **ilic-Erzincan** | **0.19** | **218** | *e*Pg | **Pg** | **04 26 59.6** | **-0.9** |
| ILIC | | | | *e*Sg | **Sg** | **04 27 03.5** | **+0.2** |
| **REFA** | **Refahiye_ERZ¯** | **0.21** | **170** | *i* P | **Pg** | **04 27 01.0** | **+0.1** |
| **REFA** | **Refahiye_ERZ¯** | **0.21** | **170** | P | **Pg** | **04 27 01.0** | **+0.1** |
| **KEMA** | **Kemaliye** | **0.37** | **208** | *i* P | **Pg** | **04 27 03.4** | **-0.6** |
| KEMA | | | | *i* S | **Sg** | **04 27 09.7** | **+0.8** |
| **KEMA** | **Kemaliye** | **0.37** | **208** | P | **Pg** | **04 27 03.3** | **-0.6** |
| KEMA | | | | S | **Sg** | **04 27 09.7** | **+0.8** |
| **SUSE** | **Susehri** | **0.72** | **327** | *i* P | **Pg** | **04 27 10.1** | **-0.4** |
| SUSE | | | | *i* S | **Sg** | **04 27 20.5** | **+0.5** |
| **SUSE** | **Susehri** | **0.72** | **327** | P | **Pg** | **04 27 10.1** | **-0.4** |
| SUSE | | | | S | **Sg** | **04 27 20.5** | **+0.5** |
| **ERZN** | **Erzincan** | **0.78** | **91** | *e*PG | **Pb** | **04 27 12.9** | **+0.7** |
| ERZN | | | | *e*SG | **Sn** | **04 27 24.9** | **-0.6** |
| **CUZAR** | **Zara_SIVAS** | **0.78** | **292** | *i* P | **Pg** | **04 27 11.1** | **-0.6** |
| CUZAR | | | | *i* S | **Sb** | **04 27 23.1** | **-0.1** |
| **CUZAR** | **Zara_SIVAS** | **0.78** | **292** | P | **Pg** | **04 27 11.1** | **-0.6** |
| CUZAR | | | | S | **Sb** | **04 27 23.1** | **-0.1** |
| **TNCL** | **Tunceli-Merkez** | **0.80** | **127** | *i* P | **Pg** | **04 27 10.1** | **-1.9** |
| TNCL | | | | *i* S | **Sn** | **04 27 25.7** | **-0.5** |
| **TNCL** | **Tunceli-Merkez** | **0.80** | **127** | P | **Pg** | **04 27 10.1** | **-1.9** |
| TNCL | | | | S | **Sn** | **04 27 25.7** | **-0.5** |
| **PTK** | **Pertek** | **0.88** | **143** | *e*PG | **Pb** | **04 27 14.4** | **+0.4** |
| **PTK** | **Pertek** | **0.88** | **143** | *e*Pg | **Pb** | **04 27 14.4** | **+0.4** |
| **CUKAN** | **kangal_SIVAS** | **1.01** | **254** | *i* P | **Pg** | **04 27 15.7** | **-0.3** |
| CUKAN | | | | *i* S | **Sn** | **04 27 31.9** | **+0.6** |
| **CUKAN** | **kangal_SIVAS** | **1.01** | **254** | P | **Pg** | **04 27 15.6** | **-0.3** |
| CUKAN | | | | S | **Sn** | **04 27 31.9** | **+0.6** |
| **MALT** | **Malatya** | **1.30** | **190** | *e*PN | **Pn** | **04 27 20.4** | **-0.5** |
| **MALT** | **Malatya** | **1.30** | **190** | *e*Pn | **Pb** | **04 27 20.4** | **-0.5** |
| **ESPY** | **Espiye-Giresun** | **1.31** | **0** | *e*PN | **Pb** | **04 27 21.4** | **+0.1** |
| **ESPY** | **Espiye-Giresun** | **1.31** | **0** | *e*Pn | **Pb** | **04 27 21.4** | **+0.1** |
| **BAYT** | **Ayd¯-ntepe-Bay** | **1.35** | **54** | *e*PN | **Pn** | **04 27 22.0** | **+0.3** |
| **BAYT** | **Ayd¯-ntepe-Bay** | **1.35** | **54** | *e*Pn | **Pn** | **04 27 22.0** | **+0.3** |
| **SVSK** | **Karacayir** | **1.36** | **284** | *e*PN | **Pb** | **04 27 21.9** | **-0.2** |
| **SVSK** | **Karacayir** | **1.36** | **284** | *e*Pn | **Pb** | **04 27 21.9** | **-0.2** |
| **DARE** | **Darende-Malaty** | **1.41** | **223** | *e*PN | **Pn** | **04 27 22.0** | **-0.3** |
| **DARE** | **Darende-Malaty** | **1.41** | **223** | *e*Pn | **Pn** | **04 27 22.0** | **-0.3** |
| **YEDI** | **Yedisu-Bingol** | **1.42** | **96** | *e*PN | **Pb** | **04 27 23.7** | **+0.4** |
| **YEDI** | **Yedisu-Bingol** | **1.42** | **96** | *e*Pn | **Pb** | **04 27 23.7** | **+0.4** |
| **AKCD** | **Akcadag** | **1.44** | **206** | *i* P | **Pb** | **04 27 23.2** | **-0.4** |
| AKCD | | | | *i* S | **Sg** | **04 27 45.0** | **+2.1** |
| **AKCD** | **Akcadag** | **1.44** | **206** | P | **Pb** | **04 27 23.2** | **-0.4** |
| AKCD | | | | S | **Sg** | **04 27 45.0** | **+2.1** |
| **BINT** | **Bingol** | **1.56** | **117** | *e*Pn | **Pg** | **04 27 26.6** | **+0.3** |
| **BNGB** | **Bing¶l** | **1.64** | **111** | *e*PN | **Pb** | **04 27 26.6** | **-0.3** |

*CSEM* ***31*** *04:32:24.5,43.°92N×11.°82E, h9km, ML2.6/20*
*PRU* ***31*** *04:32:36.6,44.°91N×12.°23E, h0km*
**ROM 31 04:32:24.5±0.1, 43.°92N×11.°82E, h9km±1km, Ml2.6/20, 6C-2D, Error ellipse: s-maj=2.3km s-min=1.2km az=35.0, Central Italy**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SFI** | **Santa Sofia** | **0.03** | **134⇑** | *i* Pg | Pg | 04 32 26.4 | +0.2 |
| SFI | | | | Sg | Sg | 04 32 27.7 | +0.4 |
| | 15µm,0.1s | | | | | | |
| **SFI** | **Santa Sofia** | **0.03** | **134⇑** | *i* Pg | Pg | 04 32 26.4 | +0.2 |
| SFI | | | | Sg | Sg | 04 32 27.7 | +0.4 |
| | 15µm,0.1s | | | | | | |
| **VMG** | **Vicchio** | **0.20** | **281⇑** | *i* Pg | Pg | 04 32 29.3 | +0.6 |
| **VMG** | **Vicchio** | **0.20** | **281⇑** | *i* Pg | Pg | 04 32 29.3 | +0.6 |
| **CRE** | **Caprese Michel** | **0.32** | **163⇑** | *i* Pg | Pg | 04 32 31.4 | +0.5 |
| CRE | | | | Sg | Sb | 04 32 37.0 | -0.8 |
| | 374nm,0.4s | | | | | | |
| **CRE** | **Caprese Michel** | **0.32** | **163⇑** | *i* Pg | Pg | 04 32 31.4 | +0.5 |
| CRE | | | | Sg | Sb | 04 32 37.0 | -0.8 |
| | 374nm,0.4s | | | | | | |
| **SEI** | **Scarperia** | **0.36** | **291⇓** | *i* Pg | Pg | 04 32 31.7 | +0.1 |
| SEI | | | | Sg | Sg | 04 32 37.4 | +1.1 |
| **SEI** | **Scarperia** | **0.36** | **291⇓** | *i* Pg | Pg | 04 32 31.7 | +0.1 |
| SEI | | | | Sg | Sg | 04 32 37.4 | +1.1 |
| **CPGN** | **Carpegna, Ital** | **0.38** | **109** | Pg | Pb | 04 32 33.2 | -0.4 |
| | 40µm,12.0s | | | | | | |
| **CPGN** | **Carpegna, Ital** | **0.38** | **109** | Pg | Pb | 04 32 33.2 | -0.4 |
| | 40µm,12.0s | | | | | | |
| **PARC** | **Parchiule** | **0.41** | **132** | Pg | Pg | 04 32 32.9 | +0.4 |
| PARC | | | | Sg | Sb | 04 32 39.7 | -0.6 |
| | 204nm,0.5s | | | | | | |
| **PARC** | **Parchiule** | **0.41** | **132** | Pg | Pg | 04 32 32.9 | +0.4 |
| PARC | | | | Sg | Sb | 04 32 39.7 | -0.6 |
| | 204nm,0.5s | | | | | | |
| **IMOL** | **Imola, Italy** | **0.44** | **353** | Pg | Pb | 04 32 33.9 | -0.5 |
| | 109nm,0.6s | | | | | | |
| **IMOL** | **Imola, Italy** | **0.44** | **353** | Pg | Pb | 04 32 33.9 | -0.5 |
| | 109nm,0.6s | | | | | | |
| **BADI** | **Badiali** | **0.52** | **143** | Pg | Pg | 04 32 34.8 | +0.3 |
| BADI | | | | Sg | Sb | 04 32 43.0 | -0.4 |
| | 191nm,0.3s | | | | | | |
| **BADI** | **Badiali** | **0.52** | **143** | Pg | Pg | 04 32 34.8 | +0.3 |
| BADI | | | | Sg | Sb | 04 32 43.0 | -0.4 |
| | 191nm,0.3s | | | | | | |
| **BLLA** | **Bellaria** | **0.52** | **65** | Pg | Pb | 04 32 35.3 | -0.5 |
| **BLLA** | **Bellaria** | **0.52** | **65** | Pg | Pb | 04 32 35.3 | -0.5 |
| **MTRZ** | **Monterenzio** | **0.52** | **331** | Pg | Pb | 04 32 35.6 | -0.2 |
| | 195nm,0.4s | | | | | | |
| **MTRZ** | **Monterenzio** | **0.52** | **331** | Pg | Pb | 04 32 35.6 | -0.2 |
| | 195nm,0.4s | | | | | | |
| **PTF** | **Prato** | **0.54** | **274** | Pg | Pg | 04 32 35.2 | +0.2 |
| **PTF** | **Prato** | **0.54** | **274** | Pg | Pg | 04 32 35.2 | +0.2 |
| **ATMC** | **Monte Cedrone** | **0.55** | **150** | Pg | Pg | 04 32 35.4 | +0.3 |
| | 360nm,0.8s | | | | | | |
| **ATMC** | **Monte Cedrone** | **0.55** | **150** | Pg | Pg | 04 32 35.4 | +0.3 |
| | 360nm,0.8s | | | | | | |
| **CSNT** | **Castellina Chi** | **0.59** | **220** | Pg | Pb | 04 32 36.7 | -0.4 |
| | 175nm,0.4s | | | | | | |
| **CSNT** | **Castellina Chi** | **0.59** | **220** | Pg | Pb | 04 32 36.7 | -0.4 |
| | 175nm,0.4s | | | | | | |
| **CAFI** | **Castiglion Fio** | **0.60** | **170** | Pg | Pg | 04 32 36.7 | +0.5 |
| | 111nm,1.0s | | | | | | |
| **CAFI** | **Castiglion Fio** | **0.60** | **170** | Pg | Pg | 04 32 36.7 | +0.5 |
| | 111nm,1.0s | | | | | | |
| **ATPC** | **Poggio Castell** | **0.64** | **134** | Pg | Pg | 04 32 37.1 | +0.2 |
| | 244nm,0.3s | | | | | | |
| **ATPC** | **Poggio Castell** | **0.64** | **134** | Pg | Pg | 04 32 37.1 | +0.2 |
| | 244nm,0.3s | | | | | | |
| **PIEI** | **Pieia** | **0.65** | **127** | Pg | Pg | 04 32 36.8 | -0.2 |
| | 57nm,0.4s | | | | | | |
| **PIEI** | **Pieia** | **0.65** | **127** | Pg | Pg | 04 32 36.8 | -0.2 |
| | 57nm,0.4s | | | | | | |
| **ATVO** | **AVT- Monte Val** | **0.69** | **142** | Pg | Pg | 04 32 37.9 | +0.1 |
| | 276nm,0.2s | | | | | | |
| **ATVO** | **AVT- Monte Val** | **0.69** | **142** | Pg | Pg | 04 32 37.9 | +0.1 |
| | 276nm,0.2s | | | | | | |
| **FSSB** | **Fossombrone** | **0.73** | **108** | Pg | Pg | 04 32 38.4 | -0.2 |
| | 347nm,0.4s | | | | | | |
| **FSSB** | **Fossombrone** | **0.73** | **108** | Pg | Pg | 04 32 38.4 | -0.2 |
| | 347nm,0.4s | | | | | | |
| **MPAG** | **Monte Paganucc** | **0.74** | **113** | Pg | Pg | 04 32 38.9 | +0.1 |
| | 184nm,0.3s | | | | | | |
| **MPAG** | **Monte Paganucc** | **0.74** | **113** | Pg | Pg | 04 32 38.9 | +0.1 |
| | 184nm,0.3s | | | | | | |
| **FRON** | **Frontone** | **0.77** | **121** | Pg | Pg | 04 32 39.4 | 0.0 |
| **FRON** | **Frontone** | **0.77** | **121** | Pg | Pg | 04 32 39.4 | 0.0 |
| **ATTE** | **AVT- Monte Tez** | **0.82** | **152** | Pg | Pg | 04 32 40.5 | +0.2 |
| | 378nm,0.4s | | | | | | |
| **ATTE** | **AVT- Monte Tez** | **0.82** | **152** | Pg | Pg | 04 32 40.5 | +0.2 |
| | 378nm,0.4s | | | | | | |
| **MURB** | **Monte Urbino** | **0.84** | **142** | Pg | Pb | 04 32 41.0 | -0.3 |
| | 2µm,0.3s | | | | | | |
| **MURB** | **Monte Urbino** | **0.84** | **142** | Pg | Pb | 04 32 41.0 | -0.3 |
| | 2µm,0.3s | | | | | | |
| **SSFR** | **Montelago di S** | **0.85** | **125** | Pg | Pg | 04 32 40.8 | -0.1 |
| | 624nm,0.2s | | | | | | |
| **SSFR** | **Montelago di S** | **0.85** | **125** | Pg | Pg | 04 32 40.8 | -0.1 |
| | 624nm,0.2s | | | | | | |
| **FROS** | **Frosini** | **0.86** | **214** | Pg | Pb | 04 32 41.5 | -0.1 |
| | 372nm,0.4s | | | | | | |
| **FROS** | **Frosini** | **0.86** | **214** | Pg | Pb | 04 32 41.5 | -0.1 |
| | 372nm,0.4s | | | | | | |
| **ATCC** | **AVT- Casa Cast** | **0.95** | **141** | Pg | Pb | 04 32 43.5 | +0.3 |
| | 859nm,0.5s | | | | | | |
| **ATCC** | **AVT- Casa Cast** | **0.95** | **141** | Pg | Pb | 04 32 43.5 | +0.3 |
| | 859nm,0.5s | | | | | | |
| **TRIF** | **Trifonti** | **1.05** | **220** | Pg | Pb | 04 32 45.1 | +0.3 |
| | 322nm,0.7s | | | | | | |
| **TRIF** | **Trifonti** | **1.05** | **220** | Pg | Pb | 04 32 45.1 | +0.3 |
| | 322nm,0.7s | | | | | | |
| **VLC** | **Villacollemand** | **1.06** | **283** | Pg | Pn | 04 32 45.5 | -0.1 |
| **VLC** | **Villacollemand** | **1.06** | **283** | Pg | Pn | 04 32 45.5 | -0.1 |
| **CESI** | **CESI - Serrava** | **1.21** | **139** | Pg | Pg | 04 32 48.1 | +0.3 |
| **CESI** | **CESI - Serrava** | **1.21** | **139** | Pg | Pg | 04 32 48.1 | +0.3 |
| **KHC** | **Kasperske Hory** | **5.35** | **12** | *e*PN | Pn | 04 33 42.2 | -2.3 |

*ISCJB* ***31*** *04:32:34.3±1.2,14.°41S±0.°08×167.°3E±0.°2, h170km, mb3.8/6, Error ellipse: s-maj=27.9km s-min=10.7km az=179.8*
*IDC* ***31*** *04:32:37.5±4.2,14.°58S×167.°43E, h193km±46km, mb3.5/7, mb1 3.7/8, mb1mx3.4/41, mbtmp4.1/8, Error ellipse: s-maj=38.4km s-min=22.7km az=146.0*
**ISC 31 04:32:35.3±1.2, 14.°45S±0.°09×167.°4E±0.°2, h170km, n9, σ0°94/10, mb3.9/6, Vanuatu Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **DZM** | **Mont Dzumac** | **7.64** | **187** | P | **Pn** | **04 34 24.3** | **+0.3** |
| | 1.6nm,0.3s,baz=0.6,slow=19,SNR=18 | | | | | | |
| DZM | | | | S | **Sn** | **04 35 49.9** | **+0.1** |
| | baz=308,slow=19,SNR=2.5 | | | | | | |
| **CTA** | **Charters Tower** | **20.98** | **252** | P | **P** | **04 37 06.2** | **+0.8** |
| | 4.3nm,0.5s,baz=85,slow=12,SNR=6.7 | | | | | | |
| **STKA** | **Stephens Creek** | **29.29** | **229** | P | **P** | **04 38 22.1** | **+0.3** |
| | 5.2nm,0.5s,baz=60,slow=11,SNR=22 | | | | | | |
| **WRA** | **Warramunga Arr** | **32.05** | **255** | P | **P** | **04 38 45.0** | **-1.3** |
| | 1.7nm,0.5s,baz=85,slow=9.1,SNR=56 | | | | | | |
| **ASAR** | **Alice Springs** | **32.92** | **249** | P | **P** | **04 38 52.5** | **-1.3** |
| | 2.7nm,0.4s,baz=77,slow=9.2,SNR=92 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **57.73** | **332** | P | **P** | **04 42 09.0** | **+0.6** |
| | 0.5nm,0.5s,baz=172,slow=7.8,SNR=5.0 | | | | | | |
| **SONM** | **Songino Array** | **82.36** | **324** | P | **P** | **04 44 39.2** | **+0.9** |
| | 0.4nm,0.6s,baz=133,slow=6.1,SNR=3.2 | | | | | | |
| **ILAR** | **Eielson Array** | **86.21** | **18** | P | **P** | **04 44 56.5** | **-0.6** |
| | 0.3nm,0.7s,baz=238,slow=5.2,SNR=3.1 | | | | | | |
| **ARCES** | **ARCESS Array B** | **120.02** | **345** | PKP | **PKPdf** | **04 51 04.4** | **-0.7** |
| | 1.9nm,0.9s,baz=59,slow=3.5,SNR=3.6 | | | | | | |

*IDC* ***31*** *04:32:48.0±1.1,44.°00N×12.°06E, h0km, mb3.5/4, mb1 3.6/8, mb1mx3.4/54, mbtmp3.4/8, ML3.5/4, MS2.1/2, Ms1 2.1/2, ms1mx2.0/48, Error ellipse: s-maj=25.2km s-min=12.6km az=114.0*
*CSEM* ***31*** *04:32:48.8±0.1,44.°00N×11.°79E, h5km, ML3.2/10, Error ellipse: s-maj=3.5km s-min=2.7km az=23.0*
*ISCJB* ***31*** *04:32:48.3±0.3,43.°94N±0.°02×11.°76E±0.°02, h15km±2km, mb3.5/4, Error ellipse: s-maj=3.3km s-min=2.5km az=179.1*
*ROM* ***31*** *04:32:48.8±0.1,43.°92N×11.°81E, h8km±1km, Ml3.2/8, Error ellipse: s-maj=2.7km s-min=1.4km az=39.0*
*IASPEI* ***31*** *04:32:49.0±0.9,43.°91N±0.°03×11.°81E±0.°02, h9km±5km, mb3.6/4, Error ellipse: s-maj=4.8km s-min=2.8km az=30.2, GT5 selection from ISC bulletin GT5 identified by Bond¯ji r and McLaughlin (2009) selection criteria Bond¯ji r and McLaughlin, A new ground truth data set for seismic studies, Seism. Res. Let., 80, 465-472, 2009*
*LDG* ***31*** *04:32:49.8±0.1,43.°93N×11.°82E, h2km, Ml3.4/20, Error ellipse: s-maj=2.3km s-min=1.8km az=55.0*
*PRU* ***31*** *04:32:50.1,44.°05N×12.°00E, h0km*
**ISC 31 04:32:49.0±0.7, 43.°93N±0.°02×11.°81E±0.°02, h10km±4km, n163, σ1°85/238, mb3.6/4, 6C-2D, Central Italy**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SFI** | **Santa Sofia** | **0.03** | **128⇑** | *i* Pg | **Pg** | **04 32 50.6** | **-0.3** |
| SFI | | | | Sg | **Sg** | **04 32 52.0** | **-0.3** |
| **SFI** | **Santa Sofia** | **0.03** | **128⇑** | *i* Pg | **Pg** | **04

77nm,0.7s
**BRMO Bormio 2.75 339** Pg **Pn** **04 33 34.6 +1.4**
65nm,0.6s
**BRMO Bormio 2.75 339** Pg **Pn** **04 33 34.6 +1.4**
65nm,0.6s
**MOSI Grossmontoni 2.83 342** Pg **Pn** **04 33 35.4 +0.9**
280nm,0.5s
**MOSI Grossmontoni 2.83 342** Pg **Pn** **04 33 35.4 +0.9**
280nm,0.5s
**ABTA Abfaltersbach 2.87 10** *e*Pn **Pn** **04 33 34.8 0.0**
17nm,0.5s
ABTA *e*Sn **Sn** **04 34 09.7 +0.4**
38nm,0.5s
**ABTA Abfaltersbach 2.87 10** Pn **Pn** **04 33 34.8 0.0**
17nm,0.5s
**UDBI Udbina 2.91 77** *e*Pn **Pn** **04 33 37.0 +1.7**
UDBI Sn **Sn** **04 34 12.0 +1.6**
**UDBI Udbina 2.91 77** *e*Pn **Pn** **04 33 37.0 +1.7**
UDBI Sn **Sn** **04 34 11.9 +1.6**
**OZLJ Ozalj 3.10 56** *e*Pn **Pn** **04 33 38.6 +0.6**
**OZLJ Ozalj 3.10 56** *e*Pn **Pn** **04 33 38.5 +0.6**
**DAVOX Davos/Dischmat 3.16 335** Pn **Pn** **04 33 40.3 +1.3**
6.2nm,0.3s,baz=154,slow=12,SNR=9.1
DAVOX Sn **Sn** **04 34 20.1 +3.2**
7.5nm,0.3s,baz=270,slow=20,SNR=11
DAVOX LR LR 04 34 40.4
comp=Z,36nm,20.0s,baz=22,slow=35
**SBF Sospel 3.16 270** *e*Pn **Pn** **04 33 38.6 -0.3**
SNR=1.0
**SBF Sospel 3.16 270** *e*Pg **Pg** **04 33 49.4 -0.2**
SNR=1.0
SBF *e*Sn **Sn** **04 34 15.0 -1.7**
46nm,0.4s,SNR=1.0
**SBF Sospel 3.16 270** *e*Pn **Pn** **04 33 38.6 -0.3**
SNR=1.0
**SBF Sospel 3.16 270** *e*Pg **Pg** **04 33 49.4 -0.2**
SNR=1.0
SBF *e*Sn **Sn** **04 34 15.0 -1.7**
23nm,0.4s,SNR=1.0
**FETA Feichten 3.19 347** *e*Pn **Pn** **04 33 41.1 +1.8**
10nm,0.4s
FETA *e*Sn **Sn** **04 34 19.9 +2.5**
33nm,0.4s
**OBKA Obir 3.23 36** *e*Pn **Pn** **04 33 40.3 +0.5**
6.8nm,0.4s
**OBKA Obir 3.23 36** Pn **Pn** **04 33 40.3 +0.5**
6.8nm,0.4s
**TRAV Traversella 3.30 300** P **Pn** **04 33 41.2 +0.4**
**WTTA Wattenberg 3.34 358** *i* Pn **Pn** **04 33 43.1 +1.7**
6.3nm,0.2s
WTTA *e*Sn **Sn** **04 34 23.7 +2.5**
22nm,0.4s
**WATA Walderalm 3.42 357** *i* Pn **Pn** **04 33 44.4 +2.0**
8.6nm,0.2s
WATA *i* Sn **Sn** **04 34 25.5 +2.5**
35nm,0.6s
**MOTA Moosalm 3.46 352** *i* Pn **Pn** **04 33 44.6 +1.6**
10nm,0.4s
MOTA *i* Sn **Sn** **04 34 26.3 +2.3**
24nm,0.4s
**DAVA Damuels 3.62 339** *i* Pn **Pn** **04 33 47.4 +2.1**
11nm,0.4s
DAVA *e*Sn **Sn** **04 34 31.2 +3.1**
43nm,0.3s
**RETA Reutte 3.64 349** *i* Pn **Pn** **04 33 46.9 +1.5**
7.3nm,0.3s
RETA *e*Sn **Sn** **04 34 30.7 +2.3**
19nm,0.3s
**MBDF Montbardon 3.70 284** *e*Pn **Pn** **04 33 46.4 0.0**
**MBDF Montbardon 3.70 284** *e*P **Pn** **04 33 50.0 +3.6**
MBDF *e*Sn **Sn** **04 34 29.1 -1.0**
24nm,0.5s
**MBDF Montbardon 3.70 284** *e*Pn **Pn** **04 33 46.4 0.0**
MBDF *e*Sn **Sn** **04 34 29.1 -1.0**
12nm,0.5s
**FRF La Foret Royal 3.76 266** *e*Pn **Pn** **04 33 47.1 +0.1**
SNR=1.0
FRF *e*Sn **Sn** **04 34 29.1 -2.2**
14nm,0.3s
**FRF La Foret Royal 3.76 266** *e*Pn **Pn** **04 33 47.1 +0.1**
SNR=1.0
FRF *e*Sn **Sn** **04 34 29.1 -2.2**
6.9nm,0.3s
**LMR La Mourre 3.89 263** *e*Pn **Pn** **04 33 47.6 -1.2**
SNR=1.0
LMR *e*Sn **Sn** **04 34 32.3 -2.3**
4.7nm,0.3s,SNR=1.0
**LMR La Mourre 3.89 263** *e*Pn **Pn** **04 33 47.6 -1.2**
SNR=1.0
LMR *e*Sn **Sn** **04 34 32.3 -2.3**
2.3nm,0.3s,SNR=1.0
**LPG La Plagne 3.93 295** *e*Pn **Pn** **04 33 50.0 +0.3**
SNR=1.0
LPG *e*Sn **Sn** **04 34 34.0 -2.0**
11nm,0.3s,SNR=1.0
**LPG La Plagne 3.93 295** *e*Pn **Pn** **04 33 50.0 +0.3**
SNR=1.0
LPG *e*Sn **Sn** **04 34 34.0 -2.0**
5.6nm,0.3s,SNR=1.0
**LPL La Plagne 3.95 295** *e*Pn **Pn** **04 33 49.5 -0.4**
SNR=1.0
LPL *e*Sn **Sn** **04 34 34.4 -2.0**
19nm,0.5s,SNR=1.0
**LPL La Plagne 3.95 295** *e*Pn **Pn** **04 33 49.5 -0.4**
SNR=1.0
LPL *e*Sn **Sn** **04 34 34.4 -2.0**
9.4nm,0.5s,SNR=1.0
**ARSA Arzberg 4.22 37** *e*Pn **Pn** **04 33 52.7 -0.7**
8.9nm,0.6s
ARSA *e*Sn **Sn** **04 34 41.5 -1.3**
7.7nm,0.4s
**ARSA Arzberg 4.22 37** Pn **Pn** **04 33 52.7 -0.7**
8.9nm,0.6s
**MOA Molln 4.28 23** *i* Pn **Pn** **04 33 54.7 +0.5**
1.9nm,0.1s
MOA *e*Sn **Sn** **04 34 45.0 +0.7**
6.6nm,0.3s
**MOA Molln 4.28 23** Pn **Pn** **04 33 54.7 +0.5**
1.9nm,0.1s
**ORIF Oris-en-Rattie 4.36 285** *e*Pn **Pn** **04 33 55.4 0.0**
SNR=1.0
**ORIF Oris-en-Rattie 4.36 285** *e*P **Pn** **04 33 58.9 +3.5**
ORIF *e*Sn **Sn** **04 34 43.8 -2.5**
9.2nm,0.4s
**ORIF Oris-en-Rattie 4.36 285** *e*Pn **Pn** **04 33 55.4 0.0**
SNR=1.0
ORIF *e*Sn **Sn** **04 34 43.8 -2.5**
4.6nm,0.4s
**STON Ston 4.42 102** *e*Pn **Pn** **04 33 57.1 +1.1**
**STON Ston 4.42 102** *e*Pn **Pn** **04 33 57.1 +1.1**
**SMRF Simiane la Rot 4.50 273** *e*Pn **Pn** **04 33 57.3 +0.1**
SNR=1.0
**SMRF Simiane la Rot 4.50 273** *e*P **Pn** **04 34 01.1 +3.9**
SMRF *e*Sn **Sn** **04 34 48.2 -1.5**
4.5nm,0.3s,SNR=1.0
**SMRF Simiane la Rot 4.50 273** *e*Pn **Pn** **04 33 57.3 +0.1**
SNR=1.0
SMRF *e*Sn **Sn** **04 34 48.2 -1.5**
2.2nm,0.3s,SNR=1.0
**CABF La Chapelle 4.85 306** *e*Pn **Pn** **04 34 02.3 +0.2**
SNR=1.0
CABF *e*Sn **Sn** **04 34 55.1 -3.2**
12nm,0.5s
**CABF La Chapelle 4.85 306** *e*Pn **Pn** **04 34 02.3 +0.2**
SNR=1.0
CABF *e*Sn **Sn** **04 34 55.1 -3.2**
5.8nm,0.5s
**CONA Conrad Observa 4.90 34** *i* Pn **Pn** **04 34 03.7 +0.9**
2.8nm,0.3s
CONA *e*Sn **Sn** **04 34 56.9 -2.6**
15nm,0.4s
**CONA Conrad Observa 4.90 34** Pn **Pn** **04 34 03.7 +0.9**
2.8nm,0.3s
CONA Sn **Sn** **04 34 56.9 -2.6**
15nm,0.4s
**GERES GERESS Array B 5.09 14** Pn **Pn** **04 34 04.4 -1.0**
1.0nm,0.3s,baz=193,slow=13,SNR=27
GERES Sn **Sn** **04 35 02.4 -1.8**
3.1nm,0.3s,baz=196,slow=24,SNR=10
**VIVF Saint-Julien-l 5.20 283** *e*P **Pn** **04 34 10.1 +3.3**
**KHC Kasperske Hory 5.35 13** *e*PN **Pn** **04 34 07.4 -1.4**
KHC *e*SN **Sn** **04 35 08.3 -2.2**
**KHC Kasperske Hory 5.35 13** Pn **Pn** **04 34 07.4 -1.4**
KHC Sn **Sn** **04 35 08.3 -2.2**
**CDF Champ du Feu 5.48 327** *e*Pn **Pn** **04 34 10.7 0.0**
SNR=1.0
CDF *e*Sn **Sn** **04 35 09.4 -4.4**
22nm,0.4s
**CDF Champ du Feu 5.48 327** *e*Pn **Pn** **04 34 10.7 0.0**
SNR=1.0
CDF *e*Sn **Sn** **04 35 09.4 -4.4**
11nm,0.4s
**HAU Haudompre 5.58 319** *e*Pn **Pn** **04 34 12.0 0.0**
SNR=1.0
HAU *e*Sn **Sn** **04 35 11.5 -4.7**
54nm,0.4s,SNR=1.0
**HAU Haudompre 5.58 319** *e*Pn **Pn** **04 34 12.0 0.0**
SNR=1.0
HAU *e*Sn **Sn** **04 35 11.5 -4.7**
27nm,0.4s,SNR=1.0
**TEKS Tekeris 5.58 81** *e*Pn **Pn** **04 34 13.7 +1.7**
**SMOL Smolenice 6.02 38** *e*Sn **Sn** **04 35 24.0 -3.0**
**SMOL Smolenice 6.02 38** *e*PN **Pn** **04 34 20.5 +2.5**
SMOL *e*SN **Sn** **04 35 23.9 -3.0**
**IVAS Ivanjica 6.05 90** *e*Pn **Pn** **04 34 20.8 +2.2**
**TRUS Trudelj 6.20 84** *e*Pn **Pn** **04 34 23.0 +2.5**
**SMF Signal de Mont 6.25 299** *e*Pn **Pn** **04 34 21.5 +0.4**
SNR=1.0
SMF *e*Sn **Sn** **04 35 28.9 -3.6**
8.3nm,0.4s
**SMF Signal de Mont 6.25 299** *e*Pn **Pn** **04 34 21.5 +0.4**
SNR=1.0
SMF *e*Sn **Sn** **04 35 28.9 -3.6**
4.2nm,0.4s
**PAGF Fort de Pagny 6.26 320** *e*P **Pn** **04 34 24.0 +2.6**
baz=124
PAGF *e*Sn **Sn** **04 35 28.5 -4.5**
6.6nm,0.6s
**VRAC Vranov 6.31 30** Pn **Pn** **04 34 20.3 -1.7**
0.2nm,0.3s,baz=207,slow=17,SNR=2.9
VRAC Sn **Sn** **04 35 31.0 -3.1**
0.8nm,0.3s,baz=294,slow=15,SNR=5.4
**NKC Novy Kostel 6.33 4** *e*PN **Pn** **04 34 21.8 -0.4**
NKC *e*SN **Sn** **04 35 30.2 -4.3**
**NKC Novy Kostel 6.33 4** Pn **Pn** **04 34 21.8 -0.4**
NKC Sn **Sn** **04 35 30.2 -4.3**
**PRU Pruhonice 6.35 16** *e*PN **Pn** **04 34 21.1 -1.4**
PRU *e*SN **Sn** **04 35 31.5 -3.5**
**PRU Pruhonice 6.35 16** Pn **Pn** **04 34 21.1 -1.4**
PRU Sn **Sn** **04 35 31.5 -3.5**
**SFTF Sexfontaines 6.36 315** *e*Pn **Pn** **04 34 22.9 +0.1**
baz=142
SFTF *e*Sn **Sn** **04 35 31.0 -4.4**
7.7nm,0.3s
**SFTF Sexfontaines 6.36 315** *e*Pn **Pn** **04 34 22.9 +0.1**
SFTF *e*Sn **Sn** **04 35 31.0 -4.4**
3.8nm,0.3s
**LOR Lormes 6.50 304** *e*Pn **Pn** **04 34 25.1 +0.4**
baz=125,SNR=1.0
LOR *e*Sn **Sn** **04 35 35.1 -3.8**
16nm,0.4s,SNR=1.0
**LOR Lormes 6.50 304** *e*Pn **Pn** **04 34 25.1 +0.4**
SNR=1.0
LOR *e*Sn **Sn** **04 35 35.1 -3.8**
8.1nm,0.4s,SNR=1.0
**MEZF Maizieres J'vi 6.55 317** *e*Pn **Pn** **04 34 24.2 -1.1**
**MEZF Maizieres J'vi 6.55 317** *e*P **Pn** **04 34 28.2 +2.9**
baz=132,SNR=1.0
MEZF *e*Sn **Sn** **04 35 35.4 -4.6**
7.7nm,0.4s
**MEZF Maizieres J'vi 6.55 317** *e*Pn **Pn** **04 34 24.2 -1.1**
MEZF *e*Sn **Sn** **04 35 35.4 -4.6**
3.8nm,0.4s
**AVF Avril sur Loir 6.61 299** *e*Pn **Pn** **04 34 26.1 0.0**
SNR=1.0
**AVF Avril sur Loir 6.61 299** *e*Pn **Pn** **04 34 26.1 0.0**
SNR=1.0
**SSF Saint Saulge 6.62 301** *e*Pn **Pn** **04 34 26.6 +0.3**
SNR=1.0
SSF *e*Sn **Sn** **04 35 38.1 -3.8**
3.6nm,0.3s
**SSF Saint Saulge 6.62 301** *e*Pn **Pn** **04 34 26.6 +0.3**
SNR=1.0
SSF *e*Sn **Sn** **04 35 38.1 -3.8**
1.8nm,0.3s
**VYHS Vyhne 6.68 44** *e*Pn **Pn** **04 34 27.6 +0.5**
**VYHS Vyhne 6.68 44** *e*PN **Pn** **04 34 27.6 +0.5**
VYHS *e*SN **Sn** **04 35 36.7 -6.5**
**VAE Valguarnera 6.74 162** Sn **Sn** **04 35 47.2 +2.5**
2.3nm,0.3s,baz=317,slow=3.5,SNR=6.0
**BGF Bois d'Agland 6.85 296** *e*Pn **Pn** **04 34 28.9 -0.6**
SNR=1.0
BGF *e*Sn **Sn** **04 35 43.7 -3.8**
6.6nm,0.3s
**BGF Bois d'Agland 6.85 296** *e*Pn **Pn** **04 34 28.9 -0.6**
SNR=1.0
BGF *e*Sn **Sn** **04 35 43.7 -3.8**
3.3nm,0.3s
**MTLF Montolieu 6.99 269** *e*Pn **Pn** **04 34 31.1 -0.2**
SNR=1.0
**MTLF Montolieu 6.99 269** *e*Pn **Pn** **04 34 31.1 -0.2**
SNR=1.0
**CAF Calviac 7.05 282** *e*Pn **Pn** **04 34 31.9 -0.3**
**CAF Calviac 7.05 282** *e*Pn **Pn** **04 34 31.9 -0.3**
**BRG Berggiesshubel 7.10 11** PN **Pn** **04 34 32.1 -0.7**
BRG SN **Sn** **04 35 49.0 -4.5**
BRG SG **Sg** **04 36 34.9 -1.8**
6.4nm,0.9s
**MLR Muntele Rosu 10.19 76** LR LR 04 40 19.3
comp=Z,9.1nm,20.2s,baz=261,slow=45
**EKA Eskdalemuir Ar 14.94 325** Pn **Pn** **04 36 22.0 +1.9**
baz=135,slow=14,SNR=2.7
**TORD Torodi Ar. Bea 31.88 199** P **P** **04 39 15.2 +0.8**
1.1nm,0.6s,baz=14,slow=9.1,SNR=7.4
**MKAR Makanchi Array 48.07 61** P **P** **04 41 29.2 +0.7**
0.5nm,0.7s,baz=282,slow=5.6,SNR=5.1
**YKA Yellowknife Ar 65.60 336** P **P** **04 43 33.1 +0.6**
0.2nm,0.7s,baz=42,slow=6.6,SNR=7.5
**TXAR Lajitas Array 86.24 308** P **P** **04 45 32.3 +1.3**
0.1nm,0.5s,baz=75,slow=4.8,SNR=2.8

*IDC **31** 04:45:02.4±1.0,34.°34N×81.°25E,h0km,mb3.5/6, mb1 3.6/7,mb1mx3.3/42,mbtmp3.4/7,ML3.0/1,MS3.1/3, Ms1 3.1/3,ms1mx2.6/35,Error ellipse: s-maj=31.3km s-min=22.6km az=48.0*
*ISCJB **31** 04:45:06.3±0.7,34.°51N±0.°08×81.°2E±0.°2,h33km,mb3.4/6, MS3.2/2,Error ellipse: s-maj=24.9km s-min=8.6km az=159.0*
**ISC 31 04:45:08.3**±0.9,**34.°5N**±0.°1×**81.°3E**±0.°2,**h35**km,**n17,**
σ1§**38**/12,**mb3.3/6,Xizang**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KKN** | **Kakani** | **7.51** | **152** | *e*P | **Pn** | **04 46 57.7** | **+2.2** |
| **DMN** | **Daman** | **7.61** | **153** | *e*P | **Pn** | **04 46 56.5** | **-0.4** |
| **GUN** | **Gumba** | **7.65** | **148** | *e*P | **Pn** | 04 47 02.6 | +5.0 |
| **PKIN** | **Phulchoki** | **7.75** | **152** | *e*P | **Pn** | **04 47 00.1** | **+1.3** |
| **PKI** | **Pulchoki** | **7.76** | **152** | *e*P | **Pn** | **04 47 00.4** | **+1.4** |
| **JIRN** | **Jiri** | **8.01** | **147** | *e*P | Pn | 04 47 06.7 | +4.2 |
| **RAMN** | **Ramite** | **8.80** | **147** | *e*P | **Pn** | **04 47 14.3** | **+1.0** |
| **AAK** | **Ala-Archa** | **9.71** | **329** | LR | LR | 04 50 50.7 | |
| | comp=Z,49nm,20.3s,baz=104,slow=35 | | | | | | |
| **MKAR** | **Makanchi Array** | **12.31** | **3** | Pn | **Pn** | **04 48 00.8** | **-0.1** |
| | 0.1nm,0.3s,baz=190,slow=14,SNR=6.2 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **22.42** | **131** | P | **P** | **04 50 02.0** | **-2.0** |
| | 0.3nm,0.3s,baz=308,slow=11,SNR=4.3 | | | | | | |
| **SONM** | **Songino Array** | **23.00** | **47** | P | **P** | **04 50 11.3** | **+1.2** |
| | 0.3nm,0.7s,baz=238,slow=11,SNR=2.5 | | | | | | |
| **KSRS** | **Korea Array** | **37.57** | **72** | LR | LR | 05 09 02.2 | |
| | comp=Z,8.7nm,20.6s,baz=5.0,slow=38 | | | | | | |
| **FINES** | **FINESS Array B** | **43.87** | **325** | P | **P** | **04 53 11.9** | **+1.0** |
| | 2.6nm,1.0s,baz=108,slow=6.2,SNR=4.2 | | | | | | |
| **KEST** | **Kesra** | **57.58** | **294** | LR | LR | 05 23 40.8 | |
| | comp=Z,84nm,18.3s,baz=330,slow=40 | | | | | | |
| **WRA** | **Warramunga Arr** | **73.99** | **129** | P | **P** | **04 56 39.6** | **-0.8** |
| | 0.4nm,0.9s,baz=326,slow=5.8,SNR=3.0 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **74.17** | **275** | P | **P** | **04 56 41.4** | **-0.2** |
| | 1.7nm,0.9s,baz=54,slow=5.4,SNR=2.2 | | | | | | |
| **YKA** | **Yellowknife Ar** | **82.50** | **7** | P | **P** | **04 57 26.1** | **-0.8** |
| | 0.1nm,0.7s,baz=337,slow=5.4,SNR=2.9 | | | | | | |

*CSEM **31** 05:15:44.9,43.°95N×11.°86E,h9km,MD1.9/5*
**ROM 31 05:15:44.9**±0.1,**43.°95N**×**11.°86E,h9**km,**Md1.9**/5,**Ml1.4**/1,
**Error ellipse: s-maj=1.7km s-min=0.6km az=42.0,**
**Central Italy**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SFI** | **Santa Sofia** | **0.05** | **188** | Pg | Pg | 05 15 47.3 | +0.5 |
| SFI | | | | Sg | Sg | 05 15 48.6 | +0.4 |
| **ASQU** | **Asqua** | **0.17** | **197** | Pg | Pg | 05 15 49.2 | +0.7 |
| ASQU | | | | Sg | Sg | 05 15 52.0 | +1.1 |
| **ASQU** | **Asqua** | **0.17** | **197** | Pg | Pg | 05 15 49.2 | +0.7 |
| ASQU | | | | Sg | Sg | 05 15 52.0 | +1.1 |
| **VMG** | **Vicchio** | **0.23** | **272** | Pg | Pg | 05 15 50.3 | +0.8 |
| VMG | | | | Sg | Sg | 05 15 54.2 | +1.5 |
| **VMG** | **Vicchio** | **0.23** | **272** | Pg | Pg | 05 15 50.3 | +0.8 |
| VMG | | | | Sg | Sg | 05 15 54.2 | +1.5 |
| **CRE** | **Caprese Michel** | **0.34** | **168** | Pg | Pg | 05 15 52.3 | +0.6 |
| CRE | | | | Sg | Sb | 05 15 58.2 | -0.6 |
| | 214nm,1.9s | | | | | | |
| **CRE** | **Caprese Michel** | **0.34** | **168** | Pg | Pg | 05 15 52.3 | +0.6 |
| CRE | | | | Sg | Sb | 05 15 58.2 | -0.6 |
| | 214nm,1.9s | | | | | | |
| **SEI** | **Scarperia** | **0.38** | **286** | Pg | Pg | 05 15 52.8 | +0.5 |
| SEI | | | | Sg | Sb | 05 15 58.9 | -0.8 |
| **SEI** | **Scarperia** | **0.38** | **286** | Pg | Pg | 05 15 52.8 | +0.5 |
| SEI | | | | Sg | Sb | 05 15 58.9 | -0.8 |
| **PTF** | **Prato** | **0.57** | **271** | Pg | Pg | 05 15 56.4 | +0.5 |
| PTF | | | | Sg | Sb | 05 16 04.7 | -0.5 |
| **PTF** | **Prato** | **0.57** | **271** | Pg | Pg | 05 15 56.4 | +0.5 |
| PTF | | | | Sg | Sb | 05 16 04.7 | -0.5 |

*NIED **31** 05:15:00,36.°90N×141.°50E,h68km,Mw3.7 Best double couple: M0×4.44000×10^14 NP1:φ1=227.00000°,δ23.00000°, λ-99.00000°. NP2:φ2=57.00000°,δ67.00000°,λ-86.00000°.*
**JMA 31 05:15:55.2**±0.1,**36.°94N**×**141.°48E,h66**km±2km,**M3.5,**
**Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ONAJ** | **Iwakimizuishiy** | **0.57** | **287** | P | Pn | 05 16 08.7 | +0.3 |
| ONAJ | | | | S | Sn | 05 16 18.0 | -0.1 |
| **JFK** | **Kawauchi** | **0.64** | **312** | P | Pn | 05 16 09.3 | +0.1 |
| JFK | | | | S | Sn | 05 16 19.1 | -0.4 |
| **JHO** | **Hitachi** | **0.80** | **246** | P | Pn | 05 16 11.0 | 0.0 |
| JHO | | | | S | Sn | 05 16 22.5 | -0.2 |
| **JMM** | **Marumori** | **1.07** | **330** | P | Pn | 05 16 14.5 | +0.1 |
| JMM | | | | S | Sn | 05 16 28.8 | +0.1 |
| **JFT** | **Otama** | **1.08** | **303** | P | Pn | 05 16 15.4 | +0.9 |
| JFT | | | | S | Sn | 05 16 29.7 | +0.8 |
| **JFY** | **Yanaizu** | **1.49** | **289** | P | Pn | 05 16 20.4 | +0.5 |
| JFY | | | | eS | Sn | 05 16 38.8 | +0.2 |
| **JIO** | **Ouri** | **1.52** | **356** | P | Pn | 05 16 20.3 | +0.1 |
| **JOU** | **Okura** | **1.56** | **336** | P | Pn | 05 16 21.1 | +0.2 |
| JOU | | | | eS | Sn | 05 16 40.9 | +0.6 |
| **JYS** | **Shirataka** | **1.70** | **319** | P | Pn | 05 16 23.2 | +0.4 |
| JYS | | | | S | Sn | 05 16 44.5 | +0.9 |
| **JAG** | **Ashikaga** | **1.71** | **253** | P | Pn | 05 16 23.1 | +0.3 |
| JAG | | | | S | Sn | 05 16 43.7 | 0.0 |
| **JKT** | **Katashina** | **1.80** | **265** | P | Pn | 05 16 25.0 | +0.9 |
| **MAT** | **Matsushiro** | **2.66** | **262** | P | Pn | 05 16 36.9 | +1.2 |
| MAT | | | | eS | Sn | 05 17 08.4 | +1.6 |

*IDC **31** 05:34:58.9±0.7,60.°55S×26.°42W,h0km,mb4.2/8, mb1 4.3/8,mb1mx4.0/24,mbtmp4.2/8,MS3.5/9,Ms1 3.5/9, ms1mx3.4/23,Error ellipse: s-maj=29.0km s-min=19.7km az=63.0*
*ISCJB **31** 05:35:00.8±0.4,60.°99S±0.°09×26.°7W±0.°2,h33km, mb4.6/19,MS3.5/8,Error ellipse: s-maj=18.1km s-min=7.3km az=140.2*
*NEIC **31** 05:35:04.5±0.4,60.°62S×26.°64W,h35km,mb4.8/16,Error ellipse: s-maj=15.9km s-min=10.3km az=50.0*
**ISC 31 05:35:01.6**±0.6,**60.°7S**±0.°1×**26.°4W**±0.°2,**h20**km,**n53,**
σ1§**91**/46,**mb4.6**/18,**MS3.5**/8,**3D,South Sandwich**
**Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VNA1** | **Neumayer--Stat** | **12.39** | **151** | P | **Pn** | **05 37 54.7** | **-1.8** |
| **VNA3** | **Neumayer Olymp** | **12.51** | **155** | P | **Pn** | **05 37 55.8** | **-2.3** |
| **VNA2** | **Neumayer--Watz** | **12.79** | **151** | P | **Pn** | **05 37 59.4** | **-2.6** |
| | baz=307,slow=15 | | | | | | |
| **SNAA** | **Sanae** | **14.39** | **149** | P | **Pn** | **05 38 21.1** | **-2.8** |
| **SNAA** | **Sanae** | **14.39** | **149** | Pn | **Pn** | **05 38 21.0** | **-2.8** |
| | 3.4nm,0.3s,baz=317,slow=13,SNR=82 | | | | | | |
| SNAA | | | | Sn | Sn | 05 40 49.3 | -13 |
| | 1.2nm,0.3s,baz=295,slow=14,SNR=5.3 | | | | | | |
| SNAA | | | | LR | LR | 05 42 44.2 | |
| | comp=Z,220nm,18.9s,baz=303,slow=32 | | | | | | |
| **SNAA** | **Sanae** | **14.39** | **149** | *e*Pn | **Pn** | **05 38 21.0** | **-2.8** |
| SNAA | | | | *e*Sn | Sn | 05 40 50.4 | -12 |
| **SYO** | **Syowa Base** | **27.83** | **135** | *e*P | **P** | **05 40 46.0** | **-3.0** |
| **SYO** | **Syowa Base** | **27.83** | **135** | *e*P | **P** | **05 40 55.0** | **+6.0** |
| **SYO** | **Syowa Base** | **27.83** | **135** | *e*PcP | **PcP** | **05 44 02.0** | **-2.2** |
| **QSPA** | **South Pole Qui** | **29.53** | **180** | *e*P | **P** | **05 41 07.1** | **+2.7** |
| | 28nm,1.3s | | | | | | |
| **TRQA** | **Tornquist** | **31.77** | **299** | *e*P | **P** | **05 41 23.9** | **-0.2** |
| | 12nm,1.4s | | | | | | |
| **PLCA** | **Paso Flores** | **33.48** | **286** | P | **P** | **05 41 37.7** | **-1.5** |
| | 1.0nm,0.8s,baz=185,slow=7.9,SNR=3.5 | | | | | | |
| PLCA | | | | LR | LR | 05 54 31.7 | |
| | comp=Z,57nm,18.0s,baz=159,slow=35 | | | | | | |
| **PLCA** | **Paso Flores** | **33.48** | **286** | *e*P | **P** | **05 41 37.7** | **-1.5** |
| | 19nm,2.0s | | | | | | |
| **MAW** | **Mawson** | **36.23** | **140** | P | **P** | **05 42 02.2** | **-0.2** |
| | 4.7nm,0.9s,baz=234,slow=13,SNR=4.1 | | | | | | |
| **MAW** | **Mawson** | **36.23** | **140** | *e*P | **P** | **05 42 02.2** | **-0.2** |
| | 2.7nm,1.3s | | | | | | |
| **GO05** | **HualaaeØ** | **38.74** | **291** | *e*P | **P** | **05 42 22.3** | **-1.9** |
| | 124nm,2.0s | | | | | | |
| **PEL** | **Peldehue** | **39.72** | **294** | *e*P | **P** | **05 42 32.7** | **+0.3** |
| | 67nm,1.7s | | | | | | |
| **CPUP** | **Villa Florida** | **40.30** | **314** | *e*P | **P** | **05 42 36.2** | **-1.0** |
| | 3.0nm,0.9s,baz=150,slow=7.3,SNR=10 | | | | | | |
| CPUP | | | | LR | LR | 05 57 17.5 | |
| | comp=Z,73nm,21.5s,baz=160,slow=33 | | | | | | |
| **CPUP** | **Villa Florida** | **40.30** | **314** | *e*P | **P** | **05 42 36.2** | **-1.0** |
| | 7.7nm,1.2s | | | | | | |
| **VNDA** | **Vanda** | **41.93** | **183** | P | **P** | **05 42 53.1** | **+3.1** |
| | 3.1nm,0.7s,baz=181,slow=7.4,SNR=14 | | | | | | |
| VNDA | | | | LR | LR | 06 02 00.6 | |
| | comp=Z,32nm,18.2s,baz=164,slow=38 | | | | | | |
| **VNDA** | **Vanda** | **41.93** | **183** | *e*P | **P** | **05 42 53.1** | **+3.1** |
| VNDA | | | | *e*pP | **pP** | **05 42 53.5** | **-2.8** |
| **BOSA** | **Boshof** | **46.91** | **71** | LR | LR | 05 58 59.5 | |
| | comp=Z,47nm,19.5s,baz=14,slow=31 | | | | | | |
| **PB04** | **IPOC Station P** | **48.86** | **302** | *e*P | **P** | **05 43 44.1** | **-1.7** |
| | 13nm,1.0s | | | | | | |
| **PB01** | **IPOC Station P** | **49.74** | **303** | *e*P | **P** | **05 43 52.2** | **-0.1** |
| | 7.0nm,0.7s | | | | | | |
| **PB11** | **IPOC Station P** | **50.95** | **304** | *e*P | **P** | **05 44 01.1** | **-0.6** |
| | 9.5nm,1.1s | | | | | | |
| **SIV** | **San Ignacio** | **51.14** | **315** | LR | LR | 06 03 53.7 | |
| | comp=Z,74nm,19.9s,baz=46,slow=34 | | | | | | |
| **MNMC** | **Minye Minye** | **51.50** | **304** | *e*P | **P** | **05 44 05.7** | **-0.2** |
| | 11nm,0.7s | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **52.38** | **15** | T | T | 06 40 53.3 | |
| | baz=187,slow=75,SNR=22 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **52.38** | **15** | T | T | 06 40 53.6 | |
| | baz=187,slow=75,SNR=20 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **52.39** | **15** | T | T | 06 40 57.7 | |
| | baz=187,slow=75,SNR=22 | | | | | | |
| **LPAZ** | **La Paz** | **53.48** | **307** | P | **P** | **05 44 20.5** | **-0.4** |
| | 1.6nm,0.5s,baz=74,slow=6.2,SNR=8.3 | | | | | | |
| LPAZ | | | | LR | LR | 06 09 01.6 | |
| | comp=Z,28nm,19.8s,baz=140,slow=38 | | | | | | |
| **LPAZ** | **La Paz** | **53.48** | **307** | *e*P | **P** | **05 44 20.5** | **-0.4** |
| | 6.6nm,1.4s | | | | | | |
| **H10N3** | **ASCENSION HYDR** | **53.50** | **15** | T | T | 06 42 29.4 | |
| | baz=188,slow=74,SNR=20 | | | | | | |
| **DBIC** | **Dimbokro** | **69.27** | **23** | P | **P** | **05 46 05.6** | **-1.3** |
| | 1.0nm,0.6s,baz=180,slow=4.0,SNR=3.0 | | | | | | |
| **DBIC** | **Dimbokro** | **69.27** | **23** | *e*P | **P** | **05 46 05.6** | **-1.3** |
| | 21nm,1.6s | | | | | | |
| **TOA0** | **Torodi Ar. Sit** | **76.94** | **28** | *e*P | **P** | **05 46 53.5** | **+1.2** |
| | 4.6nm,0.8s | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **76.94** | **28** | P | **P** | **05 46 53.6** | **+1.3** |
| | 4.6nm,0.6s,baz=193,slow=6.2,SNR=17 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **76.95** | **28** | *e*P | **P** | **05 46 53.6** | **+1.3** |
| **KOWA** | **Kowa** | **77.06** | **22** | *e*P | **P** | **05 46 54.5** | **+1.6** |
| | 36nm,2.0s | | | | | | |
| **URZ** | **Urewera** | **79.52** | **199** | LR | LR | 06 16 39.4 | |
| | comp=Z,39nm,20.9s,baz=14,slow=31 | | | | | | |
| **ASAR** | **Alice Springs** | **94.42** | **162** | P | **P** | **05 48 19.6** | **-0.3** |
| | 0.5nm,0.7s,baz=187,slow=3.5,SNR=7.1 | | | | | | |
| **AS01** | **Alice Springs** | **94.43** | **162** | *e*P | **P** | **05 48 20.4** | **+0.4** |
| **WRA** | **Warramunga Arr** | **98.14** | **162** | LR | LR | 06 30 08.1 | |
| | comp=Z,77nm,21.8s,baz=10.0,slow=34 | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **WRAB** | **Tennant Creek** | **98.15** | **162** | *e*P | | Pdif | 05 48 38.3 | +1.4 |
| | 12nm,1.3s | | | | | | | |
| **RSSD** | **Black Hills** | **121.89** | **304** | *e*PKPdf | | **PKPdf** | **05 53 54.0** | **+0.6** |
| **YKA** | **Yellowknife Ar** | **139.82** | **314** | PKP | | **PKPdf** | **05 54 27.4** | **+1.0** |
| | 0.6nm,0.7s,baz=129,slow=2.2,SNR=14 | | | | | | | |
| YKA | | | | SKPbc | | **SKiKP** | **05 58 03.9** | **+0.5** |
| | 0.3nm,1.0s,baz=114,slow=2.6,SNR=4.2 | | | | | | | |
| **SKAG** | **Skagway** | **146.11** | **300** | *e*PKPdf | | **PKPab** | **05 54 40.0** | **+0.7** |
| **INK** | **Inuvik** | **149.56** | **315** | PKPbc | | **PKPbc** | **05 54 48.0** | **+0.5** |
| | 1.1nm,0.6s,baz=44,slow=2.2,SNR=5.3 | | | | | | | |
| **DOT** | **Dot Lake** | **151.78** | **303** | *e*PKPbc | | **PKPbc** | **05 54 54.9** | **+1.8** |
| **IL1** | **Eielson Array** | **153.34** | **305** | *e*PKPbc | | **PKPbc** | **05 54 57.3** | **+0.9** |
| **ILAR** | **Eielson Array** | **153.34** | **305** | PKPbc | | **PKPbc** | **05 54 57.4** | **+0.9** |
| | 1.3nm,0.9s,baz=155,slow=2.7,SNR=7.0 | | | | | | | |
| **ILB** | **Eielson Array** | **153.34** | **305** | *e*PKPbc | | **PKPbc** | **05 54 55.8** | **-0.6** |
| **BPAW** | **Bear Paw Mtn.** | **154.81** | **302** | *e*PKPbc | | **PKPbc** | **05 55 00.8** | **+1.1** |

*ISCJB **31** 05:39:47.0±0.1,27.°11N±0.°02×66.°39E±0.°02, h8km, mb4.6/125, MS3.9/40, Error ellipse: s-maj=3.6km s-min=2.3km az=29.9*

*IDC **31** 05:39:47.8±0.5,27.°16N×66.°33E, h0km, mb4.2/34, mb1 4.3/37, mb1mx4.2/68, mbtmp4.2/37, ML3.9/3, MS3.8/31, Ms1 3.8/31, ms1mx3.7/53, Error ellipse: s-maj=12.8km s-min=10.9km az=4.0*

*MOS **31** 05:39:48.8±0.8,27.°10N×66.°33E, h19km, mb4.8/42, Error ellipse: s-maj=7.4km s-min=4.9km az=102.0*

*NEIC **31** 05:39:50.9±1.9,27.°12N×66.°31E, h20km±12km, mb4.9/68, Error ellipse: s-maj=3.5km s-min=2.6km az=191.0*

*NEIC Felt at Khuzdar.*

*BJI **31** 05:39:54.1,27.°26N×66.°77E, h32km, mb4.6/41, mB4.9/33, Ms4.5/24, Ms7 4.1/26*

**ISC 31 05:39:48.8±0.3, 27.°15N±0.°04×66.°43E±0.°03, h8km, n300,** σ1§92/324, **mb4.7**/125, **MS3.8**/40, **22C-7D, Pakistan**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **THW** | **Thamme Wali** | **7.27** | **38** | ⇑P | **Pn** | **Pn** | **05 41 35.1** | **-0.3** |
| **KBL** | **Kabul** | **7.70** | **16** | *e*P | **Pn** | **Pn** | **05 41 43.2** | **+1.7** |
| **KBL** | **Kabul** | **7.70** | **16** | *e*Pn | **Pn** | **Pn** | **05 41 43.2** | **+1.7** |
| **WSAR** | **Wadi Sarin** | **8.06** | **243** | Pn | **Pn** | **Pn** | **05 41 43.6** | **-2.7** |
| | 2.8nm,0.3s,baz=108,slow=9.1,SNR=29 | | | | | | | |
| WSAR | | | | Sn | | Sn | 05 43 07.5 | -10 |
| | 6.0nm,0.3s,baz=223,slow=0.4,SNR=14 | | | | | | | |
| WSAR | | | | LR | | LR | 05 45 45.7 | |
| | comp=Z,298nm,18.6s,baz=83,slow=45 | | | | | | | |
| **WSAR** | **Wadi Sarin** | **8.06** | **243** | Pn | **Pn** | **Pn** | **05 41 43.7** | **-2.6** |
| | SNR=23 | | | | | | | |
| **WSAR** | **Wadi Sarin** | **8.06** | **243** | P | **Pn** | **Pn** | **05 41 43.7** | **-2.6** |
| | SNR=23 | | | | | | | |
| **CEP** | **Cherat** | **8.16** | **34** | P | **Pn** | **Pn** | **05 41 47.4** | **-0.3** |
| **KHET** | **Khetri** | **8.37** | **82** | *e*P | **Pn** | **Pn** | **05 41 50.0** | **-0.5** |
| KHET | | | | *e*S | **Sn** | **Sn** | **05 43 21.0** | **-4.3** |
| **BANOM** | **Banah** | **9.15** | **265** | *i* P | **Pn** | **Pn** | **05 42 00.3** | **-0.9** |
| | SNR=21 | | | | | | | |
| **UOSS** | **Minazif** | **9.45** | **259** | *e*Pn | **Pn** | **Pn** | **05 42 05.2** | **-0.1** |
| UOSS | | | | *e*Sn | **Sn** | **Sn** | **05 43 43.4** | **-8.5** |
| **HATD** | **Hatta, Dubai** | **9.55** | **258** | P | **Pn** | **Pn** | **05 42 04.5** | **-2.2** |
| **THN** | **Thein Dam** | **9.63** | **55** | *e*P | **Pn** | **Pn** | **05 42 06.6** | **-1.2** |
| THN | | | | *e*S | **Sn** | **Sn** | **05 43 52.2** | **-4.0** |
| **ASHO** | **Ashiyiah** | **9.65** | **258** | *i* P | **Pn** | **Pn** | **05 42 07.9** | **-0.3** |
| | SNR=6.0 | | | | | | | |
| **ASHO** | **Ashiyiah** | **9.65** | **258** | Pn | **Pn** | **Pn** | **05 42 08.8** | **+0.6** |
| | SNR=6.3 | | | | | | | |
| **ASHO** | **Ashiyiah** | **9.65** | **258** | P | **Pn** | **Pn** | **05 42 08.8** | **+0.6** |
| | SNR=6.3 | | | | | | | |
| **BHK** | **Bhakra** | **9.70** | **62** | *e*P | **Pn** | **Pn** | **05 42 10.8** | **+2.0** |
| **NAZ** | **Nazwa, Dubai** | **9.92** | **260** | P | **Pn** | **Pn** | **05 42 11.4** | **-0.3** |
| **SDNR** | **Sundarnagar** | **10.17** | **62** | *e*P | **Pn** | **Pn** | **05 42 15.0** | **-0.2** |
| SDNR | | | | *ex* | **Sn** | **Sn** | **05 44 12.0** | **+2.5** |
| **JOSI** | **Joshimath** | **12.00** | **70** | *e*P | **Pn** | **Pn** | **05 42 40.5** | **+0.1** |
| JOSI | | | | *e*S | **Sn** | **Sn** | **05 44 49.4** | **-5.2** |
| JOSI | | | | AML | AML | AML | 05 45 28.6 | |
| | comp=E,285nm,0.6s | | | | | | | |
| JOSI | | | | AML | AML | AML | 05 45 35.4 | |
| | comp=N,265nm,1.3s | | | | | | | |
| **GEYT** | **Alibeck** | **12.83** | **329** | Pn | **Pn** | **Pn** | **05 42 51.2** | **-0.3** |
| | comp=N,0.3nm,0.3s,baz=109,slow=23,SNR=3.0 | | | | | | | |
| GEYT | | | | LR | | LR | 05 48 54.2 | |
| | comp=N,218nm,21.8s,baz=145,slow=43 | | | | | | | |
| **JBP** | **Jabalpur** | **12.90** | **105** | ⇓*i* P | **Pn** | **Pn** | **05 42 52.2** | **-0.3** |
| JBP | | | | *ex* | **Sn** | **Sn** | **05 45 14.7** | **-1.6** |
| **KLRI** | **Killari** | **13.03** | **132** | *e*P | **Pn** | **Pn** | **05 42 57.3** | **+3.0** |
| KLRI | | | | IAmb | IAmb | IAmb | 05 43 01.5 | |
| | comp=Z,57nm,1.6s | | | | | | | |
| KLRI | | | | *e*S | **Sn** | **Sn** | **05 45 19.4** | **-0.2** |
| **SRSP** | **Sriramsagar** | **13.68** | **124** | *e*P | **Pn** | **Pn** | **05 43 03.8** | **+0.6** |
| SRSP | | | | IAmb | IAmb | IAmb | 05 43 08.8 | |
| | comp=Z,10nm,0.9s | | | | | | | |
| SRSP | | | | *e*S | **Sn** | **Sn** | **05 45 35.9** | **+0.5** |
| **SFK** | **Sufi-Kurgan** | **14.11** | **23** | *i* P | **Pn** | **Pn** | **05 43 07.2** | **-2.1** |
| SFK | | | | pmax | pmax | | | |
| | comp=Z,22nm,0.8s | | | | | | | |
| **RPR** | **Rampur** | **14.43** | **122** | *e*P | **Pn** | **Pn** | **05 43 15.9** | **+2.5** |
| RPR | | | | IAmb | IAmb | IAmb | 05 43 19.6 | |
| | comp=Z,33nm,0.8s | | | | | | | |
| RPR | | | | *e*S | **Sn** | **Sn** | **05 45 55.1** | **+1.4** |
| **KSH** | **Kashi** | **14.68** | **30** | P | Pn | | 05 43 10.3 | -6.6 |
| KSH | | | | pP | P | | 05 43 18.3 | -4.9 |
| KSH | | | | PP | **PnPn** | | **05 43 22.3** | **-2.6** |
| KSH | | | | S | Sn | | 05 45 44.5 | -15 |
| KSH | | | | SS | **SnSn** | | **05 46 00.5** | **-12** |
| KSH | | | | pmax | pmax | | | |
| | comp=Z,16nm,0.8s | | | | | | | |
| KSH | | | | pmax | pmax | | | |
| | comp=Z,120nm,4.0s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=Z,730nm,8.1s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=Z,1μm,12.3s | | | | | | | |
| KSH | | | | LR | LR | | | |
| | comp=Z,810nm,12.9s | | | | | | | |
| **PYUN** | **Piuthan** | **14.71** | **82** | *e*P | **Pn** | **Pn** | **05 43 14.8** | **-2.7** |
| PYUN | | | | *e*S | Sn | | 05 45 50.4 | -11 |
| **HYBB** | **Hyderabad (bro** | **14.81** | **128** | *e*P | **Pn** | **Pn** | **05 43 18.3** | **-0.5** |
| HYBB | | | | *e*S | **Sn** | **Sn** | **05 46 04.0** | **+0.8** |
| **HYB** | **Hyderabad** | **14.81** | **128** | *i* P | **P** | **P** | **05 43 25.0** | **+0.3** |
| HYB | | | | *e*S | **S** | **S** | **05 46 20.0** | **-1.7** |
| **KOLN** | **Koldanda** | **15.26** | **84** | *e*P | **Pn** | **Pn** | **05 43 22.1** | **-2.7** |
| **DANN** | **Dangsing** | **15.39** | **82** | *e*P | **Pn** | **Pn** | **05 43 23.5** | **-3.2** |
| | comp=Z,15nm,1.0s | | | | | | | |
| **URV** | **Uravakonda** | **15.79** | **138** | *e*P | **Pn** | **Pn** | **05 43 30.8** | **-0.8** |
| URV | | | | IAmb | IAmb | IAmb | 05 43 36.5 | |
| | comp=Z,18nm,0.9s | | | | | | | |
| URV | | | | *e*S | **Sn** | **Sn** | **05 46 27.8** | **+0.9** |
| **NJS** | **Nagarjunasagar** | **15.93** | **129** | *e*P | **Pn** | **Pn** | **05 43 31.6** | **-1.8** |
| NJS | | | | IAmb | IAmb | IAmb | 05 43 37.3 | |
| | comp=Z,47nm,1.6s | | | | | | | |
| NJS | | | | *e*S | **Sn** | **Sn** | **05 46 22.5** | **-7.7** |
| **SRLM** | **Srisailam** | **15.96** | **131** | *e*P | **Pn** | **Pn** | **05 43 33.8** | **-0.1** |
| SRLM | | | | IAmb | IAmb | IAmb | 05 43 36.1 | |
| | comp=Z,8.3nm,0.9s | | | | | | | |
| SRLM | | | | *e*S | **Sn** | **Sn** | **05 46 30.8** | **-0.2** |
| **MNAS** | **Manas** | **16.09** | **16** | *i* P | **Pn** | **Pn** | **05 43 33.0** | **-2.5** |
| MNAS | | | | pmax | pmax | | | |
| | comp=Z,14nm,0.9s | | | | | | | |
| **KK31** | **Karatay Array** | **16.26** | **11** | *ce*P | **Pn** | **Pn** | **05 43 36.6** | **-1.0** |
| KK31 | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,0.5s | | | | | | | |
| **KKAR** | **Karatay Array** | **16.26** | **11** | *e*P | **P** | **P** | **05 43 39.6** | **-1.0** |
| KKAR | | | | pmax | pmax | | | |
| | comp=Z,61nm,0.6s | | | | | | | |
| **KKAR** | **Karatay Array** | **16.26** | **11** | *e*Pn | **P** | **P** | **05 43 39.6** | **-1.0** |
| | comp=Z,61nm,0.6s | | | | | | | |
| **DMN** | **Daman** | **16.60** | **84** | *e*P | **Pn** | **Pn** | **05 43 38.9** | **-3.3** |
| **KKN** | **Kakani** | **16.75** | **83** | *e*P | **Pn** | **Pn** | **05 43 40.3** | **-3.8** |
| **AAK** | **Ala-Archa** | **16.80** | **21** | Pn | **Pn** | **Pn** | **05 43 45.5** | **+1.0** |
| | comp=Z,0.6nm,0.3s,baz=210,slow=6.4,SNR=7.0 | | | | | | | |
| AAK | | | | Sn | | **Sn** | **05 46 49.1** | **-2.2** |
| | comp=Z,0.1nm,0.3s,baz=319,slow=15,SNR=2.8 | | | | | | | |
| AAK | | | | LR | | LR | 05 51 36.5 | |
| | comp=Z,524nm,18.5s,baz=208,slow=42 | | | | | | | |
| **AAK** | **Ala-Archa** | **16.80** | **21** | *c* *i* P | | **P** | **05 43 46.2** | **-0.6** |
| AAK | | | | pmax | pmax | | | |
| | comp=Z,18nm,1.6s | | | | | | | |
| **AAK** | **Ala-Archa** | **16.80** | **21** | *e*Pn | | **P** | **05 43 46.1** | **-0.6** |
| | comp=Z,20nm,1.3s | | | | | | | |
| AAK | | | | Sn | | **Sn** | **05 46 49.1** | **-2.2** |
| **PKIN** | **Phulchoki** | **16.86** | **84** | *e*P | | **Pn** | **05 43 42.1** | **-3.4** |
| **PKI** | **Pulchoki** | **16.87** | **84** | *e*P | | **Pn** | **05 43 42.5** | **-3.2** |
| | comp=Z,52nm,0.7s | | | | | | | |
| PKI | | | | *e*S | | Sn | 05 46 42.5 | -11 |
| **ADKI** | **Addanki** | **16.87** | **129** | *e*Pn | | **Pn** | **05 43 45.3** | **-0.2** |
| ADKI | | | | IAmb | | IAmb | 05 43 46.3 | |
| | comp=Z,12nm,1.0s | | | | | | | |
| ADKI | | | | *e*S | | **Sn** | **05 46 51.8** | **-1.4** |
| **FRU** | **Bishkek** | **17.01** | **21** | *i* P | | **P** | **05 43 49.0** | **0.0** |
| FRU | | | | *e*S | | **Sn** | **05 46 51.0** | **-5.3** |
| FRU | | | | pmax | pmax | | | |
| | comp=Z,32nm,1.6s | | | | | | | |
| FRU | | | | smax | smax | | | |
| | comp=E,34nm,1.8s | | | | | | | |
| **PVM** | **Polavaram** | **17.16** | **122** | *e*P | | **P** | **05 43 52.2** | **+1.4** |
| PVM | | | | IAmb | | IAmb | 05 43 59.3 | |
| | comp=Z,12nm,0.8s | | | | | | | |
| PVM | | | | *e*S | | **Sn** | **05 46 54.2** | **-6.0** |
| **GUN** | **Gumba** | **17.27** | **83** | *e*P | | **Pn** | **05 43 47.3** | **-3.5** |
| **JIRN** | **Jiri** | **17.56** | **84** | *e*P | | **Pn** | **05 43 51.1** | **-3.3** |
| **RAMN** | **Ramite** | **17.97** | **86** | *e*P | | **Pn** | **05 43 56.8** | **-2.6** |
| **SKHT** | **Srikalahasti** | **18.22** | **134** | *e*P | | **Pn** | **05 44 01.3** | **-0.9** |
| SKHT | | | | IAmb | | IAmb | 05 44 11.9 | |
| | comp=Z,24nm,1.1s | | | | | | | |
| **CHLP** | **Challavanipeta** | **18.37** | **114** | *e*P | | **P** | **05 44 05.1** | **+1.0** |
| CHLP | | | | IAmb | | IAmb | 05 44 07.3 | |
| | comp=Z,22nm,1.0s | | | | | | | |
| CHLP | | | | *e*S | | **S** | **05 47 32.1** | **-2.2** |
| **ODAN** | **Odare** | **18.68** | **86** | *e*P | | **P** | **05 44 06.3** | **-1.5** |
| **TAPN** | **Taplejung** | **18.93** | **85** | *e*P | | **P** | **05 44 08.8** | **-1.7** |
| **RAYN** | **Ar Rayn** | **19.25** | **264** | *e*P | | **P** | **05 44 14.2** | **+0.3** |
| | comp=Z,14nm,1.0s | | | | | | | |
| **PDGK** | **Podgornoye** | **19.31** | **30** | *i* P | | **P** | **05 44 14.2** | **-0.2** |
| PDGK | | | | pmax | | pmax | | |
| | comp=Z,13nm,0.8s | | | | | | | |
| **LSA** | **Lhasa** | **21.88** | **78** | *e*P | | **P** | **05 44 45.1** | **+2.3** |
| LSA | | | | pmax | | pmax | | |
| | comp=Z,16nm,0.9s | | | | | | | |
| **LSA** | **Lhasa** | **21.88** | **78** | *e*P | | **P** | **05 44 45.1** | **+2.3** |
| | comp=Z,16nm,0.9s | | | | | | | |
| **GNI** | **Garni** | **22.16** | **311** | P | | **P** | **05 44 48.4** | **+3.1** |
| | comp=Z,12nm,0.8s,baz=352,slow=20,SNR=2.9 | | | | | | | |
| GNI | | | | LR | | LR | 05 54 37.6 | |
| | comp=Z,137nm,20.8s,baz=128,slow=40 | | | | | | | |
| **GNI** | **Garni** | **22.16** | **311** | *i* P | | **P** | **05 44 45.8** | **+0.5** |
| GNI | | | | pmax | | pmax | | |
| | comp=Z,75nm,1.2s | | | | | | | |
| **GNI** | **Garni** | **22.16** | **311** | *e*P | | **P** | **05 44 48.3** | **+3.0** |
| | comp=Z,54nm,1.3s | | | | | | | |
| **AB31** | **Akbulak array** | **22.64** | **349** | *i* P | | **P** | **05 44 50.2** | **+0.1** |
| AB31 | | | | pmax | | pmax | | |
| | comp=Z,16nm,0.9s | | | | | | | |
| **ABKAR** | **Akbulak array** | **22.64** | **349** | *e*P | | **P** | **05 44 50.5** | **+0.4** |
| | comp=Z,106nm,0.8s | | | | | | | |
| **SHL** | **Shillong** | **22.86** | **88** | *e*P | | **P** | **05 44 53.0** | **+0.1** |
| SHL | | | | *e*S | | **S** | **05 49 06.0** | **+3.1** |
| **MAKZ** | **Makanchi** | **23.14** | **28** | *e*P | | **P** | **05 44 56.2** | **+0.7** |
| MAKZ | | | | pmax | | pmax | | |
| | comp=Z,34nm,1.4s | | | | | | | |
| **MAKZ** | **Makanchi** | **23.14** | **28** | *e*P | | **P** | **05 44 56.2** | **+0.7** |
| | comp=Z,34nm,1.4s | | | | | | | |
| **MK01** | **Makanchi Array** | **23.25** | **28** | *e*P | | **P** | **05 44 56.6** | **0.0** |
| **MK31** | **Makanchi Array** | **23.26** | **28** | *ce*P | | **P** | **05 44 56.9** | **+0.1** |
| MK31 | | | | pmax | | pmax | | |
| | comp=Z,9.0nm,0.7s | | | | | | | |
| **MK31** | **Makanchi Array** | **23.26** | **28** | *e*P | | **P** | **05 44 57.4** | **+0.6** |
| **MKAR** | **Makanchi Array** | **23.26** | **28** | P | | **P** | **05 44 56.6** | **-0.2** |
| | comp=Z,2.4nm,0.6s,baz=211,slow=10,SNR=25 | | | | | | | |
| **MKAR** | **Makanchi Array** | **23.26** | **28** | *e*P | | **P** | **05 44 57.4** | **+0.6** |
| MKAR | | | | pmax | | pmax | | |
| | comp=Z,62nm,0.7s | | | | | | | |
| **MKAR** | **Makanchi Array** | **23.26** | **28** | *e*P | | **P** | **05 44 57.4** | **+0.6** |
| | comp=Z,62nm,0.7s | | | | | | | |
| **BRDH** | **Bariadhala** | **23.28** | **95** | LR | | LR | 05 53 59.5 | |
| | comp=Z,244nm,18.2s,baz=321,slow=36 | | | | | | | |
| **MARD** | **Mardin** | **23.88** | **302** | *e*P | | **P** | **05 45 02.9** | **-0.1** |
| | comp=Z,18nm,0.7s | | | | | | | |
| **WMQ** | **Urumqi** | **23.90** | **40** | P | | **P** | **05 45 04.8** | **+1.7** |
| WMQ | | | | pP | | sP | 05 45 11.8 | +5.2 |
| WMQ | | | | sP | | pP | 05 45 15.5 | +10 |
| WMQ | | | | PcP | | **PcP** | **05 48 47.8** | **+2.1** |
| WMQ | | | | S | | **S** | **05 49 16.5** | **-3.1** |
| WMQ | | | | pmax | | pmax | | |
| | comp=Z,84nm,1.5s | | | | | | | |
| WMQ | | | | pmax | | pmax | | |
| | comp=Z,410nm,4.5s | | | | | | | |
| WMQ | | | | LR | | LR | | |
| | comp=Z,2μm,22.3s | | | | | | | |
| WMQ | | | | LR | | LR | | |
| | comp=Z,1μm,23.7s | | | | | | | |
| WMQ | | | | LR | | LR | | |
| | comp=Z,610nm,19.1s | | | | | | | |
| **PALK** | **Pallekele** | **23.97** | **143** | LR | | LR | 05 55 14.4 | |
| | comp=Z,186nm,18.1s,baz=296,slow=39 | | | | | | | |
| **DAMY** | **Dhamar** | **24.05** | **243** | *e*P | | **P** | **05 45 04.8** | **-0.1** |
| | comp=Z,17nm,0.9s | | | | | | | |
| **ZEI** | **Tsey** | **24.06** | **316** | *e*P | | **P** | **05 45 06.6** | **+1.8** |
| ZEI | | | | pmax | | pmax | | |
| | comp=Z,12nm,0.6s | | | | | | | |
| **AKTO** | **Aktyubinsk** | **24.13** | **347** | P | | **P** | **05 45 05.4** | **+0.3** |
| | comp=Z,6.4nm,0.7s,baz=158,slow=9.0,SNR=23 | | | | | | | |
| AKTO | | | | LR | | LR | 05 56 46.2 | |
| | comp=Z,139nm,18.8s,baz=156,slow=42 | | | | | | | |
| **AKTO** | **Aktyubinsk** | **24.13** | **347** | *i* P | | **P** | **05 45 06.0** | **+0.9** |
| AKTO | | | | pmax | | pmax | | |
| | comp=Z,11nm,0.9s | | | | | | | |
| **NCK** | **Nalchik** | **24.64** | **317** | *i* P | | **P** | **05 45 10.4** | **+0.5** |
| NCK | | | | pmax | | pmax | | |
| | comp=Z,6.0nm,0.9s | | | | | | | |
| **NEY** | **Neytrino** | **25.04** | **316** | *i* P | | **P** | **05 45 13.9** | **+0.3** |
| NEY | | | | pmax | | pmax | | |
| | comp=Z,1.0nm,0.9s | | | | | | | |
| **KBZ** | **Khabaz** | **25.19** | **317** | P | | **P** | **05 45 14.3** | **-0.5** |
| | comp=Z,3.2nm,1.1s,baz=99,slow=9.4,SNR=5.4 | | | | | | | |
| KBZ | | | | LR | | LR | 05 56 09.6 | |
| | comp=Z,84nm,20.2s,baz=137,slow=39 | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **25.20** | **18** | P | | **P** | **05 45 14.8** | **+0.1** |
| | comp=Z,4.7nm,0.7s,baz=211,slow=8.8,SNR=14 | | | | | | | |
| **KURK** | **Kurchatov** | **25.30** | **18** | *ce*P | | **P** | **05 45 17.2** | **+1.5** |
| KURK | | | | pmax | | pmax | | |
| | comp=Z,36nm,1.2s | | | | | | | |
| **KURK** | **Kurchatov** | **25.30** | **18** | *e*P | | **P** | **05 45 16.8** | **+1.1** |
| | comp=Z,11nm,0.9s | | | | | | | |
| **KVAR** | **Kislovodsk Arr** | **25.44** | **317** | P | | **P** | **05 45 17.7** | **+0.5** |
| | comp=Z,30nm,1.2s,baz=238,slow=13,SNR=3.8 | | | | | | | |
| KVAR | | | | LR | | LR | 05 56 43.6 | |
| | comp=Z,90nm,20.6s,baz=152,slow=40 | | | | | | | |
| **KIV** | **Kislovodsk** | **25.44** | **317** | *d* *i* P | | P | 05 45 24.8 | +7.6 |
| KIV | | | | *i* | | | 05 45 34.7 | |
| KIV | | | | *e* | | | 05 45 48.9 | |
| KIV | | | | *e* | | | 05 46 02.9 | |
| KIV | | | | *e* | | | 05 50 58.4 | |
| KIV | | | | pmax | | pmax | | |
| | comp=Z,20nm,1.2s | | | | | | | |
| KIV | | | | MLR | | MLR | | |
| | comp=Z,54nm,14.0s | | | | | | | |
| **KIV** | **Kislovodsk** | **25.44** | **317** | *e*P | | **P** | **05 45 17.1** | **-0.1** |
| | comp=Z,27nm,1.1s | | | | | | | |
| **GOF** | **Gofitskoye** | **25.86** | **320** | ⇑*e*P | | **P** | **05 45 27.5** | **+6.6** |
| **BVAR** | **Borovoye Array** | **26.02** | **5** | P | | **P** | **05 45 23.2** | **+1.0** |
| | comp=Z,4.2nm,0.6s,baz=178,slow=7.4,SNR=16 | | | | | | | |
| BVAR | | | | LR | | LR | 05 57 30.3 | |
| | comp=Z,448nm,20.1s,baz=226,slow=41 | | | | | | | |
| **BRVK** | **Borovoye** | **26.04** | **5** | *ce*P | | **P** | **05 45 24.6** | **+2.2** |
| BRVK | | | | pmax | | pmax | | |
| | comp=Z,32nm,1.0s | | | | | | | |
| **BRVK** | **Borovoye** | **26.04** | **5** | *e*P | | **P** | **05 45 24.2** | **+1.8** |
| | comp=Z,12nm,0.9s | | | | | | | |
| **ATD** | **Arta Tunnel** | **27.06** | **240** | LR | | LR | 05 56 26.7 | |
| | comp=Z,99nm,21.8s,baz=16,slow=37 | | | | | | | |
| **ATD** | **Arta Tunnel** | **27.06** | **240** | *e*P | | **P** | **05 45 32.1** | **0.0** |
| | comp=Z,12nm,1.0s | | | | | | | |
| **MMAI** | **Mount Meron Ar** | **27.41** | **290** | LR | | LR | 05 59 49.4 | |
| | comp=Z,234nm,20.6s,baz=135,slow=44 | | | | | | | |
| **DGZ** | **Jazzator, Alta** | **27.71** | **30** | *i* P | | **P** | **05 45 38.9** | **+1.2** |
| DGZ | | | | pmax | | pmax | | |
| | comp=Z,2.0nm,1.4s | | | | | | | |
| **TOKA** | **Tokat** | **28.01** | **306** | *e*P | | **P** | **05 45 39.9** | **-0.5** |
| | comp=Z,8.2nm,0.8s | | | | | | | |
| **ARU** | **Arti** | **29.80** | **351** | LR | | LR | 05 58 54.8 | |
| | comp=Z,146nm,19.5s,baz=162,slow=38 | | | | | | | |
| **ARU** | **Arti** | **29.80** | **351** | *d* *i* P | | **P** | **05 45 56.4** | **+0.4** |
| ARU | | | | | | | 05 46 51.1 | |
| ARU | | | | S | | **S** | **05 50 50.9** | **-1.7** |
| ARU | | | | pmax | | pmax | | |
| | comp=Z,6.0nm,1.7s | | | | | | | |
| **ZAA0** | **Zalesovo Array** | **30.01** | **22** | *e*P | | **P** | **05 45 59.6** | **+1.7** |
| | comp=Z,4.1nm,0.6s | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **30.01** | **22** | P | | **P** | **05 45 57.8** | **-0.1** |
| | comp=Z,4.0nm,0.5s,baz=226,slow=10,SNR=18 | | | | | | | |
| ZALV | | | | LR | | LR | 05 59 27.4 | |
| | comp=Z,382nm,19.3s,baz=242,slow=39 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **30.01** | **22** | *e*P | | **P** | **05 45 59.5** | **+1.6** |
| **ZALV** | **Zalesovo Beam** | **30.01** | **22** | *e*P | | **P** | **05 45 59.5** | **+1.6** |
| **ILGA** | **Ilgaz** | **30.23** | **306** | *e*P | | **P** | **05 45 59.5** | **-0.8** |
| | comp=Z,18nm,0.5s | | | | | | | |
| **NVS** | **Novosibirsk** | **30.27** | **19** | *e*P | | **P** | **05 46 00.0** | **-0.1** |
| **GTA** | **Gaotai** | **30.30** | **58** | *e*P | | **P** | **05 46 02.0** | **+1.2** |
| GTA | | | | pP | | sP | 05 46 11.8 | +7.6 |
| GTA | | | | sP | | pP | 05 46 15.5 | +12 |
| GTA | | | | S | | **S** | **05 50 58.8** | **-2.3** |
| GTA | | | | sS | | sS | 05 51 15.0 | +10 |
| GTA | | | | SS | | **SnSn** | **05 52 37.5** | **+2.4** |
| GTA | | | | pmax | | pmax | | |
| | comp=Z,4.0nm,1.4s | | | | | | | |
| GTA | | | | pmax | | pmax | | |
| | comp=Z,78nm,5.2s | | | | | | | |
| GTA | | | | LR | | LR | | |
| | comp=Z,480nm,18.1s | | | | | | | |
| GTA | | | | LR | | LR | | |
| | comp=Z,220nm,18.5s | | | | | | | |
| GTA | | | | LR | | LR | | |
| | comp=Z,300nm,18.5s | | | | | | | |
| **ANTO** | **Ankara** | **30.60** | **303** | *e*P | | **P** | **05 46 02.7** | **-0.6** |
| ANTO | | | | pmax | | pmax | | |
| | comp=Z,25nm,1.7s | | | | | | | |
| **ANTO** | **Ankara** | **30.60** | **303** | *e*P | | **P** | **05 46 02.7** | **-0.6** |
| | comp=Z,25nm,1.7s | | | | | | | |
| **BR231** | **Keskin MP Arra** | **30.60** | **303** | *e*P | | **P** | **05 46 03.0** | **-0.5** |
| **CHTO** | **Chiang Mai** | **30.99** | **99** | *e*P | | **P** | **05 46 08.6** | **+1.7** |
| CHTO | | | | pmax | | pmax | | |
| | comp=Z,9.0nm,1.1s | | | | | | | |
| **CHTO** | **Chiang Mai** | **30.99** | **99** | *e*P | | **P** | **05 46 08.6** | **+1.7** |
| | comp=Z,9.0nm,1.1s | | | | | | | |
| **CM31** | **Chiang Mai Arr** | **31.12** | **99** | *e*P | | **P** | **05 46 09.8** | **+1.7** |
| **CMAR** | **Chiang Mai Arr** | **31.12** | **99** | P | | **P** | **05 46 10.1** | **+2.0** |
| | comp=Z,1.2nm,0.6s,baz=293,slow=8.4,SNR=8.9 | | | | | | | |
| CMAR | | | | LR | | LR | 06 00 30.9 | |
| | comp=Z,160nm,18.3s,baz=281,slow=40 | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **31.12** | **99** | *i* P | | **P** | **05 46 12.6** | **+4.5** |
| CMAR | | | | pmax | | pmax | | |
| | comp=Z,1.0nm,0.6s | | | | | | | |
| **CM01** | **Chiang Mai Arr** | **31.15** | **99** | *e*P | | **P** | **05 46 09.9** | **+1.6** |
| **VSR** | **Storozhevoye** | **31.67** | **327** | *e*P | | **P** | **05 46 14.4** | **+1.8** |
| VSR | | | | pmax | | pmax | | |
| | comp=Z,4.0nm,0.8s | | | | | | | |
| **KMI** | **Kunming** | **32.59** | **85** | P | | **P** | **05 46 24.0** | **+2.8** |
| KMI | | | | pmax | | pmax | | |
| | comp=Z,13nm,0.5s | | | | | | | |
| KMI | | | | pmax | | pmax | | |
| | comp=Z,120nm,5.0s | | | | | | | |
| **CD2** | **Chengdu** | **32.76** | **74** | *e*P | | **P** | **05 46 23.3** | **+0.9** |
| CD2 | | | | pP | | sP | 05 46 33.0 | +7.1 |
| CD2 | | | | S | | **S** | **05 51 42.5** | **+3.0** |
| CD2 | | | | sS | | sS | 05 51 56.8 | +13 |
| CD2 | | | | SS | | **SnSn** | **05 53 32.5** | **-2.4** |
| CD2 | | | | pmax | | pmax | | |
| | comp=Z,10.0nm,0.7s | | | | | | | |
| CD2 | | | | pmax | | pmax | | |
| | comp=Z,100nm,6.4s | | | | | | | |
| CD2 | | | | LR | | LR | | |
| | comp=Z,450nm,12.3s | | | | | | | |
| CD2 | | | | LR | | LR | | |
| | comp=Z,370nm,16.1s | | | | | | | |
| **LZH** | **Lanzhou** | **32.92** | **65** | *e*P | | **P** | **05 46 26.3** | **+2.4** |
| LZH | | | | pP | | sP | 05 46 37.3 | +10 |
| LZH | | | | sP | | pP | 05 46 41.5 | +15 |
| LZH | | | | PP | | **PnPn** | **05 47 30.3** | **-2.4** |
| LZH | | | | *e*S | | **S** | **05 51 42.3** | **+0.1** |
| LZH | | | | SS | | **SnSn** | **05 53 40.5** | **+1.6** |
| LZH | | | | pmax | | pmax | | |
| | comp=Z,38nm,1.0s | | | | | | | |
| LZH | | | | pmax | | pmax | | |
| | comp=Z,160nm,5.0s | | | | | | | |
| LZH | | | | LR | | LR | | |
| | comp=Z,510nm,11.8s | | | | | | | |
| LZH | | | | LR | | LR | | |
| | comp=Z,600nm,12.7s | | | | | | | |
| LZH | | | | LR | | LR | | |
| | comp=Z,630nm,13.9s | | | | | | | |
| **DGAR** | **Diego Garcia** | **34.85** | **170** | *e*P | | **P** | **05 46 40.9** | **+0.4** |
| **DGAR** | **Diego Garcia** | **34.85** | **170** | *e*P | | **P** | **05 46 40.9** | **+0.4** |
| | comp=Z,1μm,1.8s | | | | | | | |
| **OBN** | **Obninsk** | **35.37** | **330** | ⇓*e*P | | P | 05 46 50.1 | +5.5 |
| OBN | | | | *e* | | | 05 47 01.5 | |
| OBN | | | | pmax | | pmax | | |
| | comp=Z,27nm,2.5s | | | | | | | |
| OBN | | | | MLR | | MLR | | |
| | comp=Z,141nm,17.0s | | | | | | | |
| **SORM** | **Soroca** | **36.21** | **316** | ⇑*i*P | | **P** | **05 46 52.8** | **+0.8** |
| **SORM** | **Soroca** | **36.21** | **316** | ⇑P | | **P** | **05 46 52.8** | **+0.8** |
| **LHMI** | **Lhok Sumawe** | **36.34** | **121** | *e*P | | **P** | **05 46 54.1** | **+0.7** |
| | comp=Z,108nm,1.0s | | | | | | | |
| **PLOR** | **Plostina** | **36.56** | **311** | ⇑*i*

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **PSI** | **Prapat** | **39.40** | **122** | *e*P | | **P** | **05 47 21.1** | **+1.6** |
| | comp=Z,9.1nm,0.8s | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **39.41** | **58** | *e*P | | **P** | **05 47 21.0** | **+1.6** |
| HHC | | | | sP | | sP | 05 47 33.8 | +11 |
| HHC | | | | S | | **S** | **05 53 22.5** | **+1.2** |
| HHC | | | | sS | | sS | 05 53 35.3 | +10 |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,15nm,1.4s | | | | | | | |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,73nm,5.1s | | | | | | | |
| HHC | | | | LR | LR | | | |
| | comp=Z,220nm,14.8s | | | | | | | |
| HHC | | | | LR | LR | | | |
| | comp=Z,230nm,14.8s | | | | | | | |
| HHC | | | | LR | LR | | | |
| | comp=Z,170nm,13.6s | | | | | | | |
| **KMBO** | **Kilima Mbogo** | **39.74** | **230** | P | | **P** | **05 47 22.1** | **-0.3** |
| | comp=Z,0.9nm,0.2s,baz=213,slow=14,SNR=2.6 | | | | | | | |
| KMBO | | | | LR | | LR | 06 05 05.4 | |
| | comp=Z,94nm,18.5s,baz=85,slow=38 | | | | | | | |
| **KMBO** | **Kilima Mbogo** | **39.74** | **230** | *e*P | | **P** | **05 47 21.2** | **-1.2** |
| KMBO | | | | pmax | pmax | | | |
| | comp=Z,12nm,1.5s | | | | | | | |
| **KMBO** | **Kilima Mbogo** | **39.74** | **230** | *e*P | | **P** | **05 47 21.2** | **-1.2** |
| | comp=Z,12nm,1.5s | | | | | | | |
| **BZS** | **Buzias** | **39.92** | **310** | ⇑*i*P | | **P** | **05 47 26.1** | **+2.8** |
| **BZS** | **Buzias** | **39.92** | **310** | ⇑P | | **P** | **05 47 26.1** | **+2.8** |
| **IPM** | **Ipoh** | **39.96** | **118** | *e*P | | **P** | **05 47 25.0** | **+0.9** |
| | comp=Z,49nm,1.6s | | | | | | | |
| **UZH** | **Uzhgorod** | **40.19** | **314** | *e*P | | **P** | **05 47 25.4** | **-0.2** |
| UZH | | | | *e* | | | 05 47 32.8 | |
| **QIZ** | **Qiongzhong** | **40.59** | **92** | P | | **P** | **05 47 27.5** | **-1.7** |
| QIZ | | | | S | | **S** | **05 53 36.8** | **-2.3** |
| QIZ | | | | LR | LR | | | |
| | comp=Z,46nm,21.5s | | | | | | | |
| **CRVS** | **Cervenica-Dubn** | **40.80** | **314** | *e*P | | **P** | **05 47 31.0** | **+0.4** |
| **CRVS** | **Cervenica-Dubn** | **40.80** | **314** | *e*P | | **P** | **05 47 30.9** | **+0.3** |
| **KECS** | **Kecovo** | **41.31** | **314** | *e*P | | **P** | **05 47 34.9** | **0.0** |
| KECS | | | | pmax | pmax | | | |
| | comp=Z,3.0nm,1.1s | | | | | | | |
| **KECS** | **Kecovo** | **41.31** | **314** | *e*P | | **P** | **05 47 34.9** | **0.0** |
| **VYHS** | **Vyhne** | **42.38** | **313** | *e*P | | **P** | **05 47 43.1** | **-0.5** |
| VYHS | | | | pmax | pmax | | | |
| | comp=Z,7.0nm,1.6s | | | | | | | |
| **VYHS** | **Vyhne** | **42.38** | **313** | *e*P | | **P** | **05 47 43.1** | **-0.5** |
| **OKC** | **Ostrava-Krasne** | **43.13** | **315** | *e*P | | **P** | **05 47 49.7** | **+0.1** |
| **OKC** | **Ostrava-Krasne** | **43.13** | **315** | *e*P | | **P** | **05 47 49.7** | **+0.1** |
| **MORC** | **Moravsky Berou** | **43.49** | **315** | ⇓*i*P | | **P** | **05 47 52.3** | **-0.4** |
| **MORC** | **Moravsky Berou** | **43.49** | **315** | *e*P | | **P** | **05 47 52.0** | **-0.6** |
| MORC | | | | pmax | pmax | | | |
| | comp=Z,18nm,0.9s | | | | | | | |
| **MORC** | **Moravsky Berou** | **43.49** | **315** | *e*P | | **P** | **05 47 52.0** | **-0.6** |
| | comp=Z,18nm,0.9s | | | | | | | |
| **CUC** | **Castrocucco** | **43.54** | **300** | *e*P | | **P** | **05 47 52.9** | **-0.2** |
| | comp=Z,66nm,1.6s | | | | | | | |
| **FIA1** | **FINESS Array S** | **43.59** | **333** | *e*P | | **P** | **05 47 53.2** | **+0.1** |
| | comp=Z,49nm,1.5s | | | | | | | |
| **FINES** | **FINESS Array B** | **43.59** | **333** | P | | **P** | **05 47 52.4** | **-0.7** |
| | comp=Z,2.5nm,0.7s,baz=115,slow=13,SNR=9.8 | | | | | | | |
| FINES | | | | LR | | LR | 06 09 14.2 | |
| | comp=Z,167nm,18.2s,baz=120,slow=41 | | | | | | | |
| **VRAC** | **Vranov** | **44.00** | **314** | P | | **P** | **05 47 56.4** | **-0.3** |
| | comp=Z,3.1nm,1.1s,baz=112,slow=6.4,SNR=2.3 | | | | | | | |
| **DPC** | **Dobruska-Polom** | **44.39** | **315** | *e*P | | **P** | **05 47 59.8** | **0.0** |
| **DPC** | **Dobruska-Polom** | **44.39** | **315** | *e*P | | **P** | **05 47 59.8** | **0.0** |
| **UPC** | **Upice** | **44.61** | **316** | *e*P | | **P** | **05 48 01.7** | **+0.1** |
| UPC | | | | *e*pP | | **sP** | **05 48 06.7** | **+1.6** |
| **UPC** | **Upice** | **44.61** | **316** | *e*P | | **P** | **05 48 01.7** | **+0.1** |
| UPC | | | | *e* | | | 05 48 06.7 | |
| **APA** | **Apatity** | **45.10** | **343** | ⇑*i*P | | **P** | **05 48 08.5** | **+3.3** |
| APA | | | | pmax | pmax | | | |
| | comp=Z,11nm,1.1s | | | | | | | |
| APA | | | | MLR | MLR | | | |
| | comp=Z,1μm,14.0s | | | | | | | |
| **BOD** | **Bodaibo** | **45.16** | **34** | *e*P | | **P** | **05 48 08.1** | **+2.3** |
| BOD | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,1.6s | | | | | | | |
| **TRI** | **Trieste** | **45.37** | **308** | *e*P | | **P** | **05 48 07.7** | **0.0** |
| TRI | | | | pmax | pmax | | | |
| | comp=Z,37nm,1.2s | | | | | | | |
| **TRI** | **Trieste** | **45.37** | **308** | *e*P | | **P** | **05 48 07.7** | **0.0** |
| | comp=Z,36nm,1.2s | | | | | | | |
| **PRU** | **Pruhonice** | **45.44** | **315** | *e*P | | **P** | **05 48 07.2** | **-0.9** |
| **PRU** | **Pruhonice** | **45.44** | **315** | *e*P | | **P** | **05 48 07.2** | **-0.9** |
| **NJ2** | **Nanjing** | **45.48** | **71** | *e*P | | **P** | **05 48 10.3** | **+1.6** |
| NJ2 | | | | pmax | pmax | | | |
| | comp=Z,11nm,0.7s | | | | | | | |
| **CLTB** | **Caltabellotta** | **45.61** | **297** | *e*P | | **P** | **05 48 08.5** | **-1.3** |
| | comp=Z,211nm,1.8s | | | | | | | |
| **GEA0** | **GERESS Array S** | **45.79** | **313** | *e*P | | **P** | **05 48 10.2** | **-0.9** |
| **GEC2** | **GERESS Array S** | **45.79** | **313** | *e*P | | **P** | **05 48 10.9** | **-0.2** |
| GEC2 | | | | pmax | pmax | | | |
| | comp=Z,16nm,1.4s | | | | | | | |
| **GEC2** | **GERESS Array S** | **45.79** | **313** | *e*P | | **P** | **05 48 10.9** | **-0.2** |
| | comp=Z,16nm,1.4s | | | | | | | |
| **GERES** | **GERESS Array B** | **45.79** | **313** | P | | **P** | **05 48 09.3** | **-1.8** |
| | comp=Z,2.1nm,0.9s,baz=93,slow=6.7,SNR=13 | | | | | | | |
| **KHC** | **Kasperske Hory** | **45.92** | **313** | *e*P | | **P** | **05 48 11.1** | **-0.9** |
| KHC | | | | *e*pP | | **sP** | **05 48 15.8** | **+0.3** |
| **KHC** | **Kasperske Hory** | **45.92** | **313** | *e*P | | **P** | **05 48 12.5** | **+0.5** |
| KHC | | | | pmax | pmax | | | |
| | comp=Z,2.0nm,1.2s | | | | | | | |
| **KHC** | **Kasperske Hory** | **45.92** | **313** | *e*P | | **P** | **05 48 12.5** | **+0.5** |
| | comp=Z,2.3nm,1.2s | | | | | | | |
| **BRG** | **Berggiesshubel** | **45.98** | **316** | *e*P | | **P** | **05 48 12.5** | **+0.1** |
| | comp=Z,10.0nm,1.2s | | | | | | | |
| BRG | | | | *e* | | | 05 48 19.0 | |
| | comp=Z,26nm,1.6s | | | | | | | |
| **BRG** | **Berggiesshubel** | **45.98** | **316** | *e*P | | **P** | **05 48 12.5** | **+0.1** |
| BRG | | | | *e* | | | 05 48 19.0 | |
| BRG | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,1.2s | | | | | | | |
| BRG | | | | pmax | pmax | | | |
| | comp=Z,26nm,1.6s | | | | | | | |
| **ABTA** | **Abfaltersbach** | **46.34** | **310** | *i* P | | **P** | **05 48 14.0** | **-1.4** |
| | comp=Z,9.5nm,1.1s | | | | | | | |
| **CLL** | **Collm** | **46.64** | **316** | *e*P | | **P** | **05 48 17.7** | **+0.1** |
| CLL | | | | pmax | pmax | | | |
| | comp=Z,6.0nm,1.1s | | | | | | | |
| **CLL** | **Collm** | **46.64** | **316** | *e*P | | **P** | **05 48 16.0** | **-1.6** |
| CLL | | | | *e*PP | | **PP** | **05 50 09.0** | **+2.0** |
| **CLL** | **Collm** | **46.64** | **316** | *e*P | | **P** | **05 48 17.7** | **+0.1** |
| | comp=Z,6.0nm,1.1s | | | | | | | |
| **WATA** | **Walderalm** | **47.03** | **311** | *i* P | | **P** | **05 48 19.9** | **-1.0** |
| | comp=Z,2.4nm,0.6s | | | | | | | |
| **MOTA** | **Moosalm** | **47.35** | **311** | *i* P | | **P** | **05 48 21.4** | **-2.0** |
| | comp=Z,4.2nm,0.8s | | | | | | | |
| **FETA** | **Feichten** | **47.58** | **310** | *i* P | | **P** | **05 48 23.4** | **-1.7** |
| | comp=Z,5.2nm,0.9s | | | | | | | |
| **VLC** | **Villacollemand** | **47.67** | **306** | *e*P | | **P** | **05 48 25.5** | **-0.3** |
| | comp=Z,46nm,1.3s | | | | | | | |
| **FUORN** | **Ofenpass-Fuorn** | **47.87** | **309** | *e*P | | **P** | **05 48 26.9** | **-0.7** |
| | comp=Z,13nm,1.4s | | | | | | | |
| **MRIV** | **Mauritius Mete** | **47.95** | **191** | *e*P | | **P** | **05 48 28.6** | **+0.6** |
| **DAVOX** | **Davos/Dischmat** | **48.14** | **310** | P | | **P** | **05 48 30.6** | **+1.0** |
| | comp=Z,2.3nm,0.5s,baz=58,slow=9.5,SNR=2.6 | | | | | | | |
| **DAVA** | **Damuels** | **48.17** | **310** | *i* P | | **P** | **05 48 28.2** | **-1.6** |
| | comp=Z,6.0nm,0.8s | | | | | | | |
| **HFS** | **Hagfors** | **48.47** | **328** | P | | **P** | **05 48 31.0** | **-0.7** |
| | comp=Z,2.2nm,0.5s,baz=98,slow=5.1,SNR=11 | | | | | | | |
| **HFS** | **Hagfors** | **48.47** | **328** | P | | **P** | **05 48 31.0** | **-0.7** |
| **TUE** | **Stuetta** | **48.49** | **309** | *e*P | | **P** | **05 48 32.0** | **-0.3** |
| | comp=Z,13nm,1.0s | | | | | | | |
| **VSL** | **Villasalto** | **48.51** | **300** | *e*P | | **P** | **05 48 32.0** | **-0.3** |
| | comp=Z,212nm,2.0s | | | | | | | |
| **ARCES** | **ARCESS Array B** | **48.57** | **342** | P | | **P** | **05 48 33.4** | **+1.0** |
| | comp=Z,2.5nm,0.8s,baz=139,slow=7.6,SNR=7.5 | | | | | | | |
| ARCES | | | | LR | | LR | 06 11 11.9 | |
| | comp=Z,169nm,18.6s,baz=134,slow=39 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **48.57** | **342** | *e*P | | **P** | **05 48 33.6** | **+1.3** |
| **ARCES** | **ARCESS Array B** | **48.57** | **342** | *e*P | | **P** | **05 48 33.6** | **+1.3** |
| **ARE0** | **ARCESS Array S** | **48.57** | **342** | *e*P | | **P** | **05 48 33.0** | **+0.7** |
| | comp=Z,44nm,1.4s | | | | | | | |
| **STU** | **Stuttgart** | **48.74** | **312** | *e*P | | **P** | **05 48 33.7** | **-0.3** |
| STU | | | | pmax | pmax | | | |
| | comp=Z,27nm,1.4s | | | | | | | |
| **STU** | **Stuttgart** | **48.74** | **312** | *e*P | | **P** | **05 48 33.7** | **-0.3** |
| | comp=Z,27nm,1.4s | | | | | | | |
| **KEST** | **Kesra** | **48.86** | **295** | P | | **P** | **05 48 35.7** | **+0.6** |
| | comp=Z,5.8nm,0.8s,baz=30,slow=1.9,SNR=2.5 | | | | | | | |
| KEST | | | | LR | | LR | 06 14 45.4 | |
| | comp=Z,96nm,18.0s,baz=295,slow=43 | | | | | | | |
| **KEST** | **Kesra** | **48.86** | **295** | *e*P | | **P** | **05 48 34.6** | **-0.6** |
| | comp=Z,148nm,1.8s | | | | | | | |
| **TPUB** | **Ta-pu** | **48.87** | **82** | *e*P | | **P** | **05 48 36.2** | **+0.9** |
| | comp=Z,131nm,1.8s | | | | | | | |
| **RER** | **Riviere de l'E** | **49.12** | **193** | *e*P | | **P** | **05 48 37.3** | **+0.1** |
| | comp=Z,160nm,1.8s | | | | | | | |
| **KSM** | **Kuching** | **49.18** | **114** | *e*P | | **P** | **05 48 38.8** | **+1.0** |
| | comp=Z,16nm,1.2s | | | | | | | |
| **YULB** | **Yu-li** | **49.44** | **82** | *e*P | | **P** | **05 48 40.3** | **+0.7** |
| | comp=Z,40nm,1.4s | | | | | | | |
| **NACB** | **Ninganchiao** | **49.48** | **80** | *e*P | | **P** | **05 48 40.9** | **+0.9** |
| | comp=Z,38nm,1.1s | | | | | | | |
| **NC602** | **NORSAR Array S** | **49.67** | **328** | *e*P | | **P** | **05 48 40.7** | **-0.2** |
| **NC405** | **NORSAR Array S** | **49.70** | **329** | *e*P | | **P** | **05 48 40.1** | **-1.0** |
| **NB201** | **NORSAR Array S** | **49.88** | **329** | *e*P | | **P** | **05 48 43.9** | **+1.4** |
| **SENIN** | **Lac Senin/Sane** | **49.91** | **309** | *e*P | | **P** | **05 48 43.2** | **+0.1** |
| | comp=Z,21nm,1.6s | | | | | | | |
| **NB2** | **NORSAR Subarra** | **49.91** | **329** | P | | **P** | **05 48 40.3** | **-2.5** |
| | comp=Z,2.6nm,0.7s,baz=110,slow=7.4 | | | | | | | |
| **NOA** | **NORSAR Array B** | **49.91** | **329** | P | | **P** | **05 48 41.2** | **-1.6** |
| | comp=Z,1.6nm,0.7s,baz=109,slow=7.4,SNR=6.7 | | | | | | | |
| NOA | | | | LR | | LR | 06 13 03.7 | |
| | comp=Z,81nm,19.5s,baz=125,slow=40 | | | | | | | |
| **ECH** | **Echery** | **50.06** | **311** | *e*P | | **P** | **05 48 43.5** | **-0.6** |
| ECH | | | | pmax | pmax | | | |
| | comp=Z,19nm,1.4s | | | | | | | |
| **ECH** | **Echery** | **50.06** | **311** | *e*P | | **P** | **05 48 43.5** | **-0.6** |
| | comp=Z,19nm,1.4s | | | | | | | |
| **BNI** | **Bardonecchia** | **50.33** | **307** | *e*P | | **P** | **05 48 45.4** | **-0.9** |
| BNI | | | | pmax | pmax | | | |
| | comp=Z,16nm,1.1s | | | | | | | |
| **BNI** | **Bardonecchia** | **50.33** | **307** | *e*P | | **P** | **05 48 45.4** | **-0.9** |
| | comp=Z,16nm,1.1s | | | | | | | |
| **YOJ** | **Yonaguni jima** | **50.65** | **80** | *e*P | | **P** | **05 48 49.4** | **+0.6** |
| **YOJ** | **Yonaguni jima** | **50.65** | **80** | *e*P | | **P** | **05 48 49.4** | **+0.6** |
| | comp=Z,164nm,1.1s | | | | | | | |
| **WLF** | **Walferdange** | **50.80** | **313** | *e*P | | **P** | **05 48 49.5** | **-0.1** |
| WLF | | | | pmax | pmax | | | |
| | comp=Z,25nm,1.3s | | | | | | | |
| **WLF** | **Walferdange** | **50.80** | **313** | *e*P | | **P** | **05 48 49.5** | **-0.1** |
| | comp=Z,25nm,1.3s | | | | | | | |
| **INCN** | **Inchon** | **51.15** | **62** | *e*P | | **P** | **05 48 54.2** | **+1.8** |
| | comp=Z,19nm,0.4s | | | | | | | |
| **KKM** | **Kota Kinabalu** | **51.71** | **105** | *e*P | | **P** | **05 48 57.9** | **+0.9** |
| | comp=Z,61nm,1.6s | | | | | | | |
| **KSAR** | **Wonju Array Be** | **52.15** | **62** | P | | **P** | **05 49 00.1** | **+0.2** |
| **KSAR** | **Wonju Array Be** | **52.15** | **62** | P | | **P** | **05 49 00.1** | **+0.2** |
| **KS01** | **Wonju Array Si** | **52.15** | **62** | *e*P | | **P** | **05 49 00.9** | **+1.0** |
| **KSRS** | **Korea Array** | **52.17** | **62** | P | | **P** | **05 49 00.1** | **0.0** |
| | comp=Z,5.1nm,0.7s,baz=268,slow=7.6,SNR=19 | | | | | | | |
| KSRS | | | | LR | | LR | 06 16 08.2 | |
| | comp=Z,82nm,18.2s,baz=270,slow=42 | | | | | | | |
| **CISI** | **Cisompet, Garu** | **52.88** | **125** | *e*P | | **P** | **05 49 06.1** | **+0.5** |
| | comp=Z,148nm,1.5s | | | | | | | |
| **YAK** | **Yakutsk** | **53.89** | **31** | P | | **P** | **05 49 13.5** | **+1.2** |
| | comp=Z,8.9nm,0.4s,baz=191,slow=3.4,SNR=2.7 | | | | | | | |
| **YAK** | **Yakutsk** | **53.89** | **31** | *e*P | | **P** | **05 49 16.4** | **+4.1** |
| YAK | | | | *e**PP | | sP | 05 49 24.9 | +9.1 |
| YAK | | | | *e* | | | 05 51 15.1 | |
| YAK | | | | *e*S | | **S** | **05 56 54.0** | **+6.5** |
| YAK | | | | *e* | | | 05 59 02.3 | |
| YAK | | | | pmax | pmax | | | |
| | comp=Z,12nm,0.9s | | | | | | | |
| YAK | | | | pmax | pmax | | | |
| | comp=N,3.0nm,1.2s | | | | | | | |
| YAK | | | | pmax | pmax | | | |
| | comp=E,4.0nm,1.3s | | | | | | | |
| YAK | | | | pmax | pmax | | | |
| | comp=Z,162nm,4.0s | | | | | | | |
| YAK | | | | pmax | pmax | | | |
| | comp=N,67nm,4.2s | | | | | | | |
| YAK | | | | pmax | pmax | | | |
| | comp=E,120nm,4.6s | | | | | | | |
| YAK | | | | smax | smax | | | |
| | comp=N,89nm,4.6s | | | | | | | |
| YAK | | | | smax | smax | | | |
| | comp=E,73nm,3.7s | | | | | | | |
| YAK | | | | MLR | MLR | | | |
| | comp=Z,124nm,16.0s | | | | | | | |
| YAK | | | | MLR | MLR | | | |
| | comp=E,52nm,17.0s | | | | | | | |
| **KLR** | **Kul'dur** | **54.08** | **47** | P | | **P** | **05 49 13.8** | **-0.1** |
| | comp=E,0.4nm,0.6s,baz=274,slow=8.3,SNR=12 | | | | | | | |
| KLR | | | | LR | | LR | 06 15 45.3 | |
| | comp=E,15nm,19.1s,baz=256,slow=40 | | | | | | | |
| **KLR** | **Kul'dur** | **54.08** | **47** | *i* P | | **P** | **05 49 14.8** | **+0.9** |
| **MYLDM** | **Lahad Datu** | **54.11** | **104** | *e*P | | **P** | **05 49 14.0** | **-0.6** |
| | comp=E,45nm,1.3s | | | | | | | |
| **SMRI** | **Semarang** | **54.50** | **122** | *e*P | | **P** | **05 49 17.3** | **-0.1** |
| | comp=E,291nm,1.8s | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **54.52** | **54** | LR | | LR | 06 16 47.5 | |
| | comp=E,213nm,18.0s,baz=279,slow=41 | | | | | | | |
| **TAM** | **Tamanrasset** | **54.92** | **280** | *e*P | | **P** | **05 49 20.4** | **-0.2** |
| **TAM** | **Tamanrasset** | **54.92** | **280** | *e*P | | **P** | **05 49 20.4** | **-0.2** |
| **TIXI** | **Tiksi** | **55.87** | **20** | *e*P | | **P** | **05 49 27.2** | **+0.7** |
| TIXI | | | | pmax | pmax | | | |
| | comp=Z,4.0nm,1.1s | | | | | | | |
| **ES19** | **SONSECA Array** | **58.65** | **302** | *e*P | | **P** | **05 49 46.5** | **-0.3** |
| **ESDC** | **Sonseca Array** | **58.71** | **302** | P | | **P** | **05 49 46.4** | **-0.8** |
| | comp=Z,1.9nm,1.0s,baz=67,slow=6.3,SNR=6.2 | | | | | | | |
| **TOA0** | **Torodi Ar. Sit** | **61.77** | **271** | *e*P | | **P** | **05 50 08.3** | **-0.1** |
| | comp=Z,6.2nm,1.0s | | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **61.77** | **271** | P | | **P** | **05 50 07.8** | **-0.6** |
| | comp=Z,3.6nm,0.7s,baz=60,slow=6.6,SNR=16 | | | | | | | |
| TORD | | | | LR | | LR | 06 20 07.3 | |
| | comp=Z,116nm,18.4s,baz=30,slow=39 | | | | | | | |
| **JHJ** | **Hachijo jima 2** | **62.55** | **65** | LR | | LR | 06 21 20.7 | |
| | comp=Z,438nm,20.7s,baz=7.0,slow=40 | | | | | | | |
| **SEY** | **Seymchan** | **64.38** | **30** | P | | **P** | **05 50 25.4** | **+0.4** |
| | comp=Z,3.1nm,0.7s,baz=256,slow=5.8,SNR=10 | | | | | | | |
| **SEY** | **Seymchan** | **64.38** | **30** | *ce*P | | **P** | **05 50 26.6** | **+1.6** |
| **KOWA** | **Kowa** | **66.31** | **275** | *e*P | | **P** | **05 50 37.9** | **-0.4** |
| | comp=Z,5.2nm,0.8s | | | | | | | |
| **BOSA** | **Boshof** | **68.07** | **219** | P | | **P** | **05 50 49.0** | **-0.3** |
| | comp=Z,1.7nm,0.7s,baz=59,slow=4.9,SNR=5.0 | | | | | | | |
| **BOSA** | **Boshof** | **68.07** | **219** | P | | **P** | **05 50 49.0** | **-0.3** |
| **BILL** | **Bilibino** | **68.70** | **23** | ⇑*e*P | | P | 05 50 57.8 | +5.2 |
| BILL | | | | *e* | | | 05 51 02.9 | |
| BILL | | | | *e* | | | 05 51 12.8 | |
| BILL | | | | | | | 05 53 28.0 | |
| BILL | | | | pmax | pmax | | | |
| | comp=Z,15nm,2.7s | | | | | | | |
| BILL | | | | MLR | MLR | | | |
| | comp=Z,304nm,20.0s | | | | | | | |
| **PETK** | **Petropavlovsk-** | **69.50** | **40** | LR | | LR | 06 23 50.9 | |
| | comp=Z,96nm,19.0s,baz=288,slow=38 | | | | | | | |
| **DBIC** | **Dimbokro** | **70.34** | **267** | P | | **P** | **05 51 03.4** | **-0.1** |
| | comp=Z,2.6nm,0.7s,baz=58,slow=5.8,SNR=4.2 | | | | | | | |
| DBIC | | | | LR | | LR | 06 23 45.1 | |
| | comp=Z,56nm,20.1s,baz=49,slow=38 | | | | | | | |
| **WRA** | **Warramunga Arr** | **80.72** | **118** | P | | **P** | **05 52 03.1** | **+0.2** |
| | comp=Z,1.1nm,0.7s,baz=319,slow=4.6,SNR=15 | | | | | | | |
| **WRAB** | **Tennant Creek** | **80.72** | **118** | *e*P | | **P** | **05 52 02.8** | **-0.2** |
| WRAB | | | | pmax | pmax | | | |
| | comp=Z,12nm,1.3s | | | | | | | |
| **WRAB** | **Tennant Creek** | **80.72** | **118** | *e*P | | **P** | **05 52 02.8** | **-0.2** |
| | comp=Z,12nm,1.3s | | | | | | | |
| **WB2** | **Warramunga Arr** | **80.72** | **118** | *e*P | | **P** | **05 52 02.8** | **-0.2** |
| | comp=Z,11nm,1.3s | | | | | | | |
| **COLD** | **Coldfoot** | **81.97** | **14** | *e*P | | **P** | **05 52 08.9** | **0.0** |
| | comp=Z,5.0nm,1.0s | | | | | | | |
| **IMAR** | **Indian Mountai** | **82.21** | **15** | *e*P | | **P** | **05 52 10.2** | **0.0** |
| **ASAR** | **Alice Springs** | **82.43** | **121** | P | | **P** | **05 52 12.4** | **+0.4** |
| | comp=Z,1.4nm,0.6s,baz=307,slow=5.2,SNR=17 | | | | | | | |
| **AS01** | **Alice Springs** | **82.46** | **121** | *e*P | | **P** | **05 52 13.0** | **+0.8** |
| **INK** | **Inuvik** | **83.69** | **7** | P | | **P** | **05 52 17.7** | **0.0** |
| | comp=Z,1.9nm,0.7s,baz=360,slow=7.9,SNR=13 | | | | | | | |
| **INK** | **Inuvik** | **83.69** | **7** | *e*P | | **P** | **05 52 18.0** | **+0.3** |
| | comp=Z,4.9nm,0.8s | | | | | | | |
| **MDM** | **Murphy Dome** | **84.33** | **14** | *e*P | | **P** | **05 52 21.6** | **+0.4** |
| | comp=Z,18nm,1.5s | | | | | | | |
| **BPAW** | **Bear Paw Mtn.** | **84.44** | **16** | *e*P | | **P** | **05 52 22.9** | **+1.2** |
| | comp=Z,30nm,2.0s | | | | | | | |
| **CAST** | **Castle Rocks** | **84.74** | **16** | *e*P | | **P** | **05 52 23.8** | **+0.5** |
| | comp=Z,6.7nm,0.8s | | | | | | | |
| **IL1** | **Eielson Array** | **84.78** | **14** | *e*P | | **P** | **05 52 23.6** | **+0.2** |
| **ILAR** | **Eielson Array** | **84.78** | **14** | P | | **P** | **05 52 23.6** | **+0.1** |
| | comp=Z,0.4nm,0.8s,baz=319,slow=4.0,SNR=4.4 | | | | | | | |
| ILAR | | | | LR | | LR | 06 35 04.9 | |
| | comp=Z,107nm,19.4s,baz=322,slow=39 | | | | | | | |
| **COEN** | **Coen** | **84.86** | **108** | *e*P | | **P** | **05 52 24.4** | **-0.2** |
| | comp=Z,45nm,1.8s | | | | | | | |
| **HDA** | **Harding Lake** | **85.08** | **14** | *e*P | | **P** | **05 52 26.2** | **+1.3** |
| | comp=Z,33nm,1.8s | | | | | | | |
| **BBOO** | **Buckleboo** | **89.06** | **128** | *e*P | | **P** | **05 52 44.3** | **-0.3** |
| | comp=Z,6.8nm,1.0s | | | | | | | |
| **YKA** | **Yellowknife Ar** | **90.67** | **0** | P | | **P** | **05 52 51.0** | **-0.7** |
| | comp=Z,0.5nm,0.8s,baz=353,slow=4.6,SNR=12 | | | | | | | |
| YKA | | | | LR | | LR | 06 39 01.5 | |
| | comp=Z,11nm,18.0s,baz=0.0,slow=39 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **90.67** | **0** | P | | **P** | **05 52 51.0** | **-0.7** |
| **YKA** | **Yellowknife Ar** | **90.67** | **0** | P | | **P** | **05 52 51.0** | **-0.7** |
| **STKA** | **Stephens Creek** | **92.55** | **125** | LR | | LR | 06 39 40.0 | |
| | comp=Z,28nm,18.1s,baz=14,slow=39 | | | | | | | |
| **HGTCO** | **Madrid Canyon** | **115.54** | **352** | *e*PKPdf | | **PKPdf** | **05 58 33.6** | **+1.5** |
| **TXAR** | **Lajitas Array** | **123.04** | **350** | PKP | | **PKPdf** | **05 58 48.6** | **+2.0** |
| | comp=Z,0.4nm,0.6s,baz=171,slow=1.7,SNR=5.3 | | | | | | | |

**IDC 31 05:42:27.7±8.7, 7°15S×128°74E, h303km±94km, mb3.2/1, mb1 3.1/4, mb1mx2.6/58, mbtmp3.7/4, Error ellipse: s-maj=79.5km s-min=67.4km az=111.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **FITZ** | **Fitzroy Crossi** | **11.30** | **195** | P | | Pn | 05 45 00.4 | -1.4 |
| | 0.1nm,0.3s,baz=67,slow=17,SNR=2.0 | | | | | | | |
| FITZ | | | | S | | S | 05 47 07.0 | -1.2 |
| | 0.1nm,0.3s,baz=295,slow=7.5,SNR=1.2 | | | | | | | |
| **WRA** | **Warramunga Arr** | **13.83** | **157** | P | | P | 05 45 30.6 | -1.3 |
| | 0.3nm,0.3s,baz=340,slow=11,SNR=15 | | | | | | | |
| WRA | | | | S | | S | 05 48 03.5 | -1.1 |
| | 0.1nm,0.3s,baz=61,slow=28,SNR=5.0 | | | | | | | |
| **ASAR** | **Alice Springs** | **17.16** | **164** | P | | P | 05 46 09.0 | +0.7 |
| | 0.4nm,0.3s,baz=343,slow=10.0,SNR=38 | | | | | | | |
| **STKA** | **Stephens Creek** | **27.37** | **156** | P | | P | 05 47 46.2 | +0.4 |
| | 1.2nm,0.8s,baz=328,slow=13,SNR=3.7 | | | | | | | |

*CSEM **31** 05:44:52.9±0.2, 38°90N×34°15E, h10km, ML2.1, Error ellipse: s-maj=4.3km s-min=3.4km az=36.0*
*DDA **31** 05:44:54.1, 39°00N×34°15E, h7km, Md2.3*

**ISK 31 05:44:52.3, 38°92N×34°16E, h5km, ML2.1, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res |
|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h m s | ISC |
| **SERE** | **Sereflikochisa** | **0.46** | **273** | *e*PG | | Pg | 05 45 01.8 | +0.6 |
| **SERE** | **Sereflikochisa** | **0.46** | **273** | *e*Pg | | Pg | 05 45 01.8 | +0.6 |
| **AVNS** | **Nevsehir-Avano** | **0.55** | **102** | *i* P | | Pb | 05 45 04.3 | -0.3 |
| AVNS | | | | *i* S | | Sn | 05 45 14.9 | -1.7 |
| **AVNS** | **Nevsehir-Avano** | **0.55** | **102** | P | | Pb | 05 45 04.3 | -0.2 |
| AVNS | | | | S | | Sn | 05 45 14.9 | -1.7 |
| **KAMT** | **Kaman** | **0.56** | **323** | *e*PG | | Pg | 05 45 03.6 | +0.4 |
| KAMT | | | | *e*SG | | Sb | 05 45 12.2 | -1.0 |
| **KAMT** | **Kaman** | **0.56** | **323** | *e*Pg | | Pg | 05 45 03.6 | +0.4 |
| KAMT | | | | *e*Sg | | Sb | 05 45 12.2 | -1.0 |
| **GULA** | **Gulagac** | **0.58** | **174** | *e*PG | | Pg | 05 45 04.0 | +0.5 |
| **GULA** | **Gulagac** | **0.58** | **174** | *e*Pg | | Pg | 05 45 04.0 | +0.6 |
| **CDAG** | **Cicekdag** | **0.72** | **13** | *i* S | | Sb | 05 45 18.2 | +0.5 |
| **CDAG** | **Cicekdag** | **0.72** | **13** | S | | Sb | 05 45 18.2 | +0.5 |
| **SULT** | **Sultanhani-AKS** | **0.88** | **215** | *e*PG | | Pb | 05 45 09.8 | -0.3 |
| **SULT** | **Sultanhani-AKS** | **0.88** | **215** | *e*Pg | | Pb | 05 45 09.8 | -0.3 |
| **AFSR** | **Af¯ar-Bala (A** | **0.99** | **302** | *e*PG | | Pb | 05 45 11.9 | -0.2 |
| AFSR | | | | *e*SG | | Sb | 05 45 26.2 | +0.7 |
| **AFSR** | **Af¯ar-Bala (A** | **0.99** | **302** | *e*Pg | | Pb | 05 45 11.9 | -0.2 |
| AFSR | | | | *e*Sg | | Sb | 05 45 26.2 | +0.7 |
| **KKUL** | **Konya-Kulu** | **1.00** | **285** | *i* P | | Pb | 05 45 12.4 | +0.3 |
| KKUL | | | | *i* S | | Sn | 05 45 26.8 | -0.8 |
| **KKUL** | **Konya-Kulu** | **1.00** | **285** | P | | Pb | 05 45 12.4 | +0.3 |
| KKUL | | | | S | | Sn | 05 45 26.8 | -0.7 |
| **BBAL** | **Bala** | **1.01** | **308** | *i* P | | Pb | 05 45 12.2 | -0.2 |
| BBAL | | | | *i* S | | Sn | 05 45 27.5 | -0.6 |
| **BBAL** | **Bala** | **1.01** | **308** | P | | Pb | 05 45 12.2 | -0.2 |
| BBAL | | | | S | | Sn | 05 45 27.5 | -0.5 |
| **CHBY** | **Cihanbeyli** | **1.04** | **252** | *e*PG | | Pb | 05 45 12.7 | -0.2 |
| **CHBY** | **Cihanbeyli** | **1.04** | **252** | *e*Pg | | Pb | 05 45 12.7 | -0.2 |
| **YOZ** | **Yozgat** | **1.16** | **51** | *e*PN | | Pn | 05 45 15.1 | -0.2 |
| **YOZ** | **Yozgat** | **1.16** | **51** | *e*Pn | | Pn | 05 45 15.1 | -0.2 |

**ROM 31 05:45:06.4±0.2, 43°93N×11°84E, h10km±1km, Md1.7/3, Error ellipse: s-maj=1.7km s-min=0.2km az=99.0, Central Italy**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | Res

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **ILAR** | **Eielson Array** | **49.67** | **32** | P | **P** | **05 57 28.2** | **+1.1** |
| | comp=Z,0.5nm,0.8s,baz=263,slow=4.9,SNR=4.7 | | | | | | |
| **INK** | **Inuvik** | **54.55** | **27** | P | **P** | **05 58 04.2** | **+0.9** |
| | comp=Z,1.0nm,0.7s,baz=292,slow=4.4,SNR=3.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **56.96** | **188** | P | **P** | **05 58 20.4** | **-0.7** |
| | comp=Z,0.4nm,0.5s,baz=4.3,slow=7.4,SNR=11 | | | | | | |
| **ASAR** | **Alice Springs** | **60.69** | **188** | P | **P** | **05 58 47.9** | **+0.9** |
| | comp=Z,0.2nm,0.6s,baz=10,slow=7.6,SNR=3.8 | | | | | | |
| **YKA** | **Yellowknife Ar** | **63.98** | **30** | P | **P** | **05 59 09.3** | **+0.8** |
| | comp=Z,0.2nm,0.6s,baz=303,slow=6.4,SNR=5.0 | | | | | | |
| **FINES** | **FINESS Array B** | **68.79** | **332** | P | **P** | **05 59 38.5** | **-0.8** |
| | comp=Z,2.8nm,1.0s,baz=35,slow=7.6,SNR=4.5 | | | | | | |
| **AKASG** | **Malin Array Be** | **74.23** | **322** | P | **P** | **06 00 10.8** | **-1.5** |
| | comp=Z,0.5nm,0.3s,baz=46,slow=6.6,SNR=6.2 | | | | | | |

*IDC **31** 05:59:16.5±0.9,51°.16N×160°.63E, h0km, mb3.4/7, mb1 3.7/8, mb1mx3.4/41, mbtmp3.4/8, ML2.5/1, MS2.9/2, Ms1 2.9/2, ms1mx2.6/33, Error ellipse: s-maj=25.1km s-min=20.9km az=171.0*

*KRSC **31** 05:59:17.4±2.4,51°.20N×160°.83E, h79km±37km, ML4.0*

*ISCJB **31** 05:59:19.5±0.5,51°.23N±0°.03×160°.83E±0°.05, h35km, mb3.4/7, MS3.6/1, Error ellipse: s-maj=5.1km s-min=4.3km az=23.7*

*MOS **31** 05:59:19.9±1.1,51°.24N×160°.72E, h47km, mb4.2/1, Error ellipse: s-maj=12.1km s-min=4.4km az=102.3*

**ISC 31 05:59:19.5±1.1,51°.11N±0°.06×160°.93E±0°.05, h35km, n69, σ1871/108, mb3.5/7, 1C, Off east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **KDTR** | **Khodutka, Kamc** | **1.92** | **293** | *e*P | | **Pn** | **05 59 48.2** | **-1.4** |
| KDTR | | | | *e*S | | **Sn** | **06 00 09.6** | **-2.9** |
| **RUS** | **Russkaya** | **2.01** | **312** | PN | | **Pn** | **05 59 49.0** | **-1.8** |
| RUS | | | | S | | **Sn** | **06 00 11.8** | **-2.9** |
| **RUS** | **Russkaya** | **2.01** | **312** | *e*P | | **Pn** | **05 59 49.0** | **-1.8** |
| RUS | | | | *e*S | | **Sn** | **06 00 11.8** | **-2.9** |
| **SPN** | **Mys Shipunski** | **2.07** | **345** | PN | | **Pn** | **05 59 50.0** | **-1.7** |
| SPN | | | | S | | **Sn** | **06 00 12.3** | **-4.0** |
| **SPN** | **Mys Shipunski** | **2.07** | **345** | *e*P | | **Pn** | **05 59 50.0** | **-1.7** |
| SPN | | | | *e*S | | **Sn** | **06 00 12.3** | **-4.0** |
| **MTVR** | **Mutnovka** | **2.19** | **310** | PN | | **Pn** | **05 59 52.4** | **-1.2** |
| MTVR | | | | S | | **Sn** | **06 00 17.2** | **-2.3** |
| **MTVR** | **Mutnovka** | **2.19** | **310** | *e*P | | **Pn** | **05 59 52.4** | **-1.2** |
| MTVR | | | | *e*S | | **Sn** | **06 00 17.2** | **-2.3** |
| **ASAK** | **Asacha** | **2.28** | **305** | PN | | **Pn** | **05 59 53.8** | **-0.8** |
| ASAK | | | | S | | **Sn** | **06 00 20.7** | **-0.8** |
| **ASAK** | **Asacha** | **2.28** | **305** | *i* P | | **Pn** | **05 59 53.8** | **-0.8** |
| ASAK | | | | *e*S | | **Sn** | **06 00 20.7** | **-0.8** |
| **NLC** | **Nalytchevo** | **2.29** | **335** | PN | | **Pn** | **05 59 53.8** | **-0.9** |
| NLC | | | | S | | **Sn** | **06 00 20.0** | **-1.6** |
| **NLC** | **Nalytchevo** | **2.29** | **335** | *e*P | | **Pn** | **05 59 53.8** | **-0.9** |
| NLC | | | | *e*S | | **Sn** | **06 00 20.0** | **-1.6** |
| **DALK** | **Dalny** | **2.35** | **326** | PN | | **Pn** | **05 59 54.3** | **-1.2** |
| DALK | | | | S | | **Sn** | **06 00 20.8** | **-2.3** |
| **DALK** | **Dalny** | **2.35** | **326** | *e*P | | **Pn** | **05 59 54.3** | **-1.2** |
| DALK | | | | *e*S | | **Sn** | **06 00 20.8** | **-2.3** |
| **PET** | **Petropavlovsk** | **2.38** | **325** | ⇑*e*PN | | **Pn** | **05 59 55.1** | **-0.9** |
| PET | | | | *e*S | | **Sn** | **06 00 20.9** | **-3.0** |
| PET | comp=Z,17nm,0.4s | | | pmax | pmax | | | |
| PET | comp=N,131nm,0.5s | | | smax | smax | | | |
| PET | comp=E,89nm,0.4s | | | smax | smax | | | |
| **PET** | **Petropavlovsk** | **2.38** | **325** | P | | **Pn** | **05 59 55.2** | **-0.8** |
| PET | | | | *i* S | | **Sn** | **06 00 21.5** | **-2.4** |
| **KRMR** | **Karymshinskiy** | **2.45** | **316** | PN | | **Pn** | **05 59 55.5** | **-1.4** |
| KRMR | | | | S | | **Sn** | **06 00 23.1** | **-2.4** |
| **KRMR** | **Karymshinskiy** | **2.45** | **316** | P | | **Pn** | **05 59 55.5** | **-1.4** |
| KRMR | | | | *e*S | | **Sn** | **06 00 23.1** | **-2.4** |
| **UGLR** | **Uglovaya** | **2.47** | **329** | PN | | **Pn** | **05 59 56.8** | **-0.6** |
| UGLR | | | | S | | **Sn** | **06 00 24.8** | **-1.6** |
| **UGLR** | **Uglovaya** | **2.47** | **329** | *e*P | | **Pn** | **05 59 56.8** | **-0.6** |
| UGLR | | | | *e*S | | **Sn** | **06 00 24.8** | **-1.6** |
| **SDLR** | **Sedlovina** | **2.51** | **331** | PN | | **Pn** | **05 59 57.1** | **-0.8** |
| SDLR | | | | S | | **Sn** | **06 00 25.4** | **-2.0** |
| **SDLR** | **Sedlovina** | **2.51** | **331** | *i* P | | **Pn** | **05 59 57.1** | **-0.8** |
| SDLR | | | | *e*S | | **Sn** | **06 00 25.4** | **-2.0** |
| **SMAR** | **Somma** | **2.53** | **330** | PN | | **Pn** | **05 59 57.6** | **-0.6** |
| **SMAR** | **Somma** | **2.53** | **330** | *e*P | | **Pn** | **05 59 57.6** | **-0.6** |
| **AVH** | **Avacha** | **2.55** | **329** | PN | | **Pn** | **05 59 58.4** | **0.0** |
| AVH | | | | S | | **Sn** | **06 00 28.3** | **+0.1** |
| **AVH** | **Avacha** | **2.55** | **329** | *e*P | | **Pn** | **05 59 58.4** | **0.0** |
| AVH | | | | *e*S | | **Sn** | **06 00 28.3** | **+0.1** |
| **KRER** | **Koryakskii** | **2.58** | **329** | PN | | **Pn** | **05 59 57.7** | **-1.2** |
| **KRER** | **Koryakskii** | **2.58** | **329** | *e*P | | **Pn** | **05 59 57.7** | **-1.2** |
| **KOK** | **Koryaka** | **2.60** | **328** | PN | | **Pn** | **05 59 59.4** | **+0.2** |
| KOK | | | | S | | **Sn** | **06 00 29.7** | **+0.1** |
| **KOK** | **Koryaka** | **2.60** | **328** | *e*P | | **Pn** | **05 59 59.4** | **+0.2** |
| KOK | | | | *e*S | | **Sn** | **06 00 29.7** | **+0.1** |
| **PAU** | **Pauzhetka** | **2.61** | **280** | PN | | **Pn** | **05 59 58.5** | **-0.7** |
| PAU | | | | S | | **Sn** | **06 00 28.5** | **-1.1** |
| **PAU** | **Pauzhetka** | **2.61** | **280** | *e*P | | **Pn** | **05 59 58.5** | **-0.7** |
| PAU | | | | *e*S | | **Sn** | **06 00 28.5** | **-1.1** |
| **KRX** | **Arik** | **2.66** | **329** | PN | | **Pn** | **06 00 00.0** | **+0.1** |
| KRX | | | | S | | **Sn** | **06 00 30.2** | **-0.7** |
| **KRX** | **Arik** | **2.66** | **329** | *i* P | | **Pn** | **06 00 00.0** | **+0.1** |
| KRX | | | | *e*S | | **Sn** | **06 00 30.2** | **-0.7** |
| **PETK** | **Petropavlovsk-** | **2.83** | **316** | Pn | | **Sn** | **06 00 00.9** | **-1.2** |
| PETK | comp=E,4.0nm,0.3s,baz=109,slow=15,SNR=25 | | | | | | | |
| PETK | comp=E,11nm,0.3s,baz=258,slow=22,SNR=17 | | | LR | | LR | 06 00 55.5 | |
| **APC** | **Apacha** | **2.96** | **309** | PN | | **Pn** | **06 00 03.8** | **-0.1** |
| APC | | | | S | | **Sn** | **06 00 37.2** | **-0.9** |
| **APC** | **Apacha** | **2.96** | **309** | *e*P | | **Pn** | **06 00 03.8** | **-0.1** |
| APC | | | | *e*S | | **Sn** | **06 00 37.2** | **-0.9** |
| **SKR** | **Severo-Kuril's** | **3.08** | **264** | *e*PN | | **Pn** | **06 00 04.2** | **-1.3** |
| SKR | | | | *e*S | | **Sn** | **06 00 37.5** | **-3.5** |
| SKR | comp=Z,51nm,0.9s | | | pmax | pmax | | | |
| SKR | comp=N,134nm,0.6s | | | smax | smax | | | |
| SKR | comp=E,140nm,1.3s | | | smax | smax | | | |
| **SKR** | **Severo-Kuril's** | **3.08** | **264** | *e*P | | **Pn** | **06 00 04.4** | **-1.1** |
| SKR | | | | *e*S | | **Sn** | **06 00 37.6** | **-3.5** |
| **GNL** | **Ganaly** | **3.17** | **326** | PN | | **Pn** | **06 00 07.1** | **+0.1** |
| GNL | | | | S | | **Sn** | **06 00 43.3** | **-0.3** |
| **GNL** | **Ganaly** | **3.17** | **326** | *e*P | | **Pn** | **06 00 07.1** | **+0.1** |
| GNL | | | | *e*S | | **Sn** | **06 00 43.3** | **-0.3** |
| **TUMD** | **Tumrok D** | **4.12** | **356** | *e*P | | **Pn** | **06 00 19.6** | **-0.2** |
| TUMD | | | | *e*S | | **Sn** | **06 01 02.8** | **-3.9** |
| **TUMR** | **Tumrok** | **4.21** | **354** | PN | | **Pn** | **06 00 21.8** | **+0.6** |
| **TUMR** | **Tumrok** | **4.21** | **354** | *i* P | | **Pn** | **06 00 21.8** | **+0.6** |
| **KMNR** | **Kamenistaya** | **4.68** | **355** | PN | | **Pn** | **06 00 28.8** | **+1.2** |
| **KMNR** | **Kamenistaya** | **4.68** | **355** | *e*P | | **Pn** | **06 00 28.8** | **+1.2** |
| **KOZ** | **Kozyrevsk** | **5.00** | **353** | PN | | **Pn** | **06 00 33.4** | **+1.4** |
| **KOZ** | **Kozyrevsk** | **5.00** | **353** | *e*P | | **Pn** | **06 00 33.4** | **+1.4** |
| **BKI** | **Bering** | **5.10** | **34** | PN | | **Pn** | **06 00 32.5** | **-0.8** |
| **BKI** | **Bering** | **5.10** | **34** | *e*P | | **Pn** | **06 00 32.5** | **-0.8** |
| BKI | | | | *e*S | | **Sn** | **06 01 25.3** | **-5.6** |
| **KLY** | **Klyuchi** | **5.22** | **358** | PN | | **Pn** | **06 00 36.3** | **+1.4** |
| **KLY** | **Klyuchi** | **5.22** | **358** | *e*P | | **Pn** | **06 00 36.3** | **+1.4** |
| **KBTR** | **Krutoberegovo** | **5.23** | **12** | PN | | **Pn** | **06 00 34.5** | **-0.6** |
| **KBTR** | **Krutoberegovo** | **5.23** | **12** | *i* P | | **Pn** | **06 00 34.5** | **-0.6** |
| KBTR | | | | S | | **Sn** | **06 01 28.8** | **-5.4** |
| **KBG** | **Krutoberegovo** | **5.26** | **11** | PN | | **Pn** | **06 00 35.0** | **-0.5** |
| **KBG** | **Krutoberegovo** | **5.26** | **11** | *e*P | | **Pn** | **06 00 35.0** | **-0.5** |
| KBG | | | | *e*S | | **Sn** | **06 01 32.8** | **-2.1** |
| **BDR** | **Baidarnaya** | **5.47** | **2** | PN | | **Pn** | **06 00 39.5** | **+1.0** |
| **BDR** | **Baidarnaya** | **5.47** | **2** | *e*P | | **Pn** | **06 00 39.5** | **+1.0** |
| **SMKR** | **Semkarok** | **5.50** | **3** | PN | | **Pn** | **06 00 40.0** | **+1.2** |
| SMKR | | | | S | | **Sn** | **06 01 39.8** | **-0.9** |
| **SMKR** | **Semkarok** | **5.50** | **3** | *e*P | | **Pn** | **06 00 40.0** | **+1.2** |
| SMKR | | | | *e*S | | **Sn** | **06 01 39.8** | **-0.9** |
| **SRKR** | **Sorokina** | **5.56** | **1** | PN | | **Pn** | **06 00 40.3** | **+0.6** |
| SRKR | | | | S | | **Sn** | **06 01 41.5** | **-0.8** |
| **SRKR** | **Sorokina** | **5.56** | **1** | *e*P | | **Pn** | **06 00 40.3** | **+0.6** |
| SRKR | | | | *e*S | | **Sn** | **06 01 41.5** | **-0.8** |
| **TIXI** | **Tiksi** | **25.11** | **337** | LR | | LR | 06 15 32.3 | |
| | comp=E,171nm,19.9s,baz=234,slow=39 | | | | | | | |
| **YKA** | **Yellowknife Ar** | **44.30** | **41** | P | | **P** | **06 07 27.4** | **+2.1** |
| | comp=E,0.2nm,0.7s,baz=298,slow=8.3,SNR=3.9 | | | | | | | |
| **MKAR** | **Makanchi Array** | **49.51** | **298** | P | | **P** | **06 08 06.9** | **+0.6** |
| | comp=E,0.1nm,0.4s,baz=47,slow=6.7,SNR=2.9 | | | | | | | |
| **NVAR** | **Mina Array Bea** | **55.95** | **69** | P | | P | 06 08 57.9 | +3.6 |
| | comp=E,0.4nm,0.5s,baz=311,slow=8.2,SNR=2.4 | | | | | | | |
| **PDAR** | **Pinedale Array** | **58.05** | **60** | P | | P | 06 09 12.8 | +3.7 |
| | comp=E,0.4nm,0.7s,baz=297,slow=6.0,SNR=4.9 | | | | | | | |
| **TXAR** | **Lajitas Array** | **70.94** | **67** | P | | P | 06 10 36.4 | +3.1 |
| | comp=E,0.3nm,0.6s,baz=296,slow=3.9,SNR=5.3 | | | | | | | |
| **WRA** | **Warramunga Arr** | **74.51** | **206** | P | | **P** | **06 10 56.1** | **+1.9** |
| | comp=E,0.5nm,0.8s,baz=22,slow=6.2,SNR=5.4 | | | | | | | |
| **ASAR** | **Alice Springs** | **78.17** | **205** | P | | P | 06 11 17.6 | +2.6 |
| | comp=E,0.2nm,0.5s,baz=16,slow=5.0,SNR=4.5 | | | | | | | |

*DDA **31** 06:03:43.0,38°.89N×34°.12E, h7km, Ml3.4*

*ISK **31** 06:03:42.4,38°.92N×34°.12E, h4km, ML3.2*

*CSEM **31** 06:03:43.0±0.1,38°.92N×34°.14E, h5km, ML3.4, Error ellipse: s-maj=3.4km s-min=2.5km az=27.0*

**ISC 31 06:03:43.2±1.1,38°.91N±0°.02×34°.13E±0°.02, h5km±10km, n48, σ0956/67, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **AKSY** | **AKSARAY - Alti** | **0.39** | **228** | *i* P | | **Pg** | **06 03 50.6** | **-0.2** |
| AKSY | | | | *i* S | | **Sg** | **06 03 55.8** | **-0.1** |
| **AKSY** | **AKSARAY - Alti** | **0.39** | **228** | P | | **Pg** | **06 03 50.6** | **-0.2** |
| AKSY | | | | S | | **Sg** | **06 03 55.8** | **-0.1** |
| **SERE** | **Sereflikochisa** | **0.45** | **275** | *e*PG | | **Pg** | **06 03 51.8** | **0.0** |
| SERE | | | | *e*SG | | **Sg** | **06 03 58.1** | **+0.5** |
| **SERE** | **Sereflikochisa** | **0.45** | **275** | *e*Pg | | **Pg** | **06 03 51.8** | **0.0** |
| SERE | | | | *e*Sg | | **Sg** | **06 03 58.1** | **+0.5** |
| **KAMT** | **Kaman** | **0.56** | **325** | *e*PG | | **Pg** | **06 03 53.5** | **-0.5** |
| KAMT | | | | *e*SG | | **Sg** | **06 04 01.9** | **+0.5** |
| **KAMT** | **Kaman** | **0.56** | **325** | *e*Pg | | **Pg** | **06 03 53.5** | **-0.5** |
| KAMT | | | | *e*Sg | | **Sg** | **06 04 01.9** | **+0.5** |
| **AVNS** | **Nevsehir-Avano** | **0.57** | **100** | *i* P | | **Pg** | **06 03 54.2** | **+0.1** |
| AVNS | | | | *i* S | | **Sb** | **06 04 03.2** | **-0.9** |
| **AVNS** | **Nevsehir-Avano** | **0.57** | **100** | P | | **Pg** | **06 03 54.2** | **+0.1** |
| AVNS | | | | S | | **Sb** | **06 04 03.2** | **-0.9** |
| **GULA** | **Gulagac** | **0.57** | **172** | *e*PG | | **Pg** | **06 03 53.7** | **-0.5** |
| **GULA** | **Gulagac** | **0.57** | **172** | *e*Pg | | **Pg** | **06 03 53.7** | **-0.5** |
| **CDAG** | **Cicekdag** | **0.73** | **15** | *i* P | | **Pg** | **06 03 57.5** | **+0.2** |
| CDAG | | | | *i* S | | **Sb** | **06 04 08.1** | **-0.9** |
| **CDAG** | **Cicekdag** | **0.73** | **15** | P | | **Pg** | **06 03 57.5** | **+0.2** |
| CDAG | | | | S | | **Sb** | **06 04 08.1** | **-0.9** |
| **SULT** | **Sultanhani-AKS** | **0.86** | **214** | *e*PG | | **Pb** | **06 03 60.0** | **-0.7** |
| **SULT** | **Sultanhani-AKS** | **0.86** | **214** | *e*Pg | | **Pb** | **06 04 00.0** | **-0.7** |
| **NIG** | **Nigde** | **0.88** | **155** | *e*PG | | **Pg** | **06 04 00.5** | **+0.3** |
| **NIG** | **Nigde** | **0.88** | **155** | *e*Pg | | **Pg** | **06 04 00.5** | **+0.3** |
| **KKUL** | **Konya-Kulu** | **0.98** | **286** | *i* P | | **Pb** | **06 04 02.4** | **-0.4** |
| KKUL | | | | *i* S | | **Sb** | **06 04 16.5** | **+0.5** |
| **KKUL** | **Konya-Kulu** | **0.98** | **286** | P | | **Pb** | **06 04 02.3** | **-0.4** |
| KKUL | | | | S | | **Sb** | **06 04 16.5** | **+0.5** |
| **AFSR** | **Af˙ar-Bala (A** | **0.98** | **303** | *e*PG | | **Pg** | **06 04 01.8** | **-0.3** |
| **AFSR** | **Af˙ar-Bala (A** | **0.98** | **303** | *e*Pg | | **Pg** | **06 04 01.8** | **-0.3** |
| **BBAL** | **Bala** | **1.01** | **309** | *i* P | | **Pg** | **06 04 01.9** | **-0.6** |
| BBAL | | | | *i* S | | **Sb** | **06 04 17.0** | **+0.2** |
| **BBAL** | **Bala** | **1.01** | **309** | P | | **Pg** | **06 04 01.9** | **-0.6** |
| BBAL | | | | S | | **Sb** | **06 04 17.0** | **+0.2** |
| **CHBY** | **Cihanbeyli** | **1.02** | **252** | *e*PG | | **Pg** | **06 04 02.2** | **-0.7** |
| **CHBY** | **Cihanbeyli** | **1.02** | **252** | *e*Pg | | **Pg** | **06 04 02.2** | **-0.7** |
| **YOZ** | **Yozgat** | **1.17** | **51** | *e*PN | | **Pg** | **06 04 05.2** | **-0.4** |
| **YOZ** | **Yozgat** | **1.17** | **51** | *e*Pn | | **Pg** | **06 04 05.3** | **-0.4** |
| **YAHY** | **KAYSERI_Yahyal** | **1.26** | **130** | *i* P | | **Pg** | **06 04 06.6** | **-0.8** |
| YAHY | | | | *i* S | | **Sn** | **06 04 25.3** | **+0.3** |
| **YAHY** | **KAYSERI_Yahyal** | **1.26** | **130** | P | | **Pg** | **06 04 06.6** | **-0.8** |
| YAHY | | | | S | | **Sn** | **06 04 25.3** | **+0.3** |
| **BNN** | **Bunyan** | **1.34** | **92** | *e*PN | | **Pb** | **06 04 08.8** | **-0.1** |
| **BNN** | **Bunyan** | **1.34** | **92** | *e*Pn | | **Pb** | **06 04 08.8** | **-0.1** |
| **LOD** | **Lodumlu** | **1.44** | **313** | *e*PN | | **Pg** | **06 04 10.5** | **-0.3** |
| **LOD** | **Lodumlu** | **1.44** | **313** | *e*Pn | | **Pg** | **06 04 10.5** | **-0.3** |
| **KDHN** | **Kadinhani** | **1.62** | **257** | *i* P | | **Pn** | **06 04 12.5** | **0.0** |
| KDHN | | | | *i* S | | **Sg** | **06 04 36.0** | **+0.6** |
| **KDHN** | **Kadinhani** | **1.62** | **257** | P | | **Pn** | **06 04 12.5** | **0.0** |
| KDHN | | | | S | | **Sg** | **06 04 36.0** | **+0.6** |
| **KONT** | **Konya--Tatoy** | **1.69** | **236** | *e*PN | | **Pb** | **06 04 14.1** | **-0.7** |
| **KONT** | **Konya--Tatoy** | **1.69** | **236** | *i* P | | **Pb** | **06 04 14.5** | **-0.3** |
| KONT | | | | *i* S | | **Sg** | **06 04 39.7** | **+2.1** |
| **KONT** | **Konya--Tatoy** | **1.69** | **236** | *e*Pn | | **Pb** | **06 04 14.1** | **-0.7** |
| **KIZT** | **Kizilcal** | **1.76** | **270** | *e*PN | | **Pn** | **06 04 14.6** | **+0.2** |
| **KIZT** | **Kizilcal** | **1.76** | **270** | *e*Pn | | **Pn** | **06 04 14.6** | **+0.2** |
| **KARA** | **Karaisali** | **1.80** | **156** | *e*PN | | **Pn** | **06 04 15.6** | **+0.7** |
| **KARA** | **Karaisali** | **1.80** | **156** | *e*Pn | | **Pn** | **06 04 15.6** | **+0.7** |
| **SARI** | **SarD1z-Kayseri** | **1.86** | **105** | *e*PN | | **Pn** | **06 04 16.3** | **+0.4** |
| **KOZT** | **Kozan** | **1.96** | **136** | *e*PN | | **Pn** | **06 04 17.6** | **+0.6** |
| **KOZT** | **Kozan** | **1.96** | **136** | *e*Pn | | **Pn** | **06 04 17.6** | **+0.6** |
| **MERS** | **Mersin** | **2.06** | **171** | *e*PN | | **Pn** | **06 04 18.7** | **+0.1** |
| **MERS** | **Mersin** | **2.06** | **171** | *e*Pn | | **Pn** | **06 04 18.7** | **+0.1** |
| **SVRH** | **Sivrihisar-ESK** | **2.10** | **286** | *e*PN | | **Pn** | **06 04 19.2** | **+0.2** |
| **SVRH** | **Sivrihisar-ESK** | **2.10** | **286** | *e*Pn | | **Pn** | **06 04 19.3** | **+0.2** |

*IDC **31** 06:14:38.1±3.2, 1°.14S×126°.86E, h15km±20km, mb4.3/21, mb1 4.4/22, mb1mx4.2/50, mbtmp4.4/22, ML3.3/1, MS3.3/8, Ms1 3.3/8, ms1mx3.0/37, Error ellipse: s-maj=21.5km s-min=12.0km az=67.0*

*ISCJB **31** 06:14:39.3±0.2, 1°.15S±0°.04×126°.93E±0°.05, h34km, mb4.7/42, MS3.6/10, Error ellipse: s-maj=8.4km s-min=4.5km az=154.7*

*NEIC **31** 06:14:42.4±0.8, 1°.14S×126°.93E, h46km±8km, mb4.9/22, Error ellipse: s-maj=9.2km s-min=5.4km az=64.0*

*BJI **31** 06:14:42.0,0°.75S×126°.81E, h23km, mb4.6/36, mB5.0/28, Ms4.7/14, Ms7 4.5/14*

**ISC 31 06:14:41.7±0.4,1°.12S±0°.06×126°.86E±0°.07, h34km, n76, σ2509/84, mb4.7/42, MS3.6/10, 3C, Southern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **TNTI** | **Ternate** | **1.94** | **15** | *e*Pn | | **Pn** | **06 15 12.8** | **+0.5** |
| **LUWI** | **Luwuk** | **4.09** | **271** | *e*Pn | | **Pn** | **06 15 42.8** | **+0.9** |
| **FAKI** | **Fak Fak** | **5.68** | **108** | *e*Pn | | **Pn** | **06 16 03.1** | **-0.6** |
| FAKI | | | | *e*Sn | | **Sn** | **06 17 13.0** | **+5.3** |
| **DAV** | **Davao City (W)** | **8.23** | **351** | LR | | LR | 06 20 11.8 | |
| | comp=Z,206nm,19.2s,baz=140,slow=40 | | | | | | | |
| **SOEI** | **Soe** | **8.96** | **197** | *e*Pn | | Pn | 06 16 52.4 | +3.5 |
| **MYLDM** | **Lahad Datu** | **10.43** | **307** | *e*Pn | | **Pn** | **06 17 11.4** | **+2.4** |
| **MTN** | **Manton Dam** | **12.40** | **160** | *e*Pn | | **Pn** | **06 17 35.5** | **-0.4** |
| **KSM** | **Kuching** | **16.75** | **279** | *e*Pn | | **P** | **06 18 35.6** | **-0.2** |
| | 13nm,0.7s | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **16.92** | **184** | Pn | | **Pn** | **06 18 34.1** | **-1.9** |
| | 0.1nm,0.3s,baz=284,slow=7.2,SNR=3.4 | | | | | | | |
| FITZ | comp=Z,100nm,20.2s,baz=3.5,slow=39 | | | LR | | LR | 06 25 36.8 | |
| **WRAB** | **Tennant Creek** | **20.09** | **159** | *e*P | | **P** | **06 19 10.8** | **-1.8** |
| | 18nm,0.8s | | | | | | | |
| **WRA** | **Warramunga Arr** | **20.09** | **159** | P | | **P** | **06 19 10.5** | **-2.1** |
| | 12nm,0.8s,baz=339,slow=11,SNR=84 | | | | | | | |
| **WB2** | **Warramunga Arr** | **20.10** | **159** | *e*P | | **P** | **06 19 10.6** | **-2.0** |
| | 22nm,0.9s | | | | | | | |
| **COEN** | **Coen** | **20.57** | **129** | *e*P | | **P** | **06 19 17.6** | **-0.2** |
| | 70nm,0.8s | | | | | | | |
| **MBWA** | **Marble Bar** | **21.10** | **199** | *e*P | | **P** | **06 19 23.0** | **-0.5** |
| | 18nm,0.8s | | | | | | | |
| **PMG** | **Port Moresby** | **21.81** | **113** | P | | **P** | **06 19 29.5** | **-1.6** |
| | 26nm,0.9s,baz=224,slow=14,SNR=2.6 | | | | | | | |
| **GUMO** | **Guam** | **23.07** | **50** | LR | | LR | 06 27 45.8 | |
| | comp=Z,46nm,19.7s,baz=242,slow=34 | | | | | | | |
| **AS31** | **Alice Springs** | **23.43** | **164** | *e*P | | **P** | **06 19 46.4** | **-1.7** |
| | 6.6nm,0.8s | | | | | | | |
| **ASAR** | **Alice Springs** | **23.44** | **164** | P | | **P** | **06 19 46.2** | **-1.9** |
| | 22nm,0.8s,baz=341,slow=9.1,SNR=234 | | | | | | | |
| **AS01** | **Alice Springs** | **23.45** | **163** | *e*P | | **P** | **06 19 46.6** | **-1.6** |
| **YULB** | **Yu-li** | **24.95** | **348** | *e*P | | **P** | **06 20 02.0** | **-0.1** |
| | 103nm,1.9s | | | | | | | |
| **QIZ** | **Qiongzhong** | **26.08** | **321** | P | | **P** | **06 20 12.5** | **+0.1** |
| QIZ | | | | S | | **S** | **06 24 44.0** | **+2.4** |
| **CTA** | **Charters Tower** | **26.75** | **136** | P | | **P** | **06 20 17.4** | **-1.0** |
| | 9.9nm,0.9s,baz=194,slow=6.3,SNR=3.1 | | | | | | | |
| **PSI** | **Prapat** | **28.20** | **278** | P | | **P** | **06 20 30.7** | **-1.0** |
| | 7.1nm,0.9s,baz=80,slow=9.5,SNR=4.2 | | | | | | | |
| **PSI** | **Prapat** | **28.20** | **278** | *e*P | | **P** | **06 20 30.7** | **-1.0** |
| | 11nm,1.1s | | | | | | | |
| **FORT** | **Forrest** | **29.52** | **178** | *e*P | | **P** | **06 20 42.6** | **-0.4** |
| | 141nm,0.7s | | | | | | | |
| **BBOO** | **Buckleboo** | **32.70** | **166** | *e*P | | **P** | **06 21 10.5** | **-0.5** |
| | 9.4nm,0.8s | | | | | | | |
| **STKA** | **Stephens Creek** | **33.61** | **157** | P | | **P** | **06 21 18.6** | **-0.5** |
| | 21nm,0.7s,baz=330,slow=8.6,SNR=65 | | | | | | | |
| **STKA** | **Stephens Creek** | **33.61** | **157** | *e*P | | **P** | **06 21 19.1** | **+0.1** |
| | 5.6nm,0.8s | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **33.64** | **307** | P | | **P** | **06 21 18.2** | **-1.3** |
| | 0.5nm,0.3s,baz=134,slow=9.7,SNR=5.4 | | | | | | | |
| CMAR | 0.7nm,0.8s,baz=137,slow=2.8,SNR=4.9 | | | ScP | | **ScP** | **06 27 43.5** | **+1.9** |
| CMAR | comp=Z,22nm,18.7s,baz=140,slow=38 | | | LR | | LR | 06 35 41.5 | |
| **KMI** | **Kunming** | **35.01** | **320** | P | | **P** | **06 21 33.3** | **+1.8** |
| KMI | | | | pmax | pmax | | | |
| KMI | comp=Z,12nm,0.6s | | | pmax | pmax | | | |
| | comp=Z,210nm,5.1s | | | | | | | |
| **ARMA** | **Armidale** | **37.44** | **143** | *e*P | | **P** | **06 21 52.9** | **+0.8** |
| | 41nm,1.6s | | | | | | | |
| **KSAR** | **Wonju Array Be** | **38.38** | **1** | P | | **P** | **06 21 58.6** | **-1.0** |
| **KSRS** | **Korea Array** | **38.39** | **1** | P | | **P** | **06 21 58.6** | **-1.1** |
| | 3.5nm,0.8s,baz=178,slow=9.9,SNR=7.7 | | | | | | | |
| **CD2** | **Chengdu** | **38.69** | **327** | *e*P | | **P** | **06 22 03.5** | **+1.0** |
| CD2 | | | | pmax | pmax | | | |
| | comp=Z,10.0nm,1.0s | | | | | | | |
| **XAN** | **Xi'an** | **38.82** | **336** | P | | **P** | **06 22 02.5** | **-1.1** |
| XAN | | | | pP | pP | 06 22 11.0 | | -2.5 |
| XAN | | | | pmax | pmax | | | |
| | comp=Z,9.0nm,0.9s | | | | | | | |
| XAN | | | | pmax | pmax | | | |
| | comp=Z,51nm,3.5s | | | | | | | |
| **MJAR** | **Matsushiro Arr** | **38.92** | **15** | P | | **P** | **06 22 01.6** | **-2.7** |
| | 1.1nm,0.5s,baz=186,slow=9.4,SNR=10.0 | | | | | | | |
| MJAR | | | | LR | | LR | 06 37 31.3 | |
| | comp=Z,35nm,20.0s,baz=225,slow=35 | | | | | | | |
| **CAN** | **Canberra** | **39.79** | **151** | *e*P | | **P** | **06 22 12.6** | **+0.9** |
| | 49nm,1.7s | | | | | | | |
| **LZH** | **Lanzhou** | **42.77** | **332** | *e*P | | **P** | **06 22 39.3** | **+3.0** |
| LZH | | | | PP | | **PP** | **06 24 20.0** | **+4.0** |
| LZH | | | | *e*S | | **S** | **06 28 57.0** | **-1.2** |
| LZH | | | | pmax | pmax | | | |
| | comp=Z,47nm,1.3s | | | | | | | |
| LZH | | | | pmax | pmax | | | |
| | comp=Z,200nm,5.4s | | | | | | | |
| LZH | | | | LR | | LR | | |
| | comp=N,490nm,12.1s | | | | | | | |
| LZH | | | | LR | | LR | | |
| | comp=E,610nm,14.0s | | | | | | | |
| LZH | | | | LR | | LR | | |
| | comp=Z,790nm,14.8s | | | | | | | |
| **HHC** | **Hu-ho-hao-te** | **44.03** | **343** | *e*P | | **P** | **06 22 48.3** | **+2.0** |
| HHC | | | | ScP | | **ScP** | **06 28 22.0** | **+1.1** |
| HHC | | | | S | | **S** | **06 29 19.5** | **+3.1** |
| HHC | | | | SS | | **SS** | **06 32 28.0** | **-6.3** |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,15nm,1.6s | | | | | | | |
| HHC | | | | pmax | pmax | | | |
| | comp=Z,53nm,5.5s | | | | | | | |
| HHC | | | | LR | | LR | | |
| | comp=N,70nm,13.6s | | | | | | | |
| HHC | | | | LR | | LR | | |
| | comp=E,160nm,14.8s | | | | | | | |
| HHC | | | | LR | | LR | | |
| | comp=Z,69nm,12.3s | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **45.35** | **5** | P | | **P** | **06 22 55.9** | **-0.7** |
| | 3.4nm,0.7s,baz=165,slow=6.5,SNR=7.5 | | | | | | | |
| **ASAJ** | **Asahikawa** | **47.18** | **15** | *e*P | | **P** | **06 23 11.1** | **+0.2** |
| | 58nm,1.9s | | | | | | | |
| **GTA** | **Gaotai** | **47.34** | **331** | ⇑P | | **P** | **06 23 12.5** | **0.0** |
| GTA | | | | pP | | pP | 06 23 20.8 | -1.9 |
| GTA | | | | sP | | sP | 06 23 25.0 | -1.7 |
| GTA | | | | S | | **S** | **06 30 03.0** | **-1.2** |
| GT

*s-min=9.2km az=10.5*
*IDC* ***31*** *06:17:11.1±0.8,52°.77S×28°.77E,h0km,mb3.8/7, mb1 4.0/7,mb1mx3.8/32,mbtmp3.8/7,MS3.3/10, Ms1 3.3/10,ms1mx3.2/29,Error ellipse: s-maj=28.3km s-min=21.5km az=65.0*
*NEIC* ***31*** *06:17:13.2±0.4,52°.95S×28°.42E,h10km,mb4.6/11,Error ellipse: s-maj=13.4km s-min=11.0km az=77.0*
**ISC 31 06:17:13.0±0.5,52°.97S±0.08×28°.5E±0.1,h10km,n45, σ1°17/40,mb4.1/15,MS3.4/10,2D,South of Africa**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRZF** | **Crozet Islands** | **16.41** | **76** | *e*Pn | **P** | **06 21 06.1** | **+0.1** |
| | 66nm,1.3s | | | | | | |
| **SYO** | **Syowa Base** | **16.91** | **166** | ‖*e*Pn | **Pn** | **06 21 07.5** | **-1.9** |
| **SYO** | **Syowa Base** | **16.91** | **166** | ‖*i*Pn | **Pn** | **06 21 09.0** | **-0.4** |
| **SUR** | **Sutherland** | **21.32** | **342** | P | **P** | **06 21 59.2** | **-0.9** |
| | 0.4nm,0.8s,baz=151,slow=14,SNR=5.9 | | | | | | |
| SUR | | | | LR | LR | 06 28 01.4 | |
| | comp=Z,11nm,21.4s,baz=141,slow=31 | | | | | | |
| **SUR** | **Sutherland** | **21.32** | **342** | *e*P | **P** | **06 21 59.2** | **-0.9** |
| | 36nm,1.4s | | | | | | |
| **MAW** | **Mawson** | **22.04** | **145** | LR | LR | 06 30 24.7 | |
| | comp=Z,46nm,18.9s,baz=250,slow=36 | | | | | | |
| **MAW** | **Mawson** | **22.04** | **145** | *e*P | **P** | **06 22 06.5** | **-0.8** |
| | 2.4nm,0.4s | | | | | | |
| **SNAA** | **Sanae** | **23.24** | **205** | P | **P** | **06 22 20.3** | **+0.3** |
| **SNAA** | **Sanae** | **23.24** | **205** | P | **P** | **06 22 20.8** | **+0.7** |
| | 2.6nm,0.7s,baz=9.7,slow=22,SNR=7.5 | | | | | | |
| SNAA | | | | LR | LR | 06 29 11.0 | |
| | comp=Z,92nm,19.2s,baz=124,slow=31 | | | | | | |
| **SNAA** | **Sanae** | **23.24** | **205** | *e*P | **P** | **06 22 19.6** | **-0.5** |
| | 12nm,1.2s | | | | | | |
| **VNA2** | **Neumayer--Watz** | **24.06** | **208** | P | **P** | **06 22 27.3** | **-0.7** |
| | baz=50,slow=11 | | | | | | |
| **VNA1** | **Neumayer--Stat** | **24.18** | **209** | P | **P** | **06 22 29.9** | **+0.9** |
| **BOSA** | **Boshof** | **24.45** | **353** | LR | LR | 06 29 52.5 | |
| | comp=Z,106nm,21.3s,baz=198,slow=31 | | | | | | |
| **BOSA** | **Boshof** | **24.45** | **353** | *e*P | **P** | **06 22 31.7** | **-0.3** |
| | 4.9nm,1.1s | | | | | | |
| **VNA3** | **Neumayer Olymp** | **24.86** | **208** | P | **P** | **06 22 34.4** | **-0.9** |
| **QSPA** | **South Pole Qui** | **37.25** | **180** | *e*P | **P** | **06 24 24.0** | **-0.5** |
| | 6.6nm,0.9s | | | | | | |
| **VNDA** | **Vanda** | **46.60** | **167** | P | **P** | **06 25 41.2** | **+0.7** |
| | 1.1nm,0.6s,baz=254,slow=7.0,SNR=5.1 | | | | | | |
| VNDA | | | | LR | LR | 06 44 36.1 | |
| | comp=Z,47nm,21.0s,baz=248,slow=35 | | | | | | |
| **VNDA** | **Vanda** | **46.60** | **167** | *e*P | **P** | **06 25 41.2** | **+0.7** |
| VNDA | | | | *ep*P | **pP** | **06 25 41.5** | **-2.2** |
| **SBA** | **Scott Base** | **46.94** | **169** | *e*P | **P** | **06 25 43.7** | **+0.6** |
| | 8.1nm,1.1s | | | | | | |
| **KMBO** | **Kilima Mbogo** | **52.18** | **11** | LR | LR | 06 45 57.0 | |
| | comp=Z,36nm,18.8s,baz=85,slow=33 | | | | | | |
| **MSEY** | **Mahe Island** | **53.00** | **34** | *e*P | **P** | **06 26 30.4** | **+0.5** |
| | 44nm,1.3s | | | | | | |
| **DGAR** | **Diego Garcia** | **57.72** | **54** | *e*P | **P** | **06 27 06.0** | **+2.1** |
| | 252nm,0.8s | | | | | | |
| **PLCA** | **Paso Flores** | **63.56** | **237** | P | **P** | **06 27 45.8** | **+2.2** |
| | 1.5nm,0.9s,baz=112,slow=14,SNR=3.4 | | | | | | |
| **PLCA** | **Paso Flores** | **63.56** | **237** | *e*P | **P** | **06 27 45.8** | **+2.2** |
| | 8.4nm,1.5s | | | | | | |
| **DBIC** | **Dimbokro** | **65.81** | **323** | LR | LR | 06 50 33.4 | |
| | comp=Z,35nm,21.4s,baz=156,slow=30 | | | | | | |
| **CPUP** | **Villa Florida** | **67.01** | **256** | P | **P** | **06 28 07.0** | **+1.0** |
| | 1.6nm,0.9s,baz=164,slow=8.9,SNR=2.7 | | | | | | |
| CPUP | | | | LR | LR | 06 53 52.1 | |
| | comp=Z,21nm,19.7s,baz=124,slow=33 | | | | | | |
| **CPUP** | **Villa Florida** | **67.01** | **256** | *e*P | **P** | **06 28 07.0** | **+1.0** |
| | 5.3nm,1.4s | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **69.77** | **332** | P | **P** | **06 28 20.9** | **-2.3** |
| | 0.9nm,0.8s,baz=161,slow=5.8,SNR=3.5 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **69.78** | **332** | *e*P | **P** | **06 28 20.9** | **-2.3** |
| **ODZ** | **Otahua Downs** | **77.10** | **153** | *e*P | **P** | **06 29 06.5** | **+0.3** |
| **ASAR** | **Alice Springs** | **80.17** | **116** | P | **P** | **06 29 22.8** | **-0.7** |
| | 0.3nm,0.9s,baz=211,slow=5.2,SNR=3.4 | | | | | | |
| **AS01** | **Alice Springs** | **80.19** | **116** | *e*P | **P** | **06 29 24.2** | **+0.6** |
| **LPAZ** | **La Paz** | **81.10** | **255** | LR | LR | 07 00 14.5 | |
| | comp=Z,44nm,21.9s,baz=74,slow=32 | | | | | | |
| **WR1** | **Warramunga Arr** | **83.40** | **114** | *e*P | **P** | **06 29 40.4** | **-0.1** |
| | 11nm,1.5s | | | | | | |
| **WRA** | **Warramunga Arr** | **83.40** | **114** | P | **P** | **06 29 40.4** | **-0.1** |
| | 0.5nm,0.9s,baz=207,slow=8.3,SNR=2.6 | | | | | | |
| **URZ** | **Urewera** | **85.14** | **156** | LR | LR | 07 02 34.9 | |
| | comp=Z,41nm,21.4s,baz=169,slow=32 | | | | | | |
| **PARMO** | **Parma** | **134.74** | **275** | *e*PKPdf | **PKPdf** | **06 36 31.6** | **+0.4** |
| **WLAR** | **White Oak Lake** | **134.76** | **269** | *e*PKPdf | **PKPdf** | **06 36 30.9** | **-0.4** |
| **RWWY** | **Rawlins** | **148.44** | **267** | *e*PKPbc | **PKPab** | **06 37 01.6** | **-1.1** |
| **SZCU** | **Shurtz Canyon** | **149.35** | **255** | *e*PKPbc | **PKPbc** | **06 37 02.3** | **+0.5** |
| **JLU** | **Jordanelle** | **150.33** | **262** | *e*PKPbc | **PKPbc** | **06 37 04.1** | **0.0** |
| **PD31** | **Pinedale Array** | **150.48** | **267** | *e*PKPbc | **PKPbc** | **06 37 05.8** | **+1.5** |
| **PDAR** | **Pinedale Array** | **150.48** | **267** | PKPbc | **PKPbc** | **06 37 05.8** | **+1.5** |
| | 0.4nm,0.8s,baz=96,slow=3.6,SNR=3.0 | | | | | | |
| **NVAR** | **Mina Array Bea** | **152.94** | **251** | PKPbc | **PKPbc** | **06 37 10.8** | **+0.7** |
| | 0.1nm,0.3s,baz=132,slow=1.3,SNR=2.6 | | | | | | |
| **YKA** | **Yellowknife Ar** | **158.43** | **311** | PKPab | **PKPab** | **06 37 42.8** | **-1.2** |
| | 0.1nm,0.5s,baz=101,slow=3.3,SNR=2.6 | | | | | | |

**WEL 31 06:22:42.5±0.1,44°.00S×169°.67E,h5km,ML3.5/15,4C-3D, Error ellipse: s-maj=0.9km s-min=0.8km az=90.0,South Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FOZ** | **Fox Glacier** | **0.48** | **13** | ⇑PG | Pg | 06 22 51.9 | +0.3 |
| FOZ | | | | AML | AML | 06 22 52.0 | |
| FOZ | | | | AML | AML | 06 22 52.1 | |
| FOZ | | | | AML | AML | 06 22 52.1 | |
| FOZ | | | | AML | AML | 06 22 52.6 | |
| **LBZ** | **Lake Benmore** | **0.54** | **137** | ⇓PG | Pg | 06 22 53.4 | +0.7 |
| LBZ | | | | SG | Sg | 06 23 00.4 | +0.7 |
| LBZ | | | | AML | AML | 06 23 01.0 | |
| LBZ | | | | AML | AML | 06 23 01.5 | |
| LBZ | | | | AML | AML | 06 23 01.5 | |
| **JCZ** | **Jackson Bay** | **0.65** | **263** | ⇓P* | Pb | 06 22 55.7 | -0.6 |
| JCZ | | | | SG | Sg | 06 23 03.9 | +0.6 |
| JCZ | | | | AML | AML | 06 23 04.0 | |
| **WKZ** | **Wanaka** | **0.95** | **209** | ⇑P* | Pg | 06 23 00.3 | -0.4 |
| WKZ | | | | AML | AML | 06 23 18.6 | |
| WKZ | | | | AML | AML | 06 23 18.9 | |
| WKZ | | | | AML | AML | 06 23 19.0 | |
| WKZ | | | | AML | AML | 06 23 19.6 | |
| **RPZ** | **Rata Peaks** | **1.04** | **75** | ⇓P* | Pg | 06 23 02.3 | -0.1 |
| RPZ | | | | AML | AML | 06 23 20.7 | |
| RPZ | | | | AML | AML | 06 23 22.3 | |
| **WVZ** | **Waitaha Valley** | **1.20** | **40** | ⇑P* | Pg | 06 23 04.5 | -1.0 |
| WVZ | | | | AML | AML | 06 23 24.2 | |
| WVZ | | | | AML | AML | 06 23 25.3 | |
| **ODZ** | **Otahua Downs** | **1.26** | **147** | P* | Pg | 06 23 05.9 | -0.7 |
| ODZ | | | | AML | AML | 06 23 23.7 | |
| ODZ | | | | AML | AML | 06 23 23.7 | |
| ODZ | | | | AML | AML | 06 23 24.0 | |
| ODZ | | | | AML | AML | 06 23 24.3 | |
| **EAZ** | **Earnscleugh** | **1.26** | **192** | ⇑P* | Pg | 06 23 05.7 | -0.9 |
| EAZ | | | | AML | AML | 06 23 07.2 | |
| EAZ | | | | AML | AML | 06 23 07.2 | |
| EAZ | | | | AML | AML | 06 23 07.6 | |
| EAZ | | | | AML | AML | 06 23 07.6 | |
| **MSZ** | **Milford Sound** | **1.42** | **241** | PN | Pn | 06 23 08.9 | -0.1 |
| MSZ | | | | AML | AML | 06 23 30.6 | |
| MSZ | | | | AML | AML | 06 23 30.7 | |
| MSZ | | | | AML | AML | 06 23 31.5 | |
| MSZ | | | | AML | AML | 06 23 31.6 | |
| **MLZ** | **Mavora Lakes** | **1.76** | **218** | PN | Pn | 06 23 14.5 | +0.8 |
| MLZ | | | | AML | AML | 06 23 44.4 | |
| MLZ | | | | AML | AML | 06 23 47.8 | |
| **OXZ** | **Oxford** | **1.84** | **69** | PN | Pn | 06 23 14.6 | -0.2 |
| **TUZ** | **Tuapeka** | **1.96** | **181** | PN | Pn | 06 23 15.8 | -0.6 |
| TUZ | | | | AML | AML | 06 23 49.4 | |
| TUZ | | | | AML | AML | 06 23 50.5 | |
| **HHSZ** | **Highcliff Hill** | **2.00** | **161** | PN | Pb | 06 23 19.7 | +0.4 |
| **MQZ** | **McQueen's Vall** | **2.18** | **83** | PN | Pn | 06 23 18.7 | -0.6 |
| **LTZ** | **Lake Taylor** | **2.25** | **58** | PN | Pn | 06 23 21.4 | +1.0 |
| LTZ | | | | AML | AML | 06 24 03.7 | |
| **WHZ** | **Wether Hill Ro** | **2.26** | **212** | PN | Pn | 06 23 20.1 | -0.4 |
| WHZ | | | | AML | AML | 06 23 59.2 | |
| WHZ | | | | AML | AML | 06 24 01.2 | |
| **DCZ** | **Deep Cove** | **2.32** | **230** | PN | Pn | 06 23 21.5 | +0.2 |
| DCZ | | | | AML | AML | 06 23 56.1 | |
| DCZ | | | | AML | AML | 06 23 57.0 | |
| **SYZ** | **Scrubby Hill** | **2.57** | **188** | PN | Pn | 06 23 23.9 | -0.8 |
| **DSZ** | **Denniston Nort** | **2.74** | **36** | AML | AML | 06 24 08.2 | |
| DSZ | | | | AML | AML | 06 24 17.3 | |
| **APZ** | **The Paps** | **3.07** | **202** | PN | Pn | 06 23 30.9 | -0.8 |

*ISCJB* ***31*** *06:32:16.7±0.5,50°.27N±0°.04×18°.70E±0°.03,h0km,Error ellipse: s-maj=5.2km s-min=2.5km az=13.5*
*IPEC* ***31*** *06:32:17.5±0.2,50°.29N×18°.80E,h2km,2km,ML2.0/3, Error ellipse: s-maj=2.5km s-min=1.1km az=168.0*
*CSEM* ***31*** *06:32:17.7±0.3,50°.26N×18°.74E,h2km,ML2.8/6,Error ellipse: s-maj=6.8km s-min=3.1km az=8.0*
*WAR* ***31*** *06:32:18.2,50°.27N×18°.83E,h1km,Mw2.6*
**ISC 31 06:32:17.4±0.8,50°.19N±0°.04×18°.73E±0°.02,h0km,n34, σ0°.64/55,Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **OKC** | **Ostrava-Krasne** | **0.52** | **227** | *e*PG | **Pb** | **06 32 29.7** | **+0.3** |
| OKC | | | | *e*SG | **Sb** | **06 32 36.7** | **-0.7** |
| | comp=Z,22nm,0.2s | | | | | | |
| **OKC** | **Ostrava-Krasne** | **0.52** | **227** | Pg | **Pb** | **06 32 29.7** | **+0.3** |
| OKC | | | | Sg | **Sb** | **06 32 36.7** | **-0.7** |
| | 22nm,0.2s | | | | | | |
| **OJC** | **Ojcow** | **0.69** | **87** | *e*Pg | **Pg** | **06 32 30.0** | **-0.6** |
| OJC | | | | *e*Sg | **Sg** | **06 32 40.0** | **+0.5** |
| **OJC** | **Ojcow** | **0.69** | **87** | *e*Pg | **Pg** | **06 32 30.0** | **-0.6** |
| OJC | | | | *e*Sg | **Sg** | **06 32 40.0** | **+0.5** |
| **OJC** | **Ojcow** | **0.69** | **87** | *e*Pg | **Pg** | **06 32 30.0** | **-0.6** |
| OJC | | | | *e*Sg | **Sg** | **06 32 40.0** | **+0.5** |
| **MORC** | **Moravsky Berou** | **0.87** | **242** | *e*Pg | **Pb** | **06 32 35.7** | **+0.2** |
| MORC | | | | *e*Sg | **Sb** | **06 32 47.6** | **-0.1** |
| | 21nm,0.2s | | | | | | |
| **LANS** | **Liptovska Anna** | **1.15** | **155** | *e*Pg | **Pn** | **06 32 40.9** | **+0.1** |
| **LANS** | **Liptovska Anna** | **1.15** | **155** | *e*PG | **Pn** | **06 32 40.9** | **+0.1** |
| LANS | | | | *e*SG | **Sn** | **06 32 57.5** | **+0.3** |
| **KRLC** | **Kraliky** | **1.26** | **266** | *e*SG | **Sg** | **06 32 58.4** | **+0.5** |
| | comp=Z,3.8nm,0.3s | | | | | | |
| **KRLC** | **Kraliky** | **1.26** | **266** | Sg | **Sg** | **06 32 58.4** | **+0.5** |
| | 3.8nm,0.3s | | | | | | |
| **NIE** | **Niedzica** | **1.28** | **127** | *e*Pg | **Pb** | **06 32 42.3** | **-0.1** |
| NIE | | | | *e*Sg | **Sn** | **06 33 00.9** | **+0.5** |
| **NIE** | **Niedzica** | **1.28** | **127** | *e*Pg | **Pb** | **06 32 42.3** | **-0.1** |
| NIE | | | | *e*Sg | **Sn** | **06 33 00.9** | **+0.5** |
| **DPC** | **Dobruska-Polom** | **1.55** | **277** | *e*PG | **Pn** | **06 32 46.5** | **+0.1** |
| DPC | | | | *e*SG | **Sg** | **06 33 08.0** | **+0.7** |
| | comp=Z,14nm,0.3s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.55** | **277** | Pg | **Pn** | **06 32 46.5** | **+0.1** |
| DPC | | | | Sg | **Sg** | **06 33 08.0** | **+0.7** |
| | 14nm,0.3s | | | | | | |
| **VRAC** | **Vranov** | **1.64** | **238** | *e*Pn | **Pb** | **06 32 48.7** | **+0.1** |
| VRAC | | | | *e*Sg | **Sg** | **06 33 12.0** | **+1.8** |
| | 21nm,0.3s | | | | | | |
| **KSP** | **Ksiaz** | **1.69** | **294** | *e*Pg | **Pg** | **06 32 49.8** | **0.0** |
| KSP | | | | *e*Sg | **Sg** | **06 33 12.5** | **+0.9** |
| **KSP** | **Ksiaz** | **1.69** | **294** | *e*Pg | **Pg** | **06 32 49.8** | **0.0** |
| KSP | | | | *e*Sg | **Sg** | **06 33 12.5** | **+0.9** |
| **KSP** | **Ksiaz** | **1.69** | **294** | *e*Pg | **Pg** | **06 32 49.8** | **0.0** |
| KSP | | | | *e*Sg | **Sg** | **06 33 12.5** | **+0.9** |
| **VYHS** | **Vyhne** | **1.70** | **178** | *e*Pg | **Pn** | **06 32 48.7** | **+0.3** |
| VYHS | | | | *e*Sn | **Sb** | **06 33 11.3** | **-0.2** |
| **VYHS** | **Vyhne** | **1.70** | **178** | *e*PG | **Pn** | **06 32 48.7** | **+0.3** |
| VYHS | | | | *e*SN | **Sb** | **06 33 11.3** | **-0.2** |
| VYHS | | | | *e*LG | Lg | 06 33 13.8 | |
| **STHS** | **Stebnicka Huta** | **1.80** | **114** | *e*Pn | **Pb** | **06 32 51.4** | **+0.1** |
| STHS | | | | *e*Sn | **Sg** | **06 33 16.7** | **+1.4** |
| **STHS** | **Stebnicka Huta** | **1.80** | **114** | *e*PN | **Pb** | **06 32 51.4** | **+0.1** |
| STHS | | | | *e*SN | **Sg** | **06 33 16.7** | **+1.4** |
| STHS | | | | *e*LG | Lg | 06 33 22.6 | |
| **KRUC** | **Moravsky** | **1.89** | **234** | *e*Pn | **Pb** | **06 32 52.2** | **-0.6** |
| KRUC | | | | *e*Sg | **Sg** | **06 33 19.4** | **+1.2** |
| | 8.0nm,0.4s | | | | | | |
| **KECS** | **Kecovo** | **2.06** | **145** | *e*Sn | **Sn** | **06 33 18.8** | **-0.8** |
| **KECS** | **Kecovo** | **2.06** | **145** | *e*SN | **Sn** | **06 33 18.8** | **-0.8** |
| KECS | | | | *e*LG | Lg | 06 33 30.5 | |
| **CRVS** | **Cervenica-Dubn** | **2.20** | **125** | *e*Pn | **Pg** | **06 32 58.9** | **-0.6** |
| **CRVS** | **Cervenica-Dubn** | **2.20** | **125** | *e*PN | **Pg** | **06 32 58.9** | **-0.6** |
| **PVCC** | **Panska Ves** | **2.69** | **279** | *e*SG | **Sg** | **06 33 43.9** | **+0.2** |
| **PVCC** | **Panska Ves** | **2.69** | **279** | Sg | **Sg** | **06 33 43.9** | **+0.2** |
| **PRU** | **Pruhonice** | **2.71** | **267** | *e*SG | **Sg** | **06 33 43.4** | **-0.9** |
| **PRU** | **Pruhonice** | **2.71** | **267** | Sg | **Sg** | **06 33 43.4** | **-0.9** |
| **BRG** | **Berggiesshubel** | **3.13** | **284** | PG | **Pg** | **06 33 17.0** | **-0.4** |
| BRG | | | | SG | **Sg** | **06 33 57.8** | **-0.1** |
| | 3.6nm,0.5s | | | | | | |
| **KHC** | **Kasperske Hory** | **3.51** | **254** | *e*SG | **Sg** | **06 34 09.8** | **-0.4** |
| **KHC** | **Kasperske Hory** | **3.51** | **254** | Sg | **Sg** | **06 34 09.8** | **-0.4** |

**IDC 31 06:44:01.7±8.1,7°.65S×129°.44E,h83km±67km,mb3.5/1, mb1 3.8/4,mb1mx3.3/28,mbtmp3.9/4,ML3.9/3,Error ellipse: s-maj=60.5km s-min=55.2km az=21.0,Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **11.03** | **199** | P | Pn | 06 46 37.2 | +0.6 |
| | 0.3nm,0.3s,baz=1.4,slow=7.9,SNR=13 | | | | | | |
| FITZ | | | | S | Sn | 06 48 37.0 | -1.2 |
| | 1.3nm,0.3s,baz=85,slow=16,SNR=7.9 | | | | | | |
| **WRA** | **Warramunga Arr** | **13.11** | **159** | P | Pn | 06 47 03.4 | -1.3 |
| | 0.8nm,0.3s,baz=347,slow=13,SNR=41 | | | | | | |
| WRA | | | | S | Sn | 06 49 29.6 | +0.9 |
| | 1.2nm,0.3s,baz=332,slow=23,SNR=7.6 | | | | | | |
| **ASAR** | **Alice Springs** | **16.49** | **165** | P | Pn | 06 47 48.5 | +0.5 |
| | 0.7nm,0.3s,baz=338,slow=8.8,SNR=30 | | | | | | |
| ASAR | | | | S | Sn | 06 50 53.0 | +2.3 |
| | 0.4nm,0.3s,baz=316,slow=15,SNR=5.8 | | | | | | |
| **STKA** | **Stephens Creek** | **26.63** | **156** | P | P | 06 49 32.7 | +0.1 |
| | 0.4nm,0.3s,baz=317,slow=7.3,SNR=4.7 | | | | | | |

*CSEM* ***31*** *07:00:07.4±3.1,37°.14N×43°.42E,h2km,MD2.3,Error ellipse: s-maj=70.4km s-min=20.3km az=6.0*
*DDA* ***31*** *07:00:28.1,38°.45N×43°.09E,h7km,Md2.2*
**ISK 31 07:00:08.4,37°.21N×43°.49E,h5km,MD2.3,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CUKT** | **Cukurca** | **0.10** | **70** | *e*PG | Pg | 07 00 10.7 | +0.2 |
| CUKT | | | | *e*SG | Sg | 07 00 12.6 | +0.6 |
| **CUKT** | **Cukurca** | **0.10** | **70** | *e*Pg | Pg | 07 00 10.7 | +0.1 |
| CUKT | | | | *e*Sg | Sg | 07 00 12.6 | +0.6 |
| **GEVA** | **Gevas** | **1.15** | **343** | *i*P | Pg | 07 00 30.5 | +0.1 |
| GEVA | | | | *i*S | Sg | 07 00 33.8 | -12 |
| **GEVA** | **Gevas** | **1.15** | **343** | P | Pg | 07 00 30.5 | 0.0 |
| GEVA | | | | S | Sg | 07 00 33.8 | -12 |
| **TVAN** | **Van** | **1.31** | **357** | *i*P | Pg | 07 00 33.6 | 0.0 |
| **TVAN** | **Van** | **1.31** | **357** | P | Pg | 07 00 33.6 | 0.0 |
| **VANB** | **Van** | **1.38** | **357** | *e*PN | Pn | 07 00 34.2 | -0.2 |
| **VANB** | **Van** | **1.38** | **357** | *e*Pn | Pn | 07 00 34.2 | -0.3 |
| **ADCV** | **BITLIS_Adilcev** | **1.70** | **339** | *i*P | Pn | 07 00 37.3 | -1.7 |
| **ADCV** | **BITLIS_Adilcev** | **1.70** | **339** | P | Pn | 07 00 37.3 | -1.7 |
| **CLDR** | **Caldiran** | **1.96** | **10** | *e*PN | Pb | 07 00 44.3 | -0.3 |
| **CLDR** | **Caldiran** | **1.96** | **10** | *e*Pn | Pb | 07 00 44.3 | -0.3 |
| **AGRB** | **Hanur-Agry** | **2.39** | **351** | *e*PN | Pb | 07 00 50.4 | -1.7 |
| **AGRB** | **Hanur-Agry** | **2.39** | **351** | *e*Pn | Pb | 07 00 50.4 | -1.6 |

**IDC 31 07:22:53.5±7.6,2°.29N×125°.63E,h0km,mb3.3/3, mb1 3.5/3,mb1mx3.0/45,mbtmp3.3/3,Error ellipse: s-maj=177.2km s-min=118.8km az=71.0,Talaud Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WRA** | **Warramunga Arr** | **23.69** | **159** | P | P | 07 28 08.2 | +1.1 |
| | 0.1nm,0.3s,baz=337,slow=10,SNR=12 | | | | | | |
| **ASAR** | **Alice Springs** | **27.02** | **163** | P | P | 07 28 36.8 | -0.8 |
| | 0.2nm,0.4s,baz=350,slow=7.5,SNR=4.9 | | | | | | |
| **STKA** | **Stephens Creek** | **37.20** | **157** | P | P | 07 30 06.3 | -0.4 |
| | 0.4nm,0.3s,baz=338,slow=9.3,SNR=7.3 | | | | | | |

**IDC 31 07:31:20.1±3.5,53°.80N×90°.79E,h0km,mb1 3.2/2, mb1mx2.8/43,mbtmp3.2/2,ML2.5/2,Error ellipse: s-maj=29.2km s-min=24.0km az=48.0,Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **I46RU** | **ZALESOVO INFRA** | **3.54** | **275** | *i* | | 07 55 03.1 | |
| | baz=94,slow=333,SNR=0.8 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **3.54** | **275** | Pg | Pb | 07 32 22.8 | -0.8 |
| | 0.8nm,0.3s,baz=94,slow=15,SNR=15 | | | | | | |
| ZALV | | | | Lg | Lg | 07 33 12.9 | |
| | 0.9nm,0.3s,baz=101,slow=23,SNR=5.7 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **8.17** | **252** | Pn | Pn | 07 33 19.9 | 0.0 |
| | 0.1nm,0.3s,baz=65,slow=14,SNR=8.9 | | | | | | |
| KURBB | | | | Sn | Sn | 07 34 50.4 | -2.5 |
| | 0.0nm,0.3s,baz=69,slow=19,SNR=2.9 | | | | | | |
| KURBB | | | | Lg | Lg | 07 35 42.8 | |
| | 0.1nm,0.3s,baz=42,slow=54,SNR=6.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **8.87** | **221** | Pn | Pn | 07 33 30.2 | +0.7 |
| | 0.1nm,0.3s,baz=42,slow=13,SNR=6.4 | | | | | | |
| MKAR | | | | Sn | Sn | 07 35 09.8 | -0.3 |
| | 0.1nm,0.3s,baz=25,slow=23,SNR=3.6 | | | | | | |
| MKAR | | | | Lg | Lg | 07 36 00.1 | |
| | 0.1nm,0.3s,baz=19,slow=21,SNR=3.6 | | | | | | |

*IDC* ***31*** *07:31:51.9±1.0,6°.15S×129°.87E,h0km,mb3.8/5, mb1 3.9/7,mb1mx3.6/32,mbtmp3.8/7,ML3.7/2,Error ellipse: s-maj=50.8km s-min=19.4km az=72.0*
*ISCJB* ***31*** *07:32:04.7±1.1,6°.63S±0°.07×130°.0E±0°.2,h146km, mb3.5/4,Error ellipse: s-maj=24.6km s-min=9.8km az=175.0*
**ISC 31 07:32:05.8±1.1,6°.68S±0°.08×130°.0E±0°.2,h146km,n8, σ3°.35/10,mb3.6/4,Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **12.14** | **200** | Pn | **Pn** | **07 34 51.0** | **-3.0** |
| | 0.2nm,0.3s,baz=18,slow=9.7,SNR=11 | | | | | | |
| FITZ | | | | Sn | **Sn** | **07 37 07.5** | **-0.7** |
| | 0.8nm,0.3s,baz=55,slow=19,SNR=4.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **13.83** | **163** | Pn | **Pn** | **07 35 13.3** | **-2.5** |
| | 0.5nm,0.3s,baz=345,slow=13,SNR=26 | | | | | | |
| WRA | | | | Sn | **Sn** | **07 37 46.5** | **-2.5** |
| | 0.8nm,0.3s,baz=333,slow=22,SNR=7.7 | | | | | | |
| **ASAR** | **Alice Springs** | **17.29** | **168** | P | **Pn** | **07 36 01.4** | **+2.9** |
| | 0.4nm,0.3s,baz=350,slow=9.7,SNR=18 | | | | | | |
| ASAR | | | | S | **S** | **07 39 10.9** | **+0.4** |
| | 0.3nm,0.3s,baz=350,slow=28,SNR=4.7 | | | | | | |
| **CTA** | **Charters Tower** | **20.62** | **132** | P | Pn | 07 36 39.6 | +1.8 |
| | 4.4nm,0.9s,baz=319,slow=19,SNR=2.0 | | | | | | |
| **STKA** | **Stephens Creek** | **27.29** | **158** | P | **P** | **07 37 42.9** | **+6.2** |
| | 0.5nm,0.4s,baz=332,slow=14,SNR=5.4 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **43.67** | **10** | P | **P** | **07 39 53.5** | **-2.6** |
| | 1.7nm,0.9s,baz=194,slow=9.1,SNR=4.9 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.98** | **327** | P | **P** | **07 42 50.6** | **+1.5** |
| | 0.6nm,0.7s,baz=124,slow=7.9,SNR=6.1 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **71.32** | **334** | P | **P** | **07 43 09.7** | **+0.3** |
| | 0.6nm,0.5s,baz=125,slow=7.2,SNR=3.0 | | | | | | |

*ISK* ***31*** *07:42:06.2,38°.68N×43°.10E,h6km,ML2.8*
*ISCJB* ***31*** *07:42:07.7±0.4,38°.69N±0°.03×43°.12E±0°.03,h10km±4km, Error ellipse: s-maj=4.8km s-min=4.1km az=44.1*
*CSEM* ***31*** *07:42:07.3±0.2,38°.69N×43°.12E,h10km,ML2.8,Error ellipse: s-maj=4.9km s-min=4.1km az=122.0*
*DDA* ***31*** *07:42:07.8,38°.67N×43°.14E,h7km,Ml3.4*
**ISC 31 07:42:07.7±1.0,38°.68N±0°.02×43°.12E±0°.02,h10km±8km, n36,σ0°.94/55,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.23** | **112** | *e*PG | **Pg** | **07 42 12.4** | **-0.1** |
| VANB | | | | *e*SG | **Sg** | **07 42 17.2** | **+1.5** |
| **VANB** | **Van** | **0.23** | **112** | *e*Pg | **Pg** | **07 42 12.5** | **-0.1** |
| VANB | | | | *e*Sg | **Sg** | **07 42 17.3** | **+1.5** |
| **TVAN** | **Van** | **0.27** | **124** | *i*P | **Pg** | **07 42 12.2** | **-1.2** |
| TVAN | | | | *i*S | **Sg** | **07 42 17.3** | **+0.2** |
| **TVAN** | **Van** | **0.27** | **124** | P | **Pg** | **07 42 12.2** | **-1.2** |
| TVAN | | | | S | **Sg** | **07 42 17.3** | **+0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.33** | **293** | *i*P | **Pg** | **07 42 14.2** | **-0.2** |
| ADCV | | | | *i*S | **Sb** | **07 42 20.8** | **-0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.33** | **293** | P | **Pg** | **07 42 14.2** | **-0.2** |
| ADCV | | | | S | **Sb** | **07 42 20.8** | **-0.5** |
| **GEVA** | **Gevas** | **0.37** | **187** | *i*P | **Pg** | **07 42 14.1** | **-1.0** |
| GEVA | | | | *i*S | **Sb** | **07 42 21.2** | **-1.2** |
| **GEVA** | **Gevas** | **0.37** | **187** | P | **Pg** | **07 42 14.1** | **-1.0** |
| GEVA | | | | S | **Sb** | **07 42 21.2** | **-1.2** |
| **VMUR** | **Van-Muradiye** | **0.47** | **49** | *i*P | **Pg** | **07 42 16.6** | **-0.4** |
| VMUR | | | | *i*S | **Sb** | **07 42 24.9** | **-0.4** |
| **VMUR** | **Van-Muradiye** | **0.47** | **49** | P | **Pg** | **07 42 16.6** | **-0.4** |
| VMUR | | | | S | **Sb** | **07 42 24.9** | **-0.4** |
| **TUTA** | **Tutak** | **0.76** | **342** | *i*P | **Pg** | **07 42 20.8** | **-1.6** |
| TUTA | | | | *i*S | **Sb** | **07 42 33.2** | **-0.4** |
| **TUTA** | **Tutak** | **0.76** | **342** | P | **Pg** | **07 42 20.8** | **-1.6** |
| TUTA | | | | S | **Sb** | **07 42 33.2** | **-0.4** |
| **CLDR** | **Caldiran** | **0.78** | **53** | *e*PG | **Pg** | **07 42 21.5** | **-1.3** |
| CLDR | | | | *e*SG | **Sb** | **07 42 33.5** | **-0.7** |
| **CLDR** | **Caldiran** | **0.78** | **53** | *i*P | **Pg** | **07 42 22.2** | **-0.6** |
| CLDR | | | | *i*S | **Sb** | **07 42 34.3** | **+0.1** |
| **CLDR** | **Caldiran** | **0.78** | **

| | | | | | | |
|---|---|---|---|---|---|---|
| JOD2 | | | S | Sn | 07 48 23.3 | +0.3 |
| **JAG** | **Ashikaga** | **0.98 325** | P | Pn | 07 48 10.5 | -0.4 |
| JAG | | | S | Sn | 07 48 23.8 | -0.4 |
| **JIM2** | **Oshima 3** | **1.07 213** | P | Pn | 07 48 11.4 | -0.7 |
| JIM2 | | | S | Sn | 07 48 25.6 | -0.6 |
| **JRY** | **Ryogami san** | **1.09 292** | P | Pn | 07 48 12.8 | +0.5 |
| **MJAR** | **Matsushiro Arr** | **1.82 301** | Pg | Pn | 07 48 21.7 | -0.4 |
| | 8.0nm,0.3s,baz=268,slow=11,SNR=95 | | | | | |
| MJAR | | | Lg | Lg | 07 48 43.8 | |
| | 5.0nm,0.3s,baz=282,slow=23,SNR=4.0 | | | | | |
| MJAR | | | LR | LR | 07 49 06.5 | |
| | comp=Z,14nm,19.6s,baz=70,slow=45 | | | | | |
| **MAT** | **Matsushiro** | **1.82 301** | P | Pn | 07 48 22.6 | +0.5 |
| MAT | | | S | Sn | 07 48 44.5 | +0.3 |
| **JHJ** | **Hachijo jima 2** | **2.51 187** | Pn | Pn | 07 48 32.0 | +0.6 |
| | 26nm,0.3s,baz=109,slow=23,SNR=8.9 | | | | | |
| JHJ | | | Sn | Sn | 07 49 01.1 | +0.2 |
| | 15nm,0.3s,baz=66,slow=22,SNR=2.1 | | | | | |
| **WRA** | **Warramunga Arr** | **55.53 187** | P | P | 07 57 20.3 | -1.6 |
| | 0.4nm,0.6s,baz=1.1,slow=7.5,SNR=12 | | | | | |
| **ASAR** | **Alice Springs** | **59.25 187** | P | P | 07 57 49.8 | +1.7 |
| | 0.1nm,0.5s,baz=18,slow=12,SNR=7.3 | | | | | |

*ISCJB **31** 08:07:16.3±0.3,35°.40N±0'.01×96°.53W±0'.02,h5km±3km, Error ellipse: s-maj=2.1km s-min=1.8km az=174.8*
*NEIC **31** 08:07:17.0±0.0,35°.39N×96°.52W,h5km,ML3.6(TUL), After TUL.*
*NEIC Felt in the Claremore-McAlester-Oklahoma City area.*

**ISC 31 08:07:17.3±0.9,35°.41N±0'.01×96°.50W±0.02,h13km±7km, n158,σ1§46/209,1C,Oklahoma**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **OK022** | **N3560 Road, Pr** | **0.18** | **315** | *e*Pg | | **Pg** | **08 07 20.9** | **-0.6** |
| **OK021** | **N3530 Road, Sp** | **0.26** | **318** | *e*Pg | | **Pg** | **08 07 22.4** | **-0.4** |
| **OK020** | **N3440 Road, Me** | **0.33** | **293** | *e*Pg | | **Pg** | **08 07 23.5** | **-0.5** |
| OK020 | | | | *e*Sg | | **Sg** | **08 07 28.6** | **0.0** |
| **W36A** | **Wetumka** | **0.35** | **140** | P | | **Pg** | **08 07 24.1** | **-0.3** |
| | baz=316,SNR=144 | | | | | | | |
| W36A | | | | S | | **Sg** | **08 07 29.2** | **0.0** |
| | baz=316 | | | | | | | |
| **W36A** | **Wetumka** | **0.35** | **140** | *e*Pg | | **Pg** | **08 07 24.1** | **-0.3** |
| **W35A** | **Tecumseh** | **0.40** | **230** | P | | **Pg** | **08 07 24.3** | **-0.9** |
| | baz=49,SNR=313 | | | | | | | |
| W35A | | | | S | | **Sg** | **08 07 29.7** | **-0.8** |
| | baz=49 | | | | | | | |
| **W35A** | **Tecumseh** | **0.40** | **230** | *e*Pg | | **Pg** | **08 07 24.4** | **-0.9** |
| **V35A** | **Meyer Ranch, C** | **0.45** | **323** | P | | **Pg** | **08 07 25.8** | **-0.4** |
| | baz=146,SNR=722 | | | | | | | |
| V35A | | | | S | | **Sg** | **08 07 32.2** | **0.0** |
| | baz=146 | | | | | | | |
| **V35A** | **Meyer Ranch, C** | **0.45** | **323** | *e*Pg | | **Pg** | **08 07 25.9** | **-0.3** |
| **OK002** | **Wilshire Harra** | **0.58** | **284** | *e*Pg | | **Pg** | **08 07 28.6** | **-0.2** |
| OK002 | | | | *e*Sg | | **Sg** | **08 07 34.3** | **-2.1** |
| **V36A** | **Jenks** | **0.59** | **50** | P | | **Pg** | **08 07 28.9** | **0.0** |
| | baz=231,SNR=418 | | | | | | | |
| V36A | | | | S | | **Sg** | **08 07 37.2** | **+0.4** |
| | baz=231 | | | | | | | |
| **V36A** | **Jenks** | **0.59** | **50** | *e*Pg | | **Pg** | **08 07 28.9** | **0.0** |
| **TUL1** | **Leonard** | **0.77** | **49** | P | | **Pg** | **08 07 32.2** | **0.0** |
| | baz=230,SNR=340 | | | | | | | |
| TUL1 | | | | S | | **Sg** | **08 07 42.7** | **+0.4** |
| | baz=230 | | | | | | | |
| **TUL1** | **Leonard** | **0.77** | **49** | *e*Pg | | **Pg** | **08 07 31.8** | **-0.4** |
| **X36A** | **Centrahoma** | **0.84** | **171** | P | | **Pg** | **08 07 32.9** | **-0.8** |
| | baz=350,SNR=323 | | | | | | | |
| X36A | | | | S | | **Sg** | **08 07 44.3** | **-0.4** |
| | baz=350 | | | | | | | |
| **W37B** | **Quinton** | **0.92** | **107** | P | | **Pg** | **08 07 34.9** | **-0.1** |
| | baz=286,SNR=270 | | | | | | | |
| W37B | | | | S | | **Sb** | **08 07 47.6** | **+0.5** |
| | baz=286 | | | | | | | |
| **U35A** | **Pawnee** | **0.98** | **349** | P | | **Pg** | **08 07 35.3** | **-0.9** |
| | baz=171,SNR=745 | | | | | | | |
| U35A | | | | S | | **Sg** | **08 07 49.1** | **0.0** |
| | baz=171 | | | | | | | |
| **X35A** | **Drake** | **1.08** | **201** | P | | **Pb** | **08 07 36.5** | **-1.3** |
| | baz=20,SNR=818 | | | | | | | |
| X35A | | | | S | | **Sb** | **08 07 50.6** | **-1.1** |
| | baz=20 | | | | | | | |
| **U36A** | **Oologah** | **1.17** | **32** | Pb | | **Pb** | **08 07 39.2** | **-0.1** |
| | baz=213,SNR=62 | | | | | | | |
| U36A | | | | S | | **Sn** | **08 07 55.3** | **+0.2** |
| | baz=213 | | | | | | | |
| **V37A** | **Hulbert** | **1.21** | **66** | Pb | | **Pn** | **08 07 39.9** | **+0.1** |
| | baz=247,SNR=1000 | | | | | | | |
| V37A | | | | S | | **Sg** | **08 07 56.2** | **0.0** |
| | baz=247 | | | | | | | |
| **X37A** | **Clayton** | **1.24** | **131** | Pb | | **Pb** | **08 07 40.6** | **0.0** |
| | baz=310,SNR=164 | | | | | | | |
| X37A | | | | S | | **Sg** | **08 07 57.8** | **+0.6** |
| | baz=310 | | | | | | | |
| **X37A** | **Clayton** | **1.24** | **131** | *e*Pn | | **Pb** | **08 07 40.8** | **+0.3** |
| **U37A** | **Salina** | **1.50** | **48** | Pb | | **Pb** | **08 07 44.8** | **-0.2** |
| | baz=229,SNR=210 | | | | | | | |
| U37A | | | | Sb | | **Sg** | **08 08 05.5** | **-0.3** |
| | baz=229 | | | | | | | |
| **T35A** | **Sooner Cattle** | **1.51** | **360** | Pb | | **Pn** | **08 07 44.5** | **+0.5** |
| | baz=181,SNR=466 | | | | | | | |
| T35A | | | | Sb | | **Sg** | **08 08 05.3** | **-0.6** |
| | baz=181 | | | | | | | |
| **Y36A** | **Durant** | **1.52** | **173** | Pb | | **Pn** | **08 07 44.5** | **+0.4** |
| | baz=352,SNR=178 | | | | | | | |
| Y36A | | | | Sb | | **Sb** | **08 08 04.7** | **+0.3** |
| | baz=352 | | | | | | | |
| **X38A** | **Whitesboro** | **1.56** | **118** | Pb | | **Pb** | **08 07 46.0** | **0.0** |
| | baz=298,SNR=232 | | | | | | | |
| **Y35A** | **Marietta** | **1.56** | **197** | Pb | | **Pn** | **08 07 45.2** | **+0.4** |
| | baz=15,SNR=45 | | | | | | | |
| **Y37A** | **Hugo** | **1.60** | **153** | Pb | | **Pb** | **08 07 46.8** | **+0.1** |
| | baz=332,SNR=200 | | | | | | | |
| **W38A** | **Poteau** | **1.66** | **101** | Pb | | **Pb** | **08 07 47.8** | **+0.1** |
| | baz=282,SNR=224 | | | | | | | |
| **T34A** | **McClaskey Farm** | **1.70** | **341** | Pb | | **Pb** | **08 07 47.8** | **-0.7** |
| | baz=162,SNR=153 | | | | | | | |
| T34A | | | | Sb | | **Sb** | **08 08 11.0** | **+1.2** |
| | baz=162 | | | | | | | |
| **T36A** | **Boggs Farm, Ca** | **1.73** | **17** | Pb | | **Pb** | **08 07 48.5** | **-0.4** |
| | baz=198,SNR=707 | | | | | | | |
| T36A | | | | Sb | | **Sg** | **08 08 12.3** | **-0.6** |
| | baz=198 | | | | | | | |
| **V38A** | **Canehill** | **1.77** | **74** | Pb | | **Pb** | **08 07 49.0** | **-0.5** |
| | baz=256,SNR=511 | | | | | | | |
| V38A | | | | Sb | | **Sg** | **08 08 13.5** | **-0.7** |
| | baz=256 | | | | | | | |
| **WMOK** | **Wichita Mounta** | **1.98** | **251** | Pb | | **Pn** | **08 07 51.7** | **+1.1** |
| | baz=70,SNR=505 | | | | | | | |
| WMOK | | | | Sb | | **Sb** | **08 08 18.3** | **+0.3** |
| | baz=70 | | | | | | | |
| **WMOK** | **Wichita Mounta** | **1.98** | **251** | *e*Pn | | **Pn** | **08 07 51.8** | **+1.2** |
| WMOK | | | | *e*Sn | | **Sb** | **08 08 18.2** | **+0.3** |
| **U38A** | **Gravette** | **2.00** | **58** | Pb | | **Pb** | **08 07 52.7** | **-0.9** |
| | baz=240,SNR=168 | | | | | | | |
| U38A | | | | Sb | | **Sg** | **08 08 20.4** | **-1.3** |
| | baz=240 | | | | | | | |
| **Y38A** | **Idabel** | **2.08** | **135** | Pb | | **Pb** | **08 07 53.7** | **-1.1** |
| | baz=315,SNR=57 | | | | | | | |
| Y38A | | | | Sb | | **Sb** | **08 08 21.9** | **+1.3** |
| | baz=315 | | | | | | | |
| **Z36A** | **Blue Ridge** | **2.13** | **178** | Pb | | **Pn** | **08 07 54.2** | **+1.6** |
| | baz=358,SNR=49 | | | | | | | |
| Z36A | | | | Sb | | **Sb** | **08 08 22.9** | **+0.8** |
| | baz=358 | | | | | | | |
| **T37A** | **Cheneyville 18** | **2.14** | **36** | Pb | | **Pb** | **08 07 55.3** | **-0.6** |
| | baz=218,SNR=160 | | | | | | | |
| T37A | | | | Sb | | **Sb** | **08 08 23.8** | **+1.5** |
| | baz=218 | | | | | | | |
| **X39A** | **Fountain Ranch** | **2.16** | **114** | Pb | | **Pb** | **08 07 55.4** | **-0.8** |
| | baz=295,SNR=144 | | | | | | | |
| X39A | | | | Sb | | **Sb** | **08 08 24.5** | **+1.7** |
| | baz=295 | | | | | | | |
| **W39A** | **Magazine** | **2.23** | **95** | P | | **Pn** | **08 07 55.5** | **+1.5** |
| | baz=276,SNR=20 | | | | | | | |
| W39A | | | | Sb | | **Sb** | **08 08 27.0** | **+1.9** |
| | baz=276 | | | | | | | |
| **U32A** | **Winter Ranch,** | **2.25** | **296** | P | | **Pn** | **08 07 55.4** | **+1.1** |
| | baz=116 | | | | | | | |
| U32A | | | | Sb | | **Sb** | **08 08 26.7** | **+1.1** |
| | baz=116 | | | | | | | |
| **HHAR** | **Hobbs** | **2.26** | **67** | *e*Pn | | **Pn** | **08 07 55.8** | **+1.5** |
| HHAR | | | | *e*Sn | | **Sg** | **08 08 28.7** | **-1.2** |
| **S35A** | **Otter Creek Ra** | **2.27** | **4** | Pb | | **Pb** | **08 07 57.5** | **-0.7** |
| | baz=184,SNR=140 | | | | | | | |
| S35A | | | | Sb | | **Sb** | **08 08 28.4** | **+2.1** |
| | baz=184 | | | | | | | |
| **Z37A** | **Pogue Cattle C** | **2.32** | **161** | P | | **Pn** | **08 07 56.4** | **+1.2** |
| | baz=341,SNR=36 | | | | | | | |
| Z37A | | | | Sb | | **Sb** | **08 08 29.4** | **+1.8** |
| | baz=341 | | | | | | | |
| **S34A** | **Willow Spring** | **2.34** | **348** | P | | **Pn** | **08 07 56.8** | **+1.3** |
| | baz=168,SNR=13 | | | | | | | |
| **V39A** | **Pettigrew** | **2.37** | **79** | P | | **Pn** | **08 07 57.2** | **+1.3** |
| | baz=260,SNR=205 | | | | | | | |
| **T38A** | **Diamond** | **2.42** | **47** | P | | **Pn** | **08 07 58.1** | **+1.6** |
| | baz=228,SNR=37 | | | | | | | |
| T38A | | | | Sb | | **Sb** | **08 08 32.1** | **+1.8** |
| | baz=228 | | | | | | | |
| **S36A** | **Lake Cedric, C** | **2.43** | **17** | P | | **Pn** | **08 07 57.9** | **+1.3** |
| | baz=198,SNR=54 | | | | | | | |
| S36A | | | | Sb | | **Sb** | **08 08 32.6** | **+2.0** |
| | baz=198 | | | | | | | |
| **Y39A** | **Locksburg** | **2.47** | **126** | P | | **Pn** | **08 07 59.3** | **+2.1** |
| | baz=307,SNR=15 | | | | | | | |
| **Z38A** | **Mt. Pleasant** | **2.48** | **149** | Pb | | **Pb** | **08 08 01.2** | **-0.6** |
| | baz=330 | | | | | | | |
| Z38A | | | | Sb | | **Sb** | **08 08 34.4** | **+2.2** |
| | baz=330 | | | | | | | |
| **MIAR** | **Mount Ida** | **2.55** | **109** | P | | **Pn** | **08 08 00.2** | **+1.8** |
| | baz=290,SNR=68 | | | | | | | |
| **MIAR** | **Mount Ida** | **2.55** | **109** | *e*Pn | | **Pn** | **08 08 00.5** | **+2.1** |
| MIAR | | | | *e*Pg | | **Pg** | **08 08 06.3** | **+0.1** |
| **U39A** | **Green Forest** | **2.64** | **67** | P | | **Pn** | **08 08 01.0** | **+1.4** |
| | baz=249,SNR=58 | | | | | | | |
| U39A | | | | Sb | | **Sb** | **08 08 38.8** | **+1.9** |
| | baz=249 | | | | | | | |
| **S37A** | **Fort Scott** | **2.71** | **29** | Pb | | **Pb** | **08 08 04.4** | **-1.2** |
| | baz=211 | | | | | | | |
| S37A | | | | Sb | | **Sb** | **08 08 40.7** | **+1.9** |
| | baz=211 | | | | | | | |
| **W40A** | **Ferguson Farm,** | **2.82** | **93** | P | | **Pn** | **08 08 03.9** | **+1.9** |
| | baz=275,SNR=72 | | | | | | | |
| **W40A** | **Ferguson Farm,** | **2.82** | **93** | *e*Pn | | **Pn** | **08 08 03.9** | **+1.9** |
| **137A** | **Heron Place, G** | **2.87** | **167** | P | | **Pn** | **08 08 04.0** | **+1.2** |
| | baz=347 | | | | | | | |
| **136A** | **Ennis** | **2.92** | **180** | P | | **Pn** | **08 08 03.9** | **+0.4** |
| | baz=360 | | | | | | | |
| **R34A** | **Isabella, Hill** | **2.95** | **349** | P | | **Pn** | **08 08 05.0** | **+1.2** |
| | baz=169,SNR=23 | | | | | | | |
| **138A** | **Matatall Enter** | **2.98** | **156** | P | | **Pn** | **08 08 05.4** | **+1.1** |
| | baz=337,SNR=15 | | | | | | | |
| **Y40A** | **Okolona** | **3.00** | **117** | P | | **Pn** | **08 08 05.8** | **+1.3** |
| | baz=298 | | | | | | | |
| **T39A** | **Clever** | **3.00** | **57** | P | | **Pn** | **08 08 06.0** | **+1.4** |
| | baz=238,SNR=21 | | | | | | | |
| **R36A** | **Gordon, Harris** | **3.02** | **15** | P | | **Pn** | **08 08 06.0** | **+1.2** |
| | baz=196,SNR=9.5 | | | | | | | |
| R36A | | | | Sb | | **Sb** | **08 08 49.9** | **+2.2** |
| | baz=196 | | | | | | | |
| **V40A** | **Witts Springs** | **3.02** | **81** | P | | **Pn** | **08 08 06.5** | **+1.6** |
| | baz=263,SNR=81 | | | | | | | |
| **S38A** | **Stockton** | **3.05** | **43** | P | | **Pn** | **08 08 06.5** | **+1.3** |
| | baz=224 | | | | | | | |
| **U40A** | **Yellville** | **3.11** | **71** | P | | **Pn** | **08 08 07.5** | **+1.4** |
| | baz=253,SNR=153 | | | | | | | |
| **X40A** | **Basin Creek Fa** | **3.15** | **106** | P | | **Pn** | **08 08 08.3** | **+1.7** |
| | baz=288,SNR=10 | | | | | | | |
| **WLAR** | **White Oak Lake** | **3.28** | **121** | *e*Pn | | **Pn** | **08 08 10.7** | **+2.2** |
| WLAR | | | | *e*Sn | | **Sn** | **08 08 45.9** | **-1.5** |
| **X301** | **Greenbrier Sit** | **3.36** | **92** | *e*Pn | | **Pn** | **08 08 11.2** | **+1.7** |
| X301 | | | | *e*Pg | | **Pb** | **08 08 15.8** | **+1.8** |
| X301 | | | | *e*Sg | | **Sg** | **08 09 04.1** | **-1.1** |
| **S39A** | **Bolivar** | **3.43** | **47** | P | | **Pn** | **08 08 12.2** | **+1.7** |
| | baz=229,SNR=15 | | | | | | | |
| **237A** | **Washetta, Mont** | **3.45** | **170** | P | | **Pn** | **08 08 11.2** | **+0.6** |
| | baz=350,SNR=12 | | | | | | | |
| **WHAR** | **Wooly Hollow** | **3.45** | **91** | *e*Pn | | **Pn** | **08 08 12.4** | **+1.7** |
| WHAR | | | | *e*Pg | | **Pb** | **08 08 19.5** | **+1.3** |
| **Q35A** | **Mercer Eighty,** | **3.46** | **6** | P | | **Pn** | **08 08 11.8** | **+0.8** |
| | baz=187,SNR=17 | | | | | | | |
| **R38A** | **Fenwick Farm,** | **3.47** | **36** | P | | **Pn** | **08 08 12.7** | **+1.6** |
| | baz=218,SNR=23 | | | | | | | |
| **UALR** | **University of** | **3.47** | **99** | *e*Pn | | **Pn** | **08 08 12.0** | **+1.1** |
| UALR | | | | *e*Pg | | **Sg** | **08 08 21.7** | **-2.0** |
| UALR | | | | *e*Sg | | **Sg** | **08 09 07.0** | **-1.7** |
| **W41B** | **Gary Mavity, V** | **3.49** | **93** | P | | **Pn** | **08 08 12.9** | **+1.6** |
| | baz=275,SNR=44 | | | | | | | |
| **WHTX** | **Lake Whitney,** | **3.50** | **193** | P | | **Pn** | **08 08 12.3** | **+0.9** |
| | baz=12 | | | | | | | |
| **WHTX** | **Lake Whitney,** | **3.50** | **193** | *e*Pn | | **Pn** | **08 08 12.8** | **+1.4** |
| **Q34A** | **Chapman** | **3.52** | **354** | P | | **Pn** | **08 08 13.0** | **+1.2** |
| | baz=175,SNR=16 | | | | | | | |
| **V41A** | **Mountainview** | **3.56** | **83** | P | | **Pn** | **08 08 13.7** | **+1.4** |
| | baz=265,SNR=45 | | | | | | | |
| **T40A** | **Mansfield** | **3.66** | **60** | P | | **Pn** | **08 08 14.7** | **+1.0** |
| | baz=243,SNR=12 | | | | | | | |
| **KSU1** | **Kansas State U** | **3.69** | **359** | P | | **Pn** | **08 08 14.7** | **+0.7** |
| | baz=179,SNR=10 | | | | | | | |
| **KSU1** | **Kansas State U** | **3.69** | **359** | *e*Pn | | **Pn** | **08 08 15.0** | **+1.0** |
| KSU1 | | | | *e*Pg | | **Pb** | **08 08 23.3** | **+1.0** |
| **ABTX** | **Abilene, Hawle** | **3.81** | **224** | P | | **Pn** | **08 08 16.3** | **+0.6** |
| | baz=42 | | | | | | | |
| **Q37A** | **Longview Farm,** | **3.83** | **25** | P | | **Pn** | **08 08 16.9** | **+0.9** |
| | baz=206 | | | | | | | |
| **U41A** | **Viola** | **3.84** | **75** | P | | **Pn** | **08 08 17.1** | **+1.1** |
| | baz=257,SNR=42 | | | | | | | |
| **S40A** | **Lebanon** | **3.90** | **55** | P | | **Pn** | **08 08 18.6** | **+1.7** |
| | baz=237,SNR=19 | | | | | | | |
| **NATX** | **Nacogdoches** | **3.95** | **157** | *e*Pn | | **Pn** | **08 08 19.0** | **+1.4** |
| NATX | | | | *e*Pg | | **Pg** | **08 08 32.0** | **-1.0** |
| **R39A** | **Chumby, Stover** | **4.02** | **43** | P | | **Pn** | **08 08 20.1** | **+1.6** |
| | baz=225,SNR=15 | | | | | | | |
| **P35A** | **Duane Minner,** | **4.13** | **5** | P | | **Pn** | **08 08 21.3** | **+1.2** |
| | baz=186 | | | | | | | |
| **P34A** | **Walnut Farm, R** | **4.14** | **357** | P | | **Pn** | **08 08 21.5** | **+1.3** |
| | baz=177,SNR=43 | | | | | | | |
| **T41A** | **Mountain View** | **4.17** | **66** | P | | **Pn** | **08 08 22.2** | **+1.6** |
| | baz=248,SNR=30 | | | | | | | |
| **CCAR** | **Cane Creek** | **4.17** | **110** | *e*Pn | | **Pn** | **08 08 21.6** | **+1.0** |
| **V42A** | **Cord** | **4.19** | **83** | P | | **Pn** | **08 08 22.1** | **+1.3** |
| | baz=266,SNR=7.7 | | | | | | | |
| **Y42A** | **Garnett, Star** | **4.19** | **111** | P | | **Pn** | **08 08 22.3** | **+1.4** |
| | baz=293 | | | | | | | |
| **Q38A** | **Cooks Store, C** | **4.23** | **32** | ⇑P | | **Pn** | **08 08 22.5** | **+1.1** |
| | baz=214 | | | | | | | |
| **CBKS** | **Cedar Bluff** | **4.27** | **324** | *e*Pn | | **Pn** | **08 08 23.1** | **+1.0** |
| **AMTX** | **Amarillo** | **4.27** | **264** | *e*Pn | | **Pn** | **08 08 23.5** | **+1.3** |
| **Z42A** | **Norrel Spur, H** | **4.33** | **118** | P | | **Pn** | **08 08 23.9** | **+1.1** |
| | baz=300 | | | | | | | |
| **P36A** | **Good Intent, A** | **4.33** | **13** | P | | **Pn** | **08 08 24.1** | **+1.2** |
| | baz=194 | | | | | | | |
| **U42A** | **Revenden** | **4.38** | **76** | P | | **Pn** | **08 08 24.5** | **+1.0** |
| | baz=259,SNR=21 | | | | | | | |
| **S41A** | **Jilco Farms,** | **4.41** | **59** | P | | **Pn** | **08 08 25.9** | **+2.0** |
| | baz=242,SNR=9.9 | | | | | | | |
| **P37A** | **Lathrop** | **4.51** | **22** | P | | **Pn** | **08 08 26.8** | **+1.5** |
| | baz=203,SNR=7.7 | | | | | | | |
| **T42A** | **Van Buren** | **4.67** | **68** | P | | **Pn** | **08 08 28.5** | **+1.1** |
| | baz=251,SNR=18 | | | | | | | |
| **O33A** | **Hebron** | **4.74** | **350** | P | | **Pn** | **08 08 29.2** | **+0.7** |
| | baz=170,SNR=5.3 | | | | | | | |
| **O34A** | **Beatrice** | **4.77** | **358** | P | | **Pn** | **08 08 29.8** | **+0.9** |
| | baz=178,SNR=24 | | | | | | | |
| **P38A** | **Dawn** | **4.83** | **28** | P | | **Pn** | **08 08 31.0** | **+1.4** |
| | baz=210 | | | | | | | |
| **O35A** | **Humboldt** | **4.87** | **5** | P | | **Pn** | **08 08 31.3** | **+1.0** |
| | baz=186,SNR=8.0 | | | | | | | |
| **341A** | **Kurthwood** | **4.93** | **145** | P | | **Pn** | **08 08 32.3** | **+1.3** |
| | baz=326,SNR=6.7 | | | | | | | |
| **CCM** | **Cathedral Cave** | **4.98** | **56** | *e*Pn | | **Pn** | **08 08 34.0** | **+2.2** |
| **R41A** | **Rosebud** | **5.02** | **53** | P | | **Pn** | **08 08 33.5** | **+1.2** |
| | baz=236 | | | | | | | |
| **U43A** | **Rector** | **5.04** | **77** | P | | **Pn** | **08 08 33.3** | **+0.7** |
| | baz=261,SNR=7.0 | | | | | | | |
| **PBMO** | **Poplar Bluff** | **5.11** | **73** | *e*Pn | | **Pn** | **08 08 35.0** | **+1.5** |
| PBMO | | | | *e*Sn | | **Sn** | **08 09 35.0** | **+2.7** |
| **S42A** | **Caledonia** | **5.16** | **61** | P | | **Pn** | **08 08 35.5** | **+1.3** |
| | baz=244 | | | | | | | |
| **O38A** | **Galt** | **5.28** | **26** | P | | **Pn** | **08 08 35.8** | **-0.2** |
| | baz=208,SNR=6.1 | | | | | | | |
| **GNAR** | **Gosnell** | **5.31** | **82** | *e*Pg | | **Pb** | **08 08 54.1** | **+4.2** |
| **MSTX** | **Muleshoe** | **5.36** | **256** | P | | **Pn** | **08 08 37.3** | **+0.2** |
| | baz=73,SNR=7.3 | | | | | | | |
| **MSTX** | **Muleshoe** | **5.36** | **256** | *e*Pn | | **Pn** | **08 08 37.6** | **+0.5** |
| **HKT** | **Hockley** | **5.47** | **174** | *e*Pg | | **Pg** | **08 09 04.3** | **+2.3** |
| **N35A** | **Tabor** | **5.49** | **7** | P | | **Pn** | **08 08 39.1** | **+0.4** |
| | baz=188,SNR=8.1 | | | | | | | |
| **FVM** | **French Village** | **5.52** | **60** | *e*Pn | | **Pn** | **08 08 41.0** | **+1.8** |
| FVM | | | | *e*Sg | | **Sg** | **08 10 10.7** | **-3.7** |
| **S43A** | **Fulton Ridge,** | **5.61** | **65** | P | | **Pn** | **08 08 41.4** | **+1.0** |
| | baz=249,SNR=16 | | | | | | | |
| **PARMO** | **Parma** | **5.61** | **75** | *e*Pg | | **Pg** | **08 09 00.1** | **-4.6** |
| PARMO | | | | *e*Sg | | **Sg** | **08 10 14.4** | **-3.1** |
| **JCT** | **Junction City** | **5.64** | **210** | P | | **Pn** | **08 08 40.6** | **-0.4** |
| | baz=28,SNR=12 | | | | | | | |
| **JCT** | **Junction City** | **5.64** | **210** | *e*Pn | | **Pn** | **08 08 40.7** | **-0.2** |
| JCT | | | | *e*Pg | | **Pb** | **08 08 59.4** | **+3.8** |
| **OXF** | **Oxford** | **5.89** | **97** | *e*Pn | | **Pn** | **08 08 45.9** | **+1.6** |
| **SLM** | **Saint Louis** | **5.96** | **55** | *e*Sg | | **Sg** | **08 10 22.6** | **-6.0** |
| **W45A** | **Hickory Valley** | **5.99** | **90** | P | | **Pn** | **08 08 46.5** | **+0.9** |
| | baz=274,SNR=16 | | | | | | | |
| **BGNE** | **Belgrade** | **6.13** | **348** | P | | **Pn** | **08 08 47.4** | **-0.1** |
| | baz=168 | | | | | | | |
| **UTMT** | **University of** | **6.27** | **79** | *e*Pn | | **Pn** | **08 08 51.7** | **+2.2** |
| **SIUC** | **Southern Illin** | **6.30** | **66** | *e*Sn | | **Sn** | **08 10 00.9** | **-0.8** |
| **CPRX** | **Cap Rock** | **6.54** | **251** | *e*Pn | | Pn | 08 09 00.6 | +7.2 |
| **SCIA** | **State Center** | **6.98** | **21** | *e*Pn | | **Pn** | **08 09 00.2** | **+1.0** |
| SCIA | | | | *e*Pg | | Pb | 08 09 24.0 | +5.6 |
| SCIA | | | | *e*Sn | | **Sn** | **08 10 20.0** | **+1.5** |
| **OGNE** | **Ogallala** | **7.04** | **323** | *e*Pn | | **Pn** | **08 09 01.5** | **+1.4** |
| **WVT** | **Waverly** | **7.09** | **82** | *e*Pn | | **Pn** | **08 09 01.1** | **+0.4** |
| **X47A** | **Russelville** | **7.16** | **95** | P | | **Pn** | **08 09 01.9** | **+0.2** |
| | baz=280,SNR=9.4 | | | | | | | |
| **USIN** | **University of** | **7.54** | **68** | *e*Sg | | **Sg** | **08 11 13.9** | **-5.5** |
| **U47A** | **Clarksville** | **7.55** | **79** | P | | **Pn** | **08 09 07.3** | **+0.3** |
| | baz=265,SNR=5.2 | | | | | | | |
| **SDCO** | **Great Sand Dun** | **7.61** | **290** | *e*Pn | | **Pn** | **08 09 09.6** | **+1.5** |
| **HDIL** | **Hopedale** | **7.67** | **46** | *e*Pn | | **Pn** | **08 09 10.0** | **+1.3** |
| **L40A** | **Anamosa** | **7.82** | **30** | P | | **Pn** | **08 09 10.9** | **+0.1** |
| | baz=214,SNR=6.9 | | | | | | | |
| **ANMO** | **Albuquerque** | **8.16** | **270** | *e*Pn | | **Pn** | **08 09 16.6** | **+0.9** |
| **LRAL** | **Lakeview Retre** | **8.22** | **104** | *e*Pn | | **Pn** | **08 09 17.6** | **+1.4** |
| **MNTX** | **Cornudas Mount** | **8.28** | **246** | *e*Pn | | **Pn** | **08 09 18.4** | **+1.3** |
| MNTX | | | | *e*Pg | | Pg | 08 09 48.6 | -7.2 |
| MNTX | | | | *e*Sn | | **Sn** | **08 10 49.0** | **-1.5** |
| **ECSD** | **EROS Data Cent** | **8.32** | **359** | P | | **Pn** | **08 09 17.5** | **-0.1** |
| | baz=180,SNR=30 | | | | | | | |
| **ECSD** | **EROS Data Cent** | **8.32** | **359** | *e*Pn | | **Pn** | **08 09 17.7** | **+0.1** |
| ECSD | | | | *e*Sn | | **Sn** | **08 10 50.8** | **-0.6** |
| **LPM** | **Los Pinos Moun** | **8.40** | **265** | *e*Pg | | **Pg** | **08 09 52.9** | **-5.1** |
| **BNM** | **Barren Site** | **8.42** | **264** | *e*Pg | | Pg | 08 09 51.0 | -7.6 |
| **ISCO** | **Idaho Springs** | **8.45** | **304** | *e*Pn | | **Pn** | **08 09 19.6** | **-0.1** |
| **TX31** | **Lajitas Ar. Si** | **8.56** | **227** | *e*Pn | | **Pn** | **08 09 21.6** | **+0.5** |
| **SWET** | **Sewanee** | **8.64** | **88** | *e*Pn | | **Pn** | **08 09 22.5** | **+0.4** |
| **WCI** | **Wyandotte Cave** | **8.66** | **68** | *e*Pn | | **Pn** | **08 09 25.1** | **+2.9** |
| **LAZ** | **Ladron** | **8.79** | **267** | *e*Pn | | **Pn** | **08 09 24.2** | **-0.2** |
| **JFWS** | **Jewell Farm** | **8.93** | **31** | *e*Pn | | **Pn** | **08 09 27.1** | **+1.2** |
| **N23A** | **Red Feather La** | **9.23** | **309** | *e*Pn | | **Pn** | **08 09 31.9** | **+1.5** |
| **CPCT** | **Cooper Cave** | **9.78** | **86** | *e*Pn | | **Pn** | **08 09 38.7** | **+1.0** |
| **TKL** | **Tuckaleechee C** | **10.38** | **85** | *e*Pn | | **Pn** | **08 09 46.1** | **+0.3** |
| **EYMN** | **Ely** | **13.07** | **15** | *e*Pn | | **Pn** | **08 10 19.6** | **-3.0** |

*IDC **31** 08:53:15.3±2.6,31°.67N×141°.97E,h0km,mb3.7/6, mb1 3.7/8,mb1mx3.5/38,mbtmp3.6/8,ML3.3/2,MS2.8/1, Ms1 2.8/1,ms1mx2.3/50,Error ellipse: s-maj=101.9km s-min=17.9km az=69.0*
*ISCJB **31** 08:53:17.1±0.8,31°.77N±0'.07×142°.0E±0'.1,h29km, mb3.7/6,Error ellipse: s-maj=17.8km s-min=7.0km az=156.4*
*JMA **31** 08:53:17.9±0.3,31°.80N×142°.03E,h73km,M3.4*

**ISC 31 08:53:19.2±1.1,31°.80N±0'.08×142°.1E±0'.1,h29km,n18, σ1§53/20,mb3.7/6,Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **JHCJ** | **Hachijojimakas** | **2.29** | **304** | P | | **Pn** | **08 53 54.0** | **-1.1** |
| **JHJ2** | **Mitsune** | **2.30** | **305** | P | | **Pn** | **08 53 53.4** | **-1.8** |
| **JHJ** | **Hachijo jima 2** | **2.33** | **305** | Pn | | **Pn** | **08 53 53.5** | **-2.1** |
| | 13nm,0.3s,baz=81,slow=22,SNR=5.8 | | | | | | | |
| JHJ | | | | Sn | | **Sn** | **08 54 21.6** | **-1.6** |
| | 20nm,0.3s,baz=89,slow=23,SNR=2.1 | | | | | | | |
| **BSO1** | **Boso 1** | **2.99** | **343** | P | | **Pn** | **08 54 04.2** | **+0.1** |
| **BSO3** | **Boso 3** | **3.26** | **337** | P | | **Pn** | **08 54 07.6** | **-0.5** |
| **JHU** | **Hanno** | **4.66** | **331** | P | | **Pn** | **08 54 27.1** | **-0.4** |
| **CBIJ** | **Chichi jima** | **4.69** | **179** | P | | **Pn** | **08 54 27.3** | **-0.7** |
| **JRY** | **Ryogami san** | **4.96** | **329** | P | | **Pn** | **08 54 32.6** | **+0.9** |
| **JAG** | **Ashikaga** | **5.09** | **336** | P | | **Pn** | **08 54 33.2** | **-0.4** |
| **JFK** | **Kawauchi** | **5.64** | **350** | P | | **Pn** | **08 54 40.0** | **-1.1** |
| JFK | | | | *e*S | | **Sn** | **08 55 41.0** | **-3.9** |
| **MJAR** | **Matsushiro Arr** | **5.70** | **327** | Pn | | **Pn** | **08 54 43.0** | **+1.0** |
| | 0.9nm,0.3s,baz=161,slow=13,SNR=13 | | | | | | | |
| MJAR | | | | Sn | | **Sn** | **08 55 47.7** | **

1.2nm,0.3s,baz=164,slow=19,SNR=4.2
**DZM Mont Dzumac 15.07 274** P **P** 09 13 07.2 +5.2
0.6nm,0.3s,baz=103,slow=17,SNR=8.7
**RPZ Rata Peaks 21.87 203** P **P** 09 14 13.9 -2.0
5.9nm,0.5s,baz=41,slow=19,SNR=5.3
**STKA Stephens Creek 36.96 248** P **P** 09 16 32.0 +1.4
1.7nm,0.4s,baz=99,slow=12,SNR=10.0
**ASAR Alice Springs 44.44 260** P **P** 09 17 31.8 -0.3
0.9nm,0.4s,baz=91,slow=6.5,SNR=32
ASAR PcP **PcP** 09 19 13.0 -0.8
0.6nm,0.5s,baz=119,slow=3.9,SNR=6.6
ASAR ScP **ScP** 09 22 52.9 -2.0
0.5nm,1.0s,baz=101,slow=4.0,SNR=4.7
**WRA Warramunga Arr 44.84 265** P **P** 09 17 34.8 -0.6
1.0nm,0.4s,baz=97,slow=8.4,SNR=46
WRA PcP **PcP** 09 19 14.8 -0.4
1.0nm,0.8s,baz=96,slow=3.7,SNR=5.5
WRA ScP **ScP** 09 22 54.2 -2.4
0.4nm,0.9s,baz=100,slow=3.6,SNR=4.7
WRA S **S** 09 24 01.0 -3.1
0.6nm,1.0s,baz=94,slow=12,SNR=2.7
**NVAR Mina Array Bea 83.14 43** P **P** 09 21 47.0 +1.3
0.9nm,0.7s,baz=216,slow=8.2,SNR=7.2
**VNA3 Neumayer Olymp 84.63 176** P **P** 09 21 49.3 -3.2
**VNA2 Neumayer--Watz 85.07 177** P **P** 09 21 53.7 -1.1
baz=194,slow=3.3
**TXAR Lajitas Array 88.42 57** P **P** 09 22 13.0 +1.3
0.4nm,0.7s,baz=218,slow=7.2,SNR=5.6
**SEY Seymchan 89.91 347** P **P** 09 22 18.6 +0.8
1.0nm,0.5s,baz=150,slow=6.1,SNR=7.7
**PDAR Pinedale Array 91.07 43** P **P** 09 22 24.7 +0.7
0.6nm,0.8s,baz=224,slow=2.5,SNR=4.1
**ILAR Eielson Array 91.57 13** P **P** 09 22 25.9 +0.4
0.5nm,0.8s,baz=222,slow=5.7,SNR=7.3
**KURBB Kurchatov Arra 117.01 316** PKP **PKPdf** 09 28 01.8 -1.4
0.3nm,0.5s,baz=123,slow=2.3,SNR=2.9
**BVAR Borovoye Array 122.13 319** PKP **PKPdf** 09 28 11.2 -1.8
0.5nm,0.4s,baz=113,slow=4.1,SNR=5.3
**SPITS Spitsbergen Ar 125.38 357** PKP **PKPdf** 09 28 18.1 -0.5
3.8nm,0.7s,baz=351,slow=1.9,SNR=4.2
**ARCES ARCESS Array B 132.46 349** PKP **PKPdf** 09 28 31.7 -0.5
1.8nm,0.8s,baz=343,slow=1.3,SNR=5.8
**AKASG Malin Array Be 146.35 329** PKPbc **PKPdf** 09 28 58.1 +0.1
1.7nm,0.5s,baz=42,slow=4.2,SNR=13
**BRTR Keskin Array B 149.57 308** PKPbc **PKPbc** 09 29 07.8 -0.7
0.5nm,0.6s,baz=90,slow=1.7,SNR=3.7
**MMAI Mount Meron Ar 149.97 295** PKPbc **PKPbc** 09 29 10.3 +0.8
2.1nm,0.5s,baz=80,slow=9.4,SNR=5.1
**BRG Berggiesshubel 151.79 345** *eP* **PKPbc** 09 29 13.2 +0.1
6.6nm,1.1s
**GERES GERESS Array B 153.72 343** PKPbc **PKPbc** 09 29 17.6 -0.1
0.5nm,0.7s,baz=75,slow=1.5,SNR=2.9
GERES PKPab **PKPab** 09 29 31.2 +0.4
0.2nm,0.3s,baz=1.9,slow=8.8,SNR=3.7

---

*ISN* ***31*** *09:13:01.9±0.9,38˚13N×44˚74E, h0km, ML4.4*
*DDA* ***31*** *09:13:10.2,38˚34N×44˚70E, h8km, Ml3.5*
*AZER* ***31*** *09:13:11.1±0.7,37˚85N×44˚42E, h18km, Error ellipse: s-maj=8.4km s-min=5.1km az=118.0*
*IDC* ***31*** *09:13:14.5±0.9,38˚35N×44˚17E, h0km, mb3.7/12, mb1 3.9/19,mb1mx3.7/48,mbtmp3.8/19,ML3.1/5,MS3.3/21, Ms1 3.3/21,ms1mx3.1/55, Error ellipse: s-maj=14.8km s-min=11.3km az=175.0*
*ISK* ***31*** *09:13:14.9,38˚04N×44˚58E, h14km, ML4.1*
*CSEM* ***31*** *09:13:14.3±0.2,38˚05N×44˚68E, h2km, mb4.3/20, Error ellipse: s-maj=6.5km s-min=3.6km az=160.0*
*THR* ***31*** *09:13:15.3±0.3,38˚47N×44˚24E, h14km±6km, ML3.6*
*NEIC* ***31*** *09:13:15.1±0.0,38˚03N×44˚58E, h14km, mb4.3/12, ML4.1(ISK),MN4.4(TEH), After ISK.*
*NEIC Felt at Hakkari, Turkey.*
*MOS* ***31*** *09:13:19.5±1.9,38˚27N×44˚68E, h31km, mb4.3/23, Error ellipse: s-maj=6.6km s-min=4.6km az=97.6*
**ISC 31 09:13:14.4±0.9, 38˚12N±0˚02×44˚53E±0˚02, h0km±6km, n325, σ2ᵗ17/363, mb4.1/32, MS3.4/16, 33C-39D, Turkey-Iran border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **YOVA** | **Hakkari_Y˘...kse** | **0.57** | **200** | *i* P | **Pb** | **09 13 26.3** | **-1.0** |
| YOVA | | | | *i* S | **Sn** | **09 13 37.6** | **-2.4** |
| **YOVA** | **Hakkari_Y˘...kse** | **0.57** | **200** | P | **Pb** | **09 13 26.3** | **-1.0** |
| YOVA | | | | S | **Sn** | **09 13 37.6** | **-2.4** |
| **ISHB** | **Shabestar** | **0.87** | **79** | P | **Pg** | **09 13 31.7** | **+0.7** |
| **ISHB** | **Shabestar** | **0.87** | **79** | P | **Pg** | **09 13 31.7** | **+0.7** |
| **TVAN** | **Van** | **0.98** | **295** | *i* P | Pg | 09 13 29.1 | -4.0 |
| TVAN | | | | *i* S | **Sg** | **09 13 45.0** | **-0.8** |
| **TVAN** | **Van** | **0.98** | **295** | P | Pg | 09 13 29.1 | -4.0 |
| TVAN | | | | S | **Sg** | **09 13 45.0** | **-0.8** |
| **IMRD** | **Marand** | **1.09** | **57** | *e*P | **Pg** | **09 13 34.7** | **-0.6** |
| **IMRD** | **Marand** | **1.09** | **57** | P | **Pg** | **09 13 34.7** | **-0.6** |
| **CLDR** | **Caldiran** | **1.13** | **335** | *i* P | Pg | 09 13 28.5 | -7.5 |
| CLDR | | | | *i* S | **Sg** | **09 13 45.5** | **-5.2** |
| **CLDR** | **Caldiran** | **1.13** | **335** | P | Pg | 09 13 28.5 | -7.6 |
| CLDR | | | | S | **Sg** | **09 13 45.5** | **-5.2** |
| **CUKT** | **Cukurca** | **1.14** | **220** | *e*PN | **Pg** | **09 13 36.5** | **+0.3** |
| CUKT | | | | *e*SN | **Sn** | **09 13 52.6** | **-1.4** |
| **CUKT** | **Cukurca** | **1.14** | **220** | *e*Pn | **Pg** | **09 13 36.5** | **+0.3** |
| CUKT | | | | *e*Sn | **Sn** | **09 13 52.7** | **-1.4** |
| **CUKT** | **Cukurca** | **1.14** | **220** | Pn | **Pg** | **09 13 36.5** | **+0.3** |
| **VMUR** | **Van-Muradiye** | **1.15** | **319** | *i* P | **Pb** | **09 13 33.0** | **-4.2** |
| **VMUR** | **Van-Muradiye** | **1.15** | **319** | P | **Pb** | **09 13 33.0** | **-4.2** |
| **GEVA** | **Gevas** | **1.18** | **280** | *i* P | Pb | 09 13 32.0 | -5.7 |
| GEVA | | | | *i* S | **Sb** | **09 13 50.5** | **-3.1** |
| **GEVA** | **Gevas** | **1.18** | **280** | P | Pb | 09 13 32.0 | -5.7 |
| GEVA | | | | S | **Sb** | **09 13 50.5** | **-3.1** |
| **MAKU** | **Maku** | **1.24** | **5** | *e*Pg | Pn | 09 13 33.2 | -5.9 |
| MAKU | | | | *e*Sg | **Sb** | **09 13 46.5** | **-8.8** |
| **MAKU** | **Maku** | **1.24** | **5** | *e*Pg | Pn | 09 13 33.2 | -5.9 |
| **ITBZ** | **Tabriz** | **1.28** | **84** | P | **Pg** | **09 13 39.5** | **+0.6** |
| **ITBZ** | **Tabriz** | **1.28** | **84** | P | **Pg** | **09 13 39.5** | **+0.6** |
| **NAX** | **Nakhchivan** | **1.29** | **35** | ⇓P | **Pn** | **09 13 37.4** | **-2.4** |
| NAX | | | | ⇑S | **Sb** | **09 13 56.5** | **-0.3** |
| **NAX** | **Nakhchivan** | **1.29** | **35** | PG | **Pn** | **09 13 37.3** | **-2.4** |
| **NAX** | **Nakhchivan** | **1.29** | **35** | P | **Pn** | **09 13 37.4** | **-2.4** |
| NAX | | | | S | **Sb** | **09 13 56.5** | **-0.3** |
| **ORD** | **Ordubad** | **1.40** | **54** | P | **Pn** | **09 13 39.6** | **-1.6** |
| ORD | | | | S | **Sg** | **09 14 01.0** | **+1.6** |
| **SBZ** | **Shahbuz** | **1.50** | **32** | ⇑P | **Pn** | **09 13 40.7** | **-2.0** |
| SBZ | | | | ⇑S | **Sg** | **09 14 03.5** | **+0.8** |
| **SBZ** | **Shahbuz** | **1.50** | **32** | P | **Pn** | **09 13 40.7** | **-2.0** |
| SBZ | | | | S | **Sg** | **09 14 03.5** | **+0.8** |
| **DYDN** | **Diyadin** | **1.57** | **335** | *i* P | **Pn** | **09 13 41.0** | **-2.7** |
| DYDN | | | | *i* S | **Sn** | **09 14 03.5** | **-1.2** |
| **DYDN** | **Diyadin** | **1.57** | **335** | P | **Pn** | **09 13 41.0** | **-2.7** |
| DYDN | | | | S | **Sn** | **09 14 03.5** | **-1.2** |
| **ADCV** | **BITLIS_Adilcev** | **1.58** | **296** | *i* P | **Pn** | **09 13 40.6** | **-3.2** |
| ADCV | | | | *i* S | **Sn** | **09 14 03.8** | **-1.2** |
| **ADCV** | **BITLIS_Adilcev** | **1.58** | **296** | P | **Pn** | **09 13 40.6** | **-3.2** |
| ADCV | | | | S | **Sn** | **09 14 03.8** | **-1.2** |
| **HYR** | **Heyderabad** | **1.61** | **9** | ⇓P | **Pn** | **09 13 42.0** | **-2.2** |
| HYR | | | | ⇑S | **Sg** | **09 14 07.9** | **+1.6** |
| **HYR** | **Heyderabad** | **1.61** | **9** | P | **Pn** | **09 13 42.0** | **-2.2** |
| HYR | | | | S | **Sg** | **09 14 07.9** | **+1.6** |
| **SIRT** | **Sirnak** | **1.77** | **250** | *e*PN | **Pn** | **09 13 45.7** | **-0.7** |
| **SIRT** | **Sirnak** | **1.77** | **250** | *e*Pn | **Pn** | **09 13 45.7** | **-0.7** |
| **SIRN** | **S˘˘rnak** | **1.79** | **250** | *i* P | **Pb** | **09 13 47.7** | **-0.4** |
| SIRN | | | | *i* S | **Sg** | **09 14 13.7** | **+1.7** |
| **SIRN** | **S˘˘rnak** | **1.79** | **250** | P | **Pb** | **09 13 47.7** | **-0.4** |
| SIRN | | | | S | **Sg** | **09 14 13.7** | **+1.7** |
| **TUTA** | **Tutak** | **1.86** | **314** | *i* P | **Pn** | **09 13 44.5** | **-3.1** |
| TUTA | | | | *i* S | **Sn** | **09 14 10.3** | **-1.6** |
| **TUTA** | **Tutak** | **1.86** | **314** | P | **Pn** | **09 13 44.5** | **-3.1** |
| TUTA | | | | S | **Sn** | **09 14 10.3** | **-1.6** |
| **IHRS** | **Heris** | **1.98** | **84** | P | **Pg** | **09 13 52.4** | **0.0** |
| **GNI** | **Garni** | **2.03** | **4** | Pn | **Pn** | **09 13 48.3** | **-1.7** |
| | 17nm,0.3s,baz=230,slow=3.4,SNR=67 | | | | | | |
| GNI | | | | Lg | Lg | 09 14 18.4 | |
| | 24nm,0.3s,baz=247,slow=16,SNR=5.7 | | | | | | |
| GNI | | | | LR | LR | 09 14 50.1 | |
| | comp=Z,1μm,20.5s,baz=189,slow=52 | | | | | | |
| **GNI** | **Garni** | **2.03** | **4** | *ce*PN | **Pn** | **09 13 49.5** | **-0.5** |
| GNI | | | | pmax | pmax | | |
| | comp=Z,2μm,0.8s | | | | | | |
| **GNI** | **Garni** | **2.03** | **4** | *e*Pn | **Pn** | **09 13 49.7** | **-0.3** |
| GNI | | | | *e*Sn | **Sn** | **09 14 16.3** | **+0.1** |
| **GNI** | **Garni** | **2.03** | **4** | *e*Pn | **Pn** | **09 13 49.7** | **-0.3** |
| GNI | | | | *e*Sn | **Sn** | **09 14 16.3** | **+0.1** |
| **SRTM** | **Siirt_Merkez** | **2.07** | **267** | *i* P | **Pn** | **09 13 50.0** | **-0.4** |
| SRTM | | | | *i* S | **Sb** | **09 14 19.4** | **+0.3** |
| **SRTM** | **Siirt_Merkez** | **2.07** | **267** | P | **Pn** | **09 13 50.0** | **-0.4** |
| SRTM | | | | S | **Sb** | **09 14 19.4** | **+0.3** |
| **EKAR** | **Karacoban** | **2.24** | **301** | *i* P | **Pb** | **09 13 53.9** | **-1.9** |
| EKAR | | | | *i* S | **Sg** | **09 14 29.5** | **+3.1** |
| **EKAR** | **Karacoban** | **2.24** | **301** | P | **Pb** | **09 13 53.9** | **-1.9** |
| EKAR | | | | S | **Sg** | **09 14 29.5** | **+3.1** |
| **EATA** | **Eleskirt** | **2.36** | **318** | *i* P | **Pn** | **09 13 55.6** | **+1.0** |
| EATA | | | | *i* S | **Sb** | **09 14 27.2** | **-0.4** |
| **EATA** | **Eleskirt** | **2.36** | **318** | P | **Pn** | **09 13 55.6** | **+1.0** |
| EATA | | | | S | **Sb** | **09 14 27.2** | **-0.4** |
| **GRMI** | **Germi** | **2.73** | **74** | *e*Pn | **Pb** | **09 14 02.9** | **-1.1** |
| GRMI | | | | *e*Sg | **Sg** | **09 14 45.3** | **+3.3** |
| GRMI | | | | AML | AML | 09 14 49.8 | |
| | comp=N,166nm,0.6s | | | | | | |
| **GRMI** | **Germi** | **2.73** | **74** | *e*Pn | **Pb** | **09 14 02.9** | **-1.1** |
| GRMI | | | | *e*Sg | **Sg** | **09 14 45.3** | **+3.3** |
| **KARS** | **Kars** | **2.75** | **336** | *e*PN | **Pn** | **09 14 00.3** | **+0.6** |
| **KARS** | **Kars** | **2.75** | **336** | PN | **Pn** | **09 14 00.4** | **+0.6** |
| **KARS** | **Kars** | **2.75** | **336** | *e*Pn | **Pn** | **09 14 00.4** | **+0.6** |
| **KARS** | **Kars** | **2.75** | **336** | Pn | **Pn** | **09 14 00.3** | **+0.6** |
| **GDB** | **GEDABAY** | **2.76** | **20** | ⇑P | **Pn** | **09 13 58.7** | **-1.4** |
| GDB | | | | ⇓S | **Sn** | **09 14 35.8** | **+1.6** |
| **GDB** | **GEDABAY** | **2.76** | **20** | P | **Pn** | **09 13 58.7** | **-1.4** |
| GDB | | | | S | **Sn** | **09 14 35.8** | **+1.6** |
| **GANJ** | **Ganja** | **2.88** | **28** | ⇓P | **Pn** | **09 14 00.7** | **-0.8** |
| GANJ | | | | ⇓S | **Sn** | **09 14 38.3** | **+1.5** |
| **GANJ** | **Ganja** | **2.88** | **28** | PN | **Pn** | **09 14 00.7** | **-0.8** |
| **GANJ** | **Ganja** | **2.88** | **28** | P | **Pn** | **09 14 00.7** | **-0.8** |
| GANJ | | | | S | **Sn** | **09 14 38.3** | **+1.5** |
| **BRDA** | **Brd** | **2.97** | **43** | ⇓P | **Pn** | **09 14 02.3** | **-0.4** |
| BRDA | | | | ⇓S | **Sn** | **09 14 39.3** | **+0.4** |
| **BRDA** | **Brd** | **2.97** | **43** | P | **Pn** | **09 14 02.3** | **-0.4** |
| BRDA | | | | S | **Sn** | **09 14 39.3** | **+0.4** |
| **SENK** | **Senkaya-Erzuru** | **2.97** | **326** | *e*PN | **Pn** | **09 14 04.6** | **+1.7** |
| **SENK** | **Senkaya-Erzuru** | **2.97** | **326** | *e*Pn | **Pn** | **09 14 04.6** | **+1.7** |
| **QZX** | **Qazax, Azerbai** | **3.00** | **12** | ⇑P | **Pn** | **09 14 01.9** | **-1.3** |
| QZX | | | | ⇑S | **Sn** | **09 14 41.7** | **+1.8** |
| **QZX** | **Qazax, Azerbai** | **3.00** | **12** | P | **Pn** | **09 14 01.9** | **-1.3** |
| QZX | | | | S | **Sn** | **09 14 41.7** | **+1.8** |
| **LRK** | **Lerik** | **3.04** | **79** | ⇑P | **Pn** | **09 14 00.3** | **-3.5** |
| LRK | | | | ⇓S | **Sn** | **09 14 39.0** | **-1.9** |
| **LRK** | **Lerik** | **3.04** | **79** | P | **Pn** | **09 14 00.3** | **-3.5** |
| LRK | | | | S | **Sn** | **09 14 39.0** | **-1.9** |
| **MARD** | **Mardin** | **3.08** | **256** | *e*Pn | **Pn** | **09 14 05.0** | **+0.6** |
| **MARD** | **Mardin** | **3.08** | **256** | *e*Pn | **Pn** | **09 14 05.0** | **+0.6** |
| **BNGB** | **Bing˘¶l** | **3.15** | **287** | *e*PN | **Pn** | **09 14 06.5** | **+1.2** |
| **BNGB** | **Bing˘¶l** | **3.15** | **287** | Pn | **Pn** | **09 14 06.5** | **+1.2** |
| **BNGB** | **Bing˘¶l** | **3.15** | **287** | Pn | **Pn** | **09 14 06.5** | **+1.2** |
| **GLBA** | **Clilabad** | **3.22** | **68** | ⇑P | **Pn** | **09 14 03.6** | **-2.6** |
| GLBA | | | | ⇓S | **Sn** | **09 14 43.8** | **-1.4** |
| **GLBA** | **Clilabad** | **3.22** | **68** | P | **Pn** | **09 14 03.6** | **-2.6** |
| GLBA | | | | S | **Sn** | **09 14 43.8** | **-1.4** |
| **ZRD** | **Zardab** | **3.26** | **48** | ⇑P | **Pn** | **09 14 04.7** | **-2.0** |
| ZRD | | | | ⇓S | **Sn** | **09 14 46.3** | **+0.1** |
| **ZRD** | **Zardab** | **3.26** | **48** | P | **Pn** | **09 14 04.7** | **-2.0** |
| ZRD | | | | S | **Sn** | **09 14 46.3** | **+0.1** |
| **BINT** | **Bingol** | **3.26** | **285** | *e*Pn | **Pn** | **09 14 06.5** | **-0.4** |
| **MNGR** | **Mingechevir, A** | **3.30** | **36** | ⇓P | **Pn** | **09 14 05.5** | **-1.8** |
| MNGR | | | | ⇓S | **Sn** | **09 14 48.5** | **+1.3** |
| **MNGR** | **Mingechevir, A** | **3.30** | **36** | PN | **Pn** | **09 14 05.5** | **-1.8** |
| **MNGR** | **Mingechevir, A** | **3.30** | **36** | P | **Pn** | **09 14 05.5** | **-1.8** |
| MNGR | | | | S | **Sn** | **09 14 48.5** | **+1.3** |
| **MAZI** | **Mazidag** | **3.31** | **260** | *e*PN | **Pn** | **09 14 07.4** | **0.0** |
| **MAZI** | **Mazidag** | **3.31** | **260** | *e*Pn | **Pn** | **09 14 07.4** | **0.0** |
| **MAZI** | **Mazidag** | **3.31** | **260** | Pn | **Pn** | **09 14 07.4** | **0.0** |
| **ASTR** | **Astara** | **3.38** | **81** | ⇑P | **Pn** | **09 14 05.1** | **-3.2** |
| ASTR | | | | ⇓S | **Sn** | **09 14 46.5** | **-2.5** |
| **ASTR** | **Astara** | **3.38** | **81** | P | **Pn** | **09 14 05.1** | **-3.2** |
| ASTR | | | | S | **Sn** | **09 14 46.5** | **-2.5** |
| **AKH** | **Akhalkalaki** | **3.38** | **347** | *e*PN | **Pn** | **09 14 10.8** | **+2.2** |
| **AKH** | **Akhalkalaki** | **3.38** | **347** | *e*Pn | **Pn** | **09 14 10.8** | **+2.2** |
| **YEDI** | **Yedisu-Bingol** | **3.38** | **294** | *e*PN | **Pn** | **09 14 10.4** | **+1.8** |
| **YEDI** | **Yedisu-Bingol** | **3.38** | **294** | *e*Pn | **Pn** | **09 14 10.4** | **+1.8** |
| **YEDI** | **Yedisu-Bingol** | **3.38** | **294** | Pn | **Pn** | **09 14 10.4** | **+1.8** |
| **LKRN** | **Lenkeran, Azer** | **3.39** | **79** | ⇑P | **Pn** | **09 14 05.6** | **-2.9** |
| LKRN | | | | ⇓S | **Sn** | **09 14 47.2** | **-2.0** |
| **LKRN** | **Lenkeran, Azer** | **3.39** | **79** | PN | **Pn** | **09 14 05.5** | **-2.9** |
| **LKRN** | **Lenkeran, Azer** | **3.39** | **79** | P | **Pn** | **09 14 05.6** | **-2.9** |
| LKRN | | | | S | **Sn** | **09 14 47.2** | **-2.0** |
| **DIY** | **Diyarbakir** | **3.41** | **268** | *e*Pn | **Pn** | **09 14 10.7** | **+1.8** |
| **DYBB** | **Diyarbakir** | **3.47** | **269** | *e*PN | **Pn** | **09 14 10.7** | **+1.0** |
| **SAAT** | **Saatly** | **3.49** | **59** | ⇓P | **Pn** | **09 14 07.4** | **-2.5** |
| SAAT | | | | ⇑S | **Sn** | **09 14 51.0** | **-0.9** |
| **SAAT** | **Saatly** | **3.49** | **59** | P | **Pn** | **09 14 07.4** | **-2.5** |
| SAAT | | | | S | **Sn** | **09 14 51.0** | **-0.9** |
| **DAGI** | **Agillar** | **3.58** | **326** | *i* P | **Pb** | **09 14 18.2** | **-0.4** |
| **TBLG** | **Delisi** | **3.61** | **2** | *e*PN | **Pn** | **09 14 13.8** | **+2.2** |
| **TBLG** | **Delisi** | **3.61** | **2** | *e*Pn | **Pn** | **09 14 13.8** | **+2.2** |
| **ZNJK** | **Zanjan** | **3.61** | **112** | *e*P | **Pb** | **09 14 17.8** | **-1.4** |
| **KDMR** | **Kurdemir** | **3.62** | **50** | ⇑P | **Pn** | **09 14 09.5** | **-2.1** |
| KDMR | | | | ⇑S | **Sn** | **09 14 55.2** | **+0.2** |
| **KDMR** | **Kurdemir** | **3.62** | **50** | P | **Pn** | **09 14 09.5** | **-2.1** |
| KDMR | | | | S | **Sn** | **09 14 55.2** | **+0.2** |
| **ARTV** | **Artvin** | **3.66** | **328** | *i* P | **Pb** | **09 14 21.6** | **+1.5** |
| **ARTV** | **Artvin** | **3.66** | **328** | P | **Pb** | **09 14 21.6** | **+1.5** |
| **KOPT** | **Kop Dagi** | **3.67** | **302** | *e*Pn | **Pb** | **09 14 19.4** | **-0.8** |
| **KOPT** | **Kop Dagi** | **3.67** | **302** | *e*Pn | **Pb** | **09 14 19.4** | **-0.8** |
| **SEKA** | **Sheki** | **3.71** | **33** | ⇑P | **Pn** | **09 14 12.0** | **-0.9** |
| SEKA | | | | ⇓S | **Sn** | **09 14 58.6** | **+1.3** |
| **SEKA** | **Sheki** | **3.71** | **33** | PN | **Pn** | **09 14 12.0** | **-0.9** |
| **SEKA** | **Sheki** | **3.71** | **33** | P | **Pn** | **09 14 12.0** | **-0.9** |
| SEKA | | | | S | **Sn** | **09 14 58.6** | **+1.3** |
| **SNGE** | **Sanandaj** | **3.77** | **142** | *e*Pn | **Pb** | **09 14 21.1** | **-0.9** |
| SNGE | | | | AML | AML | 09 15 43.4 | |
| | comp=E,84nm,0.8s | | | | | | |
| **SNGE** | **Sanandaj** | **3.77** | **142** | *e*Pn | **Pb** | **09 14 21.1** | **-0.9** |
| **QBL** | **Gabala** | **3.81** | **41** | ⇓P | **Pn** | **09 14 12.7** | **-1.6** |
| QBL | | | | ⇑S | **Sn** | **09 15 00.1** | **+0.4** |
| **QBL** | **Gabala** | **3.81** | **41** | P | **Pn** | **09 14 12.7** | **-1.6** |
| QBL | | | | S | **Sn** | **09 15 00.1** | **+0.4** |
| **ZKTA** | **Zakatala** | **3.86** | **24** | ⇓P | **Pn** | **09 14 13.5** | **-1.6** |
| **ZKTA** | **Zakatala** | **3.86** | **24** | PN | **Pn** | **09 14 13.4** | **-1.6** |
| **ZKTA** | **Zakatala** | **3.86** | **24** | Pn | **Pn** | **09 14 13.4** | **-1.6** |
| **IML** | **Ismayilli** | **3.88** | **45** | ⇑P | **Pn** | **09 14 12.9** | **-2.5** |
| IML | | | | ⇓S | **Sn** | **09 15 02.2** | **+0.5** |
| **IML** | **Ismayilli** | **3.88** | **45** | P | **Pn** | **09 14 12.9** | **-2.5** |
| IML | | | | S | **Sn** | **09 15 02.2** | **+0.5** |
| **ALIB** | **Äli-Bayra** | **3.94** | **61** | ⇓P | **Pn** | **09 14 13.4** | **-2.6** |
| ALIB | | | | ⇓S | **Sn** | **09 15 02.2** | **-0.6** |
| **ALIB** | **Äli-Bayra** | **3.94** | **61** | P | **Pn** | **09 14 13.4** | **-2.6** |
| ALIB | | | | S | **Sn** | **09 15 02.2** | **-0.6** |
| **BCA** | **Borcka** | **4.01** | **327** | *e*PN | **Pn** | **09 14 19.2** | **+2.2** |
| **BCA** | **Borcka** | **4.01** | **327** | *e*Pn | **Pn** | **09 14 19.2** | **+2.2** |
| **BCA** | **Borcka** | **4.01** | **327** | Pn | **Pn** | **09 14 19.9** | **+2.9** |
| **BAYT** | **Ayd˘¬ntepe-Bay** | **4.10** | **305** | *e*PN | **Pn** | **09 14 20.6** | **+2.2** |
| **BAYT** | **Ayd˘¬ntepe-Bay** | **4.10** | **305** | *e*Pn | **Pn** | **09 14 20.6** | **+2.2** |
| **BAYT** | **Ayd˘¬ntepe-Bay** | **4.10** | **305** | Pn | **Pn** | **09 14 20.6** | **+2.2** |
| **PTK** | **Pertek** | **4.11** | **282** | *e*PN | **Pn** | **09 14 19.9** | **+1.4** |
| **PTK** | **Pertek** | **4.11** | **282** | *e*Pn | **Pn** | **09 14 19.9** | **+1.4** |
| **PTK** | **Pertek** | **4.11** | **282** | Pn | **Pn** | **09 14 19.9** | **+1.4** |
| **PQL** | **Pirkuli** | **4.12** | **48** | ⇑P | **Pn** | **09 14 16.6** | **-2.1** |
| **PQL** | **Pirkuli** | **4.12** | **48** | P | **Pn** | **09 14 16.6** | **-2.1** |
| **SVRC** | **Sivrice-ELAZID** | **4.12** | **275** | *e*PN | **Pn** | **09 14 20.1** | **+1.4** |
| **SVRC** | **Sivrice-ELAZID** | **4.12** | **275** | *e*Pn | **Pn** | **09 14 20.1** | **+1.4** |
| **SVRC** | **Sivrice-ELAZID** | **4.12** | **275** | Pn | **Pn** | **09 14 19.8** | **+0.2** |
| **XNQ** | **Khinaliq** | **4.13** | **41** | ⇓P | **Pn** | **09 14 16.8** | **-2.0** |
| **XNQ** | **Khinaliq** | **4.13** | **41** | P | **Pn** | **09 14 16.8** | **-2.0** |
| **GBS** | **Qobustan** | **4.18** | **53** | ⇑P | **Pn** | **09 14 17.4** | **-2.1** |
| **GBS** | **Qobustan** | **4.18** | **53** | P | **Pn** | **09 14 17.4** | **-2.1** |
| **ATGJ** | **Altiaghaj** | **4.37** | **50** | ⇑P | **Pn** | **09 14 19.9** | **-2.2** |
| **ATGJ** | **Altiaghaj** | **4.37** | **50** | P | **Pn** | **09 14 19.9** | **-2.2** |
| **QSAR** | **Qusar** | **4.44** | **39** | ⇓P | **Pn** | **09 14 21.0** | **-2.0** |
| **QSAR** | **Qusar** | **4.44** | **39** | P | **Pn** | **09 14 21.0** | **-2.0** |
| **QUBA** | **Quba, Azerbaij** | **4.44** | **42** | ⇓P | **Pn** | **09 14 20.8** | **-2.2** |
| **QUBA** | **Quba, Azerbaij** | **4.44** | **42** | P | **Pn** | **09 14 20.8** | **-2.2** |
| **ZEI** | **Tsey** | **4.69** | **354** | *e*PN | **Pn** | **09 14 30.7** | **+4.2** |
| ZEI | | | | pmax | pmax | | |
| | comp=Z,42nm,0.8s | | | | | | |
| **MALT** | **Malatya** | **4.81** | **274** | PN | **Pn** | **09 14 28.7** | **+0.5** |
| **MALT** | **Malatya** | **4.81** | **274** | Pn | **Pn** | **09 14 28.7** | **+0.5** |
| **BHD** | **Baghdad** | **4.84** | **182** | *e*Pn | **Pn** | **09 14 27.0** | **-1.4** |
| | SNR=2.0 | | | | | | |
| **GROC** | **Groznyy** | **5.17** | **10** | PN | **Pb** | **09 14 48.6** | **+3.0** |
| GROC | | | | *e*S | **Sg** | **09 16 01.2** | **+0.9** |
| GROC | | | | pmax | pmax | | |
| | comp=Z,87nm,1.4s | | | | | | |
| GROC | | | | smax | smax | | |
| | comp=E,135nm,1.6s | | | | | | |
| GROC | | | | smax | smax | | |
| | comp=E,369nm,1.9s | | | | | | |
| **GROC** | **Groznyy** | **5.17** | **10** | Pn | **Pb** | **09 14 48.6** | **+3.0** |
| GROC | | | | *e*S | **Sg** | **09 16 01.2** | **+0.9** |
| | comp=E,87nm,1.4s | | | | | | |
| **NEY** | **Neytrino** | **5.30** | **346** | *e*PN | **Pn** | **09 14 38.0** | **+3.0** |
| **NEY** | **Neytrino** | **5.30** | **346** | *e*Pn | **Pn** | **09 14 38.0** | **+3.0** |
| **NCK** | **Nalchik** | **5.42** | **353** | *e*PN | **Pn** | **09 14 37.0** | **+0.6** |
| **NCK** | **Nalchik** | **5.42** | **353** | *e*Pn | **Pn** | **09 14 37.0** | **+0.6** |
| **KBZ** | **Khabaz** | **5.74** | **348** | Pn | **Pn** | **09 14 39.6** | **-1.1** |
| | comp=E,0.0nm,0.3s,baz=252,slow=20,SNR=2.0 | | | | | | |
| KBZ | | | | Lg | Lg | 09 16 12.7 | |
| | comp=E,0.0nm,0.3s,baz=154,slow=11,SNR=1.9 | | | | | | |
| **KVAR** | **Kislovodsk Arr** | **5.99** | **347** | Pn | **Pn** | **09 14 43.2** | **-1.1** |
| | baz=180,slow=20,SNR=1.7 | | | | | | |
| KVAR | | | | Lg | Lg | 09 16 17.5 | |
| | baz=311,slow=19,SNR=2.1 | | | | | | |
| **KIV** | **Kislovodsk** | **5.99** | **347** | ⇑*e*P | **Pn** | **09 14 44.4** | **0.0** |
| KIV | | | | pmax | pmax | | |
| | comp=Z,30nm,1.7s | | | | | | |
| KIV | | | | MLR | MLR | | |
| | comp=Z,610nm,16.0s | | | | | | |
| **KIV** | **Kislovodsk** | **5.99** | **347** | *e*P | **Pn** | **09 14 44.4** | **0.0** |
| | comp=Z,610nm,16.0s | | | | | | |
| **KIV** | **Kislovodsk** | **5.99** | **347** | *e*Pn | **Pn** | **09 14 47.9** | **+3.5** |
| **KIV** | **Kislovodsk** | **5.99** | **347** | *e*Pn | **Pn** | **09 14 47.9** | **+3.5** |
| **ASF** | **Jabal al Asfar** | **8.62** | **229** | Pn | **Pn** | **09 15 21.8** | **+1.4** |
| | comp=Z,0.1nm,0.3s,baz=95,slow=19,SNR=2.3 | | | | | | |
| ASF | | | | Lg | Lg | 09 17 43.1 | |
| | comp=Z,1.1nm,0.3s,baz=341,slow=15,SNR=7.5 | | | | | | |
| **BR131** | **Keskin Array S** | **8.64** | **284** | *e*Pn | **Pn** | **09 15 23.1** | **+2.3** |
| **BR131** | **Keskin Array S** | **8.64** | **284** | *e*Pn | **Pn** | **09 15 23.1** | **+2.3** |
| **BRTR** | **Keskin Array B** | **8.64** | **284** | Pn | **Pn** | **09 15 17.8** | **-3.0** |
| | baz=112,slow=13,SNR=2.9 | | | | | | |
| BRTR | | | | Lg | Lg | 09 17 44.0 | |
| | comp=Z,0.1nm,0.3s,baz=119,slow=30,SNR=2.5 | | | | | | |
| BRTR | | | | LR | LR | 09 18 19.0 | |
| | comp=Z,43nm,21.8s,baz=95,slow=37 | | | | | | |
| **BRTR** | **Keskin Array B** | **8.64** | **284** | *i* P | Pn | 09 15 25.6 | +4.8 |
| BRTR | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.8s | | | | | | |
| **BRTR** | **Keskin Array B** | **8.64** | **284** | *i* P | Pn | 09 15 25.6 | +4.8 |
| | comp=Z,2.0nm,0.8s | | | | | | |
| **MMAI** | **Mount Meron Ar** | **9.01** | **238** | Pn | Pn | 09 15 29.8 | +4.0 |
| | comp=Z,0.8nm,0.3s,baz=72,slow=9.0,SNR=3.7 | | | | | | |
| MMAI | | | | Lg | Lg | 09 17 54.9 | |
| | comp=Z,1.7nm,0.3s,baz=152,slow=18,SNR=5.1 | | | | | | |
| MMAI | | | | LR | LR | 09 19 39.2 | |
| | comp=Z,77nm,19.8s,baz=40,slow=43 | | | | | | |
| **BR231** | **Keskin MP Arra

ARU S **S** **09 21 45.0 -0.1**
**ARU Arti 20.57 23** *e*P P **09 17 54.0 -0.5**
comp=Z,13nm,0.8s
**NIE Niedzica 20.73 311** P Pn 09 17 59.6 +0.9
NIE pmax pmax
comp=Z,10.0nm,1.5s
**VYHS Vyhne 21.29 307** *e*P **P** **09 18 05.9 +3.6**
VYHS pmax pmax
comp=Z,14nm,1.7s
**VYHS Vyhne 21.29 307** *e*P **P** **09 18 05.9 +3.6**
comp=Z,14nm,1.7s
**VYHS Vyhne 21.29 307** *e*P **P** **09 18 05.9 +3.6**
**OJC Ojcow 21.36 312** *e*P **P** **09 18 06.9 +3.8**
OJC pmax pmax
comp=Z,12nm,1.4s
**OJC Ojcow 21.36 312** *e*P **P** **09 18 06.9 +3.8**
comp=Z,12nm,1.4s
**OJC Ojcow 21.36 312** *e*P **P** **09 18 06.9 +3.8**
comp=Z,12nm,1.4s
**SVE Sverdlovsk 21.55 25** *e*P **P** **09 18 06.5 +1.5**
SVE pmax pmax
comp=Z,39nm,1.6s
**SVE Sverdlovsk 21.55 25** *e*P **P** **09 18 06.5 +1.5**
comp=Z,39nm,1.6s
**SUW Suwalki 21.59 324** P **P** **09 18 05.4 -0.1**
SUW pmax pmax
comp=Z,22nm,0.9s
**SUW Suwalki 21.59 324** P **P** **09 18 05.4 -0.1**
comp=Z,22nm,0.9s
**MORC Moravsky Berou 22.53 310** *e*P **P** **09 18 19.3 +3.6**
MORC pmax pmax
comp=Z,94nm,1.8s
**MORC Moravsky Berou 22.53 310** *e*P **P** **09 18 19.3 +3.6**
comp=Z,94nm,1.8s
**MORC Moravsky Berou 22.53 310** *e*P **P** **09 18 19.3 +3.6**
comp=Z,94nm,1.8s
**KLMR Klimovskoe 22.97 354** *e*P **P** **09 18 22.2 +2.0**
KLMR pmax pmax
comp=Z,23nm,1.5s
**KLMR Klimovskoe 22.97 354** *e*P **P** **09 18 22.2 +2.0**
comp=Z,23nm,1.5s
**AAK Ala-Archa 23.20 69** P P 09 18 30.0 +7.1
comp=Z,4.2nm,0.9s,baz=214,slow=11,SNR=8.3
AAK LR LR 09 28 33.4
comp=Z,45nm,18.6s,baz=266,slow=39
**AAK Ala-Archa 23.20 69** *e*P **P** **09 18 23.0 +0.1**
AAK pmax pmax
comp=Z,11nm,1.2s
**AAK Ala-Archa 23.20 69** *e*P **P** **09 18 23.0 +0.1**
comp=Z,11nm,1.2s
**AAK Ala-Archa 23.20 69** *e*P **P** **09 18 23.4 +0.5**
comp=Z,8.8nm,1.0s
**BRVK Borovoye 23.23 42***ce*P **P** **09 18 24.3 +1.4**
BRVK pmax pmax
comp=Z,4.0nm,0.9s
**BRVK Borovoye 23.23 42** *e*P **P** **09 18 24.3 +1.4**
comp=Z,4.0nm,0.9s
**BRVK Borovoye 23.23 42** *e*P **P** **09 18 24.4 +1.4**
comp=Z,9.5nm,0.8s
**BVAR Borovoye Array 23.27 42** P **P** **09 18 24.0 +0.7**
comp=Z,1.5nm,0.7s,baz=248,slow=7.8,SNR=9.6
**BVAR Borovoye Array 23.27 42** P **P** **09 18 24.0 +0.7**
BVAR pmax pmax
comp=Z,1.0nm,0.7s
**BVAR Borovoye Array 23.27 42** P **P** **09 18 24.0 +0.7**
comp=Z,1.0nm,0.7s
**FRU Bishkek 23.30 69** *e*P P 09 18 32.0 +8.3
**FRU Bishkek 23.30 69** *e*P P 09 18 32.0 +8.3
**VSU Vasula 23.41 336***ce*P **P** **09 18 28.3 +3.7**
VSU pmax pmax
comp=Z,110nm,2.5s
**VSU Vasula 23.41 336** *e*P **P** **09 18 28.3 +3.7**
comp=Z,110nm,2.5s
**KSH Kashi 24.48 77** P **P** **09 18 37.0 +1.8**
KSH pP 09 18 42.8
KSH PP **PnPn** **09 19 12.5 +7.1**
KSH PcP **PcP** **09 22 19.0 +5.2**
KSH S **S** **09 22 51.8 -4.6**
KSH SS **SnSn** **09 23 43.0 +3.3**
**KSH Kashi 24.48 77** ScS ScS 09 29 40.8 -0.6
KSH pmax pmax
comp=Z,6.0nm,1.0s
KSH pmax pmax
comp=Z,130nm,4.3s
KSH LR LR
comp=N,130nm,5.6s
KSH LR LR
comp=E,150nm,4.5s
KSH LR LR
comp=Z,200nm,5.3s
**GERES GERESS Array B 24.64 306** P **P** **09 18 35.2 -1.4**
comp=Z,0.6nm,0.8s,baz=121,slow=9.5,SNR=5.0
**KHC Kasperske Hory 24.80 306** *e*P **P** **09 18 38.9 +1.0**
KHC pmax pmax
comp=Z,7.0nm,1.7s
**KHC Kasperske Hory 24.80 306** *e*P **P** **09 18 38.9 +1.0**
comp=Z,6.9nm,1.7s
**KHC Kasperske Hory 24.80 306** *e*P **P** **09 18 38.9 +1.0**
comp=Z,6.9nm,1.7s
**WET Wettzell 25.24 306** P **P** **09 18 47.0 +5.1**
**FINES FINESS Array B 26.02 340** LR LR 09 29 48.1
comp=Z,156nm,20.1s,baz=154,slow=39
**ATD Arta Tunnel 26.52 184** LR LR 09 29 58.4
comp=Z,70nm,19.8s,baz=350,slow=38
**DAVOX Davos/Dischmat 26.82 300** P **P** **09 18 53.5 -2.8**
comp=Z,1.5nm,0.6s,baz=117,slow=13,SNR=3.8
**DAVOX Davos/Dischmat 26.82 300** P **P** **09 18 53.6 -2.8**
DAVOX pmax pmax
comp=Z,1.0nm,0.5s
**KURBB Kurchatov Arra 27.07 51** P **P** **09 18 59.7 +1.3**
comp=Z,1.9nm,0.7s,baz=263,slow=9.2,SNR=17
**KURK Kurchatov 27.15 51***ce*P **P** **09 19 00.7 +1.6**
KURK pmax pmax
comp=Z,50nm,1.7s
**KURK Kurchatov 27.15 51** *e*P **P** **09 18 59.8 +0.7**
comp=Z,10nm,1.1s
**KURK Kurchatov 27.15 51** *e*P **P** **09 18 59.8 +0.7**
comp=Z,10nm,1.1s
**KEST Kesra 28.13 276** LR LR 09 32 04.4
comp=Z,68nm,19.8s,baz=310,slow=41
**MAKZ Makanchi 28.73 60** *e*P **P** **09 19 12.9 -0.4**
MAKZ pmax pmax
comp=Z,3.0nm,1.0s
**MAKZ Makanchi 28.73 60** *e*P **P** **09 19 12.9 -0.4**
comp=Z,3.1nm,1.0s
**MAKZ Makanchi 28.73 60** *e*P **P** **09 19 12.9 -0.4**
comp=Z,3.1nm,1.0s
**MK31 Makanchi Array 28.94 60** *e*P **P** **09 19 16.6 +1.4**
**MK31 Makanchi Array 28.94 60** *e*P **P** **09 19 16.6 +1.4**
**MK31 Makanchi Array 28.94 60** *e*P **P** **09 19 16.6 +1.4**
**MKAR Makanchi Array 28.94 60** P **P** **09 19 16.8 +1.6**
comp=Z,1.2nm,0.9s,baz=268,slow=7.0,SNR=6.4
MKAR LR LR 09 32 53.4
comp=Z,32nm,18.2s,baz=259,slow=40
**MKAR Makanchi Array 28.94 60** *e*P **P** **09 19 16.6 +1.4**
comp=Z,10nm,0.8s
**MKAR Makanchi Array 28.94 60** *e*P **P** **09 19 16.6 +1.4**
comp=Z,10nm,0.8s
**MK01 Makanchi Array 28.95 60** *e*P **P** **09 19 16.7 +1.4**
**MK01 Makanchi Array 28.95 60** *e*P **P** **09 19 16.7 +1.4**
**BNI Bardonecchia 28.95 296** *e*P **P** **09 19 16.5 +1.1**
BNI pmax pmax
comp=Z,33nm,1.7s
**BNI Bardonecchia 28.95 296** *e*P **P** **09 19 16.5 +1.1**
comp=Z,33nm,1.7s
**BNI Bardonecchia 28.95 296** *e*P **P** **09 19 16.5 +1.1**
comp=Z,33nm,1.7s
**HFS Hagfors 29.41 328** LR LR 09 33 12.9
comp=Z,126nm,18.7s,baz=76,slow=41
**NOA NORSAR Array B 30.93 329** LR LR 09 33 06.9
comp=Z,64nm,19.8s,baz=130,slow=39
**ZALV Zalesovo Beam 31.62 47** P **P** **09 19 40.6 +1.9**
comp=Z,0.6nm,0.6s,baz=274,slow=9.3,SNR=4.2
**ZALV Zalesovo Beam 31.62 47** *e*P **P** **09 19 40.9 +2.1**
**ZALV Zalesovo Beam 31.62 47** *e*P **P** **09 19 40.9 +2.1**
**ZALV Zalesovo Beam 31.62 47** *e*P **P** **09 19 40.9 +2.1**
**DGZ Jazzator, Alta 32.57 55** *i*P **P** **09 19 51.1 +3.7**
DGZ pmax pmax
comp=Z,2.0nm,0.9s
**WMQ Urumqi 32.80 66** P **P** **09 19 51.8 +2.5**
WMQ LR LR
comp=N,150nm,24.5s
WMQ LR LR
comp=E,79nm,18.1s
WMQ LR LR
comp=Z,64nm,22.1s

**ARCES ARCESS Array B 33.10 348** LR LR 09 33 52.0
comp=Z,142nm,19.0s,baz=162,slow=38
**ESDC Sonseca Array 37.41 288** P **P** **09 20 26.0 -3.1**
comp=Z,0.1nm,0.3s,baz=65,slow=8.6,SNR=3.2
**KMBO Kilima Mbogo 39.63 191** LR LR 09 36 08.6
comp=Z,48nm,21.6s,baz=76,slow=34
**ZAK Zakamensk 42.76 54** *e*P **P** **09 21 14.0 +0.6**
ZAK pmax pmax
comp=Z,3.0nm,1.6s
**ZAK Zakamensk 42.76 54** *e*P **P** **09 21 14.0 +0.6**
comp=Z,3.0nm,1.6s
**SONM Songino Array 45.18 57** P **P** **09 21 34.5 +1.6**
comp=Z,0.3nm,0.7s,baz=303,slow=8.4,SNR=3.3
SONM LR LR 09 42 37.7
comp=Z,48nm,18.8s,baz=330,slow=39
**ULN Ulaanbaatar 45.61 57***ce*P **P** **09 21 40.0 +3.6**
ULN pmax pmax
comp=Z,4.0nm,1.7s
**BOD Bodaibo 48.14 42** *e*P **P** **09 21 54.3 -1.5**
BOD pmax pmax
comp=Z,5.0nm,1.4s
**BOD Bodaibo 48.14 42** *e*P **P** **09 21 54.3 -1.5**
comp=Z,5.0nm,1.4s
**HHC Hu-ho-hao-te 50.65 65** *e*P **P** **09 22 16.3 +0.9**
HHC pmax pmax
comp=Z,9.0nm,1.0s
HHC pmax pmax
comp=Z,91nm,4.7s
**CMAR Chiang Mai Arr 51.01 97** P **P** **09 22 19.1 +0.9**
comp=Z,1.1nm,0.8s,baz=297,slow=8.8,SNR=6.7
CMAR LR LR 09 47 37.4
comp=Z,32nm,18.5s,baz=244,slow=40
**TIXI Tiksi 52.57 23** *e*P P 09 22 34.1 +5.0
TIXI pmax pmax
comp=Z,1.0nm,1.0s
**HIA Hailar 53.39 52** *e*P P 09 22 39.8 +4.2
HIA pmax pmax
comp=Z,2.0nm,0.9s
**KSRS Korea Array 63.61 62** LR LR 09 53 58.6
comp=Z,25nm,19.1s,baz=120,slow=38
**SEY Seymchan 64.15 29** P **P** **09 23 50.4 +0.2**
comp=Z,1.2nm,0.5s,baz=269,slow=7.9,SNR=6.0
**SEY Seymchan 64.15 29***ce*P P 09 23 54.1 +4.0
**BILL Bilibino 65.57 21**↑ *e*P **P** **09 24 02.1 +2.7**
BILL *e* 09 24 10.0
BILL PPP PPP 09 27 59.0
BILL pmax pmax
comp=Z,3.0nm,1.3s
BILL MLR MLR
comp=Z,48nm,18.0s
**BILL Bilibino 65.57 21** *e*P **P** **09 24 02.1 +2.7**
comp=Z,3.0nm,1.3s
**TGY Tagaytay City 70.81 87** LR LR 09 59 15.4
comp=Z,226nm,20.2s,baz=106,slow=39
**YKA Yellowknife Ar 78.33 350** P **P** **09 25 14.0 -1.9**
comp=Z,0.3nm,0.9s,baz=16,slow=6.0,SNR=5.4

*AZER **31** 09:22:40.9±1.1, 37.°93N×44.°20E, h17km±31km, Error ellipse: s-maj=36.1km s-min=6.0km az=53.0*
*DDA **31** 09:22:41.9, 38.°17N×44.°53E, h2km, Ml3.0*
*ISK **31** 09:22:42.8, 38.°28N×44.°37E, h5km, ML3.6*
*CSEM **31** 09:22:43.8±0.3, 38.°21N×44.°40E, h5km, ML3.6, Error ellipse: s-maj=8.6km s-min=4.2km az=170.0*
**ISC 31 09:22:45.1**±1.1, **38.°26N**±0.°03×**44.°39E**±0.°02, **h15**km±9km, **n36**, σ1°**83**/61, **6C-12D, Turkey-Iran border region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **TVAN** | **Van** | **0.81** | **289** | *i* | P | **Pb** | **09 23 01.1** | **+0.1** |
| TVAN | | | | *i* | S | **Sn** | **09 23 15.4** | **+1.3** |
| **TVAN** | **Van** | **0.81** | **289** | | P | **Pb** | **09 23 01.1** | **+0.1** |
| **VANB** | **Van** | **0.85** | **293** | *e* | PG | **Pg** | **09 22 59.1** | **-2.6** |
| VANB | | | | *e* | SG | **Sg** | **09 23 11.2** | **-1.7** |
| **VANB** | **Van** | **0.85** | **293** | *e* | Pg | **Pg** | **09 22 59.1** | **-2.6** |
| VANB | | | | *e* | Sg | **Sg** | **09 23 11.2** | **-1.7** |
| **CLDR** | **Caldiran** | **0.95** | **338** | *e* | PG | **Pb** | **09 23 01.1** | **-2.4** |
| **GEVA** | **Gevas** | **1.05** | **273** | *i* | P | **Pb** | **09 23 03.7** | **-1.3** |
| GEVA | | | | *i* | S | **Sn** | **09 23 20.6** | **+0.9** |
| **GEVA** | **Gevas** | **1.05** | **273** | | P | **Pb** | **09 23 03.7** | **-1.3** |
| GEVA | | | | | S | **Sn** | **09 23 20.6** | **+0.9** |
| **IMRD** | **Marand** | **1.13** | **66** | *e* | Pg | **Pb** | **09 23 05.1** | **-1.3** |
| IMRD | | | | *e* | Sg | **Sn** | **09 23 24.9** | **+3.1** |
| **CUKT** | **Cukurca** | **1.19** | **212** | *e* | PN | **Pn** | **09 23 06.3** | **-0.9** |
| **CUKT** | **Cukurca** | **1.19** | **212** | *e* | Pn | **Pn** | **09 23 06.3** | **-0.9** |
| **NAX** | **Nakhchivan** | **1.26** | **43** | ↑ | P | **Pn** | **09 23 07.9** | **-0.2** |
| | SNR=5.7 | | | | | | | |
| NAX | | | | ⇓ | S | **Sg** | **09 23 28.7** | **+2.9** |
| **ITBZ** | **Tabriz** | **1.39** | **91** | *e* | Pn | **Pn** | **09 23 09.4** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **1.41** | **293** | *i* | P | **Pg** | **09 23 11.5** | **-0.8** |
| ADCV | | | | *i* | S | **Sg** | **09 23 33.5** | **+2.8** |
| **ADCV** | **BITLIS_Adilcev** | **1.41** | **293** | | P | **Pg** | **09 23 11.5** | **-0.8** |
| ADCV | | | | | S | **Sg** | **09 23 33.5** | **+2.8** |
| **ORD** | **Ordubad** | **1.43** | **62** | | P | **Pb** | **09 23 10.7** | **-0.7** |
| ORD | | | | | S | **Sg** | **09 23 31.5** | **+0.4** |
| **SBZ** | **Shahbuz** | **1.46** | **38** | ⇓ | P | **Pb** | **09 23 11.2** | **-0.7** |
| | SNR=67 | | | | | | | |
| SBZ | | | | ⇑ | S | **Sg** | **09 23 35.5** | **+3.4** |
| **HYR** | **Heyderabad** | **1.50** | **14** | ⇓ | P | **Pb** | **09 23 12.0** | **-0.7** |
| HYR | | | | ⇓ | S | **Sg** | **09 23 37.5** | **+4.0** |
| **HYR** | **Heyderabad** | **1.50** | **14** | | P | **Pb** | **09 23 12.0** | **-0.7** |
| HYR | | | | | S | **Sg** | **09 23 37.5** | **+4.0** |
| **SIRT** | **Sirnak** | **1.72** | **244** | *e* | PN | **Pb** | **09 23 15.7** | **-0.6** |
| **SIRT** | **Sirnak** | **1.72** | **244** | *e* | Pn | **Pb** | **09 23 15.7** | **-0.6** |
| **TASB** | **TASBURUN-IGDIR** | **1.72** | **356** | *e* | PN | **Pn** | **09 23 15.1** | **+0.5** |
| **TASB** | **TASBURUN-IGDIR** | **1.72** | **356** | *e* | Pn | **Pn** | **09 23 15.1** | **+0.5** |
| **SIRN** | **S¨¨rnak** | **1.74** | **245** | *i* | P | **Pg** | **09 23 20.6** | **+2.1** |
| SIRN | | | | *i* | S | **Sg** | **09 23 45.2** | **+4.2** |
| **SRTM** | **Siirt_Merkez** | **1.96** | **263** | *i* | P | **Pg** | **09 23 21.8** | **-0.9** |
| SRTM | | | | *i* | S | **Sg** | **09 23 51.3** | **+3.1** |
| **SRTM** | **Siirt_Merkez** | **1.96** | **263** | | P | **Pg** | **09 23 21.8** | **-0.9** |
| **BTMN** | **Batman** | **2.49** | **262** | *i* | P | **Pg** | **09 23 30.9** | **-1.8** |
| BTMN | | | | *i* | S | **Sg** | **09 24 08.6** | **+3.5** |
| **GDB** | **GEDABAY** | **2.67** | **23** | ⇓ | P | **Pn** | **09 23 28.5** | **+0.8** |
| GDB | | | | ⇓ | S | **Sb** | **09 24 03.4** | **-2.1** |
| **GDB** | **GEDABAY** | **2.67** | **23** | | P | **Pn** | **09 23 28.5** | **+0.8** |
| GDB | | | | | S | **Sb** | **09 24 03.3** | **-2.1** |
| **GANJ** | **Ganja** | **2.81** | **32** | ↑ | P | **Pn** | **09 23 29.6** | **+0.1** |
| GANJ | | | | ⇓ | S | **Sb** | **09 24 08.1** | **-1.2** |
| **GANJ** | **Ganja** | **2.81** | **32** | | P | **Pn** | **09 23 29.6** | **+0.1** |
| GANJ | | | | | S | **Sb** | **09 24 08.1** | **-1.2** |
| **QZX** | **Qazax, Azerbai** | **2.90** | **15** | ↑ | P | **Pn** | **09 23 31.6** | **+1.0** |
| QZX | | | | ⇓ | S | **Sb** | **09 24 10.8** | **-0.9** |
| **QZX** | **Qazax, Azerbai** | **2.90** | **15** | | P | **Pn** | **09 23 31.6** | **+1.0** |
| QZX | | | | | S | **Sb** | **09 24 10.8** | **-0.9** |
| **LRK** | **Lerik** | **3.13** | **82** | ⇓ | P | **Pn** | **09 23 32.5** | **-1.4** |
| LRK | | | | ⇑ | S | **Sn** | **09 24 12.1** | **+1.0** |
| **ASTR** | **Astara** | **3.47** | **84** | ⇓ | P | **Pn** | **09 23 37.5** | **-1.1** |
| ASTR | | | | ⇓ | S | **Sn** | **09 24 20.1** | **+0.8** |
| **LKRN** | **Lenkeran, Azer** | **3.48** | **81** | ↑ | P | **Pn** | **09 23 36.7** | **-1.8** |
| LKRN | | | | ⇓ | S | **Sn** | **09 24 20.0** | **+0.6** |
| **LKRN** | **Lenkeran, Azer** | **3.48** | **81** | | S | **Sn** | **09 24 20.0** | **+0.6** |

*NNC **31** 09:22:51.3±1.0, 51.°63N×75.°28E, h0km, mb3.2, mpv2.8, Error ellipse: s-maj=36.4km s-min=6.6km az=26.0, Suspected Mining explosion.*
*IDC **31** 09:22:53.7±0.9, 51.°65N×75.°48E, h0km, mb1 2.8/4, mb1mx2.6/55, mbtmp2.8/4, ML2.5/4, Error ellipse: s-maj=31.7km s-min=7.9km az=31.0*
**ISC 31 09:22:51.9**±0.9, **51.°70N**±0.°08×**75.°55E**±0.°04, **h0**km, **n11**, σ1°**66**/17, **6C-8D, Eastern Kazakhstan**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **KURBB** | **Kurchatov Arra** | **2.17** | **119** | | Pn | **Pb** | **09 23 31.1** | **-0.8** |
| | 0.8nm,0.3s,baz=302,slow=19,SNR=68 | | | | | | | |
| KURBB | | | | | Lg | | 09 24 00.1 | |
| | 0.7nm,0.3s,baz=310,slow=33,SNR=10 | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **2.17** | **119** | ⇓ | Pn | **Pg** | **09 23 32.5** | **-0.9** |
| | 2.3nm,0.3s | | | | | | | |
| KURBB | | | | ⇑ | Sn | **Sg** | **09 23 59.9** | **-1.5** |
| | 44nm,0.7s | | | | | | | |
| **KURK** | **Kurchatov** | **2.17** | **116** | ↑ | Pn | **Pb** | **09 23 31.1** | **-0.8** |
| | 3.1nm,0.6s | | | | | | | |
| KURK | | | | ⇑ | Sn | **Sb** | **09 23 59.3** | **-0.1** |
| | 18nm,0.8s | | | | | | | |
| **BVA0** | **Borovoye Array** | **3.43** | **295** | ⇓ | Pg | **Pn** | **09 23 48.3** | **+1.8** |
| | 2.9nm,0.8s,baz=109,slow=13,SNR=23 | | | | | | | |
| BVA0 | | | | ⇑ | Lg | Lg | 09 24 37.9 | |
| | 13nm,0.8s,baz=112,slow=27,SNR=7.3 | | | | | | | |
| **BVAR** | **Borovoye Array** | **3.43** | **295** | | Pn | **Pn** | **09 23 48.0** | **+1.5** |
| | 0.7nm,0.3s,baz=107,slow=13,SNR=18 | | | | | | | |
| BVAR | | | | | Sn | **Sn** | **09 24 27.7** | **-0.2** |
| | 1.0nm,0.3s,baz=109,slow=21,SNR=5.5 | | | | | | | |
| BVAR | | | | | Lg | Lg | 09 24 37.8 | |
| | 1.6nm,0.3s,baz=111,slow=29,SNR=7.1 | | | | | | | |
| **BRVK** | **Borovoye** | **3.50** | **295** | ⇓ | Pg | **Pb** | **09 23 53.2** | **-1.4** |
| | 2.1nm,0.7s | | | | | | | |
| BRVK | | | | ⇓ | Lg | Lg | 09 24 38.8 | |
| | 14nm,0.8s | | | | | | | |
| **I46RU** | **ZALESOVO INFRA** | **6.05** | **65** | *i* | | | 10 06 00.0 | |
| | baz=250,slow=321,SNR=1.4 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **6.05** | **65** | | Pn | **Pn** | **09 24 25.9** | **+3.3** |
| | 0.6nm,0.3s,baz=256,slow=15,SNR=8.4 | | | | | | | |
| ZALV | | | | | Sn | **Sn** | **09 25 30.4** | **-2.1** |
| | 0.1nm,0.3s,baz=252,slow=22,SNR=2.4 | | | | | | | |
| **MAKZ** | **Makanchi** | **6.46** | **137** | ⇑ | Pn | **Pn** | **09 24 29.2** | **+1.1** |
| | 0.6nm,0.8s | | | | | | | |
| MAKZ | | | | ⇓ | Sn | **Sn** | **09 25 43.3** | **+0.8** |
| | 0.8nm,0.5s | | | | | | | |
| MAKZ | | | | ⇓ | Lg | Lg | 09 26 18.7 | |
| | 6.8nm,0.8s | | | | | | | |
| **MK31** | **Makanchi Array** | **6.60** | **135** | ⇑ | Pn | **Pn** | **09 24 30.9** | **+0.8** |
| | 0.4nm,0.6s,baz=322,slow=13,SNR=15 | | | | | | | |
| MK31 | | | | ⇓ | Sn | **Sn** | **09 25 48.5** | **+2.4** |
| | 0.4nm,0.5s,baz=322,slow=20,SNR=5.9 | | | | | | | |
| MK31 | | | | ⇓ | Lg | Lg | 09 26 20.9 | |
| | 3.5nm,0.7s,baz=321,slow=26,SNR=6.8 | | | | | | | |
| **MKAR** | **Makanchi Array** | **6.60** | **135** | | Pn | **Pn** | **09 24 31.7** | **+1.6** |
| | 0.1nm,0.3s,baz=315,slow=14,SNR=12 | | | | | | | |
| MKAR | | | | | Pg | Pb | 09 24 42.1 | -5.4 |
| | 0.1nm,0.3s,baz=339,slow=16,SNR=5.0 | | | | | | | |
| MKAR | | | | | Sn | **Sn** | **09 25 45.8** | **-0.3** |
| | 0.1nm,0.3s,baz=315,slow=18,SNR=5.4 | | | | | | | |
| MKAR | | | | | Lg | Lg | 09 26 17.1 | |
| | 0.3nm,0.3s,baz=326,slow=24,SNR=8.9 | | | | | | | |

*IDC **31** 09:25:00.4±13.0, 35.°18N×71.°02E, h63km±42km, mb3.6/4, mb1 3.6/7, mb1mx3.1/53, mbtmp3.8/7, ML3.5/3, Error ellipse: s-maj=192.0km s-min=32.8km az=156.0*
*NNC **31** 09:25:12.1±3.6, 36.°72N×70.°18E, h0km, mb4.0, mpv3.6, Error ellipse: s-maj=27.6km s-min=24.6km az=166.0*
**ISC 31 09:25:15.6**±2.0, **36.°6N**±0.°2×**70.°2E**±0.°1, **h110**km, **n10**, σ2°**21**/15, **mb4.0**/3, **4C-2D, Hindu Kush region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **SFK** | **Sufi-Kurgan** | **4.30** | **36** | ⇑ | Pn | **Pn** | **09 26 17.1** | **-2.1** |
| | 10.0nm,0.4s | | | | | | | |
| SFK | | | | ⇓ | Sn | **Sn** | **09 27 08.7** | **+0.1** |
| | 9.2nm,0.3s | | | | | | | |
| **MNAS** | **Manas** | **6.17** | **16** | ⇓ | Pn | **Pn** | **09 26 43.0** | **-1.3** |
| | 1.2nm,0.4s | | | | | | | |
| MNAS | | | | ⇑ | Sn | **Sn** | **09 27 53.4** | **-0.1** |
| | 6.5nm,0.4s | | | | | | | |
| **KK31** | **Karatay Array** | **6.53** | **2** | ⇑ | Pn | **Pn** | **09 26 48.2** | **-0.8** |
| | 1.2nm,0.3s,baz=185,slow=13,SNR=33 | | | | | | | |
| KK31 | | | | ⇑ | Sn | **Sn** | **09 28 02.4** | **+0.4** |
| | 2.0nm,0.4s,baz=186,slow=22,SNR=6.0 | | | | | | | |
| **AAK** | **Ala-Archa** | **6.90** | **27** | | P | **Pn** | **09 26 52.3** | **-2.0** |
| | 1.0nm,0.3s,baz=196,slow=7.5,SNR=10 | | | | | | | |
| AAK | | | | | S | **Sn** | **09 28 08.9** | **-2.5** |
| | 0.7nm,0.3s,baz=122,slow=22,SNR=7.2 | | | | | | | |
| **GEYT** | **Alibeck** | **9.73** | **282** | | P | **Pn** | **09 27 31.7** | **-0.9** |
| | 0.3nm,0.3s,baz=118,slow=8.4,SNR=4.0 | | | | | | | |
| GEYT | | | | | S | **Sn** | **09 29 16.3** | **-3.7** |
| | 0.3nm,0.3s,baz=68,slow=23,SNR=3.6 | | | | | | | |
| **BVAR** | **Borovoye Array** | **16.45** | **0** | | P | **P** | **09 29 04.6** | **+4.1** |
| | 0.1nm,0.3s,baz=170,slow=10,SNR=2.7 | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **20.12** | **26** | | P | **P** | **09 29 40.2** | **-0.4** |
| | 1.3nm,0.5s,baz=223,slow=12,SNR=7.2 | | | | | | | |
| **FINES** | **FINESS Array B** | **37.07** | **326** | | P | **P** | **09 32 17.2** | **+2.6** |
| | 1.7nm,0.8s,baz=116,slow=9.4,SNR=3.8 | | | | | | | |
| **ARCES** | **ARCESS Array B** | **40.83** | **338** | | P | **P** | **09 32 47.6** | **+1.6** |
| | 4.0nm,1.0s,baz=106,slow=6.7,SNR=3.4 | | | | | | | |
| **HFS** | **Hagfors** | **42.61** | **322** | | P | **P** | **09 33 01.7** | **+1.1** |
| | 1.4nm,0.8s,baz=79,slow=9.0,SNR=2.5 | | | | | | | |

*ISCJB **31** 09:49:37.3±0.3, 42.°84S±0.°07×83.°65E±0.°09, h10km, mb4.6/26, MS4.0/23, Error ellipse: s-maj=10.5km s-min=9.1km az=153.6*
*IDC **31** 09:49:37.7±0.6, 42.°83S×83.°63E, h0km, mb4.3/13, mb1 4.3/13, mb1mx4.1/37, mbtmp4.2/13, MS4.0/23, Ms1 4.0/23, ms1mx3.8/32, Error ellipse: s-maj=21.6km s-min=19.8km az=29.0*
*NEIC **31** 09:49:38.8±0.3, 42.°85S×83.°62E, h10km, mb4.7/8, Error ellipse: s-maj=11.3km s-min=8.5km az=185.0*
**ISC 31 09:49:38.9**±0.5, **42.°8S**±0.°1×**83.°58E**±0.°10, **h10**km, **n68**, σ0°**80**/54, **mb4.6**/26, **MS4.0**/23, **1C-1D, Mid-Indian Ridge**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | | Op | ISC | h m s | ISC |
| **H01W2** | **Cape Leeuwin H** | **24.97** | **82** | | T | T | 10 20 46.8 | |
| | baz=243,slow=74,SNR=165 | | | | | | | |
| **H01W3** | **Cape Leeuwin H** | **24.98** | **82** | | T | T | 10 20 48.7 | |
| | baz=243,slow=74,SNR=134 | | | | | | | |
| **H01W1** | **Cape Leeuwin H** | **24.99** | **82** | | T | T | 10 20 48.4 | |
| | baz=243,slow=74,SNR=147 | | | | | | | |
| **MAW** | **Mawson** | **27.22** | **197** | | LR | LR | 10 03 40.3 | |
| | comp=Z,301nm,21.2s,baz=56,slow=31 | | | | | | | |
| **NWAO** | **Narrogin (SRO)** | **28.18** | **81** | | LR | LR | 10 04 04.2 | |
| | comp=Z,450nm,21.5s,baz=354,slow=31 | | | | | | | |
| **SYO** | **Syowa Base** | **34.67** | **206**↑ | *e* | P | **P** | **09 56 28.0** | **-0.1** |
| **SYO** | **Syowa Base** | **34.67** | **206**⇓ | *e* | sP | sP | 09 56 35.0 | +2.5 |
| **H08S2** | **Diego Garcia H** | **36.37** | **341** | | T | T | 10 34 55.8 | |
| | baz=166,slow=76,SNR=85 | | | | | | | |
| **H08S1** | **Diego Carcia H** | **36.37** | **341** | | T | T | 10 34 59.9 | |
| | baz=166,slow=76,SNR=59 | | | | | | | |
| **H08S3** | **Diego Garcia H** | **36.39** | **341** | | T | T | 10 34 59.0 | |
| | baz=166,slow=76,SNR=165 | | | | | | | |
| **ASAR** | **Alice Springs** | **45.49** | **82** | | P | **P** | **09 57 58.2** | **-0.3** |
| | 3.3nm,0.9s,baz=231,slow=8.0,SNR=30 | | | | | | | |
| ASAR | | | | | PcP | **PcP** | **09 59 37.0** | **-0.3** |
| | 1.6nm,0.9s,baz=219,slow=3.3,SNR=5.4 | | | | | | | |
| ASAR | | | | | LR | LR | 10 14 41.2 | |
| | comp=Z,552nm,20.6s,baz=238,slow=33 | | | | | | | |
| **AS31** | **Alice Springs** | **45.49** | **82** | *e* | P | **P** | **09 57 58.5** | **0.0** |
| | 1.9nm,1.0s | | | | | | | |
| AS31 | | | | *e* | PcP | **PcP** | **09 59 37.0** | **-0.3** |
| **AS01** | **Alice Springs** | **45.52** | **82** | *e* | P | **P** | **09 57 58.1** | **-0.7** |
| **VNDA** | **Vanda** | **46.09** | **163** | | P | **P** | **09 58 03.1** | **+0.6** |
| | 1.3nm,0.6s,baz=282,slow=6.6,SNR=10 | | | | | | | |
| VNDA | | | | | LR | LR | 10 15 31.1 | |
| | comp=Z,375nm,20.2s,baz=274,slow=34 | | | | | | | |
| **STKA** | **Stephens Creek** | **46.57** | **96** | | P | **P** | **09 58 07.1** | **+0.2** |
| | 1.7nm,0.9s,baz=261,slow=6.5,SNR=4.1 | | | | | | | |
| STKA | | | | | PcP | **PcP** | **09 59 40.8** | **-0.2** |
| | 1.7nm,0.8s,baz=240,slow=2.3,SNR=3.0 | | | | | | | |
| STKA | | | | | LR | LR | 10 14 51.5 | |
| | comp=Z,305nm,18.5s,baz=208,slow=32 | | | | | | | |
| **QSPA** | **South Pole Qui** | **47.34** | **180** | *e* | P | **P** | **09 58 12.9** | **+0.2** |
| | 62nm,1.0s | | | | | | | |
| **WR1** | **Warramunga Arr** | **48.12** | **78** | *e* | P | **P** | **09 58 19.0** | **-0.2** |
| | 11nm,1.0s | | | | | | | |
| WR1 | | | | *e* | PcP | **PcP** | **09 59 46.6** | **-0.1** |
| **WRA** | **Warramunga Arr** | **48.12** | **78** | | P | **P** | **09 58 19.0** | **-0.2** |
| | 9.5nm,0.8s,baz=230,slow=7.4,SNR=58 | | | | | | | |
| WRA | | | | | PcP | **PcP** | **09 59 46.6** | **-0.1** |
| | 0.8nm,0.8s,baz=230,slow=2.7,SNR=3.4 | | | | | | | |
| WRA | | | | | LR | LR | 10 16 06.7 | |
| | comp=Z,220nm,21.3s,baz=235,slow=33 | | | | | | | |
| **WB2** | **Warramunga Arr** | **48.13** | **78** | *e* | P | **P** | **09 58 18.0** | **-1.2** |
| **WRAB** | **Tennant Creek** | **48.14** | **78** | *e* | P | **P** | **09 58 19.2** | **-0.1** |
| | 8.0nm,0.8s | | | | | | | |
| **BOSA** | **Boshof** | **48.52** | **267** | | P | **P** | **09 58 22.3** | **0.0** |
| | 2.0nm,0.8s,baz=135,slow=11,SNR=2.7 | | | | | | | |
| BOSA | | | | | LR | LR | 10 15 18.8 | |
| | comp=Z,233nm,18.

8.2nm,1.4s
**CM01 Chiang Mai Arr 62.56 16** *e*P **P 10 00 02.8 -0.2**
**CM31 Chiang Mai Arr 62.59 16** *e*P **P 10 00 03.5 +0.3**
**CMAR Chiang Mai Arr 62.59 16** P **P 10 00 03.4 +0.2**
2.2nm,0.9s,baz=210,slow=6.7,SNR=12
CMAR LR LR 10 23 26.9
comp=Z,75nm,19.8s,baz=216,slow=32
**KBL Kabul 78.13 348** *e*P **P 10 01 38.3 +0.2**
19nm,1.1s
**GEYT Alibeck 83.64 340** P **P 10 02 07.5 +0.1**
2.0nm,0.7s,baz=178,slow=10.0,SNR=3.5
GEYT LR LR 10 33 30.9
comp=Z,35nm,21.5s,baz=55,slow=32
**EIL Elat 84.86 319** LR LR 10 33 54.2
comp=Z,75nm,20.1s,baz=271,slow=31
**AAK Ala-Archa 85.47 353** P **P 10 02 18.2 +1.6**
1.8nm,0.7s,baz=187,slow=7.3,SNR=6.2
**KKAR Karatay Array 86.34 350** *e*P **P 10 02 21.4 +0.7**
4.3nm,1.0s
**MMAI Mount Meron Ar 87.42 321** LR LR 10 37 05.0
comp=Z,42nm,18.8s,baz=100,slow=33
**MK01 Makanchi Array 89.21 359** *e*P **P 10 02 35.3 +0.8**
**MK31 Makanchi Array 89.24 359** *e*P **P 10 02 33.3 -1.2**
**MK32 Makanchi Array 89.24 359** *e*P **P 10 02 35.1 +0.6**
**MKAR Makanchi Array 89.24 359** P **P 10 02 35.1 +0.6**
0.9nm,0.8s,baz=148,slow=5.6,SNR=6.9
MKAR LR LR 10 41 04.6
comp=Z,83nm,18.1s,baz=218,slow=35
**MAKZ Makanchi 89.25 359** *e*P **P 10 02 33.4 -1.2**
6.3nm,1.3s
**SONA0 Songino Array 92.49 15** *e*P **P 10 02 49.7 -0.1**
**SONM Songino Array 92.49 15** P **P 10 02 49.7 -0.1**
0.8nm,0.9s,baz=172,slow=2.9,SNR=3.5
SONM LR LR 10 44 19.2
comp=Z,54nm,18.9s,baz=158,slow=36
**KURBB Kurchatov Arra 93.17 357** P **P 10 02 52.6 0.0**
0.9nm,0.2s,baz=186,slow=3.6,SNR=4.8
**KURK Kurchatov 93.25 357** P **P 10 02 52.6 -0.4**
**DBIC Dimbokro 93.34 276** LR LR 10 41 54.7
comp=Z,47nm,18.6s,baz=126,slow=34
**KBZ Khabaz 93.56 332** LR LR 10 39 30.8
comp=Z,58nm,22.0s,baz=179,slow=32
**PLCA Paso Flores 93.61 199** LR LR 10 43 22.2
comp=Z,66nm,20.9s,baz=162,slow=34
**BR101 Keskin Array S 93.78 324** *e*P **P 10 02 56.9 +0.9**
**BRTR Keskin Array B 93.78 324** P **P 10 02 56.9 +0.9**
1.6nm,1.0s,baz=148,slow=7.3,SNR=6.0
BRTR LR LR 10 41 29.7
comp=Z,37nm,19.6s,baz=122,slow=33
**KVAR Kislovodsk Arr 93.83 332** LR LR 10 40 34.1
comp=Z,39nm,21.1s,baz=188,slow=33
**BR231 Keskin MP Arra 94.25 323** *e*P **P 10 02 57.7 -0.4**
**IDI Anoyia 94.40 315** LR LR 10 38 49.7
comp=Z,19nm,20.3s,baz=140,slow=31
**AKTO Aktyubinsk 95.52 344** LR LR 10 43 11.3
comp=Z,43nm,18.5s,baz=154,slow=34
**BVAR Borovoye Array 96.14 352** LR LR 10 44 03.1
comp=Z,176nm,19.3s,baz=66,slow=34
**ZALV Zalesovo Beam 96.40 1** LR LR 10 45 19.6
comp=Z,50nm,18.9s,baz=236,slow=35
**ILAR Eielson Array 144.35 35** PKP **PKPab 10 09 12.2 -0.1**
0.6nm,0.8s,baz=246,slow=3.0,SNR=4.7
**ILB Eielson Array 144.35 35** *e*PKPdf **PKPab 10 09 11.5 -0.7**
**PAX Paxson 145.36 37** *e*PKPbc **PKPab 10 09 16.6 +0.5**
**INK Inuvik 147.87 25** PKPbc **PKPbc 10 09 23.6 +0.6**
3.7nm,0.9s,baz=311,slow=1.6,SNR=8.1
**RES Resolute Bay 148.03 359** PKPbc **PKPbc 10 09 23.7 +0.5**
5.1nm,0.7s,baz=80,slow=1.7,SNR=13
**YKA Yellowknife Ar 157.57 22** PKPab **PKPab 10 10 06.5 +0.2**
0.6nm,1.0s,baz=328,slow=4.1,SNR=7.3
**NV01 Mina Array Sit 162.83 97** *e*PKPdf **PKPdf 10 09 39.4 -1.9**
NV01 *e*PKPab **PKPab 10 10 30.7 +0.2**
**NVAR Mina Array Bea 162.83 97** PKPab **PKPab 10 10 30.8 +0.3**
0.9nm,0.9s,baz=225,slow=7.8,SNR=4.2

---

*IDC* ***31*** *09:54:49.5±1.0, 14°.05N×91°.56W, h0km, mb4.2/13, mb1 4.4/14, mb1mx4.1/42, mbtmp4.2/14, ML4.4/1, MS3.5/6, Ms1 3.5/6, ms1mx3.1/32, Error ellipse: s-maj=36.5km s-min=22.3km az=44.0*

*CASC* ***31*** *09:54:53.9±1.5, 14°.53N×92°.23W, h34km±999km, ML4.1, mb4.4(NEIC)*

*ISCJB* ***31*** *09:54:56.8±0.4, 14°.21N±0°.04×92°.03W±0°.03, h41km±4km, mb4.4/75, MS3.5/5, Error ellipse: s-maj=7.0km s-min=3.4km az=33.0*

*MEX* ***31*** *09:54:56.6±0.4, 14°.04N×92°.32W, h10km, MD3.9*

*NEIC* ***31*** *09:54:58.5±0.7, 14°.21N×92°.07W, h38km±7km, mb4.4/71, MD3.9(MEX), Error ellipse: s-maj=9.6km s-min=5.7km az=212.0*

**ISC 31 09:54:58.4±1.0, 14°.15N±0°.06×92°.13W±0°.05, h55km±9km, n290, σ1°52/296, mb4.4/75, MS3.5/5, Near coast of Chiapas**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|
| **IXG** | **Ixpaco** | **1.63** | **89** | *e*P | | **Pn** | **09 55 22.3** | **-2.6** |
| **PCIG** | | **1.87** | **326** | *e*P | | **Pn** | **09 55 25.1** | **-2.9** |
| PCIG | | | | *e*S | | **Sn** | **09 55 47.7** | **-2.8** |
| **PCIG** | | **1.87** | **326** | *e*P | | **Pn** | **09 55 25.1** | **-2.9** |
| PCIG | | | | *e*S | | **Sn** | **09 55 47.7** | **-2.8** |
| **RTR** | **El Retiro** | **2.42** | **96** | *e*P | | **Pn** | **09 55 34.5** | **-1.3** |
| RTR | | | | *e*S | | **Sn** | **09 56 06.5** | **+2.0** |
| **SBLS** | **San Blas** | **2.45** | **97** | *e*P | | **Pn** | **09 55 34.4** | **-1.9** |
| **SNJE** | **San Jose** | **2.47** | **96** | *e*P | | **Pn** | **09 55 34.7** | **-1.7** |
| **UNIC** | **Santa Ana** | **2.50** | **93** | *e*P | | **Pn** | **09 55 35.0** | **-1.8** |
| **TGIG** | | **2.78** | **340** | *e*P | | **Pn** | **09 55 39.9** | **-0.7** |
| TGIG | | | | *e*S | | **Sn** | **09 56 12.3** | **-0.7** |
| **TGIG** | | **2.78** | **340** | *e*P | | **Pn** | **09 55 39.9** | **-0.7** |
| TGIG | | | | *e*S | | **Sn** | **09 56 12.3** | **-0.7** |
| **COLS** | **Colinas** | **2.79** | **100** | *e*P | | **Pn** | **09 55 39.3** | **-1.4** |
| COLS | | | | *e*S | | **Sn** | **09 56 14.3** | **+1.0** |
| **BOQS** | **Boqueron** | **2.80** | **98** | *e*P | | **Pn** | **09 55 39.4** | **-1.6** |
| **UEES** | **San Salvador** | **2.84** | **98** | *e*P | | **Pn** | **09 55 39.7** | **-1.7** |
| UEES | | | | IAML | | | 09 56 25.8 | |
| comp=Z,1μm,0.3s | | | | | | | | |
| **SNET** | **Serv Nac Est T** | **2.85** | **99** | *e*P | | **Pn** | **09 55 39.3** | **-2.3** |
| SNET | | | | IAML | | | 09 56 21.9 | |
| comp=Z,1μm,0.4s | | | | | | | | |
| **OPAM** | **San Salvador** | **2.88** | **98** | *e*P | | **Pn** | **09 55 40.5** | **-1.4** |
| OPAM | | | | IAML | | | 09 56 32.3 | |
| comp=Z,852nm,0.3s | | | | | | | | |
| **UESS** | **San Salvador** | **2.88** | **99** | *e*P | | **Pn** | **09 55 40.4** | **-1.6** |
| UESS | | | | IAML | | | 09 56 18.6 | |
| comp=Z,756nm,0.4s | | | | | | | | |
| **SANM** | **San Marcos** | **2.90** | **99** | *e*P | | **Pn** | **09 55 40.0** | **-2.3** |
| **LBRS** | **Las Brisas** | **3.03** | **97** | *e*P | | **Pn** | **09 55 42.3** | **-1.6** |
| **LFRS** | **El Faro** | **3.03** | **100** | *e*P | | **Pn** | **09 55 42.2** | **-1.8** |
| **SNVI** | **San Vicente** | **3.24** | **99** | *e*P | | **Pn** | **09 55 44.6** | **-2.3** |
| **CMIG** | **Matias Romero** | **3.95** | **318** | Pn | | **Pn** | **09 55 54.4** | **-2.1** |
| comp=Z,4.9nm,0.3s,baz=149,slow=12,SNR=71 | | | | | | | | |
| CMIG | | | | Sn | | **Sn** | **09 56 41.7** | **+0.1** |
| comp=Z,30nm,0.3s,baz=110,slow=15,SNR=3.6 | | | | | | | | |
| CMIG | | | | LR | | LR | 09 57 57.8 | |
| comp=Z,258nm,19.0s,baz=128,slow=43 | | | | | | | | |
| **LCND** | **La Ca¯–ada** | **4.21** | **101** | *e*P | | **Pn** | **09 55 57.9** | **-2.1** |
| **SCIG** | **Sabancuy** | **4.87** | **11** | *e*Pn | | **Pn** | **09 56 10.9** | **+1.7** |
| **VHO** | **Vista Hermosa** | **5.30** | **304** | *e*P | | **Pn** | **09 56 14.8** | **-0.4** |
| VHO | | | | *e*S | | **Sn** | **09 56 14.8** | **-0.4** |
| **VHO** | **Vista Hermosa** | **5.30** | **304** | *e*P | | **Pn** | **09 56 14.8** | **-0.4** |
| VHO | | | | *e*S | | **Sn** | **09 57 16.1** | **+1.0** |
| **COPN** | **Copaltepe** | **5.74** | **109** | *e*P | | **Pn** | **09 56 20.1** | **-1.0** |
| **PNIG** | **Pinotepa** | **6.20** | **292** | *e*P | | Pn | 09 56 21.8 | -5.6 |
| PNIG | | | | *e*S | | **Sn** | **09 57 32.5** | **-4.5** |
| **PNIG** | **Pinotepa** | **6.20** | **292** | *e*P | | Pn | 09 56 21.8 | -5.6 |
| PNIG | | | | *e*S | | **Sn** | **09 57 32.5** | **-4.5** |
| **TLIG** | **Tlapa** | **7.06** | **300** | *e*Pn | | **Pn** | **09 56 39.6** | **+0.3** |
| TLIG | | | | *e*Sn | | **Sn** | **09 58 02.4** | **+4.1** |
| **MYIG** | **MØrida** | **7.14** | **18** | *e*Pn | | **Pn** | **09 56 41.8** | **+1.5** |
| MYIG | | | | *e*Sn | | **Sn** | **09 58 01.1** | **+1.0** |
| **JTS** | **JuntasAbangare** | **8.00** | **118** | *e*Pn | | **Pn** | **09 56 51.4** | **-0.7** |
| comp=Z,18nm,0.7s | | | | | | | | |
| **HDC** | **Heredia** | **8.86** | **117** | *e*Pn | | **Pn** | **09 57 05.0** | **+1.0** |
| **MOIG** | **Morelia** | **10.26** | **304** | *e*Pn | | **Pn** | **09 57 25.6** | **+2.3** |
| **LNIG** | **Linares** | **12.73** | **328** | *e*Pn | | **Pn** | **09 57 59.6** | **+2.9** |
| **ZAIG** | **Zacatecas** | **13.09** | **312** | *e*Pn | | **Pn** | **09 58 03.8** | **+1.9** |
| **833A** | **Chaparral WMA,** | **15.63** | **336** | P | | **Pn** | **09 58 35.4** | **+0.1** |
| baz=153 | | | | | | | | |
| **543A** | **St. Martinvill** | **15.86** | **1** | P | | **Pn** | **09 58 38.6** | **+0.5** |
| baz=181 | | | | | | | | |
| **HKT** | **Hockley** | **16.09** | **348** | *e*Pn | | **P** | **09 58 43.0** | **-0.4** |
| comp=Z,19nm,1.8s | | | | | | | | |
| **344A** | **Westbrook Farm** | **17.27** | **4** | P | | **P** | **09 59 00.1** | **+3.6** |
| baz=184 | | | | | | | | |
| **346A** | **Big Creek Wild** | **17.33** | **8** | P | | **P** | **09 59 02.5** | **+5.3** |
| baz=188 | | | | | | | | |
| **347A** | **Saraland** | **17.48** | **10** | P | | **P** | **09 59 01.7** | **+2.8** |
| baz=191 | | | | | | | | |
| **JCT** | **Junction City** | **17.72** | **338** | *e*Pn | | **P** | **09 59 02.7** | **+1.1** |
| comp=Z,6.1nm,0.6s | | | | | | | | |
| **242A** | **Grayson** | **17.83** | **360** | P | | **P** | **09 59 04.0** | **+1.3** |
| baz=180 | | | | | | | | |
| **244A** | **Avery, Jackson** | **17.86** | **4** | P | | **P** | **09 59 05.2** | **+2.2** |
| baz=184 | | | | | | | | |
| **VBMS** | **Vicksburg** | **18.05** | **4** | P | | **Pn** | **09 59 06.4** | **+1.1** |
| baz=185 | | | | | | | | |
| **VBMS** | **Vicksburg** | **18.05** | **4** | *e*P | | **P** | **09 59 05.1** | **0.0** |
| comp=Z,18nm,0.8s | | | | | | | | |
| **HELC** | **Santa Helena** | **18.14** | **114** | *e*P | | **Pn** | **09 59 07.5** | **+0.5** |
| comp=Z,5.9nm,0.7s | | | | | | | | |
| **236A** | **Katherine and** | **18.22** | **348** | P | | **Pn** | **09 59 08.8** | **+1.4** |
| baz=166 | | | | | | | | |
| **WHTX** | **Lake Whitney,** | **18.41** | **346** | P | | **Pn** | **09 59 11.7** | **+2.0** |
| baz=163 | | | | | | | | |
| **WHTX** | **Lake Whitney,** | **18.41** | **346** | *e*P | | **Pn** | **09 59 11.8** | **+2.0** |
| comp=Z,30nm,1.6s | | | | | | | | |
| **145A** | **Houston Renfro** | **18.48** | **6** | P | | **Pn** | **09 59 10.9** | **+0.4** |
| baz=187 | | | | | | | | |
| **143A** | **Socs Landing,** | **18.48** | **2** | P | | **Pn** | **09 59 11.2** | **+0.7** |
| baz=182 | | | | | | | | |
| **TX31** | **Lajitas Ar. Si** | **18.50** | **327** | *e*P | | **Pn** | **09 59 12.9** | **+2.0** |
| **TXAR** | **Lajitas Array** | **18.50** | **327** | P | | **Pn** | **09 59 13.1** | **+2.2** |
| comp=Z,0.3nm,0.3s,baz=154,slow=14,SNR=51 | | | | | | | | |
| TXAR | | | | PcP | | **PcP** | **10 03 37.0** | **-1.5** |
| comp=Z,0.0nm,0.3s,baz=134,slow=2.6,SNR=2.6 | | | | | | | | |
| **H06E1** | **SOCORRO T-PHAS** | **18.60** | **287** | T | | T | 10 18 13.9 | |
| SNR=42 | | | | | | | | |
| **H06S1** | **SOCORRO T** | **18.62** | **287** | T | | T | 10 18 13.5 | |
| SNR=5.8 | | | | | | | | |
| **136A** | **Ennis** | **18.68** | **348** | P | | **Pn** | **09 59 13.7** | **+0.9** |
| baz=166 | | | | | | | | |
| **147A** | **Livingston** | **18.77** | **10** | P | | **Pn** | **09 59 13.6** | **-0.5** |
| baz=192 | | | | | | | | |
| **Z41A** | **Richland Creek** | **19.03** | **358** | P | | **Pn** | **09 59 17.1** | **0.0** |
| baz=178 | | | | | | | | |
| **Z42A** | **Norrel Spur, H** | **19.04** | **0** | P | | **Pn** | **09 59 16.6** | **-0.6** |
| baz=180 | | | | | | | | |
| **Z40A** | **Long Farm, Mag** | **19.06** | **357** | P | | **Pn** | **09 59 17.5** | **+0.1** |
| baz=176 | | | | | | | | |
| **Z44A** | **Pea Ridge, Bel** | **19.10** | **4** | P | | **Pn** | **09 59 17.4** | **-0.6** |
| baz=185 | | | | | | | | |
| **Z46A** | **Louisville** | **19.18** | **8** | P | | **Pn** | **09 59 18.9** | **0.0** |
| baz=189,SNR=6.8 | | | | | | | | |
| **Z45A** | **Winona** | **19.26** | **6** | P | | **Pn** | **09 59 19.6** | **-0.2** |
| baz=187 | | | | | | | | |
| **Z47A** | **Carrollton** | **19.32** | **10** | P | | **Pn** | **09 59 20.7** | **+0.1** |
| baz=192,SNR=13 | | | | | | | | |
| **OTAV** | **Otavalo** | **19.35** | **134** | *e*P | | **Pn** | **09 59 22.7** | **+1.2** |
| comp=Z,12nm,1.6s | | | | | | | | |
| **LRAL** | **Lakeview Retre** | **19.37** | **13** | P | | **Pn** | **09 59 20.9** | **-0.3** |
| baz=195 | | | | | | | | |
| **LRAL** | **Lakeview Retre** | **19.37** | **13** | *e*P | | **Pn** | **09 59 21.5** | **+0.3** |
| comp=Z,8.0nm,0.8s | | | | | | | | |
| **Z36A** | **Blue Ridge** | **19.43** | **349** | P | | **Pn** | **09 59 21.9** | **0.0** |
| baz=167 | | | | | | | | |
| **WLAR** | **White Oak Lake** | **19.47** | **358** | *e*P | | **Pn** | **09 59 22.3** | **0.0** |
| comp=Z,17nm,0.9s | | | | | | | | |
| **Z48A** | **Nohpptt** | **19.59** | **11** | P | | **Pn** | **09 59 23.4** | **-0.3** |
| baz=193 | | | | | | | | |
| **Y42A** | **Garnett, Star** | **19.60** | **1** | P | | **Pn** | **09 59 23.3** | **-0.5** |
| baz=181 | | | | | | | | |
| **ABTX** | **Abilene, Hawle** | **19.62** | **341** | P | | **Pn** | **09 59 24.1** | **-0.1** |
| baz=158 | | | | | | | | |
| **ABTX** | **Abilene, Hawle** | **19.62** | **341** | *e*P | | **Pn** | **09 59 23.6** | **-0.6** |
| comp=Z,9.9nm,0.8s | | | | | | | | |
| **Z49A** | **Columbiana** | **19.63** | **14** | P | | **Pn** | **09 59 24.7** | **+0.5** |
| baz=196,SNR=5.9 | | | | | | | | |
| **CCAR** | **Cane Creek** | **19.68** | **1** | *e*P | | **Pn** | **09 59 24.0** | **-0.8** |
| comp=Z,37nm,1.2s | | | | | | | | |
| **Y45A** | **Yeager Farm, C** | **19.77** | **6** | P | | **Pn** | **09 59 25.0** | **-0.9** |
| baz=187 | | | | | | | | |
| **Y39A** | **Lockesburg** | **19.78** | **355** | P | | **Pn** | **09 59 25.5** | **-0.5** |
| baz=174,SNR=7.0 | | | | | | | | |
| **Y40A** | **Okolona** | **19.80** | **357** | P | | **Pn** | **09 59 25.5** | **-0.7** |
| baz=176 | | | | | | | | |
| **Y38A** | **Idabel** | **19.83** | **354** | P | | **Pn** | **09 59 25.7** | **-0.9** |
| baz=172,SNR=8.3 | | | | | | | | |
| **Y46A** | **Houston** | **19.87** | **8** | P | | **P** | **09 59 25.9** | **+0.9** |
| baz=189 | | | | | | | | |
| **PRAC** | **Prado** | **19.92** | **120** | *e*P | | **Pn** | **09 59 27.4** | **-0.5** |
| comp=Z,18nm,1.3s | | | | | | | | |
| **Y37A** | **Hugo** | **19.99** | **351** | P | | **Pn** | **09 59 27.8** | **-0.7** |
| baz=170,SNR=16 | | | | | | | | |
| **Y36A** | **Durant** | **20.02** | **350** | P | | Pn | 09 59 28.2 | -0.6 |
| baz=168 | | | | | | | | |
| **Y47A** | **UCPARC, Winfie** | **20.04** | **10** | P | | **P** | **09 59 27.9** | **+0.9** |
| baz=192 | | | | | | | | |
| **Y35A** | **Marietta** | **20.16** | **348** | P | | Pn | 09 59 29.7 | -0.9 |
| baz=166,SNR=12 | | | | | | | | |
| **Y48A** | **Jasper** | **20.18** | **12** | P | | **P** | **09 59 29.1** | **+0.7** |
| baz=194 | | | | | | | | |
| **X40A** | **Basin Creek Fa** | **20.26** | **358** | P | | **P** | **09 59 30.3** | **+1.1** |
| baz=178 | | | | | | | | |
| **X41A** | **Kaden, Bauxite** | **20.26** | **359** | P | | Pn | 09 59 30.6 | -1.0 |
| baz=179 | | | | | | | | |
| **Y49A** | **Blount Mountai** | **20.29** | **14** | P | | **P** | **09 59 30.7** | **+1.0** |
| baz=196 | | | | | | | | |
| **X43A** | **Marvell** | **20.31** | **3** | P | | **P** | **09 59 31.0** | **+1.2** |
| baz=183 | | | | | | | | |
| **X45A** | **UM Field Stati** | **20.34** | **7** | P | | **P** | **09 59 30.8** | **+0.7** |
| baz=188 | | | | | | | | |
| **X44A** | **Crenshaw** | **20.34** | **5** | P | | **P** | **09 59 31.2** | **+1.1** |
| baz=185 | | | | | | | | |
| **MIAR** | **Mount Ida** | **20.35** | **357** | P | | Pn | 09 59 31.5 | -1.2 |
| baz=176 | | | | | | | | |
| **MIAR** | **Mount Ida** | **20.35** | **357** | *e*P | | Pn | 09 59 31.8 | -0.9 |
| comp=Z,17nm,1.4s | | | | | | | | |
| MIAR | | | | *e*S | | **S** | **10 03 12.2** | **-3.0** |
| **X39A** | **Fountain Ranch** | **20.35** | **355** | P | | Pn | 09 59 31.7 | -1.0 |
| baz=174 | | | | | | | | |
| **OXF** | **Oxford** | **20.42** | **6** | P | | **P** | **09 59 31.8** | **+0.8** |
| baz=187 | | | | | | | | |
| **X37A** | **Clayton** | **20.56** | **352** | P | | **P** | **09 59 33.7** | **+1.2** |
| baz=171 | | | | | | | | |
| **X37A** | **Clayton** | **20.56** | **352** | *e*P | | **P** | **09 59 33.8** | **+1.2** |
| comp=Z,12nm,0.8s | | | | | | | | |
| **X46A** | **Booneville** | **20.57** | **8** | P | | **P** | **09 59 33.7** | **+1.1** |
| baz=190,SNR=7.0 | | | | | | | | |
| **X38A** | **Whitesboro** | **20.57** | **354** | P | | Pn | 09 59 34.1 | -1.3 |
| baz=172 | | | | | | | | |
| **X35A** | **Drake** | **20.63** | **349** | P | | Pn | 09 59 34.8 | -1.2 |
| baz=166 | | | | | | | | |
| **X35A** | **Drake** | **20.63** | **349** | *e*P | | **P** | **09 59 33.0** | **-0.3** |
| comp=Z,12nm,0.8s | | | | | | | | |
| **X47A** | **Russelville** | **20.64** | **10** | P | | **P** | **09 59 34.2** | **+0.8** |
| baz=192 | | | | | | | | |
| **X36A** | **Centrahoma** | **20.68** | **350** | P | | **P** | **09 59 35.1** | **+1.3** |
| baz=168,SNR=5.6 | | | | | | | | |
| **GOGA** | **Godfrey** | **20.73** | **21** | *e*P | | **P** | **09 59 35.2** | **+0.8** |
| comp=Z,43nm,1.9s | | | | | | | | |
| **X48A** | **Hartselle** | **20.73** | **12** | P | | **P** | **09 59 35.0** | **+0.6** |
| baz=194 | | | | | | | | |
| **W41B** | **Gary Mavity, V** | **20.93** | **360** | P | | **P** | **09 59 37.8** | **+1.3** |
| baz=180 | | | | | | | | |
| **W38A** | **Poteau** | **20.94** | **355** | P | | **P** | **09 59 38.1** | **+1.5** |
| baz=173 | | | | | | | | |
| **X49A** | **Woodville** | **20.94** | **14** | P | | **P** | **09 59 37.7** | **+1.1** |
| baz=196 | | | | | | | | |
| **W40A** | **Ferguson Farm,** | **20.97** | **358** | P | | **P** | **09 59 38.0** | **+1.1** |
| baz=177 | | | | | | | | |
| **W39A** | **Magazine** | **21.01** | **356** | P | | **P** | **09 59 38.8** | **+1.5** |
| baz=175 | | | | | | | | |
| **X50A** | **Fort Payne** | **21.05** | **15** | P | | **P** | **09 59 38.5** | **+0.6** |
| baz=198,SNR=5.9 | | | | | | | | |
| **W37B** | **Quinton** | **21.11** | **352** | P | | **P** | **09 59 39.9** | **+1.5** |
| baz=171,SNR=9.9 | | | | | | | | |
| **W37B** | **Quinton** | **21.11** | **352** | *e*P | | **P** | **09 59 39.6** | **+1.2** |
| comp=Z,13nm,0.6s | | | | | | | | |
| **W36A** | **Wetumka** | **21.22** | **351** | P | | **P** | **09 59 40.7** | **+1.0** |
| baz=169 | | | | | | | | |
| **W36A** | **Wetumka** | **21.22** | **351** | *e*P | | **P** | **09 59 40.8** | **+1.2** |
| comp=Z,39nm,1.6s | | | | | | | | |
| **MNTX** | **Cornudas Mount** | **21.27** | **327** | P | | **P** | **09 59 41.6** | **+1.4** |
| baz=142,SNR=22 | | | | | | | | |
| **MNTX** | **Cornudas Mount** | **21.27** | **327** | *e*P | | **P** | **09 59 41.5** | **+1.4** |
| comp=Z,10nm,0.8s | | | | | | | | |
| **GRTK** | **Grand Turk** | **21.27** | **67** | *e*P | | **P** | **09 59 40.2** | **-0.1** |
| comp=Z,547nm,1.8s | | | | | | | | |
| **W35A** | **Tecumseh** | **21.34** | **349** | P | | **P** | **09 59 42.0** | **+1.0** |
| baz=167,SNR=6.3 | | | | | | | | |
| **W35A** | **Tecumseh** | **21.34** | **349** | *e*P | | **P** | **09 59 41.0** | **+0.1** |
| comp=Z,13nm,0.6s | | | | | | | | |
| **WMOK** | **Wichita Mounta** | **21.36** | **345** | P | | **P** | **09 59 42.4** | **+1.2** |
| baz=162,SNR=5.0 | | | | | | | | |
| **WMOK** | **Wichita Mounta** | **21.36** | **345** | *e*P | | **P** | **09 59 42.0** | **+0.8** |
| comp=Z,6.3nm,0.9s | | | | | | | | |
| **V41A** | **Mountainview** | **21.54** | **360** | P | | **P** | **09 59 44.1** | **+1.0** |
| baz=180 | | | | | | | | |
| **V40A** | **Witts Springs** | **21.57** | **358** | P | | **P** | **09 59 44.2** | **+0.8** |
| baz=178 | | | | | | | | |
| **V42A** | **Cord** | **21.57** | **2** | P | | **P** | **09 59 44.0** | **+0.7** |
| baz=182 | | | | | | | | |
| **V39A** | **Pettigrew** | **21.64** | **357** | P | | **P** | **09 59 45.3** | **+1.1** |
| baz=176 | | | | | | | | |
| **OK022** | **N3560 Road, Pr** | **21.68** | **350** | *e*P | | **P** | **09 59 44.7** | **+0.1** |
| comp=Z,9.2nm,0.6s | | | | | | | | |
| **V45A** | **Humboldt** | **21.69** | **7** | P | | **P** | **09 59 45.3** | **+0.7** |
| baz=188 | | | | | | | | |
| **SDV** | **Santo Domingo** | **21.70** | **102** | P | | **P** | **09 59 42.2** | **-3.0** |
| comp=Z,2.0nm,0.4s,baz=322,slow=9.8,SNR=3.8 | | | | | | | | |
| **SDV** | **Santo Domingo** | **21.70** | **102** | *e*P | | **P** | **09 59 45.3** | **+0.2** |
| comp=Z,6.6nm,0.7s | | | | | | | | |
| **SWET** | **Sewanee** | **21.71** | **14** | *e*P | | **P** | **09 59 45.5** | **+0.7** |
| comp=Z,16nm,0.8s | | | | | | | | |
| **V38A** | **Canehill** | **21.72** | **355** | P | | **P** | **09 59 46.3** | **+1.4** |
| baz=174 | | | | | | | | |
| **OK020** | **N3440 Road, Me** | **21.72** | **349** | *e*P | | **P** | **09 59 44.6** | **-0.3** |
| **OK021** | **N3530 Road, Sp** | **21.75** | **350** | *e*P | | **P** | **09 59 44.5** | **-0.8** |
| comp=Z,11nm,0.6s | | | | | | | | |
| **V36A** | **Jenks** | **21.81** | **352** | *e*P | | **P** | **09 59 46.3** | **+0.4** |
| comp=Z,5.8nm,0.8s | | | | | | | | |
| **HODGE** | **Hodges** | **21.90** | **22** | *e*P | | **P** | **09 59 46.7** | **-0.2** |
| comp=Z,16nm,1.3s | | | | | | | | |
| **TUL1** | **Leonard** | **21.91** | **352** | *e*P | | **P** | **09 59 46.2** | **-0.9** |
| comp=Z,7.9nm,0.8s | | | | | | | | |
| TUL1 | | | | *e*S | | **S** | **10 03 45.0** | **-1.1** |
| **EPT** | **El Paso** | **21.93** | **326** | *e*P | | **P** | **09 59 47.9** | **+0.5** |
| comp=Z,7.4nm,0.9s | | | | | | | | |
| **V35A** | **Meyer Ranch, C** | **21.93** | **350** | *e*P | | **P** | **09 59 46.9** | **-0.4** |
| comp=Z,14nm,0.9s | | | | | | | | |
| **MSTX** | **Muleshoe** | **21.96** | **336** | P | | **P** | **09 59 48.6** | **+0.9** |
| baz=151,SNR=6.7 | | | | | | | | |
| **MSTX** | **Muleshoe** | **21.96** | **336** | *e*P | | **P** | **09 59 48.8** | **+1.1** |
| comp=Z,11nm,0.8s | | | | | | | | |
| **V48A** | **Smith Brothers** | **22.02** | **12** | P | | **P** | **09 59 48.5** | **+0.3** |
| baz=194,SNR=7.7 | | | | | | | | |
| **HHAR** | **Hobbs** | **22.10** | **356** | *e*P | | **P** | **09 59 48.7** | **-0.4** |
| comp=Z,10nm,1.3s | | | | | | | | |
| **U41A** | **Viola** | **22.10** | **0** | P | | **P** | **09 59 49.3** | **+0.2** |
| baz=180 | | | | | | | | |
| **U40A** | **Yellville** | **22.12** | **358** | P | | **P** | **09 59 49.9** | **+0.6** |
| baz=178 | | | | | | | | |
| **U42A** | **Revenden** | **22.12** | **2** | P | | **P** | **09 59 50.1** | **+0.9** |
| baz=182 | | | | | | | | |
| **U39A** | **Green Forest** | **22.17** | **357** | P | | **P** | **09 59 50.2** | **+0.3** |
| baz=176 | | | | | | | | |
| **GLAT** | **Glass** | **22.17** | **6** | *e*P | | **P** | **09 59 49.2** | **-0.6** |
| comp=Z,26nm,0.7s | | | | | | | | |
| **WVT** | **Waverly** | **22.22** | **9** | P | | **P** | **09 59 51.3** | **+0.9** |
| baz=191 | | | | | | | | |
| **WVT** | **Waverly** | **22.22** | **9** | *e*P | | **P** | **09 59 49.9** | **-0.5** |
| comp=Z,8.2nm,1.1s | | | | | | | | |
| **CPCT** | **Cooper Cave** | **22.29** | **17** | *e*P | | **P** | **09 59 51.4** | **+0.4** |
| comp=Z,10nm,0.6s | | | | | | | | |
| **U38A** | **Gravette** | **22.29** | **355** | P | | **P** | **09 59 52.1** | **+1.0** |
| baz=174 | | | | | | | | |
| **U37A** | **Salina** | **22.32** | **354** | P | | **P** | **09 59 51.2** | **-0.2** |
| baz=172 | | | | | | | | |
| **BG3** | **Lake Jocassee** | **22.35** | **20** | *e*P | | **P** | **09 59 51.5** | **-0.3** |
| comp=Z,23nm,1.3s | | | | | | | | |
| **AMTX** | **Amarillo** | **22.37** | **339** | P | | **P** | **09 59 53.2** | **+1.2** |
| baz=155 | | | | | | | | |
| **AMTX** | **Amarillo** | **22.37** | **339** | *e*P | | **P** | **09 59 53.3** | **+1.2** |
| comp=Z,45nm,1.2s | | | | | | | | |
| **U36A** | **Pologah** | **22.38** | **352** | P | | **P** | **09 59 52.4** | **+0.3** |
| baz=171 | | | | | | | | |
| **U46A** | **Springville** | **22.40** | **8** | P | | **P** | **09 59 52.6** | **+0.3** |
| baz=190,SNR=18 | | | | | | | | |
| **PARMO** | **Parma** | **22.52** | **5** | *e*P | | **P** | **09 59 54.2** | **+0.6** |
| comp=Z,21nm,0.7s | | | | | | | | |
| **PBMO** | **Poplar Bluff** | **22.59** | **4** | *e*P | | **P** | **09 59 54.9** | **+0.6** |
| comp=Z,8.6nm,0.5s | | | | | | | | |
| **U47A** | **Clarksville** | **22.62** | **10** | P | | **P** | **09 59 54.8** | **+0.2** |
| baz=192 | | | | | | | | |
| **TKL** | **Tuckaleechee C** | **22.70** | **18** | P | | **P** | **09 59 55.8** | **+0.3** |
| comp=Z,2.2nm,0.5s,baz=172,slow=8.9,SNR=9.0 | | | | | | | | |
| **T41A** | **Mountain View** | **22.80** | **1** | P | | **P** | **09 59 57.1** | **+0.6** |
| baz=181 | | | | | | | | |
| **T42A** | **Van Buren** | **22.80** | **2** | P | | **P** | **09 59 55.8** | **-0.8** |
| baz=182,SNR=5.9 | | | | | | | | |
| **T39A** | **Clever** | **22.81** | **357** | P | | **P** | **09 59 57.5** | **+0.9** |
| baz=177 | | | | | | | | |
| **U48A** | **Cassie Pea, Po** | **22.82** | **12** | P | | **P** | **09 59 56.2** | **-0.5** |
| baz=194 | | | | | | | | |
| **T38A** | **Diamond** | **22.87** | **356** | P | | **P** | **09 59 58.1** | **+0.8** |
| baz=174 | | | | | | | | |
| **SRIG** | **Santa Rosalia** | **22.88** | **308** | *e*P | | **P** | **09 59 59.5** | **+2.1** |
| comp=Z,11nm,1.1s | | | | | | | | |
| **T43A** | **Greenville** | **22.90** | **4** | P | | **P** | **09 59 57.8** | **+0.3** |
| baz=184 | | | | | | | | |
| **T40A** | **Mansfield** | **22.91** | **359** | P | | **P** | **09 59 57.8** | **+0.2** |
| baz=179 | | | | | | | | |
| **T44A** | **Benton** | **22.95** | **5** | P | | **P** | **09 59 58.2** | **+0.1** |
| baz=186 | | | | | | | | |
| **T35A** | **Sooner Cattle** | **23.01** | **351** | P | | **P** | **09 59 58.7** | **+0.1** |
| baz=169,SNR=5.5 | | | | | |

baz=191
**ANMO Albuquerque 24.41 331** P **P 10 00 13.9 +2.0**
comp=Z,5.5nm,0.6s,baz=330,slow=12,SNR=38
**ANMO Albuquerque 24.41 331** P **P 10 00 14.2 +2.3**
baz=144
**ANMO Albuquerque 24.41 331** *e*P **P 10 00 13.6 +1.7**
comp=Z,5.8nm,0.8s
**R34A Isabella, Hill 24.48 350** P **P 10 00 12.8 +0.5**
baz=168
**WCI Wyandotte Cave 24.53 11** P **P 10 00 13.0 +0.2**
baz=194
**WCI Wyandotte Cave 24.53 11** *e*P **P 10 00 12.2 -0.6**
comp=Z,26nm,0.8s
**R47A Wooly Knot Far 24.56 11** P **P 10 00 12.9 -0.1**
baz=193,SNR=6.1
**Q41A Truxton 24.72 2** P **P 10 00 15.5 +1.0**
baz=182
**OLIL Olney 24.74 8** *e*P **P 10 00 14.5 -0.2**
comp=Z,25nm,0.7s
**Q38A Cooks Store, C 24.75 357** P **P 10 00 15.9 +1.1**
baz=176
**R48A Northridge Ran 24.78 12** P **P 10 00 15.9 +0.8**
baz=194
**Q43A New Douglas 24.79 5** P **P 10 00 15.6 +0.5**
baz=186
**Q44A Meyer Farm, Va 24.81 6** P **P 10 00 16.5 +1.2**
baz=187
**Q45A Warren Harvey, 24.89 7** P **P 10 00 17.0 +0.9**
baz=189
**KSU1 Kansas State U 25.16 352** P **P 10 00 19.5 +1.0**
baz=170
**KSU1 Kansas State U 25.16 352** *e*P **P 10 00 19.7 +1.2**
comp=Z,6.5nm,0.6s
**SJG San Juan 25.26 78** LR LR 10 09 47.3
comp=Z,64nm,20.0s,baz=264,slow=36
**P40A Paris 25.28 0** P **P 10 00 20.7 +1.2**
baz=180
**T25A Trinidad 25.38 337** P **P 10 00 22.8 +2.0**
baz=151
**T25A Trinidad 25.38 337** *e*P **P 10 00 22.3 +1.5**
comp=Z,7.7nm,0.8s
**P42A Winchester 25.39 3** P **P 10 00 21.6 +1.1**
baz=184
**P38A Dawn 25.41 357** P **P 10 00 22.0 +1.3**
baz=177
**BLO Bloomington 25.41 10** *e*P **P 10 00 21.6 +0.8**
comp=Z,15nm,0.6s
**CBKS Cedar Bluff 25.47 346** *e*P **P 10 00 22.4 +1.0**
comp=Z,5.5nm,0.8s
**MHTCO State Highway 25.48 336** *e*P **P 10 00 24.2 +2.5**
comp=Z,8.0nm,0.6s
**P45A Graceland, Par 25.57 8** P **P 10 00 22.9 +0.7**
baz=190
**O34A Beatrice 26.24 352** P **P 10 00 29.1 +0.8**
baz=170
**HDIL Hopedale 26.42 5** *e*P **P 10 00 30.3 +0.4**
comp=Z,84nm,2.0s
**KSCO Kaye Shedlock' 26.44 341** P **P 10 00 32.5 +2.3**
baz=156
**SFIN Lafayette 26.50 9** P **P 10 00 31.0 +0.4**
baz=191
**SFIN Lafayette 26.50 9** *e*P **P 10 00 30.8 +0.2**
comp=Z,11nm,0.7s
**X16A Lo Mia Camp, P 26.68 322** *e*P **P 10 00 34.4 +1.9**
comp=Z,2.2nm,0.8s
**N43A Stutzman Famil 26.81 5** P **P 10 00 34.0 +0.6**
baz=186
**S22A 4UR Ranch, Cre 26.89 334** P **P 10 00 36.7 +2.2**
baz=147
**S22A 4UR Ranch, Cre 26.89 334** *e*P **P 10 00 37.0 +2.5**
comp=Z,5.0nm,1.0s
**MVCO Mesa Verde 27.21 331** P **P 10 00 39.6 +2.3**
baz=143,SNR=10
**MVCO Mesa Verde 27.21 331** *e*P **P 10 00 39.7 +2.3**
comp=Z,10nm,0.8s
**WUAZ Wupatki 27.42 324** *e*P **P 10 00 40.8 +1.6**
comp=Z,7.8nm,1.4s
**SMCO Snowmass 28.16 335** *e*P **P 10 00 45.1 -0.8**
comp=Z,20nm,1.4s
**PV05 Paradox Valley 28.19 331** *e*P **P 10 00 48.6 +2.6**
**PV10 Paradox Valley 28.40 331** *e*P **P 10 00 49.7 +1.7**
**BC3 Big Chuckawall 28.72 317** P **P 10 00 52.6 +1.9**
baz=127
**SZCU Shurtz Canyon 29.87 325** *e*P **P 10 01 04.2 +3.2**
comp=Z,3.2nm,0.9s
**CCUT Cedar City 29.99 325** *e*P **P 10 01 05.4 +3.4**
comp=Z,3.8nm,1.0s
**NNA Nana 30.07 149** LR LR 10 10 34.6
comp=Z,62nm,18.4s,baz=299,slow=32
**P17A Butcher Ranch, 30.07 330** *e*P **P 10 01 05.8 +3.1**
comp=Z,5.8nm,0.9s
**MPU Maple Canyon 30.93 330** *e*P **P 10 01 13.2 +3.0**
comp=Z,4.0nm,0.7s
**PDAR Pinedale Array 32.23 336** P **P 10 01 22.5 +0.8**
comp=Z,0.5nm,0.5s,baz=138,slow=9.5,SNR=4.7
PDAR PcP **PcP 10 04 09.0 -0.2**
comp=Z,0.5nm,0.6s,baz=152,slow=6.6,SNR=5.0
**REDW Red Top Meadow 33.25 335** *e*P **P 10 01 32.9 +2.2**
comp=Z,14nm,1.3s
**SNOW Snow King Moun 33.30 335** *e*P **P 10 01 33.4 +2.3**
comp=Z,31nm,1.4s
**NV11 Mina Array Sit 33.38 321** *e*P **P 10 01 35.0 +3.2**
comp=Z,0.3nm,0.8s
**NV01 Mina Array Sit 33.47 321** *e*P **P 10 01 35.0 +2.4**
**NVAR Mina Array Bea 33.47 321** P **P 10 01 35.1 +2.4**
comp=Z,2.8nm,0.7s,baz=136,slow=8.3,SNR=28
NVAR PcP **PcP 10 04 12.4 -0.4**
comp=Z,0.5nm,0.7s,baz=134,slow=2.6,SNR=3.7
NVAR LR LR 10 17 06.9
comp=Z,96nm,18.7s,baz=130,slow=40
**KVN Kaiserville 33.75 322** *e*P **P 10 01 37.7 +2.8**
comp=Z,4.7nm,1.1s
**LAO LASA Array 34.52 343** P **P 10 01 42.5 +1.1**
baz=155
**HLID Hailey 34.98 331** P **P 10 01 46.9 +1.3**
baz=140
**HLID Hailey 34.98 331** *e*P **P 10 01 47.5 +1.9**
comp=Z,11nm,1.4s
**MFID Camas Ranch 35.55 330** *e*P P 10 01 55.4 +5.0
comp=Z,3.3nm,0.8s
**ULM Lac du Bonnet 36.13 356** P **P 10 01 53.0 -2.1**
comp=Z,0.9nm,0.8s,baz=181,slow=12,SNR=2.9
ULM PcP **PcP 10 04 18.6 -1.3**
comp=Z,0.6nm,0.3s,baz=203,slow=4.7,SNR=4.6
**J08A Circle Bar Ran 36.85 327** *e*P **P 10 02 03.8 +2.4**
comp=Z,10nm,0.7s
**F10A Beach Ranch, E 38.12 331** *e*P **P 10 02 13.7 +1.5**
comp=Z,14nm,0.7s
**C09A Chrisman Ranch 39.96 332** *e*P **P 10 02 29.6 +2.1**
comp=Z,18nm,1.5s
**SCHQ Schefferville 45.12 20** P **P 10 03 07.3 -1.9**
comp=Z,3.9nm,0.9s,baz=217,slow=10,SNR=4.0
**YKA Yellowknife Ar 50.85 347** P **P 10 03 53.2 0.0**
comp=Z,5.2nm,0.7s,baz=150,slow=7.5,SNR=94
YKA PcP **PcP 10 05 09.5 +0.3**
comp=Z,0.9nm,0.7s,baz=149,slow=3.8,SNR=11
**YKW3 Yellowknife Ar 50.91 347** *e*P **P 10 03 53.7 0.0**
comp=Z,6.1nm,0.8s
**DLBC Dease Lake 52.46 336** *e*P **P 10 04 08.8 +3.3**
comp=Z,31nm,1.5s
**INK Inuvik 60.26 344** P **P 10 05 01.2 +0.6**
comp=Z,3.6nm,0.6s,baz=130,slow=6.7,SNR=30
INK LR LR 10 35 58.7
comp=Z,42nm,18.5s,baz=150,slow=41
**RC01 Rabbit Creek A 62.30 332** *e*P **P 10 05 15.7 +1.0**
**ILAR Eielson Array 62.65 337** P **P 10 05 17.5 +0.6**
comp=Z,3.1nm,0.9s,baz=157,slow=3.2,SNR=25
ILAR PcP **PcP 10 05 55.5 +0.2**
comp=Z,0.4nm,0.7s,baz=149,slow=2.3,SNR=4.6
**TRF Thorofare Moun 63.45 335** *e*P **P 10 05 23.8 +1.3**
comp=Z,5.5nm,0.7s
**BORG Borgarnes 69.13 26** LR LR 10 35 20.9
comp=Z,50nm,18.9s,baz=155,slow=35
**ESDC Sonseca Array 79.72 52** P **P 10 06 57.3 -3.3**
comp=Z,0.1nm,0.3s,baz=308,slow=6.3,SNR=3.8
**ARCES ARCESS Array B 86.03 18** P **P 10 07 31.5 -1.2**
comp=Z,3.1nm,0.9s,baz=324,slow=4.5,SNR=4.4
**TIXI Tiksi 90.08 348** P **P 10 07 51.7 -0.3**
comp=Z,3.0nm,0.7s,baz=51,slow=7.4,SNR=7.1
**FINES FINESS Array B 90.42 25** P **P 10 07 51.7 -1.9**
comp=Z,0.9nm,0.9s,baz=46,slow=14,SNR=2.7
**TORD Torodi Ar. Bea 90.47 76** P **P 10 07 52.4 -2.5**
comp=Z,0.3nm,0.3s,baz=278,slow=5.2,SNR=3.0
**BOSA Boshof 120.53 115** PKP **PKPdf 10 13 44.0 -0.7**
comp=Z,2.2nm,0.9s,baz=235,slow=4.5,SNR=3.7
**HHC Hu-ho-hao-te 121.03 339** *e*P **PKPdf 10 13 48.8 +3.5**
HHC pmax pmax
comp=Z,15nm,1.5s
HHC pmax pmax
comp=Z,43nm,5.2s
**WMQ Urumqi 122.31 0** *e*P **PKPdf 10 13 48.0 +0.4**
**KSH Kashi 125.47 11** *e*P **PKPdf 10 13 58.5 +4.6**
KSH pmax pmax
comp=Z,110nm,3.2s
**WRA Warramunga Arr 135.31 256** PKP **PKPdf 10 14 12.2 -0.6**
comp=Z,0.3nm,0.7s,baz=88,slow=2.6,SNR=4.8
**ASAR Alice Springs 135.60 251** PKP **PKPdf 10 14 12.4 -0.9**
comp=Z,0.4nm,1.0s,baz=91,slow=2.4,SNR=4.1
**CMAR Chiang Mai Arr 145.81 341** PKPbc **PKPbc 10 14 32.5 +0.2**
comp=Z,7.1nm,0.8s,baz=339,slow=3.6,SNR=39

*ISK **31** 09:58:47.3, 36.94N×28.87E, h9km, ML2.3*
*ISCJB **31** 09:58:48.7±0.6, 36.93N±0.03×28.99E±0.06, h20km±10km, Error ellipse: s-maj=7.9km s-min=5.2km az=178.1*
*CSEM **31** 09:58:48.7±0.3, 36.96N×29.00E, h10km, ML2.3, Error ellipse: s-maj=8.3km s-min=6.5km az=88.0*
*DDA **31** 09:58:48.0, 36.93N×29.07E, h7km, Md2.5*
**ISC 31 09:58:48.3±1.1, 36.95N±0.02×28.99E±0.03, h10km±10km, n22, σ0.91, 35, Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **FETI** | **Fethiye-Mugla** | **0.27** | **162** | | *e*PG | **Pg** | | **09 58 53.9** | **+0.2** |
| FETI | | | | | *e*SG | **Sb** | | **09 58 58.8** | **-1.1** |
| **FETI** | **Fethiye-Mugla** | **0.27** | **162** | | *e*Pg | **Pg** | | **09 58 53.9** | **+0.2** |
| FETI | | | | | *e*Sg | **Sb** | | **09 58 58.8** | **-1.1** |
| **FETY** | **Fethiye** | **0.32** | **166** | | *e*PG | **Pg** | | **09 58 54.4** | **-0.2** |
| FETY | | | | | *e*SG | **Sg** | | **09 58 59.8** | **+0.9** |
| **FETY** | **Fethiye** | **0.32** | **166** | | *e*Pg | **Pg** | | **09 58 54.4** | **-0.2** |
| FETY | | | | | *e*Sg | **Sg** | | **09 58 59.8** | **+0.9** |
| FETY | | | | | S | **Sb** | | **09 59 00.6** | **-0.8** |
| **TURN** | **Turunc** | **0.32** | **257** | | *e*PG | **Pn** | | **09 58 58.1** | **-0.9** |
| **TURN** | **Turunc** | **0.32** | **257** | | *e*Pg | **Pn** | | **09 58 58.1** | **-0.9** |
| **GLHS** | **Gihisar (BURDU** | **0.46** | **63** | | *e*PG | **Pb** | | **09 58 58.4** | **-0.1** |
| **GLHS** | **Gihisar (BURDU** | **0.46** | **63** | | *e*Pg | **Pb** | | **09 58 58.4** | **-0.1** |
| **TAVA** | **DENIZLI_Tavas** | **0.52** | **353** | | *i* P | **Pg** | | **09 58 58.5** | **0.0** |
| TAVA | | | | | *i* S | **Sb** | | **09 59 06.7** | **-0.7** |
| **TAVA** | **DENIZLI_Tavas** | **0.52** | **353** | | P | **Pg** | | **09 58 58.5** | **0.0** |
| TAVA | | | | | S | **Sb** | | **09 59 06.7** | **-0.7** |
| **GOLH** | **Golhisar** | **0.54** | **57** | | *i* P | **Pg** | | **09 58 58.4** | **-0.4** |
| GOLH | | | | | *i* S | **Sb** | | **09 59 07.5** | **-0.4** |
| **GOLH** | **Golhisar** | **0.54** | **57** | | P | **Pg** | | **09 58 58.4** | **-0.4** |
| GOLH | | | | | S | **Sb** | | **09 59 07.5** | **-0.4** |
| **DNZL** | **Cakiroluk** | **0.74** | **3** | | *i* P | **Pg** | | **09 59 01.3** | **-1.4** |
| DNZL | | | | | *i* S | **Sb** | | **09 59 13.7** | **-0.1** |
| **DNZL** | **Cakiroluk** | **0.74** | **3** | | P | **Pg** | | **09 59 01.3** | **-1.4** |
| DNZL | | | | | S | **Sb** | | **09 59 13.7** | **-0.1** |
| **ELL** | **Elmali** | **0.76** | **105** | | *e*PG | **Pn** | | **09 59 04.8** | **-0.5** |
| **ELL** | **Elmali** | **0.76** | **105** | | *e*Pg | **Pn** | | **09 59 04.8** | **-0.5** |
| **KORT** | **Korkueli** | **1.09** | **87** | | *e*PN | **Pn** | | **09 59 09.9** | **+0.1** |
| **KORT** | **Korkueli** | **1.09** | **87** | | *e*Pn | **Pn** | | **09 59 09.9** | **+0.1** |
| **AYDN** | **Tasoluk** | **1.14** | **309** | | *i* P | **Pg** | | **09 59 10.3** | **+0.1** |
| AYDN | | | | | *i* S | **Sn** | | **09 59 28.4** | **+2.3** |
| **AYDN** | **Tasoluk** | **1.14** | **309** | | P | **Pg** | | **09 59 10.3** | **+0.1** |
| AYDN | | | | | S | **Sn** | | **09 59 28.4** | **+2.3** |
| **KARP** | **Karpathos** | **2.03** | **227** | | *e*PN | **Pn** | | **09 59 21.5** | **-1.2** |
| **KARP** | **Karpathos** | **2.03** | **227** | | *e*Pn | **Pn** | | **09 59 21.5** | **-1.2** |

*IDC **31** 10:23:10.9±1.1, 52.09N×172.06W, h0km, mb3.4/6, mb1 3.7/7, mb1mx3.3/71, mbtmp3.3/7, ML3.0/1, Error ellipse: s-maj=46.4km s-min=22.2km az=155.0*
*NEIC **31** 10:23:15.6±0.0, 52.01N×171.87W, h26km, ML3.1(AEIC), After AEIC.*
*ISCJB **31** 10:23:16.4±0.7, 52.0N±0.1×171.95W±0.06, h50km, mb3.4/6, Error ellipse: s-maj=17.9km s-min=3.6km az=166.9*
**ISC 31 10:23:17.7±0.9, 52.1N±0.2×171.98W±0.05, h50km, n24, σ1.9, 03/27, mb3.3/6, Fox Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **KOFP** | **Korovin Flat P** | **1.32** | **281** | | | P | **Pn** | **10 23 39.5** | **-0.3** |
| **ATKA** | **Atka Island** | **1.37** | **277** | | | P | **Pn** | **10 23 39.5** | **-0.9** |
| ATKA | | | | | | S | **Sn** | **10 23 56.2** | **-1.2** |
| **KOKV** | **Korovin Volcan** | **1.38** | **284** | | | P | **Pn** | **10 23 40.5** | **-0.1** |
| KOKV | | | | | | S | **Sn** | **10 23 58.5** | **+0.8** |
| **KOKL** | **Mount Kliuchef** | **1.39** | **282** | | | P | **Pn** | **10 23 40.5** | **-0.3** |
| **KOWE** | **Korovin West** | **1.43** | **284** | | | P | **Pn** | **10 23 41.4** | **+0.1** |
| **NIKH** | **Nikolski High** | **2.12** | **63** | | | P | **Pn** | **10 23 48.7** | **-1.9** |
| NIKH | | | | | | S | **Sn** | **10 24 13.0** | **-2.8** |
| **GSTD** | **Great Sitkin T** | **2.57** | **272** | | | P | **Pn** | **10 23 56.8** | **-0.1** |
| **OKSO** | **Okmok South** | **2.67** | **59** | | | P | **Pn** | **10 23 58.2** | **0.0** |
| OKSO | | | | | | S | **Sn** | **10 24 30.3** | **+1.1** |
| **ADAG** | **Mount Adagdak** | **2.86** | **270** | | | P | **Pn** | **10 24 01.2** | **+0.5** |
| **MSOM** | **Makushin Julie** | **3.52** | **58** | | | P | **Pn** | **10 24 10.9** | **+1.1** |
| **MREP** | **Makushin Rep't** | **3.62** | **59** | | | P | **Pn** | **10 24 12.4** | **+1.1** |
| **MSW** | **Makushin Switc** | **3.65** | **57** | | | P | **Pn** | **10 24 12.5** | **+0.9** |
| MSW | | | | | | S | **Sn** | **10 24 54.6** | **+1.2** |
| **TASE** | **Tanaga Southea** | **3.75** | **269** | | | P | **Pn** | **10 24 14.2** | **+1.2** |
| **UNV** | **Unalaska Valle** | **3.77** | **59** | | | P | **Pn** | **10 24 13.9** | **+0.7** |
| UNV | | | | | | S | **Sn** | **10 24 56.9** | **+0.7** |
| **ILAR** | **Eielson Array** | **18.13** | **36** | | | P | **P** | **10 27 25.5** | **+0.2** |
| | 0.0nm,0.3s,baz=233,slow=9.6,SNR=3.9 | | | | | | | | |
| **INK** | **Inuvik** | **24.50** | **34** | | | P | **P** | **10 28 31.0** | **-0.8** |
| | 0.6nm,0.6s,baz=244,slow=6.0,SNR=4.6 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **31.66** | **48** | | | P | **P** | **10 29 34.7** | **-1.0** |
| | 0.1nm,0.3s,baz=274,slow=9.1,SNR=6.8 | | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **36.24** | **215** | | | T | T | 11 08 43.4 | |
| | baz=21 | | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **36.24** | **215** | | | T | T | 11 08 45.5 | |
| | baz=21 | | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **36.26** | **215** | | | T | T | 11 08 45.7 | |
| | baz=21 | | | | | | | | |
| **PDAR** | **Pinedale Array** | **42.04** | **77** | | | P | **P** | **10 31 04.7** | **+0.3** |
| | 0.3nm,0.5s,baz=324,slow=3.8,SNR=4.3 | | | | | | | | |
| **TXAR** | **Lajitas Array** | **54.37** | **87** | | | P | **P** | **10 32 39.6** | **+0.2** |
| | 0.3nm,0.9s,baz=325,slow=4.6,SNR=2.4 | | | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **75.11** | **281** | | | P | **P** | **10 34 54.5** | **+0.1** |
| | 0.4nm,0.4s,baz=56,slow=2.3,SNR=3.3 | | | | | | | | |
| **ASAR** | **Alice Springs** | **88.97** | **228** | | | P | **P** | **10 36 07.2** | **+0.5** |
| | 0.6nm,0.8s,baz=31,slow=4.6,SNR=8.0 | | | | | | | | |

*ISCJB **31** 10:29:00.0±0.9, 38.59N±0.04×142.04E±0.10, h52km±7km, mb3.5/9, Error ellipse: s-maj=13.3km s-min=5.7km az=16.7*
*NIED **31** 10:29:00, 38.60N×142.00E, h50km, Mw3.7 Best double couple: M0 4.33000×10^14 NP1:φ185.00000°, δ21.00000°, λ75.00000°. NP2:φ21.00000°, δ69.00000°, λ96.00000°.*
*JMA **31** 10:29:02.0±0.1, 38.64N×141.91E, h48km±1km, M3.8*
*JMA Felt II J1.*
*IDC **31** 10:29:02.1±2.1, 38.54N×141.98E, h57km±20km, mb3.3/9, mb1 3.4/13, mb1mx3.3/63, mbtmp3.6/13, ML3.4/3, MS2.3/2, Ms1 2.3/2, ms1mx2.2/17, Error ellipse: s-maj=22.7km s-min=14.2km az=100.0*
**ISC 31 10:29:00.6±1.5, 38.62N±0.05×142.11E±0.10, h42km±14km, n30, σ1.9, 47/34, mb3.6/9, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **OFUJ** | **Ofunato** | **0.58** | **323** | | | P | **Pn** | **10 29 13.0** | **+0.5** |
| OFUJ | | | | | | S | **Sn** | **10 29 20.6** | **-0.3** |
| **JIO** | **Ouri** | **0.62** | **255** | | | P | **Pn** | **10 29 12.9** | **-0.1** |
| JIO | | | | | | S | **Sn** | **10 29 20.2** | **-1.7** |
| **JMK** | **Ichinoseki** | **0.77** | **296** | | | P | **Pn** | **10 29 14.8** | **-0.3** |
| JMK | | | | | | S | **Sn** | **10 29 23.9** | **-1.6** |
| **JOM** | **Ohasama** | **1.06** | **323** | | | P | **Pn** | **10 29 19.4** | **+0.3** |
| **JOU** | **Okura** | **1.16** | **258** | | | P | **Pn** | **10 29 19.9** | **-0.5** |
| JOU | | | | | | S | **Sn** | **10 29 33.2** | **-1.9** |
| **JMM** | **Marumori** | **1.28** | **234** | | | P | **Pn** | **10 29 21.5** | **-0.5** |
| JMM | | | | | | S | **Sn** | **10 29 35.8** | **-2.2** |
| **JRG** | **Rokugo** | **1.39** | **304** | | | P | **Pn** | **10 29 23.2** | **-0.3** |
| **JYK** | **Kaneyama** | **1.40** | **283** | | | P | **Pn** | **10 29 23.2** | **-0.5** |
| **JFK** | **Kawauchi** | **1.59** | **218** | | | P | **Pn** | **10 29 26.4** | **+0.1** |
| JFK | | | | | | S | **Sn** | **10 29 44.2** | **-1.4** |
| **MJAR** | **Matsushiro Arr** | **3.73** | **237** | | | P | **Pn** | **10 29 57.2** | **+1.5** |
| | 2.1nm,0.3s,baz=41,slow=12,SNR=46 | | | | | | | | |
| MJAR | | | | | | S | Sn | 10 30 46.0 | +7.7 |
| | 1.1nm,0.3s,baz=79,slow=13,SNR=4.1 | | | | | | | | |
| MJAR | | | | | | LR | LR | 10 31 31.8 | |
| | comp=Z,33nm,21.1s,baz=50,slow=42 | | | | | | | | |
| **MAT** | **Matsushiro** | **3.73** | **237** | | | P | **Pn** | **10 29 56.9** | **+1.2** |
| MAT | | | | | | *e*S | **Sn** | **10 30 40.1** | **+1.7** |
| **ASAJ** | **Asahikawa** | **5.50** | **4** | | | P | **Pn** | **10 30 21.3** | **+1.3** |
| | 0.8nm,0.3s,baz=191,slow=9.7,SNR=12 | | | | | | | | |
| ASAJ | | | | | | S | **Sn** | **10 31 17.9** | **-4.1** |
| | 0.9nm,0.3s,baz=209,slow=10,SNR=2.4 | | | | | | | | |
| **JHJ** | **Hachijo jima 2** | **5.80** | **200** | | | P | **Pn** | **10 30 24.0** | **-0.2** |
| | 5.6nm,0.3s,baz=101,slow=23,SNR=2.1 | | | | | | | | |
| JHJ | | | | | | S | **Sn** | **10 31 27.9** | **-1.5** |
| | 11nm,0.3s,baz=105,slow=20,SNR=3.2 | | | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **9.43** | **309** | | | P | **Pn** | **10 31 13.9** | **+0.2** |
| | 0.2nm,0.3s,baz=114,slow=15,SNR=4.3 | | | | | | | | |
| **KSRS** | **Korea Array** | **11.25** | **268** | | | P | **Pn** | **10 31 42.1** | **+3.3** |
| | 0.1nm,0.3s,baz=75,slow=14,SNR=3.0 | | | | | | | | |
| KSRS | | | | | | LR | LR | 10 35 35.2 | |
| | comp=Z,22nm,18.4s,baz=230,slow=35 | | | | | | | | |
| **SEY** | **Seymchan** | **25.13** | **11** | | | P | **P** | **10 34 22.9** | **+1.6** |
| | 1.5nm,0.7s,baz=208,slow=4.8,SNR=4.8 | | | | | | | | |
| **SONM** | **Songino Array** | **27.40** | **301** | | | P | **P** | **10 34 42.2** | **+0.1** |
| | 0.4nm,0.8s,baz=98,slow=9.7,SNR=2.7 | | | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.53** | **124** | | | T | T | 11 05 18.1 | |
| | baz=317,slow=76,SNR=490 | | | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.54** | **124** | | | T | T | 11 05 23.8 | |
| | baz=317,slow=76,SNR=479 | | | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.55** | **124** | | | T | T | 11 05 25.8 | |
| | baz=317,slow=76,SNR=420 | | | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.30** | **126** | | | T | T | 11 06 07.1 | |
| | baz=318,slow=76,SNR=78 | | | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.30** | **126** | | | T | T | 11 06 09.1 | |
| | baz=318,slow=76,SNR=114 | | | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.32** | **126** | | | T | T | 11 06 08.8 | |
| | baz=318,slow=76,SNR=81 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **41.27** | **311** | | | P | **P** | **10 36 41.3** | **-0.2** |
| | 0.9nm,0.4s,baz=87,slow=8.5,SNR=6.3 | | | | | | | | |
| ZALV | | | | | | PcP | **PcP** | **10 38 37.5** | **-2.0** |
| | 0.5nm,0.5s,baz=108,slow=3.3,SNR=2.5 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **43.76** | **301** | | | P | **P** | **10 37 01.6** | **-0.3** |
| | 0.7nm,0.7s,baz=88,slow=9.8,SNR=9.2 | | | | | | | | |
| **ILAR** | **Eielson Array** | **47.87** | **33** | | | P | **P** | **10 37 34.9** | **+1.0** |
| | 0.1nm,0.6s,baz=263,slow=6.4,SNR=4.2 | | | | | | | | |
| **BVAR** | **Borovoye Array** | **49.93** | **311** | | | P | **P** | **10 37 49.5** | **-0.4** |
| | 0.8nm,0.6s,baz=92,slow=10,SNR=3.4 | | | | | | | | |
| **AKTO** | **Aktyubinsk** | **58.03** | **311** | | | P | **P** | **10 38 48.4** | **-0.6** |
| | 0.7nm,0.5s,baz=78,slow=9.3,SNR=3.2 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **58.71** | **189** | | | P | **P** | **10 38 53.5** | **-0.5** |
| | 0.3nm,0.8s,baz=5.9,slow=7.0,SNR=4.8 | | | | | | | | |
| **YKA** | **Yellowknife Ar** | **62.16** | **31** | | | P | **P** | **10 39 18.1** | **+1.0** |
| | 0.1nm,0.6s,baz=302,slow=6.6,SNR=3.6 | | | | | | | | |

**MAN 31 10:43:07, 16.82N×119.63E, h17km, mb4.3, ML3.1, MS2.9, Luzon**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **BOLP** | **Bolinao** | **0.52** | **149** | | *e*P | P | **Pn** | **10 43 18.6** | **-1.0** |
| BOLP | | | | | *e*S | S | **Sb** | **10 43 26.0** | **+1.2** |
| **SCZP** | **Santa Cruz** | **1.08** | **166** | | *e*P | P | **Pb** | **10 43 27.1** | **-0.1** |
| SCZP | | | | | *e*S | S | **Sg** | **10 43 43.2** | **+1.3** |
| **ABRA** | **Dolores** | **1.32** | **51** | | *e*P | P | **Pb** | **10 43 31.2** | **-0.1** |
| ABRA | | | | | *e*S | S | **Sg** | **10 43 49.1** | **-0.6** |
| **APYP** | **Conner** | **1.85** | **56** | | *e*P | P | **Pn** | **10 43 38.4** | **+0.4** |
| APYP | | | | | *e*S | S | **Sn** | **10 44 00.3** | **-0.7** |
| **CAUP** | **Cauayan** | **2.10** | **86** | | *e*P | P | **Pn** | **10 43 42.8** | **+1.4** |
| CAUP | | | | | *e*S | S | **Sb** | **10 44 11.0** | **+0.5** |
| **BALP** | **Baler** | **2.15** | **120** | | *e*P | P | **Pn** | **10 43 43.7** | **+1.5** |
| BALP | | | | | *e*S | S | **Sn** | **10 44 09.7** | **+1.2** |

*ISK **31** 10:52:38.3, 37.98N×42.77E, h5km, ML2.2*
*CSEM **31** 10:52:39.1±0.2, 37.99N×42.73E, h2km, ML2.8, Error ellipse: s-maj=4.5km s-min=3.1km az=116.0*
*DDA **31** 10:52:39.3±1.1, 37.98N±0.03×42.72E±0.03, h9km±10km, n20, σ0.45, 32, Turkey*

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **GEVA** | **Gevas** | **0.42** | **39** | | *i* P | P | **Pg** | **10 52 47.3** | **-0.3** |
| GEVA | | | | | *i* S | S | **Sg** | **10 52 54.0** | **+0.8** |
| **GEVA** | **Gevas** | **0.42** | **39** | | P | P | **Pg** | **10 52 47.3** | **-0.3** |
| GEVA | | | | | S | S | **Sg** | **10 52 54.0** | **+0.8** |
| **SIRT** | **Sirnak** | **0.53** | **205** | | *e*PG | P | **Pg** | **10 52 49.9** | **+0.3** |
| SIRT | | | | | *e*SG | S | **Sb** | **10 52 58.7** | **0.0** |
| **SIRT** | **Sirnak** | **0.53** | **205** | | *e*Pg | P | **Pg** | **10 52 49.9** | **+0.3** |
| SIRT | | | | | *e*Sg | S | **Sb** | **10 52 58.7** | **0.0** |
| **SIRN** | **S¨–rnak** | **0.54** | **207** | | *i* P | P | **Pg** | **10 52 49.2** | **-0.7** |
| SIRN | | | | | *i* S | S | **Sb** | **10 52 58.9** | **-0.2** |
| **SIRN** | **S¨–rnak** | **0.54** | **207** | | P | P | **Pg** | **10 52 49.2** | **-0.7** |
| SIRN | | | | | S | S | **Sb** | **10 52 58.9** | **-0.2** |
| **SRTM** | **Siirt_Merkez** | **0.63** | **271** | | *i* P | P | **Pg** | **10 52 51.4** | **-0.2** |
| SRTM | | | | | *i* S | S | **Sg** | **10 53 00.3** | **+0.5** |
| **SRTM** | **Siirt_Merkez** | **0.63** | **271** | | P | P | **Pg** | **10 52 51.3** | **-0.2** |
| SRTM | | | | | S | S | **Sg** | **10 53 00.3** | **+0.5** |
| **ADCV** | **BITLIS_Adilcev** | **0.82** | **0** | | *i* P | P | **Pg** | **10 52 55.0** | **-0.2** |
| ADCV | | | | | *i* S | S | **Sg** | **10 53 06.0** | **0.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.82** | **0** | | P | P | **Pg** | **10 52 55.0** | **-0.2** |
| ADCV | | | | | S | S | **Sg** | **10 53 06.0** | **0.0** |
| **CUKT** | **Cukurca** | **1.02** | **136** | | *e*PG | P | **Pg** | **10 52 58.4** | **-0.4** |
| **CUKT** | **Cukurca** | **1.02** | **136** | | *e*Pg | P | **Pg** | **10 52 58.4** | **-0.4** |
| **BTMN** | **Batman** | **1.15** | **266** | | *i* P | P | **Pg** | **10 53 00.8** | **-0.6** |
| BTMN | | | | | *i* S | S | **Sn** | **10 53 17.9** | **+0.2** |
| **BTMN** | **Batman** | **1.15** | **266** | | P | P | **Pg** | **10 53 00.8** | **-0.6** |
| BTMN | | | | | S | S | **Sn** | **10 53 17.9** | **+0.2** |
| **EKAR** | **Karacoban** | **1.37** | **338** | | *i* P | P | **Pn** | **10 53 05.2** | **+0.3** |
| **EKAR** | **Karacoban** | **1.37** | **338** | | P | P | **Pn** | **10 53 05.2** | **+0.3** |
| **AGRB** | **Hanur-Agry** | **1.60** | **7** | | *e*PN | P | **Pb** | **10 53 08.8** | **-0.5** |
| **AGRB** | **Hanur-Agry** | **1.60** | **7** | | *e*Pn | P | **Pb** | **10 53 08.8** | **-0.5** |
| **BNGB** | **Bing¶ll** | **1.89** | **303** | | *e*PN | P | **Pb** | **10 53 13.7** | **-0.4** |
| **BINT** | **Bingol** | **1.97** | **298** | | *e*Pn | P | **Pn** | **10 53 13.7** | **+0.7** |

**IDC 31 10:53:43.7±9.8, 32.30S×179.69W, h238km±102km, mb2.9/2, mb1 3.2/3, mb1mx3.0/20, mbtmp3.7/3, Error ellipse: s-maj=103.8km s-min=41.2km az=3.0, South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|---|---|
| **URZ** | **Urewera** | **6.49** | **203** | | | P | **Pn** | **10 55 18.1** | **+0.4** |
| | 1.1nm,0.3s,baz=52,slow=19,SNR=2.2 | | | | | | | | |
| URZ | | | | | | S | S | **10 56 32.8** | **-0.1** |
| | 3.7nm,

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **SULT** | **Sultanhani-AKS** | **0.84** | **215** | *e*PG | **Pg** | **10 58 51.5** | **-0.1** |
| **SULT** | **Sultanhani-AKS** | **0.84** | **215** | *e*Pg | **Pg** | **10 58 51.6** | **-0.1** |
| **NIG** | **Nigde** | **0.87** | **153** | *e*PG | **Pg** | **10 58 51.5** | **-0.8** |
| **NIG** | **Nigde** | **0.87** | **153** | *e*Pg | **Pg** | **10 58 51.6** | **-0.8** |
| **KKUL** | **Konya-Kulu** | **0.98** | **287** | *i* P | **Pb** | **10 58 54.7** | **+0.2** |
| KKUL | | | | *i* S | **Sn** | **10 59 08.7** | **-0.5** |
| **KKUL** | **Konya-Kulu** | **0.98** | **287** | P | **Pb** | **10 58 54.7** | **+0.2** |
| KKUL | | | | S | **Sn** | **10 59 08.6** | **-0.5** |
| **AFSR** | **Af˙ar-Bala (A** | **0.98** | **305** | *e*PG | **Pb** | **10 58 54.3** | **-0.3** |
| **AFSR** | **Af˙ar-Bala (A** | **0.98** | **305** | *e*Pg | **Pb** | **10 58 54.3** | **-0.3** |
| **CHBY** | **Cihanbeyli** | **1.01** | **253** | *e*PG | **Pg** | **10 58 54.2** | **-0.8** |
| **CHBY** | **Cihanbeyli** | **1.01** | **253** | *e*Pg | **Pg** | **10 58 54.2** | **-0.8** |
| **BBAL** | **Bala** | **1.01** | **310** | *i* P | **Pb** | **10 58 54.8** | **-0.3** |
| BBAL | | | | *i* S | **Sb** | **10 59 09.2** | **+0.7** |
| **BBAL** | **Bala** | **1.01** | **310** | P | **Pb** | **10 58 54.8** | **-0.3** |
| BBAL | | | | S | **Sb** | **10 59 09.1** | **+0.7** |
| **YOZ** | **Yozgat** | **1.20** | **51** | *e*PN | **Pn** | **10 58 59.4** | **+1.1** |
| **YOZ** | **Yozgat** | **1.20** | **51** | *e*Pn | **Pn** | **10 58 59.4** | **+1.1** |
| **COAL** | **Corum-Alaca** | **1.52** | **26** | *i* P | **Pb** | **10 59 04.0** | **+0.2** |
| COAL | | | | *i* S | **Sg** | **10 59 23.8** | **-0.6** |
| **COAL** | **Corum-Alaca** | **1.52** | **26** | P | **Pb** | **10 59 04.0** | **+0.2** |
| COAL | | | | S | **Sg** | **10 59 23.8** | **-0.6** |
| **CUSAR** | **Sarkisla-SIVAS** | **1.73** | **72** | *i* P | **Pb** | **10 59 07.5** | **0.0** |
| CUSAR | | | | *i* S | **Sg** | **10 59 30.9** | **-0.5** |
| **CUSAR** | **Sarkisla-SIVAS** | **1.73** | **72** | P | **Pb** | **10 59 07.5** | **0.0** |
| CUSAR | | | | S | **Sg** | **10 59 30.9** | **-0.5** |

*ISCJB* ***31*** *11:07:13.4±0.8, 23°.2N±0°.1×93°.4E±0°.1, h100km, mb3.4/4, Error ellipse: s-maj=21.6km s-min=6.7km az=37.5*
*IDC* ***31*** *11:07:14.5±4.5, 23°.53N×94°.18E, h82km±39km, mb3.2/4, mb1 3.2/5, mb1mx2.9/54, mbtmp3.4/5, Error ellipse: s-maj=100.6km s-min=17.8km az=62.0*
**ISC 31 11:07:13.8±1.0, 23°.1N±0°.2×93°.5E±0°.1, h100km, n14, σ1§55/20, mb3.5/4, Myanmar-India border region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SHL** | **Shillong** | **2.82** | **330** | *e*PG | Pn | 11 08 18.0 | +21 |
| SHL | | | | *e*SG | **Sn** | **11 08 29.0** | **-1.8** |
| **ODAN** | **Odare** | **6.63** | **305** | *e*Pn | **Pn** | **11 08 51.0** | **+2.0** |
| ODAN | | | | *e*Sn | **Sn** | **11 10 02.9** | **-0.3** |
| **TAPN** | **Taplejung** | **6.68** | **310** | *e*Pn | **Pn** | **11 08 51.8** | **+2.1** |
| TAPN | | | | *e*Sn | **Sn** | **11 10 04.2** | **-0.3** |
| | 35nm,0.4s | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **6.93** | **131** | P | **Pn** | **11 08 50.7** | **-2.1** |
| | 0.2nm,0.3s,baz=313,slow=13,SNR=3.7 | | | | | | |
| **RAMN** | **Ramite** | **7.28** | **303** | *e*Pn | **Pn** | **11 08 59.7** | **+1.9** |
| RAMN | | | | *e*Sn | **Sn** | **11 10 17.0** | **-2.1** |
| **JIRN** | **Jiri** | **7.96** | **306** | *e*Pn | **Pn** | **11 09 07.8** | **+0.6** |
| JIRN | | | | *e*Sn | **Sn** | **11 10 33.9** | **-1.9** |
| | 311nm,0.4s | | | | | | |
| **GUN** | **Gumba** | **8.33** | **306** | *e*Pn | **Pn** | **11 09 12.3** | **+0.2** |
| GUN | | | | *e*Sn | **Sn** | **11 10 43.5** | **-1.2** |
| | 20nm,0.3s | | | | | | |
| **PKI** | **Pulchoki** | **8.51** | **303** | *e*Pn | **Pn** | **11 09 15.8** | **+1.2** |
| **GKN** | **Gorkha** | **9.32** | **303** | *e*Pn | **Pn** | **11 09 26.3** | **+0.9** |
| GKN | | | | *e*Sn | **Sn** | **11 11 06.3** | **-2.2** |
| **KOLN** | **Koldanda** | **10.03** | **299** | *e*Pn | **Pn** | **11 09 35.6** | **+0.5** |
| **MKAR** | **Makanchi Array** | **25.27** | **342** | P | **P** | **11 12 31.6** | **+0.9** |
| | 0.4nm,0.7s,baz=148,slow=9.7,SNR=6.6 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **31.46** | **350** | P | **P** | **11 13 25.5** | **-0.1** |
| | 0.2nm,0.3s,baz=163,slow=8.2,SNR=2.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **58.52** | **134** | P | **P** | **11 17 01.1** | **+1.1** |
| | 0.2nm,0.3s,baz=320,slow=7.5,SNR=14 | | | | | | |
| **ASAR** | **Alice Springs** | **60.90** | **137** | P | **P** | **11 17 17.8** | **+1.5** |
| | 0.3nm,0.5s,baz=316,slow=6.8,SNR=7.7 | | | | | | |

*NIED* ***31*** *11:18:00, 43°.20N×147°.50E, h59km, Mw3.5 Best double couple: M₀2.32000×10¹⁴ NP1:φ₀=146.00000°, δ18.00000°, λ16.00000°. NP2:φ₀=40.00000°, δ85.00000°, λ108.00000°.*
*MOS* ***31*** *11:18:30.4±0.8, 43°.03N×147°.69E, h41km, mb4.1/4, Error ellipse: s-maj=29.3km s-min=11.6km az=121.3*
*IDC* ***31*** *11:18:32.1±7.7, 43°.87N×147°.33E, h0km, mb3.6/5, mb1 3.7/5, mb1mx3.4/46, mbtmp3.6/5, MS3.3/1, Ms1 3.3/1, ms1mx2.4/44, Error ellipse: s-maj=188.9km s-min=39.3km az=170.0*
*JMA* ***31*** *11:18:33.9±0.2, 43°.22N×147°.46E, h32km, M3.9*
*SKHL* ***31*** *11:18:34.4±0.1, 43°.27N×147°.63E, h59km±8km, mb4.5/3*
**ISC 31 11:18:32.6±2.8, 43°.24N±0°.07×147°.58E±0°.07, h27km±17km, n40, σ1§13/51, mb4.0/5, 1C-1D, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SHO** | **Shikotan** | **0.83** | **319** | *d* PN | **Pn** | **11 18 49.0** | **+0.5** |
| SHO | | | | *e*S | **Sb** | **11 18 59.9** | **+0.7** |
| SHO | | | | pmax | pmax | | |
| | comp=Z,437nm,0.3s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=N,4μm,0.4s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=E,3μm,0.2s | | | | | | |
| **SHO** | **Shikotan** | **0.83** | **319** | *i* P | **Pn** | **11 18 49.0** | **+0.5** |
| SHO | | | | AMB | AMB | 11 18 50.0 | |
| | comp=E,34nm,0.3s | | | | | | |
| SHO | | | | AMB | AMB | 11 18 50.0 | |
| | comp=E,95nm,0.3s | | | | | | |
| SHO | | | | AMB | AMB | 11 18 50.0 | |
| | comp=E,350nm,0.3s | | | | | | |
| SHO | | | | *e*S | **Sb** | **11 18 59.9** | **+0.7** |
| SHO | | | | A | A | 11 19 00.6 | |
| | comp=E,400nm,0.4s | | | | | | |
| SHO | | | | A | A | 11 19 00.6 | |
| | comp=E,3μm,0.4s | | | | | | |
| **NEM2** | **Nemuro 2** | **1.34** | **276** | P | **Pn** | **11 18 56.0** | **+0.4** |
| NEM2 | | | | *e*S | **Sb** | **11 19 12.2** | **-1.7** |
| **YUK** | **Yuzh-Kuril'sk** | **1.48** | **303** | *e*PN | **Pn** | **11 18 57.8** | **+0.4** |
| YUK | | | | *i* S | **Sn** | **11 19 15.4** | **-0.4** |
| YUK | | | | pmax | pmax | | |
| | comp=E,95nm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=Z,354nm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=N,34nm,0.1s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=E,1μm,0.3s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,1μm,0.2s | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **1.48** | **303** | *e*P | **Pn** | **11 18 57.8** | **+0.4** |
| YUK | | | | AMB | AMB | 11 18 58.3 | |
| | comp=N,354nm,0.3s | | | | | | |
| YUK | | | | *i* S | **Sn** | **11 19 15.4** | **-0.4** |
| YUK | | | | A | A | 11 19 16.6 | |
| | comp=N,107nm,0.3s | | | | | | |
| YUK | | | | A | A | 11 19 16.6 | |
| | comp=N,144nm,0.3s | | | | | | |
| **GRPR** | **Tuman** | **1.51** | **300** | *c* PN | **Pn** | **11 18 58.2** | **+0.3** |
| GRPR | | | | *i* S | **Sn** | **11 19 16.1** | **-0.6** |
| **GRPR** | **Tuman** | **1.51** | **300** | *e*P | **Pn** | **11 18 58.2** | **+0.3** |
| GRPR | | | | *i* S | **Sn** | **11 19 16.1** | **-0.6** |
| **LAGR** | **Lagunnoye** | **1.53** | **303** | *e*PN | **Pn** | **11 18 59.0** | **+0.8** |
| LAGR | | | | *i* S | **Sn** | **11 19 17.3** | **+0.1** |
| **LAGR** | **Lagunnoye** | **1.53** | **303** | *e*P | **Pn** | **11 18 59.0** | **+0.8** |
| LAGR | | | | *i* S | **Sn** | **11 19 17.3** | **+0.1** |
| **GLVR** | **Golovnino** | **1.58** | **289** | *e*PN | **Pn** | **11 18 59.6** | **+0.8** |
| GLVR | | | | *e*S | **Sb** | **11 19 18.6** | **-2.0** |
| **GLVR** | **Golovnino** | **1.58** | **289** | *e*P | **Pn** | **11 18 59.6** | **+0.8** |
| GLVR | | | | *e*S | **Sb** | **11 19 18.6** | **-2.0** |
| **JRA** | **Rausu** | **1.92** | **292** | P | **Pn** | **11 19 04.1** | **+0.7** |
| JRA | | | | *e*S | **Sn** | **11 19 26.6** | **0.0** |
| **KUR** | **Kuril'sk** | **2.00** | **6** | *e*PN | **Pn** | **11 19 05.1** | **+0.5** |
| KUR | | | | *e*S | **Sn** | **11 19 28.0** | **-0.8** |
| KUR | | | | pmax | pmax | | |
| | comp=N,6.0nm,0.1s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=E,4.0nm,0.1s | | | | | | |
| KUR | | | | pmax | pmax | | |
| | comp=Z,11nm,0.1s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=N,217nm,0.2s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,50nm,0.1s | | | | | | |
| **KUR** | **Kuril'sk** | **2.00** | **6** | *e*P | **Pn** | **11 19 05.1** | **+0.5** |
| KUR | | | | AMB | AMB | 11 19 06.3 | |
| | comp=E,23nm,0.1s | | | | | | |
| KUR | | | | *e*S | **Sn** | **11 19 28.0** | **-0.8** |
| KUR | | | | A | A | 11 19 30.1 | |
| | comp=E,380nm,0.2s | | | | | | |
| KUR | | | | A | A | 11 19 30.1 | |
| | comp=E,89nm,0.2s | | | | | | |
| **JNK** | **Nakash** | **2.11** | **280** | P | **Pn** | **11 19 06.6** | **+0.5** |
| JNK | | | | *e*S | **Sn** | **11 19 30.9** | **-0.6** |
| **JAK** | **Akkeshi** | **2.12** | **264** | P | **Pn** | **11 19 07.0** | **+0.7** |
| JAK | | | | *e*S | **Sn** | **11 19 31.1** | **-0.7** |
| **JOB** | **Onbets** | **2.76** | **264** | P | **Pn** | **11 19 16.1** | **+1.0** |
| JOB | | | | *e*S | **Sn** | **11 19 46.5** | **-1.0** |
| **JTKR** | **Abashiri--Toko** | **2.76** | **287** | P | **Pn** | **11 19 16.9** | **+1.8** |
| **JAR** | **Ashorobuto** | **2.78** | **272** | P | **Pn** | **11 19 16.5** | **+1.2** |
| JAR | | | | *e*S | **Sn** | **11 19 48.2** | **+0.2** |
| **JMP** | **Maruseppu** | **3.16** | **285** | P | **Pn** | **11 19 22.5** | **+2.0** |
| **JCH** | **Churui** | **3.16** | **260** | P | **Pn** | **11 19 21.4** | **+0.9** |
| JCH | | | | *e*S | **Sn** | **11 19 56.4** | **-0.9** |
| **HRK** | **Horoka** | **3.25** | **275** | *e*S | **Sn** | **11 20 00.6** | **+0.9** |
| **JKK2** | **Kamakawa 2** | **3.57** | **282** | P | **Pn** | **11 19 28.7** | **+2.5** |
| **JFR** | **Furan** | **3.65** | **270** | P | **Pn** | **11 19 29.2** | **+2.0** |
| **JNBK** | **Urakawa-nobuka** | **3.68** | **257** | P | **Pn** | **11 19 29.1** | **+1.4** |
| **JEW** | **Eniwo** | **4.51** | **267** | P | **Pn** | **11 19 41.5** | **+2.4** |
| **YSS** | **Yuzh-Sakhalins** | **5.04** | **319** | *e*P | **Pn** | **11 19 49.1** | **+2.7** |
| **EKMR** | **Ekimchan** | **13.83** | **320** | *erx* | rx | 11 20 26.9 | |
| **H11N2** | **WAKE ISLAND Hy** | **28.51** | **139** | T | T | 11 55 18.4 | |
| | baz=330,slow=76,SNR=7.9 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.52** | **139** | T | T | 11 55 20.7 | |
| | baz=330,slow=76,SNR=7.5 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.53** | **139** | T | T | 11 55 19.5 | |
| | baz=330,slow=76,SNR=7.9 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.48** | **141** | T | T | 11 56 27.7 | |
| | baz=331,slow=76,SNR=10 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.48** | **141** | T | T | 11 56 26.1 | |
| | baz=331,slow=76,SNR=9.3 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.49** | **141** | T | T | 11 56 29.4 | |
| | baz=331,slow=76,SNR=10 | | | | | | |
| **MKAR** | **Makanchi Array** | **45.10** | **298** | P | **P** | **11 26 46.3** | **0.0** |
| | comp=E,0.6nm,0.6s,baz=80,slow=8.5,SNR=13 | | | | | | |
| **BVAR** | **Borovoye Array** | **50.07** | **310** | LR | LR | 11 50 16.4 | |
| | comp=E,30nm,18.9s,baz=75,slow=38 | | | | | | |
| **YKA** | **Yellowknife Ar** | **56.05** | **34** | P | **P** | **11 28 09.2** | **+0.6** |
| | comp=E,0.1nm,0.6s,baz=302,slow=6.8,SNR=3.0 | | | | | | |
| **ARCES** | **ARCESS Array B** | **59.83** | **340** | P | **P** | **11 28 34.5** | **-0.6** |
| | comp=E,0.8nm,0.6s,baz=36,slow=9.0,SNR=4.9 | | | | | | |
| **FINES** | **FINESS Array B** | **65.47** | **333** | P | **P** | **11 29 11.8** | **-1.0** |
| | comp=E,1.2nm,0.6s,baz=36,slow=5.2,SNR=6.7 | | | | | | |
| **NOA** | **NORSAR Array B** | **70.19** | **339** | P | **P** | **11 29 42.2** | **-0.3** |
| | comp=E,1.9nm,1.0s,baz=42,slow=6.8,SNR=5.2 | | | | | | |

*ISCJB* ***31*** *11:26:05.6±1.7, 37°.24N±0°.06×142°.02E±0°.07, h16km±10km, mb3.1/3, Error ellipse: s-maj=12.3km s-min=7.4km az=138.2*
*JMA* ***31*** *11:26:06.7±0.3, 37°.20N×141°.98E, h36km, M3.2*
*IDC* ***31*** *11:26:07.6±1.3, 37°.65N×141°.73E, h0km, mb3.1/3, mb1 3.3/5, mb1mx3.2/40, mbtmp3.1/5, ML2.7/2, MS2.5/1, Ms1 2.5/1, ms1mx2.1/16, Error ellipse: s-maj=33.6km s-min=22.7km az=126.0*
**ISC 31 11:26:08.5±2.0, 37°.42N±0°.06×141°.87E±0°.07, h17km±10km, n22, σ1§81/25, mb3.1/3, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JFK** | **Kawauchi** | **0.79** | **266** | P | **Pg** | **11 26 23.1** | **-0.9** |
| JFK | | | | *e*S | **Sb** | **11 26 34.2** | **-0.1** |
| **JMM** | **Marumori** | **0.96** | **298** | P | **Pn** | **11 26 27.0** | **-0.3** |
| JMM | | | | *e*S | **Sn** | **11 26 41.4** | **+0.9** |
| **JIO** | **Ouri** | **1.11** | **339** | P | **Pg** | **11 26 29.6** | **-0.4** |
| JIO | | | | *e*S | **Sg** | **11 26 45.3** | **+0.8** |
| **JFT** | **Otama** | **1.22** | **275** | P | **Pn** | **11 26 30.6** | **-0.3** |
| JFT | | | | *e*S | **Sn** | **11 26 47.1** | **+0.1** |
| **JOU** | **Okura** | **1.34** | **315** | P | **Pg** | **11 26 34.0** | **-0.3** |
| JOU | | | | *e*S | **Sg** | **11 26 53.4** | **+1.6** |
| **JMK** | **Ichinoseki** | **1.61** | **342** | P | **Pb** | **11 26 37.3** | **-0.5** |
| **JYS** | **Shirataka** | **1.63** | **300** | P | **Pb** | **11 26 37.9** | **-0.3** |
| **JFY** | **Yanaizu** | **1.72** | **270** | P | **Pn** | **11 26 37.6** | **-0.1** |
| JFY | | | | *e*S | **Sb** | **11 27 00.1** | **-1.0** |
| **JAG** | **Ashikaga** | **2.17** | **243** | P | **Pn** | **11 26 41.3** | **-2.7** |
| JAG | | | | *e*S | **Sn** | **11 27 06.0** | **-4.5** |
| **MJAR** | **Matsushiro Arr** | **3.06** | **254** | Pn | **Pn** | **11 26 56.1** | **0.0** |
| | 1.2nm,0.3s,baz=72,slow=11,SNR=25 | | | | | | |
| MJAR | | | | Sn | **Sn** | **11 27 32.3** | **0.0** |
| | 1.7nm,0.3s,baz=172,slow=20,SNR=6.2 | | | | | | |
| **MAT** | **Matsushiro** | **3.06** | **254** | P | **Pn** | **11 26 56.0** | **-0.1** |
| MAT | | | | *e*S | **Sn** | **11 27 32.4** | **0.0** |
| **ASAJ** | **Asahikawa** | **6.71** | **5** | Pn | **Pn** | **11 27 46.2** | **-0.1** |
| | 0.2nm,0.3s,baz=222,slow=16,SNR=2.3 | | | | | | |
| ASAJ | | | | Sn | **Sn** | **11 28 57.7** | **-4.7** |
| | 0.2nm,0.3s,baz=266,slow=6.2,SNR=2.3 | | | | | | |
| **KSRS** | **Korea Array** | **11.09** | **274** | LR | LR | 11 32 29.8 | |
| | comp=Z,23nm,18.5s,baz=57,slow=35 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **28.04** | **122** | T | T | 12 00 58.9 | |
| | baz=314,slow=75,SNR=13 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.05** | **122** | T | T | 12 00 59.4 | |
| | baz=314,slow=75,SNR=14 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.06** | **122** | T | T | 12 01 00.1 | |
| | baz=314,slow=75,SNR=11 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **28.77** | **124** | T | T | 12 01 52.6 | |
| | baz=316,slow=76,SNR=9.2 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **28.77** | **124** | T | T | 12 01 52.5 | |
| | baz=316,slow=76,SNR=7.2 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.79** | **124** | T | T | 12 01 54.6 | |
| | baz=316,slow=76,SNR=5.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **44.22** | **302** | P | **P** | **11 34 16.7** | **0.0** |
| | 0.2nm,0.7s,baz=75,slow=11,SNR=3.0 | | | | | | |
| **ASAR** | **Alice Springs** | **61.22** | **188** | P | **P** | **11 36 26.2** | **+3.7** |
| | 0.3nm,0.8s,baz=13,slow=8.6,SNR=3.7 | | | | | | |
| **YKA** | **Yellowknife Ar** | **63.29** | **30** | P | **P** | **11 36 36.0** | **0.0** |
| | 0.1nm,0.8s,baz=298,slow=6.9,SNR=2.6 | | | | | | |

*SKHL* ***31*** *11:29:47.7±0.0, 48°.57N×152°.95E, h128km±7km, mb4.7/2, msh5.0/3*
*ISCJB* ***31*** *11:29:49.4±0.4, 48°.65N±0°.06×152°.91E±0°.06, h150km, mb3.4/20, Error ellipse: s-maj=9.3km s-min=3.1km az=146.4*
*MOS* ***31*** *11:29:49.2±1.0, 48°.63N×152°.85E, h146km, mb4.1/7, Error ellipse: s-maj=11.3km s-min=5.1km az=63.4*
*KRSC* ***31*** *11:29:50.1±2.4, 48°.21N×154°.30E, h189km±35km, ML4.5*
*IDC* ***31*** *11:29:51.0±2.0, 48°.39N×152°.94E, h157km±19km, mb3.2/16, mb1 3.3/21, mb1mx3.3/43, mbtmp3.6/21, Error ellipse: s-maj=18.1km s-min=10.5km az=144.0*
**ISC 31 11:29:50.7±0.6, 48°.64N±0°.07×152°.91E±0°.06, h150km, n98, σ1§76/116, mb3.5/20, 1C-1D, Kuril Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SKR** | **Severo-Kuril's** | **2.92** | **44** | *e*PN | **Pn** | **11 30 36.0** | **-0.9** |
| SKR | | | | *e*S | **Sn** | **11 31 11.4** | **-1.3** |
| SKR | | | | pmax | pmax | | |
| | comp=Z,60nm,0.7s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=E,184nm,0.2s | | | | | | |
| SKR | | | | smax | smax | | |
| | comp=N,189nm,1.0s | | | | | | |
| **SKR** | **Severo-Kuril's** | **2.92** | **44** | *e*P | **Pn** | **11 30 36.0** | **-0.9** |
| SKR | | | | AMB | AMB | 11 30 43.0 | |
| | comp=N,40nm,0.3s | | | | | | |
| SKR | | | | *e*S | **Sn** | **11 31 12.2** | **-0.5** |
| SKR | | | | A | A | 11 31 15.0 | |
| | comp=N,250nm,0.3s | | | | | | |
| SKR | | | | A | A | 11 31 15.0 | |
| | comp=N,290nm,0.3s | | | | | | |
| **SKR** | **Severo-Kuril's** | **2.92** | **44** | *e*P | **Pn** | **11 30 35.8** | **-1.1** |
| SKR | | | | *e*S | **Sn** | **11 31 12.2** | **-0.5** |
| **PAU** | **Pauzhetka** | **3.78** | **40** | PN | **Pn** | **11 30 48.2** | **+0.2** |
| PAU | | | | S | **Sn** | **11 31 33.4** | **+0.8** |
| **PAU** | **Pauzhetka** | **3.78** | **40** | *e*P | **Pn** | **11 30 48.2** | **+0.2** |
| PAU | | | | *e*S | **Sn** | **11 31 33.6** | **+1.0** |
| PAU | | | | A | A | 11 31 34.9 | |
| | comp=N,39nm,0.3s | | | | | | |
| **PAU** | **Pauzhetka** | **3.78** | **40** | *e*P | **Pn** | **11 30 48.2** | **+0.2** |
| PAU | | | | *e*S | **Sn** | **11 31 33.4** | **+0.8** |
| **KDTR** | **Khodutka, Kamc** | **4.59** | **44** | *e*P | **Pn** | **11 30 56.2** | **-2.3** |
| KDTR | | | | *e*S | **Sn** | **11 31 46.7** | **-4.7** |
| **KUR** | **Kuril'sk** | **4.85** | **227** | *i* PN | **Pn** | **11 31 02.2** | **+0.1** |
| **KUR** | **Kuril'sk** | **4.85** | **227** | *e*P | **Pn** | **11 31 00.8** | **-1.3** |
| **ASAK** | **Asacha** | **4.92** | **38** | PN | **Pn** | **11 31 03.8** | **+0.9** |
| **ASAK** | **Asacha** | **4.92** | **38** | *e*P | **Pn** | **11 31 03.8** | **+0.9** |
| **MTVR** | **Mutnovka** | **5.11** | **39** | PN | **Pn** | **11 31 06.5** | **+1.0** |
| MTVR | | | | S | **Sn** | **11 32 03.1** | **-0.8** |
| **MTVR** | **Mutnovka** | **5.11** | **39** | P | **Pn** | **11 31 06.5** | **+1.0** |
| MTVR | | | | *e*S | **Sn** | **11 32 03.1** | **-0.8** |
| **RUS** | **Russkaya** | **5.21** | **41** | PN | **Pn** | **11 31 04.7** | **-2.0** |
| RUS | | | | S | **Sn** | **11 32 02.9** | **-3.3** |
| **RUS** | **Russkaya** | **5.21** | **41** | *e*P | **Pn** | **11 31 04.7** | **-2.0** |
| **RUS** | **Russkaya** | **5.21** | **41** | *e*P | **Pn** | **11 31 04.7** | **-2.0** |
| RUS | | | | *e*S | **Sn** | **11 32 02.9** | **-3.3** |
| **PETK** | **Petropavlovsk-** | **5.40** | **32** | P | **Pn** | **11 31 10.9** | **+1.6** |
| | comp=N,0.6nm,0.3s,baz=187,slow=11,SNR=17 | | | | | | |
| **PET** | **Petropavlovsk** | **5.70** | **37** | *e*PN | **Pn** | **11 31 13.4** | **+0.2** |
| PET | | | | *e*S | **Sn** | **11 32 16.6** | **-1.2** |
| PET | | | | smax | smax | | |
| | comp=E,20nm,0.6s | | | | | | |
| PET | | | | smax | smax | | |
| | comp=N,15nm,0.5s | | | | | | |
| **PET** | **Petropavlovsk** | **5.70** | **37** | *i* P | **Pn** | **11 31 12.8** | **-0.4** |
| PET | | | | *i* S | **Sn** | **11 32 17.7** | **-0.1** |
| PET | | | | A | A | 11 32 23.0 | |
| | comp=N,15nm,0.4s | | | | | | |
| PET | | | | A | A | 11 32 23.0 | |
| | comp=N,12nm,0.4s | | | | | | |
| **PET** | **Petropavlovsk** | **5.70** | **37** | *e*P | **Pn** | **11 31 13.5** | **+0.2** |
| PET | | | | *e*S | **Sn** | **11 32 16.4** | **-1.4** |
| **DALK** | **Dalny** | **5.75** | **38** | PN | **Pn** | **11 31 14.0** | **+0.2** |
| DALK | | | | S | **Sn** | **11 32 16.0** | **-2.9** |
| **DALK** | **Dalny** | **5.75** | **38** | *e*P | **Pn** | **11 31 14.0** | **+0.2** |
| DALK | | | | *e*S | **Sn** | **11 32 16.0** | **-2.9** |
| **UGLR** | **Uglovaya** | **5.91** | **37** | PN | **Pn** | **11 31 16.9** | **+0.8** |
| **UGLR** | **Uglovaya** | **5.91** | **37** | *e*P | **Pn** | **11 31 16.9** | **+0.8** |
| **AVH** | **Avacha** | **5.92** | **36** | PN | **Pn** | **11 31 17.7** | **+1.5** |
| **AVH** | **Avacha** | **5.92** | **36** | *e*P | **Pn** | **11 31 17.7** | **+1.5** |
| **SMAR** | **Somma** | **5.94** | **37** | PN | **Pn** | **11 31 17.6** | **+1.0** |
| **SMAR** | **Somma** | **5.94** | **37** | *e*P | **Pn** | **11 31 17.6** | **+1.0** |
| **SDLR** | **Sedlovina** | **5.98** | **37** | PN | **Pn** | **11 31 16.9** | **-0.2** |
| **SDLR** | **Sedlovina** | **5.98** | **37** | *e*P | **Pn** | **11 31 16.9** | **-0.2** |
| **NLC** | **Nalytchevo** | **6.09** | **39** | PN | **Pn** | **11 31 16.4** | **-2.0** |
| NLC | | | | S | **Sn** | **11 32 20.9** | **-6.2** |
| **NLC** | **Nalytchevo** | **6.09** | **39** | *e*P | **Pn** | **11 31 16.4** | **-2.0** |
| NLC | | | | *e*S | **Sn** | **11 32 20.9** | **-6.2** |
| **SPN** | **Mys Shipunski** | **6.34** | **43** | PN | **Pn** | **11 31 19.9** | **-1.8** |
| **SPN** | **Mys Shipunski** | **6.34** | **43** | *e*P | **Pn** | **11 31 19.9** | **-1.8** |
| **SPN** | **Mys Shipunski** | **6.34** | **43** | *e*P | **Pn** | **11 31 19.9** | **-1.8** |
| SPN | | | | *e*S | **Sn** | **11 32 25.9** | **-7.1** |
| **TYV** | **Tymovskoe** | **7.01** | **292** | *e*P | **Pn** | **11 31 30.9** | **+0.3** |
| **UGL** | **Uglegorsk** | **7.17** | **278** | *e*PN | **Pn** | **11 31 31.1** | **-1.7** |
| UGL | | | | *e*S | **Sn** | **11 32 50.3** | **-2.7** |
| **JKA** | **Kamikawa-asahi** | **8.44** | **241** | *e*P | **Pn** | **11 31 49.9** | **0.0** |
| **ASAJ** | **Asahikawa** | **8.44** | **241** | P | **Pn** | **11 31 49.9** | **0.0** |
| | comp=N,1.0nm,0.3s,baz=73,slow=17,SNR=12 | | | | | | |
| **ERM** | **Erimo** | **9.54** | **230** | *i* PN | **Pn** | **11 32 03.2** | **-1.2** |
| **ERM** | **Erimo** | **9.54** | **230** | *e*P | **Pn** | **11 32 03.2** | **-1.2** |
| **KBG** | **Krutoberegovo** | **9.68** | **34** | PN | **Pn** | **11 32 05.8** | **-0.4** |
| **KBG** | **Krutoberegovo** | **9.68** | **34** | *e*P | **Pn** | **11 32 05.8** | **-0.4** |
| **KBG** | **Krutoberegovo** | **9.68** | **34** | *e*P | **Pn** | **11 32 05.8** | **-0.4** |
| **KBTR** | **Krutoberegovo** | **9.69** | **35** | PN | **Pn** | **11 32 04.2** | **-2.1** |
| **KBTR** | **Krutoberegovo** | **9.69** | **35** | *e*P | **Pn** | **11 32 04.2** | **-2.1** |
| **BKI** | **Bering** | **10.39** | **46** | PN | **Pn** | **11 32 13.9** | **-1.7** |
| **BKI** | **Bering** | **10.39** | **46** | *e*P | **Pn** | **11 32 13.9** | **-1.7** |
| BKI | | | | *e*S | Sn | 11 33 56.8 | -14 |
| **HABR** | **Khabarovsk** | **11.84** | **276** | *e*PN | **Pn** | **11 32 33.2** | **-1.5** |
| HABR | | | | *e*S | **Sn** | **11 34 43.6** | **-1.8** |
| HABR | | | | pmax | pmax | | |
| | comp=N,4.0nm,1.1s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=Z,8.0nm,1.1s | | | | | | |
| HABR | | | | pmax | pmax | | |
| | comp=E,19nm,1.0s | | | | | | |
| **HABR** | **Khabarovsk** | **11.84** | **276** | *e*P | **Pn** | **11 32 33.2** | **-1.5** |
| **KLR** | **Kul'dur** | **13.92** | **280** | P | **P** | **11 33 04.0** | **-0.7** |
| | comp=E,0.0nm,0.3s,baz=79,slow=11,SNR=14 | | | | | | |
| **KLR** | **Kul'dur** | **13.92** | **280** | *e*P | **P** | **11 33 03.5** | **-1.2** |
| **SEY** | **Seymchan** | **14.33** | **359** | *e*P | **Pn** | **11 33 06.9** | **+0.5** |
| **SEY** | **Seymchan** | **14.33** | **359** | *e*P | **Pn** | **11 33 06.9** | **+0.5** |
| **USRK** | **Ussuriysk Ar.** | **15.08** | **261** | P | **P** | **11 33 16.4** | **-1.2** |
| | comp=E,0.3nm,0.3s,baz=65,slow=15,SNR=7.7 | | | | | | |
| **MJA0** | **Matsu Arr-Jizo** | **16.17** | **227** | *e*P | **P** | **11 33 30.8** | **+1.0** |
| **MJAR** | **Matsushiro Arr** | **16.19** | **227** | P | **Pn** | **11 33 28.1** | **-1.6** |
| | comp=E,0.2nm,0.3s,baz=22,slow=11,SNR=5.9 | | | | | | |
| **YAK** | **Yakutsk** | **18.68** | **325** | *i* P | **Pn** | **11 33 59.2** | **+0.2** |
| YAK | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.2s | | | | | | |
| **YAK** | **Yakutsk** | **18.68** | **325** | *e*P | **P** | **11 33 56.8** | **-0.1** |
| **BILL** | **Bilibino** | **20.59** | **14** | *e*P | Pn | 11 34 19.9 | -1.5 |
| BILL | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.2s | | | | | | |
| **BILL** | **Bilibino** | **20.59** | **14** | *e*P |

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SHO** | **Shikotan** | **0.74** | **249** | *i* P | **Pg** | **11 39 04.3** | **+1.0** |
| SHO | | | | AMB | AMB | 11 39 05.2 | |
| | 50nm,0.2s | | | | | | |
| SHO | | | | *i* S | **Sg** | **11 39 13.5** | **+0.4** |
| SHO | | | | A | A | 11 39 13.7 | |
| | 660nm,0.2s | | | | | | |
| SHO | | | | A | A | 11 39 13.7 | |
| | 680nm,0.2s | | | | | | |
| **KUR** | **Kuril'sk** | **1.09** | **3** | *i* P | **Pg** | **11 39 09.7** | **-0.1** |
| KUR | | | | AMB | AMB | 11 39 11.3 | |
| | 18nm,0.2s | | | | | | |
| KUR | | | | AMB | AMB | 11 39 11.3 | |
| | 16nm,0.2s | | | | | | |
| KUR | | | | AMB | AMB | 11 39 11.3 | |
| | 48nm,0.2s | | | | | | |
| KUR | | | | *e*S | **Sg** | **11 39 23.0** | **-1.1** |
| KUR | | | | A | A | 11 39 24.7 | |
| | 250nm,0.2s | | | | | | |
| KUR | | | | A | A | 11 39 24.7 | |
| | 470nm,0.2s | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **1.39** | **266** | *e*P | **Pn** | **11 39 13.2** | **-0.2** |
| YUK | | | | *e*S | **Sg** | **11 39 30.6** | **-3.1** |
| YUK | | | | A | A | 11 39 32.8 | |
| | 370nm,0.3s | | | | | | |
| YUK | | | | A | A | 11 39 32.8 | |
| | 390nm,0.3s | | | | | | |
| **LAGR** | **Lagunnoye** | **1.45** | **267** | *e*P | **Pn** | **11 39 16.0** | **+1.9** |
| LAGR | | | | *e*S | **Sn** | **11 39 31.8** | **-0.9** |
| **GRPR** | **Tuman** | **1.46** | **265** | *e*P | **Pn** | **11 39 14.8** | **+0.4** |
| GRPR | | | | *e*S | **Sn** | **11 39 31.7** | **-1.4** |
| **NEM2** | **Nemuro 2** | **1.68** | **243** | P | **Pn** | **11 39 17.1** | **-0.2** |
| NEM2 | | | | *e*S | **Sn** | **11 39 35.8** | **-2.5** |
| **GLVR** | **Golovnino** | **1.69** | **257** | *e*P | **Pn** | **11 39 18.1** | **+0.6** |
| GLVR | | | | *e*S | **Sn** | **11 39 38.7** | **0.0** |
| **JRA** | **Rausu** | **1.93** | **265** | P | **Pn** | **11 39 22.7** | **+1.9** |
| **JNK** | **Nakash** | **2.29** | **257** | P | **Pn** | **11 39 26.8** | **+1.0** |
| JNK | | | | *e*S | **Sn** | **11 39 52.6** | **-1.0** |
| **JAK** | **Akkeshi** | **2.52** | **244** | P | **Pn** | **11 39 29.3** | **+0.3** |
| JAK | | | | *e*S | **Sn** | **11 39 57.1** | **-2.2** |
| **JAR** | **Ashorobuto** | **3.03** | **255** | P | **Pn** | **11 39 37.8** | **+1.8** |
| JAR | | | | *e*S | **Sn** | **11 40 11.9** | **0.0** |
| **JOB** | **Onbets** | **3.13** | **248** | P | **Pn** | **11 39 38.4** | **+1.1** |
| **JMP** | **Maruseppu** | **3.19** | **269** | P | **Pn** | **11 39 42.0** | **+3.8** |
| **JCH** | **Churui** | **3.57** | **246** | P | **Pn** | **11 39 44.1** | **+0.7** |
| **JFR** | **Furan** | **3.90** | **257** | P | **Pn** | **11 39 50.8** | **+3.0** |

*IDC* ***31*** *11:41:22.4±1.4,28°.84N×102°.74E,h0km,mb3.2/4, mb1 3.5/5,mb1mx3.1/59,mbtmp3.3/5,ML3.7/1,Error ellipse: s-maj=73.0km s-min=22.5km az=67.0*
*BJI* ***31*** *11:41:25.0,28°.88N×102°.60E,h10km,ML3.1/9*

**ISC 31 11:41:23.8±1.2,28°.83N±0°.06×102°.29E±0°.09,h10km,n9, σ$^{s}$11/15,mb3.4/4,Sichuan**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CD2** | **Chengdu** | **2.44** | **31** | Pn | **Pn** | **11 42 03.5** | **-0.2** |
| CD2 | | | | Pg | **Pb** | **11 42 08.0** | **+0.2** |
| CD2 | | | | Sg | **Sn** | **11 42 34.5** | **+0.9** |
| CD2 | | | | smax | smax | | |
| | comp=N,520nm,0.6s | | | | | | |
| CD2 | | | | smax | smax | | |
| | comp=E,660nm,0.7s | | | | | | |
| **GYA** | **Guiyang** | **4.54** | **120** | Pg | **Pb** | **11 42 44.5** | **+0.7** |
| GYA | | | | Sn | **Sn** | **11 43 25.8** | **+0.1** |
| GYA | | | | Sg | **Sb** | **11 43 40.5** | **+1.9** |
| GYA | | | | smax | smax | | |
| | comp=N,30nm,0.8s | | | | | | |
| GYA | | | | smax | smax | | |
| | comp=E,40nm,0.8s | | | | | | |
| **XAN** | **Xi'an** | **7.69** | **46** | Pn | **Pn** | **11 43 13.0** | **-2.9** |
| XAN | | | | Pg | **Pb** | **11 43 38.8** | **+1.5** |
| XAN | | | | Sn | **Sn** | **11 44 35.3** | **-7.8** |
| XAN | | | | Sg | **Sb** | **11 45 14.5** | **+5.5** |
| XAN | | | | smax | smax | | |
| | comp=N,40nm,0.8s | | | | | | |
| XAN | | | | smax | smax | | |
| | comp=E,30nm,0.8s | | | | | | |
| **WMQ** | **Urumqi** | **18.98** | **326** | *e*P | **P** | **11 45 46.5** | **+1.0** |
| **SONM** | **Songino Array** | **19.24** | **8** | P | **P** | **11 45 49.1** | **+0.7** |
| | 0.2nm,0.3s,baz=189,slow=11,SNR=5.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **23.79** | **324** | P | **P** | **11 46 38.9** | **+2.3** |
| | 0.1nm,0.5s,baz=132,slow=11,SNR=3.1 | | | | | | |
| **WRA** | **Warramunga Arr** | **57.52** | **144** | P | P | 11 51 11.8 | -1.7 |
| | 0.7nm,0.8s,baz=335,slow=7.8,SNR=7.1 | | | | | | |
| **ASAR** | **Alice Springs** | **60.42** | **146** | P | **P** | **11 51 32.9** | **-0.8** |
| | 0.2nm,0.5s,baz=328,slow=6.9,SNR=6.9 | | | | | | |
| **YKA** | **Yellowknife Ar** | **84.32** | **16** | P | **P** | **11 53 54.4** | **-1.4** |
| | 0.1nm,0.6s,baz=327,slow=5.0,SNR=3.4 | | | | | | |

**MAN 31 11:50:19,7°.73N×127°.30E,h14km,mb4.5,ML3.4,MS3.2, 1C,Philippine Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BIPH** | **Bislig** | **1.03** | **296** | *e*P | Pn | 11 50 39.5 | +0.5 |
| BIPH | | | | *i* S | Sb | 11 50 49.7 | -2.3 |
| **MATI** | **Mati** | **1.30** | **233** | *e*P | Pn | 11 50 42.3 | -0.4 |
| MATI | | | | *e*S | Sg | 11 51 00.7 | -0.1 |
| **BUKP** | **Musuan** | **2.22** | **274** | *e*P | Pn | 11 50 56.7 | +1.3 |
| BUKP | | | | *e*S | Sn | 11 51 24.4 | +1.6 |

**IDC 31 11:58:17.0±4.6,57°.91S×149°.36W,h0km,mb3.9/2, mb1 4.1/2,mb1mx3.7/30,mbtmp3.9/2,Error ellipse: s-maj=427.9km s-min=44.7km az=165.0, Pacific-Antarctic Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ASAR** | **Alice Springs** | **63.27** | **268** | P | P | 12 08 47.5 | +0.1 |
| | 0.9nm,0.7s,baz=140,slow=6.2,SNR=14 | | | | | | |
| **WRA** | **Warramunga Arr** | **66.07** | **270** | P | P | 12 09 05.5 | -0.1 |
| | 0.9nm,0.8s,baz=142,slow=5.9,SNR=8.4 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **103.90** | **134** | T | T | 14 08 23.2 | |
| | baz=199 | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **103.90** | **134** | T | T | 14 08 25.4 | |
| | baz=199 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **103.91** | **134** | T | T | 14 08 25.2 | |
| | baz=199 | | | | | | |
| **H10N3** | **ASCENSION HYDR** | **104.98** | **133** | T | T | 14 09 48.5 | |
| | baz=206 | | | | | | |
| **H10N1** | **ASCENSION HYDR** | **104.98** | **133** | T | T | 14 09 48.0 | |
| | baz=206 | | | | | | |
| **H10N2** | **ASCENSION HYDR** | **105.00** | **133** | T | T | 14 09 47.1 | |
| | baz=206 | | | | | | |
| **ILAR** | **Eielson Array** | **122.38** | **1** | PKP | PKPdf | 12 17 12.0 | -0.4 |
| | 0.7nm,0.9s,baz=194,slow=1.6,SNR=6.4 | | | | | | |
| **YKA** | **Yellowknife Ar** | **123.05** | **18** | PKP | PKPdf | 12 17 13.6 | -0.1 |
| | 0.2nm,0.9s,baz=191,slow=3.9,SNR=4.0 | | | | | | |
| **MKAR** | **Makanchi Array** | **147.35** | **273** | PKPbc | PKPbc | 12 18 00.6 | -0.9 |
| | 1.8nm,0.8s,baz=102,slow=5.1,SNR=20 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **150.08** | **286** | PKPbc | PKPbc | 12 18 08.0 | -0.3 |
| | 0.2nm,0.3s,baz=117,slow=2.3,SNR=4.7 | | | | | | |

*ISCJB* ***31*** *12:01:42.5±0.8,3°.1N±0°.1×96°.2E±0°.1,h33km,mb3.8/10, MS4.1/1,Error ellipse: s-maj=24.1km s-min=12.5km az=41.7*
*IDC* ***31*** *12:01:47.4±4.7,3°.21N×96°.40E,h60km±39km,mb3.6/10, mb1 3.7/12,mb1mx3.5/50,mbtmp3.8/12,ML3.3/2,MS3.4/2, Ms1 3.4/2,ms1mx2.6/37,Error ellipse: s-maj=54.8km s-min=14.7km az=52.0*

**ISC 31 12:01:44.3±0.9,3°.1N±0°.2×96°.2E±0°.1,h33km,n16, σ$^{s}$76/14,mb3.9/10,Northern Sumatera**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PSI** | **Prapat** | **2.72** | **96** | P | **Pn** | **12 02 27.0** | **+1.2** |
| | 4.6nm,0.3s,baz=331,slow=9.0,SNR=18 | | | | | | |
| PSI | | | | LR | LR | 12 03 42.6 | |
| | comp=Z,116nm,18.1s,baz=294,slow=45 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **15.50** | **10** | P | **Pn** | **12 05 20.4** | **-0.2** |
| | 0.1nm,0.3s,baz=198,slow=12,SNR=3.4 | | | | | | |
| **H08S2** | **Diego Garcia H** | **25.96** | **246** | T | T | 12 33 49.2 | |
| | baz=67,slow=74 | | | | | | |
| **H08S3** | **Diego Garcia H** | **25.96** | **246** | T | T | 12 33 50.0 | |
| | baz=67,slow=74 | | | | | | |
| **H08S1** | **Diego Carcia H** | **25.98** | **246** | T | T | 12 33 50.9 | |
| | baz=67 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.88** | **123** | P | **P** | **12 09 47.2** | **-0.8** |
| | 2.0nm,0.6s,baz=301,slow=9.1,SNR=54 | | | | | | |
| WRA | | | | PcP | **PcP** | **12 11 33.7** | **-0.3** |
| | 0.4nm,1.0s,baz=315,slow=2.1,SNR=3.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **45.18** | **347** | P | **P** | **12 09 57.5** | **-0.5** |
| | 0.7nm,0.4s,baz=161,slow=8.5,SNR=30 | | | | | | |
| **ASAR** | **Alice Springs** | **45.32** | **128** | P | **P** | **12 09 58.9** | **-0.6** |
| | 0.9nm,0.6s,baz=300,slow=7.7,SNR=22 | | | | | | |
| ASAR | | | | PcP | **PcP** | **12 11 38.3** | **-0.7** |
| | 0.1nm,0.3s,baz=320,slow=4.2,SNR=3.8 | | | | | | |
| **SONM** | **Songino Array** | **45.43** | **10** | P | **P** | **12 09 59.5** | **-0.6** |
| | 0.4nm,0.3s,baz=186,slow=10,SNR=3.5 | | | | | | |
| **GEYT** | **Alibeck** | **49.14** | **320** | P | **P** | **12 10 30.3** | **+1.2** |
| | 1.6nm,0.9s,baz=126,slow=7.3,SNR=3.6 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **51.55** | **351** | P | **P** | **12 10 46.4** | **-0.5** |
| | 0.7nm,0.4s,baz=168,slow=6.7,SNR=7.5 | | | | | | |
| **PMG** | **Port Moresby** | **52.26** | **104** | LR | LR | 12 36 04.9 | |
| | comp=Z,188nm,20.3s,baz=203,slow=40 | | | | | | |
| **BRTR** | **Keskin Array B** | **67.12** | **312** | P | **P** | **12 12 35.6** | **+0.5** |
| | 0.6nm,1.0s,baz=134,slow=10,SNR=3.6 | | | | | | |
| **AKASG** | **Malin Array Be** | **73.17** | **322** | P | **P** | **12 13 11.2** | **-0.5** |
| | 0.1nm,0.2s,baz=89,slow=5.7,SNR=3.6 | | | | | | |
| **ARCES** | **ARCESS Array B** | **80.43** | **340** | P | **P** | **12 13 52.2** | **-0.1** |
| | 5.9nm,1.1s,baz=99,slow=7.6,SNR=4.0 | | | | | | |
| **GERES** | **GERESS Array B** | **82.75** | **319** | P | **P** | **12 14 05.7** | **+0.6** |
| | 0.1nm,0.4s,baz=84,slow=9.0,SNR=2.6 | | | | | | |

**IDC 31 12:02:17.3±5.7,56°.35S×149°.18W,h0km,mb3.6/2, mb1 3.8/2,mb1mx3.6/27,mbtmp3.6/2,Error ellipse: s-maj=655.2km s-min=82.0km az=168.0, Pacific-Antarctic Ridge**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ASAR** | **Alice Springs** | **63.44** | **267** | P | P | 12 12 48.3 | -0.5 |
| | 0.5nm,0.7s,baz=139,slow=6.4,SNR=5.7 | | | | | | |
| **WRA** | **Warramunga Arr** | **66.17** | **270** | P | P | 12 13 07.0 | +0.4 |
| | 0.5nm,1.0s,baz=147,slow=5.5,SNR=5.9 | | | | | | |
| **H10S3** | **ASCENSION HYDR** | **104.90** | **133** | T | T | 14 12 25.8 | |
| | baz=204,slow=74,SNR=3.5 | | | | | | |
| **H10S2** | **ASCENSION HYDR** | **104.90** | **133** | T | T | 14 12 19.2 | |
| | baz=204,slow=74,SNR=6.8 | | | | | | |
| **H10S1** | **ASCENSION HYDR** | **104.92** | **133** | T | T | 14 12 22.1 | |
| | baz=204,slow=74,SNR=7.8 | | | | | | |
| **H10N3** | **ASCENSION HYDR** | **105.97** | **133** | T | T | 14 13 51.3 | |
| | baz=204,slow=74,SNR=6.3 | | | | | | |
| **H10N1** | **ASCENSION HYDR** | **105.98** | **133** | T | T | 14 13 50.4 | |
| | baz=204,slow=74,SNR=6.7 | | | | | | |
| **H10N2** | **ASCENSION HYDR** | **105.99** | **133** | T | T | 14 13 50.5 | |
| | baz=204,slow=74,SNR=8.4 | | | | | | |
| **MKAR** | **Makanchi Array** | **147.34** | **275** | PKPbc | PKPbc | 12 22 01.8 | -0.1 |
| | 1.2nm,0.9s,baz=129,slow=2.0,SNR=8.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **149.71** | **289** | PKPbc | PKPbc | 12 22 06.7 | -1.0 |
| | 0.5nm,0.6s,baz=107,slow=1.5,SNR=3.0 | | | | | | |

*ISCJB* ***31*** *12:03:42.7±0.7,51°.47N±0°.03×16°.10E±0°.03,h0km,Error ellipse: s-maj=4.9km s-min=2.7km az=13.9*
*CSEM* ***31*** *12:03:43.7±0.4,51°.50N×16°.10E,h2km,ML3.0/11,Error ellipse: s-maj=6.3km s-min=3.7km az=3.0*
*PRU* ***31*** *12:03:45.0,51°.49N×16°.05E,h0km*
*VIE* ***31*** *12:03:47.3±1.1,51°.28N×16°.13E,h0km,mb2.4/3,ML2.6/5, Error ellipse: s-maj=13.4km s-min=7.1km az=104.0, Suspected Mining induced.*

**ISC 31 12:03:44.5±1.0,51°.48N±0°.05×16°.08E±0°.02,h0km,n38, σ$^{0}$$^{s}$91/78,1D,Poland**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **KSP** | **Ksiaz** | **0.65** | **168** | *i* Pg | **Pg** | **12 03 57.2** | **+0.2** |
| KSP | | | | *e*Sg | **Sg** | **12 04 06.5** | **+1.0** |
| **KSP** | **Ksiaz** | **0.65** | **168** | ⇓*i* Pg | **Pg** | **12 03 57.2** | **+0.2** |
| KSP | | | | *e*Sg | **Sg** | **12 04 06.5** | **+1.0** |
| **KSP** | **Ksiaz** | **0.65** | **168** | *i* Pg | **Pg** | **12 03 57.2** | **+0.2** |
| KSP | | | | *e*Sg | **Sg** | **12 04 06.5** | **+1.0** |
| **UPC** | **Upice** | **0.98** | **182** | *e*PG | **Pg** | **12 04 03.3** | **+0.1** |
| UPC | | | | *e*SG | **Sg** | **12 04 16.4** | **+0.6** |
| | comp=Z,44nm,0.4s | | | | | | |
| **UPC** | **Upice** | **0.98** | **182** | Pg | **Pg** | **12 04 03.3** | **+0.1** |
| UPC | | | | Sg | **Sg** | **12 04 16.4** | **+0.6** |
| | 44nm,0.4s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.14** | **172** | *e*PG | **Pg** | **12 04 06.1** | **-0.3** |
| DPC | | | | *e*SG | **Sg** | **12 04 21.1** | **-0.1** |
| | comp=Z,14nm,0.3s | | | | | | |
| **DPC** | **Dobruska-Polom** | **1.14** | **172** | Pg | **Pg** | **12 04 06.1** | **-0.3** |
| DPC | | | | Sg | **Sg** | **12 04 21.1** | **-0.1** |
| | 14nm,0.3s | | | | | | |
| **PVCC** | **Panska Ves** | **1.35** | **226** | *e*PG | **Pg** | **12 04 10.1** | **-0.2** |
| PVCC | | | | *e*SG | **Sn** | **12 04 29.6** | **+0.4** |
| | comp=Z,62nm,0.2s | | | | | | |
| **PVCC** | **Panska Ves** | **1.35** | **226** | Pg | **Pg** | **12 04 10.1** | **-0.2** |
| PVCC | | | | Sg | **Sn** | **12 04 29.6** | **+0.4** |
| | 62nm,0.2s | | | | | | |
| **BRG** | **Berggiesshubel** | **1.48** | **246** | PN | **Pn** | **12 04 11.1** | **-1.2** |
| BRG | | | | PG | **Pb** | **12 04 12.9** | **+0.2** |
| BRG | | | | SG | **Sn** | **12 04 32.8** | **+0.5** |
| | 26nm,0.5s | | | | | | |
| **KRLC** | **Kraliky** | **1.48** | **162** | *e*PG | **Pn** | **12 04 12.5** | **+0.1** |
| KRLC | | | | *e*SG | **Sg** | **12 04 31.6** | **-0.3** |
| | comp=Z,6.3nm,0.5s | | | | | | |
| **KRLC** | **Kraliky** | **1.48** | **162** | Pg | **Pg** | **12 04 12.5** | **+0.1** |
| KRLC | | | | Sg | **Sg** | **12 04 31.6** | **-0.3** |
| | 6.3nm,0.5s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **1.77** | **208** | *e*PN | **Pn** | **12 04 15.7** | **-0.7** |
| GOPC | | | | *e*PG | **Pb** | **12 04 17.5** | **-0.3** |
| GOPC | | | | *e*SG | **Sg** | **12 04 41.2** | **-0.1** |
| | comp=Z,7.5nm,0.4s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **1.77** | **208** | Pn | **Pn** | **12 04 15.7** | **-0.7** |
| **PRU** | **Pruhonice** | **1.79** | **214** | *e*PN | **Pn** | **12 04 15.8** | **-0.8** |
| PRU | | | | *e*PG | **Pb** | **12 04 17.7** | **-0.4** |
| PRU | | | | *e*SG | **Sg** | **12 04 42.1** | **+0.3** |
| | comp=Z,21nm,0.6s | | | | | | |
| **PRU** | **Pruhonice** | **1.79** | **214** | Pn | **Pn** | **12 04 15.8** | **-0.8** |
| **PRU** | **Pruhonice** | **1.79** | **214** | Pg | **Pb** | **12 04 17.7** | **-0.4** |
| PRU | | | | Sg | **Sg** | **12 04 42.1** | **+0.3** |
| | 21nm,0.6s | | | | | | |
| **CLL** | **Collm** | **1.93** | **266** | *e*Pn | **Pn** | **12 04 17.0** | **-1.6** |
| CLL | | | | *e*Pg | **Pb** | **12 04 21.0** | **+0.4** |
| CLL | | | | *i* | | 12 04 24.6 | |
| CLL | | | | *e*Sg | **Sb** | **12 04 46.0** | **+0.8** |
| | comp=Z,10.0nm,0.5s | | | | | | |
| **MORC** | **Moravsky Berou** | **1.94** | **151** | *e*Pn | **Pn** | **12 04 17.9** | **-0.9** |
| MORC | | | | *e*Sg | **Sb** | **12 04 45.4** | **-0.2** |
| **OKC** | **Ostrava-Krasne** | **2.11** | **141** | *e*PG | **Pb** | **12 04 23.2** | **-0.4** |
| OKC | | | | *e*SG | **Sb** | **12 04 50.5** | **+0.2** |
| **OKC** | **Ostrava-Krasne** | **2.11** | **141** | Pg | **Pb** | **12 04 23.2** | **-0.4** |
| OKC | | | | Sg | **Sb** | **12 04 50.5** | **+0.2** |
| **VRAC** | **Vranov** | **2.20** | **171** | *e*Pn | **Pn** | **12 04 22.2** | **-0.1** |
| VRAC | | | | *e*Sg | **Sb** | **12 04 53.6** | **+0.7** |
| **NKC** | **Novy Kostel** | **2.62** | **243** | *e*PN | **Pn** | **12 04 28.2** | **+0.2** |
| NKC | | | | *e*PG | **Pb** | **12 04 33.1** | **+0.8** |
| NKC | | | | *e*SG | **Sg** | **12 05 09.4** | **+0.9** |
| | comp=Z,13nm,0.4s | | | | | | |
| **NKC** | **Novy Kostel** | **2.62** | **243** | Pn | **Pn** | **12 04 28.2** | **+0.2** |
| **NKC** | **Novy Kostel** | **2.62** | **243** | Pg | **Pb** | **12 04 33.1** | **+0.8** |
| NKC | | | | Sg | **Sg** | **12 05 09.4** | **+0.9** |
| | comp=Z,13nm,0.4s | | | | | | |
| **OJC** | **Ojcow** | **2.68** | **117** | *e*Pg | **Pg** | **12 04 34.8** | **-1.0** |
| OJC | | | | *e*Sg | **Sg** | **12 05 11.1** | **+0.7** |
| **OJC** | **Ojcow** | **2.68** | **117** | *e*Pg | **Pg** | **12 04 34.8** | **-1.0** |
| OJC | | | | *e*Sg | **Sg** | **12 05 11.1** | **+0.7** |
| **OJC** | **Ojcow** | **2.68** | **117** | *e*Pg | **Pg** | **12 04 34.8** | **-1.0** |
| OJC | | | | *e*Sg | **Sg** | **12 05 11.1** | **+0.7** |
| **KHC** | **Kasperske Hory** | **2.85** | **215** | *e*PN | **Pn** | **12 04 30.6** | **-0.6** |
| KHC | | | | *e*PG | **Pb** | **12 04 36.9** | **+0.7** |
| KHC | | | | *e*SN | **Sn** | **12 05 05.7** | **-0.5** |
| KHC | | | | *e*SG | **Sg** | **12 05 15.6** | **-0.3** |
| | comp=Z,11nm,0.7s | | | | | | |
| **KHC** | **Kasperske Hory** | **2.85** | **215** | Pn | **Pn** | **12 04 30.6** | **-0.6** |
| **KHC** | **Kasperske Hory** | **2.85** | **215** | Pg | **Pb** | **12 04 36.9** | **+0.7** |
| KHC | | | | Sn | **Sn** | **12 05 05.7** | **-0.5** |
| KHC | | | | Sg | **Sg** | **12 05 15.6** | **-0.3** |
| | comp=Z,11nm,0.7s | | | | | | |
| **VYHS** | **Vyhne** | **3.48** | **148** | *e*Pg | **Pg** | **12 04 50.4** | **-0.8** |
| VYHS | | | | *e*Sg | **Sg** | **12 05 38.1** | **+1.9** |
| **VYHS** | **Vyhne** | **3.48** | **148** | *e*PG | **Pg** | **12 04 50.4** | **-0.8** |
| VYHS | | | | *e*SG | **Sg** | **12 05 38.1** | **+1.9** |
| **CONA** | **Conrad Observa** | **3.56** | **182** | Pn | **Pn** | **12 04 41.5** | **+0.5** |
| | comp=Z,0.4nm,0.2s | | | | | | |
| CONA | | | | Sg | **Sg** | **12 05 36.6** | **-2.2** |
| | comp=Z,5.1nm,0.3s | | | | | | |
| **MOA** | **Molln** | **3.82** | **199** | Pn | **Pn** | **12 04 44.7** | **+0.1** |
| | comp=Z,0.9nm,0.2s | | | | | | |
| MOA | | | | Sg | **Sg** | **12 05 48.1** | **+0.9** |
| | comp=Z,7.4nm,0.6s | | | | | | |
| **STHS** | **Stebnicka Huta** | **3.90** | **120** | *e*Pg | **Pg** | **12 04 57.6** | **-1.5** |
| **STHS** | **Stebnicka Huta** | **3.90** | **120** | *e*PG | **Pg** | **12 04 57.6** | **-1.5** |
| STHS | | | | *e*SG | **Sg** | **12 05 53.5** | **+3.9** |
| STHS | | | | *e*LG | Lg | 12 06 05.7 | |
| **ARSA** | **Arzberg** | **4.25** | **185** | Sg | **Sg** | **12 05 59.0** | **-2.0** |
| | comp=Z,4.9nm,0.5s | | | | | | |

**MAN 31 12:11:19,8°.76N×126°.80E,h66km,mb4.0,ML2.8,MS2.5, 1C,Mindanao**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BIPH** | **Bislig** | **0.71** | **217** | ⇑*i* P | Pn | 12 11 35.7 | +1.9 |
| BIPH | | | | *i* S | Sn | 12 11 42.2 | -2.5 |
| **BUTP** | **Butuan** | **1.18** | **280** | *e*P | Pn | 12 11 40.6 | +0.9 |
| BUTP | | | | *e*S | Sn | 12 11 56.6 | +1.6 |
| **BUKP** | **Musuan** | **1.93** | **243** | *e*P | Pn | 12 11 50.5 | +0.8 |
| BUKP | | | | *e*S | Sn | 12 12 14.0 | +1.1 |

*NIED* ***31*** *12:16:00,41°.80N×142°.60E,h26km,Mw3.7 Best double couple: M0 4.38000×10$^{14}$ NP1:φ$_{S}$91.00000°,δ17.00000°, λ-69.00000°. NP2:φ$_{S}$249.00000°,δ75.00000°, λ-96.00000°.*
*ISCJB* ***31*** *12:16:28.7±0.5,41°.83N±0°.05×142°.61E±0°.04,h46km±4km, mb3.8/21,MS2.8/1,Error ellipse: s-maj=8.5km s-min=4.1km az=154.9*
*JMA* ***31*** *12:16:28.8±0.1,41°.86N×142°.61E,h36km±2km,M3.9*
*JMA Felt I J1.*
*MOS* ***31*** *12:16:29.5±1.4,41°.88N×142°.64E,h54km,mb4.2/13,Error ellipse: s-maj=14.3km s-min=7.5km az=78.1*
*IDC* ***31*** *12:16:31.7±1.9,41°.90N×142°.63E,h56km±15km,mb3.5/20, mb1 3.7/24,mb1mx3.7/39,mbtmp3.8/24,MS2.5/4, Ms1 2.5/4,ms1mx2.4/38,Error ellipse: s-maj=16.2km s-min=10.8km az=116.0*

**ISC 31 12:16:28.6±1.5,41°.83N±0°.06×142°.62E±0°.04,h29km±10km, n50,σ1$^{s}$53/54,mb3.8/21,5C-5D,Hokkaido region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JEM** | **Erimo** | **0.44** | **65** | P | **Pn** | **12 16 38.4** | **-0.6** |
| JEM | | | | *e*S | **Sn** | **12 16 45.2** | **-0.8** |
| **JNBK** | **Urakawa-nobuka** | **0.46** | **13** | ⇓P | **Pn** | **12 16 38.0** | **-1.2** |
| **JCH** | **Churui** | **0.96** | **35** | ⇑P | **Pb** | **12 16 45.9** | **-0.7** |
| JCH | | | | *e*S | **Sn** | **12 16 58.3** | **-0.4** |
| **JBT2** | **Biratori 2** | **0.96** | **349** | ⇓P | **Pn** | **12 16 45.6** | **-0.6** |
| **JKB** | **Kayabe** | **1.19** | **273** | ⇓P | **Pn** | **12 16 48.9** | **-0.3** |
| JKB | | | | *e*S | **Sn** | **12 17 03.6** | **-0.7** |
| **JOT** | **Ohata** | **1.26** | **250** | ⇓P | **Pn** | **12 16 50.4** | **+0.2** |
| JOT | | | | *e*S | **Sn** | **12 17 06.4** | **+0.2** |
| **JEW** | **Eniwo** | **1.33** | **320** | ⇑P | **Pn** | **12 16 51.2** | **0.0** |
| **JFR** | **Furan** | **1.33** | **359** | ⇑P | **Pb** | **12 16 51.7** | **-1.2** |
| **JNB** | **Noboribetsu** | **1.33** | **299** | ⇑P | **Pn** | **12 16 50.7** | **-0.5** |
| JNB | | | | *e*S | **Sn** | **12 17 07.0** | **-1.0** |
| **JOB** | **Onbets** | **1.40** | **40** | P | **Pb** | **12 16 53.3** | **-0.7** |
| JOB | | | | *e*S | **Sb** | **12 17 11.2** | **-0.3** |
| **ASAJ** | **Asahikawa** | **2.28** | **360** | P | **Pn** | **12 17 05.8** | **+1.5** |
| | 41nm,0.3s,baz=222,slow=9.8,SNR=317 | | | | | | |
| ASAJ | | | | S | **Sn** | **12 17 32.9** | **+1.4** |
| | 19nm,0.3s,baz=270,slow=20,SNR=4.4 | | | | | | |
| **YUK** | **Yuzh-Kuril'sk** | **3.24** | **46** | *e*P | **Pn** | **12 17 20.0** | **+2.5** |
| YUK | | | | *i* S | **Sn** | **12 17 57.1** | **+2.0** |
| YUK | | | | pmax | pmax | | |
| | comp=Z,118nm,0.2s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=E,37nm,0.1s | | | | | | |
| YUK | | | | pmax | pmax | | |
| | comp=N,39nm,0.2s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=E,404nm,0.4s | | | | | | |
| YUK | | | | smax | smax | | |
| | comp=N,326nm,0.3s | | | | | | |
| **SHO** | **Shikotan** | **3.71** | **55** | *d i* P | **Pn** | **12 17 24.6** | **+0.8** |
| SHO | | | | *i* S | **Sn** | **12 18 05.8** | **-0.7** |
| SHO | | | | pmax | pmax | | |
| | comp=Z,97nm,0.7s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=N,213nm,0.2s | | | | | | |
| SHO | | | | smax | smax | | |
| | comp=E,275nm,0.4s | | | | | | |
| **KUR** | **Kuril'sk** | **5.11** | **47** | ⇑*i* P | **Pn** | **12 17 46.7** | **+3.6** |
| KUR | | | | *i* S | **Sn** | **12 18 44.7** | **+3.6** |
| KUR | | | | pmax | pmax | | |
| | comp=Z,42nm,0.8s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=E,25nm,0.3s | | | | | | |
| KUR | | | | smax | smax | | |
| | comp=N,19nm,0.2s | | | | | | |
| **YSS** | **Yuzh-Sakhalins** | **5.12** | **1** | P | **Pn** | **12 17 46.6** | **+3.3** |
| **MJAR** | **Matsushiro Arr** | **6.29** | **214** | P | **Pn** | **12 18 02.9** | **+3.4** |
| | comp=N,0.7nm,0.3s,baz=27,slow=13,SNR=16 | | | | | | |
| MJAR | | | | LR | LR | 12 20 53.2 | |
| | comp=N,45nm,20.4s,baz=40,slow=41 | | | | | | |
| **USRK** | **Ussuriysk Ar.** | **8.14** | **290** | P | **Pn** | **12 18 28.0** | **+3.3** |
| | comp=N,0.2nm,0.3s,baz=97,slow=16,SNR=5.1 | | | | | | |
| **KLR** | **Kul'dur** | **10.61** | **318** | P | **Pn** | **12 19 02.1** | **+3.5** |
| | comp=N,0.0nm,0.3s,baz=139,slow=14,SNR=3.5 | | | | | | |
| KLR | | | | LR | LR | 12 23 32.2 | |
| | comp=N,6.0nm,18.1s,baz=122,slow=40 | | | | | | |
| **PETK** | **Petropavlovsk-** | **15.17** | **37** | P | **Pn** | **12 19 58.6** | **-2.0** |
| | comp=N,0.1nm,0.3s,baz=212,slow=7.9,SNR=4.3 | | | | | | |
| **MA2** | **Magadan** | **18.47** | **13** | P | **P** | **12 20 40.5** | **-1.4** |
| | comp=N,0.3nm,0.3s,baz=223,slow=18,SNR=2.4 | | | | | | |
| MA2 | | | | LR | LR | 12 29 22.9 | |
| | comp=N,21nm,18.3s,baz=113,slow=42 | | | | | | |
| **SEY** | **Seymchan** | **21.91** | **12** | P | **P** | **12 21 16.7** | **-2.4** |
| | comp=N,2.5nm,0.6s,baz=163,slow=19,SNR=12 | | | | | | |
| **SONM** | **Songino Array** | **26.21** | **296** | P | **P** | **12 22 00.8** | **0.0** |
| | comp=N,0.9nm,0.4s,baz=83,slow=9.3,SNR=4.0 | | | | | | |
| **H11N2

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| GERES | GERESS Array B | 79.12 | 328 | P | P | 12 28 30.0 | -0.3 |
| SCHQ | Schefferville | 80.48 | 17 | P | P | 12 28 36.9 | -0.5 |
| | comp=Z,3.7nm,0.9s,baz=284,slow=8.3,SNR=3.3 | | | | | | |
| TXAR | Lajitas Array | 86.48 | 53 | P | P | 12 29 09.7 | +0.9 |
| | comp=Z,0.1nm,0.6s,baz=242,slow=1.9,SNR=2.8 | | | | | | |

**MAN 31 12:39:14,13°.82N×120°.85E,h45km,mb4.2,ML3.0,MS3.2, 1C,Mindoro**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TGY | Tagaytay City | 0.30 | 16 | eP | Pn | 12 39 24.4 | +1.6 |
| TGY | | | | *i* S | Sn | 12 39 31.2 | +2.3 |
| LUBP | Lubang | 0.60 | 262 | eP | Pn | 12 39 27.7 | +1.5 |
| LUBP | | | | eS | Sn | 12 39 39.5 | +4.6 |
| BOAC | Boac | 1.03 | 110 | eP | Pn | 12 39 28.8 | -3.1 |
| BOAC | | | | eS | Sn | 12 39 41.2 | -4.1 |
| SJMP | San Jose | 1.37 | 169 | eP | Pn | 12 39 34.9 | -1.8 |
| SJMP | | | | eS | Sn | 12 39 54.5 | +0.9 |
| GQP | Guinayangan | 1.55 | 87↑ | eP | Pn | 12 39 40.6 | +1.5 |
| GQP | | | | *i* S | Sn | 12 39 59.2 | +1.2 |
| BUSP | Coron | 1.91 | 200 | eP | Pn | 12 39 44.9 | +0.8 |
| BUSP | | | | eS | Sn | 12 40 08.3 | +1.3 |

**WEL 31 12:39:46.1±0.4,36°.86S×176°.40E,h253km±7km,ML3.6/12, 1C,Error ellipse: s-maj=17.9km s-min=9.5km az=90.0, Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| HAZ | Te Kaha | 1.42 | 130 | PN | Pn | 12 40 24.0 | 0.0 |
| HAZ | | | | AML | AML | 12 40 51.3 | |
| HAZ | | | | SN | S | 12 40 53.5 | -0.5 |
| RUGZ | Raukumara Rang | 1.50 | 138 | PN | Pn | 12 40 24.6 | -0.2 |
| MWZ | Matawai | 1.73 | 149 | PN | Pn | 12 40 26.3 | -0.1 |
| MWZ | | | | SN | S | 12 40 58.1 | -0.2 |
| TWGZ | Tauwhareparae | 1.82 | 137 | PN | Pn | 12 40 27.9 | +0.6 |
| TWGZ | | | | SN | S | 12 40 60.0 | +0.2 |
| TWGZ | | | | AML | AML | 12 41 04.0 | |
| RAGZ | Rawiri | 1.82 | 154 | PN | Pn | 12 40 27.7 | +0.4 |
| RAGZ | | | | AML | AML | 12 41 02.6 | |
| RAGZ | | | | AML | AML | 12 41 06.8 | |
| WMGZ | Waiomatatini S | 1.87 | 121 | PN | Pn | 12 40 27.6 | -0.1 |
| WMGZ | | | | AML | AML | 12 41 02.4 | |
| WMGZ | | | | AML | AML | 12 41 02.8 | |
| TKGZ | Te Karaka | 1.96 | 144 | PN | Pn | 12 40 28.4 | +0.1 |
| TKGZ | | | | AML | AML | 12 41 04.3 | |
| TKGZ | | | | AML | AML | 12 41 06.3 | |
| MRHZ | Matea Rd | 1.97 | 180 | PN | Pn | 12 40 29.1 | +0.6 |
| SNGZ | Shannon Statio | 2.06 | 159 | PN | Pn | 12 40 29.6 | +0.3 |
| SNGZ | | | | AML | AML | 12 41 04.7 | |
| SNGZ | | | | AML | AML | 12 41 05.8 | |
| RIGZ | Rimuhau | 2.14 | 150 | PN | Pn | 12 40 30.1 | +0.1 |
| RIGZ | | | | AML | AML | 12 41 07.7 | |
| RIGZ | | | | AML | AML | 12 41 08.2 | |
| CNGZ | Carnagh Statio | 2.17 | 139 | PN | Pn | 12 40 30.3 | 0.0 |
| NMHZ | Naumai | 2.26 | 172 | PN | Pn | 12 40 32.0 | +0.8 |
| NMHZ | | | | AML | AML | 12 41 16.7 | |
| BKZ | Black Stump Fm | 2.31 | 178 ⇑ | PN | Pn | 12 40 31.7 | +0.1 |
| WHHZ | Waihua | 2.31 | 164 | PN | Pn | 12 40 31.8 | +0.1 |
| WHHZ | | | | AML | AML | 12 41 10.8 | |
| WHHZ | | | | AML | AML | 12 41 11.6 | |
| OTVZ | Oturere | 2.38 | 194 | PN | Pn | 12 40 33.6 | +1.2 |
| ARHZ | Aropaoanui | 2.45 | 169 | PN | Pn | 12 40 33.0 | +0.1 |
| ARHZ | | | | AML | AML | 12 41 13.2 | |
| WNVZ | Wahianoa | 2.55 | 194 | PN | Pn | 12 40 34.9 | +0.7 |
| KWHZ | Kaweka Forest | 2.56 | 180 | PN | Pn | 12 40 34.2 | 0.0 |
| KWHZ | | | | AML | AML | 12 41 14.9 | |
| KWHZ | | | | AML | AML | 12 41 16.2 | |
| MCHZ | McNeill Hill | 2.59 | 175 | PN | Pn | 12 40 34.6 | +0.2 |
| BHHZ | Black Hill Sta | 2.64 | 186 | PN | Pn | 12 40 34.9 | -0.1 |
| KAHZ | Kahuranaki | 2.96 | 173 | PN | Pn | 12 40 37.6 | -0.7 |
| MRZ | Mangatainoka R | 3.85 | 189 | ePN | Pn | 12 40 46.1 | -2.1 |
| MRZ | | | | eSN | S | 12 41 34.7 | -3.0 |

**IDC 31 12:50:00.2±2.3,7°.76S×146°.96E,h135km±42km,mb2.9/3, mb1 3.0/4,mb1mx2.9/26,mbtmp3.3/4,Error ellipse: s-maj=77.6km s-min=33.4km az=111.0,Eastern New Guinea region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| PMG | Port Moresby | 1.65 | 173 | P | Pn | 12 50 31.1 | +0.7 |
| | 26nm,0.3s,baz=8.5,slow=5.5,SNR=99 | | | | | | |
| PMG | | | | S | Sn | 12 50 53.5 | 0.0 |
| | 18nm,0.3s,baz=21,slow=11,SNR=13 | | | | | | |
| WRA | Warramunga Arr | 17.21 | 224 | P | Pn | 12 53 52.6 | 0.0 |
| | 0.1nm,0.3s,baz=49,slow=11,SNR=7.5 | | | | | | |
| ASAR | Alice Springs | 20.18 | 217 | P | P | 12 54 24.1 | -0.2 |
| | 0.1nm,0.4s,baz=50,slow=8.9,SNR=9.2 | | | | | | |
| CMAR | Chiang Mai Arr | 54.06 | 299 | P | P | 12 59 11.7 | +0.5 |
| | 0.8nm,0.6s,baz=116,slow=5.9,SNR=7.6 | | | | | | |
| MKAR | Makanchi Array | 78.82 | 321 | P | P | 13 01 47.5 | -0.7 |
| | 0.2nm,0.4s,baz=105,slow=7.3,SNR=4.7 | | | | | | |

*ISCJB **31** 12:51:38.5±0.7,31°.24S±0°.04×68°.52W±0°.06,h111km±9km, Error ellipse: s-maj=8.9km s-min=6.1km az=158.6*
*SJA **31** 12:51:38.6±0.7,31°.27S×68°.54W,h105km±3km,MLJ.2, MW3.5*
*GUC **31** 12:51:39.1±0.6,31°.19S×68°.64W,h103km±5km,ML3.3*
**ISC 31 12:51:40.2±1.4,31°.21S±0°.04×68°.51W±0°.05,h100km±9km, n22,σ1°.45/26,1C-1D,San Juan Province**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| RTLL | Cerro Villicun | 0.12 | 167 | eP | Pn | 12 51 53.6 | -0.7 |
| RTLL | | | | IAML | | 12 51 53.8 | |
| | comp=Z,887nm,0.3s | | | | | | |
| RTLL | | | | eS | Sn | 12 52 04.7 | -0.1 |
| AMOG | MOGNA | 0.27 | 2 | eP | Pn | 12 51 54.8 | 0.0 |
| SJA | San Juan | 0.32 | 188 | eP | Pn | 12 51 54.5 | -0.5 |
| SJA | | | | IAML | | 12 52 07.3 | |
| | comp=Z,725nm,0.2s | | | | | | |
| RTCV | Cerro Valdivia | 0.65 | 183 | eP | Pn | 12 51 56.3 | -1.0 |
| RTLS | Leoncito | 0.89 | 229 | eP | Pn | 12 51 58.9 | -0.9 |
| RTLS | | | | IAML | | 12 52 16.5 | |
| | comp=Z,459nm,0.5s | | | | | | |
| AUSP | Uspallata | 1.26 | 216 | eP | Pn | 12 52 02.9 | -1.0 |
| ASAL | Salagasta | 1.40 | 191 | eP | Pn | 12 52 04.4 | -1.0 |
| ACAN | Cantantal | 1.54 | 134 | eP | Pn | 12 52 06.9 | -0.1 |
| ARCO | CERRO ARCO | 1.67 | 192 | eP | Pn | 12 52 07.7 | -1.0 |
| ARCO | | | | IAML | | 12 52 30.9 | |
| | comp=Z,162nm,0.3s | | | | | | |
| AGUA | GUANDACOL | 1.72 | 0 | eP | Pn | 12 52 09.9 | +0.6 |
| AAGR | Agrelo | 1.89 | 188 | eP | Pn | 12 52 10.4 | -1.1 |
| TLL | Tololo Astrono | 2.24 | 297 | eP | Pn | 12 52 15.2 | -0.9 |
| TLL | | | | *i* S | Sn | 12 52 42.4 | -1.2 |
| TLL | | | | IAML | | 12 52 45.0 | |
| | comp=N,272nm,0.6s | | | | | | |
| AVIZ | Vizcacheras | 2.25 | 180 | eP | Pn | 12 52 15.0 | -1.2 |
| VCA | Vinchina | 2.48 | 6 | eP | Pn | 12 52 19.8 | +0.5 |
| VCA | | | | IAML | | 12 52 56.1 | |
| | comp=Z,211nm,0.4s | | | | | | |
| VCA | Vinchina | 2.48 | 6 | ⇓*i*P | Pn | 12 52 19.8 | +0.5 |
| VCA | | | | *i* S | Sn | 12 52 50.0 | +0.9 |
| MRA | San Martin | 2.66 | 118 | eP | Pn | 12 52 20.9 | -0.7 |
| MRA | | | | IAML | | 12 52 54.2 | |
| | comp=Z,134nm,0.3s | | | | | | |
| ROCH | El Roble | 2.76 | 230 | eP | Pn | 12 52 28.2 | +5.3 |
| ROCH | | | | eS | Sn | 12 53 01.1 | +5.4 |
| ROCH | | | | IAML | | 12 53 04.6 | |
| | comp=N,69nm,0.4s | | | | | | |
| LCO | Las Campanas | 2.90 | 319 ⇑ | *i*P | Pn | 12 52 24.2 | -0.7 |
| LCO | | | | *i* S | Sn | 12 52 58.9 | -0.4 |
| LCO | | | | IAML | | 12 53 01.4 | |
| | comp=E,114nm,0.2s | | | | | | |
| TCA | Tanti | 3.35 | 93 | eP | Pn | 12 52 29.9 | -0.9 |
| TCA | | | | IAML | | 12 53 09.3 | |
| | comp=Z,27nm,0.6s | | | | | | |
| CYA | Choya | 3.62 | 41 | eP | Pn | 12 52 33.4 | -1.0 |
| CYA | | | | IAML | | 12 53 15.8 | |
| | comp=Z,21nm,0.5s | | | | | | |
| GO03 | Copiap | 3.91 | 337 | eP | Pn | 12 52 37.0 | -1.2 |
| FSA | Cafayete | 5.54 | 24 | eP | Pn | 12 52 60.0 | -0.6 |
| FSA | | | | IAML | | 12 53 01.0 | |
| | comp=Z,3.3nm,0.3s | | | | | | |

**IDC 31 13:10:17.5±10.0,12°.37N×90°.23E,h0km,mb3.4/3, mb1 3.6/3,mb1mx3.1/50,mbtmp3.4/3,Error ellipse: s-maj=505.3km s-min=31.7km az=61.0,Andaman Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| MKAR | Makanchi Array | 34.96 | 350 | P | P | 13 17 11.2 | -0.2 |
| | 0.3nm,0.7s,baz=162,slow=8.8,SNR=4.5 | | | | | | |
| WRA | Warramunga Arr | 54.00 | 126 | P | P | 13 19 43.0 | -0.8 |
| | 0.3nm,0.7s,baz=302,slow=9.9,SNR=2.5 | | | | | | |
| ASAR | Alice Springs | 55.74 | 130 | P | P | 13 19 57.1 | +0.7 |
| | 0.3nm,0.5s,baz=308,slow=7.4,SNR=3.1 | | | | | | |

**IDC 31 13:18:47.1±8.6,15°.80S×175°.65W,h0km,mb3.2/2, mb1 3.5/2,mb1mx3.2/41,mbtmp3.2/2,Error ellipse: s-maj=363.9km s-min=61.0km az=140.0,Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| WRA | Warramunga Arr | 47.65 | 257 | P | P | 13 27 26.2 | +0.7 |
| | 0.3nm,0.9s,baz=92,slow=7.1,SNR=12 | | | | | | |
| ASAR | Alice Springs | 47.93 | 252 | P | P | 13 27 26.5 | -1.1 |
| | 0.2nm,0.5s,baz=83,slow=8.5,SNR=3.0 | | | | | | |
| BRTR | Keskin Array B | 145.07 | 319 | PKPbc | PKPbc | 13 38 25.6 | -0.8 |
| | 0.4nm,0.5s,baz=35,slow=3.5,SNR=2.2 | | | | | | |

*NEIC **31** 13:32:58.7±0.0,16°.62N×100°.55W,h5km,MD4.1(MEX), After MEX.*
**MEX 31 13:32:58.7±0.7,16°.62N×100°.55W,h5km±8km,MD4.1, Near coast of Guerrero**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| CAIG | El Cayaco | 0.51 | 32 | eP | Pg | 13 33 07.9 | -0.5 |
| CAIG | | | | eS | Sg | 13 33 15.1 | +0.1 |
| CAIG | El Cayaco | 0.51 | 32 | eP | Pg | 13 33 07.9 | -0.5 |
| CAIG | | | | eS | Sg | 13 33 15.1 | +0.1 |
| ACP2 | Acapulco | 0.69 | 68 | eP | Pg | 13 33 10.5 | -1.4 |
| ACP2 | | | | eS | Sg | 13 33 20.4 | -0.4 |
| ACX | Acapulco | 0.71 | 69 | eP | Pg | 13 33 07.6 | -4.7 |
| ACX | | | | eS | Sg | 13 33 17.2 | -4.4 |
| ACX | Acapulco | 0.71 | 69 | eP | Pg | 13 33 07.6 | -4.7 |
| ACX | | | | eS | Sg | 13 33 17.2 | -4.4 |
| ZIIG | Zihuatanejo | 1.32 | 318 | eP | Pn | 13 33 18.1 | -5.7 |
| ZIIG | | | | eS | Sg | 13 33 32.7 | -8.3 |
| ZIIG | Zihuatanejo | 1.32 | 318 | eP | Pn | 13 33 18.1 | -5.7 |
| ZIIG | | | | eS | Sg | 13 33 32.7 | -8.3 |
| MEIG | Mezcala | 1.58 | 34 | eP | Pn | 13 33 24.3 | -3.2 |
| MEIG | | | | eS | Sn | 13 33 42.8 | -5.4 |
| MEIG | Mezcala | 1.58 | 34 | eP | Pn | 13 33 24.3 | -3.2 |
| MEIG | | | | eS | Sn | 13 33 42.8 | -5.4 |
| ARIG | Puente Sto Nin | 1.67 | 7 | eP | Pn | 13 33 25.5 | -3.1 |
| ARIG | | | | eS | Sn | 13 33 44.7 | -5.7 |
| PLIG | Platanillo | 2.03 | 29 | eP | Pn | 13 33 31.0 | -2.7 |
| PLIG | | | | eS | Sn | 13 33 54.6 | -4.8 |
| PLIG | Platanillo | 2.03 | 29 | eP | Pn | 13 33 31.0 | -2.7 |
| PLIG | | | | eS | Sn | 13 33 54.6 | -4.8 |
| TLIG | Tlapa | 2.12 | 63 | eP | Pn | 13 33 32.2 | -2.7 |
| TLIG | | | | eS | Sn | 13 33 57.2 | -4.5 |
| TLIG | Tlapa | 2.12 | 63 | eP | Pn | 13 33 32.2 | -2.7 |
| TLIG | | | | eS | Sn | 13 33 57.2 | -4.5 |
| PNIG | Pinotepa | 2.34 | 95 | eP | Pn | 13 33 34.3 | -3.5 |
| PNIG | | | | eS | Sn | 13 34 02.0 | -4.9 |
| PNIG | Pinotepa | 2.34 | 95 | eP | Pn | 13 33 34.3 | -3.5 |
| PNIG | | | | eS | Sn | 13 34 02.0 | -4.9 |
| YAIG | Yautepec | 2.64 | 32 | eP | Pn | 13 33 39.2 | -3.0 |
| YAIG | | | | *i* S | Sn | 13 34 10.7 | -4.0 |
| YAIG | Yautepec | 2.64 | 32 | eP | Pn | 13 33 39.2 | -3.0 |
| YAIG | | | | *i* S | Sn | 13 34 10.7 | -4.0 |
| PPM | Popocatepetl | 3.05 | 37 | eP | Pn | 13 33 45.1 | -2.9 |
| PPM | | | | eS | Sn | 13 34 20.2 | -5.0 |
| PPM | Popocatepetl | 3.05 | 37 | eP | Pn | 13 33 45.1 | -2.9 |
| PPM | | | | eS | Sn | 13 34 20.2 | -5.0 |
| VHO | Vista Hermosa | 3.68 | 82 | eP | Pn | 13 33 59.5 | +3.0 |
| VHO | Vista Hermosa | 3.68 | 82 | eP | Pn | 13 33 59.5 | +3.0 |

**IDC 31 13:50:19.5±1.9,8°.01S×121°.92E,h0km,mb3.2/1, mb1 3.6/4,mb1mx3.2/51,mbtmp3.4/4,ML3.5/3,MS3.2/1, Ms1 3.2/1,ms1mx2.4/16,Error ellipse: s-maj=156.8km s-min=27.5km az=59.0,Flores region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| FITZ | Fitzroy Crossi | 10.66 | 161 | Pn | Pn | 13 52 54.5 | +0.8 |
| | 0.2nm,0.3s,baz=348,slow=9.3,SNR=6.1 | | | | | | |
| FITZ | | | | Sn | Sn | 13 54 39.3 | -15 |
| | 0.4nm,0.3s,baz=167,slow=17,SNR=8.2 | | | | | | |
| WRA | Warramunga Arr | 16.89 | 136 | Pn | Pn | 13 54 17.7 | +0.1 |
| | 0.3nm,0.3s,baz=309,slow=15,SNR=26 | | | | | | |
| WRA | | | | Sn | Sn | 13 57 12.2 | -14 |
| | 0.2nm,0.3s,baz=291,slow=21,SNR=7.3 | | | | | | |
| ASAR | Alice Springs | 19.35 | 145 | P | P | 13 54 46.3 | -0.5 |
| | 0.2nm,0.3s,baz=325,slow=10,SNR=21 | | | | | | |
| ASAR | | | | S | Sn | 13 58 12.2 | -13 |
| | 0.1nm,0.3s,baz=310,slow=21,SNR=5.3 | | | | | | |
| NWAO | Narrogin (SRO) | 25.17 | 189 | LR | LR | 14 06 20.9 | |
| | comp=Z,52nm,18.2s,baz=334,slow=38 | | | | | | |
| MKAR | Makanchi Array | 64.94 | 331 | P | P | 14 01 01.1 | 0.0 |
| | 0.2nm,0.7s,baz=130,slow=7.9,SNR=1.7 | | | | | | |

**KRSC 31 13:51:23.4±1.1,54°.54N×162°.23E,h43km±24km,ML3.5, Near east coast of Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| TUMD | Tumrok D | 1.25 | 303 | eP | Pn | 13 51 45.3 | +0.9 |
| TUMD | | | | eS | Sn | 13 52 00.9 | +0.8 |
| KZV | Kizimen | 1.26 | 298 | eP | Pn | 13 51 45.7 | +1.1 |
| KZV | | | | eS | Sn | 13 52 01.2 | +0.7 |
| TUMR | Tumrok | 1.42 | 303 | eP | Pn | 13 51 48.1 | +1.4 |
| KMNR | Kamenistaya | 1.68 | 318 | eP | Pn | 13 51 52.2 | +1.9 |
| KMNR | | | | eS | Sn | 13 52 13.1 | +2.5 |
| ZLN | Zelenaya | 1.69 | 332 | eP | Pn | 13 51 52.7 | +2.2 |
| ZLN | | | | eS | Sn | 13 52 14.5 | +3.5 |
| KBTR | Krutoberegovo | 1.71 | 11 | eP | Pn | 13 51 52.2 | +1.6 |
| KBTR | | | | eS | Sn | 13 52 12.8 | +1.6 |
| KII | Karymskiy | 1.71 | 254 | eP | Pn | 13 51 52.8 | +2.1 |
| KII | | | | eS | Sn | 13 52 13.2 | +1.9 |
| BZMR | Bezymyannaya | 1.72 | 325 | eP | Pn | 13 51 53.2 | +2.3 |
| BZMR | | | | eS | Sn | 13 52 14.3 | +2.6 |
| BZWR | Bezymyannyi-We | 1.74 | 326 | eP | Pn | 13 51 53.4 | +2.2 |
| KBG | Krutoberegovo | 1.74 | 9 | eP | Pn | 13 51 51.7 | +0.7 |
| KIRR | Kirishev | 1.79 | 323 | eP | Pn | 13 51 54.3 | +2.5 |
| KIRR | | | | eS | Sn | 13 52 16.6 | +3.3 |
| CIRR | Tsirk | 1.79 | 332 | eP | Pn | 13 51 54.1 | +2.2 |
| CIRR | | | | eS | Sn | 13 52 16.3 | +2.7 |
| KPT | Kopyto | 1.84 | 322 | eP | Pn | 13 51 54.8 | +2.3 |
| KPT | | | | eS | Sn | 13 52 17.1 | +2.6 |
| KRSR | Krestovskiy | 1.93 | 331 | eP | Pn | 13 51 57.0 | +3.2 |
| KRSR | | | | eS | Sn | 13 52 20.5 | +3.6 |
| SPN | Mys Shipunski | 1.95 | 223 | eP | Pn | 13 51 55.6 | +1.7 |
| SPN | | | | eS | Sn | 13 52 17.6 | +0.5 |
| KLY | Klyuchi | 2.00 | 334 | eP | Pn | 13 51 56.0 | +1.5 |
| KLY | | | | eS | Sn | 13 52 19.1 | +0.9 |
| KOZ | Kozyrevsk | 2.04 | 319 | eP | Pn | 13 51 57.6 | +2.5 |
| KOZ | | | | eS | Sn | 13 52 21.4 | +2.1 |
| SMKR | Semkarok | 2.10 | 348 | eP | Pn | 13 51 58.6 | +2.6 |
| SMKR | | | | eS | Sn | 13 52 24.4 | +3.6 |
| BDR | Baidarnaya | 2.12 | 344 | eP | Pn | 13 51 58.0 | +1.7 |
| NLC | Nalytchevo | 2.19 | 233 | eP | Pn | 13 52 00.7 | +3.5 |
| NLC | | | | eS | Sn | 13 52 29.9 | +3.8 |
| SRKR | Sorokina | 2.21 | 345 | eP | Pn | 13 51 59.9 | +2.4 |
| SDLR | Sedlovina | 2.35 | 239 | eP | Pn | 13 52 02.5 | +3.0 |
| SDLR | | | | eS | Sn | 13 52 30.1 | +2.9 |
| SMAR | Somma | 2.40 | 239 | eP | Pn | 13 52 03.3 | +3.0 |
| KRER | Koryakskii | 2.40 | 240 | eP | Pn | 13 52 03.7 | +3.4 |
| KRER | | | | eS | Sn | 13 52 31.5 | +2.9 |
| UGLR | Uglovaya | 2.42 | 238 | eP | Pn | 13 52 03.5 | +3.0 |
| UGLR | | | | eS | Sn | 13 52 32.5 | +3.7 |
| AVH | Avacha | 2.43 | 240 | eP | Pn | 13 52 03.9 | +3.3 |
| AVH | | | | eS | Sn | 13 52 32.1 | +3.0 |
| ESO | Esso | 2.46 | 306 | eP | Pn | 13 52 03.0 | +2.1 |
| KOK | Koryaka | 2.47 | 241 | eP | Pn | 13 52 05.6 | +4.5 |
| DALK | Dalny | 2.56 | 235 | eP | Pn | 13 52 05.2 | +3.0 |
| DALK | | | | eS | Sn | 13 52 34.5 | +2.4 |
| PET | Petropavlovsk | 2.61 | 236 | eP | Pn | 13 52 06.7 | +3.7 |
| PET | | | | eS | Sn | 13 52 36.4 | +3.0 |
| GNL | Ganaly | 2.66 | 253 | eP | Pn | 13 52 06.9 | +3.1 |
| KRMR | Karymshinskiy | 2.98 | 237 | eP | Pn | 13 52 11.1 | +3.1 |
| KRMR | | | | eS | Sn | 13 52 46.1 | +3.6 |
| RUS | Russkaya | 3.06 | 228 | eP | Pn | 13 52 12.1 | +2.9 |
| RUS | | | | eS | Sn | 13 52 46.9 | +2.4 |

*AZER **31** 13:59:19.6±1.2,39°.05N×43°.52E,h2km,Error ellipse: s-maj=7.4km s-min=3.9km az=62.0*
*DDA **31** 13:59:20.6,38°.92N×43°.74E,h13km,MlJ.3*
*ISK **31** 13:59:20.4,38°.95N×43°.73E,h5km,MD3.0*
*ISCJB **31** 13:59:21.7±0.5,38°.96N±0°.03×43°.72E±0°.03,h7km±3km, Error ellipse: s-maj=4.6km s-min=3.0km az=151.9*
*CSEM **31** 13:59:21.3±0.1,38°.96N×43°.71E,h2km,ML3.3,Error ellipse: s-maj=4.1km s-min=2.7km az=154.0*
**ISC 31 13:59:22.0±0.9,38°.97N±0°.02×43°.72E±0°.02,h6km±7km, n70,σ1°.21/106,1OC-12D,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.11 | 282 | *i* P | Pg | 13 59 24.0 | -0.6 |
| VMUR | | | | *i* S | Sg | 13 59 27.7 | +1.3 |
| VMUR | Van-Muradiye | 0.11 | 282 | P | Pg | 13 59 24.0 | -0.6 |
| VMUR | | | | S | Sg | 13 59 27.7 | +1.3 |
| CLDR | Caldiran | 0.24 | 42 | ePG | Pg | 13 59 26.1 | -0.7 |
| CLDR | | | | eSG | Sg | 13 59 30.9 | +0.9 |
| CLDR | Caldiran | 0.24 | 42 | *i* P | Pg | 13 59 26.1 | -0.7 |
| CLDR | | | | *i* S | Sg | 13 59 30.9 | +0.9 |
| CLDR | Caldiran | 0.24 | 42 | P | Pg | 13 59 26.1 | -0.7 |
| CLDR | | | | S | Sg | 13 59 30.9 | +0.9 |
| ERCV | ERCIS-VAN | 0.30 | 281 | ePG | Pg | 13 59 27.5 | -0.4 |
| ERCV | | | | eSG | Sb | 13 59 33.4 | -1.7 |
| ERCV | ERCIS-VAN | 0.30 | 281 | ePg | Pg | 13 59 27.5 | -0.4 |
| ERCV | | | | eSg | Sb | 13 59 33.4 | -1.7 |
| VANB | Van | 0.45 | 215 | ePG | Pg | 13 59 30.7 | 0.0 |
| VANB | Van | 0.45 | 215 | ePg | Pg | 13 59 30.7 | 0.0 |
| TVAN | Van | 0.50 | 209 | *i* P | Pg | 13 59 30.5 | -1.2 |
| TVAN | | | | *i* S | Sg | 13 59 39.1 | +0.9 |
| TVAN | Van | 0.50 | 209 | P | Pg | 13 59 30.5 | -1.2 |
| TVAN | | | | S | Sg | 13 59 39.1 | +0.9 |
| DYDN | Diyadin | 0.58 | 358 | *i* P | Pg | 13 59 32.6 | -0.6 |
| DYDN | | | | *i* S | Sb | 13 59 42.8 | -0.4 |
| DYDN | Diyadin | 0.58 | 358 | P | Pg | 13 59 32.6 | -0.6 |
| ADCV | BITLIS_Adilcev | 0.79 | 259 | *i* P | Pg | 13 59 35.9 | -1.3 |
| ADCV | | | | *i* S | Sb | 13 59 48.4 | -0.8 |
| ADCV | BITLIS_Adilcev | 0.79 | 259 | P | Pg | 13 59 35.9 | -1.3 |
| ADCV | | | | S | Sb | 13 59 48.4 | -0.8 |
| TUTA | Tutak | 0.82 | 302 | *i* P | Pg | 13 59 36.8 | -1.1 |
| TUTA | | | | *i* S | Sb | 13 59 49.1 | -1.2 |
| TUTA | Tutak | 0.82 | 302 | P | Pg | 13 59 36.8 | -1.1 |
| TUTA | | | | S | Sb | 13 59 49.1 | -1.2 |
| AGRB | Hanur-Agry | 0.83 | 318 | ePG | Pg | 13 59 37.2 | -0.8 |
| AGRB | Hanur-Agry | 0.83 | 318 | ePg | Pg | 13 59 37.2 | -0.8 |
| GEVA | Gevas | 0.83 | 218 | *i* P | Pg | 13 59 35.8 | -2.2 |
| GEVA | Gevas | 0.83 | 218 | P | Pg | 13 59 35.8 | -2.2 |
| TASB | TASBURUN-IGDIR | 1.09 | 22 | ePN | Pb | 13 59 42.4 | -1.0 |
| TASB | TASBURUN-IGDIR | 1.09 | 22 | ePn | Pb | 13 59 42.4 | -1.0 |
| HYR | Heyderabad | 1.16 | 49 | ⇓P | Pg | 13 59 43.4 | -0.8 |
| HYR | | | | ⇑S | Sb | 13 59 59.2 | -0.6 |
| HYR | Heyderabad | 1.16 | 49 | P | Pg | 13 59 43.4 | -0.8 |
| HYR | | | | S | Sb | 13 59 59.2 | -0.6 |
| EATA | Eleskirt | 1.30 | 314 | *i* P | Pg | 13 59 45.8 | -1.2 |
| EATA | Eleskirt | 1.30 | 314 | P | Pg | 13 59 45.8 | -1.2 |
| EKAR | Karacoban | 1.32 | 283 | *i* P | Pb | 13 59 46.6 | -0.7 |
| EKAR | Karacoban | 1.32 | 283 | P | Pb | 13 59 46.6 | -0.7 |
| NAX | Nakhchivan | 1.40 | 81 | ⇓P | Pn | 13 59 47.2 | -1.0 |
| NAX | | | | ⇓S | Sn | 14 00 09.6 | +2.6 |
| NAX | Nakhchivan | 1.40 | 81 | P | Pn | 13 59 47.2 | -1.0 |
| NAX | | | | S | Sn | 14 00 09.6 | +2.6 |
| DIGO | Kars | 1.47 | 350 | *i* P | Pb | 13 59 49.9 | 0.0 |
| DIGO | Kars | 1.47 | 350 | P | Pb | 13 59 49.9 | 0.0 |
| SBZ | Shahbuz | 1.49 | 73 | ⇓P | Pn | 13 59 48.8 | -0.6 |
| SBZ | | | | ⇓S | Sn | 14 00 11.4 | +2.1 |
| SBZ | Shahbuz | 1.49 | 73 | P | Pn | 13 59 48.8 | -0.6 |
| SBZ | | | | S | Sn | 14 00 11.4 | +2.1 |
| CUKT | Cukurca | 1.72 | 183 | ePN | Pn | 13 59 52.2 | -0.3 |
| CUKT | Cukurca | 1.72 | 183 | ePn | Pn | 13 59 52.3 | -0.3 |
| KARS | Kars | 1.73 | 344 | ePN | Pb | 13 59 52.9 | -1.4 |
| KARS | Kars | 1.73 | 344 | ePn | Pb | 13 59 52.9 | -1.4 |
| SIRT | Sirnak | 1.77 | 215 | ePN | Pn | 13 59 53.6 | +0.3 |
| SIRT | Sirnak | 1.77 | 215 | ePn | Pn | 13 59 53.6 | +0.3 |
| ORD | Ordubad | 1.78 | 91 | P | Pn | 13 59 53.7 | +0.4 |
| ORD | | | | S | Sg | 14 00 19.0 | -0.1 |
| SENK | Senkaya-Erzuru | 1.91 | 327 | ePN | Pn | 13 59 55.4 | +0.1 |
| SENK | Senkaya-Erzuru | 1.91 | 327 | ePn | Pn | 13 59 55.4 | +0.1 |
| GDB | GEDABAY | 2.35 | 41 | ⇑P | Pn | 13 59 59.8 | -1.5 |
| GDB | | | | ⇓S | Sn | 14 00 30.2 | -0.4 |
| GDB | GEDABAY | 2.35 | 41 | P | Pn | 13 59 59.8 | -1.5 |
| GDB | | | | S | Sn | 14 00 30.2 | -0.4 |
| BNGB | Bing˜¶ll | 2.37 | 272 | ePN | Pn | 14 00 02.4 | +1.0 |
| AKH | Akhalkalaki | 2.45 | 356 | ePN | Pn | 14 00 03.5 | +0.9 |
| AKH | Akhalkalaki | 2.45 | 356 | ePn | Pn | 14 00 03.5 | +0.9 |
| BINT | Bingol | 2.52 | 269 | ePn | Pn | 14 00 02.4 | -1.1 |
| GANJ | Ganja | 2.62 | 49 | ⇓P | Pn | 14 00 04.0 | -0.8 |
| GANJ | | | | ⇑S | Sn | 14 00 37.4 | +0.5 |
| GANJ | Ganja | 2.62 | 49 | P | Pn | 14 00 04.0 | -0.8 |
| GANJ | | | | S | Sn | 14 00 37.4 | +0.5 |
| BCA | Borcka | 2.95 | 328 | ePN | Pn | 14 00 10.8 | +1.4 |
| BCA | Borcka | 2.95 | 328 | ePn | Pn | 14 00 10.8 | +1.4 |
| BRDA | Brd | 2.97 | 63 | ⇑P | Pn | 14 00 09.4 | -0.3 |
| BRDA | | | | ⇑S | Sn | 14 00 47.2 | +1.6 |
| BRDA | Brd | 2.97 | 63 | P | Pn | 14 00 09.4 | -0.3 |
| BRDA | | | | S | Sn | 14 00 47.2 | +1.6 |
| MAZI | Mazidag | 2.98 | 241 | ePN | Pn | 14 00 11.0 | +1.1 |
| MAZI | Mazidag | 2.98 | 241 | ePn | Pn | 14 00 11.0 | +1.1 |
| BAYT | Ayd¯–ntepe-Bay | 3.10 | 298 | ePN | Pn | 14 00 12.7 | +1.1 |
| ERZN | Erzincan | 3.16 | 283 | ePN | Pn | 14 00 13.5 | +1.1 |
| MNGR | Mingechevir, A | 3.16 | 54 | ⇑P | Pn | 14 00 11.2 | -1.0 |
| MNGR | | | | ⇓S | Sn | 14 00 51.4 | +1.2 |
| MNGR | Mingechevir, A | 3.16 | 54 | P | Pn | 14 00 11.2 | -1.0 |
| MNGR | | | | S | Sn | 14 00 51.4 | +1.2 |
| ZRD | Zardab | 3.33 | 66 | ⇑P | Pn | 14 00 14.5 | -0.1 |
| ZRD | | | | ⇑S | Sn | 

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ERCV | ERCIS-VAN | 0.24 | 19 | *e*PG | Pg | 14 04 47.8 | -1.0 | | |
| ERCV | ERCIS-VAN | 0.24 | 19 | *e*Pg | Pg | 14 04 47.8 | -1.0 | | |
| TVAN | Van | 0.29 | 153 | *i* P | Pg | 14 04 48.5 | -1.1 | | |
| TVAN | | | | *i* S | Sg | 14 04 53.9 | -0.2 | | |
| TVAN | Van | 0.29 | 153 | P | Pg | 14 04 48.5 | -1.1 | | |
| TVAN | | | | S | Sg | 14 04 53.8 | -0.2 | | |
| VMUR | Van-Muradiye | 0.33 | 53 | *i* P | Pg | 14 04 49.7 | -0.5 | | |
| VMUR | | | | *i* S | Sb | 14 04 55.8 | 0.0 | | |
| VMUR | Van-Muradiye | 0.33 | 53 | P | Pg | 14 04 49.7 | -0.5 | | |
| VMUR | | | | S | Sb | 14 04 55.8 | 0.0 | | |
| ADCV | BITLIS_Adilcev | 0.40 | 272 | *i* P | Pg | 14 04 50.9 | -0.6 | | |
| ADCV | | | | *i* S | Sb | 14 04 57.3 | -0.5 | | |
| ADCV | BITLIS_Adilcev | 0.40 | 272 | P | Pg | 14 04 50.9 | -0.6 | | |
| GEVA | Gevas | 0.50 | 196 | *i* P | Pg | 14 04 51.6 | -1.6 | | |
| GEVA | | | | *i* S | Sb | 14 04 59.8 | -0.8 | | |
| GEVA | Gevas | 0.50 | 196 | P | Pg | 14 04 51.6 | -1.6 | | |
| CLDR | Caldiran | 0.64 | 56 | *e*PG | Pg | 14 04 54.6 | -1.2 | | |
| CLDR | | | | *e*SG | Sg | 14 05 04.5 | +0.2 | | |
| CLDR | Caldiran | 0.64 | 56 | *i* P | Pg | 14 04 55.1 | -0.7 | | |
| CLDR | | | | *i* S | Sg | 14 05 04.6 | +0.2 | | |
| CLDR | Caldiran | 0.64 | 56 | *e*Pg | Pg | 14 04 54.6 | -1.2 | | |
| CLDR | Caldiran | 0.64 | 56 | P | Pg | 14 04 55.1 | -0.7 | | |
| CLDR | | | | *e*Sg | Sg | 14 04 54.5 | +0.2 | | |
| TUTA | Tutak | 0.69 | 332 | *i* P | Pg | 14 04 55.8 | -1.0 | | |
| TUTA | Tutak | 0.69 | 332 | P | Pg | 14 04 55.8 | -1.0 | | |
| AGRB | Hanur-Agry | 0.81 | 346 | *e*PG | Pg | 14 04 57.6 | -1.3 | | |
| AGRB | Hanur-Agry | 0.81 | 346 | *e*Pg | Pg | 14 04 57.6 | -1.3 | | |
| DYDN | Diyadin | 0.83 | 25 | *i* P | Pg | 14 04 58.0 | -1.4 | | |
| DYDN | | | | *i* S | Sg | 14 05 09.2 | -1.2 | | |
| DYDN | Diyadin | 0.83 | 25 | P | Pg | 14 04 58.0 | -1.4 | | |
| DYDN | | | | S | Sg | 14 05 09.2 | -1.2 | | |
| EKAR | Karacoban | 1.02 | 297 | *i* P | Pn | 14 05 03.1 | +0.1 | | |
| EKAR | | | | *i* S | Sn | 14 05 38.3 | +2.0 | | |
| EKAR | Karacoban | 1.02 | 297 | P | Pn | 14 05 03.1 | +0.1 | | |
| EKAR | | | | S | Sn | 14 05 19.1 | +2.0 | | |
| EATA | Eleskirt | 1.22 | 332 | *i* P | Pg | 14 05 05.6 | -1.1 | | |
| EATA | | | | *i* S | Sb | 14 05 22.4 | +0.9 | | |
| EATA | Eleskirt | 1.22 | 332 | P | Pg | 14 05 05.6 | -1.1 | | |
| EATA | | | | S | Sb | 14 05 22.4 | +0.9 | | |
| SRTM | Siirt_Merkez | 1.31 | 233 | *i* P | Pn | 14 05 06.9 | +0.1 | | |
| SRTM | | | | *i* S | Sn | 14 05 24.5 | +0.6 | | |
| SRTM | Siirt_Merkez | 1.31 | 233 | P | Pn | 14 05 06.9 | +0.1 | | |
| SRTM | | | | S | Sn | 14 05 24.5 | +0.6 | | |
| SIRT | Sirnak | 1.43 | 206 | *e*PN | Pb | 14 05 09.3 | -0.2 | | |
| SIRT | Sirnak | 1.43 | 206 | *e*Pn | Pb | 14 05 09.3 | -0.2 | | |
| CUKT | Cukurca | 1.57 | 169 | *e*PN | Pb | 14 05 11.5 | -0.3 | | |
| CUKT | Cukurca | 1.57 | 169 | *e*Pn | Pb | 14 05 11.5 | -0.3 | | |
| BTMN | Batman | 1.79 | 240 | *i* P | Pb | 14 05 15.5 | 0.0 | | |
| BTMN | | | | *i* S | Sb | 14 05 38.3 | +0.6 | | |
| BTMN | Batman | 1.79 | 240 | P | Pb | 14 05 15.5 | 0.0 | | |
| BTMN | | | | S | Sb | 14 05 38.3 | +0.6 | | |
| SENK | Senkaya-Erzuru | 1.90 | 339 | *e*PN | Pn | 14 05 15.9 | +0.9 | | |
| SENK | Senkaya-Erzuru | 1.90 | 339 | *e*Pn | Pn | 14 05 15.9 | +0.9 | | |
| BNGB | Bing˜ll | 2.01 | 276 | *e*PN | Pn | 14 05 16.9 | +0.6 | | |
| BINT | Bingol | 2.15 | 273 | *e*Pn | Pn | 14 05 16.9 | -1.5 | | |

*ISK **31** 14:38:39.6, 38˚.90N×43˚.51E, h5km, ML2.4*
*DDA **31** 14:38:40.9, 38˚.87N×43˚.57E, h16km, Ml2.8*
*ISCJB **31** 14:38:41.6±0.5, 38˚.92N±0˚.03×43˚.49E±0˚.05, h13km±6km, Error ellipse: s-maj=7.3km s-min=4.2km az=33.6*
*CSEM **31** 14:38:41.1±0.2, 38˚.93N×43˚.49E, h10km, ML2.8, Error ellipse: s-maj=5.3km s-min=4.2km az=120.0*
**ISC 31 14:38:41.3**±0.9, **38˚.89N**±0˚.03×**43˚.52E**±0˚.03, **h10**km±6km, **n25**, σ0**99**/40, **Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| VMUR | Van-Muradiye | 0.10 | 21 | *i* P | Pg | 14 38 44.0 | -0.2 |
| VMUR | | | | *i* S | Sg | 14 38 47.6 | +1.3 |
| VMUR | Van-Muradiye | 0.10 | 21 | P | Pg | 14 38 44.0 | -0.2 |
| VMUR | | | | S | Sg | 14 38 47.6 | +1.3 |
| ERCV | ERCIS-VAN | 0.19 | 311 | *e*PG | Pg | 14 38 43.8 | -1.7 |
| ERCV | ERCIS-VAN | 0.19 | 311 | *e*Pg | Pg | 14 38 43.8 | -1.7 |
| VANB | Van | 0.32 | 200 | *e*PG | Pb | 14 38 48.5 | -0.6 |
| VANB | | | | *e*SG | Sb | 14 38 55.5 | +1.2 |
| VANB | Van | 0.32 | 200 | *e*Pg | Pb | 14 38 48.5 | -0.6 |
| VANB | | | | *e*Sg | Sb | 14 38 55.5 | +1.2 |
| TVAN | Van | 0.38 | 194 | *i* P | Pg | 14 38 48.1 | -0.7 |
| TVAN | | | | *i* S | Sb | 14 38 55.4 | -0.7 |
| TVAN | Van | 0.38 | 194 | P | Pg | 14 38 48.1 | -0.7 |
| TVAN | | | | S | Sb | 14 38 55.4 | -0.7 |
| CLDR | Caldiran | 0.40 | 51 | *e*PG | Pg | 14 38 48.5 | -0.7 |
| CLDR | | | | *e*SG | Sb | 14 38 55.4 | -1.4 |
| CLDR | Caldiran | 0.40 | 51 | *i* P | Pg | 14 38 48.6 | -0.7 |
| CLDR | | | | *i* S | Sb | 14 38 56.0 | -0.8 |
| CLDR | Caldiran | 0.40 | 51 | P | Pg | 14 38 48.6 | -0.7 |
| CLDR | | | | *e*Sg | Sb | 14 38 55.4 | -1.4 |
| CLDR | | | | S | Sb | 14 38 56.0 | -0.8 |
| ADCV | BITLIS_Adilcev | 0.63 | 263 | *i* P | Pg | 14 38 53.1 | -0.5 |
| ADCV | | | | *i* S | Sb | 14 39 03.3 | -0.2 |
| ADCV | BITLIS_Adilcev | 0.63 | 263 | P | Pg | 14 38 53.1 | -0.5 |
| ADCV | | | | S | Sb | 14 39 03.3 | -0.2 |
| DYDN | Diyadin | 0.66 | 11 | *i* P | Pg | 14 38 54.0 | -0.2 |
| DYDN | | | | *i* S | Sb | 14 39 05.0 | +0.5 |
| DYDN | Diyadin | 0.66 | 11 | P | Pg | 14 38 54.0 | -0.2 |
| TUTA | Tutak | 0.75 | 313 | *i* P | Pg | 14 38 55.0 | -0.9 |
| TUTA | Tutak | 0.75 | 313 | P | Pg | 14 38 55.0 | -0.9 |
| AGRB | Hanur-Agry | 0.80 | 329 | *e*PG | Pg | 14 38 56.0 | -0.7 |
| AGRB | Hanur-Agry | 0.80 | 329 | *e*Pg | Pg | 14 38 56.0 | -0.7 |
| EKAR | Karacoban | 1.19 | 288 | *i* P | Pn | 14 39 03.8 | -0.5 |
| EKAR | | | | *i* S | Sn | 14 39 22.8 | +2.1 |
| EKAR | Karacoban | 1.19 | 288 | P | Pn | 14 39 03.8 | -0.5 |
| TASB | TASBURUN-IGDIR | 1.22 | 27 | *e*PN | Pg | 14 39 04.4 | -0.4 |
| TASB | TASBURUN-IGDIR | 1.22 | 27 | *e*Pn | Pg | 14 39 04.4 | -0.4 |
| EATA | Eleskirt | 1.26 | 321 | *i* P | Pg | 14 39 04.9 | -0.6 |
| EATA | | | | *i* S | Sn | 14 39 24.3 | +2.0 |
| EATA | Eleskirt | 1.26 | 321 | P | Pg | 14 39 04.9 | -0.6 |

*IDC **31** 14:51:17.8±2.9, 29˚.72N×130˚.19E, h0km, mb3.6/5, mb1 3.7/8, mb1mx3.4/38, mbtmp3.5/8, ML3.3/3, Error ellipse: s-maj=58.0km s-min=33.5km az=164.0*
*ISCJB **31** 14:51:30.7±0.5, 30˚.52N±0˚.04×130˚.48E±0˚.06, h77km±4km, mb3.3/5, Error ellipse: s-maj=10.2km s-min=4.7km az=27.4*
*JMA **31** 14:51:31.2±0.1, 30˚.52N×130˚.50E, h71km±1km, M3.1 JMA Felt I J1.*
**ISC 31 14:51:31.3**±0.9, **30˚.53N**±0˚.05×**130˚.47E**±0˚.06, **h69**km±7km, **n24**, σ1**08**/34, **mb3.4**/5, **Kyushu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JKC | Kuchinoerabu | 0.24 | 255 | P | Pn | 14 51 42.3 | +0.3 |
| JKC | | | | *e*S | Sn | 14 51 50.9 | +1.1 |
| JYAK | Yakushimahirau | 0.29 | 172 | P | Pn | 14 51 42.5 | +0.2 |
| JYAK | | | | *e*S | Sn | 14 51 50.6 | 0.0 |
| JTN | Tanegashima 3 | 0.46 | 74 | P | Pn | 14 51 43.7 | 0.0 |
| JTN | | | | S | Sn | 14 51 53.0 | +0.2 |
| JTSR | Tashiro 2 | 0.75 | 32 | P | Pn | 14 51 46.7 | 0.0 |
| JTSR | | | | S | Sn | 14 51 57.8 | -0.3 |
| JNN | Nakanoshima | 0.85 | 217 | P | Pn | 14 51 48.3 | +0.4 |
| JNN | | | | *e*S | Sn | 14 52 01.0 | +0.7 |
| JSU | Suzuyama | 0.98 | 360 | P | Pn | 14 51 49.7 | +0.2 |
| JSU | | | | *e*S | Sn | 14 52 03.8 | +0.8 |
| JNAR | Kushima--Nuru | 1.21 | 35 | P | Pn | 14 51 52.9 | +0.5 |
| JNAR | | | | *e*S | Sn | 14 52 09.4 | +1.1 |
| JSJ | Shimokoshiki | 1.31 | 331 | P | Pn | 14 51 53.7 | -0.1 |
| JSJ | | | | *e*S | Sn | 14 52 10.7 | 0.0 |
| JTZ | Takazaki | 1.47 | 21 | P | Pn | 14 51 56.2 | +0.4 |
| JTZ | | | | *e*S | Sn | 14 52 14.6 | +0.3 |
| JZO | Okuchi | 1.61 | 4 | P | Pn | 14 51 58.3 | +0.6 |
| JZO | | | | *e*S | Sn | 14 52 19.3 | +1.6 |
| JTAJ | Takarajima | 1.75 | 219 | P | Pn | 14 52 00.8 | +1.2 |
| JTAJ | | | | *e*S | Sn | 14 52 23.3 | +2.3 |
| JTSN | Tsuno | 1.93 | 27 | P | Pn | 14 52 02.0 | 0.0 |
| JTSN | | | | S | Sn | 14 52 25.4 | +0.1 |
| JIU2 | Izumi 2 | 2.03 | 8 | P | Pn | 14 52 04.3 | +0.9 |
| JNU | Nakatsue | 2.61 | 8 | Pn | Pn | 14 52 12.8 | +1.6 |
| | 4.7nm,0.3s,baz=188,slow=15,SNR=157 | | | | | | |
| JNU | | | | Sn | Sn | 14 52 44.0 | +2.1 |
| | 9.5nm,0.3s,baz=108,slow=23,SNR=10.0 | | | | | | |
| KSRS | Korea Array | 7.22 | 344 | Pn | Pn | 14 53 13.3 | -0.8 |
| | 0.1nm,0.3s,baz=162,slow=13,SNR=4.9 | | | | | | |
| MJAR | Matsushiro Arr | 8.82 | 45 | Pn | Pn | 14 53 37.2 | +1.3 |
| | 0.7nm,0.3s,baz=239,slow=14,SNR=20 | | | | | | |
| SONM | Songino Array | 25.27 | 320 | P | P | 14 56 51.2 | +0.1 |
| | 0.7nm,0.5s,baz=140,slow=7.5,SNR=3.3 | | | | | | |
| H11N2 | WAKE ISLAND Hy | 34.55 | 99 | T | T | 15 34 29.2 | |
| | baz=296 | | | | | | |
| H11N1 | WAKE ISLAND Hy | 34.56 | 100 | T | T | 15 34 27.0 | |
| | baz=296,slow=74 | | | | | | |
| H11N3 | WAKE ISLAND Hy | 34.57 | 99 | T | T | 15 34 25.9 | |
| | baz=296,slow=74 | | | | | | |
| MKAR | Makanchi Array | 40.31 | 308 | P | P | 14 59 00.5 | -1.2 |
| | 0.2nm,0.7s,baz=93,slow=7.2,SNR=3.1 | | | | | | |
| FINES | FINESS Array B | 70.11 | 330 | P | P | 15 02 33.6 | -2.2 |
| | 1.5nm,0.7s,baz=47,slow=6.1,SNR=9.9 | | | | | | |
| YKA | Yellowknife Ar | 73.81 | 26 | P | P | 15 02 59.6 | +1.7 |
| | 0.1nm,0.5s,baz=285,slow=6.1,SNR=5.4 | | | | | | |
| NOA | NORSAR Array B | 76.33 | 334 | P | P | 15 03 11.2 | -1.4 |
| | 0.9nm,0.8s,baz=48,slow=5.8,SNR=3.6 | | | | | | |

*ISK **31** 15:00:16.4, 36˚.94N×38˚.66E, h5km, MD3.2*
*DDA **31** 15:00:16.5, 36˚.89N×38˚.66E, h12km, Ml3.1*
*ISCJB **31** 15:00:17.4±0.7, 36˚.91N±0˚.04×38˚.67E±0˚.05, h4km±5km, Error ellipse: s-maj=7.6km s-min=4.9km az=135.5*
*CSEM **31** 15:00:17.3±0.2, 36˚.91N×38˚.66E, h2km, ML3.1, Error ellipse: s-maj=5.8km s-min=3.9km az=145.0*
**ISC 31 15:00:17.0**±1.1, **36˚.88N**±0˚.04×**38˚.65E**±0˚.04, **h10**km±5km, **n29**, σ0**50**/41, **Jordan-Syria region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SURC | SANLIURFA_SURC | 0.03 | 265 | *i* P | Pg | 15 00 18.7 | -0.3 |
| SURC | | | | *i* S | Sg | 15 00 20.8 | +0.4 |
| SURC | SANLIURFA_SURC | 0.03 | 265 | P | Pg | 15 00 18.7 | -0.3 |
| SURC | | | | S | Sg | 15 00 20.8 | +0.4 |
| URFA | Urfa | 0.57 | 13 | *e*PG | Pg | 15 00 27.7 | -0.5 |
| URFA | | | | *e*SG | Sg | 15 00 36.0 | +0.2 |
| URFA | Urfa | 0.57 | 13 | *e*Pg | Pg | 15 00 27.7 | -0.5 |
| URFA | | | | *e*Sg | Sg | 15 00 36.0 | +0.2 |
| ATAB | Bozova | 0.65 | 334 | *i* P | Pg | 15 00 28.9 | -0.8 |
| ATAB | | | | *i* S | Sg | 15 00 38.0 | -0.3 |
| ATAB | Bozova | 0.65 | 334 | P | Pg | 15 00 28.9 | -0.8 |
| ATAB | | | | S | Sg | 15 00 38.0 | -0.3 |
| GAZ | Gaziantep | 1.19 | 285 | *e*PN | Pg | 15 00 40.0 | +0.1 |
| GAZ | Gaziantep | 1.19 | 285 | *e*Pn | Pg | 15 00 40.0 | +0.1 |
| KUZU | Kuzuini | 1.27 | 266 | *i* P | Pg | 15 00 41.2 | -0.2 |
| KUZU | | | | *i* S | Sg | 15 00 58.8 | +0.8 |
| KUZU | Kuzuini | 1.27 | 266 | P | Pg | 15 00 41.2 | -0.2 |
| KUZU | | | | S | Sg | 15 00 58.8 | +0.8 |
| MALT | Malatya | 1.44 | 353 | *e*PN | Pb | 15 00 44.0 | 0.0 |
| MALT | | | | *e*SN | Sg | 15 01 04.0 | +0.6 |
| MALT | Malatya | 1.44 | 353 | *e*Pn | Pb | 15 00 44.0 | 0.0 |
| HCB | Kahramanmara¯ | 1.47 | 289 | *i* P | Pn | 15 00 42.8 | -0.8 |
| HCB | | | | *i* S | Sg | 15 01 04.0 | -0.3 |
| AKCD | Akcadag | 1.53 | 338 | *i* P | Pg | 15 00 46.1 | -0.2 |
| AKCD | | | | *i* S | Sg | 15 01 06.3 | +0.1 |
| AKCD | Akcadag | 1.53 | 338 | P | Pg | 15 00 46.1 | -0.2 |
| AKCD | | | | S | Sg | 15 01 06.3 | +0.1 |
| KMRS | Kahramanmaras | 1.53 | 294 | *e*PN | Pb | 15 00 45.6 | +0.1 |
| KMRS | Kahramanmaras | 1.53 | 294 | *e*Pn | Pb | 15 00 45.6 | +0.1 |
| MAZI | Mazidag | 1.54 | 68 | *e*PN | Pb | 15 00 45.6 | -0.2 |
| MAZI | Mazidag | 1.54 | 68 | *e*Pn | Pb | 15 00 45.6 | -0.2 |
| SVRC | Sivrice-ELAZID | 1.58 | 19 | *e*PN | Pb | 15 00 46.1 | -0.3 |
| SVRC | Sivrice-ELAZID | 1.58 | 19 | *e*Pn | Pb | 15 00 46.1 | -0.3 |
| DYBB | Diyarbakir | 1.59 | 47 | *e*PN | Pb | 15 00 46.4 | -0.2 |
| DIY | Diyarbakir | 1.61 | 51 | *e*Pn | Pb | 15 00 46.4 | -0.5 |
| DARE | Darende-Malaty | 1.92 | 332 | *e*PN | Pn | 15 00 50.7 | +0.8 |
| DARE | Darende-Malaty | 1.92 | 332 | *e*Pn | Pn | 15 00 50.7 | +0.8 |
| PTK | Pertek | 2.09 | 16 | *e*PN | Pn | 15 00 53.1 | +0.8 |
| PTK | Pertek | 2.09 | 16 | *e*Pn | Pn | 15 00 53.1 | +0.8 |
| YAYL | Yayladag | 2.22 | 248 | *e*PN | Pb | 15 00 56.6 | -0.7 |
| YAYL | Yayladag | 2.22 | 248 | *e*Pn | Pb | 15 00 56.6 | -0.7 |

*CSEM **31** 15:09:04.9, 43˚.95N×11˚.84E, h9km, MD1.9/5*
**ROM 31 15:09:04.9**±0.1, **43˚.95N×11˚.84E, h9**km, **Md1.9**/5, **Ml1.4**/1, **6C, Error ellipse: s-maj=2.5km s-min=0.9km az=37.0, Central Italy**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| SFI | Santa Sofia | 0.05 | 176 | *i* Pg | Pg | 15 09 07.1 | +0.3 |
| SFI | | | | Sg | Sg | 15 09 08.5 | +0.4 |
| | 846nm,0.1s | | | | | | |
| SFI | Santa Sofia | 0.05 | 176 | *i* Pg | Pg | 15 09 07.1 | +0.3 |
| SFI | | | | Sg | Sg | 15 09 08.5 | +0.4 |
| | 846nm,0.1s | | | | | | |
| ASQU | Asqua | 0.16 | 194 | *i* Pg | Pg | 15 09 09.0 | +0.6 |
| ASQU | | | | Sg | Sg | 15 09 11.9 | +1.2 |
| ASQU | Asqua | 0.16 | 194 | *i* Pg | Pg | 15 09 09.0 | +0.6 |
| ASQU | | | | Sg | Sg | 15 09 11.9 | +1.2 |
| VMG | Vicchio | 0.22 | 273 | *i* Pg | Pg | 15 09 10.1 | +0.8 |
| VMG | | | | Sg | Sg | 15 09 14.1 | +1.8 |
| VMG | Vicchio | 0.22 | 273 | *i* Pg | Pg | 15 09 10.1 | +0.8 |
| VMG | | | | Sg | Sg | 15 09 14.1 | +1.8 |
| CRE | Caprese Michel | 0.34 | 167 | Pg | Pg | 15 09 12.3 | +0.6 |
| CRE | | | | Sg | Sb | 15 09 17.9 | -0.9 |
| | 40nm,0.4s | | | | | | |
| CRE | Caprese Michel | 0.34 | 167 | Pg | Pg | 15 09 12.3 | +0.6 |
| CRE | | | | Sg | Sb | 15 09 17.9 | -0.9 |
| | 40nm,0.4s | | | | | | |
| SEI | Scarperia | 0.36 | 286 | Pg | Pg | 15 09 12.6 | +0.5 |
| SEI | | | | Sg | Sb | 15 09 18.7 | -0.7 |
| SEI | Scarperia | 0.36 | 286 | Pg | Pg | 15 09 12.6 | +0.5 |
| SEI | | | | Sg | Sb | 15 09 18.7 | -0.7 |
| PARC | Parchiule | 0.42 | 136 | Pg | Pb | 15 09 13.9 | -0.6 |
| PARC | | | | Sg | Sb | 15 09 20.8 | -0.1 |
| PARC | Parchiule | 0.42 | 136 | Pg | Pb | 15 09 13.9 | -0.6 |
| PARC | | | | Sg | Sb | 15 09 20.8 | -0.1 |

*NIED **31** 15:28:00, 37˚.00N×138˚.60E, h5km, Mw4.2 Best double couple: M₀2.54000×10¹⁵ NP1:φs348.00000°, δ58.00000°, λ5.00000°. NP2:φs256.00000°, δ86.00000°, λ148.00000°.*
*IDC **31** 15:28:51.3±0.5, 37˚.05N×138˚.42E, h0km, mb3.9/24, mb1 4.1/26, mb1mx4.0/44, mbtmp3.9/26, ML2.8/2, MS3.4/14, Ms1 3.4/14, ms1mx3.2/46, Error ellipse: s-maj=16.1km s-min=6.4km az=102.0*
*JMA **31** 15:28:52.9, 36˚.96N×138˚.60E, h7km±2km, M4.2 Broadband fault plane solution: P waves. NP1: φs274.00000°, δ75.00000°, λ145.00000°. NP2: φs14.00000°, δ56.00000°, λ18.00000°. Principal axes: T Plg35.0000°, Azm229.0000°; N Plg52.0000°, Azm74.0000°; P Plg12.0000°, Azm328.0000°;*
*JMA Felt IV J1.*
*ISCJB **31** 15:28:52.7±0.3, 36˚.95N±0˚.02×138˚.56E±0˚.03, h21km±3km, mb4.0/31, MS3.4/13 Error ellipse: s-maj=4.7km s-min=3.8km az=34.3*
*MOS **31** 15:28:52.9±1.2, 36˚.82N×138˚.55E, h25km, mb4.4/7, Error ellipse: s-maj=11.2km s-min=7.4km az=83.1*
*NEIC **31** 15:28:53.7±1.5, 36˚.94N×138˚.53E, h18km±9km, mb4.1/2, Error ellipse: s-maj=11.5km s-min=7.8km az=127.0*
*NEIC Recorded [4 JMA] in Nagano.*
**ISC 31 15:28:53.3**±1.0, **36˚.96N**±0˚.03×**138˚.58E**±0˚.03, **h11**km±6km, **n76**, σ1**58**/83, **mb4.0**/31, **MS3.4**/13, **14C-7D, Eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| JJN | Nakama | 0.36 | 294 | ⇑P | Pg | 15 29 00.3 | -0.1 |
| JJN | | | | *e*S | Sb | 15 29 06.0 | -1.3 |
| JGK | Kuni | 0.40 | 172 | ⇓P | Pg | 15 29 01.0 | -0.2 |
| JGK | | | | S | Sg | 15 29 07.0 | +0.5 |
| JHK | Hiroka | 0.46 | 51 | ⇑P | Pg | 15 29 01.2 | -1.0 |
| JHK | | | | S | Sg | 15 29 07.5 | -0.8 |
| MAJO | Matsushiro | 0.51 | 216 | *e* iP | Pg | 15 29 02.4 | -0.8 |
| MAJO | Matsushiro | 0.51 | 216 | *e*P | Pg | 15 29 02.5 | -0.8 |
| MAT | Matsushiro | 0.51 | 216 | P | Pg | 15 29 02.4 | -0.8 |
| MAT | | | | S | Sg | 15 29 09.4 | -0.5 |
| MAT | Matsushiro | 0.51 | 216 | P | Pg | 15 29 02.5 | -0.8 |
| MAT | | | | S | Sg | 15 29 09.5 | -0.5 |
| MJAR | Matsushiro Arr | 0.51 | 215 | Pg | Pg | 15 29 02.5 | -0.7 |
| | 334nm,0.3s,baz=30,slow=18,SNR=6855 | | | | | | |
| MJAR | | | | Lg | Lg | 15 29 09.5 | |
| | 738nm,0.3s,baz=30,slow=30,SNR=65 | | | | | | |
| JKT | Katashina | 0.57 | 109 | ⇓P | Pg | 15 29 03.5 | -0.9 |
| JKT | | | | *i* S | Sg | 15 29 11.2 | -0.8 |
| JIZZ | Izumozaki | 0.58 | 11 | ⇓P | Pg | 15 29 04.5 | -0.1 |
| JIZZ | | | | *e*S | Sb | 15 29 13.8 | +0.1 |
| JNG | Nsakai | 0.67 | 215 | ⇑P | Pg | 15 29 05.5 | -0.8 |
| JAG | Ashikaga | 0.88 | 127 | ⇓P | Pg | 15 29 09.4 | -0.9 |
| JRY | Ryogami san | 0.98 | 164 | ⇓P | Pg | 15 29 11.0 | -1.1 |
| JRY | | | | S | Sg | 15 29 24.7 | -0.1 |
| JFY | Yanaizu | 1.01 | 63 | ⇑P | Pg | 15 29 11.2 | -1.5 |
| JFY | | | | S | Sg | 15 29 24.4 | -1.4 |
| JHJ | Hachijo jima 2 | 3.96 | 165 | Pn | Pn | 15 29 55.6 | +1.7 |
| | 12nm,0.3s,baz=354,slow=10,SNR=3.8 | | | | | | |
| ERM | Erimo | 6.17 | 34 | *e*P | Pn | 15 30 28.2 | +4.0 |
| JNU | Nakatsue | 7.38 | 241 | Pn | Pn | 15 30 43.3 | +2.3 |
| | 0.2nm,0.3s,baz=63,slow=16,SNR=3.2 | | | | | | |
| ASAJ | Asahikawa | 7.78 | 22 | Pn | Pn | 15 30 48.4 | +2.0 |
| | 0.7nm,0.3s,baz=231,slow=13,SNR=8.9 | | | | | | |
| KSRS | Korea Array | 8.51 | 277 | Pn | Pn | 15 30 58.2 | +1.8 |
| | 0.5nm,0.3s,baz=93,slow=15,SNR=8.5 | | | | | | |
| KSRS | | | | LR | LR | 15 33 55.9 | |
| | comp=Z,211nm,21.2s,baz=94,slow=36 | | | | | | |
| KSAR | Wonju Array Be | 8.54 | 276 | P | Pn | 15 30 58.3 | +1.4 |
| KSAR | Wonju Array Be | 8.54 | 276 | Pn | Pn | 15 30 58.2 | +1.4 |
| USRK | Ussuriysk Ar. | 8.80 | 327 | Pn | Pn | 15 30 59.5 | -0.8 |
| | 0.2nm,0.3s,baz=142,slow=14,SNR=3.2 | | | | | | |
| USRK | | | | LR | LR | 15 34 14.4 | |
| | comp=Z,118nm,19.1s,baz=139,slow=37 | | | | | | |
| KLR | Kul'dur | 13.23 | 340 | Pn | Pn | 15 32 05.5 | +4.5 |
| | 0.0nm,0.3s,baz=150,slow=12,SNR=20 | | | | | | |
| KLR | | | | LR | LR | 15 36 43.4 | |
| | comp=Z,9.9nm,19.5s,baz=154,slow=36 | | | | | | |
| PETK | Petropavlovsk- | 20.95 | 34 | P | P | 15 33 36.5 | +0.5 |
| | 1.8nm,0.6s,baz=223,slow=9.8,SNR=4.6 | | | | | | |
| PETK | | | | LR | LR | 15 41 53.5 | |
| | comp=Z,82nm,19.9s,baz=226,slow=37 | | | | | | |
| MA2 | Magadan | 23.97 | 15 | P | P | 15 34 05.9 | -1.4 |
| | 3.6nm,0.8s,baz=168,slow=4.6,SNR=6.7 | | | | | | |
| ULN | Ulaanbaatar | 25.53 | 305 | *e*P | P | 15 34 21.3 | -0.6 |
| ULN | | | | pmax | pmax | | |
| | comp=Z,6.0nm,2.5s | | | | | | |
| ULN | Ulaanbaatar | 25.53 | 305 | *e*P | P | 15 34 20.6 | -1.3 |
| | comp=Z,0.5nm,0.5s | | | | | | |
| YAK | Yakutsk | 25.70 | 350 | P | P | 15 34 21.9 | -1.2 |
| | comp=Z,4.6nm,0.5s,baz=170,slow=2.2,SNR=2.8 | | | | | | |
| SONM | Songino Array | 25.95 | 305 | P | P | 15 34 24.8 | -1.0 |
| | comp=Z,1.8nm,1.0s,baz=108,slow=9.5,SNR=6.0 | | | | | | |
| SONM | | | | LR | LR | 15 45 09.5 | |
| | comp=Z,95nm,19.2s,baz=256,slow=38 | | | | | | |
| SEY | Seymchan | 27.35 | 14 | P | P | 15 34 38.1 | +0.1 |
| | comp=Z,2.5nm,0.8s,baz=207,slow=7.3,SNR=10 | | | | | | |
| SEY | Seymchan | 27.35 | 14 | *ce*P | P | 15 34 39.6 | +1.6 |
| BILL | Bilibino | 34.77 | 18 | ⇓*e*P | P | 15 35 48.0 | +4.7 |
| BILL | | | | *e* | | 15 35 57.6 | |
| BILL | | | | | | 15 37 05.0 | |
| BILL | | | | PPP | PPP | 15 37 22.0 | |
| BILL | | | | pmax | pmax | | |
| | comp=Z,6.0nm,1.7s | | | | | | |
| BILL | | | | MLR | MLR | | |
| | comp=Z,49nm,15.0s | | | | | | |
| TIXI | Tiksi | 35.12 | 355 | *ce*P | P | 15 35 47.8 | +1.5 |
| TIXI | | | | pmax | pmax | | |
| | comp=Z,3.0nm,1.0s | | | | | | |
| CMAR | Chiang Mai Arr | 39.29 | 253 | P | P | 15 36 21.2 | -1.1 |
| | comp=Z,0.3nm,0.5s,baz=42,slow=11,SNR=2.7 | | | | | | |
| CMAR | | | | LR | LR | 15 54 09.9 | |
| | comp=Z,36nm,18.5s,baz=195,slow=39 | | | | | | |
| ZALV | Zalesovo Beam | 40.29 | 313 | P | P | 15 36 28.2 | -2.0 |
| | comp=Z,0.3nm,0.5s,baz=96,slow=7.8,SNR=2.8 | | | | | | |
| ZALV | | | | LR | LR | 15 53 55.2 | |
| | comp=Z,31nm,18.4s,baz=66,slow=38 | | | | | | |
| MKAR | Makanchi Array | 42.23 | 302 | P | P | 15 36 44.6 | -1.7 |
| | comp=Z,0.6nm,0.8s,baz=88,slow=7.5,SNR=6.7 | | | | | | |
| MKAR | | | | LR | LR | 15 55 03.8 | |
| | comp=Z,64nm,19.2s,baz=52,slow=37 | | | | | | |
| MKAR | Makanchi Array | 42.23 | 302 | *ce*P | P | 15 36 48.5 | +2.2 |
| KURK | Kurchatov | 44.19 | 308 | *ce*P | P | 15 37 02.3 | +0.3 |
| KURK | | | | pmax | pmax | | |
| | comp=Z,9.0nm,1.2s | | | | | | |
| KURK | Kurchatov | 44.19 | 308 | P | P | 15 37 00.8 | -1.2 |
| KURBB | Kurchatov Arra | 44.25 | 308 | P | P | 15 37 00.8 | -1.8 |
| | comp=Z,0.9nm,0.6s,baz=83,slow=8.1,SNR=8.0 | | | | | | |
| KDAK | Kodiak Island | 48.67 | 42 | LR | LR | 16 00 01.6 | |
| | comp=Z,32nm,18.8s,baz=148,slow=38 | | | | | | |
| KDAK | Kodiak Island | 48.67 | 42 | *ce*P | P | 15 37 39.9 | +2.8 |
| HNR | Honiara | 50.32 | 152 | LR | LR | 15 58 17.9 | |
| | comp=Z,32nm,20.8s,baz=24,slow=35 | | | | | | |
| ILAR | Eielson Array | 50.77 | 32 | P | P | 15 37 52.6 | -0.4 |
| | comp=Z,1.1nm,0.8s,baz=276,slow=6.7,SNR=13 | | | | | | |
| GSI | Gunungsitoli | 51.84 | 237 | *e*P | P | 15 38 01.7 | +0.1 |
| | comp=Z,23nm,0.6s | | | | | | |
| ARU | Arti | 54.90 | 318 | *d* iP | P | 15 38 24.3 | +0.7 |
| ARU | | | | | | 15 40 26.0 | |
| ARU | | | | S | S | 15 46 05.8 | +1.0 |
| ARU | | | | SS | SS | 15 49 43.4 | -4.3 |
| ARU | | | | pmax | pmax | | |
| | comp=Z,7.0nm,1.2s | | | | | | |
| INK | Inuvik | 55.48 | 27 | P | P | 15 38 27.7 | +0.1 |
| | comp=Z,2.9nm,0.9s,baz=297,slow=4.9,SNR=9.2 | | | | | | |
| INK | | | | LR | LR | 16 04 04.6 | |
| | comp=Z,66nm,18.4s,baz=140,slow=38 | | | | | | |
| ABKAR | Akbulak array | 56.24 | 309 | *e*P | P | 15 38

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| TVAN | | | | *i* S | **Sb** | **15 45 47.5** | **-0.1** |
| **TVAN** | **Van** | **0.26** | **153** | P | **Pb** | **15 45 42.0** | **-1.0** |
| TVAN | | | | S | **Sb** | **15 45 47.5** | **-0.1** |
| **VMUR** | **Van-Muradiye** | **0.34** | **47** | *i* P | **Pb** | **15 45 43.6** | **-0.4** |
| VMUR | | | | *i* S | **Sb** | **15 45 49.5** | **+0.2** |
| **VMUR** | **Van-Muradiye** | **0.34** | **47** | P | **Pb** | **15 45 43.6** | **-0.4** |
| VMUR | | | | S | **Sb** | **15 45 49.5** | **+0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.42** | **276** | *i* P | **Pb** | **15 45 45.2** | **0.0** |
| ADCV | | | | *i* S | **Sb** | **15 45 51.8** | **+0.4** |
| **ADCV** | **BITLIS_Adilcev** | **0.42** | **276** | P | **Pb** | **15 45 45.2** | **0.0** |
| ADCV | | | | S | **Sb** | **15 45 51.8** | **+0.4** |
| **GEVA** | **Gevas** | **0.48** | **199** | *i* P | **Pb** | **15 45 45.6** | **-0.5** |
| GEVA | | | | *i* S | **Sb** | **15 45 53.8** | **+0.9** |
| **GEVA** | **Gevas** | **0.48** | **199** | P | **Pb** | **15 45 45.6** | **-0.5** |
| GEVA | | | | S | **Sb** | **15 45 53.8** | **+0.9** |
| **CLDR** | **Caldiran** | **0.64** | **53** | *e*PG | **Pb** | **15 45 48.8** | **-0.1** |
| CLDR | | | | *e*SG | **Sb** | **15 45 58.3** | **+0.7** |
| **CLDR** | **Caldiran** | **0.64** | **53** | *e*Pg | **Pb** | **15 45 48.8** | **-0.1** |
| CLDR | | | | *e*Sg | **Sb** | **15 45 58.3** | **+0.7** |
| **TUTA** | **Tutak** | **0.72** | **332** | *i* P | **Pb** | **15 45 50.0** | **-0.4** |
| TUTA | | | | *i* S | **Sb** | **15 45 59.3** | **-0.7** |
| **TUTA** | **Tutak** | **0.72** | **332** | P | **Pb** | **15 45 50.0** | **-0.4** |
| TUTA | | | | S | **Sb** | **15 45 59.3** | **-0.7** |
| **AGRB** | **Hanur-Agry** | **0.84** | **346** | *e*PG | **Pb** | **15 45 52.2** | **0.0** |
| AGRB | | | | *e*SG | **Sn** | **15 46 04.0** | **+0.1** |
| **AGRB** | **Hanur-Agry** | **0.84** | **346** | *e*Pg | **Pb** | **15 45 52.2** | **0.0** |
| AGRB | | | | *e*Sg | **Sn** | **15 46 04.0** | **+0.1** |

*KRSC **31** 15:49:54.5±0.9,56.09N×160.90E,h166km±7km, ML3.7*
*ISCJB **31** 15:49:55.1±0.4,56.11N±0.03×160.85E±0.08, h167km±2km, mb3.3/6, Error ellipse: s-maj=7.7km s-min=4.4km az=30.9*
*IDC **31** 15:49:58.2±2.2,55.88N×160.77E, h196km±36km, mb3.0/7, mb1 3.1/8, mb1mx2.9/48, mbtmp3.5/8, Error ellipse: s-maj=46.7km s-min=17.6km az=167.0*
**ISC 31 15:49:55.9**±0.8,**56.08N**±0.04×**160.83E**±0.05,**h164**km±5km, **n47**,σ0**96**/68,**mb3.2**/6,**Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ZLN** | **Zelenaya** | **0.06** | **195** | *e*P | **Pn** | **15 50 18.0** | **+0.2** |
| **CIRR** | **Tsirk** | **0.06** | **310** | *e*P | **Pn** | **15 50 17.9** | **+0.1** |
| CIRR | | | | *e*S | **Sn** | **15 50 34.9** | **+0.2** |
| **KRSR** | **Krestovskiy** | **0.21** | **313** | *e*P | **Pn** | **15 50 17.4** | **-0.6** |
| KRSR | | | | *e*S | **Sn** | **15 50 34.5** | **-0.5** |
| **BZWR** | **Bezymyannyi-We** | **0.22** | **239** | *e*P | **Pn** | **15 50 17.8** | **-0.3** |
| BZWR | | | | *e*S | **Sn** | **15 50 35.3** | **+0.2** |
| **BZMR** | **Bezymyannaya** | **0.24** | **234** | *e*P | **Pn** | **15 50 18.1** | **0.0** |
| BZMR | | | | *e*S | **Sn** | **15 50 35.6** | **+0.5** |
| **KLY** | **Klyuchi** | **0.26** | **337** | *e*P | **Pn** | **15 50 17.6** | **-0.3** |
| KLY | | | | *e*S | **Sn** | **15 50 34.5** | **-0.4** |
| KLY | | | | *e*S | **Sn** | **15 50 35.1** | **+0.2** |
| **KIRR** | **Kirishev** | **0.30** | **246** | *e*P | **Pn** | **15 50 17.8** | **-0.5** |
| KIRR | | | | *e*S | **Sn** | **15 50 35.3** | **-0.1** |
| **KPT** | **Kopyto** | **0.36** | **252** | *e*P | **Pn** | **15 50 17.9** | **-0.5** |
| KPT | | | | *e*S | **Sn** | **15 50 35.3** | **-0.3** |
| **KMNR** | **Kamenistaya** | **0.46** | **227** | *e*P | **Pn** | **15 50 18.6** | **-0.2** |
| **BDR** | **Baidarnaya** | **0.54** | **23** | *e*P | **Pn** | **15 50 19.1** | **0.0** |
| BDR | | | | *e*S | **Sn** | **15 50 37.0** | **+0.1** |
| **KOZ** | **Kozyrevsk** | **0.54** | **268** | *e*P | **Pn** | **15 50 18.6** | **-0.4** |
| KOZ | | | | *e*S | **Sn** | **15 50 36.4** | **-0.3** |
| **SRKR** | **Sorokina** | **0.61** | **18** | *e*P | **Pn** | **15 50 19.0** | **-0.4** |
| SRKR | | | | *e*S | **Sn** | **15 50 37.2** | **-0.4** |
| **SMKR** | **Semkarok** | **0.62** | **35** | *e*P | **Pn** | **15 50 19.3** | **-0.2** |
| SMKR | | | | *e*S | **Sn** | **15 50 38.6** | **+0.9** |
| **TUMR** | **Tumrok** | **0.89** | **206** | *e*P | **Pn** | **15 50 21.9** | **+0.6** |
| TUMR | | | | *e*S | **Sn** | **15 50 41.1** | **+0.4** |
| **TUMD** | **Tumrok D** | **0.91** | **196** | *e*P | **Pn** | **15 50 21.5** | **+0.2** |
| **KZV** | **Kizimen** | **1.01** | **198** | *e*P | **Pn** | **15 50 22.6** | **+0.3** |
| **KBG** | **Krutoberegovo** | **1.06** | **79** | *e*P | **Pn** | **15 50 22.7** | **+0.3** |
| KBG | | | | *e*S | **Sn** | **15 50 42.7** | **+0.1** |
| **KBTR** | **Krutoberegovo** | **1.12** | **82** | *e*P | **Pn** | **15 50 22.7** | **-0.2** |
| KBTR | | | | *e*S | **Sn** | **15 50 43.2** | **-0.5** |
| **ESO** | **Esso** | **1.21** | **264** | *e*P | **Pn** | **15 50 23.2** | **-0.5** |
| **KII** | **Karymskiy** | **2.19** | **202** | *e*P | **Pn** | **15 50 35.3** | **+1.2** |
| **GNL** | **Ganaly** | **2.91** | **216** | *e*P | **Pn** | **15 50 43.5** | **+0.7** |
| GNL | | | | *e*S | **Sn** | **15 51 21.0** | **+1.8** |
| **KRX** | **Arik** | **3.00** | **206** | *e*P | **Pn** | **15 50 45.8** | **+1.9** |
| **SPN** | **Mys Shipunski** | **3.02** | **189** | *e*P | **Pn** | **15 50 42.4** | **-1.6** |
| SPN | | | | *e*S | **Sn** | **15 51 18.8** | **-2.6** |
| **SDLR** | **Sedlovina** | **3.02** | **203** | *e*P | **Pn** | **15 50 45.1** | **+0.9** |
| **KRER** | **Koryakskii** | **3.03** | **204** | *e*P | **Pn** | **15 50 45.8** | **+1.5** |
| **NLC** | **Nalytchevo** | **3.04** | **197** | *e*P | **Pn** | **15 50 43.9** | **-0.3** |
| NLC | | | | *e*S | **Sn** | **15 51 20.8** | **-0.9** |
| **BKI** | **Bering** | **3.04** | **105** | *e*P | **Pn** | **15 50 44.8** | **+0.6** |
| BKI | | | | *e*S | **Sn** | **15 51 21.3** | **-0.4** |
| **SMAR** | **Somma** | **3.06** | **204** | *e*P | **Pn** | **15 50 45.5** | **+0.8** |
| **PALN** | **Palana** | **3.06** | **352** | *e*P | **Pn** | **15 50 44.1** | **-0.3** |
| **AVH** | **Avacha** | **3.07** | **204** | *e*P | **Pn** | **15 50 46.0** | **+1.3** |
| **UGLR** | **Uglovaya** | **3.10** | **203** | *i* P | **Pn** | **15 50 46.6** | **+1.5** |
| **DALK** | **Dalny** | **3.28** | **203** | *e*P | **Pn** | **15 50 47.9** | **+0.6** |
| DALK | | | | *e*S | **Sn** | **15 51 28.3** | **+1.1** |
| **PET** | **Petropavlovsk** | **3.31** | **203** | *e*P | **Pn** | **15 50 48.4** | **+0.8** |
| PET | | | | *e*S | **Sn** | **15 51 28.5** | **+0.6** |
| **OSSR** | **Ossora** | **3.40** | **20** | *e*P | **Pn** | **15 50 48.8** | **+0.1** |
| **PETK** | **Petropavlovsk-** 1.5nm,0.3s,baz=61,slow=16,SNR=51 | **3.49** | **213** | P | **Pn** | **15 50 50.7** | **+0.8** |
| **KRMR** | **Karymshinskiy** | **3.62** | **207** | *e*P | **Pn** | **15 50 52.2** | **+0.7** |
| **APC** | **Apacha** | **3.81** | **216** | *e*P | **Pn** | **15 50 55.4** | **+1.4** |
| **RUS** | **Russkaya** | **3.90** | **201** | *e*P | **Pn** | **15 50 54.0** | **-1.1** |
| **ASAK** | **Asacha** | **4.08** | **206** | *e*P | **Pn** | **15 50 58.1** | **+0.5** |
| **KDTR** | **Khodutka, Kamc** | **4.58** | **202** | *e*P | **Pn** | **15 51 02.6** | **-1.3** |
| KDTR | | | | *e*S | **Sn** | **15 51 53.3** | **-3.7** |
| **TIXI** | **Tiksi** 1.3nm,0.3s,baz=115,slow=11,SNR=3.7 | **20.60** | **332** | P | Pn | 15 54 24.3 | -1.8 |
| **ILAR** | **Eielson Array** 0.2nm,0.5s,baz=265,slow=8.0,SNR=9.9 | **26.47** | **50** | P | **P** | **15 55 18.1** | **+0.8** |
| **SONM** | **Songino Array** 0.3nm,0.4s,baz=66,slow=8.3,SNR=2.0 | **33.74** | **279** | P | **P** | **15 56 22.1** | **+0.6** |
| **YKA** | **Yellowknife Ar** 0.3nm,0.6s,baz=301,slow=7.8,SNR=6.1 | **40.71** | **45** | P | **P** | **15 57 21.0** | **+1.3** |
| **MKAR** | **Makanchi Array** 0.3nm,0.6s,baz=59,slow=7.7,SNR=5.4 | **47.30** | **294** | P | **P** | **15 58 11.4** | **-1.0** |
| **FINES** | **FINESS Array B** 0.9nm,0.7s,baz=16,slow=7.2,SNR=5.6 | **57.55** | **336** | P | **P** | **15 59 26.7** | **-0.8** |
| **NOA** | **NORSAR Array B** 0.7nm,0.8s,baz=22,slow=7.2,SNR=2.7 | **60.80** | **344** | P | **P** | **15 59 49.0** | **-0.8** |

*ISK **31** 15:52:39.8,38.68N×43.14E,h22km, ML2.3*
*ISCJB **31** 15:52:41.8±0.5,38.73N±0.03×43.17E±0.03,h9km±5km, Error ellipse: s-maj=4.8km s-min=4.0km az=30.6*
*CSEM **31** 15:52:41.3±0.2,38.72N×43.17E,h10km, ML2.3, Error ellipse: s-maj=4.6km s-min=3.9km az=113.0*
*DDA **31** 15:52:41.5,38.70N×43.19E,h7km, Ml2.7*
**ISC 31 15:52:41.8**±1.0,**38.71N**±0.02×**43.17E**±0.03,**h15**km±7km, **n22**,σ0**82**/41,**Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.20** | **123** | *e*PG | **Pg** | **15 52 46.6** | **0.0** |
| VANB | | | | *e*SG | **Sg** | **15 52 51.1** | **+1.3** |
| **VANB** | **Van** | **0.20** | **123** | *e*Pg | **Pg** | **15 52 46.6** | **0.0** |
| VANB | | | | *e*Sg | **Sg** | **15 52 51.1** | **+1.3** |
| **TVAN** | **Van** | **0.26** | **134** | *i* P | **Pg** | **15 52 46.5** | **-1.0** |
| TVAN | | | | *i* S | **Sg** | **15 52 50.8** | **-0.5** |
| **TVAN** | **Van** | **0.26** | **134** | P | **Pg** | **15 52 46.5** | **-1.0** |
| TVAN | | | | S | **Sg** | **15 52 50.8** | **-0.5** |
| **ERCV** | **ERCIS-VAN** | **0.34** | **23** | *e*PG | **Pg** | **15 52 48.0** | **-0.9** |
| **ERCV** | **ERCIS-VAN** | **0.34** | **23** | *e*Pg | **Pg** | **15 52 48.0** | **-0.9** |
| **ADCV** | **BITLIS_Adilcev** | **0.36** | **286** | *i* P | **Pg** | **15 52 48.9** | **-0.4** |
| ADCV | | | | *i* S | **Sb** | **15 52 55.9** | **+0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.36** | **286** | P | **Pg** | **15 52 48.9** | **-0.4** |
| ADCV | | | | S | **Sb** | **15 52 55.9** | **+0.3** |
| **GEVA** | **Gevas** | **0.40** | **193** | *i* P | **Pg** | **15 52 48.5** | **-1.4** |
| GEVA | | | | *i* S | **Sb** | **15 52 56.3** | **-0.4** |
| **GEVA** | **Gevas** | **0.40** | **193** | P | **Pg** | **15 52 48.5** | **-1.4** |
| GEVA | | | | S | **Sb** | **15 52 56.3** | **-0.4** |
| **VMUR** | **Van-Muradiye** | **0.42** | **48** | *i* P | **Pg** | **15 52 49.7** | **-0.7** |
| VMUR | | | | *i* S | **Sb** | **15 52 57.3** | **0.0** |
| **VMUR** | **Van-Muradiye** | **0.42** | **48** | P | **Pg** | **15 52 49.7** | **-0.7** |
| VMUR | | | | S | **Sb** | **15 52 57.3** | **0.0** |
| **CLDR** | **Caldiran** | **0.73** | **53** | *e*PG | **Pg** | **15 52 55.2** | **-0.8** |
| CLDR | | | | *e*SG | **Sb** | **15 53 06.5** | **+0.4** |
| **CLDR** | **Caldiran** | **0.73** | **53** | *i* P | **Pg** | **15 52 54.9** | **-1.1** |
| CLDR | | | | *i* S | **Sb** | **15 53 06.6** | **+0.4** |
| **CLDR** | **Caldiran** | **0.73** | **53** | P | **Pg** | **15 52 54.9** | **-1.1** |
| **CLDR** | **Caldiran** | **0.73** | **53** | *e*Pg | **Pg** | **15 52 55.2** | **-0.8** |
| CLDR | | | | *e*Sg | **Sb** | **15 53 06.5** | **+0.4** |
| **TUTA** | **Tutak** | **0.75** | **338** | *i* P | **Pg** | **15 52 55.5** | **-0.9** |
| TUTA | | | | *i* S | **Sg** | **15 53 06.3** | **0.0** |
| **TUTA** | **Tutak** | **0.75** | **338** | P | **Pg** | **15 52 55.5** | **-0.9** |
| TUTA | | | | S | **Sg** | **15 53 06.3** | **0.0** |
| **AGRB** | **Hanur-Agry** | **0.88** | **351** | *e*PG | **Pg** | **15 52 57.9** | **-1.0** |
| AGRB | | | | *e*SG | **Sg** | **15 53 10.5** | **0.0** |
| **AGRB** | **Hanur-Agry** | **0.88** | **351** | *e*Pg | **Pg** | **15 52 57.9** | **-1.0** |
| AGRB | | | | *e*Sg | **Sg** | **15 53 10.5** | **0.0** |
| **SRTM** | **Siirt_Merkez** | **1.21** | **234** | *i* P | **Pg** | **15 53 04.5** | **-0.6** |
| SRTM | | | | *i* S | **Sn** | **15 53 21.8** | **+1.3** |
| **SRTM** | **Siirt_Merkez** | **1.21** | **234** | P | **Pg** | **15 53 04.6** | **-0.6** |
| SRTM | | | | S | **Sn** | **15 53 21.8** | **+1.3** |

*DDA **31** 16:00:14.5,37.04N×27.42E,h7km, Ml3.3*
*ISK **31** 16:00:14.2,37.01N×27.46E,h12km, ML3.0*
*CSEM **31** 16:00:14.7±0.1,37.01N×27.44E,h10km, ML3.3, Error ellipse: s-maj=2.4km s-min=1.9km az=53.0*
*ISCJB **31** 16:00:14.7±0.3,37.01N±0.02×27.45E±0.03,h11km±2km, Error ellipse: s-maj=4.3km s-min=3.0km az=136.9*
*ATH **31** 16:00:14.4,37.00N×27.43E,h30km±1km, ML3.2/3, Error ellipse: s-maj=2.6km s-min=0.9km az=243.0*
*THE **31** 16:00:15.6,36.99N×27.40E,h9km, ML3.3/3, Error ellipse: s-maj=0.8km s-min=0.4km az=260.0*
**ISC 31 16:00:14.7**±0.8,**37.00N**±0.02×**27.44E**±0.02,**h12**km±4km, **n83**,σ0**75**/117,**Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **BDRM** | **Kayabasi** | **0.07** | **6** | *i* P | **Pg** | **16 00 17.0** | **-0.2** |
| BDRM | | | | *i* S | **Sg** | **16 00 18.6** | **-0.4** |
| **BDRM** | **Kayabasi** | **0.07** | **6** | P | **Pg** | **16 00 17.0** | **-0.2** |
| BDRM | | | | S | **Sg** | **16 00 18.6** | **-0.4** |
| **BODT** | **Bodrum** | **0.12** | **302** | *e*PG | **Pg** | **16 00 18.1** | **+0.3** |
| BODT | | | | *e*SG | **Sg** | **16 00 20.5** | **+0.5** |
| **BODT** | **Bodrum** | **0.12** | **302** | P | **Pg** | **16 00 18.1** | **+0.3** |
| BODT | | | | S | **Sg** | **16 00 20.5** | **+0.5** |
| **BODT** | **Bodrum** | **0.12** | **302** | P | **Pg** | **16 00 18.1** | **+0.3** |
| BODT | | | | S | **Sg** | **16 00 20.5** | **+0.5** |
| **YKAV** | **Yalikavak-Bodr** | **0.18** | **315** | *e*PG | **Pg** | **16 00 18.4** | **-0.3** |
| YKAV | | | | *e*SG | **Sg** | **16 00 21.5** | **+0.1** |
| **YKAV** | **Yalikavak-Bodr** | **0.18** | **315** | *e*Pg | **Pg** | **16 00 18.4** | **-0.3** |
| YKAV | | | | *e*Sg | **Sg** | **16 00 21.5** | **+0.1** |
| **DATC** | **Datca-Mugla** | **0.30** | **143** | *e*PG | **Pg** | **16 00 20.6** | **-0.2** |
| DATC | | | | *e*SG | **Sg** | **16 00 25.4** | **+0.5** |
| **DATC** | **Datca-Mugla** | **0.30** | **143** | *e*Pg | **Pg** | **16 00 20.6** | **-0.2** |
| DATC | | | | *e*Sg | **Sg** | **16 00 25.4** | **+0.5** |
| **DIDI** | **Didim-Aydin** | **0.41** | **338** | *e*PG | **Pb** | **16 00 23.3** | **-0.6** |
| **DIDI** | **Didim-Aydin** | **0.41** | **338** | *e*Pg | **Pb** | **16 00 23.3** | **-0.6** |
| **NISR** | **Nisiros** | **0.46** | **213** | P | **Pb** | **16 00 24.5** | **-0.2** |
| **NISR** | **Nisiros** | **0.46** | **213** | P | **Pg** | **16 00 24.0** | **+0.3** |
| NISR | | | | S | **Sb** | **16 00 31.1** | **-0.4** |
| **NISR** | **Nisiros** | **0.46** | **213** | P | **Pg** | **16 00 24.0** | **+0.3** |
| NISR | | | | S | **Sb** | **16 00 31.1** | **-0.4** |
| **MRSB** | **Marmaris-Mugla** | **0.67** | **115** | *e*PG | **Pg** | **16 00 27.2** | **-0.6** |
| MRSB | | | | *e*SG | **Sg** | **16 00 37.1** | **+0.5** |
| **MRSB** | **Marmaris-Mugla** | **0.67** | **115** | *e*Pg | **Pg** | **16 00 27.2** | **-0.6** |
| MRSB | | | | *e*Sg | **Sg** | **16 00 37.1** | **+0.5** |
| **GCAM** | **G?zelcaml?** | **0.72** | **347** | *i* P | **Pg** | **16 00 28.2** | **-0.4** |
| **GCAM** | **G?zelcaml?** | **0.72** | **347** | P | **Pg** | **16 00 28.2** | **-0.4** |
| **AYDN** | **Tasoluk** | **0.75** | **28** | *i* P | **Pg** | **16 00 28.9** | **-0.4** |
| AYDN | | | | *i* S | **Sg** | **16 00 38.6** | **-0.5** |
| **AYDN** | **Tasoluk** | **0.75** | **28** | P | **Pg** | **16 00 28.9** | **-0.4** |
| AYDN | | | | S | **Sg** | **16 00 38.6** | **-0.5** |
| **SMG** | **Samos** | **0.85** | **326** | P | **Pg** | **16 00 30.8** | **-0.4** |
| SMG | | | | S | **Sb** | **16 00 43.7** | **+0.7** |
| SMG | comp=E,5772μm,0.3s | | | AML | AML | 16 00 45.9 | |
| SMG | comp=N,3702μm,0.3s | | | AML | AML | 16 00 46.1 | |
| **SMG** | **Samos** | **0.85** | **326** | P | **Pb** | **16 00 31.3** | **-0.2** |
| SMG | | | | S | **Sb** | **16 00 43.7** | **+0.7** |
| **SMG** | **Samos** | **0.85** | **326** | P | **Pb** | **16 00 31.3** | **-0.2** |
| SMG | | | | S | **Sn** | **16 00 43.9** | **-1.2** |
| **TURN** | **Turunc** | **0.94** | **97** | *e*PG | Pg | 16 00 27.6 | -5.3 |
| **TURN** | **Turunc** | **0.94** | **97** | *i* P | Pg | 16 00 27.8 | -5.1 |
| **ARG** | **Arkhangelos** | **0.96** | **144** | P | **Pg** | **16 00 32.8** | **-0.4** |
| ARG | | | | S | **Sn** | **16 00 47.2** | **-0.4** |
| ARG | comp=E,4641μm,0.3s | | | AML | AML | 16 00 50.4 | |
| ARG | comp=N,3346μm,0.3s | | | AML | AML | 16 00 50.8 | |
| **ARG** | **Arkhangelos** | **0.96** | **144** | P | **Pb** | **16 00 33.6** | **+0.3** |
| ARG | | | | S | **Sn** | **16 00 47.2** | **-0.4** |
| **ARG** | **Arkhangelos** | **0.96** | **144** | P | **Pb** | **16 00 33.6** | **+0.3** |
| ARG | | | | S | **Sn** | **16 00 47.5** | **-0.1** |
| **DGB** | **˜zmir** | **1.14** | **337** | *i* P | **Pb** | **16 00 36.0** | **-0.4** |
| DGB | | | | *i* S | **Sn** | **16 00 53.1** | **+1.0** |
| **GMLD** | **Gumuldur** | **1.15** | **339** | *e*PN | **Pn** | **16 00 36.6** | **-0.1** |
| **GMLD** | **Gumuldur** | **1.15** | **339** | *e*Pn | **Pn** | **16 00 36.6** | **-0.1** |
| **TAVA** | **DENIZLI_Tavas** | **1.27** | **68** | *i* P | **Pn** | **16 00 38.1** | **-0.3** |
| TAVA | | | | *i* S | **Sn** | **16 00 57.1** | **+1.7** |
| **TAVA** | **DENIZLI_Tavas** | **1.27** | **68** | P | **Pn** | **16 00 38.1** | **-0.3** |
| TAVA | | | | S | **Sn** | **16 00 57.1** | **+1.7** |
| **FETY** | **Fethiye** | **1.37** | **105** | *e*PN | **Pn** | **16 00 40.1** | **+0.4** |
| **FETY** | **Fethiye** | **1.37** | **105** | *e*Pn | **Pn** | **16 00 40.1** | **+0.4** |
| FETY | | | | S | **Sg** | **16 00 58.8** | **-0.1** |
| **FETY** | **Fethiye** | **1.37** | **105** | P | **Pn** | **16 00 39.9** | **+0.2** |
| FETY | | | | S | **Sg** | **16 00 58.8** | **-0.1** |
| **ZEY** | **˜zmir** | **1.44** | **329** | *i* P | **Pn** | **16 00 40.5** | **-0.2** |
| ZEY | | | | *i* S | **Sg** | **16 01 01.1** | **0.0** |
| **DNZL** | **Cakiroluk** | **1.46** | **61** | *i* P | **Pb** | **16 00 41.7** | **-0.2** |
| DNZL | | | | *i* S | **Sg** | **16 01 04.2** | **+2.5** |
| **DNZL** | **Cakiroluk** | **1.46** | **61** | P | **Pb** | **16 00 41.7** | **-0.2** |
| **KARP** | **Karpathos** | **1.47** | **189** | *e*PN | **Pn** | **16 00 40.6** | **-0.4** |
| **KARP** | **Karpathos** | **1.47** | **189** | P | **Pn** | **16 00 40.2** | **-0.9** |
| **KARP** | **Karpathos** | **1.47** | **189** | *e*Pn | **Pn** | **16 00 40.6** | **-0.4** |
| **KARP** | **Karpathos** | **1.47** | **189** | P | **Pn** | **16 00 40.5** | **-0.5** |
| **DENT** | **Denizli** | **1.48** | **59** | *e*PN | **Pn** | **16 00 40.9** | **-0.4** |
| **DENT** | **Denizli** | **1.48** | **59** | *e*Pn | **Pn** | **16 00 40.9** | **-0.4** |
| **URLA** | **Izmir** | **1.51** | **334** | *e*PN | **Pn** | **16 00 41.7** | **0.0** |
| **URLA** | **Izmir** | **1.51** | **334** | *i* P | **Pn** | **16 00 41.8** | **+0.1** |
| URLA | | | | *i* S | **Sg** | **16 01 06.2** | **+2.8** |
| **URLA** | **Izmir** | **1.51** | **334** | P | **Pn** | **16 00 41.8** | **+0.1** |
| **APE** | **Apeiranthos** | **1.53** | **273** | *e*PN | **Pn** | **16 00 41.8** | **-0.1** |
| **APE** | **Apeiranthos** | **1.53** | **273** | P | **Pn** | **16 00 41.8** | **-0.1** |
| APE | | | | AML | AML | 16 01 11.1 | |
| APE | comp=N,336μm,0.6s | | | AML | AML | 16 01 11.2 | |
| APE | comp=E,350μm,0.3s | | | | | | |
| **APE** | **Apeiranthos** | **1.53** | **273** | P | **Pn** | **16 00 41.8** | **-0.1** |
| APE | | | | S | **Sn** | **16 01 01.2** | **-0.5** |
| **APE** | **Apeiranthos** | **1.53** | **273** | P | **Pn** | **16 00 41.6** | **-0.3** |
| APE | | | | S | **Sn** | **16 01 01.2** | **-0.5** |
| **GOLH** | **Golhisar** | **1.72** | **81** | *i* P | **Pg** | **16 00 47.6** | **0.0** |
| GOLH | | | | *i* S | **Sg** | **16 01 12.1** | **+2.2** |
| **MANT** | **Manisa** | **1.73** | **31** | *i* P | **Pn** | **16 00 44.7** | **-0.2** |
| MANT | | | | *i* S | **Sn** | **16 01 05.0** | **-2.1** |
| **MANT** | **Manisa** | **1.73** | **31** | P | **Pn** | **16 00 44.7** | **-0.2** |
| MANT | | | | S | **Sn** | **16 01 05.1** | **-2.1** |
| **CHOS** | **Chios island** | **1.77** | **322** | P | **Pn** | **16 00 45.2** | **0.0** |
| **CHOS** | **Chios island** | **1.77** | **322** | P | **Pn** | **16 00 45.2** | **0.0** |
| **CHOS** | **Chios island** | **1.77** | **322** | P | **Pn** | **16 00 45.2** | **0.0** |
| **KULA** | **Kula-Manisa** | **1.80** | **32** | *e*PN | **Pn** | **16 00 45.2** | **-0.5** |
| **KULA** | **Kula-Manisa** | **1.80** | **32** | *e*Pn | **Pn** | **16 00 45.2** | **-0.5** |
| **AKHS** | **Akhisar** | **1.90** | **9** | *i* P | **Pn** | **16 00 46.5** | **-0.5** |
| AKHS | | | | *i* S | **Sn** | **16 01 09.5** | **-1.4** |
| **AKHS** | **Akhisar** | **1.90** | **9** | P | **Pn** | **16 00 46.5** | **-0.5** |
| AKHS | | | | S | **Sn** | **16 01 09.5** | **-1.4** |
| **KSL** | **Kastellorizon** | **1.93** | **115** | P | **Pn** | **16 00 44.8** | **-2.6** |
| **ELL** | **Elmali** | **2.00** | **96** | *e*PN | **Pn** | **16 00 48.6** | **+0.1** |
| **ELL** | **Elmali** | **2.00** | **96** | *e*Pn | **Pn** | **16 00 48.6** | **+0.1** |
| **ZKR** | **Zakros** | **2.12** | **208** | P | **Pn** | **16 00 50.3** | **+0.2** |
| **ZKR** | **Zakros** | **2.12** | **208** | P | **Pn** | **16 00 50.3** | **+0.2** |
| **KORT** | **Korkueli** | **2.33** | **89** | *e*PN | **Pn** | **16 00 53.4** | **+0.3** |
| **KORT** | **Korkueli** | **2.33** | **89** | *e*Pn | **Pn** | **16 00 53.4** | **+0.3** |
| **PRK** | **Paraskevi** | **2.42** | **338** | P | **Pn** | **16 00 55.1** | **+0.9** |
| **PRK** | **Paraskevi** | **2.42** | **338** | P | **Pn** | **16 00 55.1** | **+0.9** |
| **BCK** | **Bucak** | **2.56** | **79** | *e*PN | **Pn** | **16 00 56.5** | **+0.4** |
| **BCK** | **Bucak** | **2.56** | **79** | *e*Pn | **Pn** | **16 00 56.5** | **+0.4** |
| **BALB** | **Balikesir** | **2.66** | **7** | *e*PN | **Pn** | **16 00 58.1** | **+0.7** |
| **BALB** | **Balikesir** | **2.66** | **7** | *e*Pn | **Pn** | **16 00 58.1** | **+0.7** |
| **SHUT** | **Suhut-Afyon** | **2.92** | **57** | *e*PN | **Pn** | **16 01 01.6** | **+0.6** |
| **SHUT** | **Suhut-Afyon** | **2.92** | **57** | *e*Pn | **Pn** | **16 01 01.6** | **+0.6** |
| **TVSB** | **Tavsanli** | **2.92** | **33** | *e*PN | **Pn** | **16 01 01.6** | **+0.5** |
| **TVSB** | **Tavsanli** | **2.92** | **33** | *e*Pn | **Pn** | **16 01 01.6** | **+0.5** |
| **EZN** | **Ezine** | **2.95** | **343** | *e*PN | **Pn** | **16 01 02.1** | **+0.7** |
| **EZN** | **Ezine** | **2.95** | **343** | *e*Pn | **Pn** | **16 01 02.1** | **+0.7** |
| **SMTH** | **Samothraki Isl** | **3.77** | **337** | P | **Pn** | **16 01 13.6** | **+0.8** |
| **SMTH** | **Samothraki Isl** | **3.77** | **337** | P | **Pn** | **16 01 13.6** | **+0.8** |

*NIED **31** 16:02:00,31.70N×142.40E,h5km,Mw3.4 Best double couple: M1.52000×10^14 NP1:φ161.00000°,δ42.00000°, λ30.00000°. NP2:φ47.00000°,δ70.00000°,λ127.00000°.*
*IDC **31** 16:02:04.8±4.2,31.20N×141.44E,h0km, mb3.6/5, mb1 3.7/6, mb1mx3.4/52, mbtmp3.5/6, ML3.2/1, Error ellipse: s-maj=161.8km s-min=19.2km az=71.0*
*ISCJB **31** 16:02:05.7±0.9,31.65N±0.09×142.4E±0.2,h49km, mb3.7/5, Error ellipse: s-maj=21.8km s-min=7.9km az=152.4*
*JMA **31** 16:02:05.6±0.5,31.67N×142.39E,h52km, MS3.5*
**ISC 31 16:02:07.9**±1.4,**31.6N**±0.1×**142.4E**±0.2,**h49**km,**n13**, σ1**96**/15,**mb3.7**/5,**Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **JHJ2** | **Mitsune** | **2.62** | **305** | *e*S | **Sn** | **16 03 16.7** | **-1.6** |
| **BSO1** | **Boso 1** | **3.23** | **339** | P | **Pn** | **16 02 54.8** | **-0.9** |
| **BSO3** | **Boso 3** | **3.52** | **334** | P | **Pn** | **16 02 59.2** | **-0.7** |
| **JOD2** | **Odawara 2** | **4.54** | **324** | *e*S | **Sn** | **16 04 04.7** | **-1.0** |
| **JHU** | **Hanno** | **4.93** | **329** | P | **Pn** | **16 03 18.6** | **-0.9** |
| JHU | | | | *e*S | **Sn** | **16 04 14.7** | **-0.6** |
| **JRY** | **Ryogami san** | **5.24** | **327** | P | **Pn** | **16 03 23.6** | **-0.2** |
| **JFK** | **Kawauchi** | **5.85** | **348** | P | **Pn** | **16 03 31.2** | **-0.9** |
| **MJAR** | **Matsushiro Arr** 0.6nm,0.3s,baz=156,slow=11,SNR=14 | **5.99** | **326** | Pn | **Pn** | **16 03 34.1** | **+0.1** |
| MJAR | baz=335,slow=16,SNR=2.5 | | | Sn | **Sn** | **16 04 43.0** | **+1.6** |
| **SONM** | **Songino Array** 0.4nm,0.5s,baz=106,slow=8.3,SNR=2.2 | **31.71** | **311** | P | **P** | **16 08 28.6** | **+1.6** |
| **MKAR** | **Makanchi Array** 0.5nm,0.7s,baz=92,slow=7.7,SNR=4.5 | **47.82** | **307** | P | **P** | **16 10 41.0** | **+0.4** |
| **KURBB** | **Kurchatov Arra** 0.4nm,0.5s,baz=86,slow=7.5,SNR=7.5 | **50.07** | **312** | P | **P** | **16 10 58.2** | **+0.5** |
| **WRA** | **Warramunga Arr** 0.4nm,0.3s,baz=6.6,slow=7.7,SNR=12 | **51.86** | **190** | P | **P** | **16 11 10.5** | **-0.8** |
| **ASAR** | **Alice Springs** 0.4nm,0.5s,baz=7.2,slow=6.1,SNR=16 | **55.58** | **189** | P | **P** | **16 11 38.3** | **-0.3** |

*ISCJB **31** 16:04:41.8±0.5,36.05N±0.04×71.07E±0.06,h100km, mb3.5/10, Error ellipse: s-maj=8.2km s-min=4.2km az=149.8*
*IDC **31** 16:04:41.3±3.4,36.01N×71.04E,h71km±29km, mb3.5/11, mb1 3.6/17, mb1mx3.4/50, mbtmp3.8/17, Error ellipse: s-maj=26.1km s-min=18.0km az=12.0*
*NNC **31** 16:04:48.6±2.8,36.64N×70.31E,h80km±83km, mb4.0, mpv4.0, Error ellipse: s-maj=28.8km s-min=21.0km az=100.0*
**ISC 31 16:04:42.4**±0.6,**36.06N**±0.06×**70.97E**±0.06,**h100**km,**n42**, σ2**62**/48

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **PB09** | **IPOC Station P** | **1.32** | **184** | ⇑ *i* P | Pn | 16 07 22.6 | +0.7 |
| PB09 | | | | *i* S | Sn | 16 07 41.1 | +1.3 |
| PB09 | | | | IAML | | 16 07 42.5 | |
| | comp=N,3μm,0.7s | | | | | | |
| **MNMC** | **Minye Minye** | **1.40** | **342** | *eP* | Pn | 16 07 23.7 | +0.7 |
| MNMC | | | | *eS* | Sn | 16 07 44.3 | +2.5 |
| **PB07** | **IPOC Station P** | **1.42** | **209** | ⇓ *i* P | Pn | 16 07 23.6 | +0.4 |
| PB07 | | | | *i* S | Sn | 16 07 43.0 | +0.9 |
| PB07 | | | | IAML | | 16 07 43.9 | |
| | comp=N,500nm,0.3s | | | | | | |
| **PB04** | **IPOC Station P** | **2.07** | **207** | *eP* | Pn | 16 07 32.3 | +0.8 |
| PB04 | | | | *i* S | Sn | 16 07 58.6 | +1.7 |
| PB04 | | | | IAML | | 16 08 07.6 | |
| | comp=N,302nm,0.3s | | | | | | |
| **PB12** | **IPOC Station P** | **2.16** | **329** | ⇑ *i* P | Pn | 16 07 32.9 | +0.4 |
| PB12 | | | | *i* S | Sn | 16 08 00.3 | +1.4 |

*ISCJB* ***31*** *16:11:45.8±0.5, 40˚.05N±0˚.03×38˚.61E±0˚.03, h7*$^{km}$*±5km, Error ellipse: s-maj=5.9km s-min=3.8km az=175.9*
*ISK* ***31*** *16:11:45.7, 40˚.05N×38˚.61E, h14*$^{km}$*, ML2.0*
*CSEM* ***31*** *16:11:45.7±0.2, 40˚.03N×38˚.59E, h10*$^{km}$*, ML2.7, Error ellipse: s-maj=6.2km s-min=4.8km az=159.0*
*DDA* ***31*** *16:11:45.6, 40˚.00N×38˚.57E, h7*$^{km}$*, Ml2.7*
**ISC 31 16:11:45.6±1.1, 40˚.04N±0˚.03×38˚.56E±0˚.02, h9**$^{km}$**±10km, n27, σ0↓53/44, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **SUSE** | **Susehri** | **0.32** | **302** | *i* P | **Pb** | **16 11 53.5** | **-0.1** |
| SUSE | | | | *i* S | **Sb** | **16 11 59.6** | **+0.6** |
| **SUSE** | **Susehri** | **0.32** | **302** | P | **Pb** | **16 11 53.5** | **-0.1** |
| SUSE | | | | S | **Sb** | **16 11 59.6** | **+0.6** |
| **KELT** | **Kelkit** | **0.54** | **78** | *i* P | **Pg** | **16 11 56.1** | **-0.1** |
| KELT | | | | *i* S | **Sg** | **16 12 03.7** | **+0.4** |
| **KELT** | **Kelkit** | **0.54** | **78** | P | **Pg** | **16 11 56.1** | **-0.1** |
| KELT | | | | S | **Sg** | **16 12 03.7** | **+0.4** |
| **ILIC** | **ilic-Erzincan** | **0.59** | **180** | *e*PG | **Pg** | **16 11 56.9** | **0.0** |
| **ILIC** | **ilic-Erzincan** | **0.59** | **180** | *e*Pg | **Pg** | **16 11 56.9** | **0.0** |
| **CUZAR** | **Zara_SIVAS** | **0.63** | **256** | *i* P | **Pg** | **16 11 57.6** | **-0.1** |
| CUZAR | | | | *i* S | **Sb** | **16 12 07.4** | **-0.3** |
| **CUZAR** | **Zara_SIVAS** | **0.63** | **256** | P | **Pg** | **16 11 57.6** | **-0.1** |
| CUZAR | | | | S | **Sb** | **16 12 07.4** | **-0.3** |
| **KEMA** | **Kemaliye** | **0.77** | **184** | *i* P | **Pg** | **16 11 59.9** | **-0.5** |
| KEMA | | | | *i* S | **Sb** | **16 12 12.5** | **+0.7** |
| **KEMA** | **Kemaliye** | **0.77** | **184** | P | **Pg** | **16 11 59.9** | **-0.5** |
| KEMA | | | | S | **Sb** | **16 12 12.5** | **+0.7** |
| **ESPY** | **Espiye-Giresun** | **0.89** | **8** | *e*PG | **Pb** | **16 12 03.0** | **-0.1** |
| **ESPY** | **Espiye-Giresun** | **0.89** | **8** | *e*Pg | **Pb** | **16 12 03.0** | **-0.1** |
| **ERZN** | **Erzincan** | **1.00** | **116** | *e*PG | **Pg** | **16 12 04.8** | **0.0** |
| ERZN | | | | *e*SG | **Sb** | **16 12 18.7** | **+0.2** |
| **CUKAN** | **kangal_SIVAS** | **1.11** | **230** | *i* P | **Pg** | **16 12 06.4** | **-0.5** |
| CUKAN | | | | *i* S | **Sn** | **16 12 23.5** | **+0.5** |
| **CUKAN** | **kangal_SIVAS** | **1.11** | **230** | P | **Pg** | **16 12 06.4** | **-0.5** |
| CUKAN | | | | S | **Sn** | **16 12 23.5** | **+0.5** |
| **SCER** | **sogukcermik** | **1.12** | **261** | *i* P | **Pb** | **16 12 05.9** | **-1.2** |
| SCER | | | | *i* S | **Sg** | **16 12 21.8** | **+0.2** |
| **SCER** | **sogukcermik** | **1.12** | **261** | P | **Pb** | **16 12 05.9** | **-1.2** |
| SCER | | | | S | **Sg** | **16 12 21.8** | **+0.2** |
| **SVSK** | **Karacayir** | **1.21** | **265** | *e*PN | **Pg** | **16 12 09.4** | **+0.6** |
| **SVSK** | **Karacayir** | **1.21** | **265** | *e*Pn | **Pg** | **16 12 09.4** | **+0.6** |
| **BAYT** | **Ayd¨–ntepe-Bay** | **1.26** | **73** | *e*PN | **Pn** | **16 12 08.8** | **-0.7** |
| BAYT | | | | *e*SN | **Sb** | **16 12 25.8** | **-0.1** |
| **BAYT** | **Ayd¨–ntepe-Bay** | **1.26** | **73** | *e*Pn | **Pn** | **16 12 08.8** | **-0.7** |
| BAYT | | | | *e*Sn | **Sb** | **16 12 25.8** | **-0.1** |
| **PTK** | **Pertek** | **1.31** | **150** | *e*PN | **Pn** | **16 12 10.2** | **-0.1** |
| **PTK** | **Pertek** | **1.31** | **150** | *e*Pn | **Pn** | **16 12 10.2** | **-0.1** |
| **AKCD** | **Akcadag** | **1.81** | **196** | *i* P | **Pb** | **16 12 18.9** | **0.0** |
| AKCD | | | | *i* S | **Sg** | **16 12 44.8** | **+1.0** |
| **AKCD** | **Akcadag** | **1.81** | **196** | P | **Pb** | **16 12 18.9** | **0.0** |
| **CUSAR** | **Sarkisla-SIVAS** | **1.89** | **252** | *i* P | **Pb** | **16 12 19.8** | **-0.6** |
| CUSAR | | | | *i* S | **Sg** | **16 12 47.0** | **+0.6** |
| **CUSAR** | **Sarkisla-SIVAS** | **1.89** | **252** | P | **Pb** | **16 12 19.8** | **-0.6** |

*ISCJB* ***31*** *16:11:56.6±0.7, 39˚.20N±0˚.05×17˚.62E±0˚.04, h15*$^{km}$*, Error ellipse: s-maj=7.0km s-min=3.5km az=159.8*
*CSEM* ***31*** *16:11:58.0±0.4, 39˚.23N×17˚.58E, h10*$^{km}$*, ML2.8, Error ellipse: s-maj=8.7km s-min=4.4km az=158.0*
*ROM* ***31*** *16:11:59.2±0.3, 39˚.25N×17˚.56E, h10*$^{km}$*, Ml2.8/17, Error ellipse: s-maj=5.2km s-min=3.7km az=154.0*
*BEO* ***31*** *16:12:00.6±0.9, 39˚.44N×17˚.73E, h0*$^{km}$*, M3.3/9*
**ISC 31 16:11:58.3±1.2, 39˚.25N±0˚.05×17˚.62E±0˚.04, h15**$^{km}$**, n80, σ1↓22/94, Southern Italy**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **PIPA** | **Pietrapaola** | **0.67** | **291** | Pg | **Pg** | **16 12 10.7** | **-0.8** |
| PIPA | | | | Sg | **Sg** | **16 12 19.9** | **-0.4** |
| | 529nm,0.2s | | | | | | |
| **PIPA** | **Pietrapaola** | **0.67** | **291** | Pg | **Pg** | **16 12 10.7** | **-0.8** |
| PIPA | | | | Sg | **Sg** | **16 12 19.9** | **-0.4** |
| | 529nm,0.2s | | | | | | |
| **TIP** | **Timpagrande** | **0.68** | **265** | Pg | **Pg** | **16 12 11.3** | **-0.2** |
| TIP | | | | Sg | **Sg** | **16 12 20.2** | **-0.3** |
| | 380nm,0.7s | | | | | | |
| **TIP** | **Timpagrande** | **0.68** | **265** | Pg | **Pg** | **16 12 11.3** | **-0.2** |
| TIP | | | | Sg | **Sg** | **16 12 20.2** | **-0.3** |
| | 380nm,0.7s | | | | | | |
| **GRI** | **Girifalco** | **1.03** | **246** | Pg | **Pb** | **16 12 18.2** | **+0.4** |
| | 167nm,0.5s | | | | | | |
| **GRI** | **Girifalco** | **1.03** | **246** | Pg | **Pb** | **16 12 18.2** | **+0.4** |
| | 167nm,0.5s | | | | | | |
| **SALB** | **San Lorenzo Be** | **1.17** | **303** | Pg | **Pb** | **16 12 18.8** | **-1.6** |
| | 153nm,0.4s | | | | | | |
| **SALB** | **San Lorenzo Be** | **1.17** | **303** | Pg | **Pb** | **16 12 18.8** | **-1.6** |
| | 153nm,0.4s | | | | | | |
| **ORI** | **Oriolo Calabro** | **1.22** | **312** | Pg | **Pb** | **16 12 22.1** | **+1.0** |
| | 821nm,0.3s | | | | | | |
| **ORI** | **Oriolo Calabro** | **1.22** | **312** | Pg | **Pb** | **16 12 22.1** | **+1.0** |
| | 821nm,0.3s | | | | | | |
| **TAR1** | **Taranto** | **1.31** | **349** | *e*Pn | **Pn** | **16 12 23.5** | **+1.5** |
| **CET2** | **Cetraro** | **1.32** | **283** | Pg | **Pn** | **16 12 21.9** | **-0.4** |
| | 259nm,0.7s | | | | | | |
| **CET2** | **Cetraro** | **1.32** | **283** | Pg | **Pn** | **16 12 21.9** | **-0.4** |
| | 259nm,0.7s | | | | | | |
| **MESG** | **Mesagne** | **1.35** | **7** | Pg | **Pn** | **16 12 24.0** | **+1.3** |
| | 210nm,0.3s | | | | | | |
| **MESG** | **Mesagne** | **1.35** | **7** | Pg | **Pn** | **16 12 24.0** | **+1.3** |
| | 210nm,0.3s | | | | | | |
| **T0711** | **Rotonda (PZ)** | **1.39** | **300** | Pg | **Pb** | **16 12 24.6** | **+0.6** |
| | 167nm,0.8s | | | | | | |
| **CGL1** | **Ceglie Messapi** | **1.41** | **355** | *i* Pn | **Pn** | **16 12 24.6** | **+1.1** |
| **MMN** | **Mormanno** | **1.42** | **298** | Pg | **Pg** | **16 12 25.9** | **+0.3** |
| | 51nm,0.4s | | | | | | |
| **MMN** | **Mormanno** | **1.42** | **298** | Pg | **Pg** | **16 12 25.9** | **+0.3** |
| | 51nm,0.4s | | | | | | |
| **MASS** | **Massafra** | **1.44** | **345** | *e*Pn | **Pn** | **16 12 24.7** | **+0.9** |
| **T0712** | **Santa Domenica** | **1.49** | **293** | Pg | **Pb** | **16 12 26.0** | **+0.4** |
| | 246nm,1.9s | | | | | | |
| **SCHR** | **S. Chirico Rap** | **1.53** | **309** | Pg | **Pn** | **16 12 26.5** | **+1.3** |
| | 56nm,0.4s | | | | | | |
| **MATE** | **Matera** | **1.57** | **334** | Pg | **Pn** | **16 12 26.5** | **+0.9** |
| | 165nm,0.4s | | | | | | |
| **MATE** | **Matera** | **1.57** | **334** | Pg | **Pn** | **16 12 26.5** | **+0.9** |
| | 165nm,0.4s | | | | | | |
| **CUC** | **Castrocucco** | **1.58** | **299** | Pg | **Pb** | **16 12 27.8** | **+0.5** |
| | 74nm,0.7s | | | | | | |
| **CUC** | **Castrocucco** | **1.58** | **299** | Pg | **Pb** | **16 12 27.8** | **+0.5** |
| | 74nm,0.7s | | | | | | |
| **SOI** | **Samo** | **1.70** | **227** | Pg | **Pn** | **16 12 28.7** | **+1.3** |
| | 7μm,9.0s | | | | | | |
| **SOI** | **Samo** | **1.70** | **227** | Pg | **Pn** | **16 12 28.7** | **+1.3** |
| | 7μm,9.0s | | | | | | |
| **KEK** | **Kerkira** | **1.75** | **74** | Pg | **Pn** | **16 12 30.6** | **+2.5** |
| | 25nm,0.4s | | | | | | |
| **KEK** | **Kerkira** | **1.75** | **74** | Pg | **Pn** | **16 12 30.6** | **+2.5** |
| | 25nm,0.4s | | | | | | |
| **SG1** | **Sgolgore (BA)** | **1.75** | **336** | *e*Pn | **Pn** | **16 12 29.1** | **+0.9** |
| SG1 | | | | | **Sn** | **16 12 51.1** | **+0.9** |
| **MGR** | **Morigerati** | **1.83** | **300** | Pg | **Pn** | **16 12 30.2** | **+1.0** |
| | 44nm,0.4s | | | | | | |
| **MGR** | **Morigerati** | **1.83** | **300** | Pg | **Pn** | **16 12 30.2** | **+1.0** |
| | 44nm,0.4s | | | | | | |
| **SLCN** | **Sala Consilina** | **1.91** | **307** | Pg | **Pn** | **16 12 32.5** | **+2.0** |
| | 115nm,0.4s | | | | | | |
| **SLCN** | **Sala Consilina** | **1.91** | **307** | Pg | **Pn** | **16 12 32.5** | **+2.0** |
| | 115nm,0.4s | | | | | | |
| **BAI** | **Bari** | **1.95** | **343** | *e*Pn | **Pn** | **16 12 31.5** | **+0.7** |
| BAI | | | | | **Sn** | **16 12 56.4** | **+1.4** |
| **CDT** | **Castel del Mon** | **2.11** | **331** | *i* Pn | **Pn** | **16 12 34.0** | **+0.9** |
| **OHR** | **Ohrid** | **3.06** | **52** | *e*Pn | **Pn** | **16 12 47.6** | **+1.3** |
| **DRME** | **Dracevica, Mon** | **3.17** | **21** | *e*Pn | **Pn** | **16 12 48.8** | **+1.2** |
| **HCY** | **Herceg Novi** | **3.27** | **11** | *e*Pn | **Pn** | **16 12 49.4** | **+0.4** |
| **PDG** | **Podgorica** | **3.41** | **21** | *e*Pn | **Pn** | **16 12 52.2** | **+1.2** |
| PDG | | | | *e*Sn | **Sn** | **16 13 29.9** | **-1.3** |
| **PDG** | **Podgorica** | **3.41** | **21** | *e*Pn | **Pn** | **16 12 52.2** | **+1.2** |
| PDG | | | | *e*Sn | **Sn** | **16 13 29.9** | **-1.3** |
| **TREB** | **Trebinje** | **3.51** | **9** | *e*Pn | **Pn** | **16 12 52.8** | **+0.4** |
| **TREB** | **Trebinje** | **3.51** | **9** | *e*Pn | **Pn** | **16 12 52.8** | **+0.4** |
| **STON** | **Ston** | **3.62** | **1** | *e*Pn | **Pn** | **16 12 54.8** | **+0.9** |
| **STON** | **Ston** | **3.62** | **1** | *e*Pn | **Pn** | **16 12 54.7** | **+0.9** |
| **BRY** | **Bratogost** | **3.72** | **10** | *e*Pn | **Pn** | **16 12 56.3** | **+1.0** |
| **UPM** | **Unac-Piva** | **4.07** | **13** | *e*Pn | **Pn** | **16 13 02.8** | **+2.6** |
| **SJES** | **Sjenica** | **4.39** | **23** | *e*Pn | **Pn** | **16 13 04.2** | **-0.3** |
| SJES | | | | *e*Sn | **Sn** | **16 13 54.2** | **-1.1** |
| **SJES** | **Sjenica** | **4.39** | **23** | *e*Pn | **Pn** | **16 13 04.2** | **-0.3** |
| SJES | | | | *e*Sn | **Sn** | **16 13 54.2** | **-1.1** |
| **SELS** | **Selova** | **4.77** | **32** | *e*Pn | **Pn** | **16 13 11.3** | **+1.7** |
| **BBLS** | **Lazići** | **4.81** | **16** | *e*Pn | **Pn** | **16 13 11.1** | **+0.9** |
| **BBLS** | **Lazići** | **4.81** | **16** | *e*Pn | **Pn** | **16 13 11.1** | **+0.9** |
| **HAPS** | **Han Pijesak,Bl** | **4.94** | **11** | *e*Pn | **Pn** | **16 13 12.9** | **+0.8** |
| HAPS | | | | *e*Sn | **Sn** | **16 14 07.0** | **-2.0** |
| **HAPS** | **Han Pijesak,Bl** | **4.94** | **11** | *e*Pn | **Pn** | **16 13 12.9** | **+0.8** |
| HAPS | | | | *e*Sn | **Sn** | **16 14 07.0** | **-2.0** |
| **DIVS** | **Divibare** | **5.16** | **19** | *e*Pn | **Pn** | **16 13 15.8** | **+0.7** |
| **DIVS** | **Divibare** | **5.16** | **19** | *e*Pn | **Pn** | **16 13 15.8** | **+0.7** |
| **TRUS** | **Trudelj** | **5.39** | **22** | *e*Pn | **Pn** | **16 13 19.3** | **+1.1** |
| **TRUS** | **Trudelj** | **5.39** | **22** | *e*Pn | **Pn** | **16 13 19.3** | **+1.1** |
| **UDBI** | **Udbina** | **5.46** | **346** | *e*Pn | **Pn** | **16 13 20.9** | **+1.8** |
| **UDBI** | **Udbina** | **5.46** | **346** | *e*Pn | **Pn** | **16 13 20.9** | **+1.8** |
| **TEKS** | **Tekeris** | **5.49** | **14** | *e*Pn | **Pn** | **16 13 20.4** | **+0.9** |
| **TEKS** | **Tekeris** | **5.49** | **14** | *e*Pn | **Pn** | **16 13 20.4** | **+0.9** |
| **BLY** | **Banja Luka** | **5.51** | **357** | *e*Pn | **Pn** | **16 13 21.4** | **+1.6** |
| **BLY** | **Banja Luka** | **5.51** | **357** | *e*Pn | **Pn** | **16 13 21.4** | **+1.6** |
| **ZAGS** | **Zajecar** | **5.73** | **36** | *e*Pn | **Pn** | **16 13 23.8** | **+1.1** |
| **ZAGS** | **Zajecar** | **5.73** | **36** | *e*Pn | **Pn** | **16 13 23.8** | **+1.1** |
| **KUBS** | **Kucevo** | **5.98** | **29** | *e*Pn | **Pn** | **16 13 26.1** | **-0.2** |
| **KUBS** | **Kucevo** | **5.98** | **29** | *e*Pn | **Pn** | **16 13 26.1** | **-0.2** |
| **FGSL** | **Fruska Gora** | **6.13** | **15** | *e*Pn | **Pn** | **16 13 27.6** | **-0.7** |
| **FRGS** | **Fruska Gora** | **6.13** | **15** | *e*Pn | **Pn** | **16 13 27.6** | **-0.7** |
| **BOJS** | **Bojanci** | **6.50** | **345** | *e*Pn | **Pn** | **16 13 34.7** | **+1.4** |
| BOJS | | | | *e*Sn | **Sn** | **16 14 44.9** | **-2.3** |
| **BOJS** | **Bojanci** | **6.50** | **345** | *e*Pn | **Pn** | **16 13 34.7** | **+1.4** |
| BOJS | | | | *e*Sn | **Sn** | **16 14 44.9** | **-2.3** |
| **OBKA** | **Obir** | **7.60** | **344** | *e*Pn | **Pn** | **16 13 50.1** | **+1.5** |
| | 0.5nm,0.2s | | | | | | |
| **SOKA** | **Soboth** | **7.67** | **347** | *e*Pn | **Pn** | **16 13 50.9** | **+1.4** |
| | 1.6nm,0.3s | | | | | | |
| **ARSA** | **Arzberg** | **8.15** | **350** | *e*Pn | **Pn** | **16 13 57.2** | **+1.1** |
| | 1.4nm,0.3s | | | | | | |
| **ABTA** | **Abfaltersbach** | **8.38** | **335** | *e*Pn | **Pn** | **16 14 00.3** | **+1.0** |
| | 0.8nm,0.3s | | | | | | |
| **CONA** | **Conrad Observa** | **8.77** | **352** | *e*Pn | **Pn** | **16 14 06.5** | **+1.8** |
| | 0.5nm,0.2s | | | | | | |
| **MOA** | **Molln** | **8.94** | **345** | *i* Pn | **Pn** | **16 14 08.5** | **+1.6** |
| | 0.9nm,0.2s | | | | | | |
| **DAVA** | **Damuels** | **9.82** | **327** | *e*Pn | **Pn** | **16 14 19.8** | **+0.8** |
| | 0.5nm,0.3s | | | | | | |

*SCB* ***31*** *16:15:05.5±0.7, 23˚.48S×64˚.20W, h50*$^{km}$*, Ml5.4/2, Error ellipse: s-maj=14.6km s-min=7.8km az=175.0*
*IDC* ***31*** *16:15:07.7±0.5, 23˚.32S×64˚.31W, h0*$^{km}$*, mb4.7/16, mb1 4.8/20, mb1mx4.8/26, mbtmp4.7/20, ML4.4/4, MS4.1/16, Ms1 4.1/16, ms1mx4.0/26, Error ellipse: s-maj=17.8km s-min=13.0km az=62.0*
*ISCJB* ***31*** *16:15:08.1±0.8, 23˚.31S±0˚.02×64˚.19W±0˚.04, h21*$^{km}$*±5km, mb5.1/136, MS4.2/17, Error ellipse: s-maj=6.0km s-min=3.8km az=167.6*
*SJA* ***31*** *16:15:08.3±0.6, 23˚.37S×64˚.34W, h30*$^{km}$*±3km, ML4.7, MW4.8*
*BJI* ***31*** *16:15:09.8, 23˚.30S×64˚.20W, h13*$^{km}$*, mB5.3/16, Ms5.4/12, Ms7 5.0/12*
*NEIC* ***31*** *16:15:10.0±0.0, 23˚.42S×64˚.40W, h14*$^{km}$*, mb5.3/122, MD5.2(SJA), After SJA.*
*NEIC Felt [IV] at Pichanal and [III] at San Ramon de la Nueva Oran. Also felt at Libertador General San Martin and Salta. Felt at Yacuiba, Bolivia.*
*MOS* ***31*** *16:15:12.0±1.8, 22˚.81S×64˚.11W, h33*$^{km}$*, mb5.3/38, Error ellipse: s-maj=24.5km s-min=7.5km az=119.1*
**ISC 31 16:15:09.7±0.4, 23˚.37S±0˚.03×64˚.33W±0˚.04, h16**$^{km}$**±2km, h16**$^{km}$**:pP-P, n754, σ1↓21/793, mb5.2/136, MS4.2/17, 8C-3D, Jujuy Province**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ALOL** | **LOMAS DE OLMED** | **0.55** | **145** | *i* P | **Pg** | **16 15 20.6** | **0.0** |
| **ALOL** | **LOMAS DE OLMED** | **0.55** | **145** | *e*P | **Pg** | **16 15 20.4** | **-0.2** |
| **ASTB** | **Santa Barbara** | **0.59** | **191** | *i* P | **Pg** | **16 15 21.0** | **-0.5** |
| **ASTB** | **Santa Barbara** | **0.59** | **191** | *e*P | **Pg** | **16 15 20.9** | **-0.5** |
| **HJA** | **Humahuaca** | **1.01** | **279** | *i* P | **Pb** | **16 15 28.6** | **-0.4** |
| **HJA** | **Humahuaca** | **1.01** | **279** | *e*P | **Pb** | **16 15 28.6** | **-0.4** |
| HJA | | | | *i* S | **Sn** | **16 15 43.6** | **0.0** |
| **AZAP** | **Zapla** | **1.09** | **218** | *i* P | **Pb** | **16 15 29.3** | **-1.0** |
| AZAP | | | | *i* S | **Sn** | **16 15 46.0** | **+0.6** |
| **AZAP** | **Zapla** | **1.09** | **218** | *e*P | **Pb** | **16 15 29.7** | **-0.7** |
| AZAP | | | | *i* S | **Sn** | **16 15 46.1** | **+0.6** |
| **YJA** | **Yavi** | **1.62** | **317** | *i* P | **Pg** | **16 15 40.5** | **-0.4** |
| YJA | | | | *i* S | **Sg** | **16 16 03.7** | **+1.8** |
| **MOCB** | **Mochara** | **2.43** | **330** | *e*Pn | **Pn** | **16 15 51.2** | **+2.0** |
| MOCB | | | | *e*Sn | **Sb** | **16 16 23.1** | **-0.2** |
| | 45μm,0.6s | | | | | | |
| **FSA** | **Cafayete** | **3.12** | **208** | *i* P | **Pn** | **16 15 58.9** | **+0.5** |
| FSA | | | | IAML | | 16 16 53.8 | |
| | comp=Z,669nm,0.5s | | | | | | |
| **FSA** | **Cafayete** | **3.12** | **208** | *e*P | **Pn** | **16 15 58.9** | **+0.5** |
| FSA | | | | IAML | | 16 16 53.8 | |
| | comp=Z,745nm,0.7s | | | | | | |
| **AHML** | **Horco Molle** | **3.52** | **195** | *i* P | **Pn** | **16 16 03.7** | **-0.1** |
| AHML | | | | *i* S | **Sb** | **16 16 54.4** | **0.0** |
| AHML | | | | IAML | | 16 17 09.5 | |
| | comp=Z,1μm,0.4s | | | | | | |
| **AHML** | **Horco Molle** | **3.52** | **195** | *e*P | **Pn** | **16 16 03.7** | **-0.1** |
| AHML | | | | *i* S | **Sn** | **16 16 45.1** | **-0.1** |
| **CYA** | **Choya** | **5.22** | **194** | *i* P | **Pn** | **16 16 27.3** | **+0.1** |
| CYA | | | | *i* S | **Sn** | **16 17 26.2** | **-1.0** |
| CYA | | | | IAML | | 16 18 00.0 | |
| | comp=Z,404nm,0.5s | | | | | | |
| **CYA** | **Choya** | **5.22** | **194** | *i* P | **Pn** | **16 16 27.1** | **-0.2** |
| CYA | | | | IAML | | 16 18 00.3 | |
| | comp=Z,422nm,0.6s | | | | | | |
| **PB01** | **IPOC Station P** | **5.31** | **295** | *e*Pn | **Pn** | **16 16 31.2** | **+2.6** |
| **PB04** | **IPOC Station P** | **5.47** | **280** | *e*Pn | **Pn** | **16 16 32.1** | **+1.4** |
| **PB10** | **IPOC Station P** | **5.72** | **267** | *e*Pn | **Pn** | **16 16 36.1** | **+2.0** |
| **PB11** | **IPOC Station P** | **6.12** | **305** | *e*Pn | **Pn** | **16 16 42.0** | **+2.3** |
| **VCA** | **Vinchina** | **6.38** | **212** | *i* P | **Pn** | **16 16 45.3** | **+2.0** |
| VCA | | | | IAML | | 16 18 40.2 | |
| | comp=Z,205nm,0.6s | | | | | | |
| **MNMC** | **Minye Minye** | **6.47** | **310** | *e*Pn | **Pn** | **16 16 47.4** | **+2.8** |
| **CPUP** | **Villa Florida** | **7.01** | **116** | Pn | **Pn** | **16 16 50.8** | **-1.0** |
| | comp=Z,16nm,0.3s,baz=290,slow=11,SNR=246 | | | | | | |
| CPUP | | | | Lg | Lg | 16 18 53.9 | |
| | comp=Z,17nm,0.3s,baz=24,slow=19,SNR=2.5 | | | | | | |
| CPUP | | | | LR | LR | 16 19 52.6 | |
| | comp=Z,2μm,21.3s,baz=299,slow=41 | | | | | | |
| **CPUP** | **Villa Florida** | **7.01** | **116** | *e*Pn | **Pn** | **16 16 50.7** | **-1.0** |
| **AGUA** | **GUANDACOL** | **7.14** | **211** | *i* P | **Pn** | **16 16 55.5** | **+1.9** |
| **AGUA** | **GUANDACOL** | **7.14** | **211** | *i* P | **Pn** | **16 16 55.6** | **+1.9** |
| **BBOJ** | **La Paz, Jacaqu** | **7.32** | **330** | *e*Pn | **Pn** | **16 16 58.1** | **+1.5** |
| **BBOE** | **La Paz, Chanca** | **7.37** | **332** | *e*Pn | **Pn** | **16 16 58.4** | **+1.1** |
| **BBOD** | **La Paz, Gloria** | **7.81** | **328** | *e*Pn | **Pn** | **16 17 05.3** | **+2.1** |
| **LPAZ** | **La Paz** | **7.90** | **332** | Pn | **Pn** | **16 17 05.3** | **+0.7** |
| | comp=Z,1.2nm,0.3s,baz=142,slow=11,SNR=31 | | | | | | |
| LPAZ | | | | Sn | **Sn** | **16 18 35.9** | **+1.9** |
| | comp=Z,18nm,0.3s,baz=38,slow=19,SNR=6.8 | | | | | | |
| **LPAZ** | **La Paz** | **7.90** | **332** | *e*Pn | **Pn** | **16 17 06.2** | **+1.6** |
| LPAZ | | | | *e*Sn | **Sn** | **16 18 34.1** | **+0.1** |
| **LPAZ** | **La Paz** | **7.90** | **332** | *e*Pn | **Pn** | **16 17 05.3** | **+0.7** |
| LPAZ | | | | Sn | **Sn** | **16 18 35.9** | **+1.9** |
| **TCA** | **Tanti** | **7.94** | **182** | *i* P | **Pn** | **16 17 05.6** | **+1.0** |
| **SIV** | **San Ignacio** | **7.95** | **23** | Pn | **Pn** | **16 17 05.4** | **+0.6** |
| | comp=Z,17nm,0.3s,baz=219,slow=14,SNR=119 | | | | | | |
| SIV | | | | Sn | **Sn** | **16 18 34.2** | **-0.3** |
| | comp=Z,23nm,0.3s,baz=192,slow=19,SNR=3.5 | | | | | | |
| **SIV** | **San Ignacio** | **7.95** | **23** | *e*Pn | **Pn** | **16 17 05.2** | **+0.4** |
| SIV | | | | *e*Sn | **Sn** | **16 18 31.7** | **-2.8** |
| | comp=Z,115nm,0.6s | | | | | | |
| **SIV** | **San Ignacio** | **7.95** | **23** | Pn | **Pn** | **16 17 05.4** | **+0.6** |
| SIV | | | | Sn | **Sn** | **16 18 34.2** | **-0.3** |
| **LCO** | **Las Campanas** | **8.02** | **224** | *e*Pn | **Pn** | **16 17 03.2** | **-2.7** |
| LCO | | | | *e*Sn | **Sn** | **16 18 31.3** | **-5.2** |
| **BBOB** | **La Paz, Bander** | **8.03** | **333** | *e*Pn | **Pn** | **16 17 07.4** | **+1.1** |
| **AMOG** | **MOGNA** | **8.40** | **205** | *i* P | **Pn** | **16 17 12.4** | **+1.4** |
| **AMOG** | **MOGNA** | **8.40** | **205** | *i* P | **Pn** | **16 17 11.9** | **+1.0** |
| **RTLL** | **Cerro Villicun** | **8.74** | **204** | *i* P | **Pn** | **16 17 16.8** | **+1.2** |
| RTLL | | | | *i* S | **Sn** | **16 18 48.3** | **-5.6** |
| **RTLL** | **Cerro Villicun** | **8.74** | **204** | *i* P | **Pn** | **16 17 16.0** | **+0.4** |
| **ACAN** | **Cantantal** | **9.22** | **195** | *i* P | **Pn** | **16 17 24.1** | **+1.9** |
| **ACAN** | **Cantantal** | **9.22** | **195** | *i* P | **Pn** | **16 17 23.8** | **+1.6** |
| **RTCV** | **Cerro Valdivia** | **9.25** | **203** | *i* P | **Pn** | **16 17 23.5** | **+1.0** |
| **RTCV** | **Cerro Valdivia** | **9.25** | **203** | *i* P | **Pn** | **16 17 22.8** | **+0.3** |
| **RTLS** | **Leoncito** | **9.48** | **207** | *i* P | **Pn** | **16 17 26.4** | **+0.5** |
| **RTLS** | **Leoncito** | **9.48** | **207** | *i* P | **Pn** | **16 17 25.9** | **0.0** |
| **AUSP** | **Uspallata** | **9.89** | **206** | *i* P | **Pn** | **16 17 32.3** | **+0.8** |
| **AUSP** | **Uspallata** | **9.89** | **206** | *i* P | **Pn** | **16 17 32.0** | **+0.4** |
| **SUCO** | **SUCO** | **9.95** | **183** | IAML | | 16 17 12.4 | |
| | comp=Z,64nm,0.2s | | | | | | |
| **ROC1** | **El Roble** | **11.24** | **210** | *e*Pn | **Pn** | **16 17 53.4** | **+3.5** |
| **SAML** | **Samuel** | **14.38** | **5** | *e*Pn | **Pn** | **16 18 30.9** | **-1.9** |
| **TRQA** | **Tornquist** | **14.78** | **173** | *e*Pn | **Pn** | **16 18 35.7** | **-2.4** |
| **NNA** | **Nana** | **16.43** | **311** | Pn | **Pn** | **16 18 56.3** | **-3.4** |
| | comp=Z,1.2nm,0.3s,baz=152,slow=12,SNR=7.0 | | | | | | |
| **NNA** | **Nana** | **16.43** | **311** | *ce*P | **Pn** | **16 18 57.4** | **-2.4** |
| **NNA** | **Nana** | **16.43** | **311** | Pn | **Pn** | **16 18 56.3** | **-3.4** |
| **PLCA** | **Paso Flores** | **18.09** | **195** | P | **P** | **16 19 22.5** | **+1.8** |
| | comp=Z,0.1nm,0.3s,baz=60,slow=12,SNR=5.0 | | | | | | |
| PLCA | | | | LR | LR | 16 27 06.9 | |
| | comp=Z,985nm,19.2s,baz=56,slow=40 | | | | | | |
| **PLCA** | **Paso Flores** | **18.09** | **195** | *e*P | **P** | **16 19 21.2** | **+0.4** |
| PLCA | | | | pmax | pmax | | |
| | comp=Z,15nm,1.0s | | | | | | |
| **PLCA** | **Paso Flores** | **18.09** | **195** | *e*Pn | **P** | **16 19 21.2** | **+0.4** |
| | comp=Z,15nm,1.0s | | | | | | |
| **ATAH** | **Atahualpa** | **21.06** | **318** | P | **P** | **16 19 54.5** | **+0.8** |
| | comp=Z,29nm,0.8s,baz=156,slow=7.7,SNR=23 | | | | | | |
| ATAH | | | | LR | LR | 16 29 00.7 | |
| | comp=Z,464nm,20.7s,baz=132,slow=40 | | | | | | |
| **ATAH** | **Atahualpa** | **21.06** | **318** | P | **P** | **16 19 54.5** | **+0.8** |
| **PTGA** | **Pitinga** | **22.90** | **11** | P | **P** | **16 20 13.6** | **+0.6** |
| | comp=Z,43nm,1.0s,baz=193,slow=12,SNR=24 | | | | | | |
| PTGA | | | | LR | LR | 16 30 02.3 | |
| | comp=Z,780nm,20.2s,baz=152,slow=39 | | | | | | |
| **FLOC** | **Florencia** | **27.14** | **335** | *e*P | **P** | **16 20 51.8** | **-0.6** |
| **OTAV** | **Otavalo** | **27.19** | **328** | *e*P | **P** | **16 20 53.2** | **-0.1** |
| **OTAV** | **Otavalo** | **27.19** | **328** | *e*P | **P** | **16 20 51.9** | **-1.4** |
| | comp=Z,24nm,0.9s | | | | | | |
| OTAV | | | | *e*PcP | PcP | 16 24 04.8 | -9.0 |
| **BETC** | **Betania** | **28.07** | **336** | *e*P | P | 16 20 53.2 | -7.6 |
| **POPC** | **Popayan, Colom** | **28.43** | **333** | *e*P | **P** | **16 21 05.1** | **+1.0** |
| **YO

X49A Woodville 61.24 339 P P 16 25 23.2 -0.8
baz=157
Z45A Winona 61.38 336 P P 16 25 24.7 -0.3
baz=154
X48A Hartselle 61.42 339 P P 16 25 24.6 -0.7
baz=156,SNR=14
143A Socs Landing, 61.46 334 P P 16 25 25.5 0.0
baz=152
241A Mo Tay, Goldon 61.49 332 P P 16 25 26.2 +0.4
baz=150,SNR=6.5
833A Chaparral WMA, 61.52 325 P P 16 25 26.1 +0.1
baz=143,SNR=13
TKL Tuckaleechee C 61.53 342 eP P 16 25 23.2 -2.7
TKL pmax pmax
comp=Z,27nm,0.9s
TKL Tuckaleechee C 61.53 342 eP P 16 25 23.2 -2.7
comp=Z,27nm,0.9s
Y46A Houston 61.54 337 P P 16 25 24.4 -1.6
baz=154,SNR=6.2
142A Monroe 61.54 334 P P 16 25 25.9 -0.2
baz=151
CPCT Cooper Cave 61.55 341 eP P 16 25 24.1 -2.0
comp=Z,16nm,0.9s
Z44A Pea Ridge, Bel 61.58 335 P P 16 25 26.5 +0.1
baz=153,SNR=6.5
X47A Russellville 61.76 338 P P 16 25 26.4 -1.1
baz=156,SNR=11
Y45A Yeager Farm, C 61.77 336 P P 16 25 27.3 -0.3
baz=154,SNR=5.8
240A Hunter Patters 61.87 332 P P 16 25 28.9 +0.5
baz=149
141A Papa Simpson, 61.99 333 P P 16 25 29.8 +0.7
baz=150
NATX Nacogdoches 62.03 331 P P 16 25 30.1 +0.7
baz=148,SNR=7.0
NATX Nacogdoches 62.03 331 eP P 16 25 26.9 -2.6
NATX epP pP 16 25 35.4 +0.8
comp=Z,89nm,0.9s
X46A Booneville 62.05 337 P P 16 25 28.7 -0.7
baz=155
Z42A Norrel Spur, H 62.18 334 P P 16 25 30.5 +0.1
baz=151
OXF Oxford 62.30 337 P P 16 25 30.2 -1.0
baz=154,SNR=7.3
OXF Oxford 62.30 337 eP P 16 25 28.4 -2.8
OXF pmax pmax
comp=Z,54nm,0.9s
OXF Oxford 62.30 337 eP P 16 25 28.4 -2.8
comp=Z,54nm,0.9s
140A Cam and Jess, 62.30 332 P P 16 25 31.7 +0.5
baz=150
Y43A Makayla and Ka 62.34 335 P P 16 25 31.4 0.0
baz=152
V48A Smith Brothers 62.53 339 P P 16 25 31.9 -0.7
baz=157,SNR=5.1
X44A Crenshaw 62.56 336 P P 16 25 32.8 -0.1
baz=153
435B Jarrell 62.58 328 P P 16 25 33.4 +0.3
baz=146
Y42A Garnett, Star 62.61 334 P P 16 25 33.2 0.0
baz=152
237A Washetta, Mont 62.75 330 P P 16 25 34.8 +0.5
baz=148,SNR=5.8
Z40A Long Farm, Mag 62.76 333 P P 16 25 34.9 +0.6
baz=150,SNR=6.7
W45A Hickory Valley 62.80 337 P P 16 25 34.1 -0.4
baz=154
Y41A Eaglette Beard 62.98 334 P P 16 25 35.7 0.0
baz=151,SNR=9.5
138A Matatall Enter 62.98 331 P P 16 25 36.4 +0.6
baz=148
Z39A Irene McRaven, 63.08 332 P P 16 25 37.0 +0.6
baz=149,SNR=6.0
236A Katherine and 63.09 329 P P 16 25 37.2 +0.7
baz=147,SNR=10
U48A Cassie Pea, Po 63.14 340 P P 16 25 35.9 -0.8
baz=157,SNR=5.9
WVT Waverly 63.21 339 P P 16 25 35.9 -1.3
baz=156
WVT Waverly 63.21 339 eP P 16 25 34.4 -2.8
WVT pmax pmax
comp=Z,38nm,1.0s
WVT Waverly 63.21 339 eP P 16 25 34.4 -2.8
comp=Z,38nm,1.0s
137A Heron Place, G 63.23 330 P P 16 25 37.8 +0.4
baz=148,SNR=10
V45A Humboldt 63.24 338 P P 16 25 36.5 -0.9
baz=155,SNR=5.2
Y40A Okolona 63.37 333 P P 16 25 38.5 +0.2
baz=150,SNR=5.4
Z38A Mt. Pleasant 63.45 331 P P 16 25 39.2 +0.4
baz=149
JCT Junction City 63.45 326 P P 16 25 39.0 0.0
baz=144,SNR=5.9
JCT Junction City 63.45 326 eP P 16 25 37.6 -1.4
JCT e 16 26 14.3
JCT pmax pmax
comp=Z,24nm,0.9s
JCT Junction City 63.45 326 eP P 16 25 37.6 -1.4
comp=Z,24nm,0.9s
JCT ePcP PcP 16 26 14.3 -1.4
X41A Kaden, Bauxite 63.47 334 P P 16 25 39.7 +0.7
baz=151
136A Ennis 63.48 330 P P 16 25 39.4 +0.3
baz=147
WHTX Lake Whitney, 63.52 329 P P 16 25 39.4 +0.1
baz=146,SNR=8.3
WHTX Lake Whitney, 63.52 329 eP P 16 25 37.4 -2.0
comp=Z,30nm,1.0s
U46A Springville 63.54 339 P P 16 25 39.3 -0.1
baz=156
X40A Basin Creek Fa 63.59 334 P P 16 25 39.4 -0.4
baz=151
Y39A Lockesburg 63.64 333 P P 16 25 40.3 +0.2
baz=150,SNR=5.9
UALR University of 63.65 334 eP P 16 25 38.5 -1.6
comp=Z,37nm,1.4s
T48A Bowling Green 63.65 340 P P 16 25 39.2 -0.9
baz=158
Z37A Pogue Cattle C 63.68 331 P P 16 25 41.0 +0.7
baz=148
U45A Rockin P Farm, 63.73 338 P P 16 25 40.7 +0.1
baz=155,SNR=5.7
T47A Sharon Grove 63.76 340 P P 16 25 40.0 -0.8
baz=157,SNR=6.9
GLAT Glass 63.84 338 eP P 16 25 38.7 -2.7
comp=Z,119nm,0.9s
Y38A Idabel 63.90 332 P P 16 25 42.0 +0.1
baz=149
U44B Burton Farm, H 63.92 338 P P 16 25 41.4 -0.4
baz=155,SNR=7.2
MIAR Mount Ida 63.95 333 P P 16 25 41.5 -0.6
baz=150,SNR=11
MIAR Mount Ida 63.95 333 eP P 16 25 40.0 -2.1
MIAR pmax pmax
comp=Z,34nm,1.1s
MIAR Mount Ida 63.95 333 eP P 16 25 40.0 -2.1
comp=Z,34nm,1.1s
S48A Wiedeman Farm, 64.05 341 P P 16 25 41.4 -1.3
baz=158,SNR=6.1
T46A Princeton 64.06 339 P P 16 25 41.9 -0.9
baz=156,SNR=5.4
WHAR Wooly Hollow 64.08 335 eP P 16 25 40.3 -2.6
comp=Z,12nm,1.0s
Z36A Blue Ridge 64.10 330 P P 16 25 43.4 +0.3
baz=147,SNR=8.2
X39A Fountain Ranch 64.14 333 P P 16 25 43.3 -0.1
baz=150,SNR=15
V42A Cord 64.19 336 P P 16 25 42.6 -1.1
baz=152
U44A Portageville 64.19 337 P P 16 25 43.7 +0.1
baz=154,SNR=6.4
W40A Ferguson Farm, 64.30 334 P P 16 25 44.4 0.0
baz=151,SNR=12
W40A Ferguson Farm, 64.30 334 eP P 16 25 43.0 -1.5
comp=Z,61nm,1.1s
U43A Rector 64.32 337 P P 16 25 44.3 -0.2
baz=154
Y37A Hugo 64.33 331 P P 16 25 45.0 +0.4
baz=148,SNR=24
PARMO Parma 64.35 337 eP P 16 25 42.0 -2.7
comp=Z,142nm,0.9s
SLBS Sierra La Lagu 64.42 313 eP P 16 25 46.6 +1.0
comp=Z,24nm,1.3s
V41A Mountainview 64.46 335 P P 16 25 44.5 -1.0
baz=152,SNR=16
Y36A Durant 64.56 331 P P 16 25 46.3 +0.2
baz=148
X38A Whitesboro 64.58 332 P P 16 25 46.6 +0.3
baz=149,SNR=23
S46A Don Dixon Farm 64.59 340 P P 16 25 44.8 -1.4
baz=156
W39A Magazine 64.59 334 P P 16 25 46.5 +0.1
baz=150,SNR=9.0
U42A Revenden 64.61 336 P P 16 25 45.5 -0.9
baz=153,SNR=11
TXAR Lajitas Array 64.64 322 P P 16 25 46.0 -0.9
comp=Z,1.8nm,0.8s,baz=150,slow=6.2,SNR=11
TXAR LR LR 16 54 10.3
comp=Z,84nm,19.9s,baz=0.0,slow=36
TXAR Lajitas Array 64.64 322 P P 16 25 46.0 -0.9
TX31 Lajitas Ar. Si 64.64 322 eP P 16 25 44.5 -2.4
WCI Wyandotte Cave 64.65 341 P P 16 25 45.3 -1.4
baz=158
WCI Wyandotte Cave 64.65 341 eP P 16 25 43.7 -2.9
WCI pmax pmax
comp=Z,10.0nm,0.9s
WCI Wyandotte Cave 64.65 341 eP P 16 25 43.7 -2.9
comp=Z,10nm,0.9s
T44A Benton 64.67 338 P P 16 25 46.0 -0.8
baz=154
V40A Witts Springs 64.74 335 P P 16 25 46.6 -0.7
baz=151,SNR=5.6
X37A Clayton 64.74 332 P P 16 25 47.5 +0.2
baz=149,SNR=14
X37A Clayton 64.74 332 eP P 16 25 46.5 -0.9
comp=Z,40nm,1.0s
R47A Wooly Knot Far 64.78 341 P P 16 25 46.3 -1.2
baz=158
W38A Poteau 64.79 333 P P 16 25 48.0 +0.3
baz=150,SNR=16
U41A Viola 64.86 336 P P 16 25 47.3 -0.8
baz=152,SNR=10
S45A Carrier Mills 64.87 339 P P 16 25 47.1 -0.9
baz=154,SNR=6.9
Y35A Marietta 64.91 330 P P 16 25 49.0 +0.5
baz=147,SNR=5.8
LIC Lamto 64.92 71 eP P 16 25 49.1 +0.2
comp=Z,35nm,1.3s
T43A Greenville 64.92 337 P P 16 25 47.5 -0.9
baz=154,SNR=19
ABTX Abilene, Hawle 65.09 327 P P 16 25 49.8 +0.1
baz=144,SNR=7.2
ABTX Abilene, Hawle 65.09 327 P P 16 25 46.4 -3.3
comp=Z,32nm,1.1s
V39A Pettigrew 65.09 334 P P 16 25 49.5 -0.2
baz=150,SNR=19
S44A Carbondale 65.11 338 P P 16 25 48.6 -1.0
baz=155
TIC Toumodi 65.13 70 eP P 16 25 50.7 +0.4
X36A Centrahoma 65.16 331 P P 16 25 49.9 -0.1
baz=148,SNR=10
T42A Van Buren 65.16 337 P P 16 25 49.0 -1.0
baz=153,SNR=9.5
KIC Kosan Boka 65.23 71 eP P 16 25 51.3 +0.3
comp=Z,37nm,1.3s
U40A Yellville 65.23 335 P P 16 25 49.7 -0.7
baz=151,SNR=6.4
W37B Quinton 65.24 332 eP P 16 25 49.5 -1.1
comp=Z,55nm,1.0s
S43A Fulton Ridge, 65.28 338 P P 16 25 49.5 -1.3
baz=154,SNR=8.8
DBIC Dimbokro 65.28 70 P P 16 25 51.4 +0.1
comp=Z,4.9nm,0.8s,baz=212,slow=7.4,SNR=9.2
DBIC LR LR 16 53 47.4
comp=Z,347nm,18.1s,baz=216,slow=36
DBIC Dimbokro 65.28 70 eP P 16 25 51.3 0.0
DBIC pmax pmax
comp=Z,11nm,0.9s
DBIC Dimbokro 65.28 70 eP P 16 25 51.3 0.0
comp=Z,11nm,0.9s
X35A Drake 65.29 331 P P 16 25 50.6 -0.4
baz=147,SNR=9.0
X35A Drake 65.29 331 eP P 16 25 49.5 -1.4
comp=Z,37nm,0.8s
R45A Skylar, Fairfi 65.33 339 P P 16 25 49.7 -1.3
baz=156
Q47A Bedord North L 65.34 341 P P 16 25 49.7 -1.4
baz=158,SNR=5.8
T41A Mountain View 65.42 336 P P 16 25 51.0 -0.7
baz=152,SNR=16
V38A Cahill 65.43 333 P P 16 25 51.1 -0.6
baz=150,SNR=15
U39A Green Forest 65.50 334 P P 16 25 51.5 -0.8
baz=151,SNR=10
R44A Waltonville 65.55 339 P P 16 25 51.2 -1.3
baz=155,SNR=5.7
W36A Wetumka 65.58 332 P P 16 25 52.4 -0.3
baz=148,SNR=16
W36A Wetumka 65.58 332 eP P 16 25 51.5 -1.3
comp=Z,65nm,0.9s
N54A Moraine State 65.64 347 P P 16 25 52.6 -0.4
baz=164
S42A Caledonia 65.71 337 P P 16 25 52.5 -1.1
baz=154,SNR=9.4
V37A Hulbert 65.75 333 P P 16 25 53.4 -0.4
baz=149,SNR=21
FVM French Village 65.77 338 eP P 16 25 51.3 -2.7
FVM pmax pmax
comp=Z,21nm,1.1s
FVM French Village 65.77 338 eP P 16 25 51.3 -2.7
comp=Z,21nm,1.1s
T40A Mansfield 65.80 336 P P 16 25 53.3 -0.8
baz=152,SNR=9.7
P47A Martinsville 65.81 342 P P 16 25 53.0 -1.1
baz=158
Q45A Warren Harvey, 65.84 340 P P 16 25 53.0 -1.3
baz=156,SNR=6.5
R43A Red Bud 65.86 338 P P 16 25 53.2 -1.3
baz=154
W35A Tecumseh 65.88 331 P P 16 25 54.0 -0.7
baz=147
W35A Tecumseh 65.88 331 eP P 16 25 52.9 -1.8
comp=Z,26nm,1.0s
S41A Jillco Farms, 65.89 336 P P 16 25 54.0 -0.7
baz=153,SNR=33
U38A Gravette 65.91 334 P P 16 25 55.6 +0.7
baz=150,SNR=5.1
V36A Jenks 66.01 332 P P 16 25 55.7 +0.2
baz=148,SNR=5.6
V36A Jenks 66.01 332 eP P 16 25 54.3 -1.2
comp=Z,40nm,0.9s
T39A Clever 66.02 335 P P 16 25 55.2 -0.4
baz=151,SNR=6.3
TUL1 Leonard 66.05 332 P P 16 25 55.6 -0.2
baz=149,SNR=6.5
TUL1 Leonard 66.05 332 eP P 16 25 52.4 -3.4
comp=Z,36nm,1.1s
M54A Oil Creek Stat 66.10 347 P P 16 25 55.7 -0.3
baz=165
OK022 N3560 Road, Pr 66.11 332 eP P 16 25 55.0 -1.1
comp=Z,44nm,0.9s
BINY Binghamton 66.12 351 eP P 16 25 54.0 -2.1
comp=Z,31nm,0.9s
BINY epP pP 16 26 01.1 -0.2
BINY ePcP PcP 16 26 25.8 -0.6
Q44A Meyer Farm, Va 66.12 339 P P 16 25 54.6 -1.6
baz=155
CCM Cathedral Cave 66.13 337 P P 16 25 55.1 -1.1
baz=153
CCM Cathedral Cave 66.13 337 eP P 16 25 53.3 -2.9
CCM e 16 26 27.8
CCM pmax pmax
comp=Z,22nm,0.9s
CCM Cathedral Cave 66.13 337 eP P 16 25 53.3 -2.9
comp=Z,22nm,0.9s
CCM ePcP PcP 16 26 27.8 +1.3
R42A Luebbering 66.17 337 P P 16 25 55.3 -1.2
baz=154,SNR=7.4
S40A Lebanon 66.19 336 P P 16 25 55.8 -0.8
baz=152,SNR=14
U37A Salina 66.19 333 P P 16 25 56.4 -0.2
baz=149,SNR=15
OK021 N3530 Road, Sp 66.19 331 eP P 16 25 56.4 -0.3
comp=Z,51nm,1.0s
OK020 N3440 Road, Me 66.20 331 eP P 16 25 55.5 -1.2
comp=Z,51nm,0.9s
P45A Graceland, Par 66.29 340 P P 16 25 56.1 -1.1
baz=157,SNR=6.7
V35A Meyer Ranch, C 66.37 332 P P 16 25 57.2 -0.6
baz=148,SNR=13
V35A Meyer Ranch, C 66.37 332 eP P 16 25 55.0 -2.9
comp=Z,83nm,0.9s
Q43A New Douglas 66.38 339 P P 16 25 56.4 -1.4
baz=155
R41A Rosebud 66.39 337 P P 16 25 56.9 -1.0
baz=153,SNR=14
T38A Diamond 66.39 334 P P 16 25 57.6 -0.4
baz=150,SNR=24
WMOK Wichita Mounta 66.40 329 P P 16 25 57.8 -0.3
baz=146,SNR=9.3
WMOK Wichita Mounta 66.40 329 eP P 16 25 57.3 -0.8
WMOK pmax pmax
comp=Z,16nm,1.3s
WMOK Wichita Mounta 66.40 329 eP P 16 25 57.3 -0.8
comp=Z,16nm,1.3s
U36A Oologah 66.43 333 P P 16 25 57.9 -0.3
baz=149,SNR=5.9
O47A Sheridan 66.47 342 P P 16 25 57.1 -1.3
baz=158
P44A Sand Creek, Wi 66.51 340 P P 16 25 57.7 -0.9
baz=156
S39A Bolivar 66.58 335 P P 16 25 58.4 -0.7
baz=151,SNR=29
Q42A Golden Eagle 66.64 338 P P 16 25 58.4 -1.0
baz=154
R40A Maddies Statio 66.71 336 P P 16 25 59.2 -0.7
baz=152,SNR=7.0
T37A Cheneyville 18 66.72 334 P P 16 25 60.0 -0.1
baz=150,SNR=30
ERPA Erie 66.75 347 eP P 16 25 57.9 -2.2
comp=Z,53nm,0.8s
S38A Stockton 66.75 335 P P 16 25 59.8 -0.5
baz=151,SNR=7.3
QSPA South Pole Qui 66.83 180 eP P 16 26 01.6 +0.9
comp=Z,12nm,0.9s
U35A Pawnee 66.84 332 P P 16 26 01.3 +0.5
baz=148,SNR=6.5
U35A Pawnee 66.84 332 eP P 16 25 59.6 -1.2
comp=Z,82nm,0.9s
SFIN Lafayette 66.87 341 P P 16 25 59.5 -1.4
baz=157
SFIN Lafayette 66.87 341 eP P 16 25 58.3 -2.7
comp=Z,33nm,1.1s
Q41A Truxton 66.92 337 P P 16 26 00.2 -1.1
baz=153,SNR=8.5
O45A Potomac 66.94 341 P P 16 25 59.9 -1.5
baz=157
MMNY Mt. Morris Dam 66.95 349 eP P 16 25 58.6 -2.8
comp=Z,32nm,0.9s
P43A Skaggs, Pawnee 66.96 339 P P 16 26 00.4 -1.1
baz=155
R39A Chumby, Stover 67.02 336 P P 16 26 01.4 -0.5
baz=152,SNR=12
T36A Boggs Farm, Ca 67.06 333 P P 16 26 02.2 0.0
baz=149,SNR=24
P42A Winchester 67.18 338 P P 16 26 01.9 -1.0
baz=154
T35A Sooner Cattle 67.21 332 P P 16 26 03.5 +0.4
baz=148
S37A Fort Scott 67.23 334 P P 16 26 03.1 -0.2
baz=150,SNR=17
R38A Fenwick Farm, 67.24 335 P P 16 26 02.7 -0.6
baz=151,SNR=30
N46A Monticello 67.24 342 P P 16 26 02.3 -1.0
baz=158
Q40A Laux Farm, Aux 67.26 337 P P 16 26 02.6 -0.8
baz=153
MNTX Cornudas Mount 67.39 323 P P 16 26 03.6 -0.9
baz=139,SNR=26
MNTX Cornudas Mount 67.39 323 eP P 16 26 03.2 -1.2
comp=Z,18nm,1.0s
O43A Sugar Creek Fa 67.47 340 P P 16 26 03.6 -1.2
baz=155
P41A Barry, Barry 67.50 338 P P 16 26 03.7 -1.2
baz=154,SNR=6.3
S36A Lake Cedric, C 67.51 334 P P 16 26 05.0 -0.1
baz=149,SNR=14
N44A Piper City 67.57 341 P P 16 26 03.9 -1.4
baz=156
M46A Old House Fiel 67.61 342 P P 16 26 05.2 -0.4
baz=158
Q39A Willow Grove F 67.63 336 P P 16 26 04.6 -1.2
baz=152,SNR=8.5
O42A Bath 67.64 339 P P 16 26 04.7 -1.1
baz=155
HDIL Hopedale 67.71 340 P P 16 26 05.3 -1.0
baz=155
HDIL Hopedale 67.71 340 eP P 16 26 04.7 -1.6
comp=Z,31nm,1.0s
P40A Paris 67.72 337 P P 16 26 05.4 -0.9
baz=153,SNR=6.0
MSTX Muleshoe 67.74 326 P P 16 26 06.7 0.0
baz=142,SNR=22
MSTX Muleshoe 67.74 326 eP P 16 26 06.3 -0.5
comp=Z,75nm,1.0s
S35A Otter Creek Ra 67.77 333 P P 16 26 06.7 0.0
baz=148,SNR=20
Q38A Cooks Store, C 67.80 336 P P 16 26 06.6 -0.2
baz=151
O41A Passleys Farm, 67.84 338 P P 16 26 05.8 -1.2
baz=154
U32A Winter Ranch, 67.86 330 P P 16 26 06.7 -0.6
baz=146
AMTX Amarillo 67.92 327 P P 16 26 07.8 0.0
baz=143
AMTX Amarillo 67.92 327 eP P 16 26 07.1 -0.7
comp=Z,29nm,0.9s
P39B Salisbury 67.94 337 P P 16 26 07.1 -0.6
baz=152,SNR=6.0
R36A Gordon, Harris 67.99 334 P P 16 26 07.8 -0.2
baz=149,SNR=6.3
N43A Stutzman Famil 68.02 340 P P 16 26 07.4 -0.8
baz=156,SNR=10
Q37A Longview Farm, 68.05 335 P P 16 26 07.8 -0.6
baz=150,SNR=9.9
M44A Midewin, Midew 68.08 341 P P 16 26 09.0 +0.5
baz=157
S34A Willow Spring 68.12 332 P P 16 26 09.1 +0.2
baz=148
O40A La Belle 68.19 338 P P 16 26 08.3 -0.9
baz=153,SNR=6.1
N42A Yates City 68.20 339 P P 16 26 08.2 -1.1
baz=155,SNR=7.4
R35A Emporia Munici 68.27 333 P P 16 26 10.2 +0.4
baz=149,SNR=10
LONY Lake Ozonia 68.30 352 eP P 16 26 08.2 -1.7
comp=Z,22nm,1.3s
LONY ePcP PcP 16 26 35.7 +0.2
P38A Dawn 68.35 336 P P 16 26 09.4 -0.9
baz=151,SNR=13
N41A Harden Midland 68.36 339 P P 16 26 09.3 -1.0
baz=154
M43A Waltham Townsh 68.41 340 P P 16 26 09.6 -0.9
baz=156,SNR=5.4
SRIG Santa Rosalia 68.41 315 eP P 16 26 11.3 +0.4
comp=Z,23nm,1.2s
Q36A Arnold C. Orve 68.52 334 P P 16 26 11.0 -0.3
baz=150,SNR=5.5
O39A Kirksville 68.54 337 P P 16 26 10.9 -0.6
baz=152
P37A Lathrop 68.62 335 P P 16 26 11.7 -0.3
baz=151,SNR=8.4
Q35A Mercer Eighty, 68.66 334 P P 16 26 11.9 -0.3
baz=149,SNR=9.5
R34A Isabella, Hill 68.69 333 P P 16 26 12.7 +0.3
baz=148,SNR=9.5
HSIG 68.75 317 eP P 16 26 12.9 -0.1
comp=Z,29nm,1.2s
O38A Galt 68.76 336 P P 16 26 12.4 -0.4
baz=152
N40A Mertquake, Sal 68.76 338 P P 16 26 12.0 -0.8
baz=153,SNR=7.3
M41A Milan 68.85 339 P P 16 26 12.4 -1.0
baz=154
P36A Good Intent, A 68.98 335 P P 16 26 13.5 -0.7
baz=150,SNR=12
L43A Garden Prairie 69.02 341 P P 16 26 13.7 -0.7
baz=156,SNR=8.8
O37A Wolven Farm, M 69.05 336 P P 16 26 14.4 -0.2
baz=151
N39A Derby Farms, D 69.08 337 P P 16 26 13.9 -0.9
baz=152,SNR=5.6
Q34A Chapman 69.08 333 P P 16 26 14.9 0.0
baz=148,SNR=12
KSU1 Kansas State U 69.10 334 P P 16 26 14.8 -0.2
baz=148,SNR=11
KSU1 Kansas State U 69.10 334 eP P 16 26 13.9 -1.1
comp=Z,60nm,1.0s
L42A Oliver, Polo 69.14 340 P P 16 26 14.6 -0.5
baz=155
M40A Post Highland 69.20 338 P P 16 26 14.6 -1.0
baz=154
P35A Duane Minner, 69.22 334 P P 16 26 15.1 -0.7

baz=149,SNR=5.3
N38A Joes South For 69.26 337 P P 16 26 15.0 -0.9
baz=152
O36A Bolckow 69.33 335 P P 16 26 15.8 -0.6
baz=150
121A Cookes Peak, D 69.37 322 P P 16 26 17.2 +0.2
baz=138,SNR=15
121A Cookes Peak, D 69.37 322 eP P 16 26 16.7 -0.3
comp=Z,37nm,1.0s
K43A Burlington 69.37 341 P P 16 26 16.5 -0.1
baz=157
319A Douglas 69.40 320 eP P 16 26 16.7 -0.4
comp=Z,24nm,0.8s
L41A Preston 69.47 339 P P 16 26 16.2 -1.0
baz=154,SNR=6.8
M39A Webster 69.50 338 P P 16 26 16.6 -0.8
baz=153
P34A Walnut Farm, R 69.57 334 P P 16 26 18.0 +0.1
baz=148,SNR=14
N37A Lee Faris, Mou 69.59 336 P P 16 26 17.7 -0.3
baz=151
L40A Anamosa 69.69 339 P P 16 26 18.0 -0.6
baz=154,SNR=8.9
K42A Prairie Point, 69.75 341 P P 16 26 18.3 -0.6
baz=156,SNR=6.9
M38A Pleasantville 69.80 337 P P 16 26 17.8 -1.5
baz=152,SNR=8.7
K41A Shullsburg 69.89 340 P P 16 26 18.8 -0.9
baz=155
BNM Barren Site 69.92 324 eP P 16 26 19.2 -1.3
KOWA Kowa 69.96 64 eP P 16 26 20.2 -0.6
comp=Z,24nm,1.0s
L39A Vinton 70.01 338 P P 16 26 19.6 -0.9
baz=153,SNR=8.4
J43A Natural Harves 70.02 342 P P 16 26 20.1 -0.4
baz=157
LPM Los Pinos Moun 70.05 324 eP P 16 26 19.8 -1.4
O34A Beatrice 70.05 334 P P 16 26 20.5 -0.4
baz=149
M37A Trindle Farm, 70.10 337 P P 16 26 20.8 -0.3
baz=151
JFWS Jewell Farm 70.15 340 P P 16 26 20.9 -0.5
baz=155,SNR=7.3
JFWS Jewell Farm 70.15 340 eP P 16 26 19.6 -1.7
JFWS pmax pmax
comp=Z,31nm,1.0s
JFWS Jewell Farm 70.15 340 eP P 16 26 19.6 -1.7
comp=Z,31nm,1.0s
J42A Columbus 70.17 341 P P 16 26 21.0 -0.5
baz=156
CBKS Cedar Bluff 70.19 331 P P 16 26 22.2 +0.5
baz=146,SNR=9.0
CBKS Cedar Bluff 70.19 331 eP P 16 26 19.7 -2.1
CBKS pmax pmax
comp=Z,89nm,0.9s
CBKS Cedar Bluff 70.19 331 eP P 16 26 19.7 -2.1
comp=Z,89nm,0.9s
K40A Colesburg 70.24 339 P P 16 26 21.1 -0.9
baz=154,SNR=9.9
O33A Hebron 70.32 333 P P 16 26 22.1 -0.4
baz=148,SNR=10.0
L38A Oak Wood Farm, 70.35 338 P P 16 26 21.8 -0.8
baz=152
LAZ Ladron 70.39 323 eP P 16 26 22.0 -1.3
I43A Langenfeld Bro 70.40 342 P P 16 26 22.4 -0.5
baz=157
M36A Felix, Anita 70.42 336 P P 16 26 22.7 -0.4
baz=150
ANMO Albuquerque 70.43 324 P P 16 26 24.4 +0.9
baz=139
ANMO Albuquerque 70.43 324 eP P 16 26 23.9 +0.4
ANMO pmax pmax
comp=Z,24nm,1.2s
ANMO Albuquerque 70.43 324 eP P 16 26 23.8 +0.2
comp=Z,24nm,1.2s
J41A Loganville 70.48 340 P P 16 26 22.8 -0.6
baz=155,SNR=6.4
K39A Oelwein 70.49 339 P P 16 26 22.7 -0.8
baz=153,SNR=13
N34A Lincoln 70.53 335 P P 16 26 23.3 -0.5
baz=149
I42A Draeger Farm, 70.63 341 P P 16 26 24.1 -0.2
baz=156
K38A Parkersburg 70.74 338 P P 16 26 24.5 -0.5
baz=153
J40A Soldiers Grove 70.74 340 P P 16 26 24.5 -0.5
baz=154,SNR=9.5
L36A Harm Buss Farm 70.93 337 P P 16 26 26.0 -0.2
baz=151
TUC Tucson 70.96 320 P P 16 26 27.0 +0.3
baz=135
TUC Tucson 70.96 320 eP P 16 26 26.4 -0.3
TUC pmax pmax
comp=Z,21nm,1.1s
TUC Tucson 70.96 320 eP P 16 26 26.4 -0.3
comp=Z,21nm,1.1s
J39A Decorah 70.99 339 P P 16 26 25.9 -0.6
baz=154,SNR=9.9
T25A Trinidad 71.05 327 P P 16 26 28.2 +0.9
baz=142,SNR=10
T25A Trinidad 71.05 327 eP P 16 26 27.7 +0.4
comp=Z,20nm,1.0s
I41A Arkdale 71.07 341 P P 16 26 26.6 -0.3
baz=155
H42A Shiocton 71.09 342 P P 16 26 26.7 -0.3
baz=157
I40A Norwalk 71.15 340 P P 16 26 27.0 -0.4
baz=155
MHTCO State Highway 71.18 327 eP P 16 26 28.3 +0.2
comp=Z,31nm,1.1s
J38A Wedel Dairy, R 71.23 339 P P 16 26 27.3 -0.6
baz=153
L35A Bielow Farm, R 71.26 336 P P 16 26 27.9 -0.3
baz=150,SNR=5.3
F46A Macinaw City C 71.28 345 P P 16 26 28.0 -0.1
baz=160
K36A Gilmore City 71.32 337 P P 16 26 28.4 -0.1
baz=151
F45A CMU Biological 71.38 344 P P 16 26 28.5 -0.2
baz=160
I39A Houston 71.40 340 P P 16 26 28.5 -0.5
baz=154,SNR=7.7
M33A Taylor Creek F 71.43 335 P P 16 26 29.6 +0.3
baz=148
L34A Svendsen Farm, 71.45 335 P P 16 26 29.0 -0.3
baz=149
H41A Junction City 71.51 341 P P 16 26 29.1 -0.5
baz=156
J37A Redenius Farm, 71.59 338 P P 16 26 29.6 -0.6
baz=152
KSCO Kaye Shedlock' 71.67 329 P P 16 26 30.7 -0.2
baz=143
BGNE Belgrade 71.68 334 P P 16 26 30.9 +0.2
baz=148,SNR=7.9
BGNE Belgrade 71.68 334 eP P 16 26 29.6 -1.2
comp=Z,120nm,0.9s
H40A Chili 71.74 341 P P 16 26 30.6 -0.4
baz=155,SNR=7.6
I38A Scanlan Farm, 71.83 339 P P 16 26 31.2 -0.4
baz=153,SNR=11
F44A Big Bay de Noc 71.87 344 P P 16 26 31.4 -0.3
baz=159
J36A Seneca 1, Swea 71.88 337 P P 16 26 31.4 -0.5
baz=151
G41A Antigo 71.92 342 P P 16 26 32.3 +0.3
baz=156
E45A Wooded Hills, 71.92 345 P P 16 26 32.4 +0.3
baz=160
F43A Flat Rock, Esc 71.93 343 P P 16 26 31.6 -0.5
baz=158
214A Organ Pipe Nat 71.94 318 P P 16 26 33.6 +1.1
baz=134,SNR=14
214A Organ Pipe Nat 71.94 318 eP P 16 26 30.5 -2.0
comp=Z,71nm,1.1s
214A epP pP 16 26 38.2 +0.5
K34A Le Mars 71.96 336 P P 16 26 32.2 -0.2
baz=150
X18A Snowflake 72.06 322 eP P 16 26 34.6 +1.2
comp=Z,16nm,1.0s
H39A Augusta 72.06 340 P P 16 26 32.5 -0.4
baz=154
SDCO Great Sand Dun 72.07 327 P P 16 26 34.4 +0.9
baz=141,SNR=15
SDCO Great Sand Dun 72.07 327 eP P 16 26 33.2 -0.3
comp=Z,22nm,1.0s
I37A Lemond, Waseca 72.16 338 P P 16 26 33.3 -0.2
baz=152
K33A Hardington 72.24 335 P P 16 26 34.1 0.0
baz=149
G40A Rib Lake 72.27 341 P P 16 26 34.0 -0.2
baz=155
W18A Petrified Fore 72.36 322 P P 16 26 36.1 +0.9
baz=137,SNR=6.4
W18A Petrified Fore 72.36 322 eP P 16 26 35.3 +0.1
comp=Z,29nm,1.0s
I36A Fitzsimmons Fa 72.37 338 P P 16 26 34.5 -0.3
baz=152
F41A Three Lakes 72.38 342 P P 16 26 34.6 -0.2
baz=156,SNR=5.4
H38A Maiden Rock 72.38 339 P P 16 26 34.5 -0.3
baz=153,SNR=5.1
H37A Dierke Farm, C 72.50 339 P P 16 26 35.2 -0.3
baz=153
I35A Creekview Farm 72.57 337 P P 16 26 35.7 -0.3
baz=151
G39A Holcombe 72.57 340 P P 16 26 35.5 -0.5
baz=154,SNR=6.2
G38A Ridgeland 72.68 340 P P 16 26 36.0 -0.7
baz=154,SNR=7.8
E42A Champion 72.68 343 P P 16 26 36.0 -0.6
baz=158
S22A 4UR Ranch, Cre 72.75 326 P P 16 26 38.4 +0.9
baz=140
F40A Park Falls 72.83 341 P P 16 26 37.3 -0.2
baz=155,SNR=13
J33A Davis 72.83 336 P P 16 26 37.1 -0.4
baz=149,SNR=5.4
H36A Jessenland, He 72.83 338 P P 16 26 37.4 -0.2
baz=152,SNR=7.0
Q24A Divide 72.83 328 P P 16 26 38.8 +0.7
baz=141,SNR=8.9
Q24A Divide 72.83 328 eP P 16 26 38.4 +0.3
comp=Z,30nm,1.1s
X16A Lo Mia Camp, P 72.84 321 eP P 16 26 38.8 +0.7
comp=Z,22nm,1.1s
K31A O'Neill 72.94 334 P P 16 26 38.6 +0.4
baz=147
SPMN Marine on St. 73.03 339 P P 16 26 38.3 -0.4
baz=153,SNR=9.0
SPMN Marine on St. 73.03 339 eP P 16 26 37.8 -0.9
comp=Z,31nm,1.0s
ECSD EROS Data Cent 73.06 336 P P 16 26 38.5 -0.4
baz=149,SNR=17
ECSD EROS Data Cent 73.06 336 eP P 16 26 37.8 -1.1
comp=Z,22nm,1.0s
F39A Loretta 73.06 341 P P 16 26 38.9 0.0
baz=155,SNR=5.2
J32A Parkston 73.22 335 P P 16 26 39.6 -0.2
baz=148
MVCO Mesa Verde 73.22 324 P P 16 26 41.2 +0.9
baz=138,SNR=18
MVCO Mesa Verde 73.22 324 eP P 16 26 40.2 -0.1
comp=Z,42nm,1.1s
E40A Wakefield 73.25 342 P P 16 26 40.1 +0.2
baz=156,SNR=9.4
SYO Syowa Base 73.25 159 eP P 16 26 39.0 -0.7
SYO Syowa Base 73.25 159 epP P 16 26 42.0 +2.3
SYO Syowa Base 73.25 159 esP sP 16 26 45.1 -1.8
H35A Sunnyside Ranc 73.25 338 P P 16 26 39.7 -0.3
baz=151
G36A St. Michael 73.35 339 P P 16 26 40.3 -0.3
baz=152
E39A Mellen 73.38 341 P P 16 26 40.7 0.0
baz=155,SNR=5.6
I33A Coleman 73.39 336 P P 16 26 40.7 -0.2
baz=149
F38A Pierce - Schro 73.40 340 P P 16 26 40.7 -0.2
baz=154,SNR=7.4
F37A Hinrichs Farm, 73.42 340 P P 16 26 41.1 +0.2
baz=153,SNR=6.1
Y14A Wickenburg 73.42 319 eP P 16 26 41.6 +0.2
comp=Z,26nm,1.0s
J31A Geddes 73.50 335 P P 16 26 41.5 0.0
baz=147
H34A Spellman Lake, 73.56 337 P P 16 26 41.7 -0.1
baz=150,SNR=7.5
TAOE Nuku Hiva Isla 73.58 267 eLR LR 16 49 11.2
comp=Z,135nm,23.2s
WUAZ Wupatki 73.58 322 P P 16 26 43.6 +1.2
baz=136,SNR=14
WUAZ Wupatki 73.58 322 eP P 16 26 42.4 +0.1
comp=Z,29nm,1.0s
G35A Watkins 73.59 338 P P 16 26 42.0 +0.1
baz=151
ISCO Idaho Springs 73.71 328 P P 16 26 44.3 +1.1
baz=141,SNR=7.1
ISCO Idaho Springs 73.71 328 eP P 16 26 42.6 -0.6
ISCO pmax pmax
comp=Z,16nm,0.9s
ISCO Idaho Springs 73.71 328 eP P 16 26 42.6 -0.6
comp=Z,16nm,0.9s
F36A Milaca 73.83 339 P P 16 26 43.3 -0.1
baz=152,SNR=22
E38A The Farm, Brul 73.88 341 P P 16 26 43.4 -0.2
baz=154
SMCO Snowmass 73.91 327 eP P 16 26 39.8 -4.7
comp=Z,137nm,0.7s
H33A Prehn Over Nor 73.92 337 P P 16 26 44.0 +0.1
baz=149,SNR=12
GLA Glamis 73.93 318 P P 16 26 45.3 +0.9
baz=133,SNR=5.4
GLA Glamis 73.93 318 eP P 16 26 43.7 -0.6
GLA pmax pmax
comp=Z,14nm,1.0s
GLA Glamis 73.93 318 eP P 16 26 43.7 -0.6
comp=Z,14nm,1.0s
PV01 Paradox Valley 73.94 325 eP P 16 26 45.2 +0.7
G34A Benson 74.01 338 P P 16 26 44.1 -0.3
baz=150
H32A Carlson Farm, 74.02 336 P P 16 26 44.5 -0.1
baz=149,SNR=13
TOA0 Torodi Ar. Sit 74.06 68 eP P 16 26 43.8 -1.7
comp=Z,14nm,0.8s
TORD Torodi Ar. Bea 74.06 68 P P 16 26 45.4 0.0
comp=Z,6.5nm,0.6s,baz=249,slow=5.4,SNR=24
TORD LR LR 16 58 34.3
comp=Z,144nm,18.4s,baz=220,slow=35
TORD Torodi Ar. Bea 74.06 68 P P 16 26 45.4 0.0
F35A Swanville 74.18 339 P P 16 26 45.0 -0.4
baz=151,SNR=5.5
PV05 Paradox Valley 74.18 325 eP P 16 26 45.9 -0.1
Y12C Blythe 74.22 318 P P 16 26 47.4 +1.5
baz=133
Y12C Blythe 74.22 318 eP P 16 26 46.0 +0.1
comp=Z,28nm,1.1s
G33A Ortonville 74.25 337 P P 16 26 45.4 -0.4
baz=150,SNR=12
E36A McGregor 74.33 340 P P 16 26 46.2 -0.1
baz=153,SNR=8.3
F34A Alexandria 74.36 338 P P 16 26 46.5 0.0
baz=151
PDMCI Parker Dam,Lak 74.36 319 P P 16 26 48.0 +1.2
baz=133
IKP In-Ko-Pah, Jac 74.47 317 P P 16 26 48.5 +1.0
baz=132
SWSC Sam W. Stewart 74.47 317 P P 16 26 48.8 +1.4
baz=132
SUSD Miller 74.55 335 P P 16 26 47.9 +0.2
baz=147
D37A Cotton 74.64 341 P P 16 26 48.0 -0.1
baz=154
G32A Webster 74.69 336 P P 16 26 48.1 -0.4
baz=149
N23A Red Feather La 74.72 329 P P 16 26 49.4 +0.3
baz=141,SNR=5.4
N23A Red Feather La 74.72 329 eP P 16 26 47.8 -1.3
comp=Z,23nm,1.0s
BC3 Big Chuckawall 74.72 318 P P 16 26 50.0 +1.0
baz=132,SNR=17
E35A Pequot Lakes 74.73 339 P P 16 26 48.7 0.0
baz=152
U15A North Rim 74.75 322 eP P 16 26 50.6 +1.3
comp=Z,26nm,1.0s
F33A 5 Mile Ranch, 74.75 337 P P 16 26 48.6 -0.2
baz=150,SNR=6.3
C38A Sawbill Land. 74.80 342 P P 16 26 48.9 -0.1
baz=155
MONP2 Monument Peak 74.82 317 P P 16 26 50.7 +1.0
baz=132,SNR=5.7
IRM Iron Mountain 74.87 318 P P 16 26 50.8 +1.0
baz=133,SNR=20
D36A Goodland 74.88 340 P P 16 26 49.5 -0.1
baz=153
E34A Wadena 74.95 338 P P 16 26 50.1 +0.2
baz=151
EYMN Ely 75.07 341 P P 16 26 50.9 +0.3
baz=154
C37A Embarrass 75.08 341 P P 16 26 50.5 -0.1
baz=154
F32A Veblen 75.08 337 P P 16 26 50.3 -0.3
baz=149
D35A Remer 75.08 339 P P 16 26 51.2 +0.6
baz=152
109C Camp Elliot, M 75.25 316 P P 16 26 53.3 +1.4
baz=131
O20A White River Ci 75.27 327 P P 16 26 53.3 +1.1
baz=139,SNR=14
O20A White River Ci 75.27 327 eP P 16 26 52.4 +0.3
comp=Z,36nm,1.0s
BELC Belle Mtn. Jos 75.29 318 P P 16 26 53.4 +1.1
baz=132,SNR=13
C36A Pine Crest Far 75.30 341 P P 16 26 51.7 -0.2
baz=153
TPFO Pinon Flats 75.31 317 P P 16 26 53.5 +1.1
baz=132,SNR=10
PFO Pinyon Flats O 75.32 317 P P 16 26 53.6 +1.1
baz=132,SNR=12
PFO Pinyon Flats O 75.32 317 eP P 16 26 52.8 +0.3
PFO pmax pmax
comp=Z,16nm,1.0s
PFO Pinyon Flats O 75.32 317 eP P 16 26 52.8 +0.3
comp=Z,16nm,1.0s
D34A Park Rapids 75.46 339 P P 16 26 52.5 -0.3
baz=151
F31A Hecla 75.48 336 P P 16 26 52.7 -0.2
baz=148,SNR=8.2
C35A Jirik Farms, M 75.60 340 P P 16 26 53.6 -0.1
baz=152,SNR=9.4
GMRC Granite Mounta 75.61 318 P P 16 26 55.1 +1.0
baz=132,SNR=31
LCMT Little Creek M 75.70 321 eP P 16 26 55.5 +0.8
comp=Z,14nm,0.9s
D33A AnnSam, Waubun 75.73 338 P P 16 26 54.3 -0.1
baz=150,SNR=5.6
VNDA Vanda 75.73 189 P P 16 26 55.4 +1.3
comp=Z,2.7nm,0.9s,baz=142,slow=2.9,SNR=8.2
VNDA Vanda 75.73 189 P P 16 26 55.4 +1.3
MURC Murrieta 75.78 317 P P 16 26 55.8 +0.8
baz=131,SNR=5.5
C34A RKJ Ranch, Bem 75.86 339 P P 16 26 54.8 -0.3
baz=151,SNR=5.4
E31A Nome 75.94 337 P P 16 26 55.7 +0.2
baz=149
HEC Hector,Ludlow 76.05 318 P P 16 26 57.7 +1.1
baz=132,SNR=25
B35A Bob, Littlefor 76.11 340 P P 16 26 56.3 -0.2
baz=152,SNR=11
D32A Dogwood Acres, 76.12 338 P P 16 26 56.3 -0.3
baz=149
TUQ Turquoise Moun 76.20 319 P P 16 26 58.4 +0.9
baz=132,SNR=7.0
C33A Trail 76.24 339 P P 16 26 57.1 -0.2
baz=151,SNR=8.3
D31A Mcclaflin, Tow 76.30 337 P P 16 26 57.4 -0.2
baz=149,SNR=7.3
K22A Casper 76.35 329 P P 16 26 59.3 +1.1
baz=141
RSSD Black Hills 76.38 332 P P 16 26 58.9 +0.5
baz=143
RSSD Black Hills 76.38 332 eP P 16 26 58.4 0.0
RSSD e*PP pP 16 27 03.1 -0.6
RSSD pmax pmax
comp=Z,12nm,0.9s
RSSD Black Hills 76.38 332 eP P 16 26 58.4 0.0
comp=Z,12nm,0.9s
RSSD epP pP 16 27 03.1 -0.6
BFSC Mount Baldy Ra 76.48 317 P P 16 26 59.8 +0.7
baz=131,SNR=7.5
B34A Aery, Baudette 76.51 340 P P 16 26 58.6 -0.1
baz=152
B33A Robert and Kas 76.63 339 P P 16 26 59.5 +0.1
baz=151
SHOC Shoshone, Teco 76.72 319 P P 16 27 00.3 0.0
baz=132
AGMN Agassiz Nation 76.74 339 P P 16 27 00.1 0.0
baz=151,SNR=21
AGMN Agassiz Nation 76.74 339 eP P 16 26 59.4 -0.7
comp=Z,27nm,0.9s
C31A Landman Farms, 76.94 338 P P 16 27 01.2 0.0
baz=149,SNR=6.0
MPU Maple Canyon 76.94 325 eP P 16 27 02.3 +0.6
comp=Z,17nm,1.0s
B32A Ashes, Strandq 77.05 339 P P 16 27 01.9 +0.1
baz=150,SNR=25
EDW2 Edwards Air Fo 77.11 317 P P 16 27 03.5 +1.0
baz=131,SNR=16
A33A Warroad 77.14 340 P P 16 27 02.4 +0.1
baz=151,SNR=13
BLG Laguna Peak, P 77.29 316 P P 16 27 03.7 +0.2
baz=130
LRMC Laurel Mtn Rad 77.31 318 P P 16 27 04.8 +1.0
baz=131,SNR=15
OSI Osito Audit: C 77.40 317 P P 16 27 05.1 +1.0
baz=130
TPNV Topopah Spring 77.41 320 P P 16 27 05.6 +1.3
baz=132,SNR=26
TPNV Topopah Spring 77.41 320 eP P 16 27 05.2 +0.8
TPNV pmax pmax
comp=Z,28nm,0.9s
TPNV Topopah Spring 77.41 320 eP P 16 27 05.2 +0.8
comp=Z,28nm,0.9s
B31A Greenbush Farm 77.45 338 P P 16 27 03.9 -0.1
baz=149
FURC Furnace Creek, 77.46 319 P P 16 27 05.8 +1.5
baz=132,SNR=12
A32A Rocking H Ranc 77.48 339 P P 16 27 05.0 +0.7
baz=150
MPMC Manual Prospec 77.57 318 P P 16 27 06.5 +1.3
baz=131,SNR=16
TCUT Toone Canyon 77.62 325 eP P 16 27 05.8 +0.2
comp=Z,16nm,1.0s
MDND Maddock 77.66 337 P P 16 27 06.1 +0.8
baz=147,SNR=11
MDND Maddock 77.66 337 eP P 16 27 05.6 +0.4
comp=Z,101nm,0.9s
MDND epP pP 16 27 10.5 0.0
DUG Dugway, Tooele 77.70 324 P P 16 27 07.0 +1.1
baz=135,SNR=14
DUG Dugway, Tooele 77.70 324 eP P 16 27 06.4 +0.5
DUG pmax pmax
comp=Z,15nm,1.0s
DUG Dugway, Tooele 77.70 324 eP P 16 27 06.4 +0.5
comp=Z,15nm,1.0s
DAC Darwin (Calif) 77.77 318 eP P 16 27 07.0 +0.6
DAC pmax pmax
comp=Z,26nm,1.0s
DAC Darwin (Calif) 77.77 318 eP P 16 27 07.0 +0.6
comp=Z,26nm,1.0s
BW06 Boulder Array 77.89 328 P P 16 27 07.3 +0.3
baz=138
PDAR Pinedale Array 77.89 328 P P 16 27 07.3 +0.4
comp=Z,6.3nm,1.0s,baz=122,slow=7.2,SNR=22
PDAR LR LR 17 05 36.7
comp=Z,64nm,18.4s,baz=102,slow=39
PDAR Pinedale Array 77.89 328 eP P 16 27 06.2 -0.8
SCHQ Schefferville 77.91 359 P P 16 27 05.5 -1.0
comp=Z,5.6nm,0.9s,baz=178,slow=5.9,SNR=4.5
SCHQ Schefferville 77.91 359 P P 16 27 05.5 -1.0
ISA Isabella, Lake 77.92 318 P P 16 27 08.5 +1.4
baz=131,SNR=6.6
R11A Troy Canyon, C 77.97 321 P P 16 27 08.7 +1.2
baz=133,SNR=25
R11A Troy Canyon, C 77.97 321 eP P 16 27 08.2 +0.7
comp=Z,18nm,1.1s
GRAC Grapevine Rang 78.11 319 P P 16 27 09.4 +1.3
baz=132
CWC Cottonwood Cre 78.18 318 P P 16 27 09.9 +1.3
baz=131
PKM Mcpherson Peak 78.26 316 P P 16 27 10.5 +1.3
baz=130,SNR=10
VES Vestal, Richgr 78.41 317 P P 16 27 10.9 +1.2
baz=130,SNR=9.8
ULM Lac du Bonnet 78.44 340 P P 16 27 09.0 -0.5
comp=Z,10nm,0.9s,baz=156,slow=6.2,SNR=19
ULM LR LR 17 04 45.5
comp=Z,250nm,18.9s,baz=132,slow=38
ULM Lac du Bonnet 78.44 340 eP P 16 27 08.8 -0.7
ULM pmax pmax
comp=Z,13nm,0.9s
ULM Lac du Bonnet 78.44 340 eP P 16 27 08.8 -0.7
comp=Z,13nm,0.9s
SMMC Simmler 78.65 316 P P 16 27 12.6 +1.5
baz=130,SNR=5.2
TIN Tinemaha, Big 78.67 319 P P 16 27 12.0 +0.7

baz=131
RCTC **Rector, Farmer** 78.81 318 P P 16 27 12.8 +0.9
baz=130
HVU **Hansel Valley** 78.81 325 eP P 16 27 12.7 +0.7
HVU pmax pmax
comp=Z,14nm,1.0s
HVU **Hansel Valley** 78.81 325 eP P 16 27 12.7 +0.7
comp=Z,14nm,1.0s
BOSA **Boshof** 78.83 116 P P 16 27 12.2 -0.3
comp=Z,8.1nm,0.8s,baz=250,slow=4.2,SNR=11
BOSA **Boshof** 78.83 116 eP P 16 27 11.5 -1.0
BOSA pmax pmax
comp=Z,10.0nm,0.8s
BOSA **Boshof** 78.83 116 eP P 16 27 11.5 -1.0
comp=Z,10nm,0.8s
PPT2 **Papeete2** 78.99 256 eLR LR 16 51 57.9
comp=Z,263nm,25.2s
PPT **Papeete** 78.99 256 LR LR 16 53 33.3
comp=Z,127nm,21.7s,baz=286,slow=29
MOOW **Moose Ponds** 79.20 328 eP P 16 27 14.5 +0.4
comp=Z,8.6nm,0.9s
LAO **LASA Array** 79.35 332 P P 16 27 15.3 +0.6
baz=142
MLAC **Mammoth, Mammo** 79.41 319 P P 16 27 16.4 +0.9
baz=131
RLMT **Red Lodge** 79.52 329 P P 16 27 16.2 +0.3
baz=139
RLMT **Red Lodge** 79.52 329 eP P 16 27 15.9 +0.1
comp=Z,19nm,1.1s
MDPB **Devils Postpil** 79.56 319 eP P 16 27 16.2 -0.1
comp=Z,15nm,0.9s
H17A **Grant Village** 79.60 328 P P 16 27 17.6 +1.3
baz=138
NVAR **Mina Array Bea** 79.61 320 P P 16 27 17.3 +0.8
comp=Z,11nm,0.9s,baz=149,slow=5.5,SNR=37
NVAR **Mina Array Bea** 79.61 320 P P 16 27 17.3 +0.8
DGMT **Dagmar** 79.92 334 P P 16 27 18.5 +0.8
baz=143,SNR=10
DGMT **Dagmar** 79.92 334 eP P 16 27 17.5 -0.3
comp=Z,49nm,1.0s
LBTB **Lobatse** 80.39 113 eP P 16 27 19.5 -1.5
LBTB pmax pmax
comp=Z,16nm,1.0s
LBTB **Lobatse** 80.39 113 eP P 16 27 19.5 -1.5
comp=Z,16nm,1.0s
YERR **Yerington** 80.53 320 eP P 16 27 22.2 +0.8
comp=Z,23nm,1.0s
CMB **Columbia Colle** 80.61 318 P P 16 27 20.1 -1.6
CMB pmax pmax
comp=Z,6.0nm,0.9s
CMB **Columbia Colle** 80.61 318 P P 16 27 20.1 -1.6
comp=Z,6.1nm,0.9s
HLID **Hailey** 80.92 326 P P 16 27 24.9 +1.5
baz=135,SNR=38
HLID **Hailey** 80.92 326 eP P 16 27 22.9 -0.5
comp=Z,25nm,0.9s
BOZ **Bozeman (W)** 80.99 329 P P 16 27 24.3 +0.6
baz=137
MCMT **McKenzie Canyo** 81.03 327 eP P 16 27 24.6 +0.5
PAHR **Pah Rah Range** 81.08 320 eP P 16 27 25.8 +1.5
comp=Z,37nm,0.9s
MAW **Mawson** 81.29 162 P P 16 27 26.1 +1.2
comp=Z,4.6nm,1.0s,baz=223,slow=8.1,SNR=4.9
MAW **Mawson** 81.29 162 eP P 16 27 25.5 +0.6
MAW pmax pmax
comp=Z,2.0nm,1.2s
MAW **Mawson** 81.29 162 eP P 16 27 25.5 +0.6
comp=Z,1.9nm,1.2s
MFID **Camas Ranch** 81.56 325 eP P 16 27 26.5 -0.2
comp=Z,9.6nm,1.0s
EGMT **Eagleton** 81.92 331 P P 16 27 28.7 +0.2
baz=139,SNR=8.7
EGMT **Eagleton** 81.92 331 eP P 16 27 27.7 -0.7
comp=Z,25nm,1.0s
O03D **Paynes Creek** 82.89 319 P P 16 27 33.8 +0.1
baz=129,SNR=5.7
MSO **Missoula** 82.99 328 P P 16 27 34.4 +0.3
baz=135
MSO **Missoula** 82.99 328 eP P 16 27 32.1 -2.0
comp=Z,14nm,1.4s
BMO **Blue Mountains** 83.32 325 eP P 16 27 35.0 -0.9
BMO pmax pmax
comp=Z,11nm,1.1s
BMO **Blue Mountains** 83.32 325 eP P 16 27 35.0 -0.9
comp=Z,11nm,1.1s
M04C **Macdoel** 83.84 321 P P 16 27 38.4 -0.2
baz=129
N02D **Trinity Center** 83.85 320 P P 16 27 38.6 -0.1
baz=128
F10A **Beach Ranch, E** 84.04 326 eP P 16 27 39.0 -0.5
comp=Z,8.8nm,0.9s
ESDC **Sonseca Array** 84.27 42 P P 16 27 41.7 +0.9
comp=Z,3.6nm,0.9s,baz=241,slow=4.6,SNR=12
ESDC LR LR 17 05 18.3
comp=Z,92nm,18.1s,baz=220,slow=36
ESDC **Sonseca Array** 84.27 42 P P 16 27 41.7 +0.9
ESLA **Sonseca Array** 84.27 42 eP P 16 27 41.8 +1.0
comp=Z,14nm,1.4s
ES19 **SONSECA Array** 84.32 42 eP P 16 27 40.9 -0.2
L02D **Cave Junction,** 85.10 320 P P 16 27 45.0 +0.1
baz=128
HAWA **Hanford** 85.51 325 eP P 16 27 47.6 +0.8
comp=Z,12nm,1.0s
LSZ **Lusaka** 86.31 105 eP P 16 27 50.5 -1.2
LSZ pmax pmax
comp=Z,47nm,1.6s
LSZ **Lusaka** 86.31 105 eP P 16 27 50.5 -1.2
comp=Z,47nm,1.6s
RAR **Rarotonga** 86.53 249 LR LR 16 57 28.3
comp=Z,105nm,21.7s,baz=160,slow=29
YKA **Yellowknife Ar** 94.40 339 P P 16 28 28.3 0.0
comp=Z,4.2nm,0.8s,baz=126,slow=4.4,SNR=84
YKA LR LR 17 14 25.9
comp=Z,22nm,18.5s,baz=180,slow=38
YKA **Yellowknife Ar** 94.40 339 P P 16 28 28.3 0.0
YKW3 **Yellowknife Ar** 94.45 339 eP P 16 28 28.9 +0.4
comp=Z,9.4nm,1.2s
URZ **Urewera** 95.89 224 LR LR 17 04 33.1
comp=Z,122nm,18.9s,baz=134,slow=31
RES **Resolute Bay** 99.79 352 LR LR 17 15 36.4
comp=Z,70nm,21.0s,baz=79,slow=36
GERES **GERESS Array B** 99.80 41 LR LR 17 14 21.7
comp=Z,46nm,18.1s,baz=264,slow=36
OBN **Obninsk** 115.00 38 ⇑ *i*PKIKP PKPdf 16 33 48.7 -0.8
OBN *e* 16 34 00.8
OBN eSS SS 16 50 44.9 +0.4
OBN pmax pmax
comp=Z,4.0nm,0.9s
OBN MLR MLR
comp=Z,79nm,17.0s
KIV **Kislovodsk** 117.84 51 ⇑ *i*PKIKP PKPdf 16 33 55.3 -0.3
KIV *e* 16 34 02.8
KIV *e* 16 34 09.0
KIV SSS SSS 16 55 42.0
KIV pmax pmax
comp=Z,4.0nm,1.0s
KBZ **Khabaz** 117.97 52 PKP PKPdf 16 33 56.8 +1.1
comp=Z,1.7nm,0.9s,baz=110,slow=7.8,SNR=4.0
BILL **Bilibino** 125.79 339 ⇓ *i*PKIKP PKPdf 16 34 10.5 +0.5
BILL *e* 16 34 18.4
BILL *e* 16 36 04.7
BILL PS PS 16 46 07.0 +2.3
BILL SSS SSS 16 57 31.0
BILL pmax pmax
comp=Z,5.0nm,1.0s
ARU **Arti** 127.24 36 *i* PKIKP PKPdf 16 34 12.8 -0.3
ARU 16 36 12.9
ARU 16 41 21.1
GEYT **Alibeck** 129.14 59 PKP PKPdf 16 34 17.6 +0.2
comp=Z,0.9nm,0.9s,baz=259,slow=1.5,SNR=2.9
AS01 **Alice Springs** 129.99 202 *e*PKPdf PKPdf 16 34 20.1 +0.6
ASAR **Alice Springs** 130.00 202 PKP PKPdf 16 34 19.8 +0.3
comp=Z,5.7nm,0.8s,baz=151,slow=2.2,SNR=46
ASAR **Alice Springs** 130.00 202 PKP PKPdf 16 34 19.8 +0.3
TIXI **Tiksi** 131.11 354 *c i* PKIKP PKPdf 16 34 20.6 +0.6
TIXI pmax pmax
comp=Z,4.0nm,1.0s
WRA **Warramunga Arr** 133.26 204 PKP PKPdf 16 34 26.4 +0.6
comp=Z,4.2nm,0.9s,baz=164,slow=1.6,SNR=39
WRA **Warramunga Arr** 133.26 204 PKP PKPdf 16 34 26.4 +0.6
WRAB **Tennant Creek** 133.26 204 *c i* PKIKP PKPdf 16 34 27.9 +2.2
WRAB pmax pmax
comp=Z,38nm,2.5s
SEY **Seymchan** 133.45 338 *c i* PKIKP PKPdf 16 34 26.5 +1.8
BRVK **Borovoye** 134.75 37 *i* PKIKP PKPdf 16 34 28.7 +1.3
PETK **Petropavlovsk-** 136.57 324 PKP PKPdf 16 34 31.9 +1.1
comp=Z,6.1nm,0.9s,baz=72,slow=4.7,SNR=6.9
PETK **Petropavlovsk-** 136.57 324 *e*PKIKP PKPdf 16 34 32.8 +2.0
PETK **Petropavlovsk-** 136.57 324 *e*PKPdf PKPdf 16 34 32.8 +2.0
FITZ **Fitzroy Crossi** 137.65 194 PKP PKPdf 16 34 34.9 +1.0
comp=Z,1.9nm,0.9s,baz=141,slow=6.5,SNR=3.6
FITZ **Fitzroy Crossi** 137.65 194 PKP PKPdf 16 34 34.9 +1.0
YAK **Yakutsk** 140.19 350 *e*PKIKP PKPdf 16 34 36.5 -0.6
YAK pmax pmax
comp=Z,11nm,1.0s
NVS **Novosibirsk** 140.38 29 *e*PKIKP PKPdf 16 34 32.9 -4.8
KURK **Kurchatov** 140.41 37 *c i* PKIKP PKPdf 16 34 40.5 +2.6
KURK pmax pmax
comp=Z,11nm,1.0s
KURK **Kurchatov** 140.41 37 *e*PKPdf PKPdf 16 34 38.6 +0.7
ZAA0 **Zalesovo Array** 141.67 29 *e*PKPdf PKPdf 16 34 39.1 -0.9
ZALV **Zalesovo Beam** 141.67 29 PKP PKPdf 16 34 40.1 0.0
comp=Z,5.1nm,0.8s,baz=294,slow=2.5,SNR=20
ZALV **Zalesovo Beam** 141.67 29 *e*PKIKP PKPdf 16 34 38.5 -1.6
ZALV **Zalesovo Beam** 141.67 29 *e*PKPdf PKPdf 16 34 38.5 -1.6
KSH **Kashi** 142.83 55 *e*PKP PKPdf 16 34 43.5 +0.7
KSH PP PP 16 37 55.5 +3.5
KSH PKS PKSdf 16 38 17.3 -1.4
KSH SKS SKSdf 16 41 51.3 -0.9
KSH SKKS SKKSac 16 44 45.3 +0.8
KSH SS SS 16 56 30.5 +0.9
KSH AMB AMB
comp=Z,190nm,4.1s
KSH LR LR
comp=Z,32nm,4.6s
KSH LR LR
comp=Z,31nm,4.1s
KSH LR LR
comp=Z,190nm,5.5s
MAKZ **Makanchi** 144.27 41 *e*PKIKP PKPdf 16 34 44.2 -0.8
MAKZ **Makanchi** 144.27 41 *e*PKPdf PKPdf 16 34 44.2 -0.8
MK31 **Makanchi Array** 144.47 41 *e*PKIKP PKPdf 16 34 44.7 -0.6
MK31 **Makanchi Array** 144.47 41 *e*PKPdf PKPdf 16 34 44.7 -0.6
MKAR **Makanchi Array** 144.47 41 PKP PKPbc 16 34 44.3 +0.4
comp=Z,11nm,0.9s,baz=295,slow=2.9,SNR=78
MKAR **Makanchi Array** 144.47 41 *e*PKIKP PKPab 16 34 42.8 -0.8
MKAR **Makanchi Array** 144.47 41 *e*PKPdf PKPab 16 34 42.8 -0.8
MK01 **Makanchi Array** 144.48 41 *e*PKPdf PKPdf 16 34 45.1 -0.2
HYB **Hyderabad** 144.78 93 *i* PKP PKPdf 16 34 50.0 +3.3
BOD **Bodaibo** 145.56 2 *e*PKIKP PKPdf 16 34 45.6 -1.2
BOD pmax pmax
comp=Z,25nm,1.2s
CLNS **Chul'man** 145.90 351 *e*PKIKP PKPdf 16 34 47.6 +0.1
CLNS pmax pmax
comp=Z,4.0nm,1.1s
CLNS pmax pmax
comp=E,22nm,0.9s
CLNS pmax pmax
comp=N,8.0nm,0.9s
WMQ **Urumqi** 149.26 42 PKPbc PKPbc 16 34 59.0 +1.2
WMQ LR LR
comp=N,100nm,19.3s
WMQ LR LR
comp=N,150nm,19.3s
WMQ LR LR
comp=N,110nm,18.1s
MOY **Mondy** 149.56 18 *e*PKP2 PKPbc 16 34 59.7 +1.3
MOY pmax pmax
comp=Z,22nm,2.0s
PYUN **Piuthan** 150.24 74 *e*P PKPbc 16 35 01.9 +1.0
comp=Z,123nm,1.2s
KOLN **Koldanda** 150.78 75 *e*P PKPbc 16 35 02.9 +0.7
comp=Z,43nm,1.0s
DANN **Dangsing** 150.91 73 *e*P PKPbc 16 35 04.3 +1.7
ZAK **Zakamensk** 151.35 17 *e*PKIKP PKPdf 16 34 57.6 +1.0
ZAK pmax pmax
comp=Z,4.0nm,1.1s
DMN **Daman** 152.12 75 *e*P PKPbc 16 35 06.4 +1.1
comp=Z,43nm,1.0s
KKN **Kakani** 152.27 74 *e*P PKPbc 16 35 06.7 +1.1
PKIN **Phulchoki** 152.38 75 *e*P PKPbc 16 35 06.4 +0.5
PKI **Pulchoki** 152.39 75 *e*P PKPbc 16 35 06.5 +0.5
GUN **Gumba** 152.80 74 *e*P PKPbc 16 35 08.0 +1.1
JIRN **Jiri** 153.08 75 *e*P PKPbc 16 35 08.6 +1.0
RAMN **Ramite** 153.47 76 *e*P PKPbc 16 35 09.3 +1.0
ODAN **Odare** 154.18 76 *e*P PKPbc 16 35 10.9 +1.1
comp=Z,15nm,0.8s
TAPN **Taplejung** 154.45 75 *e*P PKPbc 16 35 11.1 +0.6
comp=Z,36nm,1.3s
SONM **Songino Array** 154.49 15 PKP PKPdf 16 35 02.7 +1.4
comp=Z,1.8nm,0.9s,baz=311,slow=1.3,SNR=6.7
SONM PKPbc **sPKPdf** 16 35 08.5 -0.2
comp=Z,2.8nm,0.9s,baz=13,slow=0.3,SNR=8.1
SONM PKPab **PKPab** 16 35 24.1 +0.1
comp=Z,1.0nm,0.7s,baz=347,slow=4.4,SNR=2.8
**SONM Songino Array** 154.49 15 PKP **PKPdf** 16 35 02.8 +1.4
SONM PKPbc **sPKPdf** 16 35 08.5 -0.2
SONM PKPab **PKPab** 16 35 24.1 +0.1
ULN **Ulaanbaatar** 154.60 14 *e*PKIKP PKPdf 16 35 02.6 +1.1
ULN **Ulaanbaatar** 154.60 14 *e*PKPdf PKPdf 16 35 02.6 +1.1
USRK **Ussuriysk Ar.** 155.28 331 PKP PKPdf 16 35 02.9 +0.6
comp=Z,2.2nm,0.9s,baz=33,slow=3.4,SNR=4.1
USRK PKPbc **sPKPdf** 16 35 10.0 +0.4
comp=Z,3.2nm,0.8s,baz=39,slow=2.8,SNR=6.2
MDJ **Mudanjiang** 155.94 335 PKP PKPdf 16 35 03.5 +0.3
MJAR **Matsushiro Arr** 156.54 309 PKP PKPdf 16 35 05.5 +1.2
comp=Z,1.3nm,1.0s,baz=31,slow=2.8,SNR=4.9
MJAR PKPab **PKPab** 16 35 32.2 -0.9
comp=Z,4.5nm,0.9s,baz=60,slow=3.2,SNR=10
**MJAR Matsushiro Arr** 156.54 309 PKP **PKPdf** 16 35 05.5 +1.2
MJAR PKPab **PKPab** 16 35 32.2 -0.9
MAJO **Matsushiro** 156.54 309 *e*PKP2 **PKPab** 16 35 33.5 +0.4
MAJO **Matsushiro** 156.54 309 *e*PKPab **PKPab** 16 35 33.5 +0.4
MJB9 **Matsu-Tunnel** 156.54 309 *e*PKPab **PKPab** 16 35 34.0 +0.9
GTA **Gaotai** 159.10 36 *e*PKP **PKPdf** 16 35 09.0 +1.5
GTA pPKP sPKPdf 16 35 15.0 +0.1
GTA sPKP 16 35 18.5
GTA PKPab **PKPab** 16 35 45.0 +0.8
GTA PP **PP** 16 39 29.0 +4.3
GTA SS SS 16 59 31.5 +2.9
GTA AMB AMB
comp=Z,96nm,6.9s
GTA LR LR
comp=Z,190nm,17.3s
GTA LR LR
comp=Z,170nm,17.1s
GTA LR LR
comp=Z,100nm,18.1s
HHC **Hu-ho-hao-te** 162.23 10 PKP **PKPdf** 16 35 07.5 -3.3
HHC AMB AMB
comp=Z,130nm,5.4s
KS01 **Wonju Array Si** 162.45 326 *e*PKPdf **PKPdf** 16 35 08.9 -2.1
KSRS **Korea Array** 162.46 326 PKP **PKPdf** 16 35 12.8 +1.8
comp=Z,2.6nm,0.9s,baz=57,slow=1.2,SNR=8.2
KSRS PKPab **PKPab** 16 36 00.4 +1.7
comp=Z,3.2nm,0.9s,baz=124,slow=32,SNR=6.7
KSAR **Wonju Array Be** 162.48 326 PKIKP **PKPdf** 16 35 12.8 +1.8
KSAR **Wonju Array Be** 162.48 326 PKP **PKPdf** 16 35 12.8 +1.8
KSAR PKPab **PKPab** 16 36 00.4 +1.6
CMAR **Chiang Mai Arr** 163.63 104 PKP **PKPdf** 16 35 13.9 +1.2
comp=Z,0.7nm,0.8s,baz=268,slow=2.6,SNR=6.0
CMAR PKPab **PKPab** 16 36 04.8 +0.3
comp=Z,2.0nm,0.7s,baz=249,slow=5.3,SNR=17
**CMAR Chiang Mai Arr** 163.63 104 PKP **PKPdf** 16 35 13.9 +1.2
CMAR PKPab **PKPab** 16 36 04.8 +0.3
**LZH Lanzhou** 163.70 36 *e*PKP **PKPdf** 16 35 08.0 -4.5
LZH pPKP sPKPdf 16 35 19.5 -0.4
LZH LR LR
comp=Z,120nm,15.8s
LZH LR LR
comp=Z,150nm,17.0s
LZH LR LR
comp=Z,170nm,19.7s
KMI **Kunming** 168.07 79 PKP **PKPdf** 16 35 14.8 -1.6
NJ2 **Nanjing** 170.90 343 *e*PKP **PKPdf** 16 35 17.0 -0.6
GYA **Guiyang** 171.26 68 PKP **PKPdf** 16 35 16.0 -2.1
GYA PKPab **PKPab** 16 36 38.3 +0.1
GYA PKS **PKSdf** 16 38 47.5 -3.2
GYA AMB AMB
comp=Z,130nm,8.3s
QIZ **Qiongzhong** 173.06 127 PKP **PKPdf** 16 35 18.0 -1.0
QIZ PP **PP** 16 40 36.0 -1.4
QIZ SS SS 17 01 49.8 -1.5
QIZ LR LR
comp=Z,59nm,21.8s

*ISCJB **31** 16:18:48.3±0.7, 10°.7N±0°.1×92°.1E±0°.2, h27km, mb3.9/12, Error ellipse: s-maj=26.9km s-min=8.0km az=148.3*
*NEIC **31** 16:18:50.5±0.8, 10°.51N×91°.75E, h35km, mb4.3/3, Error ellipse: s-maj=23.3km s-min=11.0km az=66.0*
*IDC **31** 16:18:57.7±6.5, 10°.77N×92°.11E, h95km±59km, mb3.5/10, mb1 3.7/11, mb1mx3.4/50, mbtmp3.8/11, ML3.8/1, MS2.9/3, Ms1 2.9/3, ms1mx2.6/33, Error ellipse: s-maj=45.9km s-min=13.1km az=53.0*

**ISC 31 16:18:50.3**±1.0, **10.8N**±0°.2×**92°.1E**±0°.2, **h27**km, **n29, s08 84/22, mb4.0/12, Andaman Islands region**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CMAR** | **Chiang Mai Arr** | **10.11** | **40** | P | Pn | 16 21 20.4 | +6.6 |
| | 0.2nm,0.3s,baz=237,slow=14,SNR=8.3 | | | | | | |
| CMAR | | | | LR | LR | 16 26 05.6 | |
| | comp=Z,70nm,18.9s,baz=220,slow=42 | | | | | | |
| **PSI** | **Prapat** | **10.39** | **139** | LR | LR | 16 25 33.7 | |
| | comp=Z,52nm,18.8s,baz=329,slow=38 | | | | | | |
| **VIS** | **Vishakhapatnam** | **10.98** | **310** | *i* P | Pn | 16 21 33.4 | +7.7 |
| **PALK** | **Pallekele** | **11.79** | **254** | LR | LR | 16 26 05.3 | |
| | comp=Z,46nm,19.5s,baz=119,slow=36 | | | | | | |
| **RAMN** | **Ramite** | **16.93** | **343** | *e*P | **Pn** | **16 22 44.0** | **-1.6** |
| **TAPN** | **Taplejung** | **17.03** | **346** | *e*P | **Pn** | **16 22 47.5** | **+0.7** |
| **JIRN** | **Jiri** | **17.72** | **342** | *e*P | **Pn** | **16 22 55.3** | **-0.3** |
| **PKI** | **Pulchoki** | **17.88** | **340** | *e*P | **Pn** | **16 22 57.2** | **-0.3** |
| **PKIN** | **Phulchoki** | **17.89** | **340** | *e*P | **Pn** | **16 22 57.3** | **-0.3** |
| **DMN** | **Daman** | **18.02** | **339** | *e*P | **Pn** | **16 22 59.0** | **-0.1** |
| **KOLN** | **Koldanda** | **18.73** | **336** | *e*P | **Pn** | **16 23 08.1** | **+0.4** |
| **LSA** | **Lhasa** | **18.88** | **357** | *e*P | **Pn** | **16 23 11.5** | **+1.8** |
| | 4.9nm,0.6s | | | | | | |
| **PYUN** | **Piuthan** | **19.27** | **335** | *e*P | **Pn** | **16 23 16.3** | **+2.0** |
| **ENH** | **Enshi** | **25.27** | **37** | *e*P | **P** | **16 24 13.3** | **-1.1** |
| | 6.7nm,0.6s | | | | | | |
| **H08S3** | **Diego Garcia H** | **26.75** | **228** | T | T | 16 52 13.6 | |
| | baz=47,slow=75,SNR=35 | | | | | | |
| **H08S2** | **Diego Garcia H** | **26.75** | **228** | T | T | 16 52 20.2 | |
| | baz=47,slow=75,SNR=33 | | | | | | |
| **H08S1** | **Diego Garcia H** | **26.77** | **228** | T | T | 16 52 14.0 | |
| | baz=47,slow=75,SNR=8.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **36.88** | **349** | P | **P** | **16 25 55.7** | **-0.8** |
| | 1.4nm,1.0s,baz=163,slow=7.5,SNR=7.6 | | | | | | |
| **SONM** | **Songino Array** | **38.87** | **15** | P | **P** | **16 26 13.7** | **+0.3** |
| | 0.2nm,0.4s,baz=189,slow=8.5,SNR=2.0 | | | | | | |
| **GEYT** | **Alibeck** | **40.74** | **317** | P | **P** | **16 26 28.8** | **-0.3** |
| | 0.9nm,0.6s,baz=170,slow=12,SNR=4.3 | | | | | | |
| **KURBB** | **Kurchatov Arra** | **41.30** | **347** | P | **P** | **16 26 33.7** | **+0.3** |
| | 0.9nm,1.1s,baz=157,slow=6.5,SNR=4.0 | | | | | | |
| **KURK** | **Kurchatov** | **41.37** | **347** | P | **P** | **16 26 33.7** | **-0.2** |
| **ZALV** | **Zalesovo Beam** | **43.48** | **354** | P | **P** | **16 26 51.5** | **+0.5** |
| | 1.0nm,0.9s,baz=161,slow=9.4,SNR=5.2 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **43.78** | **131** | P | **P** | **16 26 54.0** | **0.0** |
| | 7.5nm,0.8s,baz=324,slow=5.0,SNR=9.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **51.55** | **126** | P | **P** | **16 27 54.2** | **-0.1** |
| | 2.7nm,0.7s,baz=306,slow=8.6,SNR=46 | | | | | | |
| **WRAB** | **Tennant Creek** | **51.56** | **126** | *e*P | **P** | **16 27 54.5** | **+0.2** |
| | 3.5nm,0.7s | | | | | | |
| **ASAR** | **Alice Springs** | **53.28** | **130** | P | **P** | **16 28 07.4** | **+0.2** |
| | 2.2nm,0.8s,baz=304,slow=7.3,SNR=38 | | | | | | |
| **BRTR** | **Keskin Array B** | **59.06** | **310** | P | **P** | **16 28 48.5** | **+0.1** |
| | 0.2nm,0.7s,baz=60,slow=5.7,SNR=2.3 | | | | | | |
| **STKA** | **Stephens Creek** | **63.52** | **134** | P | **P** | **16 29 18.4** | **0.0** |
| | 1.9nm,0.6s,baz=339,slow=8.6,SNR=6.1 | | | | | | |

**SJA 31 16:21:48.4**±0.7, **23°.38S**×**64°.39W, h7**km±14km, **ML2.9, MW3.5, Jujuy Province**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ALOL** | **LOMAS DE OLMED** | **0.57** | **139** | *e*P | Pg | 16 22 00.1 | +0.6 |
| **HJA** | **Humahuaca** | **0.95** | **280** | *e*P | Pb | 16 22 07.4 | 0.0 |
| HJA | | | | | IAML | 16 22 10.6 | |
| | comp=Z,209nm,0.4s | | | | | | |
| **AZAP** | **Zapla** | **1.04** | **216** | *e*P | Pn | 16 22 09.3 | -0.3 |
| AZAP | | | | *e*S | Sn | 16 22 24.4 | -0.2 |
| AZAP | | | | | IAML | 16 22 29.2 | |
| | comp=Z,455nm,0.7s | | | | | | |
| **YJA** | **Yavi** | **1.58** | **319** | *e*P | Pg | 16 22 19.5 | +0.7 |
| YJA | | | | | IAML | 16 22 46.0 | |
| | comp=Z,162nm,0.3s | | | | | | |

*IDC **31** 16:41:46.8±1.8, 23°.53S×64°.40W, h0km, mb3.9/1, mb1 4.0/4, mb1mx3.6/35, mbtmp3.8/4, ML3.9/3, MS3.4/1, Ms1 3.3/1, ms1mx2.7/29, Error ellipse: s-maj=49.3km s-min=24.0km az=40.0*
*SCB **31** 16:41:47.2±0.6, 23°.15S×64°.20W, h15km, Ml4.5/1, Error ellipse: s-maj=15.9km s-min=4.9km az=2.0*
*SJA **31** 16:41:49.1±0.5, 23°.40S×64°.37W, h10km±10km, ML3.5, MW4.1*
*ISCJB **31** 16:41:50.1±0.6, 23°.46S±0°.04×64°.15W±0°.07, h33km, mb3.8/1, Error ellipse: s-maj=9.0km s-min=5.6km az=177.1*

**ISC 31 16:41:51.2**±0.9, **23°.48S**±0°.05×**64°.20W**±0°.07, **h35**km, **n21, s18 73/23, Jujuy Province**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **ALOL** | **LOMAS DE OLMED** | **0.39** | **150** | *e*P | **Pn** | **16 42 00.1** | **-0.3** |
| **ASTB** | **Santa Barbara** | **0.53** | **207** | *e*P | **Pn** | **16 42 00.3** | **-2.1** |
| **AZAP** | **Zapla** | **1.09** | **227** | *e*P | **Pn** | **16 42 09.8** | **-0.5** |
| AZAP | | | | *e*S | **Sn** | **16 42 24.4** | **+0.1** |
| AZAP | | | | | IAML | 16 42 27.7 | |
| | comp=Z,2μm,0.5s | | | | | | |
| **HJA** | **Humahuaca** | **1.15** | **283** | *e*P | **Pn** | **16 42 08.5** | **-2.6** |
| HJA | | | | | IAML | 16 42 09.7 | |
| | comp=Z,651nm,0.6s | | | | | | |
| **YJA** | **Yavi** | **1.78** | **317** | *e*P | **Pn** | **16 42 20.2** | **+0.4** |
| YJA | | | | | IAML | 16 42 44.3 | |
| | comp=Z,945nm,0.5s | | | | | | |
| **MOCB** | **Mochara** | **2.59** | **329** | *e*Pn | **Pn** | **16 42 31.8** | **+0.8** |
| MOCB | | | | *e*Sn | **Sn** | **16 43 03.6** | **+2.1** |
| | comp=Z,536nm,0.3s | | | | | | |
| **FSA** | **Cafayete** | **3.08** | **211** | *e*P | **Pn** | **16 42 38.7** | **+1.1** |
| FSA | | | | | IAML | 16 43 42.8 | |
| | comp=Z,53nm,0.5s | | | | | | |
| **AHML** | **Horco Molle** | **3.45** | **197** | *e*P | **Pn** | **16 42 43.7** | **+1.1** |
| **CYA** | **Choya** | **5.15** | **196** | IAML | | 16 44 44.4 | |
| | comp=Z,31nm,0.6s | | | | | | |
| **CPUP** | **Villa Florida** | **6.85** | **116** | Pn | **Pn** | **16 43 30.5** | **+1.4** |
| | comp=Z,2.4nm,0.3s,baz=292,slow=14,SNR=42 | | | | | | |
| CPUP | | | | Lg | Lg | 16 45 29.9 | |
| | comp=Z,3.4nm,0.3s,baz=22,slow=19,SNR=2.1 | | | | | | |
| **BBOJ** | **La Paz, Jacaqu** | **7.48** | **329** | *e*Pn | **Pn** | **16 43 39.2** | **+0.9** |
| **BBOE** | **La Paz, Chanca** | **7.52** | **331** | *e*Pn | **Pn** | **16 43 40.0** | **+1.0** |
| **SIV** | **San Ignacio** | **8.01** | **22** | Pn | **Pn** | **16 43 46.0** | **+0.8** |
| | comp=Z,1.9nm,0.3s,baz=216,slow=13,SNR=18 | | | | | | |
| SIV | | | | | Sn | **16 45 09.8** | **-4.7** |
| | comp=Z,1.6nm,0.3s,baz=264,slow=19,SNR=3.4 | | | | | | |
| **SIV** | **San Ignacio** | **8.01** | **22** | *e*Pn | **Pn** | **16 43 46.0** | **+0.8** |
| **LPAZ** | **La Paz** | **8.05** | **332** | Pn | **Pn** | **16 43 46.9** | **+0.6** |
| | comp=Z,0.2nm,0.3s,baz=132,slow=14,SNR=4.0 | | | | | | |
| LPAZ | | | | | Sn | **16 45 13.7** | **-2.7** |
| | comp=Z,0.4nm,0.3s,baz=7.2,slow=17,SNR=3.7 | | | | | | |
| **LPAZ** | **La Paz** | **8.05** | **332** | *e*Pn | **Pn** | **16 43 47.5** | **+1.2** |
| **BBOB** | **La Paz, Bander** | **8.19** | **332** | *e*Pn | **Pn** | **16 43 49.2** | **+1.2** |
| **PLCA** | **Paso Flores** | **18.02** | **196** | LR | LR | 16 52 39.1 | |
| | comp=Z,101nm,18.2s,baz=166,slow=36 | | | | | | |
| **YKA** | **Yellowknife Ar** | **94.54** | **339** | P | **P** | **16 55 07.9** | **+0.4** |
| | comp=Z,0.3nm,0.8s,baz=122,slow=4.2,SNR=6.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **133.21** | **204** | PKP | **PKPdf** | **17 01 05.4** | **+1.3** |
| | comp=Z,0.3nm,0.8s,baz=153,slow=1.5,SNR=3.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **144.47** | **41** | PKP | **PKPdf** | **17 01 24.3** | **+0.5** |
| | comp=Z,0.8nm,0.9s,baz=273,slow=3.5,SNR=6.2 | | | | | | |

*IDC **31** 17:03:53.8±2.3, 36°.88N×140°.91E, h0km, mb3.2/2, mb1 3.5/3, mb1mx3.1/53, mbtmp3.2/3, ML3.3/1, MS3.5/1, Ms1 3.5/1, ms1mx2.6/15, Error ellipse: s-maj=41.0km s-min=27.0km az=58.0*
*ISCJB **31** 17:03:55.7±0.8, 36°.86N±0°.03×140°.81E±0°.07, h15km±4km, mb3.2/2, MS3.5/1, Error ellipse: s-maj=9.8km s-min=4.3km az=21.6*
*JMA **31** 17:03:56.7, 36°.88N×140°.69E, h11km±1km, M3.4 Broadband fault plane solution: P waves. NP1: φs0.00000°, δ50.00000°, λ-102.00000°. NP2:φs198.00000°, δ42.00000°, λ-76.00000°. Principal axes: T Plg4.0000°, Azm98.0000°; N Plg9.0000°, Azm7.0000°; P Plg80.0000°, Azm212.0000°;*
*JMA Felt I J1.*

**ISC 31 17:03:56.3**±1.1, **36°.88N**±0°.04×**140°.74E**±0°.06, **h14**km±8km, **n18, s0 74/22, 6C-1D, Near east coast of eastern Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ONAJ** | **Iwakimizuishiy** | **0.23** | **11** | ⇑P | **Pg** | **17 04 01.6** | **+0.2** |
| ONAJ | | | | S | **Sb** | **17 04 05.3** | **-1.0** |
| **JHO** | **Hitachi** | **0.30** | **208** | ⇑P | **Pg** | **17 04 02.5** | **0.0** |
| JHO | | | | *e*S | **Sg** | **17 04 06.6** | **-0.1** |
| **JFK** | **Kawauchi** | **0.50** | **12** | ⇑P | **Pg** | **17 04 06.3** | **+0.1** |
| JFK | | | | *e*S | **Sg** | **17 04 13.3** | **+0.4** |
| **JSB** | **Shiboa** | **0.67** | **278** | ⇑P | **Pb** | **17 04 09.4** | **-0.3** |
| JSB | | | | S | **Sb** | **17 04 18.3** | **-0.5** |
| **JFT** | **Otama** | **0.72** | **333** | ⇑P | **Pb** | **17 04 10.0** | **-0.6** |
| JFT | | | | S | **Sb** | **17 04 19.3** | **-1.0** |
| **JYT** | **Yasato** | **0.78** | **214** | P | **Pb** | **17 04 10.9** | **-0.8** |
| JYT | | | | S | **Sb** | **17 04 21.4** | **-0.7** |
| **JFY** | **Yanaizu** | **0.98** | **303** | ⇑P | **Pb** | **17 04 14.3** | **-0.8** |
| JFY | | | | S | **Sb** | **17 04 26.7** | **-1.2** |
| **JMM** | **Marumori** | **0.99** | **2** | ⇓P | **Pb** | **17 04 14.6** | **-0.6** |
| JMM | | | | *e*S | **Sb** | **17 04 27.9** | **-0.2** |
| **MJAR** | **Matsushiro Arr** | **2.06** | **261** | Pn | **Pn** | **17 04 31.6** | **+1.1** |
| | 9.6nm,0.3s,baz=85,slow=16,SNR=126 | | | | | | |
| MJAR | | | | Sn | **Sb** | **17 04 59.0** | **+0.1** |
| | 17nm,0.3s,baz=78,slow=30,SNR=14 | | | | | | |
| **MAT** | **Matsushiro** | **2.06** | **261** | P | **Pn** | **17 04 31.7** | **+1.2** |
| MAT | | | | S | **Sb** | **17 04 58.5** | **-0.5** |
| **H11N2** | **WAKE ISLAND Hy** | **28.53** | **120** | T | T | 17 39 37.9 | |
| | baz=313,slow=75,SNR=221 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **28.54** | **120** | T | T | 17 39 38.5 | |
| | baz=313,slow=75,SNR=210 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **28.55** | **120** | T | T | 17 39 39.2 | |
| | baz=313,slow=75,SNR=243 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **29.23** | **122** | T | T | 17 40 30.6 | |
| | baz=314,slow=76,SNR=209 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **29.23** | **122** | T | T | 17 40 30.1 | |
| | baz=314,slow=76,SNR=161 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **29.25** | **122** | T | T | 17 40 31.2 | |
| | baz=314,slow=76,SNR=143 | | | | | | |
| **MKAR** | **Makanchi Array** | **43.75** | **302** | P | **P** | **17 12 01.6** | **+0.5** |
| | 0.2nm,0.8s,baz=90,slow=9.6,SNR=2.6 | | | | | | |
| **WRA** | **Warramunga Arr** | **56.83** | **187** | P | **P** | **17 13 40.0** | **-0.3** |
| | 0.3nm,0.6s,baz=4.6,slow=7.4,SNR=7.4 | | | | | | |
| WRA | | | | LR | LR | 17 38 37.5 | |
| | comp=Z,39nm,18.6s,baz=170,slow=37 | | | | | | |

**IDC 31 17:04:04.2±11.0, 27.18S×178.36W, h276km±99km, mb3.2/3, mb1 3.4/4, mb1mx3.2/25, mbtmp4.0/4, Error ellipse: s-maj=141.6km s-min=34.0km az=147.0, Kermadec Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AFI** | **Afiamalu** | **14.57** | **26** | P | P | 17 07 18.0 | 0.0 |
| | 1.7nm,0.3s,baz=180,slow=10,SNR=3.1 | | | | | | |
| AFI | | | | S | S | 17 09 47.1 | -12 |
| | 0.7nm,0.3s,baz=248,slow=19,SNR=2.0 | | | | | | |
| **STKA** | **Stephens Creek** | **35.01** | **253** | P | P | 17 10 30.9 | -0.1 |
| | 0.6nm,0.5s,baz=95,slow=11,SNR=4.1 | | | | | | |
| **ASAR** | **Alice Springs** | **43.05** | **264** | P | P | 17 11 37.3 | -0.2 |
| | 0.9nm,0.5s,baz=102,slow=7.6,SNR=42 | | | | | | |
| ASAR | | | | PcP | PcP | 17 13 22.0 | -0.3 |
| | 0.2nm,0.8s,baz=111,slow=4.1,SNR=3.2 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.75** | **269** | P | P | 17 11 43.0 | 0.0 |
| | 1.9nm,0.6s,baz=108,slow=7.5,SNR=44 | | | | | | |

*ISK **31** 17:09:14.6,38.71N×43.10E,h13km,ML2.3*
*ISCJB **31** 17:09:15.8±0.4,38.72N±0.02×43.12E±0.03,h9km±5km, Error ellipse: s-maj=4.5km s-min=4.1km az=25.8*
*CSEM **31** 17:09:15.2±0.2,38.71N×43.10E,h12km,ML2.3, Error ellipse: s-maj=3.9km s-min=3.4km az=94.0*
*DDA **31** 17:09:15.4,38.72N×43.14E,h7km,Ml2.7*
**ISC 31 17:09:15.1±1.1, 38.71N±0.02×43.10E±0.02, h8km±10km, n24, σ0s63/45, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VANB** | **Van** | **0.25** | **117** | *e*PG | **Pb** | **17 09 21.4** | **-0.6** |
| VANB | | | | *e*SG | **Sb** | **17 09 26.5** | **-0.1** |
| **VANB** | **Van** | **0.25** | **117** | *e*Pg | **Pb** | **17 09 21.4** | **-0.6** |
| VANB | | | | *e*Sg | **Sb** | **17 09 26.5** | **-0.1** |
| **TVAN** | **Van** | **0.30** | **127** | *i* P | **Pg** | **17 09 21.2** | **+0.1** |
| TVAN | | | | *i* S | **Sg** | **17 09 26.1** | **+1.0** |
| **TVAN** | **Van** | **0.30** | **127** | P | **Pg** | **17 09 21.2** | **+0.1** |
| TVAN | | | | S | **Sg** | **17 09 26.1** | **+1.0** |
| **ADCV** | **BITLIS_Adilcev** | **0.31** | **289** | *i* P | **Pb** | **17 09 22.3** | **-0.7** |
| ADCV | | | | *i* S | **Sb** | **17 09 27.7** | **-0.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.31** | **289** | P | **Pb** | **17 09 22.3** | **-0.7** |
| ADCV | | | | S | **Sb** | **17 09 27.7** | **-0.6** |
| **GEVA** | **Gevas** | **0.40** | **185** | *i* P | **Pg** | **17 09 22.6** | **-0.3** |
| GEVA | | | | *i* S | **Sb** | **17 09 30.1** | **-0.7** |
| **GEVA** | **Gevas** | **0.40** | **185** | P | **Pg** | **17 09 22.6** | **-0.3** |
| GEVA | | | | S | **Sb** | **17 09 30.1** | **-0.7** |
| **VMUR** | **Van-Muradiye** | **0.46** | **53** | *i* P | **Pg** | **17 09 24.1** | **0.0** |
| VMUR | | | | *i* S | **Sb** | **17 09 32.5** | **-0.2** |
| **VMUR** | **Van-Muradiye** | **0.46** | **53** | P | **Pg** | **17 09 24.1** | **0.0** |
| VMUR | | | | S | **Sb** | **17 09 32.5** | **-0.2** |
| **TUTA** | **Tutak** | **0.73** | **342** | *i* P | **Pg** | **17 09 29.4** | **+0.3** |
| TUTA | | | | *i* S | **Sb** | **17 09 39.8** | **-0.6** |
| **TUTA** | **Tutak** | **0.73** | **342** | P | **Pg** | **17 09 29.4** | **+0.3** |
| TUTA | | | | S | **Sb** | **17 09 39.8** | **-0.6** |
| **CLDR** | **Caldiran** | **0.77** | **56** | *e*PG | **Pg** | **17 09 30.1** | **+0.1** |
| CLDR | | | | *e*SG | **Sb** | **17 09 41.2** | **-0.4** |
| **CLDR** | **Caldiran** | **0.77** | **56** | *i* P | **Pg** | **17 09 29.8** | **-0.2** |
| CLDR | | | | *i* S | **Sb** | **17 09 41.0** | **-0.6** |
| **CLDR** | **Caldiran** | **0.77** | **56** | P | **Pg** | **17 09 29.8** | **-0.2** |
| **CLDR** | **Caldiran** | **0.77** | **56** | *e*Pg | **Pg** | **17 09 30.1** | **+0.1** |
| CLDR | | | | S | **Sb** | **17 09 41.0** | **-0.6** |
| **AGRB** | **Hanur-Agry** | **0.87** | **355** | *e*PG | **Pg** | **17 09 31.9** | **+0.1** |
| AGRB | | | | *e*SG | **Sb** | **17 09 44.3** | **-0.1** |
| **AGRB** | **Hanur-Agry** | **0.87** | **355** | *e*Pg | **Pg** | **17 09 31.9** | **+0.1** |
| AGRB | | | | *e*Sg | **Sb** | **17 09 44.3** | **-0.1** |
| **SRTM** | **Siirt_Merkez** | **1.17** | **233** | *i* P | **Pg** | **17 09 37.9** | **+0.3** |
| SRTM | | | | *i* S | **Sn** | **17 09 55.7** | **+1.6** |
| **SRTM** | **Siirt_Merkez** | **1.17** | **233** | P | **Pg** | **17 09 37.9** | **+0.3** |
| SRTM | | | | S | **Sn** | **17 09 55.7** | **+1.6** |
| **EATA** | **Eleskirt** | **1.24** | **338** | *i* P | **Pn** | **17 09 38.6** | **-0.5** |
| EATA | | | | *i* S | **Sn** | **17 09 57.2** | **+1.0** |
| **EATA** | **Eleskirt** | **1.24** | **338** | P | **Pn** | **17 09 38.6** | **-0.5** |
| EATA | | | | S | **Sn** | **17 09 57.2** | **+1.0** |
| **SIRT** | **Sirnak** | **1.31** | **204** | *e*PN | **Pn** | **17 09 39.2** | **-0.6** |
| **SIRT** | **Sirnak** | **1.31** | **204** | *e*Pn | **Pn** | **17 09 39.2** | **-0.6** |

*IDC **31** 17:10:27.9±0.9, 11.21N×86.52W, h0km, mb4.0/13, mb1 4.1/14, mb1mx3.9/48, mbtmp4.0/14, ML3.8/1, MS3.5/2, Ms1 3.5/2, ms1mx2.7/32, Error ellipse: s-maj=32.3km s-min=15.6km az=46.0*
*CASC **31** 17:10:29.8±2.0, 10.84N×86.78W, h16km±8km, MD3.9, mb4.6(NEIC)*
*ISCJB **31** 17:10:31.7±0.7, 10.93N±0.05×86.74W±0.05, h53km±5km, mb4.5/50, MS3.6/1, Error ellipse: s-maj=10.9km s-min=4.7km az=44.4*
*NEIC **31** 17:10:35.0±1.1, 11.08N×86.64W, h58km±9km, mb4.6/42, Error ellipse: s-maj=12.0km s-min=6.8km az=214.0*
**ISC 31 17:10:34.4±1.2, 11.07N±0.07×86.60W±0.08, h54km±10km, n102, σ1s63/110, mb4.5/50, 1C-1D, Near coast of Nicaragua**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRZ1** | **La Cruz** | **0.95** | **90** | ⇑*e*P | **Pn** | **17 10 50.4** | **-1.3** |
| **MASN** | **Masaya** | **1.02** | **26** | *e*P | **Pn** | **17 10 53.0** | **+0.4** |
| **COPN** | **Copaltepe** | **1.11** | **1** | *e*P | **Pn** | **17 10 53.2** | **-0.5** |
| **MGAN** | **Managua** | **1.13** | **18** | *e*P | **Pn** | **17 10 54.5** | **+0.4** |
| MGAN | | | | *e*S | **Sn** | **17 11 12.4** | **+3.9** |
| **GPS3** | **Bodega del ICE** | **1.25** | **104** | *e*P | **Pn** | **17 10 54.1** | **-1.7** |
| GPS3 | | | | *e*S | **Sn** | **17 11 14.8** | **+3.2** |
| **MOMN** | **Momotombo** | **1.33** | **3** | *e*P | **Pn** | **17 10 56.2** | **-0.7** |
| **VCR** | **Vista de Mar** | **1.34** | **134** | *e*P | Pn | 17 10 52.1 | -4.8 |
| **MESS** | **Mesas** | **1.42** | **103** | *e*P | **Pn** | **17 10 56.5** | **-1.5** |
| **COLC** | **Colonia** | **1.43** | **106** | *e*P | **Pn** | **17 10 56.4** | **-1.8** |
| COLC | | | | *e*S | **Sn** | **17 11 17.7** | **+1.8** |
| **CUI** | **Cuipilapa** | **1.47** | **106** | *e*P | **Pn** | **17 10 56.9** | **-1.7** |
| CUI | | | | *e*S | **Sn** | **17 11 17.4** | **+0.5** |
| **BRAN** | **Las Pilas** | **1.66** | **9** | *e*P | Pn | 17 10 53.8 | -7.4 |
| BRAN | | | | *e*S | **Sn** | **17 11 12.9** | **-8.6** |
| **CRIN** | **San Cristobal** | **1.68** | **345** | *e*P | **Pn** | **17 10 60.0** | **-1.6** |
| CRIN | | | | *e*S | **Sn** | **17 11 26.8** | **+4.8** |
| **ARE1** | **Arenal 1** | **1.95** | **108** | *e*P | **Pn** | **17 11 04.1** | **-1.1** |
| ARE1 | | | | *e*S | **Sn** | **17 11 29.5** | **+1.0** |
| **MATN** | **Matagalpa** | **1.97** | **20** | *e*P | **Pn** | **17 11 05.0** | **-0.5** |
| **CGA2** | **Cerro Gallo 2** | **2.35** | **116** | *e*P | **Pn** | **17 11 08.9** | **-1.8** |
| **HDC** | **Heredia** | **2.67** | **113** | *e*Pn | **Pn** | **17 11 14.9** | **-0.2** |
| **LCR2** | **La Lucha 2** | **2.88** | **117** | ⇓*e*P | **Pn** | **17 11 17.5** | **-0.5** |
| LCR2 | | | | *e*S | **Sn** | **17 11 51.8** | **+0.3** |
| **QCR1** | **Quepos** | **2.90** | **124** | *e*P | **Pn** | **17 11 16.4** | **-1.7** |
| **URSC** | **Urasca** | **3.04** | **114** | *e*P | **Pn** | **17 11 19.5** | **-0.7** |
| **TGUH** | **Tegucigalpa,Un** | **3.04** | **348** | *e*Pn | **Pn** | **17 11 20.1** | **0.0** |
| **TGUH** | **Tegucigalpa,Un** | **3.04** | **348** | *e*P | **Pn** | **17 11 19.8** | **-0.4** |
| **CMIG** | **Matias Romero** | **10.02** | **308** | Pn | **Pn** | **17 12 54.4** | **-1.4** |
| | 0.9nm,0.3s,baz=138,slow=16,SNR=8.4 | | | | | | |
| **TLIG** | **Tlapa** | **13.27** | **300** | *e*Pn | **Pn** | **17 13 40.2** | **0.0** |
| **SDV** | **Santo Domingo** | **15.88** | **96** | Pn | **Pn** | **17 14 15.2** | **+0.4** |
| | 0.4nm,0.3s,baz=301,slow=12,SNR=14 | | | | | | |
| **SDV** | **Santo Domingo** | **15.88** | **96** | *e*Pn | **P** | **17 14 17.2** | **-0.4** |
| | 9.7nm,0.8s | | | | | | |
| **ATAH** | **Atahualpa** | **19.84** | **155** | LR | LR | 17 21 05.8 | |
| | comp=Z,120nm,19.9s,baz=342,slow=32 | | | | | | |
| **HKT** | **Hockley** | **20.66** | **337** | *e*P | **P** | **17 15 10.4** | **+0.7** |
| | 37nm,1.8s | | | | | | |
| **PCRV** | **Puerto La Cruz** | **21.61** | **90** | P | **P** | **17 15 20.5** | **+0.4** |
| | 15nm,0.7s,baz=308,slow=3.4,SNR=7.3 | | | | | | |
| **LRAL** | **Lakeview Retre** | **21.87** | **359** | *e*P | **P** | **17 15 24.1** | **+1.4** |
| | 25nm,1.6s | | | | | | |
| **WHTX** | **Lake Whitney,** | **23.11** | **336** | *e*P | **P** | **17 15 36.5** | **+0.7** |
| | 10nm,0.7s | | | | | | |
| **BG3** | **Lake Jocassee** | **24.05** | **7** | *e*P | **P** | **17 15 45.9** | **+1.2** |
| | 11nm,0.9s | | | | | | |
| **LTX** | **Lajitas** | **24.16** | **321** | *e*P | **P** | **17 15 46.2** | **+0.4** |
| LTX | | | | *e*PcP | **PcP** | **17 19 27.8** | **+2.1** |
| **TX31** | **Lajitas Ar. Si** | **24.16** | **321** | *e*P | **P** | **17 15 45.9** | **0.0** |
| **TXAR** | **Lajitas Array** | **24.16** | **321** | P | **P** | **17 15 46.2** | **+0.4** |
| | 1.6nm,0.7s,baz=134,slow=9.6,SNR=22 | | | | | | |
| TXAR | | | | PcP | **PcP** | **17 19 27.8** | **+2.1** |
| | 0.9nm,0.8s,baz=134,slow=5.2,SNR=6.2 | | | | | | |
| **CPCT** | **Cooper Cave** | **24.35** | **4** | *e*P | **P** | **17 15 48.2** | **+0.9** |
| | 14nm,0.7s | | | | | | |
| **KMSC** | **Kings Mountain** | **24.44** | **10** | *e*P | **P** | **17 15 48.2** | **+0.1** |
| | 62nm,1.8s | | | | | | |
| **TKL** | **Tuckaleechee C** | **24.62** | **6** | P | **P** | **17 15 50.4** | **+0.6** |
| | 5.0nm,0.6s,baz=174,slow=10,SNR=9.8 | | | | | | |
| **TKL** | **Tuckaleechee C** | **24.62** | **6** | *e*P | **P** | **17 15 51.7** | **+2.0** |
| | 42nm,1.8s | | | | | | |
| **X301** | **Greenbrier Sit** | **24.63** | **349** | *e*P | **P** | **17 15 50.5** | **+0.6** |
| | 28nm,1.8s | | | | | | |
| **H06E1** | **SOCORRO T-PHAS** | **24.70** | **291** | T | T | 17 41 25.1 | |
| | SNR=11 | | | | | | |
| **W40A** | **Ferguson Farm,** | **24.73** | **347** | *e*P | **P** | **17 15 53.1** | **+2.3** |
| | 40nm,1.8s | | | | | | |
| **X37A** | **Clayton** | **24.75** | **343** | *e*P | **P** | **17 15 52.2** | **+1.3** |
| | 41nm,1.8s | | | | | | |
| **ANWB** | **Willy Bob** | **24.91** | **72** | *e*P | **P** | **17 15 54.4** | **+1.9** |
| | 82nm,0.8s | | | | | | |
| **GNAR** | **Gosnell** | **24.98** | **353** | *e*P | **P** | **17 15 53.5** | **+0.5** |
| | 33nm,0.6s | | | | | | |
| **X35A** | **Drake** | **25.08** | **339** | *e*P | **P** | **17 15 54.6** | **+0.6** |
| | 8.9nm,0.8s | | | | | | |
| **W37B** | **Quinton** | **25.27** | **343** | *e*P | **P** | **17 15 51.9** | **-3.8** |
| | 22nm,1.0s | | | | | | |
| **CNNC** | **Cliffs of the** | **25.34** | **17** | *e*P | **P** | **17 15 55.9** | **-0.3** |
| | 53nm,1.5s | | | | | | |
| **W36A** | **Wetumka** | **25.51** | **341** | *e*P | **P** | **17 15 56.5** | **-1.4** |
| | 11nm,0.4s | | | | | | |
| **HHAR** | **Hobbs** | **25.97** | **346** | *e*P | **P** | **17 16 01.1** | **-0.9** |
| | 14nm,1.3s | | | | | | |
| **OK022** | **N3560 Road, Pr** | **26.02** | **341** | *e*P | **P** | **17 16 01.7** | **-0.8** |
| | 31nm,1.0s | | | | | | |
| **V36A** | **Jenks** | **26.03** | **343** | *e*P | **P** | **17 16 01.2** | **-1.4** |
| | 7.1nm,0.6s | | | | | | |
| **WMOK** | **Wichita Mounta** | **26.05** | **337** | *e*P | **P** | **17 16 04.2** | **+1.4** |
| | 9.3nm,1.0s | | | | | | |
| **OK020** | **N3440 Road, Me** | **26.09** | **341** | *e*P | **P** | **17 16 01.1** | **-2.0** |
| | 7.1nm,0.8s | | | | | | |
| **V35A** | **Meyer Ranch, C** | **26.28** | **341** | *e*P | **P** | **17 16 03.4** | **-1.4** |
| | 10nm,0.8s | | | | | | |
| **MNTX** | **Cornudas Mount** | **26.88** | **323** | *e*P | **P** | **17 16 11.5** | **+1.2** |
| | 18nm,2.0s | | | | | | |
| **MSTX** | **Muleshoe** | **27.18** | **330** | *e*P | **P** | **17 16 12.4** | **-0.7** |
| | 16nm,1.3s | | | | | | |
| **CCM** | **Cathedral Cave** | **27.20** | **352** | *e*P | **P** | **17 16 12.4** | **-0.7** |
| | 4.9nm,0.9s | | | | | | |
| **AMTX** | **Amarillo** | **27.40** | **332** | *e*P | **P** | **17 16 17.5** | **+2.5** |
| | 22nm,0.5s | | | | | | |
| **SPRD** | **Spring Road, M** | **27.96** | **15** | *e*P | **P** | **17 16 20.7** | **+0.8** |
| | 50nm,2.0s | | | | | | |
| **IP04** | **Greensprings** | **27.97** | **14** | *e*P | **P** | **17 16 19.3** | **-0.7** |
| | 18nm,1.4s | | | | | | |
| **BLO** | **Bloomington** | **27.99** | **0** | *e*P | **P** | **17 16 19.0** | **-1.2** |
| | 36nm,1.8s | | | | | | |
| **PTRD** | **Partlow Road** | **28.12** | **15** | *e*P | **P** | **17 16 22.1** | **+0.8** |
| | 44nm,0.2s | | | | | | |
| **SPFD** | **Spotsylvania F** | **28.16** | **15** | *e*P | **P** | **17 16 22.5** | **+0.8** |
| | 22nm,1.1s | | | | | | |
| **PTGA** | **Pitinga** | **28.96** | **112** | P | **P** | **17 16 29.6** | **+0.5** |
| | 2.5nm,0.8s,baz=302,slow=13,SNR=3.7 | | | | | | |
| **PTGA** | **Pitinga** | **28.96** | **112** | *e*P | **P** | **17 16 29.9** | **+0.9** |
| **SRIG** | **Santa Rosalia** | **29.02** | **307** | *e*P | **P** | **17 16 30.3** | **+0.8** |
| | 45nm,1.8s | | | | | | |
| **319A** | **Douglas** | **29.13** | **317** | *e*P | **P** | **17 16 29.9** | **-0.6** |
| | 5.2nm,1.1s | | | | | | |
| **MVL** | **Millersville** | **30.22** | **16** | *e*P | **P** | **17 16 40.2** | **+0.3** |
| | 47nm,1.8s | | | | | | |
| **PAGS** | **Pennsylvania G** | **30.33** | **15** | *e*P | **P** | **17 16 41.8** | **+0.8** |
| | 12nm,0.9s | | | | | | |
| **N59A** | **State Game Lan** | **31.23** | **16** | *e*P | **P** | **17 16 49.9** | **+1.0** |
| | 73nm,1.9s | | | | | | |
| **ECSD** | **EROS Data Cent** | **33.68** | **347** | *e*P | **P** | **17 17 08.8** | **-1.5** |
| | 4.1nm,0.9s | | | | | | |
| **SADO** | **Sadowa** | **34.19** | **9** | P | **P** | **17 17 14.3** | **-0.4** |
| | 2.3nm,0.4s,baz=190,slow=11,SNR=3.0 | | | | | | |
| **SADO** | **Sadowa** | **34.19** | **9** | *e*P | **P** | **17 17 13.9** | **-0.7** |
| | 27nm,1.4s | | | | | | |
| **P17A** | **Butcher Ranch,** | **35.50** | **327** | *e*P | **P** | **17 17 25.7** | **-0.5** |
| | 8.6nm,1.2s | | | | | | |
| **SIV** | **San Ignacio** | **36.90** | **136** | P | **P** | **17 17 38.5** | **+0.3** |
| | 2.5nm,0.6s,baz=316,slow=8.4,SNR=7.3 | | | | | | |
| **PD31** | **Pinedale Array** | **37.38** | **332** | *e*P | **P** | **17 17 42.2** | **-0.1** |
| **PDAR** | **Pinedale Array** | **37.38** | **332** | P | **P** | **17 17 43.2** | **+0.9** |
| | 0.7nm,0.6s,baz=118,slow=9.1,SNR=6.4 | | | | | | |
| **AGMN** | **Agassiz Nation** | **37.92** | **350** | *e*P | **P** | **17 17 45.5** | **-0.9** |
| | 16nm,1.5s | | | | | | |
| **NV01** | **Mina Array Sit** | **39.28** | **319** | *e*P | **P** | **17 17 58.9** | **+0.5** |
| **NVAR** | **Mina Array Bea** | **39.28** | **319** | P | **P** | **17 17 59.3** | **+0.9** |
| | 1.3nm,1.1s,baz=134,slow=8.9,SNR=3.8 | | | | | | |
| NVAR | | | | PcP | **PcP** | **17 20 08.0** | **+1.6** |
| | 1.0nm,0.7s,baz=134,slow=5.4,SNR=6.8 | | | | | | |
| **ULM** | **Lac du Bonnet** | **39.81** | **351** | P | **P** | **17 18 00.0** | **-2.3** |
| | 1.8nm,0.6s,baz=165,slow=9.1,SNR=4.7 | | | | | | |
| **LRC** | **Lone Oak Road** | **39.94** | **315** | *e*P | **P** | **17 18 06.5** | **+2.9** |
| **CVLM** | **Vallecito** | **41.19** | **316** | *e*P | **P** | **17 18 10.3** | **-3.5** |
| **SCHQ** | **Schefferville** | **46.37** | **16** | P | **P** | **17 18 53.4** | **-1.8** |
| | 3.5nm,0.9s,baz=225,slow=7.1,SNR=4.6 | | | | | | |
| **SCHQ** | **Schefferville** | **46.37** | **16** | *e*P | **P** | **17 18 54.3** | **-0.9** |
| | 59nm,1.8s | | | | | | |
| **BBB** | **Bella Bella** | **52.92** | **329** | LR | LR | 17 46 24.6 | |
| | comp=Z,52nm,19.5s,baz=9.5,slow=41 | | | | | | |
| **YKA** | **Yellowknife Ar** | **55.16** | **345** | P | **P** | **17 19 59.3** | **-1.9** |
| | 0.3nm,0.8s,baz=139,slow=7.6,SNR=10 | | | | | | |
| YKA | | | | PcP | **PcP** | **17 21 02.1** | **+0.3** |
| | 0.1nm,0.6s,baz=146,slow=4.1,SNR=4.6 | | | | | | |
| **INK** | **Inuvik** | **64.77** | **343** | P | **P** | **17 21 05.9** | **-1.0** |
| | 1.2nm,1.0s,baz=147,slow=6.9,SNR=2.6 | | | | | | |
| **INK** | **Inuvik** | **64.77** | **343** | *e*P | **P** | **17 21 05.6** | **-1.3** |
| | 16nm,1.8s | | | | | | |
| **ILAR** | **Eielson Array** | **67.61** | **336** | P | **P** | **17 21 24.1** | **-1.2** |
| | 0.3nm,0.8s,baz=123,slow=3.5,SNR=4.4 | | | | | | |
| **ILB** | **Eielson Array** | **67.61** | **336** | *e*P | **P** | **17 21 23.9** | **-1.4** |
| **KSRS** | **Korea Array** | **121.88** | **328** | PKP | **PKPdf** | **17 29 24.0** | **+0.9** |
| | 1.0nm,0.7s,baz=13,slow=3.0,SNR=5.2 | | | | | | |
| **KSAR** | **Wonju Array Be** | **121.91** | **328** | PKP | **PKPdf** | **17 29 24.0** | **+0.9** |
| **WMQ** | **Urumqi** | **125.13** | **5** | *e*P | **PKPdf** | **17 29 28.3** | **-1.0** |
| **HHC** | **Hu-ho-hao-te** | **125.68** | **343** | *e*P | **PKPdf** | **17 29 31.0** | **+0.5** |
| HHC | | | | pmax | pmax | | |
| | comp=Z,18nm,1.4s | | | | | | |
| HHC | | | | AMB | AMB | | |
| | comp=Z,140nm,5.0s | | | | | | |
| **KSH** | **Kashi** | **127.13** | **17** | *e*P | **PKPdf** | **17 29 33.5** | **+0.2** |
| KSH | | | | pmax | pmax | | |
| | comp=Z,99nm,4.5s | | | | | | |
| **NJ2** | **Nanjing** | **130.69** | **331** | *e*P | **PKPdf** | **17 29 39.3** | **-0.8** |
| NJ2 | | | | pmax | pmax | | |
| | comp=Z,11nm,0.7s | | | | | | |
| **ASAR** | **Alice Springs** | **139.50** | **247** | PKP | **PKPdf** | **17 29 56.9** | **+0.2** |
| | comp=Z,0.1nm,0.6s,baz=108,slow=1.5,SNR=3.2 | | | | | | |
| **WR1** | **Warramunga Arr** | **139.66** | **252** | *e*PKPdf | **PKPdf** | **17 29 57.5** | **+0.4** |
| **WRA** | **Warramunga Arr** | **139.66** | **252** | PKP | **PKPdf** | **17 29 57.5** | **+0.4** |
| | comp=Z,0.2nm,0.6s,baz=89,slow=2.4,SNR=2.9 | | | | | | |
| **CM31** | **Chiang Mai Arr** | **150.16** | **349** | *e*PKPbc | **PKPbc** | **17 30 19.8** | **-0.5** |
| **CMAR** | **Chiang Mai Arr** | **150.16** | **349** | PKPbc | **PKPbc** | **17 30 20.2** | **-0.1** |
| | comp=Z,0.9nm,0.8s,baz=347,slow=3.2,SNR=7.9 | | | | | | |
| CMAR | | | | PKPab | **PKPab** | **17 30 27.8** | **+1.6** |
| | comp=Z,0.9nm,0.7s,baz=347,slow=3.1,SNR=7.9 | | | | | | |

**CASC 31 17:13:40.0±3.0, 10.65N×86.90W, h36km±92km, MD3.6, ML3.3, Off coast of Costa Rica**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **CRZ1** | **La Cruz** | **1.31** | **71** | *e*P | Pn | 17 14 01.2 | -0.5 |
| **VCR** | **Vista de Mar** | **1.35** | **113** | *e*P | Pn | 17 14 02.6 | +0.2 |
| **COPN** | **Copaltepe** | **1.55** | **11** | *e*P | Pn | 17 14 04.1 | -0.9 |
| COPN | | | | AML | AML | 17 14 23.5 | |
| | comp=Z,370nm,0.2s | | | | | | |
| **XAVN** | **Gruta Xavier** | **1.59** | **20** | *e*P | Pn | 17 14 05.2 | -0.4 |
| **MOMN** | **Momotombo** | **1.78** | **11** | *e*P | Pn | 17 14 07.7 | -0.5 |
| **ACON** | **Acoyapa** | **2.13** | **52** | *e*P | Pn | 17 14 16.0 | +2.9 |
| **CGA2** | **Cerro Gallo 2** | **2.47** | **105** | *e*P | Pn | 17 14 18.0 | +0.1 |
| **URSC** | **Urasca** | **3.17** | **105** | *e*P | Pn | 17 14 29.2 | +1.7 |
| URSC | | | | *e*S | Sn | 17 15 04.1 | -0.2 |

**IDC 31 17:22:38.6±6.0, 7.92S×129.25E, h0km, mb3.7/1, mb1 3.5/4, mb1mx3.3/37, mbtmp3.4/4, ML3.2/3, Error ellipse: s-maj=71.8km s-min=68.5km az=146.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **10.72** | **199** | Pn | Pn | 17 25 12.4 | -1.0 |
| | 0.2nm,0.3s,baz=12,slow=9.3,SNR=7.8 | | | | | | |
| FITZ | | | | Sn | Sn | 17 27 07.7 | -6.5 |
| | 0.2nm,0.3s,baz=27,slow=2.3,SNR=4.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **12.93** | **158** | Pn | Pn | 17 25 45.5 | +1.7 |
| | 0.1nm,0.3s,baz=342,slow=13,SNR=6.8 | | | | | | |
| WRA | | | | Sn | Sn | 17 28 08.7 | +0.1 |
| | 0.2nm,0.3s,baz=338,slow=22,SNR=6.7 | | | | | | |
| **ASAR** | **Alice Springs** | **16.29** | **165** | Pn | Pn | 17 26 29.8 | +0.9 |
| | 0.1nm,0.3s,baz=337,slow=12,SNR=13 | | | | | | |
| ASAR | | | | Sn | Sn | 17 29 30.1 | -0.2 |
| | 0.1nm,0.3s,baz=324,slow=14,SNR=4.2 | | | | | | |
| **STKA** | **Stephens Creek** | **26.47** | **156** | P | P | 17 28 17.3 | -0.2 |
| | 0.7nm,0.6s,baz=345,slow=12,SNR=4.3 | | | | | | |

*CSEM **31** 17:26:55.2±0.2, 43.92N×11.84E, h2km, ML2.4/6, Error ellipse: s-maj=4.3km s-min=2.4km az=43.0*
*VIE **31** 17:26:58.6±2.0, 44.14N×12.10E, h8km, mb2.2/3, ML2.5/6, Error ellipse: s-maj=17.3km s-min=11.0km az=37.0*
**ROM 31 17:26:54.3±0.1, 43.94N×11.83E, h9km, Ml1.9/11, 6C, Error ellipse: s-maj=2.0km s-min=1.0km az=40.0, Central Italy**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SFI** | **Santa Sofia** | **0.04** | **161** | ⇑*i*Pg | Pg | 17 26 56.2 | +0.1 |
| SFI | | | | Sg | Sg | 17 26 57.5 | +0.1 |
| | 2μm,0.3s | | | | | | |
| **SFI** | **Santa Sofia** | **0.04** | **161** | ⇑*i*Pg | Pg | 17 26 56.2 | +0.1 |
| SFI | | | | Sg | Sg | 17 26 57.5 | +0.1 |
| | 2μm,0.3s | | | | | | |
| **ASQU** | **Asqua** | **0.15** | **191** | ⇑*i*Pg | Pg | 17 26 58.1 | +0.5 |
| ASQU | | | | Sg | Sg | 17 27 01.1 | +1.3 |
| **ASQU** | **Asqua** | **0.15** | **191** | ⇑*i*Pg | Pg | 17 26 58.1 | +0.5 |
| ASQU | | | | Sg | Sg | 17 27 01.1 | +1.3 |
| **VMG** | **Vicchio** | **0.21** | **276** | ⇑*i*Pg | Pg | 17 26 59.2 | +0.6 |
| VMG | | | | Sg | Sg | 17 27 03.4 | +2.0 |
| **VMG** | **Vicchio** | **0.21** | **276** | ⇑*i*Pg | Pg | 17 26 59.2 | +0.6 |
| VMG | | | | Sg | Sg | 17 27 03.4 | +2.0 |
| **CRE** | **Caprese Michel** | **0.33** | **165** | Pg | Pg | 17 27 01.4 | +0.5 |
| CRE | | | | Sg | Sb | 17 27 07.1 | -0.9 |
| | 277nm,0.3s | | | | | | |
| **CRE** | **Caprese Michel** | **0.33** | **165** | Pg | Pg | 17 27 01.4 | +0.5 |
| CR

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 83nm,0.6s | | | | | | |
| **PARC** | **Parchiule** | **0.43** | **136** | Pg | Pg | 17 27 17.3 | +0.6 |
| PARC | | | | Sg | Sb | 17 27 23.9 | -1.0 |
| | 83nm,0.6s | | | | | | |
| **BADI** | **Badiali** | **0.54** | **146** | Pg | Pb | 17 27 20.1 | 0.0 |
| BADI | | | | Sg | Sb | 17 27 27.6 | -0.5 |
| | 104nm,0.6s | | | | | | |
| **BADI** | **Badiali** | **0.54** | **146** | Pg | Pb | 17 27 20.1 | 0.0 |
| BADI | | | | Sg | Sb | 17 27 27.6 | -0.5 |
| | 104nm,0.6s | | | | | | |
| **ATMC** | **Monte Cedrone** | **0.57** | **153** | Pg | Pb | 17 27 21.1 | +0.3 |
| ATMC | | | | Sg | Sb | 17 27 29.3 | +0.2 |
| | 131nm,0.6s | | | | | | |
| **ATMC** | **Monte Cedrone** | **0.57** | **153** | Pg | Pb | 17 27 21.1 | +0.3 |
| ATMC | | | | Sg | Sb | 17 27 29.3 | +0.2 |
| | 131nm,0.6s | | | | | | |
| **ATVO** | **AVT- Monte Val** | **0.71** | **144** | Pg | Pb | 17 27 22.8 | -0.3 |
| ATVO | | | | Sg | Sb | 17 27 33.7 | +0.6 |
| | 55nm,0.4s | | | | | | |
| **ATVO** | **AVT- Monte Val** | **0.71** | **144** | Pg | Pb | 17 27 22.8 | -0.3 |
| ATVO | | | | Sg | Sb | 17 27 33.7 | +0.6 |
| | 55nm,0.4s | | | | | | |

*IDC **31** 17:29:20.6±1.4,7.°01S×154.°31E,h0km,mb3.7/9, mb1 3.9/10,mb1mx3.7/32,mbtmp3.7/10,ML2.5/1,Error ellipse: s-maj=40.4km s-min=19.1km az=120.0*
*ISCJB **31** 17:29:24.5±1.0,7.°1S±0.°1×154.°3E±0.°1,h39km,mb3.6/9, Error ellipse: s-maj=25.2km s-min=11.6km az=143.1*

**ISC 31 17:29:26.1±1.2,7.1S±0.2×154.4E±0.2,h39km,n11, σ1§08/12,mb3.6/9,Bougainville-Solomon Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **7.49** | **251** | Pn | **Pn** | **17 31 11.4** | **-1.5** |
| | 3.9nm,0.3s,baz=71,slow=6.3,SNR=14 | | | | | | |
| PMG | | | | Sn | **Sn** | **17 32 38.4** | **+1.8** |
| | 0.6nm,0.3s,baz=172,slow=15,SNR=2.5 | | | | | | |
| **WRA** | **Warramunga Arr** | **23.25** | **235** | P | **P** | **17 34 29.1** | **-1.2** |
| | 0.7nm,0.5s,baz=62,slow=9.9,SNR=15 | | | | | | |
| **ASAR** | **Alice Springs** | **25.65** | **228** | P | **P** | **17 34 52.6** | **+0.2** |
| | 0.7nm,0.5s,baz=60,slow=9.6,SNR=26 | | | | | | |
| **STKA** | **Stephens Creek** | **27.40** | **204** | P | **P** | **17 35 09.2** | **+1.2** |
| | 0.8nm,0.7s,baz=24,slow=10.0,SNR=1.7 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **30.04** | **246** | P | **P** | **17 35 30.6** | **-1.1** |
| | 1.6nm,0.5s,baz=57,slow=9.3,SNR=10 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **60.25** | **296** | P | **P** | **17 39 30.9** | **0.0** |
| | 0.4nm,0.8s,baz=106,slow=4.8,SNR=3.2 | | | | | | |
| **SONM** | **Songino Array** | **69.06** | **328** | P | **P** | **17 40 29.0** | **+0.9** |
| | 0.3nm,0.4s,baz=142,slow=5.4,SNR=2.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **83.04** | **319** | P | **P** | **17 41 47.8** | **+0.1** |
| | 0.4nm,0.6s,baz=101,slow=6.8,SNR=6.6 | | | | | | |
| **ILAR** | **Eielson Array** | **83.68** | **22** | P | **P** | **17 41 50.2** | **-0.2** |
| | 0.3nm,0.6s,baz=235,slow=5.0,SNR=7.1 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **83.89** | **326** | P | **P** | **17 41 51.4** | **-0.3** |
| | 0.4nm,0.5s,baz=122,slow=4.7,SNR=4.1 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **152.43** | **285** | PKPbc | **PKPbc** | **17 49 19.7** | **+0.5** |
| | 0.9nm,0.7s,baz=57,slow=2.5,SNR=4.8 | | | | | | |

**IDC 31 17:42:27.6±5.5,6.°64S×146.°78E,h74km±59km,mb2.7/2, mb1 3.1/4,mb1mx2.9/31,mbtmp3.2/4,ML2.6/2,Error ellipse: s-maj=69.5km s-min=43.3km az=91.0,Eastern New Guinea region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **PMG** | **Port Moresby** | **2.77** | **172** | P | Pn | 17 43 10.2 | +0.4 |
| | 12nm,0.3s,baz=346,slow=8.3,SNR=54 | | | | | | |
| PMG | | | | S | Sn | 17 43 42.8 | +0.5 |
| | 6.1nm,0.3s,baz=270,slow=19,SNR=6.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **17.91** | **221** | P | P | 17 46 30.8 | -0.7 |
| | 0.1nm,0.3s,baz=49,slow=12,SNR=4.7 | | | | | | |
| **ASAR** | **Alice Springs** | **20.97** | **215** | P | P | 17 47 05.3 | +0.5 |
| | 0.2nm,0.6s,baz=52,slow=8.8,SNR=12 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **53.36** | **299** | P | P | 17 51 39.4 | -0.5 |
| | 0.1nm,0.4s,baz=128,slow=6.1,SNR=4.1 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **145.03** | **283** | PKPbc | PKPbc | 18 01 56.4 | -0.6 |
| | 1.0nm,0.7s,baz=90,slow=3.8,SNR=6.5 | | | | | | |

*IDC **31** 17:56:00.6±2.3,37.°00S×179.°50E,h0km,mb4.0/3, mb1 4.2/4,mb1mx3.8/31,mbtmp4.0/4,ML3.9/1,Error ellipse: s-maj=73.3km s-min=37.1km az=151.0*
*NEIC **31** 17:56:02.3±0.0,37.°63S×179.°91E,h28km,mb4.6/1, ML4.1(WEL),After WEL.*
*WEL **31** 17:56:02.4±0.4,37.°59S×179.°94E,h33km,ML4.1/44,Error ellipse: s-maj=3.9km s-min=3.8km az=90.0*

**ISC 31 17:55:59.9±2.2,37.°71S±0.°07×179.°89E±0.°08,h12km±12km, n94,σ0§98/97,mb4.0/4,2C-5D,Off east coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WMGZ** | **Waiomatatini S** | **1.17** | **264** | Pn | **Pg** | **17 56 22.7** | **+0.2** |
| **WMGZ** | **Waiomatatini S** | **1.17** | **264** | PN | **Pg** | **17 56 22.7** | **+0.2** |
| WMGZ | | | | *e*SN | **Sn** | **17 56 38.5** | **+0.5** |
| WMGZ | | | | AML | AML | 17 56 39.4 | |
| **MXZ** | **Matakaoa Point** | **1.27** | **276** | Pn | **Pn** | **17 56 23.4** | **+0.1** |
| MXZ | | | | Sn | **Sb** | **17 56 39.2** | **-0.6** |
| **MXZ** | **Matakaoa Point** | **1.27** | **276** | ⇑PN | **Pn** | **17 56 23.4** | **+0.1** |
| MXZ | | | | SN | **Sb** | **17 56 39.2** | **-0.6** |
| **PUZ** | **Puketiti** | **1.34** | **254** | Pn | **Pb** | **17 56 25.1** | **+0.2** |
| PUZ | | | | Sn | **Sb** | **17 56 41.9** | **-0.2** |
| **PUZ** | **Puketiti** | **1.34** | **254** | ⇓PN | **Pb** | **17 56 25.1** | **+0.2** |
| PUZ | | | | SN | **Sb** | **17 56 41.9** | **-0.2** |
| PUZ | | | | AML | AML | 17 56 43.2 | |
| **PKGZ** | **Pakihiroa** | **1.45** | **262** | PN | **Pn** | **17 56 26.5** | **+0.6** |
| PKGZ | | | | AML | AML | 17 56 45.7 | |
| PKGZ | | | | AML | AML | 17 56 46.5 | |
| **TWGZ** | **Tauwhareparae** | **1.58** | **252** | Pn | **Pb** | **17 56 28.7** | **-0.3** |
| **TWGZ** | **Tauwhareparae** | **1.58** | **252** | PN | **Pb** | **17 56 28.7** | **-0.3** |
| TWGZ | | | | AML | AML | 17 56 53.1 | |
| TWGZ | | | | AML | AML | 17 56 53.4 | |
| **HAZ** | **Te Kaha** | **1.67** | **268** | ⇓PN | **Pb** | **17 56 30.0** | **-0.5** |
| HAZ | | | | *e*SN | **Sn** | **17 56 50.4** | **+0.2** |
| HAZ | | | | AML | AML | 17 56 52.8 | |
| HAZ | | | | AML | AML | 17 56 52.8 | |
| HAZ | | | | AML | AML | 17 56 53.8 | |
| **TKGZ** | **Te Karaka** | **1.77** | **245** | Pn | **Pn** | **17 56 31.5** | **+1.2** |
| **TKGZ** | **Te Karaka** | **1.77** | **245** | PN | **Pn** | **17 56 31.5** | **+1.2** |
| TKGZ | | | | AML | AML | 17 56 54.6 | |
| TKGZ | | | | AML | AML | 17 56 55.0 | |
| **RUGZ** | **Raukumara Rang** | **1.77** | **261** | PN | **Pn** | **17 56 31.4** | **+1.0** |
| **RIGZ** | **Rimuhau** | **1.95** | **239** | PN | **Pn** | **17 56 34.1** | **+1.4** |
| RIGZ | | | | AML | AML | 17 56 59.8 | |
| RIGZ | | | | AML | AML | 17 57 01.2 | |
| **MWZ** | **Matawai** | **1.97** | **251** | Pn | **Pn** | **17 56 33.5** | **+0.5** |
| **MWZ** | **Matawai** | **1.97** | **251** | ⇓PN | **Pn** | **17 56 33.5** | **+0.5** |
| MWZ | | | | AML | AML | 17 56 59.3 | |
| MWZ | | | | AML | AML | 17 57 07.3 | |
| **PRGZ** | **Paritu Road** | **1.99** | **232** | Pn | **Pn** | **17 56 34.9** | **+1.5** |
| **PRGZ** | **Paritu Road** | **1.99** | **232** | PN | **Pn** | **17 56 34.8** | **+1.5** |
| PRGZ | | | | AML | AML | 17 57 04.0 | |
| PRGZ | | | | AML | AML | 17 57 09.2 | |
| **RAGZ** | **Rawiri** | **2.10** | **247** | Pn | **Pn** | **17 56 36.4** | **+1.4** |
| **RAGZ** | **Rawiri** | **2.10** | **247** | PN | **Pn** | **17 56 36.4** | **+1.4** |
| RAGZ | | | | AML | AML | 17 57 09.7 | |
| RAGZ | | | | AML | AML | 17 57 09.9 | |
| **MHGZ** | **Mahia Peninsul** | **2.12** | **227** | Pn | **Pn** | **17 56 36.7** | **+1.5** |
| **MHGZ** | **Mahia Peninsul** | **2.12** | **227** | PN | **Pn** | **17 56 36.7** | **+1.5** |
| MHGZ | | | | AML | AML | 17 57 05.6 | |
| MHGZ | | | | AML | AML | 17 57 07.3 | |
| **KNZ** | **Kokohu** | **2.18** | **232** | Pn | **Pn** | **17 56 36.9** | **+1.0** |
| **KNZ** | **Kokohu** | **2.18** | **232** | PN | **Pn** | **17 56 36.9** | **+1.0** |
| KNZ | | | | AML | AML | 17 57 00.3 | |
| KNZ | | | | AML | AML | 17 57 05.8 | |
| **URZ** | **Urewera** | **2.26** | **255** | Pn | **Pn** | **17 56 38.8** | **+1.7** |
| | 29nm,0.3s,baz=79,slow=5.9,SNR=36 | | | | | | |
| URZ | | | | Sn | **Sn** | **17 57 05.2** | **+0.3** |
| | 46nm,0.3s,baz=24,slow=23,SNR=22 | | | | | | |
| **URZ** | **Urewera** | **2.26** | **255** | PN | **Pn** | **17 56 38.8** | **+1.7** |
| URZ | | | | AML | AML | 17 57 05.6 | |
| URZ | | | | AML | AML | 17 57 07.1 | |
| **SNGZ** | **Shannon Statio** | **2.28** | **241** | Pn | **Pn** | **17 56 38.5** | **+1.2** |
| **SNGZ** | **Shannon Statio** | **2.28** | **241** | PN | **Pn** | **17 56 38.5** | **+1.2** |
| SNGZ | | | | AML | AML | 17 57 08.0 | |
| SNGZ | | | | AML | AML | 17 57 08.5 | |
| **RTZ** | **Ruatahuna** | **2.47** | **248** | ⇓PN | **Pn** | **17 56 41.5** | **+1.6** |
| **WHHZ** | **Waihua** | **2.50** | **236** | PN | **Pn** | **17 56 41.6** | **+1.4** |
| WHHZ | | | | AML | AML | 17 57 16.9 | |
| WHHZ | | | | AML | AML | 17 57 21.6 | |
| **MUGZ** | **Murupara** | **2.58** | **252** | *e*PN | **Pn** | **17 56 42.3** | **+0.9** |
| **OPRZ** | **Ohinepanea** | **2.65** | **266** | Pn | **Pn** | **17 56 42.6** | **+0.3** |
| **OPRZ** | **Ohinepanea** | **2.65** | **266** | PN | **Pn** | **17 56 42.6** | **+0.3** |
| OPRZ | | | | AML | AML | 17 57 12.1 | |
| OPRZ | | | | AML | AML | 17 57 12.8 | |
| **MTHZ** | **Maungataniwha** | **2.66** | **244** | ⇑PN | **Pn** | **17 56 43.8** | **+1.3** |
| **TARZ** | **Mount Tarawera** | **2.73** | **258** | Pn | **Pn** | **17 56 44.1** | **+0.6** |
| **TARZ** | **Mount Tarawera** | **2.73** | **258** | *e*PN | **Pn** | **17 56 44.1** | **+0.6** |
| TARZ | | | | AML | AML | 17 57 17.3 | |
| TARZ | | | | AML | AML | 17 57 18.5 | |
| **NMHZ** | **Naumai** | **2.79** | **239** | Pn | **Pn** | **17 56 45.7** | **+1.3** |
| **NMHZ** | **Naumai** | **2.79** | **239** | PN | **Pn** | **17 56 45.7** | **+1.3** |
| NMHZ | | | | AML | AML | 17 57 20.3 | |
| NMHZ | | | | AML | AML | 17 57 21.1 | |
| **ALRZ** | **Allen Road** | **2.92** | **252** | *e*PN | **Pn** | **17 56 46.9** | **+0.7** |
| **CKHZ** | **Cape Kidnapper** | **2.94** | **228** | Pn | **Pn** | **17 56 47.7** | **+1.3** |
| **CKHZ** | **Cape Kidnapper** | **2.94** | **228** | PN | **Pn** | **17 56 47.7** | **+1.3** |
| CKHZ | | | | AML | AML | 17 57 23.6 | |
| CKHZ | | | | AML | AML | 17 57 25.1 | |
| **MRHZ** | **Matea Rd** | **2.96** | **247** | PN | **Pn** | **17 56 47.7** | **+1.1** |
| MRHZ | | | | AML | AML | 17 57 25.4 | |
| MRHZ | | | | AML | AML | 17 57 30.5 | |
| **BKZ** | **Black Stump Fm** | **3.04** | **240** | Pn | **Pn** | **17 56 48.8** | **+1.1** |
| **BKZ** | **Black Stump Fm** | **3.04** | **240** | PN | **Pn** | **17 56 48.8** | **+1.1** |
| BKZ | | | | AML | AML | 17 57 25.2 | |
| BKZ | | | | AML | AML | 17 57 25.5 | |
| **MCHZ** | **McNeill Hill** | **3.04** | **234** | Pn | **Pn** | **17 56 48.9** | **+1.1** |
| **MCHZ** | **McNeill Hill** | **3.04** | **234** | PN | **Pn** | **17 56 48.9** | **+1.1** |
| MCHZ | | | | AML | AML | 17 57 27.5 | |
| MCHZ | | | | AML | AML | 17 57 30.6 | |
| **KAHZ** | **Kahuranaki** | **3.15** | **228** | Pn | **Pn** | **17 56 50.0** | **+0.8** |
| **KAHZ** | **Kahuranaki** | **3.15** | **228** | PN | **Pn** | **17 56 50.0** | **+0.8** |
| KAHZ | | | | AML | AML | 17 57 30.8 | |
| KAHZ | | | | AML | AML | 17 57 43.5 | |
| **KWHZ** | **Kaweka Forest** | **3.21** | **237** | PN | **Pn** | **17 56 51.0** | **+0.8** |
| KWHZ | | | | AML | AML | 17 57 32.4 | |
| KWHZ | | | | AML | AML | 17 57 33.2 | |
| **PXZ** | **Pawanui** | **3.31** | **225** | Pn | **Pn** | **17 56 51.7** | **+0.2** |
| **PXZ** | **Pawanui** | **3.31** | **225** | PN | **Pn** | **17 56 51.7** | **+0.2** |
| PXZ | | | | AML | AML | 17 57 33.3 | |
| PXZ | | | | AML | AML | 17 57 35.3 | |
| PXZ | | | | AML | AML | 17 57 35.3 | |
| PXZ | | | | AML | AML | 17 59 21.7 | |
| **KRHZ** | **Kereru** | **3.37** | **234** | PN | **Pn** | **17 56 53.0** | **+0.7** |
| **KUZ** | **Kuaotunu** | **3.46** | **285** | Pn | **Pn** | **17 56 53.0** | **-0.5** |
| **KUZ** | **Kuaotunu** | **3.46** | **285** | PN | **Pn** | **17 56 53.0** | **-0.5** |
| KUZ | | | | AML | AML | 17 57 36.7 | |
| KUZ | | | | AML | AML | 17 57 37.5 | |
| **BHHZ** | **Black Hill Sta** | **3.49** | **238** | Pn | **Pn** | **17 56 54.8** | **+0.8** |
| **BHHZ** | **Black Hill Sta** | **3.49** | **238** | PN | **Pn** | **17 56 54.7** | **+0.8** |
| BHHZ | | | | AML | AML | 17 57 38.3 | |
| **WPHZ** | **Waipukurau** | **3.58** | **228** | Pn | **Pn** | **17 56 55.2** | **+0.1** |
| **WPHZ** | **Waipukurau** | **3.58** | **228** | *e*PN | **Pn** | **17 56 55.1** | **0.0** |
| WPHZ | | | | AML | AML | 17 57 43.7 | |
| WPHZ | | | | AML | AML | 17 57 50.7 | |
| **PRHZ** | **Porangahau** | **3.60** | **224** | Pn | **Pn** | **17 56 53.7** | **-1.7** |
| **PRHZ** | **Porangahau** | **3.60** | **224** | AML | AML | 17 57 43.0 | |
| PRHZ | | | | AML | AML | 17 57 43.0 | |
| **OTVZ** | **Oturere** | **3.62** | **245** | Pn | **Pn** | **17 56 56.5** | **+0.7** |
| **OTVZ** | **Oturere** | **3.62** | **245** | *e*PN | **Pn** | **17 56 56.3** | **+0.5** |
| OTVZ | | | | AML | AML | 17 57 42.0 | |
| OTVZ | | | | AML | AML | 17 57 47.4 | |
| **PNHZ** | **Pukenui** | **3.63** | **231** | Pn | **Pn** | **17 56 55.9** | **+0.1** |
| **PNHZ** | **Pukenui** | **3.63** | **231** | PN | **Pn** | **17 56 55.9** | **+0.1** |
| PNHZ | | | | AML | AML | 17 57 12.3 | |
| PNHZ | | | | AML | AML | 17 57 39.7 | |
| **MOVZ** | **Moawhango** | **3.66** | **241** | Pn | **Pn** | **17 56 57.8** | **+1.4** |
| **MOVZ** | **Moawhango** | **3.66** | **241** | PN | **Pn** | **17 56 57.7** | **+1.4** |
| MOVZ | | | | AML | AML | 17 57 47.3 | |
| **NGZ** | **Ngauruhoe** | **3.67** | **245** | Pn | **Pn** | **17 56 57.1** | **+0.5** |
| **NGZ** | **Ngauruhoe** | **3.67** | **245** | PN | **Pn** | **17 56 57.1** | **+0.5** |
| **WNVZ** | **Wahianoa** | **3.73** | **243** | Pn | **Pn** | **17 56 57.9** | **+0.4** |
| **WNVZ** | **Wahianoa** | **3.73** | **243** | PN | **Pn** | **17 56 57.9** | **+0.4** |
| **TSZ** | **Takapari Road** | **3.86** | **231** | Pn | **Pn** | **17 56 58.9** | **-0.2** |
| **TSZ** | **Takapari Road** | **3.86** | **231** | ⇓PN | **Pn** | **17 56 58.9** | **-0.2** |
| TSZ | | | | SN | **Sn** | **17 57 42.6** | **-1.8** |
| TSZ | | | | AML | AML | 17 57 45.9 | |
| **DVHZ** | **Dannevirke** | **3.89** | **227** | Pn | **Pn** | **17 56 59.0** | **-0.4** |
| **DVHZ** | **Dannevirke** | **3.89** | **227** | PN | **Pn** | **17 56 59.0** | **-0.4** |
| DVHZ | | | | AML | AML | 17 57 51.2 | |
| DVHZ | | | | AML | AML | 17 57 59.5 | |
| **PRWZ** | **Pori Road** | **4.17** | **226** | Pn | **Pn** | **17 57 03.8** | **+0.6** |
| **PRWZ** | **Pori Road** | **4.17** | **226** | PN | **Pn** | **17 57 03.8** | **+0.6** |
| PRWZ | | | | AML | AML | 17 57 52.8 | |
| PRWZ | | | | AML | AML | 17 57 57.2 | |
| **POWZ** | **Post Office Ro** | **4.18** | **229** | Pn | **Pn** | **17 57 03.8** | **+0.4** |
| **POWZ** | **Post Office Ro** | **4.18** | **229** | *e*PN | **Pn** | **17 57 03.8** | **+0.4** |
| POWZ | | | | AML | AML | 17 57 56.9 | |
| POWZ | | | | AML | AML | 17 58 01.0 | |
| **WAZ** | **Wanganui** | **4.35** | **240** | *e*PN | **Pn** | **17 57 07.3** | **+1.6** |
| **TIWZ** | **Tintook** | **4.37** | **224** | PN | **Pn** | **17 57 05.3** | **-0.7** |
| TIWZ | | | | AML | AML | 17 58 00.4 | |
| **MRZ** | **Mangatainoka R** | **4.46** | **227** | PN | **Pn** | **17 57 06.7** | **-0.6** |
| MRZ | | | | AML | AML | 17 57 58.2 | |
| MRZ | | | | AML | AML | 17 57 59.6 | |
| **TMWZ** | **Te Maipa** | **4.60** | **221** | AML | AML | 17 58 02.4 | |
| TMWZ | | | | AML | AML | 17 58 02.9 | |
| **HOWZ** | **Holdsworth Sta** | **4.66** | **225** | AML | AML | 17 58 03.4 | |
| HOWZ | | | | AML | AML | 17 58 04.1 | |
| **MTW** | **Mount Morrison** | **4.84** | **223** | AML | AML | 17 58 06.6 | |
| MTW | | | | AML | AML | 17 58 09.6 | |
| **PAWZ** | **Paruwai Farm** | **5.04** | **222** | *e*PN | **Pn** | **17 57 13.2** | **-2.0** |
| PAWZ | | | | AML | AML | 17 58 11.5 | |
| PAWZ | | | | AML | AML | 17 58 12.2 | |
| **CAW** | **Cannon Point** | **5.05** | **226** | AML | AML | 17 58 13.2 | |
| **THZ** | **Tophouse** | **6.74** | **231** | AML | AML | 17 58 55.8 | |
| **INZ** | **Inchbonnie** | **8.18** | **230** | PN | **Pn** | **17 57 55.9** | **-2.4** |
| **COEN** | **Coen** | **40.25** | **296** | *e*P | **P** | **18 03 36.6** | **0.0** |
| | 9.5nm,0.7s | | | | | | |
| **ASAR** | **Alice Springs** | **41.55** | **276** | P | **P** | **18 03 47.1** | **-0.2** |
| | 1.5nm,0.5s,baz=122,slow=7.8,SNR=47 | | | | | | |
| ASAR | | | | PcP | **PcP** | **18 05 44.9** | **+0.2** |
| | 0.2nm,0.7s,baz=116,slow=4.2,SNR=3.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.20** | **281** | P | **P** | **18 04 00.2** | **-0.6** |
| | 1.7nm,0.7s,baz=120,slow=7.7,SNR=28 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **51.04** | **277** | P | **P** | **18 05 01.3** | **-0.7** |
| | 1.5nm,0.7s,baz=117,slow=9.0,SNR=6.1 | | | | | | |
| **ARCES** | **ARCESS Array B** | **145.25** | **345** | PKP | **PKPdf** | **18 15 38.0** | **+1.7** |
| | 4.6nm,1.1s,baz=32,slow=3.7,SNR=4.8 | | | | | | |
| **FINES** | **FINESS Array B** | **151.18** | **334** | PKPbc | **PKPbc** | **18 15 53.0** | **+1.0** |
| | 2.2nm,0.9s,baz=52,slow=2.3,SNR=7.2 | | | | | | |

*ISN **31** 18:09:48.8±0.9,39.°45N×43.°53E,h1km±49km,ML3.6*
*IDC **31** 18:09:56.8±2.1,38.°23N×43.°23E,h0km,mb3.4/3, mb1 3.5/6,mb1mx3.2/50,mbtmp3.4/6,ML2.9/3,MS2.7/1, Ms1 2.8/1,ms1mx2.3/27,Error ellipse: s-maj=29.6km s-min=22.0km az=0.0*
*AZER **31** 18:09:57.6±0.4,38.°72N×42.°96E,h22km,Error ellipse: s-maj=4.8km s-min=2.5km az=15.0*
*ISK **31** 18:09:58.9,38.°86N×43.°44E,h5km,ML3.6*
*DDA **31** 18:09:59.3,38.°83N×43.°44E,h5km,Ml3.7*
*CSEM **31** 18:10:00.4±0.1,38.°83N×43.°45E,h2km,ML3.6,Error ellipse: s-maj=3.0km s-min=2.5km az=135.0*

**ISC 31 18:10:00.5±1.1,38.°85N±0.°01×43.°45E±0.°01,h1km±8km, n145,σ2§14/235,mb3.4/3,31C-25D,Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **VMUR** | **Van-Muradiye** | **0.17** | **34** | *i* P | **Pg** | **18 10 03.5** | **-0.3** |
| VMUR | | | | *i* S | **Sg** | **18 10 08.3** | **+2.3** |
| **VMUR** | **Van-Muradiye** | **0.17** | **34** | P | **Pg** | **18 10 03.5** | **-0.3** |
| VMUR | | | | S | **Sg** | **18 10 08.3** | **+2.3** |
| **ERCV** | **ERCIS-VAN** | **0.19** | **333** | *e*PG | **Pg** | **18 10 03.3** | **-0.9** |
| **ERCV** | **ERCIS-VAN** | **0.19** | **333** | *e*Pg | **Pg** | **18 10 03.3** | **-0.9** |
| **VANB** | **Van** | **0.26** | **191** | *e*PG | **Pg** | **18 10 06.2** | **+0.7** |
| **VANB** | **Van** | **0.26** | **191** | *e*Pg | **Pg** | **18 10 06.2** | **+0.7** |
| **TVAN** | **Van** | **0.32** | **186** | *i* P | **Pg** | **18 10 06.0** | **-0.8** |
| TVAN | | | | *i* S | **Sg** | **18 10 11.8** | **+0.9** |
| **TVAN** | **Van** | **0.32** | **186** | P | **Pg** | **18 10 05.9** | **-0.8** |
| TVAN | | | | S | **Sg** | **18 10 11.8** | **+0.9** |
| **CLDR** | **Caldiran** | **0.47** | **51** | *e*PG | **Pg** | **18 10 08.7** | **-0.8** |
| CLDR | | | | *e*SG | **Sg** | **18 10 17.2** | **+1.6** |
| **CLDR** | **Caldiran** | **0.47** | **51** | *i* P | **Pg** | **18 10 08.7** | **-0.8** |
| CLDR | | | | *i* S | **Sb** | **18 10 17.4** | **-1.8** |
| **CLDR** | **Caldiran** | **0.47** | **51** | P | **Pg** | **18 10 08.7** | **-0.8** |
| CLDR | | | | *e*Sg | **Sg** | **18 10 17.2** | **+1.6** |
| **ADCV** | **BITLIS_Adilcev** | **0.57** | **266** | *i* P | **Pg** | **18 10 10.9** | **-0.5** |
| ADCV | | | | *i* S | **Sg** | **18 10 20.0** | **+1.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.57** | **266** | P | **Pg** | **18 10 10.9** | **-0.5** |
| ADCV | | | | S | **Sg** | **18 10 20.0** | **+1.2** |
| **GEVA** | **Gevas** | **0.62** | **210** | *i* P | **Pg** | **18 10 10.9** | **-1.5** |
| GEVA | | | | *i* S | **Sg** | **18 10 21.1** | **+0.7** |
| **GEVA** | **Gevas** | **0.62** | **210** | P | **Pg** | **18 10 10.9** | **-1.5** |
| GEVA | | | | S | **Sg** | **18 10 21.1** | **+0.7** |
| **DYDN** | **Diyadin** | **0.72** | **15** | *i* P | **Pg** | **18 10 13.3** | **-1.0** |
| DYDN | | | | *i* S | **Sb** | **18 10 25.0** | **-1.4** |
| **DYDN** | **Diyadin** | **0.72** | **15** | P | **Pg** | **18 10 13.3** | **-1.0** |
| DYDN | | | | S | **Sb** | **18 10 25.0** | **-1.4** |
| **TUTA** | **Tutak** | **0.74** | **318** | *i* P | **Pg** | **18 10 13.5** | **-1.2** |
| TUTA | | | | *i* S | **Sb** | **18 10 27.5** | **+0.4** |
| **TUTA** | **Tutak** | **0.74** | **318** | P | **Pg** | **18 10 13.5** | **-1.2** |
| TUTA | | | | S | **Sb** | **18 10 27.5** | **+0.4** |
| **AGRB** | **Hanur-Agry** | **0.81** | **334** | *e*PG | **Pg** | **18 10 14.8** | **-1.2** |
| AGRB | | | | *e*SG | **Sg** | **18 10 27.0** | **+0.5** |
| **AGRB** | **Hanur-Agry** | **0.81** | **334** | *e*Pg | **Pg** | **18 10 14.8** | **-1.2** |
| AGRB | | | | *e*Sg | **Sg** | **18 10 27.0** | **+0.5** |
| **EKAR** | **Karacoban** | **1.15** | **291** | *i* P | **Pg** | **18 10 21.6** | **-1.0** |
| EKAR | | | | *i* S | **Sn** | **18 10 46.7** | **+6.1** |
| **EKAR** | **Karacoban** | **1.15** | **291** | P | **Pg** | **18 10 21.6** | **-1.0** |
| **EATA** | **Eleskirt** | **1.25** | **324** | *i* P | **Pg** | **18 10 23.0** | **-1.6** |
| EATA | | | | *i* S | **Sn** | **18 10 42.8** | **-0.5** |
| **EATA** | **Eleskirt** | **1.25** | **324** | P | **Pg** | **18 10 23.0** | **-1.6** |
| EATA | | | | S | **Sn** | **18 10 42.8** | **-0.5** |
| **TASB** | **TASBURUN-IGDIR** | **1.28** | **28** | *e*PN | **Pg** | **18 10 24.6** | **-0.6** |
| **TASB** | **TASBURUN-IGDIR** | **1.28** | **28** | *e*Pn | **Pg** | **18 10 24.6** | **-0.6** |
| **HYR** | **Heyderabad** SNR=6.6 | **1.39** | **51** | ⇓P | **Pn** | **18 10 27.0** | **-0.2** |
| HYR | | | | ⇑S | **Sn** | **18 10 48.6** | **+2.3** |
| **HYR** | **Heyderabad** SNR=6.6 | **1.39** | **51** | P | **Pn** | **18 10 27.0** | **-0.2** |
| HYR | | | | S | **Sn** | **18 10 48.6** | **+2.3** |
| **YOVA** | **Hakkari_Y¨…kse** | **1.43** | **152** | *i* P | **Pn** | **18 10 25.9** | **-1.9** |
| YOVA | | | | *i* S | **Sg** | **18 10 50.2** | **+3.9** |
| **YOVA** | **Hakkari_Y¨…kse** | **1.43** | **152** | P | **Pn** | **18 10 25.9** | **-1.9** |
| YOVA | | | | S | **Sg** | **18 10 50.2** | **+3.9** |
| **SRTM** | **Siirt_Merkez** | **1.48** | **235** | *i* P | **Pn** | **18 10 28.0** | **-0.4** |
| SRTM | | | | *i* S | **Sg** | **18 10 52.3** | **+4.4** |
| **SRTM** | **Siirt_Merkez** | **1.48** | **235** | P | **Pn** | **18 10 28.0** | **-0.4** |
| SRTM | | | | S | **Sg** | **18 10 52.3** | **+4.4** |
| **DIGO** | **Kars** | **1.56** | **358** | *i* P | **Pn** | **18 10 29.4** | **-0.3** |
| DIGO | | | | *i* S | **Sg** | **18 10 53.4** | **+2.6** |
| **DIGO** | **Kars** | **1.56** | **358** | P | **Pn** | **18 10 29.4** | **-0.3** |
| DIGO | | | | S | **Sg** | **18 10 53.4** | **+2.6** |
| **SIRT** | **Sirnak** | **1.57** | **211** | *e*PN | **Pn** | **18 10 29.1** | **-0.5** |
| **SIRT** | **Sirnak** | **1.57** | **211** | *e*Pn | **Pn** | **18 10 29.1** | **-0.5** |
| **SIRN** | **S¨–rnak** | **1.58** | **211** | *i* P | **Pn** | **18 10 29.6** | **-0.2** |
| SIRN | | | | *i* S | **Sg** | **18 10 53.6** | **+2.3** |
| **SIRN** | **S¨–rnak** | **1.58** | **211** | P | **Pn** | **18 10 29.6** | **-0.2** |
| SIRN | | | | S | **Sg** | **18 10 53.6** | **+2.3** |
| **CUKT** | **Cukurca** | **1.61** | **176** | *e*PN | **Pn** | **18 10 29.5** | **-0.7** |
| **CUKT** | **Cukurca** | **1.61** | **176** | *i* P | **Pn** | **18 10 30.1** | **-0.1** |
| **CUKT** | **Cukurca** | **1.61** | **176** | *e*Pn | **Pn** | **18 10 29.5** | **-0.7** |
| **CUKT** | **Cukurca** | **1.61** | **176** | P | **Pn** | **18 10 30.1** | **-0.1** |
| **NAX** | **Nakhchivan** SNR=141 | **1.62** | **78** | ⇓P | **Pn** | **18 10 30.5** | **+0.1** |
| NAX | | | | ⇑S | **Sg** | **18 10 56.6** | **+3.8** |
| **NAX** | **Nakhchivan** SNR=141 | **1.62** | **78** | P | **Pn** | **18 10 30.5** | **+0.1** |
| NAX | | | | S | **Sg** | **18 10 56.6** | **+3.8** |
| **HOMI** | **Horasan** | **1.69** | **315** | *i* P | **Pn** | **18 10 30.4** | **-1.0** |
| HOMI | | | | *i* S | **Sg** | **18 10 58.2** | **+3.4** |
| **SBZ** | **Shahbuz** | **1.72** | **71** | ⇑P | **Pn** | **18 10 31.8** | **0.0** |
| SBZ | | | | ⇓S | **Sg** | **18 10 59.8** | **+3.9** |
| **SBZ** | **Shahbuz** | **1.72** | **71** | P | **Pn** | **18 10 31.8** | **0.0** |
| **KARS** | **Kars** | **1.80** | **351** | *e*PN | **Pn** | **18 10 32.1** | **-0.8** |
| **KARS** | **Kars** | **1.80** | **351** | *e*Pn | **Pn** | **18 10 32.1** | **-0.8** |
| **

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| IML | | | | ⇑S | | Sn | 18 11 57.7 | +4.0 | |
| **IML** | **Ismayilli** | **4.13** | **60** | P | | Pn | 18 11 04.6 | -0.2 | |
| IML | | | | S | | Sn | 18 11 57.7 | +4.0 | |
| **LKRN** | **Lenkeran, Azer** | **4.17** | **90** | ⇑P | | Pn | 18 11 05.3 | 0.0 | |
| LKRN | | | | ⇓S | | Sn | 18 11 58.8 | +4.2 | |
| **LKRN** | **Lenkeran, Azer** | **4.17** | **90** | P | | Pn | 18 11 05.3 | 0.0 | |
| LKRN | | | | S | | Sn | 18 11 58.8 | +4.2 | |
| **ASTR** | **Astara** | **4.19** | **92** | ⇓P | | Pn | 18 11 05.5 | -0.1 | |
| ASTR | | | | ⇑S | | Sn | 18 11 59.3 | +4.1 | |
| **ASTR** | **Astara** | **4.19** | **92** | P | | Pn | 18 11 05.5 | -0.1 | |
| ASTR | | | | S | | Sn | 18 11 59.3 | +4.1 | |
| **XNQ** | **Khinaliq** | **4.28** | **56** | ⇑P | | Pn | 18 11 07.0 | -0.1 | |
| XNQ | | | | ⇓S | | Sn | 18 12 01.8 | +4.0 | |
| **XNQ** | **Khinaliq** | **4.28** | **56** | P | | Pn | 18 11 07.0 | -0.1 | |
| XNQ | | | | S | | Sn | 18 12 01.8 | +4.0 | |
| **PQL** | **Pirkuli** | **4.41** | **62** | ⇑P | | Pn | 18 11 08.7 | -0.1 | |
| PQL | | | | ⇓S | | Sn | 18 12 04.8 | +4.0 | |
| **PQL** | **Pirkuli** | **4.41** | **62** | P | | Pn | 18 11 08.7 | -0.1 | |
| PQL | | | | S | | Sn | 18 12 04.8 | +4.0 | |
| **ALIB** | **Äli-Bayra** | **4.44** | **74** | ⇑P | | Pn | 18 11 09.3 | +0.3 | |
| ALIB | | | | ⇑S | | Sn | 18 12 05.8 | +4.4 | |
| **ALIB** | **Äli-Bayra** | **4.44** | **74** | P | | Pn | 18 11 09.3 | +0.3 | |
| ALIB | | | | S | | Sn | 18 12 05.8 | +4.4 | |
| **QSAR** | **Qusar** | **4.55** | **53** | ⇓P | | Pn | 18 11 10.6 | +0.1 | |
| QSAR | | | | ⇑S | | Sn | 18 12 08.1 | +4.0 | |
| **QSAR** | **Qusar** | **4.55** | **53** | P | | Pn | 18 11 10.6 | +0.1 | |
| QSAR | | | | S | | Sn | 18 12 08.1 | +4.0 | |
| **GBS** | **Qobustan** | **4.56** | **67** | ⇑P | | Pn | 18 11 10.9 | +0.1 | |
| GBS | | | | ⇑S | | Sn | 18 12 08.5 | +4.1 | |
| **GBS** | **Qobustan** | **4.56** | **67** | P | | Pn | 18 11 10.9 | +0.1 | |
| GBS | | | | S | | Sn | 18 12 08.5 | +4.1 | |
| **QUBA** | **Quba, Azerbaij** | **4.61** | **56** | ⇑P | | Pn | 18 11 11.4 | 0.0 | |
| QUBA | | | | ⇑S | | Sn | 18 12 09.7 | +4.2 | |
| **QUBA** | **Quba, Azerbaij** | **4.61** | **56** | P | | Pn | 18 11 11.4 | 0.0 | |
| QUBA | | | | S | | Sn | 18 12 09.7 | +4.2 | |
| **ATGJ** | **Altiaghaj** | **4.68** | **63** | ⇑P | | Pn | 18 11 12.3 | -0.1 | |
| ATGJ | | | | ⇑S | | Sn | 18 12 11.5 | +4.1 | |
| **ATGJ** | **Altiaghaj** | **4.68** | **63** | P | | Pn | 18 11 12.3 | -0.1 | |
| ATGJ | | | | S | | Sn | 18 12 11.5 | +4.1 | |
| **SIZA** | **Siyzn** | **4.74** | **60** | ⇓P | | Pn | 18 11 13.4 | +0.1 | |
| SIZA | | | | ⇓S | | Sn | 18 12 13.1 | +4.2 | |
| **SIZA** | **Siyzn** | **4.74** | **60** | P | | Pn | 18 11 13.4 | +0.1 | |
| SIZA | | | | S | | Sn | 18 12 13.1 | +4.2 | |
| **KBZ** | **Khabaz** | **4.89** | **355** | Pn | | Pb | 18 11 22.9 | -4.1 | |
| | 0.1nm,0.3s,baz=179,slow=12,SNR=3.6 | | | | | | | | |
| KBZ | | | | Pg | | Pg | 18 11 33.6 | -0.6 | |
| | 0.1nm,0.3s,baz=179,slow=12,SNR=7.1 | | | | | | | | |
| **GOBA** | **Gobu** | **5.09** | **70** | ⇑P | | Pn | 18 11 18.1 | +0.1 | |
| GOBA | | | | ⇓S | | Sn | 18 12 21.9 | +4.5 | |
| **GOBA** | **Gobu** | **5.09** | **70** | P | | Pn | 18 11 18.1 | +0.1 | |
| GOBA | | | | S | | Sn | 18 12 21.9 | +4.5 | |
| **BHD** | **Baghdad** | **5.62** | **172** | *e*Pn | | Pn | 18 11 23.0 | -2.3 | |
| | SNR=3.0 | | | | | | | | |
| BHD | | | | *e*Sn | | Sn | 18 12 29.0 | -1.5 | |
| | SNR=39 | | | | | | | | |
| **RTB** | **Rutbah** | **6.34** | **205** | *e*Pn | | Pn | 18 11 33.0 | -2.3 | |
| | SNR=3.0 | | | | | | | | |
| RTB | | | | *e*Sn | | Sn | 18 12 46.0 | -2.4 | |
| | SNR=3.0 | | | | | | | | |
| **BRTR** | **Keskin Array B** | **7.66** | **280** | Pg | | Pb | 18 12 15.3 | +1.0 | |
| | 0.0nm,0.3s,baz=102,slow=19,SNR=4.0 | | | | | | | | |
| **AKTO** | **Aktyubinsk** | **15.51** | **37** | Pn | | P | 18 13 44.8 | -0.2 | |
| | 0.1nm,0.3s,baz=226,slow=15,SNR=3.7 | | | | | | | | |
| **AKASG** | **Malin Array Be** | **15.54** | **324** | Pn | | Pn | 18 13 41.2 | +0.5 | |
| | 0.2nm,0.3s,baz=125,slow=11,SNR=3.1 | | | | | | | | |
| **KURBB** | **Kurchatov Arra** | **27.30** | **53** | P | | P | 18 15 46.8 | +0.2 | |
| | 0.5nm,0.7s,baz=264,slow=9.1,SNR=6.7 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **29.33** | **62** | P | | P | 18 16 04.7 | 0.0 | |
| | 0.3nm,0.8s,baz=262,slow=10.0,SNR=2.8 | | | | | | | | |
| **NOA** | **NORSAR Array B** | **29.86** | **329** | LR | | LR | 18 30 46.0 | | |
| | comp=Z,13nm,18.9s,baz=320,slow=41 | | | | | | | | |
| **ESDC** | **Sonseca Array** | **36.38** | **287** | P | | P | 18 17 02.9 | -3.5 | |
| | 0.5nm,0.7s,baz=76,slow=6.8,SNR=3.7 | | | | | | | | |

**KRSC 31 18:13:47.6±2.4, 53°34'N×156°99'E, h290km±23km, ML3.6, Kamchatka Peninsula**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h | m s | ISC |
| **APC** | **Apacha** | **0.43** | **167** | *e*P | | Pn | 18 14 26.1 | | +1.2 |
| **GNL** | **Ganaly** | **0.67** | **58** | *e*P | | Pn | 18 14 27.3 | | +1.7 |
| **KRMR** | **Karymshinskiy** | **0.86** | **126** | *e*P | | Pn | 18 14 27.6 | | +1.4 |
| **KRX** | **Arik** | **0.99** | **88** | *e*P | | Pn | 18 14 29.1 | | +2.1 |
| **PET** | **Petropavlovsk** | **1.05** | **107** | *e*P | | Pn | 18 14 28.8 | | +1.7 |
| **AVH** | **Avacha** | **1.05** | **94** | *e*P | | Pn | 18 14 29.3 | | +2.1 |
| **SMAR** | **Somma** | **1.09** | **94** | *e*P | | Pn | 18 14 29.7 | | +2.2 |
| **DALK** | **Dalny** | **1.10** | **106** | *e*P | | Pn | 18 14 28.8 | | +1.5 |
| DALK | | | | *e*S | | S | 18 15 00.7 | | +1.8 |
| **UGLR** | **Uglovaya** | **1.11** | **96** | *e*P | | Pn | 18 14 29.7 | | +2.2 |
| **SDLR** | **Sedlovina** | **1.14** | **93** | *e*P | | Pn | 18 14 29.5 | | +1.8 |
| **RUS** | **Russkaya** | **1.30** | **134** | *e*P | | Pn | 18 14 29.3 | | +0.8 |
| RUS | | | | *e*S | | S | 18 15 01.2 | | +0.3 |
| **NLC** | **Nalytchevo** | **1.42** | **96** | *e*P | | Pn | 18 14 30.7 | | +1.5 |
| **KDTR** | **Khodutka, Kamc** | **1.67** | **156** | *e*P | | Pn | 18 14 31.1 | | +0.1 |
| KDTR | | | | *e*S | | S | 18 15 04.4 | | -1.0 |
| **SPN** | **Mys Shipunski** | **1.84** | **97** | *e*P | | Pn | 18 14 32.8 | | +0.7 |
| SPN | | | | *e*S | | S | 18 15 06.7 | | -0.8 |
| **SKR** | **Severo-Kuril's** | **2.72** | **192** | *e*S | | S | 18 15 22.0 | | +0.4 |
| **KBG** | **Krutoberegovo** | **4.41** | **46** | *e*P | | Pn | 18 14 58.7 | | +1.0 |
| KBG | | | | *e*S | | S | 18 15 50.4 | | -3.4 |
| **KBTR** | **Krutoberegovo** | **4.43** | **47** | *e*P | | Pn | 18 14 58.4 | | +0.5 |
| KBTR | | | | *e*S | | S | 18 15 50.5 | | -3.8 |
| **BKI** | **Bering** | **5.58** | **67** | *e*S | | S | 18 16 16.5 | | -2.3 |

**IDC 31 18:18:38.5±2.2, 6°88S×130°47E, h0km, mb3.2/1, mb1 3.7/4, mb1mx3.4/33, mbtmp3.5/4, ML3.7/3, Error ellipse: s-maj=92.0km s-min=28.0km az=78.0, Banda Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h | m s | ISC |
| **FITZ** | **Fitzroy Crossi** | **12.11** | **202** | Pn | | Pn | 18 21 33.8 | | +1.4 |
| | 0.6nm,0.3s,baz=31,slow=11,SNR=25 | | | | | | | | |
| FITZ | | | | Sn | | Sn | 18 23 40.4 | | -7.8 |
| | 0.4nm,0.3s,baz=135,slow=20,SNR=5.0 | | | | | | | | |
| **WRA** | **Warramunga Arr** | **13.51** | **164** | Pn | | Pn | 18 21 50.2 | | -1.4 |
| | 0.3nm,0.3s,baz=343,slow=13,SNR=19 | | | | | | | | |
| WRA | | | | Sn | | Sn | 18 24 10.6 | | -12 |
| | 0.6nm,0.3s,baz=347,slow=22,SNR=10 | | | | | | | | |
| **ASAR** | **Alice Springs** | **17.01** | **169** | P | | Pn | 18 22 38.0 | | 0.0 |
| | 0.3nm,0.3s,baz=347,slow=9.1,SNR=23 | | | | | | | | |
| ASAR | | | | S | | Sn | 18 25 36.8 | | -11 |
| | 0.2nm,0.3s,baz=354,slow=24,SNR=6.0 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **68.39** | **327** | P | | P | 18 29 42.0 | | 0.0 |
| | 0.1nm,0.5s,baz=123,slow=5.3,SNR=3.2 | | | | | | | | |

*DDA **31** 18:37:30.9, 38°.72N×43°.18E, h5km, Ml3.5*
*ISCJB **31** 18:37:31.8±0.4, 38°.75N±0°.02×43°.18E±0°.03, h1km±5km, Error ellipse: s-maj=3.9km s-min=3.0km az=169.7*
*ISK **31** 18:37:31.2, 38°.74N×43°.22E, h6km, ML3.3*
*CSEM **31** 18:37:31.6±0.2, 38°.73N×43°.19E, h2km, ML3.3, Error ellipse: s-maj=4.1km s-min=3.3km az=106.0*
**ISC 31 18:37:32.2±0.9, 38°73N±0°02×43°19E±0°02, h9km±8km, n66, σ1s33/95, Turkey**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h | m s | ISC |
| **VANB** | **Van** | **0.21** | **129** | *e*PG | | Pg | 18 37 36.9 | | +0.3 |
| VANB | | | | *e*SG | | Sg | 18 37 41.5 | | +2.0 |
| **VANB** | **Van** | **0.21** | **129** | *e*Pg | | Pg | 18 37 36.9 | | +0.3 |
| **TVAN** | **Van** | **0.26** | **138** | *i* P | | Pg | 18 37 36.8 | | -0.8 |
| TVAN | | | | *i* S | | Sg | 18 37 41.5 | | +0.3 |
| **TVAN** | **Van** | **0.26** | **138** | P | | Pg | 18 37 36.8 | | -0.8 |
| TVAN | | | | S | | Sg | 18 37 41.5 | | +0.3 |
| **ERCV** | **ERCIS-VAN** | **0.32** | **22** | *e*PG | | Pg | 18 37 37.7 | | -1.0 |
| **ERCV** | **ERCIS-VAN** | **0.32** | **22** | *e*Pg | | Pg | 18 37 37.7 | | -1.0 |
| **ADCV** | **BITLIS_Adilcev** | **0.37** | **283** | *i* P | | Pg | 18 37 39.3 | | -0.3 |
| ADCV | | | | *i* S | | Sb | 18 37 45.5 | | -1.5 |
| **ADCV** | **BITLIS_Adilcev** | **0.37** | **283** | P | | Pg | 18 37 39.3 | | -0.3 |
| ADCV | | | | S | | Sb | 18 37 45.5 | | -1.5 |
| **VMUR** | **Van-Muradiye** | **0.40** | **49** | *i* P | | Pg | 18 37 39.8 | | -0.4 |
| VMUR | | | | *i* S | | Sb | 18 37 47.0 | | -0.9 |
| **VMUR** | **Van-Muradiye** | **0.40** | **49** | P | | Pg | 18 37 39.8 | | -0.4 |
| VMUR | | | | S | | Sb | 18 37 47.0 | | -0.9 |
| **GEVA** | **Gevas** | **0.42** | **194** | *i* P | | Pg | 18 37 39.2 | | -1.4 |
| GEVA | | | | *i* S | | Sb | 18 37 47.6 | | -0.9 |
| **GEVA** | **Gevas** | **0.42** | **194** | P | | Pg | 18 37 39.2 | | -1.4 |
| GEVA | | | | S | | Sb | 18 37 47.6 | | -0.9 |
| **CLDR** | **Caldiran** | **0.71** | **54** | *e*PG | | Pg | 18 37 44.6 | | -1.4 |
| **CLDR** | **Caldiran** | **0.71** | **54** | *i* P | | Pg | 18 37 44.6 | | -1.4 |
| CLDR | | | | *i* S | | Sg | 18 37 55.3 | | +0.1 |
| **CLDR** | **Caldiran** | **0.71** | **54** | P | | Pg | 18 37 44.6 | | -1.4 |
| CLDR | | | | S | | Sg | 18 37 55.3 | | +0.1 |
| **TUTA** | **Tutak** | **0.73** | **337** | *i* P | | Pg | 18 37 45.5 | | -1.0 |
| TUTA | | | | *i* S | | Sg | 18 37 55.3 | | -0.8 |
| **TUTA** | **Tutak** | **0.73** | **337** | P | | Pg | 18 37 45.5 | | -1.0 |
| TUTA | | | | S | | Sg | 18 37 55.3 | | -0.8 |
| **AGRB** | **Hanur-Agry** | **0.86** | **350** | *e*PG | | Pg | 18 37 47.7 | | -1.2 |
| AGRB | | | | *e*SG | | Sg | 18 38 00.4 | | +0.2 |
| **AGRB** | **Hanur-Agry** | **0.86** | **350** | *e*Pg | | Pg | 18 37 47.7 | | -1.2 |
| AGRB | | | | *e*Sg | | Sg | 18 38 00.4 | | +0.2 |
| **DYDN** | **Diyadin** | **0.91** | **25** | *i* P | | Pg | 18 37 47.9 | | -1.8 |
| DYDN | | | | *i* S | | Sn | 18 38 08.2 | | +3.5 |
| **DYDN** | **Diyadin** | **0.91** | **25** | P | | Pg | 18 37 47.9 | | -1.8 |
| **EKAR** | **Karacoban** | **1.02** | **302** | *i* P | | Pg | 18 37 51.6 | | -0.3 |
| EKAR | | | | *i* S | | Sn | 18 38 13.6 | | +6.1 |
| **EKAR** | **Karacoban** | **1.02** | **302** | P | | Pg | 18 37 51.6 | | -0.3 |
| **SRTM** | **Siirt_Merkez** | **1.23** | **234** | *i* P | | Pn | 18 37 54.6 | | -1.1 |
| SRTM | | | | *i* S | | Sn | 18 38 12.1 | | -0.4 |
| **SRTM** | **Siirt_Merkez** | **1.23** | **234** | P | | Pn | 18 37 54.6 | | -1.1 |
| SRTM | | | | S | | Sn | 18 38 12.1 | | -0.4 |
| **EATA** | **Eleskirt** | **1.26** | **335** | *i* P | | Pn | 18 37 54.9 | | -1.3 |
| EATA | | | | *i* S | | Sn | 18 38 13.2 | | -0.2 |
| **EATA** | **Eleskirt** | **1.26** | **335** | P | | Pn | 18 37 54.9 | | -1.3 |
| EATA | | | | S | | Sn | 18 38 13.2 | | -0.2 |
| **SIRT** | **Sirnak** | **1.36** | **206** | *e*PN | | Pn | 18 37 57.3 | | -0.1 |
| **SIRT** | **Sirnak** | **1.36** | **206** | *e*Pn | | Pn | 18 37 57.3 | | -0.1 |
| **SIRN** | **S¨–rnak** | **1.37** | **207** | *i* P | | Pn | 18 37 57.2 | | -0.4 |
| SIRN | | | | *i* S | | Sg | 18 38 17.7 | | +1.4 |
| **SIRN** | **S¨–rnak** | **1.37** | **207** | P | | Pn | 18 37 57.2 | | -0.4 |
| SIRN | | | | S | | Sg | 18 38 17.7 | | +1.4 |
| **YOVA** | **Hakkari_Y¨…kse** | **1.43** | **142** | *i* P | | Pn | 18 37 57.6 | | -0.9 |
| YOVA | | | | *i* S | | Sg | 18 38 20.1 | | +1.8 |
| **YOVA** | **Hakkari_Y¨…kse** | **1.43** | **142** | P | | Pn | 18 37 57.6 | | -0.9 |
| YOVA | | | | S | | Sg | 18 38 20.1 | | +1.8 |
| **TASB** | **TASBURUN-IGDIR** | **1.50** | **33** | *e*PN | | Pn | 18 37 58.6 | | -0.8 |
| **TASB** | **TASBURUN-IGDIR** | **1.50** | **33** | *e*Pn | | Pn | 18 37 58.6 | | -0.8 |
| **CUKT** | **Cukurca** | **1.51** | **167** | *e*PN | | Pn | 18 37 58.9 | | -0.7 |
| **CUKT** | **Cukurca** | **1.51** | **167** | *i* P | | Pn | 18 37 59.1 | | -0.5 |
| **CUKT** | **Cukurca** | **1.51** | **167** | P | | Pn | 18 37 59.1 | | -0.5 |
| **BNGL** | **BINGOL** | **1.60** | **279** | *i* P | | Pb | 18 38 01.6 | | -0.6 |
| BNGL | | | | *i* S | | Sg | 18 38 24.4 | | +0.6 |
| **HOMI** | **Horasan** | **1.65** | **323** | *i* P | | Pn | 18 38 01.4 | | -0.2 |
| **DIGO** | **Kars** | **1.69** | **5** | *i* P | | Pb | 18 38 03.0 | | -0.7 |
| **DIGO** | **Kars** | **1.69** | **5** | P | | Pb | 18 38 03.0 | | -0.7 |
| **BTMN** | **Batman** | **1.72** | **242** | *i* P | | Pn | 18 38 02.4 | | 0.0 |
| BTMN | | | | *i* S | | Sg | 18 38 27.3 | | -0.3 |
| **BTMN** | **Batman** | **1.72** | **242** | P | | Pn | 18 38 02.4 | | 0.0 |
| BTMN | | | | S | | Sg | 18 38 27.3 | | -0.3 |
| **KARS** | **Kars** | **1.90** | **358** | *e*PN | | Pn | 18 38 05.0 | | 0.0 |
| **KARS** | **Kars** | **1.90** | **358** | *e*Pn | | Pn | 18 38 05.0 | | 0.0 |
| **SENK** | **Senkaya-Erzuru** | **1.94** | **341** | *e*PN | | Pn | 18 38 05.8 | | +0.2 |
| **SENK** | **Senkaya-Erzuru** | **1.94** | **341** | *e*Pn | | Pn | 18 38 05.8 | | +0.2 |
| **BNGB** | **Bing¨l** | **1.97** | **279** | *e*PN | | Pn | 18 38 05.8 | | -0.1 |
| **EAK** | **Akyaka** | **1.99** | **9** | *i* P | | Pb | 18 38 08.8 | | +0.2 |
| EAK | | | | *i* S | | Sg | 18 38 42.0 | | +5.9 |
| **EAK** | **Akyaka** | **1.99** | **9** | P | | Pb | 18 38 08.8 | | +0.2 |
| **BINT** | **Bingol** | **2.11** | **275** | *e*Pn | | Pn | 18 38 05.8 | | -2.0 |
| **YEDI** | **Yedisu-Bingol** | **2.17** | **290** | *e*PN | | Pn | 18 38 09.2 | | +0.5 |
| **YEDI** | **Yedisu-Bingol** | **2.17** | **290** | *e*Pn | | Pn | 18 38 09.2 | | +0.5 |
| **DIY** | **Diyarbakir** | **2.47** | **251** | *e*Pn | | Pn | 18 38 14.3 | | +1.6 |
| **MAZI** | **Mazidag** | **2.50** | **241** | *e*PN | | Pn | 18 38 14.3 | | +1.1 |
| **MAZI** | **Mazidag** | **2.50** | **241** | *e*Pn | | Pn | 18 38 14.3 | | +1.1 |
| **DYBB** | **Diyarbakir** | **2.52** | **253** | *e*Pn | | Pn | 18 38 14.2 | | +0.9 |
| **BAYT** | **Ayd¨–ntepe-Bay** | **2.88** | **306** | *e*PN | | Pn | 18 38 19.5 | | +1.1 |
| **BAYT** | **Ayd¨–ntepe-Bay** | **2.88** | **306** | *e*Pn | | Pn | 18 38 19.5 | | +1.1 |
| **PTK** | **Pertek** | **2.97** | **274** | *e*PN | | Pn | 18 38 20.3 | | +0.6 |
| **PTK** | **Pertek** | **2.97** | **274** | *e*Pn | | Pn | 18 38 20.3 | | +0.6 |
| **BCA** | **Borcka** | **2.97** | **337** | *e*PN | | Pn | 18 38 20.2 | | +0.7 |
| **BCA** | **Borcka** | **2.97** | **337** | *e*Pn | | Pn | 18 38 20.2 | | +0.7 |
| **SVRC** | **Sivrice-ELAZID** | **3.06** | **265** | *e*PN | | Pn | 18 38 21.6 | | +0.7 |
| **SVRC** | **Sivrice-ELAZID** | **3.06** | **265** | *e*Pn | | Pn | 18 38 21.6 | | +0.7 |

*ISCJB **31** 18:45:11.2±0.6, 21°.0N±0°.1×94°.25E±0°.09, h91km, mb3.6/11, Error ellipse: s-maj=20.7km s-min=4.1km az=36.0*
*IDC **31** 18:45:13.9±1.3, 21°.06N×94°.50E, h90km±14km, mb3.5/11, mb1 3.6/13, mb1mx3.3/52, mbtmp3.8/13, Error ellipse: s-maj=48.5km s-min=9.8km az=31.0*
**ISC 31 18:45:12.4±0.8, 20°.9N±0°.2×94°.4E±0°.1, h91km, n28, σ2s81/48, mb3.7/11, 1D, Myanmar**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h | m s | ISC |
| **BRDH** | **Bariadhala** | **3.09** | **306** | P | | Pn | 18 46 01.5 | | +2.4 |
| | 47nm,0.3s,baz=207,slow=3.8,SNR=7.2 | | | | | | | | |
| BRDH | | | | S | | Sn | 18 46 37.1 | | +2.0 |
| | 81nm,0.3s,baz=356,slow=23,SNR=8.8 | | | | | | | | |
| **CHTO** | **Chiang Mai** | **4.79** | **115** | P | | Pn | 18 46 20.7 | | -1.5 |
| CHTO | | | | S | | Sn | 18 47 11.7 | | -4.8 |
| **CMMT** | **Chiang Mai** | **4.79** | **115** | P | | Pn | 18 46 20.5 | | -1.7 |
| CMMT | | | | S | | Sn | 18 47 11.7 | | -4.9 |
| **CMAR** | **Chiang Mai Arr** | **4.95** | **118** | P | | Pn | 18 46 23.8 | | -0.6 |
| | 0.7nm,0.3s,baz=292,slow=14,SNR=39 | | | | | | | | |
| CMAR | | | | S | | Sn | 18 47 22.8 | | +2.3 |
| | 1.0nm,0.3s,baz=298,slow=17,SNR=5.7 | | | | | | | | |
| **SHL** | **Shillong** | **5.18** | **334** | ⇓P | | Pn | 18 46 28.0 | | +0.3 |
| SHL | | | | *e*SN | | Sn | 18 47 23.0 | | -3.3 |
| **ODAN** | **Odare** | **8.71** | **314** | *e*Pn | | Pn | 18 47 15.4 | | -0.5 |
| ODAN | | | | *e*Sn | | Sn | 18 48 48.9 | | -3.7 |
| | 27nm,0.3s | | | | | | | | |
| **TAPN** | **Taplejung** | **8.84** | **318** | *e*Pn | | Pn | 18 47 17.5 | | -0.2 |
| TAPN | | | | *e*Sn | | Sn | 18 48 52.4 | | -3.4 |
| | 31nm,0.5s | | | | | | | | |
| **RAMN** | **Ramite** | **9.31** | **312** | *e*Pn | | Pn | 18 47 23.6 | | -0.4 |
| RAMN | | | | *e*Sn | | Sn | 18 49 03.2 | | -3.9 |
| **JIRN** | **Jiri** | **10.04** | **314** | *e*Pn | | Pn | 18 47 33.9 | | -0.2 |
| JIRN | | | | *e*Sn | | Sn | 18 49 20.7 | | -4.4 |
| | 223nm,0.5s | | | | | | | | |
| **GUN** | **Gumba** | **10.41** | **314** | *e*Pn | | Pn | 18 47 38.5 | | -0.7 |
| GUN | | | | *e*Sn | | Sn | 18 49 30.5 | | -3.7 |
| | 15nm,0.3s | | | | | | | | |
| **PKI** | **Pulchoki** | **10.53** | **311** | *e*Pn | | Pn | 18 47 40.0 | | -0.7 |
| PKI | | | | *e*Sn | | Sn | 18 49 31.6 | | -5.3 |
| | 11nm,0.4s | | | | | | | | |
| **PKIN** | **Phulchoki** | **10.54** | **311** | *e*Pn | | Pn | 18 47 39.8 | | -1.0 |
| PKIN | | | | *e*Sn | | Sn | 18 49 32.3 | | -4.8 |
| | 6.8nm,0.3s | | | | | | | | |
| **KKN** | **Kakani** | **10.75** | **312** | *e*Pn | | Pn | 18 47 42.9 | | -0.7 |
| KKN | | | | *e*Sn | | Sn | 18 49 38.1 | | -4.1 |
| **DMN** | **Daman** | **10.77** | **310** | *e*Pn | | Pn | 18 47 43.7 | | -0.2 |
| DMN | | | | *e*Sn | | Sn | 18 49 38.4 | | -4.2 |
| | 11nm,0.4s | | | | | | | | |
| **GKN** | **Gorkha** | **11.33** | **311** | *e*Pn | | Pn | 18 47 50.7 | | -0.8 |
| GKN | | | | *e*Sn | | Sn | 18 49 51.4 | | -4.8 |
| **KOLN** | **Koldanda** | **11.96** | **307** | *e*Pn | | Pn | 18 47 58.8 | | -1.1 |
| KOLN | | | | *e*Sn | | Sn | 18 50 06.0 | | -5.5 |
| | 15nm,0.3s | | | | | | | | |
| **PYUN** | **Piuthan** | **12.59** | **307** | *e*Pn | | Pn | 18 48 07.2 | | -1.2 |
| PYUN | | | | *e*Sn | | Sn | 18 50 21.5 | | -5.3 |
| **AAK** | **Ala-Archa** | **27.36** | **327** | P | | P | 18 50 51.6 | | +2.5 |
| | 1.2nm,0.6s,baz=176,slow=9.1,SNR=4.8 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **27.65** | **342** | P | | P | 18 50 53.2 | | +1.6 |
| | 0.4nm,0.5s,baz=152,slow=9.7,SNR=8.8 | | | | | | | | |
| MKAR | | | | PcP | | PcP | 18 54 08.9 | | +2.2 |
| | 0.3nm,0.8s,baz=139,slow=3.3,SNR=3.2 | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **33.80** | **350** | P | | P | 18 51 46.4 | | +0.9 |
| | 0.5nm,0.3s,baz=167,slow=8.1,SNR=5.1 | | | | | | | | |
| ZALV | | | | pP | | pP | 18 52 07.2 | | +0.7 |
| | 0.6nm,0.5s,baz=175,slow=8.9,SNR=2.8 | | | | | | | | |
| **GEYT** | **Allbeck** | **35.58** | **307** | P | | P | 18 52 04.6 | | +3.5 |
| | 0.8nm,0.6s,baz=156,slow=4.4,SNR=4.3 | | | | | | | | |
| **AKASG** | **Malin Array Be** | **58.43** | **317** | P | | P | 18 54 58.7 | | +0.2 |
| | 0.2nm,0.3s,baz=81,slow=7.0,SNR=3.8 | | | | | | | | |
| **FINES** | **FINESS Array B** | **61.50** | **329** | P | | P | 18 55 20.2 | | +0.8 |
| | 2.4nm,1.0s,baz=64,slow=13,SNR=3.6 | | | | | | | | |
| **ARCES** | **ARCESS Array B** | **63.23** | **338** | P | | P | 18 55 31.3 | | +0.5 |
| | 2.8nm,1.0s,baz=103,slow=6.7,SNR=2.3 | | | | | | | | |
| **GERES** | **GERESS Array B** | **68.51** | **316** | P | | P | 18 56 06.9 | | +1.8 |
| | 0.6nm,0.6s,baz=68,slow=5.8,SNR=9.2 | | | | | | | | |
| GERES | | | | pP | | pP | 18 56 28.6 | | +0.2 |
| | 0.2nm,0.5s,baz=79,slow=5.2,SNR=1.9 | | | | | | | | |
| **NOA** | **NORSAR Array B** | **68.66** | **329** | P | | P | 18 56 05.6 | | -0.2 |
| | 0.8nm,0.9s,baz=98,slow=5.7,SNR=2.2 | | | | | | | | |
| **ILAR** | **Eielson Array** | **82.68** | **22** | P | | P | 18 57 25.5 | | -0.1 |
| | 0.2nm,0.7s,baz=289,slow=5.4,SNR=3.4 | | | | | | | | |
| **INK** | **Inuvik** | **84.50** | **16** | P | | P | 18 57 35.4 | | +0.5 |
| | 0.5nm,0.6s,baz=352,slow=2.8,SNR=2.7 | | | | | | | | |

**IDC 31 18:45:46.0±3.4, 2°99S×139°64E, h0km, mb3.4/3, mb1 3.7/4, mb1mx3.4/35, mbtmp3.5/4, ML3.6/1, MS3.0/2, Ms1 3.0/2, ms1mx2.5/24, Error ellipse: s-maj=104.2km s-min=30.3km az=90.0, Near north coast of Irian Jaya**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h | m s | ISC |
| **WRA** | **Warramunga Arr** | **17.63** | **197** | P | | Pn | 18 49 52.2 | | -1.1 |
| | 0.2nm,0.3s,baz=21,slow=12,SNR=11 | | | | | | | | |
| WRA | | | | S | | Sn | 18 52 57.4 | | -13 |
| | 0.1nm,0.3s,baz=32,slow=23,SNR=3.1 | | | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **20.34** | **221** | P | | P | 18 50 22.8 | | -1.3 |
| | 1.0nm,0.6s,baz=45,slow=10.0,SNR=1.9 | | | | | | | | |
| FITZ | | | | S | | S | 18 54 01.6 | | -12 |
| | 2.5nm,0.8s,baz=191,slow=12,SNR=2.8 | | | | | | | | |
| FITZ | | | | LR | | LR | 18 58 32.0 | | |
| | comp=Z,36nm,20.0s,baz=118,slow=38 | | | | | | | | |
| **ASAR** | **Alice Springs** | **21.29** | **195** | P | | P | 18 50 35.2 | | +0.7 |
| | 1.3nm,0.6s,baz=23,slow=9.3,SNR=27 | | | | | | | | |
| ASAR | | | | S | | S | 18 54 21.7 | | -10 |
| | 0.4nm,0.7s,baz=11,slow=29,SNR=3.1 | | | | | | | | |
| ASAR | | | | LR | | LR | 18 58 34.1 | | |
| | comp=Z,41nm,18.9s,baz=86,slow=36 | | | | | | | | |
| **MKAR** | **Makanchi Array** | **70.57** | **322** | P | | P | 18 57 03.6 | | +0.4 |
| | 0.2nm,0.6s,baz=106,slow=7.4,SNR=3.8 | | | | | | | | |

*IDC **31** 19:03:56.9±1.0, 51°.44N×96°.09E, h0km, mb3.9/2, mb1 3.4/6, mb1mx3.1/48, mbtmp3.4/6, ML2.6/4, Error ellipse: s-maj=28.9km s-min=11.1km az=175.0*
*MOS **31** 19:04:00.6±1.7, 51°.77N×95°.56E, h12km, mb4.0/5, Error ellipse: s-maj=17.9km s-min=10.6km az=4.4*
**ISC 31 19:03:58.2±0.8, 51°.5N±0°.1×96°.06E±0°.06, h10km, n28, σ1s75/26, mb3.9/4, 1C-2D, Southwestern Siberia**

| Code | Station Name | Δ° | AZ° | Phase | ID | | Time | | Res |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Op | | ISC | h | m s | ISC |
| **HVS** | **Khovu-Aksy** | **1.53** | **256** | *d* iPG | | Pn | 19 04 23.3 | | -2.3 |
| HVS | | | | pmax | | pmax | | | |
| | comp=Z,421nm,0.2s | | | | | | | | |
| **ORL** | **Orlik** | **2.53** | **65** | ⇓*i*PN | | Pn | 19 04 40.0 | | +0.6 |
| ORL | | | | pmax | | pmax | | | |
| | comp=Z,116nm,0.4s | | | | | | | | |
| **MOY** | **Mondy** | **3.08** | **85** | ⇑*i*PN | | Pb | 19 04 51.4 | | -1.7 |
| MOY | | | | *e* | | | 19 05 33.4 | | |
| MOY | | | | pmax | | pmax | | | |
| | comp=Z,65nm,0.5s | | | | | | | | |
| MOY | | | | smax | | smax | | | |
| | comp=N,245nm,0.7s | | | | | | | | |
| **ARS** | **Arshan** | **3.98** | **82** | *e*PN | | Pb | 19 05 07.9 | | -0.5 |
| ARS | | | | *e* | | | 19 06 00.4 | | |
| ARS | | | | pmax | | pmax | | | |
| | comp=Z,71nm,0.3s | | | | | | | | |
| ARS | | | | smax | | smax | | | |
| | comp=E,664nm,0.8s | | | | | | | | |
| **ZAK** | **Zakamensk** | **4.71** | **101** | *e*PN | | Pb | 19 05 21.4 | | +0.6 |
| ZAK | | | | *e* | | | 19 06 26.0 | | |
| ZAK | | | | pmax | | pmax | | | |
| | comp=Z,49nm,0.

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ARS | | | | | | smax | smax | | | | |
| | comp=E,295nm,0.6s | | | | | | | | | | |
| **TLY** | **Talaya** | **4.66** | **89** | Pg | | **Pn** | | **19 14 39.5** | **+2.4** | | |
| | comp=E,0.0nm,0.3s,baz=262,slow=7.1,SNR=10.0 | | | | | | | | | | |
| TLY | | | | Lg | | Lg | | 19 15 41.7 | | | |
| | comp=E,0.0nm,0.3s,baz=8.1,slow=23,SNR=12 | | | | | | | | | | |
| **TLY** | **Talaya** | **4.66** | **89** | *e*Pn | | Pn | | 19 14 40.1 | +2.9 | | |
| TLY | | | | *e* | | | | 19 15 41.9 | | | |
| TLY | | | | pmax | | pmax | | | | | |
| | comp=Z,7.0nm,0.5s | | | | | | | | | | |
| **ZAK** | **Zakamensk** | **4.71** | **105** | *e*PN | | **Pn** | | **19 14 39.5** | **+1.5** | | |
| ZAK | | | | *e* | | | | 19 15 43.8 | | | |
| ZAK | | | | pmax | | pmax | | | | | |
| | comp=Z,27nm,0.7s | | | | | | | | | | |
| ZAK | | | | smax | | smax | | | | | |
| | comp=N,91nm,1.3s | | | | | | | | | | |
| **IRK** | **Irkutsk** | **5.03** | **82** | *e*PN | | Pn | | 19 14 45.5 | +3.2 | | |
| IRK | | | | *e* | | | | 19 15 51.6 | | | |
| IRK | | | | pmax | | pmax | | | | | |
| | comp=Z,20nm,0.2s | | | | | | | | | | |
| IRK | | | | smax | | smax | | | | | |
| | comp=N,193nm,0.6s | | | | | | | | | | |
| **DGZ** | **Jazzator, Alta** | **5.93** | **253** | *i* PN | | **Pn** | | **19 14 57.2** | **+2.5** | | |
| DGZ | | | | pmax | | pmax | | | | | |
| | comp=Z,2.0nm,0.9s | | | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **7.19** | **292** | Pn | | Pn | | 19 15 02.1 | -10 | | |
| | comp=Z,0.2nm,0.3s,baz=103,slow=11,SNR=4.3 | | | | | | | | | | |
| ZALV | | | | Lg | | Lg | | 19 16 50.4 | | | |
| | comp=Z,1.0nm,0.3s,baz=115,slow=24,SNR=8.3 | | | | | | | | | | |
| **ZALV** | **Zalesovo Beam** | **7.19** | **292** | *e*PN | | **Pn** | | **19 15 13.7** | **+1.8** | | |
| ZALV | | | | pmax | | pmax | | | | | |
| | comp=Z,1.0nm,0.3s | | | | | | | | | | |
| **SONM** | **Songino Array** | **7.72** | **117** | Pg | | Pb | | 19 15 33.9 | -6.9 | | |
| | comp=Z,0.2nm,0.3s,baz=300,slow=18,SNR=9.0 | | | | | | | | | | |
| SONM | | | | Lg | | Lg | | 19 17 17.7 | | | |
| | comp=Z,0.7nm,0.3s,baz=297,slow=26,SNR=7.5 | | | | | | | | | | |
| **NVS** | **Novosibirsk** | **8.31** | **296** | *e*P | | **Pn** | | **19 15 24.4** | **-2.8** | | |
| **MKAR** | **Makanchi Array** | **10.35** | **246** | Pn | | Pn | | 19 15 41.2 | -14 | | |
| | comp=Z,0.1nm,0.3s,baz=54,slow=12,SNR=5.8 | | | | | | | | | | |
| MKAR | | | | Lg | | Lg | | 19 18 32.4 | | | |
| | comp=Z,0.1nm,0.3s,baz=56,slow=38,SNR=4.1 | | | | | | | | | | |
| **MKAR** | **Makanchi Array** | **10.35** | **246** | *e*P | | Pn | | 19 15 59.7 | +4.5 | | |
| **KURK** | **Kurchatov** | **11.04** | **271** | *e*P | | Pn | | 19 15 50.5 | -14 | | |
| **KURBB** | **Kurchatov Arra** | **11.12** | **271** | Pn | | Pn | | 19 15 53.1 | -13 | | |
| | comp=Z,0.0nm,0.3s,baz=74,slow=16,SNR=2.8 | | | | | | | | | | |
| KURBB | | | | Lg | | Lg | | 19 18 59.7 | | | |
| | comp=Z,0.0nm,0.3s,baz=80,slow=33,SNR=6.5 | | | | | | | | | | |
| **BVAR** | **Borovoye Array** | **15.74** | **285** | Pn | | Pn | | 19 16 55.0 | -13 | | |
| | comp=Z,0.1nm,0.3s,baz=84,slow=13,SNR=2.3 | | | | | | | | | | |
| **BVAR** | **Borovoye Array** | **15.74** | **285** | P | | Pn | | 19 16 55.0 | -13 | | |
| **YAK** | **Yakutsk** | **20.71** | **47** | *i* P | | Pn | | 19 18 18.9 | +10 | | |
| YAK | | | | pmax | | pmax | | | | | |
| | comp=Z,2.0nm,0.8s | | | | | | | | | | |
| **TIXI** | **Tiksi** | **24.63** | **24** | P | | P | | 19 18 37.2 | -10 | | |
| | comp=Z,1.2nm,0.3s,baz=254,slow=0.7,SNR=3.9 | | | | | | | | | | |

*ISCJB **31** 19:14:44.5±0.4, 32°.25N±0°.03×115°.31W±0°.03, h22km±4km, Error ellipse: s-maj=4.6km s-min=3.9km az=9.7*
*ECX **31** 19:14:45.6±0.6, 32°.25N×115°.31W, h5km, MD3.0, ML3.2*
*NEIC **31** 19:14:45.4±0.0, 32°.24N×115°.32W, h1km, ML3.2(PAS), ML3.6(ECX), After ECX.*
**ISC 31 19:14:43.8**±1.0, **32°.23N**±0°.03×**115°.33W**±0°.02, **h18**km±5km, **n54**, σ1§**04**/66, **3C-5D, California-Baja California border region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CPBX** | **Cerro Prieto** | **0.19** | **7** | *e*P | **Pg** | **19 14 48.7** | **+0.1** |
| CPBX | | | | *e*S | **Sg** | **19 14 51.0** | **-0.9** |
| CPBX | | | | IAML | | 19 14 54.4 | |
| | comp=N,22μm,0.1s | | | | | | |
| CPBX | | | | ⇓*e* | | 19 14 54.4 | |
| **SGL** | **Mount Signal** | **0.54** | **322** | ⇓*i*P | **Pb** | **19 14 54.9** | **+0.2** |
| **DREC** | **Desert Rsrch C** | **0.58** | **350** | ⇓*i*P | **Pb** | **19 14 56.4** | **+0.8** |
| **ERPC** | **Ernies Place** | **0.59** | **332** | *e*P | **Pb** | **19 14 56.3** | **+0.8** |
| **EMSC** | **East Mesa** | **0.59** | **30** | ⇓*i*P | **Pb** | **19 14 56.3** | **+0.8** |
| **WESC** | **Westside Schoo** | **0.63** | **328** | ⇓*i*P | **Pb** | **19 14 57.0** | **+0.7** |
| **RMX** | **La Rumorosa** | **0.73** | **301** | ⇑*i*P | **Pg** | **19 14 57.9** | **-0.3** |
| RMX | | | | *e*S | **Sg** | **19 15 07.5** | **-0.5** |
| **IKP** | **In-Ko-Pah, Jac** | **0.78** | **303** | P | **Pg** | **19 14 59.3** | **+0.2** |
| | baz=124,SNR=96 | | | | | | |
| IKP | | | | S | **Sb** | **19 15 09.4** | **+0.1** |
| | baz=124 | | | | | | |
| **IKP** | **In-Ko-Pah, Jac** | **0.78** | **303** | ⇑*i*P | **Pg** | **19 14 59.3** | **+0.2** |
| **ECBX** | **El Chinero** | **0.79** | **162** | *e*P | **Pg** | **19 14 59.6** | **+0.4** |
| ECBX | | | | *i* S | **Sg** | **19 15 10.7** | **+1.0** |
| **SWSC** | **Sam W. Stewart** | **0.82** | **331** | P | **Pb** | **19 14 59.6** | **+0.1** |
| | baz=152,SNR=24 | | | | | | |
| SWSC | | | | S | **Sg** | **19 15 11.1** | **+0.5** |
| | baz=152 | | | | | | |
| **GLA** | **Glamis** | **0.93** | **27** | P | **Pb** | **19 15 00.9** | **-0.5** |
| | baz=207,SNR=64 | | | | | | |
| GLA | | | | S | **Sb** | **19 15 13.6** | **+0.2** |
| | baz=207 | | | | | | |
| **GLA** | **Glamis** | **0.93** | **27** | *e*Pg | **Pb** | **19 15 00.9** | **-0.5** |
| **CBX** | **Cerro Bola** | **1.13** | **275** | *e*P | **Pg** | **19 15 05.7** | **0.0** |
| **MONP2** | **Monument Peak** | **1.14** | **306** | P | **Pb** | **19 15 04.8** | **-0.2** |
| | baz=126,SNR=51 | | | | | | |
| MONP2 | | | | S | **Sn** | **19 15 20.3** | **+0.1** |
| | baz=126 | | | | | | |
| **TJIG** | **Tijuana** | **1.16** | **281** | *e*P | **Pb** | **19 15 05.8** | **+0.6** |
| **SPIG** | **San Pedro Mart** | **1.18** | **186** | *e*P | **Pg** | **19 15 06.8** | **+0.1** |
| **SPX** | **San Pedro Mart** | **1.18** | **185** | *e*P | **Pg** | **19 15 06.8** | **+0.1** |
| SPX | | | | IAML | | 19 15 27.9 | |
| | comp=E,240nm,0.4s | | | | | | |
| SPX | | | | ⇑*e* | | 19 15 27.9 | |
| **ECNX** | **Esteban Cantu** | **1.22** | **243** | *e*P | **Pb** | **19 15 07.0** | **+0.6** |
| ECNX | | | | *e*P | **Pb** | **19 15 07.0** | **+0.6** |
| **BAR** | **Barrett** | **1.22** | **292** | *e*P | **Pb** | **19 15 06.9** | **+0.5** |
| **BAR** | **Barrett** | **1.22** | **292** | *e*Pn | **Pn** | **19 15 06.4** | **+0.4** |
| BAR | | | | *e*Sn | **Sb** | **19 15 22.0** | **+0.2** |
| **PBX** | **Punta Banda** | **1.28** | **248** | *e*P | **Pb** | **19 15 08.0** | **+0.6** |
| **BC3** | **Big Chuckawall** | **1.43** | **356** | P | **Pn** | **19 15 08.4** | **-0.5** |
| | baz=176,SNR=61 | | | | | | |
| **113A** | **Mohawk Valley,** | **1.43** | **67** | *e*Pn | **Pn** | **19 15 09.2** | **+0.4** |
| 113A | | | | *e*Sn | **Sn** | **19 15 26.0** | **-1.2** |
| **109C** | **Camp Elliot, M** | **1.64** | **294** | Pb | **Pb** | **19 15 13.5** | **+0.1** |
| | baz=114,SNR=6.3 | | | | | | |
| 109C | | | | S | **Sb** | **19 15 34.5** | **+0.7** |
| | baz=114 | | | | | | |
| **Y12C** | **Blythe** | **1.67** | **24** | Pb | **Pb** | **19 15 15.0** | **+1.0** |
| | baz=204,SNR=27 | | | | | | |
| **Y12C** | **Blythe** | **1.67** | **24** | *e*Pn | **Pb** | **19 15 13.6** | **-0.4** |
| **TPFO** | **Pinon Flats** | **1.67** | **326** | P | **Pn** | **19 15 12.0** | **-0.3** |
| | baz=146,SNR=30 | | | | | | |
| **XPFO** | **Pinon Flat** | **1.67** | **326** | *e*Pn | **Pn** | **19 15 12.0** | **-0.3** |
| **PFO** | **Pinyon Flats O** | **1.68** | **326** | P | **Pn** | **19 15 12.1** | **-0.3** |
| | baz=146,SNR=27 | | | | | | |
| PFO | | | | S | **Sb** | **19 15 36.0** | **+0.9** |
| | baz=146 | | | | | | |
| **PFO** | **Pinyon Flats O** | **1.68** | **326** | *e*Pn | **Pn** | **19 15 12.0** | **-0.4** |
| PFO | | | | *e*Sn | **Sb** | **19 15 35.6** | **+0.5** |
| **BELC** | **Belle Mtn. Jos** | **1.86** | **343** | P | **Pn** | **19 15 15.7** | **+0.8** |
| | baz=163,SNR=17 | | | | | | |
| **IRM** | **Iron Mountain** | **1.93** | **5** | P | **Pn** | **19 15 16.1** | **+0.3** |
| | baz=185,SNR=25 | | | | | | |
| **GMRC** | **Granite Mounta** | **2.57** | **354** | Pb | **Pb** | **19 15 30.3** | **+0.9** |
| | baz=174 | | | | | | |
| **Y14A** | **Wickenburg** | **2.59** | **48** | *e*Pn | **Pn** | **19 15 26.9** | **+1.9** |
| **BFSC** | **Mount Baldy Ra** | **2.80** | **316** | Pb | **Pb** | **19 15 33.7** | **+0.3** |
| | baz=136 | | | | | | |
| **LDFC** | **Landfair** | **2.85** | **4** | *e*Pn | **Pn** | **19 15 29.4** | **+0.9** |
| **MWC** | **Mount Wilson** | **3.03** | **312** | *e*Pn | **Pn** | **19 15 30.5** | **-0.6** |
| **PASC** | **Pasadena Art C** | **3.08** | **310** | *e*Pn | **Pn** | **19 15 31.5** | **-0.1** |
| **W13A** | **Hualapai Mount** | **3.11** | **22** | *e*Pn | **Pn** | **19 15 29.6** | **-2.6** |
| **TUC** | **Tucson** | **3.85** | **88** | *e*Pn | **Pn** | **19 15 39.3** | **-3.0** |
| TUC | | | | *e*Sg | **Sb** | **19 16 39.1** | **+1.4** |
| **X16A** | **Lo Mia Camp, P** | **3.92** | **55** | *e*Pn | **Pn** | **19 15 45.3** | **+2.0** |
| **SHPR** | **Sheep Range** | **4.27** | **2** | *e*Pn | **Pn** | **19 15 49.9** | **+1.8** |
| **DAC** | **Darwin (Calif)** | **4.45** | **336** | *e*Pn | **Pn** | **19 15 50.0** | **-0.7** |
| **WUAZ** | **Wupatki** | **4.65** | **44** | *e*Pn | **Pn** | **19 15 54.4** | **+1.1** |
| **TPNV** | **Topopah Spring** | **4.77** | **351** | *e*Pn | **Pn** | **19 15 56.1** | **+1.1** |
| **U15A** | **North Rim** | **4.89** | **30** | *e*Pn | **Pn** | **19 15 59.0** | **+2.3** |
| **X18A** | **Snowflake** | **5.05** | **62** | *e*Pn | **Pn** | **19 15 58.0** | **-0.9** |
| **319A** | **Douglas** | **5.22** | **98** | *e*Pn | **Pn** | **19 15 59.5** | **-1.6** |
| **CCUT** | **Cedar City** | **5.55** | **16** | *e*Pn | **Pn** | **19 16 04.4** | **-1.4** |
| **CVLM** | **Vallecito** | **7.58** | **317** | *e*Pn | Pn | 19 16 39.3 | +5.9 |
| CVLM | | | | *e*Sn | **Sn** | **19 17 56.2** | **-2.7** |
| **JSFB** | **Stanford Teles** | **7.64** | **314** | *e*Sn | Sn | 19 18 10.4 | +10 |
| **MCU** | **Monte Cristo P** | **9.71** | **17** | *e*Sn | Sn | 19 19 05.8 | +14 |
| **TPAW** | **Teton Pass** | **11.76** | **16** | *e*Pn | **Pn** | **19 17 32.1** | **+1.1** |

*IDC **31** 19:22:31.1±18.0, 20°.09S×174°.53W, h0km, mb4.0/5, mb1 4.2/5, mb1mx3.7/37, mbtmp4.0/5, Error ellipse: s-maj=340.7km s-min=143.3km az=79.0*
*ISCJB **31** 19:22:34.1±1.5, 20°.55±0°.6×174°.5W±0°.3, h33km, mb4.5/12, Error ellipse: s-maj=95.7km s-min=17.4km az=153.0*
*NEIC **31** 19:22:36.3±1.7, 20°.74S×174°.33W, h43km±9km, mb5.0/6, Error ellipse: s-maj=77.3km s-min=14.1km az=153.0*
**ISC 31 19:22:34.2**±1.9, **20°.95**±0°.8×**174°.2W**±0°.4, **h27**km, **n17**, σ1§**00**/16, **mb4.7**/12, **Tonga Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **CTA** | **Charters Tower** | **36.98** | **264** | P | **P** | **19 29 42.0** | **+0.4** |
| | 5.2nm,0.9s,baz=80,slow=4.4,SNR=3.6 | | | | | | |
| **CTAO** | **Charters Tower** | **36.98** | **264** | *e*P | **P** | **19 29 42.1** | **+0.5** |
| | 34nm,1.4s | | | | | | |
| **STKA** | **Stephens Creek** | **40.84** | **245** | P | **P** | **19 30 14.5** | **+0.8** |
| | 1.1nm,0.6s,baz=96,slow=14,SNR=5.8 | | | | | | |
| **STKA** | **Stephens Creek** | **40.84** | **245** | *e*P | **P** | **19 30 14.6** | **+0.8** |
| | 2.9nm,1.9s | | | | | | |
| **BBOO** | **Buckleboo** | **45.57** | **244** | *e*P | **P** | **19 30 52.2** | **+0.2** |
| | 34nm,1.8s | | | | | | |
| **AS01** | **Alice Springs** | **47.84** | **257** | *e*P | **P** | **19 31 09.6** | **-0.5** |
| **AS31** | **Alice Springs** | **47.88** | **257** | *e*P | **P** | **19 31 09.2** | **-1.1** |
| | 1.1nm,1.3s | | | | | | |
| **ASAR** | **Alice Springs** | **47.89** | **257** | P | **P** | **19 31 09.7** | **-0.7** |
| | 1.0nm,0.6s,baz=99,slow=8.2,SNR=22 | | | | | | |
| **WC3** | **Warramunga Arr** | **48.03** | **262** | *e*P | **P** | **19 31 10.3** | **-1.1** |
| | 12nm,1.5s | | | | | | |
| **WB2** | **Warramunga Arr** | **48.05** | **262** | *e*P | **P** | **19 31 10.3** | **-1.3** |
| | 16nm,1.6s | | | | | | |
| **WR1** | **Warramunga Arr** | **48.06** | **262** | *e*P | **P** | **19 31 10.8** | **-1.0** |
| | 30nm,2.0s | | | | | | |
| **WRA** | **Warramunga Arr** | **48.06** | **262** | P | **P** | **19 31 10.8** | **-1.0** |
| | 0.5nm,0.3s,baz=95,slow=8.0,SNR=38 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **56.49** | **262** | P | **P** | **19 32 14.3** | **0.0** |
| | 3.1nm,0.9s,baz=97,slow=8.1,SNR=4.1 | | | | | | |
| **MBWA** | **Marble Bar** | **61.23** | **257** | *e*P | **P** | **19 32 47.2** | **0.0** |
| | 21nm,1.3s | | | | | | |
| **CSR** | **Chase Ranch** | **75.95** | **41** | *e*P | **P** | **19 34 20.2** | **+1.5** |
| **KTH** | **Kantishna Hill** | **86.09** | **10** | *e*pP | pP | 19 35 24.6 | +3.6 |
| **SMCO** | **Snowmass** | **86.65** | **46** | *e*P | **P** | **19 35 14.4** | **-1.5** |
| | 31nm,0.9s | | | | | | |

*ISCJB **31** 19:46:53.6±0.6, 52°.62N±0°.05×164°.31W±0°.05, h24km, mb3.8/9, Error ellipse: s-maj=6.7km s-min=4.1km az=178.2*
*IDC **31** 19:46:53.7±1.3, 52°.85N×164°.47W, h0km, mb3.7/9, mb1 4.0/10, mb1mx3.6/68, mbtmp3.8/10, ML3.7/1, Error ellipse: s-maj=42.2km s-min=18.0km az=17.0*
*NEIC **31** 19:46:56.5±0.0, 52°.69N×164°.54W, h26km, ML3.3(AEIC), After AEIC.*
**ISC 31 19:46:57.0**±0.8, **52°.83N**±0°.07×**164°.40W**±0°.05, **h24**km, **n60**, σ1§**63**/62, **mb3.7**/9, **South of Alaska**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **AKSA** | **Akutan Strait** | **1.52** | **330** | *e*Sn | **Sb** | **19 47 43.9** | **+0.5** |
| **AKUT** | **Akutan** | **1.55** | **328** | *e*Pn | **Pn** | **19 47 23.3** | **+0.4** |
| AKUT | | | | *e*Sn | **Sb** | **19 47 45.2** | **+1.2** |
| **UNV** | **Unalaska Valle** | **1.62** | **310** | *e*Pn | **Pn** | **19 47 23.5** | **-0.5** |
| UNV | | | | *e*Sn | **Sn** | **19 47 43.9** | **-0.2** |
| **WESE** | **West Dahl East** | **1.65** | **356** | *e*Pn | **Pn** | **19 47 25.6** | **+1.2** |
| **AKGG** | **Akutan Green G** | **1.67** | **326** | P | **Pn** | **19 47 25.3** | **+0.6** |
| AKGG | | | | S | **Sb** | **19 47 47.8** | **+0.2** |
| **WESP** | **Westdahl Peak** | **1.68** | **354** | *e*Sn | **Sb** | **19 47 49.2** | **+1.3** |
| **MNAT** | **Makushin Natee** | **1.73** | **309** | P | **Pn** | **19 47 25.2** | **-0.3** |
| **MGOD** | **Makushin Gods** | **1.77** | **304** | *e*Pn | **Pn** | **19 47 25.5** | **-0.6** |
| **WEBT** | **Westdahl Beart** | **1.78** | **353** | P | **Pb** | **19 47 28.3** | **-0.6** |
| **MSW** | **Makushin Switc** | **1.80** | **308** | *e*Sn | **Sn** | **19 47 48.2** | **-0.2** |
| **MSOM** | **Makushin Julie** | **1.82** | **304** | *e*Pn | **Pn** | **19 47 26.4** | **-0.4** |
| **SSLS** | **Shishaldin Sou** | **1.90** | **7** | P | **Pn** | **19 47 29.2** | **+1.3** |
| **ISLZ** | **Isanotski Laza** | **1.94** | **12** | P | **Pn** | **19 47 29.5** | **+1.0** |
| **FALS** | **False Pass** | **2.11** | **16** | *e*Pn | **Pn** | **19 47 32.2** | **+1.5** |
| FALS | | | | *e*Sn | **Sb** | **19 47 59.7** | **-0.6** |
| **OKTU** | **Okmok Mt. Tuli** | **2.27** | **286** | *e*Pn | **Pn** | **19 47 31.6** | **-1.3** |
| **DRIA** | **Deer Island** | **2.49** | **30** | P | **Pn** | **19 47 36.8** | **+0.9** |
| **BALA** | **Baldy Mountain** | **2.55** | **21** | *e*Pn | **Pb** | **19 47 40.1** | **-1.9** |
| **DT1** | **Dutton Round H** | **2.60** | **28** | *e*Pn | **Pn** | **19 47 38.7** | **+1.2** |
| **NIKH** | **Nikolski High** | **2.70** | **275** | *e*Pn | **Pn** | **19 47 36.9** | **-2.0** |
| **SDPT** | **Sand Point** | **3.42** | **41** | *e*Pn | **Pn** | **19 47 50.6** | **+1.9** |
| SDPT | | | | *e*Sn | **Sn** | **19 48 29.4** | **+1.0** |
| **CHGN** | **Chignik** | **4.92** | **43** | *e*Pn | **Pn** | **19 48 11.1** | **+1.8** |
| CHGN | | | | *e*Sn | **Sn** | **19 49 06.6** | **+1.3** |
| **ATKA** | **Atka Island** | **6.02** | **268** | *e*Pn | **Pn** | **19 48 23.4** | **-0.9** |
| **OHAK** | **Old Harbor** | **7.75** | **51** | *e*Pn | **Pn** | **19 48 48.2** | **+0.1** |
| **KDAK** | **Kodiak Island** | **8.37** | **49** | Pn | **Pn** | **19 48 55.6** | **-0.9** |
| | 0.9nm,0.3s,baz=161,slow=3.7,SNR=20 | | | | | | |
| KDAK | | | | Sn | **Sn** | **19 50 25.8** | **-4.2** |
| | 0.4nm,0.3s,baz=289,slow=18,SNR=3.5 | | | | | | |
| **KDAK** | **Kodiak Island** | **8.37** | **49** | *e*Pn | **Pn** | **19 48 56.0** | **-0.5** |
| **SVW2** | **Sparrevohn** | **9.58** | **27** | *e*Pn | **Pn** | **19 49 14.9** | **+1.7** |
| **CNPM** | **China Poot** | **9.93** | **42** | *e*Pn | **Pn** | **19 49 18.6** | **+0.5** |
| **RSO** | **Redoubt South** | **9.97** | **35** | *e*Pn | **Pn** | **19 49 21.2** | **+2.6** |
| RSO | | | | *e*Sn | Sn | 19 50 57.9 | -12 |
| **BRLK** | **Bradley Lake** | **10.22** | **42** | *e*Pn | **Pn** | **19 49 22.4** | **+0.5** |
| BRLK | | | | *e*Sn | **Sn** | **19 51 12.6** | **-3.0** |
| **SPU** | **Mount Spurr** | **10.72** | **34** | *e*Pn | **Pn** | **19 49 30.9** | **+2.1** |
| **RC01** | **Rabbit Creek A** | **11.49** | **38** | *e*Pn | **Pn** | **19 49 39.6** | **+0.3** |
| RC01 | | | | *e*Sn | Sn | 19 51 35.8 | -11 |
| **GAMB** | **Gambell** | **11.62** | **344** | *e*Pn | **Pn** | **19 49 43.9** | **+2.9** |
| GAMB | | | | *e*Sn | Sn | 19 52 11.9 | +22 |
| **PPLA** | **Purkeypile** | **11.98** | **28** | *e*Pn | **Pn** | **19 49 49.6** | **+3.5** |
| **CAST** | **Castle Rocks** | **12.42** | **26** | *e*Pn | **Pn** | **19 49 55.0** | **+2.9** |
| **SML** | **Sawmill** | **12.47** | **38** | *e*Pn | **Pn** | **19 49 50.8** | **-1.9** |
| **FID** | **Port Fidalgo** | **12.59** | **44** | *e*Pn | **Pn** | **19 49 52.3** | **-2.0** |
| **SCM** | **Sheep Creek Mo** | **12.86** | **39** | *e*Pn | **Pn** | **19 49 57.0** | **-1.1** |
| **TRF** | **Thorofare Moun** | **12.96** | **29** | *e*Pn | **Pn** | **19 49 59.5** | **0.0** |
| **DIV** | **Divide** | **13.08** | **43** | *e*Pn | **Pn** | **19 50 00.5** | **-0.6** |
| **RAGM** | **Ragged Mountai** | **13.20** | **47** | *e*Pn | **Pn** | **19 50 02.5** | **-0.1** |
| **KLU** | **Klutina** | **13.21** | **42** | *e*Pn | **Pn** | **19 50 02.5** | **-0.5** |
| KLU | | | | *e*Sn | **Sn** | **19 52 24.7** | **-4.3** |
| **BPAW** | **Bear Paw Mtn.** | **13.26** | **26** | *e*Pn | Pn | 19 49 58.7 | -4.8 |
| **BMRM** | **Bremner River** | **13.50** | **45** | *e*Pn | **Pn** | **19 50 07.0** | **+0.2** |
| **ILB** | **Eielson Array** | **14.95** | **30** | *e*Pn | **Pn** | **19 50 22.4** | **-3.9** |
| **PETK** | **Petropavlovsk-** | **22.66** | **286** | P | **P** | **19 51 54.8** | **-1.3** |
| | 0.9nm,0.5s,baz=78,slow=16,SNR=4.7 | | | | | | |
| **NVAR** | **Mina Array Bea** | **34.66** | **96** | P | **P** | **19 53 45.4** | **+0.8** |
| | 0.4nm,0.7s,baz=311,slow=8.2,SNR=3.5 | | | | | | |
| **PDAR** | **Pinedale Array** | **37.34** | **83** | P | **P** | **19 54 08.9** | **+1.5** |
| | 0.4nm,0.5s,baz=290,slow=5.3,SNR=4.7 | | | | | | |
| **MSU** | **Marysvale** | **38.32** | **91** | *e*pP | pP | 19 54 25.2 | +2.1 |
| **H11N2** | **WAKE ISLAND Hy** | **39.82** | **225** | T | T | 20 38 32.2 | |
| | baz=25 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **39.82** | **225** | T | T | 20 38 29.6 | |
| | baz=25 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **39.84** | **225** | T | T | 20 38 24.3 | |
| | baz=25 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **40.99** | **224** | T | T | 20 40 02.9 | |
| | baz=20 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **41.00** | **224** | T | T | 20 39 45.0 | |
| | baz=20 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **41.00** | **224** | T | T | 20 39 57.6 | |
| | baz=20 | | | | | | |
| **TXAR** | **Lajitas Array** | **49.72** | **93** | P | **P** | **19 55 47.9** | **+0.7** |
| | 1.4nm,0.6s,baz=298,slow=5.4,SNR=22 | | | | | | |
| TXAR | | | | PcP | **PcP** | **19 57 07.9** | **-0.1** |
| | 0.2nm,0.6s,baz=336,slow=2.0,SNR=2.9 | | | | | | |
| **SONM** | **Songino Array** | **53.63** | **303** | P | **P** | **19 56 17.0** | **+0.8** |
| | 0.5nm,0.7s,baz=46,slow=6.6,SNR=3.6 | | | | | | |
| **ARCES** | **ARCESS Array B** | **57.73** | **356** | P | **P** | **19 56 45.6** | **+0.5** |
| | 2.8nm,0.9s,baz=15,slow=7.8,SNR=4.1 | | | | | | |
| **MKAR** | **Makanchi Array** | **65.63** | **316** | P | **P** | **19 57 39.1** | **+0.4** |
| | 0.4nm,0.6s,baz=46,slow=6.1,SNR=6.1 | | | | | | |
| **FINES** | **FINESS Array B** | **65.77** | **355** | P | **P** | **19 57 39.5** | **+0.2** |
| | 1.9nm,1.0s,baz=25,slow=7.6,SNR=3.1 | | | | | | |
| **HFS** | **Hagfors** | **67.38** | **1** | P | **P** | **19 57 50.6** | **+1.0** |
| | 1.6nm,0.8s,baz=34,slow=5.4,SNR=4.0 | | | | | | |

*NIED **31** 19:57:00, 31°.80N×142°.00E, h5km, Mw3.6 Best double couple: M0 2.49000×10^14 NP1:φs147.00000°, δ34.00000°, λ32.00000°. NP2:φs30.00000°, δ73.00000°, λ120.00000°.*
*JMA **31** 19:57:26.0±0.3, 31°.80N×141°.98E, h18km, M3.5*
*IDC **31** 19:57:26.2±0.9, 31°.55N×141°.50E, h0km, mb3.7/9, mb1 3.8/11, mb1mx3.6/66, mbtmp3.6/11, ML2.9/3, MS2.6/3, Ms1 2.6/3, ms1mx2.3/49, Error ellipse: s-maj=29.1km s-min=15.5km az=70.0*
*ISCJB **31** 19:57:28.6±0.7, 31°.73N±0°.06×141°.9E±0°.1, h40km, mb3.7/9, MS3.0/1, Error ellipse: s-maj=14.9km s-min=5.7km az=151.1*
**ISC 31 19:57:31.7**±0.9, **31°.68N**±0°.08×**141°.7E**±0°.1, **h40**km, **n23**, σ1§**31**/26, **mb3.7**/9, **Southeast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **JHCJ** | **Hachijojimakas** | **2.11** | **312** | P | **Pn** | **19 58 03.4** | **-1.0** |
| JHCJ | | | | *e*S | **Sn** | **19 58 30.2** | **+0.8** |
| **JHJ2** | **Mitsune** | **2.12** | **313** | P | **Pn** | **19 58 03.3** | **-1.3** |
| JHJ2 | | | | *e*S | **Sn** | **19 58 31.1** | **+1.3** |
| **JHJ** | **Hachijo jima 2** | **2.15** | **312** | Pn | **Pn** | **19 58 03.4** | **-1.6** |
| | 13nm,0.3s,baz=66,slow=22,SNR=16 | | | | | | |
| JHJ | | | | Sn | **Sn** | **19 58 30.2** | **-0.2** |
| | 19nm,0.3s,baz=148,slow=24,SNR=6.5 | | | | | | |
| **BSO1** | **Boso 1** | **3.02** | **349** | P | **Pn** | **19 58 14.2** | **-2.3** |
| **BSO3** | **Boso 3** | **3.26** | **343** | P | **Pn** | **19 58 18.1** | **-1.9** |
| **JOD2** | **Odawara 2** | **4.17** | **330** | P | **Pn** | **19 58 31.8** | **-1.1** |
| JOD2 | | | | *e*S | **Sn** | **19 59 19.5** | **-0.9** |
| **CBIJ** | **Chichi jima** | **4.59** | **174** | P | **Pn** | **19 58 37.6** | **-1.0** |
| **JYN** | **Shimob** | **4.62** | **326** | P | **Pn** | **19 58 41.1** | **+2.1** |
| **JRY** | **Ryogami san** | **4.90** | **333** | P | **Pn** | **19 58 42.0** | **-0.8** |
| JRY | | | | *e*S | **Sn** | **19 59 37.0** | **-1.3** |
| **MJAR** | **Matsushiro Arr** | **5.64** | **330** | Pn | **Pn** | **19 58 52.5** | **-0.4** |
| | 0.8nm,0.3s,baz=160,slow=12,SNR=19 | | | | | | |
| MJAR | | | | Sn | **Sn** | **19 59 58.0** | **+1.6** |
| | 0.3nm,0.3s,baz=112,slow=16,SNR=3.0 | | | | | | |
| MJAR | | | | LR | LR | 20 01 24.1 | |
| | comp=Z,28nm,20.1s,baz=65,slow=42 | | | | | | |
| **ASAJ** | **Asahikawa** | **12.44** | **3** | Pn | Pn | 20 00 20.5 | -5.5 |
| | 0.2nm,0.3s,baz=339,slow=17,SNR=4.6 | | | | | | |
| **KSRS** | **Korea Array** | **12.71** | **301** | LR | LR | 20 05 32.1 | |
| | comp=Z,24nm,19.0s,baz=111,slow=38 | | | | | | |
| **KLR** | **Kul'dur** | **19.06** | **340** | P | **P** | **20 01 50.7** | **+0.3** |
| | 0.0nm,0.3s,baz=180,slow=12,SNR=2.8 | | | | | | |
| **SONM** | **Songino Array** | **31.23** | **311** | P | **P** | **20 03 47.8** | **+0.4** |
| | 0.5nm,0.5s,baz=126,slow=9.1,SNR=6.6 | | | | | | |
| **TLY** | **Talaya** | **34.20** | **317** | LR | LR | 20 18 05.5 | |
| | comp=Z,28nm,18.4s,baz=358,slow=36 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **40.63** | **262** | P | **P** | **20 05 07.0** | **-1.0** |
| | 0.2nm,0.5s,baz=38,slow=9.3,SNR=4.0 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **45.81** | **316** | P | **P** | **20 05 49.5** | **+0.2** |
| | 0.3nm,0.4s,baz=94,slow=8.7,SNR=3.2 | | | | | | |
| **MKAR** | **Makanchi Array** | **47.31** | **306** | P | **P** | **20 06 01.4** | **+0.2** |
| | 0.4nm,0.5s,baz=85,slow=9.5,SNR=14 | | | | | | |
| **WRA** | **Warramunga Arr** | **51.81** | **189** | P | **P** | **20 06 34.4** | **-1.3** |
| | 1.2nm,0.6s,baz=6.2,slow=7.7,SNR=27 | | | | | | |
| **ASAR** | **Alice Springs** | **55.53** | **189** | P | **P** | **20 07 02.3** | **-0.6** |
| | 0.4nm,0.5s,baz=1.1,slow=5.4,SNR=16 | | | | | | |
| **ARCES** | **ARCESS Array B** | **69.08** | **340** | P | **P** | **20 08 33.0** | **0.0** |
| | 3.9nm,1.1s,baz=30,slow=7.3,SNR=2.3 | | | | | | |
| **FINES** | **FINESS Array B** | **73.66** | **333** | P | **P** | **20 09 01.1** | **+0.3** |
| | 3.4nm,1.0s,baz=96

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| MCWV | Mont Chateau | 1.65 | 154 | ePn | Pb | 20 05 28.8 | +0.2 |
| MCWV | | | | eSn | Sn | 20 05 48.6 | -0.2 |
| O56A | Blue Knob Stat | 1.91 | 116 | P | Pb | 20 05 32.6 | -0.5 |
| | baz=299,SNR=242 | | | | | | |
| O56A | | | | S | Sb | 20 05 56.9 | -0.3 |
| | baz=299 | | | | | | |
| O56A | Blue Knob Stat | 1.91 | 116 | P | Pb | 20 05 32.3 | -0.7 |
| O56A | | | | S | Sn | 20 05 51.1 | -4.2 |
| WVNY | West Valley, N | 2.07 | 52 | P | Pb | 20 05 35.3 | -0.6 |
| WVNY | | | | S | Sn | 20 05 58.9 | -0.5 |
| TYNO | Tyneside | 2.07 | 19 | jPN | Pb | 20 05 35.9 | +0.1 |
| TYNO | | | | SN | Sb | 20 06 01.6 | -0.2 |
| TYNO | | | | Trac | | 20 06 07.1 | |
| | comp=Z,2µm,0.1s | | | | | | |
| ELFO | Elginfield | 2.09 | 349 | PN | Pb | 20 05 35.8 | -0.3 |
| ELFO | | | | SG | Sg | 20 06 04.6 | -0.3 |
| ELFO | | | | Trac | | 20 06 06.8 | |
| | comp=Z,3µm,0.1s | | | | | | |
| SSPA | Standing Stone | 2.26 | 102 | ePn | Pb | 20 05 37.8 | -1.3 |
| SSPA | | | | eSn | Sn | 20 06 04.8 | +0.8 |
| STCO | Saint Catharin | 2.40 | 30 | PN | Pb | 20 05 40.0 | -1.4 |
| STCO | | | | SN | Sb | 20 06 09.8 | -1.4 |
| STCO | | | | Trac | | 20 06 13.4 | |
| | comp=Z,3µm,0.3s | | | | | | |
| AAM | Ann Arbor | 2.44 | 299 | Pb | Pb | 20 05 43.5 | +1.4 |
| | baz=117,SNR=184 | | | | | | |
| AAM | Ann Arbor | 2.44 | 299 | ePn | Pb | 20 05 41.9 | -0.2 |
| AAM | | | | eSn | Sb | 20 06 12.2 | -0.2 |
| ACTO | Acton | 2.53 | 12 | PN | Pn | 20 05 41.5 | +2.1 |
| ACTO | | | | SN | Sn | 20 06 11.5 | +0.9 |
| ACTO | | | | Trac | | 20 06 17.1 | |
| | comp=Z,4µm,0.3s | | | | | | |
| ACTO | | | | LG | Lg | 20 06 17.6 | |
| MMNY | Mt. Morris Dam | 2.68 | 53 | ePn | Pn | 20 05 43.7 | +2.1 |
| MMNY | | | | eSn | Sn | 20 06 14.5 | +0.2 |
| TORO | Toronto--Lesli | 2.70 | 23 | PN | Pb | 20 05 44.3 | -2.2 |
| TORO | | | | SN | Sn | 20 06 16.2 | +1.5 |
| TORO | | | | LG | Lg | 20 06 22.1 | |
| TORO | | | | Trac | | 20 06 22.4 | |
| | comp=Z,4µm,0.2s | | | | | | |
| BASO | Ashfield | 2.94 | 348 | PN | Pn | 20 05 47.7 | +2.5 |
| BASO | | | | SN | Sn | 20 06 22.3 | +1.4 |
| BASO | | | | Trac | | 20 06 30.6 | |
| | comp=Z,1µm,0.3s | | | | | | |
| BASO | | | | LG | Lg | 20 06 31.2 | |
| BWLO | Walkerton | 2.99 | 355 | PN | Pn | 20 05 47.9 | +2.2 |
| BWLO | | | | SN | Sn | 20 06 22.8 | +0.9 |
| BWLO | | | | LG | Lg | 20 06 31.5 | |
| BWLO | | | | Trac | | 20 06 33.2 | |
| | comp=Z,790nm,0.2s | | | | | | |
| PKRO | Pickering | 3.10 | 24 | PN | Pn | 20 05 49.5 | +2.3 |
| PKRO | | | | SN | Sn | 20 06 25.0 | +0.4 |
| PKRO | | | | LG | Lg | 20 06 35.5 | |
| PKRO | | | | Trac | | 20 06 42.0 | |
| | comp=Z,4µm,0.2s | | | | | | |
| DRWO | Darlington Wes | 3.13 | 29 | PN | Pb | 20 05 51.2 | -2.6 |
| DRWO | | | | SN | Sn | 20 06 26.1 | +0.7 |
| DRWO | | | | LG | Lg | 20 06 34.1 | |
| DRWO | | | | Trac | | 20 06 36.0 | |
| | comp=Z,786nm,0.2s | | | | | | |
| BRCO | Bruce Peninsul | 3.14 | 351 | PN | Pn | 20 05 50.2 | +2.4 |
| BRCO | | | | SN | Sn | 20 06 26.7 | +1.0 |
| BRCO | | | | LG | Lg | 20 06 35.6 | |
| BRCO | | | | Trac | | 20 06 40.5 | |
| | comp=Z,3µm,0.2s | | | | | | |
| WLVO | Wesleyville | 3.30 | 32 | PN | Pn | 20 05 51.4 | +1.3 |
| WLVO | | | | SN | Sn | 20 06 29.8 | +0.2 |
| WLVO | | | | LG | Lg | 20 06 40.8 | |
| WLVO | | | | Trac | | 20 06 41.8 | |
| | comp=Z,750nm,0.2s | | | | | | |
| BMRO | Meriville Lake | 3.47 | 355 | PN | Pn | 20 05 54.6 | +2.2 |
| BMRO | | | | SN | Sn | 20 06 33.7 | 0.0 |
| BMRO | | | | LG | Lg | 20 06 45.4 | |
| BMRO | | | | Trac | | 20 06 49.7 | |
| | comp=Z,629nm,0.3s | | | | | | |
| SDMD | Soldier's Deli | 3.48 | 118 | ePn | Pn | 20 05 54.3 | +1.7 |
| MVL | Millersville | 3.57 | 107 | ePn | Pn | 20 05 55.3 | +1.5 |
| MVL | | | | eSn | Sn | 20 06 36.7 | +0.4 |
| IP04 | Greensprings | 3.69 | 145 | ePn | Pn | 20 05 56.8 | +1.3 |
| BINY | Binghamton | 3.75 | 72 | PN | Pn | 20 05 58.2 | +1.8 |
| BINY | | | | SN | Sn | 20 06 40.7 | -0.2 |
| BINY | | | | LG | Lg | 20 06 54.5 | |
| BINY | Binghamton | 3.75 | 72 | ePn | Pn | 20 05 58.4 | +2.0 |
| BINY | | | | eSb | Sb | 20 06 50.1 | -0.2 |
| IP03 | Louisa | 3.78 | 145 | ePn | Pn | 20 05 58.1 | +1.3 |
| KSPA | Keystone Colle | 3.81 | 82 | ePn | Pn | 20 05 57.8 | +0.8 |
| KSPA | | | | eSb | Sb | 20 06 52.6 | +0.8 |
| N59A | State Game Lan | 3.81 | 92 | P | Pn | 20 05 58.3 | +1.2 |
| | baz=275,SNR=6.6 | | | | | | |
| SADO | Sadowa | 3.83 | 18 | Pn | Pn | 20 05 58.5 | +1.2 |
| | 1.4nm,0.3s,baz=212,slow=13,SNR=24 | | | | | | |
| SADO | | | | Pg | Pb | 20 06 05.9 | +0.2 |
| | 55nm,0.3s,baz=216,slow=14,SNR=222 | | | | | | |
| SADO | | | | Sn | Sn | 20 06 42.2 | -0.3 |
| | 32nm,0.3s,baz=92,slow=22,SNR=6.8 | | | | | | |
| SADO | | | | Lg | Lg | 20 06 53.4 | |
| | 113nm,0.3s,baz=300,slow=21,SNR=16 | | | | | | |
| SADO | Sadowa | 3.83 | 18 | PN | Pn | 20 05 58.5 | +1.2 |
| SADO | | | | SN | Sn | 20 06 41.9 | -0.7 |
| SADO | | | | LG | Lg | 20 06 57.4 | |
| SADO | | | | Trac | | 20 06 59.5 | |
| | comp=Z,867nm,0.4s | | | | | | |
| SADO | Sadowa | 3.83 | 18 | ePn | Pn | 20 05 58.0 | +0.7 |
| SADO | | | | Pg | Pb | 20 06 05.9 | +0.2 |
| SADO | | | | Sn | Sn | 20 06 42.2 | -0.3 |
| SADO | | | | eSb | Sb | 20 06 52.5 | +0.1 |
| CVRD | Centerville Ro | 3.84 | 142 | ePn | Pn | 20 05 59.3 | +1.9 |
| CVRD | | | | eSb | Sb | 20 06 52.4 | -0.3 |
| SPRD | Spring Road, M | 3.84 | 143 | ePn | Pn | 20 05 58.7 | +1.2 |
| SPRD | | | | eSb | Sb | 20 06 53.6 | +0.8 |
| IP07 | Quail | 3.86 | 145 | ePn | Pn | 20 05 59.6 | +1.8 |
| IP06 | Yanceyville | 3.87 | 145 | ePn | Pn | 20 05 59.6 | +1.7 |
| IP01 | Cuckoo | 3.88 | 144 | ePn | Pn | 20 05 59.3 | +1.2 |
| PTRD | Partlow Road | 3.89 | 140 | ePn | Pn | 20 05 59.5 | +1.4 |
| SPFD | Spotsylvania F | 3.92 | 139 | ePn | Pn | 20 05 59.3 | +0.7 |
| BLA | Blacksburg | 3.93 | 176 | ePn | Pn | 20 06 00.9 | +2.1 |
| BLA | | | | eSg | Sg | 20 07 00.2 | -3.9 |
| CBN | Corbin Frederi | 3.94 | 137 | ePn | Pn | 20 06 00.1 | +1.1 |
| IP05 | Hopewell Churc | 4.06 | 144 | ePn | Pn | 20 06 01.6 | +1.2 |
| IP05 | | | | eSb | Sb | 20 07 01.0 | +2.0 |
| JSRW | J. Sargeant Re | 4.12 | 146 | ePn | Pn | 20 06 02.4 | +1.2 |
| JSRW | | | | eSb | Sb | 20 07 03.1 | +2.5 |
| TOBO | Tobermory, Bru | 4.12 | 353 | PN | Pn | 20 06 03.3 | +2.0 |
| TOBO | | | | SN | Sn | 20 06 50.1 | +0.3 |
| TOBO | | | | LG | Lg | 20 07 09.4 | |
| TOBO | | | | Trac | | 20 07 11.8 | |
| | comp=Z,967nm,0.4s | | | | | | |
| LUPA | Lehigh Univers | 4.15 | 96 | ePn | Pn | 20 06 02.7 | +1.0 |
| O47A | Sheridan | 4.19 | 259 | P | Pn | 20 06 04.7 | +2.4 |
| | baz=76 | | | | | | |
| O47A | | | | Sb | Sg | 20 07 08.7 | -3.5 |
| | baz=76 | | | | | | |
| M46A | Old House Fiel | 4.20 | 275 | P | Pn | 20 06 04.4 | +2.0 |
| | baz=92 | | | | | | |
| M46A | | | | S | Sn | 20 06 55.5 | +3.8 |
| | baz=92 | | | | | | |
| PSUB | Penn St. - Bra | 4.25 | 105 | ePn | Pn | 20 06 04.4 | +1.3 |
| KGNO | Kingston | 4.42 | 44 | PN | Pn | 20 06 08.1 | +2.6 |
| KGNO | | | | SN | Sn | 20 06 56.2 | -1.1 |
| KGNO | | | | LG | Lg | 20 07 17.0 | |
| KGNO | | | | Trac | | 20 07 17.2 | |
| | comp=Z,161nm,0.1s | | | | | | |
| P47A | Martinsville | 4.50 | 250 | P | Pn | 20 06 09.3 | +2.8 |
| | baz=67,SNR=10 | | | | | | |
| P47A | | | | Sb | Sg | 20 07 17.9 | -4.3 |
| | baz=67 | | | | | | |
| N46A | Monticello | 4.50 | 269 | P | Pn | 20 06 10.2 | +3.6 |
| | baz=85 | | | | | | |
| N46A | | | | Sb | Sg | 20 07 18.4 | -3.9 |
| | baz=85 | | | | | | |
| GLMI | Grayling | 4.63 | 324 | P | Pn | 20 06 10.0 | +1.7 |
| | baz=141 | | | | | | |
| GLMI | Grayling | 4.63 | 324 | ePn | Pn | 20 06 10.7 | +2.4 |
| ODNJ | Ogdensburg | 4.68 | 89 | ePn | Pn | 20 06 10.4 | +1.4 |
| ODNJ | | | | eSb | Sb | 20 07 19.6 | +2.8 |
| BRNJ | Basking Ridge | 4.74 | 93 | ePn | Pn | 20 06 11.0 | +1.1 |
| R48A | Northridge Ran | 4.77 | 237 | P | Pn | 20 06 13.0 | +2.7 |
| | baz=54 | | | | | | |
| BLO | Bloomington | 4.81 | 248 | ePn | Pn | 20 06 13.7 | +2.9 |
| SFIN | Lafayette | 4.84 | 263 | P | Pn | 20 06 14.2 | +2.9 |
| | baz=79 | | | | | | |
| SFIN | | | | S | Sn | 20 07 09.7 | +2.0 |
| | baz=79 | | | | | | |
| SFIN | Lafayette | 4.84 | 263 | ePn | Pn | 20 06 12.8 | +1.5 |
| Q47A | Bedord North L | 4.85 | 245 | P | Pn | 20 06 14.3 | +2.9 |
| | baz=61,SNR=15 | | | | | | |
| Q47A | | | | S | Sn | 20 07 10.9 | +3.0 |
| | baz=61 | | | | | | |
| M45A | Boilermakers S | 4.87 | 275 | P | Pn | 20 06 15.4 | +3.8 |
| | baz=90 | | | | | | |
| M45A | | | | S | Sn | 20 07 11.2 | +2.8 |
| | baz=90 | | | | | | |
| N45A | Kentland | 5.09 | 269 | P | Pn | 20 06 18.1 | +3.4 |
| | baz=84,SNR=5.8 | | | | | | |
| P46A | Rosedale | 5.13 | 255 | P | Pn | 20 06 18.3 | +3.1 |
| | baz=71 | | | | | | |
| WCI | Wyandotte Cave | 5.14 | 237 | P | Pn | 20 06 18.1 | +2.7 |
| | baz=54 | | | | | | |
| WCI | Wyandotte Cave | 5.14 | 237 | ePn | Pn | 20 06 17.8 | +2.5 |
| WCI | | | | eSg | Sg | 20 07 41.3 | -1.5 |
| CPNY | Central Park | 5.19 | 92 | ePn | Pn | 20 06 16.6 | +0.6 |
| CPNY | | | | eSn | Sn | 20 07 13.8 | -2.3 |
| CPNY | | | | eSb | Sb | 20 07 33.5 | +2.0 |
| PAL | Palisades | 5.21 | 89 | ePn | Pn | 20 06 16.9 | +0.7 |
| PAL | | | | eSn | Sn | 20 07 15.6 | -1.0 |
| PAL | | | | eSb | Sb | 20 07 35.8 | +3.7 |
| R47A | Wooly Knot Far | 5.25 | 239 | P | Pn | 20 06 19.8 | +2.9 |
| | baz=56,SNR=26 | | | | | | |
| R47A | | | | S | Sn | 20 07 21.9 | +4.1 |
| | baz=56 | | | | | | |
| O45A | Potomac | 5.34 | 263 | P | Pn | 20 06 20.9 | +2.8 |
| | baz=78 | | | | | | |
| O45A | | | | S | Sn | 20 07 22.7 | +2.7 |
| | baz=78 | | | | | | |
| S48A | Wiedeman Farm, | 5.36 | 231 | P | Pn | 20 06 20.6 | +2.2 |
| | baz=48,SNR=9.9 | | | | | | |
| L44A | Lake County Fo | 5.43 | 283 | P | Pn | 20 06 21.6 | +2.3 |
| | baz=98 | | | | | | |
| L44A | | | | S | Sn | 20 07 25.0 | +2.9 |
| | baz=98 | | | | | | |
| F46A | Macinaw City C | 5.46 | 329 | P | Pn | 20 06 21.9 | +2.2 |
| | baz=146,SNR=6.8 | | | | | | |
| Q46A | CEJHS Indians, | 5.46 | 249 | P | Pn | 20 06 23.4 | +3.7 |
| | baz=65 | | | | | | |
| M44A | Midewin, Midew | 5.47 | 275 | P | Pn | 20 06 23.6 | +3.7 |
| | baz=90 | | | | | | |
| M44A | | | | S | Sn | 20 07 25.2 | +2.1 |
| | baz=90 | | | | | | |
| CRLO | Chalk River | 5.49 | 26 | PN | Pn | 20 06 20.5 | +0.4 |
| CRLO | | | | SN | Sn | 20 07 19.5 | -4.0 |
| CRLO | | | | Trac | | 20 07 50.9 | |
| | comp=Z,228nm,0.2s | | | | | | |
| P45A | Graceland, Par | 5.55 | 255 | P | Pn | 20 06 23.7 | +2.8 |
| | baz=71 | | | | | | |
| P45A | | | | S | Sn | 20 07 26.9 | +1.8 |
| | baz=71 | | | | | | |
| TRY | Troy | 5.55 | 71 | ePn | Pn | 20 06 22.1 | +1.2 |
| TRY | | | | eSb | Sb | 20 07 44.6 | +2.7 |
| N44A | Piper City | 5.56 | 269 | P | Pn | 20 06 24.8 | +3.7 |
| | baz=84,SNR=8.5 | | | | | | |
| N44A | | | | S | Sn | 20 07 27.6 | +2.1 |
| | baz=84 | | | | | | |
| WBO | Williamsburg | 5.59 | 45 | PN | Pn | 20 06 22.1 | +0.6 |
| WBO | | | | SN | Sn | 20 07 23.5 | -2.5 |
| WBO | | | | Trac | | 20 07 55.3 | |
| | comp=Z,198nm,0.3s | | | | | | |
| NCB | Newcomb | 5.62 | 58 | PN | Pn | 20 06 22.7 | +0.7 |
| NCB | | | | SN | Sn | 20 07 25.4 | -1.4 |
| NCB | | | | LG | Lg | 20 07 56.0 | |
| NCB | Newcomb | 5.62 | 58 | ePn | Pn | 20 06 22.4 | +0.5 |
| NCB | | | | eSb | Sb | 20 07 48.3 | +4.4 |
| OTT | Ottawa | 5.64 | 39 | PN | Pn | 20 06 23.0 | +0.8 |
| OTT | | | | PN | Pn | 20 06 25.4 | +3.2 |
| OTT | | | | SN | Sn | 20 07 26.6 | -0.7 |
| OTT | | | | Trac | | 20 07 55.6 | |
| | comp=Z,280nm,0.3s | | | | | | |
| OTT | | | | Trac | | 20 07 59.1 | |
| | comp=Z,244nm,0.3s | | | | | | |
| F45A | CMU Biological | 5.70 | 324 | P | Pn | 20 06 25.2 | +2.2 |
| | baz=141,SNR=14 | | | | | | |
| LONY | Lake Ozonia | 5.74 | 51 | PN | Pn | 20 06 24.6 | +1.0 |
| LONY | | | | SN | Sn | 20 07 29.6 | -0.2 |
| LONY | | | | LG | Lg | 20 08 00.7 | |
| LONY | Lake Ozonia | 5.74 | 51 | ePn | Pn | 20 06 24.2 | +0.6 |
| ACCN | Adirondack Com | 5.75 | 65 | ePn | Pn | 20 06 23.7 | 0.0 |
| ORIO | Orleans, Innes | 5.78 | 40 | PN | Pn | 20 06 25.1 | +0.9 |
| ORIO | | | | SN | Sn | 20 07 28.3 | -2.5 |
| ORIO | | | | LG | Lg | 20 08 02.7 | |
| ORIO | | | | Trac | | 20 08 05.5 | |
| | comp=Z,259nm,0.3s | | | | | | |
| K43A | Burlington | 5.83 | 288 | P | Pn | 20 06 27.5 | +2.6 |
| | baz=103 | | | | | | |
| O44A | Mansfield | 5.92 | 263 | P | Pn | 20 06 28.7 | +2.7 |
| | baz=78 | | | | | | |
| T48A | Bowling Green | 5.93 | 229 | P | Pn | 20 06 28.5 | +2.3 |
| | baz=46,SNR=6.7 | | | | | | |
| YLE | Yale | 5.93 | 86 | ePn | Pn | 20 06 26.4 | +0.2 |
| YLE | | | | eSb | Sb | 20 07 55.1 | +2.3 |
| R46A | Gibon Southern | 5.95 | 243 | P | Pn | 20 06 29.1 | +2.7 |
| | baz=58,SNR=9.5 | | | | | | |
| TKL | Tuckaleechee C | 5.95 | 204 | Pn | Pn | 20 06 28.7 | +2.2 |
| | 2.9nm,0.3s,baz=52,slow=10,SNR=32 | | | | | | |
| TKL | | | | Pg | Pb | 20 06 42.1 | +0.1 |
| | 11nm,0.3s,baz=26,slow=16,SNR=23 | | | | | | |
| TKL | | | | Sn | Sn | 20 07 36.7 | +1.6 |
| | 10nm,0.3s,baz=333,slow=21,SNR=5.6 | | | | | | |
| TKL | | | | Lg | Lg | 20 08 00.7 | |
| | 43nm,0.3s,baz=114,slow=11,SNR=16 | | | | | | |
| TKL | | | | LR | LR | 20 08 49.3 | |
| | comp=Z,155nm,19.3s,baz=349,slow=39 | | | | | | |
| GAC | Glen Almond | 5.98 | 39 | PN | Pn | 20 06 27.2 | +0.3 |
| GAC | | | | Trac | | 20 08 09.5 | |
| | comp=Z,272nm,0.5s | | | | | | |
| KMSC | Kings Mountain | 6.00 | 184 | P | Pn | 20 06 30.0 | +2.8 |
| | baz=4.3 | | | | | | |
| KMSC | Kings Mountain | 6.00 | 184 | ePn | Pn | 20 06 27.9 | +0.7 |
| L43A | Garden Prairie | 6.04 | 283 | P | Pn | 20 06 30.6 | +2.9 |
| | baz=97 | | | | | | |
| VABQ | Val Des Bois | 6.07 | 37 | PN | Pn | 20 06 27.6 | -0.5 |
| VABQ | | | | SN | Sn | 20 07 34.5 | -3.5 |
| VABQ | | | | LG | Lg | 20 08 10.4 | |
| VABQ | | | | Trac | | 20 08 11.7 | |
| | comp=Z,153nm,0.2s | | | | | | |
| Q45A | Warren Harvey, | 6.08 | 251 | P | Pn | 20 06 31.3 | +3.0 |
| | baz=66 | | | | | | |
| J43A | Natural Harves | 6.08 | 294 | P | Pn | 20 06 30.4 | +2.1 |
| | baz=109,SNR=7.2 | | | | | | |
| I43A | Langenfeld Bro | 6.08 | 299 | P | Pn | 20 06 30.3 | +1.9 |
| | baz=114 | | | | | | |
| E45A | Wooded Hills, | 6.10 | 330 | P | Pn | 20 06 30.9 | +2.4 |
| | baz=147,SNR=7.7 | | | | | | |
| OLIL | Olney | 6.11 | 249 | ePn | Pn | 20 06 31.8 | +3.2 |
| H43A | Windswept, Lux | 6.11 | 305 | P | Pn | 20 06 30.8 | +2.1 |
| | baz=120,SNR=5.2 | | | | | | |
| M43A | Waltham Townsh | 6.16 | 275 | P | Pn | 20 06 32.7 | +3.4 |
| | baz=90 | | | | | | |
| USIN | University of | 6.18 | 241 | ePn | Pn | 20 06 32.1 | +2.4 |
| P44A | Sand Creek, Wi | 6.21 | 257 | P | Pn | 20 06 32.7 | +2.7 |
| | baz=72 | | | | | | |
| CNNC | Cliffs of the | 6.32 | 158 | ePn | Pn | 20 06 32.6 | +1.1 |
| F44A | Big Bay de Noc | 6.33 | 322 | P | Pn | 20 06 33.7 | +2.1 |
| | baz=137,SNR=11 | | | | | | |
| N43A | Stutzman Famil | 6.34 | 271 | P | Pn | 20 06 34.8 | +3.0 |
| | baz=85 | | | | | | |
| BG3 | Lake Jocassee | 6.36 | 196 | ePn | Pn | 20 06 34.0 | +1.8 |
| S46A | Don Dixon Farm | 6.37 | 239 | P | Pn | 20 06 34.5 | +2.2 |
| | baz=55,SNR=25 | | | | | | |
| CPCT | Cooper Cave | 6.39 | 208 | ePn | Pn | 20 06 34.7 | +2.2 |
| QUA2 | Belchertown | 6.42 | 77 | ePn | Pn | 20 06 33.1 | +0.2 |
| T47A | Sharon Grove | 6.42 | 232 | P | Pn | 20 06 35.6 | +2.6 |
| | baz=48,SNR=14 | | | | | | |
| R45A | Skylar, Fairfi | 6.43 | 246 | P | Pn | 20 06 35.4 | +2.3 |
| | baz=61,SNR=12 | | | | | | |
| BELQ | Belleterre | 6.44 | 13 | PN | Pn | 20 06 34.4 | +1.2 |
| BELQ | | | | SN | Sn | 20 07 42.9 | -4.1 |
| BELQ | | | | Trac | | 20 08 18.8 | |
| | comp=Z,425nm,0.3s | | | | | | |
| BELQ | | | | LG | Lg | 20 08 20.4 | |
| U48A | Cassie Pea, Po | 6.44 | 226 | P | Pn | 20 06 36.3 | +3.1 |
| | baz=42,SNR=10 | | | | | | |
| FRNY | Flat Rock | 6.45 | 53 | PN | Pn | 20 06 34.1 | +0.9 |
| FRNY | | | | SN | Sn | 20 07 44.4 | -2.8 |
| FRNY | | | | LG | Lg | 20 08 20.1 | |
| FRNY | Flat Rock | 6.45 | 53 | ePn | Pn | 20 06 34.1 | +0.9 |
| HDIL | Hopedale | 6.47 | 268 | P | Pn | 20 06 36.5 | +2.8 |
| | baz=82,SNR=9.7 | | | | | | |
| HDIL | Hopedale | 6.47 | 268 | ePn | Pn | 20 06 36.0 | +2.4 |
| G43A | Wallace | 6.50 | 312 | P | Pn | 20 06 35.3 | +1.2 |
| | baz=126 | | | | | | |
| GRQ | Grand Remous | 6.53 | 31 | PN | Pn | 20 06 34.3 | 0.0 |
| GRQ | | | | SN | Sn | 20 07 46.2 | -2.9 |
| GRQ | | | | Trac | | 20 08 25.7 | |
| | comp=Z,211nm,0.3s | | | | | | |
| O43A | Sugar Creek Fa | 6.53 | 265 | P | Pn | 20 06 37.4 | +3.0 |
| | baz=80 | | | | | | |
| J42A | Columbus | 6.55 | 292 | P | Pn | 20 06 36.8 | +2.1 |
| | baz=106,SNR=10 | | | | | | |
| K42A | Prairie Point, | 6.58 | 287 | P | Pn | 20 06 37.5 | +2.3 |
| | baz=101 | | | | | | |
| F43A | Flat Rock, Esc | 6.59 | 317 | P | Pn | 20 06 37.1 | +1.8 |
| | baz=133,SNR=16 | | | | | | |
| I42A | Draeger Farm, | 6.60 | 297 | P | Pn | 20 06 37.0 | +1.6 |
| | baz=112,SNR=9.5 | | | | | | |
| H42A | Shiocton | 6.61 | 303 | P | Pn | 20 06 36.8 | +1.3 |
| | baz=118,SNR=5.2 | | | | | | |
| E44A | Grand Marais A | 6.61 | 328 | P | Pn | 20 06 38.5 | +3.0 |
| | baz=144 | | | | | | |
| Q44A | Meyer Farm, Va | 6.69 | 253 | P | Pn | 20 06 39.2 | +2.5 |
| | baz=68 | | | | | | |
| L42A | Oliver, Polo | 6.71 | 280 | P | Pn | 20 06 39.8 | +3.0 |
| | baz=94,SNR=6.2 | | | | | | |
| VT1 | Waterbury | 6.72 | 59 | ePn | Pn | 20 06 37.7 | +0.5 |
| HNH | Hanover | 6.80 | 65 | ePn | Pn | 20 06 38.5 | +0.4 |
| TRQ | Mont Tremblant | 6.80 | 40 | PN | Pn | 20 06 39.3 | +1.1 |
| TRQ | | | | SN | Sn | 20 07 52.3 | -3.7 |
| TRQ | | | | Trac | | 20 08 27.9 | |
| | comp=Z,273nm,0.5s | | | | | | |
| TRQ | Mont Tremblant | 6.80 | 40 | ePn | Pn | 20 06 37.9 | -0.3 |
| MNTQ | Montreal, Queb | 6.81 | 48 | PN | Pn | 20 06 38.4 | +0.2 |
| MNTQ | | | | Trac | | 20 08 30.9 | |
| | comp=Z,193nm,0.5s | | | | | | |
| P43A | Skaggs, Pawnee | 6.83 | 260 | P | Pn | 20 06 40.8 | +2.3 |
| | baz=74 | | | | | | |
| JSC | Jenkinsville | 6.86 | 183 | ePn | Pn | 20 06 39.4 | +0.5 |
| T46A | Princeton | 6.87 | 236 | P | Pn | 20 06 41.5 | +2.4 |
| | baz=51,SNR=5.2 | | | | | | |
| E43A | Lone Tree Farm | 6.89 | 321 | P | Pn | 20 06 41.1 | +1.7 |
| | baz=137 | | | | | | |
| U47A | Clarksville | 6.91 | 229 | P | Pn | 20 06 41.6 | +2.0 |
| | baz=45,SNR=13 | | | | | | |
| G42A | Mountain | 6.92 | 309 | P | Pn | 20 06 41.2 | +1.4 |
| | baz=123,SNR=6.1 | | | | | | |
| S45A | Carrier Mills | 6.95 | 243 | P | Pn | 20 06 41.9 | +1.7 |
| | baz=58,SNR=7.8 | | | | | | |
| BRYW | Bryant College | 6.99 | 81 | ePn | Pn | 20 06 40.5 | -0.2 |
| BRYW | | | | eSn | Sn | 20 07 55.8 | -4.8 |
| HODGE | Hodges | 6.99 | 190 | ePn | Pn | 20 06 42.8 | +2.0 |
| R44A | Waltonville | 7.01 | 248 | P | Pn | 20 06 43.6 | +2.5 |
| | baz=63,SNR=25 | | | | | | |
| HRV | Adam Dziewonsk | 7.03 | 76 | ePn | Pn | 20 06 42.2 | +0.8 |
| HRV | | | | eSn | Sn | 20 07 58.7 | -2.9 |
| HRV | | | | eSb | Sb | 20 08 30.8 | +6.2 |
| F42A | Maple Grove Fa | 7.06 | 313 | P | Pn | 20 06 43.0 | +1.3 |
| | baz=128 | | | | | | |
| O42A | Bath | 7.12 | 265 | P | Pn | 20 06 46.0 | +3.4 |
| | baz=79 | | | | | | |
| SWET | Sewanee | 7.16 | 216 | ePn | Pn | 20 06 43.9 | +0.7 |
| FFD | Franklin Falls | 7.17 | 68 | ePn | Pn | 20 06 42.8 | -0.4 |
| V48A | Smith Brothers | 7.17 | 223 | P | Pn | 20 06 45.9 | +2.7 |
| | baz=40,SNR=6.8 | | | | | | |
| Q43A | New Douglas | 7.17 | 255 | P | Pn | 20 06 45.7 | +2.4 |
| | baz=69 | | | | | | |
| J41A | Loganville | 7.19 | 291 | P | Pn | 20 06 45.4 | +1.9 |
| | baz=105 | | | | | | |
| WES | Weston | 7.19 | 77 | ePn | Pn | 20 06 43.8 | +0.3 |
| WES | | | | eSn | Sn | 20 08 01.4 | -4.1 |
| LBNH | Lisbon | 7.23 | 62 | PN | Pn | 20 06 44.9 | +0.9 |
| LBNH | | | | SN | Sn | 20 08 05.6 | -0.9 |
| LBNH | | | | LG | Lg | 20 08 45.8 | |
| LBNH | Lisbon | 7.23 | 62 | ePn | Pn | 20 06 44.4 | +0.3 |
| K41A | Shullsburg | 7.25 | 285 | P | Pn | 20 06 46.7 | +2.4 |
| | baz=98 | | | | | | |
| JFWS | Jewell Farm | 7.26 | 287 | P | Pn | 20 06 46.5 | +2.1 |
| | baz=101,SNR=5.6 | | | | | | |
| JFWS | Jewell Farm | 7.26 | 287 | PN | Pn | 20 06 46.6 | +2.1 |
| JFWS | | | | SN | Sn | 20 08 05.7 | -1.5 |
| JFWS | | | | LG | Lg | 20 08 53.0 | |
| JFWS | Jewell Farm | 7.26 | 287 | ePn | Pn | 20 06 46.3 | +1.8 |
| BCX | Boston College | 7.30 | 77 | ePn | Pn | 20 06 44.3 | -0.7 |
| I41A | Arkdale | 7.30 | 297 | P | Pn | 20 06 46.6 | +1.5 |
| | baz=110,SNR=6.0 | | | | | | |
| L41A | Preston | 7.33 | 281 | P | Pn | 20 06 47.9 | +2.5 |
| | baz=94,SNR=9.2 | | | | | | |
| M41A | Milan | 7.35 | 275 | P | Pn | 20 06 47.5 | +1.8 |
| | baz=88 | | | | | | |
| G41A | Antigo | 7.36 | 306 | P | Pn | 20 06 47.2 | +1.4 |
| | baz=120 | | | | | | |
| SIUC | Southern Illin | 7.36 | 245 | ePn | Pn | 20 06 48.4 | +2.5 |
| T45A | Paducah | 7.36 | 239 | P | Pn | 20 06 47.7 | +1.8 |
| | baz=54 | | | | | | |
| VLDQ | Val d'Or | 7.37 | 18 | PN | Pn | 20 06 46.4 | +0.5 |
| VLDQ | | | | SN | Sn | 20 08 04.2 | -5.6 |
| VLDQ | | | | LG | Lg | 20 08 48.8 | |
| VLDQ | | | | Trac | | 20 08 54.6 | |
| | comp=Z,281nm,0.4s | | | | | | |
| VLDQ | Val d'Or | 7.37 | 18 | ePn | Pn | 20 06 46.5 | +0.6 |
| H41A | Junction City | 7.38 | 301 | P | Pn | 20 06 47.2 | +1.1 |
| | baz=115,SNR=7.1 | | | | | | |
| E42A | Champion | 7.38 | 318 | P | Pn | 20 06 47.7 | +1.6 |
| | baz=133 | | | | | | |
| KILO | Kirkland Lake | 7.40 | 6 | PN | Pn | 20 06 49.4 | +3.1 |
| KILO | | | | SN | Sn | 20 08 06.3 | -4.2 |
| KILO | | | | LG | Lg | 20 08 49.2 | |
| KILO | | | | Trac | | 20 08 50.5 | |
| | comp=Z,247nm,0.5s | | | | | | |
| S44A | Carbondale | 7.40 | 245 | P | Pn | 20 06 48.4 | +2.1 |
| | baz=60,SNR=9.8 | | | | | | |
| WVT | Waverly | 7.44 | 230 | P | Pn | 20 06 48.5 | +1.6 |
| | baz=46 | | | | | | |
| WVT | Waverly | 7.44 | 230 | ePn | Pn | 20 06 48.5 | +1.6 |
| P42A | Winchester | 7.46 | 261 | P | Pn | 20 06 49.0 | +1.8 |
| | baz=75,SNR=9.6 | | | | | | |
| U46A | Springville | 7.49 | 233 | P | Pn | 20 06 49.3 | +1.8 |
| | baz=48 | | | | | | |
| MOQ | Mont Orford | 7.50 | 53 | PN | Pn | 20 06 48.7 | +0.9 |
| MOQ | | | | SN | Sn | 20 08 12.1 | -1.2 |
| MOQ | | | | Trac | | 20 09 07.6 | |
| | comp=Z,102nm,0.4s | | | | | | |
| F41A | Three Lakes | 7.59 | 310 | P | Pn | 20 06 50.3 | +1.3 |
| | baz=124,SNR=5.5 | | | | | | |
| R43A | Red Bud | 7.60 | 251 | P | Pn | 20 06 51.2 | +2.1 |
| | baz=65 | | | | | | |
| N41A | Harden Midland | 7.63 | 270 | P | Pn | 20 06 52.4 | +2.8 |
| | baz=83 | | | | | | |
| SLM | Saint Louis | 7.68 | 254 | ePn | Pn | 20 06 52.1 | +1.9 |
| SLM | | | | eSn | Sn | 20 08 17.9 | +0.4 |
| SLM | | | | eSb | Sg | 20 08 58.2 | -6.0 |
| X50A | Fort Payne | 7.69 | 211 | P | Pn | 20 06 51.7 | +1.3 |
| | baz=29,SNR=5.7 | | | | | | |
| J40A | Soldiers Grove | 7.71 | 290 | P | Pn | 20 06 52.3 | +1.6 |
| | baz=103,SNR=6.3 | | | | | | |
| O41A | Passleys Farm, | 7.74 | 266 | P | Pn | 20 06 53.9 | +2.9 |
| | baz=79 | | | | | | |
| I40A | Norwalk | 7.76 | 294 | P | Pn | 20 06 52.7 | +1.4 |
| | baz=107,SNR=6.4 | | | | | | |
| Q42A | Golden Eagle | 7.80 | 257 | P | Pn | 20 06 53.5 | +1.7 |
| | baz=70 | | | | | | |
| H40A | Chili | 7.86 | 299 | P | Pn | 20 06 53.7 | +1.1 |
| | baz=113,SNR=8.8 | | | | | |

baz=84
R42A Luebbering 8.22 253 P Pn 20 06 59.6 +2.0
baz=66
U44B Burton Farm, H 8.22 237 P Pn 20 06 59.7 +2.0
baz=52
GLAT Glass 8.23 237 ePn Pn 20 06 58.6 +0.9
GLAT eSg Sg 20 09 20.9 -0.9
F40A Park Falls 8.29 308 P Pn 20 06 59.7 +1.2
baz=122,SNR=6.8
Q41A Truxton 8.30 258 P Pn 20 07 01.0 +2.3
baz=71
X48A Hartselle 8.31 219 P Pn 20 07 00.3 +1.5
baz=35,SNR=18
V45A Humboldt 8.37 233 P Pn 20 07 01.3 +1.6
baz=47
I39A Houston 8.38 292 P Pn 20 07 00.8 +1.0
baz=105,SNR=7.0
J39A Decorah 8.39 289 P Pn 20 07 01.3 +1.4
baz=101
KAPO Kapuskasing 8.40 352 PN Pn 20 07 00.6 +0.6
KAPO SN Sn 20 08 32.6 -2.5
KAPO Trac 20 09 21.5
comp=Z,284nm,0.5s
KAPO LG Lg 20 09 22.6
PLAL Pickwick Lake 8.41 225 ePn Pn 20 07 01.8 +1.5
PNPO Pukaskwa Natio 8.41 334 PN Pn 20 07 01.6 +1.4
PNPO Trac 20 09 36.5
comp=Z,67nm,0.4s
T43A Greenville 8.42 244 P Pn 20 07 02.4 +2.1
baz=58,SNR=26
K39A Oelwein 8.42 284 P Pn 20 07 01.6 +1.3
baz=97,SNR=5.7
S42A Caledonia 8.43 250 P Pn 20 07 02.2 +1.6
baz=63,SNR=14
E40A Wakefield 8.45 312 P Pn 20 07 02.0 +1.2
baz=125
L39A Vinton 8.45 280 P Pn 20 07 02.2 +1.4
baz=93,SNR=6.1
H39A Augusta 8.47 298 P Pn 20 07 02.1 +1.0
baz=111,SNR=11
O40A La Belle 8.49 267 P Pn 20 07 02.9 +1.6
baz=79
HALT Halls 8.49 235 ePn Pn 20 07 03.2 +1.9
Y49A Blount Mountai 8.53 213 P Pn 20 07 02.7 +0.8
baz=30,SNR=7.5
M39A Webster 8.57 276 P Pn 20 07 03.5 +1.1
baz=88
CCM Cathedral Cave 8.63 252 P Pn 20 07 06.5 +3.1
baz=66
CCM Cathedral Cave 8.63 252 ePn Pn 20 07 05.3 +2.0
G39A Holcombe 8.63 302 P Pn 20 07 04.5 +1.2
baz=115,SNR=9.2
R41A Rosebud 8.64 254 P Pn 20 07 05.1 +1.8
baz=67,SNR=9.8
X47A Russelville 8.65 222 P Pn 20 07 04.7 +1.1
baz=38,SNR=7.4
PBMO Poplar Bluff 8.68 243 ePn Pn 20 07 05.3 +1.5
P40A Paris 8.74 263 P Pn 20 07 06.8 +2.0
baz=76,SNR=5.6
F39A Loretta 8.77 306 P Pn 20 07 06.5 +1.4
baz=119,SNR=5.7
E39A Mellen 8.79 310 P Pn 20 07 06.4 +1.0
baz=123,SNR=5.8
Y48A Jasper 8.81 217 P Pn 20 07 07.5 +1.8
baz=33
N39A Derby Farms, D 8.86 272 P Pn 20 07 07.8 +1.4
baz=84,SNR=8.3
WVL Waterville 8.87 64 ePn Pn 20 07 07.1 +0.6
U43A Rector 8.89 241 P Pn 20 07 08.4 +1.6
baz=55
MATQ Matagami 8.90 13 PN Pn 20 07 07.9 +1.0
MATQ SN Sn 20 08 43.1 -4.4
MATQ LG Lg 20 09 39.4
MATQ Trac 20 09 43.7
comp=Z,116nm,0.4s
MALO McAlpine Lake 8.91 4 PN Pn 20 07 07.9 +0.8
MALO SN Sn 20 08 42.6 -5.2
MALO LG Lg 20 09 36.2
MALO Trac 20 09 41.4
comp=Z,132nm,0.5s
I38A Scanlan Farm, 8.99 293 P Pn 20 07 08.6 +0.5
baz=105
T42A Van Buren 8.99 246 P Pn 20 07 09.8 +1.6
baz=60,SNR=23
X46A Booneville 9.00 226 P Pn 20 07 09.8 +1.4
baz=41
BCLQ Boischatel 9.02 47 PN Pn 20 07 09.1 +0.5
BCLQ SN Sn 20 08 48.9 -1.7
BCLQ Trac 20 09 37.9
comp=Z,85nm,0.4s
BCLQ LG Lg 20 09 41.6
G38A Ridgeland 9.03 300 P Pn 20 07 09.9 +1.2
baz=112,SNR=16
H38A Maiden Rock 9.14 297 P Pn 20 07 11.2 +0.9
baz=108
Y47A UCPARC, Winfie 9.14 220 P Pn 20 07 11.9 +1.7
baz=36
Z49A Columbiana 9.15 212 P Pn 20 07 11.7 +1.3
baz=28,SNR=6.5
L38A Oak Wood Farm, 9.16 280 P Pn 20 07 11.7 +1.2
baz=92
S41A Jillco Farms, 9.19 251 P Pn 20 07 12.6 +1.6
baz=64,SNR=11
P39B Salisbury 9.28 264 P Pn 20 07 18.0 +5.8
baz=76
M38A Pleasantville 9.34 276 P Pn 20 07 14.2 +1.2
baz=88,SNR=5.9
SCIA State Center 9.35 279 P Pn 20 07 15.0 +1.9
baz=90
SCIA State Center 9.35 279 ePn Pn 20 07 15.0 +1.9
PKME Peaks-Kenny Pk 9.36 60 PN Pn 20 07 13.2 +0.1
PKME Peaks-Kenny Pk 9.36 60 ePn Pn 20 07 14.0 +0.8
MET Memphis--Engin 9.37 233 ePn Pn 20 07 15.2 +1.7
F38A Pierce - Schro 9.38 305 P Pn 20 07 14.7 +1.2
baz=117,SNR=9.3
N38A Joes South For 9.42 272 P Pn 20 07 15.8 +1.7
baz=84,SNR=7.4
C39A Grand Marais 9.43 318 P Pn 20 07 15.4 +1.1
baz=131
Z48A Northport 9.43 217 P Pn 20 07 15.2 +0.9
baz=33
U42A Revenden 9.45 243 P Pn 20 07 16.0 +1.5
baz=56,SNR=12
T41A Mountain View 9.46 248 P Pn 20 07 16.1 +1.5
baz=61
LRAL Lakeview Retre 9.48 213 P Pn 20 07 16.6 +1.7
baz=30
LRAL Lakeview Retre 9.48 213 ePn Pn 20 07 15.9 +1.0
OXF Oxford 9.49 229 P Pn 20 07 16.5 +1.4
baz=43
OXF Oxford 9.49 229 ePn Pn 20 07 16.1 +1.0
HBAR Harrisburg 9.54 237 ePn Pn 20 07 16.8 +1.1
H37A Dierke Farm, C 9.54 295 P Pn 20 07 17.6 +1.9
baz=107
Q39A Willow Grove F 9.57 261 P Pn 20 07 17.7 +1.6
baz=73
GTO Geraldton 9.63 335 PN Pn 20 07 18.0 +1.1
GTO Trac 20 10 11.6
comp=Z,39nm,0.3s
DAQ Lac Daran 9.64 42 PN Pn 20 07 17.4 +0.3
DAQ SN Sn 20 09 01.7 -4.2
DAQ Trac 20 10 04.6
comp=Z,95nm,0.4s
Y46A Houston 9.66 224 P Pn 20 07 18.6 +1.1
baz=39
SPMN Marine on St. 9.67 299 P Pn 20 07 18.3 +0.8
baz=111,SNR=7.9
SPMN Marine on St. 9.67 299 ePn Pn 20 07 17.8 +0.3
O38A Galt 9.69 268 P Pn 20 07 20.5 +2.7
baz=80
J37A Redenius Farm, 9.71 287 P Pn 20 07 20.0 +2.0
baz=98
S40A Lebanon 9.73 252 P Pn 20 07 19.9 +1.5
baz=65
I37A Lemond, Waseca 9.73 291 P Pn 20 07 20.1 +1.7
baz=103
F37A Hinrichs Farm, 9.75 302 P Pn 20 07 19.6 +1.1
baz=114,SNR=8.2
L37A Phoenix Point, 9.76 280 P Pn 20 07 19.6 +0.9
baz=91,SNR=5.1
A54 Misere 9.76 46 PN Pn 20 07 17.6 -1.0
A54 Trac 20 10 10.0
comp=Z,90nm,0.6s
Z47A Carrollton 9.82 218 P Pn 20 07 21.4 +1.8
baz=34,SNR=9.1
P38A Dawn 9.84 265 P Pn 20 07 21.2 +1.4
baz=77
CHGQ Chibougamau 9.86 25 PN Pn 20 07 19.4 -0.7
CHGQ Trac 20 10 06.9
comp=Z,169nm,0.6s
LMQ La Malbaie 9.86 46 PN Pn 20 07 20.7 +0.6
LMQ SN Sn 20 09 07.0 -4.0
LMQ LG Lg 20 10 14.0
V42A Cord 9.86 241 P Pn 20 07 22.2 +2.0
baz=54
U41A Viola 9.92 245 P Pn 20 07 22.7 +1.8
baz=58,SNR=22
X44A Crenshaw 9.93 231 P Pn 20 07 23.3 +2.3
baz=45
T40A Mansfield 9.94 250 P Pn 20 07 22.7 +1.4
baz=63,SNR=18
TIGA Tifton 9.94 194 P Pn 20 07 22.9 +1.7
baz=12
TIGA Tifton 9.94 194 ePn Pn 20 07 22.2 +1.0
C38A Sawbill Land. 9.96 315 P Pn 20 07 21.6 0.0
baz=127
E37A Wrenshall 9.98 307 P Pn 20 07 23.1 +1.3
baz=119
M37A Trindle Farm, 9.99 276 P Pn 20 07 23.4 +1.5
baz=87
Q38A Cooks Store, C 10.07 262 P Pn 20 07 24.6 +1.6
baz=73
N37A Lee Faris, Mou 10.16 272 P Pn 20 07 26.4 +2.2
baz=83
O37A Wolven Farm, M 10.19 269 P Pn 20 07 27.0 +2.3
baz=80
EYMN Ely 10.22 315 P Pn 20 07 25.0 -0.1
baz=128
EYMN Ely 10.22 315 ePn Pn 20 07 24.8 -0.3
H36A Jessenland, He 10.23 294 P Pn 20 07 26.6 +1.4
baz=105
Z46A Louisville 10.25 222 P Pn 20 07 27.2 +1.8
baz=37
S39A Bolivar 10.29 255 P Pn 20 07 27.6 +1.6
baz=66
K36A Gilmore City 10.29 283 P Pn 20 07 28.0 +1.9
baz=94
G36A St. Michael 10.31 298 P Pn 20 07 27.2 +1.0
baz=109
147A Livingston 10.35 218 P Pn 20 07 27.8 +1.0
baz=33,SNR=8.8
F36A Milaca 10.38 301 P Pn 20 07 28.4 +1.2
baz=112,SNR=64
V41A Mountainview 10.38 243 P Pn 20 07 27.9 +0.6
baz=53,SNR=11
EMMW East Machias 10.41 66 ePn Pn 20 07 27.9 +0.3
P37A Lathrop 10.46 266 P Pn 20 07 29.8 +1.4
baz=77
C37A Embarrass 10.47 313 P Pn 20 07 29.5 +1.1
baz=125
E36A McGregor 10.48 305 P Pn 20 07 29.1 +0.5
baz=116,SNR=8.1
Z45A Winona 10.50 225 P Pn 20 07 30.4 +1.5
baz=40
R38A Fenwick Farm, 10.53 258 P Pn 20 07 31.3 +2.1
baz=70
U40A Yellville 10.56 247 P Pn 20 07 30.9 +1.2
baz=59
T39A Clever 10.61 251 P Pn 20 07 31.4 +1.1
baz=63,SNR=5.0
Q37A Longview Farm, 10.72 262 P Pn 20 07 33.8 +1.9
baz=73
S38A Stockton 10.74 255 P Pn 20 07 33.1 +1.0
baz=67
146A Union 10.75 221 P Pn 20 07 33.4 +1.1
baz=36
WHAR Wooly Hollow 10.76 241 ePn Pn 20 07 32.9 +0.4
G35A Watkins 10.79 297 P Pn 20 07 33.5 +0.6
baz=107,SNR=8.0
W41B Gary Mavity, V 10.80 240 P Pn 20 07 33.6 +0.6
baz=53
I35A Creekview Farm 10.82 289 P Pn 20 07 33.9 +0.6
baz=100
V40A Witts Springs 10.83 244 P Pn 20 07 34.3 +0.9
baz=57,SNR=22
C36A Pine Crest Far 10.85 312 P Pn 20 07 34.0 +0.4
baz=123
X301 Greenbrier Sit 10.86 241 ePn Pn 20 07 33.9 0.0
H35A Sunnyside Ranc 10.89 294 P Pn 20 07 34.6 +0.4
baz=104
J35A Milford 10.91 287 P Pn 20 07 35.3 +0.8
baz=97
GGN Saint George 10.94 64 SN Sn 20 09 27.9 -10
GGN Trac 20 10 57.0
comp=Z,92nm,0.8s
GGN Saint George 10.94 64 ePn Pn 20 07 33.7 -1.2
U39A Green Forest 10.98 248 P Pn 20 07 36.7 +1.2
baz=60
247A Quitman 11.03 217 P Pn 20 07 37.5 +1.5
baz=32
F35A Swanville 11.06 300 P Pn 20 07 37.0 +0.5
baz=110
L35A Bielow Farm, R 11.09 280 P Pn 20 07 37.5 +0.6
baz=90
P36A Good Intent, A 11.10 267 P Pn 20 07 37.8 +0.7
baz=77
UALR University of 11.11 239 ePn Pn 20 07 37.3 +0.1
BRAL Brewton 11.16 209 P Pn 20 07 38.9 +1.1
baz=25
BRAL Brewton 11.16 209 ePn Pn 20 07 37.5 -0.4
E35A Pequot Lakes 11.21 303 P Pn 20 07 39.0 +0.4
baz=114
M35A Neola 11.22 277 P Pn 20 07 40.6 +1.9
baz=87
D35A Remer 11.22 306 P Pn 20 07 39.1 +0.3
baz=117,SNR=22
T38A Diamond 11.26 253 P Pn 20 07 40.8 +1.5
baz=64
W40A Ferguson Farm, 11.34 242 P Pn 20 07 41.3 +1.0
baz=55
W40A Ferguson Farm, 11.34 242 ePn Pn 20 07 40.6 +0.3
HHAR Hobbs 11.35 249 ePn Pn 20 07 41.3 +0.7
HHAR eSn Sn 20 09 41.8 -6.0
S37A Fort Scott 11.36 257 P Pn 20 07 41.6 +0.9
baz=68
V39A Pettigrew 11.37 246 P Pn 20 07 41.7 +0.8
baz=58
J34A George 11.45 286 P Pn 20 07 41.8 0.0
baz=96
C35A Jirik Farms, M 11.47 309 P Pn 20 07 41.9 -0.3
baz=120
I34A Hadley 11.48 290 P Pn 20 07 43.3 +1.1
baz=99
F34A Alexandria 11.49 299 P Pn 20 07 42.2 -0.2
baz=109
K34A Le Mars 11.51 283 P Pn 20 07 44.2 +1.5
baz=92
G34A Benson 11.58 296 P Pn 20 07 43.4 -0.2
baz=105
X40A Basin Creek Fa 11.60 239 P Pn 20 07 45.3 +1.4
baz=52
R36A Gordon, Harris 11.67 261 P Pn 20 07 46.3 +1.4
baz=71
T37A Cheneyville 18 11.68 254 P Pn 20 07 46.3 +1.3
baz=66
B35A Bob, Littlefor 11.68 313 P Pn 20 07 45.4 +0.4
baz=123
E34A Wadena 11.68 302 P Pn 20 07 45.3 +0.3
baz=112
L34A Svendsen Farm, 11.71 279 P Pn 20 07 46.7 +1.3
baz=89
W39A Magazine 11.81 244 P Pn 20 07 48.5 +1.6
baz=56
Z42A Norrel Spur, H 11.85 232 P Pn 20 07 47.6 +0.2
baz=45
V38A Canehill 11.89 248 P Pn 20 07 48.7 +0.8
baz=60
Q35A Mercer Eighty, 11.91 264 P Pn 20 07 49.8 +1.6
baz=74
D34A Park Rapids 11.93 305 P Pn 20 07 48.6 +0.2
baz=114
S36A Lake Cedric, C 11.94 258 P Pn 20 07 50.4 +1.8
baz=69
ECSD EROS Data Cent 11.97 288 P Pn 20 07 49.0 -0.1
baz=97
ECSD EROS Data Cent 11.97 288 ePn Pn 20 07 48.7 -0.4
C34A RKJ Ranch, Bem 12.00 308 P Pn 20 07 49.4 0.0
baz=118
MIAR Mount Ida 12.05 241 P Pn 20 07 50.7 +0.6
baz=53
MIAR Mount Ida 12.05 241 ePn Pn 20 07 50.8 +0.6
CNQ Baie Comeau 12.11 43 PN Pn 20 07 50.7 -0.2
CNQ SN Sn 20 09 59.7 -6.5
CNQ Trac 20 11 40.6
comp=Z,38nm,0.4s
H33A Prehn Over Nor 12.22 292 P Pn 20 07 53.7 +1.3
baz=101
E33A Westby DABS, E 12.22 301 P Pn 20 07 51.8 -0.5
baz=110
B34A Aery, Baudette 12.27 311 P Pn 20 07 52.1 -0.9
baz=122
KSU1 Kansas State U 12.28 266 ePn Pn 20 07 54.9 +1.7
WLAR White Oak Lake 12.29 237 ePn Pn 20 07 54.6 +1.2
M33A Taylor Creek F 12.34 277 P Pn 20 07 55.5 +1.5
baz=86
D33A AnnSam, Waubun 12.36 304 P Pn 20 07 53.3 -0.9
baz=113
W38A Poteau 12.38 245 P Pn 20 07 55.5 +0.8
baz=56
T36A Boggs Farm, Ca 12.40 256 P Pn 20 07 56.6 +1.7
baz=66
X39A Fountain Ranch 12.43 242 P Pn 20 07 57.0 +1.7
baz=54
LMN Caledonia Moun 12.53 63 ePn Pn 20 07 56.0 -0.5
TUL1 Leonard 12.85 251 ePn Pn 20 08 01.4 +0.5
AGMN Agassiz Nation 12.87 309 P Pn 20 07 60.0 -1.3
baz=118
AGMN Agassiz Nation 12.87 309 ePn Pn 20 07 59.0 -2.2
A33A Warroad 12.92 312 P Pn 20 08 01.4 -0.5
baz=122
W37B Quinton 12.98 247 ePn Pn 20 08 02.9 +0.1
V36A Jenks 13.01 251 ePn Pn 20 08 02.5 -0.7
X37A Clayton 13.23 245 ePn Pn 20 08 06.0 -0.2
X37A ePn P 20 08 16.9 +0.6
U35A Pawnee 13.31 254 ePn Pn 20 08 05.8 -1.6
OK022 N3560 Road, Pr 13.65 251 ePn Pn 20 08 12.3 +0.4
OK020 N3440 Road, Me 13.80 251 ePn Pn 20 08 13.3 -0.7
ULM Lac du Bonnet 13.91 316 Pn Pn 20 08 13.1 -2.3
1.2nm,0.3s,baz=134,slow=13,SNR=21
ULM Sn Sn 20 10 41.9 -8.2
0.7nm,0.3s,baz=131,slow=19,SNR=2.3
ULM Lg Lg 20 12 09.6
1.7nm,0.3s,baz=67,slow=8.6,SNR=3.9
W35A Tecumseh 13.99 250 ePn Pn 20 08 16.9 +0.4
X35A Drake 14.45 247 ePn Pn 20 08 21.4 -1.5
CBKS Cedar Bluff 14.71 267 ePn Pn 20 08 27.1 +0.7
MDND Maddock 14.98 303 ePn Pn 20 08 27.9 -2.2
WMOK Wichita Mounta 15.55 252 ePn Pn 20 08 34.8 -2.9
SCHQ Schefferville 16.54 29 Pn Pn 20 08 46.7 -3.6
1.1nm,0.3s,baz=217,slow=9.4,SNR=14
SCHQ Sn Sn 20 11 40.2 -14
1.6nm,0.3s,baz=28,slow=12,SNR=3.9
SCHQ Lg Lg 20 13 19.5
2.6nm,0.3s,baz=125,slow=16,SNR=6.0
RSSD Black Hills 17.35 288 ePn Pn 20 08 59.7 -1.1
AMTX Amarillo 17.59 256 ePn Pn 20 09 02.1 -1.5
DGMT Dagmar 18.11 302 ePn Pn 20 09 08.3 -1.6
ISCO Idaho Springs 18.92 274 eP P 20 09 18.9 -0.7
LAO LASA Array 19.10 295 eP P 20 09 21.3 0.0
FFC Flin Flon 19.54 321 eP P 20 09 26.5 +0.5
RWWY Rawlins 19.80 280 eP P 20 09 28.6 -0.6
ANMO Albuquerque 21.09 261 Lg Lg 20 16 00.5
2.9nm,0.7s,baz=164,slow=19,SNR=5.1
RLMT Red Lodge 21.11 290 eP P 20 09 46.5 +3.1
PD31 Pinedale Array 21.41 284 eP P 20 09 49.1 +2.5
PDAR Pinedale Array 21.41 284 P P 20 09 49.2 +2.6
1.8nm,0.6s,baz=82,slow=11,SNR=12
PDAR Pinedale Array 21.41 284 eP P 20 09 48.9 +2.3
BW06 Boulder Array 21.41 284 eP P 20 09 48.4 +1.8
TXAR Lajitas Array 22.01 245 P P 20 09 55.9 +2.8
0.9nm,0.7s,baz=52,slow=8.4,SNR=6.8
TXAR Lg Lg 20 16 38.5
5.2nm,1.0s,baz=33,slow=30,SNR=8.6
TXAR LR LR 20 18 30.5
comp=Z,57nm,19.4s,baz=0.0,slow=37
TX31 Lajitas Ar. Si 22.02 245 eP P 20 09 54.8 +1.7
TX31 eP sP 20 09 55.2 -0.1
MOOW Moose Ponds 22.20 287 eP P 20 09 57.8 +2.7
TPAW Teton Pass 22.37 286 eP P 20 09 59.3 +2.4
FXWY Fox Creek 22.41 286 eP P 20 09 59.5 +2.1
P17A Butcher Ranch, 22.85 276 eP P 20 10 02.9 +0.9
JLU Jordanelle 23.13 279 eP P 20 10 06.2 +1.2
LRM Limekiln Ridge 23.35 292 eP P 20 10 09.7 +2.5
DLMT Dillon 23.46 291 eP P 20 10 11.1 +2.9
MCMT McKenzie Canyo 23.65 290 eP P 20 10 12.5 +2.3
FRB Frobisher Bay 23.76 14 P P 20 10 12.1 +1.4
2.2nm,0.9s,baz=243,slow=16,SNR=2.8
FRB S S 20 14 28.1 +1.9
1.3nm,0.4s,baz=288,slow=19,SNR=2.4
FRB Lg Lg 20 17 05.9
13nm,0.8s,baz=119,slow=21,SNR=7.5
WUAZ Wupatki 24.56 267 eP P 20 10 15.0 -3.7
NVAR Mina Array Bea 28.81 277 P P 20 10 58.6 +1.6
0.3nm,0.5s,baz=78,slow=9.5,SNR=3.8
YKA Yellowknife Ar 29.33 328 P P 20 11 03.4 +2.4
0.4nm,0.7s,baz=116,slow=9.4,SNR=7.1
YKA Lg Lg 20 20 03.1
1.3nm,0.9s,baz=124,slow=25,SNR=2.9
YKA LR LR 20 23 05.6
comp=Z,7.7nm,20.0s,baz=180,slow=37
CNIC Niles Canyon 31.81 277 eP P 20 11 21.3 -1.9
ILAR Eielson Array 43.67 325 P P 20 13 06.4 +3.4
0.4nm,0.5s,baz=87,slow=6.5,SNR=7.4
PTGA Pitinga 45.77 150 LR LR 20 34 42.9
comp=Z,9.4nm,18.5s,baz=94,slow=39
RCBR Riachuelo 62.21 127 LR LR 20 38 12.8
comp=Z,33nm,18.3s,baz=340,slow=32
ASAR Alice Springs 146.20 290 PKPbc PKPab 20 24 40.8 +0.7
0.6nm,1.0s,baz=48,slow=2.5,SNR=3.8

**CASC 31 20:05:48.7±0.8, 12.32N×87.77W, h61km±65km, MD3.4, ML3.5, Near coast of Nicaragua**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| CSGN | Cosiguina Volc | 0.69 | 18 | eP | Pn | 20 06 03.5 | +0.5 |
| CSGN | | | | eS | Sn | 20 06 13.2 | -0.2 |
| CRIN | San Cristobal | 0.80 | 62 | eP | Pn | 20 06 04.8 | +0.4 |
| CRIN | | | | AML | AML | 20 06 22.6 | |
| comp=E,1μm,0.3s | | | | | | | |
| CNCH | Conchagua | 0.95 | 357 | eP | Pn | 20 06 06.8 | +0.4 |
| CNCH | | | | eS | Sn | 20 06 20.3 | +0.9 |
| LCND | La Caˆ–ada | 0.99 | 353 | eP | Pn | 20 06 07.0 | +0.3 |
| LCND | | | | eS | Sn | 20 06 20.9 | +0.8 |
| COPN | Copaltepe | 1.16 | 97 | eP | Pn | 20 06 08.7 | -0.3 |
| MOMN | Momotombo | 1.21 | 86 | eP | Pn | 20 06 09.4 | -0.2 |
| MOMN | | | | eS | Sn | 20 06 25.8 | +0.7 |
| LCY | Lacayo | 1.21 | 335 | eP | Pn | 20 06 09.1 | -0.6 |
| PACA | Pacayal | 1.26 | 335 | eP | Pn | 20 06 10.8 | +0.3 |
| PACA | | | | eS | Sn | 20 06 27.2 | +0.6 |
| LFRS | El Faro | 1.81 | 316 | eP | Pn | 20 06 18.2 | +0.5 |
| LFRS | | | | eS | Sn | 20 06 40.4 | +0.8 |
| MATN | Matagalpa | 1.90 | 71 | eP | Pn | 20 06 17.9 | -1.1 |
| MATN | | | | eS | Sn | 20 06 42.2 | +0.2 |

*IDC* ***31*** *20:05:55.2±0.9, 0.˚93S×126.˚89E, h0km, mb3.7/7, mb1 3.9/8, mb1mx3.6/50, mbtmp3.7/8, ML3.6/1, Error ellipse: s-maj=77.2km s-min=15.8km az=73.0*

*ISCJB* ***31*** *20:05:58.1±0.8, 1.˚0S±0.˚1×126.˚9E±0.˚4, h34km, mb3.7/6, Error ellipse: s-maj=54.0km s-min=12.3km az=166.4*

**ISC 31 20:06:00.1±0.9, 1.˚0S±0.˚1×126.˚9E±0.˚4, h34km, n8, g0°95/8, mb3.6/6, Southern Molucca Sea**

| Code | Station Name | Δ° | AZ° | Phase | ID | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| FITZ | Fitzroy Crossi | 17.08 | 184 | P | Pn | 20 09 56.0 | -0.5 |
| 0.2nm,0.3s,baz=7.0,slow=8.0,SNR=5.9 | | | | | | | |
| WRA | Warramunga Arr | 20.22 | 159 | P | P | 20 10 31.4 | -1.0 |
| 2.2nm,0.6s,baz=341,slow=11,SNR=24 | | | | | | | |
| ASAR | Alice Springs | 23.57 | 164 | P | P | 20 11 07.5 | -0.4 |
| 1.3nm,0.4s,baz=342,slow=12,SNR=34 | | | | | | | |
| STKA | Stephens Creek | 33.74 | 157 | P | P | 20 12 39.8 | +1.2 |
| 1.6nm,0.4s,baz=340,slow=7.9,SNR=19 | | | | | | | |
| KSRS | Korea Array | 38.23 | 1 | P | P | 20 13 16.2 | -0.7 |
| 0.6nm,0.7s,baz=180,slow=9.9,SNR=3.2 | | | | | | | |
| SONM | Songino Array | 51.78 | 343 | P | P | 20 15 05.2 | +0.6 |
| 0.5nm,0.9s,baz=146,slow=8.4,SNR=2.4 | | | | | | | |
| MKAR | Makanchi Array | 61.51 | 327 | P | P | 20 16 14.2 | +0.5 |
| 0.4nm,0.6s,baz=113,slow=7.7,SNR=5.8 | | | | | | | |
| KURBB | Kurchatov Arra | 65.78 | 329 | P | P | 20 16 41.1 | -0.6 |
| 0.2nm,0.4s,baz=130,slow=5.9,SNR=4.7 | | | | | | | |

**IDC 31 20:19:12.7±2.4, 6.˚55S×130.˚21E, h0km, mb3.2/1, mb1 3.5/4, mb1mx3.2/41, mbtmp3.3/4, ML3.3/3, Error ellipse: s-maj=106.3km s-min=28.0km az=77.0, Banda**

Sea

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **FITZ** | **Fitzroy Crossi** | **12.32** | **201** | Pn | Pn | 20 22 08.9 | -0.6 |
| | 0.1nm,0.3s,baz=15,slow=13,SNR=12 | | | | | | |
| FITZ | | | | Sn | Sn | 20 24 15.0 | -13 |
| | 0.2nm,0.3s,baz=227,slow=18,SNR=4.0 | | | | | | |
| **WRA** | **Warramunga Arr** | **13.91** | **164** | Pn | Pn | 20 22 31.2 | 0.0 |
| | 0.2nm,0.3s,baz=346,slow=14,SNR=9.8 | | | | | | |
| WRA | | | | Sn | Sn | 20 24 54.2 | -12 |
| | 0.3nm,0.3s,baz=350,slow=24,SNR=7.1 | | | | | | |
| **ASAR** | **Alice Springs** | **17.39** | **169** | P | Pn | 20 23 17.4 | +0.5 |
| | 0.1nm,0.3s,baz=347,slow=8.7,SNR=6.8 | | | | | | |
| ASAR | | | | S | Sn | 20 26 17.3 | -14 |
| | 0.0nm,0.3s,baz=345,slow=24,SNR=3.8 | | | | | | |
| **MKAR** | **Makanchi Array** | **67.96** | **327** | P | P | 20 30 13.6 | 0.0 |
| | 0.2nm,0.6s,baz=123,slow=8.0,SNR=3.2 | | | | | | |

*IDC* ***31*** *20:24:27.2±3.3, 36°.59N×142°.73E, h0km, mb3.3/3, mb1 3.5/6, mb1mx3.3/49, mbtmp3.6/6, ML3.5/3, MS2.6/2, Ms1 2.7/2, ms1mx2.4/22, Error ellipse: s-maj=56.9km s-min=29.5km az=113.0*

*ISCJB* ***31*** *20:24:29.4±1.0, 36°.69N±0°.04×142°.5E±0°.1, h15km, mb3.2/3, MS3.1/1, Error ellipse: s-maj=12.4km s-min=5.4km az=12.6*

*JMA* ***31*** *20:24:32.2±0.3, 36°.73N×142°.26E, h29km, M3.4*

**ISC 31 20:24:30.3±1.3, 36°.69N±0°.05×142°.44E±0°.09, h15km, n26, σ1s47/26, mb3.3/3, Off east coast of Honshu**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **ONAJ** | **Iwakimizuishiy** | **1.38** | **288** | P | Pn | 20 24 54.1 | -0.9 |
| **JFK** | **Kawauchi** | **1.42** | **299** | P | Pn | 20 24 54.7 | -0.9 |
| **JHO** | **Hitachi** | **1.51** | **268** | P | Pn | 20 24 55.7 | -1.0 |
| **CHOJ** | **Chosi** | **1.61** | **233** | P | Pn | 20 24 58.5 | +0.3 |
| CHOJ | | | | eS | Sn | 20 25 16.9 | -1.9 |
| **JMM** | **Marumori** | **1.76** | **312** | P | Pn | 20 24 59.5 | -0.7 |
| **JFT** | **Otama** | **1.87** | **297** | P | Pn | 20 25 01.7 | -0.1 |
| **JIO** | **Ouri** | **1.96** | **334** | P | Pn | 20 25 03.2 | +0.2 |
| JIO | | | | eS | Sn | 20 25 25.9 | -1.4 |
| **JOU** | **Okura** | **2.19** | **320** | P | Pn | 20 25 06.9 | +0.8 |
| **BSO1** | **Boso 1** | **2.36** | **211** | P | Pn | 20 25 09.0 | +1.1 |
| BSO1 | | | | S | Sn | 20 25 37.1 | +0.8 |
| **JAG** | **Ashikaga** | **2.42** | **265** | P | Pn | 20 25 09.4 | +0.1 |
| **JMK** | **Ichinoseki** | **2.46** | **337** | P | Pn | 20 25 10.6 | +0.8 |
| **JYK** | **Kaneyama** | **2.77** | **324** | P | Pn | 20 25 14.8 | +0.7 |
| **MJAR** | **Matsushiro Arr** | **3.41** | **269** | Pn | Pn | 20 25 24.1 | +1.2 |
| | 5.4nm,0.3s,baz=97,slow=10,SNR=180 | | | | | | |
| MJAR | | | | Sn | Sb | 20 26 10.0 | -1.6 |
| | 0.9nm,0.3s,baz=230,slow=19,SNR=4.8 | | | | | | |
| MJAR | | | | LR | LR | 20 26 31.3 | |
| | comp=Z,31nm,20.1s,baz=115,slow=34 | | | | | | |
| **MAT** | **Matsushiro** | **3.41** | **269** | P | Pn | 20 25 24.2 | +1.3 |
| MAT | | | | S | Sn | 20 26 04.8 | +1.7 |
| **JHJ** | **Hachijo jima 2** | **4.18** | **212** | Pn | Pn | 20 25 33.5 | 0.0 |
| | 7.0nm,0.3s,baz=339,slow=23,SNR=13 | | | | | | |
| JHJ | | | | Sn | Sn | 20 26 18.3 | -3.7 |
| | 16nm,0.3s,baz=74,slow=22,SNR=7.4 | | | | | | |
| **ASAJ** | **Asahikawa** | **7.42** | **1** | Pn | Pn | 20 26 18.6 | +0.7 |
| | 0.8nm,0.3s,baz=228,slow=16,SNR=13 | | | | | | |
| ASAJ | | | | Sn | Sn | 20 27 38.5 | -3.3 |
| | 0.2nm,0.3s,baz=299,slow=19,SNR=2.1 | | | | | | |
| **H11N2** | **WAKE ISLAND Hy** | **27.27** | **122** | T | T | 20 59 01.5 | |
| | baz=313,slow=75,SNR=5.4 | | | | | | |
| **H11N1** | **WAKE ISLAND Hy** | **27.27** | **122** | T | T | 20 58 59.7 | |
| | baz=313,slow=75,SNR=4.1 | | | | | | |
| **H11N3** | **WAKE ISLAND Hy** | **27.29** | **122** | T | T | 20 58 58.1 | |
| | baz=313,slow=75,SNR=3.1 | | | | | | |
| **H11S1** | **WAKE ISLAND Hy** | **27.98** | **124** | T | T | 20 59 51.4 | |
| | baz=316 | | | | | | |
| **H11S3** | **WAKE ISLAND Hy** | **27.98** | **124** | T | T | 20 59 55.4 | |
| | baz=316 | | | | | | |
| **H11S2** | **WAKE ISLAND Hy** | **28.00** | **124** | T | T | 20 59 53.5 | |
| | baz=316 | | | | | | |
| **SONM** | **Songino Array** | **28.66** | **304** | P | P | 20 30 28.0 | +1.6 |
| | 0.7nm,0.7s,baz=106,slow=9.4,SNR=6.9 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **42.21** | **257** | P | P | 20 32 23.3 | +0.4 |
| | 0.1nm,0.4s,baz=51,slow=8.3,SNR=3.6 | | | | | | |
| **MKAR** | **Makanchi Array** | **45.00** | **303** | P | P | 20 32 45.9 | +0.9 |
| | 0.2nm,0.5s,baz=79,slow=7.6,SNR=2.9 | | | | | | |
| **NOA** | **NORSAR Array B** | **74.82** | **338** | LR | LR | 21 15 12.4 | |
| | comp=Z,9.5nm,18.3s,baz=250,slow=41 | | | | | | |

*IDC* ***31*** *20:41:41.2±2.0, 33°.94S×178°.95E, h0km, mb4.0/3, mb1 4.3/4, mb1mx3.8/26, mbtmp4.1/4, ML3.9/1, MS3.5/9, Ms1 3.5/9, ms1mx3.2/28, Error ellipse: s-maj=49.9km s-min=36.7km az=57.0*

*NEIC* ***31*** *20:41:57.3±1.7, 34°.86S×178°.26E, h106km±14km, mb4.7/7, Error ellipse: s-maj=17.7km s-min=13.2km az=47.0*

**ISC 31 20:41:41.6±0.9, 34°.01S±0°.07×179°.2E±0°.1, h10km, n70, σ2s47/61, mb4.4/10, MS3.5/8, South of Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **WMGZ** | **Waiomatatini S** | **3.85** | **189** | *e*PN | Pn | 20 42 41.2 | +0.3 |
| WMGZ | | | | *e*SN | Sn | 20 43 30.1 | +3.9 |
| **HAZ** | **Te Kaha** | **3.91** | **197** | *e*PN | Pn | 20 42 42.1 | +0.4 |
| **PKGZ** | **Pakihiroa** | **3.97** | **193** | *e*PN | Pn | 20 42 41.9 | -0.8 |
| PKGZ | | | | *e*SN | Sn | 20 43 32.9 | +3.5 |
| **PUZ** | **Puketiti** | **4.12** | **191** | *e*PN | Pn | 20 42 44.4 | -0.2 |
| **MWZ** | **Matawai** | **4.52** | **197** | Pn | Pn | 20 42 50.4 | +0.5 |
| MWZ | | | | *e*SN | Sn | 20 43 46.6 | +3.8 |
| **CNGZ** | **Carnagh Statio** | **4.53** | **190** | *e*PN | Pn | 20 42 49.6 | -0.7 |
| **TKGZ** | **Te Karaka** | **4.55** | **194** | *e*PN | Pn | 20 42 49.9 | -0.6 |
| **URZ** | **Urewera** | **4.57** | **201** | Pn | Pn | 20 42 51.3 | +0.6 |
| | 6.2nm,0.3s,baz=43,slow=6.1,SNR=13 | | | | | | |
| URZ | | | | Sn | Sn | 20 43 42.4 | -1.4 |
| | 5.1nm,0.3s,baz=288,slow=20,SNR=2.2 | | | | | | |
| **OUZ** | **Omahuta** | **4.79** | **254** | *e*Pn | Pn | 20 42 54.8 | +1.0 |
| **OUZ** | **Omahuta** | **4.79** | **254** | *e*Pn | Pn | 20 42 54.8 | +1.0 |
| **RIGZ** | **Rimuhau** | **4.83** | **194** | *e*PN | Pn | 20 42 54.0 | -0.3 |
| **RTZ** | **Ruatahuna** | **4.93** | **201** | *e*PN | Pn | 20 42 56.8 | +1.0 |
| **SNGZ** | **Shannon Statio** | **4.99** | **197** | *e*PN | Pn | 20 42 57.2 | +0.6 |
| **MHGZ** | **Mahia Peninsul** | **5.24** | **191** | *e*PN | Pn | 20 42 57.7 | -2.2 |
| **NMGZ** | **Naumai** | **5.43** | **200** | *e*PN | Pn | 20 43 02.8 | +0.1 |
| **BKZ** | **Black Stump Fm** | **5.59** | **202** | *e*Pn | Pn | 20 43 04.2 | -0.7 |
| **HIZ** | **Hauiti** | **5.71** | **217** | *e*Pn | Pn | 20 43 10.1 | +3.7 |
| **MCHZ** | **McNeill Hill** | **5.78** | **200** | *e*PN | Pn | 20 43 07.2 | -0.3 |
| **KAHZ** | **Kahuranaki** | **6.07** | **197** | *e*PN | Pn | 20 43 09.5 | -1.8 |
| **BFZ** | **Birch Farm** | **7.06** | **199** | *e*PN | Pn | 20 43 21.8 | -3.3 |
| BFZ | | | | *e*Sn | Sn | 20 44 42.5 | -2.9 |
| **BFZ** | **Birch Farm** | **7.06** | **199** | *e*PN | Pn | 20 43 21.9 | -3.1 |
| **MRZ** | **Mangatainoka R** | **7.24** | **203** | *e*PN | Pn | 20 43 24.5 | -3.0 |
| MRZ | | | | *e*SN | Sn | 20 44 49.8 | +0.2 |
| **THZ** | **Tophouse** | **9.20** | **211** | *e*Pn | Pn | 20 43 52.9 | -1.5 |
| **KHZ** | **Kahutara** | **9.50** | **206** | *e*Pn | Pn | 20 43 57.1 | -1.3 |
| **CRLZ** | **Canterbury Las** | **10.84** | **206** | *e*Pn | Pn | 20 44 18.3 | +1.6 |
| **OXZ** | **Oxford** | **10.85** | **209** | *e*Pn | Pn | 20 44 14.2 | -2.8 |
| **ODZ** | **Otahua Downs** | **12.84** | **208** | *e*Pn | Pn | 20 44 41.7 | -2.4 |
| **DZM** | **Mont Dzumac** | **16.37** | **313** | LR | LR | 20 50 34.3 | |
| | comp=Z,315nm,18.9s,baz=182,slow=33 | | | | | | |
| **HNR** | **Honiara** | **30.20** | **320** | LR | LR | 20 57 42.3 | |
| | comp=Z,58nm,20.1s,baz=40,slow=32 | | | | | | |
| **PPT** | **Papeete** | **32.35** | **67** | LR | LR | 20 59 01.4 | |
| | comp=Z,30nm,20.9s,baz=308,slow=32 | | | | | | |
| **BBOO** | **Buckleboo** | **35.85** | **260** | *e*P | P | 20 48 41.1 | -0.5 |
| | 32nm,1.5s | | | | | | |
| **PMG** | **Port Moresby** | **38.27** | **302** | LR | LR | 21 02 29.6 | |
| | comp=Z,116nm,18.9s,baz=146,slow=33 | | | | | | |
| **AS01** | **Alice Springs** | **40.69** | **272** | *e*P | P | 20 49 21.5 | -1.0 |
| **AS31** | **Alice Springs** | **40.73** | **272** | *e*P | P | 20 49 21.9 | -0.8 |
| | 2.7nm,0.7s | | | | | | |
| **ASAR** | **Alice Springs** | **40.73** | **272** | P | P | 20 49 22.4 | -0.4 |
| | 1.7nm,0.8s,baz=109,slow=7.6,SNR=14 | | | | | | |
| **WB2** | **Warramunga Arr** | **42.04** | **278** | *e*P | P | 20 49 31.7 | -1.9 |
| | 7.1nm,0.9s | | | | | | |
| **WRAB** | **Tennant Creek** | **42.05** | **278** | *e*P | P | 20 49 32.2 | -1.4 |
| | 6.9nm,0.9s | | | | | | |
| **WR1** | **Warramunga Arr** | **42.05** | **278** | *e*P | P | 20 49 32.1 | -1.5 |
| | 7.0nm,0.8s | | | | | | |
| **WRA** | **Warramunga Arr** | **42.05** | **278** | P | P | 20 49 32.1 | -1.5 |
| | 0.9nm,0.6s,baz=118,slow=7.4,SNR=12 | | | | | | |
| **VNDA** | **Vanda** | **44.28** | **185** | LR | LR | 21 03 55.4 | |
| | comp=Z,56nm,20.0s,baz=344,slow=30 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **50.13** | **274** | P | P | 20 50 37.0 | -0.3 |
| | 2.6nm,0.6s,baz=117,slow=9.0,SNR=2.7 | | | | | | |
| **QSPA** | **South Pole Qui** | **56.10** | **180** | *e*P | P | 20 51 18.6 | -2.3 |
| | 9.2nm,0.6s | | | | | | |
| **MAW** | **Mawson** | **68.10** | **202** | LR | LR | 21 21 50.0 | |
| | comp=Z,50nm,18.2s,baz=65,slow=35 | | | | | | |
| **SNAA** | **Sanae** | **74.60** | **179** | P | P | 20 53 22.5 | +2.0 |
| **VNA3** | **Neumayer Olymp** | **74.85** | **177** | P | P | 20 53 24.4 | +2.6 |
| **VNA2** | **Neumayer--Watz** | **75.25** | **178** | P | P | 20 53 27.0 | +2.8 |
| | baz=168,slow=5.2 | | | | | | |
| **GDXM** | **Geysers** | **90.20** | **41** | *e*P | P | 20 54 49.9 | +7.7 |
| | 55nm,0.5s | | | | | | |
| **GCRM** | **Castle Rock Sp** | **90.22** | **42** | *e*P | P | 20 54 50.1 | +7.9 |
| **GSGM** | **Seigler Mounta** | **90.29** | **41** | *e*P | P | 20 54 51.6 | +9.2 |
| **CMAR** | **Chiang Mai Arr** | **92.41** | **291** | LR | LR | 21 38 49.3 | |
| | comp=Z,6.5nm,19.5s,baz=15,slow=37 | | | | | | |
| **NVAR** | **Mina Array Bea** | **92.48** | **44** | LR | LR | 21 30 56.6 | |
| | comp=Z,34nm,18.2s,baz=261,slow=32 | | | | | | |
| **MA2** | **Magadan** | **96.18** | **346** | LR | LR | 21 32 22.1 | |
| | comp=Z,21nm,19.7s,baz=147,slow=32 | | | | | | |
| **F10A** | **Beach Ranch, E** | **98.11** | **39** | *e*P | Pdif | 20 55 21.8 | +3.4 |
| | 7.2nm,1.0s | | | | | | |
| **FIA0** | **FINESS Array S** | **147.61** | **336** | *e*PKPdf | **PKPab** | **21 01 25.7** | **-1.9** |
| **FINES** | **FINESS Array B** | **147.61** | **336** | PKPbc | **PKPab** | **21 01 25.7** | **-1.9** |
| | 3.7nm,1.0s,baz=45,slow=4.1,SNR=5.4 | | | | | | |
| **TORD** | **Torodi Ar. Bea** | **159.10** | **187** | PKPab | **PKPab** | **21 02 18.2** | **+1.1** |
| | 0.7nm,0.5s,baz=179,slow=4.5,SNR=4.6 | | | | | | |
| **TOA1** | **Torodi Ar. Sit** | **159.11** | **187** | *e*PKPab | **PKPab** | **21 02 18.1** | **+1.1** |
| **KRLC** | **Kraliky** | **159.40** | **326** | *e*PKPAB | PKPab | 21 02 26.1 | +8.4 |
| **DPC** | **Dobruska-Polom** | **159.41** | **328** | *e*PKPAB | **PKPab** | **21 02 24.2** | **+6.5** |
| DPC | | | | *ex* | x | 21 02 26.0 | |
| **UPC** | **Upice** | **159.44** | **328** | *e*PKPAB | **PKPab** | **21 02 24.0** | **+6.2** |
| **CLL** | **Collm** | **160.02** | **334** | *i* PKPab | **PKPab** | **21 02 23.7** | **+3.5** |
| | comp=Z,5.0nm,0.7s | | | | | | |
| CLL | | | | *i* PKPab(2) | | 21 02 25.1 | |
| | comp=Z,7.0nm,0.6s | | | | | | |
| CLL | | | | *i* | | 21 02 29.2 | |
| | comp=Z,6.0nm,1.0s | | | | | | |
| **GOPC** | **GO Pecny, Ondr** | **160.41** | **329** | *e*PKPAB | **PKPab** | **21 02 25.7** | **+3.7** |
| **PRU** | **Pruhonice** | **160.46** | **329** | *e*PKPAB | **PKPab** | **21 02 25.9** | **+3.7** |
| PRU | | | | *ex* | x | 21 02 27.6 | |
| **CONA** | **Conrad Observa** | **161.32** | **323** | *e*PKPab | **PKPab** | **21 02 29.4** | **+3.2** |
| | comp=Z,1.9nm,0.6s | | | | | | |
| **KHC** | **Kasperske Hory** | **161.51** | **329** | *e*PKPAB | **PKPab** | **21 02 28.2** | **+1.3** |
| KHC | | | | *ex* | x | 21 02 30.1 | |
| KHC | | | | *ex* | x | 21 02 38.7 | |
| **SOKA** | **Soboth** | **162.57** | **321** | *e*PKPab | **PKPab** | **21 02 32.1** | **+0.4** |
| | comp=Z,1.6nm,0.9s | | | | | | |
| **WATA** | **Walderalm** | **163.75** | **329** | *e*PKPab | **PKPab** | **21 02 32.9** | **-4.0** |
| | comp=Z,1.2nm,0.4s | | | | | | |
| **ABTA** | **Abfaltersbach** | **163.77** | **326** | *e*PKPab | **PKPab** | **21 02 33.1** | **-3.9** |
| | comp=Z,1.9nm,0.6s | | | | | | |
| **WTTA** | **Wattenberg** | **163.78** | **328** | *e*PKPab | **PKPab** | **21 02 33.2** | **-3.8** |
| | comp=Z,2.2nm,0.8s | | | | | | |
| **MOTA** | **Moosalm** | **163.94** | **330** | *e*PKPab | **PKPab** | **21 02 34.1** | **-3.6** |
| | comp=Z,2.8nm,0.8s | | | | | | |

*ISCJB* ***31*** *20:43:17.1±1.0, 21°.1S±0°.2×177°.8W±0°.2, h350km, mb3.7/14, Error ellipse: s-maj=38.1km s-min=10.8km az=151.9*

*IDC* ***31*** *20:43:17.2±2.7, 21°.27S×177°.69W, h348km±24km, mb3.5/14, mb1 3.7/16, mb1mx3.6/29, mbtmp4.2/16, Error ellipse: s-maj=26.6km s-min=12.3km az=148.0*

**ISC 31 20:43:18.2±0.8, 21°.3S±0°.2×177°.8W±0°.1, h350km, n43, σ2s69/43, mb3.7/14, 9C-8D, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **AFI** | **Afiamalu** | **9.27** | **39** | P | Pn | 20 45 24.5 | -3.1 |
| | 2.3nm,0.3s,baz=90,slow=12,SNR=4.3 | | | | | | |
| AFI | | | | S | S | 20 47 00.6 | -13 |
| | 2.7nm,0.3s,baz=52,slow=19,SNR=4.0 | | | | | | |
| **DZM** | **Mont Dzumac** | **14.71** | **264** | P | P | 20 46 31.1 | +1.2 |
| | 0.2nm,0.3s,baz=189,slow=19,SNR=3.5 | | | | | | |
| **CTA** | **Charters Tower** | **33.64** | **265** | P | P | 20 49 27.5 | 0.0 |
| | 4.3nm,0.6s,baz=92,slow=12,SNR=9.2 | | | | | | |
| **PMG** | **Port Moresby** | **35.73** | **284** | P | P | 20 49 45.5 | +0.3 |
| | 23nm,0.9s,baz=185,slow=7.1,SNR=3.5 | | | | | | |
| **STKA** | **Stephens Creek** | **37.67** | **245** | P | P | 20 50 01.0 | -0.2 |
| | 5.3nm,0.7s,baz=95,slow=9.8,SNR=19 | | | | | | |
| **ASAR** | **Alice Springs** | **44.57** | **257** | P | P | 20 50 56.4 | -0.6 |
| | 6.7nm,0.7s,baz=91,slow=8.2,SNR=22 | | | | | | |
| ASAR | | | | PcP | **PcP** | 20 52 31.9 | -1.4 |
| | 0.7nm,0.7s,baz=99,slow=4.7,SNR=4.3 | | | | | | |
| **WRA** | **Warramunga Arr** | **44.72** | **263** | P | P | 20 50 56.8 | -1.5 |
| | 3.7nm,0.8s,baz=94,slow=8.1,SNR=35 | | | | | | |
| WRA | | | | PcP | **PcP** | 20 52 32.7 | -1.2 |
| | 1.0nm,0.9s,baz=89,slow=4.0,SNR=3.6 | | | | | | |
| **FITZ** | **Fitzroy Crossi** | **53.15** | **263** | P | P | 20 52 01.2 | -0.4 |
| | 4.3nm,1.0s,baz=290,slow=7.5,SNR=3.7 | | | | | | |
| **MJAR** | **Matsushiro Arr** | **70.94** | **324** | P | P | 20 53 58.2 | -0.2 |
| | 0.8nm,0.6s,baz=129,slow=3.0,SNR=4.7 | | | | | | |
| **PETK** | **Petropavlovsk-** | **77.05** | **348** | P | P | 20 54 31.8 | -1.3 |
| | 1.0nm,0.6s,baz=117,slow=8.3,SNR=2.7 | | | | | | |
| **KSRS** | **Korea Array** | **77.59** | **319** | P | P | 20 54 37.1 | +0.7 |
| | 0.9nm,0.7s,baz=136,slow=5.6,SNR=3.2 | | | | | | |
| **NVAR** | **Mina Array Bea** | **81.42** | **43** | P | P | 20 54 57.6 | +0.4 |
| | 1.0nm,0.7s,baz=225,slow=8.0,SNR=7.6 | | | | | | |
| **TXAR** | **Lajitas Array** | **87.27** | **57** | P | P | 20 55 26.9 | +0.6 |
| | 0.4nm,0.8s,baz=193,slow=5.1,SNR=5.0 | | | | | | |
| **ILAR** | **Eielson Array** | **88.99** | **13** | P | P | 20 55 32.1 | -1.4 |
| | 0.4nm,0.5s,baz=216,slow=5.3,SNR=10 | | | | | | |
| **PDAR** | **Pinedale Array** | **89.36** | **43** | P | P | 20 55 35.5 | -0.5 |
| | 0.6nm,0.7s,baz=184,slow=4.2,SNR=3.4 | | | | | | |
| **CMAR** | **Chiang Mai Arr** | **90.57** | **289** | P | P | 20 55 42.8 | +0.9 |
| | 2.1nm,0.9s,baz=133,slow=3.1,SNR=18 | | | | | | |
| **ZALV** | **Zalesovo Beam** | **111.21** | **321** | PKiKP | **PKiKP** | **21 01 08.0** | **-2.4** |
| | 0.4nm,0.5s,baz=207,slow=1.6,SNR=3.5 | | | | | | |
| **MKAR** | **Makanchi Array** | **111.87** | **313** | PKiKP | **PKiKP** | **21 01 09.5** | **-2.5** |
| | 0.1nm,1.6s,baz=86,slow=1.5,SNR=5.1 | | | | | | |
| **GEYT** | **Alibeck** | **129.37** | **302** | PKP | **PKPdf** | **21 01 44.3** | **-1.5** |
| | 0.3nm,0.4s,baz=224,slow=4.0,SNR=3.2 | | | | | | |
| **ARCES** | **ARCESS Array B** | **129.70** | **350** | PKP | **PKPdf** | **21 01 43.8** | **-1.7** |
| | 1.2nm,0.4s,baz=68,slow=2.1,SNR=16 | | | | | | |
| **FINES** | **FINESS Array B** | **136.55** | **344** | PKP | **PKPdf** | **21 01 57.5** | **-1.0** |
| | 1.1nm,0.6s,baz=11,slow=1.4,SNR=5.3 | | | | | | |
| **AKASG** | **Malin Array Be** | **143.77** | **331** | PKP | PKPab | 21 02 08.4 | -1.4 |
| | 2.3nm,0.5s,baz=43,slow=4.4,SNR=49 | | | | | | |
| **SORM** | **Soroca** | **145.96** | **328** | *i*P | **PKPdf** | **21 02 16.2** | **+0.5** |
| **BRTR** | **Keskin Array B** | **147.50** | **312** | PKPbc | **PKPdf** | **21 02 20.2** | **+1.4** |
| | 2.5nm,0.3s,baz=146,slow=4.0,SNR=15 | | | | | | |
| **BURAR** | **Bucovina Array** | **147.82** | **330** | *i*P | **PKPdf** | **21 02 23.0** | **+4.0** |
| **CFR** | **Carcaliu** | **148.02** | **324** | *i*P | **PKPdf** | **21 02 20.9** | **+1.7** |
| **VRI** | **Vrincioaia** | **148.31** | **327** | *i*P | **PKPdf** | **21 02 21.5** | **+1.8** |
| **ARCR** | **ARCALIA** | **148.61** | **330** | *i*P | **PKPbc** | **21 02 25.0** | **+0.7** |
| **DOPR** | **Dopca** | **148.92** | **328** | *i*P | **PKPdf** | **21 02 24.4** | **+3.7** |
| **MLR** | **Muntele Rosu** | **148.97** | **327** | *i*P | **PKPdf** | **21 02 23.1** | **+2.2** |
| **BRG** | **Berggiesshubel** | **149.04** | **346** | PKP | **PKPdf** | **21 02 24.2** | **+3.5** |
| | 2.1nm,0.5s | | | | | | |
| BRG | | | | *e* | | 21 02 31.0 | |
| | 2.9nm,0.8s | | | | | | |
| **VOIR** | | **149.46** | **328** | *i*P | **PKPdf** | **21 02 23.5** | **+1.8** |
| **DRGR** | | **149.57** | **332** | *i*P | **PKPdf** | **21 02 25.3** | **+3.5** |
| **ARR** | **Arges** | **149.72** | **328** | *i*P | **PKPdf** | **21 02 27.0** | **+5.0** |
| **VRAC** | **Vranov** | **149.76** | **341** | *i*P | **PKPdf** | **21 02 26.2** | **+4.3** |
| **LOT** | **Lotru** | **150.08** | **329** | *i*P | **PKPdf** | **21 02 27.6** | **+4.9** |
| **SIRR** | **Siria** | **150.44** | **332** | *i*P | **PKPdf** | **21 02 27.5** | **+4.4** |
| **SRE** | **Strehaia** | **150.93** | **328** | *i*P | **PKPbc** | **21 02 29.6** | **-0.3** |
| **BZS** | **Buzias** | **150.96** | **331** | *i*P | **PKPdf** | **21 02 28.6** | **+4.7** |
| **GERES** | **GERESS Array B** | **150.98** | **344** | PKPbc | **PKPdf** | **21 02 28.8** | **+4.9** |
| | 1.0nm,0.5s,baz=27,slow=1.9,SNR=16 | | | | | | |
| **HERR** | **Herculane** | **151.15** | **329** | *i*P | **PKPdf** | **21 02 28.4** | **+4.2** |
| **VTS** | **Vitosha** | **152.40** | **325** | *i*P | **PKPdf** | **21 02 32.2** | **+5.9** |
| **TORD** | **Torodi Ar. Bea** | **171.93** | **176** | PKPab | **PKPab** | **21 04 09.7** | **-1.0** |
| | 0.2nm,0.3s,baz=182,slow=4.7,SNR=2.0 | | | | | | |

**WEL 31 20:44:08.5±0.4, 39°.82S×173°.87E, h128km±8km, ML3.0/7, 1C-1D, Error ellipse: s-maj=6.9km s-min=3.0km az=0.0, Off west coast of North Island**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **DUWZ** | **D'Urville Isla** | **0.98** | **177** | PN | Pn | 20 44 31.1 | +0.1 |
| DUWZ | | | | SN | Sn | 20 44 48.1 | -0.1 |
| **KIW** | **Kapiti Island** | **1.31** | **143** | PN | Pn | 20 44 34.2 | -0.1 |
| KIW | | | | SN | Sn | 20 44 52.5 | -1.4 |
| **TCW** | **Tory Channel** | **1.42** | **167** | PN | Pn | 20 44 36.0 | +0.5 |
| TCW | | | | SN | Sn | 20 44 54.8 | -1.3 |
| **QRZ** | **Quartz Range** | **1.43** | **225** | PN | Pn | 20 44 35.2 | -0.4 |
| **NNZ** | **Nelson** | **1.44** | **195** | PN | Pn | 20 44 35.6 | -0.1 |
| NNZ | | | | SN | Sn | 20 44 56.5 | 0.0 |
| **MRZ** | **Mangatainoka R** | **1.56** | **123** | PN | Pn | 20 44 36.9 | -0.2 |
| **CAW** | **Cannon Point** | **1.58** | **145** | PN | Pn | 20 44 37.1 | -0.1 |
| **SNZO** | **South Karori** | **1.62** | **157** | *e*Sn | Sn | 20 44 53.5 | -6.6 |
| **MTW** | **Mount Morrison** | **1.83** | **137** | PN | Pn | 20 44 39.6 | -0.6 |
| **MSWZ** | **Moikau Station** | **1.91** | **147** | *e*PN | Pn | 20 44 40.8 | -0.4 |
| **BFZ** | **Birch Farm** | **2.01** | **116** | *e*PN | Pn | 20 44 41.8 | -0.7 |
| **PLWZ** | **Palliser** | **2.04** | **149** | Pn | Pn | 20 44 42.0 | -0.8 |
| **MQZ** | **McQueen's Vall** | **3.98** | **193** | *e*PN | Pn | 20 45 04.7 | -3.1 |

**NNC 31 20:57:14.9±6.4, 37°.57N×71°.26E, h0km, mb3.6, mpv3.2, 3C-3D, Error ellipse: s-maj=48.8km s-min=37.7km az=175.0, Afghanistan-Tajikistan border region**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **SFK** | **Sufi-Kurgan** | **3.00** | **35** | ⇓Pn | Pn | 20 58 03.6 | -0.4 |
| | 1.8nm,0.4s | | | | | | |
| SFK | | | | ⇑Sn | Sn | 20 58 42.7 | +1.9 |
| | 7.4nm,0.3s | | | | | | |
| **MNAS** | **Manas** | **5.00** | **11** | ⇑Pn | Pn | 20 58 31.1 | -0.3 |
| | 2.6nm,0.4s | | | | | | |
| MNAS | | | | ⇓Sn | Sn | 20 59 30.4 | +0.4 |
| | 2.9nm,0.6s | | | | | | |
| **KK31** | **Karatay Array** | **5.56** | **354** | ⇑Pn | Pn | 20 58 39.3 | +0.4 |
| | 1.4nm,0.4s,baz=164,slow=14,SNR=38 | | | | | | |
| KK31 | | | | ⇓Sn | Sn | 20 59 44.3 | +0.8 |
| | 0.6nm,0.3s,baz=172,slow=21,SNR=13 | | | | | | |

*NNC* ***31*** *21:19:05.1±5.3, 39°.28N×77°.04E, h0km, mb3.2, mpv2.8, Error ellipse: s-maj=46.7km s-min=18.1km az=156.0*

*KRNET* ***31*** *21:19:06.8±0.1, 39°.36N×77°.12E, mb3.0*

**ISC 31 21:19:09.7±2.8, 39°.3N±0°.1×77°.25E±0°.10, h25km, n16, σ1s09/28, 19C-13D, Southern Xinjiang**

| Code | Station Name | Δ° | AZ° | Phase ID Op | ISC | Time h m s | Res ISC |
|---|---|---|---|---|---|---|---|
| **NRN** | **Naryn** | **2.38** | **337** | *e*P | Pn | 21 19 46.9 | -0.6 |
| | baz=337 | | | | | | |
| NRN | | | | ⇑*e*S | Sn | 21 20 16.8 | +0.8 |
| | baz=337 | | | | | | |
| **SFK** | **Sufi-Kurgan** | **2.99** | **286** | ⇑*i*P | Pn | 21 19 56.0 | +0.3 |
| | baz=284 | | | | | | |
| SFK | | | | ⇑*i*S | Sn | 21 20 32.8 | +1.9 |
| | baz=284 | | | | | | |
| **SFK** | **Sufi-Kurgan** | **2.99** | **286** | ⇓Pg | Pn | 21 19 57.3 | +1.6 |
| | 2.3nm,0.3s | | | | | | |
| SFK | | | | ⇓Lg | Lg | 21 20 35.4 | |
| | 27nm,0.3s | | | | | | |
| **ULHL** | **Ulahol** | **3.09** | **346** | ⇓*e*P | Pn | 21 19 58.1 | +1.0 |
| | baz=347 | | | | | | |
| ULHL | | | | ⇓*i*S | Sn | 21 20 34.9 | +1.5 |
| | baz=347 | | | | | | |
| **KZA** | **Kyzart** | **3.21** | **332** | ⇓*i*P | Pn | 21 19 59.6 | +0.7 |
| | baz=333 | | | | | | |
| KZA | | | | ⇓*i*S | Sn | 21 20 38.1 | +1.5 |
| | baz=333 | | | | | | |
| **UCH** | **Uchtor** | **3.63** | **326** | ⇑*e*P | Pn | 21 20 05.2 | +0.5 |
| | baz=326 | | | | | | |
| UCH | | | | ⇑*i*S | Sn | 21 20 47.5 | +0.5 |
| | baz=326 | | | | | | |
| **KBK** | **Karagaybulak** | **3.82** | **334** | ⇑*i*P | Pn | 21 20 08.1 | +1.0 |
| | baz=334 | | | | | | |
| KBK | | | | ⇑*i*S | Sn | 21 20 51.8 | +0.4 |
| | baz=334 | | | | | | |
| **ARSB** | **Arslanbob** | **3.87** | **304** | ⇑*e*P | Pn | 21 20 08.2 | +0.5 |
| | baz=303 | | | | | | |
| ARSB | | | | ⇑*e*S | Sn | 21 20 52.7 | +0.3 |
| | baz=303 | | | | | | |
| **AML** | **Almayashu** | **3.95** | **318** | ⇑*e*P | Pn | 21 20 10.3 | +1.3 |
| | baz=318 | | | | | | |
| AML | | | | ⇑*i*S | Sn | 21 20 55.6 | +0.8 |
| | baz=318 | | | | | | |
| **AAK** | **Ala-Archa** | **3.98** | **329** | ⇑*e*P | Pn | 21 20 10.6 | +1.4 |
| | baz=329 | | | | | | |
| AAK | | | | ⇑*i*S | Sn | 21 20 55.8 | +0.7 |
| | baz=329 | | | | | | |
| **FRU1** | **Bishkek** | **4.07** | **332** | ⇑*e*P | Pn | 21 20 10.9 | +0.5 |
| | baz=332 | | | | | | |
| FRU1 | | | | ⇑*i*S | Sn | 21 20 58.2 | +0.9 |
| | baz=332 | | | | | | |
| **TOKL** | **Toktogul** | **4.28** | **310** | ⇓*e*

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| KII | | | | eS | Sn | 21 51 51.9 | +1.0 | | |
| **KZV** | **Kizimen** | **1.15** | **336** | *e*P | Pn | 21 51 41.6 | +1.4 | | |
| KZV | | | | eS | Sn | 21 51 56.1 | +1.1 | | |
| **SPN** | **Mys Shipunski** | **1.17** | **214** | *e*P | Pn | 21 51 41.5 | +1.2 | | |
| SPN | | | | eS | Sn | 21 51 56.2 | +0.9 | | |
| **TUMD** | **Tumrok D** | **1.21** | **340** | *e*P | Pn | 21 51 41.8 | +0.9 | | |
| TUMD | | | | eS | Sn | 21 51 55.7 | -0.6 | | |
| **TUMR** | **Tumrok** | **1.34** | **336** | *i* P | Pn | 21 51 44.5 | +1.8 | | |
| TUMR | | | | eS | Sn | 21 52 01.3 | +1.8 | | |
| **NLC** | **Nalytchevo** | **1.38** | **230** | *e*P | Pn | 21 51 44.7 | +1.5 | | |
| NLC | | | | eS | Sn | 21 52 01.9 | +1.5 | | |
| **SDLR** | **Sedlovina** | **1.54** | **240** | *i* P | Pn | 21 51 47.8 | +2.3 | | |
| **SMAR** | **Somma** | **1.59** | **240** | *i* P | Pn | 21 51 48.4 | +2.1 | | |
| SMAR | | | | eS | Sn | 21 52 07.9 | +2.1 | | |
| **KRER** | **Koryakskii** | **1.60** | **242** | *e*P | Pn | 21 51 48.7 | +2.4 | | |
| KRER | | | | eS | Sn | 21 52 08.1 | +2.1 | | |
| **UGLR** | **Uglovaya** | **1.61** | **239** | *i* P | Pn | 21 51 48.6 | +2.2 | | |
| UGLR | | | | eS | Sn | 21 52 08.3 | +2.2 | | |
| **AVH** | **Avacha** | **1.62** | **241** | *i* P | Pn | 21 51 49.1 | +2.5 | | |
| AVH | | | | eS | Sn | 21 52 09.8 | +3.4 | | |
| **KRX** | **Arik** | **1.62** | **245** | *e*P | Pn | 21 51 48.6 | +2.0 | | |
| KRX | | | | eS | Sn | 21 52 08.1 | +1.6 | | |
| **KOK** | **Koryaka** | **1.66** | **243** | *e*P | Pn | 21 51 49.7 | +2.6 | | |
| KOK | | | | eS | Sn | 21 52 09.8 | +2.4 | | |
| **DALK** | **Dalny** | **1.75** | **234** | *e*P | Pn | 21 51 50.1 | +2.0 | | |
| DALK | | | | eS | Sn | 21 52 11.9 | +2.6 | | |
| **KMNR** | **Kamenistaya** | **1.76** | **344** | *e*P | Pn | 21 51 51.1 | +2.6 | | |
| KMNR | | | | eS | Sn | 21 52 13.2 | +3.4 | | |
| **PET** | **Petropavlovsk** | **1.80** | **235** | *i* P | Pn | 21 51 51.3 | +2.4 | | |
| PET | | | | eS | Sn | 21 52 12.6 | +2.1 | | |
| **BZMR** | **Bezymyannaya** | **1.90** | **350** | *e*P | Pn | 21 51 52.4 | +2.0 | | |
| **GNL** | **Ganaly** | **1.91** | **260** | *e*P | Pn | 21 51 52.5 | +2.0 | | |
| **BZWR** | **Bezymyannyi-We** | **1.93** | **350** | *e*P | Pn | 21 51 53.5 | +2.7 | | |
| **KIRR** | **Kirishev** | **1.94** | **347** | *e*P | Pn | 21 51 53.4 | +2.5 | | |
| **ZLN** | **Zelenaya** | **1.96** | **355** | *e*P | Pn | 21 51 53.8 | +2.6 | | |
| ZLN | | | | eS | Sn | 21 52 17.5 | +2.9 | | |
| **KPT** | **Kopyto** | **1.97** | **345** | *e*P | Pn | 21 51 53.6 | +2.3 | | |
| **CIRR** | **Tsirk** | **2.06** | **354** | *e*P | Pn | 21 51 55.7 | +3.1 | | |
| CIRR | | | | eS | Sn | 21 52 21.0 | +3.8 | | |
| **KOZ** | **Kozyrevsk** | **2.12** | **341** | *e*P | Pn | 21 51 55.3 | +2.1 | | |
| KOZ | | | | eS | Sn | 21 52 21.2 | +2.9 | | |
| **KRMR** | **Karymshinskiy** | **2.17** | **236** | *e*P | Pn | 21 51 56.5 | +2.6 | | |
| KRMR | | | | eS | Sn | 21 52 21.8 | +2.2 | | |
| **KRSR** | **Krestovskiy** | **2.17** | **352** | *e*P | Pn | 21 51 56.5 | +2.4 | | |
| **RUS** | **Russkaya** | **2.26** | **225** | *i* P | Pn | 21 51 57.0 | +1.8 | | |
| RUS | | | | eS | Sn | 21 52 23.3 | +1.5 | | |
| **KLY** | **Klyuchi** | **2.26** | **354** | *e*P | Pn | 21 51 57.4 | +2.2 | | |
| KLY | | | | eS | Sn | 21 52 24.3 | +2.4 | | |
| **ESO** | **Esso** | **2.32** | **324** | *e*P | Pn | 21 51 57.4 | +1.4 | | |
| ESO | | | | eS | Sn | 21 52 23.7 | +0.4 | | |
| **KBTR** | **Krutoberegovo** | **2.36** | **24** | *e*P | Pn | 21 51 58.9 | +2.4 | | |
| KBTR | | | | eS | Sn | 21 52 27.4 | +3.2 | | |
| **MTVR** | **Mutnovka** | **2.37** | **229** | *e*P | Pn | 21 51 59.9 | +3.1 | | |
| MTVR | | | | eS | Sn | 21 52 29.1 | +4.4 | | |
| **KBG** | **Krutoberegovo** | **2.38** | **22** | *e*P | Pn | 21 52 00.3 | +3.6 | | |
| KBG | | | | eS | Sn | 21 52 29.1 | +4.5 | | |
| **BDR** | **Baidarnaya** | **2.50** | **1** | *e*P | Pn | 21 52 01.1 | +2.5 | | |
| BDR | | | | eS | Sn | 21 52 31.3 | +3.4 | | |
| **SMKR** | **Semkarok** | **2.53** | **5** | *e*P | Pn | 21 52 01.5 | +2.6 | | |
| SMKR | | | | eS | Sn | 21 52 32.7 | +4.2 | | |
| **ASAK** | **Asacha** | **2.56** | **230** | *e*P | Pn | 21 52 02.5 | +3.1 | | |
| ASAK | | | | eS | Sn | 21 52 33.0 | +3.6 | | |
| **SRKR** | **Sorokina** | **2.59** | **1** | *e*P | Pn | 21 52 02.4 | +2.7 | | |
| SRKR | | | | eS | Sn | 21 52 33.5 | +3.5 | | |
| **APC** | **Apacha** | **2.62** | **246** | *e*P | Pn | 21 52 03.0 | +2.9 | | |
| **KDTR** | **Khodutka, Kamc** | **2.91** | **220** | *e*P | Pn | 21 52 06.4 | +2.3 | | |
| KDTR | | | | eS | Sn | 21 52 39.7 | +1.9 | | |
| **BKI** | **Bering** | **3.05** | **66** | *e*P | Pn | 21 52 08.4 | +2.5 | | |
| BKI | | | | eS | Sn | 21 52 42.1 | +1.0 | | |

*ISK **31** 22:42:05.6,38˝.96N×43˝.72E, h2km, MD2.8*
*ISCJB **31** 22:42:06.9±0.6,38˝.97N±0˝.03×43˝.73E±0˝.05, h11km±4km, Error ellipse: s-maj=7.1km s-min=4.0km az=24.9*
*CSEM **31** 22:42:06.5±0.3,38˝.97N×43˝.72E, h8km, ML2.8, Error ellipse: s-maj=7.6km s-min=4.5km az=111.0*
*DDA **31** 22:42:06.3,38˝.96N×43˝.73E, h13km, Ml2.8*

**ISC 31 22:42:06.7±0.9, 38˝.94N±0˝.02×43˝.72E±0˝.03, h9km±7km, n33, σ1s20/49, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **VMUR** | **Van-Muradiye** | **0.13** | **291** | *i* P | **Pg** | **22 42 09.3** | **-0.4** |
| VMUR | | | | *i* S | **Sg** | **22 42 12.7** | **+0.8** |
| **VMUR** | **Van-Muradiye** | **0.13** | **291** | P | **Pg** | **22 42 09.3** | **-0.4** |
| VMUR | | | | S | **Sg** | **22 42 12.6** | **+0.8** |
| **CLDR** | **Caldiran** | **0.25** | **37** | *e*PG | **Pg** | **22 42 11.3** | **-0.5** |
| **CLDR** | **Caldiran** | **0.25** | **37** | *i* P | **Pg** | **22 42 11.3** | **-0.5** |
| CLDR | | | | *i* S | **Sg** | **22 42 15.7** | **+0.4** |
| **CLDR** | **Caldiran** | **0.25** | **37** | *e*Pg | **Pg** | **22 42 11.3** | **-0.5** |
| CLDR | | | | S | **Sg** | **22 42 15.7** | **+0.4** |
| **ERCV** | **ERCIS-VAN** | **0.31** | **284** | *e*PG | **Pg** | **22 42 12.4** | **-0.5** |
| **ERCV** | **ERCIS-VAN** | **0.31** | **284** | *e*Pg | **Pg** | **22 42 12.4** | **-0.5** |
| **VANB** | **Van** | **0.43** | **217** | *e*PG | **Pb** | **22 42 16.2** | **-0.4** |
| VANB | | | | *e*SG | **Sb** | **22 42 24.3** | **+1.0** |
| **VANB** | **Van** | **0.43** | **217** | *e*Pg | **Pb** | **22 42 16.2** | **-0.4** |
| VANB | | | | *e*Sg | **Sb** | **22 42 24.3** | **+1.0** |
| **TVAN** | **Van** | **0.48** | **211** | *i* P | **Pg** | **22 42 15.8** | **-0.3** |
| TVAN | | | | *i* S | **Sb** | **22 42 24.6** | **-0.1** |
| **TVAN** | **Van** | **0.48** | **211** | P | **Pg** | **22 42 15.8** | **-0.3** |
| TVAN | | | | S | **Sb** | **22 42 24.6** | **-0.1** |
| **DYDN** | **Diyadin** | **0.60** | **357** | *i* P | **Pg** | **22 42 18.0** | **-0.3** |
| DYDN | | | | *i* S | **Sb** | **22 42 27.4** | **-0.7** |
| **DYDN** | **Diyadin** | **0.60** | **357** | P | **Pg** | **22 42 18.0** | **-0.3** |
| **ADCV** | **BITLIS_Adilcev** | **0.79** | **260** | *i* P | **Pg** | **22 42 21.3** | **-0.6** |
| ADCV | | | | *i* S | **Sb** | **22 42 33.4** | **-0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.79** | **260** | P | **Pg** | **22 42 21.3** | **-0.6** |
| ADCV | | | | S | **Sb** | **22 42 33.4** | **-0.2** |
| **GEVA** | **Gevas** | **0.82** | **220** | *i* P | **Pg** | **22 42 21.0** | **-1.4** |
| GEVA | | | | *i* S | **Sb** | **22 42 35.1** | **+0.8** |
| **GEVA** | **Gevas** | **0.82** | **220** | P | **Pg** | **22 42 21.0** | **-1.4** |
| GEVA | | | | S | **Sb** | **22 42 35.1** | **+0.8** |
| **TUTA** | **Tutak** | **0.84** | **303** | *i* P | **Pg** | **22 42 22.3** | **-0.6** |
| TUTA | | | | *i* S | **Sb** | **22 42 34.2** | **-0.9** |
| **TUTA** | **Tutak** | **0.84** | **303** | P | **Pg** | **22 42 22.3** | **-0.6** |
| TUTA | | | | S | **Sb** | **22 42 34.2** | **-0.9** |
| **AGRB** | **Hanur-Agry** | **0.85** | **318** | *e*PG | **Pg** | **22 42 22.6** | **-0.4** |
| **AGRB** | **Hanur-Agry** | **0.85** | **318** | *e*Pg | **Pg** | **22 42 22.6** | **-0.4** |
| **TASB** | **TASBURUN-IGDIR** | **1.11** | **21** | *e*PN | **Pg** | **22 42 27.3** | **-0.7** |
| **TASB** | **TASBURUN-IGDIR** | **1.11** | **21** | *e*Pn | **Pg** | **22 42 27.3** | **-0.7** |
| **DIGO** | **Kars** | **1.49** | **350** | *i* P | **Pg** | **22 42 35.2** | **-0.2** |
| DIGO | | | | *i* S | **Sg** | **22 43 01.1** | **+6.3** |
| **DIGO** | **Kars** | **1.49** | **350** | P | **Pg** | **22 42 35.2** | **-0.2** |
| **CUKT** | **Cukurca** | **1.70** | **183** | *e*PN | **Pb** | **22 42 37.6** | **-0.5** |
| **CUKT** | **Cukurca** | **1.70** | **183** | *e*Pn | **Pb** | **22 42 37.6** | **-0.5** |
| **SIRT** | **Sirnak** | **1.76** | **215** | *e*PN | **Pb** | **22 42 38.6** | **-0.6** |
| **SIRT** | **Sirnak** | **1.76** | **215** | *e*Pn | **Pb** | **22 42 38.6** | **-0.6** |
| **SENK** | **Senkaya-Erzuru** | **1.93** | **327** | *e*PN | **Pb** | **22 42 40.7** | **-1.5** |
| **SENK** | **Senkaya-Erzuru** | **1.93** | **327** | *e*Pn | **Pb** | **22 42 40.7** | **-1.5** |
| **BNGB** | **Bing˝¶l** | **2.37** | **272** | *e*PN | **Pn** | **22 42 46.9** | **+1.0** |
| **BINT** | **Bingol** | **2.52** | **269** | *e*Pn | **Pn** | **22 42 46.9** | **-1.1** |

*DDA **31** 22:52:53.0,38˝.46N×43˝.30E, h3km, Ml2.9*
*ISK **31** 22:52:52.8,38˝.51N×43˝.27E, h5km, MD2.8*
*ISCJB **31** 22:52:53.7±0.5,38˝.50N±0˝.03×43˝.33E±0˝.03, h8km±3km, Error ellipse: s-maj=5.1km s-min=3.7km az=41.1*
*CSEM **31** 22:52:53.1±0.2,38˝.48N×43˝.33E, h10km, ML2.9, Error ellipse: s-maj=5.8km s-min=4.5km az=115.0*

**ISC 31 22:52:53.3±0.9, 38˝.47N±0˝.02×43˝.31E±0˝.02, h8km±6km, n41, σ0s93/63, Turkey**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **TVAN** | **Van** | **0.09** | **54** | *i* P | **Pg** | **22 52 55.6** | **-0.1** |
| TVAN | | | | *i* S | **Sg** | **22 52 57.6** | **+0.2** |
| **TVAN** | **Van** | **0.09** | **54** | P | **Pg** | **22 52 55.6** | **-0.1** |
| TVAN | | | | S | **Sg** | **22 52 57.6** | **+0.2** |
| **VANB** | **Van** | **0.14** | **27** | *e*PG | **Pg** | **22 52 55.5** | **-0.8** |
| **VANB** | **Van** | **0.14** | **27** | *e*Pg | **Pg** | **22 52 55.5** | **-0.8** |
| **GEVA** | **Gevas** | **0.25** | **231** | *i* P | **Pg** | **22 52 58.8** | **+0.4** |
| GEVA | | | | *i* S | **Sb** | **22 53 04.9** | **0.0** |
| **GEVA** | **Gevas** | **0.25** | **231** | P | **Pg** | **22 52 58.8** | **+0.4** |
| GEVA | | | | S | **Sb** | **22 53 04.9** | **0.0** |
| **ERCV** | **ERCIS-VAN** | **0.55** | **2** | *e*PG | **Pg** | **22 53 03.3** | **-0.6** |
| **ERCV** | **ERCIS-VAN** | **0.55** | **2** | *e*Pg | **Pg** | **22 53 03.3** | **-0.6** |
| **VMUR** | **Van-Muradiye** | **0.56** | **22** | *i* P | **Pg** | **22 53 04.3** | **+0.2** |
| VMUR | | | | *i* S | **Sb** | **22 53 13.4** | **-0.2** |
| **VMUR** | **Van-Muradiye** | **0.56** | **22** | P | **Pg** | **22 53 04.3** | **+0.2** |
| VMUR | | | | S | **Sb** | **22 53 13.4** | **-0.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.57** | **306** | *i* P | **Pg** | **22 53 04.5** | **+0.2** |
| ADCV | | | | *i* S | **Sb** | **22 53 12.8** | **-1.2** |
| **ADCV** | **BITLIS_Adilcev** | **0.57** | **306** | P | **Pg** | **22 53 04.5** | **+0.2** |
| ADCV | | | | S | **Sb** | **22 53 12.8** | **-1.2** |
| **CLDR** | **Caldiran** | **0.82** | **35** | *e*PG | **Pg** | **22 53 09.2** | **+0.1** |
| CLDR | | | | *e*SG | **Sb** | **22 53 20.6** | **-0.7** |
| **CLDR** | **Caldiran** | **0.82** | **35** | *i* P | **Pg** | **22 53 08.9** | **-0.2** |
| CLDR | | | | *i* S | **Sb** | **22 53 20.6** | **-0.7** |
| **CLDR** | **Caldiran** | **0.82** | **35** | P | **Pg** | **22 53 08.9** | **-0.2** |
| **CLDR** | **Caldiran** | **0.82** | **35** | *e*Pg | **Pg** | **22 53 09.2** | **+0.1** |
| CLDR | | | | S | **Sb** | **22 53 20.6** | **-0.7** |
| **TUTA** | **Tutak** | **1.00** | **338** | *i* P | **Pg** | **22 53 11.6** | **-1.0** |
| TUTA | | | | *i* S | **Sn** | **22 53 28.2** | **-0.3** |
| **TUTA** | **Tutak** | **1.00** | **338** | P | **Pg** | **22 53 11.6** | **-1.0** |
| TUTA | | | | S | **Sn** | **22 53 28.2** | **-0.3** |
| **AGRB** | **Hanur-Agry** | **1.13** | **347** | *e*PN | **Pg** | **22 53 13.8** | **-1.2** |
| AGRB | | | | *e*SN | **Sg** | **22 53 29.4** | **-0.2** |
| **AGRB** | **Hanur-Agry** | **1.13** | **347** | *e*Pn | **Pg** | **22 53 13.8** | **-1.2** |
| AGRB | | | | *e*Sn | **Sg** | **22 53 29.4** | **-0.2** |
| **YOVA** | **Hakkari_Y˝…kse** | **1.18** | **139** | *i* P | **Pg** | **22 53 14.9** | **-0.9** |
| YOVA | | | | *i* S | **Sn** | **22 53 33.3** | **+0.7** |
| **YOVA** | **Hakkari_Y˝…kse** | **1.18** | **139** | P | **Pg** | **22 53 14.9** | **-0.9** |
| YOVA | | | | S | **Sn** | **22 53 33.3** | **+0.7** |
| **SIRT** | **Sirnak** | **1.19** | **216** | *e*PN | **Pb** | **22 53 16.2** | **0.0** |
| **SIRT** | **Sirnak** | **1.19** | **216** | *e*Pn | **Pb** | **22 53 16.2** | **0.0** |
| **SRTM** | **Siirt_Merkez** | **1.19** | **247** | *i* P | **Pg** | **22 53 14.8** | **-1.4** |
| SRTM | | | | *i* S | **Sn** | **22 53 32.8** | **-0.1** |
| **SRTM** | **Siirt_Merkez** | **1.19** | **247** | P | **Pg** | **22 53 14.8** | **-1.4** |
| SRTM | | | | S | **Sn** | **22 53 32.8** | **-0.1** |
| **CUKT** | **Cukurca** | **1.25** | **169** | *e*PN | **Pn** | **22 53 17.4** | **+0.2** |
| **CUKT** | **Cukurca** | **1.25** | **169** | *e*Pn | **Pn** | **22 53 17.4** | **+0.2** |
| **EKAR** | **Karacoban** | **1.25** | **309** | *i* P | **Pn** | **22 53 17.4** | **+0.1** |
| EKAR | | | | *i* S | **Sn** | **22 53 39.6** | **+5.2** |
| **EKAR** | **Karacoban** | **1.25** | **309** | P | **Pn** | **22 53 17.4** | **+0.1** |
| **TASB** | **TASBURUN-IGDIR** | **1.67** | **25** | *e*PN | **Pn** | **22 53 23.6** | **+0.6** |
| **TASB** | **TASBURUN-IGDIR** | **1.67** | **25** | *e*Pn | **Pn** | **22 53 23.6** | **+0.6** |
| **BTMN** | **Batman** | **1.71** | **251** | *i* P | **Pg** | **22 53 25.4** | **-0.6** |
| BTMN | | | | *i* S | **Sg** | **22 53 48.3** | **+0.1** |
| **BTMN** | **Batman** | **1.71** | **251** | P | **Pg** | **22 53 25.4** | **-0.6** |
| **BNGL** | **BINGOL** | **1.76** | **286** | *i* P | **Pg** | **22 53 26.2** | **-0.7** |
| BNGL | | | | *i* S | **Sg** | **22 53 50.8** | **+1.1** |
| **BNGB** | **Bing˝¶l** | **2.12** | **285** | *e*PN | **Pn** | **22 53 29.7** | **+0.5** |
| **SENK** | **Senkaya-Erzuru** | **2.21** | **341** | *e*PN | **Pn** | **22 53 30.7** | **+0.1** |
| **SENK** | **Senkaya-Erzuru** | **2.21** | **341** | *e*Pn | **Pn** | **22 53 30.7** | **+0.1** |
| **BINT** | **Bingol** | **2.24** | **281** | *e*Pn | **Pn** | **22 53 29.7** | **-1.2** |
| **YEDI** | **Yedisu-Bingol** | **2.36** | **295** | *e*PN | **Pn** | **22 53 33.1** | **+0.6** |
| **YEDI** | **Yedisu-Bingol** | **2.36** | **295** | *e*Pn | **Pn** | **22 53 33.1** | **+0.6** |

**IDC 31 23:09:41.1±7.9, 18˚.28S×177˚.26W, h0km, mb3.4/3, mb1 3.7/3, mb1mx3.4/33, mbtmp3.4/3, Error ellipse: s-maj=346.6km s-min=37.8km az=143.0, Fiji Islands region**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **WRA** | **Warramunga Arr** | **45.64** | **260** | P | P | 23 18 03.6 | -0.2 |
| | 0.1nm,0.4s,baz=96,slow=7.6,SNR=3.9 | | | | | | |
| **ASAR** | **Alice Springs** | **45.74** | **255** | P | P | 23 18 04.7 | 0.0 |
| | 0.4nm,0.6s,baz=87,slow=8.8,SNR=9.1 | | | | | | |
| **ILAR** | **Eielson Array** | **86.01** | **13** | P | P | 23 22 23.0 | -0.1 |
| | 0.2nm,0.5s,baz=216,slow=4.5,SNR=5.7 | | | | | | |

*CSEM **31** 23:10:31.5,42˚.97N×45˚.73E, h59km, mb3.8*

**MOS 31 23:10:31.5±1.5, 42˚.97N×45˚.73E, h59km, mb3.8/1, 8C-1D, Error ellipse: s-maj=14.1km s-min=6.6km az=30.4, Eastern Caucasus**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **GROC** | **Groznyy** | **0.24** | **11** | *e*P | Pn | 23 10 42.5 | +1.4 |
| GROC | | | | *e*S | Sn | 23 10 51.9 | +3.9 |
| GROC | | | | pmax | pmax | | |
| | comp=Z,23nm,0.2s | | | | | | |
| GROC | | | | smax | smax | | |
| | comp=N,142nm,0.3s | | | | | | |
| GROC | | | | smax | smax | | |
| | comp=N,126nm,0.3s | | | | | | |
| **GROC** | **Groznyy** | **0.24** | **11** | *e*P | Pn | 23 10 42.5 | +1.4 |
| | comp=N,23nm,0.2s | | | | | | |
| GROC | | | | *e*S | Sn | 23 10 51.9 | +3.9 |
| | comp=N,126nm,0.3s | | | | | | |
| **DVE** | **Vedeno** | **0.29** | **91** | *i*P | Pn | 23 10 42.1 | +0.6 |
| DVE | | | | *e*S | Sn | 23 10 50.2 | +1.5 |
| **DVE** | **Vedeno** | **0.29** | **91** | *i* P | Pn | 23 10 42.1 | +0.6 |
| DVE | | | | *e*S | Sn | 23 10 50.2 | +1.5 |
| **BTLR** | **Botlikh** | **0.47** | **130** | *i*P | Pn | 23 10 44.3 | +1.2 |
| BTLR | | | | *e*S | Sn | 23 10 54.3 | +2.7 |
| **BTLR** | **Botlikh** | **0.47** | **130** | *i* P | Pn | 23 10 44.3 | +1.2 |
| BTLR | | | | *e*S | Sn | 23 10 54.3 | +2.7 |
| **KMGR** | **Komgaron** | **0.64** | **279** | *e*P | Pn | 23 10 46.9 | +1.8 |
| KMGR | | | | *e*S | Sn | 23 11 01.7 | +6.7 |
| **KMGR** | **Komgaron** | **0.64** | **279** | *e*P | Pn | 23 10 46.9 | +1.8 |
| KMGR | | | | *e*S | Sn | 23 11 01.7 | +6.7 |
| **VLKR** | **Vladikavkaz** | **0.78** | **276** | *e*P | Pn | 23 10 48.9 | +2.2 |
| VLKR | | | | *e*S | Sn | 23 11 02.6 | +4.7 |
| **VLKR** | **Vladikavkaz** | **0.78** | **276** | *e*P | Pn | 23 10 48.9 | +2.2 |
| VLKR | | | | *e*S | Sn | 23 11 02.6 | +4.7 |
| **DBC** | **Dubki** | **0.81** | **86** | *i*P | Pn | 23 10 46.0 | -1.1 |
| DBC | | | | *e*S | Sn | 23 10 57.3 | -1.2 |
| **DBC** | **Dubki** | **0.81** | **86** | *i* P | Pn | 23 10 46.0 | -1.1 |
| DBC | | | | *e*S | Sn | 23 10 57.3 | -1.2 |
| **XNZR** | **Khunzakh** | **0.83** | **120** | *e*P | Pn | 23 10 47.6 | +0.1 |
| XNZR | | | | *e*S | Sn | 23 11 00.6 | +1.4 |
| **XNZR** | **Khunzakh** | **0.83** | **120** | *e*P | Pn | 23 10 47.6 | +0.1 |
| XNZR | | | | *e*S | Sn | 23 11 00.6 | +1.4 |
| **TRKR** | **Terskaya** | **1.05** | **316** | *i*P | Pn | 23 10 51.3 | +1.1 |
| TRKR | | | | *i* S | Sn | 23 11 07.7 | +3.7 |
| **TRKR** | **Terskaya** | **1.05** | **316** | *i* P | Pn | 23 10 51.3 | +1.1 |
| TRKR | | | | *i* S | Sn | 23 11 07.7 | +3.7 |
| **LACR** | **Lac** | **1.06** | **263** | *i*P | Pn | 23 10 51.7 | +1.2 |
| LACR | | | | *e*S | Sn | 23 11 07.9 | +3.4 |
| **LACR** | **Lac** | **1.06** | **263** | *i* P | Pn | 23 10 51.7 | +1.2 |
| LACR | | | | *e*S | Sn | 23 11 07.9 | +3.4 |
| **GNBR** | **Gunib** | **1.07** | **122** | *e*P | Pn | 23 10 50.6 | +0.1 |
| GNBR | | | | *e*S | Sn | 23 11 05.5 | +0.8 |
| **GNBR** | **Gunib** | **1.07** | **122** | *e*P | Pn | 23 10 50.6 | +0.1 |
| GNBR | | | | *e*S | Sn | 23 11 05.5 | +0.8 |
| **ARNR** | **Ardon** | **1.08** | **282** | *e*P | Pn | 23 10 52.2 | +1.6 |
| ARNR | | | | *e*S | Sn | 23 11 08.7 | +3.9 |
| **ARNR** | **Ardon** | **1.08** | **282** | *e*P | Pn | 23 10 52.2 | +1.6 |
| ARNR | | | | *e*S | Sn | 23 11 08.7 | +3.9 |
| **KORR** | **Kora** | **1.23** | **276** | *e*P | Pn | 23 10 54.5 | +2.0 |
| KORR | | | | *e*S | Sn | 23 11 12.8 | +4.6 |
| **KORR** | **Kora** | **1.23** | **276** | *e*P | Pn | 23 10 54.5 | +2.0 |
| KORR | | | | *e*S | Sn | 23 11 12.8 | +4.6 |
| **STDR** | **Stavd-Durt** | **1.29** | **289** | *i*P | Pn | 23 10 55.0 | +1.7 |
| STDR | | | | *e*S | Sn | 23 11 13.3 | +3.7 |
| **STDR** | **Stavd-Durt** | **1.29** | **289** | *i* P | Pn | 23 10 55.0 | +1.7 |
| STDR | | | | *e*S | Sn | 23 11 13.3 | +3.7 |
| **MAK** | **Makhachkala** | **1.30** | **90** | *e*P | Pn | 23 10 59.9 | +6.5 |
| MAK | | | | *e* | | 23 11 09.8 | |
| MAK | | | | pmax | pmax | | |
| | comp=Z,30nm,0.1s | | | | | | |
| MAK | | | | smax | smax | | |
| | comp=N,98nm,0.6s | | | | | | |
| MAK | | | | smax | smax | | |
| | comp=E,141nm,0.4s | | | | | | |
| **MAK** | **Makhachkala** | **1.30** | **90** | *e*P | Pn | 23 10 59.9 | +6.5 |
| | comp=E,30nm,0.1s | | | | | | |
| MAK | | | | *e*S | Sn | 23 11 09.8 | -0.1 |
| | comp=E,98nm,0.6s | | | | | | |
| **PRTR** | **Priterechnaya** | **1.32** | **307** | *e*P | Pn | 23 10 54.8 | +1.1 |
| PRTR | | | | *i* S | Sn | 23 11 13.9 | +3.6 |
| **PRTR** | **Priterechnaya** | **1.32** | **307** | *e*P | Pn | 23 10 54.8 | +1.1 |
| PRTR | | | | *i* S | Sn | 23 11 13.9 | +3.6 |
| **ZEI** | **Tsey** | **1.36** | **263** | *e*P | Pn | 23 10 55.2 | +0.8 |
| ZEI | | | | *e*S | Sn | 23 11 13.9 | +2.3 |
| **ZEI** | **Tsey** | **1.36** | **263** | *e*P | Pn | 23 10 55.2 | +0.8 |
| ZEI | | | | *e*S | Sn | 23 11 13.9 | +2.3 |
| **LSNR** | **Lesken** | **1.43** | **283** | *e*P | Pn | 23 10 56.5 | +1.2 |
| LSNR | | | | *e*S | Sn | 23 11 15.9 | +2.8 |
| **LSNR** | **Lesken** | **1.43** | **283** | *e*P | Pn | 23 10 56.5 | +1.2 |
| LSNR | | | | *e*S | Sn | 23 11 15.9 | +2.8 |
| **DIGR** | **Digorskoe uzhe** | **1.58** | **268** | *e*P | Pn | 23 10 58.2 | +0.7 |
| DIGR | | | | *e*S | Sn | 23 11 18.7 | +1.7 |
| **DIGR** | **Digorskoe uzhe** | **1.58** | **268** | *e*P | Pn | 23 10 58.2 | +0.7 |
| DIGR | | | | *e*S | Sn | 23 11 18.7 | +1.7 |
| **NCK** | **Nalchik** | **1.65** | **289** | *e*P | Pn | 23 10 59.6 | +1.4 |
| **NCK** | **Nalchik** | **1.65** | **289** | *e*P | Pn | 23 10 59.6 | +1.4 |
| **AKT** | **Akhty** | **2.10** | **134** | *e*P | Pn | 23 11 04.6 | +0.2 |
| AKT | | | | *e*S | Sn | 23 11 28.8 | -0.6 |
| **AKT** | **Akhty** | **2.10** | **134** | *e*P | Pn | 23 11 04.6 | +0.2 |
| AKT | | | | *e*S | Sn | 23 11 28.8 | -0.6 |
| **NEY** | **Neytrino** | **2.22** | **278** | *e*P | Pn | 23 11 06.7 | +0.6 |
| NEY | | | | *e*S | Sn | 23 11 33.8 | +1.2 |
| **NEY** | **Neytrino** | **2.22** | **278** | *e*P | Pn | 23 11 06.7 | +0.6 |
| NEY | | | | *e*S | Sn | 23 11 33.8 | +1.2 |
| **SHA1** | **Shidzhatmaz** | **2.37** | **290** | *i*P | Pn | 23 11 08.1 | -0.1 |
| SHA1 | | | | *e*S | Sn | 23 11 36.4 | +0.1 |
| **SHA1** | **Shidzhatmaz** | **2.37** | **290** | *i* P | Pn | 23 11 08.1 | -0.1 |
| SHA1 | | | | *e*S | Sn | 23 11 36.4 | +0.1 |
| **KIV** | **Kislovodsk** | **2.43** | **295** | *d*P | Pn | 23 11 08.7 | -0.2 |
| KIV | | | | *i* S | Sn | 23 11 37.1 | -0.4 |
| KIV | | | | pmax | pmax | | |
| | comp=Z,2.0nm,0.3s | | | | | | |
| KIV | | | | smax | smax | | |
| | comp=E,25nm,0.7s | | | | | | |
| **KIV** | **Kislovodsk** | **2.43** | **295** | *i* P | Pn | 23 11 08.7 | -0.2 |
| | comp=E,2.0nm,0.3s | | | | | | |
| KIV | | | | *i* S | Sn | 23 11 37.1 | -0.4 |
| **GOF** | **Gofitskoye** | **2.85** | **318** | *i*P | Pn | 23 11 13.9 | -0.7 |
| GOF | | | | *e*S | Sn | 23 11 46.9 | -0.8 |
| GOF | | | | pmax | pmax | | |
| | comp=Z,11nm,0.1s | | | | | | |
| GOF | | | | smax | smax | | |
| | comp=E,54nm,0.2s | | | | | | |
| GOF | | | | smax | smax | | |
| | comp=N,46nm,0.2s | | | | | | |
| **GOF** | **Gofitskoye** | **2.85** | **318** | *i* P | Pn | 23 11 13.9 | -0.7 |
| | comp=N,11nm,0.1s | | | | | | |
| GOF | | | | *e*S | Sn | 23 11 46.9 | -0.8 |
| | comp=N,46nm,0.2s | | | | | | |
| **OBN** | **Obninsk** | **13.55** | **337** | *e*P | Pn | 23 13 43.3 | +2.7 |
| OBN | | | | pmax | pmax | | |
| | comp=Z,2.0nm,1.1s | | | | | | |
| **OBN** | **Obninsk** | **13.55** | **337** | *e*P | Pn | 23 13 43.3 | +2.7 |
| | comp=Z,2.0nm,1.1s | | | | | | |
| **KIEV** | **Kiev** | **13.68** | **310** | *e*P | Pn | 23 13 42.4 | -0.1 |
| **KIEV** | **Kiev** | **13.68** | **310** | *e*P | Pn | 23 13 42.4 | -0.1 |

**IDC 31 23:13:04.0±3.9, 23˚.69S×179˚.34W, h0km, mb3.8/3, mb1 4.0/3, mb1mx3.7/29, mbtmp3.8/3, Error ellipse: s-maj=174.4km s-min=42.1km az=148.0, South of Fiji Islands**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
| **STKA** | **Stephens Creek** | **35.36** | **248** | P | P | 23 20 01.8 | +0.3 |
| | 0.8nm,0.5s,baz=101,slow=5.2,SNR=3.5 | | | | | | |
| **ASAR** | **Alice Springs** | **42.67** | **260** | P | P | 23 21 02.7 | -0.1 |
| | 0.4nm,0.4s,baz=91,slow=8.2,SNR=12 | | | | | | |
| **WRA** | **Warramunga Arr** | **43.03** | **266** | P | P | 23 21 05.2 | -0.5 |
| | 1.0nm,0.5s,baz=105,slow=8.2,SNR=40 | | | | | | |
| **AKASG** | **Malin Array Be** | **145.12** | **328** | PKPbc | PKPbc | 23 32 42.4 | -0.4 |
| | 0.7nm,0.5s,baz=45,slow=4.0,SNR=6.0 | | | | | | |
| **GERES** | **GERESS Array B** | **152.86** | **341** | PKPbc | PKPbc | 23 33 02.7 | -0.5 |
| | 0.4nm,0.8s,baz=349,slow=1.0,SNR=2.4 | | | | | | |

**MAN 31 23:25:32,11˚.73N×125˚.78E, h8km, mb4.5, ML3.3, MS3.2, 1C-1D, Samar**

| Code | Station Name | Δ° | AZ° | Phase ID | | Time | Res |
|---|---|---|---|---|---|---|---|
| | | | | Op | ISC | h m s | ISC |
|

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **URLA** | **Izmir** | **0.36** | **156** | *i* P | **Pg** | **23** | **44** | **05.6 -0.1** |
| URLA | | | | *i* S | **Sb** | **23** | **44** | **11.5 -0.2** |
| **URLA** | **Izmir** | **0.36** | **156** | P | **Pg** | **23** | **44** | **05.6 -0.1** |
| URLA | | | | S | **Sb** | **23** | **44** | **11.5 -0.2** |
| **CESE** | **¯e¯me** | **0.36** | **194** | *e*PG | **Pg** | **23** | **44** | **05.6 -0.2** |
| **CESE** | **¯e¯me** | **0.36** | **194** | *e*Pg | **Pg** | **23** | **44** | **05.6 -0.2** |
| **CHOS** | **Chios island** | **0.41** | **223** | *e*PG | **Pg** | **23** | **44** | **06.6 +0.1** |
| **CHOS** | **Chios island** | **0.41** | **223** | *e*Pg | **Pg** | **23** | **44** | **06.6 +0.1** |
| **ZEY** | **¯zmir** | **0.45** | **170** | *i* P | **Pg** | **23** | **44** | **07.3 -0.1** |
| ZEY | | | | *i* S | **Sb** | **23** | **44** | **15.2 +0.8** |
| **DGB** | **¯zmir** | **0.73** | **149** | *i* P | **Pg** | **23** | **44** | **12.1 -0.5** |
| DGB | | | | *i* S | **Sg** | **23** | **44** | **22.4 +0.1** |
| **BAYC** | **CANAKKALE_Bayr** | **1.06** | **6** | *i* P | **Pb** | **23** | **44** | **18.4 +0.1** |
| BAYC | | | | *i* S | **Sg** | **23** | **44** | **32.6 -0.1** |
| **BAYC** | **CANAKKALE_Bayr** | **1.06** | **6** | P | **Pb** | **23** | **44** | **18.4 +0.1** |
| BAYC | | | | S | **Sg** | **23** | **44** | **32.6 -0.1** |
| **EZN** | **Ezine** | **1.14** | **357** | *e*PN | **Pg** | **23** | **44** | **20.1 -0.2** |
| **EZN** | **Ezine** | **1.14** | **357** | *e*Pn | **Pg** | **23** | **44** | **20.1 -0.2** |

# ISC Computed Locations for December 2011

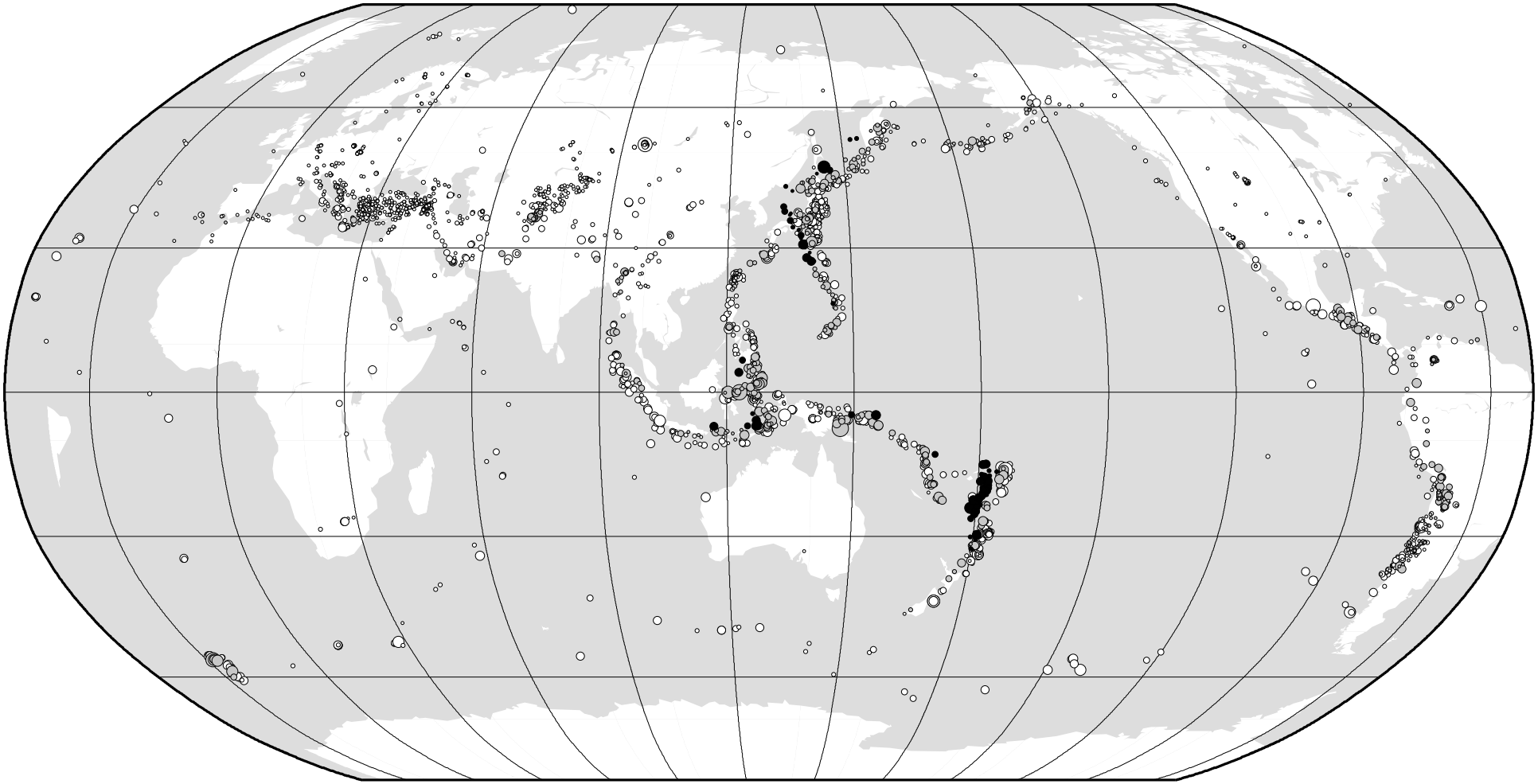

| Depth (km) | 0-70 | 70-300 | >300 |
|---|---|---|---|
| M=8 | ○ | ● | ● |
| M=6.5 | ○ | ● | ● |
| M=4 | ○ | ● | ● |

Robinson Projection, centred on 0˚N,130˚E

3373 Events